Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436001 2009 FR_{50}	16.3	X	69.38832	28.62076	139.40014	7.94387	0.1155376	0.17206366	3.2014247	21	5 25.9	20.7
436002 2009 FF_{51}	16.2	X	87.38944	132.78867	31.87382	15.45729	0.1935896	0.17587492	3.1550054	21	6 22.6	21.0
436003 2009 FQ_{56}	15.3	X	84.58150	255.14616	259.19668	25.08516	0.1474867	0.17617144	3.1514642	21	5 31.6	19.7
436004 2009 FA_{59}	16.7	X	58.74515	37.86465	194.47555	6.09685	0.0397001	0.18340301	3.0680687	21	7 19.5	21.0
436005 2009 FD_{71}	15.6	X	324.23441	266.22329	28.88341	33.69870	0.1395553	0.17104584	3.2141122	21	5 8.8	20.0
436006 2009 FZ_{75}	15.9	X	330.07353	171.88700	170.83751	10.98060	0.1138172	0.18604161	3.0389903	21	8 2.9	19.8
436007 2009 GS_{2}	16.2	X	27.53624	205.24325	30.07126	10.85261	0.1525834	0.17510848	3.1642049	21	6 19.9	20.1
436008 2009 GG_{6}	16.1	X	317.15122	107.12692	219.69327	15.12375	0.1176389	0.17397599	3.1779215	21	6 21.5	20.4
436009 2009 HN_{1}	15.9	X	38.19382	168.82694	62.09424	13.09955	0.0854331	0.17420072	3.1751878	21	6 24.8	20.1
436010 2009 HF_{11}	15.7	X	307.94042	280.83261	33.57681	11.26335	0.0314804	0.17421468	3.1750182	21	6 2.7	20.2
436011 2009 HR_{16}	16.4	X	341.18829	140.92312	175.64714	10.62222	0.0680584	0.18277254	3.0751201	21	7 19.5	20.5
436012 2009 HH_{17}	16.7	X	358.11996	80.04044	205.82981	24.62354	0.2690457	0.17278694	3.1924843	21	6 29.8	20.3
436013 2009 HN_{20}	16.2	X	87.38389	127.38991	51.70932	6.11845	0.0959841	0.17575599	3.1564285	21	6 28.1	20.6
436014 2009 HX_{22}	15.9	X	6.35859	103.58420	189.76553	15.30681	0.2437391	0.17538294	3.1609029	21	8 2.0	19.3
436015 2009 HS_{29}	16.1	X	27.52960	169.23712	80.87556	8.64613	0.1060383	0.17796950	3.1302017	21	7 6.6	19.9
436016 2009 HA_{30}	16.4	X	347.38414	126.64478	116.49085	6.99159	0.0856712	0.16779147	3.2555382	21	4 27.4	20.6
436017 2009 HZ_{30}	15.9	X	138.96622	90.22253	29.03078	11.82986	0.0565843	0.17645863	3.1480440	21	6 6.9	20.6
436018 2009 HN_{34}	16.4	X	131.54432	273.67783	205.05825	15.11187	0.2053556	0.17605225	3.1528864	21	6 13.2	21.7
436019 2009 HY_{38}	15.8	X	193.65168	359.78321	86.77357	12.78519	0.0546772	0.17593716	3.1542613	21	6 29.7	20.5
436020 2009 HF_{53}	16.4	X	318.34813	125.02563	193.55096	10.22893	0.0606100	0.17700650	3.1415446	21	6 20.5	20.8
436021 2009 HV_{55}	16.1	X	54.37070	350.55045	220.19927	28.24904	0.1179391	0.17335390	3.1855198	21	6 22.4	20.7
436022 2009 HR_{62}	16.4	X	77.43416	92.21059	104.64486	6.04051	0.1124817	0.17897419	3.1184762	21	7 10.5	20.7
436023 2009 HF_{65}	16.3	X	38.29335	215.35749	73.48823	15.47389	0.2104149	0.18171720	3.0870147	21	10 7.2	20.5
436024 2009 HL_{67}	15.8	X	32.59827	338.47585	257.84880	3.93992	0.1219772	0.17433645	3.1735396	21	6 27.6	19.6
436025 2009 HZ_{73}	16.1	X	28.72538	56.09982	185.90069	27.23116	0.1738145	0.17120808	3.2120815	21	7 2.2	20.5
436026 2009 HN_{78}	16.7	X	29.18966	183.94539	77.47696	4.53719	0.0665986	0.17985988	3.1082302	21	7 21.2	20.7
436027 2009 HP_{79}	16.0	X	172.48801	347.71811	140.77355	10.60477	0.0541736	0.18586865	3.0408753	21	7 28.4	20.5
436028 2009 HJ_{81}	15.8	X	91.29109	31.52273	122.25745	30.12431	0.2310572	0.17397922	3.1778822	21	6 23.8	20.8
436029 2009 HL_{90}	16.1	X	100.68548	331.07645	201.17065	15.91228	0.0767372	0.17673825	3.1447227	21	7 1.1	20.9
436030 2009 JO_{2}	19.3	X	243.72558	239.70846	203.43743	19.63032	0.4782778	1.17718778	0.8883257	21	7 16.9	19.8
436031 2009 JV_{2}	15.9	X	20.31755	71.41911	175.36783	26.13019	0.2016877	0.17149746	3.2084671	21	6 27.3	20.0
436032 2009 JE_{5}	15.3	X	64.01674	125.70108	90.52177	23.37909	0.0480900	0.17754259	3.1352175	21	7 7.5	19.6
436033 2009 KF_{11}	15.7	X	282.39899	215.14639	65.93569	11.17501	0.0670363	0.15585817	3.4196606	21	3 25.7	20.7
436034 2009 KD_{16}	16.2	X	347.17419	83.72766	204.82571	12.01810	0.0993874	0.16998907	3.2274193	21	6 20.9	20.4
436035 2009 KJ_{22}	20.0	X	335.59836	51.40631	243.64105	5.73492	0.4358529	0.32346210	2.1017793	21	3 25.4	22.2
436036 2009 MK_{7}	16.8	X	243.49198	96.61376	244.70142	26.02956	0.3430108	0.30334405	2.1937092	21	3 7.5	21.4
436037 2009 NJ	18.5	X	217.21002	132.74565	254.43658	8.19621	0.6584585	0.38529297	1.8704323	21	4 17.2	22.9
436038 2009 OR_{9}	18.0	X	264.80246	68.15652	247.15588	4.15010	0.2239313	0.30837953	2.1697633	21	3 6.1	21.5
436039 2009 OE_{24}	17.7	X	145.48393	25.31916	348.18556	2.82725	0.1088625	0.28772476	2.2723988	21	1 25.3	20.6
436040 2009 PO	17.9	X	194.89540	162.06840	169.96163	5.19322	0.1788016	0.29568373	2.2314360	21	1 28.6	21.3
436041 2009 PU_{7}	17.9	X	264.91087	347.53621	299.99538	6.57738	0.1111401	0.30226696	2.1989175	21	2 8.7	20.9
436042 2009 PU_{8}	18.5	X	278.81839	124.12516	167.27756	1.03946	0.2202880	0.30597620	2.1811102	21	2 19.1	21.7
436043 2009 PZ_{11}	17.8	X	209.68569	28.78249	307.54011	4.25428	0.1432678	0.29751652	2.2222623	21	2 15.6	20.9
436044 2009 PM_{12}	18.0	X	201.02720	188.22709	159.64839	4.63202	0.2099820	0.29691996	2.2252379	21	2 24.6	21.7
436045 2009 PD_{17}	17.9	X	115.81873	240.62856	146.12369	4.04782	0.2177057	0.28273560	2.2990534	21	1 20.6	20.4
436046 2009 QB_{19}	17.5	X	36.49309	280.56127	93.48266	2.61590	0.2318362	0.26222370	2.4174347	21	—	—
436047 2009 QM_{21}	17.8	X	247.72541	194.26404	124.54517	3.79834	0.2203868	0.30437581	2.1887490	21	2 27.4	21.2
436048 Fritzhuber	18.0	X	296.28096	255.15021	336.66642	4.81427	0.0926231	0.29732776	2.2232028	21	1 6.8	20.8
436049 2009 QE_{30}	17.7	X	144.73163	62.58049	308.27183	3.30349	0.1633354	0.28764662	2.2728104	21	1 27.7	20.5
436050 2009 QO_{42}	18.1	X	221.43474	312.50367	0.14706	3.30257	0.1657812	0.29538174	2.2329566	21	1 30.0	21.5
436051 2009 QW_{45}	17.3	X	116.82356	30.34140	338.80888	7.33742	0.1234334	0.28239549	2.3008990	21	—	—
436052 2009 RY_{5}	17.3	X	34.32510	95.08370	339.08894	6.54818	0.0928183	0.27376343	2.3490148	21	—	—
436053 2009 RE_{6}	17.2	X	212.73925	320.75575	25.80099	6.04670	0.1655556	0.29733378	2.2231728	21	3 6.9	20.7
436054 2009 RC_{14}	17.6	X	14.52770	264.04403	185.21480	6.51069	0.0761079	0.27056966	2.3674636	21	—	—
436055 2009 RK_{26}	17.8	X	246.12752	302.50696	38.97992	5.71623	0.1985149	0.30548192	2.1834624	21	3 28.7	21.0
436056 2009 RD_{27}	17.8	X	252.67003	344.79313	292.90303	6.21991	0.1354567	0.29572223	2.2312423	21	1 14.9	21.2
436057 2009 RG_{34}	14.1	X	332.53241	216.17323	209.80047	8.97718	0.0259988	0.08517254	5.1160681	21	11 11.8	20.9
436058 2009 RE_{41}	17.0	X	305.38251	268.56836	228.88034	8.02458	0.1597617	0.26478318	2.4018311	21	—	—
436059 2009 RE_{54}	17.8	X	94.51085	218.01627	187.12987	7.04972	0.0945865	0.27753104	2.3277071	21	—	—
436060 2009 RJ_{61}	17.6	X	193.88996	67.01287	264.81191	4.32311	0.1881412	0.29188962	2.2507311	21	1 28.3	21.0
436061 2009 RR_{64}	14.4	X	312.40760	52.54663	33.49892	7.97074	0.0960104	0.08468130	5.1358348	21	11 3.5	20.8
436062 2009 RC_{68}	17.8	X	33.03500	224.53639	191.34733	6.04656	0.1146820	0.26663810	2.3906789	21	—	—
436063 2009 RG_{70}	17.4	X	258.32598	333.50389	343.06325	7.25041	0.2549624	0.30327944	2.1940208	21	3 2.8	21.0
436064 2009 RK_{73}	14.3	X	302.32084	242.64292	211.43518	8.87681	0.0629735	0.08374417	5.1740782	21	11 3.9	20.9
436065 2009 RZ_{73}	14.0	X	182.27011	171.84471	29.99787	27.48417	0.0665432	0.08291193	5.2086443	21	10 24.9	21.1
436066 2009 RK_{75}	14.2	X	172.42122	190.88515	17.00764	11.62566	0.0206782	0.08324453	5.1947609	21	10 21.6	21.2
436067 2009 SY_{8}	17.1	X	356.28248	176.51194	318.78144	6.07417	0.0449231	0.28130794	2.3068254	21	—	—
436068 2009 SQ_{40}	18.1	X	251.71763	297.19740	12.27022	3.73578	0.2120981	0.29868292	2.2164731	21	2 20.4	21.6
436069 2009 SH_{48}	13.7	X	313.59770	218.82292	215.59683	26.21776	0.0911400	0.08139046	5.2733554	21	10 23.2	20.2
436070 2009 SW_{49}	17.2	X	93.96390	6.77478	357.24095	13.04403	0.2030904	0.27323928	2.3520179	21	—	—
436071 2009 SC_{72}	17.5	X	253.31977	283.91147	350.90074	7.90632	0.1576196	0.29370136	2.2414656	21	1 13.2	21.0
436072 2009 SA_{98}	13.9	X	52.55903	76.54412	244.48395	6.39390	0.0139947	0.08134009	5.2755322	21	10 15.2	20.8
436073 2009 ST_{100}	17.6	X	214.33362	62.57784	283.39427	6.64819	0.3020074	0.29637673	2.2279562	21	3 2.6	21.7
436074 2009 SX_{114}	17.5	X	35.93156	209.02675	210.37138	6.24059	0.1038877	0.26940040	2.3743089	21	—	—
436075 2009 SX_{120}	13.8	X	305.20933	241.89945	200.05186	16.61715	0.1155080	0.08387596	5.1686571	21	10 19.5	20.3
436076 2009 SJ_{125}	17.9	X	316.27460	177.04404	307.34061	4.18078	0.1320949	0.26275263	2.4141894	21	—	—
436077 2009 SO_{126}	18.2	X	267.94416	356.74419	299.42039	2.67035	0.2011840	0.30074534	2.2063282	21	2 16.7	21.4
436078 2009 SB_{133}	17.5	X	297.13523	161.64212	44.73513	6.75573	0.0506825	0.28063678	2.3105019	21	—	—
436079 2009 SQ_{135}	17.8	X	169.73693	143.49894	207.46407	4.45617	0.1642052	0.28607858	2.2811079	21	1 28.2	21.1
436080 2009 SC_{136}	17.7	X	50.73345	199.01135	211.17902	7.05484	0.0954108	0.26861096	2.3789587	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436081 2009 SE_{157}	18.0	X	173.17077	318.92393	31.03455	4.06713	0.1518659	0.28747960	2.2736906	21	2 1.0	21.3
436082 2009 SU_{157}	14.1	X	329.38958	39.65063	25.46884	8.80056	0.1071196	0.08361054	5.1795897	21	11 1.2	20.6
436083 2009 SV_{158}	17.3	X	46.99982	156.21606	228.55098	5.49302	0.1173114	0.26272911	2.4143334	21	—	—
436084 2009 SH_{177}	14.1	X	307.66647	240.06422	198.95211	14.77722	0.1812249	0.08315842	5.1983466	21	10 11.2	20.5
436085 2009 SB_{180}	14.1	X	348.43414	182.64561	211.03981	6.19069	0.0278724	0.08245401	5.2279111	21	10 24.7	20.8
436086 2009 SQ_{181}	15.7	X	196.80313	341.38353	338.39371	2.15227	0.1880762	0.12242374	4.0169117	21	2 8.0	22.1
436087 2009 SL_{188}	17.6	X	225.06872	277.95233	71.54184	4.76092	0.2208164	0.29945567	2.2126583	21	3 20.9	21.2
436088 2009 SY_{199}	17.7	X	314.66008	120.63014	349.17818	6.13966	0.0813358	0.26058204	2.4275773	21	—	—
436089 2009 SX_{201}	15.6	X	229.80024	248.77239	49.03942	5.92537	0.2559882	0.12387963	3.9853773	21	2 8.2	22.2
436090 2009 ST_{211}	15.2	X	215.27564	181.55917	141.60889	5.61534	0.2084324	0.12556224	3.9496931	21	2 25.1	21.5
436091 2009 SX_{212}	18.1	X	235.99803	256.35566	33.23157	3.20010	0.1408484	0.28877881	2.2668659	21	1 15.5	21.6
436092 2009 SQ_{214}	17.7	X	52.82739	213.79149	175.33599	2.61279	0.1857025	0.26488183	2.4012347	21	—	—
436093 2009 SD_{215}	17.7	X	120.29723	255.92721	97.54807	2.40110	0.2088176	0.27507159	2.3415615	21	—	—
436094 2009 SC_{229}	19.0	X	290.94285	22.80994	295.25529	6.93041	0.4737302	0.31390601	2.1442214	21	3 8.8	22.8
436095 2009 SH_{234}	18.2	X	243.20893	252.12039	67.94737	4.93796	0.1979638	0.29918678	2.2139839	21	2 28.1	21.7
436096 2009 SD_{245}	18.0	X	189.89040	141.11411	173.57496	8.13131	0.1585494	0.28348365	2.2950071	21	1 3.2	21.6
436097 2009 ST_{246}	13.5	X	2.56512	347.98354	32.90712	31.45362	0.1019638	0.08314611	5.1988598	21	10 28.4	19.9
436098 2009 SN_{251}	17.7	X	244.38872	39.55036	239.24409	5.85361	0.1334170	0.28750656	2.2735484	21	1 8.8	21.1
436099 2009 SB_{253}	17.6	X	127.20746	320.65220	69.18608	2.98167	0.2353470	0.27864375	2.3215062	21	2 13.8	20.7
436100 2009 SJ_{267}	17.3	X	50.34698	166.35441	232.12426	4.36527	0.1042893	0.26523350	2.3991117	21	—	—
436101 2009 SM_{268}	14.5	X	359.19844	20.09342	7.84427	8.88725	0.0834777	0.08635448	5.0692784	21	10 30.7	20.9
436102 2009 SC_{284}	17.8	X	30.97745	3.29664	51.19462	6.40011	0.0804217	0.26628101	2.3928157	21	—	—
436103 2009 SP_{288}	17.5	X	96.79449	357.35097	25.68948	7.32918	0.1235673	0.27591768	2.3367721	21	—	—
436104 2009 SA_{289}	18.5	X	267.10543	133.53384	174.67807	5.31184	0.1935169	0.30173939	2.2014798	21	3 3.9	21.8
436105 2009 SM_{306}	17.8	X	72.39473	297.67425	78.75935	2.55723	0.2014147	0.26885696	2.3775073	21	—	—
436106 2009 SV_{311}	17.5	X	91.41720	260.84670	172.98144	6.52981	0.0614627	0.28819984	2.2699009	21	1 22.4	20.1
436107 2009 SR_{319}	14.2	X	32.25466	120.75693	241.44781	6.66397	0.0277378	0.08455911	5.1407813	21	11 9.6	21.0
436108 2009 SU_{321}	14.2	X	289.66027	295.06305	165.62495	9.53457	0.0675627	0.08192145	5.2505437	21	10 28.4	21.0
436109 2009 SP_{323}	17.9	X	197.20649	209.00113	140.00884	3.54070	0.1872504	0.29388116	2.2405513	21	2 22.9	21.4
436110 2009 SB_{346}	18.2	X	209.85589	268.69884	59.57328	3.97004	0.2152184	0.29264677	2.2468473	21	2 10.1	21.9
436111 2009 SY_{349}	17.7	X	146.60242	247.42292	116.10220	10.67644	0.2328407	0.28246033	2.3005468	21	1 30.4	20.9
436112 2009 ST_{354}	15.7	X	226.36344	102.32388	198.43732	1.42796	0.2451758	0.12439721	3.9743150	21	2 6.9	22.2
436113 2009 SV_{354}	13.7	X	284.99698	47.55801	39.71084	19.10166	0.0699379	0.08087103	5.2959118	21	10 10.8	20.6
436114 2009 SF_{360}	17.5	X	58.29934	351.30850	55.47747	7.19808	0.1532286	0.27146877	2.3622333	21	—	—
436115 2009 TZ_{1}	17.5	X	124.65508	316.12229	31.83882	1.78693	0.2367683	0.27531485	2.3401820	21	—	—
436116 2009 TB_{3}	21.2	X	2.38127	249.69656	22.11880	12.21794	0.2193703	0.65083625	1.3187270	21	3 27.3	19.6
436117 2009 TT_{11}	17.8	X	192.13373	127.44289	171.74697	5.32259	0.1729457	0.28009697	2.3134695	21	—	—
436118 2009 TU_{14}	17.8	X	162.50316	195.60780	178.53779	4.02711	0.1433310	0.28757221	2.2732024	21	2 17.7	20.9
436119 2009 TX_{20}	18.0	X	214.58109	284.84875	70.83116	4.32921	0.2231206	0.29833137	2.2182140	21	3 19.9	21.6
436120 2009 TL_{22}	17.0	X	328.18531	163.51062	304.03956	7.71365	0.1222501	0.26023366	2.4297433	21	—	—
436121 2009 TV_{22}	17.4	X	184.39175	275.49321	71.80601	9.46087	0.1918331	0.28879678	2.2667719	21	2 13.4	21.1
436122 2009 TG_{26}	18.2	X	261.77924	281.91751	35.53876	4.34148	0.2098522	0.30154771	2.2024126	21	3 11.8	21.5
436123 2009 TH_{28}	17.9	X	142.36255	187.19319	185.56394	6.40337	0.1239413	0.28739938	2.2741136	21	1 20.4	20.8
436124 2009 TZ_{28}	14.3	X	258.70431	303.91056	181.25062	7.55465	0.0406424	0.08503723	5.1214936	21	10 23.2	21.1
436125 2009 TM_{33}	18.1	X	214.40736	258.37050	93.03119	4.67370	0.1764063	0.29847998	2.2174776	21	3 14.6	21.6
436126 2009 TE_{34}	16.9	X	34.24366	153.50369	271.06524	11.00662	0.2171057	0.26565653	2.3965641	21	—	—
436127 2009 TW_{36}	17.2	X	96.27871	319.69617	55.82224	7.46400	0.1397764	0.27190702	2.3596944	21	—	—
436128 2009 TT_{40}	17.1	X	75.62948	276.42019	131.08782	12.99907	0.1624111	0.27177976	2.3604310	21	—	—
436129 2009 UX_{4}	17.6	X	358.01555	36.67472	33.52668	5.78199	0.1195033	0.25906233	2.4370618	21	—	—
436130 2009 UT_{8}	17.9	X	294.08469	77.88178	47.52158	7.25402	0.1751708	0.25760259	2.4462597	21	12 27.8	20.1
436131 2009 UG_{11}	14.5	X	299.33453	30.71891	43.28789	13.74810	0.0566823	0.08171486	5.2593899	21	10 12.8	21.4
436132 2009 UG_{17}	17.6	X	329.67046	210.74729	284.42200	5.63611	0.0701760	0.27086674	2.3657323	21	—	—
436133 2009 UL_{17}	17.5	X	173.21526	247.16228	30.74849	8.63909	0.0586317	0.26743547	2.3859246	21	—	—
436134 2009 UB_{18}	17.6	X	199.58721	254.89106	92.00592	6.95528	0.1899263	0.29441754	2.2378292	21	2 24.8	21.2
436135 2009 US_{25}	17.4	X	133.33421	205.32128	150.32231	3.91088	0.2685635	0.27819641	2.3239942	21	1 10.3	20.4
436136 2009 UC_{26}	17.7	X	134.75779	300.51077	60.47815	3.07521	0.2283879	0.27914391	2.3187323	21	1 14.1	20.7
436137 2009 UH_{33}	17.7	X	179.08594	105.47092	214.33305	3.11236	0.2226278	0.28043729	2.3115974	21	1 5.0	21.4
436138 2009 UR_{36}	17.8	X	98.90673	295.63086	48.81484	3.54164	0.1145923	0.26589222	2.3951477	21	—	—
436139 2009 UF_{37}	13.6	X	105.72056	69.53068	227.78149	20.28301	0.0254250	0.08245437	5.2278959	21	11 19.5	20.6
436140 2009 UU_{57}	13.4	X	231.15452	303.62665	229.49805	20.11084	0.0498516	0.08303364	5.2035531	21	11 12.7	20.3
436141 2009 UW_{69}	18.1	X	167.21544	260.17975	103.36043	5.33819	0.0799110	0.28740258	2.2740968	21	2 4.3	21.1
436142 2009 UD_{76}	13.9	X	325.96821	195.27480	215.51945	11.10956	0.0352249	0.08039409	5.3168366	21	10 15.9	20.7
436143 2009 US_{81}	14.0	X	348.11529	192.72043	230.53386	6.04379	0.0381349	0.08609394	5.0795003	21	11 26.4	20.6
436144 2009 UF_{84}	17.6	X	174.04248	158.94154	178.40361	1.91334	0.2209376	0.28220383	2.3019406	21	1 21.7	21.2
436145 2009 UV_{100}	17.3	X	324.03530	80.25476	66.11932	6.75413	0.0663218	0.26645889	2.3917507	21	—	—
436146 2009 UN_{101}	14.3	X	28.00329	290.51358	97.08046	6.39270	0.0237811	0.08547192	5.1041144	21	12 3.2	21.0
436147 2009 UK_{141}	17.0	X	11.72715	31.16089	64.32105	7.93003	0.0703747	0.26713701	2.3877014	21	—	—
436148 2009 UZ_{141}	17.8	X	141.28881	331.46357	350.95320	1.92925	0.2184034	0.27013868	2.3699810	21	—	—
436149 Edabel	17.2	X	120.39057	281.35198	81.72156	8.24793	0.2089686	0.27678874	2.3318669	21	—	—
436150 2009 VM_{6}	17.7	X	235.56462	131.38090	7.40010	1.48861	0.2202047	0.24133684	2.5549768	21	10 7.7	21.4
436151 2009 VQ_{6}	14.2	X	37.57977	70.51738	273.39111	1.33547	0.0077242	0.07977011	5.3445269	21	10 24.1	21.1
436152 2009 VR_{8}	17.7	X	217.03894	307.87162	243.96235	3.98452	0.1518594	0.25286639	2.4767109	21	12 3.7	21.0
436153 2009 VE_{16}	17.5	X	143.41604	310.02690	60.05936	5.88855	0.1735725	0.27837802	2.3229833	21	1 30.0	20.6
436154 2009 VG_{18}	17.6	X	223.85902	200.94799	270.41456	3.85600	0.1216120	0.23282095	2.6169054	21	8 29.4	21.5
436155 2009 VO_{18}	17.1	X	17.90889	175.15523	250.37293	6.09840	0.1788320	0.26045872	2.4283435	21	—	—
436156 2009 VH_{26}	15.6	X	220.12651	183.48463	140.77109	2.86021	0.2481434	0.12592369	3.9421314	21	2 28.4	22.1
436157 2009 VX_{27}	13.3	X	343.42247	192.18695	229.02087	18.01099	0.0918365	0.08257232	5.2229162	21	11 17.3	19.7
436158 2009 VZ_{28}	17.5	X	113.51054	135.02056	215.04392	5.25494	0.0816637	0.27155495	2.3617335	21	—	—
436159 2009 VB_{29}	17.3	X	154.85615	80.04262	257.79039	6.39422	0.0526052	0.27438633	2.3454584	21	—	—
436160 2009 VB_{38}	17.8	X	68.64070	330.80805	63.86377	3.67965	0.1849003	0.26803264	2.3823794	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436161 2009 VA_{50}	17.7	X	117.01689	340.77087	23.42921	2.57893	0.1870364	0.27339250	2.3511391	21	—	—
436162 2009 VG_{60}	16.7	X	269.76618	269.87483	188.79036	27.10164	0.3252596	0.23924283	2.5698638	21	9 7.1	20.5
436163 2009 VO_{60}	16.8	X	296.31917	2.53294	56.33692	24.61338	0.4038410	0.23728532	2.5839780	21	8 22.4	20.4
436164 2009 VJ_{61}	17.1	X	266.18189	219.68796	239.31939	13.08228	0.1058373	0.23988982	2.5652410	21	10 5.8	20.6
436165 2009 VZ_{62}	17.7	X	142.38045	93.88683	249.61686	3.54389	0.1473755	0.27242994	2.3566739	21	—	—
436166 2009 VM_{74}	17.6	X	279.54813	1.21969	220.06810	6.40720	0.0613478	0.27720805	2.3295149	21	—	—
436167 2009 VQ_{79}	17.2	X	285.28095	118.03369	317.72326	8.00058	0.1392395	0.24050178	2.5608876	21	9 27.3	20.3
436168 2009 VF_{82}	17.0	X	139.80116	60.90823	244.98836	8.82242	0.1041135	0.26206589	2.4184051	21	—	—
436169 2009 VA_{84}	17.6	X	143.01351	320.94329	31.85192	3.85922	0.2108876	0.27651707	2.3333940	21	1 11.3	20.7
436170 2009 VG_{95}	17.5	X	100.77907	333.33557	54.37602	2.20303	0.1884265	0.27071675	2.3666060	21	—	—
436171 2009 VA_{103}	17.3	X	236.30088	84.31914	27.89011	5.35298	0.1508438	0.23350751	2.6117733	21	9 14.1	21.0
436172 2009 VG_{110}	17.2	X	86.41465	305.59426	80.32608	8.84902	0.1190242	0.27055417	2.3675540	21	—	—
436173 2009 VH_{110}	16.9	X	223.60981	246.90599	231.20921	12.75457	0.2217729	0.23045207	2.6348080	21	8 24.4	21.4
436174 2009 VY_{114}	16.2	X	210.99597	255.31619	278.90047	21.21001	0.0639661	0.23571621	2.5954326	21	11 8.3	20.3
436175 2009 WR_{7}	16.0	X	161.42428	19.96859	148.63520	30.20216	0.1545076	0.21216825	2.7840848	21	9 9.4	20.6
436176 2009 WA_{9}	17.2	X	100.57126	310.22761	59.63279	23.71757	0.1908123	0.27024195	2.3693772	21	—	—
436177 2009 WA_{10}	17.0	X	47.47758	302.23182	81.14416	15.24847	0.1934924	0.25901491	2.4373592	21	—	—
436178 2009 WJ_{18}	17.2	X	224.25750	324.58730	268.99189	5.31734	0.1647539	0.26171231	2.4205828	21	—	—
436179 2009 WD_{20}	16.6	X	206.06372	274.48347	271.69063	10.40856	0.2504674	0.23809608	2.5781087	21	11 1.6	21.1
436180 2009 WJ_{22}	17.7	X	263.40621	283.56521	195.74562	3.28013	0.1931076	0.23989632	2.5651947	21	10 19.9	20.9
436181 2009 WL_{29}	17.8	X	317.68253	331.66701	74.00993	2.41720	0.1245476	0.24591197	2.5231880	21	10 18.9	20.3
436182 2009 WK_{30}	18.0	X	291.00867	24.24714	73.10435	2.49011	0.1593376	0.24386975	2.5372548	21	11 8.9	20.6
436183 2009 WH_{38}	17.8	X	142.24667	105.25675	277.19729	2.30562	0.1858890	0.28055518	2.3109498	21	2 12.3	21.0
436184 2009 WH_{41}	17.0	X	32.06062	316.99823	69.82463	15.32171	0.1042132	0.25317563	2.4746937	21	—	—
436185 2009 WW_{44}	17.3	X	232.70884	38.20005	62.36925	14.34395	0.2149910	0.23023361	2.6364744	21	8 23.8	21.7
436186 2009 WH_{47}	16.7	X	261.53890	237.06999	206.30623	12.59701	0.2241912	0.23299167	2.6156269	21	8 20.5	20.7
436187 2009 WE_{53}	16.9	X	306.52198	55.68492	7.15249	3.85860	0.2265804	0.24117611	2.5561119	21	10 8.4	19.1
436188 2009 WH_{69}	17.0	X	242.74841	202.09228	269.32691	11.54768	0.1277638	0.23370144	2.6103282	21	9 14.9	20.9
436189 2009 WA_{77}	16.9	X	2.74814	343.97048	19.96040	5.45723	0.2226425	0.24517373	2.5282505	21	11 21.7	19.3
436190 2009 WB_{91}	17.3	X	245.85194	254.92686	241.31673	10.66078	0.2500976	0.23687660	2.5869494	21	10 8.0	21.2
436191 2009 WP_{107}	17.7	X	330.28753	63.10953	65.38786	7.05629	0.0729258	0.26397719	2.4067175	21	—	—
436192 2009 WL_{127}	16.9	X	225.87654	182.34730	74.70352	15.52614	0.1244772	0.26651606	2.3914086	21	—	—
436193 2009 WD_{131}	17.2	X	246.49342	258.47452	246.30018	2.76523	0.1069362	0.24161282	2.5530309	21	11 12.9	20.3
436194 2009 WK_{131}	17.4	X	270.95794	269.93721	203.56537	2.12453	0.1491536	0.24081624	2.5586578	21	10 30.2	20.5
436195 2009 WE_{134}	17.3	X	291.45349	325.65176	125.64077	5.89454	0.2021294	0.24301942	2.5431700	21	10 28.0	19.9
436196 2009 WM_{164}	17.7	X	333.62001	17.57090	64.75156	7.40731	0.0947447	0.25104674	2.4886644	21	—	—
436197 2009 WL_{166}	16.8	X	288.45299	333.86948	111.06769	8.88169	0.1886383	0.23454779	2.6040450	21	10 15.9	19.8
436198 2009 WH_{169}	17.6	X	121.99674	239.47685	96.89812	5.87284	0.1740497	0.26686847	2.3893029	21	—	—
436199 2009 WC_{171}	17.2	X	256.98857	96.03258	39.70048	10.89338	0.2492266	0.24282040	2.5445595	21	10 25.6	20.4
436200 2009 WA_{184}	16.1	X	2.64886	123.59669	254.88862	26.32669	0.1145592	0.24299029	2.5433733	21	11 28.4	19.0
436201 2009 WY_{187}	17.6	X	182.63141	47.46825	285.04958	2.14273	0.2374044	0.28399396	2.2922570	21	1 24.3	21.4
436202 2009 WT_{217}	17.6	X	159.96951	337.75570	4.15495	1.68246	0.2404351	0.27921769	2.3183238	21	1 17.5	20.9
436203 2009 WD_{226}	14.2	X	8.92210	287.92386	95.94404	4.13082	0.0603839	0.08063965	5.3060373	21	11 8.9	20.9
436204 2009 WY_{245}	13.2	X	75.77851	69.70882	269.80139	16.81827	0.0552373	0.08299872	5.2050127	21	12 6.8	20.1
436205 2009 WC_{248}	17.8	X	155.40365	306.05726	41.72494	3.26143	0.2382176	0.27951089	2.3167023	21	1 20.7	21.2
436206 2009 WD_{248}	17.4	X	31.33953	332.96814	89.34255	4.33893	0.0696645	0.26371867	2.4082901	21	—	—
436207 2009 WK_{249}	16.6	X	329.95592	144.59415	257.92134	11.89978	0.1757952	0.24269801	2.5454148	21	11 1.8	19.2
436208 2009 XZ_{12}	17.1	X	203.07448	29.14024	46.95642	4.22887	0.0787144	0.21877456	2.7277517	21	6 25.9	21.1
436209 2009 XO_{17}	16.8	X	7.69354	228.09068	103.72042	7.21493	0.0408001	0.22589744	2.6701060	21	9 26.8	20.2
436210 2009 XV_{17}	17.0	X	310.09498	325.39300	81.66217	4.79372	0.2443945	0.23518908	2.5993092	21	9 21.5	19.4
436211 2009 XA_{18}	16.9	X	241.62434	58.81908	94.83711	9.21625	0.1233593	0.23694314	2.5864651	21	11 17.6	20.4
436212 2009 XG_{19}	16.5	X	357.05399	255.71698	115.31659	12.90519	0.0520806	0.23281456	2.6169532	21	11 6.7	20.0
436213 2009 XP_{19}	17.4	X	240.14287	243.18327	248.69550	2.36923	0.1565143	0.23178997	2.6246595	21	10 10.1	21.2
436214 2009 XR_{22}	17.8	X	137.23814	279.72921	355.13907	0.77714	0.0577063	0.24742741	2.5128748	21	12 27.3	21.3
436215 2009 XB_{23}	16.9	X	357.09027	277.85043	116.04527	15.16639	0.0699212	0.23913180	2.5706591	21	12 7.4	20.2
436216 2009 YD	17.2	X	278.22793	337.74850	127.82510	4.37606	0.1446574	0.23701220	2.5859627	21	11 1.3	20.3
436217 2009 YA_{8}	17.0	X	6.90105	326.80640	102.18273	8.46981	0.0948605	0.25225703	2.4806978	21	—	—
436218 2009 YY_{22}	17.3	X	193.53056	197.15808	266.53458	6.51979	0.2874835	0.21598968	2.7511486	21	7 14.7	22.4
436219 2009 YZ_{22}	16.8	X	268.75415	220.04867	273.33481	7.09037	0.1172020	0.23924585	2.5698421	21	11 26.5	19.9
436220 2010 AA_{11}	17.6	X	314.30093	6.29522	90.65104	12.01916	0.1500013	0.24473749	2.5312539	21	12 23.9	19.8
436221 2010 AZ_{11}	17.1	X	220.32692	251.52347	244.55723	3.18552	0.2003069	0.22696382	2.6617359	21	9 18.5	21.3
436222 2010 AV_{16}	17.6	X	274.94907	28.94688	44.97330	4.90519	0.0879527	0.23006719	2.6377457	21	9 22.2	21.0
436223 2010 AZ_{24}	17.0	X	175.67919	184.13459	307.03909	12.65483	0.1150052	0.21435439	2.7651230	21	8 4.9	21.2
436224 2010 AJ_{26}	16.9	X	195.66110	31.25405	131.82934	10.73102	0.2544965	0.22358412	2.6884920	21	10 1.8	21.7
436225 2010 AV_{31}	16.9	X	253.39085	10.20155	130.64892	12.75568	0.1126637	0.23335019	2.6129470	21	11 19.2	20.6
436226 2010 AR_{32}	16.6	X	287.87976	283.60035	98.86329	6.52774	0.0841787	0.21888452	2.7268381	21	7 30.7	20.1
436227 2010 AV_{40}	17.2	X	253.70143	10.55703	115.69814	4.06859	0.1931082	0.23302961	2.6153430	21	10 17.2	20.7
436228 2010 AE_{41}	17.5	X	237.62906	20.54751	120.33208	4.28253	0.0850265	0.23332882	2.6131066	21	10 31.6	21.1
436229 2010 AF_{52}	16.9	X	99.86262	217.15107	149.53193	5.85505	0.1588981	0.25961533	2.4335998	21	—	—
436230 2010 AE_{54}	17.1	X	189.94874	315.26916	219.91805	4.33577	0.1645869	0.22489871	2.6780051	21	10 11.6	21.5
436231 2010 AX_{55}	16.2	X	142.48203	66.08467	126.78965	10.14842	0.0782894	0.21744273	2.7388786	21	9 21.1	20.4
436232 2010 AY_{61}	16.6	X	342.73790	261.42203	107.57720	13.89419	0.0407958	0.22861588	2.6488973	21	10 14.6	20.2
436233 2010 AV_{63}	16.5	X	163.22338	21.79916	109.18378	9.32173	0.1709186	0.20939364	2.8086248	21	7 25.3	21.0
436234 2010 AQ_{66}	16.2	X	142.08782	29.73704	142.85868	14.48693	0.1349000	0.21139337	2.7908841	21	8 25.5	20.5
436235 2010 AB_{67}	16.2	X	122.52310	250.00227	322.08110	10.72842	0.0893310	0.21502990	2.7593289	21	9 16.5	20.4
436236 2010 AW_{68}	16.3	X	164.70212	154.31051	78.79023	10.26329	0.0882733	0.23662398	2.5887904	21	12 2.9	20.0
436237 2010 AA_{74}	17.0	X	285.33440	1.92519	88.62360	5.42728	0.2132876	0.23559625	2.5963135	21	10 12.7	20.0
436238 2010 AW_{74}	16.9	X	301.56385	351.08480	85.92102	8.95777	0.1660417	0.23883801	2.5727668	21	10 31.6	19.6
436239 2010 AB_{80}	16.7	X	295.71184	218.31172	252.31164	4.28686	0.0903814	0.23924650	2.5698374	21	12 11.6	19.7
436240 2010 AY_{80}	17.3	X	334.27362	326.99336	100.32514	7.35938	0.2133073	0.24168636	2.5525130	21	12 24.0	19.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436241 2010 AM_{89}	14.0	X	338.89761	334.60225	75.08268	22.61912	0.0773656	0.08456040	5.1407288	21	11 6.3	20.6
436242 2010 AH_{90}	16.4	X	111.48023	75.46798	110.60392	20.26527	0.0909080	0.20048226	2.8912485	21	8 6.3	20.7
436243 2010 AJ_{93}	16.8	X	182.50355	77.22524	59.89891	8.51097	0.1625023	0.20884859	2.8135092	21	8 22.8	21.5
436244 2010 BO_{4}	16.8	X	152.58844	221.40533	305.81577	5.96194	0.1507090	0.21429385	2.7656438	21	8 27.3	21.2
436245 2010 BE_{6}	16.5	X	262.12109	229.10152	249.75692	11.73184	0.2403298	0.23292773	2.6161055	21	10 4.3	20.2
436246 2010 BK_{51}	15.9	X	122.09144	15.18987	49.46059	28.86117	0.1566316	0.17574610	3.1565469	21	4 9.2	21.0
436247 2010 BX_{54}	13.6	X	314.39783	0.22823	88.45999	20.12346	0.0858904	0.08342407	5.1873051	21	11 15.8	20.3
436248 2010 BW_{65}	16.3	X	327.76393	315.50976	335.50005	18.77670	0.0772017	0.18602397	3.0391824	21	5 21.0	20.7
436249 2010 BM_{74}	15.9	X	96.07598	113.14218	5.78862	26.96298	0.1411862	0.18078915	3.0975701	21	4 19.3	20.5
436250 2010 BR_{75}	16.8	X	154.01215	346.81583	257.71918	6.98951	0.1575442	0.21927525	2.7235978	21	12 1.8	21.3
436251 2010 BC_{84}	16.7	X	36.67410	82.63613	125.82338	8.97459	0.1084427	0.18374123	3.0643025	21	5 28.2	20.6
436252 2010 BR_{86}	16.2	X	181.61056	353.71824	74.33213	8.81420	0.1279682	0.18762045	3.0219175	21	5 25.0	21.1
436253 2010 BE_{90}	16.0	X	122.98530	318.94085	154.13829	12.63434	0.0633316	0.18320873	3.0702373	21	5 17.3	20.7
436254 2010 BY_{94}	15.6	X	205.63611	282.40829	79.09822	26.95688	0.1819686	0.17318771	3.1875573	21	4 12.5	21.4
436255 2010 BV_{105}	13.9	X	0.84493	330.48523	63.91828	24.02909	0.1265052	0.08243310	5.2287951	21	11 14.9	20.2
436256 2010 CK_{2}	16.7	X	263.80421	320.03100	141.23900	14.25385	0.2236446	0.22919923	2.6444008	21	9 23.8	20.4
436257 2010 CM_{2}	16.9	X	107.31800	190.52125	140.99775	10.77420	0.1086640	0.24305962	2.5428896	21	—	—
436258 2010 CQ_{2}	16.7	X	161.67914	45.29645	143.23532	11.74993	0.1032495	0.21989023	2.7185173	21	10 6.8	21.0
436259 2010 CH_{4}	16.7	X	248.61359	333.79106	150.53456	10.49096	0.1511412	0.22864990	2.6486345	21	10 15.3	20.4
436260 2010 CM_{7}	16.2	X	99.23514	233.23145	277.08158	18.00766	0.2221954	0.18842965	3.0132596	21	6 22.8	20.8
436261 2010 CF_{8}	15.9	X	85.70258	304.96756	197.15723	26.99429	0.1654283	0.18148152	3.0896867	21	5 20.4	20.5
436262 2010 CB_{11}	16.6	X	118.95960	206.52180	56.67299	8.80376	0.1834905	0.21189505	2.7864773	21	11 23.3	21.0
436263 2010 CW_{20}	17.2	X	136.65325	50.98480	150.00190	4.10530	0.0355501	0.21757842	2.7377398	21	9 19.9	21.0
436264 2010 CO_{24}	17.6	X	197.63795	53.47531	163.62000	1.38237	0.0771841	0.23824582	2.5770283	21	12 19.6	21.3
436265 2010 CZ_{38}	17.2	X	160.24407	56.55922	153.48513	8.79151	0.1442727	0.22222590	2.6994354	21	10 30.8	21.6
436266 2010 CO_{63}	16.7	X	289.72884	86.98332	348.87359	13.74576	0.0666524	0.22443906	2.6816603	21	10 11.2	20.3
436267 2010 CU_{80}	16.7	X	312.91850	77.45070	339.95130	11.50136	0.1045437	0.22629291	2.6669942	21	10 18.2	20.0
436268 2010 CW_{80}	16.6	X	221.78922	331.88898	160.45152	9.03375	0.0618790	0.22036902	2.7145782	21	10 2.7	20.5
436269 2010 CF_{83}	16.6	X	208.68105	352.03339	139.82921	13.54269	0.0939362	0.22253433	2.6969405	21	9 14.6	20.6
436270 2010 CX_{92}	16.7	X	358.28462	12.47315	359.32378	6.47933	0.0854704	0.22396598	2.6854352	21	11 2.6	19.9
436271 2010 CJ_{93}	17.2	X	146.16502	82.86769	123.24298	4.26643	0.1284078	0.21645143	2.7472345	21	10 11.4	21.6
436272 2010 CJ_{111}	17.1	X	151.86193	252.74993	334.26116	10.68489	0.1405509	0.22541179	2.6739398	21	11 5.8	21.6
436273 2010 CC_{141}	16.3	X	236.85058	30.95825	122.47088	11.94851	0.1306628	0.23055222	2.6340449	21	11 11.6	20.2
436274 2010 CF_{141}	17.6	X	211.02535	154.30752	33.79393	1.55096	0.0741503	0.23380730	2.6095403	21	11 28.1	21.2
436275 2010 CT_{141}	16.5	X	212.82371	127.43052	332.62564	5.19068	0.0616161	0.21180335	2.7872815	21	8 9.2	20.5
436276 2010 CJ_{144}	16.5	X	257.86621	49.50720	61.32777	13.19210	0.1872512	0.23058323	2.6338088	21	10 7.5	20.2
436277 2010 CD_{145}	16.4	X	259.43811	39.91938	77.45355	12.95552	0.1564330	0.23098084	2.6307853	21	10 22.3	20.1
436278 2010 CW_{163}	16.7	X	221.88690	14.28501	105.51959	6.07949	0.0253343	0.22104926	2.7090063	21	9 22.2	20.5
436279 2010 CG_{170}	17.2	X	185.67972	99.88326	54.40230	5.00203	0.2067286	0.21723099	2.7406581	21	9 13.4	21.8
436280 2010 CS_{171}	17.0	X	347.75906	221.42282	119.42806	5.17996	0.0787407	0.21652863	2.7465815	21	9 6.7	20.2
436281 2010 CH_{181}	17.0	X	138.68037	187.58485	345.94908	9.18837	0.1475082	0.21026922	2.8008224	21	8 24.7	21.3
436282 2010 CR_{184}	17.3	X	245.94426	218.50486	224.98406	2.48912	0.2750181	0.22233928	2.6985176	21	7 31.9	21.7
436283 2010 CF_{185}	16.3	X	117.87097	234.87030	338.48211	8.86966	0.0886600	0.21392062	2.7688597	21	9 15.3	20.3
436284 2010 CW_{185}	15.9	X	263.60987	247.78017	79.51334	27.82203	0.0637464	0.17715829	3.1397499	21	5 3.6	20.8
436285 2010 CA_{214}	15.5	X	306.30550	101.18763	177.65041	16.68779	0.1359221	0.17387496	3.1791524	21	4 5.2	19.9
436286 2010 CK_{221}	16.2	X	68.97576	192.23665	342.48472	9.12637	0.0370743	0.18187180	3.0852650	21	5 17.3	20.6
436287 2010 CZ_{227}	16.1	X	76.29750	309.42020	204.37966	26.41395	0.0788190	0.17936640	3.1139286	21	5 10.1	20.5
436288 2010 CW_{230}	16.2	X	50.70716	332.12739	208.93536	27.32738	0.0948726	0.17933769	3.1142609	21	5 10.9	20.3
436289 2010 DV_{12}	16.0	X	97.47631	229.82280	276.94622	20.42063	0.0684390	0.18215011	3.0821216	21	5 25.6	20.6
436290 2010 DV_{30}	16.4	X	77.28249	69.59250	112.68626	14.75157	0.0579426	0.18390108	3.0625265	21	6 14.6	20.8
436291 2010 DL_{31}	16.0	X	71.25127	54.00236	148.70415	15.87820	0.1424235	0.18749968	3.0232149	21	7 13.9	20.3
436292 2010 DO_{40}	16.8	X	105.99334	214.45157	103.06096	10.02235	0.1696158	0.23914448	2.5705683	21	—	—
436293 2010 DT_{45}	17.2	X	120.10659	331.36695	285.39738	3.04681	0.1668021	0.21940412	2.7225312	21	11 16.4	21.6
436294 2010 DP_{46}	17.0	X	138.67536	49.12232	186.70496	7.31641	0.0313742	0.22219283	2.6997032	21	11 6.6	20.8
436295 2010 DT_{47}	17.3	X	127.58189	62.82856	175.66344	6.02341	0.2067768	0.21585299	2.7523099	21	11 4.6	21.9
436296 2010 DQ_{48}	17.5	X	206.90885	234.07821	305.08324	4.03094	0.2327363	0.22515297	2.6759887	21	10 25.9	21.9
436297 2010 DX_{52}	16.1	X	233.47403	200.25504	163.81217	15.07512	0.0484400	0.17554808	3.1589203	21	5 7.3	20.9
436298 2010 DG_{61}	16.6	X	87.69238	80.74814	86.64943	27.05781	0.1913517	0.18569623	3.0427574	21	6 26.0	20.9
436299 2010 EF_{5}	16.1	X	355.19413	45.05867	220.15487	26.79229	0.1216837	0.17901609	3.1179897	21	5 31.9	20.1
436300 2010 EA_{11}	16.2	X	77.85408	63.88372	97.47115	17.94926	0.1035461	0.17830957	3.1262205	21	5 28.5	20.6
436301 2010 EP_{11}	15.5	X	9.90174	354.18842	225.69517	26.57397	0.1394618	0.17377676	3.1803500	21	4 26.9	19.2
436302 2010 EE_{22}	16.7	X	169.39059	322.37805	140.59065	7.48770	0.0214564	0.19895697	2.9060067	21	6 22.0	20.9
436303 2010 EV_{33}	16.1	X	331.39622	280.29131	359.33427	10.79107	0.0957435	0.18823782	3.0153065	21	5 10.9	20.1
436304 2010 EJ_{38}	16.5	X	97.71429	230.03005	21.90101	9.19303	0.0863279	0.20982901	2.8047384	21	10 12.4	20.6
436305 2010 EN_{68}	17.0	X	276.58762	337.97945	116.25896	4.35476	0.0232025	0.22008614	2.7169037	21	10 29.2	20.6
436306 2010 EQ_{68}	16.7	X	156.88912	148.96813	17.05422	13.73687	0.1438427	0.20883550	2.8136269	21	9 5.4	21.3
436307 2010 EO_{69}	16.9	X	170.57597	253.63091	260.83268	6.37255	0.1658438	0.21201570	2.7854201	21	8 26.6	21.5
436308 2010 EB_{89}	17.5	X	234.88701	28.06120	125.61137	3.01395	0.1268472	0.23205856	2.6226338	21	11 6.9	21.1
436309 2010 EL_{96}	17.1	X	102.23906	206.91999	19.84747	5.47160	0.1102055	0.21006070	2.8026757	21	9 19.6	21.2
436310 2010 EZ_{99}	16.3	X	72.66755	101.83874	208.65709	10.27272	0.2002315	0.21307539	2.7761772	21	12 9.3	20.6
436311 2010 EY_{124}	16.7	X	153.12164	56.77611	137.86914	8.56362	0.1552535	0.21413617	2.7670013	21	10 5.2	21.2
436312 2010 EN_{133}	16.5	X	249.34504	64.72285	38.22009	12.19197	0.0444362	0.21375211	2.7703147	21	10 3.1	20.3
436313 2010 FQ_{14}	16.8	X	303.11762	16.44796	55.35905	7.18807	0.0047904	0.21827817	2.7318856	21	11 4.6	20.3
436314 2010 FW_{16}	16.9	X	33.40089	276.85091	359.14207	3.58827	0.1434374	0.19891220	2.9064427	21	8 26.9	20.2
436315 2010 FW_{22}	16.7	X	101.48193	116.50840	165.21688	9.85816	0.2607663	0.21676108	2.7446176	21	12 7.0	21.5
436316 2010 FG_{28}	16.4	X	325.61550	295.23984	40.89256	12.80910	0.0966994	0.20241537	2.8728111	21	7 25.3	20.2
436317 2010 FP_{47}	16.8	X	160.25939	221.98280	23.84399	7.31087	0.1497383	0.22451873	2.6810258	21	12 8.8	21.2
436318 2010 FQ_{57}	17.0	X	154.30936	140.30439	60.82722	9.00554	0.1644769	0.21572248	2.7534199	21	10 14.6	21.5
436319 2010 FT_{61}	16.8	X	333.43087	335.88834	76.23927	32.85932	0.2176431	0.24167344	2.5526040	21	12 1.8	19.0
436320 2010 FB_{84}	16.3	X	199.55810	115.00856	9.24573	14.92804	0.0893566	0.20866005	2.8152038	21	8 28.4	20.7

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436321 2010 FB_{88}	16.5	X	119.33177	143.06848	85.49442	8.76320	0.1765379	0.21047005	2.7990404	21	10 17.5	21.1
436322 2010 FU_{96}	16.7	X	101.72652	136.00516	25.92962	13.38565	0.0264556	0.19117961	2.9842945	21	6 11.7	21.1
436323 2010 FS_{100}	17.3	X	121.54897	104.29296	112.89556	1.60128	0.0086510	0.21041329	2.7995438	21	9 19.0	21.1
436324 2010 GZ_{6}	19.4	X	212.72649	73.93062	199.43696	44.83928	0.1439920	0.59410674	1.4013923	21	—	—
436325 2010 GR_{7}	18.4	X	158.93489	191.98191	157.56860	24.14804	0.8457322	0.39764488	1.8314952	21	2 25.9	22.4
436326 2010 GP_{32}	17.1	X	189.47885	2.42659	145.10432	10.25858	0.1382243	0.21097669	2.7945576	21	9 9.6	21.5
436327 2010 GV_{32}	16.8	X	130.41915	40.59084	160.35169	9.98694	0.1407819	0.21701863	2.7424457	21	9 19.5	21.1
436328 2010 GV_{58}	16.6	X	233.38424	76.12055	83.42949	12.47079	0.1418871	0.23545670	2.5973392	21	11 13.2	20.3
436329 2010 GX_{62}	20.1	X	84.21463	316.39780	207.66982	21.66318	0.7037855	0.19361948	2.9591707	21	8 6.7	26.2
436330 2010 GQ_{102}	17.1	X	131.71285	5.90427	206.88848	8.61594	0.0920951	0.21051979	2.7985996	21	9 29.8	21.4
436331 2010 GF_{112}	16.6	X	350.70697	341.70282	16.05070	6.63498	0.0785508	0.21566133	2.7539403	21	10 3.4	19.7
436332 2010 GQ_{127}	16.1	X	133.58530	23.76795	85.64866	10.27807	0.0576189	0.18343360	3.0677276	21	5 22.6	20.6
436333 2010 GD_{145}	16.1	X	12.24163	35.74665	263.55074	6.46084	0.2498838	0.18335444	3.0686104	21	8 26.8	19.2
436334 2010 GH_{159}	16.1	X	57.18334	207.07956	65.24150	16.13936	0.1103015	0.20392571	2.8586088	21	9 30.5	20.2
436335 2010 GB_{172}	16.2	X	103.45944	172.15336	104.00275	16.01238	0.0519199	0.22269276	2.6956613	21	11 20.9	20.3
436336 2010 HA_{14}	15.8	X	24.17375	143.70725	127.12909	18.54920	0.1432671	0.18134254	3.0912652	21	8 1.9	19.5
436337 2010 HR_{23}	15.2	X	302.94222	217.15587	63.22620	24.14416	0.1330269	0.17474723	3.1685642	21	4 13.9	19.9
436338 2010 HM_{40}	16.0	X	303.41557	277.36819	65.90857	13.54699	0.1659255	0.17335399	3.1855186	21	6 15.8	20.1
436339 2010 HY_{42}	16.9	X	19.66712	159.15554	152.08323	10.73538	0.3215592	0.18534724	3.0465757	21	10 18.5	20.1
436340 2010 HX_{103}	16.6	X	23.96677	131.68978	128.48924	12.02958	0.1380403	0.18756745	3.0224867	21	7 17.1	20.1
436341 2010 HW_{104}	18.2	X	70.15513	218.36585	85.96174	21.04242	0.0698896	0.38583178	1.8686905	21	12 15.3	19.9
436342 2010 HF_{108}	16.6	X	330.81603	223.57755	56.42225	11.28428	0.0615496	0.18060759	3.0996456	21	5 18.6	20.6
436343 2010 JL_{3}	15.5	X	347.33595	3.64881	249.25162	20.48061	0.2216023	0.17796722	3.1302284	21	4 18.9	19.2
436344 2010 JP_{14}	15.8	X	176.80051	158.63778	70.51003	28.47837	0.0166573	0.23550839	2.5969592	21	12 13.1	19.3
436345 2010 JZ_{18}	15.9	X	295.10583	248.06422	102.82289	7.12374	0.1438100	0.17139266	3.2097749	21	6 18.5	20.2
436346 2010 JC_{32}	16.0	X	262.12776	103.76116	236.57454	14.78205	0.1315166	0.17913382	3.1166233	21	4 25.8	20.9
436347 2010 JP_{39}	18.1	X	30.04351	108.77072	201.83547	20.53557	0.0812731	0.37635626	1.8999257	21	10 26.8	19.5
436348 2010 JS_{73}	17.1	X	18.60023	47.71375	212.36233	2.33207	0.0556983	0.18849814	3.0125297	21	7 1.9	21.0
436349 2010 JK_{77}	16.5	X	339.52426	85.12722	155.99202	25.87550	0.2532369	0.17459558	3.1703987	21	3 21.8	20.2
436350 2010 JU_{77}	15.9	X	317.21222	92.72644	220.52313	14.43060	0.1373048	0.18245340	3.0787050	21	6 2.0	19.9
436351 2010 JL_{79}	16.1	X	33.46938	104.43546	89.62869	17.32695	0.1775945	0.17878563	3.1206685	21	5 13.7	19.8
436352 2010 JV_{82}	16.5	X	353.72449	80.20881	193.12090	13.27574	0.1567220	0.18508716	3.0494290	21	6 9.5	20.1
436353 2010 JC_{112}	16.6	X	36.10084	191.84325	46.53890	0.32399	0.1895098	0.18667741	3.0320862	21	7 15.2	19.8
436354 2010 JN_{116}	16.0	X	3.99112	200.77495	107.39398	9.71459	0.0981379	0.19177162	2.9781495	21	8 17.9	19.6
436355 2010 JS_{117}	15.8	X	321.87788	188.44090	79.16916	6.57592	0.0945674	0.17464648	3.1697828	21	4 19.3	20.0
436356 2010 JX_{130}	16.0	X	323.67744	171.63151	161.72557	11.85816	0.2051799	0.17353420	3.1833129	21	6 30.4	19.9
436357 2010 JO_{151}	16.0	X	56.16057	295.45210	226.07324	15.68503	0.1859267	0.17876350	3.1209261	21	5 5.1	19.8
436358 2010 JR_{175}	15.7	X	270.18763	241.78330	87.43044	16.55710	0.0477769	0.17807565	3.1289577	21	5 9.1	20.3
436359 2010 KE_{2}	15.6	X	326.15970	203.47069	151.50145	15.74847	0.2916653	0.17604912	3.1529239	21	7 22.3	19.0
436360 2010 KS_{19}	16.2	X	356.36419	141.40615	146.94803	17.58476	0.0882053	0.17271090	3.1934213	21	7 6.5	20.4
436361 2010 KA_{31}	15.9	X	347.12574	133.87361	169.54227	14.15190	0.2849325	0.17454470	3.1710148	21	6 29.4	19.1
436362 2010 KW_{32}	15.6	X	341.78460	150.44852	165.79479	16.43024	0.0921707	0.17456026	3.1708264	21	7 18.7	19.8
436363 2010 KT_{37}	16.8	X	8.44374	53.15484	230.86226	2.53712	0.0736506	0.19141199	2.9818786	21	7 19.3	20.5
436364 2010 KB_{39}	16.6	X	349.79687	266.12570	76.97672	12.88484	0.0181272	0.20029852	2.8930163	21	9 16.4	20.8
436365 2010 KG_{125}	15.7	X	351.41777	124.31342	187.62035	13.51854	0.2896103	0.17536080	3.1611689	21	7 22.2	18.7
436366 2010 LA_{35}	15.8	X	345.74766	216.67014	107.99341	11.03088	0.0488268	0.19246853	2.9709560	21	8 10.7	19.7
436367 2010 LP_{35}	16.5	X	283.26555	141.01536	186.06163	10.20700	0.1327170	0.17565493	3.1576390	21	5 6.9	21.0
436368 2010 LS_{55}	16.3	X	9.03677	142.91627	155.53144	14.89203	0.2530420	0.17677417	3.1442967	21	8 20.5	19.3
436369 2010 LV_{69}	15.9	X	28.36741	88.93145	159.47991	24.46824	0.3302216	0.17502315	3.1652333	21	8 3.3	19.3
436370 2010 ME_{115}	15.1	X	149.33936	290.42489	55.45657	3.71231	0.2415061	0.12581581	3.9443844	21	2 3.5	21.5
436371 2010 NJ_{3}	15.5	X	354.44967	40.94036	262.76290	16.42962	0.2174932	0.17796417	3.1302642	21	7 18.4	18.8
436372 2010 NU_{32}	14.7	X	25.57061	47.57876	272.84840	25.89749	0.1261849	0.17931404	3.1145348	21	9 22.7	19.3
436373 2010 OT_{41}	15.5	X	284.53066	42.16108	280.48227	15.59051	0.2467938	0.17755833	3.1350323	21	4 8.6	20.5
436374 2010 OY_{60}	16.1	X	112.13228	244.98206	220.99904	13.88011	0.2083047	0.18152816	3.0891574	21	5 10.8	20.8
436375 2010 OA_{77}	16.2	X	267.79645	318.12026	47.62249	16.18167	0.0778496	0.18798834	3.0179736	21	6 9.0	20.6
436376 2010 OG_{101}	15.8	X	355.50890	194.71439	145.41036	19.71709	0.3247788	0.18231351	3.0802796	21	9 30.4	18.4
436377 2010 OF_{106}	16.4	X	1.05382	44.40675	209.34441	13.35952	0.0849422	0.18309119	3.0715511	21	5 28.9	20.3
436378 2010 OH_{109}	15.6	X	299.85864	222.85999	94.65729	19.24489	0.1087320	0.18220315	3.0815233	21	5 22.6	20.0
436379 2010 OT_{117}	16.2	X	52.90283	134.24868	57.69914	16.42964	0.1484314	0.18365055	3.0653111	21	6 2.4	20.1
436380 2010 PB_{70}	15.1	X	146.57209	179.37961	180.49959	2.98801	0.2190368	0.12240210	4.0173851	21	2 13.7	21.5
436381 2010 RP_{74}	14.2	X	311.33617	24.23375	46.37174	36.63400	0.0979941	0.08317218	5.1977734	21	10 26.2	20.9
436382 2010 RQ_{74}	13.9	X	334.15246	0.03326	43.49258	27.74144	0.0516328	0.08382917	5.1705803	21	10 23.8	20.6
436383 2010 RC_{104}	18.2	X	306.19951	185.80466	1.95986	7.32865	0.0650581	0.30473959	2.1870068	21	—	—
436384 2010 TD_{19}	17.3	X	306.15369	257.21205	99.71768	31.63174	0.2777971	0.35044311	1.9924665	21	6 19.6	19.0
436385 2010 TK_{47}	18.5	X	46.81307	36.26237	22.89378	5.83380	0.1260310	0.29623810	2.2286512	21	—	—
436386 2010 TB_{153}	18.8	X	52.77679	345.43700	125.31351	3.24734	0.1660583	0.30849083	2.1692413	21	1 7.9	19.9
436387 2010 VB_{20}	17.7	X	41.30784	214.14125	255.55597	6.44526	0.0759127	0.29802142	2.2197517	21	—	—
436388 2010 VP_{48}	13.6	X	308.37326	7.51105	80.56769	15.96209	0.1206141	0.08209997	5.2429301	21	11 3.5	20.2
436389 2010 VR_{72}	18.3	X	107.97866	344.03213	86.85170	4.13809	0.1703865	0.31014064	2.1615416	21	3 1.6	20.4
436390 2010 VW_{79}	15.0	X	193.93433	97.66581	217.35471	8.54868	0.2151448	0.12450953	3.9719246	21	1 28.9	21.6
436391 2010 VN_{111}	14.4	X	286.60098	289.56255	166.57851	6.63974	0.0853802	0.08315800	5.1983640	21	10 16.9	21.1
436392 2010 VE_{114}	18.2	X	161.84129	353.20704	23.81279	5.41577	0.0276459	0.30919294	2.1659562	21	2 6.2	20.7
436393 2010 VA_{149}	13.7	X	317.55311	353.61226	73.91360	17.57133	0.0802312	0.08357411	5.1810947	21	10 28.6	20.4
436394 2010 VF_{172}	14.1	X	312.93955	12.15088	58.64901	8.90264	0.0316343	0.08126244	5.2788923	21	10 25.9	20.9
436395 2010 VJ_{176}	17.8	X	152.96303	5.98926	5.27231	7.79950	0.1535338	0.30948049	2.1646143	21	2 4.5	20.7
436396 2010 VD_{179}	13.9	X	311.69088	15.98434	58.74986	26.49208	0.2106529	0.08297646	5.2059433	21	10 20.1	20.3
436397 2010 VA_{186}	14.3	X	348.01048	354.94743	35.09295	19.79167	0.0747339	0.08368987	5.1763161	21	10 21.7	20.8
436398 2010 VA_{203}	14.2	X	310.98863	18.90137	54.53188	21.38906	0.0788474	0.08329807	5.1925347	21	10 26.3	20.9
436399 2010 VX_{206}	15.3	X	193.48911	135.92198	204.79848	2.95548	0.0893617	0.12701619	3.9194940	21	2 26.2	21.2
436400 2010 WB_{8}	15.7	X	352.11812	119.04163	270.59580	13.94565	0.1915495	0.17764464	3.1340167	21	11 13.7	19.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436401 2010 WD_{13}	14.0	X	272.89533	39.98099	77.83316	9.52592	0.0848014	0.08349682	5.1842915	21	10 27.0	20.9
436402 2010 WM_{62}	18.2	X	42.00313	5.50485	85.45531	3.42618	0.0987937	0.29354418	2.2422657	21	—	—
436403 2010 WS_{66}	13.8	X	13.12995	113.13742	259.95957	7.76377	0.0405576	0.08175193	5.2577996	21	10 29.6	20.6
436404 2010 XE_{18}	17.5	X	272.42056	344.16405	257.04088	6.95897	0.0850149	0.29216969	2.2492925	21	—	—
436405 2010 XE_{31}	14.3	X	317.42122	345.89302	83.78261	6.12720	0.0231125	0.08292945	5.2079106	21	10 30.6	21.1
436406 2010 XL_{38}	17.8	X	358.87479	211.82668	297.21711	3.39013	0.1588361	0.28976894	2.2616991	21	—	—
436407 2010 XO_{40}	17.9	X	85.06368	55.11431	17.79284	5.05909	0.1022793	0.30086716	2.2057326	21	1 14.9	20.0
436408 2010 XW_{41}	17.4	X	312.93797	231.04611	284.76086	4.63009	0.1645669	0.27916323	2.3186253	21	—	—
436409 2010 XW_{81}	14.1	X	343.41679	325.39141	73.12337	8.76353	0.0755225	0.08098509	5.2909378	21	10 25.9	20.7
436410 2011 AH_{10}	17.8	X	286.56324	238.32575	289.96540	4.73313	0.1776417	0.27375398	2.3490689	21	—	—
436411 2011 AW_{13}	17.7	X	12.32852	346.53503	89.56151	8.83300	0.1954516	0.27871817	2.3210929	21	—	—
436412 2011 AO_{20}	17.6	X	344.89434	61.56021	86.09308	7.57018	0.1426960	0.28384876	2.2930387	21	—	—
436413 2011 AG_{23}	18.0	X	47.20259	142.19878	320.37412	2.41939	0.1139734	0.29297653	2.2451610	21	—	—
436414 2011 AR_{44}	18.3	X	288.46968	71.25637	98.36639	2.07158	0.1271729	0.27291739	2.3538670	21	—	—
436415 2011 AW_{46}	18.2	X	73.41176	172.94776	272.75698	3.69116	0.0946988	0.29195616	2.2503891	21	1 13.5	20.3
436416 2011 AE_{59}	18.3	X	303.46882	37.57889	124.30714	2.74686	0.1245300	0.27662099	2.3328096	21	—	—
436417 2011 AK_{60}	17.8	X	254.33237	172.77955	128.09833	3.79118	0.0937953	0.30261537	2.1972294	21	2 17.5	20.6
436418 2011 AM_{60}	18.4	X	271.80807	265.96543	296.10225	2.04384	0.1659661	0.27481359	2.3430268	21	—	—
436419 2011 AG_{62}	18.3	X	274.68387	140.53784	59.11544	4.78504	0.0920803	0.27932033	2.3177559	21	—	—
436420 2011 AE_{64}	17.9	X	298.54805	325.28051	302.32082	5.60635	0.0769517	0.30488308	2.1863206	21	2 25.4	20.4
436421 2011 AU_{64}	17.8	X	245.20289	356.15917	306.67761	2.82398	0.1159658	0.30190324	2.2006832	21	2 8.2	20.8
436422 2011 AX_{65}	18.3	X	281.87407	86.08411	100.74083	3.23987	0.1074361	0.27525529	2.3405195	21	—	—
436423 2011 BV_{1}	18.0	X	78.75913	9.40650	64.26868	4.83887	0.1137291	0.29421302	2.2388661	21	1 7.0	19.9
436424 2011 BD_{10}	17.8	X	331.45734	84.63104	100.59645	4.17841	0.1540600	0.28823660	2.2697079	21	—	—
436425 2011 BT_{11}	17.1	X	4.95061	25.16014	115.76794	7.85161	0.0731987	0.28702730	2.2760785	21	—	—
436426 2011 BF_{12}	17.5	X	109.31882	165.38538	268.49089	6.23092	0.0727765	0.30066166	2.2067375	21	2 15.9	19.9
436427 2011 BE_{17}	18.5	X	338.56722	321.19025	156.98569	2.17537	0.1667656	0.27428619	2.3460292	21	—	—
436428 2011 BY_{25}	17.9	X	267.76327	213.72023	99.20104	4.90237	0.1859026	0.31083231	2.1583338	21	3 13.3	21.0
436429 2011 BS_{27}	17.6	X	31.32290	104.99860	352.30884	5.50876	0.1207992	0.28087414	2.3092000	21	—	—
436430 2011 BA_{28}	17.3	X	301.87102	347.69159	143.81380	7.92879	0.1164913	0.26494183	2.4008721	21	—	—
436431 2011 BW_{47}	17.5	X	299.30974	292.58383	276.76907	4.84633	0.1218821	0.28322462	2.2964062	21	—	—
436432 2011 BD_{52}	17.3	X	238.07721	135.72994	69.37694	3.19398	0.0757033	0.26857678	2.3791605	21	—	—
436433 2011 BK_{52}	17.9	X	323.55865	137.22620	13.12933	5.95940	0.1717293	0.27745510	2.3281319	21	—	—
436434 2011 BX_{53}	17.9	X	266.76699	48.69659	13.33359	1.44481	0.1084101	0.24295597	2.5436128	21	8 21.4	21.2
436435 2011 BP_{87}	17.9	X	255.39554	333.25281	263.84868	3.82873	0.2391736	0.27302205	2.3532653	21	—	—
436436 2011 BS_{88}	17.5	X	227.34223	355.51383	263.58552	5.35421	0.0837394	0.28069136	2.3102024	21	—	—
436437 2011 BV_{97}	17.8	X	220.26442	163.56274	33.05893	4.89423	0.0928698	0.26236578	2.4165619	21	12 23.3	20.9
436438 2011 BU_{161}	18.3	X	307.70151	75.23554	98.04622	3.68549	0.1363525	0.27952241	2.3166386	21	—	—
436439 2011 CR_{3}	18.1	X	295.53050	30.38840	164.46490	5.23756	0.1561252	0.27839670	2.3228794	21	—	—
436440 2011 CA_{8}	17.8	X	308.97786	15.12059	171.37942	5.82889	0.0579349	0.28187667	2.3037214	21	—	—
436441 2011 CD_{25}	18.3	X	330.48324	319.63979	187.83029	4.00020	0.1276731	0.27837835	2.3229815	21	—	—
436442 2011 CR_{25}	16.9	X	35.28101	137.00205	307.45176	5.78236	0.0831081	0.28029137	2.3123997	21	—	—
436443 2011 CR_{27}	18.0	X	256.86217	110.12199	67.90641	2.19120	0.1268433	0.26517952	2.3994372	21	—	—
436444 2011 CJ_{44}	18.2	X	209.34915	31.21681	232.21541	5.86102	0.0860041	0.27477185	2.3432640	21	—	—
436445 2011 CG_{48}	18.2	X	339.12744	140.98818	349.20828	5.95275	0.1745499	0.27828268	2.3235139	21	—	—
436446 2011 CC_{49}	17.9	X	268.54593	328.59247	239.25429	2.13670	0.1676073	0.27487683	2.3426674	21	—	—
436447 2011 CE_{54}	18.4	X	255.28626	354.82433	222.25789	0.59520	0.1377575	0.27254983	2.3559828	21	—	—
436448 2011 CZ_{67}	17.5	X	278.35188	155.24213	75.58671	3.16242	0.1592912	0.28064371	2.3104638	21	—	—
436449 2011 CW_{69}	17.4	X	318.81649	81.77342	4.09340	4.88023	0.2163275	0.26388269	2.4072921	21	12 24.9	19.0
436450 2011 CQ_{72}	17.8	X	14.18262	28.63026	88.89803	4.27890	0.1795301	0.28485816	2.2876185	21	—	—
436451 2011 CT_{74}	17.4	X	164.67730	4.60672	139.36483	6.33360	0.2346849	0.23179077	2.6246534	21	8 12.7	22.0
436452 2011 CE_{79}	16.9	X	183.53607	151.75727	309.28604	10.53250	0.1575382	0.22887228	2.6469186	21	7 7.0	21.2
436453 2011 CD_{80}	17.6	X	276.15144	278.08563	289.80948	6.01658	0.1541909	0.27409776	2.3471043	21	—	—
436454 2011 CQ_{80}	17.6	X	228.01794	351.80143	260.65053	3.62134	0.1067421	0.27339006	2.3511531	21	—	—
436455 2011 CN_{86}	18.0	X	244.64744	339.21949	208.53954	2.15180	0.1789202	0.26234913	2.4166641	21	12 30.6	21.0
436456 2011 CY_{88}	17.5	X	81.75581	147.84701	279.61096	5.62269	0.1390364	0.28774887	2.2722719	21	1 7.5	19.3
436457 2011 CZ_{88}	18.1	X	280.37212	289.59246	237.11444	4.03265	0.1451832	0.26646673	2.3917038	21	—	—
436458 2011 CE_{89}	17.4	X	307.12687	216.17564	305.36310	6.09969	0.0739601	0.27344089	2.3508617	21	—	—
436459 2011 CL_{97}	18.4	X	10.07538	288.97041	185.83841	6.12975	0.0553768	0.27949678	2.3167803	21	—	—
436460 2011 CT_{113}	18.4	X	15.60539	234.14177	239.44891	2.30953	0.0483484	0.27969207	2.3157017	21	—	—
436461 2011 DQ_{1}	17.7	X	190.43557	359.29571	266.10253	1.75396	0.1843817	0.26138403	2.4226091	21	—	—
436462 2011 DZ_{1}	18.1	X	278.26383	48.77390	139.28886	5.64384	0.1305332	0.27285126	2.3542473	21	—	—
436463 2011 DV_{7}	17.2	X	75.00954	143.99206	158.72608	4.15771	0.1180054	0.24153309	2.5535927	21	11 28.1	20.8
436464 2011 DG_{11}	17.5	X	344.88467	208.29405	316.53585	5.95013	0.1126778	0.28648604	2.2789445	21	—	—
436465 2011 DQ_{13}	17.9	X	273.85441	279.76290	322.05325	0.93609	0.1805061	0.28273389	2.2990626	21	—	—
436466 2011 DZ_{14}	18.3	X	259.07191	296.15592	195.49671	1.57016	0.1493417	0.25555996	2.4592773	21	11 9.1	21.3
436467 2011 DC_{17}	18.4	X	347.53393	143.07157	329.87891	2.25826	0.1512877	0.27282448	2.3544013	21	—	—
436468 2011 DK_{18}	18.0	X	184.37085	219.87874	47.97782	1.92934	0.1547434	0.25952732	2.4341500	21	—	—
436469 2011 DN_{25}	17.8	X	289.70072	74.27291	117.38507	2.23913	0.1340934	0.27456783	2.3444246	21	—	—
436470 2011 DO_{28}	18.3	X	163.07349	235.02500	156.24574	3.38151	0.1520961	0.30153469	2.2024761	21	3 13.1	21.3
436471 2011 DT_{28}	18.0	X	195.62543	180.19276	158.41276	2.94775	0.1928458	0.29306146	2.2447272	21	2 8.1	21.4
436472 2011 DD_{29}	18.1	X	258.17757	29.15638	155.58258	3.90777	0.1334282	0.26578167	2.3958118	21	—	—
436473 2011 DD_{42}	18.1	X	242.57953	108.51921	143.04864	1.99389	0.1466724	0.27245841	2.3565097	21	—	—
436474 2011 DB_{49}	17.2	X	309.45926	70.11139	85.75975	9.98843	0.1541770	0.27132726	2.3630547	21	—	—
436475 2011 EB_{4}	18.0	X	156.84590	186.34096	116.47088	1.47246	0.0679047	0.26438317	2.4042531	21	—	—
436476 2011 EV_{7}	18.1	X	227.59579	320.90620	299.99320	0.53815	0.1585454	0.27190524	2.3597048	21	—	—
436477 2011 EX_{7}	18.1	X	231.46834	68.76828	165.39316	1.35587	0.1420222	0.26503730	2.4002955	21	—	—
436478 2011 EC_{9}	17.6	X	242.22408	248.19774	343.91102	5.88858	0.1614180	0.27211554	2.3584888	21	—	—
436479 2011 EX_{12}	17.8	X	186.69329	26.66611	228.90429	2.07929	0.1871338	0.25797598	2.4438987	21	—	—
436480 2011 EY_{13}	18.1	X	315.03025	276.15430	227.23237	1.43952	0.1285495	0.26953048	2.3735450	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436481 2011 EZ_{14}	17.7	X	341.38803	319.08530	160.72502	5.49085	0.1359694	0.27157017	2.3616453	21	—	—
436482 2011 EK_{22}	17.8	X	212.23301	96.20223	108.12002	5.57508	0.1500036	0.25454671	2.4657993	21	12 14.8	21.2
436483 2011 EO_{22}	17.4	X	330.63018	81.17263	37.59347	5.05521	0.1009473	0.26817703	2.3815242	21	—	—
436484 2011 ES_{22}	17.9	X	320.75987	62.73534	86.31561	3.47513	0.1595526	0.27228765	2.3574949	21	—	—
436485 2011 EQ_{24}	17.6	X	219.52427	139.85902	94.13000	2.31734	0.1488027	0.26017792	2.4300904	21	—	—
436486 2011 EU_{25}	17.2	X	149.97617	100.90912	72.82788	6.03164	0.2272616	0.22824153	2.6517929	21	9 9.4	21.8
436487 2011 EX_{32}	17.8	X	234.75861	32.17289	171.40224	2.20494	0.1638637	0.25928822	2.4356461	21	—	—
436488 2011 EM_{35}	17.9	X	257.97171	70.48671	158.97982	2.80181	0.1498138	0.27169509	2.3609214	21	—	—
436489 2011 EF_{36}	17.4	X	300.99207	167.42107	10.23737	7.47480	0.1104157	0.27107382	2.3645273	21	—	—
436490 2011 EO_{36}	17.2	X	166.43119	167.73241	14.43724	10.85975	0.0376176	0.23583322	2.5945740	21	10 3.1	20.6
436491 2011 EF_{40}	17.5	X	271.20069	164.43890	13.85351	5.77921	0.1424284	0.26444954	2.4038508	21	—	—
436492 2011 EA_{42}	17.6	X	260.12032	79.89520	98.95752	4.25693	0.1354596	0.26121294	2.4236669	21	—	—
436493 2011 EL_{42}	17.9	X	244.84793	141.32515	43.14612	3.70797	0.1386171	0.25841053	2.4411581	21	—	—
436494 2011 EX_{46}	17.8	X	252.66323	104.27144	92.15317	6.24222	0.1573066	0.26457767	2.4030746	21	—	—
436495 2011 EB_{63}	16.2	X	306.36372	193.17518	136.14151	17.32742	0.1224681	0.21772206	2.7365355	21	6 10.8	20.0
436496 2011 ET_{70}	17.5	X	328.86931	204.08091	287.13851	2.61031	0.1244218	0.27039812	2.3684648	21	—	—
436497 2011 EA_{83}	18.4	X	241.18375	48.61675	155.29059	5.60948	0.1741426	0.26170095	2.4206529	21	—	—
436498 2011 EH_{83}	18.1	X	320.17224	114.16991	6.65359	4.89209	0.1837468	0.26671416	2.3902244	21	—	—
436499 2011 ET_{83}	18.1	X	302.04305	88.50733	70.32180	2.19546	0.1272775	0.26847233	2.3797775	21	—	—
436500 2011 FU_{1}	17.6	X	218.07644	78.99673	166.89090	10.11713	0.2211827	0.26074733	2.4265513	21	—	—
436501 2011 FX_{1}	17.5	X	323.24051	351.30253	141.97469	10.43531	0.1949978	0.26916881	2.3756706	21	—	—
436502 2011 FZ_{1}	17.3	X	224.57796	106.74390	119.87780	9.61165	0.2033431	0.25945665	2.4345919	21	—	—
436503 2011 FN_{5}	17.9	X	195.43940	17.00312	149.49292	5.35834	0.1250172	0.24071776	2.5593556	21	10 12.8	21.8
436504 2011 FG_{7}	17.9	X	265.54165	173.46093	8.55314	3.43000	0.1861884	0.26195126	2.4191106	21	—	—
436505 2011 FO_{10}	17.8	X	216.77572	16.42990	200.77748	2.63838	0.1379906	0.25656619	2.4528431	21	—	—
436506 2011 FE_{12}	16.4	X	156.25272	175.21005	32.85330	18.12812	0.1215018	0.23314994	2.6144430	21	10 23.7	20.3
436507 2011 FA_{17}	17.2	X	312.86557	106.52393	73.32984	7.21566	0.0520615	0.27616770	2.3353616	21	—	—
436508 2011 FW_{27}	17.6	X	235.67576	221.12772	355.94550	0.95378	0.1237131	0.26230390	2.4169419	21	—	—
436509 2011 FZ_{29}	18.1	X	291.01908	94.70321	74.80763	2.99582	0.1376812	0.26641840	2.3919930	21	—	—
436510 2011 FG_{36}	17.4	X	128.08497	136.62087	112.79089	5.05976	0.2374436	0.23603509	2.5930945	21	11 20.7	22.0
436511 2011 FJ_{41}	17.1	X	258.58975	142.26327	89.14891	8.77560	0.0714987	0.27393180	2.3480522	21	—	—
436512 2011 FC_{45}	17.7	X	150.58559	224.05465	27.51531	8.72033	0.1246812	0.24490101	2.5301270	21	12 10.1	21.8
436513 2011 FM_{45}	17.5	X	332.88493	311.30842	180.78690	6.64333	0.0700326	0.26588896	2.3951673	21	—	—
436514 2011 FP_{45}	17.8	X	231.17917	135.88267	93.42295	3.60914	0.1519326	0.25921169	2.4361255	21	—	—
436515 2011 FO_{47}	17.0	X	183.06834	2.48073	195.35333	9.24761	0.0540409	0.23746781	2.5826539	21	11 12.1	20.6
436516 2011 FA_{51}	17.0	X	311.54893	24.60291	132.25802	6.19007	0.0689782	0.26593178	2.3949101	21	—	—
436517 2011 FY_{56}	17.5	X	279.68102	317.29315	211.34712	5.81384	0.0878175	0.25993441	2.4316078	21	—	—
436518 2011 FQ_{63}	17.8	X	256.93052	135.74673	36.33167	6.39603	0.1278936	0.25723330	2.4486004	21	—	—
436519 2011 FP_{80}	17.6	X	157.44739	270.43925	1.48545	5.26403	0.1071071	0.25466724	2.4650212	21	—	—
436520 2011 FT_{82}	17.9	X	200.00621	224.36249	48.90708	2.20921	0.1589811	0.26276304	2.4141256	21	—	—
436521 2011 FA_{121}	17.6	X	350.68395	82.86128	6.18159	6.38659	0.0832677	0.26180951	2.4199837	21	—	—
436522 2011 FA_{126}	16.5	X	79.57578	274.11653	5.91089	16.61047	0.0620580	0.23547251	2.5972230	21	10 21.7	20.2
436523 2011 FB_{127}	16.6	X	63.18135	217.84756	62.43653	14.54449	0.1352730	0.23151165	2.6267625	21	10 21.9	20.3
436524 2011 FR_{127}	16.8	X	119.71169	199.19712	119.11174	11.94700	0.0656490	0.26127199	2.4233016	21	—	—
436525 2011 FS_{128}	18.3	X	292.47259	75.54043	191.58578	1.40869	0.1281564	0.29055859	2.2575995	21	2 13.9	21.4
436526 2011 FJ_{132}	16.6	X	209.71733	173.59364	354.62902	27.71943	0.1512016	0.24348437	2.5399314	21	10 13.6	20.8
436527 2011 FE_{133}	18.4	X	323.54921	139.12025	339.43006	2.08257	0.1554063	0.26720277	2.3873096	21	—	—
436528 2011 FW_{133}	18.6	X	265.52809	221.06625	323.18856	0.93351	0.1175043	0.26453598	2.4033271	21	—	—
436529 2011 FW_{140}	16.1	X	146.02822	189.45463	38.18446	16.32636	0.1258867	0.23468217	2.6030509	21	11 5.5	20.1
436530 2011 FC_{142}	17.7	X	205.34061	140.81853	44.27301	11.35883	0.1519469	0.24387111	2.5372454	21	11 10.9	21.6
436531 2011 FD_{143}	17.4	X	120.68057	261.92876	29.54287	11.03240	0.2824735	0.24007035	2.5639548	21	—	—
436532 2011 FW_{147}	17.2	X	169.20944	175.88965	54.06389	8.20448	0.1756010	0.24304995	2.5429571	21	11 29.8	21.4
436533 2011 FD_{153}	16.9	X	147.33049	162.16036	125.42655	6.82216	0.1122697	0.25652350	2.4531152	21	—	—
436534 2011 FN_{154}	17.3	X	113.92657	234.28826	35.66921	8.72508	0.1420398	0.23547643	2.5971942	21	11 26.7	21.4
436535 2011 FO_{154}	17.5	X	126.51754	44.85114	201.26614	1.02529	0.1808731	0.23313643	2.6145440	21	11 12.3	21.6
436536 2011 GO_{3}	17.0	X	179.17198	192.59547	66.68750	3.97702	0.1817333	0.25180594	2.4836596	21	—	—
436537 2011 GW_{3}	17.7	X	248.02152	36.13395	168.16277	5.03803	0.0984313	0.25958144	2.4338116	21	—	—
436538 2011 GJ_{4}	18.0	X	221.95051	86.27609	181.22357	2.13706	0.2236357	0.26569760	2.3963171	21	—	—
436539 2011 GO_{6}	17.2	X	335.22371	48.38847	60.27109	7.25075	0.0811206	0.26273595	2.4142915	21	—	—
436540 2011 GC_{28}	17.6	X	256.18386	321.72773	204.22544	6.78388	0.1192596	0.25483999	2.4639071	21	12 25.2	20.6
436541 2011 GF_{33}	17.5	X	269.32405	319.01590	220.59957	6.02595	0.0661793	0.26039038	2.4287683	21	—	—
436542 2011 GZ_{42}	17.9	X	228.46908	182.60051	55.27691	2.23511	0.1395603	0.26584095	2.3954556	21	—	—
436543 2011 GK_{46}	17.4	X	238.44602	167.15106	66.94582	5.85246	0.0847143	0.26561245	2.3968293	21	—	—
436544 2011 GV_{46}	17.0	X	73.63612	62.97612	203.03694	11.51361	0.1604094	0.22338157	2.6901169	21	10 12.8	20.9
436545 2011 GZ_{48}	17.1	X	200.13172	99.98835	16.78613	17.01425	0.1383058	0.22706567	2.6609399	21	8 19.8	21.5
436546 2011 GY_{56}	16.6	X	90.76678	203.67945	38.60578	14.02213	0.0537906	0.22649546	2.6654040	21	9 25.4	20.4
436547 2011 GK_{58}	17.3	X	218.43224	334.73060	188.46277	13.28997	0.1701462	0.24196135	2.5505787	21	10 28.2	21.1
436548 2011 GW_{69}	17.5	X	220.43735	322.96066	195.40114	4.29071	0.1738187	0.24156290	2.5533826	21	10 22.4	21.4
436549 2011 GE_{78}	17.3	X	144.95571	78.56692	173.79057	24.63098	0.0580991	0.24217560	2.5490741	21	12 8.9	21.5
436550 2011 GA_{79}	18.0	X	265.72578	208.42306	350.87865	0.92598	0.1256705	0.26527061	2.3988879	21	—	—
436551 2011 GD_{83}	17.0	X	192.23315	131.87936	58.62078	11.05398	0.0227730	0.24085141	2.5584087	21	11 16.0	20.3
436552 2011 GR_{85}	16.8	X	229.81032	106.53164	121.97506	15.55921	0.1869120	0.26019603	2.4299776	21	—	—
436553 2011 GV_{86}	17.7	X	194.73458	252.94539	23.10104	6.46234	0.1239566	0.26099651	2.4250065	21	—	—
436554 2011 HF_{3}	16.9	X	117.92526	197.79554	79.35095	10.08586	0.1409456	0.23900763	2.5715494	21	12 10.9	21.0
436555 2011 HS_{5}	17.2	X	151.34724	202.03591	18.68669	12.96720	0.2011197	0.23560033	2.5962835	21	10 31.6	21.7
436556 2011 HB_{7}	16.7	X	173.38070	99.88481	156.49522	15.18291	0.0983580	0.24564257	2.5250324	21	—	—
436557 2011 HX_{10}	18.2	X	235.30766	109.32034	99.52743	2.37646	0.1340160	0.25768039	2.4457673	21	—	—
436558 2011 HU_{14}	17.8	X	251.16013	354.61746	180.00843	6.25054	0.0770884	0.25220404	2.4810453	21	—	—
436559 2011 HE_{22}	17.9	X	249.23392	105.74579	139.48842	3.31773	0.2190717	0.26490631	2.4010867	21	—	—
436560 2011 HB_{23}	17.5	X	321.21358	54.30031	85.15404	12.60382	0.1143685	0.26561520	2.3968127	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436561 2011 HY_{25}	15.9	X	271.21445	20.08160	64.01798	22.80679	0.0348220	0.22952778	2.6418767	21	10 18.4	19.8
436562 2011 HY_{27}	17.5	X	246.16470	164.64702	54.03023	2.13001	0.1418773	0.26173994	2.4204125	21	—	—
436563 2011 HJ_{31}	17.6	X	169.97326	47.26185	175.57722	0.95123	0.0802066	0.24268942	2.5454749	21	11 26.9	21.3
436564 2011 HJ_{33}	17.4	X	122.29738	76.81746	176.64488	8.68544	0.0803660	0.23446156	2.6046834	21	11 14.7	21.3
436565 2011 HJ_{43}	16.5	X	1.67835	229.22528	109.13410	15.26238	0.1734432	0.21866697	2.7286464	21	10 10.5	19.7
436566 2011 HZ_{44}	17.3	X	211.57901	323.80510	203.12700	11.69335	0.1185546	0.23940374	2.5687121	21	10 29.8	21.0
436567 2011 HL_{52}	16.4	X	110.58504	171.38597	96.96522	14.75605	0.0226427	0.23381558	2.6094787	21	11 18.3	20.2
436568 2011 HB_{53}	17.4	X	315.31432	351.05618	83.75690	29.97722	0.7025393	0.27074538	2.3664392	21	8 8.7	20.0
436569 2011 HH_{54}	16.9	X	306.92810	319.38734	148.27052	8.13247	0.1009145	0.24761031	2.5116372	21	12 27.8	19.7
436570 2011 HP_{54}	16.3	X	4.92766	274.76009	86.43377	22.85430	0.0343553	0.22878699	2.6475764	21	11 7.3	20.1
436571 2011 HR_{64}	16.9	X	256.41621	25.00831	77.61923	13.71720	0.1413670	0.23763931	2.5814112	21	10 3.9	20.6
436572 2011 HV_{65}	18.0	X	208.49969	41.25203	227.35229	0.64667	0.1988506	0.26168200	2.4207697	21	—	—
436573 2011 HL_{71}	17.2	X	315.79639	235.53017	269.80025	5.39216	0.0753118	0.26121487	2.4236549	21	—	—
436574 2011 HY_{71}	17.1	X	92.88428	152.65980	178.48273	3.67421	0.2446897	0.23864050	2.5741862	21	—	—
436575 2011 HV_{77}	17.2	X	96.66934	240.47271	73.16236	8.08268	0.1943485	0.23640029	2.5904232	21	—	—
436576 2011 HR_{79}	17.6	X	128.74552	154.76933	126.88576	5.81557	0.1235085	0.24032233	2.5621623	21	12 26.2	21.6
436577 2011 HZ_{84}	16.6	X	129.95668	86.97634	178.26013	12.19306	0.0601384	0.23652764	2.5894933	21	12 6.5	20.5
436578 2011 HY_{91}	18.4	X	190.94488	139.50482	146.41846	2.83678	0.2042097	0.25877168	2.4388863	21	—	—
436579 2011 HF_{97}	17.5	X	101.89505	86.09719	200.40268	12.99797	0.1989544	0.23154748	2.6264916	21	12 10.1	22.0
436580 2011 HF_{98}	17.4	X	241.48289	305.11715	217.55274	13.70020	0.1001780	0.24331555	2.5411061	21	12 1.7	20.9
436581 2011 HA_{99}	17.7	X	230.60837	59.96531	117.21594	4.47153	0.1272088	0.24458499	2.5323060	21	12 3.3	21.0
436582 2011 HF_{100}	17.3	X	336.88013	345.65806	132.41338	7.84340	0.0648319	0.25737259	2.4477169	21	—	—
436583 2011 HW_{100}	16.7	X	120.55585	354.50282	324.49967	3.79589	0.3062997	0.24318709	2.5420009	21	—	—
436584 2011 JA_{2}	17.1	X	236.67149	16.89902	119.87229	6.63388	0.1738348	0.24239314	2.5475487	21	10 15.6	20.8
436585 2011 JC_{7}	17.3	X	177.56291	117.53231	62.50422	11.36827	0.1593600	0.23198853	2.6231615	21	10 12.7	21.7
436586 2011 JQ_{7}	17.6	X	123.24930	209.83513	78.42516	9.98637	0.1513516	0.23868303	2.5738804	21	12 29.2	21.8
436587 2011 JW_{8}	16.5	X	265.86001	342.75688	111.25884	13.87956	0.1391515	0.23310861	2.6147520	21	10 3.8	20.2
436588 2011 JP_{10}	16.0	X	282.55403	273.36995	204.69041	25.53306	0.1245100	0.24106871	2.5568710	21	11 27.4	19.3
436589 2011 JA_{21}	17.0	X	173.34044	338.19545	174.16902	12.49664	0.1078652	0.22287263	2.6942107	21	8 29.3	21.2
436590 2011 JG_{21}	16.8	X	73.40085	238.77462	106.94750	10.17627	0.2325277	0.23701932	2.5859109	21	—	—
436591 2011 JA_{27}	16.8	X	76.92830	258.62028	41.09716	14.66185	0.1300978	0.23417684	2.6067943	21	11 23.5	20.6
436592 2011 JL_{27}	16.5	X	94.50483	204.66395	67.27384	13.71724	0.1375945	0.22919950	2.6443988	21	11 12.3	20.5
436593 2011 JN_{27}	16.9	X	103.73072	22.59957	272.76372	5.01411	0.2364596	0.23295298	2.6159164	21	12 23.9	21.2
436594 2011 KR_{2}	17.1	X	155.74644	211.38406	72.10886	7.14600	0.1434776	0.24570954	2.5245736	21	—	—
436595 2011 KK_{3}	16.6	X	173.78970	77.78097	149.20132	5.06055	0.1120850	0.23867568	2.5739332	21	12 4.3	20.5
436596 2011 KL_{3}	16.5	X	260.26060	283.79233	216.58925	13.79017	0.0583864	0.23915642	2.5704827	21	12 3.2	19.9
436597 2011 KB_{5}	16.7	X	142.32368	132.81244	148.86413	17.84757	0.2129446	0.23959005	2.5673803	21	—	—
436598 2011 KP_{5}	16.6	X	315.68322	220.22524	224.56867	9.34171	0.1384192	0.24322709	2.5417222	21	12 8.9	19.2
436599 2011 KE_{7}	16.1	X	81.12035	224.03947	131.70330	15.39022	0.1273680	0.24072677	2.5592917	21	—	—
436600 2011 KQ_{8}	16.5	X	105.47742	57.63404	233.52251	14.19781	0.1115673	0.23644819	2.5900733	21	12 13.4	20.4
436601 2011 KJ_{10}	17.3	X	200.38066	120.96956	81.74625	4.44188	0.0922554	0.24163918	2.5528452	21	12 3.9	20.8
436602 2011 KY_{11}	16.4	X	142.79806	344.99487	245.17304	18.43693	0.0880565	0.23009009	2.6375707	21	11 3.7	20.4
436603 2011 KF_{12}	16.2	X	144.19760	2.00645	252.99382	13.28264	0.1247659	0.23547481	2.5972061	21	12 7.9	20.2
436604 2011 KR_{17}	16.4	X	74.28290	210.78463	89.25659	10.69096	0.0794226	0.22846719	2.6500465	21	11 18.4	20.1
436605 2011 KW_{20}	16.7	X	155.09954	45.70188	96.64292	9.89518	0.0898513	0.21544482	2.7557851	21	7 30.1	20.9
436606 2011 KD_{26}	16.0	X	208.15206	158.90239	217.66755	8.10592	0.0785057	0.18827004	3.0149624	21	4 17.8	20.5
436607 2011 KH_{26}	16.9	X	320.90035	109.78985	247.09827	2.87240	0.1162473	0.21004973	2.8027732	21	8 8.9	20.2
436608 2011 KP_{26}	17.8	X	197.79298	60.56394	147.03812	4.16006	0.1582099	0.24319516	2.5419447	21	12 1.7	21.8
436609 2011 KC_{27}	16.9	X	106.71485	226.97809	67.64287	8.57988	0.1911912	0.23471746	2.6027899	21	12 23.2	21.1
436610 2011 KK_{27}	16.6	X	141.70658	27.11875	260.40520	6.91470	0.2089347	0.24186458	2.5512589	21	—	—
436611 2011 KE_{32}	16.9	X	119.18340	236.39798	72.19229	15.77763	0.1451984	0.24115133	2.5562870	21	—	—
436612 2011 KH_{32}	17.6	X	161.99693	208.85974	72.59555	13.37394	0.1580852	0.24622554	2.5210453	21	—	—
436613 2011 KK_{33}	17.2	X	148.86211	95.65384	163.30318	7.65007	0.1599040	0.23805540	2.5784024	21	12 17.4	21.5
436614 2011 KT_{33}	17.2	X	165.25115	145.50574	110.55071	5.95165	0.2071715	0.24245310	2.5471287	21	12 26.6	21.4
436615 2011 KK_{35}	16.8	X	182.36062	62.53466	185.21815	7.86203	0.1710211	0.24398806	2.5364346	21	—	—
436616 2011 LC_{1}	17.3	X	129.23654	90.18721	194.25868	10.57711	0.3706675	0.23421828	2.6064868	21	12 31.1	22.6
436617 2011 LE_{2}	17.2	X	67.13147	173.73458	142.15702	6.01656	0.1613610	0.22665483	2.6641545	21	12 8.4	21.1
436618 2011 LU_{2}	15.5	X	264.00078	148.74534	227.92264	26.60033	0.1487565	0.17797347	3.1301552	21	6 9.4	20.4
436619 2011 LN_{9}	17.9	X	167.95873	119.69762	181.46079	2.85961	0.2039964	0.25210919	2.4816675	21	—	—
436620 2011 LF_{12}	17.2	X	139.51560	180.36314	104.89700	4.32722	0.1847809	0.24041909	2.5614748	21	—	—
436621 2011 LN_{13}	17.1	X	37.62059	247.00507	85.44300	8.93708	0.0829030	0.22553595	2.6729584	21	11 12.9	20.5
436622 2011 LO_{22}	16.3	X	86.95949	215.94550	119.33670	13.51272	0.1932310	0.23719986	2.5845985	21	—	—
436623 2011 LQ_{24}	16.3	X	239.48243	8.92511	94.31716	13.32759	0.1226293	0.22373242	2.6873038	21	9 13.4	20.4
436624 2011 MD_{3}	16.8	X	78.96105	197.19397	129.18634	15.01818	0.1056182	0.22328029	2.6909304	21	12 26.9	20.9
436625 2011 MX_{3}	17.0	X	129.85039	136.35003	146.68786	14.02749	0.2588647	0.23013120	2.6372566	21	12 29.4	21.9
436626 2011 MP_{4}	16.9	X	233.78462	40.03771	252.31108	10.22162	0.2325504	0.25941287	2.4348659	21	1 17.0	21.2
436627 2011 MF_{5}	16.2	X	99.36087	12.57989	280.41676	13.08277	0.2370968	0.22499100	2.6772728	21	12 16.9	20.7
436628 2011 OC_{2}	16.4	X	34.51879	341.57373	276.25370	9.24590	0.0627572	0.19108199	2.9853108	21	7 22.1	20.3
436629 2011 OE_{2}	16.6	X	298.41103	219.14691	174.18817	12.27073	0.1473884	0.19574912	2.9376688	21	8 16.5	20.3
436630 2011 OH_{20}	16.4	X	337.22545	217.50642	121.92006	7.68836	0.2376122	0.19605604	2.9346022	21	8 4.6	18.9
436631 2011 OT_{21}	16.9	X	34.01861	170.74107	158.33911	6.74147	0.0629598	0.21285440	2.7780984	21	10 29.6	20.6
436632 2011 OK_{26}	17.1	X	61.63650	108.18122	189.97217	18.99173	0.3185197	0.21298660	2.7769487	21	11 28.3	21.7
436633 2011 OB_{46}	17.2	X	18.16543	240.23727	87.80468	5.85920	0.1572680	0.20985031	2.8045487	21	10 17.3	20.4
436634 2011 PE_{7}	15.2	X	267.74820	59.66977	274.52548	25.74203	0.2079971	0.17507770	3.1645758	21	4 7.3	20.6
436635 2011 QQ_{9}	16.3	X	322.16281	57.94639	300.34662	7.68636	0.1035319	0.19320827	2.9633679	21	8 13.0	20.0
436636 2011 QB_{12}	16.2	X	50.50298	288.15984	325.29591	8.78912	0.0340421	0.19104508	2.9856952	21	8 6.8	20.1
436637 2011 QC_{17}	17.3	X	59.69052	61.82527	243.17243	3.39102	0.1934953	0.20963541	2.8064650	21	11 17.2	21.2
436638 2011 QP_{17}	16.5	X	338.90024	340.00094	347.70897	5.97732	0.1474536	0.18963412	3.0004869	21	7 30.0	19.9
436639 2011 QS_{18}	17.0	X	58.05332	124.06016	213.26073	7.11892	0.2200851	0.21535561	2.7565461	21	12 28.4	21.2
436640 2011 QT_{18}	16.5	X	283.22809	156.96166	202.62768	10.02508	0.1319252	0.18219484	3.0816171	21	6 15.3	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436641 2011 QM_{19}	16.1	X	290.83224	165.14835	174.28705	18.00915	0.2180739	0.18210614	3.0826176	21	5 20.4	20.7
436642 2011 QG_{22}	17.0	X	340.36886	152.57105	191.42047	9.99245	0.0796681	0.19685577	2.9266489	21	8 23.7	20.8
436643 2011 QS_{23}	15.8	X	149.72381	196.10460	292.46701	10.26975	0.0692021	0.18356754	3.0662351	21	7 4.3	20.4
436644 2011 QG_{25}	16.4	X	317.26362	350.06797	349.21691	11.92554	0.1140261	0.18608837	3.0384813	21	7 13.0	20.4
436645 2011 QV_{26}	16.1	X	337.89412	165.08001	186.11420	7.05415	0.2297045	0.19939265	2.9017720	21	8 23.0	18.9
436646 2011 QJ_{31}	15.9	X	275.91076	155.63097	231.37050	8.58449	0.1019038	0.18953315	3.0015523	21	7 13.9	20.3
436647 2011 QN_{76}	16.6	X	298.26025	205.60260	137.88838	1.61758	0.1823867	0.18211816	3.0824820	21	6 6.9	20.6
436648 2011 QQ_{80}	15.9	X	61.22581	266.17322	280.28403	7.86316	0.0282788	0.17480820	3.1678275	21	5 23.4	20.4
436649 2011 QX_{98}	16.9	X	5.12740	103.85608	214.49743	16.37895	0.1566507	0.19612541	2.9339102	21	8 29.7	20.5
436650 2011 RB_{9}	16.7	X	9.28873	91.01927	200.57877	10.79016	0.0505768	0.19110853	2.9850343	21	7 27.4	20.8
436651 2011 RC_{10}	16.6	X	54.37170	40.22985	286.45088	2.90090	0.2057998	0.21190420	2.7863971	21	12 9.7	20.6
436652 2011 RK_{11}	16.6	X	92.22997	9.85184	348.66220	15.15175	0.2864615	0.22639605	2.6661842	21	—	—
436653 2011 RV_{11}	15.8	X	265.36964	165.93043	192.16752	9.89617	0.0860485	0.17258488	3.1949756	21	5 30.2	20.5
436654 2011 RR_{12}	19.2	X	95.14878	182.51498	195.00424	7.08345	0.3266846	0.43021979	1.7378374	21	—	—
436655 2011 RC_{14}	17.1	X	92.32778	47.94300	188.65485	16.16772	0.1914390	0.20227768	2.8741145	21	9 27.8	21.5
436656 2011 RR_{14}	15.9	X	295.71099	323.23458	24.45925	14.47233	0.1771864	0.17965848	3.1105527	21	6 6.9	20.3
436657 2011 RG_{17}	16.8	X	340.90813	122.20437	197.44372	9.41725	0.1067483	0.18942547	3.0026898	21	7 20.7	20.6
436658 2011 RO_{18}	16.4	X	293.04109	242.28879	82.93638	1.85437	0.1476041	0.17491517	3.1665358	21	5 13.2	20.8
436659 2011 SU_{1}	16.1	X	345.69395	265.11406	334.17704	5.20338	0.0744911	0.16804810	3.2522230	21	4 15.4	20.5
436660 2011 SF_{7}	16.0	X	283.96207	98.32926	253.59371	8.33768	0.1113421	0.17781687	3.1319927	21	6 9.5	20.3
436661 2011 SX_{28}	16.1	X	273.95264	156.48362	202.93057	15.62880	0.2894267	0.17575351	3.1564582	21	5 15.9	21.2
436662 2011 SX_{32}	16.0	X	329.31663	146.79708	175.46792	10.09094	0.1443538	0.18524899	3.0476527	21	7 2.5	19.8
436663 2011 SF_{33}	16.7	X	122.62079	171.66994	173.42581	13.01853	0.1809549	0.23248559	2.6194213	21	—	—
436664 2011 SZ_{33}	16.5	X	161.04894	256.93453	216.44860	9.29465	0.1066061	0.17960442	3.1111769	21	6 27.9	21.4
436665 2011 ST_{52}	16.6	X	331.48553	130.44615	187.01437	9.78934	0.0910125	0.18136165	3.0910480	21	7 4.6	20.8
436666 2011 ST_{54}	16.4	X	324.91350	161.65167	159.97130	5.82854	0.1473675	0.17997867	3.1068625	21	6 24.4	20.3
436667 2011 SR_{60}	16.8	X	7.41538	349.45581	280.46924	1.21074	0.1733763	0.18561414	3.0436545	21	7 1.6	20.0
436668 2011 SL_{63}	15.3	X	64.48273	162.73478	229.87825	13.20888	0.2151371	0.12563485	3.9481711	21	—	—
436669 2011 SW_{66}	16.0	X	16.40065	226.19846	63.54165	18.12999	0.1487255	0.18522856	3.0478769	21	8 23.9	19.9
436670 2011 SH_{69}	16.8	X	332.95735	190.33404	145.86919	13.91346	0.2800570	0.18722164	3.0262074	21	7 13.1	19.9
436671 2011 SV_{71}	17.9	X	145.20961	190.50353	80.62024	13.42635	0.6109253	0.23165598	2.6256714	21	12 24.3	23.7
436672 2011 SQ_{80}	16.1	X	274.48698	170.52629	188.52808	10.18479	0.0771340	0.17735615	3.1374144	21	6 12.1	20.7
436673 2011 SF_{97}	15.6	X	266.68114	84.40343	283.33097	10.77420	0.0876436	0.17629869	3.1499475	21	6 11.6	20.2
436674 2011 SM_{100}	16.4	X	247.22050	155.45132	262.66270	7.11794	0.0950054	0.18725543	3.0258433	21	7 20.1	20.9
436675 2011 SL_{113}	16.0	X	265.15272	190.90402	184.93612	15.02662	0.2210510	0.17687751	3.1430718	21	6 4.1	21.1
436676 2011 SJ_{116}	16.0	X	306.43492	189.26279	166.58891	9.60020	0.1492288	0.18386802	3.0628937	21	7 9.6	20.0
436677 2011 SG_{120}	16.3	X	232.16048	240.80997	162.99327	9.78243	0.0937046	0.17550339	3.1594565	21	6 17.0	21.2
436678 2011 SU_{122}	16.2	X	318.40740	100.34087	207.35464	24.55918	0.2371137	0.17452921	3.1712025	21	5 13.4	20.3
436679 2011 SR_{126}	16.2	X	295.64918	282.07839	47.95833	5.73396	0.1377911	0.17341024	3.1848297	21	5 23.5	20.6
436680 2011 SC_{138}	16.5	X	335.42516	145.29087	189.81291	9.71148	0.1265128	0.18722564	3.0261643	21	7 31.1	20.3
436681 2011 SB_{141}	15.8	X	306.89359	234.24781	22.59641	10.32414	0.0381384	0.15350323	3.4545464	21	3 26.6	20.7
436682 2011 SM_{143}	16.4	X	288.77446	122.17569	194.78079	25.77917	0.2156373	0.17073687	3.2179886	21	4 19.2	21.1
436683 2011 SX_{144}	16.3	X	307.43774	352.45154	2.60464	6.14542	0.1319395	0.18173516	3.0868113	21	7 14.9	20.4
436684 2011 SY_{147}	16.2	X	296.42877	341.12834	6.29855	10.94654	0.1189150	0.17982146	3.1086729	21	6 18.7	20.6
436685 2011 SE_{157}	16.5	X	288.91017	157.08744	182.15505	4.15601	0.1627325	0.17625630	3.1504525	21	5 23.9	21.0
436686 2011 SL_{168}	16.6	X	341.50169	100.18327	216.29843	4.27210	0.1879356	0.18413041	3.0599831	21	7 13.2	20.0
436687 2011 SX_{180}	16.8	X	356.91012	128.26771	201.89846	5.47270	0.1743493	0.18979964	2.9987422	21	9 3.6	19.9
436688 2011 SU_{185}	16.3	X	351.82970	85.82018	211.88610	8.37862	0.1000236	0.17989808	3.1077903	21	7 9.8	20.3
436689 2011 SM_{194}	16.8	X	352.46994	86.06337	223.56397	1.12267	0.0789970	0.18803178	3.0175088	21	7 28.9	20.5
436690 2011 SL_{196}	16.8	X	18.62980	95.93535	181.73030	3.04982	0.1140698	0.18761585	3.0219668	21	7 29.4	20.4
436691 2011 SO_{198}	16.5	X	298.38725	261.19450	58.36422	2.95970	0.0997376	0.17640183	3.1487196	21	5 19.7	20.7
436692 2011 SY_{199}	16.6	X	19.03037	274.29309	24.95102	2.95257	0.0893041	0.19374353	2.9579075	21	8 28.8	20.2
436693 2011 SE_{215}	16.0	X	246.16961	207.65125	188.22735	11.74289	0.1263206	0.17097592	3.2149885	21	6 18.6	21.0
436694 2011 SR_{225}	16.0	X	326.57649	96.77020	209.72153	24.88748	0.2084051	0.17864877	3.1222622	21	5 28.9	19.9
436695 2011 ST_{247}	15.5	X	295.32305	299.01391	63.89559	27.76667	0.2710807	0.17637293	3.1490636	21	6 10.9	19.9
436696 2011 SF_{256}	16.4	X	286.19507	306.58392	43.14605	5.18920	0.1852389	0.17457639	3.1706311	21	5 29.2	20.8
436697 2011 SL_{256}	16.3	X	323.82485	130.31063	189.76512	12.12683	0.1499590	0.17687405	3.1431128	21	6 20.0	20.4
436698 2011 SX_{269}	15.8	X	307.83355	297.35155	52.84915	21.68765	0.1408937	0.17942809	3.1132149	21	7 5.9	20.1
436699 2011 SS_{274}	15.9	X	290.06180	143.83623	176.61928	27.75187	0.1778452	0.17472998	3.1687727	21	5 2.1	20.7
436700 2011 SQ_{275}	16.6	X	302.26432	169.90423	166.28752	2.90380	0.1461231	0.18179730	3.0861079	21	6 8.9	20.6
436701 2011 ST_{275}	15.5	X	289.49600	243.84757	101.44873	17.07293	0.0858882	0.17326915	3.1865584	21	6 13.6	20.0
436702 2011 TZ_{1}	15.8	X	320.02046	149.43819	210.94334	9.50859	0.3108359	0.18555607	3.0442894	21	7 12.5	19.2
436703 2011 TQ_{4}	16.0	X	312.30563	180.10518	167.66464	11.60692	0.1578839	0.18526859	3.0474378	21	7 6.7	19.9
436704 2011 TO_{10}	16.0	X	26.51034	70.52320	189.72303	26.70546	0.1268394	0.18197283	3.0841230	21	7 16.7	20.4
436705 2011 TB_{11}	15.7	X	292.93049	164.37146	181.02354	13.34648	0.0689642	0.17668974	3.1452982	21	6 19.4	20.3
436706 2011 TZ_{12}	15.8	X	332.97545	263.52093	45.92604	15.23058	0.1276523	0.17731366	3.1379156	21	6 22.5	19.8
436707 2011 TW_{15}	16.1	X	246.78852	154.06234	213.04274	11.60479	0.1545664	0.17166480	3.2063817	21	5 12.8	21.1
436708 2011 TZ_{16}	16.2	X	327.98179	261.07914	57.25367	9.78958	0.1550123	0.18091077	3.0961817	21	6 23.8	20.0
436709 2011 UT_{17}	15.9	X	329.66073	258.76169	41.27666	14.16401	0.2884461	0.17883248	3.1201235	21	5 11.7	19.3
436710 2011 UY_{19}	15.6	X	333.65679	279.66114	52.11209	26.89644	0.2211321	0.18092275	3.0960450	21	7 19.5	19.5
436711 2011 UH_{46}	16.0	X	305.52902	103.33723	253.12481	8.78222	0.1708655	0.17989121	3.1078693	21	7 5.6	19.9
436712 2011 UM_{57}	16.5	X	304.98686	220.94923	113.59846	2.59960	0.1856119	0.17575363	3.1564568	21	6 4.7	20.7
436713 2011 UU_{58}	16.5	X	278.78751	209.36957	140.29532	2.41036	0.1359556	0.17464999	3.1697402	21	5 28.2	20.9
436714 2011 UC_{72}	16.1	X	336.08704	106.44581	230.01342	9.19386	0.1880901	0.18514233	3.0488232	21	7 28.4	19.5
436715 2011 UG_{83}	16.2	X	5.38707	70.51784	249.61043	9.23514	0.2062081	0.18617091	3.0375831	21	9 5.0	19.5
436716 2011 UN_{97}	16.5	X	341.03689	59.04946	263.89517	3.02336	0.1209304	0.18247367	3.0784770	21	7 26.2	20.0
436717 2011 UV_{98}	16.2	X	288.16475	113.84620	260.10820	6.76090	0.1910620	0.17781428	3.1320232	21	7 1.1	20.5
436718 2011 UL_{101}	16.1	X	334.20345	93.56711	210.19477	9.36843	0.1917720	0.17247953	3.1962766	21	6 11.4	19.8
436719 2011 UB_{105}	16.6	X	350.58955	267.79962	24.82440	7.49793	0.1641423	0.17903886	3.1177253	21	6 30.4	20.2
436720 2011 UN_{115}	16.4	X	334.63174	101.46670	206.44515	8.18416	0.1031983	0.18054766	3.1003316	21	6 26.1	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436721 2011 UM_{124}	15.6	X	345.38519	231.07018	36.21037	16.30164	0.2011518	0.17325843	3.1866899	21	5 9.7	19.1
436722 2011 UW_{127}	16.3	X	277.91246	287.53201	82.53896	7.39916	0.0980418	0.17471933	3.1689015	21	6 27.0	20.6
436723 2011 UB_{155}	16.3	X	338.33537	176.58438	166.29597	9.95581	0.1755877	0.19060188	2.9903219	21	8 14.7	19.4
436724 2011 UW_{158}	19.9	X	320.84456	8.80131	285.98508	4.57206	0.3763923	0.47773873	1.6205997	21	2 24.3	21.9
436725 2011 UP_{169}	16.0	X	346.16023	268.32645	0.14326	14.42111	0.0943540	0.17026212	3.2239677	21	5 19.6	20.3
436726 2011 UD_{170}	15.9	X	23.23539	13.91803	260.21772	7.74902	0.0883505	0.18202591	3.0835233	21	7 28.3	19.8
436727 2011 UB_{171}	16.2	X	324.60018	79.48194	249.45355	8.26206	0.0459725	0.17978102	3.1091391	21	7 13.2	20.5
436728 2011 UC_{177}	16.1	X	220.40441	83.54575	265.14743	2.75674	0.1037392	0.15070115	3.4972366	21	3 29.4	21.5
436729 2011 UO_{178}	16.5	X	317.41440	240.82051	110.95770	4.37089	0.3132023	0.18297030	3.0729039	21	6 26.8	19.7
436730 2011 UL_{193}	15.9	X	317.57077	110.74677	219.17733	14.63604	0.1621328	0.18011064	3.1053446	21	6 20.2	19.9
436731 2011 UO_{193}	16.4	X	342.42319	269.88203	75.14875	6.17305	0.1593789	0.18962472	3.0005860	21	8 31.7	19.7
436732 2011 UV_{206}	16.2	X	333.86484	244.96436	44.41784	26.77011	0.2504369	0.17479977	3.1679292	21	5 10.8	19.7
436733 2011 UP_{271}	16.0	X	287.94378	74.88124	269.87791	5.66930	0.1821164	0.17186461	3.2038960	21	5 25.8	20.6
436734 2011 UG_{292}	16.5	X	264.82690	191.87020	188.11239	15.86771	0.0856589	0.17376610	3.1804801	21	6 24.5	21.4
436735 2011 UX_{299}	15.4	X	355.76588	64.49337	233.56120	25.62893	0.1970885	0.17483110	3.1675508	21	7 9.5	19.3
436736 2011 UA_{328}	16.2	X	336.13326	207.39102	120.03479	5.91606	0.1375477	0.18152043	3.0892452	21	7 23.2	19.8
436737 2011 UN_{355}	16.2	X	299.72983	172.91626	176.22198	7.45022	0.1466075	0.17781192	3.1320508	21	6 21.9	20.5
436738 2011 UN_{405}	16.1	X	346.16686	111.27207	193.57658	14.86118	0.0758449	0.17802839	3.1295114	21	7 10.4	20.4
436739 2011 UK_{406}	15.4	X	297.48630	223.04339	125.45456	16.51836	0.1513394	0.17640592	3.1486709	21	6 19.0	19.8
436740 2011 VN_{9}	16.3	X	4.24061	148.25426	162.13626	14.67090	0.1094178	0.18354954	3.0664356	21	8 17.8	20.0
436741 2011 VN_{12}	15.5	X	301.82033	98.52409	224.84369	14.98762	0.1399247	0.17614541	3.1517746	21	5 23.8	19.8
436742 2011 VG_{16}	15.8	X	330.17867	254.76443	45.11735	16.11002	0.2526730	0.17508069	3.1645397	21	5 18.3	19.3
436743 2011 VL_{16}	16.6	X	351.51985	277.71898	46.51163	10.53001	0.1546911	0.18419138	3.0593079	21	8 21.9	20.2
436744 2011 VD_{18}	17.5	X	156.93792	248.18064	250.92443	19.04444	0.0760457	0.37221580	1.9139893	21	7 22.9	20.2
436745 2011 WL_{18}	16.3	X	341.00517	85.24700	209.90903	15.31020	0.1328411	0.17646274	3.1479950	21	6 16.9	20.3
436746 2011 WV_{23}	15.4	X	334.57134	68.39136	243.40186	25.28763	0.2078106	0.17198530	3.2023970	21	6 18.5	19.1
436747 2011 WJ_{45}	17.5	X	332.23109	296.61481	78.62459	26.65273	0.0758407	0.38744796	1.8634903	21	11 11.4	19.3
436748 2011 WQ_{69}	17.9	X	224.13543	324.99241	103.46905	23.88065	0.0990608	0.37277379	1.9120789	21	7 8.7	19.8
436749 2011 WC_{114}	17.9	X	236.20444	353.48551	76.31807	21.72022	0.0824614	0.37735692	1.8965655	21	8 4.9	20.4
436750 2011 WG_{114}	15.7	X	323.30811	254.73366	118.45385	18.10374	0.2994607	0.18677146	3.0310682	21	8 14.3	18.6
436751 2011 WF_{116}	18.0	X	176.70841	98.59739	65.30885	23.19905	0.0155789	0.38473731	1.8722328	21	10 24.1	20.2
436752 2011 WP_{136}	13.3	X	253.36397	46.32090	76.52476	20.16748	0.0656372	0.08245808	5.2277392	21	10 19.7	20.5
436753 2011 WS_{141}	18.7	X	180.77591	92.48815	58.18810	22.50750	0.1020283	0.38212131	1.8807679	21	10 3.8	21.5
436754 2011 YU_{11}	13.4	X	261.37186	214.60304	279.46683	19.48605	0.0646051	0.08234009	5.2327321	21	10 25.8	20.6
436755 2011 YG_{13}	14.1	X	259.57752	54.40549	89.31056	11.09291	0.1221151	0.08247772	5.2269091	21	11 5.4	21.1
436756 2011 YA_{59}	14.0	X	341.90310	299.67008	118.86587	18.12426	0.0922903	0.08296285	5.2065130	21	11 18.0	20.7
436757 2011 YT_{74}	17.6	X	211.91441	25.67788	120.18179	23.98761	0.0747368	0.37735433	1.8965741	21	11 7.9	20.3
436758 2012 AD_{6}	13.6	X	340.11563	122.34195	296.21829	17.81049	0.0974039	0.08369398	5.1761465	21	11 4.8	20.2
436759 2012 BS_{62}	18.4	X	313.89087	282.69847	125.25540	20.90712	0.0132693	0.38322476	1.8771559	21	11 24.5	20.7
436760 2012 BW_{68}	13.9	X	310.38718	349.44211	114.54781	8.44257	0.0768387	0.08286569	5.2105820	21	11 24.4	20.5
436761 2012 DN	18.1	X	344.88352	247.25256	143.29813	19.95116	0.5930078	0.29492547	2.2352590	21	—	—
436762 2012 FP_{23}	18.0	X	145.09582	339.79493	213.25722	21.85889	0.0021980	0.36520989	1.9383894	21	10 1.8	20.2
436763 2012 FN_{52}	18.0	X	154.42397	350.35761	93.11401	22.62257	0.6650560	0.35418550	1.9784065	21	6 6.7	22.6
436764 2012 FB_{57}	19.4	X	87.03067	40.21125	121.60603	5.18704	0.3975932	0.34364862	2.0186436	21	7 16.7	22.0
436765 2012 FE_{81}	17.8	X	33.30996	159.17141	132.84819	24.49411	0.0510226	0.35577815	1.9724978	21	9 30.6	20.2
436766 2012 FQ_{83}	17.6	X	145.80754	101.93498	88.27757	23.12290	0.0699914	0.36593240	1.9358371	21	10 17.9	20.6
436767 2012 GW_{1}	17.8	X	341.04060	178.79599	189.04742	21.51877	0.0944011	0.36582217	1.9362260	21	11 2.2	19.4
436768 2012 HT_{2}	17.6	X	211.99813	291.69845	172.12332	23.25477	0.0743146	0.35539539	1.9739138	21	8 16.2	20.1
436769 2012 JQ_{1}	18.9	X	298.59082	92.41865	133.55699	1.81384	0.1418235	0.30637994	2.1791937	21	—	—
436770 2012 JV_{3}	18.1	X	31.60183	12.29722	125.09878	5.60286	0.0684906	0.30705586	2.1759945	21	1 12.8	20.2
436771 2012 JG_{11}	19.1	X	305.70323	280.40832	165.54453	24.72619	0.4324623	1.04437369	0.9621263	21	—	—
436772 2012 JK_{32}	18.0	X	281.49874	137.53811	135.38477	4.98814	0.1614100	0.30774936	2.1727242	21	2 3.2	21.1
436773 2012 JS_{64}	18.4	X	232.28246	157.32569	123.49029	1.48206	0.2204390	0.29265879	2.2467858	21	—	—
436774 2012 KY_{3}	18.4	X	293.82501	87.31827	21.52508	21.39321	0.4863447	0.72069868	1.2320648	21	—	—
436775 2012 LC_{1}	16.5	X	79.72223	52.45011	53.73913	34.39255	0.7642893	0.34590119	2.0098702	21	6 2.3	20.0
436776 2012 MK	19.4	X	338.43985	98.07065	167.41438	3.71872	0.2911647	0.31992131	2.1172588	21	3 16.7	21.3
436777 2012 MQ_{2}	18.0	X	189.74574	302.31488	11.73339	4.55297	0.2882856	0.28036624	2.3119880	21	1 12.1	22.0
436778 2012 MZ_{3}	18.1	X	203.69534	113.55798	194.25139	7.13866	0.2611706	0.28273336	2.2990655	21	1 11.3	22.2
436779 2012 MY_{5}	18.1	X	271.89925	186.78355	133.19873	2.77225	0.2256549	0.30745750	2.1740990	21	3 21.9	21.2
436780 2012 OT	18.1	X	283.46096	134.00763	154.37428	3.06834	0.1812626	0.30261658	2.1972235	21	2 24.3	21.3
436781 2012 OZ_{3}	17.7	X	113.01519	226.50614	182.17881	6.16568	0.1025126	0.28048612	2.3113292	21	1 27.5	20.4
436782 2012 PU_{2}	17.9	X	209.41982	345.90260	293.26162	3.18197	0.0967915	0.27066280	2.3669205	21	—	—
436783 2012 PY_{4}	18.1	X	195.76848	1.22268	287.48971	4.53707	0.1754416	0.27410936	2.3470381	21	—	—
436784 2012 PE_{10}	18.0	X	160.83248	126.63221	170.95316	5.10890	0.1530924	0.26200186	2.4187991	21	—	—
436785 2012 PT_{10}	18.0	X	190.12652	35.78947	270.64840	2.04656	0.1860252	0.27383947	2.3485799	21	—	—
436786 2012 PX_{14}	17.4	X	98.40550	60.04240	236.58530	2.88599	0.0905783	0.24160862	2.5530605	21	12 12.5	20.9
436787 2012 PM_{17}	17.5	X	130.02349	278.83192	88.99128	8.61700	0.1931951	0.27255751	2.3559385	21	1 13.5	20.5
436788 2012 PS_{20}	17.5	X	310.25731	220.00227	174.12970	4.52921	0.1175369	0.21933850	2.7230742	21	9 14.3	20.4
436789 2012 PH_{30}	16.5	X	29.83913	171.96771	149.87640	13.93270	0.2948602	0.22980940	2.6397179	21	11 23.4	20.0
436790 2012 PN_{30}	17.5	X	172.00354	89.98618	248.66885	3.56198	0.2607125	0.27795728	2.3253269	21	1 24.6	21.4
436791 2012 PS_{32}	17.5	X	189.98321	287.12408	73.04252	2.94707	0.2306860	0.28542446	2.2845917	21	3 6.2	21.3
436792 2012 PM_{37}	17.5	X	123.06179	237.97333	97.44796	2.55004	0.1960864	0.25909766	2.4368403	21	—	—
436793 2012 PS_{41}	17.7	X	110.62689	204.10402	179.50467	6.55789	0.0966689	0.27028773	2.3691097	21	—	—
436794 2012 QY_{10}	16.8	X	41.39521	288.47323	85.77244	12.69367	0.0976274	0.23645574	2.5900182	21	—	—
436795 2012 QW_{13}	16.9	X	22.59257	297.76994	106.39337	12.98248	0.1775626	0.23724188	2.5842934	21	—	—
436796 2012 QF_{14}	16.8	X	353.37138	278.73519	127.68942	13.49794	0.1636340	0.22865353	2.6486065	21	12 23.8	19.7
436797 2012 QG_{16}	18.2	X	198.53176	58.22840	209.06593	2.29857	0.1870146	0.26660898	2.3908530	21	—	—
436798 2012 QL_{16}	19.1	X	238.56642	76.43846	216.93810	1.48853	0.2464595	0.28707410	2.2758312	21	1 20.0	22.9
436799 2012 QW_{23}	17.9	X	241.84085	77.74810	198.05286	5.03013	0.1586413	0.28056881	2.3108750	21	1 3.6	21.6
436800 2012 QS_{27}	17.3	X	14.81680	33.90695	328.66829	3.16229	0.1119633	0.23030777	2.6359085	21	11 21.5	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436801 2012 QW_{33}	17.4	X	128.08329	121.19834	218.08561	4.11344	0.1982908	0.26019129	2.4300071	21	—	—
436802 2012 QA_{35}	18.4	X	265.89067	27.57747	253.52084	3.10971	0.2823445	0.29321171	2.2439603	21	1 23.3	22.3
436803 2012 QE_{37}	16.6	X	241.52735	298.00679	209.61386	13.80329	0.1122867	0.23263180	2.6183236	21	11 9.1	20.2
436804 2012 QZ_{37}	17.5	X	150.53462	348.62911	348.15749	10.38644	0.1756947	0.26628082	2.3928169	21	—	—
436805 2012 QM_{40}	17.9	X	245.41693	43.89476	259.96739	1.79901	0.2232768	0.29225031	2.2488789	21	2 6.7	21.5
436806 2012 QK_{51}	18.0	X	198.03237	202.76604	98.93083	2.10962	0.1947982	0.27383700	2.3485941	21	—	—
436807 2012 RR_{2}	17.5	X	124.58399	328.67322	359.49523	2.02345	0.2149074	0.25763131	2.4460779	21	—	—
436808 2012 RB_{4}	17.4	X	124.67771	190.54569	151.98728	3.61120	0.1945437	0.26032830	2.4291545	21	—	—
436809 2012 RF_{7}	17.7	X	153.96658	9.41928	353.31663	2.53966	0.1917307	0.27206506	2.3587805	21	2 3.1	21.1
436810 2012 RT_{7}	17.3	X	187.96972	7.38415	315.28979	5.59374	0.2433825	0.27558218	2.3386683	21	1 18.9	21.1
436811 2012 RJ_{8}	15.9	X	285.31603	134.38045	228.01403	14.12446	0.1585998	0.20458708	2.8524447	21	6 16.4	19.9
436812 2012 RL_{14}	17.6	X	227.30861	76.51560	232.87096	5.09602	0.2063677	0.28362890	2.2942235	21	1 29.9	21.4
436813 2012 RU_{15}	17.1	X	221.71683	55.96824	230.45892	8.33245	0.2293714	0.27687595	2.3313773	21	—	—
436814 2012 RL_{16}	17.1	X	331.55128	127.82011	272.44331	3.35148	0.0205549	0.23421451	2.6065147	21	11 1.4	20.6
436815 2012 RZ_{23}	16.9	X	53.54498	190.84578	179.38562	14.38419	0.1431408	0.23878523	2.5731459	21	—	—
436816 2012 RD_{24}	16.1	X	206.11092	251.42627	175.82634	10.73370	0.0947328	0.18772512	3.0207941	21	6 17.9	20.9
436817 2012 RK_{24}	16.7	X	326.22716	351.48773	26.49791	6.61984	0.0550679	0.21400684	2.7681160	21	9 24.3	20.1
436818 2012 RK_{26}	17.7	X	124.09177	185.37429	134.05240	2.38503	0.1937927	0.25623293	2.4549694	21	—	—
436819 2012 RS_{26}	17.9	X	157.79784	297.28537	22.45304	5.13812	0.2462106	0.26739149	2.3861862	21	—	—
436820 2012 RL_{27}	16.7	X	93.43748	17.14545	286.40930	11.17323	0.1880058	0.24347107	2.5400239	21	12 23.9	20.7
436821 2012 RO_{27}	17.6	X	170.12065	170.71326	150.52697	3.04253	0.2045502	0.26948816	2.3737934	21	—	—
436822 2012 RX_{27}	18.2	X	296.03437	296.65099	0.33343	4.97768	0.1843468	0.30329884	2.1939272	21	3 21.6	20.9
436823 2012 RB_{29}	17.8	X	158.51525	308.59902	20.61520	5.66595	0.2112876	0.26906041	2.3763086	21	—	—
436824 2012 RO_{33}	17.5	X	211.50775	356.67827	286.90221	5.56170	0.0998228	0.27120206	2.3637818	21	—	—
436825 2012 RM_{34}	16.0	X	128.93704	104.23043	1.09153	10.02911	0.0621018	0.17853060	3.1236397	21	5 7.9	20.6
436826 2012 RX_{35}	17.1	X	21.78571	111.92523	204.76302	3.83608	0.0498758	0.21446411	2.7641799	21	9 21.4	20.7
436827 2012 RB_{36}	16.9	X	109.79692	325.89352	36.60465	6.85318	0.1587589	0.25928492	2.4356668	21	—	—
436828 2012 RZ_{36}	18.0	X	126.15518	220.81679	152.38270	3.75239	0.2483363	0.26560417	2.3968791	21	1 24.2	21.2
436829 2012 SX_{3}	17.1	X	353.55077	186.62700	163.80415	5.24710	0.1011950	0.21637912	2.7478466	21	9 29.5	20.2
436830 2012 SZ_{4}	17.1	X	350.08132	230.30509	188.83333	8.70187	0.1531056	0.23376933	2.6098228	21	—	—
436831 2012 SK_{7}	16.4	X	323.22292	294.32831	349.50291	8.46125	0.0648008	0.19081918	2.9880512	21	5 8.5	20.4
436832 2012 SM_{7}	16.9	X	339.70633	247.44904	131.44549	7.08499	0.1018476	0.22374288	2.6872201	21	10 19.1	20.0
436833 2012 SH_{9}	16.2	X	348.06083	16.10500	15.06413	13.80369	0.1034548	0.22511095	2.6763216	21	11 11.7	19.5
436834 2012 SJ_{9}	16.6	X	339.41635	6.42908	18.95117	10.93678	0.1924173	0.21815118	2.7329457	21	10 22.9	19.2
436835 2012 SD_{10}	16.5	X	34.97868	162.74488	204.58119	32.33355	0.1538327	0.23239001	2.6201395	21	12 28.7	20.7
436836 2012 SZ_{11}	18.0	X	155.18755	323.40708	354.33748	1.38916	0.1899876	0.26228430	2.4170623	21	—	—
436837 2012 SL_{12}	16.6	X	195.72760	292.53478	186.71700	15.84873	0.1827601	0.19995811	2.8962988	21	8 4.6	21.6
436838 2012 SO_{12}	17.7	X	143.76276	164.72060	163.07955	2.87651	0.1917732	0.26064773	2.4271694	21	—	—
436839 2012 SW_{12}	16.6	X	320.16798	348.23203	14.99667	9.10619	0.1589625	0.21089476	2.7952814	21	8 17.3	19.8
436840 2012 SA_{13}	17.0	X	3.77569	158.90370	167.24189	4.21526	0.0597396	0.21354648	2.7720928	21	9 8.9	20.4
436841 2012 SF_{16}	16.9	X	318.51260	135.39420	249.67107	5.89236	0.0418919	0.21375570	2.7702837	21	9 18.1	20.6
436842 2012 SX_{16}	16.2	X	121.76118	92.64781	6.37913	20.22031	0.1008851	0.17125742	3.2114644	21	4 23.5	21.2
436843 2012 SQ_{18}	16.8	X	342.90209	30.94390	349.29383	5.82096	0.0514455	0.21879527	2.7275796	21	10 18.9	20.3
436844 2012 SC_{19}	16.4	X	40.09557	39.93991	237.90054	5.01247	0.0337453	0.20475118	2.8509205	21	8 22.1	20.3
436845 2012 SF_{19}	16.9	X	295.25204	193.69403	245.55550	3.92321	0.0916322	0.21923111	2.7239634	21	10 24.2	20.1
436846 2012 SA_{21}	16.6	X	3.52358	206.48402	167.61629	12.78645	0.1340510	0.22675473	2.6633719	21	11 24.8	19.9
436847 2012 SS_{23}	17.1	X	353.38001	133.88492	193.37236	6.02162	0.0389613	0.21059409	2.7979412	21	8 23.1	20.8
436848 2012 SH_{26}	17.0	X	353.88364	4.25611	355.64594	6.69017	0.0334048	0.21959798	2.7209286	21	10 7.9	20.5
436849 2012 SJ_{26}	17.2	X	40.46548	173.98544	190.16194	11.58229	0.0927801	0.23542778	2.5975520	21	12 27.9	20.9
436850 2012 SZ_{26}	17.5	X	166.85300	136.27173	183.01184	3.02781	0.1399881	0.26606692	2.3940991	21	—	—
436851 2012 SU_{27}	16.4	X	158.21467	355.14833	195.07352	9.51212	0.0855228	0.21766491	2.7370145	21	9 30.8	20.6
436852 2012 SC_{33}	17.4	X	179.53915	35.37402	250.76100	4.94634	0.1400524	0.26472666	2.4021729	21	—	—
436853 2012 SA_{36}	17.9	X	46.50480	325.84517	0.34688	2.46587	0.1079956	0.23010900	2.6374262	21	11 18.3	21.4
436854 2012 SH_{48}	16.6	X	9.49699	169.79243	176.92601	12.09222	0.0864419	0.22294343	2.6936403	21	10 21.7	19.9
436855 2012 SF_{49}	17.1	X	259.29239	354.37764	66.98633	1.24298	0.0549358	0.20849681	2.8166730	21	8 16.7	20.8
436856 2012 SW_{50}	17.4	X	62.13857	147.66596	209.58198	14.35199	0.1346257	0.24373625	2.5381812	21	—	—
436857 2012 SB_{51}	17.1	X	93.58772	335.79146	345.41982	5.78135	0.2056022	0.24263394	2.5458630	21	—	—
436858 2012 SC_{51}	16.3	X	320.02577	168.97564	205.87082	12.77266	0.1890216	0.21202032	2.7853796	21	8 21.5	19.6
436859 2012 SR_{58}	17.5	X	115.00843	251.06356	89.93319	3.10010	0.2349246	0.25702827	2.4499024	21	—	—
436860 2012 SB_{59}	18.7	X	215.67262	62.93794	238.04819	1.19771	0.2340842	0.28024349	2.3126630	21	1 12.9	22.6
436861 2012 SE_{59}	17.7	X	132.00727	248.95623	108.65024	2.22587	0.1976723	0.26390463	2.4071586	21	1 4.7	20.8
436862 2012 SA_{60}	16.4	X	306.38537	174.91791	220.39163	13.85689	0.1230440	0.21210136	2.7846701	21	9 2.5	20.1
436863 2012 SK_{60}	18.0	X	198.88284	119.90948	175.23685	4.78387	0.2195843	0.27280154	2.3545333	21	—	—
436864 2012 SX_{63}	16.4	X	304.00090	337.99084	31.88909	11.65814	0.0860812	0.20842353	2.8173332	21	8 10.1	20.2
436865 2012 TL_{6}	17.7	X	191.21150	205.79443	110.94258	2.33230	0.1967704	0.27281482	2.3544569	21	1 11.8	21.4
436866 2012 TZ_{10}	16.3	X	246.72293	158.87691	213.91983	9.88893	0.1142290	0.18549138	3.0449972	21	5 22.9	20.9
436867 2012 TU_{11}	16.9	X	91.17427	105.95159	207.15977	8.40850	0.1382304	0.23441773	2.6050081	21	12 27.1	21.0
436868 2012 TX_{13}	16.9	X	340.38099	193.41943	221.50743	12.95050	0.1532684	0.22640885	2.6660838	21	12 8.9	19.7
436869 2012 TJ_{14}	17.5	X	250.64663	244.89206	66.37176	8.55752	0.2935123	0.29062493	2.2572559	21	2 21.7	21.6
436870 2012 TZ_{15}	16.9	X	173.17970	93.96439	36.29487	2.55939	0.0040333	0.20332866	2.8642020	21	8 2.3	20.9
436871 2012 TF_{18}	17.7	X	135.84422	132.04777	197.43811	1.91994	0.2052603	0.25737563	2.4476976	21	—	—
436872 2012 TP_{19}	17.9	X	193.00411	207.85244	103.83504	2.09666	0.2221483	0.27257466	2.3558397	21	1 8.6	21.6
436873 2012 TQ_{21}	17.2	X	346.11516	158.52358	216.02501	3.51307	0.1272526	0.21966857	2.7203457	21	10 20.5	20.2
436874 2012 TL_{22}	16.8	X	9.38210	177.25442	202.28423	12.38773	0.1793077	0.22777918	2.6553801	21	12 15.6	20.0
436875 2012 TA_{23}	16.6	X	30.53238	147.76588	202.81541	13.48953	0.0386719	0.22838130	2.6507108	21	11 20.1	20.2
436876 2012 TH_{23}	16.8	X	211.97195	319.40830	223.76532	6.75656	0.0307263	0.23096054	2.6309395	21	11 28.4	20.4
436877 2012 TK_{23}	17.1	X	169.74795	51.98542	254.02166	4.07238	0.1083188	0.26043593	2.4284851	21	—	—
436878 2012 TP_{24}	16.8	X	112.72082	79.78596	215.32542	13.24679	0.2220399	0.24440625	2.5335405	21	12 29.9	21.3
436879 2012 TC_{25}	17.0	X	340.06929	163.56414	204.57985	12.21759	0.1476139	0.21764810	2.7371555	21	9 28.2	19.9
436880 2012 TM_{26}	17.7	X	142.87438	350.54576	2.61797	2.17992	0.2361993	0.26516732	2.3995108	21	1 16.7	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436881 2012 TZ_{26}	16.7	X	280.46142	25.15206	35.88229	6.44526	0.0593567	0.21076566	2.7964227	21	9 15.6	20.4
436882 2012 TP_{28}	17.3	X	350.89278	323.19582	20.52888	6.58688	0.0580981	0.21422382	2.7662465	21	9 15.4	20.6
436883 2012 TT_{28}	17.1	X	7.42125	134.82683	191.40842	4.55210	0.1236838	0.21446827	2.7641441	21	9 19.2	20.2
436884 2012 TG_{30}	17.0	X	245.71481	267.75706	185.17735	5.92476	0.0204229	0.21263208	2.7800345	21	9 13.7	20.6
436885 2012 TL_{30}	17.4	X	73.00024	147.62019	191.41508	13.93397	0.1941823	0.24051173	2.5608170	21	—	—
436886 2012 TQ_{30}	18.1	X	186.51143	156.81477	141.01429	1.89339	0.1832210	0.26552912	2.3973307	21	—	—
436887 2012 TS_{30}	17.0	X	20.05255	162.99160	178.29884	3.94637	0.1319520	0.22340949	2.6898928	21	11 4.4	20.1
436888 2012 TO_{33}	16.0	X	236.97157	158.53369	195.39995	10.43898	0.0672484	0.17857162	3.1231614	21	4 24.1	20.7
436889 2012 TC_{34}	16.6	X	350.59553	356.49529	42.39969	6.61278	0.1348904	0.22680038	2.6630145	21	12 3.0	19.4
436890 2012 TX_{34}	15.7	X	176.73687	72.05711	15.56545	21.47993	0.1639773	0.18392166	3.0622981	21	6 9.4	21.1
436891 2012 TT_{40}	16.1	X	48.28055	258.94566	5.00639	21.99576	0.2461763	0.21389761	2.7690583	21	9 22.2	19.6
436892 2012 TQ_{41}	16.4	X	271.31162	107.26661	280.96956	5.38266	0.0755393	0.20108278	2.8854893	21	7 15.3	20.2
436893 2012 TG_{50}	16.9	X	281.51313	1.27069	352.39367	1.27516	0.0853408	0.19457316	2.9494934	21	6 11.8	21.0
436894 2012 TV_{50}	17.5	X	33.80054	126.26437	213.60579	0.81964	0.1328503	0.22683759	2.6627232	21	11 22.8	20.6
436895 2012 TO_{51}	17.0	X	307.93096	171.79769	200.19462	6.14216	0.0556755	0.20692817	2.8308898	21	8 15.1	20.7
436896 2012 TQ_{53}	16.9	X	336.19051	0.81781	30.18908	5.91708	0.0866960	0.21939681	2.7225916	21	10 25.5	19.9
436897 2012 TZ_{54}	17.2	X	67.30669	57.47722	302.95593	3.79170	0.1970039	0.23950388	2.5679960	21	—	—
436898 2012 TW_{55}	16.4	X	173.57583	14.04592	34.39673	5.77246	0.1126481	0.17324437	3.1868623	21	4 23.4	21.4
436899 2012 TN_{64}	17.6	X	68.24993	339.14948	318.78362	5.54110	0.1022664	0.22666796	2.6640515	21	11 6.6	21.4
436900 2012 TW_{67}	17.1	X	1.89679	136.55173	211.81375	2.72456	0.2094093	0.21695111	2.7430147	21	10 20.1	19.7
436901 2012 TB_{68}	17.6	X	210.15495	248.94483	42.38473	5.53920	0.2302681	0.26761530	2.3848556	21	—	—
436902 2012 TD_{69}	16.0	X	145.85053	55.68355	37.11945	11.59887	0.1140351	0.17352424	3.1834347	21	5 17.9	20.9
436903 2012 TP_{70}	16.2	X	189.96516	43.55538	337.38819	15.51778	0.2342570	0.17245627	3.1965639	21	4 1.5	21.9
436904 2012 TQ_{71}	16.7	X	358.81783	92.69535	244.07431	5.67182	0.0973502	0.21376327	2.7702183	21	9 14.7	20.0
436905 2012 TS_{71}	16.9	X	358.52227	125.22513	224.15930	5.84534	0.0530311	0.21637459	2.7478850	21	9 30.8	20.4
436906 2012 TG_{74}	17.1	X	339.31988	23.68109	315.51614	2.78457	0.1023721	0.21008284	2.8024787	21	8 17.9	20.2
436907 2012 TG_{77}	16.2	X	183.51297	195.75392	232.84028	15.92639	0.1003875	0.17495250	3.1660853	21	5 27.4	21.1
436908 2012 TA_{80}	18.4	X	176.35711	141.46440	163.10125	1.72301	0.1775782	0.26494729	2.4008392	21	—	—
436909 2012 TD_{81}	16.5	X	164.19857	72.53629	23.40418	10.37750	0.1306948	0.18605643	3.0388290	21	6 9.7	21.5
436910 2012 TA_{82}	15.7	X	159.08345	246.12687	188.69407	15.83408	0.0857940	0.17963858	3.1107824	21	5 11.1	20.6
436911 2012 TP_{82}	16.5	X	355.26607	358.47998	8.25740	6.50479	0.0269227	0.21940987	2.7224836	21	10 18.8	20.0
436912 2012 TC_{87}	17.8	X	146.93114	344.43095	358.05105	1.83513	0.2513381	0.26423973	2.4051231	21	1 9.2	21.2
436913 2012 TD_{88}	17.0	X	243.69224	192.84595	228.45931	1.11718	0.0582809	0.19949538	2.9007758	21	7 25.9	21.0
436914 2012 TA_{90}	17.1	X	346.88716	277.62002	119.96637	4.03473	0.1235105	0.22752208	2.6573801	21	11 25.8	19.9
436915 2012 TR_{93}	17.4	X	147.04467	271.57124	43.82739	5.08626	0.1364084	0.25664695	2.4523285	21	—	—
436916 2012 TY_{95}	15.9	X	281.04626	290.78661	17.28965	11.13720	0.0694553	0.17847983	3.1242321	21	4 16.1	20.2
436917 2012 TG_{96}	16.7	X	184.14380	232.82849	14.32547	6.83120	0.1914806	0.24414107	2.5353747	21	—	—
436918 2012 TH_{96}	16.6	X	75.33344	39.49979	222.75904	5.93732	0.0722578	0.21195556	2.7859469	21	9 24.8	20.4
436919 2012 TE_{97}	16.5	X	292.53603	243.66455	209.13209	21.31214	0.0502376	0.22404595	2.6847962	21	11 14.5	20.0
436920 2012 TZ_{97}	18.0	X	170.77663	92.19095	220.93168	2.35369	0.1939575	0.26272563	2.4143548	21	—	—
436921 2012 TX_{99}	16.9	X	79.77640	36.41851	286.25352	3.06798	0.2122913	0.23705059	2.5856835	21	—	—
436922 2012 TR_{100}	18.1	X	187.59812	162.37256	122.12149	1.78386	0.1773746	0.26270668	2.4144709	21	—	—
436923 2012 TA_{101}	16.6	X	10.97865	332.14665	8.58057	14.15504	0.1675882	0.21828628	2.7318180	21	10 18.8	19.6
436924 2012 TW_{102}	18.9	X	228.90527	93.65085	212.31155	6.88088	0.2779164	0.28322027	2.2964297	21	1 26.5	23.0
436925 2012 TA_{104}	16.3	X	152.81121	229.97403	220.41863	8.88095	0.0731387	0.18060035	3.0997285	21	5 21.1	20.9
436926 2012 TM_{105}	16.1	X	241.75913	12.56829	13.54329	15.39856	0.0614409	0.19035081	2.9929507	21	6 4.7	20.8
436927 2012 TV_{108}	16.7	X	285.35164	154.06573	270.70974	5.49970	0.0875173	0.21412869	2.7670657	21	9 17.7	20.4
436928 2012 TE_{111}	16.2	X	289.46227	324.20233	354.00206	11.05912	0.1505015	0.18864841	3.0109297	21	4 23.8	20.6
436929 2012 TT_{112}	17.0	X	64.89381	287.61607	328.47831	4.21661	0.0640008	0.20891493	2.8129136	21	9 2.9	20.9
436930 2012 TE_{116}	16.0	X	86.13573	254.11136	237.72582	9.20477	0.0892310	0.17117098	3.2125456	21	4 25.3	20.6
436931 2012 TG_{116}	16.6	X	107.46743	27.64724	227.51804	11.09027	0.0703327	0.22189195	2.7021432	21	10 26.1	20.5
436932 2012 TJ_{120}	17.3	X	12.11738	34.46095	317.19620	4.47370	0.0582692	0.22132283	2.7067735	21	10 24.6	20.7
436933 2012 TC_{125}	17.1	X	84.80289	125.55523	197.36619	13.33746	0.2653308	0.23923727	2.5699036	21	—	—
436934 2012 TF_{125}	17.2	X	153.69524	266.28089	80.34875	3.76577	0.1877803	0.26483956	2.4014901	21	1 14.1	20.7
436935 2012 TO_{125}	16.8	X	102.78530	295.96614	68.39860	5.42429	0.1267009	0.25592515	2.4569373	21	—	—
436936 2012 TB_{127}	16.6	X	282.76187	259.63068	62.70337	3.62016	0.0924079	0.18864695	3.0109453	21	5 3.8	20.9
436937 2012 TE_{130}	17.0	X	336.35232	161.40462	213.30344	15.59948	0.1403625	0.21716130	2.7412445	21	9 29.4	20.1
436938 2012 TK_{131}	15.8	X	193.58007	29.73504	31.04566	18.12242	0.1219476	0.18335098	3.0686490	21	5 23.0	20.9
436939 2012 TS_{131}	16.2	X	29.75952	59.99414	261.99008	6.64037	0.1995925	0.21622923	2.7491163	21	10 30.7	19.6
436940 2012 TU_{131}	16.1	X	71.57333	64.72592	240.41470	9.85233	0.1265217	0.22259110	2.6964820	21	11 24.3	19.8
436941 2012 TE_{133}	16.4	X	188.14600	246.20214	175.71980	11.28932	0.1317633	0.18548320	3.0450867	21	5 25.2	21.5
436942 2012 TO_{133}	17.0	X	333.66733	245.64978	160.04770	7.31815	0.1071237	0.22590408	2.6700537	21	11 14.3	20.0
436943 2012 TX_{135}	17.3	X	284.38653	318.82505	95.72729	4.88037	0.0931930	0.21192693	2.7861979	21	9 7.1	20.9
436944 2012 TZ_{135}	16.5	X	52.06697	251.81048	31.66335	16.54138	0.2020364	0.22085638	2.7105832	21	10 16.7	20.0
436945 2012 TE_{138}	17.3	X	124.80669	287.91603	18.26840	3.46587	0.1306433	0.24741993	2.5129254	21	—	—
436946 2012 TO_{138}	17.2	X	58.69198	322.94758	7.10685	6.10376	0.0975350	0.23109166	2.6299442	21	12 6.9	20.9
436947 2012 TK_{140}	17.5	X	233.50735	246.06045	66.22025	25.04377	0.2988863	0.28472594	2.2883267	21	2 16.9	22.2
436948 2012 TO_{142}	17.0	X	83.58894	229.70746	110.51193	7.18114	0.2127786	0.24306484	2.5428532	21	—	—
436949 2012 TE_{147}	17.2	X	169.71394	306.24257	12.79743	5.06120	0.2504228	0.26567558	2.3964496	21	1 1.4	21.1
436950 2012 TW_{148}	16.9	X	350.35673	18.05125	349.77013	4.47090	0.1270435	0.21973979	2.7197579	21	10 17.4	19.8
436951 2012 TO_{149}	16.4	X	219.80393	5.33749	26.34017	12.15035	0.1202077	0.18116788	3.0932517	21	5 14.8	21.4
436952 2012 TT_{149}	16.9	X	214.52681	147.36648	263.87374	1.42283	0.1246381	0.18435470	3.0575007	21	6 4.8	21.8
436953 2012 TW_{151}	17.5	X	120.04709	112.65061	191.03815	3.25989	0.1430842	0.24017449	2.5632136	21	—	—
436954 2012 TC_{152}	17.2	X	6.06541	133.79372	194.73829	3.24211	0.0972802	0.20996365	2.8035392	21	9 17.4	20.5
436955 2012 TD_{152}	17.1	X	17.26032	131.33388	200.30754	5.79519	0.0285068	0.21224295	2.7834315	21	10 2.9	20.9
436956 2012 TS_{153}	16.3	X	130.32163	52.67119	25.70664	8.88022	0.0747695	0.17167691	3.2062309	21	4 11.9	21.0
436957 2012 TC_{155}	17.0	X	68.28549	255.17119	20.88294	14.43747	0.0621639	0.21801068	2.7341198	21	10 6.4	20.6
436958 2012 TE_{157}	16.4	X	335.83114	223.15195	12.84314	9.37016	0.0314779	0.17497856	3.1657710	21	4 2.9	20.7
436959 2012 TE_{158}	17.0	X	22.22425	180.85274	181.39677	5.96785	0.1165544	0.22850604	2.6497461	21	12 4.2	20.3
436960 2012 TQ_{158}	16.4	X	136.85495	76.52660	32.34029	10.19204	0.0628165	0.18154523	3.0889638	21	5 22.9	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
436961 2012 TB_{159}	16.2	X	180.72983	225.20145	184.11937	12.81185	0.1682204	0.17671405	3.1450097	21	5 4.3	21.5
436962 2012 TX_{161}	17.2	X	315.75661	285.60168	45.02028	2.33555	0.0583557	0.19763394	2.9189615	21	7 3.2	21.1
436963 2012 TL_{168}	16.9	X	228.66459	204.09065	64.96031	9.87915	0.0686606	0.26136624	2.4227191	21	—	—
436964 2012 TK_{169}	16.2	X	345.35096	258.42900	117.57437	6.15818	0.0673020	0.21631769	2.7483668	21	10 22.1	19.6
436965 2012 TU_{170}	16.9	X	193.87642	286.68694	199.10720	9.42761	0.0307423	0.20395954	2.8582927	21	8 18.1	21.1
436966 2012 TR_{172}	17.1	X	19.13965	328.24015	346.45373	3.47668	0.0600961	0.21295270	2.7772434	21	9 16.4	20.5
436967 2012 TT_{173}	16.5	X	172.96474	37.57606	356.07709	7.68475	0.0487495	0.17161057	3.2070571	21	4 1.2	21.3
436968 2012 TY_{173}	17.2	X	75.88399	85.37643	239.71962	4.26735	0.1111924	0.23619601	2.5919165	21	12 24.1	20.8
436969 2012 TW_{174}	16.6	X	98.42171	272.12273	212.78194	7.39009	0.0818783	0.17454365	3.1710276	21	5 2.4	21.0
436970 2012 TZ_{174}	16.5	X	121.61531	187.76051	32.26362	6.73260	0.0092428	0.21358284	2.7717782	21	9 24.6	20.2
436971 2012 TH_{175}	16.8	X	266.37957	187.36541	185.63490	1.75247	0.1022484	0.19713030	2.9239311	21	6 15.4	20.8
436972 2012 TC_{176}	18.1	X	176.29471	82.99024	214.85706	1.63940	0.1762470	0.26305758	2.4123233	21	—	—
436973 2012 TN_{179}	17.7	X	185.93742	335.60933	295.54310	5.12566	0.1891563	0.25736627	2.4477570	21	—	—
436974 2012 TU_{184}	16.1	X	94.30892	286.95568	231.99502	9.23773	0.0862915	0.18524792	3.0476645	21	6 9.3	20.4
436975 2012 TV_{186}	16.2	X	202.50385	174.96938	237.17674	8.38350	0.0849610	0.17718495	3.1394350	21	5 26.8	20.8
436976 2012 TH_{189}	16.6	X	176.05769	281.50478	161.30066	1.44235	0.1641792	0.18121435	3.0927228	21	6 7.2	21.6
436977 2012 TM_{189}	17.4	X	66.56723	261.98487	34.44362	7.00649	0.3092468	0.22991761	2.6388896	21	11 29.3	21.6
436978 2012 TO_{194}	17.5	X	213.85056	138.18332	187.77911	4.10827	0.2514725	0.27963525	2.3160154	21	2 9.7	21.5
436979 2012 TW_{196}	16.3	X	218.91957	355.43172	30.21611	9.72581	0.0917395	0.17725265	3.1386355	21	5 9.4	21.1
436980 2012 TH_{198}	16.8	X	81.88854	327.53385	295.23634	3.25137	0.0523211	0.21528829	2.7571207	21	10 1.4	20.7
436981 2012 TN_{199}	16.3	X	142.49390	68.43324	26.03881	10.15166	0.1089252	0.18155300	3.0888757	21	5 15.3	21.1
436982 2012 TO_{199}	17.9	X	168.36050	197.51668	115.52917	2.44646	0.1817807	0.26610271	2.3938844	21	—	—
436983 2012 TH_{202}	17.8	X	205.53940	244.69367	44.08132	3.30736	0.1628007	0.26922810	2.3753218	21	—	—
436984 2012 TW_{202}	16.6	X	123.90504	28.69341	178.31474	9.61733	0.1343176	0.21400737	2.7681114	21	9 18.7	20.9
436985 2012 TP_{206}	16.0	X	151.98980	71.37833	359.47888	11.55633	0.0429794	0.17163794	3.2067162	21	4 20.2	20.8
436986 2012 TZ_{207}	16.6	X	230.55974	173.55720	284.75296	5.12777	0.0193388	0.20426568	2.8554361	21	8 30.1	20.6
436987 2012 TH_{208}	16.2	X	135.34630	114.51677	10.48958	12.87498	0.0795032	0.18161342	3.0881905	21	6 12.5	21.0
436988 2012 TJ_{208}	17.0	X	16.92504	77.84745	272.15420	5.26917	0.0365054	0.21923873	2.7239002	21	10 26.8	20.6
436989 2012 TW_{211}	17.9	X	135.24284	357.03945	355.14021	4.84881	0.2540048	0.26271700	2.4144077	21	1 10.4	21.2
436990 2012 TH_{214}	16.5	X	42.94346	295.88160	11.70234	16.81410	0.1492661	0.21894316	2.7263512	21	10 21.6	20.1
436991 2012 TQ_{214}	16.3	X	278.16129	332.11240	20.76332	16.07905	0.0425668	0.18951567	3.0017370	21	6 10.3	20.8
436992 2012 TW_{215}	17.9	X	146.59971	273.40011	83.81463	2.89902	0.2160243	0.26523864	2.3990807	21	1 23.2	21.4
436993 2012 TG_{216}	16.5	X	334.00444	98.31233	257.50759	5.04415	0.0790823	0.21119143	2.7926629	21	8 30.8	20.0
436994 2012 TB_{217}	17.1	X	293.03581	193.06325	202.67829	6.34471	0.0523602	0.21384021	2.7695538	21	8 26.6	20.7
436995 2012 TP_{217}	17.8	X	224.01373	172.78061	119.69099	3.42347	0.1894556	0.27691760	2.3311435	21	1 9.3	21.5
436996 2012 TV_{217}	17.5	X	78.65095	250.19053	60.62009	6.55028	0.1252980	0.23456967	2.6038831	21	12 10.5	21.3
436997 2012 TL_{219}	17.6	X	246.83894	148.67595	179.10580	8.13858	0.2951130	0.29318611	2.2440909	21	3 5.9	21.6
436998 2012 TC_{220}	17.0	X	263.99940	252.22355	179.18565	5.33443	0.0648426	0.21111056	2.7933760	21	9 2.5	20.9
436999 2012 TV_{220}	17.3	X	147.27395	245.91287	19.23356	12.86700	0.1295876	0.24248127	2.5469314	21	12 23.8	21.5
437000 2012 TZ_{220}	17.0	X	339.46471	172.70078	182.02046	3.80614	0.1114052	0.21412882	2.7670646	21	9 9.0	20.1
437001 2012 TX_{225}	17.0	X	116.67001	108.83262	154.44837	2.92845	0.0092772	0.22589921	2.6700921	21	11 13.5	20.5
437002 2012 TT_{227}	17.0	X	184.54890	112.30512	40.87220	4.26487	0.0355140	0.20990118	2.8040955	21	9 16.2	20.9
437003 2012 TP_{232}	16.4	X	117.00423	327.94324	337.15402	10.63428	0.1755240	0.24213770	2.5493401	21	—	—
437004 2012 TG_{236}	16.6	X	190.94326	358.41955	53.22334	11.25846	0.0867299	0.18139470	3.0906725	21	5 13.8	21.4
437005 2012 TE_{244}	16.5	X	80.73242	44.38574	189.63731	10.58611	0.0680204	0.20508941	2.8477852	21	8 24.1	20.5
437006 2012 TF_{245}	17.4	X	152.05177	260.74654	48.24022	7.30484	0.1396458	0.25781347	2.4449256	21	—	—
437007 2012 TU_{247}	16.9	X	128.87452	233.31215	354.61502	11.16263	0.0560038	0.21770533	2.7366757	21	10 12.3	21.0
437008 2012 TX_{249}	16.4	X	141.37317	233.06864	251.84639	10.17923	0.0925382	0.18445473	3.0563953	21	6 21.4	21.0
437009 2012 TR_{258}	17.0	X	8.20086	261.90865	95.11652	12.21228	0.0887793	0.22050592	2.7134545	21	11 5.2	20.5
437010 2012 TL_{264}	16.4	X	240.10444	197.40178	194.43186	11.05836	0.1733594	0.19002097	2.9964132	21	6 3.1	21.3
437011 2012 TN_{265}	17.1	X	13.43468	149.26367	170.03383	5.86601	0.0788658	0.21198989	2.7856462	21	9 16.0	20.4
437012 2012 TO_{265}	16.3	X	108.94995	302.37461	193.42768	15.82723	0.0278664	0.18088999	3.0964188	21	5 22.5	20.9
437013 2012 TV_{265}	16.2	X	169.95632	17.39552	36.53925	12.99586	0.1301531	0.17382998	3.1797009	21	4 27.1	21.1
437014 2012 TW_{265}	16.5	X	234.73127	296.87525	172.25224	4.81451	0.0084708	0.21273321	2.7791534	21	9 23.4	20.1
437015 2012 TE_{266}	17.1	X	7.96552	227.79063	63.76883	2.99856	0.0301465	0.20080947	2.8881069	21	7 28.9	20.8
437016 2012 TL_{268}	16.6	X	101.85162	239.45096	274.23007	6.56872	0.0562531	0.18479637	3.0526272	21	6 7.5	20.8
437017 2012 TA_{271}	17.0	X	306.47958	9.75175	26.67647	6.42257	0.0311924	0.21147973	2.7901243	21	9 22.0	20.7
437018 2012 TK_{271}	16.9	X	11.50086	218.47535	113.38806	3.27054	0.0980968	0.21475517	2.7616817	21	10 4.0	20.1
437019 2012 TJ_{273}	16.9	X	40.65003	114.35266	195.25079	6.67698	0.0802377	0.21694548	2.7430621	21	10 14.4	20.2
437020 2012 TW_{273}	17.1	X	327.80210	297.37237	42.81373	2.55473	0.0766973	0.20294808	2.8677817	21	8 2.6	20.7
437021 2012 TY_{284}	16.1	X	294.69513	32.18925	291.12619	8.05109	0.0556966	0.18853014	3.0121888	21	5 24.3	20.4
437022 2012 TY_{289}	16.3	X	223.41074	205.66042	193.97330	12.13277	0.1279368	0.18507808	3.0495287	21	5 31.2	21.2
437023 2012 TN_{291}	16.8	X	298.18160	322.40863	14.55347	2.15738	0.1393536	0.19277167	2.9678407	21	6 3.9	20.8
437024 2012 TV_{293}	15.9	X	217.73489	1.10507	14.89745	8.96252	0.0929376	0.17497668	3.1657936	21	4 26.2	20.7
437025 2012 TP_{294}	16.7	X	58.26665	82.32426	227.81864	12.59283	0.1171588	0.21986785	2.7187017	21	11 13.2	20.2
437026 2012 TV_{294}	16.4	X	7.28572	298.00760	39.91532	14.79267	0.1368753	0.21208238	2.7848362	21	10 11.5	19.6
437027 2012 TY_{294}	16.0	X	234.79520	167.34876	233.75027	7.65284	0.1154045	0.18606390	3.0387477	21	6 13.7	20.7
437028 2012 TV_{295}	16.9	X	57.27049	22.55592	349.22179	4.51379	0.2537959	0.24026818	2.5625472	21	—	—
437029 2012 TA_{297}	17.6	X	212.16436	298.87846	31.75120	5.33810	0.1276242	0.27613168	2.3355646	21	2 16.5	21.1
437030 2012 TB_{299}	17.2	X	35.17439	110.79949	193.85364	2.76076	0.0767205	0.21399493	2.7682186	21	9 28.7	20.7
437031 2012 TJ_{301}	15.9	X	270.02857	242.33700	68.72341	7.38616	0.1361814	0.18104272	3.0946771	21	4 2.8	20.6
437032 2012 TV_{302}	16.9	X	340.29596	268.93890	94.98018	2.96422	0.0878337	0.21463164	2.7627413	21	9 26.1	20.1
437033 2012 TH_{306}	16.0	X	188.46478	60.05731	1.76647	10.66885	0.0634480	0.18588687	3.0406767	21	5 20.4	20.7
437034 2012 TM_{307}	16.9	X	45.32541	352.84432	357.25376	12.67097	0.1087832	0.23172591	2.6251431	21	12 17.9	20.7
437035 2012 TN_{307}	16.3	X	345.33758	317.29765	69.94801	12.49742	0.1720620	0.22271365	2.6954927	21	11 11.9	19.0
437036 2012 TU_{309}	17.4	X	70.82380	3.80225	337.24646	2.41943	0.1634183	0.23824755	2.5770158	21	—	—
437037 2012 TS_{310}	16.4	X	39.33728	331.24417	22.05708	13.09823	0.1727424	0.22864878	2.6486432	21	12 23.2	20.2
437038 2012 TV_{311}	16.3	X	91.41698	308.76965	21.24769	14.79354	0.2180204	0.24006964	2.5639598	21	—	—
437039 2012 TR_{312}	16.0	X	226.79742	327.12981	44.54685	11.68306	0.1106940	0.18032262	3.1029105	21	5 1.0	20.8
437040 2012 TN_{313}	17.3	X	30.76415	233.68224	117.78468	4.11594	0.1944415	0.23197279	2.6232802	21	12 14.4	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437041 2012 TT_{316}	16.7	X	42.95559	262.74988	115.15340	8.92120	0.2617710	0.23683920	2.5872218	21	—	—
437042 2012 TD_{317}	16.6	X	1.19402	252.66395	139.63397	11.87655	0.1947385	0.22658209	2.6647246	21	12 21.8	19.7
437043 2012 TY_{317}	15.6	X	161.32093	208.65341	244.57243	26.01255	0.1725926	0.17547521	3.1597948	21	6 6.3	20.8
437044 2012 TF_{320}	16.5	X	72.97075	24.60040	304.18446	13.38863	0.1392755	0.23276415	2.6173311	21	12 29.3	20.4
437045 2012 UV	16.4	X	324.35817	347.36181	26.27001	12.46197	0.1752786	0.21252622	2.7809576	21	9 10.2	19.4
437046 2012 UV_{6}	16.7	X	294.36270	322.93122	80.82590	6.08554	0.0513589	0.21078595	2.7962432	21	9 13.8	20.4
437047 2012 UJ_{9}	17.1	X	141.34274	267.01805	68.50008	2.81967	0.2439734	0.26056465	2.4276853	21	—	—
437048 2012 UC_{27}	16.9	X	22.39999	245.00314	74.30138	16.11065	0.1034524	0.21502909	2.7593359	21	10 12.4	20.6
437049 2012 UK_{28}	16.2	X	8.86163	296.08566	50.33395	15.19503	0.0194645	0.21376588	2.7701957	21	10 16.0	20.0
437050 2012 UN_{32}	17.0	X	24.99631	96.85628	219.05455	3.66409	0.0645450	0.21229402	2.7829851	21	9 26.2	20.5
437051 2012 UA_{35}	16.9	X	101.02867	91.40919	221.24778	10.74673	0.1311817	0.23553423	2.5967693	21	—	—
437052 2012 US_{35}	16.6	X	53.95249	314.47279	37.19912	15.38080	0.1515956	0.23166036	2.6256383	21	—	—
437053 2012 UT_{35}	17.3	X	50.52394	124.21709	223.50409	1.40922	0.2017194	0.23069650	2.6329466	21	—	—
437054 2012 UQ_{36}	16.1	X	143.78662	289.10146	216.59966	11.07100	0.0475835	0.18667450	3.0321177	21	7 14.8	20.8
437055 2012 UA_{39}	16.1	X	245.54273	333.29890	23.49279	15.84410	0.0368505	0.17892366	3.1190633	21	5 5.9	20.8
437056 2012 UY_{39}	16.6	X	223.61520	192.16056	237.54786	8.13179	0.0722378	0.19167930	2.9791057	21	7 10.0	21.1
437057 2012 UF_{40}	17.3	X	86.57381	308.67648	77.98678	3.19815	0.1966088	0.25674120	2.4517283	21	—	—
437058 2012 UH_{40}	16.8	X	288.30629	313.27184	96.31735	7.12327	0.0623585	0.20902129	2.8119594	21	9 11.5	20.6
437059 2012 US_{40}	16.9	X	87.80037	249.24383	51.61553	7.99587	0.0947444	0.22925075	2.6440046	21	12 3.7	20.6
437060 2012 UV_{40}	17.0	X	45.12873	264.44647	57.73975	4.75324	0.0989302	0.22216592	2.6999212	21	11 9.7	20.5
437061 2012 UQ_{42}	16.7	X	107.06311	56.38926	213.37881	11.99428	0.1261229	0.22573794	2.6713636	21	11 19.6	20.8
437062 2012 UZ_{45}	17.0	X	66.79303	170.98211	113.04931	3.65977	0.0454544	0.21408191	2.7674688	21	10 12.2	20.8
437063 2012 UP_{46}	17.6	X	122.97439	103.40652	202.17307	12.26905	0.1768179	0.24319479	2.5419473	21	—	—
437064 2012 UC_{47}	16.8	X	56.18390	275.49492	61.03477	7.06079	0.0532248	0.22715972	2.6602053	21	12 5.6	20.3
437065 2012 UB_{48}	16.9	X	44.08455	129.76586	192.74057	5.87277	0.0582923	0.21956413	2.7212083	21	11 2.8	20.4
437066 2012 UQ_{49}	17.1	X	323.50422	243.14998	161.91738	3.70116	0.0847002	0.21712966	2.7415107	21	10 25.1	20.2
437067 2012 UJ_{50}	16.1	X	191.77119	358.36308	57.53909	11.29602	0.0996627	0.17796532	3.1302508	21	5 19.8	20.9
437068 2012 UE_{52}	16.7	X	35.44410	85.72489	205.69050	11.63684	0.0430470	0.20620680	2.8374882	21	9 2.9	20.7
437069 2012 UK_{54}	16.9	X	39.87955	25.42885	304.05773	3.60887	0.0476135	0.21978513	2.7193839	21	11 2.2	20.4
437070 2012 UT_{55}	16.5	X	129.59356	331.24182	247.93960	6.61128	0.0293676	0.21042445	2.7994448	21	9 29.7	20.6
437071 2012 UU_{55}	18.0	X	172.17221	71.45132	259.47653	3.87962	0.2879286	0.26836752	2.3803971	21	1 18.9	21.9
437072 2012 UZ_{56}	16.4	X	106.63676	290.65186	245.95747	5.68464	0.1057535	0.18597628	3.0397020	21	7 18.4	20.9
437073 2012 UK_{59}	16.0	X	91.13559	39.28083	227.87774	24.68572	0.0792938	0.21473390	2.7618641	21	10 21.7	20.2
437074 2012 UG_{60}	16.7	X	127.81911	39.33983	343.40799	13.13559	0.1122066	0.26432700	2.4045937	21	1 23.4	19.9
437075 2012 UM_{63}	16.9	X	37.80815	243.35684	92.60001	6.91585	0.0206724	0.21703333	2.7423219	21	11 7.5	20.6
437076 2012 US_{65}	16.3	X	106.55589	83.35462	56.04185	9.48827	0.0389575	0.17474101	3.1686395	21	5 23.9	20.8
437077 2012 UT_{66}	17.2	X	103.21058	264.79378	63.47555	5.54712	0.1734791	0.24034671	2.5619890	21	—	—
437078 2012 UL_{67}	16.2	X	326.40096	211.37876	89.92509	9.97771	0.0686933	0.18618936	3.0373824	21	6 8.9	20.1
437079 2012 UK_{69}	16.8	X	138.00789	317.03062	21.36032	8.13364	0.2318279	0.25967589	2.4332214	21	—	—
437080 2012 UO_{69}	16.3	X	114.15026	293.00483	216.39130	8.67945	0.1202394	0.17926786	3.1150697	21	6 24.8	21.1
437081 2012 UH_{71}	17.2	X	217.11916	22.97739	51.31548	3.83631	0.0398754	0.19456743	2.9495513	21	7 13.2	21.5
437082 2012 UU_{71}	17.3	X	33.87168	146.93824	204.38591	7.62300	0.1362465	0.22820065	2.6521096	21	12 8.9	20.8
437083 2012 UZ_{71}	17.5	X	73.09264	70.54737	263.81567	0.38416	0.1114575	0.23549140	2.5970841	21	—	—
437084 2012 UQ_{75}	17.7	X	105.16358	273.82333	37.34269	17.30470	0.2524361	0.24154010	2.5535433	21	—	—
437085 2012 UY_{75}	16.7	X	8.11254	315.81880	40.71560	12.91055	0.1460507	0.21940172	2.7225511	21	11 5.2	19.6
437086 2012 US_{76}	17.4	X	87.91180	234.88622	69.28198	4.63966	0.2020471	0.23179295	2.6246369	21	12 18.6	21.6
437087 2012 UL_{77}	16.6	X	26.61056	326.70499	27.11361	6.61270	0.0889067	0.21893837	2.7263909	21	11 21.5	20.2
437088 2012 US_{77}	17.5	X	167.20893	282.64324	23.79012	12.33318	0.2898142	0.26190299	2.4194078	21	—	—
437089 2012 UA_{78}	16.9	X	28.55347	312.41848	25.40266	5.52780	0.0680082	0.21935507	2.7229371	21	11 1.2	20.5
437090 2012 UM_{78}	16.1	X	346.51110	47.06645	248.48964	9.85910	0.0868068	0.19280223	2.9675270	21	6 29.4	19.8
437091 2012 UK_{83}	16.7	X	40.41240	294.61145	25.97894	13.17711	0.2493576	0.22017495	2.7161731	21	11 20.2	20.4
437092 2012 UU_{83}	16.4	X	54.56401	18.13232	258.85790	10.97326	0.1092030	0.20414176	2.8565916	21	9 17.4	20.4
437093 2012 US_{84}	17.9	X	173.68112	112.51507	219.65561	9.92974	0.2703233	0.27317332	2.3523965	21	1 17.8	21.9
437094 2012 UU_{86}	16.7	X	317.80179	218.78957	144.22101	4.04545	0.0861294	0.21063936	2.7975403	21	8 16.9	20.0
437095 2012 UJ_{88}	16.6	X	259.40458	94.77605	258.19477	1.78511	0.1426375	0.18108572	3.0941872	21	5 8.1	21.2
437096 2012 UZ_{88}	15.5	X	342.64380	53.47728	230.48666	21.68522	0.0911699	0.18334455	3.0687208	21	6 7.2	19.5
437097 2012 UR_{91}	16.7	X	125.08286	86.64154	24.57022	7.87562	0.1471493	0.17509806	3.1643304	21	5 22.2	21.6
437098 2012 UE_{97}	16.7	X	354.29523	14.50628	312.81625	5.33843	0.0729320	0.20817347	2.8195890	21	8 25.7	20.0
437099 2012 UB_{99}	16.7	X	131.34962	14.85329	220.38421	14.58148	0.0954287	0.21776709	2.7361583	21	10 29.0	20.9
437100 2012 US_{101}	16.5	X	201.96048	11.85219	48.13674	11.53708	0.0194960	0.18299350	3.0726442	21	6 5.6	20.9
437101 2012 UO_{103}	16.9	X	171.97183	121.97929	20.30086	2.09167	0.0243281	0.19874035	2.9081179	21	8 16.2	20.9
437102 2012 UK_{106}	16.6	X	246.55635	118.35910	241.30497	3.59627	0.1549252	0.18239520	3.0793599	21	5 1.6	21.4
437103 2012 UJ_{109}	17.2	X	109.96395	40.60029	212.19253	8.38480	0.1023504	0.21995802	2.7179586	21	10 29.6	21.2
437104 2012 UD_{110}	17.0	X	244.04467	309.83419	129.31183	7.19652	0.0700603	0.20303197	2.8669917	21	8 18.3	21.0
437105 2012 UE_{110}	16.7	X	25.07847	318.12452	59.74465	14.87325	0.0179939	0.23121699	2.6289938	21	12 13.1	20.2
437106 2012 UW_{110}	16.3	X	93.47878	66.92893	215.90603	25.05101	0.0704701	0.22037217	2.7145523	21	11 14.9	20.2
437107 2012 UD_{113}	17.2	X	285.98605	318.21452	74.49239	3.11747	0.1053419	0.20113627	2.8849776	21	8 7.0	20.9
437108 2012 UH_{113}	15.9	X	90.47355	284.43570	214.26313	11.50568	0.0454796	0.17501038	3.1653872	21	5 4.5	20.3
437109 2012 UB_{116}	16.5	X	230.51413	5.39076	17.48585	8.63013	0.0763302	0.18435909	3.0574522	21	5 18.6	21.1
437110 2012 UX_{117}	17.0	X	269.36447	48.80037	353.65743	1.63570	0.0235327	0.20118522	2.8845097	21	8 9.2	20.9
437111 2012 UK_{119}	16.1	X	229.86338	185.01255	228.31038	9.46090	0.0673225	0.18502251	3.0501393	21	6 27.3	20.7
437112 2012 UP_{125}	15.8	X	62.39277	179.57563	39.14215	10.39229	0.0322838	0.18463395	3.0544171	21	7 8.0	20.1
437113 2012 UN_{126}	16.0	X	157.35401	231.59082	242.55965	10.33826	0.0887714	0.17929015	3.1148114	21	6 24.5	20.9
437114 2012 UE_{127}	17.6	X	76.50619	76.74932	285.67899	2.78693	0.1516736	0.24026818	2.5625472	21	—	—
437115 2012 UH_{131}	16.5	X	344.60903	344.14689	37.88428	7.09566	0.0858969	0.21708887	2.7418541	21	10 26.9	19.6
437116 2012 UP_{132}	16.6	X	318.44719	268.99781	110.65965	5.39545	0.0848012	0.21013192	2.8020424	21	9 12.5	20.1
437117 2012 UQ_{133}	17.1	X	85.89275	169.18216	169.94044	5.26974	0.2210553	0.24128373	2.5553518	21	—	—
437118 2012 UD_{134}	15.7	X	148.19623	176.82524	312.86478	11.82630	0.1220126	0.18531195	3.0469624	21	7 8.3	20.5
437119 2012 UT_{135}	16.8	X	23.18600	307.00254	80.95646	14.13844	0.2572175	0.23239677	2.6200887	21	—	—
437120 2012 UW_{135}	16.2	X	214.14808	285.82207	144.96487	12.91809	0.2111169	0.18832932	3.0143298	21	6 24.6	21.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437121 2012 UL_{137}	17.7	X	60.81694	84.89399	246.73677	0.67546	0.1635083	0.22947640	2.6422710	21	12 20.7	21.5
437122 2012 UN_{137}	16.9	X	238.21132	174.95463	222.51876	4.15157	0.1763826	0.18768013	3.0212768	21	6 7.4	21.6
437123 2012 US_{139}	16.1	X	264.48324	332.23182	329.25289	10.97134	0.0384465	0.17090564	3.2158698	21	3 21.5	20.8
437124 2012 UL_{142}	16.5	X	300.04975	223.34554	92.25314	7.06773	0.1009316	0.18645325	3.0345159	21	5 17.6	20.6
437125 2012 UV_{145}	17.4	X	44.80069	208.65687	137.86672	5.32552	0.0450132	0.22639341	2.6662049	21	12 3.8	20.9
437126 2012 UA_{148}	17.4	X	124.29701	114.33611	184.37512	7.55287	0.1626898	0.24084607	2.5584465	21	—	—
437127 2012 UL_{149}	16.5	X	188.47444	59.89455	7.75797	4.63621	0.1513554	0.17915741	3.1163497	21	5 29.9	21.6
437128 2012 UT_{149}	17.0	X	309.80854	69.08469	342.34344	3.31299	0.0722627	0.21376287	2.7702217	21	10 10.1	20.5
437129 2012 UF_{150}	16.6	X	286.81169	330.98396	28.50946	9.59508	0.1092029	0.19325988	2.9628403	21	6 22.8	20.8
437130 2012 UU_{153}	16.6	X	53.02990	258.05467	66.38966	5.63235	0.1607460	0.22185778	2.7024206	21	12 1.1	20.4
437131 2012 UR_{157}	17.6	X	113.82530	255.94529	101.34201	3.35016	0.2272331	0.25403670	2.4690984	21	—	—
437132 2012 UL_{160}	17.6	X	209.64140	29.75316	252.47062	3.16150	0.1981536	0.26497867	2.4006496	21	—	—
437133 2012 UE_{165}	17.5	X	196.84813	19.20815	300.42230	9.58302	0.2557509	0.27203406	2.3589598	21	1 22.5	21.6
437134 2012 UX_{165}	16.5	X	63.16863	291.19743	341.66380	3.36160	0.0670055	0.20944386	2.8081758	21	9 23.1	20.1
437135 2012 UP_{166}	17.4	X	333.31610	30.96290	283.05380	7.02805	0.1482437	0.31232820	2.1514368	21	6 26.7	18.7
437136 2012 UJ_{168}	16.7	X	34.76652	271.83556	105.25643	11.66100	0.1593060	0.23451411	2.6042943	21	—	—
437137 2012 UG_{169}	17.0	X	48.08711	174.25572	169.23626	12.12277	0.1919817	0.23153702	2.6265707	21	12 25.2	20.9
437138 2012 VN_{3}	17.0	X	285.49585	246.62988	153.27915	2.45562	0.0679521	0.20356265	2.8620068	21	8 20.6	20.8
437139 2012 VV_{7}	17.2	X	292.57150	204.70029	210.11227	3.86963	0.0674511	0.21221069	2.7837136	21	9 19.4	20.8
437140 2012 VA_{8}	16.7	X	282.22542	34.54729	48.99166	6.89474	0.0441285	0.21712117	2.7415822	21	10 19.3	20.3
437141 2012 VK_{10}	17.3	X	348.76595	341.70779	13.95098	3.77588	0.1069117	0.20949788	2.8076931	21	9 27.1	20.4
437142 2012 VM_{10}	16.0	X	339.52020	38.66430	244.76450	8.57231	0.0442332	0.18203179	3.0834569	21	6 6.2	19.9
437143 2012 VH_{12}	17.0	X	320.90393	264.83545	90.46513	3.35822	0.0972457	0.20363868	2.8612944	21	8 10.6	20.5
437144 2012 VG_{13}	17.5	X	84.38572	242.63718	73.86128	2.96822	0.2372418	0.23675405	2.5878421	21	—	—
437145 2012 VZ_{15}	15.9	X	5.26745	13.29193	260.28824	9.50120	0.0348171	0.18591857	3.0403310	21	6 29.6	19.9
437146 2012 VS_{17}	16.5	X	341.29646	80.32098	216.13621	8.94063	0.0158510	0.18447590	3.0561614	21	6 26.7	20.8
437147 2012 VC_{18}	16.4	X	47.57184	265.75081	63.95077	14.14806	0.1380498	0.22109064	2.7086682	21	11 27.5	20.0
437148 2012 VN_{21}	16.4	X	155.30727	246.62558	218.74864	9.99970	0.0641483	0.18040552	3.1019598	21	6 10.7	21.1
437149 2012 VC_{24}	17.4	X	105.68895	269.80853	44.05433	4.83360	0.1765295	0.23912487	2.5707088	21	—	—
437150 2012 VE_{29}	16.3	X	256.38482	338.38585	324.19803	4.13021	0.0990992	0.16901746	3.2397762	21	3 10.2	21.1
437151 2012 VG_{30}	17.1	X	31.82337	107.57344	219.11479	5.04745	0.0567256	0.21714607	2.7413726	21	10 20.5	20.7
437152 2012 VG_{31}	16.3	X	137.63553	68.21710	37.75976	15.95971	0.0762801	0.17493327	3.1663174	21	5 20.9	21.1
437153 2012 VX_{34}	16.2	X	54.35202	276.94561	72.07617	13.78762	0.1834563	0.22951849	2.6419480	21	—	—
437154 2012 VN_{35}	16.6	X	274.83525	256.50708	95.85571	2.86221	0.1699142	0.18759500	3.0221908	21	5 21.5	21.0
437155 2012 VC_{36}	16.3	X	339.28267	140.27068	176.89192	5.07082	0.1787323	0.19776098	2.9177113	21	7 10.7	19.4
437156 2012 VG_{36}	16.1	X	233.66765	310.29414	65.49378	12.48043	0.0877676	0.17788205	3.1312276	21	5 15.8	20.9
437157 2012 VN_{36}	15.9	X	259.88246	315.99198	73.69792	9.76325	0.0947848	0.18981468	2.9985837	21	6 30.1	20.2
437158 2012 VV_{37}	17.2	X	105.01392	171.63545	162.45379	11.79413	0.1497159	0.24508904	2.5288328	21	—	—
437159 2012 VO_{39}	17.2	X	130.90168	274.07736	29.08987	3.85391	0.2215133	0.24271947	2.5452648	21	—	—
437160 2012 VZ_{39}	15.6	X	278.96991	331.07140	44.74568	10.48452	0.0956308	0.19058858	2.9904609	21	7 6.9	19.8
437161 2012 VB_{40}	16.5	X	32.78468	265.95110	20.86470	2.34709	0.0512223	0.19668663	2.9283265	21	8 28.7	20.3
437162 2012 VJ_{41}	16.5	X	84.58793	293.21082	214.89631	14.39748	0.0378838	0.17463233	3.1699539	21	5 7.9	20.8
437163 2012 VC_{46}	16.7	X	22.56938	267.76239	101.60962	6.16804	0.1831747	0.22258286	2.6965485	21	12 21.9	20.1
437164 2012 VX_{46}	17.2	X	92.54678	154.07490	179.10606	3.92222	0.0585116	0.23867333	2.5739501	21	—	—
437165 2012 VO_{47}	17.3	X	302.58219	219.32226	155.57251	2.38247	0.0773488	0.20368277	2.8608814	21	8 10.1	21.0
437166 2012 VA_{49}	17.2	X	38.76506	131.27551	182.92760	2.51256	0.0679843	0.21658054	2.7461426	21	10 16.2	20.6
437167 2012 VW_{49}	16.7	X	284.76908	322.64599	50.84013	12.82243	0.0734311	0.19749216	2.9203583	21	7 16.2	20.8
437168 2012 VX_{49}	16.6	X	263.52492	325.20999	49.26207	16.16929	0.0734133	0.19087778	2.9874396	21	6 15.9	21.0
437169 2012 VD_{53}	17.2	X	69.35766	293.58647	47.19136	3.87487	0.2465810	0.23592549	2.5938975	21	—	—
437170 2012 VT_{58}	17.3	X	25.64233	270.68490	75.41826	3.07856	0.0390967	0.21695694	2.7429655	21	11 5.2	20.8
437171 2012 VY_{60}	16.8	X	285.04510	317.78003	72.02456	6.53298	0.0715295	0.19759820	2.9193134	21	8 7.9	20.7
437172 2012 VA_{63}	17.8	X	106.11907	133.47524	192.37295	4.74583	0.1821579	0.24240247	2.5474834	21	—	—
437173 2012 VL_{65}	16.1	X	56.60538	326.47333	216.08665	9.77608	0.1325248	0.17702776	3.1412931	21	5 26.9	20.1
437174 2012 VK_{66}	17.1	X	320.45670	323.08350	35.11359	2.47021	0.0838032	0.20254018	2.8716307	21	8 15.3	20.5
437175 2012 VE_{67}	17.0	X	15.49775	131.86981	226.97349	11.51260	0.1631052	0.22154807	2.7049385	21	11 24.2	20.0
437176 2012 VD_{71}	17.0	X	334.97588	316.43357	78.37173	5.31483	0.0769921	0.21533269	2.7567417	21	10 29.9	20.3
437177 2012 VK_{71}	17.0	X	6.40383	285.65140	72.45939	5.93382	0.1752853	0.21720648	2.7408642	21	11 9.1	19.9
437178 2012 VR_{71}	16.5	X	60.17201	250.66221	56.66917	10.29538	0.1967778	0.22011855	2.7166370	21	11 22.5	20.2
437179 2012 VV_{71}	17.1	X	42.66123	270.23132	76.96545	3.02146	0.0894815	0.22267168	2.6958314	21	12 6.7	20.6
437180 2012 VN_{74}	17.1	X	134.98813	41.82470	182.65734	4.08804	0.0472743	0.21338168	2.7735199	21	10 17.8	21.0
437181 2012 VS_{79}	17.0	X	25.31581	243.14773	152.46879	2.82109	0.2223844	0.23324787	2.6137112	21	—	—
437182 2012 VO_{81}	17.1	X	94.88879	86.68923	215.00812	11.75980	0.2006593	0.23069654	2.6329463	21	12 21.0	21.6
437183 2012 VG_{83}	16.0	X	145.99494	32.33379	73.16317	10.60891	0.0636921	0.17381917	3.1798327	21	5 31.6	20.7
437184 2012 VE_{91}	16.2	X	359.53454	194.67745	78.70547	7.51168	0.0952276	0.18380615	3.0635810	21	6 21.0	19.9
437185 2012 VU_{92}	15.8	X	155.12405	282.46555	237.07442	13.41579	0.0142323	0.19244992	2.9711476	21	8 10.4	20.3
437186 2012 VY_{94}	16.3	X	257.30133	153.68842	220.85436	4.26865	0.0117180	0.18377498	3.0639273	21	6 18.9	20.6
437187 2012 VX_{97}	16.4	X	342.81643	243.95402	133.29961	8.47196	0.2446557	0.21491212	2.7603370	21	10 25.5	18.8
437188 2012 VJ_{99}	16.7	X	3.90245	293.09604	102.36255	6.93109	0.1621699	0.22602146	2.6691292	21	12 25.1	19.6
437189 2012 VB_{100}	15.7	X	36.56589	351.27001	248.79988	3.13383	0.0434961	0.18453725	3.0554840	21	6 30.6	19.8
437190 2012 VQ_{101}	17.4	X	165.64187	227.25957	80.95853	5.74201	0.1834183	0.25480155	2.4641549	21	—	—
437191 2012 VO_{102}	16.8	X	295.29866	341.67883	52.26497	12.41926	0.0335655	0.20161948	2.8803663	21	9 7.2	20.9
437192 Frederikolsen	15.5	X	234.02096	154.04008	258.67706	14.55632	0.0875976	0.18336959	3.0684415	21	6 29.1	20.1
437193 2012 VX_{106}	16.2	X	114.73487	265.48215	246.48548	4.19191	0.0823566	0.17888419	3.1195222	21	6 24.7	20.8
437194 2012 VJ_{111}	16.7	X	329.76706	303.26147	80.30728	6.14386	0.0704735	0.20975708	2.8053795	21	10 7.4	20.2
437195 2012 WV	16.2	X	217.11322	342.49200	61.09078	11.15954	0.0890596	0.17985066	3.1083365	21	5 30.7	20.9
437196 2012 WK_{1}	17.7	X	103.03439	96.98417	241.21309	13.96627	0.1592871	0.24197879	2.5504561	21	—	—
437197 2012 WX_{1}	17.2	X	34.57163	232.23975	104.54357	2.72016	0.0809506	0.21753311	2.7381200	21	11 11.2	20.8
437198 2012 WB_{3}	16.5	X	188.89841	8.84944	54.80258	10.20692	0.0881771	0.17565769	3.1576059	21	5 26.0	21.2
437199 2012 WP_{4}	17.0	X	84.77179	326.10862	42.43771	6.60439	0.2869863	0.24453066	2.5326811	21	—	—
437200 2012 WY_{5}	16.4	X	280.55433	305.20445	66.07270	4.29870	0.0071680	0.18765322	3.0215656	21	7 16.2	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437201 2012 WZ_5	15.8	X	305.69491	76.43660	237.69155	9.75281	0.0776834	0.18009342	3.1055426	21	5 25.8	20.1
437202 2012 WC_8	16.5	X	288.51291	4.33968	343.09541	3.30949	0.0648529	0.18315502	3.0708375	21	6 16.3	20.7
437203 2012 WT_8	16.4	X	230.19393	311.82822	51.55530	11.49889	0.1231297	0.17349827	3.1837523	21	4 25.5	21.4
437204 2012 WY_9	16.2	X	251.66878	296.31775	46.84607	10.16641	0.0969524	0.17441655	3.1725679	21	4 24.8	21.0
437205 2012 WB_{10}	16.9	X	32.12419	32.02195	260.67692	3.63904	0.0918186	0.20230689	2.8738379	21	9 7.0	20.5
437206 2012 WY_{10}	16.8	X	318.15398	299.43961	75.71649	3.20234	0.0731378	0.20348578	2.8627275	21	9 5.6	20.3
437207 2012 WA_{11}	17.4	X	41.49907	237.43158	88.78412	3.08236	0.0791194	0.21603072	2.7508002	21	11 6.6	20.9
437208 2012 WD_{11}	17.2	X	110.56445	203.16825	121.73982	2.70428	0.1941948	0.24110955	2.5565823	21	—	—
437209 2012 WH_{11}	16.7	X	343.53086	261.85396	66.35993	12.83203	0.0633458	0.19734224	2.9218372	21	8 15.6	20.6
437210 2012 WB_{12}	15.8	X	65.45625	308.52430	238.39974	25.99545	0.1682534	0.16920409	3.2373934	21	6 17.0	20.3
437211 2012 WF_{13}	16.7	X	99.74697	202.76725	74.85834	10.57482	0.1404942	0.21857541	2.7294083	21	11 22.3	20.8
437212 2012 WS_{13}	16.8	X	38.01796	250.19069	85.37730	7.41003	0.0617976	0.21588799	2.7520124	21	11 12.4	20.4
437213 2012 WB_{15}	17.1	X	87.78054	257.76235	99.38303	5.14545	0.2124117	0.24196300	2.5505670	21	—	—
437214 2012 WE_{17}	17.0	X	83.27660	308.30057	53.33314	11.08019	0.1895050	0.24188897	2.5510874	21	—	—
437215 2012 WV_{17}	16.1	X	252.95499	116.11999	263.61893	8.54409	0.0357710	0.18344651	3.0675837	21	6 16.8	20.3
437216 2012 WS_{19}	15.8	X	86.48043	310.19031	258.46521	11.20652	0.0938947	0.18623012	3.0369393	21	7 31.0	20.3
437217 2012 WZ_{22}	17.4	X	20.34246	69.46083	295.11849	3.10448	0.1813346	0.22162447	2.7043169	21	12 11.6	20.7
437218 2012 WJ_{23}	16.5	X	87.14822	266.56935	56.63262	17.64245	0.2334570	0.23254056	2.6190085	21	—	—
437219 2012 WP_{23}	15.8	X	77.37287	283.02253	68.46755	8.12059	0.2037054	0.23610754	2.5925639	21	—	—
437220 2012 WX_{24}	15.9	X	292.39989	132.49550	247.02094	10.10445	0.1777480	0.19289728	2.9665521	21	7 14.6	20.0
437221 2012 WF_{25}	15.7	X	222.96678	309.80223	84.42240	17.20626	0.0886014	0.17358163	3.1827330	21	5 28.3	20.5
437222 2012 WM_{30}	15.9	X	332.16313	272.82218	57.83224	4.24422	0.0674673	0.19183526	2.9774907	21	7 27.9	19.7
437223 2012 WO_{35}	16.0	X	260.82690	269.70589	96.61075	16.90370	0.1702481	0.18081002	3.0973318	21	5 26.9	20.8
437224 2012 XW_1	16.7	X	80.78032	300.28603	40.78073	5.66276	0.2085816	0.23496670	2.6009490	21	—	—
437225 2012 XT_3	16.7	X	104.39268	233.70811	100.33439	5.00279	0.2895722	0.24232598	2.5480194	21	—	—
437226 2012 XJ_4	16.3	X	95.56370	150.00466	205.62715	11.25146	0.2707254	0.24419742	2.5349847	21	—	—
437227 2012 XG_5	17.0	X	49.13797	190.31351	148.46606	5.94904	0.1435165	0.22194825	2.7016861	21	12 12.6	20.7
437228 2012 XM_5	16.2	X	257.91700	137.40443	226.01619	16.30645	0.0157088	0.17660679	3.1462830	21	6 4.9	20.8
437229 2012 XQ_5	15.8	X	247.15620	173.12390	221.63898	13.43870	0.0333753	0.18322958	3.0700044	21	6 27.6	20.3
437230 2012 XV_5	16.4	X	206.18668	237.22258	158.31310	6.44437	0.0744343	0.17146242	3.2089042	21	5 12.6	21.3
437231 2012 XX_5	16.9	X	318.28571	259.32886	105.89908	9.96865	0.1051969	0.19901215	2.9054695	21	8 20.5	20.5
437232 2012 XX_7	15.6	X	229.04192	320.54550	84.39299	12.62152	0.0365173	0.18121611	3.0927028	21	6 19.5	20.0
437233 2012 XL_{12}	16.7	X	83.75333	213.21744	129.41721	5.96333	0.2296684	0.23699215	2.5861085	21	—	—
437234 2012 XM_{17}	16.1	X	29.35189	210.11002	58.42907	11.67986	0.0434588	0.19080048	2.9882464	21	7 31.8	20.2
437235 2012 XB_{20}	16.5	X	58.42873	45.29285	253.81584	7.79044	0.1234396	0.21117061	2.7928465	21	10 28.1	20.4
437236 2012 XO_{20}	15.8	X	184.37267	356.85526	71.80807	10.20141	0.0580351	0.17402491	3.1773259	21	5 28.4	20.4
437237 2012 XG_{21}	17.2	X	33.40684	96.79971	239.71085	5.54113	0.1711808	0.21802429	2.7340060	21	11 21.9	20.7
437238 2012 XV_{21}	17.1	X	42.54048	263.97065	73.73799	7.39361	0.0999710	0.21901020	2.7257948	21	11 25.8	20.6
437239 2012 XB_{22}	16.0	X	97.91230	118.34293	72.91737	14.43877	0.0151081	0.18538006	3.0462161	21	7 16.3	20.4
437240 2012 XM_{23}	17.1	X	49.03836	265.69389	62.76425	3.86453	0.1643997	0.22078662	2.7111542	21	12 1.6	20.8
437241 2012 XH_{24}	16.7	X	74.46965	268.96845	64.62195	8.10995	0.1450762	0.23001114	2.6381742	21	—	—
437242 2012 XZ_{25}	17.4	X	207.10157	255.35356	68.84669	5.40873	0.1734736	0.27044930	2.3681660	21	2 4.9	21.3
437243 2012 XG_{27}	16.2	X	193.50723	350.13382	67.75960	11.00329	0.0635174	0.17263126	3.1944034	21	5 25.1	21.1
437244 2012 XG_{28}	17.1	X	333.43002	316.35789	45.44901	2.67615	0.0745077	0.20131612	2.8832592	21	9 10.5	20.7
437245 2012 XC_{29}	16.1	X	317.74451	54.02850	259.24377	8.02547	0.1358440	0.18377187	3.0639619	21	6 2.7	20.0
437246 2012 XX_{38}	16.6	X	336.02848	246.27262	100.05090	3.14394	0.0880800	0.19701109	2.9251104	21	8 23.4	20.2
437247 2012 XN_{49}	15.9	X	81.17840	110.21853	63.16661	27.08475	0.1355992	0.17306661	3.1890441	21	6 14.9	20.5
437248 2012 XA_{50}	16.6	X	91.47998	239.06004	106.71442	3.50604	0.1682629	0.23810967	2.5780105	21	—	—
437249 2012 XV_{51}	15.9	X	101.51780	262.62967	64.40226	17.99518	0.1838923	0.23672251	2.5880720	21	—	—
437250 2012 XW_{59}	16.9	X	92.08313	54.18095	217.06308	3.49743	0.0649089	0.21314975	2.7755316	21	10 27.6	20.8
437251 2012 XU_{65}	15.8	X	61.42686	326.74663	228.45428	15.56521	0.0486168	0.17141860	3.2094510	21	6 7.4	20.2
437252 2012 XZ_{70}	16.3	X	114.79702	219.26363	81.07510	14.05400	0.1935574	0.23320102	2.6140612	21	—	—
437253 2012 XF_{80}	16.9	X	283.88173	173.74779	183.44500	7.23153	0.0972686	0.18851030	3.0124001	21	6 18.2	21.1
437254 2012 XS_{85}	16.1	X	73.09441	251.43126	113.30752	14.05675	0.1970491	0.23651371	2.5895950	21	—	—
437255 2012 XV_{93}	17.0	X	312.11429	341.85394	66.74712	4.90235	0.0987686	0.21277656	2.7787760	21	10 10.8	20.3
437256 2012 XZ_{93}	16.3	X	106.23672	248.43743	90.34940	13.74972	0.1989132	0.24075499	2.5590917	21	—	—
437257 2012 XA_{96}	16.2	X	194.94577	329.98026	93.50389	11.23484	0.0741109	0.17317856	3.1876696	21	6 3.2	21.1
437258 2012 XK_{96}	16.3	X	281.29569	341.22260	56.29776	10.38615	0.0708788	0.19434437	2.9518078	21	8 15.3	20.5
437259 2012 XC_{105}	17.3	X	83.31015	248.08685	65.21622	8.41416	0.2153848	0.23223089	2.6213362	21	12 26.4	21.5
437260 2012 XB_{108}	16.1	X	234.13345	321.38347	74.61029	11.73191	0.1074653	0.17839025	3.1252779	21	6 7.4	20.7
437261 2012 XE_{110}	16.4	X	67.29968	345.57283	27.46757	13.52832	0.2534935	0.24036836	2.5618352	21	—	—
437262 2012 XD_{115}	16.4	X	212.19663	22.95235	52.67637	9.53862	0.0603046	0.18875518	3.0097941	21	7 7.5	20.9
437263 2012 XC_{117}	15.8	X	204.39152	350.11670	70.55093	18.87770	0.1994363	0.17772843	3.1330317	21	6 3.9	21.1
437264 2012 XJ_{122}	15.9	X	200.53475	300.90615	100.15974	17.28764	0.1858908	0.17226421	3.1989394	21	5 14.9	21.5
437265 2012 XG_{123}	16.5	X	207.31156	309.64171	127.86074	10.42521	0.0963428	0.18140397	3.0905672	21	7 1.7	21.3
437266 2012 XG_{126}	17.2	X	85.01432	280.84147	50.64273	4.65048	0.2481893	0.23790805	2.5794669	21	—	—
437267 2012 XK_{126}	16.9	X	58.66749	261.95672	70.12663	6.08385	0.0535288	0.22269602	2.6956350	21	12 2.7	20.3
437268 2012 XW_{128}	16.5	X	58.20809	35.01944	250.76344	3.88550	0.1320345	0.21123051	2.7923185	21	10 12.4	20.4
437269 2012 XC_{137}	15.9	X	10.21852	231.04832	94.74272	16.08414	0.1530220	0.20427866	2.8553152	21	10 5.4	19.5
437270 2012 XM_{139}	16.4	X	64.80242	163.39035	224.89110	5.13066	0.2597469	0.24100858	2.5572963	21	—	—
437271 2012 XV_{140}	16.2	X	340.91613	275.26410	61.21910	10.95763	0.0881045	0.19698134	2.9254049	21	8 22.1	20.0
437272 2012 XJ_{144}	15.7	X	316.35257	93.39376	229.68106	21.88253	0.1134332	0.18298867	3.0726983	21	6 15.0	19.9
437273 2012 XP_{147}	16.2	X	257.33483	287.43826	66.75219	11.73804	0.1268401	0.17593742	3.1542582	21	5 11.4	20.9
437274 2012 XE_{148}	16.0	X	228.07250	277.39135	108.23435	12.80681	0.0820239	0.17580255	3.1558713	21	5 24.5	20.9
437275 2012 XL_{150}	15.7	X	182.07248	13.80074	66.56332	27.64094	0.0606175	0.17811301	3.1285201	21	6 6.7	20.4
437276 2012 XZ_{154}	15.9	X	202.31547	316.96641	84.56714	15.42314	0.2002746	0.17346335	3.1841796	21	5 14.7	21.4
437277 2012 XS_{155}	15.8	X	60.70004	236.16276	132.41804	29.62518	0.2231379	0.23656375	2.5892297	21	—	—
437278 2013 AW_1	15.7	X	124.53808	254.66689	231.65831	19.58273	0.0411294	0.16896361	3.2404644	21	5 30.3	20.4
437279 2013 AB_6	16.1	X	311.51183	97.65975	250.16644	9.02983	0.0760144	0.18853204	3.0121685	21	7 15.8	20.1
437280 2013 AV_{14}	13.6	X	201.03828	232.48333	317.08196	17.79407	0.0765975	0.08318659	5.1971731	21	10 21.6	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437281 2013 AF_{25}	16.7	X	343.10185	217.20756	138.18304	2.09489	0.1485149	0.20197313	2.8770030	21	9 15.8	19.6
437282 2013 AU_{94}	16.7	X	95.32925	147.19237	212.02777	8.28500	0.2843361	0.24495969	2.5297230	21	—	—
437283 2013 AT_{96}	14.1	X	286.28090	3.72857	90.39559	7.86814	0.0616435	0.08528746	5.1114715	21	10 19.4	20.8
437284 2013 AG_{103}	16.3	X	300.28840	256.63623	119.37591	11.65757	0.1421581	0.18606562	3.0387289	21	7 29.6	20.1
437285 2013 AU_{131}	13.0	X	326.39389	120.71070	308.61256	12.86208	0.0109935	0.08265100	5.2196011	21	11 3.7	20.0
437286 2013 AP_{132}	13.7	X	326.44345	290.27655	129.21438	10.39799	0.0532052	0.08420250	5.1552857	21	10 30.3	20.4
437287 2013 AY_{132}	13.7	X	297.27323	318.92817	131.32903	10.21155	0.0412979	0.08344816	5.1863067	21	10 30.4	20.6
437288 2013 AN_{133}	14.2	X	274.73085	314.34350	162.68135	10.61609	0.2059133	0.08326208	5.1940309	21	10 11.6	21.1
437289 2013 AX_{140}	16.5	X	44.00174	130.73457	178.96072	14.48899	0.2508501	0.19530891	2.9420814	21	11 12.8	20.6
437290 2013 BH_{1}	14.1	X	299.66282	344.40789	90.30604	9.89666	0.0424376	0.08328891	5.1929155	21	10 16.5	20.9
437291 2013 BP_{2}	14.0	X	263.67790	211.15569	265.87911	25.76738	0.1969158	0.08404743	5.1616245	21	9 17.1	21.4
437292 2013 BG_{17}	13.9	X	258.93376	339.29774	139.97442	16.35541	0.1003532	0.08321638	5.1959325	21	10 13.1	21.0
437293 2013 BS_{21}	15.9	X	266.86990	272.18481	115.41421	11.98117	0.1585727	0.17860942	3.1227206	21	6 27.5	20.4
437294 2013 BK_{31}	14.3	X	236.78358	77.29451	75.82324	8.32716	0.0622609	0.08486452	5.1284398	21	10 29.2	21.3
437295 2013 BJ_{37}	14.1	X	249.88100	211.75819	287.10683	4.79561	0.0629860	0.08554597	5.1011687	21	10 22.9	21.1
437296 2013 BK_{40}	13.9	X	294.72498	313.85121	136.37053	10.16235	0.0632627	0.08319678	5.1967485	21	10 24.8	20.7
437297 2013 BS_{54}	16.1	X	297.75907	267.35159	114.23511	10.29902	0.2198535	0.18606238	3.0387642	21	7 20.8	19.9
437298 2013 BR_{64}	14.3	X	315.77914	333.66634	92.50678	3.49444	0.0563854	0.08363776	5.1784657	21	10 21.9	21.0
437299 2013 BY_{67}	15.8	X	282.56781	265.50908	106.30382	15.44266	0.1745586	0.17759373	3.1346156	21	6 24.4	20.3
437300 2013 BR_{71}	14.0	X	285.35529	316.55280	146.24646	12.23922	0.1396563	0.08398127	5.1643353	21	10 18.3	20.8
437301 2013 CW_{10}	13.3	X	315.91864	283.55549	141.93858	37.12232	0.0856152	0.08280111	5.2132906	21	10 25.9	20.3
437302 2013 CK_{13}	14.5	X	261.92281	73.13652	58.79915	2.41581	0.1394184	0.08293725	5.2075840	21	10 21.0	21.5
437303 2013 CJ_{15}	15.7	X	219.10163	244.31133	137.60149	10.01865	0.1688440	0.15430002	3.4426435	21	5 7.4	21.4
437304 2013 CK_{34}	14.1	X	352.69042	270.93935	128.98982	10.07979	0.0287994	0.08312053	5.1999260	21	11 8.9	20.9
437305 2013 CX_{39}	14.2	X	214.79182	69.83177	119.85017	9.91328	0.0306373	0.08372848	5.1747245	21	11 18.4	21.2
437306 2013 CG_{85}	16.0	X	326.88004	219.87901	125.54162	13.59792	0.2892016	0.18609171	3.0384449	21	7 11.5	19.1
437307 2013 CG_{104}	14.2	X	350.01392	306.71797	102.38786	8.39997	0.0499563	0.08415750	5.1571230	21	11 14.9	20.8
437308 2013 CF_{133}	14.3	X	240.08949	160.66690	0.54111	6.31249	0.1185868	0.08269090	5.2179217	21	10 31.0	21.5
437309 2013 CY_{199}	13.9	X	357.70898	306.26148	89.31679	8.75371	0.0251633	0.08257161	5.2229462	21	11 8.9	20.7
437310 2013 CN_{206}	14.4	X	297.43699	264.74689	198.13758	7.06746	0.0664730	0.08417916	5.1562385	21	11 7.9	21.1
437311 2013 CF_{217}	14.0	X	310.91017	292.48548	161.62201	7.88941	0.0803592	0.08182911	5.2544931	21	11 13.9	20.7
437312 2013 DR_{14}	13.9	X	88.14636	196.94124	116.63555	13.24569	0.0339999	0.08255152	5.2237935	21	11 22.7	21.0
437313 2013 EK_{73}	13.2	X	59.71292	49.38471	141.15548	9.00182	0.5838969	0.02107174	12.9818256	21	8 12.1	24.4
437314 2013 JA_{15}	13.9	X	347.53321	209.84187	210.88777	13.02133	0.0085724	0.08253565	5.2244630	21	11 22.9	20.8
437315 2013 NQ_{22}	16.6	X	289.23505	190.71772	220.80260	13.96456	0.1161255	0.23141933	2.6274611	21	8 31.3	20.2
437316 2013 OS_{3}	18.4	X	195.96591	224.66189	297.62442	29.89796	0.4683279	0.39831995	1.8294253	21	9 7.1	22.6
437317 2013 PW_{2}	17.7	X	326.54729	188.87113	156.07117	24.15379	0.0467041	0.37593465	1.9013459	21	8 19.5	19.1
437318 2013 PN_{6}	18.2	X	188.07314	337.82546	125.28597	24.79101	0.0968704	0.36616048	1.9350331	21	7 15.9	20.5
437319 2013 PO_{6}	18.1	X	169.05918	215.78041	279.03685	17.93788	0.0926754	0.36798690	1.9286251	21	8 2.6	20.7
437320 2013 PJ_{42}	16.9	X	331.89899	61.01306	335.39847	14.26086	0.0932294	0.25863053	2.4397736	21	10 25.8	19.8
437321 2013 PG_{44}	15.5	X	152.37044	12.09646	23.07916	27.40216	0.3004892	0.18412209	3.0600753	21	4 3.3	20.9
437322 2013 PE_{69}	17.8	X	124.06980	54.40997	154.28329	23.20645	0.0213540	0.37480587	1.9051615	21	10 4.5	20.0
437323 2013 PF_{74}	17.4	X	92.33292	322.99417	45.98241	12.11343	0.2365986	0.28405482	2.2919296	21	—	—
437324 2013 QP_{10}	17.8	X	163.55126	198.90014	281.94712	18.29059	0.0582227	0.35979652	1.9577839	21	7 9.3	19.8
437325 2013 QV_{53}	18.2	X	188.26696	110.68361	332.05458	17.39116	0.0997681	0.35089200	1.9907669	21	6 15.2	21.1
437326 2013 RD	17.9	X	11.53584	195.78120	152.04176	23.52178	0.0625400	0.38316130	1.8773632	21	11 29.2	20.3
437327 2013 RK_{1}	18.1	X	3.56172	332.52181	347.33997	18.68161	0.0540696	0.36872692	1.9260438	21	9 15.1	19.3
437328 2013 RM_{5}	17.9	X	283.95960	229.24574	190.16756	21.99708	0.0864524	0.37106169	1.9179560	21	10 2.5	19.3
437329 2013 RV_{35}	17.8	X	15.77961	312.08236	106.74695	3.08776	0.2030627	0.26985017	2.3716699	21	—	—
437330 2013 RG_{37}	17.7	X	20.42314	354.10541	28.82677	1.94883	0.1951163	0.26489295	2.4011675	21	—	—
437331 2013 RZ_{47}	16.9	X	195.08763	247.23700	184.04400	3.53220	0.0708911	0.21648296	2.7469678	21	6 11.1	21.0
437332 2013 RH_{53}	17.7	X	154.47618	358.17426	23.42221	5.45447	0.1590632	0.30674309	2.1774734	21	2 20.7	20.6
437333 2013 RC_{57}	17.8	X	54.15859	90.61821	346.00754	7.76020	0.1272598	0.29362812	2.2418383	21	—	—
437334 2013 RC_{94}	16.2	X	113.64160	221.98253	194.50745	14.34539	0.2737354	0.17582847	3.1555610	21	3 20.0	21.1
437335 2013 SH	18.6	X	22.31816	150.17386	215.52172	22.24150	0.1282534	0.39101319	1.8521455	21	—	—
437336 2013 SY_{29}	16.5	X	110.03559	72.39715	1.58543	16.03444	0.2913022	0.17431456	3.1738052	21	4 6.5	21.4
437337 2013 SR_{40}	17.1	X	256.20936	159.97394	29.69400	6.87019	0.0413405	0.27043604	2.3682434	21	—	—
437338 2013 SK_{66}	19.1	X	77.89044	117.21845	184.42677	21.64338	0.0872407	0.39161121	1.8502595	21	12 23.4	21.8
437339 2013 ST_{76}	18.2	X	346.50858	334.36255	34.54342	22.37258	0.1124760	0.37436629	1.9066526	21	11 11.6	19.5
437340 2013 SM_{78}	17.7	X	330.68042	60.39518	29.99357	4.94007	0.2060983	0.26607614	2.3940438	21	—	—
437341 2013 TX_{12}	18.0	X	117.65201	202.61092	193.88142	5.32183	0.1645887	0.30265076	2.1970581	21	1 22.2	20.4
437342 2013 TU_{13}	18.0	X	75.20668	184.75218	229.56026	5.13942	0.1503690	0.29020958	2.2594092	21	—	—
437343 2013 TM_{16}	18.3	X	0.67253	57.34962	9.95049	4.68268	0.1326642	0.27133850	2.3629894	21	—	—
437344 2013 TR_{23}	16.9	X	273.40116	216.12206	214.27602	17.02567	0.1499083	0.23503370	2.6004547	21	8 28.5	20.6
437345 2013 TO_{24}	18.0	X	16.83099	279.42475	223.21789	5.97834	0.0833929	0.29844818	2.2176351	21	—	—
437346 2013 TM_{39}	16.5	X	112.50829	42.00985	28.33016	5.57008	0.1176215	0.17947586	3.1126624	21	3 18.7	20.9
437347 2013 TK_{41}	17.6	X	359.04436	50.46468	24.43105	1.59164	0.1359095	0.26843247	2.3800131	21	—	—
437348 2013 TF_{51}	17.9	X	135.27200	191.94889	12.56521	20.17618	0.0425226	0.37194945	1.9149030	21	10 8.8	19.8
437349 2013 TA_{53}	17.0	X	214.89203	46.07783	322.07360	5.86756	0.0748678	0.19661732	2.9290146	21	4 11.8	21.5
437350 2013 TC_{59}	17.4	X	357.63898	12.89859	68.90008	3.20214	0.1739018	0.26978993	2.3720230	21	—	—
437351 2013 TL_{65}	18.1	X	97.06652	46.16408	359.70009	4.89868	0.1510526	0.29653781	2.2271493	21	1 3.2	20.1
437352 2013 TQ_{91}	18.5	X	83.88250	278.98009	178.60014	4.47521	0.0366243	0.31160380	2.1547698	21	2 5.6	20.6
437353 2013 TN_{102}	18.3	X	109.46978	237.62920	200.81847	4.13534	0.0651569	0.31065556	2.1591524	21	2 21.0	20.6
437354 2013 TB_{116}	17.5	X	48.78519	146.11829	298.26028	4.96558	0.1503734	0.28778648	2.2720739	21	—	—
437355 2013 TL_{119}	18.0	X	15.08852	199.00123	311.29980	4.96256	0.0998655	0.30173598	2.2014964	21	1 2.8	20.1
437356 2013 TS_{130}	15.7	X	97.42789	25.61888	34.51803	22.92835	0.1589136	0.17287991	3.1913397	21	3 6.3	20.5
437357 2013 TF_{138}	17.5	X	256.49350	219.43518	259.43670	1.92578	0.1215189	0.24250340	2.5467765	21	10 20.4	20.8
437358 2013 TT_{142}	17.8	X	346.78747	217.53493	220.53359	3.56751	0.1151900	0.26320525	2.4114209	21	—	—
437359 2013 TW_{144}	17.7	X	67.58335	229.37994	185.01551	7.08172	0.2217043	0.28752134	2.2734705	21	—	—
437360 2013 TV_{158}	6.3	X	359.72753	231.86616	180.98652	31.11000	0.6740804	0.00083249	111.9132964	21	11 16.2	22.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437361 2013 UO_2	18.0	X	19.19013	271.79217	48.08835	21.65843	0.0690371	0.36921588	1.9243429	21	10 25.3	19.7
437362 2013 UG_3	17.6	X	40.07303	260.57952	5.43255	19.40934	0.0638916	0.35707759	1.9677095	21	9 1.9	19.6
437363 2013 UA_4	17.0	X	80.97325	25.69961	50.54157	24.48908	0.1931726	0.29730232	2.2233296	21	2 3.6	19.6
437364 2013 UP_4	18.2	X	102.54347	42.97603	236.07743	19.67792	0.0829752	0.38355820	1.8760678	21	12 18.2	20.5
437365 2013 UQ_{11}	16.6	X	245.77064	136.18401	290.02663	12.36248	0.2410368	0.22612386	2.6683233	21	7 14.1	20.9
437366 2013 UK_{12}	16.7	X	255.40820	192.34857	230.60639	13.32862	0.2298273	0.22453148	2.6809243	21	7 17.3	21.0
437367 2013 VU_2	16.6	X	267.34453	123.35951	349.25210	9.44964	0.1938753	0.24188241	2.5511335	21	10 13.0	19.7
437368 2013 VP_3	17.9	X	77.31945	328.46425	89.22884	7.33072	0.1664454	0.29002660	2.2603594	21	—	—
437369 2013 VZ_6	16.2	X	109.58436	177.58879	262.08867	14.47077	0.2737326	0.17515521	3.1636420	21	4 8.8	21.3
437370 2013 VE_7	16.8	X	332.84250	16.11371	355.52662	11.91758	0.1961502	0.23912540	2.5707050	21	9 21.7	19.0
437371 2013 VO_9	17.8	X	18.00999	319.78220	40.42707	22.74119	0.0857408	0.37895043	1.8912449	21	12 22.3	20.1
437372 2013 VM_{15}	17.2	X	314.65987	205.70807	201.07417	8.40004	0.1543614	0.23928469	2.5695640	21	10 9.6	19.7
437373 2013 VY_{17}	16.7	X	302.61630	61.52838	48.01206	7.91619	0.1573066	0.24159429	2.5531614	21	12 16.9	19.2
437374 2013 VC_{20}	17.4	X	62.14051	170.22843	63.19339	23.88663	0.0197689	0.34653160	2.0074319	21	8 6.4	20.2
437375 2013 VF_{20}	17.5	X	10.38030	24.02134	51.98966	5.79656	0.1765051	0.26521666	2.3992132	21	—	—
437376 2013 WV_1	15.8	X	132.14650	351.69293	82.07352	19.08992	0.1923999	0.18008318	3.1056602	21	4 27.6	21.0
437377 2013 WF_6	17.5	X	59.73081	270.92968	143.79506	6.17377	0.1366349	0.27840417	2.3228378	21	—	—
437378 2013 WP_{11}	16.0	X	266.97768	203.24621	243.96050	21.31073	0.0352391	0.23242335	2.6198889	21	9 27.4	19.9
437379 2013 WR_{18}	17.5	X	94.87506	309.95815	104.53983	8.79974	0.0911142	0.28814489	2.2701895	21	1 5.5	19.9
437380 2013 WY_{21}	16.9	X	242.96844	276.74596	217.59218	21.30735	0.0597760	0.24080556	2.5587334	21	11 1.9	20.4
437381 2013 WH_{24}	17.2	X	202.03562	67.36574	296.33770	6.04213	0.1542918	0.31368821	2.1452138	21	3 11.5	20.4
437382 2013 WY_{29}	18.0	X	56.52280	27.48432	68.93860	4.97494	0.0988777	0.28893546	2.2660465	21	—	—
437383 2013 WS_{31}	18.2	X	339.51298	88.62098	66.49437	2.85184	0.1196381	0.28009464	2.3134823	21	—	—
437384 2013 WO_{37}	17.0	X	203.11048	232.82963	282.60207	8.72901	0.0694650	0.22963651	2.6410427	21	10 3.8	20.9
437385 2013 WH_{39}	15.8	X	189.91237	343.06289	53.81057	12.16723	0.1201255	0.18901837	3.0069997	21	4 26.4	20.5
437386 2013 WL_{40}	17.4	X	51.54441	359.38096	56.88823	5.70341	0.1322378	0.27477102	2.3432688	21	—	—
437387 2013 WM_{40}	17.1	X	33.85194	7.63593	58.53383	8.81007	0.1277559	0.27105283	2.3646494	21	—	—
437388 2013 WR_{41}	17.5	X	249.07116	171.28652	295.51520	0.47562	0.0866335	0.23060398	2.6336507	21	9 28.8	21.0
437389 2013 WK_{43}	17.0	X	324.71407	353.72749	58.94481	9.26155	0.1123434	0.24045554	2.5612159	21	11 10.3	19.7
437390 2013 WM_{47}	17.5	X	45.02241	91.30252	290.73352	9.18212	0.1546052	0.26459737	2.4029553	21	—	—
437391 2013 WG_{48}	16.9	X	208.15417	118.77917	13.26948	13.25815	0.2075415	0.22287490	2.6941924	21	9 7.6	21.4
437392 2013 WX_{54}	17.4	X	8.65182	228.33836	202.73551	6.24231	0.0840123	0.26459895	2.4029458	21	—	—
437393 2013 WA_{57}	17.8	X	225.50864	93.95150	63.36899	22.18253	0.0294357	0.37465790	1.9056631	21	12 8.9	19.6
437394 2013 WE_{57}	18.0	X	183.37537	250.14814	122.41406	3.90244	0.1789694	0.31327612	2.1470946	21	3 10.7	21.1
437395 2013 WN_{62}	16.6	X	266.34895	254.22322	189.21783	11.13518	0.1604493	0.22923669	2.6441127	21	9 7.4	20.2
437396 2013 WL_{63}	17.0	X	308.49378	84.78363	68.92201	21.98170	0.1739256	0.27108657	2.3644532	21	—	—
437397 2013 WW_{63}	17.1	X	243.30135	202.26650	220.67472	7.61993	0.2140315	0.21455999	2.7633563	21	7 8.9	21.5
437398 2013 WZ_{63}	17.1	X	294.89614	329.12470	95.33562	11.24891	0.1359985	0.23327080	2.6135399	21	10 7.6	20.3
437399 2013 WR_{64}	16.5	X	270.79416	183.01283	252.21578	12.61567	0.1613593	0.23148022	2.6270003	21	8 28.4	20.3
437400 2013 WN_{66}	17.6	X	29.12811	195.37396	243.76393	4.74206	0.1952116	0.27473968	2.3434469	21	—	—
437401 2013 WK_{67}	16.4	X	141.70380	86.16350	9.77024	24.12394	0.3395291	0.18219102	3.0816601	21	5 26.4	22.3
437402 2013 WK_{74}	17.3	X	63.60791	326.82608	98.08107	6.84465	0.0601585	0.28185487	2.3038402	21	—	—
437403 2013 WU_{74}	16.8	X	11.65469	339.17854	83.97660	7.15281	0.1271426	0.26366565	2.4086130	21	—	—
437404 2013 WQ_{77}	16.5	X	308.95282	152.83334	260.04665	13.32623	0.1270250	0.23737565	2.5833224	21	10 3.8	19.6
437405 2013 WN_{80}	16.6	X	282.64336	327.21662	94.42818	12.99154	0.1767941	0.22189669	2.7021046	21	9 5.4	20.2
437406 2013 WC_{83}	17.6	X	313.44431	42.17820	95.08624	3.37047	0.1697185	0.26183421	2.4198315	21	—	—
437407 2013 WM_{83}	17.3	X	347.25768	269.10522	89.39810	3.68719	0.1961343	0.23595154	2.5937065	21	10 8.0	19.5
437408 2013 WQ_{83}	17.3	X	29.05312	209.63992	235.00140	5.87468	0.1044488	0.27393026	2.3480610	21	—	—
437409 2013 WH_{86}	16.8	X	290.90269	290.60822	241.20187	4.60129	0.0745297	0.26687575	2.3892594	21	—	—
437410 2013 WE_{91}	17.4	X	344.25045	56.50004	59.38024	8.83388	0.1154329	0.26745374	2.3858159	21	—	—
437411 2013 WC_{94}	17.5	X	352.41294	193.90230	266.69709	5.49093	0.0921497	0.26686937	2.3892975	21	—	—
437412 2013 WU_{96}	18.1	X	358.64322	43.32477	35.72026	3.36709	0.0677425	0.26235863	2.4166058	21	—	—
437413 2013 WX_{97}	17.6	X	286.44784	43.57691	61.01270	6.53790	0.0662464	0.24335608	2.5408240	21	11 22.5	20.4
437414 2013 WX_{99}	17.3	X	275.26884	138.01476	38.28561	4.79056	0.0464743	0.26559431	2.3969384	21	—	—
437415 2013 WD_{102}	16.1	X	34.40169	277.35460	259.94217	15.63177	0.1601064	0.17533054	3.1615326	21	4 9.5	20.1
437416 2013 WG_{103}	17.7	X	100.91005	339.29761	85.84144	5.12729	0.1213998	0.29755200	2.2220857	21	2 3.3	19.9
437417 2013 WH_{103}	16.6	X	132.51130	283.61190	182.34585	9.66503	0.1948292	0.18536068	3.0464284	21	5 29.9	21.6
437418 2013 WV_{106}	16.5	X	309.01619	199.23426	220.68552	8.01549	0.1757651	0.23824545	2.5770310	21	10 14.5	18.9
437419 2013 XM_2	16.4	X	273.05886	3.54774	82.63264	16.14142	0.1354929	0.23085175	2.6317660	21	10 6.5	20.1
437420 2013 XS_2	16.5	X	282.29141	71.66956	19.78308	13.49731	0.1386570	0.24074889	2.5591349	21	10 17.9	19.4
437421 2013 XP_3	15.9	X	204.39384	246.04831	278.89822	12.98015	0.0747843	0.22414272	2.6840233	21	10 15.1	20.1
437422 2013 XN_{11}	17.6	X	70.28040	328.17379	76.01264	5.44689	0.2306833	0.27500091	2.3419626	21	—	—
437423 2013 XV_{17}	16.6	X	359.09023	190.63201	155.34456	6.51218	0.0301637	0.21967081	2.7203272	21	9 29.7	20.1
437424 2013 XY_{17}	16.7	X	303.55795	188.21537	230.66450	21.13572	0.1005682	0.23580536	2.5947784	21	10 7.9	20.0
437425 2013 XE_{20}	15.4	X	14.37587	116.43994	122.84374	22.57077	0.0369580	0.17444453	3.1722286	21	6 4.2	20.1
437426 2013 XO_{20}	16.6	X	162.56540	157.25602	347.35501	8.06768	0.0845018	0.20993553	2.8037896	21	8 10.7	20.8
437427 2013 XO_{22}	15.5	X	67.99969	252.39894	216.38588	22.46975	0.3203283	0.15826949	3.3848382	21	4 7.2	19.8
437428 2013 XS_{22}	16.0	X	295.90730	281.09739	106.98931	15.00120	0.2121587	0.22053667	2.7132023	21	7 30.0	19.3
437429 2013 XY_{22}	16.6	X	24.41850	234.41012	92.76278	7.21427	0.0174073	0.22029067	2.7152218	21	10 11.1	20.3
437430 2013 XP_{23}	16.1	X	215.27413	305.10253	92.34513	11.03734	0.0936175	0.18496749	3.0507441	21	5 23.2	20.8
437431 2013 XU_{24}	17.2	X	339.07590	193.96239	288.53889	6.41644	0.1156952	0.26674031	2.3900681	21	—	—
437432 2013 XV_{24}	16.7	X	274.83672	289.41769	137.97252	5.11411	0.2181796	0.22209410	2.7005032	21	8 20.9	20.3
437433 2013 XF_{25}	17.3	X	11.82256	348.71208	79.34735	7.12313	0.1352735	0.26106538	2.4245801	21	—	—
437434 2013 XM_{25}	17.9	X	37.05878	165.31526	270.95709	1.81817	0.1127506	0.27305212	2.3530926	21	—	—
437435 2013 YW_1	16.4	X	176.15154	111.83947	106.83677	14.88887	0.1236574	0.23189647	2.6238558	21	11 27.6	20.6
437436 2013 YL_5	16.8	X	104.27569	46.46444	111.30084	11.20789	0.2446122	0.17994954	3.1071977	21	7 9.4	21.6
437437 2013 YR_5	16.6	X	116.08408	51.60340	111.92695	9.55767	0.1496619	0.18756680	3.0224937	21	7 18.6	21.1
437438 2013 YV_5	17.0	X	263.05591	354.11930	83.03865	3.25118	0.1813075	0.21827826	2.7318849	21	8 25.2	20.7
437439 2013 YX_5	16.6	X	127.62106	27.23390	104.37954	9.91648	0.1142428	0.18345562	3.0674821	21	6 17.6	21.2
437440 2013 YD_6	16.3	X	267.44256	350.25159	107.21013	17.43461	0.0699992	0.22384707	2.6863861	21	10 22.2	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437441 2013 YJ_6	17.5	X	280.41972	35.48995	81.49745	2.61325	0.1346307	0.23552016	2.5968727	21	11 19.9	20.5
437442 2013 YK_6	16.9	X	285.16465	12.27727	89.58622	3.04497	0.1762969	0.23182132	2.6244228	21	10 31.8	19.9
437443 2013 YN_8	16.1	X	117.72073	26.37700	101.50286	17.89145	0.1740940	0.17795004	3.1304299	21	6 10.4	21.0
437444 2013 YG_9	16.1	X	22.46592	323.52857	284.26399	13.13155	0.0421018	0.18885002	3.0087864	21	6 21.2	20.1
437445 2013 YN_9	17.1	X	258.24520	206.01114	199.34075	1.49243	0.0673149	0.20322459	2.8651798	21	7 22.1	21.1
437446 2013 YX_9	17.8	X	108.94600	260.96244	140.69148	2.44958	0.1394495	0.28314017	2.2968628	21	1 18.2	20.1
437447 2013 YA_{10}	15.9	X	334.89092	136.78466	120.20348	10.41890	0.0312286	0.17512833	3.1639658	21	5 2.6	20.4
437448 2013 YB_{10}	16.1	X	36.49315	296.49746	271.96203	8.55308	0.0361208	0.17898003	3.1184084	21	5 18.8	20.3
437449 2013 YE_{10}	16.8	X	189.61559	327.06022	149.14553	1.88235	0.1341592	0.20179085	2.8787354	21	7 30.7	21.4
437450 2013 YL_{10}	16.6	X	142.07150	358.32504	135.45870	6.34516	0.1049692	0.18646514	3.0343869	21	7 4.3	21.3
437451 2013 YY_{11}	15.8	X	41.27236	269.64114	291.44165	15.32293	0.1279044	0.17667514	3.1454715	21	5 24.5	20.0
437452 2013 YZ_{12}	16.9	X	171.51119	83.38533	67.47811	5.67656	0.1006867	0.21477177	2.7615395	21	8 29.3	21.2
437453 2013 YT_{13}	16.0	X	297.09404	57.74733	293.57220	7.93359	0.0144723	0.18925126	3.0045322	21	7 10.5	20.1
437454 2013 YF_{14}	18.0	X	202.49455	291.42221	90.92870	4.77966	0.1651716	0.31244789	2.1508873	21	4 11.3	21.2
437455 2013 YT_{14}	17.3	X	42.59520	307.39211	112.41149	7.52319	0.0926713	0.26177971	2.4201674	21	—	—
437456 2013 YY_{15}	16.8	X	295.67683	265.47094	121.14687	5.66240	0.1321267	0.21167954	2.7883682	21	8 8.9	20.2
437457 2013 YQ_{16}	17.4	X	109.17448	301.20991	118.16059	6.36994	0.1079810	0.28680066	2.2772775	21	2 7.7	19.8
437458 2013 YJ_{17}	17.2	X	281.52352	308.27299	143.73845	2.80701	0.0670174	0.22491319	2.6778902	21	10 27.2	20.5
437459 2013 YK_{19}	17.7	X	233.49047	162.59471	323.42881	2.39274	0.1181243	0.22956165	2.6416169	21	9 29.5	21.5
437460 2013 YR_{20}	16.2	X	282.56751	336.09939	76.35659	13.95398	0.1716807	0.22106321	2.7088923	21	8 24.7	19.9
437461 2013 YN_{22}	18.2	X	351.54871	53.93878	58.05523	3.61010	0.1301202	0.27108198	2.3644799	21	—	—
437462 2013 YV_{27}	16.4	X	86.11310	54.63269	105.03480	11.14715	0.1763078	0.17561076	3.1581685	21	6 14.0	20.9
437463 2013 YD_{28}	16.7	X	200.16488	32.20695	107.31996	10.57779	0.1064221	0.21318157	2.7752553	21	9 15.2	21.1
437464 2013 YU_{28}	16.0	X	84.62328	224.28043	298.18066	6.26118	0.1719398	0.17653716	3.1471103	21	6 14.3	20.5
437465 2013 YO_{31}	16.6	X	256.67098	174.99785	257.87517	4.99321	0.0426186	0.21082407	2.7959061	21	8 27.3	20.5
437466 2013 YM_{32}	16.0	X	140.22239	2.56915	140.31730	10.84628	0.0522358	0.18615659	3.0377388	21	7 9.5	20.5
437467 2013 YA_{35}	15.7	X	185.86657	107.67371	306.93590	9.46650	0.0853633	0.18152152	3.0892328	21	5 9.0	20.6
437468 2013 YN_{35}	17.2	X	3.56877	297.00628	153.75296	6.78672	0.0712597	0.26674021	2.3900687	21	—	—
437469 2013 YJ_{40}	16.3	X	168.39153	204.56577	274.47105	7.81269	0.0389168	0.19106940	2.9854419	21	7 11.4	20.6
437470 2013 YF_{42}	16.0	X	169.81961	298.87009	269.37776	16.55175	0.2199030	0.23127581	2.6285479	21	10 29.5	20.8
437471 2013 YL_{42}	16.6	X	291.60436	338.34321	126.62005	14.27569	0.2139674	0.23326276	2.6135999	21	11 15.9	19.6
437472 2013 YJ_{43}	16.4	X	116.07114	30.93007	106.64626	5.65864	0.0866897	0.18100745	3.0950790	21	6 9.1	20.9
437473 2013 YA_{44}	16.8	X	189.62243	60.15531	5.13861	3.11615	0.1093606	0.18981461	2.9985845	21	5 28.2	21.4
437474 2013 YO_{46}	16.9	X	323.08384	319.43315	65.42927	6.34064	0.0790639	0.22321695	2.6914393	21	9 30.2	20.1
437475 2013 YV_{46}	16.3	X	154.21972	127.75427	317.58665	9.42543	0.0553206	0.18013122	3.1051081	21	5 11.5	21.1
437476 2013 YA_{47}	16.4	X	174.02093	305.05069	144.12951	8.66087	0.0842284	0.18477394	3.0528742	21	6 12.4	21.2
437477 2013 YP_{47}	17.2	X	238.03594	40.71561	78.40096	3.31520	0.1548270	0.22556261	2.6727478	21	9 23.6	21.0
437478 2013 YN_{49}	16.9	X	316.54922	152.31710	280.18540	7.23270	0.0957544	0.23460312	2.6036356	21	11 20.8	20.0
437479 2013 YT_{49}	17.5	X	260.01611	333.43512	149.81632	1.55363	0.1371502	0.22950757	2.6420318	21	10 28.0	20.8
437480 2013 YZ_{50}	17.8	X	271.58495	78.55410	100.33961	3.60051	0.1141493	0.26097401	2.4251459	21	—	—
437481 2013 YP_{51}	16.3	X	93.22556	248.10139	271.23661	4.71416	0.2041159	0.17877443	3.1207988	21	6 25.0	20.7
437482 2013 YZ_{51}	17.7	X	92.27143	11.42159	52.59905	7.48138	0.0707074	0.29042032	2.2583160	21	1 12.9	20.2
437483 2013 YP_{54}	16.8	X	237.97475	5.13917	97.30733	16.95856	0.1899566	0.22090164	2.7102130	21	9 1.9	21.2
437484 2013 YD_{55}	16.6	X	270.58560	299.42344	127.77451	9.86315	0.1106042	0.21600874	2.7509868	21	9 2.1	20.3
437485 2013 YP_{55}	17.2	X	183.95312	258.42606	262.19476	6.81885	0.1572236	0.22145571	2.7056906	21	9 15.4	21.7
437486 2013 YZ_{55}	16.6	X	3.94861	315.62336	88.36265	16.47352	0.0785186	0.24365623	2.5387370	21	12 29.9	19.7
437487 2013 YB_{57}	17.0	X	317.46674	325.11676	44.96692	6.60321	0.0753356	0.21673434	2.7448434	21	8 31.4	20.4
437488 2013 YF_{58}	17.8	X	51.35725	354.27997	42.50517	5.44016	0.1343202	0.26242309	2.4162101	21	—	—
437489 2013 YJ_{58}	16.1	X	259.26376	92.18717	272.32597	7.40240	0.0545647	0.19029529	2.9935328	21	6 2.1	20.4
437490 2013 YT_{58}	16.2	X	319.82213	150.74556	274.91312	14.68317	0.0913249	0.23641783	2.5902951	21	11 16.6	19.3
437491 2013 YZ_{59}	16.8	X	329.50659	300.89086	77.11487	7.30238	0.0500191	0.22122183	2.7075973	21	10 2.6	20.3
437492 2013 YP_{60}	17.0	X	133.74154	160.71913	75.28359	5.92375	0.0818753	0.22377358	2.6869743	21	11 3.5	20.9
437493 2013 YT_{61}	17.2	X	109.81205	273.61054	333.07558	2.74285	0.0120404	0.22104380	2.7090508	21	10 11.9	21.0
437494 2013 YA_{62}	16.9	X	279.67931	331.37618	95.55688	8.73278	0.2161776	0.22264503	2.6960465	21	8 30.7	20.4
437495 2013 YQ_{64}	17.5	X	16.27108	344.81183	68.60412	7.28795	0.1176167	0.26166137	2.4208970	21	—	—
437496 2013 YQ_{68}	16.9	X	221.04212	27.73751	117.74119	3.59533	0.0355756	0.21822798	2.7323045	21	10 21.4	20.7
437497 2013 YN_{70}	18.1	X	150.12686	169.28920	222.23067	5.48740	0.0541556	0.30816958	2.1707486	21	2 9.8	20.7
437498 2013 YA_{72}	16.0	X	110.73737	64.27008	46.50159	10.82419	0.1732433	0.17908569	3.1171817	21	5 10.5	20.6
437499 2013 YE_{72}	16.4	X	205.87318	323.53102	71.81243	8.37821	0.0431037	0.19091936	2.9870058	21	5 11.4	20.7
437500 2013 YQ_{73}	16.5	X	284.53752	318.86090	104.84817	7.35333	0.0517139	0.21701354	2.7424886	21	9 27.7	20.1
437501 2013 YM_{76}	16.1	X	250.83822	266.36750	92.81530	12.54807	0.1239540	0.18735104	3.0248138	21	5 12.4	20.8
437502 2013 YV_{76}	16.3	X	198.41209	63.50896	92.37248	13.71706	0.0786596	0.21789843	2.7350587	21	10 9.4	20.6
437503 2013 YF_{77}	16.8	X	294.53513	350.51437	99.74802	16.12154	0.1334903	0.23372440	2.6101573	21	11 12.5	20.0
437504 2013 YP_{77}	16.7	X	255.70968	324.16308	92.72272	7.21936	0.0690198	0.20659161	2.8339636	21	8 4.8	20.6
437505 2013 YJ_{78}	16.1	X	112.44829	1.10307	122.51858	10.19297	0.0398291	0.17504262	3.1649986	21	5 15.2	20.8
437506 2013 YH_{79}	17.7	X	271.45073	173.97159	324.60643	4.43381	0.0798656	0.24057433	2.5603727	21	12 13.3	20.8
437507 2013 YJ_{79}	16.4	X	276.74414	330.98356	95.63442	14.91183	0.1181423	0.22007953	2.7169581	21	9 14.3	20.2
437508 2013 YR_{79}	16.2	X	197.19340	27.14842	97.86997	11.01909	0.0653001	0.20942837	2.8083143	21	8 25.9	20.4
437509 2013 YQ_{80}	17.0	X	300.52527	66.81437	318.61660	3.05352	0.0771522	0.21305392	2.7763637	21	8 21.9	20.6
437510 2013 YB_{81}	16.8	X	150.44679	155.42438	94.22467	5.63171	0.1300741	0.23299336	2.6156142	21	12 7.3	20.9
437511 2013 YC_{83}	16.3	X	1.52290	29.56083	273.02046	6.91541	0.0801267	0.20029508	2.8930495	21	8 1.9	19.9
437512 2013 YV_{83}	16.7	X	120.36660	27.83993	131.25366	11.01914	0.0589036	0.18938550	3.0031123	21	7 7.6	21.0
437513 2013 YD_{88}	16.6	X	91.32454	208.86633	103.06078	5.28738	0.0469218	0.23428854	2.6059657	21	12 18.3	20.2
437514 2013 YZ_{90}	16.8	X	357.40059	220.36743	152.50644	6.69620	0.0467294	0.22165988	2.7040289	21	11 4.0	20.3
437515 2013 YF_{91}	16.6	X	113.16327	11.01190	297.91761	8.51005	0.1244204	0.23736046	2.5834326	21	—	—
437516 2013 YK_{91}	16.0	X	325.16340	249.91087	113.68481	17.79608	0.0962243	0.21982229	2.7190774	21	9 3.9	19.5
437517 2013 YY_{92}	16.8	X	281.21546	2.62929	21.48642	5.94355	0.0819971	0.20542148	2.8447153	21	7 24.4	20.7
437518 2013 YZ_{92}	16.4	X	156.19641	108.08626	325.48264	10.53270	0.0961338	0.17708327	3.1406366	21	4 30.8	21.4
437519 2013 YK_{94}	17.3	X	181.58427	331.03114	307.30517	3.39155	0.0825864	0.25682444	2.4511985	21	—	—
437520 2013 YQ_{96}	17.2	X	327.83492	321.26542	142.62782	7.03942	0.1028757	0.25220196	2.4810589	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437521 2013 YE_{103}	16.4	X	231.62500	51.36374	117.96822	15.29186	0.1156631	0.23373193	2.6101012	21	11 27.7	20.3
437522 2013 YG_{104}	17.1	X	73.21812	333.05875	96.56763	10.94992	0.0875382	0.27673897	2.3321465	21	—	—
437523 2013 YB_{105}	15.6	X	315.99267	353.03023	311.46175	9.57093	0.0415984	0.18033867	3.1027264	21	5 30.9	20.0
437524 2013 YX_{105}	15.4	X	359.50911	152.17107	285.40478	9.84930	0.2830885	0.12558084	3.9493031	21	—	—
437525 2013 YD_{106}	16.7	X	26.84412	200.67193	115.89364	6.20165	0.1143668	0.22035662	2.7146800	21	10 11.9	20.0
437526 2013 YG_{106}	16.9	X	359.47827	73.12233	277.83774	3.57042	0.0714562	0.22272200	2.6954253	21	10 6.1	20.1
437527 2013 YR_{106}	16.8	X	341.63660	230.33770	126.02486	9.85290	0.0940744	0.21836076	2.7311967	21	9 20.4	20.0
437528 2013 YQ_{109}	17.3	X	202.29574	237.06991	271.29639	2.86694	0.0416669	0.21736193	2.7395573	21	9 28.1	21.2
437529 2013 YZ_{110}	15.8	X	26.58703	196.33899	123.70062	36.53754	0.1497336	0.21212954	2.7844234	21	11 2.4	20.2
437530 2013 YR_{111}	16.8	X	161.09624	66.29116	125.77816	5.97970	0.0519329	0.21965009	2.7204983	21	10 9.8	20.8
437531 2013 YX_{111}	16.2	X	76.61069	268.43343	275.95648	9.74229	0.1485054	0.18146048	3.0899255	21	6 28.6	20.3
437532 2013 YZ_{112}	16.9	X	359.03372	321.83658	80.34948	8.64035	0.2081815	0.24514545	2.5284449	21	—	—
437533 2013 YE_{115}	17.1	X	53.46479	248.08814	120.05365	14.49198	0.1208804	0.24720022	2.5144142	21	—	—
437534 2013 YM_{115}	17.1	X	140.24626	109.59384	101.46876	0.44385	0.0107437	0.21559294	2.7545227	21	10 5.1	20.7
437535 2013 YZ_{115}	16.1	X	343.69980	241.74709	112.87678	7.44801	0.0732671	0.20942310	2.8083614	21	9 20.1	19.6
437536 2013 YV_{116}	16.8	X	32.28159	224.80771	108.65138	7.46552	0.0502317	0.21888601	2.7268257	21	11 2.1	20.4
437537 2013 YE_{117}	17.0	X	312.50708	344.59560	108.03741	8.27716	0.0730692	0.23542650	2.5975614	21	12 14.4	20.0
437538 2013 YU_{117}	17.0	X	263.99924	232.82025	159.35696	2.41552	0.0759813	0.20359689	2.8616858	21	7 10.9	21.0
437539 2013 YF_{119}	15.7	X	152.25805	336.74906	114.49988	19.37237	0.0517175	0.18186603	3.0853303	21	5 25.3	20.5
437540 2013 YG_{121}	17.3	X	211.38541	151.07610	139.78865	3.91274	0.1256940	0.27532014	2.3401520	21	—	—
437541 2013 YJ_{122}	15.7	X	349.84093	335.19627	273.79644	10.97464	0.0563358	0.17744384	3.1363806	21	5 3.7	20.0
437542 2013 YP_{123}	15.7	X	353.28692	353.15255	298.14906	10.26466	0.1130147	0.18704475	3.0281151	21	7 5.6	19.2
437543 2013 YV_{124}	16.8	X	352.74962	359.40017	358.54949	6.24769	0.0706376	0.21419973	2.7664539	21	10 4.9	20.0
437544 2013 YK_{125}	16.7	X	213.82753	304.42580	107.19870	5.10831	0.1607530	0.18811791	3.0165877	21	6 3.3	21.7
437545 2013 YN_{125}	16.1	X	104.25835	60.35714	119.67311	17.36038	0.1320463	0.18423083	3.0588711	21	7 24.5	20.7
437546 2013 YT_{127}	15.9	X	115.59750	352.22890	277.51827	17.36993	0.0740511	0.23047637	2.6346228	21	11 23.7	19.9
437547 2013 YK_{128}	15.7	X	34.01653	122.54854	112.09944	13.90482	0.0682320	0.18475914	3.0530372	21	6 22.9	19.7
437548 2013 YL_{128}	16.1	X	54.15204	263.39997	299.39795	5.73712	0.1233165	0.17796989	3.1301972	21	6 17.1	20.1
437549 2013 YP_{128}	16.8	X	300.59778	359.64538	79.72894	5.29798	0.1724250	0.23317881	2.6142272	21	10 29.3	19.5
437550 2013 YB_{129}	16.9	X	214.36567	190.62952	270.92760	4.01779	0.1249407	0.21478972	2.7613856	21	8 6.0	21.1
437551 2013 YJ_{138}	16.3	X	96.77626	78.44475	57.08641	10.48710	0.0592572	0.17733207	3.1376984	21	5 10.5	20.6
437552 2013 YE_{139}	16.3	X	346.26195	147.96651	268.40852	12.49057	0.1528357	0.24100631	2.5573123	21	12 26.2	18.8
437553 2013 YC_{144}	17.5	X	162.16732	155.94202	113.88699	15.57152	0.0740343	0.24630897	2.5204760	21	—	—
437554 2013 YN_{147}	16.1	X	238.96251	231.67517	127.94043	10.91470	0.0943153	0.17744595	3.1363557	21	5 4.2	21.0
437555 2013 YY_{148}	17.1	X	216.47233	153.50698	303.12740	3.02551	0.1760968	0.21568881	2.7537064	21	7 30.2	21.5
437556 2013 YP_{149}	17.5	X	33.05766	21.65498	99.37772	7.28634	0.0810835	0.28446485	2.2897267	21	—	—
437557 2013 YN_{150}	16.3	X	258.87335	358.71452	94.16519	22.73857	0.0237872	0.22349122	2.6892370	21	10 15.7	20.5
437558 2013 YY_{150}	16.4	X	173.82435	320.73452	102.34807	8.65570	0.2202382	0.18511827	3.0490873	21	5 15.8	21.7
437559 2014 AL_{1}	17.0	X	198.08573	136.27513	2.38228	3.19432	0.0341969	0.21219261	2.7838717	21	9 12.6	21.0
437560 2014 AX_{3}	16.8	X	130.48375	38.26259	105.00244	11.54430	0.1962902	0.18521219	3.0480565	21	7 11.7	21.7
437561 2014 AH_{4}	15.9	X	203.85989	294.27883	108.49119	12.45909	0.0501989	0.17982413	3.1086421	21	5 20.9	20.6
437562 2014 AM_{4}	16.3	X	90.63013	116.85352	77.19262	6.80195	0.0765416	0.19004849	2.9961239	21	7 19.5	20.5
437563 2014 AT_{4}	16.9	X	219.73945	67.14786	56.92224	4.74865	0.0449383	0.21449920	2.7638784	21	9 21.4	20.8
437564 2014 AB_{7}	16.9	X	117.33727	50.03561	82.84314	2.27098	0.1445573	0.17931363	3.1145395	21	6 10.9	21.6
437565 2014 AH_{8}	16.7	X	88.49101	107.57967	60.32174	2.32380	0.1321517	0.17825848	3.1268179	21	6 20.2	21.1
437566 2014 AU_{8}	16.5	X	141.07590	158.55490	322.03433	1.97844	0.1728476	0.18355107	3.0664186	21	6 21.9	21.5
437567 2014 AM_{14}	16.7	X	283.64770	48.61056	57.72859	9.79731	0.1121846	0.23542453	2.5975759	21	11 13.8	19.5
437568 2014 AX_{14}	16.8	X	249.80086	288.64583	174.84774	8.44549	0.2609651	0.22019410	2.7160156	21	8 31.3	21.0
437569 2014 AZ_{14}	16.6	X	316.10890	290.87737	137.72648	22.36233	0.0579134	0.23235587	2.6203962	21	11 24.3	20.4
437570 2014 AA_{18}	17.0	X	232.23579	9.31306	55.10918	2.83816	0.0404833	0.19894426	2.9061305	21	7 18.9	21.1
437571 2014 AL_{18}	16.6	X	262.38357	325.36595	90.21327	3.72642	0.1426401	0.21020629	2.8013814	21	7 31.3	20.5
437572 2014 AC_{19}	16.7	X	31.80546	247.27077	341.50510	2.13573	0.1055784	0.17924228	3.1153660	21	6 14.3	20.6
437573 2014 AK_{20}	16.8	X	201.96649	141.29845	77.91017	8.17395	0.0695132	0.25757158	2.4464561	21	—	—
437574 2014 AV_{20}	18.5	X	163.91381	310.50611	81.71025	4.39273	0.1130342	0.30769171	2.1729956	21	3 12.8	21.3
437575 2014 AA_{28}	16.5	X	350.14079	191.19654	227.96880	7.81320	0.2045301	0.24411492	2.5355558	21	—	—
437576 2014 AO_{28}	17.1	X	94.45417	87.07550	309.60511	5.21274	0.1135251	0.27199963	2.3591588	21	—	—
437577 2014 AX_{31}	16.7	X	258.71352	348.63116	145.60071	13.62308	0.1322334	0.23098688	2.6307395	21	11 14.5	20.4
437578 2014 AR_{37}	17.6	X	39.77766	314.17578	137.81181	3.91963	0.1172082	0.27816842	2.3241501	21	—	—
437579 2014 AX_{39}	15.8	X	106.20885	226.69001	300.74013	8.71392	0.0475291	0.18168141	3.0874201	21	6 30.3	20.2
437580 2014 AQ_{40}	16.8	X	49.26055	221.42542	351.42826	9.34107	0.0601270	0.18401088	3.0613082	21	6 14.1	21.1
437581 2014 AQ_{41}	16.8	X	6.13681	49.63762	305.97947	5.02278	0.0444306	0.21883065	2.7272856	21	10 19.1	20.4
437582 2014 AW_{41}	15.9	X	165.53497	309.18127	137.42259	18.97331	0.1440800	0.18106690	3.0944016	21	6 5.6	21.2
437583 2014 AS_{43}	16.8	X	9.45361	347.19371	358.30352	5.94937	0.0718569	0.22522428	2.6754238	21	10 15.0	20.0
437584 2014 AZ_{43}	17.1	X	347.40212	268.76231	137.19014	8.98314	0.1924248	0.23388966	2.6089276	21	12 16.7	19.7
437585 2014 AK_{44}	17.3	X	123.69521	216.00486	114.29013	5.39611	0.1698435	0.26268594	2.4145980	21	—	—
437586 2014 AZ_{46}	15.4	X	277.45876	6.52053	308.58567	16.89130	0.1844883	0.18138241	3.0908121	21	3 28.0	20.4
437587 2014 AC_{47}	16.1	X	334.17341	166.28756	106.26130	10.24834	0.0301010	0.17942332	3.1132700	21	5 19.7	20.4
437588 2014 AU_{47}	16.7	X	290.19260	113.78524	315.25108	5.56941	0.0525562	0.22071046	2.7117778	21	10 6.2	20.2
437589 2014 AV_{47}	16.8	X	162.95705	97.96979	116.42260	13.59609	0.0986661	0.22155141	2.7049114	21	11 10.6	21.2
437590 2014 AZ_{49}	16.0	X	170.51279	184.90754	268.83164	9.44739	0.0452339	0.17912637	3.1167098	21	6 12.4	20.6
437591 2014 AK_{50}	16.4	X	172.14212	3.29959	62.73749	19.92356	0.0618377	0.17733968	3.1376086	21	5 13.4	21.1
437592 2014 AQ_{50}	16.6	X	168.63036	289.03038	168.41954	5.54569	0.1440543	0.18876513	3.0096884	21	6 17.8	21.5
437593 2014 AU_{53}	16.9	X	13.03603	219.96787	158.99412	5.60776	0.2704288	0.24466900	2.5317263	21	—	—
437594 2014 AX_{53}	17.2	X	315.21869	279.37720	137.16132	6.07490	0.0732413	0.22965710	2.6408848	21	10 31.8	20.4
437595 2014 AA_{54}	16.5	X	32.25352	184.40460	145.06048	5.60776	0.0175332	0.22146681	2.7056001	21	10 23.1	20.1
437596 2014 BZ_{1}	16.0	X	67.18752	6.23296	123.00290	11.14379	0.0235621	0.15857854	3.3804391	21	3 27.2	20.9
437597 2014 BE_{2}	17.0	X	63.50502	342.59608	300.19751	3.46474	0.0382378	0.21375287	2.7703082	21	10 1.4	20.9
437598 2014 BS_{2}	15.5	X	95.91116	217.33791	294.53855	15.90211	0.0427278	0.18148243	3.0896764	21	5 25.4	20.1
437599 2014 BG_{4}	16.9	X	16.95776	262.73108	144.26829	5.78392	0.0993906	0.24802366	2.5088458	21	—	—
437600 2014 BJ_{5}	17.1	X	120.79517	88.05398	120.60481	4.58866	0.0347255	0.20856920	2.8160213	21	9 10.3	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437601 2014 BU_{5}	16.7	X	306.84297	317.47772	119.89553	8.59157	0.1059785	0.22802242	2.6534914	21	11 13.7	19.8
437602 2014 BK_{6}	15.5	X	151.10203	123.89528	321.63700	15.00592	0.1381197	0.17405659	3.1769405	21	5 12.8	20.8
437603 2014 BP_{6}	17.2	X	162.79205	68.42434	126.70369	4.72323	0.0364518	0.21351131	2.7723972	21	10 14.5	21.1
437604 2014 BO_{7}	16.7	X	322.89634	270.65314	123.63544	7.35985	0.0306712	0.21510443	2.7586916	21	10 14.2	20.4
437605 2014 BE_{8}	16.4	X	119.70202	150.30163	348.60491	4.92850	0.0863884	0.17952915	3.1120464	21	6 14.2	21.1
437606 2014 BF_{11}	15.6	X	324.99785	158.50575	129.38432	29.61604	0.1981986	0.17363013	3.1821403	21	5 15.3	20.2
437607 2014 BF_{12}	16.4	X	23.91979	86.22988	132.82087	14.57974	0.0243125	0.17278154	3.1925509	21	5 20.6	21.0
437608 2014 BL_{12}	17.2	X	56.33636	305.22537	82.59945	3.06327	0.1486882	0.25165512	2.4846518	21	—	—
437609 2014 BA_{13}	17.3	X	22.60379	298.95195	90.10500	0.53610	0.1418539	0.24202019	2.5501652	21	—	—
437610 2014 BL_{13}	16.5	X	69.26348	336.11494	333.49649	1.90388	0.0520954	0.22251522	2.6970949	21	11 16.6	20.2
437611 2014 BS_{13}	16.8	X	201.73999	83.53546	85.97696	3.28800	0.0254346	0.21858061	2.7293650	21	10 28.9	20.6
437612 2014 BY_{13}	17.0	X	344.93645	335.09116	85.09254	5.80876	0.2026834	0.24004487	2.5641362	21	—	—
437613 2014 BC_{14}	16.7	X	12.66336	16.01761	30.21807	3.64262	0.1686498	0.24629650	2.5205611	21	—	—
437614 2014 BX_{14}	16.3	X	226.05361	3.33543	91.30483	13.72812	0.1864429	0.21022725	2.8011952	21	8 7.5	20.9
437615 2014 BJ_{16}	16.1	X	199.51428	80.54941	317.63999	14.35762	0.1756701	0.18384243	3.0631779	21	4 28.5	21.5
437616 2014 BN_{18}	16.1	X	145.86737	336.48738	137.30664	10.23102	0.0158955	0.17977312	3.1092302	21	6 8.1	20.6
437617 2014 BX_{19}	15.4	X	300.65080	350.45211	317.03069	15.00432	0.1520825	0.17173816	3.2054685	21	4 22.5	20.2
437618 2014 BG_{20}	16.9	X	277.56141	49.03987	71.49925	6.83336	0.1109584	0.23450021	2.6043972	21	11 23.5	19.8
437619 2014 BU_{20}	17.0	X	155.95197	221.53118	128.23223	7.52041	0.1175498	0.26992613	2.3712250	21	1 10.6	20.2
437620 2014 BG_{21}	15.6	X	232.47817	90.13806	320.16911	9.41318	0.0372808	0.18654739	3.0334949	21	7 1.7	20.0
437621 2014 BG_{24}	16.5	X	350.47493	129.41604	182.91344	9.58235	0.0084466	0.19117257	2.9843677	21	7 28.8	20.7
437622 2014 BN_{25}	17.3	X	49.71549	349.16724	13.16069	0.43752	0.0575721	0.24202816	2.5501092	21	—	—
437623 2014 BY_{25}	17.0	X	121.08446	340.05680	281.09738	3.49010	0.0625125	0.22658156	2.6647287	21	11 18.1	20.9
437624 2014 BJ_{26}	16.8	X	271.99981	308.34649	116.73750	5.32661	0.0538645	0.21579732	2.7527832	21	9 9.8	20.5
437625 2014 BL_{27}	17.5	X	254.26806	251.63299	248.21494	2.42188	0.1331737	0.23289190	2.6163738	21	11 11.3	21.0
437626 2014 BN_{27}	17.2	X	214.82416	345.28835	149.36351	4.83513	0.1701000	0.21614003	2.7498726	21	9 15.7	21.4
437627 2014 BX_{28}	16.0	X	304.97918	8.49551	286.71764	10.36271	0.1660755	0.17638623	3.1489052	21	4 12.6	20.5
437628 2014 BT_{30}	16.7	X	170.15489	18.34113	231.95060	4.02176	0.1635736	0.22900576	2.6458899	21	12 23.8	20.9
437629 2014 BS_{31}	16.1	X	316.78861	319.07822	123.40567	15.69983	0.0751887	0.23391451	2.6087428	21	12 9.4	19.4
437630 2014 BL_{33}	16.8	X	119.71349	12.59542	134.87369	0.18308	0.1153461	0.18089484	3.0963634	21	6 28.6	21.4
437631 2014 BO_{33}	17.1	X	285.39906	289.86731	169.49548	6.63646	0.0881499	0.22653880	2.6650641	21	11 9.9	20.4
437632 2014 BG_{34}	16.1	X	341.18196	303.27333	341.94123	8.20862	0.0083185	0.17918979	3.1159743	21	6 12.7	20.6
437633 2014 BV_{34}	15.5	X	135.74636	350.75129	124.56730	10.65447	0.0567845	0.17472722	3.1688061	21	6 2.4	20.3
437634 2014 BX_{34}	15.9	X	91.29650	203.06095	330.92909	10.02721	0.0900144	0.17698531	3.1417955	21	6 26.4	20.4
437635 2014 BE_{35}	16.1	X	274.75364	287.22413	140.67041	25.58611	0.1759683	0.21740282	2.7392138	21	8 28.8	19.7
437636 2014 BF_{35}	15.6	X	116.98610	78.32803	83.55875	15.64019	0.0852711	0.18218253	3.0817559	21	7 10.5	20.2
437637 2014 BD_{36}	17.0	X	257.39051	336.85980	119.48706	5.56319	0.0326567	0.21318828	2.7751971	21	10 5.1	20.8
437638 2014 BD_{37}	16.2	X	145.86376	345.55310	153.50523	10.51518	0.0424776	0.18237806	3.0795528	21	7 10.2	20.8
437639 2014 BD_{38}	16.3	X	203.39521	270.69260	148.42891	9.56065	0.0813460	0.17616062	3.1515933	21	6 6.9	21.2
437640 2014 BH_{38}	16.4	X	11.30273	171.22083	147.42487	12.67622	0.0533257	0.19667410	2.9284508	21	9 9.8	20.2
437641 2014 BE_{39}	16.6	X	90.59250	64.84181	168.47741	5.91835	0.0180561	0.19467601	2.9484545	21	8 29.8	20.7
437642 2014 BW_{40}	16.5	X	83.68696	183.84565	89.06881	4.64193	0.0576127	0.21143913	2.7904814	21	10 20.7	20.4
437643 2014 BE_{44}	16.6	X	313.99755	100.84807	0.52813	14.12439	0.0868092	0.24248958	2.5468733	21	12 31.5	19.8
437644 2014 BU_{47}	16.9	X	77.42395	288.78726	305.32993	3.89293	0.0317203	0.19495966	2.9455940	21	8 15.8	20.8
437645 2014 BV_{47}	17.0	X	307.21926	96.32144	303.40358	4.66702	0.0604431	0.21211196	2.7845773	21	9 20.2	20.6
437646 2014 BW_{48}	16.0	X	349.67867	173.78639	163.46050	4.15557	0.0219197	0.19520202	2.9431553	21	8 31.6	20.0
437647 2014 BU_{49}	16.3	X	163.81323	305.66247	315.91892	9.78440	0.2158791	0.24250293	2.5467798	21	—	—
437648 2014 BX_{51}	16.5	X	181.94962	47.93682	26.47847	4.66988	0.1169543	0.18627318	3.0364712	21	5 31.9	21.3
437649 2014 BZ_{52}	17.2	X	228.55843	53.54059	86.03036	9.39355	0.1740287	0.22365000	2.6879640	21	10 9.9	21.4
437650 2014 BB_{55}	16.1	X	26.60417	302.78603	295.92724	1.87380	0.0756300	0.17822923	3.1271599	21	6 17.1	20.0
437651 2014 BE_{59}	16.4	X	112.44336	347.88562	161.42044	9.54647	0.0295511	0.17449700	3.1715926	21	6 12.8	21.1
437652 2014 BD_{61}	15.8	X	203.41596	98.18079	121.62669	15.69983	0.0539127	0.23825522	2.5769605	21	—	—
437653 2014 BP_{63}	15.6	X	97.82876	219.01063	302.93508	8.82540	0.0435674	0.17935350	3.1140779	21	6 11.4	20.1
437654 2014 BS_{63}	15.6	X	181.51790	304.80779	123.76438	14.73558	0.1761663	0.17852995	3.1236474	21	5 29.4	21.0
437655 2014 CH_{2}	16.5	X	242.06407	255.57145	162.91968	2.27935	0.0256852	0.19556647	2.9394976	21	7 24.3	20.7
437656 2014 CL_{2}	15.9	X	262.14071	236.32105	109.26565	11.57204	0.1057388	0.17822837	3.1271700	21	5 11.0	20.7
437657 2014 CN_{3}	16.0	X	221.69714	291.27665	132.72707	11.38875	0.1067997	0.18878735	3.0094523	21	6 29.4	20.7
437658 2014 CZ_{3}	15.9	X	148.48767	132.08362	353.29684	9.28154	0.0507800	0.18108067	3.0942447	21	6 27.9	20.6
437659 2014 CX_{4}	16.7	X	312.53301	7.74243	30.61528	4.67861	0.0719323	0.21170069	2.7881825	21	9 28.9	20.1
437660 2014 CT_{5}	16.5	X	62.41515	179.89296	101.85288	7.22155	0.0336405	0.20907316	2.8114942	21	10 3.2	20.4
437661 2014 CE_{6}	17.0	X	243.69167	183.75392	92.02746	5.93803	0.1111509	0.27086898	2.3657192	21	1 8.9	20.4
437662 2014 CS_{6}	16.8	X	243.81078	1.75965	63.47773	3.07291	0.0381880	0.19812488	2.9141375	21	8 4.3	20.8
437663 2014 CE_{7}	16.5	X	103.57199	215.45296	336.14641	9.10749	0.0391274	0.19012668	2.9953023	21	7 28.6	20.7
437664 2014 CJ_{7}	16.8	X	20.74546	292.20075	111.36014	6.46536	0.1350888	0.24498337	2.5295599	21	—	—
437665 2014 CL_{9}	17.1	X	46.60005	248.92117	23.34087	2.19915	0.0381901	0.19903744	2.9052234	21	8 27.3	20.9
437666 2014 CA_{10}	16.4	X	115.31814	96.64143	74.50565	9.65899	0.1092956	0.18536543	3.0463763	21	7 24.4	21.1
437667 2014 CS_{10}	16.6	X	275.45822	301.84042	74.19357	9.29858	0.0448270	0.19171774	2.9787074	21	7 9.9	20.7
437668 2014 CP_{11}	15.7	X	220.64785	297.89895	135.08602	12.05693	0.0299919	0.18926548	3.0043817	21	7 15.6	20.0
437669 2014 CS_{12}	16.1	X	292.22337	227.73619	100.74962	9.72634	0.0863009	0.17931237	3.1145541	21	5 26.7	20.4
437670 2014 CE_{15}	15.9	X	57.27007	83.37693	137.52353	10.29169	0.0570505	0.17786910	3.1313796	21	7 6.0	20.2
437671 2014 CS_{15}	16.5	X	358.20425	222.94934	198.69286	5.10255	0.2581435	0.24467118	2.5317113	21	—	—
437672 2014 CC_{16}	15.6	X	105.13567	216.44303	320.79107	9.00308	0.0698358	0.18229671	3.0804689	21	7 15.3	20.0
437673 2014 CE_{16}	17.0	X	315.86984	286.13367	155.30502	2.22395	0.0417813	0.22761583	2.6566504	21	12 3.5	20.2
437674 2014 CM_{16}	16.4	X	314.86899	64.64053	301.19501	5.69535	0.0885238	0.19948596	2.9008670	21	8 14.1	19.9
437675 2014 CX_{16}	16.1	X	57.09672	298.19776	297.95030	7.76129	0.0852530	0.18331742	3.0690236	21	7 29.6	20.1
437676 2014 CY_{16}	16.7	X	359.75098	167.66682	245.76953	2.66524	0.2862057	0.24391078	2.5369703	21	—	—
437677 2014 CA_{21}	15.9	X	40.68137	98.55436	138.86340	13.13898	0.1348913	0.17879492	3.1205605	21	7 13.6	19.9
437678 2014 CC_{21}	15.8	X	181.81967	321.85770	133.86471	12.57553	0.0724942	0.18404545	3.0609248	21	6 28.3	20.5
437679 2014 CH_{21}	15.7	X	137.34027	306.53054	153.48492	18.34630	0.1775333	0.17430511	3.1739199	21	5 28.8	21.1
437680 2014 DE_{1}	16.3	X	233.96699	248.64195	151.74881	13.31197	0.1114853	0.18529785	3.0471170	21	6 13.8	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437681 2014 DX_{1}	15.8	X	328.10690	28.05542	290.27707	10.19917	0.0622939	0.18396943	3.0617680	21	7 4.7	19.9
437682 2014 DX_{3}	16.2	X	353.27395	317.56145	340.02539	9.31835	0.1158270	0.18499086	3.0504872	21	7 15.7	19.9
437683 2014 DZ_{4}	16.8	X	162.41577	77.57396	140.13752	5.11736	0.0196676	0.22069038	2.7119423	21	11 12.4	20.6
437684 2014 DT_{7}	16.7	X	111.54152	295.09089	332.50531	10.85074	0.0942477	0.22051528	2.7133777	21	11 13.9	20.9
437685 2014 DL_{8}	16.2	X	166.89394	318.29844	141.39902	13.63862	0.1099400	0.18553540	3.0445155	21	6 19.0	21.1
437686 2014 DW_{8}	16.2	X	13.73993	293.57354	312.04234	4.71617	0.1214022	0.17597782	3.1537754	21	6 7.6	19.9
437687 2014 DK_{9}	16.4	X	109.97260	21.05577	153.03429	9.72571	0.0716118	0.18348107	3.0671985	21	7 15.2	20.9
437688 2014 DV_{18}	15.8	X	123.26115	356.67820	161.83797	16.28696	0.0171265	0.18173094	3.0868591	21	7 5.2	20.4
437689 2014 DM_{25}	16.4	X	4.63724	195.55420	147.44561	7.66772	0.0689943	0.20821564	2.8192082	21	10 5.7	19.9
437690 2014 DR_{26}	16.1	X	248.04714	93.55972	293.23487	1.99495	0.0249484	0.18045974	3.1013385	21	6 21.2	20.5
437691 2014 DF_{28}	16.4	X	185.40736	346.83061	148.20518	12.85735	0.0564841	0.19988539	2.8970013	21	8 21.5	20.7
437692 2014 DR_{28}	16.2	X	64.79381	233.69950	307.88113	5.48732	0.0574921	0.17065570	3.2190089	21	5 25.8	20.7
437693 2014 DN_{29}	16.3	X	48.98916	104.41463	144.20439	9.98204	0.1381746	0.18328648	3.0693689	21	8 11.3	20.3
437694 2014 DQ_{29}	16.7	X	306.70236	255.67602	162.89041	5.37496	0.0246543	0.21492223	2.7602504	21	10 22.1	20.4
437695 2014 DU_{29}	16.1	X	302.70857	48.43177	317.02226	7.93381	0.0765786	0.19323178	2.9631276	21	7 29.1	19.9
437696 2014 DP_{31}	15.4	X	77.60637	59.74852	91.01869	10.98609	0.0155955	0.15650384	3.4102487	21	5 4.1	20.3
437697 2014 DQ_{32}	16.4	X	74.50512	337.15163	17.28616	8.41223	0.2184257	0.23722478	2.5844176	21	—	—
437698 2014 DA_{36}	15.6	X	140.63756	9.53837	153.65148	16.65267	0.0587538	0.18534191	3.0466341	21	8 4.6	20.1
437699 2014 DL_{36}	16.0	X	324.33208	320.29523	351.07196	10.15095	0.0677798	0.17496701	3.1659103	21	6 18.9	20.3
437700 2014 DG_{37}	16.4	X	63.15825	200.23628	146.81274	11.80485	0.1300297	0.22766837	2.6562416	21	—	—
437701 2014 DY_{37}	16.5	X	172.38264	334.25374	129.89505	2.85121	0.1440098	0.18173358	3.0868291	21	6 29.4	21.4
437702 2014 DX_{42}	16.5	X	357.25115	201.50919	154.75364	4.06653	0.0896420	0.21356180	2.7719603	21	10 13.0	19.7
437703 2014 DU_{53}	16.2	X	226.52331	248.36818	170.15591	9.64945	0.0821691	0.17849592	3.1240443	21	6 29.3	21.0
437704 2014 DD_{62}	15.9	X	275.10015	234.88284	149.93354	10.77683	0.0551922	0.18094248	3.0958199	21	7 17.9	20.3
437705 2014 DB_{76}	16.4	X	317.81333	155.18588	172.05856	8.94797	0.0833283	0.17392539	3.1785379	21	6 28.3	20.7
437706 2014 DS_{80}	16.5	X	28.88549	20.66233	281.11799	8.17107	0.0866274	0.19849370	2.9105265	21	9 10.7	20.4
437707 2014 DE_{81}	16.8	X	344.22409	276.12310	132.26487	5.49766	0.0971658	0.22309290	2.6924370	21	12 3.3	19.9
437708 2014 DV_{81}	17.1	X	94.55373	246.73885	13.11586	3.75592	0.0538657	0.20968605	2.8060131	21	10 14.2	20.9
437709 2014 DF_{85}	16.3	X	302.49715	216.21300	153.47400	10.14386	0.0607659	0.18725777	3.0258181	21	8 3.7	20.5
437710 2014 DC_{88}	16.5	X	77.30171	342.13664	336.92447	6.75235	0.1301525	0.22412734	2.6841461	21	12 18.2	20.5
437711 2014 DU_{88}	16.9	X	26.36925	245.06586	158.32982	15.23744	0.1292088	0.24294158	2.5437132	21	—	—
437712 2014 DW_{89}	17.2	X	98.69142	97.32277	217.62908	2.92910	0.1260772	0.22982193	2.6396220	21	—	—
437713 2014 DL_{94}	17.0	X	305.79202	103.93157	303.46816	4.08983	0.1647002	0.21556844	2.7547315	21	9 16.8	20.1
437714 2014 DE_{99}	16.5	X	341.30349	53.29666	263.75118	2.28100	0.0695359	0.19127687	2.9832827	21	7 21.8	20.3
437715 2014 DT_{102}	16.3	X	124.14641	342.83940	162.12501	1.22550	0.1055358	0.18010451	3.1054151	21	6 29.2	20.9
437716 2014 DV_{102}	16.8	X	21.36817	171.99584	158.62882	4.67648	0.0764055	0.21174876	2.7877605	21	10 14.4	20.2
437717 2014 DL_{103}	16.6	X	71.90783	106.11639	160.33628	10.91306	0.0181127	0.19813137	2.9140739	21	9 19.6	20.6
437718 2014 DW_{103}	16.5	X	0.24936	203.24807	128.31437	3.07395	0.1025768	0.19508957	2.9442862	21	9 12.1	20.1
437719 2014 DH_{105}	16.4	X	228.11280	247.17591	162.58862	7.76315	0.1750193	0.18366879	3.0651082	21	6 13.6	21.5
437720 2014 DB_{110}	14.0	X	282.56074	337.82130	133.07341	8.49300	0.0878076	0.08473114	5.1338204	21	10 30.1	20.8
437721 2014 DA_{111}	16.1	X	41.57236	117.62323	84.01585	6.28665	0.0812009	0.16999545	3.2273385	21	5 23.5	20.3
437722 2014 DD_{111}	16.6	X	179.82927	111.80063	359.70701	7.44536	0.1006671	0.19239275	2.9717362	21	7 17.4	21.3
437723 2014 DU_{114}	16.4	X	122.35533	349.32329	167.38952	13.44200	0.1070773	0.17885943	3.1198101	21	7 11.1	21.3
437724 2014 DR_{116}	16.0	X	15.19029	111.91750	177.25608	10.18863	0.0731462	0.18330146	3.0692017	21	8 3.9	20.1
437725 2014 DH_{120}	16.5	X	123.50532	274.97206	216.48603	5.32441	0.2399125	0.17739125	3.1370005	21	6 24.3	21.7
437726 2014 DS_{120}	16.0	X	169.06156	356.40883	120.87228	10.37949	0.0960130	0.18429358	3.0581767	21	7 11.5	20.7
437727 2014 DX_{121}	16.0	X	268.87957	242.86469	174.21979	11.26855	0.0906825	0.19761696	2.9191286	21	8 15.1	20.1
437728 2014 DQ_{124}	14.2	X	1.12863	217.68169	175.88340	6.29401	0.0250042	0.08211026	5.2424917	21	11 9.5	21.0
437729 2014 DH_{135}	14.1	X	348.17444	282.35382	127.92868	7.93545	0.0333224	0.08539493	5.1071818	21	11 14.4	20.8
437730 2014 DO_{137}	14.1	X	313.86978	293.26794	148.73390	8.10356	0.0348332	0.08466658	5.1364301	21	11 8.9	20.9
437731 2014 DP_{137}	16.7	X	306.03134	329.64335	68.38990	3.04103	0.0698532	0.20135871	2.8828526	21	9 18.1	20.3
437732 2014 DE_{138}	16.6	X	321.26518	267.37690	158.86692	12.72621	0.1828298	0.22503335	2.6769369	21	11 19.9	19.4
437733 2014 ET_{1}	16.2	X	303.22004	294.54580	141.79353	13.58167	0.1421523	0.22007849	2.7169667	21	11 3.1	19.5
437734 2014 EE_{9}	13.9	X	247.02419	133.12026	7.25332	12.99779	0.0176122	0.08390601	5.1674230	21	10 25.6	20.8
437735 2014 EF_{9}	16.0	X	16.04544	141.22136	147.02745	14.91139	0.1189460	0.18214966	3.0821266	21	8 8.8	19.7
437736 2014 EC_{10}	15.7	X	124.68909	230.53274	267.99908	7.82235	0.0453974	0.17417150	3.1755429	21	6 15.3	20.1
437737 2014 EN_{15}	16.6	X	294.99550	237.12310	166.54571	10.43659	0.0914033	0.20066828	2.8894614	21	9 4.4	20.1
437738 2014 EV_{19}	15.7	X	285.74690	288.01072	12.32824	9.53208	0.0667900	0.15336723	3.4565883	21	4 14.9	20.7
437739 2014 EF_{28}	16.2	X	132.91018	17.95888	121.24161	10.40017	0.0310082	0.17502063	3.1652636	21	6 24.8	20.9
437740 2014 EQ_{29}	14.2	X	231.70172	136.93437	17.91630	6.25919	0.0773999	0.08385338	5.1695850	21	10 21.3	21.3
437741 2014 EE_{31}	15.5	X	206.97851	334.36419	33.56028	9.93855	0.0216480	0.14758872	3.5462331	21	4 12.9	20.6
437742 2014 EL_{34}	16.6	X	83.85388	245.40181	48.03595	6.92732	0.1342946	0.20521011	2.8466684	21	11 21.1	20.9
437743 2014 EM_{35}	16.0	X	201.34775	298.72345	136.85526	10.50146	0.0343675	0.17350151	3.1837128	21	6 25.9	20.7
437744 2014 EG_{40}	15.9	X	286.20164	260.92065	117.94239	10.53284	0.1095274	0.18155072	3.0889015	21	7 17.6	20.0
437745 2014 EY_{43}	16.0	X	30.24692	180.94078	79.06663	11.90083	0.1091733	0.16939008	3.2350232	21	7 25.9	20.2
437746 2014 FZ_{2}	16.5	X	73.74433	318.40020	54.22421	12.00224	0.2642009	0.24072467	2.5593066	21	—	—
437747 2014 FH_{11}	16.7	X	178.27697	294.34669	158.00227	4.18396	0.1074784	0.18237392	3.0795994	21	6 20.3	21.5
437748 2014 FS_{11}	16.0	X	199.16955	241.05820	182.09662	10.87222	0.1981898	0.17415079	3.1757947	21	6 4.2	21.5
437749 2014 FL_{15}	16.0	X	320.83522	181.05914	145.58929	10.00191	0.0404630	0.17926370	3.1151178	21	7 6.6	20.3
437750 2014 FR_{30}	16.3	X	37.71269	273.88455	11.82686	24.94883	0.3394592	0.17661891	3.1461390	21	10 10.8	20.2
437751 2014 FK_{40}	16.2	X	3.34281	168.55253	131.07409	12.40890	0.1003913	0.18042896	3.1016911	21	8 2.3	20.0
437752 2014 FR_{42}	14.3	X	273.85931	59.72123	52.38457	7.50901	0.1585730	0.08202153	5.2462719	21	10 11.3	21.2
437753 2014 FW_{49}	16.1	X	194.74783	316.48259	288.40723	12.20979	0.2209803	0.22543689	2.6737414	21	—	—
437754 2014 FK_{51}	13.6	X	231.86724	101.18427	67.55231	17.05644	0.0698339	0.08246911	5.2272730	21	11 9.7	20.7
437755 2014 FZ_{63}	16.2	X	56.51189	299.47812	54.19417	9.60867	0.0135938	0.22068715	2.7119688	21	12 20.5	20.0
437756 2014 FM_{68}	15.9	X	262.25935	23.93570	85.74423	16.17846	0.0990155	0.20338204	2.8637009	21	10 23.0	20.1
437757 2014 GM_{3}	14.6	X	279.23483	285.48611	187.32527	5.93905	0.1289290	0.08221146	5.2381885	21	10 20.4	21.4
437758 2014 GK_{39}	16.4	X	48.63274	201.12731	100.58285	6.87625	0.1261753	0.19049456	2.9914448	21	10 21.3	20.5
437759 2014 GG_{47}	13.8	X	344.60260	281.56799	138.54382	15.17888	0.0556318	0.08433839	5.1497466	21	11 22.1	20.6
437760 2014 HP_{149}	14.2	X	286.90507	280.39853	196.05929	7.53834	0.0743567	0.08403741	5.1620348	21	11 9.6	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437761 2014 HG_{170}	14.2	X	277.42450	337.33003	151.45937	10.75511	0.0917240	0.08246840	5.2273030	21	11 11.8	21.1
437762 2014 JD_{61}	16.5	X	144.52131	149.81989	249.45501	11.93400	0.1617791	0.25376517	2.4708595	21	3 4.0	20.4
437763 2014 JX_{78}	16.2	X	212.55825	345.92704	290.57768	12.64145	0.1723156	0.23923852	2.5698946	21	—	—
437764 2014 KJ_{4}	15.5	X	203.88799	322.87404	359.75053	14.60604	0.2827764	0.23915929	2.5704621	21	2 9.4	20.3
437765 2014 WN_{493}	15.3	X	318.95990	348.00208	236.37213	10.29194	0.0880234	0.17106300	3.2138973	21	2 14.9	20.0
437766 2015 AU_{2}	18.0	X	121.97636	115.67468	80.95990	24.14910	0.1357607	0.38523066	1.8706340	21	10 3.8	21.2
437767 2015 AT_{109}	17.9	X	227.78797	234.07578	278.57416	2.95943	0.1466220	0.26021826	2.4298392	21	10 27.1	21.2
437768 2015 AQ_{167}	16.9	X	252.25654	78.19064	310.85077	5.46517	0.0160875	0.21972223	2.7199028	21	6 30.9	20.6
437769 2015 AD_{178}	17.0	X	83.14295	156.06175	95.20547	4.30424	0.1565656	0.23434735	2.6055296	21	10 8.1	20.7
437770 2015 AP_{191}	16.7	X	173.32504	349.14243	68.05535	2.97248	0.0657594	0.20134942	2.8829413	21	4 30.7	20.9
437771 2015 AC_{198}	16.9	X	287.92263	247.97118	116.95132	6.46421	0.0811508	0.22690377	2.6622055	21	7 6.1	20.2
437772 2015 BO_{36}	15.8	X	173.78091	133.45675	268.41718	10.53030	0.0782071	0.17519654	3.1631445	21	4 9.9	20.8
437773 2015 BR_{38}	16.0	X	49.64365	28.83198	89.05342	15.23389	0.1466071	0.17392078	3.1785941	21	2 28.4	20.1
437774 2015 BL_{63}	16.3	X	307.36107	226.43494	33.20286	5.62238	0.0935118	0.18032043	3.1029355	21	3 19.3	20.5
437775 2015 BS_{73}	16.7	X	206.18898	318.11644	88.27886	4.79731	0.0984593	0.20997184	2.8034663	21	5 22.1	21.0
437776 2015 BB_{93}	15.9	X	89.24617	133.58347	311.77156	9.33147	0.1334484	0.18201153	3.0836857	21	3 5.4	20.2
437777 2015 BH_{133}	17.1	X	7.53837	277.99727	353.07886	4.83122	0.0770786	0.21286661	2.7779922	21	7 1.3	20.5
437778 2015 BN_{304}	16.5	X	147.13654	208.99280	8.02860	12.63839	0.1342921	0.23173711	2.6250585	21	10 22.3	20.8
437779 2015 BT_{464}	16.0	X	263.61180	135.53828	282.17225	21.22711	0.0369678	0.22688550	2.6623484	21	8 11.5	20.0
437780 2015 BR_{511}	16.9	X	277.66641	304.28568	129.05766	10.09080	0.1826050	0.25667188	2.4521697	21	9 13.9	19.8
437781 2015 CS_{2}	15.9	X	245.50062	354.21414	330.96352	10.18717	0.0208111	0.18508227	3.0494826	21	3 28.2	20.3
437782 2015 CT_{5}	17.0	X	236.71054	263.37090	130.67221	6.63991	0.0880988	0.21908879	2.7251429	21	6 9.4	21.0
437783 2015 CV_{5}	16.3	X	45.42038	196.84700	309.22752	2.51489	0.0518183	0.18015672	3.1048151	21	3 13.6	20.5
437784 2015 CH_{11}	18.2	X	312.31358	48.58134	150.48551	5.98437	0.1189210	0.30235880	2.1984722	21	—	—
437785 2015 CA_{12}	16.7	X	194.02520	305.64139	154.36583	4.08775	0.0550792	0.21278076	2.7787394	21	7 17.2	20.7
437786 2015 CB_{24}	17.3	X	232.34659	82.55153	96.85444	3.32089	0.1130283	0.26140616	2.4224724	21	12 13.1	20.2
437787 2015 CC_{25}	17.6	X	6.28923	137.43089	325.68247	2.07794	0.1916510	0.29477023	2.2360438	21	—	—
437788 2015 CH_{32}	16.9	X	211.14493	259.77087	167.39545	10.48308	0.2689312	0.21691268	2.7433387	21	6 15.1	21.9
437789 2015 CU_{39}	15.4	X	318.92043	94.87304	171.00248	16.04967	0.0366235	0.17337788	3.1852260	21	4 21.0	19.9
437790 2015 CP_{40}	15.9	X	351.32733	85.92095	149.89648	9.52511	0.0316629	0.18349481	3.0670453	21	4 25.9	20.2
437791 2015 CT_{40}	16.3	X	244.79794	301.97161	161.12748	22.21870	0.0460147	0.23441428	2.6050337	21	9 27.7	19.9
437792 2015 CV_{40}	17.5	X	260.86159	32.89808	140.23474	7.62973	0.0997181	0.27346466	2.3507255	21	—	—
437793 2015 CC_{42}	16.7	X	168.18432	263.74608	188.77247	2.91504	0.0649715	0.19779665	2.9173605	21	6 8.6	21.0
437794 2015 CD_{42}	16.8	X	145.62240	261.35929	337.76803	5.23948	0.1159848	0.24327771	2.5413697	21	11 19.6	20.8
437795 2015 CE_{47}	15.6	X	68.42249	332.68690	172.97818	12.78828	0.1075827	0.17660953	3.1462505	21	4 24.9	19.9
437796 2015 CS_{48}	17.1	X	148.81286	119.51429	138.11965	6.88686	0.1434419	0.25223791	2.4808232	21	12 18.1	21.1
437797 2015 CR_{53}	17.4	X	240.11326	355.25061	118.22208	3.61215	0.0890350	0.23520300	2.5992067	21	9 28.5	20.9
437798 2015 CL_{56}	17.5	X	79.40578	101.94559	338.49998	3.16097	0.0322569	0.30727666	2.1749519	21	1 7.3	19.6
437799 2015 CM_{56}	16.4	X	200.65013	129.02859	343.79798	12.22551	0.0700089	0.21830675	2.7316472	21	8 13.6	20.5
437800 2015 CP_{56}	16.8	X	34.79659	223.80900	348.76487	17.06547	0.1708774	0.18245402	3.0786980	21	5 30.9	20.7
437801 2015 CK_{59}	16.2	X	48.38468	207.48932	348.17852	14.32236	0.2121448	0.18371570	3.0645864	21	6 9.3	20.1
437802 2015 DH	17.1	X	213.12741	203.53915	294.11570	2.36074	0.1114279	0.23527304	2.5986908	21	9 22.4	21.0
437803 2015 DU_{20}	16.6	X	297.71038	315.33552	39.32526	5.59030	0.0647262	0.21378634	2.7700190	21	7 9.4	20.2
437804 2015 DF_{23}	16.4	X	0.97372	192.35008	37.70307	1.87462	0.0968449	0.18138256	3.0908104	21	4 26.1	19.9
437805 2015 DG_{24}	17.2	X	226.52695	326.61393	96.02227	1.86963	0.0605903	0.21344285	2.7729901	21	7 6.9	21.0
437806 2015 DK_{29}	16.7	X	102.28110	205.55607	64.32113	5.56841	0.1401999	0.24017078	2.5632400	21	11 17.5	20.6
437807 2015 DG_{34}	16.4	X	201.29066	303.88685	114.77389	3.18954	0.0672852	0.20056950	2.8904100	21	6 2.6	20.7
437808 2015 DQ_{34}	17.5	X	255.28055	138.29958	13.34117	2.98548	0.1566953	0.26240956	2.4162931	21	11 30.1	20.4
437809 2015 DM_{36}	17.3	X	177.88308	192.00877	90.18801	3.65719	0.2321144	0.27220851	2.3579518	21	—	—
437810 2015 DE_{41}	16.5	X	78.69350	207.55593	21.29602	9.06220	0.0961721	0.21275288	2.7789821	21	8 25.9	20.4
437811 2015 DB_{42}	17.0	X	123.06854	75.43914	19.12896	10.78574	0.2899009	0.19050963	2.9912871	21	5 11.9	22.0
437812 2015 DG_{45}	16.7	X	86.06172	250.55324	6.30239	12.51818	0.1574777	0.22416656	2.6838331	21	10 13.0	20.6
437813 2015 DR_{94}	16.7	X	124.34502	230.29827	358.75111	11.52101	0.1576593	0.23053254	2.6341948	21	10 16.3	20.9
437814 2015 DA_{99}	17.4	X	234.19183	347.92394	214.80567	0.71450	0.1318804	0.26613185	2.3937097	21	—	—
437815 2015 DB_{99}	16.6	X	255.98234	30.78303	0.58485	1.64235	0.0795934	0.20540365	2.8448799	21	6 29.6	20.6
437816 2015 DA_{106}	16.0	X	348.59945	218.87610	345.62172	11.91559	0.0913710	0.17422785	3.1748582	21	3 6.5	20.2
437817 2015 DQ_{114}	15.6	X	313.06007	234.02320	35.38509	9.77577	0.0237653	0.18780631	3.0199234	21	4 15.9	19.8
437818 2015 DB_{115}	16.6	X	285.41872	182.29549	337.80465	23.90728	0.1272341	0.28497241	2.2870071	21	—	—
437819 2015 DN_{117}	15.8	X	63.23295	320.17742	183.29946	10.62287	0.1254461	0.17297354	3.1901880	21	4 16.2	19.9
437820 2015 DM_{156}	16.8	X	72.55418	180.64275	100.37921	6.52060	0.1704048	0.23233699	2.6205381	21	11 4.7	20.6
437821 2015 DZ_{160}	17.8	X	323.42004	30.43720	104.28785	5.02922	0.1080682	0.27968587	2.3157359	21	—	—
437822 2015 DE_{165}	17.3	X	221.09523	310.66533	145.82048	2.45686	0.0319525	0.21777195	2.7361176	21	8 17.2	21.0
437823 2015 DV_{166}	17.4	X	194.28865	58.81397	107.38867	4.63701	0.0774337	0.23474163	2.6026112	21	10 14.6	21.1
437824 2015 DC_{168}	15.9	X	85.62241	131.77274	3.61035	15.99544	0.1349589	0.18050724	3.1007944	21	4 30.4	20.3
437825 2015 DD_{197}	16.0	X	82.72191	280.01940	201.80426	15.28119	0.2144317	0.17715697	3.1397655	21	4 28.4	20.2
437826 2015 DQ_{216}	17.6	X	244.72044	84.40158	70.50985	2.14200	0.1140812	0.25902255	2.4373113	21	11 26.4	20.5
437827 2015 DW_{216}	16.0	X	112.28859	289.79160	178.04420	12.84264	0.2003790	0.18605270	3.0388696	21	5 14.1	20.8
437828 2015 EZ_{3}	16.3	X	183.96794	19.68826	85.99357	14.44815	0.2171567	0.21715535	2.7412945	21	7 11.8	21.1
437829 2015 FT_{284}	14.8	X	29.20639	302.70233	244.70999	25.76381	0.2312899	0.17219686	3.1997734	21	4 22.2	18.4
437830 3383 $T–3$	17.4	X	79.04299	164.44027	193.37954	3.97505	0.3014598	0.22944912	2.6424804	21	—	—
437831 3716 $T–3$	17.9	X	154.54807	333.48330	17.16469	2.85310	0.2163254	0.27894368	2.3198418	21	1 21.1	21.2
437832 3752 $T–3$	16.7	X	303.91129	12.49662	16.49766	12.08739	0.1801856	0.22212181	2.7002786	21	8 24.5	19.9
437833 1994 PP_{13}	16.1	X	358.49488	187.74962	157.78408	14.39591	0.2883904	0.18390246	3.0625112	21	10 12.9	18.9
437834 1995 SX_{31}	17.6	X	128.33362	27.22081	356.11443	5.59136	0.2070257	0.24530241	2.5273662	21	2 8.7	21.1
437835 1995 UX_{80}	17.5	X	106.58968	199.27423	213.87193	14.69059	0.1077610	0.24225161	2.5485409	21	1 30.2	21.1
437836 1996 BL_{11}	16.5	X	166.35544	285.78946	253.46638	6.78558	0.0253013	0.17741200	3.1367559	21	9 19.5	21.2
437837 1996 JM_{11}	17.6	X	221.78748	120.78379	127.78027	5.95462	0.2015346	0.26022735	2.4297826	21	—	—
437838 1996 LH_{2}	17.3	X	109.28030	62.18166	194.98287	8.93667	0.2337058	0.20954193	2.8072996	21	11 12.3	22.0
437839 1996 VD_{20}	17.8	X	145.98155	299.73192	95.17987	10.14688	0.0432723	0.29429550	2.2384478	21	2 15.8	20.6
437840 1997 SN_{30}	18.3	X	187.74722	58.52449	284.79389	0.46465	0.2001670	0.26743332	2.3859374	21	2 10.8	22.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437841 1998 HD_{14}	21.0	X	283.24993	260.90189	183.77061	7.81410	0.3125626	1.04274156	0.9631300	21	—	—
437842 1998 RB_{56}	16.8	X	31.23803	62.36681	305.68208	2.73570	0.2951849	0.22041223	2.7142234	21	—	—
437843 1998 SY_{19}	18.4	X	208.51457	25.60349	345.94789	3.84860	0.1516766	0.28671864	2.2777118	21	4 1.7	21.9
437844 1999 MN	21.4	X	137.50798	9.73581	80.88112	2.02106	0.6653755	1.78166205	0.6738851	21	—	—
437845 1999 RA_{24}	15.6	X	75.18416	218.65365	168.57575	33.35850	0.3066962	0.23712796	2.5851210	21	—	—
437846 1999 RJ_{27}	19.3	X	123.23074	64.37445	170.28898	25.78171	0.3523951	0.54810310	1.4787493	21	12 2.9	22.1
437847 1999 RE_{114}	16.1	X	9.44215	64.23676	278.56377	7.19288	0.2412076	0.18158680	3.0884923	21	10 20.6	19.5
437848 1999 TQ_{70}	17.7	X	139.94660	338.85544	18.42218	3.72597	0.2173735	0.24203737	2.5500445	21	1 21.1	21.4
437849 1999 TE_{145}	16.8	X	99.92790	131.23680	219.88476	2.36685	0.2484627	0.23756276	2.5819657	21	—	—
437850 1999 TF_{218}	16.9	X	105.59215	339.49366	11.54853	6.56940	0.2700720	0.23782548	2.5800639	21	—	—
437851 1999 TT_{278}	16.9	X	18.09482	179.47188	219.08850	12.84019	0.2856166	0.22895454	2.6462845	21	—	—
437852 1999 TC_{297}	17.6	X	137.82881	306.46667	53.25751	4.76032	0.2743048	0.24273865	2.5451307	21	1 28.7	21.5
437853 1999 VR_{111}	16.8	X	354.92489	171.56563	240.65783	12.05040	0.2941431	0.22633130	2.6666927	21	—	—
437854 1999 XW_{16}	16.1	X	69.67520	112.33504	256.17331	29.19849	0.2870814	0.23190082	2.6238229	21	—	—
437855 1999 YE_{16}	16.3	X	340.25808	273.80927	91.47170	10.07941	0.2814146	0.17486489	3.1671428	21	9 21.5	19.2
437856 2000 AM_{213}	17.0	X	109.28059	263.10685	102.57906	8.53385	0.1825023	0.23186992	2.6240561	21	—	—
437857 2000 EB_{98}	17.1	X	294.67962	72.70187	150.76868	21.84220	0.2524349	0.27254774	2.3559948	21	—	—
437858 2000 LA_{34}	17.3	X	253.47794	136.68376	79.48997	8.66907	0.2240909	0.26428285	2.4048615	21	—	—
437859 2000 QO_{147}	17.4	X	210.76781	145.92982	174.88109	16.71110	0.2876744	0.26301475	2.4125851	21	2 2.3	22.0
437860 2000 SK_{66}	17.4	X	143.67073	148.12678	184.80452	5.94392	0.2411032	0.25343371	2.4730133	21	—	—
437861 2000 SV_{89}	16.7	X	208.90419	56.29160	300.61658	22.25439	0.2928553	0.26588335	2.3952010	21	3 5.7	21.5
437862 2000 SR_{131}	16.1	X	21.30044	21.86405	300.52177	12.87633	0.3750138	0.19080742	2.9881740	21	11 8.1	19.7
437863 2000 SN_{347}	15.5	X	349.20628	98.85222	256.20146	16.89807	0.2833016	0.18856166	3.0118531	21	9 17.5	18.5
437864 2000 TL_{44}	17.1	X	148.79827	295.09425	79.75219	6.91999	0.2116666	0.25791205	2.4443026	21	2 19.3	20.8
437865 2000 UH_{97}	16.9	X	11.16277	167.48439	240.69250	13.14606	0.1824308	0.24003061	2.5642378	21	—	—
437866 2000 WF_{138}	15.5	X	281.67691	145.65630	234.08391	16.57936	0.2124831	0.17746721	3.1361053	21	6 25.5	20.1
437867 2000 YR_{15}	16.0	X	310.53786	193.29383	296.46765	31.79224	0.2376058	0.23548317	2.5971446	21	—	—
437868 2000 YF_{24}	16.6	X	118.28898	52.51325	286.50832	11.59700	0.2781324	0.24278537	2.5448042	21	—	—
437869 2000 YZ_{30}	16.8	X	67.31991	145.31971	277.78027	8.54776	0.2089095	0.24559393	2.5253658	21	—	—
437870 2001 DY_{25}	16.1	X	85.93739	64.30431	347.48638	11.00226	0.3167223	0.24523264	2.5278455	21	2 7.4	18.6
437871 2001 FN_{185}	7.2	X	9.68477	14.10199	203.35749	21.76012	0.0726537	0.00355227	42.5400871	21	5 10.2	23.2
437872 2001 OK_{48}	17.3	X	113.04003	102.90674	214.66048	7.53747	0.3719724	0.21331824	2.7740698	21	—	—
437873 2001 OO_{101}	17.4	X	204.08444	234.44583	99.03952	4.12875	0.2633683	0.27734750	2.3287340	21	2 14.2	21.5
437874 2001 QV_{39}	17.6	X	196.81274	167.74405	167.70585	2.66916	0.2452995	0.27662578	2.3327827	21	2 9.1	21.5
437875 2001 QR_{126}	15.9	X	81.39984	97.06642	257.70553	7.02567	0.3078957	0.21177858	2.7874989	21	—	—
437876 2001 QE_{129}	17.4	X	198.72471	111.84787	235.66920	3.86010	0.2537376	0.27678435	2.3318916	21	2 23.9	21.6
437877 2001 QE_{227}	17.4	X	228.51273	25.75919	298.56466	8.65325	0.1712389	0.27794575	2.3253912	21	2 18.6	21.1
437878 2001 QX_{275}	17.6	X	196.83292	233.63119	99.22815	6.74927	0.2441644	0.27520296	2.3408162	21	2 7.9	21.5
437879 2001 RX_{11}	17.7	X	123.55787	307.84971	343.70790	13.09280	0.5476605	0.21473479	2.7618565	21	—	—
437880 2001 RJ_{22}	17.7	X	132.31830	14.37775	342.32045	3.84688	0.2133713	0.26800996	2.3825138	21	1 5.8	20.9
437881 2001 RE_{53}	17.7	X	219.39993	3.46762	332.43373	4.71379	0.2583961	0.27859354	2.3217851	21	2 26.6	21.6
437882 2001 RX_{53}	17.9	X	166.14769	249.43613	103.65345	3.43699	0.2060630	0.27239865	2.3568544	21	2 4.1	21.6
437883 2001 RR_{82}	16.5	X	87.00396	38.64655	298.21800	7.52165	0.1529631	0.20978118	2.8051647	21	—	—
437884 2001 RA_{114}	17.1	X	62.00240	350.97075	12.26766	4.94974	0.1836149	0.20883999	2.8135865	21	—	—
437885 2001 RS_{137}	18.0	X	178.59195	204.73988	125.07796	1.93522	0.2067015	0.27186984	2.3599095	21	1 17.3	21.5
437886 2001 SS_{35}	16.5	X	122.85576	309.41964	23.08391	11.96320	0.1949123	0.21258206	2.7804707	21	—	—
437887 2001 SR_{96}	16.6	X	278.66591	210.58630	182.02663	15.01306	0.1827449	0.19125281	2.9835329	21	7 12.7	21.1
437888 2001 SO_{140}	16.4	X	62.70258	37.74476	0.54400	9.20362	0.1741450	0.21071908	2.7968347	21	—	—
437889 2001 SS_{205}	16.8	X	314.91856	331.51408	31.13328	1.41330	0.1602860	0.19329221	2.9625099	21	8 2.0	20.3
437890 2001 SK_{210}	17.7	X	138.12798	206.58500	154.52122	1.81911	0.1898773	0.26811953	2.3818647	21	1 14.3	20.9
437891 2001 SG_{219}	18.1	X	173.96337	175.31737	164.92072	1.62262	0.2043636	0.27104491	2.3646954	21	1 25.6	21.9
437892 2001 SS_{231}	17.7	X	142.82671	319.80124	33.29577	5.65000	0.2039936	0.26702549	2.3883661	21	1 12.8	21.1
437893 2001 SR_{241}	18.0	X	196.71632	332.03626	33.43489	4.10389	0.1955712	0.27585223	2.3371417	21	3 18.1	21.7
437894 2001 SY_{304}	18.0	X	196.64095	5.62187	352.34418	3.44299	0.1582117	0.27535990	2.3399267	21	3 6.6	21.7
437895 2001 TL_{4}	17.8	X	213.13348	113.02316	242.43617	2.86274	0.1791564	0.27657648	2.3330599	21	3 16.9	21.7
437896 2001 TE_{185}	18.1	X	191.00699	34.80584	328.53155	2.28232	0.1819449	0.27445469	2.3450689	21	3 8.4	21.7
437897 2001 UE_{31}	18.0	X	233.72854	127.49648	179.32250	5.03334	0.2486892	0.27566456	2.3382024	21	2 1.9	22.1
437898 2001 UT_{39}	18.2	X	193.74672	321.96519	32.97511	4.66412	0.2322088	0.27410796	2.3470461	21	3 4.4	22.2
437899 2001 UN_{60}	17.3	X	147.41408	191.48589	217.76123	5.10991	0.1418078	0.27391844	2.3481286	21	3 19.9	20.6
437900 2001 UB_{79}	17.7	X	218.76555	303.88031	47.27945	3.05653	0.2343618	0.27684920	2.3315274	21	3 18.5	21.5
437901 2001 UE_{128}	16.6	X	128.41079	130.26087	238.50197	13.04038	0.1374041	0.26570931	2.3962467	21	1 3.2	19.8
437902 2001 UD_{164}	17.7	X	115.45652	242.41002	139.06995	2.98024	0.2250673	0.26534080	2.3984649	21	1 18.3	20.4
437903 2001 VT_{133}	16.7	X	241.34379	262.21194	167.98446	10.99787	0.1755583	0.18618202	3.0374622	21	7 19.6	21.6
437904 2001 WS_{34}	17.5	X	124.93161	249.60910	113.78238	3.03168	0.2197360	0.26318388	2.4115514	21	1 6.8	20.3
437905 2001 XU_{30}	19.8	X	344.72897	106.55801	72.47140	8.91444	0.6671802	0.30362552	2.1923533	21	—	—
437906 2001 XF_{220}	16.4	X	265.64478	132.40215	252.72119	12.20972	0.1876544	0.18442895	3.0566801	21	6 18.5	20.9
437907 2001 XC_{230}	15.8	X	274.37244	308.98683	73.10572	12.19777	0.0581713	0.18286795	3.0740504	21	7 14.7	20.2
437908 2001 XW_{266}	19.5	X	267.84234	90.11449	205.72361	4.61399	0.4515232	0.28531706	2.2851649	21	2 2.9	24.1
437909 2002 AM_{14}	15.7	X	77.27968	317.74180	301.03913	10.05806	0.0370798	0.18197607	3.0840864	21	9 11.9	20.2
437910 2002 AU_{31}	16.2	X	198.70150	333.40426	126.49906	35.03479	0.2468315	0.22859874	2.6490297	21	7 16.9	20.9
437911 2002 AL_{43}	15.9	X	130.04240	10.57645	114.05028	29.14588	0.1615329	0.17146609	3.2088584	21	6 19.7	21.2
437912 2002 CA_{61}	17.0	X	244.03256	199.19762	350.15391	12.44386	0.2123658	0.24268405	2.5455125	21	12 22.6	20.5
437913 2002 CT_{205}	17.4	X	251.71982	343.11045	146.74663	5.57088	0.2046508	0.23752212	2.5822602	21	10 18.4	20.9
437914 2002 EO_{7}	17.0	X	233.85847	47.95692	112.61285	18.42536	0.2264863	0.23618453	2.5920005	21	11 8.9	21.2
437915 2002 GD_{32}	5.9	X	182.43228	23.23118	22.25258	6.60349	0.1367219	0.00332096	44.4931899	21	5 6.8	22.9
437916 2002 GE_{60}	17.0	X	164.71976	13.01304	208.53191	14.01492	0.2619759	0.22915296	2.6447568	21	11 13.9	21.7
437917 2002 GO_{156}	17.2	X	166.09133	137.83238	135.93419	6.24460	0.3078229	0.23511482	2.5998565	21	—	—
437918 2002 JR_{2}	16.4	X	183.63667	124.92553	121.08036	31.85501	0.2979726	0.23406717	2.6076084	21	12 27.1	21.3
437919 2002 JX_{14}	16.9	X	149.02169	202.20232	54.99343	13.64756	0.2535186	0.22992087	2.6388647	21	12 11.8	21.7
437920 2002 LV_{13}	16.2	X	142.14893	80.01296	254.66879	27.76047	0.3482642	0.23386782	2.6090901	21	1 4.5	20.7

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
437921 2002 LH_{47}	17.0	X	174.17677	113.10525	177.00063	16.55371	0.3210017	0.23559883	2.5962946	21	—	—
437922 2002 NJ_{44}	18.4	X	250.23471	177.70491	156.31108	3.02829	0.2569463	0.29925538	2.2136455	21	3 18.7	21.9
437923 2002 NB_{70}	17.0	X	141.46798	68.28295	256.75731	11.33901	0.3118239	0.22890889	2.6466364	21	—	—
437924 2002 OE_{16}	16.7	X	110.89781	83.74885	259.23080	9.37482	0.2656677	0.22768212	2.6561347	21	—	—
437925 2002 PJ_{104}	17.0	X	116.42407	54.67954	291.32746	9.90698	0.2684312	0.22710288	2.6606492	21	—	—
437926 2002 PH_{105}	16.8	X	151.45539	358.43740	298.83463	13.44924	0.2411578	0.22790256	2.6544216	21	—	—
437927 2002 PC_{117}	17.6	X	217.95534	34.38550	312.87580	5.80447	0.2707777	0.29327966	2.2436137	21	3 8.2	21.5
437928 2002 PM_{123}	16.5	X	124.33974	348.18967	299.94499	11.94054	0.1092933	0.22184337	2.7025376	21	12 27.1	20.7
437929 2002 PY_{136}	18.2	X	290.25646	359.10628	300.96049	5.72276	0.1830633	0.30086852	2.2057259	21	3 16.4	21.4
437930 2002 PR_{137}	16.9	X	151.85660	134.69583	142.66469	15.85964	0.2688930	0.22651382	2.6652600	21	—	—
437931 2002 PX_{155}	17.5	X	126.03513	302.75221	30.31692	2.53273	0.2080449	0.22808022	2.6530430	21	—	—
437932 2002 PG_{160}	18.1	X	254.61626	4.91701	15.40173	2.70754	0.1843212	0.30427286	2.1892427	21	5 27.4	21.0
437933 2002 PX_{177}	17.7	X	236.24916	324.06644	356.80182	6.18258	0.1285315	0.29544424	2.2326417	21	2 24.4	21.0
437934 2002 QU_{1}	18.0	X	180.18062	70.50622	289.08680	4.12510	0.2249018	0.29024827	2.2592084	21	2 21.6	21.7
437935 2002 QH_{25}	17.9	X	214.48148	13.89166	339.69032	4.14998	0.2513238	0.29392469	2.2403300	21	3 14.7	21.8
437936 2002 QH_{40}	16.6	X	25.20631	86.93973	267.72278	11.51941	0.2132855	0.21332495	2.7740117	21	12 9.1	20.0
437937 2002 QX_{59}	18.4	X	258.33943	65.01490	280.66112	4.73896	0.1806627	0.30019714	2.2090134	21	4 12.7	21.7
437938 2002 QQ_{81}	17.4	X	296.24049	129.16656	124.37405	7.08739	0.0971020	0.29350683	2.2424559	21	2 4.8	20.3
437939 2002 QC_{112}	18.6	X	295.25605	66.11506	233.46624	2.55843	0.1636612	0.30090787	2.2055336	21	3 26.5	21.5
437940 2002 QV_{129}	17.5	X	61.31722	204.27573	127.04999	4.51599	0.1991215	0.21813262	2.7331007	21	12 23.2	21.4
437941 2002 QZ_{134}	16.9	X	156.83880	131.09577	124.03062	7.16927	0.1761393	0.22354793	2.6887822	21	12 17.4	21.4
437942 2002 RW_{138}	17.2	X	55.06022	271.93743	131.08694	12.80455	0.3107062	0.22128604	2.7070735	21	—	—
437943 2002 RW_{160}	17.0	X	35.02552	198.89565	144.83823	4.03522	0.2173486	0.21453764	2.7635482	21	12 10.2	20.6
437944 2002 RL_{176}	17.2	X	74.96418	182.44524	185.95501	11.01908	0.2002265	0.22209342	2.7005088	21	—	—
437945 2002 RS_{198}	17.2	X	22.38950	332.23210	33.63591	2.93000	0.2273490	0.21419854	2.7664641	21	12 21.8	20.6
437946 2002 RX_{226}	16.6	X	39.31774	5.67535	333.80250	8.47617	0.1635416	0.21438991	2.7648176	21	11 30.2	20.4
437947 2002 RT_{235}	17.3	X	14.10041	145.97179	215.16052	3.68892	0.0848080	0.21261016	2.7802256	21	11 12.8	20.6
437948 2002 RJ_{256}	17.3	X	117.25639	37.69042	281.63619	6.00186	0.2370013	0.22486633	2.6782622	21	—	—
437949 2002 RN_{263}	17.2	X	54.96355	67.99664	246.24063	3.68141	0.1424422	0.21331801	2.7740718	21	11 16.5	20.9
437950 2002 RA_{266}	17.2	X	20.50683	109.77492	262.60546	3.58413	0.2094626	0.21474436	2.7617744	21	12 24.8	20.4
437951 2002 SD_{15}	16.8	X	121.99324	52.76561	268.69498	11.27642	0.2727236	0.22386396	2.6862510	21	—	—
437952 2002 SA_{19}	17.7	X	124.61208	240.39018	120.83280	7.22840	0.3391826	0.22806807	2.6531373	21	1 26.3	21.5
437953 2002 SF_{64}	18.3	X	28.29300	80.48708	312.56337	19.03654	0.1075389	0.37545859	1.9029528	21	—	—
437954 2002 TT_{57}	16.5	X	113.58073	54.06382	261.06843	8.49762	0.0939153	0.22196131	2.7015802	21	—	—
437955 2002 TP_{60}	16.6	X	78.29253	251.91037	125.33949	15.89931	0.3359839	0.22070656	2.7118098	21	—	—
437956 2002 TU_{67}	17.8	X	11.16006	85.39895	291.80542	16.12979	0.0582615	0.36930745	1.9240248	21	—	—
437957 2002 TM_{305}	18.3	X	299.77963	166.90234	98.23114	5.03481	0.2378964	0.29420682	2.2388976	21	2 7.2	21.4
437958 2002 TJ_{320}	17.7	X	27.50187	74.37470	326.38841	1.40049	0.1981032	0.21801662	2.7340701	21	—	—
437959 2002 TK_{381}	17.6	X	137.63949	292.88233	9.88659	11.22952	0.2843892	0.22469747	2.6796039	21	—	—
437960 2002 UQ_{59}	16.8	X	137.72401	183.30558	91.17496	9.65089	0.1969207	0.21726780	2.7403485	21	12 22.9	21.3
437961 2002 VE_{14}	17.5	X	304.98243	123.31082	251.20786	17.38300	0.0910964	0.35757144	1.9658974	21	8 11.9	19.7
437962 2002 XE_{14}	17.7	X	358.32662	273.73090	114.04130	23.44924	0.1454114	0.36213319	1.9493530	21	—	—
437963 2002 XP_{41}	15.9	X	223.50882	166.99551	262.46899	12.37700	0.2089122	0.19159605	2.9799686	21	6 29.8	20.8
437964 2002 XD_{72}	17.7	X	278.29132	129.27843	259.64892	18.25836	0.0816326	0.35454201	1.9770800	21	7 22.9	20.0
437965 2003 AL_{73}	19.4	X	185.54310	336.38071	217.33642	9.64071	0.6938937	0.24317901	2.5420573	21	10 13.9	25.2
437966 2003 EE_{33}	16.6	X	4.08180	271.53669	170.91926	22.99609	0.2314642	0.26000791	2.4311496	21	—	—
437967 2003 FP_{133}	15.8	X	115.95113	61.48789	99.44569	7.76449	0.0392238	0.17522913	3.1627523	21	7 2.4	20.3
437968 2003 GJ_{41}	17.6	X	221.67928	101.72299	163.49935	4.27790	0.1807029	0.25614214	2.4555495	21	—	—
437969 2003 HB_{58}	16.3	X	7.93812	22.77420	225.57838	17.77136	0.0587976	0.16830846	3.2488681	21	6 1.5	20.7
437970 2003 ND_{12}	16.7	X	101.80913	236.62856	141.95517	10.22688	0.1049594	0.24410640	2.5356148	21	—	—
437971 2003 OE_{4}	16.0	X	70.92724	56.96833	294.41765	12.56056	0.1782229	0.23525319	2.5988370	21	—	—
437972 2003 QT_{10}	17.4	X	137.49555	157.74495	159.36911	5.10884	0.2671187	0.24041901	2.5614754	21	—	—
437973 2003 QN_{24}	16.9	X	46.76133	79.43884	287.67794	3.92494	0.3085849	0.22945458	2.6424386	21	—	—
437974 2003 QT_{55}	17.1	X	145.82922	213.09691	90.53138	4.41571	0.2419224	0.23975522	2.5662010	21	—	—
437975 2003 RW_{7}	16.4	X	164.11897	111.43956	201.42370	28.09369	0.4197129	0.24130509	2.5552009	21	1 1.1	21.7
437976 2003 RN_{22}	17.7	X	143.81759	108.21891	242.94720	8.46902	0.3323286	0.24317308	2.5420985	21	1 25.5	22.0
437977 2003 SE_{24}	16.5	X	77.52435	359.82324	338.26720	15.26554	0.1835527	0.23118430	2.6292416	21	—	—
437978 2003 SS_{41}	17.2	X	92.58377	135.99824	228.75848	16.87350	0.3200465	0.23712014	2.5851778	21	—	—
437979 2003 SG_{43}	17.6	X	119.30533	163.22216	180.39311	10.71967	0.2704929	0.23953997	2.5677381	21	—	—
437980 2003 ST_{56}	16.6	X	331.88905	223.28054	183.27220	13.56220	0.2473907	0.22210940	2.7003792	21	11 12.3	18.9
437981 2003 SL_{117}	17.5	X	114.18607	22.43044	343.35170	3.50439	0.2736054	0.23844073	2.5756237	21	1 10.5	20.8
437982 2003 SK_{125}	17.0	X	111.10141	160.04731	205.45438	12.41140	0.1453493	0.23816088	2.5776410	21	—	—
437983 2003 SY_{145}	16.9	X	130.70478	107.43680	247.22208	11.14664	0.1916781	0.24102327	2.5571924	21	1 2.2	20.5
437984 2003 SS_{153}	17.2	X	146.50312	226.92878	98.91815	4.11491	0.2000533	0.24083061	2.5585560	21	—	—
437985 2003 SF_{288}	16.5	X	149.16336	60.29072	243.53338	11.39921	0.1521337	0.23519074	2.5992970	21	—	—
437986 2003 SO_{296}	16.2	X	283.15534	237.48729	223.18648	25.79788	0.2726750	0.21849222	2.7301011	21	10 3.3	19.7
437987 2003 SU_{307}	17.5	X	91.30351	52.58984	287.29863	2.73433	0.2205014	0.23376913	2.6098243	21	—	—
437988 2003 SB_{408}	16.8	X	95.89414	224.32708	100.51835	13.05678	0.1684009	0.22890504	2.6466660	21	—	—
437989 2003 SF_{423}	17.4	X	128.07950	87.67792	210.50286	3.24097	0.2059399	0.23277150	2.6172759	21	—	—
437990 2003 TT_{17}	17.4	X	133.79394	47.44340	290.88861	2.65796	0.2631323	0.23890034	2.5723193	21	—	—
437991 2003 TZ_{47}	17.1	X	296.73675	304.06304	205.73833	12.32242	0.0673056	0.23453243	2.6041587	21	—	—
437992 2003 TC_{59}	16.9	X	95.59626	219.84538	180.10562	10.30248	0.1156634	0.23945120	2.5683726	21	1 2.8	20.2
437993 2003 UT_{5}	18.0	X	105.72230	108.17178	288.48794	3.68884	0.3405382	0.23911223	2.5707994	21	2 16.3	21.3
437994 2003 UL_{12}	17.3	X	337.89261	275.25812	192.75981	19.80904	0.7024642	0.16575382	3.2821645	21	—	—
437995 2003 UR_{51}	16.3	X	136.64788	347.86648	322.49629	13.39815	0.1734452	0.23456140	2.6039443	21	—	—
437996 2003 UE_{102}	17.3	X	108.84227	217.05034	118.14980	6.54716	0.2862231	0.23446362	2.6046682	21	—	—
437997 2003 UY_{118}	17.1	X	3.64469	179.97112	208.14911	13.59925	0.1337793	0.22389232	2.6860242	21	12 10.6	20.4
437998 2003 UA_{126}	17.2	X	99.24801	216.25377	133.26240	3.23520	0.2239876	0.23430576	2.6058380	21	—	—
437999 2003 UH_{132}	17.0	X	109.64354	116.24609	251.55239	10.28986	0.2042006	0.23591475	2.5939762	21	—	—
438000 2003 UG_{176}	17.3	X	100.02802	325.89526	4.40305	1.98914	0.2086778	0.23239273	2.6201190	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438001 2003 UT_{182}	18.2	X	94.29865	166.71711	228.79302	2.75613	0.3184496	0.23775437	2.5805783	21	1 27.7	21.0
438002 2003 UB_{308}	16.7	X	338.30971	346.75639	43.57650	9.31991	0.2231268	0.21763254	2.7372859	21	10 30.6	19.0
438003 2003 UT_{325}	17.2	X	83.89909	160.17201	240.56994	8.68780	0.0996187	0.24217036	2.5491108	21	—	—
438004 2003 UX_{375}	18.3	X	130.25858	83.77214	345.10792	5.42290	0.0825184	0.30657007	2.1782926	21	3 14.1	20.8
438005 2003 WQ_{1}	17.6	X	100.61606	111.09981	267.55328	1.86295	0.2546177	0.23560635	2.5962393	21	1 5.6	20.6
438006 2003 WZ_{3}	16.5	X	320.82145	337.02167	66.10532	15.65769	0.0928681	0.21565900	2.7539602	21	10 22.9	20.0
438007 2003 WQ_{16}	17.0	X	26.63217	140.12030	275.85333	1.72215	0.1151581	0.22884237	2.6471492	21	—	—
438008 2003 WR_{22}	16.8	X	104.84098	97.53650	251.18984	24.97274	0.4356226	0.23502525	2.6005170	21	—	—
438009 2003 WU_{22}	17.1	X	152.71036	263.09327	71.93729	5.13093	0.2875513	0.23946434	2.5682787	21	1 13.3	21.3
438010 2003 WT_{25}	16.5	X	330.30622	244.80212	260.22047	21.68121	0.3168449	0.28481969	2.2878245	21	—	—
438011 2003 WU_{40}	16.4	X	352.59177	127.81396	252.10240	16.29560	0.1732867	0.21766026	2.7370535	21	11 10.7	19.4
438012 2003 WK_{50}	17.1	X	76.77416	144.83161	263.25593	12.75144	0.2732993	0.23462544	2.6034704	21	1 5.7	19.5
438013 2003 WW_{51}	16.1	X	104.63156	236.14026	32.90635	13.90833	0.0639750	0.21879341	2.7275950	21	11 7.4	20.0
438014 2003 XH_{17}	16.7	X	342.21182	153.16534	287.29661	10.58996	0.0864215	0.21917488	2.7244292	21	—	—
438015 2003 XV_{27}	16.8	X	99.63345	36.97766	259.47043	10.78868	0.1825263	0.22239236	2.6980882	21	12 17.1	21.1
438016 2003 YH_{1}	17.9	X	26.85288	68.48207	287.59448	16.35106	0.1141177	0.38460644	1.8726575	21	—	—
438017 2003 YO_{3}	18.6	X	0.35071	168.77195	291.38232	24.60792	0.3662033	0.56450999	1.4499565	21	—	—
438018 2003 YQ_{17}	15.4	X	117.12378	76.49871	289.18721	26.61153	0.4249597	0.23281077	2.6169816	21	1 27.8	19.6
438019 2003 YU_{26}	16.6	X	11.61987	327.66572	113.16154	15.40468	0.2763433	0.22420415	2.6835331	21	—	—
438020 2003 YH_{140}	16.7	X	11.04707	139.94421	288.51757	11.40057	0.1525256	0.22347935	2.6893322	21	—	—
438021 2004 BW_{2}	16.5	X	300.90690	286.67460	302.80402	22.81528	0.2468596	0.28532469	2.2851242	21	—	—
438022 2004 BN_{8}	16.6	X	4.09514	232.08750	135.08514	10.91016	0.1436406	0.21078561	2.7962463	21	11 15.0	20.0
438023 2004 BV_{100}	17.6	X	235.60056	312.53740	315.22279	6.68409	0.1095083	0.28346184	2.2951248	21	—	—
438024 2004 CD_{26}	16.9	X	3.35215	304.17742	140.12559	13.71537	0.2400637	0.22269740	2.6956238	21	—	—
438025 2004 CA_{52}	16.9	X	351.23497	44.86164	111.42265	22.25489	0.1749767	0.28162266	2.3051064	21	—	—
438026 2004 DJ_{6}	17.5	X	48.34506	120.74015	340.61933	7.85218	0.0494142	0.28333696	2.2957992	21	—	—
438027 2004 EN_{85}	17.9	X	304.84662	70.80423	154.74958	8.31145	0.2248658	0.28073431	2.3099667	21	—	—
438028 2004 EH_{96}	7.9	X	32.60491	301.27108	226.18151	3.13221	0.2773927	0.00399017	39.3678799	21	5 3.5	22.9
438029 2004 FE_{29}	16.8	X	138.16666	325.26055	185.68994	8.52438	0.1814926	0.18829862	3.0146573	21	7 25.3	21.8
438030 2004 FL_{111}	17.9	X	341.08245	293.63394	267.83263	2.44437	0.1287197	0.28439213	2.2901170	21	1 21.2	20.4
438031 2004 FJ_{141}	17.8	X	2.67155	348.28968	191.05421	3.03288	0.1962700	0.28449580	2.2895606	21	1 13.5	20.0
438032 2004 GF_{8}	18.3	X	268.27813	37.98424	188.86206	5.08000	0.1143079	0.27437558	2.3455197	21	—	—
438033 2004 GY_{48}	16.9	X	66.73151	195.56028	21.83717	0.99996	0.1054794	0.18375723	3.0641246	21	7 22.2	21.0
438034 2004 GH_{79}	16.6	X	91.58528	37.86466	167.96288	4.94252	0.1923877	0.18648488	3.0341727	21	8 18.6	21.1
438035 2004 HT_{3}	17.4	X	260.16784	304.37517	30.35199	10.68708	0.2820663	0.28663537	2.2781528	21	3 29.4	21.1
438036 2004 HS_{23}	16.6	X	27.83681	232.67675	17.94194	5.47179	0.0977979	0.18172947	3.0868757	21	7 7.7	20.5
438037 2004 HC_{29}	16.4	X	54.24101	41.19838	216.18454	8.60701	0.1230331	0.18666809	3.0321871	21	8 25.3	20.5
438038 2004 JJ_{5}	17.7	X	240.88401	184.25624	46.78766	5.31176	0.1431435	0.26881239	2.3777701	21	—	—
438039 2004 JS_{7}	18.4	X	313.05128	4.87504	205.47595	4.38359	0.1638710	0.27831475	2.3233354	21	—	—
438040 2004 JW_{11}	18.1	X	116.42060	93.16140	116.18966	17.16251	0.1603908	0.36024764	1.9561491	21	10 6.9	21.2
438041 2004 KN_{2}	17.3	X	254.60779	157.96418	54.69422	4.91557	0.0922583	0.26853593	2.3794018	21	—	—
438042 2004 KA_{8}	18.2	X	246.37987	325.24345	304.71342	4.93525	0.2709755	0.27271004	2.3550599	21	—	—
438043 2004 LW_{5}	18.2	X	220.55007	35.26462	111.01320	23.57654	0.0818997	0.36588235	1.9360136	21	11 16.9	20.8
438044 2004 NA_{1}	17.8	X	240.63367	157.15235	141.25684	5.92886	0.2255935	0.27137112	2.3628000	21	1 30.1	21.7
438045 2004 NV_{7}	17.3	X	169.55523	244.30523	305.93444	31.84240	0.1097364	0.35960120	1.9584927	21	10 5.9	20.9
438046 2004 NG_{31}	15.3	X	5.32215	31.74655	301.48792	28.18954	0.2373045	0.17658301	3.1465654	21	9 10.1	19.2
438047 2004 OO_{10}	15.4	X	329.41763	230.40229	116.59523	28.36159	0.2231374	0.17312743	3.1882972	21	7 28.8	18.8
438048 2004 OQ_{13}	15.5	X	61.61403	291.47560	345.31593	17.31932	0.1670598	0.17882488	3.1202118	21	10 2.3	20.1
438049 2004 PH_{36}	17.8	X	182.58929	78.70478	269.91693	4.06092	0.2499905	0.26461278	2.4028621	21	2 14.3	22.0
438050 2004 PR_{36}	18.0	X	180.88742	102.09393	203.15005	3.81683	0.2399805	0.26109305	2.4244087	21	—	—
438051 2004 PV_{50}	17.9	X	176.88670	223.98312	90.05084	3.09052	0.2134080	0.26148789	2.4219676	21	—	—
438052 2004 PV_{54}	17.5	X	189.17044	295.93569	39.54600	3.18547	0.2064171	0.26484434	2.4014612	21	2 4.5	21.5
438053 2004 PN_{94}	17.2	X	178.99119	197.98788	163.21412	13.05129	0.2130364	0.26624872	2.3930092	21	2 25.6	20.9
438054 2004 PJ_{97}	17.3	X	213.19221	92.43761	247.48025	12.42601	0.3185063	0.26934818	2.3746158	21	2 22.4	22.0
438055 2004 PV_{106}	16.6	X	350.85687	17.19352	323.35000	6.40269	0.1724053	0.17420668	3.1751154	21	9 4.4	20.0
438056 2004 QZ_{27}	17.2	X	243.36939	320.52875	328.56867	6.47764	0.1029388	0.26755457	2.3852165	21	1 26.9	20.6
438057 2004 RY_{2}	15.7	X	1.29989	112.63191	255.87650	24.41984	0.3046284	0.17630618	3.1498584	21	11 17.7	18.8
438058 2004 RF_{20}	16.3	X	350.01603	250.65013	118.38954	14.61093	0.2999896	0.17498428	3.1657020	21	10 27.3	19.3
438059 2004 RM_{27}	17.9	X	195.67260	229.46984	70.19583	1.90755	0.2497778	0.26176553	2.4202547	21	—	—
438060 2004 RD_{33}	17.3	X	145.26514	314.87857	66.53283	2.51389	0.2049765	0.26197898	2.4189399	21	2 21.1	20.8
438061 2004 RH_{35}	17.4	X	148.17224	344.13834	44.06604	3.20326	0.2164167	0.26290769	2.4132400	21	3 5.9	21.1
438062 2004 RK_{50}	17.4	X	149.92820	359.63507	25.92743	1.80049	0.1892620	0.26278021	2.4140205	21	2 28.8	20.9
438063 2004 RM_{53}	17.4	X	165.52103	287.96733	75.80030	3.24741	0.2261514	0.26324192	2.4111969	21	2 20.3	21.2
438064 2004 RB_{58}	17.4	X	154.82533	332.77523	34.21727	3.31427	0.2050446	0.26094087	2.4253512	21	2 12.9	21.1
438065 2004 RD_{60}	17.8	X	176.71914	121.43170	233.80196	0.58477	0.1903128	0.26376924	2.4079823	21	2 15.5	21.4
438066 2004 RM_{68}	17.5	X	203.34763	182.31558	150.85914	4.83893	0.2584205	0.26534995	2.3984098	21	2 13.0	21.8
438067 2004 RN_{72}	17.8	X	206.00296	25.34844	353.84890	2.36374	0.2219499	0.27083302	2.3659286	21	4 10.6	21.7
438068 2004 RJ_{89}	17.2	X	202.83362	149.50687	188.43803	11.24976	0.2635082	0.26770211	2.3843400	21	2 15.9	21.5
438069 2004 RS_{111}	15.5	X	355.47436	63.11992	272.08133	19.08321	0.2554701	0.17310280	3.1885996	21	8 28.9	19.0
438070 2004 RN_{113}	17.7	X	196.40571	180.71009	183.25109	2.81830	0.2121430	0.26935263	2.3745896	21	3 15.3	21.7
438071 2004 RW_{123}	16.8	X	188.21267	139.51137	273.70094	9.27503	0.4188693	0.27012918	2.3700366	21	5 9.2	21.6
438072 2004 RP_{145}	17.4	X	178.64082	271.87143	85.05883	3.22258	0.2190048	0.26437137	2.4043246	21	2 22.5	21.3
438073 2004 RD_{147}	17.9	X	126.75754	196.87497	165.10386	3.56695	0.2245238	0.25586844	2.4573003	21	1 9.1	21.1
438074 2004 RD_{207}	16.0	X	351.70348	105.50442	258.30567	13.27585	0.3367390	0.17571055	3.1569727	21	10 13.2	18.6
438075 2004 RS_{211}	15.6	X	9.34110	97.73833	214.49002	15.49071	0.1640216	0.17356648	3.1829182	21	8 27.5	19.5
438076 2004 RY_{221}	17.4	X	161.99690	144.62360	197.84469	14.69921	0.2626218	0.25983202	2.4322466	21	1 21.1	21.6
438077 2004 RE_{248}	16.0	X	344.45727	84.05870	279.60345	15.71616	0.2577851	0.17349469	3.1837961	21	9 13.5	19.4
438078 2004 RN_{248}	15.6	X	339.47193	84.78904	270.01031	15.27189	0.1293514	0.17090365	3.2158947	21	8 26.8	19.8
438079 2004 RS_{279}	18.5	X	150.23279	89.21456	235.36391	1.45262	0.2344558	0.25603412	2.4562401	21	—	—
438080 2004 RF_{341}	16.4	X	232.06867	49.80541	268.18595	12.35397	0.2007413	0.26907810	2.3762045	21	2 11.7	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438081 2004 TP_{60}	17.9	X	201.75936	319.95357	12.54170	3.67359	0.2479420	0.26457982	2.4030616	21	2 12.4	22.1
438082 2004 TB_{61}	17.8	X	160.77072	280.19004	96.84005	3.61114	0.2632623	0.26218493	2.4176730	21	3 7.4	21.7
438083 2004 TF_{120}	16.9	X	86.94551	131.34955	296.31011	6.26896	0.1823365	0.25579885	2.4577459	21	2 1.6	19.4
438084 2004 TE_{136}	15.3	X	316.39237	183.29782	227.09707	17.01286	0.1221555	0.17265439	3.1941180	21	10 6.1	19.4
438085 2004 TA_{142}	17.8	X	180.50832	288.44954	42.21817	2.92934	0.2078902	0.26034309	2.4290625	21	1 22.6	21.7
438086 2004 TJ_{174}	15.9	X	6.76653	347.93684	28.60591	12.09660	0.1116906	0.17775876	3.1326753	21	11 14.8	19.8
438087 2004 TB_{273}	16.7	X	340.40455	209.07319	230.03297	10.53356	0.1448021	0.23742477	2.5829661	21	—	—
438088 2004 TU_{276}	17.0	X	19.63750	350.03724	44.70592	7.53482	0.1171677	0.23851537	2.5750864	21	—	—
438089 2004 TL_{299}	17.1	X	148.09101	83.12997	283.19174	5.38999	0.1343850	0.25824459	2.4422038	21	1 26.5	20.4
438090 2004 TX_{366}	17.0	X	127.72017	190.05537	195.61569	1.84561	0.1929924	0.25532765	2.4607688	21	2 5.2	20.2
438091 2004 VS_{37}	17.6	X	174.73562	277.23234	44.58380	1.83570	0.1929873	0.25435179	2.4670589	21	1 6.1	21.3
438092 2004 XT	15.2	X	296.22959	130.33104	269.66186	22.49322	0.2255676	0.16656369	3.2715169	21	8 1.3	19.8
438093 2004 XL_{30}	16.9	X	163.02682	131.52446	209.90998	3.24248	0.1910450	0.25456105	2.4657067	21	1 17.8	20.6
438094 2004 XP_{102}	16.5	X	81.51125	77.13530	323.42261	6.91504	0.1795203	0.24439810	2.5335968	21	—	—
438095 2005 BW_{4}	16.0	X	3.86009	153.44329	293.92142	21.49503	0.0309792	0.23547345	2.5972161	21	—	—
438096 2005 CX_{23}	17.6	X	249.65801	102.38621	143.33646	30.94765	0.2223980	0.41443001	1.7817027	21	—	—
438097 2005 CY_{27}	17.0	X	46.74347	308.11613	127.11288	12.69378	0.1588189	0.24055869	2.5604837	21	—	—
438098 2005 CS_{56}	16.6	X	285.16181	9.76159	130.47832	33.85794	0.1587934	0.22916408	2.6446712	21	12 29.6	20.1
438099 2005 CH_{65}	16.7	X	182.90075	59.20367	142.27397	17.09863	0.2610207	0.21587319	2.7521383	21	11 7.1	21.8
438100 2005 EZ_{2}	16.6	X	76.01994	208.65429	136.26967	18.11346	0.1305818	0.22975615	2.6401258	21	—	—
438101 2005 EL_{17}	16.0	X	353.44931	273.43195	170.64670	22.05621	0.0853289	0.22712539	2.6604734	21	—	—
438102 2005 EG_{107}	16.2	X	149.23627	38.81802	195.31230	11.82706	0.2737416	0.21404624	2.7677762	21	11 16.7	21.3
438103 2005 EU_{193}	17.1	X	339.91863	211.27358	183.67531	5.87137	0.0149937	0.21523297	2.7575931	21	11 5.1	20.7
438104 2005 FU_{14}	16.6	X	236.95203	26.91225	127.76974	9.57308	0.2191172	0.21756776	2.7378293	21	10 30.6	20.9
438105 2005 GO_{22}	18.7	X	66.33327	19.08950	61.76087	1.56345	0.8230791	0.37221632	1.9139875	21	5 8.1	20.2
438106 2005 GJ_{99}	18.5	X	334.34623	352.00929	222.42899	4.04304	0.1049773	0.29951375	2.2123723	21	1 28.7	20.9
438107 2005 GY_{110}	18.3	X	181.14740	169.14169	294.63313	12.65545	0.6866426	0.39213082	1.8486246	21	7 6.9	22.6
438108 2005 GE_{165}	17.5	X	347.07825	97.49057	120.89531	23.44044	0.2370481	0.30136985	2.2032791	21	2 2.4	19.7
438109 2005 JM_{49}	17.0	X	127.22555	107.29315	185.80554	4.36886	0.1411479	0.21360386	2.7715964	21	—	—
438110 2005 JE_{61}	18.4	X	298.47084	190.52325	110.36437	6.23269	0.1844746	0.30268137	2.1969100	21	4 2.8	21.2
438111 2005 JX_{136}	17.4	X	279.53100	222.06147	68.70470	8.78018	0.0545922	0.30330718	2.1938870	21	3 15.5	20.2
438112 2005 JL_{161}	18.0	X	277.58852	194.97572	108.06097	4.00488	0.1830797	0.30018194	2.2090880	21	3 11.3	21.1
438113 2005 LM_{13}	16.5	X	135.43690	311.96279	214.00504	11.41891	0.2844434	0.19771605	2.9181533	21	8 13.8	21.9
438114 2005 MN_{48}	18.2	X	293.34627	57.56702	233.47949	4.67620	0.1961869	0.29556655	2.2320257	21	3 7.5	21.2
438115 2005 NS_{15}	18.3	X	286.04142	215.84707	74.72699	1.28734	0.1988813	0.29514624	2.2341442	21	3 1.6	21.4
438116 2005 NX_{44}	17.4	X	324.68550	215.07465	308.94774	36.64226	0.9076291	0.29914791	2.2141757	21	—	—
438117 2005 NL_{46}	18.0	X	270.59859	167.00035	165.40041	4.81864	0.2045041	0.29698799	2.2248981	21	4 9.4	21.1
438118 2005 NR_{85}	16.8	X	9.74208	266.47941	116.07199	9.12089	0.1632235	0.19809587	2.9144220	21	12 11.2	20.3
438119 2005 OU_{25}	17.9	X	121.38126	159.31192	149.98455	21.12873	0.0647692	0.39050405	1.8537551	21	—	—
438120 2005 QW_{9}	16.8	X	17.34575	119.03875	201.70215	6.63115	0.2350623	0.18812582	3.0165031	21	10 9.4	20.0
438121 2005 QL_{14}	17.5	X	299.78844	353.76954	329.22795	6.71318	0.1552433	0.29886878	2.2155540	21	5 5.2	20.3
438122 2005 QM_{27}	16.3	X	297.30896	272.83670	147.29515	9.58555	0.2394183	0.18134922	3.0911892	21	9 7.4	20.0
438123 2005 QT_{59}	16.2	X	359.66574	343.87353	0.45066	10.59983	0.1218015	0.18459784	3.0548154	21	9 26.5	19.7
438124 2005 QL_{67}	16.9	X	348.98179	260.06794	72.60643	2.95684	0.2142678	0.18332521	3.0689366	21	8 24.1	19.8
438125 2005 QS_{79}	18.5	X	229.05858	322.55587	357.45117	3.21106	0.2198760	0.28651039	2.2788153	21	2 15.4	22.1
438126 2005 QQ_{83}	18.2	X	55.84767	155.49633	174.66505	22.61812	0.1025928	0.37997195	1.8878538	21	—	—
438127 2005 QU_{114}	17.6	X	238.10353	10.05563	0.77404	5.79238	0.1968534	0.29204333	2.2499413	21	4 25.9	21.3
438128 2005 QF_{117}	16.6	X	46.85171	39.54135	343.57718	8.61881	0.0837675	0.20076499	2.8885334	21	—	—
438129 2005 QV_{121}	18.3	X	254.59849	335.75749	334.41862	4.85067	0.1820513	0.28911046	2.2651320	21	2 25.3	21.5
438130 2005 QC_{138}	17.0	X	25.50108	307.88155	11.04929	5.08190	0.1693222	0.18685537	3.0301607	21	10 11.6	20.7
438131 2005 QU_{155}	16.1	X	28.28784	191.14230	133.01666	14.64755	0.2214762	0.19035825	2.9928727	21	11 6.6	20.0
438132 2005 QE_{157}	18.3	X	200.48844	120.66981	260.62402	4.54225	0.2232467	0.28605623	2.2812267	21	4 6.2	22.1
438133 2005 QB_{181}	16.1	X	317.80512	171.75158	198.14161	17.29517	0.2123297	0.18091232	3.0961640	21	8 3.9	20.1
438134 2005 RE_{4}	16.2	X	278.81640	127.75058	239.08893	9.46458	0.0360123	0.17557647	3.1585798	21	7 2.1	20.7
438135 2005 RA_{6}	18.2	X	273.48410	156.30469	154.21590	2.92653	0.2199528	0.29276335	2.2462508	21	3 12.7	21.5
438136 2005 RA_{7}	16.6	X	27.24164	24.51826	319.31556	6.79895	0.1790918	0.19079504	2.9883032	21	11 15.9	20.4
438137 2005 RP_{23}	16.8	X	201.22419	88.30960	254.60203	9.51984	0.2519673	0.28072787	2.3100020	21	2 17.2	20.9
438138 2005 RC_{31}	16.4	X	14.56750	203.52756	156.12974	14.73840	0.1263436	0.19099717	2.9861945	21	11 16.1	20.4
438139 2005 RF_{45}	16.2	X	304.38999	162.80914	206.00988	10.35255	0.2302223	0.17880918	3.1203946	21	7 9.9	20.3
438140 2005 SH_{2}	18.3	X	204.66255	169.05521	179.42632	10.42254	0.2385743	0.28547611	2.2843161	21	2 28.9	22.2
438141 2005 SL_{20}	17.3	X	227.11190	82.15603	261.87681	7.25616	0.1658941	0.28602373	2.2813995	21	3 11.9	21.0
438142 2005 SN_{34}	17.9	X	210.45429	213.06509	121.82061	3.07839	0.2384131	0.28213048	2.3023396	21	2 19.1	21.7
438143 2005 SW_{43}	16.4	X	336.73682	57.53946	309.88250	1.98636	0.1319232	0.18150795	3.0893868	21	9 16.8	19.9
438144 2005 SS_{49}	17.7	X	116.42692	201.54485	182.65461	2.33219	0.2159253	0.27079466	2.3661521	21	1 20.3	20.4
438145 2005 SB_{79}	17.7	X	212.93281	141.22306	175.81491	8.73646	0.0727422	0.27923632	2.3182207	21	1 25.4	21.1
438146 2005 SP_{80}	16.3	X	7.61847	119.97344	177.57668	10.57189	0.0891241	0.17813431	3.1282707	21	8 3.8	20.4
438147 2005 SW_{91}	18.0	X	256.62626	293.04391	11.27685	3.08410	0.1778924	0.28507700	2.2864476	21	2 21.7	21.5
438148 2005 SB_{101}	18.4	X	203.51742	118.88662	217.09691	5.83686	0.2225303	0.28097978	2.3086212	21	2 12.0	22.4
438149 2005 ST_{102}	16.6	X	50.73773	328.86399	349.91590	9.06205	0.0818287	0.18743962	3.0238607	21	10 31.7	20.9
438150 2005 SV_{108}	16.6	X	54.20771	88.73889	198.59850	8.62588	0.1057110	0.18339646	3.0681418	21	10 2.7	20.9
438151 2005 SW_{138}	16.9	X	24.14200	4.44636	33.39426	5.06273	0.0849242	0.19575849	2.9375751	21	—	—
438152 2005 SC_{142}	16.0	X	340.25928	8.62738	44.26498	4.45267	0.1381281	0.18925032	3.0045421	21	11 24.6	19.3
438153 2005 SN_{143}	17.7	X	136.19157	326.02378	45.77653	3.51021	0.1979477	0.27388113	2.3483418	21	1 27.3	20.8
438154 2005 SR_{154}	16.6	X	331.97133	184.07825	195.22301	10.77829	0.0933761	0.18378948	3.0637661	21	9 26.4	20.3
438155 2005 SU_{193}	17.4	X	89.74478	11.20836	13.89717	5.69640	0.2065911	0.26592708	2.3949383	21	—	—
438156 2005 SK_{197}	17.7	X	171.35685	175.37259	173.67203	3.62465	0.1482378	0.27769582	2.3267862	21	1 27.9	21.0
438157 2005 SL_{198}	16.5	X	281.22635	183.17640	179.12086	11.43486	0.0969009	0.17511910	3.1640769	21	6 21.5	21.1
438158 2005 ST_{227}	18.1	X	265.07277	271.82297	23.55961	3.08670	0.1602047	0.28610404	2.2809725	21	2 19.9	21.4
438159 2005 SJ_{232}	16.4	X	24.22053	99.54732	214.25323	11.81524	0.0240976	0.17813776	3.1282304	21	9 12.1	20.9
438160 2005 SV_{233}	17.6	X	226.82755	281.24129	31.22462	9.43599	0.2517973	0.28081776	2.3095091	21	2 7.9	21.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438161 2005 SH_{250}	18.1	X	250.54719	216.88112	134.17750	2.42947	0.2270503	0.29138511	2.2533284	21	4 12.7	21.6
438162 2005 SH_{255}	17.7	X	198.10764	167.38235	231.02161	1.35383	0.2202012	0.28898932	2.2657650	21	4 27.5	21.3
438163 2005 SY_{263}	17.9	X	125.95515	266.46088	119.86602	2.06438	0.1909680	0.27278025	2.3546558	21	2 1.2	20.8
438164 2005 SV_{269}	15.6	X	296.15300	114.45071	306.41904	12.46464	0.2500359	0.17863520	3.1224202	21	8 29.9	19.6
438165 2005 SQ_{280}	17.5	X	246.62941	142.69454	168.77861	9.94202	0.2799383	0.28545859	2.2844096	21	2 15.0	21.4
438166 2005 TC_{10}	16.1	X	55.92998	347.59575	322.86857	9.50696	0.2817938	0.19081793	2.9880642	21	11 26.4	20.6
438167 2005 TM_{16}	16.6	X	259.20357	152.86549	229.37682	1.41069	0.1444375	0.17199882	3.2022291	21	6 13.8	21.4
438168 2005 TW_{21}	18.6	X	242.64338	199.82111	143.72796	1.53871	0.2415691	0.28933672	2.2639510	21	3 26.1	22.4
438169 2005 TJ_{24}	17.0	X	23.40273	290.46288	44.43563	1.77981	0.2085567	0.18502320	3.0501317	21	11 3.9	20.4
438170 2005 TK_{26}	16.3	X	2.69356	161.80151	202.17534	5.56963	0.2936407	0.18530290	3.0470616	21	11 17.2	19.1
438171 2005 TY_{28}	16.2	X	341.00785	120.88950	267.44495	10.26311	0.1947891	0.18557520	3.0440802	21	10 20.2	19.6
438172 2005 TP_{34}	17.0	X	49.33216	223.16759	76.59895	2.46220	0.1536058	0.18697019	3.0289200	21	10 20.9	21.1
438173 2005 TU_{38}	16.6	X	354.74351	103.48423	232.90779	1.53284	0.2534300	0.18312051	3.0712232	21	9 11.1	19.4
438174 2005 TL_{71}	16.3	X	358.62333	77.00068	284.44092	7.49359	0.1413421	0.18528443	3.0472641	21	10 15.5	19.9
438175 2005 TX_{77}	16.8	X	5.68596	90.91553	283.49692	2.03456	0.3172511	0.18714003	3.0270871	21	12 11.6	19.8
438176 2005 TA_{92}	16.3	X	308.44697	147.33185	258.56365	5.91662	0.1525276	0.18151376	3.0893208	21	9 15.2	20.1
438177 2005 TV_{126}	16.8	X	346.41451	155.75766	200.09157	2.46783	0.1090813	0.18109311	3.0941030	21	9 18.6	20.5
438178 2005 TQ_{137}	17.6	X	234.72758	218.04206	70.64515	3.47429	0.1957138	0.27794295	2.3254068	21	1 14.1	21.4
438179 2005 TS_{142}	18.2	X	210.17341	253.25092	91.68758	2.83407	0.2176421	0.28306423	2.2972736	21	3 3.5	22.0
438180 2005 TG_{154}	17.0	X	2.90328	152.08541	231.02613	7.90495	0.2995205	0.18773796	3.0206564	21	12 15.0	19.9
438181 2005 TB_{160}	16.6	X	326.26756	122.76130	223.77610	9.11339	0.2389318	0.17789502	3.1310754	21	7 17.0	20.1
438182 2005 TL_{172}	15.7	X	315.09421	97.58201	248.77528	14.74616	0.2752036	0.17661502	3.1461852	21	6 20.9	19.5
438183 2005 TR_{193}	15.5	X	342.35547	64.41655	295.90268	12.39954	0.1633460	0.18124538	3.0923697	21	9 10.4	19.2
438184 2005 TS_{195}	18.2	X	155.48284	207.69367	193.16105	7.57665	0.0835895	0.28020144	2.3128944	21	3 11.1	21.3
438185 2005 TC_{197}	18.1	X	178.84395	280.64444	65.00041	2.28801	0.2155683	0.27788446	2.3257331	21	2 6.5	21.7
438186 2005 UE_{10}	15.8	X	347.77423	280.13965	45.25937	14.30349	0.2593461	0.17924538	3.1153301	21	8 14.6	19.0
438187 2005 UT_{13}	16.5	X	36.46324	91.68021	208.24562	9.36311	0.0903252	0.18101501	3.0949929	21	9 20.3	20.7
438188 2005 UK_{14}	16.7	X	348.34245	129.98231	213.24384	8.99340	0.0763049	0.17767971	3.1336044	21	9 1.8	20.9
438189 2005 UB_{16}	16.8	X	344.12954	214.45659	157.72636	1.55500	0.1735673	0.18198348	3.0840026	21	10 7.9	20.0
438190 2005 UC_{25}	16.0	X	227.53649	263.61444	226.89917	7.75172	0.0510736	0.18034635	3.1026383	21	9 30.1	20.6
438191 2005 UX_{34}	16.6	X	344.09969	306.68029	53.65321	2.57381	0.1758295	0.17926756	3.1150731	21	9 21.8	20.0
438192 2005 UF_{43}	16.9	X	349.76007	178.21780	194.20164	4.68459	0.1948545	0.18364830	3.0653361	21	10 20.6	20.1
438193 2005 UW_{45}	16.6	X	321.71955	307.36128	38.73479	2.76064	0.2546345	0.17681013	3.1438703	21	7 7.6	20.0
438194 2005 UR_{48}	16.7	X	311.68986	125.27287	269.15618	3.97141	0.1326983	0.17771724	3.1331631	21	9 8.4	20.6
438195 2005 UT_{52}	16.2	X	313.08197	268.78244	122.39303	4.28056	0.2105653	0.17889050	3.1194488	21	8 30.8	19.7
438196 2005 US_{57}	18.7	X	340.46486	167.51993	215.04211	20.07703	0.0800643	0.37109250	1.9178498	21	11 23.9	20.2
438197 2005 UL_{60}	16.5	X	337.18452	155.63258	231.51393	17.16190	0.2240736	0.18188214	3.0851481	21	10 9.2	19.8
438198 2005 UO_{74}	16.4	X	356.21590	128.36628	254.02907	3.55039	0.3045925	0.18491530	3.0513181	21	11 28.5	19.0
438199 2005 UB_{81}	17.1	X	0.88064	151.61737	191.08485	0.28183	0.1925958	0.18183683	3.0856606	21	10 1.1	20.4
438200 2005 UM_{85}	16.3	X	6.57583	112.46826	206.80575	10.82917	0.2799282	0.18119787	3.0929103	21	9 15.8	19.2
438201 2005 UG_{128}	16.0	X	29.64719	95.40803	228.00014	14.93312	0.1937849	0.18294427	3.0731954	21	10 26.2	19.8
438202 2005 UE_{129}	17.7	X	348.15447	237.75603	227.34529	5.05695	0.1547156	0.25749888	2.4469165	21	—	—
438203 2005 UZ_{131}	16.7	X	9.11473	173.44288	192.91147	16.42557	0.2791911	0.18562446	3.0435417	21	12 2.2	20.2
438204 2005 UN_{143}	15.8	X	347.93158	101.37884	245.63013	16.18394	0.0727568	0.17499972	3.1655158	21	9 1.0	20.3
438205 2005 UO_{158}	16.7	X	358.29918	160.88882	211.82400	6.00786	0.2457061	0.18551693	3.0447176	21	11 13.1	19.5
438206 2005 UA_{164}	17.5	X	298.05773	280.45542	240.39157	4.48772	0.1490550	0.25953783	2.4340842	21	—	—
438207 2005 UB_{186}	16.4	X	333.23246	156.53711	222.86129	4.68356	0.1845284	0.17929469	3.1147589	21	9 22.9	19.9
438208 2005 UH_{205}	18.0	X	240.78588	108.39009	216.39507	5.42276	0.2345552	0.28319693	2.2965559	21	2 27.7	21.9
438209 2005 UZ_{213}	16.8	X	219.84067	105.26565	262.80692	6.71613	0.2381420	0.28596929	2.2816890	21	4 4.1	20.9
438210 2005 UL_{228}	16.9	X	354.27235	243.98740	112.25398	2.00261	0.1868427	0.18106522	3.0944207	21	10 7.2	20.1
438211 2005 UT_{235}	16.6	X	8.87179	99.86538	213.34276	16.34551	0.2810007	0.17878946	3.1206240	21	9 9.9	19.8
438212 2005 UV_{236}	17.3	X	235.78684	205.36099	106.62671	4.26750	0.1455530	0.27859053	2.3218018	21	2 14.1	20.9
438213 2005 UP_{241}	18.0	X	227.08733	64.04332	263.97636	5.61040	0.1908364	0.27975887	2.3153331	21	2 21.3	21.9
438214 2005 UR_{242}	15.8	X	345.33599	70.93932	246.70270	24.95309	0.2189458	0.17285335	3.1916666	21	7 13.3	19.6
438215 2005 UY_{267}	15.8	X	333.86621	153.79768	247.26024	12.36465	0.0506771	0.18016459	3.1047247	21	10 26.4	20.0
438216 2005 UD_{282}	18.1	X	249.90604	87.05784	223.07210	3.63224	0.2112100	0.28156012	2.3054478	21	2 18.9	21.8
438217 2005 UZ_{291}	17.5	X	109.41089	355.14067	14.34288	4.91536	0.1023051	0.26545145	2.3977983	21	—	—
438218 2005 UJ_{309}	18.1	X	247.03083	107.70336	199.97465	1.91053	0.2007521	0.28236225	2.3010795	21	2 14.7	21.9
438219 2005 UQ_{335}	16.8	X	0.27332	80.35565	264.76756	6.76478	0.1490137	0.18016655	3.1047022	21	9 26.2	20.5
438220 2005 UH_{342}	17.6	X	275.68791	280.21902	266.23153	6.44723	0.0364555	0.26132258	2.4229889	21	—	—
438221 2005 UV_{346}	18.3	X	184.21472	99.01644	230.88457	1.40406	0.2236788	0.27402285	2.3475321	21	1 22.8	22.1
438222 2005 UN_{350}	15.8	X	8.67062	103.58908	245.99165	14.02273	0.2689489	0.18341310	3.0679562	21	11 3.4	18.9
438223 2005 UK_{396}	15.8	X	328.30711	269.56072	77.18597	16.87430	0.2624119	0.17772220	3.1331049	21	7 22.6	19.2
438224 2005 UV_{397}	16.0	X	338.71420	128.41052	242.47505	16.32245	0.1464036	0.18092575	3.0960108	21	9 18.1	19.9
438225 2005 UT_{423}	16.5	X	296.64305	7.28930	42.19772	1.89771	0.1917148	0.17750156	3.1357007	21	8 30.1	20.4
438226 2005 UE_{462}	18.2	X	148.48187	164.82067	198.54225	5.81062	0.1212133	0.27269879	2.3551247	21	1 18.1	21.4
438227 2005 UM_{463}	18.0	X	265.00135	90.56417	193.43177	5.72475	0.1394445	0.28028265	2.3124476	21	2 4.9	21.6
438228 2005 UH_{474}	17.7	X	309.59689	129.47932	75.04075	3.23982	0.1436710	0.27142547	2.3624846	21	—	—
438229 2005 UK_{480}	15.4	X	358.19574	79.01207	256.75470	20.52415	0.2361736	0.18322391	3.0700676	21	9 6.0	19.0
438230 2005 UC_{482}	17.3	X	130.74861	73.90973	284.52816	4.98828	0.1548252	0.27063048	2.3671090	21	—	—
438231 2005 UB_{493}	15.5	X	71.11659	50.58957	261.91469	15.89455	0.3135644	0.19191486	2.9766674	21	12 18.1	20.3
438232 2005 UY_{510}	17.5	X	94.41882	228.47379	227.92194	5.90321	0.0801200	0.27490445	2.3425105	21	3 3.9	20.3
438233 2005 UH_{518}	16.2	X	1.63938	133.57973	173.80733	16.04742	0.2345541	0.17745838	3.1362093	21	8 12.3	19.5
438234 2005 UN_{521}	18.0	X	178.26739	201.87234	150.94698	3.66289	0.1994441	0.27877009	2.3208047	21	2 12.7	21.7
438235 2005 UB_{524}	16.5	X	314.29396	259.78586	125.73097	5.69711	0.1406365	0.17956486	3.1116338	21	9 3.9	20.2
438236 2005 VS_{1}	17.9	X	297.36179	235.74324	231.30476	20.25047	0.0426378	0.37739879	1.8964252	21	—	—
438237 2005 VJ_{17}	17.9	X	181.06162	294.31626	102.72231	3.30375	0.1783031	0.28225039	2.3016875	21	4 12.3	21.5
438238 2005 VW_{29}	18.0	X	206.81183	293.41975	82.40494	3.41243	0.2802284	0.28414162	2.2914628	21	4 8.1	22.0
438239 2005 VN_{65}	17.8	X	238.51861	237.09535	61.30631	6.94359	0.1266690	0.27783637	2.3260015	21	2 1.6	21.3
438240 2005 VT_{65}	16.3	X	299.92883	225.44945	114.83257	3.17043	0.1064404	0.16938092	3.2351398	21	6 17.0	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438241 2005 VK_{78}	16.1	X	354.47044	132.35599	254.20636	14.17282	0.3082077	0.18439357	3.0570710	21	11 30.5	18.8
438242 2005 VO_{79}	15.2	X	288.95540	145.58142	268.15029	17.05377	0.1476362	0.17546791	3.1598824	21	8 21.0	19.8
438243 2005 VA_{90}	16.0	X	330.85285	118.92342	254.43950	15.42862	0.1819642	0.17724150	3.1387671	21	9 2.5	20.0
438244 2005 VX_{97}	15.9	X	273.08800	139.52149	296.19602	14.41150	0.2134171	0.17507160	3.1646493	21	8 21.7	20.6
438245 2005 WU_{3}	15.6	X	341.13666	94.08975	313.19056	20.10387	0.3501977	0.18319954	3.0703399	21	11 20.8	18.4
438246 2005 WZ_{19}	16.1	X	326.83739	122.80782	258.50314	9.22685	0.1150018	0.17699592	3.1416698	21	9 14.5	20.1
438247 2005 WA_{33}	17.4	X	160.09556	352.73087	53.85991	2.96413	0.1870584	0.27805535	2.3247801	21	4 5.0	21.0
438248 2005 WG_{37}	16.7	X	309.74128	300.82655	98.59161	2.56587	0.1778087	0.17579865	3.1559179	21	9 9.4	20.4
438249 2005 WA_{40}	17.4	X	168.69193	152.09028	252.61988	7.71007	0.1798923	0.27922181	2.3183010	21	4 6.1	21.0
438250 2005 WG_{56}	17.6	X	108.30151	292.68423	89.66482	7.52643	0.1231957	0.26618364	2.3933992	21	—	—
438251 2005 WN_{58}	16.1	X	282.66211	133.78035	284.60988	15.58570	0.1051845	0.16863024	3.2447338	21	8 25.4	20.8
438252 2005 WV_{63}	15.3	X	268.38075	309.54592	103.20643	23.34866	0.1301537	0.17238345	3.1974641	21	8 5.4	20.0
438253 2005 WP_{65}	18.0	X	121.80181	116.86395	295.20148	4.16087	0.0709062	0.27117855	2.3639185	21	2 11.0	20.9
438254 2005 WN_{98}	18.3	X	192.19220	284.63190	58.42085	6.19886	0.2627287	0.27938566	2.3173945	21	2 18.2	22.3
438255 2005 WY_{114}	15.9	X	354.95982	109.56207	270.92174	13.84097	0.1258629	0.17827961	3.1265708	21	11 1.2	20.0
438256 2005 WT_{115}	17.8	X	160.69979	274.70773	131.34292	6.81448	0.1926930	0.27914203	2.3187427	21	4 7.2	21.4
438257 2005 WO_{118}	16.3	X	71.04544	170.29426	309.30606	23.58324	0.2020226	0.26698697	2.3885958	21	3 7.2	19.1
438258 2005 WO_{136}	16.7	X	31.78810	114.77414	218.11793	6.44076	0.0381597	0.18460147	3.0547754	21	10 21.3	20.9
438259 2005 WD_{145}	16.0	X	290.71225	117.81449	278.11012	3.28937	0.1733863	0.17203356	3.2017981	21	8 4.4	20.1
438260 2005 WR_{154}	17.8	X	206.05862	98.86876	261.74881	3.38042	0.2374099	0.27984845	2.3148389	21	3 16.8	21.9
438261 2005 WB_{163}	17.7	X	149.10002	11.72016	246.27305	19.08710	0.0534298	0.37764838	1.8955895	21	—	—
438262 2005 WM_{211}	17.3	X	231.64458	337.78052	253.84353	7.16436	0.0919261	0.25783231	2.4448065	21	—	—
438263 2005 XO_{3}	15.0	X	13.89635	74.58120	263.81087	25.21262	0.2024241	0.18123966	3.0924349	21	10 12.7	19.1
438264 2005 XZ_{13}	15.1	X	246.96434	212.22210	245.81616	15.10674	0.0540606	0.17380064	3.1800586	21	9 7.1	20.0
438265 2005 XE_{25}	15.4	X	283.51565	191.18614	268.44833	16.83735	0.1640381	0.17904057	3.1177054	21	10 10.8	19.9
438266 2005 XG_{55}	17.6	X	212.97564	63.33840	322.20977	2.20788	0.2082532	0.28453707	2.2893392	21	4 23.2	21.4
438267 2005 XC_{75}	16.2	X	348.52705	326.70427	58.05198	5.79567	0.1026858	0.17738251	3.1371035	21	10 30.7	20.1
438268 2005 XX_{108}	16.5	X	11.81492	203.00729	99.15060	2.19579	0.1718416	0.17265543	3.1941052	21	8 25.4	19.9
438269 2005 XD_{117}	17.5	X	251.33717	26.71809	264.84578	9.23930	0.2002535	0.27365416	2.3496401	21	1 28.8	21.4
438270 2005 YZ	17.1	X	230.84960	72.47800	66.83525	28.93579	0.3415570	0.23442271	2.6049712	21	10 9.1	22.0
438271 2005 YL_{8}	15.5	X	306.66933	123.33517	291.53772	13.42834	0.2507132	0.17820317	3.1274648	21	9 5.6	19.3
438272 2005 YV_{23}	16.7	X	317.06911	99.90429	287.00401	23.63154	0.2771293	0.17332347	3.1858926	21	8 10.7	20.6
438273 2005 YC_{25}	16.8	X	199.07173	232.23858	287.20503	13.33544	0.2352493	0.23141274	2.6275110	21	9 20.4	21.6
438274 2005 YE_{29}	18.4	X	80.54398	96.41189	356.38968	1.04267	0.1445348	0.26687698	2.3892521	21	2 19.1	20.7
438275 2005 YC_{31}	17.3	X	153.29292	103.90307	286.45311	9.99732	0.1540240	0.27035764	2.3687012	21	2 28.2	20.9
438276 2005 YR_{75}	17.6	X	222.12876	222.56725	308.36740	3.65653	0.1742187	0.23908225	2.5710143	21	11 6.8	21.4
438277 2005 YC_{85}	17.5	X	39.72247	20.84884	91.39550	7.53439	0.0742920	0.26430526	2.4047255	21	1 2.6	20.1
438278 2005 YP_{98}	17.2	X	187.78398	68.61269	308.26661	6.30325	0.1232958	0.27459131	2.3442910	21	3 17.7	20.7
438279 2005 YJ_{102}	15.7	X	337.49569	305.73028	105.40580	10.12210	0.0862194	0.17932373	3.1144226	21	11 18.3	19.7
438280 2005 YO_{111}	17.9	X	16.70208	279.58499	107.21325	24.32759	0.1105315	0.37265441	1.9124872	21	—	—
438281 2005 YO_{130}	17.4	X	236.23493	67.25905	119.08250	5.04393	0.1064681	0.24447993	2.5330314	21	12 24.5	20.6
438282 2005 YR_{209}	15.8	X	311.45461	133.08626	281.96167	17.30599	0.2579812	0.17812152	3.1284205	21	9 10.3	19.7
438283 2005 YO_{212}	16.0	X	327.23759	91.31230	306.68062	6.69316	0.2646930	0.17790540	3.1309536	21	9 27.5	19.1
438284 2006 AD_{6}	16.1	X	240.33879	91.56873	79.79073	16.16055	0.1143919	0.23836708	2.5761543	21	12 8.3	19.5
438285 2006 AR_{32}	17.5	X	187.49405	250.71724	128.72248	8.14353	0.2688753	0.27624599	2.3349203	21	3 31.7	21.6
438286 2006 AY_{34}	17.3	X	52.55758	300.09390	107.51975	3.95017	0.1214361	0.25407017	2.4688816	21	—	—
438287 2006 AS_{59}	16.3	X	13.24029	256.77304	113.62227	7.51694	0.1465464	0.17844718	3.1246131	21	11 25.1	20.2
438288 2006 AE_{67}	17.4	X	187.46919	18.05762	192.95873	2.56413	0.1923751	0.23640176	2.5904124	21	11 22.4	21.5
438289 2006 AG_{79}	15.7	X	298.80244	278.86027	131.47412	17.19698	0.1091438	0.16865422	3.2444263	21	9 18.1	20.1
438290 2006 AP_{86}	15.3	X	273.08148	320.98559	118.55793	28.51680	0.1663108	0.17165246	3.2065354	21	9 14.2	20.2
438291 2006 AO_{93}	17.6	X	274.05324	161.32051	310.43507	4.21608	0.1548686	0.23765581	2.5812917	21	10 28.7	20.7
438292 2006 BS_{22}	17.5	X	229.52010	54.31327	124.97684	4.75207	0.0911591	0.23942207	2.5685810	21	12 8.6	21.0
438293 2006 BE_{33}	17.3	X	172.52103	60.83186	141.23565	12.53288	0.1790647	0.22851660	2.6496645	21	11 2.6	21.9
438294 2006 BX_{60}	17.3	X	279.16580	54.31338	56.11200	5.53570	0.2442576	0.23950577	2.5679825	21	10 24.2	20.0
438295 2006 BH_{232}	15.7	X	244.91529	286.42808	122.53314	17.52171	0.1312653	0.15844735	3.3823047	21	7 3.4	21.0
438296 2006 BG_{277}	17.0	X	136.45533	122.80536	163.24830	11.28567	0.2044247	0.23543804	2.5974765	21	—	—
438297 2006 CV_{38}	16.7	X	344.73791	253.97170	159.57092	22.27509	0.0547104	0.23622022	2.5917395	21	12 13.4	20.4
438298 2006 CM_{67}	17.6	X	265.28010	279.89770	251.40383	5.36712	0.2305999	0.24046336	2.5611604	21	12 25.3	20.3
438299 2006 DO_{36}	17.2	X	222.38761	358.66642	174.93931	4.15363	0.1693707	0.23223810	2.6212819	21	11 12.5	21.0
438300 2006 DS_{37}	17.4	X	226.00482	180.64441	9.14038	3.56002	0.2414873	0.23465657	2.6032402	21	11 26.4	21.3
438301 2006 DB_{50}	16.6	X	249.56808	183.15798	303.32480	11.07939	0.1329385	0.23208652	2.6224232	21	10 12.8	20.5
438302 2006 DP_{139}	17.6	X	205.49670	90.95983	148.80413	3.36205	0.1619189	0.24065834	2.5597768	21	—	—
438303 2006 DV_{146}	16.8	X	53.92882	13.48497	344.43102	11.82424	0.1266044	0.23559187	2.5963457	21	—	—
438304 2006 DZ_{147}	17.4	X	132.13412	93.19661	175.02403	16.83933	0.2506496	0.22817648	2.6522969	21	12 14.5	22.4
438305 2006 DY_{207}	16.3	X	74.53969	52.51531	352.33257	13.77018	0.0698057	0.24663846	2.5182307	21	—	—
438306 2006 EF_{21}	17.5	X	175.54111	284.02390	345.49326	3.13403	0.2130332	0.23942298	2.5685745	21	—	—
438307 2006 FG_{11}	17.0	X	224.69124	137.54714	85.26243	3.44067	0.1272134	0.23892673	2.5721299	21	—	—
438308 2006 HC_{11}	16.6	X	137.44551	57.94241	193.45686	16.59321	0.1914815	0.22403479	2.6848853	21	11 28.1	21.3
438309 2006 HS_{24}	17.0	X	119.98562	202.85417	76.75925	4.95509	0.1967211	0.22337348	2.6901818	21	12 15.4	21.4
438310 2006 HM_{73}	16.9	X	349.38466	300.26178	97.41423	6.30279	0.0235688	0.22342540	2.6897651	21	11 22.9	20.3
438311 2006 HN_{80}	16.6	X	304.23980	221.57789	226.69090	21.07899	0.0433452	0.22541641	2.6739033	21	11 25.2	20.0
438312 2006 HW_{102}	17.5	X	122.48080	204.85981	116.01273	3.31507	0.2099856	0.22903395	2.6456728	21	—	—
438313 2006 HX_{109}	16.4	X	175.17488	350.08893	277.62279	14.02420	0.2288247	0.23209873	2.6223312	21	—	—
438314 2006 HD_{117}	17.1	X	70.64554	251.60693	67.91961	9.91727	0.3069707	0.21671411	2.7450142	21	12 28.6	21.7
438315 2006 HY_{143}	17.4	X	111.58064	112.50531	222.60894	0.32168	0.1725750	0.23698331	2.5861728	21	—	—
438316 2006 HX_{152}	17.7	X	128.46510	211.66023	94.60711	5.04105	0.2055937	0.22779282	2.6552741	21	—	—
438317 2006 JX	19.9	X	303.12606	315.36983	233.32915	23.88512	0.2721803	0.44111868	1.7090932	21	—	—
438318 2006 JV_{3}	17.1	X	67.90196	118.14844	211.79122	5.53615	0.1646943	0.22370653	2.6875112	21	12 25.1	21.1
438319 2006 JX_{48}	17.2	X	153.18666	134.38039	140.69450	11.74083	0.3952801	0.22744399	2.6579883	21	—	—
438320 2006 KC_{5}	17.0	X	14.60996	139.95274	227.98213	6.66206	0.0471897	0.22108627	2.7087039	21	11 19.6	20.5

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438321 2006 KU_{8}	16.6	X	174.37149	19.77201	238.84944	13.14968	0.2167991	0.22962074	2.6411636	21	—	—
438322 2006 KB_{15}	16.9	X	181.85237	138.65266	109.62981	8.60910	0.1876609	0.22937187	2.6430737	21	12 30.5	21.3
438323 2006 KO_{27}	17.0	X	60.76637	173.04919	230.65836	9.15966	0.0999273	0.23708467	2.5854356	21	—	—
438324 2006 KE_{31}	16.7	X	67.82124	269.23045	49.68325	9.95586	0.1837523	0.21962929	2.7206700	21	12 12.5	20.7
438325 2006 KA_{44}	17.0	X	201.27388	72.03525	86.61641	13.92921	0.2122095	0.22402273	2.6849817	21	10 6.9	21.7
438326 2006 KN_{50}	17.1	X	131.70934	228.45071	79.15749	4.43121	0.1574856	0.22962101	2.6411615	21	—	—
438327 2006 KF_{52}	17.6	X	215.29354	28.62162	185.55712	4.31483	0.1529900	0.23121355	2.6290199	21	12 25.4	21.4
438328 2006 KP_{53}	17.2	X	65.37253	239.54476	89.37337	8.54431	0.2466287	0.21836996	2.7311200	21	12 29.6	21.5
438329 2006 KL_{65}	17.2	X	180.82390	170.24773	108.78245	11.19016	0.0831535	0.23696498	2.5863062	21	—	—
438330 2006 KN_{68}	17.2	X	158.13250	208.02826	54.05489	6.71742	0.1112022	0.22762622	2.6565696	21	12 28.8	21.4
438331 2006 KC_{69}	17.0	X	143.38669	69.09416	200.37367	12.93705	0.2370664	0.22668850	2.6638906	21	12 22.2	21.9
438332 2006 KQ_{103}	16.6	X	245.58702	41.00141	95.93307	7.68626	0.0490888	0.22146090	2.7056483	21	11 9.7	20.3
438333 2006 KZ_{119}	17.0	X	116.86377	204.55007	124.35280	8.88545	0.1980836	0.22803650	2.6533822	21	—	—
438334 2006 KD_{139}	16.4	X	22.19199	118.09160	248.50685	12.25014	0.1937174	0.21789072	2.7351232	21	12 17.8	19.7
438335 2006 MC_{6}	17.0	X	215.48624	105.29903	108.87507	13.30438	0.2056922	0.23224966	2.6211950	21	12 20.5	21.1
438336 2006 PH_{10}	17.1	X	61.71732	172.05281	191.06968	2.37424	0.2096115	0.21411980	2.7671423	21	—	—
438337 2006 PH_{25}	16.1	X	106.55857	40.51055	325.32526	15.23149	0.1643671	0.22349035	2.6892439	21	—	—
438338 2006 QX_{71}	16.7	X	335.66388	337.57473	19.58250	1.95263	0.1149007	0.19650401	2.9301405	21	9 4.9	19.9
438339 2006 QU_{112}	16.9	X	70.00917	48.92156	297.88843	6.80422	0.2355767	0.21287932	2.7778816	21	—	—
438340 2006 QV_{118}	16.6	X	33.45696	248.56658	139.48678	13.18294	0.2539343	0.20969605	2.8059239	21	—	—
438341 2006 QX_{123}	16.8	X	101.72413	121.23922	219.54282	11.17487	0.3012219	0.21748353	2.7385360	21	—	—
438342 2006 QQ_{169}	19.1	X	327.61707	197.02609	111.85239	1.66027	0.2793909	0.32261270	2.1054668	21	5 9.0	20.4
438343 2006 RO	16.7	X	50.29245	153.90729	236.49797	7.76504	0.2954879	0.21319275	2.7751583	21	—	—
438344 2006 RJ_{24}	16.4	X	285.27745	108.02317	272.90644	7.23596	0.0986079	0.19229781	2.9727141	21	7 19.9	20.4
438345 2006 RO_{27}	17.8	X	197.54682	22.39814	346.34789	5.72465	0.1521641	0.30301263	2.1953085	21	3 17.2	20.9
438346 2006 RU_{66}	16.5	X	133.04884	327.27188	13.52949	4.99708	0.1732062	0.21991815	2.7182871	21	—	—
438347 2006 RK_{94}	17.5	X	144.66946	208.20583	216.73727	4.18033	0.1095076	0.30126602	2.2037853	21	3 31.5	20.3
438348 2006 RK_{110}	16.7	X	20.78028	263.45990	32.58271	0.65400	0.0965840	0.19152137	2.9807431	21	8 26.8	20.2
438349 2006 RE_{113}	17.0	X	85.41629	33.65535	154.80320	1.38517	0.1133607	0.18119022	3.0929973	21	7 9.9	21.3
438350 2006 SF_{9}	16.1	X	239.59553	25.79761	18.90194	5.47107	0.1737191	0.18272353	3.0756700	21	6 17.5	21.0
438351 2006 SZ_{26}	16.4	X	63.50700	158.79819	209.14973	10.50147	0.3037000	0.21170490	2.7881456	21	—	—
438352 2006 SW_{36}	18.5	X	249.84507	92.39913	240.77972	2.64273	0.1667559	0.30803206	2.1713947	21	3 20.0	21.6
438353 2006 SC_{52}	16.4	X	86.51133	18.88087	5.48825	13.58536	0.1002145	0.21930270	2.7233705	21	—	—
438354 2006 SF_{56}	16.6	X	64.14820	266.63458	121.20095	9.02982	0.3098623	0.21303399	2.7765369	21	—	—
438355 2006 SO_{159}	18.5	X	292.96455	149.13419	161.94283	2.05551	0.2136446	0.31302906	2.1482242	21	4 1.8	21.2
438356 2006 SX_{159}	16.6	X	304.44880	319.33458	41.81909	6.18302	0.1383062	0.18685510	3.0301636	21	7 17.6	20.5
438357 2006 SH_{212}	16.5	X	113.42048	89.11623	216.67646	18.37165	0.3261326	0.21346445	2.7728029	21	—	—
438358 2006 SJ_{254}	16.8	X	116.86980	225.47378	34.61635	2.09078	0.0688552	0.20285866	2.8686244	21	11 9.7	21.1
438359 2006 SR_{254}	16.7	X	30.91855	331.61927	15.25313	12.90131	0.1426152	0.20219714	2.8748777	21	11 20.6	20.6
438360 2006 SS_{259}	16.7	X	250.14911	209.44971	200.47249	9.40923	0.0641345	0.18460844	3.0546985	21	7 16.4	21.2
438361 2006 SO_{271}	17.2	X	4.70413	283.34443	33.21057	3.79152	0.1299097	0.19340015	2.9614075	21	9 1.2	20.6
438362 2006 SB_{273}	16.9	X	118.46965	298.92168	23.95079	15.28326	0.3339047	0.21566582	2.7539021	21	—	—
438363 2006 SU_{314}	16.0	X	197.00575	241.35965	187.20847	13.72036	0.2399682	0.17601963	3.1532760	21	6 7.9	21.7
438364 2006 SS_{316}	16.5	X	281.76782	198.70434	178.13149	8.99420	0.1507639	0.18554323	3.0444299	21	7 2.2	20.9
438365 2006 SJ_{317}	16.9	X	154.72149	119.88085	89.27684	3.07969	0.0353551	0.19763308	2.9189700	21	10 19.9	21.1
438366 2006 SL_{321}	16.7	X	274.73095	322.31250	72.62696	4.85195	0.0351649	0.18699461	3.0286563	21	8 5.1	20.8
438367 2006 SW_{323}	16.4	X	277.93196	345.71229	32.01519	11.31475	0.1084181	0.18524687	3.0476760	21	7 6.5	20.8
438368 2006 SM_{346}	16.0	X	63.53623	24.65049	225.80233	9.51583	0.0876525	0.18892570	3.0079828	21	8 23.1	20.3
438369 2006 SR_{378}	16.9	X	265.89056	269.40869	110.03003	11.24108	0.0831101	0.18141303	3.0904643	21	6 26.3	21.2
438370 2006 SY_{397}	16.6	X	359.99503	275.92861	129.60852	12.93809	0.2815916	0.20119478	2.8844183	21	—	—
438371 2006 TT_{5}	16.8	X	83.88798	335.81586	15.36444	9.08191	0.2877291	0.21138506	2.7909573	21	—	—
438372 2006 TW_{14}	16.3	X	73.06470	38.03282	211.75239	10.58655	0.0866818	0.19082332	2.9880079	21	9 4.4	20.6
438373 2006 TF_{32}	16.8	X	328.87229	155.70690	210.51284	4.80653	0.1581805	0.19136286	2.9823889	21	8 30.2	20.2
438374 2006 TF_{43}	16.4	X	294.56879	144.16936	221.67254	9.98233	0.0766901	0.18246804	3.0785403	21	7 14.7	20.8
438375 2006 TF_{46}	17.0	X	334.92576	309.17234	94.48054	1.74125	0.0938797	0.19635187	2.9316538	21	11 5.6	20.4
438376 2006 TZ_{59}	16.5	X	244.30540	155.99547	236.73627	10.00363	0.0726024	0.17781401	3.1320263	21	6 18.1	21.1
438377 2006 TZ_{80}	18.4	X	227.92873	70.91406	279.44106	3.15833	0.1277158	0.30402119	2.1904507	21	3 22.3	21.6
438378 2006 TK_{90}	16.4	X	279.23747	1.14387	12.03238	3.18644	0.1084433	0.18099791	3.0951879	21	7 1.5	20.7
438379 2006 TH_{98}	16.8	X	331.68825	308.04286	31.53601	1.84979	0.1487384	0.18858481	3.0116066	21	8 1.2	20.2
438380 2006 TV_{99}	16.7	X	297.96817	49.95496	305.64399	3.14696	0.0768348	0.18328080	3.0694323	21	7 8.5	20.7
438381 2006 TH_{114}	16.5	X	1.34983	194.36392	128.77476	10.88899	0.1203951	0.19046624	2.9917414	21	9 4.2	20.0
438382 2006 TV_{123}	16.4	X	338.32582	287.22488	25.45250	9.43392	0.0518900	0.18148389	3.0896598	21	7 14.6	20.7
438383 2006 TF_{124}	15.9	X	78.89209	319.49270	228.86665	15.88356	0.1315819	0.17476886	3.1683028	21	7 1.7	20.5
438384 2006 TZ_{124}	15.9	X	351.54543	56.28691	239.01110	10.07970	0.0131442	0.17929220	3.1147877	21	7 8.1	20.3
438385 2006 UV_{6}	15.9	X	288.96993	321.93127	53.44709	11.34944	0.2107315	0.18538919	3.0461161	21	7 1.4	20.2
438386 2006 UL_{12}	16.6	X	41.26443	86.82345	203.00322	9.27551	0.1395475	0.19135661	2.9824539	21	9 22.8	20.5
438387 2006 UF_{20}	16.8	X	343.34080	320.45993	17.11068	10.04939	0.1169589	0.18985552	2.9981537	21	8 25.4	20.4
438388 2006 UA_{33}	16.1	X	268.74466	339.66357	41.07082	10.65477	0.0415080	0.18109100	3.0941270	21	7 8.3	20.6
438389 2006 UB_{34}	16.4	X	47.57606	62.64646	208.32872	10.95598	0.1448311	0.18921032	3.0049655	21	9 6.2	20.8
438390 2006 UN_{36}	16.2	X	218.41244	12.67503	31.88731	9.38084	0.0907889	0.17553099	3.1591252	21	6 1.3	21.1
438391 2006 UH_{38}	17.0	X	36.56227	177.94005	161.46550	0.42965	0.1268578	0.19891155	2.9064490	21	11 19.8	20.8
438392 2006 UF_{48}	16.1	X	90.78682	304.12987	273.01185	9.15643	0.0537481	0.19043869	2.9920299	21	8 11.2	20.5
438393 2006 UK_{64}	16.1	X	311.91306	60.04898	359.23058	12.10627	0.1421919	0.19575527	2.9376074	21	10 12.6	19.7
438394 2006 US_{78}	17.0	X	304.12832	157.58226	224.21646	11.06643	0.1421361	0.18885300	3.0087547	21	8 7.7	21.0
438395 2006 UX_{82}	16.6	X	346.79545	33.99296	290.08116	3.83785	0.1615434	0.18841324	3.0134346	21	8 6.0	19.7
438396 2006 UO_{83}	16.8	X	75.25446	302.86367	79.23572	5.53355	0.1336505	0.21137683	2.7910298	21	—	—
438397 2006 UT_{94}	17.1	X	324.93768	230.79608	174.54474	5.75154	0.0709677	0.19590294	2.9361309	21	10 24.7	20.7
438398 2006 UH_{131}	16.6	X	295.66379	354.58256	7.62720	2.60890	0.1665060	0.18482893	3.0522686	21	6 30.4	20.6
438399 2006 UE_{143}	16.5	X	114.91435	87.17964	213.58634	18.28019	0.3532359	0.21382863	2.7696538	21	—	—
438400 2006 UK_{151}	16.6	X	349.67815	78.93512	229.71199	9.34706	0.0194233	0.18277745	3.0750651	21	7 21.9	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438401 2006 UE_{189}	15.8	X	202.32677	170.28965	248.50105	14.15491	0.2006978	0.17567110	3.1574453	21	5 31.4	21.1
438402 2006 UU_{200}	16.0	X	331.33840	93.24347	239.70705	8.69463	0.1313306	0.18586144	3.0409540	21	7 20.5	19.8
438403 2006 UC_{210}	15.9	X	219.47222	155.40705	262.16870	8.32279	0.1013308	0.17666246	3.1456220	21	6 19.3	20.7
438404 2006 UW_{212}	16.1	X	290.54778	302.60731	44.70776	10.36878	0.0936721	0.17762229	3.1342796	21	6 13.8	20.5
438405 2006 UY_{254}	16.5	X	279.38473	154.51731	221.18904	9.14983	0.0647400	0.18101039	3.0950456	21	7 9.4	20.9
438406 2006 UZ_{262}	18.7	X	320.50661	227.62703	68.81595	1.97807	0.1577963	0.31118096	2.1567213	21	4 30.1	20.6
438407 2006 UV_{332}	16.6	X	309.82491	212.68034	148.58480	10.65344	0.0781846	0.18566014	3.0431517	21	7 31.9	20.6
438408 2006 UH_{338}	16.0	X	193.02731	199.33041	244.16874	9.25585	0.1033041	0.17449602	3.1716045	21	6 23.7	21.0
438409 2006 VT_{17}	16.6	X	340.74053	101.56760	238.02614	10.30813	0.1138125	0.18703989	3.0281675	21	8 14.0	20.4
438410 2006 VK_{19}	16.2	X	169.28644	201.11828	244.76045	10.28192	0.0317446	0.17174646	3.2053652	21	5 31.9	20.8
438411 2006 VE_{23}	15.8	X	29.10057	18.35337	234.84933	9.77630	0.0224228	0.17680742	3.1439024	21	7 4.4	20.3
438412 2006 VX_{37}	15.6	X	269.56545	135.25776	240.65727	27.81182	0.2357983	0.18076160	3.0978848	21	6 4.7	20.5
438413 2006 VF_{47}	16.4	X	289.69000	331.69653	33.45568	5.54162	0.1608461	0.18243698	3.0788897	21	6 26.7	20.6
438414 2006 VN_{47}	16.4	X	296.16923	312.72775	38.93202	11.42077	0.1038908	0.18084172	3.0969698	21	6 26.4	20.7
438415 2006 VZ_{48}	18.0	X	138.11621	218.66374	247.98855	4.49830	0.1381656	0.30177860	2.2012891	21	5 25.3	21.0
438416 2006 VZ_{52}	16.0	X	262.83444	350.57717	18.03750	8.57388	0.0935966	0.17616457	3.1515462	21	6 5.8	20.6
438417 2006 VT_{55}	18.3	X	212.85248	170.09991	227.20779	5.96367	0.0504409	0.30585824	2.1816710	21	5 13.5	21.0
438418 2006 VC_{66}	16.0	X	65.77525	53.73773	239.33760	10.76070	0.0717909	0.19135016	2.9825209	21	10 19.1	20.3
438419 2006 VT_{67}	15.6	X	191.95708	196.61363	244.04318	16.51346	0.1617263	0.17231660	3.1982909	21	6 17.8	20.9
438420 2006 VU_{77}	17.8	X	228.23621	251.12057	93.37780	3.84676	0.1651392	0.30203448	2.2000457	21	3 17.9	21.1
438421 2006 VU_{78}	16.7	X	22.47877	174.15094	189.66568	4.20891	0.1549197	0.19858764	2.9096086	21	12 5.2	20.3
438422 2006 VW_{87}	16.7	X	54.78477	93.74928	243.24102	13.59725	0.1708831	0.20181469	2.8785086	21	12 15.9	20.8
438423 2006 VZ_{94}	15.8	X	269.80035	130.12958	242.52687	11.67219	0.0959734	0.17750471	3.1356636	21	6 19.9	20.3
438424 2006 VD_{100}	16.3	X	293.10957	311.55959	58.45676	13.38522	0.1725646	0.18298957	3.0726882	21	7 6.3	20.5
438425 2006 VK_{108}	16.5	X	246.34101	115.76292	267.20153	5.24164	0.0788198	0.17497449	3.1658200	21	6 7.8	21.1
438426 2006 VB_{135}	15.3	X	350.76570	47.75229	242.80365	21.07231	0.0113997	0.17594890	3.1541210	21	6 29.3	19.9
438427 2006 VF_{137}	16.4	X	318.00420	297.80322	60.69295	12.50359	0.1611098	0.18463541	3.0544010	21	8 4.7	20.2
438428 2006 VR_{169}	15.0	X	67.12639	321.77476	289.05893	18.41792	0.0586988	0.17243731	3.1967982	21	8 19.4	19.7
438429 2006 WN_{1}	18.8	X	336.91558	93.58897	239.18281	4.01668	0.4508605	0.32402560	2.0993419	21	6 4.5	19.2
438430 2006 WL_{3}	19.9	X	42.49020	67.11731	81.32043	20.39062	0.2410629	0.62284382	1.3579484	21	—	—
438431 2006 WW_{3}	15.2	X	24.94293	36.34376	292.15590	22.36896	0.2542395	0.18240205	3.0792828	21	10 26.7	19.3
438432 2006 WO_{27}	18.7	X	252.69234	45.87168	279.59330	3.61521	0.2046491	0.30530821	2.1842905	21	3 9.9	22.1
438433 2006 WU_{55}	17.5	X	350.91054	27.24938	84.23623	5.34390	0.2928098	0.26974663	2.3722768	21	—	—
438434 2006 WH_{69}	16.9	X	354.69679	203.89596	259.09215	22.73020	0.2067408	0.27210179	2.3585683	21	—	—
438435 2006 WP_{71}	18.2	X	351.40548	82.10443	43.97532	7.30043	0.1816856	0.27757825	2.3274432	21	—	—
438436 2006 WC_{97}	16.3	X	304.76379	263.69291	60.92692	11.34911	0.0431246	0.17424920	3.1745989	21	6 11.2	20.7
438437 2006 WS_{98}	16.5	X	294.03450	281.95225	71.61075	10.49489	0.0983761	0.17824290	3.1270001	21	6 26.8	20.7
438438 2006 WD_{115}	16.3	X	137.45303	354.33594	215.22391	12.10133	0.0573159	0.18697052	3.0289165	21	9 26.6	20.9
438439 2006 WD_{131}	15.7	X	237.78619	289.00570	127.95692	27.35100	0.2112957	0.17929777	3.1147232	21	6 30.4	21.0
438440 2006 WS_{141}	16.3	X	306.45052	141.03692	217.23812	10.77380	0.0971329	0.18175997	3.0865303	21	7 18.3	20.5
438441 2006 WX_{160}	16.1	X	337.99448	242.40321	99.77563	13.10167	0.1529034	0.18531649	3.0469127	21	8 19.0	19.7
438442 2006 WC_{169}	18.1	X	172.29251	330.35368	49.15054	5.06934	0.2199384	0.29628708	2.2284056	21	3 14.7	21.6
438443 2006 WJ_{170}	16.2	X	324.11012	114.07863	241.03805	8.08787	0.1092330	0.18344107	3.0676442	21	8 8.6	20.1
438444 2006 WC_{174}	18.1	X	1.15610	51.68983	83.01778	5.84167	0.1050487	0.27987978	2.3146662	21	—	—
438445 2006 WF_{188}	16.0	X	262.03695	130.75048	254.70948	11.10865	0.1394109	0.17754205	3.1352239	21	6 21.2	20.6
438446 2006 XD_{22}	15.9	X	306.23760	296.25510	82.24104	14.81034	0.2176477	0.18447256	3.0561984	21	8 2.1	19.8
438447 2006 XZ_{43}	16.5	X	4.90068	346.62657	109.12162	24.28519	0.2030491	0.27036511	2.3686576	21	—	—
438448 2006 XL_{52}	17.7	X	85.03725	342.14330	96.70598	9.97762	0.2007405	0.28546909	2.2843535	21	2 13.8	19.8
438449 2006 YB_{2}	16.0	X	247.12881	166.83727	278.95734	14.56994	0.0446325	0.17849404	3.1240663	21	8 24.7	20.7
438450 2006 YV_{6}	17.7	X	94.38783	290.91138	130.65744	6.63559	0.1966460	0.28759995	2.2730562	21	1 31.6	19.7
438451 2006 YV_{8}	17.3	X	346.98864	69.99554	99.04343	8.63668	0.2306859	0.27571423	2.3379215	21	—	—
438452 2007 AS_{12}	19.2	X	343.32927	266.86128	126.29019	21.01183	0.2438817	0.53117771	1.5099972	21	—	—
438453 2007 AZ_{22}	18.0	X	160.46039	294.06788	132.69297	5.53480	0.0988119	0.29528536	2.2334425	21	4 25.2	21.1
438454 2007 BT_{32}	16.7	X	132.25297	1.14828	163.56761	0.86853	0.1041545	0.16796741	3.2532645	21	8 1.2	21.7
438455 2007 BE_{33}	16.1	X	281.79630	307.20058	121.46803	10.89393	0.0999915	0.18116211	3.0933173	21	9 19.8	20.4
438456 2007 BZ_{34}	16.2	X	300.13725	260.47613	119.09625	16.85406	0.2401330	0.17867327	3.1219767	21	7 18.1	20.1
438457 2007 BK_{61}	18.2	X	347.18291	156.48186	321.19452	4.20441	0.1480893	0.27075693	2.3663719	21	—	—
438458 2007 BM_{62}	18.2	X	31.62572	231.08511	293.44465	4.76363	0.0896402	0.28461020	2.2889470	21	2 25.5	20.3
438459 2007 BN_{69}	17.8	X	278.12675	56.83844	138.56826	3.05532	0.1789925	0.26440353	2.4041296	21	—	—
438460 2007 BY_{100}	16.1	X	329.09756	61.55439	303.90290	9.08478	0.0828075	0.17482533	3.1676205	21	8 31.9	20.3
438461 2007 CC_{3}	16.0	X	312.05464	231.72856	146.98277	12.45127	0.1196954	0.17502134	3.1652551	21	8 22.9	20.0
438462 2007 CG_{34}	15.5	X	184.68506	41.75327	143.62198	11.72612	0.0094813	0.18077966	3.0976785	21	10 27.2	20.1
438463 2007 CY_{36}	18.1	X	299.06821	192.46545	337.86421	0.76520	0.1154023	0.26706536	2.3881284	21	—	—
438464 2007 DH_{3}	17.0	X	321.41635	235.84716	338.06400	24.19476	0.2029068	0.27566730	2.3381868	21	1 9.6	20.6
438465 2007 DS_{11}	15.7	X	216.78730	195.43462	301.18879	27.64892	0.1490441	0.17884236	3.1200085	21	9 2.9	21.1
438466 2007 DJ_{20}	18.0	X	257.29596	95.81000	123.64320	1.93413	0.0807232	0.26491583	2.4010292	21	—	—
438467 2007 DM_{59}	17.5	X	311.46236	253.49928	299.88493	1.82491	0.1813863	0.26975863	2.3722064	21	—	—
438468 2007 DU_{64}	17.8	X	246.14572	135.67466	157.47882	4.90372	0.2057558	0.27459271	2.3442831	21	1 28.0	21.6
438469 2007 DV_{109}	17.9	X	294.22780	335.44236	178.97239	2.32903	0.1641664	0.26017626	2.4301007	21	—	—
438470 2007 EG_{11}	17.8	X	254.10580	216.93657	4.19001	3.34092	0.2773222	0.26177732	2.4201821	21	—	—
438471 2007 EF_{12}	17.1	X	299.84737	211.32501	343.86764	9.32227	0.1516123	0.26835723	2.3804579	21	—	—
438472 2007 EH_{64}	17.9	X	264.41524	290.82228	315.51969	3.01319	0.1830808	0.27050874	2.3678191	21	—	—
438473 2007 EZ_{74}	17.8	X	303.57607	285.48062	310.29629	0.49536	0.1370177	0.27233849	2.3572014	21	1 19.5	20.8
438474 2007 ET_{84}	17.4	X	280.40834	37.59872	123.20174	9.34449	0.1940390	0.25805400	2.4434061	21	—	—
438475 2007 EJ_{113}	17.7	X	248.51000	136.21549	89.41835	2.29505	0.1428392	0.26417876	2.4054931	21	—	—
438476 2007 EL_{114}	17.8	X	284.88418	305.99284	295.88820	2.62229	0.1274616	0.27596120	2.3365264	21	1 6.8	20.9
438477 2007 ED_{128}	17.8	X	326.54603	321.56801	177.82865	1.69715	0.1141243	0.26424948	2.4050639	21	—	—
438478 2007 EQ_{137}	17.9	X	315.48860	336.34296	175.14050	6.34386	0.0431880	0.26313759	2.4118343	21	—	—
438479 2007 EK_{173}	17.8	X	252.59613	270.71552	285.87066	1.17776	0.1379154	0.25666230	2.4522307	21	—	—
438480 2007 EX_{174}	17.2	X	220.25103	119.29955	197.72551	8.07336	0.1438502	0.27038984	2.3685132	21	2 3.5	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438481 2007 ED_{195}	18.1	X	294.29843	47.20384	163.77990	2.53269	0.0970023	0.26855892	2.3792660	21	—	—
438482 2007 EG_{197}	18.0	X	273.85875	10.80865	206.39415	2.78463	0.1711293	0.26230569	2.4169309	21	—	—
438483 2007 EY_{221}	17.6	X	142.53576	208.00689	184.38765	1.23601	0.2368025	0.28193291	2.3034150	21	3 3.7	21.0
438484 2007 EG_{224}	18.1	X	253.61636	32.14177	209.70832	2.13942	0.1271822	0.26306017	2.4123074	21	—	—
438485 2007 FD_{25}	17.9	X	240.57632	244.68366	20.72827	1.17690	0.1646693	0.26448738	2.4036215	21	—	—
438486 2007 FZ_{28}	18.0	X	258.22641	261.73716	39.60425	2.73217	0.2239619	0.27435864	2.3456162	21	2 18.1	21.7
438487 2007 FO_{48}	18.1	X	249.29225	121.71659	122.26484	0.24094	0.1760308	0.26263204	2.4149283	21	—	—
438488 2007 GM_{18}	17.8	X	32.19187	297.99641	225.67542	4.87800	0.1102990	0.27539268	2.3397410	21	2 26.7	20.0
438489 2007 GS_{26}	18.0	X	202.32913	135.90529	123.70966	3.92772	0.1869478	0.25420076	2.4680360	21	—	—
438490 2007 GG_{31}	17.9	X	275.97270	7.56389	202.62644	2.37332	0.1312503	0.26084958	2.4259171	21	—	—
438491 2007 GG_{64}	18.0	X	315.44357	320.10096	211.39905	1.75037	0.1763459	0.26223489	2.4173660	21	—	—
438492 2007 HB_{85}	17.1	X	201.02100	192.73112	113.08721	2.22477	0.1833955	0.25994662	2.4315317	21	1 8.4	20.9
438493 2007 HN_{96}	18.2	X	202.25880	145.29818	151.14505	3.01025	0.1764461	0.25781695	2.4449036	21	—	—
438494 2007 NR_{6}	16.4	X	97.36217	296.30121	39.25369	13.51434	0.2062157	0.23646042	2.5899840	21	—	—
438495 2007 OY_{7}	17.2	X	155.11273	102.07276	198.15823	12.69285	0.2083691	0.24004111	2.5641630	21	—	—
438496 2007 PH_{7}	17.4	X	187.39441	200.60906	148.23948	7.58118	0.2776167	0.25255879	2.4787215	21	2 22.2	21.8
438497 2007 PN_{17}	17.5	X	146.02759	188.17909	138.41889	15.93712	0.2705748	0.24250810	2.5467435	21	—	—
438498 2007 PP_{29}	17.6	X	115.15274	132.99261	165.80574	2.76397	0.1331495	0.23198645	2.6231772	21	—	—
438499 2007 PO_{45}	16.7	X	54.19596	278.53738	78.16300	13.44394	0.2878340	0.22614643	2.6681458	21	—	—
438500 2007 QO_{1}	16.9	X	143.36397	193.92390	157.24709	15.27162	0.1256817	0.24555419	2.5256383	21	1 3.8	20.7
438501 2007 QY_{3}	17.1	X	134.83438	28.68326	272.33553	4.34476	0.2613811	0.23466846	2.6031522	21	—	—
438502 2007 QG_{17}	17.3	X	144.10544	13.78552	263.47061	2.83179	0.2622264	0.23362046	2.6109314	21	—	—
438503 2007 RX_{27}	17.1	X	155.47733	207.26117	109.42957	7.31283	0.2660169	0.24168083	2.5525519	21	—	—
438504 2007 RV_{29}	16.3	X	56.32932	59.22710	305.71199	9.21410	0.2112555	0.22724370	2.6595499	21	—	—
438505 2007 RM_{34}	17.3	X	79.87399	173.03285	181.55424	5.07433	0.1947557	0.23109376	2.6299283	21	—	—
438506 2007 RG_{55}	17.7	X	113.87103	178.37827	193.86868	14.40247	0.2140952	0.23802795	2.5786006	21	1 6.8	21.3
438507 2007 RG_{70}	14.0	X	326.48106	330.23904	127.88867	5.14710	0.0569322	0.08393317	5.1663080	21	12 8.0	20.6
438508 2007 RP_{70}	17.3	X	53.96871	240.89590	104.09718	2.47004	0.0882002	0.22386912	2.6862097	21	12 18.3	20.9
438509 2007 RO_{72}	17.0	X	324.07291	32.95457	349.16684	5.89161	0.0780740	0.21310039	2.7759601	21	9 22.5	20.5
438510 2007 RQ_{98}	17.3	X	118.10864	279.40616	68.07367	4.50736	0.1971733	0.23464400	2.6033331	21	—	—
438511 2007 RF_{144}	17.2	X	81.00697	55.52594	284.14049	2.90602	0.2561517	0.22854614	2.6494361	21	—	—
438512 2007 RD_{153}	17.0	X	133.34430	248.18981	331.45165	10.67592	0.1128216	0.21746219	2.7387153	21	10 8.3	21.4
438513 2007 RD_{154}	17.9	X	70.86943	201.42688	184.53432	6.50962	0.0737930	0.23459428	2.6037010	21	—	—
438514 2007 RE_{177}	17.2	X	348.79713	97.73066	357.50159	3.12022	0.0315665	0.22960332	2.6412972	21	—	—
438515 2007 RE_{194}	18.0	X	88.79106	221.80811	164.92850	4.02973	0.2224459	0.23468503	2.6030297	21	—	—
438516 2007 RM_{229}	16.6	X	102.44884	313.73060	351.97637	13.49692	0.1902650	0.22921054	2.6443138	21	—	—
438517 2007 RM_{245}	17.1	X	77.75856	211.82361	119.80741	3.38674	0.2111646	0.22492464	2.6777993	21	—	—
438518 2007 RS_{265}	17.2	X	86.88021	129.57221	213.37707	1.35889	0.2206193	0.23014313	2.6371654	21	—	—
438519 2007 RO_{269}	16.2	X	35.87591	29.46877	326.39809	11.77616	0.1762790	0.21972149	2.7199089	21	12 21.8	20.0
438520 2007 RZ_{297}	16.1	X	19.27868	71.70294	290.47966	7.89649	0.1508462	0.21889801	2.7267260	21	12 1.0	19.5
438521 2007 RZ_{309}	16.5	X	350.87570	238.32198	139.28480	9.80777	0.1751907	0.21614908	2.7497958	21	11 9.3	19.5
438522 2007 RJ_{321}	16.7	X	72.83626	201.17200	186.61274	11.85525	0.0972499	0.23418634	2.6067238	21	—	—
438523 2007 SC_{12}	16.9	X	92.21135	152.72833	256.33191	13.42538	0.2510688	0.23937275	2.5689338	21	1 27.0	20.0
438524 2007 TQ	16.1	X	142.82165	78.21913	282.69546	11.45295	0.1801464	0.24190975	2.5509413	21	1 21.6	19.8
438525 2007 TU	17.5	X	152.13407	297.37333	29.95430	6.55384	0.3194261	0.23836002	2.5762052	21	1 7.1	21.8
438526 2007 TT_{34}	17.1	X	6.48776	180.39330	206.18151	8.97357	0.1440417	0.21549820	2.7553300	21	12 12.4	20.4
438527 2007 TB_{42}	17.4	X	49.70668	157.33539	184.58738	5.97433	0.0595273	0.22227872	2.6990077	21	12 5.4	21.0
438528 2007 TW_{55}	17.5	X	48.46378	168.82089	226.04758	4.46115	0.1105556	0.22535120	2.6744191	21	—	—
438529 2007 TE_{64}	16.4	X	21.20290	303.27611	52.42763	5.00519	0.1159208	0.21281175	2.7784696	21	11 19.7	19.8
438530 2007 TV_{65}	16.7	X	103.07877	144.58202	262.11139	6.96010	0.4595464	0.23613303	2.5923774	21	3 11.6	20.7
438531 2007 TT_{70}	17.2	X	98.70764	151.65735	201.60982	13.20482	0.2848455	0.23307398	2.6150110	21	—	—
438532 2007 TC_{83}	16.4	X	280.59064	38.24161	15.36829	10.97073	0.1289626	0.20512230	2.8474808	21	8 27.7	20.2
438533 2007 TO_{85}	16.3	X	56.30185	331.47363	10.33414	9.98286	0.2695821	0.21982957	2.7190173	21	—	—
438534 2007 TP_{109}	16.5	X	26.84552	12.16196	331.49137	5.01350	0.1280662	0.21594207	2.7515530	21	11 12.9	19.9
438535 2007 TS_{111}	16.7	X	32.69665	136.90603	223.68163	8.39864	0.1639373	0.21923182	2.7239575	21	12 20.6	20.3
438536 2007 TL_{158}	17.9	X	114.23156	102.59459	266.76647	3.71569	0.2813360	0.23629826	2.5911687	21	1 15.6	21.4
438537 2007 TZ_{165}	16.5	X	84.06878	335.69763	48.91268	13.78943	0.2907592	0.22913648	2.6448835	21	—	—
438538 2007 TW_{167}	17.4	X	154.00101	22.11849	291.27293	2.93633	0.2714784	0.23758487	2.5818056	21	—	—
438539 2007 TC_{176}	16.8	X	144.53110	313.57557	344.21366	3.47617	0.1909556	0.23003496	2.6379921	21	—	—
438540 2007 TV_{189}	17.9	X	135.13347	145.00505	184.60378	2.34712	0.1136038	0.23774082	2.5806764	21	—	—
438541 2007 TA_{198}	16.9	X	7.48413	115.15119	248.31615	3.48801	0.0882456	0.21315970	2.7754452	21	11 5.6	20.2
438542 2007 TM_{207}	17.9	X	154.45354	157.60527	174.88606	0.30219	0.1923261	0.24133922	2.5549600	21	1 1.7	21.7
438543 2007 TN_{214}	16.6	X	124.20889	70.41567	228.59782	11.82321	0.2691659	0.22692765	2.6620187	21	—	—
438544 2007 TL_{220}	16.5	X	67.80703	321.04737	19.33415	6.10565	0.0382929	0.21843723	2.7305593	21	12 21.2	20.4
438545 2007 TV_{220}	18.1	X	84.00251	225.51595	131.24754	3.51350	0.1209951	0.22539886	2.6740421	21	—	—
438546 2007 TK_{224}	17.6	X	108.25614	348.72109	343.61286	20.25067	0.0771349	0.37769184	1.8954441	21	—	—
438547 2007 TN_{224}	17.1	X	32.26910	348.09863	72.13334	3.87900	0.1337482	0.22696979	2.6616892	21	—	—
438548 2007 TJ_{230}	17.0	X	299.33911	34.48409	75.11290	4.73956	0.0411691	0.21687366	2.7436677	21	12 13.9	20.4
438549 2007 TW_{243}	17.5	X	117.16462	110.06376	271.30315	4.38628	0.2499010	0.23835439	2.5762457	21	1 28.8	20.9
438550 2007 TH_{248}	17.4	X	130.09649	138.85386	228.04714	13.11392	0.2808289	0.23882876	2.5728332	21	1 25.5	21.5
438551 2007 TL_{267}	16.8	X	248.37704	45.68667	27.61353	11.29315	0.0797897	0.20054180	2.8906762	21	8 19.3	21.1
438552 2007 TA_{269}	17.6	X	88.11616	259.15519	62.23665	1.85062	0.1610593	0.22340973	2.6898909	21	—	—
438553 2007 TH_{275}	16.8	X	9.46534	326.33308	49.95948	5.97067	0.1671053	0.21706569	2.7420493	21	12 6.2	19.9
438554 2007 TL_{294}	18.3	X	109.27103	157.14329	203.91810	6.82002	0.1991330	0.23569648	2.5955774	21	—	—
438555 2007 TF_{297}	16.8	X	84.56676	196.85363	165.57073	15.01462	0.1680317	0.23377230	2.6098008	21	—	—
438556 2007 TF_{301}	17.4	X	96.80023	6.73448	344.52769	1.51239	0.1651699	0.22833616	2.6510602	21	—	—
438557 2007 TQ_{327}	16.8	X	46.97809	96.77846	283.67319	4.80487	0.0269151	0.22223645	2.6993500	21	—	—
438558 2007 TJ_{331}	17.1	X	124.23122	43.60169	269.42328	4.07603	0.1596882	0.22650221	2.6653511	21	—	—
438559 2007 TR_{336}	17.3	X	148.56818	67.13907	248.41647	3.08030	0.1437895	0.23784615	2.5799144	21	—	—
438560 2007 TF_{368}	17.3	X	354.65485	318.33327	32.12017	2.33867	0.0854358	0.20368247	2.8608842	21	9 28.5	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438561 2007 TC_{406}	17.8	X	73.09829	226.50471	169.00473	2.67811	0.2146023	0.23032592	2.6357700	21	—	—
438562 2007 TW_{411}	16.7	X	57.99502	21.25944	341.74080	12.89697	0.1001777	0.22396746	2.6854234	21	—	—
438563 2007 TC_{420}	16.9	X	66.36900	91.50504	299.61158	13.60384	0.1083672	0.23013986	2.6371904	21	—	—
438564 2007 TX_{423}	17.6	X	66.94294	92.56876	285.63745	0.30668	0.1142786	0.22798836	2.6537556	21	—	—
438565 2007 TU_{433}	17.5	X	143.01892	110.46532	230.41522	6.09375	0.2201071	0.23820007	2.5773583	21	1 3.4	21.4
438566 2007 TN_{436}	17.9	X	94.16672	218.41743	162.76697	4.73595	0.2446692	0.23535884	2.5980592	21	—	—
438567 2007 TW_{441}	17.3	X	129.70789	86.43583	258.65296	11.20633	0.2013968	0.23566118	2.5958366	21	—	—
438568 2007 TV_{445}	17.8	X	108.73995	112.81677	227.87018	2.40986	0.1281352	0.22997137	2.6384783	21	—	—
438569 2007 TL_{450}	17.2	X	42.28291	187.64547	214.84120	5.95461	0.1168093	0.22631030	2.6668577	21	—	—
438570 2007 UM_{3}	16.1	X	112.85842	64.79320	243.67005	16.11880	0.2127102	0.22681484	2.6629013	21	—	—
438571 2007 UJ_{6}	16.7	X	83.20877	149.94232	215.12599	12.37071	0.1171162	0.22824934	2.6517324	21	—	—
438572 2007 UB_{7}	17.3	X	90.30569	289.43940	106.90393	6.82258	0.3614571	0.23432470	2.6056975	21	2 1.8	20.1
438573 2007 UN_{7}	16.0	X	254.49645	131.42269	292.96503	12.25946	0.1555463	0.19943455	2.9013656	21	7 29.2	20.2
438574 2007 UY_{11}	16.5	X	79.60781	136.49242	242.43326	16.15221	0.2971457	0.23012852	2.6372770	21	—	—
438575 2007 UO_{21}	17.8	X	172.09058	298.47869	39.21308	5.61663	0.2215996	0.24282676	2.5445150	21	1 28.2	22.0
438576 2007 UH_{52}	17.5	X	139.74246	94.14064	238.42788	4.46039	0.2873380	0.23367735	2.6105076	21	—	—
438577 2007 UT_{56}	17.2	X	19.78082	268.77623	66.25979	1.35626	0.0820896	0.20829801	2.8184650	21	10 17.0	20.6
438578 2007 UM_{68}	17.6	X	130.16687	291.38177	73.56483	9.19328	0.2613624	0.23812139	2.5779260	21	1 27.2	21.4
438579 2007 UB_{85}	16.4	X	74.16090	283.69480	50.31161	14.99197	0.2373870	0.22083237	2.7107797	21	—	—
438580 2007 UP_{91}	17.4	X	55.47103	141.76602	227.90200	4.31051	0.0679075	0.22013126	2.7165324	21	—	—
438581 2007 UG_{100}	17.0	X	38.88228	84.96947	254.00981	2.73764	0.2031908	0.21291100	2.7776061	21	12 6.3	20.6
438582 2007 UC_{107}	17.3	X	147.25541	292.26967	21.67341	2.42322	0.2015621	0.23094877	2.6310289	21	—	—
438583 2007 UH_{109}	17.4	X	77.28170	327.39578	47.83006	2.29686	0.1504187	0.22712254	2.6604957	21	—	—
438584 2007 UD_{110}	17.3	X	40.18518	228.31301	109.62558	0.24667	0.0816837	0.21425804	2.7659519	21	11 19.0	20.9
438585 2007 UA_{116}	17.3	X	63.93699	177.08102	222.08942	11.54969	0.1936023	0.22727064	2.6593397	21	—	—
438586 2007 UZ_{117}	16.8	X	122.63824	61.21056	234.08953	3.13160	0.0469316	0.22103109	2.7091547	21	12 30.6	20.8
438587 2007 VR_{23}	16.9	X	125.20751	248.63499	96.72160	13.13027	0.3150352	0.23582510	2.5946335	21	1 3.3	20.6
438588 2007 VB_{32}	17.0	X	351.79837	148.92721	283.04184	3.99942	0.0440062	0.22010003	2.7167895	21	—	—
438589 2007 VL_{34}	17.4	X	150.65024	356.91925	261.58802	3.26818	0.0275946	0.21595331	2.7514575	21	12 16.4	21.2
438590 2007 VD_{42}	18.0	X	64.14187	176.08734	200.78600	5.51537	0.0798215	0.22438742	2.6820717	21	—	—
438591 2007 VK_{46}	16.4	X	55.33326	79.37787	252.97714	8.74431	0.1495216	0.21598845	2.7511590	21	12 11.1	20.3
438592 2007 VS_{47}	17.1	X	32.83011	77.30754	299.33395	5.21039	0.0205454	0.21677207	2.7445249	21	12 20.2	20.9
438593 2007 VV_{51}	16.9	X	98.59315	34.27068	281.77657	4.15935	0.0233736	0.21754988	2.7379792	21	12 26.3	20.6
438594 2007 VA_{52}	17.7	X	50.77867	149.13214	255.82342	5.69877	0.1737271	0.22572466	2.6714684	21	—	—
438595 2007 VL_{53}	16.4	X	240.27277	225.17073	212.71787	10.01557	0.0862496	0.19572610	2.9378992	21	8 5.5	20.8
438596 2007 VC_{66}	17.4	X	48.70078	284.82578	25.31022	4.46590	0.0882369	0.21260673	2.7802555	21	10 26.1	21.0
438597 2007 VV_{75}	17.0	X	291.19455	315.48167	78.63529	3.19165	0.0871500	0.19990150	2.8968456	21	8 19.4	20.7
438598 2007 VF_{93}	16.3	X	83.37000	103.45627	272.53321	10.39197	0.2108710	0.22924096	2.6440798	21	—	—
438599 2007 VZ_{96}	17.0	X	83.04343	22.20094	315.22564	4.07599	0.0052270	0.21839049	2.7309488	21	—	—
438600 2007 VB_{99}	16.9	X	203.90483	169.02034	19.33551	10.80750	0.0673620	0.21659966	2.7459811	21	11 15.7	20.9
438601 2007 VH_{102}	16.6	X	308.50605	310.64935	78.78655	3.07384	0.0942368	0.19884403	2.9071070	21	9 7.3	20.2
438602 2007 VV_{110}	16.8	X	64.87018	55.61868	245.68448	8.02120	0.1708020	0.20935636	2.8089582	21	11 15.2	20.8
438603 2007 VL_{173}	16.4	X	272.01377	357.02529	65.98522	19.73248	0.1581083	0.19992931	2.8965769	21	8 28.7	20.8
438604 2007 VA_{197}	17.1	X	79.76851	107.91627	227.77098	5.50170	0.2652655	0.22400927	2.6850892	21	—	—
438605 2007 VM_{217}	16.8	X	334.55196	160.94477	262.11943	5.06448	0.0205093	0.21174928	2.7877560	21	12 1.8	20.6
438606 2007 VJ_{242}	17.3	X	43.30759	256.16564	155.85149	7.91924	0.2370753	0.22522403	2.6754257	21	—	—
438607 2007 VH_{248}	16.6	X	114.82884	174.34900	129.89285	7.04397	0.0613536	0.21946370	2.7220384	21	—	—
438608 2007 VC_{275}	16.2	X	324.52879	222.90162	101.88957	11.53756	0.0531747	0.19203162	2.9754607	21	7 8.6	20.0
438609 2007 VG_{290}	16.8	X	257.93955	259.65331	237.99086	4.33156	0.0732918	0.20898726	2.8122646	21	11 18.2	20.6
438610 2007 VS_{297}	16.9	X	36.25833	256.38331	100.65731	15.90273	0.2757901	0.21903367	2.7256000	21	—	—
438611 2007 VQ_{311}	17.0	X	13.30925	302.10124	95.96711	4.54271	0.0937888	0.21395742	2.7685422	21	12 30.4	20.5
438612 2007 VL_{325}	16.6	X	301.35491	198.27650	269.24077	8.43000	0.1740666	0.21426079	2.7659283	21	12 2.2	19.4
438613 2007 VE_{327}	16.4	X	80.26150	111.28063	248.71428	14.24123	0.1571610	0.22284610	2.6944245	21	—	—
438614 2007 VX_{328}	16.4	X	23.09553	323.23647	80.73885	15.78492	0.1873882	0.21871472	2.7282492	21	—	—
438615 2007 WT_{58}	16.8	X	139.04738	357.48528	109.36363	12.92928	0.1821084	0.17436785	3.1731586	21	6 5.9	22.0
438616 2007 XW_{2}	16.2	X	125.71319	40.25725	102.68437	9.64279	0.1331138	0.17689293	3.1428892	21	7 1.2	21.0
438617 2007 XM_{22}	16.2	X	345.00344	22.47138	74.06581	10.91675	0.1498531	0.21699447	2.7426493	21	—	—
438618 2007 XE_{23}	16.6	X	107.69061	128.71814	238.86116	12.63125	0.2066047	0.23114975	2.6295036	21	—	—
438619 2007 XE_{53}	15.6	X	85.55035	287.56057	305.42559	12.81303	0.1769531	0.18278464	3.0749844	21	9 7.8	20.3
438620 2007 XM_{53}	16.5	X	11.00443	122.48309	294.56873	14.63199	0.2261329	0.21379819	2.7699166	21	—	—
438621 2007 XT_{57}	16.3	X	58.25099	146.04154	95.36500	12.60872	0.0635843	0.18341732	3.0679091	21	8 6.6	20.5
438622 2007 YN_{19}	16.1	X	248.09808	300.31777	99.57969	13.45171	0.0225374	0.18448230	3.0560908	21	7 8.5	20.3
438623 2007 YP_{19}	16.0	X	137.00326	201.34163	267.95037	4.44404	0.1400959	0.17509478	3.1643699	21	6 1.7	20.9
438624 2007 YY_{23}	15.6	X	344.13982	34.77178	295.57269	9.20209	0.0731675	0.18941208	3.0028313	21	8 11.4	19.5
438625 2007 YN_{30}	15.5	X	104.54299	139.78804	69.14009	13.27543	0.0437263	0.19064956	2.9898233	21	8 25.9	20.0
438626 2007 YD_{65}	15.9	X	108.84945	50.63207	119.73526	17.00048	0.0193071	0.17647222	3.1478822	21	7 3.3	20.5
438627 2007 YN_{72}	16.3	X	30.25954	64.91074	303.88182	11.26127	0.0841065	0.20710969	2.8292355	21	12 13.8	20.1
438628 2008 AL_{1}	15.9	X	173.42112	89.54556	85.11249	10.76426	0.0322287	0.19307109	2.9647714	21	10 2.8	20.4
438629 2008 AD_{26}	16.7	X	234.00731	102.06486	355.84486	3.82658	0.0334757	0.18634101	3.0357343	21	9 2.6	21.1
438630 2008 AP_{82}	17.5	X	209.47650	33.62093	303.75637	8.93808	0.0245870	0.30584922	2.1817139	21	2 11.1	20.2
438631 2008 AL_{91}	16.4	X	192.48907	353.69407	108.43450	16.39471	0.0454868	0.18205953	3.0831437	21	7 18.6	20.9
438632 2008 AV_{94}	16.1	X	148.94076	250.47126	311.00279	12.47667	0.0620341	0.19105563	2.9855854	21	9 25.9	20.8
438633 2008 AA_{113}	16.7	X	123.83396	194.14129	199.26228	14.27124	0.2597988	0.23774344	2.5806574	21	2 18.9	20.7
438634 2008 AN_{128}	16.3	X	63.35740	75.21865	119.92386	11.95668	0.0489510	0.17152691	3.2080998	21	6 11.6	20.8
438635 2008 BP_{9}	15.8	X	214.66312	319.54530	125.91723	24.53135	0.1390073	0.18085936	3.0967684	21	7 16.7	20.7
438636 2008 BL_{14}	15.4	X	166.14358	244.41545	263.63622	23.60072	0.3462202	0.18057646	3.1000019	21	8 7.9	21.6
438637 2008 CY_{13}	16.0	X	195.54114	282.17329	139.44158	11.40638	0.1006766	0.17098189	3.2149137	21	6 2.2	21.2
438638 2008 CD_{30}	16.6	X	210.53332	314.03672	117.76304	6.05713	0.1272751	0.17874109	3.1211869	21	6 26.3	21.4
438639 2008 CU_{32}	16.1	X	10.52449	271.49603	339.28595	8.79086	0.0496288	0.16923814	3.2369591	21	6 7.2	20.5
438640 2008 CH_{36}	16.9	X	143.47493	29.40300	164.51496	8.85882	0.0928392	0.18410105	3.0603085	21	9 18.6	21.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438641 2008 CF_{58}	16.5	X	124.07986	305.73539	186.87100	4.52246	0.1139539	0.17117652	3.2124762	21	6 15.0	21.3
438642 2008 CG_{89}	17.7	X	339.74667	199.87938	342.80340	5.71184	0.1028501	0.29474731	2.2361597	21	—	—
438643 2008 CS_{100}	16.0	X	1.74634	163.79196	100.35818	11.52573	0.0401214	0.17547198	3.1598335	21	6 13.6	20.3
438644 2008 CZ_{112}	15.8	X	54.56389	100.36849	136.20744	26.23847	0.2155035	0.17208096	3.2012100	21	8 15.7	19.9
438645 2008 CY_{130}	16.4	X	267.55700	102.77717	332.97051	9.28536	0.0731384	0.18766830	3.0214038	21	9 8.9	20.6
438646 2008 CL_{135}	18.5	X	24.38586	10.07700	151.28195	5.87438	0.0622590	0.30274273	2.1966131	21	2 6.6	20.5
438647 2008 CK_{137}	18.3	X	19.32084	230.54876	288.07382	2.57533	0.0888250	0.30099894	2.2050888	21	1 23.3	20.4
438648 2008 CR_{159}	16.8	X	22.73812	266.33212	70.56541	6.06463	0.0185773	0.19227906	2.9729075	21	10 16.4	20.8
438649 2008 CS_{163}	15.9	X	127.51945	199.43356	325.80776	16.64766	0.1585130	0.17543331	3.1602978	21	8 4.1	20.9
438650 2008 CR_{166}	16.8	X	33.51479	154.52198	253.39505	8.47448	0.1966083	0.22049111	2.7135760	21	—	—
438651 2008 CL_{170}	15.8	X	338.43593	336.97504	303.68289	7.44233	0.0407872	0.16873010	3.2434535	21	6 1.1	20.3
438652 2008 CW_{181}	16.4	X	97.25895	62.48367	129.97683	14.62073	0.2036093	0.17108096	3.2136724	21	8 9.8	21.3
438653 2008 CS_{201}	16.5	X	41.56358	202.07880	64.66920	6.26708	0.1357113	0.17594355	3.1541849	21	8 26.7	20.6
438654 2008 CZ_{203}	18.5	X	357.75411	205.13527	13.37620	3.71384	0.1166549	0.30424714	2.1893660	21	3 14.2	20.4
438655 2008 DC_{51}	16.2	X	157.61392	237.17091	239.39005	11.29649	0.0884670	0.17342832	3.1846084	21	6 27.5	21.1
438656 2008 DU_{61}	16.5	X	36.76506	284.21586	132.13779	4.87482	0.0944271	0.20896920	2.8124266	21	—	—
438657 2008 DY_{61}	18.2	X	23.26323	138.50633	355.61318	5.69984	0.1259023	0.29544772	2.2326242	21	—	—
438658 2008 DK_{66}	15.8	X	40.95524	83.52369	195.95685	14.49943	0.0326291	0.17264160	3.1942758	21	8 21.9	20.4
438659 2008 DP_{84}	16.1	X	208.14673	288.60094	199.40527	17.24566	0.1083120	0.18009622	3.1055104	21	8 29.5	21.1
438660 2008 DF_{89}	18.2	X	311.36653	113.01140	100.25392	4.65174	0.1650427	0.29059151	2.2574290	21	—	—
438661 2008 EP_{6}	19.3	X	62.10270	130.32624	303.24986	17.72330	0.2931232	0.74139337	1.2090296	21	—	—
438662 2008 EV_{24}	16.3	X	145.12449	65.80206	111.47181	9.56674	0.0910382	0.17824856	3.1269339	21	9 1.6	21.2
438663 2008 EL_{38}	15.9	X	126.10271	216.83555	34.14983	9.07963	0.0801123	0.18868031	3.0105903	21	11 6.7	20.4
438664 2008 EW_{117}	16.4	X	233.41305	246.90974	166.07841	7.47061	0.1149663	0.17700758	3.1415319	21	6 27.1	21.2
438665 2008 EE_{124}	18.3	X	288.74638	72.09266	179.27917	4.79111	0.1321176	0.29314077	2.2443223	21	1 18.4	21.4
438666 2008 EF_{125}	16.1	X	60.56107	85.55098	137.33555	11.50832	0.2673601	0.17049931	3.2209771	21	8 14.2	20.3
438667 2008 EJ_{157}	16.2	X	21.65371	327.79405	6.21904	9.76680	0.1379461	0.18035791	3.1025057	21	10 18.3	20.1
438668 2008 EW_{161}	18.1	X	332.81869	17.37571	186.98477	2.63238	0.0983403	0.29437195	2.2380602	21	1 15.6	20.8
438669 2008 FL_{23}	17.2	X	164.35222	247.04369	36.53370	13.21867	0.2347764	0.26929039	2.3749555	21	—	—
438670 2008 FF_{39}	17.7	X	227.74793	260.91320	53.08727	7.81916	0.2244625	0.28834613	2.2691330	21	2 9.1	21.6
438671 2008 FQ_{56}	18.8	X	259.46103	122.82565	170.74719	3.91721	0.2524815	0.29158377	2.2523047	21	2 4.1	22.7
438672 2008 FQ_{96}	17.5	X	304.69277	193.69579	45.63665	8.93680	0.2235002	0.28983542	2.2613532	21	1 12.8	20.9
438673 2008 GY_{15}	16.3	X	30.03400	88.13585	194.80973	16.58277	0.1058675	0.16989618	3.2285956	21	8 18.8	20.7
438674 2008 GQ_{31}	16.7	X	197.42983	318.29867	42.28022	23.70248	0.2171674	0.29347408	2.2426227	21	3 23.3	20.8
438675 2008 GS_{43}	16.1	X	151.62568	273.84290	168.99957	10.20077	0.0347186	0.15876628	3.3777736	21	5 10.8	21.1
438676 2008 GW_{82}	18.0	X	249.57424	145.92992	164.57666	6.17741	0.2137911	0.29190265	2.2506641	21	2 18.7	21.6
438677 2008 GF_{89}	18.3	X	359.11574	344.83731	177.38960	3.25076	0.1068316	0.29050227	2.2578913	21	—	—
438678 2008 GB_{98}	17.6	X	265.28898	120.04338	149.79759	6.68356	0.0888515	0.28792375	2.2713517	21	1 21.6	20.7
438679 2008 GK_{115}	18.2	X	313.86109	115.99302	147.73680	5.77019	0.1721723	0.29671424	2.2262664	21	3 1.9	20.8
438680 2008 GY_{134}	18.3	X	257.16103	124.06812	158.52020	4.37063	0.2010408	0.28534328	2.2850249	21	1 23.3	22.0
438681 2008 GO_{140}	16.0	X	271.90111	34.50307	58.04044	11.81148	0.0607957	0.18222257	3.0813044	21	10 13.3	20.3
438682 2008 HB_{22}	13.4	X	341.54917	188.74494	98.13763	21.03629	0.0846250	0.08057541	5.3088573	21	6 15.5	20.0
438683 2008 HE_{26}	18.7	X	287.48187	101.43812	177.31002	6.20311	0.1926712	0.29129788	2.2537781	21	2 15.0	21.8
438684 2008 HS_{36}	18.1	X	286.31968	114.08984	98.53611	7.23571	0.1709778	0.28143135	2.3061510	21	—	—
438685 2008 JM_{7}	17.4	X	256.06788	181.70901	155.24774	7.46219	0.1002766	0.29777362	2.2209830	21	4 11.4	20.3
438686 2008 JB_{14}	18.0	X	316.55641	27.84760	175.04725	5.38164	0.1083380	0.28405318	2.2919384	21	—	—
438687 2008 JE_{37}	15.7	X	342.40602	281.75085	129.70139	11.77918	0.1041920	0.18062780	3.0994144	21	11 26.9	19.7
438688 2008 LX_{10}	17.4	X	269.24576	176.38110	80.91203	13.38281	0.1292160	0.28380251	2.2932878	21	1 8.5	20.7
438689 2008 LB_{17}	17.8	X	267.20161	166.24349	123.80268	5.41737	0.2269682	0.28331214	2.2959333	21	2 9.9	21.4
438690 2008 OG_{20}	16.9	X	247.92400	272.91425	335.49238	14.46212	0.1173112	0.26618646	2.3933823	21	—	—
438691 2008 PJ_{11}	17.7	X	188.39944	184.27244	133.67504	2.15837	0.1899597	0.26863360	2.3788250	21	1 10.9	21.4
438692 2008 PO_{12}	16.7	X	138.92123	63.32061	294.01190	10.78436	0.1114944	0.26503843	2.4002887	21	—	—
438693 2008 PL_{15}	16.8	X	107.17179	176.21697	202.28923	5.80585	0.3289968	0.25862229	2.4398254	21	1 19.8	19.7
438694 2008 PZ_{19}	15.6	X	251.76461	157.57685	145.04307	3.69018	0.1773498	0.12556899	3.9495515	21	3 5.3	21.7
438695 2008 QA_{8}	17.8	X	174.00665	176.66759	153.22924	1.79299	0.1934458	0.26645224	2.3917905	21	1 12.9	21.5
438696 2008 QF_{26}	15.7	X	231.77458	244.76310	71.76688	1.97217	0.2775862	0.12405211	3.9816825	21	2 27.5	22.3
438697 2008 QE_{27}	17.7	X	254.41384	267.76771	35.34113	3.74417	0.2067282	0.27938379	2.3174048	21	2 17.8	21.3
438698 2008 QU_{36}	18.1	X	150.89078	108.07945	227.78603	1.64265	0.2226072	0.26149078	2.4219497	21	1 1.8	21.6
438699 2008 RK_{32}	17.9	X	173.71197	148.19739	155.98715	1.62073	0.1811068	0.26032921	2.4291488	21	—	—
438700 2008 RV_{49}	18.1	X	166.32881	77.04542	295.12962	5.52854	0.1337846	0.27071207	2.3666333	21	2 19.8	21.5
438701 2008 RC_{58}	17.5	X	149.14739	24.37733	357.19729	10.50841	0.1676295	0.26653997	2.3912656	21	2 22.2	21.0
438702 2008 RQ_{61}	17.6	X	165.83569	160.86348	171.16349	10.60692	0.1927069	0.26428038	2.4048765	21	1 7.3	21.4
438703 2008 RX_{87}	17.9	X	203.05372	67.01708	255.88548	5.05456	0.1082553	0.26658370	2.3910041	21	1 25.9	21.6
438704 2008 RU_{110}	17.0	X	131.98410	289.54290	13.15082	10.60583	0.0314161	0.24646518	2.5194109	21	—	—
438705 2008 RM_{111}	16.8	X	201.58082	172.94157	24.90975	12.12155	0.1124970	0.23843027	2.5756991	21	11 23.6	20.7
438706 2008 RA_{115}	17.4	X	141.01384	331.17718	24.05925	12.63834	0.1048543	0.25581831	2.4576213	21	1 2.3	20.9
438707 2008 RB_{136}	17.6	X	102.85470	173.39546	185.84429	12.23195	0.2107771	0.25357108	2.4721201	21	—	—
438708 2008 RW_{136}	17.6	X	298.43458	240.32058	41.25114	5.64658	0.1559552	0.28102877	2.3083529	21	3 13.4	20.6
438709 2008 RS_{142}	18.0	X	237.21676	164.39430	137.74002	4.46234	0.2476157	0.27466972	2.3438448	21	1 31.1	22.0
438710 2008 SP_{6}	17.7	X	217.90175	211.06237	111.92318	2.95436	0.2016279	0.27183697	2.3600998	21	2 11.5	21.6
438711 2008 SG_{7}	17.8	X	216.05559	115.15565	228.28326	1.15697	0.2324742	0.27497660	2.3421007	21	3 5.3	21.9
438712 2008 SD_{58}	17.2	X	201.51000	165.43739	186.36977	6.55843	0.1227804	0.26955361	2.3734092	21	3 1.9	20.8
438713 2008 SJ_{59}	17.1	X	106.75648	293.92950	36.83483	10.19506	0.1088614	0.24535076	2.5270342	21	—	—
438714 2008 SG_{84}	17.8	X	158.00676	245.36252	138.71156	3.26605	0.2307948	0.26709635	2.3879437	21	3 9.9	21.5
438715 2008 SN_{92}	17.6	X	202.32202	309.89056	13.42011	2.08178	0.2465780	0.26819117	2.3814405	21	1 31.9	21.7
438716 2008 SN_{94}	18.0	X	124.75440	13.71471	327.95246	2.64108	0.1454228	0.25517731	2.4617353	21	—	—
438717 2008 SF_{96}	17.5	X	205.59025	126.82207	211.21775	6.13871	0.1336898	0.26942375	2.3741717	21	2 15.7	21.1
438718 2008 SF_{101}	17.1	X	26.91924	343.72269	60.65374	5.91382	0.0713398	0.24163945	2.5528433	21	—	—
438719 2008 SF_{102}	16.6	X	305.00115	1.31811	90.80134	4.75926	0.1471827	0.23143719	2.6273259	21	11 25.8	19.2
438720 2008 ST_{137}	17.8	X	235.27062	195.82848	203.06859	21.55293	0.0804019	0.36261552	1.9476240	21	6 9.2	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438721 2008 SO_{211}	17.1	X	305.85645	359.53379	79.55414	4.37162	0.0868001	0.22574349	2.6713198	21	11 13.1	20.1
438722 2008 SZ_{217}	16.6	X	92.57006	255.64865	103.05767	9.36966	0.1583684	0.24343293	2.5402892	21	—	—
438723 2008 SH_{226}	17.1	X	11.70134	2.53113	27.56257	8.75482	0.0077444	0.23549609	2.5970497	21	12 11.2	20.7
438724 2008 SL_{242}	17.7	X	203.44887	128.29277	209.69048	2.04122	0.2403311	0.26919070	2.3755418	21	2 17.5	21.7
438725 2008 SU_{242}	16.3	X	206.89610	100.63942	33.23279	13.93446	0.2175084	0.21550836	2.7552434	21	9 9.9	21.1
438726 2008 SL_{248}	17.1	X	202.40182	354.48194	190.21546	9.66290	0.0675313	0.23429195	2.6059404	21	11 16.3	20.8
438727 2008 SR_{287}	17.3	X	166.54822	111.38648	240.22940	5.40460	0.0742834	0.26132041	2.4230023	21	1 20.7	20.6
438728 2008 SZ_{297}	18.0	X	185.72150	292.74711	49.09907	2.24508	0.2043441	0.26664457	2.3906402	21	2 8.7	21.8
438729 2008 SH_{305}	17.0	X	182.16413	56.61185	180.69008	6.76639	0.0815604	0.23772044	2.5808239	21	12 26.6	20.8
438730 2008 SM_{305}	17.4	X	18.18768	225.91553	168.06303	7.90775	0.1912606	0.23660046	2.5889619	21	—	—
438731 2008 SY_{306}	17.5	X	171.79313	202.13942	126.71996	5.88455	0.2274166	0.26172185	2.4205240	21	1 13.1	21.4
438732 2008 SQ_{309}	16.5	X	342.13380	349.42583	73.50124	16.66846	0.1227330	0.23120495	2.6290850	21	12 21.5	19.5
438733 2008 TO_{7}	17.7	X	241.40830	120.66727	191.32479	4.58273	0.1637865	0.27420332	2.3465019	21	2 16.9	21.3
438734 2008 TL_{20}	17.9	X	185.85077	324.94876	22.50681	2.91127	0.2091731	0.26558067	2.3970205	21	2 16.1	21.7
438735 2008 TL_{35}	16.8	X	267.60063	90.65690	7.02491	12.72924	0.1753526	0.22623607	2.6674410	21	9 27.9	20.2
438736 2008 TE_{43}	17.3	X	192.83580	80.94081	235.26724	9.66245	0.3027654	0.26587931	2.3952252	21	1 16.0	21.7
438737 2008 TD_{78}	17.4	X	226.79812	278.42105	20.23053	7.18187	0.2209225	0.26952603	2.3735711	21	1 22.2	21.5
438738 2008 TX_{89}	17.5	X	174.13453	308.05095	23.06325	7.20552	0.1446754	0.25999779	2.4312126	21	1 13.3	21.2
438739 2008 TM_{94}	17.5	X	106.16463	316.03304	90.67603	4.54524	0.1696843	0.25759416	2.4463131	21	2 2.5	20.4
438740 2008 TY_{94}	17.7	X	191.28524	301.68348	69.55666	4.75234	0.1704306	0.27183706	2.3600993	21	3 21.4	21.4
438741 2008 TG_{116}	14.2	X	9.11854	281.99999	126.76927	10.24851	0.0330336	0.08250182	5.2258913	21	12 5.7	21.0
438742 2008 TP_{128}	17.6	X	128.97198	347.85474	56.02986	3.39526	0.1931400	0.26439469	2.4041832	21	3 3.1	20.9
438743 2008 TL_{156}	17.5	X	79.57151	210.53373	242.50663	5.87111	0.0933069	0.26041081	2.4286413	21	2 9.3	20.3
438744 2008 TF_{161}	17.7	X	119.25278	112.11641	43.30762	21.56132	0.0747229	0.36004209	1.9568935	21	7 2.5	20.3
438745 2008 TA_{170}	17.2	X	236.40282	280.42216	220.11374	10.03554	0.1482739	0.22550155	2.6732302	21	10 17.0	21.0
438746 2008 TD_{172}	16.7	X	179.79660	325.99054	215.04495	8.22823	0.1487409	0.21871328	2.7282612	21	10 9.2	21.1
438747 2008 TZ_{174}	14.3	X	339.56365	145.92582	292.43285	6.35000	0.0191710	0.08486935	5.1282454	21	12 2.2	21.0
438748 2008 TS_{187}	17.0	X	101.31114	317.38838	93.36687	8.44508	0.1114707	0.25716093	2.4490598	21	1 22.5	19.8
438749 2008 TX_{188}	17.1	X	134.36871	111.37269	263.44710	6.18843	0.0623024	0.25781505	2.4449156	21	1 10.9	20.2
438750 2008 UB_{36}	17.1	X	334.15137	214.51384	207.82739	13.75686	0.1703937	0.23239374	2.6201115	21	12 10.2	19.8
438751 2008 UP_{53}	16.5	X	119.69474	85.39714	228.19078	7.11617	0.0957350	0.23937522	2.5689161	21	—	—
438752 2008 UR_{55}	17.1	X	340.43844	51.16792	9.42543	11.79408	0.0529827	0.23653216	2.5894603	21	12 11.7	20.6
438753 2008 US_{56}	18.2	X	215.94830	97.66439	205.46950	1.51993	0.2145429	0.27120834	2.3637453	21	1 16.4	22.0
438754 2008 UP_{57}	17.9	X	208.92314	250.64159	71.95600	3.17649	0.2173820	0.26709875	2.3879294	21	2 4.9	22.0
438755 2008 UL_{62}	17.4	X	212.89993	296.13572	17.03235	5.50637	0.1692360	0.26381827	2.4076839	21	1 28.4	21.3
438756 2008 UG_{75}	17.0	X	240.98399	351.35177	264.36836	5.93385	0.1008143	0.25084970	2.4899674	21	—	—
438757 2008 UR_{97}	17.2	X	149.24882	344.33766	64.83443	7.27920	0.1290053	0.26761032	2.3848852	21	3 26.7	20.7
438758 2008 UH_{109}	16.4	X	345.58277	350.78001	52.37295	15.63644	0.2435022	0.22808753	2.6529864	21	12 9.3	18.7
438759 2008 UA_{133}	16.9	X	159.51593	55.22803	224.61695	14.38488	0.1094250	0.24303689	2.5430481	21	—	—
438760 2008 UF_{137}	17.3	X	298.85194	301.93040	220.94741	14.43044	0.1000498	0.24338267	2.5406389	21	—	—
438761 2008 UR_{163}	17.1	X	206.58190	337.05411	13.32183	6.23894	0.2406643	0.27144477	2.3623726	21	3 8.9	21.1
438762 2008 UV_{177}	17.8	X	131.78634	71.62266	328.90795	2.00353	0.1787602	0.26221942	2.4174610	21	2 26.4	20.9
438763 2008 UC_{179}	16.7	X	266.71264	202.50210	241.94097	9.95548	0.1861415	0.21903974	2.7255497	21	9 1.2	20.7
438764 2008 UT_{186}	17.6	X	120.95285	282.13661	107.45939	2.41616	0.1648523	0.25491521	2.4634224	21	1 29.9	20.6
438765 2008 UV_{212}	17.1	X	228.51562	320.51854	212.13659	11.47461	0.0756573	0.23083105	2.6319233	21	11 29.7	20.8
438766 2008 UN_{223}	16.4	X	38.90193	142.19531	237.27675	13.97392	0.1260041	0.23671442	2.5881309	21	—	—
438767 2008 UO_{229}	16.7	X	315.57048	167.33588	260.98453	13.66046	0.0477594	0.22495736	2.6775397	21	11 13.3	20.1
438768 2008 UB_{264}	17.2	X	214.23377	331.33126	39.42983	5.29238	0.1870722	0.28219357	2.3019964	21	4 8.2	20.7
438769 2008 UC_{313}	16.7	X	241.89761	196.67037	253.58404	13.79878	0.1474454	0.21503866	2.7592540	21	8 13.7	21.2
438770 2008 UX_{329}	17.4	X	3.16305	359.11754	40.66343	7.94547	0.1370955	0.23341440	2.6124678	21	12 28.4	20.5
438771 2008 UR_{342}	16.6	X	217.79496	23.20729	253.06446	14.19234	0.1480344	0.25347262	2.4727603	21	—	—
438772 2008 UM_{343}	17.4	X	142.10445	155.57180	211.97535	5.88348	0.1051126	0.25496452	2.4631047	21	1 17.2	20.7
438773 2008 UK_{349}	16.8	X	25.86359	302.35971	89.09089	11.73546	0.0957335	0.23379637	2.6096216	21	—	—
438774 2008 UP_{349}	16.5	X	335.73500	175.86921	249.29143	12.85273	0.0837814	0.23406280	2.6076409	21	12 13.1	19.4
438775 2008 UZ_{356}	17.3	X	299.71709	14.57288	54.89747	12.09314	0.0531375	0.22202353	2.7010755	21	10 26.5	20.7
438776 2008 UV_{357}	16.8	X	208.22058	90.41314	199.00607	5.66058	0.1839658	0.25317747	2.4746817	21	—	—
438777 2008 UQ_{358}	18.1	X	83.29476	88.62889	232.85748	20.85044	0.0755555	0.38852877	1.8600327	21	—	—
438778 2008 UZ_{369}	16.7	X	271.05011	28.45339	64.96266	14.93134	0.1904762	0.22137556	2.7063436	21	10 2.4	20.5
438779 2008 VR_{12}	15.8	X	271.88999	349.76475	97.01680	17.85117	0.0794816	0.20933475	2.8091515	21	10 11.8	19.9
438780 2008 VK_{28}	17.6	X	181.70160	233.57629	117.85431	3.36377	0.2135091	0.26566691	2.3965017	21	2 17.3	21.4
438781 2008 VF_{51}	17.6	X	162.35029	357.98612	349.22947	1.18851	0.2052910	0.25733535	2.4479530	21	1 26.2	21.2
438782 2008 VO_{64}	16.9	X	9.27043	270.08855	137.76923	13.53476	0.2671465	0.23463995	2.6033631	21	—	—
438783 2008 VX_{77}	16.7	X	146.65258	151.91534	262.99682	20.91485	0.1604763	0.26669861	2.3903173	21	3 20.2	20.7
438784 2008 VH_{79}	16.4	X	323.22709	223.95082	256.61813	12.07271	0.1144918	0.23106261	2.6301646	21	—	—
438785 2008 WP_{49}	16.7	X	34.87016	185.52525	217.21751	14.36034	0.0528704	0.23895492	2.5719275	21	—	—
438786 2008 WF_{67}	16.9	X	334.34954	341.78270	77.90490	5.24030	0.1081224	0.22802195	2.6534951	21	12 3.1	19.6
438787 2008 WM_{67}	17.4	X	33.18491	155.37696	221.09826	5.64122	0.0560529	0.23171530	2.6252232	21	12 28.3	20.9
438788 2008 WR_{81}	17.2	X	66.31476	251.06655	127.97466	3.11035	0.2005396	0.24129218	2.5552921	21	—	—
438789 2008 WP_{126}	16.8	X	42.14277	307.81015	119.91797	12.97564	0.1703440	0.23622323	2.5917174	21	—	—
438790 2008 WV_{139}	16.3	X	209.82609	63.60038	89.31885	13.00095	0.1526912	0.21581512	2.7526319	21	10 10.9	20.8
438791 2008 XT_{1}	17.6	X	355.65634	157.34562	252.21555	19.52820	0.0951901	0.38729035	1.8639958	21	—	—
438792 2008 XO_{3}	16.5	X	91.27088	86.67842	262.87269	15.27393	0.2432572	0.24237010	2.5477102	21	—	—
438793 2008 XO_{8}	17.2	X	85.09551	169.64050	153.61974	5.15788	0.0367647	0.23130222	2.6283479	21	12 23.3	20.8
438794 2008 XC_{16}	17.2	X	137.57219	272.58809	91.13645	7.57923	0.1515868	0.25450402	2.4660750	21	1 15.3	20.6
438795 2008 XU_{29}	17.0	X	250.73245	203.35631	242.84295	7.07814	0.1955492	0.21258465	2.7804480	21	8 15.5	21.2
438796 2008 YX_{14}	16.7	X	247.36434	343.37805	253.49616	13.95415	0.0726010	0.24595526	2.5228919	21	—	—
438797 2008 YS_{20}	17.1	X	45.92080	296.96383	121.13817	3.91890	0.1395757	0.23628721	2.5912495	21	—	—
438798 2008 YQ_{30}	17.3	X	44.75437	230.51731	160.57128	2.59382	0.2067368	0.23720178	2.5845846	21	—	—
438799 2008 YF_{38}	17.2	X	309.37468	326.90270	102.42737	9.71892	0.2128703	0.22008262	2.7169327	21	10 27.4	20.0
438800 2008 YN_{38}	17.5	X	1.95151	65.55616	290.57062	18.68139	0.1150714	0.37273730	1.9122037	21	11 23.4	19.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438801 2008 YR_{48}	17.2	X	349.81072	43.56299	330.43868	3.24327	0.1109898	0.21398112	2.7683377	21	10 23.2	20.3
438802 2008 YC_{49}	16.6	X	68.36614	77.62124	115.36812	22.58505	0.2879551	0.18154414	3.0889761	21	7 20.2	20.8
438803 2008 YM_{50}	18.0	X	97.50104	20.54269	306.51221	18.60509	0.0800410	0.38316140	1.8773628	21	—	—
438804 2008 YD_{76}	18.3	X	33.38434	84.26699	300.44177	19.02399	0.1076467	0.38507441	1.8711400	21	—	—
438805 2008 YB_{84}	16.2	X	162.38487	303.84782	298.76289	12.25529	0.1543377	0.21978621	2.7193749	21	12 6.7	20.7
438806 2008 YR_{86}	16.4	X	97.26010	254.76936	101.95391	15.30853	0.1993132	0.23955814	2.5676083	21	—	—
438807 2008 YN_{101}	16.7	X	310.29057	281.68121	129.82187	5.63323	0.0630540	0.21367150	2.7710114	21	10 15.6	20.2
438808 2008 YR_{106}	17.1	X	98.27552	262.93787	74.19145	3.37883	0.0713777	0.22715290	2.6602586	21	—	—
438809 2008 YG_{108}	16.6	X	274.05026	300.95364	116.83065	5.74062	0.0326267	0.20388082	2.8590284	21	9 4.9	20.4
438810 2008 YO_{114}	16.7	X	165.61526	104.53748	100.41999	8.66503	0.1610367	0.21126090	2.7920507	21	10 28.9	21.4
438811 2008 YJ_{125}	16.9	X	307.54484	317.50763	100.72516	6.11593	0.0713538	0.21443223	2.7644538	21	10 20.3	20.4
438812 2008 YD_{135}	16.3	X	159.84039	343.67915	249.47754	14.22880	0.0561212	0.22574465	2.6713107	21	11 26.6	20.1
438813 2008 YC_{142}	16.4	X	38.31765	265.61125	109.83923	28.14613	0.1303867	0.22638266	2.6662893	21	—	—
438814 2008 YF_{144}	17.3	X	132.80722	65.70477	294.84745	8.19582	0.1202333	0.24200934	2.5502414	21	1 3.7	20.7
438815 2008 YX_{148}	16.5	X	249.64232	13.58656	87.75971	9.41772	0.1696247	0.21227157	2.7831813	21	9 14.2	20.7
438816 2008 YC_{153}	18.5	X	131.20236	340.25284	304.52522	18.15738	0.0504945	0.38060041	1.8857750	21	—	—
438817 2008 YT_{158}	17.2	X	323.57617	272.53782	135.05405	5.72702	0.0757527	0.21439171	2.7648021	21	10 29.7	20.6
438818 2008 YY_{171}	16.1	X	224.83426	306.00131	289.65149	15.94368	0.1514849	0.22844167	2.6502439	21	—	—
438819 2009 AP	17.9	X	61.29980	209.31169	116.11443	23.98772	0.0681223	0.37701566	1.8977097	21	—	—
438820 2009 AV_{8}	17.0	X	99.93784	293.14276	78.40207	6.30872	0.1606316	0.25210248	2.4817115	21	—	—
438821 2009 AB_{12}	17.2	X	173.83813	131.48269	58.10328	0.74443	0.0135503	0.21197170	2.7858055	21	10 19.1	21.0
438822 2009 AG_{12}	17.3	X	336.26366	304.46887	97.15852	2.88143	0.0889502	0.21752726	2.7381691	21	11 9.6	20.5
438823 2009 AZ_{13}	17.1	X	179.97310	31.70790	134.45776	4.43430	0.0386479	0.20823440	2.8190389	21	9 26.9	21.1
438824 2009 AN_{15}	18.0	X	16.87647	55.35492	286.56315	18.30580	0.0829205	0.37310703	1.9109402	21	11 20.4	20.1
438825 2009 AD_{27}	18.2	X	197.93929	88.15178	115.22417	24.32617	0.0178449	0.37759834	1.8957570	21	—	—
438826 2009 BR_{1}	15.9	X	258.90146	213.73398	303.67970	13.73736	0.1490313	0.22163226	2.7042535	21	12 5.3	19.6
438827 2009 BB_{2}	17.4	X	126.27031	332.34001	277.20936	17.51614	0.0538373	0.37091404	1.9184649	21	12 4.3	19.6
438828 2009 BR_{7}	16.2	X	218.56754	217.59165	298.37989	13.86962	0.1223894	0.21054660	2.7983620	21	10 11.7	20.8
438829 Visena	16.2	X	286.61031	314.14756	121.27147	14.52508	0.1746105	0.21084603	2.7957120	21	9 29.9	19.9
438830 2009 BD_{29}	17.0	X	111.63325	187.22065	353.11661	1.50304	0.1424628	0.19179501	2.9779073	21	8 3.7	21.6
438831 2009 BN_{40}	16.8	X	204.05656	61.99760	122.75052	9.98579	0.0863817	0.21227617	2.7831411	21	11 14.9	21.0
438832 2009 BG_{42}	16.8	X	110.05920	188.21899	131.80630	9.38562	0.0534315	0.22306514	2.6926603	21	—	—
438833 2009 BL_{43}	16.9	X	92.08472	84.37492	322.00117	11.28376	0.3080879	0.24554255	2.5257181	21	2 5.9	19.4
438834 2009 BU_{77}	16.7	X	74.63621	85.77075	354.58005	8.77033	0.2014612	0.24575076	2.5242913	21	2 7.1	19.2
438835 2009 BA_{84}	17.5	X	77.08763	260.11039	128.43357	3.75858	0.0970387	0.23479291	2.6022323	21	—	—
438836 2009 BR_{104}	17.2	X	156.09156	11.00096	139.36776	4.35812	0.1193656	0.19326397	2.9627985	21	8 9.4	21.8
438837 2009 BK_{106}	16.7	X	139.28793	349.76927	141.81224	7.03417	0.1348350	0.18499821	3.0504064	21	6 30.9	21.5
438838 2009 BE_{109}	17.0	X	86.64753	186.24663	124.51310	6.30234	0.1107093	0.21818302	2.7326798	21	12 15.5	21.0
438839 2009 BE_{121}	16.9	X	355.81073	119.10612	219.36656	1.19613	0.0893348	0.20104230	2.8858766	21	9 12.7	20.5
438840 2009 BD_{124}	17.0	X	35.01970	63.35965	319.04993	4.98950	0.0307079	0.21920371	2.7241904	21	—	—
438841 2009 BC_{160}	17.7	X	54.79631	207.98134	133.12817	26.66133	0.0511262	0.37490327	1.9048315	21	—	—
438842 2009 BM_{171}	16.9	X	55.15030	247.70076	139.45369	6.44827	0.1065342	0.22675449	2.6633738	21	—	—
438843 2009 BH_{184}	17.6	X	157.59263	87.02696	128.50243	24.71331	0.0422163	0.36787865	1.9290034	21	12 4.2	20.4
438844 2009 CE_{8}	16.3	X	162.32892	83.56124	130.95115	13.72375	0.1561970	0.21111786	2.7933117	21	11 7.9	21.1
438845 2009 CC_{25}	17.1	X	334.51821	321.98219	140.44756	15.65302	0.1336712	0.22442932	2.6817378	21	—	—
438846 2009 CJ_{30}	16.8	X	75.21126	157.32300	84.53957	3.40915	0.1279087	0.19202994	2.9754781	21	9 8.3	20.9
438847 2009 CR_{31}	16.8	X	116.20218	129.94655	148.33702	6.84598	0.0417518	0.21116587	2.7928883	21	12 1.9	20.9
438848 2009 CL_{44}	16.2	X	230.43186	279.19872	275.07997	8.78864	0.1121256	0.21882374	2.7273430	21	12 21.1	20.1
438849 2009 CA_{53}	16.9	X	77.93158	207.90699	1.90047	2.43668	0.0747013	0.18750303	3.0231789	21	7 23.1	21.1
438850 2009 CB_{61}	16.4	X	357.84882	66.85612	311.51274	6.24499	0.2178739	0.21647543	2.7470315	21	11 23.5	19.1
438851 2009 DO_{13}	15.7	X	31.76232	323.22841	319.82236	10.34377	0.1469987	0.18827629	3.0148958	21	8 30.3	19.4
438852 2009 DG_{22}	16.6	X	118.61816	150.54833	142.49919	12.22149	0.1635368	0.21841028	2.7307839	21	12 28.4	21.2
438853 2009 DB_{39}	16.5	X	140.43199	22.66551	150.15136	17.82393	0.0533567	0.19386318	2.9566903	21	8 17.3	20.8
438854 2009 DX_{55}	16.7	X	168.80584	358.28000	129.79132	5.08197	0.0787967	0.18970599	2.9997290	21	7 24.5	21.3
438855 2009 DR_{93}	16.8	X	357.33177	220.40106	86.34711	4.76274	0.1026670	0.18518766	3.0483256	21	8 3.4	20.5
438856 2009 DL_{107}	16.9	X	357.62934	218.44787	182.76400	6.72855	0.0649206	0.21084436	2.7957268	21	12 8.7	20.5
438857 2009 DF_{121}	16.9	X	102.38561	69.31085	174.97974	8.46056	0.1960904	0.19476745	2.9475315	21	10 18.4	21.6
438858 2009 DA_{131}	15.9	X	89.27560	56.88527	106.96074	27.76321	0.1869792	0.17768161	3.1335820	21	6 25.6	20.5
438859 2009 DY_{141}	16.5	X	94.98612	311.96843	196.74366	15.17106	0.3768558	0.17861111	3.1227011	21	7 2.2	21.9
438860 2009 DG_{142}	16.8	X	127.14531	357.19736	156.63711	4.74132	0.1042059	0.18262813	3.0767410	21	7 13.1	21.5
438861 2009 ER_{17}	17.0	X	158.99221	70.68400	145.46920	8.94556	0.1216733	0.20501713	2.8484545	21	11 4.5	21.6
438862 2009 FX_{33}	16.9	X	28.83167	126.81906	169.23596	12.35333	0.0492056	0.19284122	2.9671270	21	9 2.1	20.9
438863 2009 FY_{48}	16.3	X	52.52772	52.54984	184.47510	27.56582	0.1225623	0.18046834	3.1012399	21	7 26.5	20.9
438864 2009 FY_{63}	16.1	X	80.47112	104.13829	194.82895	16.68525	0.1412496	0.19668980	2.9282950	21	11 25.6	20.7
438865 2009 FR_{73}	16.6	X	60.19766	338.76005	316.15462	0.26918	0.0815329	0.19082542	2.9879861	21	10 17.8	20.7
438866 2009 FC_{74}	16.2	X	32.51144	262.58359	31.45870	10.89979	0.3329572	0.18102460	3.0948836	21	10 16.8	19.8
438867 2009 FB_{75}	17.9	X	109.80274	7.60448	238.83653	4.19398	0.1256727	0.35470075	1.9764901	21	11 8.9	20.4
438868 2009 HF_{7}	16.1	X	28.21898	175.32424	66.03694	10.13357	0.0331762	0.17442230	3.1724982	21	6 19.6	20.4
438869 2009 HT_{35}	16.2	X	211.51468	248.29543	181.89842	9.22564	0.0739095	0.17433533	3.1735532	21	6 27.9	21.1
438870 2009 HL_{48}	16.4	X	44.16077	179.84821	104.99623	11.12388	0.1358338	0.18346753	3.0673494	21	9 26.4	20.6
438871 2009 HU_{60}	16.3	X	5.39330	264.17301	22.38472	16.34098	0.1780539	0.17772628	3.1330569	21	7 27.9	20.1
438872 2009 HG_{70}	16.3	X	23.49266	21.46220	214.22889	8.26506	0.1496823	0.17057099	3.2200746	21	6 13.8	20.2
438873 2009 HM_{71}	16.4	X	306.33280	154.94687	211.40126	13.85946	0.0588621	0.18181591	3.0858972	21	8 1.2	20.9
438874 2009 HY_{71}	16.1	X	20.15854	93.78784	186.73402	23.58819	0.3433579	0.17529100	3.1620080	21	8 31.8	19.4
438875 2009 HT_{92}	16.6	X	250.18176	259.37960	203.57706	7.15121	0.0203190	0.19093338	2.9868596	21	9 29.9	20.8
438876 2009 HP_{96}	15.9	X	82.78404	9.08220	198.27141	10.08216	0.0253662	0.17535263	3.1612671	21	7 15.9	20.5
438877 2009 HS_{102}	16.3	X	18.71494	251.06615	93.85068	16.64757	0.4208367	0.18133590	3.0913405	21	12 13.9	19.8
438878 2009 HP_{103}	16.4	X	0.55344	191.70290	102.71902	6.49983	0.1827894	0.17359327	3.1825907	21	7 23.1	19.8
438879 2009 RF_{15}	18.1	X	209.33541	204.97370	173.48100	3.90829	0.2224798	0.30101205	2.2050247	21	4 11.7	21.7
438880 2009 RQ_{15}	18.6	X	272.28352	174.02305	159.50210	1.78947	0.2049875	0.30872264	2.1681553	21	4 10.9	21.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438881 2009 RD_{28}	17.5	X	171.04228	120.76347	250.83395	5.48780	0.1701595	0.29269913	2.2465794	21	2 23.0	21.0
438882 2009 SS_{46}	18.1	X	271.31765	319.77344	353.04484	5.00023	0.2119754	0.30378346	2.1915933	21	3 12.7	21.3
438883 2009 SA_{67}	18.0	X	188.85204	350.43139	351.50946	1.54860	0.1678413	0.28532345	2.2851308	21	2 6.6	21.3
438884 2009 SW_{109}	18.0	X	242.03088	41.32271	293.11579	4.87043	0.2140438	0.30312123	2.1947841	21	3 11.2	21.6
438885 2009 SN_{154}	17.9	X	159.24456	208.27764	181.90985	5.88898	0.1754132	0.29151387	2.2526648	21	3 9.9	21.1
438886 2009 SP_{163}	17.4	X	73.33291	23.70413	36.34297	5.72017	0.1866554	0.27418163	2.3466256	21	—	—
438887 2009 SC_{252}	17.4	X	28.20188	52.19106	39.22528	7.16760	0.0686351	0.27134228	2.3629674	21	—	—
438888 2009 SR_{262}	17.8	X	82.52822	59.95700	6.79558	7.27012	0.0752527	0.28066754	2.3103330	21	1 4.5	20.4
438889 2009 SA_{313}	18.8	X	270.02762	177.86915	161.12132	3.77910	0.2348919	0.30895795	2.1670543	21	4 13.3	22.0
438890 2009 SM_{359}	17.5	X	340.01499	9.00467	163.09365	6.31295	0.0611922	0.28152934	2.3056158	21	—	—
438891 2009 TZ_{34}	15.8	X	270.70850	274.55471	165.06661	12.02510	0.1373762	0.15559268	3.4235494	21	9 7.2	20.6
438892 2009 UO_{11}	18.1	X	308.26015	82.04480	123.85228	4.75547	0.0805413	0.28374082	2.2936202	21	—	—
438893 2009 UT_{31}	18.1	X	255.25465	129.78770	212.78213	1.20684	0.2175490	0.30352539	2.1928354	21	4 4.4	21.5
438894 2009 UL_{55}	18.5	X	321.62809	273.31221	30.09472	3.50957	0.2153687	0.31136611	2.1558663	21	5 1.4	20.4
438895 2009 UZ_{120}	18.0	X	229.47937	108.39374	245.54296	5.67477	0.2175200	0.29972958	2.2113101	21	3 25.2	21.8
438896 2009 VZ_{102}	16.3	X	257.58787	357.80228	254.00959	25.07228	0.2201499	0.27497827	2.3420912	21	—	—
438897 2009 WN	18.8	X	29.75686	236.17124	249.34774	32.78542	0.2215870	0.60786630	1.3801639	21	—	—
438898 2009 WD_{27}	18.1	X	186.39191	172.58503	245.42996	6.16048	0.1543565	0.29838239	2.2179611	21	5 10.9	21.4
438899 2009 WC_{32}	18.1	X	132.62221	154.95352	229.56310	4.47830	0.1080604	0.27748198	2.3279815	21	1 23.4	21.1
438900 2009 WP_{45}	16.7	X	285.00345	247.42366	253.60327	13.44476	0.1177934	0.25338092	2.4733568	21	—	—
438901 2009 WP_{103}	17.6	X	271.68859	99.92406	22.14404	7.98213	0.2176651	0.24413836	2.5353935	21	10 31.0	20.6
438902 2009 WF_{104}	17.3	X	20.52414	94.08611	81.90988	17.00034	0.6575854	0.18264959	3.0765000	21	5 30.4	16.9
438903 2009 WM_{119}	17.4	X	260.82673	162.89994	57.62208	8.33065	0.0345158	0.26861011	2.3789637	21	—	—
438904 2009 WT_{209}	17.6	X	183.28918	318.91539	93.72517	7.52253	0.0393484	0.29165263	2.2519502	21	4 30.8	20.5
438905 2009 WZ_{210}	17.2	X	30.25085	8.73915	77.45934	7.99003	0.0923270	0.26590325	2.3950814	21	—	—
438906 2009 WG_{245}	17.2	X	254.90500	337.93531	265.90781	6.20615	0.0630920	0.27131278	2.3631387	21	—	—
438907 2009 WC_{263}	17.1	X	97.00702	201.06207	261.33762	9.86712	0.0888058	0.28201645	2.3029601	21	3 13.5	20.0
438908 2009 XO	20.4	X	180.72856	140.64019	27.81621	0.35034	0.5431105	0.38880400	1.8591548	21	9 23.0	23.9
438909 2009 XX_{17}	17.2	X	89.17239	11.36336	91.52646	7.91267	0.0563767	0.27649975	2.3334915	21	3 8.7	20.0
438910 2009 XJ_{19}	17.5	X	74.74268	351.87460	109.46541	9.24904	0.0540533	0.27201618	2.3590631	21	2 10.8	20.2
438911 2009 YG_{5}	17.1	X	230.18521	202.11603	301.51695	6.47855	0.1457521	0.23175751	2.6249045	21	10 12.6	21.1
438912 2009 YH_{13}	17.3	X	291.19126	39.71220	146.86872	4.21085	0.1284025	0.25569083	2.4584381	21	—	—
438913 2010 AE_{81}	16.9	X	236.96765	225.15502	246.70560	13.12440	0.2232805	0.22682604	2.6628137	21	8 28.0	21.4
438914 2010 BU_{65}	17.2	X	243.54955	243.43093	294.83378	10.60307	0.2208345	0.22993880	2.6387275	21	12 3.0	20.9
438915 2010 CJ_{5}	16.9	X	198.09789	62.29912	110.09917	4.92729	0.1122265	0.22384952	2.6863666	21	10 22.5	21.0
438916 2010 CY_{13}	16.7	X	134.18264	219.46945	144.22493	32.14244	0.3327395	0.23516477	2.5994884	21	2 4.8	21.0
438917 2010 CH_{16}	16.3	X	30.12658	235.68635	90.67894	27.67204	0.2324740	0.20279137	2.8692589	21	11 20.3	20.2
438918 2010 CS_{22}	16.7	X	65.23854	3.06200	341.25377	14.81992	0.1192761	0.23394075	2.6085478	21	—	—
438919 2010 CB_{36}	16.9	X	303.25294	306.49328	143.38998	14.17055	0.2429038	0.23570989	2.5954789	21	11 14.2	19.5
438920 2010 CZ_{42}	17.1	X	5.16797	247.68757	249.89446	8.16118	0.1661729	0.26086220	2.4258389	21	—	—
438921 2010 CK_{59}	16.4	X	209.90203	22.82954	157.49579	14.40911	0.2074059	0.22923911	2.6440941	21	11 7.2	20.8
438922 2010 CQ_{81}	17.4	X	213.41805	11.65904	170.99398	3.69133	0.0468584	0.22990998	2.6389480	21	11 27.7	21.0
438923 2010 CJ_{84}	16.9	X	167.37173	69.40950	151.32935	13.30059	0.2182257	0.22424554	2.6832028	21	11 18.0	21.7
438924 2010 CL_{89}	17.0	X	217.19792	13.95834	155.66816	13.69539	0.0263138	0.23126787	2.6286081	21	11 21.5	20.9
438925 2010 CC_{103}	16.9	X	171.40175	131.21325	142.39037	13.64569	0.0869571	0.24335023	2.5408647	21	—	—
438926 2010 CW_{103}	16.7	X	312.75451	290.25825	161.77358	14.38049	0.0517710	0.23160461	2.6260596	21	12 14.6	20.2
438927 2010 CL_{166}	17.1	X	153.75356	55.92913	175.53132	10.03261	0.0280873	0.22488237	2.6781348	21	11 20.1	21.0
438928 2010 DQ_{75}	17.0	X	108.59747	263.72896	356.96906	10.00547	0.1042003	0.21796485	2.7345030	21	11 3.1	21.2
438929 2010 EJ_{39}	16.6	X	117.44146	137.95747	74.07029	3.50430	0.1912366	0.20998048	2.8033895	21	9 24.4	21.1
438930 2010 ET_{44}	16.6	X	176.00834	69.06009	88.45548	8.69314	0.1647924	0.21147195	2.7901927	21	9 11.4	21.3
438931 2010 EB_{139}	16.6	X	141.32424	143.79207	67.28265	8.93685	0.1607210	0.21241322	2.7819438	21	10 15.1	21.2
438932 2010 FZ_{2}	16.9	X	132.26863	179.12258	105.69254	5.35234	0.1547901	0.22971846	2.6404145	21	12 31.8	21.3
438933 2010 FS_{22}	17.0	X	318.43266	300.44174	138.98693	4.50323	0.1263469	0.23062236	2.6335109	21	12 3.8	19.7
438934 2010 FN_{84}	16.1	X	123.87157	64.23964	191.21051	24.74696	0.1337394	0.21745166	2.7388037	21	11 18.8	20.7
438935 2010 GU_{100}	17.3	X	180.40205	23.00437	165.09817	8.90986	0.1896601	0.22332548	2.6905673	21	10 20.5	21.8
438936 2010 GB_{102}	16.7	X	179.76970	153.05707	63.80610	13.94985	0.0977059	0.21836227	2.7311841	21	11 25.1	20.7
438937 2010 GL_{155}	16.7	X	208.02137	68.11566	114.20707	13.89062	0.1995979	0.23186636	2.6240829	21	11 10.2	21.1
438938 2010 GR_{156}	17.5	X	213.58787	296.39758	209.46698	20.89695	0.0830553	0.38899746	1.8585384	21	10 29.6	19.1
438939 2010 GQ_{161}	16.1	X	61.77998	164.17199	137.92355	15.99098	0.1369480	0.20350355	2.8625608	21	11 13.0	20.5
438940 2010 HP_{48}	15.9	X	322.89743	244.50196	118.88764	19.27384	0.1436687	0.18219033	3.0816679	21	8 20.3	19.7
438941 2010 HY_{56}	15.6	X	343.20534	66.72463	249.27507	15.16369	0.0963057	0.17807075	3.1290151	21	7 17.9	19.7
438942 2010 JC_{31}	17.0	X	240.81611	101.10156	91.38717	7.41212	0.0915613	0.23098211	2.6307757	21	—	—
438943 2010 JB_{45}	16.8	X	121.38714	116.11738	186.01261	15.04898	0.0616964	0.22184412	2.7025315	21	—	—
438944 2010 JX_{72}	17.0	X	131.35777	150.58761	110.81444	10.61226	0.1227208	0.21482248	2.7611048	21	12 2.3	21.4
438945 2010 JW_{76}	16.5	X	136.95037	182.95349	79.50704	14.15714	0.0463116	0.21935907	2.7229039	21	12 6.7	20.4
438946 2010 JG_{135}	16.4	X	4.13994	144.56568	194.44296	23.82146	0.3601831	0.18317370	3.0706287	21	10 26.2	18.9
438947 2010 JG_{149}	17.4	X	138.81981	123.88024	138.36406	4.08325	0.1542065	0.21748749	2.7385029	21	12 9.7	21.9
438948 2010 JL_{154}	16.9	X	195.00090	124.44042	69.09309	10.35421	0.1057778	0.21822146	2.7323589	21	11 13.3	20.9
438949 2010 KR_{8}	17.5	X	101.90557	180.96871	73.92355	21.91160	0.0627863	0.38217097	1.8806050	21	11 17.5	19.6
438950 2010 KS_{35}	16.9	X	156.73853	21.46381	176.63715	10.15840	0.1385515	0.21913973	2.7247206	21	10 11.3	21.3
438951 2010 KT_{38}	17.3	X	139.82956	246.13147	48.63679	3.52130	0.2223927	0.22416823	2.6838197	21	—	—
438952 2010 KA_{105}	16.7	X	41.99457	131.18197	169.34928	4.68507	0.2572527	0.18633888	3.0357574	21	10 27.9	20.6
438953 2010 KH_{118}	17.5	X	89.45864	146.02232	138.90376	22.97630	0.0688131	0.38435432	1.8734763	21	12 15.9	20.1
438954 2010 LK_{10}	16.6	X	321.19185	69.10970	317.67944	4.90652	0.2561185	0.17760857	3.1344410	21	8 31.9	19.9
438955 2010 LN_{14}	21.0	X	264.20784	33.48087	342.79255	1.48866	0.4743739	0.79580259	1.1532740	21	4 13.4	21.9
438956 2010 LQ_{17}	16.4	X	30.96688	17.92823	281.35241	10.32809	0.1422964	0.18103028	3.0948189	21	9 14.3	20.4
438957 2010 LN_{60}	16.4	X	355.69955	127.89171	272.03658	12.24492	0.2163899	0.18929340	3.0040862	21	12 12.4	19.4
438958 2010 LF_{77}	15.7	X	248.85918	217.32922	231.85173	11.20441	0.1115490	0.17612317	3.1520400	21	8 24.1	20.5
438959 2010 LR_{83}	15.4	X	282.92798	119.78506	308.56047	22.15277	0.1716505	0.17714355	3.1399242	21	8 28.2	19.9
438960 2010 LO_{86}	16.0	X	287.44827	54.93035	335.87360	10.51726	0.1256054	0.17159846	3.2072080	21	8 3.4	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
438961 2010 LF_{87}	16.5	X	33.68763	52.53863	287.01954	7.27004	0.1503808	0.18857676	3.0116923	21	11 15.8	20.5
438962 2010 LA_{97}	15.7	X	356.20101	57.97717	290.91781	12.73912	0.1565188	0.18036697	3.1024018	21	9 20.2	19.5
438963 2010 LG_{114}	15.8	X	39.56913	9.03959	311.04492	11.55382	0.2191119	0.18690409	3.0296340	21	11 6.7	20.0
438964 2010 MC_{1}	14.9	X	20.81278	24.52490	268.51355	27.47878	0.1652899	0.17435690	3.1732914	21	8 12.6	19.3
438965 2010 MR_{9}	15.9	X	337.57272	104.53755	266.14351	16.87145	0.1445650	0.17916434	3.1162695	21	9 12.8	20.0
438966 2010 ML_{12}	15.8	X	228.53584	315.71907	226.86085	16.21168	0.0695997	0.19829447	2.9124757	21	12 6.2	20.0
438967 2010 MT_{14}	16.8	X	355.12034	257.35748	103.28131	4.08089	0.2663914	0.18103118	3.0948086	21	10 21.8	19.6
438968 2010 ME_{57}	15.2	X	330.31969	252.93881	121.10675	26.70024	0.2757433	0.17551304	3.1593407	21	9 8.4	18.6
438969 2010 MJ_{71}	15.3	X	255.57659	86.32777	253.35979	8.36656	0.1036017	0.15170966	3.4817205	21	4 22.6	20.6
438970 2010 MQ_{84}	15.7	X	336.24897	63.61792	274.44389	12.29967	0.1098376	0.17090873	3.2158310	21	8 4.4	19.8
438971 2010 MJ_{97}	16.2	X	336.22911	172.22621	199.74164	13.03936	0.1273136	0.17759325	3.1346213	21	9 20.5	20.0
438972 2010 MW_{101}	16.2	X	350.14739	141.13388	205.03898	12.68727	0.1727848	0.17628435	3.1501184	21	9 8.9	19.8
438973 Masci	16.4	X	353.94776	211.22284	142.10224	11.66867	0.2395199	0.17811003	3.1285550	21	10 7.9	19.5
438974 2010 NT_{43}	16.2	X	11.23212	133.53694	195.40556	12.58024	0.2426272	0.17872078	3.1214234	21	10 8.0	19.4
438975 2010 NY_{53}	16.1	X	341.25530	356.32028	37.55075	10.44658	0.1783983	0.18136001	3.0910666	21	10 31.3	19.4
438976 2010 NY_{54}	16.8	X	26.76679	182.46532	127.71699	3.97141	0.2896641	0.18028710	3.1033180	21	10 21.9	20.4
438977 2010 OQ_{23}	16.4	X	34.87703	276.71183	103.44458	8.98323	0.1546501	0.19166738	2.9792292	21	—	—
438978 2010 OE_{53}	15.8	X	346.12882	111.95458	276.81319	8.57127	0.1802343	0.17991898	3.1075495	21	10 30.8	19.3
438979 2010 OM_{56}	15.7	X	349.30448	293.65433	50.92469	15.78353	0.3003993	0.17468897	3.1692686	21	9 20.0	18.6
438980 2010 OJ_{63}	15.8	X	350.38868	131.32239	213.48235	18.63818	0.1801443	0.17323453	3.1869830	21	9 4.9	19.6
438981 2010 OE_{76}	16.5	X	13.74307	107.35456	268.32330	16.70825	0.3788256	0.18461024	3.0546786	21	—	—
438982 2010 PU_{36}	15.8	X	0.27898	104.35418	265.66922	12.85187	0.0659885	0.17821154	3.1273669	21	10 22.9	20.2
438983 2010 PT_{52}	16.0	X	19.25188	103.94798	295.59141	19.74952	0.2818823	0.18878885	3.0094363	21	—	—
438984 2010 PD_{63}	15.9	X	13.38282	67.14699	275.89055	9.82349	0.1212568	0.18847353	3.0127920	21	10 13.7	19.7
438985 2010 RP_{40}	16.2	X	294.65269	160.67482	237.73086	12.29253	0.1793670	0.17167165	3.2062964	21	8 7.9	20.6
438986 2010 RR_{45}	16.4	X	8.84371	123.68612	241.86418	3.69001	0.2122919	0.18907434	3.0064061	21	11 20.4	19.7
438987 2010 RC_{65}	16.4	X	349.39176	74.68013	295.84293	4.22379	0.1752147	0.18526400	3.0474882	21	10 13.9	19.6
438988 2010 SP_{9}	16.6	X	307.52482	203.28024	183.52383	5.00351	0.1831150	0.17250496	3.1959624	21	8 16.1	20.5
438989 2010 SO_{12}	17.0	X	79.38466	69.01079	196.11198	15.71635	0.3575222	0.19036245	2.9928287	21	11 6.1	22.1
438990 2010 SG_{13}	18.3	X	190.23061	225.10860	252.97091	33.80468	0.7484126	0.70315784	1.2524705	21	7 14.7	21.7
438991 2010 SB_{36}	16.0	X	298.40137	116.95138	288.89317	9.44028	0.0956557	0.17877615	3.1207789	21	9 5.2	20.2
438992 2010 SQ_{38}	16.0	X	357.45505	127.27268	232.80153	15.82422	0.2414095	0.17925135	3.1152609	21	10 19.1	19.2
438993 2010 SW_{41}	16.3	X	0.33885	159.81246	199.46596	17.99563	0.2158013	0.18324837	3.0697945	21	10 26.5	19.4
438994 2010 TW_{19}	16.4	X	22.31887	340.35214	322.21227	3.28791	0.1277809	0.17550185	3.1594750	21	9 7.7	20.2
438995 2010 TL_{25}	15.8	X	334.42709	56.12241	322.35103	16.38080	0.1892627	0.17578444	3.1560879	21	9 17.4	19.4
438996 2010 TN_{99}	15.9	X	41.54828	85.74996	188.88296	20.61412	0.1014577	0.17151818	3.2082086	21	8 25.2	20.3
438997 2010 TC_{154}	16.2	X	27.31629	60.98381	227.96094	10.95131	0.0480614	0.17027839	3.2237624	21	8 15.9	20.7
438998 2010 UM_{16}	17.5	X	81.20367	88.79081	217.91169	20.33545	0.0359552	0.36664045	1.9333440	21	12 22.9	20.0
438999 2010 UL_{106}	15.9	X	357.21035	118.66501	265.79112	14.82726	0.2341020	0.17826346	3.1267597	21	11 22.1	19.1
439000 2010 VL_{29}	16.2	X	349.70153	153.90448	236.75555	13.11337	0.1781070	0.17903179	3.1178074	21	11 11.5	19.7
439001 2010 VE_{82}	16.0	X	353.07213	299.52581	57.19654	14.70779	0.3013666	0.17522506	3.1628013	21	10 16.4	18.8
439002 2010 VX_{104}	13.9	X	314.20349	7.84860	66.51771	20.13819	0.0844846	0.08439671	5.1473737	21	10 31.4	20.5
439003 2010 VV_{138}	14.0	X	277.74211	240.62155	231.91278	13.27316	0.1830335	0.08146461	5.2701553	21	10 7.9	21.0
439004 2010 VJ_{204}	15.9	X	56.72301	311.11058	19.28829	11.71984	0.1055413	0.18327688	3.0694761	21	11 25.7	20.3
439005 2010 WK_{62}	15.5	X	304.63070	76.74893	253.86776	8.81325	0.0978327	0.14729158	3.5510009	21	6 12.9	20.3
439006 2010 WL_{71}	17.3	X	130.94595	336.60693	254.82669	17.98340	0.0575449	0.35573507	1.9726571	21	11 9.3	19.8
439007 2010 XV_{69}	18.2	X	348.99844	316.85630	173.32149	6.43645	0.3688951	0.28363685	2.2941807	21	—	—
439008 2010 YN_{3}	15.8	X	340.67650	94.81529	306.20476	24.28944	0.2329302	0.17231348	3.1983296	21	10 25.7	19.7
439009 2011 AT_{22}	17.3	X	304.24593	245.67849	329.91321	7.41034	0.0359024	0.29091519	2.2557543	21	1 4.4	20.2
439010 2011 AH_{30}	17.9	X	337.49264	70.92254	114.98841	6.36855	0.1101104	0.29169788	2.2517173	21	—	—
439011 2011 AH_{49}	18.3	X	113.31169	354.63131	97.46860	5.77860	0.0509371	0.30610904	2.1804792	21	3 22.3	20.8
439012 2011 AN_{50}	17.6	X	275.12285	200.30166	72.97659	5.25040	0.1973867	0.29891771	2.2153123	21	1 27.9	20.9
439013 2011 AT_{59}	18.7	X	306.91355	75.75247	121.04926	6.87297	0.1934962	0.28355564	2.2946187	21	—	—
439014 2011 BW_{6}	18.1	X	3.25920	280.16142	312.05478	3.94547	0.1680422	0.30835505	2.1698781	21	4 6.4	19.5
439015 2011 BA_{20}	17.5	X	290.66065	282.73562	318.33278	5.21205	0.2331083	0.28275783	2.2989329	21	—	—
439016 2011 BA_{63}	17.9	X	358.42123	345.53972	145.15863	7.12433	0.1191527	0.27893104	2.3199119	21	—	—
439017 2011 CT_{9}	16.4	X	210.93117	101.97077	321.33377	21.49161	0.0493290	0.22687665	2.6624177	21	6 22.5	20.6
439018 2011 DE_{22}	17.4	X	252.91891	108.55038	157.67866	6.09601	0.1656107	0.27696590	2.3308725	21	1 2.5	21.1
439019 2011 DY_{23}	17.9	X	280.67096	182.09677	61.53046	4.66652	0.1467906	0.27841186	2.3227951	21	1 2.5	21.3
439020 2011 DG_{32}	18.0	X	301.04766	47.56211	137.29877	0.62373	0.1524345	0.27501858	2.3418623	21	—	—
439021 2011 DQ_{36}	18.0	X	298.11476	353.33303	287.94969	1.12910	0.1632450	0.29687491	2.2254630	21	3 5.9	21.0
439022 2011 DL_{40}	17.9	X	259.49894	221.93029	355.30447	2.47263	0.1334610	0.26914691	2.3757995	21	—	—
439023 2011 DY_{42}	18.1	X	257.45713	321.54055	265.44061	1.66075	0.1660446	0.27175700	2.3605628	21	—	—
439024 2011 EF	18.2	X	294.49848	144.47897	90.57700	3.00557	0.1708391	0.28018009	2.3130119	21	1 3.1	21.5
439025 2011 EM_{15}	17.5	X	242.44737	271.41388	353.09501	8.30824	0.1961151	0.27573762	2.3377893	21	—	—
439026 2011 ER_{20}	17.7	X	308.23876	108.37863	64.65959	7.02126	0.1388444	0.27494886	2.3422582	21	—	—
439027 2011 EB_{22}	18.0	X	11.16035	136.44495	43.33301	3.10938	0.0923105	0.29319359	2.2440528	21	2 13.4	20.2
439028 2011 EQ_{39}	17.9	X	322.26308	72.00083	134.72551	4.65343	0.1367442	0.28031024	2.3122959	21	1 2.3	20.8
439029 2011 EZ_{76}	17.5	X	348.62317	102.84090	6.76109	6.03700	0.2437770	0.27273974	2.3548890	21	—	—
439030 2011 EF_{85}	17.4	X	272.76868	53.98318	162.60219	6.22003	0.0637768	0.27140921	2.3625789	21	—	—
439031 2011 FS_{3}	17.7	X	304.03635	133.64766	89.37506	3.76066	0.1611725	0.28074595	2.3099029	21	—	—
439032 2011 FC_{7}	17.8	X	51.85046	122.29520	45.98073	0.76041	0.0951105	0.29839678	2.2178898	21	4 9.9	19.7
439033 2011 FF_{8}	18.0	X	295.67011	115.52544	21.96371	10.18087	0.1951197	0.26015511	2.4302324	21	—	—
439034 2011 FP_{11}	17.8	X	264.69795	146.33993	140.99754	3.50099	0.1902238	0.27998565	2.3140827	21	2 6.7	21.2
439035 2011 FK_{17}	17.5	X	272.56963	154.39199	66.03615	3.31793	0.1244925	0.27109975	2.3643765	21	—	—
439036 2011 FY_{40}	16.7	X	111.02481	213.90287	5.99450	13.39266	0.1098570	0.22695402	2.6618125	21	9 21.9	20.7
439037 2011 FQ_{44}	17.8	X	205.08081	241.68720	43.81049	2.92975	0.1773430	0.26760717	2.3849039	21	—	—
439038 2011 FE_{57}	17.9	X	247.50483	55.58288	207.17147	2.35289	0.1358765	0.27312354	2.3526823	21	—	—
439039 2011 FQ_{68}	17.3	X	235.01300	120.08412	139.71183	5.42438	0.1102150	0.27200444	2.3591310	21	—	—
439040 2011 FQ_{81}	18.0	X	237.18796	112.08888	157.07271	7.38375	0.1027636	0.27443840	2.3451617	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439041 2011 FX_{81}	17.8	X	252.70885	115.04432	127.20667	2.04398	0.1535426	0.27086791	2.3657255	21	—	—
439042 2011 FC_{88}	17.8	X	249.03977	43.84154	193.75083	4.02823	0.1620580	0.26848663	2.3796930	21	—	—
439043 2011 FT_{120}	17.9	X	318.63624	332.70530	193.40594	5.37012	0.1437816	0.27276627	2.3547363	21	—	—
439044 2011 FV_{130}	17.7	X	271.76573	289.82056	350.86602	3.00700	0.1491410	0.28642547	2.2792658	21	2 8.3	20.9
439045 2011 FN_{132}	18.0	X	332.82580	252.64293	339.05425	3.07020	0.1041082	0.29306089	2.2447302	21	2 23.3	20.5
439046 2011 FH_{142}	17.1	X	240.99182	180.03222	102.94124	6.79019	0.2239034	0.27131092	2.3631495	21	1 12.4	21.1
439047 2011 FA_{157}	16.6	X	63.22322	244.69777	31.93428	16.20274	0.1497137	0.22812352	2.6527073	21	10 15.5	20.1
439048 2011 GG_{4}	17.9	X	282.05496	143.01991	107.80177	3.13522	0.1852715	0.27690260	2.3312277	21	1 9.6	21.3
439049 2011 GP_{37}	17.9	X	288.84480	128.83267	113.61478	2.54914	0.1803821	0.28192466	2.3034600	21	1 5.3	21.4
439050 2011 GW_{56}	17.5	X	240.31397	222.66800	93.26253	3.72598	0.1687064	0.28297477	2.2977577	21	2 22.4	21.1
439051 2011 GU_{71}	17.1	X	253.71173	184.46588	61.50367	11.01128	0.1868914	0.26892001	2.3771357	21	—	—
439052 2011 GY_{75}	18.1	X	326.24545	63.13238	156.02016	6.58831	0.0944948	0.28284846	2.2984417	21	1 29.8	20.8
439053 2011 HB_{6}	16.9	X	225.64633	197.60632	69.66267	11.41562	0.2159015	0.26256438	2.4153432	21	—	—
439054 2011 HO_{6}	17.0	X	274.20292	14.98177	197.79201	12.87856	0.1415595	0.26594186	2.3948496	21	—	—
439055 2011 HP_{7}	18.2	X	235.04666	152.39100	82.91969	3.25774	0.1434480	0.26319404	2.4114893	21	—	—
439056 2011 HO_{16}	17.9	X	101.67932	307.97601	172.50083	7.14423	0.0549653	0.29402317	2.2398298	21	4 16.3	20.4
439057 2011 HA_{18}	18.2	X	27.83747	295.74386	226.71623	4.17577	0.1593620	0.28902921	2.2655565	21	2 10.5	20.0
439058 2011 HR_{29}	17.9	X	355.91916	209.44884	64.71713	5.43114	0.1153255	0.30133178	2.2034647	21	6 10.4	19.6
439059 2011 HB_{41}	16.7	X	10.55629	290.90694	79.81292	22.90311	0.0255477	0.23396684	2.6083539	21	11 22.2	20.2
439060 2011 HE_{55}	17.5	X	276.08284	22.59545	162.90643	6.54501	0.0691707	0.25974418	2.4327949	21	—	—
439061 2011 HN_{66}	17.2	X	91.80580	267.61947	67.09552	10.03205	0.0433789	0.24581361	2.5238610	21	—	—
439062 2011 HR_{67}	18.2	X	249.29620	246.33746	37.30115	1.07645	0.2140624	0.27478112	2.3432113	21	1 19.8	22.0
439063 2011 HD_{74}	17.4	X	223.50785	187.62707	94.76611	5.92244	0.2177558	0.26315002	2.4117583	21	—	—
439064 2011 HP_{74}	18.1	X	281.65692	8.09883	152.28767	2.34399	0.1163208	0.25713954	2.4491956	21	—	—
439065 2011 HM_{89}	18.2	X	249.62419	100.81542	194.75719	3.88216	0.1587139	0.27940453	2.3172902	21	2 3.8	21.9
439066 2011 HQ_{91}	17.9	X	253.75537	187.15057	102.92866	3.38962	0.1763814	0.27778112	2.3263099	21	2 1.9	21.5
439067 2011 HR_{101}	18.1	X	252.28614	94.18451	199.91601	4.69391	0.2366371	0.27851531	2.3222198	21	1 31.7	22.1
439068 2011 JM_{9}	17.2	X	248.99042	178.52020	83.82566	13.33472	0.2277191	0.26720723	2.3872831	21	—	—
439069 2011 JU_{11}	17.7	X	235.26006	7.09060	253.72800	4.39555	0.1908493	0.26336528	2.4104439	21	—	—
439070 2011 JV_{17}	17.0	X	129.65570	141.20521	145.12698	12.59213	0.2773385	0.23861773	2.5743499	21	—	—
439071 2011 JU_{29}	17.5	X	226.42776	239.89418	82.90128	7.41387	0.2730760	0.27237393	2.3569970	21	2 19.6	21.7
439072 2011 KM_{2}	17.6	X	203.29628	205.19054	103.74792	3.30226	0.2420030	0.26207494	2.4183494	21	1 15.8	21.8
439073 2011 KR_{11}	16.5	X	145.93296	149.51130	84.02185	13.74810	0.1103734	0.23294609	2.6159681	21	11 16.4	20.6
439074 2011 KK_{22}	17.1	X	128.62173	195.61825	131.23372	7.71553	0.1764638	0.24714658	2.5147780	21	—	—
439075 2011 KZ_{28}	17.1	X	125.33653	37.71297	252.41608	13.05970	0.2410759	0.23619051	2.5919567	21	—	—
439076 2011 KQ_{44}	17.5	X	201.21480	234.65036	80.81317	6.30374	0.1223204	0.26639646	2.3921243	21	1 17.5	21.0
439077 2011 LB_{14}	17.0	X	202.36228	357.14404	192.33740	4.43450	0.1622475	0.23815119	2.5777109	21	11 12.9	20.8
439078 2011 NU_{1}	16.4	X	36.58815	96.55855	256.42851	11.94455	0.2148801	0.21338084	2.7735272	21	12 22.3	20.0
439079 2011 NC_{3}	17.4	X	153.04569	85.58002	175.95303	4.00196	0.1418095	0.23304282	2.6152441	21	12 23.3	21.5
439080 2011 OV_{1}	17.3	X	178.24830	37.00263	252.81151	6.63592	0.1897241	0.24164279	2.5528198	21	—	—
439081 2011 ON_{35}	17.2	X	187.73004	166.48434	104.20983	8.13829	0.1623186	0.24432776	2.5340830	21	—	—
439082 2011 OS_{49}	16.6	X	230.73528	261.62768	290.09103	12.90974	0.0383905	0.22803344	2.6534059	21	12 31.1	20.3
439083 2011 OC_{55}	16.6	X	125.44579	219.27245	128.67072	10.68766	0.1160088	0.24097333	2.5575457	21	—	—
439084 2011 PO_{2}	17.1	X	131.82027	79.17183	215.75240	7.81481	0.2246545	0.23210390	2.6222922	21	—	—
439085 2011 PN_{12}	16.5	X	40.81350	245.26264	94.87276	9.95465	0.1751970	0.21552108	2.7551350	21	12 7.4	20.1
439086 2011 QP_{5}	16.4	X	167.48210	313.38923	294.61329	14.46660	0.1310051	0.22896338	2.6462165	21	12 21.1	20.7
439087 2011 QZ_{10}	16.7	X	291.53246	208.21869	166.74477	10.23663	0.1282356	0.18637183	3.0353996	21	7 15.9	20.8
439088 2011 QB_{16}	17.2	X	92.01773	238.29981	46.58351	2.65455	0.1753433	0.21434895	2.7651699	21	11 24.7	21.4
439089 2011 QN_{28}	16.5	X	98.64450	35.03979	304.46122	11.82289	0.2052965	0.22716188	2.6601885	21	—	—
439090 2011 QP_{39}	17.9	X	141.44064	64.45840	269.31963	1.73481	0.1965233	0.23962109	2.5671585	21	—	—
439091 2011 QV_{46}	15.9	X	356.18462	146.93307	225.58785	14.25301	0.1472426	0.20398674	2.8580386	21	11 2.8	18.9
439092 2011 QP_{59}	17.5	X	176.42361	144.25625	165.44686	7.07077	0.1496470	0.24318751	2.5419980	21	—	—
439093 2011 QF_{94}	16.3	X	286.96147	165.65315	314.77131	8.33738	0.1027897	0.21345810	2.7728579	21	12 2.4	19.8
439094 2011 RV_{12}	16.5	X	88.62505	246.01343	341.60739	13.39789	0.2274454	0.19761775	2.9191209	21	9 15.1	20.9
439095 2011 ST_{6}	17.0	X	279.57054	206.51994	185.66299	11.01522	0.0626169	0.18778014	3.0202040	21	7 30.9	21.3
439096 2011 SH_{11}	16.1	X	246.27590	94.39359	281.24615	6.02840	0.0810897	0.17133247	3.2105265	21	5 28.9	20.8
439097 2011 SF_{12}	16.5	X	82.19592	178.49059	214.21148	12.67311	0.2862698	0.22927808	2.6437945	21	—	—
439098 2011 SV_{15}	16.9	X	140.70424	38.79904	290.73438	14.01023	0.1809421	0.23468450	2.6030336	21	—	—
439099 2011 SM_{24}	16.4	X	319.21131	318.28576	8.14545	10.00606	0.1620664	0.17949230	3.1124723	21	6 18.9	20.4
439100 2011 SN_{30}	16.9	X	105.16656	119.98063	232.79616	12.27587	0.2956752	0.22770865	2.6559284	21	—	—
439101 2011 SW_{56}	17.0	X	76.60191	173.35182	155.14624	6.55381	0.0669567	0.21108415	2.7936091	21	12 19.6	21.1
439102 2011 SJ_{59}	17.1	X	254.01760	195.16917	326.93273	5.39690	0.0071470	0.21863861	2.7288824	21	12 25.4	20.8
439103 2011 SQ_{63}	17.1	X	122.41681	16.60019	336.35489	9.92712	0.1748377	0.23467105	2.6031331	21	—	—
439104 2011 SY_{66}	16.9	X	135.68041	100.61433	229.02122	4.84260	0.3046414	0.23287070	2.6165326	21	—	—
439105 2011 SZ_{66}	17.3	X	128.90596	51.31309	287.95053	2.62967	0.2997209	0.23234022	2.6205138	21	—	—
439106 2011 SN_{67}	17.2	X	113.68892	70.16238	267.95269	4.12350	0.3133169	0.22764655	2.6564114	21	—	—
439107 2011 SZ_{67}	16.8	X	99.12327	164.43867	194.79809	7.86021	0.2667088	0.22758914	2.6568581	21	—	—
439108 2011 SL_{69}	16.0	X	259.12353	198.79855	186.76563	27.93815	0.1464438	0.17372945	3.1809273	21	6 16.9	21.3
439109 2011 SB_{75}	16.1	X	327.96007	348.65069	305.56969	8.25328	0.0505101	0.17498786	3.1656588	21	6 2.9	20.5
439110 2011 SH_{78}	16.7	X	50.97797	179.18111	186.73157	7.89564	0.0323901	0.21717870	2.7410980	21	12 30.7	20.6
439111 2011 SA_{89}	16.2	X	285.80465	352.93150	353.67646	7.71458	0.0528073	0.17306140	3.1891081	21	6 13.3	20.8
439112 2011 SL_{89}	16.6	X	56.25139	106.67127	244.41658	3.44706	0.0832238	0.21141569	2.7906877	21	12 25.2	20.4
439113 2011 SM_{96}	17.4	X	63.26300	138.06763	226.69641	4.00021	0.1241179	0.22048274	2.7136447	21	—	—
439114 2011 SN_{96}	17.2	X	159.05005	70.79313	193.10463	12.20689	0.2167645	0.22669805	2.6638158	21	12 27.6	22.0
439115 2011 SF_{103}	15.8	X	280.82671	131.70737	302.53513	8.03278	0.0831807	0.19127776	2.9832734	21	9 20.8	20.0
439116 2011 SK_{108}	16.6	X	70.95097	34.76233	333.42553	10.53234	0.1853707	0.22502750	2.6769832	21	—	—
439117 2011 SN_{109}	16.1	X	249.46437	239.82074	0.62105	15.11463	0.0610774	0.24050429	2.5608698	21	—	—
439118 2011 SS_{112}	16.9	X	41.51130	255.18481	138.01279	4.10065	0.2006703	0.21697687	2.7427976	21	—	—
439119 2011 SA_{114}	17.5	X	78.81163	359.10209	10.23144	2.17922	0.2181128	0.22496587	2.6774721	21	—	—
439120 2011 ST_{120}	16.2	X	6.55218	283.23976	74.61131	10.22406	0.0108471	0.19879482	2.9075867	21	10 23.8	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439121 2011 SD_{148}	16.7	X	46.37939	59.25917	189.71648	8.00438	0.0414672	0.18283434	3.0744271	21	7 24.1	21.0
439122 2011 SH_{152}	16.5	X	253.21127	0.34041	21.37392	5.33299	0.1611847	0.17484286	3.1674087	21	6 3.8	21.5
439123 2011 SS_{156}	17.0	X	54.95970	330.79009	16.31639	4.74913	0.0742676	0.21248855	2.7812863	21	12 17.5	20.9
439124 2011 SB_{157}	16.9	X	113.06407	115.31284	181.83418	4.96084	0.1346630	0.21772205	2.7365356	21	12 26.4	21.2
439125 2011 SA_{159}	16.4	X	119.38615	357.54790	342.18851	8.24526	0.0844874	0.22923835	2.6441000	21	—	—
439126 2011 SU_{192}	16.8	X	302.17114	165.07885	204.52084	3.83572	0.0946303	0.18683339	3.0303983	21	7 29.3	20.8
439127 2011 SO_{196}	16.6	X	14.28094	80.39420	181.65823	11.86674	0.0295638	0.17968134	3.1102888	21	6 26.9	21.0
439128 2011 SK_{222}	16.0	X	313.82453	110.66440	228.48894	14.79427	0.1089571	0.17803885	3.1293889	21	7 2.7	20.3
439129 2011 SG_{225}	16.0	X	302.86819	114.34030	216.61029	13.82798	0.0338871	0.17461705	3.1701389	21	6 18.2	20.5
439130 2011 ST_{234}	17.1	X	107.48997	254.37257	28.73328	4.31239	0.1787566	0.21304981	2.7763995	21	12 6.3	21.6
439131 2011 SE_{246}	17.2	X	81.19771	118.15738	274.23216	10.46149	0.3059666	0.22909937	2.6451692	21	1 1.2	19.5
439132 2011 ST_{251}	16.6	X	340.15627	132.10444	190.61811	9.64603	0.1041164	0.18624704	3.0367553	21	7 23.8	20.5
439133 2011 SY_{262}	17.1	X	312.92494	351.29523	101.51912	2.05272	0.0304971	0.21475556	2.7616784	21	12 11.4	20.8
439134 2011 TV_{8}	15.6	X	9.38141	315.24975	332.59109	12.05205	0.1238848	0.18644486	3.0346069	21	7 31.5	19.2
439135 2011 TZ_{8}	16.1	X	278.04581	287.58804	87.29407	12.85461	0.1356829	0.17696006	3.1420942	21	6 27.7	20.4
439136 2011 TA_{12}	15.4	X	263.94377	164.48059	206.49754	11.55627	0.0650284	0.17279769	3.1923519	21	6 15.4	20.1
439137 2011 TP_{12}	17.0	X	340.55172	218.23826	139.02403	4.42487	0.1505956	0.19256646	2.9699487	21	9 12.7	20.3
439138 2011 TA_{15}	17.2	X	121.24118	224.20664	131.96000	5.19123	0.2848371	0.23325301	2.6136727	21	1 8.6	20.7
439139 2011 UK_{2}	16.8	X	61.84329	141.10989	229.57472	8.75808	0.2183841	0.21623018	2.7491083	21	—	—
439140 2011 UP_{3}	16.2	X	293.50925	335.63568	26.91647	10.99934	0.2165823	0.17953263	3.1120062	21	6 19.1	20.6
439141 2011 UR_{27}	16.4	X	291.97652	282.65464	97.52669	3.10609	0.1891400	0.17972938	3.1097347	21	7 15.3	20.3
439142 2011 UV_{28}	15.9	X	290.16460	141.14414	237.00239	14.13932	0.1596551	0.17806642	3.1290658	21	7 11.3	20.4
439143 2011 UX_{47}	16.4	X	304.53690	139.64717	230.90629	4.54881	0.2136529	0.18184354	3.0855847	21	7 16.2	20.2
439144 2011 UM_{78}	16.5	X	46.23660	83.17172	236.50630	11.16072	0.0519852	0.19531608	2.9420094	21	10 25.9	20.5
439145 2011 UK_{101}	16.5	X	265.31466	301.43723	149.19418	2.49305	0.1666231	0.18514390	3.0488059	21	9 13.0	20.6
439146 2011 UA_{108}	17.0	X	133.49671	72.64776	306.02044	4.40877	0.2977947	0.23686891	2.5870055	21	2 17.5	21.0
439147 2011 UH_{113}	16.3	X	333.72833	285.16033	62.41095	8.50257	0.2895414	0.18561343	3.0436622	21	8 4.1	19.1
439148 2011 UZ_{120}	17.0	X	126.74280	243.90765	89.78803	12.07095	0.2556150	0.23142199	2.6274410	21	—	—
439149 2011 UN_{147}	17.1	X	183.46024	310.66044	359.40734	11.55184	0.2625453	0.24100687	2.5573084	21	1 7.8	21.7
439150 2011 UG_{163}	16.1	X	343.80385	83.71352	248.57469	9.57180	0.1393490	0.17990526	3.1077075	21	8 8.5	19.9
439151 2011 UP_{186}	17.2	X	39.04302	231.56185	130.42600	5.72847	0.1394897	0.20619525	2.8375942	21	12 24.5	21.0
439152 2011 US_{211}	16.5	X	196.14450	246.64088	358.18738	9.29365	0.1128027	0.21983520	2.7189709	21	—	—
439153 2011 UM_{225}	16.8	X	67.66261	212.78105	99.85687	3.11456	0.0588897	0.20308441	2.8664981	21	11 17.5	20.8
439154 2011 UK_{235}	16.0	X	11.97026	352.38948	273.47085	4.48317	0.1347226	0.17053405	3.2205396	21	7 3.2	19.8
439155 2011 UO_{248}	16.7	X	344.91344	284.03466	53.30926	3.22548	0.2169982	0.18350384	3.0669447	21	8 21.6	19.7
439156 2011 UU_{251}	17.1	X	68.62067	287.38290	93.78809	4.30547	0.2249531	0.21663624	2.7456719	21	—	—
439157 2011 UR_{254}	16.3	X	20.65983	46.47505	228.60559	8.79370	0.0619708	0.17790779	3.1309255	21	7 22.9	20.6
439158 2011 UX_{263}	15.5	X	334.99924	251.26934	78.13434	16.12126	0.0977479	0.17870827	3.1215690	21	7 29.3	19.6
439159 2011 UF_{267}	16.0	X	285.22131	128.38013	232.24839	9.46754	0.0929593	0.17424002	3.1747104	21	6 24.5	20.5
439160 2011 UV_{285}	16.8	X	60.91216	225.04096	102.03243	3.20909	0.0740621	0.20518791	2.8468737	21	11 29.8	20.8
439161 2011 US_{288}	15.6	X	273.78692	316.01487	57.09132	16.15597	0.1831485	0.17509642	3.1643502	21	6 12.0	20.3
439162 2011 UD_{298}	16.4	X	247.63611	256.16183	209.26261	9.62005	0.0564174	0.18777193	3.0202920	21	9 23.3	20.7
439163 2011 UB_{318}	16.6	X	74.03842	133.25442	231.41567	15.39359	0.2715352	0.21644295	2.7473063	21	—	—
439164 2011 UG_{336}	16.6	X	27.79200	343.81043	86.61951	11.28663	0.1596881	0.22125262	2.7073460	21	—	—
439165 2011 UC_{343}	15.9	X	320.26097	134.36399	231.31675	8.32937	0.1714974	0.18247754	3.0784335	21	8 9.4	19.7
439166 2011 UH_{386}	17.2	X	62.59208	132.89355	256.86276	6.70076	0.3265126	0.21755426	2.7379425	21	—	—
439167 2011 UH_{388}	16.1	X	313.63037	284.35780	77.49608	10.28410	0.1467378	0.18100438	3.0951140	21	8 1.9	20.0
439168 2011 UE_{392}	16.4	X	310.43098	252.20255	101.27450	5.99988	0.1606644	0.17868318	3.1218613	21	7 11.9	20.3
439169 2011 UQ_{404}	16.6	X	138.40064	6.93701	287.05220	11.74139	0.2965296	0.22344540	2.6896046	21	—	—
439170 2011 VP_{2}	16.1	X	337.27572	142.64749	200.79395	13.11308	0.0926119	0.18084667	3.0969132	21	8 14.8	20.2
439171 2011 VZ_{2}	16.4	X	172.76865	337.23123	343.85188	13.00698	0.2564769	0.23840432	2.5758860	21	1 13.3	20.9
439172 2011 VX_{9}	16.2	X	345.60845	58.17675	221.35571	10.95858	0.0580426	0.16764286	3.2574619	21	6 9.6	20.6
439173 2011 VW_{17}	16.6	X	229.91399	41.44147	54.38629	1.54382	0.1233339	0.17557503	3.1585970	21	8 15.6	21.3
439174 2011 WA_{15}	15.2	X	340.35799	64.23739	287.84664	8.18605	0.0064488	0.18082440	3.0971675	21	9 2.6	19.7
439175 2011 WS_{33}	16.8	X	359.65982	240.22794	100.79274	2.74275	0.1677531	0.18867078	3.0106917	21	9 27.4	20.0
439176 2011 WD_{38}	16.2	X	4.98357	95.61834	250.52280	9.55803	0.0777622	0.18755570	3.0226129	21	10 1.4	20.3
439177 2011 WY_{49}	15.9	X	270.62674	209.01377	237.10386	15.41173	0.0786310	0.18356783	3.0662320	21	9 20.6	20.5
439178 2011 WR_{55}	16.7	X	87.37848	166.99802	218.74720	12.47472	0.0701465	0.22437901	2.6821387	21	—	—
439179 2011 WU_{62}	15.4	X	135.52683	271.16039	253.77653	16.89433	0.0872820	0.16986847	3.2289466	21	7 28.9	20.6
439180 2011 WA_{63}	16.0	X	320.70349	250.99651	96.19511	17.35674	0.2375113	0.18026988	3.1035157	21	7 9.5	19.4
439181 2011 WB_{90}	16.0	X	211.31747	233.61638	249.06453	15.14457	0.0317225	0.17626253	3.1503784	21	8 28.7	20.9
439182 2011 WF_{90}	15.4	X	69.36406	14.12547	251.27129	16.79603	0.1664429	0.17850886	3.1238934	21	9 26.2	20.2
439183 2011 WU_{93}	16.7	X	39.19815	226.81416	96.48686	3.75908	0.1917933	0.19352442	2.9601396	21	11 12.7	20.5
439184 2011 WM_{113}	16.5	X	43.37911	280.99615	11.21649	10.62381	0.1161808	0.18598660	3.0395896	21	9 27.5	20.4
439185 2011 WY_{113}	16.0	X	295.43000	294.29710	75.11152	15.46048	0.2436886	0.18046242	3.1013077	21	6 26.6	20.1
439186 2011 WZ_{122}	16.0	X	349.92630	251.30322	68.51820	12.39709	0.0423241	0.17350137	3.1837145	21	8 12.2	20.5
439187 2011 WG_{136}	16.2	X	307.84549	205.97866	206.53042	10.81131	0.1514495	0.18583359	3.0412578	21	9 25.1	19.8
439188 2011 WK_{144}	16.0	X	8.63414	262.10588	73.69684	13.04606	0.2503597	0.19041370	2.9922917	21	10 22.2	19.2
439189 2011 YX_{2}	15.6	X	348.62803	65.43246	301.11101	15.87924	0.1722964	0.18202591	3.0835233	21	9 28.4	19.4
439190 2011 YR_{17}	16.4	X	312.25729	272.86161	140.21573	4.87597	0.2024069	0.18174495	3.0867005	21	9 30.5	19.9
439191 2011 YK_{29}	15.4	X	309.11258	82.92119	276.21595	23.85091	0.3345415	0.17346530	3.1841558	21	6 19.9	19.3
439192 2012 AZ_{1}	15.9	X	323.57583	115.19245	282.26892	15.61519	0.1831173	0.18139301	3.0906917	21	9 21.1	19.8
439193 2012 AF_{5}	15.9	X	309.37944	319.95467	90.05711	10.98579	0.0911420	0.17927004	3.1150443	21	10 8.2	20.1
439194 2012 BD_{9}	15.5	X	212.37520	197.52406	278.50961	7.09521	0.1281289	0.16038974	3.3549418	21	8 18.1	20.8
439195 2012 BS_{9}	15.4	X	295.88091	285.74462	152.70969	16.41172	0.0487693	0.17228067	3.1987356	21	10 27.4	20.0
439196 2012 BT_{14}	15.6	X	268.60880	187.44951	284.46081	15.76603	0.1406156	0.17916028	3.1163165	21	10 8.5	20.3
439197 2012 BS_{34}	13.1	X	332.21264	297.75098	99.75768	28.28883	0.0463364	0.08156205	5.2659569	21	10 22.9	20.2
439198 2012 BE_{98}	15.5	X	282.16974	88.22331	12.72783	12.86707	0.1321841	0.18032170	3.1029210	21	10 20.2	19.7
439199 2012 BD_{121}	15.7	X	297.46976	73.79573	288.77441	3.73905	0.0876694	0.15066722	3.4977615	21	7 14.8	20.5
439200 2012 BB_{131}	17.6	X	164.50284	72.76276	136.14757	23.46971	0.0884111	0.37888179	1.8914733	21	12 1.3	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439201 2012 BL_{134}	18.1	X	99.36104	163.32131	146.15031	23.58050	0.0453469	0.39170282	1.8499710	21	—	—
439202 2012 DC_{54}	18.0	X	330.76331	267.53840	155.18627	22.57982	0.1095158	0.38762019	1.8629382	21	—	—
439203 2012 MO_{11}	17.2	X	225.13753	64.73323	221.07416	21.30845	0.2304224	0.28058050	2.3108108	21	—	—
439204 2012 RR_{13}	17.7	X	128.15116	308.94600	44.70381	2.15216	0.1998783	0.26189195	2.4194758	21	—	—
439205 2012 RD_{18}	17.6	X	323.92216	258.73971	350.13894	5.62751	0.0457507	0.28981254	2.2614723	21	3 16.1	20.3
439206 2012 RE_{23}	17.2	X	13.38557	317.68842	66.62367	4.44051	0.0808444	0.22983025	2.6395583	21	12 14.7	20.3
439207 2012 RK_{23}	17.0	X	4.07358	337.11124	45.82627	7.02425	0.1508562	0.22626625	2.6672037	21	12 6.1	19.9
439208 2012 RQ_{25}	17.4	X	179.59313	327.44177	332.72889	7.33638	0.0897168	0.26791647	2.3830680	21	—	—
439209 2012 SS_{5}	16.8	X	247.22674	234.38970	215.05626	4.16940	0.1281392	0.20930408	2.8094260	21	8 25.7	20.8
439210 2012 SQ_{12}	18.4	X	194.00971	225.61207	92.60829	0.88506	0.1787363	0.27377038	2.3489751	21	1 15.0	22.1
439211 2012 SQ_{14}	17.7	X	320.39056	13.59877	240.39151	7.28516	0.0939314	0.28942437	2.2634939	21	3 6.8	20.6
439212 2012 SU_{14}	18.1	X	142.71317	112.77419	249.46397	4.36797	0.2415112	0.26685086	2.3894080	21	1 26.4	21.5
439213 2012 ST_{17}	17.3	X	262.12076	63.57015	228.89928	7.07107	0.1295630	0.28374393	2.2936034	21	2 11.6	20.8
439214 2012 SK_{27}	17.7	X	102.57719	18.28038	355.42801	3.92723	0.2502477	0.25839222	2.4412735	21	—	—
439215 2012 SE_{63}	17.5	X	236.43254	60.55456	237.94143	3.81497	0.1501637	0.28238455	2.3009584	21	1 26.0	21.0
439216 2012 TW_{13}	17.1	X	153.07757	116.40345	215.58325	12.29863	0.1344433	0.26118547	2.4238368	21	—	—
439217 2012 TE_{17}	18.1	X	175.40629	134.12432	194.39009	5.60525	0.1320105	0.26877190	2.3780089	21	1 6.3	21.5
439218 2012 TK_{17}	18.0	X	273.87022	69.18551	202.98145	1.30467	0.1661686	0.28479866	2.2879371	21	1 28.3	21.3
439219 2012 TY_{34}	17.9	X	184.63602	122.31119	214.86299	4.88571	0.2085513	0.27463858	2.3440220	21	1 29.7	21.7
439220 2012 TZ_{34}	17.7	X	174.53548	118.90398	285.09336	4.09930	0.1398186	0.28622531	2.2803282	21	4 8.9	21.1
439221 2012 TK_{36}	16.9	X	296.94525	227.41241	211.03000	12.09760	0.1821848	0.22041486	2.7142018	21	10 14.4	19.7
439222 2012 TZ_{40}	18.0	X	177.87149	152.57329	248.07538	4.72299	0.1560587	0.28717347	2.2753061	21	4 9.1	21.4
439223 2012 TG_{41}	17.1	X	240.91572	228.95211	266.20649	5.41080	0.0669225	0.22405928	2.6846897	21	10 25.8	20.8
439224 2012 TA_{56}	18.0	X	168.73856	120.94521	228.34405	5.49572	0.2089104	0.27253705	2.3560564	21	1 30.5	21.7
439225 2012 TK_{64}	16.8	X	18.02905	27.93524	349.62960	5.18618	0.2145735	0.23063016	2.6334514	21	—	—
439226 2012 TF_{66}	17.0	X	47.54675	157.75642	224.27618	7.00963	0.1203421	0.23820392	2.5773305	21	—	—
439227 2012 TN_{70}	17.9	X	187.75125	252.47809	127.46611	4.00644	0.1419690	0.28239243	2.3009156	21	3 26.3	21.4
439228 2012 TQ_{95}	17.0	X	298.75126	239.57884	212.45098	21.49240	0.0468510	0.22562857	2.6722269	21	11 22.6	20.5
439229 2012 TD_{97}	17.1	X	294.92570	263.94465	211.84073	14.70493	0.0758658	0.23099367	2.6306880	21	12 15.9	20.5
439230 2012 TN_{100}	17.3	X	147.55885	135.03565	208.51226	6.78033	0.1260114	0.26162353	2.4211304	21	—	—
439231 2012 TS_{114}	17.0	X	157.26571	294.27281	218.95605	15.24771	0.1358911	0.19957692	2.8999856	21	8 9.5	22.0
439232 2012 TD_{122}	17.2	X	278.80513	307.87103	283.46984	6.11353	0.0691528	0.26652766	2.3913393	21	—	—
439233 2012 TQ_{129}	18.1	X	297.40522	88.84368	199.29301	5.57365	0.2119555	0.29873945	2.2161934	21	3 6.6	21.3
439234 2012 TG_{132}	16.6	X	356.95807	320.12533	56.85789	6.92171	0.0535595	0.21603650	2.7507511	21	11 6.6	20.0
439235 2012 TV_{133}	17.8	X	154.02398	304.95967	101.91678	4.78868	0.0556350	0.28370461	2.2938154	21	3 17.6	20.7
439236 2012 TV_{134}	18.4	X	186.67627	133.73624	195.32122	1.01764	0.2073082	0.27286333	2.3541778	21	1 23.1	22.2
439237 2012 TC_{135}	17.6	X	273.06902	216.39308	71.70169	7.03587	0.1096982	0.28879561	2.2667780	21	2 25.6	20.7
439238 2012 TW_{144}	18.0	X	201.38204	216.62922	91.41096	2.26139	0.1826735	0.27351249	2.3504514	21	1 9.4	21.6
439239 2012 TX_{166}	18.0	X	311.32097	159.14651	162.35668	4.17234	0.2104639	0.30940636	2.1649601	21	5 15.1	20.2
439240 2012 TJ_{169}	16.9	X	335.17201	277.05597	143.05217	7.34559	0.1189101	0.22534456	2.6744716	21	12 5.9	19.9
439241 2012 TH_{173}	17.3	X	243.51224	154.54355	311.93775	2.85285	0.0573730	0.21434299	2.7652211	21	9 22.8	21.2
439242 2012 TP_{191}	17.5	X	163.18512	332.37900	355.69730	2.12647	0.2179587	0.26377418	2.4079522	21	1 3.7	21.2
439243 2012 TS_{191}	16.6	X	327.91303	107.83131	279.11432	7.00574	0.0125747	0.21779703	2.7359075	21	10 4.9	20.3
439244 2012 TO_{195}	17.1	X	67.43351	54.91584	307.69154	5.26352	0.2183931	0.24297080	2.5435093	21	—	—
439245 2012 TF_{201}	18.2	X	209.38098	194.54320	96.77687	2.20079	0.1740562	0.27140213	2.3626200	21	—	—
439246 2012 TY_{242}	16.9	X	198.91472	80.10456	42.82220	8.07672	0.0807871	0.20263309	2.8707529	21	8 24.3	21.3
439247 2012 TD_{252}	16.7	X	301.70573	238.56458	220.45576	21.30711	0.0567670	0.22834251	2.6510111	21	12 4.8	20.2
439248 2012 TA_{258}	18.3	X	315.35431	253.94012	60.62924	5.09120	0.2195098	0.31005141	2.1619563	21	5 8.4	20.1
439249 2012 TZ_{264}	17.4	X	133.90941	247.60170	35.16648	14.87419	0.1072345	0.23969290	2.5666458	21	—	—
439250 2012 TS_{265}	17.2	X	106.17319	200.86099	62.90259	6.14009	0.0217466	0.22198811	2.7013628	21	11 1.8	21.0
439251 2012 TR_{274}	17.2	X	355.39415	119.55777	264.39705	3.80106	0.0754209	0.22433268	2.6825079	21	11 15.3	20.4
439252 2012 TE_{276}	17.2	X	329.69122	99.80307	296.07590	3.85495	0.0870634	0.21956467	2.7212038	21	10 19.6	20.5
439253 2012 TT_{282}	17.0	X	352.13827	203.05973	203.63468	4.56186	0.1431115	0.22673203	2.6635497	21	12 18.2	19.9
439254 2012 TN_{284}	18.0	X	235.68724	214.45464	93.00962	4.79666	0.2491592	0.28269728	2.2992611	21	2 5.7	21.9
439255 2012 TD_{286}	17.6	X	80.26114	278.68461	73.47425	4.54191	0.1669150	0.24129056	2.5553035	21	—	—
439256 2012 TG_{291}	17.5	X	153.75553	249.46999	131.25551	4.61854	0.1097607	0.27180079	2.3603092	21	2 16.6	20.5
439257 2012 TL_{297}	16.3	X	175.28613	28.05963	198.80797	28.61701	0.1098484	0.22942084	2.6426976	21	12 3.2	20.8
439258 2012 TV_{308}	17.1	X	59.10376	72.17458	292.14778	2.83989	0.1080692	0.23857883	2.5746297	21	—	—
439259 2012 TX_{308}	17.9	X	297.07498	221.76932	104.54596	2.56876	0.1735321	0.30839044	2.1697121	21	5 6.4	20.2
439260 2012 TC_{309}	16.0	X	297.15548	212.24943	235.51320	11.77432	0.1011617	0.22110212	2.7085744	21	11 7.3	19.2
439261 2012 TR_{310}	17.3	X	107.48223	249.33545	136.86412	5.38984	0.2026974	0.26119060	2.4238050	21	1 10.5	20.0
439262 2012 TW_{310}	16.6	X	47.49122	345.13381	27.44386	8.33448	0.1967000	0.23561399	2.5961832	21	—	—
439263 2012 TT_{313}	16.5	X	349.66127	293.84577	137.24377	12.56216	0.0932225	0.23458041	2.6038036	21	—	—
439264 2012 TA_{314}	17.9	X	137.55028	279.77857	88.91036	2.45931	0.1976818	0.26308500	2.4121556	21	1 26.1	21.0
439265 2012 UU_{3}	18.3	X	293.78804	239.44384	86.05555	1.96532	0.2137884	0.30636495	2.1792648	21	4 24.1	21.0
439266 2012 UB_{5}	18.0	X	295.68065	245.03462	71.86658	5.57185	0.1397687	0.30299353	2.1954008	21	4 27.4	20.4
439267 2012 UX_{7}	17.2	X	114.39550	211.70132	69.22001	4.33436	0.0594660	0.23118096	2.6292669	21	12 6.4	20.9
439268 2012 UE_{8}	18.5	X	309.95254	257.24978	48.15254	3.77862	0.2204953	0.30596757	2.1811512	21	4 16.2	20.7
439269 2012 UF_{10}	17.6	X	187.96217	214.17353	68.24069	2.13586	0.1886039	0.26037121	2.4288876	21	—	—
439270 2012 UG_{19}	16.7	X	178.84016	137.61889	28.93520	17.51934	0.0544115	0.21310928	2.7758829	21	9 29.9	20.8
439271 2012 UR_{28}	18.2	X	323.15532	267.41838	25.22560	5.11804	0.1465725	0.30483111	2.1865690	21	4 30.2	20.2
439272 2012 UW_{30}	18.0	X	139.66227	195.16582	219.74730	2.67608	0.1343124	0.27448112	2.3449184	21	3 18.2	21.1
439273 2012 UY_{37}	17.1	X	79.35108	198.67740	207.39814	9.20676	0.1907185	0.25817970	2.4426129	21	—	—
439274 2012 UU_{38}	17.5	X	83.32044	195.29964	244.09232	6.39552	0.1154723	0.26423783	2.4051346	21	1 29.4	20.1
439275 2012 UY_{38}	17.2	X	64.64802	332.99368	7.29055	7.84887	0.1006625	0.23236788	2.6203059	21	12 28.9	21.0
439276 2012 UB_{42}	18.4	X	310.14579	270.14996	38.06998	6.84215	0.2268216	0.30604656	2.1807759	21	4 19.4	20.6
439277 2012 UH_{47}	17.8	X	141.19813	263.64643	61.13775	4.65809	0.1401223	0.25392565	2.4698183	21	—	—
439278 2012 UH_{64}	17.2	X	307.00684	310.55120	179.92980	7.35362	0.1555103	0.23143375	2.6273520	21	—	—
439279 2012 UG_{65}	17.7	X	219.27050	95.78014	222.36947	5.53044	0.1352868	0.27263331	2.3555018	21	2 3.9	21.5
439280 2012 UP_{65}	17.1	X	109.08658	106.43861	209.17359	3.24222	0.1594433	0.23723365	2.5843531	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439281 2012 UR_{68}	17.6	X	230.32423	176.69189	141.32477	3.41060	0.2709766	0.28139182	2.3063669	21	2 13.1	21.7
439282 2012 UG_{70}	18.1	X	260.08761	55.04676	231.55932	3.45801	0.1566030	0.28117479	2.3075536	21	2 2.3	21.7
439283 2012 UQ_{77}	15.6	X	97.58908	283.28035	243.54991	24.41826	0.2243075	0.17092441	3.2156343	21	7 6.1	20.8
439284 2012 UJ_{85}	17.5	X	163.51363	84.95793	218.98150	5.76696	0.1102339	0.25799162	2.4437999	21	—	—
439285 2012 UN_{90}	16.9	X	333.61867	249.38171	230.36189	7.47781	0.1379567	0.23644954	2.5900634	21	—	—
439286 2012 UJ_{100}	17.3	X	211.76046	220.66378	80.75928	3.62274	0.1875182	0.26870863	2.3783821	21	1 11.4	21.1
439287 2012 UP_{112}	16.3	X	17.74305	1.22867	21.26203	15.09855	0.1061785	0.22928374	2.6437510	21	12 21.1	19.9
439288 2012 US_{132}	16.7	X	20.79240	197.90490	193.05971	8.78373	0.2008685	0.23059164	2.6337447	21	—	—
439289 2012 UF_{139}	16.5	X	176.23398	321.31763	265.40561	10.48281	0.1317759	0.23456209	2.6039392	21	12 3.7	20.4
439290 2012 UB_{140}	16.4	X	160.67685	200.76730	260.45450	9.96732	0.1346972	0.18296286	3.0729872	21	6 14.5	21.4
439291 2012 UJ_{145}	17.1	X	162.00543	355.64293	66.77957	7.59869	0.0650112	0.28566964	2.2832843	21	4 19.2	20.1
439292 2012 UK_{151}	17.3	X	5.02002	300.67760	67.57454	6.94224	0.0487414	0.21688245	2.7435936	21	11 7.1	20.8
439293 2012 UQ_{160}	18.0	X	162.17799	105.06381	235.29815	3.83890	0.2415903	0.26733285	2.3865351	21	1 18.2	21.7
439294 2012 UG_{164}	17.2	X	52.39764	340.42103	345.18749	1.42197	0.1041479	0.22067992	2.7120280	21	11 23.2	20.7
439295 2012 UC_{168}	16.6	X	270.97136	19.20154	77.78320	15.81901	0.1360106	0.21489631	2.7604724	21	10 14.8	20.5
439296 2012 UZ_{168}	17.5	X	189.78714	258.66925	114.76639	8.00868	0.1294618	0.28249357	2.3003664	21	3 21.4	21.0
439297 2012 VG_{12}	17.2	X	206.72977	57.57361	205.95567	14.36663	0.1596240	0.25476740	2.4643751	21	—	—
439298 2012 VL_{17}	15.4	X	89.92066	102.46813	244.76350	28.32606	0.1463935	0.23725931	2.5841668	21	—	—
439299 2012 VH_{18}	17.1	X	100.71433	222.50307	109.00459	4.67014	0.1594648	0.23882806	2.5728382	21	—	—
439300 2012 VD_{21}	17.1	X	309.91038	215.06382	197.37721	2.17710	0.0730384	0.21407437	2.7675338	21	10 12.8	20.6
439301 2012 VV_{26}	17.4	X	68.60609	37.14378	28.45027	5.54865	0.0921157	0.25711761	2.4493349	21	—	—
439302 2012 VZ_{30}	16.6	X	148.22247	225.64245	66.08623	6.55598	0.1453631	0.24060635	2.5601455	21	—	—
439303 2012 VJ_{34}	16.7	X	33.62525	257.40199	136.57790	4.94334	0.1624376	0.23394611	2.6085080	21	—	—
439304 2012 VV_{35}	15.8	X	67.75375	195.56727	78.16356	10.18656	0.1110544	0.20867181	2.8150981	21	10 12.4	19.8
439305 2012 VD_{42}	16.1	X	299.48906	314.84488	67.28020	11.08698	0.0331741	0.19496366	2.9455537	21	8 26.2	20.3
439306 2012 VA_{47}	17.2	X	173.97806	89.32700	183.03342	4.50460	0.1054359	0.24663373	2.5182629	21	—	—
439307 2012 VG_{58}	17.0	X	346.57229	308.33530	63.70911	7.22197	0.0386669	0.21246685	2.7814756	21	10 17.0	20.6
439308 2012 VS_{58}	17.7	X	354.73569	39.63072	78.08518	2.43754	0.1158681	0.24392734	2.5368555	21	—	—
439309 2012 VC_{64}	18.0	X	251.43645	193.48409	129.53386	6.84442	0.2302443	0.28414708	2.2914335	21	3 10.4	21.7
439310 2012 VH_{65}	17.0	X	302.27325	26.09009	27.54401	6.38200	0.0536436	0.21484501	2.7609118	21	10 6.1	20.4
439311 2012 VB_{75}	17.3	X	356.61037	224.18023	152.01940	2.95461	0.0966182	0.21450007	2.7638710	21	11 8.2	20.5
439312 2012 VH_{80}	16.1	X	102.50455	358.04176	226.93134	12.50192	0.0746893	0.19529205	2.9422507	21	9 5.9	20.6
439313 2012 VE_{82}	19.6	X	346.64215	186.47017	110.41622	9.92966	0.5442301	0.32170632	2.1094196	21	4 3.3	21.3
439314 2012 VG_{85}	17.3	X	214.76121	214.03711	75.25337	3.27359	0.1153506	0.25987246	2.4319943	21	—	—
439315 2012 VL_{87}	17.8	X	214.76763	21.42852	285.21099	2.61624	0.1339332	0.26594311	2.3948421	21	1 19.3	21.4
439316 2012 VB_{91}	16.8	X	4.27303	161.64595	229.34501	9.29482	0.1425081	0.22221307	2.6995393	21	12 15.8	19.9
439317 2012 VE_{92}	16.4	X	28.98997	246.69745	80.07533	9.16734	0.0548002	0.20948417	2.8078156	21	10 20.1	20.2
439318 2012 VS_{93}	16.1	X	181.22760	11.74302	85.59055	11.13160	0.1058942	0.17985359	3.1083027	21	6 29.2	20.9
439319 2012 VG_{101}	17.0	X	329.98863	197.33283	207.71290	4.77088	0.0521708	0.21767762	2.7369079	21	11 4.0	20.2
439320 2012 VM_{102}	17.0	X	57.91331	289.76303	36.55772	4.94566	0.1045968	0.22310519	2.6923381	21	12 1.2	20.8
439321 2012 VA_{107}	17.3	X	71.56220	29.10656	315.50416	1.25551	0.1195239	0.23328986	2.6133975	21	—	—
439322 2012 VL_{107}	17.5	X	193.95811	127.59812	210.21732	11.91883	0.2424338	0.27076105	2.3663479	21	2 6.9	21.7
439323 2012 VW_{107}	15.9	X	206.62256	180.29613	243.95075	8.03278	0.1068075	0.18040832	3.1019277	21	6 13.9	20.8
439324 2012 VO_{109}	17.4	X	151.08825	188.79467	136.07664	3.90249	0.2383372	0.25220745	2.4810229	21	—	—
439325 2012 WY_{2}	17.9	X	204.01554	82.88581	247.49380	7.19379	0.2493705	0.27509036	2.3414549	21	2 6.4	22.0
439326 2012 WS_{6}	17.7	X	193.10486	89.45112	237.54279	5.09026	0.0937793	0.26482312	2.4015895	21	1 20.2	21.2
439327 2012 WE_{9}	16.7	X	100.51780	268.97812	72.25703	7.75340	0.1700144	0.24049767	2.5609168	21	—	—
439328 2012 WA_{16}	17.4	X	189.27922	107.34017	201.93473	4.45583	0.1065863	0.25569488	2.4584122	21	—	—
439329 2012 WQ_{16}	16.7	X	88.18734	66.98838	252.96997	6.87023	0.1297333	0.22418024	2.6837239	21	12 30.1	20.8
439330 2012 WR_{16}	16.7	X	271.17448	40.29945	98.32877	10.10216	0.1090620	0.21647185	2.7470618	21	12 4.9	20.1
439331 2012 WU_{16}	15.3	X	190.40680	175.70784	254.53772	21.98650	0.1071245	0.17425909	3.1744787	21	6 5.2	20.0
439332 2012 WE_{22}	17.0	X	12.47438	316.43763	48.54318	6.21034	0.1469126	0.21826971	2.7319562	21	11 23.6	20.0
439333 2012 WH_{25}	16.5	X	231.53117	197.80609	239.07967	9.82190	0.1032145	0.19294661	2.9660465	21	7 23.7	21.2
439334 2012 WS_{27}	17.7	X	200.13540	271.52215	95.27977	3.68548	0.2296794	0.27963857	2.3159971	21	3 23.4	21.6
439335 2012 WM_{35}	16.4	X	309.05649	139.66064	237.57009	9.96423	0.1563767	0.19865049	2.9089949	21	8 8.1	20.1
439336 2012 WP_{35}	16.0	X	275.72950	103.72513	277.83984	9.54532	0.0748318	0.18725686	3.0258279	21	7 11.9	20.2
439337 2012 XM	17.5	X	182.84307	77.18572	282.78743	4.97352	0.1304891	0.27276749	2.3547292	21	2 20.6	21.0
439338 2012 XU_{7}	15.7	X	82.40031	321.74935	240.45525	23.41564	0.2251623	0.17847645	3.1242715	21	7 30.1	20.8
439339 2012 XB_{9}	15.7	X	126.79406	274.97494	253.63513	10.67610	0.0535031	0.18499916	3.0503959	21	7 24.0	20.3
439340 2012 XE_{9}	17.0	X	46.21030	316.77925	61.50932	9.55077	0.1966698	0.23337208	2.6127837	21	—	—
439341 2012 XM_{12}	16.8	X	105.87514	30.17189	130.35869	7.39203	0.1032002	0.17417233	3.1755329	21	6 27.9	21.4
439342 2012 XY_{12}	17.7	X	197.97994	5.23155	0.80636	4.91082	0.2392930	0.27961625	2.3161203	21	3 19.1	21.5
439343 2012 XD_{19}	18.1	X	181.42138	328.87961	27.81219	1.19863	0.1663643	0.27029200	2.3690847	21	2 20.1	21.7
439344 2012 XE_{20}	16.0	X	107.16373	23.94593	242.53212	8.47845	0.1183431	0.21441376	2.7646126	21	11 12.3	20.1
439345 2012 XD_{22}	16.3	X	264.19139	269.88342	256.62114	11.28489	0.1113130	0.22649209	2.6654305	21	12 31.0	19.7
439346 2012 XS_{28}	16.1	X	52.81301	357.58079	260.27335	10.51024	0.1023365	0.19172299	2.9786530	21	8 19.4	20.2
439347 2012 XR_{32}	17.6	X	175.01418	256.93808	75.18968	5.58479	0.2481320	0.26366717	2.4086037	21	1 22.1	21.6
439348 2012 XS_{41}	16.4	X	143.08212	321.76558	256.21552	3.71824	0.0153640	0.20599412	2.8394409	21	10 14.8	20.3
439349 2012 XR_{57}	16.5	X	358.84602	145.34844	240.00005	10.42352	0.0707492	0.21890109	2.7267005	21	11 21.4	19.9
439350 2012 XB_{61}	17.0	X	333.18751	234.64879	159.13713	6.20408	0.0701957	0.21069757	2.7970251	21	10 25.3	20.4
439351 2012 XN_{63}	15.8	X	107.93044	73.11770	106.74833	13.03217	0.0648902	0.18228131	3.0806424	21	7 20.3	20.2
439352 2012 XU_{82}	16.7	X	73.87674	231.48897	91.07513	13.10306	0.0371275	0.22135113	2.7065428	21	12 7.9	20.4
439353 2012 XU_{84}	16.9	X	106.60530	158.88988	187.71411	12.58523	0.2063751	0.24276032	2.5449793	21	—	—
439354 2012 XM_{95}	16.8	X	110.97067	207.92076	118.74527	6.27418	0.1536346	0.23566354	2.5958193	21	—	—
439355 2012 XT_{116}	16.1	X	146.25198	244.47210	243.42763	10.24364	0.0272677	0.17912671	3.1167059	21	6 25.3	20.6
439356 2012 XY_{122}	16.8	X	166.75257	172.41228	107.43691	13.43580	0.1678336	0.23660816	2.5889057	21	—	—
439357 2012 XC_{124}	17.2	X	108.25950	183.11744	160.00417	6.40944	0.2212167	0.24245090	2.5471441	21	—	—
439358 2012 XH_{135}	16.3	X	138.01986	60.44281	86.16688	17.48788	0.0271299	0.18258567	3.0772179	21	7 9.7	20.7
439359 2012 XQ_{135}	17.2	X	149.48263	290.10432	82.32140	7.48972	0.1578116	0.26342308	2.4100913	21	2 9.9	20.7
439360 2012 XY_{137}	15.9	X	199.91811	25.88687	58.80623	11.00143	0.0481303	0.18218314	3.0817490	21	7 5.2	20.5

Planet		H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
		m		°	°	°	°		°				
439361	2012 XO_{138}	18.0	X	151.29023	257.84453	145.54710	3.12703	0.1842544	0.27205065	2.3588639	21	3 23.5	21.5
439362	2012 XW_{153}	16.2	X	207.39995	303.50381	117.99486	11.74862	0.0999074	0.17672003	3.1449388	21	6 13.0	21.2
439363	2012 XY_{154}	17.2	X	98.15129	314.21856	117.21119	15.92856	0.3119330	0.25571730	2.4582684	21	3 25.8	20.6
439364	2012 YP_{8}	15.4	X	219.68696	317.73654	90.63615	23.74852	0.1159702	0.17496452	3.1659403	21	6 9.3	20.4
439365	2012 YB_{9}	15.2	X	72.23069	211.85375	293.20933	8.78061	0.0316154	0.15038788	3.5020916	21	4 14.9	20.3
439366	2013 AR_{1}	16.6	X	76.68596	318.20435	118.31581	11.97126	0.1757884	0.25674166	2.4517253	21	1 26.8	18.7
439367	2013 AW_{4}	16.4	X	278.12493	260.45315	110.54090	11.89579	0.1679034	0.18068648	3.0987434	21	6 18.9	20.8
439368	2013 AU_{7}	16.2	X	273.41848	274.85023	130.12186	11.85088	0.1601313	0.18310258	3.0714238	21	7 26.9	20.4
439369	2013 AP_{8}	16.5	X	317.38116	84.80813	335.25702	5.18197	0.0310972	0.20373695	2.8603742	21	11 1.5	20.4
439370	2013 AA_{9}	15.9	X	309.37460	275.21168	85.65681	12.55463	0.0976995	0.18369587	3.0648070	21	7 31.1	20.0
439371	2013 AV_{9}	16.6	X	320.26906	289.87351	85.18339	3.20380	0.0766707	0.19751250	2.9201579	21	9 7.8	20.2
439372	2013 AL_{10}	16.4	X	294.49980	273.29475	105.15651	13.05665	0.2010175	0.18671748	3.0316523	21	7 14.8	20.4
439373	2013 AS_{12}	15.7	X	179.60246	237.54042	285.79792	14.58886	0.0463255	0.18846091	3.0129264	21	9 10.9	20.5
439374	2013 AO_{25}	16.9	X	74.27351	145.73268	253.41090	3.31204	0.1169304	0.24368504	2.5385368	21	—	—
439375	2013 AS_{25}	15.8	X	73.18392	106.32842	85.53622	20.48883	0.1240768	0.17057436	3.2200322	21	6 29.5	20.2
439376	2013 AZ_{63}	15.9	X	115.78051	41.01179	133.83508	11.59412	0.1279065	0.16795796	3.2533864	21	7 29.4	20.8
439377	2013 AQ_{69}	16.0	X	94.97571	235.68234	354.36048	9.45304	0.0430787	0.18267699	3.0761924	21	9 4.6	20.3
439378	2013 AE_{74}	16.9	X	64.36603	331.95521	78.24723	5.17343	0.1351420	0.23332486	2.6131361	21	—	—
439379	2013 AO_{78}	16.9	X	326.38316	275.76980	162.58290	7.79480	0.1173540	0.21119523	2.7926294	21	12 11.2	20.2
439380	2013 AK_{83}	16.9	X	140.24462	63.96648	338.83728	9.26633	0.0763734	0.25767060	2.4458293	21	2 26.9	20.0
439381	2013 AP_{91}	16.9	X	71.03604	52.22341	317.82908	5.48812	0.0625137	0.22341258	2.6898680	21	—	—
439382	2013 AV_{91}	16.4	X	300.62102	319.25689	131.65717	6.97960	0.1522548	0.20652055	2.8346136	21	11 11.7	19.8
439383	2013 AV_{93}	16.5	X	279.08929	275.44947	128.41924	5.20292	0.1595293	0.18514863	3.0487540	21	8 2.3	20.7
439384	2013 AP_{96}	16.5	X	34.75878	103.47741	307.47368	8.94117	0.0804238	0.22580984	2.6707966	21	—	—
439385	2013 AJ_{109}	16.2	X	278.66862	124.90280	248.17550	7.07418	0.0824113	0.17392894	3.1784946	21	7 3.5	20.7
439386	2013 AB_{110}	15.1	X	107.71819	278.43962	292.74524	20.71731	0.1461286	0.17491220	3.1665716	21	8 27.1	20.3
439387	2013 AO_{112}	17.3	X	110.18822	155.71230	286.57270	5.58795	0.1209392	0.26549995	2.3975063	21	3 14.9	20.4
439388	2013 AE_{118}	15.5	X	99.38008	120.60143	106.63285	16.42489	0.0275518	0.17977598	3.1091972	21	9 8.7	20.1
439389	2013 AM_{118}	16.1	X	328.12990	254.27432	85.83984	9.44081	0.0895224	0.17622430	3.1508340	21	8 1.7	20.2
439390	2013 AF_{124}	17.4	X	189.82830	42.94716	340.47905	6.51264	0.1202871	0.26537074	2.3982845	21	3 30.0	21.0
439391	2013 AU_{129}	16.5	X	8.77992	249.13985	135.56811	13.58941	0.1945269	0.20965436	2.8062958	21	12 20.1	19.9
439392	2013 AX_{129}	16.8	X	22.37027	272.04253	122.44451	5.18208	0.0797391	0.21511844	2.7585718	21	—	—
439393	2013 AN_{130}	16.5	X	295.16997	100.62313	87.70532	8.63041	0.0827395	0.22871246	2.6481515	21	—	—
439394	2013 AZ_{130}	15.8	X	219.81147	326.46356	95.37436	9.98518	0.0519235	0.18057384	3.1000319	21	6 28.8	20.3
439395	2013 AZ_{150}	14.4	X	323.04093	178.89949	222.95498	10.10404	0.0607310	0.08203421	5.2457315	21	9 29.5	21.2
439396	2013 AY_{165}	16.2	X	36.77717	98.04943	242.55883	11.52011	0.0499686	0.20055475	2.8905517	21	11 10.3	20.2
439397	2013 AL_{166}	17.1	X	174.69333	341.34355	169.63953	10.05757	0.1003375	0.18094783	3.0957589	21	8 27.1	21.9
439398	2013 BO_{11}	17.1	X	22.26048	9.91740	343.28829	0.84945	0.0647411	0.20043504	2.8917026	21	11 8.9	20.9
439399	2013 BC_{14}	15.1	X	133.31249	273.53672	269.51854	24.37354	0.2056419	0.18125446	3.0922665	21	8 19.2	20.7
439400	2013 BZ_{29}	16.7	X	93.05550	258.74635	105.03903	14.48600	0.1148979	0.22987356	2.6392267	21	—	—
439401	2013 BT_{40}	15.9	X	101.40975	272.74162	311.51110	9.46469	0.0354600	0.17711548	3.1402559	21	8 30.8	20.5
439402	2013 BA_{46}	13.5	X	288.85981	1.67684	94.84046	16.14900	0.0560778	0.08243160	5.2288587	21	10 28.8	20.5
439403	2013 BE_{46}	15.6	X	294.04173	224.96541	76.81081	11.47906	0.1254291	0.15643672	3.4112240	21	4 24.0	20.5
439404	2013 BQ_{56}	16.3	X	136.17326	100.48914	119.68259	17.47405	0.0132129	0.19289204	2.9666059	21	10 16.8	20.8
439405	2013 BQ_{66}	16.9	X	121.59105	82.04681	161.21343	2.27997	0.0377656	0.19494163	2.9457756	21	10 22.9	21.2
439406	2013 BV_{69}	17.0	X	163.46329	38.65213	158.87138	2.34846	0.0382318	0.19577806	2.9373794	21	10 14.7	21.1
439407	2013 BG_{76}	16.7	X	66.61936	293.59025	123.54811	8.15942	0.1015917	0.23510915	2.5998983	21	—	—
439408	2013 CF_{17}	15.7	X	348.87096	62.32229	310.26060	8.44701	0.0707375	0.18713929	3.0270951	21	10 10.7	19.8
439409	2013 CL_{20}	16.5	X	10.71978	71.60181	300.83846	5.05956	0.0827360	0.20250255	2.8719865	21	11 18.7	20.2
439410	2013 CU_{30}	15.9	X	50.42004	196.13616	107.37675	10.20755	0.0577696	0.18594531	3.0400395	21	10 17.3	20.2
439411	2013 CD_{43}	16.1	X	60.10351	131.30699	117.69635	10.84301	0.0253493	0.17092230	3.2156607	21	8 11.9	20.6
439412	2013 CE_{55}	15.8	X	40.10015	328.42092	327.72648	10.40788	0.0978896	0.17872113	3.1214193	21	9 19.9	20.0
439413	2013 CY_{63}	16.0	X	16.44670	144.97932	163.85950	11.69423	0.0606792	0.17613058	3.1519516	21	9 1.1	20.2
439414	2013 CM_{66}	16.2	X	231.43754	316.16593	153.05200	10.42533	0.1065905	0.18191198	3.0848107	21	9 4.9	20.7
439415	2013 CO_{71}	16.1	X	78.24107	293.50950	291.85419	8.36086	0.0753376	0.16928970	3.2363019	21	8 9.5	20.7
439416	2013 CB_{76}	16.6	X	2.97149	271.80536	155.12265	12.57055	0.1746195	0.21793145	2.7347824	21	—	—
439417	2013 CN_{86}	17.5	X	53.16409	277.13418	138.97797	7.01204	0.2567554	0.22967980	2.6407108	21	—	—
439418	2013 CP_{101}	16.1	X	355.57987	187.09320	153.10066	9.60586	0.0841549	0.17976550	3.1093180	21	9 13.9	19.9
439419	2013 CZ_{110}	16.0	X	322.53910	257.51742	118.64132	12.81813	0.0674439	0.18180437	3.0860279	21	9 14.7	20.2
439420	2013 CZ_{150}	16.2	X	44.26613	3.15210	357.43515	8.50666	0.1640792	0.19976273	2.8981870	21	—	—
439421	2013 CD_{202}	16.8	X	6.60596	247.96293	143.79735	11.31296	0.1236802	0.20373221	2.8604185	21	12 14.9	20.4
439422	2013 DA_{12}	15.7	X	265.88400	144.41036	258.87513	8.17442	0.0129104	0.16914243	3.2381801	21	8 2.8	20.4
439423	2013 DT_{13}	15.8	X	250.73296	231.65124	172.85532	19.41499	0.1663048	0.17124479	3.2116223	21	6 29.4	21.1
439424	2013 EP_{1}	16.5	X	86.10557	28.34312	2.17964	6.02169	0.0433643	0.22265856	2.6959373	21	—	—
439425	2013 EJ_{6}	16.7	X	268.58190	212.00276	205.59861	2.24842	0.0386015	0.17218376	3.1999357	21	8 22.7	21.3
439426	2013 EL_{12}	15.7	X	332.13464	195.99919	155.99871	18.87424	0.1298409	0.17072760	3.2181052	21	8 17.9	19.6
439427	2013 EL_{60}	16.2	X	43.67559	19.41334	349.54884	1.38757	0.0835048	0.19832931	2.9121346	21	12 29.2	20.2
439428	2013 EG_{77}	16.2	X	209.44759	291.80131	149.86874	6.29698	0.0312981	0.15933236	3.3697684	21	7 12.6	21.2
439429	2013 FS_{17}	16.0	X	111.95903	222.25728	24.77199	2.27740	0.0848116	0.17388071	3.1790824	21	10 17.6	20.7
439430	2013 FD_{21}	16.2	X	121.51795	234.70611	13.15357	0.75837	0.0502575	0.17705014	3.1410284	21	10 26.2	20.7
439431	2013 GG_{1}	16.3	X	206.44590	66.65921	127.77476	8.69606	0.0108430	0.18771630	3.0208887	21	12 1.7	20.7
439432	2013 GF_{14}	15.3	X	5.12037	5.22601	349.96659	7.40475	0.0554265	0.17007153	3.2263759	21	10 11.2	19.7
439433	2013 GM_{17}	16.3	X	195.89820	308.49865	175.44794	14.93370	0.1800005	0.17043813	3.2217478	21	8 10.5	21.8
439434	2013 GE_{37}	16.9	X	51.31330	33.59695	85.54239	6.60482	0.2321710	0.23828711	2.5767306	21	2 21.6	19.0
439435	2013 GR_{84}	15.6	X	154.36334	82.03664	125.02072	10.92109	0.0423231	0.17212996	3.2006024	21	10 17.4	20.5
439436	2013 HK_{12}	15.5	X	324.67208	269.42712	140.91391	14.21330	0.1097868	0.17084152	3.2166744	21	10 28.6	19.7
439437	2013 NK_{4}	18.7	X	170.07564	50.57553	33.74846	6.52362	0.5498098	0.95255452	1.0230012	21	5 28.6	18.7
439438	2013 PP_{73}	17.6	X	265.28044	174.04900	251.25160	19.48327	0.0882161	0.36678735	1.9328277	21	8 24.5	20.1
439439	2013 TJ_{81}	19.0	X	85.36126	150.54713	195.51397	18.70255	0.1114023	0.40474260	1.8100203	21	—	—
439440	2013 UO	17.6	X	30.21721	85.30632	260.57458	18.26766	0.0653523	0.37862820	1.8923178	21	12 18.3	19.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439441 2013 UV_1	17.7	X	275.70478	0.01404	73.97520	24.07919	0.0833287	0.36933265	1.9239373	21	10 27.9	19.8
439442 2013 VR_{16}	16.2	X	212.69765	213.49427	257.79330	14.01531	0.2253553	0.22060471	2.7126443	21	8 5.7	21.0
439443 2013 WX_3	16.8	X	242.33347	238.34123	243.98853	12.06369	0.2575232	0.22859031	2.6490948	21	9 12.8	21.3
439444 2013 WV_{24}	17.5	X	99.10631	16.03571	281.38153	19.26236	0.0467758	0.38073529	1.8853296	21	—	—
439445 2013 WF_{44}	16.0	X	289.91457	243.84896	244.08614	25.50548	0.1740505	0.24443624	2.5333332	21	12 16.4	18.7
439446 2013 WP_{81}	16.4	X	100.70796	49.20997	80.47851	17.17898	0.2164527	0.18001908	3.1063974	21	5 30.1	21.0
439447 2013 XQ_4	18.0	X	88.03722	245.32840	209.24670	4.79494	0.0990111	0.29808759	2.2194232	21	2 18.2	20.2
439448 2013 XT_{18}	17.8	X	349.28960	78.31448	61.17169	6.37872	0.0770018	0.27750031	2.3278790	21	—	—
439449 2013 XS_{20}	16.2	X	267.85469	33.62013	87.29635	34.24886	0.2406198	0.23238905	2.6201467	21	11 7.7	20.2
439450 2013 XN_{23}	16.7	X	275.73239	167.30360	289.16177	10.15533	0.1011023	0.22762235	2.6565997	21	10 13.7	20.2
439451 2013 XK_{25}	17.7	X	48.31371	4.42689	101.88561	5.13509	0.1352807	0.28737147	2.2742609	21	—	—
439452 2013 YB_3	16.2	X	208.86756	269.39228	273.19186	26.18361	0.3664752	0.22690071	2.6622294	21	10 15.7	21.6
439453 2013 YD_5	16.6	X	184.28142	181.11270	282.31677	9.79667	0.1363049	0.19726517	2.9225982	21	7 9.5	21.2
439454 2013 YO_8	16.9	X	172.54276	55.73655	122.66540	2.78875	0.1636091	0.21289432	2.7777512	21	9 30.9	21.5
439455 2013 YF_{16}	18.0	X	19.35994	286.47720	254.99107	1.45910	0.0957420	0.29101879	2.2552188	21	2 28.3	20.0
439456 2013 YH_{18}	16.5	X	202.50036	274.98866	271.94650	12.11093	0.1788322	0.23594881	2.5937266	21	11 4.7	20.7
439457 2013 YK_{28}	17.8	X	74.38105	90.35367	315.79303	2.52941	0.0691839	0.26969540	2.3725772	21	—	—
439458 2013 YE_{31}	16.1	X	322.21562	288.19558	191.76979	6.63432	0.1372764	0.25179912	2.4837044	21	—	—
439459 2013 YT_{34}	17.2	X	254.75490	50.32880	69.06352	3.75862	0.1820828	0.22878360	2.6476026	21	10 10.3	20.8
439460 2013 YZ_{34}	16.4	X	287.39253	179.22502	296.64867	13.98776	0.0316469	0.23847149	2.5754023	21	12 11.4	19.9
439461 2013 YP_{35}	15.9	X	139.73189	157.83054	128.94127	15.05715	0.0253508	0.24769841	2.5110416	21	—	—
439462 2013 YX_{42}	15.9	X	179.49734	193.14326	308.01711	14.23671	0.0817909	0.20596468	2.8397115	21	8 19.4	20.3
439463 2013 YO_{44}	17.7	X	85.40371	317.60215	101.75163	4.55094	0.0615104	0.27515593	2.3410829	21	—	—
439464 2013 YM_{45}	17.2	X	306.84436	285.88352	260.74797	5.44060	0.1115444	0.26341474	2.4101422	21	—	—
439465 2013 YW_{47}	16.2	X	13.16983	114.05802	109.20067	9.72310	0.1542942	0.16971291	3.2309195	21	5 12.3	20.0
439466 2013 YT_{54}	15.8	X	259.08561	334.17601	280.46336	23.59366	0.1890351	0.27164479	2.3612128	21	—	—
439467 2013 YW_{54}	16.3	X	266.17905	162.96854	304.31916	11.56643	0.0436866	0.22734011	2.6587979	21	10 22.7	20.2
439468 2013 YD_{61}	16.9	X	193.59157	259.37904	318.45193	7.99959	0.0598546	0.23885723	2.5726288	21	12 17.9	20.6
439469 2013 YF_{64}	17.3	X	108.37803	302.77089	89.23886	7.66121	0.1202062	0.27386298	2.3484456	21	1 3.6	19.9
439470 2013 YM_{64}	16.8	X	198.50992	162.44882	325.63997	7.90759	0.1932667	0.20911201	2.8111460	21	8 20.7	21.5
439471 2013 YE_{73}	17.9	X	97.25883	303.03288	133.61719	5.67004	0.1478682	0.28872306	2.2671577	21	2 19.9	20.1
439472 2013 YJ_{74}	17.1	X	258.68814	231.32554	240.87284	12.21698	0.2165382	0.23263794	2.6182776	21	9 24.4	20.9
439473 2013 YF_{83}	16.9	X	259.57669	189.21063	263.41232	5.13464	0.0665213	0.21871765	2.7282248	21	9 23.0	20.6
439474 2013 YO_{84}	17.1	X	267.40472	323.00090	270.16206	5.40538	0.1196680	0.26644560	2.3918302	21	—	—
439475 2013 YZ_{86}	15.8	X	88.15769	45.04547	105.07246	19.17440	0.1716188	0.17172506	3.2056315	21	6 6.3	20.5
439476 2013 YM_{90}	17.5	X	322.58265	50.93168	133.90037	7.31633	0.1362418	0.26586988	2.3952818	21	—	—
439477 2013 YO_{90}	17.7	X	330.58987	245.51159	294.66666	5.46983	0.0673258	0.26923625	2.3752739	21	—	—
439478 2013 YW_{92}	17.0	X	233.25232	220.86386	260.89929	4.99921	0.2343996	0.22204046	2.7009382	21	9 8.3	21.4
439479 2013 YA_{93}	17.4	X	16.63005	64.72694	81.96243	8.27279	0.0206046	0.28190566	2.3035635	21	1 14.4	20.2
439480 2013 YF_{94}	17.9	X	221.65957	283.62784	87.37360	1.86783	0.1418571	0.31292903	2.1486820	21	4 13.8	21.0
439481 2013 YJ_{95}	17.5	X	324.43013	271.20431	290.47432	3.47199	0.0814186	0.27427511	2.3460924	21	1 8.5	20.2
439482 2013 YT_{105}	16.1	X	118.12419	238.26951	252.45106	15.59594	0.2663535	0.17809745	3.1287024	21	6 20.5	21.3
439483 2013 YN_{111}	17.8	X	28.37691	109.57151	235.84662	18.49955	0.0947649	0.37053161	1.9197847	21	12 16.8	19.8
439484 2013 YZ_{111}	17.1	X	249.68641	171.85062	276.82083	7.88367	0.1769073	0.21733659	2.7397703	21	8 20.1	21.3
439485 2013 YS_{113}	16.7	X	112.14331	243.99083	301.16302	9.05313	0.1626517	0.19151212	2.9808391	21	8 10.6	21.3
439486 2013 YX_{113}	18.6	X	110.08654	32.18472	100.82531	3.72503	0.0986613	0.30891818	2.1672403	21	5 22.3	21.1
439487 2013 YN_{115}	18.4	X	208.98559	270.59228	107.69481	1.38522	0.1419907	0.30893297	2.1671711	21	4 10.8	21.5
439488 2013 YB_{116}	17.5	X	235.11539	114.13780	93.41534	3.89950	0.1429474	0.24098124	2.5574897	21	—	—
439489 2013 YZ_{123}	17.0	X	290.47032	36.97477	113.31834	14.95023	0.0187805	0.24608530	2.5220030	21	—	—
439490 2013 YW_{125}	17.4	X	348.31148	335.53408	94.56405	4.76941	0.0168265	0.23812052	2.5779323	21	—	—
439491 2013 YW_{147}	16.9	X	264.31973	202.22697	271.11944	9.47661	0.0894498	0.22812429	2.6527014	21	10 23.8	20.5
439492 2013 YY_{147}	17.5	X	310.24730	100.38306	104.90916	3.40691	0.1220008	0.27285216	2.3542421	21	—	—
439493 2013 YU_{149}	17.1	X	320.39858	291.55210	168.77934	4.74255	0.1452080	0.24671229	2.5177283	21	—	—
439494 2014 AR_8	17.7	X	298.82194	241.54194	316.62970	1.72521	0.1392373	0.26456492	2.4031518	21	—	—
439495 2014 AS_{11}	17.2	X	296.88534	226.91084	255.94841	10.55794	0.0958126	0.24396786	2.5365746	21	12 30.3	20.1
439496 2014 AL_{14}	17.9	X	155.87628	6.34694	29.91845	6.84946	0.1511487	0.30036597	2.2081856	21	3 14.2	20.9
439497 2014 AD_{18}	17.2	X	180.20099	66.52933	111.89157	14.40196	0.0807776	0.21833732	2.7313922	21	10 17.2	21.6
439498 2014 AN_{19}	16.4	X	163.25127	178.55512	292.09330	5.31849	0.1040535	0.18609394	3.0384206	21	6 27.7	21.0
439499 2014 AK_{28}	16.1	X	127.56292	223.98310	288.93490	8.53390	0.1052638	0.18521609	3.0480137	21	7 12.9	20.7
439500 2014 AX_{37}	17.7	X	99.90326	307.54569	118.24895	5.34333	0.1076325	0.29225265	2.2488668	21	1 31.7	19.9
439501 2014 AR_{42}	16.8	X	268.16390	336.65781	116.01275	10.86137	0.1319472	0.22333625	2.6904808	21	10 3.4	20.5
439502 2014 AB_{46}	16.2	X	236.85157	249.30699	260.93289	28.54647	0.2872126	0.23460059	2.6036543	21	10 5.2	20.9
439503 2014 AA_{48}	16.7	X	219.12231	38.25409	108.72123	6.04619	0.0520614	0.22040394	2.7142914	21	10 20.5	20.6
439504 2014 AV_{53}	17.4	X	171.00522	60.19798	112.90500	5.66511	0.1391143	0.21263674	2.7799939	21	9 24.8	21.8
439505 2014 BD_8	17.8	X	296.76895	213.59967	338.99414	0.97058	0.1319158	0.25874981	2.4390237	21	—	—
439506 2014 BU_{11}	17.4	X	259.81976	116.82205	135.81538	6.77881	0.0911220	0.26965560	2.3728107	21	—	—
439507 2014 BV_{13}	16.0	X	94.83383	79.63922	112.20464	10.21757	0.1556779	0.18363243	3.0655127	21	8 1.3	20.5
439508 2014 BX_{13}	16.3	X	149.41567	184.62665	354.83234	4.97859	0.0695461	0.20217225	2.8751136	21	9 7.2	20.5
439509 2014 BS_{22}	16.9	X	289.23974	294.16184	300.46012	5.64358	0.0808343	0.27089422	2.3655723	21	1 8.7	19.9
439510 2014 BS_{26}	17.8	X	277.36122	240.92091	344.79117	1.50013	0.1514770	0.26895629	2.3769219	21	—	—
439511 2014 BC_{28}	16.1	X	43.23408	59.16972	133.28082	10.32779	0.0299554	0.17463644	3.1699042	21	5 11.9	20.6
439512 2014 BY_{30}	17.6	X	58.19419	199.63200	288.59185	6.67705	0.0333814	0.28321771	2.2964435	21	2 15.1	20.1
439513 2014 BT_{31}	17.0	X	217.15067	178.78342	14.74513	4.95995	0.1683207	0.22952248	2.6419174	21	11 29.2	21.0
439514 2014 BV_{31}	17.3	X	275.20386	86.48987	116.56272	2.16347	0.1400053	0.25514092	2.4619693	21	—	—
439515 2014 BH_{37}	16.6	X	230.00666	289.20463	150.44065	12.55701	0.1230287	0.19564003	2.9387608	21	7 25.5	21.1
439516 2014 BM_{37}	17.1	X	187.01846	284.18339	301.42110	5.22542	0.1687215	0.22380390	2.6867316	21	12 8.5	21.4
439517 2014 BO_{39}	17.7	X	324.69041	97.42544	109.63589	3.72289	0.0696637	0.27769042	2.3268164	21	1 17.2	20.3
439518 2014 BL_{41}	17.3	X	321.08654	335.29770	118.66438	7.46091	0.2155477	0.24094832	2.5577227	21	—	—
439519 2014 BD_{42}	17.6	X	315.45778	209.54525	341.12357	6.31595	0.0558680	0.26688878	2.3891817	21	—	—
439520 2014 BQ_{42}	16.9	X	196.01995	266.40851	276.62795	3.79517	0.0442390	0.22174682	2.7033220	21	11 4.5	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439521 2014 BW_{46}	16.2	X	59.26309	7.10135	316.72102	13.62820	0.0895045	0.22094844	2.7098303	21	11 25.1	20.2
439522 2014 BP_{47}	16.9	X	350.12798	243.22399	141.37061	9.61560	0.0713377	0.22211466	2.7003366	21	11 11.5	20.4
439523 2014 BZ_{48}	16.7	X	249.47089	225.86748	317.97954	9.02037	0.1475383	0.23436538	2.6053960	21	12 31.2	20.1
439524 2014 BE_{51}	17.1	X	164.95854	159.78090	70.02596	5.06227	0.1504450	0.22919851	2.6444063	21	11 25.7	21.3
439525 2014 BX_{53}	17.5	X	241.58354	109.43091	124.88398	2.02495	0.1456576	0.25350748	2.4725336	21	—	—
439526 2014 BK_{60}	17.4	X	291.96477	152.99991	288.74335	17.56821	0.0773076	0.35489849	1.9757559	21	11 20.3	19.5
439527 2014 BZ_{60}	16.2	X	338.01818	129.71368	290.73131	12.02520	0.1392571	0.23482593	2.6019884	21	12 14.1	18.9
439528 2014 BH_{61}	17.0	X	291.29695	286.16921	196.19720	6.01251	0.1582990	0.23856068	2.5747603	21	12 13.7	19.7
439529 2014 BO_{64}	16.0	X	109.96622	185.86011	107.41432	15.07564	0.0834109	0.22553684	2.6729514	21	12 18.3	20.0
439530 2014 CO	16.1	X	326.93167	309.33022	105.05364	22.79051	0.0296082	0.22579013	2.6709520	21	11 21.5	20.0
439531 2014 CX_{1}	16.9	X	295.06844	276.21541	264.93119	4.92625	0.1065842	0.25558652	2.4591070	21	—	—
439532 2014 CW_{2}	16.1	X	262.87849	331.14821	144.99829	25.22879	0.0765907	0.21947459	2.7219484	21	11 6.7	20.3
439533 2014 CA_{9}	16.5	X	91.12957	116.28783	100.46686	3.72636	0.1727338	0.18911286	3.0059980	21	8 31.7	21.0
439534 2014 CR_{11}	17.7	X	308.21246	63.42759	106.92905	3.42229	0.1405872	0.25461737	2.4653430	21	—	—
439535 2014 CH_{15}	17.5	X	165.77120	117.46619	127.44517	3.41761	0.0286203	0.23076386	2.6324341	21	12 20.3	21.2
439536 2014 CH_{16}	18.1	X	354.98985	26.21734	165.52492	6.69002	0.0626590	0.27979095	2.3151561	21	2 8.3	20.6
439537 2014 DO	17.1	X	352.16845	224.54602	159.26150	24.54866	0.1039976	0.34977335	1.9950092	21	12 18.2	19.6
439538 2014 DY	16.5	X	164.44773	103.11528	154.02163	14.61407	0.0924252	0.23170061	2.6253342	21	12 30.7	20.7
439539 2014 DW_{1}	16.8	X	211.48606	24.75876	180.80030	11.08581	0.0158705	0.23266890	2.6180453	21	12 27.7	20.6
439540 2014 DZ_{1}	16.7	X	229.25614	249.93694	299.24848	12.35013	0.1262830	0.23030071	2.6359623	21	12 13.8	20.4
439541 2014 DV_{3}	16.6	X	106.42749	111.38649	137.53118	15.61009	0.1208983	0.20646000	2.8351678	21	10 26.8	21.2
439542 2014 DV_{4}	17.6	X	324.36239	10.91493	166.73559	1.55002	0.1230198	0.26440246	2.4041362	21	—	—
439543 2014 DJ_{5}	17.5	X	19.94114	295.03932	208.34141	5.59449	0.0737738	0.27234040	2.3571904	21	1 10.8	20.1
439544 2014 DT_{5}	16.0	X	158.58078	328.20999	300.13731	11.45721	0.1069686	0.23178913	2.6246657	21	—	—
439545 2014 DR_{11}	17.0	X	271.07193	278.45444	185.75773	13.09940	0.0440134	0.21863550	2.7289082	21	10 31.8	20.7
439546 2014 DS_{13}	15.9	X	99.39714	92.95423	127.68953	12.43789	0.0840135	0.19017524	2.9947925	21	9 5.3	20.3
439547 2014 DO_{16}	15.6	X	346.85247	344.99391	287.00676	10.58717	0.0830875	0.17036689	3.2226459	21	5 30.2	19.8
439548 2014 DP_{18}	18.2	X	12.95546	339.39860	161.85919	2.61817	0.1145584	0.26931210	2.3748279	21	—	—
439549 2014 DA_{26}	16.6	X	182.47924	93.51766	140.72754	14.76940	0.1069400	0.22240961	2.6979487	21	12 20.1	20.9
439550 2014 DG_{26}	17.6	X	266.51590	81.69536	162.11593	5.97186	0.0486056	0.26473830	2.4021025	21	—	—
439551 2014 DZ_{27}	17.8	X	334.43455	231.93797	312.58745	4.77841	0.0890637	0.27093006	2.3653637	21	—	—
439552 2014 DA_{32}	15.2	X	344.27644	302.44041	350.91468	17.30750	0.1260108	0.17509243	3.1643983	21	6 22.2	19.4
439553 2014 DC_{35}	18.1	X	135.09827	313.05655	129.92636	3.16600	0.1114183	0.29437114	2.2380643	21	4 17.4	20.9
439554 2014 DZ_{35}	16.1	X	44.57614	151.06715	128.46684	5.79239	0.0843795	0.18975559	2.9992063	21	9 9.4	20.0
439555 2014 DJ_{37}	16.4	X	113.49254	61.62973	107.74538	2.53080	0.1178733	0.17877876	3.1207485	21	7 19.6	21.0
439556 2014 DC_{46}	16.1	X	99.24742	86.64322	122.94375	9.26512	0.0146397	0.18584550	3.0411279	21	8 10.5	20.3
439557 2014 DQ_{50}	16.1	X	265.14768	287.75420	114.69762	5.56525	0.0251016	0.18521752	3.0479980	21	8 2.8	20.4
439558 2014 DM_{56}	16.3	X	327.18602	162.98465	155.06020	11.27812	0.0505903	0.17425752	3.1744978	21	7 3.4	20.7
439559 2014 DM_{57}	17.1	X	234.96353	35.72353	139.97310	6.19276	0.1536010	0.22291764	2.6938480	21	11 29.8	21.0
439560 2014 DY_{58}	16.9	X	117.82895	216.31804	86.71087	5.88252	0.0864005	0.22401657	2.6850309	21	—	—
439561 2014 DE_{61}	17.1	X	188.04649	206.94105	41.53222	4.81562	0.1399313	0.22649085	2.6654402	21	—	—
439562 2014 DR_{72}	16.7	X	228.78790	157.13349	101.29980	6.59762	0.1083212	0.24516950	2.5282795	21	—	—
439563 2014 DC_{73}	17.0	X	177.01708	230.13964	109.07587	6.35346	0.1526785	0.25713284	2.4492382	21	1 26.2	20.6
439564 2014 DM_{78}	16.4	X	308.83437	199.78472	143.93729	10.95334	0.0271185	0.17661292	3.1462102	21	7 13.7	20.9
439565 2014 DR_{80}	17.5	X	244.22792	15.19675	241.84287	5.59171	0.0886485	0.26018272	2.4300605	21	—	—
439566 2014 DX_{80}	16.9	X	108.56806	327.49645	206.86827	7.51309	0.0936905	0.18102046	3.0949308	21	7 15.8	21.5
439567 2014 DS_{84}	16.2	X	63.28895	215.00602	38.90775	5.08798	0.1218731	0.18366467	3.0651540	21	9 7.5	20.4
439568 2014 DL_{85}	17.3	X	149.46416	104.43545	167.99902	4.66278	0.0729126	0.22420082	2.6835596	21	—	—
439569 2014 DH_{89}	16.7	X	274.84703	358.22580	153.52714	8.66535	0.0672609	0.22573199	2.6714106	21	—	—
439570 2014 DK_{89}	15.1	X	252.84830	222.41590	69.96764	4.09248	0.2084280	0.12330510	3.9977476	21	2 21.9	21.4
439571 2014 DP_{89}	16.8	X	255.34092	357.57429	159.35808	6.74829	0.0405958	0.21987549	2.7186388	21	12 16.5	20.5
439572 2014 DP_{90}	16.8	X	145.09689	87.37076	188.47559	10.82865	0.1213688	0.22911824	2.6450239	21	12 31.8	21.2
439573 2014 DK_{95}	17.5	X	110.62401	251.63367	224.08673	5.48292	0.0639479	0.29071432	2.2567932	21	4 21.9	20.1
439574 2014 DF_{98}	17.1	X	175.31506	356.55526	238.81841	1.91430	0.0945523	0.22246894	2.6974690	21	12 13.7	21.0
439575 2014 DM_{98}	16.9	X	65.73682	77.38022	263.97932	1.04376	0.0991739	0.22369118	2.6876341	21	12 29.1	20.7
439576 2014 DX_{99}	16.5	X	156.98823	298.81078	298.57492	5.02036	0.2162445	0.21857777	2.7293887	21	11 24.4	21.2
439577 2014 DP_{103}	16.3	X	285.10709	288.30060	158.18021	9.46492	0.1846588	0.21885643	2.7270714	21	10 8.3	19.6
439578 2014 DL_{105}	16.4	X	353.88070	177.28501	162.14734	12.37362	0.0643716	0.19668522	2.9283404	21	9 10.8	20.1
439579 2014 DQ_{105}	16.4	X	253.98267	238.99990	320.66195	7.99742	0.1070442	0.23763882	2.5814147	21	—	—
439580 2014 DH_{108}	17.5	X	282.68707	144.73331	39.70548	0.19552	0.0390616	0.24622938	2.5210191	21	—	—
439581 2014 DQ_{108}	16.4	X	43.92415	143.00897	176.62853	6.52185	0.0604908	0.20688624	2.8312724	21	10 28.9	20.2
439582 2014 DS_{108}	16.3	X	65.81168	52.65134	180.18413	5.52991	0.1068307	0.17936235	3.1139755	21	8 8.5	20.6
439583 2014 DP_{110}	16.7	X	125.29403	323.91707	310.34955	8.72263	0.1193195	0.21775888	2.7362271	21	12 9.9	21.1
439584 2014 DH_{113}	16.8	X	89.55732	315.44252	302.91780	1.05484	0.0139166	0.20261221	2.8709501	21	9 29.9	20.8
439585 2014 DZ_{115}	16.1	X	189.18686	310.90651	158.70947	9.52144	0.0401720	0.18242216	3.0790565	21	7 23.2	20.7
439586 2014 DJ_{116}	17.4	X	237.53264	211.78425	88.34784	3.55721	0.1917507	0.26312174	2.4119311	21	2 1.7	21.4
439587 2014 DN_{118}	17.9	X	10.11736	78.26804	69.68693	4.14277	0.0440307	0.26550675	2.3974654	21	1 8.4	20.6
439588 2014 DQ_{118}	16.0	X	6.77470	147.91834	138.61977	10.85564	0.1166984	0.17542360	3.1604144	21	7 21.2	19.8
439589 2014 DM_{122}	16.4	X	337.65267	148.43261	213.46462	1.06153	0.0333474	0.19850992	2.9103680	21	9 16.2	20.1
439590 2014 DN_{122}	17.1	X	207.64131	99.19323	137.25672	4.39370	0.0901505	0.23499314	2.6007539	21	—	—
439591 2014 DA_{123}	16.8	X	187.38938	124.96502	150.44729	7.74687	0.0746115	0.24108508	2.5567553	21	—	—
439592 2014 DH_{125}	16.8	X	34.74207	225.57214	113.44770	7.13436	0.0487099	0.21700851	2.7425310	21	11 11.5	20.5
439593 2014 DQ_{132}	17.9	X	18.56797	321.44271	180.59534	3.18444	0.0747412	0.26698031	2.3886356	21	1 8.8	20.5
439594 2014 DS_{133}	16.7	X	151.91353	164.73637	171.61501	4.74215	0.1085870	0.25057145	2.4918104	21	—	—
439595 2014 DW_{137}	15.9	X	199.94474	102.75080	325.10406	10.57342	0.0534929	0.17520734	3.1630145	21	6 13.3	20.8
439596 2014 DL_{140}	17.0	X	221.10917	190.49037	11.09752	3.08609	0.0397769	0.22750637	2.6575024	21	12 30.9	20.7
439597 2014 EC_{6}	16.6	X	240.87896	5.99418	52.97011	2.68590	0.1300986	0.18885062	3.0087800	21	7 11.6	21.2
439598 2014 EZ_{14}	17.7	X	14.30201	346.77961	151.27396	7.27876	0.0938860	0.26514101	2.3996696	21	—	—
439599 2014 EJ_{15}	17.2	X	176.15202	228.48397	37.30378	3.43468	0.1033483	0.23203224	2.6228321	21	—	—
439600 2014 ET_{15}	16.5	X	282.01870	201.63752	174.97988	9.30853	0.0330694	0.18288480	3.0738616	21	7 19.1	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439601 2014 ES_{17}	16.1	X	26.33197	283.85869	20.63002	9.89661	0.0535880	0.19513669	2.9438122	21	9 14.5	20.0
439602 2014 ES_{19}	17.0	X	220.66764	143.98625	122.18018	4.67334	0.1267747	0.24752243	2.5122316	21	—	—
439603 2014 EZ_{21}	17.3	X	115.64086	343.45596	327.62350	1.94822	0.0722984	0.22851351	2.6496883	21	—	—
439604 2014 EF_{23}	17.1	X	33.16024	201.05228	169.69897	5.35073	0.0883515	0.22359193	2.6884294	21	12 24.2	20.6
439605 2014 EH_{23}	16.3	X	120.42696	90.08605	170.91540	14.98241	0.1483093	0.20733606	2.8271759	21	11 22.7	21.1
439606 2014 EE_{24}	15.5	X	261.35997	314.15664	110.85069	14.96089	0.0500242	0.19247674	2.9708716	21	8 26.9	19.8
439607 2014 EE_{25}	17.5	X	275.99924	88.65848	81.03671	6.49321	0.0885589	0.23857857	2.5746316	21	—	—
439608 2014 EC_{27}	17.3	X	207.90800	65.43169	131.82085	5.58456	0.0940232	0.21990190	2.7184211	21	12 2.5	21.2
439609 2014 EZ_{27}	17.7	X	57.18831	322.79489	163.87737	6.21980	0.0574086	0.27993729	2.3143492	21	2 15.1	20.0
439610 2014 EL_{32}	16.5	X	154.95792	95.48932	169.71545	6.22402	0.0257353	0.21961291	2.7208053	21	12 30.1	20.4
439611 2014 EQ_{32}	16.1	X	323.09422	346.95453	359.06981	11.13517	0.0966047	0.18458224	3.0549876	21	8 3.6	20.1
439612 2014 EU_{32}	17.5	X	106.61601	312.70845	142.92317	5.01562	0.0836355	0.28332865	2.2958441	21	3 24.8	20.2
439613 2014 EF_{35}	16.1	X	348.44060	285.94995	152.33291	15.72002	0.0979616	0.23225543	2.6211516	21	—	—
439614 2014 EA_{39}	16.6	X	287.90629	313.21770	125.59216	9.49797	0.2564831	0.21771661	2.7365812	21	9 21.4	19.9
439615 2014 EX_{44}	16.9	X	86.87844	168.11481	163.06509	14.12453	0.1651759	0.22313218	2.6921210	21	—	—
439616 2014 ER_{45}	16.5	X	266.93561	296.35667	129.66664	9.23699	0.1545010	0.20384332	2.8593790	21	8 17.9	20.4
439617 2014 EC_{46}	16.0	X	90.01974	176.95367	359.17271	9.72839	0.0153497	0.17223567	3.1992928	21	6 15.1	20.6
439618 2014 EO_{46}	16.4	X	52.07601	126.20136	146.13375	17.48464	0.2376079	0.18189286	3.0850268	21	10 5.6	20.8
439619 2014 EJ_{48}	16.2	X	216.20422	319.01873	116.74154	10.64828	0.1341166	0.18527118	3.0474094	21	7 6.3	20.9
439620 2014 EH_{49}	16.3	X	113.74608	89.01209	113.15137	13.97999	0.2205377	0.18264211	3.0765839	21	9 12.6	21.5
439621 2014 FZ_{3}	16.1	X	326.20040	218.32316	121.44773	10.70401	0.0697828	0.18302189	3.0723264	21	7 29.6	20.0
439622 2014 FV_{9}	18.5	X	199.50667	83.21832	336.50449	4.81338	0.0854739	0.31238475	2.1511771	21	5 26.1	21.3
439623 2014 FD_{16}	16.4	X	43.34712	92.80491	177.27439	9.60003	0.2044679	0.17681534	3.1438085	21	9 9.2	20.4
439624 2014 FV_{18}	17.0	X	214.72821	349.62167	252.33501	5.83892	0.1155053	0.24417400	2.5351468	21	—	—
439625 2014 FD_{19}	17.5	X	332.72036	278.02047	244.11717	4.56583	0.1093381	0.26078088	2.4263431	21	—	—
439626 2014 FM_{19}	16.3	X	310.38164	295.59204	169.65680	21.88238	0.0887073	0.23610893	2.5925538	21	12 27.5	19.8
439627 2014 FE_{20}	17.2	X	191.95963	5.23428	219.56601	5.08163	0.1544187	0.22568223	2.6718032	21	12 13.8	21.3
439628 2014 FO_{28}	17.1	X	293.26708	287.43165	236.34464	3.95593	0.0118613	0.24063821	2.5599196	21	—	—
439629 2014 FP_{29}	17.2	X	235.80145	227.31596	115.50577	5.56610	0.2696965	0.28340626	2.2954249	21	3 21.1	21.2
439630 2014 FJ_{30}	16.9	X	133.30261	172.63387	105.02124	10.95448	0.1825564	0.21535592	2.7565435	21	12 22.9	21.4
439631 2014 FX_{49}	15.6	X	149.10709	7.56660	251.58511	13.34446	0.1039799	0.21214883	2.7842547	21	12 13.9	19.8
439632 2014 FS_{53}	16.3	X	68.52719	228.86961	101.94680	6.89645	0.0763178	0.20420803	2.8559735	21	12 13.0	20.2
439633 2014 FF_{57}	17.4	X	113.21674	249.20004	161.14224	6.13599	0.0595783	0.26510456	2.3998895	21	1 27.4	20.3
439634 2014 FS_{62}	15.7	X	84.82395	25.51163	213.72751	17.23554	0.1486227	0.18173556	3.0868068	21	9 12.2	20.5
439635 2014 FS_{64}	16.0	X	66.95632	234.21631	77.46856	3.09510	0.0699047	0.20441702	2.8540266	21	11 16.9	19.9
439636 2014 FA_{68}	15.4	X	36.67777	201.63479	90.60582	10.61117	0.0761431	0.17907959	3.1172526	21	9 16.4	19.7
439637 2014 FU_{68}	16.5	X	159.43171	193.85042	96.79522	13.82312	0.0773449	0.22661005	2.6645054	21	—	—
439638 2014 GY_{6}	16.7	X	117.53414	15.03273	353.63817	1.15469	0.1806870	0.24606901	2.5221143	21	1 2.3	19.8
439639 2014 GF_{12}	16.2	X	249.10981	247.39747	164.59287	9.66220	0.0451790	0.17874539	3.1211369	21	7 20.9	20.8
439640 2014 GH_{20}	16.4	X	107.59237	261.96654	317.07187	4.07449	0.1207129	0.18376230	3.0640682	21	9 12.2	21.1
439641 2014 GQ_{20}	16.9	X	127.82110	103.67492	204.60515	12.30945	0.0949665	0.22343188	2.6897131	21	—	—
439642 2014 GE_{37}	16.3	X	39.76471	212.95700	78.20504	6.43639	0.1306202	0.18346066	3.0674259	21	9 25.4	20.3
439643 2014 GS_{38}	17.2	X	220.67053	258.54681	44.54349	2.93837	0.2011510	0.25598180	2.4565748	21	1 23.2	21.3
439644 2014 GT_{39}	17.0	X	89.49157	137.29717	173.82937	3.60389	0.0827754	0.21058089	2.7980582	21	12 14.6	21.0
439645 2014 GP_{45}	16.3	X	242.10054	289.53103	279.92106	11.54447	0.1132308	0.23134902	2.6279934	21	—	—
439646 2014 GD_{47}	16.9	X	84.14454	196.23057	200.27693	14.27182	0.1028227	0.23773727	2.5807020	21	—	—
439647 2014 HN_{8}	16.4	X	149.50864	100.88026	82.25843	3.83998	0.1181628	0.18526296	3.0474996	21	9 13.8	21.2
439648 2014 HO_{8}	17.4	X	319.22899	336.22798	143.19188	3.64492	0.0985309	0.22750595	2.6575057	21	—	—
439649 2014 HY_{11}	16.1	X	36.79636	81.46453	202.51663	9.45997	0.0489218	0.17512351	3.1640239	21	8 24.8	20.5
439650 2014 HF_{25}	15.6	X	309.27231	201.62909	47.81784	3.31692	0.1328639	0.12364296	3.9904614	21	3 11.7	21.0
439651 2014 HA_{29}	16.8	X	359.60971	358.62917	78.67018	4.01847	0.1032975	0.22708797	2.6607657	21	—	—
439652 2014 HA_{30}	16.2	X	89.45642	70.40842	195.38147	9.70549	0.0517464	0.18992286	2.9974450	21	10 13.5	20.3
439653 2014 HM_{30}	16.2	X	87.66012	144.58719	192.17911	17.81497	0.2669628	0.20591483	2.8401697	21	—	—
439654 2014 HK_{31}	16.9	X	67.76721	1.53862	56.60180	15.09667	0.1140024	0.24261367	2.5460047	21	—	—
439655 2014 HU_{33}	16.8	X	4.89135	308.48036	121.78564	7.21481	0.1420328	0.22474434	2.6792313	21	—	—
439656 2014 HO_{37}	15.7	X	196.03477	20.96916	78.84516	11.36900	0.0391699	0.16854483	3.2458299	21	7 20.8	20.5
439657 2014 HF_{38}	17.0	X	107.15365	204.05510	145.34024	6.89239	0.0673339	0.22557377	2.6726596	21	—	—
439658 2014 HX_{40}	16.5	X	134.55245	23.15017	174.59307	8.40030	0.0576686	0.18108894	3.0941505	21	9 10.4	21.1
439659 2014 HM_{55}	16.7	X	349.23290	307.91049	160.27098	3.56777	0.1258287	0.23752761	2.5822205	21	—	—
439660 2014 HG_{75}	16.8	X	0.70788	267.29098	107.88603	3.24422	0.0835309	0.19787638	2.9165768	21	11 9.0	20.4
439661 2014 HK_{77}	16.8	X	38.34927	181.78806	176.39734	5.51388	0.0833990	0.20459511	2.8523701	21	12 10.9	20.7
439662 2014 HT_{78}	17.1	X	293.08481	36.62644	90.72017	6.09419	0.0533918	0.21912240	2.7248642	21	12 27.7	20.5
439663 2014 HK_{82}	16.9	X	52.88112	229.10946	187.72617	9.84107	0.1068482	0.23665999	2.5885277	21	—	—
439664 2014 HM_{115}	16.6	X	167.37939	50.87961	105.86825	6.34840	0.0719530	0.17934158	3.1142159	21	8 29.6	21.3
439665 2014 HB_{122}	15.9	X	5.99237	130.65937	200.29766	15.29023	0.0912129	0.17960150	3.1112106	21	9 14.3	19.9
439666 2014 HV_{122}	16.3	X	29.42144	244.41032	79.50724	9.13775	0.1907889	0.18100583	3.0950976	21	10 30.2	20.2
439667 2014 HD_{127}	16.7	X	139.66880	343.52788	219.64392	14.52066	0.0372732	0.18704324	3.0281313	21	9 18.6	21.3
439668 2014 HB_{152}	16.9	X	99.05459	201.90056	134.91046	7.09061	0.0515712	0.22471870	2.6794351	21	—	—
439669 2014 HH_{160}	16.2	X	0.38634	187.36944	151.32125	7.36834	0.0272931	0.18440684	3.0569244	21	9 17.7	20.3
439670 2014 HX_{166}	17.1	X	245.36821	185.69680	116.44231	2.31716	0.1817965	0.26498590	2.4006059	21	2 10.5	20.9
439671 2014 HH_{169}	15.9	X	62.66702	208.65645	81.59621	11.80856	0.0386908	0.18231700	3.0802404	21	10 14.1	20.4
439672 2014 HM_{171}	16.9	X	337.23881	358.81672	123.86486	7.17881	0.1143971	0.23715498	2.5849246	21	—	—
439673 2014 HY_{181}	16.6	X	140.59097	153.46838	86.07073	5.05843	0.0296693	0.20610913	2.8383845	21	11 10.9	20.7
439674 2014 HT_{187}	15.5	X	356.56194	264.08343	100.88757	17.37259	0.1458548	0.18417264	3.0595154	21	10 29.5	19.4
439675 2014 HL_{191}	15.7	X	294.92673	285.46759	340.30243	5.23717	0.1373243	0.12406130	3.9814857	21	3 10.7	21.2
439676 2014 JV_{4}	16.0	X	244.96397	343.03445	99.08495	10.62049	0.0517200	0.17322480	3.1871023	21	8 26.7	20.7
439677 2014 JA_{5}	15.2	X	321.77383	143.52620	94.85186	9.71162	0.1215426	0.12456555	3.9707335	21	3 19.5	20.6
439678 2014 JE_{9}	15.6	X	305.79695	184.86047	202.90706	9.16602	0.0534516	0.17676833	3.1443659	21	8 30.3	20.0
439679 2014 JX_{10}	17.5	X	112.99268	218.80009	124.76437	4.24748	0.1742476	0.21630489	2.7484752	21	—	—
439680 2014 JM_{16}	15.9	X	29.39187	201.88116	113.45500	18.39330	0.0807514	0.17786778	3.1313950	21	10 9.4	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439681 2014 JH_{26}	16.4	X	33.24071	155.26133	170.23287	10.42853	0.1075568	0.18016719	3.1046947	21	10 25.1	20.5
439682 2014 JY_{31}	16.7	X	78.36305	139.86125	258.29587	3.29366	0.0307424	0.23471419	2.6028141	21	—	—
439683 2014 JN_{35}	16.9	X	165.47928	201.87523	73.03191	6.24050	0.1351583	0.21540844	2.7560954	21	—	—
439684 2014 JD_{38}	15.9	X	112.46180	168.58324	93.08237	9.92940	0.0482524	0.19138817	2.9821260	21	11 7.0	20.3
439685 2014 JT_{42}	15.8	X	13.34241	255.75774	102.64522	11.08706	0.0440407	0.18750228	3.0231871	21	11 3.9	20.0
439686 2014 JK_{45}	16.2	X	358.22010	129.25422	222.28898	16.84303	0.1067033	0.18247921	3.0784146	21	9 29.3	20.2
439687 2014 JF_{51}	16.3	X	100.60820	13.55394	211.28837	9.78851	0.0880169	0.17552661	3.1591778	21	9 5.6	21.0
439688 2014 JN_{59}	16.3	X	308.85547	237.23005	206.46683	14.32765	0.1191797	0.20394233	2.8584535	21	11 17.2	19.7
439689 2014 JD_{60}	15.9	X	77.16772	54.39371	144.06034	4.16438	0.0149246	0.15355070	3.4538345	21	6 27.9	20.7
439690 2014 JE_{60}	16.3	X	82.25579	242.93425	93.09659	6.06054	0.1065768	0.20318222	2.8655780	21	—	—
439691 2014 JV_{76}	16.3	X	38.28543	246.83501	202.35554	21.47693	0.0550098	0.22932525	2.6434319	21	—	—
439692 2014 KH_{3}	15.6	X	52.65427	181.99730	92.25640	10.55296	0.0561126	0.17442022	3.1725234	21	9 11.8	20.1
439693 2014 KY_{4}	15.7	X	95.97075	29.14517	243.98702	12.99416	0.1211612	0.18503381	3.0500151	21	11 4.6	20.3
439694 2014 KT_{7}	15.7	X	49.75902	31.36257	230.39408	17.87329	0.0900093	0.17039661	3.2222711	21	8 14.6	20.4
439695 2014 KV_{9}	16.6	X	51.84185	254.73403	82.14271	3.37683	0.2282215	0.18601316	3.0393002	21	12 17.5	20.9
439696 2014 KP_{10}	15.9	X	264.08907	188.86592	235.66885	14.82610	0.0675749	0.17197815	3.2024857	21	8 15.8	20.7
439697 2014 KP_{14}	15.6	X	321.66620	254.13110	113.07629	12.91813	0.0876678	0.17451612	3.1713610	21	8 29.2	19.8
439698 2014 KA_{19}	16.5	X	159.64154	323.65984	195.88631	3.71165	0.0602891	0.17419972	3.1751999	21	8 20.9	21.3
439699 2014 KY_{23}	16.7	X	103.50797	240.03188	101.49216	7.37135	0.0482342	0.22529159	2.6748908	21	—	—
439700 2014 KS_{29}	17.6	X	199.77263	323.18474	81.33171	7.55779	0.1004478	0.28065125	2.3104225	21	5 9.9	20.9
439701 2014 KN_{42}	16.3	X	216.57661	131.06057	127.89358	15.57757	0.0892642	0.22848224	2.6499301	21	—	—
439702 2014 KZ_{47}	15.6	X	40.54069	66.52966	211.98537	10.85380	0.1140948	0.17029221	3.2235880	21	8 30.1	20.0
439703 2014 KO_{73}	15.8	X	13.05891	268.15395	95.29493	11.97718	0.0130433	0.19025662	2.9939384	21	11 7.4	20.1
439704 2014 KB_{74}	15.7	X	102.09856	329.20120	235.01647	14.98037	0.1704145	0.17498536	3.1656889	21	8 18.8	20.9
439705 2014 KB_{80}	15.8	X	326.37260	147.19304	242.71355	11.94307	0.0806891	0.18134630	3.0912224	21	9 28.1	20.0
439706 2014 KB_{88}	16.6	X	75.87512	288.81117	77.61694	7.32256	0.0866489	0.21888870	2.7268033	21	—	—
439707 2014 LT_{4}	16.3	X	84.03170	31.85540	231.30641	15.57242	0.2114951	0.17699461	3.1416853	21	10 19.7	21.3
439708 2014 LF_{6}	16.0	X	136.90309	112.70502	88.39041	9.85835	0.0241671	0.17662380	3.1460811	21	9 20.2	20.7
439709 2014 LH_{11}	15.9	X	347.82262	249.04133	101.85842	10.28275	0.0436546	0.17232039	3.1982440	21	9 18.8	20.3
439710 2014 LK_{11}	15.6	X	194.29903	333.63463	266.44732	12.55461	0.1428180	0.21225095	2.7833615	21	—	—
439711 2014 LM_{14}	16.8	X	147.56135	172.96098	235.98182	8.14721	0.1187655	0.25806576	2.4433319	21	3 17.1	20.3
439712 2014 LS_{17}	16.2	X	21.02403	238.07458	130.70853	10.42242	0.0706627	0.19191648	2.9766506	21	11 28.8	20.3
439713 2014 LQ_{20}	16.5	X	174.08770	158.25699	131.49166	6.22889	0.0222510	0.21919056	2.7242993	21	—	—
439714 2014 MR_{32}	15.9	X	303.94478	207.01445	214.36231	16.43288	0.1843760	0.18383082	3.0633068	21	9 24.3	19.7
439715 2014 MC_{35}	16.4	X	181.59740	18.88523	240.88912	8.35521	0.0225835	0.21061547	2.7977519	21	—	—
439716 2014 MJ_{42}	16.0	X	352.06930	255.17789	129.95729	16.21002	0.1442896	0.18480979	3.0524793	21	11 14.5	19.9
439717 2014 MX_{42}	16.0	X	75.53979	15.50156	245.33642	14.27392	0.2294905	0.17477596	3.1682170	21	10 7.9	21.0
439718 Danielcervantes	16.2	X	49.86046	98.38874	92.40326	17.17065	0.1815525	0.17295314	3.1904388	21	6 4.8	20.2
439719 2015 DV_{176}	15.7	X	327.20598	107.08060	174.52302	16.67379	0.2283975	0.17735328	3.1374482	21	4 26.8	19.6
439720 2015 DZ_{205}	17.3	X	211.22516	129.98097	121.75465	6.57185	0.0773417	0.26864911	2.3787334	21	—	—
439721 2015 DY_{206}	16.0	X	12.04770	108.63997	153.78656	10.41809	0.0782189	0.18422284	3.0589596	21	6 26.5	20.0
439722 2015 DB_{208}	17.2	X	88.54952	127.50563	130.32488	8.98010	0.1273495	0.21481991	2.7611268	21	10 18.4	21.3
439723 2015 DQ_{208}	16.4	X	80.45861	199.26598	111.61448	7.36186	0.2151518	0.22789118	2.6545100	21	12 20.7	20.7
439724 2015 DE_{210}	16.4	X	124.59695	87.94076	94.30688	11.56912	0.1208491	0.20294350	2.8678248	21	8 21.3	20.9
439725 2015 DG_{210}	16.7	X	274.88136	346.75750	113.06601	11.26742	0.1282494	0.23670366	2.5882093	21	10 25.6	20.1
439726 2015 DT_{210}	15.9	X	288.24485	221.79706	109.00787	10.18921	0.0580667	0.17639473	3.1488041	21	5 28.9	20.3
439727 2015 DH_{211}	16.7	X	158.52319	182.76221	68.92139	8.37878	0.1754112	0.24052541	2.5607199	21	12 16.4	20.9
439728 2015 DM_{213}	17.2	X	151.63442	101.61509	149.54158	9.20941	0.1295483	0.23810654	2.5780332	21	12 11.7	21.4
439729 2015 DQ_{214}	17.0	X	212.58589	190.17513	350.40487	4.32120	0.2109829	0.24062482	2.5600146	21	11 5.5	21.0
439730 2015 ED_{65}	14.8	X	12.05738	193.32927	27.81903	28.95238	0.1605303	0.17142586	3.2093604	21	4 28.1	18.5
439731 2015 FN_{39}	14.0	X	195.29021	353.04198	208.95252	7.14701	0.0557450	0.08197162	5.2484014	21	11 7.9	21.2
439732 2015 FB_{75}	13.3	X	260.45265	292.93986	204.04416	18.83064	0.0453638	0.08214526	5.2410025	21	11 5.8	20.2
439733 2015 FY_{162}	16.7	X	223.28814	94.98305	39.57698	13.16096	0.2080173	0.23564724	2.5959390	21	9 26.5	20.9
439734 2015 FS_{174}	16.8	X	50.16990	260.39230	80.59419	10.48542	0.0917018	0.23643372	2.5901790	21	12 11.5	20.3
439735 2015 FX_{174}	16.5	X	93.85132	71.88664	102.14562	9.37866	0.1483076	0.18875029	3.0098462	21	7 6.9	20.7
439736 2015 FC_{176}	16.7	X	110.44038	214.51818	92.75017	8.82849	0.1898919	0.24194432	2.5506983	21	—	—
439737 2015 FM_{212}	16.3	X	72.60108	249.43522	64.81636	15.57561	0.1000040	0.23533605	2.5982269	21	12 4.9	19.9
439738 2015 FD_{213}	16.0	X	340.37004	210.87650	100.85667	10.28311	0.1921362	0.18757943	3.0223581	21	7 4.6	19.3
439739 2015 FC_{286}	15.5	X	248.30552	6.00454	98.22299	16.51243	0.0758171	0.22294324	2.6936418	21	10 4.7	19.6
439740 2015 FU_{286}	17.9	X	200.93387	76.40806	53.74238	26.06871	0.1076987	0.37382399	1.9084961	21	9 30.8	20.8
439741 2015 FK_{287}	16.1	X	147.40657	315.82892	268.18319	10.72670	0.1970869	0.22953952	2.6417866	21	10 31.6	20.8
439742 2015 FM_{294}	15.9	X	17.15132	151.73688	172.21110	15.57733	0.1536691	0.20573994	2.8417790	21	10 7.9	19.1
439743 2015 FL_{296}	15.3	X	141.85405	295.61493	183.36308	22.52746	0.0676509	0.18067107	3.0989196	21	6 13.3	20.3
439744 2015 FA_{297}	16.7	X	181.95600	46.63481	175.10058	16.82826	0.0658862	0.23987963	2.5653136	21	12 10.5	20.7
439745 2015 FT_{299}	16.1	X	142.82432	73.06603	150.96808	12.24851	0.1159765	0.22219986	2.6996463	21	11 1.3	20.5
439746 2015 FJ_{300}	18.3	X	80.63389	71.73669	182.21124	22.08996	0.0613228	0.36537298	1.9378125	21	10 11.1	20.2
439747 2015 FW_{300}	16.1	X	154.85615	85.46925	121.81780	11.93898	0.0982278	0.22258010	2.6965708	21	10 24.9	20.4
439748 2015 FZ_{303}	17.5	X	285.28016	76.38986	116.01631	11.54253	0.1611995	0.27337368	2.3512470	21	—	—
439749 2015 FG_{305}	16.4	X	26.69973	127.59259	157.73457	11.36583	0.1056538	0.19037943	2.9926507	21	8 21.7	20.2
439750 2015 FC_{324}	16.0	X	215.51066	311.72096	150.16001	15.28421	0.0647438	0.21267471	2.7796630	21	8 13.2	20.1
439751 2015 FB_{325}	16.3	X	144.79542	119.11396	87.53285	9.88718	0.0737527	0.22457107	2.6806092	21	10 13.2	20.4
439752 2015 FP_{325}	16.8	X	204.81189	169.09639	89.64298	7.60071	0.0885471	0.27046662	2.3680649	21	—	—
439753 2015 FZ_{325}	15.8	X	191.16466	343.53830	65.40819	12.94894	0.0279345	0.17699477	3.1416835	21	5 12.6	20.4
439754 2015 FD_{327}	17.1	X	111.61765	131.75271	120.62658	7.15678	0.0902969	0.22653737	2.6650753	21	11 2.5	21.1
439755 2015 FH_{327}	17.4	X	173.07221	172.43968	95.95428	6.81792	0.1061954	0.25873043	2.4391455	21	—	—
439756 2015 FJ_{334}	17.2	X	242.28898	112.62396	112.82887	6.57783	0.1776216	0.26561533	2.3968119	21	—	—
439757 2015 FR_{335}	16.7	X	80.36433	94.81253	202.89849	11.81390	0.0580738	0.22139336	2.7061986	21	11 17.6	20.5
439758 2015 FL_{336}	18.1	X	310.99272	108.26461	120.86848	7.45028	0.1462346	0.29608661	2.2294113	21	1 13.4	21.0
439759 2015 FN_{336}	16.3	X	113.38044	177.27428	101.04563	10.67217	0.1647217	0.22395899	2.6854911	21	12 8.1	20.7
439760 2015 FA_{337}	16.9	X	262.92634	313.74831	179.16810	9.98842	0.0817270	0.23355729	2.6114022	21	11 24.1	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439761 2015 FH_{337}	16.9	X	119.37819	97.71466	200.37525	11.31964	0.1099982	0.23397805	2.6082706	21	—	—
439762 2015 FR_{338}	17.8	X	286.50005	29.66242	173.25933	11.01302	0.1515357	0.27694595	2.3309844	21	—	—
439763 2015 FF_{339}	17.1	X	266.31505	117.24492	117.75004	9.02079	0.0477011	0.27572705	2.3378491	21	—	—
439764 2015 FC_{343}	16.1	X	43.25306	106.73185	93.83684	11.37086	0.1577865	0.17659201	3.1464585	21	6 2.7	19.9
439765 2015 FP_{343}	15.9	X	20.25110	150.56249	110.02973	11.62390	0.1673086	0.18522681	3.0478960	21	7 13.8	19.3
439766 2015 FP_{344}	17.1	X	189.69762	66.31881	121.99166	5.42784	0.1506827	0.23705545	2.5856481	21	11 1.5	21.2
439767 2015 GN_{5}	16.2	X	95.79428	241.81895	43.58398	13.51957	0.1588314	0.22348464	2.6892897	21	11 27.1	20.4
439768 2015 GP_{5}	16.5	X	165.12669	200.13982	40.14689	12.53383	0.1396202	0.23921861	2.5700372	21	12 8.3	20.7
439769 2015 GB_{8}	15.8	X	7.27817	139.71622	95.89591	14.42034	0.2072545	0.17194659	3.2028776	21	5 18.4	19.3
439770 2015 GW_{8}	16.9	X	168.77287	67.86433	134.24950	13.24346	0.1304377	0.23259761	2.6185802	21	11 1.8	21.3
439771 2015 GK_{9}	16.0	X	62.39358	120.52080	76.72843	17.06061	0.2126674	0.18286129	3.0741251	21	7 5.5	20.1
439772 2015 GH_{18}	15.4	X	308.53566	256.33905	62.37364	20.74844	0.0935657	0.17963967	3.1107698	21	6 1.0	19.6
439773 2015 GM_{23}	16.4	X	73.45518	141.31251	119.53792	11.88661	0.2367270	0.20269314	2.8701858	21	10 19.3	20.9
439774 2015 GW_{23}	16.9	X	190.34325	115.18967	91.39541	18.06318	0.1278786	0.23779008	2.5803199	21	11 27.4	20.9
439775 2015 GO_{24}	16.4	X	345.05203	170.85599	113.35536	11.72877	0.0135523	0.18507921	3.0495163	21	6 17.4	20.6
439776 2015 GR_{24}	15.8	X	324.30727	202.84281	100.00257	10.45086	0.0519107	0.18267085	3.0762612	21	6 10.2	19.9
439777 2015 GW_{24}	15.7	X	260.51966	254.14872	96.23671	10.71724	0.0936573	0.17427715	3.1742594	21	5 15.6	20.5
439778 2015 GE_{25}	16.6	X	29.58802	160.12235	165.11350	14.14390	0.0894749	0.21802805	2.7339746	21	10 24.1	20.2
439779 2015 GB_{26}	17.0	X	165.16253	115.67133	63.11425	17.20895	0.2600149	0.22342800	2.6897442	21	10 2.9	22.1
439780 2015 GQ_{26}	15.8	X	309.00838	188.05299	137.53758	12.36588	0.1716829	0.18015213	3.1048678	21	6 3.2	20.0
439781 2015 GF_{33}	15.9	X	255.53884	283.70410	73.63231	12.11996	0.1062498	0.17674183	3.1446802	21	5 15.8	20.7
439782 2015 GL_{34}	16.4	X	357.96611	148.66932	137.17558	12.44439	0.1973689	0.17801821	3.1296307	21	7 4.7	19.8
439783 2015 GJ_{36}	17.9	X	273.89223	146.54447	86.18223	2.75142	0.1779684	0.28683323	2.2771051	21	—	—
439784 2015 GR_{36}	16.1	X	130.90989	195.02534	78.19277	15.10587	0.1491428	0.23494157	2.6011345	21	12 17.2	20.2
439785 2015 GT_{40}	17.6	X	251.30651	120.26616	102.69516	7.08527	0.0367950	0.27737050	2.3286052	21	—	—
439786 2015 GQ_{42}	17.0	X	116.37683	213.28072	101.76182	7.43758	0.3016519	0.24335079	2.5408608	21	—	—
439787 2015 GQ_{43}	17.7	X	5.89381	324.80414	124.27531	6.29285	0.0662936	0.27132213	2.3630844	21	—	—
439788 2015 GL_{44}	16.8	X	153.25627	87.58928	99.20447	5.63841	0.2243437	0.22222340	2.6994556	21	9 27.1	21.5
439789 2015 GO_{45}	17.3	X	237.52708	209.22521	70.90561	7.64805	0.0849484	0.29217061	2.2492878	21	1 4.6	20.5
439790 2015 HA_{16}	17.6	X	275.96455	192.71061	84.96377	5.41553	0.1399721	0.29924448	2.2136992	21	2 8.6	20.6
439791 2015 HF_{38}	17.7	X	269.59122	98.09463	171.52427	8.04324	0.1553297	0.29575198	2.2310927	21	1 18.9	21.1
439792 2015 HY_{42}	17.5	X	273.29912	3.20070	239.77076	4.20266	0.1327028	0.28958484	2.2626576	21	—	—
439793 2015 HP_{49}	16.5	X	8.99727	168.87360	100.50022	11.11641	0.0564878	0.18962645	3.0005677	21	6 30.4	20.3
439794 2015 HB_{57}	17.9	X	280.47122	339.63545	261.61247	4.41016	0.1585362	0.28887177	2.2663796	21	—	—
439795 2015 HQ_{60}	16.9	X	139.47199	133.04679	165.28704	11.05474	0.1864367	0.23823786	2.5770857	21	—	—
439796 2015 HS_{63}	17.3	X	209.07340	7.51865	247.04106	0.65871	0.1546883	0.26505128	2.4002111	21	—	—
439797 2015 HF_{73}	18.1	X	286.70404	127.29052	67.55912	3.40799	0.1498063	0.27931811	2.3177681	21	—	—
439798 2015 HK_{100}	16.7	X	160.69216	5.62395	211.14337	12.27324	0.1055846	0.22898359	2.6460607	21	11 7.5	20.7
439799 2015 HN_{103}	16.0	X	318.45177	227.38033	100.39139	11.82724	0.1016731	0.18883038	3.0089950	21	6 28.0	19.7
439800 2015 HK_{147}	16.0	X	16.18293	40.47711	225.75628	16.84248	0.1245982	0.18383861	3.0632203	21	7 6.9	20.0
439801 2015 HN_{166}	17.9	X	212.46886	146.89482	138.17214	2.72711	0.1942543	0.27315485	2.3525025	21	—	—
439802 2015 HG_{171}	17.3	X	250.78678	57.60487	185.33604	9.23982	0.1692707	0.27610955	2.3356895	21	—	—
439803 2015 HF_{174}	16.3	X	137.84199	58.01423	136.75877	10.04973	0.1027925	0.20924594	2.8099463	21	9 18.2	20.6
439804 2015 HP_{175}	17.0	X	227.65061	210.30703	100.45224	7.24742	0.1683524	0.29472210	2.2362872	21	2 2.6	20.5
439805 2015 HB_{176}	15.8	X	168.93462	207.03767	61.06092	14.43773	0.2095685	0.24351893	2.5396911	21	—	—
439806 2015 HA_{178}	16.3	X	117.64151	142.12077	178.58343	15.17749	0.1687441	0.23924256	2.5698657	21	—	—
439807 2015 JP_{2}	15.0	X	298.66050	219.85843	90.87933	22.83503	0.1096646	0.17205805	3.2014942	21	5 15.6	19.7
439808 2015 JR_{2}	15.0	X	46.65807	310.65738	257.80837	10.52555	0.0634640	0.17299646	3.1899062	21	6 5.9	19.1
439809 2015 KZ_{7}	16.1	X	1.36436	172.96212	119.77366	11.24219	0.0010002	0.18316892	3.0706822	21	7 19.4	20.3
439810 2015 KM_{9}	15.7	X	39.60673	153.58202	93.66240	17.55487	0.0571887	0.18202394	3.0835456	21	7 16.3	19.8
439811 2015 KC_{16}	15.9	X	148.95085	292.43811	196.09536	15.45265	0.0284010	0.17431284	3.1738262	21	6 28.7	20.8
439812 2015 KE_{18}	15.6	X	31.68982	153.95223	102.93012	24.55456	0.1459239	0.18007211	3.1057876	21	7 27.5	19.4
439813 2015 KH_{22}	16.5	X	130.17675	156.48209	112.50011	14.34030	0.1516425	0.22867605	2.6484326	21	12 12.7	20.8
439814 2015 KB_{25}	16.3	X	101.54424	236.89258	87.11285	13.07458	0.1527678	0.23818885	2.5774392	21	—	—
439815 2015 KT_{32}	17.5	X	268.74158	156.47624	46.91247	8.24394	0.0482054	0.26919782	2.3755000	21	—	—
439816 2015 KE_{33}	16.3	X	208.69532	203.14115	251.14720	8.24553	0.0669743	0.19605082	2.9346543	21	7 24.1	20.8
439817 2015 KY_{33}	17.8	X	351.98798	192.28429	285.65780	3.15006	0.1035462	0.27165847	2.3611336	21	—	—
439818 2015 KB_{35}	16.0	X	34.53439	25.26906	253.97537	4.18989	0.1143830	0.19406873	2.9546021	21	8 25.7	19.7
439819 2015 KU_{58}	16.4	X	114.51182	218.66859	68.75221	9.94201	0.1783348	0.23303382	2.6153115	21	12 20.3	20.7
439820 2015 KX_{59}	15.5	X	218.49094	317.73574	107.20416	18.79982	0.0768240	0.17860430	3.1227804	21	6 29.7	20.2
439821 2015 KV_{67}	17.0	X	114.56105	57.65707	190.05600	9.38375	0.1603870	0.21692406	2.7432427	21	11 2.0	21.3
439822 2015 KX_{71}	17.0	X	179.23222	166.31321	148.38263	7.32821	0.1840680	0.26775304	2.3840376	21	—	—
439823 2015 KE_{73}	16.5	X	44.96221	209.06483	108.96087	7.52349	0.0376877	0.21723461	2.7406276	21	10 28.4	20.2
439824 2015 KG_{73}	16.6	X	41.35698	158.71708	162.07651	6.77833	0.0554783	0.21579022	2.7528437	21	10 28.2	20.2
439825 2015 KP_{73}	16.0	X	159.57281	290.94691	183.62761	10.05481	0.0260016	0.18046154	3.1013179	21	6 24.8	20.7
439826 2015 KE_{83}	15.8	X	69.68326	175.03080	113.61893	14.11209	0.0817510	0.21296090	2.7771721	21	10 31.4	19.9
439827 2015 KB_{92}	16.2	X	50.69985	25.35833	199.55128	8.48785	0.1114814	0.17795106	3.1304179	21	7 8.2	20.4
439828 2015 KT_{95}	17.4	X	155.01844	212.15986	126.68580	7.53800	0.1998820	0.26329100	2.4108973	21	1 6.8	20.8
439829 2015 KD_{96}	16.1	X	154.70488	9.04214	116.53637	10.29736	0.1444533	0.18482449	3.0523175	21	7 9.2	21.0
439830 2015 KS_{117}	16.9	X	94.78935	182.39328	114.08905	9.85559	0.1234554	0.22104934	2.7090056	21	12 9.1	21.1
439831 1994 RD_{7}	17.6	X	133.79184	71.60711	257.90045	1.12702	0.1721609	0.23213256	2.6220764	21	—	—
439832 1995 OO_{5}	18.8	X	279.71495	197.97942	129.44835	1.20505	0.2961211	0.29618809	2.2289021	21	4 1.7	22.2
439833 1995 SS_{73}	18.0	X	278.19696	156.81516	189.63227	3.71204	0.1878713	0.29655402	2.2270681	21	5 8.9	20.8
439834 1995 UV_{42}	17.2	X	4.06307	5.36125	22.07347	4.83647	0.1797050	0.19197838	2.9760108	21	12 6.8	20.6
439835 1995 WY_{40}	17.9	X	194.40404	286.95502	77.89077	5.33073	0.2272583	0.28734930	2.2743779	21	3 16.6	21.8
439836 1996 TX_{51}	16.2	X	55.77812	355.26583	353.19099	8.64423	0.2165120	0.20469770	2.8514170	21	—	—
439837 1997 EU_{9}	16.9	X	235.17713	284.13015	298.70601	7.58723	0.2022448	0.23396329	2.6083802	21	—	—
439838 1997 GZ_{30}	17.0	X	206.41275	164.10776	68.09827	14.95734	0.2035903	0.22864010	2.6487102	21	12 31.9	21.3
439839 1997 KY_{1}	17.6	X	273.99409	146.55627	117.45084	11.36648	0.2359169	0.27761071	2.3272618	21	1 14.6	21.5
439840 1997 SB_{33}	17.9	X	78.04181	21.13263	10.26773	1.07282	0.2619575	0.21684963	2.7438704	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439841 1997 TB_{20}	17.1	X	128.94116	311.18108	350.04664	6.31177	0.1220663	0.21671498	2.7450068	21	—	—
439842 1998 KL_{10}	16.5	X	114.12125	135.32992	153.24465	9.51079	0.1458624	0.18936752	3.0033023	21	12 14.7	21.4
439843 1998 QR_{29}	17.4	X	140.91127	64.35631	268.78214	3.58377	0.1903245	0.23229596	2.6208467	21	—	—
439844 1998 RF_{26}	16.8	X	120.44055	337.59866	17.12361	5.63238	0.3269200	0.23076893	2.6323956	21	1 13.5	20.6
439845 1998 RJ_{54}	17.7	X	237.79597	189.31489	195.24575	7.35693	0.3004566	0.28981389	2.2614653	21	5 10.3	21.6
439846 1998 SL_{6}	17.2	X	114.00082	46.33898	355.44237	4.74111	0.2899720	0.23381015	2.6095191	21	2 27.8	20.8
439847 1998 SY_{7}	16.4	X	349.53496	311.26353	50.78078	0.57263	0.2056094	0.17147071	3.2088007	21	10 3.3	19.5
439848 1998 SF_{110}	17.4	X	153.84035	349.24774	351.32758	6.87382	0.3759057	0.23296616	2.6158178	21	1 29.5	22.0
439849 1998 TB_{3}	15.8	X	0.51585	101.34339	255.89940	23.57929	0.1863833	0.21533207	2.7567470	21	10 21.7	19.2
439850 1998 TK_{3}	16.6	X	100.73970	180.71953	214.09499	13.23389	0.2923266	0.22986684	2.6392782	21	1 29.9	20.2
439851 1998 WP_{25}	17.7	X	205.92121	339.39718	46.45963	5.83747	0.1697589	0.28462142	2.2888869	21	4 19.8	21.2
439852 1998 WX_{29}	17.9	X	229.83966	11.81091	333.90834	0.94405	0.2430441	0.28435611	2.2903104	21	3 18.1	21.6
439853 1998 XD_{4}	18.1	X	218.40171	170.82717	226.34213	4.29930	0.1938529	0.28633584	2.2797413	21	5 14.6	21.8
439854 1998 XA_{5}	18.6	X	192.79440	211.29009	274.18023	31.75785	0.3069920	0.50653365	1.5585851	21	8 1.8	21.5
439855 1998 XF_{7}	17.2	X	126.68431	102.34657	236.81573	11.39528	0.2858478	0.22708790	2.6607663	21	—	—
439856 1998 XR_{98}	17.9	X	206.12331	147.22693	232.22015	4.40560	0.2520139	0.28367661	2.2939663	21	4 9.5	21.8
439857 1998 YJ_{13}	16.7	X	355.95234	330.29131	105.88078	10.20870	0.1477168	0.21542342	2.7559676	21	—	—
439858 1999 ON_{4}	7.6	X	20.79678	190.06564	132.99582	3.18128	0.0488283	0.00349423	43.0098745	21	9 9.7	23.7
439859 1999 RF_{9}	17.7	X	351.98625	211.01065	156.38094	1.15573	0.1871045	0.18079349	3.0975205	21	10 17.2	20.9
439860 1999 SZ_{20}	18.0	X	135.57099	171.41447	209.37972	1.36897	0.2333786	0.24522153	2.5279219	21	2 14.3	21.8
439861 1999 SW_{22}	17.2	X	19.83657	80.78719	9.79883	11.36890	0.1582978	0.23601480	2.5932431	21	—	—
439862 1999 TT_{45}	17.9	X	126.89067	352.05231	8.41841	5.67949	0.2424059	0.24081785	2.5586464	21	1 14.7	21.5
439863 1999 TH_{50}	16.2	X	180.12308	355.00531	188.07331	22.91931	0.0854332	0.17995959	3.1070820	21	10 12.6	21.0
439864 1999 TL_{54}	16.4	X	322.02961	166.63935	215.53172	5.09755	0.1767416	0.17555527	3.1588339	21	9 4.7	20.0
439865 1999 TB_{72}	18.6	X	298.30267	138.98939	189.54661	1.12105	0.1508854	0.30427218	2.1892459	21	5 15.1	21.1
439866 1999 TN_{296}	16.2	X	286.70123	80.77488	350.59574	8.24857	0.1344506	0.17869886	3.1216786	21	9 20.0	20.3
439867 1999 VC_{85}	16.2	X	40.94516	75.12647	225.03653	9.51527	0.0145323	0.17371633	3.1810875	21	9 15.2	20.7
439868 1999 VA_{102}	17.3	X	96.15468	193.53194	227.15377	10.13954	0.2213024	0.24072167	2.5593279	21	2 12.9	20.6
439869 1999 VZ_{106}	17.3	X	130.18422	349.18285	64.69967	7.79651	0.0782049	0.28947548	2.2632274	21	2 28.0	20.2
439870 1999 VL_{110}	17.8	X	133.91486	324.90264	60.90975	10.20192	0.2543342	0.24234555	2.5478822	21	2 27.3	21.9
439871 1999 VC_{120}	16.5	X	255.87536	66.06695	18.50431	5.61298	0.0988578	0.17297415	3.1901804	21	9 4.0	21.0
439872 1999 VA_{122}	17.9	X	72.82418	338.37244	77.42089	3.74270	0.1406757	0.23715119	2.5849521	21	—	—
439873 1999 VP_{142}	18.0	X	284.66740	248.49895	88.95630	3.65203	0.1621644	0.30167256	2.2018050	21	5 7.9	20.6
439874 1999 VB_{153}	17.8	X	84.17901	311.65439	76.72673	3.24750	0.1246992	0.23586742	2.5943232	21	—	—
439875 1999 VX_{165}	17.4	X	98.20700	345.35963	36.17785	5.42936	0.2720264	0.23773882	2.5806909	21	1 9.0	20.3
439876 1999 VM_{196}	16.3	X	300.29383	226.03844	193.38910	11.72687	0.3010572	0.17454383	3.1710253	21	8 27.3	20.2
439877 1999 XM_{141}	19.5	X	197.28983	105.73127	73.00975	21.61910	0.3694133	0.71694204	1.2363649	21	—	—
439878 1999 XZ_{145}	18.2	X	53.30893	351.12949	73.02856	3.36966	0.1489673	0.23529982	2.5984936	21	—	—
439879 1999 XC_{146}	18.0	X	233.80558	157.35271	236.18816	4.05485	0.1263589	0.30074202	2.2063444	21	5 28.9	20.9
439880 1999 XV_{223}	17.7	X	112.85192	300.91937	97.93745	7.36646	0.3587681	0.23936949	2.5689571	21	3 5.4	21.5
439881 1999 XE_{250}	16.9	X	80.20165	118.63542	252.22910	12.19100	0.2686514	0.23437231	2.6053447	21	—	—
439882 1999 YZ_{12}	17.1	X	331.58112	168.41986	293.24829	11.19079	0.1296086	0.22487324	2.6782073	21	—	—
439883 2000 AB_{4}	16.0	X	47.29375	158.81163	286.29100	21.05943	0.0981864	0.23347136	2.6120429	21	—	—
439884 2000 AT_{221}	17.1	X	186.90640	150.69019	101.28390	7.20148	0.0615720	0.22411591	2.6842374	21	—	—
439885 2000 CD_{32}	17.7	X	329.69213	29.82274	139.38484	24.47866	0.2329185	0.41127370	1.7908069	21	—	—
439886 2000 KQ_{1}	16.2	X	10.12733	12.13273	211.08034	37.62886	0.2887944	0.23246727	2.6195590	21	4 18.3	17.6
439887 2000 MO_{6}	17.2	X	222.99611	353.21855	313.62907	4.81911	0.3162730	0.26503664	2.4002995	21	1 27.6	21.5
439888 2000 NO_{1}	18.1	X	281.09461	350.82898	237.05790	3.51896	0.0901406	0.26340014	2.4102312	21	—	—
439889 2000 PG_{5}	20.1	X	338.92166	358.74323	309.74854	6.11897	0.4582527	0.32703653	2.0864367	21	4 15.8	21.9
439890 2000 QA_{133}	18.0	X	167.66867	230.68175	138.58050	4.47831	0.3700085	0.26047769	2.4282256	21	3 8.8	22.4
439891 2000 RG_{84}	16.8	X	183.61058	29.26381	310.46395	11.07635	0.2251644	0.26165433	2.4209404	21	2 4.6	20.9
439892 2000 SF_{14}	17.2	X	183.73761	116.09621	262.33068	7.70581	0.2891040	0.26343831	2.4099984	21	3 22.1	21.7
439893 2000 SN_{184}	17.9	X	182.78081	248.76591	153.52343	4.57395	0.2866238	0.26443267	2.4039530	21	4 24.5	22.2
439894 2000 SZ_{207}	17.3	X	137.13721	201.98828	169.93691	0.83392	0.2040220	0.25476034	2.4644207	21	1 31.3	20.7
439895 2000 ST_{249}	17.5	X	211.36997	176.34943	152.56479	5.55211	0.2675532	0.26226371	2.4171888	21	2 14.1	21.9
439896 2000 SK_{326}	17.4	X	5.24848	8.57735	13.46509	5.74274	0.1768261	0.19082833	2.9879557	21	11 30.7	20.9
439897 2000 TU_{1}	17.6	X	229.79999	218.60009	330.74166	19.11144	0.0205629	0.38705607	1.8647479	21	—	—
439898 2000 TG_{2}	19.9	X	353.61143	200.39162	206.83005	11.99981	0.2452348	0.52510054	1.5216254	21	—	—
439899 2000 UA_{13}	16.8	X	163.34669	74.20686	288.26634	6.43344	0.1339953	0.25688387	2.4508204	21	2 6.7	20.3
439900 2000 WB_{5}	16.3	X	341.36103	182.21594	258.83569	13.04530	0.1346565	0.23917265	2.5703664	21	—	—
439901 2000 WK_{24}	18.0	X	101.84781	123.57140	300.14554	1.57582	0.2359923	0.25323437	2.4743110	21	3 1.1	20.9
439902 2000 WR_{45}	16.2	X	329.94257	140.94960	233.67458	19.22436	0.2843523	0.18330165	3.0691996	21	8 23.1	19.7
439903 2000 WR_{56}	15.7	X	338.89960	129.46194	238.92094	18.50956	0.2846109	0.18422194	3.0589695	21	9 7.7	18.9
439904 2000 WO_{68}	17.3	X	179.99635	120.11351	243.45782	8.10409	0.2580165	0.25836796	2.4414263	21	2 28.9	21.7
439905 2000 WY_{136}	17.0	X	164.34819	332.79407	42.67413	6.35776	0.2084367	0.25713705	2.4492114	21	3 6.5	21.0
439906 2000 WB_{192}	17.7	X	212.12742	235.98404	154.04143	8.28335	0.3173843	0.26605141	2.3941922	21	4 30.8	22.2
439907 2000 XH_{11}	14.6	X	231.51533	2.00478	40.05739	11.69427	0.3218819	0.12404938	3.9817409	21	5 28.2	21.3
439908 2000 XH_{47}	19.3	X	352.72950	104.70352	295.84820	16.94617	0.2250237	0.52303137	1.5256359	21	—	—
439909 2000 YX_{133}	17.8	X	271.93993	187.12617	295.23381	18.99315	0.0569770	0.37425127	1.9070432	21	—	—
439910 2001 AD_{44}	17.8	X	41.41128	114.21889	305.30389	19.20735	0.1259984	0.38553200	1.8696591	21	—	—
439911 2001 DY_{8}	17.4	X	260.23959	307.06110	142.29608	24.43158	0.0776422	0.36563507	1.9368864	21	10 20.0	19.8
439912 2001 FD_{87}	17.5	X	339.59471	13.09035	153.51462	7.62749	0.2205358	0.28689243	2.2767918	21	—	—
439913 2001 FM_{119}	17.0	X	330.60562	3.45306	185.34641	23.87170	0.2068504	0.28778644	2.2720741	21	—	—
439914 2001 OF_{30}	18.1	X	244.83681	335.51944	10.01932	3.49209	0.2968613	0.28424935	2.2908838	21	3 27.5	21.8
439915 2001 OT_{77}	18.0	X	267.07654	334.89164	321.35379	5.90273	0.2804046	0.28338143	2.2955590	21	2 13.2	21.9
439916 2001 PP_{32}	15.9	X	143.35091	310.40971	16.10666	12.23407	0.1246403	0.21802142	2.7340300	21	—	—
439917 2001 QQ_{69}	16.5	X	87.33243	37.58610	318.77300	7.39640	0.3287519	0.21120282	2.7925625	21	—	—
439918 2001 QX_{115}	16.6	X	92.48859	29.77639	318.09714	11.64182	0.3037780	0.21124659	2.7921768	21	—	—
439919 2001 QF_{132}	18.3	X	225.97857	68.27550	284.43972	4.17194	0.2883065	0.28054619	2.3109992	21	3 21.0	22.5
439920 2001 QK_{171}	17.3	X	294.43560	107.07265	159.04736	22.28178	0.2096493	0.28330139	2.2959913	21	2 5.3	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
439921 2001 QM_{172}	17.4	X	207.42312	120.01933	269.57335	5.48507	0.1846177	0.28222713	2.3018139	21	4 23.1	21.2
439922 2001 QK_{211}	18.2	X	236.97928	143.03137	184.23502	2.78816	0.2671420	0.27961035	2.3161529	21	2 28.6	22.2
439923 2001 QO_{216}	17.8	X	258.17898	184.67017	131.46851	4.33375	0.2413038	0.28163525	2.3050377	21	3 6.3	21.6
439924 2001 QY_{225}	16.9	X	86.55716	47.16673	293.62605	8.13208	0.2272495	0.20975446	2.8054030	21	—	—
439925 2001 QX_{255}	16.3	X	114.38373	340.78706	346.18301	13.26713	0.1912596	0.21358772	2.7717360	21	—	—
439926 2001 QY_{264}	18.0	X	210.75236	218.93116	144.73115	6.09886	0.2604397	0.28032739	2.3122016	21	3 27.7	22.0
439927 2001 QM_{290}	18.4	X	233.56807	192.04912	169.26424	2.44110	0.2284088	0.28318100	2.2966420	21	4 11.0	22.1
439928 2001 RH_{12}	18.4	X	224.55251	7.14309	1.78225	2.29031	0.3065816	0.28163057	2.3050633	21	4 9.9	22.5
439929 2001 RF_{24}	18.1	X	257.87919	333.91090	354.39359	2.67415	0.2392808	0.28302606	2.2974802	21	3 19.8	21.7
439930 2001 RK_{29}	17.1	X	105.14598	238.28844	153.73551	8.55827	0.2897957	0.21692367	2.7432460	21	2 6.8	20.7
439931 2001 RT_{46}	17.6	X	335.34148	268.05216	151.80778	23.27148	0.3152847	0.34943826	1.9962844	21	—	—
439932 2001 RW_{59}	17.8	X	251.62719	223.25880	90.50813	3.24436	0.2356394	0.28010496	2.3134255	21	2 26.7	21.5
439933 2001 RE_{129}	16.4	X	83.41181	341.87190	5.77364	11.92314	0.1522126	0.20980684	2.8049360	21	—	—
439934 2001 RY_{145}	16.9	X	60.24376	173.58672	215.25684	7.54778	0.2245544	0.21058437	2.7980274	21	—	—
439935 2001 SY_{34}	17.6	X	227.72075	176.95931	172.00369	5.34683	0.1889576	0.27879200	2.3206831	21	3 23.1	21.3
439936 2001 SS_{37}	17.6	X	250.34424	333.17564	19.97740	11.22262	0.2794916	0.28269376	2.2992802	21	4 10.9	21.4
439937 2001 SB_{38}	17.9	X	215.75211	213.78642	156.87224	4.57137	0.1880585	0.27901681	2.3194364	21	4 9.9	21.6
439938 2001 SM_{38}	16.8	X	102.19833	344.73933	16.72539	9.56398	0.2166542	0.21219671	2.7838358	21	—	—
439939 2001 SX_{77}	18.2	X	228.51962	162.53208	161.18862	1.11706	0.2096489	0.27771295	2.3266906	21	2 19.7	22.0
439940 2001 SK_{121}	17.3	X	49.53229	48.64613	274.15225	4.08698	0.2585629	0.20363311	2.8613465	21	12 5.1	21.3
439941 2001 SH_{127}	17.3	X	78.60248	19.86629	335.50405	9.14042	0.1944917	0.20968782	2.8059972	21	—	—
439942 2001 SD_{132}	18.4	X	221.77514	114.93203	218.88770	0.71793	0.2018017	0.27730087	2.3289950	21	2 26.4	22.1
439943 2001 SO_{152}	17.7	X	165.31652	160.21571	203.78005	6.70912	0.2445765	0.27145866	2.3622920	21	2 17.1	21.5
439944 2001 SS_{174}	16.6	X	91.30513	207.05434	172.50037	13.04074	0.1903790	0.21296618	2.7771262	21	—	—
439945 2001 SL_{225}	16.8	X	107.61946	150.37935	178.43948	10.05756	0.2117840	0.21051116	2.7986761	21	—	—
439946 2001 SV_{246}	17.6	X	236.09629	167.99237	175.73574	6.01778	0.2020586	0.27896217	2.3197393	21	3 23.3	21.3
439947 2001 SQ_{290}	17.9	X	245.37641	280.29204	61.78906	3.03319	0.2461624	0.28092910	2.3088988	21	3 27.8	21.6
439948 2001 SD_{300}	17.4	X	98.71968	23.49771	329.84450	7.01344	0.2760993	0.21195892	2.7859175	21	—	—
439949 2001 SG_{318}	18.4	X	203.37087	355.68724	6.19386	1.38229	0.2069043	0.27710328	2.3301020	21	3 18.1	22.0
439950 2001 SK_{323}	17.7	X	173.40542	165.11973	251.91874	3.90713	0.2026475	0.27839442	2.3228921	21	4 29.7	21.4
439951 2001 SD_{338}	18.5	X	199.89179	13.21751	355.54844	1.23269	0.1964007	0.27725951	2.3292266	21	3 23.3	22.3
439952 2001 SB_{339}	17.0	X	103.99920	105.68190	236.88358	7.53890	0.3053803	0.21315044	2.7755255	21	—	—
439953 2001 TV_{54}	18.4	X	235.37735	148.76204	210.44961	4.42826	0.2790784	0.28156357	2.3054290	21	4 6.7	22.2
439954 2001 TJ_{55}	17.5	X	339.11442	177.11651	216.19637	21.39035	0.1065932	0.34748127	2.0037727	21	12 4.8	19.3
439955 2001 TV_{104}	18.0	X	173.33197	331.77438	52.77442	2.96189	0.2189063	0.27372542	2.3492323	21	3 22.8	21.8
439956 2001 TN_{173}	18.3	X	179.89572	263.79392	127.21748	1.33672	0.1876875	0.27580037	2.3374347	21	4 3.4	22.0
439957 2001 TX_{173}	16.9	X	137.42958	93.34787	355.00539	11.17495	0.1127326	0.27682683	2.3316531	21	4 23.4	20.3
439958 2001 TD_{186}	18.5	X	245.68981	4.94039	338.26258	1.87151	0.2781473	0.28057910	2.3108185	21	3 25.9	22.6
439959 2001 TX_{189}	17.7	X	188.20066	102.22999	273.80122	3.52262	0.2573290	0.27435036	2.3456634	21	3 22.7	21.8
439960 2001 TO_{199}	16.5	X	82.19052	329.44175	36.75440	12.22129	0.2467735	0.21043978	2.7993089	21	—	—
439961 2001 UM_{53}	16.4	X	101.99964	191.16854	189.81331	12.96558	0.2791160	0.21162317	2.7888634	21	1 17.8	20.3
439962 2001 UT_{55}	18.5	X	183.18105	39.34330	5.24988	8.70757	0.2423693	0.27764456	2.3270726	21	4 22.0	22.5
439963 2001 UF_{136}	16.7	X	340.39031	249.79744	214.63576	6.83522	0.2837152	0.20314804	2.8658995	21	—	—
439964 2001 UC_{148}	18.6	X	203.37459	164.18761	204.46435	2.90292	0.2714637	0.27651886	2.3333840	21	3 26.4	22.8
439965 2001 UF_{149}	17.3	X	140.02889	342.87135	60.87262	3.85048	0.1981981	0.26975248	2.3722425	21	3 15.2	20.7
439966 2001 UO_{159}	17.6	X	222.31226	291.06599	53.21113	10.67491	0.2580240	0.27550993	2.3390771	21	3 16.8	21.8
439967 2001 UY_{197}	16.8	X	63.72604	38.08262	340.19692	3.33731	0.1100915	0.20862528	2.8155166	21	—	—
439968 2001 UL_{229}	17.3	X	55.78500	285.76296	100.44971	4.30291	0.1939059	0.20879553	2.8139859	21	—	—
439969 2001 VO_{3}	18.4	X	162.37656	172.46498	241.52659	0.72455	0.1682388	0.27456387	2.3444472	21	4 14.4	22.0
439970 2001 VG_{8}	16.4	X	358.39993	14.88230	50.27109	12.07663	0.1058088	0.20257076	2.8713417	21	—	—
439971 2001 VM_{23}	15.9	X	29.78868	354.16747	50.62714	11.85765	0.1440111	0.20355726	2.8620572	21	—	—
439972 2001 VX_{26}	17.4	X	243.11029	347.61752	55.44771	6.34977	0.1597967	0.28325366	2.2962493	21	6 18.7	20.6
439973 2001 VF_{60}	17.2	X	167.25575	321.13842	20.85169	5.28069	0.2574660	0.26821760	2.3812840	21	1 28.4	21.1
439974 2001 WH_{15}	16.7	X	226.68483	92.95076	262.98829	20.86205	0.3413042	0.27627173	2.3347753	21	3 16.6	21.7
439975 2001 WG_{21}	18.2	X	209.14261	334.33100	38.44805	6.21161	0.1644781	0.27638940	2.3341126	21	4 7.1	21.7
439976 2001 WF_{32}	18.0	X	148.14088	5.73109	68.85927	7.14923	0.2232122	0.27363528	2.3497482	21	5 3.4	21.7
439977 2001 WT_{53}	18.2	X	188.03811	357.80761	44.48840	3.64828	0.1800941	0.27675754	2.3320422	21	4 24.5	22.0
439978 2001 WC_{65}	17.6	X	242.09879	284.26682	52.04988	11.17008	0.2667688	0.27926030	2.3180880	21	3 21.4	21.7
439979 2001 WM_{65}	17.8	X	204.61626	153.16721	218.44151	4.40062	0.1491634	0.27652446	2.3333525	21	3 29.9	21.3
439980 2001 WY_{67}	17.8	X	244.69028	129.99490	207.00909	1.79326	0.2313098	0.27854621	2.3220481	21	3 20.1	21.5
439981 2001 WH_{68}	17.9	X	208.94874	281.30515	63.13985	3.73102	0.2226482	0.27417151	2.3466834	21	3 3.4	21.9
439982 2001 WG_{87}	18.1	X	199.57482	137.47371	258.83408	4.13557	0.2410909	0.27798728	2.3251596	21	4 25.7	22.2
439983 2001 WP_{91}	17.5	X	199.42443	44.77590	338.16134	4.18320	0.2507716	0.27576427	2.3376387	21	4 8.8	21.5
439984 2001 XK_{51}	17.3	X	130.46170	172.15498	243.84736	8.32427	0.1322666	0.26871056	2.3783708	21	3 5.8	20.7
439985 2001 XT_{75}	16.1	X	25.99974	340.46007	63.66631	16.10851	0.1269495	0.20375645	2.8601916	21	—	—
439986 2001 XF_{110}	17.6	X	185.36135	309.17159	92.92492	6.62530	0.2409069	0.27594268	2.3366310	21	4 25.7	21.7
439987 2001 XS_{146}	14.8	X	178.98164	182.16197	266.07466	7.59890	0.1977498	0.12633054	3.9336630	21	6 17.3	21.1
439988 2001 XF_{169}	17.5	X	159.97547	18.79168	93.75057	5.16759	0.2638127	0.27636470	2.3342516	21	7 1.8	21.5
439989 2001 XH_{230}	16.9	X	147.22953	327.43822	74.75925	10.50548	0.0957936	0.26874985	2.3781390	21	3 13.5	20.3
439990 2001 XB_{235}	17.4	X	221.75944	95.72221	275.97750	8.94214	0.2570274	0.27711357	2.3300444	21	4 9.1	21.6
439991 2001 YC_{16}	17.7	X	168.68139	299.80777	85.28062	1.26505	0.1634626	0.26932339	2.3747615	21	3 15.6	21.3
439992 2001 YT_{36}	16.5	X	356.96850	339.32240	72.54167	10.22101	0.1208020	0.19812806	2.9141063	21	12 22.4	19.9
439993 2001 YU_{92}	17.4	X	214.25346	283.87400	73.33944	8.11820	0.1404410	0.27315756	2.3524870	21	3 26.7	21.1
439994 2002 AK_{2}	16.9	X	136.01251	316.38538	152.70928	24.63862	0.3807441	0.27361360	2.3498723	21	6 18.5	21.7
439995 2002 AW_{73}	15.3	X	203.54966	136.61261	289.51444	6.52040	0.2245522	0.12625742	3.9351815	21	6 10.3	21.8
439996 2002 AH_{88}	17.4	X	110.35827	327.25923	134.28261	7.07606	0.1618736	0.26767584	2.3844960	21	4 23.2	20.6
439997 2002 AA_{109}	15.5	X	219.44569	186.03644	313.35403	10.79316	0.0713206	0.18498104	3.0505951	21	9 26.9	20.2
439998 2002 CM_{4}	16.4	X	215.35162	243.71763	330.70473	26.69679	0.4339447	0.23726663	2.5841136	21	11 24.5	21.6
439999 2002 CX_{11}	16.9	X	200.86740	22.09967	167.68127	14.73273	0.4389105	0.23283371	2.6168097	21	10 27.3	22.1
440000 2002 CM_{88}	17.1	X	128.72800	325.92651	135.84783	7.56956	0.0731268	0.26718621	2.3874083	21	5 4.4	20.3