

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348001 2003 SY ₂₁₃	17.3	X	295.25512	51.48771	12.49221	3.20646	0.1882298	0.23101951	2.6304917	20	10 7.0	20.0
348002 2003 SE ₂₃₉	17.4	X	298.34179	172.39520	213.88804	3.31478	0.0646258	0.22929619	2.6436553	20	9 2.5	20.6
348003 2003 SR ₂₄₆	17.4	X	248.60114	332.67798	12.38615	3.01328	0.2163824	0.27481980	2.3429914	20	4 12.4	20.8
348004 2003 SL ₂₅₂	15.5	X	305.92746	312.73680	49.03888	14.35128	0.2776647	0.22256425	2.6966988	20	7 11.8	18.6
348005 2003 SP ₂₅₅	17.4	X	262.71370	12.81625	14.75031	8.51544	0.1732317	0.28037927	2.3119164	20	7 1.9	20.5
348006 2003 SG ₂₅₈	16.5	X	351.57199	350.63864	15.67862	12.86360	0.1696780	0.23403527	2.6078454	20	11 6.1	19.3
348007 2003 SB ₂₆₆	16.6	X	289.72470	181.12889	184.92133	5.26977	0.1718327	0.22410828	2.6842984	20	7 6.3	20.0
348008 2003 SE ₂₆₆	16.6	X	293.50148	15.59535	12.92168	6.13927	0.1693951	0.22731149	2.6590212	20	8 17.9	19.7
348009 2003 SB ₂₇₆	16.6	X	306.46401	131.77650	229.91026	5.43503	0.0822803	0.22491300	2.6778917	20	8 8.0	20.0
348010 2003 SJ ₂₇₈	17.1	X	339.72821	6.88370	321.70705	6.16691	0.1510148	0.28602762	2.2813788	20	8 28.3	18.9
348011 2003 SX ₂₈₇	16.3	X	335.47991	24.84390	350.57801	11.65388	0.2020376	0.23174732	2.6249814	20	10 17.2	18.8
348012 2003 SL ₂₈₈	16.9	X	317.78370	275.13571	93.72723	3.53505	0.1559090	0.22930832	2.6435620	20	9 5.2	19.5
348013 2003 SO ₂₉₉	17.2	X	289.81124	80.08452	309.93679	11.16781	0.3267862	0.22500986	2.6771231	20	7 15.7	20.4
348014 2003 SG ₃₀₄	16.7	X	313.24206	346.49810	55.29568	5.17904	0.2292910	0.23148470	2.6269664	20	10 10.3	18.7
348015 2003 ST ₃₂₃	15.8	X	56.86481	318.93866	346.87633	14.83753	0.1523001	0.18031006	3.1030546	20	11 6.0	20.5
348016 2003 SV ₃₂₅	16.9	X	250.82335	260.38963	205.22477	5.38667	0.1406460	0.23376520	2.6098536	20	10 1.6	20.3
348017 2003 SL ₃₃₀	17.7	X	300.82304	2.87136	36.01901	3.21680	0.0439883	0.23169052	2.6254104	20	9 28.6	20.8
348018 2003 SF ₃₃₄	17.1	X	275.87405	126.51211	280.64553	1.96561	0.1036082	0.22581491	2.6707566	20	8 23.1	20.4
348019 2003 SO ₃₃₅	16.8	X	72.63720	176.71309	103.90378	6.57799	0.1296540	0.23498217	2.6008349	20	11 8.3	20.6
348020 2003 SE ₃₃₉	17.2	X	262.08339	73.86402	37.66206	13.53748	0.2226616	0.23253217	2.6190715	20	10 15.4	20.5
348021 2003 SU ₃₇₂	17.3	X	248.70207	146.92407	350.44898	4.47584	0.0899688	0.23952748	2.5678273	20	11 18.2	20.5
348022 2003 SA ₃₉₂	16.8	X	0.37789	231.75107	108.05828	4.68874	0.0489572	0.23150955	2.6267785	20	10 8.5	20.0
348023 2003 SR ₄₂₇	17.0	X	280.85926	74.93912	353.61639	3.77260	0.1502666	0.23217891	2.6217274	20	9 23.7	20.0
348024 2003 TX ₅	16.6	X	321.34970	30.43293	9.21843	9.27541	0.1767247	0.23171009	2.6252626	20	10 24.4	19.1
348025 2003 TS ₆	16.3	X	306.93332	297.93654	88.82058	8.82498	0.1706256	0.22987917	2.6391838	20	9 12.2	19.1
348026 2003 TV ₁₆	16.3	X	300.50659	114.93178	215.25311	14.75262	0.2017736	0.22156461	2.7048039	20	5 29.7	19.7
348027 2003 TD ₅₀	16.5	X	322.46773	333.44581	48.52389	14.63963	0.2686762	0.23136360	2.6278830	20	10 5.7	18.5
348028 2003 UD ₄	16.7	X	257.61841	222.84586	237.54309	22.09169	0.2718700	0.28698958	2.2762764	20	9 12.5	20.1
348029 2003 UG ₄	16.3	X	271.58083	201.63370	244.61218	13.32194	0.2251136	0.22877398	2.6476768	20	9 14.4	20.0
348030 2003 UK ₁₆	16.4	X	316.83958	332.28734	41.05032	10.75078	0.2381648	0.22776884	2.6554605	20	9 6.1	18.9
348031 2003 UT ₁₈	15.1	X	45.69460	227.08196	160.01219	10.61228	0.3077612	0.12491900	3.9632401	20	—	—
348032 2003 UM ₂₀	17.2	X	299.53197	7.50508	15.10006	0.70195	0.1839783	0.22708239	2.6608093	20	8 15.3	20.0
348033 2003 UO ₂₂	17.3	X	282.04132	185.34588	164.14346	6.59403	0.2288958	0.28002413	2.3138707	20	5 26.1	20.2
348034 Deslorieux	16.4	X	275.82551	9.69919	45.71322	14.80006	0.2408170	0.22425863	2.6830984	20	8 20.5	20.1
348035 2003 UV ₂₈	16.5	X	80.36794	127.40060	223.51031	5.00471	0.2646619	0.18629823	3.0361989	20	—	—
348036 2003 UP ₃₆	16.0	X	307.55733	176.08039	245.38203	13.61882	0.2275108	0.23192959	2.6236059	20	10 21.9	18.4
348037 2003 UV ₄₉	15.9	X	4.68487	48.54008	350.67941	10.10439	0.2173319	0.17953843	3.1119392	20	—	—
348038 2003 UZ ₅₂	16.3	X	298.21213	120.07383	283.59446	11.34695	0.1361464	0.22847670	2.6499729	20	9 12.3	19.6
348039 2003 UC ₇₈	16.2	X	306.61529	161.64656	252.75440	9.53407	0.1521547	0.23123870	2.6288292	20	10 15.9	19.1
348040 2003 UB ₈₃	16.9	X	288.91035	93.66699	293.45847	12.88465	0.2279569	0.22603086	2.6690552	20	7 25.3	20.0
348041 2003 UA ₉₃	16.6	X	338.56975	97.50766	226.28101	11.91564	0.3088189	0.22710792	2.6606099	20	7 26.6	18.6
348042 2003 UO ₁₀₄	16.3	X	234.43872	237.92980	219.43541	12.24407	0.2270474	0.22468105	2.6797344	20	8 15.9	20.8
348043 2003 UJ ₁₂₇	16.6	X	272.40942	33.83963	40.74426	9.44330	0.1099948	0.22842625	2.6503631	20	9 28.8	19.9
348044 2003 UG ₁₃₈	16.3	X	323.64086	319.55244	58.80353	5.70120	0.2330948	0.22855011	2.6494054	20	9 29.2	18.4
348045 2003 UP ₁₃₈	16.6	X	298.35487	295.98456	93.35509	4.18555	0.1936745	0.22618657	2.6678301	20	8 22.9	19.4
348046 2003 UF ₁₄₄	17.0	X	269.55424	14.25034	29.04162	6.89395	0.2948028	0.22204782	2.7008784	20	7 11.8	20.9
348047 2003 UM ₁₄₄	16.7	X	294.34127	343.56370	53.64381	4.29026	0.1977547	0.22673623	2.6635168	20	8 27.1	19.6
348048 2003 UF ₁₄₉	16.3	X	260.52496	250.17347	189.41059	11.88033	0.1462672	0.22768040	2.6561481	20	9 6.7	20.0
348049 2003 UO ₁₅₅	16.8	X	314.33131	348.40092	52.93101	8.61694	0.1838476	0.23187536	2.6240150	20	10 16.8	19.3
348050 2003 UZ ₁₇₆	16.1	X	305.11152	183.61692	273.95443	6.79112	0.1680899	0.17633056	3.1495680	20	11 26.7	19.8
348051 2003 UO ₁₈₄	16.4	X	348.42717	140.59746	179.33906	6.81621	0.2398501	0.22713436	2.6604034	20	8 25.5	18.5
348052 2003 UB ₁₈₇	17.2	X	231.02912	215.06698	121.12854	2.04553	0.1832489	0.26840958	2.3801484	20	3 19.8	21.0
348053 2003 UA ₂₀₆	17.8	X	255.16060	186.61004	230.61500	4.53290	0.2787757	0.28096660	2.3086933	20	7 17.0	21.1
348054 2003 UO ₂₀₈	16.4	X	344.87638	104.78212	221.91098	12.23291	0.2122470	0.22673088	2.6635587	20	8 21.3	19.0
348055 2003 US ₂₁₃	16.4	X	21.81055	262.41459	25.82913	11.89812	0.0479873	0.22516712	2.6758765	20	9 1.7	19.9
348056 2003 UV ₂₂₈	16.9	X	290.03391	168.09941	230.41399	13.28277	0.2469925	0.22534812	2.6744435	20	8 4.3	20.4
348057 2003 UR ₂₃₅	15.9	X	236.02904	83.04286	12.21283	21.65883	0.0637804	0.22848491	2.6499095	20	9 16.9	19.7
348058 2003 UD ₂₃₆	16.1	X	146.01118	343.25805	349.97914	8.94178	0.1077570	0.19604919	2.9346705	20	1 2.4	20.6
348059 2003 UM ₂₃₆	16.5	X	266.83679	19.72207	59.97158	12.61082	0.1583166	0.22681715	2.6628832	20	9 23.3	20.1
348060 2003 UT ₂₅₇	16.3	X	276.32886	289.35817	67.14924	9.85208	0.2286349	0.21870527	2.7283278	20	5 27.3	20.1
348061 2003 UR ₂₇₂	16.4	X	306.97842	338.78992	56.06360	11.96548	0.1656705	0.22865811	2.6485712	20	9 26.8	19.3
348062 2003 UO ₂₇₄	15.6	X	345.45097	267.13426	78.38276	14.05633	0.3425790	0.22974237	2.6402314	20	10 23.1	17.4
348063 2003 UJ ₂₇₆	15.8	X	347.92076	28.15008	57.53113	18.51328	0.2596744	0.17992238	3.1075104	20	—	—
348064 2003 UK ₂₈₁	16.4	X	308.37038	359.43474	54.01646	4.52073	0.1929231	0.22979343	2.6398402	20	10 23.9	19.2
348065 2003 UT ₂₉₅	17.5	X	244.46370	58.31486	11.54689	3.44068	0.1627597	0.22337654	2.6901573	20	8 4.8	21.4
348066 2003 UV ₃₀₀	16.3	X	227.53939	244.06122	223.80651	12.97084	0.0669202	0.22767165	2.6562162	20	9 10.6	20.2
348067 2003 UX ₃₁₄	16.4	X	253.69209	60.77223	272.76908	13.78316	0.2332264	0.22930901	2.6435567	20	10 9.4	20.1
348068 2003 UY ₃₇₀	17.1	X	43.75927	75.64054	274.32388	13.95182	0.1638551	0.24556703	2.5255502	20	—	—
348069 2003 UZ ₃₇₆	16.4	X	275.75389	266.00813	190.40842	8.99546	0.0514688	0.23711855	2.5851894	20	11 9.8	19.6
348070 2003 UA ₄₁₂	16.0	X	230.93614	7.44848	67.65113	26.92264	0.1077608	0.22036395	2.7146198	20	8 8.1	20.5
348071 2003 WP	15.6	X	17.82022	13.02743	61.97303	21.06294	0.1711474	0.18431794	3.0579072	20	—	—
348072 2003 WD ₁₁	15.4	X	89.27638	14.37982	6.96690	10.74039	0.1010225	0.19099942	2.9861711	20	—	—
348073 2003 WN ₂₂	16.7	X	306.79106	265.69592	97.72406	18.17468	0.3848536	0.22507759				

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348081 2003 <i>WK</i> ₈₀	16.3	X	239.76176	67.18396	35.01454	13.32374	0.0924341	0.22514232	2.6760730	20	9 25.0	20.1
348082 2003 <i>WB</i> ₈₄	16.2	X	268.25065	107.53685	320.00642	11.83684	0.1575311	0.22568402	2.6717891	20	8 29.6	19.6
348083 2003 <i>WG</i> ₉₄	16.0	X	224.39642	33.62190	8.07132	5.96250	0.0869430	0.21546620	2.7556028	20	6 12.3	20.1
348084 2003 <i>WO</i> ₉₄	16.3	X	197.29805	119.44095	279.91724	3.19295	0.0748538	0.21017581	2.8016523	20	5 10.4	20.6
348085 2003 <i>WF</i> ₁₀₀	15.9	X	309.54042	102.30312	258.17828	13.40500	0.3078799	0.22384336	2.6864158	20	7 7.8	18.7
348086 2003 <i>WP</i> ₁₀₁	16.1	X	282.84063	284.14355	110.14241	14.66705	0.2112837	0.22375618	2.6871136	20	7 30.4	19.3
348087 2003 <i>WC</i> ₁₁₁	16.5	X	270.13384	49.68896	42.71425	15.28348	0.0757329	0.22849430	2.6498369	20	10 23.3	19.8
348088 2003 <i>WY</i> ₁₁₅	16.6	X	300.04953	345.36693	39.10512	8.39059	0.1926714	0.22369948	2.6875676	20	8 21.5	19.6
348089 2003 <i>WQ</i> ₁₂₅	15.5	X	295.66758	71.78173	283.39815	12.54027	0.2420630	0.21766983	2.7369733	20	6 19.2	19.0
348090 2003 <i>WX</i> ₁₃₈	16.0	X	295.63023	310.99899	74.71184	11.84391	0.1200520	0.22126784	2.7072219	20	8 27.5	19.5
348091 2003 <i>WZ</i> ₁₅₄	16.4	X	259.69190	329.17868	83.84721	16.50533	0.1253641	0.22084684	2.7106613	20	8 9.1	20.3
348092 2003 <i>WO</i> ₁₅₈	16.8	X	275.73255	68.54974	25.33845	2.78517	0.1016202	0.23206587	2.6225787	20	10 27.9	20.1
348093 2003 <i>WT</i> ₁₅₉	16.2	X	210.84205	242.19216	233.72152	26.62559	0.1375842	0.22207423	2.7006643	20	8 17.6	21.0
348094 2003 <i>WT</i> ₁₇₆	17.0	X	283.99791	161.74487	227.93885	4.32003	0.0860692	0.22094361	2.7098698	20	8 11.9	20.4
348095 2003 <i>WV</i> ₁₉₃	17.1	X	250.54268	173.24520	230.67252	3.76653	0.0753649	0.21701120	2.7425083	20	7 18.3	21.0
348096 2003 <i>XH</i> ₁₈	16.2	X	292.26167	89.19093	289.50902	12.21278	0.3007998	0.22344177	2.6896337	20	7 6.9	19.4
348097 2003 <i>XI</i> ₁₉	16.4	X	212.75656	138.89468	308.75865	12.58873	0.1664088	0.21329665	2.7742570	20	7 23.7	20.7
348098 2003 <i>XN</i> ₃₆	16.4	X	299.57396	123.35481	279.95539	11.69718	0.1877893	0.22574105	2.6713391	20	9 6.5	19.6
348099 2003 <i>YY</i> ₄	16.2	X	226.08771	2.43129	97.17998	14.11762	0.1507791	0.22049092	2.7135776	20	8 27.5	20.5
348100 2003 <i>YQ</i> ₁₀	15.9	X	77.11528	15.82002	37.12224	7.54613	0.2717430	0.18967190	3.0000884	20	2 11.9	19.7
348101 2003 <i>YL</i> ₁₂	16.4	X	271.86907	120.20372	308.57485	13.50533	0.0979390	0.22190272	2.7020557	20	9 10.4	20.1
348102 2003 <i>YE</i> ₂₈	16.0	X	261.32621	9.74791	82.24397	14.25487	0.1437072	0.22505640	2.6767541	20	10 5.2	19.8
348103 2003 <i>YI</i> ₃₂	16.2	X	276.23809	312.66848	95.09110	6.72156	0.1641981	0.22127252	2.7034789	20	8 17.2	19.7
348104 2003 <i>YF</i> ₃₈	16.3	X	229.35945	80.90475	54.87737	9.91720	0.1468478	0.22706451	2.6609479	20	10 16.5	20.2
348105 2003 <i>YK</i> ₄₀	16.9	X	218.95848	322.53961	103.00043	1.94704	0.0507481	0.20939893	2.8085755	20	7 11.2	20.7
348106 2003 <i>YU</i> ₄₄	16.3	X	344.58099	238.04836	112.07940	7.03646	0.0380228	0.21800634	2.7341561	20	9 27.2	19.9
348107 2003 <i>YH</i> ₆₄	16.6	X	258.01941	201.24284	280.45833	6.23875	0.2813311	0.22477561	2.6789828	20	10 6.7	20.4
348108 2003 <i>YP</i> ₆₈	16.3	X	242.81480	347.50199	107.78462	11.09691	0.1492572	0.21827248	2.7319331	20	9 9.7	20.3
348109 2003 <i>YY</i> ₆₈	16.2	X	251.08540	269.00805	128.20171	9.15639	0.2473090	0.21723335	2.7406383	20	6 19.4	20.6
348110 2003 <i>YV</i> ₁₁₂	16.6	X	305.87244	353.07555	25.69926	4.75866	0.2300423	0.22356133	2.6886747	20	8 16.1	19.3
348111 2003 <i>YC</i> ₁₁₉	16.9	X	258.63172	163.33623	316.75227	3.10184	0.2009747	0.22571187	2.6715694	20	10 19.8	20.2
348112 2003 <i>YB</i> ₁₂₈	16.6	X	221.42141	105.61091	332.21519	11.63605	0.1663123	0.21264049	2.7799612	20	7 21.5	21.0
348113 2003 <i>YG</i> ₁₃₁	16.6	X	268.56565	124.56515	299.96937	12.48510	0.2030095	0.22080661	2.7109905	20	8 17.2	20.4
348114 2003 <i>YM</i> ₁₃₈	15.9	X	255.32268	135.54573	306.81804	21.19142	0.0638335	0.21890345	2.7266809	20	9 5.9	20.0
348115 2003 <i>YA</i> ₁₄₂	16.6	X	219.94517	63.01709	15.10555	9.15806	0.1466478	0.21357684	2.7718301	20	7 22.3	21.0
348116 2003 <i>YK</i> ₁₄₈	16.6	X	237.02951	49.68484	62.30354	12.12617	0.2716470	0.22030807	2.7150788	20	9 12.1	21.0
348117 2003 <i>YJ</i> ₁₅₄	16.6	X	199.41825	112.11451	41.98794	10.68862	0.0767914	0.21678413	2.7444231	20	9 28.1	21.4
348118 2003 <i>YH</i> ₁₇₁	15.9	X	35.26090	128.71804	333.52663	9.47599	0.0666879	0.18508096	3.0494971	20	1 16.3	19.9
348119 2003 <i>YS</i> ₁₇₂	16.6	X	228.99394	331.97673	85.67875	10.20664	0.1633710	0.21196560	2.7858590	20	7 1.2	20.8
348120 2004 <i>AY</i> ₃	16.1	X	135.88175	107.79064	104.15016	15.54205	0.0885781	0.21833200	2.7314366	20	10 20.6	20.5
348121 2004 <i>AB</i> ₂₄	16.7	X	236.60077	9.65320	88.36526	5.06513	0.0505400	0.21750117	2.7383880	20	9 17.7	20.5
348122 2004 <i>AD</i> ₂₆	16.4	X	306.85303	167.88298	217.12421	7.89186	0.2291614	0.22499806	2.6772167	20	8 21.9	19.1
348123 2004 <i>BO</i>	16.5	X	321.21257	265.70835	96.46361	10.19972	0.1754596	0.21875602	2.7279059	20	9 1.3	19.4
348124 2004 <i>BY</i> ₂	16.4	X	288.60478	262.04448	321.16836	8.29050	0.1513868	0.24307295	2.5427966	20	1 1.9	20.2
348125 2004 <i>BQ</i> ₁₃	16.1	X	245.06458	292.08606	110.61569	12.00805	0.2314689	0.21214896	2.7842535	20	6 21.0	20.5
348126 2004 <i>BM</i> ₁₆	16.6	X	194.34472	32.72164	57.41366	10.10297	0.2241497	0.21091433	2.7951084	20	7 6.7	21.5
348127 2004 <i>BG</i> ₃₀	16.2	X	137.36467	236.85282	323.63179	14.39525	0.2298798	0.21123561	2.7922735	20	9 26.7	21.3
348128 2004 <i>BN</i> ₃₄	16.3	X	263.84151	348.07449	65.74169	3.55392	0.0864864	0.21420431	2.7664144	20	8 18.9	20.1
348129 2004 <i>BZ</i> ₃₉	17.0	X	170.55394	15.64970	111.08167	3.51219	0.0876822	0.21013978	2.8019725	20	8 2.4	21.1
348130 2004 <i>BV</i> ₈₀	16.3	X	127.81520	278.84363	308.93021	11.09986	0.1565062	0.21596576	2.7513517	20	10 20.7	21.0
348131 2004 <i>BG</i> ₈₉	16.2	X	159.24412	252.22270	304.70869	20.65446	0.2539402	0.21392604	2.7688129	20	10 3.9	21.6
348132 2004 <i>BU</i> ₉₁	16.0	X	230.03710	316.39489	276.60980	10.55658	0.1286605	0.23391345	2.6087507	20	—	—
348133 2004 <i>BD</i> ₉₇	16.7	X	254.28058	311.83048	131.31794	4.80146	0.2243259	0.21759544	2.7375970	20	8 24.3	20.6
348134 2004 <i>BD</i> ₁₀₆	16.6	X	231.38034	33.09734	75.08735	4.43179	0.1562417	0.21743538	2.7389403	20	9 10.1	20.6
348135 2004 <i>BW</i> ₁₁₀	15.5	X	171.50734	194.68860	316.47759	13.76785	0.1683047	0.21283070	2.7783047	20	8 29.5	20.1
348136 2004 <i>BJ</i> ₁₃₃	16.0	X	221.97377	9.84876	107.78213	15.74342	0.1306568	0.21701578	2.7424697	20	9 19.0	20.3
348137 2004 <i>BF</i> ₁₃₇	17.0	X	236.67893	6.66999	83.32986	3.09462	0.1136065	0.21573628	2.7533025	20	8 28.0	21.0
348138 2004 <i>BM</i> ₁₄₂	16.5	X	234.46224	30.84347	55.30963	12.84965	0.1969777	0.21592212	2.7517224	20	8 14.4	20.9
348139 2004 <i>BG</i> ₁₆₂	16.1	X	222.89366	23.63516	62.38028	6.16947	0.1422821	0.21173388	2.7878911	20	8 4.1	20.4
348140 2004 <i>CH</i> ₁₇	15.5	X	115.02658	45.71999	129.71954	15.78795	0.0786200	0.20422068	2.8558555	20	8 2.2	19.6
348141 2004 <i>CO</i> ₂₀	16.7	X	146.02368	67.66517	62.74992	2.93307	0.0093448	0.20471516	2.8512549	20	7 6.5	20.6
348142 2004 <i>CD</i> ₅₇	16.1	X	78.94061	59.12336	98.55020	17.46113	0.1317921	0.19680607	2.9271415	20	6 5.1	20.2
348143 2004 <i>CF</i> ₈₃	16.5	X	217.52993	180.95737	331.86905	1.22709	0.0975233	0.21895599	2.7262447	20	10 25.5	20.5
348144 2004 <i>CG</i> ₈₄	16.4	X	219.79597	340.32598	127.89787	9.48729	0.2447144	0.21375278	2.7703089	20	8 18.9	21.1
348145 2004 <i>CH</i> ₈₅	17.2	X	112.68569	242.29626	314.08734	4.38667	0.1651497	0.26763710	2.3847261	20	9 7.8	20.9
348146 2004 <i>CZ</i> ₉₆	15.7	X	122.24466	33.82649	336.76012	8.77178	0.1450824	0.18368765	3.0648984	20	1 28.0	20.2
348147 2004 <i>CW</i> ₁₂₆	17.4	X	199.76089	25.95941	348.81403	1.20175	0.0776092	0.31579983	2.1356404	20	4 6.3	20.1
348148 2004 <i>DG</i> ₂₈	16.6	X	333.12655	310.11109	115.16096	3.64092	0.0513473	0.22726489	2.6593846	20	12 17.9	19.7
348149 2004 <i>DH</i> ₄₂	16.3	X	197.67787	33.35151	97.34469	14.68478	0.1446582	0.21144539	2.7904264	20	9 7.7	20.9
348150 2004 <i>DP</i> ₅₇	14.6	X	349.04551	32.15606	136.98668	4.53971	0.0613043	0.12234553	4.0186235	20	2 11.3	19.8
348151 2004 <i>FS</i> ₁₈	18.2	X	147.45093	2								

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348161 2004 <i>HJ</i> ₄₅	16.4	X	34.47294	340.80982	222.71128	4.72812	0.1031447	0.18772425	3.0208034	20	5 25.5	20.1
348162 2004 <i>HN</i> ₅₅	16.2	X	340.14612	121.57281	106.29035	9.27820	0.2192010	0.18236920	3.0796525	20	3 22.1	19.7
348163 2004 <i>HN</i> ₆₂	17.2	X	148.24517	185.62721	117.16239	10.18576	0.2281002	0.27828832	2.3234825	20	—	—
348164 2004 <i>HY</i> ₆₃	15.4	X	284.65441	169.36792	91.26345	18.86199	0.1613885	0.17489986	3.1667206	20	2 25.0	20.3
348165 2004 <i>JX</i> ₇	15.8	X	247.36379	228.55066	50.72432	10.20056	0.0367623	0.17460764	3.1702527	20	2 19.1	20.6
348166 2004 <i>JM</i> ₁₆	15.4	X	258.76206	226.11426	66.86334	16.66574	0.0423145	0.17730819	3.1379801	20	3 23.5	20.2
348167 2004 <i>JS</i> ₂₉	17.3	X	232.85372	40.11798	222.45536	7.87401	0.1664079	0.28883700	2.2665614	20	—	—
348168 2004 <i>JT</i> ₂₉	17.9	X	190.00963	166.57435	108.74560	2.50880	0.2066522	0.28275409	2.2989531	20	—	—
348169 2004 <i>JQ</i> ₃₀	17.0	X	149.67293	66.85070	238.73877	21.90136	0.2094834	0.27879532	2.3206647	20	—	—
348170 2004 <i>JJ</i> ₃₃	18.0	X	153.63093	196.03417	84.13463	6.39844	0.2192775	0.27698571	2.3307613	20	—	—
348171 2004 <i>LE</i> ₂₈	15.4	X	336.70540	21.70366	291.92609	23.07573	0.2427853	0.18122548	3.0925961	20	7 9.4	18.5
348172 2004 <i>MY</i> ₇	17.9	X	125.89806	198.11960	107.90420	3.42179	0.2330885	0.27153596	2.3618437	20	—	—
348173 2004 <i>NE</i> ₇	15.2	X	311.89457	41.76619	291.44628	9.14670	0.2277236	0.17783846	3.1317392	20	6 16.8	19.0
348174 2004 <i>NO</i> ₇	15.7	X	335.72246	157.12896	152.84010	13.52650	0.2622090	0.18153618	3.0890665	20	6 28.6	18.9
348175 2004 <i>NU</i> ₁₀	17.6	X	80.23575	0.91511	322.47775	4.50839	0.2561960	0.26478611	2.4018133	20	—	—
348176 2004 <i>NQ</i> ₂₂	17.3	X	170.25356	9.65431	273.09665	4.82632	0.2284399	0.27493425	2.3423412	20	—	—
348177 2004 <i>NA</i> ₃₃	17.3	X	190.32818	33.96667	202.06960	5.13053	0.2102945	0.27683324	2.3316171	20	—	—
348178 2004 <i>OW</i> ₉	16.5	X	155.12183	302.14673	351.46483	6.20082	0.1035589	0.27489473	2.3425657	20	—	—
348179 2004 <i>OB</i> ₁₃	17.2	X	213.60840	321.49394	357.01744	23.77886	0.2013952	0.28574827	2.2828654	20	2 18.4	21.2
348180 2004 <i>PO</i> ₁₀	17.4	X	146.01338	98.27305	219.24680	4.07904	0.2569679	0.27401860	2.3475563	20	—	—
348181 2004 <i>PC</i> ₂₉	17.2	X	66.72158	186.30347	171.45397	10.52945	0.1817850	0.26388893	2.4072541	20	—	—
348182 2004 <i>PU</i> ₂₉	17.3	X	60.77294	34.01358	335.39867	11.15688	0.2141755	0.26408521	2.4060612	20	—	—
348183 2004 <i>PZ</i> ₃₀	16.9	X	67.26168	55.52983	321.55607	11.41694	0.1724291	0.26797556	2.3827177	20	—	—
348184 2004 <i>PZ</i> ₃₂	16.4	X	120.53535	340.89301	359.16241	6.50173	0.1882134	0.27243336	2.3566542	20	—	—
348185 2004 <i>PR</i> ₄₆	17.0	X	68.96550	242.84294	154.23607	11.33548	0.2467899	0.26933768	2.3746775	20	—	—
348186 2004 <i>PE</i> ₅₄	17.4	X	45.85530	157.29739	210.67408	2.27027	0.2393473	0.26183619	2.4198193	20	—	—
348187 2004 <i>PZ</i> ₅₇	16.8	X	94.35832	67.82466	291.88049	5.59802	0.1961713	0.27004356	2.3705375	20	—	—
348188 2004 <i>PT</i> ₅₈	17.2	X	105.30119	54.92533	309.47810	6.76275	0.1304329	0.27305862	2.3530552	20	—	—
348189 2004 <i>PP</i> ₆₂	17.2	X	59.09619	162.06735	240.70244	1.70309	0.2087608	0.27085888	2.3657780	20	—	—
348190 2004 <i>PS</i> ₇₃	15.5	X	289.44692	36.51638	327.80249	28.21243	0.3244385	0.17795166	3.1304109	20	6 7.8	20.5
348191 2004 <i>PX</i> ₇₃	17.3	X	147.75531	299.67257	347.50718	3.86127	0.1920356	0.27065736	2.3669522	20	—	—
348192 2004 <i>PP</i> ₈₈	17.6	X	229.50720	86.94899	267.60372	4.07945	0.2021848	0.29064803	2.2571363	20	4 5.5	21.2
348193 2004 <i>PE</i> ₁₁₅	17.5	X	167.67479	62.61737	210.11645	1.90023	0.2018118	0.27297193	2.3535534	20	—	—
348194 2004 <i>QG</i> ₁₀	15.8	X	313.47390	252.90508	117.15328	11.02718	0.1879191	0.18235296	3.0798353	20	8 17.9	19.3
348195 2004 <i>QV</i> ₁₈	17.8	X	324.76032	293.77452	14.93089	2.59013	0.1898354	0.30281795	2.1962493	20	6 15.0	19.2
348196 2004 <i>QA</i> ₁₉	16.1	X	253.72109	3.30645	310.99775	17.74433	0.2580440	0.22639904	2.6661607	20	3 2.9	20.8
348197 2004 <i>QP</i> ₂₆	16.6	X	82.20130	290.20572	77.22363	8.04575	0.1446850	0.26617817	2.3934320	20	—	—
348198 2004 <i>RZ</i> ₂₆	17.6	X	126.54193	219.33537	83.24273	3.57443	0.2059556	0.26808624	2.3820618	20	—	—
348199 2004 <i>RC</i> ₂₇	18.1	X	347.58178	317.72917	99.31216	2.48218	0.1816524	0.25811778	2.4430036	20	—	—
348200 2004 <i>RX</i> ₃₁	17.3	X	49.93704	27.25802	354.32264	10.25289	0.2227152	0.26443503	2.4039387	20	—	—
348201 2004 <i>RZ</i> ₃₁	17.2	X	23.19507	47.91831	6.84204	4.83238	0.2274003	0.26346147	2.4098572	20	—	—
348202 2004 <i>RO</i> ₃₇	17.4	X	129.46151	241.93560	58.15237	3.53360	0.2115289	0.26826933	2.3809779	20	—	—
348203 2004 <i>RO</i> ₃₈	17.4	X	170.12378	23.32629	240.15668	0.50572	0.1492168	0.26899573	2.3766896	20	—	—
348204 2004 <i>RZ</i> ₃₉	16.5	X	17.01744	169.25934	237.92570	11.78967	0.2312009	0.26113898	2.4241244	20	—	—
348205 2004 <i>PE</i> ₄₂	17.3	X	296.14675	14.25417	327.92518	2.82987	0.1990798	0.23819914	2.5773650	20	6 8.6	20.4
348206 2004 <i>RU</i> ₄₂	16.6	X	32.86620	210.82934	168.89195	11.05964	0.2029205	0.26113575	2.4241444	20	—	—
348207 2004 <i>RG</i> ₅₄	16.7	X	170.48253	287.43196	86.93379	3.68930	0.1982678	0.22049678	2.7135295	20	3 18.7	21.2
348208 2004 <i>RL</i> ₆₀	17.8	X	65.37734	88.80433	277.48940	1.25610	0.2210547	0.26389502	2.4072171	20	—	—
348209 2004 <i>RY</i> ₆₄	16.0	X	281.78958	198.25068	172.30968	15.64092	0.2279654	0.17537110	3.1610451	20	6 15.3	20.8
348210 2004 <i>RX</i> ₆₅	17.5	X	101.86270	233.95105	65.74367	2.25071	0.1872016	0.26334611	2.4105609	20	—	—
348211 2004 <i>RM</i> ₆₉	16.9	X	21.76954	316.35682	72.08753	3.16877	0.2085682	0.25809795	2.4431287	20	—	—
348212 2004 <i>RC</i> ₇₅	16.5	X	45.78282	3.08934	22.91726	7.22318	0.2042299	0.26187761	2.4195642	20	—	—
348213 2004 <i>RT</i> ₈₀	17.4	X	74.87259	314.61457	17.83549	1.46295	0.1911707	0.26164651	2.4209887	20	—	—
348214 2004 <i>RO</i> ₈₂	17.7	X	67.86160	14.44125	0.11898	0.90700	0.1926243	0.26524304	2.3990542	20	—	—
348215 2004 <i>RQ</i> ₉₄	17.2	X	109.76220	82.18741	236.59655	6.01303	0.1505394	0.26655084	2.3912006	20	—	—
348216 2004 <i>RK</i> ₉₇	15.6	X	164.65054	39.73751	259.82804	7.84588	0.1294759	0.20886730	2.8133412	20	—	—
348217 2004 <i>RQ</i> ₁₀₀	16.4	X	247.07356	57.63760	334.31585	11.86088	0.0797437	0.23709616	2.5853521	20	6 30.6	20.1
348218 2004 <i>RT</i> ₁₁₁	16.6	X	59.83063	72.91353	268.10286	14.46306	0.2572084	0.26003893	2.4309562	20	—	—
348219 2004 <i>RE</i> ₁₃₀	17.5	X	319.10362	337.70236	164.99468	7.22935	0.1240018	0.26970429	2.3725251	20	—	—
348220 2004 <i>RT</i> ₁₄₈	17.7	X	140.12891	174.35250	167.13601	6.85894	0.1372336	0.27412507	2.3469484	20	—	—
348221 2004 <i>RU</i> ₁₆₃	17.3	X	69.67923	10.18808	2.83173	4.77274	0.2016821	0.26336059	2.4104725	20	—	—
348222 2004 <i>RH</i> ₁₇₀	17.0	X	125.10181	42.51117	260.15180	4.70029	0.0916409	0.26446517	2.4037561	20	—	—
348223 2004 <i>RD</i> ₁₈₅	16.6	X	120.49119	41.46058	267.09795	5.85054	0.1239543	0.26528146	2.3988225	20	—	—
348224 2004 <i>RE</i> ₁₈₉	16.9	X	124.31104	7.45655	316.16679	6.44783	0.0989024	0.26685676	2.3893728	20	—	—
348225 2004 <i>RF</i> ₁₉₃	16.8	X	126.05985	44.60271	283.88446	6.22542	0.2384766	0.26837082	2.3803776	20	—	—
348226 2004 <i>RO</i> ₂₂₁	16.0	X	200.59592	100.59827	209.48492	24.09315	0.1846789	0.21818945	2.7326262	20	1 20.3	21.1
348227 2004 <i>RQ</i> ₂₃₁	17.4	X	110.13435	358.20220	295.55447	0.43959	0.1887172	0.25975595	2.4327214	20	—	—
348228 2004 <i>RY</i> ₂₄₆	17.8	X	316.70451	107.55655	326.26375	20.36390	0.0729102	0.37964153	1.8889490	20	—	—
348229 2004 <i>RS</i> ₂₆₂	17.1	X	217.56749	205.59693	350.63377	3.97885	0.1366693	0.26247855	2.4158697	20	12 24.5	20.3
348230 2004 <i>RO</i> ₃₁₄	17.2	X	8.30706	21.21461	39.28001	1.54723	0.1908536	0.26025022	2.4296403	20	—	—
348231 2004 <i>RT</i> ₃₁₇	17.1	X	136.47875	82.93505	211.22196	7.29079	0.1257407	0.26690382	2.3890919	20	—	—
348232 2004 <i>RR</i> ₃₁₉	17.5	X	69.05362	100.57818	248.72308	5.65086	0.1599138	0.26310493	2.4120338	20	—	—
348233 2004 <i>RU</i> ₃₃₅	17.5	X	48.43040	162.52296	222.03360	3.76752	0.2340402	0.26093115	2.4254115	20	—	—
34823												

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348241 2004 SB ₃₃	16.9	X	311.45999	285.36029	39.09375	5.80199	0.2811410	0.23809092	2.5781459	20	5 24.5	19.5
348242 2004 SH ₄₅	17.4	X	273.94236	122.34016	202.33289	6.01445	0.2856241	0.23266161	2.6181000	20	4 5.9	21.4
348243 2004 SL ₅₀	17.7	X	143.89072	251.64507	160.45463	2.34178	0.1950319	0.28184375	2.3039008	20	4 5.6	21.1
348244 2004 SC ₅₁	17.4	X	77.07293	311.83010	6.37708	5.88761	0.2064506	0.25826058	2.4421030	20	—	—
348245 2004 SA ₅₇	17.7	X	29.48264	299.48105	95.28112	3.15179	0.2345509	0.26019463	2.4299864	20	—	—
348246 2004 TL ₂	17.2	X	34.72693	271.85045	129.47010	1.88786	0.1775009	0.26172426	2.4205091	20	—	—
348247 2004 TS ₇	16.4	X	165.38782	268.75290	79.31566	8.29956	0.2772962	0.21669457	2.7451792	20	2 18.0	21.3
348248 2004 TJ ₁₁	17.8	X	0.33691	178.92867	225.52889	21.01438	0.0589793	0.38148547	1.8828572	20	—	—
348249 2004 TO ₁₁	17.2	X	323.22091	12.37349	41.37700	21.96027	0.1271878	0.37545665	1.9029594	20	—	—
348250 2004 TO ₅₁	16.8	X	267.48775	112.23479	245.07213	2.09765	0.2847560	0.23254617	2.6189664	20	5 10.8	20.9
348251 2004 TP ₇₁	17.2	X	137.43449	59.79067	228.89806	2.31966	0.0492032	0.26128109	2.4232454	20	—	—
348252 2004 TU ₈₃	17.5	X	45.71555	349.22026	350.95891	2.31889	0.2166341	0.25617201	2.4553586	20	—	—
348253 2004 TT ₉₇	17.8	X	44.96615	165.06960	172.84812	1.23311	0.1937632	0.25446165	2.4663488	20	12 29.0	21.1
348254 2004 TR ₁₀₂	17.0	X	353.67860	69.73630	343.77796	2.06693	0.1874327	0.25396676	2.4695518	20	—	—
348255 2004 TS ₁₀₆	17.2	X	359.02874	19.68347	23.97645	2.88346	0.1668876	0.25567115	2.4585643	20	—	—
348256 2004 TY ₁₁₃	16.2	X	221.20960	155.05371	218.31287	9.67760	0.1674094	0.22505557	2.6767607	20	4 28.3	20.5
348257 2004 TU ₁₂₃	17.4	X	105.36560	311.47382	35.95882	2.27535	0.2048215	0.26750790	2.3854939	20	—	—
348258 2004 TW ₁₂₉	16.5	X	343.25246	347.47325	40.72527	7.35122	0.1150794	0.25172055	2.4842212	20	11 24.6	19.2
348259 2004 TF ₁₆₂	14.8	X	349.03497	356.95526	39.21113	14.56822	0.1988573	0.12480163	3.9657246	20	11 11.8	19.3
348260 2004 TL ₁₇₃	15.5	X	148.45693	193.54040	239.41600	15.13802	0.1206685	0.22007521	2.7193937	20	5 1.9	19.6
348261 2004 TO ₁₇₇	16.9	X	90.81684	157.26175	201.20861	6.07629	0.1612358	0.26406057	2.4062109	20	—	—
348262 2004 TS ₁₈₉	17.3	X	82.55415	278.03956	33.28544	0.34778	0.2193446	0.25876254	2.4389437	20	—	—
348263 2004 TL ₁₉₉	16.4	X	341.95682	303.55961	58.52040	2.65453	0.2049334	0.18309366	3.0715236	20	10 6.9	18.7
348264 2004 TT ₂₁₇	18.0	X	339.91182	223.95567	217.76465	0.81708	0.1557282	0.25774448	2.4453619	20	—	—
348265 2004 TG ₂₂₁	16.2	X	163.44493	204.59940	118.37586	9.00908	0.2265118	0.21134243	2.7913326	20	1 13.4	20.7
348266 2004 TV ₂₉₅	17.6	X	126.80900	357.33292	28.96744	3.46194	0.1994018	0.27311811	2.3527135	20	2 16.6	20.8
348267 2004 TN ₃₀₇	16.9	X	274.76894	152.02152	285.69350	5.32213	0.1952175	0.24423934	2.5346946	20	9 18.7	19.8
348268 2004 TZ ₃₂₂	17.6	X	98.74905	56.80191	34.92453	5.36105	0.2107912	0.27541755	2.3396002	20	4 10.9	20.6
348269 2004 TY ₃₂₇	16.7	X	294.51111	13.83107	327.67189	13.81027	0.1430978	0.23541958	2.5976123	20	6 14.9	20.2
348270 2004 TS ₃₄₀	16.2	X	24.08250	294.89449	105.91023	12.79096	0.0933969	0.25784859	2.4447036	20	—	—
348271 2004 TZ ₃₄₅	15.7	X	237.27644	210.05167	239.04468	9.74030	0.2330864	0.17558192	3.1585143	20	8 5.2	20.9
348272 2004 TC ₃₄₈	18.2	X	12.36968	128.70127	259.05238	0.50870	0.1915656	0.25847350	2.4407616	20	—	—
348273 2004 VK ₆	16.4	X	349.41549	353.09751	62.94411	8.65574	0.1150094	0.25254700	2.4787986	20	—	—
348274 2004 VC ₁₉	16.7	X	228.38630	339.37247	63.14680	7.22164	0.2094937	0.22915862	2.6447132	20	6 7.3	21.0
348275 2004 VA ₂₀	17.0	X	322.67099	65.34077	52.23692	9.70597	0.2275470	0.25584758	2.4574338	20	—	—
348276 2004 VB ₂₆	17.6	X	258.94979	149.22137	235.33654	4.86838	0.1935303	0.29545421	2.2325915	20	6 19.1	20.6
348277 2004 VE ₃₈	16.9	X	73.83992	207.24925	56.21320	4.70102	0.0937901	0.24139571	2.5545614	20	10 14.6	20.4
348278 2004 VF ₅₂	16.8	X	355.56407	317.63232	55.93277	14.68546	0.0622496	0.24658127	2.5186201	20	11 18.2	19.6
348279 2004 VL ₁₀₇	17.6	X	335.37803	242.37080	232.35306	1.77034	0.1502188	0.25867804	2.4394748	20	—	—
348280 2004 WA ₉	16.2	X	15.82556	92.49590	26.35561	8.17250	0.2878864	0.19815769	2.9138158	20	—	—
348281 2004 WS ₉	17.2	X	20.02870	70.78210	250.48821	18.53110	0.1030747	0.36861889	1.9264201	20	11 17.9	18.9
348282 2004 XY ₂	17.9	X	182.24498	313.03830	68.32089	3.04307	0.2413649	0.28132103	2.3067538	20	4 3.2	21.7
348283 2004 XS ₁₀	16.8	X	343.75496	305.73929	69.78401	9.86198	0.1548393	0.24424531	2.5346533	20	11 11.8	19.2
348284 2004 XZ ₁₅	16.1	X	27.31820	232.28628	75.97120	8.66983	0.1129897	0.23851123	2.5751162	20	10 17.1	19.3
348285 2004 XD ₁₆	16.5	X	16.83210	244.74946	82.63715	8.28964	0.2049358	0.24203561	2.5500569	20	11 9.8	19.4
348286 2004 XF ₂₆	15.9	X	2.88685	305.91019	67.47425	6.87072	0.2148668	0.24542145	2.5265489	20	12 20.5	18.5
348287 2004 XZ ₃₆	17.5	X	1.95772	228.95987	221.38026	0.72095	0.1608653	0.25677265	2.4515281	20	—	—
348288 2004 XQ ₄₁	16.4	X	309.71764	307.66213	108.57151	4.83428	0.2165878	0.24077928	2.5589196	20	10 29.4	18.4
348289 2004 XT ₇₀	14.9	X	2.61752	125.54856	295.68732	10.54711	0.2832716	0.12360139	3.9913561	20	—	—
348290 2004 XY ₈₅	16.7	X	353.69867	336.97999	120.95764	4.90893	0.1502784	0.25399266	2.4693838	20	—	—
348291 2004 XT ₉₉	16.4	X	336.87070	286.33707	96.61395	4.14871	0.2268074	0.24176235	2.5519780	20	11 13.6	18.4
348292 2004 XV ₁₀₅	16.3	X	339.75774	182.43289	285.50823	5.33091	0.1004364	0.25622397	2.4550266	20	—	—
348293 2004 XJ ₁₀₉	16.4	X	347.83278	43.81029	337.55609	4.21418	0.2731715	0.24565468	2.5249495	20	12 13.7	18.6
348294 2004 XM ₁₄₅	16.0	X	94.46236	230.76575	287.83406	23.89068	0.1424617	0.27734305	2.3287589	20	6 29.1	19.2
348295 2004 XB ₁₄₉	17.1	X	23.73531	333.62305	94.13902	2.46360	0.1748544	0.25864733	2.4396679	20	—	—
348296 2004 XK ₁₈₁	16.2	X	257.84981	139.96843	4.22564	4.87658	0.1001593	0.24441139	2.5335049	20	12 10.8	19.3
348297 2004 XJ ₁₉₁	17.4	X	290.83979	118.94013	285.70478	18.62989	0.0987735	0.36049571	1.9552516	20	9 27.3	19.7
348298 2004 XR ₁₉₁	14.9	X	210.71892	228.56191	323.55730	25.94533	0.2199618	0.17503024	3.1651478	20	11 5.3	20.6
348299 2004 YO ₁₁	17.1	X	33.42150	212.16125	89.89399	2.90614	0.0263969	0.23212522	2.6221316	20	9 30.0	20.4
348300 2004 YG ₁₄	16.6	X	1.58206	153.13762	111.38515	8.46708	0.0997411	0.21778308	2.7360244	20	6 24.5	19.7
348301 2004 YM ₂₃	17.4	X	310.04433	328.56965	116.78044	5.79303	0.2057980	0.24301413	2.5432069	20	12 14.4	19.5
348302 2004 YY ₂₅	16.9	X	293.01545	165.75183	283.03766	3.87256	0.1536371	0.24073181	2.5592560	20	11 13.9	19.6
348303 2005 AB ₂	16.2	X	161.59867	136.53003	300.81225	7.11295	0.1915683	0.21588025	2.7520782	20	5 23.4	20.8
348304 2005 AN ₁₉	18.0	X	218.90542	47.13952	121.47175	39.85153	0.3352698	0.36634895	1.9343694	20	12 1.0	21.3
348305 2005 AV ₂₈	16.0	X	238.83295	92.59466	86.90725	28.77163	0.2970570	0.24146556	2.5540687	20	12 4.6	19.7
348306 2005 AY ₂₈	21.5	X	194.46180	155.92276	117.51510	5.88447	0.5701869	1.20915606	0.8725985	20	—	—
348307 2005 AX ₃₁	16.9	X	229.98700	230.86454	272.95934	3.51016	0.1584021	0.23707160	2.5855307	20	10 22.8	20.5
348308 2005 AB ₃₄	17.1	X	277.02179	308.26866	156.98737	2.29782	0.1600234	0.24058962	2.5602642	20	11 9.6	19.7
348309 2005 AQ ₄₁	16.3	X	186.59740	262.57864	294.70282	11.38055	0.1034846	0.23792151	2.5793696	20	11 16.5	20.4
348310 2005 AX ₄₃	16.1	X	300.43377	19.47737	71.98334	17.89527	0.1870990	0.24073977	2.5591996	20	12 1.4	18.3
348311 2005 AX ₅₉	16.4	X	205.68515	143.55274	275.86770	4.21377	0.2834224	0.22212125	2.7002831	20	6 5.7	21.2
348312 2005 AR ₇₂	13.2	X	264.59834	4.72841	314.60134	25.59449	0.0184679	0.08083993	5.2972700	20	4 16.8	20.6
348313 2005 AB ₇₃	16.6	X	332.96394	85.53102	309.43841	13.46908	0.1840372	0.23949406	2.5680663	20	11 12.3	19.3
348314 2005 BC	18.0	X	348.48566	84.20632	292.46627	30.12470	0.2779722	0.75959617	1			

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348321 2005 <i>CM</i> ₁₁	16.5	X	208.41859	12.22878	138.11997	14.84652	0.1333467	0.23124418	2.6287877	20	10 16.1	20.6
348322 2005 <i>CS</i> ₁₃	16.3	X	331.45764	303.11910	83.68236	5.61670	0.3086571	0.23790101	2.5795177	20	11 10.6	17.5
348323 2005 <i>CN</i> ₂₈	16.9	X	295.35378	41.01584	354.34694	4.19823	0.2083542	0.23067632	2.6331001	20	8 23.7	19.6
348324 2005 <i>CY</i> ₃₉	17.2	X	214.56107	111.68711	319.65053	4.84492	0.1879961	0.22264765	2.6960253	20	7 3.3	21.5
348325 2005 <i>CU</i> ₄₂	16.6	X	263.05787	168.68390	312.66662	8.21953	0.1093876	0.23844774	2.5755733	20	11 12.7	19.9
348326 2005 <i>CW</i> ₄₈	16.9	X	253.55464	164.10760	326.69292	5.84272	0.2588614	0.23609373	2.5926651	20	10 18.8	20.3
348327 2005 <i>CC</i> ₆₀	16.2	X	170.68143	61.54258	133.16361	13.40884	0.1918315	0.23034594	2.6356172	20	10 30.3	20.8
348328 2005 <i>CF</i> ₆₀	16.6	X	119.88656	322.14200	327.23262	12.17658	0.0968113	0.24136826	2.5547551	20	—	—
348329 2005 <i>CR</i> ₆₆	17.6	X	222.98328	194.34194	336.35673	3.11708	0.1381375	0.23665342	2.5885756	20	11 21.0	21.2
348330 2005 <i>CG</i> ₇₉	16.4	X	314.71143	210.62749	152.65804	6.35852	0.0310080	0.22319320	2.6916303	20	8 30.1	19.6
348331 2005 <i>EO</i> ₅	17.6	X	255.46354	118.96031	25.29431	5.55914	0.2444912	0.23691994	2.5866340	20	11 12.4	20.8
348332 2005 <i>EJ</i> ₂₉	16.7	X	227.05990	179.21682	353.93802	5.96106	0.2261808	0.23418436	2.6067385	20	11 15.8	20.7
348333 2005 <i>EP</i> ₃₂	15.9	X	127.74552	179.91582	43.29507	5.85680	0.0722825	0.22433443	2.6824940	20	10 19.4	19.7
348334 2005 <i>EL</i> ₃₃	17.1	X	217.28617	163.95974	343.49787	18.16321	0.0636342	0.36051668	1.9551758	20	11 14.5	19.6
348335 2005 <i>EK</i> ₃₆	16.2	X	242.48321	178.17414	319.33308	14.49625	0.1292623	0.23377584	2.6097744	20	10 27.9	20.1
348336 2005 <i>EQ</i> ₃₈	16.1	X	163.87999	12.58941	187.70377	9.98141	0.1372732	0.22738453	2.6584517	20	10 28.7	20.3
348337 2005 <i>EP</i> ₄₀	16.6	X	216.58176	169.24826	354.40501	14.10373	0.1815617	0.23226921	2.6210479	20	10 25.4	20.8
348338 2005 <i>EK</i> ₄₅	16.6	X	175.55245	217.86562	323.67149	4.87224	0.1492834	0.22885711	2.6470356	20	10 12.8	20.9
348339 2005 <i>EG</i> ₄₈	16.4	X	271.02881	288.61176	164.08062	14.73750	0.0771390	0.23178443	2.6247012	20	10 26.8	19.9
348340 2005 <i>EQ</i> ₄₈	16.9	X	295.85317	285.31795	164.67539	12.54822	0.2538757	0.23930036	2.5694519	20	11 14.2	19.2
348341 2005 <i>EO</i> ₅₁	16.4	X	182.79857	0.46864	169.56303	15.09602	0.1561241	0.22616749	2.6679802	20	10 9.3	20.7
348342 2005 <i>ET</i> ₆₁	16.3	X	79.89004	81.51578	153.76673	13.37812	0.1745132	0.21944963	2.7221547	20	9 23.1	20.3
348343 2005 <i>EG</i> ₆₉	16.3	X	153.88608	225.83862	344.53486	12.18426	0.1147589	0.22671445	2.6636874	20	10 25.3	20.7
348344 2005 <i>EE</i> ₇₉	16.5	X	229.97692	354.14614	150.39426	14.51348	0.1814712	0.23196058	2.6233723	20	10 26.0	20.5
348345 2005 <i>EM</i> ₈₄	16.8	X	158.66992	89.90898	114.02079	7.61705	0.2668846	0.22909951	2.6451681	20	10 28.8	21.4
348346 2005 <i>EB</i> ₉₄	16.0	X	183.71721	153.88056	2.81919	13.31847	0.1133057	0.22632535	2.6667394	20	9 24.0	20.0
348347 2005 <i>EV</i> ₉₈	18.0	X	282.67977	103.65819	359.90096	3.80715	0.2381559	0.23828661	2.5767342	20	11 2.5	20.5
348348 2005 <i>EJ</i> ₉₉	16.8	X	210.07188	210.71828	278.86269	2.80560	0.1049219	0.22678033	2.6631715	20	9 16.7	20.8
348349 2005 <i>EQ</i> ₁₀₂	17.3	X	309.30953	62.28544	332.62536	17.49830	0.1119467	0.36104275	1.9532761	20	10 23.2	19.2
348350 2005 <i>EO</i> ₁₁₂	16.8	X	222.53712	141.40355	7.44234	13.79912	0.1912368	0.23078678	2.6322599	20	10 14.8	20.8
348351 2005 <i>ER</i> ₁₁₃	16.4	X	171.08374	114.74491	65.34692	10.89105	0.1457913	0.22606991	2.6687479	20	10 13.6	20.7
348352 2005 <i>EV</i> ₁₃₃	17.4	X	285.04399	88.00890	21.47376	5.74430	0.2351188	0.23978386	2.5659967	20	11 17.0	19.6
348353 2005 <i>EM</i> ₁₅₃	16.2	X	211.80141	135.95026	18.64801	32.64160	0.1783653	0.23092145	2.6312364	20	10 13.5	20.2
348354 2005 <i>EU</i> ₁₅₅	16.7	X	188.32975	116.51244	18.12897	5.05019	0.0944387	0.21985972	2.7187688	20	9 2.8	20.7
348355 2005 <i>EO</i> ₁₅₇	17.3	X	284.64454	215.90170	176.97459	6.17649	0.0436739	0.22015720	2.7163191	20	8 24.1	20.8
348356 2005 <i>EF</i> ₁₆₅	16.4	X	283.97002	22.25059	17.33822	7.42542	0.0743390	0.22088377	2.7103591	20	9 1.2	19.8
348357 2005 <i>ET</i> ₁₇₀	15.8	X	178.76471	280.40434	270.78805	14.47057	0.0916177	0.23158815	2.6261841	20	10 30.0	19.9
348358 2005 <i>EE</i> ₁₈₀	17.0	X	288.44419	158.72577	195.40189	5.67535	0.3008411	0.21393781	2.7687114	20	7 9.0	20.8
348359 2005 <i>EF</i> ₁₉₈	16.8	X	217.05645	291.36220	194.23502	12.49475	0.1301861	0.22420340	2.6835390	20	9 16.2	20.9
348360 2005 <i>EW</i> ₂₀₂	17.2	X	267.56599	0.34641	54.40887	2.77209	0.2079560	0.23052160	2.6342782	20	8 7.3	20.7
348361 2005 <i>EP</i> ₂₁₈	16.4	X	118.69578	95.10751	132.91220	9.69393	0.2178472	0.22262223	2.6962306	20	10 25.7	21.1
348362 2005 <i>EQ</i> ₂₄₃	16.7	X	187.35662	159.77486	10.32690	12.88837	0.2144402	0.22877939	2.6476350	20	10 7.6	21.2
348363 2005 <i>EZ</i> ₂₄₃	16.4	X	319.08127	42.91262	50.37845	8.23923	0.2074676	0.24302369	2.5431402	20	—	—
348364 2005 <i>EV</i> ₂₄₅	17.4	X	297.12144	40.32176	10.93516	1.38670	0.1162598	0.22734680	2.6587458	20	9 30.7	20.3
348365 2005 <i>EJ</i> ₂₅₉	16.5	X	257.50341	35.06714	355.76545	5.52631	0.0928815	0.21218650	2.7839251	20	7 8.9	20.5
348366 2005 <i>ER</i> ₂₅₉	16.2	X	54.77425	242.67021	3.02101	9.14880	0.1067792	0.21237195	2.7823042	20	8 26.4	19.9
348367 2005 <i>EN</i> ₂₆₀	16.5	X	236.84475	84.86908	30.50352	11.08257	0.1122302	0.22459723	2.6804011	20	10 2.9	20.2
348368 2005 <i>EO</i> ₂₆₄	17.7	X	28.46843	359.25349	226.46519	2.17657	0.1623700	0.27036098	2.3686817	20	6 24.9	19.7
348369 2005 <i>ET</i> ₂₇₆	17.5	X	255.04910	57.27560	120.41373	1.18749	0.2470842	0.23931061	2.5693785	20	12 27.8	20.1
348370 2005 <i>EN</i> ₂₇₉	16.3	X	129.38130	180.80488	302.64646	8.77746	0.2566176	0.21324722	2.7746857	20	6 27.2	21.1
348371 2005 <i>EC</i> ₂₈₀	16.6	X	229.54072	86.35095	60.13808	12.06525	0.1387194	0.23020607	2.6366847	20	10 31.3	20.3
348372 2005 <i>EB</i> ₂₈₆	16.1	X	209.19147	51.29480	87.04448	17.54380	0.1321761	0.22734231	2.6587808	20	10 5.9	20.4
348373 2005 <i>EO</i> ₂₈₈	16.5	X	258.54965	37.21254	117.53781	14.34078	0.0865250	0.23649518	2.5897302	20	12 26.6	19.8
348374 2005 <i>EP</i> ₂₈₈	16.2	X	216.09481	82.91081	120.89541	15.03711	0.1207572	0.23613395	2.5923707	20	12 28.3	19.8
348375 2005 <i>EG</i> ₂₉₅	16.2	X	236.16867	59.06569	5.68891	11.98867	0.0931352	0.21606367	2.7505205	20	7 30.9	20.3
348376 2005 <i>GZ</i> ₁	15.9	X	166.93882	119.82169	85.01187	15.40140	0.0725405	0.22926498	2.6438952	20	11 12.4	19.9
348377 2005 <i>GA</i> ₂	16.3	X	169.91407	145.27066	77.11220	14.01208	0.1735743	0.23173974	2.6250386	20	11 28.4	20.5
348378 2005 <i>GE</i> ₇	16.1	X	320.65455	250.83481	56.45888	6.69551	0.0567900	0.20531596	2.8456899	20	6 18.6	19.8
348379 2005 <i>GP</i> ₇	16.7	X	208.19146	1.55925	161.33861	7.10336	0.2816826	0.22858946	2.6491014	20	10 14.0	21.2
348380 2005 <i>GH</i> ₁₃	16.1	X	77.70397	115.95450	102.42709	12.38958	0.1386576	0.21081126	2.7960194	20	8 25.6	20.2
348381 2005 <i>GJ</i> ₁₇	17.0	X	261.94271	194.58174	176.87212	6.31746	0.0463045	0.21296894	2.7771023	20	6 24.6	20.9
348382 2005 <i>GR</i> ₁₇	17.0	X	299.58739	184.44234	177.08080	6.04365	0.0270586	0.21760255	2.7375374	20	8 4.1	20.6
348383 Petibon	17.7	X	0.83448	163.00868	101.33804	2.30659	0.1624276	0.27153436	2.3618529	20	6 27.5	19.5
348384 2005 <i>GH</i> ₃₈	16.5	X	134.99774	328.69052	224.54162	9.01490	0.2116903	0.21875648	2.7279020	20	9 19.9	21.2
348385 2005 <i>GJ</i> ₅₅	16.5	X	214.20905	278.20342	188.04893	7.43643	0.1422396	0.21925122	2.7237968	20	8 17.5	20.8
348386 2005 <i>GQ</i> ₆₈	15.9	X	351.27805	175.11046	91.71572	16.48990	0.1093820	0.20509343	2.8477480	20	6 9.9	19.3
348387 2005 <i>GR</i> ₇₈	16.3	X	215.56863	68.90734	108.43506	12.55916	0.1262714	0.23091046	2.6313198	20	11 15.7	20.5
348388 2005 <i>GA</i> ₈₁	16.7	X	196.37249	157.34037	16.36981	3.18707	0.0991625	0.22486282	2.6782901	20	10 28.8	20.5
348389 2005 <i>GW</i> ₉₉	16.0	X	156.23673	258.84839	324.36469	10.43599	0.1490875	0.22543372	2.6737665	20	11 12.7	20.5
348390 2005 <i>GY</i> ₁₀₆	17.9	X	163.75764	15.14283	193.74417	8.78129	0.0388837	0.29090836	2.2557896	20	11 25.0	20.9
348391 2005 <i>GU</i> ₁₁₅	16.8	X	244.24313</									

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348401 2005 <i>JD</i> ₂₅	16.2	X	195.68917	240.29161	220.89264	12.42880	0.1697274	0.21164787	2.7886464	20	7 20.1	21.0
348402 2005 <i>JP</i> ₃₄	13.1	X	267.25625	217.04780	217.64026	21.56038	0.0470841	0.08375006	5.1738356	20	9 1.5	20.2
348403 2005 <i>JY</i> ₄₁	16.8	X	239.68289	159.09443	217.44805	9.54707	0.0283946	0.20148018	2.8816938	20	6 5.3	20.9
348404 2005 <i>JB</i> ₄₄	16.4	X	244.88848	104.83579	54.41402	30.11720	0.2985332	0.23266779	2.6180536	20	11 12.2	20.0
348405 2005 <i>JT</i> ₅₉	16.2	X	203.67837	286.70606	207.17641	12.86582	0.1184434	0.21842255	2.7306816	20	9 11.3	20.5
348406 2005 <i>JA</i> ₉₃	15.8	X	181.34582	186.91956	347.60961	13.04805	0.1056793	0.22352593	2.6889585	20	10 9.2	20.0
348407 2005 Patkósandrás	18.2	X	318.65909	63.92115	65.67063	22.62466	0.0851873	0.36886563	1.9255609	20	—	—
348408 2005 <i>JH</i> ₉₈	16.6	X	252.24085	323.72563	95.65190	4.92444	0.0857675	0.21127337	2.7919409	20	8 10.4	20.4
348409 2005 <i>JQ</i> ₁₁₇	15.8	X	256.99018	190.84665	98.07627	9.89148	0.0617567	0.18651804	3.0338131	20	3 8.3	20.3
348410 2005 <i>JU</i> ₁₂₈	16.6	X	300.11391	172.97394	117.39830	4.30376	0.0651211	0.19551955	2.9399679	20	4 28.7	20.6
348411 2005 <i>JO</i> ₁₇₄	17.3	X	149.37356	63.12726	84.67369	1.88500	0.0683025	0.21205193	2.7851028	20	8 6.2	21.4
348412 2005 <i>KR</i> ₉	17.1	X	202.67311	147.93025	156.04775	6.89596	0.2823932	0.23983447	2.5656357	20	1 18.8	21.8
348413 2005 <i>MW</i> ₃₆	18.0	X	165.61266	274.91710	100.37883	2.97885	0.1441350	0.30641359	2.1790341	20	3 5.3	21.0
348414 2005 <i>MY</i> ₄₀	16.9	X	197.16401	83.38660	188.78511	10.82076	0.1785963	0.23533175	2.5982586	20	—	—
348415 2005 <i>MG</i> ₄₅	15.6	X	229.82476	177.35399	120.19170	8.66529	0.1289878	0.17501093	3.1653806	20	2 12.1	20.5
348416 2005 <i>MX</i> ₅₄	15.7	X	226.85457	265.69995	69.50141	16.82450	0.2552103	0.17685855	3.1432965	20	3 25.4	21.4
348417 2005 <i>NW</i> ₈	15.7	X	207.30403	207.49517	134.02432	16.94510	0.1126718	0.17542200	3.1604337	20	3 16.6	20.8
348418 2005 <i>NM</i> ₂₇	16.3	X	178.81001	81.65714	264.76752	4.24732	0.1828870	0.17215399	3.2003046	20	2 21.4	21.6
348419 2005 <i>NZ</i> ₅₅	16.2	X	312.44474	334.46810	283.23195	8.00181	0.0487756	0.18212827	3.0823679	20	3 31.3	20.7
348420 2005 <i>NT</i> ₅₇	15.8	X	341.13264	95.07379	129.16789	10.44466	0.0372717	0.17965598	3.1105815	20	4 6.7	20.1
348421 2005 <i>NB</i> ₆₅	18.1	X	259.27149	144.05885	152.04358	5.50881	0.0693732	0.31131538	2.1561005	20	3 2.3	20.5
348422 2005 <i>ND</i> ₆₆	16.8	X	106.65470	26.07278	293.63037	7.95750	0.0563065	0.22022636	2.7157504	20	—	—
348423 2005 <i>NG</i> ₇₈	16.0	X	141.91376	118.15596	310.00817	16.02594	0.1405363	0.17719328	3.1393366	20	4 15.4	21.3
348424 2005 <i>NV</i> ₈₉	18.0	X	283.82881	70.16021	192.19134	2.92641	0.1312995	0.31106507	2.1572570	20	2 6.4	20.8
348425 2005 <i>NI</i> ₁₂₅	15.5	X	243.85125	233.20314	102.95401	18.87059	0.2077098	0.17960363	3.1111859	20	4 12.2	20.9
348426 2005 <i>OY</i> ₆	17.1	X	76.41636	28.41294	347.56879	7.26415	0.1384627	0.28701402	2.2761487	20	—	—
348427 2005 <i>OH</i> ₉	17.6	X	313.86615	8.22840	324.40842	6.32556	0.2742584	0.25941294	2.4348654	20	6 13.4	19.8
348428 2005 <i>OK</i> ₁₈	17.2	X	284.90136	65.09192	295.84198	4.24068	0.2249849	0.25574071	2.4581185	20	6 14.5	20.1
348429 2005 <i>OP</i> ₂₀	15.4	X	209.85102	201.43809	139.12724	19.63543	0.0986719	0.17419229	3.1752903	20	3 18.4	20.5
348430 2005 <i>QV</i> ₅	17.5	X	313.56727	221.40380	162.65723	6.49669	0.1624274	0.26461996	2.4028186	20	9 26.9	19.5
348431 2005 <i>QL</i> ₇	17.2	X	189.00859	303.88225	353.13824	3.91995	0.1468338	0.29572989	2.2312038	20	—	—
348432 2005 <i>QR</i> ₁₂	18.1	X	181.37237	12.95558	309.21940	4.73755	0.2547193	0.29942142	2.2128271	20	1 19.3	21.7
348433 2005 <i>QJ</i> ₁₇	17.5	X	120.76281	306.37008	46.64347	2.79687	0.1854394	0.29019497	2.2594850	20	—	—
348434 2005 <i>QB</i> ₁₉	15.5	X	245.83053	83.89178	263.91708	8.71570	0.1035929	0.18134115	3.0912810	20	4 25.9	20.2
348435 2005 <i>QM</i> ₃₅	18.1	X	176.70170	268.21034	39.38346	3.18379	0.1920493	0.29517082	2.2340203	20	—	—
348436 2005 <i>QE</i> ₅₄	15.3	X	85.72833	164.95001	334.75133	15.82022	0.1234499	0.17737720	3.1371662	20	5 12.1	20.0
348437 2005 <i>QO</i> ₆₀	18.3	X	110.30542	93.71620	237.92751	2.15733	0.2202391	0.28663144	2.2781737	20	—	—
348438 2005 <i>QT</i> ₆₁	16.7	X	308.36424	44.91236	264.26320	4.93206	0.1574712	0.18684180	3.0303074	20	5 19.6	20.6
348439 2005 <i>QL</i> ₇₄	17.5	X	266.38333	10.08924	28.95348	1.69372	0.1925225	0.25537318	2.4604764	20	7 18.5	20.7
348440 2005 <i>QV</i> ₇₄	17.3	X	129.30342	10.31436	346.89584	6.15556	0.1831862	0.29143888	2.2530512	20	1 6.9	20.1
348441 2005 <i>QO</i> ₈₀	18.0	X	130.89796	233.26695	133.45686	5.26568	0.1783849	0.29513758	2.2341880	20	1 18.9	20.8
348442 2005 <i>QY</i> ₈₈	17.9	X	109.62941	136.89188	235.60681	1.43325	0.2729895	0.28938245	2.2637124	20	1 14.7	20.3
348443 2005 <i>QL</i> ₁₁₀	18.1	X	189.71272	124.93811	248.85307	1.58981	0.1339594	0.30642988	2.1789569	20	3 25.4	21.2
348444 2005 <i>QU</i> ₁₁₁	16.7	X	47.65359	215.49943	177.92226	13.00802	0.1489970	0.21541034	2.7560791	20	—	—
348445 2005 <i>QU</i> ₁₃₂	17.1	X	173.18974	242.39304	37.24960	3.93253	0.0529315	0.22141799	2.7059979	20	—	—
348446 2005 <i>QT</i> ₁₅₀	18.3	X	123.00968	220.05204	168.28772	4.39239	0.1275246	0.29518680	2.2339396	20	1 29.9	21.0
348447 2005 <i>QJ</i> ₁₅₄	17.3	X	120.40783	270.22341	61.76753	7.74820	0.1588353	0.28722802	2.2750180	20	—	—
348448 2005 <i>QY</i> ₁₅₉	16.3	X	18.32272	24.83151	352.77523	24.20298	0.2513521	0.27490945	2.3424820	20	—	—
348449 2005 <i>QU</i> ₁₇₃	17.0	X	175.19829	306.53602	26.45159	6.46280	0.2222528	0.29740019	2.2228418	20	1 27.6	20.6
348450 2005 <i>QB</i> ₁₈₃	17.7	X	216.86559	14.62245	283.58512	5.83496	0.1932519	0.30117376	2.2042353	20	1 16.1	21.1
348451 2005 <i>RU</i> ₉	16.0	X	158.25631	315.06345	322.98808	8.51747	0.2060180	0.22008558	2.7169083	20	—	—
348452 2005 <i>RU</i> ₂₀	17.8	X	215.23905	223.58773	197.65127	19.22857	0.0883812	0.38448230	1.8730605	20	7 1.5	20.4
348453 2005 <i>RN</i> ₂₄	15.2	X	288.57413	325.54090	4.24203	11.66722	0.2194961	0.18132729	3.0914385	20	5 5.7	19.7
348454 2005 <i>RL</i> ₂₅	16.1	X	91.68985	47.15291	288.26733	4.38576	0.2867879	0.21483232	2.7610205	20	—	—
348455 2005 <i>RG</i> ₃₄	14.9	X	246.25280	25.26383	295.05443	26.94128	0.2209113	0.17499815	3.1655347	20	3 1.8	20.7
348456 2005 <i>RF</i> ₄₆	15.9	X	153.28471	28.26269	53.32860	15.17868	0.0666692	0.17318702	3.1875658	20	5 16.2	20.6
348457 2005 <i>ST</i> ₆	16.8	X	105.12898	65.31392	311.25901	1.24500	0.2992335	0.22112031	2.7084259	20	1 29.6	20.6
348458 2005 <i>SX</i> ₁₃	15.9	X	215.82196	319.49681	29.19409	5.02519	0.1704855	0.17165087	3.2065551	20	3 28.1	21.2
348459 2005 <i>SS</i> ₁₄	17.4	X	136.19242	307.13026	38.36395	7.01074	0.2023268	0.29257062	2.2472372	20	1 1.6	20.4
348460 2005 <i>SK</i> ₁₅	17.9	X	124.97800	93.72594	347.68142	4.56355	0.0872931	0.30406674	2.1902319	20	4 7.9	20.6
348461 2005 <i>SH</i> ₁₉	17.1	X	49.10634	158.34657	18.44979	47.68268	0.8547670	0.28723917	2.2749592	20	9 26.1	22.4
348462 2005 <i>SH</i> ₂₀	17.2	X	211.66047	269.58396	57.59711	5.24771	0.2133614	0.30165571	2.2018870	20	2 19.3	20.9
348463 2005 <i>SY</i> ₂₄	17.1	X	191.20595	188.71619	122.18416	7.17427	0.2231724	0.29733570	2.2231632	20	1 11.7	20.8
348464 2005 <i>SB</i> ₃₆	17.8	X	76.98792	214.21144	224.88094	2.31215	0.0875168	0.29215232	2.2493817	20	1 26.8	20.0
348465 2005 <i>SF</i> ₅₇	18.1	X	130.61652	167.27340	193.68857	3.83287	0.2330620	0.29224714	2.2488951	20	1 18.4	21.1
348466 2005 <i>SQ</i> ₆₄	17.0	X	144.26589	344.05654	15.21819	4.72110	0.1804239	0.29390919	2.2404088	20	1 26.9	20.0
348467 2005 <i>SY</i> ₆₇	16.1	X	149.78670	251.83603	189.80087	10.99171	0.0652584	0.17445150	3.1721442	20	5 14.3	20.9
348468 2005 <i>SA</i> ₇₀	17.2	X	126.00201	290.63717	41.17408	7.79005	0.1413495	0.28559288	2.2836934	20	—	—
348469 2005 <i>SP</i> ₇₀	15.6	X	254.19186	311.62976	34.63475	11.35033	0.2498491	0.17928028	3.1149258	20	4 20.7	20.7
348470 2005 <i>SJ</i> ₈₃	16.1	X	172.62932	141.00135	6.50811	7.16056	0.0979956	0.19047555	2.9916439	20	8 30.7	20.7
348471 2005 <i>SV</i> ₉₀	17.5	X	40.75437	343.88604	16.18927	7.32851	0.1286930	0.27370159	2.3493687	20	—	—
348472 2005 <i>SN</i> ₉₂	17.5	X	2									

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348481 2005 SR ₁₆₃	17.1	X	183.12440	306.29079	44.28373	5.55998	0.2032469	0.29966328	2.2116362	20	2 24.6	20.6
348482 2005 SR ₁₇₅	17.3	X	126.94321	161.16095	227.50246	4.84681	0.1010950	0.29496148	2.2350771	20	1 30.6	20.1
348483 2005 ST ₁₈₂	17.5	X	161.04581	77.05959	215.01735	6.40555	0.1303534	0.28543889	2.2845147	20	—	—
348484 2005 SM ₁₉₂	16.1	X	349.28243	114.71463	205.53668	9.37508	0.0701404	0.18779679	3.0200255	20	8 14.3	20.1
348485 2005 SB ₁₉₄	17.8	X	88.69220	154.49116	216.95564	3.85520	0.1354439	0.28389230	2.2928042	20	—	—
348486 2005 SY ₁₉₅	17.6	X	218.46802	192.98571	128.31402	0.83216	0.0943743	0.23512617	2.5997729	20	2 23.9	21.4
348487 2005 SP ₂₀₇	17.4	X	23.04424	38.53642	346.32455	7.89032	0.1335501	0.27428112	2.3460581	20	—	—
348488 2005 SZ ₂₁₈	18.1	X	95.89118	359.27113	64.79473	1.61348	0.1913719	0.28990027	2.2610160	20	2 23.5	20.4
348489 2005 SC ₂₁₉	15.9	X	278.78868	165.74041	225.89997	11.75156	0.3988999	0.18420706	3.0591342	20	6 19.8	20.7
348490 2005 SB ₂₂₁	16.4	X	175.97162	342.88535	2.70145	7.54928	0.4005749	0.23108496	2.6299950	20	2 24.2	21.5
348491 2005 SN ₂₃₀	18.1	X	160.37244	323.05218	4.46115	4.31016	0.0688564	0.29158690	2.2522886	20	—	—
348492 2005 SS ₂₃₈	17.4	X	46.68625	138.02211	5.52757	6.82194	0.0669454	0.30213120	2.1995761	20	3 9.9	19.5
348493 2005 ST ₂₄₇	17.6	X	327.40450	183.34918	15.15726	4.70384	0.0530886	0.29595367	2.2300789	20	1 24.2	20.1
348494 2005 SV ₂₇₈	17.9	X	179.26542	96.96679	291.15448	5.05058	0.1925310	0.30445124	2.1883875	20	4 2.7	21.3
348495 2005 SJ ₂₈₁	17.6	X	169.93948	326.15794	35.79851	2.84186	0.1787424	0.29546715	2.2325263	20	2 24.7	20.9
348496 2005 SG ₂₈₇	17.5	X	105.50109	244.37305	106.81893	7.68751	0.1285519	0.28401304	2.2921544	20	—	—
348497 2005 TA ₅	17.6	X	153.81639	119.55455	268.94549	3.39083	0.1596130	0.29961732	2.2118624	20	3 8.9	20.8
348498 2005 TJ ₅	17.6	X	164.95329	36.50646	333.33935	6.12657	0.1521695	0.29879261	2.2159306	20	2 26.2	20.7
348499 2005 TK ₉	18.4	X	230.47631	224.76337	103.79207	1.46645	0.2064380	0.30586816	2.1816238	20	3 5.8	21.7
348500 2005 TE ₅₂	16.4	X	231.44617	329.63024	99.07669	7.52983	0.0811821	0.25301329	2.4757521	20	7 31.2	19.7
348501 2005 TC ₇₇	17.9	X	140.34652	121.86987	205.89591	4.25074	0.2639263	0.28865705	2.2675033	20	—	—
348502 2005 TA ₇₉	18.9	X	59.63986	207.92522	208.76405	1.14309	0.2144586	0.28439189	2.2901183	20	—	—
348503 2005 TC ₈₅	17.6	X	31.02024	298.23150	221.47019	2.96233	0.1238929	0.29936117	2.2131240	20	3 5.9	19.3
348504 2005 TB ₁₀₄	17.1	X	109.06876	31.99741	300.02074	4.57407	0.1842594	0.28249409	2.3003635	20	—	—
348505 2005 TE ₁₀₆	16.9	X	60.83862	86.13753	358.37223	6.54772	0.0292683	0.29138111	2.2533490	20	1 5.8	19.5
348506 2005 TW ₁₃₅	15.8	X	149.10831	37.56720	12.69065	7.65137	0.0935109	0.17056270	3.2201790	20	4 5.7	20.7
348507 2005 TM ₁₄₂	17.6	X	240.91781	170.08019	88.54997	3.33661	0.1448731	0.29388155	2.2405493	20	—	—
348508 2005 TH ₁₅₃	16.1	X	18.75615	224.98199	213.92385	24.45505	0.2157634	0.21185899	2.7867934	20	—	—
348509 2005 TZ ₁₆₅	18.1	X	138.75484	190.06694	223.37616	3.20615	0.0850418	0.29927911	2.2135285	20	3 17.7	20.9
348510 2005 TM ₁₇₂	15.7	X	21.18528	172.68355	258.83710	13.96144	0.1093924	0.21352564	2.7722732	20	—	—
348511 2005 TP ₁₈₆	17.4	X	65.36689	170.51812	306.21888	3.86502	0.1166942	0.29579674	2.2308676	20	3 5.3	19.4
348512 2005 TT ₁₉₆	17.1	X	89.37019	326.56817	103.05335	8.79113	0.0843880	0.29416556	2.2391069	20	2 3.5	19.4
348513 2005 UT ₅	15.6	X	245.73020	260.07294	161.24093	21.44328	0.2998344	0.18087058	3.0966403	20	7 7.3	21.0
348514 2005 UX ₁₀	17.3	X	81.16048	236.54374	198.53575	5.86255	0.0509259	0.29205728	2.2498696	20	1 22.2	19.8
348515 2005 UU ₁₆	15.9	X	255.35072	184.51137	207.01551	7.08892	0.0845921	0.18165178	3.0877557	20	7 4.9	20.4
348516 2005 UT ₃₇	16.2	X	7.25851	328.04016	62.06873	10.01753	0.1345405	0.20086439	2.8875804	20	12 22.9	19.8
348517 2005 UK ₃₈	16.9	X	282.66734	210.64915	188.96187	1.32455	0.2514699	0.18588471	3.0407002	20	7 26.4	21.0
348518 2005 UD ₄₆	16.9	X	90.62208	319.05554	71.45844	3.27676	0.0866191	0.21703610	2.7422986	20	—	—
348519 2005 UK ₅₃	15.6	X	301.62045	141.09508	205.42457	12.91098	0.2084405	0.18511482	3.0491252	20	6 20.2	19.6
348520 2005 UJ ₅₆	17.5	X	131.90199	29.31449	338.49052	5.66085	0.1319939	0.29090244	2.2558202	20	1 17.1	20.3
348521 2005 UF ₅₇	16.4	X	305.21602	175.89435	190.50455	9.53236	0.2596728	0.18842442	3.0133154	20	7 14.2	20.1
348522 2005 UF ₅₉	17.8	X	116.97618	317.79917	53.47287	5.63220	0.1768388	0.28729471	2.2746659	20	1 9.1	20.5
348523 2005 UO ₆₆	16.2	X	319.46874	167.57962	198.41582	5.43237	0.3089993	0.19028563	2.9936342	20	8 4.6	19.0
348524 2005 US ₆₉	17.9	X	80.84016	41.98114	324.12613	5.81353	0.1400187	0.28229411	2.3014498	20	—	—
348525 2005 UO ₇₀	15.1	X	286.03887	275.07030	11.82310	18.80329	0.0391332	0.17004994	3.2266490	20	4 7.6	19.7
348526 2005 UC ₇₆	14.9	X	183.73954	168.87485	257.94895	18.37445	0.1256587	0.17371384	3.1811180	20	5 31.0	19.9
348527 2005 UJ ₈₂	16.7	X	321.03930	265.54309	47.06544	1.44395	0.1747528	0.18343652	3.0676951	20	6 12.3	20.1
348528 2005 UY ₈₃	16.9	X	339.23780	213.81286	130.33812	1.03875	0.1524154	0.19105318	2.9856109	20	9 3.1	20.1
348529 2005 UB ₁₀₂	17.8	X	137.48271	259.46093	69.97909	5.78788	0.1845155	0.28601165	2.2814637	20	—	—
348530 2005 UJ ₁₁₀	17.4	X	30.68636	187.84259	245.07719	4.93494	0.2140159	0.27880541	2.3206087	20	—	—
348531 2005 UF ₁₂₄	18.1	X	41.79921	71.58240	15.09349	2.54349	0.1683766	0.28412903	2.2915305	20	—	—
348532 2005 UM ₁₃₁	17.4	X	345.06421	263.47389	129.64445	8.31212	0.2668988	0.26636408	2.3923182	20	—	—
348533 2005 UO ₁₄₁	16.9	X	109.29434	325.04566	61.43984	10.11740	0.1233638	0.28786942	2.2716375	20	1 10.6	19.6
348534 2005 UH ₁₅₁	17.1	X	83.83605	286.68728	35.35651	2.38693	0.0605825	0.20338358	2.8636864	20	12 25.3	21.3
348535 2005 UX ₁₆₁	15.7	X	249.15234	288.35961	92.04047	15.71166	0.2891800	0.18024907	3.1037545	20	5 25.8	20.9
348536 2005 UL ₁₇₇	17.5	X	22.48174	135.32200	28.51206	5.26926	0.0754540	0.29453876	2.2372151	20	2 29.9	19.7
348537 2005 UA ₁₉₄	18.9	X	55.71745	234.87549	190.02349	1.98472	0.2057348	0.28432986	2.2904513	20	—	—
348538 2005 UA ₁₉₆	17.0	X	249.32832	61.58368	29.90946	3.24071	0.2485000	0.18848496	3.0126701	20	8 24.3	21.6
348539 2005 UV ₂₁₈	17.2	X	290.91857	336.38840	251.02560	5.66716	0.1196359	0.29318931	2.2440746	20	1 3.8	20.1
348540 2005 UG ₂₂₆	17.6	X	83.36778	350.35340	47.86062	5.50384	0.1383191	0.28536381	2.2849153	20	—	—
348541 2005 UQ ₂₂₈	16.4	X	0.86055	354.79254	216.38528	12.54328	0.0898968	0.23317755	2.6142366	20	4 4.7	19.4
348542 2005 UO ₂₅₁	17.9	X	345.48304	102.99511	269.12062	1.07936	0.2385176	0.26410419	2.4059459	20	11 26.3	19.8
348543 2005 UO ₂₅₁	17.0	X	107.51035	120.28517	261.93935	7.21112	0.1059623	0.28630600	2.2798998	20	—	—
348544 2005 UR ₂₇₀	15.9	X	276.74428	327.12708	43.79245	10.10228	0.1631860	0.18348848	3.0671158	20	6 24.5	20.3
348545 2005 UK ₂₈₆	17.8	X	64.17913	288.81365	167.00384	3.93396	0.1058595	0.29178520	2.2512681	20	1 31.6	20.0
348546 2005 UV ₂₉₉	17.8	X	132.31570	91.71745	225.07381	4.95540	0.1125554	0.28026892	2.3125231	20	—	—
348547 2005 UW ₃₂₁	17.3	X	38.86082	170.43209	250.40243	5.88721	0.1080807	0.27882622	2.3204932	20	—	—
348548 2005 UK ₃₄₄	17.9	X	167.03384	359.28120	303.87167	3.09493	0.1530881	0.28667547	2.2779404	20	—	—
348549 2005 UJ ₃₅₀	18.0	X	181.88179	28.87001	330.87236	5.03951	0.1815261	0.29986153	2.2106613	20	3 1.9	21.5
348550 2005 UB ₃₆₉	15.5	X	63.28756	30.69808	73.05899	10.00348	0.1193445	0.15444731	3.4404544	20	3 10.9	20.2
348551 2005 UQ ₃₇₀	17.1	X	234.91629	191.81058	75.06319	6.58076	0.0906295	0.28884950	2.2664961	20	—	—
348552 2005 UY ₄₁₆	16.2	X	11.11668	318.91387	70.80064	6.06252	0.1313759	0.20329861	2.8644843	20	12 28.9	19.7
348553 2005 UO ₄₂₅	16.7	X	40.88681	50.18257	39.07056	9.95488	0.1513907	0.21670613	2.7450815	20	1 2.5	19.7
348554 2005 UD ₄₂₇	17.4	X	86.81826	344.49221	18.02848	5.97580	0.1776247</					

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>		
348561	2005	VL ₃₂	16.1	X	248.35568	307.97117	75.11300	4.09124	0.2576595	0.17753677	3.1352861	20	5 28.6	21.2
348562	2005	VM ₅₀	17.0	X	356.37172	308.19400	77.01903	12.00355	0.2564051	0.26574229	2.3960485	20	—	—
348563	2005	VO ₅₇	17.4	X	170.11096	275.37017	84.38291	7.17724	0.1380284	0.29390771	2.2404164	20	2 21.1	20.7
348564	2005	VG ₇₂	17.8	X	85.95545	260.70660	98.89862	2.70642	0.1538348	0.27870018	2.3211928	20	—	—
348565	2005	VW ₇₃	17.3	X	202.49454	244.41035	88.39463	5.42585	0.1868838	0.29635524	2.2280639	20	2 18.4	20.9
348566	2005	VP ₉₅	17.9	X	48.91475	264.47879	219.27990	4.73541	0.0976179	0.28995176	2.2607483	20	2 13.3	20.0
348567	2005	VJ ₉₈	15.9	X	205.66229	59.12450	38.24412	16.29211	0.1864859	0.17921413	3.1156923	20	7 30.4	21.3
348568	2005	VX ₁₁₈	16.9	X	133.33492	345.99592	349.24248	4.24568	0.2553532	0.28509782	2.2863364	20	—	—
348569	2005	VO ₁₂₆	16.0	X	342.81522	223.45605	14.47668	27.94110	0.1836970	0.17749855	3.1357361	20	4 7.6	19.6
348570	2005	WS	15.5	X	224.51449	62.66379	282.54230	8.24102	0.0886588	0.17520194	3.1630795	20	3 30.8	20.6
348571	2005	WE ₄	15.3	X	321.81726	269.02373	76.61912	16.77458	0.1691357	0.18567074	3.0430359	20	8 3.9	19.0
348572	2005	W ₅	17.6	X	23.43272	337.52947	113.75633	5.28844	0.2175134	0.27967124	2.3158167	20	—	—
348573	2005	WH ₂₀	17.7	X	55.00000	77.69890	47.20980	6.90026	0.1048234	0.29143246	2.2530843	20	3 4.1	19.9
348574	2005	WE ₂₉	17.7	X	332.33650	280.17788	291.81400	2.24864	0.0806729	0.29280929	2.2460159	20	2 13.6	20.0
348575	2005	WT ₃₀	17.5	X	175.56832	239.59832	54.92513	5.54241	0.1417417	0.28114852	2.3076973	20	—	—
348576	2005	WT ₄₄	18.3	X	28.81082	165.04348	265.69059	1.15088	0.1660948	0.27816419	2.3241736	20	—	—
348577	2005	WU ₇₁	17.2	X	105.16240	294.85987	86.41701	5.64614	0.2100816	0.28622831	2.2803123	20	1 11.3	19.7
348578	2005	WN ₈₁	17.1	X	105.25827	305.07592	65.94622	3.94700	0.2306214	0.28276057	2.2989180	20	1 1.0	19.5
348579	2005	WY ₈₅	17.9	X	169.72257	260.19062	72.03361	3.79899	0.1960482	0.29054993	2.2576444	20	1 19.2	21.3
348580	2005	WZ ₈₇	17.7	X	88.36723	134.43727	266.04018	3.60184	0.2297045	0.28316696	2.2967179	20	1 14.3	19.6
348581	2005	WV ₈₈	17.3	X	91.46882	5.98601	57.56002	7.08974	0.1031951	0.28869755	2.2672913	20	2 3.3	19.8
348582	2005	WN ₉₀	17.5	X	164.08001	66.33873	287.75438	4.68996	0.1811242	0.29362642	2.2418470	20	2 7.1	20.8
348583	2005	WV ₉₀	17.2	X	84.58400	357.64021	51.07906	7.03355	0.0991521	0.28398245	2.2923190	20	—	—
348584	2005	WF ₁₀₆	16.0	X	29.23422	265.56656	259.86609	22.63929	0.2227973	0.28807744	2.2705438	20	2 29.9	18.4
348585	2005	W ₁₁₁	17.4	X	149.40409	285.19781	84.94494	5.94869	0.1563070	0.29247290	2.2477377	20	2 13.6	20.5
348586	2005	WP ₁₁₈	17.5	X	68.14895	116.26787	308.04262	4.63780	0.1295522	0.28461866	2.2889017	20	—	—
348587	2005	WE ₁₂₃	16.0	X	225.91957	240.12317	215.37860	9.14238	0.0680678	0.18824695	3.0152090	20	8 20.2	20.5
348588	2005	WX ₁₄₂	17.8	X	325.43949	92.14943	75.34124	3.07697	0.1299852	0.28230326	2.3014001	20	—	—
348589	2005	WX ₁₄₅	17.9	X	131.52295	42.71168	274.42459	3.19445	0.2097094	0.27949550	2.3167873	20	—	—
348590	2005	WN ₁₄₈	15.8	X	323.18043	283.15033	65.14646	11.33686	0.1498407	0.18442875	3.0566823	20	8 12.8	19.5
348591	2005	WO ₁₄₉	17.7	X	80.36988	173.76640	293.84609	4.17452	0.1549166	0.29190177	2.2506687	20	3 23.5	20.0
348592	2005	WQ ₁₅₀	17.3	X	165.57336	323.18817	24.43704	4.05571	0.2215427	0.29096137	2.2555156	20	2 6.4	20.8
348593	2005	WF ₁₅₂	16.7	X	151.54475	226.28349	216.46673	12.97005	0.2399927	0.23344899	2.6122098	20	5 25.3	21.2
348594	2005	WE ₁₅₉	16.2	X	127.75413	20.45339	47.25707	9.57393	0.3466391	0.22547814	2.6734153	20	4 25.8	20.8
348595	2005	XE ₁	19.0	X	153.79546	314.77390	83.19006	29.13288	0.1516210	0.56487235	1.4493363	20	3 17.6	21.1
348596	2005	XW ₃	17.3	X	92.82554	109.18634	264.13316	1.08325	0.2361645	0.28170304	2.3046680	20	—	—
348597	2005	XB ₄	17.4	X	86.03071	180.52083	278.53435	6.92037	0.0947361	0.29317655	2.2441398	20	3 7.9	20.0
348598	2005	XK ₆	17.4	X	52.86711	80.75886	49.20930	3.91526	0.0911807	0.29179088	2.2512389	20	3 4.6	19.5
348599	2005	XL ₆	17.2	X	134.10897	334.36706	50.77522	10.34257	0.1672822	0.29111670	2.2547132	20	2 20.9	20.4
348600	2005	XV ₁₄	17.4	X	85.86078	156.31538	262.16292	1.62171	0.2102452	0.28549001	2.2842420	20	2 1.6	19.3
348601	2005	XD ₂₀	15.5	X	188.79700	154.16612	281.50384	11.19297	0.1473401	0.17090555	3.2158709	20	6 15.4	20.7
348602	2005	XX ₂₃	17.5	X	123.81583	310.82076	63.26485	7.59731	0.1243454	0.28608158	2.2810919	20	1 14.6	20.3
348603	2005	XA ₃₅	18.2	X	8.93407	302.26841	155.46179	1.26880	0.1407947	0.27600053	3.3363045	20	—	—
348604	2005	XF ₄₁	17.3	X	104.17814	109.18037	304.23190	4.77413	0.1383564	0.28738501	2.2741895	20	2 10.7	19.9
348605	2005	XN ₄₈	17.1	X	335.45307	187.87984	262.91846	7.12224	0.0810953	0.27001374	2.3707121	20	—	—
348606	2005	XJ ₆₅	16.5	X	66.30442	294.54705	104.87183	13.69290	0.1437099	0.27815863	2.3242046	20	—	—
348607	2005	XJ ₈₇	15.4	X	255.44622	0.17838	83.09547	12.39562	0.0800388	0.18290595	3.0736246	20	9 17.7	19.9
348608	2005	XH ₉₂	15.3	X	214.43289	260.11294	256.48903	15.52361	0.2042155	0.18232183	3.0801859	20	10 5.4	20.6
348609	2005	XL ₁₁₁	16.6	X	59.96424	332.60218	343.50572	4.87669	0.0893294	0.24543857	2.5264314	20	12 2.4	20.1
348610	2005	XG ₁₁₆	17.6	X	137.39344	92.39931	321.92740	4.30243	0.1269039	0.29507783	2.2344896	20	3 22.3	20.5
348611	2005	XJ ₁₁₆	16.8	X	327.90556	27.38553	78.88679	3.19104	0.198549	0.20380977	2.8596928	20	—	—
348612	2005	YP	17.7	X	36.52875	263.27307	290.41562	9.98721	0.1331449	0.43476520	1.7257036	20	5 3.3	18.3
348613	2005	YG ₄	17.4	X	253.20419	305.48599	78.66294	22.20552	0.1021172	0.37682734	1.8983419	20	6 26.4	19.3
348614	2005	YQ ₅	16.9	X	271.99048	92.33312	81.76934	8.14578	0.0692404	0.27191868	2.3596270	20	—	—
348615	2005	YU ₁₃	18.1	X	355.84013	314.98643	110.18884	2.11996	0.1449916	0.26596762	2.3946950	20	—	—
348616	2005	YK ₁₅	15.3	X	57.07455	143.71649	112.23299	13.77272	0.0927647	0.17195480	3.2027756	20	9 6.3	19.9
348617	2005	YL ₂₆	16.9	X	39.04728	30.42699	64.26887	2.62533	0.1071945	0.20977659	2.8052056	20	1 6.7	20.1
348618	2005	YV ₃₀	16.6	X	325.62530	214.17011	289.64221	8.40169	0.1674737	0.27155550	2.3617304	20	—	—
348619	2005	YF ₄₁	17.9	X	77.60156	112.60445	308.79374	1.89319	0.2127628	0.28241173	2.3008107	20	1 23.1	19.5
348620	2005	YE ₅₂	18.2	X	289.89050	42.72532	122.62824	3.54775	0.1623297	0.26721746	2.3872221	20	—	—
348621	2005	YV ₅₂	17.3	X	117.52911	105.31627	315.90285	3.32517	0.1719637	0.28986376	2.2612058	20	3 14.7	20.1
348622	2005	YP ₆₅	17.8	X	77.90281	347.23731	84.04910	2.46155	0.1312099	0.28352255	2.2947972	20	1 26.1	19.9
348623	2005	YS ₆₅	17.3	X	262.24023	156.69527	100.24494	7.85647	0.0829942	0.28241363	2.3008004	20	1 15.8	20.3
348624	2005	YD ₆₆	17.5	X	313.98721	110.12844	88.95723	6.95939	0.1545747	0.27834067	2.3231911	20	—	—
348625	2005	YU ₆₇	17.3	X	43.07906	108.47245	305.57317	5.70195	0.0961916	0.27335673	2.3513442	20	—	—
348626	2005	YT ₈₅	17.7	X	115.86527	72.20499	288.56915	8.59084	0.2697592	0.28126347	2.3070685	20	1 8.5	20.5
348627	2005	YK ₉₁	17.2	X	71.68493	179.38005	130.88760	7.02452	0.1333964	0.25646454	2.4534912	20	12 17.1	20.8
348628	2005	YV ₉₅	17.3	X	325.22126	42.87539	80.84944	6.37855	0.0680310	0.26902523	2.3765158	20	—	—
348629	2005	YW ₁₀₉	18.6	X	328.39100	312.14652	176.80088	2.16766	0.1350420	0.27039046	2.3685095	20	—	—
348630	2005	YB ₁₂₀	15.7	X	257.67038	315.78420	132.16299	3.22674	0.1034641	0.18305518	3.0719539	20	9 17.4	20.0
348631	20													

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348641 2005 <i>YM</i> ₁₆₈	17.2	X	79.17841	105.39321	265.88146	5.53012	0.1260997	0.27261968	2.3555803	20	—	—
348642 2005 <i>YY</i> ₁₇₄	17.6	X	42.47408	79.90915	102.50969	23.99514	0.0953360	0.36456251	1.9406835	20	5 14.3	19.8
348643 2005 <i>YT</i> ₁₇₅	18.1	X	29.65339	36.39706	37.24673	1.92208	0.1627254	0.27410146	2.3470832	20	—	—
348644 2005 <i>YN</i> ₁₈₆	17.4	X	333.46530	2.14922	109.25309	25.78325	0.2378336	0.26785533	2.3834307	20	—	—
348645 2005 <i>YD</i> ₁₈₇	16.3	X	145.72314	203.79568	299.81571	4.33354	0.1096755	0.16984855	3.2291990	20	7 26.3	21.3
348646 2005 <i>YT</i> ₁₈₈	17.1	X	74.85859	93.70441	307.29544	6.49490	0.1300266	0.27584841	2.3371633	20	—	—
348647 2005 <i>YD</i> ₁₉₆	16.0	X	144.62606	301.27787	222.99993	24.75902	0.2190778	0.24245272	2.5471314	20	8 19.7	20.9
348648 2005 <i>YG</i> ₁₉₆	17.3	X	50.28999	159.70340	294.85276	4.34511	0.1314762	0.28245339	2.3005845	20	1 8.6	19.2
348649 2005 <i>YZ</i> ₂₀₃	18.2	X	272.09708	30.27887	135.15571	1.50688	0.1637908	0.26406335	2.4061939	20	—	—
348650 2005 <i>YP</i> ₂₁₇	17.7	X	32.51649	114.86476	3.38504	2.21930	0.1434612	0.27983604	2.3149074	20	1 9.9	19.6
348651 2005 <i>YL</i> ₂₁₈	17.6	X	12.71679	75.02745	29.78828	2.62401	0.1675096	0.27538092	2.3398076	20	—	—
348652 2005 <i>YV</i> ₂₁₉	18.2	X	32.96621	205.18764	286.28560	2.97900	0.2000344	0.28461939	2.2888978	20	1 28.6	19.6
348653 2005 <i>YF</i> ₂₄₆	18.0	X	356.98623	260.00929	213.69328	4.21803	0.2132107	0.27286026	2.3541955	20	—	—
348654 2005 <i>YT</i> ₂₅₀	17.8	X	228.78723	19.81062	163.59587	1.89739	0.0360393	0.26124299	2.4234810	20	—	—
348655 2005 <i>YS</i> ₂₆₄	17.8	X	255.41629	203.12342	351.78052	3.20161	0.0372008	0.26780839	2.3837091	20	—	—
348656 2005 <i>YR</i> ₂₆₆	17.1	X	232.56782	265.78473	296.53856	4.82856	0.1911855	0.26417337	2.4055259	20	—	—
348657 2005 <i>YU</i> ₂₇₁	16.7	X	314.91405	356.34954	122.32350	6.84751	0.0750595	0.26513785	2.3996886	20	—	—
348658 2005 <i>YJ</i> ₂₇₂	17.8	X	300.61660	182.69781	339.67579	2.32004	0.1180844	0.26929097	2.3749521	20	—	—
348659 2005 <i>YW</i> ₂₈₀	18.3	X	22.75381	192.13283	279.87118	1.81817	0.1698554	0.27703001	2.3305129	20	—	—
348660 2006 <i>AU</i> ₁₀	17.5	X	353.48569	142.28581	326.62329	5.52530	0.1570818	0.27130294	2.3631959	20	—	—
348661 2006 <i>AR</i> ₁₃	16.4	X	34.57679	350.86103	124.49490	9.04078	0.1744553	0.21102354	2.7941440	20	1 28.5	19.2
348662 2006 <i>AH</i> ₅₄	18.4	X	54.88355	226.76792	210.00675	2.11295	0.1948635	0.27928162	2.3179700	20	—	—
348663 2006 <i>AK</i> ₆₈	17.3	X	67.23762	72.83522	298.80578	5.15831	0.2363603	0.27041519	2.3683652	20	—	—
348664 2006 <i>AE</i> ₉₀	16.2	X	310.59083	47.77337	80.30295	6.27011	0.0543584	0.20543068	2.8446304	20	—	—
348665 2006 <i>BV</i> ₂	17.1	X	25.48823	3.11176	103.94773	6.65432	0.1895044	0.27621180	2.3351130	20	—	—
348666 2006 <i>BR</i> ₁₀	17.6	X	270.28548	52.13960	118.04955	5.72995	0.1719638	0.26305589	2.4123336	20	—	—
348667 2006 <i>BX</i> ₁₁	17.4	X	130.09515	193.18645	120.69793	7.51211	0.0246566	0.26741673	2.3860361	20	—	—
348668 2006 <i>BT</i> ₁₆	17.3	X	160.11401	337.78827	263.09310	1.24904	0.1380986	0.25557847	2.4591586	20	12 16.7	21.2
348669 2006 <i>BF</i> ₁₈	17.0	X	260.30214	35.27083	126.87428	7.34533	0.0795276	0.26195837	2.4190668	20	—	—
348670 2006 <i>BU</i> ₁₉	17.6	X	18.29375	200.31248	275.75771	4.60201	0.1761131	0.27620854	2.3351314	20	—	—
348671 2006 <i>BZ</i> ₄₁	17.0	X	357.25826	283.16256	144.84735	6.59464	0.1300359	0.26050972	2.4280266	20	—	—
348672 2006 <i>BX</i> ₅₁	17.3	X	163.53732	285.78095	325.77394	3.99796	0.1494238	0.25666354	2.4522228	20	—	—
348673 2006 <i>BR</i> ₅₈	17.2	X	299.33120	48.14441	106.92963	3.54856	0.1003108	0.26547707	2.3976441	20	—	—
348674 2006 <i>BA</i> ₆₁	16.7	X	301.86387	196.95528	346.17041	12.40749	0.0928733	0.27298505	2.3534780	20	—	—
348675 2006 <i>BU</i> ₆₁	16.5	X	32.89759	151.38438	319.79141	24.42496	0.1442696	0.28053830	2.3110425	20	1 5.6	18.9
348676 2006 <i>BL</i> ₆₄	18.0	X	30.53464	279.78891	134.49389	2.73400	0.2055906	0.27067180	2.3668680	20	—	—
348677 2006 <i>BY</i> ₆₅	17.6	X	248.01812	107.10142	95.80375	3.44444	0.1340592	0.26426504	2.4049695	20	—	—
348678 2006 <i>BL</i> ₇₄	16.6	X	66.72808	174.46045	111.11932	8.01051	0.1952754	0.24491748	2.5300136	20	11 17.5	20.4
348679 2006 <i>BL</i> ₇₅	17.1	X	217.51932	131.32986	73.86602	3.12909	0.1506749	0.25820966	2.4424240	20	—	—
348680 2006 <i>BO</i> ₇₅	16.9	X	118.42781	223.88807	53.22165	3.14837	0.1713697	0.25342333	2.4730809	20	12 21.8	20.9
348681 2006 <i>BF</i> ₇₆	17.9	X	277.78518	97.99045	85.04395	3.11489	0.1148924	0.26662662	2.3907475	20	—	—
348682 2006 <i>BE</i> ₇₇	17.4	X	88.14644	57.71635	270.04777	3.28708	0.0720979	0.26191416	2.4193390	20	—	—
348683 2006 <i>BS</i> ₈₅	18.2	X	342.98337	76.19065	26.24254	1.60250	0.1429459	0.26733782	2.3865056	20	—	—
348684 2006 <i>BC</i> ₈₉	17.5	X	224.63254	101.61741	117.02127	2.94760	0.1424942	0.26205449	2.4184752	20	—	—
348685 2006 <i>BS</i> ₉₀	18.2	X	18.62129	350.93760	107.26777	2.30830	0.1458181	0.27103499	2.3647531	20	—	—
348686 2006 <i>BH</i> ₉₁	17.5	X	320.61839	216.68648	315.39033	6.61888	0.0498801	0.27208134	2.3586864	20	—	—
348687 2006 <i>BC</i> ₉₆	16.8	X	43.83783	245.19059	324.29227	4.76041	0.1047690	0.29253387	2.2474254	20	6 20.5	19.0
348688 2006 <i>BX</i> ₉₈	18.0	X	28.04179	80.18856	356.15405	2.21135	0.1844488	0.27092671	2.3653832	20	—	—
348689 2006 <i>BD</i> ₁₀₃	15.8	X	352.18324	246.66034	174.02160	2.97249	0.2514362	0.12560168	3.9488663	20	12 22.9	20.1
348690 2006 <i>BD</i> ₁₀₅	17.9	X	52.80171	28.04720	352.24291	2.33695	0.2294334	0.26948390	2.3738185	20	—	—
348691 2006 <i>BF</i> ₁₀₈	17.2	X	225.67083	299.99571	331.12628	6.52603	0.1040592	0.27393520	2.3480328	20	—	—
348692 2006 <i>BF</i> ₁₁₀	17.3	X	5.40802	337.04441	51.62487	2.42934	0.2045065	0.26000454	2.4311706	20	—	—
348693 2006 <i>BP</i> ₁₁₆	17.7	X	344.49962	171.88857	311.20190	3.85889	0.1100532	0.26873451	2.3782295	20	—	—
348694 2006 <i>BT</i> ₁₃₅	17.9	X	306.57929	356.22730	130.66063	3.40475	0.1231407	0.26173128	2.4204658	20	—	—
348695 2006 <i>BG</i> ₁₆₃	18.4	X	318.58302	166.02375	326.79221	0.84536	0.1203587	0.26640743	2.3920587	20	—	—
348696 2006 <i>BL</i> ₁₇₇	18.6	X	12.00975	218.45679	221.02983	1.97076	0.2004379	0.27053544	2.3676633	20	—	—
348697 2006 <i>BD</i> ₁₈₃	16.4	X	138.13052	298.79401	138.02463	6.72118	0.1133026	0.22127580	2.7071569	20	4 29.1	20.5
348698 2006 <i>BO</i> ₁₉₃	17.8	X	359.34537	211.80980	286.05809	2.07577	0.1845024	0.27469733	2.3436878	20	—	—
348699 2006 <i>BK</i> ₂₀₅	17.9	X	59.64162	38.07335	12.90536	1.27089	0.1707401	0.27234432	2.3571678	20	—	—
348700 2006 <i>BA</i> ₂₁₄	17.7	X	323.13512	0.48723	154.03800	5.53981	0.1645443	0.27185117	2.3600176	20	—	—
348701 2006 <i>BM</i> ₂₂₄	17.8	X	0.05540	338.71278	155.49048	4.27534	0.1192941	0.27420050	2.3465180	20	—	—
348702 2006 <i>BR</i> ₂₄₅	17.2	X	62.82173	339.86755	346.95122	2.53703	0.1981846	0.25429167	2.4674477	20	—	—
348703 2006 <i>BM</i> ₂₆₉	17.1	X	333.02257	307.76070	231.92029	8.43379	0.2106072	0.27391804	2.3481308	20	—	—
348704 2006 <i>BU</i> ₂₇₄	13.3	X	341.01736	263.36948	354.86556	10.06976	0.0466086	0.08377019	5.1730067	20	5 13.8	20.0
348705 2006 <i>BG</i> ₂₇₆	17.0	X	29.90045	80.14468	379.58571	5.99186	0.1229149	0.26530160	2.3987011	20	—	—
348706 2006 <i>BF</i> ₂₇₈	17.8	X	345.37878	301.99916	152.32892	1.44381	0.1537840	0.26626476	2.3929130	20	—	—
348707 2006 <i>CL</i> ₃	17.7	X	47.93814	193.65362	163.01936	2.78151	0.2173140	0.26201678	2.4187073	20	—	—

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348721 2006 DJ ₇₀	16.1	X	103.73446	121.26774	124.77365	13.54355	0.1209730	0.23177392	2.6247806	20	10 31.3	20.3
348722 2006 DS ₇₁	15.8	X	18.27982	218.87737	141.35615	4.44935	0.1670743	0.24591358	2.5231770	20	12 18.9	18.8
348723 2006 DN ₁₀₆	17.4	X	108.12967	100.36309	147.34627	1.88297	0.1233022	0.24045648	2.5612092	20	11 3.3	21.3
348724 2006 DP ₁₂₀	16.4	X	179.82128	76.41278	107.49920	13.81038	0.1231258	0.24416445	2.5352129	20	11 1.0	20.5
348725 2006 DC ₁₂₅	17.6	X	222.25262	348.86434	216.72040	2.72361	0.0741990	0.26171520	2.4205650	20	—	—
348726 2006 DP ₁₅₇	17.9	X	358.52723	13.47144	104.75054	2.42637	0.1297866	0.26888983	2.3773135	20	—	—
348727 2006 DB ₁₆₃	17.7	X	39.72362	91.64943	320.27734	3.87704	0.2445644	0.26828212	2.3809022	20	—	—
348728 2006 DH ₂₁₆	18.0	X	265.46122	313.74035	193.01175	3.07710	0.1728068	0.25456046	2.4657105	20	12 19.8	20.4
348729 2006 EP ₄₄	17.4	X	66.35812	180.76652	195.51747	7.09490	0.0745893	0.25802144	2.4436117	20	—	—
348730 2006 EK ₄₆	17.6	X	359.33122	61.67559	24.49945	1.71277	0.1575757	0.26727522	2.3868782	20	—	—
348731 2006 EH ₄₇	17.9	X	14.71441	47.66973	87.89600	2.43866	0.1230702	0.27562446	2.3384291	20	1 3.4	19.9
348732 2006 FT ₇	17.2	X	144.10330	159.28393	43.76061	3.38478	0.0717306	0.23683049	2.5872852	20	10 13.5	20.9
348733 2006 FH ₁₇	17.4	X	350.96804	17.87578	159.87950	0.41054	0.1525856	0.27403270	2.3474758	20	1 18.9	19.7
348734 2006 FX ₁₉	16.5	X	350.03666	347.88146	27.54672	6.54542	0.1109570	0.23882047	2.5728927	20	11 13.8	19.4
348735 2006 FV ₂₂	17.1	X	9.48023	171.18285	149.29175	2.90770	0.2020480	0.23357317	2.6112838	20	10 14.4	19.7
348736 2006 FP ₃₅	17.0	X	296.75025	176.49511	12.68304	9.35784	0.2240724	0.26462040	2.4028159	20	—	—
348737 2006 FN ₄₁	17.3	X	303.70678	308.97984	171.41386	2.46765	0.1427669	0.25450823	2.4660479	20	—	—
348738 2006 FQ ₅₁	17.1	X	47.24466	49.91448	200.02691	13.00729	0.0930329	0.22415151	2.6839532	20	8 13.5	20.8
348739 2006 GS ₃	15.1	X	257.43018	93.18124	149.89089	6.32532	0.1118496	0.12732071	3.9132418	20	1 13.1	20.9
348740 2006 GH ₄	16.0	X	23.72297	349.99708	351.84331	4.73620	0.2237968	0.24459198	2.5322577	20	12 9.9	19.2
348741 2006 GK ₂₅	16.3	X	329.33989	11.25673	36.82438	3.92449	0.0800202	0.24329642	2.5412394	20	11 24.5	19.2
348742 2006 GB ₃₁	17.5	X	71.93876	61.28407	193.20290	4.05310	0.2356937	0.22807299	2.6530992	20	10 15.0	21.5
348743 2006 HG ₅	16.3	X	71.66462	239.96221	59.52798	14.22362	0.1676744	0.23847183	2.5753998	20	12 2.2	20.2
348744 2006 HZ ₉	17.1	X	17.75132	168.65048	108.15122	6.80208	0.1337001	0.22355110	2.6887567	20	8 15.5	20.1
348745 2006 HB ₁₀	16.8	X	301.77972	306.00491	107.56625	7.38615	0.0937230	0.23903851	2.5713279	20	10 20.7	19.8
348746 2006 HK ₁₅	16.8	X	122.24989	158.56912	50.66675	14.71235	0.1936566	0.23214511	2.6219819	20	10 8.2	21.3
348747 2006 HN ₁₆	16.4	X	183.90609	26.89923	83.35072	16.05471	0.0820349	0.22379347	2.6868150	20	7 29.5	20.6
348748 2006 HO ₂₄	16.3	X	257.67803	13.00275	20.37008	10.92841	0.1797128	0.18885208	3.0087645	20	—	—
348749 2006 HG ₄₀	17.3	X	234.40787	56.50892	104.97492	5.30765	0.1091939	0.24481338	2.5307308	20	12 1.1	20.5
348750 2006 HQ ₄₁	16.4	X	320.23922	331.80407	88.81450	15.85545	0.1879740	0.24056181	2.5604616	20	12 1.0	18.7
348751 2006 HT ₄₃	18.5	X	190.50057	337.74316	234.88561	2.67128	0.0632454	0.31477263	2.1402840	20	—	—
348752 2006 HX ₄₉	17.5	X	228.01788	173.06784	56.28780	2.34873	0.1457834	0.25778352	2.4451149	20	—	—
348753 2006 HH ₅₄	17.2	X	172.64289	185.70084	32.60132	8.97074	0.1590320	0.24467703	2.5316709	20	11 26.4	21.3
348754 2006 HZ ₆₂	17.3	X	62.60696	184.82177	73.83638	3.79374	0.0479392	0.22864205	2.6486952	20	9 15.7	20.8
348755 2006 HD ₆₆	16.2	X	324.38321	301.53326	51.72147	14.89025	0.2380100	0.22302480	2.6929851	20	8 25.3	18.9
348756 2006 HS ₇₃	16.4	X	283.96687	290.24728	84.31186	7.51120	0.0589753	0.22294246	2.6936481	20	7 29.6	20.0
348757 2006 HS ₈₀	17.1	X	109.28976	190.10104	39.88913	4.19429	0.0605316	0.23194310	2.6235041	20	10 7.5	20.9
348758 2006 HS ₉₁	17.1	X	176.02885	63.01777	121.64196	4.76663	0.2125811	0.23880346	2.5730150	20	10 19.8	21.4
348759 2006 HB ₉₃	16.9	X	335.91290	204.95221	127.72645	3.74308	0.0892829	0.22411283	2.6842620	20	8 18.2	20.0
348760 2006 HK ₁₀₇	16.6	X	60.73883	187.26494	86.03050	7.49841	0.1863347	0.22909624	2.6451932	20	10 23.8	20.4
348761 2006 HT ₁₀₇	16.2	X	335.54403	271.44514	64.17392	14.08958	0.1862837	0.22325700	2.6911175	20	8 26.9	19.1
348762 2006 HS ₁₁₁	16.4	X	111.67981	260.96889	5.83724	12.52041	0.2454461	0.23740568	2.5831045	20	12 1.0	21.1
348763 2006 HD ₁₅₃	16.8	X	87.44262	119.28513	118.45491	3.50346	0.0710791	0.22720712	2.6598353	20	9 22.5	20.4
348764 2006 JM ₂₁	16.9	X	154.61463	86.19619	152.60701	7.04866	0.0735238	0.24153252	2.5535967	20	12 9.8	20.7
348765 2006 JC ₂₃	17.5	X	332.42912	110.85180	0.99612	1.20864	0.1407040	0.25781952	2.4448873	20	—	—
348766 2006 JW ₃₄	16.1	X	267.03206	264.45652	228.73581	13.24692	0.0419861	0.24446425	2.5331397	20	12 16.9	19.5
348767 2006 JW ₃₆	16.1	X	232.04752	268.72839	134.24582	13.63539	0.1209538	0.21738690	2.7393475	20	6 20.9	20.3
348768 2006 JJ ₄₀	17.2	X	329.38916	69.79462	55.78954	7.10867	0.1504601	0.26121014	2.4236842	20	—	—
348769 2006 JR ₄₃	18.1	X	160.92465	47.49213	213.78440	20.55467	0.0558513	0.38795775	1.8618575	20	—	—
348770 2006 JL ₅₃	16.8	X	126.52362	156.11952	61.31882	30.25184	0.1424666	0.23321684	2.6139430	20	10 27.2	21.3
348771 2006 KQ	16.6	X	141.00279	155.05985	82.35475	6.19012	0.2016809	0.23821810	2.5772282	20	11 22.0	20.9
348772 2006 KN ₁₅	16.1	X	311.87916	285.07929	71.77346	9.05168	0.0416531	0.22333473	2.6904930	20	8 20.2	19.6
348773 2006 KX ₂₃	16.2	X	32.08616	203.01030	77.18057	10.85840	0.2562517	0.22358929	2.6884506	20	10 8.2	19.7
348774 2006 KQ ₂₇	16.4	X	306.33049	274.76013	55.86771	12.78448	0.1794174	0.21515053	2.7582975	20	6 10.7	19.6
348775 2006 KR ₃₅	16.2	X	330.07838	210.87561	127.56536	15.42383	0.0892728	0.22151975	2.7051690	20	8 16.9	19.4
348776 2006 KZ ₃₇	19.1	X	148.93383	243.21362	95.68007	21.37001	0.2086493	0.67686557	1.2846982	20	—	—
348777 2006 KX ₅₀	16.4	X	316.67921	134.67581	229.01548	13.83360	0.0251760	0.22680865	2.6629498	20	8 27.9	20.3
348778 2006 KS ₅₃	17.6	X	177.18342	127.11374	86.85557	5.87416	0.1813626	0.24179279	2.5517639	20	11 25.6	21.8
348779 2006 KJ ₅₄	16.5	X	293.72702	33.00241	74.68811	12.94478	0.0141614	0.24252374	2.5466340	20	12 21.9	19.8
348780 2006 KD ₅₇	16.3	X	58.84037	198.74715	73.52118	19.87615	0.0257025	0.22847590	2.6499791	20	10 5.7	20.3
348781 2006 KB ₆₀	16.8	X	262.39879	320.35970	164.87819	6.73936	0.1846167	0.24325155	2.5415518	20	11 11.5	19.8
348782 2006 KY ₆₁	16.7	X	292.56311	149.01138	200.43124	8.70960	0.1511886	0.21508632	2.7588465	20	6 20.8	20.3
348783 2006 KJ ₈₆	16.4	X	108.71987	141.11283	100.05279	12.77103	0.1342479	0.23390538	2.6088108	20	10 31.4	20.6
348784 2006 KK ₁₁₂	16.9	X	22.79935	144.97560	183.68521	13.04983	0.0683331	0.23085875	2.6317128	20	10 27.8	20.3
348785 2006 OD ₁₂	15.7	X	201.33263	201.15450	141.80429	10.34470	0.2904161	0.18431247	3.0579678	20	3 8.2	21.3
348786 2006 OG ₂₀	16.5	X	239.81110	226.35694	102.57105	11.71364	0.2548526	0.19226951	2.9730059	20	3 23.6	21.7
348787 2006 PX ₅	13.0	X	12.87924	34.76636	323.31876	27.82613	0.0390897	0.08133558	5.2757271	20	10 1.9	20.1
348788 2006 PK ₇	15.5	X	149.64115	12.96143	319.89366	22.21501	0.1229531	0.17494131	3.1662203	20	1 13.6	20.5
348789 2006 PF ₁₀	17.7	X	343.10196	142.27653	188.77546	3.41094	0.1641353	0.28319955	2.2965417	20	9 9.9	19.2
348790 2006 PM ₁₄	16.2	X	146.28029	198.07127	127.95903	16.60901	0.2403456	0.17415095	3.1757927	20	1 8.4	21.5
348791 2006 PY ₂₂	17.3	X	16.91518	134.28434	190.09210	3.71087	0.3206243	0.21647942	2.7469978	20	11 16.9	20.4
348792 2006 PA ₃₀	17.0	X	218.44623	202.65144	139.48749	8.93372	0.2331392	0.26043223	2.4285082	20	3 16.5	21.1
348793 2006 QH ₃	16.6	X	12.01583	331.69170	353.62184	7.69157	0.2702515	0.21452063	2.7636943	20	10 27.9	19.6
348794 2006 QC ₉												

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
348801 2006 QZ ₄₃	15.5	X	171.61191	299.35449	327.71060	25.89805	0.2390175	0.17108791	3.2135853	20	—	—
348802 2006 QF ₅₈	16.5	X	221.41718	111.16293	235.73025	13.58086	0.2375032	0.26133864	2.4228896	20	3 17.2	20.9
348803 2006 QS ₁₀₅	16.5	X	180.67206	114.46899	260.53261	3.86060	0.2045031	0.18482044	3.0523621	20	3 26.1	21.7
348804 2006 QG ₁₁₅	17.2	X	219.94969	100.96502	249.63348	5.65800	0.2468782	0.26016680	2.4301596	20	3 22.7	21.4
348805 2006 QQ ₁₂₆	15.8	X	156.02011	209.21611	142.21853	18.40024	0.2114901	0.17612983	3.1519605	20	2 11.5	20.8
348806 2006 QL ₁₂₈	17.6	X	51.16857	102.39552	159.65986	23.85544	0.0467220	0.35508873	1.9750501	20	9 24.9	19.6
348807 2006 QM ₁₂₈	15.9	X	218.24626	58.78512	294.82877	10.97937	0.1405624	0.18942420	3.0027032	20	3 29.5	21.0
348808 2006 QR ₁₄₂	15.6	X	156.05126	73.40848	309.23461	24.19213	0.3056971	0.17860275	3.1227985	20	3 10.2	21.6
348809 2006 QJ ₁₆₀	16.4	X	187.03279	233.78873	166.93888	2.07046	0.1272884	0.18929590	3.0040599	20	5 2.8	21.1
348810 2006 QJ ₁₆₄	16.7	X	2.13112	78.31021	261.38334	9.75850	0.2589709	0.21405768	2.7676777	20	10 26.8	19.6
348811 2006 QO ₁₆₄	15.4	X	225.21989	40.24636	290.12269	15.08198	0.1662391	0.18638726	3.0352321	20	3 5.6	20.6
348812 2006 QP ₁₈₃	17.4	X	136.08767	319.50595	30.98654	8.33886	0.2258154	0.24209781	2.5496201	20	1 20.2	21.4
348813 2006 QK ₁₈₆	16.3	X	268.57406	101.53637	178.31776	9.44932	0.1161781	0.18437722	3.0572518	20	2 27.7	20.9
348814 2006 QN ₁₈₆	16.8	X	164.17722	108.02298	322.35569	0.34038	0.0767303	0.18909879	3.0061470	20	5 14.6	21.3
348815 2006 RA ₃	15.7	X	305.20036	87.46949	254.94706	13.52991	0.1690166	0.20400732	2.8578464	20	6 27.1	19.2
348816 2006 RF ₁₅	16.9	X	188.14307	107.11696	309.33929	15.92500	0.2178030	0.19154449	2.9805033	20	5 18.2	22.3
348817 2006 RE ₁₆	16.0	X	156.40087	79.45414	333.79968	15.29693	0.2460163	0.18154728	3.0889406	20	4 17.0	21.6
348818 2006 RM ₁₇	15.4	X	214.99008	39.56958	285.56223	8.67110	0.0949441	0.18090713	3.0962232	20	2 26.3	20.3
348819 2006 RQ ₂₇	15.5	X	132.25958	256.57425	153.63775	18.85945	0.2303628	0.17679823	3.1440113	20	4 4.4	20.8
348820 2006 RN ₃₀	17.8	X	299.27850	83.50118	223.48348	1.42372	0.2122235	0.26930336	2.3748793	20	4 20.9	20.7
348821 2006 RA ₃₈	15.5	X	138.10279	347.68445	16.25451	19.42591	0.1262615	0.17120828	3.2120789	20	2 11.9	20.7
348822 2006 RF ₄₆	16.6	X	176.58060	222.98033	123.02581	2.38634	0.1860597	0.17621773	3.1509123	20	2 21.1	21.7
348823 2006 RS ₄₆	16.8	X	247.98895	180.71065	122.43696	1.89899	0.1433311	0.18336604	3.0568311	20	3 4.4	21.5
348824 2006 RX ₅₀	16.4	X	210.31529	166.42757	195.86283	9.52902	0.0788417	0.18367760	3.0650101	20	4 10.3	21.1
348825 2006 RY ₅₄	16.4	X	174.61778	41.04276	23.60449	6.19053	0.1581353	0.18603263	3.0390882	20	5 18.8	21.5
348826 2006 RY ₅₆	16.0	X	151.18923	15.76157	17.82299	11.10782	0.1018045	0.17719498	3.1393166	20	3 21.6	20.9
348827 2006 RF ₅₈	16.4	X	114.92116	318.32464	4.35560	14.53343	0.1386947	0.23280386	2.6170334	20	—	—
348828 2006 RJ ₅₉	16.6	X	178.07197	126.58932	239.92790	0.95705	0.2052360	0.17904778	3.1176217	20	3 16.1	21.9
348829 2006 RX ₆₂	15.8	X	165.15605	57.74257	0.47905	19.87293	0.2487883	0.18509624	3.0493293	20	4 28.8	21.4
348830 2006 RJ ₆₈	16.6	X	271.76155	252.10857	56.97979	1.65098	0.0552988	0.18949960	3.0019066	20	4 16.3	20.8
348831 2006 RD ₇₈	16.4	X	128.11779	344.20505	90.98320	2.43000	0.1790378	0.17984151	3.1084419	20	4 22.7	21.2
348832 2006 RC ₈₁	15.9	X	148.00655	25.34499	8.27137	10.41130	0.1227283	0.17856706	3.1232146	20	3 18.9	20.7
348833 2006 RX ₈₃	16.8	X	174.14316	25.27074	352.54193	0.58258	0.0458759	0.18057001	3.1000757	20	3 21.2	21.4
348834 2006 RV ₉₂	16.6	X	123.00458	203.68477	212.10546	3.18479	0.1545134	0.17535514	3.1612369	20	3 21.6	21.5
348835 2006 RL ₉₈	15.5	X	181.48092	230.09943	140.62193	17.81608	0.1175967	0.18246109	3.0786185	20	3 26.6	20.5
348836 2006 RN ₁₀₈	16.7	X	174.78843	56.10843	343.71305	0.41287	0.0084153	0.18470346	3.0536507	20	4 16.3	21.0
348837 2006 RO ₁₁₀	16.4	X	85.17585	332.41947	187.65743	3.81638	0.1334949	0.18819212	3.1057946	20	6 14.2	20.6
348838 2006 RO ₁₂₁	15.7	X	120.86209	254.67558	189.58086	9.67184	0.0884986	0.17974678	3.1095339	20	4 16.7	20.2
348839 2006 SE ₄	16.1	X	217.31214	106.87102	216.92982	9.20195	0.1826181	0.18243793	3.0788790	20	2 24.3	21.4
348840 2006 SK ₇	16.1	X	227.64617	293.38376	56.44641	9.56525	0.1006232	0.18920543	3.0050174	20	4 14.4	20.7
348841 2006 SC ₁₁	16.0	X	204.24934	21.99932	355.90797	9.89760	0.1231366	0.18763035	3.0218111	20	4 17.9	20.9
348842 2006 SL ₁₅	16.3	X	196.70262	136.07292	216.21824	4.25247	0.1405991	0.18144342	3.0901192	20	3 13.4	21.3
348843 2006 SB ₂₄	15.5	X	94.85288	17.60425	66.31893	15.39792	0.1550096	0.17224375	3.1991927	20	4 2.6	20.3
348844 2006 SQ ₃₂	16.2	X	178.66005	223.40028	190.52737	9.48626	0.1191227	0.18751682	3.0230307	20	5 11.8	21.0
348845 2006 SO ₃₆	16.7	X	34.06361	261.30427	86.07712	7.92885	0.3250307	0.22100990	2.7093278	20	—	—
348846 2006 SB ₄₀	16.7	X	205.70630	296.11775	107.85695	2.78974	0.1889809	0.19118046	2.9842856	20	5 22.1	21.6
348847 2006 SC ₄₁	15.4	X	161.43143	290.83056	123.05615	7.61963	0.1229604	0.18403803	3.0610070	20	4 26.9	20.3
348848 2006 SK ₅₉	15.8	X	137.73589	115.14979	267.00378	10.57392	0.2886955	0.17390921	3.1787350	20	3 3.1	21.4
348849 2006 SR ₇₁	17.0	X	190.42889	259.17462	27.38754	9.13769	0.1509184	0.23876016	2.5733260	20	—	—
348850 2006 SY ₇₃	17.6	X	149.23530	258.06000	57.86292	4.11933	0.1187853	0.23537849	2.5979146	20	—	—
348851 2006 SP ₇₉	15.3	X	155.18403	161.21328	233.12253	15.85544	0.2206458	0.17851313	3.1238435	20	3 27.0	20.8
348852 2006 ST ₈₆	16.4	X	111.41625	266.76375	192.31720	9.00638	0.0315736	0.18200411	3.0837695	20	4 16.3	20.7
348853 2006 SP ₈₈	16.4	X	34.74196	359.38538	190.37528	8.12927	0.0806284	0.18504338	3.0499100	20	5 6.5	20.3
348854 2006 SQ ₈₉	16.2	X	102.18879	289.40617	190.10907	10.60826	0.0307690	0.18450006	3.0558947	20	5 1.2	20.5
348855 2006 SG ₉₈	16.2	X	133.53479	228.00432	199.91029	8.98470	0.1228483	0.17790326	3.1309787	20	4 13.4	20.9
348856 2006 SQ ₁₂₈	15.8	X	163.51982	146.16780	241.85583	16.24708	0.2148430	0.17945850	3.1128631	20	3 24.9	21.3
348857 2006 SR ₁₂₈	15.4	X	178.76314	88.17710	300.52717	15.84343	0.1412147	0.18256387	3.0774629	20	4 1.9	20.7
348858 2006 SW ₁₂₈	16.1	X	156.65600	104.91075	308.45693	15.01687	0.1622227	0.18097340	3.0954673	20	4 13.1	21.4
348859 2006 SA ₁₂₉	15.8	X	209.98388	26.08056	309.43318	10.81333	0.2367808	0.18179072	3.0861823	20	3 1.5	21.4
348860 2006 SU ₁₃₀	15.8	X	135.51486	106.68173	338.55519	13.55560	0.2686467	0.18017338	3.1046237	20	5 12.3	21.3
348861 2006 SD ₁₃₂	15.4	X	219.12399	96.17177	263.60718	9.24522	0.0177344	0.18590122	3.0405202	20	4 16.9	19.9
348862 2006 SK ₁₃₃	16.3	X	210.22405	123.66080	242.30338	8.63538	0.1149433	0.18772963	3.0207457	20	4 10.4	21.2
348863 2006 SQ ₁₃₈	16.0	X	198.31296	173.53375	174.95721	18.03964	0.2306739	0.17947804	3.1126372	20	3 10.9	21.5
348864 2006 SG ₁₃₉	15.5	X	165.33649	320.45228	72.52606	8.78436	0.2043079	0.17914284	3.1165187	20	4 9.7	20.8
348865 2006 SO ₁₄₁	16.1	X	152.09718	253.60101	125.85266	9.85299	0.2312347	0.17482821	3.1675857	20	3 15.5	21.5
348866 2006 SH ₁₄₄	17.0	X	122.50989	228.97077	205.89961	5.04517	0.1327162	0.17826812	3.1267051	20	4 10.9	21.8
348867 2006 SO ₁₄₅	15.8	X	147.70600	221.12113	191.06942	11.24478	0.0926070	0.17993070	3.1074146	20	4 6.6	20.5
348868 2006 SR ₁₅₂	15.9	X	157.54006	274.57500	142.92361	14.34946	0.2508209	0.18054037	3.1004150	20	5 4.9	21.5
348869 2006 SN ₁₅₇	16.5	X	201.04275	178.72253	179.95798	9.34519	0.1441737	0.18364178	3.0654088	20	3 26.3	21.4
348870 2006 SO ₁₆₀	16.0	X	183.83891	33.48954	32.58826	13.42618	0.1142646	0.18778359	3.0201670	20	5 27.7	20.9
348871 2006 SS ₁₆₂	16.5	X	89.62459	69.49894	61.80970	1.95490	0.1441074	0.17969209	3.1101648	20	5 15.3	20.8
348872 2006 SN ₁₇₆	16.5	X	297.43004	10.04453	261.75014	1.62975	0.1497557	0.18745700	3.0236738	20	3 17.9	20.7
348873 2006 SC ₁₈₂	17.2	X	76.85761	225.82237	124.67030	8.05232						

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>		
348881	2006	SR ₂₁₈	17.9	X	75.32067	103.87175	256.59707	4.86836	0.1905335	0.30023502	2.2088276	20	—	—
348882	2006	SP ₂₄₀	16.1	X	118.28965	253.30088	178.02411	11.26748	0.0539736	0.17910393	3.1169701	20	3 24.1	20.4
348883	2006	SF ₂₄₅	16.5	X	211.46553	182.53642	180.00286	16.45531	0.0979427	0.18546748	3.0452588	20	4 12.4	21.2
348884	2006	SN ₂₅₉	16.3	X	3.04300	353.55834	201.56053	9.36487	0.0134955	0.17993190	3.1074008	20	3 25.5	20.6
348885	2006	SQ ₂₅₉	16.8	X	22.72751	289.83668	350.28603	1.40715	0.0359697	0.20158409	2.8807034	20	8 13.2	20.5
348886	2006	SF ₂₆₄	15.8	X	63.07967	262.59733	234.11127	12.48457	0.1007540	0.17665777	3.1456776	20	4 7.8	20.1
348887	2006	SU ₂₆₅	16.6	X	150.03962	168.22098	248.55939	5.00723	0.1491402	0.17872356	3.1213910	20	4 16.7	21.6
348888	2006	SX ₂₆₆	16.7	X	162.91391	194.36999	253.01689	4.87136	0.1631338	0.18563147	3.0434650	20	6 6.3	21.7
348889	2006	SD ₂₆₈	15.9	X	246.08516	18.97080	0.87458	9.88894	0.1027845	0.19236874	2.9719834	20	6 6.1	20.5
348890	2006	SC ₂₇₀	16.8	X	122.79329	223.94611	152.99612	14.87884	0.2831955	0.23942438	2.5685645	20	2 12.3	20.6
348891	2006	SC ₂₇₄	17.7	X	159.74748	224.19743	220.27576	5.65369	0.1010561	0.25526415	2.4611769	20	5 28.8	21.3
348892	2006	SA ₂₉₄	16.6	X	176.94764	178.37438	207.40943	4.60683	0.1461030	0.18254038	3.0777269	20	4 5.0	21.5
348893	2006	SF ₃₀₁	16.4	X	184.61183	324.80171	44.04344	3.25965	0.0743108	0.17868417	3.1218498	20	3 23.7	21.0
348894	2006	ST ₃₁₄	16.0	X	103.80567	278.27569	178.21212	7.60762	0.1076358	0.17834354	3.1258236	20	4 15.0	20.4
348895	2006	SS ₃₃₄	16.4	X	233.57121	189.84644	117.62122	3.10950	0.1404591	0.18065856	3.0990626	20	2 25.6	21.3
348896	2006	SE ₃₃₉	16.1	X	108.63454	272.12236	172.63389	10.22922	0.1394457	0.17725748	3.1385785	20	4 10.8	20.8
348897	2006	SA ₃₄₃	16.3	X	80.44309	232.65634	228.75035	8.28685	0.0677302	0.17434027	3.1734932	20	3 13.3	20.7
348898	2006	SF ₃₄₇	15.7	X	215.19348	326.01078	15.09300	8.84435	0.0482262	0.17987811	3.1080202	20	3 23.4	20.2
348899	2006	SX ₃₄₈	16.8	X	311.21224	306.47654	19.30694	6.07152	0.0870806	0.19672925	2.9279035	20	6 26.3	20.6
348900	2006	SR ₃₅₇	16.0	X	95.37955	248.16421	226.77690	10.20192	0.0383920	0.17861463	3.1226600	20	4 15.3	20.4
348901	2006	SU ₃₆₀	16.4	X	177.96693	7.92956	45.15952	11.12603	0.1280675	0.18268711	3.0760788	20	5 8.5	21.3
348902	2006	SD ₃₆₅	15.9	X	145.80253	59.06147	349.43205	9.05520	0.1064918	0.17836442	3.1255796	20	3 29.9	20.8
348903	2006	SZ ₃₇₂	16.2	X	144.43839	112.34932	301.26529	4.03000	0.1727673	0.18037484	3.1023115	20	4 8.7	21.3
348904	2006	SP ₃₇₄	15.4	X	115.05947	350.04284	61.08538	13.63983	0.0639748	0.17256591	3.1952097	20	3 4.6	20.2
348905	2006	SJ ₃₉₂	16.2	X	16.90885	283.28465	276.15535	3.53019	0.1092771	0.18190542	3.0848848	20	4 20.0	20.0
348906	2006	SL ₃₉₂	15.9	X	173.66577	6.27464	37.93132	12.65323	0.1167500	0.18046807	3.1012431	20	4 24.3	20.7
348907	2006	SC ₃₉₆	16.4	X	213.70114	243.77331	131.56469	2.03813	0.0842501	0.18695220	3.0291143	20	4 29.9	21.1
348908	2006	SA ₃₉₇	16.3	X	161.34121	202.61855	196.37191	9.24730	0.0458743	0.17932952	3.1143556	20	4 1.4	20.7
348909	2006	SE ₄₀₂	15.9	X	166.12237	239.93437	125.81577	12.88558	0.2874362	0.17532118	3.1616452	20	3 13.1	21.6
348910	2006	SA ₄₀₉	15.3	X	344.32610	3.41365	220.65480	15.99890	0.1341017	0.17488363	3.1669165	20	3 26.6	19.3
348911	2006	SM ₄₀₉	16.5	X	194.21774	90.17778	329.00371	11.07409	0.2000538	0.19206762	2.9750889	20	5 27.9	21.8
348912	2006	TV ₈	16.4	X	179.57319	44.05682	353.08314	1.14112	0.2045087	0.18230399	3.0803869	20	4 21.7	21.5
348913	2006	TJ ₉	15.9	X	194.13176	129.69705	214.75000	16.04969	0.1290476	0.17539980	3.1607004	20	2 28.1	21.3
348914	2006	TN ₉	15.8	X	169.38502	173.36554	205.41047	10.28684	0.0657418	0.17567630	3.1573830	20	3 16.5	20.6
348915	2006	TG ₁₂	15.7	X	199.50568	118.82871	221.64612	10.71219	0.0805198	0.17909915	3.1170256	20	2 29.2	20.7
348916	2006	TF ₁₃	16.5	X	249.06717	14.16872	348.23050	5.18568	0.1893859	0.19227112	2.9729893	20	5 8.6	21.3
348917	2006	TM ₁₉	16.3	X	149.89800	209.50579	232.21805	4.05384	0.1212835	0.18190971	3.0839210	20	5 16.4	21.1
348918	2006	TV ₁₉	17.2	X	74.82044	214.79810	216.25669	10.87071	0.2388103	0.23691364	2.5866798	20	2 10.9	20.3
348919	2006	TT ₂₁	17.2	X	30.04906	359.61384	53.48700	3.45479	0.0974650	0.22567512	2.6718593	20	—	—
348920	2006	TW ₂₅	16.2	X	152.85361	17.78315	30.81465	10.45013	0.2896010	0.17715437	3.1397963	20	4 18.4	21.8
348921	2006	TV ₂₆	18.1	X	142.64181	275.68210	33.94208	4.11571	0.1575158	0.30493542	2.1860704	20	—	—
348922	2006	TJ ₂₇	17.3	X	23.14340	193.46088	219.37957	1.15967	0.1336714	0.22462620	2.6801706	20	—	—
348923	2006	TN ₂₇	15.8	X	228.36281	267.49424	34.01698	13.31368	0.2744027	0.17845734	3.1244946	20	2 13.5	21.5
348924	2006	TL ₂₈	15.9	X	95.87971	42.17126	51.91936	5.61040	0.1550629	0.17273633	3.1931078	20	4 9.8	20.5
348925	2006	TR ₂₈	16.6	X	222.11462	271.94703	56.86584	1.77168	0.1758978	0.18013206	3.1050984	20	3 9.5	21.7
348926	2006	TS ₃₇	15.6	X	94.61189	284.47492	221.29286	23.58883	0.2888276	0.17709656	3.1404795	20	6 22.7	20.9
348927	2006	TR ₃₉	16.6	X	204.29067	339.43416	30.66947	1.22767	0.3270748	0.18345780	3.0674578	20	4 7.7	22.3
348928	2006	TQ ₄₁	16.1	X	209.70582	288.48341	30.86012	9.44183	0.3127529	0.18075143	3.0980011	20	2 18.5	21.9
348929	2006	TS ₄₂	15.4	X	89.11723	57.64253	42.93670	23.00025	0.0952084	0.17223959	3.1992443	20	4 8.1	20.9
348930	2006	TW ₄₆	16.0	X	114.82273	69.60395	43.29377	16.42377	0.1906336	0.17776692	3.1325794	20	5 23.4	20.9
348931	2006	TL ₅₅	15.9	X	180.88671	300.64277	67.18722	10.98264	0.2448001	0.17816333	3.1279311	20	3 26.3	21.5
348932	2006	TE ₆₁	16.0	X	154.88973	12.76222	25.69183	11.18661	0.1604483	0.17845146	3.1245632	20	4 3.0	21.0
348933	2006	TR ₆₆	15.8	X	227.94755	112.01505	218.40937	13.13422	0.1115963	0.18347046	3.0673167	20	3 15.4	20.7
348934	2006	TA ₆₇	15.9	X	146.20563	154.82783	227.57344	11.93479	0.1427107	0.17479746	3.1679572	20	2 29.2	21.1
348935	2006	TD ₆₇	16.3	X	209.74399	107.57246	287.26963	7.51167	0.1370037	0.18890009	3.0082548	20	5 14.8	21.2
348936	2006	TQ ₆₈	16.2	X	147.12059	236.57498	178.09961	17.04561	0.2210425	0.17881721	3.1203011	20	4 19.8	21.5
348937	2006	TE ₆₉	15.4	X	223.15380	233.00734	109.83831	10.44642	0.0925010	0.18413551	3.0599267	20	4 4.1	20.2
348938	2006	TV ₇₁	15.9	X	136.05755	311.67528	106.70487	8.37477	0.1553898	0.17706372	3.1408678	20	4 11.3	20.9
348939	2006	TT ₇₄	16.0	X	152.55102	240.79359	216.92701	10.54427	0.1307707	0.18590163	3.0405157	20	6 8.3	20.9
348940	2006	TY ₇₅	15.9	X	140.75128	179.71565	229.44885	15.52266	0.2011792	0.17477018	3.1682869	20	4 1.2	21.2
348941	2006	TV ₇₆	16.0	X	193.05999	61.28385	336.78833	9.25866	0.1513429	0.18408415	3.0604958	20	4 30.7	21.2
348942	2006	TC ₉₃	16.2	X	185.31312	122.69029	222.20516	16.48167	0.2008118	0.17583977	3.1554258	20	2 21.1	21.8
348943	2006	TV ₉₃	16.1	X	41.03715	217.94714	212.83061	26.34650	0.0303292	0.23119921	2.6291285	20	—	—
348944	2006	TA ₉₄	15.9	X	179.45159	164.50817	203.18047	10.27731	0.0618089	0.17538365	3.1608944	20	3 13.7	20.7
348945	2006	TV ₉₆	17.3	X	149.10313	308.59309	171.66442	2.91161	0.1970070	0.24396905	2.5365664	20	3 5.0	21.2
348946	2006	TO ₉₇	17.6	X	22.31658	104.34367	356.87695	3.96215	0.2074149	0.22989363	2.6390731	20	—	—
348947	2006	TV ₁₀₁	16.9	X	351.28630	29.34779	303.38703	1.00390	0.0689520	0.20402001	2.8577279	20	9 8.5	20.2
348948	2006	TD ₁₀₅	16.1	X	117.59028	339.59395	88.07917	2.64366	0.1775817	0.17251782	3.1958035	20	4 3.9	20.9
348949	2006	TY ₁₀₆	16.7	X	358.00868	331.75853	57.58862	5.64198	0.1344151	0.21725546	2.7404523	20	12 12.9	19.9
3														

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>		
348961	2006	UO ₃₇	15.9 ^m	X	67.20839	260.74417	229.40403	8.51986	0.0390573	0.17499988	3.1655139	20	3 28.6	20.4
348962	2006	UM ₃₈	16.0	X	342.42960	216.57904	43.79060	11.87164	0.0901764	0.18675402	3.0312569	20	5 15.7	19.8
348963	2006	UQ ₄₆	16.7	X	12.18532	232.75569	84.35921	3.20372	0.0615569	0.20291062	2.8681346	20	9 20.7	20.3
348964	2006	UC ₄₉	16.0	X	99.33243	235.50563	224.23952	8.31463	0.0454955	0.18294342	3.0732050	20	4 1.4	20.3
348965	2006	UF ₅₃	15.9	X	202.41016	332.57492	58.06513	10.49392	0.0894722	0.18293521	3.0732969	20	5 7.0	20.6
348966	2006	UX ₅₉	16.2	X	193.77489	113.27108	286.59586	4.60411	0.1960935	0.18481575	3.0524137	20	5 5.2	21.4
348967	2006	UR ₇₃	15.5	X	205.04947	337.67009	7.69366	11.32578	0.0907662	0.17874243	3.1211714	20	3 16.8	20.3
348968	2006	UY ₇₈	16.5	X	141.63445	91.21792	307.93328	3.05145	0.1389281	0.17441856	3.1725435	20	3 18.4	21.5
348969	2006	UT ₈₀	17.1	X	47.06320	269.48726	43.65719	7.71542	0.1634619	0.28655852	2.2785602	20	12 2.1	20.1
348970	2006	UA ₈₁	16.3	X	196.99086	105.54729	310.75366	5.01982	0.0626640	0.18797006	3.0181693	20	6 1.4	20.8
348971	2006	UH ₈₁	16.2	X	200.83947	231.33302	102.60381	2.37145	0.1485454	0.17465965	3.1696233	20	2 27.5	21.4
348972	2006	UJ ₉₄	16.2	X	114.54770	266.90266	171.59419	4.41187	0.1155881	0.17459995	3.1703458	20	4 5.9	20.8
348973	2006	UJ ₉₇	16.0	X	226.90371	253.24938	52.46052	10.29833	0.2041100	0.17769958	3.1333707	20	2 18.7	21.4
348974	2006	UV ₁₀₀	17.8	X	13.89555	15.53532	106.86218	3.94530	0.2137108	0.23236524	2.6203257	20	—	—
348975	2006	UG ₁₁₁	16.1	X	204.42106	96.75745	317.83934	8.75566	0.0770399	0.19394683	2.9558400	20	6 6.9	20.7
348976	2006	UJ ₁₁₆	15.9	X	282.71208	75.70406	210.33995	12.42469	0.1143330	0.18385767	3.0630086	20	3 21.3	20.5
348977	2006	UF ₁₁₇	16.2	X	199.60136	105.29979	208.10467	3.30726	0.1731371	0.17378347	3.1802681	20	2 1.3	21.4
348978	2006	UL ₁₁₇	15.3	X	286.57481	78.96713	208.97319	21.01692	0.1820857	0.18635729	3.0355575	20	3 17.7	19.9
348979	2006	UM ₁₁₉	17.3	X	52.54776	218.15047	185.84272	1.94610	0.1041045	0.22997446	2.6384547	20	—	—
348980	2006	UQ ₁₁₉	16.8	X	107.19193	28.28612	54.49763	1.85397	0.1854665	0.17355735	3.1830298	20	4 11.4	21.4
348981	2006	UQ ₁₂₈	17.0	X	175.68042	124.44312	224.46116	4.54292	0.2652665	0.17508877	3.1644423	20	2 23.8	22.6
348982	2006	UB ₁₃₉	18.0	X	297.79771	146.01390	266.16017	4.70377	0.2033319	0.27855217	2.3220150	20	10 1.7	19.8
348983	2006	UF ₁₅₉	16.6	X	327.79212	239.03631	82.81280	3.14946	0.0822451	0.19876174	2.9079092	20	7 17.8	20.2
348984	2006	UK ₁₆₀	16.8	X	202.03545	153.28499	191.03444	10.32803	0.1150224	0.17855973	3.1233001	20	3 9.3	21.8
348985	2006	UM ₁₆₄	16.0	X	126.49857	4.29757	43.22387	12.42998	0.1332407	0.17288081	3.1913286	20	3 19.6	20.9
348986	2006	UK ₁₇₀	16.5	X	136.67991	65.68557	44.46367	14.48649	0.2643198	0.18150427	3.0894285	20	6 14.6	22.0
348987	2006	UY ₁₇₃	16.2	X	184.04935	92.11456	321.84582	9.95688	0.1477394	0.18785113	3.0194430	20	5 12.2	21.3
348988	2006	UB ₁₈₀	15.4	X	184.12801	337.50380	60.06003	19.29884	0.1919654	0.18174534	3.0866960	20	4 30.5	20.7
348989	2006	UB ₁₈₃	17.8	X	103.00749	94.89714	202.08135	21.11669	0.1019971	0.36845873	1.9269783	20	—	—
348990	2006	UJ ₁₈₄	17.3	X	51.71124	52.67962	330.62839	6.25288	0.1420196	0.29704776	2.2245996	20	—	—
348991	2006	UD ₁₈₅	14.5	X	140.89523	212.70355	243.03954	29.75612	0.3685394	0.17766167	3.1338165	20	6 5.9	20.3
348992	2006	UP ₁₈₉	15.7	X	244.74033	95.95925	260.98807	10.39648	0.1175660	0.18927554	3.0042753	20	5 4.9	20.3
348993	2006	UT ₁₈₉	16.0	X	212.73104	98.21788	297.46794	7.57873	0.1283880	0.18864057	3.0110131	20	5 19.2	20.9
348994	2006	UM ₁₉₀	15.0	X	217.65554	353.12898	352.13134	11.72866	0.0947302	0.18096946	3.0955122	20	3 25.6	19.8
348995	2006	UA ₁₉₁	15.9	X	196.14744	92.89052	303.46640	7.90097	0.1624972	0.18494358	3.0510070	20	5 2.0	21.0
348996	2006	UR ₁₉₄	16.7	X	85.73228	63.68119	55.58065	1.55793	0.1327101	0.17593002	3.1543466	20	4 23.9	21.0
348997	2006	UP ₁₉₇	16.1	X	299.55733	24.25427	226.30613	9.44218	0.0243871	0.17394952	3.1782439	20	3 10.8	20.8
348998	2006	UV ₂₀₃	15.7	X	139.98374	72.51720	351.98041	13.34786	0.2136445	0.17680724	3.1439045	20	4 17.8	21.1
348999	2006	UR ₂₂₀	16.2	X	180.48327	42.98348	12.63257	10.57620	0.1377949	0.18547407	3.0451866	20	5 11.3	21.2
349000	2006	UJ ₂₄₀	17.6	X	272.54346	348.30351	111.94842	4.13597	0.1734467	0.27950455	2.3167373	20	11 4.3	19.8
349001	2006	UT ₂₄₆	16.1	X	230.09444	91.37596	215.62333	9.36606	0.0629243	0.17538426	3.1608870	20	2 22.9	20.9
349002	2006	UY ₂₄₉	16.6	X	155.81121	36.12643	40.57942	1.22939	0.1562175	0.18226787	3.0807938	20	5 17.5	21.6
349003	2006	UW ₂₆₇	15.3	X	142.94355	123.42065	268.24849	12.16255	0.0834217	0.17100846	3.2145806	20	3 1.4	20.4
349004	2006	UV ₂₆₈	16.1	X	217.71019	270.51512	45.42419	11.96583	0.0969915	0.17317045	3.1877691	20	2 28.4	21.2
349005	2006	UT ₂₇₀	16.2	X	222.59708	335.77627	50.83778	10.88562	0.0958023	0.18589474	3.0405908	20	5 21.2	20.7
349006	2006	UZ ₂₇₃	17.2	X	47.10456	60.30064	23.90023	4.65003	0.1784856	0.23177342	2.6247844	20	1 4.6	19.6
349007	2006	UA ₂₇₄	15.9	X	192.81814	341.29225	33.30141	7.40245	0.1223747	0.17769204	3.1334594	20	4 7.9	20.9
349008	2006	UJ ₂₇₄	15.4	X	66.96895	268.77740	245.78191	11.89964	0.2303061	0.17341312	3.1847945	20	5 28.7	19.7
349009	2006	UK ₂₇₄	17.4	X	54.72676	28.85187	7.17422	2.76544	0.0438792	0.22600285	2.6692758	20	—	—
349010	2006	UO ₂₇₅	16.9	X	283.93233	221.65812	215.80887	5.54184	0.0744863	0.21091139	2.7951344	20	10 16.9	20.5
349011	2006	UP ₂₇₇	16.4	X	157.45578	121.30564	244.90680	3.98595	0.1906669	0.17263199	3.1943944	20	2 26.7	21.7
349012	2006	UG ₂₈₂	16.1	X	43.20756	135.21767	56.90467	12.38083	0.0257772	0.18171760	3.0870101	20	5 15.3	20.2
349013	2006	UM ₂₈₅	17.7	X	231.64982	236.51385	224.81865	0.75251	0.1421494	0.27350680	2.3504840	20	9 6.9	20.9
349014	2006	UC ₂₈₈	16.1	X	330.76067	22.60859	212.01195	17.83237	0.1832382	0.17964331	3.1107278	20	3 20.1	20.3
349015	2006	UF ₂₈₉	16.1	X	189.53876	162.42644	201.27660	9.94856	0.1415477	0.17836437	3.1255802	20	3 20.5	21.3
349016	2006	UV ₂₈₉	15.7	X	244.87742	57.14038	238.76155	12.53377	0.1547120	0.17738828	3.1370355	20	2 15.9	20.9
349017	2006	UA ₃₃₁	15.7	X	158.95518	275.38093	114.28577	11.82547	0.0880012	0.17548692	3.1596541	20	3 26.9	20.7
349018	2006	UD ₃₅₂	16.4	X	201.70845	286.77529	39.85838	1.00027	0.1297372	0.17314373	3.1880970	20	2 19.7	21.6
349019	2006	UE ₃₅₈	17.0	X	138.09936	17.48125	88.58674	2.41636	0.2135591	0.18318306	3.0705241	20	6 9.6	22.2
349020	2006	UJ ₃₆₁	15.3	X	177.41242	259.72519	102.34655	18.88499	0.1561062	0.17547990	3.1597385	20	3 17.6	20.8
349021	2006	VB ₇	16.3	X	192.94541	329.14642	61.10760	1.96815	0.1739808	0.18071573	3.0984090	20	4 25.2	21.4
349022	2006	VE ₉	15.8	X	137.60324	40.05969	53.71367	11.38015	0.1292406	0.18042767	3.1017060	20	5 18.9	20.7
349023	2006	VD ₁₁	15.9	X	88.03416	262.52506	230.82829	11.56857	0.1305607	0.17633562	3.1495078	20	5 14.0	20.2
349024	2006	VC ₁₃	15.5	X	149.27383	101.10116	271.84208	24.27049	0.2856975	0.17323145	3.1870208	20	2 22.7	21.4
349025	2006	UP ₁₆	16.2	X	111.80533	80.88194	40.22010	6.55283	0.1459576	0.17848348	3.1241894	20	5 27.1	20.9
349026	2006	VU ₁₇	16.1	X	339.43612	172.03247	39.82627	9.73240	0.0262216	0.17356654	3.1829174	20	3 21.0	20.6
349027	2006	VG ₂₂	15.9	X	81.73208	123.70386	57.08475	13.53153	0.0536473	0.18600328	3.0394078	20	6 23.8	20.2
349028	2006	VH ₂₄	16.5	X	101.12219	41.00610	102.75434	2.16856	0.1073674	0.18096351	3.0955801	20	6 8.8	21.0
349029	2006	VN ₃₁	16.1	X	206.23589	135.67804	203.77171	9.82296	0.0433934	0.17660132	3.1463480	20	3	

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>		
349041	2006	VF ₈₄	16.4	X	104.35384	212.16736	212.30588	5.58467	0.1098202	0.17000508	3.2272166	20	3 5.5	21.0
349042	2006	VN ₈₅	16.0	X	166.46319	314.95621	39.91387	5.36033	0.1720602	0.17109801	3.2134589	20	2 24.6	21.2
349043	2006	VK ₁₀₁	15.5	X	151.03240	325.52952	79.06529	20.28469	0.1560799	0.17185498	3.2040157	20	4 15.6	20.9
349044	2006	VC ₁₂₂	16.1	X	139.28485	331.30740	60.31769	5.87550	0.0723580	0.16862825	3.2447594	20	3 5.7	20.9
349045	2006	VK ₁₂₆	16.2	X	146.96787	132.40467	232.23933	5.67081	0.1642350	0.17080427	3.2171420	20	2 13.8	21.3
349046	2006	VD ₁₃₄	15.4	X	204.96070	291.63744	65.75952	12.27063	0.1964468	0.17932751	3.1143788	20	4 1.9	20.8
349047	2006	VJ ₁₄₂	16.0	X	235.07203	73.57231	228.07770	12.04572	0.1822361	0.17520159	3.1630837	20	2 13.0	21.4
349048	2006	VQ ₁₄₉	15.9	X	134.12157	42.53622	46.85054	16.58798	0.1829542	0.17975058	3.1094902	20	5 13.8	20.8
349049	2006	VC ₁₇₀	15.8	X	76.24516	101.40606	81.10755	12.43677	0.2112776	0.17787700	3.1312868	20	7 13.0	20.3
349050	2006	VH ₁₇₁	15.7	X	182.97831	319.45493	70.82592	10.54186	0.0853864	0.17544089	3.1602068	20	4 19.8	20.7
349051	2006	WQ ₂	15.5	X	169.48167	303.14723	78.13024	28.03710	0.2391041	0.17410269	3.1763796	20	4 12.7	21.5
349052	2006	WA ₁₁	16.3	X	171.02844	54.66513	340.67041	3.30149	0.1829169	0.17665352	3.1457281	20	4 11.6	21.5
349053	2006	WB ₄₀	15.6	X	71.16117	299.82539	208.47252	9.76682	0.0554525	0.17528044	3.1621350	20	4 30.8	20.0
349054	2006	WD ₅₂	17.2	X	75.34574	77.95977	316.30507	1.48565	0.0708341	0.22822726	2.6519034	20	—	—
349055	2006	WK ₇₈	15.8	X	258.95045	60.14284	238.07340	12.19821	0.1170040	0.17631151	3.1497948	20	3 6.9	20.8
349056	2006	WR ₈₃	16.2	X	163.58432	196.38216	207.03268	4.75968	0.1238910	0.17494805	3.1661391	20	4 13.6	21.1
349057	2006	WL ₁₀₇	16.2	X	181.59579	286.30776	110.51865	6.82423	0.2246488	0.17985550	3.1082807	20	4 26.3	21.6
349058	2006	WX ₁₃₃	16.6	X	139.91597	73.95627	358.06225	4.45864	0.1888071	0.17740585	3.1368283	20	4 28.4	21.8
349059	2006	WQ ₁₄₂	16.7	X	63.26192	150.07073	221.27812	13.29206	0.0787155	0.22276620	2.6950688	20	—	—
349060	2006	WQ ₁₅₆	16.5	X	233.28052	260.93396	118.86413	6.46450	0.3402538	0.18826908	3.0149726	20	5 8.8	22.0
349061	2006	WR ₁₇₇	16.1	X	228.73599	254.22403	105.37611	10.19659	0.1605118	0.18280453	3.0747614	20	4 24.8	21.1
349062	2006	WN ₁₉₁	16.2	X	153.42407	59.51240	35.64764	1.51790	0.1641672	0.18073591	3.0981783	20	6 7.1	21.3
349063	2006	XA	17.3	X	21.76755	300.97787	252.88981	10.31005	0.5456992	0.30210249	2.1997155	20	7 9.5	17.8
349064	2006	XQ ₆	17.1	X	121.56144	282.01155	127.31901	5.77577	0.2510891	0.24128835	2.5553191	20	3 21.1	21.0
349065	2006	XC ₁₁	16.6	X	174.21272	349.17371	70.87190	6.37569	0.1442886	0.18182011	3.0858497	20	5 14.6	21.5
349066	2006	XF ₁₈	16.9	X	156.73172	324.04891	71.96410	4.31270	0.2050776	0.24260758	2.5460473	20	4 1.4	21.0
349067	2006	XS ₆₃	17.0	X	60.01031	264.38914	168.11127	5.21995	0.2119543	0.23094888	2.6310281	20	1 16.5	19.5
349068	2006	YJ ₁₃	18.3	X	248.53914	105.48441	116.72042	38.24551	0.4257569	0.64766457	1.3230288	20	—	—
349069	2006	YX ₁₉	16.2	X	115.53013	2.79758	99.47264	7.13888	0.1508427	0.17469901	3.1691473	20	5 11.4	21.0
349070	2006	AW ₉	15.8	X	251.10167	213.18237	343.09339	8.85971	0.0879194	0.21319078	2.7751754	20	—	—
349071	2007	AU ₁₉	17.2	X	190.22031	316.72255	58.50780	2.19689	0.1030354	0.31407027	2.1434737	20	3 28.5	20.1
349072	2007	AN ₂₆	16.4	X	106.16863	166.51814	123.38119	23.76331	0.0815554	0.27603622	2.3361031	20	12 29.9	19.9
349073	2007	AQ ₂₇	17.2	X	291.21694	156.32868	91.71470	5.87167	0.1512316	0.30078453	2.2061365	20	1 27.8	20.1
349074	2007	BM ₈	18.3	X	154.50929	179.27119	87.63999	27.63976	0.7208174	0.63431924	1.3415210	20	—	—
349075	2007	BJ ₄₆	17.4	X	58.18580	2.56639	120.86176	6.25299	0.0573702	0.30536235	2.1840323	20	2 27.1	19.5
349076	2007	BJ ₆₇	17.6	X	221.01715	119.28128	140.59151	3.61079	0.1850068	0.28593210	2.2818869	20	—	—
349077	2007	BZ ₁₀₀	17.0	X	87.89829	93.56051	293.51873	4.83573	0.0028584	0.21751364	2.7382833	20	—	—
349078	2007	CT ₁₄	17.8	X	219.90380	52.13857	168.66835	2.09168	0.1634258	0.27964367	2.3159689	20	—	—
349079	2007	CP ₂₄	17.2	X	108.82622	43.81625	151.86332	2.78778	0.1883356	0.25372388	2.4711275	20	9 5.1	21.1
349080	2007	CL ₄₉	18.1	X	281.38263	74.17254	168.50874	7.02447	0.1795091	0.29655847	2.2270458	20	1 5.9	21.4
349081	2007	CB ₅₅	15.5	X	305.53692	44.59354	302.65706	6.26567	0.0425465	0.18124411	3.0923843	20	7 21.2	19.5
349082	2007	DR ₃	17.4	X	295.91480	289.11720	285.75237	4.31034	0.1137784	0.29405460	2.2396702	20	—	—
349083	2007	DT ₈	17.6	X	291.39999	114.12356	89.29495	3.78796	0.0871628	0.29250910	2.2475522	20	—	—
349084	2007	DO ₉	17.8	X	128.33592	23.09463	93.49673	1.94878	0.1702029	0.31715664	2.1295451	20	6 12.1	20.6
349085	2007	DK ₃₅	17.8	X	266.90397	81.69078	159.14925	5.61758	0.1256301	0.29066761	2.2570350	20	—	—
349086	2007	DX ₅₂	15.9	X	178.09531	308.16723	178.48291	11.20239	0.1551240	0.17929851	3.1147146	20	8 4.4	21.1
349087	2007	DD ₅₃	17.4	X	204.41730	2.91986	265.91141	2.13115	0.1606106	0.28180508	2.3041116	20	—	—
349088	2007	DK ₆₇	17.2	X	176.21404	148.97617	147.60536	7.93406	0.1738845	0.28315794	2.2967667	20	—	—
349089	2007	DZ ₈₉	17.6	X	174.61244	52.49489	133.80473	2.94271	0.1483172	0.26342483	2.4100807	20	10 26.1	21.3
349090	2007	DO ₉₅	17.9	X	86.00172	329.09636	131.29183	6.61400	0.0838765	0.30350728	2.1929226	20	3 13.5	20.1
349091	2007	ED ₄₈	17.1	X	286.21319	10.14265	173.78035	5.30787	0.0986961	0.28196802	2.3032238	20	—	—
349092	2007	EF ₆₄	17.2	X	153.81128	310.46589	11.21418	9.11251	0.1351585	0.28352779	2.2947689	20	—	—
349093	2007	EG ₆₇	17.7	X	247.81053	93.38229	157.45196	6.61405	0.0900246	0.28802616	2.2708133	20	—	—
349094	2007	EM ₇₃	17.8	X	181.69966	292.68116	38.25804	1.23554	0.0759433	0.29381691	2.2408779	20	1 19.8	20.8
349095	2007	ET ₇₈	15.0	X	358.27833	292.08180	17.27802	15.64208	0.1319144	0.17431586	3.1737895	20	8 25.7	19.0
349096	2007	ED ₁₀₂	17.7	X	9.66324	84.62418	74.84126	3.44840	0.0691840	0.29637610	2.2279594	20	1 30.9	20.0
349097	2007	ET ₁₅₄	17.7	X	322.55029	290.58929	282.33422	1.89930	0.1157983	0.29514466	2.2341522	20	1 25.6	20.1
349098	2007	EN ₁₇₅	17.4	X	124.14112	3.01741	1.12331	7.04426	0.1770642	0.28434640	2.2903625	20	1 10.4	20.3
349099	2007	ES ₂₁₂	17.6	X	254.95252	235.51688	12.57561	4.30782	0.1907996	0.28793345	2.2713007	20	—	—
349100	2007	EQ ₂₂₀	17.9	X	37.04061	300.45489	174.68381	2.65279	0.0870312	0.29476431	2.2360737	20	1 10.2	20.1
349101	2007	EN ₂₂₁	17.1	X	209.59086	114.34284	149.31693	6.88472	0.0833564	0.27921248	2.3183526	20	—	—
349102	2007	FN ₁₂	17.2	X	209.20730	41.91488	191.91536	6.72886	0.0693787	0.27298649	2.3534697	20	—	—
349103	2007	FH ₃₁	17.4	X	228.44325	75.05942	188.03257	5.03455	0.1439287	0.28302986	2.2974596	20	—	—
349104	2007	FH ₃₃	17.5	X	140.89789	166.98213	178.48184	5.80526	0.1406878	0.28842838	2.2687017	20	—	—
349105	2007	GQ ₈	17.9	X	222.22212	268.85033	27.49552	5.22555	0.1851404	0.28643204	2.2792308	20	1 21.9	21.7
349106	2007	GT ₁₃	18.1	X	205.61685	101.11694	178.05428	5.90599	0.0966676	0.28402216	2.2921053	20	—	—
349107	2007	GA ₁₈	16.5	X	150.69933	140.04410	235.08136	8.28120	0.0957515	0.21481651	2.7611560	20	2 18.2	20.8
349108	2007	GD ₁₈	17.9	X	62.40073	195.69166	263.71797	3.64046	0.0862048	0.29187321	2.2508155	20	1 31.5	20.2
349109	2007	GQ ₁₉	17.0	X	243.83063	209.57726	27.97423	7.40156	0.0589780	0.27983628	2.3149061	20	—	—
349110	2007	GW ₂₃	17.2	X	167.18807	37.10514	222.12219	1.56113	0.1541691	0.26609276	2.3939441	20	—	—
349111</														

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349121 2007 HB ₁₁	17.3	X	186.18250	58.57681	185.63304	4.06808	0.1077347	0.26870356	2.3784121	20	—	—
349122 2007 HJ ₂₀	17.6	X	88.06381	270.49355	47.54745	2.13837	0.1925629	0.26043190	2.4285102	20	—	—
349123 2007 HS ₂₂	17.7	X	5.79404	27.82222	58.89880	7.83462	0.0789772	0.27521445	2.3407510	20	—	—
349124 2007 HW ₂₃	17.4	X	104.99929	178.64397	212.19727	7.39842	0.1279341	0.28264726	2.2995324	20	1 9.7	20.1
349125 2007 HZ ₄₀	17.7	X	214.86450	168.88142	72.38694	2.48451	0.1344059	0.27436764	2.3455649	20	—	—
349126 2007 HE ₅₀	18.1	X	22.21637	80.14225	107.89937	4.68573	0.1043068	0.29979628	2.2109821	20	4 7.1	20.0
349127 2007 HA ₆₇	15.7	X	317.26722	275.12354	66.13850	29.46634	0.3249819	0.23185391	2.6241769	20	6 19.2	18.4
349128 2007 HF ₇₁	16.5	X	59.91270	67.01442	134.87987	5.83565	0.1110725	0.23683796	2.5872308	20	7 3.8	19.7
349129 2007 HH ₇₂	17.9	X	224.15934	1.92484	230.14902	1.65742	0.1410285	0.27487094	2.3427008	20	—	—
349130 2007 HM ₇₃	16.0	X	31.45757	160.41211	214.75847	9.26220	0.0853546	0.18784609	3.0194970	20	12 26.5	20.3
349131 2007 HR ₈₀	18.0	X	92.34955	51.69259	33.82027	3.66065	0.1079483	0.29614320	2.2291273	20	3 5.9	20.3
349132 2007 HW ₈₁	17.7	X	196.61553	92.25578	134.12436	6.66145	0.0831053	0.26701469	2.3884305	20	—	—
349133 2007 JB	15.4	X	9.01206	301.99462	274.94495	29.58116	0.2704809	0.23203158	2.6228371	20	4 18.7	18.3
349134 2007 JN ₁	17.8	X	137.43914	63.39857	224.05971	0.74160	0.1706139	0.26399612	2.4066024	20	—	—
349135 2007 JT ₁₄	18.2	X	335.74780	287.39087	229.58574	5.20974	0.0908024	0.28430631	2.2905778	20	—	—
349136 2007 JH ₁₇	17.0	X	32.20182	238.44063	64.93768	11.02289	0.3261745	0.24139079	2.5545961	20	11 17.1	20.3
349137 2007 JS ₂₄	17.1	X	351.58183	121.26365	169.35160	12.81279	0.1750124	0.23267699	2.6179846	20	7 14.7	19.8
349138 2007 JT ₂₇	16.7	X	151.23852	266.79202	17.80557	8.14915	0.1634977	0.26787332	2.3833239	20	—	—
349139 2007 JX ₃₀	17.4	X	340.07304	20.27919	147.81549	7.28565	0.0980308	0.28488555	2.2874719	20	—	—
349140 2007 LP ₃₄	17.7	X	321.79691	91.43455	105.58126	4.53941	0.2025105	0.28956664	2.2627524	20	—	—
349141 2007 KX ₆	16.3	X	321.61103	328.74674	252.69594	24.84650	0.2361139	0.29233842	2.2484270	20	1 10.6	19.6
349142 2007 KO ₉	16.6	X	345.06626	226.61662	111.26015	2.72361	0.2283214	0.23895272	2.5719434	20	9 21.6	18.4
349143 2007 LC ₁	17.6	X	171.57019	39.34728	204.79943	6.27059	0.0772684	0.26384295	2.4075338	20	—	—
349144 2007 LL ₇	17.5	X	149.31395	90.25419	206.28928	6.31887	0.1140333	0.26803222	2.3823819	20	—	—
349145 2007 LP ₂₅	16.9	X	296.86180	208.01734	217.02528	6.93746	0.1820784	0.23894449	2.5720024	20	10 13.8	19.4
349146 2007 MC ₃	17.2	X	44.15164	122.33012	185.59041	0.91270	0.1171579	0.24095489	2.5576761	20	11 6.3	20.6
349147 2007 MU ₁₀	17.2	X	38.91479	283.20127	285.12670	4.99729	0.2330775	0.30079357	2.2060923	20	7 3.1	18.7
349148 2007 ML ₁₂	17.1	X	343.44713	110.72978	272.43111	2.68594	0.2364201	0.23790983	2.5794540	20	11 27.5	19.0
349149 2007 NY ₁	16.5	X	257.22540	325.15819	285.93353	23.64445	0.1921638	0.27603404	2.3361154	20	—	—
349150 2007 NY ₅	16.0	X	53.09280	271.58353	54.61497	15.60067	0.1167761	0.24589464	2.5233065	20	12 9.9	19.5
349151 2007 NH ₆	16.4	X	87.88923	258.20510	8.29966	15.26487	0.1215028	0.24279513	2.5447360	20	10 31.5	20.3
349152 2007 OM ₂	17.0	X	262.33422	116.96629	94.50442	7.75649	0.0544464	0.26614438	2.3936346	20	—	—
349153 2007 OS ₂	16.3	X	354.00797	203.95724	120.90261	14.39697	0.1758480	0.23033694	2.6356859	20	9 20.2	19.1
349154 2007 OF ₆	17.0	X	140.56854	255.19413	86.65683	4.70154	0.1533874	0.26331668	2.4107405	20	—	—
349155 2007 PS ₅	16.1	X	357.52812	205.36122	133.98385	16.02945	0.1370093	0.23403771	2.6078273	20	10 16.7	19.2
349156 2007 PV ₉	16.6	X	40.94133	358.27128	325.39007	12.57005	0.1642040	0.23998610	2.5645548	20	11 26.5	20.4
349157 2007 PJ ₁₂	16.3	X	190.14105	320.67504	131.96029	22.71152	0.1764216	0.26467170	2.4025054	20	—	—
349158 2007 PS ₁₆	16.3	X	282.53034	227.23425	155.44439	14.57906	0.2116718	0.21934152	2.7230492	20	7 11.7	20.0
349159 2007 PA ₂₈	17.1	X	317.75266	328.76958	34.27580	7.12399	0.2058767	0.22569357	2.6717137	20	8 23.4	19.6
349160 2007 PB ₂₉	16.5	X	309.30118	335.95666	31.45608	14.38122	0.2568242	0.22355599	2.6887175	20	8 6.1	19.5
349161 2007 PN ₃₇	16.4	X	284.48147	207.92383	159.68681	13.72088	0.2058951	0.22021467	2.7158465	20	6 25.8	20.2
349162 2007 PX ₃₇	16.5	X	344.80233	39.50815	316.88336	12.55439	0.1927467	0.23097122	2.6308584	20	10 5.5	19.3
349163 2007 PA ₄₀	17.5	X	268.18126	294.21714	6.53267	5.57119	0.1975219	0.28588937	2.2821142	20	3 8.1	20.8
349164 2007 PL ₄₀	16.7	X	310.85033	60.95176	321.60264	11.04391	0.1928085	0.22743667	2.6580454	20	9 2.4	19.3
349165 2007 PT ₄₄	15.9	X	325.24186	256.95076	127.03698	29.58932	0.3183256	0.23194137	2.6235171	20	10 25.7	18.5
349166 2007 PP ₅₀	16.8	X	250.55125	277.26500	179.68897	4.01082	0.0615638	0.23058893	2.6337653	20	10 2.5	20.2
349167 2007 QB ₆	17.0	X	49.97846	52.51612	224.95889	1.78251	0.2046453	0.23462790	2.6034522	20	10 16.2	20.5
349168 2007 QW ₁₂	17.0	X	263.82107	42.14283	330.56082	3.00087	0.1087529	0.21506984	2.7589874	20	6 19.5	20.9
349169 2007 QY ₁₆	15.5	X	37.81212	230.63851	162.79423	26.79878	0.1765732	0.17242200	3.1969875	20	—	—
349170 2007 RT ₇	16.7	X	263.80158	241.20854	144.00746	4.12849	0.2045488	0.21737342	2.7394608	20	6 22.5	20.6
349171 2007 RG ₈	16.7	X	359.75801	80.63491	296.66069	6.20556	0.1698317	0.23282429	2.6168803	20	12 9.4	19.5
349172 2007 RX ₂₂	16.4	X	262.24429	294.48435	172.53454	11.61892	0.0672446	0.23589962	2.5940871	20	11 3.6	19.8
349173 2007 RT ₃₈	16.1	X	336.80043	0.34055	358.62523	13.81788	0.1812246	0.22784988	2.6548308	20	9 26.8	18.6
349174 2007 RV ₅₆	16.4	X	139.43348	117.86125	261.98783	3.07967	0.2099487	0.18770780	3.0209799	20	2 27.6	21.3
349175 2007 RB ₅₇	16.9	X	67.56571	348.33425	268.81489	3.02308	0.0566744	0.22538173	2.6741776	20	9 17.2	20.6
349176 2007 RD ₆₇	17.1	X	300.27968	72.97228	291.80915	1.09739	0.0637589	0.22367913	2.6877306	20	8 7.1	20.5
349177 2007 RU ₇₁	17.6	X	250.47566	184.62705	49.71608	3.41671	0.1795132	0.26538253	2.3982134	20	—	—
349178 2007 RX ₇₄	17.7	X	300.04450	92.96927	359.36698	4.14024	0.1606835	0.23871934	2.5736194	20	12 1.6	20.2
349179 2007 RG ₉₄	16.9	X	283.63520	224.32870	132.36594	2.86524	0.2288446	0.21479719	2.7613215	20	6 6.1	20.6
349180 2007 RA ₁₀₃	16.2	X	325.46558	356.54529	358.17585	4.36875	0.1900914	0.22305156	2.6927696	20	8 26.2	18.7
349181 2007 RY ₁₀₅	17.1	X	295.38878	292.27537	35.50544	2.09068	0.2081832	0.21369955	2.7707690	20	5 16.9	20.6
349182 2007 RT ₁₁₂	17.2	X	268.04342	246.64264	159.91574	2.61082	0.1094390	0.21998671	2.7177223	20	8 9.8	20.6
349183 2007 RX ₁₁₂	17.1	X	347.20297	18.07998	58.34702	1.01245	0.1025088	0.24320218	2.5418958	20	—	—
349184 2007 RR ₁₂₅	16.3	X	242.20882	95.50890	329.56712	9.27109	0.1132069	0.21674767	2.7447308	20	8 2.2	20.1
349185 2007 RN ₁₃₀	16.7	X	157.32358	169.69523	167.02455	1.61247	0.1983310	0.18410282	3.0602888	20	1 25.0	21.6
349186 2007 RX ₁₄₁	16.1	X	334.56834	295.38420	19.18534	8.60233	0.2677534	0.22043257	2.7140564	20	7 6.9	18.4
349187 2007 RQ ₁₄₇	16.8	X	210.31858	6.97342	14.30779	12.95962	0.1974788	0.20422039	2.858582	20	4 24.8	21.6
349188 2007 RV ₁₄₉	15.6	X	103.76105	258.39005	132.86121	17.21394	0.2460702	0.17840873	3.1250620	20	2 13.8	20.1
349189 2007 RQ ₁₅₇	16.3	X	284.56079	306.68646	36.23567	9.42268	0.1921065	0.21501115	2.7594893	20	5 23.6	20.0
349190 2007 RC ₁₆₇	17.0	X	315.73199	339.16982	15.08743	4.10410	0.1288288	0.22344916	2.6895744	20	8 11.9	19.9
349191 2007 RD ₁₇₂	17.2	X	304.62698	260.34342	116.28130	3.49991	0.0948042	0.22476242	2.6790876	20	8 28.3	20.4
349192 2007 RL ₁₇₄	17.7	X	146.63928	306.47085	54.49844	4.64009	0.1342215	0.26346751	2.4098204	20	1 30.5	21.1
349193 2007 RE ₁₇₈	17.0	X	52.27588	234.93079	41.98743	7.03019	0.0380326	0.22574959	2.6712717	20	9 25.1	20.6
349194 2007 RJ ₁₈₁	17.3	X	230.69790	284.60183	185.93613	11.49845	0.2001874					

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349201 2007 RZ ₂₃₉	15.9	X	308.91958	243.48842	110.24888	10.13021	0.2364164	0.22030549	2.7151000	20	7 11.4	18.5
349202 2007 RZ ₂₄₅	16.1	X	249.06612	340.76207	22.45530	7.43641	0.1263903	0.21073528	2.7966915	20	5 16.3	20.3
349203 2007 RQ ₂₄₇	16.5	X	337.06810	78.21046	279.68892	11.27242	0.2795657	0.22741305	2.6582295	20	9 20.6	18.6
349204 2007 RA ₂₅₆	17.1	X	237.59134	282.57906	67.11667	6.67115	0.1553812	0.28458530	2.2890805	20	4 15.1	20.4
349205 2007 RU ₂₅₇	16.9	X	82.96766	78.61423	144.67339	6.14204	0.1376576	0.22586216	2.6703841	20	9 5.9	20.7
349206 2007 RZ ₂₆₉	16.9	X	304.16772	95.68795	205.76210	12.17366	0.2173831	0.21139538	2.7908664	20	4 23.5	20.3
349207 2007 RM ₂₇₃	16.6	X	216.52884	256.84933	199.37367	13.06473	0.0393387	0.21932146	2.7232152	20	8 15.8	20.7
349208 2007 RY ₂₇₈	16.4	X	21.76502	285.29441	45.83218	15.39000	0.1387199	0.23649568	2.5897265	20	11 8.1	19.3
349209 2007 RK ₂₈₁	16.1	X	35.65774	20.15252	315.64444	14.18113	0.1081918	0.23233971	2.6205177	20	11 25.2	19.9
349210 2007 RP ₂₈₈	16.3	X	61.97109	341.43471	335.41336	11.99688	0.2482605	0.23667930	2.5883869	20	12 23.2	20.6
349211 2007 RF ₂₉₄	17.3	X	292.02799	142.47123	198.57064	3.91748	0.0795141	0.21271425	2.7793186	20	6 19.9	21.0
349212 2007 RF ₃₀₂	16.8	X	271.06003	179.57276	145.17065	2.39402	0.1141041	0.20054537	2.8906419	20	4 27.1	20.9
349213 2007 RB ₃₀₃	16.5	X	112.48107	162.58443	224.78408	2.82550	0.0734987	0.17655802	3.1468624	20	1 26.1	21.0
349214 2007 RE ₃₀₈	16.9	X	275.50184	173.20820	175.59688	3.37935	0.1211113	0.21488544	2.7605655	20	6 1.5	20.6
349215 2007 RG ₃₁₂	16.8	X	309.62124	309.98075	43.62504	5.72003	0.1290469	0.22073885	2.7115453	20	7 31.1	19.9
349216 2007 RO ₃₁₂	16.6	X	346.41954	38.69143	302.58405	12.06047	0.2791214	0.22717606	2.6600778	20	9 21.0	18.8
349217 2007 RF ₃₁₄	16.5	X	76.09575	122.99017	149.91184	6.09560	0.1242044	0.23485258	2.6017195	20	11 1.7	20.3
349218 2007 RX ₃₁₅	16.8	X	264.21420	104.42600	277.98195	2.92308	0.1538295	0.21465380	2.7625512	20	6 26.4	20.7
349219 2007 SV ₁₁	18.2	X	205.96119	23.72472	292.23404	32.22274	0.4938207	0.43162763	1.7340564	20	1 21.7	21.7
349220 2007 SD ₁₃	15.8	X	154.12285	77.67858	245.32004	4.58167	0.1440074	0.18079581	3.0974940	20	1 2.8	20.5
349221 2007 SO ₁₆	17.5	X	328.52203	195.15637	118.05488	0.98185	0.1249752	0.21917146	2.7244575	20	7 4.3	20.4
349222 2007 TW ₄	17.4	X	300.12978	177.46341	184.28350	3.17450	0.1196743	0.21902698	2.7256556	20	7 24.8	20.7
349223 2007 TB ₈	18.2	X	329.55624	132.36154	297.17218	1.66696	0.1629047	0.23515230	2.5995803	20	12 27.8	20.5
349224 2007 TD ₁₀	17.3	X	15.40474	189.10828	173.77704	4.07422	0.1868152	0.23500953	2.6006330	20	12 18.3	20.4
349225 2007 TL ₁₄	17.4	X	277.73257	258.42101	136.12554	3.58731	0.0841217	0.22017903	2.61161395	20	8 11.7	20.7
349226 2007 TK ₂₂	15.9	X	351.64906	284.09580	54.46837	11.93887	0.2030499	0.22219723	2.6996676	20	10 6.5	18.6
349227 2007 TW ₂₅	16.8	X	256.93089	213.00323	204.43205	5.54734	0.0223925	0.21921719	2.7240787	20	8 21.1	20.5
349228 2007 TC ₂₈	16.9	X	252.37356	179.79914	219.80251	3.74710	0.2003648	0.21183235	2.7870271	20	6 28.4	21.2
349229 2007 TH ₃₁	15.7	X	119.25566	354.33980	39.04478	10.30361	0.0712252	0.18094512	3.0957898	20	2 14.6	20.3
349230 2007 TU ₃₁	16.3	X	341.63987	271.85089	94.62445	13.67033	0.1864091	0.22949562	2.6421235	20	10 28.6	19.1
349231 2007 TB ₃₄	16.1	X	1.45083	313.26114	37.06932	5.31198	0.1930022	0.22802742	2.6534526	20	11 6.7	18.9
349232 2007 TY ₃₄	16.6	X	325.17992	276.44824	42.20374	7.24893	0.0375168	0.21011761	2.8021696	20	7 14.5	20.3
349233 2007 TL ₄₃	16.6	X	294.10929	344.80614	51.93961	7.04184	0.0334365	0.21880883	2.7274669	20	9 17.8	20.2
349234 2007 TY ₄₄	16.6	X	295.26782	349.42763	43.15143	5.49789	0.1809668	0.22120821	2.7077084	20	8 24.5	19.7
349235 2007 TC ₄₈	16.5	X	132.73854	228.96045	13.31402	9.09730	0.1045919	0.23180604	2.6245381	20	11 14.3	20.2
349236 2007 TN ₄₈	17.1	X	55.89170	18.64010	305.07381	2.19195	0.0965685	0.23464141	2.6033523	20	12 6.4	20.8
349237 2007 TH ₆₉	16.9	X	282.73681	315.68626	53.07483	4.20546	0.1033684	0.21264690	2.7799054	20	7 11.4	20.4
349238 2007 TE ₇₇	16.0	X	63.73963	201.83444	252.84784	4.02247	0.1364784	0.18070501	3.0985315	20	2 20.8	20.0
349239 2007 TX ₈₃	16.7	X	316.70118	59.54434	298.53843	6.54118	0.3202217	0.22196164	2.7015775	20	7 20.6	18.5
349240 2007 TW ₈₆	16.4	X	126.23916	57.74215	127.39814	3.28876	0.1075982	0.21387287	2.7692718	20	8 31.1	20.5
349241 2007 TQ ₈₇	16.8	X	19.04739	228.33505	106.90231	3.33168	0.0539802	0.22615887	2.6680479	20	10 27.7	20.3
349242 2007 TE ₉₂	15.8	X	311.59271	291.84147	52.75515	15.43080	0.1524642	0.21646238	2.7471419	20	7 18.3	19.2
349243 2007 TB ₁₀₅	16.6	X	293.04569	14.62316	334.09316	3.08238	0.1068539	0.21374014	2.7704181	20	6 28.1	20.2
349244 2007 TW ₁₀₉	16.2	X	280.03743	341.08310	55.43378	6.52125	0.1702426	0.21773060	2.7364640	20	8 6.2	19.7
349245 2007 TW ₁₁₁	16.6	X	254.31327	139.13636	255.65162	6.78258	0.2082849	0.21269588	2.7794786	20	6 23.4	20.7
349246 2007 TA ₁₁₃	16.9	X	251.20951	93.69401	298.62257	9.02796	0.2502844	0.21178557	2.7874375	20	6 12.4	21.3
349247 2007 TH ₁₁₃	16.1	X	242.55349	352.85347	57.98911	8.94058	0.1734929	0.21282626	2.7783433	20	7 6.1	20.4
349248 2007 TE ₁₂₀	16.6	X	336.97415	318.58880	79.08732	4.59893	0.2855169	0.23062729	2.6334680	20	12 7.7	18.2
349249 2007 TY ₁₂₁	17.3	X	92.74503	227.72550	174.58130	6.42507	0.1146426	0.26134417	2.4228555	20	1 10.1	20.2
349250 2007 TT ₁₂₂	16.6	X	6.26624	250.66078	42.14422	7.74248	0.1084241	0.21658176	2.7461324	20	8 17.1	19.9
349251 2007 TT ₁₂₇	16.2	X	38.77969	198.12452	63.10348	4.76772	0.0514872	0.21407281	2.7675473	20	8 15.7	19.8
349252 2007 TJ ₁₃₀	16.5	X	152.36192	331.24139	75.93337	2.65309	0.1512945	0.19186953	2.9771363	20	4 9.4	21.3
349253 2007 TX ₁₃₀	17.9	X	307.95736	111.75900	290.27378	2.61022	0.1853838	0.30200860	2.2001714	20	10 21.4	19.1
349254 2007 TY ₁₃₈	15.8	X	344.78260	14.72739	320.37112	14.39902	0.1797978	0.22359858	2.6883761	20	9 3.3	18.4
349255 2007 TK ₁₅₁	16.0	X	257.78914	246.54962	193.25825	21.52479	0.0482555	0.22714933	2.6602865	20	9 18.5	19.6
349256 2007 TJ ₁₅₂	16.4	X	251.22364	97.06340	355.42007	10.99092	0.1224997	0.22411269	2.6842631	20	9 16.9	20.1
349257 2007 TY ₁₅₂	16.6	X	299.11191	150.94817	210.36515	12.53536	0.1174183	0.21779848	2.7358954	20	7 19.9	20.3
349258 2007 TB ₁₅₃	15.8	X	135.40512	9.40331	337.03174	6.95633	0.1588301	0.18060308	3.0996973	20	1 14.8	20.5
349259 2007 TH ₁₆₈	16.1	X	202.58253	269.46527	222.82954	12.62102	0.1959117	0.21837723	2.7310594	20	8 31.7	20.8
349260 2007 TS ₁₇₅	16.4	X	193.73667	190.84000	217.30113	5.46684	0.1376556	0.20015845	2.8943659	20	5 17.7	21.0
349261 2007 TG ₁₈₀	16.9	X	195.03144	173.24573	238.45511	1.04465	0.0632134	0.20310795	2.8662766	20	5 24.9	21.1
349262 2007 TD ₁₈₄	16.0	X	244.63860	353.49038	64.36354	10.70513	0.1506872	0.21098703	2.7944663	20	7 21.5	20.2
349263 2007 TD ₁₈₈	16.5	X	352.84377	256.74407	129.13510	5.78391	0.1807221	0.23175688	2.6249093	20	12 11.4	19.2
349264 2007 TW ₁₉₁	16.5	X	310.82744	311.83257	41.39819	5.71286	0.1763614	0.21976086	2.7195840	20	7 25.9	19.5
349265 2007 TN ₂₀₀	16.6	X	299.64616	234.49358	182.67722	14.47931	0.0898529	0.23273780	2.6175286	20	10 19.0	19.6
349266 2007 TF ₂₀₂	17.2	X	242.56808	25.28039	82.09367	3.12649	0.0396097	0.22272514	2.6954000	20	10 8.9	20.7
349267 2007 TK ₂₀₈	17.0	X	32.01260	171.79565	86.97597	3.69650	0.0968877	0.21499955	2.7595886	20	8 7.4	20.4
349268 2007 TS ₂₁₁	16.7	X	234.63875	168.76436	306.48783	4.01502	0.1192823	0.22232151	2.6986614	20	9 24.0	20.6
349269 2007 TN ₂₁₉	16.8	X	222.10194	242.95557	167.05285	4.63771	0.0674809	0.21271606	2.7793028	20	6 22.9	20.8
349270 2007 TS ₂₂₇	17.3	X	285.31836	87.94712	315.50307	1.05919	0.0808769	0.21920018	2.7242196	20	9 4.1	20.7
349271 2007 TU ₂₃₃	16.3	X	328.64882	323.31561	61.06096	7.23244	0.0367238	0.22329977	2.6907739	20	10 19.8	19.7
349272 2007 TJ ₂₆₆	16.6	X	261.81941	173.67811	202.95010	9.52160	0.1324424	0.21006762	2.8026141	20	6 18.5	20.7
349273 2007 TH ₂₆₈	18.0	X	206.224									

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349281 2007 TV ₃₃₈	17.3	X	252.66076	216.33631	158.01307	6.35860	0.1105522	0.21031577	2.8004092	20	6 8.3	21.4
349282 2007 TK ₃₅₈	16.7	X	180.90371	243.78098	289.81795	4.94915	0.1282144	0.22961935	2.6411743	20	10 8.9	20.8
349283 2007 TF ₃₅₉	16.8	X	221.27680	258.10267	194.58776	8.74614	0.2139563	0.21427657	2.7657925	20	7 31.3	21.4
349284 2007 TN ₃₆₅	16.7	X	251.67907	286.46140	181.85279	12.82272	0.2284162	0.22645105	2.6657525	20	9 22.6	20.3
349285 2007 TG ₃₆₆	16.4	X	17.04993	86.84425	262.30551	12.03380	0.1781218	0.23043602	2.6349304	20	11 29.5	19.5
349286 2007 TW ₃₇₁	16.9	X	301.65984	24.82110	330.32462	4.22713	0.0880099	0.21772691	2.7364949	20	7 23.9	20.2
349287 2007 TX ₃₇₂	16.3	X	350.55067	195.25938	153.99036	10.03052	0.1012220	0.23216596	2.6218249	20	10 10.9	19.3
349288 2007 TP ₃₇₇	17.1	X	216.72353	96.67479	38.97712	5.77028	0.0684368	0.22081111	2.7109537	20	10 8.6	20.8
349289 2007 TY ₃₈₁	16.4	X	197.50630	104.01673	50.86244	9.65264	0.1522744	0.22133243	2.7066952	20	10 5.9	20.7
349290 2007 TA ₃₈₆	15.8	X	205.11336	310.44779	155.50620	14.21880	0.1467549	0.21400505	2.7681314	20	8 7.9	20.3
349291 2007 TV ₃₈₇	17.3	X	203.24749	166.81763	35.00902	3.17352	0.0545637	0.23833578	2.5763798	20	12 19.1	20.7
349292 2007 TD ₄₀₈	16.1	X	165.95290	126.29718	223.17226	8.76699	0.0969412	0.18040972	3.1019117	20	2 7.5	21.0
349293 2007 TN ₄₁₀	15.5	X	77.26187	97.89958	283.05243	16.82108	0.2329153	0.17154259	3.2079043	20	—	—
349294 2007 TG ₄₂₅	16.8	X	247.50511	234.61401	178.00952	5.17774	0.0503200	0.21531133	2.7569240	20	7 29.3	20.7
349295 2007 TZ ₄₂₆	16.6	X	220.77585	89.54803	310.43328	4.83291	0.0654695	0.20312728	2.8660948	20	6 7.9	20.9
349296 2007 TH ₄₃₃	16.7	X	311.82264	343.57259	33.08179	11.86549	0.0862617	0.22294214	2.6936506	20	9 14.6	20.0
349297 2007 TW ₄₄₇	16.5	X	219.16228	94.02635	22.46079	12.97794	0.1456270	0.22106208	2.7089015	20	9 11.8	20.7
349298 2007 TX ₄₄₇	16.0	X	222.08056	353.06272	79.10243	9.77502	0.1060879	0.21050518	2.7987291	20	7 18.9	20.3
349299 2007 TE ₄₄₈	15.9	X	115.77321	32.90556	20.55310	9.52836	0.0675042	0.18464231	3.0543249	20	3 3.8	20.3
349300 2007 TQ ₄₄₈	16.4	X	197.39516	327.84842	68.39217	8.44210	0.0645924	0.19857040	2.9097771	20	5 9.3	20.8
349301 2007 TX ₄₅₁	16.9	X	255.94491	349.62426	75.29167	4.17125	0.1807310	0.21755802	2.7379110	20	8 9.3	20.7
349302 2007 UF ₉	16.2	X	246.42657	3.44726	53.92305	6.97397	0.1187421	0.21538479	2.7562971	20	7 27.7	20.2
349303 2007 UB ₁₀	16.0	X	289.00571	317.24273	56.16407	15.01402	0.1119224	0.21758195	2.7377102	20	7 29.6	19.8
349304 2007 UF ₁₈	16.3	X	251.78814	353.47573	70.62231	8.85040	0.1931750	0.21554624	2.7549206	20	8 2.3	20.4
349305 2007 UN ₃₁	16.4	X	244.95450	248.57494	177.65780	13.44435	0.1912875	0.21385625	2.7694153	20	7 23.9	20.8
349306 2007 UA ₄₁	16.8	X	296.16764	342.38874	326.41853	1.24517	0.0511917	0.20304813	2.8668395	20	5 17.0	20.6
349307 2007 UT ₄₂	15.1	X	65.11411	24.14147	109.98365	29.56142	0.1626821	0.17408276	3.1766219	20	5 4.3	19.9
349308 2007 UO ₄₅	15.7	X	98.56852	136.56148	246.18503	8.20967	0.0875916	0.17504627	3.1649545	20	1 5.9	20.1
349309 2007 UO ₅₁	16.6	X	241.70315	40.69275	43.19181	7.20282	0.1882247	0.21497058	2.7598365	20	8 18.2	20.8
349310 2007 UB ₅₄	16.3	X	124.17244	220.50702	234.76758	5.35619	0.0804196	0.19290318	2.9664916	20	5 1.3	20.5
349311 2007 UW ₅₆	16.5	X	259.55412	191.85139	220.51846	11.77844	0.1203160	0.21443009	2.7644722	20	7 31.1	20.5
349312 2007 UU ₅₈	17.0	X	222.85303	16.10325	30.52194	2.30214	0.0533804	0.20547076	2.8442605	20	6 20.6	20.9
349313 2007 UL ₆₈	16.1	X	279.13864	92.20261	224.11987	17.94109	0.2064008	0.20207235	2.8760612	20	4 10.3	20.5
349314 2007 UG ₈₁	17.1	X	291.91762	179.79422	165.74983	4.69407	0.0783126	0.21241127	2.7819609	20	6 25.9	20.8
349315 2007 UP ₉₀	17.0	X	172.07742	76.42649	36.89810	3.21596	0.1787013	0.20486053	2.8499059	20	7 17.6	21.8
349316 2007 UQ ₉₃	16.3	X	241.31631	73.86164	35.16541	9.13651	0.0101100	0.22358379	2.6884947	20	10 13.9	19.9
349317 2007 UY ₁₀₀	16.6	X	298.60894	257.33982	59.47905	2.94906	0.0600087	0.20055457	2.8905534	20	5 30.1	20.5
349318 2007 UV ₁₀₁	17.4	X	332.12288	231.66942	80.62755	1.48788	0.0115595	0.29023688	2.2592675	20	7 8.3	18.7
349319 2007 UN ₁₀₃	16.9	X	242.80830	54.30230	47.97337	6.03745	0.0380291	0.22019321	2.7160230	20	10 3.1	20.5
349320 2007 UO ₁₀₄	16.4	X	289.08934	264.95542	111.65813	3.52635	0.0844532	0.21084813	2.7956934	20	8 3.0	19.9
349321 2007 UJ ₁₀₉	16.9	X	252.43906	288.68630	71.84372	3.04849	0.0854767	0.20297753	2.8675043	20	5 23.6	20.9
349322 2007 UQ ₁₁₀	16.7	X	126.95361	126.30441	41.53439	5.75702	0.1068415	0.21049329	2.7988345	20	8 11.1	21.0
349323 2007 UG ₁₂₃	16.7	X	256.35407	39.54541	39.36861	9.71436	0.1363243	0.21719931	2.7409246	20	9 7.6	20.6
349324 2007 UL ₁₂₉	16.6	X	220.66317	301.54411	79.24890	7.18158	0.0907348	0.19757202	2.9195713	20	5 13.9	20.9
349325 2007 UV ₁₃₂	17.0	X	218.19262	274.64263	119.61418	3.01971	0.0849883	0.19945322	2.9011845	20	5 27.9	21.4
349326 2007 UT ₁₃₃	15.7	X	148.36562	319.73643	89.07693	18.82823	0.1905546	0.18031833	3.1029597	20	4 18.9	21.1
349327 2007 VJ	16.7	X	247.61396	18.83307	40.58815	9.11764	0.1240096	0.21572499	2.7533986	20	8 1.5	20.7
349328 2007 VJ ₁	16.5	X	294.47428	286.31796	172.03650	12.60941	0.2433825	0.22946396	2.6423665	20	11 20.5	19.1
349329 2007 VS ₅	16.9	X	57.41078	65.50291	329.10408	8.10567	0.2117368	0.24542494	2.5265249	20	—	—
349330 2007 VK ₇	16.1	X	326.58548	246.62898	94.78921	15.46439	0.0425440	0.21854502	2.7296614	20	8 20.7	19.8
349331 2007 VP ₁₁	16.0	X	85.38972	267.62187	60.57951	15.53828	0.1344405	0.23778501	2.5803567	20	—	—
349332 2007 VD ₂₈	17.2	X	212.04528	274.14884	139.19590	2.75507	0.0574155	0.20367205	2.8609818	20	6 16.2	21.4
349333 2007 VJ ₄₃	16.0	X	256.35812	238.24554	72.77947	9.93887	0.0160937	0.18008205	3.1056733	20	4 9.9	20.5
349334 2007 VS ₄₅	16.5	X	184.02078	102.08037	346.75255	5.41447	0.1478498	0.20341317	2.8634087	20	6 27.9	21.2
349335 2007 VV ₄₉	16.2	X	97.80234	265.10351	249.50838	10.00685	0.1291961	0.19751437	2.9201394	20	6 21.4	20.4
349336 2007 VT ₅₆	15.8	X	78.66041	43.28804	74.74049	11.26474	0.0876710	0.18603450	3.0390678	20	4 11.2	20.1
349337 2007 VZ ₅₆	17.1	X	24.10528	236.84407	89.26905	6.16309	0.2162603	0.22687811	2.6624062	20	11 16.2	20.4
349338 2007 VH ₅₉	17.0	X	280.31294	97.17237	295.95703	3.21095	0.0779909	0.21304653	2.7764279	20	8 12.9	20.5
349339 2007 VW ₇₆	16.8	X	9.42661	89.25783	162.06852	2.28137	0.0097782	0.20351092	2.8624918	20	6 15.1	20.6
349340 2007 VU ₈₀	17.1	X	223.87073	195.53345	214.83579	3.83145	0.0698336	0.20935168	2.8090001	20	6 24.9	21.2
349341 2007 VE ₈₂	16.8	X	304.37178	121.77825	220.74860	5.55196	0.0506388	0.20991443	2.8039775	20	7 12.8	20.5
349342 2007 VV ₈₇	15.5	X	19.84107	180.39807	28.63048	17.16167	0.0197975	0.19455351	2.9496919	20	5 1.9	19.5
349343 2007 VU ₉₃	15.6	X	162.64470	50.41186	37.95326	14.54065	0.2051077	0.19270279	2.9685478	20	6 6.0	20.8
349344 2007 VR ₉₅	16.1	X	228.27842	127.20839	265.57954	13.91684	0.1502073	0.20255727	2.8714692	20	5 30.8	20.7
349345 2007 VP ₁₀₁	16.2	X	227.43448	268.96462	60.64945	12.87981	0.1074047	0.18838076	3.0137810	20	3 24.0	21.0
349346 2007 VG ₁₀₈	16.3	X	242.52802	290.36406	57.57161	3.94947	0.1836379	0.19944411	2.9012728	20	4 17.7	20.9
349347 2007 VQ ₁₀₈	16.8	X	212.76506	219.67526	239.42922	3.85716	0.1293683	0.21055296	2.7983057	20	8 7.8	21.2
349348 2007 VZ ₁₁₇	17.0	X	254.57241	22.83222	341.21993	1.38734	0.0840353	0.20305304	2.8667933	20	5 30.6	21.2
349349 2007 VG ₁₁₉	14.6	X	29.53233	65.47736	96.33630	26.51851	0.1748172	0.17368152	3.1815125	20	4 14.1	18.9
349350 2007 VN ₁₁₉	17.0	X	257.15302	271.31936	112.24170	1.74201	0.0850669	0.21211720	2.7845314	20	6 28.8	20.9
349351 2007 VD ₁₂₄	17.2	X	178.41030	205.68857	213.06986	0.92149	0.1122408	0.19531845	2.9419856	20	5 15.9	21.8
349352 2007 VL ₁₂₄	16.1	X	45.20361	249.36941	245.39559	9.87518	0.0392931	0.18154499	3.0889666	20	3 2.5	20.4
349353 2007 VP ₁₂₈	17.4	X	307.06221	116.20654	201.74804	3.81315	0.0607176					

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349361 2007 VQ ₁₉₁	15.2	X	320.19782	303.13495	285.89118	17.66953	0.1389417	0.17243434	3.1968349	20	2 20.0	19.8
349362 2007 VC ₁₉₇	16.6	X	78.98634	198.51476	291.85523	3.34607	0.2309814	0.17863913	3.1223744	20	5 12.5	20.9
349363 2007 VV ₂₀₆	16.1	X	269.15207	356.04672	74.78573	11.70800	0.1088083	0.21894128	2.7263668	20	9 20.8	19.8
349364 2007 VM ₂₀₉	16.9	X	192.99113	121.76133	277.17559	5.07141	0.2280311	0.19739627	2.9213040	20	5 2.8	22.0
349365 2007 VT ₂₂₃	16.3	X	251.53814	328.56015	92.50256	6.28765	0.1651881	0.21359853	2.7716425	20	7 31.4	20.2
349366 2007 VB ₂₂₇	17.1	X	314.46345	286.62885	84.52115	9.02227	0.2672829	0.29760969	2.2217985	20	9 11.2	18.2
349367 2007 VL ₂₃₅	16.8	X	243.35187	177.30378	184.86029	1.85447	0.0967056	0.19853452	2.9101276	20	5 14.1	21.0
349368 2007 VS ₂₄₄	17.1	X	339.23107	342.42946	70.17841	2.99930	0.2006919	0.23109923	2.6298868	20	12 24.9	19.6
349369 2007 VE ₂₇₂	16.2	X	56.71097	7.56851	239.75406	7.35121	0.0836591	0.21431605	2.7654528	20	8 21.3	20.0
349370 2007 VV ₂₇₄	16.5	X	234.03616	331.91682	110.86803	8.26753	0.1539324	0.21202477	2.7853406	20	8 9.9	20.6
349371 2007 VQ ₂₈₃	16.7	X	223.03247	326.98154	59.29842	2.95440	0.0878857	0.19860184	2.9094699	20	5 22.4	20.9
349372 2007 VL ₃₀₁	16.0	X	240.29876	310.43374	128.58196	14.29057	0.1359929	0.21207884	2.7848672	20	8 14.1	20.0
349373 2007 VV ₃₀₃	15.9	X	305.29618	302.35264	102.78541	23.25999	0.0866887	0.22509686	2.6764333	20	10 21.7	19.7
349374 2007 VV ₃₀₉	15.8	X	164.79580	89.04441	300.40662	7.90876	0.1082719	0.18105231	3.0945679	20	3 24.2	20.7
349375 2007 VY ₃₀₉	16.5	X	155.68716	309.27039	109.08890	3.47601	0.1007854	0.18332558	3.0689326	20	4 23.8	21.2
349376 2007 VL ₃₁₀	15.8	X	206.06755	84.17639	309.98462	9.31184	0.1683756	0.18699305	3.0286731	20	5 7.7	21.0
349377 2007 VC ₃₂₃	16.3	X	247.55856	32.58188	18.11312	9.26477	0.1736488	0.20912753	2.8110069	20	7 12.7	20.6
349378 2007 VG ₃₂₆	16.4	X	154.13930	177.50274	221.32666	5.92299	0.0171047	0.18468341	3.0538718	20	3 19.8	20.9
349379 2007 WR ₃	15.9	X	273.04438	335.69654	108.94734	14.81150	0.2255608	0.22446817	2.6814284	20	9 27.9	19.5
349380 2007 WU ₅	16.2	X	228.55776	94.56194	5.68516	9.47977	0.0993612	0.21444152	2.7643740	20	9 3.6	20.2
349381 2007 WX ₉	17.1	X	307.09567	157.57530	180.63369	0.62052	0.0503904	0.21083218	2.7958344	20	7 12.0	20.5
349382 2007 WZ ₃₃	16.2	X	309.63997	239.46776	45.76509	11.35956	0.0914408	0.19551763	2.9399872	20	4 30.3	20.1
349383 2007 WN ₃₉	16.5	X	238.47645	352.44954	115.19829	4.91656	0.0665893	0.22036250	2.7146318	20	9 30.5	20.2
349384 2007 WF ₅₁	17.1	X	196.49955	270.40870	165.44563	2.24646	0.0386501	0.20263614	2.8707241	20	6 27.8	21.3
349385 2007 WU ₅₅	16.1	X	51.84338	247.84169	73.54512	14.11210	0.1948082	0.22927580	2.6438120	20	12 10.3	19.8
349386 Randywright	16.4	X	260.25795	268.33002	70.36891	13.34920	0.1462415	0.19839015	2.9115392	20	5 1.1	20.8
349387 2007 WR ₆₁	16.0	X	233.08044	78.18006	331.62546	8.33023	0.1357594	0.20477372	2.8507113	20	6 28.8	20.5
349388 2007 XW ₆₂	16.2	X	280.67929	153.90429	256.45185	10.87278	0.0976919	0.21696305	2.7429141	20	8 29.0	19.9
349389 2007 XU ₂	15.9	X	112.86226	167.48217	293.71386	8.14513	0.0431905	0.18196013	3.0842664	20	4 17.7	20.5
349390 2007 XT ₁₅	16.4	X	257.10863	93.21297	321.17996	5.13640	0.1162708	0.21025147	2.8009801	20	8 5.3	20.3
349391 2007 XG ₁₈	15.7	X	209.43689	325.97207	65.58410	8.17832	0.1212968	0.19398338	2.9554687	20	5 13.4	20.2
349392 2007 XQ ₂₈	16.7	X	93.88368	198.25267	335.27214	0.83106	0.1477851	0.19509070	2.9442748	20	7 14.1	20.9
349393 2007 XR ₃₉	16.1	X	176.65797	120.61317	322.59040	5.77610	0.1403178	0.19386086	2.9567139	20	6 13.3	20.9
349394 2007 XN ₄₀	15.7	X	214.92709	357.05437	67.59378	10.45080	0.0873155	0.19827679	2.9126489	20	7 1.4	20.1
349395 2007 XX ₄₀	15.8	X	226.71752	308.68992	76.55591	12.10508	0.1679347	0.19954511	2.9002938	20	5 20.2	20.5
349396 2007 XW ₄₆	15.8	X	143.96905	137.11918	282.04761	10.54387	0.1208318	0.18377934	3.0638788	20	4 7.8	20.8
349397 2007 XM ₅₂	15.7	X	177.86902	269.67557	97.00348	12.23180	0.1195938	0.17762060	3.1342995	20	3 20.3	20.8
349398 2007 XZ ₅₄	16.2	X	160.55525	290.00391	131.72408	2.39953	0.2745871	0.18900849	3.0071044	20	5 8.7	21.6
349399 2007 XD ₅₆	15.2	X	116.82133	81.29637	293.11386	24.45745	0.2820715	0.17281676	3.1921171	20	2 4.7	20.4
349400 2007 YK ₃	15.9	X	22.75377	113.94245	95.57575	10.77226	0.0515855	0.19050650	2.9913198	20	5 14.3	19.9
349401 2007 YK ₁₁	16.4	X	150.39726	125.31962	322.37533	6.49265	0.1960999	0.18877562	3.0095769	20	5 26.7	21.5
349402 2007 YL ₁₂	15.6	X	332.29668	138.86232	88.77369	18.04478	0.1581912	0.17445324	3.1721230	20	3 22.6	19.9
349403 2007 YP ₁₃	17.8	X	252.78050	124.72702	91.77308	20.30342	0.1096807	0.39472692	1.8405102	20	—	—
349404 2007 YR ₁₃	16.3	X	232.85789	101.26895	312.34529	11.08296	0.0414049	0.19835889	2.9118451	20	7 14.5	20.4
349405 2007 YF ₂₆	15.3	X	30.25470	56.98488	93.51031	19.52966	0.0056181	0.17374189	3.1807756	20	3 15.6	20.1
349406 2007 YU ₂₇	16.0	X	163.32464	302.44267	83.13644	10.85369	0.1138198	0.17867740	3.1219286	20	3 28.3	21.0
349407 2007 YY ₂₉	15.4	X	61.12962	201.80485	284.43938	15.89918	0.1835225	0.17390127	3.1788318	20	3 28.3	19.8
349408 2007 YQ ₃₂	16.1	X	73.62757	347.88609	250.35011	5.00996	0.0216251	0.20919052	2.8104426	20	8 22.9	20.0
349409 2007 YS ₄₁	15.9	X	145.69097	301.54704	114.11747	12.84235	0.1362926	0.18024424	3.1038100	20	4 17.6	21.0
349410 2007 YD ₄₂	16.5	X	76.87586	41.47018	77.91698	1.97958	0.1364743	0.17571367	3.1569354	20	4 13.7	20.6
349411 2007 YT ₄₈	15.8	X	216.44334	340.31819	101.49348	13.57917	0.0267131	0.20144027	2.8820744	20	8 1.8	19.9
349412 2007 YC ₄₉	15.6	X	91.07190	5.01233	103.88519	13.12913	0.0565058	0.17887315	3.1196505	20	4 13.0	20.6
349413 2007 YT ₅₄	15.5	X	35.26236	96.35753	78.30052	17.30474	0.2062563	0.17567134	3.1574424	20	5 5.6	19.2
349414 2007 YA ₆₆	16.0	X	209.46957	317.87543	117.77378	11.90641	0.0782719	0.19642247	2.9309513	20	7 9.9	20.5
349415 2007 YH ₆₈	15.5	X	220.38460	277.43665	115.30494	13.26929	0.1372495	0.19232759	2.9724073	20	5 27.3	20.3
349416 2008 AL ₅	16.2	X	149.23744	232.37063	238.81845	10.42847	0.0825495	0.20026031	2.8933844	20	6 18.9	20.6
349417 2008 AF ₇	16.8	X	314.23625	294.28096	110.60363	4.42430	0.1153420	0.22247952	2.6973835	20	10 22.6	19.8
349418 2008 AB ₁₀	15.9	X	263.40792	69.72857	288.08488	9.07745	0.1241307	0.19280367	2.9675123	20	5 27.2	20.3
349419 2008 AO ₁₉	16.9	X	117.50424	162.26148	342.31071	3.68351	0.0503729	0.18742724	3.0239939	20	6 22.3	21.2
349420 2008 AX ₁₉	15.6	X	26.16779	57.53562	131.39006	17.27046	0.1625659	0.17615249	3.1516902	20	5 4.5	19.6
349421 2008 AJ ₂₂	15.8	X	122.33788	329.02111	114.24970	6.50952	0.1335341	0.17679246	3.1440797	20	4 24.2	20.6
349422 2008 AG ₂₉	15.5	X	111.05573	307.22798	150.58028	17.91092	0.2484896	0.18024088	3.1038485	20	5 14.6	20.8
349423 2008 AK ₃₇	16.6	X	80.74535	197.35943	304.16702	2.36811	0.2105361	0.17903684	3.1177487	20	5 26.3	21.0
349424 2008 AE ₄₂	17.7	X	339.84548	118.04289	286.90121	17.44918	0.0976358	0.38003860	1.8876331	20	—	—
349425 2008 AD ₄₆	16.6	X	266.72421	306.14469	82.44735	3.26116	0.0772363	0.20617483	2.8377815	20	7 19.5	20.5
349426 2008 AJ ₄₆	17.0	X	198.11103	34.71174	79.00897	0.45423	0.0353973	0.20819389	2.8194045	20	8 19.3	20.8
349427 2008 AJ ₅₇	16.5	X	46.40303	6.38323	125.32262	2.81868	0.1487183	0.17116127	3.2126670	20	3 17.9	20.4
349428 2008 AZ ₆₇	16.0	X	48.91988	203.10516	309.10426	8.63207	0.0477850	0.17430830	3.1738813	20	3 30.9	20.5
349429 2008 AO ₆₉	18.6	X	155.48860	250.77523	323.64671	2.14337	0.1268977	0.36841530	1.9271297	20	11 30.3	20.8
349430 2008 AT ₈₄	15.8	X	142.67192	229.03671	294.34701	10.00239	0.2017086	0.19848475	2.9106140	20	8 19.1	20.7
349431 2008 AN ₈₅	15.9	X	140.96658	262.68937	310.88170	7.04652	0.1529860	0.20665373	2.8333956	20	10 16.1	20.7
349432 2008 AV ₁₀₉	17.5	X	104.93353	36.65049	180.56830	3.61458	0.1564634	0.27867909	2.3213099	20	9 29.3	20.7
349433 2008 AW ₁₀₉	15.9	X	73.68391	353.87594	142.60760	11.						

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349441 2008 <i>BB</i> ₄	17.7	X	101.65788	267.13141	328.38784	5.46027	0.1901388	0.28224580	2.3017124	20	10 19.8	21.3
349442 2008 <i>BK</i> ₂₂	16.2	X	75.15779	200.10320	320.72148	3.49429	0.0824076	0.17873620	3.1212439	20	5 24.5	20.5
349443 2008 <i>BT</i> ₃₆	17.7	X	307.24133	109.09783	338.53704	17.60315	0.1073885	0.37579571	1.9018146	20	—	—
349444 2008 <i>BM</i> ₃₉	16.2	X	162.35035	112.73833	346.55892	9.78238	0.1350971	0.19053639	2.9910070	20	6 19.8	21.2
349445 2008 <i>BH</i> ₅₀	16.9	X	160.90484	277.73436	144.63533	2.24808	0.1623423	0.18683034	3.0304313	20	5 5.9	21.8
349446 2008 <i>CA</i> ₂	15.5	X	102.93175	243.14989	297.77693	8.79366	0.1847321	0.18860814	3.0113583	20	8 4.8	20.2
349447 2008 <i>CM</i> ₈	15.3	X	157.07652	347.13900	112.43626	20.18724	0.0678259	0.18596324	3.0398442	20	6 14.8	20.0
349448 2008 <i>CJ</i> ₅₄	16.3	X	143.96431	278.32906	148.70992	18.06370	0.3518314	0.18430526	3.0580475	20	5 10.8	22.2
349449 2008 <i>CS</i> ₅₉	15.6	X	106.69122	300.19012	152.37241	15.31886	0.1576356	0.17502458	3.1652160	20	4 23.7	20.5
349450 2008 <i>CF</i> ₆₉	16.1	X	80.08439	222.03295	306.08418	8.22747	0.0182402	0.18200853	3.0837197	20	5 30.7	20.6
349451 2008 <i>CH</i> ₆₉	15.5	X	49.34192	231.07920	327.46978	8.80080	0.1469244	0.18051074	3.1007543	20	6 16.8	19.6
349452 2008 <i>CK</i> ₇₁	15.4	X	143.38163	335.78142	92.52218	12.67120	0.0697378	0.17853673	3.1235683	20	4 25.0	20.2
349453 2008 <i>CD</i> ₇₆	15.7	X	121.84223	316.25887	157.03613	17.17848	0.1806597	0.17879288	3.1205842	20	6 4.0	20.9
349454 2008 <i>CK</i> ₇₉	16.9	X	132.26306	10.25217	120.13211	6.29076	0.2232380	0.18667806	3.0320791	20	7 4.7	21.9
349455 2008 <i>CL</i> ₈₅	15.7	X	255.64863	152.92803	165.72629	9.43274	0.0606174	0.17265407	3.1941221	20	4 10.9	20.4
349456 2008 <i>CZ</i> ₉₃	16.1	X	85.03856	57.41152	112.41786	6.10749	0.0861672	0.18122026	3.0926555	20	6 19.5	20.5
349457 2008 <i>CT</i> ₁₁₄	16.1	X	339.45729	57.20607	209.35826	4.62214	0.1207885	0.18188648	3.0850990	20	5 18.8	19.8
349458 2008 <i>CP</i> ₁₁₇	17.2	X	151.18001	241.53107	196.25731	1.44012	0.2851321	0.18507974	3.0495104	20	5 20.8	22.7
349459 2008 <i>CH</i> ₁₁₈	16.0	X	147.22212	97.43436	327.12647	8.09098	0.1793383	0.18101903	3.0949470	20	4 23.0	21.1
349460 2008 <i>CH</i> ₁₂₈	17.8	X	40.18912	109.71589	151.47488	6.86492	0.0898228	0.27193127	2.3595541	20	8 28.8	20.5
349461 2008 <i>CQ</i> ₁₃₄	16.0	X	151.09307	305.09403	150.76514	11.44223	0.2327358	0.18689397	3.0297434	20	6 10.3	21.4
349462 2008 <i>CS</i> ₁₃₆	15.7	X	122.36136	105.27093	304.83296	4.63802	0.0979112	0.16959843	3.2323732	20	3 7.3	20.5
349463 2008 <i>CB</i> ₁₃₇	15.8	X	194.83284	64.34190	318.68297	16.00320	0.3275465	0.18528547	3.0472527	20	4 8.4	21.8
349464 2008 <i>CN</i> ₁₃₇	15.8	X	130.89833	103.24564	344.32632	14.65283	0.0754490	0.17601416	3.1533412	20	4 23.3	20.7
349465 2008 <i>CT</i> ₁₄₉	16.1	X	103.39273	129.85050	327.15596	15.81445	0.2010787	0.17399004	3.1777504	20	4 18.1	21.2
349466 2008 <i>CO</i> ₁₆₃	15.3	X	70.03653	0.06119	146.96169	11.50341	0.1556992	0.17601291	3.1533562	20	5 15.3	19.7
349467 2008 <i>CE</i> ₁₆₈	16.5	X	205.06025	237.99589	0.05813	4.68414	0.1055786	0.21828361	2.7318402	20	—	—
349468 2008 <i>CV</i> ₁₇₅	15.9	X	99.01631	112.70250	351.99389	17.34648	0.2138113	0.17479809	3.1679496	20	4 24.9	20.9
349469 2008 <i>CW</i> ₁₇₅	15.5	X	84.60421	145.66646	4.00753	11.42546	0.2372577	0.17803680	3.1294129	20	6 13.2	20.3
349470 2008 <i>CT</i> ₁₈₁	15.0	X	52.54736	299.58528	249.68385	25.12851	0.1680052	0.17477239	3.1682602	20	6 13.8	19.0
349471 2008 <i>CP</i> ₁₈₈	15.1	X	81.68242	2.80725	103.25418	20.96663	0.0725270	0.17030753	3.2233946	20	4 4.5	20.0
349472 2008 <i>CD</i> ₂₁₂	15.6	X	136.26044	161.20252	309.54858	7.16036	0.0188884	0.18266923	3.0762794	20	5 28.3	20.1
349473 2008 <i>CF</i> ₂₁₄	16.2	X	57.37360	220.27470	277.78029	2.29430	0.1111797	0.17072475	3.2181409	20	4 4.8	20.4
349474 2008 <i>DE</i> ₃	16.2	X	94.75657	196.56615	325.11434	9.04316	0.0304584	0.18517141	3.0485040	20	6 12.9	20.6
349475 2008 <i>DA</i> ₉	15.7	X	296.90819	324.75413	319.36512	9.76301	0.0352831	0.17738359	3.1370908	20	4 14.8	20.2
349476 2008 <i>DX</i> ₂₃	15.6	X	308.03035	289.83736	343.96479	8.37881	0.0541850	0.17367845	3.1815500	20	4 15.6	20.1
349477 2008 <i>DA</i> ₂₄	16.1	X	118.94442	122.61187	2.57571	12.02470	0.3024090	0.18022910	3.1039838	20	6 23.1	21.6
349478 2008 <i>DK</i> ₂₅	15.8	X	134.86733	44.72039	26.74226	8.80596	0.0229689	0.17258131	3.1950197	20	4 9.8	20.4
349479 2008 <i>DW</i> ₄₂	17.1	X	166.63863	339.95919	89.61231	3.15685	0.1039488	0.18393282	3.0621742	20	5 17.9	21.9
349480 2008 <i>DS</i> ₇₂	14.8	X	153.97608	63.46949	144.32267	9.81935	0.1009860	0.12402483	3.9822662	20	10 16.6	20.9
349481 2008 <i>DO</i> ₇₃	15.7	X	24.36432	318.00101	322.05449	7.99046	0.0662095	0.19089936	2.9872145	20	8 17.0	19.6
349482 2008 <i>DV</i> ₇₃	16.6	X	93.18508	178.96417	327.12953	2.41778	0.1646983	0.17762220	3.1342807	20	6 9.7	21.3
349483 2008 <i>DC</i> ₈₈	15.9	X	127.77296	64.65722	12.85979	13.69574	0.0797809	0.17283840	3.1918506	20	4 12.9	20.6
349484 2008 <i>EW</i> ₉	17.7	X	308.96097	185.71060	267.62430	1.64886	0.1523746	0.22094752	2.7098378	20	12 15.2	20.5
349485 2008 <i>OX</i> ₉₂	17.4	X	292.37825	109.89640	35.93700	22.02061	0.1075245	0.38219631	1.8805219	20	—	—
349486 2008 <i>EW</i> ₁₄₃	15.6	X	292.81000	1.38634	276.35098	7.59898	0.0392450	0.17069359	3.2185326	20	4 2.6	20.2
349487 2008 <i>EZ</i> ₁₆₃	16.0	X	274.81561	271.78121	197.12549	12.66922	0.1122684	0.21357580	2.7718391	20	11 11.5	19.5
349488 2008 <i>FV</i> ₁₄	16.0	X	42.67971	120.99117	71.01226	2.14838	0.0976328	0.17367320	3.1816142	20	5 22.2	19.9
349489 2008 <i>FC</i> ₁₃₁	16.3	X	117.06265	101.71116	7.37225	3.77898	0.0693199	0.17473031	3.1687688	20	5 8.9	21.0
349490 2008 <i>GG</i> ₂₂	18.3	X	204.24409	248.84211	34.20836	7.27474	0.1723969	0.30217706	2.1993536	20	—	—
349491 2008 <i>GB</i> ₂₉	15.2	X	85.91592	85.72683	83.00521	26.00722	0.2584299	0.17686183	3.1432576	20	7 11.2	20.2
349492 2008 <i>GB</i> ₃₀	17.6	X	177.01578	134.59070	65.36061	22.48996	0.0599794	0.36506263	1.9389106	20	12 12.2	19.6
349493 2008 <i>GN</i> ₃₉	16.6	X	120.84468	286.64037	164.33564	10.57824	0.2649783	0.17754210	3.1352234	20	5 14.3	21.9
349494 2008 <i>GK</i> ₁₂₁	16.2	X	223.55905	183.83882	36.53666	14.36763	0.1444065	0.21543791	2.7558440	20	—	—
349495 2008 <i>JH</i> ₃₅	15.0	X	58.89670	257.35476	296.70859	14.99894	0.2310103	0.17464711	3.1697751	20	7 8.8	19.2
349496 2008 <i>KZ</i> ₃₄	13.2	X	290.46276	241.30966	78.61170	31.41005	0.0780874	0.08354181	5.1824302	20	5 26.5	20.0
349497 2008 <i>NK</i>	17.7	X	147.34055	181.57056	132.25543	6.25619	0.1665744	0.28461244	2.2889350	20	—	—
349498 2008 <i>ND</i> ₃	18.0	X	184.43005	2.09275	298.98759	2.23875	0.1783685	0.29075327	2.2565916	20	—	—
349499 2008 <i>OX</i> ₅	17.7	X	151.50477	43.26530	299.32838	2.96752	0.1535246	0.28877835	2.2668683	20	1 9.4	20.8
349500 2008 <i>OH</i> ₈	17.4	X	173.70820	20.85172	283.92817	4.68566	0.0849101	0.28872129	2.2671670	20	—	—
349501 2008 <i>OT</i> ₁₉	18.5	X	65.50518	174.40403	204.95221	0.69881	0.1941332	0.27348191	2.3506266	20	—	—
349502 2008 <i>OR</i> ₂₄	17.9	X	116.21239	190.08265	158.13301	6.00144	0.1959554	0.28181256	2.3040708	20	—	—
349503 2008 <i>PW</i> ₂	17.7	X	114.61396	154.01089	194.34646	5.92114	0.2288441	0.28179857	2.3041470	20	—	—
349504 2008 <i>PQ</i> ₁₁	17.8	X	130.60793	241.37399	119.73010	2.22200	0.2628121	0.28655664	2.2785701	20	1 24.1	20.8
349505 2008 <i>PE</i> ₁₄	17.9	X	153.04173	198.44984	159.75181	1.54183	0.1900050	0.29211324	2.2495823	20	2 3.2	21.0
349506 2008 <i>PT</i> ₁₇	17.9	X	57.61721	125.97499	233.78546	1.64542	0.2189673	0.26829556	2.3808228	20	—	—
349507 2008 <i>QY</i>	18.6	X	168.26548	254.82676	1.95892	13.57689	0.5815093	0.78153974	1.1672629	20	—	—
349508 2008 <i>QJ</i> ₅	16.8	X	216.23103	269.34046	173.53017	6.89799	0.3609582	0.22778555	2.6553306	20	7 7.5	21.8
349509 2008 <i>QR</i> ₅	17.5	X	109.64883	160.35772	152.71408	2.73739	0.2001100	0.27071740	2.3666022	20	—	—
349510 2008 <i>QP</i> ₁₂	17.6	X	84.13075	338.74934	341.28408	2.27527	0.2427957	0.26710363	2.3879003	20	—	—
349511 2008 <i>QR</i> ₁₂	18.2	X	119.04093	178.89701	143.42305	1.94167	0.2053747	0.27753175	2.3277032	20	—	—
349512 2008 <i>QM</i> ₄₆	17.9	X	71.536									

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349521 2008 RA ₆₂	17.7	X	59.07069	106.80193	336.59234	6.80069	0.2267473	0.28313561	2.2968875	20	1 22.1	19.1
349522 2008 RF ₆₈	17.7	X	103.23246	197.45620	106.08126	3.01776	0.1760558	0.26651367	2.3914229	20	—	—
349523 2008 RY ₇₃	17.7	X	109.62369	110.61312	218.53619	1.08446	0.2307777	0.27485761	2.3427766	20	—	—
349524 2008 RG ₇₄	17.5	X	177.24470	329.52194	4.42805	3.65530	0.2381202	0.29117585	2.2544078	20	1 31.0	21.2
349525 2008 RL ₉₅	17.3	X	63.08260	119.17346	312.75240	5.46952	0.1549325	0.28356092	2.2945902	20	1 1.4	19.2
349526 2008 RH ₉₆	17.1	X	74.12998	352.14549	342.66256	2.55040	0.2443042	0.26513094	2.3997303	20	—	—
349527 2008 RS ₁₁₃	17.4	X	230.30206	217.18972	1.20248	5.55947	0.0329688	0.27481505	2.3430184	20	—	—
349528 2008 RN ₁₃₀	17.7	X	17.50355	10.75198	24.12017	2.66454	0.1651260	0.25918089	2.4363185	20	—	—
349529 2008 RX ₁₃₅	17.6	X	140.19990	98.11112	210.45732	3.47361	0.1675053	0.27877869	2.3207570	20	—	—
349530 2008 RY ₁₃₈	17.2	X	27.85804	335.73963	44.82341	7.38263	0.1337863	0.26256791	2.4153216	20	—	—
349531 2008 SQ ₂	17.3	X	119.01136	217.98073	86.64408	6.29509	0.2293645	0.27268332	2.3552138	20	—	—
349532 2008 SF ₃	17.3	X	65.62703	230.64414	123.25586	3.05836	0.2362011	0.26736395	2.3863500	20	—	—
349533 2008 SO ₅	17.5	X	100.39799	317.38544	62.64940	6.20245	0.1854981	0.27883551	2.3204417	20	—	—
349534 2008 ST ₈	18.0	X	144.64362	79.66842	273.66979	1.30927	0.2131534	0.28679890	2.2772868	20	1 22.7	21.0
349535 2008 SZ ₁₃	17.7	X	140.47808	154.57624	167.00566	5.08953	0.1705465	0.28246444	2.3005245	20	—	—
349536 2008 ST ₁₈	18.0	X	103.85315	85.75706	353.84381	3.59484	0.1422404	0.29614386	2.2291240	20	3 18.2	20.5
349537 2008 SG ₂₄	17.6	X	343.99242	306.66215	168.77128	2.94777	0.0706422	0.27611638	2.3356509	20	—	—
349538 2008 SC ₂₇	17.7	X	18.49723	116.76645	335.87836	2.18214	0.1343568	0.27433422	2.3457554	20	—	—
349539 2008 SM ₃₂	16.9	X	114.37031	141.74021	242.72906	5.18030	0.0839119	0.28313638	2.2968833	20	1 8.1	19.6
349540 2008 SG ₄₁	17.6	X	142.48927	255.79923	64.07440	2.48374	0.1755613	0.28001821	2.3139033	20	—	—
349541 2008 SS ₅₂	17.6	X	176.23030	282.65298	12.52704	4.49493	0.1493808	0.28057319	2.3108509	20	—	—
349542 2008 SW ₅₃	17.6	X	36.60127	17.83195	23.81996	1.45834	0.1837813	0.26675355	2.3899891	20	—	—
349543 2008 SM ₆₇	17.5	X	55.27307	55.50061	17.16877	9.44107	0.0655118	0.27624838	2.3349068	20	—	—
349544 2008 SM ₇₈	17.8	X	236.33434	17.13878	217.94218	4.12453	0.1563276	0.28197064	2.3032096	20	—	—
349545 2008 SX ₈₇	17.1	X	299.82211	226.91448	156.26242	6.99900	0.0590499	0.29245146	2.2478476	20	2 16.3	19.8
349546 2008 SU ₉₈	17.5	X	152.78082	239.30203	57.55586	5.30574	0.1113210	0.27214613	2.3583121	20	—	—
349547 2008 SO ₁₀₆	17.1	X	233.30045	251.31463	150.95232	1.64103	0.0982363	0.22635892	2.6664758	20	6 23.1	20.8
349548 2008 SY ₁₁₀	16.9	X	329.00949	252.72568	257.22307	5.91254	0.0692647	0.27698513	2.3307646	20	—	—
349549 2008 SE ₁₁₁	17.6	X	42.67261	257.78877	94.83987	2.61525	0.1981187	0.25985358	2.4321121	20	—	—
349550 2008 ST ₁₂₀	18.3	X	339.20311	61.33577	359.44899	2.17844	0.1586542	0.25551666	2.4595552	20	—	—
349551 2008 SA ₁₂₂	17.5	X	166.78124	290.27129	350.60782	1.00877	0.1665603	0.27304383	2.3531402	20	—	—
349552 2008 SD ₁₂₆	17.1	X	246.85633	349.47383	359.28381	2.19272	0.2136026	0.22177257	2.7031127	20	4 17.7	21.5
349553 2008 SE ₁₂₈	17.7	X	94.89698	84.97817	246.66958	4.07110	0.1258447	0.26559992	2.3969046	20	—	—
349554 2008 SU ₁₄₁	16.4	X	57.17055	324.98563	55.58615	7.41390	0.2034313	0.26423261	2.4051663	20	—	—
349555 2008 SX ₁₄₂	17.8	X	108.92739	245.11021	60.31411	3.18030	0.2042595	0.26432974	2.4045771	20	—	—
349556 2008 SL ₁₄₃	17.7	X	75.29948	129.08682	194.51758	6.48053	0.1728156	0.25924328	2.4359276	20	—	—
349557 2008 SJ ₁₄₅	17.8	X	341.24769	221.30553	254.66971	1.64972	0.1658808	0.26634440	2.3924361	20	—	—
349558 2008 SB ₁₄₇	17.4	X	105.40396	22.23409	278.53927	4.15542	0.2430097	0.26804013	2.3823350	20	—	—
349559 2008 SX ₁₅₇	17.7	X	167.43465	99.82462	186.30945	5.75187	0.1683560	0.27883469	2.3204462	20	—	—
349560 2008 SM ₁₅₈	17.4	X	106.83890	330.48643	325.36811	3.08897	0.2539885	0.26786331	2.3833833	20	—	—
349561 2008 SS ₁₅₉	17.8	X	102.64652	149.43284	186.63275	1.90450	0.2170873	0.27241583	2.3567553	20	—	—
349562 2008 SD ₁₆₃	17.2	X	103.73947	157.29128	168.51192	5.33982	0.1663152	0.27022892	2.3694534	20	—	—
349563 2008 SY ₁₆₅	17.7	X	118.74060	176.54620	143.63569	1.72900	0.2005553	0.27302120	2.3532702	20	—	—
349564 2008 SE ₁₇₂	17.2	X	158.00807	76.93302	318.89609	5.81086	0.1823408	0.29623213	2.2286812	20	3 24.1	20.5
349565 2008 SX ₁₇₅	17.0	X	87.99493	64.10026	339.31180	6.51391	0.1073478	0.27814218	2.3242962	20	—	—
349566 2008 SC ₁₈₂	17.3	X	64.90763	251.72855	50.21084	6.04926	0.2173411	0.25399485	2.4693697	20	12 6.9	21.2
349567 2008 SP ₁₈₄	17.4	X	68.05552	126.42574	270.84713	4.96135	0.1180525	0.27190176	2.3597249	20	—	—
349568 2008 SQ ₁₈₅	17.4	X	125.24049	128.80514	209.16008	7.39555	0.1334830	0.27953895	2.3165473	20	—	—
349569 2008 SN ₁₉₉	17.4	X	38.70997	113.01977	275.26721	1.49965	0.2245048	0.26382552	2.4076398	20	—	—
349570 2008 SP ₂₀₃	17.5	X	54.17297	203.01481	120.99163	3.14784	0.2074730	0.25577251	2.4579147	20	12 23.3	21.1
349571 2008 SH ₂₃₅	17.5	X	115.52513	182.59981	123.83607	2.35431	0.1972467	0.27045983	2.3681045	20	—	—
349572 2008 ST ₂₃₅	17.6	X	3.46104	49.36461	34.43206	5.46335	0.1719162	0.26083385	2.4260147	20	—	—
349573 2008 SR ₂₄₀	17.3	X	356.92415	312.05847	84.34417	4.55296	0.1914844	0.25502716	2.4627014	20	—	—
349574 2008 SH ₂₄₁	17.6	X	41.08086	284.67590	57.36230	3.02142	0.2134026	0.25916821	2.4363980	20	—	—
349575 2008 SD ₂₄₃	15.6	X	286.36102	107.68665	54.45171	9.31908	0.0490337	0.18052868	3.1005489	20	—	—
349576 2008 SR ₂₅₉	18.0	X	97.00847	241.31993	69.31494	3.13887	0.2212164	0.26643087	2.3919183	20	—	—
349577 2008 SJ ₂₆₃	17.9	X	13.11369	107.89937	33.61233	5.23697	0.1277965	0.28168920	2.3047434	20	1 7.9	20.1
349578 2008 SC ₂₆₅	15.9	X	103.48443	80.77383	222.26424	8.64025	0.0677051	0.17439452	3.1728350	20	12 18.0	20.7
349579 2008 SM ₂₆₈	17.4	X	117.23768	218.29849	82.06193	3.67141	0.1811196	0.26483872	2.4014952	20	—	—
349580 2008 ST ₂₆₉	16.6	X	147.68060	63.43628	209.11936	6.42245	0.0377044	0.25783280	2.4448034	20	—	—
349581 2008 SO ₂₇₉	17.8	X	138.97822	126.24671	126.07827	2.42263	0.1494642	0.25745519	2.4471933	20	12 11.1	21.6
349582 2008 SL ₂₈₀	16.8	X	33.30851	328.29506	69.43870	7.36047	0.1164925	0.26549611	2.3975294	20	—	—
349583 2008 SD ₂₈₁	17.2	X	265.24200	228.02520	136.56084	2.85351	0.1166226	0.22381535	2.6866400	20	6 9.8	21.0
349584 2008 SO ₂₈₅	17.4	X	97.95727	128.11709	181.64465	6.35489	0.1429346	0.26809398	2.3820160	20	—	—
349585 2008 SU ₂₉₄	17.4	X	126.60686	280.60640	66.18717	9.50544	0.2441346	0.27959487	2.3162384	20	—	—
349586 2008 TQ ₅	17.1	X	72.04468	191.37212	191.94974	6.48433	0.0566289	0.27212356	2.3584425	20	—	—
349587 2008 TT ₇	17.5	X	63.38400	45.19207	14.14508	7.09122	0.1028199	0.27778591	2.3262832	20	—	—
349588 2008 TZ ₉	16.9	X	215.79025	237.38783	171.41623	8.70960	0.2495281	0.22366366	2.6878545	20	6 3.2	21.6
349589 2008 TW ₁₀	16.2	X	92.81794	131.62957	184.06752	7.38616	0.1581754	0.18111152	3.0938934	20	12 30.1	21.2
349590 2008 TL ₁₈	18.0	X	7.47110	189.46304	272.74723	0.42568	0.1540502	0.26775918	2.3840012	20	—	—
349591 2008 TH ₂₆	17.1	X	37.18738	185.66011	210.95202	21.51937	0.0732960	0.35344527	1.9811678	20	—	—
349592 2008 TJ ₄₈	13.4	X	240.83481	336.57015	123.70257	5.47828	0.0568278	0.08371177	5.1754134	20	9 7.3	20.4
349593 2008 TG ₆₁	17.6	X	341.77394	174.08551	13.70849	6.69920	0.0582091	0.28804512	2.2707136	20	2 1.1	20.2
349594 2008 TX ₆₉	17.2	X	242.96297	345.22581	71.56788	4.47347	0.1381617	0.23112214	2.6297130	20	7 19.9	21.1
349595 2008 TA ₇₀	17.8	X	341.66774	3.32523	82.80407	3.57776	0.1597331	0.25999233	2.4312467	20	—	—
349596 2008 TE ₉₃	17.1	X										

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349601 2008 TY ₁₄₀	17.7	X	352.02052	316.58369	188.12128	3.89806	0.1718535	0.27904231	2.3192951	20	—	—
349602 2008 TB ₁₈₇	17.7	X	15.57879	151.31595	36.58251	4.86778	0.1106963	0.29523509	2.2336960	20	3 23.9	19.5
349603 2008 TH ₁₈₉	17.2	X	19.53377	121.73936	5.65686	6.94706	0.0690968	0.27924597	2.3181673	20	1 4.5	19.7
349604 2008 UL ₁	16.7	X	13.87876	349.27761	76.67134	11.96761	0.2362235	0.26195529	2.4190857	20	—	—
349605 2008 UZ ₃	17.5	X	351.15364	358.17108	56.77640	2.23647	0.1711122	0.25548006	2.4597901	20	—	—
349606 Fleurance	17.0	X	334.67617	356.61992	86.98459	3.46828	0.1616802	0.25569762	2.4583946	20	—	—
349607 2008 US ₁₅	17.5	X	26.96841	148.75845	344.00270	4.36757	0.0723932	0.28552419	2.2840596	20	1 22.9	19.7
349608 2008 UU ₂₂	17.5	X	312.76639	121.30660	40.36860	4.16973	0.1916145	0.27029379	2.3690742	20	—	—
349609 2008 UF ₂₃	16.9	X	130.21767	240.96266	199.03772	3.13704	0.0697588	0.21352993	2.7722360	20	4 17.5	20.8
349610 2008 UK ₄₂	18.0	X	344.29994	249.45656	221.54464	2.36234	0.1818162	0.26209396	2.4182324	20	—	—
349611 2008 UV ₅₁	17.1	X	331.79642	345.69455	45.56920	4.18279	0.1399786	0.24453682	2.5326385	20	11 8.6	19.3
349612 2008 UH ₅₆	16.9	X	326.48184	291.61923	201.37445	9.75066	0.0690038	0.27173135	2.3607113	20	—	—
349613 2008 UA ₆₆	16.9	X	322.79956	115.31919	241.28607	12.70573	0.1679692	0.23723755	2.5843248	20	8 19.1	19.7
349614 2008 UB ₆₇	16.9	X	321.00548	251.11083	254.03429	5.77938	0.0802716	0.26681796	2.3896044	20	—	—
349615 2008 UX ₇₄	17.3	X	350.51948	185.99116	278.56526	3.82005	0.1276319	0.26237173	2.4165253	20	—	—
349616 2008 UH ₈₂	17.5	X	185.46248	217.14233	110.11867	3.97209	0.1689950	0.28862253	2.2676841	20	1 25.7	20.9
349617 2008 UO ₉₈	17.4	X	93.43982	258.94354	102.65842	3.39589	0.0588182	0.27072890	2.3665352	20	—	—
349618 2008 UY ₁₀₁	16.8	X	153.22073	291.67236	13.23830	6.21962	0.1326847	0.27399865	2.3476703	20	—	—
349619 2008 UK ₁₁₂	16.9	X	196.08244	0.89192	246.28216	5.88385	0.0811836	0.26660051	2.3909036	20	—	—
349620 2008 UY ₁₁₆	16.8	X	192.83323	162.47626	340.51986	4.63796	0.0458975	0.23808137	2.5782148	20	9 21.8	20.3
349621 2008 UU ₁₃₂	16.8	X	133.44564	333.68510	231.23803	7.56486	0.1159285	0.23848469	2.5753072	20	10 2.7	20.8
349622 2008 UH ₁₄₁	16.8	X	261.35539	198.29015	49.22625	7.03912	0.0883857	0.27996935	2.3141725	20	1 2.6	20.0
349623 2008 UX ₁₄₃	17.7	X	350.65843	293.35669	147.90078	0.86143	0.1168375	0.25981710	2.4323397	20	—	—
349624 2008 UQ ₁₄₈	16.8	X	224.69423	317.18231	237.28988	5.23233	0.0612154	0.25546730	2.4598720	20	—	—
349625 2008 UA ₁₅₁	17.2	X	354.01914	82.29361	67.27290	7.38879	0.0560231	0.27096961	2.3651335	20	—	—
349626 2008 UD ₁₅₁	16.8	X	181.61464	13.75123	231.57481	5.98350	0.0969972	0.25949455	2.4343549	20	—	—
349627 2008 UY ₁₅₃	17.8	X	17.36181	292.67212	146.64364	0.36077	0.1834441	0.26423211	2.4051693	20	—	—
349628 2008 UK ₁₅₆	17.7	X	21.40001	353.37198	45.60618	2.29653	0.1784854	0.26220959	2.4175215	20	—	—
349629 2008 UN ₁₆₀	16.9	X	4.14724	6.58258	47.59500	10.57520	0.1786749	0.25578563	2.4578306	20	—	—
349630 2008 UH ₁₆₃	17.5	X	21.51640	78.85528	225.53860	14.25224	0.1459874	0.24233699	2.5475217	20	9 30.4	20.6
349631 2008 UV ₁₆₉	17.1	X	32.72380	145.99654	266.67717	5.80062	0.0980365	0.26791757	2.3830615	20	—	—
349632 2008 UQ ₁₇₈	17.7	X	117.72361	62.37429	237.30409	6.03241	0.1389062	0.26426909	2.4049450	20	—	—
349633 2008 UK ₁₈₂	17.9	X	318.92059	317.20895	150.53384	2.12509	0.1411556	0.25892318	2.4379348	20	—	—
349634 2008 UU ₁₈₅	17.6	X	275.97386	272.34871	181.04028	1.41205	0.1373731	0.24233424	2.5479615	20	10 25.5	20.5
349635 2008 UJ ₁₉₂	17.4	X	358.48397	229.56685	174.15776	2.68350	0.2040438	0.25409416	2.4687262	20	—	—
349636 2008 UG ₁₉₈	16.7	X	64.95552	315.62827	38.45517	15.74839	0.2200855	0.26451961	2.4034263	20	—	—
349637 2008 UF ₂₁₀	18.2	X	0.25189	110.94363	229.05533	3.57219	0.2363156	0.24643732	2.5196008	20	11 1.8	20.4
349638 2008 UP ₂₁₆	16.2	X	327.60179	100.56145	287.85733	10.47032	0.2052208	0.23403919	2.6078163	20	10 18.5	18.7
349639 2008 UO ₂₂₅	17.3	X	318.01401	201.03211	280.33974	4.42452	0.1787947	0.25714802	2.4491418	20	—	—
349640 2008 UA ₂₄₈	18.1	X	29.02832	319.35592	92.22229	1.64248	0.1705047	0.26140184	2.4224991	20	—	—
349641 2008 UB ₂₄₈	17.4	X	23.91826	339.85623	82.65120	3.07962	0.1598648	0.26198253	2.4189181	20	—	—
349642 2008 US ₂₅₀	17.9	X	327.25441	85.67893	17.49097	1.57499	0.1490448	0.25853840	2.4403532	20	—	—
349643 2008 UW ₂₅₆	17.6	X	334.47879	1.23644	75.68249	3.62539	0.1586344	0.25453431	2.4658794	20	—	—
349644 2008 UG ₂₆₀	17.2	X	249.71083	11.85327	180.31141	6.35732	0.0985792	0.26252016	2.4156144	20	—	—
349645 2008 UJ ₂₇₀	17.0	X	41.17707	149.66201	176.16704	3.28062	0.1012722	0.24665922	2.5180894	20	11 11.7	20.2
349646 2008 UV ₂₈₁	17.3	X	228.80476	245.10850	251.75934	1.83049	0.0403429	0.24189540	2.5510422	20	10 31.0	20.5
349647 2008 UT ₂₉₄	17.1	X	352.33524	117.91452	22.68389	6.30699	0.0762566	0.27364634	2.3496849	20	—	—
349648 2008 US ₃₀₃	17.2	X	321.11361	139.09623	248.24756	3.34756	0.1112311	0.24056826	2.5604158	20	10 10.7	19.8
349649 2008 UF ₃₀₅	16.4	X	264.01270	174.89659	299.51524	11.18273	0.1193253	0.23074128	2.6326059	20	10 30.5	19.9
349650 2008 UN ₃₁₅	15.7	X	312.58212	244.21539	244.82181	8.86379	0.0223610	0.18095769	3.0956464	20	—	—
349651 2008 UT ₃₃₁	16.0	X	62.85554	237.06473	54.44022	15.26484	0.0799396	0.24149941	2.5538301	20	11 5.1	19.5
349652 2008 UR ₃₃₅	17.0	X	157.88189	235.42718	48.17865	8.29635	0.1057723	0.26778348	2.3838570	20	—	—
349653 2008 UZ ₃₄₆	16.3	X	257.86683	18.58123	106.32115	8.13822	0.0989966	0.23351527	2.6117155	20	11 15.7	19.7
349654 2008 UB ₃₅₃	17.0	X	282.68956	292.47673	259.52894	6.25012	0.0716967	0.26757345	2.3851043	20	—	—
349655 2008 VD ₇	18.0	X	311.10893	118.16904	259.35287	4.45262	0.3212518	0.23937213	2.5689382	20	8 7.9	20.1
349656 2008 VD ₉	17.2	X	269.37450	25.39636	119.47557	5.54200	0.1382950	0.25315652	2.4748182	20	12 28.3	19.6
349657 2008 UB ₂₁	18.2	X	350.96975	31.39369	98.30871	3.37116	0.1540480	0.26849879	2.3796212	20	—	—
349658 2008 VR ₃₃	17.1	X	86.31063	168.16413	125.95302	3.76363	0.1640018	0.25260202	2.4784386	20	12 13.4	20.9
349659 2008 VK ₄₇	16.5	X	325.09775	283.13061	111.18369	10.14470	0.1100522	0.24259299	2.5461494	20	11 3.9	19.4
349660 2008 VO ₄₈	16.7	X	5.33398	235.76474	64.42611	11.19386	0.1790243	0.23188606	2.6239343	20	9 8.2	19.6
349661 2008 VS ₄₈	17.9	X	271.35222	251.60491	204.41025	0.87603	0.1421134	0.24104300	2.5570528	20	10 20.3	20.7
349662 2008 VL ₅₇	16.9	X	345.81492	24.55763	59.61710	6.07951	0.1865158	0.25774237	2.4453752	20	—	—
349663 2008 VZ ₆₈	16.8	X	200.51894	303.04076	150.66526	4.89136	0.0727266	0.21461999	2.7628413	20	7 23.9	20.8
349664 2008 VR ₇₀	17.1	X	15.49331	340.80294	117.08208	5.60763	0.1582026	0.26055145	2.4277673	20	—	—
349665 2008 VL ₇₄	16.5	X	270.82617	142.01168	272.66220	11.71504	0.1501253	0.22773678	2.6557097	20	8 14.4	20.1
349666 2008 VC ₈₀	15.6	X	43.52078	52.18311	307.47486	12.85388	0.1749252	0.23783631	2.5799855	20	—	—
349667 2008 WN ₁₀	17.5	X	24.59276	11.86979	43.37768	4.02500	0.1710639	0.26189020	2.4194866	20	—	—
349668 2008 WH ₁₁	16.7	X	324.69678	30.27114	64.37529	8.54176	0.1039253	0.25576304	2.4579754	20	—	—
349669 2008 WA ₃₂	18.2	X	343.57316	52.65622	39.98473	2.93655	0.1780937	0.25639900	2.4539093	20	—	—
349670 2008 WF ₅₉	17.4	X	301.55989	328.86978	154.86970	3.40256	0.1521057	0.25464517	2.4651637	20	—	—
349671 2008 WY ₆₆	17.7	X	357.48763	18.20991	87.27165	3.45704	0.1713600	0.26319586	2.4114782	20	—	—
349672 2008 WR ₆₈	17.0	X	265.87352	152.87172	79.97819	7.42096	0.0837508	0.27177711	2.3604464	20	—	—
349673 2008 WB ₇₄	16.5	X	211.56757	70.21077	91.25915	11.70837	0.1848363	0.23375058	2.6099624	20	10 28.0	20.6
349674 2008 WH ₇₆	17.6	X	167.98286	29.30749	124.79327	3.13123	0.1390083	0.22879100	2.6475455	20	9 5.0	21.8
349675 2008 WD ₇₇	16.4	X	355.04550	288.74250	82.08483	10.05840	0					

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349681 2008 WE ₈₉	16.2	X	319.58092	265.22569	98.90764	13.23332	0.2797109	0.23153277	2.6266028	20	8 21.8	18.3
349682 2008 WC ₉₀	16.7	X	216.39806	28.51316	99.58112	15.36747	0.1442766	0.22733457	2.6588411	20	9 27.2	21.0
349683 2008 WP ₉₀	15.9	X	228.36993	161.97225	291.46881	14.17724	0.1601575	0.22287693	2.6941761	20	8 12.4	20.1
349684 2008 WY ₉₈	16.1	X	331.43967	147.80970	235.39930	8.36546	0.0649759	0.24035786	2.5619097	20	10 22.3	19.1
349685 2008 WA ₁₀₈	16.4	X	277.15888	27.48873	82.89692	12.14052	0.1416861	0.23923095	2.5699488	20	11 20.7	19.3
349686 2008 WS ₁₁₀	16.9	X	240.44017	195.96236	70.87941	7.60222	0.1191780	0.27697060	2.3308461	20	1 3.6	20.3
349687 2008 WD ₁₁₃	17.7	X	241.33791	27.23350	77.45264	3.16051	0.1545498	0.23495582	2.6010293	20	9 18.9	21.2
349688 2008 WN ₁₁₅	16.9	X	319.23675	190.31626	267.40614	1.27418	0.1250467	0.25190692	2.4829958	20	—	—
349689 2008 WP ₁₁₈	16.0	X	55.86442	49.96586	262.75061	7.02473	0.1550419	0.24611397	2.5218072	20	12 2.7	19.5
349690 2008 WG ₁₂₇	17.0	X	128.15935	262.74465	70.38029	7.87137	0.1383076	0.27057671	2.3674225	20	—	—
349691 2008 WC ₁₃₆	16.3	X	5.84888	155.01201	226.81937	4.23281	0.1351307	0.24739589	2.5130882	20	12 24.7	19.3
349692 2008 WX ₁₃₉	16.0	X	11.28416	180.10316	108.61251	8.34328	0.1018777	0.21670834	2.7450629	20	8 17.3	19.2
349693 2008 XS ₂	16.1	X	279.82762	2.22035	81.07000	35.81755	0.2206318	0.23345249	2.6121837	20	10 27.4	19.9
349694 2008 XF ₃	16.4	X	318.21445	253.62205	112.06507	29.25805	0.4049927	0.23383711	2.6093185	20	7 20.8	17.8
349695 2008 XA ₄	16.1	X	315.12424	330.44225	83.45261	14.30513	0.1799405	0.24028753	2.5624097	20	11 11.7	18.6
349696 2008 XS ₄	15.8	X	333.14996	334.32014	74.40370	15.75391	0.0825522	0.24313707	2.5423496	20	12 2.6	18.6
349697 2008 XC ₁₁	17.1	X	329.35105	270.87782	137.63678	4.91207	0.2504700	0.24673425	2.5175789	20	12 9.5	18.8
349698 2008 XV ₂₁	16.1	X	8.53357	124.38244	248.55310	4.11881	0.1696563	0.24502169	2.5292962	20	12 21.6	18.9
349699 2008 XW ₂₂	17.0	X	238.19168	90.67817	100.49109	5.74565	0.1288772	0.25469672	2.4648310	20	—	—
349700 2008 XG ₃₄	17.2	X	112.27605	338.06385	291.26297	4.72772	0.1227835	0.24646750	2.5193951	20	12 3.9	21.1
349701 2008 XR ₃₇	17.0	X	268.17781	4.65170	60.70277	8.75487	0.1745256	0.23403314	2.6078612	20	9 1.4	20.4
349702 2008 XJ ₄₆	16.8	X	342.71437	299.60891	121.59827	6.01045	0.1889359	0.24167261	2.5526098	20	—	—
349703 2008 XW ₅₀	17.2	X	10.07005	328.60235	104.51405	2.21538	0.1587681	0.25613540	2.4555926	20	—	—
349704 2008 XH ₅₁	16.8	X	333.41356	348.10080	63.61982	8.59159	0.2611901	0.24509211	2.5288117	20	12 24.6	18.7
349705 2008 XX ₅₁	15.9	X	351.72940	297.27308	95.95772	13.93694	0.12774892	0.24063268	2.5595988	20	11 15.6	18.0
349706 2008 XF ₅₂	16.0	X	25.31667	286.87072	79.29394	28.22869	0.1317871	0.24324182	2.5416196	20	12 27.8	19.4
349707 2008 YU ₂	16.4	X	8.31961	19.85329	349.93214	2.18547	0.2023673	0.24507659	2.5289185	20	12 22.3	19.2
349708 2008 YY ₂	16.3	X	353.51033	166.29503	201.14981	13.81321	0.2122183	0.24493213	2.5299128	20	11 26.2	18.9
349709 2008 YY ₃	17.2	X	317.17485	298.49770	45.59176	6.46719	0.1322881	0.22053913	2.7131821	20	7 30.6	20.3
349710 2008 YP ₅	15.7	X	34.81646	224.60837	99.25255	12.29835	0.1882336	0.24126833	2.554605	20	11 27.9	19.1
349711 2008 YM ₈	17.6	X	348.14272	260.87977	220.12022	0.64637	0.1382909	0.25889580	2.4381068	20	—	—
349712 2008 YP ₈	17.4	X	349.38626	333.45950	109.06301	3.23101	0.1602457	0.25579093	2.4577967	20	—	—
349713 2008 YQ ₉	17.1	X	317.71085	327.41416	102.76958	9.97935	0.2755065	0.24252252	2.5466426	20	12 11.7	18.6
349714 2008 YF ₁₁	17.0	X	152.16635	92.32253	88.39615	4.18891	0.0119785	0.23257695	2.6187353	20	9 24.8	20.5
349715 2008 YT ₁₆	16.6	X	348.09989	99.48257	289.23968	3.58731	0.2241770	0.24166960	2.5526310	20	12 15.8	19.0
349716 2008 YQ ₂₆	16.5	X	339.21726	149.12109	259.10769	7.00687	0.2073547	0.24402007	2.5362127	20	12 24.7	18.8
349717 2008 YS ₂₈	17.5	X	317.07599	201.19630	301.77422	1.38000	0.1476159	0.25586905	2.4572964	20	—	—
349718 2008 YF ₃₇	15.9	X	13.72309	196.08193	115.42435	16.43239	0.0511864	0.22208921	2.7005428	20	9 22.6	19.6
349719 2008 YB ₄₀	17.2	X	290.56856	95.77810	87.59181	2.43822	0.1174268	0.25687630	2.4508686	20	—	—
349720 2008 YB ₄₄	17.0	X	46.21926	286.14579	319.24415	2.48161	0.0500608	0.21553238	2.7550387	20	8 2.7	20.5
349721 2008 YJ ₄₅	16.2	X	269.24210	345.49464	95.87341	8.05480	0.0566268	0.23155211	2.6264566	20	10 12.5	19.7
349722 2008 YE ₅₀	16.3	X	123.57864	286.24993	313.95567	13.72404	0.0069390	0.23065599	2.6332549	20	10 26.3	20.3
349723 2008 YR ₅₂	17.0	X	185.18760	65.49779	75.87412	3.46273	0.1016790	0.22146929	2.7055800	20	9 7.8	21.2
349724 2008 YP ₆₂	17.2	X	304.92299	239.46800	137.15443	6.87522	0.0683071	0.22442194	2.6817966	20	8 31.7	20.4
349725 2008 YK ₆₅	16.3	X	347.52802	267.65714	104.36354	14.84638	0.2085193	0.23566652	2.5957974	20	11 20.7	19.0
349726 2008 YH ₆₈	16.6	X	327.08254	312.82206	112.63925	12.56435	0.2724883	0.24268473	2.5455077	20	12 30.7	18.2
349727 2008 YM ₆₉	17.5	X	241.06624	16.49744	82.26460	2.24866	0.0994808	0.22928107	2.6437715	20	9 17.4	21.2
349728 2008 YF ₇₀	15.9	X	268.60849	163.47234	299.37778	21.41303	0.0483439	0.23535384	2.5980960	20	10 28.6	19.8
349729 2008 YF ₈₀	16.8	X	127.68762	10.64170	152.45915	4.57173	0.0389746	0.21129275	2.7917701	20	7 28.3	20.8
349730 2008 YV ₈₀	17.6	X	24.04426	98.70333	333.93330	3.42591	0.1622072	0.25796218	2.4439859	20	—	—
349731 2008 YS ₈₆	17.8	X	244.93324	235.89991	216.15391	1.50067	0.1775350	0.23044204	2.6348845	20	8 31.4	21.4
349732 2008 YP ₉₃	17.4	X	13.56251	81.34626	291.86661	13.87144	0.1693422	0.24403138	2.5361344	20	12 29.9	20.4
349733 2008 YW ₉₇	16.9	X	193.30260	19.84454	99.81661	6.27350	0.0642802	0.21860892	2.7291294	20	8 21.9	20.8
349734 2008 YH ₁₀₄	16.9	X	37.85853	116.25929	305.26434	5.24544	0.1286677	0.25789736	2.4443953	20	—	—
349735 2008 YU ₁₀₅	17.1	X	246.95137	154.45193	284.08542	1.68805	0.1225229	0.22444915	2.6815799	20	8 23.1	20.8
349736 2008 YF ₁₀₉	17.0	X	0.89866	29.82722	313.82941	10.89478	0.2036780	0.22970073	2.6405504	20	10 23.3	19.9
349737 2008 YU ₁₀₉	17.0	X	354.16855	75.59652	262.02729	10.60049	0.0745471	0.23518255	2.5993573	20	9 19.7	20.3
349738 2008 YB ₁₁₀	16.8	X	162.37412	351.97220	117.76296	5.48442	0.0258716	0.21087554	2.7945512	20	6 30.7	20.6
349739 2008 YJ ₁₁₇	16.6	X	299.62904	256.28788	106.91823	7.32202	0.0386567	0.21796514	2.7345006	20	8 7.8	20.2
349740 2008 YJ ₁₂₆	16.1	X	219.80817	52.41987	111.38480	29.77198	0.1427771	0.23492511	2.6012560	20	11 20.9	20.4
349741 2008 YM ₁₃₀	17.1	X	211.45143	326.12024	80.81444	3.31091	0.0660246	0.21049367	2.7988311	20	6 6.5	21.2
349742 2008 YV ₁₃₁	17.3	X	311.89783	11.55683	0.93164	1.72567	0.1128643	0.22760141	2.6567626	20	9 1.6	20.1
349743 2008 YB ₁₃₄	17.8	X	237.54367	51.99385	77.15373	3.87096	0.1084714	0.23950520	2.5679866	20	10 23.5	21.2
349744 2008 YH ₁₃₄	17.7	X	329.46855	238.47369	236.79553	0.55415	0.1385898	0.25777023	2.4451990	20	—	—
349745 2008 YG ₁₄₀	16.6	X	352.09246	184.79161	206.68032	2.70769	0.2466995	0.24345029	2.5401685	20	12 31.6	19.0
349746 2008 YG ₁₄₅	16.4	X	332.58126	249.32837	134.29670	6.06409	0.3421846	0.23856343	2.5747405	20	11 13.9	17.5
349747 2008 YL ₁₄₆	16.4	X	207.01178	21.61976	123.20363	14.63347	0.1894906	0.22649532	2.6654052	20	10 2.3	20.8
349748 2008 YD ₁₅₁	16.8	X	33.63337	114.07739	147.67363	3.95256	0.0430669	0.21477793	2.7614867	20	8 5.5	20.4
349749 2008 YJ ₁₅₅	17.0	X	195.04119	299.91681	127.77569	1.38573	0.0518851	0.20792247	2.8218576	20	6 15.1	21.1
349750 2008 YZ ₁₅₅	16.1	X	276.93168	82.73815	31.05552	14.67248	0.0887195	0.23975203	2.5662237	20	11 26.1	19.4
349751 2008 YQ ₁₅₆	16.5	X	265.99571	310.09339	129.20088	14.72373	0.0814030	0.22869255	2.6483053	20	10 2.3	20.1
349752 2008 YD ₁₅₇	16.8	X	15.02085	151.34744	115.28791	4.39134	0.0525390	0.21071404	2.7968793	20	7 16.5	20.3
349753 2008 YP ₁₆₇	17.5	X	42.57299	205.71398	234.41818	1.73960	0.1391056	0.26801998	2.			

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349761 2009 AR ₂₂	16.4	X	205.21018	348.43140	126.37020	5.90174	0.0130956	0.22327085	2.6910062	20	9 3.9	20.0
349762 2009 AL ₂₅	17.2	X	269.40174	269.29052	305.07013	0.60101	0.1333808	0.25806509	2.4433361	20	—	—
349763 2009 AS ₂₇	16.6	X	246.39834	149.53190	306.73293	12.05106	0.1126975	0.22742677	2.6581225	20	9 11.6	20.4
349764 2009 AY ₂₈	16.8	X	311.27258	319.40234	119.73883	13.04389	0.1511062	0.24046807	2.5611270	20	12 9.2	19.4
349765 2009 AR ₃₇	17.0	X	184.96163	6.50590	130.75336	3.78721	0.0525319	0.22190427	2.7020432	20	9 4.1	20.8
349766 2009 AH ₄₃	16.8	X	313.78769	126.04021	309.12981	3.67591	0.1972608	0.23988255	2.5652928	20	12 5.2	19.0
349767 2009 BD ₁	16.9	X	134.03761	40.99227	132.97724	6.15196	0.0047109	0.21916084	2.7245456	20	8 19.0	20.4
349768 2009 BL ₁	16.7	X	325.36406	255.25506	279.23172	6.85672	0.1754126	0.26160636	2.4212364	20	—	—
349769 2009 BJ ₆	16.6	X	21.19374	334.94654	120.21268	11.25364	0.1116029	0.26520709	2.3992710	20	—	—
349770 2009 BW ₇	16.9	X	265.68764	270.22797	157.91361	11.73079	0.2891937	0.22903562	2.6456600	20	8 8.1	20.7
349771 2009 BF ₈	16.6	X	327.08158	93.60230	286.49542	10.22887	0.3182836	0.23809314	2.5781299	20	10 1.4	18.2
349772 2009 BW ₈	16.6	X	210.69000	12.85911	124.80544	11.36043	0.1436766	0.22728782	2.6592058	20	9 30.1	20.8
349773 2009 BP ₉	16.2	X	218.18699	197.02384	309.58931	6.95723	0.1488147	0.22766879	2.6562384	20	10 10.6	20.2
349774 2009 BG ₁₀	16.7	X	179.00374	233.18547	329.52752	12.85136	0.1414571	0.22940619	2.6428102	20	11 8.6	21.1
349775 2009 BW ₁₄	16.2	X	250.52653	154.91105	307.92117	13.60140	0.2137412	0.23094418	2.6310637	20	9 10.5	20.1
349776 2009 BV ₁₅	16.5	X	291.16615	260.88815	131.79642	6.12460	0.0636049	0.22528230	2.6749644	20	9 2.9	19.8
349777 2009 BS ₁₇	16.9	X	261.10035	178.23101	76.59078	6.95639	0.0078184	0.28103614	2.3083125	20	1 10.9	20.2
349778 2009 BQ ₃₀	16.8	X	275.71953	62.76636	328.56001	4.12874	0.1269410	0.21987781	2.7186196	20	7 29.1	20.4
349779 2009 BK ₃₄	17.1	X	337.50151	18.67224	12.69405	2.40064	0.0962228	0.23373365	2.6100884	20	11 12.9	20.0
349780 2009 BJ ₃₅	16.8	X	322.55443	200.36744	106.46731	7.28471	0.0492545	0.20585849	2.8406880	20	6 22.0	20.3
349781 2009 BX ₄₂	17.5	X	300.58173	303.99901	104.45696	1.78911	0.2268032	0.23096872	2.6308774	20	9 20.0	19.8
349782 2009 BN ₄₅	17.0	X	207.95345	274.75843	169.00028	4.56817	0.0400370	0.21049783	2.7987942	20	7 21.8	20.9
349783 2009 BR ₄₉	16.9	X	240.41689	286.42477	121.78706	4.42838	0.0915420	0.21388724	2.7691478	20	7 9.7	20.9
349784 2009 BA ₅₄	16.1	X	331.98961	280.45037	329.75087	8.71526	0.0432335	0.19374226	2.9579203	20	4 17.2	20.2
349785 Hsiao-tejen	16.1	X	8.37124	47.39580	321.33139	14.49404	0.0073791	0.23340553	2.6125340	20	11 15.7	20.0
349786 2009 BP ₆₀	16.1	X	242.96270	122.16833	318.92594	12.34226	0.1358165	0.22362992	2.6881249	20	8 19.2	19.7
349787 2009 BB ₆₂	17.2	X	171.92415	179.06277	304.74177	3.02182	0.0515962	0.21219895	2.7838162	20	7 31.2	21.0
349788 2009 BZ ₆₂	16.6	X	293.50687	17.32152	48.32939	12.44880	0.1716702	0.23461725	2.6035310	20	10 13.9	19.4
349789 2009 BA ₆₄	16.6	X	219.05245	140.70693	75.25983	6.87362	0.1415272	0.24605168	2.5222327	20	—	—
349790 2009 BM ₆₈	17.2	X	208.30661	82.51957	52.32708	2.82647	0.1512827	0.22617788	2.6678984	20	9 19.8	21.2
349791 2009 BO ₆₉	16.3	X	229.91676	91.43856	312.22172	10.91633	0.1432821	0.21403295	2.7678908	20	6 16.5	20.7
349792 2009 BO ₇₀	16.7	X	208.32968	2.26579	117.22614	11.54349	0.1516657	0.22256827	2.6966664	20	9 1.8	20.9
349793 2009 BQ ₇₃	16.8	X	334.16743	122.89519	279.00205	3.71673	0.1849079	0.23897253	2.5718012	20	11 29.8	19.0
349794 2009 BD ₇₄	16.8	X	265.28499	113.95071	323.58278	12.10400	0.2423216	0.23012270	2.6373215	20	8 27.0	20.4
349795 2009 BV ₇₆	16.3	X	289.23481	309.60198	113.66974	13.64649	0.2386191	0.22970975	2.6404813	20	9 22.8	19.3
349796 2009 BK ₈₀	16.9	X	255.35157	80.53482	53.29661	5.25388	0.1736778	0.23611260	2.5925269	20	11 10.7	20.0
349797 2009 BK ₈₂	17.1	X	230.22865	51.37033	68.01064	8.46460	0.2105823	0.22797388	2.6538680	20	9 20.2	21.2
349798 2009 BQ ₈₇	16.4	X	179.11316	346.49017	119.26289	4.46943	0.0578821	0.21027510	2.8007702	20	7 15.9	20.5
349799 2009 BD ₈₈	16.6	X	245.48964	102.18697	328.93800	4.43491	0.1044772	0.21980018	2.7192597	20	8 14.5	20.3
349800 2009 BM ₈₉	16.5	X	233.99529	294.97584	135.01456	14.65843	0.0502853	0.21609103	2.7502883	20	8 5.2	20.3
349801 2009 BL ₉₄	17.6	X	256.17025	272.22940	149.96965	3.33913	0.1924041	0.22162534	2.7043098	20	8 2.8	21.3
349802 2009 BJ ₉₅	16.6	X	263.25973	97.44291	324.32929	4.74211	0.0451271	0.22401590	2.6850362	20	9 2.9	20.1
349803 2009 BL ₉₉	16.3	X	204.89907	5.13352	129.89585	14.05719	0.0768761	0.22491540	2.6778727	20	9 26.9	20.3
349804 2009 BM ₉₉	17.7	X	191.27020	288.14125	130.45883	5.39616	0.1556533	0.29426980	2.2385781	20	5 28.5	21.1
349805 2009 BR ₁₀₆	16.6	X	216.00749	160.64536	344.46717	7.55967	0.1795634	0.22551838	2.6730972	20	10 4.2	20.8
349806 2009 BE ₁₁₀	16.4	X	313.64227	195.31878	71.49965	2.83893	0.0536447	0.18850160	3.0124928	20	4 17.7	20.4
349807 2009 BQ ₁₁₀	15.9	X	177.56459	240.74624	140.92278	11.24174	0.1992119	0.18853423	3.0121452	20	4 5.7	21.1
349808 2009 BS ₁₁₆	17.2	X	286.69270	87.66687	19.11693	11.53177	0.2588372	0.23964641	2.5669777	20	11 10.7	19.6
349809 2009 BB ₁₂₂	16.8	X	127.19127	108.26849	148.58452	8.39102	0.2064289	0.22657175	2.6648057	20	12 2.9	21.4
349810 2009 BR ₁₃₁	16.5	X	140.17795	68.49053	101.77643	9.46454	0.1378786	0.21478984	2.7613846	20	8 30.7	21.0
349811 2009 BT ₁₃₁	16.3	X	172.93718	348.35371	166.14291	13.93061	0.1344488	0.21949073	2.7218150	20	9 8.6	20.4
349812 2009 BA ₁₄₁	16.5	X	344.67381	215.57091	84.88843	5.40227	0.0894557	0.21208987	2.7847707	20	7 16.7	19.8
349813 2009 BH ₁₄₅	17.2	X	217.70236	89.67138	346.37797	3.68191	0.0792212	0.21272825	2.7791966	20	7 21.6	21.2
349814 2009 BL ₁₅₇	17.0	X	265.62254	74.27933	338.99437	7.95613	0.2604566	0.22053278	2.7132342	20	7 25.8	20.9
349815 2009 BF ₁₅₈	16.6	X	236.57354	266.84758	150.06968	9.77446	0.2238241	0.21280129	2.7785606	20	7 1.8	21.1
349816 2009 BR ₁₆₃	17.1	X	245.13257	96.84593	340.20467	10.39358	0.2415148	0.22345662	2.6895145	20	8 6.3	21.2
349817 2009 BY ₁₆₅	17.4	X	288.52436	149.64812	293.10851	1.55440	0.1295184	0.23232934	2.6205956	20	10 29.0	20.2
349818 2009 BC ₁₇₀	16.9	X	317.84350	92.43669	276.68365	1.13376	0.0917247	0.21902538	2.7256688	20	9 6.4	20.2
349819 2009 BU ₁₇₄	16.8	X	225.99259	240.99255	166.56300	2.28313	0.0653133	0.20393358	2.8585353	20	6 24.3	20.9
349820 2009 BA ₁₇₆	16.2	X	222.70913	52.05220	99.16877	9.97313	0.1390120	0.22994589	2.6386732	20	10 30.9	20.1
349821 2009 BG ₁₈₀	16.2	X	114.34854	284.98427	267.95664	3.58547	0.0938885	0.21238865	2.7821584	20	8 24.5	20.4
349822 2009 BU ₁₈₁	16.4	X	293.81350	0.73979	60.62196	16.22177	0.2509250	0.23242362	2.6198869	20	10 1.4	19.3
349823 2009 BM ₁₈₄	16.9	X	304.38088	93.34718	338.77697	2.56249	0.1837782	0.23742389	2.5829724	20	11 8.3	19.1
349824 2009 BJ ₁₈₆	16.7	X	198.82416	29.68499	58.14142	5.42374	0.0890856	0.21376561	2.7701981	20	7 14.7	20.9
349825 2009 BO ₁₈₆	16.0	X	350.01635	172.56697	82.86157	4.48238	0.1690128	0.19316293	2.9638316	20	5 19.3	19.2
349826 2009 CU ₆	16.9	X	218.31143	287.88565	114.12698	3.24214	0.0718063	0.20384556	2.8593581	20	6 7.8	21.1
349827 2009 CM ₇	17.0	X	275.56829	87.19920	0.13950	10.60352	0.1725425	0.23004892	2.6378854	20	10 5.9	20.2
349828 2009 CU ₁₁	17.0	X	211.28772	275.80215	277.28431	3.30767	0.2138738	0.23317220	2.6142766	20	11 26.8	21.1
349829 2009 CY ₁₄	16.8	X	342.21785	29.86901	4.93624	4.46111	0.1149272	0.23829621	2.5766650	20	11 27.9	19.6
349830 2009 CO ₁₅	16.9	X	212.21428	255.65946	190.83951	4.40694	0.0324733	0.21296666	2.7771221	20	7 31.2	20.7
349831 2009 CW ₁₈	16.6	X	214.38254	195.15124	318.88819	10.94800	0.1330582	0.22712547	2.6604728	20	10 15.5	20.8
349832 2009 CV ₁₉	16.6	X	235.57637	118.05569	304.27628	10.61792	0.2288618	0.21884665	2.7271527	20	7 8.6	21.0
349833 2009 CJ ₂₂	16.5	X	256.01905	248.49168	147.14638	7.49896	0.053939					

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349841 2009 CX ₄₈	17.1	X	286.73452	116.31660	315.39451	12.34733	0.1789559	0.23349844	2.6118410	20	9 27.2	20.3
349842 2009 CV ₄₉	17.7	X	273.97181	89.10023	21.46175	4.56437	0.2543159	0.23450404	2.6043689	20	10 24.5	20.5
349843 2009 CE ₅₂	17.0	X	288.18815	203.34061	139.71252	2.58270	0.0167220	0.20585355	2.8407334	20	6 26.3	20.8
349844 2009 CC ₅₅	16.6	X	252.17376	339.07780	106.30254	8.28607	0.1262918	0.22387338	2.6861757	20	9 11.7	20.3
349845 2009 CY ₅₅	16.6	X	306.18842	106.29044	303.41315	8.12672	0.1725939	0.22963834	2.6410287	20	10 4.2	19.5
349846 2009 CO ₅₉	15.9	X	170.89131	50.27143	92.35270	14.34515	0.1343363	0.21147081	2.7902028	20	8 26.9	20.5
349847 2009 CS ₆₁	15.8	X	332.74339	84.27372	115.76927	15.41911	0.0961431	0.17726663	3.1384705	20	2 17.2	20.0
349848 2009 CT ₆₂	16.9	X	326.23071	250.65367	113.00493	5.44304	0.1039089	0.21711187	2.7416605	20	9 15.2	20.0
349849 2009 CF ₆₃	16.3	X	176.38082	102.02745	73.89937	12.74839	0.0495944	0.22293213	2.6937313	20	10 19.2	20.3
349850 2009 CR ₆₅	16.5	X	170.25728	349.47250	152.51081	6.85074	0.0659049	0.21552816	2.7550746	20	8 21.9	20.4
349851 2009 DA ₂	15.8	X	209.39090	343.82244	331.51769	3.71663	0.1162326	0.17728996	3.1381952	20	2 13.3	20.6
349852 2009 DN ₇	16.0	X	353.53419	8.14227	157.08309	11.26592	0.0639189	0.17332930	3.1858212	20	2 3.6	20.2
349853 2009 DX ₁₅	16.9	X	248.37716	134.71153	349.62024	1.69445	0.1583859	0.23025560	2.6363066	20	10 20.0	20.2
349854 2009 DX ₁₈	16.3	X	50.11057	7.08747	153.98493	6.25388	0.0785911	0.18659698	3.0329574	20	4 22.2	20.2
349855 2009 DU ₁₉	16.2	X	179.01034	92.37750	93.72610	13.72748	0.1314183	0.22312346	2.6921912	20	10 30.1	20.6
349856 2009 DW ₁₉	16.5	X	175.77134	97.50231	95.62465	15.03116	0.1039097	0.22352825	2.6889399	20	11 6.1	20.8
349857 2009 DE ₂₁	16.5	X	9.55765	173.73735	95.92997	5.99032	0.260533	0.20860815	2.8156707	20	7 10.9	20.0
349858 2009 DJ ₂₆	16.1	X	189.42403	304.03671	171.15612	9.50350	0.1257305	0.21249124	2.7812628	20	8 4.5	20.6
349859 2009 DJ ₃₅	15.7	X	297.46058	107.57793	180.58368	14.42742	0.0747111	0.18379917	3.0636585	20	4 21.9	19.9
349860 2009 DY ₃₅	15.9	X	11.33802	58.38396	176.58562	11.65034	0.0314626	0.18941150	3.0028375	20	5 29.4	20.1
349861 2009 DW ₄₁	17.0	X	228.37799	307.65889	161.90507	13.62636	0.2228535	0.22299669	2.6932114	20	8 29.9	21.0
349862 2009 DX ₄₃	16.8	X	228.77559	17.07873	44.92988	9.65743	0.1038220	0.21224928	2.7833762	20	7 14.1	21.0
349863 2009 DS ₄₇	15.9	X	178.44559	317.22200	155.65447	17.26996	0.214096	0.20954409	2.8072802	20	7 20.8	20.8
349864 2009 DQ ₅₀	15.7	X	349.51708	278.92155	355.60072	10.89839	0.0919950	0.19314719	2.9639926	20	6 16.2	19.5
349865 2009 DG ₅₃	17.1	X	173.53821	191.84671	8.53963	5.41676	0.0478443	0.22762212	2.6566014	20	11 9.3	20.8
349866 2009 DU ₅₆	15.7	X	302.29088	146.76777	147.45155	10.40573	0.0559001	0.19081834	2.9880599	20	5 9.9	19.9
349867 2009 DY ₅₇	16.3	X	334.76307	163.70268	77.97186	2.34192	0.0919391	0.18503201	3.0500349	20	4 11.2	20.0
349868 2009 DS ₅₉	16.7	X	90.71785	67.09494	96.30780	3.87138	0.0187102	0.19578261	2.9373338	20	6 8.8	20.0
349869 2009 DB ₆₂	15.7	X	201.30863	155.82100	145.69042	7.94271	0.0329365	0.16740030	3.2606077	20	1 21.3	20.6
349870 2009 DB ₆₃	16.3	X	144.73298	21.83619	32.09916	5.52936	0.0744518	0.18354089	3.0665319	20	4 4.4	20.8
349871 2009 DO ₆₅	16.4	X	173.05437	113.99156	41.06338	14.25804	0.1499920	0.21779152	2.7359537	20	9 16.0	21.0
349872 2009 DZ ₆₈	16.7	X	263.44136	33.07285	101.21676	8.76687	0.1943659	0.24381099	2.5376625	20	11 24.1	19.6
349873 2009 DC ₇₁	17.1	X	214.75592	195.95776	331.74383	3.08616	0.0679222	0.23100411	2.6306086	20	11 15.5	20.8
349874 2009 DA ₇₄	16.4	X	69.15690	337.57776	163.98999	5.32982	0.0654623	0.18862340	3.0111958	20	4 21.3	20.4
349875 2009 DR ₇₆	16.7	X	131.94475	44.64412	129.31116	7.34375	0.0565754	0.21357882	2.7718130	20	8 19.7	20.6
349876 2009 DN ₇₈	16.5	X	159.49557	3.29971	104.86884	5.37363	0.1226217	0.20458220	2.8524901	20	6 28.0	21.0
349877 2009 DC ₈₁	16.0	X	234.69569	180.27472	168.49734	17.05683	0.0855896	0.18568087	3.0429252	20	4 22.4	20.7
349878 2009 DG ₈₁	17.0	X	92.64589	83.34041	54.17653	2.88412	0.1293187	0.18999128	2.9967253	20	5 24.4	21.2
349879 2009 DK ₈₁	16.9	X	106.85840	38.20552	72.84562	2.87789	0.0396664	0.18573200	3.0423667	20	4 26.7	21.2
349880 2009 DD ₈₄	15.8	X	217.00400	221.29993	141.31554	5.96669	0.0554426	0.18757124	3.0224459	20	4 21.0	20.3
349881 2009 DS ₈₄	16.8	X	157.24927	90.57805	62.83462	3.28517	0.1565934	0.21047927	2.7989587	20	8 24.1	21.3
349882 2009 DZ ₈₄	16.1	X	287.82946	217.79868	41.68104	7.57479	0.0996070	0.17563389	3.1578913	20	3 3.8	20.6
349883 2009 DJ ₈₇	16.4	X	198.35675	25.36579	89.90518	4.13493	0.0326307	0.21404141	2.7678179	20	8 23.9	20.2
349884 2009 DM ₁₀₉	16.7	X	142.80602	295.85217	218.22583	7.73216	0.1456070	0.21085772	2.7956087	20	8 6.8	21.3
349885 2009 DT ₁₁₈	16.7	X	15.91112	15.99831	173.99085	1.27137	0.0994919	0.18366395	3.0651631	20	4 7.2	20.4
349886 2009 DA ₁₂₅	16.6	X	136.26769	296.23974	133.71731	2.25143	0.0745426	0.18426808	3.0584477	20	4 14.7	21.0
349887 2009 DP ₁₂₅	15.9	X	87.43434	115.33383	9.32446	10.33285	0.0173139	0.18287549	3.0739659	20	4 13.8	20.2
349888 2009 DM ₁₂₆	16.8	X	275.40197	73.11218	330.04954	4.51529	0.0731768	0.21187162	2.7866828	20	8 20.9	20.2
349889 2009 DL ₁₂₉	16.5	X	195.07608	254.43246	170.91286	11.28519	0.0868260	0.19751638	2.9201196	20	6 11.5	21.1
349890 2009 DZ ₁₃₀	16.9	X	282.29088	28.76320	69.50080	15.58058	0.2099086	0.23358436	2.6112004	20	11 3.7	19.8
349891 2009 DE ₁₃₃	16.7	X	63.49151	283.75333	124.88734	4.95338	0.0844132	0.18581326	3.0414796	20	4 10.3	20.8
349892 2009 DM ₁₃₄	16.3	X	331.71895	51.89587	217.20168	1.68743	0.1271397	0.17119011	3.2123062	20	2 9.3	20.5
349893 2009 DP ₁₃₆	16.2	X	103.85349	235.98838	178.36925	10.96240	0.10712601	0.17277356	3.1926491	20	2 16.3	20.8
349894 2009 EN ₁₂	15.9	X	58.52533	81.26576	50.50884	9.77860	0.0912793	0.18363362	3.0654995	20	4 8.9	20.0
349895 2009 ED ₃₀	15.7	X	114.21660	56.91495	54.21011	9.17887	0.0588266	0.18889463	3.0083126	20	5 7.9	20.0
349896 2009 FB ₂₃	15.9	X	291.17300	155.58538	112.73842	6.17759	0.0898069	0.17814087	3.1281939	20	3 18.9	20.3
349897 2009 FM ₂₄	15.6	X	74.57055	6.32458	152.78420	9.61119	0.0308857	0.18938456	3.0031222	20	5 17.4	19.9
349898 2009 FA ₂₈	15.9	X	19.59652	107.42913	72.89938	10.13533	0.1860278	0.18131121	3.0916212	20	4 8.9	19.3
349899 2009 FE ₃₂	15.2	X	130.34470	158.42204	292.04455	14.98865	0.0693719	0.17597553	3.1538027	20	4 26.7	20.2
349900 2009 FM ₃₄	16.2	X	333.80559	272.57769	52.55883	6.51390	0.0789935	0.20276965	2.8694638	20	8 3.7	19.8
349901 2009 FX ₃₅	16.1	X	140.20745	63.85190	22.23050	11.77109	0.0775598	0.18870094	3.0103709	20	5 5.7	20.6
349902 2009 FU ₃₈	16.3	X	116.89524	90.34359	46.23591	2.69830	0.0658117	0.19516653	2.9435121	20	6 13.0	20.5
349903 2009 FS ₄₃	16.3	X	180.62737	208.22031	299.13738	14.37919	0.2311291	0.21506625	2.7590181	20	8 28.7	21.3
349904 2009 FZ ₄₃	16.3	X	130.09955	188.49209	25.63800	13.76149	0.1027576	0.21491088	2.7603476	20	10 10.9	20.4
349905 2009 FP ₄₇	15.4	X	111.09307	94.47220	45.02507	11.37850	0.0768992	0.19290357	2.9664876	20	6 9.9	19.8
349906 2009 FD ₄₈	16.4	X	38.32668	214.22635	67.06009	5.34065	0.0329068	0.20963106	2.8065038	20	9 8.8	20.2
349907 2009 FV ₆₈	15.8	X	50.15042	95.28349	61.05489	16.66211	0.1770671	0.17758592	3.1347076	20	5 1.1	19.7
349908 2009 FN ₇₄	15.5	X	308.53395	123.76343	96.63451	10.38434	0.0549322	0.17243674	3.1968052	20	2 16.8	20.0
349909 2009 HD ₈	15.5	X	29.72002	119.26511	57.45250	16.91744	0.0619645	0.17687481	3.1431038	20	4 16.2	19.8
349910 2009 HQ ₉	15.3	X	152.61330	355.14392	64.78737	29.19714	0.1000134	0.17752092	3.1354726	20	5 1.5	20.4
349911 2009 HT ₇₉	16.1	X	72.17341	73.45036	60.11702	2.89270	0.0467959	0.17713769	3.1399934	20	4 12.6	20.3
349912 2009 HN ₉₀	16.4	X	95.60693	94.19076	59.44820	2.43896	0.0983570	0.18987084	2.9979924	20	6 13.5	20.6
349913 2009 KX ₈	15.8	X	340.66012	52.10851	152.34854	6.10240	0.1013698	0.16831970	3			

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
349921 2009 SB ₂₈₀	16.2	X	280.05859	18.17830	68.32010	4.30320	0.1672776	0.17836799	3.1255380	20	10 6.3	20.3
349922 2009 TW ₄₂	17.9	X	227.76427	229.82302	233.67957	18.90364	0.1054636	0.35325571	1.9818765	20	9 14.1	20.6
349923 2009 UF ₈	13.5	X	271.78636	357.14783	66.71914	5.52764	0.0191635	0.08219604	5.2388440	20	9 6.3	20.4
349924 2009 UW ₉₁	16.8	X	264.26503	227.43724	256.94751	19.99278	0.0674945	0.37051293	1.9198493	20	—	—
349925 2009 WC ₂₆	17.3	X	57.07794	350.92608	203.06472	12.00076	0.6969450	0.30790590	2.1719878	20	9 7.6	21.6
349926 2009 WV ₄₁	18.2	X	58.33847	63.77641	59.26275	6.21027	0.0192712	0.30870725	2.1682274	20	2 24.6	20.6
349927 2009 WB ₅₀	17.9	X	21.67692	49.53849	67.56390	4.49801	0.1962399	0.28685647	2.2769821	20	—	—
349928 2009 WD ₁₀₆	18.6	X	351.37105	16.69524	294.55818	10.98514	0.7766188	0.36658559	1.9335369	20	3 11.2	20.5
349929 2009 WT ₂₀₂	17.4	X	31.26245	269.13915	56.80699	22.47578	0.0817235	0.36070125	1.9545087	20	12 3.5	19.5
349930 2009 XH ₁₇	18.1	X	159.47942	72.57375	297.00295	2.02111	0.2666739	0.30774477	2.1727459	20	2 27.9	21.6
349931 2009 XE ₁₈	17.5	X	148.92242	283.14281	92.64653	6.83937	0.1577782	0.30295529	2.1955855	20	2 19.9	20.6
349932 2009 XO ₁₈	16.1	X	155.41524	276.42995	116.10973	5.44331	0.0813842	0.21138761	2.7909348	20	3 20.8	20.3
349933 2009 YF ₇	10.9	X	14.90014	89.62770	97.48755	30.98547	0.4626619	0.02338048	12.1125009	20	5 20.0	19.4
349934 2010 AX ₅	16.3	X	125.69927	203.57870	125.70658	23.06766	0.1948042	0.27752172	2.3277593	20	—	—
349935 2010 AD ₉	17.9	X	127.99695	241.59539	142.01890	5.53727	0.1645798	0.29748282	2.2224302	20	2 4.8	20.6
349936 2010 AC ₁₂	17.4	X	19.13974	193.94766	304.76174	6.15544	0.0491593	0.29201257	2.2500993	20	1 17.8	19.7
349937 2010 AN ₁₅	17.4	X	196.72101	206.53461	66.99768	7.50505	0.0882826	0.28549797	2.2841995	20	—	—
349938 2010 AP ₂₉	17.3	X	137.90107	355.38109	62.64133	4.12394	0.0909677	0.30813615	2.1709057	20	3 26.5	19.9
349939 2010 AH ₅₀	17.9	X	278.65896	310.92158	235.72370	3.58610	0.1694776	0.27497200	2.3421268	20	—	—
349940 2010 AK ₅₃	16.8	X	313.36161	273.40916	298.81002	20.94609	0.1466860	0.28984207	2.2613186	20	1 10.1	19.7
349941 2010 CY ₂	17.7	X	275.36550	80.17731	115.60333	2.33652	0.1320137	0.27450238	2.3447973	20	—	—
349942 2010 CR ₂₂	17.6	X	92.17036	138.74240	338.40465	7.31463	0.1202923	0.30380285	2.1915001	20	4 17.2	20.2
349943 2010 CO ₂₉	16.8	X	232.51413	262.78128	157.70284	6.31568	0.0202846	0.22641126	2.6660648	20	7 25.6	20.4
349944 2010 CH ₃₂	17.6	X	314.00715	20.61171	160.76370	10.45839	0.1636127	0.27767110	2.3269243	20	—	—
349945 2010 CD ₅₂	16.1	X	269.97775	80.25738	209.88534	13.58194	0.0539880	0.18619166	3.0373575	20	3 18.8	20.6
349946 2010 CE ₆₂	18.1	X	74.47280	52.96868	110.76815	3.45117	0.1875364	0.30856456	2.1688958	20	6 15.6	20.4
349947 2010 CP ₆₃	17.9	X	252.46735	164.88770	39.37463	1.79035	0.1256491	0.26826371	2.3810111	20	—	—
349948 2010 CC ₆₉	17.8	X	6.34514	218.65931	341.14716	5.41795	0.1480204	0.29693996	2.2251380	20	3 18.5	19.5
349949 2010 CN ₆₉	17.4	X	167.71986	130.84929	129.79222	6.97282	0.0996713	0.26956354	2.3733509	20	—	—
349950 2010 CL ₈₅	17.3	X	195.46933	82.47934	154.91174	5.16035	0.1431805	0.26131239	2.4230519	20	—	—
349951 2010 CR ₁₀₇	18.0	X	342.52288	356.59049	155.02600	6.38217	0.1269955	0.27981541	2.3150212	20	—	—
349952 2010 CY ₁₀₇	17.7	X	97.15666	297.67673	150.28244	4.62039	0.1136766	0.29548835	2.2324195	20	3 17.2	20.1
349953 2010 CK ₁₁₉	17.9	X	255.94311	57.12858	136.12774	3.39297	0.1223886	0.26799564	2.3825987	20	—	—
349954 2010 CR ₁₂₃	17.4	X	140.68482	272.65670	32.76989	1.44603	0.1897615	0.26301424	2.4125883	20	—	—
349955 2010 CO ₁₂₇	17.2	X	339.98645	233.66683	334.13593	7.57826	0.1551603	0.28968423	2.2621400	20	2 10.3	19.5
349956 2010 CS ₁₄₆	17.4	X	278.91555	356.44275	187.70691	4.80573	0.1625064	0.26985039	2.3716686	20	—	—
349957 2010 CM ₁₆₆	16.6	X	68.69916	34.26735	301.68905	1.81221	0.2184637	0.25203981	2.4821229	20	—	—
349958 2010 CK ₁₈₂	18.1	X	353.19357	325.71329	167.96072	6.07077	0.0304252	0.28041197	2.3117366	20	—	—
349959 2010 CC ₂₂₂	17.4	X	339.10478	20.94140	73.37263	7.62193	0.0807143	0.25421969	2.4679135	20	—	—
349960 2010 DK ₂₀	16.1	X	15.63821	210.96136	113.27130	8.82460	0.0943440	0.24045485	2.5612208	20	10 19.4	19.3
349961 2010 DO ₃₀	17.3	X	65.21814	6.47829	213.16437	9.09804	0.1362259	0.20971819	2.8057264	20	8 3.8	21.3
349962 2010 DP ₃₁	15.9	X	238.88098	213.89870	83.84897	11.69232	0.1978778	0.17533330	3.1614994	20	2 19.3	21.3
349963 2010 DV ₃₁	15.5	X	145.71855	133.19580	77.16312	30.58777	0.2204544	0.23200649	2.6230262	20	11 5.5	20.5
349964 2010 DO ₄₆	18.3	X	278.99466	322.07595	206.43094	1.85311	0.1160269	0.26659974	2.3909082	20	—	—
349965 2010 DP ₆₅	15.7	X	245.60923	268.75373	245.71813	25.24560	0.1361266	0.24369061	2.5384982	20	12 1.6	18.8
349966 2010 ER ₇	15.6	X	219.36076	103.96552	207.77815	16.34733	0.1648689	0.17104603	3.2101098	20	2 12.5	21.1
349967 2010 ET ₇	16.6	X	173.43127	333.06394	229.23464	12.72343	0.1955678	0.23478329	2.6023034	20	11 5.6	21.0
349968 2010 ES ₂₁	17.6	X	276.86362	1.89493	175.28793	3.87380	0.1915058	0.26650866	2.3914529	20	—	—
349969 2010 EG ₂₉	16.4	X	122.87686	210.80318	1.12512	14.60245	0.0676864	0.23311066	2.6146963	20	9 28.6	20.0
349970 2010 EA ₃₅	17.4	X	264.04325	78.57167	127.13624	5.05986	0.1364286	0.27101010	2.3648979	20	—	—
349971 2010 EE ₄₀	16.5	X	209.74914	271.03279	176.00585	14.48970	0.0803604	0.22893528	2.6464329	20	7 24.5	20.6
349972 2010 EW ₆₆	16.1	X	331.93878	357.05628	4.40769	11.80423	0.2764680	0.23787884	2.5796780	20	9 23.8	17.5
349973 2010 EE ₆₇	16.7	X	98.41725	210.40185	47.05519	4.90091	0.1445851	0.23775126	2.5806008	20	11 6.1	20.7
349974 2010 ES ₇₇	17.0	X	294.42453	242.08377	323.87690	6.17903	0.0743791	0.27928032	2.3179772	20	—	—
349975 2010 EX ₈₅	17.4	X	183.26428	129.78946	152.39564	10.26756	0.1195002	0.27585348	2.3371347	20	—	—
349976 2010 EC ₈₆	16.0	X	355.84673	180.68309	207.80402	7.89198	0.0960925	0.24496444	2.5296903	20	12 12.6	19.0
349977 2010 EG ₉₀	16.3	X	35.92523	328.22014	339.23692	13.11751	0.1582693	0.23963032	2.5670926	20	10 25.1	19.8
349978 2010 EP ₁₀₃	16.7	X	345.64308	4.38943	347.36093	2.86230	0.1426902	0.23463399	2.6034072	20	10 4.9	19.3
349979 2010 EO ₁₀₈	17.6	X	18.89414	319.66392	176.71640	1.33531	0.1499660	0.28189815	2.3036044	20	1 7.9	19.5
349980 2010 EH ₁₁₀	18.0	X	42.42571	149.56192	352.11429	1.91469	0.0995494	0.29190699	2.2506418	20	3 1.9	20.1
349981 2010 EQ ₁₁₃	15.8	X	30.37898	230.60757	103.29112	9.02532	0.1614926	0.24425687	2.5345733	20	11 30.9	19.0
349982 2010 ED ₁₂₁	17.5	X	290.66128	16.62518	158.75480	8.06330	0.0588784	0.26959526	2.3731647	20	—	—
349983 2010 EL ₁₂₃	16.8	X	169.67774	194.10113	82.59685	4.90406	0.0937972	0.25634151	2.4542761	20	—	—
349984 2010 EG ₁₂₄	17.9	X	308.14596	67.78728	74.57947	3.24087	0.1357182	0.27025070	2.3693261	20	—	—
349985 2010 ER ₁₂₇	17.2	X	343.48954	133.85532	36.62886	6.69674	0.1073871	0.28360686	2.2943424	20	1 1.6	19.9
349986 2010 ES ₁₃₁	16.8	X	88.62118	211.07530	9.44751	3.39515	0.1399860	0.22272112	2.6954324	20	9 8.6	20.6
349987 2010 EK ₁₃₄	17.3	X	306.52379	229.52120	197.14518	7.59200	0.1726757	0.24688784	2.5165346	20	11 11.3	19.5
349988 2010 EW ₁₄₀	17.2	X	253.73489	264.00339	168.92137	3.77214	0.0110634	0.23125336	2.6287181	20	9 12.1	20.6
349989 2010 EO ₁₇₁	16.5	X	112.94901	235.81681	91.06435	7.64244	0.1234461	0.26097264	2.4251544	20	—	—
349990 2010 EY ₁₇₁	16.4	X	2.70145	205.34424	102.72925	10.19542	0.0885244	0.22592388	2.6698977	20	9 1.7	19.6
349991 2010 FM ₂₀	16.7	X	301.51657	232.86315	134.51386	4.20709	0.1226804	0.22823189	2.6518675	20	8 5.5	19.7
349992 2010 FD ₂₉	16.2	X	8.19140	219.44090	35.13953	9.78821	0.0825708	0.21287212	2.7779443	20	6 19.9	19.7
349993 2010 FE ₈₅	16.9	X	138.73933	79.00769	131.23507	5.75081	0.1704563	0.23360532	2.6110442	20	10 19.6	21.2
349994 2010 FS ₈₈	18.0	X	275.53039	336.93793	192.74254	2.03325	0.1460721	0.26302434	2.4125265	2		

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350001 2010 GX ₉₈	17.6	X	67.71691	145.87580	128.11730	2.82771	0.0435475	0.23143534	2.6273399	20	10 11.8	21.0
350002 2010 GA ₁₀₁	16.9	X	3.51931	180.44123	166.67476	2.58922	0.0917217	0.23908640	2.5709845	20	10 27.6	19.9
350003 2010 GH ₁₀₄	16.6	X	273.09702	231.25270	110.81900	3.17390	0.0825291	0.20554749	2.8435526	20	5 26.3	20.5
350004 2010 GJ ₁₂₇	16.0	X	277.27929	242.47815	133.40691	6.87481	0.0401735	0.21306180	2.7762952	20	7 22.2	19.6
350005 2010 GU ₁₃₅	17.6	X	334.71844	63.71293	66.53192	5.66491	0.1768538	0.26839887	2.3802117	20	—	—
350006 2010 GR ₁₄₇	13.6	X	335.31206	192.32911	62.81680	26.81042	0.0692722	0.08334744	5.1904843	20	5 9.4	20.3
350007 2010 GG ₁₅₆	16.2	X	293.38325	4.30658	53.48707	14.82352	0.0605675	0.23337105	2.6127914	20	10 16.8	19.6
350008 2010 GW ₁₅₇	16.3	X	103.91527	16.01489	225.25383	9.96846	0.0720272	0.22995084	2.6386354	20	10 13.8	20.2
350009 2010 HX ₂₃	12.7	X	9.80402	338.22370	252.59948	18.16420	0.0866900	0.08466385	5.1365404	20	5 22.4	19.1
350010 2010 HP ₆₈	15.3	X	333.98886	311.13155	290.59074	18.29191	0.2723664	0.18283762	3.0743904	20	3 5.3	19.2
350011 2010 HJ ₇₄	15.1	X	252.28659	24.57306	294.83821	27.35739	0.1801064	0.17274235	3.1930337	20	3 8.3	20.7
350012 2010 HG ₇₇	16.4	X	297.45333	163.93218	221.98027	13.73754	0.0683708	0.22390021	2.6859611	20	8 25.9	20.1
350013 2010 HQ ₁₀₇	16.4	X	59.14457	163.30681	76.99613	8.73276	0.1873536	0.21488861	2.7605384	20	9 8.7	20.3
350014 2010 JX ₁₄	16.0	X	138.17695	128.66300	85.12211	14.07391	0.1994892	0.23213789	2.6220363	20	10 27.2	20.6
350015 2010 JG ₃₁	16.5	X	110.58217	33.35045	222.52593	4.51350	0.1356472	0.23261190	2.6184730	20	11 14.7	20.6
350016 2010 JA ₃₈	17.1	X	210.54640	16.06116	163.25232	3.31806	0.1391350	0.24159247	2.5531743	20	11 20.3	20.7
350017 2010 HX ₇₄	16.3	X	179.53182	304.72539	230.88968	12.00980	0.1215922	0.23316689	2.6143163	20	10 11.1	20.4
350018 2010 JL ₄₀	16.9	X	148.23057	63.98843	135.90667	3.14222	0.1303043	0.22970077	2.6405501	20	10 13.7	21.0
350019 2010 JZ ₄₀	15.8	X	189.25389	245.72441	107.10842	19.03020	0.1793751	0.17699294	3.1417052	20	3 16.5	21.3
350020 2010 JO ₇₄	16.8	X	49.94719	22.33020	60.84852	6.30022	0.0823301	0.26854186	2.3793667	20	—	—
350021 2010 JW ₇₅	16.4	X	282.45703	238.87859	203.04296	14.06129	0.1567638	0.23632486	2.5909743	20	10 15.4	19.3
350022 2010 JN ₇₇	15.6	X	194.51726	217.07107	90.34398	6.28421	0.1051627	0.16859440	3.2451936	20	1 22.9	20.6
350023 2010 JW ₈₂	16.1	X	199.75071	43.72928	129.52078	12.10667	0.0918366	0.23819967	2.5773611	20	11 9.2	20.0
350024 2010 JO ₁₁₂	16.2	X	287.25099	143.15174	190.74344	17.26533	0.1171570	0.20042831	2.8917673	20	5 29.9	20.4
350025 2010 JX ₁₁₅	16.7	X	28.38880	15.21461	235.46743	7.38640	0.1673634	0.21021837	2.8012741	20	7 26.5	20.0
350026 2010 JG ₁₁₆	17.3	X	194.40734	307.95355	260.25132	7.94136	0.1677726	0.24513992	2.5284829	20	12 5.8	21.2
350027 2010 JH ₁₂₁	15.8	X	209.69087	271.58892	126.84533	11.17018	0.1564932	0.19662219	2.9289663	20	5 22.8	20.7
350028 2010 JP ₁₄₆	15.4	X	199.45943	49.45589	268.91255	9.02241	0.0864577	0.19152079	2.9807492	20	2 3.1	20.0
350029 2010 JR ₁₄₇	16.4	X	174.36314	327.89108	216.49018	13.02002	0.0624377	0.23229973	2.6208183	20	10 21.8	20.1
350030 2010 JN ₁₅₀	16.3	X	124.58415	77.14172	79.64033	12.04720	0.1312247	0.21352036	2.7723189	20	7 26.6	20.7
350031 2010 JU ₁₅₀	15.8	X	192.87001	238.98683	86.39668	10.52028	0.0668635	0.17390407	3.1787977	20	2 12.1	20.7
350032 2010 JH ₁₅₁	16.3	X	92.42239	321.39333	241.81058	10.67125	0.1309744	0.21422795	2.7662110	20	8 13.9	20.6
350033 2010 JP ₁₅₃	16.5	X	132.98300	98.42885	68.23133	13.88444	0.1001996	0.21678816	2.7443891	20	8 19.5	20.9
350034 2010 JQ ₁₆₃	16.8	X	25.58084	47.19289	219.31301	13.09015	0.0563781	0.21352278	2.7722979	20	7 28.3	20.7
350035 2010 JW ₁₆₉	16.7	X	183.67435	122.73525	67.97073	17.18664	0.1431541	0.23887625	2.5724922	20	11 8.6	20.7
350036 2010 JV ₁₇₃	17.3	X	8.96316	118.14793	140.00085	1.82453	0.0524638	0.20630199	2.8366152	20	6 25.2	20.8
350037 2010 JR ₁₇₇	15.9	X	232.29448	163.67257	347.80488	9.16805	0.0850525	0.24417237	2.5351580	20	11 14.7	19.5
350038 2010 KW ₁₄	15.9	X	111.98144	321.79748	265.77935	8.38844	0.1605331	0.21094283	2.7948566	20	10 6.4	20.6
350039 2010 KQ ₄₀	15.8	X	295.53385	158.10468	153.65242	11.53990	0.0634879	0.19329692	2.9624618	20	5 21.9	20.0
350040 2010 KK ₆₂	17.4	X	227.21996	201.37291	26.77800	1.83763	0.1371109	0.25596777	2.4566645	20	—	—
350041 2010 KN ₁₁₇	16.1	X	62.57593	208.42162	92.06475	15.31656	0.0608200	0.22775943	2.6555336	20	11 13.9	19.9
350042 2010 KP ₁₂₁	16.6	X	160.70848	104.47057	72.30483	9.92435	0.1205000	0.23819128	2.5774217	20	10 2.2	20.7
350043 2010 KK ₁₂₉	17.2	X	313.17415	102.43808	109.89693	7.41181	0.0542333	0.28361180	2.2943158	20	1 24.2	19.8
350044 2010 LV ₄₄	15.5	X	29.26307	295.38555	296.26950	16.35968	0.1234540	0.18289681	3.0737270	20	6 27.6	19.4
350045 2010 LT ₁₀₆	16.3	X	113.00841	4.79900	239.48352	12.75128	0.1174794	0.23121830	2.6289838	20	10 31.2	20.3
350046 2010 NV ₁₁₇	15.3	X	286.65257	330.55489	307.24021	31.15060	0.1180751	0.17233238	3.1980957	20	3 1.5	20.5
350047 2010 OA ₇	15.5	X	304.27378	194.47311	237.49883	28.68421	0.1033122	0.24137567	2.5547028	20	11 15.6	18.4
350048 2010 OG ₃₀	16.3	X	120.41929	3.87493	323.70787	6.65157	0.1326872	0.22965865	2.6408730	20	—	—
350049 2010 OE ₉₁	15.9	X	231.61598	235.60318	93.56005	8.06326	0.1510728	0.18547853	3.0451378	20	3 22.4	20.9
350050 2010 PP ₅	16.9	X	248.11370	292.94392	143.13778	5.90607	0.0300406	0.22264088	2.6960800	20	9 5.6	20.5
350051 2010 PH ₂₅	13.5	X	233.40556	18.91516	89.22737	8.69906	0.0851133	0.08426583	5.1527021	20	9 7.6	20.6
350052 2010 PQ ₃₈	13.1	X	247.07108	42.74162	38.06768	8.98234	0.0669628	0.08173733	5.2584256	20	8 24.1	20.2
350053 2010 PE ₄₉	14.1	X	246.08933	64.83006	29.34413	7.70388	0.0793008	0.08379002	5.1721907	20	9 4.9	21.1
350054 2010 RN ₃₇	15.1	X	101.54268	325.63622	4.27402	2.64227	0.2267166	0.12503781	3.9607292	20	—	—
350055 2010 RE ₃₈	13.0	X	66.42707	10.13072	279.24672	17.58314	0.0182547	0.08465673	5.1368282	20	9 22.4	20.1
350056 2010 RU ₃₉	15.3	X	299.95176	42.53788	286.14142	10.46837	0.0833522	0.18079045	3.0975552	20	6 13.5	19.4
350057 2010 RZ ₁₇₉	18.1	X	260.59846	212.84076	181.38753	22.20290	0.0973398	0.38520818	1.8707068	20	7 25.5	20.4
350058 2010 SZ ₆	16.6	X	3.48011	278.57687	344.15012	0.55189	0.2116868	0.18593087	3.0401970	20	6 27.8	19.6
350059 2010 TA ₁₄₃	13.9	X	255.37124	87.82893	358.13874	9.67152	0.0353004	0.08613979	5.0776977	20	9 9.6	20.6
350060 2010 VV ₁₁₄	13.3	X	296.31996	159.46337	266.89134	12.56448	0.0405512	0.08465519	5.1368906	20	9 26.7	20.2
350061 2010 VX ₁₄₁	13.4	X	260.12971	329.94810	106.04818	6.93118	0.0312098	0.08194563	5.2495111	20	9 5.0	20.4
350062 2011 AN ₁₀	15.7	X	312.06855	131.34362	290.52115	8.09627	0.0414426	0.18227688	3.0806923	20	10 30.9	19.9
350063 2011 EA ₇₄	17.3	X	152.58406	145.67382	44.62934	22.99886	0.0700250	0.37039861	1.9202443	20	10 31.0	19.3
350064 2011 FS ₁₀₆	17.6	X	152.55794	358.25442	303.93463	5.25384	0.1027113	0.29167784	2.2518205	20	—	—
350065 2011 GT ₉	17.6	X	233.11623	152.24449	165.87457	4.68976	0.1699811	0.31486370	2.1398713	20	2 23.4	20.7
350066 2011 GF ₁₂	18.1	X	219.09837	289.82712	358.02103	4.17725	0.1910272	0.30149929	2.2026484	20	1 6.1	21.6
350067 2011 GP ₈₅	18.1	X	17.33589	26.03619	48.01667	21.29011	0.0908879	0.39508976	1.8393831	20	—	—
350068 2011 HQ ₂	16.3	X	80.62453	227.24607	128.53264	24.50279	0.1741545	0.27122811	2.3636305	20	—	—
350069 2011 HJ ₂₃	17.9	X	229.89021	79.74949	40.65307	21.43816	0.0939497	0.36823541	1.9277573	20	10 29.8	19.3
350070 2011 HP ₃₉	17.5	X	209.12680	152.29432	144.74662	6.33888	0.2311857	0.29713605	2.2241589	20	1 9.3	21.3
350071 2011 HQ ₇₅	17.7	X	176.39832	243.31919	66.94587	5.83244	0.1624880	0.29177290	2.2513313	20	—	—
350072 2011 HX ₇₅	17.0	X	139.27099	225.84053	90.90992	10.03325	0.2148579	0.27825906	2.3236453	20	—	—
350073 2011 HX ₇₆	17.7	X	33.76227	105.46292	187.94222	4.46721	0.2386409	0.24239601	2.547			

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350081 2011 <i>JR</i> ₂₉	17.6	X	210.32022	259.40304	226.06829	20.34646	0.0860043	0.36113124	1.9529570	20	9 30.5	20.0
350082 2011 <i>KU</i> ₁	15.6	X	125.13653	233.29840	124.50288	17.77287	0.2263157	0.17496338	3.1659540	20	1 24.6	20.4
350083 2011 <i>KH</i> ₂	17.0	X	74.30301	221.75298	84.28841	7.26510	0.1306222	0.25738496	2.4476385	20	12 14.1	20.6
350084 2011 <i>KS</i> ₃	17.7	X	150.78310	245.51207	66.34665	23.02550	0.2015463	0.28098012	2.3086193	20	—	—
350085 2011 <i>KF</i> ₁₅	17.1	X	15.35697	120.46817	197.93317	4.76664	0.1859522	0.24083158	2.5585491	20	10 20.2	19.7
350086 2011 <i>KL</i> ₂₁	17.6	X	158.66741	210.71649	98.52985	3.44429	0.1382805	0.28303879	2.2974112	20	—	—
350087 2011 <i>KW</i> ₂₃	17.6	X	234.36481	109.63863	174.14035	6.17424	0.1867490	0.29800547	2.2198309	20	1 13.1	21.1
350088 2011 <i>KJ</i> ₂₄	16.6	X	22.45481	212.30066	82.67966	15.12238	0.2549470	0.23435365	2.6054829	20	10 17.7	19.8
350089 2011 <i>KZ</i> ₂₆	16.4	X	86.28439	262.63537	105.06520	23.01397	0.1508481	0.27595441	2.3365648	20	—	—
350090 2011 <i>KN</i> ₃₄	16.0	X	12.95728	156.59060	183.44397	5.57465	0.2661892	0.24209650	2.5496293	20	11 29.8	18.8
350091 2011 <i>LC</i> ₁₄	17.4	X	178.62393	129.40204	150.07906	4.87137	0.2348392	0.27869143	2.3212414	20	—	—
350092 2011 <i>MC</i> ₁	16.5	X	319.76181	226.24151	116.97390	6.86931	0.0533399	0.22195026	2.7016699	20	8 8.7	19.9
350093 2011 <i>MK</i> ₁	16.5	X	17.07270	57.58399	254.70620	8.66582	0.1283895	0.22891151	2.6466162	20	9 28.2	19.7
350094 2011 <i>MG</i> ₉	17.4	X	12.39759	50.20963	250.54874	3.41955	0.1381557	0.22751761	2.6574149	20	9 7.3	20.4
350095 2011 <i>NG</i> ₁	17.3	X	199.06579	205.22616	135.90970	7.89886	0.0882221	0.29451781	2.2373212	20	2 23.1	20.2
350096 2011 <i>NT</i> ₁	15.4	X	339.03970	96.93338	173.99516	12.06790	0.0179714	0.18727438	3.0256391	20	6 1.1	19.7
350097 2011 <i>OQ</i> ₁	15.6	X	135.62985	254.02487	166.16474	20.65758	0.1242123	0.17866425	3.1220817	20	4 9.4	20.5
350098 2011 <i>OY</i> ₁₅	17.0	X	311.46332	316.60376	299.68398	6.18882	0.0918791	0.30314091	2.1946891	20	3 10.9	19.6
350099 2011 <i>OG</i> ₁₆	16.7	X	351.02050	32.41811	336.80033	7.40080	0.0383739	0.23905285	2.5712251	20	10 29.3	20.0
350100 2011 <i>OA</i> ₂₂	15.9	X	168.34098	60.43740	306.58097	25.02490	0.2130590	0.173884003	3.1795783	20	2 28.2	21.6
350101 2011 <i>OB</i> ₂₂	16.6	X	87.83608	45.71110	291.40485	7.03818	0.1471015	0.25457533	2.4656145	20	—	—
350102 2011 <i>OU</i> ₂₅	17.4	X	230.89916	290.65399	334.76620	5.81256	0.1569908	0.28581942	2.2824865	20	—	—
350103 2011 <i>OZ</i> ₃₇	17.1	X	95.31871	200.77656	65.78428	5.69440	0.0649870	0.24212860	2.5494039	20	11 9.0	20.5
350104 2011 <i>OA</i> ₄₄	17.3	X	322.79863	290.57920	67.21168	2.73338	0.0867634	0.22525360	2.6751916	20	9 2.2	20.3
350105 2011 <i>OY</i> ₄₈	16.6	X	227.42218	185.50369	167.16935	10.69687	0.1323084	0.19030138	2.9934690	20	4 14.7	21.3
350106 2011 <i>PS</i> ₈	16.2	X	272.58940	355.13779	279.13297	1.98196	0.1391611	0.18096542	3.0955583	20	2 23.4	20.7
350107 2011 <i>PE</i> ₁₀	15.5	X	199.13892	41.38906	314.19170	16.48263	0.2322211	0.18259585	3.0771036	20	3 12.8	21.0
350108 2011 <i>PX</i> ₁₄	15.7	X	219.89954	233.00269	253.11894	21.26147	0.0634328	0.22978335	2.6399175	20	9 20.9	19.9
350109 2011 <i>PB</i> ₁₅	12.8	X	281.75584	211.57912	111.61290	26.74608	0.0697054	0.08186571	5.2529269	20	5 24.9	20.0
350110 2011 <i>QJ</i> ₁	15.8	X	175.15570	136.42409	281.51365	8.79399	0.0965000	0.18998990	2.9967398	20	5 9.4	20.6
350111 2011 <i>QC</i> ₇	16.8	X	27.83986	50.97164	221.77580	3.97463	0.0955370	0.21980013	2.7192601	20	8 17.8	20.2
350112 2011 <i>QM</i> ₈	15.3	X	186.94364	186.60469	152.38249	28.89951	0.1674465	0.17298280	3.1900741	20	2 20.9	20.7
350113 2011 <i>QI</i> ₉	16.1	X	315.53035	357.40314	347.44597	13.77338	0.2023134	0.21173708	2.7878631	20	7 20.7	19.2
350114 2011 <i>QM</i> ₁₀	16.6	X	273.18589	81.52238	201.16810	4.86167	0.1238530	0.18336118	3.0685353	20	3 6.2	21.1
350115 2011 <i>QE</i> ₁₂	16.3	X	279.28863	321.12589	324.50522	2.30583	0.0677641	0.18395482	3.0619300	20	3 24.6	20.6
350116 2011 <i>QQ</i> ₂₂	17.4	X	237.80689	344.57534	245.92488	5.42153	0.1831369	0.27326985	2.3518425	20	—	—
350117 2011 <i>QA</i> ₂₅	17.9	X	24.95289	252.02644	308.85086	4.55080	0.0558904	0.30105402	2.2048198	20	4 25.1	20.1
350118 2011 <i>QW</i> ₄₀	15.6	X	72.51501	277.44398	230.75707	10.19273	0.0563055	0.18449154	3.0559887	20	5 1.1	19.6
350119 2011 <i>QN</i> ₅₅	15.7	X	315.53462	76.29997	202.82289	9.57821	0.0688902	0.19062361	2.9900946	20	5 4.3	19.6
350120 2011 <i>QE</i> ₅₉	16.3	X	310.53488	190.09536	163.42784	13.46681	0.0534735	0.21387422	2.7692601	20	8 5.6	20.0
350121 2011 <i>QM</i> ₅₉	15.8	X	133.53585	275.03177	165.28923	6.58614	0.1020895	0.18292885	3.0733681	20	4 28.1	20.5
350122 2011 <i>QR</i> ₆₃	15.9	X	206.34924	82.75286	276.60126	11.92607	0.2258370	0.17876223	3.1209408	20	3 23.8	21.5
350123 2011 <i>QJ</i> ₆₄	16.7	X	192.06938	135.58618	210.27565	8.63566	0.0886611	0.17511728	3.1640989	20	2 29.7	21.8
350124 2011 <i>QR</i> ₆₈	16.4	X	305.61759	81.62515	297.19652	15.25995	0.1171452	0.21732038	2.7399065	20	8 22.1	19.8
350125 2011 <i>QN</i> ₇₇	16.1	X	206.12404	44.25714	342.74570	16.03583	0.1393007	0.18685069	3.0302113	20	4 26.2	21.3
350126 2011 <i>QM</i> ₉₁	16.8	X	259.86438	261.08111	212.05186	3.71028	0.0411909	0.23060834	2.6336176	20	11 8.4	20.0
350127 2011 <i>QO</i> ₉₄	16.0	X	270.25007	358.64420	302.61166	6.12086	0.1475044	0.18556828	3.0441559	20	3 20.6	20.7
350128 2011 <i>QV</i> ₉₆	16.9	X	299.63520	77.41546	185.32486	3.37665	0.1006037	0.18418742	3.0593516	20	3 17.5	21.1
350129 2011 <i>QX</i> ₉₆	17.5	X	198.53697	239.19906	41.58724	1.95909	0.1679678	0.26947802	2.3738530	20	—	—
350130 2011 <i>RH</i> ₂	16.6	X	163.28211	89.58260	343.09029	11.91378	0.1657649	0.18428355	3.0582877	20	5 15.9	21.8
350131 2011 <i>RK</i> ₃	15.8	X	126.11924	345.40094	133.78885	14.25131	0.2344742	0.17489010	3.1668384	20	6 17.9	21.2
350132 2011 <i>RC</i> ₆	17.4	X	39.18850	286.83348	334.61908	5.46675	0.1246091	0.21519549	2.7579132	20	8 25.4	20.8
350133 2011 <i>RB</i> ₇	16.6	X	130.97205	292.67634	194.09389	5.64938	0.1610008	0.19202276	2.9755522	20	6 24.9	21.4
350134 2011 <i>RD</i> ₁₈	17.4	X	241.85064	307.40193	332.93563	1.84031	0.1677005	0.28167577	2.3048167	20	1 19.3	21.0
350135 2011 <i>SP</i> ₁	17.3	X	39.61348	350.71700	341.02423	8.90586	0.0488103	0.23287334	2.6165128	20	11 16.1	21.0
350136 2011 <i>SB</i> ₄₃	16.3	X	349.79388	40.24665	178.57658	4.96129	0.0710435	0.18140124	3.0905982	20	4 5.7	20.2
350137 2011 <i>SX</i> ₄₃	17.0	X	232.23227	271.17304	343.85305	6.38195	0.1001556	0.27145490	2.3623138	20	—	—
350138 2011 <i>ST</i> ₄₆	16.3	X	303.41011	103.74910	191.09899	10.21730	0.0704012	0.19263072	2.9692882	20	5 8.2	20.3
350139 2011 <i>SN</i> ₅₁	16.3	X	301.73049	286.35002	145.46639	11.92660	0.0484682	0.22439332	2.6820247	20	11 14.3	19.9
350140 2011 <i>SR</i> ₅₉	16.5	X	92.74656	294.63457	220.26344	3.93787	0.1371343	0.19091110	2.9870920	20	6 17.1	20.8
350141 2011 <i>SE</i> ₆₁	15.6	X	280.06815	59.88140	246.34654	13.96674	0.0186027	0.18711952	3.0273083	20	4 26.0	20.0
350142 2011 <i>SP</i> ₆₁	16.3	X	220.99774	158.02755	232.84464	7.17720	0.0807953	0.19541719	2.9409945	20	5 26.8	20.7
350143 2011 <i>SW</i> ₆₃	15.5	X	316.05660	144.47473	105.77119	13.11548	0.1777284	0.17692627	3.1424943	20	3 19.8	19.8
350144 2011 <i>SE</i> ₆₄	15.6	X	215.84207	130.78718	180.72653	17.68747	0.1020688	0.16862713	3.2447738	20	2 13.3	20.8
350145 2011 <i>SH</i> ₇₂	16.6	X	277.41437	60.03912	343.25920	5.79913	0.0740666	0.21270799	2.7793731	20	8 24.5	20.2
350146 2011 <i>SD</i> ₇₉	16.2	X	92.09184	297.10336	184.34951	10.53261	0.0398680	0.17931194	3.1145591	20	4 22.5	20.5
350147 2011 <i>SO</i> ₈₀	16.9	X	25.49499	52.08848	209.76872	2.60534	0.1773394	0.21042190	2.7994675	20	8 9.4	19.9
350148 2011 <i>SN</i> ₈₃	16.4	X	96.93057	226.21211	6.41590	3.57267	0.0403474	0.21324809	2.7746781	20	9 20.5	20.1
350149 2011 <i>SG</i> ₈₆	15.8	X	232.61206	28.67695	349.73486	7.06705	0.0163372	0.18823999	3.0152833	20	5 29.2	20.2
350150 2011 <i>SG</i> ₈₈	15.7	X	255.80751	343.61965	1.47933	9.52597	0.0438874	0.18388476	3.0627078	20	5 10.5	20.3
350151 2011 <i>SJ</i> ₁₀₁	16.8	X	198.46459	49.17495	45.53143	1.48422	0.0941403	0.20128647	2.8835423	20	7 21.8	

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350161 2011 SZ ₂₂₁	15.7	X	259.76242	4.81854	12.40711	15.08524	0.1670205	0.18792403	3.0186621	20	6 9.5	20.5
350162 2011 SE ₂₃₆	17.6	X	286.73927	17.42323	220.91520	2.99708	0.1293771	0.28442485	2.2899413	20	1 13.4	20.6
350163 2011 SV ₂₆₁	15.1	X	131.57049	178.67210	250.84011	27.00895	0.1394051	0.17593180	3.1543254	20	4 8.9	20.4
350164 2011 TB ₆	16.2	X	198.31499	260.37612	103.67655	8.88824	0.2323144	0.17709432	3.1405060	20	4 2.4	21.8
350165 2011 TO ₁₁	16.9	X	283.90454	353.92433	6.22412	6.03242	0.0774459	0.20001285	2.8957704	20	7 4.9	20.8
350166 2011 TH ₁₂	15.7	X	144.22799	28.28785	37.05091	9.57752	0.0873427	0.17442051	3.1725199	20	4 19.1	20.5
350167 2011 TL ₁₃	15.9	X	235.97274	57.18495	324.10055	9.26413	0.1135883	0.19245615	2.9710835	20	5 26.0	20.6
350168 2011 TK ₁₆	15.4	X	303.79622	298.91609	342.44780	9.73713	0.0649311	0.17594036	3.1542231	20	4 17.2	19.9
350169 2011 UL	16.2	X	101.54194	159.24050	102.14392	12.90941	0.1508255	0.22518491	2.6757356	20	11 16.3	20.6
350170 2011 UP ₁₈	16.1	X	281.61498	291.85994	12.87594	10.91293	0.1583591	0.17954128	3.1119063	20	4 7.9	20.6
350171 2011 UF ₃₃	15.5	X	292.67834	292.27391	15.65190	8.99512	0.0707405	0.18361757	3.0656782	20	5 6.9	19.8
350172 2011 UC ₈₆	16.1	X	236.38942	304.42230	53.84419	16.04195	0.0231140	0.17921861	3.1156403	20	5 9.9	20.6
350173 2011 UL ₉₆	16.5	X	61.47476	183.61816	34.20952	0.31057	0.0340990	0.19415011	2.9537765	20	7 13.8	20.4
350174 2011 US ₁₁₅	15.6	X	312.34812	284.69858	0.99746	9.65178	0.0747504	0.18314539	3.0709452	20	5 3.5	19.8
350175 2011 UA ₁₁₆	16.3	X	349.41107	251.89182	78.65495	5.14729	0.1063444	0.21412880	2.7670648	20	9 8.9	19.5
350176 2011 UK ₁₂₂	16.6	X	296.76250	299.95759	44.70953	6.77876	0.0804809	0.20060150	2.8901277	20	7 1.5	20.4
350177 2011 UD ₁₃₁	16.2	X	328.52015	271.25643	15.24798	1.48818	0.1618449	0.18643346	3.0304730	20	5 21.9	19.5
350178 Eisleben	16.2	X	274.43676	131.52419	53.31867	6.94923	0.2451582	0.23666007	2.5885272	20	—	—
350179 2011 UY ₁₄₅	13.4	X	213.26849	74.17164	51.54743	12.50660	0.0987514	0.08363768	5.1784690	20	9 8.5	20.7
350180 2011 UU ₁₈₁	16.5	X	289.35624	311.73306	39.43582	11.81932	0.1556022	0.19316428	2.9638178	20	6 16.2	20.6
350181 2011 UJ ₁₈₅	15.4	X	279.24235	250.19874	74.89056	12.44576	0.0646426	0.18166528	3.0876028	20	5 16.5	19.7
350182 2011 UL ₁₈₈	15.6	X	147.66311	340.31866	255.97476	13.59733	0.0658573	0.22320191	2.6915603	20	11 24.6	19.6
350183 2011 UD ₁₉₈	15.2	X	203.81474	281.08631	43.59291	10.53128	0.0400765	0.15353542	3.4540636	20	2 27.1	20.4
350184 2011 UU ₂₅₆	15.6	X	176.14795	115.58338	310.70202	11.48579	0.1503982	0.17685040	3.1433930	20	5 21.0	20.9
350185 Linnell	16.8	X	144.37380	215.03204	47.19609	5.41440	0.23542904	0.23542904	2.5975427	20	12 21.5	21.4
350186 2011 UY ₃₀₁	15.5	X	271.77616	283.54093	35.00678	16.57076	0.1543781	0.18168909	3.0873331	20	4 16.6	20.0
350187 2011 US ₃₂₅	15.4	X	63.19184	141.08245	38.52444	13.11516	0.0403684	0.17967148	3.1104027	20	5 25.2	19.7
350188 2011 UR ₃₃₂	15.4	X	229.03924	260.53107	110.41501	12.16092	0.1245059	0.18089922	3.0963135	20	5 11.3	20.4
350189 2011 UT ₃₃₆	15.9	X	270.32962	136.18554	246.07478	10.61951	0.0691316	0.20352010	2.8624056	20	7 14.2	19.9
350190 2011 UE ₃₉₇	15.8	X	88.56232	60.46953	62.52928	6.76308	0.0464900	0.17303357	3.1894500	20	4 22.4	20.3
350191 2011 UG ₄₀₂	13.9	X	279.95961	277.00666	135.42944	6.82232	0.0527293	0.08504926	5.1210109	20	8 27.9	20.7
350192 2011 WG ₃₂	13.7	X	246.27504	278.76537	163.88018	3.55353	0.0455134	0.08306763	5.2021334	20	8 23.8	20.6
350193 2011 WS ₁₀₆	13.1	X	255.95678	162.19313	279.37794	27.64152	0.0736762	0.08345672	5.1859520	20	8 16.8	20.4
350194 2011 WX ₁₁₇	15.1	X	335.72084	191.26795	62.94471	17.36316	0.0473648	0.17396951	3.1780004	20	5 5.8	19.4
350195 2011 YE ₂	15.5	X	320.43966	265.26836	129.82496	13.17261	0.0906875	0.20126140	2.8837817	20	10 19.5	19.3
350196 2011 YH ₆₅	13.5	X	341.68936	131.21269	259.75616	6.95951	0.0591675	0.08607637	5.0801914	20	10 14.6	20.1
350197 2012 AV ₅	15.8	X	109.64762	305.18241	260.78082	3.73280	0.0792931	0.18076379	3.0978598	20	8 30.8	20.4
350198 2012 AL ₁₄	13.3	X	294.32630	139.39300	286.87017	17.17406	0.1075769	0.08430996	5.1509040	20	9 13.0	20.2
350199 2012 BK ₆₈	15.2	X	10.33865	153.41754	140.91598	10.51886	0.0890651	0.17462809	3.1700053	20	8 15.3	19.2
350200 2012 CA ₆	16.8	X	310.43468	6.76980	101.50857	9.27366	0.1778540	0.21294663	2.7772962	20	—	—
350201 2012 HC ₂₃	15.3	X	263.05212	271.58065	168.80294	18.65848	0.1187280	0.16974867	3.2304657	20	9 9.4	19.7
350202 2012 LL ₁₁	12.6	X	271.47691	37.43690	265.76874	23.12072	0.0867576	0.08356544	5.1814533	20	4 1.9	19.8
350203 2012 OF ₆	15.5	X	152.53961	44.27467	272.58265	7.88917	0.0495837	0.17924629	3.1153196	20	—	—
350204 2012 PL ₅	15.7	X	276.53813	100.98418	260.14743	25.20870	0.3350683	0.22627146	2.6671628	20	5 18.8	20.0
350205 2012 QE ₂	15.6	X	216.66154	293.81897	67.27282	15.52922	0.1741486	0.20158324	2.8807115	20	4 16.3	20.5
350206 2012 QS ₃₉	16.1	X	26.72687	294.45145	174.73840	10.48933	0.0563485	0.17769512	3.1334231	20	1 11.1	20.5
350207 2012 QB ₄₁	16.3	X	257.56734	207.42031	132.35933	9.91872	0.1660130	0.22212551	2.7002486	20	4 26.6	20.5
350208 2012 RA ₁	17.9	X	39.53663	203.64064	185.79131	3.19214	0.1295760	0.28017210	2.3130559	20	—	—
350209 2012 RH ₈	17.0	X	1.57139	344.97397	17.02549	1.70041	0.2012197	0.25701646	2.4499774	20	12 3.9	19.5
350210 2012 RQ ₁₂	17.1	X	81.67206	102.83306	261.62801	5.43675	0.1390899	0.28609595	2.2810155	20	—	—
350211 2012 RO ₂₂	16.6	X	188.63950	197.63277	137.83061	2.67915	0.1032239	0.18578034	3.0418389	20	2 16.3	21.3
350212 2012 RD ₂₅	13.7	X	287.53495	57.67001	239.11435	2.06605	0.0749741	0.08420385	5.1552302	20	4 22.2	20.4
350213 2012 RK ₂₇	16.2	X	259.01882	72.25970	301.53271	13.08795	0.1396849	0.22555400	2.6728158	20	6 10.8	20.1
350214 2012 RU ₃₃	17.9	X	106.43648	16.14188	356.46753	1.92647	0.1360615	0.29490717	2.2353515	20	—	—
350215 2012 RW ₄₀	15.6	X	111.31183	217.35638	161.45034	9.92284	0.0916466	0.17457825	3.1706085	20	1 17.1	20.2
350216 2012 SV ₁₇	16.1	X	167.35330	138.74804	223.11863	11.31063	0.0750832	0.18154427	3.0889747	20	2 20.9	21.1
350217 2012 SW ₁₇	16.2	X	99.48289	297.04494	228.98465	9.26719	0.0591160	0.21285981	2.7780514	20	6 28.8	20.2
350218 2012 SW ₁₈	16.0	X	100.66332	178.45203	229.86969	7.16910	0.0565743	0.17189340	3.2035383	20	2 2.6	20.6
350219 2012 SJ ₁₉	16.3	X	250.55829	311.49290	30.61456	8.17987	0.1573832	0.21040641	2.7996049	20	4 19.5	20.6
350220 2012 SV ₂₂	18.2	X	103.71030	113.99913	273.91825	5.36089	0.1564631	0.30152928	2.2025024	20	1 5.3	20.2
350221 2012 SN ₂₇	17.6	X	321.35207	104.13286	319.30890	0.75035	0.1652159	0.25884020	2.4384558	20	12 11.9	19.6
350222 2012 SM ₅₄	15.8	X	39.18154	295.10401	215.21416	10.43685	0.0217216	0.18280943	3.0747064	20	3 14.4	20.1
350223 2012 SH ₅₅	15.6	X	340.05099	55.22626	278.56091	13.79125	0.1531121	0.23852244	2.5750355	20	8 21.2	18.4
350224 2012 SJ ₆₂	17.8	X	76.28258	148.44533	232.84279	5.69716	0.1147062	0.28566124	2.2833290	20	—	—
350225 2012 TU ₉	16.9	X	276.26201	5.43861	33.50883	5.68884	0.2585421	0.23193834	2.6235400	20	7 20.8	20.3
350226 2012 TF ₁₁	15.4	X	305.33595	279.58875	28.91064	30.60285	0.1591945	0.21518851	2.7579729	20	5 4.9	19.1
350227 2012 TK ₁₂	16.6	X	263.24365	159.90995	194.38412	4.14786	0.0882189	0.21201252	2.7854480	20	5 28.9	20.5

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350241 2012 <i>TJ</i> ₇₁	16.8	X	301.75603	85.50353	224.69576	8.84062	0.2322286	0.22081849	2.7108933	20	4 27.9	20.2
350242 2012 <i>TX</i> ₇₁	17.1	X	248.75625	84.70979	306.37522	1.31207	0.1052761	0.22140696	2.7060877	20	6 25.8	20.9
350243 2012 <i>TZ</i> ₇₈	17.4	X	227.99723	162.49949	135.14931	3.83682	0.2366653	0.31471330	2.1405530	20	1 23.0	20.7
350244 2012 <i>TD</i> ₈₀	16.9	X	173.16946	97.90845	17.08313	3.39868	0.1477486	0.21697835	2.7427851	20	7 21.6	21.2
350245 2012 <i>TE</i> ₈₀	17.2	X	11.49813	18.18989	9.45730	2.19238	0.2143989	0.26327917	2.4109695	20	—	—
350246 2012 <i>TX</i> ₈₈	16.7	X	50.39637	148.12399	225.57437	7.42455	0.2501739	0.27353200	2.3503396	20	—	—
350247 2012 <i>TL</i> ₈₉	18.2	X	85.70873	120.82974	261.51820	2.65203	0.1770703	0.28905758	2.2654082	20	—	—
350248 2012 <i>TN</i> ₈₉	18.0	X	85.95880	78.56278	317.19508	2.40679	0.1036519	0.29256872	2.2472469	20	—	—
350249 2012 <i>TO</i> ₈₉	16.4	X	338.94586	97.34381	218.71101	12.57555	0.0575316	0.22845835	2.6501148	20	7 26.6	20.0
350250 2012 <i>TR</i> ₉₉	16.3	X	130.53833	138.32382	233.60107	4.61748	0.1456840	0.17284210	3.1918050	20	2 5.2	21.2
350251 2012 <i>TM</i> ₁₀₀	17.3	X	98.08195	104.40472	216.62991	4.44262	0.2616984	0.27696245	2.3308918	20	—	—
350252 2012 <i>TD</i> ₁₂₅	16.6	X	264.38142	322.36096	62.24117	6.22189	0.1571941	0.22178715	2.7029943	20	6 29.3	20.4
350253 2012 <i>TS</i> ₁₂₅	16.4	X	247.56477	133.22517	224.22118	8.52106	0.1211541	0.21228166	2.7830930	20	5 9.6	20.6
350254 2012 <i>TG</i> ₁₃₁	16.3	X	340.85225	278.34869	29.95809	8.79433	0.0217569	0.22661382	2.6644759	20	7 26.7	19.9
350255 2012 <i>TE</i> ₁₄₅	15.9	X	147.36969	316.72780	51.02953	10.96252	0.0974759	0.17352551	3.1834192	20	2 19.1	20.9
350256 2012 <i>TQ</i> ₁₄₈	15.5	X	52.46626	62.63171	48.51491	6.65866	0.0215102	0.17437030	3.1731288	20	2 20.3	20.0
350257 2012 <i>TQ</i> ₁₄₉	17.0	X	138.57110	273.52155	25.47801	4.93271	0.1134314	0.27823982	2.3237524	20	—	—
350258 2012 <i>TU</i> ₁₅₁	18.5	X	89.89956	231.43869	190.10686	2.39377	0.1387171	0.29869824	2.2163973	20	1 28.9	20.7
350259 2012 <i>TV</i> ₁₅₅	17.2	X	81.31917	238.78226	35.38977	5.52230	0.0175488	0.25130569	2.4869545	20	10 28.3	20.1
350260 2012 <i>TL</i> ₁₆₉	16.4	X	253.40224	358.89309	52.28024	15.44703	0.1766836	0.22415576	2.6839193	20	7 21.4	20.5
350261 2012 <i>TB</i> ₁₇₅	15.4	X	44.89480	131.67477	358.54900	16.18367	0.0325132	0.18611674	3.0381725	20	3 3.6	19.5
350262 2012 <i>TA</i> ₁₈₆	16.3	X	200.47116	272.94188	229.71487	11.03187	0.0745030	0.23077795	2.6323270	20	9 23.9	20.3
350263 2012 <i>TO</i> ₁₈₆	17.6	X	90.26696	38.67225	25.07413	2.97013	0.0848898	0.29643285	2.2276750	20	1 26.7	19.8
350264 2012 <i>TG</i> ₁₈₇	16.0	X	211.39189	44.32455	45.45656	6.49649	0.0218277	0.21895549	2.7262488	20	8 9.2	19.8
350265 2012 <i>TL</i> ₁₈₇	16.2	X	291.93126	306.31257	58.21601	7.23669	0.0673629	0.21862734	2.7289761	20	7 26.3	19.8
350266 2012 <i>TX</i> ₁₈₉	15.3	X	225.60670	52.37695	234.31257	9.41381	0.0285074	0.17326454	3.1866150	20	1 27.6	20.1
350267 2012 <i>TQ</i> ₁₉₃	16.5	X	290.99182	288.46194	48.06871	6.75401	0.0498943	0.21335093	2.7737865	20	6 16.3	20.2
350268 2012 <i>TY</i> ₁₉₃	16.3	X	190.42228	297.07055	59.45212	2.65721	0.0812585	0.18596307	3.0398460	20	3 14.6	20.9
350269 2012 <i>TD</i> ₁₉₄	15.9	X	76.38248	50.75470	43.72295	10.93480	0.0668792	0.17527347	3.1622189	20	3 8.1	20.3
350270 2012 <i>TE</i> ₁₉₆	16.1	X	70.24087	94.39350	10.41210	9.12413	0.0287599	0.17721915	3.1390311	20	3 8.0	20.4
350271 2012 <i>TE</i> ₁₉₇	16.2	X	244.96379	301.49426	34.15995	12.45782	0.0669926	0.19494416	2.9457501	20	4 16.6	20.5
350272 2012 <i>TP</i> ₂₁₅	17.5	X	182.71160	311.35544	40.05061	3.29906	0.0356673	0.30917958	2.1660186	20	2 13.6	20.0
350273 2012 <i>TR</i> ₂₁₅	16.1	X	89.48668	251.81035	228.38622	2.72481	0.1803656	0.18295977	3.0730218	20	5 5.9	20.4
350274 2012 <i>TT</i> ₂₁₅	16.0	X	339.16759	269.58904	71.14593	8.90253	0.1795714	0.23287746	2.6164819	20	9 12.2	18.5
350275 2012 <i>TD</i> ₂₁₉	16.2	X	217.62261	226.53082	204.46901	9.82112	0.2576859	0.21325648	2.7746054	20	6 29.3	21.2
350276 2012 <i>TO</i> ₂₃₀	17.4	X	62.94856	297.34966	26.78317	21.47120	0.0295729	0.38564389	1.8692974	20	—	—
350277 2012 <i>TR</i> ₂₃₂	16.5	X	310.28389	282.76243	41.91094	13.28497	0.2850987	0.22764186	2.6564479	20	5 20.8	19.6
350278 2012 <i>TO</i> ₂₃₂	16.2	X	76.37336	308.38272	38.24333	23.26259	0.2610755	0.27649278	2.3335307	20	—	—
350279 2012 <i>TX</i> ₂₃₂	15.7	X	306.10676	256.31343	143.57474	13.12091	0.1866415	0.23939385	2.5687828	20	9 29.8	18.3
350280 2012 <i>TK</i> ₂₄₁	17.0	X	257.72233	189.81758	208.04355	1.99019	0.0883806	0.22225136	2.6992292	20	7 18.4	20.7
350281 2012 <i>TA</i> ₂₄₆	18.2	X	49.66875	351.03254	21.37755	2.65293	0.2091923	0.26931567	2.3748069	20	—	—
350282 2012 <i>TD</i> ₂₅₅	16.5	X	258.02535	162.00427	264.87123	4.12748	0.1820291	0.22977838	2.6399555	20	8 12.4	20.1
350283 2012 <i>TD</i> ₂₅₆	16.4	X	209.88466	2.18699	64.94469	7.02724	0.1044189	0.21163088	2.7887957	20	6 28.2	20.7
350284 2012 <i>TK</i> ₂₈₅	16.9	X	345.68737	99.04180	197.79846	5.46320	0.2681628	0.22970866	2.6404896	20	7 8.2	18.8
350285 2012 <i>TE</i> ₂₈₆	16.2	X	117.20753	243.55803	196.51396	9.74590	0.0846613	0.18401539	3.0612581	20	4 5.6	20.6
350286 2012 <i>TL</i> ₂₈₆	17.3	X	257.32769	92.70453	301.95285	0.46801	0.0973116	0.22114818	2.7081983	20	7 12.6	20.9
350287 2012 <i>TQ</i> ₂₈₆	17.0	X	0.39572	95.31082	207.42704	3.47545	0.1859177	0.23086136	2.6316930	20	8 23.9	19.4
350288 2012 <i>TX</i> ₂₉₀	16.1	X	172.55948	182.38998	168.85362	2.66929	0.1620815	0.17861787	3.1226222	20	2 21.9	21.1
350289 2012 <i>TT</i> ₂₉₃	15.6	X	54.03515	203.19328	264.81087	6.12623	0.0420518	0.17121717	3.2119678	20	2 14.2	20.0
350290 2012 <i>TL</i> ₂₉₄	16.3	X	233.59953	297.94298	34.42527	11.15416	0.1326151	0.19245986	2.9710453	20	3 28.1	21.0
350291 2012 <i>TW</i> ₂₉₄	16.4	X	303.03535	354.89585	36.19929	7.39542	0.1153729	0.23507388	2.6001584	20	9 17.2	19.4
350292 2012 <i>TB</i> ₂₉₆	15.9	X	42.93085	327.12142	242.00098	4.85612	0.0832465	0.20617277	2.8378004	20	6 12.9	19.4
350293 2012 <i>TX</i> ₂₉₆	17.1	X	288.26875	357.40678	16.83165	3.40158	0.2607370	0.22868314	2.6483778	20	7 1.8	20.3
350294 2012 <i>TQ</i> ₃₀₆	17.0	X	73.56541	342.73588	43.12636	7.78114	0.1225165	0.27832759	2.3232639	20	—	—
350295 2012 <i>TU</i> ₃₁₀	15.9	X	112.86801	74.65713	27.12275	10.53399	0.2081924	0.18507435	3.0495697	20	5 10.0	20.8
350296 2012 <i>TA</i> ₃₁₁	15.5	X	144.79999	170.21570	244.26195	9.19774	0.0979528	0.18429390	3.0581732	20	4 3.0	20.2
350297 2012 <i>TL</i> ₃₁₂	17.2	X	69.04692	230.16327	123.39970	8.23519	0.2861184	0.27488567	2.3426171	20	—	—
350298 2012 <i>TM</i> ₃₁₂	15.5	X	153.04200	316.08822	68.18135	18.40950	0.2231966	0.18169856	3.0872257	20	3 27.8	21.0
350299 2012 <i>TY</i> ₃₁₃	16.9	X	333.87138	150.22179	189.93176	3.45790	0.2130537	0.23483060	2.6019539	20	8 21.7	18.9
350300 2012 <i>UJ</i> ₃₁	15.8	X	318.87874	253.70704	46.46866	16.87344	0.2266366	0.21674671	2.7447389	20	5 12.5	18.6
350301 2012 <i>UR</i> ₃₂	17.7	X	39.15794	226.59334	207.18215	5.21577	0.1575906	0.27805744	2.3247685	20	—	—
350302 2012 <i>UQ</i> ₃₃	17.4	X	94.43035	113.58244	202.63792	1.59587	0.1881613	0.27011091	2.3701434	20	—	—
350303 2012 <i>UW</i> ₃₅	17.8	X	184.65819	268.66569	40.69203	3.39705	0.1008944	0.29766442	2.2215262	20	—	—
350304 2012 <i>UT</i> ₃₈	17.7	X	233.20844	29.25011	252.12689	4.74378	0.1080677	0.30556911	2.1830470	20	1 9.9	20.8
350305 2012 <i>UD</i> ₄₂	15.9	X	26.54921	283.73359	212.96347	9.59062	0.0397128	0.17512797	3.1639701	20	2 11.4	20.3
350306 2012 <i>UP</i> ₄₃	16.9	X	312.95750	224.74924	163.61150	2.96666	0.1993361	0.23858678	2.5745726	20	9 21.4	19.0
350307 2012 <i>US</i> ₄₃	17.0	X	271.40587	245.09038	179.74958	3.75543	0.1424132	0.23144060	2.6273001	20	9 4.7	20.3
350308 2012 <i>US</i> ₄₆	16.5	X	197.66006	260.29478	146.56729	2.59896	0.0646862	0.20398308	2.8580728	20	5 22.3	20.6
350309 2012 <i>UZ</i> ₄₆	18.0	X	333.26785	308.85063	108.85339	2.52735	0.1669487	0.25546398	2.4598933	20	12 26.7	20.3
350310 2012 <i>UR</i> ₄₈	17.3	X	298.57830	128.78556	216.56152	5.37170	0.0274460	0.21985261	2.7188274	20	7 11.9	20.9
350311 2012 <i>UK</i> ₅₂	17.4	X	70.59197	309.38418	42.03241	6.82075	0.1406059	0.27302424	2.3532528	20	—	—
350312 2012 <i>UW</i>												

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>		
350321	2012	UZ ₆₅	17.0	X	331.32269	96.13935	202.40774	3.81955	0.0498246	0.21179847	2.7873243	20	6 23.7	20.5
350322	2012	UA ₆₆	17.9	X	326.57400	235.96090	190.13024	1.98556	0.0666285	0.25411603	2.4685845	20	12 18.1	20.5
350323	2012	UN ₆₆	17.6	X	309.70626	49.02382	61.83067	5.81505	0.1678947	0.25907766	2.4369657	20	—	—
350324	2012	UW ₇₄	17.7	X	101.33308	347.95043	43.02791	6.39746	0.0176726	0.29432164	2.2383153	20	—	—
350325	2012	UY ₇₄	15.9	X	333.75626	221.11043	198.37926	2.42567	0.2320582	0.12528557	3.9555057	20	11 13.1	20.1
350326	2012	UU ₇₆	16.4	X	166.81925	163.19808	212.25644	5.02466	0.1202188	0.18296626	3.0729491	20	3 12.5	21.2
350327	2012	UM ₇₇	15.7	X	230.75914	285.85158	39.47110	11.37122	0.0320321	0.18144231	3.0901318	20	3 25.9	20.2
350328	2012	UU ₇₇	17.4	X	347.96313	287.04274	233.17518	5.22956	0.0587118	0.29842052	2.2177722	20	—	—
350329	2012	UG ₇₈	16.2	X	223.83282	241.62764	227.71260	26.73980	0.0937830	0.23263154	2.6183256	20	8 31.3	20.6
350330	2012	UV ₈₈	16.9	X	295.25996	113.79940	219.64120	1.68440	0.0816148	0.21132062	2.7915246	20	6 13.9	20.4
350331	2012	UP ₈₉	16.7	X	32.11058	83.83478	214.58469	2.47775	0.2091136	0.23822151	2.5772036	20	10 21.7	19.7
350332	2012	UG ₈₉	16.5	X	125.82581	33.76230	55.09814	2.17265	0.0848009	0.18602044	3.0392210	20	4 26.6	20.9
350333	2012	UM ₉₀	16.8	X	235.41336	293.58765	176.76702	3.15317	0.1361850	0.23271338	2.6177117	20	9 19.7	20.3
350334	2012	UZ ₉₇	15.6	X	310.65639	35.89431	272.86608	11.92450	0.1994322	0.21619043	2.7494453	20	5 14.1	19.0
350335	2012	UG ₉₉	16.5	X	107.84798	47.48991	34.97364	0.62870	0.1579174	0.18007294	3.1057781	20	4 7.6	21.1
350336	2012	UG ₁₀₀	17.3	X	240.39511	230.49391	181.90466	4.90404	0.1595659	0.21871389	2.7282561	20	7 6.6	21.5
350337	2012	UO ₁₀₀	16.9	X	208.63214	256.29377	176.22273	3.95680	0.0514187	0.21431038	2.7655015	20	7 7.4	20.9
350338	2012	UE ₁₀₂	16.6	X	11.37567	230.15291	70.23868	3.25177	0.0676369	0.23006516	2.6377612	20	9 1.3	19.7
350339	2012	UO ₁₀₂	16.4	X	86.74711	101.85312	50.77215	10.38353	0.0359194	0.19957220	2.9000313	20	5 22.0	20.3
350340	2012	UG ₁₀₃	16.6	X	140.06085	268.73919	171.10623	2.61195	0.0186428	0.19326754	2.9627620	20	4 25.1	20.7
350341	2012	UQ ₁₀₃	17.1	X	207.82235	279.05744	164.33214	3.05932	0.2008268	0.21441419	2.7646088	20	7 10.3	21.6
350342	2012	UT ₁₀₃	15.7	X	192.56236	238.20106	74.77201	6.91992	0.1379923	0.17262190	3.1945188	20	1 28.2	20.9
350343	2012	UJ ₁₀₅	16.5	X	11.98223	87.35131	243.26524	7.83101	0.1792640	0.24029932	2.5623259	20	10 28.7	19.2
350344	2012	UQ ₁₀₅	16.5	X	232.87880	193.27145	234.98890	12.83896	0.0716387	0.22398736	2.6852643	20	7 25.9	20.6
350345	2012	UO ₁₀₈	15.9	X	9.36913	147.21778	37.91267	11.28726	0.0745172	0.18328726	3.0693603	20	3 25.8	19.9
350346	2012	UL ₁₀₈	17.0	X	332.28193	108.20085	223.32113	4.50061	0.0781818	0.22753359	2.6572905	20	8 8.6	20.3
350347	2012	UM ₁₀₈	17.9	X	86.11383	191.75250	233.47434	3.87433	0.1185184	0.29803763	2.2196712	20	1 24.3	20.0
350348	2012	UO ₁₀₉	16.3	X	152.74003	351.88779	44.91572	2.93508	0.0777753	0.18379360	3.0637204	20	3 23.6	20.8
350349	2012	UP ₁₀₉	16.7	X	309.85027	306.36508	60.80048	4.52423	0.2533351	0.23252751	2.6191065	20	8 3.4	19.1
350350	2012	UX ₁₁₀	16.9	X	36.05923	288.20808	68.61452	3.05710	0.2218424	0.26215801	2.4178385	20	—	—
350351	2012	UT ₁₁₈	15.5	X	156.73568	329.41788	55.13643	11.38884	0.0808857	0.17774674	3.1328165	20	3 18.6	20.4
350352	2012	UE ₁₁₉	16.5	X	311.93855	270.96515	62.43786	7.32519	0.0853141	0.21609536	2.7502516	20	7 9.6	20.0
350353	2012	UJ ₁₁₉	16.3	X	197.15442	224.40208	225.87291	6.63441	0.1546421	0.20990111	2.8040961	20	7 10.5	20.8
350354	2012	UQ ₁₂₁	17.5	X	157.94050	43.34304	265.42159	7.54142	0.1391233	0.28678304	2.2773708	20	—	—
350355	2012	UJ ₁₂₃	18.1	X	11.39924	132.45543	265.88021	2.93388	0.2023162	0.26190661	2.4193855	20	—	—
350356	2012	UK ₁₂₄	16.5	X	267.55306	132.84098	268.72481	4.31811	0.0629512	0.22342163	2.6897953	20	8 8.9	20.2
350357	2012	UO ₁₂₄	15.5	X	73.44850	161.48405	324.45483	2.99690	0.0324478	0.18170401	3.0871640	20	3 31.3	19.9
350358	2012	UU ₁₂₄	16.9	X	92.72123	251.23402	276.30246	4.31536	0.0105275	0.20437172	2.8544483	20	6 15.6	20.8
350359	2012	UF ₁₂₇	16.8	X	248.98772	38.82638	19.95730	3.97562	0.0911332	0.22219044	2.6997226	20	8 5.8	20.5
350360	2012	UJ ₁₃₁	17.5	X	78.65349	273.90510	63.49649	2.99265	0.2250751	0.27222231	2.3578721	20	—	—
350361	2012	UC ₁₃₅	17.6	X	81.31730	208.09602	221.66641	3.01354	0.1313192	0.29852955	2.2172321	20	1 24.8	19.6
350362	2012	UR ₁₃₅	16.1	X	246.57258	152.86062	263.60445	10.42711	0.0830988	0.22051709	2.7133629	20	7 27.1	20.0
350363	2012	UQ ₁₃₇	15.7	X	177.39821	343.77700	102.23075	14.20224	0.0609952	0.20512382	2.8474667	20	6 18.7	20.0
350364	2012	UL ₁₄₃	15.5	X	183.21276	272.52188	68.07877	11.87698	0.0954119	0.17888495	3.1195133	20	2 22.5	20.5
350365	2012	UF ₁₄₅	17.1	X	232.24158	161.95466	45.45329	6.75853	0.0607354	0.27546954	2.3393058	20	—	—
350366	2012	UN ₁₄₆	16.1	X	270.93724	10.61618	240.32772	8.27443	0.0895174	0.17647430	3.1478576	20	1 29.5	20.9
350367	2012	UX ₁₅₀	16.1	X	165.59268	164.82769	224.91555	9.26296	0.0524544	0.18214029	3.0822323	20	3 23.7	20.7
350368	2012	UG ₁₅₁	16.5	X	344.48328	260.40385	77.79860	3.86444	0.2313279	0.23635776	2.5907339	20	9 20.9	18.4
350369	2012	UF ₁₅₂	17.1	X	37.20185	275.92522	86.69827	3.20079	0.2269320	0.26258374	2.4152244	20	—	—
350370	2012	UG ₁₅₂	16.2	X	288.30965	286.12957	68.95979	7.13375	0.0351400	0.21419333	2.7665090	20	7 11.1	19.8
350371	2012	UZ ₁₅₂	18.1	X	86.34983	321.23172	82.21737	4.20709	0.0956554	0.28957972	2.2626843	20	—	—
350372	2012	UL ₁₅₃	16.2	X	109.12950	359.56188	62.88369	7.81987	0.1409652	0.17214617	3.2004015	20	3 18.2	20.9
350373	2012	UO ₁₅₃	17.6	X	88.89657	165.88229	186.94137	2.58555	0.1901689	0.27767192	2.3269197	20	—	—
350374	2012	UR ₁₅₃	16.3	X	312.06983	252.11019	65.84927	5.33173	0.0659807	0.21096511	2.7946599	20	6 19.6	19.9
350375	2012	UC ₁₅₄	17.4	X	332.59073	52.53497	79.99452	3.54810	0.1471904	0.27335258	2.3513680	20	—	—
350376	2012	UP ₁₅₄	17.3	X	308.45291	334.47941	31.58338	1.49733	0.2860698	0.23203530	2.6228090	20	7 22.0	19.5
350377	2012	UQ ₁₅₅	17.0	X	179.97715	230.28120	271.69218	1.42290	0.0678917	0.22603054	2.6690577	20	9 2.4	20.8
350378	2012	UB ₁₆₀	17.2	X	92.15531	302.29180	85.72802	9.97316	0.1977189	0.28896272	2.2659040	20	—	—
350379	2012	UG ₁₆₀	16.9	X	108.52994	228.79014	48.51750	3.14959	0.1553553	0.25456822	2.4656604	20	12 12.9	20.8
350380	2012	UZ ₁₆₀	15.6	X	308.87701	20.38042	212.33751	13.79995	0.0688100	0.18199019	3.0839268	20	2 21.7	20.0
350381	2012	UL ₁₆₂	17.5	X	36.65321	24.23972	351.02902	1.19937	0.1999797	0.26529800	2.3987228	20	—	—
350382	2012	UF ₁₆₄	16.4	X	280.01293	127.62658	243.91313	4.87263	0.0530924	0.21717921	2.7410937	20	7 17.7	20.1
350383	2012	VM ₄	16.5	X	307.68130	145.97278	245.48229	4.76255	0.2887694	0.23653105	2.5894684	20	8 27.2	18.8
350384	2012	VS ₅	16.7	X	194.32510	121.31344	279.57674	0.94054	0.0776342	0.20494367	2.8491351	20	5 9.7	21.1
350385	2012	VT ₈	16.5	X	182.10768	250.89576	191.60238	1.87602	0.0253738	0.21121038	2.7924959	20	6 19.6	20.5
350386	2012	VF ₁₀	16.1	X	171.15937	277.89544	240.42211	12.25514	0.1224772	0.22664420	2.6642377	20	9 6.9	20.6
350387	2012	VP ₁₀	16.5	X	293.82871	341.74500	34.14798	6.85307	0.0367832	0.22446870	2.6814242	20	8 19.9	20.0
350388	2012	VT ₁₀	18.2	X	43.73342	76.28343	292.27919	1.95154	0.1872395	0.26579482	2.3957328	20	—	—
350389	2012	VM ₁₁	16.4	X	213.45470	292.97734	56.15708	10.18719	0.0767323	0.19221459	2.9735722	20	4 1.3	21.0
350390	2012	VV ₁₂	16.5	X	226.12398									

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350401 2012 VT ₃₀	16.9	X	323.43163	161.24411	193.99839	3.32621	0.1998498	0.23419041	2.6066936	20	8 21.1	19.1
350402 2012 VL ₃₁	16.7	X	185.52248	331.69737	95.93748	3.31095	0.0462352	0.20152569	2.8812599	20	6 4.0	20.8
350403 2012 VG ₃₂	17.1	X	249.18546	143.52825	219.81283	5.31321	0.0873423	0.20659353	2.8339460	20	5 23.4	21.1
350404 2012 VN ₃₂	17.2	X	191.24832	163.14933	181.51215	3.76553	0.1696443	0.31160206	2.1547779	20	2 18.5	20.5
350405 2012 VO ₃₂	16.7	X	290.49252	283.54034	109.83890	4.36823	0.0741702	0.22893494	2.6464356	20	9 2.3	19.9
350406 2012 VE ₃₅	16.8	X	267.52601	313.96273	96.32859	3.22870	0.0762097	0.22757146	2.6569957	20	8 21.9	20.1
350407 2012 VO ₃₆	17.7	X	22.17155	341.33941	102.19483	3.63068	0.1537173	0.27637221	2.3342093	20	—	—
350408 2012 VS ₃₈	16.5	X	223.62987	87.95833	36.94027	5.77131	0.1061939	0.23312634	2.6146195	20	9 30.4	20.1
350409 2012 VP ₃₉	17.1	X	277.06623	38.94874	332.46685	1.55670	0.0858314	0.21788588	2.7351637	20	7 9.6	20.8
350410 2012 VO ₄₀	17.1	X	100.86463	327.74288	209.77492	1.55236	0.0116615	0.21742932	2.7389912	20	7 10.3	20.6
350411 2012 VS ₄₁	16.6	X	2.13146	223.66627	46.01913	9.99641	0.0628711	0.21701242	2.7424980	20	7 1.8	20.1
350412 2012 VN ₅₄	16.0	X	273.52679	235.16751	50.89531	17.60804	0.1760059	0.19158161	2.9801183	20	3 14.7	20.8
350413 2012 VT ₅₆	16.2	X	197.21901	269.79515	125.51280	2.73808	0.1091136	0.19237875	2.9718803	20	5 6.6	20.8
350414 2012 VH ₅₉	16.1	X	272.71241	195.04559	83.20320	2.76440	0.0778498	0.18349607	3.0670313	20	3 8.7	20.5
350415 2012 VN ₆₀	17.2	X	32.56803	219.22740	75.95977	3.95867	0.0244478	0.23146355	2.6271265	20	9 20.8	20.6
350416 2012 VF ₆₁	16.8	X	359.77601	230.74184	96.00629	1.59087	0.1407170	0.23560117	2.5962774	20	9 27.1	19.5
350417 2012 VH ₆₂	16.7	X	285.94090	281.45098	101.83107	7.26107	0.2111543	0.22832460	2.6511497	20	7 19.6	20.0
350418 2012 VP ₆₃	16.4	X	23.53754	305.51644	202.64009	8.83314	0.0377069	0.17467265	3.1694661	20	2 22.2	20.7
350419 2012 VO ₆₄	16.6	X	277.58979	25.37483	16.56014	4.12687	0.0940916	0.22640547	2.6661103	20	8 22.4	19.9
350420 2012 VT ₆₅	17.6	X	58.60420	287.57453	77.88890	4.96705	0.1705538	0.26953612	2.3735118	20	—	—
350421 2012 VF ₇₂	17.6	X	12.74334	279.56057	227.28161	6.33415	0.1896187	0.29067755	2.2569835	20	1 3.2	19.3
350422 2012 VK ₇₂	16.1	X	124.89929	239.61897	221.54253	8.13465	0.1127055	0.18832269	3.0144005	20	5 13.9	20.5
350423 2012 VO ₇₂	16.2	X	257.57887	174.34648	104.01528	4.16152	0.0447513	0.17408036	3.1766512	20	2 25.6	20.8
350424 2012 VU ₇₂	16.6	X	258.13898	174.62165	219.81176	4.69868	0.1207988	0.21693883	2.7431182	20	7 8.8	20.5
350425 2012 VX ₇₃	15.2	X	168.02949	259.27967	55.68650	23.04089	0.2505510	0.16842787	3.2473324	20	1 15.3	21.1
350426 2012 VC ₇₅	17.0	X	239.23362	69.92424	67.73215	3.22453	0.1238989	0.24054447	2.5605846	20	11 2.9	20.3
350427 2012 VJ ₈₀	16.2	X	243.93920	181.99612	134.40035	3.87116	0.0189858	0.18554156	3.0444482	20	3 28.6	20.5
350428 2012 VQ ₈₂	16.7	X	233.56520	180.47543	282.01973	2.27754	0.0936141	0.23044162	2.6348877	20	9 11.4	20.3
350429 2012 VY ₈₂	16.8	X	2.12298	71.94679	255.43118	2.72448	0.2558432	0.23888491	2.5724300	20	10 17.5	19.1
350430 2012 VO ₈₃	16.9	X	265.85364	269.06937	164.20241	1.66411	0.0298096	0.23322185	2.6139055	20	9 26.8	20.3
350431 2012 VG ₈₄	17.7	X	45.69686	25.90183	76.18647	3.51004	0.1193121	0.29136597	2.2534270	20	1 8.3	19.6
350432 2012 VO ₈₄	15.8	X	144.91398	350.91772	51.51531	11.41817	0.2264900	0.17783683	3.1317584	20	4 5.8	21.1
350433 2012 VV ₈₅	16.4	X	358.22297	203.98853	105.80277	4.45764	0.0950167	0.22788468	2.6545605	20	8 25.8	19.4
350434 2012 VH ₉₁	16.4	X	327.23773	235.34065	82.46304	6.08419	0.0577739	0.21477984	2.7614703	20	7 14.4	19.8
350435 2012 VO ₉₁	16.2	X	188.11620	264.85164	98.60301	4.41058	0.1317327	0.18283459	3.0744244	20	3 22.2	21.1
350436 2012 VT ₉₆	16.5	X	210.15659	280.34486	232.13482	14.13713	0.0468591	0.23731189	2.5837851	20	10 24.8	20.1
350437 2012 WK	15.6	X	136.41352	288.86638	74.75988	13.94730	0.1311511	0.17065761	3.2189850	20	2 5.3	20.7
350438 2012 WM	15.8	X	299.62932	309.99995	55.50876	10.54546	0.0131107	0.21990168	2.7184229	20	8 17.9	19.6
350439 2012 WF ₁	16.7	X	282.17980	340.46294	55.53380	6.07908	0.0732549	0.22335204	2.6903540	20	8 25.4	20.2
350440 2012 WW ₇	15.7	X	201.07672	92.68477	284.68247	7.57359	0.1148115	0.19016293	2.9949217	20	4 14.0	20.5
350441 2013 T-3	17.6	X	98.73836	283.24409	116.17335	6.35113	0.2558872	0.28460950	2.2889508	20	2 4.5	19.9
350442 1979 ME ₂	16.3	X	14.40384	218.09869	126.89937	7.92637	0.2970805	0.24395617	2.5366556	20	12 14.1	19.3
350443 1993 TA ₂₆	17.7	X	90.98322	332.58085	49.08731	2.35035	0.1979025	0.26842743	2.3800429	20	—	—
350444 1994 XZ ₁	17.6	X	84.14970	311.03204	107.69587	7.18867	0.0926001	0.28017885	2.3130187	20	1 13.3	19.8
350445 1995 CC ₆	18.0	X	239.42784	176.91426	279.85031	2.27245	0.1507687	0.21737793	2.7394229	20	9 1.8	21.9
350446 1995 FJ ₄	16.9	X	159.39286	284.12835	4.46677	8.54284	0.0781495	0.26384382	2.4075284	20	—	—
350447 1995 SQ ₇₃	16.0	X	249.03456	325.62235	345.21847	9.34848	0.0096966	0.18284494	3.0743083	20	3 25.5	20.3
350448 1995 UN ₃₁	17.1	X	264.80115	110.93407	25.42767	9.08803	0.1198805	0.24066534	2.5597272	20	12 5.9	20.3
350449 1995 YC ₁₂	16.2	X	190.19787	19.48016	121.38557	14.36071	0.0995603	0.22554929	2.6728530	20	9 15.9	20.4
350450 1996 ET ₁₃	16.2	X	359.17709	64.14449	168.43329	6.05314	0.1075622	0.16971174	3.2309342	20	5 8.6	20.2
350451 1996 RH ₆	13.5	X	232.03103	144.44667	350.80850	9.91080	0.0330057	0.08359846	5.1800885	20	10 5.7	20.5
350452 1996 TZ ₃₄	16.9	X	78.00073	76.30583	291.81565	5.20666	0.1449393	0.25955385	2.4339840	20	—	—
350453 1996 XM ₁₄	16.0	X	182.70466	315.21455	95.70112	8.90936	0.2574061	0.18540387	3.0459552	20	5 13.1	21.4
350454 1997 GW ₁₇	17.3	X	267.73953	317.89922	192.01338	5.62029	0.1976857	0.24074757	2.5591443	20	12 19.6	20.0
350455 1997 SB ₅	18.0	X	156.55885	104.06813	227.57391	5.71445	0.1498413	0.27712990	2.3299528	20	1 1.6	21.4
350456 1997 TW ₁₀	17.6	X	92.24727	158.58514	183.14508	5.74973	0.2239767	0.27095480	2.3652197	20	—	—
350457 1997 UZ ₁₅	17.2	X	248.90475	32.05137	12.90918	1.87240	0.0696777	0.20544548	2.8444938	20	7 19.1	21.2
350458 1997 WK ₆	17.8	X	46.99954	308.15706	101.31601	2.17763	0.1826298	0.26774597	2.3840796	20	—	—
350459 1998 FQ ₈	16.4	X	80.30561	291.97455	18.35240	13.13611	0.0378403	0.24695481	2.5160797	20	12 12.7	20.1
350460 1998 HC	17.3	X	327.05085	16.40467	127.97167	2.10801	0.1181772	0.25807730	2.4432590	20	—	—
350461 1998 HE ₉	16.8	X	101.81001	10.70767	160.57714	10.47271	0.1437116	0.18559950	3.0438145	20	7 17.9	21.5
350462 1998 KG ₃	22.1	X	329.23622	267.87453	207.88667	5.50658	0.1176284	0.78921650	1.1596812	20	—	—
350463 1998 QA	16.2	X	285.78479	47.83884	325.25605	40.23698	0.3494153	0.22013199	2.7165264	20	6 20.9	20.7
350464 1998 QN ₄₇	17.2	X	204.78750	214.00289	134.59206	3.81737	0.2269788	0.29834282	2.2181572	20	3 10.1	20.9
350465 1998 QM ₁₁₁	16.9	X	341.58022	0.90397	354.79187	4.67051	0.2220676	0.22463338	2.6801135	20	10 3.9	19.1
350466 1998 SR ₆₈	17.3	X	285.24816	118.91197	227.84538	8.73089	0.3688543	0.21760919	2.7374817	20	5 5.4	21.3
350467 1998 SV ₁₁₃	17.4	X	27.77109	313.45935	69.72485	3.30679	0.2060181	0.27755462	2.3275753	20	—	—
350468 1998 TF ₁	17.2	X	303.55686	350.13036	35.95568	5.54096	0.1197175	0.22021295	2.7158607	20	9 7.0	20.4
350469 1998 TO ₃₆	16.7	X	289.71695	130.45717	211.83712	9.22600	0.3307015	0.21594333	2.7515423	20	5 10.7	20.7
350470 1998 WX ₃₅	15.6	X	322.81396	323.49301	50.13309	12.54674	0.2294680	0.22102460	2.7092077	20	9 22.2	18.1
350471 1998 WC ₃₇	17.3	X	149.40812	277.15636	50.19979	6.26005	0.2043635	0.28596546	2.2817094	20	—	—
350472 1998 YS ₁₃	17.9	X	139.13231	19.04661	11.02196	0.29624	0.1290377	0.28955768	2.2627991	20	2 23.4	20.7
350473 1999 DG ₁	17.1	X	261.21000	164.95258	283.58926	17.02940	0.0909096	0.35136145	1.9889932	20	10 17.5	19.5
350474 1999 FH ₂₀	16.7	X	145.46894	201.45127	348.09111							

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350481 1999 <i>TL</i> ₂	16.4	X	321.18625	315.13574	46.98003	4.58645	0.3084790	0.23309577	2.6148480	20	8 16.9	18.1
350482 1999 <i>TS</i> ₂₉	17.4	X	348.63839	38.21917	356.18405	3.18817	0.2462773	0.23908967	2.5709611	20	12 27.9	19.7
350483 1999 <i>TM</i> ₇₂	16.6	X	47.61333	273.03440	51.16571	14.21770	0.1974133	0.23778618	2.5803482	20	12 9.9	20.3
350484 1999 <i>TP</i> ₁₀₉	16.7	X	311.71556	175.39495	213.48123	13.56806	0.2438655	0.23395962	2.6084076	20	9 6.8	19.3
350485 1999 <i>TY</i> ₁₂₀	17.0	X	359.26849	163.56842	196.41618	3.30309	0.2762526	0.23733659	2.5836058	20	12 3.7	19.4
350486 1999 <i>TV</i> ₁₂₅	16.3	X	356.93892	24.82507	351.32990	9.23516	0.2041540	0.23846170	2.5754727	20	12 8.9	19.1
350487 1999 <i>TL</i> ₁₃₇	15.9	X	90.36918	240.58667	14.89109	14.94309	0.0286728	0.23463975	2.6033645	20	10 12.6	19.4
350488 1999 <i>TF</i> ₁₅₂	16.9	X	312.33142	226.44459	186.20310	5.34526	0.3015180	0.23451879	2.6042597	20	10 17.9	18.5
350489 1999 <i>UR</i> ₁₁	16.7	X	238.77835	317.81342	48.12082	6.93707	0.1946295	0.22016793	2.7162308	20	5 3.9	20.9
350490 1999 <i>UG</i> ₂₉	17.1	X	4.19741	322.20166	56.23280	4.11618	0.0733991	0.23953741	2.5677564	20	12 6.6	20.3
350491 1999 <i>VW</i> ₈	17.0	X	359.30225	146.88571	219.41022	9.40621	0.2371926	0.23661187	2.5888787	20	12 5.8	19.7
350492 1999 <i>VP</i> ₃₈	16.8	X	317.21243	342.34154	64.41826	6.98755	0.2653436	0.23340403	2.6125452	20	10 27.5	18.6
350493 1999 <i>VL</i> ₄₁	17.0	X	351.36695	345.59033	19.28425	10.29928	0.2096334	0.23588903	2.5941647	20	11 10.3	19.5
350494 1999 <i>VB</i> ₇₇	17.3	X	18.78819	290.28631	88.17922	3.07706	0.1291355	0.23853153	2.5749701	20	—	—
350495 1999 <i>VC</i> ₁₁₁	17.7	X	183.30128	148.20201	234.44186	4.74375	0.1488434	0.30864051	2.1685399	20	3 29.9	21.0
350496 1999 <i>VE</i> ₁₃₃	16.7	X	266.98711	280.74022	224.36774	4.09646	0.0969433	0.24034132	2.5620273	20	12 25.4	19.8
350497 1999 <i>VP</i> ₁₄₅	17.2	X	334.13893	99.66544	303.68060	2.95956	0.2776051	0.23614702	2.5922750	20	12 10.7	18.9
350498 1999 <i>VQ</i> ₁₇₅	16.4	X	343.95264	131.63328	228.77743	8.49004	0.1715356	0.23407909	2.6075199	20	10 15.3	19.0
350499 1999 <i>VE</i> ₁₉₇	16.7	X	327.13939	325.31073	75.02590	7.36632	0.2854273	0.23576545	2.5950712	20	11 16.7	18.3
350500 1999 <i>VE</i> ₂₀₇	18.2	X	329.61877	232.98030	157.48173	1.48573	0.2652064	0.23385972	2.6091503	20	11 4.7	19.9
350501 1999 <i>VS</i> ₂₁₀	17.6	X	322.10522	131.95675	290.54392	3.31606	0.2532191	0.23617909	2.5920403	20	12 5.9	19.4
350502 1999 <i>WQ</i> ₁₇	16.7	X	315.26119	176.11679	219.22329	13.61424	0.2523019	0.23415154	2.6069820	20	9 27.2	19.0
350503 1999 <i>XX</i> ₈	15.8	X	303.02220	339.95876	72.36608	34.97283	0.2207814	0.23222652	2.6213691	20	10 27.0	19.1
350504 1999 <i>XR</i> ₅₄	16.2	X	323.89619	287.90124	74.46427	12.91635	0.2602458	0.23014246	2.6371706	20	9 6.8	18.5
350505 1999 <i>XS</i> ₁₁₁	16.5	X	300.99583	154.66738	259.06715	13.07940	0.2349909	0.23139813	2.6276216	20	9 17.0	19.5
350506 1999 <i>XP</i> ₁₃₁	16.5	X	283.12032	28.20218	26.82440	6.53488	0.2082291	0.22857912	2.6491813	20	9 1.6	19.6
350507 1999 <i>XR</i> ₁₆₃	16.9	X	341.89262	93.02763	287.73908	9.97188	0.1975879	0.23005630	2.6378289	20	11 10.0	19.5
350508 1999 <i>XT</i> ₂₂₆	17.4	X	169.33124	115.94344	295.84898	5.90428	0.0990859	0.30608300	2.1805991	20	4 20.5	20.6
350509 1999 <i>Vepfoknedlozelo</i>	17.1	X	5.92277	81.88007	101.96765	6.28937	0.1367329	0.29828316	2.2184530	20	2 25.3	18.9
350510 2000 <i>AN</i> ₂₁₂	17.0	X	9.03619	280.36059	75.31761	12.85883	0.2882903	0.23630141	2.5911457	20	12 15.5	19.9
350511 2000 <i>AB</i> ₂₁₈	16.2	X	241.51275	32.30512	104.57239	16.71052	0.1212325	0.22921609	2.6442711	20	11 9.4	20.1
350512 2000 <i>AP</i> ₂₄₇	17.4	X	318.22007	147.57291	321.51776	16.35063	0.0799862	0.38040097	1.8864341	20	—	—
350513 2000 <i>BG</i> ₁₉	17.9	X	218.76317	79.65813	147.53407	12.57113	0.5607399	0.22738494	2.6584485	20	12 12.2	23.1
350514 2000 <i>BC</i> ₃₄	17.4	X	281.69487	73.00879	324.11425	5.25205	0.2721887	0.22216201	2.6999529	20	7 22.2	20.7
350515 2000 <i>BK</i> ₃₈	17.5	X	217.96979	172.53282	337.95339	1.72371	0.1420584	0.22467240	2.6798032	20	10 18.5	21.3
350516 2000 <i>BV</i> ₄₀	17.2	X	313.18767	92.96192	319.09991	2.89284	0.2221610	0.22842833	2.6503470	20	10 22.0	19.4
350517 2000 <i>CA</i> ₅₅	16.4	X	262.43459	335.00747	127.11972	9.16558	0.2331669	0.22719106	2.6599608	20	10 1.9	19.9
350518 2000 <i>CH</i> ₇₂	17.2	X	211.12764	77.18804	79.78747	6.12374	0.4034013	0.22239637	2.6980557	20	10 1.3	22.2
350519 2000 <i>CS</i> ₁₀₇	17.0	X	87.89506	143.29898	130.89510	3.54943	0.0315597	0.22436342	2.6822629	20	11 3.6	20.7
350520 2000 <i>CT</i> ₁₄₀	17.7	X	7.15692	267.56879	308.22102	4.53843	0.0537934	0.30292968	2.1957093	20	4 16.9	20.0
350521 2000 <i>DY</i> ₃₄	16.4	X	196.90848	202.63408	340.66890	11.57265	0.1963292	0.22385305	2.6863383	20	10 28.2	20.9
350522 2000 <i>DU</i> ₈₈	16.6	X	256.19979	113.39023	341.89181	25.16914	0.1108051	0.22161891	2.7043621	20	9 20.7	20.4
350523 2000 <i>EA</i> ₁₄	21.1	X	143.72110	206.04989	203.84303	3.55534	0.2025550	0.83489190	1.1169898	20	—	—
350524 2000 <i>EA</i> ₁₃₇	17.4	X	259.28060	107.75340	14.95891	6.46814	0.3837119	0.22684525	2.6626633	20	9 28.9	20.9
350525 2000 <i>FC</i> ₃	17.0	X	177.09063	94.80902	126.86962	24.53235	0.0489622	0.37110449	1.9178085	20	—	—
350526 2000 <i>FZ</i> ₁₃	17.0	X	120.31333	176.33293	188.09055	6.65658	0.1949069	0.28342498	2.2953238	20	1 6.3	19.9
350527 2000 <i>FZ</i> ₁₄	15.8	X	196.43746	121.12651	32.98788	33.60339	0.2007483	0.21888228	2.7268567	20	10 9.0	20.5
350528 2000 <i>FB</i> ₅₃	16.4	X	16.09780	286.44733	12.30658	8.31298	0.0116148	0.21206163	2.7850179	20	8 30.6	20.1
350529 2000 <i>GQ</i> ₈₈	16.0	X	168.75299	80.83078	72.48478	8.69368	0.1616360	0.21461787	2.7628594	20	9 14.1	20.6
350530 2000 <i>JQ</i> ₁₉	16.5	X	246.55477	42.29667	151.46060	15.24160	0.2838775	0.22807427	2.6530892	20	12 27.6	20.1
350531 2000 <i>KE</i>	15.8	X	117.48182	340.55200	230.65680	16.68250	0.0833145	0.21097190	2.7945999	20	9 14.9	20.3
350532 2000 <i>KL</i> ₆₉	17.5	X	319.14236	24.91781	162.54968	6.45722	0.1150184	0.28383356	2.2931205	20	—	—
350533 2000 <i>LC</i> ₃₃	16.0	X	202.34011	119.44225	85.32380	14.83233	0.1350842	0.22303936	2.6928679	20	12 9.4	19.9
350534 2000 <i>QX</i> ₃₇	17.1	X	90.33035	183.12449	164.07680	5.30227	0.2456208	0.26327342	2.4110046	20	—	—
350535 2000 <i>QY</i> ₄₄	17.1	X	53.13046	242.01053	142.41957	3.51523	0.3305928	0.26017965	2.4300796	20	—	—
350536 2000 <i>QY</i> ₆₉	19.8	X	161.59024	65.04050	341.97945	25.20139	0.1638143	0.57851696	1.4264569	20	3 14.8	20.4
350537 2000 <i>RS</i> ₅₉	16.1	X	173.12164	71.31955	336.78490	6.36995	0.1734034	0.17783537	3.1317755	20	4 26.8	21.4
350538 2000 <i>RZ</i> ₆₀	17.8	X	18.09759	98.61730	249.03756	3.51651	0.2734024	0.25224374	2.4807850	20	12 20.4	20.7
350539 2000 <i>RM</i> ₉₀	15.2	X	138.40735	56.80603	340.55985	23.03337	0.1654195	0.17274939	3.1929470	20	3 12.5	20.3
350540 2000 <i>SF</i> ₃₅	17.7	X	84.27704	204.86112	149.37417	3.05222	0.2078759	0.26151145	2.4218222	20	—	—
350541 2000 <i>SH</i> ₄₇	17.0	X	301.54340	81.28237	328.36735	17.61659	0.0938660	0.34968383	1.9953497	20	10 29.3	19.1
350542 2000 <i>SO</i> ₈₉	16.6	X	42.69998	157.17706	217.59732	7.86930	0.2801365	0.25610176	2.4558076	20	—	—
350543 2000 <i>SV</i> ₉₇	17.2	X	82.66239	59.28853	304.68869	3.71388	0.1950154	0.26175297	2.4203321	20	—	—
350544 2000 <i>SQ</i> ₁₅₈	17.4	X	19.68453	26.30459	344.70717	6.71882	0.2815451	0.25278397	2.4772492	20	—	—
350545 2000 <i>SV</i> ₁₇₃	16.5	X	172.51077	58.06207	324.89075	12.52359	0.3095805	0.17527192	3.1622375	20	3 28.4	22.4
350546 2000 <i>SJ</i> ₁₈₃	16.0	X	181.26809	318.65509	27.64930	1.84402	0.2163396	0.17402260	3.1773541	20	2 26.2	21.4
350547 2000 <i>SG</i> ₁₈₉	16.4	X	23.31589	162.33705	220.48372	8.91247	0.1321457	0.25461326	2.4653696	20	—	—
350548 2000 <i>SD</i> ₁₉₂	17.3	X	25.10075	123.30801	316.69722	1.02502	0.1642094	0.26195328	2.4190982	20	—	—
350549 2000 <i>SO</i> ₂₀₄	17.4	X	105.22078	341.01261	15.05005	6.78668	0.1410670	0.26332915	2.4106644	20	—	—
350550 2000 <i>SH</i> ₂₂₅	17.1	X	39.62082	332.98030	42.23736	1.79417	0.2026111	0.25587424	2.4572632	20	—	—
350551 2000 <i>SL</i> ₂₉₆	17.1	X	120.03510	76.34178	269.97824	5.77242	0.1140375	0.26514762	2.3996297	20	—	—
350552 2000												

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350561 2000 UR ₆₄	17.0	X	286.18241	131.48457	252.39800	4.62827	0.2498477	0.24033485	2.5620733	20	7 13.8	20.0
350562 2000 UB ₇₄	16.9	X	108.56246	122.20581	219.06452	4.77260	0.2145469	0.26147529	2.4220454	20	—	—
350563 2000 UN ₇₅	16.4	X	314.80560	146.76800	273.00290	9.27780	0.1595482	0.24715522	2.5147194	20	11 16.1	18.9
350564 2000 UK ₁₀₂	17.0	X	56.17143	74.59060	294.78800	3.18783	0.2187714	0.25615971	2.4554372	20	—	—
350565 2000 UN ₁₁₀	16.3	X	212.92267	298.75493	72.58932	12.03215	0.2388841	0.17839632	3.1252070	20	4 21.6	21.8
350566 2000 WY ₁₈₃	16.6	X	342.09790	206.78883	267.68414	10.27305	0.2501948	0.25498764	2.4629558	20	—	—
350567 2000 WM ₁₉₀	16.6	X	52.77716	306.12017	54.60900	5.33403	0.2151720	0.25442699	2.4665728	20	—	—
350568 2000 XH ₄	16.2	X	314.40093	97.42458	288.64407	9.78470	0.1405406	0.24249599	2.5468283	20	9 19.9	19.0
350569 2000 YY ₂	16.3	X	285.60916	306.70998	254.39781	13.43381	0.1284974	0.25842800	2.4410481	20	—	—
350570 2000 YU ₃₈	16.8	X	355.96978	133.57522	249.95805	3.20881	0.2449060	0.24588388	2.5233801	20	12 28.2	19.2
350571 2000 YX ₄₉	16.8	X	233.21843	332.50261	93.66042	5.30295	0.2255801	0.23220792	2.6215091	20	7 11.3	20.8
350572 2000 YR ₉₇	16.1	X	167.63641	243.15387	299.46663	12.12583	0.2305820	0.23277629	2.6172400	20	9 30.6	20.9
350573 2001 BT ₇₅	15.1	X	80.18283	35.09267	148.43160	28.20572	0.1388543	0.17025209	3.2240944	20	7 9.4	20.1
350574 2001 BN ₈₃	13.1	X	257.43209	237.99000	226.14256	7.36597	0.1385154	0.08395611	5.1653668	20	9 15.6	20.2
350575 2001 DE ₆₂	16.6	X	239.49546	348.34465	143.60797	11.93805	0.1145333	0.23698670	2.5861482	20	10 31.4	20.2
350576 2001 EH ₁₅	16.5	X	153.05484	262.12626	1.10637	10.95919	0.2085562	0.23670208	2.5882209	20	12 31.9	21.0
350577 2001 FW ₈₈	16.5	X	346.73756	246.20105	140.19425	9.73954	0.0288015	0.22797670	2.6538461	20	11 18.3	20.1
350578 2001 HG ₆₅	17.4	X	333.92106	173.23124	52.56627	5.33147	0.1134384	0.30657180	2.1782844	20	3 4.1	19.5
350579 2001 KX ₆₃	16.7	X	208.75327	87.47736	134.87745	12.72449	0.2067892	0.23787046	2.5797387	20	—	—
350580 2001 MW ₈	16.3	X	26.87361	5.21573	327.44287	7.33588	0.2404900	0.21626083	2.7488485	20	11 26.7	20.0
350581 2001 OC ₅₅	16.8	X	204.20924	271.94491	36.52007	7.98669	0.0944522	0.29168325	2.2517926	20	1 18.7	20.1
350582 2001 OU ₇₉	17.8	X	355.25519	190.21898	161.73122	24.08203	0.0725617	0.37024174	1.9207866	20	11 27.3	20.3
350583 2001 PL ₁₅	17.2	X	182.46542	262.15991	52.41387	7.32881	0.1424325	0.28866641	2.1674543	20	1 5.4	20.5
350584 2001 PP ₁₅	17.6	X	170.79473	325.28215	21.24612	5.28162	0.2197642	0.28987787	2.2611325	20	2 10.1	21.2
350585 2001 PH ₁₆	17.4	X	206.90349	251.84656	99.24435	7.09118	0.1843716	0.29575793	2.2310627	20	3 17.9	21.0
350586 2001 PZ ₄₂	17.4	X	38.42202	73.07655	311.43384	18.53250	0.0835402	0.37798095	1.8944775	20	—	—
350587 2001 QR ₁₅	17.1	X	92.46276	243.03511	118.57815	6.05442	0.3100523	0.27815295	2.3242362	20	—	—
350588 2001 QT ₄₄	16.4	X	104.86788	255.48307	139.74196	22.50496	0.2638924	0.28433248	2.2904373	20	2 7.9	19.1
350589 2001 QP ₆₁	15.5	X	186.59460	40.48603	315.84334	8.83474	0.2507221	0.18771011	3.0209552	20	3 8.7	20.9
350590 2001 QR ₈₂	15.9	X	221.68098	103.27615	238.56979	5.16229	0.3319375	0.18958999	3.0009525	20	3 14.9	21.5
350591 2001 QT ₁₂₄	17.8	X	358.90579	35.11787	337.56802	17.82821	0.0895384	0.37284023	1.9118517	20	—	—
350592 2001 QH ₁₄₃	16.6	X	222.41212	174.97372	180.45966	2.73274	0.1427276	0.19185663	2.9772697	20	4 10.6	21.4
350593 2001 QJ ₂₀₀	17.1	X	306.24783	242.53417	212.02137	21.58915	0.0705397	0.37191429	1.9150236	20	—	—
350594 2001 QU ₂₆₁	18.1	X	111.80428	60.93105	304.82066	5.92693	0.2817661	0.27997734	2.3141284	20	1 12.3	20.7
350595 2001 QH ₂₇₂	17.5	X	146.78703	10.87892	345.31714	7.55174	0.1483949	0.28692641	2.2766121	20	1 23.2	20.6
350596 2001 QZ ₂₉₁	17.9	X	221.60738	343.65116	332.68223	5.28349	0.1914669	0.29262047	2.2469819	20	2 13.2	21.3
350597 2001 QB ₂₉₅	16.6	X	63.52731	80.73512	353.71052	11.54428	0.2120649	0.27976654	2.3152907	20	1 17.5	18.5
350598 2001 RG ₂₄	17.6	X	147.61118	18.06397	349.45912	5.81243	0.2046949	0.28700512	2.2761958	20	2 13.2	20.8
350599 2001 RY ₄₂	16.8	X	134.00796	127.13035	258.11173	4.72300	0.1747011	0.28683775	2.2770812	20	2 14.9	19.9
350600 2001 RG ₅₇	18.3	X	125.36797	327.06278	43.63218	2.32455	0.2248182	0.28349051	2.2949701	20	1 26.9	21.2
350601 2001 RG ₁₀₄	17.1	X	104.16428	304.21643	77.81946	3.38291	0.1646320	0.28205059	2.3027743	20	1 3.9	19.4
350602 2001 RT ₁₀₄	17.9	X	85.72890	49.56168	357.89803	3.13647	0.2606437	0.28161806	2.3051315	20	1 27.4	19.9
350603 2001 RK ₁₀₅	16.1	X	281.34931	40.66904	323.64609	11.75535	0.1606144	0.20213720	2.8754460	20	6 24.3	20.1
350604 2001 RW ₁₃₀	17.7	X	218.28806	284.40334	24.09142	3.47633	0.1609558	0.29034026	2.2587311	20	2 1.9	21.1
350605 2001 RB ₁₃₉	17.5	X	123.93155	27.32672	8.22102	6.91631	0.0977368	0.28683447	2.2770985	20	2 10.4	20.4
350606 2001 SK ₁₁	17.7	X	107.58159	92.33293	324.24195	7.39511	0.2334157	0.28515395	2.2860363	20	3 4.9	20.5
350607 2001 SA ₁₇	17.2	X	129.70687	9.39857	11.06941	6.95977	0.1393707	0.28489475	2.2874226	20	2 3.8	20.2
350608 2001 SX ₂₇	16.7	X	216.38594	8.89271	19.09184	7.63693	0.1979168	0.19214877	2.9742512	20	5 9.4	21.8
350609 2001 SJ ₄₁	17.6	X	126.01954	64.32761	316.03557	4.87322	0.1789560	0.28414199	2.2914608	20	2 2.3	20.3
350610 2001 SN ₆₇	17.2	X	59.90241	303.96852	103.35194	2.17717	0.1788093	0.27477963	2.3432198	20	—	—
350611 2001 SG ₇₆	18.1	X	120.61199	90.27721	288.48828	5.15139	0.1953864	0.28350515	2.2948911	20	1 26.3	20.9
350612 2001 SW ₇₉	17.3	X	169.83732	51.01488	319.20678	6.52898	0.1545068	0.29174553	2.2514721	20	3 2.1	20.5
350613 2001 SZ ₉₆	17.8	X	290.81198	42.10620	235.64182	3.05870	0.1641394	0.29722278	2.2237262	20	3 3.4	20.5
350614 2001 SS ₁₁₃	17.7	X	115.98309	101.64588	260.99260	2.32526	0.2492438	0.28040926	2.3117515	20	1 7.9	20.4
350615 2001 SS ₁₃₄	18.5	X	89.89887	106.12210	302.18030	1.55479	0.2280241	0.28122110	2.3073003	20	1 29.2	20.7
350616 2001 SF ₁₄₄	17.5	X	35.13162	341.70723	353.15129	19.91050	0.0626283	0.37120217	1.9174721	20	12 27.9	20.1
350617 2001 SS ₁₇₁	17.8	X	172.46145	326.80023	18.73883	4.07620	0.1616807	0.28722940	2.2750107	20	2 6.2	21.2
350618 2001 SK ₁₈₇	17.8	X	143.43256	23.84108	347.81522	0.06578	0.2142733	0.28703804	2.2760218	20	2 14.0	21.0
350619 2001 SN ₁₉₈	17.2	X	51.35164	286.71931	166.43571	7.01585	0.2028366	0.28190066	2.3035907	20	1 11.6	18.9
350620 2001 SS ₂₀₇	16.6	X	175.42033	215.64126	173.78829	8.95528	0.2641470	0.18673368	3.0314770	20	4 12.2	22.0
350621 2001 SH ₂₁₁	17.6	X	158.98267	335.10099	5.44269	4.32114	0.1624375	0.28469776	2.2884777	20	1 17.3	20.9
350622 2001 SN ₂₁₂	16.6	X	250.42141	161.37434	174.88814	9.62889	0.1649218	0.19256460	2.9699678	20	4 13.9	21.2
350623 2001 SJ ₂₁₇	17.7	X	112.22658	46.74834	5.66239	6.21786	0.1183634	0.28609024	2.2810459	20	2 20.5	20.5
350624 2001 SY ₂₂₁	17.2	X	202.23986	120.08157	161.97691	5.64378	0.1652562	0.28381471	2.2932221	20	—	—
350625 2001 SX ₂₂₂	17.8	X	110.50071	196.44697	173.46018	5.74053	0.1277522	0.28026740	2.3125315	20	—	—
350626 2001 ST ₂₄₃	16.1	X	216.73057	351.88363	16.28733	10.61130	0.1275384	0.19042017	2.9922239	20	4 19.5	20.9
350627 2001 SF ₂₅₆	15.7	X	183.68039	294.66045	75.42385	5.48516	0.3169899	0.18385534	3.0630344	20	3 28.5	21.4
350628 2001 SR ₂₆₂	17.3	X	143.03685	357.15055	281.43738	18.17485	0.0556282	0.37834117	1.8932748	20	—	—
350629 2001 SK ₃₁₇	18.1	X	83.56961	264.39325	140.56908	2.36853	0.1979709	0.27998859	2.3140665	20	1 7.7	20.1
350630 2001 SG ₃₁₉	17.4	X	98.84405	31.08183	9.79817	6.01818	0.1601309	0.28234148	2.3011924	20	1 23.3	19.9
350631 2001 TP	17.6	X	49.38286	332.92155	22.10110	21.05463	0.0840865	0.37408943	1.9075932	20	—	—
350632 2001 TU ₄	18.1	X	118.74496	5.46610	5.99402	3.77678	0.1401626	0.28152571	2.3056356	20	1 7.1	20.8
350633 2001 TU ₁₆	17.8	X	324.33742	50.54372	25.19373	20.73947	0.0967246	0.37185349	1.9152324	20	—	—
350634 2001 TZ ₅₉	16.4	X	205.78019									

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>		
350641	2001	<i>TX</i> ₁₀₁	17.5	X	157.00293	13.26601	351.89073	2.53593	0.2393222	0.28602374	2.2813994	20	2 21.3	20.9
350642	2001	<i>TS</i> ₁₁₁	16.6	X	115.03712	103.35971	253.87266	6.27754	0.1313463	0.27739972	2.3284417	20	—	—
350643	2001	<i>TX</i> ₁₂₃	17.2	X	141.37465	94.94639	260.36166	6.81717	0.2014656	0.28317175	2.2966921	20	1 19.7	20.5
350644	2001	<i>TV</i> ₁₂₈	16.7	X	221.80958	47.88461	10.66087	11.67674	0.1089749	0.19636122	2.9315608	20	6 30.2	21.3
350645	2001	<i>TX</i> ₁₃₅	17.1	X	96.17525	131.70922	257.20355	6.19906	0.1261416	0.27984991	2.3148309	20	—	—
350646	2001	<i>TC</i> ₁₃₆	16.9	X	88.96677	126.63650	300.26330	6.36242	0.2668080	0.28188951	2.3036515	20	2 27.7	19.4
350647	2001	<i>TO</i> ₁₄₁	15.5	X	76.84364	39.88945	32.19221	16.99059	0.1994790	0.17599383	3.1535841	20	3 3.0	19.9
350648	2001	<i>TP</i> ₁₄₆	17.4	X	12.71545	251.09187	108.73003	4.27887	0.2107303	0.26445287	2.4038306	20	12 22.7	20.1
350649	2001	<i>TN</i> ₂₀₁	17.2	X	127.52240	322.08555	69.24532	8.17178	0.1135913	0.28485474	2.2876368	20	2 12.7	20.2
350650	2001	<i>TS</i> ₂₀₈	16.3	X	196.48168	13.98982	29.48416	5.91680	0.1449052	0.18887902	3.0084784	20	5 13.2	21.1
350651	2001	<i>TN</i> ₂₁₃	17.3	X	100.89433	8.75502	22.64195	6.48826	0.2188397	0.27900573	2.3194978	20	1 23.8	19.9
350652	2001	<i>TJ</i> ₂₁₄	18.0	X	128.60002	58.44288	302.23065	6.98245	0.2241168	0.28111248	2.3078946	20	1 17.3	21.0
350653	2001	<i>TQ</i> ₂₁₅	16.9	X	173.81602	343.86494	338.36428	6.71725	0.2093734	0.28306267	2.2972820	20	1 13.1	20.5
350654	2001	<i>TH</i> ₂₂₂	16.0	X	138.33862	205.75809	239.40089	10.41059	0.1168096	0.18453800	3.0554758	20	5 7.9	20.7
350655	2001	<i>TH</i> ₂₃₅	16.0	X	210.08747	322.43845	79.45002	11.38697	0.1198264	0.19098134	2.9863596	20	5 27.2	20.7
350656	2001	<i>TX</i> ₂₃₇	17.5	X	149.41712	228.96667	133.62653	3.68241	0.2010378	0.28436685	2.2902527	20	2 7.5	20.8
350657	2001	<i>TO</i> ₂₄₁	16.9	X	215.16752	175.92242	219.63333	2.23937	0.2479118	0.19051290	2.9912528	20	5 16.9	22.1
350658	2001	<i>TY</i> ₂₄₁	17.5	X	123.45863	266.24950	108.65732	6.41037	0.1871548	0.28149411	2.3058082	20	1 24.8	20.3
350659	2001	<i>TF</i> ₂₅₅	16.2	X	190.88425	348.29549	69.66536	8.28096	0.1906720	0.19025197	2.9939872	20	5 26.1	21.2
350660	2001	<i>TG</i> ₂₆₂	17.8	X	75.56414	293.00956	100.01216	5.28589	0.1327731	0.27884234	2.3204038	20	—	—
350661	2001	<i>UM</i> ₇	17.9	X	93.88462	144.76214	266.67124	5.86185	0.1927483	0.28231464	2.3013382	20	2 1.0	20.3
350662	2001	<i>UF</i> ₁₁	16.9	X	57.49955	184.33261	225.42922	10.44016	0.2117962	0.27289522	2.3539944	20	—	—
350663	2001	<i>UF</i> ₂₂	17.1	X	113.14266	129.19927	270.86778	5.73392	0.1926499	0.28342358	2.2953314	20	2 12.2	19.9
350664	2001	<i>US</i> ₂₉	17.2	X	91.77277	329.64266	71.10995	6.93316	0.1661706	0.27949278	2.3168023	20	1 11.9	19.6
350665	2001	<i>UX</i> ₄₀	16.5	X	180.39061	0.19839	65.86772	3.52166	0.3580597	0.18742072	3.0240641	20	5 26.9	22.2
350666	2001	<i>UO</i> ₄₃	17.8	X	72.06027	317.46774	53.82784	3.51814	0.2420995	0.27357387	2.3500998	20	—	—
350667	2001	<i>UO</i> ₅₉	17.3	X	68.72652	138.05575	245.65189	1.54392	0.2112563	0.27413074	2.3469160	20	—	—
350668	2001	<i>UG</i> ₆₁	18.3	X	96.59422	65.58788	331.08297	2.47957	0.1825262	0.28021779	2.3128044	20	1 16.4	20.6
350669	2001	<i>UA</i> ₇₁	17.3	X	359.13210	309.78876	219.11750	6.65109	0.2215230	0.28047170	2.3114084	20	1 6.9	19.4
350670	2001	<i>UJ</i> ₇₆	17.9	X	107.56611	326.66613	54.33115	3.61775	0.1880568	0.27935483	2.3175650	20	1 12.5	20.4
350671	2001	<i>UN</i> ₇₈	17.1	X	135.03485	277.23574	98.05683	5.32739	0.2479652	0.28315960	2.2967578	20	2 15.9	20.4
350672	2001	<i>UL</i> ₉₁	16.1	X	259.59095	331.62097	26.72838	12.27180	0.0702059	0.19430146	2.9522423	20	5 28.9	20.5
350673	2001	<i>UR</i> ₉₁	16.8	X	243.50780	94.84241	24.88516	8.65271	0.1459169	0.25917604	2.4363489	20	10 15.5	19.9
350674	2001	<i>UB</i> ₁₀₀	16.1	X	152.31234	224.78867	217.05155	12.13695	0.3107748	0.18322481	3.0700576	20	5 27.6	21.7
350675	2001	<i>UJ</i> ₁₂₈	18.0	X	130.10479	290.90987	63.56430	2.46957	0.2665054	0.28215329	2.3022155	20	1 16.6	21.1
350676	2001	<i>UL</i> ₁₃₆	16.0	X	164.51461	25.31011	57.24526	9.35613	0.2350847	0.18487860	3.0517219	20	6 2.8	21.2
350677	2001	<i>UM</i> ₁₄₉	17.4	X	87.93086	197.35559	157.81844	2.54997	0.2360241	0.27327854	2.3517927	20	—	—
350678	2001	<i>UG</i> ₁₅₁	17.5	X	92.10674	231.83561	159.09855	2.62615	0.2143106	0.27703512	2.3304842	20	1 6.0	19.7
350679	2001	<i>UO</i> ₁₅₈	17.9	X	70.77745	349.47948	66.36496	5.67923	0.2116381	0.27635393	2.3343123	20	1 1.6	19.7
350680	2001	<i>US</i> ₁₆₀	16.3	X	182.31065	343.31154	58.67573	12.32302	0.2209090	0.18471145	3.0535627	20	5 1.9	21.5
350681	2001	<i>UO</i> ₁₇₂	16.9	X	148.84801	306.31220	125.60611	1.88200	0.2429401	0.18413413	3.0599419	20	5 10.7	22.2
350682	2001	<i>UQ</i> ₁₇₆	16.7	X	235.71898	246.82059	158.52044	2.08912	0.1149963	0.19481069	2.9470953	20	6 27.0	21.1
350683	2001	<i>UO</i> ₁₈₃	17.9	X	136.60590	298.82748	71.17086	3.63737	0.1862988	0.28400716	2.2921860	20	2 3.0	20.9
350684	2001	<i>UZ</i> ₁₉₂	15.6	X	238.61638	107.53493	244.75626	9.11612	0.1045927	0.19007203	2.9958765	20	4 23.9	20.1
350685	2001	<i>UU</i> ₂₂₉	15.5	X	86.34642	140.45516	39.90199	10.46938	0.0150838	0.19618566	2.9333094	20	6 24.2	19.7
350686	2001	<i>VV</i> ₄	17.4	X	74.64938	88.96556	265.20582	19.24676	0.1271142	0.37897394	1.8911667	20	—	—
350687	2001	<i>VB</i> ₁₂	16.5	X	82.61300	164.47489	253.39535	22.60157	0.2159532	0.27833587	2.3232178	20	1 19.9	19.2
350688	2001	<i>VD</i> ₂₅	17.2	X	99.05566	12.51449	39.63198	3.00531	0.1950186	0.27999920	2.3140080	20	2 14.1	19.7
350689	2001	<i>VB</i> ₂₇	17.6	X	103.14032	138.75705	267.29784	0.73141	0.2111176	0.27985256	2.3148163	20	2 12.5	20.1
350690	2001	<i>VP</i> ₅₆	17.7	X	55.56316	72.42850	13.62953	5.84362	0.1279829	0.27844141	2.3226307	20	1 8.0	19.9
350691	2001	<i>VN</i> ₆₃	17.8	X	107.58715	90.50159	286.76452	1.75551	0.2418410	0.27844571	2.3226068	20	1 15.7	20.3
350692	2001	<i>VM</i> ₈₆	15.9	X	217.84306	297.37536	85.99686	11.31077	0.2444200	0.18823392	3.0153481	20	5 7.8	21.2
350693	2001	<i>VB</i> ₁₀₉	17.4	X	87.35874	341.71618	47.15817	9.96341	0.1439738	0.27538137	2.3398050	20	—	—
350694	2001	<i>VR</i> ₁₁₁	17.9	X	39.90541	359.56757	52.58906	2.98733	0.1971136	0.27112316	2.3642404	20	—	—
350695	2001	<i>VP</i> ₁₂₆	17.6	X	120.41211	302.91513	65.72757	6.86512	0.1281020	0.27730070	2.3289960	20	1 4.2	20.4
350696	2001	<i>WX</i> ₈	17.5	X	78.13983	306.95871	89.70779	5.78244	0.2288194	0.27546484	2.3393324	20	—	—
350697	2001	<i>WY</i> ₁₀	17.5	X	61.65160	322.64726	118.58971	3.22288	0.1867793	0.27781171	2.3261391	20	1 17.5	19.2
350698	2001	<i>WL</i> ₁₄	15.9	X	351.55756	261.49897	256.89169	21.86414	0.2434297	0.27458929	2.3443025	20	—	—
350699	2001	<i>WK</i> ₂₆	16.1	X	232.20031	327.53781	71.42855	8.12974	0.1546821	0.19197174	2.9760794	20	6 11.0	20.6
350700	2001	<i>WM</i> ₃₆	17.8	X	123.02040	285.86569	71.78027	6.61572	0.1892087	0.27871585	2.3211058	20	1 1.9	20.7
350701	2001	<i>WU</i> ₃₆	15.7	X	186.93914	181.50473	223.68227	10.84548	0.1010893	0.18643315	3.0347340	20	5 7.9	20.4
350702	2001	<i>WV</i> ₄₄	16.3	X	205.69481	310.99682	96.77345	6.79724	0.1875612	0.18781950	3.0197820	20	5 27.2	21.3
350703	2001	<i>WS</i> ₆₄	17.7	X	84.55356	8.91163	44.90645	7.35692	0.1702903	0.28015199	2.3131666	20	1 20.3	20.0
350704	2001	<i>WW</i> ₆₇	18.2	X	56.35732	36.40127	57.95036	4.68653	0.2198629	0.27870309	2.3211767	20	2 1.3	19.8
350705	2001	<i>WE</i> ₆₉	18.3	X	108.59316	212.28693	179.27691	1.60230	0.1902479	0.28009425	2.3134844	20	1 27.6	20.9
350706	2001	<i>WZ</i> ₇₅	17.8	X	37.69839	278.75884	146.43748	1.52999	0.1551556	0.27276770	2.3547281	20	—	—
350707	2001	<i>WF</i> ₈₃	17.8	X	40.34831	14.14751	78.26891	3.46578	0.1695845	0.27555098	2.3388448	20	—	—
350708	2001	<i>XB</i> ₁₄	15.7	X	211.18224	303.59987	55.93735	13.96431	0.4412308	0.18603557	3.0390561	20	4 3.2	21.8

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350721 2001 XY ₁₄₈	15.7	X	192.37280	114.60700	250.77255	8.48870	0.1327733	0.17952832	3.1120561	20	3 22.6	20.8
350722 2001 XD ₁₅₀	17.5	X	49.19561	21.71365	77.85554	2.67425	0.2100594	0.27590460	2.3368460	20	1 21.2	19.0
350723 2001 XB ₁₅₅	17.1	X	88.68990	296.69505	101.94947	6.11461	0.2359463	0.27587627	2.3370060	20	1 15.9	19.2
350724 2001 XG ₁₆₀	17.6	X	81.46010	202.79306	174.59358	2.00323	0.2214911	0.27274093	2.3548821	20	—	—
350725 2001 XM ₁₆₂	17.2	X	165.84455	237.23661	83.84710	7.27334	0.1556366	0.27567125	2.3381645	20	—	—
350726 2001 XY ₁₆₂	15.7	X	210.96126	328.80785	83.04811	10.73148	0.0917308	0.18701948	3.0283878	20	6 10.4	20.1
350727 2001 XP ₁₇₆	17.5	X	20.79520	8.43899	104.96777	2.09416	0.1414456	0.27193430	2.3595366	20	—	—
350728 2001 XM ₁₈₆	16.8	X	71.49103	102.61658	275.30955	3.58492	0.2265385	0.26959935	2.3731407	20	—	—
350729 2001 XE ₁₉₃	17.3	X	146.56207	96.68646	111.09219	24.68119	0.0732726	0.35618311	1.9710025	11	22.4	20.3
350730 2001 XC ₂₀₈	16.0	X	153.74775	356.22992	98.68039	16.12033	0.1680417	0.18406862	3.0606679	20	6 8.9	21.1
350731 2001 XT ₂₂₁	16.4	X	199.01391	342.23814	59.00381	11.92761	0.2099845	0.18751012	3.0231027	20	5 12.8	21.4
350732 2001 XF ₂₂₃	15.9	X	170.19471	355.80315	58.77246	10.12818	0.1411775	0.18377211	3.0639592	20	5 4.8	20.8
350733 2001 XK ₂₂₈	17.7	X	113.29962	44.41412	326.93199	1.70704	0.2178791	0.27727447	2.3291428	20	1 12.2	20.2
350734 2001 XZ ₂₅₂	15.7	X	155.90696	197.86013	290.23047	14.21942	0.2065187	0.18351551	3.0668147	20	7 19.9	21.0
350735 2001 XV ₂₅₆	16.3	X	179.67901	232.64450	172.91679	7.57895	0.3015313	0.18562775	3.0435057	20	5 4.4	21.9
350736 2001 YO ₁₇	16.6	X	174.66941	291.93072	65.55173	25.77385	0.3903827	0.18058573	3.0998958	20	3 22.5	23.0
350737 2001 YG ₂₂	18.1	X	56.84402	150.85646	297.01553	4.34842	0.1984022	0.27697758	2.3308069	20	1 18.7	19.7
350738 2001 YK ₂₇	17.9	X	61.01968	10.12541	62.44760	3.14637	0.1674910	0.27565891	2.3382343	20	1 1.4	19.8
350739 2001 YX ₃₄	17.5	X	124.93922	99.95890	266.71703	2.57934	0.2603446	0.27867629	2.3213254	20	1 25.4	20.6
350740 2001 YT ₃₅	15.7	X	188.90872	332.28884	67.51643	16.56862	0.0773116	0.18308314	3.0716412	20	5 6.9	20.4
350741 2001 YG ₃₇	15.4	X	165.81001	334.38058	72.76350	11.20030	0.1293181	0.18098626	3.0953206	20	4 24.1	20.4
350742 2001 YA ₅₅	18.2	X	357.94763	198.20473	274.51071	2.27989	0.1777466	0.27027554	2.3691809	20	—	—
350743 2001 YY ₇₉	17.6	X	51.94208	343.63803	91.44786	2.25030	0.1613494	0.27216522	2.3582018	20	—	—
350744 2001 YC ₈₉	17.7	X	24.15731	154.99286	291.78265	9.34385	0.2005977	0.26925681	2.3751529	20	—	—
350745 2001 YJ ₁₂₄	17.7	X	85.36588	25.06001	16.22410	4.59854	0.2645659	0.27621100	2.3351175	20	1 20.0	19.8
350746 2001 YP ₁₂₆	17.4	X	60.34951	126.18065	318.37417	4.83828	0.2048298	0.27576398	2.3376403	20	1 23.3	18.9
350747 2001 YY ₁₂₈	17.2	X	337.19677	145.62017	355.87642	5.20071	0.1488830	0.26915246	2.3757668	20	—	—
350748 2001 YN ₁₃₄	15.4	X	61.42059	248.78029	270.91243	9.80410	0.2160394	0.17324808	3.1868167	20	5 24.5	19.5
350749 2001 YO ₁₅₁	15.8	X	96.23741	172.45200	300.18810	16.58778	0.1771379	0.17632767	3.1496025	20	4 27.8	20.8
350750 2001 YC ₁₆₀	17.3	X	22.63177	19.85930	321.88618	18.08714	0.0632500	0.36042751	1.9554982	20	12 15.4	19.8
350751 2002 AW	20.8	X	59.83557	119.21952	162.10841	0.57443	0.2563960	0.88945959	1.0708252	20	—	—
350752 2002 AR ₁₇	17.4	X	285.37853	80.38276	296.48675	17.63034	0.0848161	0.35055743	1.9920333	20	8 7.7	19.2
350753 2002 AD ₁₈	17.5	X	159.70686	102.16249	88.26120	24.46859	0.0375134	0.35707744	1.9677101	20	11 16.9	20.1
350754 2002 AR ₂₈	15.7	X	143.62945	24.57908	107.65443	15.08669	0.2406120	0.18163020	3.0880004	20	7 16.9	21.0
350755 2002 AW ₃₃	16.3	X	176.38756	241.71123	126.50314	2.52297	0.2072819	0.17554010	3.1590160	20	3 18.3	21.7
350756 2002 AF ₄₃	17.7	X	16.57031	10.82072	140.63218	3.22999	0.1707704	0.27489610	2.3425579	20	1 26.7	19.5
350757 2002 AT ₄₅	16.2	X	114.27064	325.26288	151.87128	1.66018	0.1253118	0.17796111	3.1303001	20	5 23.8	20.8
350758 2002 AK ₅₁	17.0	X	350.52496	51.02272	134.13888	3.38413	0.0962097	0.27487091	2.3427010	20	2 5.7	19.4
350759 2002 AU ₆₆	17.5	X	3.47307	192.82655	281.07442	5.82076	0.1184002	0.26870550	2.3784007	20	—	—
350760 2002 AE ₇₃	17.4	X	48.11383	20.53456	21.58094	2.53490	0.2092978	0.26878596	2.3779260	20	—	—
350761 2002 AM ₇₅	17.3	X	304.95967	247.28662	294.60613	8.44100	0.1292799	0.26869454	2.3784653	20	—	—
350762 2002 AR ₇₆	16.4	X	41.77241	79.76627	85.98715	7.71520	0.3059852	0.17046972	3.2213498	20	5 16.9	19.9
350763 2002 AW ₇₉	16.5	X	162.99581	20.36079	52.89487	3.99543	0.1971636	0.18120039	3.0928817	20	5 21.1	21.5
350764 2002 AJ ₁₀₉	15.6	X	44.97216	48.31077	114.27235	14.65534	0.1681793	0.17134891	3.2103212	20	5 2.6	19.8
350765 2002 AZ ₁₁₅	17.4	X	341.93689	39.86282	116.77891	5.67223	0.1302230	0.26981278	2.3718890	20	—	—
350766 2002 AM ₁₄₆	17.6	X	317.58243	215.89845	262.20897	3.36998	0.1369126	0.26259845	2.4151343	20	—	—
350767 2002 AJ ₁₅₃	15.5	X	176.95325	64.96648	324.80291	24.77770	0.4492357	0.17917946	3.1160942	20	4 1.6	22.0
350768 2002 AW ₁₇₁	15.9	X	157.55122	156.55389	328.02591	7.57367	0.1043558	0.18439480	3.0570574	20	7 16.7	20.7
350769 2002 AU ₁₈₃	17.6	X	15.31144	355.63187	79.31835	2.53970	0.1614391	0.26730671	2.3866907	20	—	—
350770 2002 AJ ₁₉₁	17.0	X	161.60402	279.06055	145.95563	1.60833	0.1447453	0.17959917	3.1112375	20	5 8.9	22.0
350771 2002 BL ₁₄	16.8	X	3.56244	198.94523	303.70997	6.24585	0.0709392	0.26947311	2.3738818	20	1 2.2	19.3
350772 2002 BO ₂₅	16.2	X	131.42551	212.43235	308.92534	14.33435	0.2969821	0.18198286	3.0840096	20	8 12.2	21.7
350773 2002 BE ₂₇	14.8	X	34.01799	214.68339	316.25275	26.55838	0.1589387	0.17197775	3.2024907	20	3 30.1	19.2
350774 2002 BO ₃₂	15.1	X	293.47430	347.50665	294.34936	13.38612	0.0682739	0.17496691	3.1659115	20	3 31.6	19.9
350775 2002 CM ₅	17.1	X	340.25161	12.22958	129.02167	5.80924	0.1680062	0.26588142	2.3952125	20	—	—
350776 2002 CU ₆	17.4	X	266.33892	35.61983	78.26497	23.21541	0.0987782	0.36139082	1.9520217	20	12 19.9	18.6
350777 2002 CA ₁₁	16.4	X	267.66412	126.92168	100.00576	23.70421	0.2539486	0.26052895	2.4279070	20	—	—
350778 2002 CM ₁₁	17.6	X	340.88062	323.99695	177.67604	3.48263	0.1581646	0.26590237	2.3950867	20	—	—
350779 2002 CO ₂₁	17.5	X	26.87019	314.19489	154.17897	1.43058	0.1405300	0.27013281	2.3700153	20	—	—
350780 2002 CS ₂₅	17.4	X	308.09002	51.48209	332.63878	18.73027	0.0984655	0.35450719	1.9772095	20	9 29.4	19.2
350781 2002 CW ₃₄	15.7	X	54.74947	60.34211	104.61720	11.59403	0.1966810	0.17177815	3.2049709	20	5 22.1	19.8
350782 2002 CG ₃₆	17.6	X	41.58860	108.03107	324.10227	4.22406	0.2068154	0.26890090	2.3772483	20	—	—
350783 2002 CX ₄₇	16.7	X	294.62804	80.91478	127.68563	5.95466	0.1417783	0.26830686	2.3807559	20	—	—
350784 2002 CA ₆₈	17.6	X	294.11223	61.65339	136.30577	1.50827	0.2275451	0.26569625	2.3963252	20	—	—
350785 2002 CF ₇₁	17.4	X	306.24604	121.33221	95.66485	1.69101	0.1583466	0.27034987	2.3687466	20	1 7.7	20.5
350786 2002 CE ₈₂	17.4	X	8.99269	318.14422	137.36749	3.09335	0.1671673	0.26482740	2.4015636	20	—	—
350787 2002 CU ₈₇	15.5	X	36.27699	68.82611	140.50347	25.56662	0.1257350	0.17536420	3.1611281	20	6 12.8	20.0
350788 2002 CX ₈₇	17.6	X	40.49407	100.32336	325.39514	1.72046	0.1621062	0.26653033	2.3913233	20	—	—
350789 2002 CY ₁₁₅	15.2	X	93.41528	78.57775	90.32745	26.48732	0.2357237	0.17578532	3.1560774	20	7 16.8	20.2
350790 2002 CL ₁₂₂	17.2	X	12.40921	178.78061	295.87993	2.97313	0.1644676	0.26849622	2.3796364	20	—	—
350791 2002 CR ₁₃₀	17.1	X	295.48626	58.26107	150.87250	2.59355	0.1198800	0.26691543	2.3890226	20	—	—
350792 2002 CE ₁₃₄	16.9	X	56.90849	88.37434	332.60647	6.07675	0.0918529	0.26507940	2.4000414	20	—	—
350793 2002 CJ ₁₅₂	15.8	X	90.92492	50.38657	146.79900	12.69909	0.1765601	0.17980471	3.1088660	20	8 11.7	20.4
350794 2002 CM ₁₅₉	13.1	X	186.77215	15.72048	154.60552	12.16419	0.1737344	0.08216172	5.2403028	20	9	

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350801 2002 CU ₂₀₂	13.1	X	263.20140	123.97548	331.11823	12.47256	0.0426121	0.08585152	5.0890579	20	9 22.6	20.0
350802 2002 CL ₂₀₈	17.3	X	274.98078	226.93160	334.02069	4.75714	0.1130859	0.26269698	2.4145303	20	—	—
350803 2002 CD ₂₀₉	17.6	X	329.33590	40.40203	122.80588	4.06059	0.1379307	0.26611540	2.3938083	20	—	—
350804 2002 CO ₂₁₁	16.3	X	108.54507	148.89573	332.83949	8.12369	0.0285599	0.17502634	3.1651948	20	5 7.1	20.9
350805 2002 CT ₂₁₄	15.6	X	42.57018	88.35089	145.94491	12.55154	0.0777194	0.17853727	3.1235620	20	7 13.7	19.8
350806 2002 CJ ₂₁₆	17.5	X	321.83061	8.85024	148.11669	2.91065	0.1305275	0.26375110	2.4080927	20	—	—
350807 2002 CD ₂₃₀	16.6	X	104.43868	340.56024	150.75161	1.64211	0.1242279	0.17440038	3.1727640	20	5 30.3	21.3
350808 2002 CF ₂₄₉	15.7	X	28.69175	254.83747	327.22188	11.54818	0.1416464	0.17469155	3.1692375	20	6 13.7	19.7
350809 2002 CP ₂₅₇	15.8	X	297.66983	186.32414	137.60308	10.64141	0.0665704	0.18054425	3.1003706	20	6 3.2	20.1
350810 2002 CM ₂₆₀	18.0	X	299.74131	214.81939	330.20018	5.31249	0.1657929	0.26453608	2.4033265	20	—	—
350811 2002 CV ₂₆₅	17.0	X	158.86782	316.74618	119.92328	4.71125	0.2480483	0.17979134	3.1090201	20	5 24.6	22.4
350812 2002 CV ₂₇₅	15.4	X	86.82991	257.31691	257.23420	14.92810	0.2013041	0.17506868	3.1646844	20	6 17.8	20.1
350813 2002 CW ₂₇₅	17.4	X	290.54727	264.96903	325.57233	10.48671	0.2197135	0.26799176	2.3826217	20	1 2.0	21.0
350814 2002 CB ₂₇₆	15.5	X	128.35249	268.14060	325.76570	15.70741	0.1650892	0.17889565	3.1193890	20	6 29.2	20.7
350815 2002 CN ₂₉₇	18.2	X	24.95764	303.68307	165.85663	1.32684	0.1337726	0.27057747	2.3674181	20	—	—
350816 2002 CP ₃₀₁	17.6	X	291.51348	250.70732	307.69233	1.24713	0.1460616	0.26416350	2.4055857	20	—	—
350817 2002 CP ₃₁₀	16.7	X	111.17182	307.16290	156.75784	14.61170	0.2630935	0.17441680	3.1725648	20	5 22.0	22.1
350818 2002 CP ₃₁₆	17.1	X	291.02641	304.47310	245.39023	5.91336	0.0733621	0.26680215	2.3896988	20	—	—
350819 2002 DO	15.8	X	114.03015	345.53594	125.69727	10.49153	0.0351848	0.17535416	3.1612487	20	5 8.7	20.5
350820 2002 DS ₁₃	17.5	X	332.68972	221.54493	287.09324	4.08162	0.1377360	0.26587364	2.3952592	20	—	—
350821 2002 DT ₁₅	15.6	X	140.81777	279.04496	157.60236	17.22597	0.2089346	0.17488064	3.1669525	20	5 11.7	21.1
350822 2002 EM ₂	15.0	X	34.06605	250.33221	338.25816	25.30979	0.2511880	0.17279062	3.1924390	20	7 27.2	19.1
350823 2002 EA ₃₈	18.0	X	349.50863	284.80783	189.93002	1.96882	0.1575577	0.26233992	2.4167207	20	—	—
350824 2002 EN ₃₈	16.9	X	278.30246	47.80253	153.47128	7.34029	0.0598175	0.26415055	2.4056644	20	—	—
350825 2002 ER ₃₈	13.9	X	262.92978	108.25261	337.96990	6.58581	0.0812370	0.08542503	5.1059819	20	9 10.6	20.7
350826 2002 ET ₅₁	15.6	X	112.25300	126.90163	349.63134	15.76282	0.1795181	0.17392717	3.1785162	20	5 21.8	20.8
350827 2002 EG ₆₁	15.7	X	110.68467	150.31087	337.24439	11.13028	0.1545809	0.17404304	3.1771053	20	6 3.1	20.7
350828 2002 ED ₉₇	17.1	X	277.45724	65.58197	148.63606	6.56842	0.3094042	0.26012102	2.4304447	20	—	—
350829 2002 EA ₉₉	17.7	X	334.04358	207.93945	294.54159	2.41674	0.2073682	0.26303605	2.4124549	20	—	—
350830 2002 ED ₁₀₃	18.2	X	328.22322	338.81070	155.01322	2.50995	0.1531348	0.26160709	2.4212318	20	—	—
350831 2002 EG ₁₀₃	15.6	X	185.50027	110.05755	353.44122	18.39077	0.0856226	0.18108644	3.0941790	20	7 24.1	20.6
350832 2002 ED ₁₀₇	15.4	X	96.06496	195.29926	44.81435	10.89121	0.0623477	0.18610593	3.0382901	20	10 1.7	19.9
350833 2002 EB ₁₀₉	17.7	X	346.90711	90.91005	46.39787	0.35145	0.1731559	0.26465195	2.4026249	20	—	—
350834 2002 ER ₁₂₀	17.2	X	22.93073	270.04927	175.64987	5.76091	0.0724428	0.26293502	2.4130728	20	—	—
350835 2002 ED ₁₂₂	18.1	X	12.67779	230.35936	127.16245	1.29222	0.1315922	0.26196910	2.4190007	20	—	—
350836 2002 EO ₁₅₇	13.9	X	159.24247	11.19994	192.65528	8.50552	0.1602964	0.08179527	5.2559424	20	10 9.9	21.4
350837 2002 EJ ₁₅₈	17.8	X	4.68762	290.94036	159.33060	1.54873	0.1317825	0.26219694	2.4175992	20	—	—
350838 Gorelysheva	15.4	X	54.67660	183.01637	321.38018	15.53998	0.0202092	0.16815528	3.2508409	20	3 23.5	20.1
350839 2002 FH ₇	17.4	X	9.48120	102.77512	7.81712	9.84327	0.1815593	0.26644914	2.3918090	20	—	—
350840 2002 FF ₁₇	15.5	X	84.15199	37.58366	117.87552	13.87608	0.1207471	0.17386071	3.1793261	20	6 7.0	20.1
350841 2002 FB ₂₆	15.5	X	80.34355	67.70052	97.32211	16.93793	0.1740280	0.17298256	3.1900770	20	6 20.3	19.9
350842 2002 FS ₃₇	16.8	X	209.42919	124.39584	130.27804	11.36235	0.2786881	0.25577383	2.4579062	20	—	—
350843 2002 GO ₈	14.9	X	83.95291	152.50904	11.48711	29.85911	0.2144390	0.17282752	3.1919845	20	6 30.2	20.2
350844 2002 GU ₄₅	17.2	X	306.70577	206.82317	335.81755	1.69675	0.1992470	0.26151366	2.4218085	20	—	—
350845 2002 GE ₅₃	15.4	X	125.35248	166.40275	333.69427	12.09111	0.1004153	0.17512014	3.1640645	20	7 2.2	20.3
350846 2002 GU ₅₆	14.9	X	96.61374	134.93760	83.26835	18.46941	0.1976239	0.17818492	3.1276783	20	9 24.6	20.2
350847 2002 GP ₆₂	17.3	X	328.20290	26.98832	158.63541	2.50536	0.1447962	0.26456271	2.4031652	20	—	—
350848 2002 GZ ₆₆	16.7	X	307.66485	140.41025	19.00401	6.76305	0.0897116	0.25797439	2.4439088	20	—	—
350849 2002 GB ₇₆	17.3	X	288.28850	235.11954	355.22296	3.60723	0.1756774	0.26332054	2.4107170	20	1 4.0	20.7
350850 2002 GF ₁₀₃	17.7	X	340.11071	1.56506	175.30866	1.03549	0.1274564	0.26595705	2.3947584	20	1 5.6	20.3
350851 2002 GY ₁₀₆	15.4	X	83.40834	50.48878	163.37581	14.11909	0.2113162	0.17794876	3.1304449	20	8 28.1	20.2
350852 2002 GP ₁₇₉	17.0	X	237.25769	154.21827	64.32234	4.98945	0.1207703	0.25889600	2.4381054	20	—	—
350853 2002 JG ₁₄₀	17.1	X	289.45342	87.71537	113.74998	7.54180	0.1601909	0.25902363	2.4373045	20	—	—
350854 2002 JH ₁₄₀	17.2	X	227.50449	105.36216	127.12269	6.17574	0.2213626	0.25308004	2.4753168	20	—	—
350855 2002 LZ ₄₃	15.4	X	301.30968	104.51894	254.01260	13.62219	0.3233654	0.21543022	2.7559096	20	6 17.8	18.7
350856 2002 LC ₆₃	16.0	X	37.35666	44.78506	307.84906	11.76660	0.1624176	0.23305207	2.6151749	20	12 30.7	19.6
350857 2002 MP ₇	16.0	X	141.79069	311.92215	285.80798	34.32543	0.0727891	0.23245146	2.6196777	20	11 21.9	20.5
350858 2002 NK ₅	17.1	X	38.40146	30.78650	290.53510	12.70886	0.1827514	0.22907135	2.6453848	20	11 21.4	20.8
350859 2002 NR ₁₇	16.5	X	354.07027	41.20891	307.76923	12.68455	0.2772058	0.22368842	2.6876562	20	10 24.3	19.1
350860 2002 NM ₃₆	16.4	X	61.10431	1.00986	270.36062	12.60673	0.1373258	0.22651236	2.6652714	20	10 5.0	20.4
350861 2002 NY ₄₈	16.1	X	152.18587	335.42667	313.43287	13.83571	0.1025887	0.24219014	2.5489721	20	—	—
350862 2002 NS ₅₈	15.9	X	287.45169	350.24423	129.50330	26.69602	0.0354468	0.23677183	2.5877125	20	12 29.5	19.5
350863 2002 NY ₆₅	16.9	X	7.97211	62.95307	242.02256	4.99701	0.1310418	0.22244878	2.6976319	20	9 2.9	20.0
350864 2002 NS ₇₉	16.6	X	268.14025	208.09735	62.51056	7.74782	0.0811214	0.25856968	2.4401563	20	2 16.1	20.0
350865 2002 NC ₈₀	16.8	X	54.67110	20.80770	317.73542	11.85075	0.1801731	0.23347667	2.6120033	20	—	—
350866 2002 NO ₈₀	16.5	X	3.17972	214.09812	144.82174	12.28095	0.0904731	0.22818488	2.6522318	20	11 12.8	19.9
350867 2002 OU ₆	16.1	X	84.56836	9.84615	293.44369	17.32245	0.2140496	0.23242619	2.6198676	20	12 23.7	20.5
350868 2002 OZ ₁₉	16.8	X	134.85465	153.64203	137.79375	7.42967	0.2991345	0.23988955	2.5652429	20	—	—
350869 2002 OY ₃₆	17.2	X	189.70734	18.89393	230.79260	7.36304	0.1840713	0.24420754	2.5349146	20	—	—
350870 2002 OF ₃₇	16.8	X	11.17819	14.11289	292.15627	4.11489	0.0431067	0.22165249	2.7040890	20	9 1.9	20.2
350871 2002 PR ₉	16.9	X	114.79102	350.23110	296.81921	11.13404	0.1691160	0.23576697	2.5950600	20	12 28.0	21.1
350872 2002 PG ₄₃	18.3	X	191.62600	5.55177	346.93159	6.92078	0.4020208	0.30745491	2.1741112	20	3 6.0	22.5
350873 2002 PB ₈₇	15.9	X	121.11219	279.61518	307.12740	27.26946	0.0399141	0.22550835	2.6731765	20	9 25.4	20.4
350874 2002 PF ₁₀₅	16.6	X	270.23853	138.08881	207.96152	8.60041	0.2105058	0.20970317	2.8058604	20	5 1	

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350881 2002 QC ₅₇	17.1	X	311.63485	165.97586	160.79789	8.78910	0.2297133	0.21417977	2.7666258	20	6 8.7	20.4
350882 2002 QS ₅₇	16.8	X	282.91862	33.50169	344.25579	8.57596	0.2198194	0.21399644	2.7682056	20	7 6.1	20.5
350883 2002 QF ₉₃	16.8	X	344.59463	260.11678	120.26491	6.97740	0.0548172	0.22576826	2.6711245	20	11 8.2	20.2
350884 2002 QW ₁₀₄	16.5	X	286.38668	54.13602	329.99750	5.80031	0.0369412	0.21830923	2.7316265	20	8 16.9	20.1
350885 2002 QV ₁₀₅	16.6	X	161.06536	195.77921	44.20882	5.04547	0.1122151	0.23372723	2.6101362	20	12 13.3	20.6
350886 2002 QZ ₁₁₈	17.2	X	342.66179	23.46216	337.20950	4.70463	0.1424945	0.22357214	2.6885880	20	10 8.3	19.9
350887 2002 QN ₁₂₁	17.1	X	335.68537	59.09026	263.38144	3.37486	0.1089637	0.21667879	2.7453125	20	7 30.9	20.1
350888 2002 QO ₁₂₄	16.7	X	142.84011	297.98816	298.56060	9.22238	0.0447943	0.23170538	2.6252982	20	11 19.8	20.6
350889 2002 RQ ₁₂₉	16.4	X	91.05577	180.81029	131.55247	14.80572	0.1700531	0.23545502	2.5973516	20	—	—
350890 2002 QD ₁₄₁	16.2	X	96.97032	172.89794	129.01897	15.55428	0.0966097	0.23142677	2.6274048	20	12 25.2	20.3
350891 2002 QY ₁₄₂	16.7	X	279.69700	195.00785	225.72352	8.69416	0.0918666	0.22016468	2.7162575	20	9 14.6	20.3
350892 2002 QB ₁₄₅	17.2	X	222.15916	35.96399	187.51615	4.30753	0.1904198	0.24381958	2.5376029	20	—	—
350893 2002 QG ₁₅₀	16.2	X	9.22583	238.38873	130.54094	27.25763	0.1575457	0.22902118	2.6457712	20	12 16.2	19.9
350894 2002 QB ₁₅₁	16.8	X	301.88292	63.09685	289.22427	4.46481	0.0952414	0.21466491	2.7624558	20	7 18.1	20.3
350895 2002 QX ₁₅₂	16.5	X	302.15489	284.37750	89.62577	6.92423	0.0533291	0.21891765	2.7265629	20	8 26.6	20.0
350896 2002 QA ₁₅₄	17.0	X	122.37936	49.88977	208.41291	6.49994	0.1213212	0.23420433	2.6065903	20	11 29.0	21.0
350897 2002 RE	16.8	X	330.18963	251.93351	91.25606	9.21846	0.3397628	0.21717465	2.7411321	20	8 3.5	18.4
350898 2002 RX ₃	16.3	X	24.78835	71.39430	276.46213	13.04001	0.0875848	0.22849134	2.6498597	20	11 23.9	19.8
350899 2002 RC ₄	16.7	X	116.48498	348.35297	283.07037	12.65461	0.1125246	0.23204435	2.6227409	20	12 7.8	20.7
350900 2002 RB ₇	16.2	X	70.75227	15.65646	330.65117	11.54996	0.1910500	0.23454392	2.6040736	20	—	—
350901 2002 RH ₇₀	16.3	X	287.28112	171.91289	196.31538	9.41506	0.3018912	0.21340939	2.7732798	20	6 14.7	20.1
350902 2002 RG ₈₆	16.7	X	262.16256	215.40810	176.43635	8.90224	0.2958078	0.20976902	2.8052731	20	6 17.7	21.2
350903 2002 RC ₉₂	16.7	X	98.81873	114.28475	201.53709	2.44518	0.0839725	0.23389956	2.6088540	20	—	—
350904 2002 RR ₉₃	16.6	X	308.14270	32.63875	331.34528	13.20945	0.2451026	0.21510945	2.7586487	20	7 26.6	19.5
350905 2002 RQ ₉₇	16.4	X	331.93779	151.70354	199.51787	8.86526	0.2326222	0.21830868	2.7316311	20	8 28.2	18.9
350906 2002 RJ ₁₅₈	16.7	X	42.05440	10.42173	324.97368	4.31499	0.1537385	0.22690748	2.6621765	20	12 10.5	20.3
350907 2002 RU ₁₉₉	16.0	X	285.63964	356.57737	359.74698	13.60045	0.1406735	0.21136274	2.7911538	20	6 22.1	19.9
350908 2002 RJ ₂₁₁	16.5	X	168.35063	303.32445	15.70684	14.60657	0.1301940	0.24524371	2.5277694	20	1 3.3	20.6
350909 2002 RU ₂₃₆	17.0	X	59.04820	267.85687	55.34439	1.73663	0.1040453	0.22853959	2.6494867	20	12 9.2	20.6
350910 2002 RX ₂₄₄	17.0	X	269.36593	94.43265	343.53425	11.13040	0.1976327	0.21838463	2.7309977	20	9 9.0	20.3
350911 2002 RH ₂₅₆	16.9	X	106.58689	36.20383	252.18406	6.50524	0.1131563	0.23278407	2.6171817	20	12 18.8	20.8
350912 2002 RG ₂₆₁	16.7	X	227.29423	154.45240	278.12475	4.11839	0.1104901	0.21204880	2.7851302	20	7 23.4	20.7
350913 2002 RR ₂₆₇	16.3	X	246.57061	5.35761	51.42741	10.28948	0.1476364	0.21207904	2.7848655	20	7 23.4	20.5
350914 2002 RC ₂₇₂	16.2	X	286.50144	306.04421	159.69893	17.63292	0.1958170	0.22791131	2.6543537	20	11 22.2	19.4
350915 2002 RA ₂₈₁	15.9	X	115.71058	347.62704	303.87333	12.27927	0.1435267	0.23376828	2.6098307	20	—	—
350916 2002 RY ₂₉₁	16.4	X	46.94148	206.69360	131.90096	10.27101	0.0607017	0.22781346	2.6551138	20	12 9.5	20.1
350917 2002 RV ₂₉₂	16.6	X	310.24073	262.47694	131.23321	14.98357	0.1628157	0.22040460	2.7142860	20	9 28.5	19.7
350918 2002 RW ₂₉₃	16.0	X	320.32058	244.36869	114.36713	14.39409	0.1179049	0.21770522	2.7366767	20	8 29.2	19.3
350919 2002 SZ ₄₉	16.2	X	347.04640	343.81679	0.11681	9.51893	0.1695735	0.21857809	2.7293860	20	9 24.5	18.9
350920 2002 SV ₆₃	16.7	X	274.77889	344.95683	5.29725	9.42074	0.2703719	0.21095962	2.7947083	20	5 8.8	21.1
350921 2002 TO ₂₁	16.5	X	257.60531	194.32998	198.97265	8.89281	0.1623069	0.20917186	2.8106098	20	6 30.4	20.7
350922 2002 TL ₂₄	16.2	X	356.96874	6.67494	14.59465	6.59808	0.0296089	0.22329849	2.6907841	20	11 19.7	19.7
350923 2002 TS ₂₈	15.4	X	164.89388	335.27871	26.86030	18.17420	0.2343382	0.19177983	2.9780645	20	3 9.5	20.7
350924 2002 TJ ₃₃	16.5	X	4.66334	37.07972	319.59656	12.12836	0.1857687	0.22296210	2.6934899	20	11 14.8	19.8
350925 2002 TB ₉₅	16.8	X	0.07359	57.64290	278.02756	7.26231	0.2376918	0.22013922	2.7164670	20	10 14.1	19.5
350926 2002 TF ₁₀₃	17.7	X	190.01458	102.80895	300.47727	2.65853	0.1536596	0.31192879	2.1532729	20	5 3.9	20.8
350927 2002 TL ₁₁₇	16.1	X	213.78197	104.52501	284.54758	8.07183	0.1914322	0.20212937	2.8755203	20	5 8.2	21.0
350928 2002 TO ₁₆₃	16.1	X	242.28001	259.99046	121.75109	13.46103	0.3226210	0.20496815	2.8489082	20	5 20.2	21.3
350929 2002 TG ₁₆₆	16.5	X	275.15711	60.17048	311.28812	11.77024	0.2703220	0.21101200	2.7942458	20	6 8.1	20.8
350930 2002 TT ₂₀₂	17.3	X	290.68754	240.96887	119.57339	4.75215	0.3067025	0.21176797	2.7875919	20	6 8.5	21.1
350931 2002 TW ₂₁₈	16.2	X	274.77875	101.55856	301.98242	6.59647	0.2296915	0.21274901	2.7790158	20	7 26.7	19.9
350932 2002 TO ₂₆₃	17.9	X	175.32138	129.10805	251.41620	3.38508	0.1567583	0.30609927	2.1805256	20	3 19.7	21.2
350933 2002 TX ₂₇₂	15.9	X	20.47967	305.36312	353.73625	12.92498	0.0731108	0.21613333	2.7499295	20	9 11.2	19.2
350934 2002 TA ₂₉₄	16.2	X	346.61793	67.59051	31.37390	9.59112	0.1271106	0.23160950	2.6260227	20	—	—
350935 2002 TK ₃₂₀	17.0	X	323.68536	22.27146	353.56743	6.17787	0.0696786	0.21962927	2.7206702	20	9 26.3	20.3
350936 2002 TM ₃₆₅	16.9	X	215.07536	1.20768	80.14381	5.00592	0.0734918	0.20925376	2.8098763	20	7 25.8	21.0
350937 2002 TE ₃₆₉	16.7	X	313.96642	307.55493	87.55828	11.18360	0.0561303	0.21741393	2.7391205	20	10 14.7	20.3
350938 2002 TP ₃₇₈	16.8	X	292.83875	275.89996	107.17990	4.41946	0.1029724	0.21348805	2.7725986	20	8 15.9	20.2
350939 2002 UB ₃₇	16.9	X	274.74833	127.08929	274.09946	2.79746	0.2036786	0.21100267	2.7943282	20	7 26.9	20.6
350940 2002 UT ₅₃	16.7	X	319.55843	221.70146	161.09164	8.60256	0.1146766	0.21729914	2.7400851	20	9 29.2	19.7
350941 2002 UA ₅₉	16.8	X	353.56667	196.72443	148.03463	8.91127	0.1615260	0.21774162	2.7363716	20	10 11.8	19.7
350942 2002 VK ₂₁	16.0	X	244.62326	169.94358	255.79633	9.48800	0.2104872	0.20857288	2.8159881	20	7 20.4	20.3
350943 2002 VC ₂₂	17.0	X	153.79757	3.78640	12.64353	5.11879	0.1456053	0.30119381	2.2041375	20	2 24.2	19.9
350944 2002 VZ ₂₄	16.4	X	268.84018	150.45152	256.20734	8.00853	0.2093054	0.21078314	2.7962681	20	7 23.9	20.3
350945 2002 VT ₅₄	16.2	X	285.06398	64.97951	323.86321	8.04550	0.1748560	0.21086167	2.7955737	20	7 31.3	19.6
350946 2002 VD ₆₁	18.0	X	193.52444	2.48458	1.50902	2.10722	0.2135579	0.30693338	2.1765733	20	3 18.5	21.5
350947 2002 VD ₈₈	17.2	X	147.01111	355.96538	18.83347	5.31222	0.1603769	0.29948344	2.2125216	20	2 16.8	20.2
350948 2002 VY ₁₀₀	16.4	X	293.24635	86.13832	281.09448	7.07878	0.3006337	0.21087603	2.7954468	20	6 21.8	19.7
350949 2002 VU ₁₃₃	17.9	X	169.50420	217.02264	171.77955	3.95890	0.1783083	0.30546751	2.1835310	20	3 28.3	21.1
350950 2002 VF ₁₄₃	16.1	X	335.27587	235.60231	113.96091	5.36622	0.0811553	0.21256071	2.7806568	20	9 10.2	19.4
350951 2002 WN ₁₈	17.7	X	92.59273	154.61719	261.92779	6.24884	0.2250428	0.29636135	2.2280333	20	2 8.5	20.0
350952 2002 WK ₂₉	16.1	X	177.94778	357.42121	83.70162	12.91639	0.0650211	0.19921933	2.9034548	20	6 12.4	20.3
350953 2002 XD ₂₈	17.8	X	147.41936	306.96706	67.76210	8.74860	0.2211209					

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
350961 2003 AO ₉₁	16.1	X	144.10727	184.33599	353.27148	9.35079	0.2913342	0.19798841	2.9154764	20	9 11.7	21.3
350962 2003 BT ₂	17.3	X	78.45084	208.82658	162.92003	0.99848	0.2293854	0.27977489	2.3152447	20	—	—
350963 2003 BK ₂₈	17.5	X	283.84337	27.33477	152.40349	22.64161	0.0734604	0.39080481	1.8528039	20	—	—
350964 2003 BT ₃₅	18.6	X	154.92949	41.60752	122.56925	57.27034	0.1711785	0.59843519	1.3946267	20	12 8.4	21.3
350965 2003 BO ₇₇	16.2	X	176.37529	311.87655	138.92283	21.35217	0.1312712	0.19238557	2.9718101	20	6 24.7	21.2
350966 2003 BS ₇₉	18.3	X	325.82783	157.65281	315.50190	19.90438	0.0660749	0.38972080	1.8562380	20	—	—
350967 2003 CZ	16.5	X	322.15180	238.00393	332.91759	24.01074	0.2629090	0.28475163	2.2881890	20	1 8.1	19.9
350968 2003 CH ₁₄	16.6	X	100.26278	225.79033	293.97782	6.45222	0.0480839	0.18904430	3.0067247	20	6 20.4	20.7
350969 Boiohaemum	16.3	X	108.72573	211.62155	296.26356	1.44428	0.1765012	0.18601791	3.0392485	20	6 30.6	20.8
350970 2003 ED ₁	17.4	X	316.77574	105.24844	352.00643	19.59252	0.0727404	0.38447090	1.8730976	20	—	—
350971 2003 EA ₂₂	17.1	X	63.45412	337.49894	154.51399	7.10228	0.0669734	0.29153049	2.2525792	20	3 22.4	19.4
350972 2003 EL ₃₀	17.7	X	359.50660	16.33969	179.36667	3.34337	0.1504802	0.28980304	2.2615217	20	2 27.6	19.6
350973 2003 EN ₃₁	17.1	X	0.02494	268.45134	302.75305	6.58257	0.3358155	0.29053169	2.2577388	20	2 23.2	18.0
350974 2003 EM ₃₈	15.3	X	68.36263	271.01828	270.09746	10.06285	0.2191403	0.18367976	3.0649862	20	7 2.0	19.4
350975 2003 EN ₅₀	16.1	X	49.96699	82.15063	162.00438	11.78886	0.1191541	0.19007670	2.9958274	20	8 12.7	20.1
350976 2003 FY ₁₉	15.5	X	342.84012	157.84411	96.48995	19.07607	0.1863197	0.17837397	3.1254681	20	5 10.2	19.3
350977 2003 FZ ₃₁	16.9	X	133.09469	129.28187	24.66966	2.39181	0.1089397	0.18913829	3.0057284	20	7 31.3	21.6
350978 2003 FZ ₃₆	13.4	X	252.59582	71.73768	12.54886	9.84083	0.0676102	0.08292047	5.2082866	20	9 2.2	20.4
350979 2003 FC ₄₆	17.7	X	355.60696	160.96120	32.04327	4.51587	0.0766977	0.28681677	2.2771922	20	2 27.9	20.0
350980 2003 FY ₅₀	17.6	X	41.82864	226.95348	258.67412	3.46166	0.1089359	0.28604850	2.2812678	20	2 5.2	19.6
350981 2003 FA ₇₁	16.0	X	53.81420	163.75710	33.79957	9.54091	0.0366662	0.18216092	3.0819996	20	6 5.2	20.3
350982 2003 FL ₇₁	17.8	X	306.21900	181.35221	51.57873	3.11638	0.1829689	0.28343280	2.2952816	20	1 23.8	20.6
350983 2003 FP ₇₈	16.8	X	111.36710	179.43389	357.73337	7.49463	0.2664487	0.18851698	3.0123289	20	8 18.1	21.9
350984 2003 FZ ₈₅	16.3	X	100.68718	277.49104	232.30667	6.12952	0.2258783	0.18383134	3.0633010	20	6 29.5	21.2
350985 2003 FN ₈₇	16.2	X	139.19697	338.94792	142.07516	9.45792	0.1281475	0.18551182	3.0447736	20	6 23.9	21.0
350986 2003 FA ₁₀₆	17.2	X	351.80821	42.78993	130.61447	5.61013	0.1501133	0.28350370	2.2948989	20	1 11.9	19.6
350987 2003 FP ₁₃₁	15.6	X	305.26287	273.27251	31.18020	10.30659	0.0481606	0.18102649	3.0948620	20	5 22.9	19.8
350988 2003 GW	16.8	X	299.49940	90.63658	183.19015	49.43575	0.4762915	0.40121808	1.8206049	20	1 24.0	21.1
350989 2003 GC ₁₂	15.7	X	127.19060	154.95668	342.24369	10.03068	0.0599908	0.18494231	3.0510210	20	6 26.1	20.3
350990 2003 GE ₃₀	16.2	X	328.05451	161.53476	71.00810	6.41640	0.0961416	0.17224723	3.1991496	20	3 23.7	20.4
350991 2003 GQ ₃₄	16.1	X	47.61229	63.46742	119.02749	7.30474	0.1785498	0.17804122	3.1293611	20	5 29.7	20.0
350992 2003 GP ₄₁	16.1	X	66.45963	91.27836	140.30210	12.37124	0.1488461	0.18383354	3.0632766	20	8 24.4	20.3
350993 2003 GH ₄₂	15.9	X	145.32926	267.03688	284.80844	13.07975	0.2597265	0.19628905	2.9322793	20	9 21.1	21.4
350994 2003 GT ₄₂	16.4	X	117.89288	61.11951	135.30600	11.15840	0.3448347	0.19174561	2.9784188	20	9 20.2	21.9
350995 2003 GF ₄₅	16.3	X	101.93527	97.90718	33.81640	11.22714	0.1627381	0.18084721	3.0969070	20	5 30.5	21.1
350996 2003 GH ₅₇	15.6	X	326.20730	189.07543	76.67693	9.98943	0.0963690	0.17502181	3.1652494	20	5 1.8	19.7
350997 2003 HB ₂	15.8	X	19.32681	148.62996	79.50598	14.40451	0.2187876	0.17809136	3.1287737	20	6 12.6	18.9
350998 2003 HR ₁₆	17.5	X	295.28647	84.20175	43.71369	22.01047	0.1194117	0.38043651	1.8863166	20	—	—
350999 2003 HK ₂₀	16.8	X	0.31410	294.51017	211.99025	23.65185	0.2451429	0.28073542	2.3099606	20	—	—
351000 2003 HR ₂₆	17.2	X	287.72796	159.26357	97.40328	5.95528	0.2315103	0.28080135	2.3095990	20	1 28.3	20.6
351001 2003 HM ₄₂	17.0	X	287.06158	131.84628	111.44230	4.79111	0.1796367	0.27892477	2.3199467	20	1 15.9	20.2
351002 2003 HJ ₄₄	17.7	X	265.17393	90.18403	159.69048	3.47943	0.1578912	0.27724569	2.3293041	20	1 4.0	21.1
351003 2003 JC	17.8	X	246.68711	146.01636	47.17773	22.08114	0.0710944	0.38253816	1.8794014	20	—	—
351004 2003 JE ₁₃	16.7	X	274.82638	106.01957	103.11177	22.77013	0.2635224	0.27298546	2.3534756	20	—	—
351005 2003 KH ₄	17.5	X	258.56452	71.53216	69.46054	23.95175	0.0434372	0.37410208	1.9075502	20	—	—
351006 2003 KX ₇	16.4	X	44.50414	112.30763	125.90694	12.50178	0.2439244	0.18111010	3.0939094	20	8 18.1	20.3
351007 2003 MT ₁	16.0	X	45.52135	206.10277	105.36291	8.00652	0.2594090	0.24229735	2.5482201	20	12 3.5	19.7
351008 2003 OZ ₂₇	16.6	X	358.79077	219.05567	133.69606	10.23669	0.1113669	0.23811969	2.5779382	20	11 2.5	19.7
351009 2003 PQ ₁	16.9	X	315.83247	105.31783	148.68820	9.71756	0.2915885	0.27962751	2.3160581	20	2 16.3	19.7
351010 2003 QA ₂₈	16.6	X	268.41074	93.61612	299.15279	11.92925	0.1823712	0.22577414	2.6710781	20	7 12.6	20.1
351011 2003 QX ₃₄	16.0	X	1.32911	31.84436	337.83408	11.35666	0.1693369	0.23926619	2.5696964	20	12 1.5	19.1
351012 2003 QF ₄₃	17.2	X	342.89741	40.71752	335.60154	4.37558	0.2878606	0.23524999	2.5988606	20	11 20.3	19.1
351013 2003 QK ₅₂	16.9	X	20.23646	226.75985	130.41790	6.07605	0.2975037	0.24075555	2.5590877	20	—	—
351014 2003 QR ₅₅	16.7	X	13.40170	354.31207	305.57771	9.88110	0.2111597	0.23836041	2.5762023	20	11 30.3	19.8
351015 2003 QS ₇₁	15.9	X	298.31021	47.74038	275.25743	11.23174	0.3179270	0.22326496	2.6910535	20	4 22.9	19.7
351016 2003 QM ₇₈	16.6	X	278.89521	51.01347	355.65952	28.14010	0.3773888	0.22485830	2.6783260	20	7 26.9	20.9
351017 2003 RZ ₄	17.0	X	333.24374	22.99615	338.95476	12.21127	0.2919812	0.23130335	2.6283393	20	9 21.3	18.5
351018 2003 RU ₁₈	16.9	X	291.23176	61.91168	328.94591	7.07599	0.2362171	0.22817746	2.6522893	20	8 4.5	19.8
351019 2003 RK ₂₀	16.7	X	334.69050	223.50913	164.96587	7.78313	0.2033409	0.23534270	2.5981780	20	11 13.7	19.0
351020 2003 SJ ₉	16.8	X	21.32926	358.98496	1.63159	9.28754	0.1722259	0.23886506	2.5725726	20	12 22.4	20.2
351021 2003 SK ₁₀	17.3	X	299.84087	84.49720	332.24786	2.00368	0.2059398	0.23207947	2.6224763	20	10 2.5	19.7
351022 2003 SV ₁₁	16.1	X	296.15868	255.66988	169.89622	14.93312	0.1056122	0.23591364	2.5939843	20	10 25.8	19.2
351023 2003 SH ₃₈	16.7	X	19.46080	26.91704	294.72521	7.34564	0.2169070	0.23477581	2.6023586	20	10 31.6	19.8
351024 2003 SF ₄₀	16.6	X	331.28445	115.27740	290.41303	11.73620	0.2065771	0.23534094	2.5981909	20	11 28.6	19.0
351025 2003 SW ₄₁	16.3	X	348.36172	4.41331	347.85749	14.13957	0.2631450	0.23238200	2.6201997	20	10 16.5	18.6
351026 2003 SF ₅₃	17.4	X	287.44140	104.22596	300.10583	6.62906	0.3338756	0.22617116	2.6679513	20	7 29.5	20.7
351027 2003 SS ₅₅	16.7	X	345.56494	179.13019	193.99973	11.23312	0.2430593	0.23514562	2.5996295	20	11 19.0	19.0
351028 2003 SX ₇₇	16.8	X	327.90837	148.95508	261.53858	4.69920	0.2038213	0.23685451	2.5871103	20	11 29.5	18.8
351029 2003 SP ₉₂	17.0	X	11.33122	35.42169	354.26479	5.03768	0.1159951	0.24089802	2.5580787	20	—	—
351030 2003 SD ₁₀₇	16.5	X	346.63876	2.30769	348.95651	11.86478	0.2087587	0.23170930	2.6252686	20	10 7.1	19.0
351031 2003 SG ₁₁₁	16.8	X	292.76512	118.24863	299.81728	10.71710	0.2885270	0.22909004	2.6452410	20	8 31.8	19.6
351032 2003 SI ₁₂₅	17.0	X	297.60914	73.41106	331.37008	4.46143	0.2741515	0.23023195	2.6364871	20	8 29.3	19.2
351033 2003 SY ₁₂₉	16.0	X	286.45975	106.47236	340.53906	29.65177	0.3029150	0.23382697	2.6093939	20	9 21.7	19.1
351034 2003 SS ₁₄₅	16.2											

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351041 2003 SU ₁₉₃	17.3	X	16.84968	97.98609	266.40828	7.57484	0.1844533	0.23977865	2.5660338	20	12 23.1	20.4
351042 2003 SX ₁₉₆	16.8	X	288.25718	152.63018	270.70064	10.98894	0.1758351	0.23162474	2.6259075	20	9 18.1	20.0
351043 2003 SL ₂₀₇	14.9	X	36.93075	192.13859	191.45328	6.64961	0.3116428	0.12425463	3.9773548	20	—	—
351044 2003 SM ₂₀₈	16.6	X	37.26958	22.39723	327.64185	13.35850	0.1196193	0.24262667	2.5459138	20	12 23.7	20.2
351045 2003 SU ₂₂₆	16.4	X	337.49480	24.57124	23.20368	15.04253	0.0661785	0.23720474	2.5845631	20	12 1.2	19.7
351046 2003 SR ₂₂₇	14.9	X	47.11313	358.61613	8.14934	9.93487	0.2752155	0.12505228	3.9604235	20	—	—
351047 2003 ST ₂₂₈	17.0	X	340.46264	194.05680	184.48084	3.39817	0.2476460	0.23321713	2.6139408	20	11 13.8	19.0
351048 2003 SQ ₂₄₀	17.6	X	263.12362	170.42047	287.82731	0.67054	0.0949314	0.23391546	2.6087358	20	10 16.4	20.9
351049 2003 SN ₂₄₄	16.8	X	36.75599	320.77943	16.76986	6.76234	0.2786536	0.23839659	2.5759417	20	12 27.1	20.6
351050 2003 SG ₂₄₈	17.1	X	342.53321	41.01308	356.93821	3.92996	0.2697870	0.23611764	2.5924900	20	12 22.4	19.2
351051 2003 SM ₂₄₈	16.5	X	335.75589	1.66420	15.57782	16.22207	0.1818078	0.23292055	2.6161592	20	10 21.9	18.9
351052 2003 SU ₂₅₄	17.0	X	201.10845	201.97889	192.69375	3.29802	0.1834832	0.21355418	2.7720262	20	5 6.7	21.6
351053 2003 SM ₂₅₅	17.3	X	287.39640	58.29211	10.70941	4.93585	0.3256106	0.22886230	2.6469955	20	9 6.5	20.2
351054 2003 SM ₂₅₉	16.8	X	295.69512	37.61227	33.26391	6.04824	0.2039047	0.23142895	2.6273883	20	10 16.7	19.4
351055 2003 SV ₂₇₃	16.6	X	318.87649	181.27298	169.08250	9.26091	0.2413938	0.22758485	2.6568915	20	7 26.1	19.1
351056 2003 SP ₂₇₈	16.3	X	162.30062	269.06869	357.93309	14.46910	0.0744134	0.24550058	2.5260060	20	—	—
351057 2003 SA ₂₉₁	16.8	X	343.86037	310.47603	68.81853	2.38314	0.2217055	0.23329220	2.6133800	20	11 19.3	18.9
351058 2003 SH ₂₉₆	17.4	X	313.81203	58.05873	323.86054	10.86641	0.2154015	0.22929921	2.6436321	20	9 5.4	19.9
351059 2003 SK ₂₉₉	16.8	X	298.09487	116.15193	295.37870	10.60801	0.2935155	0.22894508	2.6463574	20	8 31.5	19.5
351060 2003 SX ₃₀₁	16.6	X	93.50532	350.87481	337.58022	11.36470	0.0410715	0.24626806	2.5207551	20	—	—
351061 2003 SS ₃₂₄	16.8	X	213.77639	247.31983	349.92271	5.52289	0.0802759	0.25274137	2.4775276	20	—	—
351062 2003 SO ₃₃₅	16.9	X	305.33488	346.07420	100.21301	6.17944	0.0832513	0.23758652	2.5817936	20	12 7.5	19.7
351063 2003 SG ₃₉₃	16.9	X	2.21613	324.76732	91.00716	5.91620	0.0855571	0.24273447	2.5451599	20	—	—
351064 2003 SQ ₄₀₁	16.3	X	288.39848	7.67496	61.61669	22.88798	0.0447327	0.23089670	2.6314244	20	10 28.9	19.9
351065 2003 SX ₄₀₅	16.3	X	218.16897	102.59470	60.71023	14.44243	0.0949068	0.23506951	2.6001905	20	11 13.6	19.9
351066 2003 SJ ₄₂₈	17.5	X	229.94812	268.76351	349.09439	4.23986	0.2094833	0.26136156	2.4227480	20	—	—
351067 2003 SG ₄₃₀	17.0	X	256.81198	52.58504	32.18633	5.61914	0.2084457	0.22803156	2.6534205	20	9 3.9	20.6
351068 2003 TS ₁₃	15.9	X	338.87837	140.01663	233.27424	7.89614	0.3939829	0.23277715	2.6172336	20	11 21.4	16.7
351069 2003 TY ₂₆	16.4	X	293.99890	251.02815	218.84852	12.95306	0.1401869	0.23887584	2.5724951	20	12 17.0	19.2
351070 2003 TE ₅₉	16.7	X	300.18371	233.79796	186.85398	16.00576	0.1469601	0.23225420	2.6211608	20	10 18.5	19.4
351071 2003 UY ₈	17.5	X	335.72139	67.23100	326.85560	17.79345	0.0913485	0.35298718	1.9828815	20	12 25.2	19.6
351072 2003 UF ₁₁	16.9	X	68.59576	281.25122	41.95899	21.56750	0.0782504	0.35679452	1.9687501	20	—	—
351073 2003 UR ₁₁	16.5	X	273.77111	261.38744	169.99583	28.59372	0.3276961	0.22606929	2.6687527	20	8 15.8	20.4
351074 2003 UW ₄₀	16.4	X	324.39448	332.92288	32.89313	5.77884	0.2127234	0.22781454	2.6551053	20	9 11.4	18.6
351075 2003 UN ₅₁	17.1	X	54.12564	25.35311	300.42600	10.75192	0.2626980	0.24011990	2.5636020	20	12 28.8	21.1
351076 2003 UT ₅₁	17.2	X	325.90952	112.64156	297.99915	11.80028	0.1785695	0.23441981	2.6049927	20	11 20.7	19.8
351077 2003 UU ₅₃	14.9	X	53.09314	66.09420	301.78728	8.88804	0.3259124	0.12510704	3.9592679	20	—	—
351078 2003 UH ₅₅	17.0	X	313.93770	116.56012	282.81113	8.48692	0.2863966	0.22960171	2.6413096	20	9 22.2	19.2
351079 2003 US ₅₉	17.2	X	294.55065	92.71418	312.04719	10.16267	0.3019556	0.22802047	2.6535065	20	8 16.4	20.0
351080 2003 UF ₆₅	16.7	X	21.08807	258.92251	107.22907	9.61358	0.1800412	0.23860074	2.5744721	20	12 30.3	19.8
351081 2003 UE ₇₇	17.5	X	302.96695	137.23476	276.91568	5.56563	0.2883881	0.23014845	2.6371248	20	9 19.0	19.7
351082 2003 UC ₈₃	16.9	X	347.18894	266.56333	132.35083	4.85173	0.2267350	0.23544518	2.5974240	20	12 26.6	19.5
351083 2003 UR ₈₆	16.4	X	330.32531	338.12983	69.59961	12.86998	0.1391319	0.23377368	2.6097904	20	11 26.6	19.1
351084 2003 UT ₁₀₆	16.4	X	263.76173	185.45941	251.78073	12.02289	0.1453316	0.22647523	2.6655628	20	9 3.4	20.2
351085 2003 UG ₁₁₂	16.4	X	288.72917	206.87907	190.31680	13.33228	0.1388398	0.22622553	2.6675238	20	8 20.9	19.7
351086 2003 UC ₁₂₂	16.3	X	9.39235	76.95864	244.96489	11.94832	0.2647333	0.23356327	2.6113576	20	10 22.7	19.0
351087 2003 UX ₁₂₅	16.8	X	321.95546	334.18594	90.84753	4.42680	0.1515638	0.23582918	2.5946036	20	12 6.2	19.4
351088 2003 UH ₁₃₇	16.7	X	288.14578	333.93247	52.39872	6.06252	0.2192321	0.22487580	2.6781870	20	7 27.2	20.0
351089 2003 UH ₁₇₂	17.1	X	337.60493	96.40664	255.19798	4.87452	0.1166857	0.22940294	2.6428351	20	9 14.9	20.1
351090 2003 UV ₁₇₄	17.2	X	13.56138	324.08317	49.84820	5.13728	0.1499161	0.23738155	2.5832796	20	12 24.9	20.4
351091 2003 UC ₁₇₈	17.8	X	354.61324	41.43304	342.95857	3.18947	0.1423020	0.23654576	2.5893610	20	12 7.7	20.6
351092 2003 UF ₂₀₄	17.9	X	15.27531	298.53863	45.26128	4.95671	0.2838809	0.23520823	2.5991681	20	12 7.9	20.8
351093 2003 UW ₂₀₇	16.3	X	93.42621	290.78006	30.30383	9.32216	0.1159072	0.24182089	2.5515662	20	—	—
351094 2003 UR ₂₂₃	16.6	X	311.83438	1.41966	38.11397	12.91956	0.2057186	0.22856980	2.6492533	20	10 7.2	19.1
351095 2003 UO ₂₄₁	17.8	X	5.09150	183.25219	187.47385	3.14793	0.1804847	0.23597389	2.5935428	20	12 12.4	20.7
351096 2003 UT ₂₄₃	17.2	X	335.88261	127.19976	246.75760	2.81940	0.3466656	0.23073370	2.6326636	20	10 30.9	18.2
351097 2003 UM ₂₄₆	16.5	X	331.64458	315.08759	74.65154	3.74224	0.2154586	0.23090566	2.6313563	20	11 5.8	18.7
351098 2003 UV ₂₄₇	16.1	X	313.66300	333.84838	67.54119	14.94550	0.2209351	0.22933089	2.6433886	20	10 17.1	18.7
351099 2003 UZ ₂₄₈	16.3	X	288.56346	243.79214	220.64182	21.35724	0.1162904	0.23664628	2.5886277	20	12 1.4	19.4
351100 2003 UZ ₂₅₁	16.1	X	251.68671	251.31124	212.37099	28.07852	0.2276000	0.22782032	2.6550604	20	9 11.6	20.3
351101 2003 UU ₂₆₃	17.5	X	340.86862	259.61690	136.09687	4.71851	0.2036981	0.23400488	2.6080712	20	12 6.1	20.0
351102 2003 UW ₂₆₇	16.6	X	315.16344	28.60920	47.51088	16.24817	0.1951366	0.23338160	2.6127126	20	12 4.6	19.1
351103 2003 UC ₂₇₂	15.7	X	49.13413	328.89656	42.86682	3.55872	0.2747153	0.12448466	3.9724534	20	—	—
351104 2003 UP ₂₈₂	16.5	X	275.46626	329.12261	76.71323	13.87646	0.2811541	0.22278409	2.6949245	20	7 25.3	20.3
351105 2003 UT ₃₁₇	17.7	X	322.18999	117.81803	287.74925	3.82702	0.2533990	0.23533910	2.5982044	20	11 6.2	19.6
351106 2003 UH ₃₁₈	16.8	X	322.69118	315.47724	134.94523	6.87050	0.1028109	0.24036607	2.5618514	20	—	—
351107 2003 UX ₃₂₅	17.1	X	287.37710	91.17282	327.22098	15.83632	0.2703712	0.23155429	2.6264401	20	8 28.9	20.1
351108 2003 UL ₃₃₄	17.6	X	60.95605	88.11073	214.46307	2.79709	0.1614122	0.23927894	2.5696052	20	11 25.5	21.3
351109 2003 UX ₃₄₇	17.3	X	339.01253	199.01997	169.45341	4.48135	0.1111221	0.23293154	2.6160770	20	10 16.8	20.2
351110 2003 UX ₃₅₂	17.2	X	354.06484	290.87613	109.92961	3.98003	0.1158754	0.23912411	2.5707143	20	12 26.9	20.2
351111 2003 UK ₃₅₄	17.4	X	322.26741	297.00258	129.65128	4.23052	0.1405991	0.23695157	2.5864038	20	12 9.5	19.9
351112 2003 UG ₃₇₈	16.4	X	266.69757	103.98907	12.76826	28.84424	0.0860821	0.23787132	2.5797324	20	11 5.1	20.1
351113 2003 UC ₃₉₀	17.2	X	237.58244	66.64911	114.08361	7.19716	0.0788945	0.241				

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351121 2003 WE ₆₆	16.5 ^m	X	303.47416	6.87192	23.61851	8.21545	0.0868247	0.22440339	2.6819444	20	9 17.6	19.8
351122 2003 WA ₇₃	16.5	X	305.31660	15.57369	52.42635	14.11988	0.2172201	0.23001139	2.6381723	20	11 1.9	18.8
351123 2003 WE ₇₃	16.7	X	231.80542	150.31083	299.20862	12.44010	0.1589632	0.22051953	2.7133428	20	8 12.5	20.8
351124 2003 WJ ₈₀	16.5	X	300.30458	350.61391	30.29314	6.44621	0.0533307	0.22350013	2.6891655	20	9 3.0	19.9
351125 2003 WR ₈₂	16.2	X	340.19632	281.43819	117.73095	17.76226	0.2069485	0.23267815	2.6179759	20	12 12.0	18.9
351126 2003 WF ₈₃	15.6	X	308.98144	86.89198	274.76781	14.56932	0.2531697	0.22477061	2.6790225	20	7 18.4	18.4
351127 2003 WZ ₈₅	15.8	X	286.39384	1.70922	65.17295	13.65065	0.2601412	0.22472867	2.6793559	20	9 20.3	19.0
351128 2003 WP ₈₆	16.8	X	296.76390	162.22134	247.48696	15.60786	0.1860529	0.22632550	2.6667383	20	9 9.5	20.1
351129 2003 WS ₉₂	17.3	X	359.07114	337.67090	14.00235	5.53237	0.2310186	0.23143141	2.6273697	20	11 9.7	19.8
351130 2003 WO ₁₀₁	17.0	X	285.84306	242.46975	172.17970	11.34236	0.2701907	0.22630459	2.6669026	20	8 20.5	20.0
351131 2003 WL ₁₁₂	17.8	X	314.47620	123.92853	283.04390	3.59043	0.2670982	0.22984122	2.6394743	20	10 13.1	19.7
351132 2003 WP ₁₁₂	17.0	X	318.62961	100.51899	295.64625	3.45301	0.1041196	0.22854001	2.6494835	20	10 15.7	20.1
351133 2003 WY ₁₁₂	16.3	X	238.37617	172.71979	256.44672	13.19574	0.1684696	0.21891443	2.7265897	20	7 22.1	20.5
351134 2003 WK ₁₁₃	16.2	X	236.50132	57.30966	33.10372	14.31606	0.0729704	0.22364976	2.6879659	20	9 9.8	20.1
351135 2003 WX ₁₃₁	17.1	X	351.30003	126.04050	250.09456	2.41351	0.1932867	0.23190727	2.6237743	20	11 25.8	19.7
351136 2003 WM ₁₄₂	15.9	X	296.07431	334.71786	89.55970	15.08386	0.2316715	0.22551738	2.6731051	20	10 11.1	18.9
351137 2003 WE ₁₅₀	16.3	X	314.65424	281.13266	77.54732	13.75480	0.2085598	0.22368271	2.6877020	20	8 9.4	19.2
351138 2003 WX ₁₅₂	15.6	X	256.54326	265.06998	159.72673	29.68320	0.3563639	0.21797378	2.7344284	20	7 17.1	20.5
351139 2003 WX ₁₆₀	17.8	X	218.22788	45.25225	77.39178	3.16441	0.1571185	0.22254268	2.6968731	20	9 14.1	21.9
351140 2003 WB ₁₆₈	16.7	X	263.10208	233.47273	198.74992	13.01442	0.2615436	0.22428362	2.6828991	20	8 11.3	20.7
351141 2003 WT ₁₇₀	16.9	X	284.49399	248.21760	186.08911	12.62280	0.2524708	0.22774409	2.6556529	20	9 19.7	19.7
351142 2003 XX ₁₅	16.5	X	302.65994	125.68197	251.61299	8.56818	0.0862926	0.22208103	2.7006092	20	8 21.0	19.9
351143 2003 XX ₂₂	16.7	X	226.11431	271.50755	289.32617	6.53029	0.1004661	0.23915696	2.5704789	20	—	—
351144 2003 XM ₃₆	16.4	X	229.14275	95.93914	34.67898	12.90699	0.0951437	0.22554517	2.6728855	20	10 15.0	20.1
351145 2003 YJ ₁₃	17.1	X	313.19183	318.44292	63.57618	3.27756	0.2126498	0.22477578	2.6789815	20	9 8.7	19.5
351146 2003 YB ₁₅	16.6	X	270.26079	47.43046	65.36279	13.99242	0.1525903	0.22710720	2.6606155	20	11 8.5	19.7
351147 2003 YY ₁₉	16.3	X	210.08571	179.55841	303.07381	7.41018	0.1673967	0.21677918	2.7444648	20	8 31.0	20.6
351148 2003 YG ₂₈	16.4	X	310.59691	111.15261	260.57599	11.22707	0.2014054	0.22343988	2.6896572	20	8 11.5	19.4
351149 2003 YE ₃₁	16.1	X	327.36486	109.80318	272.18510	11.51813	0.2765103	0.22792817	2.6542228	20	10 2.6	18.3
351150 2003 YO ₄₄	17.0	X	196.77784	204.80065	298.19428	6.39246	0.1641202	0.21657667	2.7461754	20	9 12.4	21.5
351151 2003 YC ₄₈	16.2	X	345.61656	106.61182	269.87735	11.96406	0.1654715	0.22899704	2.6459571	20	11 8.5	19.0
351152 2003 YD ₅₂	16.0	X	307.29674	341.99398	78.39040	13.35510	0.1803134	0.22744902	2.6579491	20	10 31.9	18.7
351153 2003 YE ₅₅	17.2	X	307.29735	187.41790	231.92662	0.94119	0.2585250	0.22909963	2.6451671	20	10 16.5	19.3
351154 2003 YJ ₈₀	16.4	X	253.01204	32.99572	89.16170	7.33091	0.2075738	0.22409006	2.6844438	20	10 18.9	20.0
351155 2003 YJ ₁₀₆	16.2	X	263.01489	287.10287	121.64427	25.21973	0.2211342	0.21617932	2.7495394	20	7 20.3	19.9
351156 2003 YF ₁₃₃	15.6	X	186.36566	232.14136	328.91427	12.10474	0.1882677	0.22099033	2.7094878	20	11 9.6	20.2
351157 2003 YW ₁₄₉	16.2	X	306.68725	141.07503	286.45612	11.40590	0.2734021	0.22921737	2.6442613	20	10 19.9	18.6
351158 2003 YX ₁₆₀	17.2	X	290.35660	281.71668	145.56887	5.31474	0.1494437	0.22693259	2.6619801	20	10 9.5	20.1
351159 2003 YF ₁₆₇	16.0	X	160.66124	291.18646	294.58592	12.32020	0.1190483	0.22246775	2.6974786	20	11 21.9	20.4
351160 2003 YL ₁₆₉	16.1	X	282.14775	336.09660	74.32678	15.81413	0.0928071	0.22162551	2.7043084	20	9 17.6	19.9
351161 2003 YT ₁₇₃	17.1	X	338.07783	291.68936	72.36203	15.01809	0.1980425	0.22730884	2.6590418	20	10 18.1	19.8
351162 2003 YJ ₁₈₁	16.1	X	225.88637	243.26664	270.24397	7.66999	0.1654993	0.22305960	2.6927049	20	10 25.9	20.2
351163 2004 AO ₆	16.9	X	314.55125	318.41100	89.04938	3.54924	0.1007078	0.22357073	2.6885993	20	10 26.9	20.2
351164 2004 AL ₁₂	16.9	X	228.40104	139.87292	323.16490	2.56831	0.1584215	0.21758914	2.7376499	20	8 28.3	21.1
351165 2004 AG ₁₉	17.2	X	240.38981	86.59464	7.02209	2.11008	0.0482638	0.21733092	2.7398180	20	9 14.6	20.9
351166 2004 BQ ₂	16.0	X	166.83447	42.11130	129.86912	15.80995	0.1126922	0.21524232	2.7575132	20	9 29.9	20.5
351167 2004 BQ ₃	16.8	X	255.61561	8.19056	71.86845	3.92196	0.1600991	0.21819403	2.7325879	20	9 1.6	20.5
351168 2004 BE ₅	16.9	X	302.72765	91.73068	315.41595	11.54327	0.2706601	0.22276816	2.6950530	20	9 7.6	19.7
351169 2004 BO ₁₁	16.8	X	191.01613	357.45927	125.58707	5.36612	0.1558614	0.21250460	2.7811462	20	8 16.8	21.3
351170 2004 BH ₁₄	16.5	X	140.40658	52.38449	133.50354	9.71379	0.2151825	0.21117194	2.7928348	20	9 20.6	21.3
351171 2004 BX ₂₂	16.6	X	249.59102	10.95002	120.20702	7.00007	0.1564860	0.22340295	2.6899453	20	11 2.1	20.2
351172 2004 BO ₂₉	16.7	X	212.86404	13.36020	78.42850	2.97272	0.1907702	0.21100660	2.7942935	20	7 26.9	21.2
351173 2004 BH ₃₀	16.7	X	258.71654	107.53751	326.12388	13.55696	0.2563936	0.21768702	2.7368292	20	8 12.9	20.5
351174 2004 BE ₅₂	16.1	X	225.15492	345.39799	146.96721	9.80073	0.2247560	0.21880794	2.7274743	20	9 26.6	20.4
351175 2004 BR ₅₂	16.9	X	167.40255	60.98141	119.77654	4.40142	0.1275263	0.21685301	2.7438419	20	10 7.7	21.3
351176 2004 BP ₆₂	17.4	X	194.91519	48.67276	110.27432	6.77215	0.1835980	0.21809348	2.7334278	20	10 5.4	21.9
351177 2004 BO ₆₄	16.2	X	23.30736	29.92298	309.70599	10.39562	0.0835956	0.22236991	2.6982697	20	11 6.0	19.9
351178 2004 BM ₆₇	17.0	X	224.02118	125.33765	317.62022	1.01052	0.1639354	0.21304255	2.7764625	20	7 28.5	21.4
351179 2004 BM ₇₆	16.7	X	164.57976	15.28083	132.56569	9.59404	0.1316765	0.21026448	2.8008645	20	8 23.5	21.1
351180 2004 BE ₈₄	16.6	X	132.81600	243.17039	326.14288	2.09270	0.1943557	0.21266039	2.7797878	20	10 8.3	21.1
351181 2004 BB ₉₈	16.8	X	194.42020	330.97693	155.28392	8.82189	0.1760576	0.20969225	2.8059578	20	8 21.8	21.3
351182 2004 BP ₁₁₅	16.6	X	219.24955	7.85488	122.45611	8.98511	0.1741100	0.21752210	2.7382123	20	9 24.4	20.9
351183 2004 BN ₁₁₇	15.9	X	202.71968	30.90305	86.10017	9.15077	0.1784349	0.21265247	2.7798569	20	8 21.6	20.5
351184 2004 BJ ₁₅₀	16.5	X	312.21704	295.93762	114.63935	7.05827	0.0428245	0.22139264	2.7062044	20	10 31.2	20.0
351185 2004 CE ₁	15.8	X	169.88935	73.37721	89.92021	25.16627	0.1168045	0.21243399	2.7817625	20	9 30.1	20.7
351186 2004 CV ₂₈	17.1	X	317.89690	63.37898	334.19395	4.01878	0.1620249	0.22218050	2.6998031	20	10 12.3	19.8
351187 2004 CB ₃₇	16.4	X	168.74160	264.12260	300.881173	13.14126	0.1890640	0.21664613	2.7455884	20	10 28.7	21.2
351188 2004 CF ₄₄	16.7	X	127.49993	84.27447	118.60318	4.71892	0.0360969	0.21164225	2.7886957	20	9 20.5	20.6
351189 2004 CM ₅₆	16.4	X	136.02408	75.24097	141.16046	10.40004	0.1463534	0.21283637	2.7782553	20	10 22.9	21.0
351190 2004 CE ₆₇	15.9	X	211.59165	53.19494	105.90850	15.96103	0.2218959	0.21718001	2.7410870	20	10 21.9	20.6
351191 2004 CF ₆₇	15.5	X	198.57131	89.86331	129.54213	24.20475	0.2433438	0.22087488	2.7104319	20	12 15.9	20.3
351192 2004 CN ₇₀	18.9	X	124.58926	193.65552	332.00406	5.35520	0.2111193	0.32588669	2.0913416	20	8 18.9	22.1
351193 2004 CH ₇₈	16.4	X										

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351201 2004 <i>FR</i> ₆₁	16.6	X	127.58391	81.23307	166.42447	6.92050	0.2676495	0.21134045	2.7913501	20	11 21.8	21.6
351202 2004 <i>FL</i> ₁₁₆	16.7	X	176.41806	99.91485	74.98401	8.57754	0.2122487	0.21106454	2.7937821	20	10 7.4	21.6
351203 2004 <i>FT</i> ₁₃₀	17.0	X	253.05037	177.58922	99.70901	8.29965	0.1773598	0.29785881	2.2205595	20	1 23.7	20.3
351204 2004 <i>FB</i> ₁₃₆	15.9	X	128.23688	21.92754	123.18589	9.26384	0.1329036	0.19466514	2.9485642	20	7 13.1	20.4
351205 2004 <i>FE</i> ₁₃₆	16.3	X	353.65538	181.03276	104.94444	11.03217	0.0499565	0.19256840	2.9699287	20	7 9.4	20.2
351206 2004 <i>GP</i> ₅₉	15.7	X	359.55318	308.58144	286.75452	9.95210	0.1937303	0.18684195	3.0303057	20	5 5.6	19.0
351207 2004 <i>HL</i> ₃₀	17.3	X	294.26561	196.59546	43.73478	5.84060	0.0976690	0.29793376	2.2201871	20	1 29.9	20.1
351208 2004 <i>HB</i> ₄₇	17.1	X	223.38654	280.96912	33.90501	7.50304	0.1505562	0.29702535	2.2247115	20	2 16.3	20.5
351209 2004 <i>JY</i> ₃₂	15.1	X	264.57990	220.59000	65.74590	28.55878	0.1654889	0.17536611	3.1611051	20	3 15.6	20.5
351210 2004 <i>JD</i> ₄₀	12.7	X	175.72551	92.38440	80.67782	24.53898	0.0052952	0.08165677	5.2618839	20	10 3.9	20.0
351211 2004 <i>LZ</i> ₇	16.2	X	14.14145	141.95445	106.42688	24.31204	0.2231505	0.30735713	2.1745723	20	7 13.4	17.1
351212 2004 <i>LM</i> ₁₀	15.8	X	227.11643	59.80447	232.78748	27.12743	0.2238883	0.16928955	3.2363038	20	1 21.9	21.8
351213 2004 <i>MM</i> ₃	15.6	X	331.20620	181.08348	102.08990	7.99935	0.1110993	0.18459226	3.0548770	20	5 29.2	19.4
351214 2004 <i>ND</i> ₁	17.1	X	123.73762	188.89095	167.76544	2.10954	0.2502095	0.27611091	2.3356818	20	1 10.3	20.2
351215 2004 <i>NQ</i> ₃	17.7	X	301.77944	182.16797	86.72824	5.82098	0.1745480	0.29744040	2.2226415	20	3 8.7	20.4
351216 2004 <i>NS</i> ₂₂	15.4	X	11.29859	310.61116	305.43827	22.16653	0.3190578	0.18314255	3.0709768	20	7 20.2	17.8
351217 2004 <i>NP</i> ₂₇	17.4	X	157.53191	39.07318	297.54571	24.21150	0.1865982	0.27927205	2.3180230	20	1 14.0	20.7
351218 2004 <i>OO</i> ₇	17.1	X	141.83889	6.84873	310.41518	5.81309	0.1500344	0.27522543	2.3406888	20	—	—
351219 2004 <i>OR</i> ₉	16.7	X	244.94987	158.13938	111.70669	22.88633	0.1185395	0.28630200	2.2799210	20	1 10.5	20.1
351220 2004 <i>PH</i> ₂	16.5	X	88.91469	352.83416	335.33198	10.39940	0.2311710	0.26598290	2.3946033	20	—	—
351221 2004 <i>PS</i> ₆	17.3	X	125.23957	42.90517	299.25619	5.71105	0.1697045	0.27345535	2.3507788	20	—	—
351222 2004 <i>PU</i> ₆	17.2	X	138.50297	144.24172	164.52256	8.88760	0.0993288	0.27134653	2.3629428	20	—	—
351223 2004 <i>PG</i> ₇	17.2	X	232.73975	335.72430	320.17174	7.72386	0.2734469	0.28712295	2.2755730	20	1 27.4	21.2
351224 2004 <i>PZ</i> ₁₄	15.1	X	330.21680	270.39447	350.96383	11.50633	0.1722611	0.17290717	3.1910043	20	4 15.9	19.1
351225 2004 <i>PT</i> ₂₇	17.3	X	57.96988	177.88160	102.49487	9.26289	0.2702390	0.26565705	2.3965610	20	—	—
351226 2004 <i>PU</i> ₃₁	17.3	X	69.68220	280.40585	73.88849	3.35845	0.2266734	0.26545697	2.3977651	20	—	—
351227 2004 <i>PL</i> ₃₆	16.9	X	143.17374	159.47096	185.00742	5.15995	0.2826097	0.27665766	2.3326034	20	1 17.9	20.5
351228 2004 <i>PS</i> ₄₀	17.2	X	85.28327	68.41879	306.94720	4.06283	0.2116092	0.26898236	2.3767683	20	—	—
351229 2004 <i>PG</i> ₄₈	17.3	X	153.79177	166.29674	158.64264	5.30573	0.2459956	0.27686456	2.3314412	20	—	—
351230 2004 <i>PM</i> ₄₉	15.3	X	320.40962	147.59163	126.33218	18.14252	0.1779828	0.17451925	3.1713231	20	4 27.9	19.6
351231 2004 <i>PL</i> ₅₂	17.3	X	64.72182	288.85259	70.67236	3.53254	0.1812584	0.26509080	2.3999726	20	—	—
351232 2004 <i>PF</i> ₅₆	15.6	X	65.73713	103.48912	164.59842	11.47128	0.1518904	0.18991893	2.9974864	20	10 11.3	19.9
351233 2004 <i>PJ</i> ₅₇	17.3	X	117.40388	119.90411	240.37314	3.93000	0.2292882	0.27396996	2.3478342	20	1 4.5	20.1
351234 2004 <i>PG</i> ₇₄	17.6	X	79.30767	255.46090	89.69559	3.67159	0.2161483	0.26582200	2.3955694	20	—	—
351235 2004 <i>PW</i> ₉₂	17.2	X	125.00111	94.46488	236.48390	1.68390	0.2449112	0.26995973	2.3710282	20	—	—
351236 2004 <i>PU</i> ₉₄	17.5	X	43.22209	54.19792	307.77735	0.81731	0.2120171	0.25993942	2.4315766	20	—	—
351237 2004 <i>QL</i> ₁₂	16.8	X	179.81994	301.91407	12.62132	12.89068	0.2929039	0.27923905	2.3182056	20	1 15.8	21.1
351238 2004 <i>RE</i> ₅	17.1	X	33.79155	8.34327	25.73553	7.63516	0.1309237	0.26248694	2.4158182	20	—	—
351239 2004 <i>RR</i> ₁₅	17.5	X	76.96092	283.69453	95.46162	3.12502	0.2906183	0.26815613	2.3816479	20	—	—
351240 2004 <i>RP</i> ₁₇	18.0	X	118.63271	269.61105	86.94690	3.92226	0.2229873	0.27219918	2.3580056	20	1 1.0	20.9
351241 2004 <i>RA</i> ₁₈	17.5	X	52.39322	218.92155	182.05059	1.10745	0.1868271	0.26685239	2.3893989	20	—	—
351242 2004 <i>RH</i> ₂₆	17.8	X	79.08143	29.80789	357.51552	4.77621	0.2026627	0.27010245	2.3701929	20	—	—
351243 2004 <i>RV</i> ₃₄	16.1	X	126.24543	315.84411	354.51415	22.46586	0.2350764	0.26892537	2.3771041	20	—	—
351244 2004 <i>RY</i> ₄₅	17.3	X	136.59082	181.11419	152.04111	3.28471	0.2438175	0.27297413	2.3535408	20	—	—
351245 2004 <i>RT</i> ₅₁	17.5	X	90.51478	272.42190	61.76635	2.48271	0.1964037	0.26464457	2.4026696	20	—	—
351246 2004 <i>RP</i> ₅₆	17.8	X	277.90383	82.22693	184.84606	5.83753	0.1561785	0.28835484	2.2690874	20	2 5.3	21.0
351247 2004 <i>RT</i> ₅₇	15.3	X	294.54040	353.71377	327.52637	13.22321	0.1136310	0.17293277	3.1906893	20	5 18.9	20.0
351248 2004 <i>RH</i> ₅₈	17.5	X	82.71100	324.71801	152.65413	2.34038	0.1971061	0.26779968	2.3837608	20	—	—
351249 2004 <i>RT</i> ₅₈	17.1	X	105.76533	243.90357	110.85125	3.62550	0.2424472	0.26915705	2.3757398	20	—	—
351250 2004 <i>RK</i> ₆₀	17.6	X	28.61358	181.20847	214.26358	1.38848	0.1907993	0.26130291	2.4231105	20	—	—
351251 2004 <i>RE</i> ₆₈	16.8	X	77.45224	236.35439	161.01405	5.66382	0.2316591	0.26886848	2.3774394	20	—	—
351252 2004 <i>RO</i> ₇₀	17.4	X	137.79832	311.42505	39.15768	4.90369	0.1339292	0.27464058	2.3440106	20	1 4.0	20.4
351253 2004 <i>RZ</i> ₇₅	17.3	X	171.48505	314.23899	22.57890	6.67052	0.2165234	0.27817628	2.3241063	20	1 31.0	21.1
351254 2004 <i>RK</i> ₇₆	15.2	X	282.37263	12.65329	15.05694	18.33001	0.2121272	0.17647678	3.1478281	20	7 22.1	19.8
351255 2004 <i>RS</i> ₈₉	17.8	X	143.01141	138.45168	216.57513	4.41431	0.1851900	0.27757975	2.3274348	20	1 20.2	21.2
351256 2004 <i>RP</i> ₉₅	17.3	X	133.10329	149.38664	203.62817	6.04986	0.1355734	0.27567663	2.3381341	20	—	—
351257 2004 <i>RT</i> ₉₇	17.3	X	80.15074	101.82394	287.70978	3.21251	0.1967291	0.27004164	2.3705487	20	—	—
351258 2004 <i>RC</i> ₁₀₂	17.4	X	27.22797	109.56345	290.22503	3.76875	0.1918276	0.26216414	2.4178009	20	—	—
351259 2004 <i>RB</i> ₁₁₅	17.4	X	47.85308	8.14036	24.96859	6.68676	0.2618978	0.26384419	2.4075262	20	—	—
351260 2004 <i>RS</i> ₁₃₇	16.7	X	55.25605	135.26013	248.60816	3.88797	0.1961313	0.26568865	2.3963710	20	—	—
351261 2004 <i>RA</i> ₁₄₁	17.6	X	76.07558	103.02801	257.69840	1.36199	0.2359791	0.26506883	2.4001052	20	—	—
351262 2004 <i>RT</i> ₁₇₆	17.3	X	155.27751	67.85299	272.34889	5.31565	0.1425510	0.27673879	2.3321476	20	1 10.6	20.6
351263 2004 <i>RL</i> ₁₇₈	17.6	X	106.71820	130.67969	247.86580	4.31531	0.1670737	0.27316010	2.3524724	20	1 4.7	20.2
351264 2004 <i>RA</i> ₁₈₁	17.0	X	91.22175	201.05205	197.92184	6.12997	0.0925739	0.27355884	2.3501859	20	—	—
351265 2004 <i>RW</i> ₁₈₄	17.4	X	136.36922	68.06095	283.22913	5.59945	0.1414163	0.27425665	2.3461977	20	1 3.9	20.3
351266 2004 <i>RU</i> ₁₈₉	17.5	X	341.13913	64.94889	346.50722	19.44687	0.1030909	0.38012244	1.8873555	20	—	—
351267 2004 <i>RT</i> ₁₉₂	17.1	X	81.18496	46.49413	307.72191	4.09379	0.2291001	0.26421682	2.4052621	20	—	—
351268 2004 <i>RB</i> ₁₉₆	15.4	X	321.13825	324.95918	338.72651	11.80136	0.1053483	0.17222300	3.1994497	20	6 7.6	19.7
351269 2004 <i>RD</i> ₂₀₄	17.5	X	92.67462	76.05354	301.83838	7.34669	0.1955735	0.27001440	2.3707082	20	—	—
351270 2004 <i>RM</i> ₂₀₄	17.1	X	40.07680	206.88882	210.62664	6.11715	0.1499530	0.26539172	2.3981580	20	—	—
351271 2004 <i>RU</i> ₂₂₅	17.1	X	111.85513	189.12803	120.82424	2.25898	0.1807407	0.26447776	2.4036798	20	—	—
351272 2004 <i>RT</i> ₂₃₁	17.8	X	114.69419	194.31523	158.49460	1.25162	0.2009730	0.26903307	2.3764697	20	—	—
351273 2004 <i>RQ</i> ₂₃₈	18.3	X										

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351281 2004 SX ₃₈	17.4	X	85.95073	45.15578	316.89336	1.30521	0.2402469	0.26528378	2.3988085	20	—	—
351282 2004 SH ₅₆	15.5	X	333.07972	338.80338	298.69088	13.23525	0.1579366	0.17465747	3.1696497	20	5 15.5	19.5
351283 2004 TE	17.4	X	69.46071	352.59761	25.66815	2.98144	0.1941264	0.26469992	2.4023347	20	—	—
351284 2004 TH ₄	17.9	X	158.18759	298.43815	19.45002	1.43556	0.1948335	0.27110643	2.3643377	20	—	—
351285 2004 TX ₁₂	16.9	X	301.03136	253.63294	95.45066	4.38748	0.2615337	0.23853695	2.5749311	20	6 16.1	19.7
351286 2004 TE ₁₃	16.6	X	132.86238	270.28098	58.07433	12.79181	0.2938523	0.27033768	2.3688178	20	—	—
351287 2004 TW ₁₈	17.4	X	295.12511	155.98094	320.17712	19.86709	0.0780254	0.38222616	1.8804240	20	—	—
351288 2004 TU ₂₃	17.7	X	53.45893	149.45794	266.42568	1.88710	0.1652176	0.26699005	2.3885775	20	—	—
351289 2004 TN ₄₇	17.2	X	96.59672	337.91294	21.90181	4.33950	0.2097547	0.26595032	2.3947989	20	—	—
351290 2004 TX ₆₁	17.5	X	71.43395	359.40750	16.05234	2.25729	0.2250407	0.26517862	2.3994427	20	—	—
351291 2004 TW ₈₁	18.1	X	27.66391	90.88179	353.65954	4.65682	0.1257937	0.26677537	2.3898587	20	—	—
351292 2004 TG ₈₉	17.7	X	61.78052	276.55866	144.20373	2.03408	0.1756145	0.26861673	2.3789246	20	—	—
351293 2004 TV ₁₀₄	17.4	X	80.67704	55.19203	348.93487	3.85110	0.1661194	0.26964898	2.3728495	20	—	—
351294 2004 TL ₁₀₅	16.9	X	181.70267	272.69192	39.53789	7.45922	0.1444644	0.27615293	2.3354448	20	1 3.8	20.4
351295 2004 TA ₁₁₆	17.4	X	123.25736	239.66313	121.26606	4.58603	0.2533570	0.27280029	2.3545405	20	1 16.5	20.5
351296 2004 TU ₁₂₂	16.7	X	163.87622	280.92802	348.59854	6.55646	0.0559263	0.26561991	2.3967844	20	—	—
351297 2004 TC ₁₂₃	17.6	X	104.33435	256.21636	101.41127	3.06142	0.1685160	0.26780739	2.3837151	20	—	—
351298 2004 TE ₁₂₄	17.0	X	22.35888	207.76545	205.16743	6.50703	0.0942783	0.26251650	2.4156369	20	—	—
351299 2004 TJ ₁₂₉	17.1	X	128.28142	247.34929	114.06537	4.42299	0.1566625	0.27231826	2.3573182	20	1 9.7	20.1
351300 2004 TE ₁₃₉	17.2	X	169.77036	43.80748	289.07940	3.81708	0.1454182	0.27623723	2.3349697	20	1 17.1	20.6
351301 2004 TM ₁₉₂	17.4	X	331.20668	97.37075	27.08538	6.74423	0.1019013	0.26377907	2.4079224	20	—	—
351302 2004 TB ₁₉₃	17.6	X	351.65194	313.06557	168.99482	2.64784	0.1459882	0.26594551	2.3948277	20	—	—
351303 2004 TE ₁₉₅	17.9	X	52.56338	119.19233	303.12319	1.36399	0.1940662	0.26578640	2.3957834	20	—	—
351304 2004 TH ₂₀₃	16.4	X	3.42910	58.82934	36.97885	22.55157	0.2980558	0.25825200	2.4421570	20	—	—
351305 2004 TU ₂₁₃	17.2	X	357.68040	319.05455	111.92732	1.47554	0.1893492	0.25878831	2.4387818	20	—	—
351306 2004 TY ₂₈₀	16.9	X	49.50419	290.12907	49.84002	6.95269	0.1635687	0.25312193	2.4750437	20	—	—
351307 2004 TN ₂₈₅	17.6	X	36.30819	15.11963	32.24794	5.38473	0.1199511	0.26216043	2.4178237	20	—	—
351308 2004 TJ ₃₀₉	17.6	X	11.28369	113.69669	376.59494	7.38118	0.1956200	0.25455149	2.4657684	20	—	—
351309 2004 TA ₃₁₀	18.0	X	3.11433	37.36077	53.12366	1.85390	0.1579941	0.26238607	2.4164373	20	—	—
351310 2004 TV ₃₃₂	17.5	X	20.35843	67.13149	29.28705	3.04302	0.1186190	0.26402354	2.4064358	20	—	—
351311 2004 TQ ₃₄₂	17.5	X	3.36395	38.91105	40.34477	13.41847	0.1725925	0.25804601	2.4434565	20	—	—
351312 2004 TM ₃₄₃	17.0	X	23.62203	321.47133	59.41196	3.41560	0.1788500	0.25583321	2.4575259	20	—	—
351313 2004 TG ₃₄₈	17.4	X	46.18779	195.68258	185.85343	1.16648	0.1849404	0.26356460	2.4092285	20	—	—
351314 2004 TG ₃₆₇	17.4	X	13.20944	334.26985	76.89257	2.62410	0.1875396	0.25684946	2.4510393	20	—	—
351315 2004 TL ₃₆₉	17.0	X	55.75433	171.87178	206.01760	3.89908	0.0253032	0.25867625	2.4394861	20	—	—
351316 2004 UY ₂	17.2	X	90.45309	238.81543	100.79433	8.84760	0.2710406	0.26347494	2.4097750	20	—	—
351317 2004 UD ₄	16.0	X	1.55063	133.21566	354.71804	23.17063	0.2523408	0.26412159	2.4058402	20	—	—
351318 2004 UC ₈	17.4	X	46.11781	78.33979	335.07770	2.01266	0.2202937	0.26229958	2.4169685	20	—	—
351319 2004 VT ₂	17.2	X	35.56597	0.92229	48.74636	3.54092	0.1685266	0.26036334	2.4289365	20	—	—
351320 2004 VW ₁₆	17.5	X	47.13348	130.15465	254.25143	3.57575	0.1864638	0.25957595	2.4338459	20	—	—
351321 2004 VG ₂₇	17.1	X	30.55321	178.12260	287.69580	3.85174	0.1517446	0.26707865	2.3880492	20	—	—
351322 2004 VV ₂₉	17.5	X	10.41879	292.57344	125.49681	1.35398	0.2349112	0.25646945	2.4534599	20	—	—
351323 2004 VO ₃₃	17.1	X	324.57762	349.49254	136.65611	3.03954	0.0933927	0.25865158	2.4396412	20	—	—
351324 2004 VN ₄₆	17.7	X	340.15376	4.99473	104.26985	3.57520	0.1797144	0.25680259	2.4513376	20	—	—
351325 2004 VA ₅₈	17.5	X	14.63346	213.50168	236.96211	6.83127	0.0439096	0.26207863	2.4183268	20	—	—
351326 2004 VW ₇₂	16.9	X	70.43557	264.36138	101.12709	10.11587	0.2671361	0.26095035	2.4252925	20	—	—
351327 2004 VR ₇₅	17.4	X	338.36305	36.57795	59.04638	22.54648	0.1020891	0.38288621	1.8782623	20	—	—
351328 2004 WL ₁₀	16.2	X	328.90561	269.99344	255.99419	11.20716	0.1357596	0.26374373	2.4081375	20	—	—
351329 2004 XM ₂	17.0	X	2.20922	123.39741	311.99944	5.32612	0.2191599	0.25619368	2.4552202	20	—	—
351330 2004 XH ₁₂	17.0	X	22.69688	333.56019	72.83389	4.90045	0.2123738	0.25529058	2.4610070	20	—	—
351331 2004 XH ₂₉	18.7	X	124.29725	334.06944	232.07068	22.62537	0.5030831	0.60730288	1.3810174	20	11 3.2	20.8
351332 2004 XH ₄₁	16.9	X	272.49537	111.91891	71.74674	8.06695	0.1702780	0.25527190	2.4611271	20	—	—
351333 2004 XV ₄₈	17.1	X	81.97677	47.10926	300.68408	11.45574	0.2534980	0.25533035	2.4607515	20	—	—
351334 2004 XZ ₈₈	16.4	X	356.57077	315.78721	55.57921	5.66229	0.1480203	0.24181933	2.5515771	20	11 25.1	19.2
351335 2004 XB ₁₀₂	17.5	X	348.91004	320.50767	123.98371	21.61430	0.1480875	0.38107734	1.8842013	20	—	—
351336 2004 XM ₁₀₂	16.2	X	242.25470	182.72166	314.36279	11.98831	0.1543475	0.24368080	2.5385663	20	10 28.0	19.8
351337 2004 XQ ₁₄₀	16.4	X	335.54750	253.55258	112.36528	13.50281	0.2961705	0.24010069	2.5637388	20	10 25.1	18.3
351338 2004 XR ₁₆₃	16.5	X	221.27723	96.26263	84.02498	5.78367	0.1495117	0.24167169	2.5526162	20	12 1.9	20.0
351339 2004 XF ₁₈₃	15.7	X	10.87949	6.37154	42.40686	3.44902	0.2675885	0.12424688	3.9775201	20	—	—
351340 2004 YC ₅	18.1	X	298.18637	27.11908	334.58505	11.39728	0.6172521	0.36777619	1.9293617	20	4 26.5	21.3
351341 2005 AY ₅	17.0	X	311.31515	12.96639	46.74995	4.32221	0.1678677	0.24057568	2.5603632	20	11 7.8	19.0
351342 2005 AZ ₈	16.5	X	313.76036	99.95169	303.56129	10.83655	0.0497279	0.23715807	2.5849022	20	10 17.9	20.0
351343 2005 AS ₂₁	16.7	X	312.51820	331.72027	104.49075	6.95539	0.2336832	0.24331547	2.5411067	20	12 6.5	18.6
351344 2005 AD ₂₄	17.0	X	300.62564	273.39379	170.19199	5.03359	0.2568356	0.24199149	2.5503668	20	11 14.7	18.9
351345 2005 AO ₂₇	17.4	X	319.66738	247.97671	110.52633	24.37567	0.0881612	0.35764288	1.9656355	20	10 8.3	19.8
351346 2005 AX ₃₀	15.9	X	300.03572	38.95592	78.13362	13.76397	0.1814518	0.24248116	2.5469322	20	—	—
351347 2005 AO ₄₀	16.7	X	301.97227	204.15789	316.69985	12.01380	0.1019602	0.25234221	2.4801395	20	—	—
351348 2005 AC ₄₆	16.9	X	269.73246	164.07652	337.79971	20.20693	0.0659667	0.37208929	1.9144232	20	—	—
351349 2005 AT ₄₈	16.1	X	171.83316	63.60130	125.28644	13.48691	0.1035073	0.23371721	2.6102108	20	10 29.2	20.3
351350 2005 AV ₅₃	16.8	X	271.08257	207.01451	308.92071	31.43638	0.1743105	0.24355743	2.5394235	20	—	—
351351 2005 AV ₆₅	16.1	X	59.26378	171.95890	124.57922	12.83620	0.0704407	0.23432661	2.6056833	20	11 7.7	19.9
351352 2005 AP ₇₆	17.0	X	291.92630	332.40943	83.50939	4.02992	0.1958535	0.23510254	2.5999470	20	9 21.1	19.6
351353 2005 BA	16.8	X	299.42651	319.01710	134.94220	15.12995	0.1589684	0.24316396	2.5421621	20	12 8.7	19.6
351354 2005 BZ ₆	16.5	X	239.74689	137.15898	332.36017	8.67020	0.0828047	0.23396583	2.6083613	20	9 28.5	20.0
351355 2005 BE ₂₀	16.2	X	2.16828	38.18955	345.64827	4.27317	0.2403790	0.24325720	2.5415125	20	—	—
351356 2005 BJ ₂₃	17.2	X										

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351361 2005 CO ₃	17.3	X	256.82508	82.88418	34.57958	3.55816	0.1739347	0.23558888	2.5963677	20	10 21.8	20.4
351362 2005 CX ₇	17.1	X	232.31830	222.99074	307.64475	18.83705	0.0749964	0.37096376	1.9182935	20	—	—
351363 2005 CZ ₇	16.9	X	239.79230	99.17854	96.78614	8.01780	0.1239605	0.24614927	2.5215660	20	—	—
351364 2005 CX ₁₁	16.2	X	253.35758	54.00731	121.98371	10.21033	0.0692819	0.24343010	2.5403089	20	—	—
351365 2005 CN ₁₉	16.9	X	242.03273	223.23856	284.56950	2.83106	0.1950763	0.23771772	2.5808435	20	11 7.0	20.2
351366 2005 CQ ₃₁	16.8	X	122.77320	180.77063	122.55336	6.15469	0.2031481	0.24140434	2.5545006	20	—	—
351367 2005 CD ₄₀	16.7	X	160.09755	109.16890	130.76206	5.16659	0.1878144	0.23389348	2.6088992	20	12 10.0	21.0
351368 2005 CR ₆₁	17.3	X	336.97953	267.53816	144.87775	23.75236	0.1386667	0.36764646	1.9298155	20	—	—
351369 2005 CY ₆₇	16.5	X	208.23312	234.71004	312.89942	8.69327	0.0732253	0.23834315	2.5763267	20	12 3.9	20.2
351370 2005 EY	17.1	X	277.41294	185.75254	62.41327	17.23184	0.8908558	0.24683371	2.5169026	20	12 31.1	19.8
351371 2005 EM ₁₁	17.4	X	254.75705	170.59188	13.59580	5.80429	0.2412404	0.24266959	2.5456136	20	—	—
351372 2005 EU ₁₁	17.1	X	239.73241	16.72207	133.26168	5.62782	0.2221170	0.23625483	2.5914863	20	11 5.9	20.8
351373 2005 ER ₂₄	17.2	X	262.81493	25.72669	141.55862	7.85710	0.1831125	0.24095213	2.5576957	20	—	—
351374 2005 EM ₂₆	17.8	X	267.68927	154.68983	352.93980	5.28469	0.2141385	0.23990562	2.5651284	20	12 12.8	20.6
351375 2005 EB ₄₁	16.2	X	272.09053	48.56293	101.45242	15.07925	0.1366865	0.24106310	2.5569107	20	—	—
351376 2005 EJ ₆₁	16.6	X	244.47020	208.89709	297.55249	6.27099	0.1325142	0.23522430	2.5990497	20	11 16.6	20.2
351377 2005 EU ₆₆	16.7	X	315.03594	47.57646	348.18618	12.03483	0.1894612	0.22984770	2.6394247	20	10 1.9	19.2
351378 2005 EM ₆₇	16.7	X	210.36831	41.89350	165.72025	9.91934	0.1464972	0.23684129	2.5872065	20	12 22.8	20.6
351379 2005 EX ₆₇	16.2	X	169.95655	233.12621	354.00326	12.35387	0.1849919	0.23075759	2.6324819	20	11 29.6	20.7
351380 2005 ER ₆₈	16.3	X	187.80557	311.90616	261.83453	6.56892	0.1436409	0.23440367	2.6051123	20	12 6.2	20.4
351381 2005 EL ₈₄	16.7	X	329.87232	84.49509	354.73982	8.85811	0.2278437	0.24495338	2.5297664	20	—	—
351382 2005 ER ₈₇	17.7	X	301.66624	86.35708	358.20897	3.48689	0.1897593	0.23537083	2.5979709	20	11 19.9	20.0
351383 2005 EX ₉₁	17.1	X	357.16585	22.69409	0.78159	20.00673	0.0815650	0.36160761	1.9512414	20	—	—
351384 2005 EL ₉₄	17.7	X	275.38396	188.47136	325.96974	4.29660	0.1867960	0.24284346	2.5443984	20	—	—
351385 2005 EL ₁₂₉	16.8	X	56.36607	321.34945	296.93942	2.68782	0.0547697	0.21859576	2.7292389	20	9 2.5	20.4
351386 2005 EB ₁₃₃	16.5	X	232.42437	35.69325	128.24976	18.31687	0.0960471	0.23631486	2.5910474	20	12 5.1	20.3
351387 2005 EX ₁₃₆	16.2	X	231.41684	120.48874	19.35442	13.40879	0.1021592	0.22844228	2.6502391	20	10 25.1	19.9
351388 2005 EQ ₁₅₉	17.6	X	308.60087	257.99059	176.99026	4.91105	0.2542025	0.23657119	2.5891754	20	11 19.9	19.4
351389 2005 EO ₁₇₄	17.6	X	161.63518	337.38014	272.75103	2.70911	0.1461788	0.23380190	2.6095805	20	12 24.7	21.8
351390 2005 EN ₁₈₂	16.7	X	179.42520	249.54393	349.49441	16.68158	0.2505050	0.23368418	2.6104568	20	12 21.1	21.4
351391 2005 EO ₁₉₈	16.4	X	310.82915	9.96535	1.82269	6.15699	0.0308957	0.21782516	2.7356719	20	9 5.5	19.9
351392 2005 EQ ₁₉₈	16.5	X	299.86791	55.20103	4.66802	8.91619	0.1233419	0.22649270	2.6654257	20	10 14.6	19.5
351393 2005 ES ₂₁₅	16.6	X	141.41323	99.86055	156.22430	6.53708	0.1838004	0.23126096	2.6286605	20	12 13.2	21.1
351394 2005 EM ₂₂₂	16.8	X	202.46738	133.06521	114.78443	3.31091	0.1162720	0.24742593	2.5128848	20	—	—
351395 2005 EU ₂₂₄	16.4	X	258.91466	51.26229	88.84334	22.48273	0.1208228	0.23441835	2.6050035	20	12 4.7	19.7
351396 2005 ES ₂₃₀	17.5	X	260.88380	149.26298	13.81445	3.14814	0.1408253	0.24119506	2.5559780	20	—	—
351397 2005 ET ₂₃₄	17.3	X	312.92903	279.82524	162.32340	9.48069	0.2109253	0.23896105	2.5718836	20	12 14.9	19.6
351398 2005 EP ₂₄₀	14.7	X	257.52715	304.35498	280.38868	4.09783	0.1186605	0.12403363	3.9820779	20	—	—
351399 2005 ET ₂₄₀	16.9	X	214.63335	78.70589	154.15933	13.28070	0.1409905	0.24558652	2.5254166	20	—	—
351400 2005 EY ₂₄₁	16.9	X	205.74786	151.01013	13.38514	14.71274	0.2037038	0.23117407	2.6293191	20	10 16.7	21.2
351401 2005 EA ₂₄₆	17.2	X	250.04207	352.40995	170.02662	3.66943	0.0894616	0.23716538	2.5848490	20	12 23.7	20.5
351402 2005 ET ₂₅₀	16.6	X	182.70620	117.24408	126.42244	5.04907	0.2526384	0.23674870	2.5878811	20	12 29.1	20.8
351403 2005 ES ₂₅₃	16.7	X	215.29476	197.83425	328.87446	7.64089	0.1299441	0.23367010	2.6105617	20	11 5.4	20.7
351404 2005 EA ₂₆₃	16.9	X	159.64968	21.12490	210.34116	3.33720	0.2005266	0.23001181	2.6381691	20	11 28.4	21.2
351405 2005 EB ₂₆₅	17.6	X	231.95355	332.61858	207.16316	4.00983	0.1565196	0.23617205	2.5920919	20	12 11.8	21.0
351406 2005 FS	16.8	X	199.68160	345.40370	201.39111	4.60741	0.1786456	0.23358175	2.6112199	20	11 12.5	20.8
351407 2005 FZ ₇	16.2	X	178.58693	83.67185	140.50465	12.90139	0.2481682	0.23039854	2.6352161	20	12 4.9	20.9
351408 2005 FN ₁₁	16.3	X	90.08962	150.62930	82.53211	14.69696	0.0878443	0.21704237	2.7422457	20	9 27.4	20.5
351409 2005 FP ₁₂	16.6	X	220.81153	151.73673	38.78560	11.79066	0.1803086	0.23655980	2.5892585	20	12 6.9	20.5
351410 2005 FO ₁₄	16.3	X	225.56369	111.43147	50.61551	13.41963	0.1184354	0.23494105	2.6011383	20	11 15.9	20.0
351411 2005 GB ₂	16.3	X	251.13564	96.95783	89.11568	13.77704	0.1097599	0.24149614	2.5538531	20	—	—
351412 2005 GD ₇	17.1	X	192.90940	34.08803	114.39460	3.26811	0.1428072	0.22229565	2.6988707	20	9 21.9	21.2
351413 2005 GJ ₇	16.9	X	77.07273	113.28693	110.69688	3.61143	0.0849572	0.21195396	2.7859610	20	8 21.9	20.6
351414 2005 GT ₇	15.9	X	100.51534	98.80052	123.40609	10.24416	0.1614046	0.21592991	2.7516562	20	9 28.2	20.3
351415 2005 GR ₂₂	16.6	X	197.16042	119.48173	94.97611	5.86751	0.2148008	0.23259647	2.6185888	20	12 9.6	20.6
351416 2005 GZ ₂₃	17.2	X	299.09609	68.30796	12.07999	1.03961	0.1002265	0.23244765	2.6197063	20	11 16.0	20.2
351417 2005 GJ ₂₅	17.3	X	241.98715	276.73525	209.51107	1.15168	0.0440700	0.22625524	2.6672903	20	10 31.2	20.7
351418 2005 GE ₃₃	17.3	X	241.06205	232.40028	320.66137	2.57076	0.1688822	0.23783690	2.5799813	20	—	—
351419 2005 GF ₃₇	16.8	X	170.46166	119.62321	112.76639	13.12291	0.2440449	0.22982639	2.6395879	20	12 7.8	21.4
351420 2005 GE ₃₈	16.8	X	256.50779	197.73675	307.52342	3.19732	0.1581868	0.23443937	2.6048478	20	11 28.8	19.9
351421 2005 GU ₄₀	16.8	X	154.92363	27.71962	194.47540	7.65724	0.1395383	0.22567714	2.6718434	20	11 15.2	21.1
351422 2005 GA ₄₃	16.9	X	199.34967	124.16399	71.56735	9.16251	0.1645980	0.23183156	2.6243455	20	11 23.9	20.9
351423 2005 GL ₄₅	16.9	X	217.99047	116.63179	56.42539	9.82024	0.1366687	0.23193182	2.6235892	20	11 18.4	20.4
351424 2005 GL ₄₈	17.1	X	131.72817	69.84721	174.63622	2.44742	0.0897566	0.22562028	2.6722923	20	11 19.2	21.0
351425 2005 GT ₆₅	16.2	X	89.69906	161.75892	108.82857	11.51090	0.2421023	0.22142414	2.7059477	20	11 21.7	20.8
351426 2005 GC ₆₆	16.6	X	339.18693	160.03916	198.55261	5.76899	0.0643544	0.21937401	2.7227803	20	9 27.0	20.0
351427 2005 GN ₈₀	16.3	X	71.55093	111.26362	178.35140	8.45005	0.1787303	0.21934412	2.7230277	20	11 20.4	20.5
351428 2005 GX ₁₀₄	17.2	X	179.26318	44.60892	180.57552	5.29387	0.1911911	0.23064555	2.6333343	20	12 8.2	21.5
351429 2005 GV ₁₁₁	15.9	X	191.46623	314.19710	202.22127	28.12656	0.1643460	0.22247744	2.6974003	20	9 25.4	20.4
351430 2005 GD ₁₁₉	16.4	X	231.83066	109.57163	47.08103	5.14549	0.1243372	0.23096944	2.6308719	20	11 15.3	20.0
351431 2005 GR ₁₂₂	16.7	X	316.68061	49.39119	354.47740	8.33496	0.1262001	0.22934605	2.6432721	20	10 21.4	19.6
351432 2005 GO ₁₅₀	16.6	X	294.02609	323.47172	76.71176	6.64075	0.0400497	0.21624475	2.7489848	20	9 21.3	20.2
351433 2005 GD ₁₆₀	16.7	X	162.48280	141.04626	49.14202	10.17124	0.1116424	0.22172529	2.7034971	20	10 16.3	20.9
351434 2005 GD ₁₆₃												

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351441 2005 JY ₈	17.1	X	248.37457	8.48406	34.48421	4.75307	0.2018503	0.21146741	2.7902327	20	6 28.7	21.4
351442 2005 JD ₁₆	15.4	X	302.14007	131.63329	65.08782	9.71448	0.0988594	0.18200062	3.0838090	20	1 1.4	19.9
351443 2005 JR ₃₅	16.7	X	359.29728	249.30802	146.71486	5.72244	0.0238545	0.22481416	2.6786765	20	12 13.7	20.3
351444 2005 JP ₅₄	16.6	X	111.93376	64.23405	196.54165	10.91728	0.0454764	0.22212380	2.7002625	20	11 16.1	20.5
351445 2005 JL ₇₈	17.2	X	175.23242	15.66957	197.10232	7.74644	0.2180729	0.22654874	2.6649861	20	11 18.6	21.7
351446 2005 JB ₁₀₃	16.5	X	307.31757	16.33047	171.63781	12.09453	0.1841327	0.24530441	2.5273524	20	—	—
351447 2005 JV ₁₀₈	15.4	X	214.54765	107.82440	115.18085	29.70053	0.3185284	0.23021200	2.6366395	20	12 27.0	19.7
351448 2005 JS ₁₁₈	16.7	X	270.73506	293.75193	104.59877	7.50171	0.0591128	0.20860859	2.8156668	20	8 11.1	20.4
351449 2005 JA ₁₄₁	16.6	X	135.86478	115.16930	139.69078	13.54374	0.2404472	0.22371276	2.6874612	20	12 7.8	21.5
351450 2005 JN ₁₄₁	16.8	X	83.66629	199.10728	80.06705	5.63393	0.0567855	0.21888013	2.7268745	20	11 6.7	20.7
351451 2005 JO ₁₆₀	16.9	X	272.60797	20.85058	70.21730	7.26496	0.0484533	0.22176568	2.7031687	20	10 27.2	20.5
351452 2005 JW ₁₆₀	16.3	X	134.74812	78.63782	99.98066	7.30492	0.0818374	0.21271499	2.7793121	20	9 1.5	20.5
351453 2005 KY ₁₀	16.1	X	71.88966	8.46101	268.39271	12.97206	0.1348753	0.21557868	2.7546442	20	10 24.7	20.3
351454 2005 KW ₁₃	15.4	X	250.71403	215.62689	116.15628	18.85159	0.2118776	0.18222049	3.0813279	20	4 11.7	20.7
351455 2005 LU ₈	16.3	X	358.41912	273.77224	79.21959	7.14878	0.0166528	0.21688711	2.7435543	20	10 18.6	20.0
351456 2005 LB ₂₈	16.6	X	133.38150	101.08698	127.70592	13.58074	0.1658091	0.21892362	2.7265134	20	11 6.9	21.3
351457 2005 MA ₂₂	16.9	X	158.55066	114.61300	119.96877	4.10516	0.2066417	0.21891532	2.7265823	20	11 29.8	21.5
351458 2005 MJ ₂₂	16.0	X	261.92162	224.78730	126.05046	9.96534	0.0524298	0.18811462	3.0166229	20	5 29.6	20.4
351459 2005 MB ₂₈	15.8	X	181.02638	96.55220	264.80282	10.75015	0.1351366	0.17410947	3.1762972	20	3 6.4	21.1
351460 2005 MF ₃₆	16.5	X	319.58775	8.90002	309.36516	11.21779	0.1373218	0.19313429	2.9641246	20	6 23.8	20.1
351461 2005 MO ₃₉	15.9	X	205.74338	68.00393	297.31118	10.08070	0.1963962	0.17755124	3.1351157	20	3 31.8	21.4
351462 2005 NL ₁₀	16.2	X	144.38596	80.29823	119.53464	5.21474	0.0419263	0.20876383	2.8142708	20	10 6.9	20.3
351463 2005 NH ₃₀	15.9	X	282.64201	10.21695	308.62042	5.50135	0.1244898	0.18734846	3.0248416	20	4 29.6	20.3
351464 2005 NG ₃₅	16.4	X	220.65247	272.60186	92.52798	2.15418	0.2144414	0.18052641	3.1005748	20	4 16.6	21.7
351465 2005 NB ₄₀	16.5	X	294.77016	23.40422	271.12782	2.84060	0.0504091	0.18686631	3.0300424	20	4 26.6	20.7
351466 2005 NZ ₆₅	16.0	X	204.06218	67.14890	299.40245	13.74560	0.1421351	0.17818309	3.1276998	20	3 30.9	21.4
351467 2005 NX ₉₄	15.7	X	227.84325	168.52341	162.68606	9.95330	0.0902570	0.17467881	3.1693916	20	3 23.0	20.5
351468 2005 NY ₁₂₂	15.5	X	207.24483	36.49843	319.06733	22.69278	0.2334169	0.17581018	3.1557799	20	3 15.4	21.3
351469 2005 OG ₁	15.7	X	207.98545	285.22494	61.65944	14.66371	0.2697180	0.17429814	3.1740046	20	3 23.6	21.5
351470 2005 OU ₈	16.0	X	225.82768	101.79653	276.33986	7.97599	0.1191469	0.18443778	3.0565825	20	5 11.4	20.7
351471 2005 PU ₈	15.8	X	304.30643	297.93099	353.73512	8.68325	0.0637096	0.18440665	3.0569265	20	5 1.6	20.0
351472 2005 PW ₁₁	15.8	X	198.25673	40.90793	336.10592	16.14773	0.2378099	0.17565895	3.1575909	20	4 6.0	21.5
351473 2005 PV ₂₁	16.0	X	215.93888	28.89689	314.17625	4.60434	0.1833302	0.17537287	3.1610239	20	3 18.2	21.3
351474 2005 PW ₂₃	16.7	X	263.15250	313.69458	19.16459	1.64569	0.1985763	0.18199366	3.0838877	20	4 17.6	21.5
351475 2005 PH ₂₇	15.8	X	170.11490	267.79724	113.08473	7.96035	0.0444842	0.17422072	3.1749448	20	3 24.5	20.5
351476 2005 QQ ₇	17.9	X	201.38498	177.17030	151.34851	4.42427	0.1713364	0.30269900	2.1968247	20	2 8.8	21.3
351477 2005 QU ₁₃	15.6	X	231.42299	19.57969	341.58735	10.84729	0.1448936	0.17931537	3.1145193	20	4 21.5	20.6
351478 2005 QG ₁₈	16.4	X	268.51980	170.99636	162.07309	3.47113	0.1677953	0.18095919	3.0956293	20	4 28.5	21.0
351479 2005 QU ₃₅	17.4	X	162.93222	35.08995	356.48181	7.67995	0.1896199	0.30336574	2.1936047	20	3 25.1	20.6
351480 2005 QV ₃₉	15.6	X	240.15334	13.31656	307.81561	16.43904	0.1977410	0.17670071	3.1451680	20	3 6.9	21.0
351481 2005 QO ₅₉	16.1	X	210.16821	348.29249	358.59011	11.08103	0.1629455	0.17162229	3.2069110	20	3 20.2	21.4
351482 2005 QJ ₇₉	17.8	X	196.27431	135.55659	220.85341	1.85900	0.1994774	0.30511474	2.1852138	20	3 10.3	21.3
351483 2005 QY ₉₅	15.6	X	153.17037	82.90694	343.96262	15.97788	0.1195589	0.17614115	3.1518255	20	4 24.4	20.8
351484 2005 QC ₉₇	16.1	X	285.52709	2.38807	353.27242	9.80868	0.1000563	0.18903209	3.0068542	20	6 27.3	20.3
351485 2005 QO ₁₀₀	16.4	X	258.26121	124.47595	200.78359	3.75874	0.1853971	0.17967506	3.1103614	20	4 5.1	21.2
351486 2005 QJ ₁₀₂	16.2	X	287.14223	34.18891	323.73249	10.6827	0.0595003	0.18844809	3.0130630	20	7 9.4	20.4
351487 2005 QE ₁₀₃	16.5	X	315.96885	331.33265	323.45256	8.98392	0.0436626	0.18332025	3.0689920	20	5 25.7	20.8
351488 2005 QK ₁₀₃	16.2	X	161.47341	140.08510	270.66029	3.38772	0.1823161	0.17214235	3.2004490	20	4 21.8	21.4
351489 2005 QZ ₁₁₀	16.0	X	161.10003	90.47689	349.05049	8.99260	0.0625867	0.17833731	3.1258964	20	5 19.7	20.9
351490 2005 QL ₁₁₂	16.5	X	317.91820	109.61036	184.91127	7.01715	0.0861279	0.18354969	3.0664339	20	5 26.3	20.5
351491 2005 QO ₁₁₉	16.3	X	176.80216	272.99987	125.72669	2.06262	0.1485728	0.17500705	3.1654274	20	4 21.9	21.3
351492 2005 QW ₁₂₅	15.4	X	84.97354	149.39689	344.38091	15.47791	0.1116956	0.17556047	3.1587717	20	5 1.0	20.1
351493 2005 QH ₁₂₈	16.8	X	181.75213	13.10200	14.76317	5.45203	0.1530847	0.17316064	3.1878896	20	4 12.3	21.9
351494 2005 QT ₁₄₇	16.1	X	291.77310	215.75657	100.61249	9.99667	0.2115170	0.18597219	3.0397466	20	5 1.8	20.4
351495 2005 QZ ₁₄₉	15.8	X	194.29096	34.56420	6.43201	11.70262	0.0751155	0.17665485	3.1457124	20	5 7.1	20.7
351496 2005 QR ₁₅₃	15.6	X	227.21633	334.79609	36.57327	9.96089	0.1004190	0.17919346	3.1159318	20	5 6.8	20.4
351497 2005 QO ₁₆₃	17.4	X	216.42968	326.88886	33.68994	5.44414	0.0573269	0.30917649	2.1660330	20	4 9.1	20.1
351498 2005 QC ₁₆₆	17.3	X	181.95347	262.48836	117.44853	5.12334	0.1580145	0.30352379	2.1928431	20	3 29.9	20.6
351499 2005 QN ₁₆₇	15.4	X	271.01070	55.39682	277.15337	21.08601	0.1259159	0.18489312	3.0515622	20	4 30.1	20.3
351500 2005 QN ₁₈₂	18.1	X	235.60802	18.30779	339.24646	3.64838	0.0800981	0.31358246	2.1456961	20	4 24.7	20.8
351501 2005 QQ ₁₈₈	16.0	X	236.63843	14.58530	351.00352	11.70489	0.0975885	0.18200449	3.0837653	20	5 6.3	20.8
351502 2005 RA ₄	17.4	X	167.31997	224.00233	147.65547	7.68251	0.2103679	0.29992746	2.2103373	20	3 6.9	20.8
351503 2005 RS ₇	15.9	X	98.28543	129.23081	185.92122	14.04238	0.1488775	0.21276255	2.7788979	20	—	—
351504 2005 RY ₁₃	18.0	X	129.41294	133.53752	285.19888	0.77302	0.0691261	0.30420276	2.1895790	20	3 11.1	20.7
351505 2005 RW ₁₄	16.2	X	213.76360	9.15383	345.01097	8.91549	0.0931432	0.17482079	3.1676754	20	4 1.1	21.1
351506 2005 RQ ₂₆	17.7	X	159.55773	211.45544	174.95549	5.13276	0.1547186	0.30171349	2.2015183	20	3 13.4	20.6
351507 2005 RK ₂₉	15.7	X	187.71126	73.39213	352.28025	8.94131	0.0389924	0.18130939	3.0916419	20	6 2.2	20.3
351508 2005 RN ₃₃	19.6	X	137.69197	300.19468	100.68305	7.19144	0.2566310	0.43178187	1.7336434	20	3 13.5	21.5
351509 2005 RS ₃₃	18.0	X	190.68854	177.71104	192.38749	4.21878	0.1112937	0.30395451	2.1907710	20	3 21.6	21.2
351510 2005 RF ₄₁	16.0	X	220.14663	10.32132	342.19354	9.40892	0.0923774	0.17563472	3.1578812	20	4 4.9	20.9
351511 2005 RR ₄₄	15.4	X	267.85131	46.71521	276.92861	8.76212	0.1575719	0.17786219	3.1314606	20	4 12.6	20.2
351512 2005 RH ₄₆	16.2	X	292.00524	174.76704	142.32445	10.64210	0.1027842	0.17883600	3.1200826	20	5 18.7	20.6
351513 2005 SH ₄₃	17.2	X	160.47733	350.22941	358.27608	6.5						

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351521 2005 SL ₁₁₈	16.0	X	196.60934	289.16324	44.95233	7.73058	0.1878032	0.16720586	3.2631351	20	2 27.3	21.5
351522 2005 SQ ₁₁₈	17.0	X	6.64839	355.11486	33.48076	13.15329	0.2265646	0.27247271	2.3564273	20	—	—
351523 2005 SC ₁₁₉	15.4	X	301.55515	151.83450	161.34196	17.31268	0.1300175	0.18189709	3.0849791	20	5 23.4	19.8
351524 2005 SO ₁₂₆	16.5	X	341.98152	249.42843	351.61230	1.30345	0.0627248	0.17491529	3.1665343	20	4 22.7	20.5
351525 2005 SY ₁₂₉	17.8	X	167.66815	157.61335	230.63136	3.05956	0.1704203	0.30223999	2.1990483	20	3 23.8	21.0
351526 2005 SY ₁₃₀	18.2	X	166.01803	176.52990	194.96670	3.04639	0.1806165	0.29894432	2.2151808	20	3 1.8	21.6
351527 2005 SG ₁₃₇	18.3	X	107.47943	325.17713	167.24050	3.43456	0.0650222	0.31021751	2.1611845	20	5 27.5	20.8
351528 2005 SU ₁₄₀	16.2	X	122.14470	26.65653	72.45550	2.99086	0.0308984	0.17250376	3.1959772	20	4 29.7	20.8
351529 2005 SJ ₁₄₁	15.7	X	234.82794	339.58030	19.13906	21.27975	0.0654636	0.17585232	3.1552758	20	4 28.3	20.5
351530 2005 SF ₁₆₆	17.7	X	177.54220	226.18287	105.63466	4.15078	0.1961540	0.29718130	2.2239332	20	1 24.8	21.0
351531 2005 SC ₁₇₃	17.6	X	101.31060	215.25434	230.50276	4.48432	0.0997478	0.30021915	2.2089054	20	3 13.9	20.0
351532 2005 SA ₁₈₈	16.5	X	267.23895	163.56392	159.09650	1.29239	0.1802549	0.17702060	3.1413778	20	4 12.3	21.1
351533 2005 SL ₁₉₃	17.5	X	100.16401	32.60290	12.68825	6.36414	0.1168897	0.29066298	2.2570590	20	1 22.9	20.0
351534 2005 SM ₁₉₄	15.9	X	191.51319	157.10109	210.06470	3.15954	0.1790042	0.17213280	3.2005673	20	3 27.5	21.2
351535 2005 SS ₁₉₄	15.7	X	194.53487	53.70055	351.47191	10.02094	0.1101574	0.17873810	3.1212217	20	5 11.9	20.7
351536 2005 SC ₁₉₅	15.7	X	188.98610	75.45887	308.93247	24.75956	0.2570384	0.17374806	3.1807003	20	3 31.7	21.8
351537 2005 SA ₂₁₂	16.2	X	233.48565	142.47755	206.62080	5.14235	0.2076623	0.17382366	3.1797780	20	4 9.1	21.5
351538 2005 SD ₂₂₀	15.0	X	268.47910	23.78712	307.17410	17.26709	0.1736246	0.17866349	3.1220907	20	4 15.3	20.1
351539 2005 SS ₂₅₀	17.7	X	126.30728	292.83291	104.71942	3.68460	0.1574305	0.29757106	2.2219908	20	2 22.1	20.4
351540 2005 SD ₂₅₉	17.9	X	7.85533	268.49126	280.79429	3.12321	0.0878837	0.30250500	2.1977638	20	3 7.2	19.9
351541 2005 SC ₂₆₃	18.2	X	214.97606	230.32448	141.81966	2.00519	0.1307512	0.30882460	2.1676781	20	4 20.1	21.3
351542 2005 TY ₆	17.0	X	213.20707	17.73851	309.69490	7.77321	0.2119550	0.30243110	2.1981218	20	2 17.0	20.6
351543 2005 TP ₁₀	16.9	X	214.34554	34.58216	325.97118	6.34311	0.1413116	0.30633940	2.1793859	20	3 30.8	20.3
351544 2005 TD ₁₃	16.2	X	164.47192	113.55639	2.52924	3.06590	0.1191311	0.17833774	3.1258913	20	7 12.4	21.1
351545 2005 TE ₁₅	19.7	X	101.00582	241.18951	10.89425	13.12874	0.3436246	0.74579044	1.2042727	20	—	—
351546 2005 TA ₂₉	17.4	X	159.37248	320.92364	48.04641	6.22487	0.2479172	0.29657871	2.2269445	20	3 1.5	21.0
351547 2005 TF ₃₆	16.3	X	128.31985	350.53742	162.25282	4.56196	0.0492675	0.18361790	3.0656745	20	7 14.9	20.8
351548 2005 TN ₇₂	17.2	X	177.12374	306.66026	67.31227	7.44338	0.1728094	0.30128814	2.2036775	20	3 19.9	20.6
351549 2005 TJ ₇₃	18.0	X	128.87167	200.44821	146.32055	7.25581	0.2932240	0.28945110	2.2633545	20	1 6.9	21.1
351550 2005 TX ₇₃	17.7	X	164.86568	223.20192	155.88102	5.08809	0.2093603	0.29926769	2.2135848	20	3 13.8	21.0
351551 2005 TY ₉₇	15.1	X	23.36213	213.68780	25.50233	17.64685	0.1707715	0.17931460	3.1145283	20	7 2.4	19.1
351552 2005 TK ₁₀₀	17.8	X	35.29428	227.89967	285.85415	3.67259	0.0420208	0.29985977	2.2106700	20	3 1.8	20.3
351553 2005 TB ₁₁₃	18.3	X	146.22148	129.05853	270.60927	1.59897	0.1167626	0.30011794	2.2094020	20	3 12.1	21.0
351554 2005 TT ₁₃₂	16.9	X	335.18465	325.99639	194.15193	4.80662	0.1018645	0.22057634	2.7128770	20	—	—
351555 2005 TK ₁₃₄	15.7	X	239.90486	49.63855	337.38846	14.61456	0.1041480	0.17901796	3.1179680	20	6 8.2	20.7
351556 2005 TW ₁₄₆	15.8	X	39.96560	145.86406	45.06816	10.22850	0.0211101	0.17343873	3.1844810	20	5 8.7	20.2
351557 2005 TN ₁₄₈	15.5	X	52.08982	128.41317	35.08511	16.64389	0.1346366	0.16868098	3.2440831	20	5 2.6	19.6
351558 2005 TO ₁₇₇	16.5	X	111.34479	237.14828	92.42143	10.73417	0.1999695	0.21803064	2.7339529	20	—	—
351559 2005 TA ₁₉₃	17.9	X	149.14716	280.39081	140.75467	3.22088	0.0329865	0.30530862	2.1842885	20	4 7.3	20.4
351560 2005 TR ₁₉₄	15.9	X	242.86859	293.54867	37.84831	18.04803	0.0233524	0.16975308	3.2304098	20	4 16.6	20.5
351561 2005 UR ₂₃	17.7	X	242.41898	280.60962	29.50084	6.75531	0.0282819	0.30000125	2.2099749	20	3 8.0	20.4
351562 2005 UY ₅₃	17.5	X	78.54547	37.82048	55.02984	5.63774	0.1159750	0.29383998	2.2407606	20	2 26.6	19.8
351563 2005 UU ₆₀	18.2	X	352.52934	176.02792	51.16319	4.65334	0.1065578	0.30241573	2.1981963	20	4 9.5	20.1
351564 2005 UJ ₁₄₃	16.8	X	198.84696	286.34332	56.38204	7.36124	0.1625699	0.29687790	2.2254481	20	2 28.9	20.3
351565 2005 UD ₁₅₇	17.9	X	296.25832	74.90662	224.37462	5.96575	0.1689839	0.31087718	2.1581261	20	4 8.6	20.4
351566 2005 UU ₁₆₄	17.9	X	19.70266	157.05024	40.78091	8.67085	0.1050652	0.30282776	2.1962019	20	4 16.4	19.6
351567 2005 UR ₁₇₈	17.5	X	138.34827	266.64037	80.69442	3.08293	0.2085343	0.28833309	2.2692015	20	1 7.8	20.5
351568 2005 UU ₁₈₀	17.6	X	210.49071	255.03540	70.37660	7.12854	0.2267821	0.29855592	2.2171016	20	2 16.9	21.4
351569 2005 UU ₂₂₁	15.5	X	338.28496	31.64915	237.33667	8.21027	0.0433567	0.17491421	3.1665474	20	5 25.4	19.7
351570 2005 UQ ₂₄₀	18.0	X	81.61677	238.30843	168.23966	4.66050	0.1418734	0.28578652	2.2826617	20	—	—
351571 2005 UA ₂₄₄	17.7	X	162.31791	348.57600	0.12452	4.34024	0.1848131	0.29089400	2.2558638	20	1 29.3	20.9
351572 2005 UH ₂₄₆	18.0	X	69.93404	70.77865	82.29684	5.50714	0.0620965	0.30178240	2.2012706	20	5 2.4	20.3
351573 2005 UF ₂₅₁	17.1	X	123.00436	120.72957	270.05948	5.43878	0.1768703	0.29213261	2.2494828	20	2 8.9	20.0
351574 2005 UU ₂₇₁	18.3	X	129.66783	279.80131	128.88617	2.06845	0.1337038	0.29476419	2.2360744	20	3 8.8	21.1
351575 2005 UB ₂₈₀	15.6	X	250.84178	263.99488	81.40295	2.03377	0.1538388	0.17418037	3.1754351	20	4 26.2	20.4
351576 2005 UE ₂₈₃	17.6	X	74.57841	53.91506	52.84253	7.97288	0.1011028	0.29555922	2.2320626	20	3 10.7	20.0
351577 2005 UO ₂₉₀	16.0	X	40.19252	183.82532	8.64432	6.72857	0.1291990	0.16849361	3.2464877	20	5 20.9	20.2
351578 2005 UB ₃₁₇	15.5	X	190.15657	29.53612	336.63530	14.30276	0.1177789	0.17368530	3.1814664	20	3 21.3	20.7
351579 2005 UF ₃₂₆	17.6	X	201.33278	275.51708	70.26330	8.73796	0.1386809	0.30125638	2.2038323	20	3 6.5	21.0
351580 2005 UY ₃₅₂	17.1	X	222.23891	29.46608	333.92715	5.94638	0.1135387	0.30654976	2.1783888	20	4 13.4	20.1
351581 2005 UR ₃₅₈	18.1	X	86.01439	87.21086	31.95160	5.51654	0.1597941	0.29993882	2.2102815	20	4 21.6	20.2
351582 2005 UC ₃₆₄	17.6	X	247.16340	205.26998	70.66960	6.71513	0.0941630	0.29433534	2.2382458	20	1 21.9	20.8
351583 2005 UQ ₄₂₈	17.8	X	318.29149	9.93214	247.88516	3.03535	0.0437373	0.30175205	2.2014183	20	4 2.6	20.1
351584 2005 UQ ₄₃₈	17.6	X	91.79178	8.87638	61.49075	5.02941	0.1138131	0.29200637	2.2501311	20	2 14.4	20.0
351585 2005 UL ₄₅₅	15.6	X	211.55862	82.37234	284.79857	10.82622	0.0835749	0.17242722	3.1969229	20	4 12.6	20.7
351586 2005 UT ₄₅₆	17.4	X	165.10772	304.78732	72.48554	6.61573	0.1776813	0.29678293	2.2259228	20	3 12.9	20.8
351587 2005 UJ ₄₅₇	17.7	X	134.69272	322.77651	79.37721	7.99137	0.1176098	0.29595440	2.2300752	20	3 7.6	20.7
351588 2005 UA ₄₈₁	15.2	X	248.35486	255.73376	71.75480	26.14123	0.2388144	0.17507303	3.1646320	20	4 9.1	20.8
351589 2005 UT ₄₈₅	15.3	X	281.38794	205.78929	152.13096	12.53897	0.1189519	0.18182681	3.0857739	20	6 21.4	19.7
351590 2005 UF ₄₈₈	15.3	X	199.20169	124.62116	314.78221	11.09584	0.0890835	0.17999860	3.1066330	20	7 3.5	20.1
351591 2005 UH ₄₉₆	17.6	X	205.72235	214.24611	155.92753	7.01685	0.1749915	0.30656171	2.1783322	20	4 8.4	21.0
351592 2005 UA ₅₁₀	17.6	X	126.31992	107.65264	257.95281	7.24832	0.1544421	0.28873266	2.2671075	20	1 8.6	20.4
351593 2005 UT ₅₁₁	17.6	X	95.42440	353.16354	67.67108	5.03683	0.1366329	0.292380				

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351601 2005 VX ₈₂	18.0	X	124.61056	313.20702	141.64582	3.59500	0.0914940	0.30060754	2.2070024	20	4 30.6	20.8
351602 2005 VU ₈₇	16.0	X	301.31309	144.57768	137.51122	4.12315	0.1280517	0.17015642	3.2253028	20	4 11.9	20.3
351603 2005 VH ₁₀₂	17.4	X	176.99033	45.23644	334.29276	5.54128	0.1883442	0.30111499	2.2045221	20	3 21.8	21.0
351604 2005 VL ₁₁₂	16.9	X	129.49412	118.04789	253.81544	6.06924	0.1215862	0.28922624	2.2645274	20	1 15.9	19.7
351605 2005 VP ₁₁₃	16.9	X	321.75314	15.35358	45.76181	8.26291	0.0980786	0.26398319	2.4066810	20	12 6.8	19.5
351606 2005 VG ₁₁₄	17.0	X	184.38299	266.87506	59.23531	7.46080	0.1652391	0.29124394	2.2540564	20	1 24.2	20.5
351607 2005 VF ₁₁₉	17.8	X	147.67685	288.64101	84.46165	5.58525	0.1939486	0.29452190	2.2373005	20	2 19.5	21.1
351608 2005 VZ ₁₂₄	17.7	X	300.05385	356.56505	226.16151	1.94784	0.1190407	0.27582862	2.3372751	20	1 11.8	20.9
351609 2005 VO ₁₂₇	18.0	X	50.43421	323.54423	163.94019	3.57017	0.0983507	0.29775873	2.2210571	20	2 22.3	19.8
351610 2005 VS ₁₃₀	17.9	X	292.82590	147.85879	147.14771	5.42863	0.1068769	0.31034619	2.1605871	20	4 11.6	20.3
351611 2005 VG ₁₃₃	15.9	X	163.19795	317.47081	113.31915	10.36736	0.0385943	0.17115723	3.2127175	20	5 16.2	20.7
351612 2005 VS ₁₃₃	15.1	X	90.83240	309.63046	195.04634	25.59175	0.1198611	0.16804068	3.2523187	20	5 30.7	20.2
351613 2005 WR ₁₁	18.2	X	44.09629	100.49201	66.81430	4.17346	0.0463365	0.29925845	2.2136304	20	4 9.8	20.5
351614 2005 WL ₅₁	17.6	X	158.40458	106.21319	258.35979	8.21305	0.2323924	0.29302480	2.2449145	20	2 16.4	21.3
351615 2005 WU ₅₅	16.9	X	233.19047	60.84185	260.61534	3.97219	0.2527365	0.30185503	2.2009175	20	2 24.2	20.6
351616 2005 WQ ₉₈	17.4	X	95.16216	125.33248	278.22833	5.44053	0.2101736	0.28527397	2.2853951	20	1 26.1	19.7
351617 2005 VF ₁₀₃	17.0	X	125.26058	99.30857	277.53676	6.52258	0.1349127	0.28856374	2.2679922	20	1 19.6	19.8
351618 2005 WQ ₁₀₄	16.9	X	125.56859	257.38370	99.11640	7.83387	0.1559884	0.28489555	2.2874184	20	—	—
351619 2005 WA ₁₃₉	17.6	X	159.02335	304.61810	60.65527	2.18726	0.1611806	0.29254594	2.2473635	20	2 16.8	20.8
351620 2005 WE ₁₆₀	17.7	X	100.92020	185.75598	184.39846	1.24619	0.2286963	0.28328978	2.2960541	20	—	—
351621 2005 WA ₁₇₄	17.1	X	132.87488	258.24673	121.18430	4.62861	0.2854493	0.29090695	2.2557968	20	2 21.8	20.3
351622 2005 WF ₁₇₉	17.3	X	177.83146	78.13305	270.40812	6.26174	0.1698950	0.29557455	2.2319854	20	2 10.9	20.8
351623 2005 WU ₁₉₃	17.7	X	87.72354	194.16079	207.49420	3.41581	0.1315502	0.28486207	2.2875976	20	—	—
351624 2005 WL ₁₉₅	17.2	X	73.90511	27.79426	94.81570	9.50808	0.1854110	0.28956521	2.2627598	20	4 18.2	19.7
351625 2005 WO ₂₀₄	17.3	X	6.69028	37.84875	106.22637	7.73385	0.1330712	0.27817959	2.3240878	20	—	—
351626 2005 WK ₂₀₄	17.4	X	347.82582	18.64837	124.14401	6.32062	0.1403803	0.27348420	2.3506135	20	—	—
351627 2005 XW ₇	17.1	X	187.82409	257.72165	98.33881	5.51540	0.2178266	0.29648742	2.2274016	20	3 7.0	20.7
351628 2005 XO ₂₆	17.1	X	123.70767	63.86052	269.27410	6.62049	0.1060043	0.27446591	2.3450050	20	—	—
351629 2005 XG ₃₇	17.0	X	258.66786	173.13070	82.56246	6.14865	0.1280969	0.28247329	2.3004764	20	1 6.6	20.3
351630 2005 XQ ₆₄	17.2	X	152.51999	271.01317	106.34043	5.99483	0.2552133	0.29496484	2.2350601	20	3 6.1	20.7
351631 2005 XQ ₇₁	17.3	X	157.62115	301.45419	64.21034	6.10421	0.1839867	0.29068859	2.2569264	20	2 19.9	20.7
351632 2005 XO ₈₆	17.7	X	25.07340	201.45410	235.62917	3.20993	0.1724431	0.27599820	2.3363176	20	—	—
351633 2005 YT ₅	17.5	X	2.13454	61.87278	81.87543	4.09329	0.1176463	0.28255825	2.3000153	20	—	—
351634 2005 YH ₁₆	17.8	X	16.79131	13.16482	116.73982	2.90404	0.1521055	0.27897823	2.3196502	20	—	—
351635 2005 YT ₂₂	17.6	X	342.61671	48.04879	98.47232	6.87434	0.0935680	0.27617173	2.3353389	20	—	—
351636 2005 YQ ₂₃	17.7	X	277.59323	343.30674	285.68731	6.41594	0.1017312	0.28788784	2.2715406	20	2 13.4	20.7
351637 2005 YG ₃₄	17.8	X	25.07715	157.91166	291.19000	5.98810	0.1116824	0.27488088	2.3426443	20	—	—
351638 2005 YF ₄₅	18.0	X	108.35738	148.80197	240.87188	1.87754	0.2262619	0.28415589	2.2913861	20	1 29.6	20.7
351639 2005 YA ₅₃	17.9	X	58.44348	160.22165	306.72237	3.37929	0.0494657	0.28419428	2.2911797	20	2 4.3	20.2
351640 2005 YL ₅₇	18.0	X	106.00145	121.13417	305.93929	2.45712	0.2090574	0.28925075	2.2643995	20	3 13.9	20.7
351641 2005 YY ₆₉	17.2	X	169.12076	179.26551	96.97655	9.31210	0.1092561	0.26759948	2.3849496	20	—	—
351642 2005 YK ₇₀	17.2	X	311.24917	255.72836	303.72291	7.15876	0.1183523	0.27817807	2.3240963	20	—	—
351643 2005 YM ₇₈	17.1	X	75.21162	10.07159	90.70181	7.34037	0.0582807	0.28754425	2.2733498	20	2 25.6	19.6
351644 2005 YS ₇₈	17.3	X	151.29437	276.75787	88.73003	7.42480	0.1669858	0.28770219	2.2725177	20	2 11.4	20.6
351645 2005 YP ₈₀	18.2	X	341.85003	169.77977	300.75414	1.56099	0.1718152	0.27056369	2.3674985	20	—	—
351646 2005 YD ₉₁	17.9	X	46.81986	344.46009	146.95044	2.10666	0.1258105	0.28499623	2.2868796	20	2 26.7	19.8
351647 2005 YO ₁₀₆	18.0	X	104.36248	169.19117	268.45580	3.07887	0.0869548	0.28946151	2.2633002	20	3 6.2	20.6
351648 2005 YO ₁₁₅	17.4	X	304.52128	210.79795	320.43678	4.92671	0.0647980	0.27255123	2.3559747	20	—	—
351649 2005 YY ₁₂₃	17.0	X	66.42561	138.97688	197.86590	7.10755	0.1025146	0.28414956	2.2914201	20	2 8.2	19.2
351650 2005 YG ₁₂₇	17.9	X	121.25655	104.33044	334.83001	3.52334	0.1539120	0.29373155	2.2413120	20	4 9.8	20.9
351651 2005 YJ ₁₃₀	17.4	X	112.99362	318.12715	80.32549	3.65172	0.2088239	0.28585046	2.2823213	20	2 15.9	20.1
351652 2005 YA ₁₃₁	18.0	X	28.68785	197.20139	301.60746	4.31616	0.0834688	0.28209136	2.3025524	20	2 2.6	20.1
351653 2005 YL ₁₅₁	16.7	X	181.56242	186.54048	86.52119	5.75862	0.1705661	0.26745235	2.3858242	20	—	—
351654 2005 YT ₁₅₅	15.7	X	314.34015	292.17637	298.30995	22.75774	0.2260873	0.27913616	2.3187752	20	1 23.1	18.5
351655 2005 YA ₁₆₁	17.5	X	129.90921	260.75140	135.83034	6.90678	0.1824722	0.28856310	2.2679955	20	2 29.4	20.6
351656 2005 YF ₁₆₆	18.0	X	128.24505	284.80961	140.63664	3.56472	0.1574912	0.29147607	2.2528595	20	4 2.9	20.9
351657 2005 YZ ₁₆₈	18.1	X	83.23837	103.79675	2.04874	2.72148	0.0948097	0.29009587	2.2599996	20	3 18.3	20.5
351658 2005 YU ₁₉₂	17.9	X	76.04135	13.70231	83.77966	1.03413	0.1720762	0.28528327	2.2853454	20	3 8.0	20.0
351659 2005 YF ₁₉₃	17.1	X	257.83630	143.16797	117.76141	7.70125	0.0878080	0.27959693	2.3162270	20	1 15.7	20.2
351660 2005 YJ ₂₀₅	18.2	X	14.65244	16.11568	124.08707	4.17357	0.1887099	0.27971314	2.3155854	20	1 1.4	20.1
351661 2005 YW ₂₀₅	17.4	X	326.21663	25.84277	144.57980	5.24821	0.1670803	0.27571645	2.3379090	20	—	—
351662 2005 YC ₂₄₆	17.8	X	331.62712	305.69259	199.79174	3.19716	0.1027803	0.27237076	2.3570153	20	—	—
351663 2005 YH ₂₄₉	18.1	X	88.57100	21.78491	60.49788	3.47898	0.1262649	0.28753618	2.2733923	20	2 28.9	20.5
351664 2006 AP ₂	17.0	X	77.40056	188.70055	203.38585	5.41219	0.2886977	0.27968907	2.3157182	20	—	—
351665 2006 AA ₁₂	17.8	X	121.78175	109.98846	289.93105	3.93982	0.1221654	0.28710409	2.2756727	20	2 13.3	20.5
351666 2006 AE ₂₃	17.9	X	97.57419	298.24567	111.50305	7.80067	0.0927957	0.28188783	2.3036606	20	1 21.3	20.5
351667 2006 AD ₃₂	17.3	X	93.85236	311.41349	97.94336	6.17530	0.2618783	0.28404706	2.2919714	20	2 13.5	19.7
351668 2006 AG ₃₇	17.0	X	190.83209	154.65106	96.02986	3.45102	0.1547173	0.26280589	2.4138632	20	—	—
351669 2006 AZ ₃₉	17.1	X	107.93595	344.29770	316.71501	3.08876	0.1655757	0.25903848	2.4372114	20	—	—
351670 2006 AZ ₄₂	18.1	X	32.82924	348.11131	145.87792	3.05631	0.1102994	0.28191280	2.3035246	20	2 2.9	20.0
351671 2006 AB ₄₉	18.0	X	15.93159	70.22373	55.09294	2.44869	0.1701838	0.28009173	2.3134983	20	—	—
351672 2006 AQ ₅₀	17.6	X	139.33697	243.60738	115.15001	6.08111	0.1953459	0.28361631	2.2942914	20	1 22.7	20.5
351673 2006 AL ₆₄	17.9	X	60.41533	312.99677	116.80443	6.58046	0.2145182	0.27881806	2.3205385	20	—	—
351674 2006 AY ₆₄	17.1	X	228.40542	293.38503	297.03451	6.21490	0.					

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351681 2006 BG ₂₇	17.4	X	46.66972	101.00362	352.01547	4.09669	0.1764039	0.27822564	2.3238314	20	1 1.6	19.2
351682 2006 BH ₃₀	17.1	X	336.32157	174.38782	325.81635	6.81903	0.0540146	0.27154001	2.3618202	20	—	—
351683 2006 BQ ₃₂	17.7	X	353.33679	313.36811	117.36383	3.12126	0.1746436	0.26211981	2.4180735	20	—	—
351684 2006 BK ₃₃	17.6	X	10.95061	90.74327	349.25116	6.51148	0.1768804	0.26669714	2.3903260	20	—	—
351685 2006 BL ₃₆	17.4	X	254.96284	190.53868	10.30438	3.26786	0.1209504	0.26497716	2.4006587	20	—	—
351686 2006 BJ ₃₈	17.6	X	357.15270	137.97996	346.64979	8.45355	0.0921742	0.27017531	2.3697668	20	—	—
351687 2006 BL ₄₆	17.6	X	354.33446	340.49057	136.96755	1.69790	0.1362548	0.26997291	2.3709511	20	—	—
351688 2006 BQ ₄₆	18.1	X	53.28851	169.85804	316.78171	4.36658	0.1116664	0.28252356	2.3002035	20	2 29.4	20.3
351689 2006 BV ₅₈	17.5	X	7.90959	135.40396	37.84370	1.82974	0.1810483	0.28063289	2.3105232	20	2 9.9	19.3
351690 2006 BA ₅₉	16.5	X	256.07391	81.58176	144.59807	11.47848	0.1701800	0.26813847	2.3817525	20	—	—
351691 2006 BL ₆₇	18.0	X	328.54982	87.68716	108.29509	3.56136	0.1351795	0.27865451	2.3214464	20	1 11.0	20.8
351692 2006 BL ₈₂	18.0	X	3.40439	195.97230	304.85950	2.63967	0.1086865	0.27529262	2.3403079	20	—	—
351693 2006 BC ₈₅	18.3	X	333.66913	113.61109	17.82964	1.63432	0.1360229	0.26972372	2.3724111	20	—	—
351694 2006 BC ₈₅	17.2	X	86.13894	254.23662	124.42818	9.88546	0.2207111	0.27406758	2.3472766	20	—	—
351695 2006 BE ₈₆	17.8	X	59.39217	114.93003	329.46999	4.26606	0.1838763	0.27977325	2.3152537	20	1 17.5	19.5
351696 2006 BM ₁₃₄	18.0	X	41.88515	257.27450	101.84434	3.50948	0.2284310	0.26213598	2.4179740	20	—	—
351697 2006 BT ₁₃₄	18.0	X	40.94383	14.15851	110.79317	3.68825	0.1010208	0.28199400	2.3030824	20	2 5.2	20.0
351698 2006 BG ₁₄₀	17.7	X	102.28262	91.87844	313.53426	4.41990	0.1574171	0.27979836	2.3151152	20	2 1.9	20.0
351699 2006 BB ₁₄₁	17.4	X	36.16301	69.47675	315.12726	1.60854	0.0765523	0.25943923	2.4347009	20	—	—
351700 2006 BT ₁₅₅	17.2	X	346.18389	140.47201	345.59539	5.73882	0.0818306	0.26873897	2.3782031	20	—	—
351701 2006 BU ₁₅₆	17.5	X	60.63427	28.19586	28.62468	2.92842	0.1965443	0.27273110	2.3549387	20	—	—
351702 2006 BG ₁₆₀	17.6	X	134.28250	140.98790	200.14268	2.43301	0.1040498	0.26916798	2.3756755	20	—	—
351703 2006 BS ₁₆₂	15.7	X	358.60466	296.12046	125.01054	2.78947	0.1402026	0.12463417	3.9692761	20	12 25.2	20.7
351704 2006 BV ₁₆₄	18.2	X	8.18331	289.71698	163.63556	1.17821	0.1473510	0.26844698	2.3799274	20	—	—
351705 2006 BE ₁₉₀	17.1	X	49.15227	95.55606	343.99408	8.10770	0.1117513	0.27316257	2.3524583	20	—	—
351706 2006 BS ₁₉₃	17.4	X	346.45503	23.19373	152.62877	6.85909	0.0300022	0.27877392	2.3207835	20	1 24.2	20.1
351707 2006 BB ₂₁₅	17.5	X	326.77494	137.76878	26.25169	9.93080	0.1738240	0.27263562	2.3554885	20	—	—
351708 2006 BJ ₂₁₈	17.8	X	287.04276	148.56185	87.61313	1.85166	0.1669415	0.27764550	2.3270674	20	1 8.5	21.1
351709 2006 BM ₂₁₈	17.8	X	331.06024	54.15795	117.27089	2.66294	0.1066513	0.27481902	2.3429959	20	—	—
351710 2006 BF ₂₂₂	17.7	X	264.47200	37.06376	161.37106	1.39589	0.1336869	0.26559552	2.3969311	20	—	—
351711 2006 BY ₂₂₂	17.9	X	321.46630	267.12202	292.13472	0.69942	0.1288849	0.27664432	2.3326784	20	1 6.9	20.6
351712 2006 BE ₂₂₄	15.0	X	355.11696	261.03982	158.12214	5.67472	0.2096457	0.12441249	3.9739897	20	12 22.8	19.6
351713 2006 BC ₂₂₆	17.4	X	52.71339	285.45032	150.09802	8.10767	0.1896558	0.27562985	2.3383986	20	—	—
351714 2006 BT ₂₂₆	16.8	X	32.08869	94.56539	109.52545	7.87167	0.1424639	0.28841470	2.2687734	20	5 27.3	18.8
351715 2006 BC ₂₃₀	17.0	X	237.39982	170.14432	87.59088	4.72246	0.1109425	0.27344206	2.3508550	20	—	—
351716 2006 BM ₂₄₂	17.6	X	325.64361	92.38902	100.26128	3.13971	0.1232897	0.27657591	2.3330631	20	1 4.7	20.2
351717 2006 BC ₂₄₅	17.7	X	227.22065	193.48465	18.48465	2.54633	0.1193685	0.26082595	2.4260636	20	—	—
351718 2006 BA ₂₄₉	17.4	X	355.83654	95.11165	338.42109	6.18696	0.1132932	0.26285350	2.4135717	20	—	—
351719 2006 BG ₂₆₀	17.7	X	336.24422	53.31197	135.29967	4.86958	0.1139392	0.27681291	2.3317312	20	1 15.6	20.2
351720 2006 BY ₂₆₁	17.7	X	37.30767	0.13547	131.42259	4.66154	0.1242064	0.28005322	2.3137104	20	2 9.0	19.7
351721 2006 BR ₂₆₄	18.0	X	18.88411	338.38224	112.38192	2.20407	0.1574632	0.26968361	2.3726464	20	—	—
351722 2006 BV ₂₆₈	16.5	X	259.99281	9.06092	54.24528	11.62229	0.1542605	0.24468915	2.5315873	20	8 23.8	20.0
351723 2006 BS ₂₇₄	17.0	X	297.00658	257.88830	332.00083	8.03312	0.1748829	0.27587664	2.3370038	20	1 11.9	20.4
351724 2006 BB ₂₇₆	17.7	X	82.87442	353.10846	29.20252	1.96624	0.1879311	0.27315695	2.3524905	20	—	—
351725 2006 BE ₂₈₁	17.2	X	82.83588	54.26613	328.60175	4.78718	0.2457231	0.27144029	2.3623986	20	—	—
351726 2006 CV ₅	18.3	X	302.36625	25.10560	191.04899	1.80148	0.1386405	0.27587423	2.3701715	20	1 3.5	21.2
351727 2006 CF ₂₅	18.5	X	68.34176	62.59121	338.16854	1.43804	0.2088533	0.27514082	2.3411686	20	—	—
351728 2006 CH ₃₇	17.5	X	91.57129	136.55903	341.88829	4.12969	0.0886773	0.28901301	2.2656411	20	4 15.6	20.1
351729 2006 CC ₄₀	17.8	X	48.55653	45.56197	21.53738	2.36641	0.2033094	0.27226987	2.3575975	20	—	—
351730 2006 CV ₄₅	17.8	X	217.54572	320.17584	329.59752	5.49822	0.0515739	0.27779389	2.3262386	20	1 9.7	21.0
351731 2006 CN ₄₉	17.8	X	7.20812	325.90167	142.17795	5.71558	0.1859850	0.27256561	2.3558918	20	—	—
351732 2006 CL ₆₁	17.2	X	351.88314	175.28714	348.97704	9.82014	0.1630707	0.27868426	2.3212812	20	—	—
351733 2006 CP ₆₇	15.0	X	3.96192	3.68869	43.05235	3.39479	0.2296440	0.12395622	3.9837354	20	12 25.2	19.7
351734 2006 DT ₃	17.8	X	358.67829	117.31944	34.15266	1.67274	0.1539133	0.27530706	2.3402261	20	—	—
351735 2006 DW ₅	17.7	X	310.16109	73.47942	85.36749	3.86283	0.1713946	0.26735999	2.3863736	20	—	—
351736 2006 DC ₁₀	17.0	X	31.08762	352.18126	124.87268	7.23178	0.0779629	0.27477815	2.3432282	20	1 8.1	19.4
351737 2006 DL ₁₀	17.3	X	346.50194	70.27618	123.14719	6.30956	0.1054903	0.27992012	2.3144438	20	2 9.4	19.7
351738 2006 DD ₂₃	17.1	X	16.79407	30.46306	148.92915	8.53746	0.0392564	0.28254859	2.3000677	20	3 16.1	19.6
351739 2006 DY ₄₂	18.1	X	19.77656	88.26955	0.43903	1.25676	0.1487530	0.27007155	2.3703737	20	—	—
351740 2006 DH ₅₁	17.7	X	297.48107	111.30371	125.46010	3.09419	0.1037540	0.27991656	2.3144634	20	1 29.1	20.7
351741 2006 DO ₅₁	17.8	X	90.44839	269.35690	137.10416	6.56755	0.1815769	0.27889494	2.3201121	20	1 19.5	20.1
351742 2006 DD ₆₈	17.4	X	112.13403	295.80956	18.27172	22.68621	0.0261937	0.39518926	1.8390744	20	—	—
351743 2006 DB ₇₄	16.7	X	250.51969	250.29081	345.69681	6.61667	0.0671667	0.26750661	2.3855016	20	—	—
351744 2006 DK ₈₄	17.9	X	326.96393	324.46480	204.86743	2.05602	0.1282683	0.27062437	2.3671446	20	—	—
351745 2006 DV ₁₀₇	17.6	X	258.49761	58.74616	182.26732	2.97034	0.1326374	0.26746200	2.3857668	20	—	—
351746 2006 DV ₁₀₈	17.5	X	240.58446	322.85115	269.89593	1.56338	0.1717124	0.26235699	2.4166159	20	—	—
351747 2006 DH ₁₁₂	16.9	X	294.40657	230.24305	328.95903	6.93779	0.0580256	0.27022510	2.3694757	20	—	—
351748 2006 DL ₁₁₆	17.5	X	19.55650	86.89372	24.78920	5.01843	0.1339975	0.26993412	2.3711782	20	—	—
351749 2006 DS ₁₂₀	17.2	X	356.53244	138.62423	49.39741	5.72356	0.2077751	0.28156665	2.3054121	20	2 6.4	19.1
351750 2006 DH ₁₂₅	18.1	X	43.44473	196.20971	229.06130	1.55980	0.1628476	0.27128732	2.3632866	20	—	—
351751 2006 DU ₁₂₆	17.3	X	11.29295	270.30240	171.14384	6.40412	0.1420189	0.26737250	2.3862992	20	—	—
351752 2006 DR ₁₃₂	17.9	X	325.86498	91.63278	73.73139	3.30047	0.1410919	0.27025702	2.3692891	20	—	—
351753 2006 DO ₁₄₆	18.0	X	16.15207	183.26960	309.81557	1.58115	0.1196609	0.27411644	2.3469977	20	1 3.1	20.0
351754 2006 DH ₁₄₉	18.3	X	23.64927	121.28361	337.74025	2.74448	0.1495091	0.27001144	2.3707255	20	—	—
351755 2006 DZ ₁₅₆	17.6	X	351.14112	36.47574	129.21393	3.10654	0.1238699	0.27481662	2.3430095	20	1 5	

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351761 2006 <i>DM</i> ₁₉₆	16.6	X	245.05141	136.29407	81.73446	8.19092	0.1144319	0.26181874	2.4199268	20	—	—
351762 2006 <i>DB</i> ₂₀₂	18.2	X	8.11576	97.44946	54.95424	3.25826	0.1462055	0.27774711	2.3264998	20	1 13.5	20.2
351763 2006 <i>DS</i> ₂₀₈	16.9	X	355.53564	273.17212	336.65670	6.98830	0.1070501	0.28709030	2.2757456	20	5 19.2	19.2
351764 2006 <i>DJ</i> ₂₁₁	17.4	X	11.81343	27.29243	163.85359	1.98301	0.1486447	0.28100017	2.3085094	20	3 20.6	19.3
351765 2006 <i>DN</i> ₂₁₁	17.2	X	255.89975	349.44617	177.19278	6.45286	0.0878205	0.25556105	2.4592704	20	—	—
351766 2006 <i>EM</i> ₃	17.9	X	35.25613	46.16215	22.38426	2.34231	0.1720331	0.26944616	2.3740401	20	—	—
351767 2006 <i>EK</i> ₅	17.1	X	9.15582	50.03065	147.40061	7.06845	0.0685084	0.28416649	2.2913291	20	3 29.9	19.5
351768 2006 <i>EA</i> ₂₁	17.4	X	78.93250	61.37013	345.16043	8.35793	0.2071493	0.27484247	2.3428626	20	1 5.7	19.5
351769 2006 <i>EF</i> ₅₂	17.2	X	330.45566	340.83004	182.04984	5.89159	0.1710722	0.26960480	2.3731087	20	—	—
351770 2006 <i>ER</i> ₅₅	17.4	X	280.40093	30.72897	187.14805	4.31302	0.1508506	0.26896143	2.3768916	20	—	—
351771 2006 <i>EX</i> ₅₅	17.9	X	298.84753	322.17466	254.48000	1.79466	0.1292236	0.27235795	2.3570891	20	1 1.9	21.2
351772 2006 <i>EC</i> ₆₉	17.8	X	288.99715	251.74804	302.72741	0.73528	0.1221902	0.26737186	2.3863030	20	—	—
351773 2006 <i>FV</i> ₁₃	17.8	X	356.41379	54.14241	50.04765	3.32492	0.1384087	0.26265503	2.4147874	20	—	—
351774 2006 <i>FE</i> ₄₁	17.6	X	269.93789	162.34236	57.07654	2.30735	0.1309061	0.26363112	2.4088232	20	—	—
351775 2006 <i>GW</i> ₇	17.7	X	289.68245	93.26202	91.16627	3.16900	0.1447299	0.26347599	2.4097687	20	—	—
351776 2006 <i>GH</i> ₂₄	17.6	X	355.78352	23.15238	87.22064	1.91612	0.1061472	0.26196315	2.4190374	20	—	—
351777 2006 <i>EC</i> ₂₉	17.1	X	330.40449	98.48948	81.28224	6.77909	0.0901311	0.25960585	2.4336590	20	—	—
351778 2006 <i>GQ</i> ₄₄	17.7	X	241.48405	106.20047	84.26571	4.25573	0.1376007	0.25324217	2.4742602	20	—	—
351779 2006 <i>GH</i> ₄₆	16.3	X	346.62757	288.63091	58.85115	12.84871	0.1975313	0.22752283	2.6573743	20	10 10.4	18.9
351780 2006 <i>HN</i>	17.4	X	221.59785	201.93932	61.45148	4.47330	0.2887731	0.25945982	2.4345721	20	—	—
351781 2006 <i>HW</i>	17.0	X	318.09576	334.21779	167.81115	6.22105	0.0759529	0.25891774	2.4379690	20	—	—
351782 2006 <i>HX</i>	17.4	X	277.26179	122.35998	119.80950	3.99204	0.1912235	0.26724493	2.3870585	20	1 4.9	20.9
351783 2006 <i>HU</i> ₁	17.1	X	249.62745	168.11036	74.99889	5.73861	0.2267044	0.26233248	2.4167664	20	—	—
351784 2006 <i>HZ</i> ₁₁	16.3	X	207.09211	280.62536	85.70485	7.59563	0.0684242	0.20874421	2.8144471	20	4 14.2	20.5
351785 Reguly	17.9	X	194.37111	239.06877	24.75544	1.99587	0.1787653	0.25423346	2.4678243	20	—	—
351786 2006 <i>HT</i> ₂₇	16.9	X	354.90747	353.20928	105.62076	8.74171	0.0851813	0.25507734	2.4623784	20	—	—
351787 2006 <i>HP</i> ₃₁	16.7	X	286.35506	126.20050	84.80279	5.87709	0.1484050	0.26448632	2.4036279	20	—	—
351788 2006 <i>HB</i> ₃₄	17.5	X	131.48031	105.21652	135.92176	0.38369	0.0803214	0.23972026	2.5664505	20	11 16.7	21.4
351789 2006 <i>HB</i> ₄₃	17.3	X	334.80481	158.95060	338.37066	1.07267	0.1406921	0.26108868	2.4244358	20	—	—
351790 2006 <i>HW</i> ₄₆	17.0	X	131.94144	144.44994	93.12263	3.85850	0.0930528	0.23921748	2.5700453	20	11 13.7	20.8
351791 2006 <i>HB</i> ₅₂	16.4	X	354.10531	236.28864	84.19471	6.38845	0.1759518	0.22379679	2.6867885	20	9 9.9	19.1
351792 2006 <i>HP</i> ₅₃	17.4	X	256.44889	191.72337	53.36713	6.19596	0.2020787	0.26329568	2.4108687	20	—	—
351793 2006 <i>HP</i> ₇₂	16.9	X	174.00770	128.27941	129.71566	5.32977	0.0485501	0.23908539	2.5709918	20	11 16.6	20.6
351794 2006 <i>HH</i> ₇₄	16.5	X	333.74525	285.49339	60.07583	14.46097	0.1762845	0.22454609	2.6808080	20	9 9.6	19.5
351795 2006 <i>HH</i> ₈₄	16.4	X	6.17816	270.09333	76.09400	13.56772	0.0680746	0.23174691	2.6249845	20	10 30.5	19.8
351796 2006 <i>HT</i> ₁₄₄	17.2	X	23.50736	37.25073	32.50332	8.80143	0.1982585	0.26307648	2.4122077	20	—	—
351797 2006 <i>JV</i> ₂₃	17.8	X	305.29155	253.35285	308.73250	1.63736	0.1333919	0.26607989	2.3940213	20	—	—
351798 2006 <i>JZ</i> ₄₂	17.1	X	297.95730	128.27941	70.88553	6.88981	0.1591329	0.26405319	2.4062557	20	—	—
351799 2006 <i>JT</i> ₄₅	15.7	X	122.74166	330.89741	264.88871	16.94922	0.0977646	0.22630642	2.6668881	20	10 25.9	20.1
351800 2006 <i>JG</i> ₅₆	16.2	X	136.56692	140.90625	115.33795	15.52023	0.0642909	0.24364293	2.5388294	20	12 13.6	20.0
351801 2006 <i>KG</i> ₂₃	16.2	X	151.35401	268.92941	352.97113	12.81373	0.1821072	0.24427330	2.5344596	20	12 31.6	20.6
351802 2006 <i>KG</i> ₂₉	16.8	X	314.79422	80.60699	59.45019	7.07923	0.0881597	0.25545752	2.4599348	20	—	—
351803 2006 <i>KG</i> ₄₅	16.3	X	350.46715	323.62227	124.60165	15.26163	0.0657678	0.25365311	2.4715871	20	—	—
351804 2006 <i>KD</i> ₄₆	17.1	X	225.61469	135.53747	92.93015	3.49594	0.1364631	0.25345660	2.4728645	20	—	—
351805 2006 <i>KF</i> ₅₇	17.4	X	165.88478	156.25590	113.02520	5.41831	0.1093914	0.24776961	2.5105605	20	—	—
351806 2006 <i>KP</i> ₆₈	16.4	X	357.34440	271.29809	57.21603	12.51424	0.2414653	0.22248357	2.6973507	20	10 9.2	19.0
351807 2006 <i>KH</i> ₇₄	16.9	X	203.69398	10.31449	133.12676	8.38054	0.0195131	0.23129341	2.6284146	20	10 12.4	20.5
351808 2006 <i>KU</i> ₈₆	15.3	X	101.83621	342.26048	289.20335	24.92935	0.1911565	0.22688926	2.6623190	20	11 26.8	20.1
351809 2006 <i>KN</i> ₉₆	16.4	X	81.49981	145.88460	138.43929	14.52986	0.0846054	0.22672651	2.6635929	20	11 18.5	20.5
351810 2006 <i>KD</i> ₁₄₁	17.7	X	270.74317	305.23159	264.87660	0.44886	0.1303579	0.25873520	2.4391155	20	—	—
351811 2006 <i>LM</i> ₄	16.1	X	159.99454	156.03840	114.07662	15.99402	0.1781839	0.24066048	2.5597616	20	—	—
351812 2006 <i>LZ</i> ₇	15.6	X	133.48067	224.26193	44.46670	14.68006	0.2145215	0.23647268	2.5898945	20	12 20.5	20.2
351813 2006 <i>MW</i> ₁₂	16.5	X	139.05405	163.12622	131.28792	14.35171	0.2740751	0.24291534	2.5438964	20	—	—
351814 2006 <i>OK</i> ₇	16.0	X	47.19946	6.15633	314.44804	11.07072	0.1851193	0.22297908	2.6933531	20	11 30.4	20.0
351815 2006 <i>OF</i> ₁₅	18.4	X	290.97608	246.18171	122.51277	23.18745	0.3543747	0.34623409	2.0085817	20	6 18.5	20.7
351816 2006 <i>OZ</i> ₂₁	15.9	X	125.99317	71.29361	12.41664	25.95816	0.2522331	0.17607070	3.1526662	20	4 27.5	21.4
351817 2006 <i>PC</i> ₇	16.5	X	4.66685	320.35625	351.79439	7.36549	0.1772946	0.21440849	2.7646579	20	9 13.7	19.3
351818 2006 <i>PP</i> ₇	16.3	X	145.44622	263.90402	326.18101	8.75351	0.0590043	0.22671178	2.6637083	20	11 12.5	20.4
351819 2006 <i>PH</i> ₁₂	16.7	X	117.40256	349.41873	323.92749	3.92872	0.1551086	0.23535690	2.5980734	20	—	—
351820 2006 <i>PK</i> ₁₂	16.2	X	118.73823	280.54896	327.46407	11.68319	0.0994149	0.22396158	2.6854704	20	11 4.9	20.6
351821 2006 <i>PR</i> ₁₉	16.1	X	210.92436	37.20141	327.98178	22.73528	0.2407136	0.18986421	2.9980623	20	3 27.7	21.7
351822 2006 <i>PG</i> ₂₅	16.0	X	306.38492	295.21735	146.63802	22.41800	0.0416956	0.22609162	2.6685770	20	12 5.8	19.9
351823 2006 <i>PB</i> ₃₂	16.4	X	301.67116	47.67311	322.37604	6.89647	0.2395048	0.20951725	2.8075200	20	7 21.3	19.4
351824 2006 <i>PG</i> ₃₂	16.4	X	325.58250	237.43873	122.67798	6.36255	0.0980413	0.21298266	2.7769830	20	9 8.2	19.6
351825 2006 <i>PS</i> ₃₂	15.6	X	62.96110	258.95352	51.35412	14.56861	0.1055892	0.22324250	2.6912340	20	11 25.6	19.5
351826 2006 <i>PF</i> ₄₀	16.7	X	138.21872	129.05707	143.31080	6.24218	0.1574193	0.23514268	2.5996511	20	12 29.9	20.9
351827 2006 <i>QQ</i> ₂₆	16.2	X	54.84228	317.16949	331.21387	10.67384	0.1259852	0.21806259	2.7336858	20	10 17.2	20.2
351828 2006 <i>QX</i> ₃₀	17.3	X	217.50903	71.20593	156.99838	23.53970	0.0709044	0.38248043	1.8795905	20	—	—
351829 2006 <i>QY</i> ₄₀	17.4	X	136.98788	250.99610	333.10709	17.67598	0.0683684	0.36596150	1.9357345	20	11 19.6	20.2
351830 2006 <i>QY</i> ₄₅	16.3	X	80.50225	266.43150	18.59451	10.67411	0.1919596	0.22367067	2.6877984	20	11 21.5	20.6
351831 2006 <i>QN</i> ₄₉	16.7	X	83.71326	131.29341	163.64626	12.90550	0.2060678	0.22710503	2.6606324	20	12 11.8	21.2
351832 2006 <i>QD</i> ₅₁	16.1	X	337.75340	239.04847	135.81519	16.00526	0.1069043	0.21718458	2.7410485	20	10 25.2	19.6
351833 2006 <i>QV</</i>												

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351841 2006 QB ₁₂₀	15.9	X	204.74967	27.34022	322.71251	15.57020	0.1794303	0.18640000	3.0350938	20	3 12.7	21.1
351842 2006 QF ₁₃₆	15.8	X	80.12723	27.87095	268.19121	8.36278	0.2521765	0.22434726	2.6823917	20	12 11.8	20.2
351843 2006 QQ ₁₃₈	15.9	X	249.87869	248.91572	92.12504	11.97901	0.1553378	0.19357304	2.9596439	20	4 23.7	20.6
351844 2006 QF ₁₃₉	16.4	X	312.39848	198.52074	166.85354	5.68525	0.0855546	0.21186226	2.7867648	20	8 22.5	19.7
351845 2006 QX ₁₅₈	16.9	X	108.98436	291.47223	324.33420	4.25447	0.0683446	0.22040837	2.7142551	20	11 4.8	21.0
351846 2006 QN ₁₈₀	16.5	X	328.58863	48.33032	344.12071	5.33688	0.0304868	0.21855067	2.7296144	20	10 24.8	20.1
351847 2006 RZ ₂	16.4	X	85.28045	274.58312	353.98561	8.02424	0.1788255	0.21993396	2.7181569	20	11 4.2	20.7
351848 2006 RZ ₁₀	16.3	X	34.10978	29.16781	290.26242	4.60966	0.0607781	0.21692998	2.7431928	20	10 23.1	20.0
351849 2006 RO ₂₁	16.5	X	166.53505	63.73382	3.00576	8.15417	0.2859796	0.18373191	3.0644061	20	5 16.1	22.1
351850 2006 RM ₂₂	16.1	X	175.36880	98.95072	245.09951	9.88213	0.2600762	0.17965744	3.1105647	20	2 15.5	21.7
351851 2006 RP ₂₃	16.6	X	164.50002	85.26476	331.96206	21.59603	0.4096924	0.18309203	3.0715417	20	4 29.1	22.9
351852 2006 RC ₂₉	16.5	X	263.64048	110.68585	300.63020	5.85687	0.0636184	0.21019899	2.8014463	20	8 15.5	20.3
351853 2006 RD ₂₉	17.0	X	332.40997	43.50836	302.08780	5.33362	0.0110263	0.21231977	2.7827600	20	8 28.7	20.9
351854 2006 RR ₃₁	16.6	X	58.83228	285.79675	356.54865	5.90256	0.0142106	0.21113123	2.7931937	20	10 1.2	20.3
351855 2006 RA ₃₄	16.6	X	327.50133	51.26962	327.14024	7.35477	0.1897114	0.21198616	2.7856789	20	9 28.8	19.3
351856 2006 RS ₄₁	16.9	X	165.47713	246.11377	185.81588	8.73263	0.2421375	0.18485995	3.0519271	20	5 24.1	22.3
351857 2006 RP ₇₅	16.9	X	157.13710	70.71122	11.11462	7.48454	0.1870035	0.18630505	3.0361249	20	5 24.5	22.0
351858 2006 RO ₉₇	16.6	X	127.36004	263.74422	198.59679	14.62471	0.2883731	0.17976392	3.1093362	20	6 2.0	22.1
351859 2006 RT ₁₀₄	15.9	X	216.82899	150.85214	305.17111	11.71974	0.0698891	0.20565031	2.8426047	20	8 13.2	20.0
351860 2006 RC ₁₂₁	16.7	X	168.93350	72.17896	4.29486	7.57976	0.1503675	0.18627737	3.0364256	20	5 27.4	21.7
351861 2006 SX	16.6	X	151.05030	217.37135	325.91019	3.35925	0.0416892	0.21089496	2.7952795	20	9 20.4	20.5
351862 2006 SZ	16.7	X	208.34606	43.35667	305.13003	1.67049	0.2269429	0.18470013	3.0536874	20	3 17.8	22.0
351863 2006 SZ ₁	16.4	X	188.42291	169.25189	248.04584	8.73438	0.1950385	0.18995906	2.9970642	20	5 22.8	21.3
351864 2006 SP ₂	16.2	X	240.92258	88.21414	335.04411	2.57351	0.0766306	0.20275104	2.8696394	20	7 31.9	20.1
351865 2006 SF ₂₄	16.4	X	151.39824	122.52985	264.44418	8.60615	0.2371947	0.17764535	3.1340084	20	3 16.4	21.9
351866 2006 SA ₂₆	16.3	X	52.26609	342.88316	321.61999	11.75673	0.1793857	0.21812734	2.7331449	20	11 11.9	20.4
351867 2006 SL ₃₂	16.9	X	259.47100	207.16992	181.02300	2.35871	0.1253170	0.19874158	2.9081059	20	7 1.4	20.9
351868 2006 SA ₃₈	17.2	X	223.20562	115.18091	353.79991	19.17069	0.0729313	0.35177748	1.9874248	20	9 26.1	19.3
351869 2006 ST ₄₂	15.9	X	197.96648	302.28053	61.38778	14.62295	0.3383015	0.18121875	3.0926272	20	4 3.1	21.8
351870 2006 SF ₅₀	15.9	X	235.09225	48.58058	299.24349	8.61428	0.1138630	0.19021562	2.9943686	20	4 11.2	20.6
351871 2006 SH ₆₉	16.6	X	175.17383	19.92352	28.10119	2.85208	0.1380428	0.18596552	3.0398193	20	4 29.8	21.6
351872 2006 ST ₇₂	17.1	X	237.19716	91.16599	21.39722	21.36723	0.0550257	0.35333007	1.9815984	20	10 26.5	19.1
351873 2006 SS ₇₇	16.7	X	164.36722	186.06838	329.96946	4.58238	0.0483920	0.20419041	2.8561378	20	9 1.0	20.8
351874 2006 SB ₈₀	16.5	X	4.49143	45.21207	273.13658	3.05625	0.1009133	0.20916816	2.8106429	20	9 11.5	19.8
351875 2006 SK ₈₁	16.5	X	247.49311	156.90023	191.10973	2.77760	0.0404144	0.18931670	3.0038398	20	5 7.9	20.8
351876 2006 SO ₈₄	16.1	X	123.72310	241.73320	185.91743	16.61626	0.1397995	0.17777241	3.1325149	20	4 5.4	20.8
351877 2006 SP ₈₄	17.1	X	259.88577	309.95496	130.34468	1.34048	0.0447640	0.20927654	2.8096724	20	9 22.3	20.8
351878 2006 ST ₉₃	16.7	X	187.42046	340.67528	28.54153	2.91877	0.0727277	0.17902032	3.1179406	20	3 26.5	21.4
351879 2006 ST ₁₁₁	15.3	X	191.52224	272.95139	106.76741	16.69572	0.0913838	0.18438335	3.0571840	20	4 19.6	20.3
351880 2006 SR ₁₃₀	15.4	X	160.18180	80.44583	344.29330	25.11409	0.2722286	0.18191897	3.0847317	20	4 29.2	21.3
351881 2006 SH ₁₃₉	16.4	X	222.34798	273.10897	111.11004	7.60753	0.2227007	0.18958489	3.0010063	20	5 12.6	21.5
351882 2006 SQ ₁₃₉	16.4	X	39.42417	247.87329	45.87389	9.56486	0.2676395	0.21490255	2.7604190	20	10 30.8	19.9
351883 2006 SJ ₁₄₇	16.7	X	241.05811	133.59169	270.86228	0.96686	0.0704898	0.19762434	2.9190560	20	7 7.6	20.9
351884 2006 ST ₁₅₁	16.7	X	224.56693	83.85901	316.85991	0.96394	0.0945389	0.19269703	2.9686070	20	6 10.8	21.0
351885 2006 SA ₁₆₄	17.6	X	260.87131	172.68944	322.43794	16.89954	0.0630393	0.36948524	1.9234076	20	—	—
351886 2006 SO ₁₈₉	16.6	X	163.42381	237.44449	175.07184	13.04831	0.0615225	0.18457529	3.0550642	20	4 23.8	21.2
351887 2006 SO ₁₉₄	16.6	X	165.13783	233.01225	358.93782	11.93149	0.2596283	0.22803791	2.6533712	20	11 27.8	21.4
351888 2006 SQ ₂₀₂	16.8	X	239.17601	222.34793	204.95546	1.41024	0.0460864	0.20263646	2.8707211	20	8 7.3	20.9
351889 2006 SA ₂₁₁	16.6	X	338.23247	13.58094	357.12434	5.23129	0.0697798	0.21326546	2.7745275	20	10 10.5	19.9
351890 2006 SU ₂₁₆	16.3	X	122.58477	270.96074	180.56884	11.13061	0.0397620	0.18301209	3.0724361	20	4 22.7	20.7
351891 2006 SZ ₂₁₆	17.0	X	192.96054	13.55204	59.43791	3.39548	0.1074704	0.19027203	2.9937768	20	6 17.1	21.7
351892 2006 SL ₂₂₀	16.4	X	327.28871	72.77878	196.21999	11.06004	0.0568134	0.19057780	2.9905737	20	5 9.8	20.4
351893 2006 SZ ₂₂₃	16.1	X	92.11794	278.32530	208.08176	9.51322	0.0677624	0.17954637	3.1118474	20	5 1.8	20.3
351894 2006 SU ₂₂₉	16.5	X	233.81760	22.66357	353.45080	11.88054	0.0751566	0.19203381	2.9754380	20	5 19.1	21.1
351895 2006 SU ₂₃₀	17.3	X	200.61598	71.27347	346.10910	6.88257	0.0982791	0.19222619	2.9734526	20	6 4.9	22.0
351896 2006 SN ₂₃₇	16.4	X	222.67982	345.42956	18.23966	6.55074	0.0791297	0.18816545	3.0160796	20	4 23.7	20.9
351897 2006 SF ₂₄₁	16.9	X	228.62734	34.85304	51.42141	2.72935	0.0392769	0.20412834	2.8567167	20	8 21.7	20.8
351898 2006 SE ₂₄₂	17.1	X	198.49620	46.90381	53.20055	2.84650	0.0234690	0.20147380	2.8817546	20	8 3.1	21.1
351899 2006 SH ₂₄₉	16.7	X	222.67970	92.71174	334.27070	1.85780	0.0810205	0.19729167	2.9223364	20	7 14.0	20.9
351900 2006 SS ₂₅₂	15.9	X	124.75762	260.80724	198.72103	10.79810	0.1167255	0.18387080	3.0628628	20	5 13.2	20.5
351901 2006 SO ₂₆₁	16.2	X	133.54745	62.71603	27.68296	16.49424	0.2240141	0.17935951	3.1140084	20	5 14.9	21.5
351902 2006 SK ₂₆₂	17.0	X	197.81341	342.65006	62.42123	3.37631	0.0646635	0.18637550	3.0353598	20	5 19.8	21.6
351903 2006 SY ₂₉₁	15.6	X	189.43617	315.92067	81.04211	28.59732	0.1335422	0.18432520	3.0578270	20	5 10.6	20.8
351904 2006 SA ₂₉₂	17.1	X	81.83421	240.79166	60.93140	23.48450	0.0447933	0.36174270	1.9507556	20	—	—
351905 2006 ST ₃₁₀	17.0	X	177.85037	95.50729	341.65231	4.88697	0.1904223	0.18843467	3.0132061	20	6 6.6	22.1
351906 2006 SD ₃₁₇	16.3	X	229.38540	351.47772	32.97586	10.47480	0.0568632	0.19106300	2.9855086	20	5 28.3	20.8
351907 2006 SR ₃₂₄	17.1	X	251.57092	238.71404	173.53888	5.97100	0.0566711	0.20080970	2.8881046	20	7 31.9	21.1
351908 2006 SA ₃₃₂	16.4	X	336.39725	332.77254	336.28487	2.57899	0.1548111	0.19823021	2.9131051	20	7 9.8	19.6
351909 2006 SL ₃₅₄	16.4	X	173.24691	318.19289	49.09109	11.15223	0.2389970	0.17749132	3.1358213	20	3 19.7	21.9
351910 2006 SP ₃₅₅	16.1	X	205.48522	84.28762	353.42362	9.25064	0.0411029	0.19226327	2.9730703	20	7 12.7	20.5
351911 2006 SO ₃₅₆	15.6	X	191.46046	344.02924	37.85540	22.58193	0.0573282	0.18159399	3.0884108	20	4 17.8	20.2
351912 2006 SM ₃₅₇	15.1	X	148.76571	40.57991	39.25853	27.74116	0.1365052	0.18125060	3.0923104	20	5 9.9	20.1
351913 2006 SM ₃₅₈	16.1	X	148.17856	76.03732	344.96875	10.55085						

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	TE	Oppos.	<i>V</i>
351921 2006 SO ₃₈₈	16.9 ^m	X	141.57652	0.06391	127.94493	10.32886	0.0630403	0.19039310	2.9925075	20	6 30.8	21.3
351922 2006 SC ₃₈₉	16.3	X	174.31313	257.05457	109.66547	11.40449	0.1053821	0.17556477	3.1587200	20	3 15.4	21.4
351923 2006 SQ ₃₈₉	15.4	X	176.30266	229.04480	101.29568	13.28837	0.1569607	0.17028914	3.2236267	20	2 3.9	20.7
351924 2006 SK ₄₀₄	16.9	X	280.39962	4.84756	334.75435	2.14279	0.1278161	0.19094220	2.9867677	20	5 24.7	21.0
351925 2006 SO ₄₀₇	16.6	X	302.84270	302.64310	12.99746	5.41476	0.0370314	0.18987128	2.9979878	20	6 5.9	20.7
351926 2006 SH ₄₁₁	17.1	X	155.08373	289.27408	136.38677	1.90248	0.1794893	0.18020545	3.1042553	20	5 5.5	22.2
351927 2006 SO ₄₁₁	16.3	X	230.74805	27.05528	321.43986	16.41604	0.2006157	0.18690453	3.0296293	20	3 29.1	21.6
351928 2006 TN ₄	16.6	X	203.20620	88.08157	277.74990	4.77612	0.2023724	0.18483516	3.0522000	20	4 1.7	21.8
351929 2006 TH ₁₈	16.4	X	226.13628	352.28288	35.02714	18.10742	0.1386339	0.18975019	2.9992632	20	5 19.3	21.3
351930 2006 TM ₂₄	15.7	X	251.55960	101.95880	220.35888	10.87138	0.1208601	0.18453060	3.0555575	20	3 30.1	20.5
351931 2006 TR ₂₅	15.9	X	145.32886	82.76790	31.69520	10.31746	0.0632832	0.18822054	3.0154910	20	6 16.8	20.5
351932 2006 TF ₂₈	16.5	X	283.08394	293.66897	41.41043	11.71470	0.1101404	0.19165174	2.9793913	20	5 23.8	20.6
351933 2006 TV ₃₁	16.9	X	194.60894	267.01059	158.11906	0.92685	0.0395864	0.18933141	3.0036842	20	6 11.5	21.1
351934 2006 TS ₃₃	16.6	X	160.15606	68.32563	33.38716	5.27541	0.1165491	0.18778053	3.0201998	20	6 19.8	21.5
351935 2006 TD ₃₅	16.6	X	346.51091	311.44463	351.76703	2.28271	0.0631922	0.19633126	2.9318590	20	7 22.7	20.2
351936 2006 TQ ₃₅	16.4	X	152.40189	173.25712	226.97173	8.53964	0.0908659	0.17561692	3.1580947	20	3 25.4	21.0
351937 2006 TO ₃₆	16.2	X	147.36111	59.30646	33.70665	10.27546	0.1056715	0.18283275	3.0744450	20	5 24.9	21.3
351938 2006 TA ₃₇	16.2	X	119.92893	54.62031	35.66621	10.77769	0.0721910	0.17740495	3.1368389	20	4 20.8	20.8
351939 2006 TW ₄₃	16.5	X	190.04322	338.95461	49.25079	2.37946	0.1822060	0.18102643	3.0948627	20	4 20.3	21.8
351940 2006 TC ₄₄	15.7	X	12.04758	194.64277	46.35596	12.87323	0.0963902	0.18694495	3.0291926	20	6 6.3	19.5
351941 2006 TN ₅₁	15.9	X	147.14381	226.24186	216.71062	10.28792	0.1198488	0.17943714	3.1131102	20	5 15.6	20.7
351942 2006 TE ₅₈	15.4	X	124.68877	45.21538	27.40819	26.98065	0.1836545	0.17446710	3.1719550	20	4 16.4	20.3
351943 2006 TB ₆₁	16.3	X	202.97280	152.26227	196.91328	13.86604	0.1531849	0.18118229	3.0930876	20	3 14.7	21.4
351944 2006 TF ₇₂	16.3	X	203.10332	65.92669	342.17086	10.28601	0.1570311	0.18779968	3.0199945	20	5 22.8	21.4
351945 2006 TQ ₇₄	15.7	X	196.26967	70.28279	259.17782	15.02432	0.2353024	0.17629338	3.1500108	20	2 11.5	21.4
351946 2006 TO ₈₀	16.2	X	265.44912	83.45073	272.56857	5.38561	0.1723457	0.19237611	2.9719075	20	5 21.1	20.5
351947 2006 TC ₈₁	16.4	X	191.60505	49.79409	10.95639	8.58739	0.0334410	0.18733151	3.0250240	20	5 31.6	20.9
351948 2006 TW ₈₁	15.5	X	263.15197	63.16521	228.80767	14.85874	0.0348014	0.17715206	3.1398235	20	3 13.9	20.2
351949 2006 TU ₈₄	16.0	X	199.78308	136.93493	246.59904	8.09507	0.0815288	0.18237858	3.0795470	20	4 23.2	20.7
351950 2006 TE ₈₅	16.2	X	133.67757	211.60916	250.32551	6.58598	0.1827622	0.18036244	3.1024538	20	5 29.6	21.2
351951 2006 TQ ₈₅	16.5	X	217.74744	0.80597	10.28783	6.77873	0.2086354	0.18503476	3.0500047	20	4 20.4	21.8
351952 2006 TU ₈₅	16.0	X	157.10358	122.88718	261.18839	5.32067	0.1331992	0.17398365	3.1778283	20	3 13.7	21.0
351953 2006 TA ₈₈	16.3	X	143.89008	60.80487	30.31199	10.27566	0.0616200	0.18235043	3.0798639	20	5 15.5	20.9
351954 2006 TK ₈₈	16.6	X	227.49018	6.91306	19.33702	9.00176	0.0561048	0.18785394	3.0194129	20	5 28.4	21.1
351955 2006 TC ₉₅	16.0	X	181.08199	201.83768	210.74690	12.40236	0.0802173	0.18456373	3.0551918	20	5 11.7	20.6
351956 2006 TJ ₉₉	15.8	X	169.09473	16.08566	32.74879	15.22534	0.2224402	0.18134976	3.0911831	20	4 27.1	21.1
351957 2006 TO ₁₀₂	15.9	X	105.28513	119.95235	25.90562	10.36637	0.0542357	0.18655633	3.0333979	20	6 7.8	20.4
351958 2006 TB ₁₁₃	16.2	X	278.15046	241.32360	117.34003	11.23359	0.1370137	0.19491999	2.9459936	20	6 15.9	20.3
351959 2006 TH ₁₁₃	16.5	X	160.75252	340.71467	131.20668	12.34230	0.0735996	0.18969043	2.9998930	20	7 2.4	21.1
351960 2006 TZ ₁₁₄	16.5	X	220.25045	265.89391	124.10011	10.38876	0.0912243	0.18824065	3.0152763	20	5 26.4	21.2
351961 2006 TO ₁₁₇	15.2	X	183.15656	302.58779	68.62634	17.53396	0.0963062	0.17829960	3.1263371	20	4 2.7	20.3
351962 2006 TV ₁₂₂	16.3	X	94.18867	121.23381	46.74711	5.74391	0.0886660	0.18583514	3.0412409	20	6 29.0	20.7
351963 2006 TQ ₁₂₈	17.0	X	214.92970	343.05466	53.47071	4.23160	0.1060574	0.18983486	2.9983713	20	5 25.1	21.6
351964 2006 TG ₁₂₉	16.9	X	185.63366	65.92222	345.08357	16.28329	0.2868126	0.18555562	3.0442944	20	5 6.5	22.7
351965 2006 UV ₂	16.7	X	98.78737	340.73301	139.30976	1.65810	0.1576370	0.17772707	3.1330476	20	5 14.2	21.2
351966 2006 UC ₇	16.6	X	220.41047	264.07272	101.89674	3.29227	0.2725036	0.18586316	3.0409352	20	4 16.4	21.9
351967 2006 UK ₇	15.8	X	145.66933	352.90517	57.94718	10.12004	0.0840856	0.17590507	3.1546448	20	4 6.1	20.6
351968 2006 UA ₁₃	16.6	X	144.85089	266.30258	200.29946	10.25748	0.1764961	0.18319289	3.0704142	20	6 14.1	21.7
351969 2006 UR ₁₄	16.0	X	115.49514	56.01130	60.00051	10.31301	0.0202486	0.18173395	3.0868250	20	5 11.2	20.2
351970 2006 UT ₁₉	16.6	X	168.87477	94.04874	290.43040	2.08812	0.2000127	0.17834881	3.1257620	20	3 28.8	21.9
351971 2006 UE ₂₈	16.8	X	197.85985	195.44594	214.95547	1.18190	0.0861559	0.18756193	3.0225461	20	5 25.9	21.4
351972 2006 UG ₃₀	15.1	X	8.42681	178.05090	27.90919	22.37960	0.1429856	0.18114753	3.0934833	20	4 15.6	18.5
351973 2006 UD ₄₅	16.0	X	158.25570	125.68623	220.97769	9.45563	0.1071023	0.18109952	3.0940300	20	5 18.2	20.8
351974 2006 UH ₅₆	15.8	X	157.97100	132.01962	319.48792	9.32954	0.0599435	0.19321451	2.9633041	20	6 1.5	20.3
351975 2006 UR ₅₉	16.4	X	210.77351	40.48569	332.27818	5.87998	0.2325094	0.18508298	3.0494749	20	4 14.8	21.7
351976 2006 UP ₆₄	16.3	X	156.80320	158.64106	292.42717	6.61661	0.1693414	0.18642552	3.0348168	20	6 5.2	21.3
351977 2006 UB ₇₀	17.7	X	257.70983	31.96807	20.19590	4.54343	0.1075388	0.27120321	2.3637752	20	8 10.9	20.5
351978 2006 UZ ₈₃	16.8	X	147.97000	114.87858	345.97600	4.04156	0.1015331	0.18427842	3.0583444	20	6 5.2	21.5
351979 2006 UC ₈₅	16.4	X	294.27660	93.36958	245.65157	2.13681	0.1923962	0.19336561	2.9617602	20	6 2.4	20.1
351980 2006 UG ₉₈	16.5	X	189.70220	49.75592	177.07729	5.53021	0.0361255	0.22092839	2.7099943	20	12 31.7	20.3
351981 2006 UR ₉₈	16.6	X	142.64853	283.33052	184.20796	6.73835	0.2295717	0.18185344	3.0854727	20	6 16.2	21.9
351982 2006 UR ₁₀₀	16.5	X	297.89564	146.16319	189.83028	9.81526	0.0997692	0.19357752	2.9595983	20	6 18.1	20.6
351983 2006 US ₁₀₇	15.6	X	124.14021	341.63174	61.42035	12.79747	0.0778264	0.16907900	3.2389899	20	3 6.9	20.5
351984 2006 UH ₁₂₅	16.6	X	164.37783	159.97490	237.52881	8.73349	0.0856873	0.17859036	3.1229429	20	4 2.8	21.4
351985 2006 UF ₁₃₁	16.1	X	128.23750	261.46758	221.17445	15.85868	0.1875463	0.18343717	3.0676877	20	6 18.2	21.2
351986 2006 UV ₁₃₄	16.1	X	240.46025	115.67556	210.32762	16.01880	0.1793651	0.18238539	3.0794703	20	3 17.9	21.3
351987 2006 UK ₁₃₆	16.1	X	40.02769	330.38293	252.59040	8.73801	0.0293423	0.18863630	3.0110586	20	6 20.2	20.1
351988 2006 UD ₁₅₆	15.7	X	162.78780	242.34941	164.56264	10.08405	0.0390406	0.18246645	3.0785582	20	4 14.9	20.2
351989 2006 UF ₁₇₉	15.9	X	157.85390	317.05106	103.89432	6.05585	0.1591822	0.18043896	3.1015765	20	5 2.9	20.9
351990 2006 UJ ₁₇₉	16.0	X	168.40777	22.49984	78.47305	9.11842	0.1183236	0.18892596	3.0079801	20	6 27.2	20.8
351991 2006 UX ₁₈₃	15.6	X	161.27454	128.59334	278.84611	10.87778	0.1081799	0.18096721	3.0955379	20	4 10.4	20.7
351992 2006 UA ₁₈₈	16.2	X	172.85535	75.25724	292.80814	9.06985	0.2489425	0.17806882	3.1290377	20	3 11.3	21.9
351993 2006 UG ₁₈₈	16.2	X	229.42864	102.27820								