ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292001 2006 QG_{117}	16.7	X	303.83751	176.21682	174.04335	10.35216	0.1839959	0.18973030	2.9994728	21	6 23.5	20.8
292002 2006 QJ_{117}	16.9	X	9.65251	42.49783	264.33859	1.82155	0.2066361	0.26258555	2.4152133	21	9 9.9	18.8
292003 2006 QD_{118}	16.4	X	113.27114	198.99096	140.26531	3.62794	0.1186463	0.21867964	2.7285410	21	—	—
292004 2006 QV_{120}	17.0	X	51.47807	33.52821	287.66874	6.47474	0.1289889	0.27287466	2.3541126	21	11 29.2	20.1
292005 2006 QS_{121}	17.5	X	85.51458	296.36245	64.96744	3.88198	0.2249250	0.28367204	2.2939909	21	—	—
292006 2006 QL_{123}	16.0	X	145.34333	186.97470	213.87737	13.33266	0.2556958	0.22877962	2.6476333	21	3 21.5	20.5
292007 2006 QH_{124}	16.9	X	357.83018	333.79829	296.44113	3.66891	0.1312618	0.25718951	2.4488784	21	6 9.6	19.1
292008 2006 QF_{129}	16.4	X	180.35385	204.03997	141.82401	8.70130	0.1752327	0.23211376	2.6222179	21	2 10.8	20.6
292009 2006 QO_{129}	16.6	X	162.99180	234.30501	10.75756	7.28178	0.2433705	0.28033096	2.3121820	21	12 14.8	20.6
292010 2006 QK_{132}	16.9	X	251.37988	311.39839	344.04289	3.46048	0.2062464	0.23894255	2.5720163	21	2 9.9	21.1
292011 2006 QE_{133}	17.3	X	326.76418	292.33948	70.18102	7.51238	0.1683259	0.26181735	2.4199354	21	9 3.7	19.5
292012 2006 QE_{136}	17.7	X	151.54472	115.76546	199.32563	4.15731	0.1586359	0.29167663	2.2518267	21	—	—
292013 2006 QQ_{136}	16.6	X	186.98015	142.77354	190.51351	14.57758	0.1357786	0.23101975	2.6304899	21	1 27.8	21.0
292014 2006 QH_{144}	17.2	X	117.62556	245.75974	109.60887	5.90403	0.2456569	0.28820932	2.2698511	21	—	—
292015 2006 QH_{145}	16.5	X	266.42002	261.69897	37.67689	0.38326	0.1305721	0.17562785	3.1579637	21	3 13.9	21.3
292016 2006 QU_{145}	17.4	X	163.59426	263.13026	157.83476	4.04429	0.2168455	0.23922868	2.5699651	21	5 1.2	21.7
292017 2006 QH_{147}	17.5	X	255.68589	180.02046	131.61025	1.39958	0.0864485	0.24019548	2.5630643	21	3 14.4	21.2
292018 2006 QG_{149}	15.8	X	174.81071	318.41398	122.60496	3.89369	0.0825162	0.17933471	3.1142955	21	6 2.8	20.6
292019 2006 QP_{149}	15.9	X	121.38386	45.46059	140.25106	4.80982	0.0584686	0.19035792	2.9928761	21	8 12.1	20.3
292020 2006 QP_{150}	17.9	X	242.98002	358.69452	316.45504	2.01251	0.0590220	0.30699975	2.1762596	21	2 23.8	20.7
292021 2006 QE_{152}	16.3	X	27.33020	313.27970	0.75493	1.73772	0.0428257	0.20023495	2.8936287	21	9 24.3	19.9
292022 2006 QG_{152}	16.7	X	299.76714	349.29044	130.44078	0.61418	0.0207512	0.21419415	2.7665019	21	12 28.1	20.4
292023 2006 QL_{155}	16.6	X	171.87298	30.84088	319.47699	12.50214	0.1819181	0.23121102	2.6290390	21	2 9.0	20.7
292024 2006 QZ_{155}	17.8	X	91.46147	205.79052	173.45345	1.81990	0.1578453	0.28837094	2.2690029	21	—	—
292025 2006 QB_{156}	15.9	X	68.10033	12.17912	154.06146	13.67279	0.0619591	0.18118728	3.0930308	21	5 15.5	20.3
292026 2006 QV_{160}	17.7	X	51.72722	351.71407	259.45313	0.96495	0.1183361	0.26007455	2.4307342	21	8 20.7	20.5
292027 2006 QP_{161}	16.1	X	217.50720	290.57279	174.85635	0.66171	0.0113410	0.19246930	2.9709481	21	8 24.9	20.1
292028 2006 QT_{162}	17.4	X	320.03252	141.29267	205.65344	5.90676	0.1573005	0.25836565	2.4414408	21	7 19.9	19.9
292029 2006 QM_{165}	16.6	X	223.13959	8.08612	267.05629	3.53328	0.1333049	0.23011020	2.6374170	21	—	—
292030 2006 QN_{165}	16.0	X	325.25333	200.55534	268.36648	3.59711	0.0462761	0.21488272	2.7605888	21	—	—
292031 2006 QR_{165}	15.9	X	337.17662	95.79986	196.72071	9.76997	0.0624837	0.18598669	3.0395886	21	6 13.5	20.0
292032 2006 QN_{168}	16.4	X	76.80152	275.57759	62.47050	5.68821	0.0850460	0.21215081	2.7842373	21	—	—
292033 2006 QO_{168}	17.1	X	333.09790	221.57654	135.00928	8.47526	0.2301025	0.26190078	2.4194214	21	9 1.2	18.6
292034 2006 QQ_{168}	15.6	X	223.08038	339.20411	21.77796	14.57720	0.2035328	0.17622217	3.1508593	21	4 10.2	20.8
292035 2006 QS_{168}	16.6	X	276.34283	213.58907	68.71661	6.43222	0.2098465	0.24235623	2.5478074	21	2 17.5	20.6
292036 2006 QR_{169}	15.2	X	296.98977	6.34750	320.90945	15.01623	0.0712870	0.18461364	3.0546411	21	5 29.3	19.7
292037 2006 QN_{176}	17.1	X	164.51684	205.62284	217.27414	9.21273	0.1858777	0.23867863	2.5739120	21	5 1.7	21.2
292038 2006 QU_{178}	15.9	X	25.90562	157.52283	2.19357	4.72469	0.0947251	0.17045295	3.2215611	21	3 7.7	19.8
292039 2006 QP_{182}	16.2	X	11.00610	104.10042	164.07048	10.53971	0.0393038	0.18490766	3.0514021	21	6 30.9	20.4
292040 2006 QW_{182}	16.4	X	136.74216	322.68552	334.63886	1.11628	0.0573093	0.21711667	2.7416201	21	—	—
292041 2006 QL_{183}	17.6	X	202.92108	205.60306	182.86248	2.29621	0.1441991	0.24208979	2.5496764	21	4 23.1	21.6
292042 2006 QM_{183}	16.6	X	17.14968	87.93546	214.61318	1.40153	0.0952893	0.19465817	2.9486346	21	8 29.1	20.2
292043 2006 QN_{183}	17.1	X	237.89215	249.28320	90.43806	2.35285	0.2351766	0.23924449	2.5698518	21	3 22.7	21.4
292044 2006 QX_{184}	16.1	X	290.19342	11.96253	357.73212	9.27245	0.0498319	0.19002554	2.9963651	21	7 22.9	20.3
292045 2006 QY_{184}	16.2	X	216.96780	43.95136	58.13069	1.27566	0.0915167	0.18995479	2.9971091	21	8 12.9	20.8
292046 2006 QM_{185}	17.3	X	150.59245	219.17319	166.84075	4.75114	0.1278118	0.23174626	2.6249895	21	2 26.9	21.0
292047 2006 QZ_{185}	17.3	X	113.74237	50.94537	210.65879	1.68044	0.1818683	0.27453604	2.3446057	21	11 24.9	20.9
292048 2006 QE_{187}	17.2	X	183.96436	169.91719	188.39119	5.63120	0.1394886	0.23476549	2.6024349	21	2 25.7	21.2
292049 2006 QF_{187}	17.1	X	316.31789	258.25584	193.74094	6.71110	0.0665502	0.27580247	2.3374228	21	12 29.4	19.7
292050 2006 RX_1	16.5	X	98.89569	227.24960	124.17715	6.73201	0.1921124	0.28259447	2.2998188	21	—	—
292051 Bohlender	15.9	X	334.70984	246.56588	103.67508	11.87096	0.1406007	0.19099655	2.9862010	21	8 25.6	19.4
292052 2006 RC_4	17.6	X	293.01672	208.02236	167.60689	3.08832	0.2164076	0.25658025	2.4527535	21	7 6.1	20.3
292053 2006 RG_5	16.1	X	50.07984	63.57905	320.54455	12.34457	0.2076926	0.21236068	2.7824026	21	—	—
292054 2006 RN_5	16.5	X	210.39741	221.24689	86.39229	4.87395	0.1607616	0.23251741	2.6191823	21	1 22.8	20.8
292055 2006 RE_6	15.3	X	232.04871	211.63593	191.45078	11.98745	0.0229737	0.18164856	3.0877922	21	6 22.0	19.9
292056 2006 RZ_6	17.3	X	169.46244	25.42772	7.96905	6.13882	0.1180817	0.30097232	2.2052187	21	3 20.1	20.2
292057 2006 RF_8	17.5	X	52.83905	115.39209	291.73189	3.97329	0.2171371	0.28284922	2.2984376	21	—	—
292058 2006 RL_8	16.7	X	134.97968	216.16350	165.20966	8.12540	0.1131203	0.22915356	2.6447522	21	2 1.5	20.5
292059 2006 RR_9	15.5	X	237.27585	248.72553	175.47839	10.01257	0.0949501	0.18777441	3.0202655	21	7 16.2	20.1
292060 2006 RD_{10}	16.1	X	138.11223	145.59931	171.02806	7.54173	0.1441465	0.21944236	2.7222149	21	—	—
292061 2006 RF_{10}	15.6	X	242.81375	229.19087	176.57982	10.54992	0.1384817	0.18428689	3.0582508	21	6 25.6	20.4
292062 2006 RW_{10}	17.6	X	136.92109	61.51962	246.24000	4.85138	0.1848921	0.28607006	2.2811531	21	—	—
292063 2006 RB_{12}	16.9	X	203.37402	350.91292	331.66198	2.60358	0.1837503	0.23265130	2.6181774	21	2 3.4	21.3
292064 2006 RS_{12}	17.1	X	324.48081	64.09657	231.01651	6.52323	0.1710540	0.25441905	2.4666241	21	5 8.3	19.5
292065 2006 RS_{13}	17.3	X	275.18391	305.40808	229.93033	7.63077	0.1466744	0.28870009	2.2672780	21	—	—
292066 2006 RE_{15}	17.3	X	289.32193	319.01019	240.38107	8.57294	0.0971151	0.29477476	2.2360209	21	—	—
292067 2006 RF_{16}	17.1	X	0.77865	118.38595	228.14140	8.03597	0.1403737	0.26473809	2.4021037	21	10 15.7	19.4
292068 2006 RP_{16}	16.7	X	215.34330	152.46584	150.84803	4.36866	0.1935219	0.23344295	2.6122548	21	1 20.8	21.1
292069 2006 RP_{17}	16.0	X	42.01613	321.28395	56.87809	5.22533	0.2628766	0.20979009	2.8050853	21	—	—
292070 2006 RH_{18}	17.5	X	41.61671	204.77721	173.54409	3.67732	0.2364976	0.27566053	2.3382251	21	—	—
292071 2006 RP_{18}	17.7	X	273.07106	109.55667	205.16179	4.34716	0.2207335	0.31071204	2.1588907	21	3 14.1	21.0
292072 2006 RX_{18}	16.9	X	314.56398	152.42398	254.49405	5.67015	0.1597126	0.26353956	2.4093811	21	10 11.6	19.2
292073 2006 RW_{20}	16.0	X	120.48386	286.64054	187.47665	9.35398	0.0548596	0.17535482	3.1612408	21	5 13.2	20.6
292074 2006 RB_{21}	16.5	X	78.73623	355.14092	292.03400	1.04857	0.0382860	0.20155450	2.8809853	21	10 26.1	20.4
292075 2006 RL_{21}	16.6	X	131.46736	332.87176	2.42098	7.60723	0.1946997	0.22017495	2.7161731	21	—	—
292076 2006 RN_{21}	15.7	X	240.82912	208.51411	188.09552	10.24619	0.1492856	0.18175146	3.0866268	21	6 11.8	20.6
292077 2006 RC_{24}	17.0	X	78.17268	324.54155	83.59879	7.56656	0.1143920	0.28781233	2.2719379	21	—	—
292078 2006 RF_{26}	17.2	X	132.62840	257.24318	85.03097	6.16414	0.1983688	0.29036899	2.2585822	21	—	—
292079 2006 RN_{26}	17.0	X	144.53529	16.58546	7.50764	4.59444	0.2951717	0.22840577	2.6505215	21	3 7.7	21.3
292080 2006 RA_{33}	17.2	X	293.49941	28.65919	289.06121	1.44381	0.1299612	0.24639470	2.5198913	21	4 30.0	20.4

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292081 2006 RJ_{33}	16.7	X	170.40712	225.43390	169.36936	14.86395	0.1739421	0.23716556	2.5848477	21	4 3.6	20.9
292082 2006 RU_{33}	16.3	X	218.92392	315.68410	330.09085	11.15994	0.1396012	0.23054410	2.6341068	21	1 5.6	20.7
292083 2006 RB_{34}	16.7	X	166.32277	357.05224	342.22815	2.94507	0.1128617	0.22751457	2.6574386	21	1 17.2	20.5
292084 2006 RH_{34}	15.5	X	212.21016	182.70528	170.60478	21.42967	0.1953136	0.17191732	3.2032411	21	3 25.3	20.9
292085 2006 RS_{34}	16.0	X	297.75728	23.55406	343.71820	16.00717	0.1303425	0.18931525	3.0038551	21	7 20.5	20.1
292086 2006 RT_{34}	15.7	X	228.48569	185.29875	195.65217	11.64850	0.1751548	0.17842523	3.1248694	21	5 10.9	20.8
292087 2006 RW_{34}	17.2	X	22.06135	318.78224	53.74596	6.12841	0.1682694	0.27427790	2.3460765	21	—	—
292088 2006 RN_{35}	17.4	X	3.20005	63.50158	195.15097	21.78425	0.0243262	0.38205044	1.8810005	21	5 29.7	19.5
292089 2006 RO_{35}	15.4	X	203.97057	227.65529	208.24834	16.18710	0.1388605	0.18159215	3.0884317	21	6 23.1	20.6
292090 2006 RT_{35}	16.7	X	187.99612	67.52954	286.05556	5.34604	0.1409422	0.23318295	2.6141963	21	2 23.2	20.9
292091 2006 RC_{37}	16.4	X	98.89633	215.03661	158.46360	11.26208	0.1530908	0.22003905	2.7172914	21	—	—
292092 2006 RT_{39}	16.3	X	276.59672	264.71592	112.80377	4.41704	0.1924494	0.18647562	3.0342732	21	6 21.2	20.7
292093 2006 RB_{40}	16.1	X	66.78928	239.14585	136.06548	5.72555	0.1706609	0.21349295	2.7725562	21	—	—
292094 2006 RS_{42}	17.2	X	217.15226	248.90328	36.13515	1.14321	0.0959653	0.22633122	2.6666933	21	1 1.9	21.2
292095 2006 RX_{43}	16.6	X	183.28553	338.00772	21.53665	5.00737	0.0940495	0.23217577	2.6217511	21	2 27.8	20.4
292096 2006 RV_{44}	16.2	X	262.85761	196.97756	184.87129	10.15882	0.0634297	0.18329300	3.0692962	21	6 27.6	20.7
292097 2006 RD_{46}	15.9	X	351.39513	146.82028	161.15927	5.61624	0.0191498	0.18649699	3.0340414	21	7 25.3	20.0
292098 2006 RO_{46}	16.7	X	76.02808	178.07256	177.38227	6.23378	0.0566235	0.21161711	2.7889166	21	—	—
292099 2006 RC_{47}	17.6	X	74.10225	190.36611	129.94862	1.86274	0.1966911	0.27443271	2.3451942	21	12 31.8	21.2
292100 2006 RJ_{48}	15.5	X	226.98711	149.63853	203.03666	13.74444	0.2071885	0.17332355	3.1858917	21	4 2.8	20.9
292101 2006 RV_{49}	17.9	X	23.92751	328.89830	192.80112	2.99371	0.0810683	0.29752206	2.2222347	21	2 5.8	19.9
292102 2006 RE_{50}	17.5	X	277.34060	116.25985	286.69452	0.39590	0.1616496	0.25514960	2.4619135	21	7 31.9	20.5
292103 2006 RM_{50}	16.0	X	142.57429	54.99988	14.56873	4.85965	0.0363755	0.16887263	3.2416282	21	4 10.6	20.6
292104 2006 RS_{50}	17.1	X	184.70087	122.93933	201.56238	1.36696	0.2050240	0.22783267	2.6549645	21	1 22.0	21.5
292105 2006 RD_{53}	17.7	X	67.59659	97.56009	177.25844	1.17858	0.1707684	0.26391772	2.4070790	21	10 24.1	20.7
292106 2006 RP_{54}	16.3	X	3.76938	257.48775	48.35981	2.70371	0.0857191	0.18872078	3.0101599	21	8 12.7	20.1
292107 2006 RY_{54}	15.9	X	236.83427	20.88709	20.07984	9.89166	0.0943552	0.18099356	3.0952374	21	6 17.1	20.7
292108 2006 RP_{55}	17.3	X	305.28924	35.87902	26.21818	2.86473	0.2115491	0.26229302	2.4170088	21	10 11.9	19.3
292109 2006 RJ_{56}	16.0	X	141.21261	56.68646	168.79052	2.23997	0.0253583	0.19871295	2.9083853	21	10 23.5	20.0
292110 2006 RK_{56}	17.5	X	309.95688	39.19897	16.70467	2.31009	0.2071920	0.26258905	2.4151919	21	10 13.1	19.0
292111 2006 RZ_{56}	17.1	X	149.87162	20.99302	25.62494	3.50837	0.0896049	0.23284772	2.6167047	21	3 21.1	20.8
292112 2006 RM_{57}	17.0	X	297.61268	44.58898	236.20874	3.91629	0.0848427	0.24635371	2.5201708	21	3 22.3	20.3
292113 2006 RT_{58}	15.8	X	311.42762	259.65105	15.10759	6.51867	0.0880124	0.17547832	3.1597574	21	4 11.5	20.1
292114 2006 RB_{59}	15.3	X	304.36507	304.65033	1.80095	15.79624	0.2074712	0.18180153	3.0860599	21	4 19.1	19.6
292115 2006 RO_{59}	15.9	X	189.88960	237.22125	191.05334	9.58309	0.0686299	0.17726487	3.1384914	21	6 3.4	20.8
292116 2006 RQ_{59}	16.6	X	139.18488	132.94858	185.90806	3.66708	0.0648321	0.21661489	2.7458523	21	—	—
292117 2006 RR_{60}	16.7	X	99.24197	93.29084	255.63602	2.71092	0.1355592	0.21678607	2.7444067	21	—	—
292118 2006 RR_{63}	16.3	X	161.12529	152.39358	150.20046	18.65525	0.2069733	0.22319804	2.6915914	21	—	—
292119 2006 RX_{63}	16.4	X	170.56710	143.98936	168.67523	8.60594	0.1187374	0.22570803	2.6715997	21	—	—
292120 2006 RO_{64}	16.8	X	56.05752	215.53971	202.58681	8.74844	0.2323290	0.21733707	2.7397663	21	—	—
292121 2006 RN_{66}	17.6	X	254.01341	267.12744	3.10971	6.57218	0.0888845	0.29654300	2.2271233	21	1 9.9	20.7
292122 2006 RP_{67}	16.6	X	107.98993	103.77857	322.81101	21.46918	0.1145868	0.23359872	2.6110935	21	2 22.5	20.1
292123 2006 RA_{68}	16.4	X	346.82030	324.96592	16.29554	1.89239	0.1235334	0.19519971	2.9431785	21	9 2.2	19.8
292124 2006 RJ_{71}	16.5	X	120.76205	81.57920	185.26107	1.75725	0.0300872	0.20519689	2.8467906	21	11 20.4	20.6
292125 2006 RW_{71}	15.9	X	231.45604	175.66773	180.63628	9.51157	0.0849680	0.17528422	3.1620896	21	4 20.5	20.7
292126 2006 RT_{72}	15.9	X	281.04987	336.77959	352.86960	1.16872	0.1560744	0.18111691	3.0938319	21	5 1.6	20.4
292127 2006 RK_{73}	16.7	X	27.48078	239.53020	170.94834	4.00913	0.0989819	0.21217872	2.7839932	21	—	—
292128 2006 RF_{74}	16.2	X	151.29495	349.69308	177.82057	2.22846	0.0224078	0.19048274	2.9915686	21	8 21.4	20.5
292129 2006 RS_{74}	16.3	X	140.56034	10.96407	13.28268	6.03603	0.0265239	0.22932209	2.6434562	21	2 3.6	20.0
292130 2006 RB_{75}	16.8	X	358.58282	238.78740	129.20924	1.06831	0.1538738	0.19993788	2.8964942	21	11 1.5	20.1
292131 2006 RN_{75}	16.3	X	27.91003	32.37349	177.75931	10.37737	0.0433884	0.17663781	3.1459146	21	5 12.9	20.6
292132 2006 RT_{76}	16.7	X	152.22789	331.90391	38.65700	2.23472	0.1084013	0.22904216	2.6456096	21	2 9.1	20.5
292133 2006 RY_{76}	15.9	X	56.71610	100.96423	177.93739	14.62878	0.0861375	0.19614631	2.9337017	21	9 24.7	19.7
292134 2006 RZ_{76}	16.8	X	270.59365	107.21585	176.90164	13.95641	0.1455946	0.23809953	2.5780837	21	2 15.9	20.7
292135 2006 RP_{80}	16.5	X	340.12493	35.80747	170.92606	5.34001	0.1156138	0.23516066	2.5995186	21	2 8.9	19.6
292136 2006 RB_{81}	16.5	X	102.75441	100.07359	172.92189	6.30481	0.0062360	0.20256126	2.8714315	21	11 5.1	20.5
292137 2006 RH_{81}	17.3	X	355.88668	327.19017	5.34724	4.72726	0.2093279	0.26227711	2.4171065	21	9 21.3	19.0
292138 2006 RN_{81}	17.1	X	342.71591	4.17961	5.93913	6.26336	0.1288726	0.26447336	2.4037064	21	10 15.6	19.2
292139 2006 RJ_{82}	16.4	X	9.74176	153.22063	229.30106	1.22575	0.1005221	0.20407749	2.8571913	21	12 3.8	19.8
292140 2006 RH_{83}	15.7	X	50.00670	24.81889	192.16881	14.18056	0.0708305	0.18178838	3.0862088	21	6 22.1	20.1
292141 2006 RG_{84}	16.0	X	325.72088	144.20430	191.72803	9.36474	0.0743055	0.18821102	3.0155927	21	7 21.1	20.1
292142 2006 RB_{87}	18.4	X	263.04146	225.17320	174.48924	1.58278	0.1372303	0.25331012	2.4738177	21	7 11.2	21.7
292143 2006 RD_{87}	16.5	X	302.27200	131.19146	185.09464	5.08778	0.1572373	0.18259381	3.0771265	21	5 12.8	20.6
292144 2006 RB_{88}	18.1	X	47.48283	239.84211	24.18176	1.48678	0.1602009	0.25945897	2.4345774	21	9 9.9	20.8
292145 2006 RF_{90}	17.1	X	203.49360	205.15571	192.60040	14.91120	0.0894518	0.24185036	2.5513589	21	5 7.8	21.0
292146 2006 RV_{91}	17.3	X	259.09878	305.22383	196.45673	2.12167	0.1318250	0.27023345	2.3694269	21	11 28.8	20.0
292147 2006 RL_{93}	16.7	X	143.69930	101.57526	233.81717	3.90928	0.1205650	0.22066070	2.7121855	21	—	—
292148 2006 RH_{94}	16.8	X	167.88669	107.31941	239.13691	2.37266	0.0964130	0.22647779	2.6655426	21	1 25.0	20.8
292149 2006 RX_{94}	17.2	X	219.95697	181.17161	204.82141	5.30685	0.1949778	0.24230529	2.5481644	21	5 4.3	21.4
292150 2006 RZ_{94}	15.6	X	193.69899	205.10847	214.39262	4.18022	0.1335844	0.17506381	3.1647431	21	5 26.4	20.6
292151 2006 RC_{95}	16.6	X	313.85910	127.09624	295.51445	1.23842	0.0566554	0.19874099	2.9081117	21	10 30.2	20.4
292152 2006 RO_{96}	17.0	X	288.28942	7.58640	284.25212	1.18403	0.0406706	0.23864142	2.5741795	21	4 2.5	20.4
292153 2006 RZ_{97}	16.4	X	254.55290	48.90165	332.89421	4.97075	0.1880894	0.18390013	3.0625371	21	6 2.1	21.2
292154 2006 RG_{100}	16.7	X	161.79407	121.81999	229.76298	8.13168	0.1448963	0.22937016	2.6430869	21	1 26.9	20.8
292155 2006 RN_{102}	15.7	X	196.04335	44.36024	7.38573	9.81068	0.1097676	0.17900617	3.1181048	21	5 16.1	20.7
292156 2006 RN_{103}	17.0	X	200.91698	326.67945	111.07012	0.87940	0.2616124	0.17995046	3.1071871	21	6 20.3	22.5
292157 2006 RT_{103}	15.5	X	338.81845	88.16295	176.60829	16.59897	0.1300194	0.18147278	3.0897859	21	5 6.9	19.5
292158 2006 RB_{104}	16.5	X	296.67277	238.60605	68.48231	3.21942	0.1018570	0.17950162	3.1123646	21	5 1.6	20.7
292159 Jongoldstein	17.7	X	230.32892	149.70006	359.95497	3.16735	0.1386697	0.26638406	2.3921986	21	10 28.4	20.9
292160 Davefask	16.9	X	85.44990	323.54481	191.51316	14.05952	0.1157430	0.24095887	2.5576480	21	5 26.8	20.4

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292161 2006 RQ_{120}	17.0	X	129.07745	264.22091	187.63500	7.82464	0.1468212	0.23887990	2.5724660	21	5 1.2	20.7
292162 2006 SO	15.6	X	254.77827	99.46666	293.30390	8.80176	0.1102858	0.18536035	3.0464320	21	6 26.4	20.0
292163 2006 SD_3	17.0	X	52.15939	185.93258	160.15755	4.33294	0.2636370	0.27484354	2.3428565	21	—	—
292164 2006 SM_4	15.4	X	278.17660	15.40810	333.09496	9.19862	0.1111690	0.18269623	3.0759763	21	5 26.5	19.9
292165 2006 SC_6	18.1	X	333.37234	355.54516	152.98105	30.26725	0.5807931	0.74712116	1.2028423	21	—	—
292166 2006 SV_7	17.1	X	9.78307	224.86220	141.05312	3.70871	0.2042225	0.26840615	2.3801687	21	12 12.8	19.4
292167 2006 SG_9	16.9	X	306.80787	6.36105	332.01559	5.47347	0.1353008	0.25200673	2.4823402	21	6 17.9	19.7
292168 2006 SS_9	17.1	X	203.07450	59.04473	287.17316	6.47193	0.1474036	0.23899429	2.5716451	21	2 26.9	21.2
292169 2006 SA_{11}	16.5	X	192.12283	92.71911	256.97266	9.56844	0.1561228	0.23453001	2.6041766	21	2 20.2	20.9
292170 2006 SP_{11}	16.0	X	110.95542	342.14217	21.12658	10.44901	0.2465171	0.21977833	2.7194400	21	1 4.1	19.8
292171 2006 SR_{12}	17.4	X	63.61456	178.89117	220.10849	5.41318	0.1639876	0.28279024	2.2987572	21	—	—
292172 2006 SU_{12}	16.2	X	102.64872	193.89326	186.34804	12.68559	0.1406488	0.21984926	2.7188549	21	—	—
292173 2006 SN_{13}	16.3	X	315.67614	164.95321	176.23712	8.67844	0.2495868	0.18935076	3.0034796	21	6 19.9	19.9
292174 2006 SM_{15}	17.1	X	26.61017	346.43863	333.41487	4.94281	0.2021731	0.26602739	2.3943363	21	11 1.2	19.8
292175 2006 ST_{15}	15.8	X	196.48463	138.70146	320.42766	4.79580	0.0284660	0.18564805	3.0432838	21	7 20.8	20.2
292176 2006 SW_{15}	16.6	X	87.00390	130.52772	258.33153	2.16080	0.1872046	0.21882793	2.7273082	21	—	—
292177 2006 SD_{17}	16.6	X	41.23888	127.01979	291.75802	3.60507	0.1072818	0.21449616	2.7639045	21	—	—
292178 2006 SF_{18}	17.0	X	122.13772	156.50560	130.34429	6.34780	0.0944814	0.27807487	2.3246713	21	—	—
292179 2006 SW_{18}	16.4	X	64.93305	352.54144	31.55919	5.49364	0.0593731	0.21389768	2.7690577	21	—	—
292180 2006 SZ_{18}	17.7	X	281.09351	359.43830	142.66831	2.69331	0.1506869	0.27357956	2.3500672	21	—	—
292181 2006 SZ_{19}	15.7	X	212.13604	228.74866	201.45888	10.08341	0.0925398	0.17982317	3.1086533	21	6 27.1	20.6
292182 2006 SB_{20}	18.2	X	44.56602	76.57594	317.48355	2.07987	0.1458285	0.27841632	2.3227702	21	—	—
292183 2006 SM_{20}	16.4	X	88.86363	246.47081	92.57974	4.00097	0.0876218	0.21488175	2.7605971	21	—	—
292184 2006 SP_{21}	15.7	X	274.80357	90.93051	329.23743	11.22512	0.0360320	0.19402581	2.9550378	21	9 4.1	19.7
292185 2006 SA_{22}	16.1	X	285.71456	156.31196	190.56492	14.37745	0.1393940	0.18444122	3.0565445	21	6 2.0	20.6
292186 2006 SG_{22}	16.3	X	195.24382	175.51280	140.17060	12.53894	0.1750312	0.22945448	2.6424393	21	1 18.8	20.6
292187 2006 SN_{25}	17.2	X	182.10112	109.69867	245.99951	1.75697	0.1689653	0.23328905	2.6134035	21	2 22.8	21.5
292188 2006 SW_{27}	17.8	X	342.97394	174.41811	231.19645	4.83520	0.2257070	0.27150102	2.3620463	21	12 23.5	19.5
292189 2006 SN_{28}	16.0	X	4.33094	28.12539	203.11305	9.11308	0.0049261	0.18167720	3.0874678	21	5 5.9	20.4
292190 2006 SZ_{30}	18.0	X	149.16797	179.01075	227.98699	3.27148	0.0880757	0.30446519	2.1883206	21	3 8.4	20.6
292191 2006 SM_{31}	17.1	X	15.58440	184.02159	180.29992	2.27005	0.2082946	0.26948377	2.3738192	21	12 20.5	19.7
292192 2006 SZ_{31}	16.8	X	312.92258	55.13326	317.78276	1.10273	0.1227819	0.19170227	2.9788676	21	8 17.1	20.3
292193 2006 ST_{32}	17.4	X	301.16853	186.17760	199.20070	3.21346	0.1221345	0.25863430	2.4397499	21	8 18.9	20.0
292194 2006 SY_{32}	17.7	X	266.43793	92.82362	314.54932	1.51352	0.1945970	0.25481100	2.4640940	21	7 18.2	20.9
292195 2006 SE_{33}	16.4	X	232.39643	228.83362	192.42027	16.74553	0.2291642	0.18440739	3.0569183	21	6 25.8	21.8
292196 2006 SK_{33}	17.5	X	183.65764	81.65875	241.19517	5.43140	0.1434623	0.29550935	2.2323138	21	1 3.9	20.7
292197 2006 SD_{34}	15.4	X	285.88476	0.85986	345.82087	10.98465	0.0543907	0.18378534	3.0638122	21	6 12.8	19.9
292198 2006 SK_{34}	15.8	X	45.69993	321.23697	198.37982	12.61013	0.0931505	0.23645539	2.5900207	21	3 25.6	18.8
292199 2006 SM_{34}	16.3	X	119.32333	139.59413	194.33554	5.47654	0.0510855	0.21662742	2.7457465	21	—	—
292200 2006 SS_{34}	17.0	X	98.82801	358.41096	299.67379	1.95006	0.1748014	0.27542290	2.3395699	21	12 25.9	20.6
292201 2006 SV_{34}	16.3	X	91.19095	57.83149	268.40014	3.28202	0.0749921	0.21014032	2.8019677	21	—	—
292202 2006 SY_{34}	17.1	X	236.28134	69.78926	230.60039	3.94493	0.1874477	0.23469283	2.6029720	21	2 2.5	21.5
292203 2006 SA_{35}	16.4	X	111.28387	9.65167	336.29499	4.98871	0.0849155	0.21693798	2.7431253	21	—	—
292204 2006 SB_{35}	15.8	X	309.92729	10.86842	209.54723	8.05487	0.1596745	0.23138088	2.6277522	21	1 10.9	19.6
292205 2006 SL_{35}	16.9	X	28.91993	285.21731	77.88450	7.46565	0.1346050	0.27181861	2.3602061	21	12 26.8	19.7
292206 2006 SO_{35}	16.2	X	59.74051	184.13539	203.51251	4.45281	0.0829270	0.21394125	2.7686817	21	—	—
292207 2006 SC_{36}	17.3	X	152.86624	274.35764	75.84267	5.32390	0.1690773	0.29387165	2.2405996	21	1 9.9	20.2
292208 2006 SX_{36}	15.6	X	233.58978	127.71092	215.68136	9.05866	0.1052449	0.17204808	3.2016179	21	4 3.0	20.6
292209 2006 SY_{36}	16.9	X	114.63245	257.62243	208.60106	11.48748	0.2149624	0.23380400	2.6095648	21	5 12.0	20.8
292210 2006 SR_{38}	16.3	X	309.55104	76.51009	229.54927	4.28635	0.1263218	0.18180467	3.0860244	21	5 13.5	20.4
292211 2006 SX_{41}	16.8	X	286.70194	323.08956	77.17339	7.18908	0.1226711	0.25787701	2.4445239	21	8 21.5	19.7
292212 2006 SL_{42}	18.0	X	329.91895	186.69389	237.60214	0.77611	0.1655101	0.26830295	2.3807790	21	12 15.9	19.8
292213 2006 SS_{42}	15.7	X	19.49004	231.35720	82.60694	12.56078	0.0585291	0.19159925	2.9799354	21	9 21.0	19.8
292214 2006 SP_{43}	16.0	X	69.21201	123.63999	318.43587	8.22273	0.0932883	0.22378389	2.6868918	21	1 21.7	19.2
292215 2006 SC_{46}	17.0	X	165.31359	197.93890	154.33992	3.83195	0.1842587	0.22920869	2.6443280	21	2 5.6	21.0
292216 2006 SJ_{46}	17.5	X	356.12328	173.12080	183.29083	5.46364	0.2600934	0.26390331	2.4071667	21	11 9.8	19.2
292217 2006 SB_{48}	16.6	X	21.87238	191.36218	155.45495	2.48678	0.0623440	0.20088006	2.8874302	21	11 1.3	20.4
292218 2006 SC_{49}	17.3	X	64.10282	298.57462	33.48170	2.59232	0.2130012	0.27380499	2.3487771	21	—	—
292219 2006 SE_{49}	16.9	X	61.51219	288.72063	353.63338	1.87193	0.2146326	0.26834339	2.3805398	21	11 1.4	20.2
292220 2006 SU_{49}	19.4	X	169.20884	199.00821	303.12122	2.51883	0.3120720	0.58704401	1.4126100	21	8 25.8	20.6
292221 2006 SQ_{50}	16.1	X	91.09471	173.50609	240.02151	9.44619	0.1760227	0.22224882	2.6992498	21	1 25.1	19.6
292222 2006 SX_{50}	17.2	X	50.20584	247.40072	69.45594	7.20754	0.1501841	0.27167779	2.3610216	21	11 25.7	20.1
292223 2006 SN_{51}	15.4	X	246.37752	294.97749	84.12071	10.88505	0.0879537	0.18212405	3.0824155	21	6 2.4	20.0
292224 2006 SW_{53}	16.1	X	259.50141	122.05448	229.83193	15.77215	0.3215743	0.18164867	3.0877910	21	4 18.4	21.4
292225 2006 SS_{55}	17.3	X	173.85616	199.99043	123.50693	5.16814	0.1968526	0.29231663	2.2485387	21	—	—
292226 2006 SC_{57}	17.0	X	81.60129	340.00183	17.17564	4.49355	0.0812939	0.21142370	2.7906172	21	—	—
292227 2006 ST_{59}	16.4	X	181.70744	92.66949	243.99561	7.65158	0.2724137	0.29702411	2.2247177	21	1 26.8	20.1
292228 2006 SB_{60}	15.6	X	231.59223	267.05963	144.43202	10.12394	0.2259038	0.18104263	3.0946781	21	6 15.5	20.8
292229 2006 SL_{60}	17.2	X	337.17052	249.97390	135.43220	5.01547	0.1875935	0.26420001	2.4053641	21	11 3.2	19.0
292230 2006 SR_{60}	16.0	X	100.51259	252.25690	138.44037	9.22125	0.2100265	0.22077510	2.7112485	21	1 17.4	19.3
292231 2006 SE_{62}	16.3	X	313.08671	239.95806	131.72988	5.37732	0.2536418	0.19154248	2.9805241	21	7 27.2	19.4
292232 2006 SY_{62}	17.0	X	3.00346	345.60128	35.00733	7.25940	0.1340173	0.26999977	2.3707938	21	12 10.1	19.6
292233 2006 SG_{63}	16.2	X	102.35302	8.72096	318.53789	8.34416	0.0401118	0.21200500	2.7855138	21	—	—
292234 2006 SM_{64}	15.6	X	134.14263	252.69794	204.41142	15.92711	0.1361887	0.17114395	3.2128838	21	5 16.1	20.6
292235 2006 SP_{64}	16.6	X	176.72598	228.99922	115.64086	5.42468	0.0949666	0.23143377	2.6273518	21	2 1.4	20.5
292236 2006 SK_{68}	16.0	X	347.18736	276.56370	352.95390	6.42158	0.1241793	0.18484251	3.0521191	21	5 22.6	19.8
292237 2006 SJ_{69}	17.2	X	10.21414	116.95328	162.95738	2.79202	0.2106930	0.19104371	2.9857095	21	7 24.1	20.2
292238 2006 ST_{69}	17.6	X	216.68298	240.70960	152.34321	1.54730	0.1485831	0.24434573	2.5339588	21	5 11.9	21.5
292239 2006 SN_{70}	16.1	X	177.16312	298.58040	148.59900	1.36248	0.1659042	0.17528156	3.1621215	21	6 13.6	21.4
292240 2006 SG_{71}	17.4	X	284.24663	275.25123	160.21564	2.98095	0.0585698	0.26210909	2.4181394	21	10 15.5	20.1

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292241 2006 SJ_{71}	17.2	X	267.46472	261.51414	41.38365	3.76760	0.1425127	0.23826393	2.5768977	21	3 12.1	21.0
292242 2006 SQ_{72}	15.2	X	345.79344	301.46862	50.31289	4.20895	0.1209374	0.12472218	3.9674085	21	9 8.4	20.1
292243 2006 SE_{74}	17.4	X	50.09175	135.91408	167.39570	5.77294	0.1302924	0.26457166	2.4031110	21	11 4.7	20.4
292244 2006 SH_{74}	17.4	X	334.29105	73.44723	130.45940	3.58528	0.0916048	0.29615573	2.2290644	21	1 18.1	19.7
292245 2006 SP_{75}	16.8	X	152.50802	167.54319	174.19866	5.79399	0.0344627	0.22152730	2.7051076	21	—	—
292246 2006 SG_{76}	17.7	X	328.36428	279.70525	112.26478	2.01552	0.1766589	0.26287539	2.4134377	21	10 21.8	19.6
292247 2006 SW_{77}	15.7	X	170.28152	53.59456	76.10152	7.16271	0.0030625	0.18580089	3.0416146	21	7 28.7	20.0
292248 2006 SF_{78}	16.5	X	216.07820	49.60759	262.21694	4.84616	0.1216483	0.23148761	2.6269444	21	1 30.8	20.6
292249 2006 SP_{80}	17.3	X	198.04698	199.86396	134.27210	1.58338	0.0856349	0.23126556	2.6286257	21	2 9.9	21.2
292250 2006 SZ_{82}	16.5	X	8.38918	210.26451	22.79551	7.32418	0.1389358	0.24431965	2.5341391	21	5 3.4	19.0
292251 2006 SP_{87}	16.5	X	243.46542	232.93747	156.64703	0.97686	0.1869956	0.18017019	3.1046603	21	6 1.9	21.5
292252 2006 SS_{87}	16.7	X	104.81160	323.93234	21.18121	6.18947	0.0474927	0.21389594	2.7690727	21	—	—
292253 2006 SO_{89}	16.3	X	51.63970	36.16565	273.81718	1.40053	0.1087384	0.19875560	2.9079692	21	10 30.5	20.3
292254 2006 SP_{91}	16.4	X	239.09768	167.24315	202.16186	9.22785	0.0927057	0.17583557	3.1554761	21	5 13.4	21.2
292255 2006 SQ_{91}	17.7	X	152.67995	256.65811	202.58830	8.16528	0.1762090	0.23942938	2.5685287	21	6 5.7	21.8
292256 2006 SM_{93}	17.1	X	241.97657	52.10339	346.34709	0.22570	0.1675003	0.18020829	3.1042227	21	6 13.0	22.0
292257 2006 SV_{94}	16.5	X	228.17833	292.45779	22.94440	9.57955	0.1580960	0.23310086	2.6148100	21	2 19.8	20.8
292258 2006 SB_{97}	16.3	X	227.94867	229.76683	198.40513	8.88072	0.0816622	0.18264024	3.0766050	21	7 11.9	21.1
292259 2006 SM_{97}	17.3	X	123.01803	46.80709	21.72474	4.70423	0.1082125	0.23025342	2.6363232	21	3 20.5	20.8
292260 2006 SP_{97}	16.8	X	129.07619	148.89537	183.20957	3.29293	0.1989972	0.21784368	2.7355169	21	—	—
292261 2006 SU_{98}	16.5	X	84.09287	202.63414	205.69724	1.03825	0.0636901	0.22033633	2.7148466	21	—	—
292262 2006 SJ_{99}	17.6	X	110.52544	34.49138	17.01359	4.22820	0.1350235	0.29220019	2.2491360	21	2 2.6	20.0
292263 2006 SY_{99}	17.3	X	196.02713	215.55848	175.10666	1.36409	0.0835426	0.23830878	2.5765744	21	4 19.1	21.0
292264 2006 SK_{101}	15.7	X	19.02172	333.50224	331.75199	11.16995	0.0235550	0.19403456	2.9549490	21	8 29.4	19.7
292265 2006 SX_{106}	17.0	X	200.84108	337.83732	192.06367	6.99584	0.1328099	0.26564677	2.3966228	21	10 23.8	20.3
292266 2006 SZ_{106}	16.4	X	127.07941	291.28720	194.15715	9.85941	0.0127292	0.17761728	3.1343386	21	5 29.6	20.9
292267 2006 SA_{107}	16.8	X	113.80222	203.35706	190.26609	5.32627	0.0814164	0.22461241	2.6802803	21	1 18.2	20.4
292268 2006 SF_{110}	15.7	X	218.10950	311.63491	78.33985	1.84848	0.2424150	0.17626424	3.1503580	21	5 8.7	21.0
292269 2006 SG_{110}	17.2	X	43.98526	94.74403	261.53855	3.90665	0.2437120	0.27288606	2.3540471	21	—	—
292270 2006 SP_{110}	17.3	X	59.19996	328.82163	54.38069	7.41920	0.1187432	0.27944552	2.3170636	21	—	—
292271 2006 SN_{111}	16.0	X	278.64554	82.54350	293.29048	8.96085	0.1513428	0.18577304	3.0419186	21	6 27.9	20.2
292272 2006 SQ_{114}	15.8	X	129.26333	307.68043	190.69175	5.02923	0.1104239	0.17658797	3.1465065	21	6 26.9	20.6
292273 2006 SH_{116}	17.1	X	127.72074	175.79273	27.52693	1.44708	0.1274477	0.25713127	2.4492481	21	9 21.4	20.8
292274 2006 SX_{119}	16.7	X	278.17403	328.91270	66.37684	7.75817	0.1179316	0.25529185	2.4609989	21	7 31.8	19.8
292275 2006 SB_{120}	15.8	X	338.49380	318.91479	150.17947	9.94560	0.1227909	0.21158225	2.7892229	21	—	—
292276 2006 SK_{121}	15.5	X	241.75760	35.51040	349.39667	4.44163	0.1637712	0.17910508	3.1169568	21	5 26.5	20.4
292277 2006 SS_{121}	16.8	X	204.20646	211.17489	80.31405	3.88875	0.1094112	0.22891680	2.6465754	21	—	—
292278 2006 ST_{125}	17.4	X	223.02972	274.02172	94.81888	5.19901	0.1864679	0.24140471	2.5544979	21	4 17.9	21.6
292279 2006 SX_{125}	17.2	X	50.01899	177.16537	140.47404	6.89683	0.1298441	0.26831508	2.3807073	21	11 24.5	20.3
292280 2006 SE_{126}	16.3	X	86.18536	262.44219	96.73605	3.85760	0.2086027	0.21455950	2.7633606	21	—	—
292281 2006 SA_{128}	16.8	X	204.79744	85.89611	213.13426	2.06124	0.0917984	0.22830000	2.6513401	21	1 5.5	20.9
292282 2006 SB_{128}	17.9	X	73.51486	117.66214	201.34634	4.45265	0.1400750	0.27464130	2.3440065	21	12 24.1	21.2
292283 2006 SC_{130}	16.1	X	126.24599	48.30233	253.65779	2.94494	0.0833469	0.21394313	2.7686654	21	—	—
292284 2006 SO_{130}	16.0	X	103.02934	22.78561	358.96275	6.01751	0.0405906	0.21874863	2.7279672	21	—	—
292285 2006 ST_{130}	15.3	X	274.00798	23.67062	5.95162	10.13508	0.1101550	0.18424108	3.0587576	21	7 18.2	19.7
292286 2006 SG_{131}	15.5	X	171.66368	269.40980	172.55067	14.05936	0.1395909	0.17835945	3.1256377	21	6 3.4	20.8
292287 2006 SX_{132}	16.5	X	179.72235	174.44837	228.82234	14.52572	0.1222762	0.23857174	2.5746807	21	4 16.8	20.5
292288 2006 SF_{133}	15.0	X	217.96276	135.84882	278.59230	21.62712	0.0841988	0.18128876	3.0918765	21	6 15.9	19.7
292289 2006 SA_{134}	16.4	X	244.13644	33.88824	313.10261	14.21119	0.1517608	0.24153681	2.5535664	21	4 1.9	20.7
292290 2006 SN_{134}	16.2	X	332.60875	205.18054	162.58555	28.66389	0.2556914	0.26560303	2.3968859	21	9 19.8	17.5
292291 2006 SZ_{134}	15.7	X	316.91247	95.29322	221.33286	10.84594	0.0379256	0.18507351	3.0495789	21	6 18.1	19.9
292292 2006 SB_{135}	17.0	X	237.89346	10.12376	251.00633	6.31955	0.0995952	0.29294074	2.2453439	21	—	—
292293 2006 SC_{135}	15.2	X	136.06728	188.79965	295.61325	7.94599	0.0262566	0.17912526	3.1167226	21	6 8.7	19.7
292294 2006 SS_{137}	16.8	X	314.61862	25.35430	48.85572	11.91882	0.1569259	0.26917205	2.3756515	21	11 26.7	18.8
292295 2006 SA_{140}	15.4	X	288.20866	16.73898	318.49799	8.96690	0.0720574	0.18112088	3.0937867	21	5 28.7	19.8
292296 2006 SD_{140}	16.5	X	301.11483	0.31179	57.76347	13.63512	0.1618905	0.26340893	2.4101776	21	10 11.2	19.0
292297 2006 SC_{143}	15.4	X	325.30458	76.12953	203.62951	10.19077	0.1581585	0.18011767	3.1052638	21	4 28.9	19.1
292298 2006 SW_{143}	16.9	X	136.52602	222.57916	234.20544	1.86011	0.1362035	0.23829372	2.5766830	21	5 13.3	20.7
292299 2006 SD_{144}	17.1	X	326.31491	308.82705	204.70068	5.54005	0.0770921	0.28569729	2.2831370	21	—	—
292300 2006 SN_{144}	16.4	X	9.73242	58.88294	198.92040	9.48925	0.0411263	0.18109718	3.0940566	21	6 15.9	20.6
292301 2006 SQ_{146}	16.8	X	126.34444	333.69520	328.46424	0.80176	0.0526903	0.21172066	2.7880072	21	—	—
292302 2006 ST_{148}	17.5	X	210.06079	268.00697	243.32635	2.42699	0.1493589	0.26170113	2.4206518	21	10 5.8	21.0
292303 2006 SH_{150}	17.5	X	171.49609	105.54208	256.93193	0.14752	0.0374733	0.22922249	2.6442219	21	2 12.9	21.2
292304 2006 SK_{151}	17.1	X	350.88242	40.22031	214.48022	2.20957	0.1091543	0.24480804	2.5307676	21	5 5.8	19.9
292305 2006 SN_{151}	17.1	X	84.90745	288.85803	206.77731	4.86579	0.1135266	0.23582712	2.5946187	21	4 27.7	20.1
292306 2006 SK_{152}	17.2	X	278.79671	11.43603	294.82868	1.31487	0.0623618	0.24035380	2.5619386	21	4 5.9	20.8
292307 2006 SS_{152}	16.2	X	272.11838	308.11911	69.41275	1.83919	0.2326099	0.18352205	3.0667419	21	6 10.7	20.8
292308 2006 SB_{153}	15.6	X	175.39069	143.59274	284.11440	8.16077	0.0804736	0.17551216	3.1593512	21	5 15.9	20.6
292309 2006 SS_{154}	17.3	X	350.06595	311.53210	54.12130	3.95649	0.2085424	0.26426866	2.4049475	21	11 1.8	19.1
292310 2006 SK_{155}	16.2	X	188.68268	196.37272	104.85974	14.96394	0.3116231	0.22794348	2.6541040	21	1 3.2	21.1
292311 2006 SW_{155}	16.6	X	153.11818	186.60694	217.31981	11.13192	0.0483748	0.23944946	2.5683851	21	3 11.7	20.3
292312 2006 SL_{158}	16.6	X	299.73419	340.88136	45.49889	2.38841	0.0924720	0.19174638	2.9784108	21	8 19.9	20.4
292313 2006 SE_{159}	15.9	X	215.02708	336.29711	195.26549	12.52542	0.1294536	0.19983500	2.8974882	21	11 2.7	20.3
292314 2006 SY_{159}	16.1	X	284.58220	114.93862	175.91384	5.00272	0.1416039	0.17211405	3.2007998	21	3 22.5	20.7
292315 2006 SX_{161}	17.8	X	9.88171	252.88373	27.42803	2.64478	0.1835863	0.25620179	2.4551684	21	7 26.6	19.6
292316 2006 SJ_{163}	16.2	X	295.65461	297.52489	60.61074	2.24736	0.0995828	0.18440718	3.0569207	21	7 5.3	20.1
292317 2006 SG_{164}	16.0	X	212.92511	186.18721	188.05861	9.42895	0.1092567	0.17873194	3.1212935	21	4 21.3	20.9
292318 2006 SW_{165}	17.3	X	164.07200	84.04638	204.53833	7.70922	0.1356429	0.28607673	2.2811177	21	—	—
292319 2006 SA_{166}	15.3	X	204.95453	58.67460	343.63784	9.58169	0.0441717	0.17803584	3.1294241	21	5 15.3	20.1
292320 2006 SN_{166}	16.5	X	44.57177	73.61995	312.61903	3.34854	0.0665303	0.21188330	2.7865803	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292321 2006 SK_{169}	16.2	X	15.26289	102.05767	310.40044	3.30075	0.0696859	0.21096895	2.7946260	21	—	—
292322 2006 SQ_{169}	16.7	X	184.82364	38.25706	215.53305	5.50278	0.0629672	0.21578680	2.7528728	21	—	—
292323 2006 SV_{170}	16.5	X	229.62208	328.54320	190.47925	11.02065	0.1905362	0.26916407	2.3756985	21	11 5.0	19.8
292324 2006 SU_{174}	17.0	X	213.77545	83.29708	175.83519	9.23212	0.0142550	0.22328908	2.6908597	21	—	—
292325 2006 SQ_{177}	16.2	X	33.93639	106.12202	159.43332	1.46737	0.1285175	0.18894251	3.0078045	21	8 9.6	19.8
292326 2006 SU_{179}	16.3	X	208.42143	226.60250	17.67199	4.50150	0.0124715	0.21562653	2.7542366	21	—	—
292327 2006 SW_{180}	16.8	X	277.58854	200.29827	5.81729	6.81933	0.1533256	0.22307110	2.6926124	21	—	—
292328 2006 SX_{180}	17.3	X	349.28043	292.25767	205.73917	1.06992	0.1690639	0.21953604	2.7214405	21	—	—
292329 2006 SW_{181}	16.8	X	178.12880	218.09478	122.58971	6.76088	0.2042653	0.29554055	2.2321566	21	1 26.8	20.0
292330 2006 SO_{183}	16.5	X	199.58705	245.25736	180.01572	1.24519	0.1614795	0.17738218	3.1371074	21	6 6.9	21.5
292331 2006 SQ_{183}	17.2	X	157.30241	212.82867	20.79467	1.62198	0.1416597	0.27215829	2.3582418	21	11 28.9	20.8
292332 2006 SX_{183}	16.7	X	243.76373	279.55121	23.80024	5.13521	0.1483211	0.23485151	2.6017994	21	2 17.7	20.8
292333 2006 SZ_{184}	16.0	X	285.56133	129.45652	194.79776	10.11918	0.0959829	0.17780641	3.1321156	21	5 10.9	20.4
292334 2006 SD_{186}	15.8	X	283.90928	270.81676	29.67970	24.80573	0.2696785	0.17530928	3.1617882	21	3 26.7	20.9
292335 2006 SG_{186}	16.1	X	234.95762	209.16566	213.75853	7.30695	0.2400628	0.18119117	3.0929865	21	6 29.6	21.3
292336 2006 SW_{186}	16.5	X	103.68767	333.73117	34.34208	6.63616	0.0471702	0.21498978	2.7596722	21	—	—
292337 2006 SN_{188}	17.7	X	216.30700	127.05269	59.69693	2.37819	0.1270356	0.27357067	2.3501181	21	12 2.9	20.6
292338 2006 SC_{192}	16.2	X	246.30398	228.90565	184.95838	17.79852	0.0544884	0.18667195	3.0321453	21	7 17.4	20.9
292339 2006 SR_{192}	16.3	X	14.83755	244.35677	153.92072	5.78869	0.0149091	0.20819734	2.8193734	21	12 21.9	20.3
292340 2006 SG_{194}	16.6	X	20.26854	105.91354	329.15087	3.31708	0.0828212	0.21337834	2.7735489	21	—	—
292341 2006 SM_{195}	15.8	X	256.88320	191.40160	206.69513	8.33192	0.0738527	0.18453827	3.0554727	21	7 8.7	20.3
292342 2006 ST_{196}	16.7	X	357.70153	224.55251	258.31774	5.76939	0.0485523	0.21724435	2.7405458	21	—	—
292343 2006 SF_{198}	16.3	X	319.49457	21.72859	235.86820	11.64631	0.2256857	0.24310765	2.5425547	21	2 23.6	19.9
292344 2006 SO_{199}	16.4	X	9.67127	78.47473	195.69411	4.20589	0.0757165	0.18577008	3.0419509	21	7 7.8	20.2
292345 2006 SA_{202}	16.5	X	193.09917	251.30673	233.98771	2.83530	0.0617050	0.19050284	2.9913582	21	8 15.9	20.9
292346 2006 SA_{206}	17.5	X	186.51998	244.93372	131.90219	4.85849	0.2152179	0.23541426	2.5976514	21	3 28.0	21.9
292347 2006 SE_{206}	16.8	X	312.12131	254.27980	15.94850	3.48901	0.1318067	0.24120161	2.5559318	21	3 23.5	20.0
292348 2006 SB_{211}	15.7	X	255.79095	178.55958	198.35163	13.84836	0.1456682	0.18095048	3.0957286	21	6 3.7	20.6
292349 2006 SM_{211}	15.6	X	318.00618	202.72173	135.09331	8.70602	0.1134533	0.18587020	3.0408584	21	7 9.1	19.4
292350 2006 SA_{215}	16.4	X	113.93775	144.52606	211.44903	4.87465	0.1327458	0.21863682	2.7288973	21	—	—
292351 2006 ST_{216}	16.7	X	103.87752	326.12076	37.39030	7.02085	0.0160108	0.21745463	2.7387787	21	—	—
292352 2006 SU_{218}	17.5	X	291.38909	354.02827	287.13843	5.13408	0.2253303	0.30855330	2.1689486	21	2 15.7	20.5
292353 2006 SB_{220}	15.4	X	223.32972	73.95513	346.71868	8.38791	0.0814771	0.18243329	3.0789313	21	6 29.7	20.1
292354 2006 SU_{221}	17.4	X	247.96747	295.46840	6.04211	2.43638	0.0945259	0.23687823	2.5869376	21	2 21.2	21.2
292355 2006 SW_{225}	16.1	X	283.11595	81.39748	213.03077	10.16519	0.0328833	0.17356961	3.1828799	21	4 7.5	20.5
292356 2006 SX_{226}	16.9	X	5.47779	257.07620	230.16766	6.15389	0.0861973	0.22185705	2.7024265	21	—	—
292357 2006 SY_{226}	17.1	X	214.12061	79.96231	221.83443	6.56580	0.1332712	0.23024019	2.6364242	21	1 16.9	21.3
292358 2006 SG_{236}	17.7	X	275.32551	278.27833	154.01856	2.20392	0.1459497	0.26248006	2.4158604	21	9 12.7	20.6
292359 2006 SJ_{236}	17.4	X	189.24636	320.04491	75.74962	0.66488	0.0995790	0.24183966	2.5514342	21	4 18.2	21.1
292360 2006 SB_{239}	17.5	X	155.76406	238.26047	10.92667	4.00923	0.2017435	0.27964680	2.3159516	21	12 15.7	21.3
292361 2006 SL_{240}	15.3	X	260.19648	269.06754	18.77469	12.10224	0.1444349	0.16961697	3.2321376	21	2 26.2	20.4
292362 2006 SD_{241}	18.9	X	57.11438	238.70701	159.79508	2.20545	0.1835850	0.28125736	2.3071019	21	—	—
292363 2006 SN_{243}	17.6	X	312.92836	261.67395	132.44385	2.14782	0.1882103	0.26136583	2.4227216	21	9 17.7	19.5
292364 2006 SR_{244}	16.7	X	322.89206	275.30069	29.60929	6.21356	0.1827347	0.18519799	3.0482122	21	5 22.7	20.4
292365 2006 SB_{246}	17.1	X	126.85449	38.27400	151.58640	1.66758	0.1244024	0.25872058	2.4392074	21	9 2.5	20.8
292366 2006 SY_{247}	17.8	X	151.75182	26.59659	46.42850	2.10078	0.1243592	0.23900487	2.5715692	21	4 27.9	21.5
292367 2006 SH_{248}	17.8	X	316.06449	327.46822	92.83663	2.33856	0.1762207	0.26556433	2.3971188	21	11 8.3	19.6
292368 2006 SF_{249}	16.8	X	223.88971	52.62201	214.75633	3.81837	0.0618563	0.22334116	2.6904414	21	—	—
292369 2006 SJ_{249}	17.6	X	286.38044	259.25245	210.87907	4.40763	0.1080318	0.26924319	2.3752331	21	12 1.8	20.1
292370 2006 SK_{250}	15.4	X	183.78446	254.35571	203.61721	10.35882	0.0172540	0.18244724	3.0787743	21	7 2.1	20.0
292371 2006 SM_{251}	17.5	X	86.45251	64.64158	197.75895	2.37017	0.1793158	0.26626453	2.3929144	21	10 30.1	21.0
292372 2006 SE_{253}	16.1	X	269.75999	229.15633	180.05932	9.42957	0.0745410	0.18955431	3.0013290	21	8 7.8	20.4
292373 2006 SE_{255}	15.8	X	254.95833	287.51797	42.42132	8.16807	0.1769050	0.17703752	3.1411777	21	4 5.2	20.8
292374 2006 SU_{256}	17.0	X	36.52071	165.46283	232.33499	3.07008	0.1007623	0.21005253	2.8027483	21	—	—
292375 2006 SA_{257}	16.9	X	185.55972	64.49383	207.64424	9.02028	0.0301461	0.28252558	2.3001926	21	—	—
292376 2006 SF_{257}	15.5	X	246.88584	337.33758	8.61698	9.01259	0.0876210	0.17421269	3.1750423	21	4 20.7	20.3
292377 2006 ST_{257}	17.4	X	58.87132	322.55821	0.11458	2.55010	0.1997361	0.27108492	2.3644627	21	12 19.3	20.8
292378 2006 SD_{258}	16.8	X	303.61105	106.97996	242.95732	0.88742	0.0706371	0.18489387	3.0515539	21	7 9.6	20.8
292379 2006 SQ_{258}	17.4	X	314.98826	168.46138	215.24443	0.53056	0.1967984	0.25939103	2.4350025	21	9 2.6	19.6
292380 2006 SL_{259}	16.2	X	24.58071	345.09025	355.11021	1.40335	0.0657718	0.19852902	2.9101813	21	10 26.3	19.9
292381 2006 SM_{261}	17.1	X	114.63704	266.03673	315.32828	1.80875	0.1424169	0.26087265	2.4257741	21	10 1.3	20.8
292382 2006 SA_{262}	15.9	X	309.30535	173.68879	199.18091	10.21536	0.1620856	0.18858793	3.0115734	21	8 2.4	19.8
292383 2006 SH_{262}	16.6	X	135.53403	161.71544	184.69123	4.28583	0.1480476	0.21953630	2.7214383	21	—	—
292384 2006 SC_{263}	16.4	X	14.25774	134.50671	203.12412	11.35863	0.0388119	0.19330537	2.9623755	21	10 4.7	20.3
292385 2006 SD_{265}	15.9	X	316.10665	60.43386	243.10666	8.65498	0.0730122	0.17836671	3.1255528	21	5 27.3	19.9
292386 2006 SA_{266}	16.5	X	226.95578	1.83361	307.51438	3.39447	0.0831142	0.22968770	2.6406503	21	2 9.4	20.4
292387 2006 SS_{266}	15.4	X	216.50517	78.62235	338.58941	4.61108	0.1561998	0.17790324	3.1309789	21	6 12.2	20.5
292388 2006 SA_{267}	16.2	X	156.53599	120.94594	359.82336	9.51467	0.0386091	0.17873217	3.1212908	21	6 30.9	20.9
292389 2006 SB_{267}	16.4	X	276.25307	306.42647	245.35461	5.58355	0.0093830	0.21538439	2.7563006	21	—	—
292390 2006 SB_{268}	16.0	X	273.63149	327.28633	329.55889	4.46121	0.1490048	0.17104843	3.2140798	21	3 15.7	20.9
292391 2006 SE_{268}	15.8	X	73.71880	198.45515	359.91951	9.16626	0.0495718	0.17855807	3.1233193	21	6 28.9	20.2
292392 2006 SD_{269}	17.1	X	91.20239	278.62544	338.60570	6.43213	0.2039422	0.26433101	2.4045693	21	10 27.4	20.9
292393 2006 SX_{269}	16.9	X	71.89164	226.04699	207.89379	8.23278	0.1237332	0.21879511	2.7275809	21	1 16.6	20.2
292394 2006 SZ_{269}	16.8	X	227.58285	161.52557	207.75450	12.56557	0.2070539	0.23945251	2.5683633	21	4 19.3	21.0
292395 2006 SA_{273}	15.8	X	64.63321	36.75171	223.62305	5.96290	0.1907141	0.19072019	2.9890850	21	9 23.9	19.9
292396 2006 SW_{274}	17.1	X	6.52473	165.91840	225.44964	5.96033	0.1188647	0.26595884	2.3947477	21	12 28.1	19.8
292397 2006 SA_{275}	17.1	X	173.69013	196.82402	123.80981	2.22436	0.2044724	0.22481505	2.6786695	21	1 9.0	21.4
292398 2006 SY_{277}	15.6	X	192.64703	242.93915	18.75980	16.98045	0.1073794	0.21869327	2.7284276	21	—	—
292399 2006 SY_{278}	15.7	X	264.85898	160.66187	175.33966	10.30856	0.0908012	0.17727549	3.1383660	21	5 2.3	20.4
292400 2006 SH_{279}	17.4	X	14.55737	129.15358	291.73207	3.60585	0.1596578	0.27579379	2.3374719	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292401 2006 SC_{281}	16.5	X	306.70337	351.15061	55.78406	11.50156	0.2227108	0.25954158	2.4340608	21	9 25.8	18.8
292402 2006 SG_{283}	17.7	X	40.97955	319.71229	49.85225	3.03400	0.2060192	0.27502855	2.3418057	21	—	—
292403 2006 SS_{284}	16.4	X	310.94605	204.53676	171.36237	11.53527	0.2043905	0.19140377	2.9819640	21	8 4.3	19.9
292404 2006 SW_{285}	15.6	X	196.91322	222.20497	190.65096	9.49968	0.0741387	0.17661974	3.1461293	21	5 23.3	20.5
292405 2006 SZ_{285}	17.2	X	167.99102	293.60513	120.83313	5.42260	0.1717846	0.23896632	2.5718458	21	4 25.8	21.4
292406 2006 SE_{286}	15.2	X	280.34765	67.91676	330.33561	14.95157	0.2391457	0.18628252	3.0363697	21	7 19.1	19.6
292407 2006 SF_{286}	17.1	X	287.50107	273.74052	108.43776	5.94143	0.1751833	0.25556294	2.4592582	21	7 14.8	20.1
292408 2006 SL_{286}	14.5	X	22.69703	15.09905	59.47177	18.96306	0.0518753	0.14764737	3.5452939	21	—	—
292409 2006 ST_{287}	15.6	X	266.71602	64.27520	295.30668	9.74089	0.1368346	0.18132660	3.0914463	21	5 24.1	20.3
292410 2006 SJ_{288}	15.8	X	296.71364	62.91626	302.60758	11.30568	0.2196562	0.18579111	3.0417214	21	6 28.6	19.8
292411 2006 SF_{290}	17.1	X	27.78539	220.14875	101.38528	4.32316	0.1436810	0.26605775	2.3941541	21	10 31.0	19.8
292412 2006 SG_{290}	16.3	X	98.80460	284.27921	85.29889	5.72194	0.1535695	0.21680446	2.7442515	21	—	—
292413 2006 SN_{292}	16.0	X	50.14801	340.99037	200.08924	13.60964	0.0954356	0.24218447	2.5490119	21	5 5.1	18.9
292414 2006 SO_{295}	18.0	X	180.34110	47.94198	348.00485	3.22318	0.0750465	0.30528434	2.1844044	21	3 31.1	20.8
292415 2006 SK_{296}	16.9	X	151.81204	96.24448	287.77549	1.45189	0.0230816	0.23153492	2.6265865	21	2 13.9	20.5
292416 2006 SV_{296}	17.3	X	75.39283	308.40364	341.42587	4.03352	0.1326574	0.26981481	2.3718772	21	11 16.0	20.6
292417 2006 SC_{298}	15.5	X	148.20628	60.93236	30.38299	3.63163	0.1024223	0.17202838	3.2018623	21	5 18.8	20.3
292418 2006 SG_{300}	16.9	X	39.66706	244.59358	127.23868	6.98062	0.1129118	0.27481020	2.3430460	21	—	—
292419 2006 SU_{302}	17.6	X	47.32949	34.20630	248.24180	2.30825	0.1706338	0.26379179	2.4078451	21	10 6.5	20.4
292420 2006 ST_{304}	15.9	X	242.26064	251.46678	173.26041	12.90663	0.0116510	0.18770285	3.0210330	21	8 1.6	20.3
292421 2006 SB_{305}	16.4	X	125.29721	203.85902	142.68145	5.72632	0.0605863	0.21979426	2.7193085	21	—	—
292422 2006 SP_{306}	16.3	X	354.14793	65.26136	49.83350	9.36397	0.1210621	0.21249497	2.7812302	21	—	—
292423 2006 SM_{311}	17.0	X	163.73844	173.31925	238.75073	3.45239	0.0781070	0.23683855	2.5872265	21	4 9.4	20.7
292424 2006 SP_{313}	17.2	X	121.30096	52.39518	65.02696	2.29003	0.0533976	0.24055924	2.5604798	21	5 12.5	20.6
292425 2006 SW_{313}	16.0	X	178.92159	249.00591	180.76275	9.06690	0.0847142	0.17516234	3.1635562	21	5 25.3	21.0
292426 2006 SK_{315}	16.8	X	189.32449	281.08315	63.07698	3.18829	0.1349183	0.23079450	2.6322012	21	2 16.6	20.8
292427 2006 SF_{321}	18.0	X	25.50758	243.76475	59.32399	4.51636	0.1918109	0.26197386	2.4189714	21	10 7.8	20.4
292428 2006 SG_{321}	17.2	X	117.75878	76.46563	139.30599	4.44503	0.1757901	0.26025589	2.4296050	21	10 2.1	21.0
292429 2006 SH_{322}	18.4	X	346.66176	210.99658	108.75311	2.55517	0.1965274	0.25756939	2.4464699	21	8 3.9	20.3
292430 2006 SA_{326}	16.3	X	348.29258	109.24154	195.15548	10.27741	0.0782119	0.18508869	3.0494122	21	7 13.5	20.4
292431 2006 SD_{330}	18.0	X	299.65381	286.14154	152.74904	2.78227	0.1388547	0.26453426	2.4033375	21	11 6.0	20.2
292432 2006 SU_{330}	16.4	X	99.93719	216.15264	202.18616	4.76210	0.0513022	0.22891460	2.6465923	21	1 25.9	20.0
292433 2006 SV_{332}	17.6	X	91.08427	170.48113	101.14513	2.23839	0.1689851	0.26907779	2.3762063	21	11 15.1	21.0
292434 2006 SE_{335}	16.4	X	105.70779	31.16178	74.21193	3.72635	0.0349285	0.23601337	2.5932535	21	4 4.8	19.8
292435 2006 SP_{335}	16.1	X	299.62505	134.58128	140.83788	5.80688	0.1109694	0.17293966	3.1906046	21	3 27.5	20.5
292436 2006 SY_{336}	16.4	X	145.35141	204.31610	160.15714	6.57020	0.0578179	0.22563986	2.6721377	21	1 17.5	20.1
292437 2006 SS_{338}	16.6	X	326.11967	203.78600	35.25184	9.42789	0.1181627	0.23804309	2.5784913	21	3 8.3	19.9
292438 2006 SO_{346}	15.7	X	215.41956	357.80282	357.76276	8.96352	0.0772085	0.16959400	3.2324295	21	3 31.9	20.6
292439 2006 SN_{348}	16.2	X	92.35924	150.57821	35.80780	8.44565	0.0586693	0.17961745	3.1110264	21	7 9.3	20.7
292440 2006 SO_{349}	17.0	X	41.86943	253.96766	120.45715	7.91895	0.2223480	0.27410590	2.3470579	21	—	—
292441 2006 SL_{351}	15.8	X	266.97327	216.63740	133.85192	5.44310	0.1427357	0.18111866	3.0938120	21	5 15.4	20.5
292442 2006 SW_{351}	16.6	X	114.66695	188.82736	163.84275	9.13374	0.1072598	0.21797886	2.7343859	21	—	—
292443 2006 SB_{352}	15.9	X	254.55609	149.57407	207.47150	14.47628	0.1345315	0.17886249	3.1197744	21	5 10.4	20.6
292444 2006 SJ_{353}	17.2	X	314.02880	344.70442	53.00706	5.86195	0.2000922	0.26077456	2.4263823	21	9 26.9	19.1
292445 2006 SY_{353}	15.8	X	287.17324	209.56589	175.91158	10.48039	0.1325179	0.18675918	3.0312011	21	7 22.5	20.1
292446 2006 SY_{355}	15.5	X	301.41854	195.24848	180.39784	10.87075	0.0599266	0.18720799	3.0263544	21	8 8.8	19.7
292447 2006 SL_{357}	15.9	X	301.95094	157.32617	197.40044	12.17601	0.2422349	0.18557468	3.0440859	21	6 17.2	20.0
292448 2006 SN_{357}	16.0	X	95.28114	322.68688	63.52197	7.66978	0.1269445	0.21845973	2.7303718	21	—	—
292449 2006 SO_{357}	15.6	X	31.91610	85.20572	227.64036	9.03782	0.0623128	0.19249780	2.9706549	21	9 27.6	19.6
292450 2006 SV_{358}	18.0	X	220.68283	186.01375	134.81664	3.10793	0.1780794	0.30037960	2.2081187	21	2 7.1	21.3
292451 2006 SF_{359}	16.6	X	286.61519	218.35624	138.23462	4.68659	0.2539328	0.18425598	3.0585927	21	5 29.7	21.0
292452 2006 SU_{359}	16.6	X	189.02805	204.49508	148.62229	3.95511	0.1812426	0.23022332	2.6365530	21	2 27.7	20.8
292453 2006 SX_{359}	17.5	X	192.86282	315.48033	10.27240	5.32970	0.1841142	0.29546064	2.2325591	21	1 21.7	20.9
292454 2006 SQ_{360}	16.0	X	269.90770	145.17656	203.55044	10.00721	0.1347406	0.17713129	3.1400691	21	5 17.1	20.6
292455 2006 SX_{360}	16.6	X	287.25223	111.18536	200.03782	9.31355	0.2203254	0.17617531	3.1514180	21	4 8.1	21.1
292456 2006 SR_{362}	16.2	X	15.01216	156.18303	194.88363	5.08266	0.1132605	0.19621706	2.9329965	21	11 1.7	19.9
292457 2006 SW_{365}	16.6	X	246.03457	224.25334	183.30357	1.57735	0.1400163	0.18096566	3.0955555	21	7 1.2	21.3
292458 2006 SE_{366}	15.5	X	289.29128	305.34175	30.53741	13.04622	0.1724226	0.17829460	3.1263955	21	5 15.2	20.1
292459 Antoniolasciac	15.8	X	240.06781	117.61015	289.24249	8.24271	0.1030044	0.18285453	3.0742009	21	6 28.2	20.3
292460 2006 SH_{372}	17.3	X	282.02766	181.27709	141.44108	3.27770	0.1495194	0.24433316	2.5340457	21	4 21.3	20.8
292461 2006 SA_{373}	15.7	X	295.15381	20.40065	315.16914	10.03035	0.0836578	0.18029974	3.1031729	21	6 6.6	20.0
292462 2006 SZ_{373}	15.7	X	346.38271	91.03688	164.58982	11.14640	0.0737694	0.17744726	3.1363404	21	5 11.9	19.9
292463 2006 SN_{375}	16.0	X	306.34561	159.85995	169.57565	11.04533	0.0553101	0.18360938	3.0657693	21	6 19.0	20.3
292464 2006 SU_{375}	16.3	X	146.15960	153.79094	114.66107	4.94682	0.0590869	0.20940580	2.8085161	21	12 22.1	20.3
292465 2006 SY_{375}	16.0	X	219.59197	201.25279	171.51054	14.43617	0.0549150	0.17416561	3.1756145	21	5 1.3	20.9
292466 2006 SX_{377}	16.5	X	256.05767	344.52329	118.59591	10.50646	0.0315738	0.19461256	2.9490953	21	10 12.3	20.8
292467 2006 SE_{378}	16.3	X	33.12684	248.56969	131.13025	10.34501	0.0392833	0.20539738	2.8449378	21	12 24.8	20.2
292468 2006 SP_{380}	16.7	X	107.63088	186.01309	99.23855	12.30451	0.2461871	0.27270676	2.3550788	21	12 20.9	20.8
292469 2006 ST_{380}	17.2	X	189.17268	216.96405	144.88794	12.84387	0.2148868	0.23184261	2.6242621	21	3 12.8	21.7
292470 2006 SB_{382}	15.7	X	274.99018	236.37495	96.49637	8.74570	0.0281093	0.17566796	3.1574829	21	5 19.1	20.2
292471 2006 SQ_{387}	16.1	X	2.65196	79.34579	173.07785	15.30897	0.0444574	0.17766512	3.1337759	21	5 31.9	20.6
292472 2006 SX_{388}	15.7	X	37.90468	143.39872	98.77093	12.74415	0.0176749	0.17999524	3.1066718	21	7 2.9	20.0
292473 2006 SS_{389}	16.5	X	338.34096	140.93136	113.28481	13.04104	0.1401237	0.23937459	2.5689206	21	4 16.8	19.7
292474 2006 SV_{390}	17.1	X	217.09046	110.98394	232.74752	3.38211	0.1557955	0.23681834	2.5873737	21	3 10.1	21.2
292475 2006 SF_{391}	15.9	X	154.06770	134.45150	37.10483	6.08012	0.0402365	0.18993734	2.9972927	21	9 2.9	20.3
292476 2006 SB_{392}	16.9	X	136.53834	143.68000	187.78298	6.77298	0.1241310	0.21796945	2.7344645	21	—	—
292477 2006 SD_{392}	16.6	X	147.14838	304.03845	96.10441	3.54262	0.0664719	0.23053429	2.6341815	21	3 8.3	20.2
292478 2006 SG_{392}	16.1	X	158.93896	125.70414	25.44387	11.02892	0.0515830	0.18605722	3.0388204	21	8 16.0	20.7
292479 2006 ST_{392}	16.8	X	11.44797	107.43700	355.05333	6.89914	0.0782511	0.21478969	2.7613859	21	—	—
292480 2006 SQ_{393}	16.9	X	311.34349	110.38460	275.95842	1.19647	0.2654657	0.25246520	2.4793340	21	8 16.7	18.8

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	m		°	°	°	°		°				
292481 2006 ST_{393}	16.1	X	318.84404	120.57836	183.45198	4.67611	0.0979995	0.17862535	3.1225350	21	5 29.4	20.1
292482 2006 SM_{398}	17.9	X	309.95496	256.07275	178.88425	4.30576	0.2011153	0.26705374	2.3881977	21	11 16.8	19.6
292483 2006 SR_{398}	18.1	X	91.87608	44.38701	261.01471	0.51028	0.1874456	0.27593935	2.3366498	21	12 29.5	21.8
292484 2006 SV_{399}	16.0	X	204.41612	177.52747	160.88388	16.50483	0.1996923	0.23191746	2.6236974	21	2 22.3	20.5
292485 2006 SZ_{399}	18.2	X	294.72789	211.30368	256.53153	0.76616	0.1226350	0.26848451	2.3797056	21	12 11.2	20.6
292486 2006 SK_{400}	15.9	X	187.52767	250.49986	85.91986	15.21720	0.1406597	0.22811965	2.6527374	21	2 8.3	20.3
292487 2006 SB_{401}	17.0	X	232.95892	72.29813	249.17554	0.96863	0.0700930	0.23249222	2.6193715	21	3 2.8	20.8
292488 2006 SJ_{401}	16.3	X	10.06413	289.50325	230.56229	8.41087	0.1603296	0.21876401	2.7278394	21	1 22.8	19.4
292489 2006 SV_{401}	16.9	X	98.03169	275.23480	72.93641	5.79982	0.0710292	0.27496976	2.3421395	21	—	—
292490 2006 SH_{406}	16.4	X	224.81538	290.05048	358.94131	10.91628	0.1716126	0.22772894	2.6557707	21	1 15.8	21.0
292491 2006 SK_{406}	16.7	X	297.42037	199.90124	67.94723	4.00992	0.0684662	0.23749857	2.5824310	21	3 12.7	20.1
292492 2006 SZ_{406}	15.6	X	268.31720	253.67889	72.84102	17.14874	0.2450268	0.17731913	3.1378510	21	4 13.1	20.8
292493 2006 SS_{410}	16.2	X	242.59707	163.25221	206.60913	9.26021	0.1279598	0.17898675	3.1183304	21	5 14.1	21.0
292494 2006 SM_{412}	15.5	X	309.11926	306.56099	4.19324	18.53210	0.2751701	0.18190257	3.0849171	21	4 19.7	19.8
292495 2006 SP_{413}	15.5	X	285.54122	130.86534	256.11063	7.20053	0.0608207	0.18735477	3.0247736	21	8 1.5	19.8
292496 2006 TU_{4}	15.5	X	228.62164	233.68063	163.87929	10.77577	0.0429046	0.17954520	3.1118610	21	6 10.4	20.2
292497 2006 TX_{7}	16.2	X	290.25409	39.03791	0.44156	11.59673	0.0680463	0.19038734	2.9925678	21	8 29.3	20.2
292498 2006 TQ_{9}	16.2	X	73.14245	348.78671	158.19053	9.98754	0.0551552	0.17038242	3.2224501	21	4 26.9	20.7
292499 2006 TQ_{10}	15.8	X	169.42409	242.49486	171.06184	11.08025	0.0779510	0.16944966	3.2342649	21	4 26.8	20.8
292500 2006 TB_{13}	16.7	X	226.20407	49.34951	289.54647	5.82341	0.1681143	0.23718533	2.5847041	21	3 10.7	21.0
292501 2006 TO_{13}	15.5	X	190.70447	287.42426	180.63827	20.46984	0.0165707	0.18532707	3.0467966	21	7 22.2	20.2
292502 2006 TW_{13}	16.4	X	106.84796	277.95800	100.25571	10.80707	0.1099084	0.22056206	2.7129941	21	—	—
292503 2006 TD_{15}	17.2	X	325.73588	126.91617	214.23865	7.74524	0.0368472	0.25400537	2.4693015	21	8 2.4	20.4
292504 2006 TC_{16}	16.4	X	319.75780	110.91308	230.84135	1.26394	0.1455309	0.18732665	3.0250763	21	7 13.3	20.1
292505 2006 TJ_{17}	17.1	X	248.57268	185.43884	177.51938	1.98513	0.1803840	0.24396566	2.5365899	21	5 2.6	21.0
292506 2006 TW_{17}	16.3	X	116.39796	212.28695	167.36288	4.05222	0.0506843	0.22066650	2.7121379	21	1 1.2	19.9
292507 2006 TB_{18}	16.1	X	73.51189	256.99659	68.27039	4.71496	0.0495555	0.20336891	2.8638241	21	12 7.9	20.1
292508 2006 TP_{18}	15.8	X	255.20461	278.62192	33.38848	5.96182	0.1521745	0.17080415	3.2171435	21	3 17.9	20.8
292509 2006 TS_{20}	15.8	X	284.06869	162.66191	213.74302	9.64839	0.0326412	0.18282529	3.0745286	21	7 20.5	20.2
292510 2006 TP_{22}	16.5	X	323.07556	50.61372	82.41917	3.51477	0.0316258	0.21088721	2.7953480	21	—	—
292511 2006 TL_{24}	16.7	X	39.26529	133.12029	269.04068	2.10051	0.0668645	0.21042690	2.7994231	21	—	—
292512 2006 TS_{26}	16.9	X	166.28664	274.70166	37.20804	2.86911	0.0396484	0.21727282	2.7403063	21	—	—
292513 2006 TU_{27}	16.0	X	257.53696	344.75332	42.36033	3.14641	0.1299325	0.18061012	3.0996167	21	6 19.5	20.6
292514 2006 TU_{28}	16.4	X	345.88125	168.79822	146.60808	1.21700	0.1720448	0.18731823	3.0251669	21	7 22.7	19.7
292515 2006 TA_{31}	17.2	X	325.33124	317.21025	39.14030	4.67253	0.2179712	0.25733802	2.4479361	21	8 12.0	19.2
292516 2006 TN_{31}	16.1	X	298.73973	105.38833	207.29271	11.36572	0.0984529	0.17666277	3.1456183	21	5 12.6	20.4
292517 2006 TA_{32}	16.3	X	7.95672	325.04915	212.36147	8.94635	0.0346109	0.22916327	2.6446774	21	2 18.6	19.8
292518 2006 TL_{32}	16.9	X	24.89879	317.63678	205.35616	1.26973	0.0235367	0.22965067	2.6409341	21	2 26.5	20.1
292519 2006 TU_{32}	17.9	X	147.58017	195.39772	133.98711	0.34992	0.1307103	0.28630253	2.2799182	21	—	—
292520 2006 TH_{34}	16.4	X	77.21797	93.44682	5.35822	3.71120	0.0410609	0.22611446	2.6683973	21	2 18.2	19.7
292521 2006 TW_{35}	17.0	X	146.71857	98.08882	239.45026	3.81743	0.1689300	0.21978707	2.7193679	21	1 1.2	21.0
292522 2006 TH_{36}	16.6	X	111.80772	202.50049	33.11193	15.12536	0.0451556	0.25865159	2.4396412	21	10 12.1	19.9
292523 2006 TY_{36}	16.4	X	306.95743	18.03447	226.39943	7.02483	0.1548379	0.23045992	2.6347482	21	2 6.1	20.1
292524 2006 TZ_{36}	16.9	X	160.99181	8.85150	225.79198	6.32108	0.0787514	0.26782401	2.3836165	21	12 6.2	20.2
292525 2006 TM_{37}	17.0	X	185.54689	121.07546	227.60333	1.39361	0.2196679	0.22928473	2.6437433	21	2 20.1	21.5
292526 2006 TX_{37}	16.3	X	259.79379	296.88800	50.11470	1.34027	0.1809713	0.17577953	3.1561467	21	4 27.9	21.0
292527 2006 TD_{38}	16.2	X	145.84177	190.50783	215.40467	13.00431	0.1618607	0.22934045	2.6433151	21	3 19.5	20.3
292528 2006 TL_{39}	16.7	X	207.90949	52.56810	349.97599	0.29362	0.1850279	0.17337859	3.1852173	21	5 17.1	21.8
292529 2006 TD_{40}	16.8	X	225.68873	47.93654	26.89415	1.18934	0.1321116	0.18063465	3.0993361	21	7 15.1	21.4
292530 2006 TZ_{40}	16.8	X	138.12695	173.66203	232.71862	2.11011	0.1368331	0.22819086	2.6521855	21	3 11.6	20.7
292531 2006 TH_{41}	15.8	X	44.43731	101.09036	221.56085	10.50748	0.0582194	0.19643041	2.9308723	21	10 29.6	19.8
292532 2006 TO_{44}	16.2	X	241.23166	142.33943	197.09630	0.55907	0.1695616	0.17004012	3.2267733	21	4 2.7	21.4
292533 2006 TH_{45}	16.0	X	208.46632	272.63961	123.48679	1.87830	0.1823532	0.17188550	3.2036364	21	5 10.8	21.3
292534 2006 TR_{45}	16.6	X	67.91951	260.39523	205.85422	4.40137	0.0996376	0.22335159	2.6903577	21	2 18.9	19.8
292535 2006 TY_{45}	16.9	X	348.17622	258.99664	187.28805	1.73794	0.0398676	0.20631679	2.8364797	21	—	—
292536 2006 TN_{46}	16.6	X	159.71672	276.66359	52.68658	5.78206	0.1154059	0.21913295	2.7247767	21	—	—
292537 2006 TO_{46}	16.3	X	40.24318	7.87178	60.56452	5.29806	0.0530353	0.21268617	2.7795631	21	—	—
292538 2006 TU_{46}	17.5	X	193.63761	218.40649	64.61579	1.30081	0.2194841	0.28658616	2.2784136	21	—	—
292539 2006 TC_{47}	16.8	X	212.69397	234.54721	60.68535	3.67870	0.0707386	0.22210639	2.7004036	21	1 10.4	20.8
292540 2006 TV_{47}	17.5	X	292.64725	253.55923	201.67227	1.74325	0.1480166	0.26362147	2.4088820	21	11 14.9	19.6
292541 2006 TC_{48}	16.4	X	212.82523	328.22265	52.38180	3.37369	0.1136177	0.17069384	3.2185294	21	4 28.4	21.3
292542 2006 TH_{48}	17.6	X	295.73751	261.00652	192.00961	0.91299	0.1467794	0.26380827	2.4077448	21	11 17.6	19.8
292543 2006 TF_{50}	17.0	X	115.56906	240.74987	82.03666	6.06005	0.1304443	0.27924552	2.3181698	21	—	—
292544 2006 TT_{53}	15.5	X	206.32644	87.74514	52.93178	11.88712	0.0647799	0.18825297	3.0151447	21	9 25.9	20.1
292545 2006 TQ_{54}	16.7	X	274.27329	151.65787	251.91449	4.33215	0.1082919	0.25320854	2.4744793	21	8 4.5	19.7
292546 2006 TT_{54}	16.9	X	166.55625	205.66377	106.22986	5.36686	0.1734339	0.28762905	2.2729029	21	—	—
292547 2006 TE_{55}	15.7	X	235.98173	298.39096	88.30016	11.11655	0.2421607	0.17731985	3.1378425	21	5 20.6	21.0
292548 2006 TR_{55}	16.8	X	206.72410	190.82670	175.99759	13.43088	0.2213451	0.23611599	2.5925021	21	3 31.3	21.2
292549 2006 TL_{60}	16.7	X	357.06245	102.48968	7.60300	3.35054	0.0494237	0.21149868	2.7899577	21	—	—
292550 2006 TV_{60}	18.0	X	1.99216	16.97445	51.89656	7.86453	0.0756023	0.27367044	2.3495469	21	—	—
292551 2006 TR_{61}	15.5	X	195.49685	269.77872	250.29052	10.03169	0.0337052	0.19894726	2.9061012	21	9 30.9	19.9
292552 2006 TF_{63}	16.0	X	309.06540	212.48447	176.83439	10.80514	0.1125106	0.19233166	2.9723654	21	9 2.2	19.8
292553 2006 TJ_{64}	17.1	X	353.83282	89.62315	318.75099	6.93047	0.0942468	0.27376052	2.3490315	21	12 31.8	19.7
292554 2006 TS_{65}	17.0	X	150.56972	7.21525	287.82845	7.22305	0.1245172	0.28331141	2.2959372	21	—	—
292555 2006 TP_{66}	15.5	X	245.09036	113.85885	337.56564	10.79578	0.0135147	0.19296537	2.9658542	21	9 9.6	19.7
292556 2006 TX_{66}	16.2	X	207.58809	123.89506	294.68054	6.63569	0.2341047	0.17719682	3.1392947	21	6 2.9	21.7
292557 2006 TF_{67}	15.3	X	185.81240	109.40348	320.50417	13.21749	0.1051439	0.17626895	3.1503018	21	5 29.2	20.4
292558 2006 TP_{69}	16.0	X	235.33488	233.56275	71.61657	14.47259	0.2561483	0.23566740	2.5957909	21	2 11.2	20.8
292559 2006 TY_{69}	16.3	X	268.18383	359.42556	294.90388	4.42737	0.2555089	0.23940139	2.5687289	21	2 17.4	20.5
292560 2006 TR_{70}	16.1	X	258.71387	230.44430	181.52697	10.23647	0.1561751	0.18513690	3.0488828	21	7 17.4	20.7

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292561 2006 TT_{70}	15.5	X	281.07057	208.56697	176.91414	10.85519	0.1150488	0.18582515	3.0413500	21	7 16.9	19.8
292562 2006 TF_{71}	17.5	X	325.62349	125.75274	301.48986	1.85016	0.1794209	0.26708526	2.3880098	21	12 11.2	19.4
292563 2006 TG_{71}	15.5	X	24.16970	287.30752	351.81879	6.08998	0.0825130	0.18710625	3.0274514	21	8 9.1	19.3
292564 2006 TL_{71}	15.9	X	289.38114	71.79560	256.34361	3.87916	0.2120828	0.18105865	3.0944955	21	5 1.4	20.3
292565 2006 TJ_{73}	16.1	X	281.93554	186.60718	155.13281	2.86207	0.1459073	0.17917762	3.1161154	21	5 20.6	20.5
292566 2006 TO_{75}	16.3	X	155.69597	260.13088	98.15453	5.63265	0.0915294	0.22459202	2.6804425	21	1 27.6	20.1
292567 2006 TJ_{76}	16.6	X	102.99395	352.44451	79.03899	3.57513	0.1371091	0.22622726	2.6675102	21	3 4.6	20.1
292568 2006 TT_{76}	15.4	X	174.60000	212.59038	246.88009	15.74213	0.2322960	0.17393497	3.1784211	21	6 25.5	21.0
292569 2006 TX_{76}	14.7	X	140.98974	115.41579	18.33681	26.22545	0.1537055	0.17460595	3.1702733	21	7 11.1	20.3
292570 2006 TW_{78}	15.6	X	322.17994	71.55218	224.47981	8.75570	0.0832601	0.17768605	3.1335297	21	5 25.3	19.8
292571 2006 TN_{79}	15.7	X	330.38962	337.21144	355.40509	8.42481	0.1047966	0.18561129	3.0436856	21	7 25.9	19.5
292572 2006 TH_{80}	16.0	X	327.28937	286.91971	16.26263	14.70512	0.3188940	0.18493323	3.0511209	21	5 2.7	19.6
292573 2006 TY_{80}	15.7	X	282.72106	16.69212	300.46887	4.39220	0.1547644	0.17515430	3.1636531	21	4 17.0	20.3
292574 2006 TC_{83}	15.6	X	147.14874	126.85344	16.08385	13.02219	0.0599983	0.17957385	3.1115299	21	7 22.3	20.4
292575 2006 TW_{84}	16.0	X	301.99617	278.90195	8.46293	7.79057	0.1709562	0.17294361	3.1905559	21	4 3.2	20.4
292576 2006 TD_{87}	17.3	X	142.40274	41.61577	14.89635	3.39286	0.3033669	0.22959203	2.6413838	21	4 13.0	21.8
292577 2006 TG_{87}	16.7	X	121.96029	289.56725	23.72995	5.40958	0.1580035	0.21043888	2.7993169	21	—	—
292578 2006 TU_{87}	15.6	X	291.76271	94.63757	233.98521	8.36181	0.1003045	0.17686537	3.1432156	21	5 22.6	19.9
292579 2006 TR_{89}	16.5	X	61.89413	339.11802	337.26999	3.38061	0.0407667	0.19739953	2.9212718	21	11 9.7	20.6
292580 2006 TX_{89}	17.5	X	359.87439	198.94988	249.08542	3.87497	0.0813318	0.27573453	2.3378068	21	—	—
292581 2006 TJ_{91}	16.8	X	18.70625	218.47087	287.37005	1.20734	0.0314883	0.22273690	2.6953051	21	1 28.2	20.1
292582 2006 TT_{91}	16.6	X	224.12357	301.01224	34.04240	3.18760	0.0621708	0.23111841	2.6297413	21	3 12.3	20.4
292583 2006 TT_{92}	15.8	X	319.02199	150.20447	186.29701	6.65441	0.0554023	0.18404380	3.0609430	21	7 14.7	20.0
292584 2006 TH_{94}	16.4	X	83.04137	6.10859	43.52371	5.73961	0.1150208	0.22023564	2.7156741	21	1 3.2	19.7
292585 2006 TP_{95}	17.9	X	237.90014	166.29526	209.66494	20.81429	0.0656249	0.37815894	1.8938829	21	5 9.9	19.9
292586 2006 TG_{97}	18.4	X	259.95724	115.92456	233.39151	4.81694	0.2780693	0.24463282	2.5319759	21	4 15.9	22.7
292587 2006 TT_{98}	16.3	X	281.53676	338.87363	38.28781	3.01678	0.1378038	0.18439753	3.0570272	21	7 5.3	20.4
292588 2006 TL_{99}	15.8	X	286.89579	115.89473	201.99560	9.39487	0.0784965	0.17582737	3.1555742	21	5 6.8	20.2
292589 2006 TC_{100}	17.0	X	63.72268	82.92278	325.22456	2.43505	0.1699914	0.21481782	2.7611448	21	—	—
292590 2006 TB_{101}	17.1	X	88.46940	115.93198	249.14475	3.32162	0.0859129	0.21262940	2.7800579	21	—	—
292591 2006 TQ_{101}	17.1	X	15.21418	210.37643	264.47711	2.07120	0.0320542	0.21769950	2.7367246	21	—	—
292592 2006 TW_{101}	15.9	X	60.20643	234.32055	30.98910	10.32723	0.0649367	0.18843993	3.0131501	21	9 12.3	20.1
292593 2006 TY_{101}	16.0	X	257.28253	307.56946	22.73731	2.41996	0.1234368	0.17215889	3.2002439	21	4 11.3	20.8
292594 2006 TL_{103}	16.3	X	130.77917	119.63002	50.87611	2.00332	0.1108088	0.18028295	3.1033656	21	8 8.6	21.0
292595 2006 TH_{104}	17.5	X	224.63707	68.28958	60.97096	3.36316	0.1471521	0.25658675	2.4527121	21	9 25.3	20.9
292596 2006 TN_{105}	15.6	X	257.00524	274.59413	49.80578	5.94152	0.1617413	0.17182419	3.2043984	21	4 2.3	20.6
292597 2006 TO_{106}	17.7	X	62.98982	358.33526	65.84992	2.84033	0.2147810	0.28479200	2.2879728	21	—	—
292598 2006 TT_{106}	16.2	X	208.57547	273.67663	203.91923	8.24510	0.2384996	0.18038921	3.1021468	21	8 10.8	21.7
292599 2006 TR_{107}	15.3	X	215.87083	296.01230	121.93340	23.53203	0.2167376	0.17943108	3.1131803	21	6 13.8	20.8
292600 2006 TU_{107}	13.3	X	324.20014	198.21464	238.07066	16.28447	0.0209354	0.07994030	5.3369386	21	11 11.9	20.3
292601 2006 TX_{108}	17.2	X	13.72425	255.12782	85.81171	3.71798	0.0704159	0.26275750	2.4141596	21	10 24.5	19.8
292602 2006 TZ_{108}	15.7	X	220.65573	72.22097	296.13965	11.71527	0.1202046	0.17126581	3.2113596	21	4 15.2	21.0
292603 2006 TC_{109}	16.3	X	347.91761	100.23156	19.72135	13.38654	0.1545802	0.21128922	2.7918012	21	—	—
292604 2006 TN_{109}	17.4	X	106.05164	77.59045	302.92582	2.81449	0.0059098	0.28368238	2.2939352	21	—	—
292605 2006 TS_{111}	15.5	X	45.56670	130.85613	112.21958	10.00611	0.0381208	0.18238734	3.0794483	21	7 16.8	19.5
292606 2006 TD_{115}	15.5	X	194.74801	229.46347	160.14686	15.18546	0.0625373	0.16932618	3.2358370	21	4 25.7	20.6
292607 2006 TX_{115}	15.8	X	225.65382	272.38715	150.78941	10.85098	0.1070317	0.18088147	3.0965160	21	7 2.2	20.7
292608 2006 TA_{117}	16.0	X	93.24184	122.56692	148.32908	10.04922	0.1507565	0.20032513	2.8927601	21	11 8.5	20.6
292609 2006 TW_{120}	15.7	X	181.42633	314.41839	151.80425	12.95590	0.0995429	0.17795947	3.1303193	21	7 9.9	20.7
292610 2006 TW_{121}	16.8	X	168.84775	67.00450	265.01041	4.74275	0.0338510	0.22130900	2.7068862	21	1 3.7	20.6
292611 2006 TN_{124}	16.2	X	300.99259	179.66883	68.99629	8.59940	0.1573550	0.23068005	2.6330717	21	2 9.9	20.0
292612 2006 TB_{128}	15.5	X	289.39078	261.76014	32.75434	5.32959	0.1365890	0.16996294	3.2277500	21	4 3.2	20.1
292613 2006 TL_{128}	17.6	X	276.32210	257.49977	180.55062	1.51635	0.0674189	0.25886551	2.4382969	21	10 4.5	20.3
292614 2006 TO_{129}	16.7	X	345.46201	46.05389	218.31409	14.64497	0.0899304	0.24293267	2.5437754	21	5 12.9	19.5
292615 2006 UC_{1}	16.3	X	261.63160	228.11732	55.38653	10.14824	0.0707781	0.22973105	2.6403181	21	2 21.1	20.2
292616 2006 UE_{1}	15.5	X	122.16105	234.92621	284.23270	9.19297	0.0395432	0.18795022	3.0183817	21	7 7.7	19.7
292617 2006 US_{2}	15.4	X	131.12115	122.01010	15.71121	11.02725	0.0606725	0.17978857	3.1090520	21	6 23.3	20.2
292618 2006 UC_{3}	16.1	X	227.66888	240.65705	146.20042	2.46746	0.1926246	0.17463600	3.1699096	21	5 15.7	21.4
292619 2006 UH_{5}	18.1	X	351.35705	311.89468	119.34681	4.60018	0.2617416	0.27251369	2.3561910	21	—	—
292620 2006 UL_{6}	17.4	X	357.64936	279.29002	105.62541	2.26497	0.1871446	0.26640461	2.3920755	21	12 14.9	19.5
292621 2006 UD_{7}	17.0	X	97.08287	287.72639	130.58594	2.87202	0.2552630	0.22170307	2.7036776	21	2 25.2	20.3
292622 2006 UN_{7}	16.6	X	44.21900	242.49046	67.14508	7.17357	0.1070302	0.26189909	2.4194318	21	11 1.2	19.6
292623 2006 UD_{9}	15.0	X	274.19414	293.80224	58.66520	16.27263	0.0835868	0.17647206	3.1478842	21	5 31.6	19.5
292624 2006 UG_{9}	15.7	X	279.09240	291.30424	79.54128	6.27788	0.1741261	0.18111321	3.0938740	21	6 18.2	20.0
292625 2006 UH_{18}	17.6	X	222.99745	303.26749	47.73412	10.32732	0.1698859	0.30289564	2.1958738	21	3 24.0	21.1
292626 2006 UP_{19}	16.8	X	212.63085	93.34463	218.61180	11.11483	0.1448141	0.22920372	2.6443663	21	1 26.1	21.2
292627 2006 UW_{19}	15.8	X	161.82541	224.67453	228.74409	7.13825	0.1159479	0.17392162	3.1785838	21	6 5.7	20.7
292628 2006 UL_{20}	15.9	X	307.53881	292.25673	329.43295	2.23067	0.0980987	0.16965817	3.2316143	21	3 20.3	20.3
292629 2006 UQ_{21}	17.0	X	314.71036	55.81129	12.39223	5.66194	0.1678666	0.26489860	2.4011333	21	11 15.4	19.0
292630 2006 UD_{23}	18.0	X	304.46874	112.69029	342.62760	2.20929	0.1515042	0.26760315	2.3849278	21	12 8.7	20.1
292631 2006 UZ_{23}	15.7	X	151.18293	246.20776	231.81709	6.17415	0.0993938	0.17614118	3.1518251	21	6 23.8	20.6
292632 2006 UR_{24}	16.2	X	108.88381	128.79117	19.28803	5.90894	0.0882985	0.17409902	3.1764242	21	6 13.3	20.9
292633 2006 UL_{25}	17.5	X	341.16681	73.03210	254.37116	1.55396	0.1888995	0.25604904	2.4561447	21	8 2.1	19.5
292634 2006 UB_{27}	16.8	X	56.97160	10.34610	332.63087	1.28715	0.0754379	0.20352581	2.8623521	21	12 13.5	20.6
292635 2006 UG_{27}	17.4	X	210.75543	174.49818	220.69926	1.09232	0.1305026	0.24113555	2.5563985	21	5 9.2	21.2
292636 2006 UM_{29}	17.4	X	213.44217	193.96644	18.40799	1.94166	0.1274113	0.27489023	2.3425912	21	—	—
292637 2006 UW_{29}	16.3	X	167.38180	236.42804	232.08330	3.68083	0.1349594	0.17689940	3.1428126	21	6 29.7	21.3
292638 2006 UC_{30}	16.4	X	4.09814	100.64575	305.36551	1.01606	0.0729991	0.20456438	2.8526558	21	12 22.6	19.8
292639 2006 UG_{33}	17.8	X	276.14426	6.27362	84.91373	1.16697	0.1413375	0.26049432	2.4281222	21	10 11.9	20.6
292640 2006 UZ_{34}	16.4	X	95.67622	159.24721	210.20561	7.22705	0.2198161	0.21605720	2.7505754	21	—	—

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	m		°	°	°	°		°				
292641 2006 UZ_{35}	17.4	X	126.94488	46.13383	234.05645	5.78265	0.1243278	0.27238233	2.3569485	21	12 27.6	21.0
292642 2006 UT_{36}	16.8	X	102.07842	179.66489	32.37663	7.21663	0.1337081	0.25162299	2.4848633	21	9 8.1	20.4
292643 2006 UD_{37}	16.9	X	17.17157	20.05669	303.71090	1.13161	0.0643165	0.19101715	2.9859863	21	9 23.2	20.6
292644 2006 UB_{38}	18.0	X	13.93625	58.57331	31.81889	2.05325	0.0332039	0.27989889	2.3145608	21	—	—
292645 2006 UP_{38}	17.2	X	228.49666	359.42498	36.11887	3.40672	0.1147972	0.24323192	2.5416886	21	5 28.5	20.9
292646 2006 UT_{38}	16.1	X	301.45768	98.83586	219.41911	9.95919	0.1195625	0.17780842	3.1320919	21	5 19.8	20.3
292647 2006 UT_{39}	17.2	X	95.45795	203.98600	256.32796	1.42096	0.1144476	0.22853608	2.6495139	21	3 25.7	20.7
292648 2006 UB_{44}	18.6	X	270.72308	330.59985	39.27341	1.44200	0.1814379	0.31509769	2.1388118	21	5 31.9	21.2
292649 2006 UG_{45}	16.2	X	248.75812	321.60910	220.14538	14.47692	0.0861628	0.20355737	2.8620562	21	12 26.9	20.3
292650 2006 UZ_{50}	17.0	X	225.34272	274.30008	43.90670	3.37322	0.0761440	0.23159184	2.6261561	21	2 20.4	20.8
292651 2006 UP_{51}	16.9	X	107.96917	33.39936	300.34624	4.36955	0.0707555	0.21161429	2.7889414	21	—	—
292652 2006 UR_{51}	15.5	X	357.62736	257.05977	5.24081	10.16810	0.0825653	0.17769369	3.1334400	21	6 1.3	19.6
292653 2006 UB_{52}	17.5	X	257.05348	12.74248	169.20015	2.91838	0.1322188	0.27589642	2.3368921	21	—	—
292654 2006 UO_{52}	16.3	X	169.63974	115.61939	318.74792	2.67168	0.0724894	0.17491018	3.1665960	21	5 18.6	21.0
292655 2006 UP_{52}	16.0	X	343.64189	75.62803	219.95497	6.20027	0.1512339	0.18596056	3.0398734	21	6 21.1	19.5
292656 2006 UC_{53}	16.2	X	271.81388	299.31982	84.94402	2.22940	0.1852741	0.18227201	3.0807472	21	6 25.1	20.4
292657 2006 UY_{53}	15.5	X	155.95223	73.18473	56.52692	15.67785	0.0044243	0.17711537	3.1402572	21	7 9.4	20.1
292658 2006 UQ_{54}	15.4	X	267.97147	100.15543	245.53438	9.21460	0.1118788	0.17788906	3.1311453	21	5 12.4	20.0
292659 2006 UK_{57}	17.5	X	136.20149	4.39192	262.15276	6.36323	0.0931751	0.27640775	2.3340093	21	12 20.9	20.9
292660 2006 UZ_{57}	17.1	X	95.92643	283.09071	170.72739	1.91040	0.1725343	0.22592233	2.6699099	21	3 28.2	20.3
292661 2006 UV_{58}	16.2	X	149.70013	348.72521	285.10059	1.40461	0.0474890	0.21404854	2.7677564	21	—	—
292662 2006 UA_{60}	15.4	X	247.31292	143.86865	242.26506	10.38572	0.1345869	0.17928253	3.1148997	21	6 6.6	20.0
292663 2006 UC_{62}	15.6	X	101.55907	312.82014	231.38164	15.58658	0.0147992	0.18107268	3.0943357	21	7 7.6	20.2
292664 2006 UL_{65}	16.4	X	26.31937	353.00988	330.10643	1.14001	0.0796532	0.19916105	2.9040212	21	10 8.4	20.1
292665 2006 UO_{66}	17.7	X	160.49635	60.31324	212.27452	6.38560	0.0949372	0.27820659	2.3239375	21	—	—
292666 2006 UY_{66}	15.9	X	138.15886	322.74205	191.60951	5.32461	0.0842636	0.18367657	3.0650217	21	7 23.3	20.6
292667 2006 UD_{69}	15.8	X	215.66020	314.78859	82.51779	7.13146	0.1764699	0.17425594	3.1745170	21	5 18.9	21.0
292668 2006 UX_{69}	16.8	X	236.43970	207.02980	110.73139	3.57173	0.0636639	0.23250606	2.6192676	21	3 4.2	20.6
292669 2006 UM_{74}	16.3	X	211.17869	135.34512	303.23685	3.99911	0.1011931	0.18055656	3.1002297	21	7 7.0	20.9
292670 2006 UA_{75}	17.1	X	235.78592	204.67999	237.29213	7.01071	0.1017632	0.25275501	2.4774384	21	8 6.5	20.6
292671 2006 UK_{75}	16.5	X	324.48621	139.58814	189.44538	8.93796	0.1078548	0.18610286	3.0383235	21	7 7.2	20.4
292672 2006 UT_{76}	17.0	X	125.51499	25.99381	347.57972	5.89630	0.0523336	0.22136741	2.7064100	21	1 6.5	20.6
292673 2006 UK_{78}	15.9	X	259.93447	354.86415	2.91049	4.52038	0.0368289	0.17622843	3.1507848	21	5 27.5	20.4
292674 2006 UM_{79}	17.1	X	26.04961	48.08997	227.78999	8.36478	0.2380921	0.25649405	2.4533030	21	8 28.4	19.5
292675 2006 UB_{81}	16.4	X	230.01568	46.81045	332.82721	5.58540	0.1447995	0.17491962	3.1664820	21	5 9.5	21.5
292676 2006 UK_{83}	17.7	X	181.63550	248.40951	109.62368	2.43479	0.1930209	0.29616889	2.2289984	21	2 20.6	21.1
292677 2006 US_{83}	16.9	X	65.88430	346.63481	270.64767	4.56688	0.1149709	0.25569440	2.4584153	21	9 15.9	20.1
292678 2006 UF_{84}	16.8	X	64.98258	124.83108	226.74593	1.15990	0.0762195	0.20402502	2.8576811	21	—	—
292679 2006 UR_{84}	16.5	X	46.19877	131.02214	272.47355	3.65749	0.1093669	0.21019301	2.8014994	21	—	—
292680 2006 UR_{89}	16.9	X	255.72118	74.62092	251.34447	2.71975	0.2407560	0.23868625	2.5738572	21	3 17.9	21.1
292681 2006 UO_{90}	18.1	X	276.08415	103.61241	321.94535	1.36766	0.0484265	0.25531909	2.4608239	21	9 18.4	21.1
292682 2006 UN_{92}	15.9	X	302.76912	142.76651	200.37643	9.34396	0.0591166	0.18178556	3.0862407	21	6 30.2	20.2
292683 2006 UB_{93}	15.9	X	239.53806	294.21774	85.76709	2.58112	0.2549453	0.17738392	3.1370869	21	5 13.1	21.2
292684 2006 UW_{93}	17.1	X	255.35104	355.69665	63.15980	4.37624	0.0720695	0.25220655	2.4810288	21	8 8.8	20.3
292685 2006 UL_{94}	17.1	X	19.60473	252.72678	81.72833	3.99273	0.1125985	0.26250088	2.4157327	21	10 30.3	19.7
292686 2006 UV_{96}	16.8	X	91.46121	30.82372	189.79550	6.45604	0.0743243	0.25282228	2.4769989	21	8 24.9	20.0
292687 2006 UG_{97}	17.1	X	82.60918	233.00477	155.11945	3.62758	0.0993214	0.21552077	2.7551376	21	—	—
292688 2006 UM_{97}	17.0	X	204.97901	220.33498	84.37195	3.22815	0.0672574	0.22389175	2.6860288	21	1 13.2	21.0
292689 2006 UB_{98}	17.0	X	102.01176	9.84070	98.13545	3.32685	0.1614246	0.23018593	2.6368385	21	4 22.9	20.5
292690 2006 UO_{98}	17.3	X	209.31336	166.41754	175.79091	4.92711	0.2014491	0.23279969	2.6170647	21	3 2.7	21.7
292691 2006 UB_{99}	15.6	X	233.23435	206.04791	195.25669	9.04907	0.0965882	0.17747545	3.1360082	21	6 14.4	20.5
292692 2006 UL_{99}	16.9	X	212.54273	171.97111	159.00074	4.27975	0.1915778	0.23133174	2.6281243	21	2 20.5	21.3
292693 2006 UZ_{110}	17.0	X	175.21966	223.39545	221.78017	6.69719	0.2456729	0.24317671	2.5420733	21	6 9.4	21.4
292694 2006 UB_{111}	16.7	X	233.87799	35.30035	247.68799	4.15834	0.1756730	0.23251608	2.6191923	21	1 12.4	21.1
292695 2006 UZ_{113}	16.5	X	58.39322	234.84031	23.94538	2.22054	0.0607289	0.18859217	3.0115283	21	8 28.1	20.5
292696 2006 UD_{117}	17.5	X	217.36619	104.63578	217.51906	1.83392	0.1360415	0.23154781	2.6264891	21	2 13.9	21.8
292697 2006 UW_{117}	17.5	X	293.44580	123.88647	183.33893	2.07249	0.1604880	0.24375506	2.5380507	21	4 12.2	20.9
292698 2006 UE_{121}	16.9	X	269.97809	277.82790	125.45310	2.14351	0.1827765	0.18530874	3.0469976	21	7 17.5	21.2
292699 2006 UF_{121}	16.6	X	359.37049	32.97081	190.35153	6.80019	0.1497305	0.23724628	2.5842614	21	4 2.4	19.2
292700 2006 UV_{121}	16.4	X	161.86005	63.97867	196.46749	7.71055	0.1869043	0.21039898	2.7996708	21	12 24.8	21.2
292701 2006 UZ_{121}	17.2	X	124.28965	289.47017	197.20405	8.16415	0.1134474	0.23972838	2.5663925	21	6 6.1	20.9
292702 2006 UK_{122}	17.4	X	186.40429	56.51598	186.57559	3.78283	0.0712419	0.27619371	2.3352149	21	—	—
292703 2006 UE_{123}	17.4	X	301.46008	140.40378	152.54318	2.35383	0.0937752	0.24130491	2.5552022	21	4 14.8	20.7
292704 2006 UW_{123}	17.8	X	258.55048	25.90560	179.34297	1.71132	0.0799273	0.28210361	2.3024858	21	—	—
292705 2006 US_{124}	17.2	X	357.95048	278.12077	214.57876	5.37614	0.0612952	0.28820771	2.2698596	21	—	—
292706 2006 UU_{124}	16.2	X	65.39799	285.57018	351.35424	5.00772	0.1620492	0.19871384	2.9083765	21	10 13.0	20.2
292707 2006 UJ_{126}	16.1	X	318.09481	50.96780	263.51857	4.03038	0.1292596	0.18116183	3.0933205	21	6 5.9	19.8
292708 2006 UC_{127}	16.7	X	114.67463	34.96489	286.86570	2.43314	0.0885425	0.21045426	2.7991805	21	—	—
292709 2006 UM_{127}	17.3	X	214.81569	155.88400	12.16011	5.08622	0.1096584	0.26410825	2.4059212	21	11 6.2	20.6
292710 2006 US_{127}	16.5	X	142.19028	15.99266	346.87689	12.87131	0.1796487	0.22369339	2.6876164	21	1 31.5	20.6
292711 2006 UD_{128}	17.2	X	292.82503	79.84171	222.44719	15.81459	0.1651742	0.24161926	2.5529855	21	4 1.1	20.9
292712 2006 UJ_{128}	18.1	X	277.53860	195.88154	259.36561	0.81606	0.1468932	0.26138443	2.4226067	21	10 18.3	20.7
292713 2006 UD_{130}	17.0	X	279.77627	294.97512	295.57972	1.03218	0.0568848	0.22271416	2.6954886	21	1 5.1	20.9
292714 2006 UU_{130}	15.6	X	78.75146	164.95956	25.47150	9.44580	0.0416536	0.17719815	3.1392790	21	6 23.1	20.1
292715 2006 UJ_{132}	17.4	X	200.37761	63.30651	308.95833	4.64206	0.2057182	0.30317854	2.1945076	21	3 23.9	21.0
292716 2006 UU_{133}	15.8	X	273.63251	128.91420	210.57707	10.81360	0.0665059	0.17498870	3.1656486	21	5 19.1	20.3
292717 2006 UC_{135}	18.1	X	332.56673	30.11115	78.41622	2.40408	0.1410345	0.27384810	2.3485306	21	—	—
292718 2006 UP_{136}	15.4	X	286.14614	116.32093	242.72583	11.02185	0.0788752	0.18012258	3.1052074	21	6 25.5	19.7
292719 2006 UH_{137}	16.6	X	325.27767	254.29134	8.06438	4.98286	0.2005131	0.23776076	2.5805321	21	3 21.4	19.5
292720 2006 UK_{138}	16.0	X	303.60665	333.34717	249.58860	10.79686	0.1400065	0.22340025	2.6899670	21	1 10.6	19.9

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	m		°	°	°	°		°				
292721 2006 UL_{138}	16.3	X	192.47217	121.65877	296.66991	4.62184	0.0806017	0.23933308	2.5692177	21	5 19.8	20.1
292722 2006 UK_{139}	15.9	X	73.62991	226.28741	244.28894	11.93353	0.1333488	0.22451095	2.6810878	21	3 5.4	19.4
292723 2006 UP_{140}	17.3	X	129.44248	30.29988	332.70279	3.50278	0.1180923	0.21871138	2.7282770	21	1 7.6	21.0
292724 2006 UX_{140}	17.6	X	55.58580	83.28918	22.14109	7.08831	0.0537656	0.28882203	2.2666398	21	1 13.3	20.1
292725 2006 UH_{141}	16.0	X	296.85325	114.37283	220.29886	8.37067	0.1255785	0.17735282	3.1374536	21	6 2.6	20.3
292726 2006 UY_{141}	15.7	X	257.98965	339.05075	352.19733	4.59442	0.1475816	0.17122474	3.2118731	21	4 9.6	20.6
292727 2006 UV_{142}	16.8	X	87.91164	123.38548	302.05762	3.99360	0.1499426	0.22068472	2.7119887	21	2 4.2	20.1
292728 2006 US_{143}	16.6	X	167.08860	198.72532	281.68675	4.02799	0.1903266	0.24184386	2.5514046	21	7 15.7	20.6
292729 2006 UU_{143}	15.9	X	83.99894	131.05141	240.86377	6.74583	0.2346467	0.21374391	2.7703856	21	—	—
292730 2006 US_{153}	17.2	X	162.32813	278.90783	289.24076	6.05523	0.0546199	0.26892902	2.3770826	21	11 2.0	20.5
292731 2006 UH_{155}	16.4	X	308.51745	200.33125	159.32537	4.53169	0.1574776	0.18825147	3.0151607	21	7 17.2	20.1
292732 2006 UY_{155}	15.9	X	249.00409	106.50072	40.82539	15.52985	0.0954049	0.20265002	2.8705930	21	11 13.2	19.8
292733 2006 UG_{156}	15.9	X	203.05952	258.19422	186.31588	10.51705	0.0536584	0.18182353	3.0858110	21	7 6.8	20.6
292734 2006 UM_{157}	16.7	X	188.61282	79.01519	47.29440	4.41113	0.1668408	0.18261146	3.0769282	21	8 11.8	21.8
292735 2006 UO_{162}	16.4	X	296.69609	21.56550	39.74988	12.47973	0.0385176	0.19513161	2.9438632	21	10 9.9	20.4
292736 2006 UL_{164}	16.9	X	156.66521	192.07868	137.78073	3.23010	0.0787293	0.22025845	2.7154866	21	—	—
292737 2006 UG_{167}	16.4	X	135.04528	92.27650	85.46582	4.45416	0.0276822	0.18551615	3.0447261	21	8 16.8	20.7
292738 2006 UM_{171}	16.7	X	198.81119	123.79645	155.86403	5.45668	0.1374460	0.21848586	2.7301541	21	—	—
292739 2006 UR_{171}	17.0	X	74.94865	358.09728	120.18428	4.93254	0.0605528	0.22849463	2.6498343	21	3 15.6	20.4
292740 2006 UV_{171}	16.9	X	276.75446	148.57037	161.18103	4.09022	0.0527736	0.23642526	2.5902407	21	4 11.7	20.3
292741 2006 UH_{172}	15.5	X	321.84905	136.36176	302.47771	9.28674	0.0470334	0.18677151	3.0310677	21	11 28.3	19.7
292742 2006 UV_{172}	17.1	X	69.11637	71.14847	64.41212	2.11106	0.1411061	0.23106200	2.6301693	21	4 8.7	20.0
292743 2006 UO_{173}	17.1	X	7.74411	351.06007	64.36102	6.16829	0.1513495	0.27062822	2.3671221	21	—	—
292744 2006 UP_{173}	16.6	X	212.75020	81.67702	318.04557	1.44922	0.2132093	0.23593314	2.5938414	21	5 13.8	21.0
292745 2006 UN_{174}	16.4	X	92.00142	113.34057	284.18655	3.82582	0.1654544	0.21747816	2.7385811	21	1 8.3	19.5
292746 2006 UU_{174}	16.5	X	183.47404	194.59980	134.07293	2.61688	0.0870779	0.22259240	2.6964715	21	1 20.3	20.5
292747 2006 UD_{175}	16.0	X	27.16822	322.14454	38.68289	10.47914	0.0801261	0.20381423	2.8596511	21	11 26.6	19.8
292748 2006 UG_{176}	15.2	X	155.74521	287.60348	184.51883	26.74218	0.0085076	0.17953148	3.1120194	21	6 16.1	20.2
292749 2006 UX_{176}	16.7	X	262.83634	134.23277	173.53252	9.21455	0.1752883	0.23907173	2.5710897	21	3 8.2	20.5
292750 2006 UT_{177}	15.7	X	232.66336	253.32881	128.49918	5.99394	0.1767873	0.17660585	3.1462941	21	5 16.1	20.8
292751 2006 UE_{178}	15.9	X	34.67908	141.66617	190.25609	11.82154	0.0664005	0.19743881	2.9208844	21	10 31.6	19.8
292752 2006 UH_{179}	16.7	X	115.97972	233.11851	153.13428	5.74126	0.1730225	0.22159004	2.7045970	21	1 26.2	20.2
292753 2006 UJ_{183}	15.7	X	252.51047	61.24242	42.67201	11.59795	0.1000771	0.19556045	2.9395580	21	9 28.9	19.9
292754 2006 UH_{184}	17.2	X	68.37522	301.67539	70.11252	5.68991	0.1123770	0.27863386	2.3215611	21	—	—
292755 2006 UU_{185}	15.7	X	334.26410	52.67544	266.80606	7.75601	0.1127904	0.18860116	3.0114326	21	7 10.3	19.3
292756 2006 UV_{185}	15.5	X	249.32079	42.01267	330.01541	9.80221	0.1357610	0.18046650	3.1012611	21	5 19.2	20.4
292757 2006 UX_{185}	15.5	X	221.44671	99.68995	315.76550	8.00181	0.0840269	0.18136088	3.0910567	21	6 20.3	20.2
292758 2006 UH_{186}	15.8	X	303.70258	75.02708	260.52530	7.92203	0.1482386	0.18388661	3.0626872	21	6 9.3	19.7
292759 2006 UO_{186}	15.3	X	259.00902	107.92508	232.84490	13.98181	0.1579753	0.17703467	3.1412114	21	4 20.1	20.2
292760 2006 UQ_{186}	17.5	X	18.20853	75.36603	324.66739	1.36829	0.2330873	0.27113327	2.3641817	21	—	—
292761 2006 UB_{188}	16.3	X	240.56933	171.87032	249.31304	10.34281	0.2617854	0.18269669	3.0759712	21	6 30.3	21.5
292762 2006 UO_{191}	16.3	X	277.55063	332.06061	356.24528	15.16254	0.1517570	0.24337782	2.5406727	21	4 16.1	20.0
292763 2006 UC_{192}	16.7	X	141.98920	131.09719	255.93425	7.08423	0.1633034	0.22668679	2.6639040	21	2 20.5	20.8
292764 2006 UE_{192}	16.6	X	259.26433	121.84503	293.12535	5.13577	0.2662326	0.18393687	3.0621293	21	7 10.2	21.4
292765 2006 UR_{192}	15.6	X	233.78096	72.20423	334.77226	8.71834	0.1011480	0.17967092	3.1104092	21	6 21.8	20.4
292766 2006 UX_{193}	16.0	X	281.16443	180.67927	208.59293	2.57180	0.0766016	0.18503584	3.0499927	21	7 28.7	20.1
292767 2006 UL_{199}	15.6	X	265.62509	191.68321	281.54871	6.51233	0.2504045	0.18491102	3.0513652	21	9 25.8	20.0
292768 2006 UQ_{199}	16.1	X	159.90346	180.96660	116.18204	10.03531	0.1845753	0.22036597	2.7146033	21	—	—
292769 2006 UA_{201}	15.8	X	250.09751	167.36643	235.94646	7.11293	0.1709723	0.18034670	3.1026343	21	6 26.5	20.5
292770 2006 UU_{203}	15.9	X	255.36220	27.81181	6.39895	12.60896	0.1272376	0.18158374	3.0885270	21	6 27.0	20.7
292771 2006 UL_{204}	15.4	X	217.06940	196.16008	294.69146	16.35697	0.1775023	0.17728629	3.1382386	21	9 1.6	20.8
292772 2006 UR_{204}	16.3	X	69.62992	200.07947	237.10206	13.50704	0.1836007	0.21858414	2.7293357	21	1 21.8	19.5
292773 2006 UH_{205}	17.7	X	73.49124	258.60283	223.43913	2.76028	0.1183198	0.29689915	2.2253419	21	3 10.1	19.7
292774 2006 UA_{209}	17.8	X	58.32846	272.13063	199.65492	4.92823	0.1054129	0.29076693	2.2565210	21	1 25.0	20.0
292775 2006 UB_{211}	16.7	X	290.81042	87.29570	251.85109	6.59179	0.1823176	0.17922531	3.1155626	21	5 22.1	21.0
292776 2006 UM_{211}	15.9	X	261.79559	319.56929	6.26944	5.75941	0.1966490	0.17261857	3.1945600	21	4 2.7	21.0
292777 2006 UE_{213}	16.7	X	149.24294	51.54133	265.13388	3.71484	0.0632632	0.21246254	2.7815133	21	—	—
292778 2006 UB_{214}	16.8	X	45.06522	82.52355	253.69718	4.94092	0.0384694	0.26385555	2.4074571	21	11 25.9	19.7
292779 2006 UB_{215}	15.7	X	230.24022	67.81735	309.34203	7.54544	0.0679144	0.17476277	3.1683764	21	5 12.1	20.6
292780 2006 UH_{215}	17.2	X	164.39098	34.68761	14.94663	2.75790	0.1339157	0.23445469	2.6047343	21	4 11.9	21.2
292781 2006 UU_{215}	16.8	X	70.80153	265.71504	218.28256	3.44291	0.0990156	0.22911663	2.6450363	21	3 18.6	19.9
292782 2006 US_{218}	15.7	X	188.34574	220.37996	225.59164	9.57924	0.0847245	0.17807212	3.1289991	21	6 22.2	20.6
292783 2006 UU_{218}	17.6	X	76.76562	261.31505	118.60507	3.63760	0.1340799	0.28304388	2.2973837	21	—	—
292784 2006 UM_{219}	17.4	X	34.08500	295.73558	24.87869	7.39096	0.1761433	0.26477166	2.4019007	21	11 10.0	20.2
292785 2006 UO_{220}	15.5	X	119.97371	176.05971	3.60749	10.07160	0.0567244	0.18356018	3.0663171	21	8 5.9	20.0
292786 2006 UE_{222}	17.3	X	77.47699	61.91215	228.96704	5.58350	0.2445940	0.27091281	2.3654641	21	12 2.7	20.9
292787 2006 UM_{222}	15.5	X	321.43475	55.02595	244.10305	4.19601	0.1303294	0.18146446	3.0898804	21	5 21.4	19.4
292788 2006 UE_{223}	15.5	X	244.11219	100.29063	351.02930	10.75309	0.0240604	0.19046504	2.9917539	21	9 8.5	19.6
292789 2006 UJ_{223}	15.2	X	207.27472	151.34113	247.99651	7.96150	0.0990690	0.17466820	3.1695199	21	5 15.1	20.2
292790 2006 UF_{224}	17.2	X	251.46099	278.87336	46.19043	3.29113	0.1950153	0.24066436	2.5597342	21	3 18.8	21.2
292791 2006 UH_{225}	15.8	X	275.42940	40.92590	351.98429	9.52663	0.0774262	0.18430522	3.0580480	21	7 29.4	20.1
292792 2006 UK_{225}	15.7	X	258.62976	165.68946	198.29312	3.23595	0.2230892	0.17827699	3.1266014	21	5 13.2	20.7
292793 2006 UC_{226}	17.6	X	175.74573	46.73369	316.51592	1.02416	0.1814510	0.29726771	2.2235021	21	2 19.9	20.8
292794 2006 UF_{228}	15.7	X	279.99121	341.71420	35.30221	8.75172	0.1487837	0.18326094	3.0696541	21	7 1.5	20.1
292795 2006 UO_{228}	16.8	X	342.21846	151.58727	266.74425	2.58981	0.1723673	0.26777072	2.3839327	21	—	—
292796 2006 UV_{228}	16.6	X	108.15510	275.23203	52.81347	6.58522	0.2045307	0.27798380	2.3251790	21	—	—
292797 2006 UX_{232}	15.8	X	323.33186	76.17015	254.88779	10.15216	0.1636220	0.18546945	3.0452372	21	7 1.6	19.5
292798 2006 US_{233}	15.9	X	31.31921	79.54786	195.60998	11.74400	0.0862526	0.19080404	2.9882092	21	8 10.2	19.9
292799 2006 UE_{234}	16.2	X	73.91596	178.77935	60.45476	3.74516	0.0556663	0.18415567	3.0597033	21	8 23.2	20.5
292800 2006 UJ_{237}	16.7	X	32.33837	24.94544	189.57879	4.99190	0.1412532	0.24122823	2.5557437	21	5 26.9	19.2

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292801 2006 UA_{241}	15.5	X	267.27704	266.89392	108.61121	5.79126	0.1633246	0.17830917	3.1262253	21	6 12.2	20.1
292802 2006 UK_{242}	16.0	X	302.44961	96.44906	205.05069	7.95861	0.0276271	0.17568965	3.1572230	21	5 13.3	20.4
292803 2006 UE_{243}	16.0	X	97.97496	334.77666	197.44042	8.56645	0.0561853	0.17980842	3.1088232	21	6 26.2	20.5
292804 2006 UO_{243}	16.8	X	41.51854	184.25220	198.38414	3.67069	0.0985971	0.20860312	2.8157160	21	—	—
292805 2006 US_{244}	16.5	X	283.63441	214.18110	155.97203	0.83160	0.0843442	0.18482773	3.0522818	21	7 6.6	20.5
292806 2006 US_{246}	16.6	X	130.77541	197.63037	219.55765	3.41043	0.0871612	0.22942723	2.6426485	21	3 10.2	20.2
292807 2006 UK_{248}	16.2	X	325.85256	250.72394	82.32730	0.72758	0.1359988	0.18592626	3.0402472	21	7 13.2	19.9
292808 2006 UX_{248}	17.4	X	306.91476	36.96206	37.80724	3.16894	0.1526244	0.26404129	2.4063280	21	11 11.2	19.6
292809 2006 UK_{250}	15.9	X	348.39129	45.49923	206.40817	2.87631	0.0919946	0.17338360	3.1851560	21	5 6.4	19.7
292810 2006 UA_{251}	18.1	X	273.96553	98.48363	221.39553	1.74077	0.2459515	0.24300757	2.5432527	21	3 26.6	22.2
292811 2006 UY_{252}	16.5	X	309.23163	67.09640	214.34965	4.49099	0.1824185	0.17387585	3.1791416	21	4 3.1	20.8
292812 2006 UJ_{253}	16.4	X	117.80895	309.24964	39.82617	10.65211	0.0560017	0.21466461	2.7624584	21	—	—
292813 2006 UP_{254}	16.5	X	345.73487	25.56345	220.86453	9.62704	0.1367939	0.23762628	2.5815056	21	4 10.5	19.3
292814 2006 UT_{254}	16.1	X	261.64880	105.90987	228.01896	4.99543	0.1784829	0.17359637	3.1825528	21	4 13.4	21.1
292815 2006 UX_{254}	17.8	X	246.52411	262.24429	50.93713	5.19931	0.1522587	0.30065663	2.2067621	21	2 24.4	21.2
292816 2006 UZ_{254}	17.4	X	299.14705	55.04728	51.05731	3.28998	0.1625821	0.26590841	2.3950504	21	12 12.9	19.3
292817 2006 UH_{255}	17.0	X	342.02520	305.73929	201.43804	1.15615	0.1309245	0.21620013	2.7493630	21	—	—
292818 2006 UR_{257}	17.0	X	125.20268	205.39348	21.35599	6.08697	0.1322053	0.26207002	2.4183797	21	10 18.9	20.6
292819 2006 UG_{261}	17.1	X	113.46876	183.29829	141.18967	8.83389	0.3018739	0.28027441	2.3124930	21	—	—
292820 2006 UF_{262}	17.2	X	65.83288	66.18807	201.21696	2.09281	0.1795088	0.25735062	2.4478562	21	10 12.2	20.5
292821 2006 UC_{265}	17.8	X	306.16146	201.80393	216.25242	0.56886	0.1736536	0.26164470	2.4209998	21	10 12.0	20.0
292822 2006 UU_{266}	16.6	X	135.54931	147.57003	200.35551	4.65323	0.1230124	0.21874035	2.7280361	21	—	—
292823 2006 UQ_{269}	15.8	X	268.28158	339.97000	23.49374	11.43784	0.2355831	0.17954112	3.1119081	21	5 17.4	20.7
292824 2006 UV_{270}	16.4	X	18.94383	20.17785	53.93331	8.12516	0.0662326	0.20895347	2.8125677	21	—	—
292825 2006 UM_{271}	16.2	X	334.30860	304.01615	47.13765	3.91170	0.0269826	0.18477433	3.0528699	21	8 29.9	20.3
292826 2006 UW_{272}	15.7	X	59.03212	348.65603	265.20904	8.00842	0.0937527	0.18318331	3.0705213	21	8 22.3	20.0
292827 2006 UZ_{272}	17.4	X	325.76064	0.20682	7.35647	4.52410	0.1028421	0.25541166	2.4602292	21	9 10.0	19.9
292828 2006 UG_{273}	15.5	X	276.41428	116.74841	253.84612	8.81914	0.0815176	0.17889461	3.1194010	21	6 27.7	19.8
292829 2006 UB_{274}	16.6	X	123.09270	110.19511	248.63484	7.59777	0.1478362	0.21656306	2.7462905	21	—	—
292830 2006 UH_{275}	16.3	X	314.18883	73.64484	238.03626	4.84281	0.2189098	0.18336187	3.0685276	21	5 13.2	20.2
292831 2006 UA_{276}	16.5	X	325.87838	258.69018	165.04136	2.32963	0.0410756	0.20045490	2.8915116	21	11 19.6	20.3
292832 2006 UH_{281}	17.2	X	205.31834	226.60627	50.51201	6.70080	0.1141443	0.28460217	2.2889901	21	—	—
292833 2006 UP_{281}	17.4	X	189.25915	78.53987	57.97554	4.58062	0.1487222	0.24979881	2.4969459	21	8 29.1	21.3
292834 2006 UV_{281}	17.0	X	85.40472	273.98377	208.34612	2.35628	0.0393393	0.23030088	2.6359611	21	3 29.9	20.3
292835 2006 UW_{282}	17.2	X	354.93550	185.93102	267.18971	1.60472	0.1612343	0.27515634	2.3410806	21	—	—
292836 2006 UG_{283}	17.3	X	89.86130	259.04073	347.47779	1.61409	0.0570024	0.25692660	2.4505487	21	9 26.8	20.4
292837 2006 UH_{283}	16.3	X	287.33346	158.91712	26.03549	4.50416	0.1057427	0.21319631	2.7751274	21	—	—
292838 2006 UN_{284}	16.3	X	151.09175	103.03648	48.06613	8.40423	0.1009563	0.17969300	3.1101543	21	8 7.3	21.2
292839 2006 UH_{285}	15.9	X	295.50215	192.00773	201.99251	3.28785	0.1278218	0.18656400	3.0333148	21	8 16.1	19.8
292840 2006 UB_{289}	17.5	X	54.39712	138.81397	303.02820	2.80348	0.2114001	0.21738133	2.7393944	21	1 6.2	19.7
292841 2006 UA_{290}	16.6	X	66.96699	240.46090	1.85452	5.94140	0.0941913	0.25229709	2.4804352	21	8 28.4	19.6
292842 2006 UD_{295}	16.4	X	206.78461	214.46463	355.44016	3.73699	0.0407419	0.21390517	2.7689930	21	12 20.7	20.4
292843 2006 UC_{299}	16.1	X	151.87104	64.63192	214.36315	3.20349	0.0356446	0.21551584	2.7551797	21	—	—
292844 2006 UY_{300}	16.8	X	36.06329	181.59117	120.11317	1.84273	0.0971934	0.19894014	2.9061706	21	9 28.2	20.5
292845 2006 UX_{325}	17.0	X	158.24437	303.84047	67.35644	7.17777	0.0484336	0.22280269	2.6947745	21	2 13.3	20.9
292846 2006 UP_{327}	16.2	X	110.19082	235.28885	271.74080	7.76071	0.1144648	0.23028763	2.6360622	21	6 16.2	19.7
292847 2006 UP_{328}	17.8	X	311.81032	104.91275	46.91104	3.08699	0.0240304	0.27995075	2.3142750	21	—	—
292848 2006 UZ_{328}	16.7	X	348.14926	286.97403	243.51220	4.00241	0.0514339	0.21940812	2.7224981	21	1 16.3	20.1
292849 2006 UG_{329}	15.5	X	349.57487	223.45003	47.63358	23.54547	0.2286959	0.17996642	3.1070034	21	5 19.7	18.7
292850 2006 UZ_{329}	17.8	X	52.45071	276.70625	104.56562	2.52181	0.1484799	0.27360266	2.3499349	21	—	—
292851 2006 UL_{332}	16.3	X	283.65006	117.76138	178.95934	15.95212	0.1506442	0.17332123	3.1859201	21	3 27.7	20.8
292852 2006 US_{334}	17.0	X	264.47446	309.53817	255.01067	6.01381	0.0452734	0.27786189	2.3258590	21	—	—
292853 2006 UY_{334}	17.5	X	237.68649	123.76502	42.36198	7.55613	0.0664591	0.26665327	2.3905882	21	12 9.8	20.6
292854 2006 UN_{338}	15.7	X	327.86526	258.46641	60.46740	6.02366	0.1936784	0.17968978	3.1101915	21	6 19.6	19.2
292855 2006 UQ_{338}	17.1	X	139.86560	117.46438	164.36922	1.35246	0.1803877	0.27105357	2.3646451	21	—	—
292856 2006 UE_{341}	17.1	X	40.43963	234.10905	28.27188	3.10928	0.1528228	0.25205777	2.4820050	21	8 25.9	19.7
292857 2006 US_{358}	16.8	X	112.61741	257.95128	117.66971	2.70757	0.0691697	0.21850630	2.7299839	21	—	—
292858 2006 UW_{360}	15.9	X	350.25494	266.18471	284.07269	10.73300	0.0726202	0.21393124	2.7687680	21	2 9.6	19.5
292859 2006 UK_{361}	16.4	X	181.47250	2.02731	93.48985	11.76659	0.1574741	0.24308189	2.5427343	21	6 26.8	20.3
292860 2006 VW	17.0	X	71.35075	157.67313	222.05296	6.60072	0.2119448	0.27816328	2.3241787	21	—	—
292861 2006 VZ	16.0	X	118.95249	54.57157	101.30912	12.76329	0.2110756	0.22929115	2.6436940	21	7 18.6	20.1
292862 2006 VM_{1}	16.7	X	301.95439	304.84117	359.35423	6.91085	0.2401400	0.24502307	2.5292867	21	4 5.4	20.2
292863 2006 VQ_{2}	15.4	X	94.86072	169.19695	336.61033	4.56130	0.0314957	0.17031005	3.2233628	21	5 15.4	20.1
292864 2006 VJ_{3}	18.0	X	22.57758	325.68393	12.00942	1.34460	0.2117089	0.26536982	2.3982900	21	11 23.5	20.4
292865 2006 VR_{3}	15.1	X	53.98232	139.04043	44.17330	12.83930	0.0431644	0.17140753	3.2095892	21	5 11.6	19.5
292866 2006 VY_{3}	16.6	X	191.11018	6.01319	35.84535	9.44399	0.0825212	0.23621315	2.5917912	21	4 27.8	20.3
292867 2006 VU_{4}	15.4	X	194.91200	174.20046	246.52802	7.99199	0.1437724	0.17160368	3.2071429	21	5 28.6	20.5
292868 2006 VA_{6}	16.2	X	23.10684	13.65322	63.01933	5.08276	0.0838315	0.20978798	2.8051041	21	—	—
292869 2006 VB_{6}	17.1	X	254.41502	293.67687	74.73543	1.89363	0.2433537	0.24448864	2.5329713	21	5 9.2	21.0
292870 2006 VF_{8}	17.0	X	142.12225	277.47832	172.94843	1.60893	0.1027505	0.23342192	2.6124117	21	5 8.7	20.7
292871 2006 VC_{12}	17.2	X	64.61610	170.83149	219.96020	5.63002	0.2105668	0.27801401	2.3250106	21	—	—
292872 Anoushankar	15.6	X	316.08208	358.57554	350.35718	9.03690	0.1188765	0.18423949	3.0587752	21	7 23.3	19.5
292873 2006 VV_{14}	18.2	X	314.41222	5.22710	331.96331	2.04102	0.1313665	0.31685636	2.1308903	21	6 29.4	19.9
292874 2006 VE_{15}	16.5	X	344.80569	313.94989	238.55318	16.85548	0.1358534	0.22344419	2.6896143	21	1 22.8	20.2
292875 2006 VD_{16}	16.4	X	9.23483	252.24679	262.64407	3.70852	0.0993681	0.22055425	2.7130581	21	1 21.6	19.6
292876 2006 VH_{18}	17.9	X	262.87395	294.56134	33.62143	3.15514	0.2263302	0.24027745	2.5624813	21	3 29.9	21.9
292877 2006 VZ_{18}	17.9	X	90.00364	44.36185	10.47174	2.26138	0.1028668	0.28683138	2.2771149	21	—	—
292878 2006 VY_{19}	17.1	X	324.16031	50.66823	44.70101	7.54335	0.0726377	0.26923037	2.3753085	21	—	—
292879 2006 VG_{20}	17.2	X	266.13165	63.03938	236.60552	6.42443	0.1792815	0.30133449	2.2034515	21	2 18.6	20.6
292880 2006 VB_{21}	15.2	X	349.58505	70.55388	243.69493	8.12190	0.0620634	0.18180235	3.0860507	21	7 28.3	19.3

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292881 2006 VX_{23}	17.2	X	79.31044	247.43132	135.90069	1.71140	0.1051012	0.21202736	2.7853180	21	—	—
292882 2006 VN_{24}	16.6	X	88.51119	292.02903	98.46933	2.81444	0.0842400	0.21466665	2.7624409	21	—	—
292883 2006 VS_{24}	16.3	X	351.64255	231.29103	87.92306	3.07667	0.1182502	0.18474904	3.0531485	21	8 10.6	19.9
292884 2006 VZ_{25}	16.6	X	210.73702	247.15200	43.34793	5.43606	0.1364700	0.21997921	2.7177841	21	1 4.2	21.0
292885 2006 VT_{27}	15.9	X	209.37213	338.77201	57.50408	14.79944	0.1233428	0.17081718	3.2169799	21	5 13.8	21.0
292886 2006 VV_{27}	16.6	X	240.80063	101.56618	50.27934	2.57059	0.0369580	0.19679021	2.9272988	21	11 17.5	20.7
292887 2006 VU_{29}	15.5	X	238.85849	13.69812	59.90016	10.31358	0.0864935	0.18001052	3.1064960	21	8 4.4	20.2
292888 2006 VU_{30}	15.5	X	289.04262	298.54164	48.10648	11.23686	0.2169328	0.17934978	3.1141210	21	5 23.5	20.0
292889 2006 VK_{31}	15.4	X	123.99080	260.02576	226.30459	8.23795	0.0452686	0.17509573	3.1643585	21	5 30.3	19.9
292890 2006 VG_{33}	16.1	X	255.53139	309.67786	63.07196	2.27335	0.1826540	0.17876692	3.1208863	21	5 24.5	21.0
292891 2006 VQ_{34}	16.1	X	56.04072	166.39599	244.11870	13.18742	0.1786211	0.21154688	2.7895339	21	—	—
292892 2006 VH_{35}	17.9	X	2.89997	65.32560	54.15143	7.02099	0.0645647	0.28105684	2.3081991	21	—	—
292893 2006 VT_{36}	17.2	X	315.62850	304.62855	126.96243	3.08366	0.1627057	0.26390346	2.4071658	21	11 25.3	19.1
292894 2006 VN_{38}	17.8	X	7.27490	104.53659	42.23333	2.60169	0.1319969	0.28585068	2.2823202	21	—	—
292895 2006 VQ_{38}	17.7	X	238.35331	99.35967	43.04314	2.39010	0.1149580	0.26142994	2.4223255	21	11 1.5	20.9
292896 2006 VJ_{40}	17.3	X	82.70883	256.26027	200.79980	1.95574	0.0739230	0.22477904	2.6789556	21	2 26.2	20.5
292897 2006 VF_{41}	16.8	X	334.15839	303.13553	213.25759	2.51461	0.0467671	0.21534384	2.7566465	21	—	—
292898 2006 VH_{41}	17.4	X	91.89621	291.77435	198.02604	1.68587	0.1552599	0.23039729	2.6352256	21	5 6.7	20.6
292899 2006 VQ_{41}	18.0	X	336.28984	235.90127	179.75667	0.88420	0.1727900	0.26509190	2.3999659	21	12 15.8	19.9
292900 2006 VU_{41}	18.0	X	338.44922	277.02328	161.54776	1.15831	0.1620668	0.26866957	2.3786127	21	—	—
292901 2006 VE_{42}	17.3	X	255.79001	344.64219	97.55150	3.67926	0.2021170	0.25215681	2.4813551	21	8 21.8	20.8
292902 2006 VN_{43}	15.4	X	48.67584	315.39791	71.45583	14.73583	0.2608955	0.20910453	2.8112130	21	—	—
292903 2006 VH_{44}	17.6	X	245.69425	215.60629	225.85966	20.59085	0.0665725	0.38676194	1.8656932	21	8 27.6	20.0
292904 2006 VH_{46}	16.9	X	139.25203	35.48804	6.52190	2.89855	0.1020836	0.22635196	2.6665305	21	3 5.2	20.7
292905 2006 VP_{48}	15.8	X	120.82501	264.26524	148.01051	13.57548	0.1203146	0.22452937	2.6809411	21	2 27.4	19.4
292906 2006 VG_{49}	15.7	X	252.56453	131.31327	265.52106	8.08298	0.1261260	0.17755500	3.1350715	21	6 26.5	20.2
292907 2006 VD_{50}	17.4	X	28.70858	354.86761	54.38046	2.83745	0.2010666	0.27291732	2.3538674	21	—	—
292908 2006 VM_{51}	16.8	X	235.84470	68.52025	58.20400	4.54174	0.1598617	0.25431577	2.4672918	21	10 3.4	20.2
292909 2006 VX_{51}	17.0	X	52.49872	271.10960	200.57865	2.68908	0.1356801	0.22409194	2.6844288	21	2 4.6	20.0
292910 2006 VV_{53}	16.8	X	157.42275	347.83110	13.08864	4.76767	0.1308756	0.22319599	2.6916079	21	2 6.8	20.8
292911 2006 VB_{55}	16.5	X	250.03470	226.58906	144.15936	0.96055	0.2337469	0.17614143	3.1518222	21	5 12.4	21.6
292912 2006 VJ_{56}	16.3	X	205.53414	354.27137	101.38850	2.60581	0.0407250	0.17883496	3.1200947	21	7 26.0	20.7
292913 2006 VM_{56}	17.0	X	5.32289	229.49980	226.92617	6.12328	0.0613918	0.27673133	2.3321895	21	—	—
292914 2006 VS_{56}	17.4	X	218.85071	234.43179	97.31237	2.53251	0.2671932	0.23203863	2.6227840	21	2 26.7	22.0
292915 2006 VP_{60}	17.9	X	356.06605	89.14752	217.15543	0.78489	0.1880259	0.25535463	2.4605955	21	8 4.1	19.5
292916 2006 VS_{61}	17.0	X	127.70517	99.30215	242.09895	7.88467	0.2062156	0.28258747	2.2998567	21	—	—
292917 2006 VD_{62}	16.5	X	135.15662	30.09417	241.59551	4.48480	0.1747715	0.26856831	2.3792105	21	12 24.5	20.2
292918 2006 VQ_{62}	16.5	X	180.50544	119.62127	247.03035	4.75114	0.1194889	0.22736130	2.6586328	21	3 3.4	20.7
292919 2006 VV_{62}	15.5	X	253.05790	352.39864	59.94359	15.54972	0.1640050	0.18014225	3.1049814	21	7 13.2	20.4
292920 2006 VB_{63}	17.0	X	161.85266	105.67852	241.60793	3.69346	0.1213364	0.22036666	2.7145976	21	1 22.7	21.1
292921 2006 VK_{63}	16.9	X	16.53152	87.78994	48.57005	2.33889	0.1505419	0.21569678	2.7536386	21	1 7.1	19.7
292922 2006 VA_{65}	16.4	X	352.72760	230.93946	192.99819	1.41276	0.0491619	0.20089883	2.8872504	21	12 26.3	20.1
292923 2006 VG_{65}	18.1	X	78.64408	213.35755	212.72047	2.30524	0.1980720	0.28478922	2.2879877	21	1 7.3	19.6
292924 2006 VN_{65}	15.6	X	341.78058	137.26370	237.47802	11.24537	0.0803410	0.19085534	2.9876737	21	10 4.4	19.5
292925 2006 VP_{66}	17.2	X	2.11340	251.89557	183.01138	2.41503	0.0676017	0.27434494	2.3456943	21	—	—
292926 2006 VR_{66}	16.5	X	110.87104	311.22429	69.73736	4.31201	0.1088532	0.21874184	2.7280237	21	1 5.2	20.1
292927 2006 VU_{66}	15.9	X	323.79926	280.75959	77.99836	4.46014	0.0891965	0.18707835	3.0277525	21	8 20.6	19.7
292928 2006 VH_{69}	16.3	X	148.40054	185.69850	83.18119	3.20075	0.0390313	0.20011684	2.8947670	21	12 23.3	20.3
292929 2006 VO_{69}	15.7	X	184.18260	53.90316	75.59215	11.46911	0.0647400	0.17860336	3.1227913	21	8 15.8	20.5
292930 2006 VX_{69}	17.4	X	3.73873	295.69231	90.31787	3.33550	0.1837078	0.26497948	2.4006447	21	12 26.4	19.7
292931 2006 VC_{71}	16.6	X	160.91018	279.31084	52.50630	5.43392	0.1062479	0.21893020	2.7264587	21	1 3.2	20.7
292932 2006 VZ_{72}	16.3	X	358.71871	260.21516	244.67595	9.86159	0.0776009	0.21559198	2.7545309	21	—	—
292933 2006 VG_{73}	16.4	X	215.59537	120.69794	238.16519	3.12661	0.3506317	0.23576234	2.5950940	21	3 24.4	21.4
292934 2006 VA_{74}	15.8	X	95.91760	323.70623	66.84168	14.17041	0.1815185	0.21527650	2.7572213	21	1 8.6	19.3
292935 2006 VK_{76}	16.8	X	113.41915	315.39605	95.75413	3.79575	0.0603665	0.22259833	2.6964236	21	2 8.5	20.3
292936 2006 VQ_{76}	16.6	X	286.71326	147.16882	102.02801	3.17262	0.0284004	0.22469962	2.6795868	21	2 9.6	20.2
292937 2006 VS_{78}	16.9	X	149.89768	158.54201	191.49327	4.44098	0.1202626	0.21964095	2.7205738	21	1 13.6	21.0
292938 2006 VW_{78}	15.3	X	173.55876	296.47361	226.29960	20.00523	0.2742573	0.18056525	3.1001302	21	9 2.0	21.2
292939 2006 VS_{79}	15.7	X	177.17298	21.36311	73.66624	13.15514	0.1041853	0.17321359	3.1872398	21	6 21.9	20.7
292940 2006 VY_{83}	15.6	X	63.50917	170.80160	35.15709	10.66395	0.0052018	0.17836810	3.1255366	21	6 17.4	20.1
292941 2006 VA_{84}	16.6	X	108.96774	164.37862	223.79904	3.11884	0.0901391	0.22086576	2.7105065	21	1 7.8	20.1
292942 2006 VE_{86}	18.0	X	67.10267	312.88503	179.57206	2.33489	0.0586323	0.29512505	2.2342512	21	3 9.0	20.1
292943 2006 VJ_{89}	16.4	X	321.35479	139.30877	48.92006	8.87937	0.0607885	0.21676280	2.7446031	21	1 4.1	20.2
292944 2006 VS_{93}	16.5	X	13.18048	49.84509	125.70942	3.38767	0.0268523	0.22649502	2.6654075	21	2 28.7	19.8
292945 2006 VB_{94}	16.7	X	112.46804	165.94839	199.30025	5.55379	0.0313576	0.21419522	2.7664927	21	—	—
292946 2006 VO_{96}	16.3	X	207.60787	189.22869	241.94969	4.90423	0.1167286	0.24053763	2.5606332	21	6 22.2	20.2
292947 2006 VL_{97}	16.5	X	55.99761	26.22665	13.55427	6.61584	0.0629255	0.20974532	2.8054845	21	—	—
292948 2006 VR_{99}	18.2	X	254.18401	313.47840	52.94023	1.49918	0.1426739	0.31047822	2.1599745	21	5 12.2	21.1
292949 2006 VC_{100}	16.1	X	11.35283	341.19659	59.93314	16.21924	0.1294782	0.20323707	2.8650625	21	—	—
292950 2006 VK_{103}	16.0	X	244.59010	218.24499	180.10016	3.01717	0.1555049	0.17633575	3.1495063	21	6 16.9	20.8
292951 2006 VB_{105}	15.6	X	56.09299	347.02453	244.52577	10.66997	0.0405729	0.17781811	3.1319781	21	7 14.0	20.1
292952 2006 VM_{108}	16.6	X	81.55672	109.41985	255.06883	6.78889	0.2064321	0.21022424	2.8012220	21	—	—
292953 2006 VX_{108}	16.0	X	3.13268	191.19137	267.16997	12.12284	0.1021314	0.21047623	2.7989857	21	—	—
292954 2006 VN_{110}	16.8	X	147.11851	318.25816	317.56938	4.48827	0.0703742	0.27028701	2.3691139	21	—	—
292955 2006 VC_{111}	16.3	X	203.94169	93.08257	324.15554	3.51215	0.1627528	0.17197275	3.2025527	21	5 31.5	21.6
292956 2006 VF_{111}	16.7	X	101.86678	320.65252	33.98334	6.45054	0.0651352	0.20932427	2.8092453	21	—	—
292957 2006 VO_{111}	16.3	X	131.52453	59.12764	260.29722	11.33982	0.0830442	0.20903149	2.8118678	21	—	—
292958 2006 VY_{112}	15.8	X	44.30280	248.87338	40.53919	9.66512	0.0781707	0.18534995	3.0465460	21	9 23.0	19.9
292959 2006 VC_{113}	16.8	X	178.00685	7.73914	333.80474	4.26110	0.0054633	0.21931371	2.7232794	21	1 25.3	20.6
292960 2006 VN_{113}	17.2	X	66.14079	139.71243	269.79692	5.99200	0.0794509	0.27985753	2.3147888	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
292961 2006 VV_{114}	15.8	X	64.02623	19.02877	252.83095	7.53664	0.0521356	0.18948942	3.0020142	21	9 15.4	20.1
292962 2006 VX_{120}	16.1	X	225.90303	7.39892	56.61659	4.07262	0.0893133	0.17765710	3.1338702	21	7 5.5	20.7
292963 2006 VD_{121}	16.8	X	318.63020	125.87463	284.77085	5.35741	0.0879921	0.26219902	2.4175864	21	10 29.6	19.5
292964 2006 VE_{123}	16.9	X	190.81275	90.21357	336.34738	2.54188	0.1455123	0.23847547	2.5753736	21	5 29.1	20.9
292965 2006 VK_{123}	16.3	X	308.55553	1.84020	24.10316	3.15508	0.0191651	0.18499282	3.0504656	21	9 8.9	20.4
292966 2006 VY_{131}	17.1	X	122.57013	305.96565	226.44670	7.78958	0.1269317	0.24299961	2.5433082	21	8 2.1	21.0
292967 2006 VK_{134}	17.5	X	331.53316	0.51444	63.26768	6.02626	0.2070686	0.26422552	2.4052093	21	12 20.2	19.3
292968 2006 VO_{134}	17.1	X	156.94817	29.66842	33.67507	1.64627	0.2116839	0.23199588	2.6231062	21	4 27.2	21.2
292969 2006 VL_{135}	17.6	X	70.93138	107.51165	267.61128	1.20524	0.1229301	0.27602298	2.3361778	21	—	—
292970 2006 VH_{138}	15.9	X	224.76765	80.89808	70.60142	10.32869	0.1298007	0.19079949	2.9882568	21	10 21.2	20.5
292971 2006 VK_{138}	16.7	X	20.49438	138.00141	74.40517	3.06241	0.1462275	0.23194566	2.6234848	21	4 30.7	19.2
292972 2006 VL_{140}	15.8	X	244.26870	336.87511	74.63870	12.31664	0.0611592	0.17739687	3.1369343	21	7 14.3	20.5
292973 2006 VQ_{140}	17.3	X	214.06920	306.81415	127.69817	0.58163	0.0949662	0.24362932	2.5389238	21	7 5.1	20.7
292974 2006 VP_{141}	17.5	X	275.95776	205.90282	39.41118	6.91131	0.0755750	0.28935036	2.2638798	21	1 3.9	20.6
292975 2006 VA_{142}	17.5	X	86.66977	254.08291	144.88508	6.74385	0.1456217	0.28336853	2.2956287	21	—	—
292976 2006 VE_{145}	16.9	X	116.99190	5.81931	343.34609	5.27320	0.1864490	0.28220789	2.3019185	21	—	—
292977 2006 VQ_{148}	17.2	X	124.27809	209.09322	190.84408	2.18690	0.1840966	0.22148155	2.7054801	21	2 23.5	21.2
292978 2006 VL_{149}	16.2	X	264.28384	287.55362	106.58264	3.05816	0.1768866	0.18189823	3.0849661	21	6 30.1	20.7
292979 2006 VA_{150}	16.2	X	249.12476	251.40396	155.52537	5.24438	0.1832483	0.18134089	3.0912838	21	6 28.9	21.0
292980 2006 VZ_{150}	15.5	X	260.78336	27.21472	7.21102	9.34771	0.0682822	0.18068227	3.0987915	21	7 13.0	20.1
292981 2006 VF_{151}	16.1	X	92.41722	235.74939	63.46769	10.43232	0.0691891	0.20040738	2.8919687	21	11 29.8	20.3
292982 2006 VR_{153}	16.5	X	82.87205	271.00298	192.66211	12.49913	0.1339698	0.22630205	2.6669224	21	3 14.6	19.9
292983 2006 VP_{155}	16.2	X	57.00257	82.73504	272.98034	10.57348	0.1270811	0.20483305	2.8501608	21	—	—
292984 2006 VK_{168}	17.3	X	356.81446	120.62511	302.43981	1.42125	0.1704389	0.26769863	2.3843607	21	—	—
292985 2006 VT_{168}	16.4	X	96.52034	214.34413	115.48792	3.27921	0.0667130	0.20565227	2.8425866	21	—	—
292986 2006 VV_{168}	16.7	X	47.37035	31.38676	279.82219	7.78939	0.1585133	0.26366751	2.4086016	21	11 12.2	19.8
292987 2006 VY_{168}	16.7	X	71.05102	183.59287	225.31643	3.66820	0.0714075	0.21192345	2.7862283	21	—	—
292988 2006 VC_{169}	15.8	X	335.70582	268.68285	91.53487	10.44999	0.0983711	0.18665748	3.0323020	21	9 13.7	19.7
292989 2006 VG_{170}	16.7	X	146.32761	98.85135	250.18285	4.82248	0.0523974	0.21558632	2.7545791	21	1 1.4	20.5
292990 2006 VK_{171}	16.7	X	126.18686	202.18242	72.34923	9.29430	0.1023561	0.26517827	2.3994448	21	12 18.4	20.2
292991 Lyonne	16.5	X	201.97310	207.43096	52.55618	5.18373	0.0225101	0.21054880	2.7983425	21	—	—
292992 2006 WJ_{6}	16.5	X	117.75520	296.78910	221.43641	11.33666	0.1146897	0.23984042	2.5655932	21	7 8.0	20.4
292993 2006 WS_{6}	15.3	X	2.76075	192.84163	78.95704	18.11577	0.1237946	0.17598728	3.1536624	21	6 23.8	19.1
292994 2006 WV_{6}	16.9	X	94.39481	115.65932	184.95750	4.82221	0.1271761	0.26732912	2.3865573	21	12 20.5	20.5
292995 2006 WD_{9}	16.5	X	186.86732	271.50137	223.29965	11.24155	0.1195942	0.24761963	2.5115742	21	8 18.4	20.6
292996 2006 WR_{11}	15.7	X	121.79547	103.29541	17.36729	5.16280	0.2866748	0.16339181	3.3137205	21	6 13.7	21.3
292997 2006 WK_{12}	16.0	X	12.51598	317.51546	231.96848	11.54853	0.1005278	0.22536031	2.6743470	21	3 9.2	19.3
292998 2006 WK_{16}	17.0	X	1.57346	128.59496	268.04620	5.22987	0.1123304	0.26648456	2.3915971	21	12 27.3	19.5
292999 2006 WF_{17}	17.4	X	30.43793	77.74414	292.92831	1.72078	0.1900229	0.27053535	2.3676638	21	—	—
293000 2006 WY_{17}	16.5	X	92.43905	86.69868	289.61712	2.63332	0.1063899	0.21458861	2.7631106	21	—	—
293001 2006 WF_{20}	16.4	X	22.20726	231.08593	273.66670	7.57499	0.1538161	0.21911614	2.7249162	21	1 25.8	19.4
293002 2006 WS_{20}	16.7	X	160.43363	290.93162	92.57284	7.38991	0.1027174	0.22574990	2.6712693	21	3 8.5	20.7
293003 2006 WR_{21}	16.7	X	161.03504	286.59807	107.28407	5.14664	0.1382097	0.22774055	2.6556804	21	3 23.6	20.8
293004 2006 WO_{24}	17.2	X	211.21902	112.42265	113.57732	6.26043	0.1439292	0.26936986	2.3744884	21	—	—
293005 2006 WT_{26}	16.3	X	233.53194	227.12402	102.82906	14.62966	0.3285091	0.23822974	2.5771442	21	3 9.0	21.3
293006 2006 WU_{27}	17.6	X	307.63613	217.31559	61.55092	4.53022	0.1171721	0.30144382	2.2029186	21	3 24.7	20.2
293007 2006 WD_{35}	17.8	X	296.79401	354.54223	148.28847	4.31420	0.0381502	0.27228797	2.3574930	21	—	—
293008 2006 WW_{35}	16.0	X	32.25071	196.06608	101.88247	8.64003	0.1493637	0.18762795	3.0218370	21	9 27.1	19.9
293009 2006 WT_{36}	16.9	X	74.25616	349.63744	130.63634	4.48477	0.0768301	0.22615682	2.6680641	21	3 19.4	20.1
293010 2006 WD_{37}	15.5	X	150.65799	89.71955	72.19459	16.29160	0.0526256	0.18073713	3.0981644	21	8 21.4	20.4
293011 2006 WV_{37}	17.1	X	92.02521	197.38788	190.61498	6.10185	0.0681894	0.21430561	2.7655426	21	—	—
293012 2006 WE_{38}	17.0	X	86.21450	261.45862	119.25154	4.87840	0.0914446	0.21228873	2.7830313	21	—	—
293013 2006 WF_{43}	17.8	X	357.35656	284.34155	149.77121	3.11444	0.0925466	0.27184830	2.3600342	21	—	—
293014 2006 WR_{43}	16.8	X	83.58310	9.31723	104.61518	4.78228	0.1204407	0.22645475	2.6657235	21	3 31.8	20.1
293015 2006 WN_{44}	15.5	X	102.62014	73.08981	90.78349	11.68441	0.0557415	0.17146855	3.2088277	21	6 21.9	20.1
293016 2006 WK_{48}	17.3	X	302.59976	332.37632	323.69638	2.45726	0.0244770	0.23449480	2.6044373	21	4 30.1	20.7
293017 2006 WJ_{50}	15.7	X	63.01249	155.58914	101.93167	7.03549	0.1348138	0.18176633	3.0864584	21	9 14.5	20.0
293018 2006 WX_{51}	16.9	X	177.24551	196.01632	144.83148	2.40168	0.0948227	0.22156111	2.7048324	21	1 29.2	20.9
293019 2006 WC_{54}	17.1	X	130.60761	92.41806	333.32133	2.11401	0.0425649	0.22580869	2.6708056	21	3 16.3	20.8
293020 2006 WV_{54}	16.7	X	4.92343	352.76209	254.90943	5.11317	0.1343503	0.23560762	2.5962300	21	5 21.1	19.3
293021 2006 WL_{55}	16.4	X	291.19455	175.49695	298.20177	1.47092	0.0774893	0.19644379	2.9307392	21	11 29.9	20.2
293022 2006 WB_{58}	15.3	X	300.56842	285.06077	42.58632	11.52345	0.0784479	0.17554982	3.1588993	21	6 3.6	19.7
293023 2006 WQ_{58}	16.7	X	22.96939	276.19810	43.39605	6.89759	0.0657193	0.25593431	2.4568787	21	10 7.6	19.5
293024 2006 WS_{59}	16.7	X	73.46454	2.25665	21.19808	5.21700	0.1658745	0.21272334	2.7792394	21	—	—
293025 2006 WG_{61}	16.8	X	1.78749	337.94126	209.69844	14.84222	0.1002957	0.22680772	2.6629571	21	2 16.6	20.2
293026 2006 WD_{62}	15.5	X	248.32041	347.37556	57.89631	13.21708	0.0734121	0.17603528	3.1530890	21	7 9.7	20.2
293027 2006 WM_{62}	16.2	X	198.23188	113.26799	313.17552	3.94093	0.1653259	0.17231618	3.1982961	21	6 6.7	21.4
293028 2006 WP_{69}	16.3	X	126.84276	143.65528	281.62313	13.09094	0.1125636	0.21931972	2.7232296	21	3 14.3	20.5
293029 2006 WV_{69}	16.4	X	316.19034	74.95200	266.30151	4.18017	0.1591788	0.18634323	3.0357102	21	7 4.7	20.2
293030 2006 WM_{74}	16.9	X	62.06455	5.49499	49.65567	4.94887	0.0658923	0.21308149	2.7761243	21	—	—
293031 2006 WC_{75}	16.2	X	184.61108	72.22869	58.44807	17.06444	0.1706762	0.17806580	3.1290730	21	8 18.6	21.7
293032 2006 WC_{76}	16.3	X	300.61997	261.30000	57.71004	1.62114	0.1977866	0.17677910	3.1442382	21	5 7.4	20.4
293033 2006 WF_{81}	17.3	X	74.93812	295.00513	0.36203	2.16514	0.1937719	0.26353081	2.4094344	21	11 29.3	20.9
293034 2006 WF_{85}	16.2	X	13.18228	194.33842	106.76017	4.46563	0.1311713	0.18214827	3.0821423	21	8 24.5	19.8
293035 2006 WC_{87}	16.8	X	104.78205	243.11243	259.46592	18.04776	0.0785711	0.36731602	1.9309727	21	5 20.1	18.7
293036 2006 WD_{87}	15.4	X	204.33172	19.13715	61.65558	14.37297	0.1419606	0.17444177	3.1722620	21	6 30.3	20.6
293037 2006 WY_{87}	18.1	X	211.45754	237.93169	157.25417	3.47079	0.1161610	0.30551086	2.1833245	21	5 7.6	21.1
293038 2006 WF_{89}	15.5	X	307.01666	272.76596	66.42638	10.26508	0.0947726	0.17503287	3.1651161	21	6 26.8	19.7
293039 2006 WB_{94}	17.1	X	240.61159	185.56975	141.94234	2.51224	0.0669079	0.23127989	2.6285171	21	3 20.6	20.8
293040 2006 WE_{95}	16.1	X	280.04194	8.74994	90.16273	3.75116	0.1756415	0.19280045	2.9675453	21	10 14.1	19.8

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293041 2006 WL_{97}	17.0	X	202.46618	268.88919	62.84873	6.12258	0.0306026	0.22359068	2.6884394	21	2 14.1	20.9
293042 2006 WD_{98}	15.7	X	287.19660	95.87677	247.31280	4.04611	0.1455792	0.17627298	3.1502539	21	5 28.4	20.0
293043 2006 WU_{99}	17.3	X	357.00109	260.23093	69.89601	2.99530	0.1907469	0.25568568	2.4584711	21	9 18.7	19.2
293044 2006 WA_{100}	17.3	X	61.93929	201.35542	171.88016	4.62835	0.1821934	0.27648604	2.3335686	21	—	—
293045 2006 WG_{100}	16.7	X	357.09282	272.70482	95.99322	7.09181	0.1195568	0.26308192	2.4121745	21	11 12.4	19.2
293046 2006 WV_{100}	16.4	X	63.39888	165.43571	260.62509	5.54556	0.0531269	0.21545887	2.7556653	21	—	—
293047 2006 WK_{102}	17.2	X	121.01490	265.27678	64.97720	5.25601	0.1366333	0.27735378	2.3286988	21	—	—
293048 2006 WN_{103}	16.3	X	255.29961	73.36100	278.23954	0.20239	0.1948507	0.17229150	3.1986015	21	4 27.7	21.2
293049 2006 WT_{106}	16.8	X	164.81006	332.83511	173.88313	6.50991	0.1327195	0.24712339	2.5149353	21	8 14.6	20.6
293050 2006 WJ_{108}	15.6	X	73.61278	161.92501	72.43178	10.82863	0.0326981	0.17827981	3.1265684	21	8 14.9	20.1
293051 2006 WW_{109}	16.9	X	24.55422	319.69948	81.32046	8.20182	0.1139289	0.26980898	2.3719113	21	—	—
293052 2006 WQ_{114}	16.7	X	67.01427	11.54366	174.20504	6.19008	0.1312172	0.23473066	2.6026924	21	6 13.3	20.0
293053 2006 WN_{124}	16.2	X	89.00991	217.86222	214.91909	13.00587	0.1019866	0.22092875	2.7099913	21	2 4.1	20.0
293054 2006 WP_{127}	18.4	X	188.40826	22.98712	178.24660	6.08001	0.7670913	0.24480431	2.5307933	21	10 23.1	24.4
293055 2006 WG_{128}	17.0	X	229.45898	22.11831	24.33559	2.84298	0.0837173	0.24140878	2.5544693	21	6 16.2	20.5
293056 2006 WZ_{130}	16.1	X	154.46946	299.40977	195.86743	28.12296	0.1888000	0.24135158	2.5548728	21	7 18.6	20.9
293057 2006 WD_{133}	17.1	X	128.81009	104.59972	288.81735	0.35841	0.0549330	0.22210891	2.7003832	21	2 3.7	20.8
293058 2006 WZ_{144}	16.9	X	105.17988	249.69615	124.54450	5.37551	0.0767315	0.21388808	2.7691405	21	—	—
293059 2006 WB_{147}	15.7	X	166.40877	115.35766	65.63313	12.30427	0.0570227	0.18557044	3.0441323	21	10 2.2	20.4
293060 2006 WD_{149}	17.8	X	10.73692	86.41835	323.47972	1.29776	0.1168671	0.26860368	2.3790017	21	—	—
293061 2006 WN_{149}	16.1	X	176.85785	324.89939	71.34628	15.12628	0.0970787	0.22989852	2.6390357	21	4 13.8	20.3
293062 2006 WE_{151}	18.0	X	214.49055	212.07480	228.36155	3.13893	0.0973873	0.31463945	2.1408879	21	7 13.5	20.9
293063 2006 WL_{153}	17.4	X	108.23982	330.07722	83.95254	8.03359	0.2197836	0.28492353	2.2872686	21	2 20.5	20.0
293064 2006 WT_{153}	16.3	X	294.56494	283.68673	199.82809	4.24724	0.1401281	0.20323845	2.8650495	21	12 12.9	19.6
293065 2006 WS_{156}	17.3	X	134.12502	313.09977	141.94332	5.83891	0.1070011	0.23167374	2.6255372	21	5 7.9	21.1
293066 2006 WP_{157}	16.3	X	86.20455	72.65223	308.68444	5.33359	0.0801221	0.21349656	2.7725249	21	—	—
293067 2006 WC_{159}	16.2	X	349.02532	229.15876	165.24862	2.11746	0.1193598	0.19476539	2.9475524	21	11 16.8	19.6
293068 2006 WE_{159}	17.8	X	3.56486	291.62621	137.74752	1.91103	0.1575373	0.27047567	2.3680121	21	—	—
293069 2006 WW_{166}	16.7	X	304.65013	179.20416	75.10905	5.51204	0.1241003	0.22775490	2.6555689	21	2 26.2	20.3
293070 2006 WJ_{167}	16.0	X	84.32297	306.56076	237.54830	4.14809	0.0997608	0.17023254	3.2243413	21	6 30.8	20.5
293071 2006 WL_{167}	16.0	X	337.75464	221.43604	74.00107	4.76304	0.0397627	0.17411015	3.1762889	21	6 19.9	20.2
293072 2006 WA_{171}	17.0	X	41.20139	343.34831	228.81717	4.19225	0.1383949	0.23519177	2.5992894	21	6 8.7	19.7
293073 2006 WC_{171}	16.0	X	280.20405	193.50022	73.11665	12.74032	0.1494790	0.22556089	2.6727613	21	2 12.4	20.2
293074 2006 WB_{173}	16.5	X	132.91312	354.17817	85.59358	5.25681	0.0611889	0.22830889	2.6512713	21	4 11.6	20.2
293075 2006 WO_{174}	16.6	X	154.85192	104.67195	217.60835	3.21395	0.0678630	0.21197729	2.7857566	21	—	—
293076 2006 WP_{174}	16.6	X	157.13243	279.29791	83.10726	7.18575	0.0692276	0.22043997	2.7139957	21	2 2.6	20.5
293077 2006 WZ_{175}	17.1	X	115.85733	301.39736	184.78282	2.81178	0.0766707	0.23173571	2.6250691	21	5 21.6	20.7
293078 2006 WV_{176}	17.2	X	243.16636	145.83737	128.49871	6.86864	0.1104810	0.28915147	2.2649178	21	1 2.9	20.5
293079 2006 WF_{180}	17.0	X	63.85401	27.36435	89.58165	3.65874	0.0237676	0.22337889	2.6901384	21	2 22.8	20.5
293080 2006 WR_{181}	17.5	X	83.17299	138.29275	193.27900	0.76598	0.2056916	0.27209931	2.3585826	21	—	—
293081 2006 WR_{182}	16.1	X	219.71270	274.95106	96.03704	12.29344	0.0932501	0.23217646	2.6217458	21	4 25.3	20.2
293082 2006 WP_{183}	16.3	X	237.57293	73.16121	287.96593	6.40711	0.2213617	0.17359819	3.1825306	21	4 18.5	21.7
293083 2006 WV_{188}	16.9	X	198.05002	120.53773	254.90661	3.32029	0.1271415	0.23122084	2.6289646	21	3 31.9	21.0
293084 2006 WS_{190}	16.7	X	208.24964	281.82138	68.97146	5.49745	0.2512525	0.22964136	2.6410056	21	3 15.5	21.4
293085 2006 WD_{191}	15.5	X	315.10565	260.82433	75.78010	12.65661	0.2311887	0.18390772	3.0624529	21	6 15.2	19.0
293086 2006 WU_{191}	16.8	X	321.42037	116.69869	84.17365	7.57992	0.0484394	0.28839629	2.2688699	21	1 5.2	19.6
293087 2006 WZ_{193}	15.6	X	49.02552	34.94978	240.16126	8.00509	0.1270721	0.18160573	3.0882778	21	9 9.7	19.9
293088 2006 WT_{194}	15.5	X	243.21456	60.70182	58.86035	14.91702	0.1237426	0.17967016	3.1104180	21	10 5.3	20.3
293089 2006 WK_{195}	16.9	X	232.07301	147.08896	216.57785	4.70870	0.2507531	0.23870662	2.5737108	21	4 13.7	21.4
293090 2006 WD_{198}	17.2	X	310.52819	264.49205	295.02032	7.96558	0.1527767	0.27634467	2.3343644	21	—	—
293091 2006 WK_{200}	17.0	X	129.36299	225.58350	125.30963	2.53588	0.1008750	0.21299095	2.7769109	21	—	—
293092 2006 WS_{201}	16.4	X	108.79851	275.38084	146.95410	5.24923	0.0952495	0.21428839	2.7656907	21	2 22.6	20.1
293093 2006 WF_{202}	16.5	X	49.90935	26.43697	93.74497	5.88340	0.0666642	0.21985398	2.7188161	21	2 11.2	19.8
293094 2006 WT_{202}	16.4	X	108.15533	273.42988	96.36312	12.64468	0.1048940	0.21167376	2.7884190	21	—	—
293095 2006 XV_{3}	17.2	X	287.57765	231.09773	110.07211	23.57389	0.0923195	0.37200252	1.9147208	21	5 31.9	19.5
293096 2006 XX_{3}	17.3	X	132.50255	73.32710	78.82334	22.87552	0.0972446	0.37479249	1.9052068	21	7 20.8	19.8
293097 2006 XE_{12}	14.9	X	135.35545	240.31642	263.22634	16.35301	0.1309656	0.16974403	3.2305246	21	7 9.4	20.0
293098 2006 XH_{12}	15.3	X	274.35275	139.71128	262.02724	9.57443	0.0375179	0.17927816	3.1149503	21	8 7.6	19.8
293099 2006 XN_{12}	16.8	X	82.27929	236.68743	73.36841	3.17964	0.1426095	0.26434995	2.4044545	21	12 20.6	20.4
293100 2006 XZ_{14}	17.7	X	321.05315	284.98162	124.65890	2.21105	0.1673453	0.25871462	2.4392449	21	11 1.5	19.8
293101 2006 XZ_{15}	16.2	X	294.93282	11.98199	271.18355	12.97552	0.0525165	0.22692005	2.6620782	21	3 23.9	20.2
293102 2006 XU_{16}	15.3	X	298.71553	98.61768	293.99326	11.02849	0.0489167	0.17904662	3.1176352	21	8 25.9	19.6
293103 2006 XS_{17}	16.2	X	90.06447	91.56462	310.79313	7.04583	0.0177992	0.20825576	2.8188461	21	—	—
293104 2006 XY_{17}	16.7	X	67.30651	121.45146	74.55701	5.47366	0.1797308	0.22906171	2.6454591	21	7 6.3	19.9
293105 2006 XF_{19}	16.6	X	215.30707	309.84839	115.95310	3.64989	0.1022087	0.23888428	2.5724346	21	6 24.5	20.5
293106 2006 XN_{21}	17.6	X	242.12726	11.84486	235.44883	2.06607	0.1585687	0.27910967	2.3189219	21	—	—
293107 2006 XT_{21}	16.0	X	10.09125	127.85508	82.69649	13.93821	0.1311547	0.22727316	2.6593201	21	4 15.5	19.1
293108 2006 XC_{22}	16.4	X	55.67398	94.06473	257.03657	0.93508	0.0814180	0.19837098	2.9117268	21	12 21.7	20.5
293109 2006 XL_{22}	16.8	X	351.81824	298.41619	89.70229	8.07781	0.1282068	0.26133403	2.4229181	21	11 30.3	19.3
293110 2006 XO_{25}	16.3	X	129.80470	303.78833	102.85154	5.93788	0.1176610	0.21920129	2.7242104	21	3 4.9	20.2
293111 2006 XH_{26}	16.7	X	163.66516	217.78232	198.68421	6.30543	0.2561267	0.23175689	2.6249091	21	4 27.3	21.1
293112 2006 XH_{27}	16.6	X	278.14956	105.93109	76.66271	8.11067	0.0574626	0.27276565	2.3547398	21	—	—
293113 2006 XA_{29}	16.4	X	325.23188	320.21376	85.31822	10.24487	0.1128888	0.19119943	2.9840882	21	10 26.0	20.1
293114 2006 XH_{29}	16.9	X	210.45742	84.78650	157.13208	2.39248	0.0196380	0.20584572	2.8408054	21	—	—
293115 2006 XJ_{29}	16.6	X	208.60997	222.18180	151.44642	2.59115	0.1330038	0.23263858	2.6182728	21	4 11.2	20.7
293116 2006 XS_{33}	16.4	X	161.75999	301.36846	64.24373	7.43587	0.0875296	0.21964619	2.7205305	21	2 14.9	20.5
293117 2006 XK_{35}	17.0	X	66.21621	251.22756	94.41630	8.19485	0.1462288	0.26549790	2.3975186	21	—	—
293118 2006 XR_{35}	16.4	X	261.57990	289.62418	140.64573	1.54761	0.1515181	0.17975622	3.1094251	21	8 15.1	20.7
293119 2006 XB_{36}	15.9	X	124.76104	255.39530	231.89951	27.72491	0.3346301	0.23152440	2.6266661	21	6 22.9	20.8
293120 2006 XF_{36}	16.7	X	25.55731	300.04671	96.79870	6.64087	0.1481940	0.26716194	2.3875528	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293121 2006 XT_{36}	15.6	X	314.23363	106.73264	285.32617	9.93544	0.1472520	0.18366241	3.0651791	21	9 5.2	19.4
293122 2006 XV_{44}	16.5	X	43.02789	292.25209	75.66203	3.06545	0.1045799	0.19915485	2.9040815	21	12 30.3	20.5
293123 2006 XC_{45}	16.8	X	215.57649	58.11532	38.53830	1.25383	0.1569335	0.17664043	3.1458836	21	7 30.3	21.8
293124 2006 XZ_{45}	17.2	X	172.13877	301.98459	125.58832	2.17616	0.1679550	0.23452335	2.6042259	21	5 14.5	21.4
293125 2006 XE_{48}	14.9	X	318.71517	248.21505	113.39662	22.93365	0.1663866	0.17953634	3.1119634	21	8 6.3	18.6
293126 2006 XD_{49}	16.3	X	136.62710	262.55297	116.23242	6.09200	0.0715057	0.21377619	2.7701067	21	1 30.2	20.1
293127 2006 XW_{52}	16.3	X	76.85181	33.79416	77.05780	4.21058	0.0443232	0.22226652	2.6991065	21	3 7.7	19.8
293128 2006 XO_{54}	16.6	X	104.91401	347.39899	74.77195	10.44688	0.2478260	0.21984793	2.7188659	21	3 16.4	20.5
293129 2006 XC_{55}	16.3	X	151.52437	142.55694	289.08734	11.44159	0.2676303	0.22907382	2.6453659	21	5 2.9	21.1
293130 2006 XO_{56}	16.6	X	328.79779	141.28865	237.96069	1.56622	0.2027316	0.25380351	2.4706106	21	9 26.5	18.4
293131 2006 XV_{56}	17.0	X	173.03140	127.01611	336.55400	8.25632	0.1553720	0.23520602	2.5991844	21	6 30.1	21.3
293132 2006 XW_{56}	15.7	X	352.59618	285.98835	223.71928	16.14842	0.0838510	0.21587537	2.7521197	21	—	—
293133 2006 XA_{60}	16.4	X	7.33541	218.87883	314.54568	6.66795	0.1304238	0.21502677	2.7593557	21	2 11.3	19.5
293134 2006 XP_{61}	15.7	X	205.40450	242.42203	256.91775	4.90286	0.0669449	0.18137204	3.0909300	21	9 13.9	20.3
293135 2006 XX_{63}	15.8	X	69.90126	310.26802	111.07693	18.36440	0.1320722	0.21463913	2.7626770	21	1 1.2	19.0
293136 2006 XM_{64}	16.3	X	209.66197	318.80900	56.05008	14.96476	0.2912395	0.23355728	2.6114023	21	4 15.4	21.2
293137 2006 XQ_{64}	14.8	X	154.31782	85.54203	72.43457	23.00259	0.0677644	0.17461832	3.1701235	21	8 23.2	20.0
293138 2006 XG_{65}	16.2	X	24.16279	324.48308	139.48806	5.74109	0.1169833	0.21107750	2.7936678	21	—	—
293139 2006 XW_{68}	16.3	X	138.27155	124.31867	297.16772	12.03018	0.1371527	0.22818825	2.6522056	21	3 24.9	20.5
293140 2006 XZ_{68}	17.1	X	208.04036	113.08023	284.46779	3.00859	0.0935537	0.23179212	2.6246432	21	5 10.2	21.0
293141 2006 XM_{69}	15.9	X	339.88062	35.27383	69.40985	6.99124	0.0496622	0.19900375	2.9055512	21	—	—
293142 2006 XQ_{69}	16.0	X	245.70022	268.41963	142.23897	15.64468	0.0168400	0.23227316	2.6210182	21	7 20.5	19.6
293143 2006 XR_{72}	16.7	X	273.64921	284.68179	173.37438	2.16456	0.0407246	0.18564614	3.0433046	21	10 21.4	20.9
293144 2006 XS_{72}	16.2	X	261.37889	115.58849	323.20082	7.41158	0.0385276	0.17902528	3.1178830	21	9 8.8	20.6
293145 2006 YP_{1}	16.4	X	109.97191	195.84958	308.28773	5.46543	0.1107544	0.22518999	2.6756954	21	6 11.4	20.2
293146 2006 YR_{4}	16.7	X	123.87939	206.46639	302.19325	2.53998	0.1145077	0.22935699	2.6431881	21	7 4.7	20.6
293147 2006 YK_{5}	16.7	X	179.10507	170.63508	83.54960	8.09145	0.0984807	0.26573621	2.3960850	21	—	—
293148 2006 YS_{5}	17.6	X	276.81638	280.52039	198.14404	0.76024	0.1322560	0.26053458	2.4278721	21	11 22.2	19.9
293149 2006 YT_{5}	16.7	X	354.07126	117.93765	90.58812	4.42735	0.1863118	0.22192465	2.7018777	21	3 2.9	19.5
293150 2006 YG_{7}	17.0	X	46.70869	299.69363	119.77764	10.49623	0.2008906	0.27752891	2.3277191	21	—	—
293151 2006 YQ_{8}	16.6	X	209.92621	49.56287	80.39255	2.29291	0.1220005	0.17697540	3.1419128	21	9 6.5	21.4
293152 2006 YM_{10}	16.9	X	181.46204	278.90121	105.27841	24.44087	0.1249656	0.36085111	1.9539676	21	3 26.1	20.1
293153 2006 YB_{12}	15.3	X	205.62285	95.75874	338.17903	15.39744	0.2258887	0.17285044	3.1917024	21	6 21.2	21.0
293154 2006 YL_{12}	16.0	X	16.59024	42.78159	111.71205	14.78574	0.0705986	0.21358436	2.7717651	21	2 7.5	19.4
293155 2006 YX_{12}	17.0	X	199.82136	355.08012	109.86912	2.41986	0.1181794	0.24146894	2.5540450	21	7 28.7	20.8
293156 2006 YK_{14}	16.5	X	125.71079	91.87490	72.17815	8.99026	0.1053724	0.23982892	2.5656752	21	7 28.2	20.3
293157 2006 YO_{15}	15.1	X	182.16179	240.94275	240.35013	17.74744	0.1538229	0.17421133	3.1750589	21	7 23.5	20.6
293158 2006 YQ_{15}	16.2	X	188.08425	341.93579	102.52338	12.33112	0.0298731	0.23888446	2.5724332	21	6 20.6	19.7
293159 2006 YW_{16}	16.1	X	280.92593	0.49514	111.21187	9.58949	0.0414973	0.18840655	3.0135059	21	11 19.3	20.3
293160 2006 YU_{17}	15.2	X	78.48032	114.90499	72.08561	19.53300	0.0636371	0.16895819	3.2405337	21	6 20.6	19.8
293161 2006 YL_{20}	17.5	X	303.74737	64.67854	30.37031	1.96073	0.1344479	0.26375766	2.4080527	21	12 6.8	19.7
293162 2006 YA_{21}	16.5	X	204.79679	330.00590	62.80995	3.62084	0.1164998	0.23294051	2.6160098	21	5 1.6	20.5
293163 2006 YP_{21}	17.0	X	92.57917	106.55594	3.73754	0.61168	0.0757445	0.22377875	2.6869329	21	3 30.5	20.4
293164 2006 YD_{25}	16.6	X	219.97411	354.00191	305.37753	5.58300	0.0981552	0.21493434	2.7601468	21	1 23.7	20.9
293165 2006 YZ_{26}	17.8	X	317.13268	45.93977	9.13261	1.18443	0.1615904	0.25681608	2.4512517	21	10 30.7	20.0
293166 2006 YU_{31}	16.6	X	88.94933	316.50457	84.50688	5.10054	0.1054883	0.21013624	2.8020040	21	1 1.9	20.1
293167 2006 YC_{38}	16.5	X	98.90074	262.39287	321.81759	10.80106	0.1566773	0.23863094	2.5742549	21	9 14.9	20.4
293168 2006 YX_{41}	15.9	X	316.61871	132.54459	269.93362	6.92408	0.0629411	0.18775765	3.0204451	21	10 3.0	19.9
293169 2006 YN_{47}	16.5	X	339.34103	181.86543	72.57118	6.57285	0.1398670	0.23400713	2.6080544	21	4 15.4	19.5
293170 2006 YU_{47}	15.7	X	246.29052	163.01334	267.32543	5.44688	0.1572484	0.17644191	3.1482428	21	7 26.9	20.4
293171 2006 YT_{48}	17.5	X	154.21493	313.35971	119.00148	4.37726	0.1139215	0.22747032	2.6577832	21	5 1.4	21.5
293172 2006 YJ_{51}	17.5	X	271.84724	24.46253	124.13246	1.98736	0.1346372	0.26006210	2.4308118	21	12 25.6	19.9
293173 2006 YN_{51}	16.3	X	108.34403	108.15932	146.20021	14.64502	0.0340609	0.24270589	2.5453598	21	10 31.6	20.0
293174 2006 YY_{51}	17.2	X	195.09550	104.62465	125.33374	3.20724	0.1502791	0.25787373	2.4445447	21	12 28.8	20.8
293175 2006 YA_{52}	16.7	X	16.27825	217.39501	296.41344	5.63699	0.0009890	0.21193802	2.7861007	21	2 6.7	20.4
293176 2006 YR_{52}	16.8	X	93.23180	256.55828	291.05177	2.27905	0.0204081	0.23523815	2.5989477	21	7 5.4	19.9
293177 2007 AE_{4}	16.3	X	175.92681	125.80817	315.22254	10.63095	0.1733583	0.23328338	2.6134459	21	6 2.4	20.8
293178 2007 AV_{6}	14.8	X	183.84661	104.46918	305.42828	13.71015	0.0220842	0.16020656	3.3574987	21	4 29.3	19.9
293179 2007 AP_{10}	16.9	X	326.72207	82.56987	5.79034	5.66960	0.1121994	0.26218511	2.4176719	21	—	—
293180 2007 AY_{10}	16.3	X	277.72749	271.06510	117.89848	14.28574	0.0943217	0.24245985	2.5470814	21	7 23.4	19.6
293181 2007 AW_{11}	16.8	X	20.11367	151.78565	251.86611	3.03918	0.1418840	0.19750999	2.9201826	21	—	—
293182 2007 AW_{14}	15.4	X	217.43640	62.74729	95.55444	11.66254	0.0410628	0.19005234	2.9960834	21	10 31.9	19.9
293183 2007 AZ_{14}	17.1	X	46.51389	354.63137	100.19444	6.33933	0.0576268	0.28149234	2.3058178	21	—	—
293184 2007 AE_{17}	15.3	X	152.25544	190.63091	316.40563	17.01453	0.0561620	0.16973319	3.2306621	21	7 30.5	20.1
293185 2007 AK_{19}	15.9	X	172.53705	287.75542	115.13884	14.82672	0.0559493	0.22279052	2.6948726	21	4 15.9	20.1
293186 2007 AO_{21}	16.5	X	109.03403	312.57536	103.17771	5.94176	0.1109559	0.21563423	2.7541711	21	2 18.1	20.2
293187 2007 AR_{24}	17.3	X	154.11351	98.42976	326.80690	4.56041	0.1223795	0.29407386	2.2395724	21	4 13.1	20.5
293188 2007 AR_{25}	16.0	X	91.66413	4.05163	137.61557	13.60340	0.0955923	0.22395796	2.6854994	21	5 17.9	19.9
293189 2007 AS_{25}	16.1	X	121.63409	40.91379	101.74759	14.26842	0.2142898	0.22636589	2.6664211	21	7 4.2	20.4
293190 2007 AU_{28}	16.9	X	357.20947	63.94061	133.66270	5.79527	0.0980066	0.21770096	2.7367124	21	3 3.3	20.1
293191 2007 AX_{28}	15.9	X	19.49406	188.58031	126.47161	17.89114	0.1079385	0.17754250	3.1352186	21	9 24.6	20.1
293192 2007 AH_{30}	17.2	X	205.11868	305.94738	139.01391	0.91398	0.0594911	0.23604654	2.5930106	21	7 10.9	20.8
293193 2007 AA_{31}	15.9	X	347.81531	104.32905	287.68622	12.57508	0.1103555	0.18778121	3.0201926	21	11 5.3	19.8
293194 2007 AC_{31}	17.0	X	31.16476	359.87344	144.39205	5.65416	0.1007588	0.21342930	2.7731074	21	2 14.5	20.3
293195 2007 BK_{2}	15.3	X	165.87002	163.18699	349.80073	5.43993	0.1070798	0.16963663	3.2318879	21	8 22.2	20.4
293196 2007 BR_{5}	17.2	X	76.53032	143.18335	318.73065	17.46818	0.0727547	0.35276630	1.9837091	21	1 27.3	18.6
293197 2007 BH_{6}	15.4	X	220.15894	327.18798	144.07280	18.00703	0.1572208	0.17533237	3.1615106	21	8 21.2	20.4
293198 2007 BU_{6}	16.7	X	54.60651	56.13893	118.32538	4.19231	0.2299377	0.21892150	2.7265310	21	5 24.9	19.6
293199 2007 BF_{9}	16.0	X	82.97546	132.95093	83.44953	10.99339	0.1257542	0.23465008	2.6032882	21	8 20.6	19.7
293200 2007 BO_{10}	17.0	X	340.92921	263.94148	140.68611	2.27320	0.1890970	0.25866590	2.4395512	21	12 8.5	19.0

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293201 2007 BC_{11}	16.6	X	128.08704	74.75920	104.40940	8.63476	0.1309329	0.23587325	2.5942805	21	8 22.3	20.6
293202 2007 BC_{12}	16.1	X	168.75532	133.00915	44.37111	4.63896	0.0494879	0.17659492	3.1464240	21	9 24.9	20.7
293203 2007 BG_{13}	16.7	X	32.98770	64.13740	30.54644	2.30519	0.0256889	0.20461681	2.8521685	21	—	—
293204 2007 BK_{13}	16.8	X	27.78296	45.14571	32.09668	2.08245	0.0441132	0.20079027	2.8882910	21	—	—
293205 2007 BO_{15}	16.5	X	240.35985	188.01526	112.95621	5.15113	0.0735745	0.21460095	2.7630047	21	2 17.6	20.5
293206 2007 BK_{17}	15.7	X	355.97643	268.54610	126.63790	10.77824	0.0554785	0.18863972	3.0110222	21	11 25.6	19.8
293207 2007 BX_{17}	15.9	X	355.36294	240.30616	340.33411	9.17447	0.0547534	0.21816915	2.7327957	21	3 30.4	19.4
293208 2007 BM_{18}	16.5	X	14.71570	159.18972	39.76441	3.29624	0.2238248	0.21680295	2.7442642	21	3 30.5	18.7
293209 2007 BD_{19}	16.3	X	158.12298	115.77096	306.87309	10.55440	0.1771080	0.22673248	2.6635461	21	4 20.6	20.8
293210 2007 BJ_{20}	16.5	X	7.49960	142.98679	339.05076	23.76008	0.2202017	0.27384423	2.3485527	21	—	—
293211 2007 BX_{20}	15.5	X	246.24519	218.66414	248.67707	10.31071	0.1346766	0.18007384	3.1057677	21	9 9.8	20.3
293212 2007 BE_{22}	16.1	X	331.39180	122.05479	110.81008	9.87899	0.0717720	0.21895839	2.7262248	21	3 17.5	19.7
293213 2007 BJ_{24}	15.9	X	65.86274	194.17159	124.04821	4.74629	0.2181900	0.18760346	3.0220999	21	12 9.9	20.5
293214 2007 BJ_{25}	16.8	X	225.46627	83.11705	27.61149	1.71189	0.2178680	0.17586534	3.1551200	21	8 21.1	22.0
293215 2007 BJ_{27}	16.0	X	117.40123	74.72644	333.64583	5.34638	0.0278599	0.21187264	2.7866738	21	2 7.0	19.7
293216 2007 BY_{27}	16.7	X	185.62668	274.99760	112.04302	5.84754	0.1788037	0.22510014	2.6764073	21	4 9.5	21.1
293217 2007 BJ_{28}	16.3	X	246.79186	319.88814	328.61539	3.49706	0.1790342	0.21214780	2.7842637	21	2 2.4	20.9
293218 2007 BN_{35}	16.9	X	44.48490	217.57473	327.08654	1.26958	0.1129904	0.22317367	2.6917874	21	5 2.5	20.0
293219 2007 BP_{36}	15.9	X	38.89805	309.89930	102.18036	10.05122	0.0593860	0.19859899	2.9094977	21	—	—
293220 2007 BS_{37}	16.8	X	331.48767	340.99861	271.02717	1.31879	0.0343352	0.22289011	2.6940699	21	4 11.1	20.3
293221 2007 BK_{38}	17.6	X	218.58176	126.36252	298.63011	5.06975	0.0928624	0.30449769	2.1881649	21	6 27.4	20.3
293222 2007 BF_{40}	16.8	X	327.47027	125.42051	125.84624	5.28880	0.0686180	0.22119076	2.7078508	21	4 3.4	20.3
293223 2007 BN_{40}	17.0	X	357.23240	342.13403	136.54638	2.91057	0.0184544	0.20287043	2.8685134	21	—	—
293224 2007 BH_{42}	16.7	X	225.09564	304.70229	131.62609	12.88825	0.2133130	0.24019254	2.5630852	21	7 10.1	20.9
293225 2007 BA_{50}	16.4	X	318.04740	314.74748	308.37513	3.64539	0.0447706	0.22216154	2.6999567	21	4 4.6	20.1
293226 2007 BS_{56}	15.8	X	29.32736	356.17646	336.32982	9.23572	0.0888703	0.18343609	3.0676998	21	10 19.9	20.0
293227 2007 BA_{58}	15.1	X	140.57993	342.81600	118.75760	11.45693	0.0884968	0.15829446	3.3844822	21	5 26.2	20.3
293228 2007 BM_{59}	15.9	X	181.59186	334.32374	162.42032	5.76838	0.0642611	0.17252809	3.1956767	21	8 17.2	20.6
293229 2007 BS_{60}	16.2	X	53.98565	338.90963	104.84704	7.80840	0.0080971	0.20457912	2.8525188	21	—	—
293230 2007 BB_{61}	16.8	X	63.99429	191.27822	308.74213	3.92901	0.0556935	0.22117713	2.7079620	21	3 25.2	20.3
293231 2007 BS_{61}	16.6	X	167.54265	340.31452	82.28255	3.50191	0.1557612	0.22939010	2.6429337	21	5 4.0	20.8
293232 2007 BB_{63}	16.4	X	222.39816	24.28120	301.55698	4.79288	0.0287392	0.21466961	2.7624155	21	2 27.4	20.3
293233 2007 BM_{64}	17.7	X	143.46916	354.25033	162.87094	2.61369	0.0764662	0.30452335	2.1880420	21	8 6.2	20.4
293234 2007 BR_{64}	15.5	X	219.50288	2.11355	312.54205	15.17673	0.1226021	0.21136108	2.7911684	21	2 9.3	19.9
293235 2007 BR_{67}	16.4	X	325.21277	197.72991	33.80142	4.77161	0.0157367	0.21367604	2.7709721	21	3 12.9	20.1
293236 2007 BM_{68}	16.5	X	157.35328	88.54036	232.57953	1.16166	0.0670755	0.19954055	2.9003380	21	—	—
293237 2007 BQ_{69}	17.3	X	198.42501	314.81838	130.53486	3.54667	0.1438030	0.23435185	2.6054963	21	6 30.3	21.4
293238 2007 BY_{69}	17.7	X	42.64920	56.21389	137.81198	3.64390	0.1078175	0.28886411	2.2664196	21	5 7.6	19.7
293239 2007 BC_{71}	16.8	X	85.82648	228.49876	304.59549	5.79055	0.0696324	0.22603913	2.6689901	21	6 12.8	20.4
293240 2007 BO_{74}	16.9	X	13.97020	290.57058	249.49939	2.26446	0.1320891	0.21719156	2.7409898	21	3 2.7	19.9
293241 2007 BH_{75}	15.7	X	339.22424	82.98547	347.21472	10.94739	0.1589687	0.18589912	3.0405431	21	12 15.1	19.3
293242 2007 BK_{75}	16.6	X	328.26125	304.56246	220.79156	2.39891	0.1034023	0.20281052	2.8690783	21	—	—
293243 2007 BT_{77}	15.3	X	146.41145	266.85223	325.68432	13.37510	0.0658150	0.17863047	3.1224754	21	10 29.9	20.3
293244 2007 BD_{78}	16.9	X	303.97188	200.78607	162.39053	1.96993	0.0515940	0.23510659	2.5999172	21	7 31.8	20.1
293245 2007 BZ_{78}	16.6	X	298.18057	236.44666	194.43916	1.38381	0.1682354	0.18296935	3.0729146	21	10 2.9	20.5
293246 2007 BR_{80}	16.5	X	53.68911	124.78780	0.54619	1.84287	0.0177529	0.21129123	2.7917835	21	2 20.6	20.2
293247 2007 BF_{101}	16.1	X	128.69825	123.99224	57.95724	1.68702	0.1194703	0.16760356	3.2579710	21	8 20.7	21.1
293248 2007 CS_{1}	16.2	X	28.54495	302.61272	325.63022	10.57452	0.1141589	0.23212802	2.6221106	21	8 6.4	19.0
293249 2007 CU_{1}	15.7	X	107.14011	164.14133	118.38902	9.82542	0.0678367	0.18856318	3.0118369	21	11 26.4	20.3
293250 2007 CW_{1}	16.2	X	19.32299	11.43189	149.23638	4.47165	0.0402087	0.21239750	2.7820811	21	2 19.1	19.7
293251 2007 CF_{2}	17.1	X	93.66908	293.64005	317.40101	3.44516	0.1863162	0.23979112	2.5659449	21	10 18.8	21.1
293252 2007 CO_{3}	16.3	X	56.17692	327.34470	151.99027	4.29218	0.0509792	0.21249585	2.7812226	21	2 17.8	19.7
293253 2007 CE_{9}	15.3	X	45.11777	173.76700	129.68530	17.07883	0.0837341	0.17914066	3.1165440	21	10 14.7	19.8
293254 2007 CZ_{11}	16.8	X	123.27717	33.30262	95.65616	3.11655	0.0374039	0.22586798	2.6703382	21	5 29.5	20.3
293255 2007 CF_{12}	17.4	X	203.09150	52.68905	60.50966	3.39382	0.1472344	0.23862838	2.5742733	21	8 11.3	21.4
293256 2007 CH_{12}	16.5	X	206.41237	238.80139	0.58874	1.74122	0.0293494	0.19491760	2.9460177	21	—	—
293257 2007 CK_{13}	16.5	X	149.08177	152.57832	283.67418	9.52383	0.1090011	0.23134217	2.6280453	21	4 24.6	20.6
293258 2007 CO_{15}	16.1	X	84.57426	30.26602	95.32592	14.55088	0.1415887	0.22089300	2.7102837	21	4 26.5	19.9
293259 2007 CL_{18}	15.4	X	77.18661	280.56481	348.49936	8.44796	0.0475502	0.17452987	3.1711944	21	9 28.5	19.9
293260 2007 CE_{19}	17.7	X	236.15973	158.64228	347.68760	3.35105	0.0982100	0.25182453	2.4835374	21	11 3.6	20.9
293261 2007 CX_{20}	16.3	X	200.46021	51.62164	310.28418	4.78183	0.0275083	0.21855673	2.7295638	21	3 17.7	20.1
293262 2007 CJ_{21}	15.7	X	240.39105	189.13722	277.21032	7.66955	0.1001614	0.17793642	3.1305897	21	9 7.2	20.4
293263 2007 CR_{22}	16.2	X	29.65057	295.15821	320.99830	11.47889	0.1018939	0.23168937	2.6254191	21	7 20.8	19.2
293264 2007 CO_{24}	16.2	X	133.67672	283.22272	135.48199	12.71081	0.0918779	0.21873817	2.7280542	21	3 22.8	20.2
293265 2007 CW_{24}	15.3	X	286.61052	88.32431	325.03281	8.19053	0.0521476	0.17677375	3.1443016	21	9 7.2	19.6
293266 2007 CJ_{25}	15.3	X	191.81532	18.66799	158.36635	28.43002	0.1239398	0.17736987	3.1372526	21	10 18.8	20.6
293267 2007 CP_{25}	16.6	X	166.70467	249.78036	136.93907	4.17807	0.1647988	0.22333984	2.6904520	21	3 21.4	20.8
293268 2007 CY_{32}	18.2	X	5.35566	254.78779	193.90931	0.68843	0.1566087	0.26789445	2.3831986	21	—	—
293269 2007 CY_{33}	16.2	X	210.38781	49.29359	317.15989	8.53359	0.0476493	0.22088809	2.7103238	21	4 1.6	20.3
293270 2007 CC_{34}	16.4	X	42.56965	10.70594	145.01073	4.54468	0.0334598	0.21635700	2.7480338	21	3 17.5	19.8
293271 2007 CS_{39}	16.4	X	140.83966	247.93674	143.31973	11.91430	0.1480190	0.21422857	2.7662056	21	3 1.1	20.5
293272 2007 CR_{40}	16.8	X	222.65602	269.89221	144.72300	11.91484	0.1988857	0.23524269	2.5989143	21	6 12.8	21.3
293273 2007 CT_{43}	16.7	X	259.47561	158.18825	157.97235	6.27482	0.0581865	0.21882368	2.7273435	21	3 31.2	20.5
293274 2007 CW_{46}	16.5	X	0.70665	277.42779	293.14998	2.41536	0.2138915	0.21408652	2.7674291	21	3 14.1	19.2
293275 2007 CZ_{46}	16.4	X	84.82795	46.38099	155.53754	12.12632	0.1495225	0.22947690	2.6422672	21	8 1.2	20.1
293276 2007 CJ_{48}	15.8	X	196.29882	315.82079	258.58500	3.65415	0.1074393	0.18626933	3.0365130	21	12 3.2	20.3
293277 2007 CM_{48}	16.5	X	309.58377	324.05186	160.17838	11.19942	0.0458872	0.19302873	2.9652051	21	—	—
293278 2007 CO_{50}	16.7	X	73.13898	156.61241	351.59206	3.93937	0.0532463	0.22001005	2.7175302	21	4 18.7	20.1
293279 2007 CN_{54}	17.2	X	212.14748	217.68029	282.69399	3.22703	0.2116966	0.24334011	2.5409352	21	9 16.3	21.3
293280 2007 CW_{55}	15.4	X	329.23202	266.05889	142.69781	17.39362	0.0870656	0.18479463	3.0526463	21	11 6.9	19.6

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293281 2007 CY_{56}	16.4	X	166.30545	158.23817	300.42957	5.17330	0.1790366	0.23053320	2.6341898	21	6 17.3	20.7
293282 2007 CZ_{58}	16.4	X	51.42478	242.99574	253.15910	5.56943	0.1043940	0.21557513	2.7546745	21	3 5.5	19.8
293283 2007 CV_{59}	16.8	X	177.83805	179.84927	279.18380	3.19599	0.2037831	0.23271288	2.6177155	21	6 28.3	21.1
293284 2007 CD_{60}	15.2	X	150.64226	266.12154	292.21166	7.92841	0.0394561	0.17391988	3.1786050	21	9 23.8	20.0
293285 2007 CV_{63}	16.0	X	87.10813	133.13535	347.55056	9.05598	0.0888754	0.21661410	2.7458590	21	4 5.6	19.7
293286 2007 DM	16.3	X	339.41403	17.32143	120.42315	5.93752	0.0644663	0.20222940	2.8745720	21	—	—
293287 2007 DS_{1}	16.6	X	235.68415	251.16507	173.44984	11.30961	0.2397106	0.24108470	2.5567579	21	7 2.2	21.0
293288 2007 DG_{4}	16.0	X	15.52157	211.09260	181.12318	9.55287	0.0634907	0.18566699	3.0430768	21	12 16.1	20.2
293289 2007 DC_{7}	15.8	X	68.73298	290.83462	271.51707	12.79566	0.0269849	0.22663058	2.6643445	21	6 22.7	19.3
293290 2007 DG_{7}	15.7	X	339.69517	205.76937	186.26687	10.62148	0.0913283	0.17933939	3.1142412	21	10 27.0	19.6
293291 2007 DT_{11}	16.8	X	128.40766	313.32672	167.56677	11.71343	0.2462167	0.22835904	2.6508831	21	6 16.4	21.3
293292 2007 DU_{14}	16.6	X	213.76531	237.12824	112.68792	6.75659	0.0567631	0.21670206	2.7451159	21	3 23.2	20.7
293293 2007 DL_{15}	16.3	X	215.74001	176.52289	64.55932	4.27542	0.2757933	0.18956037	3.0012651	21	—	—
293294 2007 DT_{15}	16.0	X	156.34037	238.64116	3.76630	9.41730	0.0522043	0.18389695	3.0625724	21	11 25.2	20.7
293295 2007 DK_{18}	17.4	X	75.64460	252.75774	346.66344	3.05085	0.1782122	0.23194516	2.6234885	21	9 14.2	20.9
293296 2007 DR_{20}	17.0	X	108.27032	37.34241	149.12567	7.22067	0.1225408	0.23033319	2.6357145	21	8 5.9	20.7
293297 2007 DL_{23}	16.4	X	207.40766	200.61819	330.61044	0.95724	0.1903132	0.17967413	3.1103721	21	10 17.1	21.4
293298 2007 DD_{24}	16.5	X	254.88448	187.06396	157.60963	6.23766	0.0733284	0.22139304	2.7062011	21	4 30.1	20.4
293299 2007 DT_{25}	18.2	X	86.73576	172.61727	100.17422	1.72393	0.1126561	0.31014008	2.1615442	21	11 12.2	20.8
293300 2007 DP_{27}	16.0	X	186.84133	8.91902	126.32146	4.55380	0.1610743	0.16821342	3.2500918	21	8 19.4	21.3
293301 2007 DX_{28}	15.9	X	170.84793	165.50093	110.72077	3.07397	0.0539206	0.18990009	2.9976846	21	—	—
293302 2007 DD_{30}	15.7	X	89.10116	132.88297	154.47180	11.14103	0.0689943	0.17706541	3.1408478	21	11 11.7	20.4
293303 2007 DY_{30}	17.1	X	153.16422	79.31873	348.27946	1.40542	0.1172876	0.22008776	2.7168904	21	4 22.7	21.2
293304 2007 DV_{32}	15.8	X	173.40558	53.83400	151.61840	5.54535	0.1429881	0.17655610	3.1468852	21	10 31.5	20.9
293305 2007 DQ_{33}	16.8	X	8.14083	106.55646	149.96849	4.40341	0.1184539	0.22158992	2.7045979	21	6 11.7	19.8
293306 2007 DR_{33}	16.5	X	113.81777	355.30222	152.29768	3.76941	0.0341941	0.22390716	2.6859055	21	6 10.9	20.2
293307 2007 DQ_{37}	13.3	X	41.71869	42.71691	176.01777	23.25016	0.0969404	0.08351683	5.1834634	21	6 18.9	20.1
293308 2007 DT_{37}	17.0	X	54.68466	219.66863	341.40295	4.53316	0.1233391	0.22085205	2.7106187	21	6 13.9	20.3
293309 2007 DF_{39}	16.2	X	235.87703	167.48865	41.93414	3.35567	0.0870431	0.18760566	3.0220763	21	—	—
293310 2007 DW_{40}	17.3	X	165.22611	331.53008	169.08207	7.91306	0.1383539	0.23543395	2.5975066	21	8 6.7	21.4
293311 2007 DS_{41}	16.1	X	213.18859	26.07892	99.54871	3.20317	0.0711831	0.17761293	3.1343898	21	9 9.1	20.7
293312 2007 DU_{42}	16.1	X	128.73866	243.65069	283.55835	11.65949	0.1350949	0.23462806	2.6034510	21	8 2.6	20.2
293313 2007 DV_{44}	16.0	X	55.28607	187.01590	121.09171	13.02145	0.1101045	0.18335651	3.0685874	21	11 5.5	20.5
293314 2007 DD_{45}	17.0	X	211.48587	69.33428	314.06715	4.15344	0.0523045	0.22323685	2.6912795	21	4 26.7	20.8
293315 2007 DY_{46}	15.9	X	206.71563	43.03694	162.84776	5.77034	0.1175521	0.18529529	3.0471451	21	12 3.7	20.6
293316 2007 DN_{47}	17.5	X	181.67582	319.51263	200.00548	0.38275	0.1439020	0.24035096	2.5619588	21	9 17.2	21.5
293317 2007 DO_{50}	16.7	X	304.71296	216.26316	17.94689	3.84992	0.0274499	0.21068568	2.7971303	21	2 16.5	20.4
293318 2007 DA_{51}	16.8	X	23.95487	32.91150	164.59785	3.49033	0.0312935	0.21774399	2.7363518	21	4 15.1	20.4
293319 2007 DG_{51}	17.2	X	241.31275	135.73920	323.82145	5.15767	0.1622155	0.24359993	2.5391281	21	8 30.8	20.9
293320 2007 DQ_{52}	16.0	X	276.76380	330.91723	188.68518	5.72596	0.1180793	0.18931505	3.0038572	21	12 30.3	20.0
293321 2007 DV_{53}	15.5	X	115.56978	294.24877	351.17094	10.11572	0.2592002	0.17431348	3.1738183	21	12 14.6	21.1
293322 2007 DC_{55}	15.5	X	174.00501	271.63889	327.39089	5.22271	0.0842041	0.18450186	3.0558747	21	12 10.6	20.3
293323 2007 DE_{58}	17.1	X	6.79121	56.18528	189.57148	3.42792	0.0442020	0.22087588	2.7104237	21	5 25.0	20.6
293324 2007 DG_{58}	17.0	X	164.57166	75.54985	337.35455	4.13551	0.1551343	0.21831672	2.7315640	21	4 17.3	21.3
293325 2007 DL_{58}	16.0	X	186.84193	351.24607	177.87863	10.39126	0.0409610	0.17309143	3.1887392	21	10 4.0	20.6
293326 2007 DT_{63}	16.0	X	165.14063	169.10232	343.19513	3.26620	0.1284368	0.16768760	3.2568825	21	8 20.2	21.2
293327 2007 DS_{65}	16.8	X	102.48210	27.28631	186.40807	4.88715	0.1750296	0.23475098	2.6025421	21	9 9.9	20.8
293328 2007 DT_{65}	17.6	X	92.52904	29.88108	106.48134	3.12124	0.1068097	0.28850142	2.2683187	21	5 4.9	20.2
293329 2007 DG_{67}	15.8	X	160.63634	129.24013	106.41797	2.58389	0.1176603	0.17930310	3.1146615	21	11 23.2	20.6
293330 2007 DZ_{67}	16.4	X	323.37003	254.12931	136.88129	4.12613	0.1052803	0.17504160	3.1650108	21	9 28.8	20.3
293331 2007 DY_{68}	13.6	X	9.70976	250.53334	356.09989	7.28563	0.0818017	0.08449058	5.1435606	21	6 4.9	20.2
293332 2007 DV_{71}	16.2	X	180.55047	97.78456	44.28932	2.74060	0.0882119	0.16721775	3.2629803	21	8 23.8	21.3
293333 2007 DB_{75}	17.1	X	181.41875	95.28017	346.02124	3.47406	0.0541623	0.22562413	2.6722619	21	6 7.5	20.9
293334 2007 DE_{77}	16.1	X	307.44376	117.49755	14.89037	9.95462	0.0524379	0.19139841	2.9820197	21	—	—
293335 2007 DW_{79}	17.0	X	208.00946	262.36144	152.17481	9.20544	0.1097879	0.22927731	2.6438004	21	6 3.3	21.2
293336 2007 DW_{86}	16.0	X	330.74559	170.23386	334.15715	7.26997	0.0326557	0.19964659	2.8993109	21	—	—
293337 2007 DZ_{86}	15.2	X	297.62651	122.37159	147.04748	10.56345	0.0586954	0.14806238	3.5386660	21	3 29.0	20.2
293338 2007 DK_{87}	15.9	X	144.52452	130.01279	76.05727	2.68240	0.1168235	0.17304589	3.1892987	21	10 4.8	20.8
293339 2007 DD_{90}	15.6	X	146.16443	218.68715	347.21058	10.20538	0.0573472	0.17387128	3.1791973	21	9 30.5	20.4
293340 2007 DH_{90}	16.5	X	79.62540	300.81303	121.13398	2.90432	0.0452167	0.20362327	2.8614387	21	1 9.7	20.2
293341 2007 DM_{92}	16.3	X	200.33267	178.18616	137.98801	2.96038	0.0476831	0.20515492	2.8471789	21	1 24.4	20.5
293342 2007 DR_{97}	15.3	X	29.87829	350.85541	354.41900	8.47579	0.0390689	0.17441550	3.1725806	21	10 30.3	19.8
293343 2007 DW_{98}	15.8	X	59.28417	257.46724	3.76980	2.35751	0.0523197	0.16765504	3.2573040	21	8 29.4	20.3
293344 2007 DM_{100}	16.5	X	191.84988	84.95877	265.38837	4.11874	0.1725977	0.21036434	2.7999781	21	2 26.5	21.1
293345 2007 DD_{105}	17.4	X	74.91630	94.76544	50.89177	3.11314	0.1409721	0.28257247	2.2999381	21	4 25.9	19.8
293346 2007 DG_{105}	15.1	X	133.82723	151.62168	25.51417	8.67928	0.0678294	0.16016079	3.3581384	21	8 18.8	20.2
293347 2007 DP_{105}	17.2	X	13.57409	279.06293	9.12699	2.32901	0.0340228	0.23109435	2.6299238	21	8 2.8	20.5
293348 2007 DW_{105}	16.5	X	244.77020	351.00609	229.42162	0.66787	0.1562260	0.19209388	2.9748177	21	—	—
293349 2007 DS_{106}	17.0	X	198.19447	274.00173	167.51189	7.35088	0.1709002	0.23256316	2.6188389	21	6 24.4	21.4
293350 2007 DX_{106}	15.9	X	169.28360	1.88390	209.28756	5.04997	0.1238190	0.17567620	3.1573842	21	11 2.1	20.8
293351 2007 DH_{109}	17.1	X	140.82910	286.63502	152.14345	23.62251	0.0843083	0.35601347	1.9716285	21	4 13.2	19.7
293352 2007 DS_{109}	16.6	X	97.54330	92.03240	270.04305	0.99486	0.0864590	0.19746012	2.9206742	21	—	—
293353 2007 DZ_{109}	17.4	X	116.29975	254.03801	337.26311	3.77770	0.1918443	0.24047867	2.5610517	21	10 16.3	21.5
293354 2007 DB_{110}	16.8	X	288.16610	225.23520	313.89162	0.80745	0.1405022	0.19257951	2.9698145	21	—	—
293355 2007 DM_{110}	17.0	X	187.26282	263.88300	178.65228	6.18648	0.2198572	0.23047290	2.6346492	21	6 15.8	21.5
293356 2007 DV_{111}	17.3	X	13.68786	313.87627	14.24827	4.66228	0.1065730	0.30425884	2.1893099	21	10 15.7	19.2
293357 2007 DF_{113}	15.5	X	167.36711	81.45794	188.47556	9.33228	0.0583800	0.18158062	3.0885625	21	—	—
293358 2007 DT_{115}	17.0	X	71.12952	14.12226	335.44198	4.56333	0.1180434	0.25544530	2.4600132	21	—	—
293359 2007 EE	17.3	X	217.20965	165.00645	281.15647	1.58788	0.1663023	0.23640441	2.5903930	21	7 18.6	21.3
293360 2007 EV_{1}	16.3	X	100.84324	148.35194	192.93744	2.02192	0.1225852	0.18940151	3.0029430	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293361 2007 EN_2	17.8	X	118.29160	231.96409	250.97817	0.36984	0.1446022	0.29203459	2.2499862	21	5 25.7	20.8
293362 2007 ET_2	16.8	X	314.22342	135.03825	354.42783	1.44551	0.0497413	0.19647659	2.9304131	21	—	—
293363 2007 EX_4	15.4	X	33.34118	194.77511	173.31039	9.99776	0.0709247	0.18319847	3.0703519	21	12 10.9	19.8
293364 2007 EQ_5	16.7	X	71.18805	125.26448	296.79624	0.97304	0.0566998	0.20262165	2.8708609	21	—	—
293365 2007 EM_7	16.3	X	239.77597	183.36784	172.60273	5.14696	0.0454966	0.21987077	2.7186776	21	4 28.9	20.1
293366 Roux	16.1	X	5.11774	350.88411	167.97254	6.81905	0.0095458	0.20618235	2.8377125	21	1 30.4	20.0
293367 2007 EU_{10}	16.5	X	78.15924	286.36709	173.83756	4.46706	0.0339887	0.21105918	2.7938294	21	2 21.4	20.2
293368 2007 EE_{11}	15.9	X	113.42175	105.35247	124.94822	4.47580	0.1451907	0.17118418	3.2123804	21	10 6.1	20.9
293369 2007 ER_{13}	15.9	X	320.19595	245.91992	149.08072	10.21651	0.1531372	0.17948431	3.1125648	21	9 26.4	19.5
293370 2007 EF_{17}	13.4	X	334.64786	297.68928	353.13260	16.81578	0.0936186	0.08447108	5.1443521	21	6 6.1	20.1
293371 2007 ED_{18}	16.0	X	326.37803	222.48568	173.52546	9.14107	0.0753715	0.17471265	3.1689823	21	10 11.6	20.1
293372 2007 ER_{18}	17.3	X	19.36225	127.40436	82.67133	2.83543	0.0989896	0.28386550	2.2929485	21	4 17.5	19.3
293373 2007 ER_{19}	16.7	X	219.04244	179.25483	169.13367	5.03665	0.1208075	0.21704366	2.7422349	21	3 22.5	21.0
293374 2007 ES_{20}	17.0	X	154.55183	15.26526	131.67542	3.26692	0.0365860	0.23060564	2.6336381	21	8 1.4	20.7
293375 2007 EU_{20}	17.2	X	333.80094	129.28110	108.24328	3.42365	0.1151405	0.27983415	2.3149178	21	3 7.5	19.6
293376 2007 EZ_{20}	16.6	X	241.99998	138.10629	27.73114	1.81162	0.1184909	0.18306908	3.0717985	21	11 22.3	20.8
293377 2007 EN_{25}	17.1	X	18.86753	72.60460	194.84472	5.41115	0.1495359	0.29058926	2.2574407	21	7 20.9	19.0
293378 2007 EL_{28}	17.4	X	200.55984	330.88977	174.13635	12.50098	0.1109244	0.24133001	2.5550250	21	9 20.2	21.2
293379 2007 EZ_{29}	16.3	X	260.29224	96.33099	43.80059	4.86497	0.0312383	0.18169745	3.0872383	21	11 24.9	20.5
293380 2007 ER_{33}	17.6	X	262.82912	95.59613	310.69868	2.50342	0.1974822	0.23795607	2.5791198	21	7 11.8	21.3
293381 2007 EH_{36}	15.7	X	39.36562	92.31819	133.92482	13.76417	0.1665533	0.22052529	2.7132957	21	6 30.8	18.8
293382 2007 EL_{36}	16.5	X	332.43807	122.96073	129.62428	10.27608	0.1117191	0.28258785	2.2998547	21	3 30.5	19.1
293383 Maigret	15.9	X	216.64599	8.50028	174.42605	7.70700	0.0725194	0.18078996	3.0975608	21	11 21.5	20.6
293384 2007 ED_{41}	17.3	X	11.04162	214.26853	165.94996	3.12144	0.2378374	0.25845998	2.4408467	21	—	—
293385 2007 EV_{43}	15.7	X	209.51471	358.02114	188.87970	9.69995	0.0972257	0.17885428	3.1198700	21	11 15.8	20.4
293386 2007 EW_{43}	13.2	X	12.71916	70.26555	190.94043	18.62096	0.0821478	0.08365059	5.1779366	21	6 26.1	19.9
293387 2007 EC_{44}	16.3	X	179.22557	313.84791	299.24576	1.42108	0.0810697	0.18399849	3.0614456	21	—	—
293388 2007 EV_{44}	16.1	X	246.17282	85.27462	43.96319	1.21356	0.1167930	0.18189167	3.0850403	21	10 14.5	20.4
293389 2007 EV_{45}	16.3	X	295.41627	115.83310	187.59530	5.84552	0.0039206	0.21521665	2.7577325	21	5 7.3	20.0
293390 2007 EL_{46}	17.2	X	283.16241	59.20820	188.55138	1.02993	0.1474613	0.26933900	2.3746697	21	1 11.4	20.6
293391 2007 EE_{48}	17.0	X	86.36059	61.25942	173.05308	5.09570	0.1128174	0.22944130	2.6425405	21	9 11.2	20.7
293392 2007 ES_{51}	15.9	X	342.87794	319.67477	106.63533	6.34866	0.1287817	0.18480366	3.0525468	21	12 15.7	19.4
293393 2007 EP_{53}	16.0	X	350.82052	77.07180	196.93619	11.41713	0.0973943	0.21736350	2.7395442	21	6 6.6	19.3
293394 2007 EE_{59}	18.3	X	112.83117	74.13161	156.17807	2.15978	0.0984054	0.30859193	2.1687675	21	10 14.5	21.0
293395 2007 EV_{63}	17.0	X	26.50502	108.13833	150.64338	2.44633	0.1707968	0.22451068	2.6810899	21	7 24.6	19.8
293396 2007 EW_{64}	17.1	X	80.66412	48.98583	105.39845	2.68166	0.1382310	0.28776369	2.2721939	21	5 18.3	19.4
293397 2007 EZ_{66}	16.5	X	301.47038	183.01842	54.23018	2.55460	0.0502628	0.20549677	2.8440204	21	2 13.6	20.5
293398 2007 EU_{68}	16.2	X	190.70959	45.34659	108.72187	2.35157	0.1250801	0.17092821	3.2155867	21	9 16.2	21.2
293399 2007 EB_{71}	16.7	X	69.95381	47.16242	152.09547	3.92420	0.1335082	0.22208502	2.7005769	21	7 6.5	20.1
293400 2007 EX_{72}	15.2	X	349.61898	176.80577	175.95816	16.69081	0.0291805	0.16806821	3.2519635	21	9 18.1	19.6
293401 2007 ED_{73}	16.6	X	253.88927	111.23250	174.26491	5.90706	0.0534645	0.20461696	2.8521671	21	2 14.4	20.9
293402 2007 EC_{74}	17.0	X	62.76729	308.77917	330.96309	2.15653	0.2586417	0.23120512	2.6290837	21	10 31.0	20.9
293403 2007 ED_{74}	15.8	X	222.21134	277.07912	358.01807	11.72610	0.0058199	0.19722456	2.9229994	21	1 2.9	20.1
293404 2007 EN_{79}	17.2	X	259.02223	324.76278	299.01778	1.28293	0.1691170	0.26684549	2.3894401	21	1 6.9	20.7
293405 2007 EP_{79}	16.2	X	207.92047	167.76796	2.00690	4.36662	0.1122215	0.17462241	3.1700739	21	10 20.7	21.1
293406 2007 EH_{82}	15.1	X	215.11270	123.75505	38.37972	12.76985	0.0498829	0.17630432	3.1498805	21	10 26.9	19.6
293407 2007 ER_{82}	17.3	X	215.04796	264.90046	171.00197	4.43068	0.2014847	0.23741882	2.5830092	21	7 1.0	21.6
293408 2007 EU_{84}	15.1	X	187.83654	186.81572	32.18909	17.79575	0.0947353	0.17983177	3.1085542	21	11 26.4	20.0
293409 2007 EJ_{86}	15.1	X	190.69139	1.21043	208.78038	17.04985	0.1611278	0.17726265	3.1385175	21	11 19.2	20.3
293410 2007 EV_{86}	15.9	X	6.52314	354.22196	202.40089	9.27925	0.1234983	0.21049797	2.7987930	21	3 13.4	19.2
293411 2007 EE_{87}	17.9	X	220.33982	252.89513	192.36659	22.27668	0.0944817	0.37014714	1.9211139	21	7 25.5	20.7
293412 2007 ES_{89}	16.1	X	344.59473	21.98184	193.36734	4.82255	0.0411055	0.21270104	2.7794336	21	3 12.4	19.7
293413 2007 ET_{94}	16.3	X	334.73583	89.95668	11.62677	1.87300	0.1122859	0.19073840	2.9888948	21	—	—
293414 2007 EW_{98}	16.9	X	16.25490	122.74824	151.98008	6.06893	0.0384848	0.22769254	2.6560537	21	7 17.5	20.2
293415 2007 EZ_{99}	16.6	X	190.00821	242.03813	26.56619	1.73488	0.0460351	0.19085133	2.9877156	21	—	—
293416 2007 ED_{100}	17.1	X	19.92282	71.51430	165.53914	2.86162	0.1195096	0.22022380	2.7157715	21	6 5.2	20.0
293417 2007 EF_{100}	17.3	X	160.88324	19.83048	37.81685	0.69867	0.0443987	0.21613284	2.7499336	21	4 13.8	21.2
293418 2007 EK_{105}	13.0	X	336.01645	283.17551	4.55619	9.03646	0.1125848	0.08295962	5.2066480	21	6 3.9	19.5
293419 2007 EM_{110}	16.9	X	75.93652	17.85923	142.56091	5.46667	0.0981066	0.21637415	2.7478887	21	5 19.3	20.4
293420 2007 EQ_{111}	16.4	X	117.72857	174.98596	32.85327	5.53473	0.1238121	0.23170065	2.6253339	21	9 16.2	20.3
293421 2007 EV_{111}	15.6	X	146.54510	94.95395	178.55082	11.64369	0.0653848	0.17975215	3.1094720	21	12 23.0	20.5
293422 2007 EK_{112}	17.8	X	121.42829	187.67883	13.33372	1.88702	0.2125704	0.29903160	2.2147498	21	9 20.4	21.3
293423 2007 EZ_{112}	17.1	X	294.39053	66.92697	203.32038	5.01130	0.1289544	0.27530145	2.3402579	21	2 21.4	20.3
293424 2007 EX_{117}	15.7	X	216.44560	26.07874	181.46833	11.34726	0.0907626	0.18033600	3.1027570	21	12 17.0	20.5
293425 2007 EQ_{123}	16.1	X	6.19696	156.74340	101.73952	4.93781	0.2883732	0.21756068	2.7378886	21	6 11.9	17.8
293426 2007 EC_{128}	16.6	X	340.31827	265.20723	172.38326	3.22099	0.0831151	0.18717737	3.0266845	21	12 24.3	20.3
293427 2007 EU_{131}	15.2	X	127.75286	137.01732	178.80210	17.20256	0.1482347	0.18512440	3.0490201	21	—	—
293428 2007 EP_{135}	15.3	X	280.57574	294.70924	178.19783	12.32280	0.0470785	0.18061130	3.0996033	21	11 17.8	19.7
293429 2007 EO_{137}	17.4	X	237.63800	271.92670	267.16147	1.21066	0.1123213	0.25500698	2.4628313	21	12 18.3	20.5
293430 2007 EH_{142}	16.3	X	305.46136	278.56079	200.94788	8.61000	0.0686199	0.18522006	3.0479701	21	12 25.3	20.4
293431 2007 ET_{142}	17.7	X	227.84909	209.79229	228.63116	3.57490	0.0899575	0.30096946	2.2052327	21	7 27.4	20.5
293432 2007 EH_{145}	16.6	X	67.27335	318.52383	125.09053	3.09655	0.0387923	0.20288866	2.8683415	21	1 19.8	20.3
293433 2007 EU_{149}	16.6	X	239.13140	258.00494	134.99358	6.25199	0.0512657	0.22570006	2.6716625	21	6 14.4	20.4
293434 2007 EM_{150}	15.7	X	312.78062	267.38074	152.56158	9.81368	0.0887630	0.17767297	3.1336836	21	10 23.2	19.8
293435 2007 EN_{152}	16.8	X	305.02596	239.01061	105.84622	4.25433	0.1770551	0.22796218	2.6539588	21	6 18.2	19.8
293436 2007 ES_{152}	16.3	X	100.54291	247.77717	143.26097	7.77033	0.1288443	0.19993901	2.8964833	21	1 10.7	20.1
293437 2007 EB_{155}	16.4	X	1.35826	45.43415	229.77223	5.34535	0.1001653	0.22110377	2.7085610	21	6 25.8	19.4
293438 2007 EU_{156}	15.3	X	108.30751	112.41247	168.57066	12.39974	0.0653541	0.17300060	3.1898553	21	11 23.4	20.2
293439 2007 EL_{157}	15.8	X	29.44380	107.19731	124.43092	12.50702	0.0467797	0.22237211	2.6982520	21	6 10.2	19.3
293440 2007 EX_{159}	15.2	X	133.29406	96.62856	152.67625	12.54181	0.1587498	0.17452537	3.1712490	21	11 17.6	20.5

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	m		°	°	°	°		°				
293441 2007 EL_{160}	17.0	X	188.14269	271.44202	188.78379	22.27634	0.0864610	0.36575283	1.9364706	21	7 8.3	20.0
293442 2007 EN_{164}	17.7	X	224.31648	332.32641	103.88942	4.26873	0.1089949	0.29968231	2.2115426	21	7 19.1	20.5
293443 2007 EX_{166}	15.8	X	234.22109	37.12136	199.00387	10.35175	0.0671707	0.18864199	3.0109981	21	—	—
293444 2007 ES_{167}	15.7	X	137.32587	26.30539	213.42353	4.46246	0.1735484	0.17406672	3.1768172	21	11 7.5	20.9
293445 2007 EW_{168}	17.2	X	121.31760	30.98610	128.60543	3.47815	0.0799023	0.22398509	2.6852825	21	7 12.0	21.0
293446 2007 EJ_{169}	15.5	X	264.01020	305.82887	180.21637	9.32295	0.1183903	0.17766465	3.1337814	21	11 1.9	19.9
293447 2007 EN_{169}	16.3	X	179.51859	130.43729	75.75501	1.92963	0.1327009	0.17407101	3.1767649	21	11 5.3	21.3
293448 2007 EA_{173}	15.2	X	233.76233	314.53944	199.47463	9.34464	0.0357954	0.17655541	3.1468934	21	11 9.8	19.7
293449 2007 EV_{174}	17.5	X	335.17001	29.69274	202.67521	5.48504	0.1950409	0.27668816	2.3324320	21	2 13.8	20.3
293450 2007 EO_{178}	17.3	X	0.67308	264.37128	351.71781	6.45970	0.1478368	0.28520335	2.2857723	21	5 17.8	19.2
293451 2007 ET_{178}	18.0	X	125.89742	50.14526	223.13105	3.43809	0.1712085	0.31172063	2.1542314	21	12 24.9	21.2
293452 2007 EN_{180}	17.1	X	289.73354	69.91587	206.77862	6.31442	0.1086659	0.27514324	2.3411549	21	2 26.6	20.2
293453 2007 EA_{184}	16.6	X	27.65304	178.24239	135.77199	5.77759	0.1374345	0.23774726	2.5806298	21	10 15.1	19.6
293454 2007 ET_{184}	17.1	X	304.30086	303.60072	96.31805	25.19102	0.0432610	0.37800183	1.8944077	21	11 1.3	19.5
293455 2007 EB_{191}	15.2	X	52.48501	182.63306	185.84862	7.70663	0.0615588	0.18131551	3.0915723	21	12 31.9	19.7
293456 2007 EW_{191}	13.6	X	194.00344	236.55645	198.96436	5.94174	0.0194864	0.08349032	5.1845607	21	6 19.0	20.6
293457 2007 EY_{194}	17.5	X	181.20947	286.18861	171.79414	2.15407	0.1723825	0.23025637	2.6363007	21	6 29.7	21.8
293458 2007 ET_{195}	16.3	X	79.66100	113.85454	106.30749	14.06971	0.1301828	0.22965376	2.6409104	21	8 20.8	20.0
293459 2007 ED_{197}	16.4	X	301.71632	217.46996	199.25433	13.78380	0.0842487	0.23894694	2.5719848	21	10 8.1	19.4
293460 2007 ES_{197}	17.7	X	19.65138	314.28780	233.48590	1.77568	0.0986721	0.27868149	2.3212966	21	3 12.9	19.9
293461 2007 EB_{203}	18.1	X	57.20520	115.23162	173.23670	3.12305	0.1512772	0.30428482	2.1891853	21	11 2.3	20.6
293462 2007 ED_{204}	16.9	X	113.47161	250.03905	201.00703	4.02493	0.0486104	0.20974993	2.8054433	21	3 30.2	20.7
293463 2007 EK_{205}	16.0	X	179.93023	108.83775	173.95593	9.42331	0.0516233	0.18793495	3.0185452	21	—	—
293464 2007 EN_{205}	15.9	X	240.22227	72.00054	63.77806	2.23559	0.1131110	0.17603262	3.1531208	21	10 15.9	20.4
293465 2007 EB_{209}	15.3	X	302.60784	253.44077	210.17464	9.58198	0.0715762	0.17939748	3.1135690	21	12 1.3	19.5
293466 2007 ES_{209}	15.1	X	190.55190	199.79158	44.18280	11.96017	0.0170452	0.18137010	3.0909519	21	—	—
293467 2007 ED_{211}	15.5	X	234.71247	201.65149	330.93755	11.61487	0.0175699	0.18426646	3.0584768	21	12 4.4	20.0
293468 2007 EE_{213}	16.3	X	195.61206	171.25564	352.02625	11.35365	0.1877033	0.23935215	2.5690812	21	9 30.7	20.6
293469 2007 EV_{214}	15.4	X	156.66301	92.91019	179.87041	10.96381	0.0588669	0.18247497	3.0784623	21	—	—
293470 2007 EF_{215}	16.1	X	301.22937	341.14842	187.44350	13.07766	0.1013227	0.19511140	2.9440665	21	—	—
293471 2007 EB_{217}	16.9	X	247.93407	32.04684	356.76374	8.63017	0.0825380	0.22704868	2.6610726	21	6 14.8	20.9
293472 2007 EA_{218}	17.2	X	63.76513	32.37056	178.60649	5.51682	0.1121763	0.29174359	2.2514821	21	7 10.3	19.7
293473 2007 EA_{220}	15.5	X	55.21878	128.19412	193.31543	8.50009	0.1614957	0.17234811	3.1979012	21	11 22.9	20.0
293474 2007 EN_{220}	15.9	X	244.86259	93.87058	38.38143	15.75709	0.0926915	0.17286060	3.1915773	21	10 20.7	20.5
293475 2007 ER_{220}	15.6	X	332.20384	112.62990	201.65377	9.01984	0.0623633	0.15293182	3.4631460	21	7 3.8	20.4
293476 2007 EF_{221}	17.6	X	20.56938	36.37953	197.19043	4.68766	0.1230585	0.28317299	2.2966854	21	5 28.2	19.5
293477 Teotihuacan	16.4	X	222.67472	185.05934	56.27222	2.71899	0.1228141	0.19090347	2.9871715	21	—	—
293478 2007 FL_{2}	15.1	X	164.94027	198.49395	32.26710	18.05823	0.1833570	0.17723151	3.1388851	21	11 16.4	20.5
293479 2007 FE_{10}	17.3	X	358.53021	63.20172	239.95118	4.61112	0.1677133	0.29218473	2.2492154	21	8 5.1	18.8
293480 2007 FO_{15}	15.8	X	35.88448	358.12990	210.02580	15.14197	0.0721834	0.21595511	2.7514422	21	5 19.8	19.2
293481 2007 FV_{17}	17.2	X	340.67714	97.06169	176.23763	4.95616	0.2223866	0.28544554	2.2844792	21	4 24.6	19.1
293482 2007 FK_{18}	15.3	X	229.76244	103.75244	57.06915	12.99906	0.1895604	0.17738123	3.1371186	21	10 28.5	20.2
293483 2007 FK_{24}	15.8	X	103.32335	122.72902	185.89320	10.49341	0.0527245	0.17942687	3.1132290	21	12 18.1	20.5
293484 2007 FH_{27}	16.1	X	257.03863	6.62386	248.90816	1.04010	0.0499198	0.20194721	2.8772492	21	1 14.3	20.3
293485 2007 FQ_{27}	16.4	X	251.07355	134.51364	189.94118	4.15386	0.0664452	0.21443684	2.7644142	21	3 29.9	20.3
293486 2007 FA_{28}	12.7	X	296.44206	320.19374	348.78175	26.58685	0.0720726	0.08226261	5.2360171	21	5 1.9	19.9
293487 2007 FL_{28}	15.4	X	121.73605	302.47363	346.30343	8.67423	0.0440418	0.18259949	3.0770627	21	12 14.1	20.0
293488 2007 FG_{30}	15.6	X	129.97298	149.48255	192.11003	7.15948	0.1739867	0.18880766	3.0092364	21	—	—
293489 2007 FS_{31}	15.8	X	147.22062	14.80593	200.61948	7.44901	0.0154023	0.16922882	3.2370781	21	10 13.5	20.2
293490 2007 FR_{33}	18.2	X	146.17390	115.50308	165.83428	0.79882	0.1180000	0.32084574	2.1131899	21	—	—
293491 2007 FE_{37}	17.9	X	189.73270	83.02325	188.23655	4.63321	0.0728307	0.32415749	2.0987724	21	—	—
293492 2007 FP_{44}	16.7	X	32.48007	342.98303	16.93667	9.16131	0.1794513	0.24502320	2.5292858	21	12 28.4	20.1
293493 2007 FG_{45}	16.5	X	270.28848	76.06836	194.22179	6.09571	0.0122401	0.20313106	2.8660592	21	2 19.1	20.5
293494 2007 FO_{46}	16.8	X	218.99825	290.78629	39.04535	2.53227	0.0651975	0.20297237	2.8675529	21	3 3.7	21.1
293495 2007 FN_{49}	17.2	X	85.10592	113.32171	143.77936	6.31116	0.0916445	0.30137811	2.2032389	21	10 18.2	20.0
293496 2007 FE_{50}	16.0	X	293.86011	272.79741	187.20383	9.35391	0.0375524	0.17739948	3.1369034	21	11 18.9	20.4
293497 2007 GQ	16.1	X	326.49293	269.65001	25.50284	9.17269	0.1404560	0.21568297	2.7537561	21	5 18.2	19.3
293498 2007 GJ_{2}	16.3	X	55.24217	144.85899	84.17610	12.61374	0.1323464	0.22307292	2.6925977	21	7 28.1	19.7
293499 Wolinski	15.5	X	68.40553	270.15848	77.66717	11.84736	0.0558935	0.18258308	3.0772470	21	12 25.8	19.9
293500 2007 GS_{7}	16.3	X	62.61368	42.97059	195.74881	13.56416	0.1572196	0.22582679	2.6706629	21	8 20.0	20.0
293501 2007 GD_{9}	17.2	X	87.19012	75.86795	203.97528	6.32036	0.0962640	0.30681455	2.1771353	21	11 20.4	20.1
293502 2007 GO_{10}	13.5	X	307.57327	153.08936	166.44795	20.10478	0.0463923	0.08465716	5.1368109	21	6 13.4	20.5
293503 2007 GR_{10}	16.4	X	223.52647	243.47120	109.27915	4.47279	0.1017342	0.21313449	2.7756640	21	4 4.2	20.7
293504 2007 GZ_{12}	16.7	X	312.57807	140.07050	165.19468	8.93017	0.0357824	0.22049923	2.7135094	21	5 29.0	20.4
293505 2007 GR_{13}	15.9	X	221.34483	6.17148	165.26841	5.51671	0.0850711	0.17901659	3.1179838	21	11 11.3	20.6
293506 2007 GY_{15}	16.3	X	336.47105	79.85769	358.61697	4.16430	0.0862112	0.18487792	3.0517294	21	12 19.2	20.2
293507 2007 GG_{19}	18.0	X	161.38820	270.35052	46.59359	1.46680	0.1406619	0.32441341	2.0976685	21	—	—
293508 2007 GU_{19}	16.6	X	287.52555	330.08001	267.98894	0.97258	0.0457793	0.19697220	2.9254955	21	1 29.5	20.6
293509 2007 GB_{20}	17.3	X	264.05312	345.88966	30.19749	7.69870	0.1249487	0.28816357	2.2700913	21	6 9.7	20.3
293510 2007 GJ_{22}	16.2	X	296.02573	23.73284	176.11512	1.09421	0.1602984	0.19241513	2.9715057	21	—	—
293511 2007 GQ_{29}	15.5	X	212.67237	296.71603	236.51196	14.71462	0.2320949	0.17578062	3.1561337	21	10 18.6	20.9
293512 2007 GW_{29}	14.7	X	187.02056	19.98043	215.20150	27.48305	0.1795375	0.17704478	3.1410918	21	12 10.8	20.2
293513 2007 GC_{30}	17.2	X	18.28684	315.19798	9.66232	3.25400	0.2258397	0.30148551	2.2027156	21	11 7.5	19.1
293514 2007 GB_{31}	15.5	X	27.96629	173.55600	202.32932	4.64557	0.1632803	0.17419898	3.1752089	21	12 22.9	19.6
293515 2007 GE_{33}	15.7	X	2.49434	11.44042	201.96157	26.46378	0.1291098	0.21164799	2.7886454	21	3 29.6	18.9
293516 2007 GU_{34}	13.7	X	158.63607	74.26479	16.41540	6.98249	0.0374186	0.08306720	5.2021518	21	5 28.1	20.8
293517 2007 GY_{34}	16.9	X	291.24042	52.06018	113.60444	1.15176	0.1373881	0.19149529	2.9810137	21	—	—
293518 2007 GU_{36}	17.9	X	91.57174	64.73744	171.76100	4.20366	0.1128508	0.29892227	2.2152897	21	9 27.7	20.7
293519 2007 GV_{37}	16.4	X	216.87804	336.41027	60.16928	5.79849	0.0743437	0.21649336	2.7468798	21	5 21.3	20.4
293520 2007 GP_{46}	15.7	X	46.19796	237.09487	198.41743	8.26614	0.0694197	0.18873741	3.0099831	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293521 2007 GM_{47}	16.9	X	270.60544	182.10984	56.42769	3.04329	0.1589242	0.26212944	2.4180142	21	—	—
293522 2007 GS_{48}	17.4	X	268.41709	249.61583	58.94591	7.07493	0.1256515	0.27362490	2.3498076	21	3 19.9	20.7
293523 2007 GL_{52}	15.8	X	203.54679	262.94304	33.91608	9.56401	0.0932863	0.19090619	2.9871432	21	1 9.9	20.5
293524 2007 GA_{53}	15.5	X	291.82146	278.53069	200.36316	9.44408	0.0563243	0.17609574	3.1523673	21	12 6.1	19.8
293525 2007 GG_{53}	15.8	X	197.96903	142.57397	29.10159	6.52046	0.0625421	0.17028653	3.2236596	21	10 17.2	20.5
293526 2007 GX_{54}	17.3	X	252.04830	171.41709	137.96997	5.85227	0.0232958	0.27510210	2.3413883	21	3 9.1	20.1
293527 2007 GN_{60}	17.1	X	279.51795	287.28780	346.57176	2.41045	0.2271703	0.26933598	2.3746875	21	2 2.7	20.9
293528 2007 GW_{60}	16.1	X	156.61123	332.09952	358.62149	4.87300	0.0692451	0.18924290	3.0046207	21	—	—
293529 2007 GB_{62}	16.2	X	160.74154	32.11314	238.29956	7.74834	0.0452997	0.17972292	3.1098092	21	—	—
293530 2007 GK_{62}	18.0	X	100.61619	221.73713	33.26233	6.19329	0.1306543	0.30467655	2.1873084	21	11 3.9	20.9
293531 2007 GR_{62}	16.9	X	288.67395	105.17519	132.34229	5.47542	0.1394131	0.26770129	2.3843449	21	1 5.4	20.4
293532 2007 GW_{64}	18.0	X	37.39605	44.49107	243.40013	2.59227	0.0772835	0.29666170	2.2265292	21	9 17.3	20.3
293533 2007 GX_{65}	14.9	X	190.83721	178.17761	79.42392	13.12587	0.1183227	0.18176447	3.0864794	21	—	—
293534 2007 GG_{68}	15.8	X	20.55447	73.26519	187.54435	8.22579	0.0293888	0.15225144	3.4734558	21	7 3.7	20.7
293535 2007 GK_{71}	16.0	X	234.04332	27.27981	205.35876	6.77465	0.1582424	0.18519920	3.0481990	21	—	—
293536 2007 HL	15.4	X	65.33561	246.10877	84.49385	12.57232	0.0652407	0.17902101	3.1179326	21	12 3.5	19.7
293537 2007 HR_{1}	15.3	X	197.03097	187.39495	49.75190	13.78583	0.0314306	0.18280195	3.0747903	21	—	—
293538 2007 HS_{3}	15.2	X	256.84107	322.24828	178.67977	27.53348	0.1456888	0.17608865	3.1524519	21	11 8.3	20.0
293539 2007 HD_{6}	17.5	X	320.37102	318.37160	348.70201	2.53571	0.2367833	0.28637677	2.2795241	21	5 2.9	19.8
293540 2007 HQ_{6}	16.3	X	130.97340	111.63983	180.98499	3.60460	0.0741522	0.17983488	3.1085183	21	12 29.4	21.1
293541 2007 HS_{7}	16.8	X	343.55991	158.89190	114.27918	8.59161	0.1191336	0.28491106	2.2873354	21	5 18.4	19.0
293542 2007 HR_{8}	17.2	X	27.23577	300.80710	334.12359	2.01799	0.0679547	0.22564822	2.6720717	21	8 7.2	20.3
293543 2007 HT_{12}	17.5	X	349.65192	49.25580	144.85935	2.91745	0.1686077	0.27459287	2.3442821	21	1 20.4	19.9
293544 2007 HN_{14}	17.6	X	319.85303	182.85397	31.58620	3.22157	0.0539254	0.26839937	2.3802088	21	1 26.1	20.5
293545 2007 HK_{18}	17.3	X	342.18728	45.87547	158.64422	1.29221	0.1323463	0.27274778	2.3548427	21	1 29.7	19.8
293546 2007 HX_{20}	17.8	X	312.31936	49.22826	223.63464	2.63087	0.1953117	0.27613293	2.3355576	21	3 10.3	20.6
293547 2007 HB_{25}	16.0	X	196.01662	211.54683	74.10913	6.35672	0.2723992	0.18285673	3.0741761	21	—	—
293548 2007 HB_{27}	16.1	X	254.73789	47.54740	92.93265	3.27863	0.0267509	0.17234958	3.1978829	21	11 18.7	20.6
293549 2007 HL_{27}	16.6	X	50.99921	131.94191	56.78870	5.47114	0.1041645	0.21236676	2.7823495	21	5 19.5	19.8
293550 2007 HE_{28}	17.4	X	317.41076	113.64937	177.21374	1.94746	0.2044792	0.27827684	2.3235464	21	4 11.9	19.9
293551 2007 HH_{28}	17.8	X	289.66879	66.44609	207.57947	1.60514	0.2374521	0.27020345	2.3696023	21	2 10.2	21.4
293552 2007 HD_{31}	15.4	X	325.41537	40.46233	36.17871	10.87670	0.0725375	0.17845720	3.1244962	21	11 27.6	19.5
293553 2007 HJ_{36}	17.9	X	106.48179	290.41350	34.69527	4.24175	0.2263376	0.31294611	2.1486038	21	—	—
293554 2007 HT_{36}	17.8	X	125.22741	333.40380	331.30035	0.96385	0.1739408	0.31437976	2.1420668	21	—	—
293555 2007 HT_{37}	16.9	X	100.66329	311.59289	173.35312	7.88093	0.0532420	0.28264574	2.2995407	21	4 22.7	19.6
293556 2007 HV_{37}	15.3	X	258.55303	9.43161	75.60909	5.81796	0.0827489	0.16709853	3.2645323	21	9 10.8	20.0
293557 2007 HS_{38}	13.3	X	313.67019	293.99688	12.23083	6.23311	0.0280963	0.08324510	5.1947373	21	6 4.8	20.2
293558 2007 HC_{45}	15.5	X	141.08282	135.14454	147.15640	14.56597	0.2717197	0.17517327	3.1634246	21	12 29.7	21.3
293559 2007 HE_{46}	16.0	X	27.61838	161.06286	85.14726	6.12556	0.0730423	0.21756859	2.7378222	21	6 28.1	19.2
293560 2007 HG_{48}	15.3	X	188.45186	189.23804	52.74251	9.28526	0.1173085	0.17865285	3.1222146	21	12 25.5	20.2
293561 2007 HK_{49}	17.6	X	329.36973	240.89804	81.16983	6.24594	0.1169796	0.28867938	2.2673864	21	7 6.5	19.5
293562 2007 HD_{51}	16.6	X	270.42154	75.39551	157.93709	4.22659	0.1100481	0.19221699	2.9735474	21	—	—
293563 2007 HE_{52}	15.5	X	285.40294	285.31080	188.30743	9.75519	0.0276622	0.17234856	3.1978956	21	11 24.7	20.0
293564 2007 HL_{53}	17.6	X	73.81609	161.71385	90.14863	5.02795	0.1565489	0.29587887	2.2304548	21	10 5.1	20.4
293565 2007 HD_{55}	15.3	X	228.54520	42.20880	173.52939	10.94442	0.1356609	0.18230164	3.0804133	21	—	—
293566 2007 HN_{57}	17.8	X	56.33441	71.27645	146.56530	4.19332	0.1153047	0.28720327	2.2751488	21	7 9.5	20.1
293567 2007 HE_{58}	16.2	X	46.78532	148.86483	71.51306	9.93209	0.0933659	0.21916317	2.7245263	21	6 24.3	19.6
293568 2007 HE_{64}	16.0	X	355.27994	126.13381	59.81559	6.35277	0.0627113	0.20205193	2.8762549	21	2 21.4	19.8
293569 2007 HE_{72}	17.5	X	283.89997	55.37806	193.52078	1.04335	0.1418490	0.26752949	2.3853656	21	1 14.5	21.0
293570 2007 HA_{73}	16.7	X	284.18311	69.77615	162.45674	2.36124	0.0771677	0.19514065	2.9437724	21	1 14.9	21.0
293571 2007 HH_{73}	16.0	X	160.83018	225.97769	69.18358	5.72834	0.1342962	0.18060474	3.0996783	21	—	—
293572 2007 HP_{74}	15.7	X	132.89752	169.32498	205.55629	9.71010	0.1136616	0.19126627	2.9833930	21	1 27.4	20.2
293573 2007 HB_{80}	15.7	X	299.89487	110.97339	69.33416	12.43036	0.0754299	0.18858673	3.0115862	21	—	—
293574 2007 HS_{81}	16.1	X	207.07307	4.55289	185.45021	6.91846	0.1164430	0.17257866	3.1950525	21	11 14.2	21.0
293575 2007 HY_{81}	17.2	X	146.82811	257.77232	164.28854	7.02229	0.0976390	0.27555735	2.3388088	21	4 3.4	20.3
293576 2007 HT_{82}	15.4	X	66.15690	200.23913	170.51295	11.07018	0.0067044	0.18046609	3.1012657	21	—	—
293577 2007 HW_{82}	17.7	X	44.24059	174.80614	128.40392	6.30378	0.1961866	0.29844006	2.2176753	21	11 13.3	20.4
293578 2007 HO_{83}	15.5	X	222.25018	281.68560	255.01130	5.49678	0.0378345	0.17487596	3.1670091	21	11 21.6	20.2
293579 2007 HM_{89}	17.1	X	308.83138	141.92846	132.61559	10.86627	0.2119870	0.27492400	2.3423994	21	3 9.8	20.1
293580 2007 JA_{1}	17.8	X	80.12336	76.04101	137.86838	2.86074	0.1358126	0.29383932	2.2407639	21	8 13.9	20.5
293581 2007 JF_{1}	17.0	X	138.63424	87.53806	42.31689	6.76201	0.0597506	0.28974771	2.2618096	21	6 19.9	19.9
293582 2007 JD_{2}	16.9	X	318.61888	99.71565	162.11571	11.62277	0.1846889	0.27352170	2.3503986	21	3 7.5	19.4
293583 2007 JM_{2}	15.8	X	217.68504	115.09474	142.55132	8.01208	0.2217621	0.18431899	3.0578957	21	—	—
293584 2007 JV_{2}	15.4	X	275.38031	62.05210	92.40103	6.87916	0.0506429	0.17874768	3.1211103	21	12 28.4	19.7
293585 2007 JB_{3}	17.6	X	19.29648	44.97433	209.16226	4.96371	0.1101390	0.28769302	2.2725660	21	6 26.7	19.6
293586 2007 JA_{9}	17.4	X	328.77812	167.18790	221.86657	5.62568	0.1643258	0.30114654	2.2043682	21	10 26.5	18.7
293587 2007 JR_{9}	15.0	X	134.42691	229.75587	61.01513	16.18300	0.2212935	0.17374460	3.1807425	21	—	—
293588 2007 JO_{11}	17.5	X	11.90502	356.09692	271.62412	1.99047	0.1528515	0.28634684	2.2796829	21	7 6.9	19.0
293589 2007 JM_{16}	17.3	X	345.05875	209.83101	29.75485	3.95630	0.1657167	0.27689396	2.3312762	21	3 21.8	19.4
293590 2007 JA_{19}	17.9	X	6.30122	111.68675	142.28109	3.49341	0.1665012	0.28253447	2.3001443	21	5 30.9	19.5
293591 2007 JY_{25}	17.7	X	65.55611	50.25016	172.45304	5.30720	0.1010837	0.28914980	2.2649265	21	7 28.9	20.2
293592 2007 JE_{29}	15.7	X	38.89805	11.24249	88.58843	12.69739	0.0954683	0.19148166	2.9811552	21	1 5.6	19.4
293593 2007 JR_{29}	17.4	X	329.58342	24.38724	240.48669	1.75244	0.1925324	0.27752373	2.3277480	21	3 25.3	19.9
293594 2007 JO_{30}	17.4	X	285.63177	165.15591	103.89107	4.20239	0.1532779	0.26857766	2.3791553	21	2 10.7	20.7
293595 2007 JS_{30}	17.0	X	324.33775	211.27695	97.22071	5.30179	0.2619572	0.28036549	2.3119921	21	5 11.4	19.1
293596 2007 JG_{36}	16.6	X	11.86261	71.93515	155.55677	6.33873	0.1249406	0.20978753	2.8051081	21	5 9.9	19.7
293597 2007 JY_{36}	17.0	X	326.42189	146.19180	141.40026	7.57783	0.1287893	0.28107209	2.3081157	21	5 8.1	19.5
293598 2007 JE_{37}	17.4	X	353.32255	115.78563	106.80213	7.86141	0.1623781	0.27604494	2.3360539	21	3 15.2	19.7
293599 2007 JT_{38}	16.7	X	86.45151	231.83380	268.53755	2.21828	0.0994749	0.21260439	2.7802759	21	5 5.3	20.4
293600 2007 JV_{40}	15.3	X	180.14684	179.00469	96.23953	16.78326	0.1672860	0.17963758	3.1107940	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293601 2007 JX_{40}	16.6	X	329.44597	141.79347	120.92096	8.35721	0.2170237	0.27657437	2.3330717	21	3 22.8	19.2
293602 2007 JM_{43}	16.7	X	353.40292	137.67192	142.31090	26.09937	0.2537806	0.28402047	2.2921144	21	6 12.9	18.9
293603 2007 JP_{43}	15.7	X	233.95680	111.17195	151.15145	18.86381	0.1490611	0.18845756	3.0129622	21	—	—
293604 2007 JX_{43}	15.2	X	147.27277	235.46546	79.59992	19.68386	0.1732817	0.18080470	3.0973924	21	—	—
293605 2007 KB	17.6	X	71.96058	347.97267	204.21476	3.60182	0.0707313	0.28402914	2.2920677	21	6 18.5	20.1
293606 2007 KL	17.2	X	282.07935	319.89685	357.34316	5.28966	0.1979243	0.28104165	2.3082823	21	4 1.7	20.4
293607 2007 KT_{2}	15.7	X	277.77044	290.27090	263.26114	10.36582	0.0965044	0.18593194	3.0401852	21	—	—
293608 2007 KZ_{6}	17.3	X	274.44624	49.78523	242.89158	2.98848	0.1949436	0.26956551	2.3733393	21	2 22.2	21.0
293609 2007 KF_{8}	15.6	X	179.59171	166.03615	116.07110	11.58358	0.1761026	0.17969438	3.1101384	21	—	—
293610 2007 LO_{2}	16.9	X	282.03827	68.81778	224.18917	23.69172	0.2884797	0.27025646	2.3692924	21	2 13.9	21.4
293611 2007 LB_{4}	17.7	X	289.97287	86.91232	200.51552	5.24111	0.1632928	0.27183182	2.3601296	21	3 7.2	20.8
293612 2007 LS_{7}	15.1	X	147.53210	155.01870	134.04691	16.93406	0.0599665	0.17531654	3.1617010	21	—	—
293613 2007 LQ_{8}	16.4	X	279.91523	241.17015	129.60851	7.09282	0.0488886	0.21754593	2.7380124	21	7 7.8	20.0
293614 2007 LS_{16}	17.6	X	70.89912	273.89585	73.37350	3.92625	0.1453065	0.31090507	2.1579970	21	—	—
293615 2007 LF_{17}	17.9	X	114.73137	218.47803	67.65689	3.33427	0.1838014	0.30781574	2.1724118	21	12 30.8	21.3
293616 2007 LT_{24}	17.1	X	41.41423	193.28028	111.91013	2.08306	0.2017638	0.22602639	2.6690904	21	10 30.4	20.4
293617 2007 LK_{33}	15.9	X	182.06573	69.02851	192.26953	24.99015	0.2407151	0.17643001	3.1483843	21	—	—
293618 2007 LQ_{33}	15.2	X	237.00383	36.86605	256.13189	15.61897	0.3230909	0.18381751	3.0634548	21	1 23.9	21.1
293619 2007 LW_{36}	15.9	X	16.45817	228.99221	210.30394	26.66476	0.1308288	0.18104209	3.0946843	21	—	—
293620 2007 LP_{37}	15.6	X	243.86046	0.73413	194.28584	9.88151	0.1343117	0.17940388	3.1134949	21	12 26.2	20.2
293621 2007 MA	17.2	X	351.42055	19.66516	319.42679	6.34186	0.1902157	0.28660947	2.2782901	21	9 20.5	18.8
293622 2007 MB	17.0	X	23.96770	298.26216	320.00947	6.74455	0.1125328	0.28138216	2.3064197	21	7 14.9	19.2
293623 2007 MD_{2}	17.5	X	22.77555	166.98818	122.68855	7.15817	0.1952862	0.29002813	2.2603515	21	9 17.9	19.4
293624 2007 MY_{2}	17.2	X	278.32768	136.32202	135.52802	4.71139	0.1151465	0.26227043	2.4171475	21	2 10.6	20.6
293625 2007 MD_{4}	17.9	X	285.53986	45.49442	228.45671	4.92137	0.2103976	0.26838430	2.3802979	21	2 7.7	21.5
293626 2007 MG_{13}	16.9	X	30.35870	187.13819	104.78999	7.31102	0.2209108	0.28728932	2.2746944	21	10 11.4	19.2
293627 2007 MN_{19}	17.3	X	74.17512	27.63670	267.80836	3.45060	0.1897866	0.29621310	2.2287766	21	12 3.4	20.3
293628 2007 NE_{1}	15.9	X	183.27565	128.30090	108.76799	13.92506	0.1063765	0.23878347	2.5731585	21	12 26.3	19.7
293629 2007 NW_{2}	15.2	X	206.52003	22.19758	222.02840	10.05723	0.1631610	0.17213035	3.2005977	21	—	—
293630 2007 NR_{3}	16.4	X	230.71954	56.63912	236.98852	2.66478	0.1397925	0.25656663	2.4528403	21	1 19.3	20.2
293631 2007 NP_{5}	16.6	X	201.85940	250.68862	117.34707	7.61836	0.1405397	0.25970174	2.4330600	21	3 28.9	20.4
293632 2007 OR_{2}	17.0	X	255.07883	217.09447	59.19146	3.25050	0.1746956	0.25688366	2.4508218	21	1 20.5	20.9
293633 2007 OT_{3}	16.5	X	1.77094	140.27845	237.82024	9.49054	0.3381462	0.21720179	2.7409038	21	12 22.1	19.0
293634 2007 OS_{4}	15.6	X	192.23057	0.01836	341.18288	9.88338	0.1370222	0.18282597	3.0745209	21	2 21.3	20.5
293635 2007 OG_{5}	16.3	X	230.79992	216.02896	154.51325	7.74536	0.2443761	0.26574568	2.3960281	21	4 22.7	20.4
293636 2007 OP_{6}	16.6	X	222.21070	216.99928	69.89495	3.05142	0.1847363	0.25338988	2.4732985	21	1 4.9	20.7
293637 2007 OQ_{6}	16.9	X	200.86473	345.03618	339.89764	4.56593	0.1667812	0.25434282	2.4671169	21	2 1.3	20.8
293638 2007 OR_{7}	17.2	X	240.28802	85.22146	208.25141	0.47117	0.1845562	0.25789494	2.4444106	21	1 26.9	21.0
293639 2007 OU_{7}	17.1	X	213.55331	47.26020	300.26704	4.00860	0.2018292	0.25973196	2.4328712	21	3 8.7	21.1
293640 2007 OX_{7}	17.5	X	74.75173	116.92869	182.52899	4.93787	0.1662729	0.29495602	2.2351047	21	12 7.4	20.7
293641 2007 ON_{9}	15.0	X	164.69864	76.35884	276.87987	24.78437	0.2275278	0.17720884	3.1391528	21	2 5.7	20.6
293642 2007 OS_{9}	17.8	X	0.01605	210.50573	70.01811	3.67631	0.2133139	0.27921616	2.3183323	21	6 30.5	19.0
293643 2007 OS_{10}	17.0	X	0.05943	230.13365	134.15896	21.55206	0.1645126	0.28977873	2.2616482	21	11 29.1	19.7
293644 2007 OY_{10}	16.7	X	263.12585	334.29678	319.03659	6.73544	0.1066522	0.25979136	2.4325004	21	2 21.3	20.2
293645 2007 PE	16.9	X	262.16086	151.99559	192.24821	6.17447	0.1320452	0.26668835	2.3903786	21	4 26.3	20.1
293646 2007 PK	17.0	X	112.27758	6.77170	256.28809	5.30590	0.1475582	0.29845558	2.2175985	21	11 26.7	20.2
293647 2007 PU_{2}	16.4	X	242.21211	27.67795	300.72281	4.10843	0.1693395	0.26214113	2.4179423	21	3 10.7	20.2
293648 2007 PX_{2}	17.6	X	84.84172	229.66274	94.69843	2.52211	0.2682507	0.30108363	2.2046752	21	—	—
293649 2007 PJ_{3}	16.2	X	327.67522	197.36498	123.30226	25.05968	0.1850613	0.27851242	2.3222359	21	6 24.3	18.7
293650 2007 PV_{6}	17.1	X	254.92574	145.83432	149.39698	2.83890	0.1989081	0.25975041	2.4327560	21	2 9.7	21.0
293651 2007 PB_{7}	15.3	X	193.45524	165.82032	136.45740	18.49099	0.1823715	0.17833316	3.1259449	21	1 9.9	20.6
293652 2007 PK_{9}	17.3	X	225.18746	24.44135	281.49433	5.79784	0.1595051	0.25359921	2.4719373	21	1 28.9	21.2
293653 2007 PL_{11}	17.4	X	305.82238	170.78700	148.45971	6.48051	0.1617132	0.27180737	2.3602711	21	5 15.6	20.3
293654 2007 PS_{11}	16.5	X	187.25534	172.48678	97.72717	6.17618	0.1314019	0.24144480	2.5542152	21	—	—
293655 2007 PP_{12}	16.8	X	257.73021	16.55388	328.52178	10.56692	0.2321889	0.26783306	2.3835628	21	4 6.8	20.7
293656 2007 PN_{13}	17.3	X	33.65119	270.45687	97.23395	5.10145	0.1299096	0.29824390	2.2186476	21	—	—
293657 2007 PD_{14}	17.1	X	352.00607	144.08630	108.21805	6.22511	0.2049551	0.27334069	2.3514362	21	4 22.7	19.0
293658 2007 PZ_{14}	16.6	X	256.55553	229.48383	55.25231	2.78963	0.1776821	0.25757068	2.4464618	21	2 1.0	20.5
293659 2007 PC_{15}	17.1	X	28.20756	223.43022	102.17832	4.36191	0.1871508	0.28906513	2.2653688	21	11 17.6	19.5
293660 2007 PD_{15}	17.2	X	330.00216	195.22982	122.63402	6.61083	0.2498268	0.27679009	2.3318594	21	6 10.4	19.0
293661 2007 PT_{15}	15.2	X	230.60363	302.99639	345.96685	16.35449	0.1986685	0.18078345	3.0976352	21	1 28.2	20.6
293662 2007 PW_{16}	17.0	X	289.35967	262.23700	59.59808	4.79184	0.2453713	0.26674516	2.3900392	21	4 13.8	20.4
293663 2007 PA_{18}	16.8	X	178.46082	184.35926	157.07070	3.24977	0.1486987	0.25109839	2.4883231	21	1 30.0	20.6
293664 2007 PL_{18}	17.3	X	275.60933	335.57087	346.53079	1.64153	0.2174296	0.26729181	2.3867794	21	3 31.8	20.8
293665 2007 PV_{18}	16.8	X	219.99882	4.89876	308.92312	5.82745	0.1461172	0.25464602	2.4651581	21	2 3.6	20.8
293666 2007 PA_{19}	17.0	X	294.24384	318.84469	315.63040	4.07656	0.2404173	0.26597368	2.3946586	21	2 15.7	20.3
293667 2007 PD_{19}	17.5	X	30.04282	340.13867	317.08333	2.89171	0.1642484	0.28645947	2.2790853	21	10 2.4	19.8
293668 2007 PW_{19}	16.9	X	226.26383	25.13020	337.76379	3.66739	0.1283125	0.26262951	2.4149438	21	4 10.4	20.5
293669 2007 PK_{22}	17.3	X	102.36815	308.60183	341.39165	5.12378	0.1978143	0.29737098	2.2229873	21	12 23.8	20.8
293670 2007 PV_{22}	16.8	X	130.83115	186.78643	139.12905	7.40198	0.2840576	0.23601748	2.5932235	21	—	—
293671 2007 PX_{22}	17.2	X	68.03110	276.09923	52.90716	4.11933	0.2333687	0.29500974	2.2348334	21	—	—
293672 2007 PA_{23}	16.4	X	101.11227	189.19354	152.63770	15.30081	0.2666576	0.23109321	2.6299325	21	—	—
293673 2007 PH_{24}	17.1	X	8.50258	106.90318	203.40586	6.05499	0.1549618	0.28234730	2.3011607	21	9 8.3	19.1
293674 2007 PC_{25}	17.4	X	51.80145	152.63366	102.10327	1.69807	0.2548173	0.28636791	2.2795711	21	9 22.5	20.0
293675 2007 PY_{25}	16.1	X	105.54290	232.10067	144.83152	5.81194	0.2961447	0.23438666	2.6052383	21	1 16.9	19.2
293676 2007 PC_{26}	16.3	X	95.33416	146.26107	327.48857	6.02024	0.0644706	0.25803092	2.4435518	21	3 30.0	19.3
293677 2007 PX_{26}	17.7	X	190.24044	142.43108	266.80389	1.53858	0.1777367	0.26060488	2.4274354	21	5 5.6	21.7
293678 2007 PH_{27}	17.0	X	234.76263	258.20555	54.68398	6.24014	0.1178316	0.25557735	2.4591658	21	2 20.2	20.8
293679 2007 PO_{28}	16.7	X	103.14109	34.96179	303.62857	6.09233	0.1379620	0.23217621	2.6217477	21	—	—
293680 2007 PY_{30}	15.3	X	194.01729	168.92803	141.07552	13.18792	0.2048264	0.17959019	3.1113413	21	1 18.9	20.6

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293681 2007 PX_{31}	17.4	X	313.82995	224.56978	120.54959	4.79470	0.2123577	0.27802118	2.3249706	21	6 26.9	19.4
293682 2007 PH_{33}	16.7	X	68.73953	353.22417	314.56554	6.17965	0.1512143	0.29396744	2.2401129	21	12 8.9	19.8
293683 2007 PS_{33}	16.3	X	180.71500	348.29364	307.25425	14.42903	0.1239397	0.24314166	2.5423175	21	—	—
293684 2007 PU_{33}	14.7	X	163.88821	56.09849	286.97100	26.15246	0.1910648	0.17377371	3.1803872	21	1 26.9	20.1
293685 2007 PW_{33}	16.2	X	314.01738	51.31976	336.00351	6.83796	0.2327255	0.20968266	2.8060433	21	8 26.1	18.8
293686 2007 PA_{34}	17.1	X	353.20405	197.29569	164.56345	3.21441	0.2107607	0.28591048	2.2820019	21	11 10.4	18.7
293687 2007 PB_{34}	17.2	X	273.84003	180.33039	179.22914	4.57516	0.1767888	0.27016669	2.3698172	21	5 25.2	20.5
293688 2007 PS_{34}	17.2	X	274.91189	107.77656	234.06568	1.35200	0.2377953	0.26935257	2.3745900	21	4 23.5	20.7
293689 2007 PX_{34}	17.4	X	34.07957	11.84796	332.15384	3.48769	0.1718714	0.29246989	2.2477531	21	12 18.4	20.1
293690 2007 PB_{35}	17.0	X	318.86849	349.77515	302.23374	2.41696	0.2377655	0.27138146	2.3627400	21	4 9.1	19.6
293691 2007 PG_{35}	16.9	X	130.43192	177.92031	158.15885	12.66047	0.1998198	0.23855595	2.5747943	21	—	—
293692 2007 PB_{36}	18.0	X	111.90877	83.12729	245.58214	3.77825	0.1816036	0.30643623	2.1789268	21	—	—
293693 2007 PW_{37}	17.4	X	87.08077	119.88046	164.68478	5.44956	0.1783597	0.29528482	2.2334452	21	12 2.3	20.7
293694 2007 PY_{38}	17.3	X	116.73378	8.99764	25.31569	2.27027	0.1404711	0.24551164	2.5259301	21	1 29.3	20.4
293695 2007 PB_{39}	17.0	X	104.43442	271.36338	353.63323	5.26994	0.0366193	0.22102021	2.7092436	21	10 30.6	20.9
293696 2007 PF_{39}	17.0	X	273.84351	195.25748	119.96030	3.05097	0.2441734	0.26436044	2.4043909	21	3 20.6	20.6
293697 2007 PJ_{40}	16.4	X	261.33885	34.93114	299.96285	5.24691	0.1524050	0.26516008	2.3995545	21	4 7.1	19.9
293698 2007 PK_{40}	17.5	X	349.37636	100.37516	229.30165	2.47053	0.1826008	0.28150199	2.3057651	21	8 29.6	19.0
293699 2007 PN_{42}	16.4	X	319.28426	36.43173	351.32130	7.93063	0.3012527	0.20989908	2.8041142	21	8 28.9	18.7
293700 2007 PP_{42}	16.3	X	215.17355	49.26491	256.54248	7.38138	0.2433368	0.25370611	2.4712429	21	1 20.3	20.7
293701 2007 PK_{43}	17.8	X	22.74461	333.50334	322.13885	1.82669	0.2185153	0.28302255	2.2974991	21	9 26.3	19.6
293702 2007 PM_{45}	16.0	X	27.48920	341.57600	34.18623	15.35652	0.1116412	0.22729195	2.6591736	21	12 26.9	19.7
293703 2007 PL_{49}	17.5	X	79.07721	286.17286	333.38160	3.22169	0.2516571	0.29151346	2.2526669	21	10 27.6	20.9
293704 2007 QG	16.8	X	284.44352	95.22958	251.35533	5.06876	0.1463785	0.27152165	2.3619267	21	5 24.1	19.8
293705 2007 QK	15.7	X	32.00939	349.51531	293.68110	21.02116	0.2021105	0.21298412	2.7769703	21	8 31.4	19.3
293706 2007 QK_1	17.0	X	265.86133	64.54860	260.43930	2.50680	0.2460620	0.26485597	2.4013910	21	3 22.7	20.9
293707 Govoradloanatoly	17.1	X	21.53263	87.24211	212.75677	5.83425	0.1391529	0.28545526	2.2844273	21	9 16.2	19.2
293708 2007 QW_5	16.6	X	188.31284	196.37704	181.74635	6.45211	0.1206453	0.25812698	2.4429455	21	3 24.6	20.3
293709 2007 QG_7	17.1	X	239.36170	193.65485	183.33213	6.16730	0.1214755	0.26651637	2.3914068	21	5 15.9	20.7
293710 2007 QG_9	17.4	X	316.92877	163.14801	164.92384	4.89498	0.1942708	0.27467636	2.3438071	21	6 9.6	19.7
293711 2007 QK_9	17.7	X	73.62372	130.30188	169.75783	5.85891	0.1834005	0.29359217	2.2420213	21	12 8.6	21.0
293712 2007 QM_9	17.3	X	308.82887	41.67089	251.86941	1.87679	0.1679653	0.26844487	2.3799398	21	4 9.1	20.1
293713 2007 QH_{14}	16.3	X	343.82907	257.81000	81.09551	6.03227	0.1862851	0.21014826	2.8018971	21	8 26.8	19.0
293714 2007 QZ_{15}	17.4	X	337.61585	190.09383	135.41282	9.51100	0.1824939	0.27748157	2.3279838	21	7 22.6	19.2
293715 2007 QN_{16}	16.5	X	232.08810	223.80991	84.30137	6.36287	0.0950644	0.25404326	2.4690559	21	2 11.6	20.2
293716 2007 QD_{17}	16.0	X	287.20291	102.90710	265.33589	2.26094	0.0934607	0.20363539	2.8613251	21	7 7.5	19.7
293717 2007 QR_{17}	17.2	X	220.09049	207.00975	95.60174	1.60188	0.2083861	0.25151579	2.4855693	21	1 22.1	21.4
293718 2007 RP	17.8	X	289.46591	111.66172	180.77212	2.36448	0.1974819	0.26806027	2.3822157	21	3 10.5	21.1
293719 2007 RQ	17.9	X	311.06869	45.93189	76.42097	2.90214	0.1271245	0.30417930	2.1896915	21	—	—
293720 2007 RX_1	16.7	X	15.69983	237.36477	57.93583	9.81608	0.0710097	0.20904893	2.8117115	21	8 21.5	20.4
293721 2007 RT_4	16.5	X	231.90244	95.97936	308.04872	4.06875	0.1945912	0.19709321	2.9242979	21	6 7.3	21.2
293722 2007 RN_5	17.4	X	346.78919	272.73897	4.56751	1.04625	0.1799088	0.27330823	2.3516223	21	5 22.2	19.2
293723 2007 RT_{13}	17.5	X	16.06587	74.98205	13.19488	6.23818	0.0899476	0.30149904	2.2026497	21	—	—
293724 2007 RJ_{15}	17.4	X	162.57644	168.19913	150.26094	4.21607	0.2633418	0.23964632	2.5669783	21	—	—
293725 2007 RS_{16}	16.9	X	272.93092	120.88130	222.38763	6.36262	0.1296807	0.26741152	2.3860671	21	5 7.4	19.9
293726 2007 RQ_{17}	22.6	X	6.84398	302.27123	350.50584	2.00867	0.3692551	0.49718523	1.5780614	21	11 6.2	22.8
293727 2007 RZ_{17}	17.2	X	18.76679	11.75192	290.09707	3.35794	0.1680940	0.28247457	2.3004695	21	9 17.9	19.2
293728 2007 RT_{20}	17.7	X	170.20940	278.92671	348.84930	1.82880	0.1673491	0.30802177	2.1714431	21	—	—
293729 2007 RU_{22}	17.0	X	76.95709	95.69866	287.57447	1.96056	0.1296607	0.23479947	2.6021839	21	—	—
293730 2007 RV_{26}	16.4	X	42.52903	308.01809	155.48692	4.44674	0.1254253	0.24549756	2.5260267	21	—	—
293731 2007 RJ_{27}	17.9	X	83.14676	16.98960	273.62998	2.78095	0.1829433	0.29436618	2.2380895	21	12 5.3	21.1
293732 2007 RL_{28}	17.7	X	76.56561	176.07287	124.73492	7.07084	0.1850309	0.29432061	2.2383205	21	12 12.8	20.9
293733 2007 RY_{29}	16.1	X	331.22683	164.60040	330.74738	12.82384	0.0959297	0.23899540	2.5716371	21	—	—
293734 2007 RR_{30}	17.2	X	30.28943	138.97716	190.26662	7.92596	0.2104473	0.28949224	2.2631401	21	11 29.7	19.8
293735 2007 RB_{32}	17.2	X	86.33346	180.95844	121.37993	8.25163	0.1921599	0.29652702	2.2272033	21	12 24.4	20.6
293736 2007 RY_{33}	16.2	X	60.40876	174.56095	194.59455	12.42652	0.1510024	0.22515362	2.6759835	21	—	—
293737 2007 RV_{36}	16.2	X	79.50648	147.34031	182.90777	11.64136	0.1774172	0.22500225	2.6771835	21	—	—
293738 2007 RB_{37}	17.1	X	249.67871	246.91308	116.38769	3.51104	0.2103899	0.26373194	2.4082093	21	5 1.2	20.8
293739 2007 RE_{37}	17.3	X	261.12489	153.32703	175.89601	2.84707	0.2100845	0.26210419	2.4181695	21	3 28.6	20.9
293740 2007 RQ_{38}	16.8	X	273.43756	166.85654	139.27023	3.11619	0.2347141	0.26217218	2.4177514	21	3 9.4	20.4
293741 2007 RE_{40}	16.8	X	149.07575	19.74931	31.95185	4.10689	0.0700327	0.25310305	2.4751668	21	3 22.4	20.1
293742 2007 RB_{44}	16.8	X	23.21374	124.50094	267.44668	3.80272	0.0172888	0.22486602	2.6782647	21	12 28.4	20.4
293743 2007 RL_{45}	16.7	X	311.93340	115.08512	209.91060	6.08763	0.1362068	0.27137842	2.3627577	21	6 5.9	19.2
293744 2007 RP_{45}	17.0	X	302.26340	334.19741	305.70119	4.54967	0.2153641	0.26341671	2.4101302	21	3 5.5	20.4
293745 2007 RM_{46}	16.5	X	40.41953	209.61095	187.85603	13.94879	0.1985668	0.22730575	2.6590659	21	—	—
293746 2007 RQ_{49}	17.6	X	324.37026	106.27990	336.31812	1.30948	0.0946437	0.29173476	2.2515275	21	—	—
293747 2007 RF_{52}	16.8	X	76.37444	151.03699	205.80768	10.34247	0.0624324	0.22821462	2.6520013	21	—	—
293748 2007 RO_{54}	16.2	X	133.60555	293.08083	325.34858	7.86075	0.0275566	0.22061470	2.7125624	21	11 25.4	20.1
293749 2007 RE_{56}	16.6	X	156.58422	215.26184	217.62082	6.25521	0.0831530	0.25744679	2.4472465	21	4 28.1	19.9
293750 2007 RS_{57}	17.4	X	327.37398	237.26225	191.79110	6.69290	0.0921052	0.28663398	2.2781602	21	12 19.7	19.7
293751 2007 RK_{58}	16.9	X	126.27267	346.39247	32.26231	7.00124	0.2836307	0.23777813	2.5804064	21	2 12.9	20.8
293752 2007 RJ_{69}	16.8	X	15.90420	42.25091	10.69374	6.12526	0.0801807	0.22829613	2.6513701	21	—	—
293753 2007 RA_{81}	17.0	X	201.91286	162.67422	173.46365	15.24082	0.1995483	0.25373454	2.4710583	21	2 13.8	21.3
293754 2007 RR_{83}	17.1	X	24.87583	56.34882	317.23104	1.07878	0.2414280	0.22193926	2.7017591	21	—	—
293755 2007 RU_{83}	17.4	X	135.28211	344.17260	339.20174	5.99748	0.1599263	0.23737639	2.5833170	21	—	—
293756 2007 RN_{85}	16.7	X	185.88779	326.61656	341.75582	14.54792	0.1161332	0.24509270	2.5288076	21	—	—
293757 2007 RS_{88}	17.6	X	274.42036	352.99856	16.85237	1.48350	0.1895729	0.27017278	2.3697816	21	6 6.2	20.6
293758 2007 RY_{89}	17.9	X	325.10902	228.94879	180.90372	2.50232	0.1531687	0.28595690	2.2817549	21	11 18.4	19.6
293759 2007 RX_{90}	17.5	X	118.23519	357.71290	172.58405	4.06212	0.1034221	0.27013637	2.3699945	21	7 25.6	20.7
293760 2007 RJ_{91}	17.3	X	95.06548	243.61486	195.04971	1.82936	0.0547429	0.24695654	2.5160680	21	2 12.4	20.5

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293761 2007 RX_{91}	16.9	X	254.24783	69.15842	0.15880	4.83992	0.0773608	0.27611976	2.3356319	21	8 22.4	19.8
293762 2007 RP_{92}	17.6	X	166.88660	187.07176	1.57124	3.10356	0.1103630	0.28422250	2.2910281	21	10 14.3	20.7
293763 2007 RE_{95}	17.2	X	119.53137	257.44726	125.99435	2.91421	0.1486811	0.24001414	2.5643551	21	1 20.4	20.5
293764 2007 RP_{95}	16.7	X	110.67592	93.00541	143.58695	4.27496	0.0434804	0.20990605	2.8040521	21	10 4.8	20.6
293765 2007 RT_{95}	16.9	X	131.47841	187.06772	150.01814	3.75912	0.0474434	0.23407579	2.6075444	21	—	—
293766 2007 RC_{96}	17.2	X	313.72468	159.18705	116.33458	2.59883	0.1534262	0.26109216	2.4244143	21	3 27.6	20.0
293767 2007 RG_{96}	16.8	X	215.61360	339.56049	51.31817	4.09461	0.1890906	0.26021563	2.4298556	21	5 5.5	20.8
293768 2007 RH_{97}	16.9	X	132.12209	126.12313	176.28255	18.24231	0.3251555	0.23365303	2.6106888	21	—	—
293769 2007 RG_{98}	16.3	X	353.16285	211.61549	129.00770	4.11952	0.0654439	0.20715696	2.8288051	21	9 13.4	19.7
293770 2007 RC_{103}	17.4	X	266.29625	133.56380	193.13291	2.44905	0.2069324	0.26174941	2.4203541	21	3 30.3	21.0
293771 2007 RO_{103}	17.5	X	262.84862	10.00818	1.54056	2.74851	0.1401303	0.26764445	2.3846825	21	5 31.9	20.8
293772 2007 RX_{103}	17.4	X	281.51371	305.49727	22.81839	2.35517	0.2305308	0.26561651	2.3968049	21	4 14.1	20.9
293773 2007 RN_{104}	16.0	X	146.03586	292.63296	50.06741	1.94855	0.1480616	0.17111845	3.2132030	21	1 13.7	21.0
293774 2007 RB_{110}	17.8	X	340.13133	158.26102	85.05334	0.86155	0.1259291	0.26197809	2.4189454	21	3 26.7	20.5
293775 2007 RX_{111}	17.0	X	277.10559	166.41297	175.83424	6.19933	0.1455665	0.26636925	2.3922872	21	5 10.6	20.2
293776 2007 RJ_{116}	17.2	X	70.15364	32.56852	348.47600	7.37833	0.1313088	0.30239802	2.1982821	21	—	—
293777 2007 RR_{117}	16.8	X	344.81357	95.96922	345.21169	7.38500	0.1575197	0.22343482	2.6896895	21	—	—
293778 2007 RA_{118}	17.0	X	64.38256	249.18144	187.05596	13.25095	0.1334066	0.23878272	2.5731640	21	1 2.6	20.0
293779 2007 RU_{119}	15.9	X	263.06327	62.16058	6.56154	14.98691	0.1359296	0.20570595	2.8420921	21	8 24.6	20.0
293780 2007 RQ_{123}	16.7	X	108.69363	121.95354	117.52871	3.20429	0.0075783	0.21472196	2.7619665	21	10 2.7	20.5
293781 2007 RA_{124}	17.7	X	132.83431	56.55178	266.22882	3.90987	0.1998003	0.30713433	2.1756238	21	—	—
293782 2007 RY_{125}	17.1	X	4.21949	149.87588	212.12520	1.16521	0.1575294	0.21672194	2.7449480	21	11 7.1	20.0
293783 2007 RA_{126}	16.3	X	42.72914	277.74472	43.47154	7.31346	0.1787638	0.28813043	2.2702654	21	11 28.1	19.1
293784 2007 RY_{126}	16.4	X	305.48606	344.95613	11.89082	1.87909	0.0270173	0.20124608	2.8839281	21	7 28.2	20.2
293785 2007 RF_{130}	17.6	X	316.55849	317.73110	28.64728	1.77338	0.0864701	0.27279272	2.3545840	21	7 25.2	19.9
293786 2007 RZ_{131}	17.2	X	309.66093	326.82328	28.55316	2.86773	0.2177345	0.27404549	2.3474028	21	7 4.6	19.5
293787 2007 RB_{134}	17.0	X	277.25690	293.33051	62.66021	3.38088	0.1990149	0.26932421	2.3747567	21	5 20.4	20.1
293788 2007 RN_{134}	17.6	X	9.21800	178.56375	141.09544	5.46263	0.1855750	0.28233221	2.3012428	21	10 4.5	19.4
293789 2007 RK_{136}	17.0	X	318.96961	13.37059	14.71823	3.41298	0.1008287	0.21169807	2.7882055	21	9 21.9	20.3
293790 2007 RM_{137}	16.9	X	145.41074	346.81570	143.17155	1.61384	0.1292863	0.26796638	2.3827721	21	7 4.7	20.5
293791 2007 RJ_{139}	17.4	X	319.44096	86.16866	226.28780	3.32325	0.2029948	0.27217606	2.3581392	21	5 18.7	19.6
293792 2007 RS_{139}	16.9	X	72.77104	53.29178	349.72396	9.03947	0.1310168	0.23643775	2.5901495	21	—	—
293793 2007 RA_{140}	17.2	X	209.53461	193.40967	187.20137	1.96375	0.1876994	0.25956941	2.4338868	21	4 17.3	21.0
293794 2007 RO_{140}	17.5	X	66.45979	78.16303	202.08551	3.04236	0.2217465	0.28866159	2.2674795	21	11 8.8	20.6
293795 2007 RH_{141}	16.9	X	139.75140	292.68707	15.91633	4.17018	0.2816404	0.23577260	2.5950187	21	—	—
293796 2007 RY_{141}	16.2	X	37.31643	242.01789	194.07241	11.49138	0.2806045	0.22946614	2.6423498	21	—	—
293797 2007 RP_{142}	16.6	X	91.20091	181.93057	173.86975	4.54375	0.3578255	0.22972645	2.6403533	21	—	—
293798 2007 RY_{143}	16.9	X	81.08048	54.78611	320.83940	6.96570	0.1519123	0.23324877	2.6137045	21	—	—
293799 2007 RL_{146}	17.5	X	122.30673	207.63082	161.62198	4.64153	0.1883778	0.31153288	2.1550968	21	—	—
293800 2007 RY_{147}	17.0	X	159.42902	259.05577	83.76773	5.36809	0.1807968	0.24395124	2.5366898	21	1 18.2	20.8
293801 2007 RG_{148}	16.8	X	240.79006	225.66852	101.58601	6.92298	0.1367979	0.25755295	2.4465740	21	3 15.4	20.6
293802 2007 RO_{148}	17.3	X	311.62660	277.83338	51.46246	3.78929	0.2237949	0.27286542	2.3541658	21	5 26.4	19.5
293803 2007 RU_{152}	16.1	X	193.20718	166.40444	262.09263	3.03317	0.0740762	0.19579681	2.9371918	21	6 5.7	20.3
293804 2007 RZ_{153}	18.1	X	107.10944	110.24474	277.41939	1.67552	0.1984802	0.24048563	2.5610023	21	1 16.7	21.0
293805 2007 RL_{154}	16.7	X	347.20908	138.24800	224.53208	2.86677	0.0880386	0.21423470	2.7661528	21	10 3.3	19.8
293806 2007 RO_{154}	17.6	X	132.11909	97.22328	305.19087	1.75350	0.2335057	0.24741379	2.5129670	21	3 9.3	21.2
293807 2007 RD_{159}	17.3	X	205.91902	13.75032	88.43732	2.40937	0.1460771	0.27334390	2.3514177	21	7 30.9	20.8
293808 2007 RK_{161}	16.8	X	310.21679	211.87927	122.54591	4.27346	0.1855096	0.27194601	2.3594689	21	6 8.8	19.2
293809 Zugspitze	16.6	X	50.74897	174.44735	201.43310	6.33099	0.1104384	0.22503117	2.6769541	21	—	—
293810 2007 RN_{162}	16.8	X	77.41951	168.33086	294.61941	2.94462	0.0472722	0.25120561	2.4876149	21	2 17.8	19.7
293811 2007 RU_{163}	17.2	X	6.12383	84.65720	208.56479	4.33725	0.1340282	0.27821455	2.3238932	21	8 3.2	19.3
293812 2007 RJ_{164}	18.1	X	340.19935	201.76637	242.05206	2.22584	0.1172479	0.29779701	2.2208667	21	—	—
293813 2007 RO_{166}	16.5	X	126.14676	212.76136	0.64140	7.90202	0.1296816	0.21414581	2.7669183	21	9 28.3	20.8
293814 2007 RU_{167}	16.2	X	149.86969	233.53637	152.97363	4.99983	0.1909245	0.17762719	3.1342220	21	3 11.6	21.2
293815 2007 RN_{172}	16.2	X	4.21831	216.63761	79.26994	4.11271	0.0890924	0.20301878	2.8671159	21	7 31.4	19.6
293816 2007 RJ_{173}	16.8	X	210.14698	135.09040	150.50834	6.14303	0.1208435	0.24248962	2.5468730	21	—	—
293817 2007 RR_{174}	17.2	X	96.63907	227.30824	148.31164	5.63320	0.1802517	0.23444643	2.6047955	21	—	—
293818 2007 RT_{179}	17.1	X	320.72120	6.20070	42.35401	3.11363	0.1506676	0.27936434	2.3175124	21	11 3.9	18.7
293819 2007 RH_{180}	16.4	X	218.81739	55.52051	10.38462	10.02577	0.0791118	0.26731455	2.3866440	21	7 1.1	19.9
293820 2007 RF_{186}	16.8	X	175.65598	36.79318	192.88917	11.87975	0.1348484	0.22355849	2.6886975	21	12 5.9	21.2
293821 2007 RD_{188}	16.8	X	36.06773	144.61374	201.08677	5.39878	0.0490547	0.21739996	2.7392378	21	11 20.1	20.5
293822 2007 RC_{191}	17.6	X	256.11730	114.53649	201.76935	1.61169	0.2093965	0.25920659	2.4361574	21	3 7.5	21.3
293823 2007 RY_{192}	15.7	X	5.89315	144.45471	356.98367	8.51657	0.0596538	0.17043096	3.2218381	21	1 17.8	20.0
293824 2007 RH_{194}	16.6	X	21.04228	16.65281	19.58706	5.36913	0.0492341	0.22420320	2.6835407	21	—	—
293825 2007 RH_{202}	17.4	X	249.42003	82.03040	333.83214	1.91880	0.1801086	0.27069727	2.3667195	21	7 11.8	20.7
293826 2007 RT_{203}	17.7	X	352.29071	60.14980	241.49452	0.44092	0.1973011	0.27520396	2.3408105	21	7 17.9	19.0
293827 2007 RW_{203}	16.4	X	123.37348	152.89075	174.24066	13.56078	0.1774541	0.23347601	2.6120082	21	—	—
293828 2007 RB_{204}	15.7	X	162.01514	63.03352	332.56743	10.62372	0.0951646	0.18106513	3.0944218	21	3 22.5	20.5
293829 2007 RC_{204}	17.2	X	50.06844	337.49873	313.68243	4.76627	0.1477342	0.28536512	2.2849084	21	10 20.6	20.0
293830 2007 RQ_{204}	16.9	X	11.25757	32.58308	256.92330	3.67005	0.1432669	0.27569638	2.3380224	21	8 9.0	18.9
293831 2007 RG_{205}	16.5	X	298.42291	227.07240	234.49902	4.48237	0.0892320	0.21839810	2.7308854	21	11 28.9	19.8
293832 2007 RT_{205}	16.7	X	239.89841	245.52890	184.49984	5.95959	0.0762928	0.27530816	2.3402199	21	7 31.6	19.8
293833 2007 RW_{205}	17.4	X	46.82480	352.15494	11.71598	4.80129	0.1485597	0.29676392	2.2260179	21	—	—
293834 2007 RM_{206}	16.6	X	39.49322	272.63149	51.99864	3.12777	0.0880227	0.21551078	2.7552227	21	11 2.4	19.9
293835 2007 RO_{206}	16.0	X	132.75973	285.49136	170.27686	9.16870	0.1161164	0.18450928	3.0557928	21	5 11.4	20.7
293836 2007 RQ_{206}	16.9	X	13.10651	250.53063	101.90478	2.84767	0.0785925	0.21485147	2.7608565	21	10 31.5	20.4
293837 2007 RW_{208}	16.1	X	194.66137	20.42050	169.36288	13.18846	0.0907541	0.21882801	2.7273075	21	11 11.2	20.4
293838 2007 RV_{210}	16.4	X	37.51613	160.71707	181.99415	5.35444	0.0822478	0.22147845	2.7055054	21	11 23.9	19.9
293839 2007 RD_{212}	16.6	X	103.76136	158.69127	193.71899	10.75986	0.1472394	0.23313242	2.6145740	21	—	—
293840 2007 RO_{213}	16.7	X	131.31769	97.63046	173.03556	12.93322	0.1345359	0.22725081	2.6594944	21	12 14.4	21.1

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293841 2007 RO_{216}	15.8	X	188.06181	53.86825	336.88568	5.75004	0.0990875	0.18485453	3.0519868	21	4 12.9	20.6
293842 2007 RT_{216}	16.8	X	349.03260	44.86368	237.96362	4.35444	0.1360273	0.27100655	2.3649185	21	6 10.7	18.8
293843 2007 RZ_{216}	17.6	X	79.62543	19.16317	12.67847	7.74867	0.1383896	0.30631721	2.1794912	21	—	—
293844 2007 RF_{217}	17.2	X	141.14558	246.06440	90.91608	1.48395	0.1400360	0.23789209	2.5795823	21	—	—
293845 2007 RQ_{225}	16.4	X	259.91959	300.67085	179.71334	11.56498	0.0518197	0.21895296	2.7262698	21	11 6.0	20.1
293846 2007 RE_{227}	17.1	X	220.38082	240.61085	57.98565	2.48614	0.0924089	0.24722130	2.5142713	21	1 18.3	20.7
293847 2007 RD_{228}	16.6	X	337.40947	76.47005	56.91867	4.62090	0.1640557	0.22367791	2.6877404	21	—	—
293848 2007 RY_{228}	16.9	X	310.34880	236.17426	140.26547	6.39429	0.1163805	0.28115518	2.3076609	21	8 26.9	18.9
293849 2007 RA_{231}	17.8	X	174.53855	120.52683	164.73261	5.19238	0.1739908	0.30933275	2.1653035	21	—	—
293850 2007 RN_{233}	16.4	X	329.58470	249.27588	144.29641	8.35905	0.2369547	0.21167985	2.7883655	21	10 14.7	18.8
293851 2007 RX_{234}	17.1	X	249.36481	184.60055	344.41125	5.12897	0.0616516	0.29880505	2.2158690	21	—	—
293852 2007 RQ_{236}	17.4	X	22.81291	179.44693	157.57466	5.77147	0.1952206	0.28770231	2.2725170	21	11 26.9	19.8
293853 2007 RU_{236}	16.8	X	161.32809	147.72292	164.54262	9.81798	0.1089588	0.23904972	2.5712475	21	—	—
293854 2007 RU_{238}	17.4	X	89.23503	191.54772	116.39575	5.35748	0.2012241	0.29859765	2.2168950	21	—	—
293855 2007 RC_{239}	17.1	X	318.67006	42.53128	242.92805	1.36412	0.1816368	0.26760711	2.3849042	21	4 10.5	19.7
293856 2007 RY_{241}	16.8	X	125.89197	158.86829	167.93198	7.56793	0.1610862	0.23500238	2.6006858	21	—	—
293857 2007 RN_{242}	17.3	X	358.17542	269.42118	56.51943	3.87781	0.2017561	0.28177113	2.3042966	21	9 21.0	18.8
293858 2007 RA_{243}	17.4	X	4.45147	139.65048	173.40529	22.87211	0.0787881	0.34949332	1.9960747	21	9 5.6	18.9
293859 2007 RG_{243}	17.1	X	208.12422	235.90040	113.03591	3.42436	0.1404424	0.25449630	2.4661249	21	3 9.3	20.9
293860 2007 RD_{244}	16.9	X	139.98226	155.47010	166.22983	11.81083	0.2808899	0.23634309	2.5908411	21	—	—
293861 2007 RN_{244}	17.4	X	213.72976	89.90446	173.49121	6.99586	0.1921637	0.23975258	2.5662198	21	—	—
293862 2007 RE_{245}	16.9	X	107.71119	241.26294	95.96872	3.70602	0.0946698	0.22984806	2.6394219	21	—	—
293863 2007 RR_{245}	16.1	X	100.09390	271.72729	358.38750	12.41450	0.0909512	0.22048385	2.7136356	21	11 3.7	20.2
293864 2007 RY_{246}	16.1	X	9.17885	73.76016	337.48780	12.21052	0.1400660	0.22239858	2.6980379	21	—	—
293865 2007 RM_{249}	16.9	X	130.07413	31.03646	316.44230	12.38515	0.1941102	0.23753307	2.5821809	21	—	—
293866 2007 RJ_{252}	16.0	X	52.67025	110.17159	307.84218	12.12573	0.1673021	0.23061940	2.6335333	21	—	—
293867 2007 RJ_{253}	17.7	X	35.38785	186.29817	175.41310	3.27183	0.1909029	0.28951144	2.2630400	21	—	—
293868 2007 RD_{259}	16.9	X	300.74701	288.04167	347.67650	3.63026	0.1273740	0.25827165	2.4420332	21	3 13.1	20.1
293869 2007 RL_{260}	17.7	X	20.68017	183.08516	208.76227	2.92054	0.1398239	0.29002934	2.2603452	21	—	—
293870 2007 RN_{260}	16.8	X	89.31329	13.59372	29.51540	4.66290	0.1841724	0.23332143	2.6131618	21	1 10.8	19.7
293871 2007 RV_{262}	16.6	X	297.66699	85.31198	315.08326	2.53247	0.0954773	0.21092794	2.7949882	21	9 4.1	19.9
293872 2007 RF_{265}	16.6	X	266.07393	125.67505	183.19659	8.68757	0.1132268	0.18875283	3.0098191	21	3 25.3	21.1
293873 2007 RG_{265}	17.7	X	186.85917	265.56798	196.22289	3.29070	0.0898667	0.27077113	2.3662891	21	7 10.8	21.1
293874 2007 RT_{267}	16.6	X	33.07243	102.45093	19.57626	8.93103	0.1313190	0.24205689	2.5499074	21	1 11.9	19.4
293875 2007 RZ_{270}	17.5	X	111.93044	342.18646	298.69219	3.55113	0.1704039	0.29476876	2.2360512	21	12 19.4	21.0
293876 2007 RM_{271}	15.6	X	122.18296	51.68007	234.42288	15.68975	0.0850652	0.21434045	2.7652429	21	12 18.6	19.9
293877 2007 RL_{272}	17.0	X	185.71534	201.29100	229.02983	3.57834	0.1310403	0.26139203	2.4225597	21	5 28.8	20.6
293878 Tapping	17.5	X	340.39688	191.22831	82.61590	3.62210	0.1921336	0.27257156	2.3558575	21	5 1.9	19.5
293879 2007 RA_{278}	16.1	X	252.09372	299.20554	50.29972	15.03167	0.1707726	0.26298459	2.4127696	21	4 21.3	19.8
293880 2007 RZ_{283}	17.2	X	115.18165	88.00283	185.51507	12.58733	0.2570338	0.22429174	2.6828344	21	12 8.1	22.1
293881 2007 RH_{285}	17.4	X	123.05181	142.02367	152.64252	2.49287	0.1638091	0.22809889	2.6528983	21	—	—
293882 2007 RP_{285}	16.0	X	162.84092	31.90611	359.20837	10.68473	0.0838513	0.17925112	3.1152635	21	3 20.7	20.6
293883 2007 RS_{285}	16.4	X	283.05643	71.26807	163.40552	3.48396	0.1104226	0.24247141	2.5470004	21	1 3.7	20.2
293884 2007 RT_{285}	16.0	X	83.28578	87.36299	33.71425	11.36735	0.0393515	0.17769771	3.1333927	21	4 4.3	20.4
293885 2007 RV_{285}	15.7	X	155.96030	275.64697	209.44975	10.06266	0.1788927	0.18620511	3.0372112	21	7 9.4	20.9
293886 2007 RR_{286}	16.1	X	138.88813	72.19008	333.63459	10.03070	0.0166641	0.18527477	3.0473700	21	3 3.3	20.4
293887 2007 RH_{290}	15.8	X	140.00779	315.57908	1.06686	14.79222	0.1329616	0.23084806	2.6317940	21	—	—
293888 2007 RR_{290}	17.4	X	117.92197	162.66413	179.67403	1.43854	0.2156148	0.23017206	2.6369445	21	—	—
293889 2007 RR_{292}	17.3	X	68.80277	228.71236	64.19130	0.87656	0.0468213	0.21429500	2.7656339	21	10 24.7	20.9
293890 2007 RK_{293}	16.2	X	176.76944	275.76892	155.71453	3.52216	0.0907661	0.18894059	3.0078248	21	5 24.1	20.9
293891 2007 RK_{294}	16.6	X	282.49940	65.50689	286.94887	0.92996	0.0833933	0.19567784	2.9383822	21	6 11.9	20.6
293892 2007 RO_{296}	17.8	X	58.31935	277.53060	113.98056	4.60169	0.1869217	0.30275096	2.1965733	21	—	—
293893 2007 RO_{297}	17.3	X	102.75958	251.33823	242.18504	3.10361	0.0901926	0.25862778	2.4397909	21	5 13.8	20.4
293894 2007 RU_{297}	16.4	X	196.35397	258.32104	118.57824	3.00158	0.2238000	0.18603647	3.0390464	21	4 7.9	21.6
293895 2007 RS_{298}	18.4	X	78.64157	205.38356	202.22475	2.03118	0.1652873	0.30391105	2.1909799	21	—	—
293896 2007 RH_{299}	16.8	X	174.34841	255.84035	343.89338	5.34016	0.1207785	0.22548661	2.6733483	21	12 16.7	21.0
293897 2007 RZ_{300}	17.1	X	29.55920	248.65275	154.30381	2.65552	0.0806053	0.22629127	2.6670071	21	—	—
293898 2007 RC_{301}	16.3	X	174.89656	272.39359	189.39445	12.69483	0.0950239	0.19459004	2.9493228	21	6 27.4	21.1
293899 2007 RR_{302}	17.9	X	142.89117	233.79378	78.48572	2.71870	0.1926067	0.30653260	2.1784701	21	—	—
293900 2007 RT_{302}	15.2	X	140.89224	0.60792	38.29077	18.16284	0.0875309	0.17582343	3.1556213	21	3 16.7	20.1
293901 2007 RX_{302}	16.4	X	344.15207	238.12829	185.48825	14.78173	0.1325827	0.21824721	2.7321440	21	12 23.4	19.8
293902 2007 RG_{309}	18.0	X	165.98707	257.65047	22.74130	7.07270	0.1062222	0.30468103	2.1872870	21	—	—
293903 2007 RB_{314}	16.5	X	28.11868	78.91737	329.02718	10.48120	0.1796740	0.22247133	2.6974496	21	—	—
293904 2007 RH_{314}	17.4	X	2.45390	179.38866	213.76500	4.98028	0.1020783	0.28491976	2.2872888	21	12 27.1	19.8
293905 2007 RJ_{314}	16.2	X	126.56035	61.06076	301.57910	13.58060	0.1384723	0.23878319	2.5731605	21	1 2.8	19.6
293906 2007 RO_{317}	16.8	X	132.52685	76.73978	175.39574	2.82106	0.0238753	0.21864144	2.7288588	21	11 18.3	20.6
293907 2007 RU_{317}	17.3	X	68.87521	160.85609	201.80101	21.87276	0.0617648	0.37316344	1.9107476	21	—	—
293908 2007 SP	15.2	X	165.88117	2.50176	18.35624	25.75441	0.2337805	0.17888487	3.1195143	21	3 25.9	20.6
293909 Matterhorn	15.9	X	338.63469	285.35365	12.95586	10.96096	0.0909066	0.19745870	2.9206882	21	6 20.4	19.7
293910 2007 SX_4	16.6	X	4.21574	359.37137	56.60224	2.22648	0.2026107	0.22225003	2.6992400	21	—	—
293911 2007 SK_5	16.4	X	309.96748	25.16840	273.52481	4.76350	0.2232141	0.26820239	2.3813741	21	4 7.1	19.3
293912 2007 SC_6	17.0	X	287.36963	79.71304	350.90768	7.27817	0.1139796	0.28172299	2.3045592	21	10 5.6	19.3
293913 2007 SP_8	17.4	X	332.94371	203.49917	103.04524	2.30772	0.1906129	0.27145136	2.3623344	21	6 7.9	19.2
293914 2007 SH_{10}	16.5	X	164.97876	189.20854	63.11972	2.77212	0.0315133	0.22391447	2.6858470	21	12 26.9	20.2
293915 2007 SK_{11}	15.5	X	156.10251	349.88059	12.84934	14.12507	0.1753397	0.24143836	2.5542606	21	2 13.4	19.6
293916 2007 SQ_{13}	16.8	X	55.42600	0.29481	353.38771	6.12068	0.0278427	0.22238587	2.6981406	21	12 22.1	20.5
293917 2007 SU_{13}	16.4	X	105.26184	61.85381	207.34380	6.52092	0.0489277	0.21614862	2.7497998	21	11 8.8	20.3
293918 2007 SL_{14}	17.6	X	122.46566	54.04635	328.47703	3.95895	0.1945272	0.24092982	2.5578536	21	1 29.9	20.9
293919 2007 SP_{15}	15.6	X	83.49122	114.09067	349.03636	13.26701	0.2076092	0.17398810	3.1777741	21	3 31.5	19.9
293920 2007 SE_{16}	17.2	X	109.43756	270.93535	139.31903	2.06047	0.0927706	0.24639746	2.5198725	21	2 1.0	20.3

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
293921 2007 SL_{16}	17.3	X	122.06894	145.05189	222.68281	3.00523	0.0917480	0.24078477	2.5588807	21	—	—
293922 2007 SR_{18}	16.5	X	42.58993	282.04518	62.89287	5.46423	0.0963177	0.21845066	2.7304473	21	12 3.7	20.0
293923 2007 SR_{22}	16.7	X	24.98291	224.24217	175.23854	4.19592	0.0798917	0.22499832	2.6772147	21	—	—
293924 2007 SX_{22}	17.1	X	36.58533	67.88965	343.16803	8.36209	0.1717593	0.22880084	2.6474695	21	—	—
293925 2007 SF_{23}	16.8	X	102.77646	0.49580	240.47891	6.58940	0.0784231	0.27802724	2.3249368	21	10 8.5	20.0
293926 Harrystine	17.2	X	272.78405	233.57425	198.35470	2.17456	0.1739717	0.28056053	2.3109205	21	9 4.1	19.6
293927 2007 TR_{1}	17.1	X	236.32782	76.96718	180.98077	8.53305	0.0204027	0.24328000	2.5413537	21	—	—
293928 2007 TF_{2}	16.6	X	132.27421	159.67078	195.82495	3.37310	0.1208235	0.23645350	2.5900345	21	—	—
293929 2007 TB_{4}	17.5	X	138.61796	91.41435	213.24709	11.61836	0.1383541	0.23110918	2.6298113	21	—	—
293930 2007 TQ_{4}	16.3	X	90.55304	291.39638	35.68214	12.97425	0.1961776	0.22557974	2.6726124	21	—	—
293931 2007 TU_{5}	17.7	X	295.05822	311.20901	357.92382	2.02872	0.2212421	0.26459657	2.4029602	21	4 5.0	21.1
293932 2007 TO_{6}	15.9	X	94.10747	15.71192	328.41296	13.51851	0.0597623	0.22809042	2.6529640	21	—	—
293933 2007 TX_{6}	15.7	X	233.22748	37.47577	0.01733	9.62260	0.1217387	0.19170101	2.9788808	21	6 5.2	20.4
293934 MPIA	17.4	X	213.19839	147.53512	286.30001	3.62158	0.1548419	0.26472867	2.4021607	21	6 29.5	21.0
293935 2007 TL_{9}	16.8	X	73.51574	202.94354	190.66008	10.77643	0.1514116	0.23265526	2.6181477	21	—	—
293936 2007 TM_{11}	16.5	X	340.50574	27.18277	29.50369	5.96033	0.2205178	0.21540167	2.7561531	21	12 12.1	19.0
293937 2007 TG_{12}	17.1	X	128.53131	176.04915	182.85267	1.45872	0.2341420	0.23743804	2.5828698	21	1 12.5	20.7
293938 2007 TM_{12}	16.4	X	44.34957	14.36834	31.66733	4.06457	0.1205273	0.22671228	2.6637043	21	—	—
293939 2007 TT_{12}	16.9	X	266.45255	337.76055	46.01118	3.70633	0.2420869	0.26802537	2.3824225	21	6 8.8	20.3
293940 2007 TX_{12}	17.0	X	114.92713	293.76337	25.34764	7.76639	0.2493725	0.30099128	2.2051262	21	—	—
293941 2007 TU_{13}	17.3	X	301.98598	278.25307	61.59969	2.46632	0.1937935	0.27113431	2.3641756	21	6 1.1	19.9
293942 2007 TS_{15}	16.6	X	27.08643	214.25625	216.35476	8.42032	0.2504157	0.22519240	2.6756762	21	—	—
293943 2007 TK_{16}	16.3	X	84.19567	84.23817	276.90345	11.52589	0.1569141	0.23079091	2.6322285	21	—	—
293944 2007 TQ_{18}	17.3	X	80.14096	157.69744	252.39461	0.89972	0.1363108	0.23474610	2.6025782	21	—	—
293945 2007 TB_{20}	16.1	X	126.09381	100.72016	216.65131	10.36691	0.1373830	0.22871742	2.6481132	21	—	—
293946 2007 TE_{20}	16.1	X	83.49770	317.58183	31.01712	14.12743	0.2723008	0.22617543	2.6679177	21	—	—
293947 2007 TO_{23}	14.7	X	182.34800	113.26455	330.04568	26.05863	0.1820747	0.17617333	3.1514417	21	6 14.5	20.4
293948 2007 TF_{24}	16.2	X	57.32473	163.07350	188.39782	14.53598	0.1090057	0.22112512	2.7083866	21	12 31.3	20.3
293949 2007 TG_{27}	16.1	X	1.18542	294.39241	21.02734	6.66020	0.0581311	0.20301401	2.8671608	21	8 23.4	19.8
293950 2007 TU_{28}	17.2	X	307.62629	109.45471	203.47341	1.40263	0.1775093	0.26527105	2.3988853	21	5 4.9	20.1
293951 2007 TX_{28}	16.0	X	129.87615	235.58370	31.21983	12.82754	0.1433665	0.21894343	2.7263489	21	12 4.5	20.5
293952 2007 TX_{29}	16.5	X	351.68770	357.00472	28.18515	4.61023	0.0779243	0.21296697	2.7771193	21	11 9.1	19.9
293953 2007 TR_{30}	16.5	X	313.32458	107.51751	185.22873	2.01942	0.0462445	0.25942136	2.4348127	21	5 6.9	19.2
293954 2007 TG_{32}	17.9	X	21.49425	112.95790	181.58214	4.50294	0.1692795	0.28134829	2.3066048	21	9 13.4	19.7
293955 2007 TM_{33}	17.0	X	73.20705	151.33915	195.63012	2.38976	0.1290092	0.22275624	2.6951491	21	—	—
293956 2007 TL_{35}	17.7	X	93.42625	226.00544	156.39738	5.03125	0.1908879	0.30452688	2.1880251	21	—	—
293957 2007 TN_{35}	16.0	X	97.38419	262.94849	79.38749	6.96947	0.1801166	0.22642831	2.6659310	21	—	—
293958 2007 TS_{35}	16.2	X	86.95877	210.43015	190.03900	12.96029	0.1567041	0.23275339	2.6174117	21	—	—
293959 2007 TG_{40}	17.2	X	128.41981	275.09721	48.69487	5.14245	0.2792285	0.23254073	2.6190072	21	—	—
293960 2007 TN_{41}	16.8	X	26.04641	186.92804	201.35075	5.01381	0.0710122	0.21854482	2.7296630	21	—	—
293961 2007 TR_{41}	17.1	X	66.59050	167.25962	200.95563	4.87523	0.0887558	0.22319420	2.6916223	21	—	—
293962 2007 TY_{43}	17.1	X	200.81170	112.67665	206.35466	4.38011	0.1551636	0.24240419	2.5474713	21	1 24.4	21.3
293963 2007 TC_{44}	15.9	X	11.23613	99.31756	283.12482	5.08752	0.0346767	0.21635948	2.7480129	21	11 30.6	19.6
293964 2007 TV_{44}	16.5	X	61.83928	179.23182	179.70386	5.82321	0.0606512	0.22353494	2.6888863	21	—	—
293965 2007 TG_{45}	16.7	X	321.00183	121.91400	200.08165	11.98329	0.3143550	0.27173387	2.3606968	21	5 16.6	19.0
293966 2007 TT_{45}	16.4	X	298.76937	295.28380	52.87596	8.18721	0.1869157	0.26871168	2.3783642	21	6 9.0	19.1
293967 2007 TU_{45}	16.0	X	308.76215	277.11220	187.54369	8.71882	0.1160907	0.21643792	2.7473489	21	12 17.3	19.3
293968 2007 TD_{51}	16.5	X	69.01504	169.96116	213.46819	3.26298	0.0924236	0.22844154	2.6502448	21	—	—
293969 2007 TV_{51}	16.6	X	105.26491	5.84780	12.84049	3.91497	0.0516675	0.23430611	2.6058353	21	—	—
293970 2007 TC_{52}	17.0	X	39.86765	78.91804	251.81838	0.79645	0.0792601	0.21295033	2.7772640	21	11 8.6	20.6
293971 2007 TB_{53}	16.7	X	92.92444	193.30668	198.32331	2.28428	0.1080505	0.23393030	2.6086255	21	—	—
293972 2007 TJ_{53}	17.5	X	6.19845	120.95683	196.76717	1.87046	0.2327837	0.27902776	2.3193757	21	9 28.2	19.0
293973 2007 TB_{54}	16.3	X	141.91267	70.74150	206.00122	12.26285	0.1302427	0.22341895	2.6898169	21	12 28.6	20.8
293974 2007 TH_{55}	17.3	X	74.41734	48.53018	309.83407	1.06728	0.0849997	0.22399028	2.6852410	21	—	—
293975 2007 TH_{57}	16.8	X	251.13179	35.86649	218.02755	3.43222	0.1549934	0.23934156	2.5691570	21	—	—
293976 2007 TS_{57}	17.1	X	290.82126	303.48712	29.78975	6.22491	0.1941261	0.26504433	2.4002531	21	5 6.1	20.0
293977 2007 TX_{58}	16.3	X	79.97854	347.49708	322.73634	4.24580	0.1486086	0.22387907	2.6861302	21	12 11.9	20.4
293978 2007 TD_{59}	17.0	X	233.97754	270.80927	341.07116	8.49854	0.1438218	0.24355855	2.5394157	21	—	—
293979 2007 TY_{60}	17.1	X	115.91423	343.20921	75.32861	2.38052	0.0972111	0.24294217	2.5437091	21	2 23.2	20.4
293980 2007 TC_{63}	16.2	X	175.94809	257.04355	211.70925	9.87198	0.0619997	0.19244986	2.9711482	21	7 6.3	20.8
293981 2007 TL_{63}	17.0	X	57.10471	329.12484	52.81637	3.88541	0.2183129	0.22495298	2.6775744	21	—	—
293982 2007 TB_{64}	17.7	X	95.39374	89.93422	202.02964	5.58307	0.1858600	0.28954458	2.2628673	21	12 18.1	21.2
293983 2007 TG_{66}	16.7	X	236.39188	234.10188	237.29458	6.67053	0.0630920	0.27785948	2.3258725	21	9 24.4	19.7
293984 2007 TC_{67}	17.0	X	293.38234	201.87604	196.34659	1.49087	0.0930491	0.20450498	2.8532082	21	8 25.7	20.5
293985 Franquin	16.8	X	12.96483	296.95946	205.09537	5.55126	0.0553688	0.23967324	2.5667861	21	1 8.8	20.0
293986 2007 TG_{69}	16.5	X	230.45190	150.52989	222.92037	1.78826	0.0467390	0.18487428	3.0517694	21	5 11.3	20.9
293987 2007 TF_{70}	16.4	X	332.18147	268.38941	198.02448	21.44827	0.3367032	0.21914653	2.7246642	21	—	—
293988 2007 TX_{73}	16.0	X	79.95115	197.18013	193.11406	11.18383	0.0221782	0.23184884	2.6242151	21	—	—
293989 2007 TT_{74}	16.3	X	10.24611	196.06833	227.77439	4.08625	0.1685413	0.22284840	2.6944060	21	—	—
293990 2007 TZ_{74}	17.6	X	138.92115	119.81645	214.28273	6.58551	0.2080384	0.23605590	2.5929421	21	—	—
293991 2007 TM_{78}	17.6	X	39.28708	163.67180	222.22383	4.56704	0.1791319	0.29483371	2.2357228	21	—	—
293992 2007 TT_{78}	17.5	X	75.69133	318.80569	356.98317	3.38220	0.0803566	0.28941652	2.2635348	21	12 18.9	20.5
293993 2007 TK_{79}	16.4	X	195.16814	88.75706	216.32648	11.18106	0.0913338	0.23892683	2.5721291	21	—	—
293994 2007 TX_{79}	16.0	X	98.52511	26.47668	305.73801	13.94317	0.1133853	0.22765297	2.6563614	21	—	—
293995 2007 TT_{80}	16.5	X	189.40548	299.19382	186.01879	1.69547	0.0427321	0.19994216	2.8964528	21	8 13.6	20.8
293996 2007 TU_{81}	16.5	X	106.37504	149.50513	189.95647	8.83009	0.0867436	0.22736781	2.6585821	21	—	—
293997 2007 TY_{83}	16.9	X	138.50190	13.25407	291.90929	6.79022	0.1755473	0.30331313	2.1938583	21	—	—
293998 2007 TB_{84}	18.0	X	72.43512	209.44187	230.13725	2.31686	0.0793499	0.31007762	2.1618345	21	—	—
293999 2007 TE_{84}	16.9	X	293.85466	44.74401	328.57036	2.28473	0.2022386	0.27215022	2.3582885	21	7 7.3	19.3
294000 2007 TH_{87}	17.7	X	258.87590	3.57463	161.40627	3.80298	0.0188011	0.29275912	2.2462724	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294001 2007 TM_{87}	17.4	X	101.72022	129.31036	183.51665	6.11315	0.0836491	0.29310826	2.2444883	21	—	—
294002 2007 TR_{88}	15.7	X	39.07198	227.93783	221.80233	21.35269	0.0556655	0.23132081	2.6282071	21	—	—
294003 2007 TN_{89}	16.3	X	98.54235	119.89197	165.54336	4.87068	0.0338712	0.21363345	2.7713405	21	11 19.8	20.2
294004 2007 TE_{93}	17.0	X	136.32910	210.44266	189.86718	5.54931	0.1017533	0.24359604	2.5391551	21	2 22.9	20.6
294005 2007 TO_{94}	15.6	X	157.82777	35.32101	36.82281	14.43890	0.1734347	0.18215877	3.0820239	21	5 7.9	20.6
294006 2007 TD_{95}	16.0	X	258.65920	198.40141	73.57109	7.73216	0.0674676	0.24486258	2.5303918	21	1 28.9	19.6
294007 2007 TL_{95}	15.6	X	77.70367	268.24512	55.28547	13.33365	0.1806560	0.22051424	2.7133862	21	12 28.2	19.9
294008 2007 TN_{95}	16.2	X	13.69909	247.41776	190.49415	12.09521	0.1429198	0.22520936	2.6755419	21	—	—
294009 2007 TV_{95}	15.7	X	116.86555	91.26703	41.70859	16.87876	0.2137682	0.17895501	3.1186991	21	6 15.7	20.8
294010 2007 TW_{95}	16.3	X	244.31690	6.45521	357.17932	1.20920	0.0780180	0.18496282	3.0507954	21	5 11.5	20.8
294011 2007 TQ_{99}	16.9	X	165.12533	83.34632	177.90387	8.73856	0.0909028	0.22805092	2.6532703	21	—	—
294012 2007 TC_{100}	17.8	X	140.06664	140.49338	163.06209	3.75008	0.1619997	0.30346763	2.1931136	21	—	—
294013 2007 TE_{100}	17.9	X	278.42093	122.38992	72.37802	3.07026	0.0936656	0.30573221	2.1822705	21	—	—
294014 2007 TV_{102}	16.9	X	52.87220	28.67111	68.88644	3.76663	0.0879401	0.23582581	2.5946283	21	1 12.5	19.8
294015 2007 TG_{103}	16.1	X	225.78508	136.51777	201.73830	6.18585	0.0462939	0.17683038	3.1436303	21	3 23.4	20.8
294016 2007 TZ_{108}	17.2	X	9.20229	345.76558	335.94900	5.29356	0.1865961	0.28098365	2.3085999	21	10 2.8	19.2
294017 2007 TK_{109}	17.3	X	67.79308	27.52060	292.14047	4.07707	0.1807022	0.29279507	2.2460886	21	12 26.7	20.4
294018 2007 TX_{111}	15.9	X	318.48156	228.22571	220.53148	14.23997	0.2277928	0.21638529	2.7477943	21	12 8.5	18.4
294019 2007 TY_{112}	16.8	X	124.83702	31.47485	343.43147	14.55398	0.1831229	0.23924564	2.5698436	21	1 25.5	20.5
294020 2007 TN_{113}	16.9	X	356.60265	288.26411	132.13144	5.97517	0.1246744	0.29249716	2.2476134	21	—	—
294021 2007 TQ_{114}	15.7	X	58.71633	52.87150	236.37510	7.59173	0.0721601	0.20858842	2.8158483	21	10 7.4	19.6
294022 2007 TT_{121}	15.9	X	137.60334	44.83959	44.40510	3.64420	0.0207283	0.18249159	3.0782754	21	4 26.6	20.1
294023 2007 TU_{121}	18.0	X	12.15551	295.80003	141.60561	1.43393	0.1271223	0.29748806	2.2224041	21	—	—
294024 2007 TK_{122}	16.9	X	184.03794	273.00667	39.42622	6.01272	0.2626647	0.24226875	2.5484206	21	1 9.6	21.3
294025 2007 TH_{123}	16.7	X	322.16135	256.17181	176.31953	3.77264	0.0969103	0.21463403	2.7627208	21	11 27.3	19.9
294026 2007 TD_{124}	16.4	X	28.69400	262.10210	196.36308	12.34159	0.2360065	0.23042567	2.6350092	21	—	—
294027 2007 TR_{124}	16.4	X	312.47150	311.04378	173.37272	4.75755	0.1008359	0.22256191	2.6967177	21	—	—
294028 2007 TT_{125}	17.1	X	317.01456	228.47008	107.36643	2.32146	0.1989253	0.27129302	2.3632535	21	6 20.9	19.3
294029 2007 TO_{126}	16.2	X	312.04771	251.52574	204.37451	4.44828	0.0772195	0.21649808	2.7468399	21	12 12.9	19.5
294030 2007 TF_{127}	16.8	X	204.55739	214.59582	56.62371	4.27085	0.1089516	0.23364304	2.6107632	21	—	—
294031 2007 TY_{127}	17.9	X	194.78241	117.17764	195.31584	5.04909	0.0429177	0.31074334	2.1587458	21	—	—
294032 2007 TG_{128}	16.6	X	133.82268	285.20811	45.65706	9.84486	0.1937144	0.23280182	2.6170487	21	—	—
294033 2007 TZ_{128}	16.9	X	166.32457	334.78803	331.59330	0.27428	0.1522542	0.23347214	2.6120371	21	—	—
294034 2007 TE_{129}	17.7	X	75.20386	76.00186	224.85154	3.35824	0.1121809	0.28533701	2.2850585	21	12 1.9	20.8
294035 2007 TY_{129}	17.2	X	282.30532	221.50714	210.67712	6.39063	0.0804696	0.27760357	2.3273017	21	10 4.8	19.6
294036 2007 TP_{130}	16.9	X	280.20643	61.75965	184.34694	3.85631	0.0827268	0.24354919	2.5394807	21	1 17.0	20.4
294037 2007 TH_{131}	16.4	X	23.49925	155.86448	212.14177	5.53560	0.0432816	0.21533460	2.7567254	21	11 30.4	20.1
294038 2007 TP_{131}	16.7	X	173.27635	28.55853	212.04578	8.78322	0.0536618	0.21972263	2.7198995	21	12 19.6	20.8
294039 2007 TW_{131}	16.7	X	5.12321	253.67309	67.28203	3.07156	0.0641624	0.20260322	2.8710350	21	9 4.9	20.2
294040 2007 TH_{132}	18.1	X	139.31501	83.08166	199.30423	5.50760	0.1923839	0.29718575	2.2239110	21	—	—
294041 2007 TN_{133}	16.1	X	220.41410	216.79060	44.51857	14.20668	0.1439026	0.23395521	2.6084403	21	—	—
294042 2007 TF_{135}	16.5	X	277.49060	119.66814	14.60871	8.62940	0.1015073	0.22477198	2.6790117	21	12 8.9	19.9
294043 2007 TT_{135}	16.2	X	97.78252	79.41395	15.15970	9.75219	0.2085700	0.17814876	3.1281016	21	4 10.4	20.6
294044 2007 TP_{138}	15.4	X	308.89340	297.49827	334.31757	12.84488	0.1191259	0.18591973	3.0403184	21	3 25.4	19.7
294045 2007 TN_{140}	17.1	X	295.08646	286.17073	49.55933	5.46133	0.2531652	0.26815093	2.3816787	21	5 6.8	19.9
294046 2007 TU_{140}	16.9	X	110.66852	250.14360	97.47421	3.15697	0.1693739	0.23134819	2.6279997	21	—	—
294047 2007 TY_{142}	17.4	X	351.05639	329.88896	44.58363	7.47911	0.1213288	0.28351276	2.2948500	21	11 12.2	19.2
294048 2007 TZ_{146}	16.0	X	208.47045	93.64768	202.69112	7.82715	0.1191436	0.23952330	2.5678572	21	1 3.9	20.1
294049 2007 TC_{148}	17.0	X	269.81669	290.20593	95.20910	2.22369	0.1978120	0.26933299	2.3747051	21	6 21.3	20.2
294050 2007 TX_{150}	17.1	X	239.12850	68.68831	258.63519	4.25659	0.1571268	0.25618508	2.4552751	21	3 7.4	20.9
294051 2007 TO_{151}	17.4	X	30.62542	45.78394	329.52637	6.03960	0.1170800	0.29433556	2.2382447	21	—	—
294052 2007 TN_{152}	16.8	X	251.62073	79.18398	310.91864	2.68757	0.1269876	0.26777660	2.3838978	21	6 15.1	19.9
294053 2007 TU_{153}	17.4	X	134.03713	51.57547	283.50693	1.60164	0.2344608	0.23639217	2.5904825	21	—	—
294054 2007 TW_{154}	16.6	X	68.90665	148.28949	244.42579	2.11683	0.1609578	0.23060448	2.6336469	21	—	—
294055 2007 TF_{155}	15.4	X	251.19950	78.70987	231.02167	9.76021	0.0375457	0.17992123	3.1075236	21	3 15.2	20.1
294056 2007 TV_{155}	15.7	X	220.37546	37.02886	7.56641	8.80553	0.1017600	0.19089723	2.9872366	21	6 1.9	20.4
294057 2007 TA_{156}	17.2	X	269.15043	190.58806	241.04377	4.09771	0.1986902	0.27523151	2.3406543	21	8 23.1	20.2
294058 2007 TE_{156}	16.2	X	22.14503	70.56739	355.07972	8.36844	0.0652853	0.22683920	2.6627107	21	—	—
294059 2007 TP_{157}	15.6	X	130.01479	244.38680	214.73532	16.23084	0.2270604	0.18064965	3.0991645	21	5 21.7	20.7
294060 2007 TY_{158}	16.5	X	117.55359	46.01404	255.25669	5.04123	0.0482027	0.22481087	2.6787027	21	—	—
294061 2007 TM_{164}	16.5	X	95.92335	117.84296	196.28312	10.83117	0.0815056	0.22274818	2.6952141	21	12 26.4	20.6
294062 2007 TX_{165}	15.9	X	351.89894	328.77469	61.84592	14.64212	0.1927949	0.21030023	2.8005471	21	11 25.6	18.6
294063 2007 TM_{168}	16.4	X	303.50682	41.28031	326.76493	4.28924	0.1509507	0.27340999	2.3510388	21	7 25.7	18.6
294064 2007 TF_{169}	16.3	X	19.25508	15.98747	1.43803	5.95882	0.0514219	0.21832840	2.7314666	21	12 6.9	19.9
294065 2007 TU_{169}	16.0	X	139.06417	251.23020	51.00399	9.80934	0.0439121	0.22713594	2.6603911	21	—	—
294066 2007 TX_{169}	16.2	X	167.77542	136.00748	185.08091	11.76181	0.0608666	0.23665166	2.5885885	21	—	—
294067 2007 TK_{170}	15.2	X	233.64492	328.23920	31.08542	23.00123	0.0636373	0.18326661	3.0695908	21	4 24.8	19.8
294068 2007 TR_{173}	16.6	X	88.60158	120.24664	239.60663	2.71847	0.1052574	0.22962257	2.6411496	21	—	—
294069 2007 TA_{176}	15.9	X	279.74110	305.50380	7.83846	9.88818	0.0569102	0.18699160	3.0286888	21	4 20.9	20.2
294070 2007 TW_{176}	16.6	X	260.97799	240.73356	129.15292	1.83296	0.1053524	0.19240066	2.9716547	21	6 4.7	21.0
294071 2007 TK_{177}	16.2	X	81.88787	316.67238	212.59000	4.54482	0.0953007	0.18489233	3.0515709	21	6 8.1	20.3
294072 2007 TN_{177}	16.4	X	72.89555	344.96290	42.72935	4.74606	0.1006570	0.22861246	2.6489237	21	—	—
294073 2007 TB_{180}	15.7	X	137.99516	225.92936	212.43577	12.06928	0.1867501	0.17693572	3.1423825	21	4 30.5	20.7
294074 2007 TE_{180}	16.8	X	226.17449	196.33992	235.47828	6.19232	0.0888044	0.26559419	2.3969391	21	7 15.1	20.1
294075 2007 TN_{180}	18.2	X	192.68646	101.52085	187.41799	2.45927	0.1669676	0.31207903	2.1525818	21	—	—
294076 2007 TW_{180}	17.1	X	113.01626	270.83896	107.02968	4.83161	0.1967279	0.23707609	2.5854981	21	1 12.7	20.4
294077 2007 TZ_{184}	17.6	X	63.97735	254.65447	228.14280	4.56676	0.1632209	0.24285114	2.5443447	21	3 10.5	20.2
294078 2007 TV_{185}	15.4	X	120.71128	297.23898	121.25031	5.36917	0.1927799	0.17443336	3.1723640	21	3 23.9	20.2
294079 2007 TM_{186}	16.3	X	247.12569	178.60713	141.49712	4.86699	0.2908179	0.18597078	3.0397619	21	3 8.2	21.5
294080 2007 TT_{187}	17.5	X	164.53398	23.24580	188.14402	21.68449	0.0426998	0.36128689	1.9523960	21	11 30.0	20.1

ELEMENTS AND OPPOSITION DATES IN 2021

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294081 2007 TK_{189}	17.8	X	238.31187	224.32606	356.11403	6.49645	0.1017320	0.30904353	2.1666542	21	—	—
294082 2007 TZ_{191}	16.4	X	298.19618	359.12501	190.62586	13.33828	0.1023978	0.24154775	2.5534894	21	—	—
294083 2007 TC_{193}	16.6	X	322.73648	333.35691	47.17784	2.59651	0.0862181	0.20495421	2.8490375	21	9 18.6	20.0
294084 2007 TO_{195}	16.9	X	115.26301	269.45898	6.94204	2.26116	0.0565879	0.21705770	2.7421166	21	11 28.8	20.9
294085 2007 TZ_{197}	16.2	X	307.40893	343.70106	250.86819	3.45773	0.0619429	0.17523853	3.1626392	21	2 18.5	20.6
294086 2007 TU_{200}	16.9	X	3.78096	140.96268	236.38677	1.86817	0.0684655	0.21391985	2.7688663	21	11 16.9	20.3
294087 2007 TX_{204}	15.4	X	144.38758	334.90545	52.95122	16.37732	0.0799963	0.17035515	3.2227939	21	3 7.1	20.5
294088 2007 TR_{205}	16.4	X	54.49876	192.98697	151.56942	6.37846	0.0748229	0.22540332	2.6740068	21	12 17.2	20.1
294089 2007 TP_{211}	16.7	X	155.85639	43.74439	270.74514	4.46736	0.1495830	0.23445396	2.6047398	21	—	—
294090 2007 TY_{212}	16.4	X	79.58350	327.78387	325.59741	4.45818	0.0726700	0.21235206	2.7824780	21	11 8.8	20.4
294091 2007 TE_{213}	15.9	X	142.12134	62.91530	17.35443	11.49947	0.1046605	0.17887765	3.1195982	21	4 27.0	20.6
294092 2007 TR_{213}	15.5	X	239.59159	1.67930	18.84567	10.34342	0.1187959	0.18910714	3.0060585	21	5 21.1	20.2
294093 2007 TJ_{216}	16.4	X	38.35196	341.13287	27.62615	10.06327	0.1806828	0.21873332	2.7280945	21	—	—
294094 2007 TF_{217}	16.1	X	131.51774	99.84119	336.66778	2.90477	0.0919800	0.17535216	3.1612728	21	4 11.2	20.8
294095 2007 TR_{217}	16.1	X	259.83019	351.99792	11.99006	3.78262	0.1382421	0.18950901	3.0018073	21	5 21.8	20.6
294096 2007 TV_{217}	15.6	X	263.48451	235.16933	35.54447	9.12797	0.1103932	0.17053958	3.2204700	21	2 11.8	20.6
294097 2007 TQ_{218}	15.6	X	237.88943	300.63672	43.70641	10.26763	0.0743162	0.18025299	3.1037095	21	4 13.8	20.3
294098 2007 TD_{225}	16.1	X	258.58826	321.32124	357.02672	6.17276	0.0501039	0.18396859	3.0617772	21	4 4.1	20.6
294099 2007 TO_{226}	17.8	X	321.65272	239.60822	69.43985	2.13024	0.1976037	0.26765433	2.3846238	21	5 18.9	20.0
294100 2007 TR_{226}	17.0	X	195.84913	163.61317	124.74100	1.67945	0.1506123	0.23696225	2.5863261	21	—	—
294101 2007 TG_{227}	17.7	X	11.09419	56.95507	267.99977	1.53800	0.0349446	0.27630227	2.3346032	21	9 22.8	20.5
294102 2007 TZ_{227}	17.3	X	234.88420	15.04161	284.24358	1.24924	0.1021276	0.24591332	2.5231787	21	2 2.2	21.1
294103 2007 TC_{230}	16.9	X	211.42175	312.76784	165.74251	2.18060	0.0106495	0.20384643	2.8593499	21	9 4.1	20.7
294104 2007 TA_{231}	16.6	X	357.47291	246.05893	137.02364	3.35364	0.1104437	0.21196255	2.7858857	21	11 19.3	19.9
294105 2007 TF_{231}	16.9	X	324.08855	135.81589	103.63557	4.59359	0.0778201	0.24811482	2.5082313	21	3 7.8	19.9
294106 2007 TR_{231}	17.2	X	10.68433	169.89583	61.90673	1.95529	0.1304863	0.25548095	2.4597843	21	5 6.8	19.2
294107 2007 TP_{232}	17.4	X	261.62598	226.99158	212.25973	5.73157	0.0772159	0.27366793	2.3495613	21	9 12.4	20.4
294108 2007 TB_{233}	16.7	X	345.76315	289.18370	70.51729	3.03552	0.0849456	0.20437312	2.8544353	21	9 27.8	20.1
294109 2007 TD_{233}	15.8	X	161.11226	311.83341	49.22022	10.82327	0.0705130	0.16831221	3.2488199	21	2 16.8	20.8
294110 2007 TR_{233}	16.4	X	320.14937	320.38932	71.20492	3.14595	0.0753549	0.20493310	2.8492330	21	9 30.7	19.9
294111 2007 TP_{234}	17.1	X	150.44639	245.60497	64.52592	5.45390	0.2214928	0.23133785	2.6280780	21	—	—
294112 2007 TJ_{235}	17.2	X	78.66461	319.78820	8.63674	1.68937	0.0985824	0.22030859	2.7150745	21	12 27.0	21.1
294113 2007 TL_{237}	16.8	X	230.76249	154.33847	72.33318	3.97304	0.1035186	0.22978637	2.6398943	21	—	—
294114 2007 TQ_{237}	16.9	X	129.41976	350.99801	237.30214	5.88897	0.0963760	0.27782913	2.3260419	21	10 24.8	20.1
294115 2007 TL_{241}	16.7	X	325.65113	55.89652	44.38347	5.91663	0.0105936	0.22156383	2.7048103	21	—	—
294116 2007 TB_{244}	16.9	X	330.08923	353.85770	335.56764	5.35502	0.2182999	0.27351571	2.3504330	21	7 7.0	18.6
294117 2007 TU_{246}	15.8	X	42.23813	128.42165	323.16629	12.40622	0.1512294	0.23264769	2.6182044	21	—	—
294118 2007 TW_{246}	15.8	X	188.84514	327.80349	0.42641	18.01336	0.1975935	0.24299155	2.5433645	21	2 3.6	20.3
294119 2007 TS_{250}	15.7	X	154.32679	140.17263	287.05833	3.89634	0.0432609	0.18317167	3.0706514	21	4 19.3	20.2
294120 2007 TC_{253}	16.8	X	11.53600	35.16240	39.49629	3.09365	0.1653848	0.22563599	2.6721683	21	—	—
294121 2007 TZ_{259}	18.1	X	340.67965	61.26219	226.85396	1.88032	0.2005499	0.26947643	2.3738623	21	5 24.1	20.0
294122 2007 TH_{261}	16.8	X	335.34015	40.83158	27.18678	2.53186	0.1817686	0.21481117	2.7612018	21	12 15.2	19.4
294123 2007 TL_{264}	16.6	X	45.92889	91.96005	293.29620	5.20296	0.0556254	0.22552990	2.6730062	21	—	—
294124 2007 TR_{266}	15.5	X	183.36558	313.87412	25.01619	10.61495	0.0605923	0.17183334	3.2042847	21	2 12.7	20.4
294125 2007 TY_{267}	16.5	X	107.81854	68.36715	201.00984	7.23483	0.1867206	0.21732637	2.7398561	21	11 22.9	20.9
294126 2007 TB_{268}	16.9	X	339.19388	149.08132	46.00353	2.04144	0.0633408	0.24406747	2.5358844	21	1 30.4	20.0
294127 2007 TL_{268}	16.6	X	282.47348	236.22239	196.53513	3.98561	0.0433281	0.20859881	2.8157548	21	10 2.7	20.4
294128 2007 TR_{270}	16.7	X	9.00776	68.91201	239.26428	4.27963	0.1335303	0.27517227	2.3409902	21	9 1.9	19.0
294129 2007 TZ_{271}	17.0	X	166.23804	78.00839	223.71043	3.55605	0.3018781	0.23739667	2.5831699	21	—	—
294130 2007 TU_{272}	16.6	X	184.01220	343.44287	65.61404	7.15114	0.1207489	0.25473674	2.4645728	21	4 30.7	20.3
294131 2007 TF_{274}	17.3	X	146.71413	311.94082	150.39446	2.15476	0.1345528	0.26352203	2.4094880	21	5 30.9	20.8
294132 2007 TQ_{274}	13.9	X	54.99047	353.11761	354.20153	10.73319	0.1848785	0.08201106	5.2467184	21	12 6.8	20.8
294133 2007 TH_{277}	16.4	X	186.49232	18.35786	260.00263	3.86836	0.1634343	0.23621871	2.5917505	21	—	—
294134 2007 TS_{282}	17.0	X	249.34390	151.54665	171.03909	6.59914	0.1180519	0.25826102	2.4421002	21	3 16.3	20.7
294135 2007 TO_{289}	17.1	X	192.11789	79.22654	305.68848	5.77596	0.1361652	0.26192179	2.4192920	21	4 2.9	21.0
294136 2007 TU_{289}	17.4	X	326.98860	208.33807	111.99931	3.63541	0.2531849	0.27447390	2.3449595	21	6 6.5	19.1
294137 2007 TA_{291}	15.6	X	265.21496	94.36961	157.17451	16.33379	0.1362502	0.18226164	3.0808640	21	1 13.5	20.6
294138 2007 TA_{294}	17.5	X	22.15647	116.61284	218.26315	5.46746	0.2101951	0.28122750	2.3072652	21	11 22.9	19.8
294139 2007 TL_{301}	17.8	X	52.79533	123.85103	226.53855	5.03736	0.1129432	0.29080577	2.2563201	21	—	—
294140 2007 TN_{301}	17.0	X	345.75888	206.67502	229.96376	3.54733	0.0313641	0.22016437	2.7162601	21	—	—
294141 2007 TM_{302}	17.5	X	183.51340	102.11645	8.51141	2.39521	0.1413197	0.26424930	2.4050650	21	7 19.4	21.1
294142 2007 TT_{303}	15.9	X	149.41623	96.00471	319.20861	11.38885	0.1994213	0.17646866	3.1479247	21	4 8.2	21.2
294143 2007 TA_{311}	16.0	X	158.44415	26.81455	53.11737	9.82236	0.0507087	0.18483747	3.0521746	21	5 12.2	20.5
294144 2007 TC_{313}	16.7	X	313.72605	252.29329	91.29987	3.74988	0.0507685	0.19815203	2.9138713	21	7 18.8	20.4
294145 2007 TY_{314}	18.0	X	288.34757	331.73855	223.19598	2.36162	0.0839441	0.30413598	2.1898995	21	—	—
294146 2007 TF_{317}	17.9	X	29.06507	226.20469	137.21635	2.49769	0.1630228	0.28819827	2.2699091	21	—	—
294147 2007 TL_{317}	17.2	X	130.85088	21.93576	180.56165	5.66930	0.1596124	0.27196160	2.3593787	21	9 26.1	20.7
294148 2007 TR_{318}	15.5	X	50.66407	355.80737	224.93096	13.90487	0.0953286	0.18729620	3.0254042	21	6 29.8	19.6
294149 2007 TQ_{321}	17.1	X	80.68260	328.25589	356.23850	2.23193	0.1430526	0.22349734	2.6891879	21	12 29.7	21.2
294150 2007 TY_{327}	15.9	X	276.93356	71.00054	350.61248	5.36956	0.0472750	0.20318157	2.8655842	21	9 9.9	19.8
294151 2007 TA_{328}	16.8	X	118.83272	313.29102	314.43731	4.54503	0.0777838	0.21511061	2.7586387	21	11 22.5	20.9
294152 2007 TR_{331}	16.9	X	80.55123	12.47921	297.66289	3.01785	0.0844576	0.21541745	2.7560185	21	12 3.9	20.8
294153 2007 TB_{334}	17.0	X	340.76347	156.35910	265.88306	2.69100	0.0841287	0.21510716	2.7586682	21	12 12.5	20.0
294154 2007 TS_{334}	16.5	X	73.31993	304.27441	34.26495	7.56231	0.1258681	0.21935448	2.7229419	21	—	—
294155 2007 TX_{335}	16.6	X	56.69491	336.31485	291.06654	2.89665	0.1573238	0.21187428	2.7866594	21	9 20.3	20.3
294156 2007 TH_{337}	17.1	X	310.84862	309.45230	41.46110	6.51406	0.1398158	0.27592789	2.3367145	21	7 14.8	19.6
294157 2007 TO_{339}	17.6	X	117.79966	237.51823	167.74716	3.75125	0.1140310	0.24494818	2.5298022	21	2 8.6	20.8
294158 2007 TQ_{350}	17.5	X	317.26702	267.79659	34.91239	2.98983	0.1853563	0.27171551	2.3608031	21	5 2.8	20.0
294159 2007 TS_{352}	12.8	X	210.27669	189.45862	357.31160	18.35341	0.0029384	0.08177124	5.2569719	21	11 3.1	19.9
294160 2007 TP_{357}	16.6	X	45.68881	117.76666	231.07665	3.96112	0.1270080	0.21799645	2.7342388	21	12 17.2	20.3

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294161 2007 TQ_{357}	16.8	X	300.69007	160.81418	287.39765	0.91536	0.1970260	0.21156277	2.7893942	21	10 31.5	19.8
294162 2007 TV_{358}	16.7	X	269.69996	338.60574	58.48193	2.76211	0.0948224	0.19990409	2.8968206	21	7 22.9	20.7
294163 2007 TE_{364}	15.2	X	244.46377	263.83709	108.52602	22.64741	0.1367376	0.17717095	3.1396004	21	5 24.6	20.4
294164 2007 TT_{365}	17.6	X	293.00933	156.10803	151.59924	3.16467	0.1890359	0.26452429	2.4033979	21	4 6.7	20.7
294165 2007 TH_{369}	16.5	X	67.13498	319.00458	348.63539	4.34784	0.1554879	0.21401445	2.7680504	21	11 23.5	20.5
294166 2007 TL_{369}	16.7	X	69.11438	202.39936	71.02952	3.08179	0.0336783	0.20409585	2.8570199	21	9 28.3	20.6
294167 2007 TV_{369}	17.2	X	172.68737	176.74758	143.51600	3.19969	0.1662090	0.24203310	2.5500745	21	1 1.9	21.1
294168 2007 TY_{369}	16.3	X	82.13804	237.08140	173.07811	11.97122	0.1860946	0.23310288	2.6147949	21	1 6.5	19.3
294169 2007 TD_{374}	15.4	X	308.61021	281.28485	119.52523	22.41761	0.3125814	0.26822622	2.3812330	21	9 2.3	17.5
294170 2007 TX_{376}	16.9	X	130.55009	205.05344	151.88164	9.45014	0.1937042	0.23871706	2.5736357	21	1 6.5	20.5
294171 2007 TL_{381}	16.8	X	197.67091	92.93088	199.65344	12.73689	0.1631575	0.23885704	2.5726301	21	—	—
294172 2007 TA_{387}	16.3	X	84.59535	126.00703	207.78221	11.85453	0.1418062	0.22404442	2.6848084	21	—	—
294173 2007 TJ_{387}	16.7	X	311.29872	157.39393	217.51000	1.24824	0.0811035	0.20337323	2.8637835	21	8 22.5	20.4
294174 2007 TC_{388}	17.0	X	119.01045	126.45361	172.80871	4.66661	0.0655907	0.22561531	2.6723316	21	—	—
294175 2007 TU_{388}	15.3	X	35.76497	122.88957	37.06705	10.02817	0.0681054	0.17762322	3.1342686	21	3 23.7	19.4
294176 2007 TW_{389}	16.0	X	29.82153	235.37254	203.34654	21.46358	0.0508944	0.22890615	2.6466575	21	—	—
294177 2007 TY_{390}	17.4	X	51.67419	89.18732	71.10333	1.13030	0.1086864	0.25147581	2.4858328	21	4 6.6	19.8
294178 2007 TG_{391}	16.9	X	246.60145	73.41121	39.47231	4.71454	0.0589819	0.20889874	2.8130590	21	10 6.7	20.7
294179 2007 TC_{392}	17.1	X	4.89117	233.74138	57.58083	3.18321	0.1627034	0.27379454	2.3488369	21	8 2.1	18.9
294180 2007 TP_{392}	16.0	X	255.12342	225.01333	168.92149	3.04996	0.2765932	0.12402783	3.9822020	21	6 10.9	22.3
294181 2007 TA_{395}	16.6	X	21.50110	155.96119	112.21634	3.13418	0.0491935	0.19722371	2.9230078	21	7 17.2	20.2
294182 2007 TJ_{398}	16.7	X	103.19650	299.93613	134.91870	4.29446	0.0775157	0.24416165	2.5352323	21	2 23.9	19.9
294183 2007 TV_{398}	15.9	X	320.03945	156.71373	254.88481	5.11728	0.0616369	0.21045233	2.7991976	21	10 25.6	19.4
294184 2007 TV_{399}	15.7	X	124.00728	227.66336	238.91104	9.26734	0.2069819	0.17768735	3.1335145	21	5 22.9	20.7
294185 2007 TB_{401}	16.8	X	137.13355	127.25460	207.17187	4.51389	0.2854225	0.23292857	2.6160992	21	—	—
294186 2007 TD_{401}	17.4	X	86.87911	151.08727	217.09763	8.01778	0.1716325	0.29912872	2.2142703	21	—	—
294187 2007 TQ_{403}	16.5	X	356.69560	138.36837	265.13215	3.19108	0.1029363	0.21587033	2.7521625	21	12 14.3	19.6
294188 2007 TV_{406}	15.7	X	86.82596	303.95800	48.35390	15.46054	0.1403017	0.22538261	2.6741706	21	—	—
294189 2007 TR_{410}	15.3	X	122.02374	76.30384	328.80091	11.32366	0.1001666	0.17199453	3.2022824	21	2 23.6	20.0
294190 2007 TS_{411}	16.0	X	132.22796	11.93035	270.40433	13.92857	0.2580923	0.23358825	2.6111715	21	12 30.0	20.7
294191 2007 TD_{412}	17.3	X	253.00682	156.06787	273.55663	5.09888	0.1227633	0.27232965	2.3572525	21	8 10.4	20.4
294192 2007 TK_{413}	15.4	X	297.66525	206.97599	79.67246	12.94628	0.0410608	0.18614331	3.0378834	21	4 20.4	19.8
294193 2007 TQ_{414}	15.9	X	300.59504	92.89637	89.82327	16.00902	0.0238695	0.23345225	2.6121854	21	—	—
294194 2007 TO_{418}	17.0	X	98.43608	56.85527	268.18422	2.74718	0.0904144	0.22271225	2.6955040	21	—	—
294195 2007 TV_{418}	16.4	X	106.37877	36.52118	96.72550	3.81857	0.0873075	0.18103943	3.0947146	21	5 23.3	20.8
294196 2007 TJ_{419}	16.4	X	94.79663	352.28178	193.19074	9.56449	0.0083835	0.18991782	2.9974980	21	7 1.8	20.8
294197 2007 TM_{421}	16.6	X	147.95275	251.12332	103.98836	11.43972	0.2419701	0.24300241	2.5432887	21	1 28.7	20.5
294198 2007 TO_{421}	16.5	X	127.37425	228.07899	127.83395	15.29410	0.1372303	0.23728781	2.5839599	21	—	—
294199 2007 TA_{422}	16.2	X	355.66550	288.82038	113.92383	12.63401	0.1427646	0.21686605	2.7437318	21	12 17.1	19.4
294200 2007 TA_{427}	16.9	X	273.63429	41.11116	269.70300	5.55785	0.1700985	0.25573091	2.4581812	21	3 18.9	20.6
294201 2007 TO_{429}	15.8	X	65.65898	316.34030	226.22551	8.57365	0.1937634	0.17993887	3.1073206	21	6 17.9	19.9
294202 2007 TB_{430}	17.3	X	123.79275	354.82247	236.13214	6.09797	0.0654476	0.27888080	2.3201904	21	10 20.2	20.5
294203 2007 TQ_{430}	16.2	X	140.47599	259.74963	220.59933	11.00694	0.0670295	0.18803951	3.0174261	21	6 12.6	20.8
294204 2007 TS_{430}	17.5	X	241.01722	203.06973	29.06513	6.40369	0.2329151	0.30062827	2.2069009	21	—	—
294205 2007 TT_{430}	16.9	X	187.26659	218.74280	122.80971	5.49690	0.1879189	0.24379873	2.5377476	21	2 11.4	21.0
294206 2007 TA_{435}	17.3	X	89.41741	62.37481	358.41215	5.12200	0.2144028	0.24089758	2.5580818	21	2 7.7	20.0
294207 2007 TL_{435}	16.1	X	108.63278	301.92261	152.99943	5.17104	0.1724791	0.17255829	3.1953038	21	4 21.2	20.8
294208 2007 TC_{436}	16.0	X	284.94252	39.92212	333.18624	1.66959	0.0867093	0.18714198	3.0270661	21	7 12.2	20.1
294209 2007 TM_{448}	16.9	X	146.52954	359.25703	326.65360	8.24984	0.1797793	0.23585071	2.5944457	21	—	—
294210 2007 UA	16.5	X	32.65732	296.37245	72.14577	7.14171	0.2760532	0.22048578	2.7136197	21	—	—
294211 2007 UY	17.0	X	105.05275	212.33064	159.33856	4.77907	0.2376435	0.23354114	2.6115226	21	—	—
294212 2007 UG_{2}	16.1	X	171.78156	256.50654	70.61583	16.06564	0.3022686	0.24415003	2.5353127	21	1 20.5	20.7
294213 2007 US_{2}	16.3	X	292.74897	174.71319	149.54334	5.85780	0.1644734	0.19123934	2.9836730	21	5 9.6	20.4
294214 2007 UC_{3}	16.3	X	290.05522	282.28789	174.59089	7.66644	0.1529887	0.21076418	2.7964358	21	11 2.2	19.6
294215 2007 UK_{3}	15.7	X	241.02612	333.47027	55.78414	8.95484	0.0048391	0.18599449	3.0395037	21	6 17.4	19.9
294216 2007 UM_{4}	16.3	X	74.90617	299.00025	19.20542	15.53284	0.1795369	0.22007150	2.7170243	21	12 17.9	20.7
294217 2007 UL_{6}	16.5	X	359.18026	295.31955	134.42243	14.79296	0.0867828	0.22312129	2.6922086	21	—	—
294218 2007 UR_{6}	15.4	X	65.06687	238.59536	213.36209	28.30743	0.3641616	0.23145289	2.6272071	21	2 25.5	18.3
294219 2007 UN_{9}	16.4	X	48.58115	247.55363	178.00187	12.79206	0.1469938	0.23088605	2.6315053	21	—	—
294220 2007 US_{10}	16.8	X	351.34652	175.89484	225.10372	6.57173	0.0888114	0.28599688	2.2815423	21	12 19.1	19.2
294221 2007 UU_{10}	15.6	X	283.09849	107.82890	233.11433	11.02561	0.0563237	0.19032336	2.9932385	21	6 2.1	19.8
294222 2007 UL_{14}	16.0	X	62.09976	308.36184	88.14546	7.58411	0.1280523	0.22893395	2.6464432	21	—	—
294223 2007 UE_{18}	16.6	X	99.64070	174.01895	178.71076	12.17529	0.1328315	0.22999308	2.6383123	21	—	—
294224 2007 UK_{18}	16.6	X	352.71203	233.42019	97.39541	7.72197	0.1538306	0.27756525	2.3275159	21	9 13.6	18.6
294225 2007 UY_{20}	16.2	X	240.74188	171.30056	217.61837	8.38849	0.0952635	0.19214978	2.9742407	21	6 6.9	20.6
294226 2007 UZ_{20}	15.7	X	112.77527	0.97101	217.56291	14.59367	0.0847082	0.20434597	2.8546881	21	9 12.1	20.2
294227 2007 UN_{21}	16.4	X	117.99105	243.49522	201.29215	3.06308	0.1090056	0.17593328	3.1543076	21	4 9.1	20.9
294228 2007 US_{24}	15.9	X	178.64636	309.22034	107.24834	3.98317	0.0984386	0.18184036	3.0856206	21	5 8.5	20.6
294229 2007 UZ_{25}	17.1	X	31.64610	37.08112	51.67952	7.31165	0.0785191	0.30203230	2.2000563	21	—	—
294230 2007 UK_{27}	16.8	X	133.78644	183.87338	143.42987	7.45335	0.0813420	0.23571313	2.5954552	21	—	—
294231 2007 UU_{28}	15.5	X	149.20669	353.83146	20.65107	16.88382	0.1035336	0.17452121	3.1712994	21	2 25.0	20.5
294232 2007 UZ_{28}	17.7	X	94.39006	333.48672	335.97603	2.54990	0.1932929	0.29555795	2.2320690	21	—	—
294233 2007 UL_{29}	17.2	X	227.46420	8.47070	69.73471	2.29613	0.1088637	0.26763928	2.3847132	21	7 25.4	20.4
294234 2007 UC_{34}	16.4	X	25.91626	262.13139	187.45189	16.64213	0.1524526	0.23018594	2.6368385	21	—	—
294235 2007 UJ_{36}	17.1	X	97.45228	133.41044	268.60317	2.87490	0.2242250	0.23629943	2.5911602	21	1 26.2	20.0
294236 2007 UM_{37}	16.2	X	337.37499	324.07830	105.23909	6.53496	0.0568251	0.21941443	2.7224459	21	12 16.7	19.5
294237 2007 UZ_{37}	15.7	X	169.18678	3.83176	26.57818	12.57958	0.1319958	0.17634630	3.1493806	21	3 31.7	20.7
294238 2007 UB_{38}	16.9	X	114.43987	303.39700	19.47578	6.49570	0.2948429	0.22928620	2.6437320	21	—	—
294239 2007 UV_{38}	16.9	X	45.64677	10.41853	6.24587	2.09261	0.1500883	0.22225953	2.6991631	21	—	—
294240 2007 UN_{40}	16.4	X	335.97083	38.64107	283.81509	1.67191	0.1407364	0.19910801	2.9045369	21	7 16.0	19.4

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294241 2007 UB_{41}	15.7	X	140.38789	58.30660	30.69427	10.76369	0.0617327	0.18149182	3.0895698	21	5 2.7	20.3
294242 2007 UM_{42}	16.6	X	100.28677	315.40379	10.27781	5.66150	0.1513941	0.22370853	2.6874951	21	—	—
294243 2007 UC_{46}	17.2	X	83.21335	218.76557	167.13327	2.40307	0.1620556	0.23165410	2.6256856	21	—	—
294244 2007 UT_{48}	17.5	X	26.57048	271.29444	72.20257	7.08991	0.1481695	0.28218105	2.3020645	21	12 1.3	20.1
294245 2007 UL_{52}	16.9	X	87.17740	268.43307	52.61002	7.98417	0.1513316	0.29033243	2.2587718	21	—	—
294246 2007 UR_{52}	15.8	X	6.60109	242.24477	81.46048	12.03894	0.1408925	0.20076638	2.8885201	21	9 21.9	19.3
294247 2007 UV_{56}	17.5	X	180.12018	192.35048	216.34332	5.60877	0.1204152	0.25340878	2.4731756	21	4 24.7	21.3
294248 2007 UT_{58}	16.3	X	197.47483	313.30045	229.09854	4.16513	0.0124867	0.21141064	2.7907322	21	11 7.9	20.1
294249 2007 UW_{59}	16.9	X	173.91368	66.75359	39.38012	7.65653	0.0664293	0.26159663	2.4212964	21	7 2.5	20.4
294250 2007 UK_{65}	17.5	X	93.02881	262.79906	284.33391	1.86230	0.1264869	0.26157916	2.4214042	21	7 21.0	20.6
294251 2007 UY_{65}	16.4	X	81.99532	141.19570	254.31416	4.11059	0.1776311	0.23110257	2.6298615	21	—	—
294252 2007 UD_{68}	17.3	X	50.05776	168.41913	171.51943	4.65453	0.1011992	0.28881094	2.2666978	21	12 22.3	20.1
294253 2007 UG_{71}	16.7	X	210.53987	77.29734	58.62613	2.75717	0.0888901	0.20222170	2.8746450	21	9 19.2	21.0
294254 2007 UP_{71}	17.1	X	337.03218	263.51854	139.47390	5.29320	0.1556163	0.28298029	2.2977279	21	12 3.2	19.0
294255 2007 UU_{71}	17.9	X	247.80394	55.60315	238.66829	1.67833	0.0720886	0.31682949	2.1310108	21	1 29.7	20.5
294256 2007 UT_{76}	16.4	X	309.07134	251.52941	245.47350	3.86515	0.1035198	0.22172130	2.7035295	21	—	—
294257 2007 UV_{76}	16.3	X	260.01605	136.40413	303.87139	0.99645	0.0437439	0.20181316	2.8785232	21	9 11.7	20.3
294258 2007 UR_{80}	16.3	X	94.35307	254.65982	34.92993	5.46510	0.1428521	0.21648890	2.7469176	21	11 29.4	20.6
294259 2007 US_{81}	17.0	X	160.64636	88.35346	194.86631	13.43413	0.0383080	0.22847199	2.6500093	21	—	—
294260 2007 UG_{82}	16.7	X	256.62875	237.48058	31.22427	4.40622	0.0598241	0.24132435	2.5550650	21	1 23.3	20.4
294261 2007 UG_{85}	16.6	X	126.98343	303.13927	169.16367	1.63649	0.0341376	0.18175826	3.0865497	21	5 14.6	21.0
294262 2007 UT_{85}	16.6	X	321.31397	44.20985	64.19081	2.89966	0.0315550	0.21981519	2.7191359	21	—	—
294263 2007 UO_{87}	15.6	X	222.19627	290.65956	43.32677	8.70386	0.0034963	0.17252841	3.1956728	21	3 21.6	20.2
294264 2007 UH_{88}	16.6	X	346.56653	42.40594	320.99305	0.95084	0.0952670	0.20466544	2.8517167	21	10 2.2	20.1
294265 2007 UQ_{94}	18.0	X	148.26356	84.55077	238.58359	3.72364	0.2297000	0.30713051	2.1756419	21	—	—
294266 2007 UN_{95}	16.5	X	82.18750	52.05844	252.51039	2.56637	0.0787892	0.21316318	2.7754150	21	11 28.2	20.5
294267 2007 UX_{95}	17.3	X	168.58667	36.87948	208.17713	6.30594	0.1169467	0.29523774	2.2336826	21	12 29.5	20.6
294268 2007 UY_{95}	16.4	X	332.89580	251.99640	28.86859	0.85481	0.1139671	0.19228936	2.9728012	21	5 16.3	19.8
294269 2007 UM_{98}	17.3	X	349.09011	111.01536	238.54477	3.35020	0.1609963	0.27674413	2.3321176	21	9 30.2	19.2
294270 2007 UT_{99}	16.7	X	75.13169	138.99059	254.96412	2.24245	0.0541440	0.22739899	2.6583390	21	—	—
294271 2007 UQ_{100}	18.1	X	193.46532	271.46345	42.80151	1.55649	0.2104364	0.31157331	2.1549104	21	1 5.7	21.5
294272 2007 UM_{101}	17.4	X	15.34672	280.04287	53.17188	6.05266	0.0949839	0.27721338	2.3294850	21	10 21.8	19.9
294273 2007 UJ_{102}	15.6	X	262.88166	249.08142	68.41051	9.15823	0.1755294	0.18046019	3.1013333	21	3 31.1	20.5
294274 2007 UX_{102}	15.6	X	56.48627	112.71759	42.57227	13.00897	0.0201531	0.17636586	3.1491477	21	4 11.0	20.0
294275 2007 UJ_{103}	16.3	X	297.56128	239.90461	29.24152	2.68113	0.0302711	0.17591734	3.1544982	21	3 26.9	20.8
294276 2007 UV_{103}	17.6	X	62.17965	123.12548	186.68699	2.06283	0.1722537	0.28290886	2.2981146	21	12 5.6	20.6
294277 2007 UD_{104}	17.1	X	113.45631	245.99592	108.42681	2.92833	0.2114333	0.22988317	2.6391532	21	—	—
294278 2007 UP_{105}	16.1	X	97.68610	190.92938	210.56011	7.28274	0.1886115	0.23341294	2.6124787	21	1 19.5	19.3
294279 2007 UF_{106}	16.1	X	154.44359	67.15441	345.12910	1.60219	0.1062109	0.17590430	3.1546541	21	4 8.0	20.8
294280 2007 US_{106}	17.4	X	148.10888	15.91614	1.32919	1.04278	0.1741033	0.24156098	2.5533962	21	2 17.4	21.1
294281 2007 UG_{108}	17.1	X	42.55410	144.10373	246.33542	1.36649	0.0821891	0.22219370	2.6996962	21	—	—
294282 2007 UV_{108}	17.5	X	19.65194	93.38543	229.08616	3.54793	0.1066481	0.27824482	2.3237246	21	10 12.3	20.0
294283 2007 UD_{112}	17.3	X	92.83031	144.69851	42.83786	3.40704	0.0512187	0.26421218	2.4052903	21	7 10.3	20.3
294284 2007 UX_{112}	16.4	X	52.14422	165.57554	213.89077	6.25195	0.0149370	0.22312285	2.6921961	21	—	—
294285 2007 UK_{114}	17.2	X	271.53516	19.59087	13.13322	2.45565	0.1774531	0.26860795	2.3789764	21	7 7.3	20.1
294286 2007 UP_{115}	16.1	X	172.71274	116.96197	289.51561	1.41737	0.0929410	0.17789487	3.1310771	21	4 18.4	20.8
294287 2007 UP_{116}	16.7	X	131.88417	239.18547	63.98988	5.77802	0.1412458	0.22580594	2.6708273	21	—	—
294288 2007 UH_{117}	16.1	X	68.56288	242.46862	131.49338	10.04939	0.2048918	0.22554929	2.6728530	21	—	—
294289 2007 UO_{118}	16.2	X	320.20634	31.26305	252.03324	2.04902	0.0606851	0.18529062	3.0471963	21	5 7.4	20.1
294290 2007 UY_{127}	16.5	X	343.46005	91.27979	88.85648	4.00083	0.1138866	0.22825694	2.6516735	21	1 12.9	19.8
294291 2007 UD_{130}	17.1	X	291.25154	258.39767	100.02207	6.95562	0.1181932	0.26589612	2.3951242	21	6 25.5	19.7
294292 2007 UA_{131}	15.5	X	338.02252	194.08211	60.96888	18.66394	0.1482375	0.18078746	3.0975894	21	4 23.9	19.4
294293 2007 UR_{138}	16.3	X	114.00055	224.09904	121.55785	14.54679	0.2669629	0.23080486	2.6321224	21	—	—
294294 2007 VD	16.4	X	228.49704	169.40409	80.83772	9.18531	0.2116169	0.23452681	2.6042003	21	—	—
294295 Brodardmarc	17.0	X	143.52027	85.86214	278.98715	2.59962	0.3182643	0.24033443	2.5620763	21	2 11.2	21.2
294296 Efeso	17.6	X	98.37746	20.72801	247.53243	5.82514	0.0574655	0.28081569	2.3095204	21	11 8.7	20.6
294297 2007 VM_{4}	16.6	X	61.51989	225.09061	193.03636	13.71489	0.1366659	0.23053927	2.6341436	21	—	—
294298 2007 VT_{4}	16.4	X	1.03836	133.12276	268.11131	10.05796	0.2395062	0.21542269	2.7559738	21	—	—
294299 2007 VQ_{8}	16.4	X	248.35441	220.57874	171.82911	3.93765	0.2450482	0.19163601	2.9795543	21	6 4.8	21.4
294300 2007 VC_{9}	16.2	X	2.77663	224.42826	190.90720	9.37285	0.1803958	0.21737119	2.7394796	21	—	—
294301 2007 VA_{10}	16.3	X	350.63009	158.13072	218.82112	5.12373	0.0706315	0.20869072	2.8149280	21	10 26.9	19.7
294302 2007 VL_{10}	16.2	X	135.63880	239.31803	5.93283	4.29916	0.0207158	0.21083680	2.7957936	21	11 10.2	20.2
294303 2007 VM_{11}	17.2	X	351.31526	263.80563	117.50381	7.22226	0.1185514	0.28180598	2.3041066	21	11 24.8	19.4
294304 2007 VM_{12}	15.4	X	269.50819	270.14255	12.83877	10.89083	0.0542675	0.17835751	3.1256604	21	3 8.9	19.9
294305 2007 VU_{19}	17.7	X	333.67634	272.89830	185.09092	6.15425	0.1077320	0.29056044	2.2575900	21	—	—
294306 2007 VO_{25}	16.9	X	24.64525	183.13374	84.82246	7.16081	0.1040565	0.26808735	2.3820553	21	7 30.8	19.3
294307 2007 VW_{25}	17.0	X	108.90515	34.10450	234.86386	4.60727	0.0716081	0.28757165	2.2732054	21	11 25.4	19.9
294308 2007 VJ_{27}	16.5	X	108.48290	256.21090	52.05645	11.84347	0.1675338	0.22166459	2.7039905	21	—	—
294309 2007 VV_{27}	17.5	X	158.49992	262.53413	62.17216	6.69526	0.1369615	0.30671970	2.1775841	21	—	—
294310 2007 VV_{32}	16.9	X	43.84566	6.70169	249.42058	6.50580	0.0754045	0.26877680	2.3779800	21	8 6.6	19.7
294311 2007 VT_{38}	17.4	X	330.01824	253.23460	127.83699	6.21350	0.1883179	0.27802980	2.3249225	21	10 13.9	19.1
294312 2007 VP_{43}	17.2	X	196.69435	196.48991	290.92414	5.30672	0.1618293	0.26814984	2.3816852	21	8 20.8	21.0
294313 2007 VH_{48}	16.2	X	277.82284	328.18571	259.77630	9.04286	0.0708048	0.23530044	2.5984890	21	—	—
294314 2007 VC_{49}	16.7	X	40.69847	262.05927	335.97277	4.58814	0.1548781	0.26226841	2.4171600	21	7 20.6	19.1
294315 2007 VW_{49}	17.8	X	88.02666	162.68728	259.76091	5.19880	0.0276886	0.30893419	2.1671655	21	—	—
294316 2007 VC_{50}	17.4	X	66.83815	343.14862	300.52380	3.82011	0.1391245	0.27965418	2.3159109	21	10 30.8	20.5
294317 2007 VF_{51}	16.7	X	82.35336	348.61005	6.56953	4.20390	0.1426239	0.22430947	2.6826930	21	—	—
294318 2007 VH_{51}	16.4	X	89.39711	326.32346	313.48964	3.30875	0.0715773	0.20936742	2.8088593	21	11 3.2	20.4
294319 2007 VT_{51}	16.3	X	327.70395	28.95720	4.58424	4.05916	0.0921930	0.20675698	2.8324522	21	10 12.3	19.8
294320 2007 VE_{52}	16.7	X	358.49150	53.76742	327.63993	2.45160	0.1148010	0.21119452	2.7926357	21	11 17.1	19.9

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294321 2007 VY_{54}	16.5	X	48.28497	140.75584	204.09841	7.49507	0.0806748	0.21363504	2.7713267	21	12 8.3	20.3
294322 2007 VV_{56}	17.5	X	166.20635	23.64648	184.57795	5.31340	0.1103065	0.27977803	2.3152274	21	11 9.3	20.9
294323 2007 VG_{57}	16.3	X	108.59703	26.78438	78.75887	10.54133	0.0663929	0.17505872	3.1648045	21	4 22.4	20.9
294324 2007 VQ_{57}	15.8	X	29.23348	50.01209	203.85177	9.00382	0.0538999	0.18989339	2.9977552	21	7 7.9	19.9
294325 2007 VX_{57}	16.9	X	81.21827	125.95851	188.10713	6.26296	0.0228209	0.21293128	2.7774297	21	12 2.7	20.7
294326 2007 VR_{58}	16.3	X	60.16355	32.43830	293.65740	3.40476	0.0746537	0.21189196	2.7865044	21	11 27.5	20.1
294327 2007 VL_{62}	16.0	X	235.74911	342.36738	52.12168	9.83146	0.1005614	0.18732131	3.0251338	21	6 6.8	20.5
294328 2007 VP_{62}	16.5	X	22.91163	259.50937	42.29262	4.46920	0.1528314	0.20015343	2.8944142	21	9 16.4	19.8
294329 2007 VG_{63}	17.9	X	273.94828	116.25845	49.85077	1.91666	0.0566635	0.29125878	2.2539799	21	—	—
294330 2007 VK_{64}	16.8	X	20.73343	20.50909	350.81131	2.15893	0.0958286	0.21114432	2.7930783	21	12 5.9	20.3
294331 2007 VG_{66}	16.0	X	158.48085	5.61562	140.10686	3.82300	0.1060160	0.19160007	2.9799268	21	8 5.5	20.5
294332 2007 VS_{72}	16.5	X	336.26253	288.41006	125.92619	0.36607	0.0619699	0.21008111	2.8024942	21	11 23.6	19.8
294333 2007 VU_{73}	17.5	X	19.78709	20.63041	58.39536	6.37126	0.1083854	0.29770679	2.2213154	21	—	—
294334 2007 VZ_{74}	16.0	X	292.76908	267.74363	217.68133	7.86352	0.1046130	0.21672181	2.7449492	21	12 19.4	19.4
294335 2007 VD_{83}	15.6	X	355.73126	355.67670	215.05557	15.04911	0.2041622	0.17513092	3.1639345	21	3 10.9	19.3
294336 2007 VZ_{83}	17.5	X	63.07116	290.77232	78.92439	2.34145	0.1841065	0.29478527	2.2359677	21	—	—
294337 2007 VC_{84}	16.6	X	143.17748	12.05717	351.22440	2.89288	0.2688109	0.23871321	2.5736634	21	2 6.1	20.5
294338 2007 VG_{84}	16.5	X	68.70623	209.01241	193.48102	14.15841	0.2533243	0.22892195	2.6465357	21	—	—
294339 2007 VW_{84}	15.8	X	329.35860	311.10420	113.79753	14.49021	0.1779418	0.21028834	2.8006527	21	11 30.8	18.9
294340 2007 VD_{85}	17.6	X	335.45893	162.69849	248.00367	4.84614	0.2014412	0.28656719	2.2785142	21	12 16.9	19.0
294341 2007 VO_{86}	16.2	X	45.60018	4.09551	337.72524	5.54048	0.0479180	0.21466278	2.7624741	21	11 24.7	20.0
294342 2007 VQ_{87}	17.1	X	256.92811	175.91067	282.00474	4.36036	0.0860594	0.27657962	2.3330422	21	9 30.6	20.0
294343 2007 VL_{89}	15.6	X	225.85180	321.46854	56.78248	12.53523	0.0817289	0.18640535	3.0350357	21	5 10.1	20.1
294344 2007 VY_{89}	15.6	X	96.00818	72.49496	72.73682	10.77170	0.1797480	0.17806165	3.1291217	21	6 7.0	20.0
294345 2007 VT_{90}	17.1	X	215.88850	14.39922	85.93306	6.42020	0.1788728	0.26553992	2.3972657	21	8 6.3	20.8
294346 2007 VB_{91}	15.6	X	193.77323	301.54412	94.67376	11.27275	0.1275407	0.18067755	3.0988455	21	5 2.0	20.7
294347 2007 VL_{91}	16.4	X	126.34080	313.12719	40.77751	8.24748	0.2024334	0.23338233	2.6127071	21	—	—
294348 2007 VV_{91}	16.1	X	315.50452	113.38218	241.59735	10.66070	0.0664261	0.19646861	2.9304924	21	7 30.6	20.1
294349 2007 VC_{92}	17.3	X	122.35855	280.19101	10.17197	7.60144	0.2699249	0.29698401	2.2249180	21	—	—
294350 2007 VR_{94}	18.1	X	157.32419	324.07695	27.94742	1.36336	0.1786082	0.31148671	2.1553098	21	1 15.1	20.9
294351 2007 VX_{94}	16.1	X	37.26409	88.80077	286.62417	7.82165	0.1546551	0.21895115	2.7262849	21	—	—
294352 2007 VF_{95}	16.8	X	190.43370	142.10751	312.93528	5.83248	0.1139415	0.26063455	2.4272512	21	7 6.2	20.3
294353 2007 VQ_{95}	16.4	X	64.34364	20.43789	313.50073	4.28531	0.0623893	0.21541523	2.7560374	21	12 11.6	20.3
294354 2007 VG_{96}	15.9	X	256.07523	278.68559	78.94444	7.12110	0.0882344	0.18775316	3.0204934	21	5 17.5	20.2
294355 2007 VK_{96}	15.6	X	209.15996	345.88130	59.57419	5.29589	0.1506876	0.18416531	3.0595966	21	5 22.4	20.6
294356 2007 VB_{97}	16.6	X	45.13705	8.12100	6.90864	5.96868	0.0292746	0.21856750	2.7294742	21	—	—
294357 2007 VM_{98}	17.1	X	43.34719	26.35962	281.05538	3.66084	0.1635381	0.28149964	2.3057780	21	11 6.1	19.8
294358 2007 VO_{98}	15.9	X	176.71872	40.46282	303.48273	3.52134	0.1420232	0.17021207	3.2245997	21	2 11.1	21.1
294359 2007 VD_{99}	16.3	X	93.15726	269.67830	75.52125	18.62630	0.2271918	0.22779879	2.6552277	21	—	—
294360 2007 VG_{100}	15.8	X	100.51685	166.78268	346.48367	2.68954	0.1300577	0.17898459	3.1183555	21	6 15.8	20.2
294361 2007 VN_{101}	17.1	X	340.21648	20.27828	292.65750	1.47850	0.1924762	0.26708765	2.3879955	21	7 6.2	18.6
294362 2007 VP_{102}	16.0	X	144.91007	2.57573	84.63315	3.29337	0.0783086	0.18013363	3.1050804	21	5 9.1	20.5
294363 2007 VV_{103}	17.8	X	275.00696	341.19365	128.03301	2.01615	0.1491114	0.28120227	2.3074032	21	11 8.2	20.1
294364 2007 VM_{107}	16.7	X	306.72061	168.27019	225.17402	1.27292	0.0513701	0.20177493	2.8788867	21	9 12.7	20.6
294365 2007 VK_{108}	18.5	X	184.74685	40.74142	282.45030	0.34365	0.1964196	0.31209825	2.1524934	21	1 7.6	21.4
294366 2007 VD_{109}	16.1	X	87.97972	246.06109	59.68775	6.47926	0.0218082	0.21263104	2.7800436	21	11 29.3	20.0
294367 2007 VW_{110}	16.1	X	180.41191	247.66261	243.12026	3.97539	0.1919370	0.18955058	3.0013684	21	8 6.7	21.2
294368 2007 VM_{112}	17.2	X	178.19843	142.38049	62.59795	8.04979	0.1161221	0.28038681	2.3118749	21	11 16.8	20.4
294369 2007 VF_{117}	15.5	X	213.22330	78.59823	270.01763	10.95575	0.0719187	0.17224494	3.1991779	21	3 16.9	20.7
294370 2007 VR_{117}	15.4	X	97.16610	313.15562	240.68368	11.31963	0.0757494	0.19225741	2.9731306	21	7 23.1	19.8
294371 2007 VZ_{122}	17.1	X	249.83942	302.38665	185.48411	4.10216	0.1063044	0.21212961	2.7844228	21	10 22.9	21.0
294372 2007 VZ_{123}	16.4	X	282.08155	315.78937	77.46270	3.15168	0.0570648	0.19778255	2.9174991	21	8 9.5	20.3
294373 2007 VV_{124}	17.2	X	226.35845	68.80499	42.75258	2.01487	0.1412753	0.26933613	2.3746866	21	9 4.7	20.4
294374 2007 VV_{125}	17.5	X	262.63731	243.09960	230.48903	3.23151	0.1116765	0.27922189	2.3183006	21	10 29.9	20.1
294375 2007 VY_{125}	15.7	X	83.11740	166.12875	352.20134	2.46396	0.2074571	0.17808895	3.1288019	21	6 12.1	20.1
294376 2007 VR_{126}	16.9	X	82.94422	320.88695	54.58539	2.79746	0.2176769	0.22818460	2.6522340	21	—	—
294377 2007 VO_{132}	16.4	X	28.13281	249.82146	318.70639	1.36136	0.0503863	0.18382500	3.0633715	21	5 8.1	20.3
294378 2007 VU_{132}	16.5	X	138.35856	174.36649	343.32262	1.13078	0.0431990	0.19466682	2.9485472	21	7 26.3	20.6
294379 2007 VW_{135}	15.2	X	234.17327	124.95318	286.13799	15.79344	0.0880744	0.18331398	3.0690620	21	6 28.9	19.7
294380 2007 VY_{135}	17.0	X	255.42200	297.68862	146.91923	2.62074	0.0290648	0.20287675	2.8684538	21	9 14.6	20.8
294381 2007 VS_{143}	16.3	X	81.87913	118.42916	212.00057	5.34838	0.0317938	0.21604931	2.7506423	21	12 24.4	20.1
294382 2007 VB_{144}	16.6	X	303.52484	255.52550	149.04757	2.65578	0.0670500	0.20233336	2.8735872	21	9 22.5	20.4
294383 2007 VD_{144}	17.7	X	134.79347	196.44715	133.41330	2.63581	0.2357023	0.30358259	2.1925599	21	—	—
294384 2007 VL_{146}	15.2	X	9.15268	336.93593	269.77673	9.92319	0.1059617	0.18240581	3.0792405	21	5 31.6	18.9
294385 2007 VO_{148}	16.7	X	134.76467	60.71736	63.66764	8.16936	0.1266149	0.25503743	2.4626353	21	6 14.9	20.4
294386 2007 VM_{149}	16.9	X	350.24766	308.71856	171.68186	3.43756	0.1543267	0.22624273	2.6673886	21	—	—
294387 2007 VH_{151}	17.5	X	313.05539	272.55271	237.84171	6.54555	0.0510501	0.29845023	2.2176250	21	—	—
294388 2007 VH_{152}	15.7	X	39.92725	356.74176	257.49353	10.15394	0.0896521	0.19185149	2.9773229	21	7 26.9	19.6
294389 2007 VP_{153}	16.7	X	144.18734	35.75031	239.92892	5.14048	0.0562753	0.22401413	2.6850504	21	12 30.9	20.7
294390 2007 VL_{161}	16.2	X	79.47946	102.49350	260.15338	7.87161	0.1178998	0.22356972	2.6886074	21	—	—
294391 2007 VM_{161}	16.2	X	27.53915	232.54872	269.67155	6.17453	0.0791016	0.23712772	2.5851227	21	1 29.7	19.2
294392 2007 VU_{163}	16.5	X	292.57582	246.71100	265.22169	3.75462	0.0984217	0.21903386	2.7255985	21	—	—
294393 2007 VL_{164}	16.5	X	352.01779	337.90520	59.00459	2.58842	0.0664061	0.21060685	2.7978283	21	11 24.3	19.8
294394 2007 VN_{165}	16.4	X	268.26823	181.08918	157.90268	1.67056	0.1007673	0.18381968	3.0634306	21	5 6.5	20.7
294395 2007 VQ_{165}	16.1	X	313.42311	154.43289	234.10669	5.83844	0.0687489	0.20093689	2.8868858	21	9 11.9	20.0
294396 2007 VL_{167}	17.2	X	38.88484	50.10633	352.73107	2.23379	0.1984452	0.22151081	2.7052419	21	—	—
294397 2007 VG_{168}	18.1	X	43.28538	26.72489	32.75265	2.02669	0.1273035	0.29679460	2.2258645	21	—	—
294398 2007 VZ_{168}	16.4	X	159.73197	108.89901	233.55704	3.42901	0.2951439	0.23744011	2.5828548	21	1 26.9	20.7
294399 2007 VD_{170}	15.7	X	342.87654	233.37349	62.58769	10.32869	0.0478103	0.18749601	3.0232544	21	6 26.9	19.7
294400 2007 VP_{185}	16.3	X	159.66472	254.01219	103.80718	13.46417	0.2775494	0.24082327	2.5586080	21	2 16.1	20.7

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294401 2007 VJ_{188}	16.9	X	136.83506	147.11993	231.29892	3.41931	0.0251636	0.23670108	2.5882281	21	1 17.8	20.3
294402 Joeorr	17.4	X	99.58161	49.89894	257.31490	3.23578	0.1948661	0.29885160	2.2156390	21	—	—
294403 2007 VW_{189}	17.8	X	66.00352	337.10661	24.70135	3.27999	0.1284860	0.29429972	2.2384264	21	—	—
294404 2007 VR_{191}	16.4	X	279.21029	75.96162	288.66594	6.01243	0.1976240	0.25854646	2.4403024	21	6 4.0	19.8
294405 2007 VK_{192}	15.2	X	31.40539	312.96346	283.54673	7.96507	0.0301340	0.17733362	3.1376801	21	6 17.9	19.4
294406 2007 VV_{193}	17.8	X	4.11864	182.59204	288.63678	5.36946	0.1640452	0.29203716	2.2499730	21	—	—
294407 2007 VG_{195}	17.0	X	313.28629	123.84062	266.07779	3.03887	0.0458906	0.20846208	2.8169859	21	9 17.5	20.7
294408 2007 VQ_{195}	16.8	X	342.50647	4.65286	54.02458	3.05916	0.0777091	0.21414249	2.7669469	21	12 9.7	20.2
294409 2007 VB_{199}	17.1	X	5.03084	196.67753	38.74063	1.73155	0.1361482	0.25704121	2.4498202	21	4 30.0	19.3
294410 2007 VE_{200}	17.8	X	258.03289	108.61309	42.44958	3.74223	0.1191142	0.28711279	2.2756267	21	12 15.9	20.1
294411 2007 VQ_{203}	17.3	X	319.63786	199.41773	189.59408	3.42747	0.1129277	0.27668310	2.3324605	21	10 2.8	19.5
294412 2007 VA_{207}	16.7	X	114.91168	202.28019	172.27901	4.29658	0.2170047	0.23494441	2.6011135	21	1 13.7	20.1
294413 2007 VC_{209}	17.2	X	116.29722	229.43099	53.93920	5.23532	0.1198809	0.22183733	2.7025867	21	12 12.9	21.3
294414 2007 VG_{209}	17.7	X	2.52411	16.81534	119.51930	2.91843	0.0937990	0.30852410	2.1690854	21	—	—
294415 2007 VL_{213}	16.1	X	243.89192	194.77142	214.20718	10.66493	0.0750185	0.19228553	2.9728408	21	7 6.5	20.6
294416 2007 VR_{215}	16.2	X	11.06859	274.14133	274.58524	4.16996	0.1491347	0.24169470	2.5524542	21	3 1.8	18.8
294417 2007 VZ_{215}	15.5	X	332.72146	209.86123	51.35293	15.29683	0.0634521	0.17905357	3.1175545	21	4 29.2	19.6
294418 2007 VC_{217}	16.4	X	215.85272	78.61408	336.69916	1.14562	0.2583751	0.18723418	3.0260722	21	6 4.5	21.8
294419 2007 VQ_{219}	16.5	X	48.18986	0.03062	63.70118	3.15966	0.1974052	0.22591329	2.6699811	21	—	—
294420 2007 VG_{220}	17.1	X	349.74967	264.59357	249.97096	1.22059	0.0688403	0.22900776	2.6458745	21	—	—
294421 2007 VQ_{221}	16.4	X	45.16700	114.58290	272.33688	4.89961	0.0493403	0.21991527	2.7183109	21	—	—
294422 2007 VQ_{223}	16.3	X	4.17625	284.90556	70.98352	6.74271	0.0805676	0.20947135	2.8079301	21	10 23.2	19.7
294423 2007 VF_{227}	16.1	X	164.77811	304.34567	132.28371	2.03276	0.1498050	0.18116181	3.0933208	21	5 20.5	21.0
294424 2007 VL_{229}	16.7	X	78.08363	26.12965	264.32346	3.51152	0.0859864	0.20875218	2.8143755	21	11 5.4	20.6
294425 2007 VJ_{231}	16.8	X	155.26960	350.05371	316.13690	0.98505	0.0935661	0.22727033	2.6593422	21	—	—
294426 2007 VH_{234}	16.7	X	82.20163	17.11777	264.33811	0.93528	0.0373744	0.20521041	2.8466656	21	10 23.7	20.5
294427 2007 VB_{237}	16.1	X	247.08476	57.44177	46.42523	2.63646	0.0542010	0.20326031	2.8648441	21	9 25.6	20.0
294428 2007 VV_{243}	16.1	X	322.68172	161.53205	267.66382	4.02871	0.0505508	0.21087427	2.7954624	21	11 22.8	19.5
294429 2007 VH_{244}	15.8	X	125.68854	262.13365	249.03654	7.55797	0.0438381	0.18916999	3.0053927	21	7 1.6	20.2
294430 2007 VH_{245}	17.4	X	33.62511	292.02952	84.69527	5.64408	0.1560860	0.28964877	2.2623246	21	—	—
294431 2007 VG_{252}	16.0	X	155.00891	309.19405	154.76910	2.66920	0.1671852	0.18305729	3.0719303	21	6 14.2	21.1
294432 2007 VD_{253}	16.2	X	4.65810	225.58963	203.02121	13.51527	0.0696125	0.21991148	2.7183421	21	—	—
294433 2007 VO_{258}	16.9	X	326.26353	129.74645	160.24425	6.61903	0.1348450	0.26048819	2.4281603	21	5 11.6	19.6
294434 2007 VR_{261}	16.6	X	120.78093	248.73962	81.98521	3.82288	0.1145371	0.23000042	2.6382562	21	—	—
294435 2007 VW_{263}	17.8	X	157.55505	261.69316	46.04251	4.36560	0.1706437	0.30190013	2.2006984	21	—	—
294436 2007 VB_{264}	17.6	X	47.06169	344.20129	45.94481	3.91899	0.0757261	0.29331946	2.2434108	21	—	—
294437 2007 VH_{267}	16.0	X	124.74590	319.00433	181.39596	16.82114	0.1605680	0.17928769	3.1148400	21	6 28.9	21.2
294438 2007 VV_{269}	16.7	X	137.80382	91.18477	56.58736	15.26414	0.0667701	0.26120172	2.4237363	21	7 17.4	20.3
294439 2007 VE_{274}	16.7	X	140.30847	215.40926	108.34575	3.72302	0.2050125	0.23123030	2.6288928	21	—	—
294440 2007 VR_{277}	17.4	X	114.65474	79.27178	60.88241	3.19921	0.1311177	0.25458012	2.4655836	21	6 13.7	20.9
294441 2007 VB_{278}	16.2	X	217.88851	4.39817	226.09624	11.76731	0.1327317	0.22379946	2.6867671	21	—	—
294442 2007 VV_{279}	17.4	X	329.94636	31.00871	255.02397	0.46586	0.1754476	0.26078846	2.4262961	21	5 3.1	19.9
294443 2007 VV_{283}	16.6	X	338.50581	144.81434	245.35785	1.06632	0.0992685	0.20660715	2.8338215	21	10 25.7	19.8
294444 2007 VQ_{284}	18.4	X	88.70195	312.70391	76.74319	2.97670	0.1346574	0.30209011	2.1997756	21	—	—
294445 2007 VH_{285}	15.8	X	234.46552	192.50942	240.08725	9.79846	0.0891008	0.19242351	2.9714195	21	7 23.1	20.4
294446 2007 VG_{287}	16.6	X	317.75515	245.40290	193.02887	13.00671	0.1833167	0.21112531	2.7932460	21	11 24.1	19.6
294447 2007 VL_{290}	15.3	X	87.96456	271.44044	246.59188	14.74041	0.1794763	0.17567513	3.1573970	21	6 13.5	19.8
294448 2007 VM_{290}	17.3	X	358.55003	125.24528	241.42373	4.82998	0.2241157	0.28109331	2.3079995	21	11 29.6	19.1
294449 2007 VQ_{291}	16.2	X	176.78741	59.87002	96.90069	3.25689	0.0694957	0.19564587	2.9387023	21	9 9.3	20.6
294450 2007 VH_{296}	16.2	X	108.59286	229.71427	157.75726	4.58677	0.2239606	0.23533250	2.5982531	21	1 23.0	19.5
294451 2007 VT_{296}	15.9	X	300.40029	62.17251	357.24778	7.10082	0.0393567	0.20524543	2.8463418	21	10 8.7	19.7
294452 2007 VG_{298}	16.4	X	39.33058	252.06137	144.24629	13.87292	0.1959069	0.22359108	2.6884362	21	—	—
294453 2007 VP_{299}	16.2	X	97.77909	258.47809	147.53045	10.54777	0.1748402	0.23527938	2.5986441	21	1 24.2	19.4
294454 2007 VR_{303}	16.2	X	3.81995	253.55004	180.06380	15.80028	0.0895495	0.21974679	2.7197001	21	—	—
294455 2007 VE_{306}	15.5	X	226.34007	313.60788	108.47308	8.41247	0.0488081	0.18009594	3.1055136	21	7 7.0	19.9
294456 2007 VJ_{307}	16.3	X	179.18961	204.13522	137.17965	4.89572	0.1254632	0.23999105	2.5645196	21	1 30.9	20.1
294457 2007 VF_{310}	16.8	X	149.23746	236.59160	82.61497	8.68164	0.1985598	0.22965905	2.6408699	21	—	—
294458 2007 VK_{311}	16.2	X	347.96571	131.22590	280.49865	4.86736	0.0929449	0.21157897	2.7892518	21	12 9.4	19.6
294459 2007 VO_{311}	16.2	X	30.51178	353.40629	33.10811	4.62726	0.1108428	0.21095733	2.7947286	21	—	—
294460 2007 VR_{311}	16.5	X	176.36551	49.70291	247.86027	4.89172	0.0354249	0.22688791	2.6623295	21	—	—
294461 2007 VT_{312}	16.9	X	9.03896	354.44864	241.24601	3.69931	0.1573675	0.25485327	2.4638215	21	5 8.2	18.9
294462 2007 VO_{315}	16.4	X	124.31345	239.78639	73.76479	5.22057	0.1121415	0.22030151	2.7151328	21	—	—
294463 2007 VE_{316}	17.4	X	179.99809	125.34798	72.04235	3.98808	0.1089478	0.27705663	2.3303636	21	11 9.2	20.7
294464 2007 VG_{316}	18.2	X	200.71734	273.82569	93.30333	3.81054	0.0464030	0.31891812	2.1216965	21	3 15.9	20.8
294465 2007 VO_{316}	17.7	X	20.89311	146.06046	283.52981	3.35071	0.0367356	0.28890578	2.2662017	21	—	—
294466 2007 VY_{316}	17.0	X	135.48264	136.85164	83.79699	3.19175	0.1447786	0.26358901	2.4090798	21	10 23.5	20.6
294467 2007 VN_{323}	15.8	X	203.03405	125.88946	192.37049	9.82132	0.1857714	0.23981436	2.5657790	21	1 25.6	20.3
294468 2007 VH_{326}	16.2	X	312.17229	232.51189	129.16523	2.83184	0.0917036	0.19561167	2.9390448	21	8 4.7	19.7
294469 2007 VA_{327}	17.3	X	50.55617	160.52517	229.40374	3.46681	0.2468733	0.22264585	2.6960399	21	—	—
294470 2007 VD_{327}	16.4	X	21.64611	0.62481	4.39591	3.08555	0.0672138	0.21062093	2.7977036	21	11 24.9	20.0
294471 2007 VR_{327}	16.2	X	251.52359	16.52603	352.58483	7.48852	0.0884192	0.18811959	3.0165697	21	5 23.7	20.8
294472 2007 VU_{329}	16.0	X	56.53779	335.41474	263.73352	7.36257	0.0463866	0.19058380	2.9905109	21	7 26.2	20.0
294473 2007 VP_{330}	15.1	X	303.76730	7.57889	263.17355	16.54055	0.1600604	0.17373636	3.1808430	21	3 9.2	19.9
294474 2007 VE_{331}	17.3	X	93.29476	301.76795	100.70302	5.12215	0.1424250	0.30137344	2.2032616	21	—	—
294475 2007 VS_{332}	17.8	X	98.91820	238.84944	121.84159	5.31179	0.1912338	0.29922661	2.2137874	21	—	—
294476 2007 VY_{332}	16.7	X	35.01012	65.77840	323.24531	5.61363	0.0693788	0.21969800	2.7201028	21	—	—
294477 2007 VC_{333}	15.9	X	45.84561	166.56268	46.57324	2.88744	0.0310785	0.18127631	3.0920181	21	6 6.9	20.0
294478 2007 WD	16.3	X	96.05896	303.49755	110.88944	9.01088	0.1910617	0.23555670	2.5966041	21	2 6.4	19.3
294479 2007 WC_2	16.0	X	9.47440	283.97050	44.47728	9.82405	0.0031947	0.20036569	2.8923698	21	9 20.4	20.1
294480 2007 WR_5	15.6	X	174.48762	48.93863	14.98106	11.68544	0.0759094	0.18169176	3.0873028	21	5 8.2	20.4

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294481 2007 WL_6	16.1	X	5.43549	57.57803	346.83715	5.79707	0.0712293	0.21516637	2.7581621	21	12 25.1	19.6
294482 2007 WR_6	16.6	X	47.15234	73.10257	350.67094	3.75772	0.0581922	0.22807153	2.6531105	21	—	—
294483 2007 WS_6	17.6	X	78.56299	43.62752	343.23244	3.18424	0.1632984	0.30089687	2.2055874	21	—	—
294484 2007 WZ_6	16.0	X	43.82118	27.62359	11.16392	5.19534	0.0603473	0.22234130	2.6985012	21	—	—
294485 2007 WW_7	16.0	X	302.20905	274.42229	263.35354	10.29071	0.1244912	0.22596165	2.6696002	21	—	—
294486 2007 WR_8	16.4	X	76.79789	153.42181	332.05332	2.64324	0.1867584	0.24028632	2.5624182	21	4 10.9	19.3
294487 2007 WP_{11}	16.5	X	105.88497	254.37946	135.21222	5.83171	0.2246842	0.23408655	2.6074646	21	1 22.9	19.7
294488 2007 WU_{12}	16.6	X	2.14717	198.32153	221.49964	3.92578	0.0172098	0.21778479	2.7360101	21	—	—
294489 2007 WY_{18}	17.8	X	214.87024	352.59948	134.65875	2.83365	0.1217040	0.27002612	2.3706396	21	9 14.8	21.0
294490 2007 WP_{20}	18.0	X	254.04725	49.45474	16.61560	0.93938	0.1997541	0.26208055	2.4183149	21	7 28.5	21.3
294491 2007 WQ_{23}	17.6	X	273.33365	109.08429	82.08423	5.36895	0.0037089	0.29971681	2.2113729	21	—	—
294492 2007 WC_{24}	16.4	X	267.12301	79.02102	195.43669	5.01669	0.1888549	0.24609276	2.5219520	21	1 27.7	20.4
294493 2007 WU_{25}	16.9	X	182.31810	266.54739	77.62830	6.51334	0.1775873	0.24298423	2.5434156	21	2 11.5	21.0
294494 2007 WN_{26}	16.8	X	190.65797	103.46743	71.99909	7.99638	0.0423549	0.27890563	2.3200528	21	10 31.3	19.9
294495 2007 WN_{30}	16.5	X	340.90791	99.69126	6.76237	4.82931	0.1203330	0.22050297	2.7134787	21	—	—
294496 2007 WU_{35}	16.1	X	247.24154	174.41528	270.93229	7.75148	0.0949039	0.19641455	2.9310301	21	8 22.2	20.5
294497 2007 WC_{55}	15.3	X	278.36288	350.80548	46.48417	4.08145	0.2864480	0.12457419	3.9705500	21	7 5.7	21.0
294498 2007 WL_{55}	14.9	X	173.79386	334.71505	101.68408	30.91826	0.1223949	0.17657587	3.1466503	21	6 4.0	20.2
294499 2007 WB_{58}	17.1	X	74.73217	347.11827	58.64894	6.48204	0.0740742	0.29468145	2.2364929	21	—	—
294500 2007 WC_{59}	16.4	X	70.66420	261.21950	80.08907	7.47821	0.0524664	0.21390823	2.7689666	21	12 26.8	20.2
294501 2007 WT_{59}	16.7	X	178.83484	136.40082	61.18007	7.34433	0.0438570	0.27691286	2.3311701	21	11 12.8	19.5
294502 2007 WY_{62}	17.4	X	57.38254	48.75032	52.45235	3.95038	0.0507635	0.30337465	2.1935617	21	1 4.5	19.7
294503 2007 XB	17.0	X	301.83298	218.04368	188.96081	3.86356	0.1427663	0.27428858	2.3460156	21	9 22.1	19.3
294504 2007 XC	16.2	X	196.72704	270.07472	110.13294	6.55653	0.0582365	0.24764691	2.5113897	21	4 8.4	19.8
294505 2007 XG	17.4	X	313.96585	103.44296	310.05134	3.05339	0.1261605	0.27776132	2.3264204	21	10 27.5	19.5
294506 2007 XB_1	17.7	X	333.11452	135.59411	281.85836	1.82291	0.1518505	0.28312479	2.2969460	21	12 16.2	19.4
294507 2007 XS_2	16.1	X	202.68964	209.84120	289.07716	10.42399	0.1116454	0.19207909	2.9749705	21	9 5.6	20.9
294508 2007 XV_3	15.5	X	216.99718	315.09809	107.34086	19.86391	0.1684157	0.18256751	3.0774220	21	6 20.0	20.6
294509 2007 XG_4	16.1	X	76.81154	241.87149	90.26076	9.90601	0.1566963	0.21651013	2.7467380	21	—	—
294510 2007 XL_6	15.4	X	182.68308	207.47173	266.86315	11.63900	0.0557056	0.18791699	3.0187376	21	7 20.3	20.0
294511 2007 XO_{10}	16.3	X	255.26382	149.79025	216.30348	2.07510	0.1498332	0.18831457	3.0144872	21	5 19.3	20.8
294512 2007 XS_{10}	18.1	X	300.27311	93.03187	9.92812	2.72993	0.1518506	0.28348240	2.2950139	21	12 17.3	19.9
294513 2007 XQ_{13}	15.9	X	112.98565	178.71125	264.58166	13.82449	0.0569519	0.23784418	2.5799287	21	3 9.5	19.7
294514 2007 XC_{14}	16.3	X	174.89514	229.02353	62.96289	5.73080	0.2623126	0.22691318	2.6621319	21	—	—
294515 2007 XD_{14}	15.6	X	320.17103	67.43621	264.12732	8.12073	0.0507927	0.18900157	3.0071778	21	7 10.6	19.6
294516 2007 XS_{15}	17.6	X	65.78916	297.74901	64.20234	5.70044	0.0425773	0.28907949	2.2652938	21	—	—
294517 2007 XV_{15}	17.2	X	333.02477	350.95502	44.32697	5.89351	0.1585497	0.27878716	2.3207100	21	11 9.7	19.0
294518 2007 XB_{16}	17.0	X	276.38066	30.49828	103.63030	24.57947	0.0660513	0.35659346	1.9694901	21	—	—
294519 2007 XB_{18}	15.7	X	218.62508	250.52916	100.93302	10.57752	0.0823337	0.17466529	3.1695552	21	4 5.2	20.7
294520 2007 XX_{18}	15.4	X	234.09435	3.99822	39.21100	11.16977	0.0948387	0.18915639	3.0055367	21	6 16.4	20.0
294521 2007 XO_{24}	17.1	X	138.43767	1.26068	351.77082	2.86515	0.2059200	0.30523561	2.1846368	21	—	—
294522 2007 XK_{25}	15.2	X	186.17801	3.32882	92.52627	12.69857	0.0473148	0.18442503	3.0567234	21	7 3.1	19.7
294523 2007 XU_{25}	15.7	X	303.87854	241.77907	102.98133	11.39551	0.1196423	0.18305583	3.0719467	21	6 26.3	19.6
294524 2007 XU_{29}	17.6	X	25.07267	254.88372	184.08195	2.93435	0.0644818	0.29712759	2.2242012	21	—	—
294525 2007 XZ_{29}	17.1	X	296.92197	25.05902	101.65450	6.31867	0.0969576	0.28675231	2.2775335	21	—	—
294526 2007 XQ_{30}	17.5	X	57.62279	174.83503	244.55179	4.78717	0.0944735	0.29919298	2.2139533	21	—	—
294527 2007 XG_{32}	15.7	X	113.89225	292.90207	83.69884	17.19625	0.1977228	0.22764603	2.6564155	21	1 15.0	19.3
294528 2007 XN_{32}	15.4	X	99.44528	218.23339	322.91836	9.27011	0.0153309	0.18026373	3.1035862	21	7 5.5	19.8
294529 2007 XC_{33}	18.0	X	303.53261	301.94756	143.61787	3.53054	0.1700688	0.27503301	2.3417804	21	11 23.9	19.8
294530 2007 XN_{33}	16.8	X	193.80317	247.25488	268.90606	4.03119	0.0391657	0.27201942	2.3590444	21	10 3.6	19.8
294531 2007 XR_{34}	17.2	X	134.91311	111.57959	277.55825	7.76755	0.0258007	0.30981647	2.1630491	21	1 13.2	19.6
294532 2007 XU_{41}	15.8	X	221.79402	211.04215	278.58590	8.69731	0.0113871	0.20005822	2.8953325	21	9 26.4	20.0
294533 2007 XH_{48}	17.2	X	266.79559	176.97225	291.55281	5.00183	0.2125206	0.27372621	2.3492278	21	10 8.5	20.0
294534 2007 XL_{49}	16.7	X	204.47060	74.56981	284.44613	4.60203	0.1101425	0.24165416	2.5527397	21	3 15.8	20.7
294535 2007 XF_{51}	15.5	X	278.15184	32.66130	305.23295	7.61499	0.0784432	0.17478675	3.1680865	21	5 18.3	20.1
294536 2007 XM_{51}	16.9	X	198.10723	213.67131	272.68251	5.93304	0.0562206	0.26305990	2.4123091	21	8 26.1	20.2
294537 2007 XA_{54}	16.5	X	311.28274	338.97657	41.39923	2.62223	0.0905291	0.19387961	2.9565232	21	8 29.9	20.2
294538 2007 XD_{54}	17.6	X	39.71516	256.46347	108.31585	1.43942	0.1641360	0.28716641	2.2753434	21	—	—
294539 2007 XH_{54}	15.9	X	129.45651	240.42249	103.97657	15.92157	0.1885598	0.22567604	2.6718521	21	—	—
294540 2007 XD_{58}	15.6	X	186.84169	123.24333	312.44752	9.36087	0.0760487	0.17903657	3.1177519	21	6 7.9	20.4
294541 2007 XR_{59}	15.9	X	235.12120	271.77963	121.88256	15.12983	0.0813725	0.17878495	3.1206764	21	6 10.4	20.7
294542 2007 YU	17.9	X	189.55808	8.71778	223.26278	2.40961	0.0812824	0.28079156	2.3096527	21	—	—
294543 2007 YN_2	16.5	X	193.29069	283.94110	91.14963	4.53965	0.2000798	0.24353179	2.5396017	21	3 30.9	20.7
294544 2007 YH_7	17.0	X	68.31836	222.18094	114.85426	4.00111	0.1964593	0.28136385	2.3065198	21	—	—
294545 2007 YB_8	17.1	X	105.89933	267.93209	301.05672	1.67201	0.1448284	0.25563244	2.4588124	21	9 5.9	20.6
294546 2007 YX_{10}	15.8	X	30.60212	185.54693	308.47604	16.19054	0.1048451	0.22750826	2.6574878	21	1 27.4	18.5
294547 2007 YU_{13}	17.7	X	236.88407	141.30162	40.18407	4.74341	0.0896821	0.27999425	2.3140353	21	12 30.1	20.5
294548 2007 YJ_{14}	16.6	X	233.11499	216.54824	343.97432	6.41579	0.0676817	0.21010148	2.8023130	21	—	—
294549 2007 YM_{18}	17.0	X	158.07993	4.56533	257.88700	6.96194	0.1250808	0.28474236	2.2882387	21	—	—
294550 2007 YJ_{20}	15.6	X	245.52501	248.26739	103.60284	10.24779	0.0872606	0.17547090	3.1598465	21	5 2.5	20.4
294551 2007 YP_{22}	17.8	X	287.56132	287.30591	150.53118	1.67104	0.1636488	0.27319629	2.3522646	21	10 10.4	20.1
294552 2007 YG_{23}	16.5	X	81.46419	19.49024	38.29669	5.41511	0.2953608	0.22917442	2.6445916	21	2 7.6	19.2
294553 2007 YD_{27}	15.9	X	292.30996	345.27014	91.87431	10.41220	0.1308528	0.19815217	2.9138699	21	10 15.1	19.7
294554 2007 YE_{28}	15.8	X	279.07402	17.07072	343.73671	8.95144	0.1035703	0.18001208	3.1064780	21	6 15.4	20.3
294555 2007 YZ_{28}	16.5	X	301.81796	293.21127	75.83670	2.31614	0.0282868	0.19194533	2.9763524	21	8 7.9	20.5
294556 2007 YJ_{30}	16.6	X	341.54924	146.00494	90.91301	1.98848	0.0710803	0.24532339	2.5272221	21	3 30.6	19.5
294557 2007 YK_{30}	17.5	X	282.88246	314.18964	92.64777	3.09017	0.1415173	0.26978979	2.3720238	21	8 20.6	20.1
294558 2007 YH_{32}	17.8	X	292.75799	42.10983	58.83235	2.78120	0.1551899	0.28044216	2.3115707	21	11 27.1	19.7
294559 2007 YR_{34}	16.9	X	157.08221	66.80849	86.78924	8.38388	0.0608498	0.26324712	2.4111652	21	8 19.1	20.3
294560 2007 YY_{37}	15.7	X	242.62154	23.96000	302.22713	7.57264	0.0793912	0.16811018	3.2514223	21	3 22.9	20.7

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294561 2007 YP_{41}	16.5	X	218.20558	123.35717	298.16947	5.82626	0.0925606	0.25403757	2.4690928	21	6 22.7	20.1
294562 2007 YY_{42}	17.2	X	224.55880	63.74788	101.87426	6.33682	0.1749609	0.27203565	2.3589505	21	11 10.7	20.5
294563 2007 YU_{44}	17.8	X	246.06146	114.30429	28.58584	1.79065	0.1240578	0.27284216	2.3542996	21	11 12.7	20.4
294564 2007 YA_{46}	17.0	X	73.68592	111.86815	266.18001	1.83218	0.0983788	0.21555260	2.7548664	21	—	—
294565 2007 YD_{46}	17.8	X	266.58091	158.85446	280.09729	2.46630	0.0987077	0.26598847	2.3945699	21	9 15.5	20.6
294566 2007 YJ_{46}	16.7	X	42.76994	311.13484	132.01541	6.54236	0.0832467	0.22103569	2.7091171	21	—	—
294567 2007 YK_{47}	16.0	X	180.51392	10.46582	121.04023	14.37587	0.0619553	0.18398564	3.0615881	21	8 11.7	20.6
294568 2007 YP_{47}	16.2	X	325.97556	313.32544	136.43498	4.46913	0.0627049	0.21387355	2.7692660	21	12 25.1	19.6
294569 2007 YH_{49}	17.5	X	279.17058	340.05385	112.73294	4.63493	0.0845825	0.27358987	2.3500082	21	10 31.8	20.2
294570 2007 YU_{49}	17.3	X	220.96817	266.12797	318.30424	3.26444	0.1115670	0.28454660	2.2892881	21	—	—
294571 2007 YW_{49}	16.2	X	321.12189	132.78593	87.51855	4.04944	0.1238999	0.23038540	2.6353163	21	2 1.7	19.6
294572 2007 YW_{50}	16.5	X	189.24705	181.83033	109.20256	3.11229	0.0479184	0.22098091	2.7095649	21	—	—
294573 2007 YA_{51}	16.2	X	150.78436	254.68119	288.92749	8.62402	0.0455376	0.18998117	2.9968317	21	9 7.4	20.7
294574 2007 YC_{52}	16.0	X	179.14029	89.72006	261.87541	13.85423	0.0181200	0.23638151	2.5905604	21	1 31.3	19.8
294575 2007 YA_{53}	18.2	X	227.78534	17.33974	133.41257	1.89054	0.1177755	0.27140588	2.3625983	21	11 1.2	21.4
294576 2007 YQ_{54}	15.4	X	335.43658	324.72536	57.42769	11.16879	0.1284754	0.19858452	2.9096391	21	10 12.9	18.8
294577 2007 YS_{55}	17.6	X	235.75443	312.89808	157.51545	1.37267	0.1509564	0.26255714	2.4153875	21	9 11.5	21.0
294578 2007 YA_{57}	17.3	X	123.40822	287.54878	90.52432	7.97821	0.1270166	0.30252608	2.1976617	21	—	—
294579 2007 YB_{57}	16.3	X	181.04183	171.78386	126.06970	3.61052	0.0831678	0.21951229	2.7216368	21	—	—
294580 2007 YA_{60}	15.6	X	205.67323	295.77587	101.72667	17.94914	0.1365057	0.18220485	3.0815042	21	5 16.1	20.8
294581 2007 YB_{62}	16.8	X	346.56592	46.00083	81.57878	5.84013	0.0610852	0.21717982	2.7410886	21	—	—
294582 2007 YL_{62}	16.0	X	87.70980	112.51927	122.02566	10.18814	0.0971981	0.18541969	3.0457820	21	9 10.8	20.4
294583 2007 YC_{65}	15.8	X	63.42808	152.95698	109.96227	10.02026	0.1474389	0.18385685	3.0630177	21	9 25.3	20.2
294584 2007 YP_{65}	17.0	X	159.98125	221.42750	106.13332	8.29569	0.1685066	0.29390384	2.2404360	21	—	—
294585 2007 YG_{66}	17.3	X	318.63253	171.75615	127.17351	8.79726	0.0673929	0.24574787	2.5243111	21	5 23.9	20.5
294586 2007 YU_{66}	17.4	X	196.66549	316.65212	183.71592	1.49671	0.0535444	0.26244281	2.4160890	21	9 15.5	20.5
294587 2007 YL_{67}	16.2	X	286.64673	139.27850	223.06912	2.10525	0.0914817	0.18494777	3.0509609	21	6 29.3	20.3
294588 2007 YF_{68}	15.8	X	277.12972	86.18659	322.08455	9.07659	0.0982375	0.18719189	3.0265280	21	8 14.8	19.7
294589 2007 YN_{68}	16.6	X	354.06883	12.70913	87.04036	4.81044	0.0603903	0.21321947	2.7749265	21	—	—
294590 2007 YP_{70}	17.0	X	69.94653	35.43812	63.26192	2.29488	0.0124843	0.23204273	2.6227531	21	2 3.9	20.5
294591 2007 YE_{71}	15.7	X	149.62334	178.91078	306.97399	13.92214	0.1921446	0.17908054	3.1172416	21	7 8.6	20.9
294592 2007 YY_{71}	15.5	X	230.11585	306.23112	64.16221	10.42137	0.0971335	0.17458071	3.1705788	21	5 5.5	20.4
294593 2007 YD_{72}	15.8	X	322.73257	332.35153	320.90326	15.56007	0.0751542	0.17344785	3.1843693	21	5 19.2	20.4
294594 2007 YM_{72}	15.5	X	107.89342	263.05417	259.20386	8.14717	0.1630976	0.17277558	3.1926243	21	7 8.8	20.3
294595 Shingareva	15.5	X	221.15920	170.04495	203.93090	9.01514	0.0930739	0.17545916	3.1599874	21	4 29.7	20.3
294596 2008 AV_{1}	14.9	X	332.93763	322.55040	296.80146	17.82219	0.0894505	0.16877262	3.2429088	21	4 14.1	19.6
294597 2008 AY_{1}	16.1	X	73.58102	180.27223	276.16400	13.00439	0.2055142	0.23122685	2.6289190	21	2 22.2	19.2
294598 2008 AH_{2}	15.8	X	346.59482	346.78858	159.93147	14.84898	0.2026215	0.21475555	2.7616785	21	—	—
294599 2008 AV_{2}	15.1	X	203.89427	166.49716	279.59523	13.36653	0.0891494	0.18123097	3.0925337	21	7 8.7	19.8
294600 Abedinabedin	15.7	X	164.14225	9.98612	125.55306	18.77192	0.1896263	0.18005163	3.1060231	21	7 31.1	20.9
294601 2008 AZ_{3}	16.4	X	79.66681	319.89259	116.34441	5.66711	0.0715980	0.22866753	2.6484984	21	1 25.4	19.7
294602 2008 AR_{5}	16.4	X	36.00948	353.48767	97.67693	3.32738	0.0524116	0.23098319	2.6307675	21	—	—
294603 2008 AJ_{8}	17.6	X	254.06716	49.87816	128.14380	6.77981	0.0425909	0.28146703	2.3059560	21	—	—
294604 2008 AS_{8}	17.3	X	153.69362	100.29351	306.84394	7.85329	0.1635406	0.23835075	2.5762719	21	3 27.1	21.4
294605 2008 AT_{11}	17.2	X	190.14508	180.43015	237.25765	2.46348	0.0607478	0.24687926	2.5165930	21	5 16.9	20.5
294606 2008 AM_{12}	16.8	X	187.23490	251.05548	135.31227	8.75799	0.0540624	0.24011113	2.5636645	21	4 6.2	20.5
294607 2008 AT_{12}	16.0	X	60.55857	168.72124	147.37035	6.29256	0.1231480	0.19964050	2.8993699	21	11 22.5	20.1
294608 2008 AW_{13}	17.5	X	123.88326	116.36368	161.75843	3.69672	0.0398520	0.27654651	2.3332284	21	12 21.6	20.7
294609 2008 AF_{15}	17.0	X	93.00955	298.43047	139.29261	3.86361	0.1050111	0.23058394	2.6338033	21	2 19.8	20.2
294610 2008 AG_{18}	17.2	X	34.86278	227.86457	275.90688	0.97351	0.0980277	0.22943334	2.6426017	21	2 15.8	19.9
294611 2008 AV_{19}	16.8	X	163.86273	182.45570	113.22334	7.33308	0.1635697	0.28471878	2.2883651	21	—	—
294612 2008 AL_{22}	17.7	X	128.69541	0.94361	86.02150	2.97438	0.0924043	0.31101948	2.1574678	21	4 10.1	20.1
294613 2008 AW_{23}	16.9	X	207.99409	214.95392	338.12010	6.36187	0.0520263	0.27288694	2.3540421	21	12 10.5	20.1
294614 2008 AM_{24}	17.6	X	16.36747	25.20197	1.81378	3.11708	0.1184160	0.27693161	2.3310649	21	—	—
294615 2008 AM_{26}	16.8	X	320.55841	180.01025	123.08619	10.72874	0.0867244	0.24520519	2.5280342	21	5 30.3	19.9
294616 2008 AK_{27}	16.5	X	114.60487	196.26011	91.68854	3.25332	0.0251136	0.20045393	2.8915209	21	12 7.7	20.6
294617 2008 AC_{28}	17.8	X	310.93777	79.06855	7.47919	2.91842	0.1454481	0.27247966	2.3563872	21	12 10.5	19.9
294618 2008 AJ_{29}	17.0	X	79.61266	348.53970	82.26368	7.00746	0.0549082	0.30052698	2.2073968	21	—	—
294619 2008 AG_{31}	15.5	X	241.78029	136.69069	265.43317	8.91473	0.0830888	0.18103046	3.0948168	21	6 25.9	19.9
294620 2008 AN_{32}	15.6	X	222.13012	321.20167	120.29577	13.75398	0.0883222	0.18509594	3.0493325	21	7 23.2	20.2
294621 2008 AQ_{34}	15.6	X	190.39777	342.09483	118.15703	13.75790	0.0220979	0.18026482	3.1035737	21	7 14.3	20.1
294622 2008 AB_{35}	17.3	X	148.91185	114.46790	316.45430	3.36433	0.0626099	0.31365827	2.1453503	21	4 6.2	19.8
294623 2008 AC_{35}	17.1	X	184.29974	50.44058	98.34440	4.53885	0.1368835	0.26080202	2.4262120	21	9 10.0	20.8
294624 2008 AR_{36}	18.4	X	1.42455	36.23508	38.55562	0.96452	0.1741270	0.28606101	2.2812013	21	—	—
294625 2008 AS_{38}	16.7	X	152.75665	73.70243	165.54433	2.22514	0.0772413	0.19897869	2.9057952	21	11 22.7	21.0
294626 2008 AJ_{40}	16.0	X	29.95765	182.25106	121.94043	11.99097	0.1062063	0.18629207	3.0362659	21	9 26.1	20.0
294627 2008 AM_{40}	16.9	X	184.80875	353.90035	47.71214	2.59450	0.1256866	0.24162535	2.5529426	21	4 21.8	20.8
294628 2008 AP_{42}	15.4	X	143.13785	347.61116	132.81369	10.72622	0.0562035	0.17467733	3.1694095	21	6 16.2	20.2
294629 2008 AG_{43}	17.8	X	261.32853	176.17903	345.82384	0.80048	0.1365651	0.28003003	2.3138381	21	—	—
294630 2008 AL_{44}	17.8	X	358.86291	88.18068	6.03507	1.26082	0.1724492	0.28691233	2.2766865	21	—	—
294631 2008 AP_{44}	16.9	X	85.77736	194.51770	258.51379	1.41584	0.1712047	0.23091137	2.6313129	21	3 10.5	19.9
294632 2008 AO_{45}	16.0	X	190.46567	14.20397	90.37131	6.43031	0.1456952	0.18096249	3.0955917	21	7 17.1	20.9
294633 2008 AU_{46}	17.3	X	60.94599	159.35368	295.22759	1.52203	0.0722098	0.23001815	2.6381206	21	1 21.2	20.4
294634 2008 AB_{48}	17.1	X	192.27548	91.62978	297.91787	2.03192	0.0367224	0.24366272	2.5386919	21	4 10.8	20.6
294635 2008 AS_{49}	16.6	X	110.13481	298.71816	92.28592	3.79995	0.0645521	0.22642619	2.6659476	21	1 8.6	19.9
294636 2008 AH_{50}	18.1	X	217.01622	133.44532	17.08032	1.61857	0.1172479	0.26952564	2.3735734	21	10 17.7	21.3
294637 2008 AW_{51}	16.9	X	59.79249	90.67319	102.75676	3.72109	0.1323206	0.24481288	2.5307343	21	6 12.3	19.8
294638 2008 AW_{52}	16.9	X	51.01944	209.99501	199.06926	0.59897	0.0746332	0.21758367	2.7376957	21	—	—
294639 2008 AS_{53}	16.9	X	10.49556	65.94537	113.20388	4.57034	0.1395727	0.23153078	2.6266178	21	2 21.9	19.6
294640 2008 AT_{54}	17.3	X	196.62292	72.11525	117.56451	6.99039	0.0714254	0.27230917	2.3573707	21	11 21.9	20.6

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294641 2008 AQ_{55}	16.3	X	122.53843	44.54790	283.41797	4.24878	0.0249870	0.21432179	2.7654035	21	—	—
294642 2008 AZ_{58}	17.8	X	329.05896	250.12598	146.49368	2.55973	0.0665846	0.27069349	2.3667416	21	11 1.6	20.4
294643 2008 AA_{59}	16.3	X	290.16874	226.28472	142.26479	4.00202	0.1186652	0.18457233	3.0550969	21	7 7.9	20.3
294644 2008 AC_{59}	16.1	X	51.78225	37.92329	292.02022	6.16617	0.0724359	0.19994557	2.8964200	21	11 18.7	20.2
294645 2008 AG_{63}	17.3	X	346.21300	55.15788	171.55923	4.08033	0.1672278	0.23497188	2.6009108	21	3 11.8	20.0
294646 2008 AL_{67}	16.7	X	142.39186	103.83333	306.58033	10.87872	0.0636142	0.23407396	2.6075580	21	3 8.3	20.4
294647 2008 AK_{69}	18.1	X	280.95981	15.52176	109.26495	2.98838	0.1301427	0.27594224	2.3366334	21	12 12.6	20.1
294648 2008 AS_{71}	15.5	X	20.16587	298.89919	303.05006	8.23070	0.0276883	0.17487622	3.1670059	21	6 9.2	19.9
294649 2008 AL_{73}	16.1	X	110.57361	48.66145	129.38444	10.33391	0.0600159	0.17783904	3.1317324	21	7 19.9	20.6
294650 2008 AR_{73}	17.4	X	307.41798	231.63964	147.94520	3.23941	0.1819035	0.26471867	2.4022212	21	8 13.7	19.8
294651 2008 AF_{74}	16.5	X	197.41843	313.95013	295.52349	2.78853	0.0529010	0.20862338	2.8155337	21	—	—
294652 2008 AV_{74}	16.9	X	130.77797	189.91537	133.28378	5.32868	0.0732432	0.21376042	2.7702429	21	—	—
294653 2008 AU_{78}	16.4	X	146.07257	215.64775	122.11678	5.97101	0.1185210	0.22000053	2.7176086	21	—	—
294654 2008 AJ_{79}	18.2	X	7.06941	194.82339	275.33233	1.02525	0.1355365	0.29190675	2.2506431	21	—	—
294655 2008 AJ_{80}	16.5	X	82.48780	309.13597	147.56597	8.33549	0.1204902	0.23109273	2.6299360	21	3 4.5	19.6
294656 2008 AO_{81}	16.4	X	99.54350	265.26897	141.43708	8.94909	0.0314500	0.22583528	2.6705959	21	1 9.6	19.9
294657 2008 AY_{81}	17.7	X	235.32164	302.78746	184.76907	3.60184	0.1256633	0.26883352	2.3776455	21	10 8.4	20.8
294658 2008 AQ_{82}	15.4	X	257.97747	27.64072	315.86869	15.46072	0.1743782	0.17479478	3.1679896	21	4 14.6	20.7
294659 2008 AZ_{83}	16.8	X	277.04873	9.45461	56.01283	3.91800	0.0530218	0.19326011	2.9628380	21	9 15.2	20.8
294660 2008 AV_{84}	15.2	X	333.97693	6.48264	280.60810	6.64974	0.0159202	0.17586706	3.1550995	21	6 5.5	19.5
294661 2008 AD_{85}	15.5	X	59.14680	311.80844	316.33604	9.36311	0.0823881	0.18599234	3.0395270	21	9 9.1	19.7
294662 2008 AQ_{85}	17.9	X	263.18820	352.92303	108.18467	2.33671	0.1390199	0.26948229	2.3738279	21	10 8.7	20.6
294663 2008 AC_{86}	16.3	X	235.58038	241.05207	345.86629	3.31289	0.0427224	0.21336979	2.7736230	21	—	—
294664 Trakai	15.7	X	262.93740	37.38338	277.18843	5.36678	0.0607132	0.16851941	3.2461563	21	4 3.3	20.6
294665 2008 AA_{87}	17.5	X	278.46792	149.11406	102.69809	3.22535	0.0765597	0.30377101	2.1916532	21	1 11.9	20.3
294666 2008 AX_{87}	16.5	X	136.15861	28.86415	278.28566	3.78416	0.0980957	0.21379385	2.7699541	21	—	—
294667 2008 AB_{90}	15.8	X	242.57456	248.12834	125.12804	10.60223	0.1054841	0.17751456	3.1355476	21	5 22.5	20.7
294668 2008 AN_{95}	17.5	X	246.44431	52.23588	118.74400	3.82730	0.1060282	0.27803294	2.3249050	21	12 26.1	20.1
294669 2008 AB_{96}	16.0	X	161.31411	209.76905	87.90682	7.01242	0.0258934	0.21392260	2.7688426	21	—	—
294670 2008 AX_{96}	15.7	X	301.99057	251.29689	98.65938	9.91407	0.0684823	0.18060585	3.0996655	21	7 7.8	19.7
294671 2008 AJ_{98}	16.2	X	312.49108	300.70981	342.70244	6.79931	0.1847064	0.23985230	2.5655085	21	3 30.9	19.4
294672 2008 AP_{100}	17.2	X	121.39287	15.52501	193.39980	3.33191	0.1602586	0.25638283	2.4540124	21	9 23.5	20.8
294673 2008 AC_{102}	16.5	X	284.54430	149.01114	133.47443	12.42932	0.0695624	0.23592261	2.5939186	21	3 16.8	20.2
294674 2008 AK_{103}	15.3	X	258.29273	59.72912	305.82442	7.79449	0.1068573	0.17987955	3.1080036	21	5 25.9	20.1
294675 2008 AM_{104}	16.2	X	68.88983	269.83961	112.16513	6.85749	0.0635771	0.21663699	2.7456656	21	—	—
294676 2008 AJ_{105}	17.2	X	322.85637	59.23539	314.15348	5.60844	0.0978182	0.26666098	2.3905421	21	9 11.8	19.8
294677 2008 AS_{105}	16.8	X	281.33143	55.22367	326.03077	4.63997	0.1538274	0.26113769	2.4241324	21	7 8.5	19.7
294678 2008 AZ_{105}	17.6	X	30.94667	37.01049	74.52122	3.59394	0.0787493	0.29912183	2.2143043	21	—	—
294679 2008 AC_{106}	15.9	X	227.24099	284.78414	91.48423	10.28324	0.0971727	0.17568972	3.1572222	21	5 10.8	20.8
294680 2008 AT_{106}	17.0	X	147.61892	236.44363	122.23418	4.45103	0.0846098	0.22675198	2.6633934	21	1 16.9	20.5
294681 2008 AQ_{107}	16.2	X	101.08555	202.17516	129.26728	7.59007	0.0652623	0.21127841	2.7918964	21	—	—
294682 2008 AC_{108}	15.3	X	310.85111	8.43119	296.59161	8.11356	0.0748323	0.17419870	3.1752123	21	5 20.2	19.7
294683 2008 AG_{108}	17.3	X	213.65016	247.12164	121.89452	5.83641	0.2009039	0.24496650	2.5296761	21	4 9.7	21.5
294684 2008 AD_{114}	17.3	X	291.44299	101.76592	318.93349	5.61175	0.0612370	0.26541754	2.3980025	21	10 1.7	20.2
294685 2008 AF_{114}	14.9	X	215.77656	209.82329	345.96840	4.14038	0.1430554	0.12534397	3.9542769	21	11 18.4	21.0
294686 2008 AM_{114}	17.3	X	69.00634	40.92365	88.76005	3.77001	0.0470215	0.22883385	2.6472149	21	3 20.6	20.6
294687 2008 AS_{114}	17.3	X	49.49968	83.45500	88.92694	4.19665	0.0841757	0.23604108	2.5930506	21	4 21.5	20.3
294688 2008 AD_{115}	17.5	X	248.30082	319.79122	154.30547	2.28086	0.1608643	0.26430278	2.4047405	21	10 1.3	20.7
294689 2008 AG_{115}	15.1	X	336.14764	336.09256	329.17231	15.14485	0.0584648	0.17432808	3.1736412	21	7 1.7	19.5
294690 2008 AB_{129}	18.0	X	234.51349	71.74690	67.69972	2.53771	0.1194839	0.27048837	2.3679380	21	10 25.0	20.9
294691 2008 AZ_{134}	16.5	X	350.62860	264.64007	156.91771	5.70363	0.2193123	0.20969434	2.8059391	21	—	—
294692 2008 AC_{135}	16.2	X	77.23407	10.02731	123.94150	9.24713	0.0985622	0.24212943	2.5493981	21	4 15.3	19.4
294693 2008 AG_{135}	15.8	X	212.23483	254.34693	344.60189	11.74361	0.1186486	0.21172032	2.7880102	21	—	—
294694 2008 AU_{136}	17.5	X	300.25625	267.21639	211.13303	4.06957	0.1038326	0.28009245	2.3134944	21	—	—
294695 2008 AP_{137}	17.0	X	64.42544	260.78291	353.35875	4.03766	0.1177493	0.25320068	2.4745304	21	9 12.7	20.2
294696 2008 BS	16.3	X	211.79951	196.25364	86.46960	14.93189	0.1255665	0.22252571	2.6970102	21	—	—
294697 2008 BT_{1}	15.9	X	186.40896	57.14353	93.06574	9.57612	0.0339269	0.18587423	3.0408145	21	9 15.6	20.4
294698 2008 BJ_{2}	17.5	X	67.90572	271.26302	105.91052	6.86491	0.2677010	0.29248321	2.2476848	21	—	—
294699 2008 BT_{3}	16.8	X	89.69187	245.98676	156.54067	4.80814	0.1780872	0.22559824	2.6724663	21	1 10.5	19.9
294700 2008 BH_{4}	16.5	X	199.15374	206.01957	85.25606	5.43110	0.0821474	0.22049480	2.7135457	21	—	—
294701 2008 BG_{6}	17.9	X	344.42358	251.56452	290.59202	3.96756	0.0605934	0.30020796	2.2089603	21	1 6.5	20.0
294702 2008 BR_{7}	15.4	X	161.72941	118.22501	11.02014	9.98425	0.0251926	0.17819283	3.1275858	21	7 19.1	20.0
294703 2008 BA_{8}	18.1	X	6.06747	74.49363	71.80345	4.70192	0.1140443	0.29632740	2.2282035	21	—	—
294704 2008 BJ_{8}	17.1	X	243.43281	69.43712	75.43646	4.79932	0.1178228	0.27115118	2.3640775	21	11 13.6	19.8
294705 2008 BY_{14}	17.7	X	209.83331	76.80133	108.74862	2.08251	0.1277781	0.27282538	2.3543961	21	11 24.1	20.8
294706 2008 BS_{15}	18.0	X	48.72631	344.91869	125.83308	3.38911	0.1114212	0.30069529	2.2065730	21	1 3.3	19.9
294707 2008 BU_{16}	16.2	X	308.72314	23.14215	125.60447	9.62055	0.1270585	0.21382155	2.7697149	21	—	—
294708 2008 BZ_{18}	15.0	X	8.82638	309.80871	296.17528	14.68872	0.1449452	0.16964157	3.2318251	21	5 30.6	19.0
294709 2008 BR_{19}	15.9	X	214.55106	150.46860	299.27011	8.85451	0.0421463	0.18532125	3.0468605	21	7 28.6	20.2
294710 2008 BC_{21}	16.4	X	203.44829	290.66194	328.11704	5.33393	0.0155939	0.21019560	2.8014764	21	—	—
294711 2008 BG_{21}	17.4	X	197.58161	132.64834	324.03936	2.93656	0.0368971	0.25045753	2.4925659	21	7 19.5	20.7
294712 2008 BU_{21}	17.4	X	233.91208	248.69885	320.09334	1.56024	0.1572608	0.27727302	2.3291510	21	—	—
294713 2008 BQ_{22}	17.7	X	308.10870	187.10414	284.43319	0.67317	0.0744911	0.27674349	2.3321211	21	—	—
294714 2008 BP_{23}	16.3	X	45.87408	176.49870	345.26386	6.78839	0.1132462	0.23001776	2.6381236	21	3 30.9	19.2
294715 2008 BZ_{25}	16.2	X	200.20418	215.18431	133.15584	33.88831	0.2329154	0.23523927	2.5989395	21	3 6.4	21.0
294716 2008 BU_{27}	15.5	X	288.44802	52.53499	301.51042	12.42726	0.0755302	0.18054593	3.1003514	21	6 24.4	19.9
294717 2008 BJ_{31}	17.7	X	203.89327	173.87030	320.38975	3.64053	0.0635863	0.26016838	2.4301498	21	9 14.0	20.9
294718 2008 BM_{31}	16.3	X	161.62507	346.96382	167.27370	1.04290	0.1186556	0.18058151	3.0999441	21	8 19.0	21.2
294719 2008 BB_{32}	16.5	X	35.22965	273.76311	145.44097	5.05382	0.0616650	0.21117095	2.7928435	21	—	—
294720 2008 BN_{32}	16.4	X	70.85308	51.61591	125.75995	10.59583	0.0248349	0.24263452	2.5458588	21	5 24.1	19.8

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294721 2008 BX_{34}	15.8	X	136.68444	32.69098	152.98763	6.49556	0.0824744	0.18015865	3.1047929	21	8 31.0	20.5
294722 2008 BC_{36}	16.6	X	41.87051	102.14942	336.45554	8.17728	0.0597246	0.21420756	2.7663864	21	—	—
294723 2008 BR_{37}	15.2	X	231.54319	80.65378	333.37500	25.51002	0.1753896	0.18046705	3.1012547	21	6 25.2	20.6
294724 2008 BJ_{38}	16.8	X	121.72461	351.45189	230.38377	1.57260	0.1318372	0.18415598	3.0596999	21	10 1.7	21.6
294725 2008 BV_{40}	15.5	X	95.33044	76.18296	304.24630	30.32724	0.2020020	0.22079839	2.7110579	21	1 1.5	19.0
294726 2008 BX_{40}	17.2	X	206.51771	260.67842	177.09076	2.15854	0.1249792	0.25421166	2.4679655	21	6 29.2	20.9
294727 Dennisritchie	15.4	X	153.86038	311.48460	173.91941	9.49499	0.1863169	0.17570373	3.1570544	21	7 8.9	20.7
294728 2008 BY_{41}	17.1	X	317.86933	68.82299	12.05513	7.57266	0.0815498	0.27617068	2.3353447	21	12 16.3	19.6
294729 2008 BR_{46}	16.3	X	48.86169	37.43614	268.14508	0.43076	0.0846871	0.18769666	3.0210995	21	10 16.5	20.3
294730 2008 BX_{46}	16.2	X	75.22737	147.80847	147.74842	11.71215	0.0571252	0.18891261	3.0081218	21	11 6.4	20.6
294731 2008 BL_{47}	16.2	X	1.56302	322.23243	162.94167	5.21851	0.1716974	0.21490518	2.7603965	21	—	—
294732 2008 BM_{47}	17.2	X	3.09682	302.46270	169.38162	4.41999	0.0876732	0.28491143	2.2873334	21	—	—
294733 2008 BS_{47}	16.1	X	326.17508	95.05484	152.24173	13.68310	0.1710767	0.22077274	2.7112678	21	3 11.2	19.4
294734 2008 BK_{48}	17.3	X	277.44636	350.23841	69.81317	5.74094	0.0538217	0.26198228	2.4189196	21	9 16.5	20.2
294735 2008 BX_{48}	17.6	X	140.11340	127.78481	151.79740	3.10113	0.1656841	0.27382297	2.3486743	21	—	—
294736 2008 BA_{49}	16.9	X	290.41531	84.21397	157.34033	3.75229	0.0409119	0.22416400	2.6838535	21	2 1.6	20.6
294737 2008 BB_{49}	16.5	X	159.22932	129.90663	164.35751	2.28293	0.0396339	0.20276338	2.8695229	21	—	—
294738 2008 BB_{53}	16.3	X	313.18740	140.10577	109.44365	13.24509	0.1804136	0.21768123	2.7368778	21	2 25.4	20.1
294739 2008 CM	17.1	X	313.31299	130.65176	279.56240	36.00975	0.4079500	0.50291429	1.5660540	21	—	—
294740 2008 CO_{1}	16.1	X	162.71443	350.58250	46.48754	6.29388	0.3072912	0.24052523	2.5607212	21	4 6.4	20.6
294741 2008 CX_{1}	17.2	X	208.19070	237.53398	322.52888	4.14643	0.1759622	0.27212102	2.3584571	21	12 4.1	20.5
294742 2008 CV_{2}	17.9	X	121.22164	326.04317	78.64821	3.15049	0.0655093	0.29638978	2.2278908	21	1 26.6	20.3
294743 2008 CZ_{3}	16.2	X	145.76240	22.51510	101.41988	7.29670	0.1584381	0.17494240	3.1662072	21	6 29.5	21.2
294744 2008 CW_{4}	14.9	X	227.76897	355.76081	189.78613	2.50695	0.1775994	0.12546055	3.9518270	21	11 16.5	20.9
294745 2008 CG_{5}	16.8	X	12.82322	286.57296	322.47384	7.41472	0.1828350	0.24098816	2.5574407	21	6 9.3	19.1
294746 2008 CJ_{8}	16.5	X	180.74357	170.24566	159.89095	6.07866	0.0453134	0.21971990	2.7199220	21	1 16.1	20.3
294747 2008 CF_{9}	16.8	X	181.15921	248.59300	137.83612	5.76448	0.0371755	0.23475091	2.6025427	21	3 28.4	20.4
294748 2008 CR_{11}	17.1	X	133.19073	79.73515	359.62583	4.44315	0.2298401	0.23891928	2.5721834	21	4 25.5	21.2
294749 2008 CM_{12}	16.9	X	165.83523	196.62611	348.51169	7.14253	0.0638946	0.26133263	2.4229268	21	10 5.9	20.2
294750 2008 CQ_{12}	17.3	X	215.92170	208.71934	117.37243	6.13884	0.0156845	0.30108432	2.2046719	21	2 7.2	19.8
294751 2008 CQ_{13}	17.7	X	244.02903	68.36261	37.29812	2.49047	0.1304895	0.26351933	2.4095044	21	9 19.0	20.8
294752 2008 CS_{13}	17.5	X	302.34392	281.10142	119.98386	4.72593	0.2144726	0.26498358	2.4006199	21	9 3.1	19.6
294753 2008 CP_{16}	17.8	X	57.39465	255.36129	323.09777	1.13149	0.1069098	0.24338035	2.5406551	21	7 10.9	20.8
294754 2008 CE_{17}	15.9	X	44.15081	109.58443	163.30947	10.50725	0.0535389	0.17900477	3.1181211	21	8 23.6	20.2
294755 2008 CM_{17}	16.5	X	358.29570	304.27573	172.44584	4.86880	0.1081394	0.21409117	2.7673890	21	—	—
294756 2008 CR_{17}	16.8	X	48.38126	287.38815	165.69733	5.16684	0.0844640	0.21946121	2.7220590	21	1 2.9	20.1
294757 2008 CQ_{19}	15.7	X	316.05765	59.59035	298.75690	8.24352	0.0690687	0.18349774	3.0670127	21	8 6.9	19.6
294758 2008 CU_{20}	17.2	X	273.35583	19.21496	107.29379	10.19009	0.1409562	0.27376805	2.3489884	21	12 1.5	19.8
294759 2008 CG_{24}	17.5	X	347.25393	284.22885	124.48748	3.24551	0.1825293	0.27455863	2.3444770	21	—	—
294760 2008 CS_{24}	17.6	X	295.49719	40.67718	108.13854	3.45875	0.1582505	0.28063046	2.3105366	21	—	—
294761 2008 CR_{25}	17.2	X	353.89759	26.04431	161.91059	7.92564	0.1066266	0.29801879	2.2197648	21	1 21.2	19.6
294762 2008 CA_{26}	16.4	X	295.39147	39.94232	51.03116	2.79462	0.0333708	0.20339820	2.8635492	21	11 13.1	20.0
294763 2008 CW_{27}	17.1	X	136.13683	212.14947	345.75004	6.74863	0.0741769	0.25875783	2.4389733	21	9 19.4	20.5
294764 2008 CX_{29}	16.6	X	208.53047	160.56369	122.90099	6.69323	0.1174267	0.21726477	2.7403740	21	—	—
294765 2008 CP_{31}	17.9	X	336.91299	111.22252	335.03265	5.35646	0.1182277	0.27976734	2.3152863	21	—	—
294766 2008 CA_{32}	16.7	X	197.11783	301.09606	342.62398	3.15940	0.0452519	0.21442143	2.7645466	21	—	—
294767 2008 CC_{32}	16.1	X	119.85860	36.33741	106.07168	2.51252	0.1354023	0.17061385	3.2195354	21	6 24.7	21.1
294768 2008 CK_{32}	16.9	X	164.71572	230.38578	79.40477	1.66959	0.0569019	0.21339886	2.7733711	21	—	—
294769 2008 CX_{32}	17.3	X	318.43080	282.07758	108.02332	3.04822	0.2142318	0.26630269	2.3926858	21	9 22.9	19.1
294770 2008 CC_{33}	17.0	X	306.39217	87.61586	73.51153	1.65986	0.0173390	0.21226316	2.7832548	21	—	—
294771 2008 CT_{33}	16.5	X	38.90047	165.47936	112.90895	4.35894	0.0397277	0.18033885	3.1027243	21	8 23.9	20.8
294772 2008 CF_{35}	17.5	X	351.62938	96.31487	331.19216	6.57904	0.1123385	0.27882018	2.3205267	21	—	—
294773 2008 CV_{35}	16.7	X	15.82840	312.59100	138.83130	5.19886	0.0316164	0.21252669	2.7809535	21	—	—
294774 2008 CJ_{36}	17.4	X	214.24775	33.40711	170.48895	5.27242	0.1741881	0.27276036	2.3547703	21	12 16.9	20.7
294775 2008 CU_{40}	17.3	X	323.75855	313.83459	281.96434	4.41635	0.0947968	0.30156418	2.2023325	21	2 13.7	19.9
294776 2008 CZ_{41}	17.2	X	231.49712	62.84370	171.74408	11.23019	0.0471572	0.28342614	2.2953176	21	—	—
294777 2008 CA_{42}	16.9	X	135.64101	95.57822	279.38116	5.07220	0.0356396	0.22010394	2.7167573	21	1 17.3	20.5
294778 2008 CL_{42}	16.5	X	74.56859	175.12339	204.76732	5.08770	0.0599893	0.20888254	2.8132044	21	—	—
294779 2008 CW_{46}	16.8	X	104.05397	86.40980	317.81730	5.16017	0.1050517	0.21910939	2.7249721	21	1 25.1	20.4
294780 2008 CQ_{48}	18.1	X	90.79841	359.85669	131.94345	2.20067	0.0690254	0.30830525	2.1701118	21	4 16.4	20.2
294781 2008 CZ_{48}	16.6	X	76.32657	45.12564	64.73330	4.42915	0.0682045	0.23331777	2.6131891	21	3 6.9	19.9
294782 2008 CH_{49}	16.5	X	196.27520	262.02475	195.26906	3.58742	0.2875575	0.18237059	3.0796369	21	7 8.9	22.0
294783 2008 CJ_{49}	17.1	X	341.58256	346.17190	107.35005	7.70363	0.0679130	0.28201110	2.3029893	21	—	—
294784 2008 CD_{50}	13.9	X	198.45571	73.38587	131.55831	9.97919	0.0834276	0.12397534	3.9833260	21	11 20.3	20.0
294785 2008 CF_{50}	17.5	X	4.60285	18.53820	72.30663	3.42857	0.1105012	0.28612949	2.2808373	21	—	—
294786 2008 CT_{50}	17.0	X	57.75355	31.73824	106.87675	5.05105	0.2348214	0.23116973	2.6293520	21	4 9.2	19.5
294787 2008 CR_{51}	17.3	X	324.03586	148.34764	114.88309	2.87775	0.0251769	0.24268410	2.5455121	21	4 16.8	20.4
294788 2008 CO_{61}	16.2	X	48.37916	138.18280	153.85115	16.26910	0.1920131	0.18034691	3.1026318	21	10 18.3	20.5
294789 2008 CY_{61}	17.7	X	61.47640	152.43140	341.46786	5.21789	0.0643093	0.29994017	2.2102749	21	3 1.7	19.8
294790 2008 CS_{63}	16.3	X	21.59498	304.90206	159.05209	8.74034	0.0296191	0.21872554	2.7281592	21	—	—
294791 2008 CE_{64}	17.2	X	139.58342	230.37288	169.39225	5.93471	0.0529072	0.22941312	2.6427569	21	2 22.8	20.9
294792 2008 CW_{66}	16.3	X	14.96085	289.57877	160.92570	9.74573	0.1007525	0.21347940	2.7726735	21	—	—
294793 2008 CX_{70}	15.8	X	203.54568	289.72308	165.25554	9.92407	0.0688891	0.18043030	3.1016758	21	7 19.7	20.6
294794 2008 CJ_{71}	17.3	X	278.50855	228.19831	216.57429	1.97627	0.1303566	0.26800588	2.3825380	21	10 8.5	19.9
294795 2008 CW_{71}	15.2	X	136.50234	225.19580	272.52706	15.26400	0.0577386	0.17482733	3.1675964	21	6 29.2	19.8
294796 2008 CB_{72}	16.7	X	291.68366	220.25724	271.35748	6.39085	0.0538569	0.27643504	2.3338556	21	—	—
294797 2008 CC_{74}	17.0	X	270.11549	288.75507	267.45367	6.61490	0.1541731	0.28456055	2.2892133	21	—	—
294798 2008 CD_{74}	15.6	X	161.38630	290.79368	162.88576	15.85554	0.2904471	0.17494669	3.1661555	21	6 13.0	21.5
294799 2008 CR_{76}	16.3	X	55.09020	351.31650	71.20395	9.00569	0.0941984	0.21937420	2.7227788	21	—	—
294800 2008 CS_{77}	17.5	X	199.11084	89.28743	54.35869	2.85653	0.1416367	0.26132508	2.4229734	21	9 17.4	21.1

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294801 2008 CV_{80}	16.4	X	142.46990	162.57335	92.45323	3.30440	0.0786846	0.19671752	2.9280199	21	11 30.5	20.9
294802 2008 CY_{82}	16.5	X	355.76877	39.74272	108.61566	3.54295	0.0079786	0.21924679	2.7238334	21	1 4.0	20.2
294803 2008 CV_{86}	16.5	X	40.63109	24.26874	101.05057	5.59819	0.0480404	0.22317694	2.6917610	21	2 2.2	19.9
294804 2008 CN_{88}	16.3	X	190.98456	203.05872	74.08610	5.19009	0.0713508	0.20926922	2.8097379	21	—	—
294805 2008 CR_{88}	15.8	X	3.70180	329.60340	14.20174	9.16968	0.1139799	0.18620133	3.0372523	21	10 3.2	19.2
294806 2008 CX_{88}	16.0	X	21.43907	324.38639	32.99536	6.99539	0.1612825	0.19348586	2.9605329	21	11 23.5	19.6
294807 2008 CW_{89}	16.3	X	24.24596	355.58548	21.07149	3.83307	0.1066577	0.20848128	2.8168129	21	12 18.7	19.9
294808 2008 CV_{93}	16.0	X	51.76160	185.37232	89.58974	4.37285	0.0572313	0.18011593	3.1052838	21	9 9.2	20.2
294809 2008 CT_{94}	17.4	X	194.64541	178.48958	65.96156	4.65989	0.0957068	0.27618268	2.3352771	21	—	—
294810 2008 CF_{95}	17.7	X	113.04358	260.29039	27.62230	7.10228	0.0852750	0.26899096	2.3767177	21	12 21.6	21.2
294811 2008 CF_{103}	16.5	X	256.60894	162.18494	174.36693	12.18187	0.1981116	0.23678439	2.5876210	21	4 7.2	20.5
294812 2008 CK_{108}	17.2	X	229.65232	216.97483	266.27868	4.02552	0.1709631	0.26377176	2.4079669	21	9 16.8	20.7
294813 2008 CK_{109}	15.8	X	172.73607	275.37676	177.48342	15.83647	0.1768035	0.17160134	3.2071722	21	6 17.2	21.4
294814 2008 CJ_{117}	16.7	X	318.50218	342.84510	105.06324	7.45606	0.0484773	0.27608175	2.3358463	21	12 27.4	19.2
294815 2008 CQ_{118}	17.4	X	263.20811	278.90571	258.12663	5.92897	0.1229503	0.28047624	2.3113834	21	—	—
294816 2008 CT_{119}	16.7	X	163.55812	181.64645	330.07915	10.69598	0.2006984	0.25556224	2.4592627	21	8 22.2	20.8
294817 2008 CS_{120}	15.7	X	134.09326	93.06861	135.07531	10.98337	0.0508976	0.19112572	2.9848554	21	10 22.6	20.3
294818 2008 CF_{121}	17.3	X	194.47197	108.04779	85.16844	4.89393	0.1843863	0.27169200	2.3609393	21	11 12.6	20.8
294819 2008 CC_{123}	17.3	X	166.25414	277.95105	287.92200	2.31005	0.1573883	0.26445141	2.4038395	21	10 31.7	21.2
294820 2008 CS_{125}	16.4	X	29.35492	120.02382	250.58757	3.40525	0.0869388	0.21266632	2.7797362	21	12 16.4	19.9
294821 2008 CU_{126}	17.0	X	125.87468	57.18412	156.56029	3.72336	0.1307089	0.25746336	2.4471415	21	10 3.8	20.5
294822 2008 CK_{127}	17.5	X	229.29198	261.26224	297.46371	1.44981	0.1513044	0.27562289	2.3384380	21	—	—
294823 2008 CA_{136}	17.9	X	347.21848	110.09572	356.72955	3.85172	0.1128825	0.28422602	2.2910091	21	—	—
294824 2008 CH_{137}	17.4	X	326.25160	297.56991	169.84038	4.08758	0.1119745	0.28179585	2.3041619	21	—	—
294825 2008 CM_{137}	17.3	X	339.58098	151.09572	118.89105	3.24888	0.0925151	0.23809570	2.5781114	21	5 11.9	20.2
294826 2008 CC_{140}	17.9	X	45.34004	255.34823	183.39660	2.46235	0.1101713	0.29272280	2.2464582	21	—	—
294827 2008 CQ_{141}	17.9	X	44.05190	246.53761	199.74351	2.39413	0.0929000	0.29061409	2.2573121	21	—	—
294828 2008 CC_{142}	17.5	X	194.15200	69.37897	186.33667	2.28676	0.1746585	0.27566297	2.3382113	21	—	—
294829 2008 CM_{142}	15.3	X	256.01669	82.53770	342.42237	25.40025	0.2345789	0.18444765	3.0564734	21	8 1.1	20.3
294830 2008 CV_{143}	16.8	X	300.86865	358.28880	334.38924	5.01218	0.0442235	0.24315760	2.5422064	21	6 15.0	20.0
294831 2008 CW_{143}	15.5	X	151.98863	346.56952	167.48138	10.58959	0.1060537	0.17605672	3.1528330	21	8 7.3	20.5
294832 2008 CB_{144}	16.5	X	265.68147	171.61884	175.99762	4.19853	0.0687377	0.23914980	2.5705301	21	5 15.6	20.1
294833 2008 CW_{144}	17.3	X	114.25184	74.41778	285.99318	3.64062	0.0788224	0.21409000	2.7673991	21	—	—
294834 2008 CC_{148}	15.3	X	45.31019	327.51870	316.09121	7.96747	0.0696815	0.18147815	3.0897250	21	9 8.6	19.5
294835 2008 CE_{151}	16.4	X	255.85839	280.89385	320.56366	6.55828	0.1801434	0.21237195	2.7823042	21	—	—
294836 2008 CM_{151}	16.7	X	214.28809	116.48833	182.54872	9.61614	0.0020265	0.22027466	2.7153534	21	1 14.5	20.6
294837 2008 CV_{151}	16.2	X	280.55948	232.30127	181.30650	9.80575	0.0259067	0.18370410	3.0647154	21	9 4.2	20.4
294838 2008 CG_{152}	16.3	X	111.77500	32.14880	232.38953	3.74756	0.1713205	0.18804513	3.0173660	21	11 15.4	21.1
294839 2008 CK_{152}	16.7	X	72.67634	274.30746	217.58263	3.20518	0.1642996	0.23220893	2.6215015	21	4 11.5	19.7
294840 2008 CH_{153}	15.3	X	349.37447	300.49851	356.99251	13.34514	0.1172217	0.17126736	3.2113402	21	7 9.3	19.4
294841 2008 CP_{154}	15.9	X	97.30843	216.53787	127.46892	13.21590	0.0644940	0.20634890	2.8361854	21	—	—
294842 2008 CD_{160}	15.9	X	90.70491	34.33883	199.34901	2.97992	0.1219471	0.17762388	3.1342609	21	9 11.9	20.6
294843 2008 CZ_{162}	16.3	X	169.34632	105.91002	147.48969	3.28818	0.1156607	0.20115970	2.8847537	21	12 24.6	20.8
294844 2008 CE_{163}	16.9	X	79.56759	239.59141	149.92954	4.28108	0.0804892	0.21459444	2.7630606	21	—	—
294845 2008 CM_{165}	15.6	X	41.65971	322.42496	296.99450	4.06199	0.1344945	0.17217966	3.1999866	21	8 12.8	19.7
294846 2008 CK_{167}	17.3	X	235.81028	185.92311	23.07128	5.04910	0.1728528	0.27934497	2.3176196	21	—	—
294847 2008 CS_{167}	17.3	X	53.21736	199.81260	283.32687	3.45555	0.0304899	0.22641677	2.6660216	21	2 13.5	20.8
294848 2008 CM_{170}	16.5	X	76.02989	208.62555	183.47356	6.39627	0.0592029	0.21327463	2.7744480	21	—	—
294849 2008 CC_{174}	17.6	X	334.31966	24.30640	61.75102	5.33590	0.1874601	0.27940982	2.3172609	21	—	—
294850 2008 CY_{176}	16.9	X	209.28971	97.00257	96.31250	7.80256	0.0584711	0.27206494	2.3587812	21	12 12.4	19.8
294851 2008 CS_{178}	17.5	X	194.58867	290.96307	264.17830	1.48681	0.1490774	0.26984203	2.3717177	21	11 16.5	20.9
294852 2008 CM_{182}	17.5	X	285.77934	51.72561	27.23072	6.12309	0.2054133	0.26819238	2.3814333	21	10 1.6	19.9
294853 2008 CH_{183}	16.8	X	256.38920	31.93851	149.24413	6.47178	0.0611807	0.27491382	2.3424572	21	—	—
294854 2008 CJ_{188}	16.0	X	313.75487	97.17970	135.78224	13.90071	0.1612944	0.21914639	2.7246653	21	2 3.9	19.8
294855 2008 CD_{189}	15.9	X	339.34230	284.75570	279.84293	13.51348	0.1795644	0.22191806	2.7019312	21	1 27.2	19.2
294856 2008 CB_{192}	17.6	X	329.11477	179.26702	314.28909	5.30246	0.0981129	0.28438858	2.2901361	21	—	—
294857 2008 CC_{193}	18.1	X	315.22690	86.12861	25.10999	3.81054	0.1900160	0.27930326	2.3178503	21	—	—
294858 2008 CO_{193}	16.1	X	330.05748	201.99064	151.24045	11.35841	0.0736521	0.18380426	3.0636019	21	8 21.8	20.0
294859 2008 CQ_{193}	16.5	X	229.33563	329.40273	19.47884	7.78967	0.1991592	0.23377437	2.6097854	21	3 28.6	20.7
294860 2008 CP_{194}	16.8	X	271.77989	299.43927	293.12421	1.26525	0.0353128	0.21475447	2.7616877	21	1 2.3	20.7
294861 2008 CL_{195}	17.7	X	188.50774	136.51358	125.63876	1.30429	0.1920357	0.27754561	2.3276257	21	—	—
294862 2008 CH_{196}	17.3	X	106.29342	277.86167	350.27446	0.99921	0.1691000	0.25940718	2.4349015	21	11 23.2	20.9
294863 2008 CL_{197}	15.6	X	65.16646	306.88082	351.60691	12.25786	0.1416929	0.18666885	3.0321789	21	10 31.5	20.1
294864 2008 CU_{197}	17.3	X	187.38866	329.97643	195.39486	4.95285	0.0592808	0.26146368	2.4221171	21	10 7.3	20.5
294865 2008 CT_{198}	17.0	X	100.33449	49.62787	191.03728	5.95123	0.1095988	0.25384140	2.4703648	21	10 8.2	20.4
294866 2008 CY_{199}	16.2	X	80.44205	103.68076	186.84998	9.68228	0.0913949	0.18785570	3.0193941	21	11 8.4	20.6
294867 2008 CE_{200}	16.4	X	314.41228	80.12001	266.63452	1.38179	0.1667543	0.24656427	2.5187358	21	7 8.7	18.9
294868 2008 CQ_{200}	16.8	X	27.35051	58.46189	9.48330	4.85812	0.0515615	0.21092927	2.7949764	21	—	—
294869 2008 CL_{201}	16.2	X	215.69214	322.29429	329.70103	11.19747	0.0388463	0.22397156	2.6853906	21	1 10.7	20.1
294870 2008 CM_{201}	16.8	X	218.30236	245.15232	22.47745	4.99684	0.0221196	0.21350870	2.7724199	21	—	—
294871 2008 CN_{201}	17.0	X	78.56650	254.13827	183.50445	5.97208	0.0552441	0.22284149	2.6944617	21	1 23.5	20.5
294872 2008 CZ_{201}	16.0	X	284.83283	313.31490	210.09489	9.74706	0.0283247	0.19638761	2.9312981	21	—	—
294873 2008 CA_{203}	16.4	X	54.17829	253.27088	100.09163	3.34838	0.0794416	0.19804527	2.9149184	21	12 22.3	20.2
294874 2008 CH_{203}	16.3	X	198.24911	135.83357	177.43167	12.69499	0.0385347	0.21544307	2.7558000	21	1 14.8	20.5
294875 2008 CK_{204}	16.6	X	42.05441	117.65443	2.30516	4.97552	0.0465643	0.21846139	2.7303580	21	1 29.9	20.0
294876 2008 CQ_{205}	18.6	X	10.74328	93.80740	340.21400	3.88625	0.2036325	0.28496099	2.2870682	21	—	—
294877 2008 CB_{209}	14.9	X	133.14306	290.69761	165.47406	22.59886	0.1321530	0.16622948	3.2759004	21	5 16.9	20.3
294878 2008 CP_{211}	17.3	X	173.14885	243.55128	329.08059	3.48194	0.0963166	0.26926272	2.3751182	21	11 19.4	20.8
294879 2008 CX_{212}	16.0	X	173.80536	44.01759	165.83727	21.04657	0.0938620	0.19360319	2.9593366	21	11 11.7	20.9
294880 2008 CO_{213}	16.9	X	15.63605	71.54664	184.85488	6.13554	0.0574883	0.24092989	2.5578531	21	6 21.8	20.0

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
294881 2008 CY_{213}	16.5	X	161.05485	320.38217	3.61024	2.69792	0.0750838	0.20926208	2.8098018	21	—	—
294882 2008 CA_{215}	16.4	X	219.14510	91.14657	149.73992	2.60913	0.0355331	0.20676027	2.8324222	21	—	—
294883 2008 DG_{2}	17.5	X	132.67018	139.24080	327.68693	6.66195	0.0818437	0.24255573	2.5464102	21	5 13.7	21.2
294884 2008 DX_{2}	17.7	X	328.60915	166.40766	106.14221	2.79024	0.1041450	0.31298952	2.1484051	21	4 16.9	19.6
294885 2008 DO_{3}	16.5	X	175.41927	117.49333	165.45163	9.41147	0.1079613	0.20643374	2.8354082	21	—	—
294886 2008 DV_{7}	16.8	X	229.71389	306.22700	323.97030	5.94680	0.0361584	0.22172418	2.7035060	21	—	—
294887 2008 DA_{8}	17.4	X	276.06858	84.76010	87.44365	4.03997	0.1157077	0.27997636	2.3141339	21	—	—
294888 2008 DJ_{8}	15.6	X	182.69710	34.22880	143.43578	13.84053	0.0280394	0.19019615	2.9945730	21	10 16.0	20.1
294889 2008 DN_{8}	17.6	X	159.01370	329.93630	153.97490	6.70463	0.0890681	0.24717447	2.5145888	21	7 8.9	21.3
294890 2008 DO_{8}	16.9	X	162.95056	124.46706	145.27329	4.65626	0.0946568	0.27410310	2.3470738	21	—	—
294891 2008 DP_{9}	17.1	X	294.84693	325.73815	164.08178	5.02608	0.1694129	0.27703024	2.3305116	21	—	—
294892 2008 DC_{12}	17.4	X	156.18328	6.45172	82.58577	2.77515	0.0976153	0.24389601	2.5370728	21	5 21.5	21.1
294893 2008 DG_{15}	16.8	X	46.48704	344.54396	163.01229	5.76779	0.1436692	0.22733253	2.6588571	21	3 17.6	19.4
294894 2008 DK_{15}	17.4	X	32.25349	151.36311	47.67377	1.65187	0.1423709	0.23239855	2.6200753	21	5 3.2	20.0
294895 2008 DB_{18}	16.1	X	94.15461	176.01666	64.35057	1.99172	0.1001572	0.18152292	3.0892169	21	9 23.4	20.5
294896 2008 DN_{18}	16.8	X	100.84806	237.76096	117.54405	3.31891	0.0689199	0.20926794	2.8097494	21	—	—
294897 2008 DK_{19}	16.0	X	138.55521	291.50454	292.97080	1.46162	0.1164279	0.18458584	3.0549478	21	10 20.0	20.8
294898 2008 DT_{19}	16.9	X	43.25391	64.56506	181.06818	13.03195	0.1108412	0.24267246	2.5455935	21	7 25.3	20.1
294899 2008 DW_{19}	17.2	X	179.04452	191.84470	5.56094	4.94239	0.1439845	0.26330882	2.4107885	21	11 2.3	20.8
294900 2008 DJ_{21}	17.1	X	272.69290	167.02205	37.52386	4.88338	0.0139817	0.21256067	2.7806572	21	—	—
294901 2008 DJ_{23}	15.5	X	121.15830	40.15878	160.62799	17.20864	0.1423415	0.17821759	3.1272961	21	9 6.9	20.3
294902 2008 DQ_{23}	16.7	X	162.05078	79.40115	325.68897	6.82940	0.0717334	0.23241214	2.6199732	21	3 27.6	20.5
294903 2008 DK_{24}	15.6	X	8.12481	110.92054	147.81135	17.15307	0.0496942	0.16873220	3.2434266	21	6 17.2	20.2
294904 2008 DP_{26}	15.4	X	46.07279	97.56692	178.85001	25.31629	0.1877260	0.17547412	3.1598078	21	9 19.2	19.5
294905 2008 DW_{26}	16.9	X	44.56143	256.27186	128.06525	5.80442	0.0475620	0.27301842	2.3532862	21	—	—
294906 2008 DH_{27}	15.4	X	96.55584	322.13918	281.73357	3.24996	0.2484414	0.17789824	3.1310376	21	10 12.7	20.6
294907 2008 DN_{27}	16.7	X	118.18012	23.62850	117.56093	5.78478	0.0700723	0.24227377	2.5483854	21	6 12.5	20.2
294908 2008 DO_{27}	16.7	X	329.43989	7.25295	214.26478	3.41729	0.1660886	0.22296352	2.6934785	21	2 7.4	20.0
294909 2008 DB_{28}	15.9	X	262.97015	268.71228	96.48381	15.37241	0.2497512	0.18057575	3.1000101	21	5 19.5	21.0
294910 2008 DN_{28}	17.9	X	40.51690	317.13742	133.22983	3.60758	0.1181762	0.29479752	2.2359058	21	—	—
294911 2008 DD_{29}	15.9	X	200.08323	292.27489	133.21687	9.94399	0.0766801	0.17464549	3.1697947	21	6 11.2	20.8
294912 2008 DF_{30}	15.4	X	102.44751	148.44245	79.23950	16.92780	0.1671029	0.17768232	3.1335736	21	10 2.3	20.6
294913 2008 DB_{34}	17.6	X	270.77793	102.71938	113.50321	0.33123	0.1711566	0.28323006	2.2963768	21	—	—
294914 2008 DF_{34}	17.1	X	272.87339	63.13684	182.46024	5.61644	0.1363914	0.28944005	2.2634121	21	—	—
294915 2008 DB_{35}	17.2	X	69.23480	244.94418	325.19268	2.10364	0.0830018	0.24157848	2.5532728	21	7 13.3	20.4
294916 2008 DD_{35}	18.0	X	219.88522	265.59171	256.74670	0.82548	0.1132354	0.26466865	2.4025239	21	11 5.5	21.1
294917 2008 DK_{35}	16.3	X	147.34974	51.10099	326.46177	5.50537	0.0407172	0.21902108	2.7257045	21	2 5.6	19.9
294918 2008 DR_{35}	17.2	X	194.63217	346.40767	211.22053	2.54413	0.1024162	0.26508506	2.4000072	21	11 23.9	20.4
294919 2008 DV_{35}	17.3	X	65.64622	338.52727	150.16087	2.59851	0.1364981	0.22762460	2.6565822	21	3 24.2	20.3
294920 2008 DD_{37}	16.2	X	216.27235	88.94560	200.48272	8.61155	0.1311952	0.21062098	2.7977031	21	1 7.7	20.8
294921 2008 DU_{37}	15.7	X	168.56242	172.22511	350.09172	7.75723	0.1326533	0.18023764	3.1038857	21	9 5.3	20.6
294922 2008 DV_{37}	17.4	X	258.90302	202.48818	339.63852	2.38239	0.1756436	0.27620033	2.3351776	21	—	—
294923 2008 DQ_{38}	17.5	X	316.15704	253.74751	258.81080	1.78203	0.1515559	0.28241219	2.3008082	21	—	—
294924 2008 DA_{39}	16.5	X	1.39565	277.89947	167.32121	2.20389	0.0359211	0.20294110	2.8678474	21	—	—
294925 2008 DC_{39}	16.3	X	178.38716	19.85321	177.67044	9.97451	0.1554962	0.26137233	2.4226814	21	11 4.5	20.1
294926 2008 DU_{39}	16.2	X	26.44959	135.46286	181.30298	9.80438	0.0552858	0.18054302	3.1003847	21	9 25.8	20.2
294927 2008 DC_{40}	17.2	X	143.60906	83.62042	189.96887	4.63717	0.2085603	0.26651753	2.3913999	21	—	—
294928 2008 DQ_{40}	17.0	X	272.58608	338.73788	192.90118	5.16861	0.0442571	0.27509449	2.3414315	21	—	—
294929 2008 DM_{45}	15.3	X	14.17367	298.54141	17.78706	9.71203	0.1037458	0.17652081	3.1473045	21	9 14.4	19.2
294930 2008 DM_{47}	16.1	X	110.22706	89.06162	170.92109	8.84109	0.1122500	0.18345506	3.0674883	21	11 5.8	20.8
294931 2008 DD_{48}	16.6	X	65.91253	227.53897	43.58630	1.61629	0.1581053	0.17701405	3.1414554	21	10 5.2	20.9
294932 2008 DE_{48}	17.3	X	256.12944	354.86696	144.89073	3.22862	0.1254405	0.26945666	2.3739784	21	11 23.1	19.9
294933 2008 DB_{49}	15.3	X	64.89815	154.29232	88.98042	10.71593	0.0463540	0.17650705	3.1474681	21	8 16.1	19.8
294934 2008 DM_{50}	15.5	X	163.92026	151.46519	59.61030	9.03286	0.0414064	0.19031439	2.9933326	21	11 1.1	19.9
294935 2008 DW_{52}	17.1	X	73.60778	240.27992	266.51060	1.94485	0.0974031	0.23215604	2.6218996	21	4 23.1	20.3
294936 2008 DA_{54}	15.1	X	328.74729	334.86395	345.10970	20.50396	0.0663223	0.17049539	3.2210265	21	7 12.8	19.7
294937 2008 DO_{54}	15.9	X	130.16618	287.43178	143.92789	13.76811	0.0287174	0.23018135	2.6368735	21	3 24.6	19.6
294938 2008 DY_{54}	16.8	X	129.58630	124.43452	97.51476	8.16963	0.1476203	0.25771692	2.4455362	21	10 21.7	20.7
294939 2008 DM_{55}	17.5	X	267.93865	306.00048	192.72931	0.93484	0.1326072	0.27226758	2.3576107	21	12 8.8	20.0
294940 2008 DZ_{56}	17.0	X	33.97165	140.12089	29.65788	5.12054	0.1766174	0.22990139	2.6390138	21	3 27.6	19.3
294941 2008 DW_{57}	16.2	X	280.17361	241.36008	319.06549	14.82143	0.0786979	0.20995796	2.8035899	21	—	—
294942 2008 DM_{59}	17.4	X	142.44570	50.20699	184.27375	5.86922	0.1043391	0.26308697	2.4121436	21	11 16.0	20.9
294943 2008 DB_{62}	16.4	X	91.21927	290.45696	5.62372	9.49483	0.0704680	0.18980030	2.9987352	21	11 20.8	21.0
294944 2008 DV_{64}	15.8	X	2.64384	192.25381	145.58747	10.19510	0.0973002	0.18381023	3.0635356	21	9 24.4	19.6
294945 2008 DV_{66}	17.3	X	157.04793	43.94258	212.89846	5.72189	0.2282591	0.26517260	2.3994790	21	12 23.2	21.3
294946 2008 DL_{68}	17.9	X	278.12355	42.90709	154.75231	2.87631	0.1487173	0.28113269	2.3077839	21	—	—
294947 2008 DO_{68}	16.4	X	269.54712	232.06931	157.17404	4.45623	0.1411326	0.24585654	2.5235672	21	7 4.5	19.9
294948 2008 DM_{69}	17.1	X	22.66451	95.75486	27.63680	7.66727	0.0859594	0.29125553	2.2539966	21	—	—
294949 2008 DO_{69}	16.6	X	278.29537	172.90828	92.85484	3.26819	0.0475225	0.22246090	2.6975340	21	2 18.5	20.3
294950 2008 DV_{69}	15.6	X	264.33584	231.56169	148.39652	8.65495	0.0062280	0.16974182	3.2305526	21	7 5.5	20.2
294951 2008 DV_{70}	15.5	X	248.23517	171.31029	259.10673	9.49187	0.0735160	0.18084207	3.0969657	21	8 6.4	20.1
294952 2008 DQ_{71}	15.1	X	190.41419	5.70122	327.39729	8.89413	0.1006100	0.14779871	3.5428732	21	2 13.4	20.6
294953 2008 DU_{80}	15.9	X	11.70499	200.15423	152.37975	5.78896	0.1294477	0.19254694	2.9701494	21	10 31.9	19.5
294954 2008 DU_{81}	15.6	X	228.57163	238.00022	175.38008	27.88961	0.1980359	0.17610531	3.1522531	21	6 17.3	21.3
294955 2008 DR_{82}	16.0	X	101.81006	112.29643	100.95151	3.40332	0.0481882	0.17439922	3.1727780	21	8 22.7	20.6
294956 2008 DB_{83}	16.8	X	13.96664	204.13327	67.92317	2.24396	0.0815508	0.24281110	2.5446244	21	7 13.7	19.7
294957 2008 DT_{83}	16.7	X	146.34125	205.07244	58.16117	2.87028	0.0398868	0.19547827	2.9403818	21	12 13.3	20.8
294958 2008 DO_{84}	16.6	X	193.39480	351.76083	231.86194	2.30809	0.0750834	0.19372159	2.9581308	21	12 15.0	20.9
294959 2008 DG_{85}	16.1	X	98.10952	35.18531	39.87511	6.64703	0.0249531	0.22139227	2.7062075	21	2 16.4	19.8
294960 2008 DT_{85}	16.0	X	141.27499	154.41378	111.94165	2.84484	0.1085967	0.19335979	2.9618196	21	12 12.4	20.5

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	m		°	°	°	°		°				
294961 2008 DZ_{85}	16.8	X	12.60383	344.46711	177.30641	5.12022	0.0478927	0.22134171	2.7066196	21	2 7.7	20.2
294962 2008 DR_{86}	16.2	X	327.64009	248.12912	142.83353	5.99729	0.0494874	0.18869735	3.0104091	21	10 10.8	20.2
294963 2008 DV_{86}	16.6	X	116.58466	264.76968	118.72209	4.80201	0.0331646	0.21357221	2.7718702	21	1 5.6	20.4
294964 2008 DT_{87}	17.5	X	128.39185	331.78439	191.68978	2.88778	0.0558712	0.24590687	2.5232228	21	7 23.2	21.0
294965 2008 DS_{88}	16.6	X	112.45061	173.22603	190.33711	2.58571	0.0314475	0.21016507	2.8017477	21	—	—
294966 2008 EU	16.1	X	112.83081	209.56857	263.64473	12.55874	0.2167312	0.23731692	2.5837485	21	5 17.2	19.9
294967 2008 EJ_3	16.3	X	77.91082	95.22761	350.55177	21.74333	0.0598830	0.22478064	2.6789428	21	2 11.5	19.9
294968 2008 EK_3	17.2	X	275.36523	60.86181	59.65070	5.47365	0.0861742	0.27213608	2.3583701	21	12 1.2	19.9
294969 2008 EO_5	16.4	X	111.23436	268.28517	144.46914	5.77223	0.0181401	0.22138856	2.7062377	21	1 31.5	20.0
294970 2008 EQ_5	16.6	X	88.26793	327.77995	185.85272	7.47942	0.1387042	0.23520933	2.5991600	21	6 1.2	20.1
294971 2008 ER_5	17.5	X	190.13934	234.20336	359.96418	1.00408	0.1291116	0.26885850	2.3774982	21	—	—
294972 2008 EK_6	17.2	X	113.37112	102.95716	38.53483	10.92099	0.1676291	0.24085982	2.5583491	21	6 18.1	21.0
294973 2008 EU_6	16.6	X	304.81524	116.00672	133.64421	4.80370	0.0894092	0.22417824	2.6837398	21	2 24.2	20.3
294974 2008 EX_{10}	16.7	X	358.79771	188.54158	15.94782	9.81171	0.1324363	0.22695575	2.6617990	21	3 11.9	19.6
294975 2008 EB_{13}	17.2	X	65.88188	167.72433	50.16207	4.68890	0.0344974	0.24424009	2.5346894	21	7 12.1	20.4
294976 2008 EJ_{14}	16.5	X	200.48586	212.62070	127.65253	7.43291	0.0372892	0.22283274	2.6945322	21	2 21.3	20.3
294977 2008 EF_{15}	15.1	X	60.77983	261.39543	5.31269	14.11374	0.0662024	0.17567212	3.1574331	21	9 12.3	19.5
294978 2008 EN_{15}	17.4	X	77.26683	18.76582	143.87693	1.49751	0.0269337	0.23360631	2.6110369	21	5 11.1	20.7
294979 2008 EU_{15}	17.5	X	181.84236	163.61466	148.85656	2.80902	0.2270971	0.28063488	2.3105123	21	—	—
294980 2008 EC_{16}	16.8	X	33.97268	135.65601	352.00517	4.90578	0.0666091	0.21873343	2.7280937	21	1 28.0	20.1
294981 2008 ED_{16}	17.0	X	109.52765	223.84358	186.49072	1.68601	0.0543142	0.21750402	2.7383641	21	2 1.1	20.7
294982 2008 EL_{16}	18.0	X	339.37817	51.30730	25.85492	0.62844	0.1923384	0.27419265	2.3465628	21	—	—
294983 2008 ES_{16}	17.0	X	23.42299	21.26431	167.17566	1.93243	0.0118774	0.22731787	2.6589714	21	3 31.2	20.4
294984 2008 EH_{17}	16.0	X	35.79478	43.89900	256.53869	6.51520	0.0631770	0.17660189	3.1463413	21	9 14.8	20.3
294985 2008 EX_{19}	17.6	X	234.27033	260.09037	344.20139	2.79564	0.1522380	0.28013565	2.3132565	21	—	—
294986 2008 EG_{20}	15.7	X	279.44398	255.85690	192.40370	9.80947	0.0436300	0.18737636	3.0245413	21	10 16.6	19.7
294987 2008 EK_{20}	17.7	X	312.44182	216.04859	250.31145	1.46493	0.1556796	0.27455305	2.3445088	21	—	—
294988 2008 ES_{20}	16.8	X	253.88718	50.25832	204.54760	5.12635	0.1382973	0.21171073	2.7880944	21	1 1.8	21.3
294989 2008 EB_{21}	16.4	X	312.17712	281.90601	307.47210	3.57289	0.0564451	0.22035571	2.7146875	21	2 12.1	20.1
294990 2008 EJ_{21}	15.8	X	168.97145	149.66805	126.32546	9.39895	0.1888203	0.19986023	2.8972443	21	—	—
294991 2008 EN_{22}	17.1	X	239.44602	118.39030	15.12812	6.45629	0.0795645	0.26781761	2.3836544	21	10 27.1	20.1
294992 2008 EB_{23}	15.9	X	101.70305	261.20540	357.28167	7.26092	0.2324337	0.18352687	3.0666881	21	11 1.5	21.1
294993 2008 EW_{26}	15.8	X	264.27013	92.69537	148.18850	12.46687	0.0964487	0.21210079	2.7846750	21	—	—
294994 2008 EZ_{27}	14.9	X	124.85906	83.74652	66.18964	9.95014	0.0816008	0.16935914	3.2354172	21	7 4.0	19.8
294995 2008 EN_{32}	16.8	X	283.12464	123.64321	153.80964	3.20132	0.0303174	0.23329771	2.6133389	21	3 11.2	20.2
294996 2008 ES_{32}	17.4	X	218.93773	202.23241	64.30323	4.94859	0.2122575	0.28136240	2.3065277	21	—	—
294997 2008 EA_{33}	17.2	X	260.37482	68.66824	115.34279	5.62113	0.1259361	0.27736417	2.3286407	21	—	—
294998 2008 EN_{35}	16.0	X	113.50039	281.40673	149.02128	15.61273	0.0844310	0.22527171	2.6750482	21	3 9.1	19.6
294999 2008 EW_{35}	16.7	X	36.54803	117.65542	52.60840	2.48799	0.0476140	0.22888845	2.6467939	21	3 26.8	20.0
295000 2008 EQ_{36}	16.8	X	303.94778	14.96865	135.19578	3.42894	0.1102259	0.27896727	2.3197110	21	—	—
295001 2008 EM_{39}	16.9	X	266.50604	337.09729	260.76249	4.71583	0.1972262	0.28741368	2.2740382	21	—	—
295002 2008 EZ_{40}	16.4	X	311.89676	92.28365	138.54783	12.14996	0.1587108	0.21985178	2.7188342	21	1 29.9	20.1
295003 2008 EA_{42}	15.9	X	323.25221	246.27421	19.88903	12.99801	0.2443818	0.22494517	2.6776364	21	3 21.4	19.1
295004 2008 EE_{42}	16.1	X	239.25887	276.48455	172.14327	11.42728	0.3227786	0.18239149	3.0794016	21	7 26.5	21.5
295005 2008 ET_{42}	15.6	X	55.46616	119.52992	168.97211	7.46018	0.1339991	0.17550939	3.1593844	21	10 11.0	19.9
295006 2008 EX_{42}	16.5	X	324.33395	119.82194	181.61747	12.82858	0.1733389	0.23237095	2.6202828	21	5 21.7	19.6
295007 2008 EY_{42}	16.7	X	88.21739	4.86916	56.32381	5.38252	0.0563209	0.21337257	2.7735989	21	1 20.6	20.3
295008 2008 EB_{44}	16.5	X	198.33232	121.08336	161.52762	3.78241	0.0611243	0.21153917	2.7896016	21	—	—
295009 2008 EX_{48}	18.1	X	19.25017	45.05293	66.53663	2.37614	0.1427609	0.29373787	2.2412798	21	—	—
295010 2008 EP_{49}	17.5	X	201.49238	223.82709	345.88316	2.38429	0.1379884	0.26819570	2.3814137	21	12 13.2	20.7
295011 2008 EW_{49}	16.1	X	154.22442	223.21284	343.80767	4.46514	0.1009880	0.18451947	3.0556803	21	10 13.3	20.8
295012 2008 EE_{51}	17.9	X	346.08444	328.36403	236.50049	1.28419	0.0991738	0.29682628	2.2257061	21	2 4.5	20.4
295013 2008 EZ_{51}	17.5	X	250.15548	164.07840	119.72553	7.49734	0.1667324	0.29287882	2.2456604	21	1 19.5	20.8
295014 2008 ES_{52}	16.5	X	22.53927	267.77436	191.48276	16.65215	0.0894538	0.21036696	2.7999549	21	—	—
295015 2008 EP_{54}	17.1	X	173.08110	58.52690	109.29774	3.37686	0.1110172	0.25377363	2.4708045	21	9 23.1	20.7
295016 2008 EV_{54}	16.7	X	11.08137	85.58227	124.54255	4.34025	0.1272117	0.22686724	2.6624912	21	4 11.1	19.5
295017 2008 ES_{57}	16.4	X	166.98578	116.23441	156.87194	9.58999	0.1012151	0.20467362	2.8516407	21	—	—
295018 2008 ED_{58}	16.4	X	107.88252	152.72910	208.63603	4.96987	0.0383798	0.20641757	2.8355563	21	—	—
295019 2008 ES_{59}	16.9	X	38.17621	315.12876	209.19714	4.26622	0.0320271	0.22635403	2.6665142	21	3 18.7	20.2
295020 2008 EF_{60}	17.1	X	235.93432	38.90319	223.63450	4.12447	0.1240727	0.28581871	2.2824904	21	—	—
295021 2008 EH_{68}	12.7	X	299.00881	208.27802	129.09621	28.32958	0.0756371	0.08187672	5.2524560	21	6 22.3	19.7
295022 2008 EG_{70}	17.1	X	232.77898	163.41267	99.33433	6.08687	0.1540623	0.28583438	2.2824069	21	—	—
295023 2008 EC_{73}	15.9	X	246.03998	282.86845	150.26749	7.24265	0.2592765	0.18274580	3.0754201	21	7 20.1	20.9
295024 2008 ET_{73}	13.4	X	327.70484	189.55906	71.33283	5.87118	0.0403368	0.08283228	5.2119827	21	5 1.9	20.1
295025 2008 EH_{74}	16.6	X	52.96842	153.13236	141.22923	6.75016	0.1043434	0.25351323	2.4724962	21	10 22.8	19.8
295026 2008 EA_{75}	16.1	X	159.61710	191.51199	101.20099	3.25930	0.0399122	0.20285371	2.8686710	21	—	—
295027 2008 EV_{75}	16.9	X	67.57892	284.76344	145.52667	5.71439	0.1514104	0.21615824	2.7497182	21	1 9.9	19.9
295028 2008 ED_{77}	16.0	X	225.48316	315.64966	167.31946	11.84883	0.1157653	0.18395325	3.0619475	21	9 14.2	20.4
295029 2008 EE_{77}	16.1	X	80.24913	186.22100	103.20346	3.15769	0.1485460	0.18263170	3.0767008	21	11 12.3	20.6
295030 2008 EB_{79}	16.7	X	49.57749	128.94948	349.67311	2.84762	0.0529628	0.22251770	2.6970749	21	2 6.4	19.9
295031 2008 EC_{81}	17.3	X	121.41598	90.21481	349.30640	1.59673	0.1124446	0.22876825	2.6477210	21	4 1.1	20.9
295032 2008 EL_{81}	15.6	X	212.95282	340.79569	92.03073	4.39156	0.0489519	0.17184130	3.2041857	21	7 5.0	20.1
295033 2008 EU_{81}	14.8	X	40.48086	230.93700	320.42490	7.45230	0.0843141	0.15900931	3.3743310	21	5 6.1	19.3
295034 2008 EX_{82}	17.5	X	13.24464	303.61326	288.44181	4.95891	0.1044839	0.30856909	2.1688746	21	5 3.9	19.4
295035 2008 EU_{83}	17.5	X	35.11358	96.78418	169.91335	8.61539	0.1561237	0.24490346	2.5301102	21	8 19.9	20.3
295036 2008 EJ_{86}	16.2	X	143.64699	238.99401	107.39093	5.41458	0.1120989	0.20975386	2.8054083	21	1 4.2	20.3
295037 2008 ER_{89}	16.9	X	255.98211	231.68848	325.05928	4.69136	0.1816426	0.27656693	2.3331136	21	—	—
295038 2008 EC_{92}	17.3	X	214.41375	41.23481	113.92555	3.12660	0.1153948	0.26461210	2.4028662	21	10 22.1	20.7
295039 2008 EP_{93}	16.2	X	257.66882	248.67786	97.50616	15.27639	0.1749210	0.24596228	2.5228439	21	4 27.4	20.3
295040 2008 EV_{95}	16.9	X	113.68167	207.26253	50.91366	5.33267	0.1369830	0.26073378	2.4266354	21	11 16.3	20.5

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	m		°	°	°	°		°				
295041 2008 ER_{98}	16.8	X	343.99764	38.18222	108.59270	7.57278	0.0562871	0.29064781	2.2571375	21	—	—
295042 2008 EU_{98}	17.0	X	236.30400	356.34982	102.75753	6.88089	0.0588297	0.25716874	2.4490102	21	9 12.2	20.3
295043 2008 EW_{98}	16.6	X	106.90028	269.60591	215.25021	7.72218	0.1405223	0.24089412	2.5581062	21	5 16.9	20.0
295044 2008 EV_{99}	15.4	X	119.54626	49.80768	126.13444	17.25542	0.0662003	0.17248773	3.1961752	21	7 28.8	20.0
295045 2008 EB_{100}	16.9	X	249.87351	224.52027	27.44485	25.83722	0.1981603	0.28345462	2.2951638	21	—	—
295046 2008 EZ_{101}	17.8	X	266.64709	105.75175	73.40979	3.62602	0.1782796	0.27869064	2.3212458	21	—	—
295047 2008 EE_{105}	18.1	X	173.53142	63.23992	30.90272	5.63705	0.0255802	0.31727783	2.1290028	21	6 11.4	20.6
295048 2008 EY_{107}	17.6	X	258.37115	160.43581	305.02475	0.59344	0.1391114	0.26806212	2.3822047	21	10 5.9	20.3
295049 2008 EZ_{107}	17.7	X	207.81582	107.27033	150.48300	5.40855	0.1361842	0.28398896	2.2922840	21	—	—
295050 2008 EU_{109}	18.2	X	88.23517	185.10822	263.16349	1.06821	0.0961581	0.30135540	2.2033495	21	2 9.6	20.2
295051 2008 EY_{110}	16.5	X	56.64995	318.55760	107.90950	6.28795	0.0578906	0.21279881	2.7785822	21	—	—
295052 2008 EN_{112}	15.9	X	81.57296	58.80727	198.46974	12.23771	0.0985951	0.17842131	3.1249152	21	9 27.1	20.4
295053 2008 EH_{114}	15.6	X	38.78354	70.96757	214.20278	9.25853	0.0493828	0.17517919	3.1633534	21	8 28.6	20.0
295054 2008 EU_{114}	15.7	X	282.56701	79.92134	325.30341	10.52575	0.0876285	0.17817540	3.1277898	21	8 19.1	19.9
295055 2008 EM_{115}	16.3	X	198.56687	76.44874	269.55198	4.79677	0.0498358	0.22101674	2.7092720	21	2 23.3	20.4
295056 2008 ED_{116}	16.3	X	48.92462	63.35940	358.11743	6.01346	0.0557800	0.20885359	2.8134643	21	—	—
295057 2008 EM_{116}	17.1	X	309.28366	293.12427	167.52249	7.26489	0.1745265	0.27225931	2.3576584	21	12 28.4	19.1
295058 2008 EU_{116}	17.1	X	101.66196	63.79418	76.75524	2.80249	0.0940683	0.23485909	2.6017435	21	5 24.5	20.6
295059 2008 EX_{117}	17.2	X	24.97742	226.47182	187.06516	1.79828	0.0629737	0.20706967	2.8296000	21	—	—
295060 2008 EL_{118}	15.6	X	164.40486	304.86270	172.44932	14.08087	0.2544426	0.17412398	3.1761207	21	7 9.5	21.4
295061 2008 EP_{119}	17.3	X	241.61613	274.08690	164.95250	5.72743	0.0741431	0.25247177	2.4792910	21	8 15.6	20.5
295062 2008 EW_{119}	17.1	X	109.54728	298.42180	150.13458	2.97800	0.0448475	0.22668327	2.6639316	21	3 20.3	20.5
295063 2008 EJ_{120}	17.9	X	181.93596	347.84508	164.89313	2.71471	0.1348774	0.25499758	2.4628919	21	9 10.3	21.7
295064 2008 EP_{120}	16.3	X	347.77677	201.43064	154.93022	2.90999	0.1988192	0.25441026	2.4666809	21	10 8.9	18.1
295065 2008 ET_{120}	17.0	X	357.47785	94.11475	20.26290	5.21925	0.1209131	0.21016184	2.8017764	21	—	—
295066 2008 EH_{121}	15.6	X	332.82308	328.24577	19.46550	9.38051	0.0836922	0.17500453	3.1654577	21	8 21.8	19.7
295067 2008 EY_{122}	16.4	X	29.70028	321.79847	299.18970	5.92672	0.1065587	0.24055166	2.5605336	21	7 26.7	19.0
295068 2008 EH_{123}	17.6	X	189.70890	350.37192	186.01612	5.65643	0.1731688	0.25932540	2.4354133	21	10 17.1	21.3
295069 2008 EE_{125}	17.4	X	258.69448	62.10740	129.44710	3.71874	0.1169049	0.28137886	2.3064378	21	—	—
295070 2008 EG_{125}	16.3	X	119.38934	295.41236	350.34092	8.58359	0.2249970	0.26948872	2.3737901	21	12 30.0	20.5
295071 2008 EH_{126}	16.7	X	199.48104	298.38514	278.91232	0.77922	0.0454305	0.19479641	2.9472394	21	12 17.0	20.9
295072 2008 ER_{126}	16.3	X	350.93546	68.91139	336.37189	9.47733	0.0982490	0.19499470	2.9452410	21	11 30.2	20.1
295073 2008 EW_{127}	17.0	X	98.06101	204.03174	22.87663	5.37633	0.1162885	0.25200758	2.4823345	21	9 19.5	20.5
295074 2008 ED_{130}	17.0	X	168.76505	196.93438	101.73413	3.10782	0.2069752	0.27734823	2.3287299	21	—	—
295075 2008 EK_{130}	16.9	X	307.36395	147.09576	130.80249	4.38662	0.0385489	0.23113862	2.6295880	21	4 13.6	20.4
295076 2008 ER_{131}	16.0	X	230.31985	256.53499	44.61859	8.05021	0.2077513	0.21482530	2.7610807	21	2 4.7	20.8
295077 2008 EG_{133}	15.4	X	32.85656	352.38428	295.35177	7.94580	0.0434929	0.17969502	3.1101310	21	8 24.2	19.6
295078 2008 EW_{133}	17.3	X	159.45270	87.95182	252.76855	5.56985	0.0467006	0.29162056	2.2521153	21	—	—
295079 2008 ED_{135}	16.6	X	19.52517	330.67032	112.37672	3.19691	0.0207927	0.20561326	2.8429462	21	—	—
295080 2008 EH_{135}	16.7	X	65.34136	252.21768	84.26202	3.14502	0.0483218	0.19205550	2.9752140	21	12 9.8	20.9
295081 2008 EL_{135}	17.3	X	40.87165	211.98440	66.26611	3.14543	0.1886828	0.24510711	2.5287085	21	9 24.3	20.1
295082 2008 EO_{136}	17.6	X	292.09085	92.27195	38.30142	2.69049	0.1496689	0.27429957	2.3459529	21	—	—
295083 2008 EX_{136}	17.7	X	154.34618	342.54897	124.47529	2.26063	0.1140819	0.24053868	2.5606257	21	6 13.3	21.6
295084 2008 EY_{139}	17.0	X	10.74717	305.09724	242.08121	3.53582	0.0886549	0.22391082	2.6858762	21	3 7.2	20.1
295085 2008 EZ_{140}	16.5	X	281.72539	334.36357	293.49742	3.22005	0.0792991	0.22167523	2.7039040	21	2 19.1	20.3
295086 2008 EF_{142}	17.1	X	202.70921	290.96044	300.43491	5.92266	0.0727281	0.27263290	2.3555042	21	—	—
295087 2008 EF_{144}	16.1	X	19.68468	359.03380	294.14502	2.51959	0.0843585	0.17271609	3.1933573	21	8 17.8	20.1
295088 2008 EO_{147}	16.4	X	126.39939	9.34665	359.23550	12.54811	0.1386653	0.21276419	2.7788836	21	1 17.9	20.5
295089 2008 EB_{148}	15.8	X	296.58817	194.05388	184.25942	27.57259	0.1638425	0.17413891	3.1759391	21	7 19.9	20.6
295090 2008 EK_{149}	16.4	X	16.94461	213.76619	259.58941	3.29511	0.0217564	0.21083518	2.7958079	21	—	—
295091 2008 EA_{150}	16.8	X	286.56536	200.02911	322.45343	2.50750	0.0522950	0.20285130	2.8686938	21	—	—
295092 2008 EG_{150}	16.2	X	140.62734	14.50168	173.83926	9.92183	0.0585423	0.17771248	3.1332191	21	9 4.9	20.8
295093 2008 EN_{151}	17.5	X	73.70777	274.85461	356.45062	1.73058	0.1663875	0.25336096	2.4734867	21	10 23.8	20.8
295094 2008 EU_{157}	17.9	X	243.74392	319.61486	209.91895	1.35050	0.1469219	0.27027454	2.3691867	21	12 11.9	20.8
295095 2008 EN_{158}	15.6	X	246.89266	233.35736	55.75548	12.94518	0.1192354	0.21718150	2.7410745	21	2 10.6	20.1
295096 2008 EP_{158}	16.2	X	134.32664	264.14312	75.19116	7.09598	0.0732383	0.20447103	2.8535240	21	—	—
295097 2008 EY_{159}	15.6	X	100.01544	61.54179	159.95806	10.54903	0.0237131	0.17866104	3.1221192	21	8 26.4	19.9
295098 2008 EA_{160}	17.0	X	221.16307	203.34641	91.33380	2.15532	0.0976737	0.21199080	2.7856382	21	1 19.9	21.2
295099 2008 EP_{160}	15.3	X	125.51021	167.32964	161.99559	4.63706	0.0390069	0.12928629	3.8734777	21	—	—
295100 2008 EH_{161}	16.8	X	192.18230	17.73216	314.87231	4.29495	0.0402540	0.21786785	2.7353146	21	2 2.0	20.7
295101 2008 EL_{161}	16.3	X	104.01817	157.96503	178.01057	15.11627	0.1635669	0.19956438	2.9001071	21	—	—
295102 2008 EZ_{161}	15.5	X	326.86542	293.32100	40.84682	8.16768	0.0909714	0.17199910	3.2022257	21	7 22.8	19.7
295103 2008 EL_{162}	17.0	X	265.93941	180.11690	60.07165	0.96608	0.0168796	0.21419967	2.7664544	21	1 6.8	20.6
295104 2008 EM_{165}	16.4	X	190.55676	214.66066	350.71981	3.50947	0.1040361	0.19034486	2.9930131	21	11 16.9	21.0
295105 2008 EU_{165}	15.9	X	260.55903	140.99667	113.09080	6.29578	0.0191710	0.21560052	2.7544581	21	1 16.9	19.5
295106 2008 EV_{165}	16.0	X	276.64681	141.63738	112.60818	9.68141	0.1319683	0.21496766	2.7598616	21	1 24.2	20.2
295107 2008 ES_{166}	16.6	X	338.16851	170.63723	99.62487	7.99250	0.1256876	0.23243845	2.6197755	21	5 8.4	19.6
295108 2008 EP_{167}	17.6	X	158.66597	71.86034	177.40457	1.39962	0.1450592	0.26658727	2.3909827	21	12 18.9	21.3
295109 2008 FO_{2}	16.3	X	35.01592	92.50877	174.53046	9.54119	0.0449202	0.17427961	3.1742296	21	8 1.1	20.7
295110 2008 FQ_{3}	16.2	X	188.42722	170.44848	12.16767	4.60390	0.0754844	0.18956720	3.0011930	21	10 20.5	20.8
295111 2008 FY_{4}	16.2	X	66.46694	322.72551	4.14931	10.00242	0.0746263	0.19123621	2.9837055	21	11 30.7	20.6
295112 2008 FA_{5}	17.3	X	31.25148	335.16057	114.06417	2.90133	0.0369318	0.21037340	2.7998977	21	—	—
295113 2008 FL_{5}	17.2	X	206.59302	247.86485	321.27450	0.76135	0.1286529	0.26910210	2.3760632	21	12 19.6	20.5
295114 2008 FD_{6}	15.5	X	205.66558	106.55912	322.94788	20.49183	0.1741096	0.17219093	3.1998469	21	6 18.6	21.1
295115 2008 FS_{7}	15.6	X	38.92241	124.37245	161.11880	13.97001	0.2793503	0.17506921	3.1646781	21	10 7.8	19.6
295116 2008 FR_{8}	18.3	X	6.44668	56.77923	70.05929	1.87824	0.1286301	0.29162727	2.2520807	21	—	—
295117 2008 FE_{9}	16.2	X	143.09446	279.38752	349.36897	9.20339	0.0714436	0.19814483	2.9139419	21	12 16.8	20.7
295118 2008 FL_{11}	16.0	X	141.53598	57.47120	158.45888	11.40009	0.0542537	0.18889399	3.0083195	21	10 14.4	20.5
295119 2008 FH_{15}	16.9	X	120.05488	216.82225	132.57607	7.44549	0.1204468	0.27540870	2.3396503	21	—	—
295120 2008 FT_{15}	16.1	X	246.41883	106.06948	153.52363	7.57932	0.0860972	0.20871481	2.8147114	21	1 3.8	20.5

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295121 2008 FO_{16}	16.5	X	216.62773	74.89825	185.43112	3.34275	0.0496208	0.20995810	2.8035887	21	—	—
295122 2008 FS_{16}	17.0	X	74.56240	218.17052	150.20776	3.47129	0.1466866	0.27883378	2.3204513	21	—	—
295123 2008 FE_{22}	16.5	X	205.90141	251.92351	105.56398	7.31259	0.0324972	0.22352639	2.6889549	21	3 23.8	20.4
295124 2008 FS_{23}	16.4	X	76.07884	315.74221	131.92705	5.95474	0.0848410	0.21765011	2.7371386	21	2 8.1	19.7
295125 2008 FF_{24}	15.9	X	111.83671	85.79024	160.37070	10.30809	0.0604919	0.18066033	3.0990423	21	10 17.6	20.5
295126 2008 FG_{25}	15.9	X	42.72156	273.56454	23.12595	5.08267	0.1190951	0.17633868	3.1494714	21	10 1.4	20.1
295127 2008 FT_{25}	17.3	X	296.39525	175.50216	47.43800	5.91054	0.1001737	0.28793383	2.2712987	21	—	—
295128 2008 FU_{26}	17.6	X	184.06864	16.94902	234.76149	1.52833	0.1888265	0.26753116	2.3853556	21	—	—
295129 2008 FK_{27}	16.8	X	49.49425	283.53167	278.27580	1.84313	0.0943066	0.23182964	2.6243600	21	6 2.0	19.9
295130 2008 FF_{28}	17.8	X	304.72574	145.24058	32.09200	6.48194	0.1178939	0.28332786	2.2958484	21	—	—
295131 2008 FJ_{28}	16.2	X	277.49899	199.81916	42.96304	8.55674	0.1711857	0.21257200	2.7805583	21	1 8.6	20.6
295132 2008 FO_{28}	17.3	X	342.85246	270.91676	357.61257	2.08691	0.0551619	0.23919053	2.5702383	21	5 16.9	20.2
295133 2008 FL_{29}	16.7	X	308.69154	70.63636	163.45600	9.10290	0.1302009	0.22330550	2.6907278	21	2 1.5	20.5
295134 2008 FW_{29}	16.4	X	179.18403	198.81348	351.45159	4.95973	0.0459217	0.19046343	2.9917708	21	10 20.5	20.9
295135 2008 FN_{30}	17.3	X	139.22648	118.08868	139.45891	3.01128	0.1733802	0.26420361	2.4053422	21	12 10.8	21.3
295136 2008 FV_{31}	16.5	X	195.96704	109.21394	320.68737	3.47491	0.1720492	0.17242027	3.1970089	21	6 8.8	21.8
295137 2008 FK_{32}	17.7	X	309.29518	247.30827	343.47769	4.46972	0.1303782	0.29559433	2.2318859	21	1 16.9	20.4
295138 2008 FT_{32}	17.8	X	210.47142	299.99394	205.42993	1.38692	0.0589377	0.26095476	2.4252652	21	10 8.8	21.0
295139 2008 FO_{37}	16.6	X	185.82153	122.90075	108.40065	3.47501	0.0983178	0.19302899	2.9652025	21	12 14.5	21.0
295140 2008 FT_{39}	13.8	X	263.45507	282.73269	53.20968	7.50455	0.0399059	0.08206033	5.2446181	21	5 11.4	20.7
295141 2008 FX_{39}	16.7	X	185.80671	263.66749	95.70535	3.36921	0.0863160	0.21938428	2.7226953	21	3 3.2	20.8
295142 2008 FE_{40}	17.5	X	266.93822	178.93014	112.71144	2.79672	0.0794899	0.29554664	2.2321259	21	2 22.5	20.4
295143 2008 FP_{40}	16.8	X	246.86130	233.05045	43.07597	6.85369	0.0941454	0.28769574	2.2725516	21	1 11.0	20.1
295144 2008 FD_{41}	17.8	X	349.98993	72.10008	135.51116	3.36526	0.0974497	0.29670013	2.2263369	21	2 15.9	19.8
295145 2008 FM_{44}	16.1	X	127.53500	92.99189	148.82802	7.19082	0.1138055	0.18257577	3.0773291	21	11 1.7	21.0
295146 2008 FG_{45}	17.1	X	351.17698	88.57282	150.27964	2.46516	0.1334582	0.23113130	2.6296435	21	4 13.3	19.9
295147 2008 FA_{49}	17.6	X	77.07158	261.91872	32.68208	2.69929	0.1854701	0.25561533	2.4589222	21	11 28.5	21.3
295148 2008 FO_{51}	17.0	X	283.05176	113.76607	182.76856	11.79197	0.1815494	0.22414549	2.6840012	21	3 15.7	21.1
295149 2008 FY_{52}	16.9	X	15.28636	329.83810	148.20925	3.20177	0.0718643	0.21121998	2.7924113	21	—	—
295150 2008 FJ_{53}	16.6	X	148.66966	255.52565	41.37845	2.45456	0.0432536	0.19832389	2.9121877	21	—	—
295151 2008 FA_{54}	15.9	X	198.92914	19.70582	82.09270	2.44459	0.1932110	0.17307467	3.1889451	21	7 19.7	21.2
295152 2008 FU_{54}	15.4	X	102.18299	281.39614	30.01934	10.49439	0.0991420	0.18987823	2.9979147	21	12 25.7	20.1
295153 2008 FX_{57}	13.0	X	7.80230	53.41656	207.63883	22.17109	0.0411243	0.08422156	5.1545077	21	6 17.8	19.9
295154 2008 FF_{59}	17.6	X	31.00890	111.97256	333.87417	3.79827	0.1077001	0.28618808	2.2805260	21	—	—
295155 2008 FH_{60}	16.7	X	153.44671	262.90233	55.74725	7.42231	0.1271675	0.27761055	2.3272627	21	—	—
295156 2008 FZ_{61}	15.7	X	307.33789	38.97840	337.31731	10.17784	0.0557134	0.17977511	3.1092073	21	8 21.4	19.9
295157 2008 FK_{62}	17.2	X	115.59465	106.95021	164.70576	2.80115	0.1950952	0.26192348	2.4192816	21	12 7.9	21.1
295158 2008 FF_{63}	17.4	X	358.95207	335.79297	132.36542	4.73492	0.1055722	0.28144584	2.3060718	21	—	—
295159 2008 FN_{63}	15.7	X	138.68608	40.01483	177.55199	16.18096	0.1616788	0.18084806	3.0968973	21	10 16.1	20.8
295160 2008 FC_{65}	17.5	X	243.38107	32.04756	79.23507	3.73470	0.1427411	0.25643412	2.4536852	21	9 24.5	20.7
295161 2008 FH_{65}	16.7	X	137.97122	80.57706	174.51368	3.28870	0.1247710	0.18508446	3.0494586	21	11 25.9	21.5
295162 2008 FK_{65}	17.3	X	95.73859	2.74067	182.92011	2.75649	0.0611537	0.23882748	2.5728424	21	7 11.9	20.7
295163 2008 FR_{65}	16.5	X	116.99551	324.83820	198.69720	8.33068	0.1032725	0.23970767	2.5665404	21	7 13.5	20.3
295164 2008 FM_{67}	17.1	X	105.71379	129.98020	36.69194	6.42199	0.2139106	0.23971980	2.5664537	21	7 21.0	21.0
295165 2008 FP_{67}	16.2	X	99.97455	12.65826	41.87061	9.35346	0.0129612	0.21187157	2.7866831	21	1 23.6	20.1
295166 2008 FS_{67}	16.9	X	151.77654	344.75130	162.13414	3.66863	0.1583865	0.24467979	2.5316519	21	8 3.2	21.0
295167 2008 FX_{68}	17.9	X	84.06983	329.07687	146.03717	2.72782	0.0784251	0.29786094	2.2205489	21	3 14.1	20.1
295168 2008 FG_{71}	15.9	X	249.52890	108.05067	141.29445	5.55790	0.0479885	0.21025408	2.8009569	21	—	—
295169 2008 FR_{71}	15.9	X	346.42644	157.89466	161.66305	9.92624	0.0854953	0.17455863	3.1708461	21	7 31.1	20.0
295170 2008 FO_{72}	13.5	X	327.55724	234.48301	53.46697	9.49922	0.1045389	0.08385910	5.1693496	21	5 25.0	20.0
295171 2008 FQ_{80}	17.0	X	18.26860	82.86606	347.21010	1.39794	0.0496053	0.20244237	2.8725556	21	—	—
295172 2008 FW_{81}	17.1	X	194.80586	291.42674	162.67602	3.57354	0.0557048	0.24462705	2.5320157	21	7 10.6	20.7
295173 2008 FA_{83}	16.6	X	74.33633	283.79700	145.91784	4.36739	0.0799629	0.21340866	2.7732862	21	1 13.2	20.1
295174 2008 FU_{83}	17.0	X	357.24962	287.97042	160.36293	5.05709	0.1087522	0.27645242	2.3337578	21	—	—
295175 2008 FL_{86}	17.2	X	231.71881	188.39683	67.33645	1.95759	0.0163620	0.21111086	2.7933734	21	—	—
295176 2008 FO_{88}	17.0	X	53.34778	318.47739	186.10139	3.93478	0.0477867	0.22379049	2.6868389	21	3 16.3	20.5
295177 2008 FE_{89}	15.4	X	107.17508	216.43828	325.56096	10.55489	0.0196960	0.17820507	3.1274426	21	7 17.7	19.8
295178 2008 FA_{90}	17.9	X	260.46435	246.35321	8.51318	4.55161	0.1942108	0.29074739	2.2566221	21	—	—
295179 2008 FH_{90}	16.6	X	44.47701	312.37056	145.43076	5.74134	0.0332545	0.21974483	2.7197163	21	1 2.5	20.2
295180 2008 FL_{90}	16.3	X	236.76761	90.79896	151.11452	8.27442	0.1806985	0.21006331	2.8026524	21	—	—
295181 2008 FJ_{91}	17.2	X	338.30588	39.84536	83.56286	4.34338	0.0761306	0.28146406	2.3059723	21	—	—
295182 2008 FO_{93}	16.3	X	96.41971	79.81414	178.09390	10.32070	0.0736408	0.17811382	3.1285106	21	10 14.4	20.8
295183 2008 FK_{94}	15.6	X	55.70693	160.66217	125.03753	6.38625	0.1479731	0.17271501	3.1933706	21	10 10.9	20.0
295184 2008 FD_{95}	16.1	X	135.14460	34.01361	155.37873	6.37722	0.0592143	0.17261136	3.1946488	21	8 31.8	20.9
295185 2008 FR_{95}	16.6	X	275.88946	136.73193	144.74297	2.98540	0.0782140	0.22145102	2.7057287	21	3 2.9	20.4
295186 2008 FT_{96}	16.6	X	236.12314	175.93531	36.19484	25.74891	0.1592030	0.27363256	2.3497637	21	—	—
295187 2008 FC_{98}	16.4	X	116.20107	318.49675	98.95477	6.00306	0.0990861	0.21943685	2.7222604	21	2 27.6	20.1
295188 2008 FE_{98}	17.1	X	199.76199	319.48593	128.77143	5.57778	0.1220384	0.24413149	2.5354410	21	7 6.1	20.8
295189 2008 FG_{100}	17.3	X	245.03256	177.64549	62.55430	7.44896	0.0677151	0.28011610	2.3133642	21	—	—
295190 2008 FR_{100}	16.0	X	135.20107	81.26206	142.97998	7.13583	0.0615194	0.18010901	3.1053634	21	10 16.7	20.7
295191 2008 FQ_{101}	16.0	X	170.49408	195.97762	89.61690	6.84419	0.0179107	0.19895591	2.9060170	21	—	—
295192 2008 FX_{101}	15.7	X	103.94111	155.64187	121.84427	6.59397	0.1242293	0.18131888	3.0915341	21	11 20.5	20.5
295193 2008 FE_{102}	16.1	X	8.53777	135.29614	114.78915	5.34919	0.1618773	0.23077957	2.6323147	21	6 2.9	18.6
295194 2008 FO_{102}	16.5	X	359.00274	7.74514	93.71987	7.75534	0.0279133	0.20033577	2.8926577	21	—	—
295195 2008 FN_{107}	17.7	X	41.51703	305.66076	151.62500	4.43141	0.1714240	0.28901341	2.2656390	21	—	—
295196 2008 FQ_{107}	15.2	X	40.27299	233.46453	39.81032	11.05697	0.0447725	0.17093071	3.2155554	21	8 23.6	19.8
295197 2008 FF_{109}	16.5	X	76.69845	173.82860	115.19974	3.73816	0.0979290	0.18274801	3.0753953	21	11 2.3	20.9
295198 2008 FZ_{110}	17.3	X	92.63000	23.54753	209.65890	4.65079	0.0908235	0.24556682	2.5255517	21	9 14.6	20.7
295199 2008 FG_{111}	13.1	X	6.89878	32.91870	228.83046	11.79736	0.0836060	0.08280345	5.2131927	21	6 19.3	19.6
295200 2008 FD_{114}	18.1	X	194.59327	138.04431	138.23438	2.20416	0.1553080	0.27494068	2.3423047	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295201 2008 FY_{114}	16.4	X	232.13277	57.90599	99.92954	2.58727	0.0339462	0.19001362	2.9964905	21	11 14.4	20.5
295202 2008 FR_{116}	16.9	X	58.40397	343.05950	209.66444	0.22003	0.1379685	0.23307510	2.6150026	21	6 10.2	19.9
295203 2008 FB_{117}	16.3	X	265.20945	353.38262	40.01659	6.51810	0.1945878	0.24161299	2.5530296	21	6 27.5	19.9
295204 2008 FV_{117}	16.8	X	8.09719	312.27416	206.80833	2.79364	0.1338533	0.21676374	2.7445952	21	1 23.1	19.9
295205 2008 FW_{122}	13.6	X	284.94565	193.41190	149.19447	9.12910	0.1938395	0.08307566	5.2017984	21	5 24.9	20.6
295206 2008 FH_{123}	16.4	X	151.83916	19.81678	186.64555	5.14343	0.1140079	0.17923994	3.1153932	21	10 11.9	21.4
295207 2008 FV_{123}	13.3	X	204.77433	207.11758	211.23526	23.02709	0.0901337	0.08334625	5.1905336	21	6 7.4	20.7
295208 2008 FD_{124}	16.8	X	227.88066	177.56276	156.46522	6.44826	0.0346816	0.21901542	2.7257515	21	3 17.9	20.5
295209 2008 FE_{124}	16.0	X	32.14110	259.48332	63.50973	10.16122	0.0966762	0.17492853	3.1663745	21	10 19.5	20.2
295210 2008 FJ_{124}	16.0	X	106.39068	78.78755	183.50066	3.82162	0.1749147	0.17755410	3.1350821	21	11 7.8	21.0
295211 2008 FT_{124}	16.8	X	257.55604	240.45458	164.66050	10.90831	0.1238049	0.24282739	2.5445106	21	7 12.7	20.5
295212 2008 FH_{128}	17.7	X	339.30909	148.01137	34.23962	6.72359	0.1135337	0.28851054	2.2682709	21	—	—
295213 2008 FF_{129}	16.8	X	62.07361	349.98776	121.92891	5.88458	0.1173579	0.21674346	2.7447664	21	2 23.8	20.0
295214 2008 FY_{130}	15.7	X	135.30924	119.80140	152.67392	9.19961	0.0501021	0.19016833	2.9948650	21	12 12.6	20.2
295215 2008 FJ_{132}	16.6	X	138.30350	22.54817	225.45613	4.07435	0.2107680	0.26004987	2.4308880	21	11 28.1	20.7
295216 2008 FO_{132}	15.9	X	44.80570	200.79504	111.52350	6.44831	0.1434867	0.17719770	3.1392844	21	10 29.5	20.1
295217 2008 FZ_{132}	13.1	X	337.82701	72.26039	211.00339	30.99232	0.0847896	0.08331312	5.1919094	21	6 3.0	19.9
295218 2008 FH_{133}	16.9	X	159.44246	268.85911	111.83902	5.93178	0.0700889	0.21966547	2.7203713	21	2 28.2	20.8
295219 2008 FD_{136}	17.3	X	160.78598	232.59189	16.92320	1.28761	0.1504629	0.26603616	2.3942836	21	12 20.8	21.1
295220 2008 FD_{137}	17.4	X	15.66863	57.92017	205.46954	12.81176	0.2374708	0.23432180	2.6057190	21	7 12.4	19.9
295221 2008 GM	17.9	X	299.43021	222.08269	354.90365	4.02368	0.1942767	0.28738313	2.2741994	21	—	—
295222 2008 GH_{1}	16.3	X	353.16462	44.38312	214.65572	10.19746	0.0321349	0.23337158	2.6127874	21	5 22.7	19.6
295223 2008 GM_{4}	17.5	X	199.49614	5.42363	220.05653	2.26353	0.1677965	0.27158520	2.3615582	21	12 28.4	20.9
295224 2008 GL_{6}	16.8	X	164.61873	242.49318	116.34811	6.06041	0.1318402	0.21436024	2.7650728	21	2 12.1	21.1
295225 2008 GN_{6}	16.6	X	148.33436	316.86340	74.04363	6.87712	0.0442385	0.21925544	2.7237619	21	2 26.7	20.5
295226 2008 GC_{7}	13.1	X	302.29930	292.13206	42.12579	19.45210	0.0701000	0.08583309	5.0897863	21	6 16.9	19.9
295227 2008 GG_{7}	15.9	X	107.02578	238.10422	73.74270	5.12830	0.2429164	0.18590983	3.0404263	21	—	—
295228 2008 GP_{7}	17.9	X	264.13296	69.10348	147.04203	3.14125	0.1704727	0.27897910	2.3196454	21	—	—
295229 2008 GW_{9}	18.0	X	267.92896	65.78069	91.61569	2.13889	0.1240883	0.26978143	2.3720728	21	—	—
295230 2008 GJ_{11}	17.3	X	69.31906	348.68952	176.94345	2.21464	0.1376476	0.22936468	2.6431290	21	5 20.7	20.4
295231 2008 GY_{12}	15.7	X	334.95628	183.22950	182.48578	13.75978	0.0636769	0.17755718	3.1350458	21	9 13.6	19.7
295232 2008 GF_{13}	16.3	X	241.77322	226.08382	163.72467	4.27127	0.2365511	0.23941518	2.5686303	21	5 26.3	20.5
295233 2008 GW_{13}	16.2	X	49.32325	155.43731	80.09756	2.36373	0.0638308	0.16763098	3.2576158	21	7 15.3	20.4
295234 2008 GW_{18}	15.6	X	90.23208	192.19711	93.84638	7.90236	0.2348181	0.17884473	3.1199810	21	11 26.4	20.6
295235 2008 GC_{19}	17.7	X	310.39976	117.21902	186.99712	21.67621	0.1468195	0.37906792	1.8908541	21	4 21.1	19.4
295236 2008 GK_{19}	17.7	X	342.09947	44.53923	142.56092	7.22906	0.1867500	0.29174008	2.2515002	21	—	—
295237 2008 GY_{19}	18.0	X	292.24682	119.72093	157.17569	5.64442	0.1467602	0.29327937	2.2436152	21	2 24.2	21.1
295238 2008 GR_{20}	16.9	X	232.38653	138.59924	64.95681	4.76050	0.1167016	0.27449159	2.3448588	21	—	—
295239 2008 GJ_{21}	17.6	X	198.01788	60.59603	186.45581	0.88160	0.1518598	0.27102936	2.3647859	21	—	—
295240 2008 GO_{24}	15.5	X	350.64783	173.92113	183.58144	19.44974	0.2173332	0.17799333	3.1299224	21	10 1.2	18.6
295241 2008 GY_{24}	15.8	X	204.61787	42.43198	57.68877	6.04134	0.0403582	0.17205330	3.2015531	21	7 31.9	20.5
295242 2008 GL_{25}	15.9	X	123.35178	64.68919	100.92181	4.20024	0.1175012	0.16919555	3.2375024	21	7 25.6	20.7
295243 2008 GS_{26}	16.4	X	190.05383	231.53962	70.84747	23.02871	0.1386221	0.28262912	2.2996308	21	—	—
295244 2008 GN_{27}	16.9	X	262.17193	118.54013	202.60114	3.90117	0.0980375	0.23083459	2.6318964	21	4 1.9	20.7
295245 2008 GF_{28}	17.1	X	163.68206	307.01338	110.14230	4.38781	0.0818568	0.22887842	2.6468713	21	4 20.1	20.9
295246 2008 GX_{33}	16.4	X	148.73489	77.78979	190.61157	9.89848	0.0783148	0.19350023	2.9603864	21	12 21.6	21.1
295247 2008 GX_{36}	16.3	X	71.78542	90.32479	139.55865	5.48651	0.0342140	0.24086297	2.5583268	21	8 5.5	19.4
295248 2008 GP_{38}	15.7	X	119.52373	201.16468	56.84128	13.27496	0.0943586	0.17938856	3.1136722	21	11 9.9	20.5
295249 2008 GY_{38}	16.6	X	232.08158	220.28369	89.26145	5.29228	0.0810168	0.21272716	2.7792061	21	2 19.9	20.8
295250 2008 GZ_{38}	17.9	X	261.26012	139.39912	162.78767	4.22995	0.1706837	0.29051465	2.2578272	21	2 21.9	21.3
295251 2008 GQ_{40}	16.9	X	169.27897	211.29810	158.73950	6.61979	0.0594795	0.21672550	2.7449180	21	2 23.4	20.9
295252 2008 GH_{41}	15.8	X	171.20617	321.26317	165.79872	8.96363	0.0540295	0.16815408	3.2508563	21	7 23.9	20.8
295253 2008 GR_{43}	16.1	X	340.02672	322.92341	99.85731	3.27635	0.0385403	0.19339666	2.9614432	21	12 5.8	19.9
295254 2008 GV_{45}	15.9	X	40.73030	253.36773	75.85143	12.73297	0.1244289	0.17754903	3.1351417	21	11 11.4	20.2
295255 2008 GB_{47}	17.7	X	16.86438	6.88324	138.82096	6.61782	0.0602381	0.28697551	2.2763524	21	1 7.2	20.1
295256 2008 GW_{49}	13.4	X	299.74163	225.51166	103.95558	4.96087	0.1090002	0.08277454	5.2144061	21	6 6.2	20.0
295257 2008 GK_{50}	16.8	X	239.47673	211.32145	38.17987	4.84134	0.0148963	0.20915434	2.8107667	21	—	—
295258 2008 GM_{50}	16.2	X	73.48916	25.06034	37.70151	4.80885	0.0590277	0.21197658	2.7857628	21	1 2.1	19.8
295259 2008 GQ_{51}	17.0	X	31.45138	164.46993	35.79960	5.43205	0.0514100	0.23044891	2.6348321	21	4 28.1	20.0
295260 2008 GS_{56}	16.5	X	189.85958	184.13430	179.91574	6.39217	0.0148177	0.22186689	2.7023466	21	3 8.2	20.1
295261 2008 GT_{58}	16.4	X	7.65708	222.35987	162.54142	1.87091	0.0331692	0.18959576	3.0008915	21	11 24.6	20.3
295262 2008 GT_{59}	16.4	X	16.11478	87.71748	35.92951	9.32580	0.0432425	0.21456505	2.7633129	21	—	—
295263 2008 GB_{60}	16.5	X	81.17580	219.89647	208.14155	6.91498	0.0513014	0.21034466	2.8001528	21	1 16.9	20.2
295264 2008 GG_{65}	16.0	X	30.42704	110.01841	200.88162	7.06957	0.0409913	0.17674483	3.1446446	21	9 20.4	20.3
295265 2008 GD_{66}	16.0	X	34.00717	111.91872	184.04535	9.36960	0.0813730	0.17478221	3.1681414	21	9 11.0	20.2
295266 2008 GB_{68}	17.0	X	134.81655	191.01747	75.97606	6.42754	0.0778581	0.26079860	2.4262332	21	12 17.1	20.4
295267 2008 GL_{68}	17.4	X	256.42158	117.35824	166.82354	6.22245	0.1143720	0.28810787	2.2703839	21	1 28.3	20.6
295268 2008 GX_{68}	16.1	X	135.16142	237.41061	59.05802	9.93908	0.0740932	0.19154725	2.9804746	21	—	—
295269 2008 GF_{69}	15.3	X	72.95764	89.81210	208.81735	26.41163	0.0836977	0.17821462	3.1273309	21	11 6.2	19.8
295270 2008 GQ_{72}	17.7	X	18.41372	107.17507	185.07186	3.43445	0.2235846	0.24190147	2.5509995	21	9 6.3	19.9
295271 2008 GK_{73}	16.5	X	115.34384	47.27963	181.95201	4.64300	0.1002024	0.17906858	3.1173804	21	10 1.9	21.3
295272 2008 GZ_{73}	16.0	X	107.23041	82.91500	162.90942	9.80231	0.0641147	0.17823632	3.1270770	21	10 11.6	20.6
295273 2008 GW_{76}	17.5	X	159.31366	105.94358	156.60483	6.85871	0.0851159	0.26548735	2.3975821	21	—	—
295274 2008 GP_{79}	16.9	X	59.91602	11.56920	170.79523	2.27950	0.1429796	0.23050762	2.6343847	21	5 30.1	19.9
295275 2008 GC_{81}	17.2	X	155.11252	162.93753	101.52226	4.08611	0.1474404	0.26254340	2.4154718	21	—	—
295276 2008 GW_{81}	17.3	X	45.54001	321.12809	156.33409	5.16222	0.1332436	0.29416778	2.2390957	21	1 8.7	19.1
295277 2008 GF_{84}	17.0	X	279.54887	212.75304	74.33823	6.50187	0.1077678	0.29470145	2.2363917	21	3 3.1	20.0
295278 2008 GS_{87}	17.4	X	231.78588	291.17818	186.72131	5.90660	0.0925983	0.25639738	2.4539196	21	9 23.5	20.5
295279 2008 GV_{90}	17.0	X	301.10174	253.85084	44.24014	3.26228	0.0536912	0.22990345	2.6389980	21	4 28.0	20.3
295280 2008 GG_{93}	17.1	X	203.46867	60.66388	108.15520	5.46764	0.0866346	0.26149312	2.4219353	21	10 30.9	20.5

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295281 2008 GL_{93}	15.6	X	255.40966	165.22167	72.04710	9.96536	0.0952001	0.20942750	2.8083221	21	—	—
295282 2008 GN_{93}	16.0	X	272.49965	183.87879	65.78352	14.37996	0.1544705	0.21160411	2.7890308	21	1 13.8	20.5
295283 2008 GP_{93}	15.9	X	219.86470	268.05096	165.14230	7.43589	0.1460702	0.17697670	3.1418973	21	7 5.4	20.9
295284 2008 GY_{94}	16.0	X	313.65946	200.25631	143.97832	8.65609	0.0415932	0.16962207	3.2320729	21	7 19.1	20.4
295285 2008 GD_{95}	15.7	X	279.94955	185.23520	63.11137	18.56830	0.1918791	0.21533771	2.7566988	21	1 15.6	20.3
295286 2008 GG_{97}	17.9	X	109.54430	250.73503	12.47225	1.81195	0.1877687	0.25367033	2.4714753	21	11 20.3	21.9
295287 2008 GC_{100}	16.0	X	115.63372	80.20364	200.36252	9.43707	0.1332146	0.18456872	3.0551368	21	12 5.2	20.9
295288 2008 GU_{101}	15.9	X	312.08395	202.84538	52.85649	10.57821	0.1043684	0.22070742	2.7118027	21	3 16.8	19.6
295289 2008 GZ_{101}	15.6	X	70.49144	89.53493	185.04068	10.16869	0.0508655	0.17448484	3.1717400	21	9 29.2	20.0
295290 2008 GP_{102}	16.0	X	356.78802	95.17342	189.17793	6.66382	0.1722298	0.23330998	2.6132473	21	6 29.2	18.5
295291 2008 GY_{103}	16.4	X	148.72862	257.54038	146.46220	7.46948	0.0189302	0.22063163	2.7124237	21	3 10.5	20.0
295292 2008 GB_{105}	17.4	X	320.37672	347.17918	165.76316	5.98265	0.0419038	0.27950441	2.3167381	21	—	—
295293 2008 GL_{105}	16.2	X	255.47367	320.74263	211.49811	4.95540	0.0218928	0.19886420	2.9069104	21	—	—
295294 2008 GE_{106}	16.7	X	113.36503	260.23977	184.08916	7.29379	0.0786070	0.22443539	2.6816895	21	3 24.3	20.3
295295 2008 GJ_{106}	16.8	X	67.75757	353.15629	213.34275	3.58971	0.0968131	0.23724755	2.5842521	21	7 7.3	20.0
295296 2008 GE_{108}	17.2	X	115.87849	143.62789	25.58440	9.73608	0.0656866	0.24469831	2.5315241	21	7 19.6	20.8
295297 2008 GL_{108}	16.8	X	244.12046	283.41548	149.21548	6.69554	0.0186170	0.24988131	2.4963963	21	8 18.8	19.9
295298 2008 GP_{111}	16.3	X	175.77487	0.20618	231.31940	9.21194	0.1660252	0.26366633	2.4086088	21	12 11.6	20.2
295299 Nannidiana	16.1	X	303.00002	292.58495	59.53692	14.42424	0.1892762	0.24041636	2.5614942	21	6 21.8	19.2
295300 2008 GR_{112}	15.2	X	153.70652	89.29107	65.29247	25.49222	0.0953130	0.17274281	3.1930281	21	8 20.4	20.6
295301 2008 GX_{112}	16.2	X	332.79031	192.57479	102.90063	14.66935	0.1656308	0.23331809	2.6131867	21	5 30.6	19.1
295302 2008 GF_{113}	14.8	X	122.49108	271.41076	272.53281	14.13063	0.1722693	0.17109655	3.2134771	21	8 14.8	20.1
295303 2008 GB_{115}	15.6	X	241.57809	341.07376	115.43351	6.09010	0.0262292	0.17590897	3.1545982	21	9 12.1	20.1
295304 2008 GA_{117}	15.7	X	39.10143	176.96838	105.58350	7.25138	0.0290881	0.16973199	3.2306773	21	8 28.8	20.2
295305 2008 GU_{117}	15.4	X	125.58394	137.40103	100.24101	11.24397	0.0938537	0.17880861	3.1204012	21	10 26.8	20.3
295306 2008 GL_{119}	15.6	X	53.73514	167.82864	127.44477	4.43761	0.1572480	0.17147108	3.2087961	21	10 20.5	20.0
295307 2008 GR_{120}	15.3	X	75.33494	63.28477	171.16808	19.21048	0.1012643	0.17013514	3.2255717	21	8 21.1	20.0
295308 2008 GU_{122}	16.8	X	17.79945	164.61898	61.09726	2.94968	0.1404004	0.22994068	2.6387131	21	5 14.8	19.5
295309 2008 GJ_{123}	16.1	X	59.68337	312.60458	330.13324	3.98068	0.1059476	0.17728043	3.1383077	21	10 2.5	20.5
295310 2008 GY_{124}	16.7	X	31.21275	80.94466	172.77591	14.96613	0.0483635	0.24081610	2.5586588	21	7 10.8	20.2
295311 2008 GJ_{127}	16.4	X	20.81196	146.07280	137.74081	9.85214	0.1789684	0.23670224	2.5882197	21	8 23.6	19.0
295312 2008 GC_{129}	16.5	X	176.25346	166.52346	145.74404	2.25345	0.0568320	0.20189089	2.8777843	21	—	—
295313 2008 GE_{130}	17.0	X	299.46812	59.30914	135.82279	6.82088	0.0515754	0.28357246	2.2945279	21	—	—
295314 2008 GM_{130}	17.3	X	117.68168	307.70620	221.43894	6.45894	0.1408051	0.23934271	2.5691487	21	7 25.5	21.2
295315 2008 GR_{131}	13.4	X	284.38290	289.55598	57.62664	29.66456	0.0519372	0.08340462	5.1881116	21	6 10.6	20.4
295316 2008 GZ_{132}	16.4	X	170.13950	120.91637	117.48817	3.33502	0.0500529	0.18739119	3.0243817	21	12 8.5	20.9
295317 2008 GK_{133}	17.0	X	338.48625	221.82298	69.64894	2.93151	0.0623495	0.23282649	2.6168638	21	6 12.2	20.1
295318 2008 GS_{133}	15.6	X	250.57139	137.92346	217.31071	9.22917	0.0831314	0.15109630	3.4911364	21	5 10.5	20.7
295319 2008 GP_{134}	18.2	X	357.32483	6.55913	151.86964	2.76084	0.1472489	0.28776119	2.2722071	21	—	—
295320 2008 GJ_{135}	16.2	X	55.88415	246.02231	16.85702	5.18536	0.1405911	0.17212691	3.2006403	21	9 10.1	20.5
295321 2008 GT_{138}	16.2	X	141.95917	251.28400	193.26295	13.58071	0.1653440	0.22914905	2.6447868	21	5 8.3	20.4
295322 2008 GM_{139}	16.9	X	124.37250	199.34274	247.42007	4.27438	0.0251246	0.22348378	2.6892966	21	4 1.1	20.6
295323 2008 GV_{140}	13.2	X	317.80868	84.01433	210.16126	16.64115	0.0558303	0.08290864	5.2087819	21	5 25.8	20.0
295324 2008 GD_{141}	15.8	X	47.56347	77.23596	222.14461	8.63699	0.0861993	0.17488116	3.1669463	21	10 3.8	20.1
295325 2008 GH_{143}	16.1	X	26.66682	130.70313	98.29936	10.45310	0.0691239	0.23243902	2.6197711	21	6 2.6	19.3
295326 2008 GQ_{143}	13.0	X	316.18148	210.55585	103.31324	15.18398	0.1087276	0.08136173	5.2745969	21	6 10.5	19.7
295327 2008 GZ_{144}	16.4	X	168.34854	25.80376	219.88867	8.98087	0.1709562	0.26503502	2.4003093	21	12 21.5	20.3
295328 2008 HO	16.6	X	179.85263	192.32832	62.68817	0.64569	0.0937587	0.19597025	2.9354585	21	—	—
295329 2008 HG_2	13.0	X	23.56526	166.92870	68.71781	10.26497	0.0448694	0.08311329	5.2002280	21	6 9.7	19.7
295330 2008 HM_2	15.8	X	96.97827	219.95703	55.74868	5.92815	0.1456845	0.17969519	3.1101291	21	11 11.8	20.7
295331 2008 HL_3	15.7	X	171.37109	206.53188	30.02674	6.16197	0.2049457	0.18758930	3.0222520	21	12 1.2	21.0
295332 2008 HL_4	17.7	X	207.20698	40.76686	211.87145	1.79031	0.2441986	0.27079518	2.3661490	21	—	—
295333 2008 HN_6	16.2	X	116.76729	70.00014	206.96258	6.34041	0.1319818	0.18576531	3.0420030	21	12 2.0	21.0
295334 2008 HR_6	16.2	X	162.05618	31.88745	206.10592	9.72460	0.0589055	0.18928675	3.0041566	21	11 29.9	20.8
295335 2008 HE_7	16.7	X	331.92710	32.03092	183.87222	4.19018	0.1151491	0.22160517	2.7044739	21	2 11.9	20.2
295336 2008 HY_8	13.0	X	319.16655	130.11593	174.67648	18.09484	0.0050295	0.08349385	5.1844148	21	6 13.8	20.1
295337 2008 HB_9	13.6	X	288.18623	149.44283	198.26608	31.59539	0.0933849	0.08332497	5.1914173	21	6 12.8	20.8
295338 2008 HY_{10}	17.4	X	222.79458	181.43371	47.88990	1.91460	0.1407762	0.27139807	2.3626436	21	—	—
295339 2008 HJ_{12}	17.8	X	161.29790	216.29487	43.81243	1.30737	0.1724982	0.26261584	2.4150276	21	—	—
295340 2008 HL_{12}	12.9	X	31.98096	4.07230	230.53165	23.29761	0.0285259	0.08141851	5.2721444	21	6 16.2	19.9
295341 2008 HK_{13}	17.8	X	23.35073	35.10446	200.75647	2.57855	0.1113417	0.30860465	2.1687080	21	6 4.1	19.5
295342 2008 HU_{15}	13.4	X	296.34282	206.50428	133.28317	10.36779	0.0718951	0.08084109	5.2972193	21	6 19.0	20.3
295343 2008 HS_{16}	16.8	X	328.59738	116.41650	204.07188	4.18004	0.1866877	0.23501881	2.6005646	21	6 22.9	19.5
295344 2008 HK_{17}	16.8	X	124.91223	104.61781	223.17101	7.31278	0.1448076	0.27192354	2.3595988	21	—	—
295345 2008 HU_{17}	15.9	X	114.35060	203.88144	98.19762	10.97360	0.1369081	0.18696202	3.0290082	21	12 28.7	20.7
295346 2008 HX_{21}	15.9	X	235.59375	263.96161	47.62331	13.80561	0.1838687	0.21119061	2.7926702	21	2 26.2	20.8
295347 2008 HS_{24}	13.2	X	282.99698	155.31727	183.99948	21.42580	0.0947641	0.08053999	5.3104135	21	5 31.6	20.4
295348 2008 HY_{24}	15.9	X	53.45702	291.33000	51.02133	13.00581	0.1348109	0.18471499	3.0535237	21	12 11.8	20.3
295349 2008 HV_{27}	16.5	X	215.65874	288.39203	13.24303	4.72627	0.1443607	0.21043718	2.7993319	21	1 24.0	21.1
295350 2008 HY_{27}	17.6	X	186.01757	289.50927	310.33452	0.66930	0.1482655	0.26773655	2.3841355	21	—	—
295351 2008 HY_{30}	15.8	X	73.49988	25.95742	252.97660	7.53052	0.1139852	0.17647954	3.1477953	21	10 14.6	20.4
295352 2008 HH_{31}	17.6	X	348.42298	284.11740	179.60503	5.17330	0.1312801	0.27553875	2.3389140	21	—	—
295353 2008 HN_{33}	17.2	X	344.13141	314.45995	189.58962	8.28567	0.1957928	0.28239027	2.3009273	21	—	—
295354 2008 HO_{33}	16.6	X	59.33966	359.62304	156.44029	9.83009	0.0488720	0.22463729	2.6800824	21	4 12.9	20.1
295355 2008 HR_{33}	15.9	X	65.80788	95.80060	177.33650	13.24976	0.0287029	0.17320723	3.1873178	21	9 18.0	20.3
295356 2008 HP_{35}	15.5	X	109.05070	345.79146	224.14337	5.48595	0.0228536	0.17316968	3.1877786	21	8 20.6	20.1
295357 2008 HB_{36}	16.8	X	86.19746	72.49885	99.31307	4.29524	0.0852089	0.23375553	2.6099255	21	6 14.1	20.2
295358 2008 HD_{36}	16.7	X	216.11933	98.10539	142.30538	3.94405	0.0944317	0.19786383	2.9167000	21	—	—
295359 2008 HL_{36}	17.4	X	273.60539	212.59272	99.68777	7.46917	0.0842893	0.29706673	2.2245049	21	4 2.8	20.3
295360 2008 HF_{39}	16.9	X	229.40195	39.16853	344.66929	2.22070	0.0583153	0.23658916	2.5890443	21	5 18.7	20.5

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295361 2008 HM_{46}	16.9	X	318.16665	226.08104	66.59468	8.54274	0.2180481	0.22458035	2.6805354	21	4 22.7	20.1
295362 2008 HO_{48}	16.6	X	85.47870	325.78532	172.03637	13.73675	0.1986108	0.22983350	2.6395334	21	5 18.5	20.3
295363 2008 HX_{49}	17.5	X	285.27170	313.10201	192.19720	2.20812	0.0492266	0.26803132	2.3823873	21	—	—
295364 2008 HA_{51}	16.6	X	196.83223	148.54563	116.35069	3.35008	0.0716412	0.19656666	2.9295178	21	—	—
295365 2008 HM_{51}	16.0	X	189.17480	348.75419	214.71085	6.21589	0.0911399	0.18492360	3.0512267	21	11 14.8	20.6
295366 2008 HO_{51}	16.5	X	318.27327	116.15610	224.41800	12.00226	0.2717999	0.23271997	2.6176622	21	6 17.8	19.3
295367 2008 HV_{51}	16.4	X	116.76405	114.02567	222.83922	12.19227	0.1788908	0.19122108	2.9838629	21	—	—
295368 2008 HW_{51}	16.9	X	128.04110	106.05720	219.93502	8.60280	0.1900361	0.19100911	2.9860701	21	—	—
295369 2008 HY_{52}	17.4	X	141.09173	151.29206	96.10518	3.80886	0.1458190	0.25793375	2.4441655	21	11 29.4	21.3
295370 2008 HK_{54}	15.9	X	205.19048	100.95007	61.06574	19.01935	0.0439430	0.17892642	3.1190313	21	10 22.9	20.7
295371 2008 HR_{54}	17.0	X	306.10343	226.15987	91.17717	4.78553	0.1036017	0.22845023	2.6501776	21	5 24.6	20.4
295372 2008 HR_{56}	13.7	X	301.70025	171.72019	143.62790	2.06591	0.1043584	0.08385141	5.1696659	21	5 24.0	20.4
295373 2008 HG_{60}	15.4	X	146.21561	56.22274	188.22322	15.58780	0.0598372	0.18330750	3.0691343	21	11 21.1	20.2
295374 2008 HU_{60}	16.0	X	276.19310	333.17222	32.84356	13.52906	0.2505756	0.24080530	2.5587353	21	5 24.2	19.9
295375 2008 HZ_{61}	16.1	X	167.65249	39.14204	168.31498	6.11818	0.1024287	0.18057889	3.0999741	21	10 29.5	21.0
295376 2008 HZ_{63}	16.6	X	170.89389	147.89620	194.08032	11.66297	0.1612284	0.20567115	2.8424127	21	1 28.7	21.3
295377 2008 HM_{64}	17.3	X	272.28387	149.48768	139.24061	8.50094	0.3443857	0.28932482	2.2640130	21	2 3.6	21.4
295378 2008 HQ_{65}	16.6	X	348.49902	130.96347	75.82853	3.88441	0.2238044	0.21964638	2.7205289	21	2 12.7	19.6
295379 2008 HS_{65}	16.0	X	97.47304	306.74527	214.71409	10.75238	0.1254414	0.23378883	2.6096777	21	6 20.6	19.7
295380 2008 HT_{65}	15.5	X	97.48256	210.63115	67.31874	11.45338	0.1989998	0.17655068	3.1469496	21	11 19.8	20.6
295381 2008 HR_{68}	16.0	X	145.97459	131.71536	227.87662	12.36554	0.0631428	0.20510395	2.8476506	21	1 14.7	20.3
295382 2008 HU_{69}	15.9	X	66.87883	175.60630	155.48120	2.28486	0.1771503	0.17753467	3.1353107	21	12 18.9	20.6
295383 2008 HX_{69}	13.4	X	232.17997	207.48279	205.18261	18.74805	0.0320570	0.08150619	5.2683625	21	7 1.6	20.7
295384 2008 JL_{2}	16.5	X	343.32289	288.98230	289.08651	4.10188	0.1092267	0.22183475	2.7026076	21	3 3.6	19.8
295385 2008 JB_{3}	16.0	X	265.32586	151.60158	163.99946	15.32707	0.2100219	0.21997427	2.7178248	21	3 20.9	20.3
295386 2008 JE_{4}	15.3	X	4.36508	264.48776	122.31701	10.26778	0.0695482	0.18116013	3.0933398	21	11 26.1	19.5
295387 2008 JZ_{4}	16.4	X	166.05885	223.33788	12.87232	2.80117	0.1994635	0.18724878	3.0259149	21	11 27.2	21.5
295388 2008 JD_{5}	16.7	X	63.73549	298.38964	31.90670	10.93188	0.1341157	0.26081649	2.4261223	21	12 24.3	20.2
295389 2008 JK_{5}	17.7	X	234.97636	193.38171	328.45304	2.10518	0.0616965	0.26620197	2.3932893	21	12 1.5	20.8
295390 2008 JG_{6}	15.9	X	307.37296	272.80849	161.46357	13.59976	0.0843799	0.18489592	3.0515313	21	11 4.5	20.0
295391 2008 JP_{6}	16.7	X	294.48244	78.41971	145.69980	5.06688	0.0517192	0.20924681	2.8099386	21	1 17.4	20.5
295392 2008 JT_{6}	17.7	X	262.74200	144.44616	184.94076	3.50834	0.1764581	0.29598264	2.2299334	21	3 29.9	20.8
295393 2008 JF_{7}	15.6	X	129.77030	44.73365	228.67457	9.04994	0.0368638	0.18424691	3.0586931	21	12 5.4	20.0
295394 2008 JJ_{7}	15.9	X	289.69631	166.06017	90.83032	12.56357	0.1688458	0.21375615	2.7702798	21	2 8.6	20.1
295395 2008 JO_{7}	13.0	X	303.81368	143.89841	178.70953	18.72799	0.0303692	0.08301347	5.2043960	21	6 13.4	20.1
295396 2008 JW_{7}	14.6	X	37.44656	272.17497	150.59635	9.57115	0.1583592	0.12476158	3.9665732	21	—	—
295397 2008 JT_{8}	16.1	X	341.93234	209.75178	58.47350	10.16912	0.0168196	0.23449981	2.6044002	21	5 19.3	19.3
295398 2008 JX_{8}	16.7	X	232.68004	143.97785	62.18737	13.46225	0.1390540	0.27190231	2.3597217	21	—	—
295399 2008 JZ_{8}	16.6	X	27.60671	117.31485	169.24439	9.75438	0.1172305	0.24274784	2.5450665	21	8 30.7	19.4
295400 2008 JU_{9}	17.0	X	39.33815	6.74468	173.02830	1.84656	0.1574493	0.22524947	2.6752242	21	4 21.2	19.6
295401 2008 JC_{10}	16.9	X	67.79705	274.26138	220.39870	8.29372	0.0558931	0.22037294	2.7145460	21	3 23.2	20.5
295402 2008 JW_{11}	17.3	X	261.52605	174.11933	126.54590	3.48793	0.0595470	0.21655236	2.7463809	21	3 13.9	21.2
295403 2008 JW_{13}	16.1	X	187.12995	109.02701	112.96564	7.29840	0.0882905	0.18526420	3.0474859	21	12 5.2	20.7
295404 2008 JM_{15}	16.0	X	175.38455	47.85999	148.76778	5.73496	0.0377362	0.17963785	3.1107909	21	10 26.5	20.5
295405 2008 JU_{15}	17.3	X	50.28817	35.29858	200.40846	0.61159	0.0313215	0.24046603	2.5611414	21	7 13.3	20.6
295406 2008 JL_{20}	16.9	X	15.88376	231.78541	251.57502	18.74769	0.0687174	0.35885446	1.9612087	21	—	—
295407 2008 JT_{20}	16.7	X	202.86338	51.70548	230.78556	7.54823	0.1686335	0.27384329	2.3485582	21	—	—
295408 2008 JF_{21}	15.4	X	106.09975	58.61110	196.58284	11.38147	0.0368259	0.17396812	3.1780173	21	10 16.5	19.9
295409 2008 JF_{22}	16.4	X	81.40727	280.44035	273.91689	11.06795	0.1743222	0.23901464	2.5714991	21	7 20.9	19.9
295410 2008 JE_{26}	15.3	X	130.81847	16.08822	233.68659	10.06466	0.1124748	0.17919681	3.1158929	21	11 11.1	20.3
295411 2008 JH_{28}	16.2	X	25.69001	250.15155	123.01918	6.46002	0.1308357	0.18148533	3.0896435	21	12 14.3	20.2
295412 2008 JR_{28}	12.9	X	49.17770	15.35715	212.88848	12.91164	0.0508958	0.08262594	5.2206563	21	7 2.3	19.8
295413 2008 JH_{30}	13.4	X	44.84878	8.69259	211.41254	6.17335	0.0521708	0.08145936	5.2703815	21	6 19.3	20.2
295414 2008 JU_{31}	14.9	X	131.01964	121.74608	99.63892	21.94710	0.0894156	0.17602836	3.1531717	21	10 18.7	20.1
295415 2008 JV_{35}	16.8	X	71.60513	85.73966	104.47435	4.21946	0.1414065	0.23281813	2.6169265	21	6 27.9	19.9
295416 2008 JF_{36}	17.6	X	163.41064	132.35104	142.33302	2.98841	0.1654988	0.26445381	2.4038249	21	—	—
295417 2008 JS_{37}	15.8	X	347.69607	307.65785	348.42319	15.12118	0.1661578	0.23490719	2.6013882	21	6 30.8	18.7
295418 2008 JU_{40}	16.2	X	176.49167	20.01820	225.63594	6.66951	0.1247170	0.18778422	3.0201603	21	12 19.6	21.1
295419 2008 KX_{4}	18.0	X	301.09584	50.87291	170.32417	6.44802	0.0632526	0.28426853	2.2907808	21	1 3.9	21.1
295420 2008 KZ_{4}	15.8	X	333.02354	330.25922	111.62015	10.63036	0.0096578	0.18655057	3.0334604	21	12 18.6	20.1
295421 2008 KX_{5}	16.5	X	74.44217	30.69468	92.92170	16.14317	0.1485429	0.21919899	2.7242294	21	4 12.2	20.2
295422 2008 KS_{7}	17.0	X	317.39726	159.66540	108.07627	3.50392	0.0487033	0.22256495	2.6966932	21	4 13.1	20.5
295423 2008 KB_{13}	16.9	X	355.56248	111.49868	196.33043	3.18904	0.2408251	0.23435419	2.6054789	21	8 3.7	18.9
295424 2008 KM_{25}	16.9	X	115.82132	317.22650	139.67815	5.85346	0.0347203	0.22277416	2.6950046	21	4 9.1	20.5
295425 2008 KP_{26}	15.9	X	197.07560	63.90163	144.65151	9.64394	0.0796069	0.18536764	3.0463521	21	12 1.3	20.6
295426 2008 KT_{26}	16.2	X	24.49536	36.75626	211.21132	12.96454	0.1972235	0.23071301	2.6328209	21	7 4.8	19.0
295427 2008 KU_{29}	17.1	X	204.08436	213.80504	102.52836	8.06992	0.2966727	0.27785228	2.3259127	21	1 25.2	21.3
295428 2008 KW_{31}	15.8	X	148.18410	101.25022	158.11862	7.14284	0.1157493	0.18449010	3.0560046	21	12 10.1	20.8
295429 2008 KY_{31}	16.4	X	143.76818	14.20576	91.99718	14.49045	0.0377276	0.22829057	2.6514131	21	5 27.4	20.1
295430 2008 KU_{33}	17.8	X	252.25633	107.34147	174.21055	5.82212	0.1673088	0.28413751	2.2914849	21	1 18.9	21.4
295431 2008 KG_{36}	13.6	X	331.86785	122.10237	189.98403	13.60360	0.0613556	0.08154979	5.2664844	21	6 30.9	20.5
295432 2008 KT_{37}	13.2	X	200.50376	277.62612	154.50301	12.97269	0.0687695	0.08327138	5.1936444	21	6 21.1	20.5
295433 2008 KW_{38}	17.0	X	314.27133	205.36193	91.98798	4.33029	0.1880717	0.22462846	2.6801526	21	4 26.9	20.2
295434 2008 KS_{40}	16.3	X	135.53958	15.08974	194.20967	9.17492	0.0297702	0.17482477	3.1676273	21	9 22.8	21.0
295435 2008 KL_{41}	17.1	X	61.66191	115.10747	156.91635	4.31039	0.1735187	0.24421176	2.5348854	21	10 12.1	20.5
295436 2008 LS_{4}	15.4	X	324.24865	184.13795	284.25346	9.80339	0.0659977	0.18112510	3.0937387	21	—	—
295437 2008 LF_{6}	13.6	X	278.45223	161.74573	199.47975	7.79883	0.0604930	0.08236249	5.2317833	21	6 23.1	20.6
295438 2008 LK_{10}	16.6	X	86.93546	287.57922	164.13945	4.67489	0.0376732	0.21219565	2.7838451	21	2 22.8	20.3
295439 2008 LQ_{10}	15.2	X	60.58276	258.64852	80.37027	11.00951	0.1113047	0.18055490	3.1002487	21	12 13.5	19.5
295440 2008 LF_{12}	15.7	X	211.98156	350.87710	210.13310	9.24923	0.1053312	0.18731535	3.0251980	21	12 4.4	20.3

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295441 2008 LU_{15}	16.7	X	139.40253	190.35823	98.18792	11.14308	0.2383708	0.26239400	2.4163886	21	—	—
295442 2008 LU_{16}	16.8	X	57.64815	184.01626	100.91609	7.41464	0.2082639	0.23920361	2.5701446	21	10 30.3	20.4
295443 2008 ML	15.2	X	27.11111	268.58202	40.40085	11.63551	0.2457327	0.23957371	2.5674970	21	10 23.9	17.8
295444 2008 MN	15.4	X	105.62351	133.96486	160.86462	27.01194	0.3867425	0.17621001	3.1510043	21	12 26.7	21.6
295445 2008 ND	16.2	X	92.58430	114.85528	199.87078	12.01608	0.2036899	0.17964679	3.1106876	21	12 26.5	21.4
295446 2008 OB_{3}	15.2	X	96.99028	219.82611	131.07780	24.49793	0.2019347	0.17820449	3.1274494	21	—	—
295447 2008 OW_{20}	16.3	X	116.14996	133.54359	180.58929	3.80081	0.0902728	0.17389369	3.1789241	21	—	—
295448 2008 OO_{21}	16.8	X	212.55615	48.18747	336.62729	1.29544	0.1026233	0.20656109	2.8342427	21	4 30.4	21.1
295449 2008 OX_{22}	13.9	X	6.71019	51.66339	321.57544	5.72809	0.0887408	0.08389580	5.1678420	21	10 23.8	20.3
295450 2008 OR_{23}	15.4	X	118.91358	13.28200	309.35041	9.84066	0.2307929	0.17673783	3.1447276	21	—	—
295451 2008 OW_{23}	16.7	X	356.78602	189.35409	156.30253	5.82940	0.1910046	0.22998631	2.6383641	21	10 7.9	19.0
295452 2008 OF_{24}	16.8	X	194.16190	130.53968	233.90453	1.38577	0.0892649	0.20027648	2.8932286	21	3 18.2	21.1
295453 2008 OJ_{24}	17.1	X	80.50646	343.00750	243.57657	1.84292	0.0998407	0.22645701	2.6657057	21	8 21.7	20.8
295454 2008 PW_{1}	16.9	X	319.55107	309.34965	35.34627	3.95831	0.2327828	0.22291161	2.6938966	21	7 5.0	19.5
295455 2008 PT_{2}	15.6	X	158.05364	350.51664	311.96623	10.12649	0.2949231	0.26183538	2.4198243	21	—	—
295456 2008 PB_{4}	16.1	X	335.94528	71.91862	310.37945	10.30509	0.3144533	0.22903232	2.6456854	21	10 5.4	17.8
295457 2008 PC_{4}	16.7	X	324.66347	333.03564	294.53695	6.87805	0.1110969	0.28574099	2.2829042	21	3 30.4	19.4
295458 2008 PA_{5}	15.6	X	106.51052	155.32601	169.40796	15.10203	0.2058240	0.17615054	3.1517135	21	—	—
295459 2008 PD_{10}	15.7	X	124.73316	32.06858	308.90387	26.65670	0.0986772	0.18172404	3.0869372	21	—	—
295460 2008 PO_{11}	16.2	X	247.59330	305.32719	326.97149	5.33194	0.1859058	0.19754685	2.9198194	21	1 17.4	20.9
295461 2008 PU_{12}	16.1	X	208.40559	198.33147	139.78709	7.05588	0.0622180	0.20109080	2.8854125	21	3 2.7	20.4
295462 2008 PS_{14}	17.0	X	37.53681	30.56520	291.68455	3.10173	0.1744053	0.23608754	2.5927104	21	11 12.0	20.1
295463 2008 PZ_{18}	17.7	X	151.88994	244.57459	164.03319	5.53174	0.1181735	0.27529941	2.3402695	21	3 23.9	20.9
295464 2008 QN_{1}	16.3	X	104.40848	37.47189	347.01354	9.43349	0.2337354	0.18270920	3.0758308	21	1 29.2	20.6
295465 2008 QQ_{1}	16.2	X	219.12931	334.78352	16.30783	4.45903	0.1189564	0.20265262	2.8705684	21	3 27.3	20.5
295466 2008 QE_{2}	16.5	X	4.54017	338.42895	306.93132	2.78407	0.1421786	0.22082282	2.7108579	21	7 18.2	19.1
295467 2008 QH_{3}	17.3	X	58.16821	190.15386	210.66383	4.81068	0.1521778	0.25407855	2.4688273	21	—	—
295468 2008 QZ_{4}	15.9	X	312.74993	44.07039	343.46612	12.71166	0.2717025	0.22416773	2.6838237	21	8 21.1	18.4
295469 2008 QU_{7}	16.1	X	109.75998	143.32873	117.03142	18.72975	0.1760747	0.24232583	2.5480204	21	11 21.6	20.5
295470 2008 QG_{11}	16.5	X	183.02454	352.85528	355.39180	7.91046	0.1285813	0.26826592	2.3809981	21	2 10.8	20.0
295471 Herbertnitsch	16.7	X	308.53035	200.47173	160.25124	1.57491	0.2449900	0.22114024	2.7082632	21	7 5.1	19.5
295472 Puy	16.4	X	292.69954	154.23173	163.52879	6.05556	0.0350991	0.21165302	2.7886012	21	5 18.8	20.2
295473 Cochard	16.3	X	131.05625	38.75646	338.21137	4.45042	0.0634857	0.18745842	3.0236585	21	1 25.7	20.7
295474 2008 QB_{18}	17.0	X	193.60216	221.29232	149.29354	5.36545	0.1427025	0.27356781	2.3501345	21	3 20.5	20.5
295475 2008 QM_{18}	17.2	X	351.78715	64.91610	340.04182	12.87645	0.1837216	0.23843712	2.5756497	21	12 24.6	20.0
295476 2008 QN_{23}	15.9	X	161.19172	132.87519	203.05828	11.09878	0.1074169	0.18249367	3.0782521	21	1 12.6	20.8
295477 2008 QE_{26}	16.1	X	72.97809	265.58773	345.94318	14.07723	0.1393618	0.23125161	2.6287314	21	9 19.3	19.7
295478 2008 QC_{27}	15.5	X	77.75143	227.49472	134.61942	10.38279	0.0758425	0.17411016	3.1762887	21	—	—
295479 2008 QP_{30}	17.1	X	32.05215	102.87991	281.49076	7.36928	0.1561142	0.24387649	2.5372081	21	—	—
295480 2008 QC_{37}	16.6	X	166.20386	22.68801	335.59558	4.43817	0.1049272	0.19122225	2.9838508	21	2 13.7	21.2
295481 2008 QH_{37}	13.1	X	330.62207	70.38237	346.70389	14.06391	0.1212849	0.08205595	5.2448048	21	10 19.5	19.6
295482 2008 QX_{37}	16.1	X	28.50885	274.62064	139.62929	1.95936	0.1655307	0.16882249	3.2422700	21	—	—
295483 2008 QG_{39}	16.6	X	216.99033	146.82608	322.99169	3.24909	0.1615556	0.21826300	2.7320122	21	8 17.6	20.8
295484 2008 QX_{47}	16.7	X	82.80635	163.44506	134.74037	5.52242	0.1484349	0.24008437	2.5638550	21	12 3.9	20.5
295485 2008 QB_{48}	15.3	X	224.61503	333.19779	271.52539	8.33313	0.0420029	0.18172458	3.0869311	21	—	—
295486 2008 RP_{2}	16.0	X	123.63120	353.74333	341.32182	10.69561	0.0926414	0.17631688	3.1497310	21	—	—
295487 2008 RO_{3}	16.3	X	26.78937	191.49069	233.76995	2.13365	0.0924254	0.17235492	3.1978169	21	—	—
295488 2008 RF_{14}	13.6	X	111.59432	49.22574	219.78530	8.44822	0.0062825	0.08121495	5.2809501	21	10 23.2	20.5
295489 2008 RO_{17}	16.7	X	280.41637	223.66208	205.28442	5.11162	0.2261798	0.22324777	2.6911917	21	8 27.3	20.1
295490 2008 RD_{18}	13.6	X	353.63551	181.68457	212.75920	7.88020	0.0855293	0.08172774	5.2588373	21	11 1.2	20.2
295491 2008 RO_{20}	14.0	X	322.95416	232.89668	210.96961	7.06807	0.0897999	0.08378366	5.1724524	21	11 16.1	20.4
295492 2008 RT_{22}	17.2	X	130.04303	36.41226	308.41230	1.55933	0.2093071	0.25769471	2.4456767	21	—	—
295493 2008 RL_{23}	16.8	X	336.42678	19.86950	355.98168	6.59608	0.2210499	0.30278562	2.1964056	21	10 23.6	17.8
295494 2008 RQ_{32}	16.7	X	229.69005	162.56039	170.39493	2.18697	0.0791755	0.19894739	2.9061000	21	3 17.8	20.9
295495 2008 RU_{32}	16.6	X	322.07977	279.70594	7.66818	2.87428	0.1609072	0.21173828	2.7878526	21	4 28.7	19.8
295496 2008 RV_{35}	16.3	X	233.32306	85.36456	348.52122	6.59866	0.1321078	0.21631695	2.7483730	21	7 23.9	20.5
295497 2008 RE_{37}	13.5	X	16.21288	17.33994	353.98630	7.03226	0.1179805	0.08221162	5.2381821	21	11 5.1	19.9
295498 2008 RN_{41}	16.2	X	207.72510	189.02157	141.12910	0.85591	0.1196747	0.19293034	2.9662132	21	2 20.3	20.9
295499 2008 RW_{44}	18.4	X	96.03433	235.98001	51.30100	0.92916	0.1890939	0.31736308	2.1286215	21	12 17.1	21.5
295500 2008 RQ_{45}	14.0	X	1.95596	21.19489	21.29119	7.48689	0.0784014	0.08372428	5.1748978	21	11 19.4	20.6
295501 2008 RG_{51}	17.1	X	56.60163	268.75835	209.09403	5.77277	0.1066261	0.26909465	2.3761071	21	2 5.4	19.5
295502 2008 RM_{51}	13.7	X	328.84956	147.94332	260.61870	6.72445	0.0570081	0.08385346	5.1695816	21	10 14.6	20.3
295503 2008 RE_{55}	13.8	X	298.75340	224.11344	212.39251	6.78896	0.0932642	0.08146677	5.2700621	21	10 6.2	20.5
295504 2008 RF_{57}	13.4	X	306.20261	265.79809	188.25655	9.51682	0.1337037	0.08187292	5.2526185	21	11 1.8	20.0
295505 2008 RD_{60}	15.5	X	96.56621	160.75114	179.61344	12.86494	0.0727103	0.17649583	3.1476015	21	—	—
295506 2008 RR_{62}	17.9	X	289.87398	127.53174	153.94239	5.26867	0.2160568	0.28208969	2.3025615	21	2 20.9	21.2
295507 2008 RO_{64}	16.0	X	163.37674	253.12731	78.66332	2.75362	0.1232122	0.18438798	3.0571328	21	1 13.4	20.7
295508 2008 RX_{66}	17.3	X	87.45768	337.93539	61.95358	3.43295	0.1929128	0.25581933	2.4576148	21	—	—
295509 2008 RQ_{73}	13.3	X	27.09533	6.57460	344.68887	22.88749	0.1354960	0.08313353	5.1993840	21	10 21.9	20.0
295510 2008 RE_{74}	17.9	X	319.55669	271.48801	38.87103	1.32527	0.1694354	0.29266917	2.2467327	21	5 19.7	19.9
295511 2008 RH_{75}	16.3	X	160.93493	338.62872	0.97729	16.13224	0.2450905	0.26328428	2.4109383	21	1 23.4	20.4
295512 2008 RR_{75}	17.3	X	139.15779	262.77357	155.35897	4.81334	0.1775587	0.27178095	2.3604241	21	3 29.7	20.6
295513 2008 RR_{82}	14.0	X	357.50959	195.53812	190.85628	7.33172	0.0603362	0.08482979	5.1298397	21	10 29.1	20.5
295514 2008 RW_{86}	15.4	X	222.98383	327.94005	316.98790	8.73874	0.0699539	0.18549421	3.0449662	21	1 15.9	20.1
295515 2008 RP_{88}	15.5	X	160.77074	7.61668	332.53593	10.43709	0.0795583	0.18328418	3.0693946	21	1 18.7	20.1
295516 2008 RN_{92}	16.8	X	32.06660	112.69433	171.14443	4.95446	0.2194792	0.22592264	2.6699075	21	9 18.7	19.6
295517 2008 RP_{102}	17.3	X	29.19533	243.60235	162.94344	6.08537	0.1941856	0.24458452	2.5323092	21	—	—
295518 2008 RF_{103}	16.8	X	156.39771	48.44479	319.34250	7.57833	0.1003627	0.26660197	2.3908949	21	2 2.5	20.1
295519 2008 RK_{109}	16.0	X	303.40980	174.66493	355.63387	4.97713	0.0980650	0.17863815	3.1223859	21	—	—
295520 2008 RP_{112}	13.8	X	350.18421	139.39594	273.66179	6.29067	0.1019037	0.08276626	5.2147539	21	11 16.3	20.2

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295521 2008 RA_{114}	17.5	X	329.47949	107.59540	359.95239	2.45750	0.2190755	0.24257002	2.5463102	21	—	—
295522 2008 RV_{115}	16.5	X	272.94890	56.49180	271.25151	1.94501	0.1130073	0.20837090	2.8178076	21	4 22.9	20.6
295523 2008 RA_{116}	17.3	X	51.25828	13.32773	10.25029	3.54007	0.0773125	0.24417015	2.5351734	21	—	—
295524 2008 RY_{116}	16.2	X	65.56501	25.80465	18.95671	5.09507	0.1504650	0.17117621	3.2124801	21	—	—
295525 2008 RK_{117}	15.7	X	189.28528	76.08470	191.02814	9.86483	0.0387599	0.17705029	3.1410266	21	—	—
295526 2008 RC_{118}	17.0	X	249.72720	128.47576	321.16942	2.32477	0.0278210	0.22229315	2.6988909	21	9 14.5	20.5
295527 2008 RV_{119}	13.2	X	337.23731	236.70825	187.92623	30.33752	0.0962349	0.08350401	5.1839942	21	11 14.3	19.9
295528 2008 RZ_{119}	13.8	X	263.51502	313.25713	179.72942	5.38893	0.0126070	0.08462183	5.1382408	21	11 9.4	20.7
295529 2008 RK_{121}	13.8	X	10.64752	188.98603	189.50496	5.35810	0.1398762	0.08240823	5.2298472	21	11 9.9	20.1
295530 2008 RC_{124}	13.9	X	314.78497	92.79373	325.88126	3.61126	0.0730576	0.08118059	5.2824403	21	10 7.8	20.6
295531 2008 RK_{125}	13.3	X	319.73751	248.07079	187.40188	4.62921	0.1146902	0.08256356	5.2232858	21	10 31.7	19.8
295532 2008 RV_{127}	16.5	X	199.57622	83.09130	208.53811	0.27284	0.0658573	0.18500390	3.0503438	21	—	—
295533 2008 RV_{131}	17.2	X	110.42338	336.88877	35.52982	3.38292	0.2081786	0.25776616	2.4452247	21	—	—
295534 2008 RH_{133}	15.1	X	161.00087	175.67881	145.97689	16.11815	0.0917882	0.18213704	3.0822689	21	—	—
295535 2008 RH_{134}	16.7	X	108.36320	337.22825	59.49920	5.83532	0.1045006	0.26037103	2.4288887	21	1 11.9	19.6
295536 2008 RD_{138}	15.5	X	202.28630	30.99035	271.78763	8.75732	0.1119091	0.18577031	3.0419484	21	1 14.5	20.4
295537 2008 RF_{138}	15.1	X	349.11131	95.66653	351.59632	21.87385	0.1338247	0.17189886	3.2034704	21	—	—
295538 2008 RO_{141}	16.5	X	250.57716	22.41697	346.48837	5.69294	0.0856436	0.21075961	2.7964762	21	5 21.9	20.6
295539 2008 RL_{142}	15.7	X	113.94571	71.33305	255.11269	13.77627	0.1766487	0.17450934	3.1714432	21	—	—
295540 2008 RR_{142}	16.0	X	218.29586	159.89235	290.89529	10.26435	0.0988379	0.21705285	2.7421575	21	7 29.5	20.1
295541 2008 SK_{1}	15.7	X	112.26574	154.37410	190.78909	15.32451	0.2238851	0.17559036	3.1584132	21	—	—
295542 2008 SC_{2}	15.9	X	222.97187	272.18377	59.48599	6.63270	0.0656612	0.19754000	2.9198869	21	3 13.2	20.3
295543 2008 SK_{3}	17.5	X	156.36938	243.84896	111.92421	2.43420	0.2054979	0.26399323	2.4066200	21	1 29.9	21.0
295544 2008 SK_{7}	17.0	X	173.94935	326.87544	42.09500	3.56074	0.1554217	0.26839874	2.3802125	21	2 28.9	20.5
295545 2008 SF_{9}	17.1	X	59.27529	269.25427	185.73991	7.28450	0.1676779	0.26177564	2.4201924	21	1 14.5	19.4
295546 2008 SB_{11}	16.2	X	28.46464	296.42639	4.74067	12.43575	0.1869057	0.22970015	2.6405549	21	10 1.4	19.2
295547 2008 SU_{13}	16.4	X	301.22936	195.81229	162.10601	6.50420	0.0596370	0.22262754	2.6961877	21	7 18.2	19.9
295548 2008 SR_{14}	17.4	X	227.43563	211.30121	185.60808	5.25097	0.2417635	0.28736900	2.2742739	21	5 20.8	21.1
295549 2008 SL_{20}	18.1	X	88.73463	24.24394	305.71740	1.90637	0.1277819	0.32153115	2.1101857	21	—	—
295550 2008 SC_{21}	16.1	X	84.59666	40.85421	331.65433	9.28284	0.0381317	0.17797677	3.1301165	21	—	—
295551 2008 SH_{26}	17.3	X	39.36038	24.44487	124.74735	3.04175	0.1497872	0.26846353	2.3798296	21	2 24.3	19.4
295552 2008 SU_{41}	17.3	X	201.96362	255.59879	170.15072	4.66751	0.1431734	0.28636588	2.2795819	21	6 7.8	20.7
295553 2008 SO_{42}	13.8	X	343.31152	51.88405	15.04878	4.57414	0.0585307	0.08158260	5.2650724	21	11 22.7	20.4
295554 2008 SS_{42}	16.6	X	190.46972	168.17691	316.99714	0.95725	0.1066858	0.21477042	2.7615511	21	8 13.4	20.9
295555 2008 SX_{52}	16.3	X	170.16148	0.75900	14.15829	2.48141	0.0856503	0.19149644	2.9810019	21	3 8.3	20.7
295556 2008 SJ_{54}	17.8	X	211.39728	148.09998	9.67230	1.37636	0.1595951	0.30542830	2.1837179	21	10 20.3	20.8
295557 2008 SQ_{54}	15.8	X	186.19554	119.42510	191.20829	0.56052	0.1864681	0.18437342	3.0572938	21	1 12.7	20.9
295558 2008 SM_{55}	13.7	X	96.85356	106.84285	199.61308	15.33492	0.0904495	0.08413706	5.1579582	21	11 28.3	20.8
295559 2008 SC_{56}	18.1	X	50.90768	125.06939	192.98980	4.17541	0.2138386	0.31111299	2.1570355	21	12 13.9	20.9
295560 2008 SV_{62}	16.2	X	154.62359	318.99378	346.26903	5.86459	0.0503381	0.17550087	3.1594867	21	—	—
295561 2008 SX_{65}	15.8	X	38.13583	75.43554	30.79323	10.91358	0.0560881	0.17711305	3.1402846	21	1 17.9	20.1
295562 2008 SO_{66}	14.5	X	183.06976	230.61479	197.81747	8.10254	0.1803705	0.12499901	3.9615487	21	5 29.5	20.9
295563 2008 SJ_{68}	15.9	X	52.48961	78.91680	287.71017	11.18221	0.0833866	0.23874986	2.5734000	21	—	—
295564 2008 ST_{72}	17.2	X	12.22506	183.33668	150.18045	2.34132	0.2016320	0.30258003	2.1974005	21	11 7.6	19.0
295565 Hannover	16.4	X	34.70143	9.17902	354.54667	7.20147	0.1499623	0.23769570	2.5810029	21	12 30.4	19.9
295566 2008 ST_{83}	17.1	X	40.70242	353.61478	216.58120	3.73015	0.1208289	0.28141760	2.3062261	21	5 30.9	19.1
295567 2008 SF_{86}	17.0	X	321.10856	293.71838	258.60333	6.17445	0.0574080	0.26213199	2.4179986	21	—	—
295568 2008 SJ_{91}	15.5	X	178.40925	297.82258	8.47355	9.16100	0.0658797	0.17863338	3.1224415	21	—	—
295569 2008 SF_{92}	16.9	X	266.67239	265.73180	197.39789	3.36418	0.1701136	0.22604610	2.6689352	21	10 4.1	20.1
295570 2008 SN_{95}	16.7	X	170.41571	203.05451	4.70813	7.07271	0.0644628	0.23105198	2.6302453	21	11 5.3	20.5
295571 2008 SA_{96}	16.5	X	320.61059	208.39708	219.74193	4.30131	0.1782074	0.23030723	2.6359126	21	11 19.6	18.9
295572 2008 SH_{98}	17.0	X	249.37684	250.29688	286.84559	1.80384	0.0409390	0.24104538	2.5570360	21	—	—
295573 2008 SQ_{102}	17.7	X	33.21527	80.38754	204.25486	4.81101	0.1920082	0.29848296	2.2174629	21	9 26.0	19.7
295574 2008 SW_{103}	16.9	X	194.94572	271.12988	20.73856	3.60898	0.0499046	0.25440958	2.4666853	21	—	—
295575 2008 SX_{104}	16.6	X	99.37116	202.43095	31.22204	5.50189	0.0575421	0.21967804	2.7202676	21	9 20.3	20.4
295576 2008 SB_{107}	16.4	X	257.07711	352.34171	39.77366	4.02463	0.1022283	0.21029266	2.8006143	21	6 28.9	20.4
295577 2008 SM_{107}	16.1	X	133.19939	17.70775	291.30162	5.37999	0.1545927	0.17196194	3.2026869	21	—	—
295578 2008 SM_{108}	13.5	X	280.28496	240.86150	224.59999	3.01244	0.0650021	0.08328903	5.1929108	21	10 20.7	20.3
295579 2008 SG_{110}	16.4	X	25.39560	18.72663	30.60370	9.17917	0.0193132	0.24432387	2.5341099	21	—	—
295580 2008 SO_{110}	17.0	X	75.39239	261.30837	174.15153	6.30650	0.0484532	0.25974389	2.4327967	21	1 6.9	19.9
295581 2008 ST_{112}	15.9	X	190.18993	192.25378	138.21668	4.28085	0.1769206	0.18788508	3.0190793	21	2 6.7	20.8
295582 2008 SW_{114}	15.1	X	165.21899	260.32883	36.77716	14.17882	0.1582491	0.17628444	3.1501174	21	—	—
295583 2008 SV_{117}	18.5	X	295.99721	239.71264	209.40017	0.63536	0.0761195	0.30821611	2.1705302	21	11 30.1	20.5
295584 2008 SE_{123}	16.7	X	220.29725	161.40383	338.02095	1.12462	0.1026450	0.22368104	2.6877153	21	10 3.4	20.4
295585 2008 SS_{124}	17.7	X	290.17962	72.33426	344.55161	1.78138	0.1275347	0.29976015	2.2111597	21	9 21.8	19.8
295586 2008 SC_{129}	16.4	X	188.57326	355.49725	218.11589	16.81004	0.1163768	0.23462511	2.6034729	21	12 1.5	20.5
295587 2008 SL_{130}	15.9	X	102.49029	217.01325	19.39228	15.21690	0.0947637	0.22212042	2.7002899	21	10 2.4	19.9
295588 2008 SW_{132}	16.9	X	172.46504	268.13256	228.52616	3.28531	0.0471626	0.21255491	2.7807073	21	8 7.9	20.9
295589 2008 SZ_{132}	17.9	X	148.56005	196.84151	347.47031	1.34423	0.0535478	0.29613884	2.2291492	21	9 19.3	20.7
295590 2008 SR_{134}	16.6	X	13.31640	141.25304	290.76747	3.54078	0.1602277	0.24498858	2.5295241	21	—	—
295591 2008 SA_{136}	13.4	X	341.22292	253.14417	149.88138	10.24586	0.1346397	0.08157057	5.2655900	21	10 26.9	19.7
295592 2008 SF_{138}	16.8	X	66.38004	79.37028	57.33356	7.48179	0.0619481	0.26802567	2.3824207	21	3 23.8	19.6
295593 2008 SB_{139}	17.7	X	33.11276	186.67345	153.85509	4.46297	0.1814664	0.30946337	2.1646942	21	12 17.9	20.2
295594 2008 SL_{145}	16.0	X	300.69063	29.64493	28.81115	5.12449	0.1092139	0.22483568	2.6785056	21	10 5.2	19.0
295595 2008 SE_{146}	17.1	X	315.96037	295.21497	281.06724	5.58980	0.0763673	0.26796974	2.3827522	21	1 18.3	20.0
295596 2008 SL_{146}	15.6	X	279.22267	243.89679	323.44696	8.17472	0.0221546	0.17999985	3.1066188	21	—	—
295597 2008 SP_{161}	16.3	X	154.23168	171.60834	143.62959	1.67172	0.1679043	0.17900786	3.1180852	21	—	—
295598 2008 SA_{168}	17.9	X	13.77762	180.47693	168.40330	4.36534	0.1888045	0.30734654	2.1746223	21	12 2.6	19.9
295599 2008 SY_{169}	13.9	X	311.46159	232.09370	210.46730	8.23542	0.0830502	0.08258214	5.2225022	21	10 31.1	20.5
295600 2008 SR_{173}	17.6	X	19.04961	48.44760	219.15501	4.83090	0.1423333	0.29166544	2.2518843	21	7 20.9	19.5

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295601 2008 SJ_{175}	16.3	X	199.90869	91.41320	217.68960	7.93915	0.2687820	0.18955155	3.0013581	21	1 20.6	21.8
295602 2008 SN_{176}	17.9	X	202.66456	15.80215	35.79090	3.70473	0.1323782	0.28189211	2.3036373	21	5 19.7	21.2
295603 2008 SW_{176}	17.6	X	259.08662	294.97291	117.19509	4.69870	0.1317964	0.29329973	2.2435114	21	7 25.8	20.1
295604 2008 SO_{177}	16.4	X	233.78628	179.74690	255.81176	2.90186	0.0794977	0.21392989	2.7687797	21	7 29.8	20.4
295605 2008 SC_{181}	17.7	X	221.81469	96.82771	192.95248	5.60922	0.0998490	0.26161335	2.4211932	21	1 5.1	21.4
295606 2008 SP_{182}	17.6	X	29.36745	239.77437	42.59024	5.15428	0.1356502	0.29662428	2.2267165	21	9 9.1	19.7
295607 2008 SD_{185}	16.3	X	235.60197	210.73316	320.90325	5.66513	0.0820592	0.23474496	2.6025867	21	12 5.6	19.8
295608 2008 SY_{187}	17.1	X	55.97659	343.54712	220.60495	6.56948	0.0585524	0.28320541	2.2965101	21	6 9.2	19.6
295609 2008 SA_{194}	16.8	X	241.36988	103.50390	165.71852	6.90453	0.0798423	0.26054620	2.4277999	21	—	—
295610 2008 SC_{194}	17.4	X	101.61785	48.95723	82.99378	4.83254	0.1047327	0.27428915	2.3460124	21	5 12.4	20.2
295611 2008 SM_{195}	16.5	X	315.26431	73.70677	31.48568	12.54534	0.1219086	0.23626204	2.5914336	21	—	—
295612 2008 SH_{196}	16.6	X	314.06817	275.01701	208.10888	12.40799	0.1130295	0.23871191	2.5736728	21	—	—
295613 2008 SB_{197}	16.2	X	163.03845	224.34031	144.33408	1.88898	0.2187623	0.18714154	3.0270708	21	3 2.6	21.3
295614 2008 SB_{198}	17.2	X	228.78815	181.58424	178.94689	5.03220	0.1595025	0.27652647	2.3333411	21	4 9.5	20.7
295615 2008 SB_{202}	17.5	X	5.26814	242.49266	3.11926	3.74761	0.1604115	0.28203843	2.3028405	21	5 11.4	19.2
295616 2008 SN_{204}	15.9	X	170.55284	288.33203	62.71337	9.04556	0.0593824	0.18259917	3.0770663	21	2 10.7	20.6
295617 2008 SA_{208}	15.7	X	5.26012	227.31511	127.15766	13.68177	0.2672378	0.22971281	2.6404579	21	11 22.1	18.5
295618 2008 SL_{213}	13.5	X	349.02261	232.23254	181.89976	7.62442	0.1228347	0.08295670	5.2067702	21	11 18.2	19.8
295619 2008 SJ_{218}	15.9	X	57.67354	26.51637	332.11670	8.95098	0.1402814	0.23774508	2.5806455	21	—	—
295620 2008 SM_{223}	18.2	X	52.48013	36.49793	219.62767	4.97088	0.1652755	0.30006374	2.2096680	21	9 8.2	20.6
295621 2008 SO_{223}	13.9	X	359.34704	101.90258	292.93578	4.80895	0.0392422	0.08190534	5.2512322	21	11 6.3	20.7
295622 2008 SH_{224}	18.0	X	233.30319	222.46029	207.57542	2.87497	0.0965628	0.29008493	2.2600564	21	7 21.6	21.0
295623 2008 ST_{224}	15.9	X	255.21233	28.83312	212.35300	10.50902	0.1217059	0.18039339	3.1020989	21	—	—
295624 2008 SC_{225}	17.4	X	238.79154	288.79836	209.98038	3.53982	0.1157942	0.22793921	2.6541371	21	10 23.3	20.8
295625 2008 SM_{232}	13.4	X	316.15784	128.34985	311.54236	6.10082	0.0818961	0.08141009	5.2725077	21	10 31.3	20.1
295626 2008 SS_{235}	15.5	X	105.95964	273.37395	89.97803	15.22824	0.1981934	0.23947466	2.5682049	21	—	—
295627 2008 SF_{236}	13.0	X	317.08606	228.56096	222.97823	9.96717	0.0454778	0.08082479	5.2979315	21	11 19.7	19.8
295628 2008 SP_{236}	15.7	X	71.76438	186.10238	210.41417	15.61677	0.0602522	0.17260880	3.1946805	21	—	—
295629 2008 SA_{237}	17.5	X	32.47120	274.69424	357.65761	3.55301	0.0973030	0.29536952	2.2330182	21	8 21.5	19.6
295630 2008 SZ_{244}	13.2	X	346.86709	29.29815	28.94067	7.57780	0.0710402	0.08241838	5.2294179	21	11 17.3	19.8
295631 2008 SR_{248}	17.1	X	317.65475	212.65844	220.90246	1.59481	0.1770886	0.23126226	2.6286507	21	11 21.4	19.6
295632 2008 SS_{249}	15.6	X	204.03256	2.56275	236.66891	7.32687	0.1071665	0.17251599	3.1958261	21	—	—
295633 2008 SP_{251}	17.2	X	323.85421	257.68088	212.75365	3.18421	0.1366323	0.23885608	2.5726370	21	—	—
295634 2008 SJ_{253}	12.7	X	359.61761	59.34061	340.84815	23.80274	0.1063722	0.08340854	5.1879489	21	11 6.0	19.4
295635 2008 SN_{253}	17.0	X	333.06544	51.62110	31.01650	7.40112	0.0719215	0.23663035	2.5887439	21	—	—
295636 2008 SO_{253}	16.8	X	338.53793	353.91919	198.94676	9.59180	0.1429878	0.26132615	2.4229669	21	1 7.9	19.9
295637 2008 SE_{254}	17.2	X	148.41899	330.85293	141.27242	3.11114	0.0994907	0.28138022	2.3064304	21	6 11.6	20.4
295638 2008 SN_{254}	18.0	X	72.82307	352.98131	342.01420	2.02291	0.1746151	0.31773884	2.1269430	21	—	—
295639 2008 SF_{256}	16.9	X	230.66604	311.31875	102.77076	0.33111	0.0651483	0.21052497	2.7985537	21	6 30.2	20.9
295640 2008 SZ_{257}	16.5	X	124.41548	214.85481	205.13288	0.67495	0.0952080	0.18741589	3.0241159	21	3 14.0	20.9
295641 2008 SE_{261}	17.5	X	184.60259	272.69426	185.46010	6.20040	0.0299295	0.28570819	2.2830789	21	7 3.6	20.5
295642 2008 SW_{264}	17.9	X	113.00537	247.91873	345.17554	2.58335	0.1143675	0.30262524	2.1971816	21	10 17.2	20.9
295643 2008 SR_{273}	16.3	X	344.60388	37.39757	75.19344	10.09779	0.1354201	0.23084569	2.6318120	21	—	—
295644 2008 SH_{278}	13.8	X	88.10967	45.93436	257.99559	9.08553	0.0155712	0.08195114	5.2492759	21	11 5.1	20.8
295645 2008 SP_{279}	13.8	X	319.01652	187.50448	240.08758	0.79342	0.0364925	0.08028027	5.3218607	21	10 26.8	20.6
295646 2008 SG_{280}	16.8	X	311.51270	26.45491	197.14395	5.92168	0.1098111	0.26290106	2.4132806	21	1 17.5	20.0
295647 2008 SC_{293}	15.9	X	343.55523	305.45718	102.18145	12.54576	0.0792217	0.23411588	2.6072467	21	12 3.8	19.0
295648 2008 SR_{297}	16.3	X	286.72568	208.15289	229.55331	7.14055	0.2497706	0.22531971	2.6746683	21	9 12.9	19.7
295649 2008 SX_{301}	15.8	X	77.42105	323.09966	137.42036	6.32007	0.2753273	0.18111731	3.0938273	21	4 4.6	19.8
295650 2008 SD_{305}	17.7	X	91.43125	101.71628	157.40658	5.61327	0.2541343	0.30950563	2.1644971	21	11 12.4	21.1
295651 2008 ST_{307}	15.7	X	60.61157	213.83420	245.91756	9.77040	0.0528647	0.18156788	3.0887069	21	2 1.9	20.0
295652 2008 TT	15.9	X	4.48044	182.81184	153.79389	12.97909	0.2575444	0.22756334	2.6570589	21	10 22.2	18.4
295653 2008 TX_4	13.2	X	7.51288	178.57024	209.36005	6.75375	0.0772798	0.08123644	5.2800188	21	11 12.0	19.7
295654 2008 TQ_6	16.3	X	7.05658	227.86547	106.00945	5.24652	0.2632075	0.22656529	2.6648563	21	10 22.8	18.7
295655 2008 TJ_7	16.7	X	41.12221	270.39403	195.84011	5.53327	0.0779637	0.25932702	2.4354032	21	—	—
295656 2008 TV_7	15.5	X	217.52486	81.35814	183.66239	12.82078	0.1820075	0.18203092	3.0834668	21	—	—
295657 2008 TP_{19}	16.5	X	353.32488	64.87522	34.42761	15.48193	0.0804088	0.24258018	2.5462390	21	—	—
295658 2008 TB_{30}	17.0	X	115.80825	42.14899	7.76287	4.12506	0.0658353	0.26444461	2.4038806	21	2 2.9	20.0
295659 2008 TM_{33}	17.9	X	17.25687	137.73128	172.83561	3.39025	0.1369264	0.30040042	2.2080167	21	9 29.5	19.8
295660 2008 TA_{41}	16.1	X	182.43387	22.42883	326.53153	8.70042	0.0833574	0.18821802	3.0155180	21	2 17.6	20.6
295661 2008 TZ_{43}	17.5	X	261.29909	145.84739	292.30396	1.17548	0.1153243	0.21770503	2.7366783	21	9 1.1	21.3
295662 2008 TH_{45}	17.4	X	110.57625	331.60389	219.53554	2.75729	0.0949741	0.28845028	2.2685868	21	8 13.8	20.5
295663 2008 TK_{47}	17.0	X	82.88622	306.16741	118.47283	3.91008	0.1626794	0.25519311	2.4616337	21	1 19.3	19.3
295664 2008 TT_{48}	16.9	X	279.87278	4.90219	295.61874	1.01551	0.0385242	0.20499214	2.8486860	21	4 7.4	20.7
295665 2008 TG_{55}	16.9	X	42.27521	321.95636	204.28589	7.10747	0.0630699	0.27137941	2.3627519	21	3 21.4	19.5
295666 2008 TA_{59}	16.8	X	90.75847	28.03743	87.20283	1.46067	0.1251847	0.19096450	2.9865351	21	4 15.5	20.9
295667 2008 TG_{60}	16.0	X	109.36094	354.17553	6.37076	1.07801	0.0823307	0.17791495	3.1308416	21	—	—
295668 2008 TT_{63}	16.6	X	206.22371	60.11900	303.46204	0.44289	0.0945701	0.19523051	2.9428690	21	3 30.3	21.1
295669 2008 TD_{68}	18.1	X	355.96765	312.37505	83.36623	2.67518	0.1631878	0.30998649	2.1622581	21	—	—
295670 2008 TP_{78}	16.6	X	227.63572	324.42118	183.14255	6.36275	0.3179316	0.22589017	2.6701634	21	9 30.3	21.1
295671 2008 TH_{81}	16.2	X	299.35761	48.33838	192.71727	10.53086	0.0932801	0.19193007	2.9765102	21	2 8.2	20.5
295672 2008 TO_{82}	16.2	X	259.01957	214.86362	200.94219	9.30727	0.1483304	0.21441806	2.7645757	21	7 23.6	20.4
295673 2008 TK_{85}	17.6	X	186.49710	285.07784	194.55466	6.43168	0.0526537	0.29354427	2.2422652	21	8 4.6	20.5
295674 2008 TS_{87}	17.7	X	6.11684	279.67103	41.16518	7.89469	0.2184280	0.30158268	2.2022424	21	10 9.2	19.1
295675 2008 TF_{91}	13.4	X	1.77602	4.76327	22.78292	5.20332	0.0584766	0.08048151	5.3129857	21	11 2.4	20.0
295676 2008 TQ_{92}	13.6	X	98.07803	116.60389	173.16597	6.74338	0.1320228	0.08349158	5.1845085	21	11 16.2	20.7
295677 2008 TH_{94}	17.1	X	132.27630	230.76939	173.39492	6.82305	0.0801548	0.26533390	2.3985064	21	2 16.6	20.1
295678 2008 TV_{94}	17.0	X	10.01026	336.11688	339.06161	6.76633	0.2302519	0.29954551	2.2122159	21	10 4.3	18.5
295679 2008 TA_{99}	16.4	X	163.79976	130.35708	164.26699	1.20018	0.1589059	0.17522379	3.1628166	21	—	—
295680 2008 TS_{99}	18.1	X	103.41448	60.41256	62.10503	2.03749	0.1248855	0.27403758	2.3474479	21	5 3.9	21.0

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295681 2008 TD_{101}	13.9	X	330.27437	233.87101	206.30704	10.85366	0.0664415	0.08135395	5.2749333	21	11 22.5	20.6
295682 2008 TE_{111}	16.0	X	40.97463	116.89857	331.45858	4.16530	0.1971455	0.17273263	3.1931534	21	1 3.5	19.4
295683 2008 TP_{111}	16.3	X	302.08659	36.91113	337.72711	4.54343	0.1752406	0.21799757	2.7342294	21	7 27.2	19.4
295684 2008 TW_{111}	16.9	X	343.22746	18.26115	246.77394	5.50180	0.1054679	0.28274363	2.2990098	21	5 2.5	19.2
295685 2008 TX_{118}	16.8	X	246.30358	111.27096	309.40173	2.03140	0.0757857	0.21705707	2.7421219	21	7 26.9	20.5
295686 2008 TA_{119}	13.1	X	268.41597	307.25823	192.44330	29.23533	0.0650226	0.08427697	5.1522482	21	11 15.5	20.1
295687 2008 TX_{126}	17.8	X	165.57120	71.54982	52.53474	3.18967	0.1415221	0.28594748	2.2818050	21	7 19.6	21.2
295688 2008 TQ_{128}	16.3	X	104.97350	288.91519	105.24355	2.45330	0.1743789	0.18105676	3.0945171	21	1 31.4	20.6
295689 2008 TC_{137}	16.7	X	174.90514	82.43940	330.08250	1.07741	0.1018931	0.19620251	2.9331415	21	4 27.2	21.1
295690 2008 TP_{138}	17.7	X	32.76064	335.18953	321.52911	2.78660	0.1939743	0.30210624	2.1996973	21	10 14.2	19.8
295691 2008 TM_{144}	16.8	X	67.31384	84.75154	17.47522	13.77180	0.1572036	0.26189593	2.4194513	21	2 18.8	19.4
295692 2008 TW_{150}	16.6	X	96.97099	342.56236	93.98182	2.86425	0.1816772	0.18585511	3.0410231	21	3 15.6	20.8
295693 2008 TJ_{158}	15.5	X	119.83134	275.39323	58.39205	13.72588	0.2978472	0.17628457	3.1501158	21	—	—
295694 2008 TW_{161}	17.9	X	27.81290	229.89178	101.74962	2.89085	0.2036343	0.30687679	2.1768409	21	12 1.3	20.3
295695 2008 TC_{166}	17.6	X	33.75619	118.06226	162.44573	3.48798	0.1567288	0.29513542	2.2341989	21	9 14.9	19.5
295696 2008 TW_{167}	16.5	X	293.98677	40.63787	43.05932	14.85487	0.0833846	0.22809606	2.6529202	21	11 1.5	19.8
295697 2008 TD_{169}	15.6	X	102.92573	8.91436	107.31373	11.33043	0.0287160	0.18004377	3.1061134	21	4 24.0	20.1
295698 2008 TN_{171}	16.1	X	225.63856	21.99383	44.73946	2.59247	0.0588543	0.20459074	2.8524107	21	7 11.8	20.2
295699 2008 TC_{173}	14.0	X	66.44074	337.13387	346.84930	2.52902	0.0447347	0.08193446	5.2499879	21	11 7.6	20.9
295700 2008 TQ_{174}	18.1	X	131.09738	32.59160	158.23900	7.16571	0.0711328	0.29714083	2.2241351	21	9 7.9	20.9
295701 2008 TW_{174}	13.2	X	252.88974	111.72372	41.50474	7.61148	0.0192289	0.08139065	5.2733474	21	11 16.8	20.2
295702 2008 TS_{183}	16.0	X	228.71585	113.66672	151.43833	5.62366	0.1488158	0.17905174	3.1175758	21	—	—
295703 2008 TQ_{185}	16.7	X	136.17104	139.89402	128.76271	4.07654	0.0643762	0.23340291	2.6125536	21	12 16.0	20.5
295704 2008 TZ_{189}	16.5	X	7.44740	58.33644	315.24267	3.99656	0.1770655	0.22657827	2.6647546	21	12 2.9	19.3
295705 2008 TB_{190}	16.0	X	53.14911	139.20542	265.40904	8.26643	0.0274592	0.23168339	2.6254643	21	—	—
295706 2008 UG_{3}	15.8	X	259.68473	236.80790	339.84679	30.14875	0.3530544	0.22252400	2.6970240	21	—	—
295707 2008 UA_{10}	17.1	X	275.02937	287.15491	157.92263	2.42231	0.0922234	0.22749245	2.6576109	21	10 4.9	20.3
295708 2008 UC_{11}	17.3	X	130.59895	157.11855	3.28666	6.61127	0.0477552	0.29078696	2.2564173	21	7 24.9	20.2
295709 2008 UY_{12}	17.6	X	109.57979	63.90858	353.70902	3.80148	0.1386964	0.26248357	2.4158389	21	2 15.9	20.3
295710 2008 UM_{15}	13.9	X	345.00280	199.29415	220.11208	3.65208	0.0784815	0.08235779	5.2319824	21	11 17.6	20.4
295711 2008 UV_{26}	17.9	X	133.68360	13.73828	70.03212	2.06399	0.1522099	0.26914303	2.3758223	21	4 23.2	21.2
295712 2008 UG_{28}	17.7	X	83.55940	84.66802	94.34433	1.40435	0.0519980	0.27975163	2.3153730	21	6 13.6	20.4
295713 2008 UT_{29}	17.5	X	133.40347	302.39359	197.96619	4.95852	0.0970867	0.28033162	2.3121783	21	7 2.0	20.7
295714 2008 UN_{33}	16.5	X	123.40562	339.73017	87.24318	2.21243	0.0495150	0.19011924	2.9953805	21	3 16.4	20.8
295715 2008 UM_{34}	16.4	X	285.33443	185.03260	183.00643	4.33109	0.0857939	0.21037085	2.7999204	21	7 5.5	20.1
295716 2008 UP_{35}	17.2	X	244.96496	348.62093	203.27736	3.23649	0.1336543	0.24242651	2.5473149	21	—	—
295717 2008 UY_{37}	15.9	X	326.72335	204.93712	231.18637	9.14018	0.1950867	0.23023834	2.6364384	21	12 14.4	18.2
295718 2008 UN_{38}	17.8	X	1.99613	348.69391	293.17688	1.60247	0.2028847	0.28837362	2.2689889	21	7 9.0	18.9
295719 2008 UD_{40}	15.8	X	205.38992	161.39744	280.37722	1.76157	0.2010391	0.12661622	3.9277438	21	6 30.7	22.1
295720 2008 UT_{42}	15.6	X	199.31257	33.32423	44.90157	3.23750	0.2670288	0.12383024	3.9864369	21	6 20.1	22.3
295721 2008 UZ_{42}	16.9	X	168.29259	227.54049	78.64327	3.98140	0.0926589	0.25049366	2.4923263	21	—	—
295722 2008 UU_{47}	16.8	X	188.57632	232.99614	267.49324	3.86478	0.0628046	0.21273330	2.7791527	21	8 30.7	21.0
295723 2008 UR_{51}	17.0	X	178.21871	94.24845	2.50362	1.38895	0.0693327	0.20148671	2.8816315	21	6 25.1	21.1
295724 2008 UD_{53}	16.5	X	101.48244	220.62127	55.62813	4.46719	0.0708094	0.22593057	2.6698450	21	11 16.3	20.3
295725 2008 UE_{54}	16.6	X	282.84320	214.80532	229.70481	4.86081	0.0604285	0.22173632	2.7034074	21	10 17.4	20.0
295726 2008 UE_{58}	17.6	X	340.57554	96.86615	180.38613	5.16569	0.1248769	0.28365207	2.2940986	21	5 16.7	19.7
295727 2008 UF_{60}	17.5	X	16.01006	17.16938	356.20889	4.23642	0.1311144	0.30976511	2.1632882	21	—	—
295728 2008 UQ_{60}	17.2	X	295.58688	159.15954	242.64740	6.60540	0.0237483	0.29672299	2.2262226	21	9 18.5	19.8
295729 2008 UG_{61}	16.2	X	293.28309	162.24616	268.71290	3.98470	0.0119983	0.22437779	2.6821484	21	10 19.3	19.8
295730 2008 UD_{62}	16.8	X	8.84790	330.43985	1.59094	3.12405	0.0982878	0.22119310	2.7078317	21	9 28.9	19.9
295731 2008 UO_{62}	16.6	X	245.25044	52.37642	23.28144	5.53384	0.1687039	0.21282747	2.7783328	21	8 4.5	20.8
295732 2008 UP_{64}	15.5	X	181.61981	203.80902	70.21672	9.41318	0.1716788	0.17497470	3.1658175	21	—	—
295733 2008 UW_{65}	16.9	X	303.50120	313.30276	7.22638	5.01401	0.0686825	0.28134215	2.3066384	21	5 25.5	19.7
295734 2008 UE_{66}	16.2	X	319.98245	86.66223	16.21176	5.69913	0.1099606	0.23394125	2.6085441	21	—	—
295735 2008 UY_{71}	17.4	X	294.19625	301.78020	359.14153	6.51301	0.1021967	0.27494846	2.3422605	21	4 8.2	20.2
295736 2008 UD_{73}	16.6	X	155.10421	341.52056	305.14087	4.49784	0.1444370	0.24255016	2.5464492	21	—	—
295737 2008 UW_{79}	16.8	X	319.20063	296.25318	3.54596	7.55422	0.1312413	0.28394009	2.2925469	21	5 7.4	19.2
295738 2008 UT_{83}	16.0	X	295.68016	326.54114	72.82894	9.83156	0.1343622	0.21530200	2.7570037	21	8 31.3	19.5
295739 2008 UM_{86}	16.4	X	125.55113	346.11398	56.35234	1.99526	0.2106281	0.18191578	3.0847677	21	3 9.6	21.1
295740 2008 UL_{88}	18.3	X	136.61056	145.86758	87.37687	4.27071	0.0976450	0.30888081	2.1674151	21	11 14.4	21.1
295741 2008 UJ_{94}	17.3	X	307.04790	262.77869	108.32691	7.04036	0.2005723	0.29372459	2.2413474	21	7 29.4	19.1
295742 2008 UF_{95}	16.9	X	353.39858	251.09418	196.72985	3.10712	0.2168985	0.23890296	2.5723004	21	—	—
295743 2008 UK_{96}	16.0	X	282.38353	19.42033	50.75606	17.14048	0.1405394	0.22215220	2.7000323	21	9 26.7	19.7
295744 2008 UC_{98}	15.7	X	83.85608	237.50881	217.93559	26.28405	0.1753876	0.18076559	3.0978392	21	3 15.1	20.2
295745 2008 UH_{98}	17.6	X	13.17719	181.45874	182.13214	4.39406	0.1629027	0.30695328	2.1764792	21	12 17.9	19.8
295746 2008 UN_{100}	12.6	X	342.30738	24.02368	15.41845	19.11261	0.0616933	0.08098570	5.2909116	21	10 20.2	19.3
295747 2008 UR_{113}	16.9	X	200.16940	41.57384	243.04260	6.81871	0.0875053	0.25309075	2.4752470	21	—	—
295748 2008 UL_{114}	16.2	X	213.35389	98.42076	24.57918	7.10843	0.0636926	0.21688312	2.7435879	21	9 10.8	20.2
295749 2008 UZ_{115}	16.8	X	30.00735	260.32308	281.94372	5.67736	0.0683872	0.26780313	2.3837404	21	3 22.9	19.5
295750 2008 UN_{116}	15.9	X	265.50957	293.00218	309.06975	5.57988	0.0908173	0.17712317	3.1401650	21	1 9.1	20.5
295751 2008 UW_{117}	17.2	X	219.13921	133.46790	263.04839	4.73267	0.0684361	0.27932869	2.3177096	21	5 20.4	20.3
295752 2008 UP_{119}	17.2	X	344.33473	352.71510	255.76112	6.56114	0.0516204	0.27399625	2.3476840	21	4 15.1	20.1
295753 2008 UY_{129}	17.3	X	22.38527	319.89758	27.25912	6.57777	0.1880589	0.30814353	2.1708710	21	12 11.9	19.7
295754 2008 UM_{131}	17.3	X	81.37448	233.60966	33.83894	6.73316	0.0886947	0.30095728	2.2052922	21	10 24.9	19.8
295755 2008 UQ_{138}	17.9	X	184.19079	126.10118	53.37464	4.02382	0.0184333	0.30182092	2.2010833	21	11 1.2	20.5
295756 2008 UD_{144}	16.3	X	163.33015	68.08956	196.29707	2.84013	0.0259483	0.23811172	2.5779958	21	—	—
295757 2008 UT_{146}	17.0	X	349.40864	33.58125	28.90956	4.26575	0.0525428	0.23337377	2.6127711	21	12 28.3	20.3
295758 2008 UM_{147}	17.6	X	78.41360	54.91685	26.82861	3.87510	0.1939420	0.25492708	2.4633459	21	2 11.4	20.0
295759 2008 UO_{151}	16.0	X	168.67593	81.74582	233.13670	5.41883	0.1747616	0.17479931	3.1679348	21	1 3.3	21.2
295760 2008 UZ_{152}	17.0	X	350.15871	141.14845	49.33613	3.92442	0.1368065	0.26305875	2.4123161	21	1 25.8	19.8

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295761 2008 UL_{155}	16.9	X	157.64436	14.36758	44.02943	7.30259	0.0970080	0.27125938	2.3634489	21	4 11.8	20.1
295762 2008 UN_{156}	17.0	X	7.32015	262.23440	45.08395	2.32655	0.2603275	0.22384980	2.6863643	21	9 8.6	19.0
295763 2008 UQ_{158}	17.6	X	199.86626	131.75035	311.64769	5.48704	0.0491078	0.28206025	2.3027217	21	7 3.4	20.6
295764 2008 UB_{160}	16.1	X	160.25535	6.33657	41.33887	4.51016	0.1698271	0.18799132	3.0179418	21	4 12.4	21.0
295765 2008 UK_{163}	16.6	X	224.44773	201.80832	322.60676	2.80539	0.1889916	0.22753795	2.6572565	21	10 29.2	20.7
295766 2008 UF_{164}	17.1	X	277.03523	295.28569	11.88268	4.66494	0.1591171	0.27726402	2.3292014	21	3 20.3	20.2
295767 2008 UK_{170}	16.5	X	311.46846	91.28647	355.48838	7.18594	0.1132974	0.23299001	2.6156393	21	11 30.2	19.5
295768 2008 UT_{171}	16.2	X	313.49361	124.01763	26.84383	5.20850	0.1933834	0.24043765	2.5613429	21	—	—
295769 2008 UV_{180}	16.7	X	301.29946	93.30261	13.73103	2.88466	0.0374373	0.23145624	2.6271818	21	12 16.8	20.0
295770 2008 UL_{181}	17.0	X	153.89946	352.21398	196.12226	5.03707	0.0817159	0.22005036	2.7171982	21	9 23.9	20.9
295771 2008 UD_{187}	16.8	X	102.58060	26.93704	82.93889	6.48270	0.0633193	0.26496741	2.4007176	21	4 9.2	19.8
295772 2008 UG_{187}	16.7	X	90.86299	180.21859	183.34311	3.61472	0.0945296	0.24220708	2.5488532	21	—	—
295773 2008 UR_{198}	16.9	X	271.98408	326.34302	93.04439	3.68476	0.1732104	0.21647115	2.7470678	21	8 13.8	20.7
295774 2008 US_{200}	17.3	X	186.98529	14.29996	6.29314	2.30668	0.2049517	0.27094444	2.3652800	21	3 27.9	21.0
295775 2008 UO_{201}	17.6	X	304.92989	333.25907	36.13070	3.65587	0.2050469	0.29314127	2.2443198	21	7 21.8	19.6
295776 2008 UY_{203}	16.2	X	16.46628	48.61765	321.12002	3.85795	0.2156896	0.23251763	2.6191807	21	12 20.9	19.3
295777 2008 UL_{204}	17.4	X	337.77478	245.24380	35.27380	22.36216	0.0562332	0.35848018	1.9625736	21	5 11.9	19.2
295778 2008 UZ_{207}	17.1	X	54.99724	341.47934	246.78324	4.45745	0.0763124	0.28588755	2.2821239	21	7 16.2	19.5
295779 2008 UH_{208}	17.1	X	210.31768	143.18375	354.21674	1.57658	0.0109730	0.22134725	2.7065744	21	9 28.9	20.8
295780 2008 UG_{213}	17.0	X	42.06688	352.89519	325.37370	6.02179	0.1557125	0.30896007	2.1670444	21	11 22.7	19.6
295781 2008 UQ_{216}	16.4	X	332.48553	298.25061	32.50392	9.78258	0.2659406	0.21891395	2.7265937	21	7 7.8	18.9
295782 2008 UD_{225}	17.1	X	263.34904	34.62714	2.96646	4.85948	0.1666503	0.20996610	2.8035174	21	7 5.4	21.1
295783 2008 UN_{225}	16.8	X	236.08286	123.28201	346.25165	4.58765	0.0658549	0.21655888	2.7463258	21	9 17.4	20.6
295784 2008 UB_{227}	17.1	X	203.51790	141.69632	352.08581	3.14699	0.0553861	0.21414690	2.7669089	21	9 11.1	21.1
295785 2008 UE_{228}	16.7	X	96.98297	205.21630	254.70297	5.29909	0.0723639	0.26281107	2.4138315	21	3 13.4	19.7
295786 2008 UG_{229}	17.2	X	284.50186	43.67867	46.74677	6.78908	0.1388712	0.22230760	2.6987740	21	10 19.3	20.4
295787 2008 UT_{229}	15.8	X	194.86722	288.08550	257.73606	15.76882	0.0925875	0.22208514	2.7005759	21	11 1.0	20.1
295788 2008 UY_{231}	17.9	X	31.09684	9.33570	283.23376	2.68356	0.1411071	0.29811861	2.2192692	21	9 24.6	20.0
295789 2008 US_{248}	15.8	X	72.66867	55.68759	71.14332	8.78269	0.1181246	0.18231536	3.0802588	21	4 9.1	19.9
295790 2008 UP_{255}	17.7	X	286.88372	73.97302	223.30701	4.28469	0.1155409	0.27385457	2.3484937	21	3 22.7	20.8
295791 2008 UF_{258}	15.3	X	79.88814	167.09607	236.99512	17.27996	0.1292727	0.17144875	3.2090747	21	1 2.8	19.7
295792 2008 UP_{258}	17.8	X	25.23373	82.51263	252.36418	1.69496	0.1001161	0.30221044	2.1991916	21	11 12.9	19.8
295793 2008 UG_{268}	17.3	X	20.03859	33.50229	206.26788	5.48555	0.1402697	0.28112526	2.3078246	21	6 7.2	19.1
295794 2008 UH_{269}	17.2	X	355.40209	22.09192	178.53093	2.48306	0.1318339	0.26415690	2.4056258	21	2 16.5	19.5
295795 2008 UA_{272}	16.4	X	213.61097	161.17763	2.89640	3.19413	0.0211697	0.22615722	2.6680609	21	11 5.3	20.0
295796 2008 UV_{273}	17.9	X	10.84845	67.25761	236.11936	5.56152	0.2150984	0.29642751	2.2277017	21	9 11.6	19.5
295797 2008 UR_{276}	17.2	X	94.52107	215.30490	39.64495	6.87753	0.0407876	0.30069300	2.2065842	21	10 19.3	19.8
295798 2008 UL_{277}	17.6	X	93.55178	124.10309	39.16646	2.80831	0.1417446	0.27712544	2.3299778	21	6 20.1	20.4
295799 2008 UY_{279}	17.8	X	118.74948	23.85561	162.28082	1.53095	0.1940991	0.28740300	2.2740945	21	8 26.9	21.1
295800 2008 UR_{286}	16.9	X	278.04856	282.66253	146.30851	3.54074	0.0703581	0.22071135	2.7117706	21	9 20.3	20.4
295801 2008 UC_{291}	16.9	X	279.67631	217.74956	205.28095	5.78467	0.0608162	0.21543390	2.7558782	21	9 12.8	20.7
295802 2008 UY_{291}	17.6	X	338.77116	359.63312	26.58236	5.41891	0.1680082	0.30438229	2.1887179	21	11 15.1	19.0
295803 2008 UQ_{294}	15.8	X	130.96260	306.98167	254.88238	6.14086	0.0667914	0.21618484	2.7494926	21	9 12.0	20.0
295804 2008 UE_{303}	16.5	X	263.64835	253.64249	10.82565	2.41660	0.1652956	0.25949090	2.4343777	21	1 13.9	20.3
295805 2008 UK_{305}	17.1	X	330.47747	199.02882	262.83881	2.56262	0.2384358	0.23877939	2.5731879	21	—	—
295806 2008 UW_{306}	17.2	X	269.53186	296.70009	337.57613	6.51267	0.1190057	0.26463188	2.4027464	21	2 4.3	20.7
295807 2008 UA_{307}	15.8	X	188.21855	244.87796	104.84047	11.76894	0.1306015	0.18744046	3.0238517	21	3 1.8	20.7
295808 2008 UH_{313}	16.7	X	243.11881	317.85127	346.14441	6.99557	0.1243328	0.26785695	2.3834210	21	2 13.8	20.3
295809 2008 UX_{316}	17.5	X	154.06680	90.21364	359.95838	1.19293	0.1516312	0.26604138	2.3942524	21	5 22.9	21.1
295810 2008 UB_{317}	15.9	X	292.46733	233.78340	284.37126	11.82190	0.0879814	0.22772669	2.6557881	21	—	—
295811 2008 UM_{321}	16.9	X	144.47819	245.28056	260.98806	4.93026	0.0989588	0.28665625	2.2780423	21	7 23.3	20.1
295812 2008 UW_{324}	16.9	X	338.97505	31.77151	233.12970	9.99712	0.1902492	0.28331592	2.2959128	21	4 9.0	19.1
295813 2008 UX_{326}	16.3	X	58.09175	300.60640	135.75636	3.86957	0.1522947	0.24161020	2.5530493	21	—	—
295814 2008 US_{328}	17.1	X	16.00532	84.58057	240.20977	7.46529	0.2035499	0.30335260	2.1936680	21	10 30.2	19.0
295815 2008 UE_{330}	16.6	X	212.98757	127.28931	237.07633	2.36962	0.0229620	0.19384600	2.9568650	21	4 9.2	20.7
295816 2008 UV_{331}	16.5	X	95.07753	275.39302	265.38374	11.50166	0.1060292	0.26947612	2.3738641	21	7 10.4	19.6
295817 2008 US_{335}	17.1	X	343.18966	339.77258	205.96861	6.46261	0.0559436	0.25998646	2.4312833	21	1 18.5	20.1
295818 2008 UX_{335}	17.2	X	335.24196	331.85272	290.85168	4.18001	0.0770027	0.27447618	2.3449465	21	4 18.4	19.8
295819 2008 UF_{336}	17.0	X	196.25295	300.48882	225.54266	4.20445	0.0487067	0.22040486	2.7142839	21	10 14.0	20.7
295820 2008 UE_{337}	17.0	X	261.21145	234.85954	53.39751	6.33587	0.0492277	0.26298274	2.4127809	21	2 21.7	20.3
295821 2008 UN_{338}	17.3	X	300.05069	266.76376	33.91288	4.90641	0.1362832	0.27548240	2.3392330	21	4 12.5	20.1
295822 2008 UJ_{344}	14.8	X	116.53584	255.02900	91.48393	26.88851	0.2649797	0.17149093	3.2085485	21	—	—
295823 2008 UU_{344}	16.1	X	70.40212	281.27761	207.37827	3.37016	0.1154861	0.18258976	3.0771720	21	4 3.2	20.1
295824 2008 UX_{346}	16.3	X	353.02981	306.39121	108.25369	6.71439	0.0591712	0.22119183	2.7078420	21	12 20.8	19.8
295825 2008 UY_{348}	17.5	X	5.56813	263.84228	22.55598	6.23072	0.0770342	0.28572786	2.2829742	21	7 23.4	19.8
295826 2008 UG_{349}	16.8	X	283.20611	128.24592	121.20308	2.30950	0.1498078	0.25996212	2.4314350	21	1 15.2	20.5
295827 2008 UX_{351}	16.2	X	332.15709	265.96234	183.52771	13.22692	0.1688233	0.23427622	2.6060570	21	—	—
295828 2008 UA_{353}	16.6	X	223.53555	230.97570	270.06933	4.15197	0.1046711	0.21968676	2.7201955	21	10 6.7	20.6
295829 2008 UR_{355}	16.8	X	242.85793	276.12536	103.55810	6.84157	0.1226328	0.28003015	2.3138375	21	5 22.9	20.1
295830 2008 UK_{360}	16.9	X	274.98893	12.99823	265.70794	8.48359	0.1585594	0.26611019	2.3938396	21	2 7.3	20.5
295831 2008 UK_{367}	15.7	X	111.85692	272.84225	102.82217	10.03715	0.1160328	0.17527858	3.1621574	21	1 10.5	20.1
295832 2008 UO_{370}	16.8	X	34.67182	237.33884	153.65836	1.37527	0.1499305	0.23656416	2.5892267	21	—	—
295833 2008 UT_{370}	16.1	X	311.90730	181.66936	300.10001	10.27324	0.0249927	0.22407339	2.6845770	21	—	—
295834 2008 VC_{1}	15.8	X	145.69538	228.73633	170.11235	6.65305	0.2003564	0.18578032	3.0418391	21	3 22.2	20.7
295835 2008 VO_{1}	16.5	X	279.21070	175.69802	291.10821	5.95278	0.1440306	0.22625945	2.6672572	21	10 29.0	19.8
295836 2008 VX_{1}	17.7	X	309.65878	27.99672	8.35248	4.80525	0.1700156	0.29839810	2.2178833	21	9 22.5	19.4
295837 2008 VC_{3}	16.0	X	326.65989	107.64007	265.13574	8.98834	0.1683423	0.22160810	2.7044500	21	9 3.5	18.9
295838 2008 VS_{6}	17.2	X	109.93776	312.26397	199.18578	6.48310	0.0317863	0.27827378	2.3235634	21	6 8.9	20.1
295839 2008 VB_{10}	16.1	X	128.38965	291.15669	171.55686	8.55947	0.1866658	0.19150849	2.9808768	21	5 21.6	20.9
295840 2008 VA_{12}	17.3	X	306.35364	166.28811	109.72839	5.14851	0.2348824	0.27515299	2.3410996	21	3 4.7	20.5

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295841 Gorbulin	16.8	X	252.74697	248.66677	220.54566	8.88608	0.1960679	0.21737120	2.7394795	21	9 16.8	20.8
295842 2008 VN_{14}	17.3	X	264.32930	192.16307	172.04732	3.29635	0.1375688	0.28155409	2.3054807	21	5 24.5	20.4
295843 2008 VX_{29}	16.3	X	333.76208	340.38816	306.89359	5.35554	0.0295412	0.20204653	2.8763062	21	6 2.8	20.2
295844 2008 VH_{39}	15.8	X	11.37033	227.23833	188.54217	15.08448	0.1147383	0.23508348	2.6000876	21	—	—
295845 2008 VO_{39}	17.1	X	243.67834	333.54339	319.44008	4.97578	0.1679379	0.26187327	2.4195908	21	1 29.8	20.9
295846 2008 VY_{39}	15.8	X	32.01424	313.51304	47.85072	10.33463	0.1254464	0.22951258	2.6419934	21	12 16.6	19.2
295847 2008 VB_{40}	17.5	X	109.41226	266.09514	259.39645	1.90707	0.0823996	0.28413551	2.2914956	21	7 5.7	20.1
295848 2008 VX_{51}	17.1	X	243.20612	326.37932	352.54294	3.77814	0.1571520	0.27335856	2.3513337	21	3 1.4	20.6
295849 2008 VS_{54}	16.5	X	276.71632	240.76095	275.18941	3.35152	0.0783238	0.23954034	2.5677354	21	—	—
295850 2008 VB_{56}	15.8	X	143.75594	77.15376	308.10565	8.30050	0.0447209	0.18191327	3.0847961	21	2 15.6	20.2
295851 2008 VJ_{59}	17.9	X	333.52721	125.37749	235.50100	2.31822	0.1507758	0.29808153	2.2194532	21	9 16.9	19.4
295852 2008 VA_{62}	17.4	X	12.74900	152.22947	54.18730	3.28962	0.1332936	0.26887379	2.3774081	21	3 31.1	19.4
295853 2008 VG_{67}	17.5	X	20.48381	252.58983	82.30464	6.88488	0.2358969	0.30259063	2.1973491	21	11 29.7	19.7
295854 2008 VX_{67}	16.0	X	175.96875	326.98504	252.59072	11.71573	0.1783744	0.22339586	2.6900022	21	11 20.9	20.5
295855 2008 VA_{68}	17.5	X	35.17639	349.02390	181.78791	0.59027	0.1159209	0.26152624	2.4217308	21	3 20.9	19.7
295856 2008 VR_{69}	18.0	X	142.23637	142.27543	58.23052	6.37865	0.0707843	0.29495010	2.2351346	21	10 7.3	21.0
295857 2008 VM_{74}	16.5	X	340.73570	73.15905	251.62327	5.11289	0.0173695	0.20838578	2.8176735	21	8 1.9	20.4
295858 2008 VO_{77}	16.7	X	120.62631	269.18981	284.54137	2.48643	0.0304846	0.20884342	2.8135557	21	8 18.7	20.6
295859 2008 VR_{78}	17.1	X	109.37248	325.05289	126.57845	6.95897	0.0808510	0.26208815	2.4182681	21	3 27.2	20.2
295860 2008 VF_{80}	15.5	X	24.77240	15.36451	81.24389	30.08801	0.1269009	0.23852634	2.5750074	21	—	—
295861 2008 VL_{80}	15.2	X	27.43295	244.88920	303.79815	11.89049	0.0908671	0.17097557	3.2149928	21	4 8.5	19.5
295862 2008 WB_{1}	17.1	X	355.01090	238.05671	55.57733	7.74537	0.1130355	0.28648496	2.2789502	21	7 13.7	19.2
295863 2008 WA_{4}	18.1	X	248.03439	251.88007	193.34685	2.21208	0.0642226	0.29540082	2.2328604	21	9 7.2	20.6
295864 2008 WM_{5}	16.8	X	268.00565	313.36187	200.86330	3.69378	0.1759419	0.23377699	2.6097658	21	12 13.9	19.7
295865 2008 WJ_{11}	17.3	X	183.62004	344.98822	76.11456	5.58558	0.1073702	0.27509587	2.3414237	21	5 13.9	20.7
295866 2008 WS_{11}	16.0	X	76.71115	253.99778	64.60355	4.03992	0.0562360	0.23126057	2.6286634	21	12 9.6	19.7
295867 2008 WP_{13}	17.5	X	110.70443	262.58692	150.99485	5.20879	0.1723572	0.25900861	2.4373988	21	2 17.0	20.3
295868 2008 WK_{16}	16.8	X	225.49833	43.18908	356.30924	1.50565	0.0658885	0.20449862	2.8532674	21	6 4.9	21.1
295869 2008 WN_{22}	16.7	X	207.16175	250.35593	291.80580	3.69331	0.1526153	0.22889514	2.6467424	21	11 6.4	20.8
295870 2008 WR_{24}	17.5	X	350.68130	95.35481	241.68897	8.10038	0.2228739	0.29794565	2.2201280	21	9 17.9	18.9
295871 2008 WJ_{27}	16.7	X	332.69704	252.42606	240.29964	7.00010	0.1101340	0.24267705	2.5455614	21	—	—
295872 2008 WM_{29}	16.5	X	22.82750	333.77225	30.99056	4.98905	0.0835301	0.22701616	2.6613267	21	12 1.8	20.0
295873 2008 WG_{32}	17.2	X	129.78171	218.83717	230.90123	1.78792	0.1677584	0.26232167	2.4168328	21	4 28.3	20.5
295874 2008 WT_{32}	16.2	X	281.62645	281.67978	170.41231	8.67618	0.1515581	0.22330151	2.6907599	21	10 15.8	19.4
295875 2008 WL_{38}	16.2	X	138.13371	115.97304	64.82853	8.27595	0.0751916	0.20938152	2.8087332	21	8 31.9	20.5
295876 2008 WE_{40}	17.5	X	93.63683	31.87456	218.32431	3.46610	0.1512797	0.29631063	2.2282875	21	10 21.9	20.7
295877 2008 WF_{42}	17.0	X	311.29209	21.06515	36.60021	3.58898	0.0565472	0.22242141	2.6978533	21	10 24.6	20.1
295878 2008 WB_{44}	17.1	X	206.56666	242.00245	258.44823	3.42313	0.0894286	0.21528422	2.7571555	21	9 18.4	21.2
295879 2008 WP_{47}	17.5	X	255.25571	216.78465	78.31157	2.23502	0.1762734	0.26413495	2.4057591	21	2 11.6	21.3
295880 2008 WR_{47}	17.0	X	86.58458	56.81947	45.40265	0.54630	0.1719531	0.18008953	3.1055873	21	4 1.2	21.1
295881 2008 WX_{49}	17.9	X	338.78974	218.22556	151.51597	2.73507	0.1580177	0.29989393	2.2105021	21	10 18.5	19.3
295882 2008 WK_{56}	17.6	X	288.59813	248.22716	36.86665	1.74313	0.1784992	0.27135438	2.3628972	21	3 2.9	20.9
295883 2008 WV_{59}	15.7	X	262.84606	14.47136	74.45280	22.60187	0.1027801	0.21695533	2.7429791	21	10 4.1	19.9
295884 2008 WE_{62}	17.5	X	321.16734	163.86203	236.95286	4.02313	0.1134308	0.29962373	2.2118309	21	10 28.5	19.3
295885 2008 WX_{65}	16.4	X	324.82379	291.95212	139.02715	5.76042	0.0772281	0.21577938	2.7529358	21	11 30.6	19.8
295886 2008 WD_{67}	15.5	X	195.11338	345.69136	100.45599	2.67184	0.2079924	0.12323166	3.9993357	21	6 27.4	21.9
295887 2008 WJ_{67}	16.5	X	254.09816	219.76837	230.81945	7.22494	0.1773709	0.21451572	2.7637365	21	8 27.3	20.6
295888 2008 WM_{68}	17.5	X	122.93420	299.92773	149.41689	1.41829	0.1453474	0.26439890	2.4041577	21	4 17.6	20.6
295889 2008 WO_{70}	16.3	X	250.24096	194.39116	246.11883	3.32839	0.0348887	0.21126913	2.7919782	21	8 31.0	20.2
295890 2008 WW_{71}	16.2	X	64.25937	27.11982	226.50506	12.21076	0.1265031	0.21635797	2.7480256	21	9 4.4	20.1
295891 2008 WD_{74}	17.0	X	319.86082	145.13360	261.74405	6.51938	0.0268990	0.29490267	2.2353743	21	11 3.8	19.4
295892 2008 WS_{74}	17.2	X	212.42126	354.01733	81.22072	0.50315	0.0486875	0.20848291	2.8167982	21	7 7.5	21.1
295893 2008 WM_{75}	15.5	X	218.90348	79.69454	250.33312	14.30678	0.0413439	0.18569763	3.0427421	21	2 26.9	20.3
295894 2008 WZ_{76}	16.2	X	143.07012	289.13803	126.46453	3.60097	0.0632435	0.18565321	3.0432274	21	3 28.0	20.6
295895 2008 WT_{78}	17.2	X	258.65206	158.38979	120.24672	4.38035	0.1776030	0.26159687	2.4212949	21	1 25.1	21.1
295896 2008 WO_{81}	17.5	X	207.92732	284.35435	169.50767	3.18558	0.1260787	0.28363434	2.2941942	21	7 22.2	20.8
295897 2008 WH_{83}	16.6	X	314.14202	189.50701	176.84002	4.94792	0.0981098	0.21215588	2.7841930	21	8 13.2	20.1
295898 2008 WT_{83}	17.3	X	262.02957	286.73698	17.13940	3.00494	0.2232546	0.26782012	2.3836395	21	2 25.0	21.0
295899 2008 WG_{85}	16.8	X	185.00223	61.28212	249.29913	4.09235	0.1192512	0.24726743	2.5139585	21	—	—
295900 2008 WY_{85}	16.9	X	322.04247	209.00748	226.24893	4.61927	0.1457148	0.22478920	2.6788748	21	12 2.0	19.5
295901 2008 WT_{86}	16.9	X	100.51815	205.42214	23.29087	2.32820	0.0089527	0.21681716	2.7441443	21	9 7.5	20.5
295902 2008 WB_{87}	17.0	X	349.56387	165.79852	64.93618	7.64447	0.0658275	0.27186215	2.3599541	21	4 3.0	19.7
295903 2008 WO_{90}	15.8	X	79.75928	19.63834	98.08954	6.68156	0.1224606	0.17473540	3.1687073	21	4 8.3	20.1
295904 2008 WP_{92}	12.8	X	297.19834	20.52274	76.08664	4.63644	0.0364168	0.07923813	5.3684210	21	11 3.5	19.7
295905 2008 WB_{93}	16.4	X	320.06651	280.24611	136.59482	8.59687	0.3056164	0.22406075	2.6846779	21	10 24.1	18.3
295906 2008 WB_{94}	16.4	X	116.25656	251.50616	150.53839	1.44219	0.1779720	0.17847194	3.1243241	21	2 23.3	21.0
295907 2008 WK_{94}	17.3	X	275.60804	263.70175	152.87911	7.34846	0.0765055	0.29507236	2.2345172	21	9 5.3	19.5
295908 2008 WN_{96}	17.7	X	351.27191	250.82593	115.35500	6.03784	0.1201408	0.30023343	2.2088354	21	11 6.9	19.7
295909 2008 WE_{100}	17.1	X	231.54592	16.21412	143.16423	1.97137	0.0837923	0.22755816	2.6570992	21	11 14.8	20.6
295910 2008 WN_{100}	17.6	X	49.00583	195.91377	72.68408	7.05765	0.1013052	0.29285708	2.2457715	21	9 16.5	20.2
295911 2008 WN_{102}	14.8	X	132.69752	262.63881	87.31266	26.53845	0.3462270	0.17777963	3.1324300	21	1 29.1	20.3
295912 2008 WZ_{105}	16.9	X	331.80559	210.79562	15.63315	6.73774	0.0912318	0.26338737	2.4103092	21	2 24.9	19.8
295913 2008 WM_{106}	16.5	X	305.51828	169.94906	359.95434	3.99143	0.2275233	0.23982634	2.5656936	21	—	—
295914 2008 WD_{110}	16.8	X	30.06125	343.03667	50.20811	2.37679	0.0962147	0.23532267	2.5983254	21	—	—
295915 2008 WN_{113}	16.8	X	81.73208	251.75946	88.15576	1.54831	0.1361974	0.23590814	2.5940246	21	—	—
295916 2008 WX_{126}	17.2	X	250.24010	281.10822	356.27738	0.81120	0.1633316	0.25710046	2.4494438	21	1 17.5	20.9
295917 2008 WZ_{126}	17.4	X	231.06730	306.42736	261.22708	2.78340	0.0961099	0.23436842	2.6053735	21	—	—
295918 2008 WQ_{128}	16.3	X	85.25144	42.04859	39.11326	5.63467	0.1272736	0.17626430	3.1503573	21	2 28.8	20.5
295919 2008 WL_{130}	16.9	X	254.73239	215.35612	64.52844	7.00320	0.2219522	0.25957415	2.4338572	21	1 22.5	21.0
295920 2008 WQ_{133}	15.3	X	113.73696	140.41968	302.92610	8.20021	0.0279085	0.18592983	3.0402082	21	3 17.3	19.6

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
295921 2008 WH_{134}	16.0	X	26.90632	240.30480	111.07882	6.46030	0.0276168	0.22577457	2.6710747	21	11 15.1	19.5
295922 2008 WH_{135}	17.0	X	101.64828	189.34768	264.76312	2.82607	0.1532948	0.26011608	2.4304755	21	3 26.9	20.1
295923 2008 WP_{135}	16.3	X	75.07780	126.46621	262.12115	2.87871	0.1159067	0.24172618	2.5522327	21	—	—
295924 2008 WL_{136}	16.4	X	97.19161	335.12729	128.35405	2.85167	0.1651545	0.18397395	3.0617178	21	4 16.0	20.6
295925 2008 WS_{137}	16.8	X	219.16983	155.52723	253.38130	6.72368	0.1180382	0.27504135	2.3417330	21	6 4.2	20.3
295926 2008 WV_{137}	15.9	X	24.23683	319.48179	87.00972	13.28632	0.1802699	0.23390357	2.6088242	21	—	—
295927 2008 WZ_{137}	15.6	X	115.08440	280.53340	121.18703	7.24131	0.1668090	0.17646373	3.1479833	21	2 21.9	20.2
295928 2008 WM_{138}	15.7	X	307.00251	234.48676	275.28998	14.13801	0.0640360	0.23486477	2.6017015	21	—	—
295929 2008 XF_{2}	16.2	X	267.78834	180.78839	280.00208	4.56489	0.0543363	0.22055190	2.7130774	21	10 17.4	19.8
295930 2008 XQ_{4}	15.6	X	124.17535	108.39802	307.27133	5.03334	0.1666511	0.18179555	3.0861276	21	3 15.9	20.4
295931 2008 XE_{5}	15.7	X	191.56945	178.63218	280.71861	10.35233	0.0740454	0.19798969	2.9154638	21	7 12.7	20.1
295932 2008 XU_{5}	17.0	X	35.96063	15.96611	352.04276	5.64655	0.1895454	0.31076578	2.1586418	21	—	—
295933 2008 XB_{6}	15.5	X	196.81966	90.23428	305.30488	8.10072	0.0822878	0.19319436	2.9635102	21	4 25.7	20.3
295934 2008 XY_{6}	15.8	X	304.10350	349.06730	108.29153	22.68662	0.0630559	0.22309774	2.6923981	21	12 9.3	19.4
295935 2008 XD_{7}	17.4	X	16.00600	199.37604	198.95469	3.38639	0.2190258	0.31119225	2.1566692	21	—	—
295936 2008 XD_{11}	16.2	X	44.57483	169.91071	200.47604	6.23346	0.3231261	0.23720846	2.5845361	21	—	—
295937 2008 XT_{13}	16.1	X	133.26745	39.05264	345.81640	4.72390	0.1475054	0.17986600	3.1081598	21	2 17.7	20.7
295938 2008 XH_{14}	17.5	X	128.15278	346.26958	282.54468	3.81012	0.1463310	0.30928921	2.1655067	21	12 21.2	20.8
295939 2008 XJ_{14}	17.5	X	101.31393	48.35203	22.29017	2.71303	0.1830892	0.25795560	2.4440274	21	3 2.0	20.3
295940 2008 XF_{17}	16.5	X	268.39549	338.27796	237.44021	10.06219	0.0602019	0.24468359	2.5316257	21	—	—
295941 2008 XR_{20}	16.4	X	324.63234	302.52170	101.89464	7.20142	0.0776999	0.21826345	2.7320084	21	10 28.6	19.7
295942 2008 XD_{25}	15.7	X	128.34691	118.10476	283.94485	8.77404	0.0894753	0.18017950	3.1045534	21	2 21.7	20.4
295943 2008 XN_{30}	15.1	X	312.37681	299.33257	325.67354	16.86624	0.0857791	0.17138519	3.2098681	21	3 24.9	19.8
295944 2008 XF_{38}	16.8	X	276.98471	180.81834	18.11953	3.35979	0.1052068	0.24093435	2.5578215	21	—	—
295945 2008 XL_{45}	15.7	X	75.92454	36.59404	154.21406	12.27202	0.1100611	0.18245713	3.0786631	21	6 30.2	20.1
295946 2008 XM_{45}	14.9	X	95.87176	207.14236	309.77362	10.05352	0.0495964	0.18067898	3.0988291	21	6 2.5	19.4
295947 2008 XL_{48}	17.5	X	300.77524	103.33740	236.98419	3.36422	0.0564700	0.27563082	2.3383932	21	6 23.5	20.2
295948 2008 XS_{48}	16.2	X	221.25791	119.16659	42.13912	12.01479	0.1655765	0.21459204	2.7630812	21	10 25.6	20.3
295949 2008 XB_{49}	16.8	X	288.98604	321.19088	317.78163	5.57129	0.1034908	0.25854715	2.4402981	21	3 4.6	20.2
295950 2008 XG_{50}	17.2	X	344.04365	43.38155	34.02360	3.39296	0.0676098	0.22518013	2.6757734	21	—	—
295951 2008 XM_{53}	15.3	X	128.15365	169.33581	283.37045	8.72682	0.0810615	0.18673476	3.0314653	21	4 22.7	19.9
295952 2008 XD_{54}	17.2	X	114.98874	247.84827	191.08066	0.66351	0.1554284	0.25836238	2.4414614	21	3 26.2	20.4
295953 2008 XG_{55}	16.1	X	33.77700	336.21225	82.45547	15.61627	0.1105972	0.23331012	2.6132462	21	—	—
295954 2008 XJ_{55}	15.7	X	82.66989	186.82816	337.04919	8.80641	0.0491750	0.18198363	3.0840010	21	5 23.8	20.2
295955 2008 XL_{55}	17.2	X	260.93833	96.55289	259.64066	1.09327	0.2163197	0.27330679	2.3516306	21	4 29.9	20.7
295956 2008 YV_{2}	17.3	X	117.67234	161.29203	309.25484	3.46246	0.1516572	0.26398413	2.4066753	21	5 8.9	20.5
295957 2008 YB_{4}	15.8	X	291.88492	28.84800	297.50828	10.20599	0.1084450	0.18963031	3.0005271	21	5 15.2	20.2
295958 2008 YK_{4}	17.0	X	205.39807	141.59306	264.29225	5.53416	0.1230931	0.27018905	2.3696865	21	5 15.5	20.7
295959 2008 YD_{10}	14.8	X	39.21510	256.56836	241.41860	15.03115	0.1957337	0.17890266	3.1193075	21	2 24.9	18.6
295960 2008 YF_{19}	16.7	X	348.83310	53.17924	3.34946	1.32992	0.0678226	0.22208213	2.7006003	21	12 17.8	20.0
295961 2008 YJ_{19}	16.8	X	299.92479	100.03257	112.26415	12.87955	0.2325200	0.23820964	2.5772892	21	—	—
295962 2008 YD_{20}	16.8	X	141.36748	40.94299	297.77714	4.93937	0.0153323	0.23687255	2.5869789	21	—	—
295963 2008 YH_{20}	17.6	X	202.18771	114.99998	293.70610	2.27350	0.1667025	0.26957125	2.3733056	21	5 15.3	21.4
295964 2008 YX_{20}	16.1	X	92.46884	351.14505	123.71932	6.43804	0.1323669	0.17716580	3.1396612	21	4 21.9	20.5
295965 2008 YM_{22}	16.9	X	223.28908	279.37029	123.39201	5.35024	0.2232997	0.27364529	2.3496909	21	5 26.5	20.7
295966 2008 YV_{23}	15.2	X	16.78915	231.23394	286.43063	14.23111	0.0482442	0.17243492	3.1968278	21	2 13.8	19.7
295967 2008 YF_{25}	17.1	X	70.82571	306.41041	286.25054	3.50070	0.0925308	0.27989472	2.3145838	21	8 18.8	19.8
295968 2008 YO_{25}	16.1	X	175.01479	298.46928	128.15290	24.45911	0.2384619	0.26866269	2.3786533	21	5 24.0	20.7
295969 2008 YV_{26}	17.2	X	138.53459	327.75921	140.69925	2.62985	0.1690972	0.26596610	2.3947041	21	6 2.2	20.8
295970 2008 YR_{28}	17.7	X	242.19842	129.06102	78.66349	3.92480	0.0328460	0.31407017	2.1434742	21	—	—
295971 2008 YV_{28}	17.0	X	289.11871	41.27815	286.10815	4.57341	0.1111600	0.27190928	2.3596813	21	5 7.4	19.9
295972 2008 YJ_{32}	16.8	X	219.61199	148.54581	93.28280	3.74493	0.1278654	0.23349247	2.6118854	21	—	—
295973 2008 YF_{33}	17.0	X	296.45640	260.12697	130.20846	6.97007	0.0997822	0.28622280	2.2803415	21	8 26.9	19.2
295974 2008 YL_{35}	16.7	X	69.76665	156.36392	113.61715	24.23662	0.1682419	0.28280081	2.2986999	21	11 3.2	20.5
295975 2008 YO_{35}	15.8	X	300.10015	202.60500	110.13709	10.50939	0.1337999	0.18742565	3.0240110	21	5 11.2	20.0
295976 2008 YC_{36}	16.6	X	67.43256	337.11491	60.31211	4.21863	0.0629520	0.23554071	2.5967216	21	—	—
295977 2008 YX_{38}	16.7	X	181.73867	284.14433	97.67126	7.69214	0.0989633	0.25991936	2.4317017	21	3 25.4	20.3
295978 2008 YR_{40}	16.3	X	65.01174	238.84630	87.42157	6.74992	0.0597793	0.21642450	2.7474624	21	12 3.4	20.0
295979 2008 YX_{42}	16.5	X	72.33306	332.46092	283.04744	3.22234	0.0155982	0.21142117	2.7906394	21	9 3.9	20.2
295980 2008 YA_{43}	16.6	X	286.81712	109.53733	284.61493	3.31282	0.0752351	0.21102299	2.7941488	21	8 13.3	20.4
295981 2008 YV_{48}	16.7	X	295.67253	8.43535	94.62920	4.37348	0.0530858	0.21954498	2.7213666	21	11 30.7	20.2
295982 2008 YY_{52}	16.6	X	43.99188	359.78204	326.30148	7.13997	0.1305314	0.21333347	2.7739378	21	11 13.4	20.3
295983 2008 YD_{58}	16.7	X	105.57286	320.42482	333.39750	4.40120	0.0339875	0.22173684	2.7034032	21	12 8.2	20.5
295984 2008 YB_{59}	16.4	X	103.78619	344.36967	331.23328	2.41885	0.0885769	0.22728712	2.6592112	21	—	—
295985 2008 YS_{60}	16.7	X	182.53096	313.03510	46.30865	3.21391	0.1955093	0.25684006	2.4510991	21	2 28.5	20.6
295986 2008 YJ_{62}	15.7	X	128.52939	291.14849	137.89078	6.34696	0.1125865	0.17786640	3.1314112	21	4 4.4	20.4
295987 2008 YA_{66}	16.7	X	215.31692	200.62405	340.65441	1.91397	0.1153692	0.21682126	2.7441097	21	11 16.6	20.7
295988 2008 YC_{68}	16.3	X	106.57655	19.64575	115.41472	10.29293	0.0583156	0.18205799	3.0831612	21	5 23.8	20.8
295989 2008 YG_{68}	16.5	X	115.53826	262.81660	90.30929	5.35905	0.0193849	0.23189005	2.6239042	21	—	—
295990 2008 YO_{73}	17.0	X	245.99285	69.63472	34.00747	2.85585	0.1467965	0.21084629	2.7957097	21	9 12.0	21.1
295991 2008 YF_{79}	16.4	X	14.26608	114.23120	278.50311	5.20972	0.0403757	0.22075639	2.7114017	21	12 19.8	20.0
295992 2008 YR_{87}	15.8	X	11.43561	90.75693	123.91918	3.68891	0.0837717	0.18246475	3.0785773	21	4 24.3	19.7
295993 2008 YY_{89}	17.8	X	256.64702	160.91894	210.07646	1.05549	0.1147317	0.27523204	2.3406513	21	5 27.1	20.7
295994 2008 YA_{92}	16.8	X	283.02425	37.57711	99.05029	5.18159	0.0429336	0.22550288	2.6732197	21	12 28.1	20.2
295995 2008 YV_{93}	17.3	X	28.09847	214.41031	107.13959	6.07926	0.1280084	0.29152110	2.2526275	21	11 3.6	19.7
295996 2008 YQ_{94}	16.6	X	133.36792	135.20127	116.15808	3.45581	0.1745935	0.21495498	2.7599701	21	11 22.7	21.1
295997 2008 YR_{94}	15.7	X	326.19522	318.58933	287.56888	7.94842	0.0411594	0.17912671	3.1167059	21	3 28.1	20.1
295998 2008 YM_{95}	16.3	X	98.68055	220.39287	106.65967	6.83850	0.0205078	0.22698429	2.6615759	21	—	—
295999 2008 YY_{95}	16.3	X	57.11603	2.42953	298.30397	5.48830	0.0132558	0.21165548	2.7885795	21	10 11.2	20.3
296000 2008 YF_{96}	17.9	X	237.57327	300.36299	98.87053	3.28593	0.2118546	0.27706631	2.3303093	21	6 3.6	21.6