Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408001 2012 DU_{88}	16.2	X	125.30777	153.76103	86.27020	4.44975	0.0788176	0.18154368	3.0889814	20	10 31.4	20.8
408002 2012 DT_{90}	16.1	X	81.65614	296.73396	341.06171	9.59897	0.0172196	0.18619023	3.0373729	20	10 17.3	20.6
408003 2012 DS_{92}	16.7	X	313.14805	247.71580	162.70185	12.39260	0.0737682	0.18905206	3.0066424	20	10 23.9	20.6
408004 2012 DX_{92}	17.4	X	309.23944	91.39332	352.32700	1.76738	0.0536280	0.19808164	2.9145616	20	11 29.1	21.1
408005 2012 DR_{93}	15.8	X	76.95965	276.75810	340.49250	14.39205	0.1243928	0.17588042	3.1549396	20	9 28.3	20.5
408006 2012 DG_{94}	17.0	X	20.64897	121.17867	329.57754	13.84737	0.0971085	0.22937027	2.6430861	20	—	—
408007 2012 DH_{94}	17.6	X	142.68531	265.16006	130.73160	7.26447	0.1125442	0.25185895	2.4833110	20	3 10.1	21.2
408008 2012 DW_{95}	16.5	X	60.90809	233.56433	154.79866	6.77145	0.0612827	0.21518383	2.7580129	20	—	—
408009 2012 DD_{96}	17.2	X	13.28092	142.42370	272.35270	0.91363	0.0670959	0.20986765	2.8043942	20	—	—
408010 2012 DQ_{97}	16.5	X	306.06307	353.96857	105.10816	7.47324	0.0440934	0.20092907	2.8869607	20	12 15.9	20.4
408011 2012 EK_{2}	16.0	X	112.19016	248.79507	339.70895	10.15781	0.0225612	0.17897245	3.1184965	20	9 24.1	20.5
408012 2012 EA_{3}	16.0	X	84.50225	82.95382	198.93460	8.99650	0.0422688	0.18132261	3.0914916	20	11 1.9	20.4
408013 2012 EB_{4}	16.8	X	95.48839	228.50102	153.29984	5.51342	0.0567406	0.22092969	2.7099836	20	—	—
408014 2012 ER_{4}	16.2	X	169.44509	15.13046	169.34989	16.27826	0.1815285	0.17807965	3.1289108	20	10 8.4	21.5
408015 2012 ES_{5}	15.8	X	150.70189	38.48077	171.82816	22.09339	0.0980274	0.18118269	3.0930831	20	10 24.0	20.8
408016 2012 EG_{9}	16.5	X	0.51344	289.33811	191.56454	21.18961	0.0987924	0.22450908	2.6811027	20	—	—
408017 2012 EG_{11}	17.0	X	333.37941	301.56742	167.18802	10.12193	0.1618672	0.21372980	2.7705075	20	—	—
408018 2012 EW_{12}	16.0	X	87.41744	284.70502	331.90927	9.03606	0.0726336	0.17504171	3.1650095	20	10 3.8	20.7
408019 2012 EY_{15}	16.5	X	357.10882	112.87290	347.02532	12.62960	0.1361700	0.22399887	2.6851724	20	—	—
408020 2012 FK_{5}	16.6	X	70.24790	44.88535	326.54214	4.91164	0.0595202	0.21272117	2.7792582	20	—	—
408021 2012 FB_{6}	17.7	X	33.89459	259.60466	179.34174	2.64398	0.1195422	0.22745221	2.6579243	20	—	—
408022 2012 FG_{8}	16.3	X	321.67827	64.75352	346.52769	15.09199	0.0630457	0.19073961	2.9888821	20	10 28.2	20.4
408023 2012 FQ_{9}	16.1	X	274.99615	62.71576	338.40957	17.74945	0.0628478	0.17209095	3.2010862	20	8 17.9	20.6
408024 2012 FN_{10}	16.8	X	262.64856	235.86097	197.48309	3.58202	0.0779876	0.17596411	3.1539392	20	9 5.9	21.3
408025 2012 FL_{11}	16.2	X	182.38647	49.51256	110.05875	11.27147	0.1628681	0.17685301	3.1433621	20	9 23.2	21.5
408026 2012 FT_{14}	15.5	X	164.89663	71.25377	125.27978	11.21381	0.0867861	0.17741038	3.1367750	20	10 22.7	20.5
408027 2012 FX_{14}	16.3	X	247.76394	324.23859	199.25883	11.48380	0.0979570	0.19731331	2.9221228	20	12 10.6	20.4
408028 2012 FX_{15}	16.8	X	68.30548	214.77697	128.13293	2.97009	0.0792094	0.19753516	2.9199345	20	—	—
408029 2012 FY_{32}	15.6	X	105.38494	237.95682	20.54914	8.92509	0.0498894	0.17538993	3.1608189	20	10 26.4	20.3
408030 2012 FE_{37}	16.1	X	330.26441	279.18469	145.02242	10.77330	0.0906218	0.19222148	2.9735011	20	12 5.6	20.0
408031 2012 FL_{38}	17.5	X	12.03851	258.98762	190.31538	11.98677	0.1917437	0.22532986	2.6745880	20	—	—
408032 2012 FM_{40}	16.4	X	271.71293	275.64966	185.67574	12.38683	0.1048610	0.18800451	3.0178006	20	10 23.9	20.4
408033 2012 FO_{42}	15.5	X	87.14290	344.49343	325.87295	12.99882	0.1091166	0.18861401	3.0112958	20	12 16.6	20.3
408034 2012 FU_{47}	17.3	X	178.81444	323.53983	95.61281	3.52188	0.1597644	0.26641731	2.3919995	20	5 16.8	21.0
408035 2012 FC_{48}	16.5	X	69.76414	198.14297	77.66879	3.03819	0.0804269	0.17387327	3.1791730	20	10 12.3	21.0
408036 2012 FE_{49}	16.7	X	135.04354	199.01484	155.04137	5.32771	0.0681095	0.22216293	2.6999454	20	1 4.7	20.4
408037 2012 FF_{49}	16.9	X	10.77165	21.23458	41.30295	4.44181	0.0449162	0.20553396	2.8436774	20	—	—
408038 2012 FP_{49}	16.1	X	29.35044	313.27681	21.78094	9.39988	0.1017166	0.17973937	3.1096194	20	11 4.0	20.3
408039 2012 FJ_{51}	16.6	X	132.35470	200.90312	48.78782	5.92960	0.1036617	0.18413175	3.0599683	20	11 18.5	21.2
408040 2012 FX_{53}	16.2	X	238.16910	294.70884	190.94966	8.41335	0.0136098	0.17997367	3.1069199	20	10 22.2	20.5
408041 2012 FD_{55}	16.1	X	235.85168	93.44437	37.76441	9.43102	0.0669221	0.18214598	3.0821681	20	10 19.5	20.4
408042 2012 FQ_{64}	16.5	X	64.21850	329.61010	18.61713	9.54509	0.0314069	0.19709480	2.9242822	20	12 29.8	20.7
408043 2012 FN_{66}	16.0	X	46.05147	291.50886	29.46475	14.04737	0.0658416	0.18082020	3.0972155	20	11 3.6	20.3
408044 2012 FA_{67}	16.4	X	30.60403	277.85711	63.88526	4.12872	0.1031488	0.18233320	3.0800578	20	11 16.7	20.6
408045 2012 FQ_{67}	15.2	X	137.82553	143.52528	67.20771	18.84840	0.1209205	0.17296198	3.1903301	20	10 17.0	20.5
408046 2012 FV_{67}	17.0	X	88.12496	322.42874	101.54499	2.81051	0.1239611	0.22937379	2.6430590	20	2 10.3	20.3
408047 2012 FO_{70}	16.5	X	103.15757	264.86398	174.12972	15.33688	0.1580022	0.24013039	2.5635274	20	3 25.4	19.8
408048 2012 FW_{71}	16.0	X	188.47221	62.05546	88.96121	6.47177	0.1456309	0.17550107	3.1594843	20	9 17.5	21.2
408049 2012 FO_{72}	15.5	X	178.93928	111.75564	61.18375	17.43374	0.1917041	0.17767422	3.1336689	20	10 8.7	21.0
408050 2012 FD_{73}	15.8	X	190.11663	18.15786	148.43647	10.41123	0.0254313	0.18079585	3.0974936	20	10 16.0	20.4
408051 2012 FM_{73}	16.6	X	29.74121	335.52650	133.14310	8.55782	0.1631235	0.23279002	2.6171371	20	1 2.8	19.1
408052 2012 FM_{74}	15.4	X	248.68412	121.67982	322.19518	15.27806	0.0846946	0.17394436	3.1783068	20	8 29.7	19.9
408053 2012 FP_{75}	15.5	X	168.20540	115.43250	92.08022	11.19154	0.0514142	0.18399163	3.0615217	20	11 9.1	20.1
408054 2012 FW_{75}	15.9	X	236.53084	294.15254	183.08712	18.15793	0.1620980	0.18448520	3.0560588	20	9 19.6	20.4
408055 2012 FX_{75}	15.5	X	151.95852	252.32748	343.23227	8.41097	0.0513056	0.18858360	3.0116195	20	11 19.8	20.1
408056 2012 FL_{76}	15.8	X	134.22459	75.18612	160.24864	10.41052	0.0361040	0.18407041	3.0606480	20	11 4.5	20.4
408057 2012 FV_{77}	15.4	X	103.08899	351.68177	268.54304	8.54729	0.0513749	0.17974549	3.1095488	20	10 25.1	20.1
408058 2012 FN_{81}	15.7	X	215.71254	117.02551	58.84606	11.01137	0.0595047	0.19051952	2.9911835	20	11 20.7	19.9
408059 2012 FA_{82}	15.6	X	38.62585	215.26434	134.89659	10.90831	0.0769869	0.18937244	3.0032503	20	12 6.9	19.9
408060 2012 FP_{82}	16.0	X	156.99540	170.11517	133.86683	13.54642	0.0693676	0.21175513	2.7877046	20	—	—
408061 2012 FV_{82}	17.0	X	124.72750	33.44060	75.38412	7.14879	0.0794545	0.25976174	2.4326853	20	5 19.3	20.3
408062 2012 GB_{4}	16.7	X	244.57007	299.70541	208.40324	3.73227	0.1558922	0.19041779	2.9922488	20	11 8.1	20.8
408063 2012 GZ_{7}	15.8	X	23.32307	162.18671	205.03141	9.34642	0.0357707	0.18720521	3.0263844	20	12 1.2	20.0
408064 2012 GZ_{9}	15.6	X	197.28130	308.33148	197.86816	13.78661	0.1235423	0.17432822	3.1736395	20	9 15.9	20.7
408065 2012 GV_{13}	15.7	X	270.06792	313.36547	178.07912	16.25428	0.0741071	0.18359102	3.0659737	20	12 1.6	20.1
408066 2012 GE_{16}	15.2	X	173.45940	311.82833	226.38128	14.06168	0.0875029	0.17266733	3.1939585	20	9 30.9	20.2
408067 2012 GK_{19}	16.4	X	214.43988	60.08921	78.39026	3.51399	0.0329938	0.17289369	3.1911701	20	10 6.5	21.0
408068 2012 GO_{23}	16.5	X	63.26018	25.96170	31.71845	6.55904	0.0360238	0.21517749	2.7580671	20	—	—
408069 2012 GA_{26}	16.1	X	295.63903	243.96258	198.51056	9.38450	0.0298247	0.18342673	3.0678041	20	11 9.0	20.2
408070 2012 GF_{28}	16.2	X	236.58439	352.32259	144.84013	11.93545	0.0692682	0.17691401	3.1426395	20	10 29.5	20.9
408071 2012 GA_{30}	16.4	X	250.76503	319.62000	199.08416	8.87131	0.0591403	0.19192457	2.9765670	20	12 12.5	20.6
408072 2012 GY_{30}	15.7	X	356.62435	338.28995	7.87103	13.04130	0.0589937	0.17300979	3.1897423	20	9 29.2	19.7
408073 2012 GA_{32}	16.2	X	180.06374	192.16099	341.21155	16.51274	0.1511061	0.17626213	3.1503832	20	9 27.9	21.5
408074 2012 GC_{36}	16.8	X	67.58070	260.49838	212.51050	2.04469	0.0848782	0.23510437	2.5999336	20	3 8.5	20.0
408075 2012 HM_{5}	16.1	X	337.36691	291.90295	167.42756	11.07918	0.0449049	0.20184879	2.8781844	20	—	—
408076 2012 HR_{10}	15.9	X	191.24305	7.17869	165.00954	21.32321	0.0977636	0.17814253	3.1281746	20	10 18.9	20.9
408077 2012 HO_{12}	15.6	X	314.29151	270.62589	188.63307	11.83692	0.1271298	0.18806322	3.0171725	20	12 21.3	19.4
408078 2012 HE_{16}	15.4	X	175.03285	0.87709	154.45967	17.60627	0.1978034	0.16495317	3.2927766	20	9 6.1	21.0
408079 2012 HY_{31}	15.9	X	247.29391	331.07696	162.41288	11.47279	0.0395627	0.17874233	3.1211725	20	11 10.2	20.4
408080 2012 HM_{35}	16.5	X	270.88019	289.04330	214.69715	3.28604	0.0879539	0.19174039	2.9784728	20	12 16.3	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408081 2012 HU_{40}	16.3	X	304.90717	101.51663	355.47591	9.39011	0.0766187	0.19128825	2.9831644	20	12 5.5	20.3
408082 2012 HN_{41}	15.9	X	155.98476	176.69177	39.69443	9.20861	0.0423096	0.17626020	3.1504061	20	11 1.7	20.5
408083 2012 HC_{46}	16.0	X	173.67306	49.00646	155.71705	8.90933	0.1249077	0.17469702	3.1691714	20	11 6.2	21.1
408084 2012 HD_{52}	15.8	X	198.36919	334.91598	208.80946	8.93353	0.0364023	0.17974485	3.1095562	20	11 11.5	20.3
408085 2012 HO_{53}	16.3	X	207.05822	331.96961	176.88641	15.05792	0.1732845	0.17379411	3.1801383	20	9 27.4	21.5
408086 2012 HO_{56}	15.8	X	238.18643	228.17246	261.37714	6.13803	0.1265407	0.18156898	3.0886944	20	10 8.5	20.3
408087 2012 HY_{56}	15.7	X	229.25706	300.21363	197.14164	10.46125	0.0668995	0.17604899	3.1529254	20	10 17.6	20.3
408088 2012 HP_{57}	16.0	X	92.17460	28.43333	31.96029	22.73798	0.0544477	0.22788318	2.6545722	20	2 12.3	20.0
408089 2012 HF_{58}	15.8	X	232.00748	131.92171	18.06174	9.62368	0.0350392	0.18367041	3.0650901	20	11 8.1	20.1
408090 2012 HA_{59}	16.3	X	250.61838	324.76061	175.35686	8.18489	0.1238384	0.18753546	3.0228304	20	11 11.1	20.5
408091 2012 HB_{61}	15.5	X	227.48606	272.98933	213.99652	20.67526	0.1823508	0.17498662	3.1656737	20	9 14.9	20.7
408092 2012 HB_{69}	15.3	X	214.10362	320.08186	193.57300	18.41076	0.1038083	0.17250978	3.1959028	20	10 16.0	20.1
408093 2012 JQ_{3}	16.1	X	214.26859	108.15452	43.38479	12.81293	0.1096024	0.17671093	3.1450468	20	10 15.9	20.9
408094 2012 JP_{31}	16.0	X	349.21972	7.34478	57.78428	12.31758	0.0569859	0.18291436	3.0735305	20	12 27.3	20.1
408095 2012 JV_{51}	15.6	X	216.31596	283.52269	167.70335	10.05488	0.0541557	0.14995090	3.5088920	20	8 3.9	20.8
408096 2012 KV_{19}	16.0	X	247.92025	255.47235	204.11697	8.79389	0.1297328	0.16929129	3.2362817	20	9 11.3	20.7
408097 2012 TW_{19}	17.8	X	351.38383	175.84229	237.93249	20.95472	0.0940461	0.39591154	1.8368370	20	—	—
408098 2013 AW	18.4	X	138.93799	159.60775	47.22588	6.23132	0.1521647	0.34934296	1.9966474	20	10 29.4	20.9
408099 2013 AM_{45}	18.2	X	39.61281	67.30389	114.80536	4.19676	0.0796931	0.29812836	2.2192208	20	4 28.6	20.3
408100 2013 AX_{50}	18.0	X	198.82917	283.07344	314.17296	18.60292	0.0115121	0.38625245	1.8673335	20	—	—
408101 2013 AM_{82}	18.6	X	357.02793	268.25731	314.66624	2.13520	0.1826175	0.29802555	2.2197312	20	4 1.8	19.9
408102 2013 AN_{89}	16.8	X	191.60412	138.20685	102.10197	14.25617	0.2316561	0.23917091	2.5703789	20	—	—
408103 2013 AW_{101}	18.0	X	208.57884	197.46991	318.73536	17.57658	0.0568265	0.35633027	1.9704598	20	11 17.2	20.5
408104 2013 AV_{123}	17.4	X	280.82074	111.48818	74.95583	3.38377	0.1381975	0.25571651	2.4582735	20	—	—
408105 2013 AU_{133}	18.8	X	18.75033	94.05675	299.21188	5.93404	0.0941268	0.37451436	1.9061500	20	—	—
408106 2013 AC_{150}	16.5	X	181.82103	323.12846	246.10186	10.84888	0.1108685	0.23079604	2.6321895	20	11 26.7	20.5
408107 2013 BA_{13}	16.6	X	151.32322	170.15698	95.36834	9.71664	0.1623241	0.21088588	2.7953598	20	12 28.8	21.0
408108 2013 BH_{26}	17.8	X	15.42536	27.87447	156.45759	7.57013	0.0440020	0.27853560	2.3221071	20	3 21.2	20.4
408109 2013 BK_{60}	16.4	X	167.18819	254.68253	333.93075	12.67281	0.1758152	0.22478764	2.6788872	20	11 28.7	21.0
408110 2013 BX_{62}	17.8	X	65.35419	46.60907	123.94173	5.15729	0.0888706	0.30304532	2.1951506	20	5 25.9	20.1
408111 2013 BN_{77}	17.7	X	310.30311	134.42784	92.12439	2.64858	0.1998288	0.27744811	2.3281710	20	1 18.3	20.7
408112 2013 CL_{5}	17.6	X	260.18868	356.21794	264.77836	4.98174	0.2368987	0.27081627	2.3660262	20	1 8.6	21.5
408113 2013 CC_{13}	17.5	X	275.10732	202.98852	36.22145	1.66258	0.1493351	0.26898258	2.3767670	20	1 3.0	20.8
408114 2013 CA_{18}	17.5	X	293.46789	193.37255	13.64108	2.75005	0.1731101	0.26003133	2.4310035	20	—	—
408115 2013 CF_{18}	16.9	X	306.60700	157.45492	13.97107	11.47933	0.2081202	0.25726734	2.4483845	20	—	—
408116 2013 CR_{19}	18.2	X	347.32148	286.30590	299.91099	6.79178	0.0858587	0.29991740	2.2103868	20	3 25.3	20.5
408117 2013 CH_{22}	17.6	X	222.70472	216.99162	34.74285	19.89830	0.0831649	0.39110660	1.8518506	20	—	—
408118 2013 CD_{24}	17.8	X	316.68407	99.32131	96.18353	3.00010	0.1309148	0.26691180	2.3890443	20	—	—
408119 2013 CO_{24}	17.4	X	4.49352	63.32305	132.40390	6.24589	0.0461342	0.28699022	2.2762746	20	3 20.3	19.9
408120 2013 CG_{30}	17.6	X	292.46953	152.62364	70.32642	3.94085	0.1583298	0.26888258	2.3773563	20	—	—
408121 2013 CQ_{30}	17.2	X	210.39770	229.50786	15.25033	5.75339	0.1497245	0.24618778	2.5213031	20	—	—
408122 2013 CN_{31}	18.2	X	344.58357	122.69235	82.92259	3.24115	0.1377361	0.28150039	2.3057739	20	2 19.9	20.5
408123 2013 CS_{32}	16.9	X	301.86597	328.52550	110.29357	24.91963	0.0857738	0.35799652	1.9643408	20	—	—
408124 2013 CR_{33}	17.7	X	20.63773	213.32400	329.59573	9.93690	0.1279109	0.28775988	2.2722140	20	3 20.8	19.8
408125 2013 CF_{36}	17.5	X	211.25218	80.39408	88.74654	23.19509	0.0818711	0.35743355	1.9664029	20	12 14.1	19.4
408126 2013 CH_{43}	18.0	X	0.20912	133.65500	94.56819	4.33707	0.1080498	0.29787460	2.2204810	20	4 27.5	19.9
408127 2013 CL_{49}	17.1	X	303.19109	155.55798	76.52439	3.44383	0.1755645	0.27319074	2.3522965	20	1 21.4	20.3
408128 2013 CW_{54}	15.8	X	99.52321	206.31731	7.94129	13.20757	0.1965788	0.18589677	3.0405687	20	9 15.8	20.6
408129 2013 CH_{61}	17.2	X	331.20204	247.56775	306.97693	6.53929	0.0588703	0.27559984	2.3385684	20	1 25.5	19.8
408130 2013 CY_{61}	17.9	X	329.54630	243.11807	348.93093	6.46777	0.0545501	0.28721443	2.2750898	20	3 14.2	20.2
408131 2013 CL_{66}	18.3	X	29.04208	231.43896	288.69666	2.19210	0.1018420	0.28456322	2.2891989	20	3 5.0	20.3
408132 2013 CT_{66}	17.5	X	204.76975	31.63585	172.30826	7.25421	0.1916576	0.22632511	2.6667413	20	12 5.9	21.7
408133 2013 CM_{67}	18.1	X	68.08286	214.44604	291.50635	5.79443	0.0158232	0.29563088	2.2317019	20	4 6.6	20.8
408134 2013 CQ_{67}	18.2	X	325.09433	37.41294	172.55075	5.83207	0.1625269	0.27505669	2.3416460	20	1 20.4	21.1
408135 2013 CM_{69}	18.1	X	357.90627	33.90593	185.09318	4.50041	0.1354931	0.29132779	2.2536239	20	4 4.4	19.7
408136 2013 CU_{70}	18.4	X	6.62380	46.37913	180.28953	5.47540	0.1043128	0.30183314	2.2010239	20	5 7.5	20.2
408137 2013 CF_{75}	17.9	X	346.58823	255.31321	299.52525	5.16084	0.1367869	0.27906398	2.3191750	20	2 5.8	20.2
408138 2013 CL_{75}	16.8	X	189.18063	272.79035	319.46458	11.65210	0.2328218	0.22647652	2.6655526	20	12 21.5	21.3
408139 2013 CF_{80}	17.7	X	342.95526	258.27277	301.45726	7.16314	0.1544442	0.27699151	2.3307288	20	2 4.2	20.0
408140 2013 CE_{84}	17.8	X	314.24975	320.37697	352.75114	7.53144	0.0838869	0.31074395	2.1587429	20	6 16.5	20.0
408141 2013 CX_{86}	17.4	X	354.83326	217.69524	348.29290	5.60961	0.0800626	0.28568264	2.2832150	20	3 14.1	19.5
408142 2013 CO_{92}	17.0	X	150.17149	319.67394	310.45471	5.38535	0.1950230	0.23097205	2.6308521	20	—	—
408143 2013 CM_{99}	17.4	X	186.68346	51.79590	213.35763	3.99279	0.2052884	0.23968780	2.5666822	20	—	—
408144 2013 CA_{103}	17.2	X	162.27863	253.39166	111.49638	8.35212	0.1403592	0.28301568	2.2975363	20	2 19.9	20.6
408145 2013 CM_{107}	17.6	X	322.37001	232.98720	328.41508	11.37355	0.1731080	0.27112648	2.3642211	20	1 7.3	20.6
408146 2013 CL_{109}	17.6	X	224.69811	194.50594	31.01269	5.83327	0.1854234	0.24122648	2.5557560	20	—	—
408147 2013 CM_{115}	17.4	X	323.97340	38.60094	154.91730	10.33194	0.1517122	0.26608585	2.3939856	20	—	—
408148 2013 CB_{116}	18.0	X	354.05848	136.07716	110.54712	4.12177	0.1212815	0.29801824	2.2197675	20	5 14.1	19.7
408149 2013 CN_{122}	16.2	X	172.55050	87.03252	135.61178	22.21034	0.0362550	0.22863862	2.6487217	20	12 12.7	20.3
408150 2013 CU_{123}	17.3	X	189.08277	270.06067	343.82699	11.33052	0.0882210	0.23927270	2.5696498	20	—	—
408151 2013 CX_{123}	17.7	X	24.41953	84.66998	138.86173	7.05640	0.0547109	0.30354550	2.1927385	20	6 3.2	20.0
408152 2013 CG_{124}	18.0	X	67.05087	17.89315	151.46937	6.24626	0.0651121	0.29889125	2.2154430	20	5 23.3	20.4
408153 2013 CQ_{126}	18.7	X	71.94011	147.59608	37.03894	0.95991	0.0869383	0.31008238	2.1618123	20	6 26.0	21.0
408154 2013 CY_{126}	18.2	X	342.98964	278.37957	346.73699	6.24935	0.1451272	0.30396357	2.1907275	20	5 14.8	19.9
408155 2013 CD_{127}	17.6	X	330.97481	271.80891	9.89731	7.52789	0.1245809	0.30350532	2.1929321	20	5 19.8	19.7
408156 2013 CP_{137}	17.2	X	251.20554	225.76249	339.17958	7.11460	0.0924985	0.24399918	2.5363575	20	—	—
408157 2013 CW_{137}	18.2	X	32.15594	222.11813	357.31797	2.71269	0.1077090	0.30225372	2.1989817	20	6 15.3	20.1
408158 2013 CU_{139}	17.5	X	198.98684	267.91635	342.23134	15.18920	0.1361716	0.24386049	2.5373191	20	—	—
408159 2013 CY_{150}	18.6	X	119.55056	92.83715	11.28071	3.17580	0.0883762	0.29839113	2.2179178	20	5 4.5	21.3
408160 2013 CA_{151}	17.4	X	186.04943	143.03933	142.19098	6.55983	0.2169724	0.24372134	2.5382848	20	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408161 2013 CY_{158}	18.3	X	310.74092	69.50969	160.87407	2.51214	0.1535219	0.27212791	2.3584174	20	1 30.9	21.3
408162 2013 CQ_{161}	18.1	X	351.37328	72.90376	154.26391	6.68140	0.1181452	0.28823633	2.2697093	20	4 8.4	20.2
408163 2013 CJ_{163}	17.0	X	257.91181	263.78587	34.14830	6.82042	0.1478847	0.27999812	2.3140139	20	3 1.4	20.4
408164 2013 CS_{163}	18.0	X	13.22976	78.93205	157.64394	4.51727	0.1195342	0.29833949	2.2181737	20	6 7.3	19.9
408165 2013 CH_{165}	18.1	X	327.63242	210.22808	334.97020	3.06400	0.1108219	0.26497193	2.4006903	20	1 2.1	20.9
408166 2013 CQ_{168}	17.0	X	159.00046	158.03616	73.77248	5.03681	0.1351765	0.21709631	2.7417914	20	11 28.2	21.2
408167 2013 CT_{169}	17.3	X	131.67744	245.33800	161.50270	22.33103	0.2272860	0.28575178	2.2828468	20	3 22.1	20.7
408168 2013 CE_{174}	17.7	X	197.82537	54.88174	171.00222	7.97148	0.1195729	0.23025415	2.6363176	20	—	—
408169 2013 CB_{177}	16.7	X	241.59470	235.52144	332.24640	13.64730	0.0885805	0.24108531	2.5567536	20	—	—
408170 2013 CP_{181}	17.6	X	280.57025	340.79399	255.10955	1.78094	0.1508026	0.26501840	2.4004096	20	1 4.7	20.9
408171 2013 CD_{183}	17.2	X	173.28874	66.23507	157.05195	13.06597	0.1629222	0.22016205	2.7162792	20	12 2.5	21.8
408172 2013 CV_{183}	17.6	X	334.97445	146.71886	23.60286	4.65341	0.1705591	0.26465324	2.4026171	20	—	—
408173 2013 CT_{191}	16.4	X	269.62532	173.93758	101.16072	6.94684	0.1169267	0.26235446	2.4166314	20	2 17.7	19.8
408174 2013 CC_{198}	16.4	X	12.00117	265.97005	93.37571	15.43319	0.0495523	0.21967062	2.7203288	20	11 19.2	20.1
408175 2013 CA_{199}	17.4	X	224.87488	253.47591	329.71872	6.95443	0.1085394	0.24022778	2.5628345	20	—	—
408176 2013 CM_{218}	18.2	X	281.45423	280.16546	320.56152	1.67445	0.1698151	0.26735069	2.3864289	20	1 9.7	21.7
408177 2013 CX_{221}	18.5	X	354.83443	85.64975	143.28675	6.73230	0.0961711	0.30029722	2.2085226	20	4 19.6	20.6
408178 2013 DW	17.9	X	29.79605	238.95542	165.56199	22.90827	0.1517200	0.38322876	1.8771428	20	—	—
408179 2013 DH_4	18.0	X	283.62008	34.25467	168.86631	1.07640	0.1228146	0.25767702	2.4457886	20	—	—
408180 2013 DG_7	16.8	X	175.03019	142.86962	138.48134	12.05664	0.2228369	0.23506598	2.6002167	20	—	—
408181 2013 DR_{11}	16.8	X	281.60553	96.35759	76.62455	13.19018	0.1121085	0.24528847	2.5274620	20	—	—
408182 2013 EY_2	16.7	X	238.83396	86.21471	128.17014	11.44435	0.1313887	0.23930994	2.5693833	20	—	—
408183 2013 EK_4	17.5	X	29.88138	199.48715	309.50303	3.68153	0.0922230	0.27848374	2.3223953	20	2 20.0	19.9
408184 2013 EF_6	17.0	X	159.96704	289.03593	343.13287	12.48355	0.1419585	0.23103702	2.6303589	20	—	—
408185 2013 EF_{10}	16.3	X	108.57184	28.90941	232.59372	7.35282	0.1652763	0.20236932	2.8732468	20	11 16.3	21.0
408186 2013 ED_{11}	17.6	X	32.01163	247.58904	288.56613	2.19955	0.1228815	0.28131663	2.3067779	20	4 6.1	19.6
408187 2013 EU_{11}	17.9	X	285.33217	148.60023	80.74384	2.26516	0.1297309	0.26892808	2.3770881	20	1 3.4	21.0
408188 2013 EO_{16}	17.4	X	311.68453	146.03199	103.03218	3.47528	0.1435964	0.27889768	2.3200968	20	2 29.3	20.2
408189 2013 EG_{18}	17.7	X	320.92621	34.08581	236.04048	3.56749	0.1567214	0.29296056	2.2452426	20	4 8.1	20.0
408190 2013 EG_{19}	17.6	X	287.74556	231.13200	25.82299	2.55929	0.1891477	0.27107185	2.3645387	20	2 3.8	20.8
408191 2013 EC_{24}	16.8	X	14.76236	269.91438	139.79800	10.78640	0.1217870	0.23690169	2.5867668	20	—	—
408192 2013 EM_{24}	17.6	X	304.02205	181.76266	92.70051	4.65727	0.1261540	0.28394696	2.2925100	20	3 28.6	20.3
408193 2013 EA_{25}	17.1	X	19.64620	43.41366	333.01957	2.50222	0.1267389	0.22510731	2.6763504	20	12 29.8	20.4
408194 2013 EM_{26}	17.5	X	227.36180	107.11696	116.83500	5.05029	0.1885729	0.23717265	2.5847963	20	—	—
408195 2013 EM_{27}	17.6	X	339.65860	101.31922	92.91903	2.85447	0.0866278	0.27067300	2.3668610	20	2 4.1	20.1
408196 2013 ER_{29}	15.9	X	34.23529	162.48030	110.14379	18.14071	0.1569424	0.17746518	3.1361292	20	9 7.3	20.1
408197 2013 EC_{31}	16.8	X	274.17995	129.75949	22.96259	13.38186	0.1817222	0.23282412	2.6168816	20	—	—
408198 2013 EC_{32}	17.9	X	306.17874	261.61428	7.61414	6.74125	0.1007639	0.28587410	2.2821955	20	3 25.7	20.4
408199 2013 ES_{32}	16.6	X	270.21599	84.45213	83.96880	16.23150	0.1333139	0.23829678	2.5766609	20	—	—
408200 2013 EJ_{33}	17.1	X	15.22952	330.11416	205.01414	6.50099	0.1230737	0.28173840	2.3044751	20	2 29.2	19.3
408201 2013 EZ_{33}	17.5	X	23.08392	275.95152	259.12750	5.47645	0.1417732	0.28338699	2.2955290	20	3 14.8	19.5
408202 2013 EM_{34}	17.3	X	337.23141	138.60689	146.51069	8.28996	0.1139212	0.30145276	2.2028751	20	6 12.9	19.3
408203 2013 EQ_{39}	17.3	X	229.73973	155.84989	57.38483	4.66580	0.0984314	0.23540768	2.5976998	20	—	—
408204 2013 EZ_{39}	16.8	X	106.13151	240.36725	0.11108	1.45149	0.1395241	0.19209092	2.9748483	20	10 16.6	21.5
408205 2013 EM_{43}	17.7	X	295.18331	63.28104	170.56080	8.48913	0.0927204	0.26900047	2.3766616	20	1 24.1	20.9
408206 2013 EJ_{45}	18.6	X	156.52667	266.39791	216.65066	0.72194	0.0376889	0.31519974	2.1383501	20	7 17.4	21.1
408207 2013 EH_{49}	16.6	X	91.77476	334.55526	258.83377	0.49379	0.3013259	0.18427296	3.0584049	20	10 7.9	21.8
408208 2013 EM_{49}	18.2	X	23.85117	39.04500	199.24794	2.89992	0.1124665	0.30321593	2.1943271	20	6 30.9	20.0
408209 2013 ED_{54}	18.0	X	256.01052	288.70665	1.97092	2.31132	0.1813977	0.27157305	2.3616286	20	2 14.8	21.5
408210 2013 EW_{59}	18.4	X	128.70963	312.79405	168.17033	3.65816	0.0594870	0.30421814	2.1895052	20	6 7.9	21.1
408211 2013 EO_{62}	18.1	X	0.76888	20.51795	159.88550	1.67621	0.1220607	0.27540292	2.3396830	20	2 13.0	20.1
408212 2013 EJ_{64}	18.0	X	276.44265	292.20865	21.32834	3.12427	0.1733380	0.28928398	2.2642261	20	4 4.9	20.9
408213 2013 EN_{66}	17.4	X	343.79968	141.42601	47.25875	7.37834	0.1423072	0.27039375	2.3684903	20	1 27.4	20.0
408214 2013 ES_{66}	17.1	X	238.09173	111.67146	88.71035	15.12418	0.1267482	0.23465039	2.6032859	20	—	—
408215 2013 EP_{68}	17.7	X	278.75408	144.61549	142.90154	4.30488	0.1540740	0.27794576	2.3253912	20	3 7.9	20.8
408216 2013 EC_{71}	18.0	X	345.56665	276.06712	344.30574	7.14986	0.1165589	0.29847705	2.2174921	20	5 14.8	20.0
408217 2013 EF_{73}	17.7	X	250.75095	235.21583	55.43487	3.33821	0.1989967	0.26954422	2.3734643	20	2 9.6	21.5
408218 2013 EE_{79}	18.8	X	12.05081	50.59279	356.08319	20.47447	0.0930474	0.37072639	1.9191123	20	—	—
408219 2013 EP_{81}	16.7	X	206.45815	212.06834	16.17828	12.51341	0.1762491	0.23010442	2.6374612	20	—	—
408220 2013 EJ_{85}	17.5	X	211.70632	281.20913	122.11145	5.89810	0.0455019	0.30364974	2.1922367	20	6 4.9	20.2
408221 2013 EW_{86}	17.6	X	244.74051	20.56370	164.51085	12.40288	0.1190078	0.23037907	2.6353646	20	—	—
408222 2013 EM_{87}	16.9	X	206.19450	91.34572	132.24509	12.02275	0.1442198	0.22877126	2.6476978	20	—	—
408223 2013 EL_{90}	17.5	X	256.00753	315.81404	248.90630	2.71276	0.2215515	0.24304926	2.5429619	20	—	—
408224 2013 EO_{90}	17.2	X	302.24910	351.23838	198.90739	1.04800	0.1301657	0.25757322	2.4464457	20	—	—
408225 2013 EK_{91}	16.8	X	333.14759	247.33266	287.29608	8.74322	0.1012688	0.26160351	2.4212539	20	—	—
408226 2013 EW_{91}	16.9	X	247.09390	214.73048	343.92867	7.03019	0.1768328	0.23428680	2.6059786	20	—	—
408227 2013 EP_{94}	17.9	X	304.55078	285.82251	310.37560	0.60569	0.1474787	0.27138408	2.3627248	20	2 1.2	20.6
408228 2013 ED_{95}	18.7	X	302.05284	308.95904	10.17146	3.48931	0.1158628	0.30249000	2.1978364	20	5 29.1	21.0
408229 2013 EM_{96}	16.3	X	320.66913	160.40763	169.70934	9.43833	0.0753485	0.17703878	3.1411628	20	7 15.3	20.5
408230 2013 EA_{97}	18.3	X	17.44495	33.32065	147.94807	3.49869	0.1341389	0.28095368	2.3087641	20	3 17.9	20.2
408231 2013 ES_{97}	17.9	X	296.36159	131.02425	132.15213	0.34573	0.0697325	0.27893058	2.3199144	20	3 8.8	20.7
408232 2013 EN_{98}	17.8	X	281.87492	215.58997	13.32356	1.18506	0.1372743	0.25859226	2.4400143	20	—	—
408233 2013 EK_{99}	17.0	X	137.28389	211.97635	86.01626	3.00104	0.2114061	0.22502069	2.6770372	20	—	—
408234 2013 EY_{100}	17.4	X	332.58470	57.58400	138.16977	5.70833	0.0601813	0.26851701	2.3795135	20	1 29.9	20.3
408235 2013 EW_{101}	16.7	X	188.62461	256.05389	64.48592	6.49350	0.2100317	0.25383696	2.4703935	20	1 27.1	20.9
408236 2013 EU_{102}	17.7	X	331.40734	225.89912	4.22999	2.59472	0.1073076	0.27817340	2.3241223	20	3 8.6	20.2
408237 2013 EJ_{103}	18.1	X	313.08572	112.79200	114.09221	3.40880	0.1421437	0.27178596	2.3603951	20	1 31.9	21.1
408238 2013 EF_{104}	16.2	X	90.84144	212.89411	14.53855	10.63382	0.1003210	0.18521333	3.0480439	20	9 13.0	20.7
408239 2013 EH_{105}	18.0	X	322.48300	151.23211	56.17268	2.03998	0.1237848	0.27476270	2.3433160	20	1 21.1	20.9
408240 2013 ES_{109}	17.6	X	112.44069	347.86851	90.39958	7.36078	0.0667421	0.28489485	2.2874221	20	3 21.9	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408241 2013 EE_{111}	16.2	X	148.56596	229.06979	47.24374	10.16481	0.2429162	0.21873401	2.7280888	20	—	—
408242 2013 EF_{113}	18.0	X	237.04543	206.58049	3.71974	1.16470	0.1418969	0.23778626	2.5803476	20	—	—
408243 2013 EA_{116}	17.2	X	69.76817	66.02876	26.27996	6.64846	0.0761631	0.27143350	2.3624380	20	2 9.6	19.9
408244 2013 EH_{117}	17.4	X	185.19231	75.36225	165.45774	12.81647	0.1706706	0.22896016	2.6462413	20	—	—
408245 2013 EA_{120}	17.0	X	311.12303	346.64892	180.59910	15.20768	0.0567275	0.24607119	2.5220994	20	—	—
408246 2013 EL_{121}	16.9	X	115.98800	255.87749	324.39766	0.83204	0.1574726	0.19089877	2.9872206	20	10 2.9	21.6
408247 2013 EL_{123}	17.2	X	212.08966	217.31854	26.21018	1.57269	0.1983381	0.23610097	2.5926121	20	—	—
408248 2013 EC_{125}	17.6	X	340.75536	67.07874	154.41151	3.93206	0.1045449	0.27777172	2.3263624	20	3 12.2	19.8
408249 2013 EC_{127}	17.3	X	1.83891	305.38630	223.73955	7.01623	0.1216254	0.26974957	2.3722596	20	1 28.1	19.9
408250 2013 EY_{127}	16.2	X	217.31786	309.76167	316.32851	12.77322	0.1580383	0.24085498	2.5583834	20	—	—
408251 2013 EB_{128}	17.0	X	246.12563	212.95002	3.66950	6.99892	0.1461304	0.23835349	2.5762522	20	—	—
408252 2013 EU_{128}	18.5	X	55.59262	148.24241	56.49073	7.92565	0.0798983	0.30427190	2.1892473	20	6 29.5	20.9
408253 2013 EV_{128}	17.9	X	33.50365	86.53664	91.56644	2.44900	0.0746374	0.28472918	2.2883093	20	4 11.2	20.1
408254 2013 FA	17.6	X	331.70508	89.23788	35.04418	20.54286	0.0491857	0.37843245	1.8929703	20	—	—
408255 2013 FT_{2}	16.8	X	230.59398	42.27614	155.82536	13.13644	0.0979338	0.22970169	2.6405431	20	—	—
408256 2013 FY_{2}	17.1	X	198.00903	200.24268	55.60907	5.52765	0.1826177	0.23684573	2.5871742	20	—	—
408257 2013 FT_{6}	16.7	X	312.30092	43.59412	84.00360	15.58274	0.1209135	0.23767700	2.5811383	20	—	—
408258 2013 FN_{8}	16.7	X	176.08088	183.02929	83.27451	14.22643	0.1556375	0.22725164	2.6594880	20	—	—
408259 2013 FZ_{8}	17.1	X	263.32182	137.26493	132.17821	7.00829	0.1251575	0.26519887	2.3993205	20	1 31.3	20.7
408260 2013 FN_{9}	17.7	X	287.98434	18.16124	244.79289	1.65875	0.1836804	0.27349036	2.3505782	20	2 10.5	21.1
408261 2013 FD_{10}	18.1	X	333.34063	203.44861	13.71668	2.55522	0.0889161	0.27466533	2.3438698	20	2 25.8	20.6
408262 2013 FL_{11}	17.3	X	164.69132	66.16209	185.89225	4.78696	0.1150268	0.22047825	2.7136815	20	12 28.6	21.5
408263 2013 FL_{12}	17.6	X	356.44168	127.89520	132.48229	7.45638	0.1132444	0.29698256	2.2249252	20	6 11.7	19.5
408264 2013 FX_{15}	16.9	X	147.71341	195.00799	109.87674	3.49127	0.1905857	0.22869803	2.6482629	20	—	—
408265 2013 FA_{16}	16.4	X	203.14853	306.04832	24.13412	13.58455	0.2852738	0.25902141	2.4373184	20	2 23.6	21.0
408266 2013 FL_{16}	17.1	X	198.46840	190.65070	23.79096	2.34044	0.2384212	0.21837858	2.7310482	20	12 5.8	21.7
408267 2013 FA_{17}	16.7	X	129.45140	95.00973	177.91523	13.56400	0.1791686	0.21020360	2.8014053	20	12 19.2	21.6
408268 2013 FC_{17}	17.4	X	279.08504	166.04752	16.82310	5.86028	0.1487731	0.24074066	2.5591932	20	—	—
408269 2013 FG_{18}	16.8	X	209.99370	284.29456	10.06858	7.52655	0.0986179	0.25213617	2.4814905	20	1 12.4	20.6
408270 2013 FL_{18}	18.1	X	271.38209	163.90465	144.33206	2.62382	0.1234562	0.28237799	2.3009940	20	3 30.6	21.2
408271 2013 FN_{18}	17.3	X	163.91713	86.52110	179.10487	12.42038	0.1515728	0.22335675	2.6903162	20	—	—
408272 2013 FO_{19}	17.7	X	305.49961	215.00124	43.22690	3.47423	0.1557163	0.27453540	2.3446093	20	3 3.2	20.4
408273 2013 FR_{19}	17.6	X	20.96955	149.89754	356.27298	6.97595	0.0459656	0.26823907	2.3811570	20	2 6.9	20.3
408274 2013 FJ_{21}	16.6	X	239.79495	329.81810	19.29481	24.62273	0.1228538	0.28565095	2.2833839	20	4 14.4	19.8
408275 2013 FK_{21}	16.1	X	54.47585	252.86109	28.55335	10.53466	0.1321722	0.18555783	3.0442702	20	10 9.9	20.2
408276 2013 FV_{21}	17.4	X	274.48863	294.83544	16.17387	3.16166	0.2115481	0.27828244	2.3235152	20	3 26.3	20.6
408277 2013 FE_{23}	17.6	X	44.22019	346.84208	201.10453	7.19473	0.0637177	0.29165838	2.2519206	20	5 13.2	19.9
408278 2013 FB_{27}	17.9	X	64.37422	110.80353	58.10806	2.27049	0.0537452	0.29199623	2.2501833	20	5 14.7	20.2
408279 2013 GM	16.6	X	255.83762	139.32753	23.83501	12.08150	0.1082805	0.22870814	2.6481849	20	12 27.9	20.1
408280 2013 GP	16.6	X	188.99106	198.53411	94.80148	6.59282	0.0439315	0.24549230	2.5260627	20	—	—
408281 2013 GJ_{1}	16.2	X	56.36136	230.14500	59.43864	10.39537	0.1559782	0.18844880	3.0130555	20	10 27.3	20.5
408282 2013 GY_{3}	17.9	X	37.76541	306.57051	182.84974	6.75293	0.0586818	0.27057009	2.3674611	20	2 4.9	20.6
408283 2013 GE_{4}	17.5	X	255.49685	234.58182	22.66682	1.48493	0.1519311	0.25669475	2.4520241	20	1 7.6	21.2
408284 2013 GG_{9}	16.7	X	157.89936	266.66271	3.81224	7.46432	0.1765715	0.22292413	2.6937957	20	—	—
408285 2013 GK_{9}	16.9	X	166.41267	53.67313	199.16036	3.05370	0.1811043	0.21967071	2.7203281	20	12 27.6	21.3
408286 2013 GK_{11}	17.4	X	218.05086	46.87157	220.96917	2.70509	0.1811255	0.24250366	2.5467746	20	—	—
408287 2013 GR_{11}	17.5	X	32.80908	32.96225	156.89819	3.04937	0.1102415	0.28574803	2.2828667	20	5 1.1	19.5
408288 2013 GT_{11}	17.5	X	336.30844	274.89852	289.50576	2.14036	0.1131696	0.27307574	2.3529569	20	2 7.5	20.1
408289 2013 GN_{12}	16.9	X	208.71050	22.12908	203.64637	7.48887	0.2000903	0.22482719	2.6785730	20	—	—
408290 2013 GX_{12}	16.6	X	128.44359	89.53989	120.21248	12.80570	0.0855326	0.19184961	2.9773423	20	10 4.1	21.3
408291 2013 GF_{13}	17.4	X	278.91323	55.58879	203.82114	14.49545	0.1778117	0.26691347	2.3890343	20	1 25.6	21.3
408292 2013 GT_{14}	18.3	X	53.13393	183.03981	6.55711	2.62469	0.1023660	0.29569727	2.2313679	20	6 4.4	20.5
408293 2013 GV_{14}	17.4	X	146.04632	228.12362	14.35467	3.39890	0.0698398	0.21194668	2.7860248	20	11 27.8	21.5
408294 2013 GD_{15}	17.8	X	314.12776	241.58664	359.49147	3.93609	0.1516606	0.27318090	2.3523530	20	2 20.7	20.7
408295 2013 GP_{15}	17.0	X	223.60751	179.45504	90.01302	4.35597	0.1439521	0.24519542	2.5281014	20	—	—
408296 2013 GY_{16}	17.6	X	293.26107	161.15353	47.62461	1.93459	0.1230615	0.25634768	2.4542368	20	—	—
408297 2013 GE_{20}	16.3	X	97.84374	42.77364	170.81969	3.87677	0.1500380	0.18043233	3.1016525	20	9 5.4	21.1
408298 2013 GH_{20}	16.2	X	33.39650	204.13321	86.28493	2.20100	0.1586435	0.17980675	3.1088425	20	9 25.2	20.1
408299 2013 GP_{23}	17.9	X	303.75476	13.00066	208.35279	5.99470	0.0823385	0.26344983	2.4099282	20	1 20.8	21.2
408300 2013 GH_{24}	17.1	X	260.77448	318.65397	250.34774	5.03687	0.1553660	0.24236691	2.5477325	20	—	—
408301 2013 GK_{24}	17.4	X	53.89420	241.65781	222.71965	5.33980	0.0732030	0.26598753	2.3945755	20	1 27.9	20.1
408302 2013 GA_{27}	16.0	X	124.49232	151.68208	40.76950	13.35586	0.1162950	0.18639125	3.0351888	20	9 11.4	20.9
408303 2013 GO_{27}	17.7	X	39.04156	181.99745	357.63576	7.39066	0.1088102	0.28335491	2.2957022	20	4 22.6	19.9
408304 2013 GP_{28}	17.9	X	335.72786	48.09109	196.79301	7.21321	0.0657503	0.28307628	2.2972084	20	4 11.6	20.1
408305 2013 GP_{29}	16.7	X	160.94190	279.33325	6.98035	12.11218	0.1551005	0.22847705	2.6499702	20	—	—
408306 2013 GB_{30}	17.0	X	262.65927	268.49909	11.62141	6.38852	0.1386779	0.26418116	2.4054785	20	2 14.3	20.5
408307 2013 GG_{31}	17.7	X	249.50952	225.51141	15.39291	1.42483	0.1297224	0.24603492	2.5223473	20	—	—
408308 2013 GF_{33}	16.4	X	272.72348	173.76544	7.69250	8.91724	0.1022461	0.23702981	2.5858346	20	—	—
408309 2013 GG_{33}	17.4	X	175.94649	17.66337	250.18379	2.64444	0.1131117	0.22723190	2.6596420	20	—	—
408310 2013 GY_{36}	17.0	X	306.06608	82.77272	55.05391	9.76951	0.0815507	0.23466595	2.6031708	20	—	—
408311 2013 GN_{37}	17.5	X	24.27693	54.20036	131.47546	6.01721	0.1009011	0.28085625	2.3092981	20	4 9.6	19.7
408312 2013 GL_{38}	16.9	X	261.22446	116.52667	45.98172	12.48083	0.1058507	0.22722756	2.6596758	20	—	—
408313 2013 GU_{40}	17.0	X	338.38483	217.64849	35.17689	7.89191	0.0837759	0.28494816	2.2871368	20	4 25.6	19.2
408314 2013 GV_{40}	17.2	X	223.11397	214.85053	59.44788	4.09783	0.1168164	0.24684089	2.5168537	20	—	—
408315 2013 GL_{42}	18.0	X	22.20673	111.14364	50.22891	4.54923	0.0874330	0.27119176	2.3638417	20	2 29.5	20.4
408316 2013 GQ_{43}	16.7	X	268.53449	64.41100	121.56888	12.63130	0.1353260	0.23442690	2.6049402	20	—	—
408317 2013 GU_{43}	16.9	X	77.67698	107.82836	123.24777	2.47921	0.1362297	0.17562913	3.1579483	20	9 3.7	21.4
408318 2013 GG_{47}	17.9	X	84.77392	280.38719	208.15179	2.93171	0.1012579	0.29110878	2.2547541	20	4 24.2	20.2
408319 2013 GC_{49}	18.2	X	18.14766	81.33377	89.13021	1.58389	0.1472721	0.27544586	2.3394399	20	3 2.7	19.9
408320 2013 GE_{50}	16.8	X	209.77078	191.25180	68.07642	13.88633	0.1373796	0.22857685	2.6491989	20	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408321 2013 GF_{50}	16.7	X	105.91957	96.27939	177.70087	14.70122	0.1350413	0.20272055	2.8699271	20	11 28.7	21.4
408322 2013 GR_{52}	16.1	X	115.37555	142.27007	41.55650	10.43450	0.1499584	0.17614101	3.1518272	20	8 22.5	21.2
408323 2013 GZ_{52}	17.7	X	277.09081	206.58174	73.65318	3.63034	0.2103143	0.26463280	2.4027409	20	2 21.2	21.2
408324 2013 GA_{53}	17.5	X	223.38824	105.58242	125.49891	3.38688	0.1266975	0.23128034	2.6285136	20	—	—
408325 2013 GF_{53}	16.5	X	157.26801	215.31226	50.28744	9.61021	0.0931229	0.21790342	2.7350169	20	—	—
408326 2013 GU_{53}	16.8	X	205.01233	196.96348	59.99260	7.55071	0.1302328	0.23150233	2.6268331	20	—	—
408327 2013 GM_{55}	17.8	X	289.12703	78.42040	142.00516	3.02604	0.1412558	0.25485414	2.4638159	20	—	—
408328 2013 GY_{63}	18.2	X	126.16077	180.63669	283.80787	2.51679	0.0971538	0.29099093	2.2553628	20	5 15.0	21.1
408329 2013 GA_{67}	18.0	X	348.65233	8.95002	198.84978	2.29808	0.1277664	0.27814778	2.3242651	20	3 1.0	20.4
408330 2013 GE_{68}	17.2	X	221.22763	35.35172	148.86727	10.12664	0.1682231	0.21934600	2.7230121	20	12 1.4	21.3
408331 2013 GW_{71}	16.4	X	244.69705	118.91170	109.49147	12.42816	0.1417296	0.23749756	2.5824382	20	—	—
408332 2013 GO_{73}	15.4	X	137.76163	295.75715	54.16842	14.23103	0.3097138	0.23300490	2.6155278	20	2 1.4	20.0
408333 2013 GT_{73}	16.1	X	79.88315	137.88797	122.82373	10.88652	0.1058417	0.17905235	3.1175687	20	10 13.3	20.8
408334 2013 GN_{74}	16.9	X	181.49898	155.91200	70.66429	9.92285	0.0817009	0.21847328	2.7302589	20	12 17.1	20.8
408335 2013 GZ_{74}	16.3	X	177.85504	147.91030	91.35737	9.26370	0.2021004	0.21297609	2.7770401	20	12 19.4	20.8
408336 2013 GK_{75}	18.1	X	343.12201	143.90012	47.51600	1.25072	0.1104295	0.26531957	2.3985928	20	2 2.9	20.5
408337 2013 GZ_{75}	18.3	X	330.28077	36.29086	191.70298	2.28586	0.1510365	0.27747882	2.3279992	20	2 24.5	20.7
408338 2013 GM_{77}	17.3	X	251.64620	88.19628	114.06051	5.06096	0.0549612	0.23159656	2.6261205	20	—	—
408339 2013 GH_{78}	15.7	X	88.11446	34.39540	198.11551	14.90699	0.2173745	0.17571247	3.1569497	20	9 23.9	20.7
408340 2013 GO_{79}	17.3	X	329.76547	49.47292	186.00708	6.74974	0.0892853	0.27322364	2.3521077	20	3 15.9	19.8
408341 2013 GR_{79}	16.2	X	65.67568	129.05974	175.47102	9.57671	0.0819568	0.19383506	2.9569762	20	11 15.9	20.5
408342 2013 GB_{81}	18.1	X	359.88123	149.34457	25.60640	1.67954	0.1159657	0.26724851	2.3870372	20	2 6.7	20.5
408343 2013 GM_{81}	17.7	X	117.41053	88.94045	44.80911	7.76231	0.0574112	0.29603520	2.2296694	20	6 9.5	20.6
408344 2013 GN_{81}	16.2	X	344.05857	286.69527	177.90619	21.99500	0.0539495	0.23358883	2.6111671	20	—	—
408345 2013 GJ_{82}	16.9	X	203.55860	199.19125	27.27581	6.70367	0.1258685	0.22268488	2.6957248	20	—	—
408346 2013 GC_{83}	17.4	X	356.48594	359.92154	204.06698	6.08025	0.0768962	0.27394791	2.3479602	20	3 14.5	19.8
408347 2013 GK_{83}	15.8	X	124.94705	137.52497	57.96309	11.78146	0.0472082	0.17634902	3.1493482	20	9 9.1	20.6
408348 2013 GL_{83}	17.1	X	221.82913	100.80176	145.94881	2.76563	0.1606924	0.23038061	2.6353528	20	—	—
408349 2013 GS_{83}	17.3	X	6.59032	356.15239	152.64197	4.37693	0.1518618	0.25788939	2.4444457	20	1 8.8	19.7
408350 2013 GS_{84}	17.1	X	343.77149	178.46066	107.00545	5.84963	0.1001072	0.29371256	2.2414086	20	6 26.6	19.0
408351 2013 GU_{84}	16.4	X	147.75427	143.48594	140.77783	12.56345	0.0368196	0.22334322	2.6904248	20	—	—
408352 2013 GD_{85}	15.8	X	65.73919	189.68490	104.36505	12.67947	0.2033803	0.18558986	3.0439199	20	11 18.7	20.5
408353 2013 GM_{86}	17.1	X	172.32153	131.98302	163.44293	12.65783	0.0950461	0.23128509	2.6284776	20	—	—
408354 2013 GC_{87}	15.9	X	139.10875	174.89981	79.99765	16.43135	0.1020889	0.20418628	2.8561763	20	12 5.4	20.4
408355 2013 GX_{88}	17.4	X	102.13884	340.85235	170.59208	5.81177	0.0701623	0.29769117	2.2213931	20	6 17.4	20.2
408356 2013 GE_{89}	17.3	X	286.76021	170.32155	60.05050	4.24865	0.0344218	0.26169622	2.4206820	20	1 20.7	20.5
408357 2013 GS_{89}	17.5	X	353.14221	314.54342	11.42204	3.21848	0.1717550	0.31685647	2.1308898	20	10 5.8	18.9
408358 2013 GU_{89}	16.7	X	226.97850	295.21066	16.46081	10.61614	0.2071009	0.26031594	2.4292313	20	2 18.4	20.9
408359 2013 GO_{90}	16.1	X	227.18748	79.04167	81.60233	13.94498	0.1569537	0.21404105	2.7678210	20	11 11.2	20.2
408360 2013 GT_{90}	16.2	X	29.19031	130.06687	156.90398	9.21927	0.2066175	0.17286051	3.1915785	20	9 20.4	20.0
408361 2013 GF_{91}	16.3	X	68.68632	214.75834	67.24877	6.08827	0.1253725	0.18101418	3.0950024	20	10 26.2	20.8
408362 2013 GG_{91}	16.9	X	134.75980	327.59650	338.35582	5.17155	0.0551772	0.22584236	2.6705401	20	—	—
408363 2013 GS_{91}	16.8	X	299.55896	330.18008	250.32389	6.01876	0.1141264	0.25700744	2.4500348	20	1 11.6	20.2
408364 2013 GW_{91}	16.3	X	227.88321	229.86884	25.25129	12.68893	0.2348963	0.23668867	2.5883186	20	—	—
408365 2013 GX_{91}	17.2	X	205.36818	101.45886	120.42927	13.10309	0.3038953	0.21980546	2.7192161	20	12 16.3	21.9
408366 2013 GZ_{91}	17.1	X	250.15922	250.32318	326.04714	3.40361	0.2733094	0.23522850	2.5990188	20	—	—
408367 2013 GM_{93}	18.0	X	76.57285	10.79685	161.18325	5.38625	0.0664796	0.29689306	2.2253723	20	6 10.4	20.5
408368 2013 GN_{94}	16.8	X	195.21589	13.40254	189.36809	9.61098	0.1516134	0.21393686	2.7687196	20	11 27.2	21.2
408369 2013 GP_{94}	17.5	X	289.15315	190.61088	50.14740	2.87814	0.1630409	0.26025019	2.4296405	20	1 20.2	21.0
408370 2013 GS_{94}	17.8	X	0.79589	306.91878	244.85349	3.87062	0.0846448	0.27448762	2.3448813	20	3 2.5	20.2
408371 2013 GF_{95}	16.6	X	212.06410	127.45190	122.14862	5.31991	0.1050205	0.23364139	2.6107755	20	—	—
408372 2013 GH_{95}	16.1	X	101.03322	174.01837	46.62560	11.26125	0.0947992	0.18337820	3.0683454	20	9 17.9	20.8
408373 2013 GQ_{95}	16.1	X	93.96660	53.27683	186.05729	9.40980	0.1157799	0.18241761	3.0791077	20	9 29.6	20.6
408374 2013 GW_{95}	16.7	X	235.29426	166.83108	79.67657	6.08630	0.1148129	0.23941286	2.5686468	20	—	—
408375 2013 GZ_{95}	16.5	X	181.27440	193.29327	52.47796	14.65882	0.1181849	0.21839545	2.7309075	20	—	—
408376 2013 GG_{96}	17.4	X	358.26071	192.43492	0.41278	6.93191	0.0650966	0.27148379	2.3621462	20	3 5.5	19.8
408377 2013 GU_{96}	16.5	X	211.00041	191.10183	60.35679	14.00163	0.1041017	0.22743621	2.6580489	20	—	—
408378 2013 GB_{98}	16.6	X	187.17158	154.28259	79.03232	13.86193	0.0907917	0.21582464	2.7525510	20	12 29.9	20.6
408379 2013 GC_{98}	15.7	X	55.15471	339.64558	70.53132	22.76576	0.0417889	0.23029203	2.6360285	20	—	—
408380 2013 GP_{98}	17.0	X	234.43194	118.49200	102.35482	2.92026	0.0774597	0.23317667	2.6142432	20	—	—
408381 2013 GP_{99}	15.9	X	85.44506	125.19239	112.41759	10.99566	0.1900754	0.17602459	3.1532167	20	10 1.0	20.9
408382 2013 GU_{99}	17.4	X	277.84113	11.01114	185.42080	4.08605	0.0938960	0.24345211	2.5401558	20	—	—
408383 2013 GG_{100}	16.0	X	46.57434	260.61411	24.38197	15.84869	0.2167451	0.17575621	3.1564259	20	10 14.2	20.3
408384 2013 GH_{101}	17.6	X	91.83533	313.65479	185.00465	2.04267	0.1711163	0.28864376	2.2675729	20	5 31.2	20.3
408385 2013 GJ_{101}	16.9	X	50.52963	260.23108	183.76801	3.89200	0.0326432	0.24780339	2.5103323	20	—	—
408386 2013 GQ_{102}	17.1	X	155.25483	89.18412	172.92139	5.10948	0.1232694	0.21832291	2.7315124	20	12 30.7	21.4
408387 2013 GF_{103}	17.6	X	347.70276	347.71221	254.53496	2.34929	0.1249538	0.28635345	2.2796479	20	4 21.2	19.4
408388 2013 GC_{104}	17.3	X	67.06576	325.29876	166.94487	4.21854	0.0858606	0.27903006	2.3193630	20	3 31.8	19.8
408389 2013 GK_{105}	16.5	X	265.58570	288.55297	254.71534	6.13107	0.1277081	0.23432653	2.6056840	20	—	—
408390 2013 GX_{105}	17.9	X	71.01646	298.32945	183.08555	7.80536	0.0366794	0.27594163	2.3366369	20	3 14.2	20.5
408391 2013 GM_{106}	17.7	X	73.17655	291.60027	239.70777	5.14798	0.1047823	0.29570318	2.2313381	20	6 10.2	20.0
408392 2013 GX_{108}	17.1	X	230.00028	274.40836	333.77900	6.22414	0.1287152	0.23916485	2.5704223	20	—	—
408393 2013 GG_{109}	17.3	X	52.92733	272.93833	246.26770	5.12984	0.1297485	0.28169298	2.3047228	20	4 20.9	19.7
408394 2013 GQ_{109}	16.2	X	189.80031	211.95965	72.30040	14.21311	0.1511024	0.23181171	2.6244953	20	—	—
408395 2013 GE_{111}	16.7	X	71.18556	242.78611	32.78529	4.13438	0.1806229	0.18680668	3.0306872	20	10 27.2	21.3
408396 2013 GL_{111}	15.3	X	53.84984	239.65035	77.64396	8.89831	0.1221545	0.18763727	3.0217369	20	11 20.8	19.5
408397 2013 GU_{111}	16.8	X	236.65791	279.67754	286.88893	4.82532	0.2054160	0.22824037	2.6518019	20	—	—
408398 2013 GV_{111}	17.3	X	346.47598	124.62693	71.24943	5.93904	0.1697081	0.26633791	2.3924749	20	2 7.8	19.7
408399 2013 GY_{111}	17.2	X	233.50319	222.77663	353.54961	7.51984	0.1809171	0.22937008	2.6430875	20	—	—
408400 2013 GZ_{111}	16.8	X	282.36953	318.80231	289.60661	5.28473	0.0970458	0.25858038	2.4400890	20	1 29.2	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408401 2013 GC_{112}	16.2	X	158.82450	40.08393	231.23766	12.48328	0.0809606	0.21859398	2.7292538	20	—	—
408402 2013 GE_{112}	17.4	X	36.97593	145.14063	23.83363	6.95659	0.0552231	0.27607179	2.3359024	20	4 2.4	19.7
408403 2013 GE_{113}	16.5	X	282.87955	358.55780	195.09368	12.90304	0.0928546	0.23880426	2.5730092	20	—	—
408404 2013 GF_{113}	16.5	X	103.12331	173.92167	76.77850	1.73565	0.2278633	0.18540849	3.0459046	20	11 1.2	21.5
408405 2013 GS_{113}	17.2	X	235.93408	29.04965	165.41535	5.32038	0.1040384	0.22509360	2.6764592	20	—	—
408406 2013 GT_{113}	17.8	X	60.37633	125.95464	52.43108	7.55869	0.0346429	0.28973310	2.2618856	20	5 19.4	20.4
408407 2013 GR_{122}	16.7	X	59.91496	126.41622	174.98586	9.07863	0.1251023	0.19067005	2.9896090	20	11 10.6	21.0
408408 2013 GB_{123}	17.6	X	222.42254	228.58254	41.17635	11.22878	0.1915751	0.24216061	2.5491793	20	—	—
408409 2013 GS_{123}	17.9	X	124.12136	283.74451	179.26982	1.88531	0.0490889	0.28948154	2.2631958	20	5 5.3	20.6
408410 2013 GY_{124}	17.6	X	271.72265	173.25638	43.82479	3.89224	0.1228936	0.24468455	2.5316190	20	—	—
408411 2013 GH_{127}	16.9	X	164.34999	185.37890	142.07816	6.32363	0.1871848	0.23643144	2.5901956	20	1 13.5	20.9
408412 2013 GO_{127}	15.9	X	9.38509	248.57096	70.12422	4.11205	0.1489900	0.17289739	3.1911246	20	9 22.3	19.7
408413 2013 GT_{127}	17.0	X	194.50260	147.84813	155.92663	7.51230	0.1413558	0.23986156	2.5654425	20	1 9.3	21.2
408414 2013 GA_{130}	17.0	X	201.52128	84.41120	126.15367	12.70326	0.1747938	0.21702308	2.7424082	20	12 11.5	21.4
408415 2013 GG_{134}	17.1	X	130.02292	156.56663	128.74786	4.12003	0.0763866	0.21610019	2.7502106	20	—	—
408416 2013 GP_{134}	16.5	X	89.83760	194.62437	56.91771	9.62587	0.0584075	0.18893250	3.0079107	20	10 8.3	20.9
408417 2013 GA_{135}	17.3	X	153.20912	239.16572	195.08734	9.69640	0.0622042	0.28516164	2.2859952	20	5 5.3	20.3
408418 2013 GB_{135}	17.7	X	310.48106	132.31060	109.92053	3.24254	0.0411000	0.26879611	2.3778661	20	3 6.7	20.5
408419 2013 HG	17.4	X	39.86310	325.64986	59.23451	22.66508	0.0922875	0.35732842	1.9667886	20	—	—
408420 2013 HX	15.6	X	121.09259	109.27027	79.20902	10.94191	0.1717679	0.17694658	3.1422538	20	9 4.5	20.8
408421 2013 HA_{1}	16.4	X	42.26520	247.62722	31.47652	12.86842	0.1570028	0.17565535	3.1576340	20	9 25.9	20.6
408422 2013 HQ_{1}	17.8	X	320.07558	34.06061	199.05107	7.60815	0.0718962	0.27153035	2.3618762	20	2 27.9	20.7
408423 2013 HV_{1}	17.0	X	259.99174	237.72951	67.65721	12.08300	0.2065574	0.26441202	2.4040782	20	3 12.6	20.9
408424 2013 HE_{2}	16.4	X	144.03970	209.06455	91.10286	10.07912	0.1464168	0.21931260	2.7232886	20	—	—
408425 2013 HX_{2}	16.2	X	182.52256	159.76875	100.24556	14.81233	0.1511138	0.22364149	2.6880322	20	—	—
408426 2013 HX_{3}	17.5	X	58.51493	35.67228	68.86824	6.98772	0.1133010	0.26674735	2.3900261	20	2 13.5	20.0
408427 2013 HD_{6}	15.9	X	124.23657	336.03721	202.23002	14.94729	0.1388551	0.17118902	3.2123198	20	8 14.1	21.2
408428 2013 HO_{6}	16.1	X	63.90858	189.29069	76.95552	11.63946	0.0578352	0.18468906	3.0538095	20	9 26.9	20.6
408429 2013 HO_{8}	16.5	X	210.89382	77.30783	173.00565	14.86340	0.1088955	0.23117442	2.6293165	20	—	—
408430 2013 HS_{9}	15.7	X	95.56118	217.26737	69.42369	16.21222	0.1249322	0.20339484	2.8635807	20	12 1.2	20.0
408431 2013 HH_{14}	17.0	X	243.22211	172.19912	47.76982	3.85261	0.0952838	0.23574314	2.5952349	20	—	—
408432 2013 HK_{14}	17.6	X	46.36343	300.48772	191.71867	17.78121	0.0892517	0.26807344	2.3821377	20	2 22.9	20.4
408433 2013 HL_{14}	15.9	X	46.14197	160.18555	148.12741	23.93894	0.1953062	0.17936799	3.1139102	20	11 14.8	20.7
408434 2013 HO_{14}	16.5	X	286.07826	323.78387	201.27972	11.65330	0.1416767	0.23434664	2.6055349	20	—	—
408435 2013 HR_{14}	16.7	X	83.10045	80.58591	212.25363	6.01035	0.0447549	0.19721768	2.9230673	20	11 16.5	20.9
408436 2013 HJ_{15}	16.0	X	241.60660	315.67138	263.79686	12.44304	0.1258153	0.23114128	2.6295678	20	—	—
408437 2013 HV_{15}	16.9	X	258.49553	64.30285	134.62032	6.52031	0.1885276	0.23239386	2.6201106	20	—	—
408438 2013 HX_{15}	17.0	X	279.89223	293.00330	260.05641	3.30530	0.1554254	0.23722350	2.5844268	20	—	—
408439 2013 HA_{16}	16.3	X	210.54401	267.85942	42.26025	7.47418	0.2086340	0.24207608	2.5497727	20	2 3.4	20.7
408440 2013 HN_{21}	16.3	X	55.23531	157.95901	150.48472	2.73886	0.2445712	0.18534427	3.0466082	20	11 26.8	20.9
408441 2013 HP_{21}	17.6	X	211.76013	135.88301	68.06799	4.38301	0.1323046	0.21732127	2.7398990	20	12 16.9	21.7
408442 2013 HV_{21}	16.8	X	154.63336	162.27615	135.07143	5.72329	0.2291081	0.22231229	2.6987360	20	—	—
408443 2013 HQ_{22}	16.9	X	247.94790	239.94118	347.52950	3.00972	0.1751738	0.23990328	2.5651450	20	—	—
408444 2013 HZ_{22}	15.2	X	38.76473	171.54957	123.80601	14.81296	0.1673173	0.17225677	3.1990315	20	10 14.5	19.7
408445 2013 HK_{23}	17.0	X	258.70907	320.28606	204.21520	15.45198	0.1996720	0.22516542	2.6758900	20	12 18.3	20.5
408446 2013 HL_{23}	16.3	X	296.83240	293.64379	225.35211	12.04576	0.1072540	0.23359453	2.6111246	20	—	—
408447 2013 HN_{23}	17.2	X	285.32150	110.47177	135.14609	5.63761	0.0959757	0.26088385	2.4257047	20	1 29.4	20.5
408448 2013 HK_{24}	17.7	X	304.85849	311.21926	230.42532	2.96736	0.1397775	0.24613797	2.5216432	20	—	—
408449 2013 HR_{25}	16.6	X	263.14305	112.52154	92.63550	14.09739	0.1372121	0.23828897	2.5767172	20	—	—
408450 2013 HG_{26}	17.5	X	4.19321	352.12746	199.75331	7.56730	0.0721861	0.27434055	2.3457193	20	3 9.7	20.1
408451 2013 HT_{26}	15.7	X	153.65545	118.06691	100.50470	11.88600	0.0433745	0.19213867	2.9743554	20	11 8.7	20.2
408452 2013 HX_{26}	16.0	X	51.65892	205.09535	118.08156	18.77318	0.2123792	0.18350088	3.0669776	20	12 8.8	20.7
408453 2013 HO_{27}	17.1	X	320.98978	135.80321	29.58418	4.30348	0.1510414	0.24459544	2.5322338	20	—	—
408454 2013 HL_{28}	16.7	X	181.70908	144.32013	99.28780	8.97559	0.1204484	0.21321641	2.7749530	20	—	—
408455 2013 HF_{34}	17.2	X	27.52124	76.76474	308.93060	4.67676	0.0429679	0.21847232	2.7302669	20	—	—
408456 2013 HQ_{37}	17.7	X	93.07564	74.22176	353.75536	7.51097	0.1235076	0.26347858	2.4097529	20	2 18.7	20.5
408457 2013 HT_{41}	17.1	X	97.04439	29.18139	280.26316	3.27130	0.0533725	0.21225011	2.7833689	20	12 26.1	21.2
408458 2013 HC_{47}	15.7	X	27.31476	290.55158	12.81142	10.82936	0.0539807	0.18262615	3.0767632	20	9 20.4	19.7
408459 2013 HR_{52}	17.5	X	98.49926	89.80741	331.24698	5.93470	0.1059369	0.26291748	2.4131801	20	2 12.9	20.2
408460 2013 HB_{54}	16.4	X	32.67971	283.03067	353.79575	6.47719	0.1386775	0.17375912	3.1805652	20	9 2.4	20.4
408461 2013 HC_{56}	17.2	X	220.07847	355.14707	249.78932	2.74112	0.1303528	0.23514505	2.5996337	20	—	—
408462 2013 HE_{56}	17.1	X	109.24282	29.74476	265.46945	2.98727	0.0782453	0.21202659	2.7853247	20	12 23.7	21.3
408463 2013 HR_{59}	16.9	X	125.17754	355.30420	268.51987	4.32750	0.0773012	0.20625461	2.8370497	20	12 1.2	21.1
408464 2013 HW_{60}	18.3	X	112.94240	206.59878	240.81870	3.79468	0.1110503	0.27980929	2.3150549	20	4 5.8	21.2
408465 2013 HP_{62}	17.4	X	160.38177	7.30994	245.83564	2.33490	0.0671088	0.21639429	2.7477182	20	12 27.5	21.3
408466 2013 HE_{64}	17.2	X	13.74275	267.50962	234.11578	5.67658	0.0703803	0.26032500	2.4291750	20	1 16.9	20.0
408467 2013 HR_{65}	18.2	X	145.61113	58.82967	352.14549	6.47611	0.0995781	0.27568866	2.3380661	20	3 26.6	21.4
408468 2013 HU_{68}	17.3	X	66.96074	140.23996	12.48617	6.88429	0.0619037	0.28416329	2.2913463	20	4 24.3	19.8
408469 2013 HH_{71}	17.4	X	88.63992	310.59441	10.60355	3.55465	0.0927187	0.21243638	2.7817416	20	—	—
408470 2013 HG_{76}	17.9	X	156.31914	317.88924	356.41213	4.83580	0.0906780	0.23511744	2.5998372	20	—	—
408471 2013 HG_{79}	17.1	X	19.33909	13.19170	322.69768	0.85509	0.1256284	0.18998545	2.9967866	20	10 28.7	20.7
408472 2013 HY_{80}	17.3	X	60.09006	295.58174	46.24198	0.42701	0.0773489	0.20981120	2.8048971	20	12 25.7	21.3
408473 2013 HP_{82}	16.9	X	169.75724	291.54701	9.52567	3.39489	0.1793157	0.23086449	2.6316692	20	—	—
408474 2013 HY_{87}	17.3	X	88.44437	122.27948	207.27967	2.73725	0.0652566	0.21875461	2.7279175	20	—	—
408475 2013 HP_{92}	17.1	X	116.84861	248.99861	351.88152	2.45517	0.2100392	0.19262478	2.9693492	20	10 30.7	22.0
408476 2013 HC_{93}	16.7	X	299.22218	322.89602	209.01744	14.70240	0.0558011	0.24216724	2.5491328	20	—	—
408477 2013 HM_{99}	17.3	X	108.20133	309.11847	9.39972	4.79161	0.1086949	0.21905748	2.7254025	20	—	—
408478 2013 HW_{102}	17.4	X	128.24718	252.88870	17.35695	6.42142	0.0177034	0.21166059	2.7885346	20	12 11.3	21.4
408479 2013 HU_{105}	18.0	X	185.11305	166.75402	188.04925	0.75678	0.2033649	0.26164656	2.4209883	20	3 2.7	21.8
408480 2013 HX_{115}	17.5	X	87.08915	95.01000	189.45224	3.06940	0.2064174	0.19306100	2.9648748	20	11 26.1	22.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408481 2013 HQ_{117}	17.5	X	241.97467	336.40536	39.74503	6.62708	0.0968804	0.29534466	2.2331435	20	5 28.8	20.4
408482 2013 HO_{121}	17.2	X	84.09295	130.80377	202.35010	5.61736	0.0407234	0.21694981	2.7430257	20	—	—
408483 2013 HF_{138}	16.9	X	144.24824	289.99860	25.10260	4.41130	0.1953431	0.22854074	2.6494779	20	—	—
408484 2013 HW_{142}	17.6	X	93.45572	230.21236	189.98677	6.28747	0.1187397	0.25858715	2.4400464	20	2 4.8	20.5
408485 2013 JS_{5}	16.3	X	102.64864	342.52797	258.58808	4.02389	0.1634598	0.18413694	3.0599108	20	10 13.7	21.2
408486 2013 JN_{6}	17.9	X	92.95307	58.23202	72.06104	6.63013	0.1034602	0.28708583	2.2757692	20	5 10.6	20.6
408487 2013 JP_{8}	17.3	X	140.49710	242.72684	54.63315	6.70402	0.1194433	0.21755074	2.7379720	20	—	—
408488 2013 JY_{8}	17.4	X	151.15284	135.39367	152.40844	4.05489	0.0730933	0.21619517	2.7494050	20	—	—
408489 2013 JC_{9}	17.8	X	87.33140	101.38196	46.16992	1.15111	0.1482093	0.28859296	2.2678390	20	6 2.8	20.4
408490 2013 JG_{9}	17.0	X	87.62743	131.50370	215.96678	5.02710	0.0404479	0.22003269	2.7173437	20	—	—
408491 2013 JV_{10}	17.4	X	2.18985	40.36215	100.24826	3.76987	0.0836177	0.25130511	2.4869583	20	—	—
408492 2013 JG_{11}	17.1	X	166.05904	128.03561	125.12585	3.16545	0.1767610	0.21192649	2.7862017	20	12 26.6	21.8
408493 2013 JW_{13}	16.7	X	95.61428	258.19900	66.29759	6.10860	0.0383738	0.21173372	2.7878925	20	—	—
408494 2013 JR_{15}	16.1	X	140.56459	113.31810	75.47721	17.93323	0.1213133	0.18355888	3.0663316	20	9 26.0	21.3
408495 2013 JA_{19}	16.7	X	86.01654	174.03739	71.32607	4.28954	0.0981664	0.17693859	3.1423484	20	9 27.6	21.4
408496 2013 JK_{19}	15.8	X	46.08355	74.51843	233.56154	7.17329	0.1635385	0.17923537	3.1154461	20	11 2.6	20.1
408497 2013 JV_{20}	16.4	X	99.28277	244.18889	6.30024	8.94989	0.0889593	0.18370929	3.0646577	20	10 14.8	21.0
408498 2013 JE_{21}	16.9	X	218.10642	166.40621	209.20175	21.81859	0.1532806	0.27219207	2.3580467	20	4 27.9	20.5
408499 2013 JP_{21}	16.4	X	215.40103	132.63657	100.12521	14.82716	0.0974703	0.22476565	2.6790620	20	—	—
408500 2013 JV_{21}	17.0	X	134.41056	151.73676	163.52333	10.26228	0.0569251	0.22385842	2.6862954	20	—	—
408501 2013 JO_{24}	16.7	X	110.24012	136.06986	67.95369	4.44451	0.1286913	0.17651882	3.1473282	20	9 6.5	21.6
408502 2013 JP_{24}	16.5	X	69.05195	71.03082	216.35658	8.93273	0.0730176	0.18870965	3.0102783	20	10 25.5	20.8
408503 2013 JT_{24}	16.9	X	302.46644	320.74670	202.84241	2.82286	0.0654318	0.23570530	2.5955126	20	—	—
408504 2013 JM_{25}	16.9	X	185.82937	206.23356	67.96348	11.26879	0.1497750	0.23021475	2.6366185	20	—	—
408505 2013 JZ_{25}	16.2	X	90.26093	97.72550	180.49066	11.73444	0.1035835	0.18812619	3.0164992	20	11 13.2	20.8
408506 2013 JJ_{26}	16.1	X	299.97717	252.89242	147.33463	10.88411	0.0212963	0.18075666	3.0979413	20	9 24.7	20.4
408507 2013 JK_{27}	17.3	X	187.73173	118.99198	168.04842	6.65816	0.1351490	0.23029390	2.6360143	20	—	—
408508 2013 JA_{28}	16.7	X	80.22549	155.82505	176.44838	9.45617	0.1090725	0.20256915	2.8713569	20	—	—
408509 2013 JW_{30}	17.0	X	15.60949	104.63568	159.85521	9.51198	0.1205058	0.29301634	2.2449577	20	7 27.2	19.1
408510 2013 JO_{31}	17.0	X	229.84397	123.50712	99.39489	8.35600	0.1572118	0.22876708	2.6477300	20	—	—
408511 2013 JS_{32}	15.3	X	2.96120	249.31178	101.23549	16.43644	0.1506729	0.17399726	3.1776625	20	10 29.5	19.4
408512 2013 JT_{32}	16.2	X	12.28520	194.36059	139.66192	9.92106	0.1052401	0.17378784	3.1802148	20	10 14.1	20.3
408513 2013 JO_{36}	16.3	X	81.86734	117.23087	171.45102	8.69949	0.1158762	0.18765945	3.0214987	20	11 17.8	20.9
408514 2013 JT_{36}	16.0	X	188.87262	343.24567	182.32057	11.43613	0.0482353	0.18624665	3.0367595	20	10 10.1	20.4
408515 2013 JY_{36}	15.4	X	71.18836	183.06818	82.37464	14.87422	0.1551940	0.17369963	3.1812914	20	10 17.3	20.3
408516 2013 JF_{37}	16.7	X	232.41685	87.73329	153.13804	3.82290	0.0992270	0.23259645	2.6185890	20	—	—
408517 2013 JK_{37}	15.7	X	107.93797	14.63802	216.04770	16.79785	0.1646140	0.17836568	3.1255649	20	10 5.1	20.8
408518 2013 JZ_{37}	15.8	X	2.58308	171.35702	175.15701	27.31625	0.1431127	0.17472875	3.1687877	20	10 17.7	19.8
408519 2013 JB_{38}	15.6	X	20.73642	150.63274	151.84461	21.79982	0.0954783	0.17067310	3.2187902	20	9 12.7	19.8
408520 2013 JC_{38}	16.6	X	354.15890	232.74038	221.30250	14.41133	0.1128396	0.22808907	2.6529744	20	—	—
408521 2013 JB_{39}	16.9	X	205.55629	98.17222	129.01307	8.91350	0.0955425	0.21533967	2.7566821	20	—	—
408522 2013 JQ_{39}	16.7	X	92.30458	117.03283	213.87260	3.20223	0.0991521	0.20843620	2.8172190	20	—	—
408523 2013 JK_{40}	16.1	X	59.37684	214.65030	117.75458	11.07906	0.0965417	0.19620018	2.9331647	20	12 13.9	20.4
408524 2013 JS_{41}	17.9	X	96.32863	1.74617	127.14638	8.37845	0.0539008	0.28227142	2.3015731	20	5 7.8	20.8
408525 2013 JR_{43}	16.0	X	112.94357	48.82313	193.45483	10.96253	0.0851528	0.18369566	3.0648093	20	10 21.4	20.5
408526 2013 JV_{43}	17.0	X	164.98007	9.42017	268.48538	1.69808	0.1024382	0.22137751	2.7063277	20	—	—
408527 2013 JZ_{43}	16.3	X	286.01455	312.60667	221.37866	5.22393	0.0514810	0.23259815	2.6185762	20	—	—
408528 2013 JP_{46}	16.1	X	321.83387	218.47810	200.03623	10.26052	0.1069368	0.19126101	2.9834477	20	11 13.9	19.7
408529 2013 JB_{47}	16.1	X	95.05657	97.86812	181.10889	10.92144	0.1166001	0.18635298	3.0356043	20	11 19.7	20.8
408530 2013 JP_{47}	16.6	X	86.76604	69.78845	190.71886	11.19409	0.2300851	0.17939934	3.1135474	20	10 30.1	21.6
408531 2013 JB_{48}	17.4	X	335.39167	97.59050	131.42792	2.67441	0.1429410	0.27375619	2.3490562	20	3 9.3	19.8
408532 2013 JF_{48}	16.5	X	173.94108	219.03351	105.74837	12.20998	0.1310719	0.23618900	2.5919678	20	1 15.9	20.4
408533 2013 JR_{48}	16.6	X	225.98406	161.55948	79.25771	4.68198	0.1452732	0.23007856	2.6376588	20	—	—
408534 2013 JD_{51}	16.3	X	11.32340	234.67810	98.10653	7.23399	0.1883848	0.17266618	3.1939726	20	10 20.1	20.1
408535 2013 JR_{51}	17.7	X	349.07098	96.16866	169.07630	6.09926	0.0954781	0.28417908	2.2912614	20	6 4.8	19.9
408536 2013 JN_{52}	16.5	X	145.17894	162.59147	112.45454	5.10232	0.0657939	0.21208656	2.7847996	20	—	—
408537 2013 JX_{53}	17.0	X	63.26225	210.07866	200.48077	3.70186	0.0930003	0.23727311	2.5840666	20	—	—
408538 2013 JY_{53}	16.2	X	82.59449	307.59761	47.00521	17.16404	0.3013405	0.21075604	2.7965077	20	—	—
408539 2013 JO_{54}	17.1	X	126.67112	123.71896	197.28025	4.47156	0.0345887	0.22215502	2.7000095	20	—	—
408540 2013 JT_{54}	17.0	X	126.21305	92.91845	156.06394	4.05684	0.0663665	0.19469827	2.9482297	20	11 13.4	21.4
408541 2013 JE_{55}	16.4	X	45.93081	67.71406	220.80783	9.63632	0.1849798	0.17238388	3.1974588	20	10 10.2	20.7
408542 2013 JL_{55}	16.3	X	105.39385	166.59116	80.01456	5.68650	0.1540281	0.18369367	3.0648314	20	10 25.5	21.2
408543 2013 JH_{60}	17.0	X	39.92273	90.84727	85.79779	7.35844	0.0545246	0.27303091	2.3532144	20	4 21.4	19.7
408544 2013 JJ_{60}	16.3	X	51.21164	103.41728	183.73670	6.87166	0.1390775	0.17369977	3.1812896	20	10 11.1	20.6
408545 2013 JT_{60}	17.1	X	288.69355	302.49499	244.05118	2.51266	0.0461602	0.23503036	2.6004794	20	—	—
408546 2013 JN_{61}	16.7	X	72.21722	82.48905	231.35035	3.93041	0.1674537	0.19012184	2.9953532	20	12 11.8	21.2
408547 2013 JX_{61}	16.2	X	63.16308	64.11330	209.05812	8.16584	0.0617790	0.17586215	3.1551581	20	9 25.8	20.7
408548 2013 KQ_{3}	17.2	X	237.31715	192.09844	52.95574	3.06971	0.0943203	0.23568942	2.5956292	20	—	—
408549 2013 KM_{5}	17.3	X	290.64737	136.00203	94.93187	3.24618	0.1274979	0.25308664	2.4752737	20	1 14.4	20.6
408550 2013 KW_{5}	17.3	X	1.95875	198.80517	76.88538	7.00439	0.1169725	0.29201107	2.2501070	20	7 19.8	19.3
408551 2013 KG_{8}	16.4	X	307.13438	335.59019	179.80243	22.09710	0.0965940	0.22782549	2.6550203	20	—	—
408552 2013 KH_{8}	15.5	X	111.17664	122.55662	118.75432	23.28927	0.1708494	0.18269804	3.0759560	20	11 2.4	20.9
408553 2013 KM_{8}	16.2	X	114.17971	154.63353	58.86502	1.85966	0.1324752	0.17974684	3.1095332	20	9 21.2	20.9
408554 2013 KR_{9}	16.4	X	242.54014	283.71937	213.91947	9.61511	0.0743096	0.19767460	2.9185612	20	11 5.6	20.5
408555 2013 KK_{10}	16.4	X	79.14686	31.53608	242.26222	2.99909	0.2053736	0.17934671	3.1141565	20	11 3.4	21.2
408556 2013 KB_{11}	17.2	X	208.78313	142.63566	116.02380	5.40795	0.0400905	0.22794527	2.6540901	20	—	—
408557 2013 KQ_{11}	16.8	X	144.96119	359.96204	213.46552	4.55644	0.1230157	0.18645267	3.0345222	20	10 19.7	21.5
408558 2013 KP_{12}	16.4	X	253.86243	136.18788	87.70688	15.67928	0.0568750	0.23251996	2.6191631	20	—	—
408559 2013 KT_{12}	16.2	X	315.68997	344.37608	195.22650	5.21815	0.1616304	0.24335710	2.5408169	20	—	—
408560 2013 KA_{14}	16.2	X	152.63622	72.56380	137.75520	10.61632	0.0071584	0.19003398	2.9962764	20	10 28.1	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408561 2013 KC_{14}	15.9	X	33.09093	254.69710	87.41125	10.15521	0.1244941	0.18740778	3.0242033	20	11 25.8	20.0
408562 2013 KJ_{14}	16.5	X	149.74670	3.00511	206.86584	6.60294	0.0558192	0.18703264	3.0282458	20	10 19.7	20.9
408563 2013 KD_{15}	16.1	X	106.73328	65.38628	173.94954	10.90811	0.0682074	0.17958263	3.1114286	20	10 9.8	20.7
408564 2013 KJ_{17}	15.5	X	47.25058	179.11533	124.38946	16.89202	0.0831228	0.18188761	3.0850863	20	10 26.3	20.1
408565 2013 KQ_{18}	15.5	X	80.40787	142.39702	122.00911	28.47725	0.1843360	0.17577861	3.1561577	20	11 3.0	20.9
408566 2013 LR_{1}	17.4	X	20.87030	173.88569	58.76341	6.03259	0.1171006	0.28423691	2.2909507	20	6 15.0	19.4
408567 2013 LL_{3}	17.0	X	146.13548	126.89895	160.41794	15.01105	0.0876033	0.21047160	2.7990267	20	—	—
408568 2013 LL_{4}	16.2	X	239.34331	154.87165	97.45011	18.50417	0.1897234	0.23383984	2.6092982	20	—	—
408569 2013 LG_{5}	16.8	X	168.28192	144.46083	210.56602	4.21012	0.2317147	0.24061242	2.5601025	20	2 19.7	21.2
408570 2013 LO_{5}	16.5	X	269.65815	33.49450	172.77286	12.92118	0.1046477	0.23705830	2.5856274	20	—	—
408571 2013 LP_{5}	16.3	X	150.91438	168.10403	103.94566	15.02363	0.1671211	0.21054417	2.7983835	20	—	—
408572 2013 LU_{5}	15.7	X	294.57922	337.93185	55.63650	6.60329	0.0746685	0.17420575	3.1751267	20	9 2.9	20.0
408573 2013 LH_{6}	16.5	X	37.50932	221.68110	233.23803	11.32717	0.1510766	0.24425143	2.5346109	20	—	—
408574 2013 LA_{7}	15.2	X	49.19424	180.05463	109.38655	19.27283	0.1379908	0.17428124	3.1742098	20	10 20.1	20.0
408575 2013 LG_{8}	15.6	X	66.92571	40.36837	255.80593	8.32686	0.1353388	0.18121124	3.0927582	20	11 8.7	20.1
408576 2013 LK_{11}	16.8	X	229.50591	342.13935	205.80988	7.74570	0.0835289	0.21002851	2.8029620	20	12 22.5	20.8
408577 2013 LU_{11}	17.0	X	114.51368	186.65258	150.58119	8.99846	0.0834068	0.21555719	2.7548273	20	—	—
408578 2013 LK_{13}	17.1	X	52.26973	205.72711	196.07905	5.84626	0.0437316	0.21914169	2.7247043	20	—	—
408579 2013 LR_{16}	15.6	X	29.38751	65.88785	251.92132	8.07011	0.0407261	0.17719827	3.1392777	20	10 3.6	20.0
408580 2013 LN_{18}	16.8	X	184.60408	54.11699	184.49288	8.36983	0.0914879	0.21087184	2.7954839	20	—	—
408581 2013 LR_{18}	15.5	X	36.22488	98.18071	231.72066	14.37826	0.0861843	0.18164229	3.0878633	20	11 6.3	19.8
408582 2013 LB_{19}	17.3	X	160.17236	59.59159	213.49465	2.63865	0.0562624	0.21584227	2.7524011	20	—	—
408583 2013 LT_{20}	15.6	X	76.26684	194.32431	59.94309	17.24004	0.0753607	0.17410418	3.1763615	20	10 1.1	20.4
408584 2013 LK_{22}	17.0	X	274.78449	35.03759	183.72768	9.99020	0.0999474	0.23922001	2.5700272	20	—	—
408585 2013 LW_{22}	17.2	X	195.60874	52.89249	167.85274	6.43690	0.0719995	0.20950192	2.8076569	20	12 24.7	21.4
408586 2013 LL_{23}	15.9	X	45.46853	189.04253	143.68988	12.90132	0.1406144	0.18601755	3.0392524	20	12 3.1	20.4
408587 2013 LV_{24}	16.0	X	282.45387	295.92167	150.33529	8.02720	0.0700268	0.18866198	3.0107853	20	10 25.6	20.1
408588 2013 LZ_{24}	15.9	X	24.39509	179.10727	159.63269	11.65223	0.0762478	0.18088561	3.0964688	20	11 3.9	20.2
408589 2013 LZ_{25}	16.4	X	34.22868	202.05618	135.11281	12.40328	0.2405540	0.17820565	3.1274358	20	12 6.6	20.8
408590 2013 LP_{26}	16.9	X	86.00446	94.62404	183.29842	7.97266	0.2109055	0.18319873	3.0703490	20	11 17.4	21.8
408591 2013 LA_{32}	15.9	X	0.04327	244.64870	121.17096	11.67456	0.1217780	0.18256736	3.0774237	20	11 9.3	19.9
408592 2013 LE_{32}	15.5	X	105.63194	61.63990	169.19980	16.29912	0.0269986	0.17513750	3.1638554	20	9 22.7	20.0
408593 2013 LG_{32}	16.5	X	72.60860	251.66097	107.67798	15.82203	0.1638520	0.20449437	2.8533068	20	—	—
408594 2013 LJ_{32}	16.0	X	216.25708	325.07874	163.58021	9.91713	0.0586354	0.17954957	3.1118104	20	9 24.2	20.5
408595 2013 LP_{33}	17.0	X	289.43641	121.52787	75.11851	17.08125	0.1255170	0.23837985	2.5760622	20	—	—
408596 2013 LG_{34}	16.2	X	283.98777	166.60763	48.85374	5.15352	0.1934054	0.24387578	2.5372130	20	—	—
408597 2013 LB_{35}	16.5	X	81.35419	107.59120	154.95869	10.44715	0.0777874	0.17636276	3.1491847	20	10 11.3	21.1
408598 2013 MB_{2}	15.8	X	189.38122	352.33279	160.34699	11.48602	0.0722284	0.17932054	3.1144595	20	9 22.9	20.4
408599 2013 MJ_{2}	16.4	X	105.88446	112.32972	118.86627	11.73058	0.0798546	0.17751266	3.1355699	20	10 3.4	21.2
408600 2013 ME_{6}	15.9	X	84.27069	128.15310	168.69241	10.39821	0.1994453	0.18668395	3.0320154	20	12 7.0	20.9
408601 2013 MV_{11}	15.5	X	4.57660	176.25004	183.46285	26.96030	0.1308286	0.17451882	3.1713283	20	11 5.5	19.7
408602 2013 NN_{1}	14.8	X	271.04996	231.13360	122.53996	11.89657	0.1926954	0.12411141	3.9804140	20	5 26.0	20.7
408603 2013 OC_{7}	16.7	X	11.83976	349.43639	179.40926	12.56809	0.1329217	0.23259740	2.6185818	20	2 22.1	19.5
408604 2013 OG_{10}	15.8	X	100.63006	142.77436	156.61144	17.30447	0.1351525	0.18471734	3.0534977	20	12 19.5	20.9
408605 2013 QB_{19}	16.1	X	124.31410	134.69330	142.89389	10.47750	0.0480215	0.17537696	3.1609747	20	12 10.9	20.9
408606 2013 QY_{25}	16.0	X	16.06087	278.83657	149.26686	9.29956	0.0574127	0.18903892	3.0067817	20	—	—
408607 2013 QF_{26}	15.2	X	333.17832	233.61007	141.95429	10.94226	0.1019242	0.15064425	3.4981172	20	10 1.1	19.7
408608 2013 QK_{49}	16.3	X	150.15057	72.27927	200.96588	10.38353	0.0092652	0.18169129	3.0873081	20	—	—
408609 2013 RA_{73}	13.7	X	206.22316	175.87812	195.87022	13.45596	0.0648259	0.08199874	5.2472442	20	4 23.1	20.9
408610 2013 TA_{40}	15.9	X	160.85741	260.56102	23.88422	4.60239	0.0255717	0.17353661	3.1832835	20	—	—
408611 2013 YO_{16}	16.8	X	232.11286	154.57377	279.03226	5.86502	0.0843635	0.23843725	2.5756488	20	8 3.7	20.4
408612 2014 FE_{30}	16.9	X	236.60312	284.70342	172.51413	27.17427	0.2233352	0.23972284	2.5664321	20	8 22.6	21.0
408613 2014 GT_{16}	18.3	X	64.03069	64.39702	205.75839	20.63092	0.0535092	0.36857540	1.9265716	20	10 28.7	20.1
408614 2014 HM_{164}	15.9	X	7.19142	148.92000	134.47945	14.77651	0.2031756	0.17959286	3.1113104	20	8 4.3	19.1
408615 2014 KJ_{16}	18.5	X	257.07355	95.48081	203.20146	4.61389	0.1988349	0.29875823	2.2161006	20	2 19.6	22.0
408616 2014 KT_{33}	16.5	X	105.13463	140.91223	131.26946	14.07370	0.1883267	0.22238493	2.6981482	20	12 3.1	21.2
408617 2014 KQ_{34}	15.4	X	302.00271	224.11058	126.09657	22.97393	0.0828701	0.18238987	3.0794198	20	7 15.2	19.5
408618 2014 KT_{42}	16.1	X	168.64483	57.25620	184.37506	15.08870	0.1016838	0.24005183	2.5640867	20	12 24.8	20.3
408619 2014 KK_{53}	16.2	X	355.13966	103.65089	214.29152	11.39597	0.1253013	0.18793023	3.0185957	20	8 21.2	19.9
408620 2014 KB_{56}	17.6	X	118.83050	101.80992	180.19034	7.09614	0.2737428	0.22733609	2.6588294	20	12 25.2	22.5
408621 2014 KN_{57}	18.0	X	286.51269	79.20702	140.89486	6.41847	0.1267374	0.28465589	2.2887021	20	—	—
408622 2014 KQ_{65}	15.6	X	52.49560	357.34407	234.39588	16.80572	0.1274974	0.18071484	3.0984192	20	7 26.5	20.1
408623 2014 KO_{70}	16.4	X	13.42138	205.60189	148.97397	6.67003	0.0589402	0.21615339	2.7497594	20	11 13.3	20.0
408624 2014 KS_{71}	16.5	X	38.32790	124.43553	158.81350	5.51361	0.2132763	0.19098551	2.9863161	20	10 3.7	20.3
408625 2014 KN_{74}	16.3	X	87.84382	347.83380	195.99230	8.88018	0.0564729	0.17544653	3.1601391	20	7 5.2	20.9
408626 2014 KP_{89}	16.8	X	159.64671	140.86683	99.39038	5.16123	0.1879361	0.23391015	2.6087753	20	12 9.8	21.0
408627 2014 KO_{93}	15.9	X	338.59847	62.04794	241.71361	4.28951	0.1097545	0.17625033	3.1505237	20	7 6.6	19.8
408628 2014 KO_{94}	16.1	X	323.95204	179.95028	131.41144	11.30091	0.0993826	0.17132479	3.2106225	20	6 24.5	20.3
408629 2014 KM_{99}	17.1	X	151.94018	247.66066	97.04200	7.38227	0.1405371	0.27050305	2.3678523	20	1 14.1	20.3
408630 2014 LC_{11}	18.4	X	292.59921	71.72714	216.81169	4.11980	0.2057140	0.29987633	2.2105886	20	3 14.2	21.1
408631 2014 LD_{11}	17.9	X	285.96450	101.07549	136.17325	6.11123	0.1831495	0.27902262	2.3194042	20	1 6.4	21.3
408632 2014 LE_{12}	18.1	X	243.48277	55.35349	266.38981	4.30996	0.2248696	0.29779542	2.2208746	20	3 5.2	21.7
408633 2014 LF_{13}	17.1	X	117.90540	318.33485	320.53961	1.12403	0.1744914	0.22660524	2.6645431	20	12 18.9	21.4
408634 2014 LO_{16}	15.8	X	71.09954	326.67436	295.50141	14.28898	0.1991161	0.18574156	3.0422623	20	10 5.4	20.7
408635 2014 LQ_{17}	15.6	X	337.83198	200.75424	132.47446	14.61319	0.1131989	0.18873965	3.0099593	20	8 17.3	19.2
408636 2014 LL_{19}	17.2	X	171.21839	102.81217	213.63955	6.53146	0.1397303	0.26744786	2.3858509	20	—	—
408637 2014 LO_{25}	16.0	X	180.98178	178.49817	113.26319	16.85244	0.2890627	0.24278003	2.5448415	20	—	—
408638 2014 MJ_{1}	16.4	X	137.89185	336.36738	231.94364	9.41574	0.1177133	0.21148268	2.7900983	20	10 7.8	21.0
408639 2014 MC_{4}	16.9	X	51.47521	91.36683	286.12714	6.41678	0.2247879	0.21551798	2.7551614	20	—	—
408640 2014 MM_{4}	16.4	X	64.71718	323.70891	345.51145	7.43050	0.1975338	0.20311351	2.8662243	20	12 3.2	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408641 2014 MX_7	17.2	X	116.05195	215.21518	132.54233	5.12132	0.1520708	0.23853058	2.5749769	20	—	—
408642 2014 MT_9	16.0	X	18.43854	200.49898	109.90984	11.11615	0.1089810	0.19485872	2.9466111	20	9 28.9	19.9
408643 2014 MR_{10}	16.3	X	113.21306	163.62249	142.36454	13.95155	0.1815466	0.22262449	2.6962123	20	—	—
408644 2014 MS_{13}	17.1	X	39.94664	256.86600	125.46723	7.10865	0.0195167	0.22197002	2.7015095	20	—	—
408645 2014 MV_{13}	17.0	X	116.71217	133.16547	140.56071	5.47026	0.0819436	0.21051308	2.7986590	20	12 6.4	21.3
408646 2014 MB_{14}	15.7	X	263.85300	241.97716	147.80318	11.03687	0.0783572	0.17790676	3.1309376	20	7 14.3	20.2
408647 2014 MG_{14}	17.8	X	239.76529	163.81845	110.65032	3.26123	0.2091114	0.26976255	2.3721835	20	1 9.9	21.8
408648 2014 MA_{15}	15.7	X	338.37331	208.41104	138.24180	10.05629	0.0838519	0.17414948	3.1758106	20	9 4.6	19.7
408649 2014 MB_{15}	17.5	X	199.20533	43.98835	268.31368	3.53701	0.1028412	0.26407834	2.4061029	20	1 19.9	21.1
408650 2014 MC_{15}	16.9	X	7.41425	218.76891	126.19401	10.21467	0.2679904	0.18289684	3.0737266	20	11 12.5	20.4
408651 2014 MN_{15}	17.2	X	95.83120	104.43161	178.76091	8.82313	0.1965271	0.21939221	2.7226297	20	12 6.1	21.8
408652 2014 MO_{15}	17.5	X	212.70317	42.06799	254.87465	6.16605	0.1036904	0.27867045	2.3213579	20	1 12.1	20.8
408653 2014 MQ_{15}	16.1	X	357.54348	44.78741	251.40707	5.34949	0.1873010	0.17764268	3.1340398	20	7 30.1	19.4
408654 2014 MX_{19}	17.3	X	271.54330	169.74050	99.43830	7.37910	0.1077495	0.28405513	2.2919280	20	2 10.2	20.5
408655 2014 MD_{20}	17.3	X	219.24794	242.81923	121.74819	3.51957	0.2340055	0.28582894	2.2824359	20	4 11.9	21.0
408656 2014 ML_{20}	18.1	X	256.94030	190.17691	127.99367	5.23888	0.1898029	0.29490284	2.2353734	20	3 20.4	21.4
408657 2014 MO_{20}	18.2	X	275.15203	119.59123	151.83657	5.34997	0.1599514	0.28683366	2.2771028	20	2 8.9	21.5
408658 2014 MV_{20}	17.5	X	281.65609	215.39716	103.31504	5.25862	0.2062799	0.30153357	2.2024815	20	4 15.8	20.3
408659 2014 ME_{24}	16.4	X	32.30311	270.34643	109.78999	11.20223	0.0294324	0.21923229	2.7239536	20	—	—
408660 2014 MJ_{24}	17.1	X	134.01146	229.76838	114.68989	6.49650	0.1609124	0.24620337	2.5211967	20	—	—
408661 2014 MS_{24}	17.6	X	230.77743	184.62464	101.14605	3.65094	0.1680945	0.27163756	2.3612547	20	1 17.1	21.3
408662 2014 MG_{25}	16.8	X	22.65600	193.81287	127.60494	4.91059	0.1411536	0.18652426	3.0337457	20	10 19.1	20.6
408663 2014 MS_{25}	16.9	X	218.05238	273.30928	301.96799	11.83195	0.1123939	0.23521164	2.5991430	20	—	—
408664 2014 MC_{26}	16.5	X	121.01264	170.05731	114.34770	7.81064	0.0137714	0.21743738	2.7389236	20	12 22.3	20.3
408665 2014 MF_{28}	17.2	X	117.74441	214.96307	122.46227	9.13883	0.2027110	0.23110352	2.6298542	20	—	—
408666 2014 MT_{28}	15.4	X	348.74324	191.42433	110.89387	18.73040	0.1774985	0.17613769	3.1518667	20	7 22.0	18.7
408667 2014 MU_{30}	18.1	X	222.97027	258.27302	87.83323	5.88300	0.1624795	0.28355326	2.2946315	20	3 27.2	21.7
408668 2014 MM_{31}	16.3	X	309.07114	27.31716	121.67485	11.43706	0.0653027	0.23899195	2.5716618	20	—	—
408669 2014 MX_{31}	15.7	X	148.49061	233.12246	303.69263	14.30583	0.0327003	0.17780476	3.1321349	20	8 31.4	20.4
408670 2014 MA_{37}	17.2	X	123.19926	12.02111	306.61139	13.36381	0.1312838	0.23082805	2.6319461	20	—	—
408671 2014 MB_{37}	17.4	X	111.29508	273.11005	78.85449	6.38324	0.1571352	0.23701285	2.5859579	20	—	—
408672 2014 MN_{37}	17.3	X	250.21914	159.71503	105.85234	5.03298	0.1633439	0.26787054	2.3833405	20	1 10.5	21.1
408673 2014 MB_{38}	16.2	X	118.26238	208.06887	89.47821	7.81322	0.0529840	0.21253919	2.7808445	20	—	—
408674 2014 MC_{38}	16.1	X	37.59197	231.77729	107.28709	12.68453	0.1384797	0.19105972	2.9855427	20	12 1.7	20.2
408675 2014 MG_{38}	16.0	X	9.86935	267.28302	108.65147	12.38056	0.0988775	0.19255594	2.9700568	20	12 4.4	19.9
408676 2014 MK_{38}	17.0	X	186.71340	309.45246	306.70386	11.38293	0.1021893	0.23167367	2.6255377	20	—	—
408677 2014 MM_{38}	16.0	X	93.57156	300.32141	314.83982	11.03964	0.1922532	0.19192865	2.9765248	20	10 21.7	20.9
408678 2014 MS_{38}	15.8	X	14.89696	261.25766	116.63750	10.44761	0.0747103	0.19680402	2.9271619	20	12 11.1	19.7
408679 2014 MA_{39}	16.9	X	161.58523	247.11892	32.45072	5.42987	0.2410034	0.23770447	2.5809395	20	—	—
408680 2014 MO_{39}	18.2	X	275.50150	225.43413	62.46489	4.72945	0.1463385	0.28914916	2.2649299	20	3 6.2	21.2
408681 2014 MX_{39}	16.0	X	84.69879	136.31672	102.48664	10.68405	0.0553732	0.17432586	3.1736681	20	9 14.7	20.7
408682 2014 MA_{43}	16.4	X	306.12712	176.04048	227.48284	3.80662	0.1582574	0.18081744	3.0972469	20	9 19.4	20.0
408683 2014 MM_{43}	16.9	X	120.45234	127.84084	208.84926	8.23240	0.1276244	0.22687363	2.6624413	20	—	—
408684 2014 MR_{47}	16.0	X	80.37549	118.05982	98.32779	11.78280	0.0540374	0.18799104	3.0179447	20	8 10.6	20.3
408685 2014 MN_{49}	17.3	X	66.72144	15.09442	330.56063	3.48594	0.1255793	0.21779065	2.7359609	20	—	—
408686 2014 MQ_{49}	16.7	X	150.70426	197.55319	89.46032	6.46310	0.0522622	0.23471133	2.6028353	20	—	—
408687 2014 MA_{50}	16.7	X	73.20787	152.38233	192.44664	13.94111	0.1255564	0.23556761	2.5965240	20	—	—
408688 2014 MU_{52}	15.9	X	101.32921	82.40367	280.19481	13.61407	0.1173798	0.23249555	2.6193465	20	—	—
408689 2014 MT_{54}	16.6	X	85.34796	1.39034	336.24167	11.28525	0.1443695	0.22144644	2.7057661	20	—	—
408690 2014 MS_{56}	15.7	X	354.65189	256.28006	108.41174	17.11920	0.1753464	0.18491331	3.0513400	20	11 7.4	19.5
408691 2014 MX_{56}	17.4	X	59.24330	331.99431	10.48342	3.70261	0.1009605	0.21033181	2.8002668	20	12 28.9	21.4
408692 2014 MR_{57}	16.0	X	320.37993	260.59088	117.18370	12.67824	0.1321758	0.17312302	3.1883514	20	9 17.2	20.0
408693 2014 MM_{61}	16.4	X	198.74031	270.31626	295.32773	8.05240	0.0506774	0.21622608	2.7491430	20	12 13.8	20.4
408694 2014 MT_{61}	16.5	X	207.91119	169.83738	74.87444	8.04490	0.1458550	0.24314703	2.5422801	20	—	—
408695 2014 MT_{62}	17.8	X	311.82738	119.70488	126.04549	4.04685	0.1416618	0.29111098	2.2547427	20	2 22.9	20.2
408696 2014 ME_{63}	17.1	X	100.22713	214.93768	136.46440	13.70808	0.1174342	0.22853732	2.6495043	20	—	—
408697 2014 MX_{63}	18.0	X	242.90245	143.95801	122.25357	3.40964	0.1915670	0.26879857	2.3778516	20	1 3.3	21.7
408698 2014 ML_{64}	16.8	X	249.45521	325.63486	214.33874	3.40917	0.0458815	0.22462748	2.6801605	20	—	—
408699 2014 MS_{68}	16.5	X	156.66060	189.11850	84.36038	6.55076	0.2457835	0.23497750	2.6008693	20	—	—
408700 2014 ND_{12}	17.7	X	276.00616	348.25168	293.58803	6.86601	0.1181277	0.29208452	2.2497298	20	2 25.4	20.7
408701 2014 NZ_{30}	17.9	X	322.96570	14.45695	220.00289	4.61089	0.1134822	0.29160998	2.2521698	20	2 24.8	20.4
408702 2014 ND_{31}	17.4	X	190.02057	90.13285	150.91901	4.39648	0.2368102	0.23759902	2.5817030	20	—	—
408703 2014 NF_{31}	15.7	X	328.83054	223.71160	129.28316	7.48821	0.0624211	0.17360494	3.1824481	20	8 29.9	19.8
408704 2014 NG_{31}	16.0	X	307.73616	272.54510	124.23924	26.82468	0.2429710	0.17387293	3.1791772	20	9 7.2	19.9
408705 2014 NG_{33}	17.5	X	85.26249	146.98181	183.98991	1.57390	0.0360427	0.22044581	2.7139477	20	—	—
408706 2014 NT_{33}	16.2	X	330.92883	264.35521	127.36318	9.74038	0.1227475	0.18923341	3.0047212	20	10 27.3	19.9
408707 2014 NB_{48}	15.6	X	267.97165	327.95070	99.48564	12.69046	0.1013765	0.18396540	3.0618127	20	9 9.4	20.0
408708 2014 NX_{49}	17.3	X	351.36544	116.76573	90.67408	6.26263	0.0326958	0.28896333	2.2659008	20	3 18.8	19.9
408709 2014 NW_{52}	17.8	X	285.98791	205.84907	94.17431	5.27696	0.2024173	0.29887452	2.2155257	20	3 27.2	20.7
408710 2014 NP_{53}	17.7	X	221.96059	153.18047	124.53644	2.90495	0.1634869	0.26493990	2.4008838	20	—	—
408711 2014 NB_{54}	18.3	X	146.43040	17.28617	328.36938	7.93151	0.2979623	0.24529687	2.5274043	20	1 29.1	22.5
408712 2014 NL_{54}	17.7	X	226.00491	251.42455	92.40215	7.32480	0.1854318	0.28367772	2.2939603	20	3 26.9	21.4
408713 2014 NR_{59}	17.4	X	270.73543	184.77027	103.71551	6.48929	0.1039262	0.28408613	2.2917612	20	3 7.5	20.5
408714 2014 NY_{61}	15.7	X	330.32795	55.91945	322.90619	9.06217	0.1254791	0.18775429	3.0204812	20	9 29.8	19.3
408715 2014 OJ_4	17.9	X	311.44091	16.52973	266.42013	3.62518	0.2079009	0.30751716	2.1738178	20	3 30.9	20.3
408716 2014 OS_4	16.4	X	22.53946	10.76535	282.06244	6.83254	0.0389547	0.17292302	3.1908092	20	8 23.6	20.8
408717 2014 OK_{15}	17.3	X	265.59635	320.85519	298.88866	5.59614	0.1951643	0.27925642	2.3181094	20	1 14.1	20.7
408718 2014 OO_{16}	17.0	X	212.60009	356.58462	225.99131	2.90988	0.0203017	0.23219151	2.6216325	20	—	—
408719 2014 OL_{17}	16.9	X	50.05517	104.34417	256.32216	2.56846	0.1079097	0.21478430	2.7614321	20	—	—
408720 2014 OY_{18}	16.8	X	35.52411	98.71712	242.89297	1.13373	0.0679562	0.20106643	2.8856457	20	11 21.9	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408721 2014 OC_{22}	17.0	X	69.19221	103.33136	165.99814	2.36537	0.1175978	0.18800608	3.0177838	20	10 10.2	21.2
408722 2014 OE_{28}	18.2	X	299.45718	132.99494	112.62874	3.30294	0.1614595	0.28805838	2.2706440	20	2 3.3	20.9
408723 2014 OY_{32}	17.2	X	186.72776	179.93542	27.65301	3.92226	0.0366786	0.21276933	2.7788388	20	12 2.4	21.1
408724 2014 OR_{33}	16.4	X	308.83407	295.90124	109.13211	10.65431	0.0849235	0.18663165	3.0325818	20	10 11.5	20.4
408725 2014 OL_{36}	17.7	X	246.00867	266.22693	350.91176	3.01454	0.1608021	0.26682962	2.3895348	20	—	—
408726 2014 OG_{41}	18.3	X	287.44305	286.75735	355.25270	3.81855	0.1232304	0.29448225	2.2375013	20	3 12.9	20.8
408727 2014 ON_{42}	15.7	X	334.71905	270.42725	110.76896	11.00802	0.0791412	0.18687825	3.0299134	20	10 20.3	19.7
408728 2014 OL_{47}	17.1	X	199.19572	99.48739	114.41597	10.02863	0.1425377	0.22625402	2.6672999	20	12 17.2	21.1
408729 2014 OF_{49}	17.5	X	95.60980	313.16015	98.96615	3.24623	0.1535952	0.25609338	2.4558612	20	2 5.5	20.3
408730 2014 OJ_{49}	16.9	X	64.04126	250.61800	59.22321	2.92301	0.0869590	0.20078091	2.8883807	20	11 20.5	20.9
408731 2014 OF_{52}	17.7	X	45.00327	311.08862	92.83425	2.87021	0.0307409	0.23225952	2.6211208	20	—	—
408732 2014 OT_{56}	16.6	X	310.57523	25.40452	59.61106	2.91938	0.0674578	0.20424753	2.8556053	20	12 4.1	20.2
408733 2014 OO_{59}	17.7	X	330.88386	161.14475	89.36516	5.09531	0.1141368	0.30106281	2.2047768	20	4 6.4	19.8
408734 2014 OB_{63}	17.3	X	304.38508	128.12591	98.68439	7.54677	0.0764649	0.27409420	2.3471246	20	1 30.8	20.3
408735 2014 OX_{65}	18.3	X	321.38900	281.32784	350.01335	3.15955	0.1651643	0.30696976	2.1764013	20	4 8.2	20.3
408736 2014 OB_{66}	17.0	X	135.24167	223.12016	23.51755	1.39586	0.1597849	0.20991161	2.8040026	20	11 22.8	21.6
408737 2014 OE_{66}	18.2	X	275.16572	215.92524	358.02820	2.57212	0.1458984	0.26076333	2.4264520	20	—	—
408738 2014 OG_{80}	17.2	X	295.52249	183.72296	14.50137	4.88304	0.0626609	0.26287507	2.4134397	20	—	—
408739 2014 OO_{80}	15.9	X	339.99560	359.88557	336.26662	8.89285	0.0865116	0.17366588	3.1817036	20	8 23.1	19.8
408740 2014 OL_{109}	19.0	X	239.24403	353.20647	349.89995	3.88653	0.1803057	0.29281056	2.2460093	20	4 2.2	22.2
408741 2014 OM_{111}	18.0	X	299.21528	40.47174	209.53948	2.06455	0.1386234	0.28795905	2.2711661	20	2 10.9	21.0
408742 2014 OF_{112}	16.8	X	210.26230	351.95934	339.52419	11.09519	0.3135094	0.26234683	2.4166783	20	2 24.1	21.2
408743 2014 OT_{115}	15.7	X	299.70790	279.11755	126.01194	16.84454	0.2323335	0.17519097	3.1632115	20	9 4.2	19.5
408744 2014 OF_{127}	16.7	X	50.98205	274.51075	126.26616	13.97929	0.1756439	0.22579781	2.6708915	20	—	—
408745 2014 OJ_{129}	14.9	X	15.42867	353.73488	327.68368	27.93098	0.1745235	0.17382769	3.1797288	20	9 21.3	19.1
408746 2014 OG_{141}	17.3	X	252.53245	153.04643	93.56607	4.15753	0.1653398	0.26633237	2.3925081	20	—	—
408747 2014 OP_{179}	17.4	X	154.68295	320.98793	90.23470	6.29885	0.2057188	0.27445140	2.3450877	20	4 17.9	21.2
408748 2014 OZ_{241}	18.9	X	311.41455	282.55941	12.25634	2.18340	0.1697779	0.31100909	2.1575159	20	4 26.9	20.9
408749 2014 OT_{276}	16.9	X	133.58221	205.28535	96.77503	5.81076	0.1844497	0.22659239	2.6646439	20	—	—
408750 4308 P–L	17.4	X	123.09055	185.87560	195.69530	5.06790	0.2681512	0.23754036	2.5821280	20	2 15.9	21.3
408751 1987 SF_3	19.0	X	253.64611	134.56930	186.99789	3.34653	0.5344473	0.29164613	2.2519836	20	2 27.6	23.7
408752 1991 TB_2	17.0	X	258.88910	199.34387	291.94265	7.94399	0.7926547	0.33702937	2.0449886	20	8 27.2	20.9
408753 1992 SU_3	18.1	X	210.48061	351.88988	7.99090	4.53220	0.1480280	0.27076983	2.3662967	20	3 30.8	21.8
408754 1992 SX_{10}	18.5	X	249.84099	230.83244	66.55380	2.12185	0.1951881	0.26908865	2.3761424	20	2 16.9	22.2
408755 1993 TG_6	18.1	X	96.30465	163.33743	221.13656	6.09892	0.2656490	0.23211727	2.6221916	20	1 20.3	21.5
408756 1995 FU_8	16.3	X	267.35892	71.04407	66.68816	5.94130	0.1294338	0.18192540	3.0846590	20	11 25.9	20.5
408757 1995 SS_{19}	17.1	X	325.90753	212.52059	15.00724	6.91412	0.0682443	0.25996736	2.4314023	20	3 6.4	19.9
408758 1995 UK_{78}	17.1	X	68.14412	32.67942	345.13930	4.35227	0.0766664	0.20818814	2.8194565	20	—	—
408759 1997 CL_{23}	17.8	X	132.75577	96.80109	332.75907	2.62077	0.1562256	0.26390745	2.4071415	20	4 12.4	21.2
408760 1997 SA_6	16.8	X	321.31030	55.72449	354.24819	11.94187	0.2720238	0.17397728	3.1779059	20	10 13.2	19.9
408761 1997 TV_2	15.7	X	17.47567	6.34853	13.74212	17.02626	0.1086827	0.17639991	3.1487425	20	12 12.5	20.2
408762 1997 TZ_{22}	17.0	X	132.01098	340.55403	13.08819	4.93799	0.2151254	0.23114142	2.6295668	20	1 19.3	21.0
408763 1998 BU_{16}	17.4	X	109.86932	116.71670	323.90546	8.09587	0.0910950	0.27183533	2.3601093	20	3 19.1	20.5
408764 1998 BC_{22}	16.8	X	94.09184	78.72434	302.07509	10.40119	0.2030480	0.22286765	2.6942508	20	1 7.0	20.1
408765 1998 DY_{21}	16.7	X	314.86830	186.66335	346.52100	8.26690	0.1846600	0.21736018	2.7395720	20	—	—
408766 1998 QO_{58}	16.2	X	55.65996	324.64604	355.17092	8.02745	0.0988890	0.18460997	3.0546816	20	11 18.7	20.6
408767 1998 SK_{20}	17.0	X	49.98914	164.06086	173.34527	5.35152	0.2512707	0.18600397	3.0394003	20	12 25.5	21.6
408768 1998 SQ_{49}	17.9	X	322.67756	257.52103	41.93594	8.55546	0.3799983	0.30897313	2.1669834	20	4 15.8	19.5
408769 1998 TW_{22}	16.1	X	35.98508	355.90949	40.56926	10.89851	0.0958751	0.18680547	3.0307003	20	—	—
408770 1998 TQ_{38}	16.3	X	14.00577	347.47217	32.79574	11.29929	0.0691714	0.18249825	3.0782006	20	12 5.4	20.6
408771 1998 US_{50}	16.7	X	329.25902	13.24418	37.23372	10.34699	0.0721672	0.18019368	3.1043906	20	11 10.4	20.6
408772 1998 WU_2	15.4	X	9.45535	148.55550	232.67389	13.55826	0.0610468	0.18100140	3.0951480	20	12 1.2	19.5
408773 1998 WX_{25}	15.9	X	354.71196	27.62876	46.35317	10.91061	0.0240092	0.18612585	3.0380733	20	—	—
408774 1998 XT_6	17.0	X	62.49410	178.23877	236.14513	9.33272	0.1674273	0.23671128	2.5881538	20	—	—
408775 1999 CT_{15}	16.2	X	65.60271	137.17771	341.80645	34.72556	0.3062672	0.23846172	2.5754726	20	3 27.9	19.6
408776 1999 GM_{56}	16.9	X	142.79393	326.57170	8.36427	21.92675	0.0503493	0.22364239	2.6880250	20	—	—
408777 1999 JD_{111}	16.9	X	285.75021	178.41832	78.36714	7.31320	0.2189464	0.27394093	2.3480000	20	1 29.4	20.4
408778 1999 TE_{64}	17.7	X	224.10622	314.17859	3.62834	2.76820	0.1927319	0.26441106	2.4040840	20	2 19.9	21.7
408779 1999 UV_{32}	18.0	X	178.19678	336.23883	26.72247	1.64233	0.1835029	0.26043032	2.4285200	20	3 6.9	21.8
408780 1999 VQ_{17}	16.8	X	330.06643	25.70579	21.24522	8.97387	0.0828036	0.18929348	3.0040854	20	11 8.5	20.5
408781 1999 VP_{57}	17.8	X	175.39784	340.26327	52.22369	3.31180	0.2083514	0.26253979	2.4154940	20	4 11.0	21.7
408782 1999 VO_{65}	17.6	X	199.24909	327.72594	50.84189	7.87019	0.2061056	0.26385709	2.4074478	20	4 14.7	21.6
408783 1999 VQ_{71}	15.5	X	342.91079	334.17443	57.22402	10.60624	0.0269901	0.18761048	3.0220246	20	11 8.4	19.5
408784 1999 WS_{22}	17.6	X	178.90658	138.20556	234.10963	3.65339	0.1547954	0.25966070	2.4333163	20	3 15.9	21.4
408785 1999 XY_{145}	17.8	X	234.81208	264.86227	75.35181	2.29436	0.1970445	0.26390934	2.4071300	20	3 28.0	21.6
408786 1999 XA_{146}	18.3	X	140.93491	222.12096	203.77762	0.69599	0.1464478	0.25968611	2.4331575	20	4 16.7	21.9
408787 2000 AK_{221}	16.6	X	24.03853	297.34416	89.71672	3.95371	0.2472519	0.18875240	3.0098238	20	—	—
408788 2000 BN_{20}	16.6	X	323.53040	311.79502	133.86360	3.43997	0.1036209	0.18392172	3.0622974	20	12 18.2	20.2
408789 2000 DL_{77}	15.9	X	297.55993	114.01534	348.63756	26.75430	0.1367930	0.17978760	3.1090633	20	11 13.0	20.4
408790 2000 EK_{99}	17.9	X	40.20034	141.41322	346.93418	7.63145	0.1816307	0.24535005	2.5270390	20	2 21.8	19.9
408791 2000 FQ_{72}	16.2	X	242.96786	134.31193	4.25021	8.81405	0.0488189	0.17466115	3.1696052	20	11 3.4	20.8
408792 2000 GF_2	20.5	X	308.10662	108.07748	176.03491	9.63103	0.3775746	0.63494984	1.3406326	20	1 28.6	22.0
408793 2000 GH_{58}	16.5	X	293.66769	1.51035	206.08395	16.13266	0.2333985	0.23597775	2.5935145	20	—	—
408794 2000 GG_{186}	17.6	X	277.04249	282.84687	41.53452	7.73311	0.2986830	0.29269408	2.2466052	20	4 6.2	20.9
408795 2000 JH_{75}	17.3	X	15.33574	352.73575	217.73764	24.71857	0.2565823	0.29657825	2.2269469	20	5 3.4	17.8
408796 2000 OE_7	16.5	X	53.42178	224.21709	127.38335	14.65232	0.2560430	0.20958902	2.8068790	20	—	—
408797 2000 SM_4	17.3	X	215.58704	179.29919	216.04235	9.56947	0.2264435	0.28535552	2.2849596	20	5 17.4	21.0
408798 2000 SG_7	18.6	X	231.15742	65.97442	299.01382	2.10597	0.2469105	0.28173801	2.3044772	20	4 19.1	22.5
408799 2000 SL_{55}	18.4	X	256.01914	325.98310	358.62959	2.14740	0.2889997	0.28326478	2.2961891	20	3 18.2	22.2
408800 2000 SZ_{79}	18.5	X	251.75231	318.56571	22.18411	2.93200	0.2460736	0.28348859	2.2949805	20	4 7.3	22.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408801 2000 SQ_{134}	16.9	X	85.19131	69.69187	299.09280	8.55105	0.2553647	0.21278383	2.7787126	20	—	—
408802 2000 ST_{138}	16.2	X	81.62722	23.59535	357.68593	13.45411	0.2058522	0.21260409	2.7802785	20	—	—
408803 2000 SZ_{143}	17.5	X	221.88473	32.32611	343.53543	8.43866	0.1799546	0.28184271	2.3039065	20	4 26.1	21.2
408804 2000 SP_{204}	15.9	X	14.18644	28.21096	15.89406	15.25714	0.1418262	0.20560277	2.8430429	20	—	—
408805 2000 SG_{239}	17.0	X	67.21790	217.90954	188.28182	9.29725	0.2908159	0.21233767	2.7826036	20	1 10.3	19.9
408806 2000 SN_{248}	18.2	X	258.74977	253.15730	79.02242	2.87523	0.2591830	0.28401080	2.2921664	20	4 2.9	21.7
408807 2000 SU_{248}	17.4	X	255.69065	190.08998	167.51581	7.11979	0.1762587	0.28534973	2.2849905	20	5 12.7	20.6
408808 2000 SQ_{253}	16.8	X	83.58750	307.35634	49.88910	5.50987	0.1727474	0.21090143	2.7952224	20	—	—
408809 2000 TX_{5}	16.4	X	38.03034	86.50725	0.47485	7.92099	0.2881825	0.21258845	2.7804149	20	—	—
408810 2000 TO_{17}	16.7	X	69.65951	207.57966	199.68444	7.90587	0.2202669	0.21222203	2.7836144	20	1 5.8	19.8
408811 2000 UR_{25}	16.5	X	90.59453	295.23163	65.50216	11.99044	0.3162881	0.21058942	2.7979826	20	—	—
408812 2000 UK_{38}	16.4	X	95.78132	159.43858	216.83014	15.85124	0.2028216	0.21337233	2.7736010	20	1 2.1	20.2
408813 2000 UF_{61}	16.8	X	83.89015	99.12800	267.78919	5.13993	0.3288498	0.21090316	2.7952071	20	—	—
408814 2000 US_{75}	17.3	X	223.31448	180.75234	195.32263	10.37665	0.2348612	0.28014457	2.3132074	20	4 29.6	21.2
408815 2000 UA_{107}	17.6	X	197.06238	326.02856	80.23892	8.02168	0.1804798	0.27991618	2.3144655	20	5 17.4	21.3
408816 2000 WU_{11}	17.8	X	193.71451	1.90675	61.87250	4.75426	0.1220881	0.28304371	2.2973846	20	6 6.4	21.1
408817 2000 WU_{63}	18.7	X	189.73802	354.94146	43.03327	4.27775	0.1975901	0.27863870	2.3215342	20	4 28.7	22.5
408818 2000 WY_{138}	17.6	X	191.12827	333.36851	73.15428	5.85977	0.2677728	0.27836000	2.3230836	20	5 11.1	21.6
408819 2000 YM_{108}	16.4	X	258.60518	182.76826	301.64419	8.04936	0.1808971	0.19158996	2.9800317	20	10 19.4	20.6
408820 2001 FR_{38}	16.5	X	148.54735	222.02779	343.00549	12.63828	0.1853610	0.22916727	2.6446466	20	10 13.9	21.1
408821 2001 FH_{185}	17.2	X	228.50731	215.53918	18.51428	13.28834	0.2262076	0.24258562	2.5462010	20	—	—
408822 2001 FO_{219}	18.3	X	161.24754	218.19592	183.29406	1.71866	0.2398975	0.26259884	2.4151319	20	4 11.0	22.1
408823 2001 KC_{29}	15.9	X	173.26332	50.95689	229.42398	29.73024	0.2857451	0.23652150	2.5895381	20	—	—
408824 2001 OG_{37}	17.7	X	134.67809	92.64658	216.21450	20.96357	0.0965391	0.38470347	1.8723426	20	—	—
408825 2001 OF_{84}	16.5	X	106.79169	348.21870	329.34756	25.26948	0.5137216	0.22357235	2.6885864	20	—	—
408826 2001 PP_{31}	16.3	X	153.83693	55.10385	257.42385	12.23486	0.2696196	0.23058356	2.6338062	20	—	—
408827 2001 PF_{42}	15.4	X	337.95395	161.76875	207.47173	19.69330	0.2383185	0.15777904	3.3918489	20	9 23.5	19.0
408828 2001 QU_{89}	15.9	X	134.27032	207.74997	134.00751	33.79162	0.1909628	0.23033040	2.6357358	20	1 6.3	20.2
408829 2001 QO_{158}	16.6	X	113.10984	57.15056	334.67302	12.37457	0.2082870	0.23215121	2.6219359	20	2 14.1	20.2
408830 2001 QN_{169}	16.6	X	129.40460	109.66893	233.92028	12.05810	0.3055773	0.22868507	2.6483630	20	1 11.2	21.0
408831 2001 QK_{288}	16.4	X	176.41683	100.48601	196.03957	24.30047	0.2665115	0.23122999	2.6288952	20	—	—
408832 2001 QJ_{298}	6.2	X	261.99970	288.64676	162.71310	2.15178	0.0361938	0.00334066	44.3180651	20	9 12.3	22.7
408833 2001 RV_{7}	17.6	X	126.25163	64.31352	270.37713	4.95011	0.2387882	0.22858955	2.6491007	20	—	—
408834 2001 RQ_{43}	16.7	X	128.50953	354.37414	343.24056	13.60885	0.2602192	0.22794915	2.6540599	20	1 2.9	20.9
408835 2001 RA_{52}	16.4	X	96.16038	99.40524	295.89180	11.07684	0.2019191	0.22956039	2.6416265	20	1 25.6	19.6
408836 2001 RM_{98}	17.2	X	182.09960	108.06295	190.75823	16.26006	0.2025115	0.22983553	2.6395178	20	—	—
408837 2001 RS_{102}	17.6	X	130.49222	197.78838	146.02817	5.92315	0.1860115	0.28202944	2.3028894	20	—	—
408838 2001 RF_{113}	17.2	X	95.90432	52.70880	352.16740	12.83750	0.1906611	0.23034445	2.6356286	20	2 9.7	20.7
408839 2001 RH_{118}	18.2	X	255.65631	49.93129	358.27184	5.59236	0.1963739	0.30629317	2.1796052	20	7 21.2	20.8
408840 2001 RV_{131}	16.6	X	104.95554	51.86139	5.02263	13.20633	0.2003547	0.23228280	2.6209456	20	3 7.8	20.2
408841 2001 RN_{140}	17.1	X	178.51676	168.22186	158.63602	2.22966	0.1405894	0.23404327	2.6077859	20	1 23.1	21.0
408842 2001 RL_{154}	16.4	X	84.03628	168.60198	245.89885	10.98708	0.1748869	0.22872635	2.6480443	20	1 26.1	19.7
408843 2001 RQ_{154}	17.3	X	98.73001	13.29289	338.72839	6.99444	0.1364527	0.22460779	2.6803171	20	—	—
408844 2001 SR_{19}	17.0	X	122.70004	331.97017	25.34083	4.63934	0.2077860	0.22860892	2.6489511	20	1 13.1	20.7
408845 2001 SV_{60}	16.5	X	144.01036	135.78921	189.62291	13.24378	0.2030132	0.22708215	2.6608112	20	—	—
408846 2001 SN_{75}	17.9	X	49.75054	29.91876	356.76846	18.76925	0.0977853	0.37850906	1.8927149	20	—	—
408847 2001 SX_{91}	17.1	X	94.93224	219.62103	202.10184	4.12866	0.1890592	0.23188663	2.6239300	20	2 24.3	20.4
408848 2001 SB_{98}	17.9	X	312.14357	335.12827	334.90069	5.10814	0.1900927	0.30447363	2.1882802	20	5 18.2	20.0
408849 2001 SY_{122}	16.8	X	128.45186	88.30558	264.11214	3.55244	0.2028829	0.23016166	2.6370239	20	1 11.2	20.7
408850 2001 SU_{130}	16.9	X	136.68846	359.39096	357.06369	7.60816	0.1826584	0.23049950	2.6344465	20	1 24.8	20.9
408851 2001 SL_{133}	17.9	X	276.17457	28.58839	336.17883	4.05097	0.1761099	0.30433391	2.1889499	20	6 16.7	20.4
408852 2001 SV_{172}	17.2	X	137.16642	176.05234	161.90958	4.42097	0.2291574	0.22827057	2.6515680	20	1 5.8	21.2
408853 2001 SN_{174}	16.9	X	127.42536	297.91968	13.93961	13.09601	0.2603274	0.22493352	2.6777288	20	—	—
408854 2001 SB_{192}	18.0	X	338.73862	292.68330	351.84210	4.55742	0.1670140	0.30556941	2.1830455	20	6 8.4	19.6
408855 2001 SL_{193}	17.1	X	117.93371	213.51771	173.61894	8.97356	0.1901479	0.23150807	2.6267896	20	2 8.4	20.9
408856 2001 SL_{217}	17.1	X	87.82830	59.76130	18.02161	4.35076	0.1905136	0.23185632	2.6241586	20	3 9.6	20.4
408857 2001 SB_{221}	17.1	X	126.27860	190.24800	182.89505	5.93245	0.1421494	0.23032943	2.6357432	20	1 25.6	20.8
408858 2001 SD_{223}	18.3	X	227.91823	194.20686	185.93300	5.76526	0.1683746	0.29863558	2.2167073	20	5 12.9	21.5
408859 2001 SR_{236}	16.8	X	150.62841	338.97240	10.34802	10.92119	0.1066928	0.23125097	2.6287362	20	1 23.6	20.8
408860 2001 SL_{259}	17.2	X	124.90383	241.73089	146.31491	6.49455	0.2144264	0.23235896	2.6203729	20	2 21.8	20.9
408861 2001 SH_{269}	17.3	X	147.69304	180.03544	206.08886	1.54887	0.0783085	0.23461410	2.6035543	20	2 27.8	21.0
408862 2001 SE_{282}	17.6	X	69.42627	111.59679	253.06051	18.57550	0.0880951	0.37959203	1.8891132	20	—	—
408863 2001 SJ_{283}	16.1	X	83.93520	156.83790	251.01784	12.90873	0.2477896	0.22473332	2.6793189	20	1 28.5	19.5
408864 2001 SR_{288}	18.0	X	277.79678	118.63304	233.95722	6.40036	0.1845128	0.30292942	2.1957105	20	5 30.5	20.6
408865 2001 SF_{302}	17.7	X	93.68950	79.53527	327.27769	1.22027	0.2095854	0.22914102	2.6448486	20	2 8.3	21.0
408866 2001 SF_{321}	16.9	X	97.19838	79.03330	319.27857	11.81441	0.2723050	0.22866120	2.6485473	20	2 11.2	20.1
408867 2001 SE_{324}	17.6	X	205.67620	50.48885	4.87071	7.22246	0.0811905	0.30052668	2.2073983	20	6 9.9	20.7
408868 2001 SY_{324}	18.1	X	280.44718	307.89546	34.65665	5.60732	0.2209373	0.30318024	2.1944993	20	5 12.4	20.6
408869 2001 SD_{348}	19.1	X	117.72055	89.46897	202.82501	14.38383	0.3285302	0.38078023	1.8851813	20	—	—
408870 2001 TX_{9}	16.9	X	143.50745	150.96093	195.94855	12.75098	0.1865796	0.22912552	2.6449679	20	1 16.0	21.2
408871 2001 TZ_{68}	17.0	X	95.38764	21.32347	8.09970	4.71855	0.1350225	0.22668267	2.6639363	20	1 8.9	20.4
408872 2001 TF_{90}	17.1	X	75.64031	173.43185	234.95640	8.44381	0.2845920	0.22506595	2.6766783	20	1 23.8	20.0
408873 2001 TU_{117}	16.2	X	158.63613	47.38002	260.21540	17.12915	0.2311189	0.22835613	2.6509057	20	—	—
408874 2001 TK_{120}	16.9	X	142.94405	60.67947	263.60124	12.89556	0.2479867	0.22661532	2.6644641	20	—	—
408875 2001 TQ_{123}	18.1	X	262.77642	98.56611	257.21897	7.46612	0.2536372	0.30137016	2.2032776	20	5 4.9	21.3
408876 2001 TZ_{135}	16.4	X	98.74479	200.74851	261.05855	7.75703	0.4140716	0.23173593	2.6250674	20	5 19.2	20.8
408877 2001 TO_{138}	17.1	X	119.31909	353.94918	39.85741	5.19887	0.2722349	0.23231863	2.6206761	20	3 2.9	21.1
408878 2001 TL_{178}	16.8	X	108.11540	173.18453	216.05811	11.40560	0.1757976	0.22828160	2.6514826	20	1 26.9	20.6
408879 2001 TY_{183}	16.5	X	53.05713	221.11300	207.68783	21.54384	0.0315039	0.22668810	2.6638938	20	—	—
408880 2001 TF_{204}	16.7	X	99.58595	279.84621	51.57781	8.11470	0.2358365	0.22256425	2.6966988	20	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408881 2001 TV_{237}	16.6	X	152.54421	300.74392	43.66189	14.16147	0.1321444	0.23033967	2.6356651	20	1 22.2	20.8
408882 2001 TN_{238}	17.1	X	122.33393	320.67876	80.79526	7.45702	0.2857857	0.23238436	2.6201820	20	3 18.1	21.3
408883 2001 TO_{248}	18.9	X	257.16487	259.64363	125.24876	1.37572	0.1207156	0.30356052	2.1926662	20	6 28.8	21.6
408884 2001 TG_{257}	17.2	X	30.64569	347.77720	76.70354	6.52765	0.1132045	0.22176304	2.7031902	20	—	—
408885 2001 TU_{258}	18.0	X	54.30683	317.32671	97.76136	6.99943	0.2441013	0.22231000	2.6987545	20	—	—
408886 2001 UB_{6}	17.7	X	356.06898	221.79471	209.61372	21.85190	0.1064179	0.37460675	1.9058365	20	—	—
408887 2001 UE_{12}	17.0	X	93.87371	174.31644	236.80240	8.26419	0.2867944	0.22729765	2.6591291	20	2 22.0	20.6
408888 2001 UL_{12}	17.4	X	119.40636	314.65129	22.25763	7.62301	0.3263252	0.22486955	2.6782367	20	—	—
408889 2001 UO_{14}	16.4	X	66.02094	198.21621	224.36561	12.86784	0.0565160	0.22544324	2.6736912	20	—	—
408890 2001 UU_{28}	17.0	X	81.83423	246.92935	167.93172	3.22834	0.2031308	0.22665221	2.6641750	20	1 31.2	20.1
408891 2001 UY_{38}	18.0	X	243.49346	359.66431	51.98293	2.84676	0.1653997	0.30303388	2.1952059	20	7 13.6	20.7
408892 2001 UR_{40}	17.1	X	39.06242	197.35166	209.06262	8.36285	0.2435176	0.21906922	2.7253052	20	—	—
408893 2001 UJ_{42}	16.4	X	173.94439	77.42804	198.28274	11.90886	0.1536361	0.22388067	2.6861174	20	—	—
408894 2001 UG_{86}	17.4	X	75.87536	332.62102	64.85471	4.09060	0.0819024	0.22327086	2.6910061	20	—	—
408895 2001 UB_{106}	17.0	X	112.81064	132.17762	209.55988	12.72638	0.2856159	0.22383684	2.6864680	20	—	—
408896 2001 UF_{108}	18.1	X	230.83660	6.05104	46.77002	3.62922	0.1816793	0.30068224	2.2066369	20	6 27.8	21.3
408897 2001 UD_{165}	16.3	X	195.79553	211.14469	107.97976	10.03358	0.1855855	0.23447491	2.6045846	20	1 31.9	20.7
408898 2001 UU_{184}	16.9	X	138.75353	257.74125	118.12311	6.05882	0.2244335	0.23128322	2.6284918	20	2 22.6	21.0
408899 2001 UC_{216}	16.7	X	74.43262	11.68181	17.78490	9.58386	0.1698938	0.22220802	2.6995801	20	—	—
408900 2001 UM_{229}	17.1	X	169.68226	275.62765	74.86395	5.24134	0.1498239	0.23437804	2.6053022	20	2 15.1	21.2
408901 2001 VN_{28}	16.1	X	92.91997	143.93530	245.79587	10.96190	0.1943933	0.22308248	2.6925208	20	1 12.4	19.5
408902 2001 VA_{29}	16.9	X	87.94797	330.50495	60.70766	9.78540	0.2073706	0.22260327	2.6963837	20	1 12.5	20.2
408903 2001 VK_{54}	16.0	X	94.94146	133.25813	245.75052	13.77307	0.0828833	0.22329655	2.6907997	20	—	—
408904 2001 VN_{56}	17.1	X	168.69422	199.67995	276.02273	4.68667	0.1027524	0.29896190	2.2150940	20	7 21.1	20.0
408905 2001 VL_{61}	17.0	X	101.16238	15.00317	10.73770	6.31328	0.2812281	0.22549905	2.6732500	20	2 4.5	20.6
408906 2001 VO_{82}	16.9	X	53.82030	238.12401	217.81392	10.15226	0.1852046	0.22556714	2.6727119	20	2 1.7	19.8
408907 2001 VX_{85}	17.2	X	258.50225	328.42580	38.95036	8.79243	0.2017725	0.29911801	2.2143232	20	5 22.6	20.1
408908 2001 VD_{109}	16.3	X	30.78093	182.57180	265.69324	4.24706	0.1357407	0.22050227	2.7134844	20	—	—
408909 2001 VX_{110}	16.2	X	356.43054	218.38363	259.93062	7.42751	0.2356869	0.21768393	2.7368551	20	—	—
408910 2001 WS_{36}	17.2	X	126.82918	308.35753	55.50273	13.81070	0.2936248	0.22772924	2.6557683	20	2 8.3	21.6
408911 2001 WH_{45}	16.9	X	117.00109	127.30022	226.91516	13.88103	0.2353665	0.22505779	2.6767430	20	1 3.9	20.9
408912 2001 WD_{53}	17.5	X	85.54643	145.55488	259.92588	1.67094	0.2168134	0.22515384	2.6759817	20	1 27.1	20.6
408913 2001 WL_{55}	16.9	X	132.12774	310.95926	40.23007	4.30904	0.2239204	0.22641726	2.6660177	20	1 17.8	20.9
408914 2001 WO_{75}	16.1	X	321.32304	285.76331	229.66861	12.22597	0.0305403	0.22155470	2.7048845	20	—	—
408915 2001 WO_{95}	16.8	X	135.32844	74.81978	240.70265	3.62831	0.1042241	0.21991202	2.7183377	20	—	—
408916 2001 WK_{102}	17.2	X	21.53280	245.07704	200.31707	8.64139	0.2662736	0.21837008	2.7311190	20	—	—
408917 2001 XW_{32}	16.4	X	91.47865	150.53393	237.71975	11.76179	0.1801604	0.22344471	2.6896102	20	1 6.3	19.8
408918 2001 XP_{48}	17.0	X	64.03876	159.51477	276.66056	9.49453	0.3512572	0.22415774	2.6839034	20	2 20.3	19.7
408919 2001 XM_{49}	17.8	X	215.02263	179.84739	243.27290	4.33810	0.1435163	0.29790513	2.2203293	20	6 27.8	21.0
408920 2001 XV_{72}	17.2	X	63.99632	150.51195	242.94230	11.11529	0.1461933	0.21838828	2.7309673	20	—	—
408921 2001 XE_{80}	16.8	X	67.36983	329.19006	112.68009	10.90342	0.2590851	0.22409065	2.6844391	20	2 26.4	19.7
408922 2001 XV_{94}	17.2	X	323.50265	216.09512	255.14729	20.29749	0.0997268	0.37347947	1.9096696	20	—	—
408923 2001 XP_{149}	16.5	X	93.40457	340.53899	83.91879	15.39025	0.2342229	0.22578854	2.6709645	20	3 14.2	20.4
408924 2001 XC_{192}	17.2	X	193.83126	183.87376	260.96507	4.61782	0.1081272	0.29313104	2.2443720	20	7 6.4	20.3
408925 2001 XO_{199}	16.7	X	33.29621	179.53568	265.90275	6.77212	0.3072942	0.21688401	2.7435804	20	—	—
408926 2001 XW_{218}	17.2	X	79.24029	42.10833	41.67280	5.62849	0.1897954	0.22734600	2.6587521	20	3 7.1	20.4
408927 2001 XD_{264}	16.6	X	110.62568	13.85465	339.17352	4.75041	0.2002545	0.22146254	2.7056349	20	—	—
408928 2001 YY_{35}	16.8	X	17.97032	132.79991	285.01767	5.27133	0.1413015	0.21388277	2.7691863	20	—	—
408929 2001 YJ_{40}	16.4	X	49.76748	150.01143	263.76726	11.61493	0.1918814	0.21811828	2.7332206	20	—	—
408930 2001 YG_{49}	15.7	X	105.76852	87.29745	281.58760	11.93577	0.0758923	0.21911559	2.7249207	20	—	—
408931 2001 YA_{157}	16.5	X	16.89162	144.32823	326.08106	9.60188	0.1988701	0.21709000	2.7418446	20	—	—
408932 2002 AA_{129}	17.8	X	332.67881	342.98460	111.27953	24.67417	0.0941452	0.37028376	1.9206413	20	—	—
408933 2002 AO_{131}	17.6	X	335.30217	342.83302	109.73304	24.02120	0.0784504	0.36770294	1.9296179	20	—	—
408934 2002 AN_{138}	18.2	X	195.14713	337.50616	119.78373	2.27936	0.1429572	0.29549028	2.2324098	20	7 23.7	21.3
408935 2002 AY_{150}	16.8	X	72.73484	319.39433	125.46403	12.53520	0.2355251	0.22127691	2.7071479	20	3 7.4	20.0
408936 2002 AJ_{178}	16.2	X	11.27797	348.21215	127.69806	15.65182	0.2098774	0.21487939	2.7606173	20	—	—
408937 2002 CJ_{72}	17.8	X	116.57848	191.60416	327.53907	3.63923	0.0897717	0.28897485	2.2658406	20	7 20.5	20.6
408938 2002 CX_{73}	17.5	X	111.55068	51.49204	103.63448	3.23168	0.0927473	0.28757795	2.2731721	20	7 8.0	20.5
408939 2002 CY_{114}	18.0	X	245.34405	177.41679	343.79408	21.96662	0.1708264	0.36037207	1.9556988	20	—	—
408940 2002 CM_{128}	16.2	X	20.61308	299.41138	154.43795	12.52843	0.1575722	0.21322241	2.7749009	20	—	—
408941 2002 CN_{128}	18.0	X	10.83510	47.53751	146.70669	5.19086	0.1176904	0.27753586	2.3276802	20	3 26.7	20.0
408942 2002 CK_{133}	16.5	X	351.58912	139.89708	337.06603	7.97802	0.2201699	0.21027431	2.8007773	20	—	—
408943 2002 CT_{219}	15.6	X	202.89345	232.60316	354.30719	17.14097	0.1079428	0.19978157	2.8980049	20	—	—
408944 2002 CX_{256}	16.6	X	352.26383	18.11737	109.96023	9.15895	0.1688824	0.21275043	2.7790034	20	—	—
408945 2002 CQ_{300}	17.7	X	52.43914	221.20103	314.78284	6.23676	0.0459134	0.28257765	2.2999100	20	5 2.4	20.3
408946 2002 CX_{313}	17.6	X	343.66230	117.45105	341.61782	17.44675	0.1316444	0.37048742	1.9199374	20	—	—
408947 2002 DY_{8}	16.9	X	112.66923	176.82175	352.17892	21.31584	0.1972522	0.28911259	2.2651209	20	8 16.3	20.6
408948 2002 DH_{20}	17.5	X	129.26206	113.17227	27.57748	7.42655	0.2123364	0.28683037	2.2771202	20	7 20.2	21.2
408949 2002 ER_{90}	17.6	X	28.65676	175.34042	20.59007	2.40864	0.1522751	0.27734840	2.3287289	20	5 5.1	19.4
408950 2002 EU_{98}	17.5	X	39.58299	353.05900	193.56228	6.65330	0.2319214	0.27666451	2.3325650	20	5 28.3	19.4
408951 2002 EW_{133}	17.9	X	73.51243	277.73680	236.03492	2.25104	0.1376010	0.27973608	2.3154588	20	5 20.9	20.6
408952 2002 ER_{145}	17.1	X	168.94579	102.49362	337.64620	10.18442	0.0207315	0.28208052	2.3026114	20	5 28.2	20.2
408953 2002 EM_{151}	17.8	X	21.25272	162.63760	20.52903	3.05515	0.1570882	0.27357787	2.3500769	20	3 29.9	19.7
408954 2002 ER_{155}	17.5	X	68.16184	76.18946	111.21422	3.37370	0.1288065	0.28107124	2.3081203	20	6 30.5	19.9
408955 2002 FK_{29}	17.4	X	173.79521	33.44810	77.78374	5.51093	0.1598576	0.28942091	2.2635119	20	7 20.6	20.8
408956 2002 GH_{2}	16.8	X	160.31700	280.90032	202.49113	42.37690	0.2391478	0.28725942	2.2748523	20	7 15.1	21.7
408957 2002 GJ_{76}	15.9	X	74.27313	66.55884	199.54373	19.58979	0.2708522	0.18062133	3.0994885	20	10 29.3	20.8
408958 2002 GC_{126}	17.7	X	263.44991	65.34831	203.38191	4.14887	0.2099891	0.26333493	2.4106291	20	1 22.7	21.5
408959 2002 GP_{138}	15.5	X	113.00292	222.47544	46.71504	13.36550	0.1464641	0.19029535	2.9935322	20	11 24.9	20.4
408960 2002 GZ_{140}	17.6	X	98.48503	69.13712	64.95523	3.05565	0.1635093	0.27859810	2.3217598	20	5 31.7	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
408961 2002 GT_{181}	16.6	X	95.27280	273.35876	239.52148	8.65449	0.1017180	0.28227285	2.3015653	20	6 14.2	19.4
408962 2002 JD_{150}	16.1	X	41.25415	259.15273	37.89024	10.17977	0.2215866	0.17799250	3.1299321	20	10 23.5	20.2
408963 2002 KQ_{3}	16.2	X	92.14010	64.31229	186.99473	26.34570	0.2589330	0.17873370	3.1212730	20	10 26.9	21.5
408964 2002 NR_{64}	17.2	X	206.82520	15.56715	294.27796	14.43125	0.1795582	0.25398113	2.4694586	20	1 25.9	21.2
408965 2002 NN_{71}	17.0	X	121.11428	347.30672	269.33586	10.50352	0.2139629	0.23517870	2.5993857	20	11 27.4	21.4
408966 2002 OR_{26}	16.0	X	64.08382	94.09886	188.34311	16.11901	0.1223681	0.17214514	3.2004143	20	10 19.1	20.5
408967 2002 OW_{27}	15.8	X	341.44294	90.88679	305.45751	24.79649	0.2201491	0.17210857	3.2008677	20	11 6.2	19.8
408968 2002 OJ_{31}	16.3	X	41.90352	201.94300	122.66500	13.18260	0.1510525	0.17378765	3.1802172	20	11 19.3	20.9
408969 2002 PS_{92}	16.0	X	5.75946	156.86962	218.56989	14.12844	0.2566363	0.17090392	3.2158914	20	12 9.7	19.7
408970 2002 PV_{114}	18.4	X	133.14808	220.81150	155.30135	14.11408	0.1764783	0.24716148	2.5146769	20	2 8.4	22.1
408971 2002 PD_{184}	15.9	X	168.20708	66.43424	133.09551	11.25903	0.0508475	0.17619623	3.1511686	20	10 30.1	20.8
408972 2002 PT_{187}	16.4	X	89.34579	159.43279	117.81589	6.27303	0.1803303	0.17594439	3.1541748	20	11 16.2	21.4
408973 2002 QB_{69}	18.0	X	175.58354	167.37636	184.87007	1.00411	0.2224475	0.25092067	2.4894979	20	2 22.2	22.0
408974 2002 QW_{77}	15.9	X	0.41378	276.30024	137.27244	12.68584	0.1730421	0.17782662	3.1318782	20	—	—
408975 2002 QL_{93}	17.0	X	2.43402	10.13371	1.46894	4.50548	0.1690693	0.17072515	3.2181360	20	11 16.3	20.9
408976 2002 QQ_{110}	16.6	X	10.31626	196.50604	158.33624	4.08151	0.1084253	0.17184966	3.2040818	20	11 3.9	20.7
408977 2002 QG_{113}	15.9	X	316.33872	169.34748	237.27905	9.04142	0.1816942	0.16873309	3.2434152	20	10 5.4	19.8
408978 2002 QV_{114}	16.4	X	326.92302	238.19196	166.18357	15.52700	0.1703796	0.17011294	3.2258523	20	10 30.4	20.2
408979 2002 QL_{130}	16.3	X	91.23035	309.32694	355.89392	11.51860	0.0975602	0.17733152	3.1377048	20	12 9.8	21.2
408980 2002 RB_{126}	18.6	X	163.19320	224.89606	6.92711	15.04537	0.7223722	0.57658463	1.4296421	20	12 6.3	21.2
408981 2002 RS_{274}	17.5	X	187.74187	232.46794	152.03321	7.15731	0.0652454	0.25790476	2.4443486	20	4 11.8	20.9
408982 2002 SP	20.6	X	95.20225	169.40602	350.89500	20.84891	0.6004293	1.14554433	0.9046101	20	9 14.6	20.1
408983 2002 SL_{9}	17.0	X	49.27528	25.97252	26.59615	7.67930	0.1668966	0.23546031	2.5973127	20	—	—
408984 2002 SA_{67}	16.0	X	227.44530	299.22526	200.48151	10.78804	0.0382782	0.16860515	3.2450558	20	10 20.7	20.5
408985 2002 SE_{73}	17.3	X	211.64624	185.17102	89.44932	4.17524	0.1141498	0.24621458	2.5211201	20	—	—
408986 2002 TF_{69}	17.7	X	255.65539	199.56059	207.62382	22.39647	0.0672594	0.37888272	1.8914703	20	8 9.2	20.1
408987 2002 TD_{71}	17.1	X	160.15265	0.62613	358.42463	14.59523	0.2075648	0.24651530	2.5190694	20	2 21.6	21.3
408988 2002 TN_{85}	16.7	X	92.80118	19.89721	33.49384	31.05824	0.1727026	0.24117322	2.5561323	20	2 29.2	20.7
408989 2002 TW_{141}	17.4	X	141.23284	341.70599	48.67632	19.52317	0.2397294	0.24636603	2.5200868	20	3 22.8	21.8
408990 2002 TY_{272}	17.9	X	113.10604	102.91961	282.01325	3.48294	0.2658465	0.24214811	2.5492670	20	2 9.6	21.6
408991 2002 TL_{277}	17.1	X	135.51981	173.10812	211.89482	14.86839	0.1405874	0.24478483	2.5309275	20	2 14.1	21.0
408992 2002 TP_{279}	16.5	X	131.80454	352.55229	1.10702	15.81668	0.1536428	0.23996314	2.5647184	20	1 12.9	20.4
408993 2002 TF_{324}	17.6	X	30.50703	78.22612	28.95531	1.58433	0.0933658	0.24219138	2.5489634	20	1 1.3	20.5
408994 2002 TG_{334}	17.5	X	233.55631	188.63059	49.86061	5.78419	0.0727147	0.23981256	2.5657919	20	—	—
408995 2002 UZ_{36}	17.9	X	132.98921	331.26289	33.93592	14.23412	0.3404245	0.24288659	2.5440971	20	2 19.9	22.4
408996 2002 UC_{60}	17.5	X	144.72356	195.32053	187.01948	13.06771	0.2426891	0.24578098	2.5240844	20	3 3.9	21.6
408997 2002 UC_{78}	16.6	X	171.86432	288.30805	48.40826	8.67138	0.0379427	0.24090419	2.5580350	20	1 22.6	20.2
408998 2002 VB_{27}	16.0	X	343.32954	183.38328	235.53859	17.21501	0.3515424	0.16764245	3.2574671	20	12 28.7	18.9
408999 2002 VO_{64}	16.6	X	169.40186	329.48668	35.83664	14.77394	0.1193528	0.24640897	2.5197940	20	3 6.5	20.6
409000 2002 VF_{107}	17.2	X	91.51879	180.20044	244.51767	13.71279	0.2314651	0.24024078	2.5627420	20	2 23.5	20.7
409001 2002 VG_{116}	16.3	X	90.70694	159.11573	252.23421	16.91655	0.1549086	0.23839593	2.5759464	20	1 24.7	19.7
409002 2002 WG_{6}	17.0	X	126.74536	140.33348	253.85361	10.98353	0.2595040	0.24309985	2.5426090	20	2 29.3	21.2
409003 2002 XQ_{41}	17.3	X	143.85529	91.21937	280.95527	3.87968	0.2542395	0.24219769	2.5489191	20	2 21.5	21.4
409004 2002 XF_{53}	16.9	X	104.97777	168.53499	267.94930	4.42787	0.2546457	0.24164314	2.5528173	20	4 3.2	20.6
409005 2002 XQ_{61}	17.3	X	148.81157	231.60357	161.88807	3.77339	0.2286231	0.24490725	2.5300841	20	3 22.4	21.3
409006 2002 XS_{73}	16.9	X	72.99427	140.65028	281.82369	9.66080	0.2184332	0.23559973	2.5962879	20	1 26.2	19.6
409007 2002 XA_{98}	17.5	X	121.85099	343.44555	74.26961	8.64511	0.2237239	0.24410217	2.5356440	20	3 30.9	21.4
409008 2002 XV_{104}	17.2	X	105.74113	146.65976	261.10823	11.64319	0.1480001	0.23901760	2.5714779	20	2 9.5	20.8
409009 2002 XH_{117}	17.7	X	90.62424	333.21119	76.27136	3.36121	0.1884695	0.23814531	2.5777534	20	2 3.6	20.7
409010 2002 XS_{117}	17.0	X	96.11115	335.29719	82.67591	8.66832	0.1583580	0.23999631	2.5644821	20	2 20.2	20.3
409011 2003 AZ_{13}	17.0	X	79.02346	251.96989	213.63516	3.55044	0.2304718	0.23762168	2.5815389	20	4 7.6	20.1
409012 2003 AV_{33}	17.3	X	71.20951	358.20216	101.07760	5.75921	0.2137701	0.23644974	2.5900620	20	3 18.8	20.2
409013 2003 AA_{79}	16.9	X	101.67052	141.43317	274.86235	3.84786	0.2402646	0.23603017	2.5931304	20	3 3.4	20.4
409014 2003 AK_{81}	16.4	X	54.37030	128.12618	348.44190	11.70191	0.1783528	0.23673758	2.5879621	20	3 4.9	18.8
409015 2003 AZ_{81}	17.0	X	100.16117	138.48461	286.79997	2.64003	0.2370371	0.23767354	2.5811634	20	3 13.1	20.4
409016 2003 AG_{84}	17.1	X	98.91062	334.67409	128.00639	5.84767	0.2699044	0.24035911	2.5619009	20	5 7.0	20.9
409017 2003 BY	16.6	X	358.28594	223.47830	298.38888	3.64659	0.1759725	0.23158016	2.6262445	20	1 16.4	19.2
409018 2003 BO_{8}	16.9	X	85.15259	207.58743	250.04492	4.20696	0.2191975	0.23842612	2.5757289	20	4 2.1	20.1
409019 2003 BO_{21}	18.2	X	94.05666	231.98304	128.19920	22.00732	0.0397515	0.39322309	1.8451997	20	—	—
409020 2003 BJ_{66}	16.8	X	57.84028	142.21363	324.02101	6.24902	0.1804953	0.23256340	2.6188370	20	2 25.2	19.4
409021 2003 CL_{1}	17.0	X	84.78896	248.86565	215.07718	4.62018	0.2885394	0.23892518	2.5721410	20	4 22.7	20.2
409022 2003 EX_{6}	18.2	X	327.91228	134.28062	339.27247	19.14161	0.1127831	0.38879130	1.8591953	20	—	—
409023 2003 EJ_{46}	17.6	X	3.36519	225.21227	357.67420	7.84447	0.1839523	0.29278567	2.2461366	20	4 16.8	19.1
409024 2003 ED_{57}	16.5	X	47.06283	114.24029	24.99438	30.48343	0.3319489	0.23343562	2.6123095	20	4 16.8	18.6
409025 2003 EJ_{62}	16.3	X	346.28251	267.71882	240.94241	11.62651	0.2104959	0.22314145	2.6920464	20	—	—
409026 2003 FL_{23}	17.9	X	77.39564	26.61403	170.10356	4.56804	0.0894399	0.30138434	2.2032085	20	7 21.8	20.4
409027 2003 GM	17.8	X	152.02684	234.94466	14.33211	21.85467	0.0870001	0.37634536	1.8999624	20	—	—
409028 2003 GC_{19}	17.9	X	296.65901	279.30618	12.52734	6.57539	0.2181845	0.28889036	2.2662824	20	3 25.3	20.5
409029 2003 GX_{25}	18.3	X	150.62449	73.50121	74.34248	0.44823	0.1516069	0.30585387	2.1816918	20	8 16.5	21.5
409030 2003 GP_{28}	16.5	X	131.94326	234.24963	38.69019	15.40903	0.2680627	0.20062390	2.8898875	20	12 18.9	21.9
409031 2003 GY_{33}	16.5	X	270.40167	186.35612	12.12866	16.24168	0.2476579	0.21772863	2.7364805	20	—	—
409032 2003 GX_{55}	17.4	X	307.26813	178.05279	64.62093	5.31869	0.2059602	0.28149613	2.3057972	20	2 5.0	20.3
409033 2003 JO_{18}	16.9	X	276.42804	272.12721	261.14753	3.22447	0.1368533	0.21183845	2.7869736	20	—	—
409034 2003 MA_{2}	17.9	X	173.39234	47.39082	280.65445	15.67667	0.3338902	0.26314781	2.4117718	20	1 24.6	22.3
409035 2003 NG_{2}	17.0	X	257.67888	222.71764	112.91753	13.86326	0.2733623	0.27895831	2.3197607	20	4 10.8	21.0
409036 2003 NV_{12}	17.5	X	238.78535	281.93194	20.33754	7.89295	0.2602313	0.27104825	2.3646760	20	2 12.5	21.6
409037 2003 QB_{23}	16.9	X	54.47811	155.29076	192.02778	3.98540	0.2960137	0.18496302	3.0507932	20	—	—
409038 2003 QK_{35}	16.4	X	25.55729	232.43529	145.37452	6.20304	0.2158637	0.18546138	3.0453255	20	—	—
409039 2003 QM_{117}	15.9	X	42.39539	4.43049	344.04978	14.92143	0.1326230	0.18390801	3.0624496	20	12 13.4	20.5
409040 2003 QZ_{119}	16.2	X	346.36647	178.66458	187.19906	10.56702	0.1957222	0.17639146	3.1488431	20	10 16.1	19.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409041 2003 RL_{13}	16.5	X	19.67421	337.10024	7.42873	4.23092	0.2605133	0.17918481	3.1160321	20	11 25.6	20.4
409042 2003 RO_{25}	16.5	X	38.30331	106.36002	223.33551	14.28825	0.2540172	0.18078577	3.0976086	20	12 3.2	20.8
409043 2003 RS_{25}	15.3	X	40.87178	107.70182	243.35018	15.27544	0.1025584	0.18262169	3.0768133	20	12 10.7	19.5
409044 2003 SX_{29}	15.7	X	292.05903	258.19597	170.83431	16.18178	0.2287603	0.17570688	3.1570166	20	9 20.9	19.4
409045 2003 SM_{32}	15.5	X	37.99445	330.28155	21.10665	18.30543	0.2245501	0.18144158	3.0901402	20	12 23.8	20.1
409046 2003 SW_{39}	15.0	X	344.73139	341.10405	357.55860	18.44908	0.1683834	0.17087091	3.2163054	20	9 6.2	18.6
409047 2003 SK_{49}	16.0	X	66.21161	122.54552	208.15778	12.16156	0.1698644	0.18360990	3.0657635	20	12 23.5	20.8
409048 2003 SD_{68}	17.7	X	144.34037	151.99207	278.36343	4.62030	0.1561013	0.26980209	2.3719517	20	4 24.7	21.3
409049 2003 SP_{69}	16.8	X	52.22305	17.06784	325.72422	1.07490	0.2076870	0.18285043	3.0742468	20	12 28.3	21.2
409050 2003 SH_{79}	16.1	X	359.97722	62.68917	335.36645	8.45475	0.2191630	0.18109481	3.0940836	20	12 27.7	19.7
409051 2003 SC_{83}	18.3	X	190.90873	352.22266	28.21711	2.38856	0.1719122	0.26980004	2.3719637	20	4 7.8	22.1
409052 2003 SX_{90}	17.5	X	194.19051	353.31857	359.51801	2.86476	0.1887844	0.26771224	2.3842799	20	3 7.7	21.4
409053 2003 SA_{99}	15.9	X	22.47484	8.58234	17.00799	24.82969	0.2414810	0.18198768	3.0839552	20	—	—
409054 2003 SE_{101}	16.0	X	29.28412	95.52221	243.85405	11.54794	0.2888076	0.17969338	3.1101500	20	12 8.2	20.0
409055 2003 SR_{101}	15.6	X	345.66084	12.26719	350.63425	20.86951	0.1536175	0.17359546	3.1825640	20	9 30.9	19.4
409056 2003 SZ_{116}	15.4	X	3.16515	129.81323	251.38354	11.25746	0.1708794	0.18031887	3.1029535	20	12 4.1	19.1
409057 2003 SV_{122}	16.6	X	31.17959	140.90413	242.12348	8.74494	0.0839709	0.18541674	3.0458143	20	—	—
409058 2003 SU_{150}	16.2	X	328.36534	329.57992	64.61849	6.10917	0.2004477	0.17595711	3.1540228	20	10 18.6	19.4
409059 2003 SE_{161}	15.7	X	357.59489	43.02316	10.99121	16.51123	0.2179657	0.18127005	3.0920892	20	—	—
409060 2003 SC_{175}	17.2	X	9.93675	272.27928	128.35856	0.52101	0.2732527	0.18364705	3.0653501	20	—	—
409061 2003 SK_{175}	16.2	X	34.86499	353.90142	0.17067	8.42285	0.1045964	0.18210553	3.0826245	20	12 5.8	20.6
409062 2003 SZ_{183}	16.4	X	291.27948	85.09792	4.75881	14.76193	0.3051611	0.17519526	3.1631599	20	10 2.7	20.1
409063 2003 SF_{184}	16.7	X	37.56665	338.57312	10.72279	1.00957	0.2322007	0.18111649	3.0938367	20	12 22.5	21.0
409064 2003 SA_{185}	16.7	X	20.36977	280.72445	88.30886	2.14383	0.1778361	0.18064891	3.0991730	20	12 16.2	20.7
409065 2003 SJ_{203}	16.1	X	0.67620	51.66777	355.83198	12.08400	0.1744167	0.18394390	3.0620513	20	—	—
409066 2003 SU_{207}	15.3	X	57.79514	302.18296	33.18270	13.31997	0.1011322	0.18013119	3.1051084	20	12 9.5	19.9
409067 2003 SO_{222}	17.5	X	208.01613	224.61854	132.87256	1.31647	0.2236514	0.26832268	2.3806623	20	3 24.9	21.4
409068 2003 SY_{226}	18.0	X	162.43338	66.49646	344.10246	5.69575	0.1145856	0.27026688	2.3692315	20	4 14.4	21.5
409069 2003 ST_{237}	17.7	X	226.05233	347.81826	14.88585	2.71015	0.2349783	0.27239755	2.3568607	20	4 13.7	21.5
409070 2003 SL_{243}	15.9	X	132.09657	266.76930	357.02744	10.78941	0.0731260	0.18438936	3.0571175	20	12 2.1	20.7
409071 2003 SN_{246}	16.3	X	57.41437	119.10093	194.06265	17.18413	0.2191201	0.18020124	3.1043036	20	12 1.0	21.1
409072 2003 SL_{267}	16.5	X	302.64062	220.29906	190.01325	9.01302	0.0717894	0.17456535	3.1707647	20	10 2.5	20.6
409073 2003 SU_{277}	15.9	X	304.55844	208.32943	236.36208	9.60508	0.2103584	0.17757163	3.1348757	20	11 4.7	19.4
409074 2003 SA_{280}	16.4	X	0.51375	109.47443	244.57051	8.73372	0.2182798	0.17607596	3.1526034	20	10 27.6	19.9
409075 2003 SE_{282}	16.1	X	25.86602	79.68935	282.56515	10.77952	0.1668040	0.18003232	3.1062452	20	12 13.8	20.2
409076 2003 SE_{292}	17.6	X	292.40071	232.36691	208.51113	26.11677	0.0703802	0.35352742	1.9808609	20	12 13.2	19.9
409077 2003 SS_{295}	17.2	X	212.78857	85.23849	265.34793	6.80620	0.1398889	0.26886827	2.3774406	20	3 17.9	21.0
409078 2003 SR_{296}	16.0	X	31.56169	17.42915	337.06181	17.25294	0.2038949	0.17956134	3.1116745	20	12 17.3	20.5
409079 2003 SA_{315}	17.4	X	338.20137	196.75767	208.98725	21.51618	0.0847264	0.35808722	1.9640091	20	—	—
409080 2003 SM_{324}	16.9	X	334.82205	63.90441	352.93196	16.81485	0.1744450	0.18074319	3.0980951	20	11 25.1	20.7
409081 2003 SB_{326}	16.4	X	359.62109	209.98389	191.21994	27.43669	0.1166397	0.18151153	3.0893461	20	12 16.9	20.9
409082 2003 SN_{327}	17.1	X	16.36000	114.56542	202.83100	12.80454	0.2973474	0.17582786	3.1555683	20	10 22.6	20.5
409083 2003 SX_{327}	17.2	X	163.43615	236.45675	193.71178	6.53672	0.0832290	0.27078863	2.3661872	20	5 13.5	20.5
409084 2003 SQ_{328}	16.5	X	101.56227	101.12998	184.93882	9.60926	0.1230407	0.18252007	3.0779552	20	12 3.4	21.4
409085 2003 SE_{329}	16.3	X	23.15087	14.62294	355.92251	10.45561	0.0935511	0.18243463	3.0789162	20	12 9.2	20.6
409086 2003 SY_{329}	17.6	X	358.66028	258.82232	333.98707	4.56529	0.1064192	0.27658617	2.3330054	20	4 28.7	19.9
409087 2003 SK_{330}	18.7	X	155.30934	29.18855	49.65079	1.91677	0.1586162	0.27113498	2.3641717	20	5 18.8	22.3
409088 2003 SO_{330}	16.3	X	245.60501	135.53129	14.90271	16.57319	0.0275660	0.18189509	3.0850017	20	11 23.2	20.9
409089 2003 SY_{335}	16.3	X	358.55753	312.75787	96.26346	9.58160	0.1791392	0.18069417	3.0986554	20	—	—
409090 2003 ST_{338}	16.3	X	96.56445	220.63733	31.35082	11.39777	0.1077826	0.17577368	3.1562167	20	10 16.9	21.1
409091 2003 SG_{340}	16.1	X	28.67056	316.22397	29.92109	10.72505	0.0587851	0.17870559	3.1216002	20	11 10.9	20.3
409092 2003 SG_{345}	16.2	X	160.85200	29.18137	198.63495	9.36817	0.0455700	0.18331107	3.0690945	20	11 22.8	20.8
409093 2003 SK_{349}	16.6	X	7.19407	245.03737	107.38247	1.68228	0.0703618	0.17706698	3.1408293	20	10 24.1	20.7
409094 2003 SE_{358}	15.8	X	214.22210	356.29284	189.86572	16.27023	0.0395260	0.18249528	3.0782339	20	12 3.2	20.5
409095 2003 SX_{359}	16.5	X	289.34259	273.15508	181.51670	10.23831	0.0180593	0.17971552	3.1098945	20	11 16.9	20.9
409096 2003 SK_{364}	16.9	X	347.96543	53.95683	332.06126	7.91302	0.1541282	0.17930330	3.1146592	20	11 9.2	20.6
409097 2003 ST_{364}	17.9	X	147.52678	226.70578	221.55387	4.59711	0.2015752	0.27206654	2.3587720	20	5 26.4	21.6
409098 2003 SS_{365}	16.8	X	359.47115	146.77040	246.45625	2.17074	0.2222098	0.18168155	3.0874184	20	12 20.4	20.1
409099 2003 SP_{368}	18.1	X	225.80533	134.95966	192.38767	3.55750	0.0664627	0.26918701	2.3755636	20	3 7.4	21.4
409100 2003 SO_{387}	16.3	X	299.52873	19.61337	20.70670	22.97021	0.0719061	0.17178541	3.2048807	20	9 23.0	20.7
409101 2003 SQ_{392}	16.6	X	34.33873	258.13833	53.37548	9.73278	0.0563720	0.17361453	3.1823309	20	10 10.6	21.0
409102 2003 SU_{394}	16.0	X	254.95026	317.86831	177.07400	17.86813	0.1023257	0.17743291	3.1365094	20	11 12.3	20.6
409103 2003 SF_{410}	17.2	X	4.30423	229.54372	172.76665	2.68397	0.1247603	0.18341764	3.0679055	20	12 27.7	21.0
409104 2003 SX_{410}	18.8	X	139.63121	90.34914	340.86773	4.43024	0.2242296	0.26751421	2.3854564	20	4 26.7	22.6
409105 2003 SL_{432}	16.8	X	27.12087	185.93623	170.56363	2.29345	0.0590020	0.18064762	3.0991878	20	11 24.2	21.0
409106 2003 SM_{432}	16.1	X	76.54318	272.10468	5.89389	26.57777	0.1110658	0.17779098	3.1322968	20	10 17.8	21.0
409107 2003 ST_{432}	16.4	X	0.05745	41.31383	332.36507	8.77894	0.1092119	0.17731150	3.1379410	20	11 8.8	20.5
409108 2003 SD_{433}	17.6	X	258.89690	325.07417	324.26175	0.62264	0.1691123	0.26714901	2.3876299	20	2 16.7	21.2
409109 2003 TV_{8}	16.7	X	331.87387	9.78528	7.11787	13.06803	0.2524653	0.17075520	3.2177583	20	9 26.8	19.8
409110 2003 TG_{19}	15.5	X	25.75773	105.79543	243.61607	9.68367	0.1279811	0.18007019	3.1058097	20	11 22.2	19.5
409111 2003 TW_{27}	16.4	X	332.71353	215.06487	205.30674	8.86194	0.0727159	0.18001379	3.1064583	20	11 29.5	20.4
409112 2003 TO_{29}	15.9	X	317.31855	68.68016	23.26590	9.53721	0.1113133	0.18124643	3.0923578	20	12 14.2	19.8
409113 2003 TV_{34}	16.1	X	293.48602	172.83133	247.87572	8.59138	0.0633481	0.17274677	3.1929792	20	9 29.9	20.5
409114 2003 TP_{44}	16.0	X	1.18811	134.89139	241.32250	9.98181	0.1307675	0.17739661	3.1369373	20	11 19.1	19.7
409115 2003 TR_{46}	15.5	X	349.77777	29.88681	6.62263	15.43274	0.0631991	0.17855548	3.1233495	20	11 17.5	19.8
409116 2003 TF_{48}	16.8	X	336.79335	50.16738	324.39139	7.21239	0.1168911	0.17550682	3.1594153	20	10 3.6	20.7
409117 2003 TD_{56}	17.8	X	208.25093	204.74424	148.17115	6.41350	0.0896700	0.26770979	2.3842944	20	3 22.9	21.1
409118 2003 TP_{59}	16.1	X	355.33384	22.12639	5.10940	10.26657	0.0796933	0.17760915	3.1344343	20	11 16.7	20.4
409119 2003 UP	14.8	X	321.98948	121.30710	285.11532	25.80083	0.1674238	0.17598635	3.1536735	20	10 7.6	19.2
409120 2003 UR_{2}	16.1	X	292.48756	99.10523	21.79537	25.99020	0.1996905	0.17855404	3.1233664	20	11 23.4	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409121 2003 UW_2	16.2	X	204.77434	350.19439	203.40703	26.39368	0.0265368	0.17640117	3.1487275	20	11 30.1	21.1
409122 2003 UJ_6	15.2	X	288.44766	199.76487	263.06601	21.31889	0.1687526	0.17718270	3.1394616	20	11 3.1	19.4
409123 2003 UF_{16}	15.8	X	350.84914	189.80260	204.29065	10.42226	0.2117141	0.17696805	3.1419997	20	12 3.2	19.3
409124 2003 UB_{19}	17.7	X	146.71843	27.30920	40.17199	5.62477	0.2153745	0.26477663	2.4018706	20	4 29.6	21.6
409125 2003 UD_{19}	15.8	X	41.39428	138.27981	220.19928	16.51001	0.2206213	0.18105811	3.0945017	20	—	—
409126 2003 UP_{21}	15.4	X	28.84508	36.35722	296.17547	15.93263	0.2442291	0.17765926	3.1338448	20	11 19.4	19.7
409127 2003 UF_{24}	17.6	X	184.00877	180.32599	15.55573	19.82600	0.0500384	0.35658828	1.9695091	20	12 14.5	20.2
409128 2003 US_{30}	16.0	X	46.51213	332.26586	5.40942	10.99143	0.1306728	0.17934380	3.1141903	20	12 2.6	20.5
409129 2003 UJ_{32}	16.4	X	34.29833	132.81566	211.80398	3.93772	0.1196306	0.17799379	3.1299169	20	11 26.5	20.7
409130 2003 UV_{32}	16.1	X	101.45207	271.60795	28.44993	10.51181	0.0565115	0.18141551	3.0904361	20	12 11.8	20.8
409131 2003 UE_{35}	15.5	X	54.92478	69.80775	253.75331	7.78213	0.1201686	0.18072767	3.0982726	20	11 26.6	20.0
409132 2003 UY_{37}	15.6	X	312.84126	208.65318	234.83504	16.59657	0.2082538	0.17759014	3.1346578	20	11 20.5	18.8
409133 2003 UL_{49}	15.6	X	36.63202	64.91174	265.29211	11.17019	0.1492050	0.17612042	3.1520729	20	11 14.0	19.9
409134 2003 UH_{50}	15.9	X	307.15105	168.93344	287.53213	9.44936	0.1915517	0.17761747	3.1343364	20	11 26.9	19.6
409135 2003 UK_{52}	15.2	X	35.59152	126.59576	234.01223	19.78718	0.1825213	0.18073733	3.0981621	20	12 24.3	19.7
409136 2003 UM_{54}	15.9	X	281.58434	87.73335	10.37717	14.91139	0.2141448	0.17211567	3.2007796	20	10 11.4	19.9
409137 2003 UP_{55}	15.6	X	11.61213	343.98181	23.79261	12.73995	0.2596604	0.17579298	3.1559858	20	12 10.0	19.5
409138 2003 UD_{62}	16.2	X	11.12895	224.45276	157.97567	10.06878	0.2736869	0.17980002	3.1089201	20	—	—
409139 2003 UO_{63}	17.3	X	181.11054	304.36118	81.51989	8.68107	0.2349179	0.26755327	2.3852242	20	4 11.2	21.5
409140 2003 UJ_{69}	16.3	X	95.71116	113.29730	184.11420	9.78812	0.0724949	0.18270414	3.0758876	20	12 6.5	21.0
409141 2003 UV_{74}	15.7	X	66.06728	36.07953	263.96205	7.41015	0.1784798	0.17839731	3.1251954	20	11 17.5	20.3
409142 2003 UN_{75}	16.3	X	336.73572	220.54523	217.12860	10.35148	0.1820468	0.18153858	3.0890392	20	12 30.8	19.8
409143 2003 UU_{76}	17.5	X	77.18650	113.86267	219.20845	20.03538	0.0914958	0.36181708	1.9504882	20	—	—
409144 2003 UB_{85}	15.9	X	316.19286	13.16330	44.14023	10.19260	0.0799017	0.17448304	3.1717619	20	10 31.0	19.8
409145 2003 UM_{94}	16.3	X	10.25676	15.08396	23.59978	8.04498	0.1537180	0.18154421	3.0889754	20	—	—
409146 2003 UT_{94}	17.2	X	197.35742	193.15763	214.77347	6.51464	0.1007506	0.27272959	2.3549474	20	5 21.4	20.5
409147 2003 UQ_{104}	16.5	X	333.95432	176.89096	217.04311	12.63842	0.1838690	0.17512539	3.1640012	20	10 27.1	20.0
409148 2003 UA_{113}	17.6	X	186.82505	295.65730	96.83194	5.48825	0.1844897	0.26857712	2.3791585	20	4 21.8	21.4
409149 2003 UV_{115}	15.7	X	4.68340	148.77652	227.32839	11.45850	0.2669047	0.17692079	3.1425592	20	12 12.2	19.2
409150 2003 UJ_{120}	15.9	X	67.47458	281.39744	23.00305	13.46622	0.1822377	0.17869289	3.1217481	20	11 22.2	20.7
409151 2003 UU_{120}	15.5	X	320.68529	101.87156	359.06537	25.80196	0.2313051	0.17924776	3.1153025	20	—	—
409152 2003 UA_{127}	16.0	X	329.15355	28.66213	30.68043	8.77739	0.1588972	0.17665437	3.1457180	20	11 19.8	19.5
409153 2003 UW_{128}	17.6	X	201.31235	313.39000	28.93473	4.87620	0.1698539	0.26435909	2.4043991	20	3 2.7	21.4
409154 2003 UD_{131}	16.6	X	201.09635	150.52051	279.11068	7.77735	0.1810042	0.21489322	2.7604989	20	6 18.6	21.2
409155 2003 UX_{135}	15.8	X	339.92932	77.30010	6.54837	19.12510	0.3061901	0.18003632	3.1061991	20	—	—
409156 2003 UW_{156}	17.7	X	211.15573	289.14288	98.15956	5.84018	0.2151436	0.27189106	2.3597868	20	5 5.3	21.6
409157 2003 UB_{161}	16.0	X	55.51706	113.28641	220.84562	9.30503	0.1223500	0.17909277	3.1170996	20	12 10.2	20.5
409158 2003 UL_{172}	15.8	X	17.87002	305.63451	59.26101	11.47547	0.2084341	0.17795202	3.1304067	20	12 10.2	19.7
409159 2003 UP_{174}	15.3	X	40.58083	324.73386	31.00273	11.59339	0.0517496	0.17912468	3.1167294	20	12 6.5	19.8
409160 2003 UU_{182}	16.8	X	350.68681	18.20019	43.49180	1.40175	0.1742220	0.18102105	3.0949240	20	—	—
409161 2003 UA_{191}	15.9	X	298.35258	34.43617	50.29666	17.55923	0.2264286	0.17412101	3.1761567	20	10 25.9	19.6
409162 2003 UF_{201}	17.8	X	181.56293	238.00441	161.15171	3.23130	0.1715687	0.26848808	2.3796845	20	4 24.0	21.5
409163 2003 US_{203}	18.1	X	172.10583	75.36743	331.32378	0.71327	0.1816905	0.26722680	2.3871665	20	4 23.9	21.8
409164 2003 UU_{204}	17.9	X	163.07945	167.93475	268.18329	1.38840	0.1965340	0.27005993	2.3704417	20	5 24.1	21.6
409165 2003 UU_{207}	18.0	X	196.61761	74.66255	301.85532	1.94533	0.1780010	0.26762659	2.3847886	20	4 6.9	21.9
409166 2003 UV_{211}	17.7	X	204.87202	325.46828	38.20896	5.82876	0.2452928	0.26767140	2.3845224	20	3 30.9	21.9
409167 2003 UJ_{214}	16.2	X	291.57897	51.31370	24.72029	12.16742	0.0912695	0.17373943	3.1808055	20	10 17.2	20.4
409168 2003 UA_{215}	16.6	X	327.64956	306.11115	123.92574	2.40162	0.1424840	0.17854104	3.1235179	20	12 3.6	20.2
409169 2003 UK_{216}	17.5	X	220.35579	85.65695	232.94406	8.56395	0.2409736	0.26624568	2.3930274	20	2 12.4	21.8
409170 2003 UC_{229}	15.4	X	338.12974	337.55709	30.25799	15.56143	0.1751495	0.17005743	3.2265543	20	10 3.4	19.0
409171 2003 UF_{229}	17.5	X	135.16573	161.73021	262.78449	3.87506	0.1857586	0.26281026	2.4138364	20	4 10.7	21.3
409172 2003 UB_{235}	18.3	X	136.04890	176.71918	256.68276	0.39202	0.1436122	0.26545503	2.3977767	20	4 20.6	21.8
409173 2003 UG_{239}	16.0	X	13.54474	329.40022	16.47054	15.88167	0.1448264	0.17555608	3.1588243	20	10 28.6	19.9
409174 2003 UX_{240}	15.9	X	5.58330	348.08954	21.38788	10.74407	0.2019507	0.17541457	3.1605229	20	11 23.0	19.7
409175 2003 UC_{245}	15.6	X	13.13996	153.80420	203.00530	17.40467	0.1728723	0.17518220	3.1633172	20	11 19.2	19.6
409176 2003 UM_{250}	15.4	X	351.01087	130.81559	243.02565	12.26863	0.0888708	0.17243307	3.1968506	20	10 24.9	19.6
409177 2003 UC_{254}	16.3	X	314.06744	230.49185	205.72660	7.14113	0.1170724	0.17701038	3.1414987	20	11 19.5	20.1
409178 2003 UQ_{282}	16.6	X	238.07423	307.35932	90.78310	8.63363	0.2530295	0.27574800	2.3377307	20	6 8.1	20.3
409179 2003 UN_{296}	18.2	X	219.78683	354.51589	30.92613	1.63705	0.2036279	0.27376175	2.3490245	20	5 8.8	22.0
409180 2003 UK_{297}	17.3	X	154.69495	51.51153	15.96116	7.52071	0.0976866	0.26812184	2.3818510	20	4 27.9	20.7
409181 2003 UO_{297}	17.2	X	63.22634	151.73603	12.05262	6.50085	0.0437409	0.26924797	2.3752050	20	5 2.6	19.9
409182 2003 UZ_{298}	16.7	X	3.54840	123.71806	214.23300	6.57621	0.1592965	0.17215409	3.2003035	20	10 5.0	20.5
409183 2003 UF_{299}	16.3	X	290.35168	50.28026	32.20242	6.07802	0.1205036	0.17446909	3.1719309	20	10 20.3	20.2
409184 2003 UN_{299}	16.5	X	44.94006	135.87747	202.60463	13.50394	0.1646294	0.17915797	3.1163433	20	12 8.9	21.0
409185 2003 UY_{308}	17.7	X	232.76020	254.98472	84.32979	2.39863	0.1974589	0.27000521	2.3707619	20	3 24.8	21.4
409186 2003 UR_{314}	18.6	X	136.85112	47.74126	356.60522	0.98169	0.1863893	0.25934034	2.4353198	20	3 19.6	22.3
409187 2003 UT_{315}	18.2	X	174.82001	245.10536	138.91595	5.28590	0.2323350	0.26598235	2.3946066	20	4 1.7	22.2
409188 2003 UH_{316}	16.5	X	313.00067	13.48288	36.59946	11.45390	0.1887944	0.17187836	3.2037251	20	10 9.8	20.1
409189 2003 UY_{316}	17.6	X	182.10195	109.22375	293.17350	2.59220	0.2158400	0.27125515	2.3634734	20	4 26.9	21.6
409190 2003 UM_{317}	15.9	X	42.42823	291.76509	34.74791	11.28426	0.0574256	0.17772065	3.1331230	20	11 4.9	20.3
409191 2003 UC_{327}	16.4	X	24.33119	110.16094	194.18950	15.86834	0.0895595	0.17509905	3.1643185	20	9 16.5	20.7
409192 2003 UY_{327}	17.5	X	124.91141	183.98053	237.45159	5.43358	0.0858185	0.26691567	2.3890212	20	3 12.9	20.6
409193 2003 UD_{329}	16.4	X	13.79489	206.20832	191.94181	16.53589	0.0218684	0.18678156	3.0309589	20	12 23.6	20.9
409194 2003 US_{340}	16.2	X	324.66438	27.98275	26.99153	10.87300	0.0707004	0.17658725	3.1465151	20	11 7.7	20.2
409195 2003 UQ_{344}	16.7	X	304.68345	257.31912	190.23002	14.92937	0.0444127	0.18240716	3.0792253	20	11 26.3	21.0
409196 2003 UM_{373}	16.7	X	351.69866	202.60043	211.74490	10.60824	0.0823984	0.18575472	3.0421186	20	12 20.3	20.7
409197 2003 UB_{377}	17.9	X	93.24605	117.30786	336.73433	1.69735	0.0420452	0.26585040	2.3953989	20	3 10.5	20.9
409198 2003 US_{399}	17.6	X	253.23446	257.83529	219.44517	19.99818	0.0923525	0.34963829	1.9955229	20	11 28.2	19.4
409199 2003 UG_{416}	16.0	X	357.18305	190.47953	187.24917	10.51976	0.1872963	0.17514016	3.1638233	20	11 21.4	19.7
409200 2003 VX_4	17.6	X	126.09253	359.00033	54.27370	5.22752	0.1791266	0.25949981	2.4343220	20	3 21.5	21.1

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409201 2003 WS	18.2	X	196.47913	167.45424	224.30068	1.37597	0.2185191	0.26869771	2.3784466	20	4 26.5	22.2
409202 2003 WY_{2}	16.1	X	294.00812	36.34440	28.33375	25.72054	0.1281269	0.17213981	3.2004804	20	10 7.9	20.3
409203 2003 WU_{16}	18.1	X	208.87229	39.77963	298.10655	1.06600	0.2553313	0.26565437	2.3965771	20	2 29.9	22.4
409204 2003 WX_{25}	18.7	X	109.30760	39.38012	40.04841	23.95935	0.5831186	0.19883178	2.9072263	20	5 10.9	24.4
409205 2003 WL_{27}	17.2	X	168.59776	73.55347	277.51158	5.40355	0.1354617	0.25840207	2.4412114	20	2 7.6	20.9
409206 2003 WF_{28}	17.9	X	165.79830	36.71468	6.30797	1.27866	0.1766914	0.26496559	2.4007286	20	4 13.4	21.6
409207 2003 WP_{41}	17.5	X	216.46153	341.92950	33.90514	3.07680	0.2117254	0.26928727	2.3749738	20	4 23.5	21.3
409208 2003 WB_{44}	17.5	X	156.06288	24.24635	2.22621	6.13873	0.1421193	0.26045868	2.4283437	20	3 12.9	20.9
409209 2003 WN_{44}	15.7	X	322.19571	143.46284	300.10982	9.82275	0.1652719	0.17701827	3.1414054	20	12 10.2	19.3
409210 2003 WO_{50}	15.7	X	41.39769	69.36093	240.06437	24.58415	0.2236885	0.17368175	3.1815097	20	11 5.6	20.2
409211 2003 WN_{57}	17.7	X	205.70926	26.66344	357.06249	0.95838	0.1995517	0.26895577	2.3769250	20	4 24.3	21.5
409212 2003 WL_{58}	17.6	X	197.38325	321.94226	48.02112	4.35009	0.2143294	0.26615294	2.3935832	20	4 1.8	21.5
409213 2003 WJ_{71}	15.4	X	302.18486	211.45781	232.99133	26.21598	0.1242295	0.17461864	3.1701196	20	11 8.9	19.2
409214 2003 WV_{87}	17.2	X	178.29098	39.09332	103.73857	4.59580	0.3938474	0.27189767	2.3597485	20	8 27.9	21.8
409215 2003 WA_{91}	18.1	X	198.61230	294.42778	101.98294	3.02408	0.2077957	0.26991555	2.3712870	20	5 5.4	22.0
409216 2003 WF_{93}	15.5	X	20.80083	316.57648	45.39976	12.40466	0.0670506	0.17436990	3.1731337	20	11 20.5	19.7
409217 2003 WH_{129}	17.8	X	146.94983	346.35104	62.03557	4.08069	0.2330589	0.26247762	2.4158754	20	4 8.5	21.7
409218 2003 WU_{146}	15.6	X	340.83142	22.68951	65.43432	18.52218	0.1911776	0.17865381	3.1222034	20	—	—
409219 2003 WB_{147}	17.7	X	198.69523	194.17850	206.87497	3.66299	0.2097489	0.26918880	2.3755530	20	5 10.8	21.7
409220 2003 WQ_{169}	15.7	X	349.66637	277.63934	103.91870	12.15392	0.2293164	0.17345063	3.1843353	20	11 17.7	19.1
409221 2003 XN_{27}	16.3	X	30.46427	269.63694	73.03074	2.06107	0.1708205	0.17455706	3.1708651	20	11 25.2	20.5
409222 2003 XH_{32}	17.4	X	221.31098	132.73340	230.78351	3.45455	0.1595927	0.26788253	2.3832693	20	4 13.9	21.0
409223 2003 YT	17.6	X	295.26869	81.00758	40.83276	21.55283	0.0963879	0.35556247	1.9732954	20	—	—
409224 2003 YK_{34}	17.0	X	300.69623	227.93954	226.51701	2.69370	0.4780688	0.17064820	3.2191033	20	9 23.3	20.4
409225 2003 YH_{38}	17.5	X	151.01985	346.99444	75.10162	7.25198	0.0879199	0.26382624	2.4076354	20	4 20.5	21.0
409226 2003 YR_{82}	17.7	X	129.46619	32.79841	34.62520	3.06128	0.1637598	0.25781398	2.4449224	20	4 8.7	21.3
409227 2003 YT_{93}	18.0	X	172.25442	321.06156	93.89455	3.43786	0.2480110	0.26446008	2.4037869	20	5 7.4	22.1
409228 2003 YU_{97}	16.4	X	158.82530	141.34108	250.14300	11.08615	0.0607684	0.25859542	2.4399944	20	3 9.4	20.1
409229 2003 YM_{107}	15.9	X	332.37231	139.72864	285.20935	26.72215	0.3410031	0.17340560	3.1848865	20	12 11.6	18.6
409230 2003 YZ_{157}	17.0	X	164.02446	151.29624	254.90694	5.28087	0.1151439	0.26333214	2.4106462	20	4 10.9	20.7
409231 2003 YN_{166}	16.8	X	323.77261	70.64626	101.71807	9.52902	0.1392531	0.24286486	2.5442489	20	—	—
409232 2004 AB_{26}	16.4	X	297.19942	247.86445	321.39355	12.13008	0.0683397	0.24463407	2.5319673	20	1 5.6	19.9
409233 2004 BG_{61}	18.0	X	165.10120	203.57807	220.16881	1.16453	0.2088724	0.26224594	2.4172981	20	5 10.7	22.1
409234 2004 BW_{147}	17.7	X	349.02935	51.16674	107.83349	3.75914	0.1551268	0.24362669	2.5389422	20	—	—
409235 2004 BH_{148}	17.1	X	98.59955	138.53720	314.44053	11.26552	0.1501592	0.25312006	2.4750558	20	3 28.6	20.6
409236 2004 CL_{60}	17.1	X	340.22475	56.04063	98.74461	6.60157	0.1227978	0.24047396	2.5610851	20	—	—
409237 2004 CS_{66}	16.7	X	315.52364	166.15071	356.02675	12.22245	0.1873996	0.23631983	2.5910111	20	—	—
409238 2004 CZ_{103}	16.3	X	321.04736	255.86742	260.96396	11.12891	0.1212479	0.23767047	2.5811856	20	—	—
409239 2004 DL_{21}	16.8	X	334.10213	194.69113	332.80965	12.96889	0.2083100	0.23840163	2.5759054	20	—	—
409240 2004 DF_{64}	16.6	X	263.96754	165.57775	11.68576	12.95521	0.2594494	0.22785472	2.6547932	20	—	—
409241 2004 EP_{6}	16.8	X	292.41524	198.99686	350.19907	12.25070	0.1930439	0.23342704	2.6123736	20	—	—
409242 2004 EC_{23}	16.8	X	291.65623	177.30391	8.01878	14.17685	0.1825342	0.23283624	2.6167908	20	—	—
409243 2004 EJ_{38}	16.6	X	221.35236	213.37253	19.67975	16.64132	0.2644594	0.22494193	2.6776621	20	—	—
409244 2004 EQ_{42}	16.9	X	232.11341	219.10027	354.68229	6.78734	0.2989012	0.22510286	2.6763858	20	—	—
409245 2004 ET_{76}	17.2	X	301.88891	168.57461	9.97692	4.41546	0.1102725	0.23381850	2.6094570	20	—	—
409246 2004 EG_{77}	17.0	X	324.43061	28.05222	167.93081	13.08251	0.1161799	0.24060209	2.5601758	20	1 14.2	20.4
409247 2004 EM_{86}	16.8	X	247.03980	51.07706	165.70462	12.17753	0.1428074	0.22846925	2.6500306	20	—	—
409248 2004 FX_{37}	17.2	X	241.79520	188.42475	31.50813	3.68170	0.1729260	0.22928331	2.6437543	20	—	—
409249 2004 FS_{57}	17.9	X	352.64474	316.17789	199.59906	3.24681	0.1509981	0.23925727	2.5697603	20	—	—
409250 2004 FO_{63}	16.8	X	262.62457	175.33236	33.62149	6.43433	0.2548675	0.22907326	2.6453702	20	—	—
409251 2004 FX_{66}	17.0	X	40.53387	3.76263	143.76419	6.76861	0.1570579	0.24607233	2.5220917	20	3 21.1	19.4
409252 2004 FK_{70}	17.2	X	254.86688	237.34405	357.49799	2.29860	0.1017681	0.23373792	2.6100567	20	—	—
409253 2004 FO_{134}	16.4	X	324.44018	304.08236	206.44306	27.60754	0.1904504	0.23327442	2.6135128	20	—	—
409254 2004 GQ_{14}	16.9	X	308.17324	323.54190	224.98025	12.54762	0.1863677	0.23310138	2.6148061	20	—	—
409255 2004 GX_{75}	16.2	X	200.70726	325.39200	263.83362	16.58497	0.2131220	0.22039828	2.7143379	20	12 27.3	20.4
409256 2004 HO_{1}	18.2	X	296.73596	265.10779	43.39379	25.77391	0.5210741	0.30079260	2.2060971	20	3 22.7	22.3
409257 2004 HN_{54}	16.2	X	236.88373	202.89441	41.39699	18.31017	0.2381465	0.22879628	2.6475047	20	—	—
409258 2004 HE_{59}	16.3	X	188.92955	315.25503	314.10361	11.47126	0.1358938	0.22381583	2.6866361	20	—	—
409259 2004 JD_{3}	16.2	X	210.02368	231.34278	45.74267	13.90069	0.1522915	0.22561105	2.6723652	20	—	—
409260 2004 LO_{27}	16.7	X	154.29483	236.52611	130.89279	12.31903	0.0362921	0.23143768	2.6273222	20	2 8.9	20.3
409261 2004 LC_{30}	18.2	X	314.58426	149.87674	132.72351	5.42219	0.1678180	0.30069744	2.2065625	20	4 17.9	20.4
409262 2004 PX_{81}	16.4	X	79.17063	211.63068	150.93350	17.00570	0.1918263	0.20383906	2.8594189	20	—	—
409263 2004 PN_{87}	17.8	X	281.06960	339.51500	13.71849	5.18020	0.2625409	0.29968481	2.2115303	20	5 21.6	20.4
409264 2004 PS_{99}	17.7	X	270.01574	308.56448	34.43432	5.02062	0.2303002	0.29620795	2.2288024	20	4 29.5	20.8
409265 2004 PP_{105}	16.4	X	65.53914	192.44563	192.03969	16.77734	0.3031244	0.20433790	2.8547633	20	—	—
409266 2004 RK_{9}	21.2	X	139.77412	284.29182	354.80080	6.22669	0.4259299	0.39608354	1.8363052	20	—	—
409267 2004 RL_{17}	17.9	X	237.63028	1.32210	21.40690	7.08217	0.2570212	0.29576110	2.2310468	20	5 15.9	21.5
409268 2004 RW_{18}	18.2	X	245.42039	225.63014	175.42572	2.54409	0.1665995	0.30042327	2.2079048	20	6 29.7	21.2
409269 2004 RY_{19}	17.8	X	281.57876	277.98344	65.90641	6.38043	0.2266973	0.29860388	2.2168642	20	5 16.3	20.4
409270 2004 RP_{23}	17.5	X	315.99226	144.37283	162.41135	8.10490	0.2163399	0.30007022	2.2096363	20	5 20.3	19.6
409271 2004 RS_{36}	16.2	X	34.92173	357.41585	13.73177	9.97808	0.1975119	0.19644834	2.9306940	20	—	—
409272 2004 RV_{52}	17.5	X	315.49657	134.03802	163.98863	6.57826	0.1398015	0.29842630	2.2177435	20	5 18.5	19.7
409273 2004 RH_{96}	18.1	X	279.79507	78.81166	235.01845	4.71856	0.1945425	0.29617571	2.2289642	20	4 4.2	21.0
409274 2004 RW_{99}	16.4	X	83.75961	33.26368	317.65653	7.16932	0.1741126	0.20263152	2.8707676	20	—	—
409275 2004 RA_{102}	16.7	X	11.81268	254.75227	92.37983	2.38907	0.2129057	0.18927550	3.0042757	20	11 13.4	20.1
409276 2004 RU_{153}	18.2	X	236.25685	77.85726	290.80318	4.63456	0.2148830	0.29402316	2.2398298	20	4 29.3	21.8
409277 2004 RX_{155}	16.6	X	62.08469	37.11463	331.05405	7.34778	0.1383538	0.20105534	2.8857518	20	—	—
409278 2004 RF_{159}	18.3	X	255.91810	104.05419	245.46402	3.38976	0.1759166	0.29516825	2.2340332	20	4 28.9	21.5
409279 2004 RK_{167}	16.3	X	22.09947	38.99968	18.25437	13.93635	0.2321458	0.20016692	2.8942842	20	—	—
409280 2004 RV_{201}	16.5	X	89.01978	125.65442	217.06851	10.97892	0.2975705	0.20357177	2.8619213	20	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409281 2004 RW_{202}	18.4	X	343.10813	117.25692	159.89767	5.08160	0.1896113	0.30158019	2.2022545	20	6 5.8	19.8
409282 2004 RY_{211}	16.5	X	3.93868	125.70472	275.27140	11.90785	0.2026886	0.19488061	2.9463905	20	—	—
409283 2004 RT_{225}	17.9	X	286.20624	324.22531	7.44224	6.59794	0.1983389	0.29791042	2.2203030	20	5 6.8	20.6
409284 2004 RK_{236}	18.1	X	226.33750	47.94068	333.88517	8.73071	0.1596099	0.29298221	2.2451320	20	5 9.6	21.7
409285 2004 RX_{269}	17.3	X	35.91109	205.02427	182.67879	4.47636	0.1195973	0.19937423	2.9019507	20	—	—
409286 2004 RX_{288}	17.0	X	60.68440	185.59556	201.10573	1.73534	0.1122084	0.20296619	2.8676111	20	—	—
409287 2004 RA_{290}	18.1	X	177.51695	273.27556	4.52092	21.62319	0.0392136	0.39512753	1.8392659	20	—	—
409288 2004 RP_{293}	17.2	X	84.69870	338.04152	332.02466	8.85892	0.0441122	0.19674715	2.9277259	20	12 7.6	21.5
409289 2004 RR_{293}	17.3	X	122.10868	112.83305	180.28946	10.04789	0.0361690	0.20040302	2.8920106	20	12 29.9	21.6
409290 2004 RQ_{296}	17.0	X	57.52015	304.91274	348.16278	1.20345	0.2672061	0.19135605	2.9824597	20	11 13.8	21.5
409291 2004 RX_{337}	16.6	X	7.82813	350.60912	14.96994	9.84263	0.1029047	0.18793344	3.0185613	20	11 12.9	20.5
409292 2004 SP_{18}	16.2	X	58.83706	67.38628	311.83885	13.86541	0.1630760	0.20239756	2.8729796	20	—	—
409293 2004 SN_{32}	17.7	X	249.13657	320.75525	70.98259	3.99529	0.1492120	0.29712630	2.2242076	20	6 23.4	20.4
409294 2004 SR_{41}	16.2	X	78.42943	29.99206	297.95858	7.75879	0.0687658	0.19851270	2.9103409	20	12 26.4	20.5
409295 2004 SP_{46}	16.7	X	55.88804	55.77523	326.19314	6.69584	0.1831958	0.20042993	2.8917517	20	—	—
409296 2004 SV_{51}	17.5	X	280.75334	306.03589	53.63632	5.66642	0.2901077	0.29817884	2.2189704	20	5 27.1	20.3
409297 2004 TV_{3}	16.9	X	21.17458	27.60576	20.31979	14.07210	0.0924162	0.19704891	2.9247361	20	—	—
409298 2004 TH_{5}	16.6	X	352.09578	204.79622	39.74857	7.06008	0.0792541	0.28823996	2.2696902	20	5 7.3	18.8
409299 2004 TO_{10}	18.0	X	13.74369	64.66277	30.56965	21.58847	0.0900395	0.39195266	1.8491847	20	—	—
409300 2004 TJ_{20}	18.3	X	22.57505	75.82950	5.65847	24.21331	0.1423743	0.39100295	1.8521779	20	—	—
409301 2004 TB_{32}	17.0	X	6.36297	132.33523	211.84392	15.00257	0.1258708	0.18464474	3.0542981	20	10 17.9	20.8
409302 2004 TF_{45}	16.5	X	327.04137	39.33767	22.73748	10.54803	0.0512239	0.18870496	3.0103281	20	11 22.5	20.6
409303 2004 TU_{47}	17.5	X	14.69899	256.27709	188.08544	1.98907	0.2376419	0.19833028	2.9121251	20	—	—
409304 2004 TS_{58}	16.9	X	28.98595	343.85145	12.75010	11.79062	0.0988451	0.19163599	2.9795545	20	12 1.6	21.1
409305 2004 TZ_{69}	15.6	X	0.15858	180.64984	193.44086	8.80267	0.0208066	0.18994721	2.9971888	20	11 9.8	19.7
409306 2004 TA_{77}	17.2	X	333.18712	83.02913	27.30016	1.93578	0.1719586	0.19735121	2.9217487	20	—	—
409307 2004 TL_{97}	16.7	X	0.84465	206.00791	191.02666	5.16162	0.1416318	0.19106211	2.9855179	20	12 20.4	20.3
409308 2004 TV_{102}	17.7	X	94.73843	296.45202	20.98611	21.78129	0.0323071	0.38123138	1.8836937	20	—	—
409309 2004 TM_{106}	16.0	X	29.05245	37.39370	33.99182	8.57902	0.1961093	0.20171415	2.8794651	20	—	—
409310 2004 TB_{138}	17.6	X	226.56042	335.69693	52.57205	9.21449	0.2410772	0.29138550	2.2533263	20	5 16.0	21.2
409311 2004 TZ_{149}	18.3	X	277.58278	330.73466	4.20961	2.99393	0.0908082	0.29392917	2.2403073	20	5 18.7	21.0
409312 2004 TS_{156}	16.4	X	119.58958	240.93889	24.70063	12.49986	0.0401696	0.19079217	2.9883332	20	11 20.1	20.8
409313 2004 TZ_{177}	16.4	X	51.06195	96.79403	192.71534	15.62358	0.1362825	0.18657284	3.0332190	20	10 15.7	20.6
409314 2004 TV_{180}	15.7	X	244.04897	293.22575	183.15854	26.94094	0.1741301	0.18464020	3.0543482	20	9 25.9	20.2
409315 2004 TR_{190}	16.9	X	17.65468	210.90504	193.53903	5.59265	0.0954001	0.19608980	2.9342653	20	—	—
409316 2004 TX_{198}	15.6	X	103.07949	102.40825	205.65386	8.45275	0.1187736	0.19519574	2.9432184	20	12 30.6	20.3
409317 2004 TN_{202}	17.5	X	294.53216	274.73732	31.31611	9.84818	0.1917004	0.29032483	2.2588112	20	4 15.7	20.1
409318 2004 TA_{221}	18.1	X	259.22809	265.98999	89.52838	3.80801	0.2299411	0.29585472	2.2305761	20	5 6.2	21.2
409319 2004 TU_{263}	18.7	X	193.69283	169.20753	236.64222	2.17683	0.1885474	0.28798743	2.2710169	20	5 12.1	22.1
409320 2004 TM_{277}	18.2	X	251.86172	301.88410	46.63332	3.88280	0.1869598	0.29046323	2.2580936	20	4 23.2	21.3
409321 2004 TY_{296}	16.0	X	0.21841	331.75504	66.91521	5.59749	0.2424024	0.18954026	3.0014774	20	—	—
409322 2004 TN_{333}	17.6	X	224.21508	138.05620	216.23063	6.40464	0.1337059	0.28568893	2.2831815	20	4 5.0	20.9
409323 2004 TA_{341}	16.3	X	3.15483	165.24548	220.48157	8.40336	0.1301012	0.18876475	3.0096924	20	12 7.8	20.0
409324 2004 TV_{350}	16.5	X	337.76762	230.29975	212.24361	7.59541	0.1067295	0.19090092	2.9871982	20	—	—
409325 2004 TA_{351}	16.5	X	290.23949	24.14526	51.49389	10.13719	0.0952987	0.18223965	3.0811119	20	10 18.7	20.5
409326 2004 TC_{367}	18.3	X	251.59534	21.70905	356.58818	3.84113	0.1761630	0.29513421	2.2342050	20	6 2.8	21.3
409327 2004 TL_{367}	15.8	X	63.47510	141.96775	227.35229	11.77437	0.1173734	0.19688390	2.9263700	20	—	—
409328 2004 TC_{368}	17.2	X	216.36933	21.38659	26.72678	7.53713	0.0644079	0.29257629	2.2472082	20	6 14.6	20.2
409329 2004 TZ_{368}	16.7	X	37.50399	326.51627	56.33769	12.14244	0.0968924	0.19253846	2.9702366	20	—	—
409330 2004 TF_{370}	17.9	X	206.87243	12.49141	22.63462	8.52118	0.1395124	0.28986918	2.2611777	20	5 10.2	21.4
409331 2004 VX	17.8	X	16.31340	44.69302	356.98761	10.49464	0.4037472	0.19376788	2.9576596	20	—	—
409332 2004 VP_{3}	18.0	X	183.21427	43.66046	58.19965	4.81926	0.1717883	0.29259840	2.2470949	20	7 17.1	21.5
409333 2004 VG_{18}	16.2	X	16.38074	239.23354	232.21575	9.30042	0.1881429	0.20154994	2.8810288	20	—	—
409334 2004 VY_{37}	16.9	X	352.38661	9.29506	50.79839	11.10083	0.1102379	0.19027746	2.9937198	20	—	—
409335 2004 VX_{38}	17.0	X	350.90476	334.92215	60.06008	6.60127	0.1396244	0.18641737	3.0349053	20	11 29.8	20.4
409336 2004 VE_{42}	16.2	X	154.59119	330.03401	220.68568	7.97700	0.0219075	0.17884402	3.1199892	20	9 28.3	20.7
409337 2004 VE_{53}	15.7	X	4.80883	175.70752	233.27597	10.64710	0.1866562	0.19011514	2.9954236	20	—	—
409338 2004 VK_{67}	17.0	X	30.88532	5.38059	17.37861	0.58753	0.2223954	0.19247087	2.9709320	20	—	—
409339 2004 VM_{69}	18.6	X	221.72318	310.48609	86.04184	2.32442	0.1565261	0.28949633	2.2631187	20	5 28.7	21.9
409340 2004 VZ_{71}	17.8	X	188.16497	199.94073	234.50098	5.14943	0.1276943	0.28924252	2.2644425	20	6 15.2	21.1
409341 2004 XX_{26}	17.9	X	177.74406	134.67768	264.93936	4.87370	0.1253404	0.28099514	2.3085370	20	4 16.3	21.4
409342 2004 XM_{35}	19.8	X	69.10349	322.97117	119.06945	5.35822	0.3013228	0.39592890	1.8367833	20	1 2.1	18.3
409343 2004 XM_{46}	17.8	X	215.43805	170.42710	246.43789	2.21379	0.1551324	0.28919439	2.2646937	20	6 18.7	21.2
409344 2004 XP_{48}	16.0	X	339.37132	8.60986	92.97222	16.58343	0.2574500	0.18856431	3.0118249	20	—	—
409345 2004 XQ_{58}	17.3	X	101.05414	168.29081	319.17490	5.46070	0.1266515	0.27676094	2.3320231	20	5 18.6	20.4
409346 2004 XF_{68}	17.3	X	58.48619	18.07396	147.73267	3.60157	0.1725404	0.27405534	2.3473465	20	5 21.7	19.6
409347 2004 XJ_{70}	17.2	X	165.30871	68.64940	28.99946	3.85485	0.1113713	0.28696311	2.2764180	20	6 22.1	20.4
409348 2004 XQ_{70}	15.7	X	288.78214	180.93406	302.58475	11.36574	0.1656085	0.18282104	3.0745762	20	12 4.5	19.6
409349 2004 XB_{90}	16.6	X	54.59808	353.39285	48.00038	2.63606	0.1127552	0.19525084	2.9426646	20	—	—
409350 2004 XU_{90}	15.8	X	272.59224	30.43505	71.60974	6.68111	0.1099717	0.17880530	3.1204396	20	10 24.1	20.0
409351 2004 XR_{110}	17.7	X	176.22191	159.88690	244.45409	2.02416	0.2344353	0.28175524	2.3043833	20	4 25.2	21.5
409352 2004 XW_{118}	18.2	X	186.00066	171.79890	275.71636	3.86271	0.1683424	0.28660943	2.2782903	20	6 29.6	21.8
409353 2004 XT_{128}	16.0	X	36.57664	123.34464	254.24852	8.57667	0.1463372	0.18869916	3.0103899	20	—	—
409354 2004 XE_{160}	17.5	X	168.80548	98.99438	331.33217	4.82677	0.1322482	0.28114594	2.3077114	20	5 18.6	21.0
409355 2004 XT_{166}	15.7	X	21.96178	302.00210	72.90265	10.48268	0.1231635	0.18754266	3.0227530	20	12 19.4	19.6
409356 2004 XT_{191}	16.6	X	10.10782	350.58445	97.69272	13.69646	0.1824220	0.19180530	2.9778008	20	—	—
409357 2004 YK_{23}	17.3	X	20.42687	264.53581	297.58313	4.72755	0.0944374	0.27188371	2.3598293	20	4 22.4	19.7
409358 2004 YY_{33}	15.6	X	273.26306	9.29103	97.84344	15.93560	0.2961242	0.18021884	3.1041015	20	10 10.1	20.0
409359 2005 AA_{1}	16.8	X	4.65367	154.87930	263.71177	3.27345	0.3518838	0.18913127	3.0058028	20	—	—
409360 2005 AG_{1}	16.9	X	151.48146	2.11952	111.36475	9.31575	0.1473941	0.28298262	2.2977152	20	6 30.0	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409361 2005 AP_6	16.3	X	313.05291	149.83099	327.79149	2.83137	0.1911903	0.18534214	3.0466315	20	—	—
409362 2005 AA_7	17.5	X	243.98811	211.04816	312.16719	19.46565	0.0632217	0.37059382	1.9195699	20	—	—
409363 2005 AA_{17}	17.1	X	34.02855	250.13621	279.62117	3.99018	0.0878145	0.27130562	2.3631803	20	3 28.6	19.6
409364 2005 AS_{18}	16.1	X	317.08630	149.52097	290.69449	14.88329	0.1382260	0.18115407	3.0934088	20	11 27.9	19.9
409365 2005 AX_{33}	18.0	X	137.72893	235.40686	245.70705	2.56439	0.1727141	0.28150218	2.3057641	20	6 27.4	21.5
409366 2005 AH_{44}	16.5	X	341.01055	6.81933	104.36526	6.52001	0.1910550	0.18722969	3.0261207	20	—	—
409367 2005 AS_{44}	16.4	X	316.05221	74.40461	30.41843	12.54042	0.3032580	0.18398753	3.0615672	20	12 25.1	19.1
409368 2005 AP_{52}	17.9	X	78.31717	110.96202	24.65387	2.63139	0.1275150	0.27221696	2.3579030	20	4 29.7	20.6
409369 2005 AL_{70}	17.8	X	317.27017	132.89591	350.64267	18.78467	0.0929458	0.37631396	1.9000681	20	—	—
409370 2005 AH_{80}	16.4	X	18.78734	286.15955	116.53900	10.87300	0.0953320	0.18218693	3.0817063	20	—	—
409371 2005 BQ_8	15.4	X	261.23630	38.13813	105.92363	16.96127	0.1163689	0.17804530	3.1293133	20	11 30.2	19.8
409372 2005 BX_{11}	16.4	X	289.67863	325.63719	104.35296	10.60808	0.0764965	0.17426989	3.1743476	20	10 14.2	20.8
409373 2005 BM_{24}	16.3	X	20.41145	219.44611	324.84459	12.29528	0.1671500	0.26654542	2.3912330	20	3 23.6	18.5
409374 2005 CB_{12}	15.4	X	247.53153	57.65154	131.40524	17.54608	0.1726295	0.17902892	3.1178407	20	12 26.8	20.0
409375 2005 CN_{15}	17.8	X	171.77161	308.68896	131.97570	4.16666	0.1369443	0.28107351	2.3081079	20	6 6.8	21.3
409376 2005 CY_{17}	17.7	X	174.08125	146.59643	293.76527	4.19646	0.1120703	0.28066192	2.3103639	20	6 7.8	21.1
409377 2005 CE_{20}	16.6	X	1.42486	222.67413	301.75971	13.85611	0.0841576	0.26128626	2.4232134	20	1 28.3	19.3
409378 2005 CW_{20}	17.2	X	93.15738	357.52658	145.64326	6.03328	0.1411933	0.27459591	2.3442649	20	6 4.5	20.2
409379 2005 CK_{29}	15.9	X	183.13795	98.87659	130.90341	11.43977	0.0320957	0.17587904	3.1549561	20	12 18.7	20.6
409380 2005 CW_{29}	17.7	X	352.28643	141.04653	68.74942	2.22632	0.1450135	0.26540669	2.3980679	20	3 13.0	19.8
409381 2005 CF_{44}	17.1	X	312.56199	277.66490	336.56382	6.45167	0.0768755	0.26672714	2.3901468	20	3 17.9	20.0
409382 2005 CT_{65}	17.9	X	188.50045	243.83254	339.74050	18.79782	0.0659380	0.36745330	1.9304918	20	—	—
409383 2005 DQ_1	17.7	X	173.08885	119.71733	322.56872	1.95967	0.1545957	0.27833224	2.3232380	20	6 9.7	21.4
409384 2005 EH	16.8	X	48.32311	156.67617	12.82683	24.05913	0.1887440	0.26945203	2.3740056	20	4 29.3	19.4
409385 2005 ED_{16}	18.4	X	150.43056	59.22156	42.58099	0.44385	0.1817912	0.27740475	2.3284136	20	6 14.6	22.0
409386 2005 EA_{30}	17.5	X	97.49373	191.12608	273.82508	3.32295	0.1595170	0.26802760	2.3824092	20	4 17.8	20.6
409387 2005 EX_{30}	16.3	X	327.12531	6.40315	98.76793	4.89579	0.2479679	0.18101983	3.0949379	20	—	—
409388 2005 EL_{34}	17.4	X	47.70059	345.85162	170.40581	6.02436	0.1411998	0.26645178	2.3917932	20	4 12.7	19.6
409389 2005 EP_{45}	17.6	X	59.12621	176.10130	340.34585	1.65743	0.1533853	0.26906266	2.3762954	20	5 3.4	19.9
409390 2005 ET_{58}	16.4	X	278.09554	334.51484	180.43847	10.63626	0.1742161	0.17676228	3.1444377	20	12 24.7	20.5
409391 2005 EV_{66}	16.7	X	294.86072	95.05330	352.91698	3.82879	0.1628135	0.17152887	3.2080754	20	10 26.6	20.7
409392 2005 EM_{73}	18.1	X	101.50014	308.23149	171.19296	2.04442	0.1605900	0.27334162	2.3514308	20	5 15.2	21.1
409393 2005 ER_{97}	17.4	X	62.28300	200.63879	289.13064	4.15099	0.1683937	0.26622307	2.3931629	20	3 30.4	19.9
409394 2005 EE_{103}	17.5	X	327.77148	200.90167	12.03390	2.51487	0.1316208	0.25944016	2.4346951	20	2 7.2	20.3
409395 2005 EF_{174}	17.5	X	97.80905	143.22087	306.98437	3.29992	0.0932603	0.26299633	2.4126978	20	3 18.6	20.5
409396 2005 EX_{184}	16.5	X	61.55758	302.73995	1.27596	11.49180	0.1983149	0.22175696	2.7032396	20	11 25.6	20.8
409397 2005 EF_{202}	15.7	X	284.66980	94.16232	37.44565	16.30704	0.2028997	0.17767771	3.1336278	20	11 29.1	19.6
409398 2005 EA_{207}	17.9	X	347.30777	241.43430	301.73782	1.33100	0.1460878	0.25588169	2.4572155	20	1 25.4	20.4
409399 2005 EE_{225}	15.5	X	273.06624	54.55813	107.30304	27.67954	0.1946732	0.17587456	3.1550097	20	12 24.8	19.6
409400 2005 EW_{245}	17.7	X	64.26703	349.30055	167.76645	2.60030	0.1558966	0.26823415	2.3811861	20	5 15.2	20.2
409401 2005 EF_{261}	17.8	X	352.20817	151.75409	35.44138	3.86766	0.1490775	0.25965018	2.4333820	20	2 9.4	20.3
409402 2005 EA_{270}	17.6	X	33.98853	31.31924	132.91260	2.84084	0.1338987	0.26246142	2.4159748	20	3 28.4	19.8
409403 2005 EF_{276}	17.5	X	42.92983	133.22113	10.84371	0.93167	0.1305503	0.26119445	2.4237812	20	3 13.8	19.6
409404 2005 EK_{297}	16.8	X	310.74393	50.86194	25.39773	0.84186	0.1623659	0.17524089	3.1626108	20	11 9.5	20.3
409405 2005 GL_{14}	17.5	X	56.24555	141.17171	359.35018	6.73015	0.1175801	0.26578014	2.3958210	20	3 29.8	20.0
409406 2005 GY_{33}	17.1	X	222.36003	95.02660	148.40204	9.84904	0.2864291	0.23921103	2.5700915	20	—	—
409407 2005 GO_{60}	17.0	X	217.56973	19.88508	227.92981	8.32135	0.2341011	0.24138222	2.5546566	20	—	—
409408 2005 GV_{94}	17.1	X	25.16576	137.56827	43.49310	5.69878	0.1354229	0.26175474	2.4203213	20	4 6.2	19.2
409409 2005 GC_{119}	17.8	X	60.58017	45.51229	75.05796	2.48531	0.1340261	0.25983494	2.4322284	20	3 13.5	20.2
409410 2005 GX_{122}	17.1	X	195.18992	257.59838	1.01638	13.05842	0.1375679	0.24134476	2.5549209	20	—	—
409411 2005 GV_{140}	17.1	X	182.08655	287.28128	347.48218	27.67490	0.3048156	0.24006452	2.5639963	20	—	—
409412 2005 GL_{163}	18.1	X	27.78292	343.57088	173.86865	1.14833	0.1136937	0.25845258	2.4408933	20	3 4.2	20.3
409413 2005 GO_{168}	18.2	X	90.46455	84.40328	205.79388	20.91515	0.0427386	0.35633208	1.9704531	20	12 26.0	21.0
409414 2005 GE_{176}	17.4	X	93.01612	14.10605	121.98583	5.73033	0.1284792	0.26547676	2.3976459	20	5 23.8	20.5
409415 2005 GL_{178}	15.4	X	299.84219	69.99815	43.48162	26.35152	0.2657983	0.17267550	3.1938577	20	11 20.9	18.9
409416 2005 GR_{200}	17.9	X	80.69685	309.57787	167.46068	6.69937	0.0638881	0.26594521	2.3948295	20	3 29.2	20.7
409417 2005 GK_{205}	17.5	X	194.22000	78.47080	181.81964	5.06791	0.2760049	0.23542777	2.5975521	20	—	—
409418 2005 JK_5	17.4	X	78.04251	115.98180	214.97278	21.42673	0.0779812	0.36230211	1.9487471	20	—	—
409419 2005 JO_{43}	16.3	X	156.32459	210.24113	81.47187	14.78656	0.1943305	0.23171879	2.6251969	20	—	—
409420 2005 JL_{75}	16.5	X	207.92177	23.67800	232.70941	16.83290	0.1661351	0.23988580	2.5652697	20	—	—
409421 2005 JD_{97}	17.8	X	351.91343	48.95388	58.17484	21.98223	0.1005765	0.37072563	1.9191149	20	—	—
409422 2005 JG_{98}	17.4	X	262.92359	142.24824	75.56613	6.66924	0.0889470	0.24239562	2.5475314	20	—	—
409423 2005 JQ_{125}	17.2	X	173.23726	165.09211	138.10571	9.07435	0.1548454	0.23695399	2.5863861	20	—	—
409424 2005 JD_{133}	17.8	X	225.20115	70.56376	191.66335	5.78579	0.1853467	0.24044030	2.5613241	20	—	—
409425 2005 JU_{143}	17.1	X	348.73106	65.86835	95.35457	5.71798	0.0624946	0.24710139	2.5150845	20	1 10.8	20.2
409426 2005 LN_{21}	16.6	X	132.35449	272.33267	59.14092	10.24669	0.3359054	0.23062580	2.6334847	20	1 5.3	20.9
409427 2005 LW_{32}	16.8	X	119.47622	232.15814	115.69037	14.19988	0.2794225	0.22608005	2.6686681	20	1 6.7	20.7
409428 2005 LZ_{50}	16.1	X	60.21120	282.09337	290.81142	14.42804	0.1704470	0.19696986	2.9255186	20	7 25.1	20.0
409429 2005 MX_{35}	16.7	X	125.58048	45.61881	308.67411	11.70794	0.1529758	0.22882006	2.6473213	20	1 5.7	20.4
409430 2005 NE_{44}	16.9	X	203.39029	198.20645	116.21434	15.08888	0.0384421	0.23915192	2.5705149	20	1 30.4	20.5
409431 2005 NB_{52}	17.5	X	177.23467	107.28146	163.70627	4.21929	0.1501952	0.22767196	2.6562137	20	—	—
409432 2005 NZ_{77}	15.1	X	285.44091	195.89216	157.14131	1.89397	0.1888115	0.12365470	3.9902090	20	6 8.7	20.7
409433 2005 NZ_{90}	17.0	X	103.44519	297.90045	121.29581	29.17528	0.2534116	0.23522084	2.5990752	20	3 21.6	21.2
409434 2005 NB_{101}	16.2	X	186.20173	336.21547	292.01961	11.95080	0.2461948	0.22694235	2.6619038	20	—	—
409435 2005 NC_{107}	17.9	X	341.41218	51.23487	123.74614	4.74102	0.0545905	0.30684093	2.1770105	20	1 7.3	20.2
409436 2005 OD_{11}	16.7	X	105.50264	252.18725	133.10757	15.23743	0.2192366	0.22694649	2.6618714	20	1 28.6	20.3
409437 2005 OV_{13}	17.1	X	171.64599	119.41476	159.66636	13.64060	0.1569136	0.22604971	2.6689068	20	—	—
409438 2005 OA_{16}	16.4	X	110.88804	62.53971	309.92653	12.49576	0.1804051	0.22646971	2.6656060	20	1 15.1	19.9
409439 2005 OP_{19}	17.1	X	154.18126	215.14670	127.77557	5.96142	0.2471561	0.23033211	2.6357227	20	1 28.5	21.5
409440 2005 OK_{31}	17.0	X	117.13541	310.90552	0.14837	16.24622	0.2744201	0.22039411	2.7143721	20	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409441 2005 PB_{21}	17.1	X	160.64410	122.88885	174.60483	2.14624	0.1871069	0.22544771	2.6736558	20	—	—
409442 2005 QD_{5}	16.2	X	153.27672	13.03360	327.09538	18.09037	0.3853588	0.23004549	2.6379116	20	2 4.9	21.0
409443 2005 QX_{34}	16.8	X	120.02706	200.60360	161.72448	4.56323	0.0901683	0.22523347	2.6753510	20	—	—
409444 2005 QO_{41}	16.4	X	147.39828	351.01233	330.62217	13.66141	0.2523863	0.22505904	2.6767332	20	—	—
409445 2005 QU_{59}	16.6	X	104.71977	220.56148	161.59210	4.35200	0.1457648	0.22368239	2.6877045	20	1 13.0	20.0
409446 2005 QG_{66}	17.2	X	159.40910	174.94415	175.59041	12.29071	0.2017268	0.23131512	2.6282502	20	2 5.5	21.6
409447 2005 QJ_{77}	16.9	X	147.17267	17.02300	309.84068	2.29862	0.2315352	0.22577077	2.6711047	20	1 3.0	21.0
409448 2005 QV_{100}	17.4	X	106.39907	158.88123	210.04628	3.09390	0.2397850	0.22332417	2.6905779	20	1 12.3	20.9
409449 2005 QK_{106}	16.8	X	73.08685	14.04643	8.61154	8.68186	0.2352264	0.21884735	2.7271469	20	—	—
409450 2005 QM_{114}	16.6	X	155.87003	310.99142	3.15754	13.54123	0.1030409	0.22256198	2.6967171	20	—	—
409451 2005 QL_{122}	17.5	X	103.99337	342.94853	336.79839	4.42531	0.1680645	0.21655116	2.7463910	20	—	—
409452 2005 QC_{134}	16.6	X	171.39407	78.24140	171.73525	12.10562	0.1868870	0.21714823	2.7413544	20	12 27.6	21.3
409453 2005 QW_{135}	17.3	X	54.70594	79.52942	12.04418	3.92479	0.1240371	0.22605462	2.6688682	20	1 27.1	20.2
409454 2005 QQ_{139}	17.1	X	92.58862	346.18861	7.63607	6.30992	0.0487557	0.21796266	2.7345214	20	—	—
409455 2005 QM_{163}	16.7	X	29.33745	356.17001	27.05266	6.79956	0.0950259	0.21049974	2.7987773	20	—	—
409456 2005 QO_{163}	16.7	X	95.79517	12.22970	8.01521	15.38909	0.1095315	0.22251516	2.6970954	20	—	—
409457 2005 QE_{165}	16.6	X	106.39336	217.42586	155.86703	13.60635	0.2082595	0.22205969	2.7007822	20	1 13.2	20.3
409458 2005 QH_{181}	16.4	X	55.04227	251.38199	183.62442	24.09464	0.2812035	0.21847464	2.7302476	20	1 19.8	19.4
409459 2005 QL_{187}	16.8	X	123.94746	15.60704	351.51443	2.50627	0.1180471	0.22558606	2.6725625	20	1 14.8	20.4
409460 2005 RU_{7}	16.4	X	75.92211	223.28127	187.08654	10.64412	0.2580136	0.22092968	2.7099837	20	1 23.7	19.5
409461 2005 RY_{51}	16.4	X	119.34548	252.07375	146.37442	12.99032	0.1681053	0.22871687	2.6481175	20	2 23.8	20.0
409462 2005 SP_{3}	17.0	X	69.89429	239.08909	161.02110	3.74445	0.2002231	0.21677874	2.7444685	20	—	—
409463 2005 SZ_{15}	16.8	X	87.09210	189.22693	193.36935	10.31573	0.1520185	0.21977794	2.7194431	20	—	—
409464 2005 SK_{16}	16.3	X	70.38124	9.05028	2.56560	9.52334	0.1771038	0.21495216	2.7599942	20	—	—
409465 2005 SG_{21}	16.8	X	86.02488	70.99512	329.47050	4.49088	0.0926846	0.22065703	2.7122156	20	1 4.7	20.1
409466 2005 SQ_{26}	16.4	X	131.53333	327.51835	11.53194	15.06759	0.1451581	0.22231176	2.6987403	20	—	—
409467 2005 SU_{31}	16.8	X	88.13158	255.73530	179.65177	9.68413	0.2262977	0.22515968	2.6759354	20	3 11.3	20.3
409468 2005 SJ_{34}	16.9	X	73.92752	321.51228	40.84844	8.83868	0.2344068	0.21349635	2.7725268	20	—	—
409469 2005 SO_{41}	17.1	X	124.35276	128.69047	245.34432	3.96524	0.1733007	0.22471627	2.6794544	20	1 29.4	21.0
409470 2005 SC_{48}	17.1	X	154.63907	113.87364	212.31131	5.96017	0.1507849	0.22337048	2.6902060	20	1 1.3	21.3
409471 2005 SX_{48}	17.3	X	47.91610	261.37032	192.62643	3.98331	0.1915055	0.22039818	2.7143387	20	1 22.8	19.9
409472 2005 SD_{50}	16.1	X	206.69736	243.90746	21.25479	12.54245	0.0707947	0.21969929	2.7200921	20	—	—
409473 2005 SN_{54}	17.0	X	54.65835	28.79103	18.41262	1.74487	0.0799939	0.21623181	2.7490945	20	—	—
409474 2005 SO_{54}	16.7	X	31.47394	222.25769	198.59462	5.00481	0.0606719	0.21433341	2.7653035	20	—	—
409475 2005 SP_{54}	16.9	X	56.14562	38.82472	21.24052	7.41032	0.0799954	0.21863473	2.7289147	20	—	—
409476 2005 SN_{57}	16.9	X	190.06973	95.76379	187.40463	13.28551	0.1430738	0.22374070	2.6872375	20	—	—
409477 2005 SP_{64}	16.9	X	102.46885	340.89876	19.86092	2.63829	0.1066976	0.21845871	2.7303803	20	—	—
409478 2005 SN_{76}	16.8	X	125.77748	160.55853	185.00451	14.37106	0.0846429	0.22147350	2.7055457	20	—	—
409479 2005 SX_{76}	17.2	X	133.48419	153.65947	178.09802	4.01386	0.1034959	0.22081189	2.7109473	20	—	—
409480 2005 SW_{78}	17.0	X	64.81800	36.97800	17.17496	8.60311	0.1769995	0.21986252	2.7187457	20	—	—
409481 2005 SN_{82}	17.3	X	43.18684	62.67176	352.70125	1.64219	0.0762242	0.21692884	2.7432024	20	—	—
409482 2005 ST_{83}	17.3	X	75.38570	350.24548	354.83321	1.25919	0.0968639	0.21147513	2.7901647	20	—	—
409483 2005 SH_{91}	17.0	X	117.96651	142.10301	197.55754	15.58797	0.2141851	0.21847565	2.7302392	20	—	—
409484 2005 SE_{98}	16.8	X	159.10311	279.26306	335.76051	8.17484	0.0653726	0.20943495	2.8082555	20	12 27.7	21.0
409485 2005 SB_{105}	16.3	X	134.96961	294.67575	33.05746	9.55764	0.1662556	0.21883611	2.7272402	20	—	—
409486 2005 SR_{107}	16.1	X	89.99191	168.50961	221.24582	12.54809	0.2606678	0.22179665	2.7029171	20	1 17.7	19.7
409487 2005 SP_{109}	16.7	X	234.71261	24.68760	200.47745	13.44813	0.1494589	0.21822927	2.7322937	20	—	—
409488 2005 SP_{112}	16.2	X	100.54041	218.62628	175.01965	13.75719	0.1921608	0.22261738	2.6962697	20	1 27.6	20.0
409489 2005 SS_{112}	16.6	X	108.67222	53.61626	310.34540	7.71464	0.2388962	0.22119094	2.7078493	20	1 10.5	20.3
409490 2005 SQ_{122}	16.3	X	125.73317	3.40931	341.99988	12.40443	0.2224674	0.22251699	2.6970807	20	1 5.9	20.4
409491 2005 SJ_{130}	17.7	X	210.30666	282.05267	22.85391	5.78539	0.1390314	0.29807524	2.2194845	20	1 20.2	21.1
409492 2005 SE_{131}	18.0	X	33.60389	75.00226	29.31023	1.11603	0.2548550	0.21759775	2.7375776	20	1 10.4	20.1
409493 2005 SG_{146}	16.9	X	86.69652	313.29209	0.99148	13.04090	0.1878129	0.21075738	2.7964959	20	—	—
409494 2005 SJ_{154}	17.1	X	28.06893	238.42254	200.49968	9.44784	0.1828525	0.21660930	2.7458996	20	—	—
409495 2005 SV_{177}	17.0	X	145.78503	353.46576	264.79956	3.94477	0.0937366	0.20921390	2.8102332	20	12 16.3	21.4
409496 2005 SD_{182}	16.8	X	184.74334	281.38099	340.62581	3.72399	0.0258530	0.21470650	2.7620991	20	—	—
409497 2005 SY_{182}	17.2	X	118.73724	33.82896	272.76338	1.78839	0.0544546	0.21105863	2.7938343	20	—	—
409498 2005 SC_{207}	17.3	X	77.51006	145.32460	193.42229	4.09885	0.0738880	0.21079473	2.7961656	20	—	—
409499 2005 SY_{212}	16.9	X	78.74552	76.90158	278.30558	0.60853	0.2397692	0.21291222	2.7775954	20	—	—
409500 2005 SW_{215}	16.5	X	146.95287	98.73384	213.10113	12.57519	0.2007327	0.22128352	2.7070940	20	—	—
409501 2005 SL_{223}	16.9	X	121.18146	284.24260	11.07314	10.00416	0.1050830	0.21245499	2.7815792	20	—	—
409502 2005 SZ_{234}	17.0	X	342.69118	278.94190	186.44245	6.05129	0.0052958	0.21625093	2.7489324	20	—	—
409503 2005 SL_{241}	16.9	X	97.58235	45.63563	336.19680	4.99293	0.0785520	0.22032126	2.7149705	20	—	—
409504 2005 SY_{246}	16.5	X	9.41980	266.18486	210.62164	7.18887	0.2074320	0.21663551	2.7456781	20	—	—
409505 2005 ST_{258}	17.2	X	98.16094	239.93692	179.69611	14.82847	0.3138651	0.22638053	2.6663061	20	3 16.2	20.9
409506 2005 SU_{262}	16.9	X	45.48183	45.86721	21.21851	9.66012	0.1173467	0.21783951	2.7355519	20	—	—
409507 2005 SX_{264}	17.3	X	78.89818	315.63985	44.75336	3.65216	0.0832893	0.21308860	2.7760625	20	—	—
409508 2005 SB_{286}	17.0	X	111.35218	215.68654	79.47024	9.03286	0.2008544	0.21039254	2.7997279	20	12 30.4	21.7
409509 2005 SX_{291}	17.1	X	84.11073	89.47309	237.01794	2.74117	0.0830694	0.20964238	2.8064028	20	—	—
409510 2005 TM_{3}	16.0	X	61.06135	343.65531	39.72692	14.64883	0.2007632	0.21194548	2.7860353	20	—	—
409511 2005 TC_{4}	16.6	X	120.91925	318.66191	45.09995	13.47772	0.2834139	0.22356899	2.6886132	20	2 1.5	21.0
409512 2005 TL_{22}	16.8	X	35.40533	187.48854	199.97570	9.78647	0.1295599	0.21079445	2.7961680	20	—	—
409513 2005 TL_{38}	17.0	X	56.58935	235.38491	179.36451	6.46774	0.0248188	0.22041300	2.7142171	20	—	—
409514 2005 TG_{52}	16.9	X	44.67342	223.15011	216.55182	4.35213	0.0883470	0.21785511	2.7354212	20	—	—
409515 2005 TY_{53}	16.8	X	93.69198	323.14142	57.48467	3.58093	0.1931333	0.21979927	2.7192672	20	1 4.8	20.0
409516 2005 TJ_{54}	17.0	X	98.23040	313.91274	35.79459	8.82359	0.2003628	0.21508691	2.7588414	20	—	—
409517 2005 TE_{60}	17.2	X	147.53524	57.39676	261.48893	4.71210	0.0754307	0.22087050	2.7104677	20	—	—
409518 2005 TG_{62}	17.1	X	25.55760	22.55355	50.98930	4.85233	0.1862167	0.21269590	2.7794784	20	—	—
409519 2005 TQ_{74}	16.8	X	38.07215	148.13484	249.14372	3.17274	0.2091082	0.21284046	2.7782198	20	—	—
409520 2005 TP_{77}	16.4	X	154.65935	307.11577	43.80955	10.15920	0.1352786	0.22639945	2.6661575	20	2 2.4	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409521 2005 TM_{81}	17.1	X	60.05944	56.97809	352.43604	6.38413	0.0656196	0.21850061	2.7300312	20	—	—
409522 2005 TD_{89}	16.8	X	353.96438	98.61704	20.31217	14.34987	0.1194227	0.21897646	2.7260748	20	—	—
409523 2005 TS_{108}	16.8	X	99.95898	339.07895	349.94076	8.48287	0.0513241	0.21318233	2.7752488	20	—	—
409524 2005 TO_{110}	16.8	X	123.47535	99.67504	229.03123	4.71207	0.0653596	0.21776934	2.7361395	20	—	—
409525 2005 TR_{112}	17.3	X	101.13689	3.01068	0.49639	6.16409	0.0615876	0.21867742	2.7285595	20	—	—
409526 2005 TX_{112}	17.8	X	68.54609	43.45199	325.98963	1.90506	0.1196745	0.21368743	2.7708737	20	—	—
409527 2005 TE_{115}	17.0	X	118.84187	153.45488	201.65996	8.52604	0.0572737	0.22092308	2.7100377	20	—	—
409528 2005 TP_{127}	17.3	X	52.57522	174.44604	221.07992	3.66070	0.0806566	0.21399319	2.7682337	20	—	—
409529 2005 TY_{131}	16.7	X	62.32242	4.32618	33.06003	14.66270	0.0891986	0.21525660	2.7573913	20	—	—
409530 2005 TB_{138}	16.8	X	91.98444	344.83981	49.58921	4.35630	0.1278729	0.22174187	2.7033622	20	1 10.2	20.2
409531 2005 TG_{138}	16.7	X	84.23187	296.54207	91.62724	4.06799	0.0956576	0.21788127	2.7352023	20	—	—
409532 2005 TT_{142}	17.0	X	309.71659	58.50775	61.86378	5.70558	0.0222316	0.21032622	2.8003164	20	—	—
409533 2005 TU_{143}	16.7	X	106.41739	295.44036	59.28284	5.95037	0.1053351	0.21748890	2.7384910	20	—	—
409534 2005 TQ_{149}	17.3	X	112.31198	142.31439	178.93938	9.31720	0.1261701	0.21376376	2.7702141	20	—	—
409535 2005 TO_{163}	16.9	X	85.78355	16.30247	3.19060	5.89816	0.0372116	0.21695454	2.7429858	20	—	—
409536 2005 TP_{175}	16.0	X	104.75839	332.13511	37.08952	18.26368	0.0786135	0.22081270	2.7109407	20	—	—
409537 2005 TH_{178}	16.7	X	114.90129	162.14954	201.38135	14.37999	0.0844364	0.22274529	2.6952375	20	—	—
409538 2005 TQ_{187}	17.4	X	63.97747	102.71167	274.08309	2.33777	0.1084216	0.21416394	2.7667621	20	—	—
409539 2005 UV_{3}	16.2	X	91.07046	307.26699	74.24048	11.92169	0.3690228	0.21946821	2.7220011	20	2 1.2	19.9
409540 2005 UM_{11}	17.0	X	8.11366	328.49608	101.67421	4.88593	0.0789306	0.20839215	2.8176161	20	—	—
409541 2005 UV_{14}	17.2	X	5.85633	82.36825	41.18771	8.41118	0.2169741	0.21554923	2.7548951	20	—	—
409542 2005 UP_{22}	16.5	X	64.11799	198.61857	225.33554	7.45001	0.1537064	0.21854723	2.7296429	20	1 7.9	19.6
409543 2005 UF_{38}	17.2	X	34.29014	195.14917	212.15531	3.98193	0.1107367	0.20856517	2.8160575	20	—	—
409544 2005 UU_{38}	16.7	X	38.89438	6.67742	66.70628	4.94148	0.0830822	0.21342835	2.7731156	20	—	—
409545 2005 UX_{56}	16.7	X	84.88131	107.04692	241.47665	5.98784	0.1502435	0.21135568	2.7912159	20	—	—
409546 2005 UG_{59}	16.4	X	116.59090	295.92791	49.07841	9.32479	0.2486804	0.21640313	2.7476433	20	—	—
409547 2005 UL_{69}	16.4	X	69.60155	13.50979	27.70038	9.83044	0.1815069	0.21599667	2.7510892	20	—	—
409548 2005 UV_{69}	16.1	X	50.33684	179.17898	242.24819	13.70041	0.0763744	0.21777605	2.7360832	20	—	—
409549 2005 UJ_{74}	16.5	X	74.77622	354.99359	58.03769	10.37315	0.2360378	0.21706505	2.7420547	20	1 28.0	19.7
409550 2005 UX_{74}	16.1	X	109.52870	152.45233	237.42587	12.19221	0.1867186	0.22118428	2.7079037	20	1 31.1	20.1
409551 2005 UV_{77}	17.2	X	33.40032	42.75695	28.57750	5.24507	0.0986224	0.21776945	2.7361385	20	—	—
409552 2005 UP_{92}	16.6	X	107.07974	339.96863	6.68584	5.23009	0.0653022	0.21316701	2.7753817	20	—	—
409553 2005 UQ_{93}	16.8	X	346.64122	115.45256	357.32739	4.49652	0.1156177	0.21126345	2.7920282	20	—	—
409554 2005 UM_{94}	16.9	X	333.52119	127.52840	8.24029	6.66216	0.1452754	0.21207504	2.7849005	20	—	—
409555 2005 UA_{95}	16.4	X	76.86211	17.30174	4.69625	5.52488	0.0472371	0.21370802	2.7706957	20	—	—
409556 2005 UO_{99}	17.3	X	28.44353	325.63589	139.46489	4.08965	0.1556468	0.21646511	2.7471188	20	—	—
409557 2005 UV_{100}	16.5	X	39.80238	242.57138	195.52869	8.50545	0.0843891	0.21566347	2.7539221	20	—	—
409558 2005 UX_{103}	17.1	X	57.04923	7.44946	65.07443	5.85600	0.1457543	0.21675348	2.7446817	20	1 8.7	20.1
409559 2005 UO_{109}	16.7	X	109.82483	60.09225	285.57096	3.85350	0.1669302	0.21357590	2.7718383	20	—	—
409560 2005 UY_{109}	17.2	X	295.56664	183.16042	278.27958	4.15952	0.1256242	0.19786234	2.9167148	20	11 26.1	20.8
409561 2005 UR_{113}	16.5	X	187.16752	212.19052	45.89923	9.55884	0.1013677	0.20915450	2.8107652	20	—	—
409562 2005 UV_{114}	16.9	X	75.82295	279.01133	124.71634	8.57822	0.3328661	0.21781142	2.7357870	20	1 30.8	19.8
409563 2005 UO_{115}	17.0	X	67.12669	19.43570	37.88977	5.49943	0.1072240	0.21803732	2.7338971	20	—	—
409564 2005 UX_{120}	16.4	X	317.97800	139.35197	33.49936	8.82476	0.1316819	0.21765174	2.7371249	20	—	—
409565 2005 UD_{121}	17.0	X	36.56139	204.61685	227.30869	3.56053	0.0411911	0.21515141	2.7582900	20	—	—
409566 2005 UV_{124}	17.1	X	90.21597	334.70030	359.82470	1.73803	0.2224233	0.21025814	2.8009208	20	—	—
409567 2005 UC_{148}	17.0	X	42.61490	155.66255	259.79150	3.46711	0.0587205	0.21255906	2.7806712	20	—	—
409568 2005 UE_{157}	17.1	X	74.53628	322.29391	28.01400	4.74389	0.1148961	0.20910983	2.8111655	20	—	—
409569 2005 UC_{168}	17.3	X	315.98697	263.53971	222.42175	3.55371	0.0110755	0.21105871	2.7938335	20	—	—
409570 2005 UR_{170}	16.9	X	88.62358	40.67596	319.27145	1.67140	0.0934603	0.21191984	2.7862600	20	—	—
409571 2005 UT_{180}	16.6	X	323.37038	32.82809	65.63138	11.82536	0.1079306	0.20291229	2.8681189	20	—	—
409572 2005 UK_{182}	18.4	X	272.84391	349.16836	46.09226	4.04946	0.1789844	0.31962031	2.1185878	20	7 31.6	20.4
409573 2005 UZ_{183}	17.2	X	10.37137	199.97903	208.41547	1.40949	0.0624014	0.20498959	2.8487096	20	—	—
409574 2005 UP_{191}	16.9	X	167.90577	247.83029	35.55873	3.79973	0.0612485	0.21214953	2.7842485	20	—	—
409575 2005 UM_{197}	16.2	X	117.51958	239.80052	153.42983	17.87761	0.1785489	0.23250559	2.6192711	20	2 14.9	19.9
409576 2005 UT_{197}	17.3	X	27.05200	89.19676	29.47821	8.01744	0.2362151	0.22002495	2.7174075	20	1 16.5	19.6
409577 2005 UB_{198}	16.6	X	220.30289	39.40744	200.90880	13.32557	0.1493438	0.21849435	2.7300834	20	—	—
409578 2005 UK_{199}	16.4	X	322.06093	295.36715	220.85646	14.62252	0.1279734	0.21372518	2.7705474	20	—	—
409579 2005 UJ_{206}	16.1	X	12.43475	63.58611	140.01739	2.17903	0.0868474	0.17133722	3.2104673	20	4 20.9	20.2
409580 2005 UC_{216}	16.7	X	91.61227	3.50030	54.96043	6.17302	0.1402772	0.22282530	2.6945922	20	2 13.5	20.2
409581 2005 UU_{216}	16.6	X	157.29113	292.12292	47.44199	11.65190	0.0646391	0.22290954	2.6939133	20	1 14.1	20.6
409582 2005 UM_{223}	16.2	X	225.35874	185.52430	25.82418	12.75033	0.0132692	0.20988644	2.8042267	20	—	—
409583 2005 UU_{223}	16.5	X	116.56643	60.76504	239.25670	8.41814	0.1606913	0.20946670	2.8079717	20	—	—
409584 2005 UZ_{228}	16.5	X	336.31664	279.78102	214.35528	11.46731	0.1271659	0.21204366	2.7851752	20	—	—
409585 2005 UO_{234}	17.2	X	45.80977	327.92604	85.94954	5.43536	0.0659391	0.21233832	2.7825979	20	—	—
409586 2005 UQ_{243}	16.1	X	87.76846	342.77041	43.83994	18.16875	0.2439310	0.21603635	2.7507524	20	1 14.9	19.8
409587 2005 UJ_{251}	16.2	X	115.88450	8.93679	349.15006	9.51463	0.1927540	0.21910163	2.7250364	20	1 6.5	20.1
409588 2005 UC_{270}	17.0	X	77.89344	344.13172	53.17392	3.89896	0.1147456	0.21812884	2.7331323	20	—	—
409589 2005 UD_{270}	16.2	X	181.11810	246.63694	37.41289	14.79368	0.1781124	0.22002613	2.7173977	20	—	—
409590 2005 UA_{287}	16.7	X	106.08803	224.90974	82.56371	5.30298	0.1930147	0.20995751	2.8035939	20	—	—
409591 2005 UU_{289}	16.9	X	125.66321	305.35417	359.53383	4.56026	0.1466153	0.20996263	2.8035483	20	—	—
409592 2005 UG_{291}	16.7	X	67.60056	94.11169	303.13712	3.66281	0.0733224	0.21399987	2.7681761	20	—	—
409593 2005 UK_{295}	16.6	X	117.39130	323.71094	5.77539	3.72373	0.0970242	0.21179394	2.7873641	20	—	—
409594 2005 UA_{307}	17.0	X	102.13135	117.43461	231.31616	5.79379	0.0666130	0.21171789	2.7880315	20	—	—
409595 2005 UP_{319}	16.9	X	56.19172	18.61528	12.86827	3.75410	0.0563591	0.21148708	2.7900596	20	—	—
409596 2005 UL_{331}	16.6	X	111.38078	326.67012	27.90661	11.44927	0.0350925	0.21897715	2.7260690	20	—	—
409597 2005 UC_{352}	15.8	X	72.42460	165.94026	242.95800	12.29163	0.0259596	0.21832650	2.7314825	20	—	—
409598 2005 UJ_{353}	17.0	X	65.39310	64.12543	357.77120	7.21594	0.1447333	0.21787744	2.7352343	20	1 9.3	20.2
409599 2005 UB_{361}	16.8	X	71.07776	112.88910	214.92970	5.57796	0.0790526	0.20453958	2.8528864	20	12 20.1	20.9
409600 2005 UG_{364}	17.4	X	100.95244	193.58586	157.18605	3.48051	0.1351441	0.21369865	2.7707767	20	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409601 2005 US_{368}	16.6	X	31.11729	224.39811	185.92834	4.70306	0.0691613	0.20861857	2.8155770	20	—	—
409602 2005 UH_{376}	16.6	X	64.24088	0.48030	26.11227	8.33271	0.1316227	0.21232284	2.7827332	20	—	—
409603 2005 UU_{385}	17.2	X	115.64813	230.36201	119.59796	1.84236	0.0794473	0.21465155	2.7625705	20	—	—
409604 2005 UR_{390}	16.9	X	97.47100	288.96298	79.89431	2.84761	0.0909132	0.21688172	2.7435997	20	—	—
409605 2005 US_{402}	16.3	X	147.74734	276.86025	44.17902	14.03964	0.1302177	0.21944368	2.7222040	20	—	—
409606 2005 UZ_{423}	16.7	X	142.47001	77.53532	218.74525	12.74194	0.1792272	0.21400675	2.7681168	20	—	—
409607 2005 UR_{428}	17.7	X	350.42069	109.50378	303.36438	1.00858	0.0798779	0.20115525	2.8847962	20	12 21.3	21.3
409608 2005 UP_{483}	16.4	X	106.75973	336.43003	40.65403	13.74515	0.1416907	0.22162863	2.7042830	20	1 11.3	20.2
409609 2005 UZ_{486}	16.2	X	114.66622	48.99199	301.43745	11.87671	0.1956891	0.21970838	2.7200171	20	—	—
409610 2005 UG_{502}	16.2	X	88.64019	147.83439	229.06778	6.04550	0.0633394	0.21518868	2.7579714	20	—	—
409611 2005 UK_{510}	16.8	X	81.50250	211.53234	183.37469	13.11981	0.1594933	0.21684642	2.7438975	20	—	—
409612 2005 UZ_{513}	17.1	X	91.39846	281.95967	102.42602	2.03964	0.0835203	0.21525668	2.7573906	20	—	—
409613 2005 UC_{523}	17.4	X	261.21507	7.17921	184.51389	4.17693	0.0081208	0.21768167	2.7368741	20	—	—
409614 2005 VB_{23}	17.0	X	351.43362	256.76457	159.72636	2.43898	0.0604317	0.20401768	2.8577497	20	12 26.3	20.8
409615 2005 VD_{29}	16.5	X	43.39518	233.48307	205.28457	8.79804	0.1416383	0.21612799	2.7499748	20	—	—
409616 2005 VE_{33}	16.5	X	57.08570	195.47934	208.08940	9.06036	0.1536953	0.21371499	2.7706355	20	—	—
409617 2005 VJ_{51}	16.5	X	102.60415	291.68991	77.58077	8.07352	0.1300611	0.21844282	2.7305127	20	—	—
409618 2005 VN_{96}	16.9	X	101.87839	107.58803	260.50192	3.65176	0.1407430	0.21666016	2.7454698	20	—	—
409619 2005 VO_{117}	16.8	X	319.59739	78.41920	55.32430	4.91690	0.0530261	0.20926685	2.8097591	20	—	—
409620 2005 WN	17.5	X	38.13159	12.32102	66.70428	5.22512	0.1785496	0.21288489	2.7778332	20	—	—
409621 2005 WH_{5}	16.1	X	35.78468	345.22442	89.08967	14.95050	0.1695208	0.21185070	2.7868662	20	—	—
409622 2005 WV_{9}	15.5	X	219.57867	237.48829	254.90615	13.24507	0.1687146	0.18617500	3.0375386	20	9 14.2	20.6
409623 2005 WU_{13}	17.2	X	24.96574	167.10666	225.31277	1.16627	0.0737794	0.20333847	2.8641099	20	—	—
409624 2005 WX_{14}	16.7	X	344.61643	22.61788	72.02451	2.90337	0.0323189	0.20647972	2.8349873	20	—	—
409625 2005 WG_{43}	16.6	X	111.28988	42.26690	261.81767	5.03900	0.0772686	0.20179968	2.8786514	20	—	—
409626 2005 WL_{44}	17.1	X	252.39812	102.78753	56.88238	7.11160	0.0380985	0.20192594	2.8774512	20	12 20.6	21.0
409627 2005 WT_{56}	16.8	X	84.62200	317.19347	65.14709	5.18205	0.1153409	0.21256520	2.7806176	20	—	—
409628 2005 WS_{66}	17.1	X	25.18900	191.37657	234.66322	3.70579	0.1001086	0.20883035	2.8136731	20	—	—
409629 2005 WA_{67}	16.9	X	25.89172	170.07019	224.21477	1.27418	0.0740000	0.20298675	2.8674174	20	—	—
409630 2005 WH_{116}	16.4	X	39.74734	243.21656	235.76741	9.61765	0.1816477	0.21755747	2.7379156	20	2 7.3	19.4
409631 2005 WV_{126}	17.2	X	61.67332	297.91696	96.42491	8.77561	0.2319115	0.21230242	2.7829117	20	—	—
409632 2005 WW_{142}	16.9	X	36.02874	160.77669	205.85302	1.26345	0.0523651	0.20128083	2.8835962	20	12 21.4	20.8
409633 2005 WX_{156}	15.9	X	248.19991	84.89194	79.07223	12.56316	0.0476195	0.19572149	2.9379453	20	12 17.7	19.8
409634 2005 WG_{160}	16.5	X	90.41355	9.30802	99.00241	11.30444	0.2637962	0.22283789	2.6944907	20	5 6.6	20.5
409635 2005 WJ_{160}	16.2	X	41.33249	86.44206	283.76605	10.71403	0.0674601	0.19738114	2.9214533	20	—	—
409636 2005 WC_{175}	17.1	X	67.40786	11.27820	67.12336	2.96333	0.2224499	0.21590449	2.7518722	20	2 15.2	20.0
409637 2005 WL_{208}	16.2	X	10.24038	156.68624	281.38889	8.19423	0.1107746	0.20614688	2.8380380	20	—	—
409638 2005 XX_{26}	17.3	X	55.20655	300.07578	86.19010	10.33758	0.1275403	0.20402177	2.8577115	20	—	—
409639 2005 XH_{27}	17.0	X	276.44925	38.86406	78.66050	5.74626	0.1258277	0.19230456	2.9726447	20	11 17.3	20.6
409640 2005 XN_{34}	16.5	X	150.31068	198.29415	91.07544	7.30686	0.0550544	0.20426558	2.8554371	20	—	—
409641 2005 XY_{41}	16.2	X	77.10079	114.08563	242.03294	19.38438	0.2293131	0.21083229	2.7958335	20	—	—
409642 2005 XN_{54}	17.3	X	48.46453	146.91507	279.15767	3.56429	0.0853701	0.21240160	2.7820452	20	—	—
409643 2005 XP_{64}	16.5	X	102.08605	252.80627	100.72683	4.41481	0.1015945	0.21308080	2.7761302	20	—	—
409644 2005 XC_{70}	16.2	X	325.53673	51.63149	45.62776	6.39801	0.0399267	0.20145255	2.8819572	20	—	—
409645 2005 XK_{81}	16.7	X	46.48561	293.51090	34.26534	2.22730	0.0796822	0.19246582	2.9709840	20	11 18.3	20.6
409646 2005 XZ_{91}	16.7	X	71.77484	314.99138	109.54253	8.50190	0.2174283	0.21577127	2.7530048	20	2 2.8	19.7
409647 2005 YK_{2}	16.7	X	40.83875	33.14629	66.54765	15.85815	0.0620329	0.21672737	2.7449022	20	1 13.9	20.3
409648 2005 YW_{5}	16.4	X	203.78716	192.45925	84.34244	10.76875	0.1581553	0.21293417	2.7774045	20	—	—
409649 2005 YF_{13}	16.3	X	59.58845	56.00707	291.58856	10.07660	0.1095456	0.19408334	2.9544538	20	—	—
409650 2005 YH_{15}	16.8	X	270.92413	35.82426	105.72105	2.47037	0.0853783	0.19232547	2.9724292	20	12 14.2	20.7
409651 2005 YA_{25}	16.6	X	140.17129	120.22318	120.49311	4.34197	0.0554301	0.18675546	3.0312413	20	11 16.7	21.2
409652 2005 YD_{49}	18.2	X	155.74191	184.69890	288.21083	3.36815	0.0904876	0.30268216	2.1969061	20	7 2.6	21.0
409653 2005 YM_{50}	16.4	X	101.08390	127.71167	112.58713	14.26586	0.1055535	0.17981999	3.1086899	20	10 13.7	21.3
409654 2005 YG_{54}	17.1	X	274.57701	240.17198	244.36929	1.38976	0.1218186	0.19234294	2.9722492	20	11 23.1	20.9
409655 2005 YS_{61}	16.4	X	246.10356	34.90709	95.55969	10.80521	0.0521233	0.18828887	3.0147615	20	11 6.1	20.8
409656 2005 YH_{63}	16.1	X	99.01308	158.24460	96.30658	9.62230	0.0843916	0.18357678	3.0661323	20	10 24.7	20.8
409657 2005 YX_{95}	16.7	X	14.21171	354.18179	70.87461	3.11665	0.0845817	0.19985621	2.8972832	20	—	—
409658 2005 YH_{107}	17.3	X	43.23568	131.67439	270.28150	0.93226	0.0707452	0.20303769	2.8669379	20	—	—
409659 2005 YE_{117}	16.9	X	233.88175	197.87609	318.07667	4.05941	0.0637534	0.18813165	3.0164408	20	11 15.5	21.3
409660 2005 YC_{119}	17.8	X	291.89271	332.84804	154.49111	1.30039	0.1292756	0.26435814	2.4044048	20	—	—
409661 2005 YK_{125}	15.9	X	228.09874	59.79035	83.43186	8.55079	0.1001352	0.18637412	3.0353748	20	10 24.0	20.4
409662 2005 YV_{129}	18.0	X	25.62579	167.80319	65.94064	4.74655	0.1160907	0.30098118	2.2051755	20	6 27.6	19.9
409663 2005 YE_{130}	16.8	X	25.30887	55.21650	19.26066	2.50167	0.1610266	0.20351992	2.8624074	20	—	—
409664 2005 YG_{136}	16.9	X	55.16704	58.08412	323.05618	6.61332	0.0241445	0.19954062	2.9003372	20	—	—
409665 2005 YQ_{138}	17.1	X	266.45112	95.83258	42.96498	2.30455	0.0541281	0.19189863	2.9768353	20	12 8.4	21.0
409666 2005 YY_{151}	18.5	X	243.48723	324.27126	79.49135	5.19993	0.1266231	0.30979449	2.1631514	20	7 7.7	21.2
409667 2005 YH_{153}	15.2	X	165.03674	79.65407	275.11972	15.52937	0.3460281	0.22678628	2.6631249	20	2 18.0	20.4
409668 2005 YA_{206}	17.9	X	204.52479	297.58633	157.27309	4.88799	0.0685034	0.30999364	2.1622249	20	8 7.0	20.6
409669 2005 YH_{232}	17.2	X	77.60978	327.36868	15.86981	1.87387	0.0876040	0.19981140	2.8977164	20	—	—
409670 2005 YG_{233}	17.2	X	333.72329	8.53760	82.56157	3.31411	0.0897094	0.19827141	2.9127015	20	—	—
409671 2005 YY_{236}	17.0	X	202.54248	348.70137	197.13362	2.03449	0.1069442	0.18718073	3.0266483	20	11 12.8	21.6
409672 2005 YG_{238}	15.7	X	82.92620	348.02836	280.01278	10.24814	0.1029583	0.18416893	3.0595565	20	10 16.7	20.4
409673 2005 YK_{247}	16.6	X	289.22544	125.04042	312.22339	13.30322	0.2247337	0.18730294	3.0253316	20	9 22.1	20.5
409674 2005 YJ_{266}	16.2	X	303.37401	180.13771	274.99818	10.99909	0.1358814	0.19216585	2.9740750	20	11 28.0	19.7
409675 2005 YR_{290}	15.8	X	92.35568	352.97463	320.56044	9.70923	0.0920031	0.19154230	2.9805260	20	12 25.2	20.4
409676 2006 AO_{3}	15.5	X	148.84091	204.39199	37.92922	28.78662	0.1350526	0.17486050	3.1671958	20	11 18.2	20.8
409677 2006 AW_{10}	16.8	X	15.67520	270.11488	115.16239	9.08630	0.2163009	0.19597661	2.9353950	20	—	—
409678 2006 AU_{16}	16.9	X	51.33299	112.44483	272.28053	13.84729	0.1604013	0.20579824	2.8412424	20	—	—
409679 2006 AU_{30}	16.2	X	145.28063	113.02476	111.98012	11.30925	0.0318556	0.18297352	3.0728679	20	11 5.7	20.9
409680 2006 AN_{32}	15.9	X	320.42597	297.49107	128.90264	11.98546	0.0806779	0.19002709	2.9963488	20	11 24.3	19.9

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409681 2006 AE_{35}	15.8	X	17.07724	54.61543	304.98715	9.34542	0.1082555	0.18777831	3.0202236	20	11 19.9	19.8
409682 2006 AM_{35}	16.8	X	276.92115	217.83546	230.20365	0.89399	0.0276070	0.18451414	3.0557392	20	10 21.9	20.9
409683 2006 AJ_{48}	16.1	X	291.94803	324.44747	141.55047	9.84200	0.1091726	0.18922802	3.0047782	20	11 28.4	20.0
409684 2006 AN_{51}	16.7	X	28.27596	343.11113	116.97648	10.93746	0.0927018	0.20883308	2.8136485	20	—	—
409685 2006 AB_{53}	16.8	X	40.72395	146.11122	244.83783	2.04786	0.0739857	0.19822016	2.9132035	20	—	—
409686 2006 AE_{54}	17.2	X	304.57419	297.37023	160.49629	3.43018	0.1308605	0.19232002	2.9724853	20	12 5.2	20.7
409687 2006 AG_{57}	16.3	X	144.95605	88.95853	115.54989	12.87474	0.0857337	0.17986573	3.1081629	20	10 13.7	21.3
409688 2006 AU_{69}	18.7	X	160.97231	127.08172	323.07524	5.01135	0.0921502	0.30082265	2.2059501	20	6 5.8	21.7
409689 2006 AZ_{78}	15.8	X	5.51314	294.07089	93.79658	12.10308	0.0508141	0.19167836	2.9791154	20	12 6.6	19.9
409690 2006 AU_{84}	15.2	X	185.63252	223.45524	313.97688	26.57590	0.1742114	0.17898587	3.1183406	20	9 26.1	20.9
409691 2006 AH_{94}	16.9	X	346.60686	99.98471	321.63881	1.30523	0.0780485	0.19347781	2.9606151	20	12 24.4	20.7
409692 2006 AD_{101}	16.0	X	90.44792	327.09012	308.11021	10.42599	0.0591941	0.18189829	3.0849655	20	10 28.3	20.7
409693 2006 BQ_{9}	15.5	X	242.60482	257.55519	273.40714	11.51022	0.1041259	0.18978553	2.9988908	20	12 10.2	19.6
409694 2006 BP_{19}	16.6	X	233.76374	355.75537	143.68461	3.11764	0.0194538	0.18568252	3.0429072	20	11 3.2	20.9
409695 2006 BW_{22}	18.0	X	45.24857	79.28012	124.63332	2.82612	0.0924605	0.29544744	2.2326256	20	6 12.4	20.1
409696 2006 BP_{33}	17.0	X	74.60727	196.75006	338.02581	6.65525	0.1138172	0.29283383	2.2458904	20	6 19.2	19.7
409697 2006 BN_{37}	16.7	X	32.09717	294.62555	124.68285	12.90689	0.1543603	0.20233053	2.8736141	20	—	—
409698 2006 BN_{46}	16.4	X	191.63422	181.89306	328.21107	15.84613	0.0347203	0.17455783	3.1708558	20	9 17.1	21.2
409699 2006 BZ_{53}	17.1	X	305.45082	117.77684	4.46793	1.64587	0.1902751	0.19192793	2.9765322	20	—	—
409700 2006 BZ_{74}	16.6	X	4.07146	340.75671	337.43403	8.19627	0.0178677	0.17345997	3.1842211	20	9 1.3	20.9
409701 2006 BM_{98}	16.1	X	124.67538	297.63234	303.80012	8.51257	0.0948695	0.18281115	3.0746871	20	10 28.5	20.9
409702 2006 BX_{107}	16.8	X	48.52136	53.64048	329.22253	5.30247	0.0715430	0.19583830	2.9367769	20	—	—
409703 2006 BP_{109}	16.2	X	74.79884	147.24187	121.88875	11.17343	0.0588418	0.17630151	3.1499139	20	10 11.3	20.9
409704 2006 BR_{111}	17.3	X	310.76321	23.74356	98.07400	2.62750	0.1187100	0.19477792	2.9474260	20	—	—
409705 2006 BS_{121}	16.8	X	279.83978	165.16446	323.90114	4.48998	0.0266842	0.18991047	2.9975754	20	12 16.4	21.0
409706 2006 BN_{128}	17.9	X	0.51572	93.12303	122.48523	1.55276	0.1821989	0.28488192	2.2874913	20	4 2.1	19.3
409707 2006 BO_{131}	15.9	X	206.40196	350.41750	149.72613	18.64553	0.1707777	0.17607432	3.1526230	20	9 18.8	21.0
409708 2006 BN_{144}	15.9	X	248.93599	240.43835	260.80197	8.23715	0.1065334	0.18591053	3.0404187	20	11 9.3	20.1
409709 2006 BR_{144}	15.9	X	238.43339	262.29192	249.05926	8.07741	0.2428074	0.18476210	3.0530046	20	10 21.9	20.6
409710 2006 BR_{163}	16.3	X	134.21672	275.77611	319.41032	11.45688	0.1226305	0.17918204	3.1160642	20	10 29.5	21.4
409711 2006 BU_{167}	16.4	X	293.58332	72.45481	329.49793	8.67888	0.0629427	0.17543213	3.1603120	20	9 8.7	20.6
409712 2006 BB_{174}	15.7	X	145.44229	138.20224	112.63047	10.29879	0.0975903	0.18519946	3.0481961	20	12 4.3	20.5
409713 2006 BS_{176}	16.0	X	175.03768	44.20768	121.98027	12.54161	0.0415629	0.17641278	3.1485893	20	9 28.2	20.8
409714 2006 BN_{178}	16.3	X	163.61259	65.01724	117.16069	6.22783	0.0924578	0.17719592	3.1393054	20	10 2.3	21.2
409715 2006 BW_{195}	16.6	X	205.21740	215.12878	309.34109	9.15664	0.0933187	0.18008563	3.1056321	20	10 16.5	21.5
409716 2006 BP_{204}	16.3	X	337.46408	101.68478	331.77497	10.15618	0.0616576	0.19043433	2.9920756	20	12 25.0	20.3
409717 2006 BG_{205}	16.2	X	338.16290	259.28734	142.28545	11.47803	0.1269475	0.18491404	3.0513319	20	11 19.6	20.0
409718 2006 BV_{225}	14.0	X	84.56745	334.46062	160.23485	10.08074	0.1536758	0.08284377	5.2115010	20	5 18.7	21.0
409719 2006 BP_{254}	16.4	X	288.00046	160.43398	315.54814	8.65533	0.0281157	0.18748200	3.0234050	20	12 9.7	20.6
409720 2006 BK_{255}	13.2	X	324.68253	106.18490	150.24103	20.06774	0.0560253	0.08172052	5.2591468	20	4 29.3	20.2
409721 2006 BX_{262}	15.6	X	166.71735	192.06400	344.98249	10.71027	0.0992026	0.17320256	3.1873751	20	9 23.8	20.6
409722 2006 BM_{263}	17.9	X	31.71612	185.48280	35.36261	2.38770	0.1180974	0.29211082	2.2495947	20	6 17.9	20.0
409723 2006 BO_{277}	16.2	X	325.67022	96.53514	336.32006	9.01833	0.0331719	0.18584362	3.0411484	20	12 4.2	20.5
409724 2006 BP_{280}	16.7	X	179.56027	226.92820	331.96821	4.55509	0.0861616	0.18022505	3.1040303	20	11 3.2	21.5
409725 2006 BQ_{280}	16.3	X	24.02374	10.29688	340.75327	21.77440	0.0761243	0.18024804	3.1037663	20	11 4.9	21.0
409726 2006 BV_{280}	18.2	X	334.65427	114.95147	115.06951	4.29099	0.1484188	0.28349555	2.2949429	20	3 8.2	20.4
409727 2006 BM_{283}	16.6	X	21.06567	45.96258	312.76723	11.22357	0.0860442	0.18600468	3.0393926	20	11 20.5	20.8
409728 2006 CZ_{18}	15.1	X	213.79727	15.29697	117.38154	18.31468	0.0744029	0.17501300	3.1653557	20	9 30.3	20.1
409729 2006 CG_{22}	18.2	X	263.62719	39.13749	351.47407	5.48497	0.1012689	0.30531320	2.1842667	20	7 22.3	20.6
409730 2006 CH_{24}	18.6	X	184.84586	114.94450	349.52355	1.49358	0.1008595	0.30593305	2.1813153	20	7 25.5	21.5
409731 2006 CQ_{26}	15.6	X	7.61015	186.02104	135.72736	10.07749	0.0808268	0.17490530	3.1666548	20	9 18.2	19.7
409732 2006 CM_{27}	18.3	X	351.78902	258.36524	321.48367	1.35872	0.1587931	0.28671797	2.2777153	20	3 20.8	20.3
409733 2006 CY_{39}	16.9	X	290.04342	18.21886	61.69075	2.39231	0.2549542	0.18466013	3.0541284	20	9 29.9	20.3
409734 2006 CS_{45}	17.0	X	275.76927	126.34696	354.50169	2.38930	0.0728142	0.18874348	3.0099186	20	11 25.1	21.1
409735 2006 CE_{46}	16.1	X	350.07043	252.53876	122.41234	6.47710	0.1174455	0.18403356	3.0610566	20	11 3.2	19.8
409736 2006 CB_{53}	16.2	X	141.11376	33.67573	138.18618	16.33688	0.0712023	0.17086007	3.2164416	20	8 24.5	21.0
409737 2006 CC_{53}	15.9	X	133.92097	84.62078	139.32804	16.57233	0.1158087	0.17757047	3.1348893	20	10 26.3	21.1
409738 2006 CD_{56}	17.4	X	92.14824	178.14225	341.75031	24.40652	0.2171988	0.29501576	2.2348029	20	7 15.8	21.0
409739 2006 DC_{16}	17.9	X	277.53136	317.49642	47.20858	2.69450	0.0869685	0.30230256	2.1987448	20	7 5.1	20.2
409740 2006 DS_{18}	16.4	X	129.85690	154.91515	83.81372	3.01165	0.1521154	0.17617571	3.1514132	20	11 4.9	21.5
409741 2006 DD_{22}	17.7	X	34.27585	89.95936	114.29506	2.76963	0.0794188	0.29005462	2.2602138	20	5 22.8	19.8
409742 2006 DZ_{23}	17.9	X	328.33043	272.31188	0.76606	5.80436	0.0984579	0.28960051	2.2625760	20	5 4.9	20.2
409743 2006 DP_{25}	16.7	X	43.71037	263.34905	156.20283	8.57267	0.1575488	0.19986106	2.8972363	20	—	—
409744 2006 DW_{28}	16.2	X	261.52683	134.47188	0.25023	16.45045	0.1075503	0.18255633	3.0775477	20	11 11.6	20.7
409745 2006 DB_{35}	16.6	X	243.04245	131.35905	16.48693	2.31266	0.1883991	0.18125724	3.0922349	20	10 30.3	21.0
409746 2006 DL_{44}	16.4	X	254.69862	213.09625	299.21905	3.80147	0.1151990	0.18687485	3.0299501	20	11 29.8	20.5
409747 2006 DO_{57}	16.4	X	311.83365	103.04129	344.21667	10.60177	0.1429981	0.18516444	3.0485805	20	11 27.5	20.1
409748 2006 DS_{58}	18.0	X	105.40951	323.53292	184.06740	2.27954	0.1432992	0.29315151	2.2442675	20	6 25.9	20.9
409749 2006 DL_{61}	17.5	X	345.52625	75.67648	180.92542	5.30506	0.1605020	0.28694156	2.2765319	20	5 9.4	19.3
409750 2006 DD_{62}	15.6	X	194.86663	113.24782	45.93689	6.12858	0.1439637	0.17752047	3.1354780	20	10 2.3	20.6
409751 2006 DH_{62}	16.8	X	59.24312	356.59295	169.46240	25.58300	0.1954730	0.28784577	2.2717619	20	5 30.6	19.9
409752 2006 DM_{64}	16.3	X	272.23064	28.06424	102.09275	8.44522	0.2322026	0.18889144	3.0083465	20	11 12.6	20.1
409753 2006 DV_{74}	16.7	X	150.24058	140.14490	78.92162	2.24703	0.1221669	0.17739574	3.1369475	20	10 30.8	21.6
409754 2006 DN_{78}	16.2	X	23.34703	227.81675	156.31076	14.85780	0.1503684	0.18794303	3.0184587	20	—	—
409755 2006 DW_{85}	18.1	X	287.05975	257.86593	359.88253	5.28017	0.2145302	0.27510635	2.3413642	20	2 1.3	21.4
409756 2006 DS_{86}	16.0	X	8.36431	24.94607	5.66186	10.42388	0.0474599	0.18227009	3.0807688	20	12 8.4	20.3
409757 2006 DJ_{90}	18.6	X	160.49606	90.51913	19.22455	1.90262	0.0983651	0.29695458	2.2250650	20	7 3.9	21.6
409758 2006 DD_{93}	16.4	X	357.23308	165.35900	219.49072	1.33926	0.0341218	0.17798245	3.1300499	20	11 16.4	20.7
409759 2006 DT_{93}	16.3	X	258.79915	307.72452	179.39399	9.72219	0.0946156	0.17932029	3.1144624	20	11 8.0	20.6
409760 2006 DV_{93}	17.8	X	334.18595	221.94089	4.14680	2.97529	0.1846279	0.27844885	2.3225893	20	2 24.2	20.0

Planet		H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
		m		°	°	°	°		°				
409761	2006 DO_{95}	15.9	X	329.65912	238.44996	181.07487	10.95613	0.1610500	0.18036957	3.1023719	20	11 25.7	19.5
409762	2006 DA_{100}	18.0	X	322.69419	286.99532	359.23617	7.65253	0.1698574	0.29005924	2.2601898	20	5 2.9	20.1
409763	2006 DH_{100}	16.2	X	139.18469	235.27124	338.09848	9.81377	0.0412251	0.17613471	3.1519023	20	10 6.7	21.0
409764	2006 DO_{101}	17.0	X	261.07629	59.58700	86.64374	3.08405	0.1678282	0.18555126	3.0443420	20	11 23.7	21.1
409765	2006 DE_{141}	17.8	X	343.27078	80.91924	150.15512	10.62947	0.1245656	0.28333282	2.2958216	20	3 30.6	20.1
409766	2006 DJ_{142}	16.1	X	174.82907	90.55181	81.81511	2.71105	0.0947066	0.17316234	3.1878686	20	9 29.7	20.9
409767	2006 DB_{151}	17.9	X	39.44517	241.02339	324.79503	4.38625	0.0286072	0.29043458	2.2582421	20	5 26.3	20.4
409768	2006 DV_{160}	17.8	X	167.61154	323.02340	164.65803	5.88688	0.0305461	0.30195453	2.2004340	20	8 6.9	20.5
409769	2006 DE_{161}	15.8	X	235.70946	325.59041	167.03422	9.95382	0.0486471	0.17787458	3.1313152	20	10 24.2	20.3
409770	2006 DB_{175}	16.9	X	252.46031	67.69451	73.72010	2.00332	0.0277745	0.18125017	3.0923153	20	11 25.3	21.3
409771	2006 DC_{182}	18.3	X	340.07590	46.04526	185.88771	5.62155	0.0991967	0.28298207	2.2977182	20	3 25.9	20.5
409772	2006 DJ_{189}	18.3	X	328.43077	242.09262	3.39233	7.10154	0.1495322	0.28161468	2.3051500	20	3 19.0	20.6
409773	2006 DZ_{209}	16.5	X	7.78504	259.65871	170.12552	6.47901	0.1701738	0.19299568	2.9655437	20	—	—
409774	2006 ED_{5}	16.9	X	316.45382	84.96748	20.82535	4.91322	0.0812261	0.18965924	3.0002219	20	—	—
409775	2006 EU_{10}	16.4	X	314.66884	259.34723	160.84923	9.54126	0.0953612	0.17894443	3.1188220	20	11 3.8	20.4
409776	2006 EX_{26}	18.4	X	304.56137	281.42387	349.40285	5.08725	0.1114551	0.28416382	2.2913435	20	3 22.9	20.8
409777	2006 EN_{30}	16.5	X	19.94857	23.38904	16.75393	7.93255	0.2147201	0.19044258	2.9919891	20	—	—
409778	2006 EF_{37}	17.9	X	29.21930	131.00320	59.70078	2.59646	0.0883221	0.28448139	2.2896379	20	4 23.2	19.9
409779	2006 EC_{41}	18.4	X	283.02876	296.23169	314.51224	1.86993	0.1406434	0.27356564	2.3501470	20	1 26.3	21.6
409780	2006 EA_{42}	15.9	X	234.72595	309.60703	207.11000	14.32925	0.2346714	0.18085154	3.0968577	20	10 27.3	20.7
409781	2006 EL_{42}	16.0	X	288.48811	96.75240	336.07480	8.56434	0.0625118	0.17507572	3.1645996	20	10 8.9	20.3
409782	2006 EL_{57}	16.8	X	241.53913	287.30651	235.41777	3.71117	0.0886089	0.18447859	3.0561317	20	11 30.0	21.0
409783	2006 EQ_{62}	16.3	X	236.54627	335.50122	195.44837	12.64914	0.1939051	0.18274375	3.0754431	20	11 21.1	20.9
409784	2006 FP_{3}	18.0	X	355.09409	62.89307	190.60023	8.63593	0.0697488	0.28737726	2.2742303	20	5 29.4	20.4
409785	2006 FH_{7}	16.1	X	271.85533	86.61792	32.45462	9.80563	0.0437351	0.17593594	3.1542758	20	11 17.4	20.4
409786	2006 FU_{11}	18.2	X	315.43386	244.36446	26.64336	7.48984	0.1039273	0.28344094	2.2952377	20	4 11.6	20.4
409787	2006 FE_{18}	17.9	X	94.24992	112.24595	35.99250	4.71434	0.0812224	0.28751487	2.2735046	20	6 2.1	20.5
409788	2006 FP_{29}	15.9	X	241.38689	298.00303	204.28430	13.46935	0.1715524	0.17629831	3.1499521	20	10 23.9	20.5
409789	2006 FL_{32}	15.8	X	293.97991	80.61978	20.23873	9.54347	0.0536266	0.17733191	3.1377003	20	11 22.6	20.1
409790	2006 FR_{53}	17.9	X	328.43908	194.15951	50.52835	3.01816	0.1815557	0.27748332	2.3279740	20	3 14.2	20.1
409791	2006 FT_{54}	16.2	X	238.40841	139.72820	22.59262	8.10425	0.0661078	0.18115635	3.0933829	20	11 26.4	20.7
409792	2006 FW_{54}	17.8	X	302.85847	29.71525	229.30322	3.61786	0.1783681	0.27468300	2.3437693	20	2 22.6	20.7
409793	2006 FG_{55}	16.4	X	349.58360	56.85126	10.56428	9.20118	0.1465792	0.18646546	3.0343834	20	—	—
409794	2006 GO_{14}	17.7	X	261.49353	179.82205	70.28714	4.01672	0.1791862	0.26618795	2.3933734	20	1 1.3	21.5
409795	2006 GM_{25}	16.0	X	349.33201	19.08152	32.73639	10.52178	0.0599866	0.17789415	3.1310856	20	12 8.9	20.2
409796	2006 GV_{34}	15.9	X	213.77497	123.86911	36.51012	22.67907	0.2210876	0.17611864	3.1520940	20	10 17.1	21.1
409797	2006 GC_{36}	17.2	X	248.81357	101.77944	33.08073	0.99095	0.1429474	0.17928894	3.1148255	20	10 27.3	21.7
409798	2006 GU_{50}	15.3	X	268.11465	37.05480	123.25086	13.86318	0.1529935	0.18632744	3.0358817	20	12 23.5	19.3
409799	2006 HQ_{28}	17.3	X	138.44179	54.22341	164.68645	12.53808	0.2168018	0.23490582	2.6013984	20	10 31.1	21.9
409800	2006 HP_{29}	16.9	X	230.36297	49.95635	215.57919	31.77584	0.3325803	0.25856794	2.4401673	20	—	—
409801	2006 HS_{33}	17.8	X	230.78963	183.39919	154.25265	1.23576	0.2123676	0.27416843	2.3467010	20	3 18.9	21.6
409802	2006 HN_{44}	18.2	X	19.76535	97.60178	92.73367	2.23350	0.1246730	0.27811405	2.3244530	20	4 7.0	20.2
409803	2006 HL_{47}	18.0	X	15.77472	20.74503	185.21784	6.85723	0.1358277	0.28177392	2.3042814	20	4 24.0	19.8
409804	2006 HC_{50}	17.9	X	323.89305	175.59186	44.79143	7.09665	0.1832322	0.27495175	2.3422418	20	2 2.6	20.7
409805	2006 HH_{53}	16.8	X	237.87206	212.79884	75.32506	7.68668	0.1061758	0.26915867	2.3757303	20	1 30.9	20.4
409806	2006 HM_{65}	17.6	X	230.03367	155.53699	207.40310	6.46326	0.1290347	0.27921334	2.3183479	20	4 24.7	20.8
409807	2006 HM_{78}	17.9	X	181.92823	75.19465	21.34602	4.50054	0.0836688	0.29601433	2.2297742	20	7 11.3	20.9
409808	2006 HX_{78}	18.0	X	218.38688	272.07800	44.94063	6.99095	0.1739564	0.26670852	2.3902580	20	2 16.7	21.9
409809	2006 HU_{81}	17.9	X	347.54513	188.55848	8.30040	2.33417	0.1198729	0.27318467	2.3523314	20	2 15.6	20.2
409810	2006 HQ_{91}	17.0	X	299.48664	214.11724	89.73511	7.54317	0.1592969	0.27983096	2.3149354	20	4 28.6	19.7
409811	2006 HF_{98}	16.4	X	196.25833	141.15687	39.55846	10.53382	0.0587953	0.17049596	3.2210193	20	11 1.3	21.1
409812	2006 HX_{98}	16.3	X	202.55722	127.87584	56.14621	11.63241	0.0610704	0.17162701	3.2068523	20	11 12.5	21.0
409813	2006 HW_{135}	16.2	X	335.72217	46.97977	26.16614	9.72795	0.1216569	0.18297342	3.0728690	20	12 21.3	20.0
409814	2006 JP_{14}	15.9	X	298.31846	73.53650	47.33178	14.01691	0.1617736	0.18155917	3.0888057	20	12 16.3	19.7
409815	2006 JL_{15}	16.2	X	300.23342	77.58255	46.67929	7.01821	0.1519725	0.18445742	3.0563655	20	12 27.4	19.7
409816	2006 JN_{15}	18.1	X	288.31335	35.17606	235.50397	1.57981	0.1497001	0.27347470	2.3506679	20	2 25.3	21.2
409817	2006 JJ_{16}	17.5	X	298.23455	217.43363	63.66678	7.79722	0.0986520	0.27720876	2.3295109	20	4 4.9	20.3
409818	2006 JX_{35}	18.2	X	228.97577	147.71163	191.14182	4.71101	0.2471705	0.26972894	2.3723805	20	3 16.9	22.2
409819	2006 JN_{66}	17.0	X	319.82141	315.05046	110.42814	2.37321	0.1532776	0.17973072	3.1097192	20	11 14.4	20.5
409820	2006 KD_{10}	18.2	X	233.90191	115.11022	219.67737	1.08277	0.1394133	0.27221751	2.3578998	20	3 21.8	21.8
409821	2006 KK_{12}	15.9	X	200.72155	103.92163	127.23912	11.09029	0.0583570	0.18068522	3.0987578	20	—	—
409822	2006 KV_{32}	18.2	X	261.67209	241.53781	70.03735	6.02195	0.1733888	0.27284274	2.3542963	20	3 21.2	21.7
409823	2006 KN_{37}	15.4	X	265.11679	96.40504	75.27585	23.59433	0.0443554	0.18264403	3.0765624	20	—	—
409824	2006 KK_{53}	16.1	X	284.97506	268.27136	213.13507	10.27478	0.0816198	0.17419133	3.1753019	20	12 4.6	20.4
409825	2006 KL_{60}	16.3	X	254.03880	281.69071	210.22594	12.58743	0.2649448	0.17440940	3.1726546	20	10 11.7	20.9
409826	2006 KN_{118}	17.8	X	224.82107	235.66675	54.35549	2.00481	0.1917128	0.26197893	2.4189403	20	1 18.0	21.8
409827	2006 KB_{124}	18.9	X	131.57919	88.78423	213.20075	20.86699	0.1057861	0.38614419	1.8676825	20	—	—
409828	2006 LJ_{1}	15.3	X	215.33247	68.10620	108.24085	20.24344	0.1437173	0.17225038	3.1991106	20	11 15.6	20.5
409829	2006 OX_{21}	17.5	X	180.80739	270.69732	77.76559	5.86496	0.3336446	0.25336128	2.4734847	20	2 27.9	22.2
409830	2006 PH_{5}	17.3	X	197.38210	263.44422	80.69191	6.52551	0.2289595	0.25721501	2.4487165	20	3 3.7	21.5
409831	2006 QL_{13}	17.3	X	258.94651	192.32720	317.72003	19.18017	0.0599218	0.37394585	1.9080814	20	—	—
409832	2006 QQ_{32}	14.7	X	274.67502	57.22698	293.48253	4.82839	0.2858803	0.12604663	3.9395675	20	5 10.7	20.7
409833	2006 QH_{48}	17.4	X	200.53373	336.39061	31.72517	3.03857	0.1870581	0.25862930	2.4397813	20	4 1.8	21.2
409834	2006 QS_{66}	17.2	X	348.87371	341.91491	192.05442	4.18300	0.0775108	0.25210639	2.4816859	20	1 23.9	20.1
409835	2006 QF_{103}	18.3	X	137.82694	186.50063	171.88352	2.70331	0.2291505	0.24481909	2.5306914	20	1 28.8	22.2
409836	2006 QY_{110}	18.1	X	31.04041	221.62102	222.65808	6.40558	0.5743700	0.36931452	1.9240003	20	—	—
409837	2006 QO_{131}	17.2	X	218.59327	357.61558	315.88229	14.35277	0.1500968	0.25607214	2.4559970	20	2 10.1	21.2
409838	2006 QT_{137}	17.6	X	242.80490	142.25818	139.67061	6.23541	0.1998612	0.25833392	2.4416407	20	1 22.7	21.5
409839	2006 QQ_{167}	17.5	X	200.29266	211.75848	152.66965	15.03555	0.1400896	0.25803397	2.4435325	20	3 31.2	21.4
409840	2006 QN_{184}	18.1	X	194.66482	358.94459	331.88707	1.00533	0.2414953	0.25255277	2.4787608	20	2 12.4	22.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409841 2006 RZ_{23}	15.1	X	264.29543	103.00260	266.98599	4.80304	0.2929553	0.12551879	3.9506046	20	5 23.5	21.1
409842 2006 RL_{49}	17.0	X	270.52917	341.89213	196.21910	11.70960	0.0335611	0.23046845	2.6346831	20	—	—
409843 2006 RG_{50}	17.7	X	110.46501	185.37190	191.96644	9.06020	0.1710267	0.23869186	2.5738168	20	1 14.2	21.2
409844 2006 RZ_{57}	17.1	X	128.37494	185.98218	180.29891	17.26030	0.1662283	0.24231831	2.5480731	20	1 19.7	21.1
409845 2006 SR_{29}	17.1	X	312.44232	359.26102	245.13253	5.23745	0.0683404	0.26091649	2.4255024	20	3 4.8	20.1
409846 2006 SZ_{41}	16.5	X	81.71886	272.57532	30.79569	12.87428	0.2718354	0.22515405	2.6759801	20	12 22.3	21.2
409847 2006 SJ_{67}	15.3	X	277.42914	179.98323	183.21068	13.40272	0.1126819	0.12626577	3.9350082	20	6 21.5	21.0
409848 2006 SA_{70}	17.6	X	167.36701	322.68214	26.21078	4.93876	0.0922130	0.24476519	2.5310629	20	2 5.5	21.3
409849 2006 SM_{78}	17.5	X	157.71990	99.07429	249.29201	2.26653	0.1062493	0.24341688	2.5404009	20	1 24.4	21.1
409850 2006 SZ_{79}	18.2	X	261.74143	324.53337	188.21921	22.32950	0.0686760	0.36917188	1.9244958	20	—	—
409851 2006 SU_{83}	17.8	X	161.72123	269.86799	143.15080	1.67440	0.1662468	0.25493303	2.4633076	20	4 23.1	21.5
409852 2006 SF_{84}	16.8	X	254.71294	223.87716	19.06271	13.38284	0.1207260	0.24376683	2.5379690	20	—	—
409853 2006 SX_{118}	17.6	X	9.40816	218.61879	179.70543	22.12784	0.1018886	0.36722002	1.9313092	20	—	—
409854 2006 SN_{119}	15.1	X	274.64718	315.94791	48.07202	5.79742	0.2692206	0.12571217	3.9465520	20	5 29.1	21.0
409855 2006 SF_{122}	17.7	X	86.46809	75.04152	228.64344	18.90443	0.0809720	0.36494670	1.9393213	20	—	—
409856 2006 SV_{122}	15.3	X	275.05919	271.46568	83.06221	8.74331	0.2839827	0.12653266	3.9294728	20	5 18.4	21.2
409857 2006 SY_{123}	17.9	X	345.81383	61.36501	23.07463	20.99758	0.0998204	0.37138510	1.9168424	20	—	—
409858 2006 SL_{129}	17.7	X	347.05033	55.47892	11.58077	20.26378	0.0876364	0.36755232	1.9301450	20	—	—
409859 2006 SA_{131}	18.0	X	185.53125	172.51539	166.44370	0.19995	0.1528874	0.24730064	2.5137334	20	2 12.6	21.8
409860 2006 SD_{135}	16.8	X	142.68155	336.45310	340.76124	12.87596	0.2029084	0.23766544	2.5812220	20	—	—
409861 2006 SW_{145}	17.1	X	347.87252	313.92362	193.49256	13.14625	0.1885128	0.23712229	2.5851622	20	—	—
409862 2006 SL_{179}	17.6	X	135.96643	25.57556	36.61942	2.86396	0.0697441	0.25258419	2.4785553	20	3 30.3	21.0
409863 2006 SU_{185}	17.7	X	160.16280	342.70607	25.28449	10.70572	0.1868802	0.24617156	2.5214138	20	3 2.3	21.8
409864 2006 SJ_{189}	18.8	X	133.55127	194.42497	168.80248	7.01547	0.2878299	0.24255315	2.5464282	20	2 5.2	22.8
409865 2006 SQ_{196}	18.1	X	147.14387	69.70510	208.47936	21.57118	0.0789759	0.37161149	1.9160638	20	—	—
409866 2006 SY_{218}	17.2	X	43.72461	234.46184	200.23887	16.25610	0.2987943	0.23201236	2.6229819	20	—	—
409867 2006 SE_{222}	17.2	X	99.63108	44.32369	14.85919	14.27585	0.0803053	0.24469585	2.5315411	20	2 16.9	20.6
409868 2006 SD_{224}	17.6	X	125.17423	191.31553	200.81822	5.74353	0.3146603	0.24234509	2.5478855	20	3 6.0	21.7
409869 2006 SD_{231}	17.8	X	154.61059	188.08516	225.96151	3.59243	0.1752405	0.25388191	2.4701020	20	4 17.0	21.7
409870 2006 SY_{235}	17.2	X	117.46128	24.44765	12.37510	11.79481	0.2467951	0.24570043	2.5246360	20	3 2.3	20.9
409871 2006 SV_{254}	17.3	X	11.47701	89.59584	18.20627	11.57293	0.1468716	0.23386110	2.6091401	20	—	—
409872 2006 SY_{254}	15.7	X	290.58873	159.96546	180.49761	3.34110	0.1206525	0.12429363	3.9765228	20	6 9.7	21.2
409873 2006 SX_{260}	18.1	X	23.51401	234.10490	221.46797	3.20120	0.0522962	0.23580723	2.5947646	20	—	—
409874 2006 SJ_{267}	16.8	X	210.56494	274.67227	13.81086	15.04550	0.1259531	0.24184045	2.5514286	20	1 8.4	21.1
409875 2006 SW_{270}	18.3	X	60.36766	171.33791	194.76763	21.11589	0.0793373	0.37275202	1.9121533	20	—	—
409876 2006 SK_{286}	18.0	X	122.30461	293.41348	84.93646	5.14496	0.2647305	0.24247752	2.5469577	20	2 13.5	21.8
409877 2006 SC_{290}	18.1	X	19.38981	220.04429	190.03619	21.84436	0.1015694	0.36902382	1.9250106	20	—	—
409878 2006 SH_{295}	16.9	X	91.12562	32.29211	4.29390	14.27085	0.0656867	0.23958960	2.5673835	20	—	—
409879 2006 SB_{296}	18.2	X	142.55280	98.92321	249.91597	1.42904	0.2269226	0.24270262	2.5453826	20	1 21.9	22.2
409880 2006 SU_{301}	15.1	X	276.24352	348.09440	12.76838	2.81793	0.2633707	0.12421495	3.9782017	20	5 27.7	20.9
409881 2006 SP_{326}	17.2	X	143.87222	330.28714	51.26638	3.97037	0.0476319	0.24523049	2.5278603	20	2 15.1	20.6
409882 2006 SO_{339}	14.9	X	278.34543	300.84482	43.28925	8.60800	0.1795001	0.12379715	3.9871473	20	5 20.8	20.7
409883 2006 SC_{349}	17.4	X	70.55509	109.54953	219.42238	24.36809	0.1409964	0.36595077	1.9357723	20	—	—
409884 2006 SG_{355}	15.8	X	22.89997	333.45539	205.82403	16.37533	0.1374464	0.17555917	3.1587873	20	4 5.7	19.5
409885 2006 SV_{356}	17.7	X	327.42982	67.79125	28.99624	21.31720	0.0868449	0.36698531	1.9321326	20	—	—
409886 2006 SN_{364}	17.1	X	136.93544	340.88355	32.80916	8.30532	0.0879254	0.23793853	2.5792466	20	2 4.3	20.8
409887 2006 ST_{364}	16.8	X	136.10687	347.11182	33.95063	7.03733	0.2360464	0.24075510	2.5590909	20	2 28.5	20.9
409888 2006 SH_{366}	16.3	X	117.11316	344.85711	29.80933	12.33869	0.2257919	0.23697346	2.5862445	20	2 2.4	20.2
409889 2006 SV_{393}	17.1	X	171.86204	168.85038	176.97920	7.43552	0.2456196	0.24605546	2.5222069	20	2 12.0	21.4
409890 2006 SZ_{393}	16.8	X	15.75679	237.25373	233.51159	10.33596	0.1459081	0.23003856	2.6379646	20	—	—
409891 2006 SG_{394}	17.2	X	192.77371	299.42257	40.48105	14.32590	0.0833763	0.24613902	2.5216361	20	2 26.5	21.2
409892 2006 SY_{401}	16.6	X	343.60753	309.98307	208.92190	14.15960	0.0625387	0.23832363	2.5764674	20	—	—
409893 2006 SP_{403}	17.0	X	57.24848	244.72343	226.10096	12.20900	0.1164764	0.23969777	2.5666110	20	2 16.6	20.2
409894 2006 SR_{403}	17.6	X	98.72391	115.84916	265.87039	2.28016	0.1684114	0.23561332	2.5961881	20	1 5.9	20.7
409895 2006 SE_{404}	16.5	X	197.34494	31.34652	223.89088	12.88272	0.1942943	0.23104282	2.6303148	20	—	—
409896 2006 SF_{405}	15.9	X	262.80070	287.74893	60.15554	16.79354	0.1614521	0.18636371	3.0354877	20	5 11.6	20.3
409897 2006 SY_{407}	17.2	X	48.54414	34.12619	36.43954	13.03353	0.1502073	0.23116527	2.6293858	20	—	—
409898 2006 SA_{409}	17.6	X	24.16796	135.40113	219.50871	19.67540	0.0945398	0.35771666	1.9653652	20	—	—
409899 2006 SS_{412}	17.3	X	161.42309	75.25174	295.95068	3.67620	0.1816741	0.24758953	2.5117777	20	2 29.9	21.4
409900 2006 TX_{6}	17.9	X	114.31337	326.22704	86.75719	4.56562	0.2621858	0.24112509	2.5564724	20	3 19.9	21.7
409901 2006 TL_{8}	17.8	X	147.96834	301.44696	35.47990	7.28303	0.2677941	0.23985495	2.5654896	20	1 18.6	22.1
409902 2006 TX_{11}	17.5	X	151.79395	15.20439	357.31983	7.38768	0.0686354	0.24348588	2.5399209	20	2 15.9	21.0
409903 2006 TQ_{12}	17.7	X	316.88077	274.59129	194.73948	21.58518	0.0969329	0.36935963	1.9238436	20	—	—
409904 2006 TN_{26}	18.0	X	132.16899	185.15330	209.04039	4.17191	0.1899556	0.24403927	2.5360798	20	3 2.2	21.7
409905 2006 TA_{29}	17.7	X	47.32624	268.19525	204.80857	4.54062	0.2334012	0.23760542	2.5816567	20	2 18.1	19.9
409906 2006 TE_{35}	18.6	X	151.78953	150.29195	222.23200	7.19146	0.2985265	0.24559984	2.5253253	20	2 29.9	23.1
409907 2006 TW_{36}	17.6	X	95.30692	201.21670	230.47636	2.43394	0.1005428	0.24180425	2.5516833	20	2 23.2	20.7
409908 2006 TF_{40}	16.8	X	111.48956	346.54647	34.73351	25.27111	0.1372636	0.23720217	2.5845818	20	1 25.2	20.9
409909 2006 TN_{41}	17.7	X	112.68331	165.68601	217.13897	3.91786	0.2703099	0.23966636	2.5668352	20	2 6.8	21.4
409910 2006 TP_{43}	17.2	X	97.34951	293.63710	32.85110	2.05064	0.1377940	0.22428924	2.6828543	20	—	—
409911 2006 TX_{43}	17.4	X	146.36784	150.58420	218.41667	2.59575	0.2282846	0.24277535	2.5448742	20	2 18.1	21.5
409912 2006 TP_{52}	17.8	X	97.66154	254.39050	190.91902	3.72499	0.2551670	0.24192716	2.5508189	20	4 8.9	21.3
409913 2006 TY_{52}	17.7	X	160.98949	260.10778	101.32083	2.32669	0.2232009	0.24424682	2.5346429	20	2 22.9	21.7
409914 2006 TZ_{73}	17.8	X	51.68448	257.93819	165.51634	6.41470	0.2548212	0.23181264	2.6244883	20	—	—
409915 2006 TN_{74}	17.4	X	133.35379	350.96385	46.37841	14.73692	0.1945294	0.24517248	2.5282590	20	3 17.0	21.5
409916 2006 TF_{81}	17.4	X	177.45211	18.90706	318.11479	3.87698	0.1636655	0.24394476	2.5367347	20	2 3.9	21.3
409917 2006 TM_{81}	18.5	X	119.50459	104.18844	293.59440	2.80741	0.2548252	0.24171820	2.5522888	20	3 1.7	22.4
409918 2006 TD_{88}	17.5	X	172.76352	92.01965	259.14803	3.41798	0.1508261	0.24500039	2.5294428	20	2 14.4	21.4
409919 2006 TE_{89}	17.6	X	140.54863	92.17572	274.73234	2.15353	0.1417916	0.24090359	2.5580393	20	2 2.1	21.2
409920 2006 TA_{90}	16.6	X	92.09514	181.99349	237.74333	7.02589	0.0969972	0.23857907	2.5746280	20	2 1.4	19.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
409921 2006 TF_{94}	15.5	X	283.27236	263.67845	77.04187	2.12942	0.2335957	0.12421986	3.9780970	20	5 16.2	21.1
409922 2006 TB_{97}	17.5	X	142.64193	260.47818	102.58899	2.46511	0.1445392	0.23906524	2.5711363	20	1 31.9	21.3
409923 2006 TV_{98}	18.0	X	174.44776	253.54382	72.90857	1.75383	0.2224241	0.24366174	2.5386986	20	1 23.1	22.1
409924 2006 TK_{116}	17.2	X	164.80628	295.98775	69.44337	10.08057	0.1832859	0.24743589	2.5128174	20	3 3.6	21.4
409925 2006 TQ_{123}	17.3	X	208.10085	219.44015	45.70584	9.14578	0.0426415	0.23519860	2.5992391	20	—	—
409926 2006 UD_{3}	17.7	X	61.45975	347.30037	63.30920	4.21559	0.2349872	0.23099303	2.6306928	20	—	—
409927 2006 UY_{8}	17.1	X	77.20140	13.97353	49.14332	13.29207	0.2621868	0.23541831	2.5976217	20	2 19.9	20.2
409928 2006 UZ_{18}	17.8	X	187.07812	80.16828	226.52994	6.78276	0.1310310	0.24140044	2.5545281	20	1 4.9	21.8
409929 2006 UJ_{29}	17.4	X	146.38080	137.12049	209.08570	16.25310	0.1806694	0.24047812	2.5610556	20	1 14.7	21.6
409930 2006 UP_{36}	17.5	X	140.21995	124.16235	219.98733	16.12066	0.2334409	0.23859667	2.5745014	20	1 11.9	21.8
409931 2006 UX_{38}	17.3	X	173.98118	263.80169	31.08648	2.77403	0.0909841	0.23335067	2.6129435	20	—	—
409932 2006 UZ_{52}	16.9	X	218.18690	95.27130	185.81333	5.35415	0.1268884	0.23977525	2.5660581	20	1 3.9	20.9
409933 2006 UT_{53}	17.7	X	114.18505	316.61190	92.94239	2.01894	0.1404979	0.24056646	2.5604286	20	2 27.1	21.1
409934 2006 UG_{64}	18.5	X	80.50739	202.90627	152.44149	20.97618	0.3697861	0.37699082	1.8977931	20	—	—
409935 2006 UJ_{64}	15.2	X	277.33271	85.76626	267.76588	8.22639	0.2889679	0.12407821	3.9811240	20	5 16.7	21.1
409936 2006 UN_{67}	18.1	X	121.16596	334.09928	58.65212	5.80521	0.2909629	0.24225131	2.5485430	20	3 5.2	22.0
409937 2006 UJ_{69}	16.4	X	109.36651	305.59407	52.76908	16.20877	0.1969339	0.23397690	2.6082791	20	—	—
409938 2006 UF_{78}	18.0	X	113.07750	62.52745	9.94752	5.05127	0.1708253	0.24585722	2.5235626	20	3 29.2	21.5
409939 2006 UD_{79}	17.6	X	42.02128	136.29196	324.93608	3.43600	0.1711240	0.23643773	2.5901497	20	1 16.9	19.9
409940 2006 UJ_{88}	17.9	X	121.00117	39.89879	9.39155	3.31011	0.2131755	0.24280970	2.5446342	20	3 14.3	21.5
409941 2006 UC_{106}	17.4	X	153.29891	294.33403	72.79217	4.85786	0.2483815	0.24430361	2.5342500	20	2 26.5	21.6
409942 2006 UA_{113}	18.1	X	87.99918	204.17626	209.49177	7.14378	0.0946335	0.23952605	2.5678376	20	1 18.8	21.4
409943 2006 UZ_{123}	15.7	X	287.03201	171.89921	183.23832	2.74544	0.2532535	0.12574297	3.9459075	20	6 4.2	21.2
409944 2006 UN_{139}	17.5	X	149.70336	124.91300	210.26660	5.71348	0.0562257	0.23327026	2.6135439	20	—	—
409945 2006 UL_{151}	16.9	X	138.37136	305.97305	25.85684	9.70572	0.0476291	0.23296521	2.6158249	20	—	—
409946 2006 UC_{167}	17.5	X	168.84399	184.88434	161.32255	4.31256	0.1321839	0.24435906	2.5338667	20	2 4.2	21.3
409947 2006 UT_{171}	17.5	X	150.64442	305.28668	60.65589	7.88793	0.2787178	0.24397879	2.5364988	20	2 26.6	21.9
409948 2006 UA_{195}	15.4	X	296.70628	299.07012	47.76046	1.95391	0.2071169	0.12538891	3.9533321	20	6 12.7	20.6
409949 2006 UV_{197}	17.3	X	169.58321	334.53529	46.23820	3.69791	0.0550257	0.24727882	2.5138813	20	3 16.2	20.7
409950 2006 UC_{201}	17.5	X	144.54059	294.84708	42.67247	14.10668	0.2122592	0.23640878	2.5903612	20	1 11.5	21.7
409951 2006 UW_{203}	16.7	X	92.93622	139.37030	310.87151	6.65448	0.1809928	0.24421358	2.5348728	20	3 25.7	20.0
409952 2006 UT_{212}	17.4	X	184.30760	340.41552	354.00059	4.01157	0.0859285	0.24084052	2.5584858	20	2 4.8	21.1
409953 2006 UU_{213}	17.2	X	128.50671	2.98689	40.27775	15.59071	0.1735866	0.24273405	2.5451629	20	3 17.4	21.2
409954 2006 UW_{214}	17.3	X	37.94088	204.57437	220.55818	21.73349	0.0528881	0.37465066	1.9056876	20	—	—
409955 2006 UK_{232}	17.6	X	132.46474	43.63002	214.23686	19.97143	0.0534883	0.36333288	1.9450596	20	—	—
409956 2006 UX_{251}	17.8	X	82.84565	80.30239	22.62364	5.00086	0.2632533	0.24286733	2.5442317	20	4 14.6	20.9
409957 2006 UM_{260}	17.9	X	304.96105	116.82170	44.21954	2.33852	0.0214621	0.23098809	2.6307303	20	—	—
409958 2006 UO_{264}	17.6	X	29.50402	277.79428	205.20791	2.13191	0.1333914	0.23963423	2.5670647	20	1 20.9	20.3
409959 2006 UF_{271}	18.0	X	151.37276	121.71751	230.34030	15.14106	0.3514687	0.24317429	2.5420902	20	2 6.4	22.8
409960 2006 UV_{276}	18.0	X	83.79546	57.49202	20.55057	8.41594	0.1553907	0.24088090	2.5581999	20	2 28.7	21.1
409961 2006 UA_{277}	17.2	X	154.56069	165.31993	213.07325	13.51139	0.0875379	0.24680484	2.5170989	20	2 21.3	21.0
409962 2006 UR_{330}	17.4	X	67.88708	296.89761	128.42568	8.25909	0.1814953	0.23558076	2.5964273	20	1 16.9	20.0
409963 2006 UY_{336}	17.3	X	61.99532	314.57907	132.67291	6.12146	0.2915296	0.23489927	2.6014467	20	2 25.1	19.5
409964 2006 VP_{17}	17.3	X	141.69935	339.67900	5.32221	2.51904	0.1793629	0.23718659	2.5846949	20	1 13.0	21.0
409965 2006 VC_{18}	17.3	X	15.20264	212.75093	278.01494	2.43488	0.1495245	0.23412862	2.6071522	20	1 6.2	19.8
409966 2006 VA_{19}	16.6	X	265.89174	225.76578	37.10877	10.32809	0.1039310	0.24365138	2.5387707	20	2 3.7	20.4
409967 2006 VQ_{24}	16.7	X	259.19058	35.25445	225.12370	8.94597	0.0989063	0.24044154	2.5613153	20	1 18.9	20.6
409968 2006 VC_{31}	16.6	X	159.84027	72.08898	248.29019	11.89747	0.1928143	0.23474030	2.6026211	20	—	—
409969 2006 VM_{39}	16.6	X	309.23065	235.60030	234.54166	10.59470	0.0219598	0.21945947	2.7220734	20	—	—
409970 2006 VZ_{39}	17.7	X	93.81047	161.50412	230.60895	2.25580	0.0756430	0.23381175	2.6095071	20	—	—
409971 2006 VL_{51}	15.7	X	135.16422	103.90634	251.94664	24.44303	0.1817814	0.23420109	2.6066143	20	1 12.9	19.9
409972 2006 VB_{62}	16.5	X	112.07499	159.89790	239.57798	12.76895	0.1773666	0.23811489	2.5779729	20	2 10.5	20.4
409973 2006 VF_{69}	16.9	X	153.70531	103.57319	247.22873	7.59519	0.1828528	0.23783871	2.5799682	20	1 29.1	21.1
409974 2006 VJ_{75}	17.3	X	146.77334	325.58010	61.88593	6.97703	0.2606450	0.24299018	2.5433741	20	3 18.7	21.6
409975 2006 VL_{81}	16.5	X	63.35762	215.73976	236.18907	14.73183	0.1173168	0.23532000	2.5983450	20	1 31.9	19.9
409976 2006 VL_{86}	17.1	X	167.86563	268.61215	77.31559	7.44776	0.2492135	0.24343706	2.5402605	20	2 13.4	21.5
409977 2006 VQ_{86}	16.5	X	102.67982	89.78280	325.71699	6.99284	0.1855319	0.23894742	2.5719813	20	2 25.5	19.8
409978 2006 VB_{92}	16.4	X	106.70766	144.60638	268.25624	13.34882	0.1166052	0.24181417	2.5516135	20	2 11.4	20.0
409979 2006 VR_{93}	17.3	X	210.81533	68.79813	219.30058	11.94251	0.1796811	0.23871501	2.5736505	20	1 4.6	21.7
409980 2006 VV_{98}	17.4	X	133.88667	312.75705	40.60071	12.38069	0.0816210	0.23603531	2.5930928	20	1 2.6	21.1
409981 2006 VZ_{100}	17.3	X	121.36570	245.04843	158.30316	3.87260	0.2327804	0.24212051	2.5494607	20	3 9.4	21.1
409982 2006 VG_{108}	17.4	X	126.14280	97.03448	287.87891	2.67102	0.1417626	0.23862256	2.5743152	20	2 8.8	21.0
409983 2006 VF_{110}	16.3	X	114.86697	120.28256	252.89349	20.68424	0.0321915	0.23250332	2.6192881	20	—	—
409984 2006 VV_{111}	16.9	X	143.47867	350.03775	32.23120	5.72046	0.2340824	0.24265444	2.5457195	20	3 6.4	21.0
409985 2006 VA_{127}	16.9	X	275.54086	326.67788	215.49536	12.69084	0.1065416	0.23134802	2.6280010	20	—	—
409986 2006 VH_{129}	16.4	X	124.08034	97.67308	262.91758	11.56316	0.1863864	0.23488806	2.6015295	20	1 12.3	20.1
409987 2006 VT_{129}	17.5	X	66.12044	196.56781	215.40386	2.10403	0.1074198	0.23095992	2.6309442	20	—	—
409988 2006 VN_{134}	16.9	X	122.01670	161.29480	243.04315	7.03473	0.2910737	0.24094673	2.5577339	20	3 14.1	21.0
409989 2006 VL_{136}	17.0	X	123.15215	136.74804	240.26836	13.74212	0.2379193	0.23794473	2.5792018	20	2 2.9	21.1
409990 2006 VR_{145}	17.2	X	86.08409	74.35124	11.23943	12.95304	0.2451657	0.24009626	2.5637703	20	3 25.3	20.3
409991 2006 VW_{150}	17.1	X	62.29538	160.63141	298.59327	3.38562	0.1660719	0.23820832	2.5772988	20	2 20.1	19.9
409992 2006 VT_{152}	17.9	X	140.11503	237.92977	147.14945	5.02839	0.2951412	0.24411711	2.5355406	20	3 10.3	22.2
409993 2006 VL_{155}	16.8	X	127.92838	345.54427	29.90869	17.65961	0.1426073	0.23896128	2.5718819	20	2 7.5	20.8
409994 2006 VM_{173}	16.6	X	209.45578	196.86729	56.63086	14.65326	0.1404726	0.22997293	2.6384664	20	—	—
409995 2006 WV_{3}	17.7	X	354.49683	357.28784	107.08407	12.85683	0.3221121	0.36497006	1.9392385	20	—	—
409996 2006 WJ_{5}	17.3	X	83.66401	214.63344	213.18922	6.98909	0.1884813	0.23674889	2.5878797	20	2 14.1	20.4
409997 2006 WD_{11}	17.1	X	67.26229	108.91938	18.04913	5.58641	0.2710163	0.24021901	2.5628969	20	4 25.7	19.9
409998 2006 WT_{13}	16.7	X	100.92036	185.59947	236.17038	11.67301	0.2095696	0.23820143	2.5773485	20	3 1.4	20.5
409999 2006 WC_{19}	18.1	X	140.27326	140.58204	231.33125	6.51652	0.2573798	0.24168325	2.5525348	20	2 17.1	22.3
410000 2006 WJ_{25}	16.9	X	143.33102	212.59989	143.48972	4.41225	0.1611755	0.23625206	2.5915066	20	1 25.5	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410001 2006 WV_{27}	17.4	X	87.47765	333.38578	57.51836	3.62913	0.1444908	0.23120878	2.6290560	20	—	—
410002 2006 WW_{29}	16.4	X	69.95190	243.64928	210.03820	28.88928	0.3695644	0.23522331	2.5990571	20	3 30.8	19.6
410003 2006 WY_{32}	16.8	X	62.00573	107.98239	348.53351	12.70621	0.2332642	0.23727785	2.5840322	20	2 28.8	19.3
410004 2006 WO_{37}	17.5	X	104.65470	223.44389	200.15184	6.87549	0.0781890	0.24067863	2.5596329	20	2 20.8	21.0
410005 2006 WW_{37}	17.3	X	293.89289	28.47481	125.15979	4.46180	0.0778820	0.22259898	2.6964184	20	—	—
410006 2006 WE_{43}	17.3	X	21.59113	268.48954	218.18732	10.99973	0.1500899	0.23389942	2.6088551	20	1 10.1	20.2
410007 2006 WZ_{44}	16.8	X	69.89145	11.91229	44.62364	16.85391	0.2225526	0.23210251	2.6223027	20	1 19.0	19.8
410008 2006 WG_{73}	17.3	X	187.20105	319.71311	10.62322	0.90488	0.1202122	0.24164532	2.5528019	20	2 3.4	21.1
410009 2006 WP_{73}	17.3	X	83.31137	353.90113	49.41255	5.62799	0.1685364	0.23347382	2.6120245	20	1 12.9	20.3
410010 2006 WV_{76}	17.5	X	42.79168	24.06424	70.53417	3.60799	0.0926547	0.23304507	2.6152273	20	1 6.7	20.4
410011 2006 WL_{77}	17.4	X	95.20857	25.36811	59.09524	3.96279	0.1444259	0.24170344	2.5523927	20	3 21.1	20.7
410012 2006 WX_{77}	16.4	X	182.53976	255.80180	56.57123	13.58041	0.1421430	0.23728655	2.5839690	20	1 10.4	20.6
410013 2006 WM_{83}	17.4	X	70.50631	187.44244	211.20845	5.04392	0.2043961	0.22919045	2.6444683	20	—	—
410014 2006 WN_{101}	17.4	X	144.11962	357.73827	25.05622	7.06712	0.2537058	0.24312538	2.5424310	20	3 9.3	21.6
410015 2006 WU_{127}	16.2	X	67.50665	221.60696	221.63837	21.46871	0.0459838	0.23562333	2.5961146	20	1 18.3	20.0
410016 2006 WP_{149}	17.8	X	81.40655	123.32634	292.50480	1.20590	0.1546609	0.23304425	2.6152334	20	1 23.7	20.6
410017 2006 WO_{158}	17.0	X	171.84186	350.61752	18.50358	4.14557	0.1823006	0.24515457	2.5283822	20	3 10.5	21.1
410018 2006 WF_{160}	16.6	X	325.93364	192.59837	301.09601	8.11071	0.0990958	0.21537598	2.7563723	20	—	—
410019 2006 WU_{173}	17.1	X	100.26495	325.56620	82.12717	6.58777	0.1797985	0.23568949	2.5956287	20	2 15.1	20.5
410020 2006 WT_{175}	17.0	X	91.26134	262.08758	121.56884	4.22082	0.0856065	0.22760620	2.6567253	20	—	—
410021 2006 WO_{178}	17.1	X	97.02810	125.40360	238.32240	7.05656	0.0867964	0.22750137	2.6575414	20	—	—
410022 2006 WU_{189}	17.6	X	37.91195	228.34824	221.67237	12.60864	0.2288838	0.22887797	2.6468747	20	—	—
410023 2006 WN_{200}	18.1	X	42.02321	148.46710	281.34706	6.95968	0.2747303	0.22619266	2.6677822	20	—	—
410024 2006 WZ_{203}	17.0	X	52.55958	319.03098	100.07310	6.38940	0.0977110	0.22214210	2.7001142	20	—	—
410025 2006 XO_{3}	17.3	X	108.94118	308.53237	113.35462	8.05922	0.1935176	0.23923539	2.5699170	20	3 17.9	20.9
410026 2006 XX_{9}	17.1	X	110.74835	131.53182	282.92249	3.96385	0.2566637	0.23806699	2.5783187	20	3 13.1	20.8
410027 2006 XX_{19}	17.0	X	39.61354	351.03310	97.47218	6.95295	0.2344085	0.22696128	2.6617557	20	—	—
410028 2006 XX_{20}	16.3	X	125.35869	156.66264	231.35617	10.87208	0.1914202	0.23857304	2.5746714	20	2 13.9	20.3
410029 2006 XB_{30}	16.5	X	42.76936	192.49629	261.49314	6.13066	0.1273890	0.22798725	2.6537643	20	1 7.4	19.3
410030 2006 XX_{30}	17.4	X	109.71482	144.04387	244.82431	1.87927	0.1412829	0.23400034	2.6081049	20	1 25.6	20.8
410031 2006 XL_{31}	17.5	X	123.42460	91.39711	317.33107	2.12683	0.2398419	0.24090627	2.5580203	20	3 17.9	21.4
410032 2006 XV_{53}	17.4	X	125.81485	25.33868	25.36727	5.11540	0.2643853	0.24202708	2.5501168	20	3 26.8	21.4
410033 2006 XK_{55}	16.6	X	119.78785	284.44441	118.47167	13.41219	0.1737802	0.23358423	2.6112014	20	3 4.2	20.5
410034 2006 XC_{67}	16.9	X	343.28392	191.81834	310.44995	2.92487	0.2542894	0.22137688	2.7063328	20	—	—
410035 2006 XO_{68}	17.4	X	85.67615	150.34301	241.56979	10.70394	0.1862098	0.23049360	2.6344915	20	1 2.3	20.5
410036 2006 YF_{6}	16.6	X	324.22342	211.31501	267.19156	10.15111	0.1011954	0.21814537	2.7329943	20	—	—
410037 2006 YY_{8}	17.8	X	356.92929	64.79038	97.60146	7.29693	0.0315087	0.30198871	2.2002680	20	1 17.3	20.1
410038 2006 YX_{15}	16.2	X	116.18369	69.25204	144.36499	16.32516	0.3814620	0.17788750	3.1311637	20	10 10.8	22.2
410039 2006 YO_{17}	16.9	X	127.36233	84.69721	314.21523	3.37407	0.2754346	0.23695289	2.5863942	20	3 13.0	20.9
410040 2006 YX_{24}	17.3	X	67.87943	12.88007	72.23229	4.66045	0.1807088	0.23198648	2.6231770	20	2 16.7	20.1
410041 2006 YB_{34}	17.6	X	94.40627	358.30074	51.17270	5.31939	0.1301147	0.22949290	2.6421444	20	2 2.3	20.9
410042 2006 YN_{36}	17.3	X	116.96042	52.79316	341.23372	3.11632	0.2987475	0.23534426	2.5981665	20	3 1.3	21.3
410043 2006 YQ_{43}	16.4	X	91.96316	264.46628	101.89862	7.20205	0.0513011	0.21770197	2.7367039	20	—	—
410044 2006 YS_{53}	16.2	X	96.88849	265.72023	128.19205	15.88063	0.1346101	0.22661239	2.6644871	20	1 15.7	19.6
410045 2007 AV_{3}	16.7	X	96.96148	33.58889	12.84875	5.26310	0.3388529	0.23369980	2.6103405	20	3 2.9	20.2
410046 2007 AP_{8}	17.0	X	34.50526	273.68200	134.73682	4.15516	0.1970294	0.21785417	2.7354291	20	—	—
410047 2007 AU_{9}	17.3	X	131.23642	83.73946	315.99795	4.29747	0.3145742	0.23898311	2.5717253	20	3 20.1	21.7
410048 2007 AD_{11}	16.2	X	53.72178	117.43697	321.53104	10.90672	0.1395178	0.22604130	2.6689731	20	1 10.0	19.2
410049 2007 AL_{12}	16.3	X	142.91398	296.99977	80.38277	14.06095	0.2021094	0.23585752	2.5943958	20	3 1.9	20.6
410050 2007 AX_{17}	17.0	X	138.47837	0.40871	46.51936	6.65812	0.2108355	0.24071275	2.5593911	20	3 30.3	21.1
410051 2007 AA_{25}	16.6	X	10.32376	20.19182	113.00437	14.91795	0.1958852	0.22520511	2.6755756	20	—	—
410052 2007 AO_{25}	16.9	X	121.50335	253.33567	159.22873	5.20114	0.2750130	0.23832304	2.5764716	20	3 26.5	20.9
410053 2007 AJ_{27}	16.8	X	121.29091	260.93041	145.07547	8.72424	0.1959204	0.23260429	2.6185301	20	3 10.4	20.7
410054 2007 AP_{29}	17.3	X	4.88202	208.30776	265.86418	4.47480	0.0968072	0.22193333	2.7018072	20	—	—
410055 2007 BT_{15}	17.3	X	89.87163	64.41033	322.08206	5.81026	0.1501062	0.22273805	2.6952959	20	—	—
410056 2007 BW_{19}	16.7	X	328.86308	15.18874	101.23596	10.27899	0.1316438	0.21529325	2.7570783	20	—	—
410057 2007 BQ_{21}	16.0	X	94.19469	51.03304	311.73260	14.62887	0.1088993	0.21901161	2.7257831	20	—	—
410058 2007 BK_{30}	17.0	X	50.42371	334.26504	137.34546	15.26470	0.2192152	0.22931078	2.6435431	20	2 26.9	19.4
410059 2007 BN_{48}	17.1	X	2.17136	89.58521	12.47899	4.71185	0.0717735	0.21449630	2.7639033	20	—	—
410060 2007 BE_{54}	17.0	X	70.86533	69.17287	328.42526	5.46653	0.0800556	0.21952609	2.7215226	20	—	—
410061 2007 BS_{59}	17.1	X	6.39103	185.67311	287.39716	6.18033	0.2479165	0.22103077	2.7091573	20	—	—
410062 2007 BH_{65}	17.1	X	101.72777	258.75598	146.48159	10.20112	0.0604300	0.22343247	2.6897084	20	1 25.7	20.7
410063 2007 BU_{69}	16.8	X	310.74833	356.67917	143.18913	10.59083	0.0964250	0.21047387	2.7990066	20	—	—
410064 2007 BD_{73}	16.7	X	62.33276	61.61179	93.40201	30.45651	0.3484949	0.23601142	2.5932679	20	6 14.0	20.0
410065 2007 BK_{77}	16.6	X	346.33183	106.53181	344.22082	3.73532	0.0360638	0.21056974	2.7981569	20	—	—
410066 2007 CT_{2}	17.0	X	100.58724	222.57860	156.15583	5.27189	0.1306382	0.22033425	2.7148638	20	1 1.8	20.6
410067 2007 CV_{4}	16.7	X	85.37866	239.95985	147.25747	6.69163	0.0463559	0.21727958	2.7402495	20	—	—
410068 2007 CJ_{6}	16.7	X	172.87411	219.03315	91.48252	6.98608	0.0216351	0.22248061	2.6973747	20	—	—
410069 2007 CP_{6}	17.5	X	86.86267	2.46988	78.44874	2.22893	0.1563291	0.23366444	2.6106038	20	3 6.8	20.6
410070 2007 CL_{43}	17.5	X	106.96902	249.46712	165.11032	6.64394	0.3086064	0.23512300	2.5997962	20	3 18.7	21.3
410071 2007 CY_{48}	17.4	X	42.12327	169.73545	277.91660	4.43923	0.2517009	0.22417794	2.6837422	20	1 4.3	19.2
410072 2007 CA_{53}	16.2	X	308.24159	32.29924	144.32872	9.71538	0.0899066	0.21600814	2.7509918	20	—	—
410073 2007 CH_{55}	17.2	X	117.84137	255.78466	152.21631	12.15822	0.2782796	0.23386698	2.6090963	20	3 19.2	21.2
410074 2007 CM_{58}	16.9	X	79.23529	36.28787	57.17765	5.48423	0.1660076	0.23308869	2.6149010	20	3 15.8	20.0
410075 2007 CB_{60}	16.3	X	52.16690	131.87741	310.67795	7.76011	0.2004495	0.22274190	2.6952648	20	1 17.4	18.8
410076 2007 DH_{2}	16.9	X	49.89142	96.33153	30.55008	6.74867	0.2306689	0.23086654	2.6316536	20	3 21.4	19.4
410077 2007 DK_{3}	16.8	X	49.57984	19.84976	116.47703	8.54595	0.1769682	0.23159308	2.6261468	20	3 29.1	19.6
410078 2007 DJ_{15}	17.1	X	104.60212	27.74323	43.22617	4.52931	0.2763410	0.23435204	2.6054949	20	4 2.6	20.8
410079 2007 DP_{59}	17.4	X	349.98718	165.29278	311.26848	5.24156	0.0954062	0.21908013	2.7252147	20	—	—
410080 2007 DQ_{65}	17.2	X	152.30083	40.12582	219.24408	1.39340	0.0238083	0.20033647	2.8926510	20	12 24.2	21.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410081 2007 DM_{90}	17.0	X	82.12703	255.50611	142.48081	5.26525	0.1135941	0.21729302	2.7401365	20	—	—
410082 2007 DW_{97}	16.8	X	359.00227	143.02742	350.53816	7.71566	0.1679794	0.21656887	2.7462413	20	—	—
410083 2007 DJ_{100}	16.7	X	73.38834	258.31767	141.89183	5.07945	0.0819199	0.21509979	2.7587313	20	—	—
410084 2007 DJ_{102}	17.2	X	350.26665	331.87943	151.74446	6.67111	0.0917285	0.21871109	2.7282794	20	—	—
410085 2007 DP_{107}	17.4	X	73.46651	101.14272	309.57378	4.08552	0.1232173	0.22383599	2.6864748	20	1 2.4	20.4
410086 2007 DD_{112}	16.3	X	127.78716	217.62145	13.59486	16.18160	0.1163625	0.18253250	3.0778155	20	10 21.1	21.2
410087 2007 DN_{113}	16.5	X	51.02313	216.35015	165.39422	8.62857	0.0742045	0.20534785	2.8453953	20	—	—
410088 2007 EJ	18.0	X	137.58964	3.63041	61.77089	8.33020	0.6298017	0.24943917	2.4993454	20	5 12.2	23.3
410089 2007 EG_{13}	16.8	X	116.88864	212.74278	148.98329	6.79409	0.0410507	0.21834041	2.7313664	20	—	—
410090 2007 EV_{21}	16.9	X	257.93813	341.89059	168.96197	6.25338	0.0274009	0.20074159	2.8887579	20	12 18.4	20.9
410091 2007 EZ_{42}	16.4	X	1.85353	291.56534	152.71347	2.58960	0.0387461	0.20421705	2.8558894	20	—	—
410092 2007 EG_{52}	16.7	X	61.77244	313.93737	178.80983	16.03784	0.2487222	0.23164382	2.6257633	20	4 25.5	19.7
410093 2007 EH_{57}	16.5	X	97.46182	279.56627	349.24378	6.24065	0.2213615	0.18720043	3.0264359	20	11 14.9	21.6
410094 2007 EQ_{57}	16.1	X	83.92590	90.29585	171.84433	12.07414	0.1811179	0.17965570	3.1105848	20	10 25.7	21.0
410095 2007 EX_{65}	16.0	X	118.98888	208.65914	10.04191	19.02162	0.1026403	0.18060092	3.0997220	20	9 30.1	20.6
410096 2007 ET_{81}	15.8	X	122.80796	199.88690	17.42615	17.03825	0.0744487	0.18077090	3.0977786	20	10 1.8	20.4
410097 2007 EC_{86}	15.6	X	117.40806	207.16923	13.01714	17.49603	0.1709937	0.17692658	3.1424906	20	10 4.2	20.7
410098 2007 EM_{105}	17.2	X	229.49622	41.12299	70.46857	1.29341	0.0782172	0.18537361	3.0462867	20	9 16.3	21.7
410099 2007 ET_{105}	16.4	X	181.67579	90.64740	163.08412	9.73129	0.0727121	0.19923445	2.9033078	20	—	—
410100 2007 EB_{120}	15.9	X	59.39942	261.51824	44.37318	10.43651	0.2200141	0.17703265	3.1412353	20	11 21.9	20.6
410101 2007 EF_{120}	16.0	X	151.61661	158.47338	47.38009	10.30723	0.0412344	0.18114308	3.0935339	20	10 18.3	20.5
410102 2007 EG_{127}	17.5	X	83.42940	70.02409	45.08915	6.40565	0.3219062	0.23547622	2.5971957	20	5 10.6	21.1
410103 2007 EC_{130}	16.5	X	82.56137	330.90180	353.88179	9.15177	0.1641215	0.19443792	2.9508609	20	—	—
410104 2007 EJ_{130}	16.7	X	67.56159	313.01932	141.82172	14.91176	0.2645878	0.22900727	2.6458783	20	3 16.2	19.6
410105 2007 ES_{138}	16.5	X	105.32112	351.87131	347.69681	5.21368	0.0665484	0.21051171	2.7986712	20	—	—
410106 2007 EM_{148}	16.8	X	51.04625	352.48779	90.61254	3.75418	0.2342075	0.22059123	2.7127549	20	1 19.7	19.2
410107 2007 EW_{172}	16.3	X	152.41946	53.42861	194.75593	11.05688	0.0582640	0.19193377	2.9764719	20	12 8.9	20.9
410108 2007 EG_{189}	16.8	X	8.97043	98.91057	338.38300	7.10078	0.1760862	0.21029122	2.8006272	20	—	—
410109 2007 EX_{191}	16.2	X	67.92590	106.67405	192.71678	17.55868	0.0748224	0.18396086	3.0618631	20	11 9.4	20.7
410110 2007 EV_{194}	17.3	X	30.69054	57.31354	21.08843	3.45908	0.1863590	0.21440892	2.7646542	20	—	—
410111 2007 EZ_{196}	16.6	X	43.73260	144.09911	264.22368	0.94642	0.0667850	0.20293413	2.8679131	20	—	—
410112 2007 EJ_{200}	15.6	X	313.55014	21.35165	42.42312	12.01570	0.0544117	0.19174845	2.9783894	20	11 8.4	19.3
410113 2007 ET_{217}	16.5	X	118.02937	217.13384	10.52509	4.69392	0.0835825	0.18015036	3.1048882	20	10 7.5	21.3
410114 2007 EC_{218}	16.8	X	231.79088	332.90647	178.70803	3.61391	0.0750324	0.19283721	2.9671681	20	11 9.3	20.9
410115 2007 EW_{218}	15.7	X	63.46252	240.48881	31.07954	19.66023	0.1549142	0.17279822	3.1923454	20	10 11.9	20.3
410116 2007 EG_{220}	16.2	X	51.58656	281.16547	76.48004	3.63185	0.1417310	0.18974942	2.9992712	20	—	—
410117 2007 FU	16.3	X	85.37569	208.13806	33.00574	14.23110	0.1102300	0.17448504	3.1717376	20	9 25.9	21.1
410118 2007 FU_{9}	17.5	X	56.78416	240.11174	231.69437	7.11285	0.3157647	0.22684922	2.6626322	20	3 23.3	20.0
410119 2007 FJ_{25}	16.9	X	8.26060	82.48151	11.33199	12.44405	0.1536200	0.21007578	2.8025415	20	—	—
410120 2007 FF_{31}	16.4	X	185.07046	340.27861	191.43298	11.22801	0.0808467	0.18407147	3.0606363	20	10 10.5	20.9
410121 2007 FO_{33}	16.8	X	176.09484	32.96832	179.65382	8.13760	0.1071251	0.19170636	2.9788253	20	11 19.9	21.5
410122 2007 FO_{36}	16.9	X	19.16295	78.91279	7.26005	9.15037	0.0924529	0.20972000	2.8057103	20	—	—
410123 2007 FW_{48}	16.2	X	122.11174	207.71176	19.04829	11.48133	0.0467473	0.18055177	3.1002845	20	10 8.9	20.6
410124 2007 FY_{48}	16.8	X	118.81673	72.73991	163.85087	0.95525	0.1387015	0.17992649	3.1074630	20	10 22.9	21.7
410125 2007 FK_{50}	16.2	X	84.40713	181.79600	119.70558	11.65556	0.1093108	0.18302916	3.0722451	20	12 4.2	20.9
410126 2007 GU_{7}	16.7	X	95.14435	130.31011	194.42801	9.83252	0.1080089	0.19458656	2.9493580	20	—	—
410127 2007 GL_{9}	15.6	X	126.75641	216.75460	16.78903	12.72205	0.2339047	0.18158654	3.0884953	20	10 28.1	20.9
410128 2007 GG_{11}	17.9	X	327.83947	246.51236	183.03157	24.86648	0.1763074	0.34727075	2.0045824	20	—	—
410129 2007 GM_{16}	17.1	X	175.82281	265.28145	305.98454	1.63003	0.1542340	0.18635915	3.0355373	20	11 13.1	22.0
410130 2007 GK_{18}	15.5	X	85.85043	130.40941	156.15527	16.60047	0.2263725	0.17819858	3.1275185	20	11 29.5	20.8
410131 2007 GS_{52}	16.0	X	57.04083	108.66603	213.57312	25.26470	0.3515984	0.17441143	3.1726300	20	12 20.8	21.4
410132 2007 GC_{53}	16.3	X	160.48826	192.87781	29.40629	15.87133	0.0818666	0.18559236	3.0438925	20	11 11.4	21.0
410133 2007 GU_{58}	16.8	X	182.55073	24.17511	191.12202	3.39439	0.1567088	0.19243931	2.9712568	20	11 25.5	21.6
410134 2007 GH_{65}	16.0	X	112.54627	189.92980	33.58556	14.10536	0.0630607	0.17452183	3.1712919	20	9 29.1	20.8
410135 2007 GU_{67}	18.4	X	4.82506	231.15978	22.72288	2.66074	0.1620703	0.30699610	2.1762768	20	6 20.7	19.6
410136 2007 HU_{4}	16.0	X	138.31372	116.38792	122.69095	12.26374	0.0665397	0.18719859	3.0264558	20	11 15.9	20.8
410137 2007 HM_{18}	16.3	X	77.68809	87.04463	209.05827	14.04663	0.0924905	0.18130590	3.0916816	20	11 17.3	20.9
410138 2007 HZ_{21}	16.6	X	198.54170	106.51149	55.65774	6.13973	0.0886543	0.18157838	3.0885878	20	10 13.8	21.3
410139 2007 HQ_{24}	16.1	X	62.70198	146.73669	173.23910	4.75531	0.1222458	0.17988583	3.1079314	20	12 2.2	20.6
410140 2007 HK_{26}	15.7	X	63.53371	106.89622	215.92475	17.52265	0.1254171	0.18053226	3.1005079	20	12 6.3	20.4
410141 2007 HU_{26}	16.2	X	76.71434	265.06809	54.95220	7.21106	0.1526726	0.18388056	3.0627544	20	12 20.2	20.9
410142 2007 HD_{28}	15.9	X	108.90391	73.35851	224.54084	15.01977	0.0736467	0.18607734	3.0386013	20	12 19.7	20.6
410143 2007 HC_{29}	16.3	X	22.94642	146.68726	183.84139	8.79334	0.1183575	0.18410017	3.0603183	20	10 26.8	20.3
410144 2007 HN_{34}	16.3	X	88.75901	80.96953	222.39018	9.11751	0.0410257	0.18489920	3.0514952	20	12 2.6	20.7
410145 2007 HV_{34}	16.6	X	65.14977	29.99507	239.81827	4.02920	0.1467687	0.17178537	3.2048812	20	10 5.5	21.3
410146 2007 HX_{35}	15.6	X	103.94591	199.45859	53.30725	10.47874	0.0505911	0.17723560	3.1388368	20	10 21.9	20.2
410147 2007 HV_{41}	17.5	X	353.07802	268.15163	169.67647	23.53287	0.0747707	0.35639409	1.9702245	20	—	—
410148 2007 HV_{43}	16.2	X	17.64907	213.86012	188.37765	8.78576	0.1001868	0.19274968	2.9680663	20	—	—
410149 2007 HA_{46}	16.6	X	44.11736	6.21491	33.07762	12.89586	0.1569578	0.20064094	2.8897239	20	—	—
410150 2007 HE_{49}	15.9	X	337.47985	335.29405	65.33662	11.34754	0.0490834	0.18291056	3.0735729	20	11 12.6	19.9
410151 2007 HV_{52}	15.7	X	88.39722	76.63382	209.02807	15.28824	0.0777864	0.17911342	3.1168601	20	11 14.6	20.3
410152 2007 HL_{54}	15.5	X	139.84316	171.49784	45.27959	10.88193	0.0733793	0.18229844	3.0804494	20	10 19.4	20.1
410153 2007 HR_{58}	15.7	X	349.64189	311.10695	54.75962	14.40979	0.1640216	0.17667154	3.1455142	20	10 23.9	19.3
410154 2007 HK_{65}	17.9	X	317.31485	168.62839	86.25720	9.73477	0.2321748	0.29676672	2.2260039	20	3 3.2	20.5
410155 2007 HC_{69}	16.1	X	76.48990	238.70471	57.80375	5.28240	0.1686479	0.17876526	3.1209056	20	11 23.6	20.9
410156 2007 HO_{97}	15.4	X	72.79858	42.97799	231.79795	23.52317	0.0970501	0.17197619	3.2025101	20	10 11.9	20.3
410157 2007 JO_{5}	16.5	X	77.74995	127.16942	208.19719	9.04421	0.0632138	0.19149184	2.9810496	20	12 30.9	21.0
410158 2007 JE_{20}	16.7	X	118.78288	120.05898	121.93392	1.89657	0.1356972	0.17846436	3.1244126	20	10 29.3	21.5
410159 2007 JA_{45}	16.0	X	331.20402	172.58681	234.77916	10.11272	0.0468747	0.17966535	3.1104734	20	11 9.9	20.0
410160 2007 KL_{1}	16.1	X	159.46870	152.89019	79.80807	9.89532	0.1261984	0.18339901	3.0681133	20	11 25.2	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410161 2007 KS_4	18.6	X	292.61104	94.08733	211.54494	4.65653	0.1611171	0.29896025	2.2151021	20	4 15.9	21.1
410162 2007 LU_2	16.2	X	64.06006	104.37382	202.03069	24.50289	0.2880201	0.17296788	3.1902575	20	12 4.8	21.5
410163 2007 LK_9	16.3	X	50.33102	202.29823	124.41764	5.59645	0.0895889	0.17697364	3.1419335	20	11 21.6	20.7
410164 2007 LT_{14}	16.2	X	67.84127	68.52810	218.00841	6.13374	0.1696606	0.17212495	3.2006646	20	11 2.1	20.9
410165 2007 LW_{24}	16.2	X	138.68640	109.89828	93.12854	6.14070	0.1210716	0.17381293	3.1799087	20	10 3.2	21.3
410166 2007 LU_{35}	15.9	X	229.91128	306.95519	160.32788	11.65392	0.0375672	0.17171873	3.2057103	20	9 15.1	20.5
410167 2007 ML_7	18.0	X	328.77693	210.85797	94.65312	5.03359	0.2165567	0.30491292	2.1861779	20	6 15.8	19.1
410168 2007 OW_{10}	17.7	X	272.49994	344.48999	349.30463	7.82610	0.1732731	0.29168346	2.2517915	20	4 24.6	20.7
410169 2007 PS_{13}	18.3	X	242.86782	358.64670	341.59045	4.08718	0.2557623	0.28574461	2.2828849	20	3 27.9	22.1
410170 2007 PZ_{28}	17.1	X	280.77014	316.48978	357.54986	24.94787	0.2248682	0.28857059	2.2679563	20	3 29.1	20.4
410171 2007 PL_{36}	17.2	X	286.72608	25.04041	270.47318	5.47363	0.1763017	0.28854401	2.2680955	20	3 20.1	20.3
410172 2007 PR_{37}	17.2	X	299.51845	350.35412	305.54097	5.39538	0.1598291	0.28955737	2.2628007	20	4 9.7	20.0
410173 2007 PB_{42}	17.8	X	216.39352	221.57858	128.85186	2.82959	0.2424865	0.28140778	2.3062797	20	3 22.4	21.6
410174 2007 PN_{47}	17.8	X	172.61833	71.10595	346.52278	2.99952	0.1534723	0.28181209	2.3040733	20	5 6.5	21.3
410175 2007 QW_6	17.7	X	302.06260	317.79300	333.32593	4.75539	0.1708546	0.28941156	2.2635607	20	4 5.7	20.3
410176 2007 QE_8	18.0	X	246.52469	253.32718	117.58096	5.39062	0.2444994	0.28830463	2.2693508	20	5 13.3	21.5
410177 2007 QG_{10}	18.0	X	262.25005	121.83361	260.58935	0.78841	0.2209403	0.29441492	2.2378424	20	6 16.2	20.9
410178 2007 QF_{17}	18.0	X	233.66541	139.92351	215.00667	3.30003	0.1859102	0.28490348	2.2873759	20	4 12.8	21.3
410179 2007 RZ_1	17.7	X	332.23029	134.72706	150.09422	8.17715	0.1845549	0.29880740	2.2158575	20	5 24.9	19.5
410180 2007 RD_6	17.8	X	246.14103	156.03490	206.56387	5.14633	0.1590616	0.28749667	2.2736005	20	5 9.2	21.0
410181 2007 RL_{51}	17.8	X	190.50972	213.33293	218.12165	6.95871	0.2173045	0.28392822	2.2926109	20	6 11.4	21.6
410182 2007 RA_{60}	17.7	X	279.95708	332.13569	349.04865	7.08078	0.1353820	0.28848214	2.2684198	20	4 22.7	20.5
410183 2007 RM_{67}	18.3	X	249.41794	161.79507	170.63693	4.72306	0.1416734	0.28448849	2.2895998	20	4 4.4	21.4
410184 2007 RP_{78}	17.9	X	197.27677	86.74082	340.27426	4.47680	0.1456015	0.28899714	2.2657241	20	6 13.8	21.3
410185 2007 RZ_{80}	17.2	X	227.78512	89.45738	300.46675	6.37929	0.1437513	0.28999805	2.2605078	20	5 25.9	20.5
410186 2007 RH_{103}	17.7	X	291.75128	123.34694	191.92123	3.79008	0.3144580	0.29051248	2.2578384	20	4 5.7	20.7
410187 2007 RK_{103}	16.9	X	293.31368	130.29249	186.19946	4.79683	0.1504981	0.28842382	2.2687256	20	5 6.8	19.4
410188 2007 RY_{106}	17.7	X	250.21055	15.47953	352.06620	2.91490	0.2110499	0.28882613	2.2666183	20	5 13.1	20.9
410189 2007 RL_{109}	18.4	X	285.38888	103.13919	203.59911	1.75424	0.2400621	0.28697691	2.2763450	20	3 27.9	21.5
410190 2007 RE_{114}	17.1	X	287.78142	120.51135	206.13342	6.09425	0.1504300	0.28931541	2.2640621	20	5 13.1	19.6
410191 2007 RP_{117}	17.9	X	274.51014	114.58912	194.32829	6.17776	0.0975037	0.28243393	2.3006902	20	4 7.4	20.8
410192 2007 RF_{128}	18.2	X	91.12649	95.47916	17.54824	7.22241	0.0413788	0.27404773	2.3473900	20	4 2.7	20.8
410193 2007 RG_{133}	17.6	X	261.27986	61.56490	281.28107	6.44791	0.1998672	0.28862850	2.2676529	20	4 21.0	20.8
410194 2007 RR_{138}	17.9	X	244.02403	330.51371	344.83508	8.10430	0.1940287	0.27945583	2.3170066	20	3 3.4	21.3
410195 2007 RT_{147}	18.4	X	203.99027	345.10253	99.15493	3.83528	0.4681449	0.28395329	2.2924759	20	6 29.3	23.1
410196 2007 RL_{150}	17.6	X	202.01150	318.19678	96.36837	7.59456	0.2265327	0.28384859	2.2930396	20	5 30.9	21.5
410197 2007 RS_{150}	18.6	X	215.52700	182.09503	199.22385	2.24949	0.2213112	0.28384340	2.2930675	20	4 29.2	22.4
410198 2007 RG_{151}	18.0	X	323.42502	112.07709	164.44451	6.25975	0.1112564	0.29185818	2.2508928	20	5 3.9	20.2
410199 2007 RO_{163}	17.9	X	208.69735	120.17602	274.41887	3.67532	0.0829808	0.28622736	2.2803173	20	5 15.4	21.0
410200 2007 RP_{175}	18.0	X	225.59769	281.03016	106.38611	3.57754	0.1606471	0.28508719	2.2863932	20	5 20.8	21.5
410201 2007 RE_{191}	18.2	X	261.40832	37.54302	248.45060	0.73516	0.1849373	0.27702711	2.3305291	20	2 12.3	21.5
410202 2007 RF_{200}	17.8	X	198.10086	129.92607	196.22083	6.55758	0.1240274	0.26888173	2.3773613	20	2 3.7	21.4
410203 2007 RZ_{206}	17.5	X	306.95323	265.21035	22.24862	5.55193	0.2009438	0.28722764	2.2750200	20	4 5.4	19.9
410204 2007 RK_{207}	17.8	X	329.72341	89.97433	156.59023	6.79721	0.1570681	0.28197760	2.3031717	20	3 22.7	19.9
410205 2007 RM_{210}	18.1	X	202.91782	108.79453	290.74692	1.90253	0.2262802	0.28407307	2.2918314	20	5 10.8	22.0
410206 2007 RT_{211}	17.6	X	133.76591	261.81851	231.63201	3.90888	0.1827363	0.28565882	2.2833420	20	7 10.3	21.0
410207 2007 RS_{217}	17.8	X	26.22055	186.60206	350.92203	8.86259	0.1378430	0.27466134	2.3438925	20	3 28.2	19.9
410208 2007 RP_{233}	17.8	X	229.72675	332.11734	61.36268	3.59245	0.2251878	0.28672173	2.2776954	20	5 27.0	21.3
410209 2007 RW_{235}	18.0	X	220.61472	292.40694	46.91966	3.36553	0.1387428	0.27267340	2.3552709	20	3 16.2	21.5
410210 2007 RM_{236}	17.9	X	264.79083	197.51325	123.14034	1.40192	0.2391473	0.28488305	2.2874853	20	3 25.8	21.2
410211 2007 RC_{263}	17.5	X	189.87888	129.89935	315.99948	5.22827	0.0868704	0.29549984	2.2323616	20	7 5.3	20.5
410212 2007 RD_{265}	17.8	X	313.38949	300.91706	343.82800	6.82711	0.2097782	0.29008565	2.2600527	20	4 6.6	20.2
410213 2007 RA_{271}	17.5	X	104.26924	272.79203	229.63999	5.44398	0.1215456	0.28172093	2.3045704	20	6 14.1	20.5
410214 2007 RW_{273}	17.7	X	232.30851	275.74885	356.92039	6.76055	0.1002999	0.26441091	2.4040849	20	1 5.9	21.3
410215 2007 RG_{285}	17.4	X	311.19917	270.62737	20.04562	5.34459	0.1602527	0.28751331	2.2735129	20	4 23.1	19.6
410216 2007 RG_{288}	17.4	X	120.06588	158.64305	354.00054	7.02625	0.0466906	0.29448927	2.2374658	20	7 12.2	20.2
410217 2007 RB_{295}	18.2	X	113.36678	214.84073	231.94389	1.59121	0.1560363	0.27081561	2.3660300	20	4 13.5	21.2
410218 2007 RK_{295}	18.0	X	244.70471	96.10755	202.02984	2.88404	0.2093878	0.27420895	2.3464698	20	2 10.2	21.9
410219 2007 RM_{310}	16.8	X	231.11680	231.76442	119.82563	8.64410	0.1586182	0.28243378	2.3006910	20	4 12.6	20.4
410220 2007 RX_{310}	17.4	X	194.21260	89.50225	278.51886	8.46983	0.1505350	0.27380113	2.3487992	20	3 20.8	21.3
410221 2007 RR_{313}	17.7	X	257.15848	331.29014	33.48064	6.77000	0.1433622	0.28914498	2.2649517	20	5 25.5	20.7
410222 2007 RN_{319}	18.1	X	225.73835	277.69987	43.06924	1.83050	0.1900989	0.27420087	2.3465159	20	2 24.3	21.8
410223 2007 RB_{321}	17.8	X	192.97658	205.88861	177.79289	7.94195	0.1819920	0.27876051	2.3208579	20	4 14.6	21.4
410224 2007 SA_7	18.2	X	159.63009	337.73691	117.55704	2.12734	0.1046312	0.27868747	2.3212634	20	6 12.4	21.4
410225 2007 SN_{15}	17.3	X	147.18339	119.45702	286.61534	4.91184	0.1792694	0.26838831	2.3802742	20	3 28.1	21.0
410226 2007 SV_{19}	18.2	X	150.68637	18.31950	32.47585	2.14800	0.1722003	0.26805197	2.3822649	20	4 9.0	21.9
410227 2007 SA_{20}	17.5	X	136.47443	202.91428	190.29503	7.22833	0.0529267	0.26488649	2.4012065	20	2 15.3	20.7
410228 2007 SE_{20}	17.3	X	267.55909	323.33800	349.59366	9.16436	0.2781667	0.28139602	2.3063440	20	3 13.9	20.8
410229 2007 TO_2	18.3	X	200.86749	223.07341	187.89370	5.34754	0.1659643	0.28368349	2.2939292	20	5 27.2	21.9
410230 2007 TH_8	17.8	X	215.57538	172.34178	215.21653	4.62523	0.1188998	0.28322224	2.2964191	20	5 12.7	20.9
410231 2007 TO_9	17.2	X	237.23532	312.55822	6.87465	7.80014	0.1154925	0.27540973	2.3396445	20	3 8.8	20.6
410232 2007 TR_{15}	17.6	X	244.37169	288.59213	47.33520	3.04129	0.2088957	0.28095600	2.3087514	20	3 29.5	21.2
410233 2007 TU_{16}	17.5	X	204.03077	175.63786	212.99471	5.16825	0.2491365	0.27747162	2.3280395	20	4 28.2	21.5
410234 2007 TM_{18}	17.5	X	246.43792	266.63714	57.60413	4.94228	0.1732037	0.27838679	2.3229345	20	3 20.8	21.1
410235 2007 TL_{24}	15.7	X	302.56220	81.67738	287.93112	2.44628	0.0883517	0.14271938	3.6264422	20	8 5.5	20.6
410236 2007 TN_{25}	18.4	X	203.41961	65.80158	338.99059	2.29058	0.2011551	0.28153627	2.3055780	20	5 18.6	22.2
410237 2007 TQ_{28}	17.8	X	224.99133	110.32639	212.54401	3.57962	0.1445314	0.27164499	2.3612116	20	2 25.7	21.4
410238 2007 TP_{33}	18.6	X	203.54427	2.24671	40.09237	1.00603	0.1913626	0.27988317	2.3146475	20	5 16.5	22.3
410239 2007 TJ_{34}	18.2	X	230.41116	325.20408	35.08787	2.48303	0.2383105	0.28012557	2.3133120	20	4 14.3	21.9
410240 2007 TG_{39}	17.5	X	183.95958	340.30326	42.10107	7.70142	0.1104334	0.27188419	2.3598265	20	4 4.6	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410241 2007 TP_{42}	15.5	X	183.31766	53.07129	179.00543	27.22989	0.1947804	0.17287616	3.1913858	20	12 10.7	21.3
410242 2007 TD_{44}	17.7	X	129.95122	81.01350	2.17620	9.05818	0.1988167	0.26989696	2.3713958	20	4 29.4	21.4
410243 2007 TN_{61}	17.8	X	138.84663	284.57513	188.40337	3.10529	0.1593990	0.27802758	2.3249349	20	6 16.9	21.3
410244 2007 TH_{63}	18.2	X	215.41858	296.93906	44.76277	6.92753	0.1548786	0.27216009	2.3582314	20	3 15.5	21.9
410245 2007 TN_{64}	17.6	X	242.24701	123.32716	200.47663	5.85562	0.1568303	0.27440162	2.3453713	20	3 13.9	21.1
410246 2007 TL_{67}	17.7	X	197.46221	236.96200	166.56532	6.40125	0.1235571	0.27984699	2.3148470	20	5 15.9	21.2
410247 2007 TB_{72}	17.5	X	200.47149	40.21470	32.31897	7.59715	0.1440693	0.28313705	2.2968797	20	6 24.8	21.0
410248 2007 TY_{72}	17.9	X	167.43505	219.36670	234.25787	7.57816	0.4270926	0.27401164	2.3475961	20	6 21.6	22.6
410249 2007 TX_{80}	18.6	X	147.06380	258.41162	186.07347	2.32036	0.1795612	0.27552133	2.3390126	20	5 19.9	22.3
410250 2007 TF_{93}	17.5	X	79.59681	62.98253	72.28668	3.13763	0.1470329	0.26944906	2.3740231	20	5 5.6	20.2
410251 2007 TE_{95}	17.6	X	183.66137	253.68765	178.67930	8.73659	0.2083621	0.28000121	2.3139969	20	6 7.5	21.6
410252 2007 TB_{106}	17.8	X	291.58118	98.50887	204.60900	1.30833	0.1696917	0.28375569	2.2935400	20	4 10.6	20.7
410253 2007 TA_{109}	17.7	X	220.33852	14.88924	353.95841	8.94995	0.1135545	0.28026676	2.3125350	20	4 19.5	21.2
410254 2007 TH_{111}	18.0	X	242.38525	76.54231	279.90313	4.73114	0.1835985	0.28377328	2.2934453	20	4 21.9	21.4
410255 2007 TV_{111}	17.0	X	269.22140	71.88347	255.51099	4.14509	0.1125467	0.28304864	2.2973579	20	4 22.6	19.9
410256 2007 TY_{111}	17.7	X	236.46446	35.73382	316.99656	4.64513	0.2504981	0.28178626	2.3042141	20	4 6.6	21.6
410257 2007 TY_{115}	18.2	X	239.65797	185.63953	120.53215	2.10142	0.2398047	0.27144736	2.3623576	20	2 15.9	22.1
410258 2007 TN_{116}	18.1	X	188.28768	241.46576	179.91283	5.16362	0.1357874	0.28615547	2.2806992	20	5 29.2	21.6
410259 2007 TQ_{120}	17.9	X	195.10473	230.58858	190.13047	4.23961	0.1210073	0.28149256	2.3058166	20	6 4.5	21.2
410260 2007 TS_{120}	18.1	X	198.77796	173.35177	229.75458	3.62789	0.1213483	0.27851010	2.3222488	20	5 15.2	21.4
410261 2007 TK_{121}	16.7	X	259.56378	264.92110	216.17801	14.39044	0.1471021	0.22859684	2.6490444	20	11 2.3	19.9
410262 2007 TX_{124}	18.1	X	266.53511	126.59162	183.30792	5.08014	0.1741220	0.27893346	2.3198985	20	3 20.1	21.5
410263 2007 TF_{131}	18.6	X	146.94789	45.79715	38.04123	1.83780	0.1561175	0.27432907	2.3457848	20	5 16.7	22.1
410264 2007 TR_{133}	17.3	X	210.47285	333.78956	40.30407	9.00804	0.1318337	0.27613402	2.3355515	20	4 19.6	20.8
410265 2007 TS_{134}	17.5	X	292.98469	342.18720	338.71082	5.53225	0.1115231	0.29027243	2.2590830	20	5 16.4	20.1
410266 2007 TU_{135}	18.7	X	242.42329	146.34411	153.26828	5.08320	0.2306662	0.27773194	2.3265845	20	2 9.3	22.6
410267 2007 TV_{141}	17.7	X	246.27086	180.68735	189.68367	5.43127	0.1821811	0.28428134	2.2907119	20	5 17.9	21.0
410268 2007 TJ_{142}	17.7	X	245.44746	335.23017	356.60182	13.47199	0.2032018	0.28052459	2.3111178	20	3 23.4	21.2
410269 2007 TB_{147}	17.1	X	247.14552	307.08509	21.20680	6.55975	0.2604949	0.28481347	2.2878578	20	3 19.0	20.9
410270 2007 TB_{148}	17.3	X	249.25447	272.39674	96.92531	3.71959	0.1819246	0.28606237	2.2811940	20	5 19.5	20.6
410271 2007 TZ_{151}	17.6	X	305.42318	119.82036	210.18626	6.19237	0.1395338	0.29371587	2.2413918	20	6 18.3	19.9
410272 2007 TN_{155}	17.4	X	173.45083	109.33826	264.94529	3.99227	0.1616630	0.27033724	2.3688204	20	3 12.2	21.0
410273 2007 TB_{160}	17.4	X	212.95642	140.69996	223.51196	7.32311	0.2310465	0.27645356	2.3337514	20	4 3.5	21.3
410274 2007 TX_{160}	18.1	X	234.10979	285.56347	69.90516	2.50393	0.2033108	0.28090397	2.3090365	20	4 14.3	21.6
410275 2007 TH_{164}	18.4	X	171.67350	211.21508	190.02636	0.86168	0.1858831	0.27455241	2.3445124	20	4 16.8	22.1
410276 2007 TE_{172}	18.0	X	231.32515	181.94267	177.96261	5.25204	0.2383132	0.28077710	2.3097320	20	4 15.4	21.7
410277 2007 TJ_{176}	18.3	X	189.99401	71.23530	352.26271	2.13381	0.2492240	0.27980553	2.3150756	20	5 30.5	22.4
410278 2007 TZ_{176}	17.3	X	262.69461	149.48658	157.73364	2.66170	0.1944529	0.27747113	2.3280422	20	3 11.1	20.8
410279 2007 TV_{182}	17.1	X	98.13428	313.94590	190.79645	5.94455	0.0818834	0.27733140	2.3288241	20	6 4.0	20.0
410280 2007 TH_{195}	17.6	X	103.82622	280.72252	210.40445	4.07203	0.0838158	0.27637721	2.3341812	20	5 23.3	20.4
410281 2007 TD_{196}	18.1	X	230.28895	120.98408	174.26218	2.48523	0.2063260	0.26693440	2.3889094	20	1 26.9	22.1
410282 2007 TR_{201}	17.9	X	260.76604	205.61301	78.96248	3.11512	0.1944904	0.27096286	2.3651728	20	2 11.2	21.4
410283 2007 TH_{202}	17.2	X	228.86394	300.08591	48.42186	6.92436	0.1411983	0.27595535	2.3365595	20	4 5.8	20.6
410284 2007 TA_{203}	17.8	X	70.21048	51.68831	109.40371	2.31702	0.1217565	0.27269471	2.3551482	20	5 24.5	20.3
410285 2007 TD_{211}	17.4	X	215.08822	103.39267	295.29844	4.43315	0.1384430	0.28215223	2.3022212	20	5 24.9	20.8
410286 2007 TB_{213}	17.6	X	231.02521	101.92801	255.77015	4.81805	0.1645341	0.27869194	2.3212386	20	4 14.1	21.1
410287 2007 TQ_{215}	17.8	X	207.96590	26.86920	7.91052	4.63178	0.1450424	0.27886852	2.3202586	20	5 11.4	21.2
410288 2007 TP_{221}	17.7	X	228.21888	17.96903	2.74448	4.59767	0.1888735	0.28655661	2.2785703	20	5 10.1	21.3
410289 2007 TJ_{227}	17.4	X	3.25655	145.96351	24.47294	6.49034	0.0771554	0.26277982	2.4140229	20	2 12.9	20.1
410290 2007 TK_{229}	17.8	X	238.78149	320.60386	35.36358	2.75726	0.1699122	0.28024959	2.3126295	20	4 21.1	20.9
410291 2007 TM_{237}	17.8	X	200.58991	240.04940	165.47674	3.44313	0.1468897	0.28056015	2.3109226	20	5 20.3	21.4
410292 2007 TU_{253}	18.3	X	122.95687	91.95871	32.50672	6.67962	0.1220660	0.27977923	2.3152207	20	6 10.9	21.5
410293 2007 TE_{263}	17.9	X	96.57301	69.31694	43.81604	2.79673	0.1622598	0.26781951	2.3836432	20	4 30.0	21.0
410294 2007 TP_{275}	18.1	X	241.45413	187.52865	172.24155	7.71833	0.1579740	0.28330746	2.2959586	20	5 1.9	21.4
410295 2007 TP_{281}	17.2	X	279.11780	79.35186	220.31703	6.44608	0.1212903	0.28063751	2.3104979	20	3 26.2	20.2
410296 2007 TM_{310}	17.3	X	43.53188	108.16695	89.08208	3.65196	0.1335046	0.27937072	2.3174772	20	6 4.9	19.4
410297 2007 TJ_{317}	18.7	X	196.70200	344.56522	74.09375	5.07417	0.2020235	0.27979300	2.3151448	20	5 31.5	22.2
410298 2007 TG_{328}	18.2	X	227.97074	89.10270	267.45520	3.89345	0.1896559	0.27834731	2.3231542	20	4 8.1	22.0
410299 2007 TC_{337}	18.2	X	143.12832	24.72057	42.13461	2.48546	0.1681111	0.26931682	2.3748002	20	4 21.9	21.5
410300 2007 TD_{346}	17.7	X	139.13709	311.81290	149.09267	3.72635	0.0935232	0.27965079	2.3159296	20	5 27.4	20.9
410301 2007 TW_{352}	18.7	X	221.77455	210.23484	192.93367	1.30876	0.1997727	0.28695443	2.2764639	20	6 3.5	22.1
410302 2007 TR_{361}	17.2	X	233.94364	295.86523	46.91179	6.97311	0.3368380	0.27833452	2.3232253	20	3 24.4	21.4
410303 2007 TY_{361}	18.3	X	145.89057	236.17284	202.24435	2.85523	0.0714177	0.27157450	2.3616202	20	5 2.1	21.3
410304 2007 TW_{362}	18.0	X	191.01141	219.84612	197.96525	2.06834	0.1664006	0.27721618	2.3294693	20	5 26.1	21.6
410305 2007 TO_{369}	17.8	X	177.48450	109.64797	307.25655	2.47436	0.0646476	0.27583098	2.3372618	20	5 9.1	21.1
410306 2007 TX_{381}	18.0	X	135.71185	36.35782	57.41786	4.03567	0.1202676	0.27411305	2.3470170	20	5 15.2	21.2
410307 2007 TX_{383}	17.9	X	182.36672	329.93036	51.32908	2.18805	0.1938741	0.27160418	2.3614482	20	4 2.0	21.6
410308 2007 TM_{386}	17.0	X	180.03222	231.44409	208.06655	5.35347	0.0368467	0.28203078	2.3028821	20	6 14.3	19.9
410309 2007 TT_{400}	18.3	X	208.92328	242.63111	154.17078	0.40144	0.2071460	0.27942023	2.3172034	20	5 13.8	21.9
410310 2007 TU_{402}	17.7	X	265.89494	206.47233	151.70179	4.64443	0.1519802	0.28707915	2.2758045	20	5 28.5	20.7
410311 2007 TK_{404}	17.8	X	86.29225	170.69931	306.72852	1.66397	0.1545330	0.26644710	2.3918213	20	4 19.7	20.7
410312 2007 TZ_{408}	18.1	X	131.05544	92.99253	342.41292	1.75408	0.1868462	0.27073234	2.3665152	20	4 21.5	21.4
410313 2007 TL_{410}	17.2	X	232.44531	297.18858	75.40823	6.97650	0.1490719	0.28139150	2.3063687	20	5 9.7	20.6
410314 2007 TE_{425}	17.7	X	218.17642	251.60263	55.67233	6.12794	0.0427779	0.26286074	2.4135274	20	2 6.1	21.0
410315 2007 TH_{425}	17.4	X	56.32673	153.05616	38.81327	6.37151	0.1022596	0.28232930	2.3012585	20	6 13.0	19.9
410316 2007 TT_{428}	18.1	X	112.93183	102.13560	357.69311	2.46654	0.1603711	0.26859531	2.3790511	20	4 30.9	21.5
410317 2007 TH_{434}	17.6	X	221.29305	208.94563	163.29273	6.35600	0.1487120	0.27874887	2.3209225	20	4 28.3	21.1
410318 2007 TY_{434}	18.4	X	171.63145	20.22057	46.67528	7.98230	0.3873410	0.27647028	2.3336573	20	5 22.0	22.8
410319 2007 TP_{435}	17.5	X	102.20118	90.59414	40.81586	7.90698	0.0525090	0.27589700	2.3368889	20	5 15.2	20.3
410320 2007 TG_{441}	17.1	X	144.08632	158.37551	242.28456	8.21083	0.1768356	0.26804586	2.3823011	20	3 16.9	20.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410321 2007 TT_{452}	17.9	X	274.25675	148.61156	139.94673	5.67239	0.1022941	0.27133631	2.3630021	20	3 11.9	21.1
410322 2007 TE_{453}	17.9	X	155.33972	19.81512	63.92992	2.11125	0.1482692	0.27301781	2.3532897	20	5 24.9	21.4
410323 2007 UK_{2}	17.7	X	208.78062	291.32236	68.38697	6.56646	0.2658516	0.27638335	2.3341466	20	3 29.9	21.9
410324 2007 UX_{6}	17.5	X	286.94288	159.29820	69.88985	8.32499	0.0932631	0.26068717	2.4269246	20	1 11.4	20.9
410325 2007 UX_{9}	18.1	X	173.85082	277.01777	90.31866	6.31507	0.2535931	0.27007055	2.3703796	20	3 13.3	22.2
410326 2007 UQ_{11}	17.1	X	302.69204	245.11156	110.39158	4.45479	0.3169781	0.29554283	2.2321451	20	6 20.3	18.7
410327 2007 UT_{12}	18.0	X	230.26501	245.22220	69.33373	2.22150	0.1987137	0.27259478	2.3557237	20	2 20.6	21.9
410328 2007 UQ_{21}	18.0	X	143.53933	190.46341	228.63938	5.94150	0.1452108	0.26813573	2.3817687	20	4 8.7	21.6
410329 2007 UL_{22}	18.7	X	177.11258	316.35987	112.28240	1.47525	0.1873033	0.27735424	2.3286962	20	5 27.2	22.4
410330 2007 US_{29}	18.6	X	165.69272	354.11795	62.48094	2.14799	0.1744380	0.27496858	2.3421462	20	4 30.8	22.3
410331 2007 UR_{47}	17.3	X	232.61961	191.08134	180.56302	6.98886	0.2299273	0.28007368	2.3135977	20	5 2.6	21.0
410332 2007 UP_{50}	17.4	X	122.01021	349.87469	88.37275	7.53380	0.1913178	0.26520716	2.3992705	20	4 20.6	21.0
410333 2007 US_{52}	16.8	X	236.27533	251.21938	81.34494	8.98640	0.2567563	0.27396769	2.3478471	20	3 19.7	20.9
410334 2007 UB_{57}	16.8	X	249.13534	201.39249	47.05440	7.15310	0.1065026	0.25476911	2.4643641	20	—	—
410335 2007 UQ_{61}	17.8	X	267.60916	47.64701	244.99679	2.51292	0.2403101	0.27828131	2.3235215	20	2 20.6	21.6
410336 2007 UO_{65}	18.2	X	161.11418	220.94085	210.99029	6.67096	0.2273046	0.27313498	2.3526167	20	5 18.8	22.1
410337 2007 UW_{67}	18.1	X	99.09619	283.25206	203.68463	0.79208	0.1256771	0.27490155	2.3425269	20	5 16.9	21.0
410338 2007 US_{73}	17.9	X	145.30903	78.47845	12.18465	1.19237	0.1111313	0.27602146	2.3361863	20	5 20.8	21.3
410339 2007 UV_{75}	18.3	X	144.46981	144.89562	321.43443	0.93079	0.1324911	0.27725369	2.3292592	20	6 11.9	21.5
410340 2007 UZ_{76}	18.6	X	157.14763	141.52586	299.48903	1.43387	0.2392032	0.27396606	2.3478564	20	5 26.6	22.5
410341 2007 UB_{79}	17.8	X	118.11931	42.48248	51.22148	3.03339	0.0815409	0.26973796	2.3723277	20	4 19.7	20.9
410342 2007 UX_{89}	18.2	X	116.66088	75.67443	26.35534	2.91181	0.1640915	0.27033321	2.3688439	20	5 9.0	21.5
410343 2007 UT_{90}	17.8	X	81.48709	217.79621	278.53389	0.49811	0.1296079	0.26996193	2.3710154	20	5 6.1	20.5
410344 2007 UM_{103}	18.0	X	120.89011	83.91628	43.66252	2.80472	0.1509466	0.27468790	2.3437414	20	6 16.5	21.3
410345 2007 UR_{103}	17.7	X	74.59777	264.31684	193.25594	2.26429	0.1325815	0.25807651	2.4432640	20	3 1.9	20.5
410346 2007 UX_{105}	17.6	X	223.77984	282.08645	92.88112	4.44561	0.2145234	0.27774609	2.3265055	20	4 30.1	21.4
410347 2007 UA_{120}	18.4	X	248.38356	107.58080	202.70572	4.22091	0.2431635	0.27756379	2.3275241	20	2 25.5	22.3
410348 2007 UF_{124}	17.5	X	178.02033	353.13098	31.76015	7.02119	0.1062934	0.27174387	2.3606388	20	3 31.7	21.0
410349 2007 UZ_{128}	18.0	X	160.44833	1.91374	81.20543	2.50412	0.1604621	0.27430765	2.3459069	20	5 29.8	21.7
410350 2007 UD_{135}	17.5	X	74.29667	39.29061	69.49437	5.78350	0.1366511	0.26108634	2.4244503	20	3 21.9	20.3
410351 2007 VJ_{5}	17.2	X	144.20520	187.69401	261.53027	5.55892	0.0814709	0.27550096	2.3391279	20	5 14.6	20.3
410352 2007 VC_{11}	17.5	X	226.05820	57.93623	283.67370	5.13696	0.2967438	0.27514701	2.3411335	20	3 13.9	21.7
410353 2007 VE_{11}	17.6	X	236.81711	278.11190	98.36888	7.23506	0.2063441	0.28179880	2.3041458	20	5 15.0	21.1
410354 2007 VK_{12}	17.7	X	207.00583	17.96935	1.84093	5.90158	0.2171233	0.28270191	2.2992360	20	4 18.4	21.6
410355 2007 VP_{29}	17.4	X	243.30052	323.85827	13.48521	4.10430	0.2537225	0.27804459	2.3248401	20	3 26.6	21.2
410356 2007 VW_{29}	17.4	X	232.83529	254.60931	78.84630	5.82660	0.2541247	0.27460434	2.3442169	20	3 16.4	21.4
410357 2007 VW_{43}	17.9	X	159.50986	99.11206	357.79127	6.57320	0.1347531	0.27842459	2.3227243	20	6 14.9	21.5
410358 2007 VW_{48}	17.8	X	121.49352	106.90713	2.17249	4.34954	0.2223316	0.27016102	2.3698503	20	5 29.4	21.5
410359 2007 VL_{51}	17.9	X	271.07776	42.77825	267.40810	4.42979	0.1325169	0.27588823	2.3369384	20	3 28.7	21.2
410360 2007 VY_{51}	17.6	X	328.60620	197.08109	26.05902	7.55144	0.0510730	0.26554072	2.3972609	20	3 7.0	20.5
410361 2007 VT_{54}	18.2	X	178.96580	277.06774	112.39451	3.09665	0.2132697	0.27123656	2.3635814	20	4 10.6	22.2
410362 2007 VN_{61}	17.3	X	173.28960	359.84224	30.27739	3.62894	0.2038050	0.26964394	2.3728791	20	4 5.4	21.1
410363 2007 VG_{64}	17.5	X	85.35814	227.93060	281.96904	2.94766	0.1147788	0.26946394	2.3739357	20	5 28.7	20.4
410364 2007 VM_{76}	17.4	X	138.16971	308.96476	63.66104	4.67575	0.1987864	0.26044179	2.4284487	20	2 13.1	20.9
410365 2007 VY_{81}	17.8	X	104.47713	29.61869	48.87290	3.18537	0.1588932	0.26326323	2.4110668	20	3 24.9	20.8
410366 2007 VV_{90}	17.7	X	183.32589	298.44183	128.04919	3.89578	0.1180419	0.27743309	2.3282550	20	5 30.9	21.2
410367 2007 VZ_{144}	17.8	X	210.72696	245.95839	129.93665	2.68741	0.2256867	0.27574463	2.3377497	20	4 19.3	21.7
410368 2007 VQ_{145}	17.5	X	232.83386	334.20992	32.36780	7.94447	0.1185217	0.27624143	2.3349460	20	5 2.6	20.7
410369 2007 VP_{150}	18.5	X	156.91888	76.19352	359.89012	2.17665	0.1730262	0.27464044	2.3440114	20	5 16.9	22.1
410370 2007 VN_{153}	18.6	X	235.82334	281.05075	58.26796	2.82220	0.2354884	0.27968923	2.3157174	20	3 24.8	22.3
410371 2007 VQ_{156}	17.9	X	276.86057	247.74572	16.01454	3.60674	0.1394975	0.27130414	2.3631889	20	2 6.8	21.2
410372 2007 VC_{158}	18.6	X	158.47795	299.36793	125.29565	2.63347	0.2187522	0.27167732	2.3610243	20	5 7.3	22.5
410373 2007 VL_{168}	17.9	X	175.02113	353.87090	46.88648	2.86216	0.1838037	0.27015092	2.3699094	20	4 19.6	21.7
410374 2007 VD_{176}	15.6	X	259.53780	164.54341	180.41924	3.82903	0.2112220	0.12633291	3.9336137	20	4 29.9	21.6
410375 2007 VP_{180}	17.2	X	88.79287	29.20741	72.84867	4.35449	0.1609452	0.26497060	2.4006983	20	4 5.9	20.0
410376 2007 VE_{198}	18.0	X	144.63645	169.02441	252.03434	1.73235	0.1916215	0.26210975	2.4181353	20	4 17.2	21.8
410377 2007 VK_{216}	17.7	X	229.78702	76.39895	261.45455	2.86074	0.2664722	0.27456624	2.3444337	20	3 14.3	21.7
410378 2007 VW_{216}	18.0	X	177.85493	340.89399	43.42246	4.16830	0.1190585	0.26840217	2.3801922	20	3 31.2	21.6
410379 2007 VL_{220}	17.6	X	192.08911	153.73203	236.97720	10.81895	0.2666830	0.27335535	2.3513521	20	4 19.7	21.9
410380 2007 VO_{237}	17.5	X	41.52890	110.62920	52.67702	5.33105	0.1134880	0.26593986	2.3948616	20	4 8.9	19.9
410381 2007 VF_{238}	17.7	X	130.43816	20.74750	57.64030	4.21295	0.1981697	0.26795371	2.3828473	20	4 27.4	21.3
410382 2007 VT_{267}	18.6	X	177.85370	246.17070	179.99892	3.18247	0.1834315	0.27769494	2.3267912	20	5 25.0	22.3
410383 2007 VO_{268}	18.5	X	183.86251	245.65950	164.70425	2.57274	0.2076394	0.27593769	2.3366591	20	5 10.2	22.4
410384 2007 VK_{275}	16.2	X	82.34611	299.99636	244.63227	10.38514	0.0503620	0.19950056	2.9007255	20	6 29.4	20.3
410385 2007 VG_{276}	16.6	X	10.95144	27.00237	94.06573	22.36637	0.0754996	0.24171480	2.5523127	20	—	—
410386 2007 VJ_{282}	16.3	X	252.91361	311.72339	74.40027	0.40640	0.1541081	0.12753883	3.9087788	20	6 16.0	22.1
410387 2007 VC_{287}	17.1	X	175.52551	327.72618	89.17394	7.73797	0.0945385	0.27468151	2.3437778	20	5 10.7	20.5
410388 2007 VT_{310}	17.1	X	205.18094	264.93845	88.61873	2.32245	0.2027240	0.26328874	2.4109111	20	3 19.0	21.1
410389 2007 VJ_{312}	17.0	X	21.28110	83.97983	42.52094	4.05758	0.1951561	0.24515918	2.5283505	20	1 6.3	19.1
410390 2007 VU_{324}	17.9	X	211.13361	37.23992	338.46679	6.01074	0.1401257	0.27592028	2.3367574	20	4 18.4	21.6
410391 2007 WV	15.0	X	230.39538	333.73967	62.33387	7.42143	0.2134794	0.12564352	3.9479894	20	5 31.7	21.1
410392 2007 WD_{4}	17.7	X	130.14795	56.82086	62.57985	4.03345	0.1803844	0.27405572	2.3473443	20	6 17.9	21.3
410393 2007 WR_{11}	17.6	X	164.64697	356.45747	85.88469	10.52064	0.2155725	0.27470090	2.3436675	20	6 3.8	21.4
410394 2007 WH_{20}	17.6	X	76.70090	114.98891	2.08704	7.20104	0.1559363	0.25569415	2.4584168	20	4 5.5	20.4
410395 2007 WN_{20}	17.2	X	136.56347	338.74847	290.52805	22.27775	0.1064642	0.37847061	1.8928431	20	—	—
410396 2007 WL_{41}	17.7	X	202.74917	177.28119	195.25223	6.88968	0.1358358	0.27307044	2.3529874	20	4 8.9	21.3
410397 2007 WB_{46}	17.4	X	185.84520	27.02891	322.56631	4.53343	0.1185409	0.26460795	2.4028913	20	2 22.6	20.8
410398 2007 XX_{5}	17.6	X	241.65304	255.14499	121.39783	5.54289	0.2746142	0.28295505	2.2978645	20	5 13.7	21.3
410399 2007 XJ_{9}	18.2	X	94.41305	114.52766	357.13366	2.05161	0.1632733	0.26113131	2.4241720	20	4 24.8	21.2
410400 2007 XX_{20}	17.9	X	208.76220	328.62725	79.49169	3.88314	0.2154511	0.27857437	2.3218916	20	5 28.1	21.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410401 2007 XZ_{21}	17.0	X	138.56879	331.48219	73.06062	7.64106	0.1178069	0.26199014	2.4188712	20	3 18.6	20.5
410402 2007 XR_{22}	17.2	X	195.18235	321.79203	94.99825	7.96867	0.2650780	0.27450312	2.3447931	20	5 27.4	21.3
410403 2007 XT_{24}	18.0	X	198.73708	270.03464	125.46150	3.13932	0.1872780	0.27459979	2.3442427	20	5 4.8	21.7
410404 2007 XH_{30}	15.3	X	248.69961	201.38897	169.63050	2.95484	0.2238878	0.12459620	3.9700823	20	5 18.7	21.5
410405 2007 XR_{30}	17.9	X	167.08965	330.13384	91.40489	2.51807	0.1746865	0.27126733	2.3634027	20	5 8.9	21.7
410406 2007 XR_{42}	17.8	X	98.80429	151.91544	303.05463	1.75951	0.1593125	0.26118873	2.4238166	20	4 6.7	20.9
410407 2007 XW_{51}	17.1	X	295.33127	232.15042	326.51711	4.50937	0.1728484	0.24021946	2.5628937	20	—	—
410408 2007 XP_{56}	18.1	X	143.76983	255.01829	198.60845	3.59372	0.2052865	0.26733953	2.3864954	20	5 30.3	22.0
410409 2007 YK_{9}	16.9	X	187.56151	297.25912	56.61445	7.93227	0.2846523	0.26216137	2.4178179	20	3 9.4	21.3
410410 2007 YF_{12}	17.2	X	173.41752	293.58896	62.15806	7.65036	0.1281416	0.25403231	2.4691269	20	2 23.5	21.0
410411 2007 YS_{36}	17.5	X	166.46283	88.17946	309.27531	5.44811	0.1368432	0.26285530	2.4135607	20	4 2.5	21.2
410412 2007 YT_{50}	16.6	X	285.51182	265.90525	286.87084	10.30904	0.1395032	0.23682160	2.5873500	20	—	—
410413 2007 YQ_{51}	17.9	X	212.99240	283.22328	79.64828	3.81380	0.1957092	0.27134830	2.3629325	20	4 6.5	21.7
410414 2007 YE_{67}	16.9	X	175.86916	153.78116	140.07020	13.81986	0.0381644	0.23360516	2.6110454	20	—	—
410415 2007 YZ_{70}	17.1	X	145.33542	348.43795	122.02071	25.87269	0.2760769	0.27238472	2.3569347	20	6 27.6	21.5
410416 2008 AY_{31}	17.7	X	62.68399	283.07454	197.17856	1.52709	0.1651500	0.25391574	2.4698825	20	3 20.3	20.3
410417 2008 AY_{33}	17.3	X	183.07100	35.76091	59.04453	5.39480	0.2055934	0.28366879	2.2940084	20	7 5.9	21.0
410418 2008 AW_{34}	17.5	X	120.66614	337.91855	98.72258	3.47435	0.1708136	0.25846482	2.4408162	20	4 13.2	20.9
410419 2008 AA_{36}	17.6	X	178.35552	83.37206	298.50240	2.04366	0.2082841	0.26152621	2.4217310	20	3 29.4	21.7
410420 2008 AZ_{37}	18.2	X	107.76332	251.72303	193.48133	2.47096	0.1363814	0.25698483	2.4501785	20	4 2.9	21.2
410421 2008 AY_{40}	17.0	X	344.64018	188.32936	324.01450	12.55632	0.0989741	0.23939818	2.5687519	20	—	—
410422 2008 AG_{44}	17.0	X	300.48903	225.22907	323.59220	4.01314	0.0961341	0.23553978	2.5967284	20	—	—
410423 2008 AV_{65}	17.5	X	206.85979	256.09577	121.86628	6.84308	0.2435680	0.26663999	2.3906676	20	4 20.5	21.7
410424 2008 AV_{86}	17.6	X	107.87056	83.87726	30.89499	5.54857	0.1896902	0.26201734	2.4187038	20	5 19.0	21.1
410425 2008 AH_{91}	17.7	X	72.16963	184.19801	281.99741	5.65312	0.0801773	0.25292542	2.4763255	20	3 1.0	20.8
410426 2008 AY_{104}	18.2	X	127.37054	132.15220	312.40375	0.54666	0.1531579	0.26222744	2.4174118	20	4 26.9	21.6
410427 2008 BH_{3}	17.4	X	124.69975	19.87062	101.27492	7.79149	0.0903961	0.26739673	2.3861550	20	6 6.5	20.7
410428 2008 BJ_{15}	16.4	X	316.93094	247.45716	266.23707	10.32342	0.1335006	0.23467699	2.6030891	20	—	—
410429 2008 BQ_{18}	16.9	X	126.16854	300.10078	153.22144	5.63315	0.1237635	0.26234823	2.4166697	20	5 6.2	20.3
410430 2008 BC_{19}	16.8	X	287.03202	129.10343	69.59141	4.68643	0.1333743	0.23910711	2.5708361	20	—	—
410431 2008 BT_{19}	17.9	X	156.80039	290.91306	131.68830	2.89682	0.2047426	0.26616414	2.3935161	20	5 2.8	21.7
410432 2008 BM_{25}	17.9	X	101.15888	172.26721	269.79810	1.25551	0.1660302	0.25533841	2.4606997	20	3 25.0	21.0
410433 2008 BY_{30}	17.3	X	133.39480	290.83559	151.62948	1.41565	0.1574239	0.25985302	2.4321155	20	5 1.9	20.7
410434 2008 BZ_{31}	17.8	X	151.77560	264.31293	151.91370	1.57360	0.1814733	0.25864224	2.4396999	20	4 18.5	21.6
410435 2008 BU_{41}	17.2	X	110.77473	24.07230	93.81509	5.13419	0.1851146	0.26080773	2.4261766	20	5 27.6	20.7
410436 2008 BX_{45}	17.0	X	228.83101	222.81052	327.57975	11.80413	0.0838146	0.22222207	2.6994664	20	12 29.5	20.8
410437 2008 BM_{46}	17.4	X	112.16253	33.43778	61.66030	3.54321	0.1640219	0.25677285	2.4515268	20	4 26.2	20.7
410438 2008 BA_{51}	17.3	X	248.20378	281.01838	321.22788	7.89115	0.0684213	0.23483844	2.6018959	20	—	—
410439 2008 BL_{51}	17.3	X	66.55717	80.38082	38.97089	7.86344	0.0831809	0.25153042	2.4854729	20	3 17.9	20.2
410440 2008 CX_{6}	17.6	X	91.79165	24.82175	89.75864	3.01907	0.1405855	0.25863479	2.4397468	20	4 23.8	20.6
410441 2008 CP_{12}	17.6	X	62.05152	330.09501	119.59777	7.02077	0.1004813	0.24316116	2.5421816	20	1 29.9	20.5
410442 2008 CB_{23}	16.7	X	210.02382	268.57589	330.26366	9.24928	0.0597452	0.22823328	2.6518568	20	—	—
410443 2008 CF_{30}	17.9	X	106.50280	301.77102	87.20079	2.35363	0.0781732	0.24121479	2.5558386	20	1 11.5	21.2
410444 2008 CC_{44}	17.5	X	120.25458	353.56028	78.50556	4.36825	0.2125590	0.25298934	2.4759084	20	4 12.2	21.1
410445 2008 CZ_{59}	17.1	X	284.53203	10.05703	180.82389	3.59399	0.1048384	0.23055653	2.6340121	20	—	—
410446 2008 CF_{66}	17.2	X	248.70420	100.19968	108.95923	3.22867	0.1431103	0.22646376	2.6656527	20	—	—
410447 2008 CU_{71}	17.2	X	358.95132	282.96169	233.66868	3.08037	0.1735628	0.24294539	2.5436866	20	1 7.1	19.8
410448 2008 CE_{72}	17.4	X	10.77582	14.09869	126.57186	3.98180	0.1450812	0.24185418	2.5513321	20	1 10.2	20.0
410449 2008 CZ_{79}	16.8	X	175.97736	335.03266	350.44420	8.82414	0.0832870	0.23871365	2.5736602	20	1 17.1	20.6
410450 2008 CR_{86}	18.1	X	118.58712	356.53513	88.34127	3.60748	0.1745531	0.25505959	2.4624926	20	4 22.1	21.5
410451 2008 CH_{106}	17.0	X	241.08050	112.53624	90.00403	5.94395	0.1061097	0.22431977	2.6826108	20	—	—
410452 2008 CU_{108}	17.5	X	177.98875	2.97576	23.70358	5.68210	0.1845312	0.25928351	2.4356756	20	4 5.1	21.4
410453 2008 CL_{109}	16.5	X	156.76686	20.75003	330.45472	12.66017	0.1794575	0.23711600	2.5852079	20	2 5.4	20.5
410454 2008 CF_{117}	16.6	X	304.51113	208.75040	312.49009	11.60000	0.1998383	0.22977556	2.6399771	20	—	—
410455 2008 CK_{123}	16.8	X	233.60922	229.79918	319.07337	11.49574	0.0761202	0.22085031	2.7106329	20	—	—
410456 2008 CN_{123}	16.8	X	232.35634	127.00729	149.07435	15.40302	0.0858604	0.23934499	2.5691324	20	1 12.8	20.7
410457 2008 CB_{133}	17.0	X	176.65779	122.40509	153.37532	9.03461	0.1789298	0.22240335	2.6979993	20	—	—
410458 2008 CL_{144}	17.4	X	101.48553	110.47768	2.23239	8.11706	0.2946934	0.26070482	2.4268151	20	5 20.8	21.2
410459 2008 CT_{150}	17.2	X	353.40272	174.77740	327.25794	12.44454	0.1194670	0.23651542	2.5895825	20	—	—
410460 2008 CQ_{156}	17.3	X	207.09665	136.02395	131.61556	6.03411	0.0178440	0.23002746	2.6380494	20	—	—
410461 2008 CJ_{179}	16.6	X	289.71102	33.24143	131.83368	14.53832	0.1951565	0.22421668	2.6834331	20	—	—
410462 2008 CB_{180}	16.2	X	232.26390	112.11820	93.45437	11.80353	0.2699132	0.21791082	2.7349550	20	12 24.1	20.2
410463 2008 CL_{180}	17.0	X	353.58735	337.94882	187.50122	14.71741	0.1427353	0.24269922	2.5454064	20	1 12.2	20.1
410464 2008 CJ_{182}	16.6	X	306.64536	19.78774	133.04672	14.06422	0.1012038	0.22827534	2.6515310	20	—	—
410465 2008 CW_{190}	18.1	X	84.93477	327.54524	338.83001	18.88401	0.0502879	0.37278515	1.9120400	20	—	—
410466 2008 CM_{196}	17.0	X	255.64784	355.82395	182.42342	4.66243	0.0782854	0.21415404	2.7668473	20	—	—
410467 2008 CO_{197}	17.5	X	219.12040	98.66744	165.52962	5.55831	0.0623693	0.23210591	2.6222771	20	—	—
410468 2008 CB_{199}	16.5	X	164.05807	325.58671	329.22264	12.22317	0.1771218	0.22446287	2.6814706	20	—	—
410469 2008 CX_{201}	17.0	X	142.23472	73.77057	181.45189	8.70200	0.1152479	0.20937669	2.8087764	20	12 9.8	21.5
410470 2008 CH_{202}	17.8	X	171.30674	23.35253	18.73385	3.28511	0.1679113	0.25938669	2.4350297	20	4 17.1	21.7
410471 2008 CZ_{207}	17.8	X	148.94010	240.58675	171.72510	4.09521	0.1497130	0.25612128	2.4556828	20	4 8.8	21.5
410472 2008 CB_{212}	17.0	X	240.81648	172.81468	39.10232	7.33371	0.2177713	0.22291703	2.6938530	20	—	—
410473 2008 CH_{212}	17.0	X	301.97964	116.39113	80.72636	5.19081	0.0433578	0.23581158	2.5947327	20	—	—
410474 2008 CY_{214}	17.7	X	59.22970	217.94564	243.58766	2.19730	0.1821207	0.24463655	2.5319502	20	2 18.7	20.2
410475 Robertschulz	17.5	X	238.29791	308.18193	255.65677	4.05613	0.0792652	0.22460953	2.6803032	20	—	—
410476 2008 DO_{4}	17.5	X	99.78116	175.29971	131.52646	22.76038	0.0578881	0.37748761	1.8961277	20	—	—
410477 2008 DW_{11}	17.9	X	134.84799	343.34252	104.00552	2.42028	0.1819778	0.26195253	2.4191028	20	5 12.2	21.4
410478 2008 DN_{12}	17.4	X	322.22853	7.56407	140.82928	15.52689	0.0694279	0.23344149	2.6122657	20	—	—
410479 2008 DY_{13}	17.9	X	149.85059	11.28887	48.97995	2.88379	0.2314650	0.25866469	2.4395587	20	4 24.7	21.8
410480 2008 DM_{17}	17.9	X	346.40421	153.01508	2.91501	2.03834	0.1056785	0.23693688	2.5865107	20	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410481 2008 DZ_{26}	16.4	X	232.96052	121.69539	94.79527	7.81759	0.2415348	0.21848056	2.7301983	20	—	—
410482 2008 DP_{27}	17.5	X	346.54291	66.01893	0.59091	20.07070	0.1187447	0.37912133	1.8906765	20	—	—
410483 2008 DF_{28}	17.0	X	152.33518	343.29129	2.29208	11.85777	0.0346002	0.23631434	2.5910512	20	1 11.1	20.8
410484 2008 DG_{31}	17.8	X	140.98376	245.32134	170.39817	3.79133	0.1304305	0.25580065	2.4577344	20	4 2.9	21.2
410485 2008 DU_{31}	17.1	X	92.72032	15.73775	94.16801	3.21448	0.1315531	0.25231739	2.4803022	20	4 17.9	20.2
410486 2008 DE_{32}	18.0	X	345.71280	69.27481	353.83259	20.11429	0.0247231	0.37685756	1.8982405	20	—	—
410487 2008 DE_{38}	16.9	X	321.40342	7.94845	185.71259	11.94528	0.1305124	0.23481756	2.6020502	20	1 5.9	20.5
410488 2008 DJ_{44}	17.3	X	27.65879	310.77351	153.22928	13.94052	0.2005568	0.23800680	2.5787534	20	—	—
410489 2008 DN_{54}	16.4	X	278.29547	202.45852	5.69792	13.40580	0.1972943	0.23001382	2.6381537	20	—	—
410490 2008 DQ_{55}	16.6	X	356.74104	123.98888	357.48722	14.27797	0.1274295	0.23292273	2.6161429	20	—	—
410491 2008 DF_{64}	17.9	X	152.69208	308.72817	130.57229	3.35191	0.1739525	0.26122393	2.4235989	20	5 18.8	21.7
410492 2008 DQ_{67}	17.2	X	317.00945	338.21636	192.55045	14.02137	0.1242809	0.23077463	2.6323523	20	—	—
410493 2008 DZ_{68}	16.7	X	57.32637	73.39151	15.16180	22.18740	0.0853165	0.23423340	2.6063746	20	1 30.9	20.3
410494 2008 DG_{83}	17.1	X	44.49354	163.70011	327.21393	4.02683	0.1628775	0.24216724	2.5491327	20	3 2.5	19.3
410495 2008 DR_{87}	16.8	X	144.40744	6.42804	1.52247	4.75119	0.1366819	0.23731215	2.5837832	20	2 9.3	20.6
410496 2008 ES_{14}	17.2	X	219.85506	221.73476	3.47388	8.92442	0.1154034	0.21804853	2.7338034	20	—	—
410497 2008 EG_{15}	17.1	X	126.94890	12.55801	9.64271	7.90216	0.0752856	0.23447533	2.6045814	20	2 1.4	20.7
410498 2008 EC_{22}	16.6	X	170.64906	284.70139	10.11435	11.19102	0.0492712	0.22123477	2.7074917	20	—	—
410499 2008 ES_{30}	17.3	X	249.10712	198.25805	22.13758	3.46903	0.0789347	0.22664199	2.6642551	20	—	—
410500 2008 EX_{35}	17.6	X	35.75226	114.12210	4.07469	28.63966	0.2207765	0.24104324	2.5570511	20	2 16.4	20.4
410501 2008 EO_{42}	16.9	X	138.68690	298.62864	39.93162	5.83490	0.0127805	0.22549818	2.6732568	20	—	—
410502 2008 EC_{44}	17.9	X	331.28758	115.27329	22.96597	19.37659	0.0647309	0.38685261	1.8654017	20	—	—
410503 2008 EX_{54}	16.9	X	285.10031	354.94772	181.96991	12.78337	0.0931922	0.22231339	2.6987271	20	—	—
410504 2008 EX_{73}	17.0	X	192.09586	216.52300	48.04768	5.77935	0.1158376	0.21995559	2.7179787	20	—	—
410505 2008 EP_{82}	16.7	X	292.79165	227.37549	319.44691	10.73810	0.1322564	0.22942563	2.6426608	20	—	—
410506 2008 EV_{82}	16.6	X	290.19463	219.81217	329.77790	13.11573	0.1987411	0.22852260	2.6496181	20	—	—
410507 2008 EM_{88}	18.1	X	94.37530	146.90097	171.10902	22.60649	0.0691769	0.37597221	1.9012193	20	—	—
410508 2008 EM_{99}	15.8	X	221.06615	200.89792	44.85419	14.28985	0.1255114	0.22034723	2.7147572	20	—	—
410509 2008 EV_{110}	17.5	X	31.68664	45.01634	75.42347	4.51264	0.1528233	0.24046041	2.5611813	20	1 22.8	19.8
410510 2008 EC_{115}	16.5	X	14.68406	140.37892	350.39741	22.24732	0.0891037	0.23496251	2.6009799	20	1 17.2	20.0
410511 2008 EP_{116}	17.2	X	274.26624	164.91975	25.06273	6.55930	0.0703143	0.22321966	2.6914176	20	—	—
410512 2008 EU_{118}	17.0	X	237.24100	64.75683	164.34093	9.31286	0.1543858	0.22763381	2.6565105	20	—	—
410513 2008 EX_{125}	17.6	X	28.37401	142.49033	0.63030	12.58421	0.2348024	0.24275339	2.5450277	20	2 23.3	19.5
410514 2008 EC_{128}	16.2	X	149.41997	352.24322	11.49782	13.88995	0.1959730	0.23791100	2.5794456	20	2 18.9	20.4
410515 2008 EJ_{139}	17.0	X	227.05164	12.00362	210.01003	8.77466	0.0948913	0.21860226	2.7291848	20	—	—
410516 2008 EG_{143}	17.1	X	169.51796	113.27614	206.27458	10.61804	0.1234929	0.23049367	2.6344910	20	1 3.8	21.3
410517 2008 EJ_{148}	17.0	X	36.60780	76.83877	6.23630	13.96566	0.0622843	0.23232117	2.6206571	20	—	—
410518 2008 EN_{152}	16.5	X	12.86412	80.36154	46.12898	14.60036	0.0319306	0.23111146	2.6297940	20	1 5.9	20.1
410519 2008 EA_{153}	17.0	X	119.87948	293.56978	57.85856	6.60485	0.0436797	0.22405791	2.6847006	20	—	—
410520 2008 EG_{156}	16.1	X	352.85510	81.51279	162.31571	10.16154	0.1267662	0.17524419	3.1625711	20	5 13.3	20.0
410521 2008 EQ_{158}	17.5	X	213.49967	62.52615	151.78005	5.16081	0.1076684	0.21308648	2.7760809	20	—	—
410522 2008 ET_{162}	16.6	X	94.18835	348.51922	30.70223	10.13433	0.0894897	0.22334639	2.6903994	20	—	—
410523 2008 ES_{165}	17.1	X	194.37212	56.21506	198.51935	12.24860	0.0840621	0.21868455	2.7285001	20	—	—
410524 2008 EC_{166}	16.5	X	95.84164	215.36342	202.67543	21.66511	0.0370278	0.23523285	2.5989867	20	1 24.5	20.4
410525 2008 EU_{168}	16.7	X	345.30269	131.97371	24.25781	10.28798	0.0856863	0.23086707	2.6316496	20	—	—
410526 2008 EW_{168}	16.6	X	190.77755	207.57125	41.73459	9.31098	0.1537747	0.21629995	2.7485170	20	—	—
410527 2008 FF_{1}	18.2	X	120.27416	114.16402	172.19195	22.79835	0.0656200	0.37406356	1.9076811	20	—	—
410528 2008 FQ_{2}	16.3	X	295.94421	209.94624	352.99204	14.12198	0.0521467	0.23425573	2.6062090	20	—	—
410529 2008 FK_{4}	16.7	X	168.56259	332.10259	7.44292	13.58056	0.0947775	0.23618801	2.5919750	20	1 30.6	20.7
410530 2008 FK_{5}	17.9	X	155.46740	265.23092	25.51827	21.26101	0.0177646	0.38294018	1.8780858	20	—	—
410531 2008 FO_{7}	16.6	X	278.50196	29.10517	165.68774	12.72291	0.2141551	0.22539314	2.6740873	20	—	—
410532 2008 FE_{11}	17.3	X	6.59030	284.13885	142.37586	9.82675	0.0706850	0.22325281	2.6911512	20	—	—
410533 2008 FR_{37}	17.3	X	284.68196	51.75345	124.15847	3.48073	0.0354069	0.22150545	2.7052855	20	—	—
410534 2008 FN_{39}	17.9	X	314.62244	276.87063	189.63830	22.08587	0.0516011	0.37593752	1.9013363	20	—	—
410535 2008 FW_{49}	16.9	X	305.25992	325.18001	187.88627	11.12012	0.0193609	0.22197480	2.7014707	20	—	—
410536 2008 FE_{50}	16.9	X	132.32944	333.47743	20.41467	5.78839	0.0462794	0.22740693	2.6582771	20	—	—
410537 2008 FV_{55}	16.9	X	216.19471	189.68877	19.84607	8.48638	0.1615755	0.21243295	2.7817716	20	12 23.9	21.1
410538 2008 FS_{56}	17.2	X	95.26207	158.23671	139.91648	2.59274	0.0194559	0.20705201	2.8297609	20	12 6.5	21.2
410539 2008 FR_{59}	16.8	X	63.73082	55.52199	31.31480	15.05060	0.0712342	0.23347246	2.6120347	20	2 2.5	20.3
410540 2008 FK_{60}	16.7	X	249.70967	38.63837	150.02211	6.97083	0.2328084	0.21760782	2.7374932	20	12 29.6	20.2
410541 2008 FW_{69}	16.7	X	142.14576	187.80627	34.73195	14.01398	0.1551750	0.19546431	2.9405218	20	10 29.5	21.4
410542 2008 FM_{73}	17.2	X	194.38357	105.61027	163.27358	9.18044	0.0248924	0.22069340	2.7119176	20	—	—
410543 2008 FC_{75}	17.2	X	95.83687	244.01935	106.94224	6.02405	0.1273186	0.21691257	2.7433396	20	—	—
410544 2008 FC_{83}	17.7	X	344.29989	345.79774	140.32690	3.97640	0.1278740	0.22655805	2.6649131	20	—	—
410545 2008 FL_{97}	17.6	X	52.06728	216.27415	172.60805	5.58075	0.0073032	0.21929404	2.7234422	20	—	—
410546 2008 FB_{101}	17.0	X	65.81938	314.57506	181.26211	13.47232	0.1155569	0.24472877	2.5313141	20	4 12.5	19.9
410547 2008 FU_{103}	17.2	X	290.64870	119.45996	87.96464	5.88438	0.0763227	0.22657592	2.6647729	20	—	—
410548 2008 FO_{111}	16.6	X	104.70905	243.77754	193.90578	26.23982	0.1313737	0.23817860	2.5775131	20	3 19.2	20.2
410549 2008 FE_{122}	17.3	X	91.45572	282.60319	42.38411	21.51507	0.1028604	0.37148745	1.9164903	20	—	—
410550 2008 FR_{132}	16.7	X	32.62433	341.98090	75.74436	6.04561	0.0794510	0.21674577	2.7447468	20	—	—
410551 2008 FA_{135}	17.2	X	18.37939	335.36356	128.38502	2.85815	0.0273661	0.22589562	2.6701203	20	—	—
410552 2008 GG_{6}	17.2	X	225.67877	96.28415	94.39740	6.64567	0.0783483	0.21129567	2.7917444	20	12 22.6	21.0
410553 2008 GX_{6}	16.7	X	115.20297	262.74591	49.82575	6.71571	0.1143147	0.20853419	2.8163364	20	—	—
410554 2008 GJ_{10}	17.3	X	203.49457	28.70228	208.04159	1.63967	0.1634402	0.21183761	2.7869809	20	—	—
410555 2008 GJ_{17}	16.7	X	141.61226	137.96160	177.52779	11.70080	0.1756828	0.22063158	2.7124241	20	—	—
410556 2008 GA_{20}	17.1	X	89.74812	153.97310	183.45847	9.99532	0.0910278	0.20609444	2.8385194	20	—	—
410557 2008 GF_{26}	16.6	X	346.30087	309.21496	177.11063	8.06963	0.0593553	0.22592384	2.6698980	20	—	—
410558 2008 GM_{32}	17.2	X	358.38030	60.82098	49.58913	14.10608	0.1297343	0.22480161	2.6787762	20	—	—
410559 2008 GO_{32}	17.1	X	327.80540	83.97451	77.04826	7.21800	0.0462020	0.22664135	2.6642601	20	—	—
410560 2008 GL_{34}	17.0	X	69.50225	303.18938	5.38837	2.10532	0.1490647	0.19997700	2.8961164	20	12 2.2	21.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410561 2008 GD_{35}	17.0	X	136.19489	184.72142	157.53590	6.68951	0.0487978	0.22128341	2.7070949	20	—	—
410562 2008 GM_{38}	16.3	X	60.11050	253.01024	61.91872	11.37921	0.1052714	0.19320920	2.9633585	20	11 23.1	20.5
410563 2008 GO_{40}	17.1	X	262.69301	133.54208	52.79322	10.12948	0.0675937	0.21746323	2.7387065	20	—	—
410564 2008 GS_{40}	17.0	X	289.39245	14.24689	170.60383	8.31413	0.0060930	0.22225422	2.6992061	20	—	—
410565 2008 GD_{42}	16.8	X	191.34612	154.11930	100.09366	4.21252	0.0711198	0.21417292	2.7666847	20	—	—
410566 2008 GT_{44}	16.6	X	114.91863	292.20823	44.20621	24.64958	0.2646388	0.21154110	2.7895846	20	—	—
410567 2008 GF_{48}	17.2	X	269.01818	8.58649	207.44132	4.96238	0.0783613	0.23025827	2.6362862	20	—	—
410568 2008 GF_{53}	17.1	X	141.87741	221.61747	58.14139	5.88668	0.1282440	0.20919161	2.8104328	20	—	—
410569 2008 GP_{68}	17.0	X	277.06017	31.32483	134.17079	5.80689	0.0952971	0.21480776	2.7612310	20	—	—
410570 2008 GS_{68}	16.9	X	210.09768	187.79543	70.65340	10.14659	0.1293893	0.21665460	2.7455168	20	—	—
410571 2008 GQ_{77}	17.2	X	30.60791	355.81022	115.84027	6.70963	0.2246013	0.23299680	2.6155884	20	1 7.9	19.2
410572 2008 GT_{78}	17.2	X	108.46448	248.96799	95.01405	3.03831	0.0070074	0.21505706	2.7590967	20	—	—
410573 2008 GT_{82}	16.5	X	208.21139	165.43746	43.04279	13.16973	0.0746958	0.21031384	2.8004263	20	12 23.2	20.7
410574 2008 GR_{89}	16.9	X	171.53354	273.26931	11.28465	2.46583	0.0755909	0.21851444	2.7299161	20	—	—
410575 2008 GE_{90}	16.6	X	62.42565	10.51473	42.73616	6.54666	0.0334223	0.22405015	2.6847626	20	—	—
410576 2008 GS_{90}	17.2	X	0.06022	76.07220	27.82485	12.92753	0.1515946	0.22556215	2.6727514	20	—	—
410577 2008 GL_{99}	16.7	X	240.27266	162.91617	53.77415	8.04964	0.0946743	0.21771017	2.7366352	20	—	—
410578 2008 GF_{102}	16.5	X	144.30932	111.66137	202.91933	13.15139	0.0783896	0.21547236	2.7555502	20	—	—
410579 2008 GT_{103}	17.3	X	19.21618	299.63253	187.11158	17.20877	0.2091971	0.23522737	2.5990271	20	1 1.9	20.2
410580 2008 GV_{103}	17.4	X	267.26187	28.33736	163.97166	8.44795	0.0868308	0.22005259	2.7171799	20	—	—
410581 2008 GG_{110}	18.6	X	19.52900	255.28169	182.73496	21.59312	0.1552679	0.38650739	1.8665123	20	—	—
410582 2008 GN_{113}	17.8	X	117.58586	276.83492	16.21415	20.17659	0.0778839	0.37103290	1.9180552	20	—	—
410583 2008 GJ_{114}	17.1	X	345.12927	112.26065	35.92547	15.29546	0.0634486	0.23020343	2.6367049	20	—	—
410584 2008 GZ_{121}	17.1	X	11.33027	337.28883	138.38868	3.79425	0.0816171	0.22774837	2.6556196	20	—	—
410585 2008 GU_{123}	16.8	X	172.18023	322.39948	359.90093	9.45773	0.0317594	0.22880382	2.6474465	20	1 5.7	20.6
410586 2008 GN_{128}	15.9	X	296.17098	116.11763	90.27223	18.26041	0.1105898	0.22865768	2.6485744	20	—	—
410587 2008 GS_{129}	16.9	X	163.76350	98.70900	190.72879	14.18299	0.1000385	0.21431526	2.7654596	20	—	—
410588 2008 GR_{132}	16.9	X	112.77563	240.63286	46.98036	9.84771	0.0964042	0.20016127	2.8943387	20	12 15.9	21.5
410589 2008 GZ_{136}	16.8	X	118.14711	206.71485	142.80873	6.74558	0.0457419	0.22031669	2.7150080	20	—	—
410590 2008 GB_{140}	16.3	X	68.27124	280.70461	33.09797	14.20559	0.1459130	0.19632774	2.9318941	20	12 3.9	20.8
410591 2008 GF_{142}	17.5	X	207.35046	139.38429	49.79704	21.70784	0.0602204	0.36720094	1.9313761	20	—	—
410592 2008 GU_{145}	15.8	X	196.80519	206.60840	59.32669	26.32522	0.0874062	0.21665069	2.7455499	20	—	—
410593 2008 GL_{146}	16.4	X	147.66842	155.21185	93.93987	13.19618	0.0961725	0.20119920	2.8843760	20	12 6.9	21.0
410594 2008 HZ_{2}	16.5	X	161.11504	208.91783	48.09048	9.23749	0.1186680	0.21256605	2.7806102	20	12 29.6	20.9
410595 2008 HG_{4}	16.0	X	72.46533	81.21333	41.41593	15.71389	0.0973205	0.24168342	2.5525337	20	4 5.6	19.2
410596 2008 HJ_{25}	17.2	X	105.48453	141.87062	220.98230	5.56312	0.0485291	0.22035590	2.7146860	20	—	—
410597 2008 HW_{25}	16.3	X	28.20868	175.66051	188.64536	11.83812	0.0645917	0.19827028	2.9127126	20	12 10.3	20.4
410598 2008 HN_{27}	17.0	X	126.00979	147.88682	112.48957	14.04091	0.1459407	0.19751892	2.9200946	20	12 1.5	21.9
410599 2008 HL_{32}	16.8	X	101.62762	222.22866	71.63042	7.48229	0.2034028	0.19761208	2.9191767	20	12 18.9	21.6
410600 2008 HG_{35}	18.3	X	303.25647	305.54132	202.09195	20.49885	0.0589529	0.37957131	1.8891820	20	—	—
410601 2008 HC_{54}	17.0	X	174.26096	205.41902	86.53569	4.37836	0.0628076	0.21500529	2.7595395	20	—	—
410602 2008 HS_{59}	17.0	X	194.91054	65.80054	174.01140	4.44699	0.0558260	0.20867304	2.8150870	20	—	—
410603 2008 HY_{66}	16.7	X	101.35940	35.93294	197.56290	1.86799	0.2091631	0.18667060	3.0321599	20	10 9.0	21.5
410604 2008 JU_{17}	16.8	X	127.05197	197.58669	176.60305	12.36071	0.0663449	0.22388248	2.6861029	20	1 18.2	20.7
410605 2008 JF_{24}	16.1	X	57.66163	341.77775	106.74396	22.63530	0.0485862	0.22395647	2.6855112	20	1 20.5	19.6
410606 2008 JK_{31}	17.3	X	15.48765	283.19820	191.18573	12.64462	0.1405719	0.22680805	2.6629545	20	—	—
410607 2008 JZ_{37}	17.2	X	228.75946	17.91834	197.71431	13.14497	0.0783848	0.21146601	2.7902450	20	—	—
410608 2008 KH_{25}	17.2	X	178.68263	119.77001	164.55794	5.42122	0.0804714	0.21504262	2.7592202	20	—	—
410609 2008 LG	16.2	X	281.52225	53.40372	190.60197	14.17630	0.1564346	0.22771560	2.6558744	20	1 18.1	20.5
410610 2008 LK_{13}	17.1	X	266.83255	12.42939	187.79898	12.33545	0.1182363	0.21765379	2.7371077	20	—	—
410611 2008 MM	15.5	X	83.23114	258.24514	56.91824	21.03999	0.3871153	0.18976563	2.9991005	20	—	—
410612 2008 MV_{4}	16.3	X	22.47356	124.99730	215.98834	14.29934	0.2895795	0.17925356	3.1152353	20	12 1.4	20.2
410613 2008 NJ_{2}	15.8	X	286.56591	53.73857	125.82922	26.13477	0.1032434	0.21960260	2.7208905	20	—	—
410614 2008 OL_{11}	16.6	X	42.31508	184.95411	161.34602	5.93165	0.3160138	0.17925745	3.1151902	20	—	—
410615 2008 OT_{13}	16.1	X	27.62491	225.02548	138.00209	9.16646	0.1608273	0.18128237	3.0919491	20	12 17.2	20.3
410616 2008 OG_{23}	16.7	X	3.37589	46.24946	311.78295	4.80633	0.1957574	0.17364675	3.1819372	20	11 3.5	20.4
410617 2008 PN_{3}	15.5	X	69.87218	14.64122	284.30381	24.72712	0.2070935	0.17986236	3.1082017	20	11 23.5	20.6
410618 2008 PP_{5}	15.9	X	350.67333	76.57083	306.87065	15.87404	0.1624150	0.17598367	3.1537055	20	11 7.8	19.9
410619 Fabry	15.8	X	343.83752	243.66256	152.06225	17.04850	0.2289692	0.17453369	3.1711482	20	11 25.4	19.4
410620 2008 PG_{11}	15.8	X	72.33253	330.27289	314.96211	13.65491	0.2024545	0.17901871	3.1179593	20	11 5.0	20.8
410621 2008 PV_{21}	15.7	X	46.72188	201.30050	110.20141	5.90623	0.1765371	0.17451753	3.1713439	20	11 10.9	20.1
410622 2008 QF	21.5	X	334.41201	136.38858	192.58828	3.78409	0.3773334	0.32916627	2.0774273	20	9 8.8	20.0
410623 2008 QX_{23}	16.3	X	98.17424	98.11425	161.48649	16.32749	0.2084739	0.17713220	3.1400583	20	11 8.3	21.6
410624 2008 QF_{34}	15.8	X	71.65665	136.71127	178.21889	15.99701	0.2150874	0.17818005	3.1277354	20	12 15.7	21.0
410625 2008 QK_{36}	16.6	X	344.93890	46.42651	337.78919	6.97113	0.1573082	0.17267344	3.1938831	20	10 30.9	20.3
410626 2008 QV_{47}	16.3	X	33.26462	327.96713	4.75904	9.24894	0.2007316	0.17203260	3.2018099	20	11 17.9	20.6
410627 2008 RG_{1}	20.7	X	334.40583	257.38278	347.83374	13.09256	0.4428125	0.65304952	1.3157457	20	—	—
410628 2008 RS_{3}	15.7	X	318.10470	221.77463	183.38962	10.56472	0.0764817	0.16850569	3.2463325	20	10 18.2	19.9
410629 2008 RQ_{12}	16.6	X	295.89269	135.79109	328.18392	4.61720	0.1178712	0.17425620	3.1745138	20	11 23.3	20.7
410630 2008 RD_{19}	15.8	X	322.98189	255.94703	188.33824	15.17790	0.2792728	0.17307976	3.1888825	20	12 10.2	18.9
410631 2008 RA_{20}	16.7	X	57.65429	163.67698	191.43206	10.19770	0.1738841	0.18130049	3.0917431	20	—	—
410632 2008 RA_{30}	16.7	X	13.15021	202.05877	173.75896	0.72900	0.1644189	0.17476458	3.1683545	20	12 10.5	20.6
410633 2008 RR_{33}	16.7	X	220.90716	356.66712	322.31568	3.58385	0.0635664	0.21221588	2.7836682	20	2 26.4	20.8
410634 2008 RN_{37}	17.0	X	336.03461	247.41848	186.46860	2.43719	0.0937093	0.17822069	3.1272599	20	12 20.5	20.9
410635 2008 RP_{46}	15.9	X	15.76480	213.35837	186.87328	17.53942	0.2003069	0.17762424	3.1342567	20	—	—
410636 2008 RY_{51}	16.1	X	80.23466	149.51831	180.96112	12.99387	0.2400081	0.18500895	3.0502883	20	—	—
410637 2008 RU_{67}	15.6	X	77.37075	271.30062	11.43643	12.90931	0.2846653	0.17470527	3.1690716	20	11 15.9	20.9
410638 2008 RQ_{71}	16.5	X	347.26239	49.50845	331.98570	8.21368	0.0872791	0.17446423	3.1719898	20	10 27.8	20.7
410639 2008 RZ_{74}	16.0	X	116.56055	271.83000	346.94936	15.57661	0.0924117	0.17675664	3.1445045	20	11 6.0	21.1
410640 2008 RC_{87}	15.6	X	0.73710	337.80395	296.41583	7.30532	0.0332194	0.14638469	3.5656520	20	7 1.9	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410641 2008 RX_{91}	16.2	X	293.77870	78.35207	0.41016	16.14441	0.0784382	0.16914322	3.2381700	20	10 19.0	20.6
410642 2008 RR_{106}	16.3	X	26.53272	265.40036	74.81636	0.48505	0.2186492	0.17331224	3.1860302	20	11 23.4	20.3
410643 2008 RN_{111}	15.9	X	322.94715	44.47033	35.26153	9.74450	0.0695632	0.17503795	3.1650548	20	12 5.9	20.2
410644 2008 RK_{119}	16.7	X	42.88911	177.23232	194.54427	9.48504	0.0864440	0.17899422	3.1182436	20	—	—
410645 2008 RW_{131}	15.9	X	329.08819	46.72965	3.08385	9.31135	0.0422692	0.17410364	3.1763680	20	11 6.2	20.3
410646 2008 RG_{137}	15.8	X	56.35257	57.10514	259.80246	3.80463	0.1408200	0.17597475	3.1538121	20	11 22.0	20.3
410647 2008 RE_{138}	15.6	X	12.36421	20.47149	342.55959	11.03808	0.0742573	0.17592433	3.1544146	20	11 8.6	19.9
410648 2008 RA_{145}	16.2	X	218.10340	318.08911	188.02694	9.92740	0.0697308	0.17171248	3.2057881	20	10 14.9	20.9
410649 2008 SO	20.8	X	295.44030	72.06558	191.05192	7.13834	0.2336700	0.64181132	1.3310605	20	—	—
410650 2008 SQ_{1}	18.5	X	94.67034	151.01082	269.86961	6.71479	0.5836437	0.19411679	2.9541144	20	4 12.4	23.8
410651 2008 SX_{19}	16.6	X	341.17680	227.96683	190.02417	5.30849	0.1229402	0.17921801	3.1156472	20	12 10.6	20.3
410652 2008 SG_{27}	16.1	X	311.30851	248.91703	187.23170	8.34790	0.1375346	0.17096434	3.2151337	20	11 12.7	20.0
410653 2008 ST_{31}	16.1	X	32.36377	218.26481	163.33342	17.81010	0.2677413	0.18212617	3.0823916	20	—	—
410654 2008 SW_{44}	15.9	X	310.33559	292.43464	198.18937	14.75984	0.1304639	0.17993004	3.1074222	20	—	—
410655 2008 SC_{57}	15.9	X	324.97517	238.91078	201.88525	17.86413	0.1217651	0.17158243	3.2074077	20	12 10.3	20.1
410656 2008 SW_{66}	15.4	X	269.19244	247.43168	180.38539	16.30246	0.2336245	0.15630465	3.4131453	20	8 11.9	20.5
410657 2008 SF_{83}	16.3	X	13.63160	8.26461	34.77463	5.62406	0.1620562	0.17886761	3.1197150	20	—	—
410658 2008 SH_{137}	16.0	X	319.97591	25.35228	38.88428	10.38559	0.0593416	0.17025427	3.2240669	20	11 12.3	20.3
410659 2008 SJ_{150}	16.6	X	34.85861	274.97822	49.28760	0.90020	0.2518966	0.17274708	3.1929754	20	11 19.9	20.7
410660 2008 ST_{150}	16.3	X	359.23004	81.35068	306.48358	21.51119	0.4204559	0.17059704	3.2197468	20	—	—
410661 2008 SE_{151}	15.7	X	51.99064	107.92982	190.82064	30.21968	0.2980872	0.17271827	3.1933304	20	11 17.1	20.8
410662 2008 SD_{152}	16.4	X	32.70327	333.17370	28.00032	11.37388	0.0882719	0.17758023	3.1347745	20	12 7.9	20.8
410663 2008 SC_{157}	16.2	X	79.96848	122.07907	188.40006	13.84357	0.2491827	0.18043579	3.1016129	20	12 20.6	21.5
410664 2008 SJ_{158}	16.1	X	45.75372	179.59617	195.23173	12.49071	0.1631272	0.18152049	3.0892445	20	—	—
410665 2008 SG_{161}	15.3	X	317.66540	50.87272	12.20836	15.66763	0.0800307	0.17108449	3.2136281	20	11 3.3	19.6
410666 2008 SY_{173}	17.5	X	158.71374	46.38858	205.25999	21.06382	0.0458941	0.35069501	1.9915123	20	—	—
410667 2008 SG_{193}	15.6	X	338.56124	33.90489	50.15351	10.74713	0.0845496	0.17642213	3.1484781	20	—	—
410668 2008 SC_{202}	16.3	X	151.77085	336.50389	216.47558	9.56517	0.0117306	0.15841133	3.3828174	20	9 24.4	21.3
410669 2008 ST_{219}	16.1	X	0.49642	194.34596	192.75969	17.22468	0.1737621	0.17245352	3.1965979	20	12 5.9	20.2
410670 2008 SF_{267}	15.9	X	66.17110	79.00795	216.14879	22.63875	0.3310717	0.17378336	3.1802694	20	11 28.6	21.2
410671 2008 SU_{301}	16.3	X	36.90526	187.08471	180.73412	11.66801	0.0729334	0.17657211	3.1466949	20	12 20.6	20.8
410672 2008 TC_{97}	15.8	X	101.61657	17.99744	245.54561	6.68317	0.0795677	0.16963103	3.2319590	20	10 30.1	20.6
410673 2008 UT_{23}	16.2	X	303.61983	52.16327	44.31929	4.93656	0.1474039	0.17182842	3.2043459	20	11 23.3	20.0
410674 2008 UY_{55}	16.1	X	246.53681	80.40959	12.90468	16.49177	0.0688471	0.15924555	3.3709929	20	9 15.6	21.0
410675 2008 UZ_{66}	15.4	X	307.45287	103.48675	251.48774	8.60827	0.1058589	0.14631221	3.5668294	20	7 21.4	20.1
410676 2008 UA_{75}	18.4	X	239.33595	70.20712	1.44073	2.71913	0.0813751	0.31530941	2.1378543	20	8 21.2	20.6
410677 2008 UM_{169}	15.5	X	287.42460	303.86027	216.24963	21.25412	0.2501732	0.17314858	3.1880376	20	12 31.5	19.5
410678 2008 UC_{205}	14.9	X	11.50894	288.71970	117.23255	23.29708	0.2115372	0.17697701	3.1418936	20	—	—
410679 2008 US_{288}	18.9	X	268.30489	297.46412	82.22917	2.52218	0.1670170	0.31552322	2.1368883	20	6 29.9	21.4
410680 2008 UW_{360}	15.3	X	12.77772	313.42659	78.68100	18.46438	0.0837599	0.17145342	3.2090164	20	12 18.2	19.5
410681 2008 UX_{366}	15.4	X	348.82381	16.33353	52.20495	24.10463	0.1214803	0.17472688	3.1688102	20	—	—
410682 2008 VJ_{21}	18.3	X	49.14089	136.24260	91.87735	3.73870	0.0678688	0.30945095	2.1647521	20	7 24.6	20.4
410683 2008 VA_{56}	15.8	X	165.72170	199.49450	320.85974	8.81433	0.0290437	0.15025362	3.5041774	20	8 31.9	20.9
410684 2008 WR_{45}	18.0	X	102.02940	117.34607	57.56571	4.85145	0.0886585	0.30404704	2.1903265	20	7 26.2	20.7
410685 2008 WA_{59}	18.4	X	290.36951	112.91795	185.41032	5.71457	0.2467454	0.30531797	2.1842439	20	3 19.9	21.3
410686 2008 WU_{81}	19.0	X	255.36947	237.21355	133.53794	3.28428	0.1943396	0.30779212	2.1725230	20	5 26.8	21.9
410687 2008 WR_{128}	18.0	X	13.34822	178.55630	71.63232	4.82332	0.1329562	0.30282277	2.1962260	20	7 2.0	19.5
410688 2008 WF_{141}	17.2	X	139.55503	206.44295	274.43744	8.71242	0.0566863	0.30030962	2.2084618	20	6 21.6	19.7
410689 2008 XK_{18}	17.5	X	97.98155	298.22406	246.79637	6.36883	0.0418280	0.30387286	2.1911634	20	7 25.5	20.2
410690 2008 XT_{32}	17.9	X	70.81089	155.61391	47.80775	6.52546	0.0786678	0.30427412	2.1892366	20	7 23.5	20.4
410691 2008 XP_{41}	17.7	X	102.73775	76.42177	60.49023	5.53822	0.0471230	0.29196522	2.2503426	20	5 23.7	20.2
410692 2008 XM_{48}	17.2	X	184.94739	43.73551	107.92385	12.10701	0.1532147	0.22469493	2.6796241	20	9 21.8	21.6
410693 2008 XO_{49}	17.3	X	165.44163	31.18808	124.19035	10.32089	0.1711131	0.21886325	2.7270148	20	9 4.5	21.8
410694 2008 YE_{17}	17.5	X	58.35596	78.56837	110.23429	4.88287	0.0514267	0.28949396	2.2631311	20	6 4.7	19.9
410695 2008 YV_{18}	17.3	X	184.81473	318.37092	104.95042	8.51689	0.0831548	0.29242946	2.2479603	20	5 29.3	20.5
410696 2008 YA_{80}	17.6	X	173.33014	174.85789	273.76038	3.37859	0.0656410	0.29350838	2.2424480	20	6 18.7	20.6
410697 2008 YZ_{84}	17.2	X	2.60799	309.24253	278.15136	6.32963	0.0582296	0.28603176	2.2813568	20	4 28.2	19.7
410698 2008 YO_{103}	18.0	X	44.52063	71.48932	122.82593	3.40706	0.0864334	0.28681040	2.2772259	20	5 26.5	20.3
410699 2008 YB_{128}	18.4	X	106.08812	122.96054	20.66479	0.57024	0.1263692	0.28898889	2.2657672	20	6 18.9	21.4
410700 2008 YJ_{157}	17.1	X	93.47315	166.52660	347.56118	6.14447	0.1013406	0.28043785	2.3115944	20	6 12.9	20.0
410701 2008 YQ_{159}	17.7	X	185.01964	327.51615	113.78709	4.59892	0.0778015	0.29248341	2.2476839	20	6 22.6	20.6
410702 2008 YH_{162}	18.2	X	135.11599	217.32967	279.90171	6.39280	0.0785446	0.29755267	2.2220823	20	7 10.9	20.9
410703 2009 AN_{12}	17.6	X	278.26869	211.91917	110.20792	9.73261	0.1515911	0.29198623	2.2502346	20	4 27.0	20.6
410704 2009 AJ_{28}	17.8	X	203.49141	306.51905	123.81919	6.87023	0.0370961	0.29800713	2.2198227	20	7 3.1	20.4
410705 2009 AE_{33}	17.6	X	250.74467	117.78486	145.48232	5.50999	0.0943256	0.26485435	2.4014007	20	1 12.2	20.9
410706 2009 AD_{34}	18.1	X	103.04225	223.00166	292.65089	1.45916	0.1704877	0.28831175	2.2693134	20	7 7.8	21.2
410707 2009 AM_{40}	17.8	X	14.63589	86.88992	127.70866	8.14845	0.1625214	0.28183175	2.3039662	20	5 9.5	19.7
410708 2009 AA_{44}	18.1	X	125.94917	219.28348	272.90482	1.70501	0.0925890	0.29049572	2.2579252	20	6 23.4	20.9
410709 2009 BQ_{10}	16.2	X	353.15796	231.31641	315.81294	22.10391	0.2702198	0.26784490	2.3834925	20	1 22.7	18.3
410710 2009 BQ_{24}	18.1	X	106.85140	287.37744	231.49592	1.58443	0.2252492	0.28997935	2.2606049	20	7 21.8	21.4
410711 2009 BR_{26}	18.0	X	251.53273	262.16257	89.86107	4.34879	0.0321068	0.28988163	2.2611130	20	5 17.8	20.7
410712 2009 BO_{30}	17.3	X	309.79226	164.20774	117.97466	7.04634	0.1005827	0.28428531	2.2906906	20	4 23.1	19.9
410713 2009 BC_{39}	18.2	X	344.44530	227.68511	354.40566	2.24231	0.1105628	0.27474242	2.3434313	20	3 18.3	20.5
410714 2009 BV_{41}	17.7	X	296.43505	171.35385	31.82874	2.63304	0.1556931	0.25726382	2.4484068	20	—	—
410715 2009 BQ_{44}	18.4	X	356.94592	49.44527	156.21471	1.77443	0.1187770	0.27257784	2.3558214	20	3 16.3	20.5
410716 2009 BO_{56}	18.2	X	115.02319	49.32398	84.70450	6.53402	0.0536083	0.29327246	2.2436504	20	6 7.2	20.9
410717 2009 BV_{57}	17.3	X	157.81333	157.84191	314.95051	5.95007	0.0859371	0.29524433	2.2336494	20	7 5.1	20.3
410718 2009 BN_{66}	17.4	X	210.40436	59.66597	289.52560	5.64835	0.1456136	0.27677670	2.3319346	20	3 13.9	21.0
410719 2009 BJ_{67}	17.9	X	296.71197	40.01529	199.67418	1.61381	0.1658904	0.26414394	2.4057045	20	1 25.2	21.1
410720 2009 BC_{70}	16.7	X	216.24614	9.77274	107.57374	15.56972	0.1113684	0.22504668	2.6768312	20	9 14.9	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410721 2009 BR_{79}	17.2	X	49.62040	224.16940	342.18981	5.53033	0.0994603	0.28926246	2.2643384	20	6 24.9	19.6
410722 2009 BO_{80}	17.5	X	74.06889	155.14340	11.98212	5.57662	0.1361561	0.28505613	2.2865592	20	6 9.7	20.2
410723 2009 BU_{94}	18.0	X	143.78437	327.00371	145.47675	3.16526	0.1433842	0.29062788	2.2572407	20	6 20.6	21.2
410724 2009 BW_{100}	18.0	X	347.55334	60.93799	189.12229	0.86051	0.0938632	0.28475339	2.2881796	20	5 7.5	20.1
410725 2009 BV_{106}	17.8	X	200.09653	137.82011	292.92571	5.82839	0.1243983	0.29666766	2.2264994	20	6 23.6	20.9
410726 2009 BO_{108}	17.5	X	188.49535	304.14850	127.04952	5.87046	0.0405043	0.28762148	2.2729428	20	6 13.9	20.4
410727 2009 BT_{109}	18.4	X	108.44720	283.41331	211.15137	2.29454	0.0924001	0.28621294	2.2803939	20	6 4.4	21.2
410728 2009 BO_{184}	17.8	X	57.98080	298.53795	232.77452	3.76314	0.1790331	0.28232846	2.3012631	20	5 29.5	20.1
410729 2009 BQ_{184}	17.0	X	337.94404	8.94748	258.75397	8.47155	0.0382039	0.28992653	2.2608795	20	5 21.5	19.3
410730 2009 BP_{186}	17.2	X	304.50285	116.21785	116.42450	9.31773	0.1841084	0.26362170	2.4088806	20	1 23.6	20.2
410731 2009 CO_{24}	17.7	X	244.67374	218.09966	146.84131	6.90129	0.1328973	0.28917413	2.2647995	20	5 15.3	20.9
410732 2009 CF_{25}	18.3	X	271.17427	246.25808	1.61654	4.27232	0.1658958	0.25991222	2.4317462	20	1 10.3	22.1
410733 2009 CY_{26}	18.1	X	322.62826	172.75158	66.70860	2.62517	0.1027992	0.27171681	2.3607955	20	3 10.7	20.8
410734 2009 CQ_{27}	18.1	X	300.10014	201.70317	44.65199	3.46441	0.1302108	0.26695112	2.3888097	20	2 13.8	21.1
410735 2009 CR_{29}	18.1	X	222.47654	336.60218	52.41950	2.27901	0.1046324	0.28875139	2.2670094	20	5 23.0	21.0
410736 2009 CX_{31}	18.1	X	5.25760	90.08452	114.57385	1.88333	0.1194261	0.27300587	2.3533583	20	3 31.6	20.3
410737 2009 CZ_{32}	17.8	X	274.62723	290.82053	352.56261	4.68981	0.1316077	0.26847952	2.3797350	20	3 1.1	21.2
410738 2009 CM_{40}	17.5	X	36.02854	228.80031	340.08339	7.22767	0.1328331	0.28519492	2.2858173	20	6 7.9	19.8
410739 2009 CN_{49}	17.9	X	21.29065	176.89243	24.59876	6.02098	0.0724486	0.27625411	2.3348745	20	4 23.8	20.2
410740 2009 CM_{52}	18.6	X	66.14295	185.61992	336.15084	2.53742	0.0938727	0.28155466	2.3054776	20	5 12.5	21.0
410741 2009 CQ_{53}	17.7	X	90.71227	123.82083	45.77168	4.38460	0.1530249	0.28796576	2.2711308	20	7 10.9	20.6
410742 2009 CJ_{55}	18.1	X	156.38553	132.00540	338.68506	5.71097	0.1138591	0.29272522	2.2464458	20	7 1.2	21.3
410743 2009 CX_{55}	16.6	X	138.65640	296.86783	161.78332	10.73504	0.1331798	0.19879224	2.9076119	20	5 28.7	21.3
410744 2009 CR_{63}	17.4	X	9.11895	122.18747	71.95429	3.18404	0.1403175	0.27075172	2.3664022	20	3 23.2	19.3
410745 2009 DA_{9}	17.5	X	258.73202	8.15532	241.55248	2.97331	0.1600650	0.25383455	2.4704092	20	—	—
410746 2009 DM_{17}	17.4	X	334.78147	289.17422	327.69905	3.65424	0.1105857	0.27664610	2.3326684	20	4 20.7	19.9
410747 2009 DU_{20}	18.5	X	222.91327	165.67009	256.65516	1.48883	0.1309258	0.30088690	2.2056361	20	7 7.3	21.5
410748 2009 DP_{22}	17.8	X	263.72225	292.76506	0.57595	6.56714	0.1058229	0.27542374	2.3395651	20	3 4.5	20.9
410749 2009 DX_{23}	16.7	X	325.09358	214.77998	8.05446	13.75051	0.2207890	0.26299980	2.4126765	20	2 6.8	19.8
410750 2009 DO_{36}	18.4	X	139.59917	300.61677	177.05142	2.24346	0.1631407	0.28998480	2.2605766	20	6 24.4	21.7
410751 2009 DK_{47}	17.6	X	268.95498	211.16548	49.41026	5.37910	0.1665797	0.26090305	2.4255857	20	1 24.2	21.2
410752 2009 DQ_{47}	17.9	X	52.82254	72.16221	87.36653	1.47740	0.1532568	0.27542550	2.3395551	20	4 27.5	20.1
410753 2009 DH_{52}	18.1	X	187.50178	332.79899	109.73082	7.54605	0.1115733	0.29593607	2.2301673	20	6 26.3	21.2
410754 2009 DM_{55}	18.2	X	58.43867	142.37612	355.65262	7.55390	0.0487675	0.27143914	2.3624053	20	3 20.9	21.0
410755 2009 DZ_{57}	17.6	X	322.40417	161.15131	58.66864	1.84082	0.1111511	0.26449951	2.4035480	20	2 11.0	20.3
410756 2009 DW_{61}	17.3	X	177.76380	252.68647	140.34611	6.44628	0.1095371	0.27517393	2.3409808	20	4 12.2	20.7
410757 2009 DV_{71}	17.5	X	205.16545	250.99426	1.11999	11.77232	0.2241895	0.23699896	2.5860590	20	—	—
410758 2009 DM_{72}	17.8	X	256.35232	226.37056	145.97465	7.61937	0.1698936	0.29367465	2.2416015	20	6 3.3	20.8
410759 2009 DC_{77}	17.5	X	188.35033	75.20678	344.79897	6.62244	0.1054096	0.28892287	2.2661123	20	5 25.1	20.8
410760 2009 DP_{80}	17.3	X	293.06319	297.25661	337.48162	5.56320	0.1717977	0.27574712	2.3377356	20	3 4.5	20.2
410761 2009 DV_{96}	17.1	X	201.61980	67.93601	176.21480	17.51648	0.2556426	0.22899040	2.6460083	20	—	—
410762 2009 DC_{105}	17.9	X	285.48930	157.09936	105.20059	1.51851	0.0160437	0.26446634	2.4037490	20	3 3.5	20.7
410763 2009 DK_{118}	17.8	X	30.32646	18.00201	177.19002	3.56103	0.1118858	0.27622714	2.3350265	20	5 5.3	19.9
410764 2009 DC_{120}	17.9	X	21.63004	27.23448	170.03769	2.75759	0.1349646	0.27364071	2.3497171	20	4 22.5	19.7
410765 2009 DH_{122}	17.4	X	292.00553	171.62653	61.32464	2.34286	0.1460622	0.25752906	2.4467254	20	1 15.7	20.7
410766 2009 DR_{130}	17.8	X	76.25948	339.62648	189.05373	4.76677	0.0993987	0.27919510	2.3184489	20	6 10.1	20.5
410767 2009 DL_{137}	17.5	X	275.75085	90.48977	173.06832	5.31615	0.0592320	0.26123892	2.4235062	20	2 14.0	20.6
410768 2009 DL_{139}	17.5	X	211.19434	65.74627	188.49094	4.81847	0.2156770	0.23583179	2.5945845	20	—	—
410769 2009 EG	16.4	X	48.32041	156.46885	43.00442	25.32942	0.1398443	0.28368778	2.2939061	20	6 11.9	19.2
410770 2009 ER_{1}	17.3	X	358.53513	112.42859	113.59584	5.71558	0.1298568	0.27218702	2.3580759	20	4 22.5	19.5
410771 2009 EL_{2}	17.6	X	312.17830	88.30930	137.62625	4.79534	0.0601437	0.26614690	2.3936194	20	2 11.9	20.3
410772 2009 ER_{5}	17.1	X	81.99412	108.77526	94.58939	0.54671	0.1425061	0.20073925	2.8887803	20	8 7.3	21.3
410773 2009 EH_{10}	18.2	X	6.60843	284.41455	272.68799	0.49905	0.1246022	0.27075598	2.3663774	20	3 21.1	20.5
410774 2009 EK_{17}	17.8	X	285.42194	123.38162	123.51037	2.24564	0.1500691	0.26151440	2.4218039	20	1 24.5	21.1
410775 2009 EG_{19}	17.8	X	72.47749	37.79347	155.15471	9.35534	0.0271838	0.28979932	2.2615410	20	6 28.1	20.6
410776 2009 EP_{21}	17.7	X	8.61956	6.00581	185.83959	2.90898	0.0791546	0.26876329	2.3780597	20	3 19.3	20.2
410777 2009 FD	22.1	X	280.60778	281.48031	9.34018	3.12776	0.4930306	0.78498542	1.1638446	20	1 7.3	23.1
410778 2009 FG_{19}	18.1	X	60.04197	120.36013	187.57225	54.49543	0.7199785	0.19852439	2.9102266	20	—	—
410779 2009 FD_{23}	16.6	X	114.30018	11.89357	151.43545	10.33277	0.0407605	0.19932246	2.9024532	20	7 11.3	20.8
410780 2009 FT_{26}	16.9	X	39.79219	164.39545	3.60623	23.45281	0.2172981	0.27405276	2.3473612	20	4 13.1	18.9
410781 2009 FY_{30}	17.5	X	325.60066	74.25717	151.98239	2.87584	0.1555289	0.26315035	2.4117563	20	2 16.8	20.2
410782 2009 FS_{31}	17.6	X	13.40160	52.12884	155.81957	2.96810	0.1486986	0.27148710	2.3621271	20	4 22.9	19.4
410783 2009 FL_{44}	17.2	X	69.08966	349.28328	181.23696	6.48583	0.0488102	0.27896754	2.3197095	20	5 25.2	19.9
410784 2009 FW_{47}	17.2	X	263.72681	199.36754	33.05976	16.93542	0.0925321	0.24686208	2.5167097	20	—	—
410785 2009 FV_{54}	17.5	X	244.54508	317.18553	119.95246	4.21023	0.1293400	0.30488721	2.1863008	20	8 28.1	20.1
410786 2009 FM_{67}	17.8	X	320.00716	356.34889	211.24228	3.70825	0.1847032	0.25901318	2.4373700	20	1 10.2	21.0
410787 2009 FP_{68}	16.9	X	162.37481	152.26624	103.95556	11.48848	0.3522118	0.22111558	2.7084645	20	12 22.6	22.0
410788 2009 FT_{73}	16.4	X	251.47090	264.95540	334.47334	11.10645	0.1891134	0.24417568	2.5351351	20	—	—
410789 2009 HT_{22}	16.7	X	131.59450	109.90924	185.75974	14.51843	0.1597739	0.22555153	2.6728353	20	—	—
410790 2009 HE_{23}	17.3	X	183.02495	278.11603	155.81393	7.26097	0.0717137	0.27768705	2.3268353	20	6 10.4	20.6
410791 2009 HK_{24}	17.5	X	158.61269	179.47415	119.50456	6.22612	0.2052215	0.23094064	2.6310906	20	—	—
410792 2009 HM_{30}	18.1	X	117.40831	5.49186	112.12893	3.17618	0.1623076	0.27914658	2.3187175	20	5 31.8	21.2
410793 2009 HS_{31}	16.9	X	142.35970	98.27555	171.49379	8.74377	0.1314446	0.22352656	2.6889535	20	12 28.5	21.3
410794 2009 HY_{31}	17.0	X	178.50736	134.64340	179.31663	11.95169	0.1937295	0.24026951	2.5625378	20	1 8.9	21.4
410795 2009 HK_{32}	16.9	X	123.59329	233.49526	160.73673	7.09256	0.1036587	0.25278731	2.4772274	20	2 10.4	20.3
410796 2009 HN_{35}	17.0	X	156.72999	93.30503	201.36648	12.41271	0.2750743	0.22874640	2.6478896	20	—	—
410797 2009 HH_{44}	17.3	X	184.76890	86.06059	178.06402	5.24225	0.2322732	0.23050677	2.6343912	20	—	—
410798 2009 HW_{64}	18.1	X	269.09055	50.35887	165.05847	6.39870	0.1288717	0.24445470	2.5332057	20	—	—
410799 2009 HT_{74}	17.1	X	74.07986	311.59289	150.06049	10.31965	0.1592144	0.25821914	2.4423642	20	3 13.7	19.7
410800 2009 HH_{79}	17.6	X	55.33202	44.11625	103.59212	2.51980	0.1084416	0.26425045	2.4050580	20	4 9.2	20.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410801 2009 HT_{94}	17.7	X	256.07292	187.59133	59.05799	1.72834	0.0978970	0.24319701	2.5419318	20	—	—
410802 2009 HV_{106}	17.5	X	304.41301	274.84845	299.41852	1.53743	0.1611041	0.25234592	2.4801152	20	1 4.8	20.7
410803 2009 JP_3	17.0	X	337.57066	118.75789	134.21974	7.61675	0.0729058	0.26699539	2.3885456	20	4 30.4	19.8
410804 2009 JZ_4	16.9	X	45.06232	23.58842	189.22770	23.39752	0.0859361	0.27382779	2.3486468	20	6 22.7	20.2
410805 2009 KW_1	17.2	X	35.81951	104.96153	120.70005	1.40454	0.2732400	0.18774162	3.0206171	20	7 21.9	20.4
410806 2009 KX_1	17.2	X	245.61795	134.68375	82.16881	4.75821	0.2121799	0.23662545	2.5887796	20	—	—
410807 2009 KU_4	16.5	X	166.22260	197.43773	64.68908	12.42481	0.1855442	0.22546037	2.6735558	20	—	—
410808 2009 KA_7	16.6	X	242.87006	83.45534	126.41978	18.38920	0.2305272	0.23526815	2.5987268	20	—	—
410809 2009 KC_{14}	16.5	X	106.04994	121.40942	149.29209	13.38904	0.2304731	0.21022993	2.8011714	20	12 2.1	21.5
410810 2009 KF_{16}	17.3	X	236.27444	156.88040	104.57401	6.80921	0.1435728	0.24177283	2.5519043	20	—	—
410811 2009 KQ_{22}	17.3	X	238.30145	51.52578	192.46969	4.23878	0.2010469	0.23949401	2.5680666	20	—	—
410812 2009 KW_{22}	16.8	X	212.85018	8.30350	206.20734	7.74149	0.2432902	0.22738388	2.6584568	20	12 20.1	20.9
410813 2009 KN_{23}	16.9	X	13.04736	27.95972	114.88715	7.39793	0.0926338	0.25125941	2.4872598	20	1 19.5	19.6
410814 2009 KY_{23}	16.8	X	94.58023	20.86490	111.97917	8.14881	0.0583602	0.26713911	2.3876889	20	5 11.7	19.9
410815 2009 KS_{28}	16.8	X	174.76580	121.18867	203.04580	8.93096	0.2160888	0.23595247	2.5936997	20	1 18.8	21.3
410816 2009 LT_5	16.2	X	182.82708	156.13869	124.48152	16.37939	0.1389320	0.22328941	2.6908571	20	—	—
410817 2009 MN	16.1	X	212.87942	260.74297	310.54132	24.22070	0.3068818	0.22006570	2.7170720	20	12 9.5	20.9
410818 2009 MZ_9	16.4	X	4.07804	106.49975	303.61139	11.93919	0.1161415	0.20350141	2.8625809	20	—	—
410819 2009 NF_2	16.8	X	119.04146	84.98947	221.32883	8.17268	0.2112568	0.20916575	2.8106645	20	—	—
410820 2009 OH_5	16.5	X	107.41378	116.17001	224.15823	13.08700	0.2578150	0.21036754	2.7999497	20	—	—
410821 2009 OL_6	16.2	X	47.97314	71.60668	290.13165	9.73709	0.1640618	0.20254540	2.8715813	20	—	—
410822 2009 OH_{11}	16.7	X	166.10009	11.47538	288.07943	5.26701	0.1173659	0.22072562	2.7116537	20	—	—
410823 2009 OC_{13}	16.7	X	96.12111	182.25317	170.96276	13.79840	0.2022470	0.21125002	2.7921466	20	—	—
410824 2009 OJ_{20}	15.8	X	132.31158	222.52474	151.59442	22.48184	0.0745219	0.22659829	2.6645976	20	1 26.1	19.7
410825 2009 OL_{20}	16.2	X	115.64156	5.44498	311.52050	13.02409	0.2561617	0.20955949	2.8071427	20	—	—
410826 2009 PE_4	16.9	X	154.02569	163.57902	171.05649	8.04299	0.1736569	0.22261926	2.6962546	20	1 12.6	21.2
410827 2009 PK_7	16.1	X	342.46698	347.46909	343.81142	8.97187	0.0883829	0.17488671	3.1668793	20	8 21.6	20.0
410828 2009 PK_{11}	17.3	X	95.94484	191.15637	165.89138	4.58086	0.2132770	0.21246047	2.7815314	20	—	—
410829 2009 PM_{14}	16.6	X	136.08773	8.59620	306.47532	14.50172	0.1352906	0.21488122	2.7606016	20	—	—
410830 2009 PT_{18}	16.2	X	48.81877	305.00196	90.67354	17.26195	0.3663228	0.20340266	2.8635073	20	—	—
410831 2009 QF_4	16.5	X	95.08785	42.91139	317.95113	8.41947	0.2120671	0.20997843	2.8034077	20	—	—
410832 2009 QO_8	19.2	X	111.37830	256.97639	341.74819	33.00009	0.3420126	0.38173016	1.8820525	20	10 31.7	23.4
410833 2009 QL_9	16.9	X	72.87656	251.56209	140.24374	5.52828	0.1469367	0.21331743	2.7740768	20	—	—
410834 2009 QB_{23}	18.4	X	165.89320	123.35809	157.09929	23.81465	0.0141240	0.39600056	1.8365617	20	—	—
410835 Neszmerak	17.0	X	141.21844	331.34615	346.57881	3.62804	0.0936442	0.21613112	2.7499482	20	—	—
410836 2009 QN_{28}	17.1	X	55.33457	357.35851	333.52639	1.87321	0.1520350	0.19732741	2.9219836	20	12 13.7	21.3
410837 2009 QS_{31}	16.9	X	99.05175	359.15103	306.39533	6.70358	0.2350744	0.20470393	2.8513592	20	—	—
410838 2009 QW_{31}	16.1	X	132.48017	331.00363	359.14916	13.33556	0.1442912	0.21588032	2.7520777	20	—	—
410839 2009 QM_{53}	16.8	X	323.09294	216.49518	172.62475	10.48007	0.0229099	0.18446240	3.0563106	20	10 10.6	20.9
410840 2009 QA_{56}	16.7	X	128.20560	229.61131	96.18946	11.46337	0.2829710	0.21154717	2.7895313	20	—	—
410841 2009 QK_{56}	17.0	X	151.31139	54.53488	227.21342	2.47159	0.1486769	0.20876013	2.8143040	20	—	—
410842 2009 QK_{64}	15.8	X	220.51901	327.00374	166.60511	22.86423	0.0229930	0.18613273	3.0379985	20	10 12.7	20.3
410843 2009 RX_7	16.7	X	111.43535	107.58269	209.02640	5.14762	0.0553883	0.20088621	2.8873713	20	—	—
410844 2009 RL_8	15.8	X	255.91755	236.91081	192.62041	10.51790	0.0869395	0.17106179	3.2139124	20	8 20.1	20.4
410845 2009 RH_{10}	16.3	X	312.74788	75.27142	2.23921	8.70121	0.1027582	0.18754584	3.0227189	20	11 19.2	20.1
410846 2009 RP_{10}	17.1	X	96.00654	339.11865	0.05442	5.87624	0.0746064	0.20246352	2.8723555	20	—	—
410847 2009 RG_{17}	16.6	X	97.08794	268.67426	17.81292	14.00361	0.0602689	0.18871615	3.0102091	20	11 20.4	21.2
410848 2009 RJ_{18}	16.7	X	51.56572	314.32374	62.93682	2.97445	0.0771171	0.19818776	2.9135211	20	—	—
410849 2009 RA_{30}	16.2	X	324.16408	72.91644	351.39404	10.11483	0.1315049	0.18620171	3.0372481	20	11 18.9	19.9
410850 2009 RZ_{33}	16.2	X	29.20159	341.96407	21.18499	9.74390	0.1322796	0.18837873	3.0138027	20	12 15.5	20.4
410851 2009 RE_{34}	16.3	X	30.21099	106.61547	203.38447	10.18294	0.0782591	0.17546779	3.1598838	20	10 1.6	20.5
410852 2009 RL_{34}	17.2	X	44.85825	171.76157	194.19450	2.50307	0.1037579	0.19263676	2.9692261	20	—	—
410853 2009 RE_{37}	16.3	X	49.32344	124.16105	253.63889	8.56038	0.1268790	0.20255177	2.8715212	20	—	—
410854 2009 RJ_{38}	16.8	X	116.10240	131.19381	163.77198	5.17946	0.0756508	0.19766728	2.9186332	20	12 27.1	21.2
410855 2009 RZ_{39}	16.3	X	88.10844	335.21014	331.40749	8.20821	0.1159333	0.19329045	2.9625279	20	12 14.3	20.9
410856 2009 RP_{42}	16.5	X	103.48489	301.28023	339.38881	9.13281	0.0823806	0.19001249	2.9965023	20	11 23.9	21.2
410857 2009 RV_{45}	15.8	X	293.57271	43.77251	8.97155	9.69523	0.0925565	0.17532069	3.1616511	20	9 21.7	19.8
410858 2009 RU_{46}	16.1	X	150.54656	63.43353	199.52745	12.20903	0.0552371	0.19612969	2.9338675	20	12 24.0	20.7
410859 2009 RJ_{50}	15.7	X	102.93351	222.46917	16.92016	12.31211	0.0237147	0.17525018	3.1624991	20	9 30.2	20.1
410860 2009 RS_{51}	16.4	X	23.24187	178.87799	191.14510	11.01478	0.0887581	0.18873476	3.0100113	20	12 11.6	20.6
410861 2009 RE_{53}	16.5	X	306.90825	121.67895	28.63600	12.54396	0.0935375	0.20090591	2.8871825	20	—	—
410862 2009 RM_{53}	16.3	X	314.17877	46.94416	26.97471	16.75718	0.1172539	0.18353626	3.0665835	20	11 13.7	20.2
410863 2009 RJ_{70}	16.6	X	109.70874	89.59690	187.93266	9.75088	0.0434916	0.18965893	3.0002252	20	11 27.4	21.1
410864 2009 RT_{72}	17.0	X	29.06754	175.88756	192.29259	10.98390	0.1505239	0.19076591	2.9886074	20	12 25.1	21.2
410865 2009 RZ_{72}	16.7	X	39.56570	290.25624	31.78202	10.13050	0.0445551	0.18068828	3.0987228	20	10 26.3	21.0
410866 2009 RL_{75}	17.3	X	15.25586	331.25779	41.61948	1.03156	0.2238854	0.18784160	3.0195452	20	12 22.4	21.0
410867 2009 RU_{75}	15.9	X	338.77439	12.91371	15.56367	12.01408	0.0711157	0.18159802	3.0883651	20	10 26.5	20.0
410868 2009 RC_{76}	16.4	X	356.69040	177.54622	211.21210	9.42905	0.1177945	0.18966975	3.0001111	20	11 30.9	20.1
410869 2009 SS_{13}	16.7	X	66.72154	17.65054	350.16356	14.93437	0.1457635	0.20338079	2.8637126	20	—	—
410870 2009 SR_{14}	16.1	X	332.04679	165.02288	203.72340	9.40424	0.0337167	0.17940445	3.1134884	20	9 22.3	20.3
410871 2009 SW_{21}	15.7	X	25.17932	70.25390	305.88186	9.77339	0.0937926	0.18999141	2.9967240	20	12 22.6	19.8
410872 2009 SW_{23}	16.7	X	46.41505	186.48125	225.06850	5.72707	0.0141781	0.20851168	2.8165392	20	—	—
410873 2009 SM_{29}	16.0	X	342.92919	229.71860	189.69630	10.49677	0.1224371	0.18956363	3.0012306	20	12 18.2	19.8
410874 2009 SB_{32}	17.4	X	23.37125	82.78779	334.37204	5.94059	0.1087653	0.20273151	2.8698237	20	—	—
410875 2009 SB_{33}	16.0	X	348.00672	31.39837	2.62295	12.37613	0.0242245	0.18515851	3.0486456	20	11 12.5	20.4
410876 2009 SH_{33}	16.0	X	328.59824	174.61813	217.52726	10.47047	0.0959778	0.17960627	3.1111556	20	10 16.7	20.0
410877 2009 SB_{37}	16.2	X	258.89258	99.03290	8.46517	12.01283	0.1801868	0.17656120	3.1468246	20	9 30.4	20.5
410878 2009 SH_{39}	17.0	X	65.42153	185.73182	214.16116	4.90682	0.1394717	0.20534924	2.8453825	20	—	—
410879 2009 SN_{39}	16.3	X	75.47197	90.27828	208.06199	10.65121	0.0504720	0.18400741	3.0613467	20	11 12.7	20.7
410880 2009 SZ_{42}	16.6	X	331.28622	79.13303	332.31796	5.23435	0.1456811	0.18304214	3.0720999	20	11 15.0	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410881 2009 SZ_{43}	15.6	X	225.62155	192.52526	2.84209	10.15904	0.0050632	0.19355407	2.9598374	20	—	—
410882 2009 SM_{47}	16.2	X	326.84162	32.03834	6.48492	8.65826	0.0863303	0.17939299	3.1136209	20	10 21.3	20.1
410883 2009 SZ_{47}	16.0	X	323.15248	73.77068	8.75230	9.87589	0.0592521	0.18858348	3.0116207	20	12 13.9	20.1
410884 2009 SB_{49}	16.2	X	125.54493	234.85463	37.09816	12.14166	0.1361619	0.18780526	3.0199347	20	12 8.1	21.1
410885 2009 SV_{51}	16.4	X	45.53713	136.14725	188.21338	10.79184	0.0789473	0.19009423	2.9956433	20	11 14.3	20.6
410886 2009 SW_{56}	15.9	X	49.73567	105.30265	211.40989	19.89105	0.1807326	0.18574017	3.0422775	20	11 22.4	20.3
410887 2009 SR_{59}	16.1	X	75.85671	15.01137	230.73499	9.26741	0.0725500	0.17151022	3.2083079	20	9 5.8	20.9
410888 2009 SW_{65}	16.9	X	340.80525	340.06081	76.36491	3.06782	0.1080695	0.18733985	3.0249342	20	12 9.3	20.4
410889 2009 SW_{66}	15.9	X	285.29933	244.83600	188.45407	14.80756	0.0493347	0.17740437	3.1368458	20	10 11.5	20.1
410890 2009 SC_{68}	16.3	X	114.44416	313.59948	46.26139	8.46961	0.1178198	0.20953940	2.8073221	20	—	—
410891 2009 SQ_{71}	17.2	X	322.52031	234.93946	202.34407	1.78877	0.0652675	0.19230874	2.9726015	20	12 8.6	20.8
410892 2009 SC_{73}	15.8	X	338.88501	28.63295	350.69787	9.23489	0.0344046	0.18342315	3.0678441	20	10 14.3	20.0
410893 2009 SJ_{74}	16.9	X	313.42069	64.18967	45.01786	11.24186	0.1237368	0.19138632	2.9821452	20	—	—
410894 2009 SM_{74}	16.1	X	35.71368	283.93824	44.30075	11.95473	0.1196055	0.18256873	3.0774083	20	11 8.7	20.1
410895 2009 SD_{88}	16.6	X	32.44194	176.99064	173.41725	9.21653	0.0666137	0.18577511	3.0418960	20	11 26.9	20.9
410896 2009 SD_{97}	16.7	X	48.54856	144.17172	182.65542	13.20344	0.1649672	0.19199352	2.9758543	20	12 3.2	21.1
410897 2009 SQ_{111}	15.7	X	40.25734	318.71213	345.51344	10.88445	0.0666913	0.17975296	3.1094627	20	10 4.7	20.0
410898 2009 SX_{116}	16.3	X	251.83652	224.86414	250.35911	4.61871	0.0406652	0.18258291	3.0772490	20	10 20.6	20.6
410899 2009 SU_{117}	16.4	X	354.98745	199.28669	205.47012	11.47385	0.1319593	0.19013358	2.9952299	20	12 19.3	20.2
410900 2009 SE_{123}	16.2	X	296.30285	188.75885	245.75371	6.13382	0.1323349	0.18109537	3.0940772	20	10 16.9	20.2
410901 2009 SG_{127}	16.6	X	335.93012	177.59980	213.62196	9.49869	0.0755485	0.18202386	3.0835465	20	10 28.4	20.3
410902 2009 SP_{130}	16.7	X	49.64838	208.36407	182.56779	9.01972	0.0840128	0.19993562	2.8965160	20	—	—
410903 2009 SN_{131}	15.6	X	73.43091	249.41941	28.07934	20.80701	0.1224137	0.18022290	3.1040550	20	10 23.2	20.1
410904 2009 SJ_{134}	15.9	X	347.36131	248.49728	182.08277	12.08099	0.0718787	0.19235200	2.9721559	20	—	—
410905 2009 SQ_{140}	16.8	X	330.02507	71.41495	336.31788	8.08859	0.0843842	0.18514878	3.0487524	20	11 7.0	20.7
410906 2009 SZ_{142}	16.7	X	303.37561	84.05233	10.12514	5.59532	0.0547294	0.18859685	3.0114784	20	11 30.9	20.7
410907 2009 SC_{154}	16.9	X	323.29941	231.73606	193.60466	2.58764	0.1296436	0.18673951	3.0314139	20	11 22.8	20.4
410908 2009 SR_{155}	15.6	X	265.74121	97.64312	12.40135	16.23859	0.2013521	0.17990344	3.1077285	20	10 8.7	19.7
410909 2009 SO_{160}	16.0	X	258.79083	98.45694	17.90813	15.87737	0.2267968	0.17584497	3.1553637	20	10 5.6	20.5
410910 2009 SN_{165}	17.2	X	294.14418	113.86285	339.91261	4.66395	0.1284971	0.18492701	3.0511893	20	11 8.9	20.9
410911 2009 SX_{169}	16.5	X	332.45805	267.88834	143.07851	4.87304	0.2061498	0.18330629	3.0691478	20	11 20.9	19.6
410912 Lisakaroline	17.8	X	42.79614	126.12499	211.91840	0.80594	0.2781803	0.19158047	2.9801301	20	12 23.5	22.1
410913 2009 SS_{181}	16.3	X	82.47267	74.84480	187.00021	8.62211	0.0863819	0.18260712	3.0769769	20	10 11.5	20.7
410914 2009 ST_{181}	17.0	X	46.96355	156.33693	211.48354	1.37749	0.0993698	0.19789035	2.9164395	20	—	—
410915 2009 SN_{182}	16.8	X	107.25404	64.99551	180.39874	10.70881	0.1059061	0.18470942	3.0535850	20	10 21.9	21.4
410916 2009 SO_{185}	16.6	X	341.40715	212.88701	220.40859	10.33256	0.0256007	0.19284857	2.9670517	20	12 27.2	20.7
410917 2009 SJ_{186}	16.7	X	24.44686	304.97430	45.61012	8.72773	0.0740638	0.18397948	3.0616565	20	11 15.1	20.8
410918 2009 SJ_{199}	17.0	X	51.91957	128.40494	204.85632	13.90524	0.2701051	0.19179202	2.9779383	20	12 25.1	21.8
410919 2009 SF_{204}	15.8	X	343.76747	177.73541	211.20039	12.44103	0.1028673	0.18194933	3.0843884	20	11 7.8	19.5
410920 2009 SE_{209}	16.5	X	37.46878	128.95562	201.20095	10.65852	0.0991565	0.18398040	3.0616462	20	11 12.2	20.6
410921 2009 SP_{214}	15.7	X	325.99878	8.35250	29.18136	10.81945	0.0886991	0.17906806	3.1173863	20	10 20.8	19.5
410922 2009 SU_{225}	17.2	X	60.41336	219.59937	149.36147	1.55488	0.2204295	0.20171057	2.8794991	20	—	—
410923 2009 SL_{231}	16.5	X	49.66084	128.40526	190.14030	10.57864	0.1120212	0.18771975	3.0208517	20	11 16.4	20.8
410924 2009 SY_{231}	16.5	X	0.17323	164.06205	188.82442	11.27872	0.1030388	0.18182081	3.0858418	20	10 18.5	20.2
410925 2009 SH_{232}	16.2	X	295.99521	212.35418	205.39857	9.98618	0.2038707	0.17610034	3.1523125	20	9 13.1	20.1
410926 2009 SQ_{233}	16.5	X	93.04475	205.15015	200.69629	11.42433	0.1860098	0.21837541	2.7310746	20	1 31.8	20.3
410927 2009 SC_{239}	16.1	X	44.69308	178.94820	215.09695	16.37730	0.2245693	0.20355228	2.8621039	20	—	—
410928 Maidbronn	16.5	X	3.46105	119.18515	323.37910	7.88559	0.2053126	0.19814545	2.9139358	20	—	—
410929 2009 SY_{250}	16.8	X	16.92324	51.72731	326.54070	2.29352	0.1736073	0.18893316	3.0079037	20	12 24.6	20.6
410930 2009 SW_{253}	16.8	X	352.26402	180.55717	184.05303	10.13260	0.1205623	0.17911176	3.1168793	20	10 22.1	20.5
410931 2009 SF_{254}	16.5	X	357.03261	184.39607	201.64268	9.65307	0.0637236	0.18491251	3.0513488	20	11 22.4	20.5
410932 2009 SH_{263}	16.1	X	12.02413	319.54897	31.15755	9.28781	0.0634995	0.18344073	3.0676481	20	10 28.2	19.9
410933 2009 SE_{265}	16.1	X	190.29243	59.66067	227.37691	5.53448	0.0364264	0.20860956	2.8156581	20	—	—
410934 2009 SA_{270}	16.7	X	22.00541	283.39032	21.15299	8.32927	0.1902749	0.17725693	3.1385851	20	9 30.1	20.3
410935 2009 SD_{270}	16.1	X	281.48640	150.49643	24.05612	15.37170	0.0764015	0.20451622	2.8531036	20	—	—
410936 2009 SE_{270}	16.5	X	64.60941	121.57837	182.80452	9.40151	0.1628630	0.18720947	3.0263385	20	11 23.1	21.1
410937 2009 SH_{271}	18.8	X	113.74553	119.16772	202.21245	21.32934	0.1242389	0.38683757	1.8654500	20	—	—
410938 2009 SN_{277}	15.7	X	326.34157	340.85424	20.63316	16.20228	0.0711231	0.17367838	3.1815510	20	9 11.2	20.0
410939 2009 SG_{281}	16.2	X	284.40760	291.35294	173.08195	11.20944	0.0614050	0.18664523	3.0324346	20	11 20.1	20.4
410940 2009 SV_{284}	17.2	X	25.66288	186.57176	225.96599	1.24166	0.0629648	0.20288169	2.8684073	20	—	—
410941 2009 SH_{287}	16.7	X	44.25922	95.37267	279.38088	4.77440	0.0982886	0.19474580	2.9477500	20	—	—
410942 2009 SJ_{287}	15.9	X	271.97802	244.54097	216.78734	15.51335	0.2488794	0.17647624	3.1478344	20	9 25.9	20.4
410943 2009 SZ_{293}	16.0	X	272.10426	74.70356	16.02292	10.24148	0.0275989	0.18282041	3.0745833	20	10 17.9	20.4
410944 2009 SB_{294}	16.9	X	76.06518	176.05588	149.42193	2.58634	0.1035482	0.19511618	2.9440185	20	12 23.5	21.3
410945 2009 ST_{296}	16.3	X	20.04022	290.15834	22.83985	15.79185	0.1809877	0.17892120	3.1190920	20	10 7.5	20.1
410946 2009 ST_{311}	16.9	X	22.98030	250.44181	164.50098	2.19118	0.0600595	0.20357473	2.8618935	20	—	—
410947 2009 SZ_{316}	16.9	X	113.17104	315.65832	23.87247	4.24534	0.1834997	0.20973213	2.8056021	20	—	—
410948 2009 SK_{327}	16.1	X	32.77476	75.89347	315.02661	10.07975	0.1082820	0.19451542	2.9500770	20	—	—
410949 2009 SH_{329}	16.1	X	72.08883	225.82708	190.72891	12.01467	0.3115618	0.21115193	2.7930112	20	2 4.9	19.3
410950 2009 SS_{332}	17.1	X	18.33494	271.17722	79.98769	1.99540	0.1860065	0.18748198	3.0234052	20	11 24.1	20.8
410951 2009 SM_{339}	17.6	X	339.35879	54.89379	357.21934	19.35133	0.1133325	0.36934938	1.9238792	20	—	—
410952 2009 SD_{340}	16.1	X	355.62591	8.49637	5.28247	11.24009	0.0750632	0.18253812	3.0777524	20	10 31.7	20.2
410953 2009 ST_{345}	16.5	X	74.36685	243.52668	29.40690	8.61126	0.1123251	0.17936504	3.1139443	20	10 18.3	20.8
410954 2009 SX_{347}	16.5	X	72.06196	52.81585	235.08702	8.53610	0.0614440	0.18133876	3.0913080	20	10 25.9	21.0
410955 2009 SN_{349}	16.2	X	331.75737	177.85289	221.02894	7.73417	0.1195424	0.17894423	3.1188244	20	10 30.9	19.8
410956 2009 SP_{349}	16.3	X	35.20126	287.70902	29.15651	6.94264	0.2141616	0.18200688	3.0837383	20	11 6.9	20.4
410957 2009 SU_{349}	16.0	X	157.15908	164.04590	28.15918	9.60619	0.0408313	0.17528682	3.1620583	20	10 6.3	20.7
410958 2009 SA_{353}	16.4	X	86.52937	51.84403	207.09849	13.73255	0.1216676	0.17902740	3.1178583	20	10 15.1	21.1
410959 2009 SS_{353}	16.4	X	100.08031	312.23159	34.67607	7.02888	0.0708124	0.20265867	2.8705113	20	—	—
410960 2009 SV_{353}	15.8	X	144.22638	171.01501	37.84016	12.39450	0.0708455	0.17573206	3.1567151	20	10 13.7	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
410961 2009 SU_{356}	16.4	X	313.10070	222.07988	209.47918	10.33803	0.0808741	0.18484741	3.0520652	20	11 16.1	20.3
410962 2009 SO_{358}	17.5	X	333.17552	308.22299	102.90533	2.76155	0.1431222	0.18399994	3.0614295	20	11 20.7	20.9
410963 2009 SS_{360}	16.2	X	60.55163	259.89113	31.26252	11.61261	0.0788030	0.18058058	3.0999548	20	10 20.1	20.4
410964 2009 SX_{360}	17.2	X	35.24649	104.76018	209.26326	12.61523	0.2898218	0.18188557	3.0851092	20	11 16.6	21.4
410965 2009 TG_{4}	16.4	X	330.84876	173.92858	286.11596	3.66739	0.1184679	0.19212870	2.9744583	20	—	—
410966 2009 TK_{7}	16.1	X	40.62962	133.15978	227.06857	15.77098	0.2407947	0.19028953	2.9935932	20	—	—
410967 2009 TX_{7}	15.8	X	87.48650	314.81556	52.59360	15.82104	0.1523412	0.20481798	2.8503006	20	—	—
410968 2009 TO_{9}	16.5	X	356.59116	264.28468	206.48355	5.27816	0.1941146	0.20175094	2.8791150	20	—	—
410969 2009 TG_{12}	16.0	X	355.56201	194.43664	213.56520	9.69493	0.1012080	0.18740476	3.0242357	20	12 20.2	19.9
410970 2009 TK_{19}	16.6	X	353.78717	155.92109	210.23358	10.29033	0.0240398	0.17756968	3.1348987	20	10 18.8	20.7
410971 2009 TN_{19}	15.9	X	230.45972	316.15135	213.47508	17.46373	0.0225811	0.18693327	3.0293188	20	12 4.7	20.4
410972 2009 TB_{35}	16.2	X	307.78526	191.40521	212.91371	8.51917	0.1461626	0.17423586	3.1747609	20	9 22.8	20.1
410973 2009 TW_{39}	16.0	X	8.30516	119.90543	239.94545	11.30122	0.2029867	0.18284536	3.0743036	20	11 20.1	19.4
410974 2009 TJ_{41}	16.0	X	329.36007	22.72213	12.63996	12.33282	0.2104559	0.17848857	3.1241301	20	10 18.4	19.1
410975 2009 TL_{41}	15.4	X	300.40685	228.10553	205.59632	17.92452	0.0084592	0.18116711	3.0932603	20	11 5.4	19.8
410976 2009 TR_{44}	15.8	X	52.78486	257.39302	83.89075	12.11825	0.0917947	0.19052863	2.9910882	20	12 13.9	20.0
410977 2009 TW_{45}	16.0	X	290.68034	26.26493	38.66146	9.36582	0.0643133	0.17437661	3.1730523	20	10 7.7	20.3
410978 2009 TE_{46}	16.5	X	48.98350	91.76024	236.84218	4.09658	0.1029570	0.17981288	3.1087718	20	11 23.3	20.8
410979 2009 TH_{46}	16.9	X	268.04693	43.77137	48.58731	1.38905	0.1459877	0.17618729	3.1512752	20	9 28.4	21.0
410980 2009 TQ_{46}	16.8	X	25.96225	26.59786	0.51547	2.37101	0.1041981	0.18986884	2.9980135	20	—	—
410981 2009 TE_{47}	15.8	X	311.69580	58.80943	355.00311	12.16666	0.1916952	0.17745747	3.1362200	20	10 7.4	19.5
410982 2009 TK_{47}	15.9	X	31.32607	156.49889	257.70150	7.14951	0.0664709	0.20048802	2.8911931	20	—	—
410983 2009 UX	16.1	X	281.47653	173.12032	258.97584	8.12082	0.0400113	0.17608263	3.1525238	20	10 1.3	20.6
410984 2009 UR_{9}	15.8	X	221.52108	88.67964	38.36711	17.21935	0.1123843	0.17492373	3.1664324	20	9 27.9	20.7
410985 2009 UQ_{15}	16.1	X	19.21972	56.83311	293.39847	10.09290	0.2265304	0.18524128	3.0477373	20	11 28.5	19.9
410986 2009 UQ_{17}	15.9	X	326.26148	217.26252	226.39719	15.08573	0.1807707	0.18592175	3.0402963	20	12 20.5	19.3
410987 2009 UT_{21}	16.9	X	22.23531	208.88603	156.37563	8.44991	0.0697393	0.18723250	3.0260903	20	12 2.5	21.1
410988 2009 US_{24}	15.6	X	236.51066	70.06411	39.77693	13.09738	0.0684566	0.17012003	3.2257627	20	9 26.4	20.4
410989 2009 UE_{25}	16.6	X	29.66570	289.93027	71.84941	2.05462	0.1707430	0.18582220	3.0413821	20	12 20.2	20.5
410990 2009 UH_{27}	15.6	X	341.48962	317.47047	57.18968	18.76113	0.2196803	0.17595701	3.1540241	20	10 24.4	18.9
410991 2009 UQ_{27}	16.6	X	13.09529	228.98237	179.94208	3.90487	0.2854007	0.19067516	2.9895556	20	—	—
410992 2009 UG_{32}	16.3	X	351.69526	169.65734	223.58795	12.01181	0.0316824	0.18094782	3.0957590	20	11 20.3	20.4
410993 2009 UH_{35}	16.2	X	315.53964	68.94955	53.40756	12.18932	0.1373497	0.18828926	3.0147573	20	—	—
410994 2009 UM_{35}	16.2	X	303.82017	216.01979	233.15595	14.99769	0.0841092	0.17903073	3.1178197	20	11 22.2	20.1
410995 2009 UV_{37}	16.4	X	27.92698	166.68720	217.90150	9.74685	0.1171400	0.18863756	3.0110452	20	—	—
410996 2009 UZ_{37}	16.5	X	68.01926	242.81485	97.16174	2.88641	0.1343053	0.18942650	3.0026789	20	—	—
410997 2009 US_{39}	15.6	X	323.04985	194.80561	231.20718	16.05611	0.1916079	0.17955013	3.1118040	20	11 19.3	18.7
410998 2009 UD_{44}	16.7	X	319.78333	210.05419	209.20135	4.70596	0.1148356	0.18117027	3.0932244	20	11 7.8	20.2
410999 2009 UK_{44}	16.0	X	298.22999	51.27625	37.63187	13.84847	0.1023403	0.18203081	3.0834680	20	11 11.1	19.9
411000 2009 UM_{44}	16.8	X	54.81339	302.60293	47.77408	3.64255	0.1182514	0.19099403	2.9862272	20	12 30.9	21.0
411001 2009 UA_{52}	16.3	X	334.29172	169.90113	222.90944	9.67202	0.0764406	0.17814061	3.1281970	20	10 26.5	20.4
411002 2009 UC_{54}	16.7	X	83.25110	315.90037	340.28321	7.31685	0.1416673	0.19196907	2.9761070	20	11 28.1	21.3
411003 2009 UZ_{59}	16.9	X	330.03543	4.80227	78.17220	2.99752	0.0471660	0.19414787	2.9537992	20	12 26.3	20.8
411004 2009 UG_{63}	15.7	X	37.26277	259.83256	36.09312	23.02736	0.0322488	0.17282554	3.1920089	20	9 28.8	20.4
411005 2009 US_{69}	15.9	X	36.49508	149.23207	229.28074	8.97061	0.2123353	0.18956713	3.0011937	20	—	—
411006 2009 UF_{70}	16.9	X	312.67511	262.36015	171.63029	11.02350	0.1462340	0.18323838	3.0699061	20	11 16.2	20.6
411007 2009 UL_{71}	15.9	X	314.12365	40.76670	35.87417	19.40391	0.1586349	0.18037955	3.1022575	20	11 14.5	19.6
411008 2009 UU_{73}	16.3	X	94.50680	322.48896	46.82395	16.13982	0.1482373	0.20622503	2.8373209	20	—	—
411009 2009 UY_{79}	16.6	X	348.76675	141.59113	271.63714	4.24978	0.0944076	0.18706092	3.0279405	20	12 16.4	20.5
411010 2009 UD_{80}	16.0	X	232.60347	283.42878	237.86727	9.66129	0.0771504	0.18347579	3.0672573	20	11 18.9	20.2
411011 2009 UK_{82}	15.9	X	301.76355	47.92586	46.17803	17.44018	0.1907379	0.17998124	3.1068328	20	11 14.5	19.4
411012 2009 UZ_{82}	16.2	X	346.03478	180.81124	221.56860	10.03396	0.0434093	0.18060461	3.0996798	20	11 24.7	20.4
411013 2009 UY_{85}	16.7	X	72.43004	213.23525	167.92798	9.42365	0.0824632	0.20894491	2.8126446	20	—	—
411014 2009 UG_{90}	17.2	X	51.98286	199.77663	212.76107	8.21854	0.3099497	0.20237320	2.8732101	20	—	—
411015 2009 UV_{93}	16.2	X	55.12206	314.08933	39.52675	10.33953	0.0943043	0.18858588	3.0115952	20	12 31.6	20.6
411016 2009 UX_{96}	16.6	X	324.41251	325.23632	98.54490	2.64461	0.0969972	0.18264513	3.0765500	20	11 21.9	20.3
411017 2009 UP_{97}	15.8	X	313.26625	16.32312	54.21004	12.67739	0.0618151	0.18057132	3.1000608	20	11 14.2	19.9
411018 2009 UF_{98}	16.6	X	286.03798	253.06228	211.82739	8.40726	0.0899273	0.18069417	3.0986554	20	11 16.7	20.7
411019 2009 UG_{99}	16.4	X	13.16051	122.72973	214.16368	11.74268	0.1548035	0.17583446	3.1554893	20	10 20.9	20.1
411020 2009 UJ_{101}	16.4	X	50.89001	299.33416	65.39617	6.49888	0.1195369	0.19080999	2.9881471	20	—	—
411021 2009 UG_{103}	16.5	X	9.45031	168.92102	227.76403	3.38339	0.2288671	0.18730524	3.0253069	20	—	—
411022 2009 US_{105}	16.1	X	4.70798	336.79657	18.14260	10.90192	0.0785632	0.17888482	3.1195148	20	10 22.7	20.1
411023 2009 UX_{105}	16.1	X	3.19995	94.32324	294.95446	8.92018	0.1599561	0.18444524	3.0565001	20	12 14.4	19.9
411024 2009 UA_{106}	16.0	X	334.53310	29.83093	57.84198	9.82569	0.1124287	0.18644631	3.0345912	20	—	—
411025 2009 UY_{107}	16.4	X	301.96158	227.51507	227.30687	8.70877	0.0617391	0.18214932	3.0821304	20	11 29.1	20.4
411026 2009 UM_{110}	16.5	X	43.64114	278.85670	53.45001	10.05604	0.3121274	0.18507836	3.0495257	20	12 19.9	21.0
411027 2009 UO_{110}	16.3	X	355.73596	355.83945	50.55426	6.04302	0.2281984	0.18502006	3.0501662	20	—	—
411028 2009 UP_{110}	16.0	X	54.72954	292.82471	51.30504	5.34553	0.1327640	0.18592694	3.0402397	20	12 23.8	20.4
411029 2009 UD_{111}	16.0	X	85.29846	251.60088	55.63239	9.74441	0.1275274	0.18378992	3.0637613	20	12 10.9	20.7
411030 2009 UA_{117}	15.5	X	346.51354	65.39647	6.78048	10.38856	0.0550382	0.19084864	2.9877437	20	—	—
411031 2009 UN_{119}	16.6	X	207.22034	329.62414	202.37050	8.59887	0.0129345	0.18465645	3.0541690	20	11 11.4	20.9
411032 2009 UU_{123}	15.9	X	334.26921	312.32096	72.72089	10.60656	0.0865444	0.17687846	3.1430605	20	10 21.3	19.9
411033 2009 UC_{124}	16.0	X	22.39918	243.74299	172.59675	8.17190	0.0614473	0.19586532	2.9365068	20	—	—
411034 2009 UY_{128}	15.6	X	71.60107	259.50366	47.64863	13.81569	0.1468224	0.18235699	3.0797901	20	11 27.9	20.2
411035 2009 UY_{130}	16.0	X	297.70362	189.49998	255.26689	9.92694	0.2484704	0.17954945	3.1118119	20	10 15.3	19.7
411036 2009 UR_{135}	15.4	X	356.90049	330.75064	22.26082	24.08407	0.2974483	0.17684318	3.1434785	20	10 25.8	18.4
411037 2009 UP_{136}	15.2	X	316.18486	142.06584	251.04820	22.57488	0.1241954	0.17020302	3.2247141	20	9 14.9	19.8
411038 2009 UC_{137}	16.4	X	339.24261	221.18223	159.22683	17.54463	0.1991735	0.17752973	3.1353689	20	10 25.6	19.9
411039 2009 US_{140}	16.1	X	34.13823	67.14516	259.68190	9.38220	0.1017244	0.17515477	3.1636474	20	10 29.8	20.4
411040 2009 UM_{142}	15.9	X	102.05938	212.15231	49.73407	9.97347	0.0516670	0.17575240	3.1564715	20	10 29.3	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411041 2009 UF_{145}	15.7	X	70.04452	65.84673	250.62850	13.38967	0.1042578	0.18802906	3.0175378	20	12 4.9	20.1
411042 2009 UP_{150}	16.9	X	30.02089	302.55128	70.38570	2.07323	0.0434315	0.18536490	3.0463821	20	12 16.4	21.2
411043 2009 UB_{153}	16.2	X	346.75056	294.19806	80.47275	5.27897	0.0927913	0.17670952	3.1450634	20	10 24.9	20.2
411044 2009 VY_{7}	15.7	X	345.06426	36.44611	56.06000	12.07973	0.0760068	0.19062862	2.9900422	20	—	—
411045 2009 VO_{12}	16.4	X	310.55381	166.40134	235.89361	9.27500	0.1168588	0.17352370	3.1834413	20	9 26.2	20.6
411046 2009 VU_{17}	16.9	X	288.80697	9.63263	87.77864	2.36660	0.1595593	0.17932442	3.1144146	20	11 2.5	20.7
411047 2009 VS_{20}	16.5	X	340.00838	234.77789	138.89928	1.50279	0.0842236	0.17551771	3.1592847	20	10 11.4	20.4
411048 2009 VN_{21}	15.9	X	69.67691	108.46993	223.04240	9.89317	0.1355414	0.18615196	3.0377893	20	12 24.8	20.6
411049 2009 VA_{25}	16.1	X	53.82443	65.08362	284.70598	8.75205	0.1107538	0.19227750	2.9729235	20	12 28.4	20.2
411050 2009 VS_{27}	17.0	X	20.66920	68.01189	326.18135	3.64116	0.2175248	0.18989153	2.9977747	20	—	—
411051 2009 VZ_{27}	15.8	X	97.62465	271.09005	46.00026	10.56507	0.1080641	0.19128945	2.9831519	20	—	—
411052 2009 VP_{29}	16.8	X	55.74663	173.41092	215.67664	8.99587	0.1345392	0.19983132	2.8975238	20	—	—
411053 2009 VD_{32}	17.4	X	298.52097	319.47506	132.26048	1.86571	0.1494925	0.18098032	3.0953884	20	11 12.3	21.0
411054 2009 VN_{38}	16.7	X	20.65516	92.80264	318.66803	1.20848	0.2052939	0.19254599	2.9701592	20	—	—
411055 2009 VC_{44}	16.5	X	0.22465	329.94811	94.10885	5.38332	0.1358468	0.18941303	3.0028213	20	—	—
411056 2009 VY_{44}	15.6	X	337.15140	140.95803	224.79087	13.57325	0.0922896	0.16884031	3.2420419	20	9 20.7	19.9
411057 2009 VB_{46}	17.2	X	354.00987	15.00269	35.82433	4.01194	0.1924862	0.18865268	3.0108843	20	—	—
411058 2009 VD_{48}	17.0	X	306.46297	312.46683	118.86691	4.30445	0.1323533	0.17627640	3.1502131	20	10 31.7	20.8
411059 2009 VY_{49}	16.2	X	18.30548	300.09000	75.03930	4.23868	0.1756008	0.18536697	3.0463595	20	12 21.7	20.0
411060 2009 VZ_{49}	16.2	X	313.04877	227.96687	221.65892	7.41517	0.1531629	0.18235225	3.0798434	20	12 4.4	19.7
411061 2009 VE_{52}	15.9	X	59.58204	259.52103	81.75750	6.32938	0.1443654	0.18620563	3.0372055	20	12 27.3	20.2
411062 2009 VJ_{53}	15.9	X	359.96723	151.71208	234.01037	7.99043	0.1000656	0.18351973	3.0667677	20	11 28.2	19.6
411063 2009 VF_{58}	16.6	X	17.50871	333.95408	73.78711	11.84720	0.1487078	0.19085642	2.9876625	20	—	—
411064 2009 VH_{59}	15.5	X	337.79852	284.24680	133.96926	19.50303	0.1628281	0.18250478	3.0781271	20	12 11.6	19.3
411065 2009 VT_{60}	16.3	X	29.79143	275.10606	63.26735	10.03786	0.0778670	0.17731675	3.1378791	20	11 8.2	20.4
411066 2009 VU_{60}	15.9	X	176.39509	336.98459	224.38290	8.69225	0.0827530	0.17600184	3.1534884	20	11 4.0	20.7
411067 2009 VO_{61}	16.0	X	213.76337	317.98054	239.01490	4.87490	0.0092355	0.18523930	3.0477590	20	12 18.9	20.2
411068 2009 VQ_{61}	16.9	X	359.79566	0.74238	52.23377	3.41888	0.1160741	0.18644019	3.0346575	20	—	—
411069 2009 VL_{64}	16.2	X	339.71102	26.44597	27.06490	10.02074	0.0965617	0.18637921	3.0353194	20	12 1.1	20.0
411070 2009 VG_{65}	15.5	X	29.48029	307.26177	44.10584	13.72133	0.0203881	0.17762797	3.1342129	20	11 13.9	19.9
411071 2009 VK_{65}	16.2	X	105.02002	269.70135	40.77805	10.23633	0.0995277	0.18862199	3.0112109	20	—	—
411072 2009 VK_{66}	17.3	X	291.44839	71.39977	16.66320	3.34917	0.2138224	0.17493520	3.1662940	20	10 16.0	21.1
411073 2009 VM_{66}	16.8	X	341.76744	178.09941	278.37427	3.06562	0.1929697	0.18911902	3.0059326	20	—	—
411074 2009 VM_{70}	15.9	X	150.00358	194.96752	51.34772	10.45520	0.0549216	0.17940914	3.1134341	20	11 30.2	20.5
411075 2009 VH_{76}	15.7	X	288.21860	203.69969	246.04941	7.64904	0.0530680	0.17831022	3.1262130	20	11 2.7	20.0
411076 2009 VU_{76}	15.7	X	45.17296	343.57154	357.82753	10.86399	0.1415101	0.18505816	3.0497475	20	12 9.1	20.1
411077 2009 VR_{81}	16.2	X	273.58650	77.46787	31.25321	9.18283	0.1248537	0.17677125	3.1443313	20	10 28.6	20.2
411078 2009 VG_{84}	15.4	X	287.71711	121.66778	257.23218	8.14089	0.0203566	0.15661267	3.4086686	20	8 4.8	20.3
411079 2009 VK_{86}	16.3	X	340.48554	182.28743	229.07290	9.49371	0.0783176	0.17926039	3.1151562	20	11 29.1	20.2
411080 2009 VF_{88}	16.8	X	354.57221	92.42051	320.62136	3.54870	0.1658424	0.18324331	3.0698510	20	12 31.3	20.3
411081 2009 VL_{89}	16.3	X	12.90374	91.42059	286.05047	8.49650	0.1021996	0.18192945	3.0846132	20	12 5.8	20.4
411082 2009 VB_{90}	16.5	X	325.55040	75.44673	35.07969	10.90467	0.0765561	0.18933626	3.0036329	20	—	—
411083 2009 VU_{96}	16.2	X	28.80298	318.80650	51.79387	2.22963	0.2274935	0.18519113	3.0482875	20	—	—
411084 2009 VR_{98}	16.6	X	261.62114	288.34018	208.21925	6.40495	0.0869463	0.17978932	3.1090434	20	11 22.9	20.8
411085 2009 VQ_{99}	15.8	X	295.17146	41.97841	61.56908	10.62961	0.0900060	0.17835598	3.1256782	20	11 26.5	19.9
411086 2009 VE_{100}	15.9	X	314.28679	25.13485	60.89342	12.69597	0.1115954	0.17836007	3.1256304	20	12 1.4	19.7
411087 2009 VN_{104}	18.0	X	74.16322	153.59166	205.48891	22.17994	0.0598574	0.38228743	1.8802231	20	—	—
411088 2009 VA_{111}	14.7	X	25.93314	66.87108	261.71455	20.77763	0.0396623	0.16928829	3.2363199	20	10 6.5	19.6
411089 2009 VJ_{111}	16.3	X	293.84219	251.31372	234.17626	12.83233	0.2698672	0.18223721	3.0811394	20	12 3.0	19.5
411090 2009 VC_{112}	16.1	X	279.39454	50.72650	70.24246	13.38815	0.2307925	0.18008200	3.1056738	20	11 9.8	19.9
411091 2009 VA_{116}	16.6	X	295.05242	172.08625	274.25388	4.37014	0.1130491	0.17352341	3.1834449	20	10 31.1	20.6
411092 2009 WX_{1}	16.9	X	328.87099	229.80332	184.54183	3.93777	0.1983829	0.18333426	3.0688357	20	11 17.4	19.9
411093 2009 WF_{2}	16.6	X	355.04762	232.58854	200.24766	11.42566	0.0326271	0.19570055	2.9381549	20	—	—
411094 2009 WE_{8}	15.9	X	89.67150	253.64225	26.53728	11.07015	0.0193309	0.17682506	3.1436934	20	10 31.1	20.3
411095 2009 WA_{26}	16.1	X	315.68329	216.34252	213.81268	8.57154	0.0838328	0.17778113	3.1324125	20	11 15.9	20.1
411096 2009 WM_{28}	17.1	X	23.47816	312.59625	47.78034	1.55375	0.1733417	0.18177429	3.0863683	20	12 9.4	20.9
411097 2009 WS_{29}	16.6	X	331.95193	241.22048	201.13375	8.88017	0.1033613	0.18879570	3.0093635	20	12 27.9	20.4
411098 2009 WJ_{32}	15.8	X	344.24148	248.02164	79.02574	11.19021	0.0306808	0.15690022	3.4045026	20	8 19.9	20.6
411099 2009 WE_{33}	15.7	X	139.39611	171.75977	73.11059	8.71109	0.0082250	0.17491016	3.1665962	20	11 17.3	20.1
411100 2009 WK_{35}	15.9	X	293.24334	256.30844	206.65979	13.53808	0.1860848	0.18346793	3.0673448	20	11 14.9	19.5
411101 2009 WU_{37}	15.6	X	17.85891	260.26741	63.54972	25.91056	0.2627040	0.17217107	3.2000929	20	11 3.9	19.6
411102 2009 WB_{40}	16.1	X	279.13374	194.69602	260.55327	10.34858	0.0681616	0.17168875	3.2060835	20	10 23.4	20.6
411103 2009 WL_{41}	16.6	X	349.59617	351.56944	71.98961	11.58679	0.1700080	0.18671912	3.0316346	20	—	—
411104 2009 WR_{43}	16.0	X	56.32904	285.44669	92.96976	8.08303	0.0992008	0.18752591	3.0229330	20	—	—
411105 2009 WF_{49}	15.7	X	21.99197	319.27417	67.80337	11.27241	0.1445700	0.18901698	3.0070144	20	—	—
411106 2009 WG_{49}	16.1	X	281.18010	355.22592	124.80649	11.45224	0.0668166	0.17889353	3.1194136	20	12 2.5	20.4
411107 2009 WA_{51}	16.5	X	302.46753	100.22610	22.42272	10.52039	0.1812501	0.18850639	3.0124418	20	12 29.0	19.9
411108 2009 WK_{71}	17.2	X	322.95149	273.72578	177.15726	1.62447	0.2492050	0.18250872	3.0780828	20	12 23.7	20.0
411109 2009 WS_{71}	15.9	X	12.20905	327.20314	73.43132	12.01616	0.0640975	0.18558058	3.0440213	20	12 29.8	20.0
411110 2009 WZ_{72}	16.6	X	20.77217	261.66568	105.47712	3.19526	0.1287775	0.18191048	3.0848277	20	12 8.1	20.5
411111 2009 WV_{76}	16.4	X	246.49696	184.52334	292.05484	6.89886	0.0695064	0.16927971	3.2364292	20	10 7.2	21.2
411112 2009 WB_{82}	17.0	X	88.11321	298.78479	48.38348	3.20267	0.1222736	0.19998528	2.8960365	20	—	—
411113 2009 WP_{83}	15.8	X	55.77332	278.90002	35.11892	12.08232	0.0723811	0.17654668	3.1469971	20	11 7.8	20.1
411114 2009 WR_{86}	16.5	X	57.53385	355.42169	329.63663	4.09372	0.1183850	0.18009505	3.1055238	20	11 30.5	20.9
411115 2009 WL_{98}	16.2	X	7.17393	352.32364	28.62578	9.62429	0.1358067	0.18350026	3.0669846	20	12 5.1	20.1
411116 2009 WC_{111}	16.8	X	32.94516	300.86815	79.26230	11.47851	0.1053971	0.18809084	3.0168771	20	—	—
411117 2009 WO_{122}	15.7	X	52.46396	81.05600	242.41522	24.32610	0.2226832	0.18174424	3.0867084	20	12 6.9	20.3
411118 2009 WE_{124}	15.9	X	265.81686	32.41861	65.62455	9.25542	0.0533431	0.17074375	3.2179022	20	10 17.9	20.5
411119 2009 WJ_{130}	16.2	X	219.68540	250.94764	265.18698	3.87612	0.1012443	0.17385485	3.1793976	20	10 23.3	21.0
411120 2009 WL_{134}	16.2	X	23.52614	180.00149	196.28243	7.98367	0.1759051	0.18526380	3.0474904	20	12 29.8	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411121 2009 WY_{143}	16.1	X	0.98209	10.11639	346.24957	5.92258	0.0798700	0.17269516	3.1936153	20	10 17.2	20.4
411122 2009 WN_{155}	15.8	X	350.23176	281.93376	89.81237	16.29498	0.2506420	0.17657460	3.1466654	20	11 10.9	19.1
411123 2009 WZ_{163}	16.1	X	350.97427	131.20934	271.01204	4.33844	0.1608444	0.17963825	3.1107863	20	12 9.2	19.6
411124 2009 WK_{172}	16.3	X	46.38008	105.90134	250.17466	18.21045	0.2048758	0.18881998	3.0091055	20	—	—
411125 2009 WQ_{190}	17.2	X	295.21890	285.21650	166.10799	0.99684	0.1626274	0.17545282	3.1600635	20	11 3.1	21.0
411126 2009 WJ_{191}	16.4	X	295.94680	47.87583	55.65985	14.86358	0.2215672	0.17886567	3.1197374	20	11 13.9	19.9
411127 2009 WF_{193}	16.1	X	43.99452	285.00860	49.33609	10.98644	0.1869620	0.18298663	3.0727211	20	12 5.3	20.5
411128 2009 WE_{206}	15.7	X	192.68010	214.01148	50.58128	11.90664	0.0554207	0.19652670	2.9299149	20	—	—
411129 2009 WS_{207}	16.9	X	73.50530	306.20229	33.65956	2.43300	0.0908812	0.18692682	3.0293885	20	—	—
411130 2009 WU_{209}	15.6	X	5.18779	289.50900	96.97438	16.04447	0.2499951	0.18285612	3.0741830	20	12 26.2	19.2
411131 2009 WA_{216}	16.0	X	81.72945	116.73564	199.59185	9.41865	0.0773561	0.18481357	3.0524377	20	12 13.9	20.6
411132 2009 WD_{218}	16.7	X	311.21723	249.57382	210.73903	16.81079	0.2437687	0.18212482	3.0824068	20	12 8.9	19.9
411133 2009 WO_{218}	15.7	X	47.76212	73.34537	243.62783	13.02505	0.1799952	0.17804860	3.1292746	20	11 17.8	20.0
411134 2009 WT_{220}	16.4	X	21.35115	281.03823	95.77564	2.51865	0.1490181	0.18608330	3.0385365	20	12 24.5	20.4
411135 2009 WV_{220}	16.1	X	66.53906	221.89294	61.43696	10.85067	0.1362422	0.17435686	3.1732919	20	10 26.8	20.8
411136 2009 WZ_{229}	15.8	X	297.07948	256.06643	217.79653	9.74200	0.1347136	0.18423922	3.0587782	20	12 10.3	19.5
411137 2009 WA_{232}	15.6	X	91.71934	189.66073	76.18859	10.78432	0.0802745	0.17397506	3.1779328	20	10 27.9	20.4
411138 2009 WG_{237}	16.0	X	224.86361	151.95117	49.28745	11.77152	0.1517339	0.18540121	3.0459844	20	12 17.7	20.5
411139 2009 WN_{249}	16.0	X	12.66458	270.83170	94.53204	10.67041	0.2173399	0.17947729	3.1126459	20	12 6.4	19.8
411140 2009 WU_{249}	16.1	X	29.33224	289.13680	63.32551	10.95712	0.1488044	0.17866458	3.1220780	20	12 2.9	20.2
411141 2009 WW_{252}	16.7	X	325.33139	179.47125	214.15011	3.40391	0.1659676	0.17204186	3.2016950	20	10 9.3	20.1
411142 2009 WZ_{262}	16.4	X	3.32795	307.18426	99.75824	11.82962	0.1006297	0.17723301	3.1388674	20	12 27.5	20.2
411143 2009 XL	16.9	X	310.16084	311.82785	152.27216	1.55469	0.1391316	0.18195397	3.0843361	20	12 18.3	20.3
411144 2009 XV_{2}	16.7	X	329.66899	41.86735	35.93890	9.46725	0.2335010	0.18161937	3.0881231	20	12 19.8	19.8
411145 2009 XZ_{10}	17.1	X	239.38469	87.92910	107.28020	6.71126	0.0382204	0.27463988	2.3440146	20	—	—
411146 2009 XQ_{23}	15.5	X	336.78801	354.60300	59.00920	12.14304	0.1100908	0.17783660	3.1317611	20	11 26.2	19.4
411147 2009 YB_{14}	16.8	X	28.22273	321.05114	81.77723	9.45225	0.2648270	0.18634332	3.0357092	20	—	—
411148 2009 YN_{22}	16.0	X	331.91558	349.58482	86.27585	14.11090	0.2169834	0.17793140	3.1306486	20	12 20.4	19.0
411149 2009 YD_{24}	16.1	X	33.68369	294.27668	103.30570	14.56821	0.2640201	0.18818525	3.0158680	20	—	—
411150 2010 AV_{4}	16.1	X	306.16162	27.47102	43.70041	1.34107	0.1161108	0.17151476	3.2082513	20	10 29.5	19.9
411151 2010 AY_{10}	16.2	X	304.79764	46.14598	86.17272	11.42016	0.0796661	0.18046802	3.1012436	20	—	—
411152 2010 AS_{39}	15.0	X	310.25011	21.04905	82.73047	13.70289	0.1059925	0.17927080	3.1150355	20	12 18.5	18.7
411153 2010 AV_{41}	16.0	X	301.98863	2.51708	133.32133	11.02096	0.0796888	0.17953311	3.1120007	20	—	—
411154 2010 AM_{84}	16.2	X	310.07663	221.69764	184.08854	15.08049	0.0721814	0.17803885	3.1293889	20	10 9.1	20.2
411155 2010 AP_{110}	15.6	X	259.65594	118.24635	20.87030	12.39950	0.2979329	0.17913983	3.1165537	20	10 22.6	20.0
411156 2010 AZ_{111}	16.6	X	4.54594	262.65662	113.55057	6.59179	0.1563344	0.18521005	3.0480800	20	11 30.8	20.3
411157 2010 AY_{134}	16.7	X	335.95785	333.43235	76.29083	6.54688	0.1782728	0.18399866	3.0614437	20	11 24.9	20.0
411158 2010 AL_{136}	15.8	X	230.18491	287.93033	214.54737	12.01145	0.1785676	0.17573312	3.1567024	20	10 9.7	20.6
411159 2010 BN_{5}	15.5	X	210.10146	93.51668	109.97197	11.45864	0.0486862	0.17033968	3.2229891	20	12 15.0	20.3
411160 2010 BP_{31}	16.8	X	43.75311	288.94091	67.36024	14.72743	0.2784726	0.19231258	2.9725620	20	—	—
411161 2010 BM_{88}	16.2	X	314.25406	99.26951	6.44397	9.11299	0.1161412	0.18802261	3.0176069	20	12 30.9	19.9
411162 2010 BW_{95}	16.4	X	41.97874	300.53463	15.63753	18.95247	0.2842002	0.18217929	3.0817924	20	11 19.8	21.0
411163 2010 BG_{104}	16.4	X	56.20983	3.81866	56.18539	18.20205	0.0989303	0.20448201	2.8534219	20	—	—
411164 2010 CK_{145}	17.4	X	229.88734	240.82192	318.46597	8.06709	0.1732238	0.26527344	2.3988709	20	—	—
411165 2010 DF_{1}	21.8	X	345.29234	101.79166	154.88184	20.07781	0.5029977	0.48776586	1.5983128	20	1 24.4*	23.5
411166 2010 DU_{18}	17.7	X	298.28724	149.28062	96.86378	6.05817	0.2032222	0.27824559	2.3237203	20	1 29.9	20.9
411167 2010 DV_{19}	15.6	X	345.00361	167.39150	208.26139	20.88770	0.0286695	0.17038783	3.2223818	20	10 18.0	19.8
411168 2010 DD_{29}	16.3	X	296.61616	221.12365	208.77606	15.37345	0.0860623	0.17151514	3.2082465	20	10 16.2	20.6
411169 2010 EC_{34}	18.0	X	323.66985	285.02813	180.95416	22.71721	0.0970669	0.35843896	1.9627240	20	—	—
411170 2010 EW_{80}	18.0	X	339.07954	124.76908	161.48827	6.96779	0.2475035	0.30608921	2.1805734	20	6 5.2	19.1
411171 2010 EO_{82}	17.7	X	2.28228	256.01357	359.71666	2.76934	0.1100566	0.30367620	2.1921093	20	6 15.2	19.4
411172 2010 EK_{83}	17.7	X	254.60817	97.62976	192.42786	5.86320	0.1780072	0.28066947	2.3103224	20	2 9.7	21.4
411173 2010 EY_{103}	18.3	X	335.82376	223.09213	29.53837	2.49001	0.1442957	0.29637218	2.2279790	20	4 11.8	19.9
411174 2010 FZ_{15}	17.9	X	307.66782	264.29398	16.55506	7.29292	0.1392705	0.29549675	2.2323772	20	4 6.3	20.2
411175 2010 FJ_{34}	15.2	X	209.30311	153.23212	44.57416	19.12904	0.0890822	0.17274904	3.1929512	20	11 29.7	20.1
411176 2010 FU_{54}	18.5	X	355.07292	108.43281	179.98342	2.12432	0.1115213	0.31040586	2.1603102	20	7 26.8	20.2
411177 2010 FO_{79}	15.9	X	319.42288	322.98687	114.78044	5.76250	0.2680658	0.17548987	3.1596187	20	11 23.9	18.8
411178 2010 FN_{87}	17.9	X	13.92345	163.90171	55.69708	7.67749	0.1115367	0.29841235	2.2178126	20	5 10.0	19.8
411179 2010 GS_{32}	18.1	X	331.27245	141.11951	82.86634	3.97301	0.2119579	0.28713706	2.2754985	20	2 10.6	20.6
411180 2010 GM_{98}	18.2	X	297.01344	237.13369	27.68080	4.24342	0.0870127	0.28788563	2.2715522	20	3 9.8	20.9
411181 2010 GH_{118}	17.9	X	307.31529	199.13679	92.49504	6.85809	0.1253227	0.29328182	2.2436027	20	4 27.9	20.3
411182 2010 GQ_{137}	18.2	X	341.93394	256.23294	38.57836	2.72430	0.1706161	0.30810420	2.1710557	20	7 7.9	19.5
411183 2010 GD_{144}	17.9	X	333.16053	153.19050	72.70407	5.62495	0.1726921	0.28708489	2.2757741	20	2 25.0	20.2
411184 2010 HU_{10}	17.3	X	210.51428	6.80002	329.42351	4.71234	0.2407318	0.26372142	2.4082734	20	2 29.2	21.5
411185 2010 HE_{48}	17.3	X	192.02331	351.76570	328.99825	2.04465	0.2379456	0.25497488	2.4630381	20	1 29.5	21.6
411186 2010 JP_{1}	17.2	X	274.94703	197.28768	97.64410	14.35937	0.2406326	0.28271759	2.2991510	20	3 8.4	20.9
411187 2010 JO_{40}	17.8	X	293.90894	320.13035	313.32997	4.14324	0.2756177	0.28272392	2.2991167	20	2 18.1	21.1
411188 2010 JC_{43}	16.9	X	151.34432	197.94456	47.36152	14.71049	0.1508064	0.24011715	2.5636216	20	12 8.6	21.1
411189 2010 JV_{45}	17.6	X	191.37368	223.10120	107.95877	5.49503	0.1694906	0.26851837	2.3795055	20	2 7.6	21.4
411190 2010 JF_{66}	17.3	X	170.64986	201.21068	150.29699	9.88978	0.2165710	0.25388139	2.4701053	20	2 16.9	21.4
411191 2010 JZ_{84}	18.3	X	316.87523	299.84756	319.44673	2.50115	0.2106445	0.28852220	2.2682098	20	3 7.7	20.8
411192 2010 JE_{116}	17.4	X	330.04782	6.01173	211.04650	6.16883	0.1830220	0.28192478	2.3034593	20	1 31.8	20.2
411193 2010 JE_{148}	18.2	X	344.16533	100.65316	125.65742	7.10748	0.1896326	0.28921228	2.2646003	20	3 13.9	20.1
411194 2010 JT_{171}	17.5	X	273.00154	181.96954	83.34161	12.87491	0.2217728	0.27852870	2.3221454	20	1 27.3	21.2
411195 2010 KW_{3}	17.3	X	240.41906	85.03671	196.86748	6.26946	0.2118995	0.25980509	2.4324147	20	1 18.9	21.5
411196 2010 KU_{47}	17.2	X	246.82909	17.11786	276.63764	2.46270	0.1999084	0.26295878	2.4129274	20	2 8.6	21.2
411197 2010 KJ_{110}	17.5	X	195.81749	238.07149	151.60228	5.00345	0.2392086	0.26523348	2.3991118	20	4 25.2	21.6
411198 2010 KD_{116}	17.4	X	157.75743	100.40305	230.84926	9.66566	0.1399991	0.24403335	2.5361208	20	1 5.6	21.3
411199 2010 KW_{117}	17.6	X	248.41676	195.78045	97.96479	6.91191	0.3280544	0.27123267	2.3636040	20	2 4.6	21.8
411200 2010 KB_{118}	17.3	X	274.38356	177.13044	123.40398	8.72188	0.2779057	0.28002485	2.3138667	20	3 7.8	20.9

* The additional opposition: 9 12.9, $V = 19.5$

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411201 2010 LJ_{14}	17.8	X	39.19025	295.30391	177.41327	12.02956	0.3421228	0.47532845	1.6260735	20	—	—
411202 2010 LU_{17}	16.4	X	164.49462	314.32929	329.74121	28.25362	0.1252535	0.23535939	2.5980552	20	—	—
411203 2010 LL_{35}	16.7	X	102.44922	18.84978	227.51631	12.82399	0.2276983	0.22559820	2.6724667	20	10 30.6	21.1
411204 2010 LZ_{51}	15.9	X	162.83199	274.00916	339.36002	27.07482	0.1613353	0.22825038	2.6517243	20	—	—
411205 2010 LV_{79}	16.3	X	104.40027	353.52723	341.94306	14.06444	0.2595726	0.22885772	2.6470309	20	—	—
411206 2010 LL_{110}	17.4	X	305.41317	217.58571	76.33017	7.74808	0.1530236	0.29050192	2.2578931	20	4 23.6	19.8
411207 2010 LN_{110}	17.4	X	288.81145	61.14749	248.69904	6.05636	0.1459135	0.28886395	2.2664205	20	4 18.1	20.2
411208 2010 MM_{97}	17.4	X	175.74377	2.15813	21.79471	3.48055	0.1913379	0.25594799	2.4567911	20	3 31.0	21.5
411209 2010 MO_{97}	17.6	X	150.62839	330.83046	37.91211	11.99117	0.2320637	0.24595699	2.5228800	20	2 28.5	21.9
411210 2010 NZ_{6}	17.7	X	173.64480	108.50061	243.02710	3.42666	0.2418867	0.25499666	2.4628978	20	2 19.1	22.0
411211 2010 NU_{14}	16.9	X	93.58184	244.18104	145.76275	5.53976	0.2952386	0.23251920	2.6191689	20	1 29.5	20.2
411212 2010 NV_{22}	16.7	X	98.50915	246.65487	175.92081	27.74515	0.2789229	0.23974914	2.5662444	20	3 14.6	20.1
411213 2010 NU_{25}	16.3	X	90.20784	80.08084	317.12154	26.83467	0.1186404	0.23431171	2.6057939	20	1 13.2	19.8
411214 2010 NC_{63}	17.3	X	51.61620	223.75364	180.02680	11.65225	0.1874728	0.22377450	2.6869670	20	—	—
411215 2010 NP_{68}	16.2	X	96.48294	353.50217	33.29599	15.49010	0.3064150	0.23227974	2.6209686	20	2 7.3	19.9
411216 2010 NM_{69}	17.6	X	141.00304	95.56164	224.61915	9.36218	0.2290998	0.23295136	2.6159286	20	—	—
411217 2010 ND_{87}	16.8	X	78.72202	269.19726	148.83217	17.09692	0.2032716	0.23477375	2.6023739	20	1 28.6	19.8
411218 2010 NS_{103}	16.5	X	121.83668	125.87714	257.74516	8.34195	0.0547816	0.24036486	2.5618601	20	1 19.3	20.0
411219 2010 OE_{14}	16.5	X	73.62602	147.63250	310.89354	12.76449	0.1977680	0.24077333	2.5589618	20	3 9.1	19.6
411220 2010 OO_{19}	17.4	X	102.87797	144.08304	246.92532	5.34500	0.0901449	0.23544916	2.5973947	20	1 11.1	20.8
411221 2010 OV_{28}	16.6	X	118.03730	53.06414	322.23730	10.67608	0.2087389	0.23575800	2.5951258	20	1 29.5	20.2
411222 2010 OV_{37}	16.9	X	99.79676	154.47094	286.46213	4.43910	0.1311933	0.24512591	2.5285792	20	3 15.6	20.2
411223 2010 OO_{49}	17.5	X	143.34843	280.27127	37.06076	11.90070	0.1952678	0.23114535	2.6295369	20	—	—
411224 2010 OL_{74}	17.3	X	150.81377	256.69843	99.48228	13.45138	0.2804671	0.24173654	2.5521597	20	2 14.7	21.7
411225 2010 OZ_{86}	16.9	X	196.91530	59.50415	227.13916	15.25662	0.1518976	0.26291897	2.4131710	20	—	—
411226 2010 OO_{106}	16.5	X	107.61477	121.74846	317.39587	11.25291	0.2425569	0.24292434	2.5438336	20	4 4.1	20.4
411227 2010 OV_{108}	16.8	X	177.89069	318.59960	0.19387	11.72956	0.1897498	0.23978100	2.5660170	20	1 18.3	21.2
411228 2010 PW_{1}	17.4	X	239.41386	31.27965	281.95127	3.92236	0.1841554	0.26809523	2.3820086	20	2 25.3	21.2
411229 2010 PD_{49}	17.0	X	120.28288	24.30654	1.16195	10.73780	0.1364837	0.23622648	2.5916937	20	2 6.6	20.7
411230 2010 PB_{52}	17.0	X	149.18108	173.57717	195.76562	13.92856	0.2613356	0.24233541	2.5479533	20	2 21.4	21.4
411231 2010 PG_{57}	16.8	X	214.58586	9.61674	334.56993	6.68953	0.1073656	0.26363317	2.4088108	20	3 15.0	20.3
411232 2010 PX_{61}	17.1	X	195.92513	35.14720	338.01688	7.65274	0.1221106	0.26391910	2.4070706	20	3 31.6	20.9
411233 2010 PH_{62}	17.7	X	248.16128	268.40011	30.45380	3.68778	0.2107360	0.26307643	2.4122080	20	2 17.5	21.6
411234 2010 PH_{65}	17.1	X	127.58487	190.24683	156.24731	9.44532	0.1751398	0.23844360	2.5756031	20	—	—
411235 2010 PX_{73}	17.6	X	223.85022	166.81746	169.53329	2.41225	0.2125623	0.26402792	2.4064092	20	3 11.9	21.7
411236 2010 PP_{75}	17.4	X	202.10521	165.31288	188.85388	1.91993	0.1841825	0.26289632	2.4133096	20	3 15.9	21.3
411237 2010 PE_{80}	18.0	X	183.35929	204.99041	164.78224	2.87116	0.1883139	0.25860065	2.4399615	20	3 19.8	22.0
411238 2010 QK_{2}	17.1	X	213.35837	209.25866	110.37781	2.64045	0.1875804	0.25950999	2.4342583	20	2 13.4	21.0
411239 2010 QK_{6}	17.4	X	219.02172	77.72779	224.62374	1.41773	0.2158065	0.25671695	2.4518827	20	1 27.4	21.6
411240 2010 RG_{9}	17.7	X	236.77250	148.90651	150.96494	2.45200	0.2173562	0.26115886	2.4240014	20	2 7.3	21.8
411241 2010 RF_{23}	16.9	X	77.78391	94.22361	299.61972	12.89308	0.0977369	0.23623698	2.5916169	20	—	—
411242 2010 RF_{39}	16.9	X	149.26932	83.88953	313.98557	14.04990	0.0874209	0.25879131	2.4387629	20	3 8.8	20.5
411243 2010 RY_{40}	17.6	X	231.91015	243.25303	66.04981	3.54494	0.2066991	0.26229024	2.4170259	20	2 16.7	21.6
411244 2010 RB_{62}	16.8	X	150.67104	300.34758	15.06028	10.68445	0.2487926	0.23535577	2.5980818	20	—	—
411245 2010 RZ_{68}	17.0	X	257.73976	27.21390	251.19446	5.76306	0.2022340	0.25976945	2.4326371	20	1 29.6	21.0
411246 2010 RM_{73}	18.1	X	169.69929	336.07342	51.24416	3.38999	0.2034147	0.25818831	2.4425587	20	3 31.1	22.2
411247 2010 RP_{75}	17.6	X	131.07444	275.81153	76.43563	5.58831	0.2678818	0.23769113	2.5810360	20	1 21.3	21.6
411248 2010 RL_{80}	17.3	X	183.96893	202.58030	174.57912	4.60243	0.0907589	0.26174075	2.4204075	20	3 27.1	20.7
411249 2010 RY_{82}	17.2	X	168.47767	29.90698	56.11720	7.71459	0.0923633	0.26901649	2.3765673	20	6 8.5	20.7
411250 2010 RB_{86}	17.9	X	241.14984	259.84075	56.50120	2.98615	0.0729671	0.26269511	2.4145418	20	3 13.4	21.1
411251 2010 RO_{90}	17.3	X	157.75169	205.90556	179.54539	6.70912	0.0925131	0.25890116	2.4380731	20	3 8.2	20.8
411252 2010 RX_{92}	17.4	X	112.82370	46.20142	329.57314	12.19662	0.1772511	0.24003569	2.5642016	20	1 20.2	20.9
411253 2010 RU_{104}	17.6	X	180.57390	93.56506	195.90561	12.66308	0.1914663	0.23648062	2.5898365	20	—	—
411254 2010 RF_{109}	17.5	X	223.55390	150.46746	176.58708	5.85457	0.1160559	0.26034003	2.4290815	20	3 3.4	21.0
411255 2010 RW_{110}	17.4	X	184.95082	297.51081	8.18980	13.57488	0.1619808	0.24258686	2.5461923	20	1 6.1	21.7
411256 2010 RU_{118}	17.0	X	104.60760	60.65456	47.63602	8.30874	0.1411488	0.25510846	2.4621781	20	5 1.5	20.1
411257 2010 RA_{120}	16.9	X	274.39870	304.01205	257.25299	3.29481	0.1280332	0.23357997	2.6112331	20	—	—
411258 2010 RS_{120}	16.6	X	130.76855	7.55923	344.90485	13.47405	0.0899908	0.23890316	2.5722990	20	—	—
411259 2010 RQ_{122}	17.9	X	79.03285	268.69832	220.73148	7.89921	0.0787758	0.26038135	2.4288245	20	4 13.8	20.7
411260 2010 RQ_{123}	17.1	X	186.08073	271.00586	3.68491	11.86302	0.1332378	0.23190489	2.6237923	20	—	—
411261 2010 RJ_{124}	16.9	X	75.68736	52.05442	355.85151	13.70508	0.1177252	0.23275096	2.6174299	20	—	—
411262 2010 RD_{125}	18.3	X	177.21796	215.61880	143.02454	2.63548	0.1879397	0.25251219	2.4790264	20	3 1.4	22.4
411263 2010 RV_{126}	17.4	X	114.26922	5.58961	57.42431	4.16772	0.1575940	0.24665648	2.5181080	20	3 18.6	20.8
411264 2010 RZ_{127}	17.0	X	169.78038	340.13326	334.77014	11.91458	0.1838480	0.24156696	2.5533540	20	1 4.8	21.2
411265 2010 RP_{139}	17.9	X	173.07848	192.81370	183.38423	5.03735	0.1662207	0.25698120	2.4502015	20	3 17.3	21.7
411266 2010 RW_{139}	17.7	X	250.74202	138.21321	149.79541	2.96282	0.1864852	0.26036276	2.4289401	20	2 6.6	21.5
411267 2010 RS_{144}	17.6	X	182.03924	48.84852	241.68261	2.23541	0.0940529	0.23444544	2.6048028	20	—	—
411268 2010 RW_{148}	16.1	X	287.70879	216.08506	349.67480	12.76364	0.2190647	0.24425519	2.5345849	20	—	—
411269 2010 RJ_{153}	17.4	X	56.59703	204.02122	274.09688	5.08652	0.1793451	0.24435728	2.5338790	20	3 6.6	20.0
411270 2010 RR_{155}	17.5	X	196.27937	139.89173	162.82605	7.68451	0.0945454	0.24209008	2.5496744	20	1 7.8	21.4
411271 2010 RF_{158}	17.2	X	152.86591	338.63251	10.03883	13.54620	0.2148386	0.24172786	2.5522208	20	2 4.7	21.5
411272 2010 RM_{160}	18.0	X	153.77421	32.40627	323.03601	7.32438	0.2766568	0.24512489	2.5285863	20	2 12.6	22.1
411273 2010 RB_{175}	17.6	X	130.41300	161.33138	164.32475	2.04993	0.0853503	0.22869276	2.6483036	20	—	—
411274 2010 RW_{176}	17.9	X	60.58513	242.83571	207.94777	4.10094	0.2109443	0.23865886	2.5740541	20	2 10.4	20.5
411275 2010 SK_{2}	16.7	X	264.20084	211.66049	18.70416	16.36412	0.1333269	0.23528520	2.5986013	20	—	—
411276 2010 ST_{2}	17.2	X	193.85243	273.86500	348.87964	3.94748	0.1793041	0.22791728	2.6543074	20	—	—
411277 2010 SN_{6}	17.5	X	95.01736	46.88358	327.79793	3.15264	0.2027584	0.22887362	2.6469082	20	—	—
411278 2010 SL_{10}	17.2	X	106.73125	55.99981	338.31818	11.09140	0.2943023	0.23783405	2.5800019	20	2 20.5	20.9
411279 2010 SK_{11}	16.9	X	354.79944	116.06456	17.51961	7.67483	0.0963047	0.22891988	2.6465517	20	—	—
411280 2010 SL_{13}	19.3	X	94.34411	266.55043	196.11456	3.04110	0.4154195	0.34734389	2.0043010	20	5 16.5	21.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411281 2010 SY_{29}	16.9	X	301.19184	256.99063	353.91588	7.01638	0.0966466	0.25948071	2.4344414	20	2 26.9	19.9
411282 2010 SP_{30}	17.2	X	130.30779	312.26287	24.31125	14.49634	0.1824050	0.23260912	2.6184939	20	—	—
411283 2010 SZ_{32}	17.6	X	131.08436	304.30128	23.69398	14.17479	0.1096547	0.23221434	2.6214608	20	—	—
411284 2010 SG_{36}	17.0	X	80.19522	34.83872	15.60922	13.12578	0.2574265	0.23198060	2.6232213	20	2 6.0	20.2
411285 2010 TM_{1}	17.5	X	106.22895	5.38992	99.18158	2.19446	0.1443032	0.25416664	2.4682569	20	4 29.3	20.9
411286 2010 TF_{6}	17.3	X	250.77555	86.91779	161.77128	5.80139	0.0628838	0.24180260	2.5516948	20	—	—
411287 2010 TE_{12}	16.8	X	60.46898	259.22433	149.10997	8.52021	0.2696299	0.22731488	2.6589947	20	—	—
411288 2010 TH_{13}	17.4	X	85.00459	193.57136	251.92237	4.21589	0.1273206	0.24558125	2.5254527	20	2 29.6	20.6
411289 2010 TR_{14}	16.6	X	212.18959	212.00007	4.26031	13.73535	0.1198895	0.22087452	2.7104349	20	—	—
411290 2010 TJ_{15}	17.5	X	11.71043	166.99556	313.38963	5.61894	0.0557109	0.23527252	2.5986946	20	—	—
411291 2010 TP_{17}	16.8	X	51.43990	187.10600	214.96410	9.24724	0.1954793	0.22356973	2.6886073	20	—	—
411292 2010 TS_{37}	18.1	X	99.82817	30.29490	344.90115	4.05756	0.3099199	0.23207530	2.6225077	20	1 22.4	21.4
411293 2010 TU_{55}	17.2	X	155.08697	127.51476	227.36072	7.01958	0.1152503	0.24434843	2.5339401	20	1 28.6	21.0
411294 2010 TT_{69}	17.0	X	58.64195	203.65756	188.31069	10.54162	0.0808790	0.22906336	2.6454464	20	—	—
411295 2010 TF_{76}	18.2	X	135.08590	322.07045	34.94192	4.08770	0.2012077	0.23882845	2.5728354	20	1 23.8	22.0
411296 2010 TH_{79}	17.2	X	155.00289	162.78101	204.23794	16.87678	0.1659144	0.24379023	2.5378066	20	2 14.7	21.4
411297 2010 TH_{80}	17.2	X	93.65030	72.67266	2.39720	6.80793	0.1593988	0.24104423	2.5570442	20	3 7.9	20.4
411298 2010 TV_{83}	17.3	X	218.69036	71.97367	185.39380	7.27759	0.0418458	0.23580657	2.5947695	20	—	—
411299 2010 TD_{88}	17.9	X	86.19830	277.08125	151.95452	2.40283	0.0590398	0.24320309	2.5418894	20	2 1.6	20.8
411300 2010 TT_{92}	17.4	X	207.17468	138.22502	213.14614	15.43778	0.1891723	0.25920869	2.4361443	20	3 13.5	21.6
411301 2010 TP_{97}	17.9	X	191.40391	338.64053	28.02205	2.20351	0.1984638	0.25773817	2.4454018	20	3 23.2	21.8
411302 2010 TR_{97}	17.0	X	238.55609	207.18617	20.19707	5.27074	0.2005989	0.23495282	2.6010514	20	—	—
411303 2010 TQ_{113}	17.0	X	162.16699	83.13115	206.47346	12.21259	0.1910005	0.23037877	2.6353668	20	—	—
411304 2010 TL_{114}	16.4	X	229.96735	199.91671	19.45467	13.46715	0.0728440	0.22489452	2.6780384	20	—	—
411305 2010 TS_{116}	17.2	X	76.67152	6.07615	28.28277	8.66944	0.0713133	0.22911357	2.6450599	20	—	—
411306 2010 TG_{118}	16.8	X	183.84613	216.32627	49.05859	8.09607	0.0386186	0.22431621	2.6826392	20	—	—
411307 2010 TL_{131}	17.4	X	152.92826	240.89841	71.17149	5.54238	0.3013744	0.23678310	2.5876305	20	—	—
411308 2010 TY_{139}	17.2	X	336.38889	93.18867	352.71773	6.04199	0.0958526	0.21128656	2.7918246	20	—	—
411309 2010 TV_{143}	16.3	X	208.90701	292.43390	265.79444	5.13605	0.0083138	0.20875783	2.8143247	20	12 20.4	20.1
411310 2010 TF_{144}	18.3	X	181.21668	6.29126	315.13464	3.67605	0.2380358	0.24301990	2.5431666	20	1 23.2	22.5
411311 2010 TJ_{146}	18.0	X	43.73838	123.19602	324.10470	2.94145	0.0746366	0.23099171	2.6307028	20	—	—
411312 2010 TX_{146}	17.2	X	60.66661	102.13605	260.18792	3.36953	0.0802314	0.21465574	2.7625345	20	—	—
411313 2010 TY_{147}	16.6	X	121.44780	129.92929	240.80632	16.99931	0.3035858	0.23437604	2.6053170	20	1 31.5	21.0
411314 2010 TJ_{149}	17.7	X	277.22719	322.53761	107.75102	4.56365	0.1161414	0.29426813	2.2385866	20	10 11.7	19.8
411315 2010 TJ_{162}	16.9	X	63.30720	270.97879	188.60606	27.53414	0.3723342	0.23132221	2.6281965	20	3 31.5	19.6
411316 2010 TA_{168}	17.3	X	100.44228	23.00392	22.42537	3.97015	0.1406027	0.23720886	2.5845332	20	2 5.3	20.5
411317 2010 TN_{178}	18.3	X	155.58002	46.22583	27.92821	2.52253	0.1878562	0.26081200	2.4261501	20	5 14.2	22.1
411318 2010 UU	17.4	X	80.97297	28.23019	0.50567	3.44395	0.1657520	0.22802991	2.6534333	20	—	—
411319 2010 UD_{4}	17.3	X	176.23696	34.33100	313.51991	2.64600	0.1411765	0.24441811	2.5334585	20	2 14.3	21.1
411320 2010 UC_{6}	16.7	X	139.92311	128.41874	210.26742	14.98838	0.2157141	0.23216222	2.6218531	20	1 5.3	21.0
411321 2010 UZ_{11}	17.0	X	113.12900	347.83888	27.24123	10.14583	0.0889590	0.23365252	2.6106926	20	1 6.5	20.6
411322 2010 UG_{12}	16.5	X	182.69911	268.81266	24.12172	14.06981	0.1574256	0.23402433	2.6079267	20	—	—
411323 2010 UY_{15}	17.2	X	131.34646	135.04442	221.30232	3.34018	0.1450857	0.23409771	2.6073817	20	1 11.1	21.0
411324 2010 UO_{16}	17.0	X	109.89263	327.33089	28.90829	4.44828	0.1999504	0.22845860	2.6501129	20	—	—
411325 2010 UT_{21}	17.1	X	72.69013	358.31013	50.32135	5.23505	0.2350009	0.22761622	2.6566474	20	1 13.6	19.8
411326 2010 UU_{21}	17.3	X	104.43753	35.96262	35.08562	5.83393	0.2417737	0.24043129	2.5613882	20	3 28.9	20.9
411327 2010 UZ_{27}	17.0	X	170.40267	268.53053	57.23249	5.15701	0.1185586	0.23388203	2.6089844	20	1 13.6	20.9
411328 2010 UW_{28}	17.6	X	66.61655	270.07413	178.30572	2.08497	0.2391145	0.23185678	2.6241552	20	2 25.7	20.2
411329 2010 UM_{30}	16.8	X	90.43991	56.27201	32.84367	22.49317	0.0759460	0.24310921	2.5425438	20	3 19.9	20.4
411330 2010 UN_{34}	17.5	X	139.62183	5.33680	342.59757	4.72901	0.2751512	0.23725277	2.5842143	20	1 24.8	21.6
411331 2010 UM_{36}	16.5	X	105.80510	122.21244	265.01443	11.40394	0.1919855	0.23055982	2.6339870	20	1 24.1	20.1
411332 2010 UA_{37}	16.2	X	153.90186	309.55819	42.76975	10.28516	0.2214614	0.23669682	2.5882592	20	2 10.0	20.6
411333 2010 UD_{37}	16.4	X	134.76730	51.60999	258.38744	12.17613	0.1737833	0.21723463	2.7406275	20	—	—
411334 2010 UN_{49}	17.7	X	144.03962	130.92469	179.15686	6.12809	0.1614145	0.22717818	2.6600613	20	—	—
411335 2010 UL_{52}	16.8	X	96.02578	281.50011	47.00874	13.81924	0.1697159	0.21497408	2.7598066	20	—	—
411336 2010 UN_{53}	17.4	X	145.64566	340.68442	28.26172	9.22650	0.1766799	0.24053181	2.5606745	20	2 18.1	21.4
411337 2010 UP_{53}	17.4	X	130.61499	307.10627	358.33347	4.60196	0.1407065	0.22046127	2.7138209	20	—	—
411338 2010 UA_{56}	16.6	X	0.82248	237.57680	246.73812	11.36175	0.1617349	0.22147436	2.7055386	20	—	—
411339 2010 UY_{56}	16.7	X	107.71025	319.99093	49.27089	14.38671	0.2717717	0.23285155	2.6166761	20	1 20.8	20.5
411340 2010 UU_{58}	15.7	X	129.94709	179.52012	54.75951	12.06811	0.0453747	0.18967694	3.0000353	20	10 29.9	20.1
411341 2010 UB_{60}	17.0	X	123.62489	325.35787	51.18800	5.82076	0.0973759	0.23033183	2.6357249	20	1 23.6	20.6
411342 2010 UJ_{64}	17.9	X	122.39950	8.76545	327.31778	1.79670	0.2039468	0.22677532	2.6632107	20	—	—
411343 2010 US_{64}	17.0	X	40.28136	81.00325	17.00401	3.70491	0.0507086	0.23079110	2.6322271	20	1 7.2	20.2
411344 2010 UE_{65}	17.7	X	173.48671	311.85501	22.39482	1.44360	0.1353472	0.23905272	2.5712260	20	1 27.1	21.6
411345 2010 UR_{66}	16.6	X	183.03384	207.61079	40.73730	4.04218	0.1443421	0.21472386	2.7619502	20	—	—
411346 2010 UY_{70}	16.6	X	160.02821	11.40584	320.41150	11.12738	0.0866316	0.23494055	2.6011420	20	1 7.9	20.4
411347 2010 UR_{73}	16.3	X	132.47219	286.66365	69.78103	14.39318	0.3128762	0.23564842	2.5959303	20	2 4.2	20.7
411348 2010 UA_{75}	16.5	X	77.50605	138.55213	283.66788	7.91038	0.1097636	0.23293901	2.6160211	20	1 19.2	19.6
411349 2010 UP_{75}	17.3	X	80.06604	355.91026	353.33346	5.92243	0.0418206	0.21255917	2.7806702	20	—	—
411350 2010 UG_{76}	16.9	X	138.78365	71.92847	316.29211	3.81310	0.2521555	0.24108859	2.5567305	20	3 7.7	21.0
411351 2010 UO_{76}	16.7	X	103.73945	150.37052	245.64985	12.13648	0.1946002	0.23376869	2.6098276	20	1 30.9	20.4
411352 2010 UE_{77}	17.0	X	130.93495	55.82091	323.27618	2.83437	0.2062329	0.23543599	2.5974916	20	2 15.4	20.8
411353 2010 UQ_{78}	17.6	X	141.17838	135.36121	240.79815	17.87769	0.2119017	0.24199524	2.5503405	20	2 13.8	22.0
411354 2010 UR_{81}	17.3	X	89.44210	77.61766	1.73900	2.23296	0.0558378	0.24059345	2.5602371	20	2 20.5	20.6
411355 2010 UV_{82}	16.5	X	149.85057	327.09788	38.24880	11.53521	0.0688247	0.23760290	2.5816750	20	2 8.2	20.3
411356 2010 US_{83}	16.7	X	98.16870	199.29266	218.09335	11.08178	0.1752483	0.23512225	2.5998017	20	2 17.4	20.3
411357 2010 UV_{83}	16.1	X	125.52355	150.27685	221.49597	18.65215	0.2673541	0.23399774	2.6081243	20	2 1.7	20.5
411358 2010 UQ_{84}	16.6	X	150.29468	286.57252	31.90593	14.20963	0.1081709	0.22515977	2.6759347	20	—	—
411359 2010 UK_{87}	17.8	X	97.96380	354.98781	75.98040	4.94686	0.1576856	0.24144258	2.5542308	20	3 9.7	21.1
411360 2010 UC_{88}	17.0	X	120.10697	17.36375	356.40803	5.78400	0.2200110	0.23402135	2.6079488	20	2 1.1	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411361 2010 UR_{89}	18.0	X	93.50765	157.97340	213.36386	4.06883	0.1914740	0.23015224	2.6370958	20	—	—
411362 2010 US_{93}	16.7	X	85.28893	84.24629	300.90132	5.46554	0.0194405	0.22354884	2.6887748	20	—	—
411363 2010 UO_{94}	16.2	X	92.56674	82.87734	336.40002	11.62418	0.1583572	0.23648957	2.5897712	20	2 15.3	19.3
411364 2010 UO_{97}	17.1	X	14.78227	359.26375	88.06342	4.65880	0.1677767	0.21766338	2.7370274	20	—	—
411365 2010 UY_{101}	16.6	X	153.10710	248.49665	43.96649	11.82682	0.0360675	0.21899030	2.7259599	20	—	—
411366 2010 UF_{102}	16.7	X	112.76012	158.09874	221.56167	10.96654	0.2053267	0.23216594	2.6218251	20	1 24.3	20.5
411367 2010 UP_{107}	17.2	X	153.00449	280.26783	70.94352	4.82195	0.1796780	0.23716125	2.5848791	20	2 1.5	21.2
411368 2010 VM_{14}	17.0	X	31.57245	44.69942	56.70979	13.48932	0.2219622	0.22499396	2.6772493	20	—	—
411369 2010 VT_{19}	17.3	X	100.76910	165.50311	245.70967	3.26398	0.2424193	0.23606385	2.5928838	20	2 25.4	20.8
411370 2010 VR_{27}	16.8	X	152.46209	113.75569	232.19007	11.40511	0.2058769	0.23615861	2.5921902	20	1 23.3	21.1
411371 2010 VL_{30}	17.4	X	196.97265	311.76998	99.14843	3.41815	0.1259758	0.26558092	2.3970190	20	5 24.3	20.9
411372 2010 VM_{32}	16.8	X	64.97834	17.11368	62.19034	15.29135	0.2357100	0.22842086	2.6504048	20	2 17.9	19.9
411373 2010 VS_{47}	16.4	X	87.14356	67.98423	253.38091	11.05368	0.0666591	0.20338688	2.8636554	20	12 27.9	20.6
411374 2010 VD_{50}	16.9	X	54.28720	67.74393	348.82114	5.14110	0.0792684	0.22298393	2.6933141	20	—	—
411375 2010 VF_{51}	16.3	X	112.55777	93.69993	266.08949	10.99635	0.0973697	0.22403940	2.6848485	20	—	—
411376 2010 VH_{53}	16.7	X	167.88464	194.47946	63.52242	9.22423	0.1756846	0.21409437	2.7673614	20	—	—
411377 2010 VP_{57}	17.1	X	101.12722	334.27242	68.05119	6.65499	0.1918090	0.23418939	2.6067012	20	2 11.5	20.5
411378 2010 VN_{62}	16.7	X	87.57029	99.42951	291.59202	4.30635	0.1075536	0.22284007	2.6944731	20	—	—
411379 2010 VS_{62}	17.4	X	128.00755	65.09124	307.80550	2.84952	0.1991736	0.23227379	2.6210134	20	2 4.3	21.1
411380 2010 VH_{63}	17.3	X	70.75184	6.14593	27.90192	3.29790	0.0893476	0.22391941	2.6858076	20	—	—
411381 2010 VK_{65}	16.6	X	65.03079	276.71739	201.53836	27.00152	0.3970530	0.23295003	2.6159386	20	5 4.7	19.9
411382 2010 VE_{68}	17.6	X	139.31045	129.60749	239.98296	4.23762	0.2571482	0.23972189	2.5664389	20	2 14.6	21.7
411383 2010 VF_{70}	17.5	X	126.64775	304.86008	32.39401	3.08536	0.3221004	0.23097295	2.6308452	20	1 5.6	21.5
411384 2010 VQ_{70}	16.9	X	144.90788	181.50170	203.47004	6.36830	0.2603863	0.24223146	2.5486822	20	3 9.1	21.2
411385 2010 VW_{73}	17.5	X	23.53530	351.39973	72.96558	4.64598	0.1855037	0.21640188	2.7476539	20	—	—
411386 2010 VU_{78}	17.3	X	54.35689	2.41301	114.46942	6.59396	0.1019951	0.23727191	2.5840753	20	2 26.8	20.2
411387 2010 VD_{82}	16.6	X	36.29198	182.49394	251.57226	5.24924	0.0417654	0.21739869	2.7392485	20	—	—
411388 2010 VN_{86}	17.4	X	63.61951	337.20126	75.35616	5.29906	0.2602931	0.22498462	2.6773234	20	1 4.9	19.6
411389 2010 VH_{87}	17.1	X	130.50736	43.79839	348.84135	2.60090	0.2316129	0.23971966	2.5664547	20	3 4.9	20.9
411390 2010 VQ_{87}	17.0	X	86.78232	53.89102	37.97225	7.64959	0.1874345	0.23850573	2.5751557	20	3 27.2	20.2
411391 2010 VW_{87}	17.3	X	349.29591	128.12173	324.05678	2.34968	0.1948164	0.21040258	2.7996388	20	—	—
411392 2010 VO_{93}	17.4	X	306.69806	272.79008	220.52434	5.27707	0.0162686	0.21423094	2.7661852	20	—	—
411393 2010 VA_{97}	17.1	X	116.59565	298.64063	55.52942	8.90209	0.1483634	0.22829932	2.6513453	20	—	—
411394 2010 VO_{102}	17.5	X	48.78398	101.94590	316.10614	7.41637	0.2433943	0.22297580	2.6933795	20	—	—
411395 2010 VM_{103}	16.4	X	308.32880	291.33808	237.57796	12.87880	0.0431837	0.22091553	2.7100994	20	—	—
411396 2010 VM_{104}	16.2	X	98.76002	306.59195	60.36819	15.07485	0.1078828	0.22385336	2.6863358	20	—	—
411397 2010 VE_{106}	17.1	X	90.67981	199.54022	195.13703	5.61454	0.0544720	0.22761105	2.6566876	20	—	—
411398 2010 VF_{106}	16.6	X	204.13956	66.74092	211.45298	10.43942	0.1659068	0.23006020	2.6377992	20	—	—
411399 2010 VS_{106}	15.7	X	47.43323	191.99434	250.93998	21.24052	0.0455981	0.22835698	2.6508990	20	—	—
411400 2010 VC_{112}	17.3	X	121.62190	191.01757	209.71828	3.77603	0.1855204	0.23846369	2.5754584	20	2 28.4	21.1
411401 2010 VX_{113}	18.3	X	69.85592	93.72011	336.21152	3.86466	0.1931219	0.22853433	2.6495274	20	1 31.2	21.2
411402 2010 VY_{115}	16.4	X	86.37100	32.17977	261.58277	10.83293	0.0274660	0.19773726	2.9179446	20	11 18.1	20.5
411403 2010 VK_{116}	16.6	X	9.03902	226.71281	252.85520	10.53797	0.1374065	0.22412100	2.6841967	20	—	—
411404 2010 VF_{120}	17.3	X	47.87413	257.05672	183.82157	2.43533	0.1655385	0.22444086	2.6816459	20	1 1.9	20.1
411405 2010 VC_{123}	17.3	X	46.06659	149.28232	278.21227	4.22772	0.0390505	0.22399949	2.6851674	20	—	—
411406 2010 VW_{129}	17.3	X	81.07793	27.19505	10.76572	1.75379	0.1266320	0.22821756	2.6519785	20	—	—
411407 2010 VD_{137}	17.7	X	155.80104	258.77105	99.73647	0.99403	0.1280433	0.23890644	2.5722755	20	2 7.3	21.5
411408 2010 VK_{141}	17.6	X	191.52033	139.88687	151.98337	4.81295	0.1527308	0.23208461	2.6224376	20	—	—
411409 2010 VF_{153}	17.1	X	120.75551	109.71321	272.63043	3.59911	0.2229632	0.23567241	2.5957541	20	2 9.7	20.9
411410 2010 VK_{159}	17.2	X	45.97310	205.65196	200.14083	7.19554	0.1522771	0.21690313	2.7434192	20	—	—
411411 2010 VP_{165}	16.7	X	102.50945	16.42463	50.95829	7.69460	0.1641931	0.23827265	2.5768349	20	3 13.5	20.2
411412 2010 VN_{168}	17.4	X	126.73749	135.99565	239.77518	1.17372	0.1145147	0.23303827	2.6152781	20	1 26.4	21.0
411413 2010 VS_{170}	16.8	X	29.93525	14.68111	57.92206	6.20651	0.0949811	0.21794137	2.7346994	20	—	—
411414 2010 VR_{171}	16.4	X	62.64735	150.20247	242.14472	12.56643	0.1482623	0.21760312	2.7375326	20	—	—
411415 2010 VS_{174}	16.8	X	145.70160	329.54808	9.06702	4.40024	0.2942914	0.23523409	2.5989777	20	1 20.9	21.2
411416 2010 VS_{176}	16.7	X	79.25459	87.07604	313.75090	7.01473	0.1195654	0.22618651	2.6678306	20	—	—
411417 2010 VC_{192}	17.3	X	104.49744	219.16250	181.79435	2.68954	0.1386116	0.23285213	2.6166717	20	2 2.9	20.6
411418 2010 VA_{198}	16.6	X	122.11847	95.80203	292.33514	7.42145	0.1834161	0.23559685	2.5963091	20	2 12.6	20.3
411419 2010 VD_{200}	16.4	X	79.90185	266.59657	115.10479	12.65403	0.1633129	0.22429464	2.6828113	20	—	—
411420 2010 VW_{200}	17.3	X	78.61176	61.40301	355.57280	9.23563	0.1977592	0.23026054	2.6362689	20	1 31.1	20.4
411421 2010 VC_{201}	16.9	X	127.57552	34.94159	355.58252	4.53942	0.2732661	0.23812756	2.5778815	20	3 4.4	20.8
411422 2010 VA_{204}	16.5	X	102.00002	154.26238	253.19062	11.00686	0.0598557	0.23891937	2.5721826	20	1 23.7	20.0
411423 2010 VR_{205}	17.0	X	81.11309	138.37669	236.40876	5.15153	0.0330171	0.22267369	2.6958151	20	—	—
411424 2010 VB_{207}	17.7	X	96.94598	89.24884	265.49568	5.18505	0.1700038	0.22567976	2.6718228	20	—	—
411425 2010 VT_{208}	17.5	X	20.67601	194.53311	228.21937	3.17782	0.0982209	0.21684771	2.7438865	20	—	—
411426 2010 VK_{209}	17.4	X	59.78564	83.68384	23.30924	7.92993	0.1375833	0.23792726	2.5793280	20	2 27.7	20.3
411427 2010 VR_{212}	17.3	X	99.88815	247.00479	190.34827	14.85503	0.0827738	0.24282273	2.5445432	20	3 3.8	20.7
411428 2010 VU_{212}	15.9	X	288.56679	287.83473	264.22346	13.56873	0.0499743	0.22826490	2.6516119	20	—	—
411429 2010 WO_{2}	16.6	X	25.79449	41.25723	71.44640	10.45050	0.0711878	0.22734997	2.6587211	20	1 5.3	19.8
411430 2010 WE_{4}	17.1	X	78.19557	320.46253	41.16726	6.65273	0.0514311	0.21978505	2.7193845	20	—	—
411431 2010 WE_{6}	17.7	X	116.37513	184.33909	231.62458	6.68954	0.1469037	0.24065541	2.5597976	20	3 5.9	21.3
411432 2010 WG_{8}	15.9	X	5.48545	198.61644	250.22307	16.29707	0.0970026	0.21317001	2.7753556	20	—	—
411433 2010 WO_{13}	17.0	X	298.12640	254.81951	266.96130	3.53479	0.1004802	0.21488301	2.7605863	20	—	—
411434 2010 WQ_{16}	17.0	X	59.82208	141.07460	281.19763	3.98494	0.1543294	0.22389786	2.6859799	20	—	—
411435 2010 WT_{16}	16.9	X	331.88403	231.30140	268.99301	6.27926	0.1369528	0.21632708	2.7482872	20	—	—
411436 2010 WY_{18}	17.4	X	326.96683	11.98515	116.33712	1.25363	0.0138999	0.21579777	2.7527794	20	—	—
411437 2010 WK_{31}	17.3	X	20.12729	222.40483	238.79576	3.27037	0.0853476	0.22143011	2.7058991	20	—	—
411438 2010 WG_{35}	16.8	X	156.46819	194.91756	92.13180	4.38917	0.0512438	0.21333958	2.7738849	20	—	—
411439 2010 WW_{35}	17.0	X	22.83467	224.77066	227.09710	3.93016	0.0803780	0.22034468	2.7147781	20	—	—
411440 2010 WR_{41}	17.0	X	161.81900	330.11547	357.87015	3.50543	0.1426417	0.23072242	2.6327493	20	1 9.9	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411441 2010 WB_{42}	17.3	X	53.22429	359.83438	26.62497	6.13903	0.0814350	0.21341427	2.7732376	20	—	—
411442 2010 WK_{45}	16.9	X	158.99104	276.70436	37.63393	5.58783	0.0312986	0.22192362	2.7018860	20	—	—
411443 2010 WX_{49}	16.4	X	58.54719	2.42578	71.59168	13.22149	0.2052827	0.22525538	2.6751775	20	1 19.0	19.2
411444 2010 WF_{50}	17.0	X	66.14296	358.56700	68.11297	3.45519	0.0836205	0.22523347	2.6753510	20	1 7.4	20.2
411445 2010 WU_{54}	17.1	X	9.48703	137.92102	309.19716	3.37289	0.0275258	0.21562406	2.7542577	20	—	—
411446 2010 WM_{55}	16.7	X	354.36581	333.51187	92.69387	4.03003	0.1320186	0.19939881	2.9017122	20	—	—
411447 2010 WF_{60}	16.4	X	132.86246	282.32677	69.33616	13.12501	0.1784746	0.22959952	2.6413263	20	1 13.3	20.4
411448 2010 WY_{63}	17.1	X	351.12847	346.73485	74.97543	5.20462	0.1195647	0.20272214	2.8699121	20	—	—
411449 2010 WU_{65}	15.6	X	217.80501	40.98601	85.90552	14.09038	0.1255524	0.17439545	3.1728238	20	9 22.5	20.7
411450 2010 WF_{66}	16.7	X	61.47572	48.68258	45.45577	13.29903	0.2241464	0.22875259	2.6478418	20	3 1.9	19.7
411451 2010 WN_{71}	17.0	X	143.02328	40.88810	321.65767	2.09425	0.3250818	0.23748880	2.5825018	20	2 16.8	21.4
411452 2010 WO_{71}	16.2	X	185.15089	28.33343	251.01331	5.09739	0.0077332	0.22045460	2.7138756	20	—	—
411453 2010 WZ_{72}	16.6	X	140.60986	105.88150	258.82562	5.15738	0.1546119	0.23499171	2.6007645	20	1 31.5	20.6
411454 2010 WK_{73}	16.1	X	247.74413	216.94751	265.65868	7.95158	0.0667943	0.18761447	3.0219817	20	10 20.3	20.4
411455 2010 WN_{74}	16.6	X	148.64767	151.63893	185.11960	13.21663	0.1751298	0.23428253	2.6060102	20	1 7.9	20.8
411456 2010 WO_{74}	16.5	X	67.26872	146.24454	288.68538	11.96638	0.1760799	0.23231965	2.6206685	20	1 27.6	19.3
411457 2010 XN_{3}	16.3	X	138.79060	35.75161	269.75835	12.27331	0.1072762	0.22225775	2.6991774	20	—	—
411458 2010 XV_{9}	17.5	X	114.18100	331.07197	105.68003	6.26228	0.1773202	0.24168431	2.5525274	20	4 9.4	21.2
411459 2010 XO_{11}	16.3	X	210.98064	171.60932	82.89738	10.12078	0.0363207	0.22033034	2.7148959	20	—	—
411460 2010 XC_{14}	15.5	X	245.51386	40.56480	79.59518	16.91718	0.0649266	0.18018420	3.1044994	20	10 24.3	20.1
411461 2010 XQ_{19}	17.2	X	3.54730	102.04424	18.31283	5.53332	0.0287533	0.22584256	2.6705386	20	—	—
411462 2010 XO_{22}	16.1	X	266.32173	288.12034	245.01682	10.79130	0.0904994	0.20922085	2.8101710	20	—	—
411463 2010 XU_{28}	17.0	X	359.42712	39.46987	55.24408	4.57887	0.0388797	0.21402960	2.7679197	20	—	—
411464 2010 XE_{30}	17.2	X	136.06814	176.40955	207.18474	11.38440	0.1945492	0.23988158	2.5652997	20	2 20.8	21.4
411465 2010 XU_{38}	16.7	X	133.84825	323.65674	83.83549	18.83399	0.1652446	0.24108690	2.5567424	20	3 30.7	20.9
411466 2010 XW_{38}	16.0	X	117.04469	92.03025	251.96946	23.91553	0.2237315	0.22258743	2.6965116	20	—	—
411467 2010 XX_{38}	17.5	X	107.66720	301.82105	95.15810	5.10691	0.2208839	0.23192302	2.6236555	20	2 16.3	21.1
411468 2010 XL_{41}	16.8	X	85.40527	353.09127	122.00530	6.21711	0.1150438	0.24195252	2.5506407	20	4 14.5	20.0
411469 2010 XQ_{57}	17.1	X	113.31848	151.25948	248.57378	3.71887	0.2142104	0.23285400	2.6166577	20	2 21.9	20.8
411470 2010 XU_{72}	16.7	X	60.65319	354.73226	64.04596	5.88976	0.0259682	0.22348966	2.6892495	20	—	—
411471 2010 XM_{77}	17.3	X	39.70646	160.66956	235.17097	2.86756	0.1335842	0.21043522	2.7993494	20	—	—
411472 2010 YV_{1}	15.5	X	245.90930	45.01692	63.30400	17.22519	0.0987353	0.17660863	3.1462611	20	10 6.2	20.3
411473 2010 YL_{2}	16.4	X	151.95855	244.28700	337.92210	9.13785	0.0741352	0.18022892	3.1039858	20	11 1.2	21.3
411474 2010 YK_{4}	15.8	X	288.71712	10.81942	53.71201	10.26664	0.0588441	0.17470990	3.1690155	20	10 6.9	20.2
411475 2011 AC	16.1	X	312.79445	146.66578	291.46159	9.66714	0.1655975	0.18753365	3.0228499	20	11 17.2	19.5
411476 2011 AS_{22}	15.5	X	333.47259	312.16602	103.42047	11.21481	0.0977345	0.18557969	3.0440312	20	11 28.1	19.3
411477 2011 AF_{26}	16.5	X	46.70589	329.90859	99.19585	10.73296	0.1489748	0.21340147	2.7733485	20	—	—
411478 2011 AF_{27}	15.1	X	248.62519	223.97968	292.31298	18.46244	0.0988576	0.18574244	3.0422527	20	11 28.7	19.6
411479 2011 AD_{35}	16.4	X	121.83050	276.40150	92.67512	14.09875	0.2541257	0.22358272	2.6885032	20	2 3.1	20.5
411480 2011 AW_{37}	17.0	X	358.55308	85.50925	320.09207	8.05213	0.1016910	0.19183865	2.9774557	20	12 23.9	20.8
411481 2011 AP_{38}	16.5	X	264.10759	243.45626	192.35162	1.20387	0.1377092	0.17419180	3.1752961	20	9 2.6	20.9
411482 2011 AA_{39}	17.1	X	25.91826	315.22859	82.10952	4.18225	0.0425293	0.19654763	2.9297069	20	—	—
411483 2011 AA_{43}	16.4	X	21.79826	351.50559	99.26174	14.47039	0.1587539	0.21088771	2.7953436	20	—	—
411484 2011 AF_{44}	17.0	X	306.66330	334.58040	123.60844	1.94593	0.1251902	0.18889618	3.0082962	20	12 8.1	20.4
411485 2011 AY_{44}	16.8	X	302.42261	141.40623	315.57725	4.74642	0.0528195	0.18529112	3.0471908	20	12 2.8	20.9
411486 2011 AO_{45}	15.9	X	336.38089	278.51318	128.41879	15.37409	0.1462637	0.18361494	3.0657074	20	11 24.9	19.7
411487 2011 AF_{47}	15.8	X	205.21861	85.50913	98.48799	10.89001	0.0386915	0.18487891	3.0517184	20	11 22.1	20.3
411488 2011 AV_{48}	16.4	X	134.54534	122.58813	128.24115	2.84011	0.0562089	0.17859146	3.1229301	20	11 20.7	21.0
411489 2011 AJ_{50}	16.3	X	17.07782	275.22763	96.47925	11.15105	0.1069352	0.18865540	3.0108554	20	12 8.1	20.2
411490 2011 AG_{52}	15.9	X	313.15288	2.47300	80.77541	10.25624	0.1143031	0.18905665	3.0065937	20	11 30.5	19.4
411491 2011 AR_{54}	17.1	X	106.24774	335.20937	28.64268	2.81071	0.1607960	0.21424231	2.7660873	20	—	—
411492 2011 AW_{59}	16.5	X	310.61434	47.90468	126.81071	9.66851	0.0765763	0.21013763	2.8019916	20	—	—
411493 2011 AX_{59}	16.4	X	170.00573	23.99977	150.56336	2.63072	0.0721190	0.16953014	3.2332412	20	9 26.9	21.4
411494 2011 AQ_{60}	16.9	X	74.57607	328.59505	106.59339	8.22348	0.1180081	0.22249447	2.6972626	20	2 6.0	20.1
411495 2011 AJ_{63}	16.2	X	259.29577	334.20635	132.06709	6.31126	0.1782418	0.17605161	3.1528941	20	10 1.9	20.6
411496 2011 AK_{63}	16.6	X	261.35139	126.01616	325.44445	2.62516	0.1486688	0.17298154	3.1900896	20	9 16.7	21.2
411497 2011 AG_{70}	16.1	X	180.91724	236.15406	336.25480	9.33044	0.0284318	0.18568738	3.0428541	20	11 24.8	20.7
411498 2011 AW_{72}	16.6	X	7.65809	336.46597	121.30435	10.22276	0.1565058	0.20934664	2.8090452	20	—	—
411499 2011 AB_{73}	16.8	X	68.61782	28.62984	90.77992	12.87508	0.1280100	0.23349557	2.6118623	20	4 2.8	20.2
411500 2011 AJ_{73}	17.6	X	125.73410	317.58495	98.61469	5.29584	0.2946571	0.23788899	2.5796047	20	4 7.2	21.8
411501 2011 AN_{73}	15.6	X	282.75847	193.89406	291.35808	8.36489	0.0247576	0.18993901	2.9972751	20	12 15.8	19.8
411502 2011 AV_{76}	16.2	X	226.88970	18.87600	106.36272	13.23490	0.1008725	0.17545450	3.1600433	20	10 1.9	21.1
411503 2011 AK_{77}	16.1	X	228.35684	156.70767	348.48780	7.87842	0.1623944	0.17646535	3.1479639	20	10 11.9	20.9
411504 2011 AK_{78}	16.5	X	227.44127	355.02327	143.07432	6.14780	0.0921982	0.17624049	3.1506410	20	10 15.2	21.2
411505 2011 BU_{6}	17.6	X	75.11979	339.43095	92.96289	3.25700	0.2264467	0.22389674	2.6859888	20	2 19.2	20.6
411506 2011 BY_{8}	16.5	X	273.44803	359.04610	101.71554	6.77133	0.1111330	0.18122911	3.0925548	20	10 24.8	20.7
411507 2011 BT_{10}	16.1	X	253.56945	165.71860	300.58478	9.53406	0.1825488	0.17667720	3.1454471	20	9 17.4	20.9
411508 2011 BT_{13}	17.0	X	316.13004	103.35571	331.57749	8.86751	0.1166872	0.18691446	3.0295221	20	11 20.5	20.8
411509 2011 BG_{15}	15.7	X	260.67092	337.89574	141.15993	24.49007	0.1169496	0.17830953	3.1262210	20	11 3.2	20.5
411510 2011 BR_{18}	16.7	X	26.07944	7.41451	2.90278	4.78932	0.1666436	0.18623577	3.0368778	20	12 25.7	20.8
411511 2011 BN_{22}	16.3	X	298.38120	289.77071	162.15438	5.33534	0.1081887	0.18165723	3.0876940	20	11 17.5	20.1
411512 2011 BX_{26}	15.6	X	314.02439	109.74415	305.06458	10.10255	0.0825983	0.17816093	3.1279592	20	10 19.5	19.8
411513 2011 BA_{33}	17.1	X	275.95892	316.67106	157.97518	0.50942	0.1494588	0.18251236	3.0780419	20	11 6.6	21.2
411514 2011 BZ_{36}	16.1	X	2.73345	216.25559	143.03794	9.70360	0.0807768	0.17460444	3.1702914	20	10 29.7	20.3
411515 2011 BA_{38}	16.3	X	275.81947	324.06246	161.18768	9.63089	0.0474747	0.17681523	3.1438098	20	12 2.9	20.7
411516 2011 BL_{38}	15.8	X	349.92543	226.97691	167.82002	11.65187	0.0732859	0.17253419	3.1956014	20	11 22.3	20.1
411517 2011 BT_{42}	16.5	X	235.63436	111.25053	55.39683	9.53053	0.1100239	0.18200127	3.0838017	20	11 23.8	20.9
411518 2011 BS_{47}	16.8	X	29.81952	265.33729	190.49518	4.22175	0.2190625	0.21227515	2.7831500	20	—	—
411519 2011 BA_{49}	17.0	X	358.66469	61.74353	349.57160	11.19645	0.1680600	0.18949730	3.0019310	20	—	—
411520 2011 BF_{51}	16.2	X	288.27317	22.57599	81.50750	6.59655	0.1266172	0.18195871	3.0842825	20	11 15.5	20.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411521 2011 BZ_{55}	16.8	X	333.92467	286.89386	168.38912	6.01174	0.0583087	0.19636230	2.9315500	20	—	—
411522 2011 BJ_{56}	16.2	X	321.79614	117.53469	283.28132	11.54885	0.1300930	0.18035699	3.1025162	20	10 10.7	20.1
411523 2011 BR_{78}	15.9	X	253.60290	161.14584	309.81521	14.99661	0.1868457	0.17552181	3.1592354	20	9 19.5	20.7
411524 2011 BZ_{80}	16.1	X	278.20787	332.11988	172.71542	5.73756	0.0729966	0.19032169	2.9932560	20	12 28.7	20.0
411525 2011 BV_{81}	16.2	X	314.99055	155.36537	295.57023	8.29468	0.0764226	0.18518264	3.0483806	20	12 12.4	20.1
411526 2011 BY_{81}	16.0	X	184.08204	357.12559	200.99217	5.16405	0.0702114	0.17493273	3.1663239	20	11 9.4	20.7
411527 2011 BZ_{82}	16.7	X	59.60160	348.27625	98.97049	7.65991	0.1052262	0.21869751	2.7283923	20	1 28.7	19.9
411528 2011 BF_{89}	16.4	X	43.35562	260.71524	141.95923	9.87434	0.1118401	0.19968380	2.8989507	20	—	—
411529 2011 BD_{92}	16.2	X	281.93392	156.74279	288.12486	9.28077	0.0710407	0.17586279	3.1551504	20	10 13.0	20.7
411530 2011 BX_{93}	15.9	X	83.47401	24.58344	296.78914	8.52721	0.0240553	0.18320301	3.0703012	20	12 15.4	20.4
411531 2011 BD_{96}	16.2	X	70.56339	249.67661	104.52469	13.06422	0.0693866	0.19563835	2.9387776	20	—	—
411532 2011 BK_{101}	16.0	X	246.89608	28.58058	85.27671	10.41403	0.0585422	0.17459381	3.1704202	20	10 15.5	20.6
411533 2011 BX_{102}	16.5	X	331.00684	49.89444	330.21304	10.30674	0.0695498	0.17491766	3.1665058	20	10 1.1	20.7
411534 2011 BM_{107}	16.7	X	284.33059	154.07666	238.79247	4.48515	0.0730547	0.15890079	3.3758671	20	8 12.0	21.4
411535 2011 BQ_{114}	16.3	X	24.62303	68.36241	291.28501	8.76951	0.1269248	0.18641098	3.0349746	20	12 4.3	20.4
411536 2011 BS_{114}	16.3	X	314.61369	280.91025	126.95570	11.56911	0.0909026	0.17916497	3.1162622	20	10 21.6	20.4
411537 2011 BF_{115}	15.5	X	140.64357	103.21668	128.02569	19.67680	0.1100943	0.17503715	3.1650645	20	11 11.0	20.8
411538 2011 BR_{116}	17.1	X	53.38648	35.75469	40.27066	3.85811	0.1776407	0.21636944	2.7479285	20	1 10.0	19.9
411539 2011 BW_{119}	16.3	X	14.28416	338.83340	128.31683	10.08200	0.1136089	0.21213500	2.7843757	20	—	—
411540 2011 BK_{122}	16.3	X	256.28756	160.21704	310.38577	7.22748	0.0409625	0.17609348	3.1523943	20	10 17.0	20.9
411541 2011 BM_{124}	16.5	X	172.43051	210.69999	349.22095	10.26525	0.0645717	0.17241098	3.1971237	20	10 25.8	21.5
411542 2011 BQ_{136}	16.9	X	17.01965	12.75361	319.77458	10.68931	0.0686006	0.17346890	3.1841117	20	10 5.8	21.4
411543 2011 BK_{143}	16.3	X	192.48704	88.66137	83.72941	9.63614	0.0248636	0.17663164	3.1459879	20	10 25.8	20.9
411544 2011 CW_{1}	16.5	X	204.07070	157.83322	9.40067	5.26303	0.1515082	0.17179384	3.2047758	20	10 16.4	21.6
411545 2011 CD_{5}	16.6	X	263.01869	187.81943	312.64682	11.15207	0.1271333	0.18668148	3.0320421	20	11 22.5	20.9
411546 2011 CQ_{6}	16.1	X	106.97921	261.51758	33.10005	9.12267	0.0653675	0.18307227	3.0717628	20	12 12.7	20.8
411547 2011 CX_{13}	15.2	X	120.12242	308.23582	289.23701	14.12433	0.0350823	0.16870392	3.2437890	20	10 9.3	20.2
411548 2011 CE_{15}	16.2	X	195.68535	219.09934	311.49477	10.02045	0.0434088	0.17362104	3.1822513	20	10 16.3	21.1
411549 2011 CV_{30}	16.2	X	338.91092	93.27189	311.06169	8.41119	0.0534547	0.18165973	3.0876657	20	11 15.0	20.5
411550 2011 CB_{43}	16.6	X	23.83891	177.98881	290.33633	8.71024	0.1772207	0.21174470	2.7877961	20	—	—
411551 2011 CF_{44}	16.6	X	16.59628	306.77823	172.38726	9.65218	0.1187766	0.21122473	2.7923694	20	—	—
411552 2011 CE_{47}	16.0	X	36.03397	74.16819	2.08276	12.79323	0.1896903	0.21157318	2.7893026	20	—	—
411553 2011 CD_{51}	16.3	X	114.09351	241.65652	259.36040	11.04218	0.2079283	0.24229253	2.5482539	20	7 1.3	20.2
411554 2011 CX_{58}	16.7	X	272.25908	318.62467	162.96192	1.24142	0.1347083	0.18142194	3.0903631	20	11 12.2	20.7
411555 2011 CA_{60}	16.4	X	350.65187	97.19470	318.88937	8.26988	0.1170168	0.18767862	3.0212930	20	12 25.6	20.2
411556 2011 CA_{64}	16.9	X	242.78635	24.74840	129.98428	2.32463	0.1093843	0.17908184	3.1172265	20	11 18.4	21.2
411557 2011 CC_{70}	15.6	X	228.40296	58.94583	88.07517	8.96097	0.1969563	0.17575179	3.1564788	20	10 16.9	20.6
411558 2011 CF_{74}	16.2	X	306.39449	174.90867	327.21181	4.72294	0.1928076	0.19256047	2.9700103	20	—	—
411559 2011 CH_{75}	15.6	X	294.55499	118.32989	345.41752	20.93218	0.0843688	0.18153998	3.0890234	20	11 20.3	20.1
411560 2011 CK_{76}	16.0	X	260.88041	332.81509	140.07209	11.21322	0.1870000	0.17578696	3.1560578	20	10 12.3	20.5
411561 2011 CV_{78}	16.2	X	219.91698	334.46961	172.87655	13.89273	0.1349797	0.17139873	3.2096991	20	10 12.5	21.1
411562 2011 CN_{79}	17.0	X	70.50905	238.73163	178.42534	9.32513	0.1580446	0.21171521	2.7880550	20	1 11.8	20.5
411563 2011 CJ_{87}	16.1	X	48.27491	91.52475	284.98706	9.25728	0.0816522	0.18901986	3.0069839	20	—	—
411564 2011 CG_{101}	16.6	X	296.29661	228.88328	232.05662	4.32518	0.1440032	0.18205114	3.0832385	20	11 20.9	20.2
411565 2011 CR_{105}	16.6	X	356.82133	63.81446	321.81150	10.21920	0.1368651	0.17722244	3.1389922	20	11 22.2	20.6
411566 2011 CE_{109}	15.6	X	84.53568	328.55329	322.56839	10.24384	0.0480074	0.16964366	3.2317986	20	11 6.7	20.5
411567 2011 CV_{110}	16.2	X	4.03944	197.67369	172.45829	15.38761	0.0988583	0.17258726	3.1949463	20	11 14.7	20.5
411568 2011 DA_{22}	15.6	X	263.55577	52.32738	93.55917	11.22294	0.1738066	0.18301859	3.0723633	20	11 26.6	19.8
411569 2011 DD_{48}	16.6	X	256.95060	142.35902	351.73494	10.17193	0.1702625	0.17746555	3.1361248	20	10 28.3	21.0
411570 2011 DM_{48}	16.4	X	253.70733	92.94103	23.47492	4.64666	0.1410826	0.17171598	3.2057445	20	10 10.0	20.8
411571 2011 DS_{49}	15.1	X	215.96464	145.12270	10.94928	16.42125	0.0594044	0.17041646	3.2220209	20	10 21.1	19.9
411572 2011 DE_{50}	16.3	X	25.05242	242.17307	223.09071	10.00344	0.2557169	0.21080341	2.7960888	20	—	—
411573 2011 DG_{50}	16.1	X	263.39626	301.37550	179.78080	26.88695	0.2391634	0.17760959	3.1344290	20	10 16.5	20.6
411574 2011 DH_{51}	15.6	X	235.70044	135.50551	25.83581	17.46248	0.1756771	0.17708667	3.1405965	20	11 5.4	20.4
411575 2011 ED_{7}	16.0	X	219.16809	358.73481	157.83020	11.17183	0.1053268	0.17414074	3.1759168	20	10 27.4	20.9
411576 2011 EU_{8}	16.5	X	341.90928	248.96672	159.53809	9.91586	0.1858666	0.18568573	3.0428720	20	12 6.8	20.0
411577 2011 EG_{11}	16.2	X	241.21508	1.39947	168.81642	7.53675	0.1382783	0.17869277	3.1217495	20	12 1.7	20.7
411578 2011 ED_{16}	16.7	X	309.49763	46.47815	85.19135	4.66566	0.1970066	0.18988614	2.9978314	20	—	—
411579 2011 EM_{17}	15.7	X	286.36903	103.00949	8.80676	15.65877	0.0777899	0.18069003	3.0987028	20	11 21.6	20.0
411580 2011 EO_{19}	16.2	X	12.80534	37.44170	355.91070	9.03344	0.1495844	0.18621874	3.0370630	20	—	—
411581 2011 EP_{21}	15.9	X	259.96082	105.49481	17.45041	14.57387	0.1509498	0.17089919	3.2159507	20	10 21.8	20.4
411582 2011 EO_{26}	16.3	X	329.27042	334.61706	112.43871	5.10545	0.1598150	0.18546214	3.0453172	20	12 31.1	19.6
411583 2011 EN_{36}	16.6	X	255.13509	357.30964	119.72051	3.45299	0.1940147	0.16956456	3.2328036	20	10 6.2	21.3
411584 2011 ES_{41}	15.4	X	330.28423	46.43434	23.70794	15.91963	0.1076803	0.17622073	3.1508765	20	12 3.2	19.5
411585 2011 EF_{50}	15.7	X	199.95248	109.46456	72.93850	9.95531	0.0759360	0.16993623	3.2280883	20	11 7.8	20.5
411586 2011 ED_{58}	15.8	X	214.03856	33.29292	87.95431	11.52678	0.0603805	0.15845665	3.3821724	20	9 14.4	20.9
411587 2011 EY_{58}	16.2	X	38.92459	262.32743	103.70917	11.02757	0.1114433	0.17853060	3.1236398	20	12 26.8	20.6
411588 2011 EJ_{63}	16.3	X	271.88461	316.41181	158.05395	10.63955	0.1974881	0.17672507	3.1448790	20	10 26.4	20.6
411589 2011 EE_{71}	16.1	X	346.86850	41.48042	27.69122	15.12391	0.2762597	0.18270423	3.0758866	20	—	—
411590 2011 EY_{73}	16.8	X	6.72620	89.61390	64.92386	15.60357	0.2567719	0.21516575	2.7581674	20	1 20.3	19.5
411591 2011 EQ_{76}	15.7	X	261.44691	183.76727	310.45307	9.51951	0.1776178	0.17624839	3.1505469	20	11 1.7	20.2
411592 2011 ED_{77}	15.8	X	251.62557	323.95630	163.87719	27.51905	0.1430526	0.17261606	3.1945909	20	10 25.6	20.7
411593 2011 FU	15.5	X	343.45583	329.97261	70.22495	10.04980	0.1959493	0.17251301	3.1958630	20	11 23.8	18.9
411594 2011 FQ_{4}	15.6	X	240.63994	54.46840	143.27117	11.69438	0.0153302	0.18373640	3.0643562	20	—	—
411595 2011 FA_{15}	16.4	X	295.29357	108.87156	17.42856	13.99911	0.3454479	0.18207937	3.0829198	20	11 20.6	19.6
411596 2011 FM_{62}	16.1	X	313.72749	96.53463	14.83867	10.64394	0.1937545	0.18307339	3.0717502	20	—	—
411597 2011 FU_{73}	15.9	X	310.37571	74.09620	353.99972	19.80663	0.1156316	0.17333171	3.1857917	20	10 23.9	20.2
411598 2011 FU_{94}	16.5	X	307.58587	129.51576	354.21549	6.81615	0.1513345	0.18513143	3.0489428	20	—	—
411599 2011 FA_{127}	15.9	X	257.19507	313.55991	181.84360	27.39758	0.1883353	0.17603174	3.1531314	20	11 2.8	20.6
411600 2011 FK_{130}	16.5	X	295.03810	174.47033	297.71012	5.70586	0.2589558	0.18286044	3.0741346	20	11 17.6	19.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411601 2011 FE_{154}	17.9	X	313.89787	329.91366	233.55567	4.47747	0.0755405	0.30802784	2.1714145	20	1 3.9	20.3
411602 2011 GY_{45}	15.9	X	260.01600	49.78983	75.62399	6.00589	0.0836744	0.16915844	3.2379758	20	11 6.4	20.5
411603 2011 GT_{59}	16.4	X	284.54953	332.02066	145.23753	6.39540	0.1046692	0.17940183	3.1135186	20	11 28.6	20.4
411604 2011 GD_{75}	16.1	X	253.00542	108.81318	44.04304	16.33073	0.1319346	0.17226685	3.1989067	20	11 21.2	20.6
411605 2011 GA_{77}	16.0	X	269.60087	335.10738	202.65809	17.16399	0.1819412	0.18153334	3.0890987	20	—	—
411606 2011 GP_{86}	15.7	X	324.32378	68.45448	3.38458	14.09992	0.1037502	0.17803010	3.1294914	20	11 26.1	19.9
411607 2011 HZ_{85}	16.5	X	314.27849	300.67145	202.17066	11.24128	0.1181968	0.18652224	3.0337676	20	—	—
411608 2011 JU_{24}	15.7	X	313.11005	270.84228	181.49369	12.89585	0.0544742	0.16888768	3.2414357	20	12 8.9	20.2
411609 2011 JF_{27}	18.2	X	59.53532	332.83264	83.24041	23.85424	0.0556001	0.39915753	1.8268652	20	—	—
411610 2011 OM_{59}	16.4	X	318.17064	161.76882	225.50211	7.76222	0.0167478	0.22877749	2.6476497	20	10 5.9	20.0
411611 2011 QF_{14}	18.6	X	329.31735	297.32571	138.28612	3.39736	0.4830657	0.34191658	2.0254550	20	—	—
411612 2011 QE_{31}	16.9	X	133.59064	98.40524	186.54281	10.91694	0.1905082	0.25715699	2.4490848	20	—	—
411613 2011 SZ_{84}	17.3	X	69.66158	308.22774	187.39845	8.66003	0.1017007	0.27947021	2.3169271	20	4 12.6	19.6
411614 2011 SU_{105}	18.3	X	178.69270	177.65327	297.14068	0.62579	0.1531070	0.30257558	2.1974220	20	7 30.4	21.3
411615 2011 SN_{141}	18.9	X	291.35727	143.74250	186.80315	3.69694	0.1294779	0.30821644	2.1705286	20	5 28.1	21.2
411616 2011 SK_{142}	17.7	X	80.57932	293.94942	195.43565	7.67215	0.0657690	0.28580564	2.2825599	20	4 13.7	20.1
411617 2011 SN_{183}	18.9	X	352.24093	137.51114	175.37237	4.73123	0.1918468	0.32264145	2.1053418	20	9 14.3	19.9
411618 2011 SB_{188}	18.0	X	298.34504	310.90646	338.81323	4.79429	0.1783840	0.30211408	2.1996593	20	3 27.5	20.6
411619 2011 UA_{8}	19.4	X	255.27518	8.86747	21.93335	1.53648	0.2163881	0.30849932	2.1692016	20	6 20.6	22.0
411620 2011 UJ_{27}	17.1	X	294.82018	222.36427	43.64466	23.37377	0.2188157	0.28719183	2.2752092	20	3 2.4	20.8
411621 2011 UZ_{29}	18.4	X	262.05566	161.60680	213.47273	7.22649	0.0841220	0.30457796	2.1877804	20	6 26.7	21.0
411622 2011 UE_{37}	18.4	X	152.52152	29.65193	58.45509	3.80192	0.1746117	0.28713002	2.2755357	20	5 28.9	21.9
411623 2011 UM_{38}	18.4	X	305.74072	245.49435	117.21945	2.04673	0.0378471	0.31370066	2.1451571	20	8 27.9	20.6
411624 2011 UQ_{56}	17.6	X	226.73328	184.33381	251.51248	2.55179	0.1085281	0.30934132	2.1652635	20	8 3.2	20.2
411625 2011 US_{61}	18.2	X	181.17462	261.94927	197.70308	4.11251	0.1908478	0.29670095	2.2263329	20	7 10.3	21.7
411626 2011 UW_{72}	18.4	X	28.60781	235.76583	43.14810	2.23430	0.0606657	0.31518923	2.1383976	20	9 8.9	20.4
411627 2011 UV_{79}	18.0	X	158.62642	222.81453	258.39106	2.75347	0.0724662	0.30279761	2.1963477	20	7 17.1	20.9
411628 2011 UW_{89}	17.2	X	108.03955	227.00514	227.65645	12.02006	0.1059814	0.27375752	2.3490487	20	4 8.0	20.3
411629 2011 UW_{113}	17.4	X	335.97230	49.40426	218.47307	6.54902	0.1607977	0.29532620	2.2332366	20	5 5.1	19.0
411630 2011 UW_{134}	18.0	X	305.32146	329.26960	261.99192	4.24485	0.0498705	0.27236705	2.3570366	20	2 8.6	21.0
411631 2011 UD_{156}	18.2	X	233.37695	246.53435	92.11935	4.96437	0.0476558	0.28180816	2.3040948	20	4 4.7	21.2
411632 2011 UY_{162}	18.0	X	196.47182	175.32918	256.88372	4.84152	0.1325237	0.29845490	2.2176018	20	6 21.0	21.0
411633 2011 UJ_{187}	17.2	X	75.21767	47.76434	89.23206	6.62115	0.0368968	0.28278985	2.2987593	20	4 15.5	19.9
411634 2011 UM_{202}	17.4	X	47.56248	69.61396	66.02278	7.53800	0.0517825	0.26932957	2.3747252	20	3 6.4	20.2
411635 2011 UQ_{231}	18.6	X	317.26805	39.02107	222.75642	2.56078	0.1209274	0.29341003	2.2429491	20	3 26.7	20.9
411636 2011 UZ_{245}	18.4	X	277.87111	240.33975	114.42847	3.09588	0.1694112	0.30683433	2.1770417	20	6 5.7	20.8
411637 2011 UO_{246}	18.0	X	173.41461	33.01713	53.89917	8.46294	0.0920255	0.29456644	2.2370750	20	6 15.8	21.1
411638 2011 UH_{247}	18.0	X	115.29164	350.46650	183.00807	3.17272	0.0679958	0.30183709	2.2010047	20	8 5.6	20.8
411639 2011 UW_{261}	17.9	X	78.10141	74.63869	32.66511	6.94813	0.0862765	0.26959187	2.3731846	20	3 16.3	20.6
411640 2011 UY_{268}	18.3	X	227.17777	7.74537	22.23191	5.33541	0.0587005	0.30043242	2.2078599	20	6 3.0	21.0
411641 2011 UB_{269}	18.2	X	210.67647	42.97385	17.38439	2.84278	0.1757754	0.30208385	2.1998060	20	6 17.2	21.5
411642 2011 UE_{279}	18.4	X	227.81010	153.00576	247.98955	3.18618	0.1187413	0.29870276	2.2163749	20	6 14.1	21.3
411643 2011 UW_{292}	17.6	X	293.29662	191.01179	67.51892	5.29160	0.1248269	0.27632119	2.3344967	20	2 21.9	20.6
411644 2011 UP_{296}	18.3	X	273.19230	157.01108	209.97478	2.88937	0.1462095	0.30868784	2.1683183	20	6 21.0	20.5
411645 2011 UH_{311}	16.5	X	112.32869	228.75411	41.28861	12.07684	0.1602785	0.22704424	2.6611073	20	12 1.6	20.9
411646 2011 UX_{321}	17.1	X	230.15957	188.92412	150.64056	7.34357	0.1321334	0.28656018	2.2785514	20	3 25.9	20.4
411647 2011 US_{347}	18.1	X	7.88127	52.39344	200.90859	5.53469	0.0439932	0.30390652	2.1910017	20	6 19.4	20.4
411648 2011 US_{349}	17.8	X	177.57525	189.30702	257.82595	4.52071	0.1289276	0.29554649	2.2321267	20	6 21.3	20.8
411649 2011 US_{351}	17.6	X	193.99975	34.36763	30.46256	5.83514	0.1043475	0.29874336	2.2161741	20	6 8.4	20.8
411650 2011 UW_{358}	17.2	X	107.62394	222.23154	272.37874	6.50697	0.1106657	0.28545746	2.2844156	20	6 5.6	20.1
411651 2011 UU_{359}	17.5	X	209.47652	337.89330	8.89085	5.37395	0.0614563	0.28217097	2.3021193	20	3 14.6	20.4
411652 2011 VX_{11}	18.1	X	175.90483	53.27927	61.27683	2.17042	0.0308717	0.30274790	2.1965881	20	7 31.9	20.6
411653 2011 VC_{14}	17.7	X	18.73012	334.09989	204.47414	1.64393	0.1406747	0.27281396	2.3544618	20	3 15.9	19.6
411654 2011 VG_{20}	17.6	X	358.16323	214.09380	52.96020	6.10889	0.0952407	0.30147871	2.2027487	20	6 25.5	19.5
411655 2011 WW_{4}	18.6	X	287.32617	9.08294	318.37627	7.60698	0.4215838	0.31004577	2.1619825	20	3 30.2	22.2
411656 2011 WR_{8}	18.2	X	158.82745	204.26568	247.49857	2.50745	0.0851545	0.29207645	2.2497712	20	6 5.8	21.2
411657 2011 WG_{15}	16.0	X	286.06127	265.67278	55.61747	19.07963	0.0711423	0.18202016	3.0835883	20	5 17.4	20.3
411658 2011 WD_{19}	17.4	X	358.11273	342.35555	246.05814	6.54217	0.0574522	0.28148089	2.3058803	20	4 23.3	19.8
411659 2011 WL_{19}	17.8	X	141.01885	154.77164	250.22003	5.68410	0.0684255	0.27016239	2.3698423	20	3 7.9	21.1
411660 2011 WE_{21}	17.5	X	330.23906	291.85815	244.64718	6.09311	0.0496076	0.25592140	2.4569613	20	1 4.2	20.5
411661 2011 WM_{29}	17.8	X	255.46448	310.41821	18.47845	9.22828	0.0557487	0.28438406	2.2901603	20	4 15.1	20.6
411662 2011 WJ_{48}	17.9	X	119.23612	160.49729	296.15758	1.54453	0.1902242	0.27058499	2.3673742	20	5 7.6	21.3
411663 2011 WC_{59}	18.5	X	229.59038	227.71621	191.71390	3.78164	0.0941524	0.30359703	2.1924904	20	7 15.4	21.3
411664 2011 WJ_{61}	17.7	X	295.34321	283.99181	69.54538	7.73024	0.1596153	0.30808140	2.1711628	20	7 5.3	19.7
411665 2011 WL_{63}	17.8	X	91.02303	224.57784	283.49726	1.93126	0.1430432	0.28069669	2.3101731	20	6 7.8	20.7
411666 2011 WC_{67}	17.6	X	219.28565	334.34466	53.25616	8.30774	0.1356135	0.29274436	2.2463479	20	5 15.1	20.7
411667 2011 WZ_{68}	17.3	X	212.31787	289.15079	63.33070	8.85131	0.1460016	0.27920955	2.3183689	20	3 27.4	20.9
411668 2011 WQ_{71}	17.9	X	105.15246	58.25703	60.85569	5.69901	0.1674833	0.27855617	2.3219928	20	5 19.7	21.0
411669 2011 WA_{80}	17.5	X	357.28312	12.92046	227.93831	5.70386	0.0698403	0.28843627	2.2686603	20	5 12.0	19.4
411670 2011 WR_{86}	18.6	X	238.77529	286.27674	144.84439	0.65459	0.0975946	0.31075668	2.1586840	20	8 15.5	21.1
411671 2011 WZ_{97}	18.1	X	222.67397	337.91735	94.34536	6.12119	0.1010155	0.30438017	2.1887281	20	7 25.9	20.8
411672 2011 WR_{102}	18.3	X	235.57877	196.97432	174.08110	7.20360	0.1526896	0.29676485	2.2260133	20	5 10.8	21.6
411673 2011 WQ_{105}	18.8	X	227.48109	111.62878	295.30520	0.98947	0.1519092	0.29978764	2.2110246	20	6 18.7	21.9
411674 2011 WP_{112}	17.9	X	294.69222	304.00095	45.23241	5.41096	0.1931193	0.30760718	2.1733937	20	6 19.8	20.1
411675 2011 WG_{116}	18.1	X	286.43501	77.97298	289.29469	1.56054	0.1400445	0.31003055	2.1620533	20	7 14.9	20.0
411676 2011 WS_{120}	17.8	X	169.33283	253.56550	224.89787	5.37131	0.1080776	0.30043656	2.2078397	20	7 24.6	20.9
411677 2011 WZ_{134}	17.7	X	131.64926	26.20417	67.62598	6.49411	0.1210938	0.27705596	2.3303674	20	5 11.4	20.8
411678 2011 WK_{137}	17.0	X	340.18322	221.84341	282.89594	4.44215	0.1359928	0.24343558	2.5402708	20	—	—
411679 2011 YT_{1}	17.8	X	131.68314	32.56574	67.19761	3.27935	0.1391556	0.27652894	2.3333273	20	5 20.7	21.2
411680 2011 YK_{8}	17.1	X	127.10873	351.05244	107.69742	10.68128	0.1464708	0.27439736	2.3453955	20	5 18.2	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411681 2011 YJ_{11}	17.4	X	207.48573	331.03853	91.14619	4.35382	0.1054641	0.29452086	2.2373058	20	6 21.0	20.2
411682 2011 YT_{16}	17.6	X	159.04205	230.96383	252.99846	3.42518	0.0929276	0.29209799	2.2496606	20	7 20.9	20.6
411683 2011 YC_{17}	18.0	X	141.82264	124.34764	332.09980	1.93655	0.1694551	0.27582824	2.3372773	20	5 28.9	21.6
411684 2011 YQ_{23}	17.1	X	132.45476	163.97309	300.68010	6.63858	0.0731856	0.27672374	2.3322321	20	5 19.8	20.4
411685 2011 YO_{25}	16.9	X	27.35714	232.38653	292.70126	8.60713	0.1911834	0.25489171	2.4635738	20	3 12.6	19.0
411686 2011 YW_{25}	17.2	X	10.02852	89.29619	112.20520	3.75437	0.0449539	0.26363908	2.4087748	20	4 8.5	20.0
411687 2011 YZ_{25}	17.6	X	113.22057	322.65791	97.92431	4.03166	0.1716647	0.25806120	2.4433606	20	3 15.0	20.8
411688 2011 YT_{31}	17.8	X	120.76230	100.87419	355.52870	2.13639	0.0793150	0.27245565	2.3565256	20	4 25.1	20.8
411689 2011 YW_{33}	17.7	X	249.08133	345.07277	63.82228	4.52030	0.1114896	0.29867272	2.2165235	20	7 25.7	20.3
411690 2011 YN_{35}	16.0	X	142.44728	166.83392	112.65287	14.04647	0.1506053	0.21451298	2.7637600	20	—	—
411691 2011 YG_{37}	17.0	X	106.72848	342.85448	124.06331	6.55590	0.0698169	0.26612819	2.3937316	20	4 23.9	20.1
411692 2011 YV_{40}	17.5	X	23.05062	11.60488	98.36613	9.17814	0.1054611	0.23965266	2.5669330	20	—	—
411693 2011 YD_{41}	17.9	X	127.37154	29.11720	105.10449	4.42864	0.1086540	0.29029201	2.2589814	20	6 29.6	21.0
411694 2011 YS_{41}	17.3	X	153.56098	21.63470	81.76872	7.23017	0.0484327	0.28491636	2.2873070	20	6 13.7	20.1
411695 2011 YB_{49}	17.5	X	62.25042	276.58235	253.79398	2.51176	0.0972002	0.27305747	2.3530618	20	5 20.7	20.2
411696 2011 YR_{50}	17.5	X	31.15556	298.67306	246.96760	1.22563	0.1552441	0.26398777	2.4066532	20	4 25.1	19.5
411697 2011 YH_{51}	17.3	X	332.52158	77.22970	55.42373	10.02874	0.0799839	0.23424246	2.6063074	20	—	—
411698 2011 YM_{53}	17.8	X	84.79132	256.33960	190.49187	0.98292	0.1489106	0.25580361	2.4577154	20	3 6.3	20.5
411699 2011 YM_{57}	17.7	X	49.34345	97.70407	72.95890	2.70337	0.0831556	0.26688247	2.3892193	20	4 28.8	20.3
411700 2011 YV_{57}	16.3	X	137.05484	166.24595	106.38349	6.24377	0.1383032	0.21217615	2.7840156	20	12 25.2	20.8
411701 2011 YH_{60}	18.0	X	128.21734	217.53961	224.03843	2.73576	0.1006213	0.26643545	2.3918909	20	4 17.5	21.2
411702 2011 YO_{60}	17.3	X	343.11295	275.34173	252.88265	3.23287	0.0567614	0.24250855	2.5467404	20	1 13.0	20.3
411703 2011 YT_{67}	17.3	X	317.21793	144.17292	359.17401	4.41967	0.1112178	0.22657044	2.6648160	20	—	—
411704 2011 YU_{67}	17.2	X	91.34149	37.62289	85.12479	5.74983	0.0650479	0.26502412	2.4003751	20	4 23.3	20.1
411705 2011 YN_{69}	16.2	X	4.78422	246.07069	247.06486	13.01262	0.1611490	0.23615204	2.5922383	20	—	—
411706 2011 YS_{69}	17.1	X	102.10122	35.17092	78.49921	9.81982	0.1554128	0.27159573	2.3614972	20	5 9.2	20.3
411707 2011 YB_{70}	16.3	X	344.01639	176.22293	325.99585	13.62211	0.2427584	0.22993996	2.6387186	20	—	—
411708 2011 YR_{78}	17.3	X	26.29496	95.69280	90.23901	7.75477	0.0755496	0.26453683	2.4033220	20	4 15.3	20.0
411709 2011 YU_{78}	17.5	X	49.91360	277.70376	228.29965	5.70099	0.1192273	0.25807099	2.4442989	20	3 26.5	20.1
411710 2012 AQ_{2}	18.6	X	158.64059	210.24834	226.94402	1.52976	0.2117835	0.27937365	2.3174609	20	5 22.2	22.2
411711 2012 AX_{4}	16.5	X	84.55598	191.46268	292.80530	13.62720	0.0698142	0.26531611	2.3986136	20	4 5.6	19.8
411712 2012 AK_{8}	17.9	X	68.32100	48.14272	105.95520	2.18216	0.1119257	0.26702621	2.3883618	20	5 9.9	20.6
411713 2012 AY_{18}	16.2	X	265.43146	106.63407	82.09475	11.93728	0.0772532	0.22570870	2.6715943	20	—	—
411714 2012 AU_{20}	18.1	X	102.09139	54.03830	67.13599	2.27948	0.1397872	0.27061083	2.3672235	20	5 15.1	21.1
411715 2012 AU_{23}	17.2	X	38.80671	99.11130	52.03376	6.07116	0.1461147	0.25530073	2.4609418	20	3 21.9	19.6
411716 2012 BE_{4}	16.8	X	179.49458	3.26148	319.31457	13.28577	0.1155184	0.24185716	2.5513111	20	1 18.7	20.7
411717 2012 BL_{8}	17.3	X	262.42362	303.85617	301.17204	6.17337	0.2201942	0.23754844	2.5820695	20	—	—
411718 2012 BP_{14}	17.1	X	101.38175	124.15251	337.26687	5.92728	0.0633042	0.26150010	2.4218922	20	4 2.7	20.1
411719 2012 BU_{14}	18.2	X	123.16399	318.46754	126.96560	2.07391	0.1555954	0.26822541	2.3812378	20	4 24.6	21.4
411720 2012 BS_{15}	17.4	X	25.43269	317.70254	256.29681	1.45673	0.0463056	0.27121202	2.3637239	20	5 18.9	20.1
411721 2012 BL_{19}	17.5	X	144.85873	79.42442	22.18864	5.18648	0.1397968	0.27936291	2.3175203	20	6 5.7	20.9
411722 2012 BC_{21}	17.5	X	131.59064	313.62846	149.42947	3.42149	0.1295806	0.26783024	2.3835795	20	5 24.9	20.9
411723 2012 BM_{21}	17.7	X	58.26785	9.47291	153.78932	1.40801	0.1255428	0.26398918	2.4066446	20	5 9.1	20.3
411724 2012 BK_{26}	16.5	X	358.91873	168.68384	274.14690	8.59277	0.0366287	0.21779540	2.7359212	20	—	—
411725 2012 BH_{28}	16.0	X	247.35494	275.82386	303.69107	10.78723	0.0774808	0.22489028	2.6780721	20	—	—
411726 2012 BQ_{29}	18.0	X	76.98029	346.65580	148.81506	2.60089	0.1411472	0.26554449	2.3972382	20	5 1.5	20.7
411727 2012 BG_{38}	17.9	X	101.83380	148.04907	341.47778	2.25419	0.1269828	0.27070805	2.3666567	20	5 23.7	20.9
411728 2012 BT_{41}	17.5	X	210.84276	50.20560	329.48391	5.29096	0.1108562	0.27570970	2.3379471	20	4 24.7	20.9
411729 2012 BU_{51}	17.2	X	261.03745	80.02340	142.38014	4.21659	0.1026455	0.22822725	2.6519035	20	—	—
411730 2012 BA_{52}	17.7	X	145.86349	110.53634	295.34828	6.18020	0.1428315	0.25913840	2.4365848	20	3 23.3	21.3
411731 2012 BN_{52}	17.0	X	197.18423	132.88784	194.09917	3.99711	0.0212144	0.24433828	2.5340103	20	2 4.9	20.4
411732 2012 BE_{54}	17.6	X	115.41129	332.14587	112.42218	3.52176	0.1467689	0.25942719	2.4347762	20	4 14.6	20.9
411733 2012 BK_{54}	17.2	X	134.30314	352.15943	133.79158	7.01040	0.0574100	0.27468585	2.3437531	20	6 21.6	20.3
411734 2012 BP_{55}	16.7	X	314.77417	139.85461	357.56202	9.07063	0.0259463	0.21747955	2.7385695	20	—	—
411735 2012 BE_{56}	16.9	X	300.12724	33.17782	126.74525	10.56317	0.1546534	0.21929676	2.7234197	20	—	—
411736 2012 BF_{56}	16.7	X	255.18252	189.44394	19.32671	6.12344	0.0687502	0.21903279	2.7256074	20	—	—
411737 2012 BA_{69}	17.2	X	179.55798	207.93819	117.61070	7.42586	0.1445259	0.24271725	2.5452803	20	1 22.1	20.9
411738 2012 BB_{70}	17.5	X	82.15166	23.55669	105.71556	3.95137	0.1201914	0.26269998	2.4145119	20	4 27.8	20.4
411739 2012 BG_{70}	17.6	X	85.76703	65.10348	51.46897	2.19956	0.1262778	0.26064814	2.4271668	20	4 14.9	20.4
411740 2012 BV_{72}	15.9	X	75.64080	343.19079	309.08947	10.26545	0.1000663	0.19078929	2.9883633	20	11 8.7	20.4
411741 2012 BV_{82}	17.0	X	266.67621	167.81369	103.77019	3.66459	0.0600888	0.25116187	2.4879037	20	2 16.6	20.3
411742 2012 BY_{83}	16.1	X	41.74128	316.52990	326.44685	10.78248	0.0289139	0.18236106	3.0797442	20	9 6.2	20.4
411743 2012 BN_{87}	17.0	X	83.72063	27.35431	97.48650	3.72583	0.1205980	0.26199472	2.4188431	20	4 23.8	19.8
411744 2012 BF_{88}	17.6	X	348.95184	91.31749	61.09206	3.75772	0.1110222	0.23898961	2.5716787	20	—	—
411745 2012 BM_{89}	17.9	X	153.66122	325.26986	83.45581	4.33010	0.1886884	0.26637847	2.3922320	20	4 12.2	21.6
411746 2012 BM_{94}	18.2	X	115.64383	327.01954	134.58269	1.80295	0.1479713	0.26747048	2.3857164	20	5 6.5	21.4
411747 2012 BG_{95}	17.4	X	197.64423	324.82142	85.58360	6.21601	0.1403498	0.28976169	2.2617368	20	5 23.9	20.7
411748 2012 BA_{96}	17.1	X	45.33785	160.25331	284.25555	8.84868	0.1690077	0.23736597	2.5833926	20	—	—
411749 2012 BM_{100}	18.4	X	229.52388	271.92030	117.33279	3.58239	0.2233122	0.28707964	2.2758019	20	5 22.3	21.9
411750 2012 BE_{104}	16.9	X	359.47685	267.85265	246.70346	4.81094	0.1709747	0.24375914	2.5380224	20	1 5.2	19.4
411751 2012 BH_{107}	16.3	X	228.59880	120.77615	319.66875	7.87064	0.0260724	0.17502001	3.1652711	20	8 11.7	20.7
411752 2012 BS_{108}	18.4	X	157.44302	34.65548	14.89338	2.60918	0.1828000	0.26739940	2.3861391	20	4 14.1	22.0
411753 2012 BT_{108}	17.5	X	7.49554	49.09320	77.12065	3.79810	0.0813680	0.23670583	2.5881935	20	—	—
411754 2012 BA_{109}	17.4	X	170.20345	330.68999	45.84492	3.59775	0.1270427	0.25777708	2.4451557	20	3 14.9	21.0
411755 2012 BD_{109}	17.1	X	274.03621	19.59234	120.75564	5.31003	0.0183612	0.21044302	2.7992802	20	12 29.1	20.8
411756 2012 BR_{109}	17.4	X	168.81929	58.41963	333.54323	5.77982	0.1219240	0.26268455	2.4146065	20	3 28.8	21.1
411757 2012 BT_{109}	16.4	X	211.90911	140.18896	126.24241	12.61608	0.1653077	0.22506985	2.6766474	20	—	—
411758 2012 BV_{109}	17.2	X	82.47190	160.70659	339.24250	4.82650	0.0616370	0.26491772	2.4010178	20	4 29.7	20.2
411759 2012 BP_{110}	17.0	X	271.14709	224.79581	325.99771	4.09853	0.0760079	0.22146183	2.7056407	20	—	—
411760 2012 BB_{120}	17.3	X	18.07771	188.39023	304.27665	4.14707	0.0349383	0.24302013	2.5431650	20	1 18.3	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411761 2012 BB_{122}	16.6	X	282.79730	356.77944	152.46487	15.77533	0.1141479	0.21107249	2.7937120	20	—	—
411762 2012 BZ_{124}	17.7	X	298.49052	299.66079	230.49698	2.65748	0.2160200	0.22326779	2.6910308	20	—	—
411763 2012 BV_{126}	16.7	X	198.89204	229.13449	347.21652	14.61845	0.0968804	0.20152647	2.8812525	20	12 18.6	21.2
411764 2012 BT_{128}	17.1	X	322.65178	158.03806	41.31756	6.12372	0.0336808	0.24330551	2.5411760	20	1 31.5	20.5
411765 2012 BV_{129}	17.1	X	163.73165	50.63081	350.24517	6.67586	0.0969801	0.26339217	2.4102799	20	4 2.8	20.5
411766 2012 BJ_{130}	17.4	X	346.70367	129.40646	52.57838	5.33984	0.0998597	0.24538302	2.5268127	20	2 2.2	20.3
411767 2012 BN_{132}	16.4	X	253.15439	76.27327	128.98767	13.35728	0.1197680	0.21939290	2.7226240	20	—	—
411768 2012 BW_{132}	17.7	X	68.64365	2.19457	133.30084	2.92743	0.1657719	0.26132690	2.4229622	20	4 23.1	20.2
411769 2012 BH_{133}	16.4	X	273.04205	211.01592	298.38291	9.15755	0.0525290	0.21274745	2.7790294	20	—	—
411770 2012 BE_{134}	17.6	X	203.96519	180.84968	233.27368	4.71620	0.1802612	0.28741153	2.2740496	20	6 2.1	21.0
411771 2012 BY_{137}	17.3	X	248.56070	299.35746	250.84107	3.24528	0.0584621	0.21910327	2.7250228	20	—	—
411772 2012 BY_{141}	17.5	X	17.33930	340.31750	145.24018	12.70175	0.0728285	0.24162056	2.5529763	20	1 5.7	20.6
411773 2012 BZ_{143}	17.9	X	225.92071	286.93867	120.47049	3.63977	0.1545981	0.29153179	2.2525724	20	6 17.3	21.1
411774 2012 BX_{146}	16.7	X	150.18550	176.86876	114.59253	1.99078	0.1668510	0.21888077	2.7268692	20	—	—
411775 2012 BJ_{148}	17.5	X	343.23445	282.16747	168.72057	4.49647	0.0848911	0.21771789	2.7365705	20	—	—
411776 2012 BW_{148}	16.6	X	57.05000	342.11324	105.17861	10.89642	0.0831284	0.24159395	2.5531638	20	1 17.3	19.5
411777 2012 BM_{149}	17.9	X	124.08605	43.51436	74.83772	2.34375	0.1327301	0.27161866	2.3613643	20	6 5.7	21.2
411778 2012 CZ_{6}	16.0	X	259.16795	229.26713	308.46431	7.89158	0.0693218	0.21545152	2.7557279	20	—	—
411779 2012 CO_{7}	17.3	X	346.95363	275.58580	179.48643	4.60295	0.0814600	0.22055790	2.7130282	20	—	—
411780 2012 CW_{7}	16.3	X	119.97696	71.03218	144.34125	16.55813	0.1798473	0.17714125	3.1399513	20	10 5.3	21.6
411781 2012 CM_{9}	17.6	X	216.96051	292.72689	316.47870	4.73011	0.0030561	0.22530889	2.6747539	20	—	—
411782 2012 CA_{10}	17.1	X	116.29189	85.87668	298.88036	4.95569	0.0563461	0.23865717	2.5740663	20	1 16.1	20.4
411783 2012 CW_{10}	17.9	X	114.71729	338.00975	126.12476	2.12651	0.1450870	0.26578748	2.3957769	20	5 8.7	21.2
411784 2012 CZ_{11}	15.9	X	81.68082	149.21064	133.49721	11.65130	0.1157424	0.18764486	3.0216554	20	11 12.5	20.6
411785 2012 CJ_{13}	16.7	X	146.05456	184.36291	15.28701	4.57119	0.1919439	0.17901335	3.1180215	20	10 5.1	22.0
411786 2012 CD_{16}	17.5	X	330.99244	205.28837	319.40542	2.81811	0.0927903	0.23365533	2.6106716	20	—	—
411787 2012 CO_{16}	17.6	X	180.34788	262.51068	133.45775	7.42204	0.1678592	0.26705142	2.3882115	20	4 20.9	21.5
411788 2012 CU_{17}	18.5	X	126.06641	294.77454	162.73819	1.15066	0.1477383	0.26812368	2.3818401	20	5 12.6	21.7
411789 2012 CX_{20}	16.6	X	321.26496	210.82414	285.96050	7.98621	0.0317557	0.22128066	2.7071173	20	—	—
411790 2012 CB_{23}	17.2	X	354.41393	298.32982	162.47490	11.24844	0.0893719	0.22414287	2.6840221	20	—	—
411791 2012 CZ_{25}	17.5	X	99.36191	162.53352	329.50547	4.68332	0.0283381	0.27051613	2.3677759	20	5 7.2	20.5
411792 2012 CQ_{33}	17.1	X	359.38550	213.62406	287.01078	2.85142	0.0844340	0.23569132	2.5956153	20	—	—
411793 2012 CB_{34}	17.6	X	72.32326	153.43982	342.47839	1.09934	0.0925118	0.26046398	2.4283108	20	4 15.7	20.3
411794 2012 CB_{40}	16.6	X	183.27259	230.31794	313.70488	8.54850	0.0455632	0.19142843	2.9817079	20	10 22.3	21.1
411795 2012 CJ_{44}	15.6	X	120.32442	251.51929	5.15850	10.89630	0.1689130	0.18467534	3.0539607	20	11 15.4	20.8
411796 2012 CO_{44}	17.4	X	165.25229	90.07238	325.68623	5.49714	0.1335940	0.26608683	2.3939797	20	4 24.9	21.1
411797 2012 CY_{50}	17.8	X	85.85997	306.61933	161.31757	5.24045	0.1570744	0.25594665	2.4567997	20	4 9.4	20.8
411798 2012 CO_{51}	17.2	X	128.55517	97.86471	286.53592	2.32615	0.0557497	0.23936801	2.5689677	20	1 30.5	20.7
411799 2012 CD_{57}	17.9	X	154.15991	233.04870	236.94842	4.59482	0.1278023	0.28114279	2.3077287	20	6 26.9	21.3
411800 2012 CF_{57}	17.0	X	132.41794	122.98758	307.08578	5.86649	0.1067065	0.26179010	2.4201033	20	4 5.2	20.4
411801 2012 CM_{57}	16.9	X	61.37654	295.49608	194.66444	6.65710	0.1388988	0.25289344	2.4765343	20	3 28.5	19.5
411802 2012 DW_{2}	16.4	X	156.39828	210.84118	93.76830	6.27096	0.1033821	0.21589947	2.7519149	20	—	—
411803 2012 DQ_{3}	16.7	X	18.31949	281.23079	138.47412	14.21684	0.0377237	0.21230886	2.7828554	20	—	—
411804 2012 DF_{6}	16.9	X	358.06483	141.42643	349.63405	13.47345	0.1099496	0.23331505	2.6132094	20	—	—
411805 2012 DY_{9}	17.9	X	184.58843	41.33460	18.71364	2.96882	0.1800286	0.27534598	2.3400055	20	5 21.9	21.5
411806 2012 DD_{12}	16.4	X	309.48193	331.84206	125.78451	9.97254	0.0061894	0.20037838	2.8922476	20	12 19.9	20.4
411807 2012 DA_{18}	17.4	X	46.84751	329.45025	170.50950	2.30059	0.1183779	0.25392913	2.4697957	20	3 14.9	19.8
411808 2012 DN_{22}	15.8	X	219.84870	67.00846	85.39292	11.94974	0.0471782	0.18655834	3.0333762	20	11 2.2	20.3
411809 2012 DX_{24}	16.6	X	129.03542	238.60510	95.53533	5.05867	0.0471439	0.21209656	2.7847121	20	—	—
411810 2012 DA_{25}	16.2	X	311.75996	352.56773	157.11613	13.87094	0.1316004	0.21512091	2.7585507	20	—	—
411811 2012 DU_{25}	15.4	X	149.70903	201.57418	9.89167	22.04440	0.1842402	0.17635932	3.1492256	20	10 16.8	20.8
411812 2012 DT_{27}	17.2	X	129.11853	100.57543	355.94031	8.27915	0.1783815	0.26672179	2.3901788	20	5 14.5	20.9
411813 2012 DX_{27}	16.4	X	354.00885	98.10673	356.68613	13.55564	0.0708325	0.21985452	2.7188116	20	—	—
411814 2012 DK_{28}	17.0	X	326.25121	142.11312	1.13393	13.30332	0.0900924	0.21912301	2.7248592	20	—	—
411815 2012 DG_{30}	16.1	X	252.40195	122.46272	5.42185	16.25202	0.1830792	0.19192047	2.9766094	20	10 15.9	20.4
411816 2012 DP_{31}	15.8	X	174.17327	18.83333	164.49587	16.34990	0.0828461	0.18096437	3.0955702	20	10 15.4	20.6
411817 2012 DF_{33}	16.8	X	167.67057	318.88633	94.30036	6.75761	0.1006431	0.25888261	2.4381895	20	4 28.3	20.4
411818 2012 DR_{33}	17.3	X	140.49870	281.88821	170.55025	7.13153	0.1368433	0.26884837	2.3775580	20	5 21.9	20.8
411819 2012 DO_{34}	16.1	X	172.08444	14.11088	191.27352	10.26043	0.0542344	0.18470358	3.0536494	20	11 8.7	20.6
411820 2012 DZ_{36}	15.7	X	114.90351	261.84319	354.17958	11.61826	0.1910547	0.18047409	3.1011740	20	11 9.8	21.0
411821 2012 DB_{37}	16.9	X	234.81782	123.73615	130.45506	3.43622	0.0269232	0.22545071	2.6736321	20	—	—
411822 2012 DO_{40}	16.9	X	217.02863	255.65637	277.00279	1.21029	0.0181969	0.19041777	2.9922491	20	11 23.3	21.1
411823 2012 DT_{41}	16.2	X	83.99238	294.24489	85.56862	8.64088	0.0856017	0.22153398	2.7050532	20	—	—
411824 2012 DP_{43}	16.8	X	1.01855	350.88993	112.86841	6.54059	0.0360345	0.21919142	2.7242921	20	—	—
411825 2012 DC_{44}	16.1	X	157.68217	63.33867	133.40812	2.14932	0.0828347	0.17680943	3.1438786	20	10 11.8	20.8
411826 2012 DH_{44}	17.0	X	359.23006	115.11973	14.81363	12.12961	0.2004317	0.22875588	2.6478164	20	—	—
411827 2012 DW_{45}	16.5	X	116.59147	134.77758	123.69319	3.18012	0.0750379	0.18222813	3.0812417	20	11 12.7	21.1
411828 2012 DA_{47}	16.8	X	25.98610	324.28373	178.76657	15.85864	0.1117081	0.23799607	2.5788309	20	2 9.9	19.9
411829 2012 DD_{47}	16.8	X	26.19098	333.83616	126.52733	4.67988	0.0387460	0.22855457	2.6493710	20	—	—
411830 2012 DL_{47}	15.6	X	28.87410	150.30276	142.52201	17.77769	0.0912589	0.17529040	3.1620152	20	9 13.3	19.8
411831 2012 DX_{47}	16.0	X	156.82008	188.09568	335.53673	11.13057	0.0387638	0.17416907	3.1755724	20	8 29.9	20.5
411832 2012 DS_{48}	16.1	X	131.40632	48.85461	169.28673	16.30010	0.1810574	0.17823082	3.1271414	20	10 16.8	21.4
411833 2012 DA_{50}	16.8	X	84.89167	334.40202	47.91762	3.96699	0.1162413	0.21565654	2.7539811	20	—	—
411834 2012 DT_{50}	16.7	X	70.25760	308.96372	45.55560	2.59469	0.0824090	0.20023962	2.8935837	20	—	—
411835 2012 DZ_{50}	17.5	X	348.47636	97.62001	27.14652	4.65877	0.0641758	0.21864312	2.7288448	20	—	—
411836 2012 DO_{51}	15.4	X	67.75639	287.96698	353.51974	16.29112	0.0947269	0.17680108	3.1439776	20	10 12.6	20.0
411837 2012 DY_{52}	16.4	X	95.66401	152.39436	160.70896	0.19917	0.1097265	0.19255536	2.9700629	20	12 28.9	20.8
411838 2012 DY_{54}	16.8	X	247.55402	232.01119	341.74220	12.73141	0.1156204	0.21710704	2.7417012	20	—	—
411839 2012 DU_{55}	16.1	X	234.01130	250.17448	335.16614	5.50310	0.1835567	0.21060069	2.7978829	20	—	—
411840 2012 DW_{55}	16.6	X	6.30755	168.32956	337.58170	7.14573	0.1181083	0.23526145	2.5987762	20	1 15.4	19.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
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411841 2012 DU_{56}	17.2	X	130.02648	7.00923	303.49327	4.76242	0.0057037	0.21207092	2.7849366	20	—	—
411842 2012 DP_{57}	17.6	X	132.85055	282.88158	187.21747	4.00819	0.1140636	0.26907597	2.3762170	20	6 3.2	20.9
411843 2012 DU_{58}	17.2	X	346.68221	108.88943	15.21910	4.78348	0.1159413	0.22220936	2.6995693	20	—	—
411844 2012 DF_{59}	16.6	X	353.42052	109.61799	28.04165	4.58684	0.0754210	0.22757281	2.6569852	20	—	—
411845 2012 DU_{61}	15.6	X	187.68959	275.45185	273.23380	9.58332	0.0420277	0.18942127	3.0027342	20	11 3.5	20.1
411846 2012 DD_{63}	18.6	X	183.97552	280.17774	147.48777	2.03980	0.1950382	0.28021449	2.3128226	20	6 1.2	22.2
411847 2012 DP_{65}	17.1	X	73.16420	292.16702	156.35473	8.50750	0.0821452	0.24217536	2.5490758	20	2 11.5	20.0
411848 2012 DW_{72}	17.4	X	25.77649	354.16385	119.96511	3.36350	0.1040934	0.23369791	2.6103545	20	1 4.5	20.1
411849 2012 DZ_{72}	16.5	X	105.07773	256.65011	357.17530	15.36617	0.0846116	0.18097628	3.0954344	20	10 20.4	21.3
411850 2012 DP_{74}	17.1	X	142.52340	59.02959	49.37773	6.68323	0.1083901	0.26594521	2.3948295	20	6 10.3	20.5
411851 2012 DV_{74}	17.6	X	171.14825	271.04546	165.28435	7.41972	0.1776174	0.27490225	2.3425230	20	6 1.7	21.4
411852 2012 DC_{75}	17.2	X	278.19593	290.67335	206.35594	1.47896	0.0136443	0.20472084	2.8512022	20	12 29.1	21.0
411853 2012 DU_{75}	15.6	X	122.04178	236.29003	3.18076	25.58361	0.1708839	0.17270386	3.1935081	20	10 20.7	21.0
411854 2012 DU_{76}	16.3	X	122.19793	83.81323	265.24667	3.25245	0.0859447	0.21721743	2.7407722	20	—	—
411855 2012 DX_{76}	16.4	X	89.10949	70.64344	336.94996	12.84941	0.1239416	0.22999678	2.6382840	20	1 23.7	19.7
411856 2012 DR_{82}	16.7	X	89.62848	349.21204	41.48030	5.67688	0.1144858	0.22145800	2.7056720	20	—	—
411857 2012 DH_{83}	17.4	X	16.55404	265.60559	165.16061	1.05602	0.0492664	0.21519928	2.7578809	20	—	—
411858 2012 DL_{83}	17.8	X	165.86473	239.63098	163.02031	4.94034	0.2071042	0.26074524	2.4265642	20	4 16.2	21.7
411859 2012 DF_{84}	16.8	X	130.36978	272.12066	356.71183	1.60858	0.0624382	0.19746271	2.9206487	20	12 10.5	21.1
411860 2012 DP_{86}	16.8	X	118.72771	286.97684	201.40967	20.43031	0.2757224	0.26759397	2.3849823	20	6 24.5	21.2
411861 2012 DY_{86}	16.6	X	219.96083	233.44159	326.73811	6.67950	0.0353331	0.20156427	2.8808923	20	12 31.4	20.6
411862 2012 DY_{90}	18.0	X	121.65276	5.51909	116.67795	2.14310	0.1371662	0.27015233	2.3699012	20	6 8.8	21.4
411863 2012 DK_{92}	17.2	X	338.13527	119.54094	8.82532	5.10650	0.0642772	0.22251574	2.6970908	20	—	—
411864 2012 DT_{92}	17.3	X	311.99897	342.38051	157.20686	0.30313	0.0142246	0.21566127	2.7539409	20	—	—
411865 2012 DL_{95}	18.3	X	119.86056	101.76129	358.32176	3.09619	0.1434696	0.26397542	2.4067283	20	5 7.2	21.7
411866 2012 DQ_{95}	17.2	X	226.31009	287.00926	216.28199	1.82910	0.0389270	0.18996016	2.9970526	20	10 26.9	21.5
411867 2012 DX_{96}	16.2	X	155.28554	242.10797	344.77905	14.07925	0.1337780	0.18962914	3.0005394	20	11 9.3	21.3
411868 2012 EE	16.8	X	2.04708	219.54856	295.81647	7.82274	0.1066586	0.23835077	2.5762718	20	1 19.9	19.7
411869 2012 EO	17.5	X	140.09473	108.75638	316.12963	3.87201	0.1300047	0.25825412	2.4421437	20	4 11.0	21.0
411870 2012 ES	16.8	X	129.66293	81.56298	169.41431	8.20045	0.1365749	0.18689050	3.0297810	20	11 20.9	21.7
411871 2012 EV	17.4	X	64.22351	230.16489	183.07307	5.15174	0.0619319	0.22658633	2.6646913	20	—	—
411872 2012 EG_{1}	16.8	X	221.32941	46.68165	191.35224	3.89955	0.0476790	0.21410628	2.7672588	20	—	—
411873 2012 EN_{2}	15.9	X	156.11220	27.27889	162.38318	14.16854	0.0581131	0.18034490	3.1026548	20	10 3.6	20.6
411874 2012 EW_{2}	17.1	X	328.41290	17.53026	160.16484	13.07542	0.1398583	0.23264794	2.6182026	20	—	—
411875 2012 EW_{4}	15.9	X	34.16044	321.40032	6.01039	15.27838	0.1271960	0.17925639	3.1152025	20	11 1.1	20.2
411876 2012 EE_{7}	16.5	X	315.33777	142.65271	95.75195	15.98351	0.0747561	0.24243769	2.5472366	20	3 12.9	20.1
411877 2012 FQ	17.0	X	42.92292	336.02751	168.63565	12.12964	0.0741011	0.24061461	2.5600870	20	3 12.9	19.7
411878 2012 FN_{5}	16.7	X	29.82113	191.45189	188.83337	2.90699	0.1232852	0.20409067	2.8570682	20	—	—
411879 2012 FP_{8}	16.2	X	126.54125	54.47120	170.50522	9.83520	0.1258337	0.17727015	3.1384290	20	10 17.2	21.2
411880 2012 FS_{10}	17.6	X	78.03258	269.46209	185.33209	8.45052	0.0814861	0.24144418	2.5542195	20	2 26.2	20.8
411881 2012 FO_{11}	16.7	X	16.62872	138.69232	358.97290	11.73765	0.1325332	0.23430831	2.6058191	20	1 23.8	19.6
411882 2012 FQ_{15}	16.9	X	69.09169	239.74754	167.02552	11.00351	0.1466328	0.22454981	2.6807784	20	—	—
411883 2012 FT_{25}	16.8	X	190.27176	42.00521	153.64719	2.66934	0.0609209	0.18789978	3.0189218	20	11 16.1	21.3
411884 2012 FX_{25}	16.8	X	342.95127	44.45885	4.45624	15.26045	0.0546677	0.19190296	2.9767905	20	11 27.2	21.0
411885 2012 FQ_{26}	16.9	X	348.48373	63.45696	9.44097	7.99412	0.1113655	0.20425326	2.8555518	20	—	—
411886 2012 FF_{28}	17.5	X	292.04126	91.88743	83.76602	4.81192	0.0147940	0.21354902	2.7720708	20	—	—
411887 2012 FA_{29}	17.1	X	278.88539	179.26255	15.39761	6.63057	0.0413610	0.21892715	2.7264841	20	—	—
411888 2012 FK_{32}	16.2	X	41.27496	184.89854	134.25934	8.89468	0.1042775	0.17446539	3.1719757	20	11 4.6	20.6
411889 2012 FE_{33}	16.4	X	191.80578	181.51895	343.87769	12.41401	0.0561642	0.17827019	3.1266809	20	10 6.3	21.2
411890 2012 FJ_{35}	17.0	X	40.73383	354.67076	70.86070	3.61707	0.0937270	0.21688187	2.7435985	20	—	—
411891 2012 FK_{36}	16.3	X	101.86825	93.86983	172.29262	5.55744	0.1083185	0.18016635	3.1047045	20	11 9.3	21.0
411892 2012 FT_{36}	16.5	X	129.62052	195.01280	42.00726	9.12882	0.0136618	0.17973590	3.1096594	20	10 28.0	20.8
411893 2012 FD_{39}	16.9	X	246.85290	257.03555	314.80151	4.12703	0.0647623	0.21497715	2.7597803	20	—	—
411894 2012 FC_{40}	16.1	X	161.86827	251.67640	325.68113	10.32154	0.0921367	0.18354314	3.0665069	20	11 5.3	21.1
411895 2012 FH_{40}	15.8	X	206.48159	115.69844	32.76088	12.02620	0.0967748	0.18101114	3.0950370	20	10 5.7	20.5
411896 2012 FQ_{40}	16.7	X	353.15334	300.44321	208.22625	5.04266	0.1444755	0.23012203	2.6373266	20	—	—
411897 2012 FV_{40}	16.4	X	71.43720	272.17406	44.07259	9.46834	0.0702960	0.18510350	3.0492495	20	11 30.3	20.8
411898 2012 FN_{41}	16.9	X	297.97328	313.78792	218.33793	2.44586	0.0178640	0.21700281	2.7425790	20	—	—
411899 2012 FF_{42}	16.5	X	95.57726	167.17364	156.61521	2.42429	0.1016799	0.19508199	2.9443624	20	—	—
411900 2012 FK_{46}	17.5	X	33.50156	75.27308	33.82503	3.54166	0.0554833	0.22991787	2.6388876	20	1 12.2	20.6
411901 2012 FF_{47}	16.5	X	53.25283	343.20691	41.84954	4.80917	0.0880409	0.20883716	2.8136120	20	—	—
411902 2012 FA_{54}	16.0	X	151.16936	257.25486	349.38084	8.05895	0.0702329	0.18871603	3.0102104	20	12 2.9	20.7
411903 2012 FJ_{54}	17.1	X	29.45142	88.61702	7.25360	8.91852	0.1051393	0.22382386	2.6865718	20	—	—
411904 2012 FU_{56}	16.2	X	67.27828	307.29418	10.87265	10.16384	0.1118811	0.18557613	3.0440700	20	12 2.3	20.8
411905 2012 FQ_{59}	16.0	X	214.43678	129.94510	15.45917	12.74641	0.0653912	0.18297204	3.0728844	20	10 10.9	20.4
411906 2012 FU_{59}	15.5	X	128.07353	245.70890	16.09088	16.11233	0.1880684	0.18401743	3.0612355	20	11 27.3	20.8
411907 2012 FP_{61}	16.5	X	127.11255	167.74536	57.35419	10.06746	0.0492609	0.17532528	3.1615958	20	10 14.9	21.2
411908 2012 FY_{62}	16.6	X	310.30399	92.07948	21.17981	11.53496	0.0758866	0.19934708	2.9022142	20	—	—
411909 2012 FK_{63}	17.3	X	54.47554	0.35864	175.48669	12.49966	0.1097922	0.25687531	2.4508749	20	5 21.3	20.3
411910 2012 FN_{63}	16.2	X	340.88242	82.59288	20.22797	14.89048	0.1172400	0.20530820	2.8457617	20	—	—
411911 2012 FO_{65}	17.2	X	33.00488	70.96528	23.62120	8.23867	0.0438954	0.22386540	2.6862395	20	—	—
411912 2012 FS_{66}	17.2	X	18.73377	94.28299	17.24805	5.42111	0.0835109	0.22622648	2.6675163	20	—	—
411913 2012 FZ_{66}	17.0	X	73.27846	227.10519	156.35126	6.52489	0.0850696	0.21305846	2.7763243	20	—	—
411914 2012 FD_{67}	17.4	X	65.24028	319.62227	124.65658	3.42103	0.0352939	0.23078726	2.6322562	20	1 22.9	20.5
411915 2012 FS_{68}	16.8	X	150.16130	222.97843	139.69119	9.85242	0.0773205	0.23058726	2.6337781	20	2 1.9	20.4
411916 2012 FT_{68}	15.6	X	128.32299	239.69691	17.91192	27.02099	0.1886506	0.18203155	3.0834597	20	11 17.2	21.1
411917 2012 FZ_{68}	16.5	X	4.13237	310.68454	107.95307	7.08083	0.0600409	0.20235355	2.8733961	20	—	—
411918 2012 FK_{69}	16.1	X	56.18262	66.10034	17.00702	22.21876	0.0672604	0.22592545	2.6698854	20	1 19.1	19.9
411919 2012 FF_{70}	16.2	X	298.19828	31.07923	67.20948	10.03959	0.0948170	0.18971035	2.9996830	20	11 27.3	19.7
411920 2012 FG_{70}	15.9	X	48.68241	202.82074	163.74821	11.44027	0.0876453	0.19037456	2.9927018	20	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
411921 2012 FR_{73}	15.8	X	174.18809	149.79746	30.53206	6.09791	0.1575564	0.17293117	3.1907090	20	10 6.4	21.0
411922 2012 FR_{74}	16.2	X	70.38172	85.59808	343.12966	21.98011	0.0505808	0.23142346	2.6274299	20	1 18.7	19.9
411923 2012 FZ_{75}	16.2	X	162.46833	298.54558	234.19193	4.70069	0.1337312	0.17331806	3.1859589	20	9 14.4	21.4
411924 2012 FD_{82}	16.1	X	147.25025	212.98097	100.04731	7.36016	0.0548246	0.21159151	2.7891416	20	—	—
411925 2012 FE_{82}	15.6	X	27.93062	262.47074	71.13735	9.36893	0.0508372	0.17965691	3.1105709	20	10 29.3	19.8
411926 2012 FN_{83}	15.7	X	131.91619	306.29937	268.47444	8.63329	0.1725165	0.17678683	3.1441466	20	10 6.2	21.1
411927 2012 GB_{1}	16.4	X	197.26984	116.42609	33.46638	10.98345	0.0458814	0.17646736	3.1479401	20	10 1.4	21.0
411928 2012 GP_{2}	15.8	X	323.22622	12.84072	24.80867	9.45578	0.0684519	0.17617904	3.1513735	20	10 16.8	19.9
411929 2012 GX_{2}	16.2	X	88.29983	291.24416	23.99279	11.22778	0.0900966	0.18636199	3.0355064	20	12 20.4	20.9
411930 2012 GX_{3}	16.0	X	105.91300	175.56968	29.40653	6.31593	0.1687829	0.15741799	3.3970333	20	9 5.5	21.3
411931 2012 GS_{7}	16.1	X	171.20841	300.32193	242.37835	8.80200	0.1769458	0.17728374	3.1382686	20	10 2.6	21.4
411932 2012 GQ_{8}	16.9	X	216.65151	64.16079	209.04217	5.56861	0.0177751	0.21940533	2.7225212	20	—	—
411933 2012 GL_{9}	16.7	X	47.27122	203.19524	241.30781	4.19128	0.0345144	0.22144169	2.7058048	20	—	—
411934 2012 GB_{10}	16.5	X	244.85735	285.79134	205.45379	9.45692	0.0894244	0.18464521	3.0542929	20	10 26.9	20.9
411935 2012 GO_{10}	16.0	X	97.58446	243.27363	16.23839	9.11402	0.0795569	0.17228486	3.1986837	20	10 21.4	20.7
411936 2012 GY_{12}	15.7	X	190.02836	167.73521	21.16957	17.99605	0.1421424	0.18213253	3.0823199	20	10 28.4	20.6
411937 2012 GH_{19}	15.8	X	25.62975	153.58349	188.23427	9.15793	0.0742074	0.17435957	3.1732590	20	11 5.9	20.1
411938 2012 GY_{19}	16.4	X	210.28871	7.93846	186.07876	10.74973	0.0455887	0.18823032	3.0153866	20	12 8.3	20.9
411939 2012 GV_{21}	17.1	X	49.22220	59.13165	51.63537	4.32687	0.1325481	0.23150913	2.6267816	20	2 13.5	19.9
411940 2012 GA_{22}	16.6	X	179.36337	355.99606	234.80189	3.59084	0.0537252	0.18811752	3.0165918	20	12 15.9	21.1
411941 2012 GY_{23}	15.9	X	211.62611	112.62391	23.01106	9.48950	0.1534340	0.17734702	3.1375220	20	9 19.9	20.8
411942 2012 GD_{24}	16.3	X	171.94706	100.68870	74.18576	6.03950	0.0981459	0.17315861	3.1879144	20	10 1.4	21.3
411943 2012 GZ_{25}	16.0	X	174.84625	182.98948	13.08887	11.04076	0.0400232	0.17996129	3.1070625	20	10 27.5	20.7
411944 2012 GY_{29}	16.1	X	111.46431	223.93002	31.16513	9.30707	0.0496187	0.17510392	3.1642599	20	10 29.6	20.6
411945 2012 GS_{30}	16.4	X	305.68257	329.38348	174.89679	12.01954	0.1904782	0.21140278	2.7908013	20	—	—
411946 2012 GB_{36}	15.2	X	118.17634	225.57132	33.95949	11.41873	0.0592298	0.17508663	3.1644681	20	11 10.9	19.9
411947 2012 GE_{37}	16.3	X	282.41590	251.91881	230.99671	11.26351	0.0610599	0.18717961	3.0266604	20	12 8.2	20.3
411948 2012 GR_{37}	15.3	X	285.60891	292.50659	87.71194	10.71978	0.0566280	0.15379703	3.4501456	20	8 3.4	20.1
411949 2012 HB_{6}	15.4	X	198.05328	78.72947	95.02384	15.09112	0.0937150	0.17651360	3.1473903	20	10 30.5	20.4
411950 2012 HY_{14}	15.3	X	226.54715	27.14912	123.01018	11.01844	0.0539115	0.18298330	3.0727584	20	11 5.7	19.9
411951 2012 HE_{15}	16.3	X	143.33107	57.65396	193.51914	10.93310	0.0929472	0.18306453	3.0718494	20	12 1.7	21.2
411952 2012 HX_{16}	16.0	X	78.60195	221.84360	131.58975	12.57670	0.0966692	0.18809718	3.0168093	20	—	—
411953 2012 HJ_{18}	16.2	X	348.83139	76.71156	96.52627	13.66369	0.1069049	0.22691960	2.6620817	20	1 26.7	19.4
411954 2012 HS_{19}	16.8	X	321.83408	137.69916	29.21631	17.07790	0.1511645	0.22048197	2.7136510	20	—	—
411955 2012 HS_{21}	16.3	X	195.61692	353.92197	177.32059	18.13454	0.1661737	0.17783031	3.1318349	20	10 15.9	21.4
411956 2012 HG_{28}	15.7	X	58.98984	236.77373	110.04241	16.52239	0.0847039	0.17899215	3.1182677	20	12 24.7	20.3
411957 2012 HS_{30}	16.6	X	353.91800	352.73679	69.32342	11.34623	0.0611071	0.18802772	3.0175522	20	—	—
411958 2012 HH_{34}	16.1	X	102.85684	272.71768	87.66815	10.97956	0.0587383	0.19955196	2.9002274	20	—	—
411959 2012 HS_{36}	15.8	X	26.25270	270.69503	96.65363	14.74377	0.0627470	0.17947080	3.1127209	20	12 7.5	20.0
411960 2012 HZ_{37}	16.5	X	186.85985	321.88548	219.40909	4.17274	0.1469211	0.17241650	3.1970554	20	10 17.6	21.7
411961 2012 HM_{38}	16.5	X	246.25283	284.43025	223.78391	7.22851	0.1436622	0.18329090	3.0693196	20	11 10.3	20.7
411962 2012 HD_{42}	16.6	X	291.23552	327.77195	201.96168	12.73893	0.1230225	0.21114758	2.7930496	20	—	—
411963 2012 HC_{44}	15.4	X	203.54076	318.20864	214.74814	21.47648	0.1077218	0.17833439	3.1259305	20	10 27.7	20.3
411964 2012 HB_{45}	15.9	X	148.31416	49.87611	195.87645	6.93980	0.0223951	0.17991801	3.1075608	20	11 29.6	20.4
411965 2012 HJ_{46}	16.1	X	107.88112	58.88826	258.83632	8.68957	0.0490672	0.19395191	2.9557884	20	—	—
411966 2012 HO_{46}	15.4	X	153.00656	134.90994	93.59079	10.28861	0.0390910	0.17592467	3.1544106	20	11 15.4	20.1
411967 2012 HW_{47}	15.8	X	103.55775	79.90665	210.47635	26.15201	0.0524411	0.17691198	3.1426636	20	12 2.2	20.7
411968 2012 HH_{49}	16.2	X	82.97141	234.00555	110.04645	10.60715	0.0763431	0.18929951	3.0040216	20	—	—
411969 2012 HV_{50}	15.3	X	225.02671	78.26658	88.11143	16.80744	0.0422729	0.17713179	3.1400631	20	11 22.9	19.9
411970 2012 HE_{52}	16.3	X	314.89918	268.04414	203.47901	14.60146	0.1446218	0.19954912	2.9002549	20	—	—
411971 2012 HZ_{53}	16.9	X	211.54970	105.78196	163.29206	7.57186	0.0392013	0.21127170	2.7919555	20	—	—
411972 2012 HU_{56}	16.7	X	167.90574	44.28434	177.97465	6.72493	0.1126854	0.18129704	3.0917823	20	11 21.2	21.6
411973 2012 HU_{58}	16.2	X	141.53882	63.23324	188.72064	12.95157	0.0895587	0.18136072	3.0910586	20	11 30.8	21.1
411974 2012 HY_{58}	15.8	X	323.65729	341.32824	72.04355	8.02097	0.0732448	0.17947221	3.1127046	20	11 8.4	19.7
411975 2012 HV_{59}	16.8	X	247.23463	287.33167	202.10158	6.79464	0.1164652	0.18135340	3.0911418	20	10 23.2	21.1
411976 2012 HF_{64}	16.1	X	53.74510	282.13215	49.48651	11.56632	0.0793935	0.17442934	3.1724128	20	11 27.0	20.5
411977 2012 HT_{65}	16.0	X	199.22710	265.29538	262.33470	8.02915	0.0774774	0.17890841	3.1192407	20	10 16.7	20.9
411978 2012 HN_{66}	15.6	X	147.88778	135.45593	89.09973	17.97026	0.0834315	0.17675354	3.1445413	20	11 9.3	20.6
411979 2012 HV_{69}	16.0	X	294.89051	125.35374	94.43495	14.29309	0.0755052	0.22561328	2.6723476	20	1 17.1	19.7
411980 2012 HK_{74}	16.0	X	256.38135	289.47579	211.20774	20.20597	0.2577880	0.19162294	2.9796898	20	10 30.0	20.0
411981 2012 HJ_{78}	16.1	X	142.34378	168.72523	66.58143	6.70083	0.1199104	0.17112589	3.2131098	20	11 10.6	21.1
411982 2012 JN_{2}	16.3	X	22.81498	26.65785	55.56230	12.69776	0.1197860	0.20982185	2.8048022	20	—	—
411983 2012 JD_{3}	15.3	X	324.05314	182.26509	227.50136	21.33149	0.0834391	0.17185365	3.2040323	20	10 31.1	19.4
411984 2012 JN_{8}	16.0	X	80.10967	97.33848	222.96858	8.95062	0.0506138	0.17830347	3.1262919	20	12 12.3	20.6
411985 2012 JF_{16}	15.4	X	94.01791	205.48627	106.24200	21.19664	0.0162211	0.17744462	3.1363715	20	12 16.1	20.1
411986 2012 JY_{16}	15.9	X	214.36854	91.15335	63.16676	11.34930	0.0904601	0.17696669	3.1420158	20	10 22.1	20.6
411987 2012 JG_{18}	16.4	X	252.64809	8.16390	121.90937	8.53162	0.1510956	0.18484544	3.0520869	20	10 29.7	20.8
411988 2012 JJ_{23}	15.7	X	119.96537	163.88457	97.27340	8.50735	0.0293006	0.17253588	3.1955805	20	11 16.0	20.4
411989 2012 JY_{23}	15.7	X	218.46842	74.22346	112.54761	10.47602	0.0626469	0.18086169	3.0967418	20	12 5.9	20.3
411990 2012 JB_{27}	15.9	X	59.04792	313.28524	148.87846	22.37460	0.0511345	0.22381144	2.6866712	20	2 8.6	19.4
411991 2012 JY_{38}	16.4	X	270.00282	309.44709	207.34715	10.09082	0.0469389	0.19128766	2.9831705	20	—	—
411992 2012 JG_{40}	16.5	X	9.03448	67.88454	96.70299	14.05557	0.0872212	0.22703412	2.6611864	20	2 21.2	19.8
411993 2012 JQ_{40}	16.1	X	240.40987	304.98978	204.14640	16.08512	0.1847963	0.17843400	3.1247670	20	10 30.1	20.6
411994 2012 JX_{45}	15.5	X	226.77673	115.71258	67.36060	11.65628	0.0992471	0.18463183	3.0544405	20	12 5.3	20.0
411995 2012 JF_{52}	16.5	X	3.46482	48.81866	29.56134	2.20816	0.0504873	0.19420947	2.9531745	20	—	—
411996 2012 JW_{52}	16.2	X	227.56008	107.10953	44.49168	6.95737	0.1078729	0.17864115	3.1223509	20	10 28.4	20.6
411997 2012 JH_{61}	15.7	X	330.87795	351.61784	54.55012	17.51151	0.1570988	0.17327518	3.1864845	20	11 8.1	19.2
411998 2012 KA_{9}	17.0	X	25.87965	38.53842	101.39013	5.39561	0.2114028	0.23412226	2.6071994	20	2 10.5	19.2
411999 2012 KE_{12}	15.3	X	45.94016	279.03107	117.61840	25.51043	0.0326145	0.18918395	3.0052448	20	—	—
412000 2012 KG_{16}	15.9	X	322.59183	244.89149	211.47781	8.50853	0.0796794	0.18348939	3.0671058	20	12 29.0	19.9