Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488001 2015 TD_{346}	17.1	X	123.75081	310.10941	56.89511	7.02658	0.0350417	0.22288140	2.6941400	21	—	—
488002 2015 TK_{346}	17.8	X	75.42449	132.10492	74.66928	5.79250	0.0769992	0.29321159	2.2439609	21	7 18.1	20.3
488003 2015 TM_{346}	17.3	X	97.65144	266.00999	111.32083	4.37264	0.1007565	0.21431779	2.7654379	21	—	—
488004 2015 TO_{346}	16.6	X	122.67575	201.50440	155.38633	5.07553	0.1284727	0.21877463	2.7277512	21	—	—
488005 2015 TZ_{347}	16.9	X	72.74691	327.55084	95.80400	3.65440	0.1317252	0.22101912	2.7092525	21	1 6.3	19.7
488006 2015 TT_{348}	17.5	X	57.99857	26.55362	89.33306	5.14288	0.1111525	0.23661983	2.5888206	21	2 18.0	20.3
488007 2015 TA_{349}	17.0	X	75.75919	288.55228	111.58971	4.45887	0.0979759	0.21369913	2.7707725	21	—	—
488008 2015 TH_{349}	16.6	X	39.91572	226.86909	158.79953	9.24198	0.1350837	0.18787304	3.0192083	21	—	—
488009 2015 TO_{349}	17.4	X	320.58313	78.00056	130.77325	3.77872	0.0762993	0.24059906	2.5601973	21	1 20.9	20.7
488010 2015 TT_{349}	17.4	X	304.76501	85.77196	145.49373	4.58175	0.0817409	0.24490436	2.5301040	21	1 27.7	20.6
488011 2015 UF_{1}	17.1	X	91.84577	325.09193	44.41529	7.25307	0.0587239	0.21064948	2.7974508	21	—	—
488012 2015 UQ_{1}	16.6	X	74.63039	294.97829	137.39121	2.54095	0.0740404	0.22915169	2.6447665	21	1 12.6	19.8
488013 2015 UU_{2}	17.5	X	97.21670	339.06375	19.77452	4.22390	0.1133495	0.21031719	2.8003966	21	—	—
488014 2015 UD_{6}	15.5	X	328.36324	352.78146	79.06338	13.50281	0.2074259	0.17706661	3.1408336	21	11 25.8	18.7
488015 2015 US_{6}	16.8	X	349.85890	297.51252	116.36228	4.76328	0.1953513	0.17783975	3.1317241	21	12 14.2	20.1
488016 2015 UL_{9}	16.6	X	341.71701	239.56783	193.17372	15.44730	0.1597566	0.18355807	3.0663406	21	12 22.3	20.4
488017 2015 UF_{13}	17.1	X	25.65914	254.40361	196.94926	14.72777	0.1747410	0.21022844	2.8011847	21	—	—
488018 2015 UL_{14}	17.4	X	287.50124	144.25871	53.93546	5.43188	0.0630795	0.22276211	2.6951018	21	—	—
488019 2015 UL_{15}	17.0	X	16.01315	0.53438	30.00043	11.27072	0.2174409	0.18295155	3.0731138	21	—	—
488020 2015 UJ_{17}	17.2	X	146.85102	175.05488	160.26272	6.90034	0.0593636	0.22281395	2.6946837	21	—	—
488021 2015 UK_{19}	17.2	X	58.55961	219.82936	169.82049	2.17753	0.0729454	0.20353527	2.8622634	21	—	—
488022 2015 UT_{21}	17.7	X	36.37729	21.91715	175.47978	6.84947	0.0594684	0.27244890	2.3565646	21	4 29.8	20.2
488023 2015 UL_{24}	17.4	X	324.21145	108.78309	119.93457	4.97373	0.0880223	0.25552750	2.4594856	21	2 17.5	20.3
488024 2015 UH_{26}	16.4	X	22.55605	205.83033	172.67018	9.33400	0.0609214	0.18051968	3.1006519	21	12 7.9	20.7
488025 2015 UU_{26}	16.6	X	27.92169	199.29013	183.56522	10.18664	0.1608616	0.18511502	3.0491230	21	—	—
488026 2015 UM_{28}	16.8	X	302.62162	82.69397	88.88257	5.09379	0.0378326	0.21342887	2.7731111	21	—	—
488027 2015 UP_{28}	17.5	X	51.94079	3.18650	74.25756	5.19430	0.0682099	0.21915504	2.7245936	21	—	—
488028 2015 UY_{28}	17.4	X	304.59151	145.73830	88.01882	2.23767	0.0655223	0.24779207	2.5104088	21	2 2.5	20.7
488029 2015 UD_{30}	16.6	X	41.34229	338.89107	69.57083	3.09298	0.0841298	0.20189535	2.8777419	21	—	—
488030 2015 UT_{31}	17.0	X	113.51505	168.93754	188.80574	8.18908	0.1238757	0.21636248	2.7479874	21	—	—
488031 2015 UQ_{34}	17.3	X	97.80252	324.25858	55.54759	6.55407	0.0334031	0.21590371	2.7518789	21	—	—
488032 2015 UV_{35}	16.9	X	129.18784	213.41498	189.86619	10.95103	0.0541432	0.24093124	2.5578435	21	2 10.4	20.5
488033 2015 UL_{36}	17.6	X	130.41067	344.78921	144.21211	5.53571	0.0985984	0.27922265	2.3182964	21	6 13.6	20.8
488034 2015 UZ_{36}	17.2	X	41.78420	337.80507	150.50430	5.98723	0.0906251	0.23630457	2.5911226	21	2 4.2	20.2
488035 2015 UC_{38}	17.9	X	101.45366	61.20615	67.54794	2.35274	0.1318832	0.26580772	2.3956553	21	5 11.8	20.9
488036 2015 UR_{39}	17.9	X	28.03726	87.47444	165.43691	5.02291	0.1259365	0.30040411	2.2079986	21	7 14.2	19.9
488037 2015 UD_{43}	17.1	X	231.73726	114.75927	86.06521	12.38543	0.0167563	0.18903333	3.0068410	21	—	—
488038 2015 UK_{43}	17.0	X	354.29331	308.55314	127.07116	8.89290	0.1232148	0.18445622	3.0563788	21	—	—
488039 2015 UN_{43}	16.5	X	255.07367	74.32134	91.45812	12.27501	0.0398194	0.18158154	3.0885520	21	12 18.8	20.8
488040 2015 UB_{44}	16.4	X	0.85557	297.92065	141.97791	10.97847	0.0903598	0.18988819	2.9978098	21	—	—
488041 2015 UL_{45}	16.3	X	83.23752	272.42195	75.85714	13.03653	0.0379406	0.18916359	3.0054605	21	—	—
488042 2015 UN_{45}	17.1	X	167.41266	293.17171	102.48958	8.66040	0.0483069	0.25146871	2.4858796	21	3 24.9	20.6
488043 2015 UR_{46}	16.8	X	138.37133	148.05108	169.19409	12.24202	0.0438028	0.19977667	2.8980521	21	—	—
488044 2015 UT_{46}	16.9	X	56.87415	210.89505	152.17587	10.07305	0.0987899	0.18390287	3.0625067	21	—	—
488045 2015 UA_{47}	16.3	X	30.57609	243.10439	128.75568	11.95330	0.0966363	0.17555237	3.1588688	21	12 14.2	20.6
488046 2015 UU_{48}	16.3	X	106.58238	220.24193	89.86116	14.70526	0.0577433	0.18103809	3.0947299	21	12 23.9	20.7
488047 2015 UA_{49}	17.1	X	54.88146	337.01273	164.10980	9.39198	0.1231855	0.23759143	2.5817580	21	3 20.1	19.8
488048 2015 US_{49}	16.2	X	321.33076	320.65086	152.36861	13.85793	0.1610395	0.17861842	3.1226158	21	—	—
488049 2015 UF_{50}	16.4	X	350.59241	292.69869	118.60883	10.96083	0.0403579	0.17227083	3.1988574	21	12 3.3	20.8
488050 2015 UA_{51}	16.6	X	35.48749	260.77265	112.26793	10.57347	0.0804623	0.17981741	3.1087196	21	12 19.9	20.9
488051 2015 UE_{53}	17.1	X	91.37628	301.29582	118.27174	4.06221	0.0580144	0.23139111	2.6276748	21	1 17.7	20.2
488052 2015 UF_{53}	16.7	X	65.81866	234.75538	158.36571	6.64659	0.0700867	0.20868177	2.8150085	21	—	—
488053 2015 UN_{53}	16.5	X	328.90426	318.12723	121.89283	3.91802	0.1652074	0.17725989	3.1385501	21	12 7.6	20.0
488054 2015 UW_{53}	16.8	X	297.25862	294.31407	150.27402	1.96383	0.1272017	0.16811502	3.2513599	21	10 23.1	20.8
488055 2015 UZ_{54}	16.3	X	185.20032	7.11659	201.04993	16.32473	0.0517192	0.17799722	3.1298767	21	11 18.5	21.1
488056 2015 UH_{55}	16.2	X	252.34047	2.11616	43.93979	3.90802	0.2325577	0.12665084	3.9270281	21	6 26.6	22.2
488057 2015 UL_{55}	17.5	X	116.48057	278.82820	110.63551	3.45378	0.0684636	0.23071421	2.6328118	21	1 14.4	21.0
488058 2015 UQ_{55}	17.2	X	147.00559	163.99676	177.35661	5.57034	0.0792803	0.22477275	2.6790055	21	—	—
488059 2015 UR_{56}	16.4	X	4.63571	357.14088	46.35667	11.26246	0.0852056	0.18292621	3.0733976	21	12 15.2	20.4
488060 2015 UF_{58}	17.0	X	91.30996	245.43370	186.55329	12.02931	0.0763658	0.22980363	2.6397621	21	2 2.7	20.6
488061 2015 UR_{59}	16.5	X	32.41011	251.61643	114.12208	9.27750	0.2119891	0.17579902	3.1559134	21	12 24.4	20.6
488062 2015 UP_{60}	17.2	X	310.16084	77.02238	130.40099	7.75008	0.0931945	0.22571599	2.6715368	21	1 6.7	20.8
488063 2015 UX_{60}	16.2	X	318.47482	281.01620	213.73522	24.14703	0.2724085	0.17477462	3.1682332	21	—	—
488064 2015 UV_{65}	16.2	X	47.31294	225.59928	137.49847	11.94552	0.2198488	0.18134974	3.0911833	21	—	—
488065 2015 UH_{71}	17.0	X	74.54975	272.87812	105.20091	5.39183	0.1143185	0.20929615	2.8094969	21	—	—
488066 2015 UD_{74}	17.4	X	262.25757	346.01872	0.97302	8.40431	0.1745315	0.28071691	2.3100621	21	4 20.7	20.8
488067 2015 US_{75}	16.1	X	331.15728	192.15678	258.23593	16.43430	0.1733310	0.17937803	3.1137940	21	12 24.7	19.5
488068 2015 UJ_{78}	16.5	X	14.95642	333.79288	96.31338	12.94580	0.1144546	0.19313340	2.9641338	21	—	—
488069 2015 UN_{78}	16.7	X	138.93854	233.18681	165.95320	11.76693	0.1716602	0.24011690	2.5636234	21	3 6.9	20.6
488070 2015 UQ_{79}	16.6	X	351.10438	336.33454	97.26454	18.56390	0.1087718	0.18273724	3.0755161	21	—	—
488071 2015 UO_{82}	17.3	X	46.86910	294.09169	156.12328	2.22524	0.0361172	0.22710736	2.6606142	21	—	—
488072 2015 UF_{84}	16.7	X	90.55859	174.99226	272.83138	7.02809	0.1719289	0.23577828	2.5949770	21	3 6.7	20.1
488073 2015 UH_{84}	16.7	X	168.52524	348.55071	8.36663	10.54997	0.1825810	0.23848060	2.5753367	21	2 16.9	20.9
488074 2015 VC_{3}	17.2	X	166.62391	347.88755	16.19253	2.73517	0.2256478	0.25358224	2.4720476	21	2 22.2	21.2
488075 2015 VQ_{5}	17.2	X	166.07990	294.50497	103.82908	12.15413	0.1227153	0.25509653	2.4622550	21	4 3.3	21.1
488076 2015 VL_{6}	16.3	X	41.96449	148.42186	234.93298	7.82392	0.1614315	0.18485358	3.0519973	21	—	—
488077 2015 VZ_{24}	15.8	X	345.05283	79.09850	348.22824	11.95589	0.0580074	0.18078464	3.0976216	21	12 15.3	20.1
488078 2015 VJ_{25}	16.4	X	136.66558	310.15039	109.74030	15.94162	0.1244069	0.24087904	2.5582131	21	4 2.1	20.4
488079 2015 VK_{25}	16.8	X	86.27977	271.22213	102.94640	7.57206	0.2185876	0.20903628	2.8118248	21	—	—
488080 2015 VT_{25}	16.6	X	195.50620	227.06766	56.73762	13.10452	0.1798723	0.21986893	2.7186928	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488081 2015 VN_{29}	16.5	X	3.67268	193.70779	256.91218	11.28261	0.0966899	0.19734310	2.9218287	21	—	—
488082 2015 VE_{30}	16.6	X	32.41304	197.38986	242.08325	9.22979	0.0858756	0.20650447	2.8347607	21	—	—
488083 2015 VL_{30}	16.4	X	346.51551	32.32867	24.58483	16.33160	0.1072378	0.17433515	3.1735553	21	12 1.9	20.6
488084 2015 VS_{30}	16.8	X	186.51102	357.10272	305.23166	4.29068	0.1511743	0.22492081	2.6778297	21	—	—
488085 2015 VV_{30}	16.8	X	109.82498	44.67007	353.24939	5.77707	0.0474238	0.22569814	2.6716776	21	1 15.9	20.4
488086 2015 VX_{33}	16.3	X	352.97025	148.75729	276.81199	4.36710	0.1198872	0.17918229	3.1160613	21	12 28.6	20.1
488087 2015 VE_{36}	17.4	X	84.31325	2.97491	43.87043	1.79086	0.0656812	0.21663037	2.7457215	21	—	—
488088 2015 VT_{36}	17.1	X	129.26993	325.08642	43.82326	6.60116	0.0586872	0.22128918	2.7070478	21	1 5.9	20.9
488089 2015 VU_{36}	16.3	X	325.72506	46.60893	53.62143	4.94849	0.0688917	0.18188557	3.0851093	21	12 29.9	20.3
488090 2015 VV_{40}	16.0	X	19.69742	231.06008	156.09065	11.49385	0.1223300	0.17674351	3.1446603	21	12 20.9	20.3
488091 2015 VG_{41}	16.3	X	321.16753	15.91107	91.56444	10.44004	0.0704751	0.18123490	3.0924890	21	—	—
488092 2015 VC_{42}	16.8	X	97.02523	270.75173	103.07534	8.58273	0.2436164	0.21050688	2.7987140	21	—	—
488093 2015 VC_{52}	16.6	X	262.51594	305.13605	222.27205	8.53881	0.0345842	0.18548047	3.0451165	21	12 30.4	21.0
488094 2015 VE_{62}	17.9	X	13.65147	35.38483	226.54306	4.99048	0.0987571	0.29080548	2.2563215	21	6 27.4	19.9
488095 2015 VS_{62}	16.8	X	228.32132	125.32018	166.85995	13.14555	0.1948184	0.23604459	2.5930248	21	1 16.9	21.3
488096 2015 VU_{62}	17.1	X	173.73447	213.10396	99.63015	15.15091	0.1981707	0.22131957	2.7068000	21	—	—
488097 2015 VW_{62}	16.4	X	293.39040	353.21440	132.78593	10.41419	0.0442648	0.17527699	3.1621766	21	12 17.9	20.8
488098 2015 VY_{62}	16.3	X	25.65248	285.38764	139.81299	9.84941	0.0753173	0.19173043	2.9785760	21	—	—
488099 2015 VQ_{63}	16.6	X	31.43604	270.89914	126.82592	12.19662	0.0775093	0.18370525	3.0647026	21	—	—
488100 2015 VR_{63}	16.3	X	7.14970	313.64566	132.64732	11.21263	0.1159492	0.18980333	2.9987033	21	—	—
488101 2015 VU_{63}	15.3	X	272.69015	231.16655	258.69525	15.10482	0.0230704	0.17625329	3.1504885	21	11 28.1	19.7
488102 2015 VQ_{66}	16.5	X	350.31490	34.72398	13.85777	6.06872	0.1565476	0.17950154	3.1123655	21	12 4.3	20.1
488103 2015 VR_{66}	16.5	X	339.20583	203.96942	235.87024	9.50571	0.1933343	0.17520917	3.1629925	21	12 25.6	19.9
488104 2015 VP_{67}	17.2	X	199.95965	3.05376	54.97688	7.81072	0.1116643	0.28391058	2.2927058	21	5 25.9	20.6
488105 2015 VW_{71}	17.0	X	342.11116	224.86252	191.96692	11.21569	0.1119751	0.16886138	3.2417722	21	11 28.9	21.1
488106 2015 VU_{76}	17.3	X	355.42477	144.71189	45.06800	6.38630	0.0938869	0.23915848	2.5704680	21	2 15.8	20.3
488107 2015 VZ_{77}	16.7	X	3.55165	343.96414	85.23996	10.65547	0.1274924	0.18425971	3.0585515	21	—	—
488108 2015 VH_{78}	16.2	X	9.99623	297.17812	87.78301	10.20907	0.1565805	0.17096439	3.2151330	21	12 6.6	20.1
488109 2015 VQ_{78}	16.6	X	35.67614	291.66692	157.73549	8.15463	0.2065600	0.20982322	2.8047900	21	—	—
488110 2015 VC_{79}	17.2	X	110.51375	290.78341	100.37209	5.75823	0.1267121	0.22617797	2.6678977	21	1 18.7	20.5
488111 2015 VY_{81}	16.9	X	121.94179	205.82870	158.45679	5.31633	0.1256514	0.21963011	2.7206633	21	—	—
488112 2015 VU_{82}	16.8	X	135.92748	204.04953	128.29810	4.41382	0.0924027	0.21119085	2.7926680	21	—	—
488113 2015 VZ_{83}	16.3	X	39.00344	286.60462	83.02244	12.12293	0.1009547	0.18172145	3.0869665	21	12 22.7	20.4
488114 2015 VD_{84}	16.2	X	5.80679	225.23268	174.15363	10.52015	0.2108602	0.17694477	3.1422753	21	12 25.6	20.0
488115 2015 VW_{89}	17.4	X	250.38377	323.66088	356.60009	5.30203	0.2135483	0.26715816	2.3875754	21	3 7.3	21.1
488116 2015 VL_{100}	17.7	X	21.04105	169.96954	83.93855	8.48148	0.0784528	0.28643711	2.2792040	21	6 27.8	19.8
488117 2015 VP_{101}	17.1	X	122.26570	274.93349	106.47518	4.01248	0.1146991	0.22184420	2.7025309	21	1 20.4	20.7
488118 2015 VE_{102}	15.9	X	138.13650	229.88002	83.85480	8.88397	0.1627227	0.20490825	2.8494634	21	—	—
488119 2015 VG_{102}	15.9	X	21.05667	5.57766	54.32373	10.41812	0.0955932	0.18714464	3.0270374	21	—	—
488120 2015 VR_{102}	16.8	X	145.94530	278.45926	58.67626	5.11601	0.0719506	0.21307511	2.7761796	21	—	—
488121 2015 VX_{103}	16.0	X	292.89345	324.15508	154.32410	2.31629	0.0090339	0.17824035	3.1270298	21	12 11.5	20.5
488122 2015 VZ_{106}	16.1	X	252.65753	180.64753	106.81749	16.15147	0.1151746	0.24388204	2.5371696	21	2 7.6	20.0
488123 2015 VU_{107}	16.2	X	79.27841	144.08633	230.47730	11.97824	0.1124454	0.20414295	2.8565805	21	—	—
488124 2015 VF_{111}	16.5	X	162.08109	67.10402	253.71325	8.16145	0.1199595	0.21936907	2.7228212	21	—	—
488125 2015 VC_{112}	16.2	X	28.65610	239.80528	129.61875	13.63090	0.1695750	0.17640283	3.1487077	21	12 18.8	20.5
488126 2015 VK_{113}	16.2	X	79.50337	157.71133	209.23959	19.05141	0.1685785	0.19471209	2.9480903	21	—	—
488127 2015 VP_{116}	16.4	X	68.21841	334.75939	94.40105	14.06422	0.0403068	0.22086538	2.7105096	21	—	—
488128 2015 VH_{117}	16.8	X	14.43173	260.85134	176.92173	6.04741	0.1400847	0.19306056	2.9648792	21	—	—
488129 2015 VH_{120}	16.1	X	15.28462	24.95132	37.94369	11.91986	0.0885755	0.18567792	3.0429574	21	—	—
488130 2015 VS_{120}	16.8	X	136.58540	238.90239	128.67931	14.15288	0.1845676	0.22497649	2.6773879	21	1 28.1	20.6
488131 2015 VJ_{121}	16.0	X	340.53176	345.96188	116.00889	11.36094	0.1048671	0.18220472	3.0815057	21	—	—
488132 2015 VK_{121}	16.1	X	41.62813	261.61179	84.90201	25.99357	0.3135688	0.17536673	3.1610977	21	12 25.9	20.5
488133 2015 VO_{121}	16.6	X	181.22559	235.70206	127.79040	11.77144	0.1566039	0.24190187	2.5509967	21	3 5.4	20.7
488134 2015 VA_{124}	15.4	X	68.08811	90.78390	267.74053	21.23693	0.0659608	0.17937119	3.1138732	21	—	—
488135 2015 VL_{124}	15.8	X	44.28215	299.29920	103.16846	18.16170	0.3221354	0.18324589	3.0698222	21	—	—
488136 2015 VR_{124}	16.0	X	101.55677	288.19748	44.09485	9.75248	0.0337077	0.18746071	3.0236339	21	—	—
488137 2015 VB_{129}	16.1	X	10.98994	183.23776	228.44049	9.87909	0.0632443	0.18068369	3.0987753	21	12 31.1	20.4
488138 2015 VH_{129}	17.9	X	256.12017	194.65324	165.45330	2.58041	0.1136368	0.28058515	2.3107853	21	5 11.8	21.0
488139 2015 VB_{130}	16.9	X	99.68453	311.87787	94.20898	4.05095	0.1063872	0.22159796	2.7045325	21	1 21.2	20.3
488140 2015 VK_{131}	16.4	X	90.46339	111.89113	228.79414	9.36357	0.1164877	0.19990345	2.8968268	21	—	—
488141 2015 VD_{133}	16.5	X	153.83125	287.60527	52.23259	10.26123	0.1114078	0.22244260	2.6976820	21	1 5.4	20.6
488142 2015 VG_{134}	16.2	X	6.22738	187.39101	228.85531	9.55472	0.0762724	0.18008085	3.1056870	21	12 31.5	20.4
488143 2015 VQ_{135}	15.9	X	330.96868	12.21700	90.22907	11.98914	0.0177707	0.18211045	3.0825690	21	—	—
488144 2015 VL_{138}	15.9	X	220.68719	349.77337	254.71849	14.18685	0.0995306	0.20233299	2.8735907	21	—	—
488145 2015 VZ_{138}	17.5	X	150.05805	185.16811	190.11036	4.13110	0.0874852	0.22952388	2.6419067	21	2 8.0	21.2
488146 2015 VK_{139}	16.5	X	320.78601	237.46830	216.92907	9.96281	0.1330490	0.17264500	3.1942339	21	12 11.2	20.4
488147 2015 VK_{141}	15.3	X	240.33391	123.46696	59.97513	25.08976	0.0496676	0.17573265	3.1567080	21	12 16.3	20.0
488148 2015 VE_{143}	17.3	X	165.58008	322.47325	65.56679	10.63502	0.2267125	0.25385778	2.4702585	21	3 27.1	21.5
488149 2015 VU_{145}	17.6	X	248.80155	252.06179	71.21174	5.66082	0.2739007	0.26923743	2.3752670	21	3 8.7	21.7
488150 2015 VB_{147}	16.6	X	331.09386	357.69505	104.27396	18.97675	0.1713613	0.17920719	3.1157726	21	—	—
488151 2015 VS_{148}	16.5	X	165.35550	153.32277	106.12818	10.86383	0.0540485	0.18277247	3.0751209	21	12 27.0	21.1
488152 2015 WT_{4}	16.0	X	21.91610	320.64896	81.71917	12.12832	0.0926369	0.17987330	3.1080756	21	—	—
488153 2015 WP_{9}	16.6	X	0.90299	16.41795	71.54404	7.21013	0.2032862	0.18602111	3.0392137	21	—	—
488154 2015 WW_{9}	15.7	X	113.85408	272.26753	56.20337	11.02696	0.1089547	0.18876561	3.0096833	21	—	—
488155 2015 WQ_{13}	16.8	X	15.84773	287.58800	140.61936	10.60163	0.1116946	0.18706951	3.0278478	21	—	—
488156 2015 WY_{13}	16.3	X	34.31367	80.29590	65.73436	16.15738	0.0194082	0.23078977	2.6322371	21	2 25.8	20.1
488157 2015 WS_{14}	16.7	X	18.09509	119.58905	293.73329	7.47934	0.1898590	0.18155880	3.0888099	21	—	—
488158 2015 WL_{15}	16.0	X	76.20128	243.00614	93.17578	16.08722	0.1041883	0.18015424	3.1048435	21	12 26.5	20.5
488159 2015 XM_{2}	16.7	X	21.33494	44.41393	107.06751	8.48548	0.0765414	0.21732511	2.7398668	21	2 9.6	20.0
488160 2015 XX_{4}	16.1	X	80.30567	218.18687	115.58863	11.07574	0.0199370	0.17550612	3.1594237	21	12 18.0	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488161 2015 XK_5	16.4	X	170.87326	82.36470	168.97932	10.29037	0.0410877	0.17691214	3.1426616	21	12 22.9	21.2
488162 2015 XR_5	16.8	X	120.14810	228.24141	110.80009	12.49515	0.1153451	0.20069932	2.8891634	21	—	—
488163 2015 XA_6	16.5	X	73.01869	250.11215	100.83117	17.99351	0.1432683	0.18596145	3.0398637	21	—	—
488164 2015 XK_6	16.9	X	358.86284	326.49666	119.26871	10.08320	0.0598943	0.18689245	3.0297599	21	—	—
488165 2015 XW_{38}	17.5	X	124.37670	214.31772	182.96796	5.32709	0.0626023	0.22644515	2.6657988	21	2 2.1	21.2
488166 2015 XT_{44}	17.1	X	5.37396	343.01419	129.72275	2.95230	0.0196707	0.20323659	2.8650670	21	—	—
488167 2015 XV_{44}	16.4	X	41.52192	325.58116	75.08988	10.29494	0.0589615	0.18793487	3.0185461	21	—	—
488168 2015 XA_{54}	16.3	X	179.81948	166.01192	88.84209	22.75165	0.0490637	0.18331634	3.0690356	21	—	—
488169 2015 XU_{55}	16.1	X	1.04273	355.50876	70.40796	13.03546	0.1383527	0.17807237	3.1289961	21	—	—
488170 2015 XC_{56}	16.3	X	77.35564	227.04396	99.62205	6.93896	0.1064030	0.17304833	3.1892687	21	12 15.9	20.9
488171 2015 XO_{57}	16.6	X	343.93760	12.17876	100.66991	11.14228	0.0427802	0.19001336	2.9964932	21	—	—
488172 2015 XY_{60}	16.9	X	293.64181	119.82202	167.02856	7.57272	0.1076256	0.25449791	2.4661145	21	3 23.4	20.1
488173 2015 XL_{61}	17.2	X	15.93151	14.42241	176.03705	7.12088	0.1528081	0.23517645	2.5994023	21	3 17.8	19.4
488174 2015 XV_{64}	17.2	X	89.99801	292.05965	124.17695	7.55180	0.0312191	0.21504025	2.7592404	21	1 11.8	20.9
488175 2015 XL_{68}	16.6	X	296.19219	32.81298	107.59573	13.35098	0.1176964	0.17663757	3.1459175	21	—	—
488176 2015 XO_{69}	16.0	X	54.45268	270.33189	87.34827	18.55702	0.2018563	0.17865761	3.1221591	21	—	—
488177 2015 XZ_{71}	15.9	X	41.69431	245.06574	93.95839	16.13290	0.1890902	0.17339364	3.1850330	21	12 2.5	20.3
488178 2015 XA_{77}	16.6	X	208.92991	123.69393	114.88581	11.90892	0.0325874	0.18680857	3.0306668	21	—	—
488179 2015 XN_{84}	17.0	X	334.96333	339.57978	125.20486	16.88824	0.1946833	0.17247819	3.1962931	21	—	—
488180 2015 XL_{86}	15.9	X	302.55564	86.94698	86.75336	23.73103	0.0328521	0.17824034	3.1270300	21	—	—
488181 2015 XO_{98}	17.5	X	343.92885	120.43756	84.83076	15.04553	0.0580536	0.23377064	2.6098131	21	2 28.5	21.1
488182 2015 XD_{112}	16.5	X	201.35567	124.61266	125.51583	11.60447	0.0812135	0.18589811	3.0405541	21	—	—
488183 2015 XM_{114}	16.9	X	166.10712	72.76189	218.66624	8.81331	0.0422602	0.19203213	2.9754555	21	—	—
488184 2015 XK_{116}	17.2	X	309.19474	23.92744	153.38921	6.90258	0.0223558	0.20180528	2.8785981	21	—	—
488185 2015 XS_{130}	17.0	X	31.84332	322.57850	104.51765	4.70335	0.0801787	0.19103273	2.9858239	21	—	—
488186 2015 XD_{138}	16.2	X	168.22849	206.65087	66.85706	11.76179	0.0604184	0.18656583	3.0332950	21	—	—
488187 2015 XM_{147}	17.3	X	340.16201	203.13014	70.00747	6.26517	0.1218730	0.26638938	2.3921667	21	5 11.2	19.6
488188 2015 XG_{161}	16.2	X	32.27298	337.09720	74.19590	10.95592	0.0280185	0.18595632	3.0399195	21	—	—
488189 2015 XN_{167}	13.9	X	285.46506	75.42047	285.00935	29.64032	0.0583157	0.08238408	5.2308691	21	7 2.0	20.8
488190 2015 XX_{177}	17.0	X	69.72813	256.31597	156.10938	6.52043	0.0804272	0.20355627	2.8620665	21	—	—
488191 2015 XD_{184}	16.8	X	280.69439	345.25580	198.70448	9.21626	0.0510416	0.19126918	2.9833626	21	—	—
488192 2015 XT_{184}	16.7	X	186.91895	55.76373	190.18177	9.90437	0.0437400	0.17747527	3.1360104	21	—	—
488193 2015 XY_{187}	16.5	X	222.16724	67.46985	165.12947	8.79654	0.1070484	0.18622454	3.0369999	21	—	—
488194 2015 XT_{198}	16.3	X	268.88661	26.65044	153.07767	19.82943	0.1236676	0.17709919	3.1404484	21	—	—
488195 2015 XQ_{199}	16.9	X	67.83715	125.22149	9.69562	3.45283	0.0894322	0.23872094	2.5736078	21	3 27.6	19.6
488196 2015 XZ_{199}	16.4	X	323.59688	213.23742	266.82514	6.32591	0.1007275	0.18115402	3.0934093	21	—	—
488197 2015 XT_{208}	17.0	X	50.29395	166.88120	262.63887	4.84240	0.0409480	0.20106823	2.8856285	21	—	—
488198 2015 XR_{210}	16.3	X	8.15480	8.41034	64.28437	10.20075	0.0856815	0.18153832	3.0890422	21	—	—
488199 2015 XO_{224}	16.6	X	18.52423	276.72022	124.12948	4.63782	0.0650254	0.17265014	3.1941704	21	12 27.4	20.9
488200 2015 XY_{226}	16.5	X	352.50274	17.84148	82.55531	13.22172	0.1456637	0.18333446	3.0688334	21	—	—
488201 2015 XJ_{244}	16.2	X	256.94051	316.06285	254.70091	8.59289	0.0610104	0.19148624	2.9811077	21	—	—
488202 2015 XB_{253}	16.3	X	130.05292	177.85886	156.85604	15.98328	0.1415450	0.20300897	2.8672082	21	—	—
488203 2015 XG_{255}	16.1	X	338.61678	328.80089	130.96834	17.95679	0.1832947	0.17640378	3.1486964	21	—	—
488204 2015 XE_{257}	15.6	X	38.78751	205.73105	170.36621	18.49466	0.1207050	0.17577557	3.1561941	21	12 31.5	20.3
488205 2015 XU_{262}	16.2	X	121.49270	261.35833	57.35130	9.45017	0.0868645	0.18524461	3.0477009	21	—	—
488206 2015 XC_{264}	16.8	X	69.42419	330.97186	55.53049	5.09247	0.0588711	0.19236236	2.9720492	21	—	—
488207 2015 XU_{278}	16.4	X	74.01226	222.09797	134.77011	2.23183	0.2072227	0.18978893	2.9988550	21	—	—
488208 2015 XW_{278}	16.3	X	338.25023	227.00089	232.65213	9.47218	0.0830954	0.18089948	3.0963105	21	—	—
488209 2015 XA_{279}	16.7	X	319.56961	65.41687	70.31414	12.36584	0.0950392	0.18670603	3.0317763	21	—	—
488210 2015 XN_{292}	16.1	X	46.34714	164.72061	239.93462	5.81517	0.1264102	0.18873510	3.0100076	21	—	—
488211 2015 XR_{295}	16.4	X	198.52703	169.59057	74.86528	11.55594	0.0571439	0.18145920	3.0899401	21	—	—
488212 2015 XB_{309}	16.1	X	357.81881	143.96754	271.44116	14.51559	0.2265241	0.17326259	3.1866389	21	—	—
488213 2015 XP_{311}	16.9	X	39.56401	326.85513	94.08252	13.31302	0.0856673	0.19027395	2.9937566	21	—	—
488214 2015 XC_{313}	16.5	X	63.60797	283.68956	97.36085	10.64827	0.1162968	0.18591253	3.0403969	21	—	—
488215 2015 XA_{315}	16.1	X	91.19111	164.92729	260.93863	11.72228	0.1360386	0.21727033	2.7403272	21	2 3.9	19.8
488216 2015 XK_{315}	15.9	X	236.14671	321.26505	269.27390	10.73547	0.0373773	0.18859914	3.0114541	21	—	—
488217 2015 XS_{331}	17.7	X	20.13345	353.73003	263.17634	4.49375	0.1706831	0.27285653	2.3542169	21	7 8.8	19.4
488218 2015 XU_{364}	16.0	X	315.10707	202.45115	289.60553	9.65690	0.1581946	0.17316329	3.1878570	21	—	—
488219 2015 XN_{367}	16.0	X	14.29827	176.93606	272.18582	8.78935	0.0878339	0.18662122	3.0326947	21	—	—
488220 2015 XR_{368}	16.0	X	145.60456	40.02934	269.53798	10.85251	0.1303587	0.18921038	3.0049650	21	—	—
488221 2015 YW_{14}	15.9	X	103.67085	317.80542	63.92951	17.42700	0.2070359	0.19803220	2.9150467	21	1 17.4	20.1
488222 2015 YS_{18}	16.3	X	241.43400	226.05034	85.31880	14.83284	0.1379990	0.24305730	2.5429058	21	2 28.9	20.5
488223 2016 AT_5	12.8	X	301.66259	221.43787	113.00336	28.31927	0.0852610	0.08127925	5.2781644	21	6 20.4	19.7
488224 2016 AV_6	15.8	X	95.30144	32.10113	332.66792	8.48137	0.0677184	0.17997620	3.1068909	21	—	—
488225 2016 AQ_{13}	15.9	X	196.09079	15.83035	276.63291	7.97171	0.0158928	0.19067908	2.9895147	21	—	—
488226 2016 AK_{19}	16.3	X	26.22154	289.34811	131.63771	2.40641	0.0573235	0.17244037	3.1967604	21	—	—
488227 2016 AH_{30}	16.9	X	275.53730	34.97875	267.50886	6.67193	0.1205070	0.23649086	2.5897617	21	3 17.8	20.7
488228 2016 AE_{44}	15.4	X	170.97773	176.60331	117.61703	18.56234	0.1865428	0.17821274	3.1273529	21	—	—
488229 2016 AM_{44}	16.5	X	196.02463	48.56503	287.18862	5.04775	0.0493619	0.21298433	2.7769685	21	2 10.0	20.6
488230 2016 AR_{44}	14.3	X	5.96351	153.42840	121.35370	9.21791	0.0149243	0.08453278	5.1418486	21	7 2.7	21.1
488231 2016 AH_{50}	17.0	X	172.20527	256.86384	116.88511	6.65113	0.0751917	0.22138722	2.7062486	21	3 6.3	21.0
488232 2016 AL_{57}	16.0	X	179.77792	171.08697	126.75645	8.50640	0.1482142	0.18461256	3.0546530	21	—	—
488233 2016 AL_{75}	15.7	X	162.52184	163.66965	163.12544	11.97914	0.1037125	0.17680283	3.1439569	21	1 5.5	20.7
488234 2016 AG_{76}	16.1	X	77.24769	251.21506	138.07102	10.31945	0.1012145	0.18163999	3.0878894	21	—	—
488235 2016 AH_{77}	13.6	X	335.22032	175.31657	134.71348	23.84676	0.0680929	0.08249643	5.2261188	21	7 4.8	20.4
488236 2016 AA_{95}	17.9	X	156.56457	102.34656	310.80679	2.22185	0.1318537	0.23024925	2.6363550	21	4 7.7	21.8
488237 2016 AX_{106}	16.8	X	278.63754	179.62954	101.12349	5.32524	0.0500478	0.21240894	2.7819811	21	3 12.3	20.7
488238 2016 AB_{107}	15.7	X	147.90686	213.28395	118.44913	11.20813	0.0931721	0.17472575	3.1688240	21	—	—
488239 2016 AM_{180}	15.8	X	201.67995	91.50783	224.54319	10.66611	0.1596209	0.18119198	3.0929773	21	1 28.0	21.1
488240 2016 AO_{184}	15.3	X	66.09570	312.62731	97.74787	16.29184	0.0253100	0.18532615	3.0468068	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488241 2016 AS_{186}	16.5	X	167.77686	310.86184	92.35944	15.96898	0.1025455	0.24444294	2.5332869	21	4 13.3	20.6
488242 2016 AX_{186}	15.4	X	26.54364	322.07222	91.21542	12.20886	0.0664693	0.16901946	3.2397506	21	—	—
488243 2016 BZ	13.5	X	331.51041	334.10173	327.36904	12.24626	0.1176390	0.08221401	5.2380803	21	6 14.7	20.1
488244 2016 BY_{15}	15.9	X	129.06278	316.44162	22.36705	18.43368	0.0846461	0.17806091	3.1291304	21	—	—
488245 2016 BL_{26}	16.7	X	309.84605	216.83562	62.79527	3.01397	0.0352417	0.23363221	2.6108439	21	4 18.3	19.9
488246 2016 BN_{32}	16.0	X	24.58092	81.83516	355.00044	12.58142	0.0436911	0.17045251	3.2215666	21	—	—
488247 2016 BT_{33}	16.9	X	240.30515	215.83735	104.79085	7.47329	0.0907068	0.22265012	2.6960054	21	3 13.7	21.0
488248 2016 BD_{38}	15.9	X	100.59414	59.08099	346.44700	8.89001	0.0550442	0.19223151	2.9733976	21	1 22.7	20.0
488249 2016 BG_{62}	17.1	X	204.07261	180.20187	162.13711	6.10205	0.0501472	0.21781879	2.7357253	21	2 27.6	20.9
488250 2016 BB_{81}	15.7	X	186.61093	35.22356	258.82334	8.36927	0.0220087	0.18211296	3.0825406	21	—	—
488251 2016 CR	16.8	X	143.54537	245.71445	145.84417	9.19831	0.1784522	0.21355725	2.7719996	21	3 7.4	21.0
488252 2016 CK_{17}	16.5	X	129.92222	194.19965	161.10081	9.39802	0.0843888	0.17741361	3.1367369	21	1 2.1	21.1
488253 2016 CF_{18}	16.8	X	263.59710	175.67577	125.76575	3.00466	0.0160245	0.21311915	2.7757972	21	3 23.0	20.6
488254 2016 CG_{24}	15.7	X	178.51588	199.11675	90.75941	8.51734	0.1274405	0.17352284	3.1834519	21	—	—
488255 2016 CK_{33}	16.3	X	193.54884	353.84572	308.89641	9.74023	0.0877759	0.19096007	2.9865813	21	1 6.4	20.8
488256 2016 CR_{48}	15.9	X	189.54036	293.52667	356.73430	10.13256	0.0389526	0.17040178	3.2222060	21	—	—
488257 2016 CV_{208}	16.3	X	355.75384	61.06531	81.23666	3.43075	0.0842339	0.17718314	3.1394564	21	—	—
488258 2016 CA_{258}	16.3	X	113.60390	26.82156	4.42903	12.67981	0.0676459	0.18808979	3.0168884	21	1 26.0	20.7
488259 2016 EN_{119}	16.0	X	312.48869	267.80067	64.22172	10.36563	0.2847071	0.24508230	2.5288792	21	5 23.1	18.8
488260 2016 HS_{23}	18.1	X	178.64495	158.33532	42.22851	4.77757	0.1786701	0.27818201	2.3240744	21	11 6.9	21.7
488261 2016 NO_{54}	16.0	X	281.20934	114.57379	280.13147	8.94121	0.0729421	0.19930521	2.9026207	21	8 4.5	19.9
488262 2016 QG_{1}	17.9	X	295.45673	77.21076	289.97281	17.94772	0.0854721	0.36454686	1.9407390	21	7 21.6	19.4
488263 2016 QX_{26}	17.1	X	22.65466	191.43965	185.11641	8.11193	0.2046430	0.22903144	2.6456922	21	—	—
488264 2016 RD	18.0	X	117.53780	94.40554	287.86401	0.97694	0.2277207	0.27568766	2.3380717	21	1 20.5	20.6
488265 2016 RO_{7}	17.3	X	45.74820	167.60856	226.29105	6.13502	0.0881344	0.25520641	2.4615481	21	—	—
488266 2016 SQ_{5}	16.2	X	37.35491	81.96530	271.15202	12.52414	0.1237576	0.22343817	2.6896626	21	12 12.6	19.6
488267 2016 SM_{6}	17.4	X	34.85840	84.16650	326.42885	27.27325	0.3821683	0.23851519	2.5750877	21	—	—
488268 2016 SO_{6}	16.3	X	304.60395	73.12894	291.21588	11.91028	0.3155200	0.17515325	3.1636656	21	6 22.8	20.4
488269 2016 TF_{3}	16.8	X	43.02995	223.38855	177.93857	13.58042	0.1618056	0.23645129	2.5900506	21	—	—
488270 2016 TK_{8}	16.9	X	87.34103	348.71431	69.78516	7.26137	0.1215478	0.27169447	2.3609249	21	1 8.1	19.3
488271 2016 TT_{9}	17.0	X	56.75329	311.44151	64.80405	7.12295	0.2744595	0.23238158	2.6202029	21	—	—
488272 2016 TC_{12}	16.6	X	43.06495	66.42689	326.81511	11.81874	0.1809706	0.23769839	2.5809835	21	—	—
488273 2016 TW_{12}	17.7	X	51.32973	112.67926	305.88634	4.64425	0.2392722	0.25169600	2.4843828	21	—	—
488274 2016 TD_{13}	17.6	X	106.08117	15.90663	336.39401	0.89504	0.2009778	0.25757724	2.4464202	21	—	—
488275 2016 TH_{20}	17.2	X	50.60864	152.95189	210.69584	2.05335	0.1748178	0.22871120	2.6481613	21	—	—
488276 2016 TB_{25}	16.6	X	287.28429	289.43621	226.44257	14.15022	0.0697366	0.22803108	2.6534242	21	—	—
488277 2016 TX_{46}	17.7	X	85.91076	190.33244	251.90166	4.69766	0.1322828	0.28120787	2.3073726	21	2 5.3	19.9
488278 2016 TN_{55}	17.2	X	87.42468	316.58649	75.16728	25.31056	0.3232445	0.25668127	2.4521099	21	1 4.7	19.5
488279 2016 TB_{82}	17.8	X	89.37621	168.77836	234.93521	5.05186	0.1425433	0.26895662	2.3769200	21	—	—
488280 2016 TD_{87}	16.7	X	14.09228	337.62468	60.07173	6.95860	0.0318776	0.21629021	2.7485996	21	12 23.6	20.3
488281 2016 TU_{88}	17.3	X	14.80727	23.42037	54.51399	4.12769	0.1908206	0.23499871	2.6007128	21	—	—
488282 2016 TV_{89}	17.6	X	31.69300	35.14408	57.00513	5.54287	0.1157267	0.25373554	2.4710518	21	—	—
488283 2016 TY_{91}	16.4	X	346.81800	343.56568	28.24006	2.51922	0.1783943	0.18842457	3.0133138	21	10 13.9	19.3
488284 2016 UC_{1}	18.4	X	137.19664	228.40135	190.50346	1.22547	0.0894343	0.30347278	2.1930888	21	3 11.2	20.9
488285 2016 UH_{1}	18.1	X	174.26127	70.70833	279.07921	3.84413	0.1710332	0.29499394	2.2349132	21	1 31.0	21.3
488286 2016 UN_{9}	16.0	X	42.03693	68.01901	275.94165	14.88156	0.1866693	0.22027700	2.7153342	21	12 15.9	19.6
488287 2016 UJ_{14}	16.9	X	14.04142	357.85300	20.82292	4.55856	0.0793806	0.21023038	2.8011674	21	12 3.2	20.4
488288 2016 UZ_{14}	17.5	X	17.82177	351.83934	55.04365	0.50584	0.1839655	0.22582974	2.6706396	21	—	—
488289 2016 UA_{15}	16.8	X	304.45111	230.09120	168.73378	1.26061	0.1790606	0.17881401	3.1203383	21	8 29.4	20.6
488290 2016 UG_{15}	16.7	X	248.39041	44.26865	57.43683	0.90132	0.2113332	0.17170269	3.2059099	21	8 31.9	21.7
488291 2016 UL_{24}	16.9	X	253.48423	310.11405	251.29733	4.85801	0.0934219	0.24294050	2.5437208	21	—	—
488292 2016 UL_{27}	17.1	X	79.97019	162.78120	186.86908	5.56505	0.2390218	0.23987196	2.5653683	21	—	—
488293 2016 UY_{27}	16.2	X	347.78140	143.74612	216.67797	9.36047	0.1565420	0.18621443	3.0371098	21	9 26.4	19.6
488294 2016 UB_{28}	17.2	X	341.23787	349.66570	208.48300	4.05124	0.0605293	0.28752349	2.2734592	21	1 25.9	20.0
488295 2016 UV_{33}	16.6	X	69.22085	128.32430	243.98473	3.62994	0.0892606	0.23226545	2.6210761	21	—	—
488296 2016 UT_{35}	16.4	X	49.95243	34.40545	18.65136	14.85214	0.0901462	0.23976890	2.5661034	21	—	—
488297 2016 UM_{43}	15.8	X	87.99402	242.44017	49.37929	2.75405	0.0649457	0.20453516	2.8529275	21	11 16.1	19.8
488298 2016 UX_{43}	16.4	X	20.50423	139.68691	263.34106	13.54060	0.1029069	0.23297251	2.6157702	21	—	—
488299 2016 UK_{50}	17.4	X	354.00361	91.80051	339.25497	1.32255	0.0600254	0.22418863	2.6836569	21	—	—
488300 2016 UP_{52}	17.6	X	96.34941	104.17473	327.41316	2.33640	0.2090435	0.27592499	2.3367309	21	2 23.4	20.1
488301 2016 UB_{56}	16.2	X	297.82854	12.31623	78.56103	10.24031	0.1416506	0.18889382	3.0083213	21	11 5.2	19.9
488302 2016 UE_{56}	18.2	X	172.98006	299.60511	229.24935	20.13350	0.0606401	0.37373520	1.9087983	21	10 2.0	20.8
488303 2016 UN_{56}	16.9	X	34.04714	244.97459	175.22064	2.91917	0.0593073	0.23001465	2.6381474	21	—	—
488304 2016 UL_{67}	16.4	X	43.23598	312.92307	70.10915	12.58686	0.1813975	0.23034601	2.6356167	21	—	—
488305 2016 UO_{68}	16.3	X	60.82447	309.79236	70.37720	10.13397	0.2262664	0.23571565	2.5954367	21	—	—
488306 2016 UH_{69}	17.0	X	100.05802	281.54130	42.43894	7.52083	0.0860879	0.23371178	2.6102513	21	—	—
488307 2016 UM_{70}	16.2	X	283.11913	215.28905	218.96000	11.07621	0.0788208	0.18533910	3.0466649	21	9 25.2	20.4
488308 2016 UF_{71}	17.2	X	64.18597	42.45047	310.94390	1.35503	0.1046026	0.22717916	2.6600536	21	—	—
488309 2016 UL_{71}	16.7	X	294.54973	281.30767	230.12366	7.93961	0.2441475	0.22290285	2.6939672	21	—	—
488310 2016 UY_{72}	17.7	X	33.91724	256.48359	227.45555	5.84517	0.0666355	0.27789399	2.3256800	21	1 4.9	20.3
488311 2016 UH_{73}	17.0	X	324.18439	311.49829	116.31945	1.58589	0.0537478	0.20858824	2.8158499	21	11 23.5	20.4
488312 2016 UP_{74}	17.1	X	139.42092	34.21785	244.20725	2.04708	0.0257197	0.22505367	2.6767757	21	12 29.6	20.9
488313 2016 UR_{76}	17.7	X	221.23090	250.72026	104.48184	3.54064	0.1229855	0.31492540	2.1395918	21	3 24.4	20.7
488314 2016 UK_{77}	16.7	X	314.49817	280.82514	184.82899	7.82477	0.1296221	0.20563836	2.8427149	21	12 24.2	20.0
488315 2016 UX_{79}	15.9	X	281.49931	230.17044	199.71892	13.74257	0.2658050	0.17209521	3.2010333	21	8 18.3	20.6
488316 2016 UP_{82}	17.5	X	13.68566	289.52273	213.35661	8.68813	0.1441284	0.27052339	2.3677336	21	—	—
488317 2016 UN_{84}	15.9	X	12.33436	252.78195	46.60494	8.94945	0.2252144	0.17602516	3.1532099	21	9 1.4	19.3
488318 2016 UA_{90}	17.9	X	95.98741	353.10550	54.68489	3.65330	0.1782777	0.27230792	2.3573779	21	1 16.2	20.2
488319 2016 UP_{90}	16.9	X	53.73398	334.14593	31.22091	6.20579	0.0395558	0.22493210	2.6777401	21	—	—
488320 2016 UY_{97}	17.2	X	87.87265	290.82737	33.26730	6.26593	0.1281075	0.22706178	2.6609703	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488321 2016 UP_{105}	16.9	X	50.91116	284.15918	75.41335	12.40266	0.3181262	0.22927596	2.6438108	21	—	—
488322 2016 UZ_{106}	17.6	X	305.83044	288.91105	64.20310	22.57911	0.0988949	0.36858315	1.9265446	21	7 18.3	19.6
488323 2016 UM_{130}	16.0	X	282.77339	337.52461	35.28577	4.97314	0.0717538	0.15177469	3.4807259	21	7 11.4	20.9
488324 2016 UH_{135}	16.7	X	11.57825	152.89059	253.18974	12.69362	0.2445617	0.22264301	2.6960628	21	—	—
488325 2016 UW_{138}	17.3	X	50.28359	233.80529	114.71552	14.35597	0.2250023	0.22071785	2.7117173	21	—	—
488326 2016 UC_{141}	16.6	X	78.20141	289.46750	92.99878	14.01880	0.0731469	0.24676647	2.5173597	21	—	—
488327 2016 UK_{145}	16.0	X	288.35630	344.25564	115.39566	16.86066	0.2055168	0.19241424	2.9715149	21	10 29.3	20.0
488328 2016 UO_{146}	15.9	X	323.71390	57.50006	325.03157	9.24024	0.1204368	0.17966984	3.1104217	21	9 13.2	19.6
488329 2016 UX_{146}	15.7	X	337.55186	114.60924	251.11949	14.80260	0.1249209	0.18169531	3.0872626	21	9 9.1	19.8
488330 2016 UJ_{147}	16.6	X	48.51579	54.21696	352.70426	14.35692	0.1343912	0.24214839	2.5492650	21	—	—
488331 2016 UK_{147}	16.2	X	311.35248	106.58838	273.87940	14.12812	0.2363326	0.17540051	3.1606918	21	8 2.8	20.2
488332 2016 VE	18.2	X	253.86555	237.76322	248.00762	23.69208	0.0827942	0.40556161	1.8075826	21	12 7.7	19.1
488333 2016 VO_{6}	16.4	X	67.60657	218.83343	148.37949	13.83190	0.1746775	0.23692727	2.5865806	21	—	—
488334 2016 VQ_{6}	15.6	X	358.71597	313.88099	81.90833	14.44053	0.2338035	0.19070729	2.9892198	21	12 15.1	18.5
488335 2016 VY_{6}	16.9	X	312.04914	90.56864	320.23161	11.40124	0.3330529	0.18374817	3.0642254	21	9 1.9	20.2
488336 2016 VW_{7}	17.5	X	146.80442	295.00464	131.56183	5.33718	0.1586327	0.28570935	2.2830727	21	4 15.9	20.8
488337 2016 VZ_{8}	16.9	X	48.72270	300.56657	68.89823	5.43590	0.1040031	0.22414298	2.6840213	21	—	—
488338 2016 VN_{15}	16.6	X	6.74712	137.50729	322.66282	15.35598	0.0903077	0.24163381	2.5528830	21	—	—
488339 2016 VF_{16}	17.2	X	110.53800	100.90934	298.39675	4.37785	0.1610105	0.27448769	2.3448810	21	1 23.2	19.8
488340 2016 VH_{16}	16.5	X	324.90210	165.88501	238.17203	13.37264	0.1851989	0.18795624	3.0183173	21	10 9.9	20.0
488341 2016 VW_{16}	17.3	X	71.09201	312.20254	48.43329	5.64633	0.3475988	0.23610673	2.5925699	21	—	—
488342 2016 VT_{17}	16.8	X	79.01443	201.48714	145.17144	6.72233	0.0743375	0.21920352	2.7241919	21	—	—
488343 2016 VT_{18}	16.4	X	71.24928	353.69854	12.55110	14.44002	0.1760623	0.23953019	2.5678080	21	—	—
488344 2016 WE_{2}	16.3	X	14.86490	264.51841	154.94531	14.42319	0.0778125	0.22642462	2.6659599	21	—	—
488345 2016 WH_{2}	16.0	X	331.54348	286.78743	116.15141	10.82229	0.0796489	0.18916540	3.0054413	21	11 2.6	20.0
488346 2016 WX_{3}	15.9	X	274.42901	193.18705	243.66782	17.90602	0.1686938	0.18079102	3.0975487	21	8 28.3	20.6
488347 2016 WY_{3}	17.8	X	73.73287	230.33565	236.30932	6.72858	0.1487601	0.28304325	2.2973871	21	2 19.9	20.1
488348 2016 WM_{4}	15.7	X	202.47499	85.73041	74.59190	9.06944	0.0994232	0.17592158	3.1544475	21	10 10.3	20.6
488349 2016 WT_{4}	17.9	X	99.08974	162.09273	226.86947	3.74322	0.1892362	0.26077033	2.4264085	21	—	—
488350 2016 WK_{10}	15.7	X	4.83039	277.11553	57.50511	13.45308	0.2133076	0.18594481	3.0400450	21	10 7.7	19.0
488351 2016 WL_{10}	16.1	X	232.05332	279.71066	218.47861	9.79273	0.0724372	0.18680263	3.0307310	21	10 14.0	20.4
488352 2016 WO_{11}	15.1	X	274.05296	127.44529	233.81849	16.99748	0.1082318	0.14637278	3.5658453	21	6 9.9	20.3
488353 2016 WH_{12}	18.5	X	172.40258	348.64345	26.91831	2.95013	0.1799493	0.30519211	2.1848444	21	3 4.6	21.7
488354 2016 WH_{17}	17.5	X	350.59575	274.69722	171.59575	7.89200	0.2725290	0.21891758	2.7265636	21	—	—
488355 2016 WL_{23}	16.9	X	80.85258	337.40136	42.65897	9.89919	0.2162008	0.25722314	2.4486649	21	—	—
488356 2016 WN_{23}	17.5	X	141.15060	84.65257	322.89421	7.30462	0.0862616	0.28876277	2.2669499	21	3 1.2	20.3
488357 2016 WK_{24}	17.5	X	98.17407	205.08637	256.38773	4.68795	0.0553526	0.30273207	2.1966647	21	3 8.1	19.9
488358 2016 WT_{24}	17.2	X	39.13032	63.88855	3.88898	2.24412	0.1064529	0.23792598	2.5793373	21	—	—
488359 2016 WE_{26}	16.8	X	94.16931	86.06720	275.79882	2.72400	0.1608331	0.24065030	2.5598338	21	—	—
488360 2016 WG_{28}	16.0	X	249.17510	25.93805	82.90352	16.26524	0.1080531	0.17163108	3.2068016	21	10 1.9	20.9
488361 2016 WK_{29}	15.7	X	203.48026	308.36288	210.75640	18.31182	0.1080018	0.16970263	3.2310499	21	10 2.4	20.9
488362 2016 WM_{29}	17.2	X	127.24860	233.36518	134.16794	6.84598	0.1633092	0.26494128	2.4008754	21	1 6.1	20.1
488363 2016 WV_{29}	16.3	X	152.58906	185.67823	103.06200	9.15642	0.1079514	0.22980426	2.6397573	21	—	—
488364 2016 WN_{30}	16.1	X	252.67526	285.80350	197.96273	10.27831	0.1470276	0.17758276	3.1347447	21	10 10.5	20.7
488365 2016 WU_{30}	16.0	X	0.61037	281.43182	109.87345	11.50058	0.1154478	0.19798656	2.9154946	21	12 3.4	19.6
488366 2016 WY_{30}	17.3	X	351.27288	258.35807	218.25692	15.26533	0.2530788	0.22622873	2.6674987	21	—	—
488367 2016 WA_{31}	16.7	X	28.54096	296.44910	96.89273	14.19175	0.1304726	0.21574612	2.7532188	21	—	—
488368 2016 WL_{31}	15.7	X	340.90611	280.64880	90.49073	17.90216	0.1975033	0.17822799	3.1271744	21	10 9.7	19.4
488369 2016 WY_{34}	16.1	X	243.92462	62.47923	53.47137	6.47301	0.1426085	0.16846606	3.2468416	21	9 23.9	20.9
488370 2016 WB_{35}	16.9	X	335.14688	153.41979	3.34940	2.83442	0.1378489	0.24344308	2.5402186	21	—	—
488371 2016 WJ_{35}	15.3	X	306.72434	304.26717	90.36147	22.04431	0.0639706	0.16818176	3.2504997	21	9 21.7	20.1
488372 2016 WP_{35}	16.8	X	76.37729	256.47197	119.73131	11.51827	0.1529240	0.23560190	2.5962720	21	—	—
488373 2016 WK_{36}	15.5	X	10.17121	311.31324	47.83539	10.85454	0.1216985	0.18797935	3.0180699	21	11 3.9	19.0
488374 2016 WQ_{36}	15.4	X	55.61779	47.59455	254.03235	19.48121	0.1207701	0.18089534	3.0963577	21	10 20.4	20.0
488375 2016 WH_{37}	15.9	X	243.10704	251.95258	248.88979	16.33283	0.1390294	0.18188991	3.0850602	21	10 18.2	20.7
488376 2016 WT_{39}	17.0	X	92.01660	339.60432	27.34255	4.48697	0.0988941	0.24012456	2.5635689	21	—	—
488377 2016 WT_{41}	16.2	X	318.55834	312.92678	242.80424	27.87341	0.2167904	0.25630041	2.4545385	21	—	—
488378 2016 WA_{42}	16.3	X	295.70627	23.04507	58.79992	5.56090	0.1908953	0.18418539	3.0593742	21	10 12.4	20.1
488379 2016 WD_{45}	18.2	X	109.32446	151.86624	67.50980	22.73172	0.0311124	0.36790597	1.9289079	21	10 10.5	20.8
488380 2016 WJ_{45}	16.0	X	353.65717	107.20983	244.30213	2.99333	0.0896627	0.16936605	3.2353292	21	9 21.9	20.2
488381 2016 WR_{46}	16.0	X	264.28870	32.42938	63.64829	15.35838	0.2358155	0.17157299	3.2075254	21	9 16.1	20.9
488382 2016 WT_{46}	17.9	X	111.58840	319.40674	234.42409	18.91549	0.0582006	0.35715070	1.9674410	21	8 9.9	20.7
488383 2016 WX_{46}	17.5	X	43.49952	2.06657	90.07881	4.31943	0.1514872	0.25307788	2.4753309	21	—	—
488384 2016 WA_{47}	16.2	X	246.76520	253.17632	238.15767	12.21100	0.2096082	0.17517264	3.1634322	21	10 1.2	21.2
488385 2016 WE_{47}	17.8	X	69.68771	301.08460	167.88131	2.68325	0.1828254	0.27408831	2.3471583	21	2 26.3	19.6
488386 2016 WF_{47}	16.3	X	235.60973	68.60226	75.11308	13.24962	0.0667285	0.18332778	3.0689080	21	10 30.9	20.8
488387 2016 WM_{47}	16.2	X	325.32915	127.86519	244.36576	13.22504	0.3147668	0.17558753	3.1584471	21	8 5.9	19.5
488388 2016 WN_{47}	15.6	X	352.84612	320.31527	71.23849	10.13599	0.1038863	0.19287523	2.9667782	21	11 18.5	19.2
488389 2016 WT_{47}	17.1	X	326.63142	318.51453	84.72689	5.86198	0.2068829	0.18439449	3.0570609	21	10 17.0	20.2
488390 2016 WH_{48}	17.9	X	268.43436	331.62490	67.51924	23.11767	0.1092807	0.36140649	1.9519717	21	7 30.5	20.4
488391 2016 WN_{51}	15.3	X	260.36402	74.91537	55.79056	25.53429	0.1773090	0.17009937	3.2260239	21	10 30.0	20.0
488392 2016 WQ_{51}	17.1	X	35.42151	43.45539	80.36577	9.62260	0.1573410	0.26947192	2.3738888	21	1 6.5	19.1
488393 2016 WX_{51}	16.5	X	3.87501	19.62868	77.66708	15.86633	0.0522187	0.23856360	2.5747393	21	—	—
488394 2016 WE_{52}	16.8	X	334.46685	184.76891	244.97379	9.55948	0.2569131	0.20473708	2.8510514	21	12 15.6	19.1
488395 2016 WQ_{52}	16.0	X	339.69159	6.93103	42.34993	10.74346	0.0789084	0.19233818	2.9722982	21	11 17.7	19.7
488396 2016 WU_{52}	16.7	X	25.22183	164.16226	270.68175	11.98831	0.1090364	0.23423412	2.6063693	21	—	—
488397 2016 WV_{52}	17.9	X	293.30701	295.33079	57.44299	23.85601	0.0564656	0.34848682	1.9999162	21	6 26.8	20.2
488398 2016 WY_{52}	16.1	X	258.48957	208.77726	275.73459	8.15849	0.0675814	0.18505130	3.0498229	21	10 27.8	20.5
488399 2016 WE_{53}	17.5	X	19.25877	29.09569	38.63647	2.75647	0.1971760	0.22583188	2.6706228	21	—	—
488400 2016 WF_{53}	17.5	X	100.24346	25.53955	39.99289	3.39036	0.1012832	0.27226771	2.3576100	21	2 5.7	20.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488401 2016 WN_{53}	16.7	X	102.47204	105.30757	252.71189	11.42713	0.1203535	0.24056266	2.5604555	21	—	—
488402 2016 WB_{54}	16.1	X	273.05115	191.05794	265.07782	2.29082	0.1404717	0.17571077	3.1569700	21	10 1.0	20.5
488403 2016 WH_{54}	17.1	X	46.91339	203.75644	216.61712	0.92611	0.1307816	0.24024175	2.5627352	21	—	—
488404 2016 WJ_{54}	17.1	X	48.59267	354.72890	66.31725	4.68722	0.1398392	0.24141892	2.5543977	21	—	—
488405 2016 WL_{54}	17.7	X	99.14826	190.32101	257.91219	2.46342	0.1239304	0.28417229	2.2912980	21	3 6.3	20.3
488406 2016 WM_{54}	16.1	X	9.00526	251.09070	105.50448	1.50409	0.2266948	0.19265411	2.9690478	21	11 12.1	19.1
488407 2016 WR_{54}	18.0	X	82.04761	321.10268	108.55885	3.21815	0.2007826	0.26543302	2.3979093	21	1 28.0	20.0
488408 2016 WA_{55}	17.6	X	53.25561	293.77635	176.69112	1.81746	0.1297044	0.26541126	2.3980404	21	1 23.4	19.9
488409 2016 WB_{55}	16.6	X	79.21551	249.25418	88.56636	11.82547	0.2163921	0.22248959	2.6973021	21	—	—
488410 2016 WD_{55}	17.6	X	102.38856	350.73158	71.25432	9.05196	0.2768015	0.26729593	2.3867549	21	3 9.6	20.6
488411 2016 WS_{55}	16.5	X	15.92470	57.81180	304.98332	8.03412	0.0840990	0.18902435	3.0069362	21	11 9.9	20.6
488412 2016 XL	18.6	X	47.46836	15.78608	280.64722	16.46515	0.0476483	0.37706317	1.8975503	21	10 15.8	20.9
488413 2016 XZ_{2}	17.6	X	69.48442	22.67665	43.79796	6.90258	0.1124024	0.25483799	2.4639200	21	—	—
488414 2016 XA_{3}	16.4	X	282.98419	55.51441	52.30329	12.13238	0.1033980	0.18811818	3.0165848	21	11 7.3	20.3
488415 2016 XF_{3}	16.6	X	275.11699	254.72941	235.51606	14.88495	0.2938722	0.18387285	3.0628400	21	10 23.8	20.7
488416 2016 XR_{3}	17.4	X	90.23208	60.69178	9.86495	4.93689	0.1437404	0.26953879	2.3734961	21	2 4.6	19.9
488417 2016 XF_{4}	18.4	X	156.54149	135.76696	248.92243	3.88574	0.2476019	0.29257765	2.2472012	21	3 5.2	22.0
488418 2016 XJ_{4}	16.3	X	335.59632	264.64086	242.79048	14.04924	0.0635910	0.24098044	2.5574953	21	—	—
488419 2016 XQ_{5}	15.9	X	310.52326	118.98945	270.86866	6.15050	0.1753072	0.17235887	3.1977680	21	8 24.6	19.8
488420 2016 XP_{6}	18.0	X	118.17369	134.04042	291.69756	4.46320	0.1818411	0.28544885	2.2844616	21	3 10.2	20.8
488421 2016 XT_{6}	17.1	X	61.63543	34.53028	357.65241	3.79451	0.2677288	0.24044623	2.5612820	21	—	—
488422 2016 XL_{7}	17.4	X	129.40012	40.71439	336.24368	5.07223	0.2632509	0.27694091	2.3310127	21	2 3.2	20.5
488423 2016 XM_{8}	17.0	X	28.06401	140.82409	282.49280	5.67509	0.0699410	0.23065226	2.6332832	21	—	—
488424 2016 XY_{9}	16.6	X	115.67053	88.33021	235.30057	3.93879	0.2820426	0.24303471	2.5430633	21	—	—
488425 2016 XG_{12}	19.0	X	95.98119	155.23433	312.39625	2.78620	0.2114747	0.28708604	2.2757680	21	4 13.1	21.6
488426 2016 XL_{13}	16.2	X	309.11783	265.18131	151.58080	9.92794	0.0655043	0.17478658	3.1680886	21	10 15.4	20.5
488427 2016 XW_{14}	15.4	X	226.93521	212.52477	193.56951	11.55229	0.2837714	0.12477503	3.9662882	21	6 3.1	22.1
488428 2016 XU_{19}	18.3	X	111.53411	70.18056	13.98943	3.46308	0.1959226	0.27950089	2.3167576	21	4 1.4	21.1
488429 2016 XJ_{21}	15.7	X	267.58195	190.94941	250.11887	17.24451	0.0559438	0.18081189	3.0973103	21	9 10.6	20.5
488430 2016 XT_{21}	16.2	X	299.38721	344.94791	91.63993	16.50516	0.1768002	0.16917257	3.2377956	21	10 18.1	20.5
488431 2016 XW_{21}	15.3	X	334.67258	308.31790	91.76375	20.34557	0.1653592	0.17085779	3.2164702	21	11 3.6	19.3
488432 2016 XB_{22}	16.6	X	126.01805	246.89331	104.00746	22.32345	0.2841347	0.26164754	2.4209823	21	1 1.9	19.7
488433 2016 XD_{22}	17.0	X	49.90214	239.83199	141.87926	14.83803	0.2711776	0.22706851	2.6609177	21	—	—
488434 2016 XE_{22}	16.0	X	307.27147	265.21398	133.84283	25.76942	0.2780468	0.17238828	3.1974043	21	8 19.5	19.7
488435 2016 XM_{22}	16.8	X	66.34726	211.22804	180.77693	11.09324	0.2661517	0.24192779	2.5508145	21	—	—
488436 2016 XR_{22}	16.8	X	5.80149	176.87017	266.09395	5.23272	0.1159586	0.23001770	2.6381240	21	—	—
488437 2016 XZ_{22}	17.1	X	10.53617	266.30871	128.61770	11.37071	0.2458787	0.20972039	2.8057068	21	—	—
488438 2016 XG_{23}	17.2	X	338.86027	85.28132	21.36128	14.51739	0.2271670	0.21050841	2.7987004	21	—	—
488439 2016 XF_{24}	16.4	X	64.05476	264.12725	158.55389	14.07268	0.2016085	0.24623106	2.5210077	21	—	—
488440 2016 XG_{24}	16.6	X	29.27170	280.25952	190.05772	16.96458	0.1756836	0.24370548	2.5383949	21	—	—
488441 2016 XH_{24}	15.9	X	18.21433	305.02580	110.22993	26.53018	0.2367507	0.21856622	2.7294849	21	—	—
488442 2016 YH_{2}	15.8	X	342.59573	169.49023	210.45569	19.93341	0.1038712	0.17416626	3.1756066	21	10 12.4	19.9
488443 2016 YT_{2}	16.3	X	56.09227	296.15168	118.35624	14.96385	0.0572611	0.21526012	2.7573612	21	—	—
488444 2016 YK_{5}	18.5	X	237.16729	48.88472	88.88049	21.47678	0.0894699	0.39258015	1.8472138	21	11 28.2	20.1
488445 2016 YG_{7}	16.9	X	330.11909	267.90099	240.68433	7.04235	0.1341067	0.23648948	2.5897718	21	—	—
488446 2016 YR_{9}	16.0	X	303.10639	320.77577	86.56885	17.78146	0.1981545	0.17568886	3.1572326	21	9 13.9	20.2
488447 2016 YU_{9}	17.6	X	69.65898	275.08100	202.27577	5.19563	0.1910750	0.27450067	2.3448070	21	3 11.1	19.6
488448 2016 YC_{10}	17.7	X	124.47375	243.54667	240.81492	5.69655	0.0969280	0.30007956	2.2095904	21	5 28.9	20.3
488449 2016 YL_{10}	15.5	X	245.40577	245.28514	288.99045	10.23655	0.1153648	0.17360791	3.1824118	21	12 4.9	20.1
488450 1994 JX	17.2	X	329.30758	193.45789	52.46423	32.14670	0.5722907	0.21448437	2.7640058	21	1 14.9	22.1
488451 1994 ST_{11}	17.0	X	252.59734	330.93506	76.85971	2.48518	0.1820097	0.17554341	3.1589763	21	7 4.0	21.9
488452 1994 VH_{4}	17.4	X	210.08845	78.20031	263.19570	2.64683	0.2221338	0.23956635	2.5675496	21	2 28.9	21.8
488453 1994 XD	19.1	X	153.57648	249.38781	96.14436	4.30997	0.7339579	0.27411847	2.3469861	21	2 20.3	24.3
488454 1995 DC_{9}	17.1	X	301.07929	180.90838	349.08884	17.63979	0.2049519	0.18141303	3.0904643	21	—	—
488455 1995 SA_{10}	16.9	X	316.69702	31.47908	355.65707	14.45572	0.2653476	0.22643237	2.6658991	21	9 1.3	19.3
488456 1995 SM_{62}	18.1	X	151.59263	333.61660	20.67239	5.09307	0.1066241	0.24450212	2.5328782	21	1 16.6	21.6
488457 1995 TJ_{10}	18.0	X	0.55035	177.25513	199.89903	6.31713	0.2081373	0.22967461	2.6407506	21	12 2.1	20.6
488458 1995 UD_{53}	16.8	X	339.56621	10.42346	4.90827	9.31337	0.0947676	0.18944573	3.0024757	21	10 4.3	20.3
488459 1995 UN_{55}	17.8	X	300.96475	294.76763	13.01655	14.59078	0.1749931	0.25682712	2.4511814	21	4 16.3	20.8
488460 1996 BO_{11}	16.5	X	204.52464	179.96627	283.22871	10.48269	0.1318656	0.17318144	3.1876342	21	7 27.1	21.5
488461 1996 FS_{1}	20.2	X	220.50577	224.56135	170.06049	38.81657	0.7619472	0.56488592	1.4493131	21	4 28.1	24.3
488462 1996 TD_{1}	16.8	X	321.30525	116.59114	191.51453	24.48596	0.4332687	0.23218426	2.6216872	21	4 8.8	19.9
488463 1996 VE_{35}	16.3	X	91.19583	203.54188	236.71952	15.71524	0.1989866	0.17427566	3.1742775	21	3 9.2	20.9
488464 1997 SD_{7}	16.4	X	148.14398	335.69145	355.24854	9.45036	0.0858439	0.18064904	3.0991716	21	—	—
488465 1998 HK_{1}	19.6	X	105.22733	24.92796	213.59333	7.93448	0.4284217	0.31119652	2.1566495	21	11 4.8	23.6
488466 1998 QO_{56}	16.5	X	177.55841	314.38304	349.25363	10.64510	0.1042700	0.18894587	3.0077688	21	—	—
488467 1998 QE_{58}	17.5	X	288.03299	218.96427	174.53614	2.10652	0.2498826	0.21024804	2.8010105	21	7 17.8	21.1
488468 1998 QG_{59}	17.9	X	343.68665	8.57924	354.05415	3.37681	0.2262232	0.21474234	2.7617918	21	9 29.1	20.2
488469 1998 SQ_{122}	16.8	X	193.33531	145.19070	214.14374	3.65167	0.2765216	0.23863964	2.5741923	21	3 10.4	21.4
488470 1998 UV_{50}	16.5	X	80.58171	6.84044	49.94608	10.85367	0.1254194	0.18527615	3.0473549	21	1 20.9	20.6
488471 1998 WG_{35}	18.2	X	161.74470	37.99687	47.53302	5.82201	0.1954067	0.28423141	2.2909802	21	5 25.9	21.9
488472 1998 YE_{15}	18.2	X	58.99571	313.27229	102.54878	5.80997	0.2176254	0.26557447	2.3970578	21	—	—
488473 1999 FW_{80}	17.5	X	343.82510	12.46425	169.48402	13.60904	0.2186789	0.21864923	2.7287940	21	1 1.6	21.1
488474 1999 HD_{1}	20.3	X	55.14803	147.94500	209.87105	18.21717	0.4177538	0.81905759	1.1313399	21	—	—
488475 1999 RW_{199}	16.3	X	237.37201	154.42888	234.55394	11.36360	0.3068982	0.21320577	2.7750453	21	5 16.9	21.0
488476 1999 RN_{239}	17.3	X	14.57141	356.89068	314.16380	10.51910	0.3939267	0.27010990	2.3701494	21	10 31.6	19.6
488477 1999 TY_{20}	16.7	X	0.57333	159.04553	216.29441	7.48199	0.3051828	0.22626796	2.6671903	21	12 13.4	19.1
488478 1999 TP_{34}	16.7	X	27.96965	338.76264	21.27464	13.45605	0.2969820	0.22926130	2.6439235	21	—	—
488479 1999 TB_{45}	16.1	X	221.81430	277.73578	16.53525	17.65006	0.1467922	0.19981633	2.8976688	21	1 27.2	21.1
488480 1999 TC_{46}	18.0	X	288.53861	257.41043	209.63657	20.25191	0.0928473	0.36230987	1.9487192	21	12 27.2	20.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488481 1999 TZ_{59}	17.0	X	29.55401	351.93442	357.00276	13.62683	0.1143998	0.22914622	2.6448086	21	11 21.8	20.6
488482 1999 TZ_{188}	17.2	X	46.28461	128.84454	248.64220	11.85169	0.2656653	0.23188040	2.6239770	21	—	—
488483 1999 UY_{30}	18.6	X	132.96684	218.99357	189.30506	5.04968	0.1973304	0.29146532	2.2529149	21	3 7.5	21.4
488484 1999 UP_{31}	16.7	X	5.40917	62.37274	34.00931	12.95373	0.1020717	0.23476104	2.6024678	21	—	—
488485 1999 UU_{55}	17.9	X	316.77299	193.42203	117.08472	1.25891	0.1972920	0.26090123	2.4255969	21	5 13.3	20.5
488486 1999 VQ_{6}	18.5	X	47.28419	254.36836	203.46115	27.61096	0.5108024	0.23595561	2.5936767	21	1 25.0	19.9
488487 1999 VA_{13}	17.6	X	73.95054	24.44531	18.60034	21.27983	0.0596382	0.37276212	1.9121188	21	—	—
488488 1999 VA_{139}	18.2	X	328.33743	287.80536	100.75939	3.06739	0.1046733	0.26640245	2.3920885	21	10 18.9	20.5
488489 1999 WM_{5}	17.8	X	185.00088	154.74898	62.04760	22.38754	0.0423496	0.36243162	1.9482828	21	—	—
488490 2000 AF_{205}	21.7	X	248.87058	127.42590	219.95790	2.40612	0.2768062	0.93686160	1.0343934	21	—	—
488491 2000 CG_{130}	17.2	X	259.06786	219.40663	344.66623	0.91994	0.1477208	0.17721839	3.1390401	21	—	—
488492 2000 EX_{202}	16.7	X	19.81418	225.41905	202.00892	13.06764	0.0720955	0.17592221	3.1544399	21	—	—
488493 2000 FN_{53}	16.9	X	167.70899	316.02954	17.64759	15.26902	0.0941220	0.22396068	2.6854776	21	1 13.6	21.2
488494 2000 JA_{3}	18.6	X	75.33269	151.23002	119.60906	10.19319	0.4575280	0.29161274	2.2521556	21	11 27.4	22.9
488495 2000 LO_{31}	15.9	X	163.98701	238.66203	88.06645	15.36274	0.1472642	0.17024597	3.2241717	21	1 12.3	21.0
488496 2000 OM_{1}	17.3	X	91.36760	51.08487	251.57344	6.88164	0.1487545	0.19983061	2.8975306	21	12 10.8	21.8
488497 2000 QM_{20}	17.2	X	327.40417	65.19139	338.75565	5.19971	0.3537513	0.23558639	2.5963860	21	10 18.7	18.2
488498 2000 QJ_{117}	16.9	X	275.03784	193.84670	147.74019	19.54066	0.3990179	0.22486289	2.6782895	21	4 15.9	21.8
488499 2000 QR_{216}	17.7	X	124.53114	321.75949	2.20952	5.31616	0.2265447	0.29816125	2.2190576	21	—	—
488500 2000 SE_{44}	18.2	X	44.21556	340.86049	13.09018	20.80298	0.0897438	0.38327530	1.8769909	21	—	—
488501 2000 SH_{84}	16.8	X	199.11303	313.45000	16.88225	11.65261	0.3271808	0.21292964	2.7774440	21	2 17.6	22.1
488502 2000 SD_{164}	17.9	X	223.48554	338.25848	19.65609	15.80518	0.3026278	0.26518803	2.3993859	21	3 30.6	22.2
488503 2000 SO_{173}	15.7	X	264.10648	111.61326	243.78023	15.07372	0.2568779	0.17655349	3.1469161	21	5 2.9	20.9
488504 2000 SF_{186}	18.2	X	25.12063	16.12614	5.70452	2.62658	0.1428389	0.28926617	2.2643190	21	—	—
488505 2000 SA_{241}	16.9	X	282.54489	139.39342	222.85943	23.03244	0.1681398	0.27343839	2.3508760	21	6 8.2	20.2
488506 2000 SU_{250}	17.5	X	273.42385	304.87364	47.47263	5.55572	0.1733111	0.27204581	2.3588918	21	5 13.8	20.8
488507 2000 TF_{50}	15.8	X	250.54773	335.28222	53.88750	16.49730	0.2810800	0.17634455	3.1494014	21	5 28.9	21.0
488508 2000 UQ_{3}	17.7	X	331.70292	8.11243	30.51186	4.71055	0.2983509	0.23444400	2.6048135	21	10 30.5	19.1
488509 2000 UW_{13}	20.6	X	99.67742	39.85780	33.58488	26.46164	0.1452881	0.68470947	1.2748678	21	—	—
488510 2000 UE_{16}	17.4	X	325.76821	87.01645	240.16326	9.02679	0.3433760	0.27615286	2.3354452	21	5 26.6	18.9
488511 2000 UF_{76}	16.7	X	250.63521	162.71194	232.20490	23.34508	0.2295421	0.27085738	2.3657868	21	6 7.8	20.5
488512 2000 US_{95}	16.4	X	228.20125	108.15105	239.22559	11.36826	0.2998081	0.21675499	2.7446690	21	3 18.4	21.6
488513 2000 WL_{29}	18.1	X	352.17389	210.69195	231.27445	18.99603	0.0734039	0.38450362	1.8729913	21	—	—
488514 2000 XY_{10}	17.4	X	284.97661	48.29235	50.46855	5.91264	0.2075121	0.23335212	2.6129327	21	10 22.6	20.4
488515 2001 FE_{90}	20.6	X	177.68601	145.11234	98.53555	8.79246	0.4944440	0.36625222	1.9347100	21	12 20.2	24.3
488516 2001 FP_{108}	16.9	X	280.42691	191.17452	0.98522	12.59405	0.1027512	0.23329410	2.6133659	21	—	—
488517 2001 ML_{8}	16.1	X	202.62111	140.17746	176.87201	32.35901	0.2342763	0.22833951	2.6510343	21	1 26.6	21.2
488518 2001 PL_{30}	17.9	X	358.82305	282.53325	42.82593	6.07400	0.1685091	0.29777648	2.2209688	21	9 21.8	19.5
488519 2001 QX_{95}	16.2	X	259.18264	355.10493	313.39972	5.18426	0.0471911	0.18248943	3.0782998	21	3 23.0	20.7
488520 2001 QQ_{146}	18.0	X	153.03852	229.16126	122.61239	2.29196	0.1886489	0.27144979	2.3623435	21	1 18.3	21.2
488521 2001 QY_{189}	16.1	X	230.34145	76.04322	192.29164	24.38715	0.3693691	0.17517289	3.1634292	21	—	—
488522 2001 QV_{211}	18.0	X	150.08864	38.78038	322.54741	2.30518	0.2669200	0.27014156	2.3699642	21	2 4.9	21.7
488523 2001 QE_{217}	18.2	X	341.27392	213.04132	139.68967	4.66942	0.2453861	0.29613815	2.2291526	21	9 28.4	18.9
488524 2001 QV_{327}	16.7	X	322.24192	251.89164	66.85890	12.11440	0.3579131	0.24030911	2.5622562	21	5 9.2	19.3
488525 2001 RA_{2}	16.7	X	312.97797	147.68853	160.84956	33.31570	0.2673327	0.23962378	2.5671393	21	4 30.2	20.5
488526 2001 RR_{8}	18.1	X	141.34974	192.37486	174.10040	3.14198	0.2422430	0.26950716	2.3736819	21	1 30.6	21.5
488527 2001 RZ_{13}	18.4	X	291.45604	190.30778	162.75210	1.66451	0.2305022	0.28941755	2.2635294	21	5 29.1	21.0
488528 2001 RJ_{16}	15.5	X	179.03853	328.04208	5.51051	3.32713	0.3121830	0.12341692	3.9953323	21	2 12.9	22.4
488529 2001 RV_{85}	18.2	X	314.08572	347.99043	353.94637	3.09807	0.1937036	0.29090617	2.2558009	21	6 25.6	20.1
488530 2001 RQ_{88}	16.3	X	288.38761	349.77813	9.76867	16.18880	0.2537339	0.18954320	3.0014463	21	5 30.3	20.9
488531 2001 RL_{98}	17.1	X	285.15616	310.08902	6.30727	12.81887	0.2757947	0.23434841	2.6055218	21	3 30.5	21.0
488532 2001 RQ_{108}	18.1	X	354.70333	33.34553	351.38294	18.37494	0.0982729	0.35190847	1.9869315	21	12 20.8	20.4
488533 2001 RF_{127}	15.4	X	197.43074	140.89825	163.31082	23.06715	0.1809893	0.17129527	3.2109914	21	1 15.3	21.1
488534 2001 SZ_{91}	16.7	X	228.20313	229.06564	190.54597	6.07507	0.3168045	0.18587225	3.0408361	21	6 16.1	22.1
488535 2001 SD_{145}	16.7	X	267.40735	50.11067	319.34800	3.82196	0.2452062	0.18778431	3.0201593	21	5 24.2	21.5
488536 2001 SY_{150}	18.3	X	118.59655	51.81046	315.81309	1.98736	0.2501614	0.26528783	2.3987841	21	1 8.5	21.0
488537 2001 SC_{189}	18.2	X	85.85812	156.30442	205.20218	0.65502	0.1886676	0.26183201	2.4198450	21	—	—
488538 2001 SV_{195}	18.6	X	312.63006	176.97240	162.17440	2.38567	0.2314398	0.29090490	2.2558074	21	6 10.9	20.7
488539 2001 SJ_{198}	18.2	X	271.27365	6.64642	39.47836	1.96026	0.1028755	0.29207790	2.2497638	21	8 9.2	20.7
488540 2001 ST_{219}	19.0	X	68.78307	357.65242	16.18425	3.89739	0.2501228	0.25930066	2.4355682	21	—	—
488541 2001 SD_{242}	17.7	X	29.28289	310.64399	13.64117	22.11541	0.1216981	0.34743901	2.0039351	21	11 7.1	20.0
488542 2001 SZ_{293}	16.5	X	168.17907	320.26761	6.93922	17.27766	0.1356515	0.21860458	2.7291655	21	1 11.4	21.0
488543 2001 SN_{349}	18.2	X	80.59921	60.47097	308.76010	4.93276	0.2718137	0.26065946	2.4270965	21	—	—
488544 2001 SV_{355}	18.6	X	346.01344	288.62689	56.53537	5.90211	0.2169008	0.29434231	2.2382104	21	9 28.1	19.8
488545 2001 TM_{13}	17.1	X	247.05853	357.11337	21.89747	24.55672	0.2305317	0.28365239	2.2940969	21	5 7.0	21.0
488546 2001 TW_{28}	15.9	X	170.79585	178.32743	243.21270	9.86198	0.2204766	0.17622627	3.1508105	21	5 9.1	21.3
488547 2001 TW_{69}	18.1	X	34.09210	78.64236	304.96393	1.28486	0.2183643	0.25466984	2.4650044	21	—	—
488548 2001 TR_{70}	16.8	X	317.60554	325.76895	28.80785	18.36388	0.3284601	0.19228483	2.9728479	21	6 27.8	20.4
488549 2001 TH_{91}	16.4	X	108.35441	229.83982	206.66338	24.99030	0.1663735	0.22067902	2.7120354	21	3 17.8	20.4
488550 2001 TR_{100}	16.3	X	241.10730	13.05847	7.55184	16.76920	0.2470661	0.18373493	3.0643726	21	5 9.3	21.7
488551 2001 TB_{230}	18.3	X	107.77909	327.78907	21.41033	3.79422	0.2263531	0.26212133	2.4180641	21	—	—
488552 2001 TW_{237}	17.8	X	299.80213	283.77967	95.04460	4.71386	0.2707297	0.24113232	2.5564214	21	7 12.5	20.7
488553 2001 TC_{253}	15.9	X	26.06810	357.60455	31.01865	20.06784	0.0370531	0.15545398	3.4255855	21	12 12.1	20.9
488554 2001 UF_{1}	16.9	X	281.46077	112.96081	214.50665	28.46740	0.3581125	0.23556589	2.5965366	21	3 29.9	21.4
488555 2001 UJ_{84}	16.9	X	250.78394	47.79350	18.06018	9.39800	0.3624538	0.18666308	3.0322414	21	7 7.9	22.2
488556 2001 UP_{127}	16.7	X	237.65844	253.74956	170.49051	4.13469	0.2293242	0.18496089	3.0508167	21	7 4.7	21.8
488557 2001 UB_{191}	18.3	X	188.46094	164.98557	226.13072	3.93065	0.2275290	0.27735838	2.3286731	21	4 10.6	22.2
488558 2001 UK_{191}	16.1	X	229.50780	78.67011	199.56186	24.63216	0.2920011	0.17254426	3.1954771	21	1 6.1	22.2
488559 2001 UO_{195}	18.3	X	71.31323	168.69687	203.40209	0.76660	0.1859439	0.25834099	2.4415962	21	—	—
488560 2001 UC_{221}	17.1	X	85.89973	22.40217	28.43159	8.50938	0.2351168	0.21263199	2.7800353	21	1 31.7	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488561 2001 UR_{231}	18.5	X	326.53521	283.60572	70.46951	3.38796	0.1861637	0.29285581	2.2457780	21	8 18.2	19.9
488562 2001 VX_{9}	17.0	X	211.02426	289.21198	59.52863	10.27202	0.3102581	0.22573795	2.6713635	21	3 17.4	22.1
488563 2001 VK_{13}	17.5	X	297.46814	206.12482	236.87928	20.41900	0.0685569	0.34646645	2.0076836	21	12 3.6	19.1
488564 2001 VN_{111}	16.5	X	275.72531	4.91105	359.46893	1.10547	0.3170506	0.18537607	3.0462597	21	5 18.6	21.2
488565 2001 WU_{10}	16.3	X	202.79718	170.60623	226.70254	17.00013	0.2060732	0.17756428	3.1349623	21	5 6.0	21.4
488566 2001 WD_{20}	17.9	X	143.41721	339.36025	24.84027	3.44031	0.2484244	0.26747072	2.3857149	21	2 1.8	21.4
488567 2001 WK_{63}	15.9	X	264.15490	109.04526	244.49466	9.95633	0.0711780	0.17935977	3.1140053	21	5 23.5	20.4
488568 2001 XJ_{13}	16.4	X	192.63733	174.81258	293.19940	9.06435	0.2759210	0.17931008	3.1145807	21	7 19.6	21.9
488569 2001 XC_{37}	17.2	X	246.56642	7.35321	45.32651	12.35402	0.2550955	0.23400915	2.6080395	21	6 25.8	21.5
488570 2001 XH_{138}	17.5	X	199.23392	316.89769	111.06540	5.24081	0.2659063	0.22871691	2.6481172	21	6 6.9	22.1
488571 2001 XS_{219}	16.2	X	214.38562	140.37185	249.91883	9.05822	0.2300558	0.17854589	3.1234614	21	5 5.2	21.7
488572 2001 XH_{260}	17.6	X	80.77187	113.48474	239.76711	12.86353	0.1759974	0.25626296	2.4547776	21	—	—
488573 2002 AA_{96}	17.5	X	96.88332	148.72314	322.11508	5.24553	0.1445568	0.26645259	2.3917884	21	4 9.0	20.4
488574 2002 AE_{181}	16.8	X	347.91017	53.85520	65.26407	16.38120	0.2270479	0.20204518	2.8763191	21	—	—
488575 2002 CZ_{36}	17.7	X	226.42132	187.33888	331.04064	3.72517	0.2191409	0.23706843	2.5855537	21	10 21.1	21.8
488576 2002 CF_{214}	17.5	X	271.02604	117.04183	351.97026	3.36312	0.2302717	0.23793055	2.5793043	21	10 9.4	20.7
488577 2002 CO_{282}	17.8	X	83.01243	196.88462	296.20151	0.99927	0.1772759	0.26572080	2.3961777	21	4 27.9	20.3
488578 2002 EE_{76}	18.3	X	220.83092	351.89424	182.18862	4.94631	0.0908081	0.28672012	2.2777039	21	11 30.2	21.2
488579 2002 FQ_{4}	20.3	X	52.82197	68.53411	182.38357	34.94023	0.1942297	0.52518171	1.5214686	21	10 7.8	20.9
488580 2002 GK_{8}	19.7	X	196.75966	266.79188	47.80277	38.99261	0.4015156	0.39441987	1.8414653	21	1 6.7	23.7
488581 2002 GX_{172}	17.9	X	37.21512	150.43151	73.21706	7.10472	0.2198166	0.26334488	2.4105685	21	6 30.0	19.8
488582 2002 LD_{35}	17.1	X	263.99112	199.53832	98.21369	15.40657	0.4945155	0.19306281	2.9648562	21	2 12.3	23.0
488583 2002 NM_{15}	16.4	X	226.65939	172.34071	102.62532	24.44190	0.3569156	0.18647813	3.0342459	21	1 1.8	22.2
488584 2002 OX_{32}	15.8	X	124.63542	56.76283	315.23210	8.18512	0.2584789	0.12664409	3.9271675	21	2 11.9	21.9
488585 2002 PM_{5}	16.6	X	238.08870	139.07094	185.76899	9.21166	0.3155047	0.19097135	2.9864637	21	3 3.6	22.1
488586 2002 PH_{103}	16.9	X	268.91381	176.95018	202.69177	6.79037	0.3486291	0.20030382	2.8929654	21	5 28.1	21.6
488587 2002 PH_{130}	18.3	X	155.14414	22.03640	326.39444	7.16574	0.2719359	0.28554813	2.2839320	21	1 23.9	21.8
488588 2002 PM_{191}	17.4	X	213.99592	315.27704	332.00460	8.13163	0.1128702	0.23627633	2.5913291	21	—	—
488589 2002 PK_{202}	16.5	X	189.41475	152.81669	209.18522	17.73698	0.2327226	0.23870983	2.5736877	21	3 6.9	21.3
488590 2002 QE	18.0	X	158.92803	100.16056	235.47617	2.76152	0.3131980	0.23198184	2.6232120	21	1 20.7	22.5
488591 2002 QO_{38}	17.4	X	7.63650	67.62595	354.45774	7.26471	0.3155857	0.21599903	2.7510692	21	—	—
488592 2002 QS_{38}	18.2	X	75.04582	166.87230	148.51157	1.51691	0.1972021	0.26912542	2.3759260	21	12 25.8	21.7
488593 2002 QQ_{69}	18.0	X	62.20914	139.00584	177.71613	3.28789	0.1958024	0.21708302	2.7419034	21	12 6.3	22.0
488594 2002 QY_{89}	18.6	X	334.07915	48.22329	306.23865	1.51423	0.1925568	0.31167148	2.1544579	21	9 8.5	19.5
488595 2002 QT_{92}	18.9	X	159.56588	289.92758	68.62639	2.54817	0.2803130	0.28629527	2.2799567	21	2 9.9	22.5
488596 2002 QB_{98}	18.3	X	8.56701	30.89399	337.93299	1.59562	0.1865334	0.26690513	2.3890841	21	12 10.9	20.8
488597 2002 QQ_{111}	18.0	X	12.66016	17.63822	303.38428	4.21274	0.1833822	0.31439692	2.1419888	21	10 14.7	19.6
488598 2002 QL_{124}	17.7	X	43.84020	43.97666	268.16048	3.43206	0.2545998	0.21496446	2.7598889	21	11 16.2	21.3
488599 2002 QY_{156}	17.0	X	219.80028	102.23298	245.70578	7.52016	0.2169435	0.24155786	2.5534181	21	3 13.9	21.5
488600 2002 RM_{44}	15.4	X	133.37537	308.46367	65.39010	3.80267	0.3261449	0.12558010	3.9493185	21	2 28.5	21.9
488601 2002 RA_{49}	15.5	X	161.82569	328.40426	1.47355	16.50325	0.1845327	0.17786489	3.1314290	21	1 19.9	20.8
488602 2002 RV_{49}	17.9	X	354.05288	326.92888	3.21849	7.06777	0.2668981	0.31158286	2.1548663	21	9 30.0	18.4
488603 2002 RH_{76}	17.2	X	207.54914	182.12722	161.43014	8.32947	0.2027964	0.23937511	2.5689169	21	3 2.8	21.5
488604 2002 RW_{112}	15.9	X	148.88191	358.12480	306.27324	19.14720	0.2095511	0.17373392	3.1808728	21	—	—
488605 2002 RT_{115}	18.5	X	178.79148	126.42989	215.87378	4.03437	0.2159382	0.28764676	2.2728096	21	1 29.9	22.1
488606 2002 RE_{121}	16.1	X	194.08549	103.09662	217.29177	12.54077	0.2893633	0.18127227	3.0920639	21	1 28.7	21.9
488607 2002 RS_{189}	15.1	X	125.83517	184.25189	188.97991	8.09732	0.3010168	0.12439633	3.9743337	21	2 17.1	21.4
488608 2002 RY_{208}	17.6	X	7.59126	15.47917	345.42812	4.64573	0.1709881	0.21186501	2.7867407	21	11 10.3	20.8
488609 2002 RE_{209}	16.4	X	142.81876	123.57737	179.93319	26.14270	0.2410873	0.17230821	3.1983948	21	—	—
488610 2002 RQ_{210}	17.1	X	129.24492	216.50989	181.36780	13.41828	0.2580079	0.23182801	2.6243723	21	3 4.7	21.2
488611 2002 RU_{254}	17.7	X	332.44086	34.48029	308.68513	1.91969	0.2040075	0.20533035	2.8455570	21	8 2.7	20.6
488612 2002 RG_{255}	16.5	X	170.61968	314.83934	3.32035	18.10481	0.1887965	0.17942577	3.1132417	21	1 13.8	21.9
488613 2002 RC_{263}	16.2	X	147.10160	93.52375	261.84100	3.69559	0.3086519	0.12584995	3.9436711	21	2 13.7	22.9
488614 2002 RT_{267}	17.2	X	159.85597	267.14059	116.75150	10.19044	0.1206674	0.23627304	2.5913531	21	3 8.5	21.2
488615 2002 SR	21.7	X	176.28446	285.19264	160.86790	6.69037	0.1959882	0.76947626	1.1794311	21	5 22.8	21.2
488616 2002 TZ_{26}	16.6	X	321.31192	161.70142	206.18491	7.02661	0.3128596	0.20395321	2.8583519	21	7 26.8	19.3
488617 2002 TP_{93}	17.2	X	146.15026	357.27073	22.12964	7.03934	0.2596837	0.23274927	2.6174426	21	3 1.8	21.4
488618 2002 TK_{125}	16.7	X	308.47075	140.39985	226.34695	11.29271	0.1966950	0.20282859	2.8689079	21	7 18.5	20.3
488619 2002 TW_{208}	16.9	X	173.45605	219.36300	163.35376	16.23143	0.2030762	0.23655089	2.5893236	21	3 23.7	21.2
488620 2002 TM_{239}	16.5	X	243.71765	23.56267	13.03822	14.32456	0.2250844	0.19523963	2.9427773	21	6 3.9	21.6
488621 2002 TR_{259}	17.7	X	31.02182	250.45245	196.58115	12.70728	0.4190018	0.21917347	2.7244409	21	—	—
488622 2002 TN_{292}	17.6	X	27.93744	150.77049	221.41151	20.04978	0.1000148	0.36973095	1.9225553	21	—	—
488623 2002 TF_{298}	17.3	X	177.15418	21.87545	347.97876	7.37918	0.1954568	0.23629912	2.5911625	21	3 9.2	21.4
488624 2002 TA_{306}	17.1	X	224.46881	116.91969	177.24922	16.21545	0.2938645	0.18239254	3.0793898	21	1 20.6	22.9
488625 2002 TJ_{306}	17.9	X	0.26804	231.32113	131.47237	4.71146	0.1610218	0.26147369	2.4220553	21	11 13.7	20.2
488626 2002 TX_{306}	16.6	X	234.20936	217.75625	50.08461	12.21550	0.1220558	0.17760949	3.1344303	21	1 6.5	21.7
488627 2002 TX_{310}	17.0	X	257.88688	230.65424	60.24499	10.41508	0.1938057	0.23799973	2.5788044	21	2 14.6	21.3
488628 2002 TG_{325}	18.4	X	138.73146	13.73406	13.01429	2.79520	0.0694560	0.28560501	2.2836288	21	1 29.3	21.1
488629 2002 TS_{327}	16.6	X	215.12768	173.31159	130.77430	2.56255	0.1698065	0.18196307	3.0842332	21	1 28.8	21.6
488630 2002 TJ_{356}	19.1	X	153.90028	139.12996	239.68656	1.11114	0.2378987	0.28655905	2.2785573	21	2 24.7	22.6
488631 2002 UM_{70}	17.9	X	59.23567	40.23365	354.19888	5.34244	0.2011455	0.27283506	2.3543404	21	—	—
488632 2002 UZ_{70}	17.1	X	190.20860	154.27862	195.92589	11.41474	0.1974605	0.23441577	2.6050226	21	2 22.2	21.6
488633 2002 UO_{72}	17.6	X	140.94174	197.30087	235.47038	3.57502	0.3172191	0.18199960	3.0838206	21	5 4.7	23.1
488634 2002 VY_{88}	15.8	X	237.11176	53.05062	262.25652	7.24284	0.4332242	0.18521548	3.0480203	21	2 15.4	21.8
488635 2002 VH_{90}	17.7	X	91.67108	168.35023	215.05892	7.11020	0.2341970	0.27522933	2.3406667	21	—	—
488636 2002 WY_{12}	19.4	X	254.28436	5.96672	62.07058	20.59671	0.4337225	0.35638039	1.9702750	21	7 5.3	22.9
488637 2002 XD_{69}	16.3	X	138.83035	57.40072	7.39230	26.07072	0.3865159	0.17831164	3.1261964	21	4 20.0	22.2
488638 2003 AJ_{79}	16.9	X	147.24565	42.81374	94.37280	25.10005	0.1640309	0.28926684	2.2643155	21	7 18.6	20.4
488639 2003 BJ_{90}	17.7	X	258.99024	13.07728	124.83805	26.55213	0.0771846	0.36003271	1.9569275	21	12 28.5	19.7
488640 2003 FR_{6}	19.0	X	152.63916	72.59537	186.03192	40.54884	0.3975519	0.35180210	1.9873320	21	12 24.9	23.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488641 2003 FD_{25}	16.4	X	333.76971	164.98154	358.34626	9.96980	0.1234587	0.21045186	2.7992018	21	—	—
488642 2003 FP_{132}	17.9	X	358.68631	8.65930	176.52419	1.41746	0.2479263	0.21571946	2.7534456	21	1 28.2	20.5
488643 2003 GR_{21}	18.4	X	88.71913	285.89087	32.27112	21.48537	0.0850147	0.35441845	1.9775395	21	—	—
488644 2003 HY_{56}	7.9	X	298.66677	250.44470	35.66235	2.58183	0.0391991	0.00354747	42.5785184	21	4 30.9	24.1
488645 2003 OV	18.4	X	112.72434	148.04020	261.60977	10.30234	0.8558804	0.29334134	2.2432992	21	4 22.5	23.4
488646 2003 QK_{47}	18.7	X	168.06437	332.05584	331.96562	24.61906	0.1804777	0.40912838	1.7970616	21	—	—
488647 2003 QL_{81}	18.1	X	343.58076	340.23675	345.30947	3.13382	0.2553443	0.27230749	2.3573803	21	8 4.4	19.0
488648 2003 SM_{78}	17.6	X	39.24316	50.73469	286.88484	4.06463	0.1738871	0.22561074	2.6723676	21	12 2.8	21.0
488649 2003 SV_{92}	16.8	X	26.22422	228.57018	191.41686	16.47989	0.2168948	0.17611146	3.1521797	21	—	—
488650 2003 SY_{131}	17.3	X	239.75649	359.87088	343.10161	7.03756	0.1456127	0.25750843	2.4468560	21	3 28.5	21.0
488651 2003 SV_{136}	17.0	X	326.23336	119.63028	253.40371	3.78985	0.1256878	0.21895648	2.7262406	21	9 9.4	20.1
488652 2003 SL_{138}	17.0	X	355.10567	19.34084	348.26615	10.74167	0.3029122	0.22144878	2.7057470	21	11 11.4	19.3
488653 2003 SS_{182}	16.9	X	201.82065	89.72388	304.39116	6.21927	0.1154976	0.25621521	2.4550826	21	4 25.1	20.8
488654 2003 SF_{218}	17.8	X	261.81185	170.82046	193.00396	6.13210	0.1717266	0.26068017	2.4269680	21	5 18.1	21.2
488655 2003 SG_{238}	17.9	X	309.76579	42.26918	12.44635	3.91957	0.1786915	0.27336613	2.3512902	21	10 16.2	19.6
488656 2003 SW_{239}	17.9	X	300.82803	15.38524	319.96250	1.63569	0.1908758	0.26513202	2.3997238	21	5 24.2	20.8
488657 2003 SM_{240}	16.4	X	9.01491	240.07220	200.00131	9.70452	0.2011897	0.17673051	3.1448144	21	—	—
488658 2003 SZ_{290}	18.1	X	57.56279	157.51662	199.15564	10.76110	0.2926649	0.28437033	2.2902340	21	—	—
488659 2003 SO_{293}	16.3	X	58.62842	36.00924	351.49333	10.30400	0.1771648	0.17750750	3.1356307	21	—	—
488660 2003 SL_{309}	17.1	X	346.33031	48.67826	305.87433	2.62763	0.1948430	0.21881668	2.7274017	21	9 22.2	19.7
488661 2003 SA_{328}	18.6	X	326.99856	281.82687	39.08604	1.86362	0.2002519	0.26769002	2.3844118	21	6 17.1	20.5
488662 2003 SM_{337}	17.0	X	20.17002	357.08555	355.99877	14.25149	0.2031610	0.22493009	2.6777561	21	11 26.2	20.4
488663 2003 SZ_{337}	18.1	X	25.82327	151.25402	193.99059	7.34393	0.2751178	0.22341352	2.6898605	21	12 10.4	21.5
488664 2003 SZ_{351}	16.6	X	59.87637	205.47454	192.85945	23.50625	0.1814890	0.17914636	3.1164780	21	—	—
488665 2003 SR_{364}	17.6	X	271.80619	187.84807	226.66488	3.68952	0.0677467	0.21627477	2.7487304	21	8 20.5	21.3
488666 2003 SL_{410}	18.4	X	24.83669	146.66762	228.75616	2.12041	0.1925672	0.28293049	2.2979975	21	—	—
488667 2003 TZ_{26}	16.6	X	210.62148	341.32579	322.21644	6.10983	0.2234726	0.19103708	2.9857786	21	1 23.9	21.8
488668 2003 TE_{40}	17.8	X	317.48406	96.18500	213.43494	13.00833	0.1033686	0.26237737	2.4164908	21	5 29.3	20.6
488669 2003 UD_{97}	15.2	X	98.58894	349.67949	28.27507	9.50166	0.3082612	0.12533680	3.9544278	21	2 4.7	21.1
488670 2003 UP_{130}	17.1	X	76.27783	120.70970	276.99082	12.56838	0.2658368	0.23599446	2.5933920	21	—	—
488671 2003 UK_{168}	16.9	X	313.60832	138.59990	241.15446	4.61301	0.2905779	0.21417473	2.7666692	21	8 2.1	19.8
488672 2003 UE_{171}	17.2	X	0.67793	163.29647	227.79062	7.82520	0.2926053	0.22216892	2.6998969	21	12 31.4	19.9
488673 2003 UK_{175}	16.2	X	163.50911	321.27515	20.74423	12.27928	0.2098620	0.18710175	3.0274999	21	2 4.4	21.4
488674 2003 UJ_{196}	17.0	X	303.74762	25.58565	354.25689	3.11494	0.1961102	0.21249199	2.7812563	21	8 2.7	20.3
488675 2003 UU_{198}	18.0	X	36.09464	211.96221	151.43375	2.79866	0.2185938	0.28148443	2.3058610	21	—	—
488676 2003 UT_{235}	16.8	X	315.07587	131.08987	248.84281	8.40826	0.1708077	0.21563501	2.7541644	21	8 21.9	20.1
488677 2003 UM_{257}	16.8	X	310.75425	139.36336	233.31570	8.25113	0.1772409	0.21234838	2.7825101	21	8 3.4	20.2
488678 2003 US_{276}	17.2	X	86.92872	145.04723	242.37576	8.02287	0.2575779	0.23542759	2.5975534	21	—	—
488679 2003 UR_{295}	17.0	X	1.25853	138.54595	204.67348	12.30576	0.1836245	0.21845573	2.7304051	21	10 7.8	19.7
488680 2003 UO_{299}	16.2	X	30.80329	208.17194	204.61883	11.84853	0.1205766	0.17513168	3.1639254	21	—	—
488681 2003 UM_{325}	18.4	X	61.85946	131.83980	228.50198	10.35910	0.2833397	0.23268900	2.6178945	21	—	—
488682 2003 UG_{334}	16.5	X	349.90884	92.75199	357.69850	12.02857	0.1517597	0.17659116	3.1464686	21	—	—
488683 2003 UX_{339}	16.9	X	264.61948	182.18473	222.00329	7.54836	0.0802883	0.20996955	2.8034868	21	7 25.1	20.8
488684 2003 UC_{354}	17.5	X	239.69167	34.85217	74.03415	5.54400	0.0758962	0.21609417	2.7502616	21	9 23.1	21.4
488685 2003 UK_{391}	16.5	X	324.30086	64.08253	56.43497	19.15449	0.1661963	0.17354869	3.1831357	21	—	—
488686 2003 UD_{415}	15.9	X	19.45440	190.54509	235.03168	16.08932	0.1754106	0.17728249	3.1382833	21	—	—
488687 2003 US_{416}	16.5	X	102.38143	174.76288	180.63614	12.36611	0.1087436	0.17907721	3.1172802	21	—	—
488688 2003 WB_{3}	15.5	X	113.96721	337.25712	64.67402	29.02410	0.1120154	0.18456970	3.0551258	21	2 24.1	20.4
488689 2003 WY_{14}	17.5	X	234.54456	154.08165	197.88481	0.34455	0.1965096	0.25381978	2.4705050	21	4 3.3	21.5
488690 2003 WE_{22}	16.7	X	343.35818	151.08481	244.81131	15.30152	0.2089972	0.21953295	2.7214660	21	11 18.9	19.2
488691 2003 WN_{24}	18.7	X	322.64745	63.92287	44.98388	25.83413	0.0813944	0.39339465	1.8446632	21	—	—
488692 2003 WW_{56}	19.0	X	359.32365	343.30176	67.52064	23.79936	0.1162768	0.38911834	1.8581535	21	—	—
488693 2003 WW_{87}	17.0	X	73.26436	349.27398	46.08705	46.82438	0.5693870	0.23492268	2.6012739	21	3 25.6	21.3
488694 2003 WK_{160}	17.4	X	104.78393	124.30349	266.86684	15.48610	0.1924207	0.23725718	2.5841823	21	1 14.9	20.7
488695 2003 WL_{187}	16.9	X	207.40111	102.20329	217.57550	11.39727	0.1194767	0.18952694	3.0016179	21	2 4.5	22.0
488696 2003 WZ_{192}	16.2	X	176.85519	222.89249	239.49938	13.43359	0.1584178	0.19920722	2.9035725	21	6 29.9	21.1
488697 2003 XE_{7}	17.1	X	27.09651	74.11324	69.02439	29.07102	0.3718054	0.23351342	2.6117292	21	1 11.5	19.0
488698 2003 XV_{10}	19.3	X	109.81468	321.51630	1.84096	11.57583	0.6797126	0.57316556	1.4353219	21	—	—
488699 2003 XG_{30}	16.5	X	330.43068	260.78706	246.12458	17.41378	0.1288286	0.17396622	3.1780406	21	—	—
488700 2003 YF_{22}	17.4	X	160.01892	98.15965	293.41424	2.76018	0.1839348	0.24420231	2.5349508	21	3 17.6	21.3
488701 2003 YE_{113}	17.3	X	45.81916	79.20410	46.01141	5.46756	0.3001790	0.23366914	2.6105688	21	2 25.9	18.9
488702 2003 YU_{117}	18.0	X	146.70959	21.38532	111.80358	26.22029	0.3529787	0.30473770	2.1870158	21	7 21.3	22.0
488703 2004 AC_{19}	15.7	X	302.04257	52.39780	130.68303	11.08891	0.0250054	0.16990301	3.2285090	21	—	—
488704 2004 BY_{50}	17.3	X	101.85559	294.29818	129.39898	13.11482	0.2753472	0.23602474	2.5931702	21	3 14.3	20.8
488705 2004 BJ_{54}	17.3	X	56.88140	335.93754	119.43291	11.19108	0.3573978	0.23277050	2.6172834	21	2 18.1	18.8
488706 2004 BE_{130}	18.3	X	53.38832	292.24505	203.65843	1.48837	0.1472119	0.23587049	2.5943007	21	3 11.1	20.9
488707 2004 CM_{2}	16.9	X	36.20590	230.76154	286.49985	11.93572	0.2187460	0.23358010	2.6112322	21	3 5.3	19.4
488708 2004 CQ_{4}	17.1	X	40.02227	150.71105	320.19070	10.49743	0.2277567	0.22996298	2.6385425	21	1 12.7	19.3
488709 2004 CJ_{67}	17.2	X	344.29380	49.37382	136.84621	6.92954	0.1825301	0.22945965	2.6423996	21	1 10.9	20.3
488710 2004 CS_{84}	16.6	X	1.96125	77.43072	150.82640	13.60538	0.1225307	0.23836931	2.5761382	21	4 21.8	19.6
488711 2004 CR_{110}	16.8	X	67.55951	319.20613	157.98813	32.72516	0.2901552	0.23436358	2.6054094	21	4 8.2	20.0
488712 2004 EY_{27}	17.6	X	353.45064	230.43423	358.67215	2.70658	0.0743180	0.23473715	2.6026444	21	4 6.9	20.5
488713 2004 FF_{23}	17.6	X	34.51330	312.80421	177.19910	4.81630	0.2021733	0.22817715	2.6522917	21	1 26.2	19.8
488714 2004 FH_{56}	17.3	X	342.43412	201.68041	18.50125	7.06239	0.2783450	0.22851849	2.6496498	21	2 10.7	20.3
488715 2004 FT_{86}	16.7	X	349.34957	173.62201	16.27172	14.45092	0.1829841	0.22826894	2.6515806	21	1 30.6	20.0
488716 2004 FK_{102}	17.2	X	10.64634	323.44491	193.78758	7.37918	0.1776232	0.22748700	2.6576533	21	1 16.5	20.0
488717 2004 FE_{119}	18.3	X	110.47028	158.61381	4.80402	7.62064	0.0434102	0.30061270	2.2069771	21	6 28.9	21.0
488718 2004 FZ_{147}	16.9	X	336.23122	283.01921	306.78518	12.21469	0.2618411	0.22833860	2.6510413	21	2 11.3	20.1
488719 2004 GU_{13}	17.3	X	22.30201	291.67632	237.64531	5.09419	0.3662923	0.23006064	2.6377958	21	2 12.3	18.5
488720 2004 GC_{49}	17.8	X	5.31135	284.95151	220.11538	6.38296	0.2152532	0.22337707	2.6901531	21	—	—

Planet		H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
		m		°	°	°	°		°				
488721	2004 GY_{76}	17.5	X	353.21370	19.44064	52.29911	33.00954	0.0708950	0.37979725	1.8884327	21	—	—
488722	2004 HS_{24}	16.8	X	63.35534	96.12372	11.76944	14.57271	0.0718172	0.22724689	2.6595250	21	2 18.7	20.2
488723	2004 JD_{43}	17.0	X	25.91253	234.60795	68.08142	25.47968	0.1978271	0.29855445	2.2171089	21	10 27.4	19.7
488724	2004 OR_{11}	18.2	X	7.81920	201.97453	108.50408	6.37076	0.1961800	0.29283627	2.2458779	21	9 20.9	19.8
488725	2004 PP_{104}	16.5	X	231.86183	304.76844	25.95794	20.98345	0.2456690	0.21373841	2.7704331	21	3 16.6	21.5
488726	2004 PZ_{104}	17.8	X	86.40567	189.21207	184.66280	7.61484	0.3437299	0.30839696	2.1696815	21	—	—
488727	2004 PL_{107}	17.2	X	290.37980	75.46886	337.70717	9.05301	0.2951773	0.22937819	2.6430252	21	8 12.6	20.4
488728	2004 QR_{27}	17.7	X	263.29690	217.67488	139.87860	8.99980	0.2652955	0.27723090	2.3293869	21	5 2.9	21.5
488729	2004 RU_{16}	18.4	X	6.27828	276.75321	38.06788	2.83687	0.2785842	0.29108172	2.2548938	21	10 5.8	19.4
488730	2004 RR_{20}	17.5	X	16.35720	302.25462	338.49220	9.41704	0.1445260	0.28729401	2.2746697	21	8 10.6	19.4
488731	2004 RL_{25}	17.6	X	237.20019	130.29038	206.01822	0.82148	0.2895711	0.21397476	2.7683926	21	3 16.4	22.6
488732	2004 RO_{25}	18.4	X	244.93676	124.97842	239.15280	1.78261	0.2224851	0.27693855	2.3310260	21	4 24.3	22.2
488733	2004 RX_{41}	17.9	X	286.18691	348.53359	1.94519	9.41945	0.2300171	0.27914109	2.3187479	21	5 15.4	21.2
488734	2004 RR_{57}	17.1	X	330.21891	127.32329	232.18059	4.76365	0.2147392	0.23082229	2.6319899	21	8 21.6	19.5
488735	2004 RP_{108}	18.1	X	300.33400	135.68403	215.78404	5.96420	0.1679016	0.28381759	2.2932066	21	6 20.2	20.6
488736	2004 RG_{112}	17.2	X	332.74506	140.78178	216.95254	23.09489	0.2890035	0.28837065	2.2690044	21	8 17.1	19.2
488737	2004 RE_{124}	16.8	X	226.02690	271.84221	57.71793	8.77877	0.2911561	0.20994264	2.8037263	21	3 5.9	22.0
488738	2004 RM_{162}	18.2	X	40.70837	30.17954	273.72530	6.30198	0.2920545	0.29537390	2.2329961	21	11 20.2	21.1
488739	2004 RQ_{183}	17.8	X	359.85910	37.74231	345.76635	16.83780	0.1148518	0.35509216	1.9750374	21	—	—
488740	2004 RC_{186}	17.7	X	317.44013	348.55229	341.81555	6.02537	0.1717721	0.28306998	2.2972425	21	6 17.2	19.9
488741	2004 RP_{213}	16.2	X	12.24035	58.86213	277.15918	12.72837	0.2988969	0.17500376	3.1654670	21	10 22.0	19.7
488742	2004 RF_{249}	16.3	X	347.04559	93.65389	332.94749	24.30569	0.3355530	0.17749742	3.1357494	21	—	—
488743	2004 RO_{251}	18.4	X	69.92129	321.35888	23.26129	24.80811	0.1899964	0.36308713	1.9459372	21	—	—
488744	2004 RT_{254}	17.2	X	344.12405	271.00175	51.95711	8.17056	0.1515996	0.28676419	2.2774706	21	8 11.1	19.1
488745	2004 RJ_{291}	16.3	X	160.29142	21.70865	319.88190	11.91105	0.1689599	0.20157383	2.8808012	21	1 23.9	20.9
488746	2004 RX_{335}	18.2	X	348.52844	152.28303	232.80006	3.85280	0.1931345	0.23401915	2.6079652	21	11 17.7	20.5
488747	2004 RM_{346}	18.5	X	350.65587	104.60728	228.24184	5.89742	0.2656115	0.28906232	2.2653834	21	9 13.1	19.4
488748	2004 SM_{1}	17.9	X	358.56038	343.14186	326.93423	2.01089	0.2350588	0.28864930	2.2675439	21	8 25.3	18.6
488749	2004 SH_{9}	18.5	X	37.84349	120.69728	199.43805	22.09797	0.4020549	0.29595919	2.2300512	21	12 21.4	22.3
488750	2004 SR_{25}	17.3	X	275.45062	165.75669	204.27245	6.22361	0.1297088	0.27891344	2.3200094	21	6 17.0	20.2
488751	2004 SX_{31}	17.1	X	247.35196	324.24179	1.88729	9.11742	0.2699835	0.21261433	2.7801892	21	3 14.1	21.9
488752	2004 SH_{36}	17.7	X	274.07329	103.24626	201.47311	7.81123	0.2671362	0.21622546	2.7491483	21	3 7.5	22.1
488753	2004 SU_{40}	17.0	X	239.53469	352.19799	18.09438	26.08754	0.1977047	0.27356565	2.3501469	21	4 23.1	20.9
488754	2004 SS_{47}	17.8	X	15.07222	76.95512	297.46794	4.96296	0.3393147	0.23703144	2.5858227	21	—	—
488755	2004 SU_{47}	17.5	X	160.76365	25.23212	354.92162	6.94262	0.2988980	0.26130560	2.4230938	21	3 12.2	21.6
488756	2004 TM	17.6	X	285.72496	186.90968	238.12940	0.97910	0.2143330	0.22771312	2.6558937	21	9 2.6	20.9
488757	2004 TY_{3}	18.0	X	154.40442	48.20483	20.93304	6.47325	0.1000337	0.26778494	2.3838483	21	4 20.6	21.3
488758	2004 TA_{31}	17.6	X	345.60068	156.68887	236.06775	4.52538	0.2884141	0.23435155	2.6054985	21	12 3.8	19.2
488759	2004 TO_{35}	18.0	X	127.53551	50.47873	16.89017	10.02363	0.1489043	0.26214485	2.4179195	21	3 26.3	21.3
488760	2004 TP_{38}	17.4	X	319.12218	287.17567	40.68472	3.36188	0.1221879	0.22199676	2.7012926	21	6 26.0	20.4
488761	2004 TD_{58}	18.4	X	239.40219	161.25624	193.98589	0.77045	0.2068694	0.27269802	2.3551291	21	4 9.7	22.1
488762	2004 TW_{62}	16.8	X	235.82382	15.38437	16.34421	11.94468	0.1789146	0.21644057	2.7473265	21	5 24.6	21.4
488763	2004 TM_{82}	17.9	X	54.43084	123.59518	199.59620	16.38596	0.4286442	0.18204746	3.0832800	21	12 25.6	23.2
488764	2004 TJ_{83}	19.1	X	152.42952	48.78340	342.50304	1.60555	0.2024404	0.26220975	2.4175204	21	3 10.9	22.7
488765	2004 TY_{87}	16.0	X	356.20019	66.22320	332.50956	26.20636	0.1795808	0.17859350	3.1229063	21	11 29.9	20.2
488766	2004 TW_{135}	17.3	X	9.47388	3.45821	3.42860	12.29911	0.2612991	0.23550950	2.5969511	21	12 12.0	20.3
488767	2004 TM_{139}	16.8	X	291.30566	124.10727	294.17552	5.47700	0.2490254	0.22804930	2.6532829	21	8 25.5	19.8
488768	2004 TT_{145}	17.6	X	246.50685	341.67527	9.55948	6.96890	0.1319659	0.27290987	2.3539102	21	4 15.5	21.1
488769	2004 TJ_{170}	17.4	X	228.73665	358.99611	56.96441	6.80098	0.2124505	0.27646519	2.3336859	21	6 16.6	21.0
488770	2004 TC_{199}	16.4	X	306.49730	85.02874	30.21546	15.66330	0.1942295	0.17936671	3.1139250	21	12 7.2	20.1
488771	2004 TL_{212}	18.0	X	183.90159	240.48170	155.80718	1.50567	0.1831371	0.26698776	2.3885911	21	4 14.1	21.9
488772	2004 TJ_{214}	18.7	X	205.68980	340.61013	32.86369	1.63054	0.1953939	0.26831799	2.3806900	21	4 4.3	22.7
488773	2004 TQ_{215}	16.7	X	201.65405	242.43363	176.69490	6.28313	0.0306788	0.21747460	2.7386110	21	6 4.7	20.7
488774	2004 TU_{220}	17.5	X	301.25902	146.31381	220.05672	3.38841	0.2889570	0.22491589	2.6778687	21	6 23.4	20.8
488775	2004 TD_{246}	17.4	X	203.51431	164.81059	173.16845	2.16968	0.0978885	0.20479822	2.8504839	21	2 23.6	21.9
488776	2004 TA_{277}	17.9	X	225.76788	356.22680	52.33657	3.29915	0.1840889	0.27418835	2.3465873	21	6 6.1	21.4
488777	2004 TX_{287}	15.9	X	35.90602	157.76215	232.45345	10.97308	0.3091181	0.18063813	3.0992963	21	—	—
488778	2004 TD_{291}	17.8	X	321.30547	115.39508	206.13247	5.30896	0.1418513	0.28075888	2.3098320	21	6 15.9	20.0
488779	2004 TX_{298}	17.5	X	281.53191	312.17214	45.10208	5.17220	0.1420483	0.27845563	2.3225517	21	6 4.4	20.5
488780	2004 TV_{334}	18.7	X	220.90064	200.23064	165.88270	2.63756	0.1973595	0.27240362	2.3568257	21	4 8.2	22.4
488781	2004 TW_{337}	16.6	X	331.32234	285.58170	26.54316	6.05458	0.0706198	0.22205570	2.7008146	21	6 30.1	19.9
488782	2004 VM_{30}	17.5	X	319.93702	218.52488	125.43914	2.41662	0.2488185	0.22349798	2.6891828	21	7 1.3	20.2
488783	2004 VP_{55}	16.9	X	257.38662	337.73016	41.37543	9.59693	0.3063621	0.21742418	2.7390344	21	5 19.3	21.4
488784	2004 VB_{76}	16.5	X	292.96634	201.71435	225.97223	10.96629	0.1256455	0.22976881	2.6400288	21	9 29.8	19.8
488785	2004 WR_{1}	17.5	X	13.21000	118.73556	241.50788	11.50099	0.1928569	0.23256031	2.6188602	21	11 29.1	20.3
488786	2004 XV_{3}	17.6	X	318.14715	82.32805	309.11366	10.15668	0.3102482	0.22840221	2.6505491	21	8 27.7	19.7
488787	2004 XZ_{24}	17.1	X	274.07996	187.86696	253.53299	7.38305	0.2379025	0.22293326	2.6937222	21	8 31.3	20.9
488788	2004 XF_{42}	18.0	X	57.91538	307.32384	72.10483	7.68111	0.2806521	0.30301694	2.1952877	21	—	—
488789	2004 XK_{50}	19.3	X	132.31577	103.95940	94.13100	38.21317	0.6887208	0.56381657	1.4511450	21	11 4.2	23.4
488790	2004 XP_{75}	16.7	X	286.66952	126.65345	309.17117	2.06619	0.2883846	0.22378856	2.6868543	21	9 5.9	19.8
488791	2004 XG_{130}	17.0	X	311.77338	17.11217	23.37278	9.37616	0.3571162	0.22565510	2.6720174	21	8 25.2	19.4
488792	2004 XX_{159}	16.9	X	208.22739	130.85355	312.84519	7.82303	0.2629026	0.21180446	2.7872717	21	7 3.3	21.9
488793	2005 AZ_{31}	17.2	X	21.15772	152.30158	294.04419	13.43139	0.2166638	0.24007113	2.5639492	21	—	—
488794	2005 AQ_{34}	15.8	X	306.38844	49.99840	121.04312	27.98029	0.2465736	0.17583060	3.1555356	21	—	—
488795	2005 AR_{48}	16.4	X	333.88627	14.14796	121.18686	17.94860	0.1899904	0.17732253	3.1378109	21	—	—
488796	2005 AN_{55}	16.1	X	10.91593	316.65444	107.38170	17.85058	0.2085524	0.17705101	3.1410182	21	—	—
488797	2005 CF_{20}	17.5	X	27.70724	118.95312	324.14105	10.79543	0.2777726	0.23968380	2.5667107	21	—	—
488798	2005 EN_{18}	17.1	X	207.95281	257.05322	358.00240	9.19290	0.1578200	0.22670037	2.6637977	21	—	—
488799	2005 EE_{38}	17.8	X	299.64971	349.80651	166.90595	33.17014	0.2462295	0.41161868	1.7898062	21	—	—
488800	2005 EJ_{89}	17.7	X	37.37137	284.76091	222.95799	2.92590	0.1116157	0.24447883	2.5330390	21	2 21.3	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488801 2005 ES_{156}	18.3	X	69.38070	108.11632	38.51124	5.90478	0.3397111	0.25210208	2.4817142	21	5 25.8	21.1
488802 2005 ED_{174}	16.8	X	333.50955	310.81609	186.23119	17.73789	0.2005354	0.17224702	3.1991522	21	—	—
488803 2005 GB_{120}	20.5	X	142.14269	243.76754	160.90532	9.15011	0.3947299	1.40073682	0.7911005	21	—	—
488804 2005 GK_{163}	17.4	X	357.82322	59.46208	27.90459	17.36619	0.1630989	0.22527265	2.6750407	21	—	—
488805 2005 GW_{177}	17.7	X	342.03834	223.52531	26.97470	4.49129	0.0845262	0.24622865	2.5210241	21	4 16.7	20.3
488806 2005 GW_{201}	17.7	X	303.94654	238.02113	34.50267	7.60716	0.1058105	0.24240042	2.5474977	21	3 21.7	21.0
488807 2005 JN_{8}	15.9	X	99.42570	184.38125	208.12416	18.81514	0.1149449	0.16997761	3.2275644	21	1 12.3	20.7
488808 2005 JZ_{8}	17.2	X	21.02739	118.89343	38.26400	4.84497	0.1677332	0.17952204	3.1121285	21	2 24.2	20.7
488809 2005 JM_{69}	17.2	X	344.54659	105.31221	134.72415	12.96770	0.2261093	0.24175102	2.5520578	21	3 22.1	19.9
488810 2005 JP_{83}	17.8	X	344.33730	169.47511	91.43898	3.10005	0.2000401	0.24506045	2.5290295	21	4 22.8	20.1
488811 2005 JX_{97}	16.8	X	163.47720	283.69628	66.97448	14.04792	0.2141962	0.22699570	2.6614866	21	2 9.6	21.4
488812 2005 JG_{106}	16.7	X	203.99556	269.62729	62.60155	8.26041	0.2038148	0.23119564	2.6291556	21	2 18.9	21.2
488813 2005 JJ_{162}	17.5	X	298.75346	158.74001	107.03033	6.67900	0.1440933	0.23731657	2.5837511	21	3 1.0	21.0
488814 2005 KX_{4}	16.9	X	352.81113	100.48562	60.77287	13.99329	0.2069911	0.23401260	2.6080138	21	—	—
488815 2005 LF_{47}	16.4	X	306.07193	323.55198	299.02593	32.22666	0.2152566	0.23224409	2.6212369	21	2 9.8	20.5
488816 2005 LD_{52}	17.7	X	243.38758	40.29501	277.54308	3.63291	0.2241085	0.22835002	2.6509529	21	2 27.8	22.2
488817 2005 MY_{17}	16.9	X	231.60992	19.26103	293.75635	12.84302	0.1468528	0.22596496	2.6695742	21	2 13.4	21.4
488818 2005 MM_{27}	17.3	X	298.55818	189.26338	126.68038	5.56450	0.2485754	0.23811068	2.5780033	21	4 20.2	20.8
488819 2005 MB_{50}	16.6	X	291.41270	294.01798	310.29608	13.02791	0.0443389	0.22554287	2.6729037	21	2 5.3	20.1
488820 2005 NF_{6}	16.3	X	249.61681	121.31613	270.36592	12.58931	0.3010140	0.17568912	3.1572293	21	5 30.9	21.7
488821 2005 NR_{14}	17.1	X	271.07910	337.97525	298.66923	13.08076	0.2361649	0.22935084	2.6432353	21	2 1.2	21.5
488822 2005 NC_{16}	16.5	X	237.49071	258.70429	106.80347	10.74400	0.1516436	0.23455786	2.6039705	21	5 1.8	20.7
488823 2005 NT_{16}	18.3	X	148.31390	149.92653	189.14100	2.13261	0.2222471	0.27632999	2.3344471	21	—	—
488824 2005 NF_{26}	17.4	X	223.86422	19.19318	280.84977	11.83072	0.1081241	0.22360494	2.6883251	21	1 24.7	21.7
488825 2005 NL_{30}	18.1	X	20.99044	236.19505	99.09449	2.58430	0.1940904	0.25456471	2.4656830	21	11 13.3	20.6
488826 2005 NM_{58}	17.3	X	234.48207	183.09418	150.23446	14.61278	0.2023232	0.22617820	2.6678960	21	3 15.9	21.8
488827 2005 NY_{79}	17.0	X	323.27194	213.03988	84.02478	13.11999	0.2476805	0.24060795	2.5601342	21	5 2.9	20.0
488828 2005 OU_{26}	18.5	X	10.86872	92.01560	307.60426	16.46676	0.0717937	0.38666066	1.8660190	21	—	—
488829 2005 PN_{10}	17.5	X	319.97750	264.03506	40.15027	3.84243	0.2380243	0.23900136	2.5715944	21	5 3.8	20.4
488830 2005 QJ_{11}	16.5	X	226.43998	267.11784	163.05057	46.44929	0.1705426	0.29991234	2.2104116	21	7 12.3	20.8
488831 2005 QG_{34}	18.5	X	111.47678	154.69938	197.37350	2.30907	0.1961338	0.26938268	2.3744130	21	—	—
488832 2005 QX_{35}	16.6	X	257.51999	333.43265	354.95799	12.77214	0.2951413	0.22927629	2.6438082	21	3 19.9	21.1
488833 2005 QT_{55}	18.0	X	136.24329	181.87036	163.28757	2.63803	0.2337848	0.27198160	2.3592631	21	—	—
488834 2005 QV_{60}	17.3	X	223.29063	144.23504	174.95647	12.08687	0.1913856	0.22274424	2.6952459	21	2 14.8	22.0
488835 2005 QA_{71}	17.1	X	296.74440	325.38561	350.87011	4.56953	0.3009739	0.23449563	2.6044312	21	4 7.6	20.7
488836 2005 QW_{72}	16.9	X	257.86763	336.86631	339.67228	7.54441	0.3053949	0.22783316	2.6549607	21	3 5.9	21.7
488837 2005 QD_{81}	18.7	X	233.01838	4.77612	315.34018	5.14984	0.2015119	0.28692894	2.2765987	21	2 17.6	22.3
488838 2005 QH_{87}	16.8	X	199.39118	40.31727	309.59048	11.77608	0.2434507	0.22169333	2.7037569	21	3 1.9	21.7
488839 2005 QU_{102}	17.0	X	334.47750	270.68907	331.34943	11.98646	0.2311207	0.23110658	2.6298310	21	3 2.1	20.0
488840 2005 QW_{109}	19.0	X	137.08049	45.82955	292.96342	0.40719	0.2077035	0.27171860	2.3607852	21	—	—
488841 2005 QD_{121}	17.1	X	179.63466	182.79166	169.43925	9.21962	0.1371529	0.21894825	2.7263089	21	2 16.3	21.3
488842 2005 QY_{175}	18.6	X	115.89007	304.84377	2.75529	17.95752	0.1260109	0.38761782	1.8629458	21	—	—
488843 2005 QM_{177}	17.2	X	229.21938	300.59908	2.29829	11.40894	0.0955374	0.21873204	2.7281052	21	2 9.5	21.5
488844 2005 QD_{188}	16.8	X	278.47961	25.28563	13.70855	7.03375	0.1589210	0.17794033	3.1305438	21	7 28.3	21.2
488845 2005 QE_{188}	16.8	X	55.24828	314.67334	8.51792	11.44215	0.1323290	0.19258268	2.9697820	21	11 19.9	21.1
488846 2005 RE_{25}	17.3	X	322.22645	67.17282	320.46360	13.46057	0.3923079	0.18175861	3.0865457	21	8 13.7	20.1
488847 2005 RD_{27}	16.2	X	137.73705	115.37411	248.03681	11.90428	0.2193992	0.21103095	2.7940786	21	1 26.6	20.7
488848 2005 RR_{28}	16.9	X	321.13483	78.70259	302.51300	4.19779	0.1664891	0.18370219	3.0647366	21	9 4.3	20.3
488849 2005 SL_{1}	17.0	X	260.18329	319.48129	23.08474	6.93106	0.3598987	0.23145721	2.6271744	21	4 4.3	21.7
488850 2005 SC_{3}	18.1	X	289.18809	344.94085	7.02612	3.08026	0.2071572	0.29832896	2.2182259	21	5 26.5	20.6
488851 2005 SL_{16}	17.4	X	128.75024	188.55801	202.63552	5.23276	0.0648750	0.21321787	2.7749403	21	2 2.2	21.4
488852 2005 SX_{17}	18.4	X	327.08646	335.44968	4.97381	7.55001	0.0359611	0.30228368	2.1988364	21	8 12.5	20.8
488853 2005 SH_{28}	16.3	X	288.88153	43.13849	348.61268	8.85944	0.1358716	0.17671706	3.1449741	21	8 5.6	20.5
488854 2005 SJ_{44}	17.3	X	64.20044	28.94292	294.25886	1.98561	0.2608717	0.19287055	2.9668262	21	12 19.2	21.9
488855 2005 SP_{46}	18.5	X	270.51428	91.58561	305.84131	1.48810	0.2315049	0.23691638	2.5866598	21	7 4.2	22.2
488856 2005 SM_{53}	17.3	X	278.62041	96.15114	208.53062	12.29698	0.2821061	0.22821747	2.6519792	21	3 7.5	21.7
488857 2005 SW_{54}	18.9	X	142.84492	327.78438	40.65093	1.29418	0.2204615	0.27398051	2.3477739	21	2 1.5	22.2
488858 2005 SF_{60}	17.8	X	204.51442	356.85499	50.29283	1.41840	0.2390537	0.28923026	2.2645065	21	5 13.9	21.7
488859 2005 SK_{61}	17.2	X	68.48322	61.00259	23.99318	3.87968	0.0677879	0.20990915	2.8040245	21	1 25.6	20.8
488860 2005 ST_{67}	18.0	X	47.36102	163.31719	217.46308	1.68733	0.2245407	0.25964127	2.4334377	21	—	—
488861 2005 SB_{80}	17.6	X	277.67126	288.71822	14.87768	6.07259	0.1274244	0.22695132	2.6618336	21	3 26.2	21.5
488862 2005 SK_{84}	17.1	X	104.74677	29.70692	11.45993	5.25244	0.0832937	0.21000694	2.8031539	21	1 22.1	20.9
488863 2005 SP_{85}	16.7	X	291.37282	207.89314	188.76926	17.29779	0.2209765	0.17755271	3.1350984	21	7 27.3	21.2
488864 2005 SB_{91}	18.2	X	55.19806	177.10006	202.22675	3.09335	0.2102074	0.25969581	2.4330970	21	—	—
488865 2005 SM_{95}	18.0	X	45.14937	308.25691	14.30811	11.75813	0.2752362	0.25338725	2.4733156	21	12 8.9	21.6
488866 2005 SV_{100}	16.2	X	256.40585	48.89092	6.85560	15.12982	0.0947834	0.17406917	3.1767874	21	8 4.0	21.0
488867 2005 SG_{110}	18.0	X	32.16464	191.69905	198.92750	1.32003	0.1964120	0.25847123	2.4407759	21	—	—
488868 2005 ST_{111}	18.4	X	308.08973	264.76692	201.93852	20.94671	0.0441212	0.38043267	1.8863293	21	—	—
488869 2005 SR_{121}	16.9	X	343.67416	15.76783	312.25700	3.90659	0.2668459	0.18071304	3.0984398	21	7 30.6	19.6
488870 2005 SH_{127}	17.1	X	99.32723	38.45745	15.11619	6.94146	0.0240012	0.21160780	2.7889984	21	1 22.6	20.9
488871 2005 SM_{127}	18.0	X	119.92723	203.37923	147.99200	0.54554	0.2130673	0.26866674	2.3786294	21	—	—
488872 2005 SH_{134}	18.1	X	77.39875	2.65860	16.14976	18.84941	0.0961348	0.38991294	1.8556281	21	—	—
488873 2005 SR_{137}	17.4	X	148.20092	273.28378	201.49310	22.44473	0.2832281	0.28629112	2.2799787	21	6 23.9	21.8
488874 2005 SG_{138}	16.8	X	291.68076	90.73906	239.50204	13.27736	0.2321454	0.23480255	2.6021611	21	4 29.3	20.4
488875 2005 SR_{138}	18.9	X	188.56281	4.33296	45.08858	1.98144	0.2071373	0.28763694	2.2728613	21	5 3.7	22.6
488876 2005 SO_{153}	17.1	X	349.51814	163.41389	202.02660	7.50520	0.2172922	0.18517891	3.0484216	21	10 10.7	20.1
488877 2005 SX_{161}	18.6	X	206.49753	123.28008	203.45085	4.44836	0.2337079	0.28098622	2.3085859	21	2 4.3	22.6
488878 2005 SM_{164}	17.6	X	279.49698	270.40048	69.88764	5.90906	0.3566620	0.23292876	2.6160978	21	4 17.9	21.8
488879 2005 SK_{171}	17.6	X	140.22857	340.22603	350.97470	6.82612	0.1430497	0.26927172	2.3750653	21	—	—
488880 2005 SW_{175}	18.0	X	159.22855	140.53064	222.82732	5.09320	0.1869280	0.27662979	2.3327601	21	2 5.3	21.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488881 2005 SJ_{177}	17.2	X	288.80283	265.76196	353.42062	7.96236	0.1434638	0.22029491	2.7151870	21	2 11.7	21.2
488882 2005 SD_{184}	18.6	X	76.79236	143.52891	254.92682	1.66484	0.1946726	0.26609348	2.3939398	21	—	—
488883 2005 SK_{222}	17.5	X	244.39971	215.37510	158.18572	7.76122	0.2827569	0.29203342	2.2499922	21	5 3.8	21.4
488884 2005 SU_{231}	17.6	X	358.37079	129.52218	209.83394	9.91809	0.1176580	0.17969486	3.1101329	21	9 14.4	21.4
488885 2005 ST_{233}	18.7	X	86.54264	331.20895	27.44336	1.76657	0.1984492	0.26168106	2.4207755	21	—	—
488886 2005 SF_{240}	17.9	X	79.36614	338.60037	289.34797	4.28137	0.1519441	0.31050638	2.1598439	21	10 30.2	20.8
488887 2005 SG_{243}	18.2	X	4.40865	247.53205	195.10619	21.15048	0.1159662	0.38564762	1.8692854	21	—	—
488888 2005 SP_{243}	16.9	X	84.14899	24.05466	28.11086	9.66388	0.1308481	0.20592336	2.8400913	21	1 15.8	20.6
488889 2005 SM_{247}	18.7	X	175.15847	202.02696	225.27793	1.40385	0.1838243	0.28680044	2.2772787	21	5 14.4	22.3
488890 2005 SZ_{252}	18.7	X	8.63468	302.85653	39.23935	2.62607	0.2250126	0.31077538	2.1585974	21	11 19.3	20.4
488891 2005 SE_{254}	18.0	X	141.56856	52.86244	317.34012	1.72885	0.2133596	0.27662454	2.3327896	21	1 31.7	21.2
488892 2005 SC_{281}	18.2	X	66.44272	24.14278	16.65874	4.84774	0.2115150	0.26364423	2.4087434	21	—	—
488893 2005 TG_{40}	18.2	X	81.03217	225.04122	146.09404	2.79382	0.1720467	0.26310829	2.4120133	21	—	—
488894 2005 TY_{41}	18.8	X	293.58918	161.16901	204.37729	4.40121	0.2463683	0.30054264	2.2073201	21	6 16.4	21.1
488895 2005 TC_{50}	17.8	X	174.26077	346.12020	1.49554	5.23927	0.2069243	0.27643287	2.3338679	21	2 5.3	21.4
488896 2005 TF_{60}	17.7	X	335.63742	167.67862	201.34460	17.54185	0.2301773	0.18295956	3.0730242	21	9 9.0	21.0
488897 2005 TB_{61}	17.0	X	270.73425	33.61707	254.01431	3.27653	0.0676648	0.22184474	2.7025265	21	3 3.6	20.9
488898 2005 TS_{62}	18.1	X	306.92172	353.15399	29.25407	10.17254	0.3208230	0.24109411	2.5566914	21	7 24.4	21.0
488899 2005 TD_{63}	18.2	X	67.93354	339.66890	32.40426	7.03452	0.1510524	0.26057165	2.4276418	21	—	—
488900 2005 TD_{64}	18.7	X	347.34284	182.88850	183.47493	2.30746	0.1971576	0.30890808	2.1672876	21	11 8.4	19.9
488901 2005 TQ_{78}	18.0	X	42.48683	89.33589	209.31054	5.00649	0.2576283	0.30963244	2.1639061	21	11 14.1	20.4
488902 2005 TS_{80}	17.2	X	202.15797	350.12724	313.71249	5.30200	0.0391529	0.21122207	2.7923928	21	1 10.8	21.2
488903 2005 TN_{81}	17.2	X	209.17656	169.56459	273.85705	2.73111	0.1136063	0.23374344	2.6100155	21	7 10.2	21.1
488904 2005 TG_{82}	18.3	X	243.25959	181.14542	216.23800	5.84201	0.1080992	0.29587284	2.2304851	21	6 16.7	21.2
488905 2005 TC_{89}	17.2	X	318.09494	298.89896	85.94886	2.60009	0.2261488	0.18145348	3.0900049	21	8 29.9	20.5
488906 2005 TP_{92}	18.6	X	107.28968	42.19586	337.31217	5.71747	0.1231281	0.26903164	2.3764781	21	—	—
488907 2005 TX_{100}	18.6	X	222.15058	2.97482	28.60797	4.46045	0.1601685	0.29076125	2.2565504	21	5 11.2	22.0
488908 2005 TE_{102}	18.7	X	42.21031	148.65750	271.25297	1.79965	0.2543483	0.26158385	2.4213753	21	—	—
488909 2005 TV_{102}	18.2	X	66.97955	190.39593	225.40259	2.62792	0.1298207	0.26615006	2.3936005	21	—	—
488910 2005 TF_{111}	17.9	X	208.09346	86.72921	353.33769	5.73912	0.1466446	0.23285066	2.6166827	21	7 3.7	22.1
488911 2005 TT_{119}	18.4	X	95.90019	198.45306	199.89282	6.27145	0.1166594	0.26984917	2.3716758	21	—	—
488912 2005 TR_{136}	17.1	X	216.01065	226.78314	101.78989	3.34987	0.0857221	0.21873383	2.7280903	21	2 24.6	21.3
488913 2005 TK_{142}	16.7	X	172.21717	303.67907	29.82445	20.92689	0.2587718	0.21260147	2.7803014	21	2 5.1	21.9
488914 2005 TE_{170}	16.6	X	301.38579	156.38205	228.02189	6.44142	0.3093567	0.17681271	3.1438397	21	7 13.6	20.7
488915 2005 TW_{170}	17.1	X	230.90807	249.41956	59.76720	5.02608	0.1093322	0.21753089	2.7381386	21	2 16.6	21.3
488916 2005 TT_{190}	17.0	X	128.60630	322.14600	37.55900	13.66567	0.1135062	0.20618806	2.8376601	21	1 5.1	21.2
488917 2005 UM_{1}	18.1	X	21.56909	254.23285	85.39417	3.73812	0.2817656	0.25178308	2.4838099	21	12 3.9	20.7
488918 2005 UG_{2}	16.5	X	327.54597	345.67968	33.20754	4.14533	0.2163229	0.18024322	3.1038216	21	9 11.7	19.7
488919 2005 UB_{5}	16.5	X	270.93106	75.03694	239.12421	11.00493	0.1038023	0.22347387	2.6893761	21	3 30.9	20.5
488920 2005 UQ_{9}	16.6	X	17.93436	331.86084	28.84123	16.83403	0.2467356	0.18827471	3.0149126	21	11 30.9	20.3
488921 2005 UN_{22}	16.5	X	311.16458	30.43672	224.92167	13.24249	0.1532984	0.22020796	2.7159016	21	2 24.7	20.5
488922 2005 UT_{22}	18.3	X	296.44944	327.43282	12.42540	3.48789	0.1036342	0.29491046	2.2353349	21	6 6.7	20.7
488923 2005 UE_{33}	17.1	X	27.49325	40.70845	44.80619	10.89585	0.0816152	0.20010596	2.8948720	21	—	—
488924 2005 UZ_{38}	18.3	X	57.04694	305.48883	73.85014	2.51021	0.2022684	0.25780595	2.4449731	21	—	—
488925 2005 UA_{47}	17.6	X	227.05828	220.56853	190.85680	3.47986	0.1045196	0.22903331	2.6456778	21	6 18.6	21.5
488926 2005 UL_{49}	16.5	X	209.88907	73.21382	271.00674	5.35613	0.2215476	0.21928538	2.7235139	21	3 4.7	21.4
488927 2005 UP_{63}	16.6	X	340.81260	275.05864	72.56328	2.00389	0.1885745	0.17667897	3.1454260	21	8 27.2	19.8
488928 2005 UR_{65}	17.5	X	218.56770	176.19636	247.84206	4.28922	0.2298339	0.23030911	2.6358982	21	6 17.9	21.9
488929 2005 UG_{74}	16.0	X	325.90345	140.48383	236.77785	23.42711	0.2076867	0.17912414	3.1167356	21	8 24.3	20.0
488930 2005 UM_{76}	17.1	X	42.51540	348.96097	8.21087	17.64312	0.3290303	0.19165380	2.9793699	21	—	—
488931 2005 UG_{87}	17.0	X	285.18751	265.46451	42.91787	12.81180	0.2766123	0.22834940	2.6509577	21	3 27.0	21.2
488932 2005 UJ_{91}	17.9	X	107.14385	116.22644	359.10939	5.66806	0.1101533	0.28092217	2.3089368	21	4 23.7	20.8
488933 2005 UH_{96}	17.2	X	108.80150	211.46862	205.39622	9.01329	0.1956917	0.20928078	2.8096344	21	2 27.9	21.2
488934 2005 UZ_{101}	17.5	X	59.28355	169.34745	89.08414	5.00318	0.0937037	0.30047587	2.2076471	21	9 15.1	20.0
488935 2005 UC_{103}	17.8	X	102.46730	125.10206	61.94044	7.35418	0.0525142	0.29270172	2.2465661	21	7 25.3	20.6
488936 2005 UV_{113}	18.1	X	125.04626	121.87856	261.21281	1.27191	0.2295624	0.27029818	2.3690486	21	2 1.3	21.1
488937 2005 UM_{120}	17.5	X	254.14290	44.12139	269.12844	1.28231	0.1988535	0.22208490	2.7005778	21	3 6.6	22.0
488938 2005 UG_{137}	18.2	X	212.79095	235.15238	204.50589	1.77491	0.1057962	0.23231689	2.6206892	21	7 9.5	22.1
488939 2005 UV_{138}	16.7	X	20.89349	257.98008	223.35598	14.13221	0.1075872	0.20297233	2.8675533	21	—	—
488940 2005 UL_{141}	18.0	X	102.73000	318.88046	44.52557	26.07200	0.0691101	0.38928559	1.8576212	21	—	—
488941 2005 UT_{145}	17.5	X	100.69737	91.13422	251.79115	3.87783	0.1219070	0.26067986	2.4269699	21	—	—
488942 2005 UX_{146}	18.0	X	217.92121	25.22278	25.04331	5.88050	0.1763423	0.29063664	2.2571953	21	5 30.9	21.5
488943 2005 UL_{147}	17.7	X	353.78921	302.08175	31.82302	7.91158	0.2740016	0.30591723	2.1813905	21	10 9.3	18.3
488944 2005 UO_{163}	18.0	X	233.11744	38.81588	16.21724	5.78150	0.2230332	0.23131896	2.6282211	21	6 19.5	22.3
488945 2005 UF_{164}	19.1	X	107.36584	3.73608	16.17850	2.79310	0.2028210	0.26801550	2.3824810	21	—	—
488946 2005 UB_{165}	18.1	X	232.97622	20.75978	36.71401	1.46976	0.2039089	0.23153374	2.6265955	21	6 24.2	22.4
488947 2005 UN_{167}	17.4	X	33.86139	331.54990	13.92119	2.61591	0.2498908	0.18887807	3.0084885	21	12 9.5	21.3
488948 2005 UF_{169}	17.2	X	200.44405	83.78695	248.08337	3.71308	0.0771745	0.21216854	2.7840822	21	2 10.7	21.4
488949 2005 UQ_{169}	17.4	X	97.17062	359.88428	31.09009	7.24165	0.1569519	0.26672423	2.3901642	21	—	—
488950 2005 UQ_{170}	18.4	X	16.28077	63.00759	4.39903	0.94743	0.1705782	0.25713312	2.4492364	21	—	—
488951 2005 UK_{175}	16.3	X	298.00135	152.29959	240.07234	12.79755	0.1224352	0.17417761	3.1754686	21	8 13.0	20.8
488952 2005 UR_{182}	18.3	X	60.44221	143.52256	224.52322	2.73084	0.2232297	0.25708670	2.4495312	21	—	—
488953 2005 UK_{185}	18.8	X	330.63832	276.40097	58.24500	4.53111	0.1901125	0.29939782	2.2129433	21	7 23.4	20.3
488954 2005 UU_{192}	17.3	X	263.71883	212.99684	51.36355	1.62874	0.0728870	0.21390746	2.7689733	21	1 28.8	21.2
488955 2005 UZ_{193}	17.2	X	266.00029	65.15676	203.38133	3.85295	0.0204998	0.21291843	2.7775414	21	2 9.4	21.1
488956 2005 UD_{198}	18.7	X	232.49162	344.54828	39.76414	3.68495	0.1657572	0.29150682	2.2527011	21	5 11.9	22.0
488957 2005 UG_{211}	17.3	X	81.57685	21.46954	70.01345	5.24792	0.0727967	0.20946235	2.8080106	21	2 23.3	21.0
488958 2005 UK_{222}	18.3	X	110.01027	140.26719	234.28451	5.93029	0.1306114	0.26733409	2.3865277	21	—	—
488959 2005 UQ_{226}	18.6	X	68.72552	352.25648	54.69822	2.04022	0.1812667	0.26386991	2.4073698	21	—	—
488960 2005 UF_{229}	17.3	X	238.68177	135.41387	151.58917	1.70917	0.0603345	0.21059973	2.7978913	21	1 29.8	21.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
488961 2005 UC_{248}	17.0	X	308.44471	299.64658	67.91488	2.36265	0.1782158	0.17442677	3.1724439	21	7 25.5	20.8
488962 2005 UP_{252}	17.8	X	262.90587	43.30679	354.80068	4.13477	0.2138606	0.23381859	2.6094563	21	6 28.9	21.6
488963 2005 UM_{254}	18.2	X	82.59179	283.40132	111.73615	2.20071	0.1897034	0.26447449	2.4036996	21	—	—
488964 2005 UP_{262}	16.5	X	337.89133	302.48267	48.66379	11.42997	0.1364360	0.17801770	3.1296367	21	9 3.6	20.4
488965 2005 UR_{269}	17.3	X	167.67846	325.52100	35.32723	12.31622	0.0352477	0.21301599	2.7766933	21	2 14.7	21.5
488966 2005 UF_{270}	17.8	X	232.08994	9.16274	44.71644	8.60409	0.1541022	0.23176921	2.6248161	21	6 22.5	21.9
488967 2005 UO_{285}	17.6	X	245.84142	249.65804	76.76980	5.14862	0.2309568	0.22319558	2.6916112	21	3 16.3	22.2
488968 2005 UY_{286}	18.4	X	218.78022	260.76921	146.00480	2.83404	0.0888655	0.29126767	2.2539340	21	6 2.6	21.5
488969 2005 UC_{287}	18.1	X	241.45425	330.28468	55.01515	7.64131	0.1067445	0.29216640	2.2493094	21	5 28.0	21.0
488970 2005 UK_{291}	17.1	X	209.61344	53.77772	28.87457	12.11445	0.1507845	0.22991433	2.6389147	21	7 9.2	21.5
488971 2005 UY_{296}	17.1	X	286.75155	276.07690	48.96404	13.34750	0.2947832	0.22951657	2.6419627	21	4 14.5	21.2
488972 2005 UD_{313}	16.9	X	316.13613	13.03397	10.44431	6.86773	0.3078351	0.17805691	3.1291772	21	8 12.1	20.3
488973 2005 UC_{324}	17.4	X	146.17990	341.30969	58.07028	5.26420	0.0761132	0.21299258	2.7768967	21	3 10.7	21.4
488974 2005 UQ_{324}	17.0	X	287.71514	227.61491	58.60785	10.06808	0.1362776	0.22033763	2.7148360	21	3 20.3	21.0
488975 2005 UL_{333}	17.0	X	49.41767	257.06998	202.12910	5.28856	0.0387349	0.20507935	2.8478783	21	1 13.8	20.9
488976 2005 UZ_{334}	17.5	X	221.77745	335.76705	75.21633	7.23178	0.0635174	0.28937903	2.2637303	21	6 13.6	20.5
488977 2005 UO_{342}	16.3	X	270.13050	37.95415	264.56750	7.18052	0.1715889	0.22145950	2.7056597	21	3 7.9	20.5
488978 2005 UA_{351}	17.7	X	72.11553	5.82829	358.60112	7.14672	0.2301048	0.26081283	2.4261450	21	—	—
488979 2005 UB_{352}	17.0	X	267.41924	349.83265	344.74869	6.60925	0.3232179	0.22927632	2.6438080	21	3 31.7	21.5
488980 2005 UG_{353}	16.2	X	262.82891	13.50819	31.85534	27.92283	0.1905165	0.17155566	3.2077414	21	7 14.9	21.5
488981 2005 UQ_{358}	17.2	X	323.37923	337.17134	35.41140	1.60786	0.0869036	0.17914819	3.1164568	21	9 5.7	21.0
488982 2005 US_{358}	17.5	X	213.88946	142.95250	203.43380	12.72006	0.0552880	0.21932139	2.7232158	21	3 12.9	21.6
488983 2005 UW_{358}	18.3	X	151.64164	295.82629	56.73643	3.66350	0.1716334	0.27322532	2.3520980	21	1 16.3	21.5
488984 2005 UP_{359}	17.0	X	321.78905	147.63251	218.31768	19.51759	0.2016823	0.17682550	3.1436881	21	8 4.7	21.0
488985 2005 UW_{360}	18.1	X	66.71426	240.35649	139.69042	0.52706	0.1596162	0.26101695	2.4248799	21	—	—
488986 2005 UG_{365}	17.1	X	25.33098	275.57323	71.85581	6.44239	0.2554485	0.18653813	3.0335953	21	11 30.6	20.8
488987 2005 UA_{367}	18.2	X	46.82709	189.55676	81.85416	5.91074	0.0848456	0.30061441	2.2069688	21	9 14.5	20.6
488988 2005 UV_{373}	18.6	X	162.95621	39.85346	18.38125	3.36190	0.1067168	0.28101597	2.3084229	21	4 15.5	21.9
488989 2005 UH_{382}	16.5	X	220.90530	258.75519	82.17205	13.54816	0.2862306	0.22216425	2.6999347	21	3 17.1	21.6
488990 2005 UC_{384}	18.0	X	124.23826	290.54689	87.86383	3.36868	0.2404708	0.26997970	2.3709113	21	1 27.9	20.9
488991 2005 UE_{387}	17.4	X	5.30135	229.22736	238.67431	13.97775	0.2017757	0.19621929	2.9329743	21	—	—
488992 2005 UC_{395}	18.3	X	25.93105	220.51042	80.19459	2.27510	0.1796422	0.30750127	2.1738927	21	10 9.7	20.2
488993 2005 UJ_{405}	18.3	X	185.27889	278.99977	145.67662	2.06870	0.1751653	0.28507390	2.2864642	21	5 20.8	21.8
488994 2005 UF_{434}	17.3	X	333.26024	6.22332	197.02357	5.77309	0.0922981	0.21190074	2.7864274	21	2 2.0	21.0
488995 2005 UZ_{434}	17.2	X	193.98867	112.46427	205.61701	5.71143	0.0530720	0.20886364	2.8133741	21	1 18.1	21.4
488996 2005 UB_{450}	18.0	X	300.59463	4.75532	135.35325	2.25224	0.1369204	0.25674086	2.4517305	21	—	—
488997 2005 UL_{460}	16.9	X	211.75187	204.69326	239.88473	21.04470	0.1218445	0.22924283	2.6440655	21	7 8.8	21.3
488998 2005 UR_{468}	16.4	X	308.89414	340.14123	32.47832	10.66299	0.1850657	0.17481914	3.1676953	21	8 4.8	20.5
488999 2005 UT_{524}	17.5	X	170.44865	167.84564	206.75928	4.06722	0.0826853	0.21329961	2.7742314	21	3 3.4	21.7
489000 2005 UX_{526}	16.3	X	292.71868	209.75514	44.65774	13.71248	0.1439461	0.21357500	2.7718460	21	2 15.5	20.6
489001 2005 UU_{530}	16.5	X	288.20187	45.86320	359.88032	16.59721	0.2316671	0.17649865	3.1475680	21	8 12.2	20.9
489002 2005 VB	18.1	X	173.24637	304.29174	34.11384	4.26345	0.3677145	0.27607656	2.3358755	21	2 3.6	22.4
489003 2005 VW_{1}	17.9	X	301.82336	228.03100	230.43092	20.74381	0.0805753	0.37516807	1.9039351	21	—	—
489004 2005 VD_{11}	17.3	X	175.68692	355.48993	353.64035	5.30890	0.0474813	0.21007497	2.8025488	21	2 6.7	21.3
489005 2005 VN_{24}	17.5	X	236.35073	261.36647	51.36954	1.37983	0.0580708	0.21455591	2.7633914	21	2 28.0	21.4
489006 2005 VP_{27}	16.9	X	243.59833	48.29049	232.44023	9.10745	0.1036167	0.21192037	2.7862554	21	1 22.4	21.4
489007 2005 VG_{31}	18.0	X	87.43336	293.95544	71.29269	2.80987	0.2139462	0.26093658	2.4253778	21	—	—
489008 2005 VJ_{61}	18.5	X	44.00462	311.92777	55.50128	23.06922	0.0893479	0.37949236	1.8894440	21	—	—
489009 2005 VO_{81}	18.3	X	133.43560	46.94692	66.21940	2.86332	0.1554912	0.28201164	2.3029863	21	5 31.7	21.5
489010 2005 VH_{92}	17.3	X	98.09778	223.54601	172.16986	1.96525	0.0858250	0.20418941	2.8561471	21	1 6.4	20.9
489011 2005 VR_{94}	16.2	X	329.83933	105.55851	75.60133	15.96551	0.0963971	0.20255113	2.8715272	21	1 3.7	20.2
489012 2005 VN_{101}	17.1	X	187.95724	349.62565	0.72992	6.17699	0.0590017	0.21397629	2.7683794	21	2 22.1	21.2
489013 2005 VD_{114}	17.7	X	233.74202	318.50222	58.24941	9.81229	0.1554213	0.28738265	2.2742019	21	5 5.5	21.2
489014 2005 VS_{127}	18.1	X	330.93056	323.49672	116.22055	2.10620	0.1548895	0.25416842	2.4682453	21	—	—
489015 2005 WY_{8}	17.8	X	312.02681	148.43638	223.06407	0.64356	0.2471900	0.23882495	2.5728606	21	7 28.1	20.1
489016 2005 WZ_{16}	17.1	X	321.03212	302.41436	72.29326	2.31619	0.2498837	0.17593093	3.1543357	21	8 17.3	20.3
489017 2005 WA_{18}	18.0	X	248.51907	125.80454	246.34306	4.18074	0.0666929	0.28716512	2.2753502	21	5 23.6	20.9
489018 2005 WV_{18}	18.0	X	107.31820	312.28155	73.69811	5.43414	0.1734859	0.26541396	2.3980241	21	1 4.6	20.7
489019 2005 WR_{23}	18.3	X	122.86937	4.61060	8.11558	1.79024	0.2607235	0.26871282	2.3783575	21	1 21.8	21.3
489020 2005 WX_{26}	17.5	X	237.41634	314.25504	63.04795	7.14013	0.1311492	0.28715499	2.2754038	21	5 11.5	20.7
489021 2005 WZ_{27}	16.7	X	73.88432	351.77491	57.80689	9.65013	0.2022118	0.20053756	2.8907169	21	1 5.4	20.0
489022 2005 WY_{44}	17.0	X	139.92254	304.70943	51.95014	2.81394	0.0779286	0.20340016	2.8635307	21	1 9.8	21.0
489023 2005 WO_{45}	18.4	X	252.43838	58.51539	48.33550	1.23238	0.2568995	0.23772754	2.5807725	21	9 10.6	22.2
489024 2005 WP_{66}	18.8	X	244.59970	278.73300	243.07903	19.18260	0.1018387	0.37382983	1.9084762	21	—	—
489025 2005 WP_{67}	17.1	X	162.40423	260.01297	86.73653	3.19521	0.0800375	0.20535442	2.8453346	21	1 22.8	21.3
489026 2005 WP_{68}	16.8	X	138.28970	124.13051	242.42020	9.92437	0.1330660	0.20564127	2.8426880	21	1 22.9	21.2
489027 2005 WF_{80}	18.3	X	350.61353	354.03384	71.17123	24.26953	0.0958976	0.37650669	1.8994196	21	—	—
489028 2005 WP_{85}	18.2	X	219.87346	210.18879	214.32845	6.10343	0.0917274	0.29372994	2.2413202	21	6 27.7	21.2
489029 2005 WE_{109}	18.9	X	339.33161	206.28458	153.98363	0.77726	0.1938701	0.30356412	2.1926489	21	10 4.5	19.7
489030 2005 WV_{134}	17.9	X	159.15266	340.98007	93.04196	4.69298	0.2378402	0.27932827	2.3177119	21	5 12.8	21.7
489031 2005 WF_{135}	17.5	X	334.40725	127.51122	273.44148	4.82010	0.2769042	0.24218330	2.5490201	21	11 14.7	18.9
489032 2005 WA_{145}	17.8	X	315.52157	215.40189	66.11162	8.62748	0.0466294	0.28232618	2.3012755	21	4 24.1	20.5
489033 2005 WK_{157}	17.7	X	100.72369	283.66522	84.34034	2.92021	0.2082142	0.25950160	2.4343108	21	—	—
489034 2005 WK_{165}	17.7	X	280.34335	309.27773	85.35039	2.60980	0.1641387	0.23485333	2.6017860	21	7 23.8	21.1
489035 2005 WG_{166}	18.2	X	121.21422	70.13748	82.80038	5.90619	0.1861394	0.28205462	2.3027523	21	7 15.4	21.5
489036 2005 WM_{181}	17.5	X	296.85034	206.26223	224.78538	10.97807	0.2521614	0.24161661	2.5530042	21	9 22.5	20.4
489037 2005 XY_{32}	17.8	X	283.62357	165.40898	245.16028	5.89144	0.0738527	0.29884702	2.2156616	21	9 5.7	20.2
489038 2005 XU_{59}	17.8	X	317.19961	11.58148	350.01676	0.20916	0.2026156	0.23525522	2.5988220	21	7 31.2	20.3
489039 2005 XU_{66}	17.5	X	75.75889	124.91840	71.78370	7.04472	0.0630586	0.28423319	2.2909707	21	6 29.9	20.1
489040 2005 XN_{86}	16.6	X	25.42954	25.86688	88.26508	6.43469	0.0679303	0.19884080	2.9071385	21	1 1.8	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489041 2005 XT_{86}	18.2	X	164.78699	159.97129	285.62352	6.92379	0.1572780	0.28167834	2.3048027	21	5 26.9	21.7
489042 2005 XV_{87}	18.3	X	159.02167	14.21691	89.49782	3.76504	0.1083986	0.28344759	2.2952018	21	6 12.6	21.5
489043 2005 YM_{11}	18.4	X	99.90927	320.95300	48.89547	2.08037	0.1993158	0.26053779	2.4278521	21	—	—
489044 2005 YW_{17}	18.0	X	293.47444	159.51864	275.86130	7.84109	0.2203604	0.24167974	2.5525595	21	9 27.0	20.8
489045 2005 YH_{40}	18.2	X	131.92119	14.62981	104.78076	3.25641	0.1604802	0.27887699	2.3202116	21	6 8.5	21.4
489046 2005 YF_{58}	16.5	X	23.39862	320.71779	122.76427	10.70295	0.0651343	0.19039101	2.9925294	21	—	—
489047 2005 YJ_{64}	17.1	X	16.34001	17.78922	77.80265	2.74785	0.1073999	0.19185945	2.9772405	21	—	—
489048 2005 YP_{66}	17.4	X	113.93697	302.16302	327.07471	4.58234	0.0463956	0.23840310	2.5758947	21	11 20.3	21.1
489049 2005 YN_{67}	18.1	X	185.31197	325.55869	94.94607	7.26033	0.1104583	0.28049720	2.3112683	21	5 15.8	21.5
489050 2005 YE_{68}	18.2	X	81.11918	9.10454	11.39423	1.87744	0.2256772	0.25762677	2.4461067	21	—	—
489051 2005 YH_{69}	17.9	X	46.13332	244.68343	100.85667	23.32285	0.0824968	0.36978953	1.9223523	21	—	—
489052 2005 YL_{81}	17.0	X	148.79675	181.18257	283.83372	4.10695	0.1205412	0.21697341	2.7428267	21	6 5.5	21.1
489053 2005 YK_{93}	18.1	X	43.52645	175.51714	291.66442	11.64358	0.4037756	0.26179726	2.4200592	21	—	—
489054 2005 YA_{96}	16.6	X	1.55154	149.99263	312.78493	8.54007	0.1010498	0.18945347	3.0023940	21	—	—
489055 2005 YT_{117}	17.5	X	358.06918	24.52773	2.35362	1.73697	0.1254622	0.24075474	2.5590935	21	12 2.5	20.1
489056 2005 YV_{122}	17.7	X	216.74591	157.55926	289.05664	16.54041	0.1091253	0.35465180	1.9766720	21	7 23.8	20.2
489057 2005 YS_{128}	17.8	X	96.83235	19.01508	278.05321	18.02515	0.0810234	0.36910760	1.9247192	21	—	—
489058 2005 YU_{165}	17.8	X	176.69942	106.37980	312.80897	6.04894	0.1572305	0.27970859	2.3156105	21	5 1.9	21.5
489059 2005 YP_{170}	18.0	X	252.51669	208.01653	293.57354	17.63189	0.0938492	0.36689439	1.9324518	21	12 20.6	19.7
489060 2005 YP_{187}	18.1	X	140.00581	133.83100	300.86541	11.24244	0.1420046	0.27428447	2.3460391	21	4 9.6	21.7
489061 2005 YB_{190}	16.7	X	293.83495	148.66342	98.75393	8.91518	0.0321606	0.20216955	2.8751393	21	2 21.7	20.8
489062 2005 YC_{199}	17.9	X	102.63292	8.90948	111.19217	3.34158	0.1593765	0.27439964	2.3453826	21	5 5.9	20.9
489063 2005 YQ_{207}	18.0	X	106.33226	247.99634	280.16233	6.28794	0.0422322	0.28293226	2.2979879	21	6 29.4	20.7
489064 2005 YB_{217}	16.9	X	20.94004	99.47578	322.18281	8.25917	0.2161376	0.18970654	2.9997232	21	—	—
489065 2005 YO_{234}	17.7	X	299.37458	83.88080	56.17359	1.97147	0.1465645	0.18533767	3.0466805	21	—	—
489066 2005 YB_{251}	17.9	X	54.14392	125.89420	270.59677	4.32012	0.1583318	0.25362617	2.4717621	21	—	—
489067 2005 YH_{264}	17.5	X	26.35678	61.28924	58.13395	2.77282	0.0824221	0.19613956	2.9337691	21	1 10.5	21.1
489068 2005 YC_{289}	18.9	X	100.96890	34.96104	42.99229	2.24698	0.1705440	0.26754346	2.3852825	21	3 7.9	21.5
489069 2006 AF	18.2	X	133.32570	274.05102	216.86430	2.87930	0.1887740	0.28084615	2.3093534	21	6 27.7	21.6
489070 2006 AJ_{2}	18.2	X	315.62364	297.08368	115.99074	23.78098	0.1054648	0.36545892	1.9375088	21	12 4.3	20.1
489071 2006 AX_{5}	17.4	X	109.07733	22.28682	124.73432	25.44144	0.2506207	0.27685119	2.3315163	21	7 2.8	21.1
489072 2006 AK_{17}	16.2	X	174.97024	146.08405	286.33014	9.59078	0.0923373	0.15217200	3.4746645	21	5 22.9	21.7
489073 2006 AS_{18}	18.4	X	180.09790	138.52423	284.03092	5.40279	0.1340215	0.27902350	2.3193993	21	5 10.2	21.9
489074 2006 AP_{19}	17.7	X	150.95898	160.06003	306.05954	4.58415	0.1788429	0.28151581	2.3056897	21	6 11.3	21.3
489075 2006 AV_{28}	18.4	X	119.76335	63.93972	49.72546	3.41181	0.1852318	0.27614570	2.3354856	21	5 20.4	21.6
489076 2006 AR_{38}	18.2	X	84.88675	281.76700	104.95025	3.49789	0.1859761	0.25707018	2.4496362	21	—	—
489077 2006 AW_{38}	16.7	X	232.09820	274.07704	313.42039	1.31555	0.1276160	0.18479322	3.0526618	21	—	—
489078 2006 AN_{50}	18.4	X	153.74160	132.28631	306.19457	1.08798	0.1542734	0.27779510	2.3262318	21	5 6.4	21.6
489079 2006 AA_{53}	16.5	X	5.15180	352.51866	128.71338	10.61460	0.0301787	0.19237117	2.9719584	21	—	—
489080 2006 AF_{53}	16.8	X	56.29661	313.88113	130.47272	10.21253	0.0531005	0.19548819	2.9402823	21	1 8.5	20.6
489081 2006 AK_{66}	18.1	X	322.19906	152.40332	291.33686	5.88352	0.1902677	0.24461660	2.5320878	21	12 21.2	20.3
489082 2006 AY_{76}	16.0	X	186.32563	142.19197	131.93133	15.42212	0.1770632	0.18510704	3.0492107	21	—	—
489083 2006 AZ_{93}	13.4	X	128.10508	157.13103	350.21307	30.85268	0.0205982	0.08201969	5.2463504	21	7 5.1	20.8
489084 2006 AF_{101}	18.2	X	160.93454	309.04849	140.87419	6.02127	0.1988025	0.27812496	2.3243922	21	6 1.9	22.0
489085 2006 AU_{104}	17.4	X	231.44456	162.80134	312.66495	2.59921	0.1277152	0.22996218	2.6385486	21	9 12.4	21.3
489086 2006 BU_{12}	17.9	X	128.60596	190.46229	310.43484	5.46128	0.1657246	0.27851709	2.3222100	21	7 4.9	21.4
489087 2006 BQ_{21}	17.0	X	356.43801	337.16964	314.06793	5.52091	0.1689057	0.28177604	2.3042699	21	7 11.7	18.6
489088 2006 BL_{51}	18.1	X	55.45884	75.56420	123.70776	3.72881	0.0913192	0.27505590	2.3416505	21	6 6.3	20.5
489089 2006 BN_{51}	17.6	X	304.79335	33.13280	121.76750	3.55200	0.1705634	0.18440520	3.0569426	21	—	—
489090 2006 BU_{57}	18.6	X	67.20667	189.40800	4.41321	5.13200	0.1742054	0.27488645	2.3426127	21	7 2.3	21.2
489091 2006 BL_{61}	17.4	X	291.48832	57.12330	52.67057	7.07668	0.2344549	0.24140247	2.5545137	21	11 15.7	19.6
489092 2006 BE_{67}	17.9	X	55.08135	356.33302	43.09559	1.39243	0.1822942	0.25256628	2.4786725	21	—	—
489093 2006 BP_{69}	18.2	X	67.76646	159.08362	58.46597	4.18395	0.1761862	0.27862559	2.3216070	21	8 9.3	20.9
489094 2006 BC_{78}	16.3	X	282.13183	246.57054	313.93772	13.34220	0.1518438	0.18728825	3.0254898	21	—	—
489095 2006 BX_{85}	17.8	X	59.99890	212.54521	327.59932	6.56894	0.1435880	0.27239835	2.3568561	21	5 21.5	20.3
489096 2006 BX_{86}	16.7	X	36.22837	266.06197	126.43916	17.64933	0.2317224	0.18424661	3.0586965	21	—	—
489097 2006 BN_{94}	18.3	X	75.71447	239.70690	284.43032	1.25393	0.1390240	0.27137816	2.3627591	21	5 25.3	21.0
489098 2006 BV_{109}	17.0	X	58.53376	328.97729	85.10896	3.47997	0.0958379	0.18946590	3.0022626	21	—	—
489099 2006 BL_{182}	18.8	X	50.34087	103.77453	108.56857	2.44596	0.1340711	0.27418207	2.3466231	21	6 23.8	21.2
489100 2006 BF_{186}	15.6	X	62.00776	11.33390	42.22230	1.46859	0.2098538	0.12555483	3.9498485	21	1 13.4	20.5
489101 2006 BJ_{188}	13.7	X	215.89449	262.96994	152.34521	35.59813	0.0249419	0.08340269	5.1881918	21	6 24.6	21.1
489102 2006 BB_{202}	16.9	X	352.72950	125.75177	334.48493	9.57294	0.0581756	0.18415429	3.0597186	21	—	—
489103 2006 BO_{210}	16.9	X	318.66588	315.27751	180.87770	4.26118	0.0932976	0.18321441	3.0701738	21	—	—
489104 2006 BQ_{213}	17.9	X	8.07876	318.18371	102.89000	24.64620	0.0925064	0.37356685	1.9093718	21	—	—
489105 2006 BS_{217}	16.0	X	267.59963	290.03283	242.92650	14.19271	0.2378880	0.17845105	3.1245680	21	12 14.3	20.1
489106 2006 BG_{219}	17.7	X	122.59893	185.84642	312.26138	6.23908	0.1076373	0.27665583	2.3326138	21	6 17.3	20.8
489107 2006 BS_{222}	18.6	X	97.23192	145.17558	309.05344	4.56657	0.1914196	0.26738952	2.3861979	21	3 25.1	21.5
489108 2006 BD_{232}	17.5	X	280.75931	22.47000	344.32815	6.65036	0.2072594	0.28654725	2.2786199	21	6 5.9	20.4
489109 2006 BL_{234}	18.5	X	84.58180	152.18500	44.45785	1.92803	0.0539904	0.28097148	2.3086666	21	7 12.0	21.2
489110 2006 BY_{238}	18.2	X	61.26982	43.10417	156.17862	5.22371	0.1147309	0.27822735	2.3238219	21	6 19.7	20.7
489111 2006 BX_{242}	16.8	X	356.91296	111.34491	338.02709	9.65233	0.1426796	0.18454356	3.0554144	21	—	—
489112 2006 BM_{244}	18.6	X	141.34730	84.03204	5.17296	1.79334	0.1474375	0.27396509	2.3478620	21	5 7.0	21.8
489113 2006 BE_{249}	18.2	X	40.41407	249.04172	348.14384	5.10788	0.1260838	0.27642477	2.3339134	21	7 14.7	20.6
489114 2006 BF_{250}	17.9	X	161.55872	120.91010	325.49218	8.46379	0.1751193	0.27690996	2.3311864	21	5 24.6	21.7
489115 2006 BZ_{268}	16.8	X	304.32843	19.68674	121.12522	12.47544	0.2884936	0.18260039	3.0770526	21	12 30.9	19.8
489116 2006 BA_{281}	18.4	X	176.69708	298.16442	151.43654	5.88824	0.1237352	0.27917915	2.3185372	21	6 13.9	21.9
489117 2006 CC_{2}	17.8	X	303.94273	41.50563	7.61282	3.61115	0.2996026	0.23548764	2.5971117	21	8 30.1	20.2
489118 2006 CU_{9}	17.6	X	323.65388	343.71171	106.43894	26.45639	0.1119632	0.36927177	1.9241487	21	—	—
489119 2006 CT_{25}	16.3	X	176.92624	149.73628	118.41054	6.63642	0.1150311	0.18116522	3.0932819	21	—	—
489120 2006 CG_{37}	15.9	X	282.45885	207.76389	331.23874	11.27627	0.1937506	0.18230817	3.0803398	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489121 2006 CM_{42}	16.8	X	8.74946	292.15336	166.27490	27.12743	0.1830642	0.18600000	3.0394435	21	—	—
489122 2006 CS_{46}	17.1	X	348.23537	38.45972	1.15850	3.47327	0.1982929	0.24047663	2.5610662	21	12 10.7	19.5
489123 2006 CX_{46}	18.3	X	163.34236	335.23907	111.09571	3.85402	0.1467902	0.27797799	2.3252114	21	5 27.5	21.7
489124 2006 CS_{67}	18.0	X	113.46291	172.59627	321.22201	9.08891	0.1065868	0.27479853	2.3431123	21	5 28.6	21.2
489125 2006 DZ_{19}	18.3	X	42.72326	128.06619	131.62931	4.12610	0.2222914	0.27901366	2.3194539	21	9 9.6	20.6
489126 2006 DY_{24}	16.7	X	215.84565	204.06622	42.22087	1.59143	0.1501365	0.17850349	3.1239560	21	—	—
489127 2006 DN_{27}	18.0	X	61.01191	206.99032	353.67557	5.70758	0.1746237	0.27175573	2.3605701	21	7 2.7	20.6
489128 2006 DT_{33}	17.7	X	238.83719	345.22148	157.27423	2.68076	0.1438631	0.23119679	2.6291469	21	10 25.7	21.3
489129 2006 DX_{38}	18.4	X	146.93119	81.00902	18.77538	2.38685	0.1759355	0.27488554	2.3426178	21	5 29.6	21.9
489130 2006 DF_{85}	18.7	X	211.65143	281.15198	312.64664	2.48386	0.1305288	0.30424779	2.1893629	21	—	—
489131 2006 DQ_{94}	15.9	X	280.38465	311.49002	181.59461	25.49295	0.0707471	0.17052237	3.2206866	21	12 6.3	20.8
489132 2006 DH_{96}	16.2	X	265.99387	218.34463	5.32511	23.85655	0.0988196	0.18131417	3.0915875	21	—	—
489133 2006 DV_{101}	18.3	X	64.96308	59.88390	126.94989	2.91156	0.1400090	0.27134978	2.3629239	21	6 11.5	20.8
489134 2006 DG_{103}	16.6	X	5.69146	118.34032	350.63674	10.21639	0.0589847	0.18410861	3.0602247	21	—	—
489135 2006 DA_{107}	17.0	X	300.93842	340.65809	202.53176	3.16258	0.1127108	0.18339604	3.0681464	21	—	—
489136 2006 DM_{108}	16.5	X	186.78908	305.71143	348.41127	13.10802	0.0403714	0.18182587	3.0857845	21	—	—
489137 2006 DC_{115}	18.1	X	34.35397	215.03164	21.68529	1.42726	0.1415001	0.27198506	2.3592430	21	7 3.2	20.3
489138 2006 DO_{123}	18.3	X	60.05419	241.92767	332.55804	3.63338	0.1720709	0.27417666	2.3466540	21	7 21.7	20.8
489139 2006 DH_{135}	18.2	X	37.40025	214.13483	21.30229	1.54034	0.1449065	0.27439355	2.3454173	21	7 7.9	20.2
489140 2006 DV_{139}	17.9	X	76.30751	172.47432	21.50866	6.46123	0.0579785	0.27482500	2.3429619	21	6 26.1	20.7
489141 2006 DL_{142}	16.6	X	338.32552	324.25548	151.18249	8.87278	0.0301106	0.18006367	3.1058846	21	—	—
489142 2006 DB_{146}	18.3	X	20.58993	220.03850	5.36530	2.57376	0.1506614	0.26865155	2.3787191	21	5 15.3	20.4
489143 2006 DL_{152}	18.3	X	92.77189	319.90796	182.79005	5.27329	0.1355715	0.26885881	2.3774964	21	5 20.9	21.2
489144 2006 DG_{155}	17.7	X	279.30159	232.53101	215.29819	3.75971	0.2745430	0.23202867	2.6228590	21	9 13.9	20.8
489145 2006 DM_{157}	18.2	X	143.38803	339.94067	121.54243	2.92217	0.1723122	0.27389689	2.3482517	21	5 29.0	21.6
489146 2006 DJ_{165}	18.2	X	74.41028	48.65962	148.90071	6.39109	0.1603842	0.27383901	2.3485826	21	7 15.3	20.9
489147 2006 DJ_{172}	17.1	X	284.56900	174.97509	17.09607	5.31507	0.0817854	0.18202703	3.0835107	21	—	—
489148 2006 DN_{172}	16.9	X	290.90800	338.25982	157.24171	11.01422	0.1773195	0.17623178	3.1507448	21	12 12.0	20.9
489149 2006 DZ_{173}	17.3	X	309.66276	40.16216	156.90788	6.47001	0.1273070	0.18704146	3.0281505	21	—	—
489150 2006 DU_{177}	16.4	X	117.48847	17.37048	355.06086	10.29726	0.0190236	0.18580073	3.0416164	21	—	—
489151 2006 DR_{193}	16.8	X	226.56339	207.12000	352.87783	10.60804	0.0742325	0.17297087	3.1902208	21	12 19.4	21.6
489152 2006 DC_{217}	18.1	X	130.63314	85.02401	4.28159	20.92318	0.3533413	0.27165340	2.3611629	21	5 7.7	22.5
489153 2006 EF_{10}	17.1	X	247.87411	192.58992	49.78992	2.69970	0.1774034	0.18144324	3.0901212	21	—	—
489154 2006 EN_{11}	16.4	X	258.96727	34.09792	172.30841	16.34158	0.0555620	0.17975836	3.1094004	21	—	—
489155 2006 EL_{16}	16.5	X	221.60583	66.23966	172.51114	13.01085	0.1288502	0.17619270	3.1512107	21	—	—
489156 2006 ES_{23}	18.5	X	59.56911	110.16686	343.67986	1.19404	0.1414820	0.25819236	2.4425331	21	1 14.8	20.8
489157 2006 EW_{24}	18.0	X	54.99888	36.81501	160.72754	4.94766	0.1275808	0.27197850	2.3592810	21	6 8.8	20.4
489158 2006 EC_{27}	16.6	X	231.76769	208.49996	87.30187	1.81795	0.1520445	0.18986881	2.9980138	21	2 2.1	21.5
489159 2006 EE_{38}	17.0	X	315.54504	39.61170	120.80663	3.46586	0.0165805	0.18359884	3.0658866	21	—	—
489160 2006 EK_{38}	17.3	X	317.84200	70.98732	69.12178	2.16696	0.1441522	0.18184462	3.0855724	21	—	—
489161 2006 EY_{46}	18.2	X	124.02892	137.06013	0.22062	7.50837	0.1279517	0.27590955	2.3368180	21	6 20.2	21.5
489162 2006 ET_{53}	16.4	X	253.04383	28.09330	190.09913	11.59197	0.1097536	0.17971607	3.1098882	21	—	—
489163 2006 ET_{67}	16.6	X	136.95502	205.68847	138.82263	6.36638	0.0753099	0.18926752	3.0043601	21	—	—
489164 2006 FW_{2}	17.7	X	258.70218	246.85168	190.59446	22.10284	0.0862681	0.34963898	1.9955203	21	9 11.1	19.9
489165 2006 FA_{9}	17.9	X	28.38825	137.53725	57.96371	2.84761	0.1557433	0.26277162	2.4140731	21	4 16.6	19.7
489166 2006 FS_{20}	15.8	X	141.14427	305.64688	4.41750	27.13792	0.2150733	0.17311978	3.1883911	21	—	—
489167 2006 FL_{22}	17.0	X	318.19952	25.48988	6.59683	11.54462	0.0852203	0.22338683	2.6900747	21	9 28.6	20.1
489168 2006 FU_{28}	16.2	X	123.05895	315.91686	31.11859	17.17161	0.1066906	0.17386940	3.1792202	21	—	—
489169 2006 FF_{30}	16.1	X	223.35219	253.55497	33.36294	15.93493	0.2072209	0.17825962	3.1268045	21	1 19.4	21.7
489170 2006 FQ_{37}	15.9	X	310.40718	137.37557	42.76311	21.53386	0.2465468	0.18450360	3.0558555	21	—	—
489171 2006 FT_{40}	18.1	X	16.07468	49.09006	179.12745	5.30652	0.1810625	0.26522725	2.3991494	21	5 12.9	19.9
489172 2006 FX_{40}	16.9	X	247.65154	162.31247	81.94615	2.33443	0.1408810	0.17940414	3.1134919	21	—	—
489173 2006 GA_{6}	17.7	X	94.55153	23.60631	104.96930	4.54314	0.1461892	0.26643204	2.3919114	21	5 5.7	20.7
489174 2006 GP_{18}	16.4	X	7.64387	131.76669	10.03612	9.72453	0.0449508	0.18742071	3.0240641	21	1 18.1	20.6
489175 2006 GC_{27}	17.4	X	113.15477	61.40840	47.38499	6.60111	0.1046655	0.26294788	2.4129941	21	4 26.2	20.3
489176 2006 GG_{27}	16.5	X	289.99136	125.07045	56.13272	4.74654	0.1979607	0.17765731	3.1338677	21	—	—
489177 2006 GB_{33}	16.1	X	280.98851	2.13020	197.77125	27.88088	0.1079906	0.17883504	3.1200937	21	—	—
489178 2006 GB_{41}	16.1	X	283.61097	154.63813	45.21623	16.58492	0.2795420	0.18051049	3.1007572	21	—	—
489179 2006 GY_{46}	16.9	X	308.11431	163.31021	24.49666	13.93127	0.1713368	0.18256776	3.0774192	21	—	—
489180 2006 GG_{54}	17.9	X	19.81462	231.28430	52.23341	6.28546	0.2243110	0.27208023	2.3586929	21	9 4.6	19.9
489181 2006 HB_{4}	17.2	X	294.52171	274.84770	278.02127	1.12838	0.2125955	0.18233047	3.0800887	21	—	—
489182 2006 HG_{10}	16.7	X	235.63753	85.11866	157.19286	9.02273	0.1868942	0.17574674	3.1565393	21	—	—
489183 2006 HA_{14}	18.3	X	95.15328	292.59431	207.37633	3.33378	0.2347435	0.26805198	2.3822648	21	6 4.1	21.5
489184 2006 HT_{16}	16.4	X	69.84807	284.72790	154.16092	9.07535	0.0714706	0.18460839	3.0546990	21	1 23.7	20.5
489185 2006 HO_{21}	16.7	X	227.56297	84.48233	187.87206	9.64137	0.1983484	0.17755131	3.1351149	21	1 2.3	22.2
489186 2006 HZ_{21}	17.7	X	62.52591	112.22035	99.98284	4.04506	0.1840846	0.27031891	2.3689275	21	7 23.9	20.4
489187 2006 HU_{23}	16.7	X	261.46686	87.45956	102.14646	2.45248	0.1281350	0.17226038	3.1989868	21	—	—
489188 2006 HZ_{27}	16.1	X	208.00614	68.17775	212.97229	25.10864	0.1736458	0.17338141	3.1851828	21	—	—
489189 2006 HM_{46}	18.2	X	355.78130	215.14184	40.96389	2.44187	0.2074614	0.26333472	2.4106304	21	5 5.9	20.1
489190 2006 HM_{63}	17.7	X	5.88480	202.20140	52.46220	9.24395	0.1876667	0.26495158	2.4008132	21	5 30.1	19.4
489191 2006 HR_{72}	16.7	X	254.75699	132.38019	114.04790	6.36863	0.1320249	0.17782429	3.1319056	21	—	—
489192 2006 HF_{74}	18.6	X	72.68713	46.99952	131.61568	3.24806	0.1576864	0.26673199	2.3901178	21	6 15.1	21.2
489193 2006 HX_{74}	16.7	X	185.36536	72.66778	202.78755	10.19884	0.0528426	0.17089734	3.2159739	21	—	—
489194 2006 HK_{75}	16.7	X	288.34834	31.97512	145.64827	11.15607	0.1766910	0.17479653	3.1679684	21	—	—
489195 2006 HL_{75}	16.3	X	227.81906	145.27610	130.55196	11.09275	0.1940974	0.17606788	3.1526998	21	1 7.3	21.6
489196 2006 HZ_{75}	15.8	X	201.08908	199.39264	112.67715	10.32382	0.0524544	0.17996308	3.1070419	21	1 25.4	20.5
489197 2006 HC_{79}	16.4	X	225.55353	242.01022	35.88564	1.00486	0.1176737	0.17791539	3.1308364	21	1 9.7	21.3
489198 2006 HF_{79}	18.3	X	357.31742	218.15094	34.96630	1.82424	0.1577638	0.26323209	2.4112570	21	5 9.4	20.2
489199 2006 HS_{96}	15.8	X	113.62983	331.18826	50.10562	28.33540	0.1273338	0.17670385	3.1451307	21	1 26.4	20.8
489200 2006 HS_{109}	17.9	X	101.87718	287.62310	216.64590	12.40586	0.1335551	0.26549683	2.3975251	21	6 3.7	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489201 2006 HS_{116}	16.3	X	283.83670	147.75106	53.40387	16.63275	0.0345737	0.17614317	3.1518014	21	—	—
489202 2006 HJ_{154}	16.3	X	245.95624	165.23594	62.95659	8.42972	0.1124923	0.17533415	3.1614892	21	—	—
489203 2006 JT	18.9	X	36.57773	162.01612	21.01381	36.36528	0.4816341	0.26517974	2.3994359	21	5 17.1	20.8
489204 2006 JP_{11}	16.4	X	219.46516	82.34512	186.72127	8.87839	0.1016811	0.17476303	3.1683733	21	—	—
489205 2006 JR_{15}	16.3	X	203.73587	241.00308	38.70787	11.45286	0.0729640	0.17565737	3.1576098	21	—	—
489206 2006 JU_{19}	16.5	X	188.85656	135.98855	199.14990	16.33778	0.2194383	0.17815807	3.1279926	21	2 9.3	22.1
489207 2006 JG_{27}	16.3	X	205.85481	101.64673	217.41382	24.58990	0.2387718	0.17903307	3.1177925	21	1 31.5	22.2
489208 2006 JX_{42}	18.0	X	341.27684	140.27989	153.71884	3.04159	0.1993606	0.26483907	2.4014931	21	6 5.6	19.8
489209 2006 JJ_{45}	18.0	X	345.82041	81.51982	192.80605	6.55751	0.2250005	0.26354585	2.4093428	21	5 11.3	19.8
489210 2006 JC_{50}	18.2	X	8.72934	220.60709	48.44794	6.66066	0.2209969	0.26781478	2.3836712	21	7 5.9	19.7
489211 2006 JH_{74}	18.2	X	224.13584	80.92126	207.33246	2.49814	0.1751961	0.24558237	2.5254451	21	1 8.7	22.3
489212 2006 JN_{74}	17.1	X	288.69108	6.24186	197.17692	0.70436	0.1361718	0.18051184	3.1007417	21	—	—
489213 2006 KX_{15}	16.9	X	308.12774	213.84094	103.95915	13.58749	0.2310502	0.26179874	2.4200501	21	5 9.5	20.0
489214 2006 KA_{17}	16.1	X	246.50815	107.82003	138.78601	14.07922	0.2536310	0.17568395	3.1572913	21	—	—
489215 2006 KX_{17}	15.8	X	264.11733	133.81016	104.42722	16.40128	0.0527134	0.18054866	3.1003201	21	1 5.7	20.4
489216 2006 KR_{20}	19.4	X	343.58149	45.84735	227.63422	3.67150	0.3341178	0.32575864	2.0918896	21	3 27.8	20.6
489217 2006 KG_{46}	17.1	X	295.69565	300.13438	225.98214	12.79649	0.2371164	0.17518344	3.1633022	21	—	—
489218 2006 KJ_{47}	16.4	X	206.27547	61.39701	220.92373	8.46914	0.0646283	0.17415128	3.1757888	21	—	—
489219 2006 KD_{50}	18.1	X	341.43965	112.25571	211.85362	4.79201	0.2484372	0.26798545	2.3826591	21	7 22.4	19.6
489220 2006 KV_{51}	18.4	X	46.18927	77.87417	150.80582	2.95659	0.1446239	0.26775632	2.3840182	21	7 13.2	20.9
489221 2006 KT_{58}	16.5	X	167.57782	167.86854	132.49688	11.89909	0.0488547	0.17157709	3.2074743	21	—	—
489222 2006 KZ_{60}	18.6	X	108.06641	133.33889	185.14785	5.40401	0.1916186	0.29020604	2.2594275	21	—	—
489223 2006 KF_{62}	16.3	X	269.31641	128.31399	86.88663	13.13487	0.1269317	0.17524859	3.1625182	21	—	—
489224 2006 KO_{62}	16.2	X	254.60209	26.36339	208.61426	10.03504	0.0998441	0.17509189	3.1644047	21	—	—
489225 2006 KG_{74}	16.5	X	270.14708	144.18732	95.72691	14.83648	0.2366655	0.17848486	3.1241734	21	—	—
489226 2006 KE_{75}	16.5	X	316.65625	75.36613	87.62024	18.37939	0.2505941	0.18063559	3.0993253	21	—	—
489227 2006 KN_{106}	17.8	X	345.56359	279.36434	19.23268	5.31229	0.1375412	0.26983828	2.3717396	21	6 29.7	19.9
489228 2006 KS_{109}	17.8	X	33.53117	169.87509	44.70247	11.54308	0.1530043	0.26497554	2.4006685	21	5 25.9	20.1
489229 2006 KB_{120}	16.2	X	289.32178	347.17977	230.61801	26.53099	0.0906834	0.17817844	3.1277542	21	—	—
489230 2006 MT_{7}	17.8	X	355.93560	140.08820	122.18273	5.53947	0.1700542	0.25828004	2.4419803	21	5 23.0	19.9
489231 2006 OC_{4}	18.9	X	279.57195	1.24395	326.81608	4.82597	0.2424318	0.31474576	2.1404058	21	4 3.6	22.1
489232 2006 PX_{13}	17.0	X	207.87779	298.05392	27.90242	9.80349	0.2146758	0.23716777	2.5848317	21	2 14.7	21.6
489233 2006 QP_{27}	18.8	X	153.45240	47.56333	324.57468	6.18154	0.2796464	0.29665590	2.2265582	21	2 18.8	22.1
489234 2006 QY_{29}	16.5	X	255.66756	351.56192	348.86686	2.78668	0.3566592	0.18166258	3.0876334	21	3 31.9	22.0
489235 2006 QA_{58}	20.4	X	145.06204	283.75210	152.45852	26.60654	0.1729597	0.70546763	1.2497352	21	—	—
489236 2006 QQ_{89}	16.7	X	282.66105	92.35488	256.85628	5.30455	0.3042131	0.18394935	3.0619908	21	5 7.9	21.3
489237 2006 QN_{133}	18.0	X	323.86469	138.76675	171.14435	10.33320	0.2479204	0.25653541	2.4530393	21	5 18.8	20.6
489238 2006 QA_{137}	16.8	X	142.12612	54.63197	317.92070	16.86132	0.2339741	0.22961950	2.6411731	21	2 12.2	21.0
489239 2006 QX_{164}	17.1	X	125.86206	32.97511	311.25904	12.59648	0.1984804	0.22171601	2.7035724	21	—	—
489240 2006 QR_{182}	17.4	X	293.14535	29.14323	350.62971	12.06474	0.1753887	0.19108884	2.9852395	21	7 22.3	21.5
489241 2006 QO_{184}	17.4	X	342.49540	323.31484	9.25507	6.01838	0.0953678	0.19260435	2.9695592	21	8 15.7	21.0
489242 2006 QA_{186}	17.1	X	190.94954	293.53410	35.08522	3.37923	0.1398670	0.23160593	2.6260497	21	1 30.3	21.2
489243 2006 QQ_{187}	16.4	X	281.03285	71.77120	290.29921	5.35485	0.1788812	0.18635607	3.0355707	21	6 8.4	20.7
489244 2006 RW_{1}	18.3	X	2.07673	42.12402	338.40647	0.59307	0.1969716	0.27099878	2.3649638	21	12 19.5	20.5
489245 2006 RR_{14}	16.9	X	54.45391	172.61218	295.18512	12.87506	0.2022033	0.22987643	2.6392048	21	2 4.8	19.5
489246 2006 RY_{14}	16.8	X	125.28177	263.62455	194.34640	16.30333	0.0977289	0.24298745	2.5433931	21	4 28.7	20.3
489247 2006 RF_{18}	16.9	X	133.22110	213.99268	180.68390	12.53822	0.2989342	0.22719209	2.6599527	21	3 9.6	21.2
489248 2006 RP_{22}	17.0	X	177.00550	359.54546	356.21618	13.19483	0.2459634	0.23111907	2.6297362	21	2 26.1	21.5
489249 2006 RZ_{43}	17.1	X	172.92906	342.90687	14.36573	13.68966	0.0886024	0.22984736	2.6394273	21	2 18.0	21.2
489250 2006 RV_{53}	16.8	X	276.30458	316.83285	36.35350	5.15347	0.1622826	0.18169883	3.0872228	21	5 24.4	21.4
489251 2006 RD_{62}	19.0	X	96.31112	123.57112	200.11393	4.00933	0.3102253	0.28126398	2.3070658	21	—	—
489252 2006 RJ_{68}	17.0	X	139.12206	219.21136	172.49709	15.62652	0.1652997	0.22999952	2.6382631	21	2 25.1	20.9
489253 2006 RZ_{74}	17.3	X	178.82083	4.21596	8.27624	9.86576	0.0966427	0.23427798	2.6060440	21	3 11.2	21.1
489254 2006 RQ_{75}	18.2	X	296.38771	260.62409	28.27559	1.87095	0.1490848	0.24375506	2.5380507	21	3 24.5	21.6
489255 2006 RA_{77}	18.6	X	169.29076	347.97247	18.18391	3.43959	0.1888020	0.29833154	2.2182131	21	2 19.2	21.8
489256 2006 RB_{90}	17.2	X	47.88308	252.33131	200.01942	7.27460	0.2074505	0.21954961	2.7213283	21	1 4.4	19.8
489257 2006 RQ_{91}	16.4	X	239.07051	180.73799	189.36447	4.38374	0.1226408	0.17742712	3.1365777	21	5 11.3	21.2
489258 2006 RB_{93}	17.3	X	106.49473	66.01873	3.71866	6.34781	0.2497977	0.22695738	2.6617862	21	3 21.5	20.9
489259 2006 RV_{94}	15.9	X	270.72143	345.95620	8.11219	10.11162	0.1058406	0.17997076	3.1069534	21	5 24.8	20.6
489260 2006 RS_{101}	18.0	X	35.27145	257.98675	103.70875	4.01283	0.2569914	0.27410797	2.3470461	21	—	—
489261 2006 RU_{107}	18.3	X	342.24424	358.69407	240.08867	1.30632	0.1748638	0.24204143	2.5500160	21	3 18.8	20.8
489262 2006 RN_{112}	17.5	X	41.74992	73.84233	15.39919	4.96088	0.1357739	0.21956053	2.7212381	21	—	—
489263 2006 RK_{120}	17.2	X	193.69269	178.17635	201.36462	15.25542	0.1798086	0.23797988	2.5789478	21	4 2.8	21.5
489264 2006 RD_{121}	17.4	X	187.64451	354.54205	34.09627	12.41654	0.1858951	0.23691111	2.5866983	21	4 11.5	21.7
489265 2006 ST_{10}	16.0	X	226.15802	142.62361	252.14865	9.61559	0.0602525	0.18418096	3.0594233	21	6 1.0	20.5
489266 2006 SL_{16}	16.8	X	291.26028	113.41126	237.05493	3.75169	0.2459396	0.18574452	3.0422300	21	5 27.8	20.9
489267 2006 SG_{17}	15.6	X	225.50610	30.49495	356.88343	11.00938	0.1272972	0.17702715	3.1413003	21	5 13.9	20.7
489268 2006 SB_{22}	17.7	X	264.35356	334.39809	341.47879	6.39897	0.1734299	0.24205720	2.5499053	21	3 18.8	21.5
489269 2006 SO_{31}	17.5	X	268.59880	86.31884	231.38768	2.27592	0.2368170	0.24448081	2.5330253	21	3 19.2	21.4
489270 2006 SS_{52}	17.5	X	86.80282	166.74791	210.71688	9.23041	0.2055035	0.21773737	2.7364072	21	—	—
489271 2006 SQ_{58}	16.8	X	63.04479	169.92630	200.13937	14.43660	0.1952441	0.21470459	2.7621155	21	—	—
489272 2006 SK_{64}	16.4	X	187.17465	103.84203	244.07650	11.17660	0.2264358	0.23129705	2.6283871	21	2 16.2	21.1
489273 2006 SQ_{75}	17.2	X	234.53169	300.14467	109.61877	2.72297	0.1969096	0.18043933	3.1015724	21	6 17.3	22.1
489274 2006 SN_{93}	16.8	X	101.12040	311.62245	21.54354	12.70075	0.1137024	0.21126113	2.7920487	21	—	—
489275 2006 SZ_{99}	16.5	X	286.16489	323.93260	21.49919	5.34192	0.1625894	0.18197296	3.0841214	21	5 26.2	20.8
489276 2006 SL_{100}	17.5	X	327.94006	222.91537	184.87625	1.60472	0.0706817	0.20126905	2.8837087	21	11 1.3	21.2
489277 2006 SS_{106}	17.1	X	240.46171	21.63211	18.36652	0.35496	0.1800422	0.18139048	3.0907204	21	6 12.3	22.0
489278 2006 SF_{129}	18.2	X	204.02973	41.29437	333.23311	4.15716	0.1351470	0.30600779	2.1809602	21	3 29.8	21.3
489279 2006 SF_{138}	16.7	X	115.41469	2.91215	46.50519	13.93542	0.1818226	0.22694779	2.6618600	21	3 4.3	20.6
489280 2006 SA_{151}	18.6	X	172.61503	171.23997	203.67625	3.58281	0.1182991	0.29888453	2.2154762	21	2 25.3	21.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489281 2006 SG_{167}	17.5	X	240.18711	335.76878	354.61999	13.32697	0.1999440	0.24025581	2.5626352	21	3 14.0	21.7
489282 2006 SO_{171}	17.0	X	1.32155	230.41893	0.28994	12.92752	0.1208766	0.24421292	2.5348774	21	4 13.9	19.8
489283 2006 SM_{177}	19.0	X	71.03900	253.80394	158.54599	0.65466	0.1856655	0.28540931	2.2846725	21	—	—
489284 2006 SW_{185}	17.3	X	136.33953	285.65309	26.67747	13.01767	0.1746856	0.21471757	2.7620041	21	—	—
489285 2006 SL_{186}	18.0	X	321.68801	196.92087	205.29255	5.18719	0.2518704	0.26213262	2.4179946	21	10 16.3	19.2
489286 2006 SM_{188}	16.2	X	222.50391	12.02789	17.74324	11.28694	0.1619279	0.17786305	3.1314505	21	5 12.7	21.4
489287 2006 SD_{199}	19.5	X	89.40644	130.27655	189.09361	4.05045	0.2459852	0.27804442	2.3248410	21	—	—
489288 2006 SN_{199}	17.1	X	290.90774	353.51465	9.27778	9.90220	0.0542354	0.18609511	3.0384079	21	7 13.6	21.4
489289 2006 SJ_{204}	16.3	X	213.64914	217.18400	136.90018	2.06184	0.1809703	0.17138067	3.2099245	21	3 27.2	21.5
489290 2006 SH_{207}	17.3	X	340.94205	330.77873	6.94926	12.73368	0.1708548	0.19057907	2.9905604	21	8 20.1	20.6
489291 2006 SC_{209}	17.8	X	66.39519	48.27864	18.98391	6.17689	0.2491366	0.21945270	2.7221294	21	1 16.6	20.3
489292 2006 SJ_{218}	17.8	X	92.96702	0.70714	351.97701	3.23410	0.2051233	0.21613834	2.7498869	21	—	—
489293 2006 SY_{225}	17.5	X	3.05657	355.96625	235.82235	5.69948	0.0762572	0.24394282	2.5367482	21	4 24.7	20.5
489294 2006 ST_{226}	16.8	X	327.32444	259.70431	322.20577	6.61538	0.1588904	0.23606474	2.5928773	21	2 5.1	19.8
489295 2006 SQ_{233}	17.6	X	75.76885	195.71956	272.57234	3.41520	0.0535520	0.23210194	2.6223070	21	2 26.2	20.8
489296 2006 SU_{246}	17.4	X	101.25765	195.02136	131.40921	0.99981	0.0757130	0.21319273	2.7751585	21	—	—
489297 2006 SW_{248}	17.1	X	62.03501	249.73515	195.59240	21.59137	0.0567301	0.22414324	2.6840192	21	1 7.8	21.0
489298 2006 SF_{255}	18.5	X	145.76659	317.21921	59.29656	4.58626	0.2768314	0.29479469	2.2359201	21	2 19.7	21.8
489299 2006 SO_{257}	16.7	X	197.91665	180.58238	211.43211	4.63788	0.1571520	0.17206904	3.2013579	21	4 26.9	21.8
489300 2006 SX_{259}	17.0	X	230.86862	59.07733	345.26888	2.73621	0.1830922	0.17991049	3.1076474	21	6 8.0	22.0
489301 2006 ST_{261}	17.7	X	237.64424	169.26824	195.49198	6.41756	0.2565220	0.24272834	2.5452028	21	4 19.9	22.0
489302 2006 SR_{271}	16.4	X	254.89330	101.38643	242.00611	8.03764	0.0866322	0.17464791	3.1697653	21	4 27.3	21.0
489303 2006 SG_{287}	17.3	X	89.67238	191.76322	204.91902	25.72116	0.2229343	0.28687297	2.2768948	21	—	—
489304 2006 SE_{296}	16.9	X	96.85961	107.95419	359.92009	14.93301	0.0457143	0.23616082	2.5921740	21	3 25.8	20.3
489305 2006 SP_{310}	17.1	X	323.32045	79.22527	245.96009	2.78913	0.2390480	0.18810565	3.0167187	21	6 13.0	20.5
489306 2006 SG_{319}	17.1	X	144.36511	205.51187	177.02983	11.15027	0.1139701	0.22780421	2.6551856	21	2 13.3	21.1
489307 2006 SN_{319}	17.4	X	115.73687	34.41946	41.01198	8.91590	0.1512061	0.23011394	2.6373885	21	3 28.8	21.1
489308 2006 ST_{320}	17.5	X	253.52691	142.40834	155.71732	4.17039	0.1411568	0.23559229	2.5963426	21	2 18.7	21.4
489309 2006 SN_{322}	17.4	X	105.09303	305.88156	115.24647	3.10076	0.0804480	0.22712864	2.6604480	21	2 12.0	20.9
489310 2006 SU_{322}	16.4	X	50.92431	124.23511	27.91312	14.71154	0.0218213	0.23487153	2.6016516	21	3 24.6	19.8
489311 2006 SL_{327}	16.9	X	222.96359	308.96979	117.13583	2.42192	0.1571885	0.18041178	3.1018881	21	6 29.4	21.8
489312 2006 SB_{344}	17.6	X	1.03438	140.54443	221.07515	6.15037	0.1323529	0.26469316	2.4023755	21	11 8.7	19.9
489313 2006 SS_{344}	16.5	X	265.17095	44.55037	315.62178	3.46597	0.1643540	0.18032311	3.1029048	21	5 20.2	21.2
489314 2006 SA_{356}	17.8	X	52.22234	228.85100	117.59716	3.39746	0.2494915	0.27307634	2.3529534	21	—	—
489315 2006 SP_{400}	18.2	X	196.44408	331.63341	17.18369	8.74229	0.1976462	0.30082633	2.2059321	21	2 24.6	21.8
489316 2006 SP_{401}	18.4	X	281.27700	353.64192	63.39557	2.61002	0.1158171	0.25634687	2.4542420	21	9 5.6	21.1
489317 2006 SB_{405}	16.9	X	111.91236	254.41067	194.78146	12.54153	0.2292937	0.23252963	2.6190905	21	4 18.9	20.6
489318 2006 SB_{408}	18.5	X	66.13053	114.92557	204.68509	0.59302	0.1904847	0.27025190	2.3693191	21	12 21.9	22.0
489319 2006 SS_{408}	16.6	X	175.47123	112.83541	250.84314	13.59402	0.2136701	0.23207740	2.6224919	21	2 23.3	21.3
489320 2006 TO_{9}	16.2	X	254.50064	338.63962	41.48558	11.88939	0.0909419	0.17886034	3.1197994	21	6 10.6	20.9
489321 2006 TO_{10}	17.3	X	256.52252	326.74877	351.92306	9.03374	0.0415803	0.23894285	2.5720142	21	3 27.2	20.7
489322 2006 TE_{12}	17.8	X	37.66149	61.17174	294.38272	1.20325	0.2113153	0.27135505	2.3628933	21	—	—
489323 2006 TJ_{15}	18.2	X	5.92886	123.19823	244.07357	1.24568	0.2195456	0.26705519	2.3881891	21	12 9.8	20.5
489324 2006 TY_{41}	17.2	X	98.91645	44.64084	39.29517	22.54739	0.0376870	0.22684555	2.6626610	21	3 12.2	21.2
489325 2006 TM_{45}	16.6	X	226.13901	326.75539	77.97937	2.47809	0.1881274	0.17614299	3.1518036	21	6 4.3	21.8
489326 2006 TO_{54}	17.7	X	136.88742	10.22992	4.23273	7.92721	0.1542093	0.29087106	2.2559824	21	1 23.5	20.6
489327 2006 TZ_{60}	17.1	X	298.54415	156.85099	228.33949	9.08992	0.3247024	0.18871906	3.0101782	21	7 7.8	21.1
489328 2006 TQ_{65}	16.6	X	232.74194	86.01054	291.74445	8.46570	0.2409492	0.17779949	3.1321968	21	5 2.7	22.1
489329 2006 TC_{67}	16.3	X	201.84799	70.39214	312.42123	6.79332	0.1642138	0.17209204	3.2010727	21	4 16.1	21.6
489330 2006 TX_{74}	17.8	X	286.56199	209.18265	194.97991	1.32871	0.1863398	0.25582579	2.4575734	21	8 12.0	20.7
489331 2006 TT_{81}	16.9	X	12.92580	342.77876	229.83899	11.04723	0.0537983	0.23612036	2.5924701	21	4 14.1	20.2
489332 2006 TK_{91}	17.0	X	279.56136	347.86511	28.21136	5.92099	0.1457021	0.18201583	3.0836372	21	6 30.1	21.4
489333 2006 TZ_{96}	18.1	X	53.59765	205.67492	200.73379	4.53336	0.2026871	0.27818891	2.3240360	21	—	—
489334 2006 TA_{101}	16.2	X	252.09669	125.02324	228.92938	8.29063	0.0913164	0.17449825	3.1715775	21	5 7.7	20.8
489335 2006 TD_{128}	17.9	X	50.24649	27.53975	48.35103	8.62379	0.2078491	0.21529651	2.7570505	21	—	—
489336 2006 TR_{129}	17.9	X	350.84209	358.12297	7.07881	5.19804	0.1260754	0.26095167	2.4252843	21	10 23.1	20.1
489337 2006 UM	18.5	X	122.61493	55.29377	57.00840	15.89690	0.5403137	0.29550154	2.2323531	21	6 19.1	23.0
489338 2006 UF_{7}	16.6	X	217.11615	329.63452	40.71518	32.80482	0.1287634	0.23781133	2.5801662	21	4 21.0	20.7
489339 2006 UH_{14}	16.5	X	234.44896	349.38109	54.68285	10.62540	0.0975921	0.17762465	3.1342519	21	6 18.1	21.3
489340 2006 UW_{23}	18.6	X	222.03868	114.12020	222.73679	4.84702	0.2057568	0.30285022	2.1960933	21	2 25.8	22.1
489341 2006 UN_{24}	15.8	X	202.17880	39.50739	19.50064	10.42488	0.0999176	0.17591383	3.1545402	21	6 1.3	20.8
489342 2006 UQ_{29}	18.5	X	260.79808	44.28308	26.18078	1.79094	0.1707306	0.25462586	2.4652883	21	8 16.2	21.6
489343 2006 UP_{37}	17.0	X	223.52645	16.41010	37.20143	15.59472	0.2490464	0.17706595	3.1408414	21	6 6.6	22.5
489344 2006 UZ_{39}	16.8	X	255.93133	222.25895	218.87691	7.34307	0.1053667	0.18741699	3.0241041	21	8 25.9	21.2
489345 2006 UE_{41}	17.1	X	98.65392	294.17203	37.05893	4.96584	0.2020712	0.20995907	2.8035800	21	—	—
489346 2006 US_{41}	17.3	X	250.01142	157.26681	226.35644	1.93201	0.1201040	0.17761774	3.1343331	21	6 8.1	21.9
489347 2006 UP_{50}	17.9	X	293.60570	114.39763	262.69032	3.89006	0.1973807	0.18714490	3.0270346	21	7 11.7	21.9
489348 2006 UU_{50}	19.0	X	245.06968	105.43193	213.03465	20.81400	0.0940185	0.36959404	1.9230301	21	2 12.3	22.0
489349 2006 UB_{57}	17.3	X	70.30349	206.43729	214.46199	7.96087	0.2653175	0.22060722	2.7126238	21	1 13.9	20.0
489350 2006 UC_{59}	17.2	X	319.08749	339.16672	347.92871	2.83998	0.1988976	0.18449512	3.0559492	21	6 14.3	20.9
489351 2006 UX_{71}	17.4	X	140.56659	81.27512	254.34041	8.29345	0.1887146	0.22273528	2.6953182	21	—	—
489352 2006 UP_{72}	17.4	X	76.80496	190.93281	264.12387	5.89647	0.1091346	0.22569310	2.6717174	21	2 17.2	20.6
489353 2006 UJ_{74}	17.1	X	45.19742	147.28477	5.20652	9.71649	0.0799464	0.23081373	2.6320550	21	3 17.3	20.0
489354 2006 UO_{81}	16.5	X	207.22660	172.00197	243.92663	9.27271	0.0936929	0.17552679	3.1591756	21	6 5.1	21.2
489355 2006 UD_{88}	17.3	X	81.95645	51.41190	26.46826	9.72584	0.2692332	0.22046538	2.7137871	21	3 7.2	20.5
489356 2006 UF_{95}	17.4	X	349.39750	280.06879	110.70046	3.07313	0.1029614	0.19851401	2.9103280	21	11 12.9	20.8
489357 2006 UZ_{99}	16.6	X	192.51120	352.55126	71.18205	7.89352	0.1770407	0.17312483	3.1883291	21	5 29.7	21.8
489358 2006 UH_{117}	16.4	X	237.34588	152.57853	205.74527	7.63298	0.0145778	0.17263243	3.1943890	21	5 5.1	21.0
489359 2006 UU_{134}	17.0	X	40.91336	82.19637	47.94223	13.25088	0.1598102	0.22229079	2.6989100	21	2 18.9	20.1
489360 2006 UW_{135}	17.4	X	257.90931	235.11317	193.67294	4.57597	0.1476512	0.18552127	3.0446701	21	8 8.3	21.9

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		°	°	°	°		°				
489361 2006 UL_{136}	17.7	X	196.62459	47.70214	298.04011	3.79994	0.1008690	0.22886469	2.6469771	21	2 22.2	21.8
489362 2006 UT_{153}	17.1	X	271.03425	11.20710	292.52702	4.14427	0.0767203	0.24108274	2.5567718	21	3 20.4	20.7
489363 2006 UY_{167}	16.8	X	36.79129	261.26261	94.89825	3.28517	0.0802785	0.20277107	2.8694504	21	12 5.3	20.5
489364 2006 UW_{170}	17.6	X	129.38537	286.15967	83.61736	3.80509	0.1067475	0.22152795	2.7051023	21	1 13.6	21.3
489365 2006 UZ_{170}	17.1	X	163.99523	318.75497	59.15626	6.71186	0.1282465	0.22939499	2.6428962	21	3 6.9	21.2
489366 2006 UW_{172}	16.6	X	353.90644	258.39090	34.54319	11.05174	0.0278089	0.18261520	3.0768862	21	7 11.3	20.9
489367 2006 UT_{184}	16.4	X	139.74299	295.92947	68.59427	8.87291	0.2309237	0.22306589	2.6926543	21	2 4.8	20.7
489368 2006 UT_{191}	16.0	X	278.94711	5.27290	344.60914	7.54610	0.2536719	0.18152634	3.0891781	21	5 9.3	20.8
489369 2006 UM_{193}	15.8	X	244.98222	358.27128	11.54408	14.50125	0.1619040	0.18004535	3.1060952	21	5 7.9	20.8
489370 2006 UT_{193}	18.7	X	214.73836	221.89221	215.17809	2.13036	0.1229935	0.31459762	2.1410777	21	7 7.2	21.5
489371 2006 UO_{201}	16.8	X	54.00658	264.94565	229.63126	10.80681	0.1415578	0.22432637	2.6825582	21	3 7.8	19.9
489372 2006 UJ_{205}	17.0	X	273.57097	141.41483	212.28749	1.07668	0.1446153	0.18051237	3.1007357	21	5 25.2	21.6
489373 2006 UQ_{210}	17.5	X	204.88649	55.88550	264.20221	6.51467	0.1434617	0.29359352	2.2420145	21	1 21.3	20.9
489374 2006 UX_{210}	17.1	X	47.39274	56.56236	30.60975	9.24201	0.1353627	0.21589241	2.7519749	21	—	—
489375 2006 UE_{214}	16.1	X	233.00080	293.02001	43.25437	21.68023	0.2573022	0.16908167	3.2389558	21	3 28.3	21.9
489376 2006 UX_{223}	17.0	X	133.30104	154.91573	232.50530	8.57880	0.1363025	0.22509290	2.6764647	21	2 8.5	21.0
489377 2006 UR_{227}	17.1	X	176.92880	314.13167	42.50572	14.26176	0.1946623	0.23000232	2.6382416	21	3 1.2	21.7
489378 2006 UG_{231}	17.5	X	151.59155	202.44259	229.80418	10.22132	0.0719864	0.23507988	2.6001141	21	4 21.1	21.2
489379 2006 UQ_{236}	17.6	X	52.36868	52.46145	34.74156	9.29524	0.0205502	0.22104652	2.7090286	21	—	—
489380 2006 UR_{255}	17.3	X	128.27472	326.42885	36.78122	5.77572	0.1271222	0.22046176	2.7138169	21	1 7.6	21.0
489381 2006 UD_{257}	17.6	X	232.78844	100.47280	221.68109	5.38497	0.0894679	0.23371782	2.6102063	21	2 28.6	21.5
489382 2006 UG_{260}	17.6	X	325.75649	58.90345	213.43644	16.27320	0.1329897	0.24189401	2.5510520	21	4 14.2	20.7
489383 2006 UU_{261}	16.8	X	196.96699	285.55877	221.85220	4.30474	0.0614353	0.18784841	3.0194722	21	9 16.5	21.3
489384 2006 UZ_{261}	17.7	X	42.65698	290.34471	189.09395	1.22519	0.0380523	0.22192591	2.7018675	21	1 27.2	21.0
489385 2006 UG_{262}	17.5	X	4.84041	301.50418	48.01826	13.89884	0.0748323	0.26005350	2.4308654	21	10 24.2	20.2
489386 2006 UC_{273}	16.6	X	10.92785	92.46428	274.52455	4.84638	0.2345360	0.19811324	2.9142516	21	12 1.4	19.8
489387 2006 UC_{277}	18.9	X	182.52507	331.82457	8.41685	4.22488	0.1816168	0.29507214	2.2345183	21	1 29.9	22.2
489388 2006 UG_{279}	16.3	X	218.21280	161.19161	219.68180	12.02782	0.1248004	0.17172905	3.2055819	21	5 3.2	21.4
489389 2006 UX_{284}	17.0	X	136.45473	322.32229	57.27102	10.02006	0.2091093	0.22240182	2.6980117	21	2 19.4	21.2
489390 2006 UD_{285}	16.6	X	313.36853	125.67955	225.22801	8.82434	0.0951978	0.18483510	3.0522006	21	7 19.6	20.7
489391 2006 UE_{334}	17.8	X	231.61913	298.60092	51.46148	5.36958	0.0174849	0.23481567	2.6020641	21	4 12.1	21.3
489392 2006 UF_{334}	18.9	X	117.77254	327.76486	83.07516	3.68400	0.2065398	0.29172563	2.2515745	21	2 24.2	21.6
489393 2006 UG_{334}	18.7	X	43.12206	119.97509	219.95721	5.83983	0.1353481	0.26814411	2.3817191	21	12 14.2	21.7
489394 2006 UN_{334}	17.0	X	137.59001	332.84330	58.51333	14.63957	0.0818164	0.22230809	2.6987700	21	2 22.7	21.1
489395 2006 UX_{345}	15.8	X	223.60453	7.04361	49.34597	28.57220	0.1275190	0.17887831	3.1195905	21	6 14.7	21.0
489396 2006 UQ_{358}	16.9	X	231.57076	199.97542	209.37435	5.51637	0.1792183	0.17786605	3.1314154	21	6 15.5	21.9
489397 2006 UX_{359}	17.7	X	160.72413	318.49840	53.26386	5.83090	0.1153487	0.22788940	2.6545238	21	2 22.4	21.7
489398 2006 VE_{2}	18.2	X	327.41855	268.53246	236.91819	21.22930	0.1297346	0.41338016	1.7847181	21	—	—
489399 2006 VS_{3}	18.7	X	211.09253	359.11509	55.02799	3.80517	0.1698289	0.31040717	2.1603041	21	5 29.8	21.8
489400 2006 VE_{7}	17.1	X	317.49799	276.23956	58.57263	2.57473	0.2442500	0.18380654	3.0635766	21	6 14.9	20.8
489401 2006 VP_{8}	17.1	X	249.39599	305.30434	99.81241	2.38586	0.1922716	0.17915965	3.1163238	21	6 26.2	21.8
489402 2006 VP_{10}	16.4	X	263.14096	335.79116	60.36773	14.99526	0.2080596	0.18186148	3.0853817	21	6 26.7	21.2
489403 2006 VB_{11}	18.4	X	17.31380	45.33555	52.23886	5.49115	0.2242086	0.27817424	2.3241176	21	—	—
489404 2006 VP_{14}	17.3	X	156.40732	355.88600	23.49333	5.04793	0.1018094	0.22635298	2.6665224	21	2 25.4	21.2
489405 2006 VY_{20}	17.9	X	293.34985	271.09668	240.43328	4.13174	0.1636627	0.27150136	2.3620443	21	—	—
489406 2006 VN_{25}	16.8	X	176.46506	28.94481	311.39628	1.21800	0.4052427	0.16414961	3.3035140	21	2 16.7	23.0
489407 2006 VG_{27}	17.5	X	168.54174	161.11907	235.65541	7.42206	0.1367520	0.23052330	2.6342652	21	3 29.2	21.6
489408 2006 VL_{30}	17.0	X	107.82793	353.24701	49.56702	10.58319	0.2861753	0.22067485	2.7120695	21	2 28.4	21.0
489409 2006 VQ_{33}	16.4	X	119.42792	204.30223	223.60679	8.19626	0.1209518	0.15968150	3.3648547	21	3 22.3	21.4
489410 2006 VK_{36}	16.7	X	78.97723	52.96673	57.15917	22.73793	0.0527037	0.22579864	2.6708848	21	3 22.6	20.7
489411 2006 VP_{39}	16.8	X	286.99182	238.28382	49.34139	15.14794	0.0718040	0.23374699	2.6099891	21	3 30.4	20.5
489412 2006 VF_{40}	17.4	X	280.29484	210.17539	166.67889	1.30914	0.1649519	0.18224741	3.0810244	21	6 28.8	21.6
489413 2006 VT_{53}	17.9	X	166.21298	352.27605	33.66481	7.99736	0.1516500	0.29637744	2.2279526	21	3 12.9	21.1
489414 2006 VM_{55}	17.2	X	66.99856	237.40966	233.07751	11.31629	0.1739347	0.22171528	2.7035784	21	3 1.2	20.4
489415 2006 VG_{57}	17.1	X	127.70618	339.09684	70.14959	7.31633	0.1358254	0.22452246	2.6809961	21	3 8.9	21.0
489416 2006 VQ_{70}	17.5	X	208.83656	224.11705	236.89279	11.29757	0.1610284	0.24587315	2.5234536	21	7 26.4	21.6
489417 2006 VM_{76}	17.9	X	82.12238	328.17771	102.66597	3.64655	0.0912249	0.21986010	2.7187656	21	1 26.5	21.1
489418 2006 VW_{83}	17.7	X	321.94605	112.51743	243.37409	7.83827	0.1909298	0.18752395	3.0229541	21	7 28.5	21.2
489419 2006 VA_{96}	17.4	X	250.19143	290.40322	50.35470	14.62216	0.2026382	0.23860767	2.5744223	21	4 9.6	21.6
489420 2006 VF_{105}	18.1	X	38.38297	81.47561	37.33900	5.24322	0.0679329	0.28709698	2.2757103	21	1 3.6	20.5
489421 2006 VC_{121}	16.9	X	246.08310	156.64063	249.16313	7.31012	0.2929240	0.18057883	3.0999748	21	6 14.7	22.2
489422 2006 VJ_{121}	16.9	X	83.90155	154.80107	254.38018	12.12607	0.1684378	0.21674873	2.7447218	21	1 9.5	20.2
489423 2006 VB_{126}	17.1	X	95.83488	209.36498	228.53573	10.91391	0.1559243	0.22553767	2.6729448	21	2 27.5	20.7
489424 2006 VN_{127}	17.3	X	316.17586	329.01376	2.59993	6.20347	0.2295131	0.18296051	3.0730135	21	6 10.1	21.0
489425 2006 VP_{132}	18.2	X	25.76845	327.06493	107.43772	2.17898	0.1522095	0.27641779	2.3339527	21	—	—
489426 2006 VE_{139}	16.2	X	290.91412	155.09099	246.71491	10.15856	0.1786972	0.18538021	3.0462145	21	8 8.6	20.4
489427 2006 VF_{140}	18.4	X	112.85896	192.65032	218.97129	2.81281	0.1528499	0.28893794	2.2660335	21	2 7.1	20.8
489428 2006 VC_{171}	17.0	X	110.52680	296.70946	87.71235	14.40206	0.2411723	0.21902949	2.7256347	21	1 30.3	20.8
489429 2006 WM	18.3	X	267.38281	328.86722	19.83258	5.23505	0.2283535	0.31241775	2.1510256	21	4 22.2	21.4
489430 2006 WH_{28}	17.5	X	157.18690	330.65260	78.10893	7.67569	0.1663294	0.22981626	2.6396654	21	4 10.2	21.7
489431 2006 WE_{32}	17.0	X	156.26143	239.88775	93.36625	7.23048	0.0503789	0.21670074	2.7451271	21	—	—
489432 2006 WB_{33}	17.5	X	25.62486	281.41687	198.07095	3.38403	0.2272223	0.21867263	2.7285993	21	—	—
489433 2006 WB_{53}	16.7	X	151.94932	211.03651	173.73052	15.20142	0.2285324	0.22669567	2.6638345	21	3 8.1	20.9
489434 2006 WC_{71}	18.1	X	53.96494	39.27669	288.53181	1.96181	0.1957971	0.26733038	2.3865498	21	12 19.5	21.4
489435 2006 WF_{73}	17.4	X	262.40066	156.23428	237.24468	2.35061	0.1838427	0.18079124	3.0975463	21	6 26.2	21.9
489436 2006 WW_{86}	16.3	X	40.30111	76.45675	80.44069	25.55907	0.1667147	0.22236450	2.6983136	21	4 8.5	19.8
489437 2006 WR_{95}	18.4	X	352.50712	233.39983	149.24189	1.98540	0.1972976	0.26369281	2.4084475	21	12 2.4	20.3
489438 2006 WN_{99}	17.3	X	71.81975	194.68408	228.58385	3.52171	0.0581903	0.21544230	2.7558066	21	—	—
489439 2006 WS_{175}	17.6	X	43.58101	14.55063	93.45470	9.32802	0.1815018	0.21484159	2.7609411	21	1 20.5	20.3
489440 2006 WK_{193}	18.4	X	203.12100	154.63160	203.72013	1.53038	0.2072142	0.29845967	2.2175782	21	3 10.9	21.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489441 2006 WW_{198}	17.9	X	28.03882	14.51975	50.99925	2.07995	0.1688569	0.27114591	2.3641082	21	—	—
489442 2006 XM_{13}	17.2	X	72.50142	165.16267	262.67828	9.23942	0.1451465	0.21516455	2.7581776	21	1 13.6	20.4
489443 2006 XW_{33}	16.8	X	108.08901	325.74050	69.08870	9.74901	0.2120249	0.21683264	2.7440137	21	2 6.6	20.6
489444 2006 XL_{62}	16.6	X	33.65259	44.46745	98.27106	16.91418	0.0878054	0.21592081	2.7517336	21	2 20.8	20.1
489445 2006 XY_{63}	17.0	X	33.25912	243.10414	211.10293	16.20996	0.3267536	0.21171254	2.7880785	21	—	—
489446 2006 YN_5	16.3	X	245.76169	335.22199	73.71114	13.86276	0.2510865	0.17797562	3.1301300	21	6 21.2	21.5
489447 2006 YT_{28}	18.7	X	42.57106	82.62410	359.64452	2.92831	0.1680637	0.27674631	2.3321053	21	—	—
489448 2006 YL_{48}	17.5	X	251.63099	251.26797	311.46300	5.40277	0.0405830	0.26719197	2.3873739	21	—	—
489449 2006 YM_{54}	17.2	X	100.80236	325.76189	82.71986	3.97152	0.1853600	0.21343823	2.7730301	21	2 9.2	20.7
489450 2007 AN_{13}	16.5	X	233.03314	135.79721	287.95016	13.30895	0.2781294	0.17467434	3.1694559	21	6 27.5	21.9
489451 2007 BZ_2	18.2	X	165.47941	74.73349	81.86166	3.64611	0.0516724	0.30952109	2.1644251	21	9 4.9	20.8
489452 2007 BS_{21}	17.3	X	14.31696	43.64639	100.45089	7.64114	0.2124932	0.21042030	2.7994817	21	1 9.3	19.9
489453 2007 BX_{48}	20.0	X	107.30413	8.10629	303.04709	14.81117	0.3597845	0.60377406	1.3863932	21	—	—
489454 2007 BY_{60}	16.9	X	142.29199	297.82250	112.40909	10.39550	0.0586063	0.22058675	2.7127916	21	3 18.6	20.9
489455 2007 BV_{79}	18.2	X	161.63580	142.03427	338.83514	6.14055	0.0879276	0.30133525	2.2034478	21	7 9.7	21.2
489456 2007 BC_{81}	17.3	X	339.64690	93.88570	121.07715	5.20331	0.0092726	0.21557492	2.7546762	21	3 11.0	21.0
489457 2007 BW_{99}	17.5	X	48.45382	20.09253	93.65786	5.34125	0.1556680	0.21326485	2.7745328	21	2 6.9	20.4
489458 2007 CJ_1	16.7	X	319.46120	269.35173	323.29902	6.78053	0.1688467	0.21097298	2.7945904	21	2 11.4	20.4
489459 2007 CS_{27}	17.2	X	37.04166	354.13410	111.10956	14.18541	0.2006031	0.20974574	2.8054807	21	1 3.9	19.9
489460 2007 CE_{37}	17.4	X	335.69146	244.40278	321.70419	6.33511	0.1582612	0.21052107	2.7985882	21	2 2.2	20.9
489461 2007 CY_{64}	17.8	X	131.75183	293.25162	223.34667	1.82216	0.1379443	0.23240033	2.6200619	21	7 25.3	21.6
489462 2007 CV_{73}	18.1	X	260.90049	275.99818	129.97459	0.49620	0.0592475	0.23811246	2.5779904	21	7 29.0	21.4
489463 2007 DX_8	18.2	X	114.10757	94.26584	107.78922	4.03235	0.1137756	0.30409781	2.1900827	21	9 8.7	21.1
489464 2007 DP_{16}	17.1	X	37.74774	118.25186	345.75187	14.20891	0.1038980	0.20573243	2.8418482	21	1 8.3	20.7
489465 2007 DY_{27}	16.7	X	11.95925	106.89481	6.32881	7.94319	0.0478566	0.19939646	2.9017351	21	—	—
489466 2007 DD_{31}	18.2	X	189.61889	150.98601	341.11120	5.32774	0.0560065	0.30575980	2.1821392	21	8 29.7	20.9
489467 2007 DO_{38}	18.4	X	100.86301	156.80243	0.50317	6.46939	0.1260324	0.29185159	2.2509266	21	6 18.5	21.2
489468 2007 DN_{62}	18.3	X	314.48624	127.81500	8.87416	5.36368	0.1216210	0.26379352	2.4078345	21	—	—
489469 2007 DF_{67}	18.3	X	4.71974	268.11822	3.36734	4.89996	0.2076552	0.29155365	2.2524599	21	6 27.3	19.5
489470 2007 DK_{71}	18.3	X	56.07956	240.86220	24.81143	2.86995	0.1255805	0.30152465	2.2025250	21	9 24.4	20.5
489471 2007 DS_{75}	18.3	X	312.92637	118.87414	16.26189	2.31395	0.1439638	0.26082446	2.4260728	21	—	—
489472 2007 DH_{83}	16.7	X	260.65656	119.56609	308.52531	14.41940	0.2606955	0.17733478	3.1376665	21	7 28.6	21.4
489473 2007 DW_{95}	16.6	X	6.52009	6.34395	152.06207	15.92704	0.0777600	0.20606874	2.8387554	21	1 27.0	20.2
489474 2007 DL_{115}	18.3	X	162.57703	18.84049	149.98270	0.95828	0.0644471	0.30619774	2.1800581	21	9 16.4	20.9
489475 2007 ER_4	16.7	X	253.22894	92.07941	329.96096	12.16929	0.3138848	0.17533280	3.1615055	21	7 10.5	22.0
489476 2007 EU_9	15.9	X	251.71509	309.37727	313.79050	14.00368	0.1220700	0.20316413	2.8657482	21	1 14.3	20.5
489477 2007 EU_{47}	18.2	X	59.84056	251.81574	4.28641	6.49177	0.1367970	0.29820090	2.2188609	21	9 17.4	20.6
489478 2007 ET_{89}	16.3	X	224.34852	315.04032	333.65397	14.24321	0.1335968	0.20347274	2.8628498	21	1 19.6	21.0
489479 2007 EL_{136}	17.8	X	14.32227	102.04145	181.50619	6.38265	0.1026435	0.22707003	2.6609058	21	7 30.3	20.9
489480 2007 EF_{151}	18.6	X	129.39084	36.16922	134.16537	3.75662	0.1008221	0.29949259	2.2124765	21	8 9.9	21.5
489481 2007 EZ_{161}	17.1	X	14.42082	338.71064	178.23959	4.86840	0.1555469	0.21006249	2.8026597	21	1 31.1	20.1
489482 2007 ED_{162}	18.4	X	91.03008	211.59117	323.90652	6.37812	0.0841118	0.29596370	2.2300285	21	6 25.2	21.0
489483 2007 EC_{190}	16.7	X	211.91399	304.56050	341.58702	7.46813	0.1688620	0.19605119	2.9346506	21	1 4.9	21.7
489484 2007 EJ_{219}	17.0	X	297.64127	14.15991	201.87027	9.55884	0.1612099	0.19712062	2.9240268	21	—	—
489485 2007 FQ_{31}	17.0	X	26.52585	293.28964	200.34614	13.75732	0.1403050	0.20227045	2.8741831	21	1 22.2	20.6
489486 2007 GS_3	19.4	X	304.24243	61.06256	215.40035	15.08883	0.1290525	0.90154143	1.0612367	21	—	—
489487 2007 GV_{38}	16.6	X	197.81971	213.95613	38.86544	9.63753	0.0968815	0.18368144	3.0649674	21	—	—
489488 2007 GE_{46}	18.7	X	37.97249	232.81577	57.08948	3.49888	0.1519778	0.29545191	2.2326031	21	10 7.1	20.9
489489 2007 GN_{59}	17.4	X	250.96924	229.51634	24.19566	6.08920	0.2088581	0.19157803	2.9801555	21	—	—
489490 2007 GA_{62}	16.2	X	263.61346	293.88762	242.44578	7.00024	0.0726939	0.18333433	3.0688349	21	—	—
489491 2007 GJ_{64}	18.9	X	56.68578	232.29582	54.12634	1.87589	0.1870170	0.29786714	2.2205181	21	11 2.4	21.4
489492 2007 GW_{75}	18.4	X	45.67777	189.21270	81.51635	5.59242	0.2502201	0.29166104	2.2519069	21	10 8.9	21.0
489493 2007 HL_{20}	18.6	X	46.29188	335.09933	213.00142	1.67091	0.1222205	0.28214900	2.3022388	21	5 6.1	20.4
489494 2007 HW_{73}	18.3	X	87.10083	141.71435	52.70696	4.35222	0.0667383	0.29012301	2.2598586	21	7 15.2	20.9
489495 2007 JA_7	17.2	X	347.73868	170.15708	224.95189	10.11653	0.1664149	0.23794608	2.5791920	21	11 29.8	19.7
489496 2007 JS_8	18.2	X	353.51281	262.25773	67.46549	2.52833	0.2328181	0.29108189	2.2548929	21	9 19.6	19.2
489497 2007 JM_{14}	16.7	X	266.93200	188.38680	42.03466	13.79188	0.1457302	0.19142524	2.9817410	21	—	—
489498 2007 JP_{45}	18.2	X	50.75239	201.19158	69.97923	6.34571	0.2381032	0.29254364	2.2473753	21	10 14.4	20.9
489499 2007 LG_{10}	16.2	X	291.99645	79.19733	125.49938	13.23910	0.1400315	0.19068098	2.9894948	21	—	—
489500 2007 LY_{11}	17.6	X	267.25268	286.11188	83.52121	8.82862	0.0954250	0.28433299	2.2904345	21	6 10.5	20.4
489501 2007 LD_{17}	18.6	X	33.31207	146.84814	120.47956	1.19539	0.2059446	0.28916461	2.2648492	21	9 1.6	20.6
489502 2007 LF_{22}	16.7	X	264.75236	26.19641	218.02461	18.52202	0.2763056	0.19048607	2.9915337	21	—	—
489503 2007 LR_{28}	16.5	X	221.39569	139.70594	115.60974	11.32133	0.0655470	0.18407220	3.0606282	21	—	—
489504 2007 MU_8	18.4	X	327.29729	265.43962	209.91012	20.87763	0.0576214	0.38979678	1.8559968	21	—	—
489505 2007 MK_{14}	18.1	X	327.62474	259.41555	227.82531	20.07338	0.0527862	0.38981899	1.8559263	21	—	—
489506 2007 ME_{24}	17.9	X	166.18509	168.59610	109.51390	36.48231	0.2198028	0.38520472	1.8707180	21	—	—
489507 2007 NJ_6	17.3	X	240.33747	333.19068	32.79754	12.93412	0.2703801	0.26699661	2.3885383	21	4 20.9	21.3
489508 2007 OL_{10}	18.8	X	17.88426	290.25336	6.34511	6.02450	0.3845694	0.28489350	2.2874294	21	10 21.2	20.6
489509 2007 PH_1	17.5	X	48.75596	98.74775	264.23218	10.36221	0.2196334	0.22771834	2.6558531	21	—	—
489510 2007 PS_8	17.3	X	79.69846	249.54487	141.49119	7.53890	0.4813365	0.23091362	2.6312958	21	1 29.7	19.6
489511 2007 PM_{21}	18.3	X	36.10263	6.41374	327.65250	18.10659	0.0623894	0.36244401	1.9482384	21	12 1.8	20.8
489512 2007 PT_{22}	17.7	X	341.28050	321.41768	0.55002	13.57832	0.3274932	0.27796459	2.3252861	21	7 14.2	19.0
489513 2007 PC_{35}	17.1	X	254.99783	21.04615	322.31940	11.62638	0.2838737	0.26468179	2.4024444	21	3 29.2	21.3
489514 2007 PY_{48}	18.0	X	337.79432	351.86553	323.68311	3.38202	0.2208893	0.27761791	2.3272215	21	7 1.2	19.5
489515 2007 PJ_{49}	17.3	X	278.72124	357.93070	344.91720	6.81854	0.1379340	0.27060915	2.3672333	21	5 9.9	20.5
489516 2007 PP_{49}	16.6	X	255.08367	277.20607	330.68057	7.60935	0.2087464	0.17907081	3.1173545	21	—	—
489517 2007 PF_{50}	16.4	X	186.80076	158.02299	173.66589	13.91818	0.1870115	0.17960111	3.1112151	21	2 4.7	21.8
489518 2007 QS_6	18.0	X	310.13069	194.23609	120.03765	2.33886	0.1995132	0.27224078	2.3577654	21	5 7.1	20.5
489519 2007 QZ_8	18.1	X	14.25378	329.65726	347.09457	1.24497	0.2372613	0.28499786	2.2868709	21	10 17.0	19.8
489520 2007 RG_9	17.3	X	288.04511	358.84555	349.62905	6.34062	0.2695928	0.27049356	2.3679077	21	5 10.6	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489521 2007 RN_{27}	17.1	X	29.93924	21.58846	279.05973	2.60000	0.0819768	0.21252488	2.7809693	21	9 14.8	20.5
489522 2007 RR_{31}	17.3	X	314.06581	73.58398	252.59977	6.14168	0.3256933	0.20368055	2.8609022	21	5 12.5	20.8
489523 2007 RD_{42}	17.9	X	11.17304	72.47589	223.18922	6.21997	0.1168480	0.27776230	2.3264149	21	8 15.0	20.1
489524 2007 RF_{42}	15.9	X	145.99626	125.82402	214.77829	9.32781	0.0693473	0.16876448	3.2430130	21	1 1.9	20.8
489525 2007 RG_{50}	18.1	X	43.12661	100.56394	229.60329	5.40351	0.3525611	0.22044885	2.7139228	21	12 22.2	22.0
489526 2007 RR_{51}	17.7	X	5.18281	177.32073	221.40311	6.14517	0.1846003	0.29184849	2.2509426	21	—	—
489527 2007 RR_{56}	17.9	X	165.79627	144.31564	210.30692	7.03004	0.1262477	0.24575875	2.5242366	21	1 30.8	21.7
489528 2007 RV_{64}	18.3	X	100.48505	50.32950	342.87547	4.11092	0.1619337	0.24103375	2.5571182	21	1 9.3	21.2
489529 2007 RX_{71}	18.3	X	331.64938	148.57223	148.99480	7.28082	0.2301168	0.27307398	2.3529670	21	5 16.7	20.4
489530 2007 RU_{73}	17.7	X	322.14557	317.93116	45.61363	0.89165	0.1928412	0.20879137	2.8140233	21	8 13.4	20.7
489531 2007 RG_{81}	17.2	X	71.45635	84.92400	236.83005	9.84327	0.2948434	0.22491652	2.6778637	21	12 31.0	21.7
489532 2007 RX_{127}	18.8	X	127.07939	2.15864	14.84826	3.61208	0.3649197	0.24036812	2.5618368	21	2 18.5	22.8
489533 2007 RH_{132}	17.6	X	278.41694	202.39779	138.69694	6.46517	0.2204272	0.26542050	2.3979847	21	5 1.6	21.1
489534 2007 RG_{147}	16.2	X	195.42593	308.60678	8.17830	13.18642	0.3553197	0.17756169	3.1349927	21	2 4.0	22.3
489535 2007 RS_{153}	14.1	X	5.10549	100.06459	314.26363	4.08708	0.0267434	0.08444377	5.1454613	21	12 5.2	20.8
489536 2007 RK_{157}	17.8	X	209.60958	212.22436	165.89627	9.36734	0.0800036	0.26039477	2.4287410	21	4 18.1	21.3
489537 2007 RK_{164}	17.6	X	311.61857	131.98350	280.17571	2.60811	0.0942997	0.21506603	2.7590199	21	10 11.9	21.0
489538 2007 RT_{166}	17.0	X	232.86334	220.97583	119.46989	2.43134	0.0714500	0.18748940	3.0233255	21	4 2.1	21.5
489539 2007 RJ_{167}	16.6	X	228.51573	127.61978	142.91599	3.88224	0.2331782	0.17680648	3.1439135	21	1 1.0	22.1
489540 2007 RO_{172}	16.4	X	139.57490	288.65908	27.31184	8.12166	0.1686967	0.16301703	3.3187973	21	—	—
489541 2007 RL_{204}	16.9	X	43.40711	276.53401	190.99473	27.46604	0.3900869	0.23412958	2.6071451	21	1 10.9	18.9
489542 2007 RM_{220}	16.7	X	334.29849	81.68663	2.88166	13.67552	0.1521518	0.22079110	2.7111175	21	—	—
489543 2007 RD_{221}	16.5	X	216.81528	289.66703	5.11881	10.82673	0.2460960	0.17551460	3.1593220	21	1 22.7	22.2
489544 2007 RM_{234}	17.8	X	52.91164	73.24415	346.05532	12.27529	0.2614691	0.23306582	2.6150721	21	—	—
489545 2007 RW_{258}	17.4	X	277.58323	318.97356	46.89895	8.22665	0.2405601	0.27103314	2.3647639	21	5 27.5	20.6
489546 2007 RB_{259}	16.9	X	200.30538	204.98260	216.57082	3.87673	0.2265710	0.18935715	3.0034120	21	6 1.4	22.1
489547 2007 RD_{264}	16.9	X	256.58067	51.21556	343.50695	11.95776	0.1392481	0.20041877	2.8918590	21	6 28.0	21.3
489548 2007 RC_{271}	17.5	X	314.61517	319.10363	354.41830	12.72393	0.1533155	0.26881623	2.3777474	21	5 15.6	20.5
489549 2007 RT_{286}	17.3	X	266.03388	10.48818	325.83452	6.12157	0.1266450	0.26687754	2.3892487	21	4 16.8	20.6
489550 2007 RT_{288}	16.9	X	201.62087	195.48790	246.42968	0.96201	0.2565654	0.18725251	3.0258748	21	6 25.8	22.1
489551 2007 RZ_{289}	16.9	X	174.93331	232.47558	200.20927	6.05019	0.1754142	0.18241999	3.0790809	21	5 25.7	22.1
489552 2007 RH_{292}	18.0	X	332.31939	252.01735	35.63711	3.07184	0.1485727	0.26790072	2.3831614	21	5 13.4	20.4
489553 2007 RF_{297}	16.9	X	312.67158	340.05716	23.74612	9.89934	0.1201211	0.20473893	2.8510342	21	8 9.8	20.5
489554 2007 RZ_{298}	18.0	X	351.28418	295.32252	6.42435	6.53768	0.2621686	0.27767122	2.3269237	21	7 14.8	19.2
489555 2007 RM_{311}	18.1	X	355.62630	178.85181	220.43305	14.72494	0.1979922	0.36231448	1.9487027	21	—	—
489556 2007 RN_{323}	18.0	X	287.13062	325.11293	24.61255	6.58758	0.1428714	0.26631001	2.3926420	21	6 1.1	21.1
489557 2007 SP_{11}	16.7	X	92.37128	66.38768	24.34949	30.52687	0.2634984	0.23330509	2.6132838	21	4 6.6	20.1
489558 2007 SW_{21}	17.4	X	307.15004	325.30790	353.73110	11.77313	0.2327681	0.26885696	2.3775073	21	4 27.8	20.4
489559 2007 TV_{2}	17.1	X	55.75318	128.30581	9.94211	4.16121	0.0257828	0.17992218	3.1075127	21	3 17.2	21.2
489560 2007 TG_{11}	17.1	X	4.59450	44.97677	18.13799	15.84695	0.2691250	0.22069722	2.7118863	21	—	—
489561 2007 TA_{18}	16.9	X	221.91380	61.39871	344.14772	0.65878	0.1756537	0.18934387	3.0035524	21	6 1.8	21.8
489562 2007 TU_{21}	17.8	X	252.82825	283.23983	85.95227	3.60143	0.2069611	0.26485943	2.4013701	21	5 11.5	21.4
489563 2007 TB_{27}	18.2	X	332.04020	282.07208	27.63713	1.82214	0.1824753	0.27101112	2.3648920	21	6 12.2	20.2
489564 2007 TY_{28}	17.9	X	297.94656	133.01413	210.97948	4.25539	0.1735269	0.26825047	2.3810895	21	6 5.1	20.5
489565 2007 TZ_{29}	17.6	X	151.17704	2.37795	28.74629	13.81747	0.0489014	0.24588444	2.5233763	21	3 2.4	21.2
489566 2007 TK_{30}	16.6	X	233.26134	330.55639	33.69893	3.28353	0.3044952	0.18808471	3.0169426	21	4 16.4	21.8
489567 2007 TE_{34}	17.6	X	126.56449	321.63359	34.81502	5.03591	0.2420983	0.23612111	2.5924646	21	1 9.7	21.2
489568 2007 TR_{37}	17.9	X	31.15336	237.19739	180.40176	4.02614	0.2286497	0.22704690	2.6610866	21	—	—
489569 2007 TU_{38}	17.8	X	71.41128	238.94579	203.26419	5.38001	0.2925220	0.23525245	2.5988424	21	2 16.2	20.1
489570 2007 TR_{58}	17.5	X	128.95588	21.68307	0.63117	15.04247	0.1211669	0.24456566	2.5324394	21	1 31.7	21.1
489571 2007 TC_{60}	16.6	X	260.63805	354.28053	22.11483	9.72579	0.0783396	0.19245034	2.9711432	21	6 15.1	20.9
489572 2007 TK_{61}	18.0	X	282.77954	242.16959	123.57286	0.66509	0.2184925	0.26904313	2.3764104	21	6 7.1	20.9
489573 2007 TM_{61}	17.8	X	343.88566	292.62366	30.45744	9.91019	0.2541944	0.27566915	2.3381764	21	8 6.1	19.2
489574 2007 TP_{65}	17.7	X	224.21829	60.87351	309.27561	5.50395	0.1271392	0.25796188	2.4439878	21	4 16.7	21.4
489575 2007 TT_{66}	17.6	X	27.07615	143.35773	233.88852	4.81719	0.2784372	0.22027787	2.7153270	21	—	—
489576 2007 TW_{75}	17.4	X	313.12136	295.67339	21.71700	11.23177	0.2610043	0.26894782	2.3769718	21	5 2.2	20.2
489577 2007 TE_{83}	18.0	X	354.91266	68.48926	14.79504	15.17507	0.2090002	0.22399866	2.6851740	21	—	—
489578 2007 TF_{84}	16.2	X	181.55194	201.86616	220.08296	12.56941	0.2018624	0.18416058	3.0596489	21	5 18.6	21.3
489579 2007 TH_{88}	17.6	X	311.50991	284.87527	52.72334	9.14885	0.1503650	0.26892449	2.3771093	21	6 21.3	20.2
489580 2007 TZ_{94}	17.7	X	317.55603	26.04542	33.91667	21.57522	0.0864677	0.35634249	1.9704147	21	11 30.6	19.6
489581 2007 TB_{100}	17.0	X	168.02044	254.96276	131.72609	2.86731	0.2052114	0.17847905	3.1242412	21	3 28.3	22.1
489582 2007 TM_{103}	18.1	X	135.54678	157.82208	207.32245	13.60954	0.2657994	0.23865193	2.5741040	21	1 27.5	22.3
489583 2007 TK_{105}	17.9	X	312.51978	129.66805	200.26689	4.95183	0.1645791	0.27082753	2.3659606	21	6 9.6	20.4
489584 2007 TS_{110}	16.4	X	167.51991	186.96753	229.50812	12.93712	0.2955812	0.18246696	3.0785524	21	5 2.9	22.0
489585 2007 TG_{122}	17.7	X	172.51831	218.92577	156.51427	2.16674	0.0726957	0.24743843	2.5128002	21	3 2.8	21.2
489586 2007 TP_{122}	16.7	X	155.62514	265.38769	122.54794	2.21079	0.1849557	0.17463947	3.1698676	21	3 18.4	21.7
489587 2007 TC_{126}	17.1	X	207.70610	208.00546	200.08207	3.63588	0.1530032	0.18732514	3.0250926	21	5 24.7	22.1
489588 2007 TD_{126}	18.2	X	304.36781	160.47985	193.18946	0.89952	0.2089231	0.27133157	2.3630296	21	6 23.4	20.7
489589 2007 TW_{129}	17.5	X	328.63518	38.24388	38.10830	9.18553	0.2150120	0.21426305	2.7659088	21	12 12.4	20.0
489590 2007 TW_{136}	16.4	X	59.03350	110.77980	244.86832	11.56717	0.2888575	0.22490301	2.6779710	21	—	—
489591 2007 TM_{137}	16.9	X	338.19503	180.92374	237.73643	8.71696	0.2761405	0.21362480	2.7714153	21	12 13.9	18.9
489592 2007 TP_{140}	17.8	X	357.63779	241.04151	76.01979	3.02695	0.1942176	0.27654466	2.3332388	21	9 1.5	19.4
489593 2007 TJ_{148}	17.6	X	12.86044	271.61955	31.56626	9.28177	0.2334280	0.27989126	2.3146029	21	9 24.4	19.3
489594 2007 TA_{150}	17.1	X	221.36556	156.30808	229.42355	5.95851	0.1497798	0.26225138	2.4172646	21	5 5.4	20.9
489595 2007 TT_{152}	17.7	X	59.38631	93.47683	258.14937	2.62395	0.2992753	0.22447543	2.6813706	21	—	—
489596 2007 TN_{160}	16.2	X	213.21625	10.29816	30.32711	19.53380	0.2769557	0.18599779	3.0394677	21	5 11.7	21.7
489597 2007 TV_{161}	17.9	X	14.40072	16.07840	26.84179	8.44585	0.1570062	0.29343175	2.2428384	21	—	—
489598 2007 TK_{163}	17.4	X	210.72964	4.69956	42.98512	5.25134	0.1945735	0.26061086	2.4273983	21	5 21.6	21.4
489599 2007 TN_{165}	15.9	X	172.84455	216.37084	224.91391	15.39804	0.2939746	0.18184801	3.0855341	21	6 4.8	21.6
489600 2007 TR_{168}	17.7	X	214.21610	30.21666	339.55202	2.07752	0.2120122	0.25634233	2.4542709	21	4 6.6	21.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489601 2007 TQ_{170}	16.8	X	112.39319	171.38316	248.98491	12.93042	0.2410262	0.23912304	2.5707219	21	3 6.9	20.7
489602 2007 TT_{175}	15.8	X	77.41489	289.83986	219.09190	15.32753	0.1966116	0.17683407	3.1435865	21	5 22.9	20.1
489603 Kurtschreckling	17.5	X	296.14308	176.78694	199.66336	1.13177	0.2080909	0.20297762	2.8675034	21	7 13.2	21.2
489604 2007 TR_{190}	17.7	X	69.33943	305.58436	334.11229	2.80979	0.1665352	0.21783230	2.7356122	21	10 24.4	21.5
489605 2007 TR_{194}	18.3	X	39.60720	7.94503	31.90156	5.35384	0.1210924	0.22494878	2.6776077	21	—	—
489606 2007 TP_{195}	18.0	X	335.84319	272.16776	25.43815	3.60949	0.1281612	0.26657171	2.3910758	21	6 7.9	20.2
489607 2007 TY_{197}	16.5	X	167.54268	38.89542	3.43645	6.66304	0.1564517	0.17964896	3.1106627	21	4 10.6	21.5
489608 2007 TL_{202}	18.6	X	129.70934	194.38279	166.26662	2.49689	0.2214683	0.23665488	2.5885650	21	1 14.4	22.3
489609 2007 TJ_{215}	18.4	X	113.91119	352.35844	17.63789	7.48363	0.3072577	0.23530553	2.5984516	21	1 22.7	22.0
489610 2007 TP_{219}	16.8	X	200.74684	334.14590	44.82724	2.38331	0.2019949	0.18598239	3.0396355	21	4 12.9	22.0
489611 2007 TO_{224}	17.8	X	19.80945	235.58970	58.93598	4.73832	0.2551300	0.27854753	2.3220408	21	9 28.4	19.6
489612 2007 TV_{225}	18.3	X	8.29166	286.61746	30.76475	3.65383	0.2575287	0.27988193	2.3146543	21	10 8.5	19.7
489613 2007 TN_{234}	16.3	X	203.86743	268.38633	52.60706	20.45824	0.2329529	0.17228098	3.1987318	21	2 17.7	22.2
489614 2007 TO_{242}	17.1	X	8.70188	15.45771	357.50520	10.86864	0.3247867	0.21630041	2.7485131	21	12 26.7	20.2
489615 2007 TZ_{246}	18.0	X	331.08843	256.59841	44.12241	9.72594	0.3261858	0.27043608	2.3682432	21	4 29.4	19.9
489616 2007 TJ_{256}	17.4	X	307.28937	269.04371	37.54055	13.51847	0.2071401	0.26477235	2.4018965	21	4 21.3	20.2
489617 2007 TY_{268}	16.4	X	127.88842	81.02282	32.04362	11.23833	0.3108015	0.17951931	3.1121602	21	6 9.9	21.9
489618 2007 TB_{277}	18.3	X	340.15896	184.56368	236.26396	4.01450	0.1470708	0.28944185	2.2634027	21	—	—
489619 2007 TC_{278}	18.6	X	328.01172	195.15688	226.39304	2.43025	0.1853541	0.28636923	2.2795642	21	12 15.4	20.0
489620 2007 TO_{281}	16.9	X	237.87056	52.10155	357.01683	10.92944	0.1295758	0.19631029	2.9320678	21	6 26.2	21.5
489621 2007 TW_{300}	16.6	X	224.03104	161.80855	231.58699	6.62696	0.1102138	0.18809808	3.0167997	21	5 24.3	21.3
489622 2007 TS_{308}	16.7	X	153.00540	84.02819	320.12440	3.62203	0.1367910	0.18139770	3.0906384	21	3 28.7	21.5
489623 2007 TR_{310}	17.2	X	330.73934	212.73316	169.78310	4.38955	0.1128885	0.20886003	2.8134066	21	10 3.3	20.2
489624 2007 TE_{318}	18.4	X	245.87267	187.06110	192.10397	1.99415	0.1929267	0.26181451	2.4199529	21	5 18.6	22.0
489625 2007 TU_{323}	16.1	X	24.53949	68.79681	357.16288	9.28974	0.0720820	0.15462724	3.4377851	21	—	—
489626 2007 TE_{324}	18.1	X	166.94092	57.00230	289.07751	4.64927	0.1663915	0.24216294	2.5491629	21	1 27.2	21.9
489627 2007 TJ_{334}	17.1	X	213.98472	24.89307	33.14190	10.80531	0.0922555	0.18852760	3.0122158	21	6 13.2	21.9
489628 2007 TV_{335}	17.6	X	210.27285	185.44522	211.49754	5.89693	0.1248044	0.26286337	2.4135113	21	5 10.4	21.2
489629 2007 TZ_{345}	16.7	X	148.41831	356.94206	45.11600	6.48669	0.1704772	0.17686516	3.1432182	21	3 28.6	21.7
489630 2007 TE_{355}	16.7	X	25.98953	300.35771	62.29992	14.12177	0.2767329	0.21851878	2.7298799	21	12 31.2	20.3
489631 2007 TN_{361}	17.6	X	119.53318	1.36906	52.92313	8.49279	0.1006026	0.24031948	2.5621826	21	2 26.6	21.1
489632 2007 TE_{367}	17.0	X	52.25553	63.53923	17.46466	30.35397	0.2808125	0.23430766	2.6058239	21	—	—
489633 2007 TE_{369}	17.9	X	61.56891	49.75299	26.28933	15.29539	0.1495301	0.23333729	2.6130434	21	1 2.9	21.0
489634 2007 TR_{386}	17.2	X	227.85841	15.35212	29.33426	0.96981	0.1794294	0.18918516	3.0052320	21	6 5.9	21.9
489635 2007 TO_{391}	16.9	X	338.85958	193.37110	203.00446	7.82587	0.2200874	0.21262545	2.7800923	21	11 8.9	19.3
489636 2007 TN_{395}	16.1	X	302.19781	112.48787	242.75290	11.00406	0.0750330	0.19751785	2.9201051	21	7 11.9	20.1
489637 2007 TA_{413}	16.9	X	331.24942	352.50579	47.76297	13.81382	0.3010220	0.21225577	2.7833194	21	10 26.6	18.7
489638 2007 TY_{417}	16.6	X	202.91254	240.41082	146.04984	22.79441	0.2356851	0.25506631	2.4624494	21	4 25.5	21.3
489639 2007 TC_{424}	17.6	X	94.60507	309.14242	116.69284	4.95878	0.2625514	0.23870479	2.5737240	21	3 2.9	20.7
489640 2007 TT_{425}	16.9	X	170.27358	62.04280	53.40853	8.76060	0.1309171	0.18898704	3.0073320	21	7 12.1	21.8
489641 2007 TO_{427}	17.4	X	73.78430	231.65275	57.25397	5.76772	0.1356641	0.21208694	2.7847963	21	11 6.8	21.3
489642 2007 TQ_{427}	15.9	X	230.35358	69.25097	213.54519	25.24255	0.2775616	0.17256422	3.1952307	21	1 10.1	22.0
489643 2007 TH_{436}	17.6	X	288.49223	213.23352	109.85101	2.47217	0.2003479	0.26635351	2.3923815	21	4 20.3	20.7
489644 2007 TP_{437}	17.7	X	26.34381	101.18755	317.60077	1.78723	0.2806509	0.22624691	2.6673558	21	—	—
489645 2007 TL_{443}	17.9	X	329.55904	212.05721	120.95083	3.70546	0.2581386	0.27435933	2.3456123	21	7 3.9	19.5
489646 2007 TD_{444}	17.8	X	329.33335	284.48541	27.74273	5.52528	0.2186548	0.27215926	2.3582362	21	6 3.3	19.9
489647 2007 UA_{10}	17.6	X	336.01241	182.25369	147.21821	7.34146	0.2556105	0.27639760	2.3340664	21	7 15.9	18.8
489648 2007 US_{13}	17.9	X	353.56344	243.45671	34.61933	7.24028	0.1101248	0.27134577	2.3629472	21	6 13.1	20.3
489649 2007 UG_{17}	17.3	X	263.45552	357.95336	22.30003	2.04882	0.0977570	0.19601140	2.9350477	21	6 21.8	21.5
489650 2007 UX_{19}	18.1	X	343.37899	85.55477	200.21974	2.76562	0.1944196	0.26958053	2.3732512	21	5 27.8	19.8
489651 2007 UB_{23}	17.7	X	320.10396	260.64555	80.09041	3.02217	0.2015242	0.27194760	2.3594597	21	7 4.9	19.9
489652 2007 UP_{25}	16.9	X	337.10701	22.09860	45.26020	14.61871	0.1889819	0.21417326	2.7666818	21	12 16.4	19.8
489653 2007 UD_{36}	18.1	X	67.00711	215.05944	146.69805	3.70340	0.1903041	0.29871688	2.2163051	21	—	—
489654 2007 UA_{38}	16.0	X	106.43704	246.96235	228.02803	25.05945	0.2096711	0.17540842	3.1605967	21	5 16.1	20.7
489655 2007 UY_{52}	18.1	X	89.42429	130.80228	242.90510	0.66957	0.1760640	0.23037187	2.6354195	21	—	—
489656 2007 UP_{53}	17.6	X	299.86924	255.45625	37.70696	4.77876	0.2610704	0.25992599	2.4316603	21	3 17.9	20.9
489657 2007 UH_{69}	17.1	X	317.82731	327.72682	52.49778	2.99649	0.0818341	0.20435343	2.8546186	21	9 11.1	20.6
489658 2007 UK_{87}	17.5	X	47.06119	313.21875	42.24872	8.50706	0.3137923	0.21965510	2.7204569	21	—	—
489659 2007 UB_{90}	16.3	X	77.56512	275.17472	224.18731	14.78660	0.2127212	0.17416949	3.1755674	21	5 13.2	20.6
489660 2007 UQ_{97}	16.8	X	254.42925	281.44937	45.55918	2.24766	0.2105113	0.18427446	3.0583883	21	3 27.3	21.6
489661 2007 UF_{98}	17.3	X	181.97112	320.10252	58.90539	0.19722	0.2016582	0.17643441	3.1483320	21	3 29.5	22.5
489662 2007 UG_{104}	18.5	X	103.92887	176.20374	202.21826	3.92412	0.2712065	0.23241396	2.6199595	21	1 12.8	21.7
489663 2007 UH_{105}	18.6	X	273.84671	284.43174	159.96805	2.40762	0.1905569	0.27460388	2.3442195	21	9 21.9	21.2
489664 2007 UW_{115}	18.1	X	57.71879	143.72920	249.18981	2.37547	0.1888071	0.22551916	2.6730911	21	—	—
489665 2007 UW_{121}	17.6	X	19.29345	250.54741	57.67953	5.16890	0.2352812	0.27858901	2.3218103	21	10 14.7	19.5
489666 2007 UL_{122}	18.2	X	122.98631	150.21165	220.52410	9.06657	0.2143001	0.23610574	2.5925771	21	1 16.5	21.9
489667 2007 UQ_{122}	17.4	X	194.66449	162.92076	238.37262	2.81484	0.2513483	0.18140061	3.0906054	21	5 3.7	22.9
489668 2007 UU_{128}	16.1	X	185.25395	270.82027	36.22765	25.97748	0.2118897	0.16939155	3.2350045	21	1 14.5	22.0
489669 2007 UG_{129}	16.9	X	228.58326	331.51766	90.04383	2.79680	0.2135644	0.18652611	3.0337256	21	6 25.0	21.7
489670 2007 UJ_{135}	17.5	X	357.88935	318.69955	56.79923	5.44916	0.1251590	0.21410912	2.7672343	21	11 10.9	20.7
489671 2007 UO_{141}	18.4	X	334.20984	179.52488	240.71396	7.96543	0.2587278	0.21254444	2.7807987	21	12 4.0	20.4
489672 2007 VH_{10}	17.8	X	141.47594	254.62795	55.95238	25.93233	0.1416649	0.37259443	1.9126924	21	—	—
489673 2007 VE_{15}	19.0	X	78.49322	133.63485	340.63071	2.35682	0.0773627	0.31477611	2.1402682	21	2 27.2	20.8
489674 2007 VB_{28}	17.4	X	83.46685	169.93487	196.97912	5.65807	0.0442839	0.22547213	2.6734627	21	—	—
489675 2007 VH_{34}	17.2	X	247.12956	94.34386	49.75765	9.96264	0.1323561	0.21066217	2.7973384	21	11 5.1	21.0
489676 2007 VT_{46}	16.9	X	192.04569	74.66350	334.86904	3.97983	0.1345256	0.18322673	3.0700362	21	5 10.6	21.9
489677 2007 VH_{47}	17.9	X	94.15331	84.94713	358.74295	4.13813	0.1225936	0.24095041	2.5577078	21	3 2.5	20.9
489678 2007 VZ_{47}	17.5	X	104.26600	179.62335	259.79185	7.22212	0.0576962	0.24277139	2.5449019	21	2 24.1	21.0
489679 2007 VK_{48}	17.1	X	210.54856	109.41632	328.48871	4.23713	0.2717830	0.18934578	3.0035323	21	6 27.4	22.4
489680 2007 VQ_{56}	17.7	X	61.25137	330.65005	109.27175	4.44050	0.1830343	0.23267316	2.6180134	21	1 9.6	20.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489681 2007 VS_{56}	17.8	X	343.19128	217.18924	206.93139	8.36103	0.1429753	0.21477897	2.7614778	21	12 22.2	20.9
489682 2007 VV_{64}	18.1	X	64.81162	29.45115	53.75462	7.49618	0.2831004	0.23192655	2.6236289	21	2 8.3	20.4
489683 2007 VG_{74}	17.5	X	312.55678	72.63333	61.87218	2.24560	0.0336087	0.22416833	2.6838189	21	—	—
489684 2007 VH_{77}	16.8	X	248.61706	276.78933	55.19477	8.35587	0.1912059	0.18279474	3.0748711	21	4 1.3	21.8
489685 2007 VY_{85}	17.9	X	100.03714	115.32871	227.11126	19.98146	0.0984156	0.37134866	1.9169678	21	—	—
489686 2007 VH_{88}	17.8	X	77.59084	153.85921	250.40868	17.98752	0.0850931	0.37434299	1.9067317	21	—	—
489687 2007 VU_{89}	17.6	X	19.34852	255.97704	147.11156	2.36131	0.2719592	0.21972440	2.7198849	21	—	—
489688 2007 VY_{94}	17.2	X	337.39204	63.76235	4.34429	8.40187	0.2105342	0.21438565	2.7648542	21	12 21.3	20.0
489689 2007 VS_{96}	18.4	X	44.64230	45.79466	347.02090	4.06918	0.1727384	0.29528574	2.2334406	21	—	—
489690 2007 VP_{98}	18.0	X	15.57636	147.30263	247.17192	5.38000	0.1847719	0.29011205	2.2599155	21	—	—
489691 2007 VW_{99}	17.2	X	128.26683	159.30512	246.28832	12.01251	0.2609077	0.24092921	2.5578579	21	3 8.2	21.3
489692 2007 VK_{106}	18.0	X	3.73613	41.34492	26.68808	1.91226	0.0674661	0.22010486	2.7167497	21	—	—
489693 2007 VH_{107}	17.8	X	54.01175	80.95357	52.60990	3.16800	0.1686133	0.23972074	2.5664470	21	3 12.6	20.2
489694 2007 VN_{108}	17.7	X	337.37697	62.64116	232.89432	5.04749	0.1308797	0.26305792	2.4123212	21	6 8.2	19.9
489695 2007 VA_{113}	18.1	X	330.49895	282.35239	62.31058	6.62269	0.2654056	0.27376379	2.3490128	21	7 30.2	19.5
489696 2007 VC_{119}	18.0	X	56.00468	64.89586	51.91882	14.61782	0.1428297	0.23571086	2.5954718	21	2 25.5	21.1
489697 2007 VK_{120}	18.0	X	325.31600	135.60928	167.21986	2.82753	0.1940199	0.26873175	2.3782457	21	5 17.4	20.2
489698 2007 VY_{123}	18.1	X	333.07387	227.10275	197.66801	2.61920	0.2757514	0.21281444	2.7784462	21	12 8.9	20.1
489699 2007 VG_{124}	17.6	X	73.81898	202.67076	233.69859	1.62599	0.1649946	0.23385375	2.6091947	21	1 25.6	20.4
489700 2007 VK_{125}	17.8	X	36.02828	282.54807	66.97523	23.76909	0.0364275	0.35681399	1.9686785	21	12 19.6	19.9
489701 2007 VV_{135}	16.2	X	321.35017	330.46432	282.04913	26.83021	0.0971746	0.23903150	2.5713782	21	2 28.3	20.2
489702 2007 VL_{155}	18.0	X	70.37049	212.97479	257.25012	5.58747	0.2397406	0.23844925	2.5755624	21	3 15.9	20.7
489703 2007 VR_{157}	16.4	X	140.13993	188.72490	215.37902	12.00079	0.1186910	0.17084831	3.2165891	21	3 13.6	21.5
489704 2007 VY_{158}	18.5	X	322.52310	297.15606	126.53844	3.52731	0.0966967	0.28271158	2.2991836	21	12 2.7	20.6
489705 2007 VK_{160}	17.0	X	247.51184	340.24579	98.26916	6.74374	0.0221661	0.19798311	2.9155284	21	8 30.2	21.1
489706 2007 VG_{171}	18.2	X	158.76743	346.86209	13.72809	5.55562	0.2507086	0.24203625	2.5500524	21	2 15.6	22.4
489707 2007 VQ_{177}	17.6	X	90.68505	246.72187	175.63733	3.63845	0.3151598	0.23596112	2.5936363	21	2 27.5	20.5
489708 2007 VL_{183}	18.2	X	68.20857	109.84671	336.82048	4.59738	0.3071868	0.23412070	2.6072110	21	2 21.4	20.3
489709 2007 VH_{202}	16.2	X	212.94150	339.11731	27.96546	9.38234	0.3095857	0.18214991	3.0821237	21	4 7.2	21.7
489710 2007 VK_{213}	18.5	X	282.61693	305.01461	132.81625	2.89533	0.1816688	0.27662630	2.3327797	21	9 29.7	20.8
489711 2007 VU_{215}	16.3	X	157.15302	191.52982	260.80275	8.63316	0.0558948	0.18158335	3.0885315	21	5 26.4	20.8
489712 2007 VY_{230}	16.9	X	281.21134	349.18169	49.08655	2.62127	0.1063558	0.19740677	2.9212004	21	8 7.5	20.7
489713 2007 VD_{237}	17.0	X	163.31662	65.54578	52.10521	12.31601	0.1515004	0.18703614	3.0282080	21	7 8.5	22.0
489714 2007 VR_{237}	17.9	X	339.06669	256.61603	53.98249	4.45005	0.2567829	0.27009648	2.3702278	21	6 19.5	19.3
489715 2007 VP_{239}	16.7	X	258.29062	275.20363	109.66200	1.76781	0.2421035	0.19184084	2.9774330	21	6 4.6	21.5
489716 2007 VX_{242}	17.7	X	107.32290	274.39649	98.48251	3.13752	0.1094292	0.23329270	2.6133763	21	—	—
489717 2007 VA_{243}	18.6	X	250.70804	324.77403	149.55137	2.69357	0.1236578	0.27848405	2.3223937	21	10 12.9	21.5
489718 2007 VK_{245}	18.0	X	78.37495	293.84911	60.58598	22.51462	0.1115787	0.36660537	1.9334673	21	—	—
489719 2007 VH_{253}	16.9	X	306.83725	256.77668	80.21623	15.75206	0.1845841	0.26675133	2.3900023	21	6 7.2	19.3
489720 2007 VE_{278}	17.9	X	283.24860	267.80213	90.25586	1.49142	0.2271164	0.26666107	2.3905416	21	5 26.8	20.8
489721 2007 VD_{290}	18.1	X	141.64724	107.12438	242.93736	3.33645	0.2261930	0.23460569	2.6036165	21	1 14.6	22.1
489722 2007 VP_{290}	17.9	X	102.53226	207.43066	226.23363	0.92062	0.1144419	0.23845949	2.5754886	21	2 26.9	21.0
489723 2007 VS_{314}	17.9	X	55.79355	201.44452	270.30445	6.17727	0.2457604	0.23088184	2.6315373	21	2 18.3	20.2
489724 2007 VU_{314}	17.8	X	144.11558	284.29594	73.15479	3.23954	0.2424244	0.23648643	2.5897941	21	1 28.8	21.7
489725 2007 VH_{315}	16.9	X	158.40300	167.38012	280.70337	1.19517	0.0998648	0.17961719	3.1110295	21	5 25.3	21.8
489726 2007 VT_{320}	16.5	X	214.96668	11.86045	32.39811	18.59543	0.2167336	0.18694165	3.0292283	21	5 19.4	21.8
489727 2007 VB_{325}	17.8	X	111.72770	69.17500	348.42400	2.35687	0.1654775	0.23909251	2.5709407	21	2 26.5	21.0
489728 2007 WT_{14}	17.9	X	70.84741	56.84074	76.52082	6.75073	0.2684613	0.23987309	2.5653602	21	4 30.1	20.6
489729 2007 WS_{32}	17.6	X	60.72520	113.06523	268.93302	6.97978	0.2981505	0.22453912	2.6808635	21	—	—
489730 2007 WM_{58}	17.4	X	325.50093	190.31938	259.16803	3.06422	0.0344543	0.21443610	2.7644206	21	12 23.9	20.8
489731 2007 WP_{61}	17.3	X	133.35537	24.70028	24.90859	4.21527	0.1111057	0.24112537	2.5564704	21	3 7.9	20.7
489732 2007 WX_{61}	17.6	X	318.35204	61.53483	20.15680	6.16499	0.1300331	0.28350763	2.2948777	21	12 22.2	19.6
489733 2007 WJ_{62}	17.0	X	191.76029	93.49811	269.56972	9.47382	0.1343063	0.24511097	2.5286820	21	3 5.8	21.2
489734 2007 WB_{63}	17.5	X	146.22843	78.07390	321.36022	3.72675	0.2214419	0.24225882	2.5484903	21	3 17.9	21.4
489735 2007 XH_{7}	17.5	X	142.98090	329.57004	66.74137	5.16043	0.1595256	0.24124957	2.5555930	21	3 8.8	21.3
489736 2007 XB_{17}	16.4	X	64.62132	210.55381	262.11071	16.41444	0.1839889	0.23552595	2.5968301	21	2 21.9	19.6
489737 2007 XG_{17}	17.9	X	68.09243	357.40203	72.71889	6.21246	0.3300248	0.23023119	2.6364929	21	2 3.6	20.0
489738 2007 XJ_{18}	17.0	X	80.24453	159.76902	279.35012	11.72948	0.2240881	0.23291846	2.6161749	21	2 14.2	20.1
489739 2007 XE_{40}	16.8	X	60.68239	42.95537	98.43183	33.53430	0.2641291	0.23449496	2.6044361	21	5 10.9	20.4
489740 2007 XB_{42}	17.3	X	144.44303	334.82648	67.95079	6.03710	0.2825530	0.24120303	2.5559217	21	3 29.8	21.6
489741 2007 XO_{49}	16.2	X	176.99741	307.51063	72.03443	12.70618	0.1957304	0.24126043	2.5555163	21	3 27.3	20.6
489742 2007 XJ_{51}	17.5	X	142.87264	298.78969	83.39070	10.29524	0.1480782	0.23779986	2.5802492	21	2 19.5	21.4
489743 2007 XP_{58}	17.0	X	95.03690	151.95717	289.61997	9.96886	0.0998250	0.23176681	2.6248343	21	2 22.1	20.5
489744 2007 XA_{59}	17.9	X	56.58123	182.91088	310.40641	4.95355	0.2047430	0.23235021	2.6204387	21	3 19.2	20.4
489745 2007 YC_{1}	17.5	X	275.43428	197.64199	246.59576	4.09738	0.1962462	0.27327038	2.3518395	21	9 20.2	20.2
489746 2007 YU_{5}	16.4	X	143.11141	208.54452	267.50488	10.13411	0.0655705	0.18365662	3.0652436	21	6 10.3	20.9
489747 2007 YT_{22}	16.8	X	4.59878	238.77895	347.14986	7.44913	0.1671486	0.23988060	2.5653067	21	4 11.9	19.3
489748 2007 YR_{33}	17.3	X	196.32430	304.71372	133.78963	1.59765	0.1588467	0.18480966	3.0524808	21	6 19.9	22.3
489749 2007 YX_{42}	17.0	X	31.08482	225.80104	301.15411	12.58823	0.1881290	0.23449032	2.6044704	21	3 7.3	19.5
489750 2007 YG_{49}	17.6	X	106.74577	204.19383	214.71294	0.79022	0.1044283	0.23295053	2.6159348	21	2 12.9	21.0
489751 2007 YK_{49}	16.9	X	224.20102	317.03182	114.42241	5.09967	0.2699298	0.18698289	3.0287829	21	6 29.7	22.1
489752 2007 YK_{62}	17.1	X	170.39010	144.87278	296.22344	2.48455	0.1380276	0.17504590	3.1649589	21	5 30.1	22.1
489753 2007 YQ_{66}	18.3	X	248.06671	344.08145	115.19996	3.51887	0.1454784	0.26670437	2.3902828	21	9 14.1	21.3
489754 2007 YP_{67}	17.6	X	51.56790	96.70420	293.56218	11.50201	0.1070082	0.21667612	2.7453350	21	—	—
489755 2007 YA_{71}	15.4	X	181.41007	94.32579	276.45003	20.17304	0.0928693	0.17082269	3.2169108	21	3 5.9	20.8
489756 2008 AX_{3}	17.2	X	85.70007	147.33455	277.69884	10.52766	0.1650941	0.23095646	2.6309704	21	1 28.8	20.3
489757 2008 AK_{16}	16.3	X	228.17559	101.36395	281.03462	9.94885	0.1172799	0.17533010	3.1615380	21	5 13.1	21.4
489758 2008 AW_{26}	17.6	X	8.09264	86.36091	134.47500	4.32663	0.2145309	0.23385261	2.6092032	21	4 15.5	19.8
489759 2008 AW_{35}	17.5	X	128.73732	283.34153	125.42098	3.06824	0.0869013	0.23261244	2.6184689	21	2 26.5	20.9
489760 2008 AW_{38}	16.4	X	187.50058	181.19471	297.16216	8.17461	0.2054240	0.18138548	3.0907773	21	7 29.1	21.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489761 2008 AV_{43}	17.5	X	107.62727	278.90509	134.17509	7.13855	0.1180365	0.22735128	2.6587109	21	2 10.3	20.9
489762 2008 AQ_{46}	16.2	X	166.29943	177.41641	266.21410	10.16995	0.0710001	0.17930393	3.1146519	21	5 26.5	20.8
489763 2008 AG_{54}	17.0	X	163.92362	346.42899	113.37688	2.78935	0.0879369	0.17606242	3.1527650	21	6 14.4	21.9
489764 2008 AY_{54}	18.3	X	286.23798	344.19961	98.44072	2.47575	0.1553131	0.27208422	2.3586698	21	10 17.1	20.5
489765 2008 AU_{59}	16.8	X	90.57223	10.38148	148.47830	2.01082	0.1240846	0.17015357	3.2253387	21	6 10.6	21.3
489766 2008 AL_{66}	16.3	X	359.14124	248.39333	312.25808	12.21332	0.1406712	0.23100932	2.6305691	21	2 26.3	19.2
489767 2008 AZ_{71}	17.0	X	130.03521	282.40970	141.74259	12.05826	0.2391106	0.23830602	2.5765943	21	4 9.9	21.1
489768 2008 AQ_{90}	16.8	X	129.80137	276.74303	130.85421	4.90104	0.1276963	0.23461337	2.6035597	21	3 3.9	20.4
489769 2008 AS_{91}	17.2	X	109.52990	318.87216	104.38875	7.72973	0.1618347	0.23212231	2.6221536	21	3 6.7	20.8
489770 2008 AY_{97}	17.9	X	67.68630	52.10705	49.29694	2.60462	0.1644228	0.23007369	2.6376960	21	2 21.5	20.7
489771 2008 AV_{107}	17.5	X	28.35459	326.02911	203.36644	1.29975	0.1739859	0.23291541	2.6161978	21	3 12.0	19.8
489772 2008 AK_{108}	16.9	X	21.38841	71.06512	127.50431	28.87942	0.1274386	0.23720685	2.5845478	21	4 23.6	20.4
489773 2008 AB_{109}	16.6	X	171.47777	142.58901	299.43178	8.34582	0.0682749	0.17354269	3.1832091	21	5 29.8	21.5
489774 2008 AG_{138}	17.4	X	90.37994	287.69811	151.81908	6.76644	0.0994865	0.22850011	2.6497919	21	2 17.5	20.5
489775 2008 BU_{1}	17.1	X	356.12466	225.16280	345.62691	13.63700	0.2273787	0.22912650	2.6449603	21	3 1.4	19.5
489776 2008 BV_{7}	17.4	X	47.76212	152.71057	332.97776	11.83650	0.1339388	0.22812202	2.6527190	21	2 16.2	20.0
489777 2008 BW_{51}	17.9	X	51.90278	341.69230	143.51628	3.72834	0.1926696	0.22996578	2.6385211	21	2 27.7	20.2
489778 2008 CD_{7}	17.6	X	62.71318	349.09199	122.57863	5.47942	0.2315678	0.22808247	2.6530256	21	3 9.6	20.1
489779 2008 CL_{7}	17.3	X	57.62171	122.83185	334.49995	4.46620	0.1818120	0.22642333	2.6659701	21	1 30.2	19.8
489780 2008 CC_{30}	16.9	X	341.66172	258.05547	329.86204	10.91661	0.1312173	0.23205891	2.6226311	21	3 8.8	19.9
489781 2008 CH_{34}	16.8	X	149.82046	241.78335	326.82474	11.20244	0.0819235	0.18900078	3.0071861	21	10 7.2	21.6
489782 2008 CD_{40}	17.5	X	86.61357	310.29975	149.95153	5.09110	0.2131258	0.23275897	2.6173699	21	3 30.6	20.6
489783 2008 CH_{40}	17.7	X	337.71829	289.65942	314.98863	6.07856	0.2524111	0.23089837	2.6314117	21	3 7.1	20.5
489784 2008 CJ_{43}	18.1	X	261.94989	356.48903	80.18228	3.64853	0.1500867	0.26072251	2.4267053	21	8 31.2	21.2
489785 2008 CP_{43}	17.9	X	353.20407	112.18917	104.55044	5.31752	0.0981995	0.22927993	2.6437802	21	3 22.4	21.0
489786 2008 CR_{62}	16.7	X	51.69595	131.97761	328.53844	11.36999	0.1429711	0.22530607	2.6747762	21	1 22.1	19.5
489787 2008 CT_{81}	17.2	X	20.43707	32.89735	130.53028	8.41472	0.2238470	0.22705225	2.6610448	21	2 14.3	19.5
489788 2008 CX_{84}	17.6	X	21.52805	1.66981	152.52239	2.70239	0.1422638	0.22516318	2.6759077	21	2 7.1	20.2
489789 2008 CF_{94}	16.9	X	358.81398	14.18812	130.63650	9.14256	0.1457592	0.21863186	2.7289385	21	—	—
489790 2008 CX_{99}	16.9	X	210.14438	141.38810	331.23934	6.32608	0.0974644	0.18312121	3.0712154	21	8 17.8	21.5
489791 2008 CT_{112}	17.3	X	86.85423	93.17106	348.15147	7.75234	0.0526560	0.22672820	2.6635797	21	2 10.8	20.7
489792 2008 CV_{141}	17.7	X	347.10111	56.41059	167.76592	12.13660	0.1565351	0.22814479	2.6525424	21	3 13.1	20.6
489793 2008 CK_{143}	17.1	X	356.93279	327.96562	158.14170	10.33670	0.1355704	0.21448214	2.7640249	21	—	—
489794 2008 CY_{144}	17.4	X	113.21052	108.06176	309.71378	5.37015	0.0877540	0.22692682	2.6620252	21	2 17.9	20.9
489795 2008 CP_{146}	17.8	X	109.40132	252.26007	180.79723	6.19926	0.2097153	0.23200225	2.6230582	21	3 22.8	21.4
489796 2008 CF_{148}	17.5	X	64.38507	94.27545	317.37559	6.53072	0.2901442	0.21986815	2.7186992	21	—	—
489797 2008 CZ_{154}	17.0	X	89.58595	347.53123	144.73044	15.70012	0.0659836	0.23396635	2.6083575	21	4 28.1	20.7
489798 2008 CZ_{155}	17.1	X	355.69157	7.34276	175.50743	7.57601	0.0841368	0.22672014	2.6636428	21	2 5.9	20.3
489799 2008 CK_{156}	17.4	X	101.80776	59.10484	350.78420	12.29448	0.2959679	0.22632910	2.6667100	21	2 27.1	20.9
489800 2008 CQ_{159}	17.3	X	27.24986	42.54485	82.07028	5.79263	0.1253148	0.22381463	2.6866457	21	1 9.3	20.1
489801 2008 CW_{169}	17.0	X	313.33914	245.82209	303.30643	6.64350	0.0738769	0.21803184	2.7339428	21	—	—
489802 2008 CS_{181}	18.9	X	236.42090	143.95618	148.87550	23.78157	0.0697082	0.44457944	1.7002122	21	—	—
489803 2008 CB_{182}	16.8	X	315.40409	159.15879	17.34138	8.81232	0.2423831	0.21452505	2.7636564	21	—	—
489804 2008 CB_{186}	16.9	X	56.98434	323.38408	147.62949	26.40350	0.1550255	0.22873139	2.6480054	21	2 13.0	19.7
489805 2008 CS_{191}	16.2	X	287.92050	331.81385	319.30115	9.23939	0.0505752	0.15986272	3.3623112	21	4 4.8	21.2
489806 2008 CG_{193}	17.1	X	351.18831	95.11303	126.43601	11.91492	0.2094104	0.22776228	2.6555115	21	3 13.3	19.9
489807 2008 CN_{197}	17.1	X	95.36901	86.38316	334.97090	10.69341	0.1737526	0.22630062	2.6669337	21	2 13.8	20.4
489808 2008 CE_{209}	17.2	X	62.05744	320.75851	178.59365	4.30744	0.1782708	0.23422969	2.6064021	21	4 6.8	19.7
489809 2008 CK_{209}	17.4	X	36.30122	19.60257	96.93009	11.14597	0.2240310	0.22458034	2.6805355	21	1 12.8	19.6
489810 2008 DF_{12}	17.7	X	50.77048	337.57978	137.79972	12.63262	0.1698836	0.22739614	2.6583612	21	2 9.3	20.2
489811 2008 DM_{12}	18.1	X	342.90198	94.68662	139.42187	7.40322	0.2905544	0.22954384	2.6417535	21	2 26.4	20.6
489812 2008 DY_{27}	17.6	X	82.60784	336.17797	141.81219	5.17143	0.1777737	0.23450717	2.6043457	21	4 12.4	20.7
489813 2008 DE_{29}	18.2	X	269.19991	342.50421	95.47285	2.46465	0.1542112	0.26579401	2.3957376	21	9 11.6	21.1
489814 2008 DS_{82}	17.2	X	75.17424	98.11915	14.29242	13.54641	0.0749861	0.22489084	2.6780676	21	3 12.6	20.6
489815 2008 DK_{85}	17.3	X	358.23474	146.44908	358.26212	3.70107	0.0944268	0.21539762	2.7561876	21	—	—
489816 2008 DQ_{85}	17.9	X	297.65761	232.93085	27.40142	6.73315	0.0913244	0.29739775	2.2228540	21	2 18.6	20.7
489817 2008 DM_{86}	17.1	X	117.74377	242.42718	1.57094	8.95332	0.0761464	0.18734685	3.0248588	21	10 18.7	21.7
489818 2008 EB_{2}	17.4	X	332.16688	358.83334	194.97494	8.25235	0.0911950	0.21883058	2.7272862	21	1 18.0	21.1
489819 2008 EC_{5}	17.6	X	330.53226	33.23937	166.93064	3.64197	0.1352623	0.21930901	2.7233183	21	1 18.6	21.0
489820 2008 EX_{17}	17.3	X	8.89904	336.73069	209.48419	13.08620	0.1918381	0.22384146	2.6864311	21	2 20.0	20.2
489821 2008 EN_{33}	17.4	X	314.00142	76.89816	165.64668	7.63029	0.2050401	0.22092332	2.7100357	21	2 8.6	21.1
489822 2008 EO_{33}	16.7	X	350.21198	340.86486	171.56564	11.56171	0.1557300	0.21555990	2.7548042	21	—	—
489823 2008 EJ_{38}	17.0	X	283.28325	247.08034	9.94055	15.73802	0.0203058	0.22327099	2.6910051	21	2 22.3	20.9
489824 2008 EV_{40}	18.1	X	47.25417	271.03405	207.96283	4.90248	0.2101015	0.29713067	2.2241858	21	1 11.2	19.4
489825 2008 ER_{50}	17.3	X	302.55995	237.63246	7.87251	4.98184	0.1256879	0.22401764	2.6850223	21	2 11.9	21.0
489826 2008 EP_{52}	17.3	X	324.63092	205.09158	12.99848	7.08850	0.2353313	0.21853547	2.7297409	21	1 21.4	21.0
489827 2008 ES_{68}	14.0	X	347.76139	155.71247	141.51691	28.26209	0.0709466	0.08339988	5.1883084	21	7 6.9	20.8
489828 2008 EV_{73}	17.7	X	22.51835	40.34790	135.56282	4.88961	0.1141610	0.22609040	2.6685866	21	3 13.8	20.6
489829 2008 EH_{79}	17.2	X	350.79277	211.99826	301.24053	5.53757	0.1751445	0.21806684	2.7336503	21	—	—
489830 2008 EK_{82}	16.7	X	9.96197	212.49519	323.17429	12.76529	0.1878861	0.22502283	2.6770203	21	2 11.9	19.3
489831 2008 EM_{84}	17.5	X	290.28549	97.65573	186.28242	7.23300	0.3118895	0.22479108	2.6788599	21	2 19.9	21.8
489832 2008 ET_{88}	16.5	X	33.85046	18.92870	152.51387	14.85281	0.1721318	0.22836442	2.6508415	21	4 1.7	19.2
489833 2008 ED_{92}	16.7	X	27.93265	169.52106	351.84976	11.85283	0.1792318	0.22783547	2.6549428	21	3 2.6	19.1
489834 2008 ER_{94}	16.4	X	63.82468	181.12986	287.26301	4.89130	0.0448604	0.15059351	3.4989028	21	2 23.2	21.3
489835 2008 EJ_{107}	17.2	X	242.95178	177.25085	108.89299	6.25738	0.0383274	0.21858595	2.7293206	21	2 3.5	21.1
489836 2008 EA_{119}	16.9	X	103.48984	273.02681	157.87134	17.46056	0.1750536	0.23027358	2.6361694	21	3 8.7	20.2
489837 2008 EY_{126}	16.9	X	281.62507	289.95163	8.22055	12.70158	0.2634182	0.22200001	2.7012662	21	3 10.8	21.1
489838 2008 EJ_{143}	17.4	X	2.16486	74.73034	129.23644	14.46680	0.2170043	0.22557571	2.6726443	21	3 9.8	20.0
489839 2008 ES_{156}	17.5	X	40.91747	159.01268	0.00905	5.25385	0.0814691	0.22586481	2.6703632	21	3 19.3	20.5
489840 2008 ES_{160}	17.1	X	116.73867	246.62718	177.15594	10.55893	0.0721511	0.22277160	2.6950252	21	2 28.3	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489841 2008 EX_{167}	17.8	X	305.75230	79.44702	191.15764	12.41202	0.2432163	0.22276512	2.6950775	21	2 26.9	21.7
489842 2008 FB_{10}	16.9	X	130.86025	217.38298	168.96690	11.55728	0.0788437	0.22203622	2.7009725	21	1 30.0	20.7
489843 2008 FD_{14}	17.3	X	56.53611	283.58187	186.49161	12.40300	0.2303883	0.22435816	2.6823049	21	2 17.7	19.9
489844 2008 FQ_{27}	17.5	X	51.19443	4.56498	90.76668	5.65811	0.0342489	0.21290598	2.7776497	21	1 10.7	21.1
489845 2008 FC_{37}	17.6	X	44.54905	316.56300	167.89398	4.61807	0.2214112	0.22436624	2.6822405	21	2 12.9	19.9
489846 2008 FW_{40}	17.5	X	351.52166	46.19131	148.21340	4.71442	0.1407378	0.22051229	2.7134023	21	2 10.9	20.6
489847 2008 FL_{48}	17.0	X	223.20609	121.51568	184.52113	11.70191	0.0480084	0.21713669	2.7414515	21	2 2.0	21.2
489848 2008 FX_{53}	17.3	X	339.87982	194.70078	46.93082	3.45258	0.1361620	0.22533316	2.6745618	21	3 29.4	20.2
489849 2008 FZ_{70}	17.3	X	26.88872	303.38497	177.44132	9.25661	0.1111845	0.21561749	2.7543137	21	1 5.3	20.7
489850 2008 FK_{73}	17.8	X	309.78961	79.88317	161.54009	7.60023	0.2315813	0.21805450	2.7337535	21	1 30.1	21.7
489851 2008 FV_{78}	16.9	X	59.07168	264.49972	193.36062	11.57166	0.1465108	0.21939828	2.7225795	21	1 28.3	20.1
489852 2008 FS_{80}	15.8	X	324.85500	10.61097	11.85082	16.42306	0.0912877	0.18061026	3.0996152	21	9 23.0	19.7
489853 2008 FJ_{98}	17.4	X	219.96812	212.02822	110.97805	5.89796	0.1099686	0.21710633	2.7417071	21	2 22.0	21.7
489854 2008 FO_{103}	17.0	X	252.76596	222.67492	78.76449	7.15653	0.0198127	0.21872842	2.7281353	21	3 10.9	20.8
489855 2008 FP_{112}	17.3	X	107.31505	6.13406	51.19981	7.55454	0.0717223	0.21712766	2.7415276	21	2 13.6	21.1
489856 2008 FX_{115}	17.3	X	196.28424	260.82986	50.54042	5.08998	0.0578451	0.21216344	2.7841269	21	1 14.3	21.5
489857 2008 FA_{122}	16.9	X	170.27913	259.33448	112.72182	7.16079	0.0453357	0.21979445	2.7193069	21	2 27.9	20.8
489858 2008 FA_{128}	17.2	X	31.32730	54.05405	44.62054	9.90921	0.1030401	0.21056888	2.7981646	21	—	—
489859 2008 FU_{133}	17.5	X	41.14553	306.66060	161.74628	3.83675	0.0553863	0.21480853	2.7612244	21	1 12.6	21.0
489860 2008 GG_{1}	16.9	X	289.20801	231.78905	17.60227	12.56995	0.1593393	0.21566176	2.7539367	21	2 1.8	21.2
489861 2008 GK_{6}	17.0	X	319.65942	163.45761	68.41117	5.86490	0.0952510	0.22045187	2.7138980	21	2 22.7	20.6
489862 2008 GJ_{8}	16.5	X	150.14197	126.39401	25.37297	16.42078	0.1562751	0.17282919	3.1919640	21	8 13.6	21.9
489863 2008 GU_{28}	17.7	X	337.35815	106.06218	114.87725	3.16801	0.2138371	0.22126037	2.7072828	21	2 13.4	20.9
489864 2008 GN_{32}	17.3	X	343.86070	47.93191	132.70837	6.01835	0.1244299	0.21582060	2.7525853	21	1 15.2	20.8
489865 2008 GS_{33}	17.8	X	39.78087	354.32404	165.98676	1.45397	0.0607527	0.22533122	2.6745772	21	3 18.4	20.8
489866 2008 GJ_{51}	17.3	X	5.82201	116.03225	39.95030	4.83453	0.0113685	0.21593450	2.7516173	21	1 28.5	21.0
489867 2008 GB_{54}	17.6	X	328.29943	31.15514	176.57319	7.72348	0.1494079	0.21801624	2.7340733	21	1 22.5	21.3
489868 2008 GP_{67}	17.4	X	263.48536	191.43878	85.65401	2.74629	0.2070009	0.21234079	2.7825764	21	2 1.9	22.0
489869 2008 GM_{68}	17.8	X	345.21171	124.72734	60.39588	9.76726	0.2812855	0.21707821	2.7419439	21	—	—
489870 2008 GU_{74}	17.1	X	259.67391	151.12649	135.01174	5.78832	0.1324500	0.21578296	2.7529054	21	2 14.2	21.4
489871 2008 GJ_{76}	17.1	X	63.39101	333.52946	167.62355	13.59862	0.1014342	0.22564371	2.6721073	21	4 4.1	20.3
489872 2008 GC_{78}	17.1	X	237.08354	205.37718	126.41579	5.39202	0.1070756	0.21989597	2.7184699	21	3 22.1	21.2
489873 2008 GK_{78}	17.2	X	313.96250	233.64605	97.29819	6.64347	0.1877658	0.23353975	2.6115330	21	6 11.3	20.1
489874 2008 GT_{105}	16.4	X	342.85605	147.91794	42.33453	26.00489	0.0929325	0.21611854	2.7500550	21	2 12.6	20.5
489875 2008 GM_{106}	16.8	X	353.32866	158.96554	31.99900	5.75560	0.0893030	0.21904790	2.7254820	21	2 18.5	20.1
489876 2008 GY_{106}	16.7	X	265.58003	214.80433	44.11694	10.29010	0.2726906	0.21211272	2.7845706	21	1 9.8	21.6
489877 2008 GJ_{131}	17.3	X	257.94186	232.43911	62.80742	10.36303	0.1870450	0.21404857	2.7677562	21	2 23.8	21.9
489878 2008 GV_{138}	17.4	X	25.45706	115.88837	32.02941	5.28201	0.1038723	0.21814810	2.7329714	21	2 11.2	20.6
489879 2008 GA_{139}	13.9	X	89.08130	121.24453	47.10178	25.02802	0.0119604	0.08333206	5.1911226	21	6 2.8	20.9
489880 2008 GF_{144}	17.0	X	293.29212	54.03950	170.06907	9.17796	0.0892297	0.21089871	2.7952465	21	1 10.2	21.1
489881 2008 HQ_{1}	16.9	X	326.06177	19.08806	161.66486	7.48209	0.1837178	0.21076959	2.7963879	21	—	—
489882 2008 HM_{6}	17.2	X	44.67746	282.84155	210.47753	8.28848	0.0958473	0.22051772	2.7133577	21	2 16.9	20.5
489883 2008 HP_{8}	17.0	X	289.03870	166.90270	100.88291	9.81048	0.1693673	0.21683470	2.7439964	21	2 20.7	21.1
489884 2008 HR_{19}	16.7	X	286.73156	157.53573	107.91918	13.03177	0.0745276	0.21573047	2.7533519	21	2 28.6	20.7
489885 2008 HY_{37}	18.5	X	123.58657	1.65316	26.07397	35.13953	0.3544359	0.43680132	1.7203366	21	2 20.9	21.0
489886 2008 HN_{41}	18.3	X	230.77921	86.93089	216.26462	4.78008	0.1945530	0.28496209	2.2870623	21	1 25.5	22.2
489887 2008 HT_{46}	16.9	X	313.72181	62.91219	175.73311	14.51288	0.1571840	0.21584556	2.7523731	21	2 10.0	20.8
489888 2008 HZ_{55}	17.3	X	300.62544	124.15370	117.49882	9.17006	0.2817779	0.21303566	2.7765224	21	1 16.7	21.4
489889 2008 HT_{56}	17.1	X	256.09823	95.59999	204.31371	14.42244	0.2464266	0.21592639	2.7516862	21	2 14.6	22.1
489890 2008 HU_{62}	16.8	X	320.80723	97.41046	108.22074	26.06693	0.2602628	0.21528779	2.7571250	21	—	—
489891 2008 HV_{68}	17.5	X	263.37189	119.41410	199.62262	4.47183	0.3956029	0.21313150	2.7756899	21	3 7.5	22.5
489892 2008 HL_{69}	17.3	X	312.97690	24.06610	222.46431	2.71604	0.1437320	0.21805804	2.7337239	21	2 21.7	21.0
489893 2008 JM_{12}	17.1	X	273.99907	123.91460	136.49539	10.16601	0.0923750	0.21090234	2.7952143	21	2 2.2	21.2
489894 2008 JG_{18}	16.7	X	285.33747	172.95456	82.21591	12.29930	0.1051064	0.21238145	2.7822212	21	2 10.4	20.9
489895 2008 JS_{21}	16.7	X	288.34256	300.63137	3.59170	12.84819	0.2652590	0.22558175	2.6725966	21	3 21.7	20.7
489896 2008 JN_{23}	17.2	X	268.63258	235.50239	67.04760	10.03601	0.1712145	0.21661009	2.7458929	21	3 16.3	21.6
489897 2008 JW_{25}	17.0	X	358.25131	67.18125	100.62510	13.35957	0.1426443	0.21414990	2.7668831	21	1 19.5	20.2
489898 2008 JJ_{28}	17.0	X	314.60733	119.66403	112.99765	5.99461	0.1144133	0.21493873	2.7601092	21	2 13.5	20.7
489899 2008 JT_{40}	16.9	X	245.34996	118.90798	153.66154	15.23982	0.1372278	0.20580576	2.8411732	21	1 15.4	21.7
489900 2008 KP	18.9	X	14.65796	345.00473	62.45193	59.84075	0.7895749	0.85359226	1.1006158	21	—	—
489901 2008 KA_{17}	17.6	X	290.98319	137.45002	139.25393	8.70392	0.1758825	0.21560138	2.7544509	21	3 3.6	21.6
489902 2008 KA_{27}	16.8	X	318.34556	182.24648	84.22692	13.71045	0.1215233	0.22306308	2.6926769	21	4 8.0	20.5
489903 2008 KL_{30}	16.6	X	23.52831	12.40064	150.59987	15.08966	0.1327404	0.21642608	2.7474491	21	2 26.5	19.4
489904 2008 KM_{31}	16.6	X	298.74861	145.94583	94.37683	11.40146	0.1178303	0.21297233	2.7770728	21	2 4.3	20.6
489905 2008 KX_{38}	16.8	X	153.87356	135.26114	234.80616	23.97657	0.2296427	0.28021892	2.3127982	21	2 4.2	20.9
489906 2008 LU_{5}	16.7	X	38.91859	79.93000	83.87793	22.42982	0.0373960	0.21969492	2.7201282	21	4 4.5	20.7
489907 2008 OW_{7}	16.8	X	178.66542	109.58036	215.62101	3.05427	0.2200274	0.19242985	2.9713542	21	1 22.8	21.9
489908 2008 OP_{14}	16.0	X	99.69753	34.28793	329.88283	14.87115	0.2199107	0.17697561	3.1419102	21	—	—
489909 2008 OF_{20}	17.6	X	32.68897	56.72318	337.84339	10.46226	0.1077158	0.24660584	2.5184528	21	—	—
489910 2008 OP_{20}	18.4	X	31.37577	124.70831	160.03351	4.35522	0.1384873	0.30544017	2.1836613	21	9 15.7	20.2
489911 2008 OQ_{21}	18.7	X	206.69208	68.15656	335.54741	5.18262	0.2399182	0.28312807	2.2969282	21	5 9.7	22.6
489912 2008 OY_{23}	16.5	X	273.61234	164.37738	157.81250	9.93780	0.2842416	0.21140442	2.7907869	21	3 30.8	21.0
489913 2008 PG_{5}	18.2	X	161.67506	118.88479	227.44720	4.75623	0.2286887	0.26662971	2.3907290	21	1 23.5	22.0
489914 2008 PU_{8}	17.5	X	169.79926	15.29365	335.89608	5.62665	0.2525942	0.26792533	2.3830155	21	2 9.2	21.3
489915 2008 PF_{15}	18.2	X	115.33243	13.72754	315.19790	1.42869	0.2255150	0.25469979	2.4648112	21	—	—
489916 2008 QF_{8}	18.3	X	333.09517	356.13676	339.31890	6.44279	0.2101191	0.30107058	2.2047389	21	7 29.8	19.5
489917 2008 QH_{11}	15.6	X	101.65244	0.55957	0.93974	8.55010	0.2190973	0.17571714	3.1568937	21	—	—
489918 2008 QO_{12}	18.0	X	289.43576	183.08158	164.59992	2.83776	0.2318315	0.29198139	2.2502595	21	5 18.7	20.7
489919 2008 QC_{21}	16.0	X	106.96288	143.07095	168.40096	28.54778	0.2210963	0.17281653	3.1921199	21	—	—
489920 2008 QG_{22}	15.8	X	129.51550	63.00627	256.05689	7.21104	0.2664749	0.17711522	3.1402589	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
489921 2008 QD_{23}	16.9	X	289.72150	142.10341	222.56806	7.92333	0.2830362	0.21764747	2.7371608	21	6 6.7	20.6
489922 2008 QB_{35}	18.9	X	45.32448	153.25138	161.49933	2.43835	0.1999521	0.31218311	2.1521033	21	12 1.6	21.6
489923 2008 QM_{38}	15.9	X	91.44103	193.25817	179.91746	12.05368	0.1392043	0.17738858	3.1370320	21	—	—
489924 2008 QX_{40}	16.3	X	145.07054	43.22656	228.50899	14.88663	0.1136427	0.24582585	2.5237772	21	12 28.8	20.4
489925 2008 QL_{46}	17.8	X	162.09134	13.36509	313.93504	4.51244	0.2584812	0.26167292	2.4208257	21	1 6.0	21.5
489926 2008 RF_{4}	18.5	X	352.79982	116.37173	187.88226	4.40835	0.1890032	0.29850201	2.2173685	21	7 24.2	19.9
489927 2008 RV_{4}	16.5	X	48.73666	49.40986	352.07467	10.88707	0.0495734	0.17291727	3.1908800	21	—	—
489928 2008 RM_{17}	17.6	X	346.04718	164.18982	226.14659	3.84884	0.1458718	0.23279120	2.6171283	21	11 16.2	20.1
489929 2008 RQ_{17}	18.4	X	236.84296	174.45837	192.69734	7.50418	0.1409486	0.28350542	2.2948896	21	4 27.1	21.6
489930 2008 RP_{24}	17.7	X	181.24072	224.89088	164.34977	6.71402	0.4253461	0.27167167	2.3610570	21	4 10.7	22.4
489931 2008 RJ_{30}	18.3	X	5.64881	317.29788	354.70633	4.67051	0.1822452	0.30237825	2.1983779	21	9 13.9	19.4
489932 2008 RG_{44}	18.0	X	34.63022	18.60747	16.74517	2.01014	0.1901823	0.24345641	2.5401259	21	—	—
489933 2008 RY_{45}	18.2	X	161.25570	13.20337	24.91243	1.58443	0.1907145	0.27099382	2.3649926	21	3 26.5	21.9
489934 2008 RG_{46}	14.3	X	10.76377	5.11045	18.00577	8.48019	0.0264361	0.08218655	5.2392471	21	11 6.2	21.1
489935 2008 RQ_{65}	16.3	X	110.20043	205.92000	161.45551	10.56547	0.1879870	0.17924138	3.1153764	21	1 6.9	20.8
489936 2008 RU_{85}	17.9	X	354.86641	146.61662	264.74912	3.88545	0.1956817	0.23659482	2.5890031	21	—	—
489937 2008 RY_{87}	17.2	X	309.71001	120.60912	302.54425	4.75849	0.2652906	0.22688635	2.6623418	21	10 4.5	19.5
489938 2008 RH_{89}	16.5	X	148.63286	128.62330	217.21577	8.58925	0.0838315	0.18170341	3.0871709	21	1 9.6	21.2
489939 2008 RV_{90}	18.4	X	164.61211	157.63206	169.15048	1.34255	0.1962470	0.26374558	2.4081263	21	1 1.0	22.0
489940 2008 RB_{91}	18.4	X	91.33790	209.97428	156.37690	2.01725	0.2107689	0.25340066	2.4732284	21	—	—
489941 2008 RO_{91}	13.9	X	42.18677	355.02463	0.72835	18.49975	0.0528480	0.08404307	5.1618032	21	11 10.4	20.8
489942 2008 RY_{102}	16.8	X	210.16567	3.79663	261.28561	3.33871	0.1562505	0.18078578	3.0976086	21	—	—
489943 2008 RP_{103}	13.8	X	44.47060	14.50425	338.50161	11.91545	0.0983195	0.08344192	5.1865655	21	11 18.1	20.6
489944 2008 RT_{103}	17.7	X	149.94643	171.60418	315.18512	5.14747	0.0974904	0.28710281	2.2756795	21	7 3.9	20.9
489945 2008 RY_{109}	16.5	X	134.16089	141.04645	189.89708	10.55413	0.0830248	0.17787684	3.1312887	21	—	—
489946 2008 RC_{112}	18.2	X	351.66659	281.63547	343.23765	6.20180	0.0873743	0.28671159	2.2777491	21	5 18.2	20.5
489947 2008 RL_{112}	17.7	X	342.25784	82.49226	296.76130	1.51342	0.1771463	0.22877817	2.6476444	21	10 22.9	20.3
489948 2008 RO_{112}	16.8	X	321.38635	77.93312	306.16581	6.09205	0.2381800	0.22545377	2.6736079	21	9 5.1	19.1
489949 2008 RS_{112}	14.4	X	334.49572	175.73899	259.12184	6.14087	0.0957361	0.08332633	5.1913607	21	11 19.9	20.9
489950 2008 RD_{114}	16.7	X	53.19229	31.22406	355.35857	7.65722	0.1118727	0.17127207	3.2112813	21	—	—
489951 2008 RJ_{121}	14.5	X	36.55329	160.43985	197.49785	4.70666	0.0989227	0.08472031	5.1342581	21	11 18.2	21.0
489952 2008 RA_{123}	14.1	X	65.48204	5.82693	319.94957	6.59531	0.0313767	0.08148284	5.2693691	21	11 5.2	21.1
489953 2008 RH_{127}	16.5	X	157.02450	306.29030	348.88425	9.65314	0.0294960	0.17500419	3.1654618	21	—	—
489954 2008 RR_{127}	17.3	X	259.78877	96.36859	345.25138	4.64484	0.1041828	0.22632360	2.6667532	21	9 6.6	20.8
489955 2008 RJ_{135}	17.6	X	44.00348	349.16144	4.13717	12.88929	0.1939366	0.23868728	2.5738498	21	—	—
489956 2008 RC_{137}	16.7	X	22.07377	124.07371	241.97669	10.24499	0.2291058	0.23728618	2.5839717	21	12 26.8	19.8
489957 2008 RK_{137}	18.5	X	186.31920	90.28546	184.98080	23.13735	0.0519171	0.40885069	1.7978753	21	—	—
489958 2008 RX_{139}	18.6	X	6.56105	219.98637	185.16677	4.90125	0.2400958	0.23570976	2.5954799	21	—	—
489959 2008 SN_{6}	17.0	X	305.43983	16.85947	23.94103	12.08618	0.1816977	0.22473568	2.6793002	21	9 12.9	20.0
489960 2008 SG_{8}	16.2	X	97.32032	190.60558	175.85975	18.91152	0.1905560	0.17811954	3.1284437	21	—	—
489961 2008 SN_{27}	17.7	X	50.01640	338.44789	7.21838	1.70977	0.1805538	0.23925386	2.5697847	21	12 30.3	21.3
489962 2008 SE_{37}	16.4	X	348.53066	266.87694	186.84078	9.34481	0.0402866	0.16822629	3.2499260	21	—	—
489963 2008 SS_{40}	18.4	X	29.45482	244.50968	157.76123	4.11012	0.2819986	0.24095845	2.5576509	21	—	—
489964 2008 SC_{41}	16.2	X	150.93786	319.41830	2.50083	14.83955	0.2725228	0.18190491	3.0848907	21	1 5.6	21.6
489965 2008 SA_{43}	17.9	X	45.48202	144.67481	198.72008	8.84838	0.1503099	0.23598657	2.5934499	21	12 17.1	21.5
489966 2008 SA_{45}	18.2	X	317.41986	328.38842	11.34130	5.16729	0.2015140	0.29467005	2.2365506	21	6 27.5	20.1
489967 2008 SA_{46}	15.9	X	253.53401	215.15452	24.31957	28.74104	0.1786904	0.18103702	3.0947421	21	—	—
489968 2008 SC_{54}	18.0	X	2.99115	290.41874	7.36504	6.27194	0.1659717	0.29725792	2.2235510	21	8 12.8	19.6
489969 2008 SE_{54}	17.6	X	302.58742	226.41815	190.19439	1.81026	0.0796193	0.22716998	2.6601253	21	10 8.6	20.8
489970 2008 SR_{56}	16.6	X	269.02253	336.25956	20.90024	4.86830	0.1233600	0.20904229	2.8117710	21	5 24.6	20.7
489971 2008 SN_{62}	16.9	X	72.50773	253.98965	197.67915	14.05348	0.2679689	0.18176035	3.0865261	21	3 10.7	20.7
489972 2008 SU_{62}	17.5	X	13.15033	160.32679	206.52819	4.13296	0.2221035	0.23458436	2.6037744	21	12 13.4	20.3
489973 2008 SJ_{77}	16.3	X	68.78948	200.15562	191.88694	10.48060	0.0928887	0.17413215	3.1760213	21	—	—
489974 2008 SG_{88}	17.4	X	340.19912	7.57887	20.89145	4.72811	0.1093856	0.22849999	2.6497929	21	10 30.2	20.3
489975 2008 SF_{93}	18.4	X	58.07133	207.93300	196.18218	19.72657	0.0755543	0.40407591	1.8120106	21	—	—
489976 2008 SX_{93}	17.4	X	23.52580	140.62372	221.89357	3.49458	0.3277067	0.23537947	2.5979074	21	—	—
489977 2008 SC_{104}	18.0	X	67.34789	320.20455	21.65798	9.62385	0.2192167	0.24028096	2.5624564	21	—	—
489978 2008 SL_{105}	17.7	X	258.76194	243.82201	201.58753	6.27984	0.2783363	0.21609223	2.7502781	21	8 14.1	21.9
489979 2008 SC_{112}	16.7	X	175.66870	240.43809	93.71719	3.82257	0.0897454	0.18413283	3.0599563	21	1 26.1	21.3
489980 2008 SA_{117}	16.6	X	193.40616	269.79957	17.13629	15.46238	0.2205984	0.18049295	3.1009581	21	—	—
489981 2008 SE_{118}	18.2	X	62.79110	78.05029	10.34187	2.27269	0.1666534	0.25588489	2.4571950	21	1 16.2	20.2
489982 2008 SA_{119}	16.8	X	169.06653	312.33184	32.88569	1.82241	0.1636563	0.18478169	3.0527888	21	2 6.2	21.6
489983 2008 SN_{120}	17.4	X	305.69809	199.17257	196.59030	5.09022	0.2007914	0.22138954	2.7062297	21	8 26.4	20.3
489984 2008 SL_{125}	16.5	X	130.87387	300.91762	20.17109	11.48553	0.0695084	0.16985258	3.2291480	21	—	—
489985 2008 ST_{127}	17.6	X	259.83619	46.72580	6.72463	8.39501	0.2059090	0.21388227	2.7691907	21	7 18.5	21.8
489986 2008 SN_{142}	18.3	X	29.50245	358.67763	36.11638	6.09652	0.2648050	0.23882236	2.5728792	21	—	—
489987 2008 SN_{145}	18.9	X	22.87147	135.23653	192.40833	4.93968	0.2285422	0.30840265	2.1696549	21	11 23.3	21.0
489988 2008 SP_{151}	17.9	X	351.43475	316.36405	335.39782	7.10494	0.1698611	0.29512719	2.2342404	21	6 29.7	19.5
489989 2008 SX_{152}	16.1	X	130.53872	165.41958	177.31782	18.42729	0.2689842	0.18002731	3.1063028	21	1 8.3	21.3
489990 2008 SA_{156}	16.3	X	101.79670	39.51703	27.98512	27.19369	0.4187666	0.18096395	3.0955750	21	4 11.3	21.3
489991 2008 SJ_{161}	15.9	X	193.20149	273.63814	12.51447	17.06283	0.1352722	0.18165853	3.0876793	21	—	—
489992 2008 SQ_{164}	17.9	X	298.46057	190.26185	174.07099	5.86680	0.1880157	0.29445063	2.2376615	21	7 2.9	20.3
489993 2008 SD_{168}	15.8	X	132.33531	351.15835	338.63437	26.87724	0.1999558	0.17942359	3.1132670	21	—	—
489994 2008 SV_{176}	16.7	X	355.67665	355.95531	13.67345	11.20819	0.2717226	0.22808979	2.6529689	21	11 14.6	19.0
489995 2008 SN_{184}	17.8	X	122.03155	78.61440	43.34800	4.65718	0.1444349	0.27035865	2.3686953	21	5 29.3	21.0
489996 2008 ST_{186}	16.6	X	61.16864	197.98823	220.51788	8.21162	0.0845550	0.17500894	3.1654045	21	—	—
489997 2008 SR_{191}	18.0	X	312.83534	280.54637	40.26593	7.72815	0.0789568	0.28755742	2.2732804	21	6 8.3	20.4
489998 2008 SH_{194}	16.3	X	9.09183	56.36884	54.47414	12.25579	0.0438668	0.17360847	3.1824050	21	—	—
489999 2008 ST_{199}	16.4	X	332.72625	282.79809	215.43446	10.84692	0.0795495	0.17106172	3.2139133	21	—	—
490000 2008 SG_{201}	18.7	X	282.66367	39.77006	309.50954	1.54340	0.2286429	0.28808250	2.2705172	21	5 11.7	21.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490001 2008 SZ_{201}	17.6	X	239.68271	234.89851	238.40188	2.98033	0.1525531	0.22011258	2.7166862	21	9 14.6	21.5
490002 2008 SJ_{205}	18.4	X	26.73418	143.90445	158.60188	5.28944	0.1894556	0.30074762	2.2063170	21	10 15.2	20.4
490003 2008 SB_{206}	18.4	X	347.57184	210.68652	133.07242	4.04831	0.1593993	0.29927383	2.2135545	21	9 24.9	19.8
490004 2008 ST_{208}	18.3	X	201.89449	301.39379	66.85763	3.88218	0.2451822	0.27086377	2.3657496	21	3 27.3	22.3
490005 2008 SL_{218}	16.9	X	68.58492	30.68359	319.53531	6.87614	0.3205998	0.24167827	2.5525699	21	—	—
490006 2008 ST_{218}	17.5	X	29.19409	172.61611	197.64510	13.76232	0.1931646	0.23863803	2.5742039	21	—	—
490007 2008 SF_{224}	18.9	X	342.11822	222.75001	199.81760	18.59029	0.1174541	0.38979852	1.8559913	21	—	—
490008 2008 SU_{231}	16.7	X	142.81402	124.72151	206.62912	9.87097	0.1228638	0.17917057	3.1161972	21	—	—
490009 2008 SR_{233}	16.6	X	103.19891	329.42516	24.77525	12.85243	0.0715437	0.17384480	3.1795201	21	—	—
490010 2008 SZ_{236}	16.0	X	124.76877	338.24389	13.66182	17.68161	0.0861525	0.17610814	3.1522194	21	—	—
490011 2008 SS_{237}	17.8	X	262.62670	33.67503	356.80284	3.96307	0.1681671	0.29291633	2.2454687	21	6 23.4	20.8
490012 2008 SC_{238}	16.8	X	245.58743	266.83222	86.75043	3.14592	0.0813114	0.20189713	2.8777250	21	4 30.2	21.0
490013 2008 SV_{243}	18.1	X	134.23974	321.04419	55.52435	22.35644	0.0923786	0.41116829	1.7911129	21	—	—
490014 2008 SE_{245}	13.9	X	13.96808	73.14333	298.82392	8.49004	0.0280184	0.07993212	5.3373024	21	10 26.9	20.9
490015 2008 SM_{250}	18.0	X	23.95633	281.87155	46.81031	5.71589	0.2256571	0.30670320	2.1776622	21	11 24.1	20.1
490016 2008 SE_{257}	16.4	X	38.77540	53.69566	23.69897	16.28463	0.1714740	0.17294391	3.1905523	21	—	—
490017 2008 SB_{260}	17.8	X	126.13808	342.91219	156.78480	7.49159	0.1721641	0.28153598	2.3055795	21	6 30.5	21.2
490018 2008 SF_{265}	17.9	X	100.40705	117.84184	64.02271	7.42233	0.0391740	0.28512314	2.2862010	21	7 11.3	20.7
490019 2008 SN_{267}	17.9	X	37.14327	93.47538	293.35015	3.44148	0.2455136	0.24037338	2.5617995	21	—	—
490020 2008 SE_{270}	17.9	X	238.57935	14.13997	40.04738	7.24713	0.0813238	0.28826180	2.2695756	21	7 9.3	20.9
490021 2008 SJ_{270}	16.5	X	28.54585	40.83197	36.68520	12.86146	0.1269820	0.16954916	3.2329993	21	—	—
490022 2008 SK_{270}	16.4	X	163.38740	265.39419	59.36782	4.35680	0.1843250	0.17804696	3.1292937	21	1 11.2	21.5
490023 2008 SS_{277}	18.0	X	8.61792	164.08848	231.43820	4.50456	0.1219389	0.23613584	2.5923568	21	12 29.4	21.1
490024 2008 SN_{281}	16.8	X	185.19936	354.93048	50.71623	2.61643	0.0986649	0.19489372	2.9462583	21	4 29.9	21.3
490025 2008 SA_{283}	16.2	X	120.81278	341.56387	30.61238	11.74276	0.0923928	0.17948839	3.1125175	21	1 15.0	20.8
490026 2008 SH_{288}	17.3	X	276.33208	6.00079	97.45660	4.60275	0.0648695	0.22796498	2.6539371	21	11 5.3	20.6
490027 2008 SG_{290}	16.0	X	122.99308	287.01096	67.68990	11.83858	0.1812286	0.17694955	3.1422187	21	1 6.9	20.7
490028 2008 SS_{299}	17.7	X	6.15102	352.86293	50.36202	3.78682	0.2060798	0.23659789	2.5889806	21	—	—
490029 2008 SH_{302}	16.2	X	146.41660	333.53571	16.16698	15.51793	0.1737102	0.18036083	3.1024722	21	1 28.1	21.3
490030 2008 ST_{304}	16.5	X	196.67751	79.37298	216.99127	14.01646	0.1762658	0.18466308	3.0540958	21	1 2.8	21.8
490031 2008 TT_{3}	18.7	X	352.41144	93.47752	346.97810	20.95073	0.1238872	0.39660650	1.8346906	21	—	—
490032 2008 TQ_{4}	16.4	X	161.69928	316.85702	346.49330	2.57969	0.1829768	0.17824216	3.1270087	21	—	—
490033 2008 TB_{7}	18.0	X	359.90752	114.41717	195.78831	7.34449	0.1557459	0.29942063	2.2128309	21	8 20.8	19.7
490034 2008 TO_{16}	17.3	X	61.95429	213.66244	216.19196	8.48078	0.0689538	0.17945986	3.1128475	21	1 2.6	21.5
490035 2008 TP_{16}	18.1	X	150.80211	226.44018	228.57002	4.93513	0.1192641	0.27965271	2.3159190	21	5 23.3	21.4
490036 2008 TV_{16}	14.8	X	313.98691	214.89941	249.27877	7.86118	0.0380763	0.08409861	5.1595301	21	11 30.4	21.5
490037 2008 TE_{18}	17.6	X	293.42366	187.98744	218.61334	4.26168	0.1137888	0.21914763	2.7246550	21	9 2.9	21.1
490038 2008 TY_{19}	18.1	X	232.20753	340.51675	24.86595	2.03222	0.1951095	0.27819834	2.3239834	21	4 16.3	21.5
490039 2008 TO_{20}	17.6	X	240.30545	200.82314	223.90843	1.86743	0.1507439	0.21078987	2.7962086	21	7 15.6	21.7
490040 2008 TB_{22}	18.6	X	259.76891	134.32632	212.08579	2.20766	0.1975186	0.28152829	2.3056215	21	4 17.4	21.8
490041 2008 TH_{30}	18.7	X	144.17385	61.55341	31.08751	1.97077	0.1578588	0.27478744	2.3431754	21	5 15.9	22.2
490042 2008 TM_{36}	17.1	X	279.27385	10.86783	340.99104	3.24609	0.1108401	0.21157259	2.7893078	21	6 1.5	21.0
490043 2008 TK_{41}	17.5	X	69.67014	358.76869	349.71188	12.29115	0.1893115	0.24243163	2.5472791	21	—	—
490044 2008 TR_{51}	16.1	X	87.79454	357.30599	27.13388	11.41555	0.0722045	0.17454763	3.1709794	21	—	—
490045 2008 TS_{51}	18.2	X	1.51979	291.53068	24.98601	5.76369	0.2303285	0.30097329	2.2052140	21	9 20.5	19.3
490046 2008 TQ_{61}	17.5	X	241.76161	356.34050	16.82114	6.30079	0.1128993	0.20523166	2.8464691	21	5 14.9	21.9
490047 2008 TX_{61}	18.5	X	97.24282	151.12727	296.68402	0.69223	0.1455549	0.26392074	2.4070607	21	3 11.2	21.2
490048 2008 TH_{65}	17.7	X	16.87534	332.91172	325.61060	5.38972	0.1835551	0.30120090	2.2041029	21	9 14.3	19.3
490049 2008 TN_{71}	18.4	X	155.24397	335.98595	112.20037	3.74548	0.1632353	0.27500483	2.3419404	21	5 22.9	22.0
490050 2008 TQ_{73}	16.2	X	200.90821	73.85571	225.48675	8.10388	0.1142173	0.17976654	3.1093061	21	1 9.8	21.2
490051 2008 TW_{74}	16.1	X	328.13636	301.11031	216.69580	9.73517	0.0382531	0.17319244	3.1874993	21	—	—
490052 2008 TY_{74}	17.6	X	16.63849	146.98694	217.24087	1.75653	0.1690841	0.23143501	2.6273424	21	12 6.2	20.5
490053 2008 TL_{75}	16.2	X	206.94929	256.32163	37.34848	18.69359	0.0649220	0.17854963	3.1234178	21	1 12.5	21.2
490054 2008 TH_{80}	16.8	X	231.72332	50.89897	189.28395	12.24788	0.1000957	0.17665913	3.1456615	21	—	—
490055 2008 TQ_{84}	18.1	X	188.55840	41.77139	14.85239	6.01343	0.1495705	0.27893563	2.3198864	21	5 11.2	21.7
490056 2008 TB_{86}	18.7	X	38.71154	168.48336	194.29852	2.53598	0.1913361	0.23884382	2.5727250	21	—	—
490057 2008 TF_{86}	18.4	X	69.30263	354.51456	17.65435	2.02851	0.1576251	0.24666197	2.5180707	21	—	—
490058 2008 TG_{86}	16.1	X	233.85415	209.25260	14.78769	10.43048	0.0132106	0.17304358	3.1893271	21	—	—
490059 2008 TQ_{88}	18.0	X	44.98747	15.83428	339.47014	7.13306	0.1656025	0.23857618	2.5746488	21	—	—
490060 2008 TC_{90}	17.4	X	256.79309	173.21154	185.59695	0.81519	0.1572632	0.20531177	2.8457286	21	5 10.0	21.6
490061 2008 TT_{96}	16.5	X	160.77482	73.06646	232.19075	9.09314	0.0824734	0.17667475	3.1454762	21	—	—
490062 2008 TL_{97}	16.4	X	192.61582	291.77599	346.60227	11.68914	0.0385221	0.17642632	3.1484282	21	—	—
490063 2008 TX_{99}	19.0	X	43.82497	89.07069	186.66449	7.52557	0.2968176	0.30449248	2.1881899	21	10 20.7	21.5
490064 2008 TZ_{100}	18.1	X	44.96047	12.57899	11.69077	2.69332	0.1293270	0.24241201	2.5474165	21	—	—
490065 2008 TO_{102}	18.5	X	37.63710	288.82568	27.33810	4.29601	0.1537754	0.30716980	2.1754564	21	11 13.9	20.7
490066 2008 TN_{103}	16.7	X	314.57598	149.14440	271.40567	8.29953	0.3482530	0.22704879	2.6610718	21	9 25.9	18.8
490067 2008 TF_{104}	16.1	X	61.52579	32.53494	15.86231	11.98081	0.1370517	0.17215234	3.2003250	21	—	—
490068 2008 TE_{113}	18.4	X	12.97411	263.31367	72.21775	2.45583	0.1559531	0.30417933	2.1896914	21	11 4.0	20.1
490069 2008 TA_{114}	17.2	X	99.71192	249.87791	187.93241	7.96353	0.1974226	0.18349469	3.0670467	21	3 21.1	21.5
490070 2008 TM_{116}	17.9	X	43.71345	327.04026	354.77593	5.80465	0.2523240	0.31029662	2.1608171	21	12 14.9	20.8
490071 2008 TQ_{117}	18.5	X	159.07332	170.50728	268.92030	1.49951	0.1777755	0.27398088	2.3477718	21	5 15.0	22.2
490072 2008 TU_{119}	18.3	X	305.76645	52.87719	275.07330	3.09926	0.0618696	0.28794590	2.2712352	21	6 11.5	20.8
490073 2008 TX_{121}	17.2	X	29.42474	16.44055	345.27154	11.89032	0.1920858	0.23597172	2.5935587	21	12 27.2	20.7
490074 2008 TC_{124}	19.2	X	181.96498	62.80576	343.44836	4.96300	0.2384829	0.27541371	2.3396219	21	4 23.5	23.3
490075 2008 TD_{131}	17.4	X	151.59673	36.58794	12.46838	12.88293	0.1862434	0.26838768	2.3802779	21	3 31.0	20.9
490076 2008 TM_{135}	17.3	X	237.94980	201.81795	250.94394	3.89986	0.0181011	0.21842334	2.7306750	21	9 2.8	21.2
490077 2008 TR_{145}	18.3	X	277.05578	169.58068	173.93623	3.42992	0.0663774	0.28605504	2.2812330	21	5 22.4	21.0
490078 2008 TG_{146}	17.9	X	62.13283	185.26305	162.36891	2.22845	0.1650434	0.24149216	2.5538812	21	—	—
490079 2008 TO_{147}	18.4	X	165.70759	48.82529	33.26125	5.11984	0.1362498	0.27921833	2.3183202	21	5 22.1	21.8
490080 2008 TL_{150}	17.1	X	201.70593	234.96320	69.67024	2.38323	0.2380752	0.18830842	3.0145528	21	1 18.9	22.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490081 2008 TX_{150}	18.4	X	282.38429	284.66847	47.07478	3.96074	0.0404432	0.28469074	2.2885153	21	5 16.1	20.8
490082 2008 TC_{161}	18.2	X	118.52244	265.25169	183.70995	4.54112	0.1956532	0.27001721	2.3706918	21	4 18.3	21.3
490083 2008 TV_{163}	18.6	X	239.09048	346.80224	13.29366	2.50083	0.1640001	0.27927439	2.3180100	21	4 17.4	21.9
490084 2008 TP_{166}	17.0	X	229.09482	313.16857	55.81872	2.82594	0.0914583	0.20044019	2.8916530	21	4 29.9	21.3
490085 2008 TC_{168}	18.3	X	9.22315	279.84823	17.40179	4.39273	0.1592210	0.29577814	2.2309611	21	8 25.4	19.9
490086 2008 TF_{173}	16.8	X	337.22921	147.31685	9.40119	5.06010	0.0143508	0.17877156	3.1208323	21	—	—
490087 2008 TP_{177}	15.8	X	114.98638	334.70399	48.74402	25.20813	0.1830751	0.18036948	3.1023730	21	2 10.3	20.8
490088 2008 TD_{184}	16.8	X	273.82910	76.90086	322.98334	8.38071	0.2814706	0.21386611	2.7693302	21	7 5.4	20.9
490089 2008 TE_{184}	16.6	X	197.98801	72.50558	225.14635	9.77456	0.0763232	0.18303380	3.0721932	21	1 3.6	21.4
490090 2008 UN	17.1	X	340.56234	178.85079	245.09749	5.61074	0.1549232	0.23270623	2.6177653	21	12 23.9	19.6
490091 2008 US_{8}	19.0	X	334.65874	258.29401	199.09275	21.86456	0.0728060	0.39793759	1.8305970	21	—	—
490092 2008 UJ_{11}	16.4	X	138.02033	137.20960	199.34599	9.16501	0.0607565	0.17743149	3.1365262	21	—	—
490093 2008 UG_{22}	18.4	X	154.15355	32.78882	29.71951	2.64349	0.1772943	0.27134106	2.3629745	21	4 18.5	21.8
490094 2008 UX_{22}	18.1	X	26.80656	235.54149	161.90157	1.44976	0.1717054	0.23953502	2.5677734	21	—	—
490095 2008 UN_{23}	17.2	X	245.99212	169.75496	196.59787	1.51844	0.0860746	0.20610597	2.8384135	21	5 15.4	21.4
490096 2008 UT_{24}	18.2	X	137.64033	41.86057	54.26035	3.35246	0.1831863	0.27208601	2.3586595	21	5 16.4	21.4
490097 2008 UW_{26}	16.0	X	223.01993	208.63602	44.05883	17.52416	0.0983262	0.17255680	3.1953222	21	—	—
490098 2008 UL_{27}	17.4	X	265.59538	11.43198	50.41902	5.71191	0.1523422	0.21553790	2.7549916	21	8 13.3	21.3
490099 2008 UT_{27}	17.7	X	29.88144	341.10989	43.94122	9.73649	0.1678007	0.23707729	2.5854893	21	—	—
490100 2008 UR_{28}	17.1	X	100.97615	1.56616	88.40694	2.34045	0.1668725	0.18464242	3.0543237	21	4 3.8	21.4
490101 2008 UV_{29}	18.4	X	278.52283	80.41454	41.61238	22.41289	0.0417506	0.38730173	1.8639593	21	—	—
490102 2008 UW_{30}	18.1	X	35.55827	239.47800	53.68172	7.61780	0.2299488	0.30095938	2.2052820	21	10 23.2	20.3
490103 2008 UD_{32}	15.6	X	191.33487	245.72058	55.22154	11.98992	0.0925353	0.17690527	3.1427430	21	1 4.3	20.6
490104 2008 UQ_{35}	17.1	X	277.93299	291.86017	35.37184	2.37180	0.0627860	0.20356144	2.8620181	21	5 6.4	20.8
490105 2008 UH_{36}	17.4	X	358.84195	57.21873	310.79991	2.33370	0.1958450	0.22741200	2.6582376	21	11 11.6	20.1
490106 2008 UM_{36}	17.6	X	25.84618	86.98926	299.98448	2.01177	0.1447468	0.23570176	2.5955387	21	—	—
490107 2008 UQ_{38}	17.5	X	316.99661	195.82451	237.02388	5.86734	0.1542873	0.22780664	2.6551667	21	11 19.1	20.2
490108 2008 UR_{41}	18.0	X	167.62088	3.47908	35.56934	5.90835	0.2025898	0.26847465	2.3797638	21	4 4.5	21.8
490109 2008 UW_{41}	16.3	X	38.96978	135.69970	232.81964	9.12197	0.1062531	0.15675861	3.4065527	21	12 16.8	21.0
490110 2008 UA_{42}	17.0	X	5.23131	134.24714	232.01450	4.21870	0.2667045	0.22915519	2.6447396	21	12 4.2	19.4
490111 2008 UY_{43}	18.4	X	50.05319	138.77759	208.61928	11.20178	0.2171102	0.23823743	2.5770888	21	—	—
490112 2008 UD_{49}	18.1	X	31.38279	35.66712	36.18149	7.21554	0.3486587	0.24241186	2.5474176	21	—	—
490113 2008 UM_{49}	17.7	X	345.06482	45.75272	16.59933	2.86687	0.1380636	0.23497633	2.6008779	21	12 29.5	20.5
490114 2008 UL_{50}	18.4	X	185.53392	179.63758	201.99611	0.59066	0.1910785	0.27143518	2.3624283	21	3 27.3	22.0
490115 2008 UH_{52}	16.7	X	201.62460	165.16129	229.67925	11.37444	0.2202314	0.19617511	2.9334145	21	4 30.6	21.8
490116 2008 UE_{67}	17.6	X	43.84183	343.23705	9.48286	4.74092	0.2679503	0.23575934	2.5951160	21	—	—
490117 2008 UB_{72}	17.2	X	288.08297	81.03152	318.65488	5.39372	0.1274775	0.21498344	2.7597265	21	8 15.6	20.5
490118 2008 UJ_{75}	17.7	X	356.69519	40.80555	350.71424	2.69683	0.1144800	0.22816375	2.6523955	21	12 1.9	20.8
490119 2008 UN_{75}	18.1	X	299.01011	309.94324	35.99185	7.50968	0.1582791	0.28632530	2.2797973	21	6 10.3	20.7
490120 2008 UK_{77}	17.2	X	286.90411	2.38913	35.65468	3.58198	0.0956788	0.21371157	2.7706650	21	8 18.4	20.7
490121 2008 UZ_{79}	17.1	X	2.45006	71.64427	268.40509	5.22326	0.0453051	0.22106390	2.7088867	21	9 22.9	20.7
490122 2008 UY_{80}	18.1	X	158.01336	342.52973	62.92003	2.43644	0.1826099	0.26994049	2.3711409	21	4 1.9	21.7
490123 2008 UB_{87}	18.1	X	151.10440	258.78940	207.06590	9.24913	0.1913729	0.27665952	2.3325930	21	6 12.4	21.9
490124 2008 UE_{87}	18.5	X	143.96096	40.87345	59.81914	2.26935	0.1388497	0.27522191	2.3407088	21	5 25.0	21.9
490125 2008 UM_{87}	18.1	X	176.50176	93.74756	343.82086	5.20078	0.1187866	0.27712653	2.3299717	21	5 26.4	21.5
490126 2008 UZ_{93}	16.7	X	2.01419	163.16925	201.86853	15.35699	0.2719039	0.22845044	2.6501760	21	11 27.5	19.3
490127 2008 UN_{101}	17.9	X	351.25919	257.44078	3.76699	4.41695	0.1345351	0.28348717	2.2949882	21	5 7.9	19.8
490128 2008 UB_{102}	18.6	X	257.19614	153.89064	242.20165	2.42266	0.0825126	0.28942541	2.2634884	21	7 6.8	21.2
490129 2008 UZ_{104}	17.5	X	240.94237	12.32182	354.13682	1.60386	0.0833778	0.20295144	2.8677500	21	5 9.5	21.7
490130 2008 UO_{108}	17.3	X	55.95065	63.44571	316.22132	4.78373	0.2761671	0.24138005	2.5546719	21	—	—
490131 2008 UM_{119}	18.4	X	60.50640	0.94771	10.81065	6.25953	0.2353384	0.24171301	2.5523254	21	—	—
490132 2008 UT_{120}	17.5	X	134.76867	86.71842	315.45186	5.77474	0.1111603	0.26133610	2.4229053	21	2 22.3	20.8
490133 2008 UA_{123}	17.6	X	10.75927	3.75009	351.27446	6.03186	0.1508793	0.22655866	2.6649083	21	11 7.8	20.6
490134 2008 UW_{124}	17.7	X	233.21660	6.00560	2.10731	7.32147	0.1326696	0.27638753	2.3341231	21	4 22.3	21.2
490135 2008 UY_{124}	17.0	X	301.33069	41.48216	28.46520	15.04230	0.1000492	0.22315342	2.6919502	21	10 21.9	20.2
490136 2008 UE_{128}	17.0	X	83.25928	77.50426	56.38846	20.26888	0.3807079	0.25937467	2.4351049	21	5 31.6	20.3
490137 2008 UZ_{132}	17.4	X	320.27725	354.56202	34.40238	5.32632	0.1174108	0.22182336	2.7027002	21	9 26.7	20.3
490138 2008 UM_{139}	18.1	X	190.10444	339.05777	40.12642	2.10316	0.2007249	0.27076694	2.3663135	21	3 29.3	21.8
490139 2008 UQ_{143}	17.7	X	8.63736	336.40213	51.98113	5.43083	0.1742921	0.23250898	2.6192457	21	12 26.9	20.6
490140 2008 UA_{145}	17.7	X	15.79173	300.93190	78.11351	2.77369	0.1066552	0.23177268	2.6247900	21	12 15.4	20.8
490141 2008 UX_{146}	17.5	X	140.84728	61.22678	38.47321	5.73656	0.1382852	0.27214564	2.3583149	21	5 19.6	20.8
490142 2008 UY_{150}	16.8	X	64.83265	48.63430	66.60079	4.43246	0.1471983	0.18331287	3.0690744	21	3 15.7	20.6
490143 2008 UZ_{150}	17.2	X	296.53728	152.03237	236.22922	2.41248	0.2010590	0.21622016	2.7491932	21	7 31.2	20.5
490144 2008 UX_{154}	16.6	X	87.94104	194.52397	208.92472	10.89547	0.0678549	0.17606040	3.1527891	21	1 5.3	21.1
490145 2008 UY_{156}	18.4	X	120.32684	205.57774	200.89499	1.21542	0.1819724	0.25877185	2.4388852	21	2 21.3	21.6
490146 2008 UW_{157}	17.3	X	219.33637	161.77429	223.34075	14.52334	0.2741608	0.20002531	2.8956501	21	5 1.2	22.4
490147 2008 UZ_{158}	18.4	X	30.13215	29.46159	2.08564	5.88502	0.3135910	0.23718453	2.5847099	21	—	—
490148 2008 UA_{159}	17.4	X	14.65783	49.94879	315.45643	5.35665	0.2175148	0.22919324	2.6444469	21	12 11.2	20.4
490149 2008 UM_{165}	17.3	X	252.88687	247.47317	205.52823	2.11235	0.2317828	0.21644867	2.7472579	21	8 24.7	21.3
490150 2008 UD_{175}	18.3	X	121.73215	67.00574	42.72979	4.34481	0.1482778	0.26957023	2.3733116	21	5 12.9	21.5
490151 2008 UW_{178}	16.9	X	62.70875	121.55941	243.48665	13.96318	0.1221964	0.24215215	2.5492387	21	—	—
490152 2008 UM_{184}	18.5	X	146.76449	347.58087	43.00942	1.85030	0.1874050	0.26179113	2.4200969	21	3 4.0	22.1
490153 2008 UJ_{196}	17.3	X	275.15179	64.46159	46.39353	3.77928	0.0629934	0.22855930	2.6493344	21	11 11.9	20.8
490154 2008 UO_{196}	18.7	X	221.89446	185.00715	193.39531	5.07244	0.1689243	0.27799483	2.3251175	21	4 25.4	22.4
490155 2008 UP_{198}	15.7	X	145.67702	297.58009	35.24601	27.18689	0.1514075	0.17682513	3.1436925	21	—	—
490156 2008 UV_{199}	18.0	X	29.56577	6.87601	31.20813	3.31418	0.2495585	0.23910429	2.5708563	21	—	—
490157 2008 UY_{201}	17.6	X	330.86564	192.08610	194.33838	4.85220	0.0675782	0.22431876	2.6826189	21	10 12.0	20.9
490158 2008 UB_{203}	17.0	X	357.58616	114.74465	258.32245	5.83845	0.3306884	0.23039711	2.6352270	21	12 9.4	19.0
490159 2008 UE_{222}	17.5	X	240.59597	353.01000	20.30177	7.04805	0.1650372	0.27972563	2.3155165	21	5 5.1	21.1
490160 2008 UN_{229}	17.2	X	0.21433	147.66633	254.92182	12.70917	0.2567977	0.23127941	2.6285207	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490161 2008 UZ_{230}	16.8	X	53.54752	217.56775	202.91758	15.91263	0.1975356	0.17351625	3.1835325	21	—	—
490162 2008 UN_{236}	17.2	X	129.92823	50.15312	274.01509	5.08510	0.1475696	0.24781664	2.5102428	21	—	—
490163 2008 UW_{240}	16.3	X	184.67639	36.20777	274.05584	8.60795	0.0756040	0.17522499	3.1628021	21	1 7.2	21.0
490164 2008 UN_{243}	17.4	X	106.20783	73.70810	265.02184	11.97455	0.1776307	0.24440878	2.5335230	21	—	—
490165 2008 UP_{245}	17.7	X	51.54939	31.43580	342.76282	3.22348	0.1676257	0.23782962	2.5800339	21	—	—
490166 2008 UZ_{247}	18.4	X	112.65187	195.64363	212.44295	2.62489	0.1860038	0.25641449	2.4538104	21	2 13.9	21.6
490167 2008 UP_{248}	17.5	X	46.55307	233.44566	139.37102	1.04119	0.2245218	0.23683182	2.5872755	21	—	—
490168 2008 UG_{250}	16.4	X	186.36102	239.90948	47.27717	16.93433	0.2050403	0.17670549	3.1451113	21	—	—
490169 2008 UP_{250}	18.3	X	23.49081	244.16619	26.86474	4.38184	0.0401527	0.28815999	2.2701101	21	7 27.7	20.7
490170 2008 UD_{252}	17.2	X	196.82618	253.38263	220.31819	7.89964	0.1251492	0.21014826	2.8018971	21	8 1.7	21.8
490171 2008 UD_{253}	14.3	X	75.95351	355.83036	35.56193	13.62872	0.4829630	0.09473575	4.7657009	21	2 25.8	21.0
490172 2008 UJ_{253}	17.5	X	340.35288	161.80556	207.57845	1.87487	0.1321398	0.22302961	2.6929464	21	10 3.0	20.1
490173 2008 UO_{255}	17.6	X	313.06075	222.61339	139.90543	6.53939	0.2011916	0.29693974	2.2251391	21	7 26.5	19.1
490174 2008 UR_{256}	16.3	X	112.90756	144.89439	220.27170	9.80621	0.0470482	0.17123006	3.2118066	21	—	—
490175 2008 UB_{259}	16.9	X	225.64527	192.29112	243.18606	2.64538	0.0730329	0.20840105	2.8175358	21	7 20.8	21.0
490176 2008 UT_{260}	18.8	X	281.35858	247.00317	100.80984	2.97365	0.2149645	0.28623686	2.2802669	21	5 11.6	21.8
490177 2008 UV_{269}	18.5	X	221.71193	226.36524	149.12468	1.67423	0.1942410	0.27737149	2.3285997	21	4 20.6	22.2
490178 2008 UO_{272}	16.4	X	211.89564	3.64469	273.13362	9.89344	0.0375313	0.17716531	3.1396670	21	—	—
490179 2008 UW_{272}	18.1	X	167.90766	65.41580	33.06665	6.29872	0.0672671	0.27912571	2.3188331	21	6 13.1	21.3
490180 2008 UJ_{275}	16.7	X	170.83270	92.47259	231.44820	8.11672	0.1352110	0.17675168	3.1445633	21	1 11.6	21.8
490181 2008 UN_{277}	18.2	X	66.57392	227.93275	215.76543	2.10633	0.1866680	0.25444071	2.4664841	21	1 18.2	20.2
490182 2008 UF_{283}	18.1	X	21.74407	214.67560	59.35837	5.51540	0.0930903	0.29051174	2.2578422	21	8 4.6	20.3
490183 2008 UL_{283}	17.0	X	133.85687	344.64648	84.71627	2.72823	0.1713271	0.18909465	3.0061909	21	4 14.2	21.7
490184 2008 UD_{285}	16.7	X	338.91478	242.52426	50.97800	8.31538	0.2034699	0.21082412	2.7959057	21	6 1.2	19.5
490185 2008 US_{289}	18.0	X	118.38341	18.41825	104.59949	3.28755	0.1514023	0.26934032	2.3746620	21	5 28.4	21.1
490186 2008 UZ_{299}	18.6	X	146.08302	150.37116	313.06350	2.21518	0.1460441	0.27424556	2.3462609	21	5 31.4	22.0
490187 2008 UW_{302}	18.5	X	50.40313	93.69724	262.27016	3.58435	0.3386613	0.23763962	2.5814089	21	—	—
490188 2008 UT_{303}	17.3	X	151.86153	218.30592	248.83910	8.31691	0.2052805	0.19539527	2.9412144	21	6 16.7	22.1
490189 2008 UJ_{305}	17.2	X	282.08787	50.56482	4.45183	5.67613	0.1446574	0.22127618	2.7071539	21	8 27.4	20.5
490190 2008 UD_{309}	18.5	X	41.75616	19.41445	14.73544	8.26077	0.3176500	0.24112218	2.5564930	21	—	—
490191 2008 UR_{314}	19.0	X	176.60549	278.85948	38.74178	19.99939	0.0630499	0.40924591	1.7967176	21	—	—
490192 2008 UC_{315}	17.1	X	92.05921	13.05296	78.87759	0.81936	0.2010193	0.18018813	3.1044542	21	3 30.9	21.3
490193 2008 UP_{317}	18.0	X	43.94592	103.33401	256.83097	11.49643	0.3036645	0.23919122	2.5702334	21	—	—
490194 2008 UJ_{321}	17.8	X	322.97382	318.40340	9.40776	6.49542	0.1783710	0.29275781	2.2462792	21	6 23.1	19.9
490195 2008 UT_{324}	18.3	X	42.71505	342.03759	329.18582	3.71535	0.2156052	0.30782080	2.1723881	21	11 23.4	20.9
490196 2008 UH_{327}	18.3	X	52.75166	355.46006	350.48519	20.37526	0.0953517	0.39136634	1.8510312	21	—	—
490197 2008 UT_{328}	17.8	X	207.53672	7.38691	23.05949	6.17665	0.1228970	0.27369590	2.3494012	21	4 26.9	21.1
490198 2008 UC_{331}	16.8	X	316.25707	192.92015	227.90225	8.41352	0.3137727	0.22638512	2.6662700	21	10 11.3	18.8
490199 2008 UH_{337}	18.1	X	7.91603	60.44220	304.58703	4.13471	0.1915150	0.22791236	2.6543456	21	11 24.1	20.9
490200 2008 US_{339}	17.9	X	340.96969	210.69493	210.96233	2.90633	0.1565341	0.23119545	2.6291570	21	12 21.2	20.6
490201 2008 UQ_{352}	17.3	X	329.64581	141.00115	239.49002	13.36900	0.2430397	0.22090352	2.7101976	21	9 14.5	19.9
490202 2008 UC_{353}	17.3	X	226.70387	245.26465	235.33678	13.19196	0.1249707	0.21685907	2.7437907	21	9 8.1	21.7
490203 2008 UX_{353}	17.6	X	29.31228	107.88707	248.58107	11.41264	0.2815112	0.23254459	2.6189782	21	12 30.8	21.1
490204 2008 UV_{354}	16.0	X	216.16352	195.76388	75.99677	15.08327	0.0502183	0.17011770	3.2257921	21	—	—
490205 2008 UO_{355}	18.1	X	105.16647	332.13707	142.41271	2.36188	0.2707921	0.26304038	2.4124284	21	5 17.8	21.4
490206 2008 UW_{356}	16.1	X	136.45291	305.66471	31.61698	4.50860	0.1498555	0.16996201	3.2277618	21	—	—
490207 2008 UN_{359}	18.5	X	168.76846	153.46551	258.94316	0.79351	0.1748086	0.27060352	2.3672661	21	4 19.2	22.1
490208 2008 UW_{359}	17.7	X	250.78845	264.29049	185.29807	2.50490	0.1511223	0.21382572	2.7696789	21	8 28.4	21.6
490209 2008 UE_{361}	16.9	X	279.73764	80.49287	324.49354	7.69882	0.1911463	0.21577237	2.7529955	21	8 1.8	20.6
490210 2008 UD_{366}	17.7	X	339.47276	284.99706	346.79592	7.47153	0.1120501	0.28484369	2.2876960	21	5 2.4	20.1
490211 2008 UQ_{368}	17.5	X	212.37555	328.05105	63.39774	12.42137	0.2207752	0.27625383	2.3348761	21	5 3.9	21.4
490212 2008 VP	17.9	X	65.51712	337.46427	11.87391	7.54066	0.3102546	0.24097175	2.5575568	21	—	—
490213 2008 VZ_{1}	18.2	X	200.67094	92.78337	287.39526	4.38590	0.2572566	0.27336346	2.3513056	21	4 5.8	22.5
490214 2008 VF_{4}	17.5	X	329.62625	140.12014	274.64296	3.44222	0.1646897	0.22769169	2.6560603	21	11 17.3	20.0
490215 2008 VJ_{5}	18.0	X	351.91418	200.69809	217.19880	5.22109	0.2365542	0.23375817	2.6099059	21	—	—
490216 2008 VV_{10}	18.0	X	53.99847	134.92628	214.17380	12.53303	0.2989678	0.23778135	2.5803831	21	—	—
490217 2008 VJ_{12}	16.4	X	183.88573	242.54119	99.41329	6.79432	0.1527837	0.18354121	3.0665283	21	2 16.2	21.4
490218 2008 VS_{13}	17.5	X	166.20677	28.55162	64.43213	24.46424	0.2064037	0.27465800	2.3439115	21	6 7.6	21.3
490219 2008 VN_{19}	17.8	X	253.41601	179.33786	163.20262	5.08294	0.1727818	0.27837029	2.3230263	21	4 9.9	21.2
490220 2008 VK_{32}	17.9	X	57.87418	97.82987	76.53102	7.59757	0.1073287	0.27061675	2.3671890	21	5 7.5	20.3
490221 2008 VU_{33}	16.3	X	154.06002	111.21775	206.90808	10.29624	0.0879717	0.17076314	3.2176586	21	—	—
490222 2008 VC_{44}	15.9	X	74.39164	333.22345	34.08601	18.77940	0.1117408	0.16313678	3.3171730	21	—	—
490223 2008 VM_{53}	18.5	X	177.67891	182.28128	200.94981	9.50359	0.2515489	0.26931527	2.3748092	21	3 24.2	22.6
490224 2008 VV_{53}	14.9	X	6.92180	59.13153	2.08173	5.14029	0.0603981	0.08384678	5.1698562	21	12 16.4	21.5
490225 2008 VC_{54}	17.6	X	336.05938	164.60827	321.65434	4.71871	0.1870904	0.23923642	2.5699096	21	—	—
490226 2008 VH_{54}	17.0	X	254.39859	94.46560	249.95134	8.94214	0.1049666	0.19863172	2.9091781	21	4 23.3	21.5
490227 2008 VR_{62}	16.5	X	191.31923	95.16278	219.52227	6.32619	0.1113219	0.17974191	3.1095902	21	1 18.3	21.4
490228 2008 VS_{69}	17.1	X	276.98123	16.89051	29.70389	3.61705	0.1505742	0.21280383	2.7785385	21	8 6.9	20.7
490229 2008 VN_{79}	16.1	X	179.96411	254.47144	82.22530	14.49735	0.1836988	0.17981642	3.1087310	21	2 10.4	21.4
490230 2008 WK_{2}	16.5	X	161.22874	313.40944	47.60473	14.01935	0.2139503	0.18577455	3.0419022	21	2 26.8	21.8
490231 2008 WD_{5}	16.9	X	111.39786	7.08700	64.84471	2.75658	0.2471893	0.18377619	3.0639139	21	4 3.8	21.6
490232 2008 WS_{15}	18.8	X	198.20031	200.79361	182.77040	2.01653	0.2092101	0.27428416	2.3460408	21	4 10.2	22.6
490233 2008 WG_{17}	16.0	X	129.16222	137.21377	216.71269	24.99474	0.1264776	0.17615719	3.1516342	21	1 1.0	21.1
490234 2008 WK_{25}	17.5	X	61.22720	174.68350	186.56644	2.38812	0.1610247	0.23747211	2.5826228	21	—	—
490235 2008 WX_{34}	17.6	X	312.41059	218.51793	175.01724	2.14159	0.0618293	0.22126371	2.7072556	21	9 23.1	20.7
490236 2008 WJ_{36}	16.4	X	155.04455	103.70014	237.83186	8.14543	0.0741964	0.17438506	3.1729498	21	1 11.8	21.2
490237 2008 WO_{38}	18.3	X	83.81383	297.29717	211.60366	2.35557	0.0706407	0.27017856	2.3697478	21	5 4.5	21.1
490238 2008 WN_{39}	17.8	X	138.35202	7.95373	78.84826	3.42725	0.1399779	0.26879983	2.3778442	21	5 1.5	21.1
490239 2008 WV_{44}	18.4	X	118.14657	28.76721	55.08584	2.06154	0.1534510	0.26313799	2.4118318	21	4 5.7	21.6
490240 2008 WH_{46}	17.9	X	167.51584	197.74130	254.28928	6.13406	0.0450703	0.27553680	2.3389251	21	6 3.2	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490241 2008 WA_{47}	17.9	X	19.48304	320.33512	63.41098	6.95481	0.1695997	0.23182702	2.6243798	21	—	—
490242 2008 WN_{53}	18.8	X	120.50264	26.21730	91.24520	3.05167	0.1887061	0.27124543	2.3635299	21	5 27.7	22.0
490243 2008 WR_{59}	18.0	X	156.47919	299.22818	98.10581	3.57668	0.1821279	0.26479291	2.4017722	21	3 22.4	21.6
490244 2008 WH_{66}	17.7	X	19.03730	125.64849	243.78690	10.91821	0.2966383	0.23231753	2.6206844	21	—	—
490245 2008 WB_{73}	18.2	X	28.34496	102.36166	285.61923	2.77418	0.1793296	0.23404807	2.6077503	21	—	—
490246 2008 WF_{81}	17.5	X	346.86748	219.89464	96.35804	6.58207	0.1188251	0.28804467	2.2707160	21	8 3.7	19.5
490247 2008 WK_{85}	17.8	X	165.88600	355.55837	89.26970	5.90910	0.1819747	0.27102874	2.3647895	21	5 29.8	21.5
490248 2008 WV_{86}	18.3	X	228.08018	123.84443	226.77122	3.67051	0.1173467	0.27347813	2.3506483	21	3 26.9	21.9
490249 2008 WB_{92}	18.1	X	272.35352	302.48740	65.39126	7.00815	0.1426172	0.28470500	2.2884389	21	6 7.1	20.8
490250 2008 WS_{95}	17.6	X	60.97579	287.95750	104.95139	5.42060	0.2874789	0.24392268	2.5368878	21	—	—
490251 2008 WY_{103}	15.6	X	90.54990	178.78456	247.67849	27.17795	0.1209926	0.17803704	3.1294100	21	2 1.8	20.4
490252 2008 WH_{107}	18.3	X	13.80078	328.08631	65.49490	4.02851	0.2351999	0.23458740	2.6037518	21	—	—
490253 2008 WW_{110}	16.0	X	206.38729	56.44083	250.48365	6.92471	0.2197511	0.17967997	3.1103047	21	1 23.6	21.5
490254 2008 WC_{114}	17.4	X	134.54212	327.82414	90.69735	2.22740	0.2175334	0.18399018	3.0615378	21	4 6.5	22.2
490255 2008 WC_{120}	17.6	X	207.65331	287.03409	83.79477	2.41322	0.1967708	0.26820793	2.3813413	21	4 3.6	21.5
490256 2008 WY_{137}	17.8	X	113.53939	53.09955	248.37695	19.77972	0.0310981	0.38783796	1.8622408	21	—	—
490257 2008 WQ_{138}	17.1	X	38.90610	223.74861	263.25856	13.54355	0.0607170	0.25371653	2.4711753	21	1 21.0	20.1
490258 2008 WE_{141}	16.6	X	244.89265	107.14740	264.76398	7.70498	0.1209044	0.20145476	2.8819362	21	5 16.8	20.9
490259 2008 XB_{12}	17.9	X	38.94586	257.71681	132.76551	4.90669	0.2404228	0.23809469	2.5781187	21	—	—
490260 2008 XA_{14}	17.8	X	135.73201	102.78192	353.90664	5.07564	0.1887240	0.26944688	2.3740358	21	5 14.2	21.4
490261 2008 XR_{18}	18.2	X	117.38624	311.61379	139.86439	1.80294	0.1448703	0.26198092	2.4189280	21	4 14.0	21.4
490262 2008 XA_{38}	17.9	X	235.64736	340.90588	40.80663	4.80655	0.1402936	0.27733064	2.3288284	21	5 14.2	21.4
490263 2008 XF_{39}	17.9	X	294.13522	39.68235	32.63178	2.07126	0.1156571	0.21987332	2.7186566	21	10 11.5	21.2
490264 2008 YS_{10}	17.9	X	123.66639	14.56807	85.28339	3.07403	0.1269693	0.26642725	2.3919400	21	4 30.5	21.0
490265 2008 YP_{11}	17.7	X	167.60737	0.65941	75.50725	5.74777	0.1239249	0.27189173	2.3597829	21	5 17.5	21.0
490266 2008 YT_{12}	18.4	X	20.18520	317.91106	71.62911	3.53828	0.2346848	0.23324885	2.6137038	21	—	—
490267 2008 YX_{15}	18.2	X	120.06752	7.02698	115.02371	3.28991	0.1485796	0.26513458	2.3997084	21	5 29.0	21.4
490268 2008 YM_{17}	17.8	X	30.98188	102.55936	105.39345	2.33223	0.1231962	0.26031350	2.4292465	21	5 10.5	20.0
490269 2008 YP_{17}	16.9	X	140.51902	198.32914	298.04574	9.14040	0.0823085	0.19168365	2.9790606	21	7 4.9	21.4
490270 2008 YH_{36}	17.0	X	8.59647	213.96992	285.03021	14.17729	0.0473222	0.24526153	2.5276470	21	—	—
490271 2008 YR_{42}	17.6	X	304.08059	17.11224	54.11140	2.13404	0.1520389	0.22236426	2.6983155	21	10 22.8	20.6
490272 2008 YY_{42}	17.4	X	349.24770	13.07059	271.89929	6.70616	0.0949898	0.27963488	2.3160174	21	6 17.2	19.4
490273 2008 YC_{48}	17.9	X	185.93549	326.10659	104.51584	5.88739	0.0909131	0.26903641	2.3764500	21	5 29.6	21.2
490274 2008 YJ_{48}	17.4	X	131.82027	350.38175	101.95548	5.69675	0.1744882	0.26198062	2.4189298	21	5 7.0	20.9
490275 2008 YT_{48}	17.3	X	142.87260	47.21159	96.64078	4.48148	0.2207755	0.19197564	2.9760391	21	7 25.2	22.2
490276 2008 YU_{48}	17.8	X	60.33369	224.56370	308.66656	5.59239	0.1412896	0.25928516	2.4356653	21	5 12.2	20.5
490277 2008 YG_{51}	18.1	X	34.88624	172.79699	42.32371	1.88150	0.1487642	0.26201642	2.4187095	21	5 31.1	20.2
490278 2008 YB_{56}	17.7	X	45.83621	129.03102	243.79069	11.62776	0.1936733	0.23569607	2.5955804	21	—	—
490279 2008 YW_{74}	17.3	X	250.49131	44.10655	359.53720	1.92647	0.1864614	0.20238386	2.8731092	21	6 25.9	21.6
490280 2008 YL_{83}	17.9	X	114.36473	19.91717	86.88636	3.39901	0.1799023	0.26173584	2.4204378	21	5 6.2	21.1
490281 2008 YU_{100}	18.0	X	178.05432	44.54098	331.46843	0.50171	0.2021366	0.25902187	2.4373156	21	3 15.4	22.0
490282 2008 YK_{102}	18.1	X	109.20847	16.84180	128.58660	3.82968	0.1374782	0.26595198	2.3947889	21	6 15.3	21.2
490283 2008 YJ_{104}	18.1	X	196.07297	286.41970	107.42418	4.89775	0.0918110	0.26351641	2.4095222	21	4 23.3	21.6
490284 2008 YS_{105}	17.8	X	81.69172	126.57531	293.20007	5.39366	0.1285236	0.24424627	2.5346467	21	1 9.1	20.4
490285 2008 YD_{113}	17.5	X	212.14669	24.91258	68.23070	2.90639	0.1464830	0.19901081	2.9054826	21	7 23.9	22.2
490286 2008 YL_{117}	17.4	X	37.94790	149.86894	267.46059	4.50616	0.2588601	0.23792595	2.5793375	21	—	—
490287 2008 YX_{117}	18.2	X	27.31991	134.03490	308.80260	4.23455	0.2723918	0.23891419	2.5722199	21	—	—
490288 2008 YC_{124}	17.6	X	271.24597	263.90304	164.01982	2.15652	0.1851425	0.20997350	2.8034516	21	8 20.6	21.4
490289 2008 YS_{125}	17.6	X	251.71389	257.23984	107.06462	7.74929	0.1463572	0.27153023	2.3618769	21	5 11.3	21.1
490290 2008 YM_{126}	17.9	X	215.91130	288.27207	91.23188	2.18858	0.1757382	0.26775757	2.3840108	21	4 21.9	21.7
490291 2008 YY_{126}	17.7	X	67.86205	204.15056	315.96591	3.78162	0.1013879	0.25984530	2.4321637	21	4 29.5	20.4
490292 2008 YD_{132}	18.0	X	348.78163	313.77991	69.00439	3.29501	0.0936897	0.21754864	2.7379896	21	11 4.5	21.1
490293 2008 YR_{135}	17.4	X	315.39610	355.69848	295.08584	6.57665	0.1020610	0.26920269	2.3754713	21	4 23.6	20.4
490294 2008 YZ_{135}	17.3	X	135.34219	152.86599	289.98255	11.47920	0.1132747	0.26300126	2.4126676	21	4 13.1	21.0
490295 2008 YC_{140}	18.1	X	66.95466	287.55498	235.18118	1.58882	0.1500377	0.25996210	2.4314351	21	5 11.5	20.6
490296 2008 YY_{143}	18.1	X	176.07715	280.12485	129.42831	3.81626	0.1845424	0.26439443	2.4041848	21	4 25.2	22.0
490297 2008 YR_{160}	15.8	X	162.31001	87.06576	343.81508	10.48729	0.0706190	0.17446008	3.1720401	21	5 2.9	20.8
490298 2008 YM_{170}	18.1	X	64.76994	262.92312	288.58760	1.23633	0.1110273	0.26516135	2.3995468	21	6 13.2	20.8
490299 2009 AK_{9}	17.4	X	139.92856	158.09034	305.40708	6.30651	0.0656184	0.26666315	2.3905292	21	5 15.1	20.8
490300 2009 AX_{11}	17.9	X	190.39216	295.92797	93.06505	2.26459	0.1671616	0.26376023	2.4080371	21	4 11.2	21.7
490301 2009 AJ_{15}	17.5	X	341.76607	142.73237	300.58763	6.71647	0.3587041	0.23014076	2.6371835	21	—	—
490302 2009 AG_{23}	17.5	X	223.30126	284.34215	96.58818	6.98372	0.1207734	0.26824928	2.3810965	21	5 4.8	21.1
490303 2009 AY_{24}	16.9	X	131.52719	330.73077	177.48236	1.53444	0.1658697	0.19005245	2.9960822	21	7 16.2	21.5
490304 2009 AY_{25}	18.2	X	37.73362	0.16010	181.55051	1.11477	0.1246683	0.25684403	2.4510738	21	4 13.0	20.6
490305 2009 BK_{22}	17.4	X	317.34979	160.68516	328.21344	12.90932	0.1874301	0.22764021	2.6564607	21	—	—
490306 2009 BL_{30}	17.9	X	359.77917	328.22305	111.27214	5.97969	0.2130641	0.23077067	2.6323824	21	—	—
490307 2009 BH_{33}	16.9	X	214.50143	99.64499	318.77844	8.63814	0.0678093	0.19121621	2.9839137	21	6 17.1	21.4
490308 2009 BE_{38}	17.2	X	145.43686	63.45009	31.87273	1.66938	0.2527559	0.18521211	3.0480573	21	5 30.7	22.4
490309 2009 BH_{38}	18.1	X	69.69320	169.53353	17.24097	1.27185	0.1267624	0.26211892	2.4180789	21	6 16.9	20.7
490310 2009 BQ_{38}	17.1	X	179.05277	50.56432	23.86251	1.66446	0.0737517	0.18565243	3.0432360	21	5 28.9	21.6
490311 2009 BG_{40}	18.4	X	96.12381	93.51714	61.20112	2.30649	0.1140754	0.26204907	2.4185086	21	6 7.3	21.3
490312 2009 BS_{40}	18.0	X	36.06010	108.42743	84.88387	2.33802	0.1245457	0.25551640	2.4595568	21	4 28.5	20.2
490313 2009 BQ_{43}	18.7	X	190.42245	73.88061	123.49001	23.74738	0.0837591	0.37319923	1.9106254	21	12 15.4	21.2
490314 2009 BE_{51}	17.2	X	286.35085	179.54751	313.81777	11.41522	0.1786945	0.22217836	2.6998204	21	12 12.2	20.3
490315 2009 BL_{57}	17.7	X	117.41704	300.82460	144.27888	2.73236	0.1789175	0.25754445	2.4466279	21	4 11.1	21.0
490316 2009 BP_{64}	18.1	X	78.20298	160.07350	331.47792	5.56652	0.1999857	0.25468074	2.4649341	21	4 20.8	20.9
490317 2009 BF_{66}	18.2	X	12.46139	120.90108	323.09783	5.01146	0.2639297	0.23295849	2.6158752	21	—	—
490318 2009 BE_{67}	16.5	X	143.62718	151.30721	309.80812	5.31425	0.1789253	0.18340574	3.0680382	21	5 31.2	21.5
490319 2009 BC_{72}	18.2	X	8.45310	164.58349	268.29882	9.54744	0.2430750	0.23314453	2.6144834	21	—	—
490320 2009 BM_{75}	17.6	X	95.05753	183.21097	337.45438	4.83141	0.0860819	0.26550395	2.3974822	21	6 9.3	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490321 2009 BB_{80}	17.5	X	316.57309	126.94352	347.28270	7.21514	0.2262679	0.22659915	2.6645909	21	—	—
490322 2009 BN_{95}	18.0	X	50.68775	79.32770	90.43748	3.37496	0.1340316	0.25702152	2.4499453	21	4 22.1	20.4
490323 2009 BM_{119}	17.2	X	255.91916	104.19640	299.70698	1.18345	0.3055887	0.20401923	2.8577352	21	6 19.2	21.8
490324 2009 BF_{142}	17.3	X	22.99205	89.93168	331.11906	8.49064	0.2721868	0.23248044	2.6194600	21	—	—
490325 2009 BA_{149}	17.3	X	262.75436	74.61122	349.71940	1.42925	0.0514369	0.20203099	2.8764537	21	8 24.9	21.0
490326 2009 BW_{152}	17.9	X	44.10679	84.19271	118.97081	5.89621	0.1723039	0.25958994	2.4337585	21	6 4.7	20.3
490327 2009 BE_{159}	18.0	X	53.50365	212.16977	327.29612	1.00993	0.1240644	0.25448831	2.4661765	21	5 8.9	20.5
490328 2009 BS_{166}	17.9	X	89.59293	28.64573	108.68272	4.02260	0.1287651	0.25531197	2.4608696	21	5 8.8	20.8
490329 2009 BZ_{173}	17.6	X	62.18889	280.43906	122.77001	3.47425	0.2041236	0.23621762	2.5917585	21	—	—
490330 2009 BZ_{179}	18.5	X	88.57048	144.30835	329.89316	1.87749	0.1652347	0.25273117	2.4775942	21	4 8.6	21.3
490331 2009 BJ_{182}	18.2	X	103.10207	81.09447	41.62784	1.77762	0.1486434	0.25740524	2.4475099	21	5 8.5	21.2
490332 2009 BE_{185}	18.1	X	349.02267	266.65444	129.19141	24.93144	0.1367872	0.37697860	1.8978341	21	—	—
490333 2009 BY_{186}	16.5	X	84.16016	187.68704	335.59373	9.83861	0.0135172	0.17877509	3.1207912	21	5 19.3	21.0
490334 2009 CK	18.1	X	344.43257	290.00736	137.11562	22.71637	0.0863032	0.38131520	1.8834176	21	—	—
490335 2009 CN_{25}	17.2	X	155.25005	96.94625	345.75563	8.22382	0.1612447	0.18233217	3.0800695	21	5 16.5	22.3
490336 2009 CC_{35}	18.1	X	12.07476	16.83646	62.14557	3.94853	0.1567730	0.23207448	2.6225139	21	—	—
490337 2009 DE_{8}	16.3	X	133.26897	108.03575	337.27756	12.89451	0.2118243	0.17593832	3.1542474	21	4 30.9	21.6
490338 2009 DV_{26}	17.9	X	334.49528	341.16271	328.81233	4.99266	0.1623747	0.26735122	2.3864258	21	6 21.5	20.1
490339 2009 DN_{30}	16.6	X	355.56740	109.11580	154.98433	3.09370	0.0187703	0.18004823	3.1060622	21	6 4.9	20.9
490340 2009 DO_{49}	17.2	X	252.35326	153.11512	1.57714	10.95629	0.1367507	0.21198631	2.7856775	21	11 20.5	21.2
490341 2009 DW_{59}	18.1	X	24.41238	207.32782	26.55477	5.28994	0.1611080	0.25616128	2.4554272	21	6 8.9	20.3
490342 2009 DL_{68}	18.2	X	37.85062	274.28288	150.00899	5.86446	0.2918768	0.23816470	2.5776134	21	—	—
490343 2009 DD_{71}	17.3	X	175.45449	181.20658	285.45839	1.95434	0.2063614	0.19157031	2.9802355	21	7 5.8	22.2
490344 2009 DE_{81}	17.6	X	51.15661	320.98265	136.29507	4.36160	0.1799662	0.23767380	2.5811615	21	1 11.5	19.9
490345 2009 DB_{104}	18.0	X	358.49132	209.19987	359.72711	2.89053	0.1414428	0.24495890	2.5297285	21	3 10.1	20.4
490346 2009 DJ_{110}	16.7	X	215.90451	233.15699	343.28839	8.09577	0.1011403	0.22001314	2.7175047	21	—	—
490347 2009 DE_{132}	16.5	X	169.84547	91.17275	332.63988	9.27547	0.1251707	0.17893152	3.1189720	21	5 4.8	21.7
490348 2009 DS_{139}	16.3	X	146.81595	124.53944	341.88933	12.25680	0.1000937	0.18258106	3.0772697	21	6 3.0	21.3
490349 2009 EM	18.2	X	8.53003	31.14350	357.98630	19.89325	0.0840227	0.37165229	1.9159236	21	—	—
490350 2009 ES_{5}	16.5	X	330.94388	284.81491	356.69352	10.70470	0.0663347	0.17558392	3.1584904	21	5 17.2	20.8
490351 2009 EX_{8}	17.3	X	185.60299	67.90563	30.11336	6.28997	0.1442576	0.18920450	3.0050272	21	7 4.8	22.3
490352 2009 EY_{15}	16.4	X	201.22724	255.68168	355.52437	13.48384	0.2016140	0.21881768	2.7273933	21	—	—
490353 2009 EH_{19}	17.9	X	109.54364	107.80556	341.36899	5.93031	0.1485985	0.25316466	2.4747652	21	3 30.7	21.1
490354 2009 FF_{19}	21.3	X	321.89223	244.85947	84.84400	0.55845	0.4093900	0.73767494	1.2130891	21	3 22.4	21.5
490355 2009 FQ_{28}	15.8	X	251.91520	344.79080	15.66387	27.25146	0.0530452	0.17643990	3.1482667	21	5 9.3	20.7
490356 2009 FM_{43}	17.8	X	8.72041	135.42311	32.18530	25.13922	0.3204360	0.24071892	2.5593474	21	1 3.9	20.7
490357 2009 FM_{46}	17.9	X	318.15961	326.24888	156.37906	23.48942	0.0728950	0.38010908	1.8873997	21	—	—
490358 2009 FP_{57}	17.9	X	94.63010	324.01955	24.52357	21.43263	0.0756166	0.37503541	1.9043840	21	—	—
490359 2009 FM_{65}	18.6	X	33.38004	24.28098	181.94167	3.10623	0.1581475	0.25205361	2.4820324	21	5 16.5	20.7
490360 2009 FD_{72}	17.2	X	349.94631	208.15603	30.77009	14.39083	0.1262416	0.24412252	2.5355032	21	4 11.0	19.8
490361 2009 HR_{11}	17.6	X	300.94792	168.46099	118.26166	4.87253	0.2210024	0.23850769	2.5751416	21	3 19.3	21.1
490362 2009 HG_{20}	17.7	X	333.17858	16.56185	210.10319	7.60446	0.1276243	0.23948137	2.5681569	21	2 20.7	21.0
490363 2009 HA_{24}	17.3	X	297.45698	181.45329	124.54522	7.20790	0.1240721	0.24527307	2.5275678	21	4 24.5	20.7
490364 2009 HO_{34}	17.6	X	289.29519	248.12858	31.54859	8.68248	0.1434132	0.23905213	2.5712302	21	3 8.8	21.2
490365 2009 HU_{34}	17.2	X	305.58907	236.08793	20.58031	17.10064	0.0945381	0.23896468	2.5718576	21	3 9.7	20.8
490366 2009 HZ_{34}	17.1	X	212.05339	76.70596	272.01426	3.85336	0.1162287	0.23827611	2.5768099	21	3 11.3	21.1
490367 2009 HC_{37}	16.4	X	211.83792	310.40644	22.25522	32.69810	0.3113760	0.23260912	2.6184938	21	3 11.6	21.7
490368 2009 HV_{50}	17.1	X	332.82380	44.15195	192.61186	13.03786	0.1009671	0.24067168	2.5596822	21	3 10.5	20.2
490369 2009 HV_{73}	17.9	X	262.09329	54.11144	66.47986	22.70382	0.0989107	0.36493556	1.9393607	21	11 30.3	19.3
490370 2009 HV_{74}	17.8	X	149.93774	79.60492	209.28363	20.54466	0.0769970	0.37274027	1.9121935	21	—	—
490371 2009 HT_{84}	17.0	X	262.56741	160.19548	156.34716	13.37052	0.1764750	0.23555892	2.5965878	21	3 21.5	21.0
490372 2009 JZ_{3}	17.6	X	349.48869	215.01619	230.44345	20.49529	0.0854533	0.37114170	1.9176803	21	—	—
490373 2009 JY_{6}	17.0	X	203.28833	241.01273	83.09990	13.65861	0.1843152	0.22462762	2.6801593	21	2 9.3	21.6
490374 2009 JT_{9}	18.1	X	345.51456	210.62501	196.53100	20.87900	0.0960590	0.36311635	1.9458328	21	—	—
490375 2009 JU_{9}	17.3	X	359.85015	77.97974	160.98682	11.06028	0.1356025	0.24654081	2.5188956	21	4 30.5	20.0
490376 2009 JO_{17}	17.3	X	282.70089	190.93449	126.92106	13.40129	0.1286280	0.24233068	2.5479865	21	4 23.6	21.1
490377 2009 KY_{3}	17.9	X	141.58761	36.98245	225.43401	4.40672	0.2095331	0.27985947	2.3147782	21	12 20.2	21.8
490378 2009 KJ_{23}	17.7	X	27.43063	319.14402	211.51555	12.81905	0.2064082	0.24015102	2.5633806	21	3 5.7	20.2
490379 2009 KF_{24}	17.4	X	325.84718	99.30401	177.53597	12.97617	0.1345800	0.24364407	2.5388214	21	4 23.9	20.4
490380 2009 LH	17.6	X	16.27673	64.73719	156.44927	10.38708	0.2081049	0.24344948	2.5401741	21	5 7.6	19.8
490381 2009 OE_{10}	17.2	X	258.85024	190.82724	163.14086	14.52592	0.2580452	0.22909680	2.6451889	21	4 28.2	21.7
490382 2009 OX_{19}	15.8	X	45.65098	356.95604	307.12060	13.28841	0.3481017	0.17297163	3.1902115	21	11 11.8	20.5
490383 2009 OK_{22}	16.4	X	234.16436	180.21071	149.17339	18.24348	0.2956623	0.21620448	2.7493261	21	3 7.7	21.4
490384 2009 ON_{23}	16.9	X	282.04171	303.55676	320.25014	12.33405	0.1745599	0.22065447	2.7122366	21	2 4.9	21.1
490385 2009 PO_{2}	18.2	X	207.70948	59.95897	271.73723	4.20389	0.2803776	0.29726658	2.2235078	21	2 10.4	22.1
490386 2009 PX_{2}	17.3	X	234.83939	210.04013	104.04002	3.71845	0.2395451	0.21805823	2.7337223	21	2 19.9	22.0
490387 2009 PS_{5}	17.3	X	266.20197	304.53128	18.55573	1.91843	0.2452373	0.22691005	2.6621563	21	3 25.7	21.7
490388 2009 PP_{18}	18.1	X	40.96729	69.58446	334.43239	6.35248	0.1908007	0.26873848	2.3782060	21	—	—
490389 2009 QK_{1}	17.8	X	144.39041	113.04628	144.08982	27.11861	0.1301660	0.35162677	1.9879926	21	—	—
490390 2009 QA_{5}	17.9	X	198.53824	35.34484	330.14640	6.41302	0.2104244	0.30008473	2.2095650	21	3 14.7	21.6
490391 2009 QT_{7}	17.3	X	290.39398	130.08383	181.72684	15.58801	0.2450346	0.22933526	2.6433550	21	4 5.2	21.2
490392 2009 QH_{13}	17.6	X	97.71794	49.48530	334.73742	6.99775	0.1373157	0.27906533	2.3191676	21	—	—
490393 2009 QJ_{13}	17.4	X	282.52274	116.69964	172.87756	7.84507	0.2070580	0.22274554	2.6952354	21	3 3.9	21.5
490394 2009 QN_{21}	17.1	X	309.63016	157.57333	126.40574	5.37817	0.2440665	0.23038569	2.6353141	21	3 24.3	20.6
490395 2009 QE_{23}	16.5	X	286.97430	316.30565	322.35020	10.91970	0.1784250	0.22391389	2.6858517	21	2 25.0	20.4
490396 2009 QU_{24}	17.1	X	233.76466	133.18216	174.82873	9.52153	0.2439067	0.21611548	2.7500809	21	2 9.6	22.0
490397 2009 QH_{40}	15.5	X	167.96620	195.13266	167.61464	2.82939	0.2365779	0.12442790	3.9736615	21	3 5.9	22.1
490398 2009 QS_{56}	16.7	X	220.42497	40.08180	264.84340	3.34395	0.1836411	0.21166514	2.7884947	21	1 29.3	21.3
490399 2009 QP_{61}	16.4	X	256.07770	343.76952	292.40944	10.59114	0.2279319	0.21272155	2.7792550	21	1 22.9	21.1
490400 2009 RA	16.8	X	264.71725	244.23374	107.47132	14.20163	0.2834202	0.22600922	2.6692256	21	4 30.9	21.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490401 2009 RY_{1}	17.3	X	217.26317	167.96617	194.50628	3.14770	0.2082092	0.21763108	2.7372982	21	4 3.9	22.0
490402 2009 RV_{11}	17.1	X	207.20228	143.24014	172.35396	2.03140	0.0783429	0.20446266	2.8536019	21	1 31.4	21.4
490403 2009 RR_{29}	16.0	X	63.91457	54.41460	355.86357	12.78904	0.1184408	0.18953453	3.0015378	21	—	—
490404 2009 RQ_{33}	14.6	X	31.42308	327.62398	17.55909	3.47637	0.0380868	0.08178966	5.2561826	21	10 21.6	21.4
490405 2009 RP_{34}	16.5	X	15.12310	279.45842	203.26548	11.07272	0.0752958	0.19173495	2.9785292	21	—	—
490406 2009 RS_{39}	16.7	X	9.27105	205.99415	206.27168	16.91574	0.2388629	0.17600738	3.1534222	21	—	—
490407 2009 RM_{49}	16.7	X	322.19732	93.60929	17.31626	24.27902	0.0488209	0.17852708	3.1236808	21	—	—
490408 2009 RV_{56}	16.6	X	36.37945	357.49314	40.70247	10.70478	0.1315423	0.17840793	3.1250714	21	—	—
490409 2009 RW_{70}	18.8	X	97.57501	208.18344	166.00609	1.53143	0.2107940	0.27488692	2.3426101	21	—	—
490410 2009 RL_{72}	16.2	X	13.43449	63.87733	357.23635	16.89681	0.2665014	0.18090531	3.0962440	21	—	—
490411 2009 RP_{73}	16.3	X	339.80536	265.93169	193.61440	24.24285	0.3329800	0.17479624	3.1679720	21	—	—
490412 2009 SX_{14}	17.3	X	297.34422	117.61598	192.75072	11.95123	0.2635753	0.22957511	2.6415136	21	4 7.9	20.8
490413 2009 SC_{32}	17.3	X	233.62027	106.97108	230.28924	2.47787	0.2004419	0.21854373	2.7296721	21	3 17.5	21.7
490414 2009 SC_{34}	16.4	X	134.20766	332.67556	0.41435	9.71710	0.1023527	0.18945525	3.0023752	21	—	—
490415 2009 SU_{35}	14.1	X	348.63432	38.97402	8.12683	9.20590	0.1125705	0.08464443	5.1373258	21	11 6.4	20.4
490416 2009 SD_{40}	16.5	X	333.18314	112.77252	16.51751	10.86895	0.0176276	0.18541989	3.0457798	21	—	—
490417 2009 SX_{42}	16.1	X	327.82034	183.90824	3.44087	11.18134	0.0380485	0.19732301	2.9220270	21	1 21.6	20.3
490418 2009 SY_{42}	14.1	X	341.52624	43.53172	13.58708	16.45226	0.0627052	0.08473135	5.1338122	21	11 6.6	20.7
490419 2009 SO_{43}	17.7	X	314.13988	152.75787	217.93703	8.39339	0.1753150	0.23873690	2.5734932	21	8 8.6	20.6
490420 2009 SG_{50}	16.2	X	52.22258	32.94089	0.06408	28.35239	0.1894266	0.18455486	3.0552896	21	—	—
490421 2009 SX_{53}	18.4	X	139.06007	354.81387	34.69756	5.41465	0.1340751	0.28643620	2.2792088	21	2 13.4	21.4
490422 2009 SM_{56}	16.7	X	72.64935	41.02127	325.55464	6.69933	0.1349687	0.18206898	3.0830370	21	—	—
490423 2009 SP_{56}	18.7	X	77.59247	176.31950	233.83085	5.69303	0.2203220	0.27433992	2.3457229	21	—	—
490424 2009 SN_{61}	17.6	X	312.30899	161.82915	211.99395	11.93288	0.1855767	0.23952508	2.5678445	21	8 7.1	20.6
490425 2009 SP_{68}	17.2	X	126.22376	39.25216	319.41650	4.70773	0.0483145	0.19582600	2.9368999	21	—	—
490426 2009 SY_{69}	18.6	X	127.39011	198.21753	206.31049	2.66994	0.1092075	0.28862923	2.2676490	21	2 10.8	21.3
490427 2009 SU_{73}	17.2	X	125.49976	351.65270	41.28073	10.97723	0.1266138	0.19894689	2.9061048	21	2 18.1	21.6
490428 2009 SL_{75}	17.4	X	160.16864	27.59344	49.40002	9.58217	0.2172849	0.21347588	2.7727040	21	5 17.5	22.0
490429 2009 SB_{77}	16.6	X	99.38349	208.15797	176.69337	12.30758	0.0881998	0.19052759	2.9910991	21	—	—
490430 2009 SB_{81}	17.8	X	305.93875	34.60990	336.55069	2.79254	0.1317339	0.24137613	2.5546996	21	8 5.2	20.4
490431 2009 SE_{88}	17.6	X	244.26797	330.75651	68.86655	4.97264	0.2075566	0.22753176	2.6573048	21	6 11.8	21.8
490432 2009 SF_{96}	16.5	X	8.59730	31.21412	39.75648	9.56136	0.1480686	0.17454665	3.1709913	21	—	—
490433 2009 SJ_{107}	16.4	X	339.87951	270.99109	209.69323	15.24882	0.0726252	0.18371339	3.0646120	21	—	—
490434 2009 SR_{107}	17.7	X	45.82708	40.27874	4.41972	3.37111	0.1248427	0.26631622	2.3926048	21	—	—
490435 2009 SA_{114}	17.0	X	249.56229	43.18461	274.96686	3.59896	0.1542141	0.21685885	2.7437926	21	3 10.9	21.3
490436 2009 SQ_{117}	17.4	X	192.52331	137.79118	228.35086	3.98822	0.0642109	0.21121515	2.7924538	21	3 15.9	21.7
490437 2009 SC_{120}	16.7	X	114.42063	72.84517	289.73806	1.98239	0.0660506	0.19237732	2.9718951	21	—	—
490438 2009 SY_{124}	16.8	X	193.29576	317.77453	350.70449	8.73849	0.1675712	0.20026389	2.8933498	21	1 15.2	21.7
490439 2009 SU_{130}	19.0	X	131.74625	233.58374	158.41732	2.62884	0.2043123	0.28427450	2.2907487	21	2 15.2	21.7
490440 2009 SA_{136}	16.3	X	14.87631	240.29611	205.39412	15.27294	0.1627066	0.18215733	3.0820401	21	—	—
490441 2009 SG_{136}	18.1	X	4.41844	215.81462	236.83667	1.63157	0.1722843	0.26477203	2.4018985	21	—	—
490442 2009 SF_{145}	18.4	X	12.94460	297.52906	47.47815	2.23752	0.2241108	0.25186177	2.4832925	21	11 16.8	20.8
490443 2009 SR_{146}	18.3	X	170.62664	293.87925	44.48515	3.07761	0.1992660	0.28424141	2.2909264	21	1 18.8	21.6
490444 2009 ST_{151}	16.5	X	21.05092	87.66594	2.61316	9.12016	0.0601806	0.18976732	2.9990827	21	—	—
490445 2009 SL_{158}	16.4	X	333.96145	280.91592	221.01470	14.50958	0.1912051	0.18378446	3.0638220	21	—	—
490446 2009 SO_{164}	14.3	X	354.35938	219.52375	174.29098	3.35131	0.0322377	0.08177357	5.2568721	21	11 1.5	21.1
490447 2009 SX_{166}	16.9	X	13.65323	10.03808	33.97007	11.00970	0.1974637	0.17491048	3.1665924	21	—	—
490448 2009 SJ_{184}	14.3	X	301.85008	208.16558	242.32973	8.62096	0.0559001	0.08465531	5.1368860	21	10 29.7	21.0
490449 2009 SN_{192}	17.0	X	235.37940	324.90244	349.86905	7.41184	0.2132346	0.21316773	2.7753755	21	2 22.6	21.7
490450 2009 SX_{204}	16.3	X	10.21932	40.83593	20.72670	9.23434	0.1031719	0.17700656	3.1415439	21	—	—
490451 2009 SY_{204}	16.3	X	78.35041	34.69072	24.48354	17.47295	0.0295780	0.19301149	2.9653817	21	1 7.8	20.7
490452 2009 SR_{209}	16.1	X	344.23927	276.54765	197.33486	25.53690	0.2193291	0.18116727	3.0932585	21	—	—
490453 2009 SU_{213}	18.6	X	178.45354	152.72954	187.24700	5.41444	0.2115903	0.28745743	2.2738075	21	1 26.5	22.1
490454 2009 SM_{214}	18.6	X	130.66646	195.37946	162.45055	1.10219	0.2052458	0.27888863	2.3201470	21	—	—
490455 2009 SO_{214}	18.2	X	94.06317	210.27060	168.19884	1.80238	0.1943496	0.27300533	2.3533614	21	—	—
490456 2009 SA_{240}	15.7	X	28.47536	331.02099	46.39654	18.23341	0.2139213	0.17584905	3.1553149	21	—	—
490457 2009 SE_{250}	17.6	X	78.44658	44.55392	12.45489	8.09879	0.1238094	0.27685120	2.3315162	21	—	—
490458 2009 SL_{262}	17.6	X	296.70608	137.71996	241.64316	4.96018	0.1457655	0.23773722	2.5807024	21	7 28.0	20.7
490459 2009 SD_{266}	17.6	X	102.64795	18.92964	18.05018	10.41041	0.1040676	0.27709786	2.3301324	21	—	—
490460 2009 ST_{270}	15.1	X	130.81532	163.63669	131.90151	10.43576	0.0706752	0.17479020	3.1680449	21	12 31.8	20.0
490461 2009 SV_{271}	16.8	X	23.51168	53.14707	7.09353	11.23196	0.1716964	0.17980108	3.1089079	21	—	—
490462 2009 SX_{271}	16.6	X	331.50880	113.56619	6.54020	11.41190	0.1741674	0.17886423	3.1197543	21	—	—
490463 2009 SD_{275}	18.6	X	76.91815	29.84821	25.30055	6.52934	0.1215644	0.27720608	2.3295259	21	—	—
490464 2009 SB_{283}	16.4	X	30.65673	15.33427	41.27427	10.96665	0.0846609	0.18298786	3.0727073	21	—	—
490465 2009 SM_{287}	17.2	X	20.11960	176.27090	278.74958	4.23383	0.1425756	0.18572431	3.0424507	21	—	—
490466 2009 SW_{287}	16.7	X	199.58918	310.93504	355.79323	11.67174	0.0278201	0.19763759	2.9189256	21	1 16.2	21.1
490467 2009 SY_{289}	18.3	X	133.74604	357.65442	37.70226	8.40377	0.1876738	0.28497881	2.2869728	21	2 24.2	21.4
490468 2009 SB_{291}	16.5	X	342.46496	55.53816	41.64587	14.31762	0.2710193	0.17490971	3.1666016	21	—	—
490469 2009 SU_{293}	18.0	X	96.70984	0.45321	56.73603	6.30498	0.1453593	0.28080930	2.3095554	21	1 24.4	20.4
490470 2009 ST_{299}	16.8	X	352.39673	218.23045	207.52895	13.67307	0.2574765	0.17334776	3.1855950	21	—	—
490471 2009 SS_{321}	16.7	X	16.85439	357.75806	50.31714	9.56775	0.0898182	0.17661766	3.1461539	21	—	—
490472 2009 SU_{323}	16.9	X	42.49649	46.27266	33.23956	6.08902	0.2022317	0.18677959	3.0309803	21	—	—
490473 2009 SO_{324}	18.3	X	190.53969	113.53524	250.23295	3.30897	0.1792796	0.29311554	2.2444512	21	3 5.1	21.9
490474 2009 SZ_{334}	16.4	X	230.10832	319.99550	353.75211	21.54222	0.3092745	0.21314086	2.7756087	21	2 19.9	21.6
490475 2009 SW_{344}	17.7	X	212.92810	281.76842	146.34405	3.10425	0.0550526	0.22718261	2.6600267	21	6 28.0	21.4
490476 2009 SK_{345}	17.7	X	291.03767	343.70029	38.18973	0.88780	0.1611052	0.23531721	2.5983656	21	7 22.0	20.9
490477 2009 SQ_{345}	16.9	X	34.12738	211.28562	196.22209	10.83954	0.1232282	0.18175530	3.0865832	21	—	—
490478 2009 SG_{349}	16.0	X	34.09037	32.57467	28.39824	18.00510	0.2071897	0.17953724	3.1119529	21	—	—
490479 2009 SM_{350}	16.8	X	272.23443	253.39234	24.08462	14.46819	0.2114935	0.21432618	2.7653657	21	2 15.3	21.4
490480 2009 SV_{350}	16.4	X	252.09882	251.44623	39.47834	20.78819	0.1330921	0.20912700	2.8110116	21	2 24.1	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490481 2009 SO_{352}	16.5	X	96.72608	356.63647	7.12435	11.72964	0.1238851	0.18733493	3.0249872	21	—	—
490482 2009 SZ_{352}	16.8	X	285.43997	142.00048	6.55869	12.57863	0.0430107	0.17941328	3.1133862	21	—	—
490483 2009 SH_{353}	17.4	X	179.79784	232.19855	215.11552	4.37791	0.0958887	0.22279462	2.6948395	21	6 14.6	21.6
490484 2009 SJ_{353}	15.8	X	306.09403	78.09415	20.61791	32.73846	0.1628845	0.17056804	3.2201117	21	11 6.6	20.1
490485 2009 SK_{360}	16.0	X	13.77314	42.63848	21.08908	17.80725	0.2204886	0.17638005	3.1489788	21	—	—
490486 2009 SW_{362}	16.7	X	32.01949	38.00579	7.68306	15.99948	0.0928074	0.18301434	3.0724109	21	—	—
490487 2009 TM_1	17.1	X	296.37308	41.32923	339.04995	5.03732	0.3259842	0.23615566	2.5922118	21	6 29.9	20.3
490488 2009 TR_6	16.8	X	259.92005	274.97761	23.08749	16.72698	0.3547140	0.21728420	2.7402106	21	2 20.2	22.0
490489 2009 TM_7	16.2	X	77.91548	102.27910	269.10154	8.32257	0.2761097	0.18280437	3.0747632	21	—	—
490490 2009 TA_{34}	16.0	X	32.02237	64.58836	354.96190	15.77277	0.2640921	0.18037143	3.1023507	21	—	—
490491 2009 TH_{39}	18.1	X	132.38922	331.90154	59.45820	25.45817	0.2575502	0.28321352	2.2964662	21	3 10.5	22.1
490492 2009 UA_5	16.9	X	61.49071	153.96702	236.02940	11.30635	0.2499167	0.26780975	2.3837011	21	—	—
490493 2009 UN_5	18.2	X	133.01220	54.27727	310.26253	4.93297	0.2182736	0.28072742	2.3100045	21	1 14.8	21.2
490494 2009 UF_{13}	18.3	X	160.11275	357.10258	16.62031	3.00084	0.1812585	0.28990848	2.2609733	21	2 20.0	21.5
490495 2009 UN_{15}	17.0	X	358.81201	79.55539	28.39489	12.92201	0.1143448	0.18553809	3.0444861	21	—	—
490496 2009 UN_{17}	18.2	X	60.39460	176.05710	218.47064	4.97653	0.2210801	0.26694863	2.3888246	21	—	—
490497 2009 UM_{19}	18.3	X	243.80935	354.55472	18.85524	3.26230	0.1841711	0.30604012	2.1808066	21	5 6.2	21.3
490498 2009 UR_{28}	18.8	X	13.66451	290.93757	145.21729	0.54833	0.2473880	0.26131667	2.4230254	21	—	—
490499 2009 UQ_{34}	16.4	X	3.25040	264.03028	183.37304	15.50496	0.1873696	0.17879271	3.1205861	21	—	—
490500 2009 UF_{35}	18.5	X	163.31820	319.20313	44.97287	7.16621	0.2094960	0.28402921	2.2920674	21	2 16.7	22.0
490501 2009 UF_{36}	17.1	X	14.87776	262.10830	179.67257	2.98552	0.1838124	0.17972018	3.1098408	21	—	—
490502 2009 UA_{38}	16.4	X	352.35167	232.05461	216.92799	9.07386	0.1881535	0.17400446	3.1775749	21	—	—
490503 2009 UR_{38}	18.7	X	148.74055	147.58458	199.87445	2.35270	0.2381707	0.27903987	2.3193086	21	1 12.4	22.0
490504 2009 UD_{39}	16.4	X	74.09681	340.24149	54.32323	11.03445	0.1751963	0.18405916	3.0607728	21	—	—
490505 2009 UF_{53}	17.3	X	300.42306	356.86130	20.32580	4.88152	0.3016296	0.23592066	2.5939329	21	7 5.9	20.3
490506 2009 UK_{68}	16.9	X	92.10586	334.48253	55.35171	11.26068	0.1112086	0.19035206	2.9929376	21	—	—
490507 2009 UB_{69}	16.7	X	43.42105	221.50878	177.65262	9.47200	0.1464114	0.18510158	3.0492706	21	—	—
490508 2009 UD_{71}	16.0	X	37.30751	34.23852	25.14284	15.20999	0.2019696	0.18046389	3.1012910	21	—	—
490509 2009 UF_{78}	16.7	X	121.08880	328.01388	27.20829	15.73518	0.0351661	0.18870542	3.0103232	21	—	—
490510 2009 UF_{83}	18.1	X	359.66061	250.78869	163.59386	1.70457	0.1754865	0.25398388	2.4694407	21	—	—
490511 2009 UC_{85}	17.3	X	273.05589	173.64070	202.82872	5.45425	0.0793667	0.22551904	2.6730920	21	7 1.0	21.0
490512 2009 UY_{86}	18.4	X	72.67712	172.07970	251.66382	1.33629	0.1571395	0.27444029	2.3451509	21	—	—
490513 2009 UT_{97}	16.6	X	26.28910	7.26143	51.29640	11.85708	0.0842713	0.17811827	3.1284585	21	—	—
490514 2009 UF_{101}	16.9	X	97.10348	201.31048	214.05303	9.64534	0.0996567	0.19324548	2.9629875	21	1 30.8	21.1
490515 2009 UY_{104}	16.2	X	19.59617	35.66064	51.74905	11.75210	0.1754748	0.18258552	3.0772196	21	—	—
490516 2009 UU_{109}	16.0	X	234.44381	154.95248	55.46499	27.57863	0.0470280	0.17593053	3.1543405	21	—	—
490517 2009 UF_{117}	16.2	X	332.01758	234.55324	249.69650	9.27293	0.2096980	0.17733306	3.1376867	21	—	—
490518 2009 UW_{120}	16.9	X	112.05661	304.41551	35.48135	6.50427	0.1275349	0.18636959	3.0354239	21	—	—
490519 2009 UL_{121}	16.5	X	2.34072	54.12820	27.23219	16.13822	0.2074266	0.17674253	3.1446718	21	—	—
490520 2009 UA_{123}	16.3	X	32.53954	285.83365	140.41281	5.58095	0.1753664	0.18145374	3.0900020	21	—	—
490521 2009 UQ_{128}	16.5	X	5.08169	227.71628	207.76866	11.06546	0.0624143	0.18006176	3.1059065	21	—	—
490522 2009 UO_{137}	15.9	X	18.08366	344.00886	63.66132	12.22766	0.1231400	0.17657032	3.1467162	21	—	—
490523 2009 UR_{137}	16.3	X	3.94238	30.47284	47.53975	12.75977	0.2241653	0.17724862	3.1386831	21	—	—
490524 2009 US_{139}	17.7	X	86.47371	94.93500	310.38764	6.29209	0.2055940	0.27344911	2.3508146	21	—	—
490525 2009 UF_{141}	15.9	X	10.59432	57.19375	36.71033	27.11397	0.2644055	0.17723800	3.1388085	21	—	—
490526 2009 UH_{142}	16.6	X	88.67747	338.47748	43.59991	6.67879	0.1632392	0.18568893	3.0428371	21	—	—
490527 2009 UK_{146}	16.1	X	270.19923	225.83114	56.21751	9.35712	0.2616807	0.20995406	2.8036246	21	2 12.5	20.9
490528 2009 UQ_{154}	16.3	X	152.22920	276.95065	67.97038	6.99276	0.1463271	0.19735663	2.9216952	21	1 18.5	20.8
490529 2009 VC	16.1	X	303.06439	257.69318	48.37129	27.87944	0.2984388	0.22616763	2.6679790	21	4 15.4	20.1
490530 2009 VJ_7	17.9	X	91.80734	97.81693	276.48094	3.42196	0.2035516	0.26965582	2.3728094	21	—	—
490531 2009 VO_{17}	17.4	X	294.24618	154.51717	217.95943	14.77674	0.1912308	0.23340730	2.6125209	21	7 5.2	20.9
490532 2009 VZ_{17}	17.7	X	61.04437	72.80679	301.89961	3.87980	0.2517528	0.26298882	2.4127437	21	—	—
490533 2009 VP_{24}	15.8	X	35.59375	157.47875	243.89690	13.98884	0.1831595	0.17765268	3.1339222	21	—	—
490534 2009 VW_{27}	15.8	X	359.09254	244.15813	231.01002	25.27162	0.2461715	0.17922201	3.1156009	21	—	—
490535 2009 VQ_{29}	18.1	X	131.91100	352.66384	41.16093	9.98425	0.1836343	0.28380651	2.2932663	21	2 20.5	21.3
490536 2009 VJ_{30}	16.3	X	17.53351	27.05563	26.22032	9.91222	0.0678329	0.17345160	3.1843235	21	—	—
490537 2009 VQ_{37}	15.9	X	42.91582	171.21914	234.81745	13.28086	0.1706168	0.17832127	3.1260838	21	—	—
490538 2009 VK_{38}	18.1	X	115.00427	352.40196	7.26454	2.22819	0.2353302	0.27282427	2.3544025	21	—	—
490539 2009 VL_{41}	17.7	X	92.87245	10.19086	358.68812	4.29931	0.2173345	0.27000757	2.3707482	21	—	—
490540 2009 VD_{46}	16.5	X	359.41772	244.03581	237.19218	21.40696	0.2209386	0.17999438	3.1066817	21	—	—
490541 2009 VN_{48}	17.4	X	185.70482	343.92169	85.04200	4.77039	0.0776800	0.21467912	2.7623339	21	5 28.7	21.4
490542 2009 VY_{48}	18.1	X	199.31234	306.98403	43.21035	4.89149	0.1722726	0.29043648	2.2582323	21	2 28.1	21.6
490543 2009 VD_{55}	16.1	X	143.57324	263.81692	40.09635	23.20069	0.0811103	0.18436951	3.0573371	21	—	—
490544 2009 VW_{68}	18.2	X	207.51827	168.65385	261.75560	4.83053	0.1252449	0.30425064	2.1893493	21	6 19.8	21.2
490545 2009 VR_{70}	17.0	X	279.62069	95.08660	266.61466	5.40500	0.0686065	0.22243867	2.6977137	21	6 22.0	20.6
490546 2009 VB_{72}	17.4	X	90.72578	321.34145	78.28198	7.58421	0.0891756	0.27255160	2.3559725	21	—	—
490547 2009 VG_{73}	18.5	X	195.83142	331.02110	120.76130	0.56897	0.1255086	0.31086171	2.1581977	21	7 6.8	21.3
490548 2009 VS_{81}	18.9	X	73.06159	30.38368	351.81592	1.76891	0.1872614	0.26654431	2.3912397	21	—	—
490549 2009 VP_{84}	16.2	X	31.87313	152.00678	264.10321	8.20038	0.0615923	0.17386629	3.1792582	21	—	—
490550 2009 VU_{88}	18.2	X	12.40782	214.30621	236.03870	1.21101	0.1609979	0.26610905	2.3938464	21	—	—
490551 2009 VC_{89}	17.1	X	182.35214	39.00323	32.22642	8.25288	0.2144929	0.21503743	2.7592646	21	5 27.6	21.8
490552 2009 VR_{90}	15.9	X	40.31936	124.24207	268.76008	10.62173	0.0977851	0.17352917	3.1833744	21	—	—
490553 2009 VB_{99}	16.4	X	133.41957	162.12405	168.42283	3.38429	0.1531654	0.18364257	3.0653999	21	—	—
490554 2009 VV_{103}	15.8	X	123.24032	85.71235	244.30354	14.13775	0.0869729	0.17667401	3.1454848	21	—	—
490555 2009 VH_{116}	16.2	X	114.05271	326.02059	40.67925	14.61190	0.2402099	0.18809926	3.0167870	21	1 19.5	20.8
490556 2009 WL_5	16.5	X	86.87227	264.62714	126.66993	15.93901	0.1864810	0.18631623	3.0360035	21	1 4.4	20.4
490557 2009 WC_{19}	17.8	X	309.01160	187.43129	170.16630	2.86198	0.1139146	0.23125154	2.6287319	21	7 22.7	20.9
490558 2009 WT_{19}	17.3	X	208.75698	262.53609	148.65848	4.03808	0.0809389	0.21783846	2.7355606	21	5 31.5	21.4
490559 2009 WR_{20}	17.2	X	306.79179	321.30515	51.44478	7.40272	0.3701409	0.23582147	2.5946602	21	6 26.5	20.1
490560 2009 WQ_{24}	18.4	X	169.96750	317.79409	60.92357	9.49330	0.2378553	0.28773177	2.2723619	21	3 16.4	22.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490561 2009 WY_{25}	13.8	X	13.99974	336.53053	45.83696	12.92321	0.1651114	0.08203102	5.2458674	21	11 18.9	20.0
490562 2009 WU_{26}	16.9	X	83.55672	359.40605	49.68697	10.13167	0.0902011	0.18763722	3.0217375	21	1 9.2	21.0
490563 2009 WD_{32}	16.3	X	74.62397	0.18090	73.21328	17.62908	0.1117682	0.18821276	3.0155741	21	2 1.1	20.4
490564 2009 WQ_{32}	18.9	X	165.49300	57.63276	72.49119	1.79956	0.1825494	0.30397238	2.1906852	21	7 28.4	22.2
490565 2009 WK_{39}	18.0	X	59.69711	23.50556	39.43609	2.67443	0.2000796	0.26817297	2.3815482	21	—	—
490566 2009 WM_{39}	16.0	X	46.97260	138.95777	255.99836	8.91201	0.0737890	0.17420717	3.1751094	21	—	—
490567 2009 WJ_{44}	16.2	X	96.77398	318.41385	37.10685	18.22675	0.1463666	0.18236889	3.0796560	21	—	—
490568 2009 WD_{51}	18.1	X	140.97093	161.11987	222.75790	2.31662	0.2342492	0.28090005	2.3090580	21	2 18.3	21.3
490569 2009 WS_{57}	16.6	X	167.97137	264.85425	61.46361	12.20537	0.1214015	0.19124405	2.9836240	21	1 10.8	21.3
490570 2009 WD_{59}	16.5	X	55.20288	213.63989	222.44723	8.64760	0.1302026	0.18653259	3.0336553	21	1 2.9	20.2
490571 2009 WU_{59}	16.3	X	74.76274	303.39792	65.68284	10.49794	0.0815250	0.17823069	3.1271428	21	—	—
490572 2009 WR_{62}	16.2	X	76.58789	316.16484	82.18100	11.82505	0.0314627	0.18269126	3.0760321	21	—	—
490573 2009 WB_{65}	17.9	X	127.89968	4.06865	35.20994	6.08571	0.1629863	0.28642715	2.2792568	21	2 17.1	20.8
490574 2009 WR_{76}	16.0	X	287.78712	256.89111	260.48617	20.62038	0.2552702	0.16719478	3.2632793	21	12 19.3	19.9
490575 2009 WG_{82}	16.6	X	327.82139	201.43949	293.22933	8.03278	0.0317982	0.17903298	3.1177935	21	—	—
490576 2009 WF_{83}	17.3	X	242.84893	163.17588	330.28251	4.55524	0.1626550	0.24053187	2.5606740	21	10 14.5	20.8
490577 2009 WO_{87}	16.4	X	103.69656	346.51537	50.22879	12.11969	0.1072030	0.18873557	3.0100026	21	1 24.7	20.7
490578 2009 WV_{98}	17.3	X	170.26978	181.34860	248.42108	9.10103	0.2509638	0.21222707	2.7835703	21	5 18.1	22.1
490579 2009 WA_{101}	17.1	X	31.77674	104.79853	130.78172	2.89639	0.0280358	0.21854839	2.7296333	21	6 16.1	20.5
490580 2009 WL_{104}	15.5	X	175.78044	256.26807	101.09138	17.66298	0.1143843	0.19846452	2.9108119	21	2 26.4	20.3
490581 2009 WZ_{104}	20.0	X	16.30676	10.55852	263.26412	9.83414	0.1927311	1.24580358	0.8554008	21	—	—
490582 2009 WD_{113}	16.6	X	359.69998	21.42241	72.08690	18.09340	0.1963347	0.17430309	3.1739445	21	—	—
490583 2009 WP_{114}	16.7	X	36.10962	56.27632	38.17013	10.02583	0.0477290	0.19028266	2.9936653	21	—	—
490584 2009 WV_{118}	18.1	X	138.11917	127.37447	246.14921	4.03945	0.1772591	0.27943507	2.3171213	21	1 25.5	21.2
490585 2009 WE_{119}	16.8	X	161.63844	76.26880	240.29861	7.54546	0.0599159	0.18505093	3.0498270	21	—	—
490586 2009 WW_{120}	18.3	X	107.35603	147.77018	251.44076	3.42375	0.1644133	0.27606452	2.3359434	21	1 17.7	20.7
490587 2009 WT_{127}	17.5	X	282.28434	37.22947	76.63016	7.94220	0.2138125	0.24304469	2.5429937	21	11 9.9	20.2
490588 2009 WF_{133}	16.7	X	348.13968	228.84717	233.02813	5.39406	0.1815910	0.17592371	3.1544220	21	—	—
490589 2009 WZ_{135}	16.8	X	158.23137	231.72561	231.74543	11.19268	0.0424813	0.21832123	2.7315264	21	6 9.1	20.7
490590 2009 WT_{145}	17.7	X	13.42759	167.07804	233.17698	10.77932	0.2099217	0.25688753	2.4507972	21	—	—
490591 2009 WG_{155}	16.6	X	181.96496	340.78641	5.62436	8.41302	0.2007427	0.20039599	2.8920782	21	2 20.2	21.5
490592 2009 WO_{167}	16.3	X	317.81519	86.94243	66.21699	14.06023	0.2486717	0.17500682	3.1654301	21	—	—
490593 2009 WL_{169}	18.1	X	50.18941	337.92187	88.37847	7.17213	0.0952997	0.26640776	2.3920567	21	—	—
490594 2009 WL_{170}	16.7	X	118.83704	337.17020	50.84649	9.89268	0.1219382	0.19053982	2.9909711	21	2 3.6	21.1
490595 2009 WL_{172}	16.9	X	176.63326	289.10620	16.56085	6.68089	0.1428452	0.18878359	3.0094922	21	—	—
490596 2009 WH_{173}	16.0	X	352.80211	257.92959	237.82194	8.27358	0.0570181	0.18065364	3.0991188	21	—	—
490597 2009 WK_{173}	15.9	X	285.06896	321.96044	233.08679	13.41591	0.2300347	0.17472135	3.1688771	21	—	—
490598 2009 WR_{175}	18.4	X	149.22119	297.93336	82.11157	4.59358	0.2073458	0.28348343	2.2950083	21	2 21.6	21.7
490599 2009 WX_{175}	16.4	X	316.88597	145.46739	356.99825	5.28465	0.1484494	0.17533157	3.1615203	21	—	—
490600 2009 WK_{176}	15.9	X	18.75362	156.03762	262.40926	12.63109	0.0914716	0.17395456	3.1781826	21	—	—
490601 2009 WO_{177}	16.5	X	39.68510	0.78571	40.65713	10.59782	0.1089380	0.17492563	3.1664095	21	—	—
490602 2009 WU_{178}	16.3	X	77.06958	329.52087	37.58593	10.63018	0.0271687	0.17444162	3.1722639	21	—	—
490603 2009 WO_{179}	16.3	X	315.27333	124.64470	52.84919	16.30058	0.1384868	0.18147418	3.0897700	21	—	—
490604 2009 WT_{180}	15.5	X	46.29993	40.68834	85.50728	12.68273	0.0403264	0.19323222	2.9631230	21	2 20.7	19.6
490605 2009 WK_{182}	16.4	X	60.17109	333.37998	57.34095	10.34317	0.0850656	0.17553207	3.1591123	21	—	—
490606 2009 WN_{184}	17.4	X	122.73390	121.14476	235.52901	8.46871	0.2074346	0.27297652	2.3535270	21	—	—
490607 2009 WO_{185}	16.7	X	202.07671	103.54941	234.06854	13.86085	0.1669630	0.20406574	2.8573009	21	2 17.1	21.7
490608 2009 WJ_{186}	14.0	X	48.49983	98.84221	248.47199	13.67633	0.1140095	0.08318140	5.1973893	21	11 21.7	20.7
490609 2009 WT_{195}	17.4	X	234.77108	140.65555	261.48613	4.12211	0.1293979	0.22229568	2.6988704	21	6 12.8	21.5
490610 2009 WF_{203}	15.7	X	45.05256	136.11752	246.46279	14.75564	0.1131201	0.17216234	3.2002011	21	—	—
490611 2009 WU_{203}	16.5	X	55.02715	180.36126	239.09858	9.29500	0.1249807	0.18091922	3.0960852	21	—	—
490612 2009 WX_{205}	16.7	X	86.37413	77.23166	289.69621	3.50583	0.1186064	0.17944473	3.1130224	21	—	—
490613 2009 WQ_{207}	18.4	X	76.20537	15.10054	37.64988	2.86367	0.1892944	0.27073125	2.3665215	21	—	—
490614 2009 WC_{212}	16.4	X	178.35431	258.65689	81.53959	12.51328	0.0735063	0.19329711	2.9624599	21	2 4.8	21.0
490615 2009 XT_{15}	16.1	X	83.04391	314.52492	111.40099	17.55496	0.0733516	0.18188686	3.0850947	21	1 27.9	20.2
490616 2009 XU_{24}	16.1	X	14.60277	352.22127	88.58729	19.11013	0.2142266	0.17453919	3.1710815	21	—	—
490617 2009 YM_{1}	16.2	X	17.73244	359.53132	83.59503	6.90641	0.1257242	0.17168378	3.2061453	21	—	—
490618 2009 YA_{3}	16.3	X	5.63164	9.28185	111.95653	12.06789	0.0486661	0.17587776	3.1549714	21	—	—
490619 2009 YC_{19}	17.5	X	272.41631	50.51916	80.03775	4.71157	0.1615211	0.24098140	2.5574886	21	11 23.1	20.2
490620 2009 YQ_{24}	17.9	X	283.94818	152.45857	311.41513	3.96174	0.2188024	0.23854950	2.5748407	21	10 23.7	20.6
490621 2010 AC_{19}	18.2	X	145.36791	187.12594	248.88997	0.37670	0.1934241	0.28605076	2.2812558	21	4 27.7	21.4
490622 2010 AV_{28}	16.1	X	4.58423	356.38620	92.37810	7.88032	0.1614923	0.17035951	3.2227389	21	—	—
490623 2010 AZ_{32}	18.1	X	137.02531	78.21541	90.49489	5.37109	0.1351392	0.29911951	2.2143158	21	8 20.9	21.3
490624 2010 AN_{53}	18.3	X	148.94536	277.67192	235.59089	2.72127	0.1092041	0.29763817	2.2216568	21	8 8.1	21.4
490625 2010 AZ_{80}	16.7	X	325.46423	169.05251	231.00867	4.30679	0.3210737	0.23730958	2.5838018	21	10 8.3	18.0
490626 2010 AY_{91}	17.5	X	201.83947	108.38482	30.83644	8.09640	0.1668602	0.21439775	2.7647503	21	9 11.6	22.0
490627 2010 BS_{3}	17.5	X	248.02580	100.07596	341.96597	11.13088	0.2243528	0.22433975	2.6824516	21	8 10.1	21.6
490628 2010 BW_{4}	17.8	X	277.52262	128.25750	345.90569	3.51938	0.1482339	0.23628397	2.5912732	21	11 7.9	20.9
490629 2010 BO_{81}	16.4	X	74.83504	218.43032	173.74758	16.73498	0.1294491	0.18478603	3.0527410	21	—	—
490630 2010 BF_{122}	16.4	X	113.46669	267.33884	234.91090	8.20705	0.1206723	0.18840094	3.0135657	21	6 15.4	20.8
490631 2010 CF_{5}	18.2	X	236.84110	304.51065	100.03795	3.97035	0.1414367	0.29347818	2.2426018	21	6 15.7	21.1
490632 2010 CN_{29}	18.5	X	123.45712	356.63166	142.23091	2.61668	0.1682563	0.28587989	2.2821647	21	6 26.2	21.6
490633 2010 CV_{85}	15.6	X	135.00036	208.30416	133.57349	13.62936	0.0730381	0.17066545	3.2188863	21	—	—
490634 2010 CA_{128}	17.0	X	355.50746	221.04694	343.19291	10.25036	0.1929250	0.26780394	2.3837355	21	2 14.7	19.4
490635 2010 CB_{139}	18.2	X	111.89875	351.75718	92.83716	4.76724	0.2379681	0.27697451	2.3308242	21	4 11.4	21.3
490636 2010 DP	18.6	X	347.11294	286.87836	174.53519	36.45319	0.3956471	0.41998483	1.7659578	21	—	—
490637 2010 DD_{60}	16.0	X	3.01203	26.88491	81.35406	28.24946	0.0981679	0.17762087	3.1342963	21	—	—
490638 2010 DU_{74}	17.6	X	62.26660	41.96710	168.97689	5.53506	0.1043554	0.28552174	2.2840727	21	7 6.6	20.1
490639 2010 ED_{1}	15.9	X	33.80434	333.65719	83.43862	27.41116	0.1227957	0.17463703	3.1698971	21	—	—
490640 2010 ED_{32}	18.2	X	122.10208	345.51193	158.09136	6.39725	0.1515906	0.28588401	2.2821427	21	6 29.2	21.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490641 2010 EJ_{68}	18.1	X	52.51036	82.16013	158.51785	7.97448	0.1416046	0.28483395	2.2877481	21	8 11.5	20.6
490642 2010 EU_{76}	18.8	X	150.50986	292.43404	176.12012	4.60949	0.1159172	0.28628809	2.2799948	21	6 10.4	22.0
490643 2010 EW_{78}	18.3	X	144.68944	18.97115	119.66096	2.88315	0.1151835	0.28921584	2.2645817	21	7 15.0	21.2
490644 2010 EG_{94}	18.1	X	83.49067	165.01339	29.47311	3.72661	0.1027754	0.28601798	2.2814300	21	7 16.2	20.7
490645 2010 ER_{123}	15.9	X	43.05646	108.49019	33.35369	11.58087	0.1118242	0.17686229	3.1432521	21	3 15.7	19.9
490646 2010 EO_{128}	17.9	X	89.11487	170.67761	358.95605	5.69939	0.0884941	0.27943891	2.3171001	21	6 13.7	20.8
490647 2010 ES_{132}	18.6	X	4.43216	279.54120	332.87069	1.42198	0.1900827	0.27398206	2.3477650	21	5 21.8	20.2
490648 2010 EC_{133}	18.1	X	36.64277	23.67713	213.60549	5.51072	0.1783312	0.27864051	2.3215242	21	7 13.1	20.2
490649 2010 EU_{135}	18.1	X	117.56522	327.34075	193.92609	4.72810	0.1185602	0.28298839	2.2976840	21	7 14.0	21.3
490650 2010 FX_{31}	17.0	X	268.97377	187.96497	136.20147	16.50606	0.0804990	0.25783941	2.4447616	21	4 20.6	20.7
490651 2010 FM_{47}	17.8	X	22.71033	55.38506	165.71256	5.18248	0.1042559	0.27399212	2.3477076	21	5 13.4	20.1
490652 2010 FY_{86}	18.4	X	77.56057	135.74685	59.86034	2.61095	0.1423690	0.28217355	2.3021053	21	7 15.3	20.9
490653 2010 FT_{99}	18.3	X	7.89852	128.86941	140.16835	2.03068	0.2187552	0.27635932	2.3342819	21	7 2.3	19.6
490654 2010 FD_{101}	18.0	X	156.13182	235.29402	228.22493	4.61929	0.2205648	0.28267380	2.2993884	21	6 15.2	21.6
490655 2010 GZ_{26}	17.8	X	52.76515	147.94190	72.65738	7.52608	0.1385936	0.27802367	2.3249567	21	7 12.6	20.2
490656 2010 GA_{31}	17.0	X	170.30248	141.14634	24.06973	8.30043	0.1528501	0.21099525	2.7943937	21	9 14.4	21.5
490657 2010 GQ_{66}	17.9	X	17.85618	218.10202	38.64448	5.20031	0.2038788	0.27726964	2.3291699	21	7 7.8	19.5
490658 2010 GS_{108}	17.6	X	18.41373	20.74685	213.87004	6.07963	0.0632319	0.27111471	2.3642895	21	5 24.4	20.2
490659 2010 GS_{111}	18.5	X	17.00765	271.16171	14.95776	2.03421	0.2015900	0.28094176	2.3088294	21	8 27.3	20.0
490660 2010 GW_{117}	18.3	X	344.56458	163.81239	112.57783	6.87984	0.2366397	0.26920096	2.3754815	21	5 10.7	20.1
490661 2010 GN_{132}	17.4	X	348.07987	268.73402	77.14913	9.93550	0.1744096	0.28684325	2.2770520	21	10 3.8	19.3
490662 2010 HG_{43}	17.9	X	334.24345	319.11385	347.45174	4.84750	0.2793196	0.26280211	2.4138863	21	5 24.8	20.0
490663 2010 HH_{61}	17.9	X	322.07051	2.16813	305.42875	3.85731	0.2389847	0.25985829	2.4320826	21	5 8.7	20.4
490664 2010 HZ_{77}	18.2	X	16.21717	308.97621	326.33463	1.56608	0.2264444	0.27761991	2.3272104	21	8 8.9	19.6
490665 2010 HH_{103}	18.3	X	48.78703	207.31465	44.22222	7.69636	0.1484307	0.28170590	2.3046523	21	8 28.6	20.9
490666 2010 HU_{103}	18.6	X	68.46444	17.40710	173.49861	1.11126	0.1194982	0.27618435	2.3352677	21	6 19.6	21.1
490667 2010 HF_{105}	18.3	X	50.57257	8.82990	216.76305	2.69941	0.0531853	0.27760403	2.3272991	21	7 1.9	20.9
490668 2010 JK_{29}	18.5	X	22.74745	246.22516	40.94533	2.83035	0.2111125	0.28010483	2.3134262	21	9 13.3	20.3
490669 2010 JN_{31}	17.4	X	60.77655	160.26507	56.38857	24.20368	0.0980528	0.27879148	2.3206860	21	7 13.3	20.5
490670 2010 JX_{33}	17.9	X	84.43329	328.60631	208.00466	4.43719	0.1980982	0.27711913	2.3300132	21	7 5.3	20.8
490671 2010 JE_{41}	15.6	X	100.16370	81.18068	187.30957	13.44189	0.2342390	0.12515900	3.9581719	21	11 9.7	21.9
490672 2010 JU_{43}	18.6	X	51.47169	108.20738	140.93492	4.52497	0.1939960	0.28026717	2.3125328	21	9 2.5	21.1
490673 2010 JW_{96}	17.1	X	200.79400	50.21839	294.11114	10.23942	0.2086703	0.23454173	2.6040899	21	2 23.0	21.7
490674 2010 JB_{113}	17.7	X	65.81276	175.36941	69.01305	12.06645	0.1816169	0.28448499	2.2896186	21	9 21.6	20.8
490675 2010 JW_{148}	17.9	X	334.46581	247.97356	43.77249	11.86579	0.2788906	0.26859639	2.3790447	21	5 1.8	19.8
490676 2010 JA_{156}	18.3	X	92.23744	1.69033	176.42636	2.99209	0.1679791	0.27814133	2.3243010	21	7 13.3	21.3
490677 2010 JK_{163}	18.3	X	35.63192	172.75095	45.19286	5.91351	0.1681715	0.27495587	2.3422184	21	6 7.4	20.2
490678 2010 JJ_{176}	17.9	X	15.26857	238.84358	34.96955	10.92331	0.2830595	0.27442347	2.3452468	21	8 20.6	19.5
490679 2010 KO_{53}	16.8	X	324.11133	143.98278	219.15962	9.49739	0.2310580	0.17650011	3.1475507	21	8 5.0	20.4
490680 2010 KR_{84}	17.8	X	340.32844	164.13630	146.25017	5.30503	0.2239596	0.26239899	2.4163580	21	6 28.0	19.5
490681 2010 LJ_{8}	16.8	X	345.43834	25.80419	325.08892	6.11987	0.1633955	0.17908162	3.1172290	21	9 8.6	20.2
490682 2010 LT_{28}	16.2	X	17.50850	350.18218	347.51280	16.39703	0.1114839	0.18527646	3.0473516	21	10 9.9	20.2
490683 2010 LH_{34}	18.6	X	11.14093	108.09042	156.27781	8.67081	0.2914463	0.27085974	2.3657730	21	7 9.3	19.7
490684 2010 LL_{34}	19.4	X	181.58203	270.97254	120.26957	22.71974	0.5545219	0.68048920	1.2801334	21	4 7.5	21.8
490685 2010 LB_{37}	16.0	X	344.10645	92.08526	251.58470	10.70806	0.1561594	0.17730411	3.1380283	21	8 22.6	19.9
490686 2010 LY_{44}	17.1	X	142.44886	50.67449	320.22691	12.11819	0.2140693	0.22149221	2.7053933	21	2 10.6	21.3
490687 2010 LV_{113}	17.1	X	23.83898	186.13911	106.62509	16.90907	0.2842757	0.27447056	2.3449785	21	10 16.6	19.8
490688 2010 MH_{17}	16.8	X	353.89050	156.24050	201.35202	12.89117	0.2104334	0.18075198	3.0979947	21	10 7.7	19.9
490689 2010 MG_{35}	17.3	X	359.78470	53.85856	311.36055	14.08479	0.2757762	0.18236744	3.0796724	21	11 1.1	20.6
490690 2010 MW_{65}	16.8	X	160.64771	101.55133	261.97940	10.01081	0.2093995	0.22301121	2.6930945	21	2 13.6	21.4
490691 2010 MN_{114}	16.2	X	357.11468	130.54028	219.26780	26.60342	0.2613221	0.17854712	3.1234471	21	10 4.0	19.4
490692 2010 NG_{5}	17.6	X	296.93176	160.71836	146.93663	3.67836	0.1966509	0.25510769	2.4621831	21	4 11.8	20.8
490693 2010 NV_{6}	16.7	X	180.43618	337.33051	311.78872	8.75026	0.2098556	0.22119382	2.7078258	21	—	—
490694 2010 NU_{30}	16.5	X	332.70409	358.15798	9.96082	13.22003	0.2350369	0.17473733	3.1686840	21	9 7.9	19.7
490695 2010 OC_{24}	17.9	X	44.28763	114.88826	233.42118	8.01562	0.4002939	0.19022186	2.9943031	21	—	
490696 2010 OE_{70}	17.0	X	188.99253	176.05376	159.05260	5.74561	0.0889603	0.22017546	2.7161689	21	2 2.7	21.2
490697 2010 OA_{71}	17.1	X	350.25675	91.11982	273.94276	8.19211	0.2501879	0.17696132	3.1420793	21	10 6.9	20.2
490698 2010 OV_{76}	16.8	X	12.59495	94.49101	261.09678	10.54037	0.2232952	0.18114368	3.0935271	21	11 12.3	20.3
490699 2010 OW_{103}	17.2	X	307.79693	199.10209	98.04136	18.26950	0.2486675	0.26432279	2.4046192	21	4 11.9	20.7
490700 2010 OM_{125}	17.1	X	224.32477	294.24152	45.93132	12.33349	0.1943300	0.23149566	2.6268835	21	3 19.1	21.6
490701 2010 PH_{24}	17.8	X	321.33653	148.89453	163.17023	1.23211	0.1932314	0.26098412	2.4250833	21	5 24.5	20.3
490702 2010 PQ_{35}	16.5	X	7.69755	347.06708	13.26103	10.21155	0.2877259	0.18020428	3.1042688	21	11 16.7	19.7
490703 2010 PF_{41}	16.5	X	348.14110	31.68763	339.34869	9.34709	0.4025067	0.17719434	3.1393240	21	10 18.9	18.3
490704 2010 PP_{57}	17.0	X	131.33749	331.15416	340.00858	3.59069	0.2099091	0.21079250	2.7961853	21	—	—
490705 2010 PT_{63}	17.1	X	353.42796	343.59478	313.01294	5.82051	0.1188618	0.26581974	2.3955830	21	7 14.3	19.4
490706 2010 PY_{79}	17.4	X	217.40263	6.54434	331.96470	11.71432	0.1208428	0.23575385	2.5951563	21	3 4.5	21.5
490707 2010 QZ_{1}	16.4	X	214.51225	308.49074	48.83516	29.10794	0.2518589	0.23136963	2.6278373	21	4 8.1	21.4
490708 2010 QZ_{2}	16.3	X	12.90273	170.60905	165.62095	7.10881	0.1906933	0.18393722	3.0621254	21	10 17.7	19.7
490709 2010 RB_{10}	17.8	X	287.84317	232.71773	192.14284	10.29921	0.1407329	0.26769065	2.3844080	21	9 22.4	20.5
490710 2010 RU_{18}	18.2	X	23.78475	34.69406	337.14986	18.63061	0.0991430	0.37564449	1.9023249	21	—	—
490711 2010 RY_{18}	16.9	X	153.69313	161.02527	211.46293	13.67922	0.2607192	0.22453043	2.6809327	21	2 21.9	21.6
490712 2010 RS_{25}	17.4	X	248.66605	188.62087	158.12653	13.56114	0.0451784	0.24431831	2.5341484	21	4 28.5	21.1
490713 2010 RY_{26}	18.2	X	14.99933	147.40225	204.46296	0.96887	0.2778680	0.18654673	3.0335021	21	11 22.8	21.3
490714 2010 RK_{40}	16.8	X	226.26634	140.97941	175.03247	31.34820	0.1691399	0.23373012	2.6101147	21	2 12.6	21.5
490715 2010 RE_{42}	17.6	X	21.66997	188.18005	187.80051	4.93173	0.1835762	0.28286758	2.2983382	21	—	—
490716 2010 RN_{68}	16.1	X	9.48264	308.61478	33.19521	4.97762	0.2770717	0.18162674	3.0880396	21	10 27.7	19.1
490717 2010 RF_{81}	16.6	X	236.00088	306.03137	4.64002	31.55606	0.2302735	0.23449293	2.6044512	21	2 28.4	21.4
490718 2010 RL_{82}	19.2	X	200.63077	283.93762	145.40423	19.88838	0.0993894	0.52538124	1.5210833	21	6 8.8	20.9
490719 2010 RH_{87}	17.6	X	86.92041	357.70380	323.90954	4.96081	0.2259322	0.19751946	2.9200893	21	—	—
490720 2010 RR_{104}	17.1	X	124.99151	22.18516	2.79187	8.79563	0.1678815	0.21661062	2.7458884	21	2 8.1	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490721 2010 RC_{109}	18.1	X	78.03340	162.26583	171.92597	23.81758	0.0773692	0.38080872	1.8850873	21	—	—
490722 2010 RT_{112}	16.6	X	52.49474	344.21404	336.45375	10.79236	0.1231351	0.18585132	3.0410644	21	11 10.2	21.0
490723 2010 RX_{120}	17.2	X	77.87428	251.14271	192.44699	2.45427	0.0493434	0.22313480	2.6920999	21	1 30.1	20.6
490724 2010 RD_{123}	17.3	X	245.29983	147.55842	180.42517	12.75971	0.1844889	0.23770817	2.5809127	21	3 16.1	21.6
490725 2010 RE_{123}	18.3	X	19.41313	218.52426	158.92954	2.78842	0.1688113	0.28075470	2.3098548	21	—	—
490726 2010 RX_{125}	17.1	X	179.97535	337.12652	18.05910	15.08417	0.1214295	0.22584200	2.6705430	21	2 26.1	21.4
490727 2010 RH_{140}	18.6	X	95.51588	315.12213	22.29250	2.22144	0.2027698	0.29417176	2.2390755	21	—	—
490728 2010 RD_{142}	17.1	X	352.31020	127.83100	223.08312	6.14915	0.1584153	0.17747727	3.1359868	21	9 20.8	20.7
490729 2010 RB_{149}	16.5	X	347.65053	359.39153	344.26732	8.68003	0.0905654	0.17528156	3.1621215	21	9 4.6	20.3
490730 2010 RC_{154}	17.4	X	107.05478	151.41352	282.58601	3.84094	0.1752203	0.22220873	2.6995744	21	3 15.4	21.2
490731 2010 RE_{158}	17.8	X	335.75636	230.42282	169.34719	1.40795	0.1844393	0.27230140	2.3574155	21	11 23.3	19.3
490732 2010 RS_{162}	17.4	X	82.13787	21.34826	4.77491	15.54956	0.1934045	0.20628253	2.8367937	21	—	—
490733 2010 RQ_{167}	16.4	X	351.48614	339.58451	354.99614	10.92954	0.1002494	0.17674123	3.1446873	21	8 31.9	20.3
490734 2010 RO_{174}	16.3	X	325.85384	12.67913	6.05160	16.35250	0.1387485	0.17403134	3.1772477	21	9 15.8	20.0
490735 2010 RX_{174}	16.9	X	152.11949	24.04318	9.33560	14.75159	0.1148099	0.22643895	2.6658475	21	3 12.8	20.9
490736 2010 RC_{175}	17.1	X	101.34955	1.93542	22.82337	6.09440	0.0440115	0.21092171	2.7950432	21	—	—
490737 2010 RX_{177}	17.1	X	350.55704	67.07402	174.92906	14.52963	0.0673639	0.23991223	2.5650812	21	4 24.0	20.3
490738 2010 SS_{4}	16.5	X	359.80789	352.17470	343.69373	15.91354	0.1043308	0.17653008	3.1471944	21	9 12.6	20.5
490739 2010 SU_{5}	17.0	X	179.46839	183.38446	210.15825	11.32086	0.1484251	0.23071275	2.6328230	21	4 6.7	21.1
490740 2010 SV_{11}	17.9	X	10.27133	239.72801	114.01262	0.43175	0.2698168	0.18421985	3.0589926	21	11 14.5	20.9
490741 2010 SX_{14}	17.4	X	91.81620	47.57146	15.47390	8.78592	0.0646129	0.21924500	2.7238483	21	1 29.6	21.0
490742 2010 SW_{18}	17.0	X	105.59732	202.46809	191.19877	8.95544	0.1661026	0.21280300	2.7785458	21	1 21.7	20.8
490743 2010 SV_{26}	17.2	X	335.76101	248.42344	7.12038	6.89763	0.1277815	0.24033076	2.5621023	21	4 7.7	19.9
490744 2010 SG_{37}	16.8	X	199.48152	12.20933	2.39725	7.76142	0.2026137	0.23358709	2.6111801	21	4 2.1	21.2
490745 2010 SG_{39}	17.5	X	231.95843	180.79727	157.30382	5.70157	0.2512206	0.23688703	2.5868735	21	3 15.3	22.1
490746 2010 TR_{4}	18.2	X	283.97670	268.50978	161.10777	2.15517	0.1722327	0.26643120	2.3919164	21	9 18.8	20.7
490747 2010 TG_{15}	17.1	X	315.48818	326.43431	280.13174	5.21073	0.1549208	0.23442308	2.6049685	21	2 19.6	20.5
490748 2010 TQ_{43}	17.5	X	130.86296	33.32463	8.56154	6.37776	0.0573754	0.22234739	2.6984520	21	2 19.4	21.2
490749 2010 TR_{87}	18.4	X	274.28348	48.15897	17.76167	1.68164	0.2286548	0.26162278	2.4211350	21	8 19.2	21.3
490750 2010 TA_{93}	18.3	X	87.04027	128.03045	194.72130	5.99426	0.1348341	0.28756434	2.2732439	21	—	—
490751 2010 TG_{100}	17.5	X	100.56555	282.08386	146.25394	3.04144	0.1716179	0.21937493	2.7227727	21	3 2.2	21.0
490752 2010 TE_{102}	17.4	X	232.74255	250.42275	75.00344	5.07554	0.2281800	0.23497498	2.6008879	21	3 3.6	21.9
490753 2010 TL_{104}	16.5	X	340.93975	41.13679	183.90533	14.13794	0.0598449	0.23317143	2.6142824	21	3 14.6	19.8
490754 2010 TQ_{119}	16.6	X	348.75332	154.92663	269.63251	12.75491	0.3467275	0.18076975	3.0977917	21	—	—
490755 2010 TW_{150}	16.6	X	109.24520	131.34193	241.72143	12.75416	0.2371167	0.21137093	2.7910817	21	1 10.7	20.5
490756 2010 TW_{154}	16.7	X	36.23683	339.30207	348.10838	12.49186	0.1207849	0.18398510	3.0615941	21	10 26.5	20.9
490757 2010 TN_{166}	18.0	X	27.34590	351.76585	15.88865	21.76915	0.1318924	0.37441292	1.9064942	21	—	—
490758 2010 TB_{167}	17.4	X	295.34412	147.72914	266.89908	4.85699	0.1677012	0.26355993	2.4092570	21	9 13.3	19.8
490759 2010 TE_{167}	17.6	X	317.87708	61.08362	32.40819	23.72407	0.1328944	0.36692871	1.9323313	21	—	—
490760 2010 TD_{174}	17.1	X	28.19734	10.59851	336.76534	10.34742	0.2370578	0.18641350	3.0349472	21	11 29.7	21.1
490761 2010 TX_{181}	18.1	X	276.85827	40.58463	37.29634	5.84776	0.0783207	0.26654288	2.3912482	21	10 6.0	20.7
490762 2010 TZ_{187}	16.6	X	19.78538	303.65894	196.43807	27.47718	0.2364184	0.21254482	2.7807954	21	1 7.4	20.0
490763 2010 TL_{192}	14.6	X	300.26894	246.73779	175.51994	5.48964	0.0595155	0.08342594	5.1872279	21	9 27.4	21.3
490764 2010 TM_{192}	14.0	X	256.18193	95.82743	24.72430	13.47827	0.0368131	0.08395906	5.1652459	21	10 14.9	20.8
490765 2010 TP_{192}	14.6	X	341.30158	54.80412	341.96774	0.56201	0.0404487	0.08246223	5.2275638	21	10 19.3	21.3
490766 2010 UC_{2}	16.8	X	343.64069	229.20830	25.02375	9.83644	0.1682082	0.23803023	2.5785841	21	4 15.3	19.5
490767 2010 UV_{5}	17.4	X	262.59365	28.31911	276.70423	6.47225	0.1124339	0.23276210	2.6173464	21	3 8.2	21.3
490768 2010 US_{6}	16.9	X	214.25047	303.77553	31.31818	15.20385	0.1308509	0.22589623	2.6701156	21	3 7.4	21.3
490769 2010 UQ_{8}	18.1	X	212.97213	54.73988	33.53509	20.60769	0.0736020	0.34345079	2.0194187	21	8 5.9	21.1
490770 2010 UH_{20}	17.2	X	290.61027	263.18832	31.04612	7.60869	0.0509663	0.23488662	2.6015401	21	4 9.4	20.5
490771 2010 UR_{25}	17.0	X	174.47858	108.52287	255.37082	5.35118	0.0297710	0.21814295	2.7330144	21	2 16.9	20.9
490772 2010 UO_{30}	17.4	X	53.46955	147.44178	312.50560	3.22292	0.0664439	0.21208749	2.7847915	21	1 21.4	20.8
490773 2010 UL_{33}	16.7	X	98.43925	39.75204	16.50390	10.24119	0.1203332	0.21346872	2.7727660	21	2 9.1	20.4
490774 2010 UL_{40}	17.5	X	349.67060	23.26434	227.58241	7.79712	0.1214107	0.23941350	2.5686423	21	4 26.5	20.1
490775 2010 UR_{45}	14.3	X	294.39311	173.33944	262.48917	8.49019	0.1234346	0.08290201	5.2090597	21	9 23.4	21.0
490776 2010 UD_{50}	18.0	X	216.10511	224.29721	136.85488	3.36612	0.0585097	0.23151829	2.6267123	21	4 5.7	21.8
490777 2010 UC_{53}	16.8	X	354.35977	96.67092	21.62445	10.01498	0.1294551	0.19888516	2.9067061	21	—	—
490778 2010 UL_{56}	14.0	X	322.76747	169.40364	251.78264	9.21939	0.1485504	0.08366699	5.1772598	21	10 13.6	20.3
490779 2010 UL_{57}	16.8	X	124.88040	115.53575	249.93362	12.15589	0.0899694	0.20528850	2.8459437	21	1 2.2	20.8
490780 2010 UQ_{59}	18.2	X	352.23989	74.09992	306.39901	1.50491	0.2075184	0.26845418	2.3798848	21	11 30.7	20.2
490781 2010 UX_{67}	17.6	X	267.56596	306.41646	0.50482	8.52729	0.2144537	0.23833505	2.5763850	21	3 9.7	21.6
490782 2010 UA_{70}	16.8	X	210.87045	311.67615	62.07774	10.69805	0.1266771	0.23281310	2.6169641	21	4 16.6	20.9
490783 2010 UF_{70}	16.7	X	130.69607	30.63998	29.73658	9.55460	0.1377651	0.22048764	2.7136045	21	3 25.7	20.7
490784 2010 UQ_{77}	17.2	X	8.26518	115.31069	10.65859	12.83784	0.1687538	0.20375250	2.8602286	21	—	—
490785 2010 UO_{81}	14.4	X	297.33685	105.76719	327.77435	2.04878	0.1131565	0.08252006	5.2251209	21	9 29.1	21.1
490786 2010 UK_{86}	17.6	X	140.17848	205.93224	178.98220	5.36946	0.0798666	0.21841109	2.7307771	21	2 9.6	21.5
490787 2010 UA_{89}	17.4	X	207.47292	319.32907	26.01995	9.31667	0.1029630	0.23024316	2.6364016	21	3 9.2	21.5
490788 2010 UY_{97}	16.6	X	52.46701	259.34925	218.86239	23.47392	0.1624407	0.21099283	2.7944151	21	2 11.5	20.3
490789 2010 UQ_{101}	18.9	X	122.83761	108.07159	217.13394	18.32352	0.0917427	0.38556135	1.8695642	21	—	—
490790 2010 UR_{105}	18.0	X	50.77311	283.42526	57.15284	7.09700	0.1508125	0.27755949	2.3275481	21	12 28.5	21.1
490791 2010 VE_{1}	19.8	X	210.54556	98.68800	54.89303	7.14738	0.3621717	0.34948706	1.9960986	21	10 2.3	23.1
490792 2010 VF_{2}	17.4	X	287.21890	301.24461	6.84459	7.88448	0.1504159	0.23998885	2.5645352	21	4 6.3	20.8
490793 2010 VJ_{12}	17.9	X	36.76440	306.36140	60.62069	3.17965	0.2071448	0.27961613	2.3161210	21	—	—
490794 2010 VY_{23}	17.4	X	265.62586	288.05277	48.84955	3.00578	0.1485343	0.23676894	2.5877336	21	4 20.7	21.1
490795 2010 VQ_{28}	17.6	X	285.12292	352.53988	75.28656	23.44489	0.0756472	0.35444967	1.9774234	21	10 31.7	19.8
490796 2010 VY_{29}	17.0	X	212.35615	199.79837	179.30518	5.08062	0.2367565	0.23490625	2.6013952	21	4 19.2	21.4
490797 2010 VX_{38}	16.2	X	98.69669	58.65596	63.18978	22.95566	0.0693218	0.22708750	2.6607694	21	4 29.6	20.0
490798 2010 VN_{44}	17.3	X	61.49887	141.16732	308.35635	3.26003	0.0239471	0.21403823	2.7678453	21	1 16.3	20.7
490799 2010 VX_{56}	17.4	X	142.17766	285.91435	83.59895	4.43044	0.0876336	0.21292582	2.7774772	21	1 27.9	21.3
490800 2010 VO_{64}	16.5	X	69.80474	18.22376	76.54458	10.06525	0.1688635	0.21132086	2.7915226	21	2 24.6	19.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490801 2010 VH_{72}	16.8	X	246.31627	272.03672	45.19839	13.71810	0.0192302	0.22808387	2.6530148	21	3 24.6	20.6
490802 2010 VL_{74}	17.7	X	249.99943	278.65869	220.91745	20.17927	0.0941240	0.36362946	1.9440018	21	12 9.1	19.6
490803 2010 VD_{87}	17.3	X	32.20027	63.83353	42.83863	12.74800	0.1191086	0.20382061	2.8595914	21	—	—
490804 2010 VN_{89}	14.6	X	324.19273	20.05623	39.20884	4.42364	0.1314849	0.08256312	5.2233041	21	10 18.1	20.9
490805 2010 VF_{90}	16.5	X	1.39173	228.90095	248.03846	11.60984	0.0540729	0.19802814	2.9150865	21	—	—
490806 2010 VA_{91}	18.3	X	32.29549	5.49819	353.89299	1.20086	0.1992890	0.27503086	2.3417926	21	—	—
490807 2010 VB_{105}	17.1	X	118.56454	328.71930	75.79434	6.48514	0.0523570	0.21350084	2.7724878	21	2 8.4	20.9
490808 2010 VK_{112}	16.6	X	297.74411	80.35264	61.16107	25.57803	0.2921579	0.18268594	3.0760918	21	12 12.9	19.9
490809 2010 VE_{115}	14.3	X	290.09813	277.22480	183.32124	7.39120	0.0821223	0.08468394	5.1357280	21	10 26.2	20.9
490810 2010 VA_{117}	17.1	X	242.45784	314.85595	37.88209	11.39147	0.2356740	0.23735710	2.5834570	21	4 12.1	21.4
490811 2010 VM_{124}	17.0	X	84.73826	160.65891	270.98359	3.22520	0.0468470	0.21200474	2.7855160	21	1 26.4	20.5
490812 2010 VH_{127}	17.9	X	346.43731	282.98281	236.40532	6.12220	0.0897496	0.29554685	2.2321249	21	—	—
490813 2010 VX_{127}	17.5	X	224.15440	261.74203	106.91780	3.89464	0.2396136	0.23444227	2.6048263	21	4 16.5	21.9
490814 2010 VQ_{131}	17.1	X	76.31766	247.03239	203.22354	3.55860	0.0642837	0.21499375	2.7596383	21	2 8.4	20.6
490815 2010 VE_{133}	17.0	X	172.38204	294.97551	55.73002	8.99552	0.1632484	0.21669229	2.7451984	21	2 14.5	21.5
490816 2010 VH_{138}	16.1	X	237.89166	306.40637	32.49067	29.70857	0.0948976	0.23132066	2.6282082	21	4 7.4	20.2
490817 2010 VF_{142}	14.1	X	346.77874	302.05132	85.00439	8.93131	0.0643018	0.08448409	5.1438240	21	10 19.1	20.7
490818 2010 VS_{145}	16.8	X	349.17521	1.27726	211.45615	12.78682	0.0508407	0.22355385	2.6887347	21	3 9.9	20.4
490819 2010 VD_{147}	17.2	X	120.09322	213.77273	220.80962	13.21530	0.1506286	0.21961742	2.7207681	21	3 27.7	21.2
490820 2010 VA_{148}	14.6	X	326.42549	222.12636	202.90076	6.99694	0.0870033	0.08508389	5.1196213	21	10 31.1	21.1
490821 2010 VT_{157}	17.1	X	179.59302	118.87014	247.49011	5.31904	0.0291346	0.22055383	2.7130616	21	2 25.5	20.9
490822 2010 VG_{160}	16.7	X	356.18307	285.53288	264.32231	7.40826	0.0646516	0.22131939	2.7068015	21	2 17.1	20.2
490823 2010 VK_{164}	16.9	X	272.84190	296.89366	55.90777	15.74711	0.1644498	0.24229365	2.5482461	21	5 16.9	20.2
490824 2010 VW_{164}	18.7	X	134.11150	287.78122	40.71184	22.81198	0.1663248	0.38835981	1.8605722	21	—	—
490825 2010 VC_{176}	17.3	X	255.71833	22.12791	319.24155	5.62391	0.2667630	0.23993115	2.5649464	21	4 2.3	21.7
490826 2010 VR_{197}	17.0	X	132.70185	311.80484	80.28107	6.33179	0.0598588	0.21537809	2.7563543	21	2 10.9	20.9
490827 2010 VS_{197}	16.6	X	297.91012	218.65566	62.35139	15.25996	0.0534516	0.23012666	2.6372912	21	4 8.4	20.3
490828 2010 VT_{197}	17.7	X	246.49578	319.34894	232.84292	19.54111	0.0452711	0.37613313	1.9006770	21	—	—
490829 2010 VF_{199}	16.7	X	169.57283	328.50425	66.04788	14.84508	0.1820204	0.22722031	2.6597324	21	4 8.8	21.2
490830 2010 VR_{207}	17.0	X	148.46187	76.43582	291.24183	6.02958	0.0416842	0.21599717	2.7510850	21	1 25.3	20.9
490831 2010 VT_{215}	18.0	X	7.05632	287.14220	90.96394	2.35932	0.1908518	0.27326268	2.3518837	21	12 24.3	20.2
490832 2010 VK_{217}	16.2	X	178.24351	297.90477	35.87182	28.55643	0.1111953	0.21472989	2.7618985	21	2 4.8	21.1
490833 2010 VT_{217}	17.9	X	286.29005	44.97111	14.54641	1.43052	0.1714211	0.26028742	2.4294088	21	9 7.2	20.4
490834 2010 VY_{224}	14.6	X	155.80494	172.57491	52.59867	2.38068	0.0579385	0.08315611	5.1984428	21	10 25.8	21.7
490835 2010 VA_{225}	14.1	X	41.20779	148.19376	184.58004	9.47590	0.0028161	0.08219798	5.2387615	21	10 17.2	21.0
490836 2010 WZ_{21}	17.4	X	134.13800	111.12820	246.68947	1.14411	0.0747003	0.20464830	2.8518759	21	1 3.3	21.4
490837 2010 WY_{22}	18.8	X	335.53734	61.78700	330.62089	0.35346	0.1820766	0.26644137	2.3918556	21	11 8.2	20.6
490838 2010 WD_{30}	17.2	X	194.25596	249.23794	87.98836	1.71095	0.0756220	0.21494629	2.7600445	21	2 12.3	21.3
490839 2010 WD_{33}	14.4	X	354.54459	161.48384	238.05318	6.59582	0.0766411	0.08484384	5.1292732	21	11 7.8	20.9
490840 2010 WW_{34}	17.1	X	173.34636	94.40948	240.79155	7.76322	0.1846455	0.21243179	2.7817817	21	1 24.1	21.8
490841 2010 WS_{51}	18.1	X	238.70467	123.19044	56.09514	22.36743	0.0476616	0.36895695	1.9252432	21	—	—
490842 2010 WG_{62}	17.6	X	228.09707	278.57202	251.87187	20.04486	0.1251823	0.35941625	1.9591645	21	12 14.3	19.2
490843 2010 WD_{70}	17.4	X	348.47179	334.39959	79.00478	23.53168	0.0671998	0.36546074	1.9375023	21	—	—
490844 2010 WD_{74}	16.8	X	245.98476	238.22608	69.13816	15.01254	0.0838838	0.22094574	2.7098523	21	3 8.8	21.1
490845 2010 XS	16.0	X	334.11789	343.39646	154.94766	27.67517	0.0770341	0.17825280	3.1268843	21	—	—
490846 2010 XY_{11}	16.3	X	111.80122	290.31210	112.39138	10.12548	0.1364755	0.20476273	2.8508133	21	2 10.7	20.2
490847 2010 XT_{29}	14.4	X	340.89703	15.59407	26.14308	4.22295	0.0941123	0.08147054	5.2698995	21	10 22.8	21.0
490848 2010 XO_{37}	17.4	X	27.60043	95.97224	273.78606	20.48072	0.1377551	0.36261018	1.9476431	21	—	—
490849 2010 XG_{48}	18.1	X	89.89053	275.67079	60.23937	23.09640	0.0788092	0.37728038	1.8968220	21	—	—
490850 2010 XL_{55}	14.5	X	312.69582	39.08265	28.64261	4.44545	0.1440224	0.08234987	5.2323178	21	10 10.2	20.9
490851 2010 XY_{57}	17.0	X	241.79420	280.73308	74.02766	12.73286	0.1490543	0.23236227	2.6203480	21	4 23.3	21.2
490852 2010 XO_{58}	16.8	X	96.20329	20.90423	66.74985	6.04683	0.1340857	0.21344577	2.7729648	21	3 19.4	20.5
490853 2010 XB_{64}	16.2	X	95.81389	339.46573	102.49970	14.32845	0.1758126	0.21177024	2.7875720	21	3 21.9	20.2
490854 2010 XB_{67}	17.4	X	255.93948	178.29766	174.35687	4.73141	0.2774411	0.23885376	2.5726537	21	4 19.2	21.6
490855 2010 XO_{71}	17.0	X	174.82833	129.66024	231.88952	5.43503	0.0610805	0.21723935	2.7405878	21	2 16.9	21.0
490856 2011 AQ	16.2	X	290.82183	241.18741	294.61945	13.51295	0.1025206	0.18373769	3.0643419	21	—	—
490857 2011 AR_{14}	16.8	X	333.37903	343.82295	103.41420	19.06596	0.1789800	0.17628770	3.1500785	21	12 25.4	20.2
490858 2011 AA_{19}	16.4	X	228.65127	166.60894	41.65114	4.85984	0.0834770	0.17375497	3.1806159	21	12 30.7	21.1
490859 2011 AL_{43}	17.7	X	172.07367	125.82467	119.54848	24.74125	0.0509273	0.35816913	1.9637097	21	—	—
490860 2011 AP_{48}	17.5	X	144.30683	195.39212	309.26880	3.62429	0.0658206	0.23299032	2.6156369	21	7 18.9	21.1
490861 2011 AP_{53}	15.9	X	270.96742	65.32966	115.10307	26.34243	0.1949905	0.17449494	3.1716177	21	—	—
490862 2011 AT_{56}	15.8	X	263.37546	242.46117	307.31822	18.40438	0.2001769	0.17395955	3.1781217	21	—	—
490863 2011 AV_{58}	16.3	X	87.22873	72.02705	296.73668	8.61842	0.0811514	0.18451064	3.0557778	21	—	—
490864 2011 AF_{63}	16.2	X	286.55496	42.81630	125.71549	12.00354	0.2258831	0.17495677	3.1660338	21	—	—
490865 2011 AE_{65}	17.6	X	329.68878	153.40784	345.18630	0.85747	0.1196343	0.18532236	3.0468484	21	—	—
490866 2011 AK_{65}	16.5	X	80.25333	268.43519	114.88065	10.75148	0.1050146	0.18538348	3.0461786	21	—	—
490867 2011 AB_{66}	16.4	X	201.08884	178.69502	122.98100	11.59083	0.0957507	0.19172259	2.9786572	21	1 11.6	21.0
490868 2011 AU_{67}	18.2	X	191.87217	200.54540	248.20337	1.17790	0.1641662	0.23347730	2.6119986	21	6 27.9	22.3
490869 2011 AV_{67}	16.7	X	317.07298	29.81338	126.46119	7.29303	0.1090825	0.18571597	3.0425417	21	—	—
490870 2011 AQ_{69}	16.8	X	278.45389	60.63323	92.96088	12.42826	0.0932297	0.17538801	3.1608419	21	12 25.4	20.9
490871 2011 BS	16.7	X	27.42017	308.07658	116.33503	10.75223	0.0957889	0.18447273	3.0561964	21	—	—
490872 2011 BE_5	16.5	X	268.98988	74.16651	127.55598	9.05913	0.1596925	0.18144073	3.0901497	21	—	—
490873 2011 BH_6	16.6	X	186.16109	272.95435	114.39485	14.75213	0.0705071	0.21543834	2.7558403	21	4 12.8	21.0
490874 2011 BS_6	16.2	X	209.01247	132.73714	109.55626	10.68705	0.0846590	0.17901352	3.1180196	21	—	—
490875 2011 BL_{10}	17.7	X	341.35118	278.40943	144.92773	25.21853	0.1360614	0.35586128	1.9721906	21	—	—
490876 2011 BA_{11}	16.4	X	357.20700	105.47668	321.22599	9.20129	0.0975282	0.17924677	3.1153140	21	—	—
490877 2011 BM_{13}	17.6	X	349.03669	352.86931	22.10835	5.40229	0.2138022	0.25815534	2.4427666	21	11 11.3	19.6
490878 2011 BM_{19}	16.3	X	244.76066	102.78298	121.40522	12.14040	0.1034204	0.17801981	3.1296120	21	—	—
490879 2011 BA_{21}	16.3	X	78.66003	242.75880	121.63455	17.47673	0.0494683	0.18060376	3.0996894	21	—	—
490880 2011 BU_{22}	18.2	X	345.45284	175.68857	271.15106	6.18555	0.2666798	0.27355542	2.3502055	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
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490881 2011 BK_{28}	16.7	X	296.62528	46.88473	126.67635	18.27154	0.2028255	0.17956203	3.1116665	21	—	—
490882 2011 BN_{33}	16.9	X	329.47615	153.52377	315.25024	13.50692	0.1304632	0.17592746	3.1543773	21	—	—
490883 2011 BU_{39}	15.7	X	294.50477	149.90478	354.12392	14.62084	0.2258612	0.17440254	3.1727377	21	12 20.6	19.7
490884 2011 BQ_{43}	18.2	X	191.41647	201.21474	184.70105	4.33919	0.0781991	0.30726880	2.1749890	21	3 31.5	20.9
490885 2011 BU_{43}	15.8	X	174.38820	185.26629	158.77854	10.45309	0.1005599	0.19601110	2.9350507	21	2 2.6	20.4
490886 2011 BC_{45}	17.9	X	232.65954	34.44421	30.64453	3.09641	0.0428516	0.23469374	2.6029653	21	7 20.9	21.4
490887 2011 BT_{52}	16.4	X	332.72775	97.10333	79.61139	7.49992	0.1760642	0.19029777	2.9935068	21	—	—
490888 2011 BD_{53}	15.9	X	351.42132	281.28455	126.54580	26.41187	0.2817305	0.17336745	3.1853538	21	12 20.3	19.4
490889 2011 BC_{57}	16.7	X	23.47369	305.92353	105.89471	15.96153	0.3087142	0.18282922	3.0744846	21	—	—
490890 2011 BC_{60}	16.5	X	354.67494	29.73964	116.88584	17.87960	0.1824561	0.18991982	2.9974769	21	—	—
490891 2011 BB_{65}	16.7	X	258.13489	36.93856	152.60947	16.74626	0.0985454	0.17045191	3.2215741	21	—	—
490892 2011 BT_{65}	17.9	X	313.21090	303.94956	132.09589	24.58166	0.0806941	0.35476508	1.9762512	21	12 28.3	19.9
490893 2011 BS_{67}	16.2	X	334.31736	217.69121	285.98939	8.95550	0.1112650	0.18479724	3.0526176	21	—	—
490894 2011 BX_{70}	17.3	X	350.01758	302.63387	153.08054	12.21923	0.1895339	0.17849493	3.1240558	21	—	—
490895 2011 BB_{84}	16.1	X	69.32914	312.17883	107.78036	12.54222	0.0466055	0.18989863	2.9977000	21	—	—
490896 2011 BP_{85}	16.9	X	300.82869	37.06750	121.04232	15.57334	0.2239396	0.17637742	3.1490101	21	—	—
490897 2011 BH_{86}	16.7	X	37.04162	318.38130	125.23844	10.11930	0.0450391	0.18826119	3.0150569	21	—	—
490898 2011 BU_{90}	15.6	X	161.01818	131.81008	140.99935	21.59909	0.1242112	0.17139519	3.2097433	21	—	—
490899 2011 BZ_{98}	15.4	X	155.03186	320.08811	329.11589	13.82872	0.0700270	0.16981507	3.2296235	21	—	—
490900 2011 BK_{100}	17.6	X	111.27917	293.10234	193.65750	7.14649	0.2557075	0.21566369	2.7539203	21	6 8.8	22.0
490901 2011 BB_{105}	15.8	X	143.12387	33.31470	291.15391	9.93921	0.1034457	0.18315526	3.0708348	21	—	—
490902 2011 BN_{108}	16.9	X	181.83940	40.73665	279.75030	3.14780	0.0447646	0.18835348	3.0140719	21	1 12.3	21.3
490903 2011 BC_{109}	17.3	X	309.19393	149.07124	202.02953	3.43064	0.0837054	0.23084950	2.6317830	21	7 17.6	20.4
490904 2011 BM_{109}	16.8	X	219.68697	4.62523	255.71169	6.14194	0.1268171	0.17838534	3.1253353	21	—	—
490905 2011 BJ_{111}	16.6	X	300.67909	35.54705	166.29034	10.48474	0.0532042	0.18588957	3.0406472	21	1 2.3	21.1
490906 2011 BG_{116}	16.7	X	206.89866	243.02686	104.29073	1.82322	0.0827189	0.20901916	2.8119784	21	3 10.9	20.9
490907 2011 BL_{116}	16.7	X	8.70111	126.12468	302.17413	8.00939	0.1921023	0.18139526	3.0906662	21	—	—
490908 2011 BS_{124}	16.7	X	11.15189	103.07950	347.84784	11.35128	0.0833559	0.18193754	3.0845218	21	—	—
490909 2011 BC_{125}	17.6	X	330.96860	303.42551	190.42439	0.45971	0.1358827	0.18458059	3.0550057	21	—	—
490910 2011 BB_{129}	17.6	X	283.69301	153.49191	228.94910	3.33716	0.0312527	0.23561737	2.5961584	21	7 31.3	21.0
490911 2011 BL_{134}	17.0	X	262.56375	267.18496	19.49142	2.12253	0.0331286	0.20687967	2.8313323	21	3 1.4	20.9
490912 2011 BZ_{145}	16.3	X	148.31174	195.67898	124.05032	14.16822	0.1123856	0.18414810	3.0597871	21	—	—
490913 2011 CO_{3}	18.0	X	0.08273	151.82586	289.28763	4.20898	0.1865483	0.27383821	2.3485872	21	—	—
490914 2011 CX_{5}	17.7	X	165.92804	120.93078	348.97317	4.20695	0.2173170	0.22853901	2.6494912	21	7 2.6	22.3
490915 2011 CY_{8}	16.3	X	330.61913	197.77706	304.33811	8.39737	0.0595314	0.18244266	3.0788258	21	—	—
490916 2011 CZ_{13}	18.6	X	348.64066	169.81543	286.66244	0.68204	0.1435396	0.27312705	2.3526622	21	—	—
490917 2011 CG_{18}	16.1	X	43.08400	319.09135	124.49573	11.96459	0.1221118	0.18930874	3.0039240	21	—	—
490918 2011 CO_{21}	16.2	X	185.47883	166.64584	132.97723	11.35466	0.0309567	0.18466303	3.0540965	21	—	—
490919 2011 CS_{30}	17.0	X	342.18348	45.35829	86.85696	3.22176	0.1513346	0.18464537	3.0542912	21	—	—
490920 2011 CA_{40}	16.2	X	29.80615	1.43909	113.30675	12.20093	0.0655694	0.19196613	2.9761374	21	1 10.6	19.9
490921 2011 CY_{43}	16.9	X	50.82076	265.03428	147.56397	11.24506	0.0855279	0.18364077	3.0654200	21	—	—
490922 2011 CW_{47}	15.7	X	274.68509	244.18904	307.41023	25.18430	0.2611555	0.17361857	3.1822815	21	—	—
490923 2011 CR_{51}	15.9	X	257.92172	247.88669	325.76294	10.46398	0.0361916	0.18025703	3.1036631	21	—	—
490924 2011 CK_{52}	18.6	X	216.33612	296.03390	86.38802	1.22689	0.1437758	0.31370943	2.1451171	21	4 23.3	21.7
490925 2011 CH_{53}	16.8	X	283.74024	169.54828	23.24935	1.57393	0.1069723	0.18013259	3.1050923	21	—	—
490926 2011 CP_{57}	16.6	X	45.93514	252.23272	143.61630	2.79933	0.0563679	0.17485734	3.1672339	21	—	—
490927 2011 CK_{59}	18.4	X	2.88166	329.77712	160.95108	1.31089	0.1358167	0.28288115	2.2982647	21	—	—
490928 2011 CT_{60}	16.4	X	52.28777	252.98581	146.40960	15.89531	0.2119120	0.18229913	3.0804417	21	—	—
490929 2011 CN_{61}	17.0	X	249.55795	150.13001	147.63752	11.31272	0.0646951	0.20020041	2.8939615	21	2 25.8	21.1
490930 2011 CA_{62}	18.5	X	258.42638	88.27854	166.37891	2.58614	0.1289740	0.28306622	2.2972628	21	—	—
490931 2011 CT_{62}	16.3	X	80.58136	274.47229	119.34543	10.88163	0.0974869	0.18748859	3.0233342	21	—	—
490932 2011 CS_{64}	16.5	X	62.10868	297.29955	108.35486	11.54272	0.1322285	0.18400542	3.0613687	21	—	—
490933 2011 CN_{66}	16.3	X	346.95353	312.49276	127.84303	28.59012	0.1988377	0.17938968	3.1136592	21	—	—
490934 2011 CD_{74}	15.7	X	295.33384	58.51051	139.34152	27.94445	0.2043502	0.18004906	3.1060526	21	—	—
490935 2011 CJ_{78}	16.9	X	17.29792	2.94662	279.07249	5.72182	0.1713569	0.22606549	2.6687826	21	8 8.9	19.6
490936 2011 CG_{81}	16.7	X	315.91182	253.18778	276.44103	6.12604	0.1049529	0.18115342	3.0934162	21	—	—
490937 2011 CS_{82}	16.8	X	203.95996	74.00104	190.50345	0.77655	0.1460132	0.17347199	3.1840739	21	—	—
490938 2011 CL_{85}	16.1	X	281.64650	60.38261	152.06753	19.55474	0.1330646	0.18098020	3.0953897	21	—	—
490939 2011 CM_{85}	17.4	X	312.67650	174.99833	158.95913	5.02672	0.0991793	0.22453304	2.6809119	21	6 27.2	20.6
490940 2011 CV_{87}	17.2	X	336.39563	276.97761	156.02825	23.22720	0.4311520	0.17547470	3.1598008	21	12 24.9	19.5
490941 2011 CC_{90}	16.5	X	171.87861	358.57389	317.03119	8.97263	0.0845910	0.18405806	3.0607850	21	—	—
490942 2011 CJ_{90}	16.8	X	12.38022	115.84366	315.03204	8.22036	0.0654558	0.17470078	3.1691258	21	—	—
490943 2011 CX_{90}	16.8	X	101.68169	263.17476	170.90049	12.25809	0.0095035	0.19724111	2.9228358	21	2 17.2	20.9
490944 2011 CF_{91}	16.6	X	7.19713	296.04079	159.34176	11.01633	0.1054602	0.17915180	3.1164149	21	—	—
490945 2011 CQ_{95}	17.0	X	42.38058	268.59616	158.25827	10.23683	0.1054650	0.18252150	3.0779391	21	—	—
490946 2011 CP_{96}	18.2	X	252.18133	343.81892	278.48969	3.49226	0.0985080	0.28332374	2.2958706	21	—	—
490947 2011 CV_{97}	16.4	X	206.34740	326.49018	295.96568	9.12805	0.0568332	0.17720497	3.1391985	21	—	—
490948 2011 CO_{98}	15.9	X	152.51741	56.60580	275.36594	9.22123	0.0805277	0.18295573	3.0730671	21	—	—
490949 2011 CU_{102}	16.3	X	175.27309	336.75061	310.66185	5.73378	0.1316349	0.17391096	3.1787137	21	—	—
490950 2011 CX_{105}	16.8	X	164.63094	347.88191	324.84230	10.09982	0.0784127	0.17946798	3.1127535	21	—	—
490951 2011 CV_{106}	16.8	X	252.77239	106.14621	160.06731	3.82663	0.1748437	0.18586140	3.0409544	21	1 15.9	21.9
490952 2011 CR_{112}	16.8	X	99.67087	236.43257	170.79818	8.77266	0.1265294	0.19297511	2.9657544	21	1 29.7	20.8
490953 2011 CY_{114}	17.1	X	153.57485	182.07410	179.96490	2.91985	0.0922118	0.19289424	2.9665832	21	2 2.8	21.6
490954 2011 DO_{12}	15.7	X	160.23924	9.99790	357.52295	9.77587	0.1156941	0.19736481	2.9216144	21	2 20.7	20.2
490955 2011 DF_{14}	16.7	X	115.35337	243.08344	149.19373	10.11547	0.0794563	0.19284096	2.9671296	21	1 25.1	21.0
490956 2011 DG_{14}	17.0	X	232.73250	88.19894	156.00515	6.50669	0.1302029	0.17823796	3.1270578	21	—	—
490957 2011 DA_{15}	16.0	X	297.16326	235.66101	321.08072	13.10106	0.0133739	0.18601648	3.0392641	21	—	—
490958 2011 DC_{20}	16.8	X	321.71424	114.35927	4.94287	6.02788	0.2636153	0.17533574	3.1614701	21	—	—
490959 2011 DO_{27}	17.4	X	342.30964	343.27560	140.57639	1.88427	0.1429118	0.18087752	3.0965611	21	—	—
490960 2011 DQ_{30}	15.9	X	332.30417	53.01701	100.26761	17.96511	0.1699352	0.18232923	3.0801026	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
490961 2011 DE_{31}	16.3	X	259.12791	28.15325	160.14957	13.54898	0.0846078	0.17051719	3.2207519	21	—	—
490962 2011 DN_{31}	16.1	X	257.59025	90.30541	149.85577	16.75306	0.2071308	0.17877102	3.1208386	21	—	—
490963 2011 DS_{36}	16.7	X	247.06742	91.77504	161.73314	16.19565	0.2211929	0.17816529	3.1279081	21	—	—
490964 2011 DX_{36}	16.9	X	262.35337	40.28248	198.92654	1.88852	0.0956110	0.18198980	3.0839313	21	—	—
490965 2011 DC_{38}	17.7	X	346.39188	154.25450	291.31142	1.71509	0.1982504	0.26799865	2.3825808	21	—	—
490966 2011 DT_{46}	16.9	X	275.52233	144.93088	62.61623	2.16652	0.1375379	0.17708354	3.1406334	21	—	—
490967 2011 DG_{51}	16.1	X	348.83361	37.31646	69.83258	19.31834	0.2260821	0.17817494	3.1277952	21	—	—
490968 2011 EL_{5}	16.4	X	177.78092	149.56552	151.13642	11.99120	0.2454632	0.17751570	3.1355342	21	—	—
490969 2011 EV_{6}	17.9	X	149.25657	48.04105	311.50747	5.58708	0.1955893	0.28834433	2.2691425	21	1 22.4	21.0
490970 2011 EA_{9}	16.0	X	337.42295	338.58294	139.53463	18.03324	0.1015816	0.17858119	3.1230498	21	—	—
490971 2011 EH_{9}	16.5	X	296.63830	33.24442	172.04000	17.66104	0.1333196	0.18065576	3.0990947	21	—	—
490972 2011 ES_{27}	16.1	X	251.01981	240.67442	9.33096	9.94024	0.0919766	0.17905509	3.1175370	21	1 3.9	21.0
490973 2011 EH_{31}	15.6	X	199.06573	160.42117	103.08006	21.58439	0.0837474	0.17210238	3.2009445	21	—	—
490974 2011 EZ_{35}	16.3	X	277.38710	200.36983	4.09779	11.64779	0.0937367	0.17483016	3.1675621	21	—	—
490975 2011 EL_{58}	16.3	X	174.67265	186.68256	113.13300	12.31064	0.0542862	0.17547481	3.1597995	21	—	—
490976 2011 EW_{61}	16.0	X	224.39955	216.64900	84.29552	10.47064	0.1300600	0.18654274	3.0335453	21	2 4.6	21.0
490977 2011 EK_{72}	16.6	X	294.82746	156.55835	30.74216	6.27046	0.1141125	0.17512101	3.1640539	21	—	—
490978 2011 EE_{73}	16.0	X	245.46600	118.29768	147.86432	26.80021	0.2139405	0.18393114	3.0621929	21	1 9.4	21.5
490979 2011 EZ_{81}	16.5	X	284.91968	207.05837	357.76533	9.88073	0.1673589	0.17747730	3.1359865	21	—	—
490980 2011 EW_{83}	16.5	X	319.57489	133.10112	358.67724	3.09717	0.1632579	0.17246562	3.1964483	21	—	—
490981 2011 EN_{85}	15.9	X	311.75881	7.63925	195.40852	12.74113	0.0533247	0.18935759	3.0034073	21	1 14.5	20.4
490982 2011 FA_{2}	16.2	X	357.10560	81.15834	57.56435	13.15428	0.1229561	0.18191789	3.0847439	21	—	—
490983 2011 FV_{21}	15.8	X	241.57561	123.55088	138.92325	16.58186	0.0890756	0.18077471	3.0977351	21	1 7.6	20.7
490984 2011 FE_{22}	16.5	X	58.02435	303.06911	149.41079	14.00583	0.1498858	0.18751113	3.0230919	21	1 30.4	20.1
490985 2011 FG_{27}	16.0	X	143.88779	261.40656	102.45511	11.59759	0.0866206	0.17791708	3.1308165	21	1 29.3	20.6
490986 2011 FN_{27}	15.9	X	16.05151	49.38686	55.79011	18.08189	0.0157531	0.17226542	3.1989244	21	—	—
490987 2011 FO_{52}	16.9	X	160.78498	355.38659	103.02765	0.40737	0.0322224	0.21329323	2.7742867	21	6 5.1	20.5
490988 2011 FV_{75}	16.9	X	286.70450	54.16120	154.61905	1.70472	0.1129259	0.17841292	3.1250132	21	—	—
490989 2011 FM_{103}	16.2	X	234.12206	92.80160	164.24711	25.58410	0.1580705	0.17537397	3.1610107	21	—	—
490990 2011 FU_{103}	16.2	X	298.93386	180.13353	11.18751	17.52418	0.1325885	0.17894728	3.1187889	21	—	—
490991 2011 FU_{108}	18.2	X	316.40361	212.79321	289.46592	2.00823	0.1190685	0.26777575	2.3839029	21	—	—
490992 2011 FK_{126}	16.3	X	206.21547	95.96876	217.55367	9.19477	0.0634659	0.19018874	2.9946508	21	1 27.7	20.9
490993 2011 FS_{133}	16.6	X	305.30904	187.71695	344.36403	6.43036	0.0753202	0.17705764	3.1409398	21	—	—
490994 2011 FJ_{143}	18.1	X	339.10407	303.69932	188.33590	3.78228	0.1174341	0.26965637	2.3728062	21	—	—
490995 2011 FK_{147}	16.7	X	341.97181	58.35964	53.77068	12.27854	0.3030787	0.17679565	3.1440420	21	—	—
490996 2011 FR_{152}	17.5	X	141.08439	149.63808	319.82414	3.45892	0.0621423	0.21068534	2.7971333	21	5 28.4	21.5
490997 2011 FD_{154}	16.8	X	192.35532	314.28741	10.38432	14.23667	0.2500297	0.27470132	2.3436651	21	1 29.8	21.0
490998 2011 FC_{156}	16.6	X	195.89763	160.55623	126.40760	9.63183	0.0275584	0.17832681	3.1260191	21	—	—
490999 2011 GZ_{4}	15.5	X	3.24364	31.60640	65.83006	16.84168	0.0581540	0.16847133	3.2467740	21	—	—
491000 2011 GL_{7}	16.4	X	253.99166	59.63841	173.94741	19.50420	0.1065738	0.17316298	3.1878608	21	—	—
491001 2011 GP_{7}	17.7	X	246.19970	11.42959	220.59887	8.31200	0.0782363	0.26717423	2.3874796	21	—	—
491002 2011 GO_{9}	15.8	X	254.90872	194.38577	63.11171	18.21376	0.1613311	0.17577994	3.1561418	21	1 11.5	21.1
491003 2011 GL_{26}	16.0	X	264.67571	357.28130	230.11041	8.19332	0.0550033	0.17339213	3.1850515	21	—	—
491004 2011 GH_{33}	16.4	X	205.69213	87.10471	200.76106	26.67172	0.0641930	0.17328496	3.1863646	21	—	—
491005 2011 GC_{41}	15.3	X	308.25639	105.42196	102.51523	10.96737	0.0367925	0.18278549	3.0749749	21	1 22.8	19.6
491006 2011 GG_{58}	16.5	X	343.19240	228.37889	60.11385	6.56909	0.1644771	0.20448164	2.8534252	21	6 7.9	19.4
491007 2011 GL_{62}	19.5	X	199.83493	244.39982	189.84400	15.69378	0.7069325	0.80962764	1.1401076	21	6 4.6	21.8
491008 2011 GM_{64}	16.0	X	267.22602	159.60749	88.06117	12.00395	0.0802744	0.17920886	3.1157533	21	1 18.4	20.6
491009 2011 GP_{75}	15.6	X	358.00098	68.69399	49.47916	16.70083	0.1409364	0.17331952	3.1859411	21	—	—
491010 2011 HH_{70}	18.4	X	34.10450	251.52922	21.24562	3.25157	0.1739663	0.31078156	2.1585688	21	9 9.4	20.2
491011 2011 JO_{25}	16.3	X	166.56689	260.92622	64.36849	9.22943	0.0931476	0.17051709	3.2207531	21	1 9.4	21.2
491012 2011 KH_{12}	16.4	X	167.81868	11.46911	248.29659	13.92627	0.0636016	0.24272353	2.5452364	21	—	—
491013 2011 KZ_{21}	16.8	X	125.35642	80.18161	247.29691	3.63671	0.2420142	0.24326532	2.5414559	21	—	—
491014 2011 KC_{46}	16.4	X	269.73956	28.97666	271.93842	3.80700	0.1229312	0.18253633	3.0777725	21	3 17.2	21.0
491015 2011 LS_{14}	19.0	X	84.57289	309.52612	350.25591	6.21420	0.3747346	0.31972942	2.1181058	21	—	—
491016 2011 NK	17.3	X	134.47868	28.66517	350.28053	5.02579	0.3290346	0.23794706	2.5791849	21	2 23.3	21.5
491017 2011 OS_{1}	17.7	X	41.07631	344.65922	279.14894	8.81942	0.0642067	0.29436701	2.2380853	21	8 12.9	20.3
491018 2011 OU_{1}	17.9	X	194.83947	227.59377	167.19524	12.77652	0.1956891	0.26699140	2.3885694	21	4 24.7	22.0
491019 2011 OB_{6}	16.0	X	34.90300	164.40741	248.97040	7.74816	0.2527433	0.12502727	3.9609516	21	—	—
491020 2011 OX_{7}	18.8	X	75.68608	180.09360	84.83308	1.63577	0.1502487	0.30988444	2.1627328	21	10 24.0	21.4
491021 2011 OF_{12}	17.6	X	239.42700	282.05306	143.38755	8.26984	0.0866357	0.29453042	2.2372574	21	7 24.5	20.6
491022 2011 OO_{16}	17.9	X	186.89548	295.08495	79.08878	5.12539	0.2667406	0.26132557	2.4229704	21	3 25.2	22.2
491023 2011 OK_{20}	18.2	X	241.57903	231.97629	104.46091	2.98824	0.2208137	0.26919032	2.3755441	21	3 20.1	22.0
491024 2011 OD_{24}	18.6	X	16.00907	230.82126	69.48566	7.01831	0.2153636	0.30093868	2.2053831	21	9 28.2	20.3
491025 2011 PS_{4}	16.2	X	272.85293	52.19340	287.05669	3.94494	0.1132345	0.17961630	3.1110397	21	5 9.1	20.7
491026 2011 PC_{7}	18.0	X	341.09013	214.86240	104.51010	6.13993	0.1787666	0.29379569	2.2409858	21	7 22.6	19.4
491027 2011 PZ_{7}	18.4	X	331.88368	73.12493	260.43013	5.59806	0.1488283	0.29229305	2.2486596	21	7 25.8	20.1
491028 2011 PG_{8}	17.8	X	214.79988	3.31030	325.50042	6.50923	0.1724230	0.25709023	2.4495088	21	2 16.9	21.6
491029 2011 PY_{8}	17.0	X	303.21768	45.42980	324.16546	6.81462	0.2396148	0.18854654	3.0120141	21	7 10.7	20.7
491030 2011 PA_{15}	15.6	X	39.52098	87.97456	333.23226	6.76476	0.2617791	0.12428337	3.9767415	21	—	—
491031 2011 QS_{1}	18.4	X	193.58155	57.71067	287.99559	1.56991	0.2100678	0.25438998	2.4668120	21	2 20.1	22.5
491032 2011 QH_{2}	18.1	X	22.91102	164.34194	165.81302	5.60513	0.2207681	0.30461859	2.1875859	21	11 25.3	20.3
491033 2011 QY_{3}	14.2	X	299.98410	155.32816	175.71252	21.10388	0.0415376	0.08269112	5.2179124	21	6 17.2	21.3
491034 2011 QU_{7}	17.9	X	325.38634	353.29653	274.12793	5.44059	0.1296976	0.27803466	2.3248954	21	3 30.5	20.5
491035 2011 QV_{7}	16.3	X	301.74533	91.58455	240.91086	6.50988	0.1022243	0.18669219	3.0319261	21	6 9.4	20.3
491036 2011 QK_{10}	18.2	X	173.24532	124.04452	241.07487	3.36335	0.2488580	0.25217058	2.4812647	21	2 27.9	22.4
491037 2011 QW_{11}	18.6	X	223.63871	76.57402	275.48195	1.08508	0.3785270	0.26270048	2.4145089	21	3 19.8	23.2
491038 2011 QK_{14}	17.5	X	303.39202	12.03655	329.64438	6.80401	0.1665226	0.28669189	2.2778534	21	6 9.9	20.0
491039 2011 QT_{14}	18.0	X	356.76670	149.93512	155.14248	7.64179	0.1963961	0.29268858	2.2466333	21	8 6.5	19.2
491040 2011 QS_{17}	16.8	X	16.26722	40.80562	350.51077	3.31243	0.1846436	0.21315069	2.7755234	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491041 2011 QL_{21}	16.0	X	359.91788	9.55984	275.46012	10.96471	0.1521016	0.18909098	3.0062298	21	7 7.3	19.2
491042 2011 QO_{22}	18.1	X	236.31180	105.93547	254.78191	5.26915	0.1394168	0.27053527	2.3676643	21	4 16.2	21.6
491043 2011 QW_{23}	17.2	X	336.27819	244.19122	177.74155	5.15609	0.1623610	0.21001325	2.8030978	21	12 7.1	20.1
491044 2011 QB_{27}	18.0	X	344.77445	169.53292	146.51424	5.93642	0.1883019	0.29308292	2.2446176	21	7 24.4	19.5
491045 2011 QL_{34}	15.7	X	2.71363	204.03353	248.81577	7.42782	0.2509991	0.12562167	3.9484472	21	—	—
491046 2011 QM_{35}	17.3	X	257.34548	127.10373	277.14488	7.62696	0.1074808	0.28502262	2.2867385	21	7 14.6	20.3
491047 2011 QE_{36}	16.5	X	295.95539	171.74608	157.84333	1.94074	0.1835150	0.17938525	3.1137105	21	5 17.1	20.6
491048 2011 QF_{42}	17.9	X	10.32070	217.24562	106.29540	5.09377	0.2237476	0.30129729	2.2036328	21	10 24.5	19.6
491049 2011 QC_{45}	17.3	X	292.52069	353.91902	276.02768	6.00389	0.0882944	0.26562846	2.3967329	21	2 24.7	20.7
491050 2011 QD_{45}	18.1	X	290.47759	13.12449	278.82744	6.60859	0.1085491	0.27090021	2.3655374	21	3 18.9	21.3
491051 2011 QM_{49}	18.3	X	257.23687	158.42872	188.61700	3.25670	0.2605506	0.27372206	2.3492515	21	4 11.5	22.1
491052 2011 QJ_{50}	17.5	X	350.08575	229.09981	178.85579	7.65628	0.1847015	0.20973465	2.8055796	21	12 15.8	20.5
491053 2011 QP_{58}	16.9	X	255.10865	68.94321	292.42019	1.61627	0.2471728	0.17356199	3.1829731	21	5 3.8	22.1
491054 2011 QE_{60}	17.6	X	39.70580	108.86061	284.04626	4.71595	0.2557116	0.21852451	2.7298322	21	—	—
491055 2011 QE_{62}	14.9	X	25.23879	191.65160	235.70229	7.17324	0.1192607	0.12558085	3.9493029	21	—	—
491056 2011 QP_{62}	18.0	X	58.42027	266.43000	334.76243	7.10469	0.0778288	0.28972950	2.2619044	21	8 13.1	20.5
491057 2011 QA_{65}	15.9	X	281.41851	1.90879	342.31338	11.47898	0.1140977	0.17829689	3.1263688	21	5 23.8	20.6
491058 2011 QL_{65}	16.3	X	281.85604	348.64019	351.95510	10.49704	0.2293386	0.17823977	3.1270366	21	5 3.1	21.1
491059 2011 QF_{66}	17.9	X	235.24151	227.99236	114.22787	5.67168	0.2062084	0.26611996	2.3937810	21	3 23.9	21.9
491060 2011 QN_{70}	17.2	X	208.41450	338.88377	5.00020	15.00947	0.1570709	0.25692346	2.4505686	21	3 5.7	21.2
491061 2011 QO_{72}	17.3	X	38.97152	137.89653	203.04784	7.72214	0.2242838	0.21106301	2.7937956	21	12 11.9	21.1
491062 2011 QX_{72}	17.8	X	268.40592	3.55173	323.16105	4.41947	0.2473405	0.27111751	2.3642733	21	3 25.9	21.7
491063 2011 QY_{72}	17.5	X	215.74068	86.78994	252.57719	4.64543	0.2113790	0.25736268	2.4477797	21	2 28.2	21.7
491064 2011 QU_{75}	18.5	X	244.51085	83.63153	273.11689	0.99301	0.2330908	0.27292246	2.3538378	21	4 13.9	22.4
491065 2011 QW_{83}	16.6	X	11.66622	34.15336	356.92535	9.02492	0.2298675	0.21188036	2.7866061	21	—	—
491066 2011 QZ_{84}	16.5	X	304.91132	325.83668	337.48900	8.89051	0.0581250	0.17425086	3.1745787	21	5 10.5	21.0
491067 2011 QB_{85}	14.3	X	337.82547	325.83774	337.53892	17.05333	0.0985977	0.08287253	5.2102951	21	6 29.7	20.9
491068 2011 QV_{88}	18.3	X	28.63839	275.35437	1.22657	5.92008	0.2018490	0.29447219	2.2375523	21	9 8.1	20.1
491069 2011 QY_{90}	16.6	X	291.13713	27.27292	284.70669	8.02858	0.0577705	0.17493495	3.1662971	21	5 4.4	21.2
491070 2011 QQ_{91}	18.3	X	335.82282	128.67965	210.93216	5.39471	0.1993851	0.29250637	2.2475662	21	8 10.0	19.8
491071 2011 QL_{95}	18.0	X	311.14342	308.30715	26.45817	4.34416	0.2597056	0.28635701	2.2796290	21	5 25.7	20.5
491072 2011 QJ_{97}	16.7	X	274.57854	147.35914	237.24367	16.04328	0.2056460	0.18080808	3.0973539	21	6 24.4	21.4
491073 2011 RG_{7}	18.4	X	69.22442	266.42291	330.96387	4.38016	0.1366560	0.29321956	2.2439203	21	9 1.7	21.1
491074 2011 RT_{8}	16.5	X	46.42145	283.11951	332.04059	7.13279	0.0893887	0.19005219	2.9960850	21	8 10.8	20.4
491075 2011 RZ_{8}	17.2	X	30.98826	24.98642	269.03970	0.98983	0.1116275	0.19640601	2.9311151	21	9 10.5	20.9
491076 2011 RQ_{10}	18.2	X	263.70302	62.00044	292.95209	2.60504	0.2261717	0.27547951	2.3392493	21	4 29.2	21.7
491077 2011 RD_{12}	18.0	X	212.24962	4.37680	353.33687	4.76422	0.2036185	0.25990106	2.4318158	21	3 21.3	22.0
491078 2011 RP_{14}	17.7	X	336.43540	110.78159	333.62639	8.59825	0.1773994	0.21495468	2.7599727	21	—	—
491079 2011 RP_{15}	17.0	X	273.32728	142.97841	235.54829	6.66870	0.1904577	0.18368449	3.0649335	21	6 18.7	21.4
491080 2011 RR_{17}	17.1	X	6.45449	105.87290	310.73254	3.88654	0.1539617	0.21535655	2.7565381	21	—	—
491081 2011 RE_{19}	16.5	X	23.55915	18.51252	254.96967	6.83742	0.0115641	0.18913024	3.0058138	21	7 22.6	20.7
491082 2011 SA	17.6	X	235.83191	140.55321	189.90671	3.99330	0.2311878	0.26290389	2.4132633	21	3 6.0	21.8
491083 2011 SK_{3}	17.0	X	214.45046	4.90956	3.40509	8.16803	0.2348722	0.26284436	2.4136277	21	4 3.9	21.2
491084 2011 SF_{6}	18.6	X	30.05528	353.22768	299.60656	6.51518	0.2382909	0.30080770	2.2060232	21	10 8.9	20.8
491085 2011 SP_{7}	17.4	X	247.06116	52.81264	275.11497	4.80596	0.1749261	0.26613616	2.3936838	21	3 13.1	21.3
491086 2011 SA_{10}	17.4	X	78.99799	210.20064	175.52367	3.84893	0.3186481	0.22692499	2.6620395	21	—	—
491087 2011 SQ_{10}	17.2	X	43.67627	212.29298	183.92972	13.12154	0.1821124	0.22082668	2.7108263	21	—	—
491088 2011 SR_{10}	17.6	X	16.46494	196.65646	218.93178	2.22192	0.0580546	0.22043229	2.7140587	21	—	—
491089 2011 SP_{11}	17.9	X	227.91649	43.34858	311.21916	4.55144	0.2457052	0.26379576	2.4078209	21	3 27.1	22.0
491090 2011 SL_{12}	19.4	X	123.88563	194.07634	190.14896	28.06066	0.0556336	0.44375978	1.7023052	21	—	—
491091 2011 SR_{13}	17.4	X	146.70848	177.82122	259.67150	5.96450	0.1014534	0.26392114	2.4070582	21	4 21.9	20.8
491092 2011 SD_{20}	17.3	X	78.33316	149.63853	248.17447	14.63101	0.2843397	0.22846138	2.6500914	21	—	—
491093 2011 SJ_{21}	16.7	X	261.45877	118.77679	268.31178	12.35159	0.2998807	0.17700284	3.1415880	21	6 4.5	21.9
491094 2011 SN_{23}	16.6	X	9.38668	171.00012	226.46501	9.16196	0.2228297	0.20951911	2.8075034	21	—	—
491095 2011 SX_{23}	16.2	X	277.10204	43.84310	6.17907	11.83701	0.2701553	0.18373728	3.0643464	21	7 26.2	20.8
491096 2011 ST_{24}	17.5	X	328.18408	272.81928	45.87284	2.69170	0.2342428	0.28161280	2.3051602	21	6 8.9	19.2
491097 2011 ST_{25}	16.0	X	272.91396	74.02140	292.00691	8.29474	0.1071400	0.17890046	3.1193330	21	6 14.2	20.6
491098 2011 SH_{27}	18.0	X	219.86706	265.94609	82.44599	2.36699	0.2285412	0.26204915	2.4185081	21	3 17.3	22.0
491099 2011 SR_{27}	16.2	X	26.09047	168.69028	241.78285	11.75592	0.1295136	0.21878455	2.7276687	21	—	—
491100 2011 SN_{33}	17.4	X	277.11324	353.09827	347.88748	7.35787	0.1369096	0.27539652	2.3397193	21	5 4.8	20.7
491101 2011 SN_{37}	17.4	X	346.88958	139.19468	165.11580	2.71101	0.1866418	0.28279739	2.2987185	21	7 8.3	18.8
491102 2011 SX_{41}	18.3	X	112.77609	90.32251	279.91271	2.22732	0.2729773	0.23491264	2.6013480	21	1 14.4	21.7
491103 2011 SQ_{42}	17.3	X	281.44472	165.64986	211.81322	1.20823	0.1256148	0.18333527	3.0688244	21	7 6.9	21.4
491104 2011 SS_{43}	18.0	X	319.79467	306.28351	337.77128	4.42927	0.2165618	0.27689402	2.3312758	21	4 1.7	20.6
491105 2011 SB_{46}	18.5	X	285.08057	82.61345	217.00065	2.35028	0.1797761	0.26940759	2.3742667	21	3 16.4	22.0
491106 2011 SL_{49}	18.6	X	14.57973	100.05978	215.41746	1.60442	0.1757607	0.29763720	2.2216616	21	10 7.3	20.3
491107 2011 SC_{55}	17.9	X	105.68918	338.78721	42.74332	6.08490	0.2708743	0.23247099	2.6195310	21	1 21.7	21.2
491108 2011 SN_{61}	17.8	X	322.06701	65.83685	216.08762	7.41561	0.0346070	0.27467275	2.3438276	21	5 4.6	20.6
491109 2011 SR_{65}	17.7	X	285.49325	72.24085	278.13863	4.99830	0.1468809	0.27843227	2.3226815	21	5 30.3	20.5
491110 2011 SV_{66}	17.6	X	88.29039	135.95067	255.39546	12.26169	0.2627435	0.23003858	2.6379644	21	1 4.1	20.4
491111 2011 SM_{75}	18.7	X	1.76960	126.00779	207.21751	5.19861	0.1837055	0.29909345	2.2144444	21	10 10.6	20.3
491112 2011 SW_{76}	18.2	X	284.80308	46.24154	327.76537	1.93039	0.2260477	0.18251656	3.0779947	21	6 21.9	22.5
491113 2011 SD_{84}	17.5	X	137.12741	350.84484	5.50842	13.61770	0.1975784	0.23835166	2.5762654	21	1 18.1	21.5
491114 2011 SR_{84}	17.6	X	230.08590	221.47706	180.27101	5.00456	0.1345600	0.27003835	2.3705680	21	6 6.1	21.0
491115 2011 SU_{86}	15.8	X	343.51587	79.49891	213.91315	9.47430	0.0566101	0.17607693	3.1525918	21	6 23.8	20.1
491116 2011 SF_{98}	16.7	X	3.54419	226.25737	193.50537	4.56869	0.1071890	0.21429316	2.7656497	21	—	—
491117 2011 SZ_{98}	17.3	X	269.27872	10.30529	14.08636	0.24439	0.1955504	0.17917346	3.1161636	21	6 21.1	21.9
491118 2011 SK_{100}	16.6	X	291.88997	146.54463	224.35011	8.68031	0.0642165	0.18876996	3.0096370	21	7 19.6	20.8
491119 2011 SW_{102}	16.9	X	17.13444	17.97309	11.23282	10.12305	0.2863903	0.21066289	2.7973320	21	—	—
491120 2011 SR_{104}	16.8	X	317.84172	49.93542	345.91967	9.02431	0.0641889	0.19206358	2.9751306	21	9 28.2	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491121 2011 SD_{107}	18.0	X	148.80842	145.17854	223.05767	4.14448	0.3064497	0.23975219	2.5662226	21	2 17.6	22.3
491122 2011 SR_{107}	17.3	X	203.12074	156.51942	224.21880	5.95905	0.2184453	0.26115659	2.4240155	21	4 10.3	21.4
491123 2011 SA_{110}	17.1	X	220.43906	359.09699	30.28995	6.90606	0.2263916	0.26951914	2.3736115	21	5 4.9	21.2
491124 2011 SE_{110}	17.7	X	77.32291	28.64416	0.42121	13.17971	0.1867871	0.22885045	2.6470869	21	—	—
491125 2011 SP_{113}	17.9	X	203.12786	317.78494	59.18092	2.55673	0.1994703	0.26154008	2.4216454	21	4 7.6	21.8
491126 2011 SB_{118}	17.1	X	335.40574	51.69078	259.90318	7.02633	0.1136638	0.28053875	2.3110401	21	7 1.0	19.2
491127 2011 SP_{124}	18.3	X	106.60379	345.69548	24.51487	6.01742	0.1724059	0.23072794	2.6327074	21	—	—
491128 2011 SN_{125}	17.0	X	265.51696	64.28387	21.82686	16.86888	0.2055170	0.18846041	3.0129317	21	9 9.3	21.5
491129 2011 SF_{129}	17.2	X	40.32155	321.36236	57.68263	3.98469	0.0854963	0.21286150	2.7780366	21	—	—
491130 2011 SE_{132}	18.1	X	26.43076	268.05474	40.78049	7.86566	0.1693380	0.29327467	2.2436392	21	10 18.9	20.2
491131 2011 SN_{135}	17.0	X	318.08787	345.70390	21.42110	7.00733	0.2338098	0.18970778	2.9997101	21	8 5.8	20.3
491132 2011 SX_{135}	17.5	X	179.45263	315.96715	23.92487	11.32945	0.1444665	0.24159217	2.5531764	21	2 4.2	21.6
491133 2011 SL_{140}	17.4	X	66.44687	187.06467	182.54450	4.77645	0.1247016	0.21884959	2.7271283	21	—	—
491134 2011 SU_{140}	17.2	X	299.62753	345.48883	29.72937	1.70015	0.2478696	0.18436234	3.0574163	21	7 10.6	21.1
491135 2011 SD_{151}	15.8	X	76.06641	358.27511	29.30688	3.18683	0.2356267	0.12566323	3.9475766	21	1 7.4	20.8
491136 2011 SS_{151}	17.3	X	359.91623	303.05396	117.16639	0.83455	0.0613273	0.21526076	2.7573558	21	—	—
491137 2011 SE_{155}	17.5	X	337.82648	188.85407	148.79674	2.28878	0.1676083	0.18937695	3.0032027	21	8 7.8	20.7
491138 2011 SN_{156}	17.7	X	31.42895	220.49337	172.96647	2.21901	0.0857298	0.21705147	2.7421691	21	—	—
491139 2011 SA_{165}	17.3	X	320.40133	256.78583	84.95453	1.96133	0.1841608	0.18278674	3.0749608	21	7 9.5	20.8
491140 2011 SC_{166}	16.5	X	291.34248	344.80674	9.55487	10.29721	0.1222381	0.17778421	3.1323763	21	6 20.5	20.9
491141 2011 SO_{167}	17.7	X	111.78930	28.40826	347.31538	11.95688	0.1404674	0.23576660	2.5950627	21	1 1.7	21.2
491142 2011 SM_{168}	18.1	X	276.38373	125.61385	211.72561	4.10796	0.1691938	0.27159137	2.3615224	21	4 27.8	21.1
491143 2011 SA_{177}	17.9	X	135.19239	207.60301	161.55662	5.71377	0.2386479	0.23881588	2.5729258	21	1 31.9	21.7
491144 2011 SD_{179}	18.1	X	353.10969	308.69125	3.96682	5.94595	0.1483316	0.28626825	2.2801002	21	8 12.8	19.9
491145 2011 SV_{179}	18.1	X	211.68258	84.65055	251.99371	1.86415	0.2080629	0.25358275	2.4720443	21	2 23.5	22.4
491146 2011 SM_{181}	18.2	X	11.92453	31.48851	264.39863	3.15230	0.2285545	0.28889792	2.2662428	21	9 3.3	19.6
491147 2011 SV_{183}	16.9	X	348.96987	260.29831	65.35622	4.77401	0.2266713	0.18699927	3.0286060	21	8 14.4	19.7
491148 2011 SV_{184}	17.7	X	251.97544	282.78131	81.29975	3.43762	0.1824811	0.26881742	2.3777405	21	5 6.0	21.1
491149 2011 SY_{186}	17.3	X	186.71932	17.19425	7.77035	24.34839	0.1886037	0.25673921	2.4517410	21	4 1.2	21.3
491150 2011 SF_{192}	17.9	X	98.21557	242.69655	137.31341	6.35876	0.2810837	0.22983596	2.6395146	21	1 9.4	20.9
491151 2011 SO_{194}	17.5	X	206.33913	353.06370	8.50512	7.61703	0.1218644	0.25850238	2.4405799	21	3 22.2	21.1
491152 2011 SQ_{195}	18.4	X	182.28842	78.99613	286.98778	0.61811	0.1900874	0.25450482	2.4660699	21	3 6.6	22.5
491153 2011 SS_{204}	16.8	X	320.21429	334.59736	26.32135	11.18581	0.2348499	0.18802474	3.0175841	21	8 2.6	20.3
491154 2011 SR_{206}	17.3	X	185.89449	245.86472	174.43162	8.71695	0.2023616	0.26860045	2.3790208	21	5 18.1	21.3
491155 2011 SL_{210}	18.2	X	277.92388	103.33066	196.21719	1.83711	0.1688969	0.26936851	2.3744963	21	3 10.2	21.5
491156 2011 SP_{214}	16.6	X	272.56304	173.90977	199.61030	21.03807	0.1879179	0.27652809	2.3333320	21	6 9.1	20.2
491157 2011 SE_{216}	13.8	X	305.99663	355.04768	343.90524	28.68409	0.0656267	0.08269351	5.2178122	21	7 6.9	20.9
491158 2011 SX_{217}	17.0	X	303.46839	165.90441	171.31312	3.85191	0.2178935	0.18137966	3.0908433	21	6 1.1	21.0
491159 2011 SH_{219}	17.5	X	332.99354	311.83324	340.77169	3.96527	0.1092679	0.27362969	2.3497802	21	5 27.0	19.8
491160 2011 SM_{219}	18.8	X	180.40425	163.43482	188.76886	2.36514	0.2411814	0.25213798	2.4814786	21	2 18.7	23.0
491161 2011 ST_{221}	18.0	X	15.95661	236.98479	54.67247	6.08511	0.1676040	0.29044762	2.2581745	21	9 2.6	19.9
491162 2011 SJ_{230}	17.7	X	282.05566	321.22268	29.04608	9.46077	0.1935134	0.27737993	2.3285525	21	5 16.7	20.7
491163 2011 SR_{234}	16.7	X	322.24034	305.20120	136.37326	4.57050	0.0752290	0.21046768	2.7990615	21	12 8.7	20.2
491164 2011 SN_{253}	18.1	X	225.67150	273.94822	103.26549	3.57675	0.2153787	0.26658783	2.3909794	21	4 26.9	22.0
491165 2011 SZ_{256}	16.3	X	42.12814	12.23181	267.12076	9.53299	0.2187007	0.19092257	2.9869723	21	9 18.7	20.2
491166 2011 SF_{261}	17.3	X	272.20558	37.76493	19.08677	5.41639	0.2137076	0.18362965	3.0655437	21	8 4.2	21.7
491167 2011 TF_{5}	15.9	X	298.81765	115.02910	246.62629	15.28579	0.2234386	0.17992187	3.1075163	21	6 23.8	20.1
491168 2011 TJ_{13}	17.2	X	113.56288	183.72299	213.35441	13.57995	0.2537669	0.23526347	2.5987612	21	2 10.8	21.1
491169 2011 TF_{14}	18.0	X	291.76163	157.25496	215.54547	5.98069	0.1490815	0.28490592	2.2873629	21	7 11.1	20.6
491170 2011 UW	15.8	X	244.22516	201.76227	218.67371	27.71180	0.1897537	0.17586986	3.1550659	21	7 4.1	21.3
491171 2011 UG_{1}	17.4	X	257.08580	357.26510	10.63588	7.30876	0.1291233	0.27037727	2.3685865	21	5 19.6	20.7
491172 2011 UN_{8}	17.6	X	105.15224	20.19295	49.17139	5.74352	0.1013602	0.23841289	2.5758242	21	2 26.3	20.9
491173 2011 UE_{14}	16.5	X	283.26208	57.83606	5.13357	12.09669	0.0589404	0.18843571	3.0131951	21	9 18.5	20.5
491174 2011 UT_{21}	17.9	X	48.09520	54.36590	347.66082	7.50135	0.2234569	0.21920513	2.7241786	21	—	—
491175 2011 UQ_{24}	17.5	X	100.17610	118.84800	27.08054	14.70522	0.0896979	0.26008732	2.4306546	21	5 23.9	20.8
491176 2011 UG_{25}	16.9	X	41.76831	274.49403	218.29613	27.55143	0.2327071	0.23441902	2.6049986	21	2 5.6	19.9
491177 2011 UH_{28}	17.3	X	100.64991	61.06162	21.64072	12.88142	0.1312817	0.24034443	2.5620052	21	3 15.6	20.6
491178 2011 UT_{46}	17.1	X	91.75153	0.43785	350.72519	6.18129	0.0543023	0.21802733	2.7339806	21	—	—
491179 2011 UE_{47}	15.9	X	243.89342	175.49288	236.81517	9.25008	0.1194214	0.17324775	3.1868209	21	7 5.9	20.7
491180 2011 UL_{50}	17.7	X	129.19380	312.37154	54.83926	4.46239	0.2420770	0.23385320	2.6091988	21	1 26.7	21.4
491181 2011 UA_{51}	17.8	X	263.04206	280.16162	65.16212	3.43807	0.2036179	0.26673279	2.3901130	21	4 20.9	21.3
491182 2011 UC_{53}	17.8	X	273.25128	225.26277	117.54337	3.24841	0.1927897	0.26840933	2.3801499	21	4 30.1	21.1
491183 2011 UV_{54}	17.8	X	138.87485	337.69612	45.88065	6.92781	0.1508162	0.23774930	2.5806150	21	2 16.5	21.6
491184 2011 UY_{56}	15.7	X	268.49161	21.79510	32.08679	30.65424	0.2214168	0.18135012	3.0911790	21	8 6.1	20.9
491185 2011 UY_{58}	16.9	X	255.98903	309.16745	86.19780	2.55397	0.1889894	0.17691141	3.1426702	21	6 21.3	21.7
491186 2011 UD_{59}	17.9	X	308.23044	280.78190	43.21033	7.00763	0.1143922	0.27748331	2.3279740	21	5 31.2	20.5
491187 2011 UX_{59}	16.4	X	292.80880	180.11160	214.53997	10.80126	0.2751791	0.18268320	3.0761226	21	7 18.9	20.7
491188 2011 UM_{61}	16.6	X	39.05295	264.97650	229.64662	13.56956	0.0692344	0.23403351	2.6078584	21	2 3.4	20.1
491189 2011 UV_{76}	17.7	X	204.06153	345.56957	343.61533	4.26701	0.1729749	0.24596664	2.5228141	21	2 10.4	21.8
491190 2011 UF_{84}	16.8	X	314.56259	127.07664	237.78729	17.38708	0.3197202	0.18380216	3.0636253	21	7 5.0	20.5
491191 2011 UY_{84}	17.3	X	157.61486	306.95532	23.76643	5.43806	0.1967446	0.23031041	2.6358883	21	1 5.8	21.5
491192 2011 US_{86}	17.2	X	96.85044	33.82764	56.43991	6.78877	0.1330326	0.23786416	2.5797841	21	3 20.2	20.5
491193 2011 UL_{88}	17.3	X	162.94449	326.67320	50.96504	13.88180	0.1849824	0.24253826	2.5465324	21	3 12.3	21.6
491194 2011 UG_{89}	17.3	X	42.35009	214.33406	261.90451	3.21548	0.0712589	0.23086202	2.6316879	21	1 20.7	20.4
491195 2011 UE_{94}	17.0	X	31.12275	97.90650	41.22898	15.69269	0.2847051	0.22934286	2.6432966	21	2 9.1	19.2
491196 2011 UZ_{97}	17.1	X	120.15500	27.69945	12.30276	5.00080	0.2560603	0.23599870	2.5933610	21	2 28.3	20.8
491197 2011 UQ_{101}	17.2	X	103.82629	203.39708	193.75144	6.17821	0.2257510	0.23113044	2.6296500	21	1 29.2	20.5
491198 2011 UJ_{102}	18.0	X	322.57800	44.66899	289.72267	2.09614	0.2186112	0.28130419	2.3068459	21	6 26.4	19.6
491199 2011 UX_{107}	17.5	X	316.64882	138.95300	217.15462	23.99338	0.2336777	0.28742705	2.2739677	21	7 9.6	20.2
491200 2011 UL_{111}	16.0	X	279.64468	108.47889	268.97754	10.32210	0.2081403	0.17865260	3.1222175	21	6 22.6	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491201 2011 UH_{117}	17.8	X	302.30535	295.90865	37.43574	4.63147	0.1817007	0.27756157	2.3275364	21	5 24.1	20.5
491202 2011 UQ_{117}	17.4	X	232.16714	333.74156	70.32450	8.35618	0.1976526	0.27230237	2.3574099	21	6 5.6	20.8
491203 2011 UQ_{118}	16.9	X	320.66845	94.35435	212.36628	14.87239	0.2439124	0.17753428	3.1353154	21	5 14.5	20.7
491204 2011 UN_{120}	17.4	X	243.88819	330.29792	17.70109	6.82263	0.1947132	0.26391191	2.4071143	21	4 6.1	20.9
491205 2011 UP_{122}	17.2	X	331.70263	197.10370	207.98412	11.50598	0.0256713	0.19938270	2.9018685	21	11 3.9	21.0
491206 2011 UR_{123}	17.3	X	243.41054	46.56953	17.18490	0.76435	0.1628117	0.17694347	3.1422907	21	7 16.5	22.0
491207 2011 UC_{128}	17.7	X	225.03426	257.42653	90.77870	8.14122	0.1418981	0.25888634	2.4381661	21	3 27.1	21.6
491208 2011 UU_{129}	17.7	X	108.81833	64.38907	28.99343	3.70767	0.1672969	0.24231414	2.5481024	21	4 10.7	21.0
491209 2011 UF_{131}	17.1	X	85.48069	186.40802	230.49133	13.60655	0.2288770	0.23051775	2.6343075	21	1 25.1	20.3
491210 2011 UB_{139}	17.7	X	114.41759	43.29585	26.82173	5.48752	0.1592278	0.24086341	2.5583237	21	3 18.4	21.0
491211 2011 UB_{141}	16.2	X	276.31130	319.59001	57.44909	11.30077	0.2373814	0.17644053	3.1482592	21	6 13.4	21.0
491212 2011 UZ_{142}	17.2	X	94.93002	72.04376	21.35373	5.29352	0.2117956	0.23776701	2.5804869	21	3 31.2	20.3
491213 2011 US_{144}	17.7	X	259.24824	342.80415	359.67970	4.95595	0.1214835	0.26090209	2.4255916	21	4 19.9	21.1
491214 2011 UH_{150}	17.3	X	12.93864	103.66118	208.84330	8.22134	0.1095678	0.19137998	2.9822111	21	9 3.4	21.0
491215 2011 UA_{152}	17.5	X	356.11272	351.37850	321.71458	5.77120	0.2026199	0.28437211	2.2902244	21	8 20.1	18.8
491216 2011 UP_{156}	17.6	X	73.38722	331.62231	117.36817	4.73456	0.1692376	0.23173576	2.6250687	21	2 14.1	20.4
491217 2011 UY_{167}	16.1	X	290.58485	187.50366	203.79745	17.48879	0.1934409	0.17928956	3.1148183	21	7 22.6	20.7
491218 2011 UQ_{173}	17.3	X	67.48400	294.40835	187.03558	11.65663	0.2033419	0.24037502	2.5617879	21	3 23.5	19.9
491219 2011 UP_{179}	17.7	X	86.54152	66.30461	302.12605	5.21620	0.1902165	0.21906200	2.7253651	21	—	—
491220 2011 UO_{180}	17.1	X	25.21604	15.82087	266.54514	6.25757	0.2150023	0.28477584	2.2880593	21	9 6.0	19.1
491221 2011 UY_{181}	17.4	X	205.02049	357.25118	39.61295	7.34703	0.1508332	0.25997553	2.4313514	21	5 3.8	21.2
491222 2011 UE_{182}	16.9	X	308.92940	353.77657	36.04895	12.65164	0.1095653	0.18470091	3.0536788	21	9 10.2	20.9
491223 2011 UA_{183}	15.7	X	86.54234	356.29879	244.28933	15.50436	0.0893982	0.17726716	3.1384642	21	9 4.8	20.5
491224 2011 UO_{183}	15.9	X	5.17351	312.40729	48.34918	10.84901	0.1184813	0.19077937	2.9884669	21	10 30.0	19.5
491225 2011 UT_{184}	16.5	X	104.27306	251.84206	87.53544	7.92033	0.1383591	0.21953122	2.7214803	21	—	—
491226 2011 UZ_{184}	17.1	X	332.02818	230.46606	94.54387	6.85916	0.0620708	0.27812875	2.3243710	21	7 22.1	19.5
491227 2011 UZ_{185}	17.3	X	213.58578	288.64411	101.09016	7.11479	0.1177978	0.26160487	2.4212455	21	5 6.8	20.9
491228 2011 UQ_{186}	16.8	X	287.26766	214.18562	200.32474	18.03073	0.0834568	0.18548860	3.0450276	21	9 3.9	21.1
491229 2011 UB_{187}	17.8	X	112.67022	230.86154	188.20878	9.70516	0.1380264	0.23975913	2.5661731	21	2 22.9	21.3
491230 2011 UE_{187}	17.3	X	228.72369	313.04854	101.72049	6.69822	0.1090636	0.27170530	2.3608622	21	6 23.9	20.7
491231 2011 UX_{187}	16.2	X	24.21136	304.93609	64.22044	13.10989	0.0841657	0.20408086	2.8571598	21	12 4.7	19.8
491232 2011 UV_{189}	17.7	X	229.74981	260.11430	112.95854	5.49197	0.1899132	0.26175722	2.4203060	21	4 27.7	21.6
491233 2011 UZ_{191}	18.3	X	91.22765	355.47585	4.13985	7.67170	0.2250232	0.22134343	2.7066055	21	—	—
491234 2011 UW_{192}	18.0	X	355.36502	165.93749	151.07080	4.60955	0.3167829	0.28544220	2.2844970	21	9 7.7	18.2
491235 2011 UP_{198}	16.9	X	208.08192	194.36794	220.84308	8.49503	0.0951567	0.26327904	2.4109703	21	6 2.4	20.4
491236 2011 UV_{199}	17.0	X	151.21814	353.21477	36.43447	7.86094	0.1211772	0.24026453	2.5625731	21	3 6.2	20.8
491237 2011 UP_{200}	15.8	X	302.97111	141.45658	253.94950	13.42331	0.1766404	0.18216428	3.0819616	21	8 16.4	19.9
491238 2011 UH_{201}	17.9	X	10.88042	169.14210	154.62962	6.28201	0.2477563	0.29496131	2.2350780	21	10 28.9	19.6
491239 2011 UO_{201}	17.2	X	298.15431	334.81101	37.55610	24.57860	0.1874292	0.28541675	2.2846328	21	7 22.6	20.3
491240 2011 UU_{204}	17.8	X	338.65310	177.68154	171.51364	9.43510	0.3045649	0.29198285	2.2502520	21	9 4.9	17.9
491241 2011 UB_{206}	17.0	X	79.73086	237.70621	227.93048	29.72412	0.3241064	0.23499411	2.6007468	21	4 10.4	20.4
491242 2011 UG_{206}	17.6	X	50.58208	46.62132	42.71372	13.81573	0.2429523	0.22951559	2.6419702	21	1 6.2	20.0
491243 2011 UB_{209}	16.8	X	342.20177	24.81585	331.84804	4.30412	0.2436650	0.19194062	2.9764011	21	9 10.8	19.5
491244 2011 UG_{211}	18.3	X	22.89673	292.47793	356.74149	5.05518	0.1276775	0.28678939	2.2773372	21	9 3.3	20.2
491245 2011 UC_{213}	16.4	X	183.99055	196.06771	296.89997	4.70804	0.0869271	0.17919466	3.1159179	21	8 14.6	21.1
491246 2011 US_{220}	18.0	X	98.21181	33.13651	34.50640	4.65590	0.2368068	0.23812320	2.5779130	21	3 6.7	21.2
491247 2011 UV_{228}	17.7	X	149.85817	35.57165	53.77710	3.16858	0.1671358	0.25874797	2.4390353	21	5 19.1	21.3
491248 2011 UJ_{234}	17.3	X	88.05147	32.13109	306.86508	3.43652	0.0796705	0.21263895	2.7799746	21	—	—
491249 2011 UC_{237}	17.9	X	282.08189	323.31753	10.73754	1.67909	0.1999677	0.26978215	2.3720686	21	4 25.6	21.3
491250 2011 UJ_{241}	16.8	X	79.36093	224.25015	231.70506	27.78527	0.1223602	0.23643098	2.5901990	21	2 12.6	20.7
491251 2011 UJ_{243}	17.5	X	67.67115	253.15656	235.84818	11.22471	0.2000170	0.23836966	2.5761357	21	3 31.1	20.4
491252 2011 US_{245}	16.7	X	323.93097	280.24886	59.70049	9.06839	0.2286164	0.18102955	3.0948272	21	7 7.5	20.2
491253 2011 UT_{245}	17.5	X	294.92015	203.08569	176.08811	2.05057	0.3246842	0.18148327	3.0896668	21	6 26.5	21.6
491254 2011 UZ_{247}	18.5	X	302.89255	299.26617	59.73210	2.20842	0.2032712	0.27936736	2.3174957	21	6 30.2	20.8
491255 2011 UU_{248}	18.1	X	322.25059	275.46962	54.30244	3.28922	0.1919197	0.27733534	2.3288020	21	6 22.8	20.2
491256 2011 UF_{249}	18.1	X	62.38241	297.02851	67.70057	3.66933	0.2111876	0.21189181	2.7865057	21	—	—
491257 2011 US_{250}	17.5	X	45.84274	52.11201	91.05586	5.28276	0.2017800	0.23480258	2.6021609	21	3 16.0	19.8
491258 2011 UW_{251}	15.7	X	123.21553	208.91780	162.38284	3.58754	0.1509273	0.12540084	3.9530814	21	1 30.4	21.5
491259 2011 US_{265}	17.8	X	82.36578	57.41275	59.99969	2.15998	0.2041888	0.23925021	2.5698109	21	4 13.5	20.8
491260 2011 UN_{269}	17.7	X	180.53603	239.28679	215.52314	6.27036	0.1384000	0.26701617	2.3884217	21	6 24.4	21.5
491261 2011 UK_{277}	17.2	X	254.44523	63.07310	260.96624	10.98137	0.0984089	0.25322377	2.4743800	21	3 19.9	21.0
491262 2011 UW_{279}	17.4	X	112.89670	88.25153	250.42535	12.60031	0.2061725	0.22072682	2.7116438	21	—	—
491263 2011 US_{282}	18.1	X	93.99456	23.98736	60.48933	8.66323	0.1690635	0.23807311	2.5782745	21	3 15.4	21.4
491264 2011 UW_{283}	16.3	X	264.66934	43.43546	22.11567	14.71324	0.2636268	0.17835774	3.1256577	21	8 3.6	21.3
491265 2011 UD_{299}	17.3	X	341.49885	245.75158	58.15867	7.11135	0.1243728	0.27409007	2.3471482	21	6 30.5	19.5
491266 2011 UM_{307}	17.3	X	135.93774	329.92337	68.72267	13.02071	0.1857998	0.24013297	2.5635090	21	3 11.9	21.3
491267 2011 UR_{308}	17.3	X	64.34663	211.70591	245.16003	11.51416	0.2444597	0.22856426	2.6492961	21	2 12.8	20.1
491268 2011 UF_{310}	18.0	X	188.67912	17.78374	45.62693	3.34554	0.1616990	0.26276620	2.4141063	21	5 22.3	21.8
491269 2011 UP_{315}	17.7	X	351.53210	224.96122	91.75118	5.05314	0.2538253	0.28587319	2.2822003	21	8 18.4	18.5
491270 2011 UD_{317}	16.6	X	336.53063	125.84383	240.66728	8.07500	0.0425130	0.18427834	3.0583453	21	9 15.5	20.8
491271 2011 UL_{320}	17.7	X	344.45192	258.27811	75.93741	10.55815	0.2452136	0.28530993	2.2852030	21	9 4.4	19.1
491272 2011 UK_{331}	15.9	X	225.40532	177.48816	266.56145	7.95367	0.1200495	0.17267353	3.1938821	21	7 25.2	20.8
491273 2011 UQ_{331}	17.4	X	233.93280	47.07625	342.14385	4.71139	0.1213759	0.26545198	2.3977951	21	5 23.7	21.0
491274 2011 UU_{335}	17.5	X	318.98984	153.32821	169.23511	5.52090	0.1884868	0.28029941	2.3123554	21	6 5.8	19.7
491275 2011 UV_{335}	16.9	X	66.94986	23.33604	24.89662	15.69320	0.2097816	0.22827591	2.6515266	21	—	—
491276 2011 UZ_{362}	18.1	X	169.41078	184.01072	263.70347	1.06544	0.0912344	0.26279351	2.4139390	21	6 2.2	21.6
491277 2011 UW_{374}	17.1	X	319.71410	110.65723	281.43428	7.42139	0.0774479	0.19037352	2.9927126	21	9 22.7	21.2
491278 2011 UZ_{383}	15.9	X	300.72452	63.70303	8.88996	10.56442	0.0126899	0.19342997	2.9611032	21	10 25.7	20.0
491279 2011 UU_{385}	17.0	X	125.56782	319.65905	15.01279	10.10685	0.1697299	0.22218815	2.6997411	21	—	—
491280 2011 UD_{398}	17.6	X	97.50624	187.79601	237.71605	3.13533	0.1543157	0.23387598	2.6090294	21	2 15.1	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491281 2011 UG_{400}	18.0	X	300.19268	218.68338	97.43525	7.60365	0.1332731	0.27365204	2.3496522	21	5 7.8	20.8
491282 2011 UO_{402}	13.9	X	262.19111	347.74196	114.10745	18.88131	0.0380322	0.08442584	5.1461896	21	10 8.1	21.0
491283 2011 UZ_{406}	16.8	X	84.04873	93.45814	288.34593	13.11932	0.1716424	0.22488371	2.6781242	21	—	—
491284 2011 VD_{5}	16.6	X	277.98154	232.80378	194.97753	9.32092	0.0632448	0.18823443	3.0153426	21	9 13.8	20.7
491285 2011 VY_{5}	17.5	X	40.04817	180.08860	131.95544	9.99716	0.1606148	0.30119878	2.2041133	21	11 16.1	20.2
491286 2011 VS_{6}	17.8	X	301.53418	265.20011	102.77184	6.31818	0.2074074	0.28194309	2.3033596	21	7 11.1	20.0
491287 2011 VH_{9}	17.4	X	18.76581	193.87520	211.01572	9.67411	0.2134186	0.21526350	2.7573324	21	—	—
491288 2011 VS_{14}	16.9	X	72.27733	28.45748	33.54863	14.02277	0.2456995	0.23058043	2.6338301	21	1 19.3	19.7
491289 2011 VF_{18}	17.4	X	226.43597	162.35061	242.57337	5.72889	0.0994604	0.27452312	2.3446792	21	6 8.5	20.6
491290 2011 VG_{18}	17.3	X	295.22339	205.87001	114.48047	7.30266	0.1279668	0.26806329	2.3821978	21	5 8.2	20.3
491291 2011 VT_{18}	16.0	X	238.79613	166.72351	269.91325	11.72811	0.0858682	0.17414892	3.1758174	21	8 1.4	20.9
491292 2011 VU_{18}	16.0	X	359.76056	339.52281	30.33333	11.31596	0.0292180	0.19199879	2.9757999	21	10 25.9	19.9
491293 2011 VX_{18}	17.2	X	312.47710	358.05281	47.82173	11.04111	0.2337510	0.19006919	2.9959063	21	9 22.2	20.6
491294 2011 VQ_{21}	17.0	X	297.97005	107.73046	288.99825	5.98425	0.1634942	0.18129094	3.0918517	21	8 17.1	20.9
491295 2011 WA_{2}	16.9	X	27.31436	345.33192	71.91701	11.30943	0.1131549	0.21017774	2.8016351	21	—	—
491296 2011 WM_{3}	16.2	X	60.34395	66.64920	60.59109	30.13083	0.3073846	0.23142435	2.6274231	21	4 23.5	19.3
491297 2011 WF_{10}	17.6	X	120.68070	319.79417	109.70174	1.12820	0.1232670	0.24175150	2.5520544	21	3 18.9	20.9
491298 2011 WV_{13}	17.9	X	274.32583	322.14196	9.07793	1.22913	0.1993625	0.26415664	2.4056274	21	4 13.8	21.4
491299 2011 WP_{14}	15.7	X	309.93827	175.72029	213.88942	11.13331	0.1422076	0.18318484	3.0705042	21	8 27.5	19.7
491300 2011 WW_{19}	17.3	X	102.02745	119.51338	262.52851	8.19725	0.2537109	0.23078509	2.6322728	21	1 12.1	20.5
491301 2011 WT_{20}	16.7	X	218.85114	44.95210	244.99322	11.54005	0.1174658	0.23122020	2.6289694	21	1 6.7	20.9
491302 2011 WZ_{20}	17.8	X	130.54656	311.88036	100.71703	0.39298	0.0200729	0.23854430	2.5748782	21	2 22.7	21.2
491303 2011 WV_{22}	18.0	X	98.74196	343.76727	105.27241	0.83947	0.1122454	0.23851243	2.5751075	21	3 14.7	21.2
491304 2011 WO_{24}	17.0	X	31.30278	56.23546	289.94358	1.24675	0.0844070	0.19304822	2.9650056	21	11 13.6	20.8
491305 2011 WR_{25}	18.6	X	25.69609	124.05544	182.75838	1.40882	0.2262080	0.29161622	2.2521376	21	10 23.4	20.5
491306 2011 WK_{38}	16.5	X	273.14499	137.57935	247.33121	13.60061	0.1037247	0.17038167	3.2224596	21	7 6.9	21.2
491307 2011 WR_{38}	17.2	X	33.92506	322.43490	244.38281	5.53193	0.0719608	0.25373999	2.4710229	21	5 9.9	19.9
491308 2011 WH_{49}	17.5	X	76.99002	38.93366	78.00606	5.32176	0.1518638	0.23817879	2.5775118	21	3 29.3	20.5
491309 2011 WS_{50}	16.3	X	107.86068	327.40767	257.60089	9.18255	0.0362991	0.17913281	3.1166351	21	9 6.6	20.9
491310 2011 WJ_{51}	16.3	X	30.59738	210.74770	68.88327	10.36308	0.0341995	0.17239850	3.1972779	21	8 16.0	20.8
491311 2011 WM_{51}	17.0	X	292.67507	132.58368	248.64482	10.35291	0.1282088	0.17559851	3.1583154	21	7 23.8	21.4
491312 2011 WW_{56}	17.3	X	73.26735	233.96658	231.62478	10.85964	0.1534693	0.23511961	2.5998212	21	2 27.7	20.4
491313 2011 WQ_{57}	16.5	X	359.47284	275.08005	69.78858	11.30847	0.0536598	0.18339933	3.0681097	21	9 30.3	20.7
491314 2011 WO_{60}	17.9	X	82.71753	236.91786	199.35367	2.64287	0.1465366	0.23073767	2.6326334	21	2 7.2	20.8
491315 2011 WA_{68}	16.2	X	349.58866	83.42319	275.24220	7.64150	0.1242238	0.18590896	3.0404358	21	9 24.6	19.9
491316 2011 WT_{68}	17.3	X	77.91425	245.93997	196.16662	3.90147	0.1774919	0.22907529	2.6453545	21	2 11.8	20.3
491317 2011 WD_{70}	16.6	X	126.11449	173.08574	238.99998	16.13272	0.2304327	0.23788945	2.5796014	21	3 9.9	20.8
491318 2011 WL_{71}	15.8	X	307.94312	320.92905	63.50461	10.68803	0.0513153	0.17986333	3.1081905	21	9 7.2	20.1
491319 2011 WA_{79}	17.6	X	105.47266	206.74659	245.10504	12.12029	0.1480849	0.24248247	2.5469230	21	3 27.2	21.1
491320 2011 WL_{79}	16.3	X	87.88880	330.24745	244.33567	4.15548	0.0863136	0.16986248	3.2290225	21	8 9.6	21.0
491321 2011 WX_{86}	17.3	X	298.41259	323.92681	77.72970	6.04663	0.1497806	0.18280407	3.0747666	21	8 31.4	21.2
491322 2011 WS_{87}	17.0	X	203.40434	62.93970	241.34819	13.38649	0.1053354	0.23177240	2.6247921	21	1 7.9	21.2
491323 2011 WV_{87}	17.9	X	329.62554	255.48651	78.97902	6.88680	0.2493393	0.28095314	2.3087671	21	7 8.9	19.3
491324 2011 WB_{97}	17.1	X	114.70076	169.85561	239.27926	4.05516	0.2232660	0.23577572	2.5949958	21	2 25.8	20.6
491325 2011 WJ_{106}	16.4	X	252.15619	150.00325	279.42885	10.30049	0.0692130	0.17748070	3.1359463	21	8 10.5	21.0
491326 2011 WL_{107}	16.8	X	108.66494	266.09192	79.10388	13.91276	0.1827170	0.21823607	2.7322370	21	—	—
491327 2011 WY_{109}	17.9	X	89.69682	284.36408	128.98873	1.62616	0.0742125	0.22830870	2.6512727	21	1 9.9	21.1
491328 2011 WW_{113}	17.8	X	58.74139	9.60930	87.36934	4.42748	0.1592804	0.22536093	2.6743421	21	1 30.2	20.5
491329 2011 WX_{116}	17.7	X	42.17120	228.58860	241.63424	5.10202	0.1808375	0.22688936	2.6623182	21	1 14.4	20.3
491330 2011 WR_{124}	17.8	X	88.43256	317.20622	112.55069	4.34102	0.2364506	0.23302259	2.6153955	21	2 23.5	20.8
491331 2011 WK_{134}	17.0	X	135.74382	297.22917	117.61744	8.42648	0.1553617	0.24144673	2.5542016	21	3 25.1	20.8
491332 2011 WU_{134}	12.7	X	325.95638	204.33961	206.40937	36.63795	0.0793299	0.08391632	5.1669997	21	10 14.1	19.2
491333 2011 WP_{143}	16.0	X	305.00696	115.25383	264.17977	9.24017	0.0303712	0.17591176	3.1545650	21	8 19.6	20.5
491334 2011 WY_{151}	16.2	X	112.21287	61.79394	280.16614	15.34780	0.0614986	0.21948505	2.7218619	21	—	—
491335 2011 WY_{152}	17.6	X	347.20162	200.89901	137.36072	7.67205	0.1343776	0.28432082	2.2904999	21	9 11.1	19.5
491336 2011 XH	17.4	X	93.40248	267.76026	184.61712	8.45979	0.1335048	0.23777666	2.5804171	21	3 13.8	20.6
491337 2011 XO_{2}	17.7	X	29.44300	331.44409	194.71876	8.56402	0.1036309	0.23787458	2.5797089	21	3 6.3	20.7
491338 2011 YM_{7}	16.3	X	25.26309	242.64407	281.20399	13.21796	0.0330199	0.23180207	2.6245681	21	2 21.5	19.9
491339 2011 YR_{19}	17.0	X	69.63585	129.30422	291.67022	12.43304	0.1889554	0.21689656	2.7434745	21	1 5.9	19.9
491340 2011 YB_{21}	16.7	X	307.31048	79.07312	118.81186	16.61487	0.0904598	0.21329522	2.7742694	21	—	—
491341 2011 YD_{24}	17.0	X	115.36473	120.39945	293.55068	12.12334	0.1569587	0.22859543	2.6490552	21	2 21.6	20.8
491342 2011 YT_{24}	18.0	X	32.00863	7.31829	84.63721	3.95762	0.2536101	0.21363135	2.7713586	21	—	—
491343 2011 YU_{24}	17.8	X	85.68525	17.52943	78.08119	3.24119	0.2231592	0.22926446	2.6438992	21	3 25.2	21.0
491344 2011 YY_{29}	17.5	X	235.81458	245.45504	128.26148	7.80074	0.1440163	0.25443994	2.4664890	21	5 8.4	21.3
491345 2011 YY_{30}	16.2	X	40.26429	326.40286	122.71497	34.87386	0.1676333	0.21246092	2.7815274	21	—	—
491346 2011 YL_{31}	16.8	X	220.65440	268.72416	59.99889	8.02720	0.1597239	0.24360132	2.5391184	21	2 27.8	21.0
491347 2011 YW_{37}	17.0	X	56.45476	290.99022	132.22926	7.67783	0.2548714	0.21407979	2.7674870	21	—	—
491348 2011 YZ_{50}	17.3	X	337.39299	136.87551	65.37510	14.01228	0.1014137	0.22678158	2.6631617	21	2 9.0	20.9
491349 2011 YG_{51}	17.2	X	314.32074	183.18708	3.16252	8.00527	0.1525111	0.21396360	2.7684889	21	—	—
491350 2011 YN_{52}	16.7	X	8.57337	266.25094	285.66596	7.93714	0.1386179	0.22588801	2.6701804	21	3 4.0	19.8
491351 2011 YR_{56}	17.4	X	174.21701	73.58559	309.29213	3.09873	0.1921779	0.23874731	2.5734184	21	3 20.7	21.6
491352 2011 YU_{68}	17.2	X	139.58344	331.41730	78.17391	7.03199	0.2139430	0.23758749	2.5817866	21	3 28.9	21.3
491353 2011 YJ_{70}	17.7	X	332.76905	109.48979	52.94795	8.65096	0.4832727	0.20451534	2.8531118	21	—	—
491354 2012 AW_{3}	17.3	X	347.20570	47.57201	107.52277	13.05749	0.2925577	0.21113171	2.7931895	21	—	—
491355 2012 AG_{6}	16.1	X	315.32526	320.20971	293.05902	13.21945	0.0776183	0.23323518	2.6138060	21	3 7.1	19.7
491356 2012 AK_{7}	17.2	X	130.13081	69.56214	353.90810	10.58126	0.1901369	0.23842279	2.5757530	21	3 28.6	20.9
491357 2012 AW_{14}	16.4	X	71.62693	20.54909	70.50673	16.04366	0.1626739	0.22344315	2.6896226	21	2 21.8	19.8
491358 2012 BU	14.9	X	302.43821	41.17723	62.89100	3.47932	0.1932880	0.08331060	5.1920141	21	10 31.3	21.3
491359 2012 BM_{2}	17.5	X	130.28656	119.07571	278.21610	4.71272	0.0435320	0.22453509	2.6808956	21	2 7.0	21.1
491360 2012 BH_{12}	17.6	X	99.88954	334.92941	92.47079	6.13477	0.1617738	0.22643506	2.6658780	21	2 27.7	21.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491361 2012 BY_{12}	16.9	X	11.59283	194.52923	294.44302	8.25070	0.1037889	0.21177969	2.7874891	21	—	—
491362 2012 BD_{17}	16.9	X	54.95805	28.35181	115.38709	7.26625	0.0665838	0.22754604	2.6571936	21	3 22.5	20.2
491363 2012 BT_{26}	17.1	X	20.12115	59.60572	112.24351	12.48938	0.1295057	0.22761619	2.6566476	21	3 6.2	20.1
491364 2012 BD_{33}	17.0	X	359.78208	215.93757	317.31174	12.75638	0.0666684	0.22174612	2.7033277	21	2 4.1	20.4
491365 2012 BN_{41}	17.7	X	29.55973	47.45263	103.81680	3.35941	0.1414045	0.22330779	2.6907094	21	2 20.1	20.4
491366 2012 BF_{44}	18.3	X	210.66391	204.63740	314.49711	4.35830	0.1360708	0.27816618	2.3241625	21	10 18.6	21.6
491367 2012 BD_{56}	16.9	X	329.26865	81.73787	119.86975	8.66773	0.1597885	0.21114293	2.7930906	21	1 17.5	20.3
491368 2012 BY_{58}	17.2	X	93.65532	107.46007	315.76871	9.95187	0.1725789	0.22359452	2.6884086	21	2 12.2	20.5
491369 2012 BG_{69}	17.0	X	185.73907	32.35358	325.33959	5.73940	0.1926763	0.22950288	2.6420678	21	3 1.6	21.4
491370 2012 BT_{71}	16.9	X	27.11839	166.05314	295.20016	7.88458	0.2215904	0.21172671	2.7879541	21	—	—
491371 2012 BZ_{71}	16.8	X	288.44249	93.20626	138.76305	25.30515	0.1225715	0.21114173	2.7931012	21	1 11.8	21.2
491372 2012 BS_{74}	16.8	X	158.89137	285.71717	94.02221	13.25488	0.2048516	0.23481599	2.6020618	21	3 12.1	21.2
491373 2012 BE_{75}	17.2	X	113.25980	91.84356	307.85260	4.59860	0.1020223	0.22227951	2.6990013	21	1 29.8	20.7
491374 2012 BL_{75}	18.2	X	43.67143	211.50097	139.96994	23.80440	0.0574569	0.39231148	1.8480570	21	—	—
491375 2012 BV_{77}	17.6	X	335.23283	90.73124	144.04985	4.13977	0.0786647	0.23249993	2.6193136	21	3 19.2	20.7
491376 2012 BQ_{78}	16.1	X	7.48886	228.13150	322.54375	11.37283	0.1324661	0.22300093	2.6931772	21	3 2.8	19.1
491377 2012 BB_{85}	17.5	X	357.62535	47.43064	105.99316	5.15564	0.0417964	0.21429990	2.7655918	21	1 10.6	21.0
491378 2012 BH_{87}	17.5	X	10.23714	118.49349	357.94977	6.38885	0.2903177	0.21068221	2.7971610	21	—	—
491379 2012 BN_{89}	17.3	X	36.43371	134.62172	324.80056	14.91842	0.1935590	0.21320435	2.7750577	21	—	—
491380 2012 BG_{92}	17.0	X	114.71373	299.41636	134.56370	13.21335	0.1447294	0.22814609	2.6525324	21	3 26.1	20.8
491381 2012 BW_{121}	16.9	X	63.97605	16.88212	107.49112	22.90414	0.0533776	0.22860966	2.6489453	21	3 13.7	20.7
491382 2012 BB_{135}	17.1	X	103.13220	309.03439	110.12372	10.98071	0.1344636	0.22642245	2.6659770	21	2 16.9	20.6
491383 2012 BS_{138}	17.5	X	26.06417	347.24214	161.49807	2.95007	0.1156638	0.21809073	2.7334507	21	2 10.3	20.5
491384 2012 BZ_{145}	16.9	X	2.94451	275.86742	288.72526	9.10098	0.0192983	0.23248151	2.6194520	21	3 18.0	20.4
491385 2012 BL_{149}	17.6	X	22.35330	332.83667	65.30554	8.47421	0.1752492	0.29904063	2.2147052	21	—	—
491386 2012 CZ_{5}	16.9	X	82.32492	23.55667	87.40391	12.75164	0.1322459	0.22725497	2.6594620	21	4 1.5	20.4
491387 2012 CQ_{6}	16.9	X	21.54496	188.85381	279.55430	3.61657	0.0721329	0.20836161	2.8178914	21	—	—
491388 2012 CQ_{12}	16.9	X	302.60341	161.28305	126.60570	9.10819	0.1140077	0.23164033	2.6257897	21	4 11.0	20.5
491389 2012 CB_{18}	17.1	X	330.62119	75.48007	63.02754	16.27560	0.2108881	0.20273030	2.8698351	21	—	—
491390 2012 CJ_{18}	17.1	X	15.02720	57.84416	134.42566	11.50836	0.1891849	0.22464087	2.6800540	21	3 23.8	19.7
491391 2012 CJ_{19}	16.7	X	355.88210	293.96372	241.57273	8.53843	0.2328938	0.21534004	2.7566789	21	1 10.6	19.8
491392 2012 CG_{20}	17.2	X	245.24828	170.99164	53.63608	2.68363	0.0016921	0.20281314	2.8690535	21	—	—
491393 2012 CR_{22}	16.8	X	52.09249	172.07188	300.37321	11.52172	0.0809797	0.21798248	2.7343556	21	2 2.4	20.2
491394 2012 CS_{29}	17.5	X	31.03451	311.94758	142.22788	9.45196	0.2637612	0.21070852	2.7969282	21	—	—
491395 2012 CL_{34}	17.1	X	10.67784	221.09811	326.20197	5.91681	0.0973963	0.22409292	2.6844210	21	3 7.3	20.0
491396 2012 CG_{35}	17.0	X	157.81469	237.62056	146.09735	6.36199	0.0329222	0.22286417	2.6942789	21	2 24.3	20.8
491397 2012 CY_{45}	17.0	X	335.72466	249.22695	329.35640	7.37663	0.1599942	0.21755906	2.7379022	21	2 16.4	20.1
491398 2012 CH_{46}	17.3	X	347.49895	55.33443	113.86780	5.51838	0.0101947	0.21246615	2.7814818	21	1 21.0	21.0
491399 2012 CL_{55}	16.7	X	69.80543	17.52572	67.02825	19.50254	0.2997015	0.22133187	2.7066998	21	3 8.1	20.0
491400 2012 DA_{4}	16.6	X	354.75212	73.47936	116.34819	15.23676	0.2632608	0.21414978	2.7668840	21	1 25.8	19.5
491401 2012 DB_{5}	17.3	X	20.51242	338.75172	151.30073	9.62685	0.0883317	0.21089222	2.7953037	21	1 10.0	20.8
491402 2012 DD_{9}	16.8	X	273.89086	124.68755	146.50236	11.19637	0.0373837	0.21872517	2.7281623	21	2 20.9	20.6
491403 2012 DC_{11}	14.0	X	340.20963	113.40313	321.62605	8.52905	0.0633802	0.08204082	5.2454496	21	11 27.0	20.7
491404 2012 DT_{11}	17.3	X	7.72049	99.07271	47.86259	8.61825	0.2428570	0.21304820	2.7764134	21	—	—
491405 2012 DN_{18}	17.1	X	317.65827	75.62011	145.41313	11.11878	0.2464063	0.21294423	2.7773171	21	1 13.5	21.1
491406 2012 DR_{20}	17.2	X	52.96072	253.89815	244.64859	1.19600	0.0213150	0.22117343	2.7079922	21	3 6.0	20.8
491407 2012 DX_{22}	17.1	X	339.44145	235.53339	321.35984	7.02509	0.1350231	0.21242550	2.7818366	21	1 29.9	20.5
491408 2012 DP_{34}	16.8	X	279.61608	250.30138	353.70052	14.75372	0.2068392	0.20021327	2.8938375	21	1 13.4	21.6
491409 2012 DO_{36}	17.9	X	168.68514	5.96054	170.75405	6.43855	0.0831695	0.26139086	2.4225669	21	9 30.4	21.4
491410 2012 DJ_{38}	17.1	X	10.92881	95.85305	65.23589	15.25964	0.1965443	0.21140314	2.7907982	21	1 31.9	20.2
491411 2012 DL_{52}	17.7	X	204.31940	319.53777	174.17790	5.14249	0.1802881	0.26564187	2.3966523	21	9 5.4	21.3
491412 2012 DA_{61}	18.8	X	7.08031	235.21959	179.73278	21.99375	0.0958983	0.39387134	1.8431745	21	—	—
491413 2012 DE_{62}	18.3	X	233.07704	199.22917	344.36372	20.34824	0.0590319	0.38825700	1.8609007	21	—	—
491414 2012 DH_{63}	17.3	X	303.07851	88.42378	143.44991	9.85726	0.1100372	0.20997787	2.8034126	21	1 29.0	21.2
491415 2012 DQ_{63}	18.1	X	132.46404	321.22604	313.47560	3.29936	0.1802057	0.28179894	2.3041450	21	12 28.2	21.8
491416 2012 DB_{78}	16.6	X	33.89412	5.79051	122.91005	14.94095	0.1424968	0.21544741	2.7557630	21	1 29.0	19.4
491417 2012 DL_{90}	17.1	X	72.29878	100.15813	343.48708	11.84811	0.1390986	0.21478025	2.7614668	21	2 7.2	20.3
491418 2012 DJ_{94}	16.6	X	273.95944	261.60779	346.78920	6.63076	0.2652228	0.20517694	2.8469752	21	1 5.5	21.5
491419 2012 DE_{95}	16.7	X	305.68165	173.31472	151.99858	15.21852	0.2206911	0.24229465	2.5482390	21	5 18.7	20.2
491420 2012 EG_{4}	16.6	X	33.69715	342.61210	164.91488	11.03836	0.1747516	0.21428538	2.7657167	21	2 23.7	19.4
491421 2012 EQ_{4}	16.9	X	322.84414	27.45257	163.39596	10.92002	0.0835482	0.20404969	2.8574508	21	1 7.6	20.9
491422 2012 EE_{5}	17.2	X	319.65789	52.96411	186.05233	8.27503	0.2255943	0.20988656	2.8042257	21	2 9.3	21.0
491423 2012 EQ_{7}	16.2	X	323.03915	206.23806	357.87560	8.76216	0.0955739	0.21123167	2.7923082	21	1 24.5	20.0
491424 2012 ET_{14}	17.6	X	287.96095	174.45938	166.65385	66.24030	0.5664209	0.45232719	1.6807415	21	3 20.1	21.0
491425 2012 EU_{15}	18.1	X	294.60494	113.94757	5.55305	20.88898	0.0747693	0.38501636	1.8713281	21	—	—
491426 2012 EV_{16}	16.3	X	176.76329	281.07152	136.67909	14.92204	0.0972310	0.22991697	2.6388945	21	5 9.3	20.6
491427 2012 EZ_{16}	16.8	X	325.06390	117.16041	117.61581	13.11958	0.1646361	0.21433622	2.7652793	21	2 24.8	20.4
491428 2012 FO_{1}	16.2	X	62.79441	302.25653	166.43852	32.96608	0.2946900	0.21650612	2.7467719	21	3 17.6	18.9
491429 2012 FZ_{7}	18.3	X	263.78208	252.30905	202.94030	2.26531	0.1827754	0.27344665	2.3508287	21	9 22.4	21.2
491430 2012 FR_{8}	17.3	X	359.28860	354.31794	180.42516	4.52818	0.0494869	0.21387653	2.7692402	21	2 7.2	20.8
491431 2012 FW_{10}	16.7	X	273.06470	213.53958	355.70567	9.48728	0.0260919	0.19506221	2.9445614	21	—	—
491432 2012 FS_{14}	18.6	X	289.21289	106.96470	20.22136	21.75263	0.0799599	0.38872789	1.8593975	21	—	—
491433 2012 FT_{20}	17.3	X	18.76433	35.32952	77.09923	3.16628	0.0500170	0.19972269	2.8985743	21	—	—
491434 2012 FB_{22}	15.9	X	234.17991	239.25395	5.84351	15.02118	0.0799951	0.18948386	3.0020728	21	—	—
491435 2012 FB_{25}	17.3	X	319.75569	51.77417	146.69224	8.53374	0.2421527	0.20088874	2.8873471	21	—	—
491436 2012 FY_{25}	18.5	X	255.76390	252.16571	186.35432	4.65103	0.1732190	0.26253054	2.4155507	21	8 18.9	21.7
491437 2012 FX_{32}	16.4	X	210.74008	215.44891	86.27851	13.30964	0.1289958	0.19457659	2.9494587	21	1 21.9	21.2
491438 2012 FX_{42}	16.6	X	64.95018	63.82559	28.75548	10.01746	0.0530486	0.21308489	2.7760947	21	1 30.8	20.3
491439 2012 FZ_{43}	16.7	X	302.91255	87.68575	153.67266	14.22062	0.1452195	0.21505075	2.7591506	21	2 3.3	20.7
491440 2012 FC_{44}	16.5	X	22.69869	53.09334	18.57502	9.99127	0.0068023	0.18068466	3.0987641	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491441 2012 FG_{49}	17.0	X	203.42084	238.65287	74.59798	3.17568	0.0535358	0.20302538	2.8670537	21	1 25.7	21.3
491442 2012 FY_{49}	17.8	X	21.69505	2.84233	141.04647	1.10813	0.0990179	0.20912141	2.8110618	21	1 30.6	21.0
491443 2012 FM_{55}	16.9	X	311.02562	105.79167	157.87029	13.51819	0.2272959	0.22313703	2.6920820	21	3 1.3	20.5
491444 2012 FX_{60}	16.7	X	21.11058	68.26276	51.04712	6.43099	0.0462313	0.19920488	2.9035952	21	1 3.3	20.6
491445 2012 FR_{61}	19.2	X	225.85842	52.24362	197.50399	21.13882	0.0991596	0.39729408	1.8325732	21	—	—
491446 2012 FL_{62}	18.3	X	346.26992	17.99491	27.10389	22.05529	0.0905857	0.37957454	1.8891713	21	—	—
491447 2012 FY_{63}	17.7	X	343.51728	80.14586	130.98528	1.53355	0.0050922	0.21582026	2.7525882	21	3 10.1	21.3
491448 2012 FD_{65}	16.7	X	287.28588	164.71375	15.48695	13.69063	0.0396213	0.19028408	2.9936504	21	—	—
491449 2012 FJ_{65}	17.1	X	19.77759	312.61532	161.60915	9.89678	0.0063289	0.19806310	2.9147434	21	—	—
491450 2012 FU_{66}	17.2	X	231.20945	176.54368	134.61206	4.19567	0.0864912	0.21001766	2.8030586	21	2 19.6	21.4
491451 2012 FE_{68}	17.0	X	45.59392	62.19461	42.95857	8.21140	0.1896201	0.20898880	2.8122507	21	1 24.8	19.9
491452 2012 FO_{68}	16.9	X	260.35274	139.47205	154.87337	13.47237	0.1542594	0.21042164	2.7994698	21	2 23.2	21.3
491453 2012 FC_{74}	17.3	X	321.38066	216.32351	10.33265	3.19940	0.1222014	0.20998971	2.8033073	21	2 14.5	21.1
491454 2012 FF_{74}	15.9	X	235.57042	147.27068	56.85973	17.22846	0.1647469	0.17377737	3.1803426	21	12 21.8	20.8
491455 2012 FC_{79}	17.3	X	58.86446	129.72330	334.29899	7.62908	0.0825487	0.21626871	2.7487818	21	2 4.9	20.7
491456 2012 GQ	18.1	X	316.14214	235.04241	168.76385	23.82680	0.1082161	0.37065629	1.9193542	21	11 17.6	20.1
491457 2012 GS_{1}	18.3	X	126.79035	273.85808	26.79752	21.19999	0.0403705	0.38890644	1.8588284	21	—	—
491458 2012 GC_{16}	15.8	X	160.76563	201.03310	111.69732	12.69881	0.0792073	0.17689945	3.1428119	21	—	—
491459 2012 GO_{21}	16.4	X	215.72700	81.13021	158.66853	16.79637	0.1057682	0.17347970	3.1839796	21	—	—
491460 2012 GJ_{27}	16.0	X	248.81906	357.61317	218.84456	22.22143	0.0969003	0.18051664	3.1006867	21	—	—
491461 2012 GQ_{27}	19.0	X	179.77675	32.26379	196.59156	22.08003	0.0379583	0.38074333	1.8853031	21	—	—
491462 2012 GE_{30}	16.7	X	245.19217	41.65296	200.72520	10.35907	0.1129009	0.18891961	3.0080475	21	—	—
491463 2012 GZ_{35}	16.0	X	223.31285	205.71802	31.46852	11.89443	0.1433384	0.17847231	3.1243198	21	—	—
491464 2012 GZ_{38}	16.0	X	189.45089	222.10203	111.99909	10.89085	0.1098251	0.19202633	2.9755153	21	2 9.2	20.7
491465 2012 HU	17.6	X	266.23471	63.96150	63.86109	26.85781	0.1056363	0.37943299	1.8896411	21	12 20.5	19.1
491466 2012 HZ	16.1	X	16.21251	104.01400	44.75500	15.45080	0.0940557	0.20371056	2.8606212	21	2 5.2	19.9
491467 2012 HJ_{10}	16.2	X	98.84200	267.56619	115.16382	12.26160	0.0737346	0.18497193	3.0506953	21	—	—
491468 2012 HU_{11}	17.0	X	286.04881	54.70702	143.51145	7.00173	0.1742671	0.18609892	3.0383665	21	—	—
491469 2012 HX_{11}	16.5	X	316.03755	77.24141	104.49470	9.91881	0.0860543	0.18971293	2.9996558	21	—	—
491470 2012 HS_{12}	16.4	X	179.15894	204.21222	87.32852	12.90089	0.0628213	0.17802374	3.1295659	21	—	—
491471 2012 HD_{13}	16.0	X	334.61491	36.20351	101.75606	10.57486	0.0944090	0.18282676	3.0745121	21	—	—
491472 2012 HL_{14}	15.9	X	313.11642	132.70111	112.52004	10.07176	0.1041297	0.21004532	2.8028124	21	3 4.1	19.7
491473 2012 HQ_{14}	19.0	X	270.36425	345.83809	196.56416	21.86018	0.0948597	0.39587397	1.8369532	21	—	—
491474 2012 HQ_{15}	18.5	X	314.31934	329.85483	152.99980	14.57312	0.2021194	0.39342020	1.8445833	21	—	—
491475 2012 HL_{17}	16.4	X	185.57021	115.70298	173.01164	10.63323	0.2448915	0.17401888	3.1773994	21	—	—
491476 2012 HV_{18}	16.2	X	180.86839	142.23043	145.05228	13.76183	0.1219434	0.17389759	3.1788767	21	—	—
491477 2012 HE_{25}	18.8	X	296.00932	259.29685	208.32586	19.86466	0.0700605	0.37851516	1.8926945	21	—	—
491478 2012 HC_{26}	16.6	X	9.75998	352.88479	173.30838	15.23039	0.0772182	0.20353521	2.8622640	21	2 10.4	20.3
491479 2012 HU_{26}	16.7	X	350.80942	79.60036	52.17723	12.51885	0.0685578	0.18851694	3.0123294	21	—	—
491480 2012 HS_{41}	16.8	X	193.56367	177.33288	67.74583	2.64803	0.1568721	0.17213249	3.2005711	21	12 30.3	22.0
491481 2012 HQ_{43}	17.2	X	237.22728	177.85864	70.96709	2.57996	0.1578202	0.18491767	3.0512921	21	—	—
491482 2012 HS_{43}	17.0	X	264.15628	137.03038	79.27320	2.94558	0.1266007	0.18517610	3.0484525	21	—	—
491483 2012 HY_{43}	16.4	X	327.65547	106.12517	41.58516	10.45022	0.0341779	0.18535778	3.0464602	21	—	—
491484 2012 HM_{45}	17.5	X	300.91889	38.13667	136.68914	3.35431	0.2509956	0.18888648	3.0083992	21	—	—
491485 2012 HQ_{45}	18.5	X	70.50799	272.61785	45.37693	21.50533	0.0864728	0.36957228	1.9231056	21	—	—
491486 2012 HR_{45}	17.0	X	287.76339	173.84347	82.36361	6.47881	0.1188422	0.20113998	2.8849422	21	2 13.1	21.3
491487 2012 HP_{46}	16.3	X	169.53761	205.29833	106.13567	9.29195	0.1406081	0.17908857	3.1171483	21	—	—
491488 2012 HT_{51}	16.7	X	215.09842	253.37553	33.68341	3.55742	0.2578071	0.18248054	3.0783997	21	1 9.6	22.1
491489 2012 HU_{57}	16.5	X	248.39087	165.56299	56.99986	7.42928	0.1339183	0.18022147	3.1040713	21	—	—
491490 2012 HV_{63}	16.8	X	233.78616	65.11477	202.58690	9.39315	0.0889077	0.18807172	3.0170815	21	1 3.5	21.6
491491 2012 HC_{64}	16.4	X	205.37689	241.50396	46.87640	12.36019	0.1635352	0.18303541	3.0721751	21	1 3.3	21.6
491492 2012 HJ_{66}	16.7	X	250.49964	150.45450	76.11561	12.13337	0.1041644	0.18318641	3.0704867	21	—	—
491493 2012 HQ_{71}	16.5	X	282.60235	0.81389	224.79054	12.89581	0.1023524	0.19223598	2.9733516	21	1 1.4	21.1
491494 2012 HP_{75}	16.7	X	266.71943	94.59656	126.67878	9.90791	0.0699570	0.18672787	3.0315399	21	—	—
491495 2012 HK_{78}	16.0	X	257.02534	146.64056	63.39513	18.24209	0.1484307	0.17814732	3.1281185	21	—	—
491496 2012 HV_{81}	15.9	X	180.99246	232.37147	32.32632	27.23761	0.2214596	0.17299599	3.1899119	21	—	—
491497 2012 JG	19.0	X	111.78154	169.09710	171.18846	21.66219	0.0545214	0.38864380	1.8596657	21	—	—
491498 2012 JO	17.9	X	158.11308	61.10137	170.65983	22.06641	0.0569009	0.36998970	1.9216589	21	12 21.2	20.7
491499 2012 JN_{1}	16.1	X	194.54720	266.10143	40.41357	14.45399	0.3622903	0.18060207	3.0997089	21	1 21.9	22.2
491500 2012 JY_{4}	17.7	X	199.35762	355.92314	205.73910	21.44897	0.0587827	0.37449437	1.9062178	21	12 30.6	20.3
491501 2012 JH_{6}	16.3	X	163.17916	283.31488	28.11046	3.98069	0.1764260	0.17401527	3.1774434	21	—	—
491502 2012 JA_{10}	16.3	X	212.29952	217.73973	54.21604	16.89503	0.1574836	0.17930625	3.1146250	21	—	—
491503 2012 JX_{10}	16.0	X	195.06853	228.07530	86.73151	10.25483	0.0622866	0.19288102	2.9667188	21	1 20.9	20.5
491504 2012 JK_{11}	18.0	X	33.64833	269.19725	89.22918	22.88478	0.1098587	0.36798920	1.9286170	21	—	—
491505 2012 JO_{11}	18.2	X	82.46137	188.30179	182.11004	22.26781	0.0262342	0.38875375	1.8593151	21	—	—
491506 2012 JA_{12}	16.0	X	184.00881	244.55081	62.20546	17.41053	0.2223732	0.17904816	3.1176173	21	1 9.4	21.5
491507 2012 JV_{13}	16.6	X	341.49392	275.50780	212.39696	10.26520	0.0694018	0.18299155	3.0726660	21	—	—
491508 2012 JU_{15}	16.1	X	313.06465	51.71455	114.07640	14.07766	0.1180462	0.18179687	3.0861127	21	—	—
491509 2012 JO_{18}	16.3	X	269.05929	21.75892	193.81811	27.15824	0.1003029	0.18037359	3.1023258	21	—	—
491510 2012 JH_{19}	16.5	X	309.10153	311.38345	220.75375	13.85921	0.1953164	0.18862572	3.0111712	21	—	—
491511 2012 JG_{22}	18.0	X	311.20679	295.49999	213.27830	21.92665	0.1295336	0.39441007	1.8414957	21	—	—
491512 2012 JF_{23}	15.5	X	213.89889	169.82063	124.35180	9.81515	0.0507301	0.18967531	3.0000524	21	1 15.7	20.1
491513 2012 JK_{27}	18.5	X	231.58652	59.74276	110.52000	24.26089	0.0504057	0.37548655	1.9028584	21	—	—
491514 2012 JC_{29}	16.3	X	338.14099	104.88484	46.50159	16.66286	0.0159199	0.18543134	3.0456544	21	—	—
491515 2012 JG_{32}	17.1	X	263.63340	210.48707	39.44133	3.45247	0.1887445	0.19002629	2.9963572	21	1 6.0	21.9
491516 2012 JA_{38}	16.1	X	168.63061	256.34314	68.67360	17.56651	0.2374416	0.17800812	3.1297490	21	1 20.3	21.6
491517 2012 JX_{44}	16.8	X	154.68556	246.40629	238.38721	11.51647	0.1428031	0.23246643	2.6195652	21	7 6.4	21.0
491518 2012 JP_{45}	15.7	X	169.08353	211.46338	81.31912	11.86224	0.0505174	0.17160794	3.2070899	21	—	—
491519 2012 JN_{54}	15.5	X	11.74900	327.70894	65.29515	23.18554	0.1333928	0.16031856	3.3559347	21	12 11.3	19.9
491520 2012 KB	17.8	X	16.82352	301.08978	86.51074	24.31941	0.1162475	0.37221122	1.9140050	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491521 2012 KF_1	18.0	X	8.43979	30.22933	36.55433	22.10860	0.0969487	0.38684525	1.8654253	21	—	—
491522 2012 KP_3	16.8	X	203.33749	102.68132	167.64252	8.22145	0.2229050	0.17649788	3.1475772	21	—	—
491523 2012 KA_6	17.7	X	164.11488	138.33742	173.34172	22.75336	0.0587047	0.39173789	1.8498606	21	—	—
491524 2012 KK_{10}	15.9	X	309.48293	59.58976	74.95549	16.05228	0.0375253	0.17004892	3.2266620	21	—	—
491525 2012 KH_{17}	16.8	X	217.15872	44.70126	208.35382	4.60944	0.1278426	0.17487822	3.1669817	21	—	—
491526 2012 KZ_{18}	16.2	X	212.37306	160.08554	118.12622	19.14436	0.1775031	0.17896326	3.1186033	21	—	—
491527 2012 KP_{20}	16.7	X	294.68450	49.33765	116.34397	3.84585	0.0613910	0.17977159	3.1092479	21	—	—
491528 2012 KE_{22}	16.7	X	273.49692	41.19878	157.26035	5.41022	0.2494961	0.18463471	3.0544087	21	—	—
491529 2012 KC_{23}	17.1	X	15.06484	358.81576	104.27072	6.81826	0.1007964	0.18741345	3.0241422	21	—	—
491530 2012 KZ_{24}	17.0	X	254.96173	179.36786	52.33841	5.44201	0.1328524	0.18664977	3.0323855	21	—	—
491531 2012 KD_{42}	16.2	X	333.60802	52.39331	83.34567	11.67609	0.0463993	0.17720729	3.1391711	21	—	—
491532 2012 KE_{44}	16.9	X	218.49742	138.70599	121.49240	4.69854	0.1421991	0.17708583	3.1406064	21	—	—
491533 2012 KX_{44}	16.8	X	228.13185	152.57012	140.64566	10.26013	0.0912562	0.18960129	3.0008332	21	1 28.1	21.3
491534 2012 KR_{45}	16.8	X	251.00536	99.97999	177.70704	10.67633	0.1637656	0.18891074	3.0081417	21	1 26.4	21.7
491535 2012 KB_{48}	16.2	X	205.83301	52.01725	235.52346	14.32038	0.1711762	0.17858080	3.1230543	21	1 1.1	21.5
491536 2012 LD	18.2	X	19.35225	175.52702	210.42270	19.88792	0.0790855	0.37000141	1.9216183	21	—	—
491537 2012 LU_2	16.1	X	150.65519	264.35151	66.88172	11.27231	0.0780124	0.17602353	3.1532294	21	—	—
491538 2012 LW_8	16.8	X	212.01052	109.97982	163.55473	12.39524	0.1732847	0.17692201	3.1425448	21	—	—
491539 2012 LG_{12}	15.8	X	255.10219	298.03030	296.32301	11.23835	0.2385070	0.17440251	3.1727381	21	—	—
491540 2012 LN_{14}	16.7	X	225.34151	114.62658	174.13792	15.74740	0.1215305	0.18527879	3.0473259	21	1 18.6	21.8
491541 2012 LV_{15}	16.0	X	180.89765	228.69817	84.18115	14.57989	0.2522685	0.17469727	3.1691683	21	1 15.7	21.6
491542 2012 LA_{16}	16.6	X	241.51126	28.66508	236.87921	10.87647	0.0759629	0.18536114	3.0464234	21	1 9.0	21.3
491543 2012 LX_{16}	15.5	X	236.36805	345.71003	243.67278	22.33410	0.1134369	0.17572003	3.1568592	21	—	—
491544 2012 LW_{18}	16.1	X	243.96552	148.14922	74.99839	13.77823	0.1205201	0.17623888	3.1506602	21	—	—
491545 2012 LE_{19}	16.6	X	263.27685	82.64038	123.68519	4.61514	0.1082162	0.17720615	3.1391846	21	—	—
491546 2012 LO_{19}	16.6	X	266.80677	105.79339	80.67611	16.98584	0.2017350	0.17581695	3.1556989	21	—	—
491547 2012 LJ_{21}	16.5	X	250.74212	123.71061	67.50869	20.02205	0.1635724	0.17366842	3.1816725	21	12 23.7	21.1
491548 2012 LM_{23}	15.9	X	248.83041	7.59227	241.43780	12.42895	0.0559946	0.18242479	3.0790269	21	—	—
491549 2012 LU_{26}	15.5	X	248.42413	148.98344	79.93564	28.75122	0.1355645	0.18316018	3.0707798	21	—	—
491550 2012 LV_{26}	16.7	X	241.89844	98.49960	159.22434	26.60142	0.1426567	0.18447612	3.0561590	21	—	—
491551 2012 MA_1	16.1	X	293.40017	139.39563	88.39402	13.30229	0.1048147	0.19053664	2.9910044	21	1 18.6	20.5
491552 2012 MV_6	16.0	X	262.48652	62.15093	136.28890	16.51487	0.1233739	0.17385873	3.1793503	21	—	—
491553 2012 PA_5	16.7	X	289.02958	102.41900	299.89256	8.41407	0.1436094	0.21802304	2.7340164	21	8 16.4	20.1
491554 2012 PP_{12}	18.3	X	122.44574	43.29088	300.35096	4.89331	0.2778152	0.26060670	2.4274241	21	—	—
491555 2012 PH_{29}	17.4	X	211.49564	312.54173	266.71424	6.17351	0.0505346	0.25596955	2.4566532	21	—	—
491556 2012 PB_{31}	16.6	X	347.65708	62.66180	306.24649	11.90696	0.2267911	0.22591263	2.6699864	21	10 14.4	19.2
491557 2012 PL_{37}	17.6	X	152.35784	326.15293	346.10044	5.14252	0.2441154	0.26435454	2.4044267	21	—	—
491558 2012 QF	16.3	X	289.79399	102.74828	290.71063	7.23559	0.0850664	0.19689829	2.9262275	21	8 13.3	20.3
491559 2012 QA_4	17.5	X	347.11312	53.35168	330.83429	8.41825	0.1609246	0.23155105	2.6264646	21	11 5.9	20.3
491560 2012 QT_6	17.9	X	70.32800	280.51168	107.24723	2.49863	0.1804631	0.25682470	2.4511969	21	—	—
491561 2012 QY_7	16.3	X	229.41146	113.34474	163.95621	26.24917	0.2427662	0.17029518	3.2235505	21	1 9.7	22.3
491562 2012 QU_{14}	17.8	X	139.64412	80.97108	265.89556	7.70716	0.3009751	0.26739502	2.3861652	21	1 11.5	21.3
491563 2012 QD_{26}	16.8	X	216.98870	89.56403	258.26826	1.70630	0.0969272	0.17734017	3.1376028	21	3 23.3	21.7
491564 2012 QU_{40}	17.8	X	129.19845	81.78419	252.07892	4.17629	0.2652180	0.26311476	2.4119738	21	—	—
491565 2012 QF_{49}	17.4	X	191.92386	30.65266	30.67466	28.24531	0.4924806	0.29031217	2.2588768	21	5 14.5	22.5
491566 2012 RG_1	17.3	X	170.17104	321.27147	336.52975	5.86077	0.1870329	0.26619565	2.3933272	21	—	—
491567 2012 RG_3	18.0	X	50.78116	35.16683	113.05103	15.91818	0.5286183	0.49890622	1.5744303	21	—	—
491568 2012 RS_7	16.9	X	19.02810	20.85251	352.63809	13.03287	0.2634868	0.23430444	2.6058477	21	—	—
491569 2012 RO_8	16.5	X	170.25729	338.07323	308.10330	5.58816	0.1211837	0.26102760	2.4248140	21	—	—
491570 2012 RP_{11}	15.9	X	165.41085	68.00170	346.55376	13.94774	0.2468225	0.17318219	3.1876251	21	4 22.8	21.6
491571 2012 RW_{11}	17.7	X	27.55900	156.45262	200.59102	12.46837	0.3040499	0.22921443	2.6442839	21	12 31.6	21.4
491572 2012 RF_{12}	16.1	X	305.03745	158.04132	219.81041	20.73050	0.1422371	0.20974099	2.8055230	21	8 1.6	20.1
491573 2012 RJ_{12}	16.3	X	307.69106	174.40587	210.25104	12.67160	0.1940449	0.21130355	2.7916750	21	8 11.1	19.8
491574 2012 RO_{14}	16.6	X	28.06309	352.19625	354.42898	13.36446	0.1647504	0.22795871	2.6539858	21	11 24.4	20.1
491575 2012 RF_{19}	16.9	X	322.87970	132.56530	244.96682	1.54894	0.1920915	0.21422221	2.7662603	21	9 4.1	19.5
491576 2012 RP_{21}	18.0	X	43.60081	12.89791	330.98912	3.15093	0.2467075	0.23490716	2.6013885	21	12 28.8	21.6
491577 2012 RD_{22}	17.7	X	131.39739	314.11969	35.18158	5.69635	0.1718050	0.26316847	2.4116456	21	—	—
491578 2012 RP_{26}	18.1	X	155.37786	342.56383	6.03467	3.19454	0.2335264	0.27144446	2.3623744	21	1 22.5	21.6
491579 2012 RE_{35}	17.2	X	326.57168	27.37759	335.22782	3.09094	0.1139570	0.21169633	2.7882208	21	8 28.5	20.3
491580 2012 RQ_{37}	17.6	X	286.15987	101.23016	320.90564	2.85915	0.2224148	0.21481737	2.7611487	21	8 27.9	20.9
491581 2012 RO_{38}	17.6	X	240.77365	307.28626	309.10245	5.24697	0.1490396	0.27613898	2.3355235	21	—	—
491582 2012 RY_{39}	17.8	X	86.84311	336.41594	332.75459	2.00484	0.1512488	0.23666085	2.5885215	21	12 20.2	21.8
491583 2012 SU_3	18.1	X	120.27254	212.35324	160.74684	4.72045	0.2116889	0.26234404	2.4166954	21	1 11.9	21.1
491584 2012 SZ_3	17.2	X	5.15599	318.06522	47.16195	4.72965	0.1997640	0.22451250	2.6810755	21	11 20.2	20.0
491585 2012 SL_6	17.0	X	4.56594	73.60402	327.36536	5.07802	0.4282487	0.22728478	2.6592295	21	—	—
491586 2012 SC_{15}	18.6	X	187.06012	24.48475	42.29457	2.11634	0.1750704	0.29675200	2.2260775	21	5 23.9	22.1
491587 2012 SD_{19}	16.4	X	201.21345	194.10910	219.59148	7.45574	0.1681088	0.18190316	3.0849104	21	5 25.4	21.6
491588 2012 SG_{21}	16.7	X	4.66916	333.17155	18.08641	16.05355	0.2483074	0.21939570	2.7226009	21	10 31.9	19.4
491589 2012 SS_{21}	18.1	X	156.32914	12.40592	276.93259	0.83979	0.1723582	0.25688336	2.4508237	21	—	—
491590 2012 SR_{26}	17.2	X	285.53746	11.03993	10.07432	2.12102	0.1726772	0.20353073	2.8623060	21	7 10.6	21.0
491591 2012 SV_{33}	17.6	X	30.69942	41.15941	310.15251	4.44875	0.2555044	0.23344223	2.6122602	21	12 23.6	20.8
491592 2012 SZ_{33}	17.8	X	153.52714	118.75852	188.77829	2.23803	0.2009798	0.26087259	2.4257745	21	—	—
491593 2012 SB_{46}	17.2	X	285.45615	88.64188	344.13601	2.06181	0.1610279	0.21754953	2.7379821	21	9 20.8	20.6
491594 2012 SM_{55}	17.9	X	129.49416	173.47805	179.09047	1.43582	0.1990168	0.26064356	2.4271953	21	—	—
491595 2012 SV_{58}	17.5	X	44.94770	154.17011	200.50525	15.95365	0.2496101	0.23676016	2.5877975	21	—	—
491596 2012 SC_{60}	16.8	X	252.19055	193.49162	151.16919	1.87345	0.1736183	0.18672734	3.0315456	21	4 18.1	21.4
491597 2012 SU_{61}	17.1	X	274.18462	129.82579	192.26756	0.85534	0.2056571	0.19088778	2.9873352	21	4 8.2	21.5
491598 2012 SG_{62}	18.1	X	359.63463	140.05881	264.53634	4.68877	0.3144331	0.22911380	2.6450581	21	—	—
491599 2012 SK_{63}	17.9	X	283.37274	279.97690	196.45571	22.33746	0.0320918	0.34607589	2.0091938	21	12 30.4	20.6
491600 2012 SG_{64}	16.2	X	274.43723	152.54595	237.89930	14.20963	0.1407848	0.20435278	2.8546247	21	7 9.7	20.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491601 2012 TH_6	17.5	X	320.94610	7.77067	48.78008	6.14101	0.1660884	0.21949627	2.7217692	21	11 1.4	20.3
491602 2012 TW_{11}	18.0	X	126.78117	330.23955	29.49555	2.58767	0.2034801	0.25940948	2.4348871	21	1 3.1	21.1
491603 2012 TB_{16}	17.8	X	13.88548	295.38188	50.12501	0.46102	0.1633059	0.22255006	2.6968134	21	11 3.2	20.6
491604 2012 TY_{17}	16.2	X	225.93545	101.20198	235.57792	8.30639	0.0305339	0.18070604	3.0985197	21	3 19.9	20.8
491605 2012 TV_{21}	18.4	X	180.28422	106.60773	204.46735	0.84764	0.1945781	0.26623258	2.3931059	21	—	—
491606 2012 TP_{25}	18.0	X	79.83669	306.19368	29.98010	2.50630	0.1769006	0.24130674	2.5551893	21	—	—
491607 2012 TC_{30}	17.8	X	35.36650	313.40584	17.65188	3.44850	0.0693680	0.22408845	2.6844567	21	11 2.9	21.1
491608 2012 TS_{33}	18.5	X	192.10789	152.74587	175.73217	2.40410	0.2045616	0.27427969	2.3460663	21	1 26.5	22.1
491609 2012 TO_{45}	16.4	X	200.45464	76.77779	327.90319	7.94103	0.1750703	0.18251233	3.0780423	21	5 10.5	21.6
491610 2012 TS_{49}	18.5	X	190.59083	21.25158	288.48766	0.38694	0.1892099	0.27000676	2.3707529	21	1 2.7	22.2
491611 2012 TX_{51}	13.3	X	240.66191	72.89233	321.10763	16.33786	0.0313307	0.08150596	5.2683723	21	6 23.6	20.5
491612 2012 TH_{54}	17.9	X	152.27639	111.44831	329.99290	5.30193	0.1345783	0.28488636	2.2874675	21	5 4.9	21.3
491613 2012 TT_{54}	17.8	X	245.68754	44.19709	341.73934	5.44273	0.1540120	0.30090045	2.2055699	21	5 27.8	20.9
491614 2012 TF_{55}	16.0	X	198.98661	157.28827	244.59519	11.51278	0.0436206	0.17576881	3.1562750	21	5 10.6	20.7
491615 2012 TB_{57}	16.7	X	341.38006	166.82993	224.78975	7.37835	0.1707247	0.21760368	2.7375279	21	11 6.1	19.3
491616 2012 TJ_{64}	16.2	X	293.80214	21.39213	343.00191	7.30694	0.0896691	0.20056420	2.8904609	21	7 13.9	20.1
491617 2012 TW_{69}	16.6	X	213.44561	39.46422	11.50503	10.75922	0.1225728	0.18857788	3.0116804	21	6 1.2	21.5
491618 2012 TJ_{76}	17.5	X	178.52604	64.45302	234.98795	5.72255	0.1539081	0.26200419	2.4187848	21	—	—
491619 2012 TL_{91}	16.4	X	129.20528	348.30907	100.96220	2.61587	0.1471440	0.17182296	3.2044138	21	5 2.3	21.3
491620 2012 TP_{97}	18.0	X	163.92364	335.87836	359.94561	1.24067	0.2020429	0.26668844	2.3903780	21	1 11.9	21.6
491621 2012 TE_{98}	17.4	X	64.59687	285.91951	21.46209	6.34282	0.0156263	0.22143369	2.7058699	21	11 2.1	20.9
491622 2012 TE_{101}	16.7	X	166.97975	81.28491	333.31632	6.13428	0.2363372	0.16996984	3.2276627	21	4 27.0	22.3
491623 2012 TR_{101}	17.9	X	93.07729	307.00174	14.70354	14.73482	0.1581742	0.24118266	2.5560656	21	—	—
491624 2012 TR_{128}	17.5	X	188.14486	251.30810	40.96798	6.63338	0.1115679	0.26299775	2.4126891	21	—	—
491625 2012 TW_{128}	16.2	X	148.42647	77.26024	356.41688	9.26660	0.1398187	0.17294643	3.1905213	21	4 27.8	21.3
491626 2012 TL_{130}	16.1	X	228.17735	105.78141	196.07168	25.10584	0.2922385	0.17404421	3.1770911	21	1 29.9	22.2
491627 2012 TD_{139}	17.6	X	11.25015	91.41659	285.70987	3.95577	0.0729277	0.22832985	2.6511090	21	11 30.6	21.0
491628 2012 TU_{149}	16.5	X	248.55709	157.42040	217.55005	10.44687	0.1915266	0.18712439	3.0272558	21	5 19.7	21.3
491629 2012 TX_{152}	17.2	X	188.47567	32.07633	193.95457	6.27398	0.0954084	0.23963960	2.5670263	21	12 19.0	21.0
491630 2012 TM_{153}	18.1	X	166.37207	265.45491	33.14409	3.73847	0.2043547	0.26089044	2.4256638	21	—	—
491631 2012 TG_{154}	17.7	X	143.28927	270.54719	40.90450	2.16351	0.1933107	0.25644868	2.4535923	21	—	—
491632 2012 TZ_{154}	17.7	X	354.41997	249.03568	147.57417	2.69459	0.0996889	0.22931732	2.6434929	21	12 5.0	20.7
491633 2012 TZ_{169}	15.8	X	246.94997	14.28357	359.52677	13.62539	0.1500403	0.18702676	3.0283092	21	5 15.5	20.8
491634 2012 TL_{171}	16.4	X	155.41068	156.46687	217.63133	9.27104	0.0872579	0.16008805	3.3591555	21	2 20.5	21.6
491635 2012 TW_{183}	17.1	X	212.04076	116.39242	289.21549	2.90415	0.0749685	0.18690856	3.0295857	21	5 28.4	21.6
491636 2012 TR_{186}	17.6	X	70.86175	329.75332	37.31344	7.98593	0.2175466	0.24035427	2.5619353	21	—	—
491637 2012 TZ_{186}	17.9	X	54.56216	133.63479	221.28274	5.23607	0.3333398	0.23490857	2.6013781	21	—	—
491638 2012 TN_{190}	18.8	X	119.52462	141.72121	291.80170	1.74984	0.1734365	0.27366885	2.3495560	21	3 24.3	21.9
491639 2012 TH_{192}	16.5	X	179.95100	51.20090	350.55062	11.43640	0.1849822	0.17407959	3.1766606	21	4 18.9	21.9
491640 2012 TR_{194}	17.3	X	187.53084	12.62487	57.68184	4.86783	0.2535286	0.17823350	3.1271100	21	6 1.7	22.8
491641 2012 TM_{195}	18.6	X	217.13286	66.01575	251.47323	3.64707	0.2436934	0.28104088	2.3082865	21	2 1.7	22.6
491642 2012 TV_{197}	18.2	X	358.26212	79.01194	322.89403	6.78661	0.3159084	0.22631114	2.6668511	21	—	—
491643 2012 TD_{203}	17.8	X	51.50962	319.86478	28.37577	10.16962	0.2173131	0.23700781	2.5859946	21	—	—
491644 2012 TN_{211}	17.7	X	93.16309	119.91382	356.91775	7.00992	0.1377866	0.27977521	2.3152429	21	4 10.1	20.3
491645 2012 TO_{213}	18.7	X	178.21085	249.49055	199.01813	3.19098	0.1156113	0.29835669	2.2180884	21	6 13.1	21.9
491646 2012 TA_{214}	18.0	X	110.51745	64.43936	258.19300	2.01532	0.1145934	0.24395028	2.5366965	21	—	—
491647 2012 TV_{215}	17.5	X	174.42427	174.72035	157.94598	3.00743	0.2641444	0.26927783	2.3750293	21	1 21.2	21.4
491648 2012 TS_{222}	17.1	X	323.56362	185.74002	220.98926	4.25376	0.1600188	0.21498661	2.7596993	21	10 21.7	20.0
491649 2012 TX_{224}	17.5	X	12.73033	342.39784	42.94645	3.19164	0.2193601	0.23069661	2.6329457	21	—	—
491650 2012 TC_{233}	17.5	X	22.85763	192.05702	186.90234	1.32358	0.1121906	0.23291143	2.6162275	21	12 26.5	20.7
491651 2012 TR_{239}	16.7	X	204.70842	251.70704	171.05806	4.31555	0.1174518	0.18819220	3.0157938	21	6 10.0	21.4
491652 2012 TK_{242}	17.8	X	70.15358	247.32745	80.47319	2.31156	0.1749780	0.23519634	2.5992557	21	12 28.3	21.7
491653 2012 TT_{254}	18.0	X	114.43342	241.48613	225.78075	21.86482	0.3109185	0.27674960	2.3320868	21	5 21.3	21.5
491654 2012 TE_{255}	17.6	X	49.55927	35.43385	352.58916	4.83201	0.2472328	0.24044952	2.5612586	21	—	—
491655 2012 TN_{256}	17.7	X	50.57392	350.17803	0.67263	14.91033	0.2099692	0.23859047	2.5745460	21	—	—
491656 2012 TY_{257}	18.1	X	120.20583	237.62184	115.51573	2.82799	0.2033479	0.25695825	2.4503475	21	—	—
491657 2012 TJ_{258}	18.5	X	172.45129	30.29332	77.96285	3.24804	0.0811964	0.29906027	2.2146082	21	7 3.5	21.5
491658 2012 TG_{287}	17.2	X	268.63612	17.63515	48.07414	5.83386	0.1303136	0.20481762	2.8503039	21	8 25.5	21.1
491659 2012 TB_{292}	16.3	X	51.77753	234.50234	320.57145	5.94177	0.0870541	0.17620598	3.1510524	21	5 28.4	20.5
491660 2012 TK_{292}	16.0	X	202.94214	133.91258	258.76882	8.15937	0.1077483	0.17489418	3.1667892	21	5 1.2	21.0
491661 2012 TG_{296}	16.8	X	331.04932	174.62302	220.85370	10.01307	0.2115800	0.21695148	2.7430115	21	10 18.7	19.2
491662 2012 TK_{296}	17.0	X	351.70303	173.43123	220.66923	14.05441	0.1075144	0.22311868	2.6922296	21	11 26.5	20.1
491663 2012 TE_{298}	16.5	X	187.28471	41.38645	19.92080	17.68173	0.1420174	0.18333540	3.0688229	21	5 16.8	21.6
491664 2012 TD_{302}	17.7	X	111.72932	349.38718	15.06486	2.45975	0.2072198	0.26063792	2.4272303	21	—	—
491665 2012 TO_{304}	17.1	X	1.79555	256.66424	144.68136	4.05013	0.0987194	0.22951790	2.6419525	21	12 22.4	20.1
491666 2012 TY_{304}	18.1	X	18.20416	299.21067	99.82490	3.91090	0.2685064	0.23314129	2.6145076	21	—	—
491667 2012 TM_{306}	16.9	X	304.83522	53.52835	321.88262	3.08195	0.1141258	0.20911286	2.8111384	21	8 9.9	20.3
491668 2012 TK_{308}	16.0	X	234.74628	66.16293	307.84086	11.28201	0.1375304	0.18076855	3.0978054	21	5 5.5	21.1
491669 2012 TA_{310}	16.6	X	261.99792	14.38178	2.91750	8.95528	0.1228238	0.19249411	2.9706929	21	6 11.9	21.1
491670 2012 TG_{313}	18.1	X	43.38275	16.33274	0.91535	5.39415	0.2122464	0.23798917	2.5788807	21	—	—
491671 2012 UU_1	18.5	X	206.05921	328.57027	81.99068	3.71796	0.1099627	0.29811341	2.2192950	21	5 22.7	21.6
491672 2012 UV_5	17.1	X	301.16990	292.81251	113.31284	1.69771	0.0694258	0.21303690	2.7765116	21	9 22.2	20.7
491673 2012 UX_{12}	17.1	X	266.28772	31.38085	67.23975	5.25589	0.0716558	0.21777397	2.7361007	21	10 14.1	20.7
491674 2012 UB_{23}	16.4	X	220.24715	111.40008	293.68887	8.33860	0.0759041	0.18715848	3.0268882	21	6 5.7	20.9
491675 2012 UA_{31}	17.4	X	351.65817	183.02850	216.80152	11.30240	0.1777296	0.22414235	2.6840263	21	12 10.8	20.3
491676 2012 UD_{31}	16.8	X	199.73984	338.38636	56.74385	1.87837	0.1961581	0.17515908	3.1635955	21	5 1.6	22.1
491677 2012 UF_{31}	18.0	X	154.04732	273.87652	206.17127	4.70957	0.0883899	0.29731207	2.2232810	21	6 27.8	21.0
491678 2012 UL_{31}	16.7	X	212.38160	31.29201	48.47568	9.97269	0.1079078	0.18838011	3.0137879	21	7 10.1	21.5
491679 2012 UL_{32}	16.4	X	155.07580	257.77434	211.75199	9.15933	0.2193870	0.17872434	3.1213819	21	6 22.7	21.8
491680 2012 UD_{35}	17.9	X	11.52789	170.37853	226.36183	2.54851	0.1424482	0.22953725	2.6418040	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491681 2012 UY_{35}	17.0	X	300.08532	147.07958	208.82472	1.38249	0.1278983	0.19660329	2.9291540	21	7 4.0	20.9
491682 2012 UM_{40}	17.7	X	181.31342	242.40707	64.01860	3.41563	0.1723441	0.26297705	2.4128157	21	—	—
491683 2012 UY_{40}	17.9	X	171.33424	255.91831	45.91067	5.79995	0.2744231	0.26256357	2.4153481	21	—	—
491684 2012 UC_{43}	17.5	X	337.53023	157.34482	202.38841	1.30562	0.1215324	0.21087595	2.7954476	21	9 12.1	20.7
491685 2012 UW_{43}	18.2	X	232.30291	308.41376	72.72552	5.39537	0.1746902	0.29424681	2.2386947	21	5 8.1	21.4
491686 2012 UD_{45}	17.4	X	335.16219	239.82307	163.35679	2.15738	0.0728302	0.22163891	2.7041994	21	11 10.4	20.7
491687 2012 UX_{45}	18.1	X	232.94239	346.48396	58.72500	5.15365	0.1223299	0.30309589	2.1949065	21	6 13.3	21.1
491688 2012 UN_{47}	16.9	X	260.42262	339.16197	47.66239	10.75635	0.1122406	0.19348442	2.9605476	21	6 24.2	21.3
491689 2012 UT_{49}	17.7	X	21.36945	228.38418	161.98457	3.88330	0.2480374	0.23214369	2.6219926	21	—	—
491690 2012 UB_{65}	16.8	X	209.51326	219.08108	222.52496	8.29206	0.1035483	0.18787150	3.0192248	21	7 7.3	21.5
491691 2012 US_{69}	16.7	X	230.45647	334.93784	53.44305	6.30095	0.1326610	0.18069477	3.0986486	21	5 22.8	21.6
491692 2012 UE_{71}	16.8	X	112.59463	254.96204	70.83563	8.22381	0.0590777	0.24417178	2.5351621	21	—	—
491693 2012 UV_{76}	16.5	X	143.98241	71.43600	40.71650	17.36729	0.1511235	0.17734086	3.1375947	21	6 10.2	21.7
491694 2012 UX_{78}	18.1	X	191.64874	101.97477	316.34390	4.07501	0.0685490	0.29263672	2.2468987	21	5 15.5	21.2
491695 2012 UN_{79}	16.8	X	212.82347	62.39488	12.33710	8.28764	0.1912244	0.18754325	3.0227467	21	6 29.1	21.9
491696 2012 UA_{86}	17.0	X	264.07783	345.49243	30.29892	2.86775	0.0927414	0.18895955	3.0076236	21	6 17.5	21.2
491697 2012 US_{87}	16.9	X	219.63480	22.46222	52.70323	4.19730	0.1006853	0.18883346	3.0089623	21	7 12.1	21.5
491698 2012 UP_{90}	16.9	X	225.14665	332.78692	55.41908	1.76333	0.1989829	0.17946315	3.1128094	21	5 13.8	22.1
491699 2012 UX_{93}	17.6	X	50.52021	100.74858	271.38572	6.43717	0.1274404	0.23755450	2.5820256	21	—	—
491700 2012 UV_{98}	16.9	X	155.64982	260.88687	223.51005	2.32480	0.1551588	0.18363711	3.0654607	21	7 8.8	21.8
491701 2012 UK_{103}	18.4	X	142.20400	329.20115	86.24427	1.85177	0.2029218	0.27501608	2.3418765	21	3 31.4	21.8
491702 2012 UH_{105}	16.6	X	198.64232	65.70732	337.09836	11.73056	0.1850182	0.17749566	3.1357702	21	5 4.9	22.1
491703 2012 US_{112}	17.2	X	240.13389	173.21747	278.27776	0.93888	0.0457050	0.20659430	2.8339389	21	8 31.9	21.2
491704 2012 UF_{113}	17.0	X	217.01959	28.54328	2.75910	2.82748	0.1895844	0.18228497	3.0806012	21	5 10.2	22.1
491705 2012 UR_{114}	17.0	X	185.60496	213.77866	241.71613	4.05229	0.1602704	0.18765076	3.0215921	21	6 30.7	22.0
491706 2012 UJ_{115}	17.7	X	65.58270	320.04100	2.04180	4.05288	0.2057807	0.23269832	2.6178246	21	12 19.5	21.7
491707 2012 UH_{116}	17.2	X	274.69382	205.39791	245.69366	1.89398	0.0589205	0.21721795	2.7407678	21	10 14.5	20.6
491708 2012 UB_{121}	16.4	X	320.24944	49.96824	267.27839	8.12710	0.0619380	0.18776610	3.0203545	21	6 21.3	20.4
491709 2012 UD_{129}	16.2	X	180.36140	62.63838	338.83719	10.86457	0.1288117	0.17160703	3.2071013	21	4 17.5	21.4
491710 2012 UK_{130}	15.8	X	236.09099	298.02441	35.44959	16.93101	0.2417995	0.17606498	3.1527344	21	3 24.3	21.3
491711 2012 UA_{131}	17.7	X	7.18202	194.86868	164.00331	4.30967	0.2715420	0.22205191	2.7008453	21	11 27.1	20.3
491712 2012 UJ_{137}	17.1	X	25.59692	181.81905	219.29553	3.86616	0.2376942	0.23571991	2.5954054	21	—	—
491713 2012 UD_{141}	18.4	X	16.76316	216.33475	174.98044	2.60690	0.2204871	0.23146860	2.6270882	21	—	—
491714 2012 UQ_{143}	18.4	X	117.71967	339.65156	115.62223	3.72698	0.2081396	0.27682001	2.3316914	21	4 27.9	21.5
491715 2012 UW_{143}	17.3	X	214.32888	7.88051	137.60753	4.36553	0.0351319	0.21380989	2.7698156	21	10 12.8	21.2
491716 2012 UL_{145}	16.9	X	356.10795	345.45661	50.73738	15.49426	0.1105734	0.22584559	2.6705147	21	12 4.8	20.0
491717 2012 UM_{147}	16.6	X	158.33934	221.14082	244.20834	3.97416	0.0926590	0.17960218	3.1112028	21	6 15.5	21.2
491718 2012 UP_{153}	17.3	X	7.60936	163.32420	218.92676	13.15347	0.1657453	0.22302988	2.6929441	21	12 12.9	20.5
491719 2012 UV_{153}	16.8	X	203.74789	268.91269	165.68467	1.92673	0.1600141	0.18262451	3.0767817	21	6 21.8	21.8
491720 2012 UT_{154}	18.1	X	23.53205	119.81302	228.70365	11.86185	0.2839528	0.22445587	2.6815263	21	12 12.4	21.3
491721 2012 UU_{154}	18.4	X	151.50460	85.59420	342.53381	2.21127	0.1666780	0.28053638	2.3110531	21	4 20.8	21.8
491722 2012 UZ_{155}	16.2	X	170.05460	22.08446	58.54611	12.95852	0.2236345	0.17497533	3.1658099	21	5 30.9	21.6
491723 2012 UY_{162}	16.0	X	156.92745	45.55069	49.75390	9.76735	0.0816444	0.17488497	3.1669003	21	5 31.0	20.8
491724 2012 UC_{164}	17.3	X	330.12047	152.38592	248.36694	3.60488	0.1636229	0.21530503	2.7569778	21	10 25.6	20.0
491725 2012 UR_{164}	16.1	X	243.42501	74.01806	293.48191	10.02059	0.0842402	0.18150216	3.0894525	21	5 12.9	20.9
491726 2012 UK_{165}	16.3	X	332.38720	35.35915	299.35552	10.46353	0.1194647	0.20017506	2.8942058	21	7 28.4	19.6
491727 2012 UC_{169}	15.5	X	35.54959	185.29727	226.59556	8.53023	0.1526387	0.12329358	3.9979965	21	—	—
491728 2012 UR_{172}	16.9	X	355.47163	119.55694	250.57493	11.93497	0.1510432	0.21430589	2.7655402	21	10 29.8	20.0
491729 2012 UO_{174}	17.4	X	192.57297	267.33223	89.88558	21.67055	0.2760866	0.28172384	2.3045545	21	3 15.2	21.9
491730 2012 VE	17.1	X	305.11513	336.85100	82.59816	13.61609	0.1158837	0.21610319	2.7501851	21	10 18.3	20.6
491731 2012 VG_{2}	17.5	X	90.36418	115.07424	253.47961	17.87577	0.1208563	0.36048688	1.9552835	21	—	—
491732 2012 VO_{3}	17.4	X	28.93554	171.21913	196.71215	4.73107	0.1041773	0.22875152	2.6478501	21	12 18.5	20.8
491733 2012 VQ_{10}	16.0	X	16.14507	154.17349	277.19178	2.35787	0.2412242	0.12236982	4.0180917	21	—	—
491734 2012 VS_{10}	17.6	X	101.20709	242.07973	233.03635	21.58576	0.3064662	0.27128511	2.3632994	21	5 17.8	20.7
491735 2012 VC_{13}	16.8	X	150.88103	21.41044	87.56566	2.36584	0.1532084	0.17898960	3.1182973	21	6 15.7	21.6
491736 2012 VN_{17}	15.7	X	31.26243	260.15507	150.14700	3.53285	0.2347296	0.12254221	4.0143223	21	—	—
491737 2012 VZ_{24}	16.8	X	329.71398	205.75104	256.99078	12.39670	0.1343336	0.22766069	2.6563014	21	—	—
491738 2012 VF_{28}	16.6	X	20.99852	7.59668	241.53983	7.85386	0.0098231	0.18859953	3.0114499	21	6 18.6	20.7
491739 2012 VQ_{29}	16.9	X	18.15054	50.88426	270.16485	4.66351	0.1238362	0.21344884	2.7729381	21	9 28.1	20.2
491740 2012 VL_{32}	16.1	X	213.78610	355.26093	77.98321	10.53262	0.1365165	0.18561679	3.0436255	21	6 30.6	20.9
491741 2012 VD_{34}	15.0	X	50.98101	190.68152	204.16962	10.37036	0.1729469	0.12515104	3.9583397	21	—	—
491742 2012 VH_{36}	15.9	X	178.59809	34.87714	60.73862	21.57819	0.1368702	0.18064628	3.0992031	21	6 22.6	21.1
491743 2012 VD_{38}	17.2	X	30.97511	312.53324	67.76836	11.20610	0.1512592	0.23082116	2.6319985	21	—	—
491744 2012 VM_{44}	18.3	X	244.75873	129.57398	259.30641	4.08302	0.1002701	0.29646608	2.2275085	21	6 7.3	21.0
491745 2012 VV_{58}	16.7	X	211.54479	210.42783	214.10246	5.63154	0.1478288	0.18404991	3.0608754	21	6 17.2	21.6
491746 2012 VX_{58}	18.1	X	22.00913	327.18418	62.64182	3.80738	0.2482609	0.23092880	2.6311806	21	—	—
491747 2012 VA_{60}	16.4	X	280.01651	98.56457	222.78494	8.45428	0.0666746	0.17636088	3.1492070	21	5 3.2	20.9
491748 2012 VV_{68}	17.8	X	313.38013	330.50697	76.65656	3.78202	0.1780311	0.21233094	2.7826624	21	10 2.8	20.8
491749 2012 VF_{70}	17.3	X	50.62704	232.94752	74.79176	7.01901	0.0404182	0.21272360	2.7792372	21	10 21.7	21.1
491750 2012 VM_{71}	18.6	X	131.91474	288.65197	148.92060	1.62408	0.1535736	0.27551994	2.3390205	21	4 12.4	21.8
491751 2012 VR_{72}	18.4	X	137.13340	314.33745	98.89075	2.33327	0.1726231	0.27085140	2.3658216	21	3 20.5	21.6
491752 2012 VZ_{72}	17.9	X	345.57414	311.79243	90.65000	2.95332	0.1322007	0.22180667	2.7028357	21	11 28.7	20.8
491753 2012 VT_{75}	17.3	X	95.53976	118.31859	223.40576	6.60601	0.2401507	0.23963089	2.5670885	21	—	—
491754 2012 VR_{79}	16.6	X	170.85712	267.92926	211.47314	10.18489	0.0543190	0.18777660	3.0202420	21	7 13.4	21.3
491755 2012 VE_{80}	18.2	X	8.79298	100.56214	323.64234	4.81242	0.3890146	0.23182515	2.6243939	21	—	—
491756 2012 VM_{85}	17.6	X	1.98040	261.89803	109.53500	2.09245	0.1022411	0.21744284	2.7388777	21	11 11.1	20.9
491757 2012 VH_{86}	16.1	X	175.93971	222.07517	240.77906	6.45756	0.1073872	0.18231125	3.0803051	21	6 30.3	20.9
491758 2012 VL_{89}	16.5	X	347.87433	56.88329	232.80583	8.75974	0.0778865	0.18608756	3.0384901	21	6 24.3	20.5
491759 2012 VL_{90}	17.9	X	76.97157	167.21483	195.46656	2.12828	0.2692624	0.24185312	2.5513395	21	—	—
491760 2012 VO_{90}	18.1	X	204.52474	340.15844	76.09458	3.37527	0.1376445	0.29258245	2.2471766	21	5 28.0	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491761 2012 VJ_{93}	17.8	X	11.72169	180.23949	199.15056	3.96800	0.2467902	0.22372756	2.6873427	21	12 28.5	20.8
491762 2012 VB_{98}	16.4	X	315.77544	185.43029	251.34790	8.96528	0.2747251	0.21605393	2.7506032	21	11 7.9	18.6
491763 2012 VH_{106}	17.5	X	98.60423	39.20222	48.87886	12.46486	0.0526514	0.26947941	2.3738448	21	3 5.7	20.6
491764 2012 VV_{107}	16.6	X	179.15377	24.44410	56.62026	17.63711	0.1930063	0.17499490	3.1655739	21	6 6.2	22.0
491765 2012 VU_{110}	18.7	X	204.87191	106.06219	303.83358	4.14893	0.2656175	0.29352041	2.2423867	21	5 16.1	22.5
491766 2012 VA_{111}	17.5	X	323.42620	39.39015	74.79098	6.46656	0.1729890	0.23077022	2.6323858	21	—	—
491767 2012 VU_{113}	7.7	X	23.03178	313.41080	65.48913	30.13743	0.0806641	0.00395371	39.6094953	21	11 13.9	23.4
491768 2012 VV_{113}	7.4	X	358.24956	293.24694	115.89515	15.68158	0.1179504	0.00313727	46.2134251	21	11 14.6	23.5
491769 2012 WO_{4}	17.4	X	77.38866	2.52235	310.19500	4.49907	0.2089302	0.23121331	2.6290216	21	12 19.9	21.6
491770 2012 WP_{9}	17.3	X	33.83530	310.01670	74.73906	6.31098	0.3664439	0.23240320	2.6200403	21	—	—
491771 2012 WU_{9}	18.1	X	126.98794	268.25413	156.79801	2.20938	0.1611717	0.26659081	2.3909616	21	3 22.7	21.3
491772 2012 WU_{11}	18.3	X	160.68614	8.01663	103.79160	2.06457	0.1845997	0.29122723	2.2541426	21	6 28.7	21.7
491773 2012 WY_{11}	17.1	X	48.60755	89.36544	236.20494	13.89376	0.2134389	0.22139281	2.7062030	21	12 4.6	20.8
491774 2012 WU_{12}	17.0	X	33.69311	98.45704	226.96778	5.50528	0.0832570	0.21104198	2.7939812	21	10 24.0	20.5
491775 2012 WB_{13}	16.2	X	303.14428	112.62807	226.16514	10.05822	0.0970984	0.18811135	3.0166578	21	6 19.9	20.3
491776 2012 WA_{14}	16.6	X	161.98082	230.04914	225.93858	8.67808	0.0695956	0.17497590	3.1658030	21	6 6.9	21.3
491777 2012 WD_{14}	18.2	X	344.54191	296.84955	157.46173	2.57347	0.1753393	0.23131850	2.6282246	21	—	—
491778 2012 WH_{14}	18.5	X	15.74497	228.88969	211.60779	4.64403	0.2013307	0.23777950	2.5803965	21	—	—
491779 2012 WY_{15}	17.5	X	41.01691	291.81561	86.67222	6.03119	0.2599417	0.23351290	2.6117331	21	—	—
491780 2012 WB_{16}	17.4	X	334.73085	269.57518	111.59668	4.84543	0.1079077	0.20925536	2.8098620	21	10 10.4	20.7
491781 2012 WG_{16}	15.6	X	60.43096	281.56376	109.39585	4.38486	0.2491559	0.12701007	3.9196198	21	—	—
491782 2012 WG_{19}	18.6	X	140.06821	147.97554	288.32632	1.67160	0.1998113	0.27666376	2.3325692	21	4 23.3	22.1
491783 2012 WS_{32}	18.1	X	153.96339	171.80393	306.36019	3.85659	0.0881676	0.29030007	2.2589396	21	6 25.6	21.0
491784 2012 WK_{35}	17.7	X	341.41651	246.81981	198.94539	5.46766	0.2597234	0.22612260	2.6683332	21	—	—
491785 2012 XW	18.6	X	8.10686	33.28445	49.86182	4.77109	0.2525973	0.23659424	2.5890073	21	—	—
491786 2012 XN_{8}	17.3	X	5.90284	265.20906	90.33792	5.18751	0.1158234	0.21322180	2.7749062	21	10 29.0	20.5
491787 2012 XP_{8}	17.8	X	114.14975	76.27307	79.60664	7.97450	0.0447113	0.29324684	2.2437811	21	6 22.5	20.5
491788 2012 XC_{9}	18.2	X	114.30633	13.98122	41.87372	2.93280	0.2049932	0.26354489	2.4093486	21	3 2.6	21.2
491789 2012 XY_{10}	17.1	X	214.27252	224.51112	211.59120	1.95904	0.1072295	0.18778911	3.0201078	21	7 6.3	21.6
491790 2012 XC_{11}	16.6	X	234.45599	162.17827	227.88797	4.07740	0.1049635	0.18309783	3.0714769	21	5 31.8	21.2
491791 2012 XE_{12}	17.1	X	25.92841	82.55912	274.53672	4.56554	0.1336237	0.22206566	2.7007338	21	12 2.8	20.3
491792 2012 XX_{14}	17.6	X	350.35967	19.12596	359.43552	4.76168	0.1661609	0.21418745	2.7665596	21	11 2.8	20.4
491793 2012 XF_{15}	18.3	X	241.87411	45.02873	8.83351	3.89759	0.1469589	0.30272778	2.1966854	21	7 4.5	21.4
491794 2012 XD_{25}	16.3	X	294.98120	106.27906	243.14040	7.14466	0.1313736	0.19011912	2.9953818	21	6 17.5	20.2
491795 2012 XV_{25}	16.4	X	48.73856	168.74491	236.78175	1.63671	0.2372388	0.12714254	3.9168968	21	—	—
491796 2012 XD_{26}	18.5	X	37.87428	21.91071	48.90007	2.32542	0.2156953	0.24327885	2.5413617	21	—	—
491797 2012 XD_{39}	18.3	X	128.62860	326.29125	143.82231	1.54354	0.1482096	0.27951924	2.3166562	21	5 21.8	21.5
491798 2012 XH_{53}	16.1	X	213.65079	185.35984	283.38879	7.91795	0.1594702	0.18363257	3.0655112	21	8 9.8	21.1
491799 2012 XD_{57}	16.9	X	93.47588	74.51500	238.71273	14.19146	0.1748701	0.23087936	2.6315562	21	12 30.5	21.3
491800 2012 XL_{57}	18.4	X	81.11316	225.67888	223.25846	1.64984	0.1820450	0.26092806	2.4254306	21	2 20.7	20.8
491801 2012 XF_{62}	18.3	X	113.49696	45.30663	140.56807	6.21156	0.0324429	0.30154440	2.2024288	21	8 3.5	21.0
491802 2012 XX_{70}	17.8	X	14.97104	341.27303	97.25717	3.87530	0.1792245	0.23730260	2.5838525	21	—	—
491803 2012 XL_{80}	18.0	X	63.97208	336.35042	182.30256	5.79741	0.0543642	0.27679525	2.3318304	21	4 15.5	20.6
491804 2012 XP_{83}	18.2	X	142.04053	36.56660	68.56583	5.83684	0.1947035	0.27742390	2.3283064	21	6 2.6	21.8
491805 2012 XS_{94}	16.5	X	179.91560	196.33262	235.97590	8.35188	0.0980032	0.17107178	3.2137873	21	5 28.5	21.4
491806 2012 XW_{96}	17.6	X	65.33059	113.42506	56.43919	10.60376	0.1248020	0.27652431	2.3333533	21	5 14.2	20.0
491807 2012 XD_{103}	17.1	X	85.26813	53.78780	292.54511	3.22026	0.2166145	0.23803077	2.5785802	21	—	—
491808 2012 XS_{104}	19.1	X	225.94712	213.73973	216.86059	2.40335	0.0878998	0.30556066	2.1830872	21	7 14.5	22.0
491809 2012 XB_{106}	16.7	X	7.31122	110.80710	300.21194	7.62479	0.0563895	0.21711933	2.7415977	21	—	—
491810 2012 XV_{108}	18.8	X	125.53185	351.61320	73.00254	2.54455	0.1710186	0.26706083	2.3881554	21	3 22.6	22.0
491811 2012 XY_{112}	17.2	X	327.68291	342.18818	47.70171	9.54732	0.2109838	0.20951413	2.8075479	21	10 6.1	19.8
491812 2012 XA_{115}	18.2	X	277.98657	295.79245	72.68580	1.90875	0.1467520	0.30678065	2.1772956	21	6 14.7	20.8
491813 2012 XX_{115}	16.7	X	325.73401	187.48604	249.62090	16.04216	0.2433225	0.21559179	2.7545325	21	12 8.3	18.9
491814 2012 XK_{118}	19.0	X	231.79121	74.60435	338.65111	4.56967	0.2318394	0.29634465	2.2281170	21	6 14.2	22.6
491815 2012 XU_{118}	18.5	X	184.20128	223.55281	224.74327	3.71425	0.0843532	0.29221859	2.2490416	21	6 19.3	21.5
491816 2012 XH_{145}	18.9	X	266.44216	331.17154	39.40275	7.29719	0.2337481	0.29644740	2.2276021	21	5 21.1	22.1
491817 2013 AF_{1}	13.7	X	298.32133	37.50664	36.92459	20.53299	0.0458959	0.08291527	5.2085045	21	10 14.2	20.5
491818 2013 AF_{3}	15.8	X	187.03241	160.31292	274.17727	7.74301	0.0945985	0.17214591	3.2004047	21	6 7.1	20.7
491819 2013 AN_{3}	17.9	X	78.21743	66.02788	96.50999	3.23326	0.1301890	0.26687853	2.3892428	21	5 26.4	20.5
491820 2013 AK_{8}	18.2	X	55.68541	44.38663	135.12474	2.58129	0.1372742	0.26463082	2.4027529	21	5 15.4	20.7
491821 2013 AZ_{8}	18.6	X	151.05503	90.11187	44.14469	2.95115	0.1484906	0.28687249	2.2768973	21	7 18.6	21.9
491822 2013 AC_{16}	17.3	X	129.73099	138.67270	286.59028	5.96610	0.1008488	0.26723610	2.3871111	21	3 14.0	20.6
491823 2013 AT_{17}	18.4	X	144.85818	345.90171	93.05067	3.27049	0.2121010	0.27107959	2.3644937	21	5 4.8	22.1
491824 2013 AX_{17}	16.8	X	191.65637	49.45588	74.01558	2.30640	0.1380899	0.17787657	3.1312919	21	8 10.8	21.8
491825 2013 AV_{18}	17.8	X	182.17281	356.88823	110.43763	7.10711	0.0582368	0.28812704	2.2702832	21	7 14.1	20.8
491826 2013 AD_{22}	18.0	X	198.12522	118.16926	278.73474	5.00445	0.1192200	0.27548373	2.3392255	21	4 24.4	21.6
491827 2013 AU_{22}	18.1	X	124.66840	188.40139	292.07369	1.62469	0.1728222	0.27137051	2.3628036	21	6 3.0	21.5
491828 2013 AD_{25}	16.2	X	234.87472	144.52779	259.99876	9.54330	0.0800347	0.17974552	3.1095485	21	6 21.4	20.8
491829 2013 AN_{28}	18.2	X	124.24927	54.52654	54.11672	5.82733	0.2665926	0.27170789	2.3608472	21	5 27.4	21.7
491830 2013 AS_{28}	16.8	X	269.90086	235.26642	272.84743	12.25356	0.1102298	0.21342253	2.7731660	21	12 13.4	20.2
491831 2013 AN_{32}	16.9	X	325.35517	116.89024	339.28648	14.05628	0.2317542	0.21858926	2.7292930	21	—	—
491832 2013 AP_{36}	16.9	X	214.39306	148.51061	335.21596	4.15992	0.1643503	0.18698660	3.0287428	21	8 30.6	21.7
491833 2013 AC_{37}	16.7	X	280.48601	174.37596	317.00949	8.82306	0.1052213	0.21099403	2.7944045	21	12 6.4	20.3
491834 2013 AQ_{39}	14.2	X	267.43874	186.70606	296.37678	6.24100	0.0532583	0.08468606	5.1356423	21	10 25.2	21.0
491835 2013 AL_{40}	18.2	X	131.26443	173.55492	277.74290	4.23169	0.1869459	0.26830343	2.3807762	21	5 2.5	21.7
491836 2013 AV_{44}	17.7	X	88.11499	86.99923	81.82670	3.31732	0.1243016	0.27051698	2.3677710	21	6 17.8	20.4
491837 2013 AA_{45}	17.5	X	291.77988	237.29313	117.17361	9.02412	0.1823253	0.29161791	2.2521290	21	6 9.6	20.1
491838 2013 AH_{45}	15.6	X	226.41955	135.26259	315.06262	14.67002	0.0300000	0.17535702	3.1612144	21	8 13.0	20.2
491839 2013 AB_{46}	18.1	X	158.83607	10.14433	98.95978	4.70262	0.1035069	0.27816768	2.3241542	21	6 19.6	21.3
491840 2013 AF_{50}	17.8	X	162.71315	326.80035	55.24334	8.30276	0.1886436	0.26277466	2.4140544	21	3 12.4	21.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491841 2013 AX_{51}	17.2	X	280.06935	119.24206	2.02088	9.38533	0.1280698	0.21111031	2.7933783	21	11 17.5	20.8
491842 2013 AB_{53}	18.2	X	120.95266	229.43304	163.96887	5.47183	0.4869013	0.26217911	2.4177088	21	3 14.4	22.3
491843 2013 AK_{57}	15.6	X	137.63357	196.40167	319.02158	11.16134	0.1090690	0.16879751	3.2425898	21	7 28.1	20.5
491844 2013 AA_{58}	18.1	X	80.28749	197.46033	327.15787	1.71609	0.1513837	0.26878760	2.3779163	21	6 4.5	20.9
491845 2013 AD_{67}	17.7	X	49.45299	49.62981	328.94930	2.89251	0.2838277	0.23430993	2.6058070	21	—	—
491846 2013 AR_{67}	16.8	X	38.71590	173.25646	282.59113	2.75265	0.0359930	0.24658219	2.5186138	21	—	—
491847 2013 AS_{82}	18.2	X	12.66742	100.32184	333.24803	1.08664	0.2728407	0.22930210	2.6436099	21	—	—
491848 2013 AS_{85}	18.1	X	117.24928	220.20153	311.20494	4.46234	0.0558527	0.28772481	2.2723986	21	7 21.8	20.9
491849 2013 AS_{94}	17.1	X	136.06549	336.39401	106.39295	25.48987	0.2457670	0.27440301	2.3453633	21	5 14.3	21.3
491850 2013 AW_{96}	17.7	X	144.56348	334.93354	114.33022	7.76678	0.0837029	0.27393744	2.3480200	21	5 7.9	20.9
491851 2013 AL_{98}	18.0	X	280.72135	328.25652	66.05487	6.50912	0.1532711	0.30225026	2.1989985	21	7 29.4	20.4
491852 2013 AD_{101}	17.5	X	104.63992	60.07942	4.03789	10.58561	0.2230380	0.25681159	2.4512802	21	3 5.9	20.5
491853 2013 AH_{107}	17.0	X	217.54197	356.59781	141.27505	4.18926	0.0681957	0.19089151	2.9872964	21	9 30.5	21.4
491854 2013 AW_{107}	17.8	X	14.19767	315.20636	288.95121	6.44146	0.1000855	0.27361736	2.3498508	21	5 30.8	20.1
491855 2013 AA_{110}	17.1	X	64.03821	164.40413	261.55826	12.24709	0.1587157	0.24174251	2.5521177	21	—	—
491856 2013 AB_{115}	17.8	X	168.73567	208.30613	262.49507	5.37425	0.0306973	0.28622586	2.2803253	21	6 30.8	20.6
491857 2013 AV_{117}	16.9	X	6.16096	62.84478	347.20775	7.07954	0.0854458	0.21387538	2.7692502	21	—	—
491858 2013 AH_{119}	18.0	X	326.49405	150.35849	298.96576	5.80765	0.2360047	0.21816723	2.7328117	21	12 30.3	20.3
491859 2013 AM_{119}	18.3	X	135.20641	31.40427	108.12993	6.41161	0.1694895	0.28275092	2.2989703	21	7 9.9	21.6
491860 2013 AA_{120}	17.7	X	209.72399	313.07665	109.95882	7.05805	0.0760744	0.28650989	2.2788180	21	6 15.3	20.7
491861 2013 AW_{122}	18.6	X	131.15482	113.18302	329.68495	2.78750	0.2566140	0.26983276	2.3717720	21	4 28.7	22.2
491862 2013 AW_{127}	17.4	X	15.82148	139.86032	306.99109	12.91901	0.2183201	0.23092558	2.6312050	21	—	—
491863 2013 AW_{162}	16.1	X	127.58759	303.01462	244.24925	12.39186	0.1270087	0.17490631	3.1666427	21	8 20.5	21.3
491864 2013 AF_{165}	17.1	X	189.37557	251.84326	227.80107	9.14594	0.1768459	0.17678885	3.1441225	21	7 30.3	22.5
491865 2013 AD_{169}	17.2	X	160.44213	291.11221	209.14416	8.53536	0.1560916	0.17225081	3.1991053	21	7 30.1	22.5
491866 2013 AX_{174}	18.1	X	65.99205	296.08677	204.00448	8.57712	0.2093858	0.25824667	2.4421906	21	4 15.9	20.5
491867 2013 AY_{175}	17.9	X	200.02359	94.42626	191.13967	13.63877	0.1071697	0.23405046	2.6077325	21	—	—
491868 2013 BL_{1}	14.3	X	355.59615	9.88901	8.93201	3.89095	0.0328972	0.08399480	5.1637808	21	10 16.4	20.9
491869 2013 BZ_{1}	17.3	X	143.44171	271.52633	168.37406	22.68616	0.2787138	0.27478788	2.3431729	21	5 12.9	21.6
491870 2013 BC_{5}	17.0	X	34.25839	182.49754	257.21843	6.70042	0.1702062	0.23519455	2.5992689	21	—	—
491871 2013 BF_{9}	18.1	X	53.97464	227.73842	333.31462	3.91734	0.1406092	0.27258429	2.3557842	21	6 13.6	20.5
491872 2013 BK_{10}	18.4	X	143.22517	155.23009	299.74056	2.22268	0.0793049	0.27291597	2.3538751	21	5 9.7	21.5
491873 2013 BG_{11}	17.4	X	278.51286	194.63308	119.96307	9.78159	0.1083969	0.27001738	2.3706907	21	4 12.8	20.7
491874 2013 BD_{13}	18.0	X	159.79749	260.56224	225.39490	3.33827	0.0980550	0.28733651	2.2744454	21	7 13.1	21.2
491875 2013 BC_{19}	13.5	X	74.82531	289.07435	15.58498	9.62530	0.0523476	0.08416627	5.1567648	21	10 27.2	20.3
491876 2013 BA_{21}	17.9	X	174.41221	344.38523	98.51519	10.02830	0.0735778	0.27957849	2.3163288	21	6 1.6	21.1
491877 2013 BJ_{21}	16.2	X	281.92496	297.80803	82.88448	11.78159	0.1488204	0.18135318	3.0911442	21	7 8.5	20.5
491878 2013 BT_{22}	17.8	X	27.18109	319.77997	96.78926	5.42046	0.2424396	0.22923921	2.6440933	21	—	—
491879 2013 BJ_{31}	17.8	X	54.21369	131.83020	100.71796	12.39678	0.1714579	0.27996265	2.3142094	21	8 10.5	20.4
491880 2013 BR_{36}	16.6	X	351.75498	155.39437	254.64231	2.23912	0.0705242	0.21019460	2.8014853	21	12 11.1	20.2
491881 2013 BB_{40}	18.6	X	119.91711	42.91887	80.62901	5.56858	0.1836530	0.27127887	2.3633356	21	6 3.5	22.0
491882 2013 BW_{56}	14.7	X	222.11504	225.30538	301.14854	5.92377	0.1225069	0.08350883	5.1837946	21	10 18.6	22.0
491883 2013 BP_{57}	17.9	X	30.06574	131.87912	116.39043	7.07134	0.0935620	0.28135066	2.3065919	21	7 7.1	20.0
491884 2013 BT_{61}	18.2	X	73.67108	16.52590	114.62328	2.38488	0.1332623	0.25688191	2.4508329	21	4 5.4	20.9
491885 2013 BR_{62}	18.1	X	121.38270	30.29865	117.93506	3.30650	0.1314209	0.27533025	2.3400947	21	7 2.8	21.4
491886 2013 BF_{64}	17.1	X	339.90377	74.71524	137.62108	16.42749	0.1027975	0.24673364	2.5175830	21	2 17.5	20.0
491887 2013 BE_{66}	18.5	X	117.39890	177.30080	333.64629	5.00919	0.1020543	0.27488934	2.3425963	21	6 28.6	21.6
491888 2013 BG_{72}	16.1	X	138.37109	248.37275	270.56546	12.22614	0.1069577	0.17187246	3.2037985	21	7 28.8	21.1
491889 2013 BM_{74}	18.2	X	98.12536	30.23830	105.51153	4.54941	0.1540999	0.26910601	2.3760402	21	5 21.4	21.1
491890 2013 BZ_{80}	16.0	X	195.80209	208.64966	278.48098	8.42769	0.0601388	0.17829277	3.1264169	21	8 18.7	20.8
491891 2013 CE_{2}	18.0	X	118.28805	232.96231	203.87175	4.41361	0.1955822	0.26014360	2.4303041	21	4 1.5	21.3
491892 2013 CN_{2}	17.0	X	296.03253	168.09846	266.03482	7.88240	0.2287502	0.20294578	2.8678033	21	9 22.8	20.6
491893 2013 CX_{2}	17.9	X	100.56227	215.45140	276.59005	2.49149	0.1200242	0.26589155	2.3951517	21	5 12.5	20.9
491894 2013 CA_{4}	17.4	X	342.37936	147.55251	286.35936	6.91757	0.2018250	0.21541230	2.7560624	21	—	—
491895 2013 CA_{14}	17.9	X	346.16802	172.31883	60.51473	2.22954	0.1452095	0.25394197	2.4697124	21	3 21.2	20.4
491896 2013 CN_{14}	16.5	X	207.82887	152.06265	340.28214	9.61277	0.0496557	0.18139880	3.0906259	21	9 11.1	21.1
491897 2013 CT_{14}	17.4	X	64.58386	182.34102	343.33685	6.59653	0.0671069	0.26165510	2.4209356	21	4 26.1	20.2
491898 2013 CC_{15}	18.5	X	106.32152	40.04294	74.61249	2.82318	0.1704994	0.26226763	2.4171647	21	5 5.2	21.7
491899 2013 CE_{15}	18.3	X	120.71102	353.24278	120.11295	3.37886	0.1529264	0.26692750	2.3889506	21	5 18.8	21.5
491900 2013 CJ_{16}	16.3	X	176.54606	179.65126	315.08478	6.81027	0.0925415	0.17465652	3.1696613	21	8 9.6	21.2
491901 2013 CU_{16}	17.3	X	293.59860	25.90041	316.58195	5.99074	0.1379638	0.27609099	2.3357941	21	5 31.6	20.2
491902 2013 CJ_{17}	18.1	X	124.17456	288.97985	177.63827	4.86251	0.1768191	0.26512662	2.3997564	21	5 16.9	21.5
491903 2013 CA_{19}	18.5	X	20.28682	115.49441	47.05204	2.10911	0.1300963	0.24279192	2.5447584	21	2 13.8	21.1
491904 2013 CY_{34}	17.9	X	126.15474	353.37321	132.27671	3.42838	0.0638723	0.27182293	2.3601811	21	5 30.5	20.9
491905 2013 CJ_{42}	16.9	X	243.46003	160.13821	289.71673	9.75431	0.0674585	0.17951749	3.1121812	21	8 25.6	21.5
491906 2013 CH_{46}	17.0	X	194.56230	166.28164	352.32216	9.12026	0.0392948	0.18618766	3.0374009	21	9 29.0	21.4
491907 2013 CR_{46}	18.0	X	31.22033	227.64175	65.11788	5.36474	0.1776996	0.29033959	2.2587346	21	10 5.3	20.2
491908 2013 CX_{46}	17.6	X	327.17189	270.50873	41.59647	4.28144	0.1472914	0.27914477	2.3187276	21	6 10.8	19.7
491909 2013 CL_{48}	17.8	X	30.01891	320.05307	230.31270	5.70115	0.0949786	0.25639715	2.4539211	21	4 8.4	20.3
491910 2013 CB_{49}	17.2	X	355.67339	105.03818	333.14541	4.22899	0.0343205	0.21989430	2.7184837	21	—	—
491911 2013 CN_{49}	17.7	X	95.21454	169.90486	299.03056	11.53740	0.1091501	0.25736016	2.4477957	21	3 25.9	21.0
491912 2013 CL_{53}	16.4	X	288.74136	89.46655	322.80138	6.27367	0.1878017	0.18658211	3.0331185	21	8 21.9	20.4
491913 2013 CB_{54}	17.9	X	114.87906	173.10694	317.72445	5.59249	0.0372747	0.26650192	2.3914932	21	5 16.2	20.9
491914 2013 CZ_{62}	16.3	X	252.75095	167.90216	256.59520	6.50135	0.1320317	0.17865964	3.1221354	21	7 29.2	21.0
491915 2013 CW_{63}	17.5	X	8.70896	353.96645	273.77465	6.02019	0.0842823	0.27554449	2.3388816	21	6 27.3	19.6
491916 2013 CG_{65}	17.7	X	162.34354	272.08067	160.28052	6.62967	0.1040413	0.26796401	2.3827861	21	5 7.1	21.1
491917 2013 CK_{67}	18.0	X	117.35298	308.91793	180.90900	4.10169	0.1401363	0.26942494	2.3741648	21	6 4.2	21.3
491918 2013 CT_{68}	16.4	X	288.09062	225.80649	197.19849	6.42776	0.0952033	0.18912015	3.0059207	21	9 17.4	20.4
491919 2013 CL_{70}	16.8	X	332.47770	116.39328	310.32877	8.68650	0.1371352	0.20908174	2.8114173	21	12 3.9	20.0
491920 2013 CS_{71}	17.2	X	17.76798	126.15241	297.04654	11.38404	0.1504263	0.22234298	2.6984876	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
491921 2013 CX_{72}	16.1	X	234.58479	124.68994	297.73248	9.28472	0.2356794	0.17652688	3.1472324	21	6 30.2	21.3
491922 2013 CL_{79}	17.0	X	270.83223	203.49835	301.94036	4.44632	0.0271490	0.21035259	2.8000824	21	12 21.4	20.9
491923 2013 CB_{82}	16.5	X	357.40672	92.56808	282.58745	9.70966	0.0665262	0.19233894	2.9722904	21	10 28.1	20.5
491924 2013 CA_{84}	18.1	X	56.42983	144.43107	35.68334	2.48788	0.1398783	0.25987348	2.4319879	21	5 17.2	20.4
491925 2013 CY_{84}	18.3	X	341.22525	273.36694	87.46521	2.75658	0.1565933	0.31057512	2.1595252	21	10 11.8	19.7
491926 2013 CV_{85}	16.9	X	321.04507	96.56378	351.87268	8.77199	0.1920689	0.21279834	2.7785863	21	12 12.8	19.7
491927 2013 CO_{86}	17.9	X	3.15896	131.61607	107.57669	2.48893	0.1422839	0.25824545	2.4421983	21	5 2.8	20.1
491928 2013 CF_{87}	17.5	X	121.97411	42.69853	130.39619	4.38572	0.0923403	0.27798014	2.3251994	21	8 3.1	20.7
491929 2013 CU_{97}	18.1	X	343.72646	297.72876	328.73631	1.10143	0.1717381	0.26288662	2.4133690	21	4 29.6	20.2
491930 2013 CW_{99}	18.0	X	99.51382	249.75463	247.61669	5.63392	0.0654899	0.26437292	2.4043152	21	5 9.9	20.9
491931 2013 CM_{102}	18.5	X	73.95679	123.70355	63.83366	3.10721	0.1334402	0.27001444	2.3707079	21	6 25.8	21.1
491932 2013 CP_{103}	18.1	X	104.37037	86.44256	45.29261	2.94811	0.1808501	0.26618623	2.3933837	21	5 26.7	21.1
491933 2013 CB_{104}	16.6	X	106.86171	333.52878	348.52206	9.22496	0.1394362	0.20974314	2.8055039	21	—	—
491934 2013 CL_{108}	18.6	X	114.65779	62.67697	86.71325	1.59880	0.1596043	0.27234292	2.3571759	21	6 29.9	21.8
491935 2013 CA_{109}	18.0	X	125.40290	104.52845	349.32577	4.86856	0.1799150	0.26272274	2.4143725	21	4 28.6	21.4
491936 2013 CU_{110}	17.9	X	186.85260	310.15088	105.49037	6.67120	0.1616394	0.27227428	2.3575720	21	5 12.5	21.6
491937 2013 CJ_{112}	13.8	X	339.13422	15.69271	31.74452	7.67135	0.0883914	0.08077754	5.2999969	21	10 26.9	20.3
491938 2013 CK_{112}	17.6	X	156.17747	51.87609	23.14145	6.30813	0.0085713	0.26265178	2.4148073	21	4 22.3	20.6
491939 2013 CO_{112}	18.8	X	156.87639	80.70749	27.95950	3.57103	0.0979349	0.27610204	2.3357318	21	6 16.2	22.0
491940 2013 CV_{115}	17.9	X	73.09095	319.61093	235.52948	5.01673	0.0389648	0.27300373	2.3533706	21	6 19.6	20.6
491941 2013 CD_{116}	17.1	X	310.83674	295.91054	345.09457	16.22645	0.0346527	0.25941662	2.4348424	21	4 10.3	20.4
491942 2013 CS_{118}	18.2	X	97.73257	161.81497	335.33680	0.78301	0.1274981	0.26365915	2.4086525	21	5 17.5	21.0
491943 2013 CL_{126}	18.3	X	113.80890	302.55082	160.30623	1.91031	0.1463673	0.26421403	2.4052791	21	4 24.9	21.5
491944 2013 CA_{127}	16.8	X	285.06854	230.41612	14.37774	7.10282	0.0950975	0.23680499	2.5874709	21	1 23.8	20.6
491945 2013 CZ_{131}	18.2	X	61.65559	310.14128	242.60273	1.68861	0.1342396	0.26518807	2.3993857	21	6 13.9	20.8
491946 2013 CC_{140}	17.0	X	219.56199	99.53216	4.73588	7.71587	0.1626267	0.17863044	3.1224758	21	8 14.2	22.0
491947 2013 CL_{142}	18.1	X	66.23170	138.24602	24.11476	5.42969	0.1394546	0.26139391	2.4225481	21	5 6.8	20.5
491948 2013 CE_{143}	17.6	X	284.12552	31.83228	310.91533	5.99775	0.1376334	0.27352302	2.3503911	21	5 17.8	20.6
491949 2013 CT_{143}	18.0	X	26.78582	35.61833	186.17664	2.29887	0.1223964	0.26218956	2.4176446	21	5 23.4	20.3
491950 2013 CS_{150}	18.0	X	175.23839	290.15853	138.84432	5.37113	0.1739647	0.26988241	2.3714811	21	5 18.7	21.8
491951 2013 CE_{151}	18.1	X	164.44892	2.33758	84.59963	2.30743	0.1509243	0.27067558	2.3668460	21	5 29.4	21.6
491952 2013 CF_{155}	18.3	X	56.06848	62.25921	141.42235	1.86267	0.1252459	0.26604015	2.3942597	21	6 19.4	20.8
491953 2013 CQ_{157}	17.9	X	43.39017	225.05199	343.97037	4.73719	0.1371029	0.26409759	2.4059860	21	6 5.3	20.2
491954 2013 CY_{168}	17.9	X	134.65325	13.02424	90.77795	3.25084	0.1712728	0.26849654	2.3796345	21	5 23.0	21.4
491955 2013 CZ_{170}	17.9	X	160.40271	251.30186	194.55176	2.58842	0.1668467	0.27060513	2.3672568	21	5 25.0	21.6
491956 2013 CT_{175}	17.4	X	0.57495	213.28562	332.38718	16.19772	0.0504745	0.24411490	2.5355559	21	2 18.8	20.4
491957 2013 CD_{188}	18.1	X	141.13614	125.37982	334.37113	2.23805	0.1451972	0.26888323	2.3773524	21	5 20.9	21.5
491958 2013 CX_{205}	16.6	X	136.34355	275.58138	290.56973	8.79522	0.1220176	0.18235258	3.0798396	21	9 22.2	21.7
491959 2013 CQ_{213}	14.4	X	345.03436	97.10683	310.87900	9.43075	0.0789977	0.08434487	5.1494825	21	11 1.6	21.0
491960 2013 CV_{215}	16.2	X	45.48282	17.53716	299.02283	11.71885	0.0633444	0.18736382	3.0246762	21	10 17.0	20.6
491961 2013 DB_{2}	17.5	X	353.37654	302.13915	330.48459	23.06619	0.1478705	0.26921774	2.3753827	21	5 27.7	20.4
491962 2013 DL_{2}	17.6	X	82.54675	257.19799	275.94130	5.69982	0.0556104	0.27101097	2.3648929	21	6 4.0	20.5
491963 2013 DQ_{5}	18.2	X	166.16409	253.42297	192.53866	3.11917	0.1466252	0.27295713	2.3536385	21	5 29.9	21.7
491964 2013 DR_{5}	17.8	X	215.57633	102.46510	303.14736	3.60248	0.1419973	0.27636585	2.3342452	21	5 24.8	21.4
491965 2013 DS_{6}	17.4	X	246.34132	11.13652	346.74088	5.66435	0.0700451	0.26738755	2.3862096	21	4 29.5	20.7
491966 2013 DF_{10}	17.6	X	162.48773	20.40493	43.36873	5.11036	0.1714154	0.26728896	2.3867963	21	4 28.4	21.1
491967 2013 DP_{10}	16.5	X	173.25637	192.94255	298.19852	8.61624	0.0425610	0.17405608	3.1769466	21	8 1.0	21.2
491968 2013 DS_{16}	17.5	X	80.92196	122.03461	24.78827	23.43511	0.2806573	0.25809454	2.4431502	21	5 25.4	20.9
491969 2013 EF_{1}	17.7	X	32.01347	70.18443	160.14721	6.34153	0.1431077	0.26833266	2.3806033	21	6 18.4	19.9
491970 2013 EO_{8}	17.7	X	146.89550	282.44620	184.74195	6.65054	0.0791890	0.26868132	2.3785433	21	6 2.2	21.0
491971 2013 EP_{8}	17.9	X	101.73634	310.14937	224.63633	2.59268	0.0802481	0.27292707	2.3538113	21	7 8.0	20.8
491972 2013 ER_{8}	17.6	X	356.68314	323.65764	321.55414	6.02999	0.1120180	0.27146042	2.3622818	21	7 2.7	19.9
491973 2013 EN_{11}	16.8	X	94.19734	230.37099	180.32449	31.96072	0.4086908	0.24348480	2.5399285	21	3 1.4	20.2
491974 2013 EZ_{12}	17.5	X	64.78758	267.03399	155.86092	13.33284	0.2446071	0.23292189	2.6161492	21	—	—
491975 2013 EU_{14}	17.4	X	359.02354	297.99296	350.02933	7.14865	0.1178600	0.27312036	2.3527006	21	7 13.3	19.7
491976 2013 EF_{16}	17.7	X	169.29238	30.76350	67.23365	2.95829	0.1602693	0.27497188	2.3421275	21	6 17.9	21.2
491977 2013 EK_{17}	18.2	X	46.27443	207.29402	13.62440	1.40699	0.1356330	0.26599827	2.3945110	21	6 30.3	20.5
491978 2013 EE_{19}	18.0	X	318.83524	38.16364	193.44658	3.30046	0.0435662	0.24222070	2.5487577	21	2 21.1	21.3
491979 2013 EG_{21}	18.3	X	81.30369	345.35518	198.53600	6.86575	0.1071392	0.27018840	2.3696903	21	6 26.5	21.2
491980 2013 EY_{29}	17.9	X	106.33048	104.55632	51.51378	6.90969	0.1555242	0.26950894	2.3736714	21	6 28.8	21.1
491981 2013 EG_{31}	17.7	X	62.02267	87.97069	109.72564	5.60607	0.1741377	0.26093140	2.4254099	21	6 29.0	20.3
491982 2013 ER_{32}	16.7	X	80.86876	237.20520	16.01786	24.24780	0.1675220	0.28641526	2.2793199	21	10 11.7	19.9
491983 2013 EU_{34}	17.6	X	5.87734	197.68823	50.18532	3.82671	0.1461750	0.25799855	2.4437562	21	5 21.1	19.7
491984 2013 EG_{44}	15.9	X	323.55109	41.48897	345.92399	9.12933	0.0828890	0.17971715	3.1098757	21	9 23.3	19.8
491985 2013 EX_{44}	17.3	X	19.77396	289.97212	185.91693	5.79940	0.1405007	0.22939264	2.6429142	21	—	—
491986 2013 EG_{49}	18.0	X	83.65970	182.25030	345.05370	6.22349	0.1780602	0.26333261	2.4106433	21	6 18.3	21.0
491987 2013 EH_{58}	17.9	X	329.93482	219.86303	54.54879	2.19286	0.1665929	0.25455873	2.4657217	21	4 18.5	20.3
491988 2013 EL_{58}	18.5	X	337.98935	77.63606	156.46246	5.52188	0.1808965	0.24446501	2.5331345	21	3 4.4	21.3
491989 2013 EK_{61}	18.0	X	67.40788	131.12053	13.98375	2.14210	0.1560007	0.25267523	2.4779599	21	4 17.6	20.4
491990 2013 ED_{66}	17.9	X	87.59270	305.43535	241.33312	6.66849	0.1778246	0.27256538	2.3558931	21	7 19.7	21.0
491991 2013 EM_{67}	17.4	X	283.72218	169.71498	110.49129	4.61403	0.1925467	0.23567329	2.5957476	21	2 23.5	21.3
491992 2013 EJ_{72}	18.0	X	120.31591	82.47106	18.37550	6.25630	0.0663602	0.25680710	2.4513089	21	4 18.1	21.0
491993 2013 EG_{82}	17.8	X	57.57231	128.68140	40.19220	2.89252	0.1381140	0.25460881	2.4653983	21	5 2.7	20.3
491994 2013 EC_{89}	14.3	X	269.02050	356.32037	144.31839	2.63920	0.0364343	0.07997608	5.3353465	21	11 19.6	21.3
491995 2013 EY_{97}	18.1	X	357.72952	268.91385	10.80073	2.42557	0.1842852	0.26328324	2.4109447	21	6 23.4	19.9
491996 2013 EX_{101}	17.0	X	251.47681	125.58839	158.89526	12.88969	0.1777622	0.22809700	2.6529130	21	1 29.1	21.4
491997 2013 ED_{105}	18.0	X	125.39850	351.78690	141.52649	7.34272	0.0449691	0.27301138	2.3533267	21	6 7.3	21.1
491998 2013 EM_{107}	17.1	X	265.49387	249.01680	21.52900	12.01957	0.0218436	0.23449902	2.6044060	21	2 14.2	20.8
491999 2013 EQ_{107}	17.6	X	352.85945	73.58192	90.99697	3.65630	0.1011718	0.23028730	2.6360646	21	1 7.4	20.6
492000 2013 EJ_{109}	17.4	X	301.07844	214.55222	29.65475	8.23363	0.1267437	0.23406642	2.6076140	21	2 8.4	21.1