Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528001 2008 EF_{133}	16.8	X	79.36791	296.94251	304.34084	10.00540	0.0726750	0.17893923	3.1188824	21	8 29.7	21.3
528002 2008 EW_{136}	16.7	X	180.89263	314.30641	172.53195	9.32061	0.0265232	0.17332098	3.1859232	21	8 3.7	21.5
528003 2008 EB_{146}	18.4	X	162.64524	41.89443	171.49148	2.67061	0.1437776	0.26326087	2.4110812	21	11 8.6	22.1
528004 2008 EO_{153}	16.7	X	202.73343	87.59839	26.00478	19.43735	0.1882199	0.17553549	3.1590713	21	8 15.1	22.3
528005 2008 EO_{157}	17.9	X	178.95271	216.03673	47.02432	9.37281	0.0955688	0.27178884	2.3603784	21	—	—
528006 2008 EV_{158}	18.2	X	191.67570	117.95825	60.29014	5.55362	0.1716036	0.26059074	2.4275232	21	10 22.3	22.0
528007 2008 EW_{158}	16.5	X	100.82206	224.31184	27.09219	17.35027	0.1907424	0.17846503	3.1244048	21	10 21.5	21.5
528008 2008 EB_{160}	16.8	X	165.48760	116.54964	18.61499	9.91577	0.0313269	0.17237791	3.1975326	21	8 1.1	21.6
528009 2008 EA_{161}	16.8	X	135.84321	92.46204	115.08626	5.11971	0.1181572	0.17952715	3.1120695	21	9 29.9	21.7
528010 2008 EF_{162}	16.8	X	123.08509	160.88319	62.56348	1.85040	0.1205264	0.17942614	3.1132374	21	10 4.9	21.5
528011 2008 EP_{162}	17.1	X	250.14287	262.35864	191.69727	10.30801	0.0612456	0.18234299	3.0799477	21	9 11.3	21.6
528012 2008 ER_{162}	16.7	X	106.24840	32.85293	184.98231	9.10335	0.1257559	0.17563020	3.1579355	21	9 9.3	21.5
528013 2008 EA_{163}	16.6	X	100.73607	229.96391	46.53863	10.21440	0.2034682	0.18097492	3.0954499	21	11 20.3	21.7
528014 2008 EG_{163}	14.0	X	259.81639	306.21944	31.49863	12.02025	0.0328408	0.08584699	5.0892368	21	5 8.2	20.8
528015 2008 EK_{163}	16.3	X	94.16251	246.39830	30.81848	18.21498	0.2079450	0.18081923	3.0972265	21	11 13.1	21.3
528016 2008 EF_{165}	16.6	X	208.04082	305.88956	185.81055	16.15713	0.1655060	0.18304680	3.0720477	21	8 31.8	21.7
528017 2008 EJ_{165}	17.6	X	186.06229	96.91540	77.02620	5.50533	0.1857819	0.26071502	2.4267517	21	10 11.9	21.6
528018 2008 EQ_{165}	16.4	X	173.19484	321.02014	218.34969	7.82425	0.1899541	0.18547324	3.0451958	21	9 27.1	21.6
528019 2008 EX_{166}	16.1	X	128.15038	217.57856	24.44323	14.19576	0.2222366	0.18416444	3.0596062	21	11 3.1	21.3
528020 2008 EN_{168}	16.3	X	87.43333	225.55667	30.86393	16.82168	0.2123932	0.17621163	3.1509850	21	10 18.3	21.2
528021 2008 EG_{171}	17.7	X	340.16595	55.76984	219.20854	1.66544	0.1313325	0.23272215	2.6176459	21	5 15.2	20.6
528022 2008 EH_{171}	17.5	X	143.77655	65.80996	205.78494	6.60179	0.1050745	0.26779758	2.3837733	21	—	—
528023 2008 EY_{171}	17.5	X	68.47454	4.15689	316.06171	1.35616	0.1665080	0.26118570	2.4238354	21	12 20.9	21.1
528024 2008 EZ_{171}	18.3	X	294.63845	278.63731	207.90366	8.43692	0.2612794	0.27880574	2.3206069	21	12 30.4	19.8
528025 2008 FA_{2}	16.8	X	196.76306	307.24103	179.58614	10.21826	0.2188612	0.18165596	3.0877084	21	8 13.9	22.2
528026 2008 FN_{3}	18.2	X	208.55843	146.99316	56.99614	3.23926	0.1269142	0.27053640	2.3676577	21	12 15.6	21.3
528027 2008 FS_{4}	16.1	X	116.29173	244.87073	349.33923	10.79786	0.1620820	0.18121887	3.0926714	21	10 10.5	21.2
528028 2008 FC_{8}	18.7	X	210.82572	36.18050	167.03584	2.09779	0.1533474	0.27052997	2.3676952	21	12 14.2	21.8
528029 2008 FH_{9}	16.9	X	227.86276	302.83933	147.35537	2.19970	0.0417371	0.18062587	3.0994365	21	8 14.3	21.1
528030 2008 FQ_{17}	18.3	X	239.90791	53.12192	142.74728	4.08582	0.1472341	0.27507941	2.3415170	21	—	—
528031 2008 FF_{18}	18.3	X	234.41264	58.69234	120.24025	2.69277	0.0468729	0.27166340	2.3611050	21	12 27.6	21.1
528032 2008 FJ_{19}	16.9	X	77.36537	51.49294	210.52740	0.40142	0.1326782	0.17862531	3.1225356	21	10 3.7	21.2
528033 2008 FM_{20}	17.9	X	202.72390	269.16018	273.80962	1.30244	0.1461725	0.26427745	2.4048942	21	11 8.9	21.4
528034 2008 FA_{24}	16.5	X	216.80115	72.35350	50.30784	11.43993	0.1212176	0.18018712	3.1044658	21	9 9.7	21.4
528035 2008 FT_{24}	17.8	X	240.60232	343.66831	138.99372	7.73923	0.0671961	0.25807808	2.4432541	21	10 18.9	21.0
528036 2008 FM_{30}	16.8	X	101.40062	80.38200	160.05185	10.27826	0.0459345	0.18373449	3.0643774	21	9 26.2	21.1
528037 2008 FD_{35}	16.7	X	195.46514	141.36526	359.64068	12.20889	0.1482824	0.18298046	3.0727901	21	9 6.0	21.6
528038 2008 FL_{37}	18.5	X	245.69044	98.85654	78.36008	3.60007	0.1241543	0.27082168	2.3659947	21	12 28.9	21.2
528039 2008 FM_{37}	17.3	X	294.48157	194.98636	137.68194	4.15338	0.1510033	0.23458358	2.6037802	21	5 21.4	20.7
528040 2008 FV_{37}	18.6	X	237.76033	23.03928	162.46183	5.17124	0.1441482	0.27049704	2.3678873	21	12 25.5	21.5
528041 2008 FU_{38}	18.2	X	164.03647	84.11147	177.00753	10.49614	0.2969883	0.26412188	2.4058384	21	12 30.4	22.7
528042 2008 FT_{40}	17.1	X	291.45361	294.57769	36.75929	11.79912	0.2052803	0.23186594	2.6240861	21	5 5.1	20.8
528043 2008 FY_{45}	18.4	X	179.80300	141.40939	57.45375	2.01751	0.1323764	0.26322573	2.4112958	21	11 7.1	22.0
528044 2008 FM_{46}	16.5	X	153.46062	139.55828	3.29290	17.50905	0.1266848	0.17423775	3.1747379	21	8 4.2	21.8
528045 2008 FK_{49}	18.3	X	232.68298	150.87703	40.20707	2.79531	0.1517244	0.27098618	2.3650371	21	12 25.2	21.1
528046 2008 FO_{49}	18.2	X	166.73096	163.76627	54.01350	2.26412	0.1380997	0.26147959	2.4220189	21	11 17.2	21.9
528047 2008 FC_{52}	18.3	X	205.41687	151.50237	48.63756	3.43929	0.1676536	0.26666377	2.3905255	21	12 1.7	21.9
528048 2008 FW_{52}	17.9	X	138.74533	126.45257	185.33181	10.71167	0.2068087	0.27034626	2.3687677	21	—	—
528049 2008 FA_{58}	16.3	X	308.22253	305.12321	80.74705	11.38047	0.1542365	0.17794685	3.1304673	21	8 26.9	20.3
528050 2008 FC_{62}	18.1	X	218.83786	237.06231	342.57671	2.00260	0.1545640	0.27457511	2.3443832	21	—	—
528051 2008 FH_{62}	17.1	X	44.01634	237.46312	349.85274	13.17696	0.1106044	0.24070134	2.5594720	21	7 4.8	20.3
528052 2008 FN_{64}	17.2	X	184.03015	114.66986	354.15682	26.15605	0.1407814	0.17507880	3.1645625	21	7 26.1	22.7
528053 2008 FG_{65}	16.8	X	82.76815	56.94944	201.54169	9.52903	0.2108244	0.17301784	3.1896433	21	10 14.3	21.5
528054 2008 FV_{65}	17.8	X	206.80483	183.81240	35.47498	8.91597	0.1440621	0.26773650	2.3841359	21	12 31.1	21.3
528055 2008 FF_{66}	17.0	X	334.78899	253.25547	36.71102	14.42246	0.1384849	0.23104336	2.6303107	21	5 23.5	20.0
528056 2008 FE_{73}	16.4	X	235.75961	36.11292	44.89556	13.65255	0.0105832	0.17310250	3.1886033	21	8 22.7	21.2
528057 2008 FA_{77}	17.0	X	158.64182	334.20790	197.68574	2.65027	0.1415007	0.17893713	3.1189069	21	9 6.4	22.0
528058 2008 FA_{79}	17.0	X	120.29444	43.16608	196.42177	1.98540	0.0953387	0.18238674	3.0794551	21	10 19.3	21.7
528059 2008 FE_{81}	18.4	X	149.85489	23.87206	204.53905	1.28794	0.1385077	0.25950636	2.4342810	21	11 14.2	22.0
528060 2008 FT_{83}	16.7	X	56.62881	129.06622	156.22622	5.47745	0.1642755	0.17433820	3.1735184	21	10 12.9	21.1
528061 2008 FY_{86}	16.4	X	71.42077	224.05184	39.91333	1.37895	0.1476124	0.17566758	3.1574875	21	10 1.3	20.9
528062 2008 FQ_{89}	16.9	X	124.38305	50.97900	149.65298	11.76290	0.2372700	0.18157718	3.0886014	21	9 17.9	22.1
528063 2008 FQ_{90}	16.7	X	199.96616	289.84811	151.62321	10.65073	0.2199516	0.17859470	3.1228923	21	6 25.3	22.1
528064 2008 FX_{90}	16.5	X	197.20895	92.61863	343.57289	14.82443	0.0688796	0.17369321	3.1813698	21	6 21.0	21.6
528065 2008 FR_{93}	16.7	X	174.02412	126.12592	38.66866	17.37659	0.1775275	0.17917047	3.1161984	21	9 20.5	22.1
528066 2008 FZ_{94}	17.9	X	152.90712	137.94004	108.27411	3.36076	0.1575506	0.26079664	2.4262454	21	12 8.8	21.8
528067 2008 FF_{99}	16.8	X	79.14068	174.49368	133.98577	8.06220	0.1953728	0.18119299	3.0929659	21	12 8.6	21.7
528068 2008 FD_{102}	16.6	X	154.42769	90.63779	66.51016	11.40522	0.0973767	0.17070016	3.2184500	21	8 19.2	21.7
528069 2008 FY_{102}	16.8	X	134.51077	78.51919	160.19339	8.99024	0.1623388	0.18044581	3.1014980	21	11 6.5	21.9
528070 2008 FA_{104}	16.8	X	135.22103	53.79960	173.90935	9.34242	0.1622708	0.17912637	3.1167098	21	10 24.6	21.9
528071 2008 FE_{104}	18.0	X	177.82526	188.50790	99.02258	5.47184	0.1886886	0.27115168	2.3640747	21	—	—
528072 2008 FJ_{105}	16.7	X	79.75034	126.71122	116.40501	3.68532	0.0967320	0.17310656	3.1885534	21	9 9.2	21.2
528073 2008 FV_{105}	18.5	X	205.83803	173.85436	49.42494	6.47418	0.1373700	0.26963110	2.3729544	21	—	—
528074 2008 FF_{106}	15.6	X	93.86589	204.53538	37.08907	15.64972	0.2269965	0.17403539	3.1771984	21	10 10.7	20.7
528075 2008 FS_{108}	18.1	X	148.27067	84.77103	144.09951	3.00314	0.1397579	0.25959670	2.4337162	21	11 14.1	21.8
528076 2008 FX_{108}	16.6	X	105.93372	122.90641	141.39764	3.62135	0.1252454	0.18319516	3.0703889	21	11 6.8	21.3
528077 2008 FJ_{117}	16.3	X	100.50176	30.06623	209.21513	14.65250	0.2232922	0.17410678	3.1763298	21	10 8.6	21.4
528078 2008 FO_{117}	17.1	X	315.03043	33.64973	28.21005	7.05732	0.0872231	0.25890046	2.4380774	21	11 9.1	19.7
528079 2008 FZ_{121}	16.2	X	108.76857	73.32488	150.07975	10.17103	0.0351242	0.17614416	3.1517895	21	9 11.5	20.7
528080 2008 FB_{122}	16.5	X	106.24859	41.57778	176.43991	17.14907	0.1873036	0.17469409	3.1692068	21	9 16.4	21.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528081 2008 FH_{122}	16.7	X	143.63246	37.19413	78.02527	26.44104	0.2532494	0.24123957	2.5556636	21	6 20.2	21.1
528082 2008 FC_{123}	16.6	X	109.50937	158.12818	21.77819	17.01821	0.1138502	0.16889151	3.2413866	21	8 3.4	21.7
528083 2008 FL_{123}	17.3	X	283.93779	67.32824	202.49241	13.04528	0.1914067	0.21509356	2.7587845	21	2 8.9	21.7
528084 2008 FQ_{123}	17.9	X	222.05511	9.87081	181.76544	11.79127	0.0998699	0.26639150	2.3921540	21	12 19.1	21.3
528085 2008 FC_{125}	16.7	X	284.55632	292.58907	52.72561	13.91718	0.3623951	0.22598252	2.6694359	21	4 28.5	20.8
528086 2008 FJ_{125}	14.0	X	0.72497	58.05544	200.68408	33.74588	0.1028658	0.08331748	5.1917284	21	6 5.7	20.8
528087 2008 FP_{125}	16.6	X	114.34934	233.50974	27.23844	3.45987	0.1680134	0.18030515	3.1031108	21	11 11.7	21.7
528088 2008 FF_{133}	14.1	X	335.97824	96.16913	191.41793	15.95239	0.0999697	0.08359002	5.1804373	21	6 6.9	20.7
528089 2008 FX_{136}	16.7	X	333.21093	206.27466	68.25729	14.35871	0.2231256	0.22764001	2.6564622	21	4 24.4	19.7
528090 2008 FP_{138}	16.6	X	169.04323	109.16001	41.32038	10.99972	0.0886043	0.17553325	3.1590982	21	8 26.8	21.6
528091 2008 FS_{138}	17.2	X	308.69881	285.65886	9.56632	12.60623	0.1757115	0.22973345	2.6402997	21	4 13.2	20.7
528092 2008 FB_{139}	16.2	X	100.20141	187.18479	73.05784	14.42449	0.0224404	0.17871326	3.1215110	21	10 20.6	20.8
528093 2008 GR_{2}	18.5	X	198.19388	70.83215	153.00599	2.76008	0.1544591	0.26810176	2.3819699	21	12 25.9	21.9
528094 2008 GU_{4}	18.1	X	266.01509	298.03679	176.00795	13.37842	0.1734754	0.26844321	2.3799497	21	10 26.9	20.9
528095 2008 GZ_{8}	17.8	X	216.85154	131.55494	35.49719	7.51564	0.0758346	0.26310535	2.4120313	21	11 11.9	21.1
528096 2008 GA_{9}	18.4	X	220.68514	56.66131	75.26582	3.06015	0.1494980	0.25861837	2.4398501	21	9 24.4	21.8
528097 2008 GE_{20}	16.7	X	119.51438	250.36029	331.33193	3.51587	0.2194777	0.17769431	3.1334327	21	10 4.2	21.8
528098 2008 GQ_{20}	18.0	X	267.03030	31.63097	43.61538	2.53427	0.1504447	0.25615387	2.4554745	21	9 4.3	20.9
528099 2008 GB_{22}	17.0	X	58.14659	288.78756	23.77698	6.88865	0.1272219	0.26172794	2.4204865	21	11 23.1	20.2
528100 2008 GY_{28}	16.7	X	181.68634	334.87193	188.73415	16.39997	0.1416294	0.18077136	3.0977733	21	9 16.9	21.7
528101 2008 GA_{29}	16.3	X	317.66861	198.69679	63.19231	20.29213	0.2815235	0.22297755	2.6933655	21	3 11.4	20.3
528102 2008 GM_{30}	18.5	X	266.83211	2.08014	131.09769	1.95088	0.1307924	0.26887024	2.3774290	21	11 28.9	21.1
528103 2008 GQ_{30}	17.2	X	108.66801	105.38032	89.55647	2.04256	0.1617632	0.17192244	3.2031775	21	8 20.3	22.1
528104 2008 GZ_{31}	16.8	X	191.97530	89.91537	71.74476	11.83837	0.0905657	0.18065225	3.0991348	21	10 4.0	21.7
528105 2008 GU_{32}	16.8	X	193.28085	324.41690	182.98002	14.45092	0.0745870	0.17748474	3.1358988	21	9 11.2	21.6
528106 2008 GS_{34}	18.3	X	214.64545	8.76966	190.50384	0.69982	0.1244711	0.26840009	2.3802045	21	12 16.8	21.4
528107 2008 GA_{35}	18.1	X	208.83523	137.52530	20.67118	2.26324	0.1476452	0.26072197	2.4267086	21	10 14.4	21.5
528108 2008 GQ_{35}	16.1	X	132.65917	146.73097	106.74648	6.60359	0.1304554	0.18285522	3.0741930	21	11 20.1	21.1
528109 2008 GX_{46}	16.9	X	347.09181	58.58081	196.27809	14.09979	0.1295384	0.22585689	2.6704256	21	4 30.9	19.8
528110 2008 GQ_{47}	13.8	X	2.98339	210.30492	63.27256	23.26542	0.0721759	0.08272743	5.2163855	21	6 26.1	20.5
528111 2008 GL_{48}	17.0	X	151.92515	352.97183	155.11615	22.01128	0.2581435	0.17739522	3.1369537	21	8 5.9	22.6
528112 2008 GN_{48}	17.1	X	121.43322	66.17139	176.96618	13.08700	0.0951651	0.18657580	3.0331869	21	10 27.4	21.8
528113 2008 GV_{48}	18.3	X	156.83140	102.02965	121.63606	2.60979	0.1941301	0.26238681	2.4164328	21	11 14.8	22.2
528114 2008 GD_{50}	14.1	X	134.49576	75.47591	50.19047	11.71777	0.0457622	0.08490714	5.1267237	21	6 11.9	21.1
528115 2008 GV_{54}	18.0	X	173.51772	181.09352	80.03981	2.39085	0.1528835	0.26899167	2.3767134	21	—	—
528116 2008 GC_{58}	17.7	X	150.55533	181.46396	52.49568	1.85655	0.1495128	0.26004613	2.4309114	21	11 21.4	21.6
528117 2008 GA_{61}	16.5	X	317.49006	233.25519	127.58305	9.69779	0.0682456	0.17136810	3.2100815	21	8 13.6	20.8
528118 2008 GD_{64}	16.5	X	156.97728	223.84119	41.27796	34.38980	0.1301695	0.26416187	2.4055956	21	—	—
528119 2008 GF_{66}	17.1	X	188.43512	110.73427	10.20024	11.57241	0.1547626	0.17435392	3.1733276	21	8 7.8	22.4
528120 2008 GK_{66}	18.3	X	225.87908	85.38971	108.11529	3.82292	0.1018040	0.26702316	2.3883800	21	12 26.1	21.2
528121 2008 GU_{68}	18.3	X	199.56189	41.59254	159.59155	6.09754	0.1778261	0.26268801	2.4145853	21	11 27.1	22.0
528122 2008 GA_{75}	16.2	X	87.91568	276.86990	49.80925	16.42507	0.3522273	0.18310041	3.0714480	21	—	—
528123 2008 GL_{77}	16.5	X	90.11185	86.23370	178.00854	11.19545	0.0939409	0.17607135	3.1526584	21	10 17.4	21.1
528124 2008 GL_{79}	18.2	X	224.98924	139.24560	52.89650	5.46295	0.1666954	0.26677961	2.3898334	21	12 13.4	21.3
528125 2008 GZ_{80}	17.1	X	301.80547	343.14150	27.19603	14.25456	0.1262766	0.24741666	2.5129475	21	8 4.2	20.3
528126 2008 GH_{82}	16.6	X	126.04081	173.93882	61.09510	10.59965	0.0434306	0.18097251	3.0954774	21	10 19.6	21.2
528127 2008 GZ_{82}	16.4	X	147.30183	123.35261	50.75273	10.73428	0.1505687	0.17493172	3.1663360	21	9 4.9	21.7
528128 2008 GS_{86}	17.3	X	208.75072	262.06376	160.95947	9.41380	0.1606026	0.24176777	2.5519399	21	6 11.9	21.5
528129 2008 GY_{88}	16.8	X	96.68649	203.85950	37.78050	5.06668	0.1393513	0.17543809	3.1602404	21	10 2.2	21.6
528130 2008 GS_{91}	16.8	X	247.38185	288.52022	28.49650	16.77981	0.1910622	0.21912552	2.7248384	21	3 13.8	21.4
528131 2008 GO_{92}	16.7	X	288.11489	327.62694	35.78748	29.91960	0.0536467	0.23934589	2.5691260	21	7 11.1	20.7
528132 2008 GQ_{92}	18.2	X	187.72060	64.11099	161.35948	1.44393	0.1367641	0.26601289	2.3944233	21	12 18.4	21.7
528133 2008 GW_{96}	18.1	X	202.50934	137.66490	88.29079	3.08003	0.1665420	0.26801240	2.3824993	21	12 31.9	21.6
528134 2008 GW_{98}	18.5	X	198.96094	261.78561	19.26273	20.77845	0.0769616	0.35463642	1.9767291	21	—	—
528135 2008 GG_{99}	17.8	X	174.34979	273.16468	306.35000	1.17000	0.1921484	0.26430389	2.4047339	21	11 23.9	21.5
528136 2008 GO_{104}	16.6	X	97.76961	74.93201	188.10209	13.40898	0.2609325	0.17672232	3.1449117	21	11 9.1	21.9
528137 2008 GE_{113}	16.1	X	99.80503	253.04639	351.92150	25.54618	0.3148750	0.17438029	3.1730077	21	10 12.9	21.8
528138 2008 GA_{122}	17.8	X	160.31146	172.33051	110.89533	3.43407	0.1861156	0.26835833	2.3804514	21	—	—
528139 2008 GY_{122}	16.8	X	104.75437	60.62792	199.80256	10.36128	0.2177902	0.17788953	3.1311398	21	11 7.9	21.9
528140 2008 GO_{124}	16.7	X	107.46585	170.78970	76.32297	7.18707	0.1542223	0.17994996	3.1071929	21	10 22.6	21.6
528141 2008 GF_{127}	16.4	X	282.01362	328.34274	66.65892	31.68261	0.2313423	0.24165323	2.5527462	21	7 14.2	20.3
528142 2008 GJ_{130}	16.1	X	73.71362	274.51865	14.10166	15.63813	0.2647727	0.17688969	3.1429276	21	11 11.8	21.2
528143 2008 GD_{131}	17.6	X	180.14886	160.04706	62.91527	9.19990	0.0464516	0.26137746	2.4226497	21	12 13.6	20.8
528144 2008 GO_{133}	18.4	X	184.55696	83.47543	124.81070	4.83892	0.1395600	0.25992473	2.4316682	21	11 23.8	22.0
528145 2008 GA_{138}	16.7	X	76.01442	245.82905	56.33232	18.96904	0.1907665	0.17830729	3.1262472	21	11 25.2	21.4
528146 2008 GZ_{139}	16.9	X	120.41331	335.78629	209.51646	14.15200	0.1933817	0.17053853	3.2204832	21	8 17.5	22.3
528147 2008 GN_{141}	16.4	X	120.00638	322.99251	207.51122	14.75454	0.1156178	0.16902599	3.2396671	21	7 23.7	21.6
528148 2008 GP_{141}	14.5	X	17.53119	41.55793	215.50317	8.89890	0.0805149	0.08438589	5.1478136	21	6 28.1	21.0
528149 2008 GL_{143}	16.1	X	137.35324	137.89851	80.17463	17.56350	0.1765562	0.18107322	3.0943296	21	10 22.3	21.5
528150 2008 GT_{148}	17.4	X	132.88761	187.14647	58.12246	6.90259	0.0553025	0.25697451	2.4502441	21	11 16.6	20.7
528151 2008 GZ_{148}	18.0	X	199.71462	174.37468	25.58503	4.04989	0.1216775	0.26497887	2.4006484	21	11 29.6	21.5
528152 2008 GE_{149}	17.9	X	261.30639	328.92602	169.06986	5.00679	0.0556736	0.26456218	2.4031684	21	12 7.6	20.8
528153 2008 GH_{149}	17.5	X	42.55261	260.67571	71.25832	7.64664	0.2241312	0.25160828	2.4849601	21	12 12.3	20.6
528154 2008 GJ_{149}	16.3	X	71.86797	265.61092	27.18940	9.42998	0.0766010	0.18065317	3.0991242	21	10 26.9	20.6
528155 2008 GK_{149}	16.8	X	80.49559	222.98770	76.01358	5.57136	0.1664471	0.18268871	3.0760608	21	11 25.4	21.4
528156 2008 GO_{149}	16.2	X	352.77674	191.79981	157.92742	11.32319	0.1101042	0.17526226	3.1623537	21	9 22.6	20.1
528157 2008 GP_{149}	16.3	X	214.81830	3.59380	153.61796	8.13897	0.0980060	0.18221549	3.0813842	21	10 18.4	21.0
528158 2008 HO_{1}	17.9	X	182.62017	161.16497	86.63523	7.47181	0.2749563	0.26495457	2.4007952	21	12 30.1	22.0
528159 2008 HS_{3}	21.6	X	132.37592	5.01160	227.70635	8.17342	0.2254483	0.62835539	1.3499960	21	12 26.3	22.0
528160 2008 HU_{6}	18.4	X	193.80855	205.66194	25.37386	4.24572	0.1435164	0.26789946	2.3831689	21	12 31.8	21.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528161 2008 HF_7	16.3	X	104.11701	148.04573	147.78413	11.47364	0.1471564	0.18397166	3.0617432	21	12 13.6	21.3
528162 2008 HK_7	16.0	X	25.51236	212.50928	140.97977	12.20061	0.0538121	0.18208702	3.0828334	21	11 13.6	20.4
528163 2008 HU_{11}	13.4	X	291.65081	259.18483	77.72504	18.54739	0.0864914	0.08134265	5.2754215	21	6 7.6	20.2
528164 2008 HC_{13}	16.6	X	133.41756	24.64094	186.63699	8.03922	0.2210864	0.17916034	3.1163159	21	10 4.9	21.8
528165 2008 HZ_{19}	16.6	X	190.88357	332.62639	89.59526	15.62785	0.0890420	0.23039956	2.6352083	21	5 27.3	20.6
528166 2008 HL_{20}	18.6	X	255.84046	328.50875	197.87678	0.87406	0.1444397	0.27005208	2.3704877	21	12 25.8	21.1
528167 2008 HF_{22}	16.3	X	104.45192	78.17219	175.66225	15.91160	0.0742147	0.17506388	3.1647422	21	10 19.1	21.0
528168 2008 HL_{22}	17.0	X	124.09213	67.42043	173.17623	13.93433	0.2408081	0.17646663	3.1479488	21	11 3.4	22.5
528169 2008 HL_{23}	16.9	X	289.87014	216.33319	107.06186	11.73731	0.0195295	0.23131785	2.6282295	21	5 25.1	20.5
528170 2008 HP_{25}	16.2	X	47.60234	139.06366	178.34567	9.48706	0.0805129	0.17586625	3.1551091	21	10 29.4	20.5
528171 2008 HC_{27}	17.5	X	8.15512	207.76055	69.01439	3.54772	0.0421891	0.23905638	2.5711998	21	7 9.3	20.5
528172 2008 HP_{27}	17.1	X	277.00833	174.97331	174.68516	11.29744	0.1476417	0.23295716	2.6158852	21	5 23.0	20.9
528173 2008 HS_{28}	18.4	X	254.29929	354.24086	175.63099	4.81508	0.1205346	0.27109776	2.3643881	21	12 31.9	21.2
528174 2008 HZ_{30}	17.7	X	164.77854	12.21326	218.39839	13.83268	0.1583600	0.25945295	2.4346151	21	11 30.5	21.7
528175 2008 HQ_{31}	16.5	X	124.05443	155.48875	57.96033	10.35558	0.0315358	0.17415394	3.1757564	21	9 20.9	21.2
528176 2008 HV_{40}	16.7	X	118.79248	68.02514	162.36216	0.93677	0.0966215	0.17833487	3.1259249	21	10 6.5	21.4
528177 2008 HP_{42}	18.3	X	94.85129	231.37641	199.11826	21.64973	0.0344047	0.36629806	1.9345486	21	—	—
528178 2008 HM_{44}	18.5	X	176.99642	88.24854	144.93379	2.27697	0.2470839	0.26218082	2.4176983	21	12 9.9	22.6
528179 2008 HC_{47}	17.9	X	112.67899	168.61613	147.10160	10.16173	0.2502659	0.26085304	2.4258957	21	—	—
528180 2008 HH_{47}	17.3	X	115.95344	187.51756	123.95127	13.78945	0.2205156	0.26008169	2.4306898	21	—	—
528181 2008 HR_{50}	17.9	X	148.99074	216.28144	74.00176	3.29288	0.1915642	0.26456270	2.4031653	21	—	—
528182 2008 HG_{54}	17.9	X	156.00587	41.25550	196.77949	4.84390	0.1623862	0.25821059	2.4424181	21	12 1.5	21.9
528183 2008 HW_{55}	17.1	X	345.39919	153.12857	176.34063	12.13067	0.2105892	0.23625173	2.5915090	21	8 11.5	19.4
528184 2008 HD_{58}	18.7	X	197.57698	40.69112	212.41828	6.21077	0.3098827	0.27003499	2.3705877	21	—	—
528185 2008 HD_{60}	16.3	X	103.08818	154.94761	107.19870	11.49826	0.1040605	0.17760665	3.1344636	21	11 2.3	21.2
528186 2008 HK_{60}	16.2	X	96.50217	230.34699	62.70672	28.38919	0.1994005	0.18014293	3.1049735	21	12 3.6	21.2
528187 2008 HP_{62}	16.5	X	113.46049	100.85277	148.64498	12.42772	0.1334541	0.17581824	3.1556834	21	10 30.3	21.6
528188 2008 HR_{62}	16.4	X	135.26432	143.08438	94.26048	17.53599	0.1914295	0.17860340	3.1227909	21	11 10.1	21.8
528189 2008 HR_{63}	16.9	X	149.07799	26.83763	180.18335	10.63277	0.1555863	0.17828969	3.1264530	21	10 11.5	22.0
528190 2008 HE_{68}	16.4	X	85.89236	116.42142	205.73497	16.51214	0.2621027	0.18113397	3.0936377	21	—	—
528191 2008 HA_{70}	16.3	X	74.86720	151.88718	169.03161	17.78691	0.2280924	0.17623487	3.1507079	21	12 21.1	21.6
528192 2008 JM_{1}	17.8	X	154.62060	266.73294	11.48596	7.31468	0.0914516	0.27060231	2.3672732	21	—	—
528193 2008 JL_{7}	16.3	X	83.14458	82.49068	203.25892	18.99377	0.1963980	0.17441688	3.1725639	21	11 15.5	21.3
528194 2008 JQ_{12}	17.7	X	124.20323	191.61211	138.98261	9.80515	0.2305456	0.26449246	2.4035907	21	—	—
528195 2008 JM_{16}	16.7	X	77.72964	80.98844	204.37578	11.81390	0.1605096	0.17452842	3.1712120	21	11 5.2	21.4
528196 2008 JH_{19}	16.2	X	89.54639	216.12753	56.88383	19.10041	0.2426453	0.17973831	3.1096316	21	11 11.9	21.3
528197 2008 JT_{21}	17.3	X	16.14024	230.68724	10.45884	16.81088	0.0723404	0.23545577	2.5973461	21	5 26.7	20.7
528198 2008 JM_{23}	18.0	X	164.87525	74.58116	222.12441	11.20481	0.2366964	0.26781376	2.3836773	21	—	—
528199 2008 JV_{23}	18.7	X	5.83490	210.98480	106.97127	1.99351	0.2077588	0.31391703	2.1441712	21	10 2.8	20.0
528200 2008 JW_{23}	17.8	X	80.42184	175.69813	152.21291	1.42368	0.1976353	0.25662808	2.4524487	21	—	—
528201 2008 JB_{31}	17.5	X	205.68350	189.48277	20.49584	15.17675	0.3519431	0.26875934	2.3780830	21	11 23.9	21.8
528202 2008 JR_{33}	16.5	X	139.47296	59.82618	158.74109	16.62175	0.1671262	0.17639899	3.1487535	21	10 19.5	21.8
528203 2008 JZ_{33}	16.7	X	88.99382	194.20577	82.77860	13.23406	0.2354878	0.17412361	3.1761252	21	11 16.1	21.8
528204 2008 JX_{34}	16.2	X	92.56097	117.69941	154.70829	22.17781	0.2715523	0.17461819	3.1701251	21	11 19.3	21.8
528205 2008 JS_{36}	18.6	X	10.63374	79.16195	207.22127	3.44061	0.2696377	0.30818549	2.1706739	21	8 23.1	19.5
528206 2008 JG_{40}	16.6	X	143.87057	95.64683	88.04407	5.50220	0.1249526	0.17136145	3.2101645	21	9 9.1	21.7
528207 2008 JQ_{40}	16.4	X	83.70429	69.37787	201.10265	11.01155	0.0957727	0.17215041	3.2003491	21	10 15.9	20.9
528208 2008 JW_{41}	16.9	X	331.51689	237.71826	75.03662	13.00027	0.1861307	0.23013721	2.6372106	21	6 16.9	19.4
528209 2008 KG_{1}	18.3	X	143.00278	171.23865	117.44632	6.45170	0.2174394	0.26153429	2.4216811	21	—	—
528210 2008 KF_{10}	14.0	X	338.33828	211.70862	73.88753	15.24388	0.0336713	0.08046482	5.3137204	21	6 11.0	20.8
528211 2008 KY_{16}	16.9	X	125.11950	107.39782	156.68182	10.04783	0.1982167	0.17929620	3.1147414	21	11 28.4	22.3
528212 2008 KN_{17}	17.2	X	290.75064	209.99230	75.90736	11.09904	0.2236359	0.21774106	2.7363763	21	3 13.0	21.4
528213 2008 KK_{28}	17.0	X	278.87183	273.05247	48.83906	12.97342	0.2832472	0.22212554	2.7002484	21	4 5.9	21.4
528214 2008 KJ_{33}	16.7	X	212.08856	348.51957	149.37466	9.59985	0.0319601	0.17432945	3.1736245	21	9 27.1	21.3
528215 2008 KY_{36}	14.0	X	0.31402	59.83760	222.39472	26.07005	0.0619877	0.08057552	5.3088522	21	6 29.8	21.0
528216 2008 KK_{39}	15.9	X	270.70292	269.95628	153.31524	11.87547	0.0128778	0.16864276	3.2445732	21	9 6.6	20.4
528217 2008 KP_{39}	16.9	X	183.62094	294.53403	184.17663	12.07832	0.1260539	0.23930988	2.5693837	21	7 26.8	21.1
528218 2008 KR_{39}	16.6	X	163.79450	5.85269	200.20484	14.70740	0.1343074	0.17812788	3.1283460	21	10 22.6	21.7
528219 2008 KV_{42}	8.8	X	341.24406	132.60644	260.90978	103.41382	0.4968099	0.00361631	42.0364236	21	5 28.7	23.0
528220 2008 KN_{43}	13.9	X	258.21662	295.44517	80.55442	11.95237	0.0968787	0.08350714	5.1838647	21	6 12.9	20.9
528221 2008 KQ_{43}	17.1	X	347.86770	203.27817	175.21075	14.90700	0.1231768	0.23905314	2.5712230	21	11 5.8	20.0
528222 2008 LO_{2}	17.9	X	132.77872	144.87059	139.33196	5.68287	0.2103915	0.26056504	2.4276829	21	—	—
528223 2008 LW_{6}	17.0	X	265.82508	223.01843	121.59984	14.49958	0.1871622	0.22215336	2.7000229	21	5 3.2	21.4
528224 2008 LB_{10}	16.1	X	175.99620	78.42113	91.91661	26.43710	0.2589206	0.17842579	3.1248629	21	10 2.7	22.1
528225 2008 LF_{15}	16.4	X	123.91042	24.82137	199.48590	18.91287	0.0907457	0.17218363	3.1999373	21	10 2.3	21.4
528226 2008 MT_{3}	17.5	X	24.03821	154.03100	134.83601	5.44552	0.1363663	0.23035398	2.6355559	21	8 31.1	20.4
528227 2008 MP_{4}	17.7	X	145.31413	183.41801	118.95195	2.03314	0.1584105	0.25833481	2.4416351	21	—	—
528228 2008 NC_{2}	17.0	X	55.44632	148.44761	144.68896	3.56489	0.1740785	0.23962819	2.5671078	21	10 31.5	20.4
528229 2008 OQ_{12}	17.4	X	285.66758	174.17520	131.79662	2.66734	0.2182857	0.21253021	2.7809228	21	3 28.8	21.4
528230 2008 OX_{21}	17.3	X	319.29743	9.85610	344.69749	10.90417	0.0862192	0.22339628	2.6899989	21	8 11.2	20.6
528231 2008 OL_{22}	17.8	X	302.09675	32.86204	288.68642	7.32260	0.3545884	0.29153949	2.2525328	21	4 4.8	21.2
528232 2008 PX_{3}	16.6	X	276.70858	64.33489	282.07114	9.83374	0.3698117	0.21333478	2.7739264	21	4 16.8	21.4
528233 2008 PG_{12}	16.7	X	28.50854	29.84893	270.24401	18.47683	0.3090113	0.23156734	2.6263414	21	10 13.9	20.0
528234 2008 QB_{8}	17.4	X	72.83290	328.32009	333.32131	8.30624	0.1898810	0.24103551	2.5571058	21	11 29.9	21.4
528235 2008 QA_{21}	18.0	X	357.81530	47.92691	280.17593	5.74835	0.2463748	0.30530920	2.1842857	21	9 28.2	19.2
528236 2008 QK_{29}	16.5	X	242.57204	20.04749	351.27279	8.26301	0.2498523	0.21007989	2.8025050	21	4 30.5	21.3
528237 2008 QS_{34}	16.9	X	75.53230	206.78260	109.90264	12.92847	0.1580951	0.24465796	2.5318024	21	12 20.7	20.8
528238 2008 QO_{41}	16.4	X	40.07512	265.86051	339.53392	8.62607	0.0594593	0.21869027	2.7284526	21	7 17.1	19.9
528239 2008 QR_{47}	17.1	X	30.36266	118.78454	180.36678	10.13205	0.1024396	0.22581427	2.6707616	21	9 18.8	20.3
528240 2008 RM_{3}	18.6	X	349.62402	134.46984	189.09162	4.64865	0.2263362	0.30134174	2.2034161	21	8 22.8	19.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528241 2008 RF_{10}	17.5	X	206.39586	83.39062	3.67099	7.88032	0.2734538	0.21069092	2.7970839	21	7 6.0	22.5
528242 2008 RG_{10}	17.3	X	193.07321	1.83791	29.85935	2.22744	0.0914134	0.20185849	2.8780922	21	4 19.9	21.6
528243 2008 RP_{14}	17.2	X	327.01188	150.50934	191.16768	12.66076	0.1726050	0.22162070	2.7043476	21	7 21.2	20.4
528244 2008 RM_{18}	16.9	X	294.38994	36.23631	338.72941	11.18364	0.2088336	0.21940620	2.7225140	21	7 11.3	20.5
528245 2008 RU_{19}	17.6	X	275.88089	185.91761	211.32139	4.37757	0.1791818	0.21862203	2.7290203	21	7 17.0	21.3
528246 2008 RO_{36}	17.3	X	269.20403	4.94997	342.16447	3.38576	0.1080404	0.21015568	2.8018312	21	5 13.6	21.4
528247 2008 RB_{38}	17.6	X	16.07380	23.94065	358.41808	4.68597	0.0645635	0.23899632	2.5716305	21	12 15.8	20.8
528248 2008 RK_{40}	17.5	X	88.69774	112.29081	175.24335	5.59654	0.1502695	0.23775270	2.5805904	21	11 26.9	21.4
528249 2008 RC_{46}	17.1	X	308.13283	345.54492	4.84966	12.69350	0.1069729	0.21791396	2.7349287	21	7 15.8	20.7
528250 2008 RK_{47}	17.5	X	302.13177	16.61504	324.35825	8.27400	0.2762688	0.21962237	2.7207272	21	5 20.5	21.2
528251 2008 RN_{56}	17.3	X	222.88240	131.00888	331.89081	16.33475	0.1302024	0.22296093	2.6934993	21	8 19.1	21.3
528252 2008 RA_{75}	18.2	X	250.53300	97.15677	344.29055	6.85442	0.1283124	0.30063478	2.2068691	21	8 27.6	20.7
528253 2008 RX_{85}	17.9	X	245.03747	180.19451	233.30493	8.20152	0.1556919	0.21411013	2.7672257	21	7 4.9	22.2
528254 2008 RL_{89}	17.5	X	46.79504	359.75163	282.60005	4.01105	0.0159826	0.22268859	2.6956949	21	9 5.9	21.1
528255 2008 RC_{100}	18.3	X	326.09146	345.18436	357.46763	4.70953	0.1224198	0.29683453	2.2256649	21	8 4.5	20.1
528256 2008 RC_{102}	17.7	X	291.23540	16.14736	9.76726	5.25656	0.1534793	0.22059357	2.7127357	21	7 30.4	21.1
528257 2008 RC_{103}	17.4	X	348.12425	30.87060	331.70684	7.17127	0.0884649	0.23061694	2.6335521	21	10 4.7	20.4
528258 2008 RR_{103}	16.8	X	242.20668	87.40339	341.99626	12.57467	0.1826978	0.21552036	2.7551411	21	7 24.0	21.2
528259 2008 RO_{104}	16.9	X	292.03401	171.87249	234.12874	9.79740	0.2570686	0.22132424	2.7067620	21	8 5.3	20.4
528260 2008 RJ_{106}	16.8	X	306.86946	341.86397	323.01152	8.05720	0.1470759	0.21432420	2.7653827	21	4 28.2	20.5
528261 2008 RF_{109}	17.6	X	3.53209	344.62949	346.28451	4.75512	0.0600373	0.22666412	2.6640816	21	9 16.3	20.7
528262 2008 RO_{109}	17.2	X	214.43478	26.95425	10.42082	1.85596	0.0729530	0.20620940	2.8374644	21	5 19.8	21.4
528263 2008 RR_{112}	17.1	X	211.65076	176.44402	198.76970	15.00805	0.1442369	0.20160611	2.8804937	21	4 17.9	21.6
528264 2008 RL_{114}	17.0	X	281.84541	190.76898	188.30354	10.51263	0.0743130	0.21491379	2.7603227	21	7 15.9	20.8
528265 2008 RS_{123}	17.2	X	214.22615	204.36000	161.76228	2.50302	0.0852938	0.20166176	2.8799637	21	4 11.2	21.5
528266 2008 RX_{124}	17.7	X	45.81754	351.89725	3.35017	15.35437	0.1375045	0.23990906	2.5651038	21	—	—
528267 2008 RG_{126}	17.4	X	245.95322	62.66656	1.90319	6.70419	0.1178147	0.21749087	2.7384744	21	7 28.2	21.4
528268 2008 RZ_{136}	17.3	X	25.10523	336.00168	331.82787	5.84936	0.1255333	0.22586788	2.6703390	21	9 24.0	20.3
528269 2008 RC_{139}	17.1	X	316.69621	189.11723	163.06217	13.68182	0.1959172	0.22363216	2.6881070	21	7 14.9	20.3
528270 2008 RQ_{141}	16.4	X	271.34644	128.74111	168.59150	10.12694	0.0722829	0.20172744	2.8793386	21	3 21.2	20.4
528271 2008 RZ_{141}	17.9	X	328.83578	33.71411	328.46786	9.50094	0.1697892	0.30205372	2.1999523	21	9 6.4	19.2
528272 2008 RN_{145}	16.9	X	285.00115	202.19739	99.90375	3.00128	0.1129219	0.20402845	2.8576490	21	4 7.5	20.8
528273 2008 RA_{146}	17.1	X	223.33074	33.23412	348.96119	12.08194	0.0762381	0.20496563	2.8489316	21	5 5.8	21.6
528274 2008 RZ_{147}	17.4	X	248.44552	274.92744	143.01128	4.26290	0.0931955	0.21644021	2.7473295	21	7 23.2	21.4
528275 2008 RF_{148}	17.2	X	240.59348	332.91581	9.26781	9.29659	0.1460534	0.20315795	2.8658063	21	4 3.7	21.8
528276 2008 RO_{148}	17.2	X	80.28372	309.36398	333.11021	9.79700	0.0549167	0.23229726	2.6208369	21	10 24.5	20.9
528277 2008 RR_{148}	16.6	X	54.65116	288.79568	222.08937	8.23350	0.0281673	0.19533550	2.9418143	21	3 26.9	20.7
528278 2008 RV_{148}	16.6	X	303.56744	275.83463	126.11127	13.60953	0.2754501	0.22288852	2.6940827	21	8 22.4	19.5
528279 2008 RB_{149}	17.7	X	280.71685	97.31553	329.00695	11.98116	0.1145040	0.22877362	2.6476795	21	9 10.6	21.1
528280 2008 RE_{149}	18.1	X	28.63633	305.23249	319.02903	6.23388	0.1665041	0.30011713	2.2094060	21	8 11.2	19.8
528281 2008 RG_{149}	17.6	X	316.69351	7.22536	324.89732	6.35751	0.2299485	0.29607282	2.2294805	21	6 6.1	19.6
528282 2008 SY	16.8	X	340.27320	238.42181	131.21958	4.07747	0.0935399	0.22858157	2.6491623	21	10 6.4	19.7
528283 2008 SZ_{8}	17.1	X	242.29053	170.50968	180.36991	14.45588	0.2168783	0.20631882	2.8364610	21	4 12.8	21.8
528284 2008 SW_{11}	21.1	X	301.62094	207.01627	28.79408	7.43789	0.4082712	0.81584446	1.1343084	21	—	—
528285 2008 SD_{16}	17.5	X	238.01827	23.93789	303.95953	3.44191	0.2411148	0.20344104	2.8631471	21	3 9.2	22.4
528286 2008 SW_{20}	17.6	X	66.69558	317.77336	349.96927	8.06330	0.1286269	0.23947060	2.5682339	21	11 22.6	21.3
528287 2008 SD_{27}	17.3	X	258.05921	217.95112	200.06688	3.04806	0.1878564	0.21717900	2.7410955	21	7 21.8	21.4
528288 2008 SC_{30}	17.4	X	237.81533	61.68585	359.19772	7.04492	0.2230308	0.21188172	2.7865942	21	7 2.4	22.0
528289 2008 SJ_{40}	18.1	X	266.68901	12.31665	25.64104	6.59006	0.1691403	0.29234786	2.2483786	21	7 10.5	21.0
528290 2008 SM_{40}	17.0	X	233.16526	29.04219	22.67964	12.98972	0.2014394	0.20953898	2.8073259	21	6 16.3	21.7
528291 2008 SL_{44}	18.2	X	310.73586	182.73693	194.45825	5.04224	0.1946784	0.29821964	2.2187680	21	8 15.7	19.8
528292 2008 SJ_{46}	16.4	X	53.17817	237.41234	25.09508	16.96602	0.2076960	0.22229439	2.6988809	21	9 25.4	20.0
528293 2008 SV_{49}	18.5	X	319.00921	29.65010	357.48166	3.74836	0.1538177	0.30336379	2.1936141	21	9 30.1	20.0
528294 2008 SQ_{51}	17.4	X	250.42440	86.96638	321.25949	3.42523	0.0650761	0.21531253	2.7569137	21	7 17.3	21.1
528295 2008 SY_{51}	18.6	X	294.25856	194.60138	188.26107	4.99675	0.1025692	0.29684296	2.2256227	21	8 8.5	20.9
528296 2008 SV_{54}	17.3	X	262.25479	262.14945	191.88213	21.77773	0.0338076	0.22683060	2.6627780	21	10 7.4	20.7
528297 2008 SQ_{57}	18.5	X	350.81301	128.97557	185.95736	5.35941	0.2353181	0.29770835	2.2213076	21	8 7.9	19.4
528298 2008 SQ_{66}	17.0	X	296.33495	35.21080	24.32355	7.53382	0.3227667	0.22268203	2.6957478	21	8 27.9	20.0
528299 2008 SD_{72}	16.4	X	192.88703	84.46412	249.59758	10.77532	0.2430156	0.19133148	2.9827150	21	2 9.7	21.8
528300 2008 SY_{73}	17.4	X	271.95058	40.69599	340.68598	3.29733	0.1124339	0.21441236	2.7646246	21	7 2.1	21.2
528301 2008 SF_{77}	17.3	X	248.83504	208.05471	215.54914	2.80059	0.1831803	0.21640838	2.7475989	21	7 19.4	21.4
528302 2008 SM_{77}	17.1	X	226.01573	39.55177	320.35759	2.13529	0.1291227	0.20223395	2.8745288	21	4 11.8	21.6
528303 2008 SW_{83}	16.7	X	286.90848	226.22042	240.38516	11.71116	0.1693688	0.23918434	2.5702827	21	11 11.2	19.6
528304 2008 SY_{84}	17.9	X	88.40682	359.39210	324.59664	3.81115	0.2381544	0.24422879	2.5347676	21	—	—
528305 2008 SY_{92}	17.1	X	270.37842	33.37754	344.26181	6.29969	0.2003637	0.21266626	2.7797366	21	6 11.8	21.3
528306 2008 SG_{97}	18.1	X	306.80762	152.78861	207.92239	5.16003	0.2297208	0.29560967	2.2318086	21	7 4.1	20.3
528307 2008 SK_{100}	17.9	X	320.37024	163.83783	172.42652	6.86171	0.2398631	0.29489935	2.2353910	21	6 20.2	19.8
528308 2008 ST_{105}	18.5	X	236.07952	65.35790	22.86232	6.87376	0.1380804	0.29290963	2.2455029	21	8 19.0	21.5
528309 2008 SJ_{107}	17.1	X	255.23069	91.78768	303.46050	6.29523	0.2320648	0.21264562	2.7799165	21	6 14.9	21.6
528310 2008 SZ_{109}	17.5	X	247.36777	244.39694	114.72472	2.10367	0.1565261	0.20545224	2.8444314	21	5 1.4	21.9
528311 2008 SK_{114}	17.7	X	285.32611	256.33781	179.09472	13.07092	0.1984144	0.22410746	2.6843049	21	9 19.0	20.9
528312 2008 SJ_{117}	17.8	X	268.10207	19.19852	14.34164	3.96881	0.0726808	0.21396293	2.7684947	21	7 20.2	21.6
528313 2008 SN_{118}	17.4	X	277.84669	3.72717	24.09328	4.85609	0.0765843	0.21467933	2.7623322	21	7 25.5	21.1
528314 2008 SO_{119}	17.8	X	211.59410	223.83935	186.74439	0.39089	0.2361639	0.20365290	2.8611612	21	5 27.2	22.6
528315 2008 SY_{121}	17.5	X	321.62394	115.12006	225.11231	2.32840	0.1016007	0.21570877	2.7535365	21	7 19.9	20.7
528316 2008 SX_{123}	18.5	X	278.90155	15.78334	14.69552	3.09972	0.1930783	0.29279741	2.2460766	21	7 12.2	21.1
528317 2008 SX_{125}	17.3	X	210.64945	135.36088	214.18397	5.55223	0.2423695	0.19553264	2.9398367	21	3 14.2	22.6
528318 2008 SB_{126}	17.4	X	277.58827	224.84330	212.12449	6.57047	0.1958862	0.22120312	2.7077499	21	9 7.4	20.9
528319 2008 SQ_{126}	16.8	X	326.77621	199.96451	204.73886	14.21390	0.2680202	0.22714232	2.6603412	21	10 24.4	18.4
528320 2008 ST_{130}	17.1	X	190.40576	178.95929	217.47607	10.40537	0.1335435	0.19711807	2.9240520	21	4 23.5	21.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528321 2008 SJ_{133}	17.2	X	267.24586	114.65746	356.58339	16.91672	0.1164261	0.22987335	2.6392283	21	10 18.4	20.8
528322 2008 SX_{133}	17.1	X	27.69004	358.82032	334.96770	11.15034	0.0900886	0.23538264	2.5978841	21	10 26.6	20.5
528323 2008 SE_{136}	17.2	X	304.98876	115.36961	262.68834	4.91864	0.0507904	0.21991703	2.7182964	21	8 20.3	20.8
528324 2008 SK_{136}	18.3	X	347.98862	109.53010	214.06855	7.43984	0.2001111	0.29872132	2.2162831	21	8 14.2	19.6
528325 2008 SR_{140}	16.4	X	168.55276	152.11949	259.22458	10.09932	0.0912372	0.19842056	2.9112417	21	4 15.7	21.1
528326 2008 SR_{141}	17.0	X	1.43601	324.73475	17.10487	11.40126	0.1393819	0.22620871	2.6676560	21	10 5.3	19.6
528327 2008 SQ_{145}	17.3	X	297.92516	230.97254	184.03761	7.16402	0.2758765	0.22311394	2.6922677	21	8 27.4	20.2
528328 2008 SF_{150}	17.0	X	311.44312	303.01488	103.45290	6.26201	0.0258812	0.22564124	2.6721268	21	10 15.8	20.5
528329 2008 SU_{161}	18.1	X	313.37726	247.89682	106.67112	1.72852	0.1733023	0.29682462	2.2257144	21	7 19.3	19.8
528330 2008 SQ_{180}	17.7	X	242.70668	34.56921	25.60603	5.41348	0.0891351	0.21323859	2.7747605	21	7 21.5	21.7
528331 2008 SD_{182}	17.0	X	225.45856	159.86387	194.31771	8.74461	0.1135889	0.19663886	2.9288007	21	4 6.7	21.4
528332 2008 SM_{182}	18.2	X	310.49872	333.00932	46.95091	3.66843	0.1432699	0.29796158	2.2200489	21	9 1.7	20.1
528333 2008 SY_{183}	17.5	X	343.40555	229.75752	173.28680	4.53740	0.1060062	0.23152618	2.6266527	21	11 27.2	20.4
528334 2008 SC_{184}	18.6	X	315.84474	303.32543	39.14348	5.82166	0.2066401	0.29415053	2.2391832	21	6 27.6	20.5
528335 2008 SV_{184}	16.5	X	155.24037	351.13018	232.48839	14.61356	0.1585132	0.23100695	2.6305871	21	11 9.3	20.8
528336 2008 SS_{186}	18.1	X	68.77216	121.62056	218.80628	7.90445	0.1800792	0.24102449	2.5571837	21	—	—
528337 2008 SW_{186}	17.4	X	324.65665	69.81345	332.92154	4.59479	0.1181280	0.22814918	2.6525084	21	10 21.0	20.4
528338 2008 SW_{191}	16.6	X	212.87949	222.88393	132.59921	3.19319	0.0790487	0.19511472	2.9440331	21	3 29.1	21.0
528339 2008 SQ_{192}	17.5	X	232.80105	258.95893	114.51650	3.84607	0.1766008	0.20374978	2.8602541	21	5 4.3	22.2
528340 2008 SQ_{196}	17.7	X	253.22000	215.73083	201.28942	7.80641	0.2016024	0.21213829	2.7843469	21	7 12.6	22.1
528341 2008 SA_{206}	18.1	X	319.85275	231.92123	154.05413	5.00578	0.1563914	0.30007362	2.2096195	21	10 1.6	19.6
528342 2008 SM_{216}	17.0	X	161.57633	102.25275	12.72466	6.59116	0.0800788	0.21046494	2.7990858	21	6 30.7	21.3
528343 2008 SC_{219}	17.1	X	344.42502	174.04716	200.99302	13.71936	0.1895641	0.22950609	2.6420432	21	10 23.7	19.3
528344 2008 SM_{219}	17.4	X	68.67468	336.72037	346.78813	5.74047	0.1793327	0.23981154	2.5657992	21	12 22.9	21.2
528345 2008 SV_{219}	17.3	X	322.85348	212.29511	195.27063	5.81283	0.1472473	0.22964800	2.6409546	21	10 26.6	19.8
528346 2008 SB_{221}	17.6	X	266.47833	68.13005	20.63386	4.46273	0.0957881	0.22445515	2.6815321	21	9 27.1	21.0
528347 2008 SV_{221}	17.5	X	314.44011	185.21848	194.09637	3.28759	0.1900141	0.22431651	2.6826368	21	8 21.5	20.3
528348 2008 SP_{228}	17.2	X	184.36772	56.51227	338.53421	9.45967	0.0517143	0.19963592	2.8994142	21	4 10.4	21.6
528349 2008 SM_{229}	17.2	X	312.43340	36.25941	316.44127	5.47080	0.0379980	0.21837087	2.7311124	21	7 31.4	20.7
528350 2008 SZ_{230}	17.2	X	298.60444	5.63086	346.97823	8.80537	0.1486222	0.21643401	2.7473820	21	6 24.5	20.9
528351 2008 SX_{235}	18.3	X	14.94525	135.87148	227.51247	3.72432	0.2343786	0.30720811	2.1752755	21	—	—
528352 2008 SG_{236}	16.7	X	237.51623	93.28388	216.79659	8.77688	0.1143235	0.19268574	2.9687230	21	2 21.8	21.5
528353 2008 SJ_{237}	19.2	X	314.35857	180.45289	213.47610	1.68496	0.1499934	0.30380906	2.1914702	21	10 1.4	20.8
528354 2008 ST_{237}	16.9	X	283.60247	314.45743	358.99776	7.43551	0.2196661	0.20932161	2.8092691	21	4 2.8	21.1
528355 2008 SK_{240}	17.4	X	250.45151	25.96422	89.48788	5.80302	0.1198537	0.22466471	2.6798644	21	10 9.8	21.1
528356 2008 SM_{244}	17.0	X	267.47382	243.93321	138.97973	5.14276	0.2475048	0.21162054	2.7888865	21	6 10.6	21.3
528357 2008 SY_{247}	17.7	X	287.61463	3.89256	17.28534	5.06833	0.1785981	0.21725775	2.7404330	21	7 13.5	21.4
528358 2008 ST_{248}	17.0	X	253.85046	153.07173	267.56712	2.85618	0.0845053	0.21626938	2.7487760	21	8 3.3	20.9
528359 2008 SU_{248}	18.1	X	18.06364	305.82430	6.35834	7.42633	0.1811307	0.30255454	2.1975239	21	10 10.1	19.9
528360 2008 SF_{251}	18.3	X	14.73000	279.88246	24.57781	5.59195	0.2333958	0.30169890	2.2016768	21	10 2.2	19.8
528361 2008 SQ_{251}	17.3	X	281.03804	250.95547	180.89079	10.24815	0.1585191	0.22360323	2.6883388	21	9 13.4	20.5
528362 2008 SY_{254}	17.3	X	220.02682	294.48060	89.73932	3.19730	0.2260181	0.20348080	2.8627742	21	5 3.4	22.2
528363 2008 SW_{255}	17.7	X	292.11899	218.88284	173.78645	4.84225	0.1195440	0.22085055	2.7106309	21	8 12.7	21.2
528364 2008 SH_{259}	16.9	X	283.31223	14.16830	352.90901	16.71712	0.2293968	0.21400972	2.7680911	21	6 7.2	21.2
528365 2008 SN_{259}	17.6	X	250.05091	215.44998	146.52965	2.76817	0.0721794	0.20637026	2.8359896	21	5 16.6	21.6
528366 2008 SP_{263}	17.4	X	230.75162	336.37604	24.57990	2.22317	0.0813219	0.20037683	2.8922626	21	4 21.9	21.7
528367 2008 SF_{268}	16.9	X	248.82975	3.82166	39.11689	18.19991	0.2577436	0.21062711	2.7976489	21	6 13.3	21.7
528368 2008 SZ_{268}	17.2	X	208.88702	111.13307	257.69420	7.21527	0.2538290	0.19904049	2.9051937	21	4 2.4	22.5
528369 2008 SL_{270}	17.1	X	296.71531	1.97619	37.15774	8.92644	0.0775813	0.22070235	2.7118442	21	9 9.6	20.6
528370 2008 SM_{273}	16.9	X	159.02597	335.10429	84.39623	14.30684	0.3330084	0.19110681	2.9850523	21	5 6.5	22.5
528371 2008 SO_{274}	17.4	X	286.87354	136.32269	188.15459	1.70501	0.0698762	0.20700064	2.8302291	21	5 13.7	21.3
528372 2008 SE_{278}	17.6	X	275.11746	13.43505	40.90627	5.08872	0.0655542	0.22136281	2.7064475	21	8 29.9	21.2
528373 2008 SR_{278}	17.6	X	265.71461	326.98426	72.63675	5.29133	0.0832103	0.21572018	2.7534395	21	7 23.5	21.4
528374 2008 SY_{278}	17.5	X	241.80811	170.72053	241.70208	2.66581	0.0920343	0.21126789	2.7919891	21	7 7.9	21.5
528375 2008 SQ_{279}	17.2	X	280.39324	139.25949	186.17775	1.70791	0.0650775	0.20594728	2.8398714	21	5 7.3	20.9
528376 2008 SZ_{280}	17.2	X	178.84079	320.95318	72.85862	4.48938	0.1259414	0.19116389	2.9844580	21	4 11.8	21.9
528377 2008 SX_{283}	16.9	X	154.50222	227.63749	12.93767	14.69957	0.1071323	0.23465809	2.6032289	21	11 26.6	21.1
528378 2008 SZ_{284}	18.1	X	342.24306	168.34291	180.15921	3.93591	0.1388585	0.29676089	2.2260330	21	9 16.8	19.6
528379 2008 SC_{288}	17.3	X	310.73738	347.28267	40.18578	7.64503	0.0801673	0.22086119	2.7105439	21	9 14.1	20.6
528380 2008 SL_{290}	18.0	X	341.30441	254.78420	73.80140	6.63353	0.2218573	0.29772475	2.2212260	21	8 10.4	19.1
528381 2008 ST_{291}	4.4	X	23.54653	325.50855	330.86938	20.72384	0.5793013	0.00096919	101.1261377	21	10 3.3	22.4
528382 2008 SX_{294}	17.0	X	343.77929	312.55760	67.99348	10.96095	0.2182991	0.22931581	2.6435045	21	11 3.8	19.2
528383 2008 SF_{295}	17.4	X	45.00675	6.35775	334.17932	17.92166	0.2096020	0.23682913	2.5872951	21	12 22.9	21.3
528384 2008 SO_{297}	17.0	X	206.99097	85.42706	4.69140	5.45871	0.0423850	0.21207819	2.7848729	21	7 22.5	21.0
528385 2008 SE_{299}	16.5	X	324.36490	168.20348	167.34218	14.57048	0.2585363	0.21908048	2.7252118	21	6 26.2	19.5
528386 2008 SJ_{299}	17.2	X	284.41886	321.78775	52.17914	3.33792	0.1924502	0.21504481	2.7592014	21	6 25.9	20.8
528387 2008 SY_{303}	17.4	X	335.99193	175.01670	183.93750	6.26465	0.0696416	0.22199503	2.7013066	21	9 10.8	20.7
528388 2008 SL_{306}	17.0	X	303.95402	56.87473	344.89942	11.25095	0.1828358	0.22198351	2.7014001	21	9 5.9	19.8
528389 2008 SN_{307}	17.9	X	271.32120	328.18821	61.70164	7.82381	0.1723469	0.29195867	2.2503762	21	7 3.5	20.8
528390 2008 SD_{308}	16.7	X	269.38183	91.28646	317.11175	11.31404	0.1366533	0.21645272	2.7472236	21	7 31.9	20.5
528391 2008 SL_{308}	16.4	X	37.86386	328.73789	2.85571	32.49170	0.1510649	0.23280390	2.6170331	21	11 3.6	20.4
528392 2008 SC_{312}	17.3	X	298.73186	286.35075	110.06842	3.34697	0.1033486	0.22217907	2.6998147	21	9 2.2	20.6
528393 2008 SP_{312}	17.0	X	109.06539	279.63805	239.06519	4.20736	0.1003012	0.21008136	2.8024920	21	6 28.5	20.9
528394 2008 SX_{312}	17.1	X	338.93846	222.84666	144.10835	6.50779	0.1690342	0.22627567	2.6671297	21	9 29.8	19.6
528395 2008 SO_{313}	18.4	X	215.51673	256.17742	231.99123	4.95317	0.1290798	0.29874665	2.2161578	21	9 15.1	21.4
528396 2008 SP_{313}	19.0	X	286.56007	7.60718	54.19986	3.66440	0.1541875	0.30092414	2.2054541	21	9 21.1	21.0
528397 2008 SZ_{313}	16.9	X	14.16253	245.19520	91.76580	7.22016	0.0841447	0.22609261	2.6685692	21	10 17.5	20.2
528398 2008 TS_{4}	17.0	X	37.30490	309.53380	9.98198	14.80518	0.1264798	0.23082613	2.6319607	21	10 27.4	20.4
528399 2008 TY_{15}	17.6	X	277.94290	28.51484	334.48115	3.78347	0.2201952	0.21368801	2.7708687	21	5 29.5	21.6
528400 2008 TQ_{19}	17.4	X	324.15667	201.56674	213.13590	8.09300	0.0673611	0.22789876	2.6544512	21	11 9.9	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528401 2008 TQ_{25}	17.4	X	272.66460	335.37924	10.57807	5.22630	0.0867550	0.20844944	2.8170998	21	5 19.2	21.3
528402 2008 TQ_{30}	17.2	X	302.94256	159.34814	196.05991	6.25255	0.0453288	0.21406671	2.7675998	21	7 18.5	20.9
528403 2008 TF_{40}	17.2	X	201.67440	209.30332	272.05273	7.84364	0.2298050	0.21324318	2.7747207	21	8 11.2	22.1
528404 2008 TU_{51}	18.0	X	52.80858	337.97038	26.18480	1.93737	0.0567984	0.24130253	2.5552190	21	—	—
528405 2008 TG_{52}	17.3	X	262.07058	109.90004	289.83131	6.45302	0.2297689	0.21382009	2.7697275	21	6 28.2	21.4
528406 2008 TK_{52}	17.4	X	259.47668	255.00178	188.76209	13.72219	0.1714899	0.22062065	2.7125138	21	8 26.7	21.3
528407 2008 TO_{52}	17.1	X	246.21096	258.20574	173.92012	4.68982	0.1119414	0.21689271	2.7435070	21	8 5.1	21.0
528408 2008 TM_{62}	17.5	X	133.88173	46.26444	212.29044	2.44095	0.1041155	0.23606186	2.5928984	21	12 2.4	21.3
528409 2008 TV_{62}	17.2	X	232.59696	144.93318	206.34052	10.75664	0.1127692	0.19918292	2.9038086	21	4 9.5	21.6
528410 2008 TL_{65}	18.3	X	293.29361	108.64589	249.85928	3.49804	0.2248324	0.29303754	2.2448494	21	6 9.3	20.7
528411 2008 TX_{65}	16.8	X	44.84077	310.69862	5.96763	11.34363	0.2077201	0.23337284	2.6127780	21	11 16.4	20.4
528412 2008 TR_{67}	18.5	X	289.10210	333.08464	45.86796	7.42058	0.1023059	0.29260738	2.2470489	21	7 28.9	21.0
528413 2008 TW_{67}	18.3	X	350.70149	263.81855	56.30072	3.82517	0.1615104	0.29627152	2.2284836	21	8 21.3	19.8
528414 2008 TO_{69}	18.8	X	289.81609	342.07916	106.23534	2.74617	0.0945763	0.30566138	2.1826077	21	11 16.4	20.7
528415 2008 TB_{71}	18.1	X	216.97998	300.75756	169.39869	5.10819	0.1826260	0.29153437	2.2525592	21	8 18.7	21.4
528416 2008 TP_{79}	16.5	X	235.44068	295.30588	40.37293	11.55671	0.1264560	0.19487267	2.9464704	21	3 28.6	21.2
528417 2008 TV_{79}	19.4	X	285.43107	358.85845	59.47341	1.57166	0.1828316	0.29967458	2.2115806	21	9 6.8	21.3
528418 2008 TQ_{80}	17.2	X	217.58076	279.66050	169.50848	1.88114	0.0303052	0.21616649	2.7496482	21	8 2.7	21.1
528419 2008 TO_{81}	17.4	X	256.47079	176.06128	173.26575	2.13196	0.0801341	0.20536732	2.8452155	21	5 6.9	21.3
528420 2008 TE_{83}	18.6	X	4.88312	95.06077	215.08740	5.33816	0.2246018	0.30102513	2.2049608	21	9 11.7	19.9
528421 2008 TW_{84}	17.9	X	292.98067	8.49797	20.41599	4.87556	0.1332623	0.29663900	2.2266428	21	8 14.7	20.0
528422 2008 TG_{85}	17.2	X	242.09366	238.79376	194.84116	4.37989	0.1065689	0.21716155	2.7412423	21	8 2.5	21.3
528423 2008 TQ_{90}	18.1	X	205.54557	307.65303	57.72880	3.24786	0.2733212	0.19660136	2.9291731	21	3 31.2	23.3
528424 2008 TP_{91}	16.6	X	316.97999	27.79943	294.96239	14.57425	0.2865593	0.21732174	2.7398951	21	5 15.6	20.2
528425 2008 TG_{94}	17.0	X	244.28949	307.67713	156.00230	5.38386	0.1473244	0.22138459	2.7062700	21	9 10.2	20.9
528426 2008 TA_{96}	18.5	X	330.75979	38.71643	279.37193	4.38768	0.1895749	0.29455151	2.2371506	21	6 21.9	20.1
528427 2008 TD_{96}	16.7	X	186.47534	127.39257	231.00317	9.44322	0.0619119	0.19173803	2.9784973	21	2 27.9	21.3
528428 2008 TW_{96}	17.2	X	158.12697	204.81357	216.26303	11.53695	0.1442434	0.19698417	2.9253769	21	4 23.5	21.9
528429 2008 TT_{100}	17.4	X	358.68224	110.32588	242.90592	1.51757	0.0946739	0.22690799	2.6621725	21	10 11.7	20.5
528430 2008 TE_{102}	16.8	X	211.40578	19.93086	26.81303	5.97011	0.0789984	0.20523844	2.8464064	21	5 27.5	21.0
528431 2008 TA_{107}	17.2	X	236.03095	261.87706	87.95826	3.27237	0.0857309	0.20112947	2.8850427	21	4 15.0	21.6
528432 2008 TR_{107}	17.2	X	253.68231	172.32149	153.06650	5.56119	0.1070286	0.20020516	2.8939157	21	4 2.1	21.5
528433 2008 TT_{108}	17.2	X	344.62403	311.84780	48.07067	6.66102	0.0631849	0.22583208	2.6706212	21	9 30.2	20.4
528434 2008 TC_{112}	17.6	X	296.73989	74.21217	281.00041	2.46171	0.2396580	0.29249476	2.2476257	21	6 6.8	19.9
528435 2008 TH_{115}	18.5	X	297.63998	107.08334	248.49256	5.81699	0.2427458	0.29297220	2.2451832	21	6 8.3	20.8
528436 2008 TQ_{116}	18.2	X	346.10621	13.95262	322.56229	7.15828	0.2578435	0.30091889	2.2054798	21	9 7.5	18.8
528437 2008 TU_{116}	17.0	X	316.87829	68.89489	339.57337	11.99288	0.1549987	0.22654168	2.6650415	21	10 8.7	20.0
528438 2008 TX_{124}	18.4	X	43.18042	49.16412	242.85285	4.06260	0.1694379	0.30457190	2.1878095	21	10 19.8	20.8
528439 2008 TR_{125}	17.7	X	196.02542	95.31539	330.00077	3.73276	0.1714380	0.20418479	2.8561902	21	6 2.1	22.5
528440 2008 TV_{128}	17.6	X	31.82733	113.14384	249.96235	5.42943	0.1406948	0.23656552	2.5892168	21	12 23.3	20.7
528441 2008 TS_{131}	17.3	X	300.30499	124.20119	247.09831	5.16512	0.0603800	0.21633436	2.7482256	21	8 3.1	21.0
528442 2008 TF_{132}	17.3	X	232.35266	128.73094	307.88097	3.83357	0.2181050	0.21168041	2.7883606	21	7 16.9	21.7
528443 2008 TD_{133}	17.2	X	326.20600	28.95263	303.35117	3.80206	0.0702971	0.21441507	2.7646014	21	7 20.2	20.5
528444 2008 TB_{134}	17.5	X	110.20428	36.98873	245.63658	10.29305	0.1498266	0.23853358	2.5749553	21	12 10.6	21.6
528445 2008 TR_{135}	17.4	X	264.89950	35.86246	16.12819	6.68252	0.0677584	0.21533477	2.7567239	21	8 12.2	21.2
528446 2008 TA_{136}	17.0	X	184.83709	157.94276	217.63148	9.92896	0.1587301	0.19266121	2.9689749	21	3 23.1	22.0
528447 2008 TX_{141}	17.0	X	309.86127	123.70595	174.79876	1.95229	0.0232048	0.20557355	2.8433122	21	5 17.4	20.7
528448 2008 TP_{143}	17.1	X	169.68644	282.83309	161.54696	2.29652	0.0433736	0.20555566	2.8434773	21	5 29.9	21.1
528449 2008 TJ_{148}	17.3	X	88.79999	298.82924	19.21965	26.01727	0.0778941	0.24067402	2.5596656	21	12 26.5	21.6
528450 2008 TX_{151}	17.2	X	311.03046	215.17417	162.10826	5.49833	0.1189091	0.22196047	2.7015870	21	8 22.3	20.4
528451 2008 TV_{158}	17.1	X	274.61667	193.27575	223.84018	4.16472	0.1551936	0.22096912	2.7096612	21	8 14.3	20.6
528452 2008 TR_{160}	17.3	X	273.05527	243.14826	201.18625	21.71568	0.0566244	0.22520682	2.6755620	21	10 4.4	20.7
528453 2008 TM_{163}	17.7	X	327.09012	158.08388	236.02997	3.73552	0.1981614	0.22552733	2.6730265	21	10 9.8	20.1
528454 2008 TO_{163}	17.4	X	265.64504	153.73568	245.30536	2.63601	0.1023446	0.21313957	2.7756199	21	7 18.2	21.2
528455 2008 TE_{164}	18.4	X	298.39885	42.57576	357.19748	6.04780	0.0597618	0.29751204	2.2222846	21	9 19.4	20.6
528456 2008 TV_{166}	17.3	X	219.19115	203.11871	232.06245	8.91087	0.2084850	0.21007615	2.8025383	21	7 2.7	22.1
528457 2008 TO_{167}	17.9	X	344.85415	55.34996	269.58192	7.44772	0.1884238	0.29767339	2.2214815	21	8 8.2	19.3
528458 2008 TP_{170}	17.8	X	269.69655	158.03881	245.57173	2.74391	0.0986855	0.21353961	2.7721523	21	7 29.9	21.6
528459 2008 TQ_{172}	16.5	X	226.68092	302.82518	97.30932	12.59871	0.3570481	0.19874015	2.9081199	21	5 23.4	22.0
528460 2008 TY_{173}	17.8	X	301.76982	237.52472	158.78060	2.97335	0.0803150	0.22282626	2.6945845	21	9 8.8	21.1
528461 2008 TZ_{173}	17.6	X	328.00466	337.89671	24.49075	6.21557	0.0543509	0.22155708	2.7048652	21	9 7.2	20.9
528462 2008 TU_{176}	16.6	X	288.50864	311.59367	55.00856	8.81188	0.2364997	0.21597664	2.7512593	21	6 13.9	20.4
528463 2008 TW_{180}	18.3	X	288.28902	113.62236	258.71286	5.57995	0.1861224	0.29291405	2.2454803	21	6 29.2	20.7
528464 2008 TM_{181}	16.9	X	239.17782	144.45928	209.89205	14.51350	0.1544072	0.20397826	2.8581179	21	4 16.7	21.3
528465 2008 TT_{186}	17.6	X	13.56525	244.83786	54.45045	4.74318	0.2010877	0.22156571	2.7047950	21	9 4.4	20.2
528466 2008 TQ_{189}	18.1	X	293.10866	162.23086	232.69833	3.89675	0.1836547	0.29269073	2.2466223	21	8 10.6	20.4
528467 2008 TT_{189}	16.1	X	53.20085	75.23171	255.66654	26.19476	0.3110125	0.23714107	2.5850257	21	12 27.6	20.2
528468 2008 TR_{191}	15.8	X	123.40014	78.02874	54.16737	4.24256	0.1097548	0.12318840	4.0002718	21	6 13.9	21.8
528469 2008 TC_{192}	16.9	X	247.81676	167.12901	266.99739	9.09345	0.1845286	0.21644818	2.7472621	21	7 30.0	21.1
528470 2008 TH_{193}	17.6	X	349.12980	200.01933	138.09117	5.72517	0.0261354	0.22194651	2.7017003	21	9 4.5	20.9
528471 2008 TM_{193}	17.2	X	64.08895	303.77442	317.01759	10.39403	0.0479076	0.22248113	2.6973705	21	9 4.2	20.8
528472 2008 TO_{193}	16.6	X	251.98310	112.19186	315.14481	8.38880	0.1741221	0.21648871	2.7469192	21	7 30.1	20.6
528473 2008 UJ	18.6	X	326.78865	322.16037	53.96823	7.88134	0.1329422	0.29910169	2.2144037	21	10 4.4	20.4
528474 2008 UN_{2}	16.7	X	250.60425	195.33290	206.18711	12.41780	0.3395351	0.21224467	2.7834164	21	6 9.0	21.6
528475 2008 UV_{2}	16.8	X	2.52226	348.15047	42.19581	35.00917	0.2168377	0.23340324	2.6125511	21	12 16.4	20.2
528476 2008 UD_{4}	18.3	X	1.60221	305.09619	54.75710	7.45631	0.2661271	0.30751616	2.1738225	21	12 10.3	20.0
528477 2008 UT_{12}	17.7	X	249.75031	164.92674	233.41275	3.23892	0.2034960	0.21174237	2.7878166	21	6 16.5	21.9
528478 2008 UB_{13}	17.1	X	201.26890	181.29489	207.03329	8.57067	0.1189349	0.20046032	2.8914594	21	4 24.4	21.7
528479 2008 UG_{26}	17.8	X	241.24738	327.68495	198.35553	4.72685	0.0355721	0.23745487	2.5827478	21	12 13.9	21.1
528480 2008 UA_{27}	17.2	X	221.09589	182.08038	187.84414	2.20684	0.1162922	0.19804044	2.9149658	21	4 21.5	21.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528481 2008 UN_{28}	18.2	X	0.69819	276.17160	49.14088	6.32076	0.1851595	0.29874027	2.2161894	21	9 28.7	19.7
528482 2008 US_{32}	17.1	X	275.31783	316.14717	72.91344	5.41934	0.0763713	0.21214183	2.7843159	21	7 23.1	20.9
528483 2008 UE_{35}	18.5	X	357.76417	122.08415	210.70801	3.14121	0.1083775	0.30014012	2.2092932	21	9 21.8	20.5
528484 2008 UO_{38}	17.3	X	336.17388	90.97865	285.09235	1.53471	0.2097049	0.22341216	2.6898714	21	10 2.8	19.7
528485 2008 UY_{44}	17.6	X	265.62451	108.72688	333.47648	2.16139	0.0715331	0.22280289	2.6947729	21	9 19.3	21.2
528486 2008 UJ_{45}	17.4	X	239.67551	17.70175	51.01317	4.98543	0.0875840	0.21384955	2.7694732	21	7 29.3	21.4
528487 2008 UC_{51}	17.3	X	247.31892	180.77849	243.39526	3.30261	0.0520879	0.21128916	2.7918017	21	8 3.7	21.3
528488 2008 UC_{53}	17.0	X	173.55262	173.58317	234.75282	11.98393	0.0902996	0.19159622	2.9799668	21	4 19.3	21.6
528489 2008 UW_{54}	18.3	X	262.17390	239.25359	175.84613	3.18668	0.1666646	0.29265910	2.2467842	21	7 27.8	21.0
528490 2008 UW_{55}	17.1	X	236.19132	151.83709	205.86355	13.82007	0.0828008	0.20237507	2.8731924	21	4 24.2	21.4
528491 2008 UT_{59}	17.1	X	277.88556	63.42552	314.99041	8.06644	0.2267404	0.21444373	2.7643550	21	6 18.7	21.1
528492 2008 UM_{60}	18.2	X	284.84939	31.42856	2.56554	4.20788	0.1621124	0.29342167	2.2428898	21	8 2.3	20.6
528493 2008 UO_{60}	18.5	X	299.44635	120.48398	246.56037	3.96173	0.2302359	0.29330316	2.2434939	21	7 1.1	20.7
528494 2008 UZ_{68}	17.3	X	36.94015	220.07894	55.89215	11.95228	0.0480937	0.21777707	2.7360747	21	8 26.8	21.1
528495 2008 UT_{70}	18.6	X	329.57791	182.38872	180.75422	3.89541	0.2307838	0.30025007	2.2087538	21	9 7.2	19.4
528496 2008 UU_{71}	16.1	X	197.21384	127.11194	249.02909	14.55643	0.2566186	0.19311649	2.9643067	21	4 1.1	21.6
528497 2008 UE_{72}	18.6	X	191.73673	101.04505	3.47521	6.01281	0.4482332	0.20049904	2.8910871	21	7 13.8	24.5
528498 2008 UO_{72}	17.0	X	271.50181	2.25644	39.31033	15.95475	0.1137022	0.21096560	2.7946556	21	8 3.0	21.2
528499 2008 UU_{73}	16.9	X	212.63640	28.16703	36.37894	15.04512	0.1375985	0.20312565	2.8661101	21	6 16.7	21.6
528500 2008 UM_{78}	17.0	X	349.67384	249.39404	102.74238	5.22015	0.1163596	0.22268914	2.6956905	21	9 28.7	20.0
528501 2008 UX_{79}	17.8	X	291.04891	64.40613	2.00908	4.87297	0.1582444	0.22178159	2.7030395	21	9 22.3	21.1
528502 2008 UN_{81}	18.8	X	302.43064	319.57421	45.22612	4.93768	0.1668044	0.29470289	2.2363844	21	7 16.7	20.9
528503 2008 UR_{81}	16.8	X	287.98285	260.39225	130.38702	3.37374	0.0913057	0.21787617	2.7352450	21	8 9.4	20.3
528504 2008 UB_{83}	17.1	X	189.11223	150.62168	77.96320	6.62773	0.0582547	0.23936512	2.5689883	21	12 26.3	20.6
528505 2008 UW_{87}	17.3	X	226.68003	199.43530	168.50705	2.23426	0.0833993	0.20311538	2.8662067	21	4 26.7	21.4
528506 2008 UO_{92}	18.1	X	356.78781	261.25612	85.98737	5.92971	0.2003888	0.30379881	2.1915195	21	10 30.3	19.6
528507 2008 UC_{95}	18.6	X	308.34839	340.97338	83.27059	8.41683	0.4856868	0.29988213	2.2105601	21	9 6.6	19.5
528508 2008 UX_{105}	19.2	X	305.98086	145.24018	247.31499	2.18280	0.1706906	0.30031585	2.2084312	21	9 5.6	20.8
528509 2008 UL_{106}	18.2	X	357.71477	285.76686	14.98484	6.61505	0.2107850	0.29767856	2.2214558	21	8 7.1	19.4
528510 2008 UY_{109}	16.5	X	279.73867	294.08084	3.76345	8.10422	0.2081981	0.19901916	2.9054013	21	3 15.2	21.0
528511 2008 UH_{111}	17.7	X	272.56762	189.47267	250.77504	6.94261	0.1852849	0.21957973	2.7210794	21	9 4.9	21.4
528512 2008 UL_{111}	16.7	X	225.62595	95.12887	251.23906	6.71533	0.2145068	0.19654182	2.9297646	21	3 21.0	21.8
528513 2008 UG_{114}	17.2	X	211.07511	20.59647	346.56828	2.74342	0.2380055	0.19695126	2.9257028	21	4 4.8	22.4
528514 2008 UE_{115}	18.4	X	329.80878	321.90189	9.53892	7.77254	0.1620662	0.29245285	2.2478404	21	7 20.4	20.3
528515 2008 UW_{115}	16.9	X	213.06494	6.24122	17.19370	10.16126	0.0954302	0.19758128	2.9194801	21	4 28.6	21.4
528516 2008 UY_{115}	16.4	X	199.95352	334.13504	22.33839	12.51217	0.1597573	0.19081332	2.9881123	21	3 19.7	21.3
528517 2008 UR_{116}	17.2	X	226.40448	111.10833	324.05896	4.45427	0.0408851	0.21047470	2.7989992	21	7 25.9	21.0
528518 2008 UU_{116}	17.7	X	94.80150	44.96493	286.30704	3.69161	0.2760018	0.24436479	2.5338270	21	—	—
528519 2008 UM_{121}	16.0	X	72.20167	23.96034	262.05075	11.57474	0.1445983	0.22500553	2.6771575	21	11 1.3	20.0
528520 2008 UZ_{122}	17.2	X	204.96354	22.25444	336.71619	5.33483	0.1697136	0.19196207	2.9761793	21	3 22.0	22.2
528521 2008 UH_{123}	17.0	X	255.88606	43.72403	27.22905	13.91714	0.0200775	0.21424230	2.7660874	21	9 5.9	20.9
528522 2008 UC_{124}	16.8	X	220.01589	67.22796	326.06068	8.09405	0.1142599	0.19978659	2.8979563	21	5 16.6	21.4
528523 2008 UA_{125}	16.5	X	221.02367	308.59559	14.55034	10.32049	0.1898221	0.18781146	3.0198682	21	2 26.7	21.6
528524 2008 UP_{125}	17.0	X	206.43248	169.30119	274.57292	8.16048	0.1048925	0.20448913	2.8533556	21	7 7.9	21.3
528525 2008 UO_{127}	16.8	X	119.07548	228.71359	238.59420	15.72491	0.1616998	0.18817563	3.0159708	21	5 13.3	21.4
528526 2008 UP_{133}	15.9	X	207.92078	28.00031	43.80015	3.42925	0.2551123	0.12586143	3.9434312	21	6 19.1	22.5
528527 2008 UL_{138}	17.7	X	269.91096	177.12587	217.37471	4.49775	0.1619726	0.21210527	2.7846359	21	7 8.6	21.6
528528 2008 UX_{140}	17.0	X	165.38572	335.33451	64.75469	1.97295	0.0685900	0.18983640	2.9983550	21	4 2.1	21.4
528529 2008 UX_{142}	18.4	X	312.11907	4.13116	48.73574	4.46219	0.1802495	0.30192124	2.2005958	21	10 27.4	19.6
528530 2008 UX_{147}	17.6	X	253.90407	348.03591	27.30859	2.86384	0.2346083	0.20580801	2.8411525	21	5 19.3	22.1
528531 2008 UE_{154}	18.4	X	283.75673	324.77045	52.13608	2.65311	0.1710820	0.28950087	2.2630951	21	7 2.3	21.0
528532 2008 UF_{159}	16.6	X	192.07953	109.87188	248.69468	9.73907	0.2716315	0.18936937	3.0032828	21	3 9.3	22.1
528533 2008 UK_{160}	18.1	X	297.93926	139.35575	241.44941	6.83088	0.1999634	0.29261524	2.2470087	21	7 24.2	20.5
528534 2008 UW_{164}	17.4	X	180.04059	117.69434	15.67279	8.74613	0.0456181	0.21401192	2.7680722	21	8 17.8	21.4
528535 2008 UQ_{165}	17.4	X	286.24345	345.31475	57.11058	3.47737	0.0671505	0.21713284	2.7414839	21	8 28.1	20.9
528536 2008 UL_{171}	16.7	X	202.19467	334.06601	37.92015	10.10590	0.0805466	0.19254279	2.9701921	21	4 8.2	21.2
528537 2008 UJ_{178}	17.2	X	328.10365	80.36576	258.91044	3.27750	0.0864016	0.21551099	2.7552209	21	7 30.6	20.5
528538 2008 UE_{179}	18.5	X	40.32335	97.76494	254.87732	6.61876	0.0267472	0.30742576	2.1742486	21	12 19.5	21.0
528539 2008 UA_{180}	17.3	X	295.92708	236.42257	241.23834	13.34032	0.0524448	0.23260480	2.6185263	21	12 21.7	20.7
528540 2008 UL_{183}	17.3	X	291.05366	32.22178	46.92304	10.13651	0.0480668	0.22689879	2.6622444	21	10 26.7	20.6
528541 2008 UK_{184}	16.3	X	126.08699	56.58671	50.76532	11.81214	0.1315477	0.19148010	2.9811715	21	5 17.1	20.6
528542 2008 UP_{186}	16.3	X	161.73004	346.89886	74.82389	11.49014	0.0935596	0.19065937	2.9897207	21	4 29.1	20.9
528543 2008 UC_{195}	16.5	X	189.27479	36.63616	355.38358	8.39011	0.0959932	0.19215414	2.9741958	21	4 14.8	21.2
528544 2008 UY_{206}	17.5	X	88.45909	291.09832	8.68500	8.67764	0.1646259	0.23855987	2.5747662	21	12 10.8	21.6
528545 2008 UJ_{207}	18.4	X	186.53143	237.53298	263.76101	2.33775	0.0700923	0.29367464	2.2416016	21	9 4.4	21.2
528546 2008 UU_{207}	19.0	X	257.04278	176.73977	253.34987	3.05796	0.1501156	0.29338215	2.2430911	21	8 13.8	21.9
528547 2008 UK_{208}	18.8	X	337.79200	9.21285	322.08410	1.45494	0.1781022	0.29515399	2.2341051	21	8 4.9	19.9
528548 2008 UH_{217}	16.4	X	241.97862	310.77412	27.01297	16.04272	0.1451789	0.20150021	2.8815028	21	4 3.3	21.0
528549 2008 UH_{219}	17.6	X	204.85407	102.33836	33.21398	10.51031	0.2167095	0.21366464	2.7710708	21	9 8.3	22.3
528550 2008 UE_{221}	16.4	X	254.35140	274.54941	24.28586	11.97759	0.1115708	0.18912645	3.0058539	21	3 5.8	21.1
528551 2008 UT_{227}	18.8	X	252.52686	52.81166	36.46696	6.81665	0.1550543	0.29294538	2.2453202	21	9 8.7	21.6
528552 2008 US_{228}	19.2	X	65.54206	110.84057	233.20842	20.53402	0.0861047	0.39024629	1.8545713	21	—	—
528553 2008 UD_{230}	16.1	X	127.83707	140.79994	347.63820	13.77618	0.2689224	0.18329392	3.0692858	21	6 28.1	21.5
528554 2008 UR_{231}	17.2	X	150.16317	191.48402	277.19997	4.18196	0.2036392	0.19893823	2.9061892	21	6 17.1	21.9
528555 2008 UL_{233}	16.8	X	194.68764	123.57733	251.30860	9.33566	0.1943401	0.19366051	2.9587527	21	3 29.7	21.9
528556 2008 UR_{234}	17.2	X	318.12276	35.09510	344.39921	5.31131	0.0426303	0.21854538	2.7296584	21	9 13.3	20.4
528557 2008 UM_{239}	17.1	X	247.40720	172.53399	264.76916	10.87412	0.1083977	0.21349330	2.7725531	21	8 10.2	21.3
528558 2008 UT_{243}	17.0	X	117.50112	335.56812	346.41530	7.39077	0.2352635	0.24446998	2.5331002	21	—	—
528559 2008 UT_{246}	17.5	X	149.36327	66.00996	195.06602	8.40382	0.1368888	0.23789648	2.5795505	21	12 20.2	21.7
528560 2008 UJ_{252}	18.8	X	274.81970	64.64867	40.42818	4.93497	0.1662820	0.30269596	2.1968393	21	11 2.6	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528561 2008 US_{252}	17.4	X	3.37625	148.27794	213.84266	5.56785	0.0537296	0.22578889	2.6709617	21	10 28.3	20.7
528562 2008 UC_{256}	17.2	X	174.80174	18.61675	51.45973	11.36693	0.1000060	0.19757015	2.9195898	21	5 18.7	21.6
528563 2008 UZ_{259}	17.5	X	285.87487	55.78239	354.94750	5.44835	0.0532259	0.22259391	2.6964593	21	9 9.0	20.9
528564 2008 UR_{260}	18.8	X	300.48628	271.81040	70.05012	5.08043	0.2464808	0.29001082	2.2604414	21	5 22.7	21.4
528565 2008 UC_{267}	17.4	X	30.60120	299.11059	15.53524	5.91980	0.0329994	0.22135539	2.7065080	21	10 1.5	21.0
528566 2008 UO_{269}	17.7	X	268.22275	214.35189	192.04722	4.72550	0.0831942	0.21375924	2.7702531	21	8 2.5	21.6
528567 2008 UY_{269}	17.6	X	231.71147	226.20114	144.26072	2.85184	0.1328070	0.20030119	2.8929907	21	5 2.3	22.1
528568 2008 UE_{270}	18.5	X	356.99981	155.81317	178.39686	3.66146	0.1425120	0.29844343	2.2176587	21	9 26.9	20.0
528569 2008 UY_{274}	18.7	X	339.06568	322.52702	27.59403	0.47806	0.2489186	0.29886227	2.2155862	21	9 13.2	19.0
528570 2008 UO_{286}	17.1	X	334.66009	303.21506	49.19026	17.27441	0.0566551	0.21854339	2.7296750	21	9 11.6	20.9
528571 2008 UP_{286}	18.7	X	7.76596	269.29129	57.46972	7.75484	0.1792101	0.30108069	2.2046896	21	10 16.7	20.4
528572 2008 UK_{289}	17.0	X	168.06413	312.29697	90.63452	5.40595	0.1500711	0.18910191	3.0061139	21	4 14.4	21.9
528573 2008 UH_{291}	17.8	X	276.98911	59.67668	23.98220	10.44051	0.1624324	0.22541604	2.6739062	21	9 26.7	21.1
528574 2008 UH_{292}	18.1	X	206.37038	152.98238	252.01946	1.24837	0.2011811	0.20118569	2.8845052	21	5 17.2	22.8
528575 2008 UQ_{301}	16.3	X	221.53871	67.66259	255.44084	13.13903	0.1476481	0.18695020	3.0291359	21	2 18.7	21.5
528576 2008 UQ_{302}	17.1	X	110.15627	203.68061	256.76276	8.27322	0.1203745	0.18660363	3.0328853	21	4 17.4	21.5
528577 2008 UN_{306}	18.0	X	294.21485	328.07322	49.58013	8.46199	0.1460709	0.29351332	2.2424229	21	7 27.9	20.4
528578 2008 UJ_{322}	17.2	X	337.69990	330.83008	346.93885	6.39049	0.2067115	0.21728302	2.7402206	21	7 7.6	19.8
528579 2008 UR_{323}	18.1	X	289.47343	124.60766	264.48088	6.73950	0.2007692	0.29361070	2.2419270	21	7 22.9	20.6
528580 2008 UR_{324}	16.2	X	69.61475	228.67747	254.05360	9.82525	0.1092544	0.18119703	3.0929199	21	3 20.4	20.4
528581 2008 UD_{328}	17.1	X	267.84009	223.32248	227.04333	11.62538	0.2529229	0.22156325	2.7048150	21	8 31.7	21.2
528582 2008 UX_{333}	17.3	X	309.04463	297.50992	54.73096	9.93924	0.0954382	0.21341614	2.7732214	21	7 19.8	20.9
528583 2008 UL_{337}	18.7	X	347.95866	83.86440	261.56426	1.42274	0.1451963	0.29754042	2.2221433	21	9 24.4	20.1
528584 2008 UL_{338}	16.3	X	117.45618	212.03913	260.76410	10.72618	0.1499103	0.19024833	2.9940254	21	5 16.3	20.8
528585 2008 UR_{339}	17.6	X	21.93998	299.98704	58.75856	3.63517	0.1713319	0.23026126	2.6362634	21	12 6.8	20.7
528586 2008 UO_{341}	18.3	X	219.86835	268.82171	231.76193	5.06040	0.1106781	0.29748502	2.2224192	21	10 10.6	21.2
528587 2008 UF_{344}	18.6	X	274.97930	195.85431	227.48677	1.70520	0.1998756	0.29388676	2.2405228	21	8 22.1	21.1
528588 2008 UE_{347}	17.3	X	244.06628	245.98873	190.95079	3.17998	0.0687214	0.21449425	2.7639209	21	8 14.5	21.1
528589 2008 UO_{347}	17.0	X	271.32954	70.96298	315.66518	4.97806	0.0153823	0.21028196	2.8007094	21	7 23.3	20.8
528590 2008 UW_{347}	17.5	X	128.03730	178.23989	284.03737	0.51848	0.1274440	0.19264931	2.9690971	21	5 12.7	22.0
528591 2008 UO_{350}	17.0	X	213.04951	82.27165	277.28432	1.42470	0.0709904	0.19374403	2.9579023	21	4 1.6	21.5
528592 2008 UU_{351}	16.8	X	170.87695	236.47060	174.09211	8.20736	0.3209278	0.19244762	2.9711713	21	4 30.8	22.3
528593 2008 UK_{354}	17.1	X	214.79099	206.18946	186.09724	2.01417	0.1169662	0.19737264	2.9215372	21	5 12.9	21.7
528594 2008 UA_{356}	18.6	X	276.63056	117.78471	296.36896	4.08656	0.1693963	0.29337906	2.2431069	21	8 15.9	20.9
528595 2008 UV_{356}	17.0	X	180.55262	121.87499	268.62446	9.52380	0.2506996	0.19150823	2.9808795	21	4 6.7	22.4
528596 2008 UL_{357}	17.5	X	254.85052	85.71333	41.28371	11.89257	0.1459707	0.22320607	2.6915269	21	10 24.6	21.0
528597 2008 UQ_{360}	17.7	X	317.95422	223.74154	186.31992	4.74448	0.0389891	0.22519632	2.6756452	21	10 26.4	21.0
528598 2008 UR_{360}	16.8	X	90.97178	88.91455	37.48817	10.49230	0.0534068	0.19049189	2.9914727	21	4 19.8	20.8
528599 2008 UP_{363}	16.6	X	277.21617	262.78266	117.74205	10.26414	0.1697446	0.21409773	2.7673325	21	6 28.9	20.4
528600 2008 UM_{367}	16.3	X	259.31816	150.63274	253.76585	8.31278	0.1487589	0.21223211	2.7835263	21	7 10.1	20.4
528601 2008 UY_{367}	18.6	X	268.76189	51.94540	332.95102	2.84152	0.2289796	0.28961909	2.2624792	21	6 14.3	21.8
528602 2008 UJ_{369}	17.2	X	231.86976	151.88812	236.42194	14.18893	0.1548079	0.20271807	2.8699505	21	5 21.9	21.7
528603 2008 UL_{374}	17.0	X	320.58742	241.80414	128.01142	1.15043	0.0713885	0.21813580	2.7330742	21	9 2.1	20.4
528604 2008 UM_{374}	17.2	X	289.16975	301.95620	152.00149	4.35834	0.1661637	0.22647495	2.6655650	21	10 28.6	20.2
528605 2008 UO_{374}	16.8	X	320.33220	136.08361	220.72459	4.88101	0.0646378	0.21379426	2.7699506	21	8 12.5	20.4
528606 2008 UP_{374}	17.0	X	338.67223	260.23517	69.17093	5.08787	0.1067873	0.21172905	2.7879336	21	8 4.7	20.2
528607 2008 UT_{374}	16.8	X	4.01848	15.79438	292.90564	5.26118	0.0451385	0.21223259	2.7835220	21	8 14.4	20.2
528608 2008 UX_{375}	16.6	X	112.89861	75.74926	87.95412	10.32151	0.1839292	0.18901773	3.0070064	21	7 19.7	21.3
528609 2008 VU_{4}	17.6	X	181.87026	23.44886	290.94385	11.97652	0.7743297	0.26986461	2.3715853	21	1 24.8	23.4
528610 2008 VO_{10}	16.5	X	240.74937	359.76617	72.23257	10.32149	0.0113106	0.21180736	2.7872463	21	8 16.6	20.5
528611 2008 VS_{11}	18.3	X	350.45273	218.31245	106.09633	4.76486	0.1864590	0.29491909	2.2352913	21	8 29.0	19.6
528612 2008 VS_{16}	18.4	X	214.82202	164.96008	212.49505	7.33334	0.2951418	0.19966244	2.8991574	21	4 18.5	23.6
528613 2008 VX_{24}	16.9	X	305.71748	15.73406	45.38608	13.69591	0.0952134	0.22564141	2.6721254	21	10 20.9	20.1
528614 2008 VD_{25}	17.5	X	212.01342	188.94199	205.07696	10.72589	0.1638944	0.20064675	2.8896681	21	5 10.9	22.2
528615 2008 VO_{26}	17.3	X	164.97998	73.48016	18.80604	8.59307	0.1531522	0.19907152	2.9048918	21	6 6.6	22.1
528616 2008 VP_{38}	17.1	X	256.50486	84.93007	46.53560	12.81993	0.1851730	0.22274817	2.6952142	21	10 27.1	20.7
528617 2008 VM_{40}	17.9	X	236.96021	278.71058	242.51695	19.88257	0.0742872	0.38528291	1.8704649	21	12 28.4	19.6
528618 2008 VR_{43}	18.0	X	286.34736	44.35819	311.56639	5.70765	0.1411426	0.28610968	2.2809426	21	6 9.4	20.7
528619 2008 VZ_{48}	17.2	X	137.23760	23.50279	233.28426	11.56382	0.0459795	0.22774367	2.6556561	21	12 1.3	21.1
528620 2008 VY_{50}	17.0	X	348.09523	351.80487	56.65640	16.79625	0.1220621	0.22853937	2.6494885	21	12 10.0	20.1
528621 2008 VF_{52}	17.4	X	257.70989	170.48793	254.09034	4.13166	0.0611416	0.21691855	2.7432891	21	8 15.9	21.1
528622 2008 VQ_{52}	17.5	X	297.73629	103.32034	259.29008	5.54912	0.0666419	0.21391750	2.7688866	21	7 18.3	21.1
528623 2008 VK_{58}	19.2	X	298.68488	271.70639	240.59710	20.50018	0.1139257	0.39395701	1.8429073	21	—	—
528624 2008 VT_{59}	17.9	X	62.43089	274.67856	51.15689	21.41867	0.0979064	0.38771587	1.8626317	21	—	—
528625 2008 VN_{62}	18.9	X	286.31543	166.14584	228.29025	2.32449	0.2176924	0.29350855	2.2424471	21	7 23.8	21.4
528626 2008 VP_{63}	17.1	X	150.54379	24.78424	241.29190	10.12802	0.1575664	0.23700820	2.5859918	21	12 26.1	21.3
528627 2008 VS_{67}	18.8	X	345.81620	187.78824	242.83682	20.78001	0.0718234	0.38867471	1.8595671	21	—	—
528628 2008 VZ_{69}	17.4	X	161.50089	239.43285	213.92500	1.87099	0.0988402	0.19775492	2.9177709	21	6 3.7	21.9
528629 2008 VM_{70}	16.7	X	224.28568	325.82139	64.18354	13.92778	0.0892934	0.19978923	2.8979308	21	5 21.4	21.0
528630 2008 VT_{70}	17.2	X	164.37270	175.05587	235.85534	9.42802	0.1022328	0.19107361	2.9853981	21	4 13.4	21.9
528631 2008 VA_{72}	17.3	X	194.01415	356.76671	83.95246	9.07032	0.1878289	0.20015403	2.8944085	21	6 19.7	22.1
528632 2008 VC_{72}	15.8	X	194.91880	55.23342	273.05985	10.35895	0.0839810	0.17876246	3.1209382	21	2 4.2	20.8
528633 2008 VT_{72}	17.4	X	136.50176	197.71729	273.00085	4.14940	0.3224443	0.18654020	3.0335728	21	6 15.6	22.6
528634 2008 VY_{73}	16.9	X	354.38965	295.68415	67.97646	7.46451	0.1413559	0.22378508	2.6868823	21	10 25.0	19.7
528635 2008 VE_{76}	17.1	X	217.55670	330.13478	87.40418	4.80793	0.1790417	0.20316485	2.8657414	21	6 12.2	21.8
528636 2008 VR_{77}	18.4	X	247.03425	232.26198	224.40712	2.31280	0.0862066	0.29281881	2.2459672	21	9 18.2	21.0
528637 2008 VB_{82}	16.2	X	147.53257	355.60332	103.53636	9.44717	0.2385300	0.18506253	3.0496995	21	6 6.4	21.4
528638 2008 VH_{82}	16.5	X	322.53689	115.25412	218.54811	4.79353	0.0489775	0.20935665	2.8089556	21	7 17.3	20.1
528639 2008 VT_{82}	18.6	X	2.85637	153.26658	159.60025	3.47088	0.1442238	0.29391830	2.2403625	21	9 2.8	20.4
528640 2008 VU_{82}	17.1	X	235.11916	82.13182	43.77359	9.58239	0.0839894	0.21998251	2.7177569	21	10 8.8	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528641 2008 WX_1	16.1	X	150.73799	203.38940	229.39247	17.43835	0.2733068	0.19053375	2.9910346	21	5 9.1	21.2
528642 2008 WP_8	18.7	X	350.24956	263.44133	67.11842	5.60280	0.1803588	0.29753606	2.2221650	21	9 11.1	20.1
528643 2008 WR_8	17.4	X	327.11673	260.36972	70.01055	5.35659	0.0695386	0.21222057	2.7836271	21	7 19.8	20.8
528644 2008 WX_{14}	17.3	X	202.37104	39.15297	18.76629	5.96018	0.0656211	0.20296668	2.8676065	21	6 1.3	21.6
528645 2008 WA_{17}	19.1	X	120.51977	68.96881	224.91612	20.35115	0.1045126	0.39465089	1.8407465	21	—	—
528646 2008 WL_{20}	16.8	X	192.39650	336.47395	55.94983	11.19707	0.1215567	0.19350289	2.9603592	21	4 23.5	21.5
528647 2008 WL_{21}	16.8	X	179.34862	137.14243	231.39048	9.88054	0.0591036	0.18510214	3.0492644	21	3 5.1	21.6
528648 2008 WB_{24}	19.0	X	272.56408	121.37008	285.07231	1.04868	0.2366364	0.29176038	2.2513957	21	7 18.9	21.7
528649 2008 WT_{29}	16.8	X	183.00761	86.67208	285.32787	3.97405	0.1070209	0.18529883	3.0471063	21	3 16.8	21.7
528650 2008 WX_{32}	19.3	X	247.96910	112.32901	56.94224	23.92976	0.5752896	0.29808345	2.2194437	21	10 29.5	23.1
528651 2008 WE_{47}	17.7	X	203.43603	102.27736	250.18657	0.57392	0.2692834	0.19058706	2.9904768	21	3 14.0	23.1
528652 2008 WJ_{47}	16.9	X	198.82907	319.17564	69.20947	12.39111	0.1360504	0.19293831	2.9661315	21	4 26.0	21.7
528653 2008 WA_{48}	16.7	X	191.63598	345.10603	70.36819	8.81403	0.0633420	0.19493674	2.9458248	21	5 19.4	21.0
528654 2008 WQ_{48}	17.1	X	29.62274	293.24047	66.36059	7.54693	0.1819058	0.23235493	2.6204032	21	12 20.9	20.4
528655 2008 WU_{50}	17.2	X	276.03247	320.32104	59.15309	10.64882	0.2060828	0.21137805	2.7910190	21	6 19.9	21.2
528656 2008 WU_{67}	16.5	X	144.27290	144.20622	244.59803	14.69490	0.1874439	0.18189109	3.0850469	21	3 1.4	21.7
528657 2008 WN_{69}	16.6	X	230.50039	302.45664	67.34217	10.05465	0.0560423	0.19389190	2.9563983	21	5 7.1	20.9
528658 2008 WD_{70}	16.3	X	191.83791	25.45680	72.67283	16.14173	0.1087100	0.20215514	2.8752759	21	7 11.4	20.9
528659 2008 WK_{73}	18.5	X	6.40974	339.13497	43.96391	3.20014	0.1558256	0.30631392	2.1795068	21	—	—
528660 2008 WH_{77}	17.2	X	207.20494	260.76005	230.10364	11.99594	0.1690350	0.21138402	2.7909664	21	8 28.5	21.9
528661 2008 WT_{81}	18.3	X	351.19896	230.74347	137.48321	3.26380	0.2036531	0.30162994	2.2020123	21	11 20.1	19.8
528662 2008 WQ_{83}	17.0	X	162.97491	203.93242	269.81844	8.56837	0.1648590	0.19795281	2.9158260	21	7 2.7	21.8
528663 2008 WR_{83}	18.6	X	22.48999	311.97821	36.75106	4.33206	0.1333333	0.30266407	2.1969937	21	12 4.0	20.8
528664 2008 WV_{93}	19.0	X	263.56493	174.76544	232.38616	5.18430	0.1591450	0.28852623	2.2681887	21	7 18.6	21.9
528665 2008 WN_{99}	16.9	X	259.77548	345.04328	74.39084	14.29905	0.1623594	0.21129437	2.7917558	21	8 1.7	21.1
528666 2008 WA_{100}	17.2	X	185.15271	276.08226	105.36164	2.90176	0.1650571	0.19174352	2.9784405	21	4 3.3	22.1
528667 2008 WX_{102}	18.0	X	316.90849	299.39589	65.67997	5.47065	0.1759199	0.29399059	2.2399952	21	8 16.9	19.7
528668 2008 WN_{110}	16.8	X	178.79616	332.00815	66.08156	10.71903	0.0938483	0.19012741	2.9952947	21	4 18.1	21.5
528669 2008 WP_{112}	18.3	X	317.65132	300.02098	68.00361	7.36039	0.1156549	0.29283873	2.2458653	21	9 2.1	20.4
528670 2008 WC_{113}	16.6	X	203.65739	95.57066	250.92147	4.78158	0.1400980	0.18590674	3.0404600	21	3 6.1	21.7
528671 2008 WO_{115}	16.1	X	80.23154	60.62825	72.17406	16.59815	0.1102176	0.18423181	3.0588603	21	4 27.9	20.4
528672 2008 WX_{122}	17.2	X	268.91338	122.13995	269.94699	4.40558	0.0811555	0.20967924	2.8060738	21	7 16.3	20.9
528673 2008 WS_{123}	16.8	X	186.33836	21.36909	69.33309	14.58659	0.1377105	0.19977487	2.8980696	21	6 25.1	21.5
528674 2008 WW_{125}	16.5	X	130.15478	129.65920	285.19582	7.78993	0.1718532	0.17567286	3.1574242	21	3 20.3	21.5
528675 2008 WC_{128}	16.5	X	221.43594	294.46260	66.90382	11.84456	0.1118350	0.19318379	2.9636182	21	4 16.3	21.2
528676 2008 WP_{130}	18.0	X	309.15376	83.93208	293.30705	5.77649	0.1262584	0.28897824	2.2658229	21	8 22.1	20.2
528677 2008 WJ_{131}	17.7	X	278.73694	94.63223	60.20876	22.28776	0.2239161	0.30829279	2.1701703	21	—	—
528678 2008 WJ_{143}	17.5	X	154.61721	153.41227	356.30842	1.97910	0.1643271	0.20190118	2.8776865	21	8 9.5	22.2
528679 2008 WO_{143}	17.4	X	127.41037	15.84837	105.05263	2.55140	0.2033057	0.19155962	2.9803464	21	6 11.9	22.2
528680 2008 WQ_{143}	16.5	X	161.56991	303.98112	102.54173	4.31511	0.1382696	0.18708366	3.0276952	21	4 11.8	21.3
528681 2008 WX_{143}	17.4	X	164.20747	39.62092	57.92476	1.45231	0.2329874	0.19160679	2.9798572	21	6 16.3	22.4
528682 2008 WB_{144}	17.3	X	105.33661	265.31485	58.84346	15.96122	0.2023281	0.24196578	2.5505475	21	—	—
528683 2008 WE_{144}	17.6	X	17.03877	196.35958	92.32787	6.59573	0.1044012	0.28906966	2.2653451	21	8 21.1	19.7
528684 2008 XM_2	17.6	X	148.63239	297.48309	271.94581	18.35666	0.0566181	0.37418541	1.9072670	21	10 30.8	20.2
528685 2008 XC_{14}	17.1	X	212.65546	26.54508	328.02784	2.35485	0.1689007	0.19210518	2.9747011	21	3 23.9	22.1
528686 2008 XG_{22}	17.0	X	358.83804	278.20504	88.95018	7.08609	0.0642635	0.22342497	2.6897685	21	10 31.5	20.4
528687 2008 XJ_{31}	17.6	X	331.18535	113.21329	281.12769	4.17204	0.1271551	0.22306689	2.6926463	21	10 19.8	20.6
528688 2008 XN_{31}	18.2	X	345.11905	325.08058	50.14672	8.12862	0.1203756	0.30078445	2.2061369	21	11 6.9	19.9
528689 2008 XP_{31}	16.6	X	192.08863	87.72716	263.65357	9.40196	0.0653116	0.18368108	3.0649715	21	2 25.9	21.4
528690 2008 XM_{39}	17.2	X	279.91490	2.47593	63.93947	6.00508	0.1578165	0.21542636	2.7559425	21	9 7.9	20.8
528691 2008 XP_{44}	17.1	X	216.69929	232.57432	186.28852	7.40358	0.3037275	0.20255182	2.8715207	21	6 7.9	22.3
528692 2008 XE_{50}	16.0	X	169.89138	347.43252	98.29082	10.18823	0.1129214	0.18905897	3.0065691	21	6 4.5	20.8
528693 2008 XM_{57}	16.4	X	199.13085	100.93869	294.51644	5.66753	0.0895165	0.18932121	3.0037921	21	4 29.6	21.1
528694 2008 YU	16.9	X	151.27135	21.20401	82.53760	5.15898	0.3092263	0.18860750	3.0113650	21	6 16.9	22.2
528695 2008 YG_2	18.7	X	57.21381	282.92561	105.40501	27.63028	0.1739336	0.39286667	1.8463155	21	—	—
528696 2008 YT_4	17.0	X	198.19896	85.27126	90.54080	15.62245	0.1794272	0.21119083	2.7926682	21	10 25.7	21.8
528697 2008 YY_7	16.7	X	176.64188	209.05913	268.95161	23.07916	0.1981205	0.28143856	2.3061116	21	7 16.6	20.6
528698 2008 YH_8	16.5	X	153.17815	147.75242	277.41120	15.94166	0.1605774	0.18495833	3.0508449	21	4 20.4	21.7
528699 2008 YO_{11}	17.5	X	63.53960	288.58013	57.40468	2.56702	0.2323381	0.23533872	2.5982073	21	—	—
528700 2008 YB_{12}	16.1	X	212.09658	269.02469	75.35184	16.67023	0.1437953	0.18709063	3.0276199	21	3 22.3	21.3
528701 2008 YF_{15}	18.5	X	267.35222	314.65949	112.54015	6.37016	0.0983384	0.28691050	2.2766962	21	9 5.9	21.1
528702 2008 YS_{15}	18.1	X	199.34832	30.53440	111.29834	5.55621	0.0788551	0.28648357	2.2789575	21	9 23.9	21.1
528703 2008 YK_{18}	16.0	X	183.63415	251.10838	111.50891	10.55178	0.0857883	0.17448408	3.1717492	21	3 12.9	21.0
528704 2008 YP_{21}	18.5	X	323.27580	241.64831	290.43959	16.75796	0.0629218	0.39698610	1.8335208	21	—	—
528705 2008 YH_{22}	16.3	X	147.70467	328.52745	121.22851	12.12547	0.0905132	0.18374569	3.0642530	21	5 19.2	21.1
528706 2008 YL_{28}	18.7	X	274.02280	358.71247	66.18626	6.20820	0.1275287	0.29038722	2.2584876	21	9 9.5	21.2
528707 2008 YR_{32}	17.3	X	198.82284	59.62206	316.13982	1.58620	0.1187273	0.18785623	3.0193883	21	4 6.7	22.0
528708 2008 YG_{35}	17.0	X	298.48227	240.11311	122.60076	21.47088	0.2617649	0.28132608	2.3067262	21	6 20.4	19.9
528709 2008 YV_{35}	16.6	X	173.46966	127.29281	307.44503	10.86513	0.1273621	0.18791411	3.0187684	21	5 22.9	21.6
528710 2008 YY_{45}	16.0	X	42.92591	219.50009	294.44688	26.06936	0.1327880	0.17437491	3.1730730	21	3 10.9	20.5
528711 2008 YV_{47}	17.0	X	103.31766	32.38714	95.08523	6.64695	0.0972636	0.18336030	3.0685450	21	5 14.5	21.4
528712 2008 YB_{48}	16.9	X	164.14185	323.30072	102.09055	4.59948	0.1627189	0.18535338	3.0465084	21	5 7.6	21.8
528713 2008 YZ_{49}	16.9	X	168.29063	348.58367	56.92870	2.76231	0.1885891	0.18206561	3.0830750	21	4 18.0	21.9
528714 2008 YF_{55}	18.4	X	214.90678	158.95765	323.63397	6.21844	0.1906233	0.28365346	2.2940911	21	9 1.0	21.9
528715 2008 YL_{55}	16.2	X	177.95191	272.50801	111.40402	10.71083	0.1124261	0.17851029	3.1238767	21	4 2.9	21.2
528716 2008 YH_{63}	16.8	X	69.94425	263.70130	243.55525	4.55997	0.1023125	0.17846041	3.1244588	21	4 24.5	21.0
528717 2008 YC_{64}	16.9	X	359.07805	79.12293	273.87415	7.30238	0.1393911	0.21176580	2.7876109	21	10 9.4	20.2
528718 2008 YS_{64}	16.3	X	175.64478	262.36950	135.98470	10.40336	0.1477466	0.18134736	3.0912103	21	4 17.9	21.4
528719 2008 YP_{74}	17.4	X	318.19176	94.81766	311.96339	3.33288	0.0640356	0.21571544	2.7534798	21	10 16.9	20.8
528720 2008 YC_{79}	17.6	X	142.21865	283.56119	271.71907	5.27654	0.3097467	0.19787289	2.9166110	21	9 23.9	23.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528721 2008 YU_{79}	16.3	X	157.05442	299.46698	139.00704	10.17522	0.0189147	0.18190509	3.0848886	21	5 10.1	20.8
528722 2008 YG_{84}	16.6	X	64.56930	238.48166	107.57500	10.05947	0.0863622	0.23217812	2.6217334	21	—	—
528723 2008 YJ_{84}	16.5	X	261.75734	314.88645	99.97284	14.58529	0.1671192	0.21045702	2.7991560	21	7 26.3	20.5
528724 2008 YV_{84}	16.5	X	130.64785	359.88998	100.98042	11.35074	0.1089900	0.18289369	3.0737620	21	5 15.9	21.3
528725 2008 YQ_{91}	18.4	X	273.15155	285.67513	95.15340	2.31566	0.2028186	0.28255645	2.3000251	21	6 18.0	21.2
528726 2008 YK_{93}	17.0	X	356.11828	318.62766	2.89708	1.70520	0.0620195	0.20347017	2.8628739	21	8 21.6	20.6
528727 2008 YL_{94}	18.8	X	344.08125	105.95075	286.14000	5.29029	0.1232810	0.29820303	2.2188504	21	11 29.8	20.8
528728 2008 YC_{97}	17.7	X	221.56276	47.84268	93.58405	3.28028	0.1563410	0.20995848	2.8035852	21	10 2.4	22.1
528729 2008 YH_{99}	18.5	X	229.64562	251.96876	287.57732	2.23268	0.1200671	0.29914174	2.2142061	21	12 16.7	21.0
528730 2008 YS_{104}	17.1	X	145.75532	88.59769	345.74449	2.27143	0.2936166	0.18439947	3.0570059	21	5 7.9	22.4
528731 2008 YP_{113}	16.7	X	285.51320	261.50276	104.15007	13.00025	0.0730567	0.19982915	2.8975448	21	7 5.0	20.3
528732 2008 YB_{119}	16.6	X	52.93321	191.91149	338.03528	2.17836	0.0691546	0.17779675	3.1322289	21	4 25.4	20.8
528733 2008 YA_{120}	18.0	X	271.44831	319.56106	72.56070	3.67184	0.1749292	0.28390284	2.2927475	21	7 6.5	20.7
528734 2008 YV_{120}	17.6	X	162.67211	190.99828	324.09549	2.34198	0.1352758	0.20101696	2.8861191	21	8 22.3	22.3
528735 2008 YC_{126}	19.0	X	250.96198	337.03316	97.81631	2.60029	0.1798165	0.28560853	2.2836100	21	8 9.9	22.0
528736 2008 YS_{126}	17.2	X	213.43080	283.33424	294.94808	23.26228	0.2686719	0.29968262	2.2115411	21	12 29.8	20.4
528737 2008 YW_{133}	17.5	X	221.20167	30.29110	75.19374	8.83841	0.1817147	0.20888553	2.8131775	21	8 17.6	22.1
528738 2008 YH_{138}	16.9	X	234.97923	147.60904	286.01709	18.62365	0.0964328	0.20196060	2.8771220	21	7 24.5	21.3
528739 2008 YJ_{138}	16.1	X	189.83155	272.67597	116.24124	10.32609	0.1007606	0.18378524	3.0638133	21	4 19.5	21.0
528740 2008 YV_{141}	18.7	X	306.86603	338.46864	93.47394	4.34690	0.1116478	0.29680528	2.2258111	21	11 19.6	20.6
528741 2008 YB_{142}	16.3	X	165.61878	338.13047	106.46700	16.77067	0.1339745	0.18887113	3.0085622	21	6 1.9	21.3
528742 2008 YS_{148}	16.5	X	122.41569	17.41559	75.81385	10.60108	0.1198997	0.18161970	3.0881194	21	4 28.8	21.1
528743 2008 YH_{149}	17.0	X	166.30686	200.92657	281.75844	16.24087	0.0818594	0.19730529	2.9222020	21	7 14.2	21.5
528744 2008 YD_{150}	16.8	X	219.80958	81.95069	292.87623	11.34746	0.2322552	0.18957904	3.0010680	21	4 16.6	22.2
528745 2008 YU_{150}	18.1	X	211.58749	303.52635	281.40251	5.61572	0.1092950	0.30547253	2.1835071	21	—	—
528746 2008 YZ_{153}	18.3	X	194.39116	232.48380	284.81634	5.25651	0.1217938	0.28564666	2.2834067	21	9 29.5	21.7
528747 2008 YE_{158}	16.6	X	231.32301	84.48376	275.81317	9.00241	0.0755959	0.18371907	3.0645489	21	4 20.2	21.3
528748 2008 YL_{161}	16.7	X	165.49707	121.88143	258.31726	15.19200	0.1587154	0.18412346	3.0600601	21	3 7.2	21.9
528749 2008 YH_{164}	17.2	X	164.94689	187.13969	295.73482	11.84145	0.1180273	0.19567416	2.9384190	21	7 15.2	21.6
528750 2008 YQ_{172}	17.5	X	227.49777	3.07516	123.20114	6.00297	0.1005948	0.20882241	2.8137444	21	9 26.6	21.6
528751 2008 YY_{174}	17.5	X	282.42459	302.37506	151.37876	3.70575	0.0575732	0.21560491	2.7544208	21	10 30.7	21.1
528752 2008 YU_{175}	17.2	X	244.54269	80.02086	9.42299	1.82524	0.0354741	0.20571199	2.8420365	21	9 6.0	21.0
528753 2008 YW_{175}	16.8	X	271.18466	101.39408	289.51227	13.48362	0.1566635	0.20362695	2.8614042	21	7 7.2	20.7
528754 2008 YX_{175}	16.7	X	194.92551	284.41509	89.75510	5.65151	0.1623244	0.18225482	3.0809408	21	4 5.2	21.8
528755 2008 YY_{175}	15.8	X	200.72044	68.31882	301.28384	20.23865	0.2400044	0.18192042	3.0847153	21	3 21.5	21.6
528756 2009 AS	18.3	X	219.87259	79.73689	110.47096	5.67833	0.4784714	0.28613276	2.2808199	21	11 7.9	22.4
528757 2009 AU_{8}	18.4	X	195.63933	66.34523	135.31350	7.44253	0.1649161	0.29358890	2.2420380	21	11 29.8	21.7
528758 2009 AH_{9}	17.0	X	139.33438	120.01015	298.35790	15.60565	0.2229512	0.18146068	3.0899233	21	4 1.9	22.4
528759 2009 AR_{15}	18.6	X	274.32393	149.19859	276.15738	6.54318	0.0880735	0.29290125	2.2455457	21	9 9.6	21.3
528760 2009 AO_{17}	16.3	X	155.75107	128.21268	285.72501	3.52908	0.1295613	0.18329851	3.0692346	21	4 11.1	21.1
528761 2009 AS_{18}	16.2	X	145.83881	106.14459	282.23312	11.86464	0.1957059	0.17721121	3.1391249	21	3 4.2	21.5
528762 2009 AO_{20}	17.5	X	212.16708	233.66292	208.37090	2.10429	0.2190764	0.20023662	2.8936125	21	7 5.4	22.3
528763 2009 AC_{24}	16.8	X	184.78815	127.27950	289.95029	9.17973	0.1937013	0.18865144	3.0108975	21	5 12.7	22.0
528764 2009 AA_{31}	17.5	X	145.22668	57.98251	120.96875	17.00858	0.2003756	0.19896849	2.9058946	21	9 10.9	22.6
528765 2009 AU_{31}	16.3	X	97.41527	184.73938	284.50324	8.56876	0.0828726	0.17766910	3.1337291	21	4 6.7	20.8
528766 2009 AA_{37}	16.8	X	133.02891	19.15204	93.17043	9.66015	0.0678543	0.18828317	3.0148222	21	5 26.5	21.2
528767 2009 AJ_{42}	15.7	X	202.29005	328.67416	322.37041	15.04567	0.1352818	0.15599812	3.4176150	21	1 9.5	21.3
528768 2009 AA_{45}	17.1	X	218.65717	27.62283	132.11841	4.65743	0.0373285	0.21353560	2.7721870	21	11 4.8	20.9
528769 2009 AT_{45}	16.6	X	83.74462	26.38529	135.32871	16.24176	0.1223414	0.18284056	3.0743574	21	6 7.8	21.1
528770 2009 AP_{47}	17.5	X	172.73159	356.55680	162.91855	2.70200	0.1693749	0.20126539	2.8837436	21	9 6.1	22.2
528771 2009 AU_{51}	16.4	X	274.45306	50.65648	300.53474	9.37937	0.0626397	0.18994397	2.9972229	21	6 2.3	20.7
528772 2009 AV_{51}	16.2	X	46.05624	3.66144	318.08302	7.92062	0.1502350	0.21051852	2.7986109	21	11 12.8	20.0
528773 2009 AH_{52}	16.4	X	242.34470	6.84669	299.35170	12.67149	0.0503065	0.17553306	3.1591004	21	2 27.0	21.2
528774 2009 AQ_{52}	17.9	X	190.92792	148.42641	100.99390	4.50267	0.0929051	0.30414074	2.1898766	21	—	—
528775 2009 BU_{3}	16.5	X	154.72132	126.30440	282.75502	19.55427	0.3728979	0.18484555	3.0520857	21	4 11.4	22.5
528776 2009 BS_{6}	16.2	X	139.32498	158.54134	292.03015	17.01260	0.2395441	0.18427394	3.0583940	21	5 16.9	21.5
528777 2009 BB_{8}	16.7	X	165.66340	235.12332	297.08826	6.22390	0.2471226	0.20208366	2.8759539	21	9 12.5	21.9
528778 2009 BF_{11}	17.7	X	234.66230	314.84051	294.62915	21.46459	0.1047010	0.39345401	1.8444776	21	—	—
528779 2009 BU_{13}	17.0	X	180.37082	49.94213	139.71270	23.68429	0.2603865	0.28549404	2.2842204	21	10 30.7	21.4
528780 2009 BU_{14}	16.2	X	128.25745	146.09431	306.45219	28.01282	0.1721320	0.18173465	3.0868171	21	4 24.2	21.6
528781 2009 BH_{18}	17.0	X	142.93617	302.92250	122.32192	2.09944	0.1703583	0.18216272	3.0819793	21	4 18.2	21.8
528782 2009 BP_{19}	17.0	X	164.52356	334.91213	66.56588	2.11065	0.1798073	0.18172876	3.0868837	21	4 9.8	22.0
528783 2009 BM_{22}	16.5	X	74.59066	172.86204	8.51336	5.00422	0.0895166	0.18305652	3.0719390	21	6 12.5	20.7
528784 2009 BC_{23}	18.2	X	289.29947	36.28280	76.80835	4.58209	0.0821374	0.29737777	2.2229535	21	12 20.9	20.4
528785 2009 BN_{23}	16.4	X	218.53786	60.05830	346.97523	10.14105	0.1138639	0.18927046	3.0043290	21	6 2.3	21.3
528786 2009 BT_{25}	18.0	X	136.63859	209.27330	321.74391	6.12570	0.0485409	0.27702385	2.3305474	21	8 14.6	20.8
528787 2009 BX_{27}	17.5	X	294.07435	9.27863	68.79133	1.60763	0.0460137	0.21414012	2.7669673	21	10 26.7	21.0
528788 2009 BT_{30}	16.9	X	130.15539	37.85591	59.40379	2.01908	0.1659061	0.18206560	3.0830752	21	5 13.4	21.7
528789 2009 BT_{31}	16.7	X	142.36384	104.78248	318.37787	11.69456	0.1888337	0.17919446	3.1159202	21	4 10.2	21.9
528790 2009 BF_{36}	16.7	X	253.08794	271.37453	113.26475	10.29599	0.1370854	0.19320354	2.9634163	21	6 11.4	21.2
528791 2009 BR_{36}	16.7	X	111.23526	131.11798	337.67266	8.14876	0.1985714	0.17916317	3.1162829	21	5 8.9	21.5
528792 2009 BO_{37}	17.4	X	303.50162	74.48359	314.63381	22.53149	0.3287480	0.29016521	2.2596395	21	7 28.2	19.3
528793 2009 BR_{38}	16.3	X	131.39802	345.22151	122.55934	8.29935	0.1133278	0.18220442	3.0815090	21	5 24.5	21.1
528794 2009 BG_{46}	17.0	X	149.56602	151.20190	308.05464	9.24653	0.2062141	0.18495982	3.0508285	21	6 4.8	22.2
528795 2009 BM_{48}	18.5	X	205.37944	356.11987	129.10020	2.87323	0.1518902	0.27992002	2.3144443	21	8 30.4	21.9
528796 2009 BV_{48}	18.7	X	245.06899	128.60431	308.18480	5.87003	0.1092457	0.28206038	2.3027210	21	8 13.7	21.8
528797 2009 BB_{52}	18.1	X	269.70531	310.33448	121.54848	7.83834	0.0934091	0.28617499	2.2805955	21	9 18.1	20.7
528798 2009 BS_{52}	17.1	X	128.25224	164.66304	334.18361	2.67322	0.2267603	0.18727202	3.0256646	21	7 6.9	22.0
528799 2009 BV_{52}	16.9	X	169.65890	349.27035	94.10678	2.33235	0.1170535	0.18695493	3.0290849	21	5 31.7	21.6
528800 2009 BG_{53}	16.3	X	104.36025	137.19111	319.83869	12.91553	0.1138296	0.17482219	3.1676585	21	4 2.5	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528801 2009 BF_{54}	16.9	X	114.29464	161.63150	337.32369	6.32076	0.1407981	0.18424117	3.0587566	21	6 14.5	21.6
528802 2009 BE_{56}	16.5	X	137.94047	148.95505	284.88002	8.86600	0.0398263	0.17833019	3.1259796	21	4 5.6	21.3
528803 2009 BJ_{56}	16.7	X	144.15516	111.09929	315.18044	7.92850	0.2443932	0.17920300	3.1158212	21	4 21.7	22.1
528804 2009 BJ_{58}	19.0	X	311.85931	85.58760	131.45450	13.02775	0.7111519	0.39134555	1.8510967	21	—	—
528805 2009 BM_{60}	16.4	X	129.05812	327.41268	139.04190	19.83744	0.2199663	0.18403100	3.0610850	21	6 1.9	21.7
528806 2009 BP_{61}	18.6	X	279.28283	100.28657	311.84795	6.85407	0.1765338	0.28500455	2.2868351	21	8 15.6	20.9
528807 2009 BL_{71}	22.1	X	78.11535	292.44254	17.46448	5.54600	0.2657238	1.08724834	0.9366634	21	—	—
528808 2009 BW_{71}	17.9	X	335.62800	255.52984	149.58955	24.95132	0.3648767	0.29975845	2.2111681	21	—	—
528809 2009 BM_{72}	17.2	X	290.17542	280.87626	155.34288	8.01439	0.2045542	0.21392787	2.7687972	21	9 27.8	20.4
528810 2009 BX_{74}	17.9	X	244.09750	0.62244	69.27714	6.06366	0.1916896	0.28281546	2.2986205	21	7 24.9	21.3
528811 2009 BS_{83}	16.5	X	337.06063	299.60155	309.25659	2.91158	0.0292112	0.17911625	3.1168272	21	4 19.1	20.7
528812 2009 BP_{86}	17.8	X	156.87584	286.67802	315.22063	6.48732	0.0732885	0.29464528	2.2366759	21	12 15.7	20.8
528813 2009 BY_{88}	18.8	X	218.06488	50.22918	139.97813	4.39758	0.1714266	0.29548132	2.2324549	21	12 8.3	21.7
528814 2009 BG_{91}	18.3	X	238.31019	232.34009	315.33526	3.65572	0.0944538	0.30034146	2.2083057	21	—	—
528815 2009 BB_{92}	16.5	X	107.79690	167.83118	316.10464	8.56511	0.0664618	0.17954873	3.1118202	21	5 6.6	21.0
528816 2009 BP_{96}	15.5	X	83.34295	37.79398	123.49073	17.31484	0.1382261	0.17964004	3.1107656	21	6 9.2	20.0
528817 2009 BS_{100}	17.5	X	249.70804	176.22348	294.98261	2.76450	0.0582603	0.21010396	2.8022909	21	10 5.9	21.3
528818 2009 BM_{103}	18.5	X	336.17963	245.11256	185.64015	1.77841	0.1187608	0.29935683	2.2131453	21	—	—
528819 2009 BN_{105}	16.5	X	65.31817	35.63130	151.10800	13.11073	0.0885388	0.18074366	3.0980898	21	6 9.1	20.9
528820 2009 BU_{110}	18.4	X	201.82021	16.35987	124.96827	6.09783	0.1080957	0.28056276	2.3109082	21	9 22.7	21.7
528821 2009 BO_{114}	16.7	X	138.35701	309.08568	118.53860	10.42806	0.0741768	0.17581036	3.1557778	21	4 11.9	21.5
528822 2009 BV_{115}	16.9	X	132.61900	146.84113	328.79723	5.15894	0.1336205	0.18633783	3.0357688	21	6 3.6	21.7
528823 2009 BA_{118}	18.6	X	242.38617	79.88598	314.81527	2.49505	0.2223574	0.27601025	2.3362496	21	5 31.7	22.2
528824 2009 BH_{121}	16.5	X	183.10666	114.41017	319.76658	13.22220	0.1466074	0.18707479	3.0277909	21	6 1.0	21.6
528825 2009 BU_{123}	17.2	X	149.40580	160.15555	307.88955	4.60885	0.1821483	0.18578125	3.0418290	21	6 14.6	22.3
528826 2009 BQ_{124}	15.9	X	136.43109	85.60569	334.69825	24.28251	0.2447319	0.17494733	3.1661477	21	3 31.2	21.4
528827 2009 BZ_{125}	17.3	X	177.18971	115.99217	323.06163	1.34396	0.2488768	0.18937424	3.0032313	21	6 4.2	22.7
528828 2009 BT_{132}	16.2	X	105.61808	178.07166	287.70072	16.29768	0.1704638	0.17908033	3.1172439	21	4 22.4	21.1
528829 2009 BA_{135}	17.5	X	129.93450	84.56338	17.37918	0.38087	0.1535167	0.18220312	3.0815237	21	5 17.5	22.1
528830 2009 BJ_{136}	16.8	X	170.14496	111.09241	306.30375	14.65287	0.1370214	0.18288042	3.0739107	21	4 24.8	22.1
528831 2009 BN_{136}	16.5	X	128.66246	111.04239	307.04083	8.98920	0.1396461	0.17386278	3.1793010	21	3 19.2	21.4
528832 2009 BV_{137}	16.7	X	115.97311	70.28222	33.54027	1.41392	0.1417465	0.17888817	3.1194759	21	5 4.0	21.4
528833 2009 BD_{140}	16.5	X	130.16633	99.99698	318.37598	9.01726	0.0495780	0.17106143	3.2139170	21	3 12.2	21.2
528834 2009 BD_{142}	19.2	X	60.32256	82.43628	320.45438	19.93587	0.1131672	0.39214031	1.8485948	21	—	—
528835 2009 BP_{143}	16.9	X	164.68868	4.89065	42.95352	0.77629	0.1815742	0.17976795	3.1092898	21	4 17.0	21.9
528836 2009 BS_{144}	16.1	X	200.27378	42.75793	324.18993	14.82451	0.1948735	0.17769500	3.1334246	21	3 23.5	21.6
528837 2009 BA_{145}	18.9	X	316.51067	83.17119	134.62677	17.94480	0.1054589	0.40220086	1.8176380	21	—	—
528838 2009 BY_{145}	17.2	X	130.93254	146.70527	334.64749	7.63524	0.1768579	0.18453459	3.0555134	21	6 13.2	22.2
528839 2009 BX_{153}	18.1	X	311.58782	286.75735	121.03278	6.61388	0.0888428	0.28998704	2.2605650	21	10 24.5	20.3
528840 2009 BT_{155}	18.6	X	246.04102	76.23442	111.72212	3.75465	0.1642035	0.30120242	2.2040955	21	—	—
528841 2009 BZ_{159}	18.3	X	70.55487	77.50479	307.03200	19.54270	0.0603969	0.39071987	1.8530724	21	—	—
528842 2009 BB_{169}	16.3	X	160.55296	259.30422	170.85132	11.89341	0.0938838	0.17956973	3.1115775	21	5 8.1	21.2
528843 2009 BA_{171}	17.5	X	185.73166	41.69051	91.13801	2.91391	0.1531867	0.19860247	2.9094638	21	8 17.2	22.1
528844 2009 BC_{177}	16.5	X	173.19199	122.03849	334.58968	11.19858	0.0854032	0.18774400	3.0205916	21	6 20.2	21.3
528845 2009 BQ_{179}	16.7	X	100.26438	15.20743	135.72237	11.20053	0.0980924	0.18218481	3.0817301	21	6 9.8	21.2
528846 2009 BZ_{183}	16.4	X	119.63863	36.00201	78.18715	17.48376	0.1902871	0.18294905	3.0731419	21	5 27.6	21.1
528847 2009 BD_{185}	16.5	X	152.26511	233.99254	253.52298	5.41874	0.1706588	0.19084117	2.9878217	21	7 9.9	21.4
528848 2009 BG_{187}	18.1	X	305.65045	206.09746	259.74267	6.01505	0.1985129	0.30041717	2.2079347	21	—	—
528849 2009 BK_{192}	16.7	X	18.53397	23.63467	305.99748	5.04223	0.0987879	0.20515222	2.8472039	21	10 6.2	20.2
528850 2009 BP_{192}	16.8	X	118.34064	131.02933	321.90493	9.38814	0.2009039	0.17773656	3.1329361	21	4 25.9	21.9
528851 2009 BW_{192}	18.0	X	98.10114	210.37192	142.69916	5.94111	0.0872232	0.30401695	2.1904710	21	—	—
528852 2009 BX_{192}	16.5	X	283.09718	36.50945	332.71382	19.24149	0.0651765	0.18947457	3.0021710	21	7 12.6	20.9
528853 2009 BZ_{192}	17.6	X	135.37537	133.34567	92.23331	6.65731	0.1811567	0.28296255	2.2978239	21	11 2.7	21.3
528854 2009 BA_{193}	17.0	X	136.97771	337.71574	109.62512	1.99211	0.0455343	0.18026425	3.1035803	21	4 27.0	21.4
528855 2009 BC_{193}	17.2	X	265.03948	222.41325	229.50643	4.08853	0.1275799	0.21071654	2.7968573	21	9 20.4	21.1
528856 2009 BH_{193}	16.6	X	10.45918	200.91441	104.84656	12.64746	0.0808212	0.19412390	2.9540423	21	8 25.9	20.4
528857 2009 CT	19.6	X	298.22836	337.83958	275.68626	3.84163	0.6387160	0.38975840	1.8561186	21	—	—
528858 2009 CB_{2}	19.1	X	292.76461	81.37970	138.97291	40.44591	0.1642636	0.39663410	1.8346055	21	—	—
528859 2009 CR_{5}	22.2	X	278.72562	321.32614	316.72381	5.05200	0.2623595	0.88330424	1.0757941	21	—	—
528860 2009 CH_{13}	16.8	X	172.81751	263.85368	154.71420	16.86913	0.2178218	0.18485963	3.0519307	21	5 11.8	22.3
528861 2009 CF_{19}	17.6	X	183.09850	263.85720	305.86824	5.12254	0.1068373	0.28999862	2.2605048	21	11 29.2	20.8
528862 2009 CU_{21}	16.8	X	79.26644	18.36225	144.90362	7.74811	0.1010733	0.18081292	3.0972986	21	5 30.3	21.1
528863 2009 CZ_{22}	16.6	X	146.78601	277.59286	147.51064	12.38792	0.1030853	0.17780936	3.1320809	21	4 19.8	21.5
528864 2009 CZ_{33}	17.2	X	185.27426	76.92957	114.75966	9.29038	0.1423611	0.21000307	2.8031884	21	10 31.6	21.8
528865 2009 CF_{35}	16.6	X	38.86408	97.65717	109.84040	10.78793	0.1646225	0.17966241	3.1105074	21	6 5.5	20.3
528866 2009 CX_{39}	16.9	X	114.03683	31.34827	107.80499	10.53815	0.2405780	0.18432798	3.0577963	21	6 25.6	21.7
528867 2009 CK_{42}	16.2	X	265.61890	338.14947	124.04777	14.18211	0.1342711	0.21002260	2.8030146	21	10 11.6	20.2
528868 2009 CA_{43}	17.0	X	155.53041	116.93643	282.71959	3.90452	0.1673107	0.17704650	3.1410715	21	3 27.7	22.0
528869 2009 CJ_{44}	16.6	X	119.82314	346.67301	123.93749	13.70929	0.2340861	0.18051150	3.1007455	21	5 29.5	21.7
528870 2009 CB_{47}	16.2	X	278.13108	182.38576	122.20388	11.76683	0.1225294	0.17925029	3.1152732	21	4 7.5	20.9
528871 2009 CQ_{48}	15.9	X	161.05250	52.45726	307.00877	20.28032	0.0873469	0.16804805	3.2522235	21	2 8.5	20.9
528872 2009 CO_{49}	17.4	X	183.21094	59.26082	55.30552	4.91766	0.2023514	0.19230779	2.9726114	21	7 22.8	22.5
528873 2009 CW_{49}	16.0	X	119.92900	104.78598	346.18101	25.49860	0.2404276	0.17613217	3.1519326	21	4 20.5	21.4
528874 2009 CY_{50}	16.1	X	119.94888	335.03392	131.95602	18.50594	0.1729733	0.17926871	3.1150598	21	5 21.6	21.2
528875 2009 CY_{51}	16.4	X	92.76411	11.37599	140.30727	15.47076	0.1472677	0.18139489	3.0906704	21	6 9.5	21.1
528876 2009 CL_{60}	17.2	X	132.28662	254.82345	194.31497	0.33077	0.1267226	0.18023605	3.1039040	21	5 1.8	21.9
528877 2009 CB_{65}	15.8	X	122.65686	112.69085	14.22829	26.83879	0.1444297	0.17613771	3.1518665	21	6 1.5	21.1
528878 2009 CG_{67}	16.7	X	43.48232	238.20382	25.14753	2.94749	0.0940471	0.19087232	2.9874965	21	8 18.4	20.5
528879 2009 CH_{67}	16.7	X	11.27872	67.00075	131.26624	8.99433	0.0136840	0.17820166	3.1274825	21	4 6.4	21.1
528880 2009 CN_{67}	16.5	X	261.17447	22.10795	351.21959	9.29949	0.0938319	0.18589753	3.0405605	21	6 9.8	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528881 2009 DS_6	18.0	X	192.23996	41.86660	100.39177	6.36905	0.1011713	0.28175499	2.3043847	21	9 14.3	21.3
528882 2009 DP_{15}	18.2	X	276.88086	175.09067	335.23217	5.48599	0.1002605	0.30086159	2.2057598	21	—	—
528883 2009 DF_{18}	17.2	X	241.78617	355.46161	163.10529	3.81747	0.0930371	0.21267260	2.7796814	21	11 22.8	21.0
528884 2009 DG_{18}	16.9	X	101.91309	110.32987	160.69632	18.24240	0.1294083	0.20287665	2.8684548	21	11 16.6	21.6
528885 2009 DK_{22}	18.1	X	259.75221	245.89300	145.24301	6.13396	0.2240461	0.27829960	2.3234197	21	6 14.4	21.6
528886 2009 DZ_{24}	16.8	X	117.43743	104.44579	343.68599	8.86239	0.0979717	0.17316187	3.1878744	21	4 8.4	21.5
528887 2009 DN_{25}	17.1	X	117.52681	135.02068	112.65134	3.13704	0.0107671	0.20648751	2.8349160	21	10 23.5	21.0
528888 2009 DC_{26}	18.1	X	144.09697	232.65068	4.42504	3.98114	0.1264546	0.28681950	2.2771778	21	11 22.0	21.4
528889 2009 DT_{34}	18.0	X	170.22877	145.78061	17.25552	5.96126	0.1685049	0.27466175	2.3438902	21	9 14.3	21.6
528890 2009 DD_{36}	16.4	X	5.69374	289.87922	351.95051	15.46758	0.1895550	0.18229808	3.0804535	21	7 21.3	19.9
528891 2009 DB_{37}	17.1	X	290.53858	309.15276	135.56006	5.41177	0.0351550	0.21286545	2.7780023	21	11 2.2	20.8
528892 2009 DS_{42}	17.8	X	124.74765	232.20274	345.97712	18.55137	0.0518723	0.35817482	1.9636889	21	10 6.2	20.2
528893 2009 DW_{46}	17.6	X	174.07444	323.97754	165.52755	10.17627	0.3186060	0.19420748	2.9531947	21	7 31.1	23.2
528894 2009 DR_{47}	16.0	X	77.34694	29.23615	158.43859	17.23876	0.1655302	0.18029729	3.1032011	21	7 6.2	20.6
528895 2009 DF_{48}	16.8	X	127.68178	57.73106	113.64469	7.60954	0.1104579	0.18968732	2.9999259	21	8 6.7	21.3
528896 2009 DA_{49}	16.5	X	121.78231	304.94681	192.40978	15.67044	0.2176341	0.18384344	3.0631666	21	6 27.1	21.7
528897 2009 DF_{51}	16.6	X	94.98228	136.75118	3.71595	5.76748	0.2178288	0.17861941	3.1226043	21	6 4.1	21.3
528898 2009 DR_{52}	17.2	X	150.12860	20.29361	72.18267	2.30136	0.1506196	0.18236855	3.0796598	21	5 25.6	22.2
528899 2009 DJ_{54}	16.1	X	123.30892	92.30728	343.41313	9.41326	0.0572371	0.17075313	3.2177843	21	3 26.8	20.9
528900 2009 DQ_{54}	16.8	X	150.11004	346.73956	148.09599	12.76815	0.1053034	0.18885156	3.0087700	21	7 13.7	21.6
528901 2009 DY_{56}	18.9	X	244.65462	11.67004	120.76370	4.30070	0.1905580	0.28885737	2.2664549	21	10 21.9	21.8
528902 2009 DZ_{58}	16.8	X	148.88598	1.48245	158.24104	16.20541	0.1638871	0.19068874	2.9894137	21	8 14.6	21.7
528903 2009 DR_{61}	16.7	X	108.14930	328.67525	141.03553	6.28408	0.1369252	0.17304327	3.1893309	21	5 4.7	21.4
528904 2009 DX_{66}	18.8	X	310.44880	298.51016	172.27243	5.16650	0.0890067	0.29960166	2.2119395	21	—	—
528905 2009 DQ_{74}	17.0	X	123.15695	310.06177	159.73594	6.45802	0.2680401	0.18096150	3.0956030	21	6 1.5	22.2
528906 2009 DE_{78}	17.8	X	272.26243	296.99198	134.60270	6.27678	0.0695596	0.28362334	2.2942535	21	9 24.3	20.4
528907 2009 DL_{83}	17.9	X	222.98506	126.81473	5.42880	6.91470	0.0474645	0.27931071	2.3178091	21	10 10.0	20.8
528908 2009 DN_{88}	16.5	X	23.58059	73.07939	128.91210	6.37483	0.0630004	0.17157686	3.2074772	21	4 28.1	20.7
528909 2009 DS_{94}	16.9	X	134.17349	162.26204	46.35920	7.02942	0.1528172	0.19487673	2.9464296	21	10 2.8	21.7
528910 2009 DG_{96}	17.4	X	216.44599	223.33470	303.93206	2.20675	0.1395156	0.21170156	2.7881749	21	10 28.0	21.6
528911 2009 DT_{102}	16.9	X	2.69668	353.06783	3.18819	25.03391	0.1955523	0.28138636	2.3063968	21	11 3.0	19.5
528912 2009 DS_{103}	17.7	X	246.79755	71.54964	353.65036	5.04797	0.1930551	0.27436735	2.3455666	21	7 21.1	21.1
528913 2009 DF_{114}	18.0	X	191.89365	338.61118	158.06720	6.70100	0.0499906	0.27700218	2.3306689	21	9 6.3	20.9
528914 2009 DZ_{114}	18.8	X	300.10123	182.24318	347.87258	16.66994	0.0771086	0.38703097	1.8648285	21	—	—
528915 2009 DC_{117}	18.5	X	194.45946	120.74353	26.28423	1.61872	0.1213682	0.27933019	2.3177013	21	9 18.9	21.8
528916 2009 DN_{122}	16.7	X	116.60245	299.63546	173.63369	22.32303	0.2113028	0.17616446	3.1515475	21	5 27.3	22.0
528917 2009 DE_{124}	17.2	X	166.19866	136.11605	347.16584	10.19489	0.2155329	0.18885268	3.0087582	21	7 21.1	22.5
528918 2009 DK_{131}	17.2	X	79.45590	133.41502	147.10118	2.67574	0.0292984	0.20309191	2.8664276	21	10 19.1	21.1
528919 2009 DT_{131}	16.6	X	78.76732	30.44265	190.39718	6.60860	0.1309203	0.18353710	3.0665742	21	8 13.1	21.1
528920 2009 DS_{132}	17.0	X	160.05779	169.90340	336.52133	7.97240	0.0543292	0.19229160	2.9727782	21	8 8.1	21.3
528921 2009 DG_{136}	16.8	X	229.35218	264.52514	173.08876	14.98778	0.0563046	0.19268273	2.9687538	21	7 27.8	21.3
528922 2009 DB_{145}	18.5	X	288.71586	328.06808	185.40811	5.77843	0.0151605	0.30172396	2.2015549	21	—	—
528923 2009 DF_{146}	18.0	X	350.23632	236.92463	173.90175	8.44430	0.1706208	0.29388271	2.2405434	21	—	—
528924 2009 DK_{146}	16.5	X	208.48654	258.10859	171.50507	10.94942	0.1145219	0.18651971	3.0337949	21	6 22.2	21.4
528925 2009 DL_{146}	17.5	X	163.32103	288.29452	206.07218	6.46327	0.0588213	0.26987284	2.3715371	21	7 26.2	20.8
528926 2009 DM_{146}	18.1	X	135.03895	295.34022	280.06837	3.49661	0.1343703	0.27750414	2.3278576	21	10 14.5	21.5
528927 2009 DN_{146}	18.4	X	280.86320	56.32109	344.25644	5.08170	0.1505325	0.28033658	2.3121511	21	8 7.1	20.9
528928 2009 DP_{146}	18.5	X	240.56890	276.24584	162.70744	4.39587	0.2096685	0.27700681	2.3306430	21	7 29.1	21.9
528929 2009 EV_1	18.1	X	161.11238	100.60709	119.74604	3.72406	0.1017353	0.28544375	2.2844887	21	11 20.6	21.4
528930 2009 ET_8	16.6	X	101.67144	251.15330	48.68602	4.52998	0.0838927	0.21081477	2.7959884	21	12 13.7	20.7
528931 2009 EV_{14}	17.9	X	136.85208	170.79356	357.94396	10.06561	0.0561165	0.27100500	2.3649276	21	8 15.5	21.1
528932 2009 EQ_{20}	18.4	X	1.00291	25.08347	354.13286	19.76950	0.1010330	0.36585248	1.9361190	21	12 30.5	20.7
528933 2009 EA_{25}	16.9	X	103.71837	93.76624	97.49811	4.03998	0.1100129	0.18683568	3.0303736	21	8 5.2	21.2
528934 2009 EF_{30}	16.9	X	93.57235	95.60356	98.95154	4.11355	0.1289668	0.18067501	3.0988745	21	7 30.6	21.4
528935 2009 EQ_{32}	17.4	X	113.19822	178.65852	350.59613	8.44785	0.1134815	0.26636959	2.3922852	21	7 22.5	20.8
528936 2009 ER_{32}	16.9	X	206.93720	72.39312	356.48970	10.09640	0.0828881	0.18310245	3.0714252	21	6 21.2	21.7
528937 2009 ES_{32}	16.3	X	287.86758	347.00572	358.81630	9.56332	0.0702179	0.18000108	3.1066045	21	6 11.8	20.8
528938 2009 ET_{32}	16.4	X	305.35689	345.15249	337.39360	7.62552	0.0835301	0.18187941	3.0851789	21	6 3.0	20.7
528939 2009 FH_{15}	16.4	X	133.59077	90.41008	325.54078	23.92869	0.2518286	0.17606878	3.1526891	21	3 24.0	21.9
528940 2009 FL_{15}	17.6	X	117.23423	48.62002	128.09803	6.97337	0.0892641	0.26691987	2.3889961	21	8 1.6	20.8
528941 2009 FP_{18}	16.5	X	130.15648	164.93135	355.43902	20.49874	0.1584481	0.18514045	3.0488438	21	8 6.6	21.6
528942 2009 FN_{25}	16.0	X	150.16582	84.24755	2.63291	25.80640	0.2406152	0.18234332	3.0799440	21	5 13.6	21.7
528943 2009 FU_{26}	17.1	X	321.37891	292.20803	134.20013	24.75133	0.1194105	0.36983221	1.9222044	21	—	—
528944 2009 FB_{44}	16.7	X	53.09133	148.05400	159.50269	11.61229	0.0887945	0.19854534	2.9100218	21	10 30.3	20.8
528945 2009 FQ_{47}	17.0	X	153.32423	7.94467	136.12067	13.12744	0.1384932	0.18852906	3.0122003	21	7 30.2	21.8
528946 2009 FH_{50}	16.4	X	168.91453	21.44033	83.99719	5.44327	0.1388466	0.18322898	3.0700111	21	6 27.7	21.2
528947 2009 FH_{52}	18.0	X	155.43483	50.72963	134.64549	6.50434	0.1512128	0.27499653	2.3419875	21	9 30.1	21.6
528948 2009 FG_{54}	18.5	X	61.30667	17.74999	25.04036	21.34429	0.1254592	0.38376036	1.8754089	21	—	—
528949 2009 FX_{54}	17.0	X	57.66179	223.72382	33.20501	6.92316	0.1178927	0.26615442	2.3935743	21	9 11.5	19.9
528950 2009 FY_{54}	16.9	X	122.71287	124.48403	48.62497	4.67381	0.1604131	0.18481848	3.0523837	21	8 8.9	21.7
528951 2009 FK_{63}	16.5	X	180.41387	52.47705	26.01118	10.51068	0.1242686	0.17696533	3.1420319	21	6 3.6	21.7
528952 2009 FJ_{64}	17.0	X	138.05426	254.96746	294.88359	0.52854	0.1363611	0.18887003	3.0085739	21	9 9.8	21.8
528953 2009 FW_{64}	18.5	X	257.17891	75.86974	100.04871	2.26082	0.1468566	0.29564405	2.2316356	21	—	—
528954 2009 FG_{65}	17.5	X	118.59466	256.23726	354.33370	5.69012	0.1765681	0.19871892	2.9083270	21	11 4.8	22.3
528955 2009 FY_{68}	16.8	X	140.78629	11.90245	189.23482	5.60131	0.0862781	0.19249926	2.9706399	21	9 23.9	21.2
528956 2009 FB_{71}	18.5	X	248.47884	103.74060	94.08915	1.37683	0.1748148	0.29636294	2.2280253	21	—	—
528957 2009 FY_{72}	18.3	X	180.18767	191.01446	68.09030	4.61893	0.1827913	0.28862359	2.2676786	21	—	—
528958 2009 FO_{76}	18.3	X	191.14369	85.57009	129.82424	2.28607	0.1645626	0.28646895	2.2790351	21	12 10.2	21.7
528959 2009 FR_{79}	16.6	X	70.58883	152.73916	64.95690	8.01488	0.0801138	0.18016232	3.1047508	21	7 25.3	20.9
528960 2009 FA_{80}	17.1	X	151.11929	95.82219	37.86334	1.33541	0.0951724	0.18411740	3.0601273	21	7 13.6	21.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
528961 2009 FG_{80}	16.9	X	124.25571	335.92627	188.69904	4.63191	0.0849105	0.18127157	3.0920719	21	7 21.1	21.6
528962 2009 FR_{81}	17.8	X	166.29186	119.72086	92.57939	4.57968	0.1410628	0.28292894	2.2980059	21	11 13.7	21.1
528963 2009 FS_{81}	18.5	X	339.83092	189.32628	190.87594	22.70757	0.0285751	0.35896908	1.9607912	21	11 12.5	20.7
528964 2009 FU_{81}	18.1	X	85.88539	77.41924	202.52492	3.35047	0.1484495	0.27817247	2.3241275	21	11 19.6	21.4
528965 2009 GD_{6}	17.4	X	146.98582	191.93353	55.95843	9.85979	0.2306017	0.20014495	2.8944961	21	11 27.3	22.5
528966 2009 HZ	18.0	X	220.05809	201.09842	29.57649	21.97428	0.0412784	0.37661143	1.8990674	21	—	—
528967 2009 HU_{6}	17.5	X	253.27980	110.25754	44.86896	24.09470	0.1959561	0.29036189	2.2586190	21	11 27.2	20.2
528968 2009 HN_{7}	18.4	X	324.53394	248.50788	199.93490	22.30688	0.0521556	0.36891306	1.9253958	21	—	—
528969 2009 HO_{7}	18.5	X	85.61030	217.44558	199.62207	21.32785	0.0388404	0.38824757	1.8609308	21	—	—
528970 2009 HU_{7}	18.2	X	226.70646	148.98058	76.24091	6.93847	0.0743733	0.29548960	2.2324132	21	—	—
528971 2009 HD_{13}	17.1	X	97.19620	154.03881	51.52570	3.23736	0.1771848	0.18399801	3.0614508	21	8 24.6	21.7
528972 2009 HM_{15}	14.8	X	72.60685	169.55181	24.14658	14.19148	0.2510235	0.09671231	4.7005448	21	7 23.2	21.3
528973 2009 HC_{22}	16.7	X	72.33178	172.45971	52.56419	12.32633	0.1511105	0.18241470	3.0791405	21	8 21.0	21.2
528974 2009 HH_{22}	16.9	X	108.99177	78.12983	117.04581	4.18738	0.1740358	0.18488660	3.0516339	21	8 22.9	21.7
528975 2009 HG_{23}	16.7	X	75.81579	20.33836	240.41694	3.28486	0.0036302	0.19124323	2.9836326	21	9 11.7	21.0
528976 2009 HL_{26}	17.2	X	128.87315	29.66492	188.82211	1.88832	0.1116982	0.19227521	2.9729471	21	10 4.6	21.6
528977 2009 HW_{26}	17.9	X	164.57430	125.36374	30.15767	6.46659	0.1748460	0.27011150	2.3701400	21	8 31.3	21.7
528978 2009 HE_{27}	16.1	X	26.23418	229.18241	30.37514	12.41664	0.0406455	0.17788514	3.1311913	21	7 13.8	20.5
528979 2009 HC_{30}	18.2	X	170.67927	155.23537	60.36734	7.33530	0.0561213	0.28390680	2.2927261	21	11 26.3	21.1
528980 2009 HP_{37}	17.9	X	90.77839	2.07388	56.55233	25.55154	0.0451294	0.38840645	1.8604233	21	—	—
528981 2009 HR_{46}	18.2	X	174.06151	133.89291	74.94714	7.13167	0.1855692	0.28285533	2.2984045	21	11 14.5	21.7
528982 2009 HU_{53}	16.1	X	27.51715	199.50012	58.98447	6.79296	0.2467820	0.17504700	3.1649458	21	8 6.4	19.5
528983 2009 HL_{61}	17.4	X	241.20932	38.77576	200.41718	1.73801	0.0900293	0.22043762	2.7140150	21	—	—
528984 2009 HM_{65}	18.3	X	191.33738	78.53022	181.99071	5.86867	0.1659190	0.29155057	2.2524757	21	—	—
528985 2009 HO_{67}	16.5	X	127.21820	169.92800	49.73669	13.39289	0.0704201	0.18984616	2.9982523	21	10 6.8	21.1
528986 2009 HA_{69}	16.7	X	93.27622	78.98372	116.54957	2.18178	0.1025790	0.17870138	3.1216494	21	7 27.4	21.0
528987 2009 HT_{69}	18.1	X	22.91032	190.41890	63.32487	2.36986	0.1416819	0.25396047	2.4695925	21	7 7.3	20.3
528988 2009 HQ_{70}	17.0	X	76.45944	74.68045	213.52685	8.52935	0.1599227	0.19096760	2.9865027	21	11 8.9	21.4
528989 2009 HW_{76}	18.3	X	210.46262	323.14583	151.68215	0.74918	0.0934429	0.27216443	2.3582064	21	8 25.8	21.4
528990 2009 HX_{78}	18.6	X	178.81873	209.72693	68.23670	5.46391	0.1217429	0.29245431	2.2478330	21	—	—
528991 2009 HE_{82}	18.7	X	179.51716	144.17037	227.24422	30.50145	0.1032197	0.55468550	1.4670272	21	—	—
528992 2009 HX_{89}	18.3	X	185.51101	210.18062	60.72442	2.25362	0.2209171	0.29212309	2.2495317	21	—	—
528993 2009 HE_{91}	16.8	X	96.28004	144.24973	57.78874	1.83429	0.1131146	0.18218744	3.0817005	21	8 10.4	21.3
528994 2009 HM_{93}	16.0	X	108.28658	92.65125	77.79189	25.61868	0.2794881	0.17777567	3.1324766	21	8 4.6	21.5
528995 2009 HU_{100}	18.1	X	218.24653	143.12108	93.77751	5.46070	0.1129835	0.29280691	2.2460280	21	—	—
528996 2009 HY_{102}	17.4	X	267.57406	76.79219	217.57829	12.18464	0.2479876	0.23124432	2.6287866	21	2 15.3	21.9
528997 2009 HW_{104}	16.9	X	106.28379	81.92451	112.96484	5.69524	0.2011710	0.18352728	3.0666836	21	8 22.9	21.8
528998 2009 HK_{108}	16.4	X	27.88890	276.95826	9.75337	7.97781	0.1472103	0.18746154	3.0236250	21	9 2.6	20.1
528999 2009 HV_{108}	18.4	X	99.29211	206.83463	78.95226	24.70510	0.0969079	0.35816173	1.9637367	21	12 19.7	20.8
529000 2009 HZ_{108}	16.7	X	176.42132	100.06258	42.80829	16.47768	0.0927349	0.18672168	3.0316069	21	8 28.9	21.7
529001 2009 HP_{110}	16.9	X	141.05970	28.64376	29.58729	6.80359	0.1848894	0.24322702	2.5417227	21	4 4.2	20.8
529002 2009 HQ_{110}	17.0	X	351.46011	328.00216	72.13204	7.65400	0.1117648	0.28078459	2.3096909	21	12 19.3	19.3
529003 2009 HS_{110}	17.8	X	312.11348	183.69921	116.87450	3.74944	0.1518981	0.24485242	2.5304618	21	5 1.9	20.8
529004 2009 HU_{110}	17.6	X	32.53959	235.06110	84.75005	6.80802	0.1527397	0.26993855	2.3711523	21	11 7.4	20.3
529005 2009 JE	18.0	X	113.47370	287.85220	35.89305	22.53680	0.0506523	0.37162626	1.9160130	21	—	—
529006 2009 JV	18.1	X	156.78506	48.63235	122.66880	5.03668	0.1824370	0.26882454	2.3776984	21	9 12.3	22.0
529007 2009 JQ_{4}	16.6	X	105.86116	93.88404	96.26889	18.45961	0.2498113	0.18206576	3.0830734	21	8 24.9	21.9
529008 2009 JG_{7}	18.5	X	184.42167	215.55094	56.66086	2.75029	0.2065794	0.29104919	2.2550618	21	—	—
529009 2009 JV_{11}	17.0	X	145.41723	84.58106	150.14525	13.85814	0.1764497	0.19560547	2.9391070	21	11 14.4	22.1
529010 2009 JM_{12}	16.6	X	121.34168	212.71899	33.38157	0.91750	0.2111819	0.19354922	2.9598868	21	11 4.9	21.5
529011 2009 JW_{12}	18.2	X	54.08726	232.74943	192.95665	21.89959	0.0705455	0.38423789	1.8738547	21	—	—
529012 2009 JX_{15}	18.0	X	219.85623	119.04912	97.07186	8.60607	0.0638939	0.29056354	2.2575739	21	—	—
529013 2009 JP_{19}	18.5	X	176.41642	12.18671	189.29390	0.56482	0.1319894	0.27829681	2.3234352	21	11 8.8	21.9
529014 2009 JQ_{19}	16.3	X	298.48578	185.82560	194.46172	21.69695	0.0366199	0.17992238	3.1075104	21	8 10.9	21.0
529015 2009 KA_{9}	18.8	X	195.20578	29.61111	223.59261	5.21437	0.2757433	0.28984109	2.2613238	21	—	—
529016 2009 KL_{10}	16.7	X	118.70451	6.83185	222.84735	10.09469	0.2388639	0.18916212	3.0054760	21	10 14.8	21.8
529017 2009 KY_{11}	18.6	X	206.27167	50.30295	171.42683	2.86734	0.1621905	0.28822355	2.2697764	21	—	—
529018 2009 KH_{12}	17.0	X	112.61635	83.02391	155.81656	2.05655	0.1981760	0.18963257	3.0005032	21	10 19.9	21.9
529019 2009 KM_{12}	16.2	X	112.54429	95.29258	61.14068	17.17443	0.2232024	0.17577684	3.1561789	21	7 14.5	21.4
529020 2009 KA_{14}	18.2	X	188.67053	190.21718	87.96434	7.02155	0.2042357	0.29243833	2.2479148	21	—	—
529021 2009 KX_{17}	16.9	X	114.85884	93.06200	122.79946	10.41010	0.1788541	0.18657503	3.0331953	21	9 26.3	21.9
529022 2009 KP_{18}	16.8	X	38.49292	133.09987	186.16648	16.60366	0.2231342	0.18441315	3.0568547	21	11 11.1	20.9
529023 2009 KJ_{19}	16.5	X	89.05518	170.98453	72.19075	9.83914	0.2007989	0.18363439	3.0654909	21	10 7.1	21.3
529024 2009 KU_{19}	16.0	X	66.43654	47.40078	183.31420	3.73737	0.1255132	0.17545654	3.1600189	21	8 9.5	20.3
529025 2009 KE_{23}	18.5	X	160.76967	117.34015	147.27581	5.52684	0.2272792	0.28408172	2.2917849	21	—	—
529026 2009 KM_{26}	16.6	X	117.45413	325.69966	228.85949	11.87253	0.2135211	0.18199238	3.0839020	21	8 27.6	21.8
529027 2009 KQ_{38}	17.6	X	108.62426	47.88771	234.71106	2.83580	0.1210233	0.27693142	2.3310660	21	12 13.6	20.9
529028 2009 LT_{3}	17.6	X	134.50769	199.42965	119.07831	9.46815	0.2365140	0.28545807	2.2844124	21	—	—
529029 2009 LJ_{7}	18.1	X	138.14329	246.05646	95.14764	24.52348	0.0725988	0.37672330	1.8986914	21	—	—
529030 2009 ME_{8}	17.7	X	157.51467	163.60701	128.35134	6.38895	0.2856851	0.28491924	2.2872916	21	—	—
529031 2009 MP_{10}	17.6	X	269.90432	235.93968	131.03493	3.43779	0.1865062	0.23508374	2.6000856	21	5 30.5	21.3
529032 2009 NA	17.5	X	260.84736	99.95188	268.53709	10.11134	0.5582682	0.22847022	2.6500230	21	4 18.8	22.9
529033 2009 NQ	17.8	X	269.74219	111.65102	216.74088	4.08710	0.3512155	0.22959338	2.6413734	21	3 24.6	22.5
529034 2009 OA	16.8	X	251.31757	0.68249	320.44851	6.18760	0.2854428	0.22284590	2.6944261	21	3 7.0	21.4
529035 2009 OF_{1}	17.2	X	254.97985	70.29032	278.01218	10.20278	0.3222994	0.22942977	2.6426290	21	4 4.6	22.1
529036 2009 OO_{5}	16.6	X	243.94290	204.62548	125.86871	16.51928	0.3437116	0.22349652	2.6891945	21	3 15.9	21.7
529037 2009 OB_{9}	17.7	X	270.93773	42.47578	238.17698	4.15868	0.3529285	0.22274012	2.6952791	21	1 29.6	22.5
529038 2009 OL_{11}	17.0	X	251.61112	202.11581	145.48991	9.48714	0.1109732	0.22889863	2.6467155	21	4 26.8	21.0
529039 2009 OR_{13}	17.5	X	306.26806	347.08935	325.63875	3.93738	0.1711261	0.23443268	2.6048974	21	5 4.5	20.9
529040 2009 OT_{17}	17.9	X	83.39698	138.66912	189.15773	2.89928	0.1398588	0.26850617	2.3795776	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529041 2009 OT_{22}	16.9	X	256.91868	211.61745	143.17388	15.22299	0.2775464	0.22896808	2.6461802	21	4 27.5	21.6
529042 2009 OY_{22}	16.9	X	355.05304	206.34976	77.47806	14.51148	0.2344060	0.24363564	2.5388800	21	6 21.1	18.6
529043 2009 OL_{25}	16.2	X	299.28213	357.67212	304.80641	16.18719	0.0924016	0.22614688	2.6681423	21	4 16.9	20.1
529044 2009 OZ_{25}	17.8	X	104.22972	300.36339	27.37781	2.99537	0.2785482	0.27158730	2.3615460	21	—	—
529045 2009 OB_{26}	17.2	X	0.51861	119.37827	259.09571	4.74794	0.1590531	0.25781752	2.4449000	21	12 3.9	19.4
529046 2009 OC_{26}	16.6	X	335.64797	52.16325	227.09206	11.74089	0.2349986	0.23547336	2.5972168	21	4 26.3	19.0
529047 2009 PV	17.9	X	237.41979	38.54295	300.42197	2.16204	0.2174872	0.22274625	2.6952297	21	3 21.5	22.4
529048 2009 PS_{1}	17.3	X	241.04729	230.70374	152.31842	6.36452	0.2434354	0.22843497	2.6502956	21	5 17.9	21.7
529049 2009 PJ_{2}	17.4	X	294.65266	144.39409	175.44611	4.95693	0.3534846	0.23296053	2.6158600	21	4 5.4	21.5
529050 2009 PY_{2}	17.1	X	257.70834	243.86448	99.33962	29.32369	0.4684387	0.22524046	2.6752956	21	4 11.5	22.8
529051 2009 PK_{3}	15.9	X	52.42090	26.89254	285.38704	13.97484	0.2602454	0.17604649	3.1529552	21	11 19.8	20.6
529052 2009 PA_{5}	17.1	X	253.72551	354.76584	301.85019	7.58490	0.2863026	0.21980943	2.7191834	21	2 9.2	21.9
529053 2009 PC_{6}	17.1	X	339.97769	58.44389	243.09950	6.74840	0.1292515	0.24180110	2.5517054	21	6 23.3	19.8
529054 2009 PQ_{6}	16.0	X	181.84491	281.71575	266.91341	10.68365	0.0950701	0.18136380	3.0910236	21	10 15.8	20.9
529055 2009 PN_{10}	16.7	X	210.99247	54.77708	309.66519	11.29236	0.1549749	0.22111390	2.7084782	21	3 26.9	21.4
529056 2009 PO_{11}	16.8	X	254.26246	165.36834	158.68237	12.46100	0.1845618	0.22491564	2.6778708	21	3 23.0	21.1
529057 2009 PK_{13}	17.0	X	281.44492	52.14056	254.11740	2.87139	0.2288827	0.22719785	2.6599077	21	3 19.4	21.0
529058 2009 PZ_{20}	17.6	X	284.01961	19.54416	354.95541	5.43925	0.2523385	0.23501063	2.6006249	21	6 16.3	21.1
529059 2009 PU_{21}	17.4	X	275.41717	331.15402	340.21904	3.54325	0.1656941	0.22398820	2.6852576	21	3 27.6	21.2
529060 2009 QB_{5}	18.2	X	182.31258	248.59106	81.89588	1.37329	0.2294739	0.29102337	2.2551952	21	1 20.5	21.7
529061 2009 QJ_{8}	17.4	X	261.01428	135.89254	178.04788	7.79288	0.2734766	0.22317674	2.6917627	21	3 7.7	21.8
529062 2009 QD_{11}	17.0	X	241.80203	57.00713	306.85770	5.20933	0.2323503	0.22586287	2.6703785	21	4 21.7	21.6
529063 2009 QM_{14}	18.0	X	270.67876	41.03487	328.57692	4.78269	0.3589359	0.23179211	2.6246433	21	5 12.7	22.5
529064 2009 QK_{16}	18.2	X	138.07169	324.67905	353.43111	7.17235	0.1273242	0.27573028	2.3378308	21	—	—
529065 2009 QC_{19}	17.0	X	224.45311	341.04116	35.02314	17.54584	0.3224320	0.22355940	2.6886902	21	4 22.1	22.0
529066 2009 QN_{22}	16.9	X	79.21470	333.68322	350.11802	10.16737	0.2143801	0.26556646	2.3971060	21	—	—
529067 2009 QD_{23}	17.4	X	8.05155	119.59822	273.49388	16.19394	0.0949354	0.34498989	2.0134081	21	—	—
529068 2009 QG_{23}	16.8	X	240.97395	206.92158	154.28328	14.01487	0.1805953	0.22661346	2.6644787	21	4 27.9	21.3
529069 2009 QF_{24}	17.8	X	83.03099	172.59085	172.08879	2.48154	0.2291909	0.26891784	2.3771484	21	—	—
529070 2009 QA_{27}	16.9	X	97.34093	175.93029	114.14604	3.45354	0.3045529	0.18126182	3.0921828	21	12 11.0	22.3
529071 2009 QQ_{28}	16.4	X	273.69442	199.29524	150.27914	15.57423	0.1256490	0.23203365	2.6228215	21	5 23.9	20.4
529072 2009 QU_{28}	17.6	X	18.80467	113.91258	276.60815	18.11389	0.0824027	0.34699994	2.0056252	21	—	—
529073 2009 QM_{30}	16.4	X	268.28319	61.25182	260.31367	13.69376	0.1282348	0.22490017	2.6779936	21	3 31.9	20.6
529074 2009 QH_{32}	18.4	X	144.57825	303.42725	15.42843	2.46979	0.1911999	0.27797574	2.3252239	21	—	—
529075 2009 QL_{33}	16.7	X	262.11554	89.73497	262.96784	11.11417	0.2115066	0.22666551	2.6640708	21	4 27.9	20.9
529076 2009 QJ_{38}	16.9	X	263.98838	6.82120	321.12848	15.34440	0.2139528	0.22513069	2.6761651	21	3 24.9	21.5
529077 2009 QH_{39}	17.8	X	231.85198	57.64168	314.65299	1.11304	0.1106786	0.22377762	2.6869419	21	5 3.3	21.9
529078 2009 QS_{39}	18.4	X	148.37165	300.88713	352.71741	7.78770	0.2407460	0.27579429	2.3374690	21	—	—
529079 2009 QF_{40}	16.8	X	285.40840	321.78380	336.83112	12.49118	0.1414546	0.22616406	2.6680072	21	3 22.5	20.7
529080 2009 QD_{43}	16.6	X	244.62309	13.57015	341.12602	13.52301	0.2623949	0.22450188	2.6811600	21	4 8.0	21.3
529081 2009 QX_{45}	16.2	X	186.46040	87.69391	347.65545	21.74702	0.0764321	0.22814066	2.6525745	21	6 1.4	20.7
529082 2009 QX_{47}	16.7	X	263.65865	19.00662	8.89434	14.22223	0.2794556	0.23142700	2.6274031	21	6 5.6	21.1
529083 2009 QA_{52}	16.8	X	297.35740	48.63920	262.74142	17.06547	0.1838988	0.23055636	2.6340134	21	4 14.6	20.8
529084 2009 QT_{52}	17.2	X	238.91535	45.17274	339.08348	12.75777	0.2749981	0.22640495	2.6661143	21	5 8.9	22.0
529085 2009 QT_{53}	17.7	X	300.39453	58.33929	300.85738	4.33002	0.2531124	0.23723867	2.5843167	21	6 17.9	20.7
529086 2009 QZ_{53}	17.0	X	183.56959	67.67633	318.19792	6.51054	0.2375770	0.21519608	2.7579082	21	4 2.7	21.9
529087 2009 QR_{54}	17.5	X	209.76256	267.35509	176.67029	21.97170	0.0597329	0.23410347	2.6073389	21	7 13.4	21.7
529088 2009 QS_{59}	17.5	X	271.74710	114.24233	221.78791	12.46564	0.3005867	0.22831956	2.6511887	21	4 8.1	21.9
529089 2009 QY_{62}	16.0	X	67.92462	286.01434	10.52365	24.62061	0.3217245	0.17447343	3.1718784	21	11 17.1	21.3
529090 2009 QD_{64}	17.0	X	247.66529	320.69480	18.46835	9.12146	0.0889413	0.22102644	2.7091927	21	4 10.6	20.9
529091 2009 RJ_{4}	17.5	X	269.74652	55.58390	322.78909	8.36002	0.1824111	0.23483781	2.6019006	21	6 14.3	21.4
529092 2009 RR_{7}	16.5	X	218.12854	341.61374	1.81503	11.06951	0.3308143	0.21459351	2.7630686	21	3 12.4	21.7
529093 2009 RV_{12}	18.4	X	229.75846	260.99820	6.99637	19.96304	0.0771390	0.36666890	1.9332440	21	—	—
529094 2009 RO_{13}	18.1	X	239.86097	253.59470	169.66805	4.82731	0.3472847	0.22909034	2.6452387	21	6 26.3	22.8
529095 2009 RS_{18}	17.4	X	59.13210	69.66254	275.09699	4.00991	0.2501726	0.26336784	2.4104283	21	—	—
529096 2009 RR_{20}	16.9	X	200.13935	247.67978	199.25615	21.63283	0.0484491	0.22766021	2.6563051	21	7 4.8	21.2
529097 2009 RQ_{21}	16.1	X	85.78401	83.19074	170.31253	25.61833	0.2357583	0.17393172	3.1784608	21	10 17.3	21.3
529098 2009 RJ_{23}	16.3	X	265.25558	354.57177	10.10522	15.02442	0.1224057	0.22863707	2.6487337	21	5 25.7	20.4
529099 2009 RG_{26}	16.9	X	245.78977	350.17687	22.35451	8.42229	0.3074351	0.22742146	2.6581639	21	5 1.4	21.6
529100 2009 RQ_{29}	18.2	X	268.23038	118.11883	298.59764	2.77275	0.2371083	0.23629087	2.5912228	21	7 26.4	21.6
529101 2009 RA_{32}	17.5	X	280.68119	129.59348	195.13027	12.30971	0.2187647	0.22620736	2.6676666	21	4 14.1	21.5
529102 2009 RD_{39}	17.9	X	30.69625	115.66329	264.62801	5.43685	0.1414523	0.26020677	2.4299107	21	—	—
529103 2009 RM_{39}	17.7	X	71.77246	94.82520	253.22723	4.58056	0.2540831	0.26511033	2.3998547	21	—	—
529104 2009 RQ_{42}	17.2	X	280.02380	25.71739	314.97470	5.25430	0.0538575	0.22625736	2.6672736	21	5 25.9	20.9
529105 2009 RZ_{42}	17.3	X	299.39070	78.15200	234.29981	5.17748	0.1435571	0.22652966	2.6651358	21	4 30.7	20.7
529106 2009 RE_{44}	17.7	X	260.69428	201.59541	204.95844	5.34490	0.2054479	0.23308934	2.6148961	21	7 7.5	21.5
529107 2009 RX_{44}	17.8	X	197.88202	141.88442	265.84967	1.38196	0.1360124	0.21948116	2.7218941	21	5 13.2	22.2
529108 2009 RT_{45}	17.0	X	77.78791	119.25955	203.75771	4.17300	0.2155440	0.17704902	3.1410417	21	12 24.2	21.9
529109 2009 RL_{46}	17.5	X	272.37716	225.17930	193.66632	13.50490	0.2624384	0.23635562	2.5907495	21	7 27.4	21.4
529110 2009 RO_{47}	17.1	X	240.18794	101.93958	192.04505	18.50419	0.3580428	0.21332349	2.7740243	21	1 24.2	22.7
529111 2009 RP_{48}	17.9	X	113.70438	318.79437	1.57695	3.39752	0.2671965	0.27037032	2.3686271	21	—	—
529112 2009 RM_{51}	17.3	X	167.83322	47.99500	25.81083	13.57889	0.1441559	0.21588894	2.7520044	21	5 14.5	21.8
529113 2009 RX_{52}	17.3	X	214.15266	353.45138	31.57699	5.75822	0.1799136	0.21847434	2.7302500	21	4 28.9	21.7
529114 2009 RH_{58}	16.9	X	102.41858	98.70160	203.31538	12.52101	0.3539654	0.18263742	3.0766366	21	12 29.0	22.7
529115 2009 RX_{60}	17.1	X	102.92947	26.30955	271.37244	8.83077	0.2373333	0.26565575	2.3965688	21	12 30.3	21.2
529116 2009 RC_{72}	16.7	X	63.72062	166.11994	20.50616	14.27383	0.0417152	0.22089421	2.7102738	21	5 23.1	20.5
529117 2009 RF_{73}	16.9	X	246.93393	65.37386	332.68239	23.21219	0.3383610	0.22890939	2.6466325	21	5 28.2	22.0
529118 2009 RT_{74}	18.4	X	123.57340	359.14235	6.57927	20.08228	0.1129323	0.36191125	1.9501499	21	—	—
529119 2009 RE_{75}	16.7	X	216.95320	86.71209	240.38696	12.98571	0.2015593	0.21283573	2.7782609	21	2 16.1	21.7
529120 2009 RN_{75}	17.8	X	242.42724	133.39907	183.61592	9.99917	0.3129868	0.21818736	2.7326436	21	2 23.1	22.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529121 2009 SV_{1}	17.4	X	213.14856	28.21966	347.43328	11.71834	0.2290167	0.21939351	2.7226190	21	4 11.6	22.3
529122 2009 SU_{4}	17.5	X	302.84976	46.36381	283.61613	6.08016	0.1858505	0.23396327	2.6083804	21	5 21.8	20.8
529123 2009 SJ_{11}	17.2	X	174.24897	175.07703	339.35316	4.68020	0.1108635	0.24211969	2.5494665	21	9 4.3	20.9
529124 2009 SC_{12}	17.0	X	223.17913	16.89311	358.40024	16.91588	0.2565196	0.22171198	2.7036052	21	4 16.5	21.9
529125 2009 SC_{16}	16.3	X	107.03968	275.47938	353.47189	16.56478	0.2856214	0.17913896	3.1165638	21	11 17.4	22.0
529126 2009 SP_{18}	16.8	X	260.51382	337.29281	9.00371	17.11991	0.2183173	0.22596916	2.6695410	21	4 16.4	21.1
529127 2009 SJ_{21}	16.7	X	193.11534	37.47597	346.07815	15.75772	0.1719707	0.21355131	2.7720510	21	4 4.2	21.5
529128 2009 SN_{22}	16.8	X	340.93907	337.62177	293.90136	8.59009	0.1010097	0.23327782	2.6134874	21	5 12.2	20.0
529129 2009 SS_{26}	17.0	X	256.30192	358.06732	3.64481	11.33957	0.0546140	0.22573790	2.6713640	21	5 20.7	20.9
529130 2009 SU_{26}	17.3	X	252.04084	63.09721	4.09497	15.32548	0.0917742	0.23734696	2.5835306	21	8 17.1	21.0
529131 2009 SD_{33}	17.7	X	221.91530	70.27129	322.13324	4.10824	0.1292351	0.22189331	2.7021321	21	5 16.7	21.9
529132 2009 SP_{34}	18.0	X	219.16818	155.66628	227.81210	4.45957	0.1731663	0.21953408	2.7214566	21	5 1.9	22.4
529133 2009 SV_{34}	17.7	X	217.56365	183.48288	201.47669	14.26148	0.2592692	0.21946888	2.7219956	21	4 30.5	22.5
529134 2009 SP_{37}	17.1	X	275.88888	8.17239	11.11534	17.52586	0.1760776	0.23207370	2.6225197	21	6 24.2	21.1
529135 2009 SZ_{37}	17.3	X	195.07985	77.09281	10.21366	12.48214	0.2409945	0.22317032	2.6918143	21	6 28.1	22.2
529136 2009 SR_{40}	18.2	X	155.72948	334.34504	11.99298	20.64684	0.0657386	0.36468500	1.9402489	21	—	—
529137 2009 SE_{43}	17.7	X	226.10046	87.79951	307.94172	3.78665	0.1258413	0.22260481	2.6963712	21	5 25.9	22.0
529138 2009 SN_{48}	18.2	X	104.35749	27.92326	303.67334	1.99470	0.2069577	0.26774475	2.3840868	21	—	—
529139 2009 SH_{50}	17.4	X	267.01373	187.91704	160.19159	1.84910	0.1157048	0.22735485	2.6586831	21	5 11.8	21.1
529140 2009 SN_{52}	17.5	X	247.37541	353.66567	20.63223	8.50375	0.1030383	0.22556463	2.6727318	21	5 22.2	21.5
529141 2009 SE_{53}	17.8	X	250.06688	67.43765	346.54368	14.12386	0.2799608	0.23202386	2.6228953	21	6 30.7	22.3
529142 2009 SA_{57}	17.3	X	226.06405	153.79657	218.39423	13.35482	0.0588279	0.21881816	2.7273893	21	5 1.3	21.2
529143 2009 SD_{57}	17.1	X	232.63270	176.51613	226.70339	10.68415	0.0766371	0.22649401	2.6654154	21	6 16.5	21.0
529144 2009 SA_{59}	17.9	X	235.87913	75.02182	310.28731	4.11620	0.1660750	0.22334358	2.6904220	21	5 19.2	22.1
529145 2009 SG_{67}	17.9	X	282.50665	291.67123	74.92038	2.81189	0.2262759	0.23161922	2.6259492	21	6 7.9	21.4
529146 2009 SP_{71}	17.5	X	259.22777	159.23753	184.96604	5.60928	0.2471527	0.22538198	2.6741756	21	4 14.8	21.9
529147 2009 ST_{71}	17.8	X	211.91938	58.05496	355.07988	13.18211	0.2263975	0.22451771	2.6810340	21	5 26.8	22.6
529148 2009 SD_{72}	18.3	X	96.95780	130.35665	209.82712	1.54701	0.2583593	0.27070266	2.3666881	21	—	—
529149 2009 SF_{75}	17.5	X	247.63730	305.07864	60.96091	6.63246	0.1373839	0.22263954	2.6960908	21	5 10.9	21.5
529150 2009 SY_{75}	16.7	X	229.56814	313.46513	63.44146	7.20945	0.0413716	0.21967111	2.7203247	21	5 13.4	20.5
529151 2009 SJ_{81}	17.8	X	224.85558	117.38458	334.55692	8.97710	0.1718106	0.23523782	2.5989502	21	8 4.1	21.8
529152 2009 SG_{98}	17.1	X	238.78582	145.05488	215.00517	13.00317	0.2729949	0.22260506	2.6963692	21	4 14.0	21.9
529153 2009 SY_{99}	16.9	X	207.15548	54.99084	7.09702	15.37916	0.2560248	0.22098664	2.7095180	21	6 2.2	22.0
529154 2009 SC_{103}	16.8	X	307.72448	334.83626	18.05125	5.42937	0.3485784	0.23425425	2.6062199	21	6 2.5	20.0
529155 2009 SE_{105}	16.6	X	223.89977	33.41775	4.26987	15.09092	0.2219535	0.22384103	2.6864344	21	5 16.3	21.3
529156 2009 SX_{112}	17.3	X	266.32052	158.88621	203.31379	11.36970	0.0931003	0.22880565	2.6474324	21	6 1.9	21.1
529157 2009 SJ_{114}	17.3	X	187.85760	100.06214	331.49342	5.36746	0.1543179	0.22250701	2.6971613	21	6 1.8	21.8
529158 2009 SB_{115}	17.1	X	245.57502	31.30005	321.29095	4.62766	0.0926057	0.22156593	2.7047932	21	4 23.1	21.2
529159 2009 SO_{118}	17.9	X	258.18991	214.82403	221.59111	4.56690	0.1051739	0.23954624	2.5676933	21	8 27.1	21.3
529160 2009 SV_{118}	17.5	X	204.96646	254.14022	200.90839	12.39257	0.2278406	0.22818044	2.6522661	21	7 13.1	22.3
529161 2009 SW_{121}	16.7	X	239.27241	147.58125	201.44939	7.00934	0.0948083	0.21884904	2.7271328	21	4 13.9	20.8
529162 2009 SD_{122}	18.2	X	348.46163	51.11232	349.02198	3.60147	0.1784023	0.25314508	2.4748928	21	12 13.8	20.4
529163 2009 SW_{122}	16.3	X	291.20287	50.18723	280.73887	13.30988	0.2554203	0.22925279	2.6439889	21	4 23.2	20.4
529164 2009 SA_{126}	17.7	X	286.68418	353.94947	329.49072	4.52961	0.1612971	0.22506567	2.6766806	21	4 24.5	21.6
529165 2009 SJ_{127}	17.4	X	246.82015	162.90954	217.66344	6.87626	0.1562010	0.22606356	2.6687978	21	5 26.6	21.4
529166 2009 SF_{129}	17.8	X	198.56639	3.79061	46.82664	2.45538	0.0795058	0.22037589	2.7145218	21	5 18.4	21.7
529167 2009 SK_{129}	18.1	X	292.42219	357.86147	23.83503	6.43138	0.1872705	0.23632316	2.5909867	21	7 21.1	21.3
529168 2009 SZ_{129}	17.6	X	223.86450	187.43177	171.65194	3.65273	0.2074610	0.21714055	2.7414191	21	4 5.9	22.3
529169 2009 SW_{134}	17.5	X	255.25999	53.72986	10.97010	13.88243	0.1545217	0.23419324	2.6066726	21	8 8.1	21.4
529170 2009 SA_{137}	17.7	X	191.59280	236.05167	207.56065	2.40284	0.1787877	0.22216443	2.6999333	21	6 21.1	22.2
529171 2009 SW_{139}	17.7	X	285.50858	103.97995	339.67221	9.98721	0.2192443	0.24515449	2.5283828	21	9 27.2	20.5
529172 2009 SM_{148}	18.4	X	168.86433	285.88583	16.29693	4.58820	0.2555480	0.27888206	2.3201835	21	—	—
529173 2009 SE_{150}	15.9	X	69.21646	312.27313	354.15839	13.90612	0.2813312	0.17503736	3.1650619	21	12 1.3	21.1
529174 2009 SF_{150}	17.1	X	190.84503	77.83611	354.31807	13.15898	0.1836337	0.22276315	2.6950933	21	6 3.6	21.9
529175 2009 SN_{151}	17.8	X	97.15602	2.98161	352.21580	4.73495	0.2404527	0.27213241	2.3583914	21	—	—
529176 2009 SM_{158}	18.1	X	204.58800	126.71164	261.41956	3.60643	0.1687379	0.21638911	2.7477620	21	4 23.9	22.7
529177 2009 SK_{160}	17.8	X	201.98185	89.61539	332.47271	2.50580	0.1755331	0.22124267	2.7074272	21	6 3.1	22.3
529178 2009 SS_{161}	17.1	X	214.20774	27.25735	334.21056	5.07973	0.1607669	0.22040432	2.7142883	21	3 30.3	21.5
529179 2009 SM_{164}	17.6	X	91.18157	278.51651	51.26338	4.05482	0.1407080	0.26237447	2.4165086	21	—	—
529180 2009 SQ_{166}	16.9	X	197.83721	354.34808	28.63814	11.65479	0.3168381	0.21406740	2.7675939	21	4 13.7	22.1
529181 2009 SH_{171}	17.5	X	248.58695	199.08107	187.60333	6.94623	0.3051396	0.22839552	2.6506008	21	5 23.4	22.1
529182 2009 SD_{188}	17.5	X	238.46526	224.04710	156.20136	6.09279	0.1549511	0.22300653	2.6931321	21	5 19.0	21.7
529183 2009 SF_{188}	17.4	X	210.94473	244.37422	163.06552	6.88598	0.0744643	0.22154913	2.7049299	21	5 29.8	21.4
529184 2009 SC_{192}	18.1	X	288.77503	102.63748	287.78709	3.15462	0.1236814	0.23805207	2.5784264	21	8 5.2	21.1
529185 2009 SZ_{196}	17.4	X	209.15315	70.89160	358.07612	14.98722	0.2128962	0.22481387	2.6786789	21	6 16.2	22.2
529186 2009 SN_{199}	17.3	X	230.94028	49.47737	313.17155	3.87625	0.1312956	0.21934258	2.7230404	21	4 17.7	21.5
529187 2009 SA_{205}	16.9	X	202.03919	170.21825	206.15243	7.67238	0.2369780	0.21408136	2.7674736	21	4 7.9	21.6
529188 2009 SF_{208}	17.1	X	292.47629	295.31733	7.36939	10.82478	0.1697970	0.22275392	2.6951678	21	4 4.6	20.9
529189 2009 SA_{209}	17.5	X	229.94180	278.19054	196.00907	27.37297	0.3691852	0.23329689	2.6133450	21	8 14.0	22.6
529190 2009 SB_{209}	17.9	X	280.81208	159.97698	219.97459	2.12172	0.2383947	0.23362440	2.6109021	21	6 22.0	21.5
529191 2009 SM_{212}	17.7	X	231.41216	345.15480	31.50973	2.12350	0.0912062	0.22087073	2.7104659	21	5 10.3	21.7
529192 2009 SS_{215}	16.6	X	91.36564	102.81715	186.74288	14.97463	0.2169023	0.17585544	3.1552384	21	11 29.8	21.9
529193 2009 SS_{224}	17.4	X	316.34126	158.31846	300.99520	6.50974	0.1008110	0.26047300	2.4282547	21	—	—
529194 2009 SA_{235}	17.0	X	267.63787	47.79318	331.08351	11.20696	0.3123612	0.22959251	2.6413802	21	5 25.5	21.5
529195 2009 SE_{235}	17.6	X	231.62487	65.71243	36.64026	13.44393	0.2365670	0.23062936	2.6334575	21	8 23.0	22.1
529196 2009 SK_{241}	17.1	X	261.25717	85.35748	358.36290	28.74840	0.3233368	0.23579192	2.5948769	21	8 24.9	21.3
529197 2009 SS_{243}	16.2	X	190.41611	166.92573	276.10902	13.35151	0.0275280	0.22743397	2.6580664	21	6 21.7	19.9
529198 2009 ST_{248}	17.9	X	169.90962	219.03380	232.74124	1.56566	0.2032931	0.21890114	2.7267001	21	6 12.7	22.5
529199 2009 SX_{250}	17.3	X	243.17026	352.22224	0.69818	9.37878	0.1815872	0.22028146	2.7152975	21	4 13.5	21.8
529200 2009 SG_{262}	17.5	X	238.40548	66.35317	290.59402	3.74058	0.1297025	0.22067797	2.7120440	21	4 18.2	21.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529201 2009 SB_{267}	17.1	X	197.34133	174.80476	237.60037	4.05530	0.0550995	0.21863344	2.7289254	21	5 20.0	21.0
529202 2009 SB_{269}	17.7	X	125.35498	321.58763	15.83155	6.32976	0.2444915	0.27582934	2.3372710	21	—	—
529203 2009 SS_{269}	17.0	X	211.13278	38.62405	21.12552	13.96803	0.1096550	0.22515069	2.6760067	21	6 9.5	21.3
529204 2009 SC_{276}	17.4	X	256.66654	322.14129	20.77109	13.73869	0.1837990	0.22264014	2.6960860	21	4 15.2	21.7
529205 2009 SW_{279}	17.5	X	281.26179	353.64974	26.70432	13.97286	0.1864500	0.23400785	2.6080491	21	7 1.9	21.3
529206 2009 SJ_{280}	17.5	X	232.62880	233.83328	131.82861	3.99666	0.1359871	0.21999588	2.7176468	21	4 26.4	21.7
529207 2009 SA_{288}	17.3	X	274.91321	107.46472	222.13192	7.02524	0.2913548	0.22568999	2.6717420	21	4 4.5	21.7
529208 2009 SF_{288}	18.4	X	258.32392	168.04133	249.19165	4.23455	0.2372123	0.23312475	2.6146313	21	7 15.1	22.2
529209 2009 SO_{288}	17.3	X	213.58727	201.92018	177.97447	10.31717	0.2449079	0.21890531	2.7266654	21	4 22.8	22.1
529210 2009 SP_{291}	17.0	X	194.42856	51.58988	38.45203	22.50014	0.0403892	0.22722179	2.6597209	21	7 6.2	21.2
529211 2009 SX_{301}	17.9	X	106.13262	138.03724	192.70321	7.45591	0.1001678	0.27047334	2.3680257	21	—	—
529212 2009 SO_{304}	18.3	X	247.92211	197.65124	184.66669	2.55437	0.2295064	0.22827817	2.6515091	21	5 22.9	22.6
529213 2009 SU_{311}	17.4	X	260.42605	209.42514	174.74121	14.14906	0.1720937	0.23216723	2.6218154	21	6 13.6	21.6
529214 2009 SC_{312}	17.3	X	256.71709	14.27562	1.41022	10.40869	0.0899883	0.23050306	2.6344194	21	6 5.7	21.2
529215 2009 SW_{324}	16.1	X	78.34395	270.95016	24.31689	25.35519	0.3017587	0.17445664	3.1720818	21	11 23.8	21.5
529216 2009 SZ_{327}	17.6	X	242.05314	184.82020	214.49151	5.21948	0.2048090	0.22679813	2.6630321	21	6 9.9	21.8
529217 2009 SS_{330}	16.7	X	218.90684	28.82559	7.96862	9.02320	0.2813069	0.22410816	2.6842993	21	5 11.2	21.6
529218 2009 SE_{333}	17.5	X	271.33585	306.97983	21.22552	13.64627	0.2845195	0.22567411	2.6718673	21	4 3.1	21.9
529219 2009 SU_{334}	17.2	X	276.22197	328.28798	351.89632	6.04382	0.2912023	0.22517333	2.6758273	21	3 25.8	21.6
529220 2009 SL_{338}	17.5	X	55.23809	9.87315	357.97711	4.98400	0.2349670	0.26310384	2.4120405	21	—	—
529221 2009 SE_{341}	18.0	X	233.87262	267.54500	140.97296	2.79445	0.2044139	0.22755209	2.6571465	21	6 13.9	22.4
529222 2009 SL_{345}	16.7	X	47.60199	140.62455	198.92822	3.86804	0.1263210	0.17382869	3.1797165	21	11 29.9	21.1
529223 2009 SM_{345}	18.2	X	253.53089	226.78568	185.83316	4.38663	0.3108333	0.23237293	2.6202679	21	6 26.9	22.5
529224 2009 ST_{349}	16.7	X	255.23368	19.80175	35.67376	15.91970	0.0528426	0.23233134	2.6205806	21	8 11.9	20.6
529225 2009 SP_{351}	17.1	X	283.09081	119.69611	312.36038	13.76497	0.2549976	0.23994829	2.5648243	21	8 29.7	20.3
529226 2009 SU_{352}	16.2	X	98.38376	72.09851	231.35781	24.57439	0.3117577	0.17549548	3.1595514	21	12 22.9	22.0
529227 2009 SV_{352}	18.2	X	146.88310	188.32857	167.22378	3.95970	0.1892144	0.28318429	2.2966242	21	1 13.8	21.3
529228 2009 SR_{357}	18.2	X	78.79124	151.80848	202.27820	9.71530	0.1595349	0.26531343	2.3986298	21	—	—
529229 2009 SY_{359}	17.2	X	148.25751	94.37545	32.29868	15.95374	0.2237934	0.22085790	2.7105708	21	7 10.4	22.1
529230 2009 SD_{369}	16.7	X	257.32168	36.05489	253.99950	8.62718	0.1863889	0.21094197	2.7948643	21	2 9.3	21.4
529231 2009 SJ_{370}	17.7	X	266.76364	248.23530	137.25814	2.81129	0.0951842	0.23197993	2.6232264	21	7 2.9	21.3
529232 2009 SK_{370}	17.7	X	204.06902	14.89684	60.70359	4.49715	0.0674764	0.22690624	2.6621862	21	6 26.8	21.5
529233 2009 SN_{370}	17.0	X	220.63222	190.32526	183.80047	12.55575	0.1516339	0.21809026	2.7334547	21	4 24.8	21.5
529234 2009 SB_{371}	17.1	X	258.92160	288.75217	55.78388	4.61262	0.1115640	0.21541320	2.7560547	21	4 29.1	21.0
529235 2009 SG_{371}	17.5	X	338.58498	213.85803	222.84142	2.57764	0.1333364	0.25848184	2.4407092	21	—	—
529236 2009 SP_{371}	16.9	X	212.01904	352.34284	23.74363	6.57771	0.0655342	0.21287984	2.7778771	21	4 19.8	20.9
529237 2009 SG_{372}	18.0	X	358.66864	299.17662	22.14767	5.72304	0.0736007	0.23964383	2.5669961	21	8 30.9	20.9
529238 2009 SM_{372}	17.8	X	255.07337	15.37784	8.80337	3.99033	0.1270808	0.22749952	2.6575558	21	6 11.9	21.7
529239 2009 SP_{372}	17.1	X	205.44912	1.69384	58.74032	9.72425	0.1328944	0.22284953	2.6943969	21	6 5.2	21.2
529240 2009 TC_{6}	15.4	X	63.94226	283.37956	41.63191	25.86161	0.2939514	0.17352087	3.1834759	21	12 17.4	20.7
529241 2009 TL_{7}	17.3	X	220.90656	149.88604	239.71392	4.28880	0.2050708	0.22011823	2.7166397	21	5 9.5	21.8
529242 2009 TM_{9}	18.5	X	145.21606	337.99628	21.93444	20.77420	0.0860838	0.36592981	1.9358462	21	—	—
529243 2009 TJ_{14}	16.8	X	277.83427	306.88802	29.25149	12.27368	0.1925321	0.22424818	2.6831818	21	4 27.4	20.6
529244 2009 TX_{15}	17.0	X	246.42420	10.68522	56.56407	14.96971	0.2302671	0.23124878	2.6287528	21	7 19.4	21.3
529245 2009 TQ_{18}	18.2	X	243.00387	189.40114	263.41037	1.61080	0.1919605	0.23673320	2.5879940	21	8 19.8	22.0
529246 2009 TM_{20}	15.9	X	207.99344	329.59017	38.60439	14.00932	0.0289225	0.21403707	2.7678553	21	4 9.8	19.8
529247 2009 TC_{21}	16.5	X	202.57158	330.69077	42.44483	13.50985	0.1512740	0.21437110	2.7649793	21	4 9.1	21.0
529248 2009 TF_{22}	17.0	X	229.44234	153.99863	206.89026	9.36589	0.2558892	0.21835861	2.7312147	21	4 9.4	21.7
529249 2009 TX_{23}	18.0	X	258.64572	31.86702	32.11184	4.68518	0.2603245	0.23397440	2.6082977	21	7 23.5	22.0
529250 2009 TL_{26}	17.6	X	249.24432	199.35679	163.10531	5.35786	0.2907932	0.22441853	2.6818238	21	4 26.2	22.2
529251 2009 TP_{26}	17.2	X	236.25431	302.54242	45.21612	9.88043	0.2652695	0.21916556	2.7245065	21	4 2.3	22.0
529252 2009 TW_{26}	16.8	X	267.35860	326.29475	40.29267	15.75630	0.1731027	0.22915990	2.6447033	21	5 25.5	20.8
529253 2009 TQ_{30}	17.5	X	283.94136	227.44068	93.79226	3.14577	0.0760228	0.22213684	2.7001568	21	5 4.1	21.2
529254 2009 TU_{35}	17.0	X	206.51504	227.55137	200.94083	12.62629	0.2383496	0.22354893	2.6887741	21	6 13.5	21.9
529255 2009 TA_{45}	17.3	X	234.23919	29.09576	351.26504	18.19646	0.2630869	0.22312205	2.6922025	21	4 28.4	22.3
529256 2009 TN_{47}	16.9	X	256.44356	321.87288	1.62295	7.02071	0.3085164	0.21904611	2.7254969	21	3 14.6	21.7
529257 2009 TW_{49}	16.3	X	303.29132	185.36434	217.03395	9.09221	0.0495484	0.15537904	3.4266869	21	9 12.7	21.2
529258 2009 US_{5}	17.3	X	262.04979	37.47951	345.70450	12.97559	0.2741243	0.22790861	2.6543747	21	5 29.6	21.8
529259 2009 UG_{12}	17.1	X	222.67948	211.18601	185.97518	13.45133	0.2043100	0.22553751	2.6729461	21	5 22.3	21.7
529260 2009 UT_{15}	17.7	X	256.57567	38.72038	21.63094	13.99558	0.2637298	0.23326904	2.6135530	21	7 18.4	22.0
529261 2009 UB_{16}	17.3	X	260.66843	207.09926	215.23320	13.45571	0.2281051	0.23229548	2.6208503	21	7 22.3	21.5
529262 2009 UG_{25}	18.0	X	155.78221	110.22038	209.69845	4.40071	0.3067838	0.27774666	2.3265023	21	—	—
529263 2009 UK_{27}	16.9	X	238.19662	331.36953	57.55917	9.61828	0.2690267	0.22258342	2.6965440	21	5 19.5	21.4
529264 2009 UU_{29}	17.4	X	240.92234	358.95733	46.67046	5.88771	0.0557717	0.22549146	2.6733099	21	7 2.9	21.2
529265 2009 US_{35}	17.8	X	213.78650	19.36009	49.68484	10.52196	0.1615458	0.22131625	2.7068271	21	6 23.2	22.3
529266 2009 UX_{35}	17.8	X	246.34301	123.98677	210.80902	12.20824	0.2219646	0.21658404	2.7461131	21	3 22.9	22.5
529267 2009 UB_{39}	16.5	X	197.54873	137.78706	220.03097	14.48989	0.1606185	0.20616115	2.8379070	21	3 10.0	21.4
529268 2009 UF_{39}	17.1	X	250.10850	306.49700	58.49225	5.02988	0.2305282	0.22133035	2.7067122	21	5 3.7	21.5
529269 2009 UW_{39}	17.5	X	240.64785	133.63698	238.68647	6.66132	0.2242378	0.21932318	2.7232010	21	5 3.8	22.1
529270 2009 UG_{40}	16.6	X	99.63542	85.82069	182.90188	25.14542	0.2815215	0.17684482	3.1434591	21	11 18.9	22.2
529271 2009 UQ_{42}	17.2	X	213.40838	347.80496	38.48836	4.86329	0.0824544	0.21759588	2.7375933	21	5 3.6	21.3
529272 2009 UA_{45}	16.9	X	217.89247	349.58471	37.71962	15.86205	0.1844711	0.21852906	2.7297943	21	5 4.2	21.5
529273 2009 UV_{47}	17.1	X	208.77097	353.18932	33.00575	13.96871	0.1967657	0.21523219	2.7575997	21	4 25.5	21.8
529274 2009 UM_{49}	17.2	X	193.64764	95.53927	35.75562	13.29374	0.2121030	0.23096477	2.6309074	21	8 27.5	21.8
529275 2009 UN_{61}	17.4	X	272.08092	6.83699	31.33576	15.49198	0.1087412	0.23547773	2.5971846	21	7 31.8	21.2
529276 2009 UN_{66}	16.8	X	216.49602	67.90747	34.73122	22.01551	0.1357435	0.23280334	2.6170373	21	8 22.9	21.3
529277 2009 UM_{72}	17.4	X	209.06904	345.64313	56.46239	10.27724	0.3004121	0.21786919	2.7353034	21	5 13.2	22.4
529278 2009 UQ_{73}	17.2	X	253.97843	314.72000	37.27674	6.81278	0.0670096	0.21949606	2.7217709	21	5 6.8	20.9
529279 2009 UD_{74}	17.9	X	276.65835	83.21022	231.75321	4.78084	0.1563660	0.21969289	2.7201449	21	4 3.6	22.0
529280 2009 UU_{74}	17.4	X	234.81450	199.15348	221.46460	11.83354	0.1460062	0.22870480	2.6482107	21	7 3.5	21.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529281 2009 UT_{83}	17.8	X	197.18876	207.02032	206.17297	2.53908	0.2136740	0.21555645	2.7548335	21	5 19.2	22.4
529282 2009 UB_{89}	17.1	X	223.69266	321.83225	61.87212	10.55842	0.2282248	0.21911312	2.7249411	21	5 5.5	21.8
529283 2009 US_{91}	17.1	X	229.22603	248.57745	149.05510	8.67426	0.2976970	0.22224547	2.6992769	21	5 23.7	22.0
529284 2009 UX_{93}	16.9	X	216.68710	358.28363	11.19167	20.55414	0.2892649	0.21607818	2.7503973	21	4 7.8	21.9
529285 2009 UY_{95}	17.2	X	177.85171	6.74629	47.58492	10.01556	0.1564221	0.21415832	2.7668105	21	5 3.7	21.7
529286 2009 UB_{97}	17.0	X	229.60017	328.23323	38.74037	9.16621	0.1398639	0.21394855	2.7686188	21	4 23.9	21.4
529287 2009 UC_{101}	17.8	X	281.98385	287.95954	96.21768	2.64202	0.1480858	0.23110569	2.6298378	21	7 13.8	21.3
529288 2009 UE_{103}	16.6	X	182.69065	347.61928	70.57238	11.53500	0.2789700	0.21266119	2.7797809	21	5 15.6	21.7
529289 2009 UY_{103}	17.0	X	215.46743	27.26684	47.09949	12.30871	0.1688090	0.22463870	2.6800712	21	7 1.8	21.5
529290 2009 UW_{110}	17.5	X	234.04706	319.91862	52.20946	10.46276	0.1975682	0.21761364	2.7374444	21	5 1.3	22.0
529291 2009 UA_{111}	17.9	X	195.20067	180.21555	231.29265	3.84049	0.1955434	0.21463619	2.7627022	21	5 15.5	22.6
529292 2009 UY_{111}	17.0	X	196.97972	349.88450	53.11293	12.83411	0.0220770	0.21281782	2.7784168	21	5 8.8	20.8
529293 2009 UZ_{111}	16.9	X	194.83561	338.16945	51.51144	5.03819	0.0794174	0.21002192	2.8030206	21	4 19.6	21.0
529294 2009 UG_{112}	16.6	X	278.30881	73.24685	224.52673	14.28218	0.1358522	0.21486768	2.7607176	21	3 14.9	20.9
529295 2009 UT_{117}	17.6	X	220.51849	283.68466	97.43930	4.37396	0.1172721	0.21778850	2.7359790	21	5 4.6	21.9
529296 2009 UV_{120}	17.8	X	237.99260	4.51997	33.80192	1.42246	0.0895825	0.22715037	2.6602784	21	6 15.2	21.4
529297 2009 UJ_{121}	17.1	X	241.00735	303.66817	28.03311	8.47417	0.2302732	0.21569772	2.7536306	21	3 19.3	21.7
529298 2009 UE_{125}	17.4	X	263.33618	215.93615	180.66741	5.68336	0.2471115	0.23065133	2.6332903	21	6 22.9	21.5
529299 2009 UY_{126}	17.3	X	248.11558	121.55409	224.98460	7.32210	0.1891373	0.21901263	2.7257746	21	4 10.8	21.7
529300 2009 UP_{127}	16.8	X	208.64756	145.83713	288.25980	12.08287	0.2210819	0.22146322	2.7056294	21	6 23.2	21.5
529301 2009 UY_{129}	16.8	X	280.60882	333.86101	23.30635	19.39144	0.2837082	0.22866816	2.6484936	21	5 11.2	21.0
529302 2009 UB_{133}	16.4	X	242.51266	302.22556	23.02134	12.88992	0.2037704	0.21395363	2.7685749	21	3 16.1	21.1
529303 2009 US_{135}	17.2	X	245.42972	194.95350	228.09274	4.25096	0.2885713	0.22911808	2.6450251	21	7 4.8	21.7
529304 2009 UY_{135}	17.2	X	240.17274	46.98579	29.86894	31.74690	0.2595560	0.23144775	2.6272460	21	8 2.4	22.2
529305 2009 UL_{137}	17.7	X	198.86673	125.71769	260.73788	5.72111	0.2913966	0.21607273	2.7504436	21	4 15.7	22.9
529306 2009 UC_{138}	17.2	X	246.73841	181.07043	249.30255	12.58668	0.2289990	0.22881333	2.6473732	21	7 18.5	21.5
529307 2009 UE_{146}	17.4	X	12.25204	321.58061	61.38016	7.92509	0.1260955	0.25137086	2.4865246	21	12 22.8	20.2
529308 2009 UE_{147}	17.1	X	265.87572	285.62223	55.18322	6.23078	0.0601012	0.21685651	2.7438123	21	5 8.8	20.8
529309 2009 UA_{148}	17.2	X	175.95246	204.57314	223.74003	4.08525	0.0897520	0.21377674	2.7701020	21	5 17.3	21.2
529310 2009 UQ_{148}	17.8	X	222.07980	283.37402	86.97312	2.86755	0.2257634	0.21504278	2.7592188	21	4 17.9	22.4
529311 2009 UW_{152}	16.8	X	163.89876	351.54540	56.82606	7.20053	0.0559841	0.20721722	2.8282567	21	4 9.8	20.9
529312 2009 UF_{159}	15.6	X	165.52597	145.78933	199.29469	2.41114	0.2150098	0.12432044	3.9759510	21	2 11.6	22.1
529313 2009 UM_{159}	17.7	X	83.90161	140.68945	28.56008	5.88255	0.0058237	0.21742344	2.7390406	21	5 25.5	21.5
529314 2009 UJ_{160}	17.5	X	223.49601	290.25463	55.22053	4.03853	0.2268658	0.21233789	2.7826017	21	3 21.4	22.3
529315 2009 UL_{160}	18.3	X	281.53884	87.77425	359.86399	2.76705	0.1326606	0.24310772	2.5425541	21	10 12.9	21.4
529316 2009 UT_{160}	17.5	X	35.81238	245.87657	37.19428	4.68265	0.0849418	0.23460706	2.6036064	21	9 6.1	20.6
529317 2009 VF_{2}	16.7	X	180.79938	143.21544	274.33255	15.43146	0.2257697	0.21323759	2.7747692	21	5 8.7	21.7
529318 2009 VK_{2}	17.3	X	264.88832	44.32761	349.44439	11.64328	0.3027940	0.22928851	2.6437143	21	6 13.7	21.8
529319 2009 VT_{4}	17.3	X	236.45300	43.87425	339.07558	2.17143	0.2027197	0.22110541	2.7085476	21	5 14.5	21.8
529320 2009 VO_{8}	17.7	X	211.20092	170.20566	255.61599	2.54352	0.1329546	0.22285549	2.6943489	21	6 18.6	21.8
529321 2009 VR_{14}	17.4	X	179.42269	56.47315	10.10936	4.90314	0.0738737	0.21568644	2.7537266	21	5 16.9	21.4
529322 2009 VA_{16}	17.7	X	190.18198	69.99983	31.27425	4.55982	0.1584417	0.22298534	2.6933027	21	7 13.3	22.1
529323 2009 VV_{16}	17.5	X	256.85826	351.02105	58.24126	9.77283	0.1678231	0.22666508	2.6640741	21	7 13.5	21.5
529324 2009 VG_{27}	17.5	X	257.15198	160.09224	235.76936	7.33775	0.3359460	0.22836705	2.6508211	21	6 7.1	21.9
529325 2009 VN_{28}	16.8	X	206.30692	174.02522	219.28121	8.72039	0.2131458	0.21620114	2.7493544	21	5 2.2	21.5
529326 2009 VX_{28}	17.8	X	217.98728	228.55844	160.90791	5.11855	0.0950512	0.21775872	2.7362284	21	5 13.7	22.0
529327 2009 VS_{34}	17.9	X	231.74688	64.64187	323.48292	2.45866	0.1959241	0.22052909	2.7132644	21	5 17.2	22.2
529328 2009 VE_{38}	17.2	X	221.72327	94.53095	46.10668	27.05331	0.2439054	0.23656223	2.5892408	21	10 7.6	21.7
529329 2009 VG_{39}	16.9	X	243.50110	14.02146	46.29942	9.07547	0.3474970	0.22641401	2.6660432	21	6 25.3	21.6
529330 2009 VR_{50}	16.7	X	194.35088	211.44299	240.38788	12.58478	0.1310616	0.22148443	2.7054567	21	7 3.3	21.1
529331 2009 VY_{54}	16.7	X	201.80695	331.12485	47.01716	6.85715	0.1057131	0.20619546	2.8375922	21	4 13.3	21.1
529332 2009 VK_{55}	18.3	X	233.59293	294.42901	211.12113	2.98050	0.1643266	0.24226683	2.5484341	21	10 21.2	22.0
529333 2009 VL_{55}	17.0	X	198.09427	63.30131	10.58963	14.41766	0.0846793	0.22778267	2.6553530	21	6 15.6	21.2
529334 2009 VT_{59}	17.6	X	231.29106	281.21330	85.17041	8.94760	0.3429054	0.21870950	2.7282926	21	4 17.9	22.7
529335 2009 VF_{61}	17.4	X	294.72629	321.97626	43.99199	6.29257	0.2474182	0.23162936	2.6258725	21	6 19.8	20.7
529336 2009 VL_{61}	18.3	X	229.81323	37.46447	0.21861	1.26521	0.3368965	0.22160552	2.7044710	21	5 19.8	23.2
529337 2009 VF_{64}	17.4	X	282.48496	298.93225	80.73722	6.96679	0.1590214	0.22735744	2.6586628	21	7 6.5	20.8
529338 2009 VV_{64}	17.8	X	267.91850	130.54185	346.57824	3.26077	0.1289055	0.24390401	2.5370173	21	11 1.8	21.0
529339 2009 VV_{68}	17.0	X	283.95103	43.67039	53.95308	9.99798	0.0061463	0.24375525	2.5380494	21	11 16.3	20.2
529340 2009 VZ_{72}	17.0	X	228.70081	329.96304	60.48366	15.35342	0.2711383	0.22391308	2.6858582	21	5 14.7	21.8
529341 2009 VD_{75}	16.9	X	259.43980	135.49127	232.39241	10.05614	0.2001431	0.22272803	2.6953767	21	5 18.7	20.9
529342 2009 VW_{76}	17.5	X	283.61944	340.39428	28.15100	14.61725	0.2617356	0.23073071	2.6326863	21	6 3.8	21.5
529343 2009 VJ_{77}	16.1	X	223.64558	305.85470	68.74264	14.32012	0.1414951	0.21674656	2.7447401	21	4 30.9	20.5
529344 2009 VO_{77}	16.8	X	182.15541	277.71618	122.83567	6.11193	0.1588864	0.21087780	2.7954312	21	4 23.3	21.4
529345 2009 VA_{78}	17.6	X	179.71164	262.59193	198.25262	14.25079	0.3521282	0.21724017	2.7405809	21	6 30.9	23.1
529346 2009 VJ_{79}	17.2	X	212.90313	21.87884	349.25200	7.19996	0.2829785	0.21477684	2.7614960	21	4 7.5	22.2
529347 2009 VL_{79}	17.1	X	251.91583	13.42707	25.92343	14.44995	0.2461939	0.22686448	2.6625129	21	6 13.3	21.6
529348 2009 VY_{81}	17.2	X	157.33902	35.73839	56.87130	13.02815	0.1002078	0.21345757	2.7728626	21	5 27.8	21.3
529349 2009 VE_{90}	17.7	X	197.29599	155.06636	271.82387	6.24624	0.1149147	0.21710622	2.7417080	21	6 6.5	21.8
529350 2009 VC_{92}	16.5	X	229.20528	345.36372	52.83904	13.70347	0.1737321	0.22567043	2.6718964	21	5 28.2	20.7
529351 2009 VP_{95}	17.6	X	251.58608	194.79575	208.92898	5.77117	0.2358873	0.22589634	2.6701147	21	6 21.4	21.9
529352 2009 VN_{96}	17.5	X	143.35414	260.71673	243.61199	8.50345	0.2575140	0.21552090	2.7551365	21	7 25.4	22.4
529353 2009 VR_{102}	17.8	X	230.12220	113.06860	271.79666	6.14300	0.2106332	0.21860188	2.7291880	21	5 10.4	22.4
529354 2009 VC_{103}	17.3	X	293.31111	344.31470	74.94808	7.22746	0.3077505	0.23504842	2.6003461	21	8 26.2	20.2
529355 2009 VV_{106}	17.1	X	155.05490	234.14480	246.62589	8.04949	0.3297369	0.21472345	2.7619537	21	7 9.1	22.3
529356 2009 VX_{106}	16.5	X	157.38782	204.98501	252.57276	8.35192	0.1229255	0.21666642	2.7454170	21	6 5.3	20.5
529357 2009 VA_{108}	16.6	X	189.49454	173.09897	236.23486	2.57392	0.0930400	0.21448044	2.7640395	21	5 7.3	20.6
529358 2009 VF_{111}	17.1	X	241.83838	141.38074	220.94900	11.18592	0.1887352	0.22007646	2.7169834	21	4 25.3	21.6
529359 2009 VW_{111}	16.6	X	197.96124	163.28764	258.18915	12.57067	0.1581657	0.21852307	2.7298441	21	5 30.4	21.0
529360 2009 VN_{114}	17.9	X	180.49122	128.29621	340.84860	3.50947	0.1421325	0.22190240	2.7020583	21	7 14.0	22.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529361 2009 VS_{115}	17.0	X	221.35925	126.89776	275.17348	10.24867	0.1863566	0.21670660	2.7450776	21	5 25.9	21.7
529362 2009 VF_{116}	17.0	X	168.67410	49.64726	93.44187	15.24224	0.1871648	0.21661136	2.7458822	21	8 17.9	21.8
529363 2009 VA_{119}	17.0	X	211.11050	299.50725	60.56677	2.73926	0.1674191	0.21089702	2.7952614	21	3 29.4	21.5
529364 2009 VF_{119}	17.3	X	219.31389	235.69990	246.98761	4.03271	0.1627758	0.23113306	2.6296301	21	9 3.8	21.3
529365 2009 VO_{119}	18.0	X	276.53190	185.29450	283.09014	4.57834	0.1605779	0.24212085	2.5494583	21	10 27.9	21.0
529366 2009 WM_{1}	20.4	X	39.49485	162.64037	240.26244	25.76580	0.1688673	0.76850470	1.1804249	21	—	—
529367 2009 WR_{12}	17.8	X	273.29350	266.02031	145.13273	2.24564	0.0413842	0.23276026	2.6173602	21	8 25.1	21.0
529368 2009 WD_{15}	17.1	X	189.02905	301.33312	129.59648	4.37432	0.0774970	0.21440352	2.7647006	21	6 4.2	21.3
529369 2009 WC_{28}	17.8	X	210.30918	77.23896	51.70095	3.76277	0.2316452	0.22931942	2.6434768	21	9 1.7	22.3
529370 2009 WQ_{30}	17.9	X	207.95828	356.72554	57.15929	1.74240	0.2262079	0.21717471	2.7411316	21	5 28.1	22.5
529371 2009 WL_{31}	17.9	X	310.88409	200.38039	241.69781	14.26196	0.0917200	0.24620569	2.5211808	21	11 28.9	20.6
529372 2009 WE_{36}	17.4	X	158.71088	165.34357	271.83095	5.51651	0.0946810	0.29538481	2.2329412	21	5 2.9	20.5
529373 2009 WA_{41}	17.2	X	185.75371	49.00589	63.16797	6.16856	0.1393253	0.22023034	2.7157176	21	7 23.6	21.6
529374 2009 WT_{41}	17.4	X	215.11093	353.90991	62.99484	7.14028	0.0650208	0.21666544	2.7454252	21	6 15.0	21.3
529375 2009 WH_{45}	16.6	X	163.06145	96.66372	67.48004	15.64258	0.0861813	0.23003952	2.6379572	21	9 13.5	20.9
529376 2009 WC_{47}	16.9	X	204.73916	201.69277	220.95213	25.17883	0.1322373	0.21905692	2.7254072	21	6 6.7	21.5
529377 2009 WT_{47}	17.0	X	239.65495	189.66598	235.63914	13.12339	0.2285496	0.22893209	2.6464576	21	7 6.1	21.4
529378 2009 WR_{56}	17.1	X	323.16704	186.48760	101.73708	3.17736	0.0462780	0.21667882	2.7453122	21	5 18.7	20.5
529379 2009 WZ_{57}	17.4	X	326.80931	306.13937	62.21864	12.70607	0.0573756	0.23622534	2.5917020	21	9 20.4	20.8
529380 2009 WQ_{58}	17.6	X	222.36181	12.78086	76.05691	5.95520	0.2250464	0.22643570	2.6658729	21	7 23.6	22.1
529381 2009 WN_{66}	17.4	X	224.58278	293.77067	68.22061	6.25234	0.1187143	0.21340503	2.7733176	21	4 15.9	21.8
529382 2009 WL_{69}	17.3	X	278.97492	249.97583	128.10123	6.88412	0.3908834	0.23103553	2.6303701	21	5 30.2	21.5
529383 2009 WP_{69}	17.0	X	305.60086	67.36256	254.04481	13.21376	0.1762727	0.22547659	2.6734275	21	5 16.4	20.3
529384 2009 WZ_{71}	18.0	X	272.74120	235.06850	219.41070	5.29577	0.2561877	0.23847327	2.5753895	21	9 16.7	21.3
529385 2009 WM_{74}	17.0	X	206.61662	151.68494	228.96318	12.33458	0.1276855	0.21078513	2.7962504	21	4 17.3	21.4
529386 2009 WQ_{74}	16.9	X	106.81986	78.66860	73.33191	15.95091	0.1839766	0.21086623	2.7955335	21	6 27.2	21.1
529387 2009 WY_{76}	17.5	X	260.02928	52.59604	7.63074	4.63265	0.0932727	0.22914275	2.6448353	21	8 12.5	21.1
529388 2009 WN_{78}	18.5	X	222.04390	93.44334	274.58762	4.33574	0.4622342	0.21785048	2.7354600	21	4 5.5	24.2
529389 2009 WY_{79}	17.2	X	218.79027	301.73611	86.83231	13.69807	0.1579638	0.21423574	2.7661439	21	5 12.8	21.8
529390 2009 WH_{84}	17.6	X	262.94710	94.36384	264.90800	8.76814	0.1643891	0.22089876	2.7102365	21	5 14.3	21.8
529391 2009 WD_{85}	17.1	X	144.89472	242.18786	267.02664	10.94144	0.2152314	0.21799999	2.7342092	21	7 30.2	21.8
529392 2009 WN_{87}	15.5	X	150.53091	168.96804	283.43920	7.23952	0.1269971	0.12530543	3.9550878	21	5 25.9	21.7
529393 2009 WC_{89}	17.6	X	184.14135	318.91166	106.57628	3.88790	0.1836129	0.21241582	2.7819211	21	5 23.9	22.3
529394 2009 WO_{89}	16.8	X	97.76074	164.76768	84.24295	13.29870	0.1278029	0.23507374	2.6001594	21	10 22.2	20.9
529395 2009 WH_{94}	17.8	X	185.34164	213.79687	238.18959	13.48206	0.1569672	0.21911842	2.7248972	21	6 24.9	22.4
529396 2009 WK_{95}	16.6	X	224.45289	311.46687	66.28638	6.71412	0.0524152	0.21420591	2.7664007	21	5 8.3	20.5
529397 2009 WK_{101}	17.6	X	233.67598	180.65872	192.93265	3.95684	0.0896470	0.21516172	2.7582019	21	5 10.3	21.6
529398 2009 WJ_{103}	16.5	X	294.00147	278.11601	89.40124	13.55850	0.3032605	0.23059741	2.6337008	21	6 12.7	20.0
529399 2009 WD_{116}	17.5	X	269.65689	137.23882	209.74809	5.36430	0.1941285	0.22506344	2.6766983	21	5 3.5	21.5
529400 2009 WX_{118}	16.9	X	197.92856	152.67702	245.59477	5.06829	0.0594884	0.21216939	2.7840748	21	5 2.0	21.0
529401 2009 WQ_{121}	17.2	X	194.23534	179.77676	250.16522	3.13243	0.0843024	0.21683071	2.7440300	21	6 7.9	21.2
529402 2009 WM_{124}	18.0	X	228.53844	190.20444	241.71113	2.81538	0.2004519	0.22420324	2.6835404	21	7 8.4	22.3
529403 2009 WO_{126}	17.2	X	242.43335	116.98913	247.80560	8.98203	0.1171476	0.21451180	2.7637702	21	5 4.5	21.5
529404 2009 WC_{134}	17.9	X	215.04473	237.93909	262.18537	6.16387	0.1159087	0.23722702	2.5844013	21	9 25.4	21.8
529405 2009 WF_{142}	17.0	X	28.01709	17.13319	270.01145	11.42513	0.0604921	0.23099480	2.6306793	21	8 19.1	20.5
529406 2009 WJ_{142}	17.5	X	201.74669	70.90158	38.59366	13.19773	0.2266823	0.22395066	2.6855576	21	8 4.6	22.3
529407 2009 WA_{147}	17.1	X	282.69534	318.02590	79.04873	13.17506	0.1869124	0.23293278	2.6160677	21	7 28.6	20.6
529408 2009 WG_{157}	16.8	X	324.72719	237.56072	147.71416	4.05267	0.1553004	0.23949393	2.5680672	21	9 29.4	19.2
529409 2009 WE_{161}	17.5	X	204.99988	339.07761	53.05755	7.37432	0.0668012	0.21096784	2.7946358	21	5 3.5	21.7
529410 2009 WG_{164}	16.8	X	171.36781	27.53602	66.17763	11.76566	0.2302930	0.21374882	2.7703431	21	6 16.3	21.6
529411 2009 WZ_{171}	17.3	X	155.36160	89.10067	35.79994	9.97644	0.1190997	0.21921494	2.7240973	21	7 9.2	21.6
529412 2009 WA_{177}	17.3	X	261.49395	178.15080	233.89092	12.51341	0.1551784	0.23127356	2.6285650	21	7 19.8	21.2
529413 2009 WX_{178}	17.5	X	211.00243	90.68972	303.92560	5.30940	0.0883121	0.21332505	2.7740107	21	5 10.0	21.7
529414 2009 WW_{179}	17.4	X	255.92319	9.54635	68.86433	14.73214	0.2229262	0.23233725	2.6205361	21	8 17.7	21.5
529415 2009 WA_{186}	17.3	X	155.94382	68.69206	58.15860	8.96851	0.1786403	0.21818477	2.7326652	21	7 14.6	21.9
529416 2009 WD_{189}	17.5	X	208.45506	134.40316	247.80360	8.39937	0.2305686	0.21321363	2.7749771	21	4 18.3	22.4
529417 2009 WB_{191}	17.5	X	252.83059	273.58811	86.07864	4.24125	0.1359300	0.21641931	2.7475064	21	5 9.3	21.5
529418 2009 WP_{196}	17.1	X	161.35643	24.10317	74.59710	9.14182	0.1946791	0.21362051	2.7714524	21	6 13.6	21.8
529419 2009 WH_{198}	16.4	X	344.44831	29.61713	268.46158	13.49171	0.1015298	0.22434529	2.6824075	21	6 28.7	19.3
529420 2009 WA_{199}	16.7	X	259.63773	275.23619	85.10749	13.43315	0.1723727	0.21968177	2.7202367	21	5 15.6	21.0
529421 2009 WK_{203}	17.2	X	195.23340	347.66680	66.36469	11.52520	0.1823087	0.21369067	2.7708457	21	5 19.3	21.7
529422 2009 WE_{216}	17.4	X	296.66373	7.93665	12.01447	3.71919	0.2406403	0.23339099	2.6126425	21	7 14.9	20.6
529423 2009 WF_{217}	17.1	X	173.66989	62.26705	14.78371	6.93665	0.2982386	0.21269773	2.7794624	21	5 29.4	22.2
529424 2009 WH_{225}	17.5	X	278.81761	332.43859	49.47410	6.79934	0.2864302	0.23002288	2.6380845	21	6 15.0	21.2
529425 2009 WF_{233}	16.2	X	240.52634	332.01150	62.40936	14.77352	0.1182182	0.21905546	2.7254193	21	6 9.1	20.3
529426 2009 WS_{239}	16.7	X	143.90648	65.18047	68.85707	14.93165	0.1834212	0.21355234	2.7720422	21	7 12.4	21.4
529427 2009 WT_{243}	16.8	X	170.20365	154.08971	272.90819	6.94643	0.1150559	0.20902033	2.8119679	21	5 9.1	21.2
529428 2009 WK_{250}	16.9	X	182.82936	64.76609	85.74358	14.13694	0.1110774	0.22786394	2.6547216	21	9 14.7	21.3
529429 2009 WA_{261}	17.3	X	204.31681	18.74301	30.84849	10.22984	0.2129342	0.21615788	2.7497212	21	5 18.5	22.0
529430 2009 WP_{270}	17.4	X	220.68401	50.33724	96.72289	5.55869	0.1449576	0.22962086	2.6411627	21	10 12.7	21.4
529431 2009 WS_{270}	17.2	X	327.46281	322.39232	82.46392	10.55584	0.0780699	0.24101733	2.5572344	21	11 7.2	20.2
529432 2009 XM_{1}	16.8	X	189.17227	192.09970	272.24163	15.70131	0.2061333	0.21990100	2.7184285	21	7 12.6	21.5
529433 2009 XV_{11}	17.8	X	201.49379	68.22068	61.44724	13.74395	0.2170681	0.22827769	2.6515128	21	9 1.1	22.5
529434 2009 XD_{16}	17.4	X	269.85910	104.61222	280.88883	11.38254	0.2806346	0.22316766	2.6918357	21	6 11.6	21.6
529435 2009 XV_{16}	16.6	X	192.57736	294.17485	106.39015	14.64689	0.2145875	0.20577661	2.8414414	21	5 6.2	21.7
529436 2009 XX_{21}	17.1	X	234.89949	31.98277	103.86347	31.91776	0.2561342	0.23118761	2.6292165	21	10 15.1	21.9
529437 2009 XJ_{23}	16.6	X	188.98158	136.94248	272.78063	12.40366	0.1922987	0.21401728	2.7680259	21	5 5.5	21.5
529438 2009 YN_{1}	16.8	X	192.64843	11.27417	92.34358	13.57301	0.2169912	0.21668207	2.7452848	21	7 16.6	21.5
529439 2009 YA_{9}	16.8	X	270.73016	344.03517	101.80622	22.63303	0.0101481	0.23219986	2.6215697	21	10 24.5	20.9
529440 2009 YD_{13}	16.2	X	38.37563	231.53440	273.83197	15.59502	0.0666789	0.18775125	3.0205138	21	2 23.1	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529441 2009 YU_{14}	16.6	X	247.62362	300.00327	84.00932	7.38072	0.1194245	0.21332171	2.7740397	21	6 5.1	20.5
529442 2009 YZ_{14}	16.7	X	256.93271	146.57581	297.58689	11.62883	0.2561521	0.22861890	2.6488740	21	8 13.3	20.8
529443 2009 YG_{15}	16.8	X	284.65996	263.36621	159.61150	13.32206	0.1573126	0.22563993	2.6721371	21	9 8.4	20.0
529444 2009 YM_{16}	16.3	X	205.34547	342.20178	120.41880	14.57279	0.0569594	0.21758917	2.7376496	21	8 4.2	20.1
529445 2009 YV_{16}	16.8	X	298.39587	131.26419	290.31359	13.64389	0.2401865	0.23450865	2.6043348	21	9 7.8	19.9
529446 2009 YA_{23}	17.1	X	219.22118	328.67719	131.57664	9.82458	0.1342919	0.22051456	2.7133837	21	8 10.3	21.2
529447 2009 YG_{25}	17.7	X	204.43456	54.30831	104.51778	13.02137	0.2312443	0.22750777	2.6574915	21	10 7.9	22.4
529448 2009 YK_{26}	17.3	X	153.04574	108.84851	37.02507	2.24936	0.0621359	0.21334718	2.7738190	21	7 30.7	21.3
529449 2009 YO_{26}	15.8	X	352.23587	298.84878	279.01311	8.93867	0.0508359	0.19269053	2.9686737	21	3 24.2	20.0
529450 2010 AK	19.3	X	74.21063	70.78528	293.47343	11.06551	0.4679212	0.43321684	1.7298130	21	—	—
529451 2010 AJ_{4}	17.3	X	191.10788	37.96523	102.50833	8.90585	0.1107741	0.22604111	2.6689745	21	9 6.7	21.5
529452 2010 AR_{24}	17.1	X	258.92368	317.29940	115.67564	13.50732	0.2638863	0.22549257	2.6733012	21	8 3.3	21.2
529453 2010 AU_{27}	17.2	X	52.50124	306.89775	287.85670	6.86644	0.0827166	0.29864244	2.2166733	21	7 23.9	19.5
529454 2010 AG_{31}	17.9	X	186.23137	33.51358	130.32218	9.21167	0.2848581	0.22082615	2.7108306	21	9 23.6	22.8
529455 2010 AQ_{34}	17.9	X	204.76718	336.55638	156.78797	4.97494	0.1249587	0.22173513	2.7034171	21	9 7.3	22.0
529456 2010 AN_{39}	15.5	X	88.06426	141.12651	285.77585	5.97046	0.3867286	0.10292289	4.5094965	21	3 26.3	22.1
529457 2010 AD_{40}	17.4	X	263.76340	105.24071	304.99219	12.56430	0.2074722	0.22553117	2.6729961	21	7 17.4	21.1
529458 2010 AL_{43}	17.2	X	28.41812	320.91548	39.03394	3.78678	0.1369275	0.24135133	2.5548746	21	12 14.9	20.3
529459 2010 AA_{53}	17.1	X	325.13623	162.94862	252.95360	4.45202	0.2330850	0.23762140	2.5815410	21	11 10.9	19.1
529460 2010 AT_{53}	17.0	X	213.82233	255.85961	294.00314	8.71475	0.2379713	0.23178990	2.6246600	21	11 13.6	21.3
529461 2010 AX_{54}	17.5	X	323.22958	310.24724	107.87810	6.04851	0.2445309	0.23685245	2.5871253	21	11 12.1	19.4
529462 2010 AY_{54}	17.8	X	164.27151	90.42605	113.66258	7.53306	0.2694991	0.22141614	2.7060129	21	10 25.9	22.7
529463 2010 AC_{55}	17.2	X	224.11018	103.51131	331.41327	11.12475	0.1184983	0.21313858	2.7756285	21	7 17.1	21.5
529464 2010 AW_{60}	17.1	X	212.47665	27.64849	116.54952	13.98373	0.1861429	0.22851916	2.6496446	21	9 30.1	21.5
529465 2010 AZ_{60}	16.0	X	110.87639	259.71533	156.15695	12.50026	0.5037138	0.10830523	4.3588283	21	4 15.9	23.3
529466 2010 AD_{64}	16.7	X	106.31145	133.72140	76.36176	5.95730	0.0455241	0.21773586	2.7364199	21	8 28.3	20.5
529467 2010 AF_{66}	16.9	X	151.77080	84.18787	133.89130	13.74109	0.0728947	0.22631028	2.6668578	21	11 4.5	21.1
529468 2010 AJ_{74}	16.5	X	168.81806	133.19909	285.57974	15.32848	0.2397530	0.20503655	2.8482746	21	4 29.6	21.7
529469 2010 AQ_{77}	15.2	X	190.14693	297.50271	134.31535	8.15889	0.2563486	0.12504658	3.9605440	21	6 7.7	21.9
529470 2010 AN_{92}	16.9	X	279.19742	181.81613	155.79485	11.26644	0.2198094	0.22730913	2.6590395	21	5 1.8	21.0
529471 2010 AW_{92}	16.6	X	55.28953	332.50350	282.26621	7.81227	0.1257814	0.23770768	2.5809162	21	8 27.4	19.9
529472 2010 AC_{102}	16.6	X	146.03161	217.76082	259.64309	11.19064	0.1307739	0.22003746	2.7173044	21	6 19.2	20.7
529473 2010 AE_{102}	16.9	X	233.05740	349.11170	347.25003	8.64273	0.0913008	0.21295283	2.7772423	21	3 21.7	21.1
529474 2010 AL_{106}	16.1	X	46.04525	291.01591	215.92548	26.31956	0.0801013	0.17678140	3.1442109	21	3 14.0	20.6
529475 2010 AG_{107}	17.4	X	235.01808	328.19653	353.20202	7.66740	0.2224373	0.21308506	2.7760932	21	3 1.5	22.1
529476 2010 AC_{115}	16.0	X	343.79141	144.15218	71.41786	16.00002	0.0192950	0.17588465	3.1548891	21	3 28.9	20.7
529477 2010 AJ_{116}	16.8	X	59.52552	287.03294	349.31428	10.63653	0.1142919	0.24273485	2.5451573	21	10 1.8	20.2
529478 2010 AL_{118}	16.4	X	243.55590	279.96319	90.74325	19.46082	0.1654444	0.22320389	2.6915443	21	5 15.6	20.9
529479 2010 AE_{119}	15.9	X	126.41606	115.34120	291.72208	14.32013	0.0360694	0.16992067	3.2282853	21	2 18.4	20.7
529480 2010 AR_{120}	16.0	X	204.99188	356.50280	329.88799	15.89093	0.0365322	0.16783882	3.2549259	21	2 17.1	20.7
529481 2010 AT_{121}	17.7	X	295.03442	115.08842	315.92484	10.51453	0.2227713	0.24395903	2.5366358	21	9 22.7	20.6
529482 2010 AH_{128}	16.1	X	203.32493	263.98061	77.29618	19.12071	0.0793909	0.17113627	3.2129799	21	3 13.7	21.4
529483 2010 AZ_{140}	16.6	X	336.74926	35.57039	309.57357	4.89016	0.0155851	0.21587968	2.7520831	21	8 24.9	20.1
529484 2010 AA_{141}	17.6	X	210.18672	316.96653	111.02890	5.37664	0.1940936	0.21413342	2.7670249	21	6 17.8	22.1
529485 2010 AE_{144}	16.4	X	334.77318	38.70291	323.60848	14.20101	0.1309587	0.22656077	2.6648918	21	9 8.1	19.3
529486 2010 AF_{144}	17.1	X	27.08010	197.12531	117.43962	4.30262	0.1045745	0.22427840	2.6829408	21	10 7.7	20.3
529487 2010 BX_{5}	16.5	X	346.97276	75.34001	273.28791	26.17115	0.1330712	0.24292291	2.5438436	21	8 30.6	20.0
529488 2010 BX_{9}	17.0	X	236.77022	198.79912	233.24620	10.29416	0.0232500	0.23266660	2.6180626	21	8 2.4	20.8
529489 2010 BO_{13}	15.9	X	113.22352	157.90171	122.18065	16.23249	0.2631466	0.17511253	3.1641562	21	12 10.4	21.6
529490 2010 BS_{14}	16.4	X	124.58647	258.97272	224.85584	13.38224	0.1350463	0.19065996	2.9897145	21	6 6.1	21.0
529491 2010 BT_{22}	16.8	X	198.96953	287.07427	105.05678	0.83193	0.0773373	0.21517155	2.7581178	21	4 26.1	20.7
529492 2010 BH_{29}	16.8	X	305.35426	257.79792	68.53678	10.88708	0.0457265	0.22541558	2.6739099	21	6 12.7	20.3
529493 2010 BM_{29}	16.7	X	284.05573	308.00907	34.44658	16.38251	0.1494329	0.22620892	2.6676544	21	5 16.9	20.4
529494 2010 BX_{31}	18.4	X	216.57183	64.03600	305.38191	10.53800	0.4274574	0.21907834	2.7252296	21	4 1.7	24.1
529495 2010 BC_{33}	16.5	X	28.36758	353.22978	236.17467	21.34954	0.1142459	0.18774018	3.0206326	21	6 9.1	20.2
529496 2010 BP_{33}	17.1	X	248.67505	238.13095	108.51062	9.40842	0.2023487	0.21989471	2.7184803	21	4 16.2	21.6
529497 2010 BX_{50}	17.2	X	244.89810	204.64989	279.76810	9.53995	0.1955910	0.24144330	2.5542257	21	9 27.3	21.1
529498 2010 BE_{55}	17.8	X	138.10686	91.25535	27.26961	7.89951	0.1854801	0.21517100	2.7581226	21	6 16.4	22.3
529499 2010 BH_{67}	17.1	X	149.83495	148.54760	68.26584	7.79719	0.1273853	0.21372393	2.7705582	21	10 27.8	21.5
529500 2010 BW_{74}	16.3	X	351.73164	183.17033	107.06706	16.03465	0.1483877	0.18973407	2.9994330	21	6 29.6	19.6
529501 2010 BF_{79}	17.1	X	309.79756	7.39260	120.68525	5.67817	0.0519274	0.26082111	2.4260936	21	—	—
529502 2010 BB_{81}	17.1	X	138.62801	111.21267	138.84945	12.35267	0.2133468	0.21540063	2.7561620	21	11 28.3	22.0
529503 2010 BQ_{82}	17.4	X	282.34409	302.88193	164.28107	7.84485	0.1862587	0.24666100	2.5180773	21	11 6.3	20.1
529504 2010 BC_{94}	16.8	X	126.93606	106.96413	8.48760	10.42642	0.1980907	0.18846429	3.0128904	21	6 2.2	21.8
529505 2010 BO_{95}	17.4	X	300.00146	356.45138	78.07182	8.36157	0.1085101	0.24564727	2.5250002	21	11 1.4	20.3
529506 2010 BX_{95}	16.2	X	142.14625	346.47659	121.84003	17.20457	0.0467350	0.18625132	3.0367088	21	6 1.6	20.9
529507 2010 BO_{97}	17.0	X	194.16803	284.83255	271.48002	5.78438	0.0670442	0.21947114	2.7219769	21	11 16.8	21.0
529508 2010 BD_{100}	16.9	X	226.54381	321.18385	208.20348	11.34342	0.1267037	0.22236087	2.6983429	21	11 15.4	20.7
529509 2010 BG_{101}	16.2	X	233.94259	175.00705	260.05452	12.17498	0.0318281	0.19949704	2.9007597	21	7 31.3	20.5
529510 2010 BU_{106}	17.1	X	275.68438	19.99859	2.45481	11.51878	0.1977430	0.23083091	2.6319244	21	6 25.6	20.9
529511 2010 BY_{106}	16.0	X	41.82923	266.66697	271.47241	12.83340	0.1185001	0.17881114	3.1203718	21	4 20.6	20.1
529512 2010 BP_{114}	17.4	X	222.89663	261.60423	228.63001	13.23462	0.2051037	0.23554022	2.5967252	21	9 10.3	21.8
529513 2010 CH_{5}	17.5	X	166.98657	60.36388	139.06620	11.96269	0.2654777	0.21948544	2.7218586	21	10 23.4	22.5
529514 2010 CY_{31}	17.6	X	149.26538	227.50874	347.60286	7.05977	0.1743627	0.21784659	2.7354926	21	10 21.5	22.3
529515 2010 CS_{36}	18.4	X	193.13919	2.83563	149.00591	3.39692	0.0786620	0.30892045	2.1672297	21	9 30.8	21.2
529516 2010 CK_{39}	16.7	X	0.15981	27.66289	338.84332	12.93525	0.1233618	0.22579350	2.6709254	21	10 28.9	20.0
529517 2010 CA_{51}	17.2	X	106.88751	37.22721	194.83872	8.04022	0.2397207	0.20263880	2.8706989	21	10 10.6	22.0
529518 2010 CL_{64}	17.4	X	94.39343	292.63533	310.84410	12.19840	0.1551351	0.21772160	2.7365394	21	9 29.8	21.8
529519 2010 CY_{69}	17.6	X	181.50549	10.75099	133.36156	5.20350	0.1841889	0.21936160	2.7228830	21	8 27.4	22.0
529520 2010 CR_{74}	18.4	X	250.09391	316.48167	136.38311	2.77271	0.0443136	0.30774345	2.1727521	21	9 28.2	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529521 2010 CC_{86}	16.8	X	249.29334	110.52752	299.16648	3.27788	0.0677440	0.21473797	2.7618292	21	7 17.1	20.5
529522 2010 CW_{86}	17.4	X	174.62652	16.59011	132.92570	4.32118	0.1320342	0.21694753	2.7430448	21	8 28.5	21.7
529523 2010 CO_{91}	17.1	X	224.26960	272.05519	156.57104	8.61796	0.1990880	0.21358366	2.7717711	21	6 30.5	21.7
529524 2010 CV_{95}	16.4	X	314.37024	271.17729	326.49555	10.10334	0.1107798	0.18091290	3.0961574	21	2 23.8	20.7
529525 2010 CG_{98}	17.7	X	212.12781	135.34035	329.00539	4.18834	0.1196064	0.21585875	2.7522610	21	8 9.2	21.9
529526 2010 CN_{108}	18.6	X	210.06638	358.35195	145.10248	3.47818	0.0739339	0.30997025	2.1623336	21	10 11.5	21.3
529527 2010 CK_{131}	15.6	X	134.91273	139.94370	283.59880	26.26238	0.1793079	0.17312092	3.1883770	21	3 26.2	21.2
529528 2010 CR_{141}	16.4	X	243.75474	336.35189	96.52074	13.08054	0.1533390	0.21831800	2.7315533	21	7 31.6	20.5
529529 2010 CG_{145}	16.5	X	92.85154	327.67000	174.27597	9.66869	0.1510992	0.19050679	2.9913168	21	5 27.4	20.8
529530 2010 CF_{152}	15.9	X	337.34541	241.75957	309.46030	25.36850	0.1587060	0.17809540	3.1287263	21	1 25.1	20.0
529531 2010 CL_{154}	16.0	X	213.36732	337.38987	343.68667	10.61135	0.0832052	0.17687206	3.1431363	21	2 18.9	20.8
529532 2010 CS_{155}	17.6	X	166.37349	112.32885	137.70774	9.16917	0.2195825	0.22903961	2.6456293	21	12 18.8	22.2
529533 2010 CL_{158}	17.4	X	213.11066	355.26285	159.79503	12.27806	0.1240424	0.22671373	2.6636930	21	10 16.9	21.5
529534 2010 CR_{167}	16.0	X	233.99852	339.22766	330.56038	11.60670	0.1146067	0.17463502	3.1699214	21	2 23.0	21.0
529535 2010 CA_{169}	17.0	X	265.43953	116.23269	301.61821	4.99181	0.0542935	0.22167685	2.7038908	21	8 19.3	20.6
529536 2010 CH_{171}	17.1	X	142.25365	259.80275	353.58718	12.47777	0.1474959	0.22527751	2.6750023	21	11 30.1	21.7
529537 2010 CM_{171}	17.0	X	44.63230	199.36650	134.82118	10.58226	0.1775206	0.23042838	2.6349886	21	12 8.9	20.7
529538 2010 CA_{172}	17.0	X	131.59398	336.95498	257.50739	5.13291	0.0635025	0.22645290	2.6657379	21	10 26.8	20.9
529539 2010 CX_{180}	16.2	X	209.48755	226.31403	120.04871	6.55564	0.1220425	0.18312899	3.0711284	21	3 16.4	21.2
529540 2010 CH_{183}	18.1	X	148.51193	189.50825	357.76248	7.27693	0.0673430	0.29977127	2.2111050	21	9 23.8	20.7
529541 2010 CL_{185}	16.6	X	145.39934	161.19779	60.89917	11.36528	0.1564073	0.21898208	2.7260281	21	10 31.3	21.1
529542 2010 CK_{188}	16.8	X	196.08593	72.02069	109.18796	13.81665	0.0687311	0.21476343	2.7616109	21	11 6.1	21.1
529543 2010 CN_{194}	17.7	X	272.01136	25.77920	65.46394	5.80026	0.1663091	0.23896836	2.5718311	21	10 1.1	20.9
529544 2010 CO_{197}	16.2	X	141.16870	36.65727	36.76709	14.50421	0.0741545	0.17383677	3.1796181	21	4 18.8	20.8
529545 2010 CY_{222}	16.7	X	89.41133	214.41720	113.61952	11.92842	0.1752160	0.21873393	2.7280895	21	—	—
529546 2010 CB_{227}	16.2	X	304.70392	176.50733	75.45688	19.59107	0.0771727	0.16876327	3.2430285	21	3 19.7	21.1
529547 2010 CF_{227}	17.6	X	248.20279	248.07629	171.55256	11.35006	0.1733954	0.22850653	2.6497423	21	7 14.2	21.8
529548 2010 CB_{233}	16.1	X	56.87430	229.77314	263.81934	14.93999	0.1633807	0.19807789	2.9145983	21	3 15.4	19.9
529549 2010 CZ_{240}	17.4	X	187.79246	343.48209	169.38750	6.80697	0.1956208	0.23182016	2.6244315	21	9 12.2	21.8
529550 2010 CC_{243}	16.9	X	289.94351	310.69462	72.59850	12.71985	0.0955633	0.23211293	2.6222242	21	8 5.3	20.4
529551 2010 CH_{252}	17.2	X	179.47067	131.20084	1.84379	5.03992	0.0303962	0.20829641	2.8184794	21	8 14.6	21.1
529552 2010 CJ_{252}	16.3	X	164.68606	76.72340	56.12718	9.25322	0.0926740	0.19499551	2.9452329	21	7 29.1	20.9
529553 2010 DH_{4}	17.6	X	219.58888	141.09089	324.24380	9.25027	0.1182136	0.21914452	2.7246809	21	8 18.2	21.6
529554 2010 DJ_{15}	15.4	X	273.93988	47.56820	245.29148	20.87188	0.0266138	0.17004195	3.2267501	21	3 20.0	20.4
529555 2010 DX_{18}	15.4	X	272.91322	64.57647	250.46311	17.73565	0.1652619	0.17178577	3.2048762	21	3 29.6	20.5
529556 2010 DS_{24}	17.1	X	181.96967	200.74931	205.58064	8.12146	0.1823440	0.20981589	2.8048553	21	4 28.6	21.7
529557 2010 DK_{27}	17.3	X	186.54342	81.25357	30.51147	3.91406	0.1003285	0.22241701	2.6978888	21	7 24.6	21.5
529558 2010 DE_{43}	17.3	X	125.32942	66.43376	173.39176	8.81198	0.0962628	0.21858336	2.7293422	21	10 30.9	21.5
529559 2010 DK_{44}	17.4	X	184.58270	318.46381	175.93357	8.69645	0.0991323	0.21071359	2.7968834	21	8 17.5	21.7
529560 2010 DP_{45}	17.8	X	208.50726	123.89391	326.70681	6.45930	0.2429796	0.21111261	2.7933580	21	7 13.0	22.7
529561 2010 DB_{49}	16.9	X	75.37581	230.30983	18.84472	4.52101	0.0203076	0.21091451	2.7951069	21	9 3.5	20.6
529562 2010 DZ_{49}	16.9	X	173.96139	95.00807	341.98618	10.74214	0.0547683	0.19769442	2.9183661	21	5 22.7	21.4
529563 2010 DD_{50}	16.9	X	199.89048	47.22954	325.36534	8.18932	0.0666288	0.19277900	2.9677654	21	3 31.8	21.5
529564 2010 DL_{54}	17.3	X	333.47185	182.29974	107.25668	13.57693	0.2338416	0.26575659	2.3959625	21	5 11.3	19.8
529565 2010 DS_{57}	17.2	X	275.29954	146.58190	298.17216	10.07183	0.0940999	0.23800454	2.5787697	21	9 29.2	20.7
529566 2010 DW_{57}	16.2	X	80.94415	43.12072	92.01223	19.08213	0.1291081	0.17492334	3.1664372	21	5 7.1	20.8
529567 2010 DB_{69}	16.1	X	279.10454	184.66661	120.80726	17.93459	0.0833555	0.17082872	3.2168350	21	4 18.6	21.1
529568 2010 DQ_{74}	16.1	X	228.81470	335.34778	335.34015	10.24517	0.0434532	0.17847728	3.1242619	21	2 22.7	20.7
529569 2010 DZ_{75}	17.6	X	231.73713	154.40375	342.59920	3.96850	0.1067362	0.22307354	2.6925927	21	10 11.9	21.5
529570 2010 DV_{77}	16.9	X	155.16652	206.01953	70.55048	15.00691	0.2308844	0.23094817	2.6310334	21	—	—
529571 2010 DR_{87}	16.2	X	287.99871	89.60602	194.90545	12.28025	0.0586440	0.16830032	3.2489729	21	3 29.8	20.7
529572 2010 DB_{94}	16.6	X	315.17395	229.40919	125.81253	6.65102	0.0495555	0.21437027	2.7649865	21	8 6.5	20.0
529573 2010 EU_{5}	16.9	X	216.03138	314.35441	94.54242	9.66443	0.2128919	0.21758530	2.7376821	21	5 30.3	21.5
529574 2010 EQ_{7}	15.7	X	129.46258	3.91264	114.22152	19.21432	0.0453370	0.17860961	3.1227184	21	5 30.9	20.5
529575 2010 EB_{18}	16.0	X	58.44567	123.30769	88.90607	28.18258	0.1155730	0.18482477	3.0523144	21	7 3.5	20.1
529576 2010 ER_{18}	16.3	X	211.04955	32.61636	6.57009	11.24156	0.1297004	0.21239170	2.7821317	21	5 12.5	20.9
529577 2010 EA_{34}	17.6	X	157.52793	33.37123	192.90277	7.13251	0.2579955	0.21885273	2.7271021	21	11 13.6	22.4
529578 2010 EN_{37}	17.3	X	153.38837	193.95515	31.84149	4.50848	0.1654580	0.21909913	2.7250571	21	11 8.7	21.8
529579 2010 EH_{38}	17.7	X	216.00582	145.39785	22.87996	4.74752	0.2312964	0.22331689	2.6906364	21	10 22.2	22.1
529580 2010 EV_{67}	16.6	X	172.49312	209.28242	31.47806	13.88762	0.2022303	0.22750070	2.6575466	21	12 10.7	21.3
529581 2010 EG_{78}	17.5	X	255.24965	121.05591	17.42329	7.26641	0.1139346	0.22922589	2.6441958	21	11 11.6	21.1
529582 2010 EB_{87}	16.9	X	199.03050	161.81245	18.19027	14.80246	0.1197600	0.21999639	2.7176426	21	10 26.9	21.1
529583 2010 EY_{96}	16.4	X	98.51043	102.07135	3.58240	14.88233	0.0918342	0.18460397	3.0547478	21	4 5.9	20.8
529584 2010 EG_{119}	15.8	X	75.94148	152.11630	113.03135	17.30542	0.2053714	0.19763380	2.9189629	21	10 25.4	20.5
529585 2010 EJ_{126}	16.6	X	22.89070	233.14210	12.50288	25.49500	0.1463690	0.28472790	2.2883162	21	6 21.7	19.4
529586 2010 EX_{126}	17.0	X	147.65645	269.85742	278.35206	6.05131	0.2733575	0.21114512	2.7930712	21	9 18.9	22.1
529587 2010 EY_{134}	17.8	X	188.04525	4.90414	188.64792	8.71528	0.2279571	0.21964150	2.7205692	21	10 30.3	22.5
529588 2010 EL_{135}	15.9	X	179.55343	353.66776	5.94420	17.90420	0.0980803	0.16938818	3.2350474	21	3 7.1	21.0
529589 2010 EO_{143}	16.7	X	178.48759	253.56856	298.09947	12.97652	0.2448043	0.21957138	2.7211484	21	10 12.3	21.8
529590 2010 EX_{147}	17.5	X	222.55269	229.19514	230.02247	10.73329	0.1556544	0.22543717	2.6737392	21	8 6.3	21.8
529591 2010 EO_{151}	17.3	X	139.14150	243.90201	248.24812	6.37084	0.1742520	0.21118955	2.7926795	21	7 3.8	21.9
529592 2010 EJ_{168}	16.4	X	179.31218	64.44067	336.30950	11.83332	0.1014169	0.20495875	2.8489953	21	4 11.7	21.0
529593 2010 EA_{169}	16.5	X	63.68195	169.54100	121.25148	12.76553	0.0968354	0.23558443	2.5964004	21	10 31.4	20.2
529594 2010 EU_{172}	16.8	X	235.65050	182.02530	313.02691	8.70789	0.1904318	0.22673275	2.6635440	21	9 30.8	21.0
529595 2010 EL_{173}	16.2	X	65.50169	127.17644	13.52019	9.54512	0.0490384	0.17911528	3.1168384	21	4 3.9	20.4
529596 2010 EN_{173}	17.3	X	259.33415	54.84640	19.40032	4.04142	0.0634151	0.21127392	2.7919360	21	9 2.6	21.2
529597 2010 EO_{173}	16.1	X	168.64835	170.80431	195.81330	16.16285	0.0989424	0.16994171	3.2280189	21	2 24.7	21.3
529598 2010 FY_{12}	17.1	X	137.72045	219.74529	6.40558	7.73830	0.1668221	0.21336420	2.7736714	21	10 24.8	21.6
529599 2010 FG_{26}	17.2	X	154.46724	187.44756	19.93140	12.82289	0.1278576	0.21706476	2.7420571	21	10 18.1	21.5
529600 2010 FE_{32}	16.8	X	336.29884	176.17063	196.02641	13.55493	0.0645010	0.23275962	2.6173650	21	10 1.3	20.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529601 2010 FY_{39}	16.3	X	244.59583	95.83875	253.34749	11.18727	0.0394923	0.20416780	2.8563486	21	4 24.1	20.6
529602 2010 FZ_{39}	16.6	X	347.47072	201.67628	176.57441	8.90166	0.1690094	0.23934021	2.5691666	21	11 6.9	19.1
529603 2010 FW_{51}	16.0	X	341.80447	192.45546	214.44304	11.77092	0.1268692	0.24222971	2.5486945	21	12 3.5	18.7
529604 2010 FM_{60}	17.0	X	172.19450	203.46942	273.86642	5.26042	0.1817167	0.21489875	2.7604515	21	7 15.6	21.5
529605 2010 FP_{66}	17.2	X	252.89215	304.32104	151.81798	14.06351	0.1125101	0.23013022	2.6372641	21	9 18.2	20.8
529606 2010 FP_{77}	15.6	X	116.99187	277.60507	302.02523	10.74110	0.0990073	0.19566863	2.9384744	21	9 17.6	20.2
529607 2010 FA_{82}	16.9	X	170.03226	104.53574	318.48311	10.60043	0.0815764	0.20368383	2.8608715	21	4 29.7	21.4
529608 2010 FJ_{92}	17.0	X	199.36879	130.36001	40.56011	28.05628	0.2909043	0.22019454	2.7160120	21	10 16.4	22.0
529609 2010 FK_{117}	17.1	X	168.87048	174.32940	303.37142	7.27751	0.1771838	0.21388842	2.7691376	21	7 13.9	21.7
529610 2010 FY_{122}	17.2	X	99.04989	130.65035	31.19281	3.96846	0.0965916	0.19129964	2.9830460	21	6 20.1	21.4
529611 2010 FE_{123}	16.7	X	10.48821	75.04317	160.30936	10.67968	0.0479232	0.18924687	3.0045787	21	5 20.6	20.8
529612 2010 FF_{123}	17.2	X	88.82857	256.83584	34.30609	7.20965	0.0437894	0.21720541	2.7408733	21	11 14.9	21.0
529613 2010 GQ_{10}	17.1	X	203.42450	134.75715	63.95908	9.72148	0.1028178	0.23841549	2.5758056	21	11 30.2	20.9
529614 2010 GM_{13}	15.9	X	260.86628	17.58291	345.49659	18.13109	0.1010539	0.17239364	3.1973380	21	5 22.7	21.0
529615 2010 GJ_{17}	17.8	X	14.87637	307.39561	271.59267	4.80824	0.1909987	0.28127024	2.3070315	21	4 16.0	19.3
529616 2010 GA_{20}	17.9	X	253.85819	24.66229	120.16790	10.16054	0.1022410	0.23911761	2.5707608	21	11 26.1	21.3
529617 2010 GX_{29}	17.5	X	159.79647	161.85992	27.47629	9.59333	0.2156247	0.21312242	2.7757688	21	10 3.6	22.2
529618 2010 GB_{48}	16.1	X	128.32114	91.70686	46.72109	10.61666	0.0477994	0.17583630	3.1554673	21	6 18.9	20.7
529619 2010 GH_{48}	17.0	X	162.95105	25.77580	25.78778	3.16544	0.1455874	0.19886833	2.9068701	21	4 16.6	21.4
529620 2010 GA_{50}	16.7	X	140.95148	324.40399	276.93442	10.47134	0.1380503	0.23152963	2.6266266	21	11 16.4	21.0
529621 2010 GX_{50}	16.4	X	199.08867	56.06595	299.00725	11.39737	0.0514960	0.19104080	2.9857398	21	3 8.0	21.0
529622 2010 GJ_{76}	18.0	X	329.61768	32.61131	268.93686	2.78705	0.2210674	0.26240853	2.4162994	21	5 18.3	20.0
529623 2010 GO_{91}	15.7	X	188.08882	318.95991	134.77095	6.06687	0.2123547	0.12655114	3.9290904	21	6 30.5	22.2
529624 2010 GF_{92}	16.4	X	321.25935	189.08967	124.13896	10.47902	0.0671345	0.17504328	3.1649906	21	6 17.9	20.6
529625 2010 GT_{100}	17.0	X	139.16156	0.32039	214.24577	12.16126	0.0558806	0.21278520	2.7787007	21	10 8.3	21.1
529626 2010 GJ_{115}	18.8	X	20.35158	93.40509	186.87842	7.91182	0.2487665	0.28104335	2.3082730	21	8 30.6	20.5
529627 2010 GA_{118}	17.4	X	158.13214	177.33972	66.13507	11.25543	0.1592999	0.21872855	2.7281342	21	12 3.8	21.7
529628 2010 GR_{150}	15.6	X	27.81048	267.62661	325.48990	21.12050	0.1395144	0.17579612	3.1559481	21	6 18.8	19.8
529629 2010 GU_{158}	16.4	X	235.23945	28.46048	119.55221	5.02817	0.0263473	0.22043308	2.7140523	21	11 12.9	20.1
529630 2010 GW_{158}	17.4	X	204.15949	315.33126	202.30453	15.68682	0.2668517	0.21761012	2.7374740	21	9 25.1	22.2
529631 2010 GY_{158}	17.3	X	158.75987	200.81990	27.32384	3.72122	0.1360231	0.21768005	2.7368876	21	11 16.2	21.6
529632 2010 GS_{163}	17.0	X	178.13915	302.55098	207.13747	11.35827	0.0544855	0.22045875	2.7138416	21	8 29.7	21.1
529633 2010 GG_{176}	16.8	X	92.17626	79.68386	213.06397	14.12043	0.1336595	0.21702851	2.7423625	21	12 1.5	21.1
529634 2010 GR_{176}	16.3	X	300.46527	219.42641	60.46826	11.23564	0.0354912	0.17432759	3.1736471	21	4 15.7	20.8
529635 2010 GW_{176}	16.6	X	314.49585	295.17667	33.11051	2.37707	0.1154636	0.18889515	3.0083072	21	6 20.6	20.4
529636 2010 GY_{176}	17.5	X	52.00303	350.12281	356.18552	5.91678	0.0364780	0.22381803	2.6866185	21	12 9.3	21.2
529637 2010 HK_{5}	15.6	X	46.41341	174.46038	74.77493	28.84393	0.1086957	0.18175143	3.0866270	21	8 10.6	20.2
529638 2010 HP_{5}	16.4	X	27.74696	265.78062	269.58881	10.40713	0.0468454	0.18953043	3.0015811	21	3 19.7	20.6
529639 2010 HZ_{9}	16.8	X	149.97421	25.54097	156.38572	10.11934	0.1346369	0.21865465	2.7287489	21	9 14.6	21.0
529640 2010 HS_{14}	17.5	X	126.22412	214.76490	2.18321	16.63351	0.2023140	0.21865914	2.7287115	21	10 5.3	22.0
529641 2010 HY_{20}	18.1	X	182.53616	93.28906	103.16091	9.12622	0.2916417	0.21818241	2.7326849	21	10 29.4	23.1
529642 2010 HR_{36}	16.0	X	271.83793	278.89811	108.92878	16.59744	0.1084500	0.17698634	3.1417832	21	7 10.6	20.4
529643 2010 HV_{46}	16.0	X	288.79729	318.10294	279.31454	13.88355	0.1385543	0.17629733	3.1499638	21	1 20.4	20.7
529644 2010 HF_{50}	16.9	X	57.32768	297.74931	19.82702	8.35113	0.1471747	0.19671474	2.9280475	21	11 19.7	21.1
529645 2010 HL_{53}	17.1	X	162.19702	224.97706	20.84058	11.37882	0.2059117	0.23297892	2.6157223	21	12 9.3	21.7
529646 2010 HL_{55}	16.7	X	139.02508	207.76732	353.38054	12.71965	0.0983185	0.19260535	2.9695490	21	9 22.1	21.3
529647 2010 HQ_{55}	17.0	X	138.00006	199.27807	9.83013	2.65736	0.0428404	0.22285763	2.6943316	21	10 2.0	20.9
529648 2010 HQ_{62}	17.0	X	152.04023	173.99889	339.07759	7.52353	0.1572632	0.21232297	2.7827321	21	8 12.2	21.5
529649 2010 HK_{76}	16.1	X	272.49859	257.51106	22.07883	21.10282	0.0763900	0.18474304	3.0532145	21	3 11.0	20.8
529650 2010 HU_{80}	16.6	X	33.96218	212.42948	35.99709	20.78319	0.1497822	0.19031176	2.9933601	21	7 26.5	20.7
529651 2010 HX_{83}	15.3	X	331.62496	32.51703	288.68479	27.63061	0.1830060	0.17524454	3.1625668	21	7 3.4	19.0
529652 2010 HO_{85}	15.6	X	170.97789	214.14158	123.39428	16.68605	0.0832397	0.17561540	3.1581129	21	1 25.8	20.5
529653 2010 HM_{87}	16.9	X	190.05898	133.02259	1.75708	8.82257	0.1223225	0.21793370	2.7347636	21	8 27.3	21.1
529654 2010 HC_{88}	16.0	X	305.01673	255.66053	96.57928	14.75837	0.2261373	0.17312989	3.1882670	21	6 21.8	20.1
529655 2010 HN_{89}	16.0	X	37.41564	112.40175	140.67002	27.05486	0.1794565	0.18044572	3.1014990	21	8 4.8	19.7
529656 2010 HQ_{90}	16.1	X	13.32725	344.36307	278.10418	5.91389	0.1128090	0.17474485	3.1685931	21	6 29.9	19.9
529657 2010 HF_{92}	16.0	X	315.66005	204.68987	153.03281	20.24661	0.1424805	0.17873752	3.1212285	21	7 27.6	20.0
529658 2010 HE_{94}	16.5	X	200.04004	246.38668	205.34772	7.06461	0.1920709	0.21350635	2.7724402	21	7 7.3	21.2
529659 2010 HR_{97}	17.7	X	55.49509	210.33056	72.28963	9.02427	0.1992156	0.30303073	2.1952211	21	10 31.9	20.5
529660 2010 HJ_{98}	17.2	X	215.04778	121.18177	345.32941	4.50557	0.0948819	0.21792394	2.7348452	21	8 17.7	21.2
529661 2010 HM_{99}	15.3	X	96.78664	268.23650	285.40498	24.60772	0.2023703	0.18131364	3.0915936	21	8 3.2	20.3
529662 2010 HU_{105}	17.9	X	189.22266	292.31388	247.93552	2.03107	0.2172718	0.21675756	2.7446473	21	10 13.8	22.4
529663 2010 HS_{107}	18.9	X	178.71568	63.67258	218.53150	22.74455	0.0507808	0.40934666	1.7964227	21	—	—
529664 2010 HA_{111}	16.3	X	353.48632	259.95542	357.65282	25.15211	0.2290177	0.17254687	3.1954448	21	4 29.4	20.1
529665 2010 JX_{2}	16.5	X	284.72484	261.16037	23.40385	1.22143	0.1408321	0.16975395	3.2303987	21	3 15.6	21.3
529666 2010 JK_{5}	17.0	X	145.81784	38.33937	202.69380	16.08325	0.1894583	0.20472779	2.8511376	21	11 20.4	21.9
529667 2010 JT_{23}	15.6	X	100.09340	145.70691	35.08383	16.06461	0.0393388	0.17372760	3.1809499	21	7 9.7	20.4
529668 2010 JL_{33}	17.7	X	161.05837	309.82520	52.48107	5.37451	0.7348893	0.22465712	2.6799247	21	3 14.9	23.9
529669 2010 JC_{34}	16.0	X	147.80891	145.57185	88.34434	12.71940	0.0485535	0.21657906	2.7461552	21	11 16.2	20.1
529670 2010 JT_{34}	19.0	X	306.28454	326.45113	58.66855	44.42536	0.4030522	0.54489796	1.4845424	21	6 15.2	20.5
529671 2010 JD_{35}	18.3	X	137.32156	78.87758	175.45471	23.99329	0.1382360	0.38975834	1.8561188	21	12 25.5	21.4
529672 2010 JU_{49}	16.9	X	300.42368	56.19095	222.31740	2.53802	0.0739480	0.18915501	3.0055514	21	4 2.1	21.1
529673 2010 JW_{63}	15.8	X	266.70793	310.15941	325.34227	25.76548	0.1238359	0.17760933	3.1344321	21	2 14.4	20.7
529674 2010 JG_{75}	17.3	X	142.92738	193.57729	54.35710	9.06979	0.1313222	0.21538333	2.7563095	21	11 25.1	21.6
529675 2010 JV_{75}	17.1	X	185.23470	42.20368	159.93304	8.67949	0.1662729	0.21844672	2.7304802	21	11 11.2	21.6
529676 2010 JN_{79}	16.3	X	62.21416	175.55583	107.86935	13.60355	0.0370599	0.20434645	2.8546836	21	10 8.2	20.5
529677 2010 JS_{87}	15.9	X	37.72979	107.03807	60.17555	17.44488	0.2014667	0.17425183	3.1745669	21	4 19.1	19.6
529678 2010 JL_{100}	15.9	X	183.13109	23.38988	309.65952	8.51782	0.0663372	0.17425961	3.1744724	21	1 31.9	20.7
529679 2010 JX_{101}	16.1	X	235.44061	232.67034	86.98925	17.39433	0.0089290	0.18349547	3.0670380	21	3 24.0	20.8
529680 2010 JU_{105}	16.0	X	356.69268	156.84239	172.51618	18.37381	0.1917702	0.18138320	3.0908032	21	9 2.1	19.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529681 2010 JM_{112}	17.6	X	46.42701	204.26584	43.31969	12.55015	0.1649239	0.27971247	2.3155891	21	8 24.4	20.4
529682 2010 JN_{124}	15.4	X	59.75064	163.83101	57.00650	17.82642	0.0535172	0.17303606	3.1894194	21	7 9.6	20.0
529683 2010 JA_{126}	15.7	X	38.54198	195.61257	290.96032	15.55108	0.0925194	0.17736910	3.1372617	21	2 6.8	19.7
529684 2010 JW_{130}	17.2	X	257.92507	186.89006	200.58628	8.42504	0.2310807	0.25639813	2.4539148	21	6 7.3	21.0
529685 2010 JS_{135}	16.0	X	103.17150	273.21520	307.93084	16.98410	0.2041308	0.18824429	3.0152374	21	9 11.9	21.1
529686 2010 JJ_{138}	16.5	X	196.21212	31.27201	122.78159	9.51269	0.1120920	0.22106916	2.7088436	21	9 29.1	20.7
529687 2010 JV_{140}	16.0	X	136.46832	315.53534	212.03925	9.13667	0.0500085	0.17720027	3.1392540	21	8 2.5	20.8
529688 2010 JX_{145}	16.1	X	13.76518	117.57006	166.22227	26.90202	0.0278346	0.17618429	3.1513109	21	7 23.8	20.9
529689 2010 JF_{146}	17.6	X	289.54350	77.89108	297.10814	8.47948	0.2447275	0.26103311	2.4247798	21	6 25.9	20.5
529690 2010 JB_{155}	17.2	X	125.83726	20.24124	218.58158	13.26253	0.1456482	0.21135443	2.7912269	21	10 29.8	21.7
529691 2010 JM_{176}	16.8	X	52.18751	132.64457	100.96381	11.79897	0.0625127	0.18826736	3.0149911	21	7 16.9	20.7
529692 2010 KO_{6}	17.1	X	290.19756	207.19127	243.53362	11.97009	0.1214973	0.23107905	2.6300399	21	10 29.4	20.3
529693 2010 KT_{8}	16.8	X	155.70050	64.31683	162.40897	13.52135	0.1809508	0.21392152	2.7688519	21	11 14.9	21.6
529694 2010 KW_{9}	17.3	X	289.04821	225.53163	106.95773	17.06187	0.2844116	0.26401420	2.4064926	21	4 29.5	21.1
529695 2010 KC_{14}	16.6	X	67.03888	236.41020	23.86839	19.16394	0.0896093	0.18447772	3.0561413	21	9 20.8	21.0
529696 2010 KU_{17}	16.2	X	102.71302	131.05476	58.24722	10.27860	0.0785104	0.17493099	3.1663449	21	7 30.1	20.9
529697 2010 KR_{20}	16.9	X	351.39005	141.23049	108.97412	14.29232	0.1184940	0.19033875	2.9930771	21	5 11.1	20.7
529698 2010 KP_{29}	15.4	X	357.33583	109.03284	93.74483	13.44675	0.0176474	0.18311416	3.0712943	21	3 27.8	19.9
529699 2010 KY_{29}	16.7	X	20.93488	76.97348	250.96050	1.55352	0.1073176	0.18637982	3.0353128	21	10 7.9	20.5
529700 2010 KN_{32}	17.3	X	182.55882	139.18472	150.48004	13.64675	0.3469685	0.23977424	2.5660653	21	—	—
529701 2010 KR_{46}	16.7	X	64.94494	272.80432	19.08821	13.09536	0.1666786	0.19090845	2.9871196	21	10 29.6	21.0
529702 2010 KU_{48}	15.7	X	14.77893	357.17064	280.67463	15.13126	0.0956029	0.17393216	3.1784554	21	7 20.2	19.7
529703 2010 KQ_{55}	16.1	X	310.03125	25.43773	334.37352	23.72669	0.0487440	0.17550459	3.1594420	21	8 9.2	20.5
529704 2010 KV_{65}	16.4	X	300.44172	253.75110	355.85387	17.80907	0.1440692	0.17659497	3.1464234	21	2 22.9	21.0
529705 2010 KQ_{66}	16.1	X	321.85814	248.25644	139.56846	18.14271	0.0658399	0.18416706	3.0595772	21	9 29.7	20.3
529706 2010 KN_{69}	17.4	X	234.09206	230.86147	127.31993	10.59995	0.1116391	0.24527937	2.5275245	21	4 21.1	21.3
529707 2010 KH_{78}	16.4	X	63.94049	87.58140	97.38970	10.18302	0.0489562	0.19418724	2.9533999	21	5 29.3	20.4
529708 2010 KG_{83}	16.7	X	70.65582	154.31801	112.79046	16.89154	0.0996551	0.18483201	3.0522347	21	10 6.0	21.3
529709 2010 KX_{88}	15.8	X	313.01101	317.61974	263.03298	9.86815	0.0694086	0.17437284	3.1730980	21	2 5.7	20.3
529710 2010 KR_{90}	16.0	X	349.43335	74.95040	263.44326	15.12426	0.0911790	0.17892852	3.1190069	21	8 23.4	20.3
529711 2010 KQ_{98}	16.5	X	29.29399	337.67953	353.48597	8.53739	0.1105490	0.22009736	2.7168114	21	10 28.0	20.0
529712 2010 KZ_{98}	18.2	X	95.99709	156.51872	203.55474	2.92038	0.2105598	0.29900603	2.2148760	21	—	—
529713 2010 KN_{99}	16.4	X	146.52272	177.19013	18.18377	15.77812	0.0414408	0.18444481	3.0565048	21	9 24.5	20.9
529714 2010 KP_{111}	16.5	X	32.99922	278.40179	29.55450	0.96891	0.1658517	0.18416655	3.0595829	21	10 8.7	20.3
529715 2010 KL_{119}	15.8	X	73.71685	266.10958	286.47340	12.03356	0.0236214	0.19746575	2.9206187	21	6 16.8	19.8
529716 2010 KY_{123}	16.2	X	49.59308	302.03538	2.23702	16.03005	0.0890248	0.18699626	3.0286384	21	10 12.8	20.5
529717 2010 KG_{126}	16.4	X	33.34081	109.90443	70.74639	17.36951	0.0781049	0.18469834	3.0537072	21	4 19.5	20.5
529718 2010 KY_{127}	17.0	X	269.44583	357.13430	6.83930	60.82547	0.8827957	0.25088935	2.4897050	21	3 28.3	23.0
529719 2010 LU_{13}	15.4	X	307.89339	314.30211	308.81966	11.84115	0.1861655	0.17814987	3.1280886	21	3 4.8	19.9
529720 2010 LM_{14}	21.2	X	101.63752	187.91945	176.64819	25.92206	0.3794228	0.84218867	1.1105287	21	—	—
529721 2010 LV_{21}	16.7	X	55.57492	108.18673	79.42926	11.59764	0.0363196	0.19123831	2.9836837	21	5 19.9	20.7
529722 2010 LA_{22}	16.3	X	53.23188	265.01318	235.67942	14.67795	0.0636911	0.18047051	3.1012151	21	3 13.8	20.7
529723 2010 LG_{27}	15.5	X	11.85254	320.97633	240.81143	15.48789	0.1796356	0.18211875	3.0824753	21	3 30.3	19.1
529724 2010 LR_{29}	16.0	X	202.96697	114.57469	236.55864	17.57185	0.0376103	0.17900708	3.1180943	21	3 7.5	20.9
529725 2010 LF_{37}	16.5	X	32.79442	246.64155	38.73530	10.85098	0.0667804	0.17712075	3.1401936	21	8 31.9	20.8
529726 2010 LD_{39}	17.6	X	118.95963	103.77458	238.01377	4.98125	0.2214290	0.30122074	2.2040061	21	—	—
529727 2010 LC_{44}	15.7	X	125.11806	192.12875	286.12453	11.93746	0.0378816	0.19150890	2.9808726	21	5 17.3	20.1
529728 2010 LM_{44}	17.0	X	158.75860	86.52146	92.09850	8.75088	0.1587323	0.21370288	2.7707401	21	9 22.3	21.6
529729 2010 LX_{44}	16.1	X	158.76869	259.05119	295.34832	6.59532	0.0483600	0.18534796	3.0465677	21	9 30.2	20.8
529730 2010 LE_{48}	16.0	X	5.99512	236.59608	333.84336	12.46100	0.0347230	0.18332563	3.0689320	21	4 4.3	20.4
529731 2010 LY_{48}	17.1	X	78.82638	169.83864	131.10310	7.57849	0.1075988	0.19280980	2.9674494	21	11 22.3	21.5
529732 2010 LX_{50}	16.1	X	318.10892	21.78965	24.26948	16.97967	0.0633752	0.18565386	3.0432203	21	10 13.9	19.9
529733 2010 LK_{52}	16.6	X	43.53389	214.50497	110.00880	5.90419	0.1109061	0.21882526	2.7273303	21	11 13.3	20.2
529734 2010 LO_{52}	15.8	X	190.17362	337.82585	100.41477	13.08481	0.0151258	0.19686952	2.9265126	21	6 16.3	19.9
529735 2010 LN_{57}	16.0	X	23.97638	304.25083	348.63188	21.04303	0.2553004	0.17990751	3.1076816	21	9 14.6	19.2
529736 2010 LY_{60}	16.5	X	112.31820	18.55465	251.78918	11.60955	0.1210643	0.20951281	2.8075597	21	11 21.7	20.9
529737 2010 LT_{70}	15.7	X	18.87288	271.23026	16.45095	15.40136	0.2296492	0.17727727	3.1383449	21	9 1.6	19.2
529738 2010 LS_{81}	16.5	X	55.67506	43.60871	121.00980	16.21723	0.0295933	0.18434123	3.0576497	21	4 25.9	21.0
529739 2010 LC_{88}	15.9	X	147.48154	40.39922	291.46037	1.45383	0.2101769	0.12568895	3.9470381	21	1 14.7	22.2
529740 2010 LP_{88}	16.0	X	93.99629	258.95806	20.38204	17.12154	0.0461572	0.19033650	2.9931007	21	10 31.1	20.4
529741 2010 LO_{93}	16.4	X	21.65313	91.67039	244.27770	8.27537	0.2502911	0.18496612	3.0507592	21	11 7.9	19.9
529742 2010 LF_{102}	16.0	X	207.81865	137.46703	205.00379	15.13926	0.0906426	0.17551396	3.1593296	21	3 5.7	21.1
529743 2010 LT_{103}	16.3	X	320.05064	164.01928	80.16800	17.20830	0.0449917	0.17882290	3.1202349	21	3 31.4	20.9
529744 2010 LE_{113}	17.1	X	97.16349	341.10267	270.52761	21.89440	0.1233479	0.28422659	2.2910061	21	10 15.5	20.9
529745 2010 LJ_{121}	16.3	X	171.01340	119.38452	316.84421	9.91437	0.0619186	0.19178263	2.9780355	21	5 19.4	20.9
529746 2010 LP_{123}	15.9	X	41.14507	120.87542	44.86570	12.66914	0.0860661	0.18126309	3.0921683	21	4 8.8	19.9
529747 2010 LS_{123}	16.1	X	8.89578	127.71522	79.57129	13.99775	0.0495306	0.18217337	3.0818592	21	4 16.7	20.4
529748 2010 LP_{126}	16.0	X	316.75027	274.88099	97.90347	13.73730	0.0654121	0.17529620	3.1619455	21	9 2.1	20.4
529749 2010 LT_{126}	16.7	X	50.48228	33.08549	305.78199	12.98600	0.2207835	0.22070212	2.7118461	21	12 24.9	20.7
529750 2010 LA_{129}	16.5	X	62.20237	282.48276	25.52014	11.42750	0.2163929	0.19056888	2.9906670	21	11 21.3	21.0
529751 2010 LC_{130}	15.7	X	185.91032	120.25813	1.30847	23.36610	0.0466060	0.17038793	3.2223806	21	8 14.6	20.8
529752 2010 MR	18.6	X	271.13358	70.73615	289.14908	3.32771	0.5261054	0.25674478	2.4517055	21	4 16.7	23.2
529753 2010 MF_{1}	19.6	X	273.10270	27.84172	286.96006	9.10141	0.5885106	0.24945378	2.4992478	21	2 20.8	24.9
529754 2010 MK_{4}	18.0	X	331.05474	205.39297	180.66507	9.58716	0.2217772	0.27749562	2.3279052	21	10 23.8	19.3
529755 2010 MJ_{14}	16.9	X	190.23575	132.90856	74.75213	18.46865	0.1809492	0.22547370	2.6734503	21	11 22.1	21.2
529756 2010 MG_{15}	16.9	X	79.36154	308.41378	21.69378	24.95446	0.1805088	0.28938443	2.2637021	21	—	—
529757 2010 MX_{15}	16.0	X	20.20030	136.29706	177.40449	16.91913	0.2813473	0.18144142	3.0901420	21	10 13.8	19.4
529758 2010 MG_{23}	15.6	X	233.41528	14.14134	345.98051	6.73496	0.1255282	0.15144157	3.4858283	21	4 21.8	21.1
529759 2010 ML_{35}	16.5	X	75.16284	33.11506	240.53347	3.79558	0.2276340	0.18686784	3.0300259	21	10 27.5	21.1
529760 2010 MC_{42}	15.8	X	328.01762	234.18343	116.51497	8.58305	0.1136596	0.17207698	3.2012594	21	8 12.7	19.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529761 2010 ML_{44}	16.6	X	37.24637	223.82388	103.68409	12.23016	0.2137935	0.18627624	3.0364379	21	11 19.7	20.7
529762 2010 MS_{45}	17.2	X	101.75407	148.68276	132.87634	10.04567	0.1356631	0.21858502	2.7293283	21	11 29.7	21.6
529763 2010 MG_{50}	15.7	X	298.17295	345.92039	36.27722	28.10570	0.1615578	0.17135683	3.2102223	21	8 14.1	20.5
529764 2010 MM_{50}	17.1	X	79.34507	304.52654	317.80492	7.77956	0.1275424	0.20889058	2.8131322	21	10 5.2	21.2
529765 2010 ML_{54}	17.0	X	234.47466	84.54590	44.37560	8.99292	0.2631897	0.22430366	2.6827393	21	9 22.3	21.4
529766 2010 MS_{56}	16.4	X	102.72391	31.63364	251.25450	13.93261	0.0693347	0.19128518	2.9831963	21	11 19.9	20.9
529767 2010 MS_{58}	16.4	X	185.10431	332.89772	76.98209	10.65120	0.1422485	0.18846640	3.0128679	21	5 8.2	21.3
529768 2010 ME_{70}	16.4	X	121.63850	262.70868	209.68188	11.41961	0.0704533	0.18733230	3.0250156	21	5 12.9	20.8
529769 2010 MY_{70}	16.1	X	234.96323	164.57007	172.62534	10.36146	0.0323092	0.17925143	3.1152600	21	4 4.6	20.6
529770 2010 MJ_{76}	16.0	X	234.01893	265.36974	104.38590	11.36138	0.0588067	0.18739202	3.0243728	21	5 13.3	20.6
529771 2010 MZ_{76}	16.3	X	275.55053	282.32907	4.21959	15.74278	0.0877853	0.17461223	3.1701972	21	3 15.5	21.0
529772 2010 ML_{85}	15.5	X	41.64983	265.43379	248.30939	21.05716	0.0942866	0.17744724	3.1363405	21	3 12.8	20.0
529773 2010 MY_{96}	17.2	X	108.93148	261.33445	351.01500	3.74222	0.1531139	0.21288928	2.7777950	21	10 29.8	21.6
529774 2010 MT_{97}	16.0	X	225.19378	274.72851	96.54337	17.19526	0.1187166	0.18489335	3.0515596	21	5 4.8	21.0
529775 2010 MX_{98}	16.0	X	312.98081	106.78443	272.23406	14.27750	0.0406183	0.17350774	3.1836366	21	8 25.5	20.6
529776 2010 MP_{100}	17.3	X	181.56104	160.46759	6.80693	8.15154	0.1544660	0.21488070	2.7606061	21	9 25.1	21.6
529777 2010 MS_{109}	15.6	X	1.38295	259.75736	75.18097	15.76445	0.0694376	0.17597158	3.1538499	21	9 23.1	20.0
529778 2010 MZ_{110}	15.7	X	108.46721	351.45848	234.41716	14.34197	0.0389284	0.17562057	3.1580509	21	9 7.3	20.5
529779 2010 MM_{113}	17.8	X	148.01027	4.42965	275.87284	6.39285	0.1999913	0.30388507	2.1911048	21	—	—
529780 2010 MQ_{116}	5.4	X	238.94635	165.70089	5.07173	30.73672	0.1738225	0.00360117	42.1541352	21	10 18.8	22.1
529781 2010 NX	17.4	X	358.46457	262.11525	70.04188	11.91937	0.2996598	0.26799117	2.3826252	21	10 19.2	19.0
529782 2010 NY_{9}	16.2	X	29.27598	263.35670	298.44787	6.18988	0.0989173	0.18287734	3.0739452	21	5 1.8	20.1
529783 2010 NP_{36}	18.3	X	88.81494	221.11456	139.52515	2.24958	0.1531403	0.29429020	2.2384747	21	—	—
529784 2010 NK_{70}	15.9	X	130.56014	281.66597	99.30292	4.18734	0.3027878	0.12472769	3.9672916	21	3 4.5	22.3
529785 2010 ND_{77}	16.5	X	141.47819	40.46901	186.70352	16.68301	0.0744751	0.18245968	3.0786343	21	10 26.9	21.2
529786 2010 NB_{79}	16.6	X	37.66267	258.01404	90.17905	10.76836	0.1241016	0.18666941	3.0321728	21	11 30.6	20.7
529787 2010 NR_{84}	15.9	X	190.49042	77.15151	84.97101	17.34380	0.0439733	0.17896521	3.1185806	21	10 8.8	20.8
529788 2010 NS_{101}	16.8	X	57.56255	294.71311	1.41912	6.38085	0.1489218	0.18194494	3.0844381	21	10 22.9	21.2
529789 2010 NW_{106}	16.8	X	14.23022	156.27376	179.55229	13.96247	0.1912421	0.17937537	3.1138249	21	10 18.9	20.4
529790 2010 NP_{118}	17.8	X	18.02057	45.12895	304.44071	4.95209	0.2458063	0.28226690	2.3015977	21	12 13.0	20.2
529791 2010 OX_{5}	18.1	X	222.90392	159.93509	238.74358	15.66789	0.1983227	0.24321000	2.5418413	21	5 22.2	22.2
529792 2010 OD_{6}	16.5	X	241.70523	138.37714	341.45464	9.54405	0.0230717	0.17826929	3.1266914	21	10 6.3	21.0
529793 2010 OO_{9}	18.0	X	314.49005	347.87580	44.39875	3.19068	0.1702614	0.26478748	2.4018050	21	9 21.7	20.1
529794 2010 OA_{10}	15.8	X	243.82638	241.54017	80.25451	22.81626	0.0438854	0.17316340	3.1878557	21	4 7.4	20.9
529795 2010 OZ_{14}	15.8	X	14.77600	218.02797	86.25462	16.47238	0.2402950	0.17419639	3.1752404	21	9 19.8	19.5
529796 2010 OC_{17}	16.6	X	83.75451	277.25776	30.30646	12.62363	0.1245455	0.18957981	3.0010599	21	12 2.6	21.2
529797 2010 OA_{19}	15.9	X	117.37528	277.97502	264.57332	12.41462	0.0678398	0.16179193	3.3355297	21	7 30.6	21.0
529798 2010 OM_{20}	16.2	X	155.97044	126.06560	217.77759	3.91047	0.2821867	0.12575601	3.9456348	21	2 5.9	22.8
529799 2010 OD_{26}	16.8	X	344.46135	353.45972	268.87062	11.47552	0.0788983	0.24307113	2.5428093	21	5 6.2	19.8
529800 2010 OF_{29}	17.0	X	220.24683	256.81403	151.84503	17.22590	0.1890315	0.24344433	2.5402099	21	6 5.1	21.5
529801 2010 OL_{30}	15.7	X	147.48237	314.43313	32.32193	4.11719	0.2905395	0.12391101	3.9847045	21	2 6.6	22.2
529802 2010 OP_{39}	16.5	X	70.42849	126.51600	132.55360	10.69767	0.2050005	0.17532645	3.1615818	21	10 5.5	21.2
529803 2010 OU_{39}	16.4	X	5.52765	140.60512	218.11801	10.97793	0.2459211	0.18039574	3.1020719	21	11 7.5	19.5
529804 2010 OW_{40}	16.0	X	54.88117	115.45914	206.67056	22.48004	0.0722119	0.18378025	3.0638688	21	11 12.5	20.4
529805 2010 ON_{54}	16.5	X	51.65376	324.76222	239.12927	12.91654	0.0666893	0.24255708	2.5464007	21	6 4.6	19.6
529806 2010 OM_{65}	17.6	X	224.65034	147.98900	226.51950	9.16096	0.2963341	0.23879993	2.5730403	21	4 18.9	22.2
529807 2010 OS_{75}	16.6	X	171.07050	143.22640	297.55471	16.94278	0.1374668	0.23753580	2.5821611	21	5 27.1	20.9
529808 2010 OB_{79}	15.8	X	136.16818	238.60937	130.86472	3.89095	0.2227937	0.12301474	4.0040358	21	2 17.1	22.0
529809 2010 OS_{79}	16.1	X	100.31084	230.97970	79.33680	15.09109	0.1764635	0.21831939	2.7315417	21	—	—
529810 2010 OO_{81}	16.4	X	43.94285	290.66741	20.29733	13.31951	0.0515246	0.17648119	3.1477756	21	10 11.3	20.7
529811 2010 OG_{83}	16.1	X	338.09628	291.00806	58.66699	18.16707	0.1506251	0.19853010	2.9101707	21	9 8.5	19.8
529812 2010 OV_{94}	16.5	X	13.39532	249.74419	24.22610	15.92475	0.1074363	0.19006035	2.9959993	21	7 20.3	20.5
529813 2010 OU_{101}	16.6	X	198.68953	279.12549	258.62377	12.17773	0.0866126	0.21623372	2.7490782	21	10 25.5	20.8
529814 2010 OK_{113}	16.6	X	50.18356	114.81195	90.97232	15.18981	0.1113937	0.18553178	3.0445551	21	6 13.7	20.5
529815 2010 PG_{17}	16.8	X	65.11689	340.77697	217.41272	11.28891	0.1976998	0.18778997	3.0200986	21	7 6.6	20.9
529816 2010 PB_{24}	17.4	X	301.22113	48.59779	321.03566	4.12225	0.2239157	0.26416028	2.4056053	21	7 10.3	19.9
529817 2010 PN_{50}	17.7	X	231.92880	177.02950	192.32619	8.74551	0.1748178	0.23799555	2.5788347	21	4 26.1	21.8
529818 2010 PE_{58}	17.9	X	301.07182	45.01311	304.10898	3.28141	0.2071934	0.26111399	2.4242791	21	6 11.5	20.7
529819 2010 PM_{58}	20.8	X	251.76327	53.79749	332.37594	13.59247	0.4597359	0.61379356	1.3712643	21	4 22.3	23.2
529820 2010 PR_{60}	18.4	X	294.76566	78.62689	323.06468	6.32084	0.2550062	0.26544089	2.3978619	21	8 11.2	20.9
529821 2010 PH_{63}	18.1	X	292.69045	85.92963	271.05421	6.49571	0.2642599	0.25965444	2.4333554	21	5 31.7	21.2
529822 2010 PQ_{73}	18.4	X	211.36742	303.95322	334.03094	3.99890	0.2049667	0.31591439	2.1351240	21	—	—
529823 2010 PP_{81}	6.8	X	3.33410	173.80109	172.21390	30.70493	0.2884363	0.00254961	53.0664774	21	9 15.6	22.5
529824 2010 QJ	17.2	X	320.58509	6.36667	327.14130	5.33575	0.1698501	0.26226766	2.4171646	21	6 30.1	19.5
529825 2010 QE_{4}	17.8	X	299.15476	215.65741	174.54759	10.27371	0.3121042	0.26376290	2.4080208	21	7 19.0	20.5
529826 2010 RR_{2}	18.0	X	347.86676	333.17127	11.00615	2.93414	0.2048596	0.27021508	2.3695343	21	9 21.6	19.6
529827 2010 RK_{21}	18.1	X	331.70708	51.16065	268.42541	1.69672	0.2099993	0.26167741	2.4207980	21	6 24.3	20.2
529828 2010 RJ_{22}	17.6	X	315.55223	42.26972	276.06546	6.35333	0.2258689	0.25883968	2.4384591	21	5 16.3	20.2
529829 2010 RE_{37}	18.2	X	120.98540	340.10361	6.84024	6.39023	0.1611546	0.30506199	2.1854657	21	—	—
529830 2010 RO_{44}	18.1	X	310.85835	115.47145	265.36272	1.52612	0.2057716	0.26617317	2.3934620	21	8 18.4	20.1
529831 2010 RQ_{47}	18.4	X	297.98412	137.77077	217.91994	1.42977	0.2184076	0.25712774	2.4492705	21	6 14.7	21.4
529832 2010 RV_{47}	17.9	X	66.51137	24.77094	353.20395	6.38977	0.1958937	0.29323362	2.2438486	21	—	—
529833 2010 RH_{48}	18.3	X	310.48570	58.63123	338.71100	1.10908	0.1951936	0.26674864	2.3900184	21	9 16.2	20.1
529834 2010 RC_{52}	18.0	X	302.21957	232.73174	159.85396	3.06164	0.1810331	0.26324911	2.4111530	21	8 23.9	20.5
529835 2010 RB_{55}	17.2	X	269.91838	111.76772	188.63151	26.09932	0.2218821	0.23942873	2.5685333	21	2 27.2	21.5
529836 2010 RX_{64}	18.2	X	328.87813	329.16850	353.82336	1.09217	0.1947229	0.26125749	2.4233913	21	6 26.0	20.1
529837 2010 RQ_{68}	17.0	X	297.98578	9.70500	11.36664	7.13779	0.1362279	0.26099469	2.4250178	21	8 9.3	19.7
529838 2010 RL_{69}	18.2	X	314.75178	331.08867	335.70552	0.66949	0.1788994	0.25456737	2.4656659	21	5 7.5	20.8
529839 2010 RS_{70}	18.3	X	285.07597	346.87667	357.88114	4.43638	0.2480620	0.25461589	2.4653526	21	5 6.9	21.7
529840 2010 RY_{78}	18.2	X	297.71577	230.84523	159.55669	6.25652	0.2693647	0.26355129	2.4093096	21	7 25.8	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529841 2010 RL_{79}	18.0	X	151.97365	13.75014	288.69447	7.37035	0.2506463	0.30411893	2.1899813	21	—	—
529842 2010 RO_{79}	16.4	X	174.60265	68.32796	359.23801	12.53589	0.2536080	0.23452816	2.6041903	21	5 14.2	21.2
529843 2010 RV_{79}	17.7	X	318.73163	22.23813	337.63870	4.39940	0.1650060	0.26344810	2.4099387	21	8 9.0	19.8
529844 2010 RR_{98}	18.4	X	278.38356	150.60727	210.33526	4.91192	0.2266932	0.25275190	2.4774587	21	5 25.9	22.0
529845 2010 RM_{99}	18.6	X	48.88344	178.84281	207.12276	4.59965	0.1636523	0.29032532	2.2588086	21	—	—
529846 2010 RD_{100}	18.2	X	283.34619	152.24157	214.10700	6.22743	0.1391215	0.25443560	2.4665171	21	6 21.6	21.4
529847 2010 RB_{104}	18.4	X	255.94638	347.33774	3.85573	13.52250	0.2243507	0.24500685	2.5293984	21	4 16.6	22.5
529848 2010 RX_{108}	16.5	X	10.98730	326.92137	5.84284	12.46654	0.0756106	0.17806340	3.1291012	21	9 26.2	20.4
529849 2010 RZ_{108}	17.9	X	351.51670	331.81564	9.07063	6.60667	0.1896146	0.26775099	2.3840498	21	9 24.2	19.4
529850 2010 RK_{112}	17.8	X	353.64754	333.58212	16.40558	6.52213	0.1253055	0.26929297	2.3749403	21	10 8.3	19.9
529851 2010 RM_{112}	18.2	X	318.38206	262.45234	58.72914	2.18217	0.1842614	0.25562658	2.4588500	21	6 3.6	20.8
529852 2010 RO_{112}	18.4	X	306.15203	317.67621	77.60592	1.78516	0.2067001	0.26511275	2.3998401	21	9 2.5	20.6
529853 2010 RB_{118}	17.8	X	332.75243	327.18771	127.37355	4.48708	0.1110661	0.28517315	2.2859337	21	—	—
529854 2010 RV_{123}	19.0	X	279.36189	54.72917	305.51667	3.56985	0.3060461	0.25367555	2.4714413	21	5 14.1	22.8
529855 2010 RR_{125}	16.0	X	135.25278	272.89589	98.27206	3.30180	0.2557483	0.12579908	3.9447341	21	2 21.1	22.3
529856 2010 RV_{125}	17.9	X	315.03044	264.41326	112.58157	3.02656	0.2103694	0.26435083	2.4044491	21	8 22.4	19.9
529857 2010 RC_{126}	18.3	X	45.89644	237.77642	124.79960	3.60716	0.0910681	0.28529295	2.2852937	21	—	—
529858 2010 RK_{133}	18.6	X	18.10782	193.22894	190.49140	21.97020	0.0914127	0.37550846	1.9027843	21	—	—
529859 2010 RX_{134}	17.0	X	17.60574	144.10671	181.48016	8.98286	0.1633005	0.17971997	3.1098432	21	10 6.5	20.5
529860 2010 RD_{136}	18.3	X	337.45214	9.35716	11.15407	1.41976	0.1881411	0.27085608	2.3657943	21	10 25.7	19.8
529861 2010 RD_{141}	18.3	X	128.91032	161.64876	171.40261	4.78452	0.2045368	0.30308665	2.1949511	21	—	—
529862 2010 RP_{143}	16.4	X	355.11574	25.12101	349.82911	9.55266	0.1566237	0.18228674	3.0805812	21	10 27.6	20.0
529863 2010 RB_{145}	16.4	X	92.84274	265.65570	357.87340	9.04503	0.0382984	0.18035422	3.1025480	21	10 9.7	20.9
529864 2010 RE_{152}	16.9	X	133.10311	164.86058	6.28269	14.65157	0.0056207	0.25867527	2.4394922	21	8 11.9	20.3
529865 2010 RN_{156}	18.0	X	284.23779	349.59409	58.46588	5.80656	0.1992437	0.26077841	2.4263585	21	8 15.5	20.8
529866 2010 RK_{164}	16.6	X	269.19681	13.88481	14.26272	15.01714	0.1169016	0.25762147	2.4461402	21	7 9.5	20.1
529867 2010 RE_{166}	17.8	X	293.47676	142.68362	254.71302	3.33351	0.1967734	0.26294788	2.4129941	21	8 11.1	20.5
529868 2010 RZ_{171}	18.2	X	252.85798	347.96743	3.86540	7.42545	0.2518876	0.24453435	2.5326556	21	4 14.5	22.5
529869 2010 RS_{174}	18.9	X	252.21118	353.20586	357.12500	13.17934	0.2946148	0.24509545	2.5287887	21	4 7.4	23.3
529870 2010 RU_{175}	16.6	X	355.90960	355.64593	344.17849	9.44745	0.1076967	0.17536419	3.1611281	21	9 12.2	20.5
529871 2010 RE_{181}	16.9	X	57.92406	287.98436	20.42220	1.41676	0.1856616	0.18821875	3.0155101	21	11 14.8	21.1
529872 2010 RN_{189}	17.5	X	200.59480	98.58407	67.56564	6.98684	0.0638615	0.26571194	2.3962310	21	10 26.8	20.7
529873 2010 RU_{189}	16.6	X	277.92430	134.59681	288.33401	7.52566	0.0944284	0.17797092	3.1301851	21	8 31.3	21.0
529874 2010 RZ_{189}	17.6	X	314.06377	305.74852	138.05328	2.77627	0.1782231	0.28137492	2.3064593	21	12 16.5	19.1
529875 2010 RA_{190}	17.8	X	111.19617	22.95045	284.14430	5.94703	0.1352992	0.29216586	2.2493122	21	—	—
529876 2010 RB_{190}	18.1	X	169.85723	300.85356	314.50517	5.89301	0.1502906	0.29410806	2.2393987	21	—	—
529877 2010 SO_{4}	17.3	X	317.14823	321.49201	323.37865	6.96328	0.1313913	0.24651196	2.5190921	21	4 15.2	20.6
529878 2010 SS_{6}	18.2	X	232.27551	174.77466	356.86244	20.02601	0.0537821	0.37716852	1.8971970	21	—	—
529879 2010 SN_{10}	18.2	X	143.33557	30.61539	301.99363	5.01730	0.2912565	0.30627894	2.1796727	21	—	—
529880 2010 SB_{15}	18.9	X	182.20967	51.27813	185.13144	22.94274	0.0384203	0.38020107	1.8870953	21	—	—
529881 2010 SV_{25}	18.2	X	312.11327	278.26877	47.33523	0.43730	0.1868750	0.25561120	2.4589486	21	5 29.7	20.8
529882 2010 SS_{27}	18.5	X	123.12481	123.79784	204.17955	3.68070	0.2100611	0.29768654	2.2214161	21	—	—
529883 2010 SL_{28}	18.6	X	165.74748	288.27863	10.96473	4.73655	0.1594177	0.30187019	2.2008439	21	—	—
529884 2010 SZ_{31}	18.1	X	258.20404	36.09605	40.17800	5.92876	0.2233659	0.26050111	2.4280800	21	8 15.6	21.5
529885 2010 SW_{34}	18.5	X	272.86624	27.55597	40.80442	5.61056	0.1953714	0.26265642	2.4147789	21	8 28.7	21.4
529886 2010 SX_{34}	17.0	X	276.94156	4.35280	34.85442	6.87396	0.1331191	0.25921243	2.4361209	21	8 2.7	20.1
529887 2010 SK_{35}	17.3	X	340.38345	315.38878	39.45961	6.07998	0.2940803	0.26659925	2.3909111	21	9 23.3	18.1
529888 2010 SD_{38}	17.7	X	318.45121	275.46123	92.21111	3.47431	0.2063411	0.26433895	2.4045212	21	8 15.7	19.5
529889 2010 SY_{44}	17.2	X	178.05207	65.68925	223.59242	21.70966	0.1797940	0.29535548	2.2330890	21	—	—
529890 2010 SE_{45}	17.7	X	130.11162	3.39767	272.59492	6.34720	0.1192744	0.29317977	2.2441233	21	12 29.4	21.0
529891 2010 SG_{45}	16.7	X	26.20446	335.57881	239.44532	4.42433	0.1794378	0.24317830	2.5420622	21	5 16.5	18.6
529892 2010 TT_{2}	17.0	X	11.76861	339.67459	351.58255	8.31897	0.1398076	0.17731728	3.1378729	21	9 28.9	20.8
529893 2010 TG_{4}	18.2	X	272.60303	112.77357	333.52752	4.81702	0.0850600	0.26837330	2.3803629	21	10 6.9	21.0
529894 2010 TM_{10}	16.4	X	343.28444	341.98903	9.34598	15.58189	0.0516565	0.17453945	3.1710784	21	9 12.4	20.7
529895 2010 TX_{14}	18.0	X	281.99299	313.70986	6.20315	15.14631	0.1373320	0.24428396	2.5343860	21	4 14.1	21.7
529896 2010 TP_{16}	16.6	X	79.05394	49.77202	237.49279	8.25350	0.1167901	0.18367561	3.0650323	21	11 3.1	21.0
529897 2010 TY_{18}	16.6	X	226.73297	348.82207	24.92503	14.51222	0.1849403	0.23621262	2.5917950	21	4 23.8	20.9
529898 2010 TD_{24}	18.4	X	253.37352	4.76699	47.51169	2.69310	0.1353810	0.25468391	2.4649136	21	7 17.6	21.7
529899 2010 TC_{26}	18.7	X	237.46585	166.49038	233.78784	2.14260	0.3351208	0.24842735	2.5061272	21	5 27.9	23.0
529900 2010 TR_{30}	16.1	X	150.63037	174.56339	10.00301	17.29223	0.1517045	0.17256442	3.1952281	21	9 18.3	21.3
529901 2010 TT_{31}	18.1	X	300.99784	96.71223	255.72226	0.54982	0.2025899	0.25690965	2.4506565	21	6 17.4	20.7
529902 2010 TK_{38}	17.7	X	295.43617	201.22892	205.42973	5.12379	0.1930262	0.26177251	2.4202117	21	8 28.7	20.2
529903 2010 TD_{42}	16.1	X	153.97049	17.99212	326.15380	2.25413	0.2025320	0.12444702	3.9732546	21	2 1.9	22.4
529904 2010 TL_{45}	18.6	X	272.88077	60.93504	352.85035	1.03523	0.1784230	0.25866560	2.4395530	21	8 7.6	21.5
529905 2010 TY_{55}	17.7	X	296.40638	344.15726	17.67894	13.48239	0.2833050	0.25627625	2.4546928	21	6 7.3	21.0
529906 2010 TY_{56}	16.0	X	197.86241	261.07993	235.65240	6.61946	0.0853250	0.16941501	3.2347059	21	8 31.1	21.1
529907 2010 TY_{63}	18.1	X	313.00579	134.53983	258.29973	4.19560	0.1816877	0.26585075	2.3953967	21	9 13.5	20.1
529908 2010 TL_{65}	18.8	X	252.55577	148.68482	206.03477	8.10778	0.2717943	0.24636046	2.5201248	21	4 17.9	22.9
529909 2010 TE_{69}	16.3	X	95.85967	232.20176	3.00291	17.42871	0.1332586	0.17599679	3.1535488	21	9 22.4	21.1
529910 2010 TJ_{69}	17.8	X	231.57687	175.40043	211.99951	3.93173	0.1251406	0.24584022	2.5236788	21	5 21.1	21.5
529911 2010 TC_{81}	17.6	X	0.59531	183.23403	206.68741	22.41278	0.1038783	0.36752401	1.9302441	21	—	—
529912 2010 TL_{93}	18.2	X	197.22383	246.28880	17.83495	5.88939	0.1464071	0.30185913	2.2008976	21	—	—
529913 2010 TK_{97}	17.9	X	283.05786	41.71355	28.69646	6.85395	0.2204162	0.26508259	2.4000221	21	9 12.5	20.6
529914 2010 TV_{97}	18.7	X	276.15246	79.76062	19.36438	3.88818	0.1253219	0.27220351	2.3579806	21	10 26.9	21.1
529915 2010 TZ_{97}	18.6	X	145.04552	163.62810	157.55284	0.91270	0.1760521	0.30262915	2.1971627	21	—	—
529916 2010 TJ_{99}	16.7	X	92.97582	204.92688	63.12207	1.97478	0.1412873	0.18474597	3.0531822	21	10 30.1	21.3
529917 2010 TA_{107}	16.6	X	70.69268	267.07072	20.63853	15.22573	0.2014939	0.18515604	3.0486727	21	11 2.9	21.1
529918 2010 TM_{109}	17.6	X	174.25252	146.44859	39.69348	7.48213	0.0432685	0.27160283	2.3614560	21	10 22.3	20.8
529919 2010 TY_{109}	16.6	X	82.28240	239.88860	40.37937	9.65116	0.0815265	0.18308791	3.0715878	21	10 26.3	20.9
529920 2010 TL_{117}	19.3	X	250.46876	289.53549	196.45714	25.08411	0.5164636	0.25864923	2.4396560	21	9 1.5	24.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
529921 2010 TN_{119}	18.8	X	225.87255	178.99420	200.16062	6.72155	0.3144886	0.23981730	2.5657581	21	4 26.2	23.3
529922 2010 TD_{131}	17.5	X	130.33370	215.52959	56.13742	7.69436	0.1507535	0.28586153	2.2822624	21	12 22.8	21.0
529923 2010 TZ_{144}	16.9	X	70.89362	303.81130	14.61558	11.16114	0.1442763	0.18699491	3.0286530	21	12 3.8	21.5
529924 2010 TD_{146}	18.4	X	230.62279	20.51647	6.13012	5.60473	0.2470000	0.24260206	2.5460859	21	5 9.5	22.7
529925 2010 TT_{148}	17.6	X	322.75635	275.44223	96.17271	5.97141	0.2192984	0.26626728	2.3928980	21	9 2.7	19.4
529926 2010 TO_{149}	16.6	X	141.04918	237.90984	273.77989	29.33319	0.3062129	0.22975243	2.6401543	21	7 27.3	21.7
529927 2010 TD_{152}	17.0	X	247.61324	112.12400	241.55672	13.98570	0.1486795	0.24291010	2.5439330	21	4 19.6	21.0
529928 2010 TP_{166}	18.0	X	3.10134	174.50351	216.09644	22.90724	0.1485721	0.37275492	1.9121434	21	—	—
529929 2010 TX_{167}	18.2	X	127.48943	322.91133	20.15322	6.43052	0.2105150	0.30099371	2.2051143	21	—	—
529930 2010 TB_{171}	18.1	X	298.99975	239.21747	206.29357	20.79653	0.0989355	0.36435928	1.9414051	21	12 14.7	20.0
529931 2010 TX_{171}	18.6	X	311.23848	323.14897	51.55480	3.40086	0.2100970	0.26108698	2.4244463	21	8 10.6	20.8
529932 2010 TO_{172}	18.1	X	219.82385	220.85699	19.69037	5.29691	0.0990907	0.29613093	2.2291889	21	—	—
529933 2010 TO_{174}	17.2	X	0.73792	216.08248	116.60399	7.47264	0.3408508	0.26797162	2.3827410	21	11 1.4	18.7
529934 2010 TP_{175}	17.8	X	309.64549	273.30128	62.41027	11.23148	0.2866068	0.25763871	2.4460311	21	5 22.6	20.5
529935 2010 TE_{176}	19.6	X	252.45949	148.49302	222.72502	5.97994	0.3873566	0.24757442	2.5118799	21	4 29.7	24.1
529936 2010 TP_{176}	18.0	X	296.65988	81.51081	309.60152	4.22819	0.2409241	0.26029886	2.4293376	21	7 31.4	20.5
529937 2010 TF_{177}	17.9	X	240.95590	35.23901	37.82180	6.51626	0.1790923	0.25365009	2.4716067	21	7 27.3	21.6
529938 2010 TM_{182}	7.0	X	339.23964	29.68853	44.82372	5.61465	0.1677404	0.00396201	39.5541641	21	11 8.5	22.2
529939 2010 TU_{191}	10.8	X	34.02928	344.48015	60.81092	1.81430	0.2866498	0.01049564	20.6599859	21	1 2.1	22.9
529940 2010 TB_{192}	6.4	X	27.13858	109.04130	243.61408	13.02785	0.3243288	0.00242391	54.8856243	21	11 7.3	22.5
529941 2010 TK_{193}	17.9	X	302.35430	148.93467	259.96603	4.83170	0.0804708	0.26396144	2.4068133	21	9 29.8	20.7
529942 2010 TL_{193}	17.3	X	209.68938	248.08352	278.53276	5.66335	0.0896635	0.26630826	2.3926525	21	10 31.3	20.7
529943 2010 TM_{193}	16.8	X	254.45182	300.12024	85.76598	10.74510	0.1354689	0.23619249	2.5919423	21	6 12.7	20.6
529944 2010 TS_{194}	17.5	X	281.53718	340.03078	12.81804	9.21986	0.0613968	0.24385862	2.5373321	21	6 11.9	21.0
529945 2010 TX_{194}	17.9	X	233.74122	135.00849	18.40603	10.85082	0.0712466	0.27740961	2.3283863	21	11 16.6	20.9
529946 2010 TY_{194}	17.6	X	340.06767	48.17738	31.80883	10.11169	0.1539678	0.28403614	2.2920301	21	—	—
529947 2010 TZ_{194}	17.9	X	37.48871	355.51467	57.64326	5.57717	0.1293381	0.29334783	2.2432661	21	—	—
529948 2010 TM_{195}	16.2	X	24.11372	340.41145	342.16373	12.64128	0.0561565	0.17413196	3.1760237	21	9 25.9	20.5
529949 2010 TN_{195}	17.5	X	78.22987	183.19888	135.30194	8.27541	0.2134898	0.28053961	2.3110353	21	—	—
529950 2010 TP_{195}	16.8	X	295.03116	27.39081	273.14088	7.77609	0.2267068	0.24339774	2.5405340	21	3 22.3	20.6
529951 2010 UD	21.0	X	181.91923	262.25923	23.74793	26.28743	0.2640184	0.85692389	1.0977612	21	—	—
529952 2010 US_{12}	18.0	X	339.47066	183.31498	219.30695	21.04773	0.0950135	0.36517125	1.9385261	21	12 22.1	20.0
529953 2010 UG_{17}	17.8	X	234.67589	325.43836	62.62669	3.52380	0.2205138	0.24103880	2.5570825	21	5 18.1	21.8
529954 2010 UJ_{25}	17.9	X	216.55631	207.37761	57.96230	21.92303	0.0532014	0.38669322	1.8659142	21	—	—
529955 2010 UH_{26}	17.5	X	277.09571	304.88633	15.87751	2.01079	0.2138490	0.23920029	2.5701684	21	4 4.1	21.4
529956 2010 UX_{45}	18.7	X	64.52297	132.64872	228.39399	21.19459	0.0992985	0.37771864	1.8953544	21	—	—
529957 2010 UB_{52}	17.7	X	310.34769	152.30546	237.13869	2.26979	0.2069415	0.26176468	2.4202600	21	8 30.1	19.8
529958 2010 US_{55}	17.9	X	206.17719	187.50593	227.69419	5.41725	0.2578909	0.23871002	2.5736863	21	5 27.1	22.3
529959 2010 UP_{56}	18.4	X	55.31254	67.69315	235.54819	19.79850	0.0508426	0.35742542	1.9664327	21	11 13.5	20.2
529960 2010 UD_{60}	17.0	X	168.46606	266.33954	246.76474	4.41692	0.2597703	0.24324714	2.5415826	21	8 25.2	21.5
529961 2010 UV_{65}	16.3	X	40.95433	355.20580	322.25854	2.99879	0.1035271	0.17662043	3.1461210	21	10 20.8	20.6
529962 2010 UW_{71}	18.5	X	303.49980	191.06879	262.82586	3.99099	0.2122532	0.27343641	2.3508873	21	12 1.9	20.2
529963 2010 UC_{74}	17.3	X	173.90644	180.21615	288.88338	5.82322	0.1561608	0.24093062	2.5578479	21	7 7.2	21.2
529964 2010 UF_{76}	18.1	X	200.34312	155.39281	311.76332	4.01225	0.2487959	0.24361753	2.5390058	21	7 26.4	22.3
529965 2010 UY_{76}	15.7	X	71.35553	20.20285	268.00458	10.12213	0.0342950	0.16889754	3.2413095	21	10 9.5	20.5
529966 2010 UF_{77}	18.0	X	223.18316	46.82036	3.70253	3.61245	0.2495787	0.24081809	2.5586447	21	6 3.1	22.5
529967 2010 UP_{77}	17.6	X	228.75063	37.41431	354.18238	7.48297	0.1933808	0.24210444	2.5495736	21	5 16.4	21.8
529968 2010 UO_{86}	18.0	X	303.82231	305.49685	91.88468	3.20533	0.1891944	0.26267096	2.4146898	21	9 4.4	20.1
529969 2010 UF_{92}	16.8	X	229.76184	93.09480	266.90010	13.63425	0.1819022	0.23527045	2.5987099	21	4 5.3	21.4
529970 2010 UD_{96}	17.6	X	240.97371	145.17132	207.38322	17.56923	0.3558897	0.23937046	2.5689502	21	3 31.9	22.5
529971 2010 UJ_{97}	17.8	X	222.94321	173.94837	214.44770	8.59516	0.1658382	0.23818767	2.5774477	21	5 11.6	21.9
529972 2010 UR_{98}	15.4	X	161.90259	15.12406	335.34463	4.31134	0.2836564	0.12485562	3.9645811	21	2 18.6	22.0
529973 2010 UK_{103}	18.0	X	318.03669	358.41546	58.25000	7.85790	0.1024355	0.26864517	2.3787567	21	11 10.5	20.4
529974 2010 UJ_{107}	16.8	X	141.54789	263.83846	231.93610	14.36257	0.0927323	0.24614554	2.5215915	21	7 3.1	20.7
529975 2010 UN_{107}	18.4	X	247.13963	293.40863	60.61300	4.96090	0.3008701	0.24090123	2.5580560	21	4 12.8	22.9
529976 2010 UV_{108}	16.3	X	21.18402	276.52824	38.28549	11.35692	0.1341821	0.17116023	3.2126800	21	9 27.5	20.3
529977 2010 UA_{109}	16.6	X	94.09862	258.04486	39.22545	11.45813	0.1237002	0.18740551	3.0242277	21	12 1.2	21.3
529978 2010 UJ_{109}	15.7	X	28.88541	273.03737	68.02766	12.05028	0.1025768	0.17721086	3.1391290	21	11 6.6	19.8
529979 2010 UQ_{110}	17.9	X	345.58615	250.70846	113.30980	2.48653	0.1929881	0.26565683	2.3965623	21	10 19.0	19.6
529980 2010 UR_{110}	17.9	X	168.55161	251.96891	25.79287	6.99472	0.1727991	0.29636007	2.2280397	21	—	—
529981 2010 VB_{12}	16.5	X	77.20505	267.24450	37.46761	10.84506	0.0281262	0.18438534	3.0571621	21	11 10.4	20.9
529982 2010 VF_{12}	17.6	X	246.65499	294.61499	49.90351	9.55008	0.2179261	0.23710697	2.5852735	21	4 7.9	21.8
529983 2010 VS_{12}	18.3	X	81.88236	307.48385	28.34875	22.04998	0.0515509	0.37605012	1.9009567	21	—	—
529984 2010 VH_{14}	17.6	X	232.07219	135.23667	216.75152	13.06311	0.2975041	0.23729571	2.5839025	21	3 26.9	22.5
529985 2010 VM_{24}	16.0	X	355.10329	297.81721	57.48811	9.60028	0.0909196	0.17025040	3.2241157	21	10 5.1	20.1
529986 2010 VS_{24}	17.6	X	309.86979	318.17893	43.92708	11.88420	0.1433454	0.25760440	2.4462482	21	8 1.9	20.5
529987 2010 VM_{27}	18.2	X	243.65988	277.22110	217.28009	21.14710	0.0912856	0.36093465	1.9536660	21	11 21.2	20.0
529988 2010 VO_{33}	17.6	X	207.37693	197.80743	212.92680	14.39678	0.1493625	0.24004946	2.5641035	21	5 25.9	21.8
529989 2010 VB_{34}	17.5	X	50.39829	77.00190	235.79267	19.38172	0.0530181	0.35971221	1.9580898	21	11 21.8	19.5
529990 2010 VC_{34}	18.2	X	208.12473	22.77980	46.62503	3.57031	0.2338526	0.24106697	2.5568833	21	6 15.5	22.5
529991 2010 VB_{42}	16.6	X	50.00858	102.48156	230.24603	7.63575	0.0943241	0.18444272	3.0565279	21	11 21.8	20.9
529992 2010 VY_{45}	17.9	X	209.16853	19.06072	34.23856	6.27788	0.2327041	0.23876820	2.5732682	21	5 26.6	22.3
529993 2010 VH_{46}	18.7	X	323.67591	208.12752	246.04558	2.52506	0.1106988	0.28055739	2.3109377	21	—	—
529994 2010 VZ_{47}	15.7	X	352.88719	321.61446	61.10513	16.87182	0.0678704	0.17375347	3.1806342	21	11 4.4	19.9
529995 2010 VD_{48}	17.0	X	219.17343	348.20807	58.79182	10.01616	0.1247627	0.23822511	2.5771777	21	6 1.8	21.0
529996 2010 VO_{52}	18.0	X	302.52456	149.25371	207.30493	5.44412	0.1192673	0.25189136	2.4830980	21	7 9.5	20.9
529997 2010 VW_{54}	18.0	X	327.76853	352.40344	64.69877	6.13662	0.1014554	0.27085630	2.3657931	21	11 28.6	20.3
529998 2010 VM_{59}	17.7	X	234.12369	22.92948	347.53181	8.34412	0.1560374	0.23937679	2.5689049	21	4 26.2	21.8
529999 2010 VJ_{65}	18.0	X	222.21125	309.08998	245.12241	18.73360	0.0426910	0.36915552	1.9245527	21	—	—
530000 2010 VH_{70}	18.3	X	312.46378	266.33804	230.57688	23.04386	0.1524146	0.37608372	1.9008435	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530001 2010 VM_{76}	17.7	X	274.46816	267.53972	56.83341	4.72162	0.2030282	0.24116115	2.5562176	21	4 8.7	21.4
530002 2010 VX_{77}	15.5	X	165.98233	210.97299	129.50367	2.18533	0.2592155	0.12342745	3.9951052	21	2 9.7	22.1
530003 2010 VQ_{78}	16.1	X	354.24957	161.66562	235.43533	9.86200	0.1137772	0.18129179	3.0918420	21	11 24.9	19.7
530004 2010 VZ_{84}	17.8	X	162.34526	79.23803	58.98050	12.40597	0.1342526	0.24321028	2.5418394	21	8 6.4	22.0
530005 2010 VR_{86}	16.2	X	94.27864	212.03639	52.67766	10.41410	0.0667814	0.17469318	3.1692177	21	10 20.3	20.8
530006 2010 VE_{90}	18.3	X	302.95762	17.98883	45.42418	3.09466	0.1550917	0.26354686	2.4093366	21	10 17.4	20.4
530007 2010 VK_{90}	17.6	X	242.25354	338.72514	49.79223	3.94146	0.1863502	0.24185586	2.5513202	21	5 27.9	21.4
530008 2010 VA_{92}	17.5	X	153.86114	263.40170	43.24746	7.05911	0.1326130	0.29532055	2.2332650	21	—	—
530009 2010 VL_{93}	18.0	X	152.68669	233.45449	60.11264	4.94829	0.1263959	0.29038575	2.2584952	21	—	—
530010 2010 VR_{97}	18.4	X	77.20358	134.81178	232.54990	5.25075	0.1678288	0.29014672	2.2597355	21	—	—
530011 2010 VW_{97}	16.3	X	13.30204	302.54099	42.56703	16.27555	0.1079781	0.17536398	3.1611307	21	10 20.8	20.3
530012 2010 VR_{99}	17.8	X	349.21942	225.28713	106.99915	2.77526	0.2161915	0.26214825	2.4178985	21	9 4.1	19.2
530013 2010 VA_{100}	17.2	X	62.86156	61.06219	251.47678	6.03845	0.1238877	0.27275769	2.3547857	21	12 1.7	20.4
530014 2010 VN_{104}	16.7	X	154.93888	232.68503	235.17453	30.69080	0.2256265	0.23308715	2.6149125	21	6 16.6	21.4
530015 2010 VG_{105}	17.9	X	279.02217	358.14847	81.89618	3.71309	0.1457922	0.26199377	2.4188489	21	10 1.7	20.6
530016 2010 VV_{105}	18.2	X	258.74577	37.13809	92.58451	4.76021	0.1606084	0.26720336	2.3873061	21	11 7.6	21.0
530017 2010 VM_{106}	16.3	X	337.43955	309.76787	66.44032	14.68778	0.1326497	0.17182464	3.2043928	21	10 7.4	20.3
530018 2010 VG_{114}	17.3	X	199.83619	84.43875	11.09360	4.15951	0.2226486	0.24235751	2.5477984	21	7 12.9	21.7
530019 2010 VF_{116}	18.2	X	305.07765	45.69391	43.88323	21.73908	0.1148858	0.36351152	1.9444223	21	—	—
530020 2010 VU_{116}	18.4	X	95.38462	354.04788	357.29956	3.36985	0.1661465	0.29041658	2.2583354	21	—	—
530021 2010 VN_{118}	17.2	X	242.23308	330.27960	16.28694	4.97816	0.1954943	0.23417115	2.6068365	21	4 5.1	21.5
530022 2010 VF_{122}	15.9	X	18.81078	95.07664	250.57686	10.75772	0.1493315	0.17694007	3.1423310	21	10 29.6	19.9
530023 2010 VQ_{128}	18.0	X	296.16352	161.65686	256.70245	4.97577	0.2650679	0.26252164	2.4156053	21	9 3.0	20.3
530024 2010 VV_{129}	17.8	X	297.08292	265.96758	126.28446	2.38395	0.1713678	0.25963483	2.4334780	21	8 15.8	20.1
530025 2010 VL_{133}	17.9	X	4.85012	321.21640	54.05189	22.15035	0.1022591	0.36348984	1.9444996	21	12 23.9	20.0
530026 2010 VQ_{133}	17.5	X	277.39355	17.59609	56.59129	12.56460	0.2035814	0.25980935	2.4323881	21	9 16.2	20.6
530027 2010 VS_{140}	16.2	X	129.10190	230.20095	242.05489	21.24973	0.0644160	0.23016117	2.6370276	21	5 17.3	19.7
530028 2010 VR_{145}	18.4	X	168.46538	212.75192	121.77814	4.51758	0.3206700	0.31173316	2.1541737	21	1 17.7	21.7
530029 2010 VA_{150}	18.3	X	254.53215	209.56379	162.72326	3.11205	0.2661980	0.24467196	2.5317059	21	5 12.8	22.4
530030 2010 VF_{158}	16.3	X	43.05672	125.64844	218.86302	14.93314	0.0798909	0.18038647	3.1021782	21	11 25.0	20.6
530031 2010 VH_{159}	17.3	X	222.42727	149.71513	260.60009	14.30730	0.2065170	0.24311295	2.5425177	21	6 5.0	21.3
530032 2010 VN_{161}	17.5	X	248.79471	307.73254	44.03763	7.14490	0.2166976	0.23858278	2.5746013	21	4 16.8	21.5
530033 2010 VH_{163}	16.9	X	185.81924	188.91752	245.01186	16.71228	0.1398773	0.23614955	2.5922565	21	6 3.3	21.0
530034 2010 VH_{165}	17.4	X	263.16133	44.31061	296.17332	2.49468	0.2825983	0.23979144	2.5659426	21	4 7.5	21.6
530035 2010 VC_{167}	15.6	X	170.88810	285.18845	64.42400	4.53040	0.1737341	0.12489148	3.9638222	21	2 21.5	21.9
530036 2010 VA_{169}	18.5	X	283.54299	204.31101	229.80100	0.94680	0.1516060	0.26079552	2.4262524	21	9 26.7	21.0
530037 2010 VN_{171}	18.2	X	243.38858	333.39948	64.80574	8.55574	0.1879082	0.24374059	2.5381511	21	6 10.3	22.1
530038 2010 VZ_{171}	18.0	X	87.27462	247.52441	59.56050	21.89425	0.0667825	0.36522993	1.9383185	21	—	—
530039 2010 VN_{174}	17.5	X	287.78657	123.74330	266.09976	8.23479	0.1832369	0.25522538	2.4614262	21	7 23.0	20.6
530040 2010 VS_{179}	16.1	X	160.69513	224.23210	266.39284	31.35470	0.2239389	0.23374851	2.6099778	21	7 15.3	20.9
530041 2010 VA_{180}	15.6	X	199.58124	254.19029	63.42558	4.86478	0.2466332	0.12497421	3.9620727	21	2 8.8	22.2
530042 2010 VA_{181}	17.5	X	240.55264	329.26639	63.77504	10.87060	0.1403023	0.24196792	2.5505325	21	6 5.1	21.2
530043 2010 VG_{186}	17.4	X	282.19309	312.05999	8.47393	8.89182	0.1690461	0.23883749	2.5727705	21	4 13.5	21.1
530044 2010 VL_{187}	16.0	X	138.35858	238.26634	257.94175	28.86397	0.3655105	0.22813589	2.6526115	21	7 11.9	21.3
530045 2010 VJ_{192}	17.7	X	224.99515	48.93047	6.37088	3.11962	0.2435658	0.24259153	2.5461596	21	6 11.1	22.0
530046 2010 VW_{197}	17.2	X	55.01070	113.54486	254.51148	18.44003	0.0889626	0.37384018	1.9084410	21	—	—
530047 2010 VA_{199}	17.6	X	224.42623	161.45319	225.99003	9.10542	0.2083280	0.23869473	2.5737962	21	5 9.1	21.8
530048 2010 VO_{201}	17.9	X	356.59999	65.16341	89.51791	26.98699	0.1085307	0.38259515	1.8792147	21	—	—
530049 2010 VY_{202}	15.9	X	166.84854	303.86883	31.07505	9.86933	0.3017571	0.12494529	3.9626842	21	2 9.3	22.7
530050 2010 VD_{204}	17.6	X	201.82509	203.66302	243.87241	8.50877	0.1917187	0.24506596	2.5289916	21	7 3.7	21.9
530051 2010 VN_{208}	16.6	X	351.19833	18.89012	343.03066	10.36615	0.1034784	0.17571681	3.1568977	21	10 1.0	20.6
530052 2010 VG_{214}	17.8	X	276.49212	84.15321	348.20342	10.13773	0.1539605	0.26341892	2.4101167	21	9 12.8	20.7
530053 2010 VD_{216}	17.5	X	129.79519	249.41518	35.18536	7.82343	0.1147012	0.28208420	2.3025914	21	—	—
530054 2010 VN_{217}	17.9	X	235.57578	143.46317	248.83962	12.25855	0.1932465	0.24411749	2.5355380	21	5 25.9	22.0
530055 2010 VW_{224}	5.5	X	187.74040	149.13361	102.36601	8.91132	0.1391155	0.00340842	43.7287742	21	12 10.6	22.5
530056 2010 VN_{225}	15.6	X	192.26127	110.38235	196.42367	3.77091	0.2200364	0.12331790	3.9974709	21	1 20.8	22.2
530057 2010 VT_{225}	17.3	X	230.47695	277.15250	278.28409	5.95386	0.0625425	0.26742856	2.3859657	21	—	—
530058 2010 VV_{225}	17.4	X	184.76208	186.82832	284.22700	7.01710	0.1590273	0.23626448	2.5914158	21	7 19.4	21.5
530059 2010 VK_{227}	17.4	X	190.91184	337.76741	101.52588	14.31928	0.1012266	0.23142220	2.6274394	21	6 16.6	21.3
530060 2010 VQ_{227}	17.3	X	209.62771	337.53456	100.47304	5.63371	0.1872765	0.23713226	2.5850897	21	6 29.8	21.5
530061 2010 VG_{228}	17.3	X	98.65419	286.16857	16.09523	6.71986	0.1164395	0.27794799	2.3253787	21	12 28.4	20.8
530062 2010 WA_{1}	18.0	X	310.38603	69.64827	73.17878	23.20994	0.1304426	0.37628415	1.9001684	21	—	—
530063 2010 WC_{7}	19.0	X	326.96564	90.60145	68.81010	23.34256	0.0876824	0.38441778	1.8732701	21	—	—
530064 2010 WH_{17}	17.2	X	178.03823	35.66180	49.08219	9.26936	0.0835736	0.23614756	2.5922711	21	6 7.7	21.0
530065 2010 WY_{17}	17.7	X	85.80691	242.60139	299.53774	3.64239	0.0963736	0.23569792	2.5955668	21	6 29.7	21.0
530066 2010 WE_{27}	18.3	X	353.18658	161.99674	263.41857	4.77018	0.1413174	0.27706848	2.3302971	21	—	—
530067 2010 WE_{29}	17.3	X	218.87397	245.56864	159.20434	7.44989	0.2167420	0.23976421	2.5661368	21	5 27.1	21.7
530068 2010 WR_{30}	16.7	X	129.72389	241.92336	247.20883	16.04830	0.1508208	0.23149600	2.6268809	21	6 18.2	20.7
530069 2010 WE_{32}	17.6	X	244.13242	105.53935	241.92019	4.87546	0.1678519	0.23343823	2.6122901	21	4 8.3	21.7
530070 2010 WU_{43}	17.7	X	316.89369	226.96890	254.40007	18.20712	0.0903948	0.37336404	1.9100631	21	—	—
530071 2010 WV_{44}	16.5	X	169.54552	170.55020	266.50787	12.44571	0.1347342	0.23207627	2.6225004	21	5 21.5	20.7
530072 2010 WF_{45}	17.3	X	145.97875	226.11123	257.00555	14.54097	0.2394993	0.23330868	2.6132570	21	7 1.6	21.8
530073 2010 WW_{47}	17.5	X	267.37020	305.55936	69.45720	11.62075	0.0587568	0.24202453	2.5501348	21	6 24.4	21.0
530074 2010 WN_{48}	17.2	X	128.24768	220.99394	250.98311	11.98918	0.0797956	0.22865565	2.6485902	21	5 17.5	20.9
530075 2010 WN_{56}	18.1	X	94.60511	139.08335	257.04627	17.39404	0.1126878	0.38991753	1.8556136	21	—	—
530076 2010 WP_{62}	17.3	X	267.32157	254.57817	83.10618	3.71120	0.1679360	0.23526972	2.5987152	21	4 22.4	21.1
530077 2010 WR_{69}	17.9	X	236.97497	313.33612	64.88939	5.14326	0.1710418	0.23704554	2.5857201	21	5 11.8	21.9
530078 2010 WA_{70}	17.0	X	259.70828	90.30919	255.50798	4.63188	0.1310009	0.23358338	2.6112077	21	4 26.2	20.7
530079 2010 WX_{73}	18.2	X	341.60063	72.39226	89.64415	24.34306	0.0623002	0.38402805	1.8745373	21	—	—
530080 2010 WF_{75}	17.5	X	261.03587	205.16171	275.47829	4.70337	0.1056333	0.26658022	2.3910249	21	11 3.9	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530081 2010 WJ_{75}	16.9	X	270.66922	71.70857	276.34821	10.94240	0.1852089	0.24518075	2.5282022	21	5 2.3	20.8
530082 2010 WL_{75}	18.0	X	32.21080	285.50340	66.38359	6.78526	0.2623359	0.27361148	2.3498845	21	—	—
530083 2010 XO_{3}	17.7	X	250.48078	155.28024	13.44250	12.61899	0.2694278	0.27511026	2.3413420	21	11 28.1	20.8
530084 2010 XZ_{6}	17.5	X	242.87508	316.84966	88.37573	19.75660	0.0929463	0.24414240	2.5353655	21	6 29.3	21.0
530085 2010 XC_{11}	18.7	X	202.98173	121.28344	94.23250	9.11009	0.8498222	0.24704330	2.5154788	21	11 9.2	24.8
530086 2010 XH_{17}	17.6	X	208.54735	346.60877	96.19847	10.86459	0.1709492	0.23823682	2.5770932	21	7 5.8	21.6
530087 2010 XP_{17}	18.0	X	212.03169	321.19794	194.20438	1.28535	0.1369861	0.25326495	2.4741118	21	10 14.6	21.4
530088 2010 XM_{21}	17.5	X	225.13119	348.02933	55.55660	14.29585	0.1782292	0.23953105	2.5678018	21	5 30.4	21.6
530089 2010 XH_{22}	16.3	X	192.21248	346.01822	99.57981	36.10087	0.2506397	0.23457004	2.6038804	21	6 24.7	21.0
530090 2010 XL_{22}	18.3	X	230.92278	152.35213	246.95609	13.78200	0.1827292	0.24149530	2.5538591	21	5 31.4	22.3
530091 2010 XR_{23}	16.6	X	207.44360	295.77996	99.00491	15.28404	0.0155821	0.22201759	2.7011236	21	5 15.3	20.6
530092 2010 XH_{33}	17.7	X	272.57076	101.57604	238.86550	25.95677	0.3696598	0.24441593	2.5334736	21	4 3.4	22.5
530093 2010 XN_{33}	17.8	X	224.95547	282.59483	123.24854	5.68040	0.2455687	0.24111957	2.5565114	21	5 31.5	22.2
530094 2010 XH_{37}	18.2	X	230.21936	77.17104	327.92796	2.85735	0.2306209	0.23795364	2.5791374	21	6 3.5	22.6
530095 2010 XB_{40}	17.4	X	228.82062	333.90354	42.17904	5.24836	0.3201664	0.23512727	2.5997647	21	4 24.3	22.2
530096 2010 XO_{44}	18.0	X	66.63547	291.76870	87.37645	23.56823	0.0919120	0.37804030	1.8942792	21	—	—
530097 2010 XR_{47}	16.8	X	9.62785	165.03957	179.39600	3.12676	0.1142370	0.17472167	3.1688733	21	10 11.9	20.8
530098 2010 XV_{48}	16.7	X	76.55685	293.66020	272.03379	11.87934	0.1296887	0.22997088	2.6384821	21	7 22.2	20.3
530099 2010 XJ_{51}	17.7	X	209.15895	98.96678	307.83917	25.98411	0.4610985	0.23607176	2.5928259	21	5 7.6	23.5
530100 2010 XR_{51}	17.0	X	206.63569	113.47896	303.14506	8.49135	0.1966837	0.23668146	2.5883712	21	5 29.7	21.4
530101 2010 XD_{52}	17.5	X	248.65109	124.76146	238.31745	15.82612	0.3515721	0.24094282	2.5577615	21	4 17.6	22.2
530102 2010 XA_{54}	16.4	X	35.33282	102.06029	252.10995	7.60136	0.1385254	0.18099473	3.0952240	21	12 4.5	20.4
530103 2010 XB_{56}	17.8	X	345.49044	225.88426	258.51649	18.96234	0.0951647	0.38156796	1.8825858	21	—	—
530104 2010 XH_{58}	16.9	X	238.83600	169.39021	236.81117	7.10442	0.1398581	0.24248813	2.5468834	21	6 20.9	20.7
530105 2010 XN_{68}	18.2	X	28.45452	10.58250	81.32094	24.10581	0.0653179	0.38298080	1.8779530	21	—	—
530106 2010 XO_{68}	17.2	X	179.51992	115.34086	14.07385	4.10051	0.2297035	0.24134008	2.5549539	21	8 8.2	21.6
530107 2010 XA_{75}	17.4	X	204.41414	189.64996	232.62481	3.97103	0.2712037	0.23448784	2.6044888	21	6 3.2	22.1
530108 2010 XP_{82}	16.7	X	278.05491	6.21344	286.99753	13.07462	0.2422663	0.23028971	2.6360463	21	2 22.3	21.2
530109 2010 XV_{91}	17.7	X	260.11834	261.53326	98.92611	3.41827	0.1603478	0.23247566	2.6194959	21	5 14.5	21.6
530110 2010 XW_{91}	17.9	X	339.60330	342.41828	96.98956	6.57460	0.0653763	0.26901899	2.3765526	21	—	—
530111 2010 XY_{91}	17.1	X	241.40988	73.57025	283.28689	3.01069	0.0495853	0.22202365	2.7010745	21	4 28.9	20.9
530112 2010 XK_{92}	16.6	X	95.39077	142.91749	357.41030	13.36961	0.0982588	0.21184615	2.7869060	21	5 12.7	20.7
530113 2010 XM_{92}	18.0	X	228.67810	237.05424	264.94583	1.53300	0.1411670	0.25940188	2.4349346	21	10 15.3	21.2
530114 2010 XD_{93}	17.3	X	201.00527	179.86337	329.71355	10.31027	0.0523937	0.23908810	2.5709724	21	9 26.9	21.0
530115 2010 XC_{94}	17.5	X	86.16046	249.73284	117.90620	8.54370	0.1497231	0.28680259	2.2772673	21	—	—
530116 2010 YW_{1}	17.5	X	222.78520	299.26988	86.44667	5.90495	0.2768959	0.23740190	2.5831320	21	5 4.5	22.1
530117 2010 YG_{3}	17.7	X	326.00063	201.59483	274.71875	23.25283	0.1007488	0.37201691	1.9146715	21	—	—
530118 2010 YU_{4}	17.0	X	242.32974	116.71275	264.61919	12.78628	0.1707532	0.23855292	2.5748162	21	5 19.6	21.0
530119 2011 AK_{1}	16.4	X	257.89572	42.15960	299.30071	13.45359	0.1154204	0.22335562	2.6903253	21	4 15.5	20.8
530120 2011 AP_{1}	15.8	X	78.80787	83.01307	77.25359	4.02457	0.1247817	0.12587330	3.9431832	21	5 30.4	21.2
530121 2011 AV_{2}	18.1	X	232.98423	60.34022	317.29520	5.25533	0.3580383	0.23698958	2.5861272	21	4 24.6	23.1
530122 2011 AW_{5}	15.9	X	78.18527	190.31434	308.22260	26.30248	0.1587528	0.21211820	2.7845227	21	4 15.9	20.2
530123 2011 AL_{8}	15.9	X	107.92810	198.04668	291.65808	7.85251	0.2325882	0.12551183	3.9507505	21	6 8.4	21.9
530124 2011 AM_{9}	17.7	X	41.57236	297.05343	103.45074	8.21494	0.1024085	0.27703446	2.3304879	21	—	—
530125 2011 AC_{10}	17.6	X	243.68428	127.23982	292.71501	9.90034	0.1324050	0.24075828	2.5590684	21	7 15.9	21.0
530126 2011 AV_{10}	18.0	X	215.66265	8.85269	112.26730	12.60753	0.1763149	0.24563552	2.5250807	21	9 3.8	22.0
530127 2011 AA_{14}	17.8	X	223.61575	98.67970	327.84323	3.84271	0.2211968	0.23835230	2.5762608	21	6 26.1	22.0
530128 2011 AN_{14}	17.7	X	156.24715	93.05928	68.16869	4.79589	0.2031725	0.23631337	2.5910583	21	8 29.3	22.1
530129 2011 AU_{15}	16.9	X	243.42397	52.16754	22.12349	7.47584	0.1488936	0.24443215	2.5333615	21	8 4.9	20.6
530130 2011 AP_{16}	17.0	X	188.91121	168.06090	264.69376	13.01655	0.2245646	0.23051347	2.6343401	21	6 4.7	21.6
530131 2011 AB_{17}	18.1	X	244.18427	318.15941	81.45429	10.21928	0.2319510	0.24541741	2.5265766	21	6 9.4	22.1
530132 2011 AL_{20}	17.3	X	166.13567	39.77435	71.52863	5.31989	0.1744460	0.23009121	2.6375621	21	7 3.2	21.7
530133 2011 AW_{23}	18.3	X	269.87911	341.79930	149.32043	2.42845	0.1711698	0.26194315	2.4191605	21	11 23.2	20.7
530134 2011 AP_{26}	16.8	X	198.99219	131.57266	309.24358	8.32962	0.1705986	0.23254396	2.6189830	21	6 24.8	21.2
530135 2011 AC_{27}	17.1	X	87.65974	54.32305	130.52838	12.11799	0.1333226	0.22468813	2.6796781	21	7 11.2	20.8
530136 2011 AA_{29}	16.8	X	202.49869	317.87040	122.24006	33.82703	0.2523298	0.23352101	2.6116727	21	6 28.4	21.7
530137 2011 AB_{29}	17.2	X	129.51324	24.20213	129.33958	14.70377	0.1866509	0.22607436	2.6687128	21	7 23.1	21.5
530138 2011 AE_{36}	17.5	X	169.19099	320.58702	147.32124	6.10111	0.2794931	0.22956362	2.6416017	21	7 3.1	22.3
530139 2011 AJ_{36}	17.2	X	207.14759	325.73584	124.55902	15.15742	0.1165932	0.23586920	2.5943102	21	7 16.8	21.0
530140 2011 AW_{36}	18.2	X	230.12987	331.83216	182.25702	2.47838	0.1349240	0.25581110	2.4576675	21	11 3.6	21.4
530141 2011 AZ_{38}	17.9	X	186.02027	119.92806	322.79098	3.62112	0.1967102	0.23136184	2.6278963	21	6 14.7	22.4
530142 2011 AZ_{39}	18.0	X	196.53399	283.32025	172.33151	4.32864	0.1510156	0.23470403	2.6028892	21	7 10.9	22.2
530143 2011 AY_{40}	17.7	X	29.29387	76.17540	316.68066	6.52415	0.1505832	0.27254196	2.3560281	21	—	—
530144 2011 AK_{45}	18.0	X	216.17163	135.54896	312.36373	4.63973	0.2442833	0.23837517	2.5760960	21	7 15.5	22.2
530145 2011 AF_{49}	16.5	X	227.96615	254.69854	121.05357	11.87360	0.1565896	0.22709253	2.6607301	21	5 5.8	20.9
530146 2011 AH_{51}	17.6	X	146.47345	253.84312	247.35274	4.87854	0.1348346	0.23066057	2.6332200	21	7 19.7	21.7
530147 2011 AQ_{51}	17.6	X	174.63138	250.30475	258.16757	2.72603	0.1835932	0.23697944	2.5862010	21	8 25.5	21.8
530148 2011 AW_{51}	17.6	X	161.55371	9.79735	109.58210	6.09221	0.2253322	0.22848631	2.6498986	21	7 10.5	22.1
530149 2011 AG_{55}	17.7	X	33.90898	44.90258	299.46563	2.52088	0.0971854	0.25986255	2.4320561	21	11 29.6	20.7
530150 2011 AN_{55}	18.5	X	217.09416	243.44649	312.18380	0.24905	0.1491496	0.26227185	2.4171388	21	12 10.5	21.9
530151 2011 AW_{55}	20.5	X	248.62565	321.95097	304.21048	21.90794	0.5170425	0.84809660	1.1053653	21	—	—
530152 2011 AQ_{68}	17.0	X	141.52745	148.44205	313.85187	17.65798	0.0634370	0.21799547	2.7342469	21	5 15.1	21.4
530153 2011 AN_{70}	17.8	X	201.07469	239.64020	304.61293	9.92590	0.1619930	0.25487738	2.4636661	21	11 2.6	21.7
530154 2011 AB_{76}	17.6	X	176.12031	56.05467	54.93595	6.56881	0.2581703	0.23345025	2.6122004	21	7 12.8	22.3
530155 2011 AG_{76}	18.0	X	268.06216	205.88954	283.12841	4.31005	0.1807687	0.26151839	2.4217793	21	11 13.7	20.6
530156 2011 AP_{77}	17.0	X	191.18694	348.73825	112.00794	14.98522	0.2042552	0.23326590	2.6135765	21	7 11.8	21.4
530157 2011 AR_{77}	17.0	X	139.70326	170.15166	321.91732	12.62079	0.1120002	0.22693212	2.6619837	21	7 1.9	21.1
530158 2011 AF_{78}	18.3	X	204.92184	3.80987	86.39142	4.59677	0.2569257	0.24169815	2.5524300	21	7 8.5	22.7
530159 2011 AU_{80}	18.3	X	339.87565	114.65433	312.80086	16.86217	0.1228122	0.36157334	1.9513647	21	—	—
530160 2011 AV_{80}	18.2	X	116.00603	223.09024	122.17836	24.49691	0.0656164	0.37359685	1.9092695	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530161 2011 AW_{80}	17.6	X	66.89959	36.02347	312.11536	18.94481	0.0577651	0.36223684	1.9489811	21	—	—
530162 2011 AA_{81}	18.0	X	216.87376	81.45663	339.56533	1.27657	0.0832902	0.23349283	2.6118828	21	6 21.3	21.8
530163 2011 AB_{81}	18.0	X	183.55730	69.92571	33.93697	1.36635	0.0493411	0.23416216	2.6069032	21	7 10.9	21.6
530164 2011 AC_{81}	17.2	X	44.71006	313.08530	330.37376	12.54194	0.1616052	0.23807715	2.5782453	21	9 25.0	20.4
530165 2011 AD_{81}	18.0	X	202.60838	128.11057	319.43752	4.97372	0.1658963	0.23440605	2.6050946	21	7 6.9	22.1
530166 2011 AE_{81}	17.4	X	2.13379	325.58671	297.91682	1.55689	0.0581177	0.22376652	2.6870308	21	6 10.7	20.6
530167 2011 AX_{81}	17.2	X	160.40008	33.56061	100.12672	12.49362	0.1352766	0.23454280	2.6040819	21	7 26.1	21.3
530168 2011 AE_{82}	17.8	X	9.13480	126.38173	307.85489	6.11615	0.0830089	0.27645144	2.3337633	21	—	—
530169 2011 AN_{82}	18.5	X	287.94235	97.58753	356.62647	2.33273	0.1499661	0.25832270	2.4417114	21	11 2.1	20.8
530170 2011 AW_{83}	17.9	X	146.08125	358.74859	331.89563	4.92725	0.1885691	0.28671225	2.2777456	21	—	—
530171 2011 BN_{1}	17.0	X	193.19227	171.24297	295.41200	12.44565	0.1151108	0.23649759	2.5897126	21	7 23.2	21.0
530172 2011 BD_{2}	18.4	X	280.43479	156.28274	297.00830	17.60463	0.0847733	0.35070377	1.9914791	21	11 12.9	20.5
530173 2011 BF_{2}	16.8	X	222.91751	264.11387	157.74574	26.66187	0.1740119	0.23008527	2.6376075	21	6 24.8	21.6
530174 2011 BX_{2}	16.6	X	152.03034	122.72958	301.31279	20.89985	0.0673560	0.21810524	2.7333294	21	3 31.7	21.1
530175 2011 BN_{6}	17.4	X	221.05727	315.09174	100.21051	5.56627	0.0480056	0.23104089	2.6303294	21	6 21.5	21.1
530176 2011 BC_{8}	18.0	X	198.65946	117.68024	300.20777	4.01835	0.1711967	0.22868961	2.6483279	21	5 25.3	22.4
530177 2011 BK_{10}	18.2	X	163.50172	195.46885	145.73806	23.36114	0.0577443	0.37842955	1.8929800	21	—	—
530178 2011 BN_{10}	15.6	X	158.03702	125.31755	320.10942	8.05644	0.2114190	0.12435397	3.9752362	21	5 27.7	22.1
530179 2011 BO_{11}	17.5	X	209.75445	112.72687	306.46685	11.14196	0.1697015	0.23157526	2.6262815	21	6 6.3	21.9
530180 2011 BF_{17}	16.8	X	199.37306	134.65753	296.71366	16.56966	0.1993972	0.23128368	2.6284884	21	6 12.7	21.4
530181 2011 BC_{19}	17.9	X	265.40629	190.81175	284.34974	17.54674	0.0685469	0.34997299	1.9942505	21	11 27.3	20.0
530182 2011 BN_{19}	16.9	X	54.29239	325.84403	330.55257	14.73071	0.1277524	0.24355727	2.5394246	21	10 18.6	20.5
530183 2011 BT_{33}	17.0	X	221.83603	264.21250	133.83739	13.75913	0.1957855	0.22804766	2.6532956	21	5 24.9	21.6
530184 2011 BB_{38}	18.0	X	179.01194	164.63093	334.83649	6.20546	0.2550135	0.23315571	2.6143999	21	8 18.7	22.6
530185 2011 BB_{40}	17.2	X	222.35393	140.23641	333.27322	34.14034	0.3098209	0.24183858	2.5514417	21	8 20.9	21.7
530186 2011 BM_{40}	17.0	X	240.70518	337.48596	113.33212	31.16533	0.1428530	0.24231275	2.5481121	21	8 25.4	21.1
530187 2011 BP_{43}	17.7	X	326.71503	119.97816	186.33141	4.56451	0.0098247	0.22481961	2.6786332	21	6 20.5	21.3
530188 2011 BT_{51}	18.3	X	18.99199	359.56259	129.44725	23.76753	0.0612857	0.38245082	1.8796875	21	—	—
530189 2011 BE_{53}	17.2	X	205.28451	273.90055	112.04769	5.71671	0.2109305	0.22182564	2.7026816	21	4 24.6	21.9
530190 2011 BH_{56}	17.5	X	150.05252	228.20257	286.13158	11.62084	0.1923382	0.23317437	2.6142604	21	8 9.4	21.9
530191 2011 BD_{57}	17.4	X	147.95398	44.37892	77.00692	8.92519	0.1181031	0.22513197	2.6761551	21	6 25.5	21.4
530192 2011 BY_{58}	17.6	X	240.59201	276.38490	126.37583	6.35128	0.1117510	0.23148499	2.6269642	21	6 21.9	21.5
530193 2011 BV_{62}	15.9	X	113.95842	11.12214	117.24099	3.63408	0.1387959	0.12448288	3.9724914	21	6 3.4	21.8
530194 2011 BU_{65}	18.0	X	47.97012	87.37339	325.34663	18.55392	0.1033816	0.37354864	1.9094338	21	—	—
530195 2011 BT_{66}	18.4	X	287.09031	197.45367	2.16110	19.00680	0.0615567	0.36731181	1.9309875	21	—	—
530196 2011 BV_{71}	17.1	X	217.16040	258.98030	151.88627	15.02901	0.1341196	0.22545858	2.6735698	21	6 7.7	21.5
530197 2011 BK_{72}	18.0	X	286.66264	113.77307	289.97225	10.56631	0.1858864	0.24313940	2.5423333	21	8 8.6	21.1
530198 2011 BR_{75}	16.8	X	59.35153	327.61532	309.21186	12.88110	0.2313757	0.23157368	2.6262934	21	10 13.8	20.7
530199 2011 BY_{75}	17.6	X	145.85683	332.75046	312.40459	2.79417	0.2046396	0.25976674	2.4326540	21	—	—
530200 2011 BK_{76}	16.7	X	186.97749	249.23701	163.69095	13.29274	0.0962047	0.21536782	2.7564418	21	5 12.7	21.1
530201 2011 BP_{76}	17.0	X	340.11103	318.90408	295.11621	5.26755	0.0683208	0.21127437	2.7919320	21	4 21.9	20.6
530202 2011 BZ_{78}	16.7	X	98.91450	257.16243	297.54656	13.55047	0.0835107	0.22854970	2.6494086	21	7 30.8	20.4
530203 2011 BF_{80}	17.1	X	137.89134	271.07436	288.74968	10.42028	0.0939537	0.24084839	2.5584301	21	9 18.2	21.1
530204 2011 BH_{80}	16.7	X	101.21967	192.39901	306.52057	12.66496	0.1186123	0.21334203	2.7738636	21	5 24.2	20.8
530205 2011 BE_{82}	18.7	X	331.85819	179.65644	313.50386	17.39772	0.0642365	0.37250634	1.9129940	21	—	—
530206 2011 BV_{82}	17.2	X	329.01165	90.35450	325.58599	9.23882	0.1261512	0.25988761	2.4318998	21	11 24.3	19.7
530207 2011 BL_{89}	17.1	X	177.48677	296.60458	167.88329	14.31649	0.1286379	0.22624946	2.6673357	21	7 3.9	21.6
530208 2011 BH_{90}	16.4	X	117.85129	256.65404	217.29897	2.26216	0.2022524	0.12475178	3.9667809	21	5 27.6	22.4
530209 2011 BS_{90}	17.8	X	358.46698	248.02566	154.83260	6.18720	0.0995320	0.26286796	2.4134832	21	12 28.1	20.5
530210 2011 BX_{90}	18.0	X	208.24257	127.81047	271.76344	5.05881	0.3132059	0.22929857	2.6436370	21	5 7.5	22.9
530211 2011 BK_{93}	17.8	X	212.81594	140.42973	302.33349	6.42025	0.1751745	0.23418241	2.6067529	21	7 9.9	21.9
530212 2011 BM_{94}	17.2	X	218.02278	311.12840	88.14701	4.51055	0.1472587	0.22906892	2.6454036	21	5 22.1	21.4
530213 2011 BA_{98}	18.1	X	231.15502	66.32758	44.98575	3.39941	0.1723533	0.24618636	2.5213128	21	9 5.3	21.7
530214 2011 BC_{98}	17.2	X	151.35797	79.17090	115.50154	16.02293	0.0693792	0.24404951	2.5360088	21	10 9.7	21.2
530215 2011 BT_{99}	18.2	X	163.81699	357.39979	310.94716	18.10658	0.0666994	0.37001330	1.9215772	21	—	—
530216 2011 BJ_{104}	18.1	X	190.02620	220.13903	1.82834	1.15536	0.1418848	0.25743209	2.4473397	21	12 14.4	21.6
530217 2011 BK_{105}	17.0	X	232.24766	223.85587	142.19652	12.25650	0.1172807	0.21978825	2.7193581	21	4 30.6	21.4
530218 2011 BR_{105}	16.4	X	128.12151	287.96133	185.59325	6.37470	0.1705450	0.12490336	3.9635709	21	6 3.3	22.6
530219 2011 BU_{112}	17.1	X	271.58237	106.19603	261.87056	5.27220	0.0499276	0.22353712	2.6888688	21	6 22.6	20.7
530220 2011 BN_{115}	18.5	X	229.51075	113.25682	129.27153	23.74952	0.0397916	0.37358804	1.9092996	21	—	—
530221 2011 BW_{126}	18.2	X	12.22486	72.30247	324.70239	1.47248	0.2135963	0.26641760	2.3919978	21	—	—
530222 2011 BM_{132}	17.2	X	73.48882	289.46602	275.55671	3.94844	0.0974058	0.22277286	2.6950151	21	7 13.8	20.8
530223 2011 BF_{135}	17.7	X	170.00963	124.40792	104.38303	6.96202	0.1735858	0.25719417	2.4488488	21	12 2.6	21.5
530224 2011 BL_{144}	18.5	X	234.68259	189.05993	357.16179	1.84630	0.1497710	0.26211662	2.4180931	21	12 19.6	21.6
530225 2011 BX_{147}	17.5	X	118.82860	148.81131	324.19395	9.34679	0.0895206	0.21682146	2.7441080	21	5 6.0	21.5
530226 2011 BQ_{152}	18.2	X	185.96572	26.30600	143.73711	2.96644	0.1297656	0.24248281	2.5469207	21	10 6.8	22.0
530227 2011 BH_{155}	17.8	X	221.94563	237.36698	154.53601	5.35448	0.1658559	0.22606981	2.6687487	21	5 16.7	22.1
530228 2011 BR_{155}	17.9	X	158.79372	336.53193	164.27951	5.26764	0.1235311	0.23209182	2.6223832	21	7 31.6	22.0
530229 2011 BV_{156}	18.1	X	254.44924	114.83782	310.29967	13.81059	0.1444254	0.23988655	2.5652643	21	8 3.2	21.7
530230 2011 BW_{156}	17.9	X	253.81712	105.79022	306.04140	11.22806	0.2399121	0.23966615	2.5668367	21	7 4.9	22.0
530231 2011 BV_{163}	6.6	X	352.63864	42.36279	105.62674	4.54485	0.0964738	0.00339273	43.8635235	21	2 7.9	22.6
530232 2011 BY_{163}	16.1	X	167.98021	200.39343	236.53641	1.81513	0.1713556	0.12444977	3.9731960	21	5 26.0	22.3
530233 2011 BD_{164}	17.9	X	151.84786	263.81231	234.79036	1.63416	0.0724501	0.22850328	2.6497674	21	7 19.4	21.7
530234 2011 BK_{164}	17.9	X	165.19922	275.95065	184.44160	5.56499	0.1759854	0.22310069	2.6923743	21	6 18.6	22.3
530235 2011 BM_{164}	17.4	X	143.37895	47.27504	165.02076	7.02789	0.0693739	0.24416655	2.5351983	21	10 17.6	21.0
530236 2011 BN_{164}	18.5	X	214.00975	293.33575	179.07369	2.46977	0.1729163	0.23971760	2.5664694	21	8 17.4	22.5
530237 2011 BO_{164}	16.4	X	246.61929	113.89073	289.51681	10.70604	0.0723096	0.23097256	2.6308482	21	7 5.0	19.9
530238 2011 BP_{164}	17.5	X	167.96854	251.81487	196.68960	5.38127	0.0780115	0.22087159	2.7104588	21	6 3.2	21.6
530239 2011 BQ_{164}	17.8	X	249.23097	96.72720	272.54500	1.51148	0.1515253	0.22277145	2.6950264	21	5 14.4	22.0
530240 2011 BT_{164}	17.9	X	329.78519	139.40479	288.20616	6.31472	0.0854803	0.25876631	2.4389200	21	12 13.4	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530241 2011 BR_{165}	17.7	X	280.69907	174.32559	221.21560	2.60649	0.0308122	0.23397444	2.6082974	21	8 14.3	21.0
530242 2011 BT_{165}	17.5	X	78.30520	33.98707	216.94239	2.04471	0.1478502	0.23362264	2.6109152	21	9 27.9	21.1
530243 2011 BW_{165}	17.2	X	262.67432	96.23811	292.03164	13.33854	0.1888186	0.23943046	2.5685210	21	6 19.1	21.0
530244 2011 BY_{165}	17.9	X	171.62856	115.43680	118.57724	3.96141	0.1519207	0.25830491	2.4418236	21	12 11.1	21.8
530245 2011 BG_{166}	17.9	X	256.47375	83.79800	9.01597	4.01536	0.1350866	0.24749773	2.5123988	21	9 15.2	21.0
530246 2011 BJ_{166}	17.4	X	224.94209	53.80999	318.47954	5.15234	0.0360431	0.21581700	2.7526159	21	4 29.5	21.3
530247 2011 BR_{166}	16.1	X	286.34699	82.42436	184.77982	12.98273	0.0400073	0.18860901	3.0113490	21	3 5.5	20.5
530248 2011 BR_{167}	17.6	X	229.27333	98.77234	269.27058	3.71937	0.0901835	0.21429470	2.7656365	21	4 26.4	21.7
530249 2011 BU_{167}	17.6	X	201.03740	239.89131	182.08031	3.53818	0.0793437	0.22142586	2.7059337	21	6 5.5	21.5
530250 2011 BE_{169}	17.4	X	227.04764	269.40772	107.20476	6.88140	0.0265526	0.21655858	2.7463283	21	5 13.0	21.3
530251 2011 BP_{169}	17.4	X	81.70342	233.41236	25.08686	6.29163	0.0828517	0.24187275	2.5512015	21	10 5.6	20.7
530252 2011 BS_{169}	17.3	X	359.88831	328.30720	345.64108	4.34439	0.2428079	0.23293763	2.6160314	21	8 28.9	19.1
530253 2011 BW_{169}	17.7	X	143.87296	210.97155	336.30080	14.68784	0.0450483	0.23957750	2.5674699	21	9 9.9	21.3
530254 2011 BX_{169}	17.9	X	352.67009	145.96573	278.09718	6.22490	0.1179478	0.26780122	2.3837517	21	—	—
530255 2011 BY_{169}	17.1	X	237.90873	181.78404	290.04518	13.19374	0.1990806	0.24580371	2.5239287	21	9 1.8	21.2
530256 2011 BZ_{169}	17.9	X	275.87754	197.13039	215.47434	3.85078	0.1882553	0.24393856	2.5367777	21	8 6.1	21.1
530257 2011 BC_{170}	18.2	X	307.28240	179.60929	259.23239	4.15168	0.1706168	0.25707923	2.4495787	21	11 14.4	20.2
530258 2011 BJ_{170}	18.0	X	82.85797	40.84708	316.23161	5.97962	0.1445801	0.27179219	2.3603590	21	—	—
530259 2011 CN_{3}	16.6	X	216.05297	252.74197	140.04492	13.09819	0.0898745	0.22176015	2.7032137	21	5 18.5	20.9
530260 2011 CP_{3}	18.2	X	242.13742	356.20698	153.66231	6.08691	0.1476283	0.25631931	2.4544179	21	11 12.6	21.4
530261 2011 CV_{6}	17.7	X	296.12914	304.24265	156.38525	11.97900	0.2219865	0.25985731	2.4320888	21	11 22.9	20.0
530262 2011 CV_{7}	17.2	X	232.21332	183.41886	188.59851	3.10988	0.1357029	0.21952617	2.7215220	21	5 2.9	21.4
530263 2011 CD_{10}	17.2	X	177.62466	141.50805	312.34720	11.57308	0.2527265	0.22963147	2.6410813	21	6 22.8	22.0
530264 2011 CJ_{12}	17.9	X	178.91542	85.27891	143.02308	1.84507	0.1422429	0.25640268	2.4538858	21	12 11.2	21.7
530265 2011 CS_{12}	17.0	X	251.35020	70.24504	280.15344	4.68158	0.0789103	0.21796565	2.7344963	21	4 29.1	20.9
530266 2011 CA_{15}	18.3	X	269.29264	242.64915	288.76935	15.80339	0.1277323	0.36194512	1.9500282	21	—	—
530267 2011 CP_{15}	18.3	X	172.51413	149.26143	352.55036	5.20937	0.2074927	0.23472200	2.6027563	21	8 17.6	22.6
530268 2011 CH_{16}	18.2	X	233.08206	7.94180	150.77158	5.49426	0.2132310	0.25433488	2.4671682	21	11 3.9	21.7
530269 2011 CN_{18}	17.3	X	182.46932	132.04286	337.47527	12.89675	0.2070536	0.23188818	2.6239183	21	7 18.4	21.9
530270 2011 CH_{19}	17.9	X	219.37187	17.41393	129.94645	3.53123	0.1711227	0.25168305	2.4844680	21	10 9.9	21.6
530271 2011 CG_{20}	17.2	X	190.84217	84.12313	341.44454	9.87209	0.2154115	0.22614720	2.6681398	21	5 26.2	21.9
530272 2011 CO_{23}	17.7	X	304.41611	179.34057	154.49668	2.38666	0.1092963	0.22777000	2.6554515	21	6 12.8	21.0
530273 2011 CC_{24}	17.4	X	183.07229	138.81832	333.00998	4.56713	0.1156323	0.23098955	2.6307192	21	7 20.6	21.4
530274 2011 CB_{26}	18.1	X	302.15743	164.55685	313.76690	18.14102	0.0801953	0.36004382	1.9568873	21	—	—
530275 2011 CX_{26}	17.6	X	196.59737	12.07819	134.34976	7.09993	0.0741552	0.24190684	2.5509618	21	9 22.7	21.3
530276 2011 CY_{31}	16.0	X	126.91592	254.51115	235.74617	2.30503	0.1230494	0.12556027	3.9497343	21	6 16.7	21.8
530277 2011 CG_{32}	17.6	X	209.91680	254.21807	313.32181	4.52762	0.1204735	0.25956158	2.4339358	21	12 20.7	21.0
530278 2011 CF_{33}	17.5	X	167.40920	69.26148	46.11034	12.11695	0.2563678	0.22900508	2.6458952	21	7 12.1	22.4
530279 2011 CU_{37}	18.2	X	260.08721	297.14324	121.62522	7.71370	0.1425724	0.24135828	2.5548255	21	8 2.4	21.7
530280 2011 CN_{40}	17.2	X	229.80572	230.25538	136.35080	6.74185	0.0537940	0.21699635	2.7426334	21	5 1.6	21.2
530281 2011 CN_{42}	17.0	X	182.18294	243.62950	266.03859	11.57959	0.1409135	0.23730828	2.5838112	21	8 30.1	21.4
530282 2011 CV_{42}	18.0	X	311.99581	185.11545	306.79960	16.76827	0.0942450	0.36509864	1.9387832	21	—	—
530283 2011 CW_{43}	17.9	X	160.27365	88.21263	155.43171	6.76167	0.0910677	0.25748627	2.4469964	21	12 14.8	21.5
530284 2011 CT_{46}	17.7	X	67.69724	278.19638	131.35730	24.25821	0.0888683	0.37493176	1.9047350	21	—	—
530285 2011 CZ_{47}	16.8	X	201.17466	54.88841	68.46226	10.00760	0.0747411	0.23900460	2.5715712	21	8 31.1	20.7
530286 2011 CQ_{50}	18.1	X	348.60875	30.57527	120.03138	24.55262	0.1022483	0.37911558	1.8906957	21	—	—
530287 2011 CN_{53}	16.9	X	105.46852	179.47116	1.60052	6.96071	0.1864736	0.22207501	2.7006580	21	8 5.7	21.0
530288 2011 CW_{53}	16.3	X	134.73310	323.03133	143.19910	7.77896	0.2140434	0.12441767	3.9738792	21	6 4.5	22.7
530289 2011 CC_{57}	17.7	X	236.36905	240.26441	146.20378	7.81473	0.0954945	0.22365010	2.6879632	21	5 30.0	21.7
530290 2011 CR_{58}	18.0	X	204.76582	9.30130	221.21594	0.24063	0.1416461	0.26230513	2.4169344	21	—	—
530291 2011 CQ_{59}	17.5	X	131.67578	318.51388	317.76795	8.75393	0.0616716	0.25816876	2.4426819	21	12 25.6	21.0
530292 2011 CX_{59}	16.7	X	284.64261	329.18202	319.69016	14.39330	0.1272889	0.20573785	2.8417983	21	3 12.1	21.0
530293 2011 CX_{75}	17.9	X	311.52375	186.68984	346.37493	19.09576	0.0695957	0.37213056	1.9142816	21	—	—
530294 2011 CT_{80}	18.4	X	235.09051	311.74983	150.85581	19.34600	0.1359382	0.24174739	2.5520833	21	9 1.3	22.1
530295 2011 CF_{82}	17.8	X	153.80816	299.57942	278.12597	5.47071	0.1459332	0.24411110	2.5355822	21	10 31.9	22.0
530296 2011 CQ_{85}	17.5	X	182.81976	293.85850	320.99089	4.70333	0.1600250	0.26028220	2.4294412	21	—	—
530297 2011 CS_{85}	17.4	X	174.41137	272.98447	236.10688	5.49498	0.1675146	0.23580563	2.5947764	21	8 24.9	21.6
530298 2011 CB_{89}	18.3	X	226.40566	293.15709	311.76339	16.88066	0.0664551	0.36805206	1.9283974	21	—	—
530299 2011 CT_{91}	16.9	X	165.95873	210.33857	317.98315	11.30004	0.1121151	0.23759422	2.5817378	21	9 9.5	21.0
530300 2011 CA_{92}	17.3	X	135.55323	280.49599	311.91876	11.07657	0.0494171	0.24697500	2.5159425	21	10 27.0	21.1
530301 2011 CL_{105}	17.7	X	155.65618	52.31335	215.89143	1.98673	0.1796866	0.25608786	2.4558965	21	—	—
530302 2011 CO_{110}	17.6	X	176.67725	198.77118	315.81918	13.81500	0.0449895	0.23632914	2.5909430	21	9 3.9	21.3
530303 2011 CU_{111}	17.9	X	82.96833	21.07328	234.69772	5.95954	0.1639402	0.23356768	2.6113247	21	10 10.5	21.8
530304 2011 CJ_{112}	17.9	X	241.42715	169.16490	236.41911	2.28616	0.0762395	0.22940277	2.6428364	21	6 30.5	21.6
530305 2011 CY_{116}	18.1	X	216.98963	264.31307	166.99196	5.08359	0.0224504	0.22731741	2.6589750	21	7 9.6	21.8
530306 2011 CC_{117}	17.5	X	276.34633	103.73919	217.66804	4.50170	0.0371540	0.21195044	2.7859918	21	4 30.0	21.2
530307 2011 CV_{120}	17.6	X	171.40977	258.53252	173.79550	4.10818	0.0501431	0.21506594	2.7590207	21	5 16.7	21.5
530308 2011 CH_{121}	17.9	X	222.93972	160.38415	344.10719	8.18481	0.1374144	0.24420434	2.5349367	21	10 8.6	21.7
530309 2011 CQ_{121}	16.7	X	70.06709	147.01949	85.71171	8.69966	0.2352164	0.22499847	2.6772135	21	9 10.9	20.6
530310 2011 DK_{1}	16.1	X	69.24012	90.67851	334.66409	10.24290	0.1274578	0.18691065	3.0295632	21	1 14.5	19.9
530311 2011 DJ_{3}	16.3	X	31.15609	329.58906	333.66182	13.92750	0.0642267	0.23706880	2.5855510	21	9 17.9	19.6
530312 2011 DV_{3}	17.0	X	127.98544	233.97697	342.75702	12.76705	0.1722428	0.23624262	2.5915756	21	10 4.5	21.3
530313 2011 DV_{4}	18.4	X	316.28719	194.39640	347.49555	19.98561	0.0492278	0.37563116	1.9023699	21	—	—
530314 2011 DA_{9}	16.6	X	179.81026	122.01334	354.33896	18.69644	0.1697430	0.23153027	2.6266217	21	7 28.7	21.2
530315 2011 DJ_{10}	18.9	X	31.19610	104.69217	339.79943	18.82316	0.1028110	0.37188385	1.9151281	21	—	—
530316 2011 DJ_{11}	17.6	X	176.39203	337.94227	160.32657	6.03445	0.1970454	0.23273065	2.6175822	21	8 14.6	21.9
530317 2011 DN_{20}	16.1	X	121.24396	21.54610	97.86195	3.86707	0.2128439	0.12353877	3.9927048	21	6 7.0	22.2
530318 2011 DO_{22}	16.2	X	197.86947	359.32121	16.11594	6.85389	0.1380545	0.20181534	2.8785024	21	4 4.9	20.9
530319 2011 DA_{24}	17.2	X	181.33615	102.31521	18.70143	13.04107	0.2026435	0.22789995	2.6544419	21	8 2.7	21.9
530320 2011 DB_{25}	17.4	X	178.49736	21.40272	140.01297	15.50995	0.0773732	0.24253318	2.5465680	21	9 22.9	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530321 2011 DZ_{29}	17.5	X	192.57453	284.26463	153.03020	16.86817	0.1689385	0.22700103	2.6614450	21	6 15.9	22.2
530322 2011 DA_{38}	18.1	X	239.66686	137.58893	328.83657	5.27835	0.1963867	0.24367524	2.5386049	21	9 2.8	22.0
530323 2011 DJ_{38}	17.6	X	229.11362	93.57905	322.81223	4.73714	0.0664904	0.22533842	2.6745202	21	7 1.6	21.4
530324 2011 DB_{43}	17.0	X	132.74474	235.22593	332.71142	12.16020	0.1324278	0.23539907	2.5977632	21	9 26.0	21.1
530325 2011 DC_{45}	16.8	X	224.67746	231.58035	153.43946	7.35946	0.0478866	0.21470432	2.7621178	21	5 19.4	20.8
530326 2011 DX_{46}	17.2	X	125.35776	329.68408	141.64692	4.41202	0.0525400	0.21165621	2.7885731	21	5 12.8	21.1
530327 2011 DS_{47}	18.0	X	325.01603	133.96727	352.88630	19.44680	0.0694632	0.36317302	1.9456304	21	—	—
530328 2011 DD_{53}	16.9	X	320.61781	285.31516	25.99253	5.51388	0.0403372	0.21400727	2.7681122	21	6 15.2	20.5
530329 2011 DF_{53}	17.9	X	203.81984	101.35924	28.11009	4.41773	0.1158249	0.23604637	2.5930119	21	9 4.5	21.7
530330 2011 DO_{53}	17.7	X	126.05726	235.07224	51.84521	0.26146	0.1867881	0.25337413	2.4734010	21	—	—
530331 2011 EK_{2}	17.2	X	128.89311	349.52485	149.87360	8.81254	0.0814896	0.22302873	2.6929534	21	6 24.8	21.2
530332 2011 EL_{3}	18.1	X	220.36978	132.98080	341.94130	4.28333	0.2580591	0.23916577	2.5704157	21	8 21.2	22.4
530333 2011 EP_{6}	17.9	X	188.51926	335.37137	183.62196	3.41291	0.1483269	0.24181382	2.5516159	21	9 23.1	21.6
530334 2011 EC_{8}	18.1	X	328.96282	153.36545	14.15790	20.36598	0.0513188	0.36703983	1.9319413	21	—	—
530335 2011 EL_{9}	17.6	X	227.06856	87.83104	353.64750	12.36802	0.2529741	0.23343269	2.6123313	21	7 18.9	22.1
530336 2011 EZ_{9}	16.9	X	207.07358	294.12170	177.52324	29.22768	0.3780002	0.23537194	2.5979628	21	7 29.1	22.3
530337 2011 EB_{16}	17.5	X	179.91959	118.52326	346.65019	30.87852	0.2643176	0.22818724	2.6522134	21	7 19.3	22.8
530338 2011 EG_{16}	16.9	X	146.72122	165.42567	9.57537	10.96694	0.1393869	0.23000331	2.6382341	21	9 5.9	21.1
530339 2011 EB_{17}	19.1	X	250.87413	80.90291	172.50852	22.81452	0.0536948	0.37354191	1.9094567	21	—	—
530340 2011 ET_{21}	18.2	X	179.84041	48.00465	110.67740	2.87122	0.1355283	0.23806698	2.5783188	21	9 15.9	22.1
530341 2011 EL_{22}	17.4	X	160.24139	87.46498	103.34102	6.06910	0.1208380	0.23829303	2.5766879	21	10 9.2	21.4
530342 2011 EJ_{23}	18.0	X	165.37000	83.15614	106.18395	4.93670	0.2335561	0.23775777	2.5805537	21	10 10.2	22.5
530343 2011 EC_{26}	17.4	X	59.16912	150.32839	136.11447	6.32896	0.1185193	0.23489011	2.6015144	21	10 19.9	20.9
530344 2011 EA_{29}	17.1	X	158.38255	118.86859	10.02466	14.75558	0.0954786	0.22813474	2.6526203	21	7 19.8	21.4
530345 2011 EF_{30}	17.3	X	91.45773	160.84809	2.17305	7.96767	0.1569382	0.21463775	2.7626889	21	6 20.5	21.3
530346 2011 EX_{31}	17.6	X	296.58309	133.83297	40.05468	22.03293	0.0361720	0.36872695	1.9260437	21	—	—
530347 2011 EM_{36}	17.0	X	116.53738	340.50192	158.22613	8.22961	0.1271372	0.21349317	2.7725543	21	6 15.4	21.2
530348 2011 EC_{38}	17.6	X	128.54799	134.15973	58.58090	4.90534	0.0754017	0.22761738	2.6566383	21	9 4.9	21.4
530349 2011 EC_{40}	17.6	X	165.82133	14.16522	132.32382	5.11571	0.1926626	0.23007697	2.6376709	21	8 16.8	21.9
530350 2011 EQ_{43}	16.9	X	210.52593	64.50001	17.56121	17.96588	0.1735997	0.22547575	2.6734341	21	7 9.3	21.6
530351 2011 EE_{45}	16.9	X	194.61870	97.26795	44.46281	24.62490	0.3598525	0.23857166	2.5746813	21	9 12.8	22.2
530352 2011 EJ_{52}	17.7	X	151.54416	58.10537	156.20553	5.67374	0.2104258	0.23712764	2.5851233	21	10 28.7	22.1
530353 2011 ET_{53}	17.2	X	121.63922	69.08078	69.08805	9.01735	0.1289208	0.21157775	2.7892625	21	6 19.7	21.3
530354 2011 EV_{53}	18.0	X	164.67749	57.69083	141.50476	5.42440	0.2237926	0.23696074	2.5863370	21	10 21.2	22.5
530355 2011 EX_{54}	17.3	X	158.41125	165.59389	3.74163	13.58504	0.1259063	0.23234894	2.6204482	21	9 9.7	21.4
530356 2011 EF_{55}	17.9	X	155.72695	80.71545	156.88253	8.37286	0.1811060	0.24304295	2.5430059	21	11 29.5	22.2
530357 2011 EX_{59}	16.8	X	74.04520	238.87908	305.39291	6.55207	0.1537796	0.21335047	2.7737905	21	6 25.8	20.3
530358 2011 EE_{62}	17.0	X	146.39288	54.41053	142.19509	17.28978	0.1183358	0.23524345	2.5989087	21	10 4.1	21.2
530359 2011 EF_{62}	17.5	X	187.60690	96.16875	74.21241	8.13039	0.1259453	0.24101976	2.5572172	21	10 11.7	21.5
530360 2011 EH_{66}	17.3	X	251.46157	187.98934	173.63561	6.56764	0.0425312	0.21244936	2.7816283	21	5 21.8	21.2
530361 2011 EB_{67}	17.1	X	182.28088	82.02571	346.83398	12.34935	0.2154080	0.21847590	2.7302371	21	5 22.4	22.0
530362 2011 ES_{68}	17.7	X	172.96145	105.93357	54.61642	5.05860	0.1600146	0.23330993	2.6132476	21	9 12.1	22.0
530363 2011 EY_{74}	18.2	X	301.78757	78.04374	12.62243	19.76568	0.0994794	0.35143140	1.9887293	21	12 26.7	20.3
530364 2011 EN_{76}	16.8	X	190.50000	222.16238	290.87009	5.97913	0.1616399	0.23834806	2.5762913	21	9 13.7	20.9
530365 2011 EX_{76}	16.8	X	172.99263	359.49590	149.21720	34.93749	0.2251889	0.23165974	2.6256430	21	8 25.3	21.2
530366 2011 EU_{84}	17.3	X	127.28275	24.21081	152.05305	8.50817	0.1504805	0.22591370	2.6699779	21	8 15.9	21.3
530367 2011 ER_{88}	15.6	X	241.57008	272.38446	19.56387	15.83964	0.1337564	0.17976992	3.1092671	21	2 15.1	20.8
530368 2011 EZ_{88}	17.7	X	216.14351	306.68970	193.34655	4.02132	0.0131673	0.23730115	2.5838630	21	10 11.9	21.2
530369 2011 EN_{90}	17.9	X	219.92078	90.43756	24.47448	13.17063	0.2193659	0.23652683	2.5894992	21	8 29.3	22.3
530370 2011 ES_{90}	18.4	X	238.09298	118.38883	359.37112	8.22377	0.2003623	0.24370621	2.5383898	21	9 16.6	22.0
530371 2011 FE_{1}	16.7	X	130.94394	118.98067	359.43190	25.27079	0.1775456	0.21969385	2.7201371	21	6 3.2	21.5
530372 2011 FW_{2}	18.3	X	55.57370	50.16846	42.03207	21.29681	0.1034504	0.37661121	1.8990682	21	—	—
530373 2011 FT_{3}	18.5	X	29.33054	292.00266	174.46015	22.96064	0.0860356	0.37357821	1.9093331	21	—	—
530374 2011 FE_{6}	17.9	X	178.87791	61.00682	122.32901	4.67318	0.2041537	0.23838577	2.5760196	21	10 14.2	22.2
530375 2011 FZ_{7}	17.1	X	145.81207	122.96196	16.54616	12.90260	0.1221696	0.21892649	2.7264896	21	7 20.7	21.5
530376 2011 FZ_{11}	17.5	X	146.54234	226.87990	34.71902	8.17659	0.2178456	0.24080286	2.5587525	21	12 17.3	22.0
530377 2011 FB_{14}	16.9	X	321.04542	169.41887	105.64807	3.27431	0.0165198	0.20613781	2.8381212	21	5 3.1	20.7
530378 2011 FU_{24}	16.6	X	99.08095	223.09932	35.38720	17.55226	0.1735522	0.23081627	2.6320357	21	11 1.0	20.8
530379 2011 FE_{27}	17.1	X	121.56689	104.69161	63.29547	13.18360	0.1045097	0.21828140	2.7318586	21	7 29.2	21.3
530380 2011 FJ_{27}	17.4	X	124.98114	93.93430	60.30019	13.36886	0.1820080	0.21747908	2.7385734	21	7 21.4	21.9
530381 2011 FY_{27}	16.8	X	160.72395	174.42729	1.40538	33.80219	0.1544630	0.23296746	2.6158081	21	9 20.6	21.0
530382 2011 FU_{31}	17.2	X	146.62449	338.18002	198.78543	9.83564	0.2095826	0.22639125	2.6662219	21	9 4.6	21.8
530383 2011 FJ_{42}	16.5	X	32.28625	193.10475	81.03323	10.06802	0.0574829	0.22284406	2.6944410	21	8 15.9	20.0
530384 2011 FG_{43}	16.7	X	162.82606	176.58049	29.81961	29.78325	0.0699691	0.23660042	2.5889622	21	10 26.8	20.4
530385 2011 FF_{44}	17.3	X	105.76261	106.53717	181.55934	9.92205	0.2173934	0.24042204	2.5614538	21	12 17.3	21.7
530386 2011 FP_{46}	17.7	X	136.32727	101.37788	178.84626	1.99020	0.1024597	0.24467133	2.5317102	21	—	—
530387 2011 FM_{48}	17.5	X	123.00267	227.27822	68.99684	14.06922	0.1477609	0.24253539	2.5465525	21	—	—
530388 2011 FZ_{48}	17.8	X	273.89306	71.60920	89.62521	24.78728	0.0737133	0.35024899	1.9932026	21	—	—
530389 2011 FO_{50}	17.1	X	132.67200	204.00472	1.31612	13.15318	0.2156878	0.22978953	2.6398701	21	9 29.5	21.6
530390 2011 FE_{51}	16.8	X	92.42847	330.27830	225.48246	8.94443	0.1774599	0.21731947	2.7399141	21	8 3.5	21.0
530391 2011 FH_{56}	17.8	X	130.87322	219.24236	14.88146	14.49790	0.2234028	0.23418622	2.6067246	21	10 30.7	22.4
530392 2011 FQ_{56}	15.4	X	210.07594	309.91466	41.57693	27.52541	0.4181452	0.18061619	3.0995473	21	3 29.8	21.8
530393 2011 FR_{60}	17.5	X	133.34695	235.24151	13.54866	12.28566	0.1332744	0.23966595	2.5668382	21	11 17.5	21.7
530394 2011 FT_{62}	17.1	X	104.09111	156.59565	16.19987	8.80348	0.1044052	0.21554683	2.7549156	21	7 13.7	21.2
530395 2011 FE_{69}	17.0	X	183.05146	282.16150	174.66883	21.60880	0.1213334	0.22362100	2.6881964	21	6 29.8	21.7
530396 2011 FN_{69}	15.7	X	281.01529	47.04837	210.25617	28.51320	0.2268061	0.18055239	3.1002774	21	1 20.6	21.2
530397 2011 FV_{69}	17.8	X	162.77318	118.77773	180.23044	21.84725	0.0866439	0.36036755	1.9557151	21	—	—
530398 2011 FN_{71}	17.1	X	171.81678	94.90296	64.23046	14.68872	0.0797515	0.23094139	2.6310850	21	9 16.3	21.3
530399 2011 FT_{73}	17.6	X	170.55200	96.19494	359.61462	7.18275	0.2557667	0.22387386	2.6861718	21	6 19.0	22.4
530400 2011 FJ_{80}	18.2	X	213.07014	124.03908	26.50039	10.33921	0.1198012	0.24163045	2.5529067	21	10 11.0	22.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530401 2011 FA_{83}	16.7	X	112.75407	263.02662	308.86784	15.51888	0.1778450	0.22599517	2.6693362	21	9 11.0	21.2
530402 2011 FV_{85}	18.5	X	45.68591	67.33738	1.28063	20.68809	0.1016847	0.36811533	1.9281765	21	—	—
530403 2011 FW_{88}	17.0	X	243.76357	63.70959	352.46844	14.24409	0.0163422	0.22164750	2.7041295	21	7 30.9	20.9
530404 2011 FN_{90}	17.5	X	159.45737	309.21403	185.59755	12.10215	0.1464564	0.22455258	2.6807564	21	7 23.5	22.0
530405 2011 FF_{106}	16.3	X	309.95162	36.35298	213.47559	12.28197	0.0189256	0.19564704	2.9386906	21	3 13.5	20.6
530406 2011 FO_{133}	17.4	X	138.35138	298.09120	183.38549	5.03719	0.1194631	0.21771016	2.7366353	21	6 15.9	21.5
530407 2011 FH_{141}	17.9	X	169.98782	134.44896	41.63105	4.10288	0.2503327	0.23363718	2.6108069	21	9 26.3	22.4
530408 2011 FV_{145}	17.3	X	112.29489	101.31956	114.95573	13.16060	0.1300566	0.22805995	2.6532002	21	9 25.0	21.5
530409 2011 FM_{146}	17.2	X	145.14343	212.18176	25.06416	12.62073	0.2082487	0.24125735	2.5555380	21	11 15.7	21.6
530410 2011 FP_{148}	16.9	X	178.84623	232.54134	287.17018	12.00386	0.2040264	0.23480753	2.6021243	21	9 6.8	21.5
530411 2011 FE_{151}	16.3	X	102.58330	217.66406	49.42791	33.54300	0.2343451	0.23189765	2.6238469	21	11 17.1	20.7
530412 2011 FZ_{154}	18.7	X	254.35909	92.76294	98.14505	24.02747	0.0688168	0.35877629	1.9614936	21	—	—
530413 2011 FR_{157}	17.4	X	207.13710	163.68587	359.98215	9.84437	0.0759190	0.24048899	2.5609784	21	10 21.5	21.2
530414 2011 FZ_{158}	17.5	X	158.45636	107.10352	40.74724	13.60192	0.2241668	0.22502025	2.6770408	21	8 18.5	22.3
530415 2011 FP_{159}	16.7	X	346.78486	325.68867	39.31816	14.81355	0.1473647	0.23094694	2.6310428	21	10 15.2	19.3
530416 2011 GV_{14}	17.8	X	171.56837	199.41840	308.62371	3.67824	0.2384061	0.22993752	2.6387373	21	8 22.4	22.5
530417 2011 GX_{26}	17.9	X	186.65352	212.57572	343.95208	4.84053	0.2131036	0.24205371	2.5499298	21	11 1.6	22.3
530418 2011 GX_{27}	16.8	X	285.13905	62.82267	296.49216	5.40215	0.0416002	0.21679982	2.7442907	21	6 30.9	20.4
530419 2011 GM_{31}	18.0	X	203.19045	98.48149	43.07281	4.48230	0.2486138	0.23549438	2.5970622	21	9 10.9	22.5
530420 2011 GN_{32}	16.9	X	256.11257	267.94982	203.75241	21.46830	0.1004132	0.23609382	2.5926644	21	10 13.0	20.1
530421 2011 GV_{41}	17.1	X	124.67981	107.57050	72.00824	13.65929	0.2103940	0.22257355	2.6966237	21	8 28.5	21.8
530422 2011 GO_{49}	17.4	X	195.60805	286.79987	200.74719	12.15142	0.2029816	0.22998609	2.6383658	21	8 14.6	22.0
530423 2011 GU_{53}	17.3	X	65.58000	129.37956	187.99139	3.08232	0.1423958	0.23959336	2.5673566	21	12 7.9	20.9
530424 2011 GV_{56}	17.7	X	143.37417	68.52902	165.51994	11.87601	0.1310065	0.23621865	2.5917509	21	11 14.8	21.9
530425 2011 GZ_{56}	17.5	X	231.51518	58.22196	63.17079	6.35688	0.2398279	0.23961501	2.5672019	21	9 12.8	21.6
530426 2011 GG_{57}	17.0	X	109.15840	221.96383	43.35922	13.52160	0.1350187	0.23513966	2.5996734	21	11 16.1	21.0
530427 2011 GK_{61}	18.2	X	159.39567	90.79063	140.63589	5.98042	0.2243294	0.24198359	2.5504224	21	11 24.1	22.6
530428 2011 GU_{61}	16.5	X	95.93288	183.57428	95.31645	15.20259	0.2278082	0.23161062	2.6260142	21	11 30.1	20.9
530429 2011 GD_{63}	18.2	X	66.19791	290.38200	179.14845	22.21423	0.1137187	0.38212941	1.8807413	21	1 5.0	20.2
530430 2011 GL_{73}	17.6	X	140.18733	262.93688	318.81912	5.50570	0.1656044	0.23369648	2.6103652	21	10 22.9	22.0
530431 2011 GR_{78}	18.8	X	266.19565	69.97087	71.78221	13.96038	0.2228343	0.35187189	1.9870692	21	12 20.2	19.7
530432 2011 GK_{90}	17.8	X	226.19079	225.30395	269.81532	4.44392	0.0546691	0.23642272	2.5902593	21	10 10.3	21.5
530433 2011 GM_{90}	16.9	X	88.90583	354.06909	238.70228	11.01519	0.0306099	0.21994293	2.7180830	21	8 25.7	20.8
530434 2011 GP_{90}	17.6	X	195.62117	54.00794	141.14078	6.34215	0.0758701	0.23696040	2.5863395	21	11 21.6	21.4
530435 2011 GT_{90}	17.2	X	282.80817	16.13232	27.01054	15.36102	0.0936840	0.23069656	2.6329461	21	8 27.7	20.8
530436 2011 GW_{90}	17.2	X	347.42996	180.51662	215.87484	6.49993	0.1315527	0.24325792	2.5415074	21	11 29.4	19.8
530437 2011 GA_{91}	15.9	X	241.57119	235.17159	35.61190	27.26133	0.2078472	0.17434475	3.1734388	21	1 16.7	21.7
530438 2011 GB_{91}	16.5	X	243.23096	233.78431	78.09616	5.74202	0.0961541	0.18395545	3.0619231	21	3 9.9	21.2
530439 2011 HW_{3}	15.9	X	88.13533	359.12207	131.59852	16.02560	0.0923953	0.19825757	2.9128371	21	5 2.3	20.2
530440 2011 HL_{5}	16.8	X	117.05732	189.54148	74.50701	15.86132	0.2368655	0.23277638	2.6172393	21	11 28.7	21.3
530441 2011 HV_{6}	18.1	X	307.98530	124.84753	61.35818	24.06796	0.0505316	0.36466491	1.9403202	21	—	—
530442 2011 HA_{12}	17.0	X	70.81825	170.77491	115.49322	10.53237	0.1184366	0.22502841	2.6769761	21	11 3.6	20.9
530443 2011 HV_{12}	16.7	X	51.52703	171.39910	96.50029	16.16050	0.0945896	0.21632337	2.7483187	21	9 13.8	20.6
530444 2011 HV_{13}	17.7	X	215.86055	326.56167	191.15401	13.12265	0.1976174	0.24104310	2.5570521	21	10 14.9	21.5
530445 2011 HP_{17}	17.7	X	135.04725	201.56981	27.26100	1.64069	0.1234980	0.23546608	2.5972703	21	10 28.2	21.7
530446 2011 HM_{19}	18.2	X	187.91707	10.43250	183.14761	4.09071	0.1712233	0.23745329	2.5827592	21	11 3.7	22.2
530447 2011 HH_{25}	17.6	X	197.48420	156.97135	43.96472	7.64489	0.0682236	0.24290567	2.5439639	21	11 30.0	21.2
530448 2011 HU_{30}	16.5	X	143.28535	170.25429	93.38970	14.17978	0.1641547	0.23747714	2.5825863	21	12 17.9	20.7
530449 2011 HB_{32}	16.5	X	251.19688	141.22550	153.50986	9.68150	0.1348631	0.17840557	3.1250990	21	2 20.4	21.4
530450 2011 HU_{34}	16.2	X	297.47028	87.48293	172.52786	20.48329	0.1165598	0.18305638	3.0719405	21	2 28.8	20.6
530451 2011 HA_{35}	16.2	X	272.61768	64.60977	208.42042	25.01223	0.2830970	0.17611218	3.1521711	21	1 27.7	21.9
530452 2011 HJ_{36}	16.3	X	237.00976	188.58053	126.87696	12.45134	0.1358400	0.17903380	3.1177840	21	3 6.0	21.3
530453 2011 HN_{36}	16.5	X	154.06756	70.22196	75.11064	13.32861	0.1204497	0.21844701	2.7304778	21	8 5.2	20.9
530454 2011 HT_{44}	16.2	X	233.21486	215.85703	109.89817	10.81105	0.0969477	0.18344705	3.0675776	21	3 17.9	21.0
530455 2011 HF_{49}	16.4	X	244.32156	151.49959	163.30163	10.24580	0.0958019	0.18433479	3.0577209	21	3 12.2	21.0
530456 2011 HP_{50}	17.5	X	119.62194	121.76127	97.66641	13.85178	0.2115526	0.22655202	2.6649604	21	10 13.3	22.2
530457 2011 HL_{51}	17.5	X	115.64312	125.38121	169.49843	11.51937	0.1948488	0.23755684	2.5820086	21	12 31.2	22.0
530458 2011 HV_{52}	18.8	X	207.55992	262.37563	22.98022	19.80558	0.1034354	0.36415053	1.9421470	21	—	—
530459 2011 HM_{54}	16.2	X	273.38995	171.63524	103.37712	11.76063	0.0378342	0.18186001	3.0853984	21	3 6.9	20.8
530460 2011 HL_{58}	16.2	X	238.62902	222.43361	103.04817	10.58772	0.1179304	0.18582448	3.0413572	21	3 21.8	21.1
530461 2011 HA_{59}	16.4	X	252.09070	117.69045	170.12880	9.98035	0.1986455	0.17625989	3.1504098	21	2 7.7	21.6
530462 2011 HL_{59}	16.7	X	53.39823	152.73577	165.87742	10.15795	0.1636302	0.22919128	2.6444619	21	11 28.0	20.5
530463 2011 HS_{64}	17.7	X	183.78142	7.78901	168.13281	13.87437	0.1123199	0.23487561	2.6016214	21	10 13.6	21.7
530464 2011 HM_{65}	18.0	X	349.02090	43.90672	47.49551	21.89922	0.0955747	0.35370964	1.9801805	21	—	—
530465 2011 HW_{66}	16.3	X	49.95857	164.44255	103.23249	13.57347	0.1036477	0.21415926	2.7668024	21	9 10.5	20.1
530466 2011 HC_{74}	17.4	X	145.78861	137.65651	78.81241	13.83277	0.1274283	0.22993615	2.6387478	21	10 28.5	21.7
530467 2011 HK_{74}	18.4	X	355.45770	267.78758	211.07114	21.01897	0.0983920	0.36261395	1.9476297	21	—	—
530468 2011 HH_{78}	15.3	X	255.25231	110.52441	173.92493	15.78963	0.0334930	0.17833975	3.1258679	21	2 20.0	19.9
530469 2011 HX_{79}	17.8	X	171.28489	162.45171	68.25849	14.25093	0.2078630	0.24062397	2.5600206	21	12 1.4	22.2
530470 2011 HV_{80}	17.7	X	148.10228	117.34362	196.04078	22.99224	0.0778802	0.35464682	1.9766905	21	—	—
530471 2011 HX_{89}	17.4	X	126.18724	99.77119	57.50222	14.87249	0.1313519	0.21592130	2.7517294	21	7 22.4	21.8
530472 2011 HG_{96}	17.9	X	191.34821	51.67698	150.18195	13.78428	0.1091161	0.24440483	2.5335503	21	11 25.1	21.9
530473 2011 HR_{96}	17.0	X	92.49150	333.42742	203.17502	6.95057	0.1408044	0.20891256	2.8129349	21	7 6.5	21.0
530474 2011 HM_{100}	16.5	X	234.60834	202.21514	115.29700	10.62161	0.1571814	0.17994869	3.1072075	21	3 5.3	21.6
530475 2011 HW_{103}	17.1	X	107.27502	230.14532	83.70829	11.12402	0.1333318	0.24127529	2.5554114	21	—	—
530476 2011 HA_{104}	17.7	X	75.06752	110.45940	210.51932	11.36105	0.1150983	0.23537376	2.5979494	21	12 18.2	21.6
530477 2011 HB_{104}	16.4	X	249.05460	161.54547	126.83379	15.92475	0.2256387	0.17200553	3.2021458	21	2 6.7	21.7
530478 2011 HC_{104}	16.3	X	160.40520	25.43961	70.86550	16.04311	0.1074972	0.20365395	2.8611513	21	6 5.9	20.6
530479 2011 HK_{104}	16.6	X	268.06238	128.49365	188.08497	8.64415	0.0794479	0.18940260	3.0029315	21	4 10.7	20.9
530480 2011 HM_{104}	17.1	X	337.12010	347.17669	70.97515	13.26758	0.1548981	0.23841301	2.5758234	21	12 10.4	19.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530481 2011 JX_2	17.1	X	182.59560	80.15110	70.34148	27.79933	0.2350616	0.22980407	2.6397587	21	9 20.1	22.3
530482 2011 JB_5	17.6	X	208.28158	349.97234	194.53410	13.20593	0.1814471	0.24148298	2.5539459	21	11 12.1	21.6
530483 2011 JW_6	17.4	X	135.32905	172.91885	118.05124	14.89707	0.1962558	0.24269830	2.5454128	21	—	—
530484 2011 JG_8	18.8	X	193.06956	256.18168	54.28264	34.46630	0.0542962	0.46142866	1.6585669	21	—	—
530485 2011 JL_8	18.5	X	155.58604	298.81367	42.80848	22.65572	0.1079228	0.36413258	1.9422108	21	—	—
530486 2011 JR_8	15.9	X	163.78568	288.98619	114.17399	11.54336	0.1089637	0.18915553	3.0055459	21	4 11.4	20.7
530487 2011 JY_{12}	17.2	X	132.45152	108.12427	144.68530	12.49460	0.2456321	0.23391934	2.6087070	21	11 29.3	22.0
530488 2011 JA_{14}	17.3	X	191.95751	346.13572	172.31948	13.50740	0.2029279	0.23249381	2.6193596	21	9 22.9	21.7
530489 2011 JK_{15}	17.0	X	116.21570	213.10800	19.52335	14.82588	0.2458563	0.22656000	2.6648978	21	10 19.8	21.6
530490 2011 JD_{17}	17.3	X	173.29751	203.26296	46.60385	8.31243	0.2833590	0.24294289	2.5437041	21	12 22.0	21.8
530491 2011 JO_{20}	17.5	X	186.91873	21.46218	171.50737	3.41276	0.1442917	0.23668323	2.5883583	21	11 3.6	21.4
530492 2011 JQ_{21}	17.8	X	137.26118	163.21214	103.56962	3.65515	0.1526408	0.23964990	2.5669528	21	12 16.4	21.9
530493 2011 JY_{25}	16.3	X	252.40333	221.89404	84.53998	10.72572	0.0762661	0.18273848	3.0755022	21	3 17.7	21.0
530494 2011 JE_{26}	16.9	X	72.95415	201.93440	147.56529	4.66042	0.2596954	0.23697433	2.5862382	21	—	—
530495 2011 JH_{26}	17.2	X	48.10892	259.67807	70.69998	11.12789	0.0363417	0.23258984	2.6186386	21	11 17.7	20.6
530496 2011 JN_{28}	17.1	X	126.88251	22.74701	237.23547	13.48189	0.2255206	0.23230148	2.6208051	21	11 30.2	21.7
530497 2011 JA_{30}	17.2	X	145.49128	187.92095	54.77040	15.01160	0.2038706	0.23613792	2.5923416	21	11 23.7	21.5
530498 2011 JS_{31}	16.8	X	128.09794	175.72315	94.54030	9.06201	0.1776036	0.24229258	2.5482536	21	12 13.6	20.9
530499 2011 JH_{32}	17.5	X	109.40059	82.07126	226.34623	12.57083	0.1870548	0.24006493	2.5639934	21	—	—
530500 2011 JL_{32}	17.6	X	186.44824	98.13966	58.51704	12.47496	0.1324907	0.22781405	2.6551091	21	9 24.7	21.9
530501 2011 JP_{32}	16.3	X	203.04038	199.19132	153.15303	8.51845	0.1880423	0.18005951	3.1059324	21	3 16.3	21.6
530502 2011 JR_{32}	17.8	X	173.70963	353.62999	207.00434	12.27789	0.1690724	0.23458881	2.6037414	21	10 29.9	22.0
530503 2011 JU_{32}	16.9	X	203.98316	40.36709	75.17510	8.32211	0.1612782	0.22007406	2.7170032	21	8 15.3	21.3
530504 2011 JY_{32}	16.7	X	341.18656	103.16024	134.68359	10.09638	0.0751579	0.19102023	2.9859542	21	4 10.6	20.7
530505 2011 JA_{33}	17.4	X	71.56209	241.17381	60.77000	5.57234	0.2520229	0.22706508	2.6609445	21	12 4.9	21.5
530506 2011 JD_{33}	16.1	X	1.46404	320.29973	195.16576	31.66979	0.0649258	0.17242084	3.1970017	21	1 20.8	21.0
530507 2011 KW_1	17.2	X	85.23004	113.87914	169.94104	12.62611	0.1654254	0.22585874	2.6704110	21	11 20.2	21.4
530508 2011 KP_2	16.4	X	277.28806	177.40754	188.95603	1.81778	0.0841487	0.20428235	2.8552808	21	6 23.1	20.4
530509 2011 KO_4	17.1	X	191.89013	105.73491	56.50814	28.80918	0.3753279	0.23590625	2.5940385	21	10 6.9	22.5
530510 2011 KP_9	17.6	X	156.60261	152.62455	96.13834	5.41245	0.1825696	0.23935954	2.5690283	21	12 11.5	21.9
530511 2011 KU_{12}	17.3	X	113.58904	112.03003	143.62029	15.93254	0.1242731	0.22817680	2.6522944	21	11 13.3	21.7
530512 2011 KO_{16}	16.9	X	119.77046	69.26483	214.24462	29.43015	0.2916441	0.23192971	2.6236051	21	12 19.9	22.1
530513 2011 KT_{18}	17.4	X	129.36454	86.44782	200.01046	8.17176	0.1560402	0.23895169	2.5719507	21	12 31.9	21.7
530514 2011 KO_{22}	17.4	X	119.62143	111.81284	148.02676	12.71651	0.2471854	0.23003251	2.6380108	21	11 27.7	22.2
530515 2011 KT_{29}	17.4	X	188.48731	144.23132	77.56557	6.13712	0.1403632	0.24166954	2.5526314	21	12 10.3	21.3
530516 2011 KL_{49}	16.3	X	50.28839	119.47100	99.16426	10.80508	0.0961651	0.20270845	2.8700413	21	6 28.4	19.8
530517 2011 KS_{49}	17.4	X	221.71095	31.77782	151.65067	7.75567	0.1049456	0.24114559	2.5563276	21	12 3.7	21.0
530518 2011 KU_{49}	16.9	X	334.54657	231.14256	108.07808	7.26226	0.0202228	0.21478035	2.7614659	21	8 16.3	20.5
530519 2011 LM_5	17.2	X	119.81791	191.39442	79.49582	14.21018	0.2639739	0.23239009	2.6201389	21	12 8.8	21.8
530520 2011 LT_{17}	21.6	X	200.58331	270.59776	83.46317	20.89698	0.2873819	0.85465316	1.0997048	21	—	—
530521 2011 LQ_{19}	17.2	X	146.31863	118.02466	108.72496	30.25155	0.3418931	0.23136991	2.6278352	21	11 18.6	22.7
530522 2011 LQ_{23}	18.6	X	343.24620	105.53477	216.77080	6.67446	0.2209494	0.30341183	2.1933825	21	7 28.3	19.8
530523 2011 LH_{29}	18.5	X	324.06572	137.77175	189.66297	6.16820	0.2057551	0.28778092	2.2721032	21	6 19.9	20.4
530524 2011 MH_{11}	17.5	X	119.38047	190.92426	110.16537	3.68488	0.1504218	0.23820697	2.5773085	21	—	—
530525 2011 MQ_{11}	16.7	X	255.72788	99.94047	266.26246	14.52707	0.2524050	0.17909343	3.1170919	21	5 7.8	21.9
530526 2011 MS_{11}	17.2	X	96.18326	161.79281	85.46864	5.51457	0.0233120	0.21189716	2.7864588	21	9 29.9	21.1
530527 2011 ND_1	16.7	X	165.64442	126.98843	133.83451	31.63940	0.2325520	0.23468965	2.6029956	21	—	—
530528 2011 NJ_4	15.7	X	309.35846	5.91711	273.74883	8.23817	0.0660598	0.17605952	3.1527997	21	4 14.9	20.2
530529 2011 NO_4	16.6	X	285.32710	114.58795	246.62910	10.79765	0.0950951	0.18987621	2.9979359	21	6 24.9	20.8
530530 2011 OK_2	18.1	X	298.02721	174.47455	250.88934	6.02616	0.0470322	0.30747297	2.1740261	21	10 28.9	20.4
530531 2011 OL_5	20.3	X	250.86797	64.93934	105.69624	15.73205	0.1586103	0.73008509	1.2214820	21	—	—
530532 2011 OP_7	16.8	X	110.37110	298.51779	321.46086	7.24884	0.1740673	0.22013170	2.7165289	21	11 10.2	21.3
530533 2011 OV_{15}	15.7	X	236.46626	105.19098	278.77491	21.63180	0.2797339	0.17618040	3.1513574	21	5 10.6	21.4
530534 2011 OQ_{16}	17.1	X	86.29833	61.96221	175.27489	15.06220	0.1049043	0.20119927	2.8843754	21	9 11.0	21.3
530535 2011 OR_{18}	18.1	X	332.27149	110.89766	219.00122	9.02564	0.2814328	0.29046244	2.2580977	21	6 29.7	19.5
530536 2011 OO_{22}	15.9	X	296.83689	184.55940	116.79566	23.45956	0.0652561	0.18015554	3.1048286	21	5 9.5	20.7
530537 2011 OB_{23}	15.9	X	250.09007	240.36153	64.75118	7.28070	0.1039224	0.16824635	3.2496677	21	3 11.0	20.9
530538 2011 OV_{36}	17.7	X	108.31458	280.16117	6.53165	2.65519	0.2297590	0.22568456	2.6717848	21	12 15.9	22.2
530539 2011 OF_{39}	14.7	X	277.68837	162.49669	197.47965	10.12425	0.0735012	0.08339495	5.1885128	21	6 19.1	21.6
530540 2011 OY_{39}	18.2	X	319.41595	191.70394	157.13639	5.24975	0.2843941	0.29001907	2.2603985	21	6 30.4	19.9
530541 2011 OG_{45}	17.0	X	269.67776	59.37077	290.19532	23.51004	0.2446051	0.27686771	2.3314236	21	4 16.6	21.2
530542 2011 OV_{52}	16.1	X	300.41196	173.77661	126.34030	28.22517	0.0745140	0.18235116	3.0798556	21	5 12.4	20.9
530543 2011 OA_{61}	17.0	X	48.38413	2.75060	309.35069	11.98497	0.1170219	0.20965108	2.8063251	21	10 26.6	21.0
530544 2011 PP_6	17.3	X	157.67401	31.42843	229.53456	6.02289	0.2017796	0.22995101	2.6386341	21	12 24.4	21.7
530545 2011 PX_{11}	17.8	X	107.17354	110.40545	178.98872	5.42554	0.1907612	0.22496058	2.6775141	21	12 16.5	22.2
530546 2011 PL_{16}	16.6	X	271.11298	126.37940	253.71209	9.58332	0.1477005	0.18665099	3.0323723	21	6 23.7	21.0
530547 2011 PN_{16}	16.9	X	191.71717	265.03422	206.32145	8.91499	0.0216251	0.19206669	2.9750985	21	7 27.9	21.3
530548 2011 QP	18.4	X	296.94490	125.35094	208.57544	4.92661	0.2358042	0.28265634	2.2994831	21	5 8.7	21.1
530549 2011 QU	18.9	X	272.88345	101.54930	284.24704	6.85288	0.2590340	0.28456324	2.2891988	21	6 16.6	21.9
530550 2011 QB_2	16.9	X	289.22451	27.39412	339.13826	11.58699	0.0710061	0.18535008	3.0465446	21	7 14.1	21.2
530551 2011 QY_2	16.5	X	53.50280	150.51890	153.04215	14.28992	0.2505972	0.21051779	2.7986173	21	11 20.1	20.7
530552 2011 QV_3	16.5	X	251.42721	81.25812	281.88456	9.21153	0.1032637	0.17660018	3.1463615	21	5 15.4	21.4
530553 2011 QQ_4	14.4	X	357.69257	37.90211	226.32589	9.17940	0.0651485	0.08156092	5.2660057	21	6 10.3	21.0
530554 2011 QS_{11}	16.9	X	310.78109	94.52027	221.74162	23.22843	0.3114575	0.28393659	2.2925658	21	4 18.1	19.7
530555 2011 QZ_{12}	17.4	X	114.85320	143.51376	175.33892	12.39247	0.3033232	0.22955213	2.6416899	21	—	—
530556 2011 QL_{14}	17.9	X	300.19266	6.29576	332.48258	4.94274	0.2575617	0.28454925	2.2892739	21	5 14.0	20.8
530557 2011 QQ_{19}	16.8	X	236.31626	82.57330	312.05281	16.63725	0.2672365	0.17548114	3.1597236	21	5 23.9	22.5
530558 2011 QF_{21}	18.0	X	310.48812	343.04994	17.50481	7.21341	0.3058010	0.28953551	2.2629145	21	6 26.7	20.1
530559 2011 QZ_{24}	17.6	X	242.63096	281.96280	169.48938	21.00706	0.2629039	0.28816440	2.2700870	21	8 10.0	21.3
530560 2011 QN_{26}	18.2	X	318.67124	155.00946	186.48695	5.23531	0.2570504	0.28987241	2.2611609	21	6 21.8	20.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530561 2011 QM_{33}	18.3	X	299.51562	190.19526	163.90488	4.07650	0.2557686	0.28650998	2.2788175	21	6 7.5	20.8
530562 2011 QU_{33}	18.4	X	333.91016	22.93531	343.41800	3.46983	0.1647485	0.29841839	2.2177827	21	9 27.9	19.8
530563 2011 QU_{55}	17.7	X	117.13882	100.26176	194.32691	10.30470	0.1720939	0.22460493	2.6803398	21	12 29.1	22.3
530564 2011 QC_{57}	18.9	X	308.15244	120.20276	238.26754	1.70526	0.1744341	0.28988474	2.2610967	21	7 14.2	21.1
530565 2011 QC_{58}	16.6	X	347.14955	157.03197	197.99620	11.69391	0.0737426	0.19772296	2.9180853	21	9 19.3	20.3
530566 2011 QV_{60}	18.7	X	345.34348	116.18768	192.13967	7.71990	0.2464050	0.29033451	2.2587610	21	7 4.9	20.1
530567 2011 QL_{63}	19.0	X	324.46003	46.31492	315.75955	0.61936	0.1755729	0.29222568	2.2490052	21	8 26.4	20.3
530568 2011 QD_{65}	17.4	X	267.03551	71.28653	349.72400	23.30981	0.2438731	0.28785935	2.2716905	21	8 10.7	20.7
530569 2011 QU_{83}	19.0	X	305.51660	348.05374	346.23268	8.49502	0.2321467	0.28420346	2.2911304	21	5 18.6	21.7
530570 2011 QK_{85}	17.9	X	89.25922	59.35401	243.47719	2.41884	0.1838616	0.21692190	2.7432609	21	12 14.7	22.1
530571 2011 QB_{89}	16.6	X	283.82035	49.33253	300.71872	8.99724	0.1678173	0.18317005	3.0706694	21	5 28.3	21.0
530572 2011 QQ_{92}	17.3	X	64.24281	45.79449	295.60917	6.92987	0.2364672	0.21717555	2.7411245	21	—	—
530573 2011 QG_{95}	18.1	X	34.40507	40.83889	312.04323	5.82007	0.2429732	0.31100802	2.1575208	21	—	—
530574 2011 QD_{98}	18.5	X	8.98559	268.79920	93.66560	4.84777	0.1842540	0.30852513	2.1690806	21	12 13.6	20.3
530575 2011 QZ_{99}	16.3	X	225.35628	142.28077	352.34893	14.79441	0.0837888	0.20253871	2.8716446	21	9 30.4	20.6
530576 2011 QG_{100}	16.9	X	108.23197	155.85511	98.35724	3.28193	0.0146645	0.20319327	2.8654742	21	10 20.2	20.9
530577 2011 QJ_{100}	16.8	X	264.89996	215.22770	163.84206	9.27992	0.1090987	0.18062715	3.0994219	21	6 21.0	21.4
530578 2011 QQ_{100}	18.3	X	308.54362	244.01233	120.57192	3.11832	0.0398061	0.29058143	2.2574812	21	8 15.4	20.5
530579 2011 QW_{100}	16.2	X	247.05703	25.53314	338.91969	16.32741	0.1923574	0.17599131	3.1536142	21	4 28.1	21.5
530580 2011 RL_{4}	16.4	X	246.86791	48.49754	14.84609	15.89859	0.1563641	0.18155847	3.0888136	21	7 25.5	21.4
530581 2011 RE_{9}	17.1	X	270.42798	85.73771	341.83410	11.69275	0.0325837	0.19567483	2.9384124	21	9 9.5	21.1
530582 2011 RS_{10}	18.5	X	280.59815	76.51832	296.70529	3.24033	0.2364602	0.28518287	2.2858817	21	6 11.4	21.4
530583 2011 RH_{20}	16.7	X	228.28210	233.13425	187.49847	9.62142	0.0879651	0.17977958	3.1091557	21	7 2.8	21.6
530584 2011 RK_{20}	16.3	X	335.44157	327.95871	343.51961	16.35968	0.0789907	0.18371122	3.0646362	21	7 8.6	20.5
530585 2011 RL_{20}	16.7	X	279.30939	11.30327	343.26169	8.86180	0.0882050	0.18009902	3.1054781	21	6 9.4	21.2
530586 2011 RE_{21}	17.6	X	22.10282	69.34491	302.41739	5.37316	0.0347889	0.21057667	2.7980956	21	11 30.0	21.4
530587 2011 RQ_{21}	16.9	X	13.77329	333.66758	325.02566	3.80386	0.1403866	0.19061187	2.9902174	21	8 22.2	20.4
530588 2011 SW_{2}	17.0	X	62.32701	303.40895	325.98239	4.83453	0.0168139	0.19524359	2.9427375	21	9 8.3	21.0
530589 2011 SO_{3}	17.1	X	108.58317	135.96481	188.39556	13.48552	0.2605650	0.22723843	2.6595910	21	—	—
530590 2011 SP_{4}	18.0	X	281.66545	137.87492	215.45621	5.66921	0.1456676	0.27981968	2.3149976	21	5 30.3	20.8
530591 2011 SO_{16}	16.4	X	127.63166	232.04061	275.21316	7.94489	0.0526303	0.18033218	3.1028008	21	6 30.5	20.9
530592 2011 SN_{24}	18.1	X	278.85249	354.20767	3.80076	7.44665	0.2464102	0.27696037	2.3309035	21	5 15.7	21.6
530593 2011 SH_{25}	16.7	X	113.92840	96.67997	224.55329	27.57922	0.3654701	0.22675046	2.6634053	21	—	—
530594 2011 SN_{31}	17.4	X	287.93848	60.47630	296.05421	5.76505	0.1475660	0.27975825	2.3153365	21	6 12.0	20.2
530595 2011 SK_{35}	17.3	X	169.04505	322.11334	192.93783	21.47196	0.1415870	0.28392842	2.2926098	21	8 29.1	21.1
530596 2011 SV_{36}	18.6	X	267.53439	22.38949	38.51657	6.32033	0.2029156	0.28495099	2.2871217	21	8 10.4	21.5
530597 2011 SO_{42}	17.5	X	13.53669	357.33413	353.63004	9.69752	0.0985320	0.20339535	2.8635759	21	10 25.6	21.1
530598 2011 SE_{49}	15.9	X	298.98060	20.66670	353.60676	15.29080	0.1201296	0.18743314	3.0239305	21	8 3.0	20.0
530599 2011 SP_{49}	16.6	X	64.15620	343.98576	353.92050	15.34987	0.1952437	0.21542229	2.7559772	21	—	—
530600 2011 ST_{50}	17.6	X	140.69141	278.47176	350.91998	8.80614	0.2182237	0.22364317	2.6880187	21	12 20.3	22.4
530601 2011 SG_{54}	18.6	X	262.30723	22.92687	41.79228	7.55006	0.2136519	0.28458124	2.2891023	21	8 7.5	21.6
530602 2011 SH_{56}	17.9	X	260.59496	301.25345	71.44666	4.00054	0.2302564	0.27486515	2.3427337	21	5 20.5	21.3
530603 2011 SJ_{56}	17.9	X	281.44789	228.99274	138.70862	3.18615	0.2083482	0.27961613	2.3161210	21	6 9.7	20.8
530604 2011 SJ_{62}	18.9	X	294.51031	153.67064	244.40107	0.94008	0.1598976	0.29235372	2.2483485	21	8 24.1	20.7
530605 2011 SD_{64}	18.7	X	309.94002	286.89674	74.86940	6.50276	0.1988515	0.28799824	2.2709600	21	7 20.3	20.7
530606 2011 SJ_{65}	18.8	X	312.36226	104.44625	299.53282	5.00927	0.2158391	0.29539210	2.2329044	21	10 1.8	20.3
530607 2011 SP_{65}	16.2	X	252.01243	153.56771	222.01160	10.49757	0.2021520	0.17375083	3.1806664	21	5 23.2	21.3
530608 2011 SS_{71}	16.9	X	149.81049	89.60831	215.97650	27.62594	0.3507351	0.23231311	2.6207177	21	—	—
530609 2011 SG_{72}	17.3	X	79.77753	341.34259	324.91159	3.40006	0.1911965	0.21348114	2.7726584	21	12 9.7	21.6
530610 2011 SB_{78}	19.0	X	271.68812	200.21818	196.00546	3.09666	0.2423835	0.28370302	2.2938239	21	7 1.8	22.1
530611 2011 SJ_{83}	18.0	X	285.58916	330.67209	353.41916	4.74179	0.2397653	0.27309999	2.3528176	21	4 9.8	21.3
530612 2011 SJ_{84}	17.8	X	252.89082	14.60707	21.26205	7.86074	0.1120793	0.27614070	2.3355138	21	6 26.9	21.0
530613 2011 SS_{84}	18.8	X	289.82294	347.58956	37.42117	5.86906	0.2382818	0.28365720	2.2940709	21	7 12.9	21.5
530614 2011 SE_{86}	18.3	X	327.55743	206.59697	147.67116	4.49120	0.1994588	0.28782755	2.2718578	21	8 16.9	19.5
530615 2011 SO_{86}	17.2	X	97.50101	315.18197	351.72984	8.95158	0.2287652	0.21688775	2.7435489	21	12 30.6	22.0
530616 2011 SU_{87}	18.0	X	322.91419	358.10314	308.23276	3.24772	0.1681708	0.27750825	2.3278346	21	5 20.2	20.3
530617 2011 SB_{88}	18.5	X	263.75579	135.25984	248.98233	2.75095	0.2766777	0.27739811	2.3284507	21	6 2.6	22.1
530618 2011 SS_{91}	18.0	X	300.38868	140.35421	225.07758	4.27680	0.1494416	0.28292920	2.2980044	21	7 14.6	20.5
530619 2011 SP_{93}	18.5	X	307.60460	102.35995	229.85622	4.76207	0.1998882	0.28022745	2.3127513	21	5 28.5	20.8
530620 2011 ST_{93}	17.4	X	321.67593	320.00050	344.62142	6.51200	0.1318948	0.27615888	2.3354113	21	5 20.3	19.9
530621 2011 SK_{99}	16.3	X	313.92306	188.87123	181.53103	9.82755	0.1063378	0.18873238	3.0100365	21	8 14.9	20.1
530622 2011 SS_{103}	18.1	X	283.84987	206.24808	166.64178	7.08242	0.2064106	0.28253003	2.3001684	21	6 20.5	21.0
530623 2011 SW_{103}	18.0	X	287.39119	129.28467	222.47587	5.87245	0.1658816	0.27695419	2.3309382	21	6 1.8	20.9
530624 2011 SP_{106}	17.5	X	285.65121	113.09755	239.86452	6.98965	0.1420339	0.27807846	2.3246513	21	6 4.7	20.4
530625 2011 SF_{107}	18.5	X	320.27485	14.35719	22.92304	3.98473	0.1754671	0.29200400	2.2501433	21	10 17.3	19.8
530626 2011 SH_{111}	18.4	X	319.14724	320.81200	19.99977	5.26814	0.2311920	0.28947980	2.2632049	21	6 27.4	20.2
530627 2011 SW_{111}	17.7	X	302.65406	350.96057	333.47201	9.53845	0.1783050	0.27795370	2.3253469	21	5 8.4	20.6
530628 2011 SX_{114}	17.8	X	301.55452	351.83622	343.83598	2.42917	0.2347002	0.27986201	2.3147642	21	5 16.8	20.3
530629 2011 SF_{118}	17.3	X	284.46358	307.25110	9.26264	11.85783	0.2735734	0.27309352	2.3528547	21	3 27.5	20.6
530630 2011 SN_{119}	18.1	X	282.13685	46.22225	310.37042	5.78125	0.2112489	0.27871249	2.3211245	21	5 23.6	21.3
530631 2011 SZ_{127}	18.2	X	265.41662	34.64176	34.56085	4.80395	0.1319586	0.28736991	2.2742691	21	8 31.1	20.9
530632 2011 SS_{146}	17.0	X	27.12816	189.74339	78.34512	1.36402	0.1411115	0.18651828	3.0338104	21	8 3.7	20.6
530633 2011 SC_{151}	18.7	X	283.75290	248.59949	160.75566	3.06598	0.2262363	0.28892656	2.2660930	21	8 10.0	21.1
530634 2011 SP_{156}	16.6	X	86.01105	130.67992	148.89236	2.57066	0.0310675	0.20272219	2.8699117	21	10 26.2	20.5
530635 2011 SQ_{159}	17.4	X	312.04303	100.94021	231.44645	6.65225	0.1465936	0.28082327	2.3094788	21	6 14.9	19.9
530636 2011 SJ_{160}	17.6	X	313.24720	355.36801	336.72337	6.42909	0.1539193	0.28161134	2.3051682	21	6 15.1	19.9
530637 2011 SN_{162}	17.9	X	279.54147	47.21900	299.80895	5.43747	0.1521690	0.27429135	2.3459998	21	5 15.7	21.2
530638 2011 SF_{165}	17.7	X	315.54662	318.34503	24.11819	3.30217	0.2440656	0.28107313	2.3081100	21	6 19.6	19.7
530639 2011 SQ_{165}	16.7	X	344.88764	24.80231	294.50198	5.96361	0.2844381	0.18913970	3.0057136	21	7 18.9	19.0
530640 2011 SB_{169}	17.2	X	47.05037	32.17150	298.48806	1.06487	0.0715952	0.20330686	2.8644068	21	11 15.0	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530641 2011 SV_{170}	18.2	X	306.91020	110.30764	217.32387	3.82313	0.2303046	0.27742202	2.3283169	21	5 15.2	20.9
530642 2011 SO_{173}	17.8	X	304.82291	316.56510	6.68617	5.01580	0.1960901	0.27830325	2.3233993	21	5 9.5	20.4
530643 2011 SQ_{174}	17.8	X	261.85648	156.08759	215.50723	9.18603	0.2205127	0.27727936	2.3291155	21	5 21.7	21.2
530644 2011 SO_{181}	18.1	X	247.48972	194.47223	234.42662	5.38328	0.0670768	0.28232774	2.3012671	21	8 10.2	21.1
530645 2011 SA_{184}	18.6	X	283.50809	270.35021	81.43994	2.59652	0.2107214	0.27566896	2.3381775	21	5 20.5	21.6
530646 2011 SB_{184}	18.1	X	293.71651	233.36707	99.98282	2.10541	0.2292630	0.27511646	2.3413068	21	5 5.4	21.2
530647 2011 SJ_{185}	18.6	X	352.67570	264.09665	93.62915	3.19456	0.1942982	0.29577156	2.2309942	21	11 2.9	20.0
530648 2011 SK_{195}	17.2	X	34.37736	15.19425	298.40179	3.27201	0.0660625	0.20104163	2.8858830	21	10 4.7	20.9
530649 2011 SJ_{205}	18.5	X	317.77482	292.39302	63.80986	3.29324	0.2424990	0.28821894	2.2698006	21	7 19.5	20.0
530650 2011 SF_{210}	18.4	X	347.54552	345.49315	39.97957	5.70090	0.1626904	0.29973216	2.2112974	21	12 1.5	20.2
530651 2011 SO_{217}	16.7	X	202.51605	108.64742	358.13754	25.79700	0.2473471	0.17925273	3.1152449	21	8 6.5	22.5
530652 2011 SJ_{225}	17.8	X	317.22656	341.43016	348.94816	3.94450	0.1701248	0.27943338	2.3171307	21	6 17.2	20.0
530653 2011 SY_{227}	16.3	X	351.75973	320.35028	354.38297	9.92102	0.0846972	0.18294775	3.0731564	21	8 7.2	20.2
530654 2011 SR_{229}	16.8	X	317.74344	195.84628	244.51412	4.43655	0.0903560	0.21253855	2.7808501	21	11 29.6	20.1
530655 2011 SW_{230}	18.0	X	337.11353	307.51482	11.30760	3.39754	0.2167567	0.28330964	2.2959468	21	7 6.3	19.4
530656 2011 SX_{254}	17.4	X	261.77531	21.06332	32.94012	6.57917	0.1686330	0.28571876	2.2830226	21	7 28.4	20.4
530657 2011 SB_{256}	16.0	X	355.80029	5.25116	313.45686	8.08499	0.0927908	0.19034584	2.9930028	21	8 15.5	19.5
530658 2011 SX_{256}	16.0	X	352.57255	259.36450	33.11480	16.77288	0.2168414	0.17828497	3.1265081	21	7 2.1	19.5
530659 2011 SO_{259}	18.4	X	274.15902	324.16168	11.15123	2.28313	0.2230592	0.26722862	2.3871556	21	4 15.9	22.0
530660 2011 SS_{259}	16.1	X	222.88094	25.46491	26.69897	21.58709	0.1102042	0.17096473	3.2151287	21	6 11.7	21.4
530661 2011 SY_{260}	18.4	X	320.04218	284.26114	76.59976	2.66296	0.1371406	0.28732690	2.2744961	21	8 19.6	20.3
530662 2011 SR_{261}	18.9	X	334.54813	203.93464	192.91800	2.39734	0.1325805	0.30277530	2.1964555	21	11 21.7	20.6
530663 2011 SW_{275}	16.2	X	253.92530	352.51295	57.04491	6.68271	0.1791628	0.17724439	3.1387331	21	7 8.4	21.0
530664 2011 SO_{277}	7.6	X	146.37889	136.24568	113.39566	9.64210	0.0099390	0.00592153	30.2584700	21	11 3.2	22.4
530665 2011 SE_{278}	15.9	X	280.54943	198.18868	220.20240	11.21478	0.0170591	0.19439466	2.9512987	21	9 9.8	20.2
530666 2011 SU_{278}	17.9	X	133.21529	324.89240	213.10437	5.80073	0.0384247	0.28381399	2.2932259	21	8 17.0	20.9
530667 2011 SW_{278}	17.3	X	13.99496	21.19383	325.76012	0.89094	0.1142875	0.19826849	2.9127301	21	10 25.1	20.7
530668 2011 SX_{278}	16.9	X	46.86409	168.48635	169.18793	6.40865	0.0761335	0.20478717	2.8505865	21	11 26.1	20.8
530669 2011 SO_{279}	17.3	X	254.94327	62.52323	3.48892	19.30038	0.2381759	0.18318790	3.0704700	21	7 30.0	22.4
530670 2011 SE_{280}	17.3	X	121.97639	245.90612	52.01233	10.38863	0.1563271	0.21853453	2.7297487	21	—	—
530671 2011 ST_{280}	18.0	X	290.08455	231.29080	134.49752	5.86118	0.1821462	0.28264122	2.2995651	21	6 23.3	20.7
530672 2011 SZ_{280}	16.7	X	254.78654	198.72841	242.92178	9.47167	0.2352455	0.18599845	3.0394605	21	8 7.6	21.5
530673 2011 SC_{281}	16.4	X	254.93299	248.37028	173.16719	16.55586	0.1210268	0.18248758	3.0783206	21	7 29.1	21.1
530674 2011 SF_{281}	16.6	X	274.15984	293.17505	95.98828	11.50210	0.0127580	0.17673616	3.1447475	21	7 30.7	21.0
530675 2011 SH_{281}	16.6	X	345.85802	83.02420	227.42039	10.06300	0.1093890	0.17900310	3.1181405	21	7 15.9	20.5
530676 2011 SL_{281}	16.2	X	153.13199	225.18790	262.75455	14.86934	0.1025175	0.17437581	3.1730619	21	7 6.9	21.1
530677 2011 SM_{281}	17.2	X	23.60023	352.87364	10.08424	5.80370	0.0807162	0.21000788	2.8031456	21	11 26.0	20.8
530678 2011 SO_{281}	18.1	X	308.00812	259.16148	64.82521	5.10537	0.2566599	0.28002857	2.3138462	21	5 7.1	20.5
530679 2011 TL_{15}	17.9	X	273.67979	104.28773	244.02645	6.42467	0.1726420	0.27591717	2.3367750	21	5 8.1	21.0
530680 2011 UT_{2}	18.1	X	295.64690	135.85712	237.91277	5.89157	0.1209807	0.28272725	2.2990986	21	7 23.5	20.7
530681 2011 UB_{3}	17.9	X	297.99428	150.84098	214.44077	24.53655	0.2660314	0.28292111	2.2980483	21	6 16.7	21.0
530682 2011 UN_{3}	18.1	X	310.71018	121.03856	208.93854	24.03250	0.2879776	0.28054019	2.3110322	21	5 14.6	20.8
530683 2011 UH_{6}	18.3	X	262.36915	277.82348	218.32025	3.98067	0.0627750	0.30155912	2.2023571	21	12 13.8	20.5
530684 2011 UM_{7}	18.2	X	329.46843	341.33843	42.31017	4.86525	0.2235969	0.29344787	2.2427563	21	10 18.4	19.1
530685 2011 UX_{10}	17.4	X	318.55356	202.16155	193.98451	11.70965	0.0380712	0.19982074	2.8976260	21	10 4.3	21.0
530686 2011 UV_{15}	18.3	X	295.36144	339.19431	69.36825	6.36744	0.0920441	0.28759622	2.2730759	21	9 26.2	20.6
530687 2011 UZ_{15}	17.4	X	113.20806	120.93233	177.84168	7.78773	0.2761888	0.21963227	2.7206455	21	—	—
530688 2011 UE_{16}	16.5	X	140.87602	334.10122	194.49041	27.85105	0.1253364	0.17978596	3.1090822	21	8 11.9	21.9
530689 2011 UC_{19}	17.9	X	258.26061	272.21325	150.78678	4.53022	0.1206851	0.28443889	2.2898660	21	8 10.4	20.7
530690 2011 UM_{25}	18.5	X	303.55127	160.11447	199.19199	1.57433	0.2067302	0.28213250	2.3023286	21	6 30.9	20.8
530691 2011 UG_{26}	17.4	X	272.14334	174.87234	211.58572	10.75276	0.2299786	0.27816087	2.3241921	21	6 20.3	20.7
530692 2011 UU_{26}	18.3	X	256.84148	327.64267	64.90803	2.55105	0.1873648	0.27505394	2.3416616	21	6 16.9	21.4
530693 2011 UB_{27}	18.0	X	339.89795	272.44242	63.09218	3.98005	0.2159482	0.28739512	2.2741361	21	8 18.2	19.2
530694 2011 UY_{27}	18.1	X	293.23915	252.77705	100.27222	2.46176	0.2108129	0.27749484	2.3279096	21	6 4.4	21.0
530695 2011 UB_{28}	16.3	X	275.64973	174.98003	243.05412	12.27682	0.2640013	0.18108609	3.0941830	21	7 27.5	21.0
530696 2011 UG_{38}	18.1	X	237.74720	44.06443	62.10501	7.19414	0.0670151	0.28527661	2.2853810	21	9 26.3	21.0
530697 2011 UZ_{44}	18.5	X	273.39622	35.24878	0.13380	3.82305	0.0916239	0.28188230	2.3036907	21	7 29.1	21.1
530698 2011 UE_{46}	17.8	X	9.06008	326.35659	34.91681	10.79887	0.0918958	0.29902389	2.2147878	21	11 21.9	20.2
530699 2011 UT_{49}	18.1	X	268.88343	316.33788	43.19695	1.92973	0.1992645	0.27174487	2.3606330	21	5 15.1	21.5
530700 2011 UO_{51}	16.9	X	207.58883	62.47059	75.65844	5.81446	0.0941393	0.18395125	3.0619697	21	9 18.6	21.6
530701 2011 UY_{51}	18.4	X	309.97552	244.71453	123.25161	2.45416	0.1909356	0.28463080	2.2888366	21	7 31.0	20.3
530702 2011 UH_{52}	18.1	X	271.15234	287.51131	82.31905	3.23979	0.2198948	0.27453348	2.3446202	21	5 29.3	21.2
530703 2011 UM_{52}	15.9	X	230.16392	35.54698	52.82564	16.61928	0.1087213	0.17600081	3.1535008	21	8 14.2	21.0
530704 2011 UX_{54}	18.4	X	14.81244	347.81813	44.05948	6.28271	0.0980910	0.30607760	2.1806285	21	—	—
530705 2011 UR_{57}	18.1	X	292.07126	259.74947	73.56637	3.25076	0.2235446	0.27457098	2.3444067	21	5 4.2	21.2
530706 2011 UV_{62}	17.7	X	256.81133	127.64912	259.61936	22.59036	0.3462315	0.27443540	2.3451788	21	5 24.7	21.8
530707 2011 UK_{64}	18.0	X	259.58752	22.91228	40.00246	24.07554	0.2283230	0.28165214	2.3049456	21	8 6.3	21.8
530708 2011 UD_{73}	16.8	X	215.48276	105.90661	40.68890	11.06833	0.0234395	0.19055014	2.9908631	21	10 14.7	21.0
530709 2011 UZ_{74}	18.2	X	272.29103	315.04689	55.15344	5.65108	0.2334778	0.27582343	2.3373044	21	5 28.7	21.3
530710 2011 UP_{75}	16.2	X	318.42670	77.38648	245.77993	10.25836	0.0667442	0.17208690	3.2011363	21	6 25.5	20.4
530711 2011 UY_{76}	17.9	X	232.10791	218.28915	248.24218	6.04769	0.2061528	0.28180316	2.3041220	21	8 24.6	21.3
530712 2011 UD_{79}	18.3	X	286.12260	107.65635	243.65748	3.74957	0.2623462	0.27643310	2.3338666	21	5 15.0	21.6
530713 2011 UG_{79}	16.3	X	230.75133	240.01963	226.02310	26.00285	0.1639728	0.18011523	3.1052918	21	8 15.1	21.7
530714 2011 UD_{80}	17.4	X	103.89725	105.36515	228.25194	11.78897	0.2922318	0.22145920	2.7056621	21	—	—
530715 2011 UT_{81}	18.5	X	265.57780	184.57930	199.61686	1.75411	0.2162113	0.27532056	2.3401496	21	6 11.9	21.8
530716 2011 UX_{83}	18.0	X	286.82231	326.01205	7.42177	2.95210	0.2408169	0.27040897	2.3684014	21	4 24.4	21.4
530717 2011 UH_{84}	18.5	X	253.01053	25.20931	16.70132	5.33797	0.2226114	0.27394234	2.3479920	21	6 21.3	22.0
530718 2011 UJ_{85}	18.2	X	312.54833	300.75859	28.54470	5.64740	0.2526332	0.27693671	2.3310363	21	5 21.4	20.6
530719 2011 UL_{85}	18.7	X	328.43974	88.66123	261.85285	3.61033	0.2023069	0.28487037	2.2875532	21	8 9.9	20.3
530720 2011 UU_{85}	17.1	X	65.71808	242.23235	92.77003	6.45118	0.1292918	0.20888713	2.8131632	21	12 22.2	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530721 2011 UH_{88}	18.0	X	250.76088	314.59414	50.12242	2.15850	0.2100538	0.26520745	2.3992688	21	5 2.7	21.7
530722 2011 UH_{89}	18.2	X	263.18255	89.03692	290.79971	1.51547	0.2018779	0.27217923	2.3581209	21	6 4.9	21.7
530723 2011 UY_{89}	18.2	X	30.95580	356.11228	51.00570	21.06096	0.0760395	0.41488024	1.7804135	21	—	—
530724 2011 UA_{90}	18.5	X	246.31712	193.63746	215.97282	3.90850	0.1937767	0.27251789	2.3561668	21	6 27.6	21.9
530725 2011 UD_{90}	18.3	X	279.09778	340.81400	54.62648	5.81010	0.1510324	0.28238697	2.3009452	21	7 28.2	21.0
530726 2011 UL_{90}	17.0	X	274.28941	229.81000	229.92359	25.85182	0.1886365	0.29232734	2.2484838	21	10 14.8	19.5
530727 2011 UM_{90}	17.9	X	8.16461	311.14987	40.95355	6.06534	0.1640875	0.29510107	2.2343722	21	11 18.6	19.9
530728 2011 UE_{92}	18.0	X	302.17994	1.68376	349.61653	6.90775	0.2178345	0.28123452	2.3072269	21	6 13.5	20.7
530729 2011 UO_{97}	16.9	X	271.32502	53.96884	19.64132	14.24110	0.1594872	0.18675043	3.0312957	21	9 5.8	21.2
530730 2011 UY_{97}	17.5	X	92.66168	178.18485	11.83850	9.45253	0.0620397	0.27386814	2.3484161	21	7 17.7	20.6
530731 2011 UZ_{101}	18.1	X	235.27594	252.15995	226.42632	21.49182	0.2552488	0.28333733	2.2957972	21	9 2.7	22.2
530732 2011 UZ_{102}	18.1	X	255.71430	137.16971	267.38396	5.86319	0.1067152	0.27435471	2.3456386	21	7 12.9	21.2
530733 2011 UH_{110}	17.9	X	243.73148	36.47993	357.99329	5.68383	0.1920981	0.27401772	2.3475614	21	6 3.9	21.6
530734 2011 UG_{117}	17.9	X	311.43577	194.21148	196.08147	6.82032	0.1169498	0.29152094	2.2526284	21	9 19.4	19.9
530735 2011 UU_{118}	18.5	X	252.97183	243.15999	206.44455	2.67554	0.1672639	0.28727213	2.2747852	21	9 2.7	21.5
530736 2011 UN_{119}	18.9	X	253.47557	42.56989	16.42696	4.76031	0.2248336	0.28028289	2.3124463	21	7 16.1	22.2
530737 2011 UP_{119}	18.4	X	339.21852	118.53594	215.97503	5.41086	0.1703287	0.28806175	2.2706263	21	8 11.3	20.2
530738 2011 UB_{124}	18.0	X	298.16896	304.90510	62.90580	5.05161	0.1749105	0.28461669	2.2889122	21	7 11.5	20.4
530739 2011 UL_{124}	16.1	X	283.40138	301.85587	34.80257	17.20733	0.1812922	0.17261905	3.1945540	21	5 8.3	20.7
530740 2011 UJ_{127}	18.7	X	294.84132	181.88520	190.65454	4.16471	0.2424966	0.28137083	2.3064817	21	6 29.6	21.3
530741 2011 US_{129}	18.0	X	290.42402	316.92316	43.60405	7.98752	0.2074480	0.27574626	2.3377405	21	6 10.7	20.9
530742 2011 UJ_{130}	18.7	X	342.87939	258.48306	147.19343	1.70264	0.2163567	0.30295524	2.1955857	21	—	—
530743 2011 UA_{131}	17.7	X	178.84670	72.84646	215.27981	24.92052	0.5977794	0.23872236	2.5735976	21	—	—
530744 2011 UQ_{135}	18.1	X	282.61043	132.43072	215.71188	2.12742	0.1363134	0.27267576	2.3552573	21	5 25.8	21.2
530745 2011 UR_{135}	18.2	X	347.95900	331.48891	34.63836	7.25876	0.1410151	0.29519701	2.2338881	21	10 29.1	19.9
530746 2011 UE_{136}	16.1	X	69.09880	229.21577	10.67476	12.28291	0.0647400	0.17673050	3.1448146	21	8 21.9	20.6
530747 2011 UO_{138}	18.2	X	276.91239	39.30396	323.45617	4.03689	0.3079042	0.27678747	2.3318741	21	5 13.2	21.8
530748 2011 UO_{142}	17.5	X	43.55133	246.08828	30.72448	7.47727	0.1129986	0.28181650	2.3040493	21	9 19.5	20.0
530749 2011 UW_{144}	18.8	X	321.13996	77.85266	39.27193	21.87922	0.0135817	0.41489293	1.7803772	21	—	—
530750 2011 UA_{146}	18.9	X	322.66603	346.11183	30.03154	4.38543	0.2453617	0.28880195	2.2667448	21	9 10.4	20.0
530751 2011 UM_{149}	18.4	X	345.00372	221.67979	103.88577	2.48508	0.2486218	0.28683124	2.2771156	21	8 11.5	19.2
530752 2011 UK_{152}	18.5	X	277.67307	156.95892	230.11872	6.40694	0.2004452	0.27656183	2.3331423	21	7 2.6	21.5
530753 2011 UU_{152}	18.3	X	274.22300	173.12322	215.57333	5.12225	0.1757185	0.27581078	2.3373759	21	7 4.3	21.4
530754 2011 UX_{154}	18.6	X	299.98796	282.17252	76.10129	2.69147	0.2091949	0.27753674	2.3276753	21	6 22.8	21.1
530755 2011 UO_{157}	18.0	X	275.15215	249.16359	105.93980	3.17912	0.2238897	0.27114169	2.3641327	21	5 14.2	21.4
530756 2011 UQ_{159}	17.5	X	261.26442	184.93340	242.17511	24.55078	0.2564214	0.28428278	2.2907042	21	7 21.3	21.3
530757 2011 UY_{160}	17.6	X	263.54368	125.19833	233.30807	21.12293	0.2382174	0.26863135	2.3788383	21	5 3.4	21.4
530758 2011 UJ_{161}	17.9	X	272.56971	347.11732	27.03871	6.20284	0.1407220	0.27369006	2.3494346	21	6 16.9	20.9
530759 2011 UO_{163}	18.4	X	246.94610	30.62474	12.10026	2.73327	0.1748518	0.27204534	2.3588945	21	6 21.3	21.8
530760 2011 UT_{163}	18.3	X	260.25208	346.19056	32.86373	5.09773	0.2004666	0.27155200	2.3617506	21	5 31.1	21.7
530761 2011 UF_{173}	15.8	X	358.92835	131.43175	170.82415	8.94962	0.0457203	0.17838692	3.1253168	21	7 27.4	20.0
530762 2011 UU_{180}	16.4	X	216.18451	58.24533	37.73258	14.67661	0.1943192	0.17222292	3.1994506	21	7 31.8	21.9
530763 2011 UG_{181}	18.5	X	337.89863	273.85501	35.87063	7.12992	0.2071079	0.27912405	2.3188423	21	6 22.0	20.3
530764 2011 UD_{184}	18.4	X	326.87375	246.40948	146.52188	4.47816	0.1716948	0.29480157	2.2358853	21	10 29.7	19.9
530765 2011 UH_{185}	18.1	X	288.41360	215.07684	154.50331	5.56413	0.1765963	0.27915807	2.3186539	21	6 27.2	20.8
530766 2011 UG_{188}	18.2	X	342.25772	331.12603	355.92803	4.13969	0.2776946	0.29122841	2.2541366	21	8 3.9	18.9
530767 2011 US_{192}	18.5	X	271.05714	43.64225	26.15646	8.82649	0.2112927	0.28590382	2.2820373	21	8 28.7	21.2
530768 2011 UD_{194}	18.4	X	268.86917	316.33682	87.45949	6.73589	0.2533462	0.28234907	2.3011511	21	7 8.0	21.4
530769 2011 UW_{196}	16.4	X	327.67598	79.85458	253.54932	8.56652	0.1230922	0.17693935	3.1423395	21	7 16.2	20.3
530770 2011 UZ_{196}	18.3	X	296.88419	119.43429	268.84393	3.62299	0.1482960	0.28393714	2.2925629	21	8 13.1	20.7
530771 2011 UA_{199}	18.4	X	258.41985	347.55650	86.30515	3.43577	0.1966870	0.28093621	2.3088598	21	8 15.9	21.3
530772 2011 UD_{201}	16.9	X	71.09275	227.96461	110.40898	8.94770	0.2330669	0.21340644	2.7733055	21	—	—
530773 2011 UO_{202}	18.6	X	290.29351	307.89843	69.84764	3.46684	0.2207135	0.27999769	2.3140163	21	7 4.8	21.3
530774 2011 UP_{202}	16.4	X	215.29681	75.70384	67.53479	13.64072	0.0322158	0.18669603	3.0318846	21	10 13.0	20.9
530775 2011 UF_{203}	17.9	X	229.18229	22.10277	64.62672	5.67749	0.1525837	0.27544889	2.3394227	21	8 5.1	21.2
530776 2011 UM_{210}	19.1	X	328.35395	107.02183	289.15538	2.65535	0.1917572	0.29697532	2.2249614	21	11 5.5	20.3
530777 2011 US_{225}	17.7	X	74.13849	193.20181	154.15715	3.83235	0.1000129	0.21463657	2.7626990	21	—	—
530778 2011 UQ_{235}	18.0	X	336.21048	301.68186	19.65577	7.12311	0.2281247	0.28265379	2.2994970	21	7 7.6	19.6
530779 2011 US_{236}	17.9	X	86.42356	189.62583	28.85734	7.82364	0.0538626	0.27732032	2.3288861	21	8 19.3	20.9
530780 2011 UP_{238}	17.6	X	284.91924	90.65056	244.92453	4.52192	0.1727399	0.26890777	2.3772078	21	5 4.9	20.8
530781 2011 UB_{242}	17.1	X	27.55721	50.97789	233.40970	21.73873	0.2509395	0.28417355	2.2912912	21	9 15.9	19.8
530782 2011 UC_{242}	18.9	X	264.93160	44.48946	19.13429	1.25386	0.1718467	0.28114353	2.3077246	21	8 13.1	21.8
530783 2011 UM_{243}	18.2	X	197.39698	213.04737	230.99101	5.57147	0.0635281	0.26741968	2.3860185	21	6 29.6	21.5
530784 2011 UJ_{244}	17.6	X	115.04850	154.58693	50.50054	7.81183	0.0484300	0.27845384	2.3225616	21	9 8.1	20.7
530785 2011 UM_{249}	18.3	X	282.96364	246.62790	225.25608	6.59428	0.1826453	0.29597024	2.2299957	21	11 25.6	19.9
530786 2011 UM_{252}	19.5	X	291.51614	237.88749	195.46587	2.90369	0.1936549	0.28950250	2.2630866	21	10 8.4	21.3
530787 2011 UF_{255}	18.0	X	290.77668	114.86478	224.93329	5.23830	0.1578209	0.27442350	2.3452466	21	5 21.7	20.8
530788 2011 UW_{259}	17.5	X	332.93957	341.03204	35.07559	7.48203	0.1289868	0.29062739	2.2572432	21	10 13.2	19.2
530789 2011 UB_{263}	16.7	X	268.09499	340.37309	59.57800	10.42690	0.0862128	0.17248746	3.1961786	21	7 26.9	21.3
530790 2011 UN_{265}	17.4	X	262.13537	351.33793	51.65774	6.29777	0.2234293	0.27637521	2.3341925	21	7 3.2	20.8
530791 2011 UO_{265}	18.2	X	245.59888	355.14014	51.94973	8.54203	0.1977493	0.27228732	2.3574968	21	6 22.9	21.8
530792 2011 UG_{266}	18.0	X	250.35449	353.13846	63.77422	3.08343	0.1735773	0.27478933	2.3431647	21	7 15.4	21.1
530793 2011 UY_{266}	16.0	X	233.85780	21.94642	83.10369	15.52091	0.1042192	0.18187298	3.0852516	21	9 9.6	20.9
530794 2011 UP_{267}	18.3	X	343.67583	17.21201	33.60661	6.98218	0.1498359	0.30147690	2.2027575	21	—	—
530795 2011 UV_{267}	15.5	X	93.89712	259.98445	128.41505	3.95087	0.2323409	0.12575400	3.9456768	21	1 29.4	20.9
530796 2011 UL_{271}	18.3	X	300.56137	162.35089	256.45821	4.54093	0.1383025	0.29691368	2.2252693	21	10 11.0	20.3
530797 2011 UZ_{273}	16.1	X	292.95911	348.42015	15.29220	10.23689	0.0967081	0.17716627	3.1396557	21	7 10.9	20.5
530798 2011 UJ_{275}	18.3	X	354.91800	78.06183	244.25839	6.07338	0.1346024	0.28580144	2.2825823	21	8 26.3	20.3
530799 2011 UX_{277}	16.8	X	232.82991	122.98291	311.78186	1.72801	0.0468448	0.17106381	3.2138871	21	7 30.9	21.4
530800 2011 UV_{278}	18.1	X	349.21380	274.66675	42.77128	8.17816	0.1327494	0.27804336	2.3248469	21	8 13.2	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530801 2011 UF_{279}	18.5	X	277.11840	353.62638	39.70590	2.18791	0.1883318	0.27792805	2.3254899	21	7 14.2	21.4
530802 2011 UK_{279}	17.7	X	156.90871	249.83983	243.55827	10.74459	0.0795708	0.26659421	2.3909413	21	7 16.9	21.2
530803 2011 UD_{284}	18.0	X	267.84902	347.00635	7.14491	5.07377	0.1743987	0.26754787	2.3852563	21	5 8.6	21.3
530804 2011 UB_{294}	19.0	X	293.35497	187.80371	197.37510	2.21681	0.2328990	0.28211289	2.3024353	21	7 18.1	21.3
530805 2011 UF_{294}	18.7	X	276.25440	198.65461	204.31244	1.56753	0.2088117	0.28046802	2.3114286	21	7 22.8	21.6
530806 2011 UB_{316}	16.5	X	323.24531	136.64035	238.72535	9.27058	0.1336400	0.18491852	3.0512826	21	8 31.3	20.4
530807 2011 UG_{316}	18.2	X	333.70709	5.51904	330.53211	0.49538	0.2026118	0.28328024	2.2961056	21	7 30.3	19.6
530808 2011 UL_{316}	16.5	X	229.18539	245.87286	234.59531	9.43959	0.0490666	0.18508845	3.0494148	21	9 18.8	21.1
530809 2011 UZ_{317}	17.9	X	275.56111	303.96227	57.40430	4.15691	0.2214894	0.27271931	2.3550066	21	5 22.3	21.2
530810 2011 UE_{319}	16.8	X	209.23529	252.08383	233.23816	8.90721	0.1743003	0.17493112	3.1663433	21	8 22.7	22.2
530811 2011 UE_{320}	18.4	X	265.27038	200.55355	164.86419	2.58971	0.2328080	0.27002429	2.3706503	21	5 16.1	21.8
530812 2011 UR_{320}	18.3	X	287.03787	180.83369	203.08743	5.99772	0.1647038	0.28087839	2.3091767	21	7 17.3	20.9
530813 2011 UL_{326}	16.4	X	324.25922	229.49843	144.43363	11.04359	0.1134931	0.18974969	2.9992684	21	9 8.8	20.0
530814 2011 UN_{326}	17.6	X	215.42805	175.38750	261.48674	9.04576	0.1428374	0.26963008	2.3729604	21	7 5.7	21.1
530815 2011 UY_{331}	18.4	X	256.44289	54.09575	347.33282	3.99460	0.1944878	0.27477664	2.3432368	21	6 28.2	21.7
530816 2011 UK_{332}	18.1	X	286.25860	245.76985	133.85523	4.88612	0.1521228	0.28394974	2.2924950	21	7 13.1	20.7
530817 2011 UB_{335}	18.7	X	279.58017	157.84381	243.92010	1.19153	0.1727038	0.28545368	2.2844358	21	8 1.4	21.3
530818 2011 UY_{336}	18.5	X	274.37269	262.03394	136.20088	4.43944	0.2398122	0.28290295	2.2981466	21	7 8.6	21.4
530819 2011 UM_{339}	18.1	X	231.02865	273.45143	174.21645	5.16426	0.1280351	0.28004196	2.3137724	21	8 8.3	21.3
530820 2011 UG_{346}	17.8	X	169.25034	133.10305	35.83962	24.34063	0.1964616	0.28716072	2.2753735	21	10 1.0	21.8
530821 2011 UH_{352}	17.7	X	187.32426	252.70635	266.08818	6.19864	0.0973577	0.28662992	2.2781818	21	9 24.9	20.9
530822 2011 UY_{362}	19.1	X	289.68741	43.07871	341.95211	1.14192	0.1914226	0.28264883	2.2995238	21	7 20.4	21.5
530823 2011 UD_{364}	18.7	X	289.94520	237.71685	162.57691	2.99584	0.1743566	0.28640647	2.2793665	21	8 16.1	20.8
530824 2011 UN_{368}	19.0	X	279.93124	219.87122	149.13980	1.55174	0.1952755	0.27636844	2.3342306	21	6 11.4	22.0
530825 2011 UZ_{368}	16.5	X	292.57246	330.68020	10.40680	19.59426	0.1504723	0.17245908	3.1965291	21	5 26.2	21.2
530826 2011 UZ_{374}	16.4	X	262.25003	66.54598	337.09194	8.62765	0.0774766	0.17669272	3.1452629	21	7 25.2	20.9
530827 2011 UM_{377}	18.0	X	334.98834	142.10515	161.57776	5.42876	0.1819480	0.27790877	2.3255975	21	6 9.4	20.0
530828 2011 UU_{380}	18.4	X	15.84351	258.78917	94.53760	7.02351	0.1798613	0.30284418	2.1961225	21	12 9.4	20.6
530829 2011 UW_{387}	17.8	X	292.76209	261.88461	105.85807	6.75890	0.1859203	0.27925750	2.3181035	21	6 29.7	20.3
530830 2011 UJ_{388}	18.1	X	264.70710	335.68284	74.60812	9.81273	0.1316500	0.28003381	2.3138173	21	8 1.9	21.1
530831 2011 UP_{390}	18.3	X	266.27838	328.51206	60.69713	3.12357	0.1991687	0.27493197	2.3423541	21	6 21.9	21.5
530832 2011 UD_{392}	18.1	X	271.40649	294.07596	96.53044	5.27386	0.1466573	0.27772211	2.3266394	21	7 8.7	20.9
530833 2011 UE_{398}	18.1	X	277.13658	115.03697	252.04688	2.03650	0.1820228	0.27342496	2.3509530	21	6 7.0	20.9
530834 2011 UX_{399}	18.4	X	256.72960	12.30086	77.49292	5.33360	0.0932218	0.28887354	2.2663703	21	9 25.0	21.0
530835 2011 UH_{400}	18.0	X	111.53577	174.06781	131.98223	7.90848	0.3212877	0.22292770	2.6937670	21	—	—
530836 2011 UL_{401}	16.7	X	297.98113	340.55021	52.97196	9.94419	0.0787172	0.18219832	3.0815778	21	9 1.3	20.9
530837 2011 UN_{406}	16.1	X	273.17309	1.67572	23.74457	23.07105	0.1351360	0.18164565	3.0878252	21	7 7.8	21.0
530838 2011 UC_{411}	8.0	X	20.87302	88.21521	289.02697	4.65923	0.2748972	0.00398566	39.3975680	21	11 16.8	22.8
530839 2011 UK_{411}	6.9	X	348.67640	209.52470	219.25781	13.41875	0.2339999	0.00356797	42.4152715	21	11 13.8	22.0
530840 2011 UJ_{414}	16.7	X	203.39453	265.42557	240.52746	9.82603	0.1190255	0.18444810	3.0564685	21	9 14.7	21.6
530841 2011 UK_{414}	16.5	X	232.52153	223.78220	251.88333	9.53257	0.0350651	0.18481881	3.0523800	21	9 17.6	21.0
530842 2011 UR_{414}	16.6	X	10.95546	200.98610	128.50531	3.59286	0.1263461	0.18390067	3.0625311	21	9 28.0	20.2
530843 2011 UT_{414}	17.0	X	2.55129	329.10870	15.37708	10.38203	0.0891336	0.18716924	3.0267721	21	10 1.3	20.8
530844 2011 UU_{414}	17.1	X	112.11074	235.44754	48.19198	2.57784	0.0705196	0.20029108	2.8930880	21	12 2.7	21.2
530845 2011 UN_{415}	15.9	X	315.19768	310.95974	62.21992	12.58607	0.0877385	0.17998004	3.1068467	21	8 30.9	20.1
530846 2011 UE_{416}	17.0	X	305.84635	26.09025	15.50342	10.02834	0.0841883	0.18753854	3.0227973	21	9 20.0	20.9
530847 2011 UX_{416}	16.5	X	325.22270	290.68812	41.47305	8.60342	0.0964905	0.17404605	3.1770687	21	7 16.6	20.6
530848 2011 UY_{416}	17.3	X	60.97377	314.63410	341.53253	7.81986	0.0651771	0.19081901	2.9880529	21	10 15.1	21.5
530849 2011 UY_{417}	18.0	X	82.47417	224.42273	67.23955	6.58286	0.1996591	0.30169685	2.2016868	21	12 8.3	21.3
530850 2011 UZ_{417}	16.4	X	207.40402	56.25750	60.23164	15.92528	0.1314127	0.17154190	3.2079130	21	8 23.8	21.7
530851 2011 UA_{418}	17.6	X	263.93177	246.39461	124.08345	7.12321	0.1549612	0.26864524	2.3787563	21	5 31.7	20.9
530852 2011 UE_{418}	18.3	X	203.69931	311.82979	175.20044	5.59798	0.2157529	0.27412648	2.3469404	21	8 24.9	22.0
530853 2011 UJ_{418}	16.4	X	332.67817	66.76059	286.12579	8.05304	0.0897393	0.17805925	3.1291498	21	8 20.9	20.5
530854 2011 UL_{418}	16.8	X	351.53035	290.63411	96.03821	10.18738	0.1092563	0.19624429	2.9327251	21	11 13.2	20.4
530855 2011 UM_{418}	16.5	X	189.61937	78.51365	76.41017	17.15735	0.1766555	0.17782991	3.1318396	21	9 22.9	22.0
530856 2011 UO_{418}	16.3	X	318.41244	289.35015	108.80904	11.63039	0.1039232	0.19068003	2.9895047	21	10 7.2	20.2
530857 2011 US_{418}	16.2	X	299.64735	30.52324	8.93351	16.26485	0.0373375	0.18745647	3.0236795	21	9 15.4	20.3
530858 2011 UY_{418}	17.9	X	338.92203	313.68201	12.31555	6.67733	0.1375600	0.27783496	2.3260093	21	8 2.9	20.0
530859 2011 UC_{419}	18.1	X	186.01367	332.34544	196.24926	6.26430	0.1777155	0.28140448	2.3062978	21	10 4.5	21.5
530860 2011 UD_{419}	17.7	X	280.60178	209.35383	159.65321	8.82770	0.2054722	0.27636904	2.3342272	21	6 11.6	20.9
530861 2011 VN_{6}	16.8	X	198.47250	26.08456	81.76089	11.33333	0.3785492	0.16473280	3.2957126	21	7 22.0	23.1
530862 2011 VB_{8}	16.4	X	348.06100	150.75401	199.08030	16.06992	0.0824315	0.18481327	3.0524410	21	9 11.1	20.5
530863 2011 VT_{10}	17.5	X	213.87421	44.35222	63.85793	24.72120	0.3053058	0.27203704	2.3589425	21	8 12.9	22.1
530864 2011 VX_{10}	18.1	X	319.37711	333.18356	71.58202	6.84305	0.0761720	0.29030189	2.2589302	21	11 1.9	20.4
530865 2011 VR_{12}	17.2	X	289.10612	57.23404	307.03846	10.80697	0.2687502	0.27936394	2.3175146	21	6 4.2	20.4
530866 2011 VX_{16}	16.6	X	227.14505	227.42082	233.27506	9.88560	0.1334682	0.17614479	3.1517820	21	8 13.0	21.7
530867 2011 VX_{17}	17.6	X	281.17680	285.96472	50.77550	4.22268	0.2241605	0.26915890	2.3757289	21	4 25.9	21.1
530868 2011 VR_{21}	17.8	X	261.90413	138.00686	270.83897	5.91446	0.0998569	0.27569004	2.3380583	21	7 27.9	20.7
530869 2011 VE_{22}	16.6	X	122.51725	301.60221	239.96889	15.03080	0.0714004	0.16922626	3.2371107	21	8 2.8	21.7
530870 2011 VT_{24}	16.4	X	43.38658	211.51014	77.01077	17.27736	0.0831403	0.17987025	3.1081108	21	9 26.7	20.9
530871 2011 WS_{2}	17.2	X	219.16633	307.66982	326.74715	46.78511	0.7434255	0.97172849	1.0094995	21	—	—
530872 2011 WA_{3}	18.1	X	353.57358	315.85332	60.66027	7.91163	0.1693299	0.29494539	2.2351584	21	11 29.7	19.9
530873 2011 WO_{6}	18.7	X	297.41257	185.52994	239.65675	5.48295	0.2040264	0.29238538	2.2481862	21	10 3.9	20.4
530874 2011 WL_{8}	18.2	X	253.38010	162.25380	238.37004	5.48191	0.1168651	0.27378617	2.3488848	21	7 2.8	21.4
530875 2011 WJ_{11}	16.4	X	123.12008	137.67829	67.10623	11.00106	0.0230885	0.17830268	3.1263011	21	9 9.0	21.0
530876 2011 WQ_{14}	17.7	X	261.59429	324.98739	78.03841	9.01867	0.2510011	0.27661570	2.3328394	21	6 28.7	21.0
530877 2011 WN_{18}	18.3	X	254.90419	51.87272	33.45527	2.86261	0.1790923	0.28673371	2.2776320	21	8 30.8	21.1
530878 2011 WH_{20}	18.4	X	242.87545	10.30358	66.07707	5.61077	0.1248384	0.27627435	2.3347605	21	8 10.8	21.5
530879 2011 WL_{24}	18.0	X	223.78521	5.36287	70.48250	4.07707	0.1671209	0.26971109	2.3724852	21	7 12.5	21.6
530880 2011 WJ_{26}	17.7	X	122.12198	111.87165	67.10705	7.49100	0.0481844	0.27414071	2.3468592	21	8 9.5	20.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530881 2011 WW_{28}	18.0	X	309.64836	60.83365	296.84803	1.59038	0.2144747	0.28089340	2.3090944	21	7 8.7	19.9
530882 2011 WH_{32}	15.9	X	355.99471	238.23061	71.95735	23.34580	0.0785127	0.17310796	3.1885362	21	8 10.2	20.4
530883 2011 WU_{36}	16.5	X	23.40427	265.18011	52.74386	10.65733	0.1111186	0.18882437	3.0090589	21	10 4.9	20.4
530884 2011 WX_{37}	17.5	X	235.42665	176.57763	256.47314	6.73217	0.0878242	0.27543819	2.3394833	21	7 28.1	20.6
530885 2011 WO_{38}	15.7	X	81.07406	11.73621	247.39475	8.75449	0.0692366	0.18113907	3.0935795	21	9 22.3	20.3
530886 2011 WW_{38}	18.5	X	281.29687	120.99492	238.85086	1.70488	0.2126059	0.27226050	2.3576516	21	5 28.6	21.4
530887 2011 WX_{38}	18.2	X	290.07966	318.02532	51.02310	1.51466	0.2342552	0.27745286	2.3281444	21	6 18.9	20.9
530888 2011 WJ_{44}	18.2	X	244.55253	176.12379	267.15086	5.99053	0.0760359	0.27968180	2.3157584	21	8 24.7	21.1
530889 2011 WU_{44}	18.4	X	250.10840	207.68763	248.29649	6.09412	0.0671912	0.28310318	2.2970629	21	9 21.3	21.4
530890 2011 WW_{49}	18.3	X	276.76739	257.53478	155.51497	2.14775	0.2295447	0.28087527	2.3091938	21	8 3.9	21.2
530891 2011 WF_{50}	16.9	X	279.79098	1.86618	49.63995	8.53593	0.2080095	0.17734225	3.1375783	21	8 8.8	21.3
530892 2011 WX_{50}	16.5	X	238.66254	214.70753	267.19064	22.57132	0.2238526	0.27773382	2.3265740	21	9 8.4	20.5
530893 2011 WB_{51}	18.1	X	225.20572	207.95785	248.20075	6.55305	0.0676200	0.27634849	2.3343429	21	8 17.9	21.3
530894 2011 WS_{53}	17.1	X	148.95995	288.93533	260.56838	5.83401	0.0655199	0.28039580	2.3118255	21	9 22.5	20.5
530895 2011 WV_{57}	16.7	X	207.62828	265.86697	240.33222	14.09200	0.1723439	0.17937901	3.1137827	21	9 13.6	22.0
530896 2011 WG_{61}	18.6	X	308.77424	326.68324	93.03583	3.00837	0.1867099	0.29153798	2.2525406	21	10 28.3	20.0
530897 2011 WN_{63}	18.1	X	286.61360	286.33169	53.80647	1.94799	0.2073205	0.26786171	2.3833928	21	5 8.9	21.1
530898 2011 WE_{64}	18.4	X	287.30027	342.84033	39.47429	3.08022	0.2246108	0.27837390	2.3230062	21	7 6.6	21.0
530899 2011 WK_{64}	17.1	X	245.78365	117.21744	256.94012	9.61612	0.0402739	0.25988035	2.4319450	21	5 27.4	20.1
530900 2011 WD_{72}	17.5	X	309.28447	141.83200	269.12156	8.02736	0.1373132	0.28895919	2.2659225	21	10 12.6	19.8
530901 2011 WK_{73}	18.3	X	265.64198	102.40802	290.47724	2.33752	0.2816339	0.27561523	2.3384813	21	6 15.5	21.5
530902 2011 WQ_{73}	17.9	X	282.81288	11.90833	346.57812	5.23149	0.2466733	0.27686813	2.3314212	21	5 21.8	21.1
530903 2011 WY_{81}	16.6	X	269.26338	319.77419	69.86812	11.53177	0.0717577	0.17094276	3.2154043	21	7 15.9	21.2
530904 2011 WE_{83}	16.7	X	228.49704	218.38456	237.50311	10.14926	0.1035805	0.17392599	3.1785306	21	8 11.2	21.7
530905 2011 WP_{84}	18.0	X	232.87929	339.14961	94.26767	7.58843	0.0816733	0.27273550	2.3549134	21	7 29.2	21.1
530906 2011 WD_{85}	16.8	X	48.29117	245.31236	80.93285	11.12359	0.1078371	0.19315466	2.9639162	21	11 17.1	20.9
530907 2011 WK_{90}	17.6	X	293.97946	125.73766	252.56148	6.47564	0.1787229	0.27807694	2.3246597	21	7 17.6	20.1
530908 2011 WN_{90}	18.3	X	227.04860	29.97576	80.04969	6.12378	0.1810751	0.27765778	2.3269987	21	9 1.6	21.8
530909 2011 WO_{97}	16.3	X	342.90249	89.05189	244.92227	9.78310	0.0744598	0.17652935	3.1472031	21	8 11.2	20.6
530910 2011 WF_{107}	16.6	X	265.20522	318.09207	79.58981	10.05123	0.0599715	0.17044051	3.2217179	21	7 22.9	21.2
530911 2011 WW_{107}	18.6	X	280.50581	241.46283	133.87721	2.74769	0.2262455	0.27560207	2.3385558	21	6 16.4	21.4
530912 2011 WC_{120}	18.2	X	272.62199	188.88312	207.63008	8.30897	0.2253254	0.27758131	2.3274261	21	7 5.0	21.3
530913 2011 WO_{122}	18.9	X	244.25462	37.49611	35.74341	2.81685	0.0756702	0.27916246	2.3186296	21	8 14.4	21.7
530914 2011 WB_{123}	18.3	X	283.73080	314.89099	64.94859	7.13508	0.1407299	0.27667499	2.3325061	21	7 12.5	21.1
530915 2011 WW_{123}	16.2	X	168.36288	84.43137	72.17035	26.21976	0.1739794	0.16810365	3.2515064	21	9 10.5	22.1
530916 2011 WL_{124}	17.0	X	211.15552	5.73944	102.96572	5.51070	0.1444655	0.17393387	3.1784345	21	8 11.2	22.1
530917 2011 WH_{127}	16.0	X	342.54847	88.39025	248.82740	10.18326	0.1168157	0.17751562	3.1355351	21	8 13.1	20.1
530918 2011 WP_{130}	19.0	X	291.82096	233.24808	202.21753	2.52903	0.1402581	0.29146283	2.2529277	21	10 21.4	21.0
530919 2011 WN_{131}	18.6	X	209.96652	356.79556	115.63236	2.02911	0.1328600	0.27496946	2.3421412	21	8 19.1	21.9
530920 2011 WF_{134}	16.5	X	89.40164	181.62972	76.51418	14.60092	0.0445071	0.18309677	3.0714887	21	10 9.8	21.1
530921 2011 WZ_{135}	16.5	X	246.09554	183.09503	263.29977	10.23552	0.1533707	0.17405579	3.1769502	21	8 13.0	21.5
530922 2011 WF_{143}	16.3	X	112.63817	357.62725	244.85761	18.05018	0.0692433	0.18514468	3.0487974	21	10 7.6	21.1
530923 2011 WH_{144}	16.1	X	168.89273	98.15602	63.84860	25.81824	0.2165527	0.17184803	3.2041021	21	9 19.2	22.0
530924 2011 WJ_{144}	18.3	X	270.04733	123.55131	236.59858	2.13164	0.1956468	0.26952519	2.3735760	21	5 17.9	21.4
530925 2011 WV_{144}	18.4	X	231.56327	110.24452	321.74666	0.94194	0.1577678	0.27118721	2.3638681	21	7 16.2	21.6
530926 2011 WU_{149}	15.9	X	262.57826	146.44845	255.92905	20.36953	0.2342734	0.17541327	3.1605385	21	6 29.3	20.9
530927 2011 WL_{152}	19.1	X	322.75477	106.01444	313.52870	4.97670	0.2195184	0.29758497	2.2219216	21	12 4.1	20.2
530928 2011 WU_{153}	16.0	X	322.11587	205.93033	127.76251	16.23820	0.2651310	0.17632448	3.1496405	21	6 20.5	19.7
530929 2011 WA_{154}	16.7	X	272.74039	239.39688	190.01431	21.13724	0.2076677	0.18151707	3.0892833	21	8 15.6	21.4
530930 2011 WG_{157}	7.2	X	215.19964	219.17109	352.01028	22.28254	0.0265127	0.00598971	30.0284080	21	11 21.7	22.1
530931 2011 WL_{158}	16.7	X	339.05049	308.77155	71.21265	10.68292	0.1666678	0.18726270	3.0257650	21	10 14.7	20.1
530932 2011 WR_{158}	16.4	X	185.78169	76.76277	66.35997	7.11962	0.1412997	0.16953308	3.2332038	21	8 31.3	21.7
530933 2011 WA_{159}	15.6	X	137.32252	290.75408	257.67285	17.51542	0.1493730	0.16983827	3.2293294	21	8 29.3	21.1
530934 2011 WC_{159}	16.3	X	341.78358	257.28060	75.10371	10.38329	0.0893176	0.17431590	3.1737890	21	8 14.8	20.4
530935 2011 WG_{159}	16.0	X	66.84842	354.53065	295.19863	9.33398	0.0952009	0.17883000	3.1201523	21	10 15.5	20.6
530936 2011 WH_{159}	15.2	X	340.01926	33.55577	301.77603	33.04010	0.1131398	0.17019744	3.2247845	21	8 4.5	19.3
530937 2011 WK_{159}	18.1	X	240.97208	325.53144	104.45766	3.31698	0.2098604	0.26983848	2.3717385	21	7 18.2	21.5
530938 2011 XE	19.3	X	67.61947	46.62076	221.25744	20.72038	0.4633752	1.42017112	0.7838668	21	—	—
530939 2011 XQ	18.8	X	222.90279	41.36625	60.00767	5.81626	0.1836492	0.27500795	2.3419226	21	8 15.7	22.3
530940 2011 XE_{1}	18.2	X	225.98606	243.29393	272.42650	18.30016	0.4687810	0.27808981	2.3245881	21	9 20.5	23.0
530941 2011 XJ_{4}	7.0	X	14.35460	190.56408	335.35619	11.21832	0.1877683	0.00322518	45.3698110	21	3 24.4	22.7
530942 2011 XP_{4}	17.1	X	253.02243	138.25238	320.75902	23.99332	0.1036118	0.27924554	2.3181697	21	9 13.8	20.4
530943 2011 XQ_{4}	17.8	X	259.09506	303.68123	78.75702	5.81583	0.2536909	0.27056968	2.3674636	21	5 29.6	21.3
530944 2011 YA_{1}	17.9	X	279.54551	337.91404	86.36616	5.11270	0.1975389	0.28020375	2.3128817	21	9 2.9	20.5
530945 2011 YQ_{12}	18.5	X	276.75607	283.36438	155.78952	2.24926	0.1916349	0.28128430	2.3069546	21	9 19.5	20.9
530946 2011 YZ_{21}	17.9	X	210.25070	234.79841	248.29376	6.04005	0.1509806	0.27136632	2.3628279	21	8 28.4	21.5
530947 2011 YW_{22}	18.5	X	205.24355	80.03436	56.67885	3.13494	0.1422407	0.27263541	2.3554897	21	9 15.8	21.9
530948 2011 YV_{23}	17.9	X	303.94418	320.44076	90.54145	6.75012	0.1567739	0.28245387	2.3005819	21	10 7.2	20.0
530949 2011 YX_{33}	18.5	X	309.96392	94.12972	314.07379	7.62637	0.2033491	0.28409189	2.2917302	21	9 30.6	20.4
530950 2011 YE_{35}	18.3	X	201.87390	219.60720	311.77911	5.45103	0.1840425	0.27784799	2.3259366	21	10 20.0	22.0
530951 2011 YB_{38}	18.4	X	293.44030	329.85456	125.03628	6.52709	0.1889248	0.28766051	2.2727372	21	11 19.6	20.2
530952 2011 YC_{60}	18.1	X	334.50131	125.57195	271.82777	6.88304	0.2103326	0.28744245	2.2738865	21	11 22.2	19.4
530953 2011 YY_{66}	18.4	X	180.82154	95.62881	22.85361	2.78711	0.1485459	0.26039935	2.4287125	21	7 27.2	22.1
530954 2011 YT_{78}	16.7	X	147.83056	142.44883	285.45271	21.26623	0.0687730	0.23806971	2.5782991	21	3 30.3	20.9
530955 2011 YN_{79}	6.2	X	359.73725	44.83456	96.92717	25.97255	0.4582767	0.00158964	72.7116268	21	2 12.4	22.2
530956 2011 YU_{79}	18.0	X	219.78686	110.73383	290.74229	3.68253	0.1517884	0.25391338	2.4698979	21	5 24.2	21.9
530957 2011 YA_{80}	18.4	X	196.16165	274.06290	229.89529	0.67856	0.1259358	0.27087093	2.3657079	21	9 14.8	21.7
530958 2011 YT_{80}	18.3	X	272.67787	171.66452	299.15631	4.30614	0.1467842	0.28186839	2.3037665	21	11 4.3	20.6
530959 2011 YZ_{80}	16.7	X	328.71344	241.37337	147.16987	11.48346	0.0962083	0.17736247	3.1373399	21	10 6.9	20.7
530960 2011 YD_{81}	18.0	X	175.71466	69.64003	81.52103	6.46010	0.1553039	0.26544373	2.3978448	21	9 5.5	21.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
530961 2012 AB_4	18.7	X	290.19639	343.06416	99.90461	1.74624	0.1878729	0.28620579	2.2804319	21	10 22.5	20.7
530962 2012 AG_8	18.6	X	218.98921	357.81480	108.19005	4.49436	0.1811303	0.26882717	2.3776829	21	8 16.3	22.1
530963 2012 AM_8	18.4	X	211.25927	44.12725	95.66091	2.28915	0.1381963	0.27370959	2.3493229	21	9 26.5	21.6
530964 2012 AQ_{12}	18.9	X	297.68539	263.92361	215.02820	0.94832	0.1423700	0.29471828	2.2363065	21	—	—
530965 2012 AA_{24}	18.2	X	264.36581	358.88274	84.76319	3.56078	0.1875306	0.27683602	2.3316014	21	9 8.9	21.0
530966 2012 AS_{24}	17.3	X	188.60543	82.34167	112.52701	7.50261	0.0671800	0.26803526	2.3823639	21	11 19.3	20.6
530967 2012 AU_{24}	16.9	X	80.91179	308.11336	277.43598	6.12657	0.1638968	0.24144237	2.5542323	21	8 29.1	20.5
530968 2012 AZ_{24}	17.8	X	219.61531	135.20200	296.74514	4.26611	0.1502467	0.26008285	2.4306825	21	7 3.9	21.5
530969 2012 AR_{25}	17.3	X	46.32677	51.73240	285.74997	23.32724	0.2349540	0.29017751	2.2595756	21	—	—
530970 2012 AX_{25}	18.1	X	282.41296	88.23255	292.61092	6.37714	0.1388741	0.26681876	2.3895996	21	7 11.6	21.0
530971 2012 AY_{25}	18.1	X	173.00843	303.09633	284.37887	3.02837	0.1141614	0.28717788	2.2752828	21	12 10.8	21.4
530972 2012 BK_2	18.3	X	195.92150	0.88444	137.00465	3.30563	0.1569943	0.26928545	2.3749846	21	9 5.5	21.8
530973 2012 BY_4	18.6	X	263.99848	88.84261	356.06175	2.32681	0.1763374	0.27499097	2.3420191	21	9 9.9	21.4
530974 2012 BN_{11}	20.8	X	87.59536	69.67221	153.74687	4.35741	0.3947197	0.56013038	1.4575047	21	10 23.6	22.6
530975 2012 BM_{16}	17.6	X	149.57531	66.25740	97.13419	3.18599	0.1512390	0.25953227	2.4341190	21	8 24.7	21.3
530976 2012 BM_{18}	17.2	X	274.16264	258.12109	154.42690	7.52842	0.1068915	0.26605652	2.3941615	21	8 19.4	20.0
530977 2012 BD_{19}	16.7	X	8.55824	308.97339	308.60587	11.15661	0.0612423	0.24279982	2.5447033	21	6 11.9	19.9
530978 2012 BV_{21}	16.7	X	54.66963	277.65935	285.16334	16.08451	0.1322640	0.24438792	2.5336671	21	6 18.2	19.6
530979 2012 BZ_{21}	16.7	X	314.61145	307.78946	289.30195	13.52069	0.2307973	0.22114505	2.7082239	21	1 28.6	20.5
530980 2012 BW_{23}	17.5	X	311.42379	88.73430	340.07830	25.31865	0.2812029	0.28714453	2.2754590	21	10 17.2	19.5
530981 2012 BM_{36}	18.8	X	258.38788	295.20323	137.97861	4.58220	0.1430112	0.27378849	2.3488715	21	8 21.9	21.8
530982 2012 BD_{37}	18.0	X	289.69972	327.90792	124.78513	7.52058	0.0428529	0.28664306	2.2781121	21	11 24.7	20.6
530983 2012 BT_{51}	18.3	X	175.90680	201.24934	292.30528	1.45237	0.1486903	0.25939425	2.4349824	21	8 9.9	22.1
530984 2012 BO_{56}	18.0	X	203.87029	154.07776	70.08200	2.63426	0.1895272	0.28470172	2.2884565	21	12 31.6	21.3
530985 2012 BD_{58}	18.5	X	245.68181	36.72813	45.58427	2.00987	0.1505393	0.27152192	2.3619251	21	8 17.5	21.6
530986 2012 BX_{58}	17.5	X	190.72762	127.63215	339.53380	2.91173	0.1133185	0.26044319	2.4284400	21	7 22.9	21.1
530987 2012 BZ_{65}	17.5	X	232.65667	99.07617	292.42012	12.63366	0.2055284	0.25665487	2.4522780	21	5 18.7	21.6
530988 2012 BD_{82}	18.5	X	180.07857	27.13334	112.28459	2.65743	0.1454957	0.26325669	2.4111067	21	8 22.9	22.3
530989 2012 BM_{84}	18.4	X	287.49065	317.26548	110.49434	2.94195	0.1745085	0.27912970	2.3188110	21	9 25.0	20.5
530990 2012 BW_{85}	17.7	X	216.17950	329.66416	235.85293	4.46013	0.3572630	0.27763820	2.3271082	21	12 1.2	21.6
530991 2012 BD_{86}	19.3	X	38.65320	54.81681	307.75775	11.59582	0.2035070	0.39823302	1.8296915	21	—	—
530992 2012 BB_{92}	18.4	X	252.05789	309.38678	116.43457	2.83390	0.1242046	0.26497371	2.4006796	21	8 5.4	21.3
530993 2012 BY_{93}	18.7	X	246.37772	198.32251	326.33822	4.30915	0.0913475	0.28839793	2.2688613	21	12 22.3	21.1
530994 2012 BA_{100}	18.5	X	303.49022	316.12524	96.02106	3.46604	0.1711885	0.27931333	2.3177946	21	10 3.3	20.4
530995 2012 BT_{110}	18.1	X	231.42271	332.59908	113.91868	2.65634	0.1547596	0.26442557	2.4039961	21	8 5.1	21.4
530996 2012 BF_{111}	18.6	X	248.71463	170.98495	294.43887	2.59227	0.1274336	0.27388599	2.3483140	21	9 23.9	21.4
530997 2012 BX_{111}	17.0	X	202.27291	69.38806	318.73902	14.38449	0.1380622	0.23882458	2.5728632	21	4 14.2	21.4
530998 2012 BM_{112}	18.3	X	246.34555	218.13099	313.05747	4.60554	0.1761674	0.28683135	2.2771150	21	12 17.0	20.8
530999 2012 BZ_{114}	18.5	X	215.53291	255.27925	266.85708	1.07907	0.1133228	0.27901073	2.3194701	21	11 1.9	21.7
531000 2012 BG_{117}	18.5	X	200.45839	18.08505	175.78824	0.47236	0.1528657	0.28179207	2.3041825	21	11 22.7	21.5
531001 2012 BM_{119}	18.5	X	283.81191	318.07242	138.24718	5.85398	0.2209195	0.28384537	2.2930569	21	10 26.4	20.5
531002 2012 BO_{119}	18.5	X	201.24127	341.03199	156.30113	2.77284	0.1435262	0.26715247	2.3876093	21	9 10.5	22.1
531003 2012 BT_{124}	18.5	X	278.92535	286.71090	170.45175	4.90758	0.2052765	0.28305029	2.2973490	21	10 19.4	20.6
531004 2012 BT_{125}	18.4	X	260.41362	313.14954	187.18014	3.69212	0.1680964	0.28544647	2.2844742	21	11 26.9	20.7
531005 2012 BP_{126}	18.3	X	220.70119	113.96351	45.22311	1.94496	0.1247766	0.27645782	2.3337274	21	11 2.8	21.1
531006 2012 BL_{127}	18.3	X	241.43495	140.43642	325.54325	5.01775	0.1794624	0.27552977	2.3389649	21	9 8.2	21.5
531007 2012 BZ_{134}	18.6	X	46.51345	9.14329	326.54894	19.35900	0.0703702	0.38414428	1.8741592	21	—	—
531008 2012 BF_{137}	18.5	X	225.30281	196.39948	304.03424	1.67439	0.1688707	0.27565419	2.3382610	21	10 7.6	21.7
531009 2012 BG_{137}	18.5	X	232.47349	14.98294	131.05155	11.71555	0.0612180	0.27937709	2.3174419	21	11 14.2	21.6
531010 2012 BS_{137}	18.4	X	283.17820	309.28641	133.14753	6.12576	0.1259574	0.28171656	2.3045942	21	10 19.6	20.8
531011 2012 BD_{142}	18.8	X	271.23090	28.99514	68.75117	3.21690	0.1614135	0.28197391	2.3031918	21	10 14.5	21.1
531012 2012 BT_{143}	18.4	X	249.82296	23.34872	119.25510	5.89945	0.1345938	0.28137355	2.3064667	21	11 19.7	21.1
531013 2012 BG_{149}	17.6	X	283.13347	314.31642	97.55238	8.24605	0.1733239	0.28057516	2.3108401	21	8 25.9	20.1
531014 2012 BH_{151}	17.8	X	289.78898	96.15804	308.61962	21.16814	0.2783273	0.27825342	2.3236768	21	8 2.7	20.4
531015 2012 BX_{154}	6.4	X	20.18185	128.87509	341.04553	10.17734	0.4884238	0.00159196	72.6408292	21	3 8.9	22.8
531016 2012 BZ_{154}	7.0	X	7.35073	173.92574	289.20779	26.43809	0.5261018	0.00148668	76.0310708	21	1 25.3	22.8
531017 2012 BA_{155}	6.1	X	336.59096	341.72462	228.46408	14.38497	0.3717310	0.00242548	54.8619478	21	2 22.4	22.0
531018 2012 BF_{156}	17.4	X	89.99968	257.73571	176.19979	3.32705	0.0740576	0.21650275	2.7468004	21	2 7.9	20.9
531019 2012 BM_{159}	17.7	X	289.40716	84.66129	326.99920	22.38920	0.2374730	0.27610279	2.3357276	21	8 20.6	20.1
531020 2012 BN_{159}	18.1	X	150.41536	268.97305	337.65398	4.80029	0.1218962	0.28052581	2.3111111	21	12 10.1	21.6
531021 2012 BO_{159}	17.7	X	191.54245	136.32252	37.46083	3.81543	0.1676996	0.27258589	2.3557749	21	10 16.9	21.2
531022 2012 BQ_{159}	17.9	X	321.50772	276.71195	152.12769	6.05223	0.1477690	0.28273804	2.2990402	21	12 10.0	19.9
531023 2012 BW_{159}	17.8	X	116.28365	345.62498	313.30502	4.88861	0.1622944	0.29181451	2.2511173	21	—	—
531024 2012 BX_{159}	17.9	X	14.38872	358.76857	348.55829	4.96503	0.1801502	0.28013135	2.3132802	21	11 20.5	20.3
531025 2012 CM	18.1	X	197.00074	101.58248	87.77745	2.08522	0.1319477	0.27556867	2.3387447	21	11 14.7	21.3
531026 2012 CZ_2	15.6	X	267.67410	301.23058	146.15499	17.72190	0.0955306	0.16835823	3.2482279	21	9 23.6	20.3
531027 2012 CK_{10}	18.7	X	285.38122	113.22462	320.26844	1.50846	0.1852310	0.27800404	2.3250661	21	9 25.4	20.8
531028 2012 CM_{11}	18.4	X	269.84484	24.37283	127.61702	5.13272	0.0610219	0.29065561	2.2570971	21	—	—
531029 2012 CK_{13}	18.2	X	211.99470	90.16173	30.43378	2.09495	0.1072634	0.26498606	2.4006049	21	9 3.5	21.4
531030 2012 CZ_{13}	18.7	X	224.37404	122.71199	337.11711	4.57954	0.1967335	0.26525881	2.3989591	21	8 11.7	22.4
531031 2012 CL_{14}	18.6	X	264.69842	328.64279	137.19957	5.34537	0.1533934	0.27814666	2.3242713	21	10 17.8	21.2
531032 2012 CL_{21}	17.8	X	283.89115	248.40177	161.54755	1.34338	0.1788612	0.26979950	2.3719669	21	8 18.9	20.4
531033 2012 CJ_{28}	18.4	X	144.56575	358.86630	189.72777	4.91127	0.1735874	0.26086738	2.4258067	21	9 20.3	22.3
531034 2012 CO_{40}	17.9	X	226.97060	65.50799	105.37621	4.27797	0.0662958	0.28247737	2.3004543	21	12 6.5	20.6
531035 2012 CN_{43}	18.3	X	237.11978	148.89003	323.03250	2.69701	0.1263333	0.27243117	2.3566668	21	9 18.4	21.4
531036 2012 CV_{48}	18.2	X	172.03239	110.06461	59.56140	5.36283	0.1790110	0.26635236	2.3923884	21	9 24.7	22.0
531037 2012 CM_{50}	18.5	X	220.97960	251.61255	269.78283	1.63082	0.1325794	0.27737991	2.3285526	21	11 4.6	21.5
531038 2012 CZ_{54}	18.1	X	138.22393	314.95878	321.44565	18.73518	0.0517329	0.38958510	1.8566690	21	—	—
531039 2012 CJ_{57}	16.2	X	201.46266	82.21068	286.62720	14.04920	0.1182994	0.23240608	2.6200187	21	3 20.5	20.6
531040 2012 CS_{57}	6.3	X	277.98970	83.61662	150.57301	17.07565	0.0331399	0.00348741	43.0659163	21	2 16.5	22.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531041 2012 CW_{57}	19.2	X	345.15998	84.18567	323.38423	18.72887	0.0741060	0.39050296	1.8537585	21	—	—
531042 2012 CO_{58}	16.3	X	80.65336	151.48745	146.89836	9.40097	0.0157848	0.17468319	3.1693386	21	11 7.9	20.9
531043 2012 CK_{59}	19.0	X	269.84281	130.65538	353.81533	2.33801	0.0621106	0.28326694	2.2961775	21	12 3.7	21.4
531044 2012 CO_{59}	18.5	X	201.98560	192.43400	333.38564	0.86884	0.1176823	0.27598683	2.3363818	21	10 21.2	21.8
531045 2012 CT_{59}	18.4	X	292.77471	261.20454	153.41427	10.02745	0.1919079	0.27570945	2.3379485	21	9 10.3	20.6
531046 2012 DC_{3}	17.9	X	179.78388	146.77631	356.80485	8.06869	0.1582360	0.25970590	2.4330339	21	8 28.7	21.7
531047 2012 DH_{5}	18.5	X	222.86618	6.15651	135.45973	2.08393	0.1571000	0.27332480	2.3515273	21	10 9.4	21.8
531048 2012 DS_{5}	17.0	X	338.22926	169.49145	135.91673	14.71490	0.1233023	0.24493055	2.5299237	21	6 27.5	19.8
531049 2012 DU_{8}	18.0	X	232.55525	268.06681	154.88254	4.49717	0.0783783	0.25503244	2.4626674	21	7 12.6	21.4
531050 2012 DX_{8}	18.7	X	230.53953	153.13275	348.20842	1.38945	0.1222419	0.27547709	2.3392630	21	10 21.6	21.8
531051 2012 DC_{26}	17.8	X	166.79788	65.37339	149.25460	5.38275	0.1801481	0.26647314	2.3916654	21	11 14.1	21.6
531052 2012 DA_{35}	18.2	X	275.60438	66.70949	19.03395	4.91142	0.1505011	0.27339390	2.3511310	21	10 3.6	20.5
531053 2012 DC_{37}	18.5	X	245.73735	2.27825	151.63203	5.53066	0.1563568	0.28065448	2.3104047	21	11 25.5	21.2
531054 2012 DH_{40}	18.3	X	278.85871	4.35878	72.06311	1.52130	0.1958887	0.27480876	2.3430542	21	9 17.8	20.7
531055 2012 DV_{44}	17.3	X	224.04676	121.74820	44.63167	7.17764	0.0979408	0.27372555	2.3492316	21	11 19.1	20.4
531056 2012 DK_{46}	16.9	X	278.75938	305.72930	7.36376	14.26335	0.1185644	0.22278050	2.6949534	21	4 7.6	20.6
531057 2012 DK_{47}	17.4	X	346.18151	288.21172	333.08873	11.30004	0.1567746	0.23494724	2.6010926	21	4 26.7	20.3
531058 2012 DT_{48}	18.1	X	178.07724	259.88901	303.68181	4.46466	0.1675224	0.27316274	2.3524573	21	11 8.7	21.8
531059 2012 DJ_{60}	16.3	X	289.50513	201.46503	167.86598	7.44241	0.2395702	0.24730439	2.5137080	21	6 18.7	19.6
531060 2012 DJ_{61}	19.9	X	116.26783	311.96441	346.27115	53.63477	0.5153666	1.12134009	0.9175812	21	—	—
531061 2012 DN_{68}	18.7	X	219.13782	358.04355	176.36094	3.17776	0.1712324	0.27990208	2.3145433	21	11 16.3	21.8
531062 2012 DV_{68}	17.9	X	187.17234	269.03726	318.50823	6.31640	0.1482209	0.28363058	2.2942145	21	12 22.7	21.1
531063 2012 DP_{69}	18.1	X	156.99424	281.52742	314.90591	2.04325	0.1223854	0.27815368	2.3242321	21	12 3.6	21.4
531064 2012 DQ_{74}	18.3	X	204.77021	166.91162	29.58207	3.18881	0.1356616	0.27790723	2.3256061	21	12 1.5	21.6
531065 2012 DD_{77}	18.5	X	203.59988	186.61445	44.68775	7.56987	0.0711528	0.28496308	2.2870570	21	—	—
531066 2012 DQ_{77}	17.3	X	212.56207	236.91520	316.32233	23.69503	0.1471628	0.28036759	2.3119805	21	12 4.6	21.0
531067 2012 DJ_{80}	18.4	X	200.16596	118.69821	103.98941	2.76499	0.1663083	0.28256995	2.2999518	21	12 27.9	21.6
531068 2012 DR_{81}	17.0	X	90.54280	178.89538	352.32895	12.27643	0.1012861	0.23703911	2.5857669	21	6 21.9	20.7
531069 2012 DN_{84}	16.2	X	209.10563	303.38339	153.16977	10.31267	0.0960083	0.15112298	3.4907255	21	7 25.7	21.5
531070 2012 DG_{86}	16.4	X	75.30519	177.38889	1.07893	33.15079	0.1341288	0.23464727	2.6033090	21	6 8.5	20.6
531071 2012 DD_{90}	18.6	X	209.54023	111.23456	110.13826	4.89721	0.3471191	0.28177289	2.3042871	21	12 16.5	22.3
531072 2012 DP_{91}	18.7	X	284.71118	167.04063	340.90553	7.15349	0.0681045	0.29161601	2.2521388	21	—	—
531073 2012 DR_{92}	18.4	X	187.55827	154.15753	339.26817	4.81425	0.1804987	0.25982685	2.4322788	21	8 20.9	22.3
531074 2012 DX_{98}	7.3	X	3.64943	189.11909	9.75572	13.13879	0.2654139	0.00298175	47.8066905	21	4 13.2	22.8
531075 2012 DY_{98}	7.2	X	5.23109	160.79915	15.67973	18.73141	0.4968692	0.00168899	69.8316239	21	4 3.9	22.7
531076 2012 DA_{99}	6.8	X	355.36713	149.10740	56.58251	3.23807	0.0323996	0.00352761	42.7381073	21	4 11.2	23.0
531077 2012 DB_{99}	6.3	X	94.99278	41.68509	48.45076	9.70327	0.1871772	0.00399573	39.3313297	21	4 17.2	22.4
531078 2012 DK_{99}	18.5	X	44.38089	337.04561	349.47680	19.73691	0.0582942	0.37231968	1.9136333	21	12 2.1	21.0
531079 2012 DL_{99}	18.3	X	250.52135	11.44087	170.50956	22.53058	0.0077563	0.39215261	1.8485561	21	—	—
531080 2012 DZ_{99}	18.6	X	213.28501	342.83717	179.59136	1.21431	0.1187691	0.27369061	2.3494315	21	10 29.9	21.8
531081 2012 DE_{100}	17.8	X	217.39159	263.41182	262.04702	3.95873	0.0180462	0.27043459	2.3682519	21	11 20.4	20.8
531082 2012 DF_{100}	16.9	X	163.42142	117.63365	344.07240	11.49038	0.0347465	0.23630171	2.5911436	21	6 11.2	20.7
531083 2012 DU_{100}	17.0	X	291.30244	140.04864	203.20511	9.19703	0.1357754	0.23994903	2.5648190	21	6 2.3	20.4
531084 2012 DW_{100}	17.3	X	129.51922	195.44092	13.36496	14.31684	0.0333188	0.25592329	2.4569492	21	9 26.2	20.5
531085 2012 DS_{101}	18.2	X	317.80589	323.83778	150.67028	3.65002	0.0565512	0.28937762	2.2637376	21	—	—
531086 2012 DT_{102}	18.5	X	189.77430	355.86078	184.00903	1.20265	0.1253357	0.27029107	2.3690902	21	10 25.5	21.8
531087 2012 DD_{103}	18.0	X	342.28247	162.83955	277.35451	2.55464	0.0708765	0.28967951	2.2621646	21	—	—
531088 2012 DU_{103}	18.3	X	317.20818	296.14245	173.68359	6.52751	0.0603309	0.28820523	2.2698726	21	—	—
531089 2012 DC_{104}	17.2	X	349.77522	245.60714	335.35163	12.18758	0.1557785	0.21696865	2.7428668	21	3 12.4	20.3
531090 2012 DP_{104}	18.2	X	168.36701	163.19911	328.92340	4.83571	0.0795798	0.24798583	2.5091010	21	7 31.7	21.8
531091 2012 DY_{104}	18.5	X	324.14325	352.07100	105.28264	5.18499	0.0913205	0.28628539	2.2800092	21	—	—
531092 2012 DF_{105}	17.9	X	19.14181	189.07665	162.94290	5.78782	0.1063141	0.26636311	2.3923240	21	11 23.2	20.6
531093 2012 DM_{105}	17.7	X	343.85522	273.87980	125.33042	7.48199	0.1141020	0.27309131	2.3528674	21	12 4.4	20.0
531094 2012 DQ_{105}	18.4	X	217.18448	186.28940	27.19325	3.60588	0.0855047	0.28305784	2.2973082	21	—	—
531095 2012 DW_{105}	18.4	X	179.60005	118.00408	78.62304	3.43845	0.1268629	0.26812570	2.3818282	21	11 5.7	21.8
531096 2012 DC_{106}	18.5	X	307.51956	298.95879	173.00225	6.87536	0.0583096	0.28307327	2.2972247	21	—	—
531097 2012 DD_{106}	17.6	X	66.71115	214.71217	115.71305	7.43037	0.1312043	0.27989550	2.3145795	21	12 31.5	20.9
531098 2012 DO_{106}	17.8	X	106.16366	283.59427	14.46529	7.77226	0.1254736	0.28122113	2.3073001	21	—	—
531099 2012 DP_{106}	18.1	X	67.58250	93.92552	299.24867	6.39913	0.1238390	0.29749889	2.2223501	21	—	—
531100 2012 ED_{2}	17.8	X	149.76326	253.27777	345.68317	3.80438	0.1710637	0.27197998	2.3592724	21	11 27.3	21.6
531101 2012 EQ_{8}	18.3	X	181.37929	154.29241	333.90745	4.62355	0.1390814	0.25587818	2.4572380	21	8 9.3	22.0
531102 2012 EF_{9}	18.1	X	261.18957	290.53661	195.92156	21.94451	0.2393013	0.27689327	2.3312801	21	10 25.9	20.8
531103 2012 EQ_{9}	17.9	X	104.57619	310.33598	38.28994	18.40889	0.1682767	0.39754393	1.8318052	21	—	—
531104 2012 EN_{12}	17.6	X	320.79641	34.69444	341.80389	14.54497	0.1301542	0.26209916	2.4182004	21	9 10.4	19.9
531105 2012 EC_{15}	18.4	X	206.48415	291.78037	302.35729	3.72498	0.3257516	0.27900243	2.3195161	21	12 31.0	22.2
531106 2012 ES_{16}	17.4	X	136.12260	135.41900	107.62120	7.30746	0.0781937	0.26767772	2.3844848	21	11 21.3	20.9
531107 2012 EQ_{18}	18.2	X	277.42008	87.44395	28.84944	22.44111	0.0531834	0.38346785	1.8763625	21	—	—
531108 2012 EY_{18}	18.3	X	328.94105	252.47687	198.36738	3.00065	0.0774345	0.28694812	2.2764972	21	—	—
531109 2012 EG_{19}	16.6	X	276.86315	311.65623	0.04484	13.28729	0.2304426	0.21989479	2.7184797	21	3 23.2	20.8
531110 2012 EJ_{19}	18.3	X	162.26227	46.47629	176.21790	5.57938	0.0678489	0.27440600	2.3453463	21	11 24.8	21.5
531111 2012 ES_{19}	17.1	X	304.71840	218.60599	80.59414	13.39504	0.1382211	0.22154382	2.7049732	21	4 27.7	20.8
531112 2012 EW_{19}	16.8	X	235.23833	86.01704	335.42839	3.17470	0.0667538	0.24211954	2.5494675	21	7 16.2	20.2
531113 2012 EB_{20}	17.7	X	110.62538	14.24193	247.57561	3.98497	0.1555554	0.26734362	2.3864710	21	11 19.8	21.4
531114 2012 FG_{4}	17.8	X	197.83557	233.78771	327.13581	6.65509	0.1487465	0.27686566	2.3314351	21	11 27.1	21.3
531115 2012 FF_{5}	18.3	X	231.32894	42.76406	174.99642	6.73384	0.1744289	0.28982276	2.2614191	21	—	—
531116 2012 FR_{7}	18.9	X	287.99178	307.22432	164.37996	1.30797	0.1365927	0.28430757	2.2905710	21	12 7.6	20.9
531117 2012 FN_{9}	18.3	X	221.50994	115.81695	343.18845	6.93582	0.1086918	0.25969440	2.4331058	21	8 16.4	21.6
531118 2012 FP_{10}	16.9	X	248.84642	24.79170	349.99766	7.04716	0.2236758	0.23968962	2.5666692	21	5 11.4	21.1
531119 2012 FF_{11}	18.3	X	175.88401	317.48867	247.51570	1.97704	0.1086263	0.26825236	2.3810783	21	11 12.5	21.5
531120 2012 FK_{18}	16.0	X	51.65970	4.95865	187.48754	2.44685	0.1071650	0.12552529	3.9504681	21	5 31.5	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531121 2012 FY_{28}	18.4	X	229.33525	131.28301	49.25708	2.48176	0.1217487	0.28071756	2.3100586	21	12 13.2	21.0
531122 2012 FG_{31}	17.9	X	207.40721	107.94767	109.08593	5.95525	0.1084935	0.28120848	2.3073693	21	—	—
531123 2012 FG_{32}	18.0	X	63.47564	90.79666	175.56739	22.00511	0.0894372	0.35739735	1.9665357	21	10 9.1	20.0
531124 2012 FT_{34}	18.0	X	174.49791	102.31314	109.57850	3.59306	0.1438486	0.26944586	2.3740419	21	11 19.1	21.6
531125 2012 FE_{35}	16.8	X	297.71948	150.44463	172.69151	13.90617	0.0931841	0.23194564	2.6234849	21	5 23.8	20.5
531126 2012 FG_{38}	16.9	X	290.64360	58.93536	35.48492	24.69429	0.3186862	0.27647135	2.3336513	21	10 19.4	18.7
531127 2012 FN_{38}	18.1	X	217.97530	291.57625	245.32457	4.91814	0.1764282	0.27787451	2.3257886	21	11 16.2	21.3
531128 2012 FY_{44}	18.6	X	59.72679	179.94759	176.90390	23.55706	0.0553718	0.38804940	1.8615643	21	—	—
531129 2012 FR_{45}	18.5	X	175.78266	220.22568	28.63721	0.25894	0.1940938	0.27865319	2.3214537	21	—	—
531130 2012 FO_{49}	16.1	X	78.74635	36.00797	122.68329	3.83738	0.1535075	0.12479611	3.9658416	21	6 1.9	21.6
531131 2012 FO_{61}	18.9	X	116.59703	103.27821	194.25556	20.55661	0.0782247	0.38258452	1.8792495	21	—	—
531132 2012 FG_{64}	18.6	X	172.19177	213.59636	31.33702	2.52269	0.1862344	0.27631484	2.3345324	21	12 25.4	22.2
531133 2012 FU_{64}	17.0	X	245.28354	186.44554	155.54336	6.14354	0.1656098	0.22343433	2.6896935	21	4 7.1	21.2
531134 2012 FP_{70}	17.0	X	33.66085	196.33755	47.80361	13.22366	0.0969817	0.23337324	2.6127750	21	7 8.5	20.2
531135 2012 FR_{70}	16.4	X	11.08574	3.23409	247.97082	6.41256	0.0528899	0.23315292	2.6144207	21	6 7.2	19.4
531136 2012 FY_{70}	18.2	X	245.16550	114.54829	20.71721	1.65106	0.1343206	0.27148406	2.3621446	21	10 30.2	21.2
531137 2012 FR_{71}	17.0	X	11.55189	187.04153	67.70213	12.96611	0.1524968	0.23004673	2.6379021	21	6 14.8	19.7
531138 2012 FU_{71}	16.9	X	175.96436	305.13718	145.62301	15.88191	0.0972036	0.23723429	2.5843485	21	6 16.5	21.1
531139 2012 FS_{77}	18.1	X	213.93784	255.88652	260.89401	2.99043	0.1501974	0.26938575	2.3743950	21	10 17.6	21.5
531140 2012 FW_{78}	16.6	X	37.29129	147.77381	86.44107	12.71220	0.2291870	0.23096439	2.6309102	21	7 19.5	19.2
531141 2012 FK_{84}	6.5	X	6.12777	83.40167	134.65614	16.47128	0.1638640	0.00310689	46.5141460	21	5 11.9	22.4
531142 2012 FL_{84}	6.8	X	5.71034	141.88806	53.01026	26.00342	0.6277872	0.00093244	103.7659157	21	5 7.9	22.9
531143 2012 FA_{85}	18.1	X	192.43460	25.65001	163.12593	1.32837	0.1194741	0.26584022	2.3954600	21	11 8.9	21.6
531144 2012 FM_{85}	17.1	X	352.73634	9.64015	223.29587	2.55308	0.0400019	0.21906098	2.7253735	21	4 15.9	20.7
531145 2012 FM_{86}	16.5	X	340.05905	239.43706	63.30514	19.23753	0.0851952	0.23578674	2.5949150	21	6 27.9	19.7
531146 2012 FW_{86}	18.5	X	333.13477	306.48851	138.95947	2.40843	0.0903708	0.28582551	2.2824542	21	—	—
531147 2012 FA_{87}	17.8	X	149.01460	256.76855	42.73191	7.28382	0.1255009	0.28243950	2.3006599	21	—	—
531148 2012 FH_{87}	18.2	X	4.47819	217.42441	202.02201	6.27920	0.0803653	0.28912049	2.2650796	21	—	—
531149 2012 FJ_{87}	17.8	X	93.59394	165.18026	131.67780	2.92886	0.1740784	0.26417635	2.4055078	21	12 17.9	21.5
531150 2012 GF	19.0	X	6.06527	323.99620	138.23309	16.35983	0.2158600	0.40952224	1.7959093	21	—	—
531151 2012 GE_{2}	18.2	X	312.22389	271.35311	190.53061	21.89303	0.1045422	0.38675204	1.8657251	21	—	—
531152 2012 GW_{2}	17.8	X	186.82908	163.45124	26.97514	4.14767	0.1272483	0.26693042	2.3889332	21	11 3.7	21.2
531153 2012 GG_{3}	18.0	X	194.37912	38.28024	156.62005	1.57083	0.1314734	0.26955944	2.3733749	21	11 18.3	21.4
531154 2012 GD_{7}	17.8	X	184.51853	128.01596	78.72807	5.76472	0.1736718	0.26924669	2.3752125	21	11 20.2	21.5
531155 2012 GH_{7}	18.2	X	198.63373	262.02202	313.50940	1.76448	0.1433709	0.27394103	2.3479994	21	12 18.1	21.5
531156 2012 GE_{8}	17.4	X	161.45214	56.48859	238.34214	2.73821	0.1195593	0.28664730	2.2780897	21	—	—
531157 2012 GH_{11}	18.6	X	87.88843	280.78201	34.35373	20.86936	0.1050812	0.37765080	1.8955814	21	—	—
531158 2012 GG_{13}	17.5	X	275.04877	70.13737	73.36138	23.23550	0.1888271	0.28558843	2.2837171	21	12 22.1	19.5
531159 2012 GB_{16}	16.4	X	314.00205	308.48847	186.99133	16.58979	0.3220838	0.18379319	3.0637249	21	—	—
531160 2012 GG_{17}	18.3	X	202.41640	122.94147	108.86788	9.23806	0.1354269	0.27818842	2.3240387	21	—	—
531161 2012 GJ_{17}	16.9	X	322.98505	218.23220	89.05660	15.34764	0.1147424	0.22522086	2.6754509	21	6 5.2	20.0
531162 2012 GC_{19}	18.2	X	165.65566	89.21673	113.98344	2.21228	0.1254863	0.26297986	2.4127985	21	10 30.5	21.9
531163 2012 GB_{20}	17.4	X	212.70822	27.19844	33.60294	10.88785	0.0425878	0.23579496	2.5948547	21	6 17.8	21.1
531164 2012 GL_{22}	17.8	X	255.14939	37.85624	131.29279	8.94900	0.1266844	0.28081646	2.3095162	21	—	—
531165 2012 GQ_{25}	18.1	X	255.10953	22.91602	178.50473	5.91637	0.1262849	0.28838109	2.2689497	21	—	—
531166 2012 GB_{26}	15.9	X	67.90395	198.73901	345.34708	1.79325	0.1536957	0.12431648	3.9760354	21	6 18.4	21.2
531167 2012 GK_{26}	17.4	X	99.00918	173.01053	15.52772	7.68392	0.1278710	0.23852307	2.5750310	21	8 2.2	21.1
531168 2012 GR_{28}	16.9	X	334.72960	195.11105	85.36438	15.20662	0.1813059	0.21990121	2.7184267	21	5 12.7	20.0
531169 2012 GH_{29}	18.5	X	185.11178	147.27136	24.78884	3.07058	0.1459435	0.26226212	2.4171986	21	10 8.6	22.2
531170 2012 GD_{32}	18.4	X	202.28306	356.83151	205.83333	1.07823	0.1310887	0.27463808	2.3440249	21	12 7.3	21.6
531171 2012 GE_{32}	18.4	X	282.27533	254.78852	228.23526	1.51280	0.1536996	0.27981732	2.3150106	21	12 10.4	20.5
531172 2012 GX_{33}	16.6	X	338.78597	37.73282	215.85213	16.32027	0.2334881	0.21702145	2.7424219	21	3 26.4	19.9
531173 2012 GQ_{34}	18.0	X	212.18257	319.06438	239.13625	4.54973	0.1710098	0.27499141	2.3420166	21	12 7.9	21.2
531174 2012 GS_{36}	16.8	X	278.48554	120.22066	236.36114	10.86737	0.0459812	0.23105414	2.6302289	21	6 16.5	20.3
531175 2012 GZ_{37}	18.3	X	193.99654	151.81224	107.25133	6.91660	0.1695866	0.28173065	2.3045174	21	—	—
531176 2012 GG_{38}	17.7	X	167.72982	168.42111	73.93487	7.92634	0.2496155	0.26895944	2.3769033	21	12 13.9	21.6
531177 2012 GG_{39}	17.1	X	241.99230	259.54581	275.86571	5.68300	0.0556145	0.28003332	2.3138200	21	—	—
531178 2012 GD_{40}	18.2	X	213.73230	113.66063	129.92969	22.12889	0.2908798	0.28371952	2.2937350	21	—	—
531179 2012 GZ_{40}	18.3	X	115.84632	46.25140	214.42408	21.47135	0.0561045	0.36824661	1.9277182	21	12 5.9	20.8
531180 2012 GD_{41}	16.8	X	289.10649	214.68318	127.60169	9.68199	0.1353702	0.22736373	2.6586138	21	5 31.1	20.4
531181 2012 GE_{41}	16.8	X	268.77898	157.07595	153.08004	9.64749	0.1631352	0.21003205	2.8029305	21	3 23.9	21.1
531182 2012 GQ_{41}	19.1	X	353.71034	46.38931	36.58595	22.73712	0.0466273	0.39209755	1.8487292	21	—	—
531183 2012 GS_{41}	17.1	X	131.23809	216.89887	92.32376	7.95711	0.1157151	0.27925528	2.3181158	21	—	—
531184 2012 HB	17.8	X	68.14372	318.92175	16.69422	21.29522	0.0528123	0.37776635	1.8951948	21	—	—
531185 2012 HD	18.3	X	355.20292	356.18281	23.58745	19.24116	0.1048061	0.37034970	1.9204134	21	12 16.6	20.4
531186 2012 HZ_{5}	16.6	X	17.77035	143.31875	90.76088	13.64372	0.1171572	0.22380296	2.6867391	21	5 29.2	19.6
531187 2012 HU_{6}	18.0	X	98.80332	56.69107	192.92521	21.49415	0.0517106	0.35891150	1.9610009	21	10 28.2	20.2
531188 2012 HE_{7}	18.2	X	194.12689	67.22388	166.93263	5.47667	0.1242527	0.27805298	2.3247933	21	—	—
531189 2012 HU_{13}	18.9	X	308.86509	62.59852	64.86422	26.40020	0.1402038	0.38958815	1.8566593	21	—	—
531190 2012 HW_{15}	18.4	X	25.52325	1.33166	61.33984	21.34275	0.1126897	0.39143627	1.8508107	21	—	—
531191 2012 HK_{17}	18.2	X	210.82573	147.06046	104.32545	7.07705	0.1438876	0.28352319	2.2947938	21	—	—
531192 2012 HV_{20}	18.4	X	153.20328	110.94562	178.80626	23.31230	0.0334496	0.38780686	1.8623404	21	—	—
531193 2012 HX_{21}	16.4	X	221.72203	120.92928	173.82784	18.98659	0.2839775	0.18849469	3.0125665	21	1 19.2	22.1
531194 2012 HG_{26}	17.8	X	228.43848	221.26373	194.75038	5.70485	0.0419964	0.23557864	2.5964429	21	7 1.7	21.5
531195 2012 HM_{26}	18.3	X	229.84532	36.23560	120.81359	2.31801	0.1236894	0.26911568	2.3759833	21	11 10.9	21.5
531196 2012 HA_{27}	15.8	X	257.73600	349.79163	54.50451	13.88151	0.1185751	0.24544711	2.5263728	21	7 15.4	19.5
531197 2012 HM_{28}	17.8	X	200.79065	110.64472	92.52850	10.29172	0.1683745	0.27108538	2.3644601	21	12 2.8	21.2
531198 2012 HF_{29}	18.1	X	222.83884	19.42630	141.72181	3.23298	0.1389713	0.26786308	2.3833847	21	11 6.0	21.3
531199 2012 HT_{29}	16.6	X	210.42512	84.53569	210.19927	18.71817	0.3569800	0.18117916	3.0931232	21	1 11.1	22.8
531200 2012 HA_{31}	18.6	X	281.76587	264.36007	201.40230	22.30266	0.0489586	0.37356669	1.9093723	21	12 19.2	20.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531201 2012 HT_{31}	18.2	X	221.07281	162.52662	21.39182	2.69357	0.1499304	0.27543049	2.3395269	21	12 1.8	21.4
531202 2012 HA_{35}	18.5	X	178.18237	110.15033	149.51120	5.52200	0.2788083	0.27579334	2.3374744	21	—	—
531203 2012 HX_{37}	17.3	X	326.53132	255.28356	18.59404	5.44291	0.0227404	0.22051677	2.7133655	21	5 4.6	21.0
531204 2012 HT_{46}	16.0	X	280.34425	235.46340	89.95008	14.22476	0.1476663	0.21659053	2.7460582	21	4 30.3	20.1
531205 2012 HX_{51}	17.9	X	243.49326	12.70657	194.93154	26.09370	0.1788716	0.28482605	2.2877904	21	—	—
531206 2012 HW_{52}	16.9	X	131.52609	32.27761	82.16027	7.82417	0.0202710	0.22567594	2.6718529	21	5 19.4	20.5
531207 2012 HQ_{54}	18.2	X	216.56854	180.50475	30.83514	8.09922	0.2441009	0.27813476	2.3243376	21	12 20.5	21.7
531208 2012 HO_{55}	18.1	X	244.08216	265.93246	207.74742	21.40524	0.0476074	0.36792950	1.9288256	21	10 29.2	19.7
531209 2012 HW_{56}	18.2	X	210.79733	3.04971	177.84357	5.28267	0.1691911	0.27034578	2.3687705	21	11 14.9	21.6
531210 2012 HR_{57}	18.0	X	189.48710	14.31125	178.90254	1.20810	0.1374609	0.26450249	2.4035300	21	11 9.7	21.6
531211 2012 HN_{58}	16.9	X	347.92082	116.49288	186.42805	17.46200	0.3201065	0.22521257	2.6755165	21	6 25.3	19.1
531212 2012 HD_{61}	16.8	X	218.21104	23.84485	41.47786	12.35052	0.1281769	0.23630997	2.5910832	21	6 24.7	21.0
531213 2012 HO_{64}	17.0	X	336.02044	64.07973	207.88689	12.54590	0.0840354	0.22088274	2.7103676	21	5 11.3	20.3
531214 2012 HV_{65}	16.6	X	103.24799	179.94521	5.83551	26.66159	0.1237927	0.23999896	2.5644633	21	8 14.7	20.8
531215 2012 HE_{71}	18.6	X	167.88685	216.51747	48.78759	2.98264	0.1873864	0.27345222	2.3507967	21	—	—
531216 2012 HU_{74}	17.7	X	226.73729	278.47462	213.91899	20.46726	0.0668894	0.36574366	1.9365030	21	10 26.5	19.3
531217 2012 HO_{76}	18.3	X	234.24354	310.06122	225.78892	5.68873	0.1235467	0.27487221	2.3426936	21	12 12.2	21.1
531218 2012 HY_{78}	17.3	X	108.04167	38.60581	233.57595	11.27700	0.2026321	0.25622209	2.4550387	21	12 1.6	21.4
531219 2012 HJ_{80}	16.8	X	348.77281	190.81628	79.14500	10.75092	0.0881452	0.22159565	2.7045513	21	5 28.7	19.9
531220 2012 HF_{81}	18.2	X	180.42392	31.00575	239.89671	8.50074	0.1990658	0.27778980	2.3262614	21	—	—
531221 2012 HL_{82}	17.9	X	173.31771	250.96044	55.17439	23.00077	0.3319519	0.28110222	2.3079507	21	—	—
531222 2012 HE_{83}	18.2	X	214.86367	93.97507	124.20517	22.74793	0.2204059	0.27796163	2.3253026	21	12 31.9	21.7
531223 2012 HE_{84}	17.9	X	196.80939	353.18703	184.08029	22.66035	0.0370439	0.36283350	1.9468439	21	11 26.7	20.5
531224 2012 HK_{85}	6.9	X	349.23217	174.65876	75.86935	4.81239	0.3391480	0.00224440	57.7744664	21	5 8.8	22.8
531225 2012 HM_{85}	18.1	X	170.49717	90.42702	137.42183	3.23293	0.1336842	0.26548130	2.3976186	21	12 4.7	21.6
531226 2012 HX_{85}	17.9	X	196.80745	51.90157	139.65050	1.95701	0.1243392	0.26842536	2.3800551	21	11 17.2	21.3
531227 2012 HH_{86}	17.9	X	172.21944	266.76538	187.66565	1.51278	0.0481689	0.23056188	2.6339713	21	6 14.2	21.7
531228 2012 HE_{87}	17.7	X	302.33804	35.84758	78.49731	7.29093	0.0571986	0.27286673	2.3541583	21	—	—
531229 2012 HH_{87}	17.1	X	328.18190	223.88789	97.59196	15.23417	0.0507529	0.22970038	2.6405531	21	7 9.9	20.3
531230 2012 HJ_{87}	18.3	X	296.16213	72.57252	50.29253	8.09993	0.1461082	0.27987333	2.3147017	21	—	—
531231 2012 HP_{87}	17.5	X	3.36753	312.61046	45.68252	6.84733	0.1157613	0.25546203	2.4599058	21	11 4.1	19.9
531232 2012 HS_{87}	17.7	X	152.27453	199.38708	97.43779	6.83281	0.1751282	0.27856456	2.3219461	21	—	—
531233 2012 JH	18.4	X	77.55925	248.81292	94.33856	24.78894	0.0656851	0.38030836	1.8867403	21	—	—
531234 2012 JU_{1}	18.9	X	272.53915	319.70466	215.75210	19.11979	0.0872909	0.39027041	1.8544949	21	—	—
531235 2012 JJ_{2}	18.4	X	228.35606	93.10368	96.46580	6.75391	0.1642571	0.27710546	2.3300898	21	12 17.1	21.3
531236 2012 JN_{3}	18.6	X	192.31956	181.16865	83.01936	1.83860	0.1715007	0.28228268	2.3015119	21	—	—
531237 2012 JP_{3}	18.3	X	190.30142	76.34702	127.14705	4.24642	0.2303189	0.26660506	2.3908764	21	11 17.7	22.2
531238 2012 JS_{5}	16.5	X	267.02195	179.02550	164.57056	13.91756	0.0968123	0.21702003	2.7424339	21	5 12.1	20.6
531239 2012 JJ_{7}	17.4	X	99.62546	325.61733	240.09335	11.63998	0.1847376	0.24001967	2.5643157	21	8 24.1	21.5
531240 2012 JY_{7}	18.4	X	164.44711	266.96586	2.81097	1.38885	0.1724491	0.27276042	2.3547700	21	—	—
531241 2012 JX_{13}	17.9	X	242.78566	258.14347	215.77073	5.57772	0.0883201	0.25709072	2.4495057	21	10 1.9	21.2
531242 2012 JT_{18}	18.2	X	126.20875	239.60927	39.19452	22.01815	0.0665664	0.37547849	1.9028856	21	—	—
531243 2012 JV_{19}	16.6	X	189.86235	40.40446	52.17619	22.21712	0.0616181	0.23410119	2.6073558	21	7 1.5	20.7
531244 2012 JG_{21}	16.6	X	76.14859	152.40483	47.87596	29.84567	0.1185097	0.23222144	2.6214073	21	7 17.7	20.7
531245 2012 JG_{33}	17.9	X	158.70592	359.31653	250.15451	2.69354	0.1368538	0.26755698	2.3852021	21	12 19.6	21.6
531246 2012 JN_{33}	18.3	X	213.89110	177.44483	30.25482	4.14696	0.1297190	0.27467480	2.3438159	21	12 27.5	21.4
531247 2012 JB_{35}	18.1	X	179.43594	22.34347	240.38468	4.32524	0.1217244	0.27588255	2.3369705	21	—	—
531248 2012 JP_{35}	18.2	X	293.49234	245.75143	246.91427	19.11752	0.0878478	0.38484812	1.8718734	21	—	—
531249 2012 JP_{40}	18.5	X	262.08730	313.09622	192.61778	21.39694	0.0697488	0.37707140	1.8975227	21	—	—
531250 2012 JB_{42}	16.6	X	271.04995	219.86957	126.21146	6.83571	0.0558482	0.21980669	2.7192060	21	5 24.3	20.4
531251 2012 JE_{42}	16.3	X	216.02596	54.83489	211.34598	21.86514	0.2816825	0.17659056	3.1464758	21	—	—
531252 2012 JF_{47}	17.5	X	42.32315	284.15887	84.77400	21.71343	0.0593563	0.37947536	1.8895004	21	—	—
531253 2012 JM_{67}	15.3	X	337.68710	162.76382	186.30030	17.80336	0.2118284	0.12382779	3.9864895	21	8 11.7	20.1
531254 2012 JP_{67}	17.6	X	189.33237	39.00571	155.83043	2.25217	0.0999199	0.26064513	2.4271855	21	11 14.5	20.9
531255 2012 JA_{68}	17.0	X	141.19186	339.89086	289.00847	7.89614	0.2284325	0.26493578	2.4009087	21	12 25.6	21.0
531256 2012 JC_{68}	17.5	X	26.39346	162.99581	153.18328	12.49466	0.1951012	0.24131308	2.5551445	21	10 27.6	20.5
531257 2012 KC	18.7	X	342.98850	244.22417	216.08625	21.77667	0.0927192	0.38500824	1.8713544	21	—	—
531258 2012 KS_{7}	18.8	X	70.25368	76.46257	238.75185	18.81837	0.0772950	0.36688765	1.9324754	21	12 25.1	21.2
531259 2012 KJ_{9}	17.7	X	129.19372	35.83123	245.76722	21.33141	0.0791550	0.37428302	1.9069353	21	—	—
531260 2012 KL_{9}	19.0	X	295.22922	261.84705	241.58144	24.03859	0.0673750	0.38805392	1.8615498	21	—	—
531261 2012 KD_{14}	16.3	X	81.38994	117.22049	57.32957	14.67847	0.0296977	0.22794504	2.6540918	21	6 1.1	19.8
531262 2012 KZ_{15}	17.3	X	225.49508	304.67030	220.11401	22.07680	0.2292207	0.27184385	2.3600600	21	11 1.7	20.8
531263 2012 KX_{18}	18.4	X	95.22281	78.28910	198.74815	23.13987	0.0518437	0.36190217	1.9501825	21	12 2.1	21.1
531264 2012 KX_{20}	16.6	X	181.23667	34.67032	52.69850	13.64331	0.0627920	0.23238740	2.6201591	21	6 14.2	20.5
531265 2012 KD_{24}	17.1	X	283.26016	272.19016	51.64454	8.13941	0.2259134	0.21363804	2.7713008	21	4 17.4	21.1
531266 2012 KX_{39}	18.3	X	161.01387	226.43019	76.33749	7.59289	0.1828684	0.28312707	2.2969337	21	—	—
531267 2012 KO_{40}	17.4	X	52.18347	45.18029	161.06076	5.26476	0.0515667	0.22258257	2.6965509	21	6 8.3	20.8
531268 2012 KA_{44}	16.5	X	122.69784	114.87672	75.66557	17.60912	0.0614504	0.23888869	2.5724029	21	8 31.5	20.5
531269 2012 KX_{48}	18.0	X	132.69054	135.80226	120.88387	3.30563	0.1693689	0.25838389	2.4413259	21	12 3.5	21.8
531270 2012 KU_{52}	16.7	X	166.94317	284.72944	235.05964	14.17330	0.0583261	0.24187292	2.5512003	21	8 28.2	20.7
531271 2012 LL_{16}	18.3	X	141.64215	187.58125	97.89399	23.42223	0.0309357	0.37859829	1.8924175	21	—	—
531272 2012 LL_{21}	17.8	X	137.01922	223.51865	76.41536	3.45717	0.2199053	0.26883232	2.3776526	21	—	—
531273 2012 LG_{25}	17.7	X	86.34101	146.49478	200.67936	2.09155	0.2185250	0.25651769	2.4531523	21	—	—
531274 2012 LH_{26}	17.0	X	32.96166	6.51881	217.45615	6.62360	0.1497684	0.22055312	2.7130674	21	6 12.8	20.0
531275 2012 MU_{4}	15.9	X	202.77952	101.13811	268.81723	17.42058	0.3381949	0.17503311	3.1651131	21	3 26.5	22.2
531276 2012 MW_{5}	16.2	X	214.64340	42.59915	284.05683	7.49902	0.2527006	0.18144367	3.0901164	21	2 19.2	21.7
531277 2012 MM_{11}	20.3	X	316.46882	124.13291	245.49438	3.18238	0.6479887	0.32116747	2.1117784	21	5 15.0	23.2
531278 2012 MG_{14}	16.4	X	11.20294	139.58194	67.84551	3.06042	0.0322942	0.19680254	2.9271766	21	4 12.8	20.3
531279 2012 MN_{16}	17.9	X	203.14410	246.69626	296.33031	16.74793	0.0678026	0.35840774	1.9628380	21	12 5.9	20.2
531280 2012 MT_{16}	17.4	X	84.22116	187.16848	145.42182	3.47954	0.1827280	0.25337537	2.4733929	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531281 2012 NK	17.0	X	79.24070	55.68433	212.36334	12.99269	0.1338752	0.23485237	2.6017931	21	10 19.6	20.7
531282 2012 ND_1	17.7	X	178.58042	0.80172	294.63296	18.44030	0.0831008	0.38397366	1.8747143	21	—	—
531283 2012 OU_3	16.3	X	340.77467	189.28524	183.82801	14.58953	0.1207468	0.23958966	2.5673830	21	10 14.0	18.9
531284 2012 OV_3	17.0	X	233.79343	110.58433	203.96766	4.86482	0.2242298	0.18163137	3.0879870	21	2 21.3	22.3
531285 2012 OD_4	16.8	X	222.46723	121.90756	213.23592	16.98660	0.3967376	0.18118938	3.0930069	21	3 1.1	23.0
531286 2012 OR_4	17.6	X	228.85328	339.62941	253.82886	16.49581	0.0419811	0.37876028	1.8918779	21	—	—
531287 2012 OF_5	17.5	X	104.82937	71.20708	245.43280	5.57358	0.1445474	0.25167227	2.4845390	21	—	—
531288 2012 PW_2	18.3	X	81.54330	11.68253	329.23798	17.87852	0.0710180	0.35910933	1.9602807	21	—	—
531289 2012 PL_4	18.5	X	118.79150	213.52052	162.94656	23.20188	0.0516560	0.38551265	1.8697217	21	—	—
531290 2012 PV_4	15.5	X	191.04215	51.33948	313.35036	18.68534	0.0979783	0.17983148	3.1085575	21	3 10.1	20.6
531291 2012 PB_8	16.0	X	185.46373	135.04490	257.22102	9.72153	0.1236543	0.18397433	3.0617136	21	4 11.6	21.0
531292 2012 PD_8	18.3	X	143.55523	11.33253	304.47163	17.78987	0.0789472	0.37374707	1.9087579	21	—	—
531293 2012 PE_8	16.5	X	176.98131	123.35927	246.96818	10.13697	0.0996874	0.17591241	3.1545571	21	3 7.1	21.5
531294 2012 PQ_{10}	16.6	X	273.03359	317.02922	330.49516	9.44406	0.0706348	0.18010394	3.1054217	21	3 11.1	21.1
531295 2012 PB_{13}	16.4	X	215.09791	55.21329	256.57086	3.80617	0.1359014	0.17008357	3.2262237	21	2 7.1	21.6
531296 2012 PS_{14}	17.3	X	209.80466	183.00329	180.33101	8.81624	0.2451291	0.18082692	3.0971387	21	4 1.7	22.7
531297 2012 PN_{17}	17.9	X	296.74021	249.34225	272.16045	18.42231	0.0767308	0.37616937	1.9005549	21	—	—
531298 2012 PA_{19}	16.8	X	134.11444	92.38891	239.89187	12.17731	0.3102494	0.26061121	2.4273961	21	—	—
531299 2012 PM_{21}	16.6	X	200.80896	181.87916	168.34448	9.31829	0.1075930	0.17986326	3.1081913	21	3 10.9	21.4
531300 2012 PJ_{26}	16.7	X	179.45816	105.55122	296.43212	11.19632	0.2420254	0.18226761	3.0807968	21	4 18.7	22.3
531301 2012 PT_{27}	18.0	X	171.87119	167.16367	104.69925	3.47691	0.1991911	0.26221769	2.4174717	21	—	—
531302 2012 PX_{32}	16.7	X	56.07022	330.18123	332.21934	11.68716	0.1889972	0.23427004	2.6061028	21	11 8.3	20.5
531303 2012 PP_{33}	15.4	X	133.59972	100.56578	316.67365	20.53254	0.1051382	0.17630741	3.1498437	21	3 13.8	20.4
531304 2012 PU_{34}	17.9	X	202.46374	311.97582	300.90688	18.20712	0.0971107	0.37831937	1.8933475	21	—	—
531305 2012 PJ_{36}	16.5	X	199.55247	59.34090	305.34230	8.25302	0.1546634	0.18136903	3.0909641	21	3 22.5	21.7
531306 2012 PB_{43}	15.9	X	151.52364	243.43798	153.82445	9.53521	0.0816510	0.17513552	3.1638792	21	3 18.1	20.6
531307 2012 PT_{43}	16.3	X	239.70248	284.23343	41.62059	0.24192	0.1685403	0.18299315	3.0726482	21	3 15.4	21.3
531308 2012 PR_{44}	16.7	X	248.33784	326.25785	353.40793	9.69549	0.0933530	0.18251143	3.0780523	21	3 21.2	21.3
531309 2012 PV_{44}	16.3	X	164.92891	163.37399	277.27415	5.99229	0.1266238	0.18514774	3.0487637	21	5 23.3	21.2
531310 2012 PX_{44}	16.7	X	263.97602	205.16050	208.09451	4.83254	0.0360033	0.21170842	2.7881146	21	8 12.7	20.6
531311 2012 PF_{45}	16.2	X	140.37013	273.77421	176.26578	16.87179	0.0684048	0.18387580	3.0628072	21	5 8.8	20.9
531312 2012 PL_{45}	16.7	X	22.43590	342.57763	327.42172	11.18208	0.1766173	0.22454314	2.6808315	21	9 26.5	19.8
531313 2012 PO_{45}	16.6	X	243.19224	33.39966	4.10400	11.17705	0.1605501	0.20114912	2.8848548	21	6 12.1	21.3
531314 2012 PP_{45}	18.2	X	139.09522	37.86912	327.33456	20.86239	0.0557898	0.38674413	1.8657505	21	—	—
531315 2012 PS_{45}	17.0	X	199.92832	240.73529	155.01080	10.40353	0.1160030	0.18919201	3.0051594	21	5 5.8	21.9
531316 2012 PT_{45}	16.1	X	105.52552	115.31142	341.77807	17.27183	0.1267966	0.17579548	3.1559558	21	4 4.9	20.9
531317 2012 QN	16.3	X	182.39843	191.37926	207.47392	16.43826	0.1805161	0.18002413	3.1063393	21	4 21.5	21.5
531318 2012 QR	15.6	X	156.81685	254.92853	141.65895	26.62581	0.2897238	0.17247830	3.1962917	21	4 9.9	21.6
531319 2012 QZ	16.3	X	164.70917	273.87047	140.16532	11.93467	0.1499114	0.18424860	3.0586744	21	4 26.9	21.4
531320 2012 QF_7	16.1	X	263.19710	287.53737	147.49220	22.19116	0.0300339	0.22364946	2.6879683	21	9 16.4	19.8
531321 2012 QV_{14}	15.5	X	206.39032	72.77144	286.96318	19.75118	0.3314671	0.17673341	3.1447801	21	3 14.4	21.7
531322 2012 QY_{15}	17.9	X	106.29030	305.36389	316.45961	3.05336	0.2205718	0.23782924	2.5800367	21	11 15.4	22.1
531323 2012 QQ_{18}	16.5	X	145.44862	298.43240	139.62159	14.65387	0.0627065	0.18768638	3.0212097	21	5 1.1	21.2
531324 2012 QE_{19}	16.6	X	46.53014	319.01388	312.35511	27.26776	0.1566458	0.22430505	2.6827283	21	8 31.8	20.3
531325 2012 QQ_{21}	17.5	X	141.27683	300.09752	319.21253	8.77584	0.0957156	0.24288922	2.5440788	21	12 11.0	21.5
531326 2012 QT_{21}	16.9	X	190.49665	187.17018	189.64531	10.61802	0.1186156	0.17775196	3.1327551	21	4 1.8	21.8
531327 2012 QH_{22}	14.5	X	288.41489	118.53480	212.68800	5.89966	0.0969987	0.08429207	5.1516329	21	5 27.1	21.2
531328 2012 QU_{27}	16.8	X	221.99206	10.51507	345.37128	8.58009	0.1204811	0.18137120	3.0909395	21	4 3.7	21.8
531329 2012 QQ_{32}	16.4	X	115.64096	136.30723	314.10947	8.11190	0.0711643	0.17498109	3.1657405	21	4 4.5	21.1
531330 2012 QT_{44}	18.4	X	123.60936	200.31268	157.68004	23.68428	0.0713176	0.37932973	1.8899840	21	—	—
531331 2012 QW_{47}	16.6	X	204.42781	17.05400	342.00588	9.87459	0.1157605	0.18111104	3.0938987	21	3 22.3	21.5
531332 2012 QL_{52}	14.6	X	277.26471	153.99666	190.46878	14.64654	0.0758086	0.08331611	5.1917853	21	6 1.8	21.6
531333 2012 QP_{52}	16.6	X	195.60060	125.21046	245.26021	7.23834	0.0729474	0.18174320	3.0867202	21	3 26.5	21.5
531334 2012 QT_{52}	16.8	X	252.37869	350.73020	23.76402	2.21495	0.1104229	0.19535648	2.9416037	21	5 30.3	21.1
531335 2012 QU_{52}	16.8	X	255.55647	358.31739	343.83206	1.18703	0.1025555	0.18948429	3.0020684	21	4 24.3	21.3
531336 2012 QX_{52}	17.0	X	9.35249	328.17638	331.32513	3.77779	0.0517003	0.21123170	2.7923080	21	8 11.8	20.5
531337 2012 QK_{53}	16.2	X	174.37444	70.93243	356.48558	11.85924	0.1135351	0.18494915	3.0509458	21	5 12.5	21.2
531338 2012 QM_{53}	16.6	X	339.46263	336.47370	5.75672	11.55466	0.0643142	0.21280214	2.7785532	21	8 28.5	20.1
531339 2012 QD_{54}	17.1	X	344.34527	213.99465	148.07077	6.21823	0.1039959	0.22468411	2.6797101	21	10 2.3	20.1
531340 2012 QL_{54}	16.8	X	158.29849	197.38923	242.71983	9.08948	0.0704879	0.18514849	3.0487555	21	5 13.1	21.4
531341 2012 QN_{54}	16.7	X	252.98642	356.06194	350.21525	8.99822	0.0729998	0.18881961	3.0091095	21	4 26.9	21.2
531342 2012 QO_{54}	16.3	X	211.90241	37.97967	325.87517	8.98974	0.1136307	0.17907182	3.1173427	21	4 2.6	21.4
531343 2012 RE	18.0	X	52.16303	243.80250	149.32237	23.33077	0.1092284	0.36356826	1.9442200	21	—	—
531344 2012 RR	16.2	X	163.56083	92.14596	312.23044	14.54793	0.2630217	0.17483705	3.1674790	21	4 8.5	22.0
531345 2012 RR_1	16.8	X	175.86135	47.50703	13.18896	8.39920	0.1844804	0.18107371	3.0943239	21	5 9.6	22.0
531346 2012 RY_1	17.9	X	294.81328	191.57660	292.77034	18.23585	0.0613958	0.35836351	1.9629995	21	—	—
531347 2012 RK_5	16.8	X	197.75001	162.29252	183.58745	10.25378	0.2315375	0.17317889	3.1876655	21	3 2.9	22.4
531348 2012 RJ_6	16.1	X	287.69604	143.88771	217.84507	11.40949	0.1942557	0.20602668	2.8391418	21	6 13.7	20.1
531349 2012 RE_8	16.1	X	201.53977	35.94691	358.17083	17.05855	0.2256831	0.18209892	3.0826991	21	4 24.6	21.7
531350 2012 RV_8	16.0	X	193.87542	270.33456	261.06364	11.23298	0.1273228	0.22473409	2.6793128	21	10 9.1	20.4
531351 2012 RB_9	16.5	X	351.22740	21.55957	311.33048	15.43226	0.2513938	0.21727694	2.7402717	21	8 27.8	18.7
531352 2012 RT_9	18.2	X	116.84263	43.91194	303.55780	18.34558	0.0778148	0.37207080	1.9144866	21	—	—
531353 2012 RV_{10}	16.2	X	172.85537	36.65187	349.34083	16.51956	0.2187127	0.17319802	3.1874308	21	3 27.3	21.7
531354 2012 RR_{15}	17.8	X	278.91203	234.57616	275.33233	17.16308	0.0598901	0.36269390	1.9473434	21	—	—
531355 2012 RV_{15}	18.2	X	49.58695	83.47469	347.12084	18.66606	0.1155810	0.36875068	1.9259610	21	—	—
531356 2012 RH_{19}	16.1	X	226.59510	322.75837	6.94667	17.20384	0.2225830	0.17499317	3.1655948	21	3 10.9	21.5
531357 2012 RE_{20}	18.6	X	28.94886	230.21118	180.52705	10.27683	0.2191731	0.35811136	1.9639208	21	—	—
531358 2012 RF_{28}	17.8	X	155.49808	157.18836	146.76936	2.78338	0.2386624	0.26373808	2.4081719	21	—	—
531359 2012 RD_{32}	18.0	X	39.97923	53.52878	359.31754	23.02157	0.1001886	0.36435589	1.9414171	21	—	—
531360 2012 RG_{34}	18.3	X	206.62787	107.86674	190.20891	20.82489	0.0808702	0.38220341	1.8804986	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531361 2012 RY_{34}	15.8	X	51.69122	170.53931	3.55250	17.18462	0.1450193	0.17687911	3.1430529	21	5 2.2	20.0
531362 2012 RP_{37}	16.4	X	188.20524	242.56928	206.45019	2.97532	0.1312673	0.19564438	2.9387172	21	6 25.5	21.0
531363 2012 RX_{38}	17.3	X	332.48946	350.99913	39.23926	3.39874	0.1043586	0.21908748	2.7251538	21	10 18.7	20.3
531364 2012 RN_{41}	16.0	X	188.00829	89.34487	283.92544	14.65893	0.2593455	0.17390421	3.1787959	21	3 20.9	21.9
531365 2012 RE_{42}	17.2	X	59.68275	139.72352	209.98285	12.91926	0.2741190	0.23545541	2.5973487	21	—	—
531366 2012 RD_{43}	16.4	X	197.19884	314.79237	51.15661	7.76895	0.1274406	0.17117401	3.2125077	21	3 29.8	21.5
531367 2012 RQ_{43}	16.2	X	206.66252	56.86207	346.12501	26.99124	0.1833307	0.18593436	3.0401588	21	5 3.1	21.8
531368 2012 RX_{43}	14.3	X	245.77839	104.21984	277.86783	1.32799	0.1277500	0.08330224	5.1923618	21	6 3.8	21.5
531369 2012 RE_{44}	16.3	X	155.28908	80.99360	356.64579	10.21798	0.1015985	0.17823823	3.1270547	21	5 6.0	21.2
531370 2012 RF_{44}	16.6	X	281.18282	82.24297	277.03263	1.01162	0.0839857	0.20301751	2.8671278	21	6 18.9	20.4
531371 2012 RP_{44}	17.3	X	146.04380	250.26561	36.31882	2.66098	0.1848885	0.25510780	2.4621824	21	—	—
531372 2012 SD_{1}	13.7	X	286.42426	115.06199	226.56472	23.80521	0.0841544	0.08316766	5.1979615	21	6 5.9	20.6
531373 2012 SC_{5}	18.2	X	168.79039	292.69402	3.03219	18.81939	0.0796809	0.37038862	1.9202788	21	—	—
531374 2012 SO_{5}	16.4	X	177.64456	53.86941	2.95128	11.70836	0.2317258	0.17739639	3.1369399	21	5 5.9	22.0
531375 2012 SZ_{9}	16.5	X	169.76506	217.21693	186.54084	10.92377	0.2493728	0.17629301	3.1500153	21	4 20.4	22.0
531376 2012 SY_{10}	18.2	X	59.25784	47.87279	343.64525	18.78979	0.0732667	0.36377261	1.9434918	21	—	—
531377 2012 SE_{11}	16.1	X	350.99669	281.07778	2.08280	14.34305	0.0324714	0.19297997	2.9657046	21	6 22.6	20.4
531378 2012 SC_{12}	16.1	X	136.04087	261.04216	187.21281	14.91119	0.0861191	0.17661658	3.1461667	21	5 3.0	20.9
531379 2012 ST_{13}	16.7	X	165.03714	53.83429	7.27477	10.09035	0.1087743	0.17733097	3.1377114	21	4 27.1	21.6
531380 2012 SU_{13}	17.2	X	30.34379	107.99795	186.24124	4.15728	0.0364970	0.21188604	2.7865563	21	9 1.8	20.9
531381 2012 SC_{14}	16.4	X	239.89047	283.03427	9.84716	9.90587	0.1725726	0.16971014	3.2309545	21	2 10.4	21.7
531382 2012 SK_{14}	17.0	X	91.03217	321.52375	284.13916	6.36356	0.0910052	0.21414856	2.7668946	21	9 23.9	21.0
531383 2012 SE_{26}	16.4	X	77.64282	298.61115	201.49134	9.83244	0.0523324	0.17599934	3.1535183	21	4 20.6	20.7
531384 2012 SM_{30}	16.5	X	210.38253	95.39503	257.88083	9.38998	0.0767682	0.17687351	3.1431192	21	3 20.1	21.5
531385 2012 SM_{31}	16.9	X	35.80148	166.01291	186.41149	12.86288	0.1753244	0.23010491	2.6374574	21	12 18.8	20.6
531386 2012 SC_{34}	17.1	X	261.97871	146.30953	185.77534	5.50335	0.1393710	0.18732509	3.0250932	21	4 16.2	21.5
531387 2012 SY_{35}	16.6	X	205.52757	180.53188	180.70758	9.12552	0.0725344	0.17639003	3.1488600	21	3 29.7	21.3
531388 2012 SP_{39}	16.7	X	302.28551	110.41922	192.62713	9.53637	0.0801421	0.19102157	2.9859402	21	5 7.0	20.7
531389 2012 SS_{48}	16.7	X	66.95748	303.37895	7.71259	28.23533	0.1445708	0.23287389	2.6165087	21	11 18.6	21.0
531390 2012 SS_{49}	15.9	X	200.09285	191.13399	180.59350	24.74734	0.1627070	0.17599089	3.1536192	21	4 5.9	21.2
531391 2012 SA_{58}	18.0	X	31.79027	41.05726	49.63543	22.02791	0.0943201	0.37203444	1.9146113	21	—	—
531392 2012 SC_{58}	18.1	X	197.47157	110.88950	153.93935	24.22727	0.0538525	0.36893814	1.9253086	21	—	—
531393 2012 SR_{60}	16.4	X	218.37121	319.64254	2.32325	16.11194	0.2060466	0.17301798	3.1896417	21	2 25.6	21.9
531394 2012 SY_{60}	16.6	X	226.61551	353.78038	348.08664	9.05272	0.0913796	0.17831254	3.1261858	21	3 25.1	21.5
531395 2012 SW_{62}	17.1	X	321.34725	90.97965	294.89809	3.82843	0.1533174	0.21622954	2.7491137	21	9 16.3	20.0
531396 2012 SB_{63}	16.6	X	191.08782	90.23562	288.64114	3.89074	0.1780244	0.17408518	3.1765925	21	4 3.5	22.0
531397 2012 SS_{63}	18.2	X	29.37873	237.27696	194.37075	21.06350	0.0983536	0.36172893	1.9508051	21	—	—
531398 2012 SM_{64}	17.4	X	50.16484	152.84982	205.71834	8.18443	0.1747587	0.23964032	2.5670212	21	—	—
531399 2012 SA_{68}	17.3	X	231.33457	72.39073	301.93456	2.85571	0.2362057	0.18342902	3.0677787	21	4 29.1	22.5
531400 2012 SE_{68}	16.1	X	221.79947	25.41135	354.92549	8.53737	0.0004075	0.18697781	3.0288377	21	5 10.1	20.4
531401 2012 SG_{68}	16.6	X	119.67894	252.08839	7.78598	11.58549	0.1193281	0.22796771	2.6539159	21	11 15.6	20.8
531402 2012 SK_{68}	16.8	X	218.62421	40.13116	7.41430	15.59770	0.1040330	0.19159550	2.9799743	21	6 1.9	21.7
531403 2012 SL_{68}	17.0	X	288.43227	54.87302	16.69264	13.72690	0.0724667	0.21444719	2.7643252	21	10 7.1	20.4
531404 2012 SO_{68}	16.6	X	265.41596	77.73072	249.56237	6.73929	0.0475962	0.18060217	3.0997077	21	4 23.5	21.1
531405 2012 SR_{68}	16.9	X	309.93711	332.94758	38.77584	4.91462	0.0882817	0.20855283	2.8161686	21	8 18.5	20.4
531406 2012 SS_{68}	16.5	X	213.40955	236.10567	133.80195	9.29666	0.1889175	0.18170508	3.0871520	21	4 16.3	21.8
531407 2012 ST_{68}	16.8	X	229.21912	349.65359	44.76973	9.62983	0.1219315	0.18680529	3.0307023	21	5 28.8	21.5
531408 2012 SU_{68}	16.3	X	208.82062	63.90200	359.69158	15.39856	0.1208534	0.19160592	2.9798662	21	6 13.0	21.3
531409 2012 SV_{68}	16.6	X	221.84669	13.05789	323.18054	5.00436	0.1500786	0.17455790	3.1708550	21	3 12.1	21.8
531410 2012 SW_{68}	16.4	X	219.97853	120.98481	208.00590	13.07372	0.0963039	0.16913713	3.2382478	21	3 2.4	21.6
531411 2012 SX_{68}	16.2	X	211.76217	10.18747	12.95474	12.02889	0.0601940	0.17647502	3.1478489	21	4 28.8	21.0
531412 2012 SZ_{68}	17.2	X	268.88463	261.77464	163.01808	4.38271	0.0874635	0.21179232	2.7873783	21	8 28.4	20.9
531413 2012 SA_{69}	16.8	X	245.13293	285.51714	210.19302	4.15656	0.0553610	0.22086330	2.7105266	21	11 4.2	20.3
531414 2012 SG_{69}	16.4	X	165.93169	71.12823	5.81555	14.68979	0.1775394	0.17862299	3.1225626	21	5 18.0	21.7
531415 2012 SH_{69}	17.3	X	351.06800	317.68178	66.39280	2.86680	0.1017593	0.22328132	2.6909221	21	11 11.3	20.4
531416 2012 SL_{69}	16.8	X	2.26418	27.97955	342.21830	5.35019	0.0123417	0.22442473	2.6817744	21	10 31.6	20.5
531417 2012 SR_{69}	17.5	X	356.98710	37.66614	344.93010	7.84209	0.0695590	0.22634297	2.6666010	21	11 13.5	20.8
531418 2012 SS_{69}	17.3	X	344.25664	187.34125	168.37558	6.61689	0.0441183	0.21590890	2.7518347	21	9 20.1	20.8
531419 2012 SE_{70}	17.3	X	28.25911	144.57156	196.62755	4.43486	0.1273889	0.22761609	2.6566484	21	11 16.6	20.5
531420 2012 SC_{71}	16.6	X	136.98804	95.05826	6.24647	14.42438	0.0349742	0.18192197	3.0846977	21	5 7.5	21.2
531421 2012 SJ_{71}	16.5	X	189.37414	151.81753	228.54349	9.38440	0.0842894	0.17349150	3.1838352	21	4 2.5	21.5
531422 2012 SP_{71}	17.4	X	355.17461	154.24162	242.43797	4.75044	0.0743784	0.22706917	2.6609125	21	12 3.0	20.4
531423 2012 ST_{71}	16.4	X	200.20976	219.93108	159.06206	10.00244	0.0900310	0.17918842	3.1159903	21	4 16.4	21.3
531424 2012 SX_{71}	17.0	X	266.95484	71.09228	4.61060	9.85025	0.1117167	0.20891831	2.8128833	21	9 7.9	20.8
531425 2012 SA_{72}	16.9	X	218.14245	80.42201	4.70110	14.73333	0.1334925	0.20134943	2.8829412	21	7 25.1	21.6
531426 2012 SC_{72}	16.6	X	264.08141	114.94043	218.52119	10.65007	0.0634813	0.18599462	3.0395022	21	4 28.7	20.8
531427 2012 SD_{72}	16.7	X	213.53372	55.04316	323.39966	7.18216	0.0497904	0.18220359	3.0815184	21	4 24.8	21.4
531428 2012 TG_{4}	18.0	X	354.04132	281.00288	200.64001	21.19419	0.0743007	0.37061000	1.9195140	21	—	—
531429 2012 TV_{4}	17.6	X	194.80248	311.50263	295.10611	17.57371	0.0693428	0.36035181	1.9557721	21	—	—
531430 2012 TO_{9}	16.7	X	207.27927	180.65242	224.67844	7.26904	0.3010599	0.18246101	3.0786194	21	5 16.9	22.2
531431 2012 TT_{9}	16.7	X	16.54629	357.99971	20.32944	15.44907	0.3215405	0.23093822	2.6311090	21	—	—
531432 2012 TX_{9}	17.0	X	58.16735	260.15104	343.08800	8.51293	0.0938181	0.20994114	2.8037396	21	8 14.4	20.6
531433 2012 TB_{12}	15.9	X	166.90240	44.98324	32.05204	16.00456	0.1176861	0.17637457	3.1490440	21	5 18.2	20.9
531434 2012 TJ_{12}	17.7	X	31.24416	302.57004	45.40417	3.17283	0.1308178	0.22504607	2.6768360	21	11 28.7	21.1
531435 2012 TC_{13}	16.3	X	330.60507	169.32683	206.35384	19.19766	0.3179793	0.21455472	2.7634016	21	8 31.6	18.8
531436 2012 TH_{13}	17.3	X	219.22969	315.92866	77.01975	7.31243	0.2405773	0.18444622	3.0564893	21	5 13.7	22.6
531437 2012 TJ_{13}	16.1	X	245.48567	268.77955	36.26459	22.09623	0.1355970	0.17180212	3.2046728	21	3 11.6	21.4
531438 2012 TJ_{19}	17.0	X	212.20368	68.29778	312.36209	11.13899	0.0970954	0.18736631	3.0246494	21	4 21.7	21.9
531439 2012 TN_{19}	16.7	X	297.75583	244.78990	154.88686	4.83330	0.0743283	0.21029861	2.8005615	21	9 7.1	20.2
531440 2012 TC_{22}	16.9	X	283.84769	322.27226	23.43352	12.48182	0.1522131	0.19353963	2.9599845	21	5 22.6	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531441 2012 TE_{22}	17.1	X	9.84487	178.27762	199.81030	11.87577	0.1864368	0.22933713	2.6433406	21	12 15.9	20.3
531442 2012 TF_{22}	18.3	X	68.55740	32.88696	11.12136	21.30957	0.0794500	0.36718025	1.9314487	21	—	—
531443 2012 TQ_{22}	17.2	X	178.00351	29.80153	26.59284	4.48483	0.2598577	0.17484125	3.1674282	21	5 9.3	22.7
531444 2012 TV_{22}	17.0	X	224.37447	180.25202	184.59473	0.74332	0.1769192	0.17923941	3.1153993	21	4 16.7	21.9
531445 2012 TW_{22}	16.0	X	208.31900	326.72428	57.38464	18.47476	0.2166611	0.17950976	3.1122705	21	4 28.7	21.4
531446 2012 TZ_{22}	18.1	X	201.92084	223.95779	9.91934	21.02867	0.0141183	0.35782573	1.9649658	21	—	—
531447 2012 TT_{25}	17.3	X	248.01643	186.61065	187.02031	3.41337	0.2229004	0.19003196	2.9962976	21	5 14.8	22.2
531448 2012 TG_{28}	16.4	X	210.01972	152.80458	196.01473	12.64252	0.1517325	0.17284613	3.1917555	21	3 16.3	21.7
531449 2012 TZ_{29}	16.2	X	209.34017	5.98625	13.68038	20.82981	0.0256761	0.17945058	3.1129547	21	4 20.9	20.8
531450 2012 TM_{35}	18.2	X	14.60023	280.13511	200.27198	22.38673	0.0669656	0.37453141	1.9060921	21	—	—
531451 2012 TW_{36}	16.4	X	236.01847	316.20465	353.46465	10.86262	0.0538002	0.17262385	3.1944948	21	3 2.8	21.1
531452 2012 TX_{37}	17.1	X	147.68830	147.40838	90.29600	11.83441	0.0223036	0.22631018	2.6668586	21	11 21.4	20.9
531453 2012 TP_{38}	16.6	X	353.82580	351.27726	226.40392	8.17361	0.0458413	0.17479942	3.1679335	21	3 31.9	20.9
531454 2012 TJ_{39}	16.8	X	133.56627	159.32610	299.36600	5.03214	0.0764569	0.17807850	3.1289243	21	5 8.3	21.4
531455 2012 TX_{39}	17.4	X	214.25417	60.60130	348.02218	7.82055	0.1618773	0.18674269	3.0313795	21	5 28.8	22.4
531456 2012 TE_{45}	16.5	X	239.81412	120.39597	227.71397	11.03385	0.1341177	0.18236843	3.0796612	21	4 11.5	21.4
531457 2012 TL_{46}	17.4	X	290.79422	214.41139	241.25443	7.20626	0.0497188	0.22801427	2.6535546	21	11 15.4	20.6
531458 2012 TX_{47}	17.0	X	186.99259	93.09674	1.91438	9.81400	0.0452983	0.19457506	2.9494742	21	7 4.4	21.5
531459 2012 TU_{48}	16.7	X	155.44026	48.85587	349.20614	3.61602	0.0393011	0.16777631	3.2557344	21	3 18.7	21.3
531460 2012 TK_{50}	17.0	X	205.74972	78.47886	304.40811	0.54091	0.0811597	0.17858552	3.1229993	21	4 23.9	21.8
531461 2012 TU_{51}	17.8	X	297.01415	114.71169	46.94711	21.29730	0.0750890	0.36218385	1.9491712	21	—	—
531462 2012 TB_{52}	17.5	X	321.59823	107.32757	58.04020	23.80735	0.0722684	0.36962516	1.9229221	21	—	—
531463 2012 TK_{55}	17.1	X	205.48608	3.88468	20.65983	1.00343	0.1777272	0.17730091	3.1380660	21	4 23.7	22.4
531464 2012 TU_{55}	17.2	X	303.30258	311.62984	29.67233	6.00666	0.0792953	0.19623363	2.9328314	21	6 26.6	21.1
531465 2012 TF_{57}	16.9	X	4.04283	117.42709	264.50666	1.62746	0.0697029	0.22112292	2.7084046	21	11 24.8	20.1
531466 2012 TA_{58}	16.7	X	244.69292	110.20089	263.73568	8.07293	0.1690730	0.18774133	3.0206202	21	5 15.2	21.6
531467 2012 TT_{68}	18.8	X	109.98444	194.34157	206.04057	20.94077	0.0890780	0.37578454	1.9018522	21	—	—
531468 2012 TQ_{73}	16.9	X	84.22487	284.97197	221.11746	10.42756	0.0731674	0.17898144	3.1183921	21	5 9.4	21.1
531469 2012 TR_{74}	14.2	X	23.48424	245.36498	6.60587	30.54659	0.0992825	0.08500492	5.1227916	21	7 7.6	21.0
531470 2012 TP_{77}	18.5	X	345.51339	325.47922	128.03660	24.45291	0.0802422	0.35197550	1.9866793	21	—	—
531471 2012 TY_{78}	18.5	X	338.16863	71.32539	230.32155	4.47411	0.3888173	0.31404636	2.1435825	21	4 24.6	19.9
531472 2012 TC_{80}	17.2	X	285.92205	236.63747	168.30239	2.27213	0.0864827	0.21033893	2.8002036	21	8 25.5	20.7
531473 2012 TS_{80}	16.7	X	199.41088	301.55704	90.33476	1.83639	0.1788877	0.17987803	3.1080211	21	4 27.8	21.8
531474 2012 TL_{81}	16.8	X	200.72598	191.54286	166.44430	5.86761	0.1880947	0.17301707	3.1896528	21	3 20.8	22.1
531475 2012 TS_{82}	17.4	X	8.97955	179.81076	208.42806	8.32446	0.1898240	0.22968487	2.6406720	21	12 28.1	20.5
531476 2012 TC_{91}	15.8	X	152.41445	80.32807	20.50966	22.46020	0.1663410	0.18191743	3.0847490	21	6 2.0	21.2
531477 2012 TJ_{94}	17.1	X	218.46966	290.34436	107.72056	4.27697	0.2823859	0.18525106	3.0476300	21	5 17.3	22.5
531478 2012 TW_{94}	17.0	X	167.88741	87.87869	5.05600	8.39844	0.2187205	0.17961412	3.1110649	21	6 12.7	22.5
531479 2012 TW_{100}	18.2	X	97.06752	203.01253	215.05397	21.45701	0.0575376	0.37885878	1.8915499	21	—	—
531480 2012 TS_{101}	16.4	X	160.13964	71.82121	17.67239	15.72473	0.2239595	0.17769948	3.1333719	21	5 30.8	22.0
531481 2012 TH_{103}	16.9	X	194.84577	80.85765	10.84388	15.93431	0.3652129	0.18476822	3.0529372	21	7 1.9	22.9
531482 2012 TW_{104}	16.6	X	148.46184	216.54608	214.21630	8.70390	0.0676299	0.17339246	3.1850475	21	4 21.5	21.3
531483 2012 TJ_{107}	18.2	X	102.75098	16.32602	265.36403	8.46476	0.0335889	0.34098335	2.0291490	21	12 12.8	20.2
531484 2012 TY_{112}	16.6	X	260.51253	203.65342	210.94728	17.00510	0.1160784	0.20289208	2.8683093	21	7 25.5	21.0
531485 2012 TD_{113}	17.2	X	12.40600	359.71839	323.31915	3.65795	0.0708688	0.21353887	2.7721587	21	9 17.6	20.6
531486 2012 TS_{113}	16.4	X	175.53457	159.37978	246.68228	8.41867	0.0947151	0.17475529	3.1684669	21	4 19.9	21.3
531487 2012 TF_{114}	16.2	X	9.60777	243.79504	339.42636	8.73536	0.0817166	0.18055295	3.1002710	21	4 27.3	20.2
531488 2012 TG_{119}	17.1	X	10.65846	20.94272	324.50857	5.58806	0.0216470	0.21810648	2.7333191	21	10 9.9	20.8
531489 2012 TH_{122}	18.0	X	71.42662	349.98765	33.78026	21.26978	0.0838504	0.35639471	1.9702223	21	—	—
531490 2012 TO_{122}	17.9	X	279.92191	80.57166	352.19599	3.11851	0.1645299	0.21195355	2.7859646	21	9 11.7	21.5
531491 2012 TC_{129}	18.4	X	2.71657	124.17569	21.18101	21.27857	0.0250966	0.37836306	1.8932017	21	—	—
531492 2012 TU_{129}	17.8	X	91.25905	130.18147	197.08033	16.28303	0.1848092	0.24221878	2.5487711	21	—	—
531493 2012 TU_{135}	17.5	X	58.96961	206.09534	127.99104	3.50975	0.0594540	0.23312333	2.6146420	21	12 8.9	21.0
531494 2012 TX_{139}	18.5	X	182.70539	252.75834	49.37401	21.96484	0.0826566	0.37301017	1.9112710	21	—	—
531495 2012 TM_{140}	16.4	X	17.87961	303.61991	78.95701	32.10124	0.2503496	0.22632673	2.6667286	21	—	—
531496 2012 TC_{141}	17.3	X	202.29860	262.39824	126.57730	2.10067	0.1999565	0.18110331	3.0939868	21	4 26.7	22.4
531497 2012 TC_{144}	17.0	X	148.81497	60.87819	11.15106	10.53359	0.0979681	0.17351701	3.1835231	21	4 23.7	21.9
531498 2012 TW_{145}	17.8	X	302.64865	320.62126	248.53332	19.47375	0.1160713	0.37465789	1.9056631	21	—	—
531499 2012 TZ_{145}	18.0	X	28.96910	243.11122	214.97002	21.73516	0.1089085	0.36987767	1.9220469	21	—	—
531500 2012 TN_{146}	16.5	X	3.56751	97.69474	261.24452	12.17248	0.0878381	0.21675793	2.7446442	21	10 21.7	20.1
531501 2012 TH_{148}	17.9	X	88.59112	95.88993	227.83480	13.54102	0.1301099	0.24030699	2.5622713	21	—	—
531502 2012 TX_{150}	17.7	X	7.76942	259.85930	214.00462	20.98348	0.0702776	0.36510832	1.9387489	21	—	—
531503 2012 TN_{152}	16.7	X	163.92143	215.06703	191.33152	11.06692	0.0717499	0.17281946	3.1920839	21	4 9.8	21.4
531504 2012 TS_{152}	15.8	X	222.17114	314.44740	15.07069	14.58134	0.0364612	0.16904783	3.2393881	21	3 15.1	20.6
531505 2012 TV_{152}	14.0	X	334.93123	282.12936	20.16555	12.58017	0.0559403	0.08344917	5.1862648	21	6 24.9	20.8
531506 2012 TP_{153}	16.9	X	102.74407	252.76277	19.70762	14.37184	0.0773860	0.22899462	2.6459758	21	11 10.3	20.9
531507 2012 TJ_{155}	17.1	X	202.68704	248.71665	130.20102	2.25588	0.1910235	0.17715782	3.1397555	21	4 15.7	22.5
531508 2012 TQ_{156}	17.8	X	89.34450	283.57698	19.86233	3.84353	0.0571242	0.23258317	2.6186886	21	12 5.4	21.4
531509 2012 TC_{158}	17.2	X	156.79374	274.90862	153.28711	1.56862	0.1812126	0.17285071	3.1916991	21	5 5.1	22.5
531510 2012 TB_{163}	17.2	X	2.86498	325.11301	41.90975	11.53546	0.0650731	0.22168663	2.7038113	21	11 3.4	20.3
531511 2012 TQ_{163}	17.4	X	95.87302	144.63138	188.62190	12.25529	0.1941786	0.24439381	2.5336264	21	—	—
531512 2012 TD_{164}	16.5	X	185.65067	8.93063	41.20571	14.06300	0.1246626	0.17741698	3.1366971	21	5 6.3	21.3
531513 2012 TD_{167}	16.6	X	237.29701	211.64425	131.94815	6.60038	0.1699489	0.17701439	3.1414513	21	4 6.1	21.7
531514 2012 TN_{170}	16.4	X	251.20961	137.74703	205.16737	9.15291	0.0692970	0.18107165	3.0943474	21	4 25.6	21.0
531515 2012 TO_{171}	16.2	X	158.82740	239.49870	215.25255	10.63573	0.1563741	0.18104773	3.0946200	21	6 6.1	21.3
531516 2012 TU_{172}	16.3	X	161.06020	110.65765	10.18644	10.39693	0.0722202	0.19201378	2.9756450	21	7 8.6	20.9
531517 2012 TE_{173}	16.2	X	172.09003	75.13524	10.45672	17.59082	0.1569079	0.18266254	3.0763545	21	6 2.8	21.5
531518 2012 TW_{182}	17.4	X	222.14451	201.90140	229.66087	1.33104	0.0827566	0.19696261	2.9255904	21	7 11.1	21.7
531519 2012 TG_{186}	16.5	X	203.98314	211.42393	229.02811	14.91014	0.2240164	0.18476946	3.0529235	21	6 25.3	21.9
531520 2012 TX_{190}	17.1	X	41.66523	347.96456	23.37976	12.31827	0.1417279	0.23448523	2.6045082	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531521 2012 TE_{191}	16.3	X	185.28210	97.26125	353.76368	14.37577	0.0940844	0.18984737	2.9982395	21	6 26.7	21.2
531522 2012 TJ_{192}	17.6	X	66.30847	55.60173	290.38284	5.09581	0.1298117	0.23847340	2.5753885	21	—	—
531523 2012 TV_{192}	17.1	X	121.80299	286.04805	352.41665	11.24243	0.1779821	0.23830805	2.5765797	21	12 16.6	21.5
531524 2012 TK_{196}	16.7	X	194.94651	77.42720	308.45772	4.16632	0.0506343	0.16984133	3.2292906	21	4 15.4	21.6
531525 2012 TP_{198}	16.9	X	344.67567	24.43820	336.19686	3.88325	0.0846551	0.21445985	2.7642165	21	9 25.9	20.1
531526 2012 TC_{201}	17.0	X	229.10624	323.86435	71.51835	2.69551	0.1642678	0.18950424	3.0018577	21	5 27.9	21.7
531527 2012 TN_{202}	17.3	X	309.84300	21.54032	28.40994	6.68916	0.0371065	0.22057085	2.7129220	21	10 13.8	20.6
531528 2012 TA_{205}	16.2	X	216.74026	113.57222	233.55746	12.61256	0.2970066	0.17430950	3.1738667	21	3 13.5	22.2
531529 2012 TR_{205}	16.5	X	211.53656	179.45093	165.70521	6.62518	0.2219660	0.17366391	3.1817276	21	3 13.9	22.0
531530 2012 TN_{206}	16.0	X	203.86396	8.73767	12.21627	17.65465	0.2195208	0.17489327	3.1668001	21	4 14.9	21.6
531531 2012 TK_{212}	16.2	X	295.49999	242.99155	17.53272	16.73627	0.1000664	0.17093376	3.2155171	21	3 10.2	20.9
531532 2012 TO_{212}	17.5	X	223.09659	146.58862	9.30030	4.20550	0.0570153	0.22365259	2.6879432	21	11 1.5	21.3
531533 2012 TT_{212}	16.3	X	214.08527	159.71202	184.95432	9.77634	0.1664391	0.17416762	3.1755901	21	3 15.4	21.6
531534 2012 TJ_{213}	16.1	X	161.53249	59.80929	12.46439	9.33853	0.1274512	0.17543815	3.1602397	21	5 8.5	21.1
531535 2012 TD_{217}	16.6	X	185.84641	343.81795	123.20531	11.01573	0.1236773	0.19135926	2.9824264	21	7 15.7	21.2
531536 2012 TE_{217}	15.6	X	251.24664	221.05419	72.20616	18.19419	0.1945239	0.16974444	3.2305193	21	2 22.9	21.1
531537 2012 TJ_{217}	16.7	X	262.75530	233.77305	133.40270	12.26120	0.1314903	0.19046323	2.9917729	21	6 2.4	21.3
531538 2012 TL_{218}	13.9	X	328.27121	289.82774	17.25756	30.02330	0.0394718	0.08209157	5.2432876	21	6 20.5	21.1
531539 2012 TV_{221}	17.2	X	288.61080	72.48331	16.16856	13.60462	0.0297302	0.22581508	2.6707552	21	11 1.8	20.9
531540 2012 TX_{222}	16.5	X	313.63365	44.96250	44.70352	22.78085	0.0744306	0.22506756	2.6766656	21	12 4.3	19.9
531541 2012 TK_{225}	17.2	X	214.79506	52.61466	32.26886	11.54799	0.0693910	0.19798099	2.9155493	21	7 24.4	21.7
531542 2012 TG_{228}	16.2	X	185.60320	49.49921	2.98648	16.28778	0.1887823	0.17678839	3.1441280	21	5 4.5	21.7
531543 2012 TZ_{230}	16.2	X	239.89047	136.70867	252.56265	12.82517	0.1917986	0.18560092	3.0437990	21	5 28.4	21.0
531544 2012 TW_{231}	17.4	X	21.14880	91.61211	260.01673	4.89117	0.0471640	0.22585860	2.6704122	21	11 7.0	20.8
531545 2012 TY_{231}	16.0	X	219.11674	341.16383	39.03101	19.86145	0.2260496	0.18247351	3.0784788	21	4 28.3	21.2
531546 2012 TY_{233}	16.7	X	211.80714	316.42481	31.66580	5.05491	0.1579811	0.17143922	3.2091937	21	3 20.0	21.9
531547 2012 TC_{237}	17.5	X	9.02785	302.32018	54.04082	6.86821	0.0769920	0.22134911	2.7065592	21	10 31.4	20.8
531548 2012 TG_{240}	16.8	X	167.07236	221.07621	190.65552	9.00756	0.0860010	0.17311165	3.1884909	21	4 20.7	21.6
531549 2012 TV_{243}	16.5	X	143.60929	61.83598	38.69213	11.13989	0.0563022	0.18074451	3.0980800	21	5 19.9	21.1
531550 2012 TB_{244}	17.8	X	86.52171	235.53329	75.51255	2.54893	0.1539308	0.23548116	2.5971594	21	12 22.2	21.5
531551 2012 TV_{245}	16.3	X	317.56020	263.34971	186.37799	21.80984	0.0652616	0.23245494	2.6196515	21	12 17.1	20.0
531552 2012 TJ_{246}	18.4	X	204.05671	269.35973	36.39632	22.00405	0.0923118	0.38101171	1.8844177	21	—	—
531553 2012 TC_{263}	16.5	X	264.80905	268.16792	39.46762	10.64378	0.1297097	0.17733613	3.1376505	21	3 25.8	21.3
531554 2012 TE_{265}	16.9	X	185.71723	260.81562	134.34447	3.11142	0.1108953	0.17345613	3.1842680	21	4 20.5	21.9
531555 2012 TX_{267}	14.3	X	276.85313	34.13545	325.92982	9.65813	0.0509404	0.08260286	5.2216287	21	6 21.9	21.3
531556 2012 TQ_{268}	17.1	X	222.21078	251.68181	105.88491	2.50828	0.1610483	0.18074814	3.0980386	21	4 7.9	22.1
531557 2012 TN_{273}	16.8	X	164.24325	237.91273	203.36118	9.76342	0.0877951	0.17906565	3.1174144	21	5 23.6	21.6
531558 2012 TU_{273}	17.3	X	218.58239	298.78218	56.24178	2.06728	0.1745055	0.17495086	3.1661051	21	4 1.3	22.5
531559 2012 TX_{274}	16.2	X	181.50599	169.06955	224.13467	16.13309	0.1939237	0.17203036	3.2018378	21	4 12.9	21.7
531560 2012 TD_{276}	16.3	X	242.92878	335.02634	359.50245	11.28207	0.1660423	0.17811925	3.1284470	21	3 27.9	21.2
531561 2012 TW_{278}	17.2	X	103.47949	273.45427	321.95624	3.47033	0.0103419	0.21194108	2.7860739	21	9 17.9	21.0
531562 2012 TC_{283}	16.7	X	86.55706	11.20766	267.32425	13.24562	0.2349358	0.22917051	2.6446217	21	11 18.3	21.1
531563 2012 TP_{284}	16.5	X	318.99707	199.20311	62.18651	21.19982	0.0947357	0.17666095	3.1456399	21	4 14.6	21.0
531564 2012 TU_{284}	17.0	X	185.96871	331.76052	121.37449	11.86544	0.1873102	0.18578946	3.0417394	21	6 28.4	22.1
531565 2012 TT_{287}	16.6	X	196.86026	67.49862	312.58878	7.72667	0.1032355	0.17466921	3.1695077	21	4 8.1	21.6
531566 2012 TD_{288}	14.0	X	326.51011	87.76697	231.39465	25.39527	0.0496982	0.08303352	5.2035581	21	6 29.6	20.9
531567 2012 TK_{290}	16.8	X	36.04113	195.12653	135.95234	4.84145	0.0999902	0.22082396	2.7108486	21	11 10.2	20.3
531568 2012 TA_{294}	17.4	X	243.95427	83.90343	316.13776	3.55653	0.1551406	0.18955244	3.0013487	21	6 18.0	22.0
531569 2012 TN_{295}	17.2	X	208.61755	59.33088	6.80129	10.32497	0.1469331	0.18616613	3.0376351	21	6 15.6	22.2
531570 2012 TN_{296}	16.0	X	196.11034	152.91285	211.93098	13.66066	0.0442161	0.17070976	3.2183293	21	3 21.7	20.9
531571 2012 TC_{299}	16.9	X	163.83119	221.44838	204.65150	8.82004	0.0906142	0.17490707	3.1666335	21	5 4.7	21.8
531572 2012 TK_{304}	16.8	X	217.58078	1.28218	39.58499	12.00786	0.1703136	0.18433932	3.0576708	21	5 22.0	21.9
531573 2012 TF_{306}	16.6	X	288.57586	150.12656	217.10709	8.39347	0.0410727	0.20105497	2.8857553	21	7 14.2	20.7
531574 2012 TX_{306}	17.5	X	207.47062	82.58553	320.84523	7.06275	0.3106823	0.18148818	3.0896111	21	5 12.2	23.3
531575 2012 TC_{307}	15.9	X	187.34138	12.41117	31.16058	11.79425	0.1365428	0.17521647	3.1629047	21	4 29.9	21.0
531576 2012 TX_{309}	16.4	X	217.67821	121.70398	233.54965	8.63611	0.2352823	0.17506235	3.1647607	21	3 26.5	22.1
531577 2012 TY_{310}	16.3	X	303.02348	336.72171	64.09033	16.84299	0.1608114	0.21044819	2.7992343	21	9 15.6	20.0
531578 2012 TA_{312}	16.5	X	213.65396	345.23917	58.36072	13.64134	0.2019837	0.18244104	3.0788441	21	5 22.1	21.7
531579 2012 TW_{317}	15.8	X	164.72133	212.28970	242.20428	27.71459	0.2491503	0.17531999	3.1616594	21	6 11.9	21.4
531580 2012 TC_{318}	16.2	X	164.35432	4.44703	51.23317	14.96078	0.1535437	0.17361296	3.1823501	21	4 27.3	21.3
531581 2012 TA_{320}	16.0	X	173.74612	151.45402	285.17777	13.98648	0.2599656	0.17591425	3.1545352	21	5 29.9	21.7
531582 2012 TG_{324}	13.9	X	306.96335	100.20643	205.37564	30.68909	0.0748959	0.08240451	5.2300043	21	5 22.3	20.8
531583 2012 TT_{325}	16.3	X	211.39130	37.16620	358.50564	9.66896	0.1116858	0.17987830	3.1080181	21	5 11.3	21.3
531584 2012 TV_{325}	17.3	X	168.36544	306.07613	145.48881	2.25469	0.2244836	0.17693178	3.1424291	21	6 12.6	22.7
531585 2012 TW_{325}	17.1	X	164.60235	7.21426	120.35787	3.05375	0.0454858	0.19876128	2.9079138	21	7 18.6	21.2
531586 2012 TY_{325}	16.7	X	340.95776	275.58158	35.23531	12.45625	0.0415132	0.19861566	2.9093349	21	7 17.4	20.7
531587 2012 TZ_{325}	16.9	X	1.28798	316.45990	39.72446	5.14460	0.0833781	0.21430814	2.7655208	21	10 18.4	20.2
531588 2012 TA_{326}	17.1	X	294.12527	150.39427	218.99967	1.23233	0.1153744	0.19712255	2.9240077	21	7 15.4	20.7
531589 2012 TB_{326}	17.0	X	323.59349	312.19449	27.71697	6.13100	0.0871553	0.19891065	2.9064578	21	7 26.5	20.6
531590 2012 TD_{326}	17.5	X	329.09186	301.18205	56.94647	2.84503	0.0889860	0.20573553	2.8418197	21	8 29.4	20.9
531591 2012 TJ_{326}	16.5	X	168.78449	328.13985	105.46207	2.58757	0.1599421	0.17438412	3.1729612	21	5 21.1	21.6
531592 2012 TK_{326}	16.6	X	294.16225	37.25622	309.25000	8.91773	0.0956355	0.19134601	2.9825641	21	6 18.4	20.7
531593 2012 TL_{326}	15.8	X	203.59109	121.34659	275.06229	14.65843	0.0881496	0.17564493	3.1577589	21	5 5.5	20.9
531594 2012 TO_{326}	17.2	X	337.20216	340.66093	36.30274	4.81192	0.0815086	0.21240486	2.7820168	21	10 8.1	20.5
531595 2012 TB_{327}	17.7	X	136.29321	269.35362	11.87557	15.00337	0.1232600	0.24137247	2.5547254	21	—	—
531596 2012 TF_{327}	16.3	X	298.24350	247.46604	22.23721	11.08768	0.0422620	0.17363895	3.1820325	21	3 28.4	20.7
531597 2012 TM_{327}	16.8	X	265.89489	336.47570	120.68178	10.51205	0.0445227	0.21530269	2.7569978	21	10 18.2	20.7
531598 2012 TO_{327}	16.1	X	152.81865	230.83586	225.06882	9.29470	0.0857341	0.17899121	3.1182786	21	5 28.8	20.8
531599 2012 TW_{327}	17.4	X	23.45365	159.13100	202.44880	9.25447	0.0944709	0.22458659	2.6804857	21	12 1.1	20.9
531600 2012 TX_{327}	16.9	X	13.72649	308.61019	64.80571	6.96716	0.0532088	0.22343939	2.6896528	21	11 26.4	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531601 2012 TB_{328}	17.2	X	10.55181	343.81064	30.00791	6.41466	0.0476342	0.22362926	2.6881302	21	11 20.7	20.7
531602 2012 TK_{328}	16.2	X	248.16506	122.38387	215.21364	9.82896	0.0995272	0.17683066	3.1436270	21	4 11.7	21.0
531603 2012 TM_{328}	17.5	X	63.31888	305.53187	25.12742	2.21283	0.0674616	0.22916819	2.6446396	21	12 9.6	21.1
531604 2012 TP_{328}	16.1	X	185.53552	121.03048	285.02616	9.87216	0.0470746	0.18097991	3.0953931	21	4 27.3	20.8
531605 2012 TW_{328}	17.5	X	127.99181	84.75603	170.39070	1.75476	0.0361912	0.22327886	2.6909418	21	11 17.7	21.3
531606 2012 TY_{328}	16.5	X	74.25067	119.20798	28.14395	15.68451	0.0539802	0.17508628	3.1644723	21	4 23.9	20.9
531607 2012 TH_{329}	17.3	X	239.43830	260.13231	218.55338	7.55538	0.1584541	0.21360979	2.7715451	21	9 18.9	21.5
531608 2012 TK_{329}	17.3	X	154.87941	72.47213	15.63787	0.87245	0.1528164	0.17811356	3.1285137	21	5 24.9	22.4
531609 2012 TN_{329}	16.8	X	51.76670	295.49634	252.75366	9.54858	0.1053156	0.18140855	3.0905152	21	5 22.2	20.7
531610 2012 TG_{330}	17.1	X	143.65126	340.02667	259.48600	3.68799	0.0562718	0.22043132	2.7140667	21	11 15.4	21.0
531611 2012 TL_{330}	16.3	X	265.72778	291.91783	50.54961	10.67152	0.1008460	0.18112472	3.0937430	21	5 7.8	20.7
531612 2012 TM_{330}	16.9	X	195.11075	28.53907	52.04147	9.34377	0.1074628	0.18430018	3.0581037	21	6 22.0	21.8
531613 2012 TS_{330}	17.0	X	273.18082	261.75444	162.52505	8.86615	0.1370026	0.21141072	2.7907314	21	8 25.5	20.6
531614 2012 TW_{330}	16.9	X	10.33457	73.94923	288.59146	5.16731	0.0299836	0.21998536	2.7177335	21	11 2.5	20.4
531615 2012 TD_{331}	17.1	X	235.06179	225.22934	157.98022	15.70595	0.2583102	0.18022054	3.1040820	21	5 16.3	22.6
531616 2012 TJ_{331}	16.7	X	326.72686	61.99584	296.86481	7.40687	0.0810374	0.21235557	2.7824473	21	8 23.5	20.2
531617 2012 TL_{331}	17.2	X	45.21103	298.89183	347.31103	4.21283	0.0255736	0.21276838	2.7788471	21	9 11.3	20.9
531618 2012 TM_{331}	17.5	X	22.54364	112.74921	232.69423	2.08838	0.1026191	0.21635549	2.7480467	21	11 7.2	20.8
531619 2012 TN_{331}	18.5	X	249.14042	222.24819	42.21908	23.36571	0.0892824	0.37534925	1.9033224	21	—	—
531620 2012 TQ_{331}	16.6	X	208.21774	217.66341	169.05738	11.76029	0.0908702	0.18118101	3.0931021	21	5 3.8	21.5
531621 2012 TS_{331}	16.6	X	145.77710	315.19482	222.41794	14.26467	0.0820766	0.20294129	2.8678457	21	8 26.4	21.2
531622 2012 TW_{331}	17.8	X	127.35838	129.19183	161.90612	4.91096	0.2383824	0.24507556	2.5289255	21	—	—
531623 2012 UU	16.4	X	215.87082	101.68937	303.22296	7.65084	0.1851249	0.18464256	3.0543222	21	5 25.2	21.6
531624 2012 UF_{1}	17.8	X	292.51047	300.42617	241.70994	18.84642	0.0476204	0.36286114	1.9467450	21	—	—
531625 2012 UP_{3}	17.2	X	259.18227	42.96010	52.91336	9.79982	0.1832768	0.21091368	2.7951141	21	9 16.9	21.2
531626 2012 UD_{5}	16.0	X	146.74700	33.93741	39.75230	17.79514	0.0223784	0.17513688	3.1638629	21	4 20.9	20.5
531627 2012 UP_{7}	17.3	X	16.39182	213.26619	140.00457	6.40732	0.0345207	0.22215742	2.6999900	21	11 4.1	20.8
531628 2012 UM_{13}	16.6	X	336.68649	352.37748	39.36781	11.66265	0.0561983	0.22140054	2.7061400	21	10 28.2	19.9
531629 2012 UJ_{14}	16.2	X	241.53814	287.84421	30.15894	16.24772	0.2085803	0.17499279	3.1655993	21	3 13.1	21.6
531630 2012 UJ_{17}	17.4	X	290.34776	28.06704	44.03359	9.66297	0.1412492	0.21541066	2.7560764	21	10 4.4	20.7
531631 2012 UY_{17}	17.2	X	332.25815	332.92218	40.84653	9.37665	0.1175559	0.21402579	2.7679526	21	9 27.7	20.3
531632 2012 UE_{20}	16.8	X	91.22007	199.52896	55.34891	6.13488	0.1526939	0.21947166	2.7219726	21	10 18.8	20.8
531633 2012 UL_{20}	18.8	X	111.42966	194.87334	216.43690	21.97952	0.0850711	0.37819124	1.8937751	21	—	—
531634 2012 UT_{20}	16.3	X	48.58973	159.86502	26.89940	18.27073	0.1500295	0.17802127	3.1295949	21	5 16.5	20.3
531635 2012 US_{21}	16.6	X	172.59841	111.33235	326.75794	12.65309	0.2883145	0.17522891	3.1627550	21	5 29.9	22.5
531636 2012 UG_{26}	16.6	X	175.64330	146.27852	303.88828	8.05116	0.1085532	0.18340370	3.0680610	21	6 14.8	21.5
531637 2012 UH_{28}	16.5	X	224.88289	304.07585	48.20783	11.96473	0.1655059	0.17455599	3.1708781	21	4 7.1	21.7
531638 2012 UL_{29}	16.6	X	246.04582	267.09657	71.61670	16.92563	0.1054447	0.17790810	3.1309219	21	4 18.5	21.6
531639 2012 UK_{31}	17.0	X	223.96320	10.94205	42.99221	9.10044	0.1519953	0.18561106	3.0436881	21	6 14.9	22.0
531640 2012 UH_{32}	16.4	X	148.63760	90.28646	29.46545	16.85533	0.2168006	0.17953547	3.1119733	21	6 30.3	21.9
531641 2012 UA_{40}	16.4	X	113.86743	148.52794	20.26037	8.76419	0.0130313	0.18899931	3.0072017	21	7 7.7	20.7
531642 2012 UT_{40}	16.8	X	191.62491	12.42055	48.63872	8.68829	0.2705164	0.17887155	3.1196691	21	5 24.2	22.4
531643 2012 UH_{45}	16.9	X	170.15320	14.55486	53.90415	6.80116	0.1291604	0.17558991	3.1584186	21	5 14.6	22.0
531644 2012 UN_{50}	16.9	X	188.35513	284.30199	172.80588	9.59525	0.1779599	0.18523970	3.0477547	21	7 4.4	22.2
531645 2012 UB_{53}	18.1	X	157.38732	291.92379	17.72139	20.80952	0.0468360	0.37186412	1.9151959	21	—	—
531646 2012 UN_{53}	15.9	X	206.00935	63.72226	340.03643	10.16271	0.0639917	0.17942828	3.1132127	21	5 17.4	20.7
531647 2012 UZ_{55}	16.3	X	207.52757	13.52207	33.47952	19.05178	0.1055357	0.18058677	3.0998840	21	5 20.4	21.3
531648 2012 UV_{58}	16.3	X	100.26896	279.61802	235.15003	14.68638	0.0457079	0.17863055	3.1224745	21	6 5.7	20.7
531649 2012 UD_{61}	16.7	X	155.20969	55.71336	93.35696	14.56020	0.2386233	0.17202654	3.2018851	21	8 12.8	22.4
531650 2012 UR_{71}	17.3	X	211.51610	211.98624	206.15325	3.19153	0.1863717	0.18611505	3.0381908	21	6 7.8	22.3
531651 2012 UL_{75}	17.3	X	276.44537	39.96057	41.06952	4.71330	0.0385279	0.21320818	2.7750244	21	10 8.1	20.9
531652 2012 UC_{78}	17.3	X	197.25296	232.82099	189.97481	0.66197	0.1779749	0.18128321	3.0919395	21	6 1.4	22.4
531653 2012 UN_{78}	15.9	X	162.02435	51.38093	25.04033	18.79259	0.1589671	0.17267354	3.1938819	21	5 13.2	21.3
531654 2012 UD_{86}	17.1	X	31.89959	106.18259	233.50397	4.85577	0.0485827	0.21797750	2.7343972	21	11 5.7	20.6
531655 2012 UA_{87}	16.7	X	119.32964	48.03719	70.75573	17.49435	0.1512540	0.17332143	3.1859176	21	5 28.1	21.4
531656 2012 UA_{88}	17.5	X	110.97661	276.92191	48.40882	10.97181	0.2200249	0.24316570	2.5421500	21	—	—
531657 2012 UC_{94}	16.4	X	82.10280	128.56815	192.73465	14.35348	0.1388760	0.23546645	2.5972676	21	12 27.8	20.6
531658 2012 UH_{100}	17.4	X	151.13510	159.17317	112.29720	3.00202	0.1372091	0.23721320	2.5845016	21	—	—
531659 2012 UK_{105}	16.4	X	304.38928	332.49594	357.61671	8.63750	0.0591615	0.19097329	2.9864434	21	6 15.5	20.5
531660 2012 UO_{106}	15.8	X	338.37719	37.83156	224.27012	15.41865	0.0639962	0.17866881	3.1220286	21	5 6.3	19.7
531661 2012 UW_{106}	17.0	X	223.87668	53.63524	18.74115	16.07465	0.2056793	0.19113957	2.9847112	21	7 6.5	22.2
531662 2012 UV_{107}	16.6	X	223.13071	30.18122	31.90820	11.36819	0.0934057	0.18928942	3.0041284	21	6 29.6	21.3
531663 2012 UW_{108}	16.6	X	183.75155	192.10666	222.33265	9.68379	0.2538093	0.17445364	3.1721182	21	5 12.0	22.2
531664 2012 UG_{113}	17.1	X	234.59626	72.16780	23.33094	15.03384	0.1166679	0.20377550	2.8600134	21	8 29.1	21.5
531665 2012 UR_{113}	17.6	X	33.30808	116.76470	225.18365	5.24238	0.0597695	0.22415865	2.6838962	21	11 13.7	20.9
531666 2012 UH_{120}	16.5	X	211.10973	133.78511	297.80390	5.67023	0.1536249	0.18555915	3.0442557	21	6 25.4	21.3
531667 2012 UU_{130}	16.3	X	214.44229	129.20764	213.40959	26.14871	0.2137259	0.17048948	3.2211008	21	3 8.4	22.1
531668 2012 UG_{136}	17.7	X	164.71148	260.94672	26.77526	19.81913	0.1050736	0.35944199	1.9590710	21	—	—
531669 2012 UH_{136}	16.1	X	22.48441	285.93676	91.66569	22.24625	0.1288181	0.23072356	2.6327407	21	12 25.9	19.3
531670 2012 UR_{137}	17.6	X	115.90734	316.45678	47.10237	21.91874	0.0690339	0.36505567	1.9389353	21	—	—
531671 2012 UJ_{138}	18.2	X	56.37645	219.04110	227.78048	20.49876	0.0753887	0.37162305	1.9160241	21	—	—
531672 2012 UP_{151}	17.2	X	231.31235	229.80064	164.45296	2.52036	0.2705471	0.18397262	3.0617326	21	5 22.4	22.5
531673 2012 UO_{154}	17.1	X	217.06014	53.66431	23.49575	10.21946	0.3326893	0.18629807	3.0362007	21	6 28.6	22.8
531674 2012 UT_{156}	17.2	X	127.13489	288.63101	351.00577	9.82881	0.1313214	0.23780580	2.5802062	21	12 22.1	21.4
531675 2012 UB_{158}	18.5	X	355.84846	288.96885	230.33853	20.31990	0.0572798	0.37705467	1.8975789	21	—	—
531676 2012 UF_{162}	17.5	X	241.90374	2.06290	32.52975	5.60315	0.2651496	0.18734095	3.0249224	21	5 30.1	22.6
531677 2012 UE_{163}	16.8	X	341.82002	323.32419	74.95694	15.60485	0.0961915	0.22286392	2.6942809	21	11 17.5	20.0
531678 2012 UB_{166}	18.7	X	10.25425	87.89332	54.38770	23.60411	0.1064133	0.37528397	1.9035431	21	—	—
531679 2012 UU_{168}	16.1	X	226.04159	293.94777	79.91249	12.43991	0.1975914	0.18300077	3.0725628	21	5 1.5	21.3
531680 2012 UB_{169}	17.4	X	220.21059	297.42410	87.08681	11.81680	0.3255668	0.18173939	3.0867634	21	5 4.2	23.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531681 2012 UF_{174}	17.6	X	302.40121	287.78705	268.24403	18.68070	0.1430085	0.37444705	1.9063784	21	—	—
531682 2012 UB_{178}	6.0	X	150.76112	87.58127	180.26043	8.94128	0.1152844	0.00353251	42.6986168	21	11 28.2	22.7
531683 2012 UC_{178}	6.8	X	59.49289	169.94462	178.22086	2.45634	0.1698465	0.00358369	42.2911084	21	11 29.4	22.8
531684 2012 UE_{178}	6.2	X	215.02634	131.30834	89.99755	4.18589	0.0483281	0.00341350	43.6854124	21	12 6.2	22.8
531685 2012 UU_{178}	17.3	X	200.53326	20.62296	67.78586	4.42491	0.1852670	0.18606829	3.0386998	21	7 5.1	22.3
531686 2012 UJ_{179}	16.9	X	225.54037	48.18995	76.48489	9.09807	0.1650643	0.20485932	2.8499171	21	9 17.7	21.4
531687 2012 UK_{179}	17.5	X	349.16261	150.15586	188.54959	1.75938	0.0764667	0.20544551	2.8444935	21	9 2.6	21.1
531688 2012 UL_{179}	16.8	X	196.51893	330.69323	93.91229	2.55002	0.1624373	0.17979427	3.1089864	21	6 3.3	21.9
531689 2012 UQ_{179}	16.2	X	296.38730	122.39213	218.53419	10.30592	0.0937755	0.18853972	3.0120867	21	6 14.1	20.4
531690 2012 UA_{180}	15.9	X	149.36850	19.16155	75.62381	14.40255	0.1102414	0.17314268	3.1881099	21	5 26.4	20.7
531691 2012 UB_{180}	16.2	X	246.58402	38.53917	31.30894	10.62729	0.1046710	0.19410545	2.9542295	21	8 8.1	20.7
531692 2012 UC_{180}	15.9	X	189.02528	162.73868	246.59419	6.54916	0.0515113	0.17616765	3.1515094	21	5 8.5	20.5
531693 2012 UE_{180}	16.0	X	275.35438	71.18553	242.83373	8.07249	0.0499379	0.17506020	3.1647866	21	4 19.0	20.5
531694 2012 UM_{180}	17.2	X	52.58260	142.15881	193.82493	8.19623	0.1088978	0.22447402	2.6813819	21	12 8.9	21.0
531695 2012 UP_{180}	17.4	X	98.86765	252.32406	56.52213	2.71553	0.0702991	0.22967769	2.6407270	21	12 24.2	21.1
531696 2012 UQ_{180}	17.2	X	352.50997	339.99129	49.09667	7.98939	0.0852327	0.21971808	2.7199370	21	11 17.7	20.4
531697 2012 UT_{180}	17.2	X	318.20088	151.71037	232.33190	3.53425	0.0846075	0.21248505	2.7813168	21	9 14.2	20.5
531698 2012 UW_{180}	16.6	X	251.84126	255.74288	55.78249	1.70194	0.1198428	0.17396480	3.1780578	21	3 15.3	21.5
531699 2012 UG_{181}	17.1	X	175.97622	315.83587	140.07178	2.13414	0.1377658	0.18389477	3.0625966	21	6 22.6	22.1
531700 2012 UU_{181}	17.5	X	10.16538	320.01914	46.29343	11.86477	0.0892067	0.22062134	2.7125080	21	11 14.8	20.7
531701 2012 UA_{182}	17.2	X	102.27405	225.76089	49.04530	12.48447	0.0442339	0.22102232	2.7092263	21	11 11.9	21.1
531702 2012 UY_{182}	17.1	X	126.80864	193.92644	78.95441	11.48901	0.0234921	0.22432107	2.6826005	21	12 7.8	20.8
531703 2012 UT_{183}	17.4	X	208.34068	332.23412	175.34192	4.89676	0.0933566	0.21436843	2.7650023	21	10 1.2	21.5
531704 2012 UX_{183}	16.5	X	167.97401	295.86408	295.55280	12.00839	0.2236232	0.23323703	2.6137921	21	11 26.9	21.1
531705 2012 UB_{184}	16.9	X	330.33504	243.69796	165.94319	6.16367	0.0577643	0.21724070	2.7405765	21	11 11.9	20.4
531706 2012 UE_{184}	17.0	X	223.00238	322.80494	225.83543	31.94915	0.1823013	0.23327410	2.6135152	21	11 28.1	21.0
531707 2012 UF_{184}	16.0	X	271.54112	197.69465	103.89115	7.41864	0.1479723	0.17094492	3.2153771	21	3 23.9	20.9
531708 2012 UG_{184}	15.8	X	187.94647	186.48516	276.04880	24.45971	0.1594507	0.17413449	3.1759928	21	7 9.4	21.0
531709 2012 UH_{184}	16.5	X	221.76834	192.96600	172.58987	7.30819	0.1574736	0.17201726	3.2020003	21	4 18.1	21.6
531710 2012 UL_{184}	17.2	X	227.41494	272.26562	195.93761	10.66354	0.1364382	0.20492677	2.8492917	21	8 25.1	21.6
531711 2012 UO_{184}	17.1	X	176.85207	22.39261	86.85521	4.45023	0.1159731	0.18940168	3.0029412	21	7 9.9	21.8
531712 2012 UT_{184}	16.8	X	204.57519	254.05221	202.21518	14.51129	0.1523675	0.19061397	2.9901954	21	7 16.5	21.9
531713 2012 UU_{184}	17.2	X	192.09919	53.21288	56.78961	2.71576	0.0435643	0.19414234	2.9538552	21	7 29.3	21.4
531714 2012 UY_{184}	16.2	X	118.35105	143.87072	327.12105	9.20983	0.0627884	0.17087267	3.2162835	21	5 2.6	21.0
531715 2012 UZ_{184}	16.3	X	210.09046	29.91944	38.97943	10.93208	0.1147306	0.18257246	3.0773664	21	6 22.3	21.2
531716 2012 UA_{185}	17.2	X	181.80726	49.98840	74.99491	11.55466	0.0408605	0.19754538	2.9198338	21	8 7.9	21.6
531717 2012 UB_{185}	16.7	X	270.66347	259.86294	115.10258	6.04771	0.0300677	0.18784435	3.0195157	21	7 3.9	21.0
531718 2012 VA	18.1	X	120.58240	306.83692	78.82043	23.76370	0.0647312	0.37557381	1.9025636	21	—	—
531719 2012 VL_{3}	16.9	X	130.10280	328.84495	137.45978	3.41943	0.0599506	0.17399544	3.1776847	21	5 14.9	21.6
531720 2012 VG_{4}	17.1	X	273.55255	104.29577	339.15200	3.17363	0.0385925	0.21238647	2.7821774	21	10 4.9	20.7
531721 2012 VU_{7}	14.1	X	303.39913	138.20481	203.59823	8.20049	0.0545512	0.08125897	5.2790428	21	6 30.6	21.0
531722 2012 VE_{9}	16.9	X	180.34374	37.07811	44.27756	1.51806	0.1588767	0.18090426	3.0962559	21	6 8.9	21.9
531723 2012 VV_{9}	16.4	X	166.50786	64.57030	23.12687	16.39841	0.2510461	0.17701437	3.1414515	21	6 3.7	22.1
531724 2012 VD_{12}	16.3	X	120.65065	296.02367	206.52287	15.92863	0.1432552	0.17976373	3.1093385	21	6 24.9	21.4
531725 2012 VO_{14}	17.7	X	191.17851	193.61461	236.10452	3.43423	0.2547323	0.17925711	3.1151941	21	6 3.9	23.3
531726 2012 VF_{15}	16.5	X	135.83610	340.74874	110.97758	11.90779	0.0173007	0.17397983	3.1778748	21	5 2.7	21.2
531727 2012 VY_{15}	16.0	X	167.79998	192.77448	259.88033	9.05878	0.0838037	0.17759089	3.1346491	21	6 9.3	20.7
531728 2012 VJ_{19}	17.1	X	240.35444	296.55875	121.15095	4.15087	0.1456979	0.19060099	2.9903311	21	7 7.3	21.6
531729 2012 VB_{21}	16.7	X	165.45990	71.68794	46.36957	19.41382	0.0834350	0.18638400	3.0352674	21	7 9.4	21.6
531730 2012 VK_{23}	16.4	X	211.43555	153.38002	228.59386	7.82740	0.0928935	0.17526670	3.1623003	21	4 28.3	21.2
531731 2012 VD_{25}	16.5	X	103.35899	293.21672	205.63267	16.27274	0.1331128	0.17589767	3.1547333	21	6 2.1	21.3
531732 2012 VC_{28}	17.1	X	32.00433	325.17100	13.78666	9.19750	0.1719312	0.22491148	2.6779038	21	11 22.2	20.5
531733 2012 VF_{30}	17.5	X	245.37488	254.15023	218.53494	7.58236	0.1621673	0.20949445	2.8077237	21	9 17.1	21.7
531734 2012 VJ_{32}	16.7	X	173.13576	46.52382	69.25124	12.11862	0.1234675	0.18364427	3.0653810	21	7 15.1	21.7
531735 2012 VZ_{37}	17.2	X	175.16971	74.74130	12.15821	13.00735	0.2910089	0.17514943	3.1637117	21	6 11.4	23.1
531736 2012 VK_{38}	16.1	X	195.74531	261.81767	122.03362	25.99223	0.3385405	0.17404240	3.1771131	21	4 25.1	22.4
531737 2012 VF_{42}	16.5	X	41.36096	81.40511	247.77376	8.00501	0.0999016	0.21372392	2.7705583	21	11 11.2	20.2
531738 2012 VG_{42}	18.6	X	9.22172	87.61494	59.49597	22.68333	0.0791396	0.36979611	1.9223295	21	—	—
531739 2012 VS_{42}	16.0	X	190.35114	174.77258	246.70168	18.93395	0.1426809	0.17266601	3.1939748	21	5 25.2	21.2
531740 2012 VZ_{43}	16.6	X	169.60303	253.64997	219.19336	15.52884	0.1780732	0.18508526	3.0494499	21	7 5.4	21.9
531741 2012 VA_{44}	16.8	X	242.62026	355.70065	27.38035	0.53829	0.2008671	0.18759723	3.0221668	21	5 22.5	21.7
531742 2012 VH_{48}	16.6	X	146.14141	65.14715	55.24159	8.23334	0.1352944	0.18164981	3.0877781	21	6 23.8	21.6
531743 2012 VP_{52}	16.0	X	22.56779	346.84486	230.15221	25.17636	0.1832064	0.17282024	3.1920742	21	5 19.3	19.4
531744 2012 VS_{57}	17.3	X	210.05895	358.47941	56.23582	3.86245	0.2115517	0.18137898	3.0908510	21	6 1.1	22.5
531745 2012 VW_{57}	17.6	X	50.34392	115.51199	229.04086	11.12120	0.1882380	0.22884707	2.6471130	21	12 27.0	21.4
531746 2012 VM_{59}	16.8	X	315.08201	16.39619	61.09175	12.34052	0.0528482	0.22146188	2.7056403	21	11 25.0	20.0
531747 2012 VS_{59}	17.2	X	56.44829	262.66304	68.75996	5.17010	0.1893118	0.22710405	2.6606400	21	12 18.4	21.0
531748 2012 VG_{62}	16.1	X	175.83469	17.50599	66.19634	19.68096	0.1842281	0.17807246	3.1289950	21	6 7.1	21.3
531749 2012 VL_{70}	16.4	X	131.27393	177.80827	72.81834	9.80256	0.0828714	0.22001125	2.7175203	21	11 18.1	20.5
531750 2012 VY_{73}	16.8	X	304.34396	325.12355	87.59952	6.07424	0.1530803	0.20998667	2.8033343	21	9 28.3	20.1
531751 2012 VZ_{75}	16.7	X	203.81960	358.15631	83.23901	12.79354	0.2244595	0.18133033	3.0914038	21	6 27.7	21.9
531752 2012 VB_{89}	16.8	X	70.06566	233.18403	64.14525	7.47951	0.0244070	0.21355018	2.7720609	21	10 30.2	20.6
531753 2012 VP_{89}	17.4	X	209.35791	227.29659	195.57505	1.65178	0.1888659	0.18120813	3.0927936	21	6 11.5	22.6
531754 2012 VQ_{92}	17.4	X	254.39244	339.77877	115.86207	2.66152	0.1450566	0.20225350	2.8743436	21	9 11.2	21.5
531755 2012 VM_{93}	16.7	X	326.15728	179.47366	223.92572	8.96924	0.2507170	0.21375784	2.7702652	21	10 15.3	18.9
531756 2012 VK_{97}	18.0	X	62.42153	30.20814	52.97550	23.32201	0.0879436	0.37103205	1.9180581	21	—	—
531757 2012 VQ_{100}	16.7	X	252.13947	296.43905	87.39210	10.37145	0.3531155	0.18905422	3.0066195	21	5 21.0	22.0
531758 2012 VR_{100}	17.8	X	320.90904	256.41448	223.75722	19.35389	0.1095060	0.35238183	1.9851518	21	—	—
531759 2012 VC_{101}	16.5	X	228.21104	260.62726	203.18665	11.92079	0.1333784	0.19704914	2.9247339	21	8 19.4	21.2
531760 2012 VS_{102}	17.0	X	206.32562	58.92070	46.44078	3.65143	0.1430355	0.18919735	3.0051029	21	8 3.1	21.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531761 2012 VX_{103}	16.4	X	9.77594	166.22505	65.72618	10.19525	0.0228654	0.17514277	3.1637919	21	5 14.4	20.8
531762 2012 VZ_{106}	17.2	X	192.17405	95.51289	338.08281	0.85872	0.1976899	0.17927766	3.1149561	21	6 9.7	22.4
531763 2012 VB_{108}	16.7	X	200.02122	298.37215	106.54591	14.07822	0.3044841	0.17591228	3.1545587	21	5 15.9	22.6
531764 2012 VN_{114}	15.8	X	332.00969	43.86144	239.08771	11.48436	0.0769947	0.17626880	3.1503037	21	5 23.1	19.9
531765 2012 VO_{114}	17.4	X	286.99562	308.14681	141.05183	4.12936	0.0842148	0.21494808	2.7600291	21	10 28.1	20.8
531766 2012 VP_{114}	17.1	X	221.92856	227.54550	222.08302	5.38423	0.1315200	0.19085518	2.9876754	21	7 27.9	21.8
531767 2012 VS_{114}	16.3	X	186.75413	229.49529	246.87957	11.31591	0.0950897	0.18425241	3.0586323	21	7 25.4	21.2
531768 2012 VT_{114}	16.6	X	228.81847	345.32908	105.66166	8.53194	0.0394419	0.19248543	2.9707822	21	8 19.6	20.9
531769 2012 VU_{114}	17.1	X	203.64465	327.83804	215.59993	3.87584	0.0440211	0.21609337	2.7502685	21	11 14.6	20.8
531770 2012 VJ_{115}	16.1	X	325.11297	235.68746	113.87138	14.46293	0.1136071	0.18296684	3.0729427	21	8 7.0	19.8
531771 2012 VM_{115}	17.4	X	17.12050	151.42874	218.42363	5.71845	0.0118561	0.21926900	2.7236495	21	11 21.3	21.1
531772 2012 VR_{115}	16.3	X	272.75673	104.59123	243.32869	10.41911	0.1652116	0.17875780	3.1209924	21	5 13.8	21.0
531773 2012 VT_{115}	16.5	X	298.51952	281.12931	43.73921	12.11911	0.1433563	0.18131837	3.0915398	21	5 18.5	20.6
531774 2012 VV_{115}	17.2	X	277.45313	311.98258	91.53645	10.06987	0.1059872	0.19858835	2.9096016	21	8 10.8	21.2
531775 2012 VY_{115}	16.2	X	230.43141	334.25070	76.24819	11.40093	0.1157804	0.18095519	3.0956750	21	6 20.5	20.9
531776 2012 VZ_{115}	17.5	X	311.33139	335.08244	98.72315	7.08769	0.0268078	0.21449842	2.7638851	21	11 16.9	21.1
531777 2012 VA_{116}	16.7	X	206.26566	49.17194	10.35967	11.40557	0.2950059	0.17919445	3.1159203	21	5 30.3	22.5
531778 2012 WR_{1}	16.2	X	124.51571	288.21075	207.33453	11.92518	0.0842540	0.18072819	3.0982666	21	6 15.4	20.9
531779 2012 WX_{2}	17.0	X	243.76640	223.50213	252.95950	6.25575	0.0782902	0.20894234	2.8126676	21	9 30.8	21.1
531780 2012 WE_{6}	15.7	X	220.58077	312.58456	62.10597	28.39542	0.2153170	0.17446702	3.1719560	21	5 1.9	21.3
531781 2012 WP_{12}	16.7	X	222.49836	182.60724	233.39088	9.13834	0.2111435	0.18347185	3.0673012	21	6 13.1	21.9
531782 2012 WY_{16}	18.2	X	253.16641	213.23967	56.36240	23.21437	0.1066268	0.37752859	1.8959905	21	—	—
531783 2012 WN_{23}	18.0	X	46.46804	147.09065	245.72295	19.25054	0.0930875	0.35148411	1.9885305	21	—	—
531784 2012 WZ_{23}	16.1	X	196.86231	22.33463	51.26519	17.65202	0.0913114	0.18192961	3.0846114	21	6 13.8	21.0
531785 2012 WS_{25}	16.6	X	282.81075	330.19224	34.26628	10.50735	0.1201277	0.18942224	3.0027240	21	6 22.1	20.9
531786 2012 WA_{30}	16.6	X	298.35495	265.24460	63.96298	11.71925	0.0519984	0.18372220	3.0645141	21	6 7.1	20.7
531787 2012 WV_{31}	15.9	X	180.63710	214.61272	242.95657	14.56983	0.1868216	0.18101521	3.0949906	21	6 27.6	21.2
531788 2012 WB_{33}	16.5	X	161.96734	58.88811	54.47135	26.18978	0.2918344	0.17515980	3.1635868	21	7 3.5	22.5
531789 2012 WG_{33}	16.5	X	239.38064	169.57501	250.97654	8.94762	0.0778931	0.18877119	3.0096240	21	7 15.7	20.9
531790 2012 WG_{34}	16.1	X	262.11883	145.10149	253.79901	10.59115	0.0694772	0.18745187	3.0237290	21	7 16.2	20.4
531791 2012 WT_{36}	16.6	X	224.39010	187.85944	232.98702	8.24682	0.1033279	0.18439739	3.0570288	21	6 27.7	21.3
531792 2012 WX_{36}	16.8	X	5.93812	70.27093	250.41621	0.94729	0.0566171	0.20042724	2.8917775	21	9 2.9	20.6
531793 2012 WZ_{36}	16.9	X	204.00480	310.08063	137.48329	1.80830	0.1552713	0.18504587	3.0498826	21	7 7.9	21.8
531794 2012 WB_{37}	16.3	X	252.26610	212.93364	234.73766	11.66488	0.0418947	0.19806206	2.9147537	21	9 6.3	20.6
531795 2012 WC_{37}	16.8	X	256.76060	228.77541	225.36699	9.55112	0.1100241	0.20083976	2.8878165	21	9 12.2	21.1
531796 2012 XB_{3}	16.2	X	287.88548	325.86533	47.56287	6.69725	0.1206660	0.19150684	2.9808939	21	7 12.2	20.3
531797 2012 XS_{11}	17.0	X	149.62040	208.49683	262.52936	5.16027	0.1677547	0.17545727	3.1600101	21	6 17.9	22.0
531798 2012 XE_{18}	16.4	X	233.03968	297.50653	48.96489	12.14209	0.1059499	0.17008865	3.2261595	21	4 11.3	21.4
531799 2012 XR_{21}	17.6	X	210.50707	243.76254	193.35243	0.24564	0.2184168	0.18400163	3.0614107	21	6 28.3	22.7
531800 2012 XS_{25}	16.8	X	265.65394	138.53475	244.57909	10.73186	0.0975619	0.18890114	3.0082435	21	6 27.5	21.1
531801 2012 XT_{28}	17.3	X	209.70917	223.67669	266.26634	5.90967	0.0542809	0.19876720	2.9078560	21	9 8.9	21.7
531802 2012 XB_{32}	16.6	X	226.12471	185.68524	239.95594	8.98366	0.0751941	0.18470049	3.0536834	21	7 7.4	21.2
531803 2012 XH_{32}	16.8	X	149.91339	183.04839	74.97302	13.17979	0.1269590	0.22396589	2.6854359	21	12 14.8	20.9
531804 2012 XV_{33}	16.5	X	166.80738	176.98510	236.75375	4.27381	0.1906132	0.16359158	3.3110222	21	4 26.5	21.9
531805 2012 XY_{41}	17.1	X	327.31933	143.79469	262.61715	4.07951	0.0592724	0.21128692	2.7918215	21	10 30.0	20.7
531806 2012 XO_{45}	16.3	X	184.82513	345.81377	61.65382	17.78743	0.1226102	0.17189006	3.2035797	21	5 6.3	21.4
531807 2012 XG_{48}	17.2	X	333.52609	86.37534	311.30667	4.63609	0.0821631	0.21109905	2.7934776	21	10 26.5	20.6
531808 2012 XR_{50}	16.9	X	15.04572	253.56548	85.36081	5.51850	0.0740489	0.21229980	2.7829345	21	10 17.1	20.4
531809 2012 XT_{52}	16.5	X	181.01115	23.15947	97.67129	19.86092	0.1661990	0.17711295	3.1402858	21	7 28.6	21.8
531810 2012 XF_{53}	18.2	X	304.60409	233.11901	279.00470	8.38512	0.1040719	0.34193147	2.0253962	21	—	—
531811 2012 XW_{61}	16.9	X	3.87722	184.46209	178.46672	6.68062	0.0576928	0.21132643	2.7914735	21	10 29.5	20.4
531812 2012 XL_{64}	17.3	X	32.86190	133.26394	222.81992	13.11336	0.1138280	0.21985664	2.7187942	21	12 8.2	20.9
531813 2012 XW_{64}	16.9	X	203.06254	240.05757	217.60470	10.73014	0.2550733	0.18378867	3.0637751	21	7 13.5	22.5
531814 2012 XP_{65}	16.1	X	156.36366	57.21012	107.61999	12.36170	0.0743094	0.19045506	2.9918584	21	8 29.9	20.7
531815 2012 XT_{66}	17.0	X	61.50897	157.28456	153.38624	7.05169	0.0678950	0.21347476	2.7727137	21	11 11.9	20.9
531816 2012 XA_{69}	16.1	X	158.08969	315.67025	86.00488	10.30642	0.0354494	0.15730055	3.3987240	21	4 1.6	21.2
531817 2012 XP_{95}	16.4	X	170.69341	358.33767	96.01521	11.80534	0.0106804	0.17519851	3.1631208	21	6 13.0	20.9
531818 2012 XP_{109}	17.1	X	128.26806	24.83691	266.39181	1.58016	0.0775229	0.22547042	2.6734763	21	—	—
531819 2012 XK_{115}	17.2	X	194.05949	3.22465	96.35471	3.68478	0.1802699	0.18633546	3.0357946	21	7 13.2	22.3
531820 2012 XK_{122}	16.5	X	315.00469	229.03321	122.56130	10.49335	0.0755941	0.19204513	2.9753211	21	7 28.2	20.2
531821 2012 XA_{127}	16.7	X	61.64500	206.35318	118.84060	7.73738	0.0607949	0.21905580	2.7254165	21	11 29.7	20.5
531822 2012 XL_{129}	16.3	X	213.82391	110.22624	271.92912	24.28366	0.3997663	0.17516869	3.1634798	21	4 15.1	22.8
531823 2012 XP_{139}	15.8	X	189.42944	147.74110	302.60627	8.81484	0.0867965	0.18191772	3.0847458	21	6 29.8	20.5
531824 2012 XV_{142}	18.4	X	359.90113	346.55721	104.09689	25.15213	0.0917922	0.34749717	2.0037115	21	—	—
531825 2012 XJ_{146}	16.9	X	209.86661	353.71672	61.16894	11.23970	0.1570328	0.17925164	3.1152575	21	6 2.9	22.0
531826 2012 XU_{146}	16.2	X	281.22480	79.50682	260.06958	9.47769	0.0862374	0.17885704	3.1198378	21	5 24.4	20.7
531827 2012 XF_{147}	17.2	X	212.29037	302.50888	120.38203	2.26610	0.1900026	0.18117184	3.0932066	21	6 14.0	22.4
531828 2012 XR_{154}	16.3	X	217.69806	7.83724	43.39093	25.24233	0.2212642	0.17982106	3.1086775	21	5 28.9	21.8
531829 2012 XK_{158}	18.6	X	324.20063	109.53360	62.54007	23.16114	0.0596836	0.35710777	1.9675987	21	—	—
531830 2012 XA_{159}	16.0	X	192.97954	69.86208	79.47888	16.52665	0.0852786	0.18126460	3.0921512	21	9 23.4	21.0
531831 2012 XM_{159}	15.8	X	304.27954	57.11122	266.52310	11.07493	0.1359850	0.18048816	3.1010128	21	5 27.0	19.9
531832 2012 XP_{159}	15.3	X	258.73112	59.59154	275.47399	25.54409	0.2371293	0.17489669	3.1667588	21	3 25.9	21.1
531833 2012 XQ_{159}	16.7	X	256.44674	321.57999	63.05607	11.92262	0.0575160	0.18320898	3.0702345	21	6 23.9	21.2
531834 2012 XR_{159}	16.8	X	76.04864	83.05498	232.10521	11.25402	0.0758172	0.21844808	2.7304688	21	12 4.9	20.6
531835 2012 XT_{159}	16.5	X	257.71686	240.09546	136.32824	10.80623	0.1419727	0.18167413	3.0875025	21	6 6.6	21.2
531836 2012 YK_{2}	16.6	X	179.85720	49.38552	126.53980	21.42163	0.2618640	0.18361833	3.0656697	21	10 5.8	22.3
531837 2012 YB_{7}	17.8	X	60.03878	107.70482	283.12423	18.03371	0.0878195	0.35336493	1.9814681	21	—	—
531838 2012 YA_{10}	16.6	X	211.08126	76.09227	39.61487	10.09827	0.0899614	0.18339305	3.0681798	21	8 27.8	21.4
531839 2012 YH_{10}	16.0	X	94.13928	298.67783	301.61498	21.44863	0.1480315	0.18184206	3.0856014	21	9 15.6	21.0
531840 2012 YA_{11}	17.2	X	284.90903	0.97255	76.38007	8.53923	0.0369432	0.19675607	2.9276375	21	10 15.5	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531841 2012 YN_{11}	17.2	X	188.66522	101.35491	25.08987	1.25607	0.1323848	0.17901729	3.1179758	21	8 11.5	22.2
531842 2012 YW_{11}	16.6	X	262.98539	42.25968	331.56545	3.47428	0.1355384	0.17527419	3.1622102	21	6 8.1	21.2
531843 2012 YX_{11}	16.2	X	243.37416	26.18012	60.74155	10.65573	0.0852256	0.18680884	3.0306639	21	8 29.3	20.7
531844 2012 YY_{11}	16.6	X	274.18785	291.76920	99.21454	12.35572	0.0913383	0.18071065	3.0984670	21	7 20.7	20.9
531845 2012 YZ_{11}	18.3	X	38.52078	199.93354	78.52915	5.13456	0.1241811	0.29715012	2.2240887	21	9 17.7	20.6
531846 2013 AE_{9}	18.0	X	257.66866	91.07268	340.34161	6.85807	0.1399293	0.30239336	2.1983047	21	8 21.2	20.6
531847 2013 AY_{12}	16.6	X	150.96122	264.96881	288.99906	8.64898	0.1229413	0.18674464	3.0313584	21	9 21.9	21.6
531848 2013 AS_{18}	16.2	X	242.87590	142.62220	301.52333	14.62501	0.0482359	0.18383366	3.0632753	21	8 20.1	20.7
531849 2013 AG_{22}	16.7	X	236.48111	322.43776	124.18491	7.17104	0.1762613	0.18135761	3.0910938	21	8 5.6	21.4
531850 2013 AW_{32}	16.3	X	223.01749	108.90845	304.69973	20.99321	0.3282778	0.17554912	3.1589078	21	6 4.9	22.3
531851 2013 AN_{33}	16.2	X	125.58779	99.71108	85.76907	26.82800	0.2067428	0.17954039	3.1119165	21	9 8.1	21.8
531852 2013 AK_{38}	16.9	X	183.07714	357.95757	117.35297	12.01456	0.1839279	0.17345455	3.1842874	21	7 22.6	22.2
531853 2013 AT_{43}	16.3	X	263.22976	283.22662	106.82889	10.92356	0.2435118	0.17739087	3.1370050	21	6 16.5	21.1
531854 2013 AJ_{44}	17.0	X	133.54438	45.33224	139.06114	3.87975	0.0607331	0.17726414	3.1384999	21	8 24.4	21.5
531855 2013 AP_{46}	15.7	X	104.05581	263.07477	306.72202	24.24909	0.2014656	0.17053305	3.2205522	21	8 27.4	21.0
531856 2013 AJ_{56}	16.4	X	132.11074	98.86312	98.93822	18.62810	0.0877866	0.18175001	3.0866432	21	9 18.6	21.4
531857 2013 AF_{58}	16.2	X	117.54717	76.11508	118.26021	13.43801	0.0364249	0.17464813	3.1697627	21	8 17.1	20.8
531858 2013 AQ_{67}	16.4	X	158.77153	60.63015	139.40046	16.13143	0.2590685	0.18199789	3.0838398	21	10 16.6	22.1
531859 2013 AN_{70}	16.5	X	248.89883	113.23623	307.60258	13.72048	0.1588771	0.18031958	3.1029453	21	7 20.0	21.2
531860 2013 AZ_{70}	16.5	X	172.66594	344.51753	133.25915	6.89771	0.1210797	0.16968422	3.2312836	21	7 15.7	21.5
531861 2013 AT_{74}	16.2	X	154.66756	201.43401	315.76493	15.70279	0.1384597	0.17570023	3.1570963	21	8 15.3	21.2
531862 2013 AX_{83}	16.3	X	68.37869	140.71027	107.09238	17.23445	0.1568716	0.17687603	3.1430894	21	9 15.3	21.0
531863 2013 AS_{87}	16.0	X	102.98553	258.61012	305.14141	14.32539	0.1715201	0.17214674	3.2003945	21	8 21.8	21.0
531864 2013 AR_{91}	16.8	X	303.65215	8.30669	300.60422	24.46879	0.1297301	0.27705844	2.3303534	21	4 15.8	20.5
531865 2013 AF_{95}	16.2	X	218.07857	150.94057	301.36426	9.55810	0.0840785	0.17923549	3.1154447	21	8 1.0	20.9
531866 2013 AY_{95}	16.0	X	199.61900	145.16791	315.64056	14.66603	0.0322149	0.17660387	3.1463177	21	7 27.2	20.5
531867 2013 AU_{96}	15.9	X	55.65791	164.26802	101.61238	11.58759	0.0885161	0.17989966	3.1077720	21	9 9.9	20.3
531868 2013 AK_{97}	16.3	X	102.63771	82.09428	118.24101	26.65864	0.2182132	0.16802526	3.2525176	21	8 29.3	21.7
531869 2013 AF_{102}	17.7	X	231.75455	188.43002	275.38818	6.98918	0.0836412	0.30289048	2.1958987	21	9 5.6	20.5
531870 2013 AU_{106}	16.3	X	189.61012	194.39508	292.19556	11.42435	0.0807101	0.17760416	3.1344929	21	8 10.9	21.2
531871 2013 AV_{109}	18.1	X	221.25873	205.44206	278.09116	8.15831	0.0405145	0.30490841	2.1861995	21	9 25.3	20.9
531872 2013 AN_{115}	17.6	X	114.38892	306.28807	272.71996	7.81321	0.1440955	0.29841853	2.2177820	21	9 27.9	21.0
531873 2013 AZ_{117}	15.9	X	312.01431	261.74261	111.53517	18.52988	0.0883538	0.18343834	3.0676748	21	8 23.2	20.0
531874 2013 AK_{118}	16.3	X	156.97530	166.77836	332.92468	13.32074	0.0585088	0.17131307	3.2107689	21	7 28.2	21.1
531875 2013 AN_{118}	15.8	X	256.62377	75.71824	323.29842	21.04087	0.1021667	0.17472579	3.1688235	21	7 11.9	20.6
531876 2013 AN_{138}	17.4	X	163.74082	327.63196	179.58011	15.96593	0.1991647	0.17535672	3.1612179	21	8 11.1	22.9
531877 2013 AG_{148}	16.6	X	86.27414	73.51763	151.65927	16.45034	0.1649417	0.17366932	3.1816615	21	9 3.1	21.2
531878 2013 AT_{150}	17.4	X	276.09840	257.91690	175.92136	9.39587	0.1134934	0.19425231	2.9527403	21	9 13.5	21.2
531879 2013 AN_{160}	16.6	X	4.84344	160.35302	170.62353	9.59035	0.1168624	0.18879030	3.0094209	21	9 18.4	20.1
531880 2013 AQ_{166}	17.6	X	188.94073	274.32789	210.58815	7.43655	0.2349137	0.17751125	3.1355866	21	8 4.6	23.1
531881 2013 AW_{166}	16.7	X	197.05262	254.04368	207.98034	8.67833	0.0472784	0.17442881	3.1724193	21	7 21.2	21.5
531882 2013 AN_{167}	16.4	X	18.47020	62.65940	226.66322	8.88154	0.0820413	0.17571655	3.1569009	21	8 7.9	20.6
531883 2013 AW_{170}	16.3	X	253.38126	194.19128	237.35909	11.19610	0.0371367	0.18248944	3.0782996	21	8 17.7	20.9
531884 2013 AZ_{172}	16.3	X	2.64910	130.80869	200.61233	9.55891	0.1036757	0.18696281	3.0289997	21	9 11.7	20.1
531885 2013 AS_{184}	16.4	X	359.05215	77.16373	267.92303	8.50105	0.0660454	0.18739124	3.0243811	21	9 19.8	20.5
531886 2013 AZ_{184}	16.0	X	129.70264	45.72627	128.11512	10.38525	0.0224522	0.17375334	3.1806358	21	8 2.8	20.6
531887 2013 AB_{185}	16.2	X	21.57532	26.71971	284.98977	15.23970	0.0631445	0.18430278	3.0580750	21	9 4.9	20.5
531888 2013 AX_{185}	16.6	X	234.42974	284.34754	132.72620	10.73299	0.1025830	0.17455809	3.1708526	21	7 4.6	21.5
531889 2013 AW_{186}	16.3	X	94.23614	308.42301	286.08524	14.20762	0.1570492	0.17749241	3.1358084	21	9 13.9	21.3
531890 2013 AD_{187}	16.4	X	258.79420	269.93678	138.13461	18.86498	0.0958849	0.17876443	3.1209152	21	7 21.8	21.0
531891 2013 AJ_{187}	16.9	X	113.49099	328.62162	221.96957	4.69260	0.1087257	0.16870370	3.2437918	21	8 11.8	21.9
531892 2013 AG_{188}	16.5	X	237.79952	156.29585	271.65905	8.16210	0.0652683	0.17437000	3.1731325	21	7 24.7	21.3
531893 2013 AR_{188}	17.8	X	310.27492	231.80441	124.95054	8.32023	0.1737851	0.29780981	2.2208031	21	7 16.0	19.5
531894 2013 AT_{188}	16.5	X	184.29049	14.90932	108.73574	13.49770	0.2248732	0.18012958	3.1051270	21	8 3.1	21.9
531895 2013 BP_{7}	17.4	X	294.19443	75.74989	127.91555	30.95278	0.2775324	0.34246354	2.0232979	21	—	—
531896 2013 BM_{8}	16.3	X	265.74410	316.51283	96.66826	11.95733	0.0422501	0.18293382	3.0733125	21	8 17.4	20.7
531897 2013 BX_{12}	17.4	X	204.08519	95.32292	32.94281	13.41420	0.3283200	0.18322916	3.0700091	21	8 25.1	23.2
531898 2013 BE_{18}	20.9	X	274.25840	264.45169	300.30801	2.42609	0.3885519	0.33675061	2.0461170	21	—	—
531899 2013 BE_{19}	19.8	X	145.69365	311.97748	309.27175	31.00681	0.2974285	1.13287781	0.9113405	21	—	—
531900 2013 BF_{21}	16.3	X	214.25153	97.62423	336.79322	11.16601	0.0317348	0.17256358	3.1952385	21	7 12.0	21.1
531901 2013 BL_{21}	16.7	X	127.42473	203.71242	2.34882	7.10405	0.1976292	0.17916568	3.1162539	21	9 22.7	21.9
531902 2013 BQ_{21}	16.8	X	39.14783	297.81245	351.41814	1.86277	0.0195722	0.18378535	3.0638120	21	9 4.1	20.8
531903 2013 BG_{22}	16.2	X	232.11052	81.59707	308.46453	24.25668	0.3171422	0.17395782	3.1781428	21	5 8.5	22.3
531904 2013 BX_{23}	15.6	X	250.82853	113.87085	293.35325	22.79465	0.1262961	0.17826905	3.1266943	21	7 9.0	20.2
531905 2013 BW_{29}	16.7	X	260.60026	329.28212	96.99458	11.10271	0.0386075	0.18390597	3.0624723	21	8 29.2	21.1
531906 2013 BW_{35}	16.8	X	280.38299	130.55141	275.74055	4.50785	0.2153199	0.19043129	2.9921073	21	7 28.9	20.9
531907 2013 BC_{39}	17.9	X	197.12216	195.62398	291.24514	7.33681	0.1110902	0.29732470	2.2232180	21	8 23.9	21.2
531908 2013 BM_{59}	16.1	X	180.75701	167.57515	318.74732	14.13100	0.0404619	0.17692938	3.1424575	21	8 5.3	20.6
531909 2013 BB_{62}	16.3	X	170.90773	23.28724	132.93739	15.12933	0.0914513	0.17705343	3.1409895	21	9 1.6	21.2
531910 2013 BX_{70}	17.0	X	172.62106	130.41743	10.13617	17.11072	0.1651191	0.17651175	3.1474123	21	8 20.3	22.4
531911 2013 BD_{71}	16.8	X	259.60646	182.34455	266.16089	10.88264	0.0801477	0.18975002	2.9992649	21	9 9.6	21.3
531912 2013 BZ_{71}	17.0	X	165.51203	10.77700	134.98995	11.44689	0.1429273	0.17521667	3.1629022	21	8 13.0	22.2
531913 2013 BF_{72}	17.5	X	163.57122	265.88200	288.84593	6.85164	0.0753290	0.30828574	2.1702033	21	10 19.9	20.5
531914 2013 BW_{76}	18.5	X	310.03499	0.51613	58.23510	40.34671	0.5333352	0.33373187	2.0584371	21	10 26.4	19.7
531915 2013 BW_{78}	16.6	X	252.05253	88.49331	324.07888	10.84851	0.1546040	0.17648414	3.1477405	21	7 14.3	21.5
531916 2013 BF_{79}	16.8	X	201.26832	150.85414	331.09219	4.76853	0.0890413	0.17863697	3.1223996	21	8 20.1	21.6
531917 2013 BN_{82}	6.7	X	17.59998	277.45951	193.69036	6.60988	0.2038382	0.00345675	43.3202517	21	2 4.6	22.2
531918 2013 BC_{83}	16.4	X	348.40170	186.36383	130.37349	13.31775	0.0368265	0.17153632	3.2079825	21	8 1.7	20.7
531919 2013 BZ_{83}	18.6	X	246.22317	174.58756	290.96167	3.47969	0.0386442	0.30615000	2.1802847	21	10 8.5	21.1
531920 2013 CW_{3}	16.4	X	138.38006	224.19954	299.01215	15.39572	0.1475958	0.16827587	3.2492876	21	8 6.3	21.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
531921 2013 CL_4	16.6	X	173.04379	200.54130	289.57159	8.29239	0.0517513	0.17204422	3.2016657	21	7 30.1	21.4
531922 2013 CF_7	16.0	X	61.66597	327.95603	300.73359	15.82575	0.1720328	0.17627393	3.1502425	21	9 19.5	20.7
531923 2013 CG_8	17.5	X	83.89383	326.05592	290.92534	6.84103	0.0997615	0.29818948	2.2189176	21	10 10.5	20.5
531924 2013 CS_{25}	16.7	X	191.68423	345.74107	148.68933	11.90725	0.1755751	0.17833893	3.1258774	21	8 22.1	21.9
531925 2013 CT_{25}	16.3	X	208.45480	326.45539	146.15072	11.62784	0.0315233	0.17700525	3.1415595	21	8 20.3	20.8
531926 2013 CK_{30}	16.5	X	226.26174	308.30605	125.96987	17.99339	0.2211979	0.17610870	3.1522126	21	7 8.2	21.8
531927 2013 CE_{39}	16.2	X	97.84284	276.99957	337.54475	11.27802	0.0738425	0.18455983	3.0552348	21	10 6.8	20.8
531928 2013 CZ_{40}	16.6	X	324.46671	52.47948	287.64943	7.92438	0.0901455	0.17471677	3.1689325	21	7 24.3	20.7
531929 2013 CQ_{41}	16.5	X	356.96148	329.15774	13.10166	18.77308	0.0261907	0.18751931	3.0230040	21	9 21.0	20.7
531930 2013 CK_{43}	16.4	X	204.47530	336.76651	132.15543	23.85264	0.1898063	0.17572453	3.1568052	21	8 1.8	21.7
531931 2013 CX_{44}	17.9	X	231.76113	5.57824	23.76605	3.75011	0.1566757	0.27786198	2.3258585	21	5 18.8	21.3
531932 2013 CQ_{49}	15.8	X	88.79750	258.31638	338.92249	15.82174	0.0925990	0.17124863	3.2115743	21	9 8.9	20.5
531933 2013 CN_{50}	16.5	X	280.42637	127.52476	283.23744	13.48597	0.1867519	0.19091517	2.9870495	21	8 5.4	20.6
531934 2013 CD_{53}	17.2	X	188.87510	26.48010	127.76419	5.54986	0.2276112	0.18192897	3.0846186	21	9 12.5	22.6
531935 2013 CJ_{55}	16.2	X	93.94173	120.20171	125.06747	13.79537	0.0873805	0.17830595	3.1262629	21	10 1.7	20.9
531936 2013 CZ_{66}	18.0	X	254.73530	144.05427	293.47268	4.12034	0.1035571	0.29778717	2.2209157	21	8 29.1	20.6
531937 2013 CJ_{67}	16.6	X	139.29193	47.16303	158.30168	17.58300	0.1651488	0.17689887	3.1428188	21	10 3.1	21.8
531938 2013 CM_{71}	16.6	X	117.76055	314.55056	265.27736	5.95907	0.1985418	0.17622806	3.1507892	21	9 27.3	21.8
531939 2013 CZ_{71}	18.4	X	284.91280	101.67856	297.11746	5.49055	0.1716560	0.30244214	2.1980683	21	8 6.2	20.5
531940 2013 CZ_{75}	16.6	X	142.84442	250.28879	297.14903	11.81496	0.2258144	0.17398876	3.1777660	21	9 8.8	22.2
531941 2013 CW_{80}	16.9	X	346.05295	335.84185	313.43001	23.44026	0.1905143	0.27321456	2.3521598	21	6 10.7	19.4
531942 2013 CV_{82}	11.7	X	23.04942	41.16245	137.21093	18.53321	0.3747622	0.01400345	17.0469258	21	5 13.7	22.4
531943 2013 CD_{83}	16.8	X	161.75613	97.83438	109.20257	11.82366	0.2769471	0.18406611	3.0606957	21	10 26.6	22.5
531944 2013 CU_{83}	21.4	X	84.43908	18.55667	303.41483	10.35039	0.1822079	0.67764442	1.2837136	21	—	—
531945 2013 CW_{85}	18.1	X	302.93034	317.21961	104.39390	4.32519	0.1265373	0.30787643	2.1721264	21	10 29.1	19.8
531946 2013 CK_{86}	16.7	X	189.72209	67.96765	70.07061	16.68344	0.1776302	0.17875785	3.1209919	21	9 1.5	22.1
531947 2013 CV_{95}	17.2	X	164.09006	189.08336	321.72027	6.92485	0.1211161	0.17156717	3.2075979	21	8 16.9	22.2
531948 2013 CX_{97}	17.9	X	45.89278	321.15393	325.78999	6.53795	0.1081388	0.29297615	2.2451630	21	10 2.3	20.6
531949 2013 CA_{102}	16.3	X	104.95722	100.42662	128.62059	18.00833	0.1727840	0.17332312	3.1858969	21	10 3.3	21.6
531950 2013 CN_{104}	16.8	X	212.99127	90.55757	0.67745	7.14330	0.1253660	0.17244816	3.1966641	21	7 24.7	21.9
531951 2013 CX_{109}	18.1	X	226.85092	6.53020	28.90605	4.11434	0.1222785	0.27737054	2.3286050	21	5 24.2	21.5
531952 2013 CW_{111}	16.8	X	92.66322	130.74156	123.85730	10.03560	0.0752605	0.18080008	3.0974452	21	10 9.5	21.4
531953 2013 CW_{113}	16.8	X	161.77997	53.02324	118.07723	10.46494	0.0844049	0.18411614	3.0601413	21	9 12.2	21.6
531954 2013 CZ_{123}	18.0	X	257.38292	292.52531	140.71690	7.01202	0.0768253	0.29558560	2.2319298	21	9 2.9	20.6
531955 2013 CM_{132}	18.3	X	173.40809	330.75147	210.71136	6.32189	0.0966505	0.29798473	2.2199339	21	10 14.1	21.2
531956 2013 CP_{141}	16.3	X	20.67967	183.78339	121.75049	11.01034	0.0944088	0.17485224	3.1672955	21	9 9.7	20.4
531957 2013 CH_{147}	16.5	X	201.66655	90.00033	2.19036	25.80668	0.2922177	0.17215902	3.2002423	21	7 13.7	22.6
531958 2013 CC_{148}	16.7	X	144.67441	209.50502	351.88744	9.89670	0.1624779	0.17637844	3.1489980	21	9 28.5	21.9
531959 2013 CB_{165}	16.5	X	145.90453	164.29353	6.88553	10.44414	0.0291620	0.16913158	3.2383186	21	8 22.9	21.3
531960 2013 CL_{167}	16.1	X	89.71102	232.30137	358.63703	7.34357	0.0775489	0.16885287	3.2418811	21	9 3.1	20.7
531961 2013 CS_{170}	18.0	X	86.13176	279.58458	311.85212	4.40009	0.1085633	0.28422843	2.2909962	21	9 9.6	21.0
531962 2013 CM_{174}	18.5	X	247.90355	124.21380	326.64341	5.99874	0.1124880	0.29778824	2.2209103	21	9 6.9	21.1
531963 2013 CV_{174}	15.5	X	349.76351	33.68691	178.95176	3.14762	0.1390847	0.12709377	3.9178987	21	3 22.3	20.3
531964 2013 CK_{175}	17.0	X	237.20360	290.61866	169.35127	15.10825	0.1890366	0.18013532	3.1050610	21	8 19.5	22.0
531965 2013 CV_{175}	16.4	X	158.34943	194.25525	335.42827	12.49737	0.0923500	0.17243768	3.1967936	21	9 2.1	21.4
531966 2013 CR_{176}	16.5	X	174.09475	178.52673	327.12254	16.90036	0.1407186	0.17075582	3.2177506	21	8 20.3	21.7
531967 2013 CX_{177}	16.8	X	220.89812	299.55110	176.14621	5.14338	0.1425105	0.18150467	3.0894239	21	8 27.8	21.6
531968 2013 CK_{179}	15.8	X	232.26521	90.39991	344.96471	16.75500	0.1406046	0.17427574	3.1742765	21	7 26.5	20.9
531969 2013 CW_{180}	15.6	X	266.69603	230.39787	175.29260	27.06252	0.1689946	0.17993282	3.1073902	21	7 16.8	20.6
531970 2013 CM_{181}	15.8	X	114.47559	205.94696	331.95403	17.31328	0.1057531	0.16052917	3.3529989	21	8 2.2	20.9
531971 2013 CX_{181}	16.4	X	213.98108	147.36160	333.49109	9.58980	0.1591854	0.17680529	3.1439276	21	8 26.6	21.3
531972 2013 CB_{182}	16.3	X	186.46975	127.59046	6.77233	16.75091	0.1860810	0.17370549	3.1812198	21	8 23.6	21.8
531973 2013 CS_{182}	16.6	X	145.37798	266.46707	285.13439	11.89321	0.2456815	0.17423328	3.1747922	21	9 15.4	22.3
531974 2013 CY_{186}	18.2	X	241.90873	74.40508	34.05469	4.49942	0.0696885	0.30388109	2.1911239	21	10 4.3	20.5
531975 2013 CW_{195}	16.9	X	211.60467	22.70239	96.48139	2.75587	0.1115204	0.17818145	3.1277189	21	8 26.8	21.6
531976 2013 CC_{196}	16.8	X	208.67451	123.43044	340.05884	6.11874	0.1085046	0.17245933	3.1965261	21	8 4.7	21.7
531977 2013 CP_{197}	16.6	X	108.97628	310.92958	243.20660	4.81216	0.0816189	0.16748947	3.2594504	21	8 8.1	21.4
531978 2013 CR_{200}	16.9	X	122.10020	93.08195	106.65992	9.22030	0.1022954	0.17153774	3.2079649	21	9 5.9	21.8
531979 2013 CC_{203}	17.1	X	229.79005	323.68208	137.28103	0.73903	0.1341510	0.17926665	3.1150837	21	8 20.3	21.9
531980 2013 CG_{205}	17.2	X	203.80942	149.74338	27.13070	0.49790	0.0986782	0.19140788	2.9819213	21	10 28.9	21.7
531981 2013 CE_{207}	18.3	X	156.63831	232.95571	335.86227	1.82331	0.1472989	0.29936382	2.2131109	21	10 30.7	21.7
531982 2013 CT_{209}	16.5	X	156.32975	0.19815	151.07261	9.52759	0.0610710	0.17304748	3.1892792	21	8 7.4	21.2
531983 2013 CH_{210}	16.8	X	245.64386	290.72779	140.45758	9.75949	0.1299131	0.18115222	3.0934299	21	7 31.3	21.4
531984 2013 CT_{210}	16.7	X	318.37342	67.87210	293.11784	1.24634	0.0921615	0.17999580	3.1066653	21	8 12.2	20.7
531985 2013 CH_{217}	16.4	X	121.90963	257.38045	328.26416	7.86845	0.1655414	0.17380433	3.1800137	21	10 5.2	21.6
531986 2013 CA_{222}	18.2	X	285.12643	358.96524	60.61579	5.84188	0.0805886	0.30854532	2.1689859	21	9 29.5	20.3
531987 2013 CB_{224}	17.0	X	165.89219	158.44401	28.43647	1.62192	0.1629734	0.17764422	3.1340217	21	10 1.6	22.2
531988 2013 CF_{225}	16.6	X	224.84465	286.20003	175.07320	10.14004	0.0477718	0.17315182	3.1879978	21	8 22.2	21.4
531989 2013 CM_{225}	18.2	X	201.40306	308.53219	171.45565	6.34857	0.0440697	0.29081166	2.2562896	21	8 26.4	20.9
531990 2013 CN_{225}	17.1	X	237.26379	356.05458	134.01151	6.56685	0.0770543	0.18652026	3.0337891	21	10 13.4	21.5
531991 2013 CS_{225}	16.7	X	246.29282	131.56601	326.06781	7.77312	0.0841769	0.18135340	3.0911417	21	9 7.9	21.2
531992 2013 CB_{227}	18.4	X	214.59772	124.58007	332.42146	5.95273	0.0408776	0.28764559	2.2728158	21	8 12.9	21.3
531993 2013 CC_{227}	16.3	X	140.86948	69.72210	135.18399	17.22979	0.1770866	0.17547366	3.1598133	21	10 6.7	21.7
531994 2013 CP_{227}	16.8	X	214.41621	181.53561	292.41304	9.27208	0.0703626	0.17535763	3.1612070	21	8 22.3	21.7
531995 2013 CW_{227}	16.5	X	117.76582	262.14271	320.12845	8.89355	0.0358158	0.17532639	3.1615825	21	9 16.3	21.1
531996 2013 CP_{228}	16.0	X	251.02853	206.30295	152.85865	10.84457	0.0899418	0.15366526	3.4521176	21	5 17.4	21.3
531997 2013 CT_{228}	16.0	X	275.19190	208.78658	195.67512	11.13894	0.0959807	0.17252516	3.1957129	21	8 3.9	20.7
531998 2013 CV_{228}	16.1	X	275.50016	252.38459	149.95592	12.26367	0.1191152	0.17220368	3.1996890	21	7 31.2	20.7
531999 2013 CW_{228}	19.0	X	195.49160	282.29674	289.91958	3.38639	0.0543297	0.31946327	2.1192820	21	12 30.9	21.5
532000 2013 CD_{229}	17.8	X	63.82178	343.73909	253.71035	3.88546	0.1319406	0.27857294	2.3218995	21	8 21.3	20.6