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		°	°	°	°		°				
324001 2005 UB_{274}	16.2	X	285.14464	29.51767	305.00831	11.64867	0.2453849	0.23200180	2.6230615	21	4 21.4	20.3
324002 2005 UL_{288}	16.8	X	129.30593	222.21042	182.70114	5.28476	0.1077997	0.21251573	2.7810491	21	2 26.5	20.7
324003 2005 UV_{288}	16.6	X	263.82998	19.43644	274.95369	4.58776	0.0222968	0.21546129	2.7556447	21	3 9.5	20.4
324004 2005 UL_{290}	16.8	X	157.17317	5.59384	9.82089	6.09385	0.0663561	0.21139330	2.7908848	21	2 20.1	20.8
324005 2005 UU_{291}	16.7	X	173.29600	78.98186	266.24514	3.68106	0.0831947	0.20964432	2.8063854	21	1 30.7	20.9
324006 2005 UK_{296}	16.1	X	117.09739	31.25005	49.07389	7.87390	0.0556003	0.21384904	2.7694775	21	3 25.5	20.0
324007 2005 UL_{299}	16.7	X	350.10588	332.84602	223.20121	2.28084	0.0894895	0.21124422	2.7921977	21	2 18.2	20.1
324008 2005 UG_{302}	15.3	X	334.06277	227.08283	62.99933	28.11277	0.2328263	0.22963005	2.6410923	21	5 15.4	18.1
324009 2005 UO_{303}	17.0	X	7.98675	243.29339	186.76060	8.01787	0.2432011	0.19224791	2.9732286	21	—	—
324010 2005 UB_{309}	15.8	X	24.92853	231.14109	31.67981	29.47527	0.1063743	0.23551615	2.5969021	21	8 3.8	19.6
324011 2005 UV_{309}	16.1	X	285.10999	203.31501	54.94315	13.95283	0.1480594	0.21322833	2.7748496	21	2 10.6	20.5
324012 2005 UO_{312}	16.7	X	278.82788	82.62716	223.71347	10.58622	0.1918905	0.22454650	2.6808048	21	3 19.6	20.8
324013 2005 UQ_{313}	16.3	X	317.11587	150.14089	167.80420	11.77679	0.2285941	0.23515347	2.5995716	21	5 23.9	19.5
324014 2005 UZ_{324}	16.7	X	49.80062	317.64681	189.45629	9.08515	0.0999564	0.21734568	2.7396939	21	3 19.3	19.8
324015 2005 UW_{330}	16.4	X	17.55947	256.23814	176.96572	2.05346	0.0845319	0.19472190	2.9479912	21	—	—
324016 2005 UV_{348}	15.6	X	296.39841	99.05206	248.64342	13.88114	0.1406658	0.23147684	2.6270259	21	6 14.4	19.0
324017 2005 UT_{349}	16.2	X	147.44662	225.77780	148.56016	10.21089	0.1558114	0.21198107	2.7857234	21	2 15.1	20.2
324018 2005 UE_{352}	16.3	X	335.65764	314.56676	9.08404	11.70962	0.1971175	0.23763598	2.5814354	21	7 16.0	18.9
324019 2005 UW_{368}	16.8	X	50.34746	331.14616	116.87137	3.14629	0.0328614	0.20348609	2.8627245	21	1 2.3	20.6
324020 2005 UF_{376}	16.4	X	120.55740	136.91339	241.59372	9.52316	0.1197867	0.20610287	2.8384420	21	1 16.1	20.4
324021 2005 UB_{378}	17.1	X	256.08161	99.49431	213.65067	4.10088	0.1159869	0.21877157	2.7277765	21	3 14.8	21.3
324022 2005 UH_{381}	16.9	X	157.38359	167.28928	198.71415	5.39000	0.0685049	0.21116662	2.7928817	21	2 5.3	20.9
324023 2005 UO_{383}	16.9	X	344.10203	118.94953	193.77092	7.34117	0.1057810	0.23490975	2.6013694	21	7 18.3	19.8
324024 2005 UV_{389}	16.5	X	287.97836	52.25955	203.80146	11.30982	0.0756413	0.21566284	2.7539275	21	2 10.7	20.6
324025 2005 UB_{402}	16.6	X	83.99723	36.44555	22.95024	2.01799	0.0579023	0.20484188	2.8500789	21	1 14.0	20.4
324026 2005 UB_{405}	16.9	X	323.98778	293.73583	120.52942	2.02177	0.1682716	0.18163268	3.0879722	21	10 26.8	20.2
324027 2005 UF_{414}	17.0	X	62.84671	287.02320	153.44572	2.52777	0.0605777	0.20561502	2.8429300	21	1 10.7	20.6
324028 2005 UM_{422}	15.9	X	106.44186	48.28546	47.04323	22.29285	0.0373510	0.21492286	2.7602451	21	4 4.6	20.0
324029 2005 UY_{428}	17.5	X	326.00542	94.70190	214.68821	11.38776	0.1886945	0.23336769	2.6128164	21	6 1.3	20.3
324030 2005 UJ_{432}	16.8	X	122.42499	184.84471	186.16833	1.85939	0.0782332	0.20344586	2.8631020	21	1 5.9	20.9
324031 2005 UN_{436}	16.7	X	176.16310	161.56322	227.96858	4.95133	0.0580466	0.21944024	2.7222324	21	3 25.6	20.8
324032 2005 UW_{438}	16.6	X	166.22469	205.23133	175.50710	3.31618	0.1836325	0.21412893	2.7670637	21	3 14.3	21.1
324033 2005 UD_{440}	16.3	X	164.27785	93.72962	320.15540	5.46587	0.0605921	0.22116756	2.7080402	21	4 10.9	20.3
324034 2005 UA_{442}	16.7	X	145.02531	45.37419	344.04506	4.58505	0.1643739	0.21151385	2.7898242	21	3 3.9	21.0
324035 2005 US_{442}	16.6	X	181.09907	282.97936	79.92290	5.01566	0.1037986	0.21536811	2.7564394	21	3 4.9	20.9
324036 2005 UZ_{446}	16.7	X	136.43303	32.65042	352.77745	6.31891	0.1358109	0.21051505	2.7986416	21	2 16.6	20.7
324037 2005 UN_{455}	16.3	X	123.24925	109.10162	294.95756	10.75310	0.1437865	0.21242857	2.7818098	21	2 20.3	20.4
324038 2005 UM_{479}	17.0	X	216.68791	121.71300	203.65971	3.81789	0.0628212	0.21146420	2.7902609	21	2 20.3	21.2
324039 2005 UE_{480}	17.8	X	31.94472	159.59490	183.43070	27.17420	0.0893147	0.37346798	1.9097087	21	12 19.4	20.6
324040 2005 UX_{481}	16.2	X	138.34373	198.05157	181.75167	16.48923	0.1995268	0.21218269	2.7839584	21	2 14.6	20.7
324041 2005 UK_{495}	16.2	X	312.72290	305.14394	3.02338	11.79656	0.2014616	0.23207874	2.6224818	21	4 30.4	19.5
324042 2005 UZ_{495}	16.0	X	69.85203	165.71322	334.45032	10.94971	0.1040242	0.21880934	2.7274626	21	4 6.4	19.5
324043 2005 UZ_{511}	17.2	X	12.35305	84.42849	29.81483	1.41103	0.0893084	0.19846406	2.9108164	21	—	—
324044 2005 US_{516}	17.3	X	357.19678	115.99371	158.71813	5.26276	0.0581596	0.23380958	2.6095233	21	6 18.8	20.4
324045 2005 UO_{525}	16.5	X	326.24566	153.73482	49.04213	4.55117	0.0404978	0.20994362	2.8037176	21	2 3.1	20.3
324046 2005 UJ_{527}	16.0	X	275.65954	11.41350	251.71091	5.13123	0.0131614	0.20960466	2.8067394	21	2 14.9	20.1
324047 2005 VZ	17.2	X	340.45359	284.78276	46.80780	21.57052	0.0715039	0.36362612	1.9440138	21	9 10.5	19.4
324048 2005 VR_{2}	15.9	X	98.95266	346.88732	49.85948	16.07813	0.1332230	0.20540822	2.8448378	21	1 18.3	19.9
324049 2005 VA_{26}	16.8	X	125.81246	208.68220	204.78510	3.73789	0.1047296	0.21584334	2.7523920	21	3 3.9	20.7
324050 2005 VB_{28}	17.0	X	329.08015	2.52216	190.63035	3.99109	0.0447219	0.21013019	2.8020578	21	1 22.4	20.8
324051 2005 VZ_{29}	16.6	X	42.10339	322.29119	115.99364	3.13675	0.0357302	0.19905671	2.9050359	21	—	—
324052 2005 VD_{31}	16.3	X	292.81049	30.70957	232.68451	3.38243	0.0192673	0.21276098	2.7789116	21	3 8.1	20.0
324053 2005 VS_{42}	16.6	X	173.56696	252.96551	118.82160	5.56986	0.1334336	0.21488893	2.7605356	21	3 9.4	20.9
324054 2005 VA_{53}	16.4	X	152.56423	288.57085	89.59586	5.90067	0.1699111	0.21110852	2.7933941	21	2 28.8	20.8
324055 2005 VZ_{53}	16.7	X	276.18333	15.98009	176.72215	3.56692	0.1102405	0.19809305	2.9144496	21	—	—
324056 2005 VU_{56}	16.0	X	302.92689	257.86005	64.99687	15.65909	0.1445799	0.22878679	2.6475779	21	5 20.9	19.3
324057 2005 VG_{58}	16.2	X	40.07343	347.54520	232.34927	10.56675	0.1909264	0.22738499	2.6584481	21	6 24.9	19.1
324058 2005 VH_{59}	15.9	X	147.53223	68.81632	51.74801	22.77179	0.0401479	0.22698764	2.6615496	21	6 14.5	19.9
324059 2005 VX_{60}	17.2	X	214.34035	90.78270	250.96941	1.24466	0.0481532	0.21553190	2.7550428	21	3 10.2	21.1
324060 2005 VC_{61}	16.5	X	278.93583	192.17105	177.70941	7.62454	0.1171387	0.23325017	2.6136940	21	6 24.4	20.2
324061 2005 VM_{61}	17.4	X	236.41709	6.37806	72.87996	22.86945	0.0909922	0.35857833	1.9622155	21	8 24.5	20.3
324062 2005 VF_{63}	16.9	X	201.13834	159.20413	216.56804	4.78309	0.0837112	0.22395116	2.6855537	21	4 5.8	21.0
324063 2005 VK_{66}	16.8	X	41.96191	200.04396	51.74706	14.02497	0.1206138	0.23395783	2.6084208	21	8 11.4	20.2
324064 2005 VT_{77}	16.4	X	79.45942	48.56170	18.89568	6.78428	0.1580730	0.20587940	2.8404956	21	2 1.5	19.9
324065 2005 VB_{87}	16.4	X	170.86308	188.27684	220.37681	5.60503	0.0499273	0.21889372	2.7267617	21	4 13.4	20.4
324066 2005 VL_{97}	16.8	X	99.42404	27.01461	49.05441	2.76587	0.0728100	0.21015346	2.8018509	21	2 26.4	20.4
324067 2005 VM_{97}	16.5	X	352.77573	297.41301	239.44557	3.27779	0.0153468	0.20967307	2.8061289	21	2 4.9	20.4
324068 2005 VY_{123}	16.5	X	137.23553	351.33304	44.11370	5.80725	0.0211475	0.20821239	2.8192376	21	2 17.2	20.4
324069 2005 VC_{124}	15.5	X	48.43444	138.86063	289.06257	16.09972	0.1202020	0.20042220	2.8918260	21	—	—
324070 2005 WK_{1}	16.2	X	291.66130	90.38199	359.95930	24.89047	0.3362971	0.17907058	3.1173571	21	9 21.5	20.1
324071 2005 WA_{26}	16.2	X	44.60179	133.29069	274.14584	3.91766	0.0795184	0.19410566	2.9542274	21	—	—
324072 2005 WL_{26}	16.9	X	332.89491	38.05697	49.70972	2.93100	0.1064076	0.18766031	3.0214895	21	12 26.8	20.5
324073 2005 WA_{27}	16.6	X	257.74424	218.21969	59.30030	5.76855	0.0704716	0.20871850	2.8146782	21	2 10.1	20.7
324074 2005 WX_{30}	16.4	X	317.76009	330.73870	280.66134	3.97619	0.1093196	0.21334132	2.7738697	21	3 11.4	20.1
324075 2005 WH_{43}	15.4	X	45.08244	312.39281	68.08041	10.97367	0.1077605	0.18981776	2.9985513	21	—	—
324076 2005 WR_{49}	17.1	X	102.93980	347.87305	57.40421	2.79884	0.0838389	0.20537478	2.8451466	21	1 25.2	21.0
324077 2005 WU_{58}	15.5	X	309.54928	208.25589	260.47194	16.38599	0.2655050	0.18371259	3.0646210	21	12 1.2	18.6
324078 2005 WZ_{67}	16.5	X	305.10727	166.97361	91.83534	3.44675	0.0281062	0.21286126	2.7780388	21	3 20.2	20.2
324079 2005 WD_{75}	16.8	X	99.67286	87.43232	8.47656	3.83653	0.0689563	0.21320605	2.7750429	21	3 21.9	20.5
324080 2005 WP_{75}	16.8	X	320.22846	270.34295	27.26841	3.23929	0.0937900	0.22673380	2.6635358	21	5 18.8	19.9

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324081 2005 WL_{87}	15.9	X	126.67784	281.25065	78.15123	3.47072	0.0920318	0.19683871	2.9268179	21	—	—
324082 2005 WJ_{90}	15.5	X	19.23390	100.30866	49.41655	15.65519	0.0916353	0.20616022	2.8379155	21	2 11.5	19.3
324083 2005 WW_{94}	16.0	X	80.56602	291.43909	84.16701	8.33013	0.2292115	0.19684043	2.9268009	21	—	—
324084 2005 WY_{100}	16.5	X	7.95842	179.82883	235.28384	4.11182	0.2018990	0.18939769	3.0029834	21	—	—
324085 2005 WJ_{102}	16.4	X	85.27370	308.18465	79.85680	3.01777	0.0906657	0.19485197	2.9466791	21	—	—
324086 2005 WU_{102}	15.9	X	50.82709	327.83420	109.05028	6.45997	0.0940176	0.20069778	2.8891782	21	—	—
324087 2005 WS_{114}	17.0	X	304.64384	137.21458	294.05668	5.90680	0.2674376	0.17923975	3.1153953	21	9 25.7	20.5
324088 2005 WJ_{121}	16.1	X	68.12674	195.31926	228.98425	5.32178	0.0571818	0.20131832	2.8832381	21	—	—
324089 2005 WC_{122}	16.2	X	316.54036	264.04610	90.82018	5.88372	0.2273588	0.23585115	2.5944425	21	7 15.6	18.6
324090 2005 WR_{123}	17.0	X	231.12930	280.41887	46.13176	7.14204	0.0365851	0.21782553	2.7356688	21	3 14.8	20.9
324091 2005 WQ_{125}	17.1	X	305.49462	248.76789	56.07439	4.13766	0.1546884	0.22704412	2.6611083	21	4 28.3	20.3
324092 2005 WX_{140}	15.9	X	298.25928	19.54531	100.36916	12.27321	0.0472549	0.18171769	3.0870091	21	12 17.8	20.1
324093 2005 WB_{142}	16.9	X	343.63804	113.87627	288.87359	0.74328	0.2009919	0.18282607	3.0745199	21	11 18.1	20.0
324094 2005 WY_{144}	17.3	X	10.89598	23.93412	54.61368	2.61297	0.1880805	0.19279078	2.9676445	21	—	—
324095 2005 WB_{153}	16.3	X	134.79718	137.77881	272.40867	4.97440	0.0303977	0.21009322	2.8023865	21	2 28.3	20.2
324096 2005 WT_{153}	16.0	X	64.08602	334.16417	86.97273	11.00833	0.0893461	0.20198085	2.8769297	21	—	—
324097 2005 WX_{162}	15.2	X	75.24865	262.31554	99.51046	16.49808	0.0629007	0.18588013	3.0407501	21	—	—
324098 2005 WJ_{164}	17.1	X	76.86838	229.84952	199.59326	1.55578	0.0547330	0.20513094	2.8474008	21	1 15.7	20.9
324099 2005 WR_{187}	15.9	X	332.00684	232.14443	104.85861	16.05984	0.1087287	0.23449437	2.6044405	21	8 4.8	18.8
324100 2005 WD_{195}	15.8	X	290.94133	266.04144	232.35323	11.45336	0.2600938	0.18575487	3.0421170	21	12 5.4	19.1
324101 2005 WA_{203}	15.8	X	337.01897	19.76026	77.32871	7.16683	0.0820441	0.18674229	3.0313838	21	—	—
324102 2005 XJ_{12}	16.4	X	156.19696	251.83850	101.66841	6.88575	0.0817639	0.20377309	2.8600360	21	1 24.8	20.6
324103 2005 XK_{20}	16.5	X	73.49393	117.52628	302.07242	4.93527	0.0721918	0.20013095	2.8946310	21	1 2.4	20.2
324104 2005 XD_{23}	16.7	X	319.33041	17.01743	251.36033	4.29970	0.1194549	0.21723515	2.7406232	21	4 3.1	20.3
324105 2005 XE_{30}	16.1	X	269.01760	199.82288	65.82235	9.07717	0.0357951	0.21066801	2.7972868	21	2 13.1	20.2
324106 2005 XB_{51}	15.7	X	268.59461	93.96888	68.50030	10.89370	0.0109750	0.18570886	3.0426194	21	—	—
324107 2005 XE_{52}	16.5	X	309.13312	112.55596	345.61613	3.95828	0.0876450	0.18218526	3.0817250	21	12 1.8	20.5
324108 2005 XS_{57}	16.7	X	188.14707	152.57463	152.03154	2.60192	0.0354050	0.20076866	2.8884982	21	—	—
324109 2005 XL_{68}	16.6	X	216.84685	258.73380	55.74582	5.26523	0.1004497	0.20843623	2.8172187	21	2 10.6	21.0
324110 2005 XX_{73}	15.5	X	356.10860	288.05863	75.14278	12.76466	0.0712901	0.17439465	3.1728334	21	10 18.2	19.8
324111 2005 XO_{77}	16.3	X	333.39380	20.49527	66.74918	2.29941	0.2811398	0.18574273	3.0422495	21	12 31.6	18.9
324112 2005 XF_{84}	15.4	X	291.98953	116.20590	53.63002	16.91925	0.1570960	0.18472484	3.0534151	21	—	—
324113 2005 XX_{89}	16.5	X	6.67232	359.62153	89.60539	3.67969	0.1058493	0.19071263	2.9891640	21	—	—
324114 2005 XU_{109}	15.3	X	327.10175	339.47252	117.39418	10.72365	0.0640589	0.18088849	3.0964359	21	12 27.6	19.4
324115 2005 XL_{116}	15.9	X	328.76994	67.78430	92.77683	12.42660	0.1049250	0.19678163	2.9273839	21	—	—
324116 2005 YU_{7}	16.4	X	228.56854	137.68952	101.94010	2.37908	0.1152954	0.18828990	3.0147505	21	—	—
324117 2005 YN_{14}	15.8	X	321.87345	336.00169	114.14786	9.69582	0.0973931	0.18077132	3.0977737	21	12 11.8	19.8
324118 2005 YO_{16}	16.0	X	264.98394	70.16105	142.56515	2.34896	0.2290857	0.18620770	3.0371830	21	—	—
324119 2005 YG_{17}	16.8	X	99.86028	289.57904	119.64732	3.07318	0.0609238	0.20441477	2.8540475	21	1 22.4	20.6
324120 2005 YP_{18}	17.1	X	112.18291	193.15435	212.33320	1.08585	0.1239893	0.20625306	2.8370639	21	2 10.6	21.0
324121 2005 YT_{18}	17.0	X	112.21847	156.88656	230.13028	1.20441	0.0773866	0.20297547	2.8675236	21	1 13.0	20.9
324122 2005 YE_{30}	16.9	X	288.92222	41.00848	4.38038	3.43877	0.3486205	0.17066096	3.2189428	21	7 19.8	21.4
324123 2005 YF_{31}	15.3	X	154.88956	8.38921	291.19167	9.82770	0.0617566	0.18773817	3.0206541	21	—	—
324124 2005 YC_{32}	16.1	X	31.28284	307.61613	93.43303	2.96742	0.1697965	0.18592493	3.0402617	21	—	—
324125 2005 YD_{33}	15.9	X	286.65416	29.73508	110.77474	6.31683	0.1679173	0.18259121	3.0771557	21	12 13.6	19.6
324126 2005 YR_{38}	15.8	X	2.77728	69.50955	19.94416	9.08974	0.1465083	0.19301478	2.9653481	21	—	—
324127 2005 YY_{39}	16.5	X	264.97087	285.10584	286.29547	1.25205	0.1288887	0.18879812	3.0093378	21	—	—
324128 2005 YY_{46}	16.3	X	316.84202	140.99246	310.95205	4.98513	0.2293542	0.18179134	3.0861753	21	11 26.1	19.4
324129 2005 YX_{52}	15.6	X	338.76255	228.20329	280.12926	8.76168	0.0427683	0.19237141	2.9719559	21	—	—
324130 2005 YL_{54}	15.7	X	333.21580	190.66468	279.31034	8.28482	0.0379477	0.18594264	3.0400686	21	—	—
324131 2005 YA_{55}	16.3	X	240.70148	264.18101	274.35424	4.64820	0.0566207	0.18176223	3.0865048	21	12 14.3	20.5
324132 2005 YY_{55}	16.3	X	137.52254	36.70789	296.43848	3.54068	0.0828705	0.19485047	2.9466942	21	—	—
324133 2005 YA_{60}	15.2	X	247.40833	251.50795	293.52730	24.78894	0.2064283	0.18020453	3.1042659	21	12 11.2	20.0
324134 2005 YQ_{65}	16.7	X	307.27103	108.47578	14.49165	0.90805	0.0500362	0.18448712	3.0560375	21	—	—
324135 2005 YZ_{66}	16.1	X	249.43897	160.68115	327.58481	4.77505	0.1418115	0.17421813	3.1749763	21	10 10.6	20.8
324136 2005 YD_{85}	16.6	X	292.14921	143.20803	91.24599	3.22519	0.0452106	0.20348589	2.8627264	21	1 30.4	20.5
324137 2005 YH_{86}	15.8	X	160.50579	186.12804	102.04900	9.02701	0.0825036	0.18751571	3.0230427	21	—	—
324138 2005 YM_{86}	16.0	X	357.41806	340.07791	104.49230	12.72067	0.0468693	0.18690762	3.0295959	21	—	—
324139 2005 YY_{87}	16.1	X	125.16258	32.46699	294.15799	4.26746	0.1285600	0.18780258	3.0199634	21	—	—
324140 2005 YX_{89}	16.4	X	260.77229	126.65889	112.60233	11.81913	0.0920187	0.19328536	2.9625799	21	—	—
324141 2005 YR_{91}	15.7	X	105.25279	217.32989	127.89444	10.31003	0.1477810	0.18815372	3.0162050	21	—	—
324142 2005 YF_{92}	16.3	X	280.18766	84.83323	118.01300	6.86749	0.1025390	0.19068283	2.9894755	21	—	—
324143 2005 YE_{112}	15.9	X	95.74502	234.74048	114.65510	3.88858	0.0807535	0.18846564	3.0128760	21	—	—
324144 2005 YH_{117}	15.3	X	21.34286	310.76173	112.30342	16.48583	0.0554038	0.18597362	3.0397310	21	—	—
324145 2005 YZ_{123}	15.4	X	294.99075	88.67827	79.41466	6.70979	0.1496934	0.18665439	3.0323354	21	—	—
324146 2005 YP_{125}	16.4	X	27.00742	130.45148	306.52144	7.81007	0.0812121	0.19120100	2.9840719	21	—	—
324147 2005 YP_{142}	16.5	X	52.71782	350.43762	80.72841	3.16565	0.1001109	0.19404655	2.9548273	21	—	—
324148 2005 YY_{152}	15.5	X	103.72495	293.80920	96.84104	12.99484	0.0616515	0.19534850	2.9416838	21	1 6.5	19.4
324149 2005 YL_{153}	15.3	X	326.81260	160.71136	309.44936	10.80551	0.0391327	0.18588101	3.0407406	21	—	—
324150 2005 YU_{162}	16.0	X	351.95237	135.80896	271.68147	8.37759	0.1001475	0.18087995	3.0965334	21	12 3.1	19.8
324151 2005 YG_{167}	15.7	X	14.39802	338.19034	125.82550	11.40109	0.0847663	0.19219916	2.9737313	21	—	—
324152 2005 YH_{168}	17.1	X	63.50362	166.66713	87.14176	23.49741	0.0313335	0.35694911	1.9681817	21	9 22.3	19.9
324153 2005 YV_{168}	15.2	X	315.69705	55.05177	57.36998	12.49231	0.0812818	0.18248577	3.0783409	21	12 30.2	19.3
324154 2005 YN_{176}	16.4	X	260.47848	287.06731	281.33917	0.57240	0.1981841	0.18603505	3.0390618	21	—	—
324155 2005 YE_{177}	15.7	X	159.81245	147.70103	113.48251	4.07647	0.0423036	0.18161189	3.0882079	21	12 23.2	20.1
324156 2005 YZ_{178}	16.2	X	49.23219	109.47519	296.59932	8.33784	0.0850486	0.18797424	3.0181245	21	—	—
324157 2005 YC_{190}	16.0	X	102.80910	35.08857	306.92020	8.89157	0.0830132	0.18690929	3.0295779	21	—	—
324158 2005 YY_{192}	16.1	X	13.45083	300.75976	111.21556	3.73588	0.0833504	0.18247580	3.0784530	21	—	—
324159 2005 YF_{199}	15.3	X	176.60354	351.27331	281.70018	9.99217	0.0963879	0.18748659	3.0233556	21	—	—
324160 2005 YO_{201}	16.2	X	41.52813	86.73642	292.40071	10.43896	0.1334837	0.18474988	3.0531392	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324161 2005 YH_{205}	15.8	X	309.70741	345.50789	122.21425	11.20150	0.0684655	0.18067345	3.0988924	21	12 17.1	19.9
324162 2005 YV_{210}	15.5	X	242.63884	93.46087	69.47334	16.27084	0.2339375	0.17403728	3.1771755	21	11 8.0	20.4
324163 2005 YP_{251}	15.5	X	111.03679	39.14455	264.53870	6.29903	0.0148479	0.17969182	3.1101680	21	12 17.6	19.9
324164 2005 YZ_{255}	16.3	X	263.21080	160.98122	73.41208	3.03835	0.0343627	0.19477533	2.9474520	21	—	—
324165 2005 YT_{264}	16.5	X	265.68151	148.68615	41.32398	1.61025	0.0324159	0.18646211	3.0344197	21	—	—
324166 2005 YS_{268}	16.6	X	212.14177	272.61848	40.02300	3.49530	0.0971621	0.19922593	2.9033907	21	2 4.4	21.2
324167 2005 YM_{270}	16.0	X	15.76029	143.27548	311.27948	7.18031	0.1059651	0.19048073	2.9915896	21	—	—
324168 2005 YD_{278}	16.8	X	305.37643	246.92534	86.57137	3.73992	0.1489426	0.22751149	2.6574626	21	6 7.3	19.9
324169 2005 YK_{283}	15.7	X	128.88346	226.27685	139.70706	9.13774	0.0728472	0.19558287	2.9393333	21	1 8.4	19.8
324170 2005 YS_{284}	17.0	X	271.79717	13.19946	152.38933	0.59976	0.1185715	0.18367333	3.0650576	21	12 29.7	21.1
324171 2006 AJ	15.6	X	298.36471	270.58325	219.21721	8.55753	0.1964349	0.18294152	3.0732262	21	12 15.3	19.1
324172 2006 AC_{4}	15.9	X	345.16216	29.51273	52.72774	10.21323	0.1290568	0.18562097	3.0435798	21	—	—
324173 2006 AM_{7}	15.5	X	318.61396	105.05709	24.86404	17.26872	0.1070359	0.18324979	3.0697786	21	—	—
324174 2006 AX_{10}	16.5	X	226.43365	54.27728	110.11326	2.06040	0.1053097	0.17521341	3.1629414	21	11 4.9	21.1
324175 2006 AU_{14}	15.8	X	336.34296	188.08449	305.98870	9.38981	0.0487784	0.18807599	3.0170359	21	—	—
324176 2006 AN_{20}	15.5	X	235.85126	249.55760	312.33050	25.15253	0.1998923	0.17981127	3.1087904	21	12 20.8	20.5
324177 2006 AV_{25}	16.1	X	260.88363	255.23857	298.96415	5.23609	0.2463719	0.18370130	3.0647466	21	12 31.8	20.3
324178 2006 AD_{26}	16.5	X	351.35180	90.03887	306.04971	4.17747	0.1518626	0.17920879	3.1157541	21	11 19.5	20.2
324179 2006 AA_{27}	17.0	X	250.77027	334.71052	195.44190	1.26719	0.1176849	0.18038971	3.1021411	21	12 7.8	21.3
324180 2006 AX_{34}	15.9	X	84.02553	69.17525	296.20224	9.73185	0.0830825	0.18771039	3.0209521	21	—	—
324181 2006 AC_{35}	16.4	X	212.44431	243.94557	307.79183	7.70139	0.0529459	0.17704660	3.1410702	21	11 25.9	21.1
324182 2006 AX_{36}	15.7	X	305.03376	330.78196	114.96114	9.81192	0.0940184	0.17631413	3.1497637	21	11 12.8	19.9
324183 2006 AU_{37}	15.8	X	337.68972	148.47598	302.77180	8.77567	0.0859537	0.18295840	3.0730371	21	—	—
324184 2006 AT_{41}	15.8	X	221.55926	321.06754	280.75183	8.12732	0.1100224	0.18555831	3.0442650	21	—	—
324185 2006 AT_{48}	16.2	X	335.55863	184.62548	265.97865	4.69015	0.0900869	0.18370077	3.0647525	21	—	—
324186 2006 AS_{49}	16.3	X	283.70407	73.51423	94.63333	5.79290	0.1129533	0.18667618	3.0320994	21	—	—
324187 2006 AU_{58}	16.5	X	116.12987	288.75798	103.62705	3.29891	0.0672639	0.19859130	2.9095728	21	1 24.5	20.6
324188 2006 AJ_{61}	16.1	X	239.34844	100.13687	127.45706	12.87122	0.2804571	0.18271121	3.0758082	21	—	—
324189 2006 AV_{62}	16.4	X	282.15169	86.09405	61.12266	3.32245	0.2014083	0.18190205	3.0849229	21	12 9.7	20.2
324190 2006 AN_{63}	16.3	X	220.76051	202.44979	118.72757	4.38980	0.2139448	0.20533794	2.8454869	21	2 19.2	21.1
324191 2006 AX_{65}	16.0	X	282.27104	221.28389	317.83002	5.70042	0.1715534	0.18435636	3.0574824	21	—	—
324192 2006 AZ_{66}	16.0	X	323.01582	207.38921	264.92281	5.12253	0.1146014	0.18395878	3.0618861	21	—	—
324193 2006 AJ_{67}	16.6	X	53.70231	245.04226	153.75895	4.57730	0.2402693	0.19102995	2.9858529	21	—	—
324194 2006 AN_{68}	16.6	X	15.74598	111.25658	282.53944	1.19747	0.0962972	0.17978875	3.1090500	21	12 20.4	20.7
324195 2006 AW_{68}	16.3	X	87.82377	330.73687	103.01341	3.36306	0.1607386	0.20334105	2.8640857	21	2 21.6	19.9
324196 2006 AN_{70}	15.7	X	249.74838	265.89803	298.85561	10.93791	0.0856478	0.18413996	3.0598773	21	—	—
324197 2006 AG_{72}	16.2	X	331.13597	326.27453	133.26969	6.86911	0.1057486	0.18312557	3.0711667	21	—	—
324198 2006 AL_{73}	16.5	X	288.52698	25.51616	155.41555	4.40194	0.0437633	0.18754372	3.0227416	21	—	—
324199 2006 AE_{78}	15.6	X	240.33305	281.37715	296.74090	14.89547	0.1105272	0.18431910	3.0578944	21	—	—
324200 2006 AV_{79}	15.1	X	215.33020	73.98696	132.16228	26.66423	0.2293496	0.17342868	3.1846040	21	12 6.1	20.7
324201 2006 AB_{81}	16.0	X	65.53792	86.06279	284.40254	9.43663	0.0690597	0.18430854	3.0580113	21	—	—
324202 2006 AF_{85}	15.0	X	250.94535	65.32037	152.01686	22.80576	0.1637646	0.18279257	3.0748954	21	—	—
324203 2006 AE_{89}	15.8	X	251.13231	52.45539	138.06366	12.55231	0.0526134	0.18087728	3.0965638	21	—	—
324204 2006 AT_{91}	16.3	X	222.56147	120.20990	105.02376	3.74797	0.0703452	0.18412222	3.0600738	21	—	—
324205 2006 AC_{96}	15.1	X	274.52952	185.18369	350.37744	10.17363	0.0992135	0.18141446	3.0904481	21	—	—
324206 2006 AW_{97}	15.2	X	263.86153	54.28892	73.95169	22.02974	0.0786164	0.17281503	3.1921384	21	11 12.9	19.8
324207 2006 AO_{102}	16.1	X	31.60330	40.13410	334.06100	7.92385	0.0739274	0.17461663	3.1701439	21	12 13.4	20.5
324208 2006 AS_{103}	16.6	X	205.00351	93.03900	183.05205	10.28964	0.1188150	0.18575404	3.0421260	21	—	—
324209 2006 BQ_{2}	15.6	X	257.57988	277.40250	280.44691	9.02230	0.1469886	0.18216900	3.0819085	21	—	—
324210 2006 BN_{10}	15.5	X	210.30495	107.02025	124.34503	11.10853	0.0703618	0.18135036	3.0911763	21	—	—
324211 2006 BJ_{19}	16.8	X	257.04399	6.34326	160.19498	1.93097	0.1165805	0.18018942	3.1044395	21	12 11.3	21.2
324212 2006 BY_{23}	15.5	X	266.38081	205.04032	319.10963	9.37402	0.1626501	0.17757382	3.1348499	21	12 12.8	19.8
324213 2006 BR_{27}	16.3	X	173.68497	349.66120	340.36623	1.54754	0.0680857	0.19545905	2.9405745	21	1 15.5	20.7
324214 2006 BC_{31}	15.7	X	344.18323	321.47826	123.28520	6.33003	0.1453809	0.18245522	3.0786845	21	—	—
324215 2006 BH_{33}	15.6	X	184.98773	259.72968	346.44226	14.31178	0.1589548	0.17304391	3.1893230	21	12 24.8	21.0
324216 2006 BM_{33}	15.6	X	359.16245	283.82690	152.75872	16.83942	0.1170728	0.17951235	3.1122406	21	—	—
324217 2006 BF_{39}	15.5	X	99.32490	13.32406	314.96714	8.41979	0.0570010	0.18318912	3.0704564	21	—	—
324218 2006 BO_{41}	15.5	X	103.70073	153.38825	160.84231	19.93579	0.0478963	0.17306927	3.1890114	21	12 24.3	20.5
324219 2006 BA_{44}	15.0	X	187.97302	264.38533	334.78398	24.62734	0.2103570	0.17311796	3.1884135	21	12 16.7	20.8
324220 2006 BP_{51}	16.5	X	257.36951	228.26970	334.85232	3.49178	0.1071064	0.18327160	3.0695351	21	—	—
324221 2006 BM_{56}	16.2	X	279.42408	93.68405	351.19675	17.22113	0.2257165	0.17300794	3.1897650	21	9 13.6	20.3
324222 2006 BK_{60}	16.1	X	196.21497	77.47754	157.06664	11.51668	0.0347384	0.17638972	3.1488637	21	12 31.1	20.9
324223 2006 BG_{61}	15.1	X	17.36998	321.42655	68.21669	15.44778	0.0595544	0.17905579	3.1175288	21	12 12.3	19.2
324224 2006 BV_{68}	15.8	X	197.17518	138.23592	116.07430	9.79381	0.1345881	0.18190645	3.0848732	21	—	—
324225 2006 BB_{71}	15.3	X	348.12210	92.59364	354.76224	8.97487	0.0357025	0.18141947	3.0903911	21	—	—
324226 2006 BW_{78}	16.4	X	299.72874	26.60403	56.15361	1.55174	0.1611314	0.17331951	3.1859412	21	10 20.7	20.3
324227 2006 BE_{93}	16.3	X	254.84354	181.99573	5.42745	2.28803	0.1547893	0.17774273	3.1328635	21	12 27.7	20.6
324228 2006 BR_{100}	15.4	X	226.24701	103.09972	105.43533	16.25501	0.0643012	0.17899715	3.1182096	21	12 31.8	20.0
324229 2006 BY_{100}	16.0	X	129.80755	332.99169	336.91020	9.11425	0.0351590	0.18145900	3.0899424	21	—	—
324230 2006 BH_{108}	16.4	X	162.44916	188.03223	88.53619	2.40080	0.1587852	0.17928480	3.1148734	21	—	—
324231 2006 BA_{111}	15.5	X	257.16692	62.94845	123.42992	10.74086	0.0535988	0.18127762	3.0920031	21	—	—
324232 2006 BO_{113}	16.5	X	216.66251	105.90264	95.45614	2.07538	0.1493483	0.17520264	3.1630710	21	12 2.9	21.2
324233 2006 BQ_{115}	15.7	X	29.01656	284.62685	154.63443	10.73805	0.0527196	0.18590609	3.0404670	21	—	—
324234 2006 BH_{119}	16.5	X	16.23657	250.97263	159.26997	11.12086	0.0309510	0.17803560	3.1294270	21	—	—
324235 2006 BH_{121}	15.9	X	348.64288	278.07600	158.33846	13.60445	0.1010901	0.17936415	3.1139547	21	—	—
324236 2006 BP_{121}	15.6	X	7.42553	308.87447	132.69043	9.79829	0.0517617	0.18425078	3.0586503	21	—	—
324237 2006 BJ_{128}	13.6	X	267.96499	191.47883	164.25177	9.26623	0.0875650	0.08367192	5.1770562	21	6 2.9	20.6
324238 2006 BG_{131}	15.7	X	221.90471	57.05106	150.37099	5.08448	0.1076042	0.17443581	3.1723344	21	12 19.6	20.5
324239 2006 BB_{135}	15.8	X	117.62613	171.18175	126.31216	9.08397	0.1281908	0.17658752	3.1465119	21	12 24.5	20.8
324240 2006 BZ_{153}	15.8	X	275.50579	214.36780	295.71337	7.35854	0.2180033	0.17744243	3.1363973	21	11 29.3	20.0

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324241 2006 BJ_{155}	15.5	X	1.84751	258.33088	137.06083	10.81510	0.1174016	0.17374806	3.1807003	21	12 5.1	19.6
324242 2006 BA_{161}	15.6	X	204.44779	96.31763	159.67874	14.47395	0.1591574	0.17995684	3.1071137	21	—	—
324243 2006 BC_{162}	15.3	X	199.54744	267.75637	326.20798	24.36057	0.2819255	0.17386179	3.1793129	21	12 16.2	21.2
324244 2006 BJ_{162}	16.3	X	251.75266	148.21602	49.40231	0.99217	0.1295893	0.18054408	3.1003726	21	—	—
324245 2006 BR_{164}	15.7	X	248.88406	25.54936	146.37359	16.18237	0.1828566	0.17454040	3.1710669	21	12 1.3	20.6
324246 2006 BJ_{169}	15.7	X	16.93729	248.00002	153.87385	9.64927	0.0836269	0.17648931	3.1476791	21	12 29.5	20.0
324247 2006 BW_{169}	16.0	X	193.03662	77.56115	165.42922	12.18563	0.1064702	0.17500595	3.1654406	21	12 31.1	21.1
324248 2006 BD_{172}	16.4	X	200.34873	50.88373	211.23027	1.39830	0.1084430	0.18492916	3.0511656	21	—	—
324249 2006 BG_{177}	15.7	X	229.47712	104.73701	114.03247	9.00448	0.0557262	0.18213030	3.0823450	21	—	—
324250 2006 BX_{181}	16.2	X	71.96103	224.10851	137.91194	9.90033	0.0827163	0.17980840	3.1088235	21	—	—
324251 2006 BC_{184}	16.3	X	270.98190	101.63350	77.74140	2.48429	0.0862227	0.18330387	3.0691748	21	—	—
324252 2006 BT_{184}	15.9	X	107.43999	29.96009	323.09444	12.10202	0.0955020	0.18732387	3.0251062	21	—	—
324253 2006 BM_{185}	15.9	X	115.69963	12.66486	333.37071	8.81839	0.1042269	0.18578695	3.0417668	21	—	—
324254 2006 BE_{189}	16.0	X	301.74206	121.87095	20.89659	5.42641	0.1037955	0.17969746	3.1101029	21	—	—
324255 2006 BQ_{203}	15.4	X	54.13578	9.79026	340.13133	8.47787	0.2238545	0.17605176	3.1528923	21	—	—
324256 2006 BZ_{210}	15.6	X	299.43388	153.83798	319.95923	10.50848	0.2391551	0.17837931	3.1254056	21	11 16.0	19.3
324257 2006 BH_{211}	16.0	X	148.08060	301.94778	356.92447	7.37920	0.0513568	0.17831270	3.1261839	21	—	—
324258 2006 BH_{212}	16.1	X	274.28645	18.07903	135.55982	5.29118	0.0874470	0.17634584	3.1493861	21	12 21.1	20.4
324259 2006 BZ_{214}	15.4	X	301.91271	55.82419	80.34241	17.20444	0.0415568	0.18187774	3.0851978	21	—	—
324260 2006 BT_{217}	15.3	X	314.79819	123.80298	320.72731	16.74144	0.1941910	0.17483931	3.1674517	21	11 7.1	19.3
324261 2006 BQ_{226}	15.5	X	210.92357	257.27677	337.64968	24.75725	0.2165202	0.17567213	3.1574330	21	—	—
324262 2006 BV_{226}	16.4	X	316.66505	277.43556	158.53954	10.14835	0.2162404	0.17507906	3.1645594	21	11 7.7	19.9
324263 2006 BN_{232}	15.7	X	205.73388	279.31054	337.90891	10.43694	0.0794574	0.18452230	3.0556490	21	—	—
324264 2006 BN_{239}	16.4	X	335.91678	7.61935	85.01251	2.04461	0.1008452	0.18111814	3.0938179	21	—	—
324265 2006 BO_{243}	16.5	X	322.69975	84.91341	6.64210	5.14642	0.1174281	0.17852677	3.1236844	21	12 12.2	20.3
324266 2006 BR_{262}	16.4	X	230.05935	213.46374	349.46348	7.83915	0.1299820	0.17547264	3.1598256	21	12 20.4	21.2
324267 2006 BC_{265}	16.5	X	231.14190	67.31476	150.32833	6.11711	0.0884461	0.17836626	3.1255582	21	—	—
324268 2006 BM_{274}	15.6	X	303.93543	278.09581	159.89017	6.29886	0.0367135	0.16955959	3.2328668	21	11 4.3	20.0
324269 2006 BT_{274}	16.7	X	283.22004	21.32302	90.10011	2.50596	0.1235832	0.17427002	3.1743460	21	11 6.9	20.8
324270 2006 BB_{275}	16.2	X	291.54880	150.60658	334.36700	4.52934	0.1161243	0.17744724	3.1363406	21	12 5.7	20.2
324271 2006 BG_{278}	16.3	X	325.31202	185.74830	310.38031	4.35681	0.0594901	0.18591503	3.0403696	21	—	—
324272 2006 BV_{278}	16.0	X	348.18905	79.74283	336.16177	8.50145	0.0460969	0.17440175	3.1727474	21	12 2.9	20.4
324273 2006 BS_{283}	15.8	X	103.89388	27.91617	309.06788	8.43065	0.0640631	0.18251220	3.0780437	21	—	—
324274 2006 CT_{2}	16.4	X	195.99520	75.14433	130.73043	2.18877	0.1671992	0.17286551	3.1915169	21	11 17.9	21.6
324275 2006 CH_{10}	15.5	X	193.85116	120.31060	181.34109	8.79749	0.0808547	0.18912526	3.0058665	21	1 3.8	20.3
324276 2006 CF_{12}	16.0	X	157.26341	317.24784	313.94383	8.97408	0.0424537	0.17897667	3.1184475	21	—	—
324277 2006 CA_{26}	15.5	X	88.01782	13.92345	320.82595	9.75074	0.0923072	0.17977096	3.1092551	21	—	—
324278 2006 CQ_{37}	15.6	X	140.53773	330.68812	313.14469	12.30026	0.1090827	0.17522838	3.1627613	21	12 30.0	20.7
324279 2006 CE_{39}	15.4	X	14.70655	255.67780	176.52009	8.89539	0.0995128	0.18194938	3.0843880	21	—	—
324280 2006 CE_{45}	16.7	X	4.40995	2.45724	46.21863	3.84021	0.1872222	0.18116980	3.0932298	21	—	—
324281 2006 CV_{48}	15.7	X	202.52785	248.41270	325.22362	8.48208	0.0453244	0.17549627	3.1595419	21	12 12.2	20.4
324282 2006 CU_{49}	15.1	X	197.05041	312.62781	316.32639	10.37487	0.1370621	0.18306216	3.0718759	21	—	—
324283 2006 CM_{54}	16.4	X	176.97090	128.46870	129.65994	1.90699	0.1396514	0.17871790	3.1214569	21	—	—
324284 2006 CJ_{59}	15.4	X	296.91376	6.94910	167.35359	9.54441	0.0832290	0.18338053	3.0683194	21	—	—
324285 2006 CG_{61}	15.5	X	270.75957	347.44309	164.21702	11.50895	0.1716676	0.17848152	3.1242124	21	12 4.4	19.8
324286 2006 CA_{62}	15.4	X	295.17132	94.65086	28.38400	25.30173	0.3030361	0.17867583	3.1219469	21	11 7.8	19.1
324287 2006 DO	15.7	X	306.90691	257.37307	234.82754	10.00680	0.0391811	0.18251185	3.0780476	21	—	—
324288 2006 DV_{9}	15.0	X	141.66419	294.85585	14.26111	16.14039	0.2406768	0.17631397	3.1497656	21	—	—
324289 2006 DE_{15}	16.2	X	329.98814	343.55540	94.37630	3.38118	0.0601272	0.17584497	3.1553637	21	12 7.2	20.3
324290 2006 DG_{15}	15.7	X	202.29561	266.21387	343.54271	14.31385	0.1096170	0.17972602	3.1097734	21	—	—
324291 2006 DV_{26}	15.8	X	242.88737	9.90195	162.71528	8.48732	0.0138066	0.17215036	3.2003496	21	12 14.6	20.4
324292 2006 DK_{41}	15.3	X	311.94564	139.75583	299.14917	18.09418	0.0986067	0.17370190	3.1812637	21	11 3.8	19.7
324293 2006 DV_{45}	15.9	X	304.61725	121.99300	354.70792	9.18468	0.0632553	0.17427719	3.1742589	21	12 18.7	20.3
324294 2006 DY_{46}	15.8	X	293.76417	289.53426	163.94108	4.80148	0.1236074	0.16972203	3.2308037	21	10 30.5	20.0
324295 2006 DT_{55}	16.0	X	115.27215	309.54009	20.68219	8.12096	0.0602057	0.17827235	3.1266557	21	—	—
324296 2006 DL_{56}	15.8	X	100.09359	197.47601	108.36324	6.34404	0.0562244	0.17080424	3.2171424	21	12 10.5	20.6
324297 2006 DA_{57}	15.6	X	207.44982	117.71685	117.69469	6.26915	0.1615214	0.17509727	3.1643399	21	12 31.9	20.7
324298 2006 DC_{71}	15.8	X	6.90016	86.81407	338.13927	11.99420	0.0906681	0.18040651	3.1019484	21	—	—
324299 2006 DC_{77}	15.7	X	94.47456	187.41953	152.76284	12.60250	0.2270267	0.17535400	3.1612507	21	—	—
324300 2006 DR_{84}	15.9	X	268.25933	20.20645	179.46122	10.57108	0.0487450	0.18117070	3.0932195	21	—	—
324301 2006 DG_{98}	16.2	X	159.91660	70.37190	170.78845	2.11963	0.0620892	0.17116425	3.2126298	21	11 28.2	21.0
324302 2006 DT_{101}	16.0	X	284.47572	35.13777	105.46934	2.74205	0.1536679	0.17635132	3.1493209	21	12 10.6	20.0
324303 2006 DK_{111}	15.8	X	237.72012	201.41444	349.77914	3.47470	0.0987009	0.17433857	3.1735138	21	12 18.8	20.4
324304 2006 DP_{118}	15.6	X	291.78400	118.61998	355.96775	16.74652	0.1964631	0.17376798	3.1804571	21	11 5.6	19.8
324305 2006 DL_{123}	15.7	X	26.21197	237.44933	160.84235	17.65635	0.1824591	0.17927118	3.1150312	21	—	—
324306 2006 DD_{132}	15.9	X	313.98265	120.48278	5.72720	9.62911	0.0694121	0.17876764	3.1208780	21	—	—
324307 2006 DR_{141}	15.9	X	225.39105	94.88542	129.84450	5.10139	0.0996624	0.17695932	3.1421031	21	—	—
324308 2006 DG_{153}	15.7	X	65.77581	25.41077	345.93124	16.68480	0.1841109	0.17991560	3.1075885	21	—	—
324309 2006 DV_{181}	15.4	X	140.33504	317.93319	9.01711	16.62440	0.2023493	0.17687378	3.1431160	21	—	—
324310 2006 DQ_{184}	15.3	X	289.26477	344.08972	179.17196	19.69138	0.2436431	0.17896128	3.1186263	21	—	—
324311 2006 DR_{187}	16.0	X	198.36258	217.31502	24.15595	5.06780	0.1554875	0.17223970	3.1992429	21	12 30.8	21.2
324312 2006 DZ_{190}	15.9	X	134.80471	272.10689	32.87553	7.13862	0.1568817	0.17071370	3.2182798	21	—	—
324313 2006 DA_{195}	16.7	X	21.62547	79.33282	323.57604	4.36698	0.1329709	0.17913454	3.1166150	21	—	—
324314 2006 DF_{196}	15.8	X	329.85496	290.33417	181.36832	12.47349	0.1902255	0.18326616	3.0695959	21	—	—
324315 2006 DR_{198}	15.4	X	238.57601	157.89797	32.77495	19.12015	0.1383848	0.17479746	3.1679572	21	12 10.9	20.3
324316 2006 DZ_{199}	15.2	X	214.05171	200.87153	1.32166	26.96320	0.0740147	0.17668693	3.1453316	21	12 2.0	20.4
324317 2006 EP_{52}	15.5	X	199.41316	36.46508	188.44656	11.61469	0.0582672	0.17242059	3.1970049	21	12 20.5	20.4
324318 2006 FY_{11}	15.8	X	216.37753	70.80998	175.52652	11.90695	0.0420886	0.17761094	3.1344132	21	—	—
324319 2006 GG_{20}	18.4	X	185.82196	123.97985	171.91796	5.38508	0.0407610	0.30747673	2.1740084	21	—	—
324320 2006 GS_{48}	15.5	X	237.56798	349.03126	217.81964	11.76585	0.0488950	0.17081196	3.2170454	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324321 2006 HS_{50}	15.7	X	308.43434	287.12390	194.10589	19.35565	0.1171281	0.17357411	3.1828249	21	12 24.8	20.0
324322 2006 HB_{62}	17.6	X	191.20819	178.04035	165.99275	4.87043	0.2286759	0.31337851	2.1466269	21	2 9.8	21.0
324323 2006 HL_{90}	17.8	X	240.93519	354.30594	305.71756	0.62970	0.1806928	0.31317404	2.1475612	21	1 28.1	20.9
324324 2006 HP_{92}	18.2	X	238.78937	195.17006	115.46347	3.67037	0.2188927	0.31376018	2.1448857	21	2 8.3	21.5
324325 2006 HZ_{144}	18.0	X	245.95530	301.43060	5.11109	1.61334	0.1752371	0.25437657	2.4668986	21	2 18.1	21.8
324326 2006 HL_{147}	17.9	X	201.49262	34.27523	265.95700	2.92764	0.1921574	0.30556066	2.1830872	21	—	—
324327 2006 JB_{72}	15.5	X	58.79862	90.92406	215.19828	9.54254	0.0947442	0.15534990	3.4271154	21	10 26.8	20.2
324328 2006 KM_{61}	17.6	X	70.95340	159.03369	188.38518	6.21918	0.1762979	0.28898564	2.2657842	21	—	—
324329 2006 KU_{71}	17.6	X	103.83214	199.98906	177.63465	6.62617	0.1518702	0.30128467	2.2036944	21	—	—
324330 2006 OG_{1}	17.6	X	150.72250	8.64061	297.23405	6.03772	0.1056734	0.29179829	2.2512007	21	—	—
324331 2006 OE_{12}	17.7	X	145.35181	223.93031	100.42738	1.49667	0.2684719	0.29065103	2.2571208	21	—	—
324332 2006 OR_{12}	16.7	X	226.25644	196.31940	90.26857	10.70639	0.2374527	0.30220341	2.1992258	21	—	—
324333 2006 OW_{16}	17.4	X	17.84536	58.69143	298.48900	3.42434	0.1551524	0.27379287	2.3488464	21	12 5.9	19.9
324334 2006 PO	18.0	X	202.71823	10.41252	263.73096	4.18650	0.1544441	0.29552120	2.2322541	21	—	—
324335 2006 PG_{5}	17.6	X	91.25292	356.48427	330.97851	4.03817	0.1666461	0.28291230	2.2980960	21	—	—
324336 2006 PC_{11}	17.6	X	173.86888	43.13022	257.14265	1.61425	0.1918082	0.29340727	2.2429631	21	—	—
324337 2006 PV_{13}	17.3	X	191.72644	222.12345	78.28655	7.07090	0.2113364	0.29745107	2.2225883	21	—	—
324338 2006 PZ_{14}	17.4	X	300.64609	344.90799	46.41815	2.78014	0.2129176	0.26242734	2.4161839	21	8 14.9	19.6
324339 2006 PO_{16}	17.0	X	53.89076	178.60974	162.77249	7.46911	0.1398237	0.27596367	2.3365125	21	12 31.0	20.3
324340 2006 PB_{21}	18.0	X	133.30796	175.81473	154.82182	6.77151	0.1958327	0.29048320	2.2579901	21	—	—
324341 2006 PN_{26}	17.5	X	83.03254	326.18071	6.21765	5.91574	0.1845066	0.28058963	2.3107607	21	—	—
324342 2006 PB_{27}	17.1	X	346.31314	63.13281	288.73928	3.92294	0.2121343	0.26402065	2.4064534	21	9 26.5	18.7
324343 2006 QV_{2}	17.5	X	127.91823	338.25717	330.60522	6.68144	0.1310535	0.28491887	2.2872936	21	—	—
324344 2006 QH_{10}	16.8	X	73.76092	254.03151	98.91814	7.60617	0.2306689	0.28115025	2.3076879	21	—	—
324345 2006 QZ_{11}	17.5	X	129.99690	315.93746	10.83077	3.88366	0.1712641	0.28931498	2.2640644	21	—	—
324346 2006 QQ_{16}	17.6	X	351.92766	355.66048	346.77329	6.14433	0.1439907	0.26573203	2.3961102	21	9 22.4	19.8
324347 2006 QR_{18}	17.5	X	93.33478	337.02282	345.41049	5.56656	0.1876575	0.28115837	2.3076434	21	—	—
324348 2006 QW_{24}	17.3	X	43.74635	229.18291	127.77673	3.57836	0.2050774	0.27388487	2.3483204	21	—	—
324349 2006 QQ_{31}	17.2	X	10.70219	89.10715	290.92308	6.31683	0.1340012	0.27376955	2.3489798	21	12 23.9	19.6
324350 2006 QZ_{33}	17.4	X	200.68676	244.45613	56.81636	4.05434	0.1695462	0.29703472	2.2246647	21	—	—
324351 2006 QY_{35}	17.2	X	136.79873	212.65684	116.70901	5.52709	0.2035028	0.28859136	2.2678474	21	—	—
324352 2006 QC_{38}	17.0	X	112.43726	246.30581	102.69181	7.54170	0.1332613	0.28810004	2.2704250	21	—	—
324353 2006 QR_{55}	17.6	X	66.98923	16.93887	320.48260	1.42141	0.2300871	0.27725135	2.3292724	21	—	—
324354 2006 QJ_{57}	16.9	X	92.61963	56.98079	292.39610	5.66412	0.1382262	0.28393811	2.2925576	21	—	—
324355 2006 QA_{61}	17.4	X	179.50116	304.88079	344.25762	4.16942	0.1725211	0.29183143	2.2510303	21	—	—
324356 2006 QU_{80}	16.7	X	45.47238	53.36437	290.34975	4.39768	0.2838652	0.27374720	2.3491077	21	—	—
324357 2006 QB_{81}	17.7	X	214.15408	124.65588	179.62613	5.05854	0.1307802	0.30002132	2.2098763	21	1 9.4	20.9
324358 2006 QB_{100}	17.5	X	127.56626	113.21919	195.64096	5.79952	0.1356461	0.28530352	2.2852372	21	—	—
324359 2006 QL_{106}	17.2	X	22.38733	18.39864	340.49630	7.05056	0.1406879	0.27321817	2.3521391	21	12 12.5	20.0
324360 2006 QG_{108}	17.3	X	8.00109	82.67839	280.51460	1.18994	0.2057467	0.26961997	2.3730197	21	12 5.8	19.5
324361 2006 QV_{114}	16.1	X	198.06674	203.81487	194.47604	15.05185	0.1255829	0.24509580	2.5287864	21	5 1.9	20.1
324362 2006 QE_{116}	17.5	X	48.10923	50.20722	305.82854	3.24412	0.1790630	0.27553429	2.3389393	21	—	—
324363 2006 QF_{116}	17.6	X	139.04520	38.65339	267.05923	1.88496	0.1971859	0.28596530	2.2817102	21	—	—
324364 2006 QO_{121}	17.2	X	218.94021	41.40382	242.19828	4.68565	0.1321052	0.29734982	2.2230928	21	—	—
324365 2006 QD_{129}	16.9	X	235.08523	273.85954	352.25897	8.96839	0.1450717	0.29758421	2.2219253	21	—	—
324366 2006 QC_{134}	16.9	X	56.21676	74.66614	279.83704	2.04923	0.3511352	0.27461609	2.3441500	21	—	—
324367 2006 QY_{139}	17.6	X	221.08312	67.46118	218.33852	4.49074	0.1579850	0.30116372	2.2042843	21	—	—
324368 2006 QZ_{165}	17.1	X	112.03338	44.23640	282.94940	4.38710	0.1792713	0.28316234	2.2967429	21	—	—
324369 2006 QF_{166}	17.2	X	218.74340	4.57666	285.15839	4.50344	0.1605610	0.29684864	2.2255943	21	—	—
324370 2006 QV_{167}	17.7	X	109.61989	170.57200	147.39505	6.23921	0.1376573	0.28263720	2.2995870	21	—	—
324371 2006 QH_{183}	17.4	X	149.41788	264.73149	51.37440	3.24574	0.1732233	0.28832280	2.2692555	21	—	—
324372 2006 RW_{2}	17.7	X	226.69069	268.98674	36.82039	3.33446	0.1950624	0.30278555	2.1964060	21	1 25.4	21.3
324373 2006 RA_{4}	17.4	X	10.07053	357.58787	356.05691	4.29771	0.1259558	0.26825571	2.3810585	21	11 11.1	20.0
324374 2006 RE_{9}	16.9	X	74.24038	243.10787	133.40084	6.54233	0.1120786	0.28247711	2.3004557	21	—	—
324375 2006 RN_{11}	17.2	X	58.56866	326.97988	5.41588	2.43709	0.2245005	0.27431797	2.3458480	21	—	—
324376 2006 RY_{17}	17.2	X	15.57230	94.96398	258.42787	5.29464	0.1694267	0.26801504	2.3824837	21	11 28.0	19.7
324377 2006 RZ_{27}	16.2	X	169.34999	25.57911	13.57439	16.42966	0.3049649	0.23381159	2.6095083	21	4 10.5	20.9
324378 2006 RO_{33}	17.9	X	120.86840	55.13299	246.09810	1.55341	0.1919771	0.28303371	2.2974387	21	—	—
324379 2006 RY_{35}	16.6	X	71.71954	347.13954	11.80944	8.31665	0.1374268	0.27790180	2.3256363	21	—	—
324380 2006 RW_{37}	16.7	X	11.76499	5.82915	24.87194	8.69562	0.1315425	0.27244293	2.3565990	21	—	—
324381 2006 RB_{53}	16.8	X	318.13613	355.35658	20.72503	6.63478	0.1059731	0.25883263	2.4385034	21	9 10.6	19.3
324382 2006 RH_{59}	17.6	X	4.90125	162.37677	196.80325	5.20546	0.1333859	0.26590586	2.3950657	21	11 13.3	19.9
324383 2006 RS_{78}	18.1	X	145.97284	106.68135	162.61507	3.40046	0.1663456	0.27994518	2.3143056	21	—	—
324384 2006 RJ_{88}	17.6	X	160.22503	19.31910	251.18069	2.09406	0.2069690	0.28251701	2.3002391	21	—	—
324385 2006 RN_{90}	17.3	X	159.57722	255.26625	13.25859	6.82135	0.1065767	0.27936981	2.3174821	21	—	—
324386 2006 RL_{95}	17.1	X	134.92162	296.03042	0.43369	5.47124	0.1717284	0.28037725	2.3119274	21	—	—
324387 2006 RR_{96}	16.5	X	101.50135	112.44953	9.08238	6.46865	0.4084701	0.22933193	2.6433806	21	6 7.8	20.9
324388 2006 RH_{112}	17.9	X	187.93850	35.56655	160.23711	2.32510	0.1384894	0.26932628	2.3747445	21	11 12.4	21.3
324389 2006 SV_{3}	16.9	X	0.49313	10.72102	337.28985	6.54519	0.1237031	0.26382807	2.4076243	21	10 13.9	19.3
324390 2006 SM_{18}	17.4	X	358.59757	304.18194	65.89620	3.25832	0.2218583	0.26631655	2.3926029	21	11 29.9	19.4
324391 2006 SD_{21}	17.2	X	178.42521	286.21349	356.69426	4.29424	0.0551947	0.28747164	2.2737326	21	—	—
324392 2006 SO_{22}	17.6	X	119.68780	255.84875	68.20789	6.76615	0.2114969	0.28415343	2.2913993	21	—	—
324393 2006 SD_{31}	17.5	X	236.92475	70.00425	213.26417	3.65240	0.1513313	0.30182924	2.2010429	21	1 4.9	20.9
324394 2006 SH_{36}	16.9	X	29.40327	290.54374	75.22448	7.32217	0.1529247	0.27307608	2.3529549	21	—	—
324395 2006 SB_{43}	17.3	X	187.28168	313.99721	250.14481	4.13592	0.1733296	0.27066147	2.3669282	21	11 18.8	21.0
324396 2006 SR_{53}	16.9	X	277.77609	171.92065	231.18541	11.57204	0.1506807	0.25795170	2.4440521	21	7 30.1	20.2
324397 2006 SP_{55}	16.6	X	70.67463	248.04867	92.73849	6.55096	0.2399834	0.27633707	2.3344072	21	—	—
324398 2006 SX_{88}	17.8	X	179.51210	269.28231	181.86864	2.89455	0.1627249	0.24444344	2.5332835	21	6 19.4	21.8
324399 2006 SU_{91}	17.0	X	94.06159	326.26245	3.20596	2.95310	0.1727257	0.27770895	2.3267129	21	—	—
324400 2006 SQ_{108}	17.5	X	170.58856	357.77439	202.93651	2.96749	0.0770208	0.26593248	2.3949059	21	11 3.2	20.7

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324401 2006 SZ_{122}	17.0	X	294.97805	16.64868	58.36126	7.12651	0.0939131	0.26661121	2.3908397	21	10 28.9	19.5
324402 2006 SM_{150}	17.5	X	144.69379	264.05016	200.14460	5.41434	0.2422889	0.23794811	2.5791774	21	6 8.6	21.8
324403 2006 SM_{151}	17.9	X	281.57971	68.18837	332.25005	2.41348	0.0836467	0.25604219	2.4561885	21	8 16.9	20.7
324404 2006 SE_{155}	16.6	X	113.93470	144.45111	172.81081	8.78070	0.0731931	0.27927332	2.3180159	21	—	—
324405 2006 ST_{160}	16.6	X	304.35408	338.45543	30.77501	16.35850	0.0490660	0.25462397	2.4653005	21	8 21.3	19.9
324406 2006 SP_{185}	17.3	X	294.15951	24.66785	0.41393	6.99293	0.1293743	0.25517525	2.4617485	21	8 9.2	20.1
324407 2006 SB_{197}	16.8	X	211.79926	358.08464	39.05726	15.67050	0.1009612	0.23990134	2.5651589	21	5 11.9	20.7
324408 2006 SH_{200}	17.7	X	112.18177	92.11227	207.16163	4.37678	0.2357884	0.27781948	2.3260958	21	—	—
324409 2006 SE_{202}	16.9	X	108.44567	312.49618	0.95332	6.66298	0.1306267	0.27726387	2.3292022	21	—	—
324410 2006 SY_{216}	17.3	X	90.59483	73.56016	30.22806	11.87540	0.2800603	0.22655660	2.6649245	21	4 19.6	20.7
324411 2006 SE_{217}	17.2	X	113.43792	149.33466	162.03454	9.75107	0.2104806	0.27900703	2.3194906	21	—	—
324412 2006 SL_{219}	17.7	X	150.46285	32.79057	238.29950	0.75130	0.1242414	0.28174529	2.3044375	21	—	—
324413 2006 SH_{242}	17.4	X	132.91386	128.53310	67.48288	2.31285	0.1278355	0.26006966	2.4307647	21	9 18.4	21.0
324414 2006 SM_{247}	17.6	X	115.84214	161.34320	160.09120	1.79206	0.1623231	0.28274734	2.2989897	21	—	—
324415 2006 ST_{265}	17.3	X	207.04904	151.28429	250.25383	3.48537	0.2629162	0.24101123	2.5572775	21	5 10.2	21.8
324416 2006 SN_{280}	16.9	X	99.84194	231.19957	93.60439	4.72736	0.2563087	0.27882862	2.3204800	21	—	—
324417 2006 SS_{290}	17.2	X	322.08322	162.01809	251.65706	1.65668	0.1836946	0.26411248	2.4058955	21	11 9.9	19.1
324418 2006 SX_{305}	17.2	X	193.76046	226.21610	51.63576	6.00132	0.1437446	0.28918891	2.2647223	21	—	—
324419 2006 SE_{307}	16.6	X	204.20752	329.28452	209.62996	13.93495	0.0790747	0.26842680	2.3800466	21	11 14.5	19.8
324420 2006 SD_{315}	16.9	X	336.34595	21.84857	31.49872	7.22452	0.1097506	0.26837756	2.3803377	21	12 7.2	19.3
324421 2006 SM_{320}	17.2	X	147.15687	273.23692	177.54773	9.30472	0.1734715	0.23809410	2.5781230	21	5 21.7	21.4
324422 2006 SN_{320}	17.2	X	233.48443	342.14038	167.49157	6.62813	0.0834211	0.26709508	2.3879513	21	11 12.4	20.3
324423 2006 SD_{323}	17.8	X	6.76922	305.42880	52.31877	4.15169	0.1458253	0.26608980	2.3939619	21	11 15.3	20.0
324424 2006 SC_{325}	17.9	X	156.06610	220.92279	41.95898	3.17576	0.1957437	0.27837680	2.3229901	21	—	—
324425 2006 SZ_{350}	17.2	X	80.29110	261.64401	52.06141	4.48396	0.1464493	0.27528022	2.3403782	21	12 25.4	20.5
324426 2006 SX_{354}	17.6	X	123.70397	326.17786	115.06010	1.92921	0.2799702	0.22939491	2.6428967	21	4 26.6	21.7
324427 2006 SR_{358}	17.6	X	267.54297	6.21079	40.21566	6.57865	0.1386179	0.25374415	2.4709959	21	7 29.1	20.9
324428 2006 SD_{360}	17.0	X	114.11672	258.65298	197.63040	5.65496	0.1896296	0.22841816	2.6504256	21	4 25.5	20.9
324429 2006 SF_{372}	16.6	X	182.49286	284.75117	128.10036	14.11803	0.1786395	0.23708930	2.5854020	21	5 10.2	21.1
324430 2006 SL_{393}	17.1	X	32.99132	278.05096	59.45871	7.07152	0.1243535	0.26296059	2.4129164	21	11 24.2	19.8
324431 2006 SY_{403}	17.5	X	190.83789	213.63009	193.56922	5.58803	0.1216700	0.23916736	2.5704043	21	5 5.7	21.5
324432 2006 SL_{408}	17.4	X	193.67683	143.11254	84.34509	2.31447	0.1529996	0.27390978	2.3481781	21	12 26.9	20.7
324433 2006 SP_{408}	17.1	X	152.85236	324.95613	299.53696	2.15555	0.1721678	0.27468109	2.3437802	21	—	—
324434 2006 ST_{409}	17.4	X	259.99711	275.36427	194.64185	5.84773	0.0742860	0.26387609	2.4073322	21	10 25.5	20.1
324435 2006 TA_{2}	17.4	X	220.38572	51.39094	80.53330	3.33108	0.1386946	0.25979823	2.4324575	21	9 25.5	20.8
324436 2006 TO_{8}	17.3	X	193.04410	269.12157	34.44700	8.03412	0.1590357	0.29021189	2.2593972	21	—	—
324437 2006 TX_{21}	16.7	X	133.74495	235.82665	200.60062	4.66074	0.1756165	0.23107566	2.6300656	21	4 19.0	20.5
324438 2006 TP_{29}	17.2	X	186.41691	202.98010	203.87043	7.50791	0.1805241	0.23763987	2.5814071	21	5 1.6	21.4
324439 2006 TU_{30}	17.3	X	148.76519	103.64098	198.03558	1.81843	0.2036854	0.28314759	2.2968227	21	—	—
324440 2006 TU_{33}	17.4	X	297.66627	232.06729	205.46293	5.65720	0.0739974	0.26384602	2.4075151	21	11 6.5	20.0
324441 2006 TB_{38}	17.7	X	143.10335	73.03876	10.17980	0.28557	0.1606325	0.23391748	2.6087207	21	5 5.2	21.8
324442 2006 TY_{50}	17.2	X	151.68655	236.59767	210.89365	4.55923	0.2134542	0.23472584	2.6027279	21	5 23.2	21.5
324443 2006 TJ_{54}	17.2	X	188.23710	109.23790	299.37915	3.28344	0.1724387	0.23781015	2.5801748	21	5 3.4	21.5
324444 2006 TS_{69}	16.8	X	234.46878	29.38646	79.26876	4.52794	0.1321286	0.25749004	2.4469725	21	9 12.1	20.3
324445 2006 TW_{75}	16.9	X	159.46147	55.76445	8.06523	7.11349	0.1714928	0.23461309	2.6035618	21	4 25.8	21.2
324446 2006 TK_{79}	17.2	X	131.08569	250.39761	192.84405	4.25614	0.2099753	0.23038681	2.6353056	21	4 28.9	21.2
324447 2006 TR_{82}	17.6	X	139.11108	105.98911	347.05132	4.24258	0.1714565	0.23484241	2.6018666	21	5 13.4	21.7
324448 2006 TU_{93}	17.1	X	177.86519	240.41112	184.59863	4.65269	0.2324209	0.23744909	2.5827897	21	5 18.1	21.5
324449 2006 TR_{101}	16.6	X	147.16263	65.16960	231.24493	5.62700	0.1995227	0.28119052	2.3074675	21	—	—
324450 2006 TR_{102}	17.3	X	159.87316	271.26582	217.75336	10.89800	0.2490648	0.24284841	2.5443638	21	7 19.1	21.9
324451 2006 TA_{107}	16.3	X	107.80916	248.52908	46.11556	8.63835	0.0437484	0.27063440	2.3670861	21	12 22.3	19.5
324452 2006 TE_{124}	17.2	X	124.71217	325.71284	256.61698	3.53605	0.1492871	0.25938258	2.4350554	21	10 12.3	21.1
324453 2006 TH_{124}	17.4	X	179.77154	284.73943	232.93206	6.00029	0.1151513	0.25503779	2.4626330	21	9 12.4	21.3
324454 2006 TV_{124}	16.4	X	272.51611	326.27492	18.08306	16.08637	0.0315845	0.24246066	2.5470757	21	5 19.4	20.0
324455 2006 UH_{1}	16.9	X	177.13328	108.23740	352.34425	9.18382	0.2459296	0.24449365	2.5329366	21	6 30.8	21.5
324456 2006 UE_{8}	17.0	X	107.40880	46.84808	63.30885	4.88934	0.2095204	0.23160651	2.6260453	21	5 8.2	20.6
324457 2006 UH_{8}	17.2	X	98.38688	241.06264	58.25898	5.77123	0.2314691	0.27421926	2.3464110	21	12 29.9	21.1
324458 2006 UR_{8}	16.7	X	91.76088	59.64300	46.69807	13.54265	0.2247827	0.22477219	2.6790100	21	4 19.1	20.2
324459 2006 UZ_{9}	17.3	X	217.32298	278.87091	137.16476	2.55656	0.1500017	0.24292153	2.5438532	21	6 10.9	21.3
324460 2006 UJ_{16}	16.5	X	265.39198	329.81378	57.88749	14.63202	0.0280035	0.24692474	2.5162840	21	7 16.6	20.0
324461 2006 UP_{16}	16.5	X	111.94292	68.25049	74.10225	7.07847	0.2515228	0.23412525	2.6071772	21	6 28.1	20.5
324462 2006 UJ_{20}	17.5	X	196.22351	313.01978	330.04659	2.81159	0.1683796	0.28829793	2.2693860	21	—	—
324463 2006 UR_{26}	16.9	X	169.36475	330.81016	226.61724	4.13990	0.0315691	0.26316951	2.4116392	21	10 29.5	20.1
324464 2006 UW_{26}	17.7	X	11.40125	141.75631	219.54610	4.05536	0.1277585	0.26580157	2.3956922	21	11 25.9	20.1
324465 2006 UB_{33}	17.8	X	115.89353	225.21125	58.19616	2.13725	0.1867827	0.27264870	2.3554131	21	12 23.1	21.4
324466 2006 UT_{42}	16.9	X	138.05116	147.24678	49.12451	8.31435	0.0648205	0.25462265	2.4653090	21	9 23.7	20.4
324467 2006 UP_{43}	16.6	X	286.18617	344.06948	46.06217	6.97859	0.0736241	0.25248376	2.4792125	21	8 13.7	19.7
324468 2006 UU_{53}	17.3	X	203.39973	207.20575	208.82056	3.62179	0.1539327	0.24019457	2.5630708	21	5 28.4	21.3
324469 2006 UC_{55}	15.9	X	202.93836	326.08902	45.71265	12.71500	0.1865477	0.23381413	2.6094895	21	4 6.6	20.3
324470 2006 UU_{69}	17.1	X	36.65080	300.61100	52.77642	7.60526	0.1545453	0.26990023	2.3713767	21	12 26.7	20.1
324471 2006 UN_{73}	17.1	X	154.46850	159.45720	329.05970	4.06471	0.1853691	0.24427223	2.5344671	21	7 15.4	21.1
324472 2006 UZ_{82}	17.1	X	224.38812	119.45400	293.17381	3.27350	0.1357906	0.24569910	2.5246451	21	6 14.4	21.0
324473 2006 UC_{88}	17.6	X	98.68575	279.03721	2.39607	3.70144	0.2013369	0.26818186	2.3814956	21	12 5.4	21.4
324474 2006 UZ_{89}	16.9	X	97.77834	214.02773	235.12098	9.19592	0.1963889	0.22486270	2.6782911	21	3 24.6	20.6
324475 2006 UB_{92}	17.0	X	165.38990	34.19527	40.39270	7.11205	0.1658032	0.23773136	2.5807448	21	5 15.5	21.2
324476 2006 US_{95}	16.9	X	74.37290	68.13193	178.84440	5.09488	0.1203824	0.25573967	2.4581251	21	9 16.4	20.0
324477 2006 UU_{99}	17.1	X	128.89534	336.20913	144.46766	3.24262	0.1647886	0.23665822	2.5885407	21	6 8.7	21.0
324478 2006 UQ_{100}	17.1	X	137.87312	41.73914	111.28455	4.78716	0.1724675	0.24410244	2.5356422	21	7 30.5	21.1
324479 2006 UJ_{104}	17.3	X	176.71253	126.88144	68.64568	4.78021	0.0775966	0.26147648	2.4220381	21	11 3.4	20.6
324480 2006 UN_{104}	16.8	X	144.21675	212.41472	64.60525	6.13381	0.0829216	0.27285405	2.3542312	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324481 2006 US_{108}	17.4	X	7.09781	171.81735	142.13798	4.06778	0.1050798	0.25434009	2.4671345	21	9 5.5	19.8
324482 2006 UK_{133}	17.7	X	78.33339	89.96889	209.07754	9.05479	0.1245202	0.26703263	2.3883235	21	12 1.8	21.2
324483 2006 UL_{135}	17.1	X	122.69211	261.74839	207.51844	8.88502	0.0538517	0.23624763	2.5915389	21	5 4.2	20.6
324484 2006 UO_{136}	17.1	X	178.36004	102.18804	319.49375	3.00618	0.1976204	0.23707120	2.5855336	21	5 11.7	21.4
324485 2006 UA_{142}	17.2	X	113.69393	199.27463	12.98869	5.69531	0.0959955	0.25251600	2.4790014	21	9 15.8	20.6
324486 2006 UY_{142}	16.8	X	183.15114	175.61540	243.18121	8.06605	0.1480309	0.23770932	2.5809044	21	5 11.9	20.9
324487 2006 UL_{156}	17.3	X	149.51059	122.01310	174.06951	2.90307	0.1690431	0.28257795	2.2999084	21	—	—
324488 2006 UD_{179}	16.1	X	221.31396	83.54742	338.97619	12.19414	0.1495837	0.24466417	2.5317596	21	6 24.2	20.3
324489 2006 UD_{202}	17.4	X	144.68536	47.30829	44.74834	5.22617	0.2479121	0.23515556	2.5995562	21	5 24.0	21.8
324490 2006 UH_{208}	17.1	X	158.47601	75.25793	215.39788	6.48334	0.2110564	0.28230011	2.3014172	21	—	—
324491 2006 UK_{210}	17.5	X	151.25044	299.73319	4.50030	5.84198	0.1490231	0.28082749	2.3094557	21	—	—
324492 2006 US_{232}	17.0	X	128.51347	51.05140	10.74761	12.67259	0.1936156	0.22879283	2.6475314	21	3 28.6	20.8
324493 2006 UO_{233}	17.5	X	121.96412	154.58488	52.40710	6.90818	0.0489949	0.25624916	2.4548657	21	9 17.1	20.9
324494 2006 UA_{235}	16.2	X	289.12255	275.82523	80.49898	5.39662	0.2630182	0.24328601	2.5413118	21	5 27.8	19.5
324495 2006 UD_{248}	17.0	X	123.35658	248.23950	220.71958	7.11664	0.1362723	0.23551298	2.5969254	21	5 15.1	20.8
324496 2006 UV_{260}	17.6	X	350.28393	134.02967	207.40829	3.88473	0.0168800	0.25630019	2.4545399	21	9 11.4	20.7
324497 2006 UN_{271}	17.7	X	168.67529	229.96231	50.02250	6.04272	0.2393139	0.27932482	2.3177310	21	—	—
324498 2006 UM_{279}	17.5	X	207.25029	290.98799	120.91926	1.09150	0.1765738	0.24135600	2.5548417	21	5 25.9	21.7
324499 2006 UG_{285}	16.4	X	189.83506	342.63053	49.70932	3.99106	0.2631719	0.23441906	2.6049982	21	4 17.9	20.9
324500 2006 UJ_{285}	17.6	X	142.42486	225.98526	66.50840	2.78750	0.1710481	0.27692753	2.3310878	21	—	—
324501 2006 UQ_{286}	17.4	X	217.32589	323.42929	79.28975	0.89705	0.1968579	0.24221200	2.5488187	21	5 22.4	21.6
324502 2006 UO_{288}	17.0	X	132.76467	170.23628	340.36599	4.22471	0.1981516	0.24349629	2.5398485	21	7 24.7	21.1
324503 2006 UY_{328}	16.9	X	71.28440	226.21337	68.02344	7.40680	0.1174023	0.26169802	2.4206709	21	11 15.9	20.1
324504 2006 UQ_{334}	17.1	X	124.70225	271.40079	232.57070	1.76926	0.1476724	0.23970938	2.5665282	21	7 2.5	20.9
324505 2006 UC_{346}	16.8	X	219.96979	265.71099	146.43409	11.09717	0.1208479	0.24365552	2.5387419	21	6 11.6	20.8
324506 2006 VZ_{5}	17.4	X	138.66644	23.76478	56.39030	5.39541	0.2688689	0.23080205	2.6321438	21	5 6.8	21.6
324507 2006 VV_{20}	17.3	X	199.79056	152.54617	266.38100	0.89221	0.0924135	0.23999004	2.5645268	21	5 29.6	21.0
324508 2006 VN_{29}	16.7	X	122.17244	49.21281	50.59438	10.78333	0.1448339	0.23002739	2.6380499	21	5 3.6	20.5
324509 2006 VZ_{32}	17.2	X	36.16555	327.18384	16.86500	2.36216	0.2009466	0.26780767	2.3837134	21	12 20.2	20.2
324510 2006 VG_{37}	17.1	X	187.83043	91.43508	305.98026	5.38776	0.1724544	0.23560194	2.5962717	21	4 17.8	21.4
324511 2006 VH_{45}	17.0	X	213.12490	353.79652	50.30579	8.53651	0.1230638	0.24260165	2.5460888	21	5 22.7	20.9
324512 2006 VD_{46}	16.7	X	36.02191	30.32588	258.95872	5.27067	0.1185763	0.25514645	2.4619337	21	9 16.9	19.6
324513 2006 VD_{51}	16.6	X	275.29228	103.72109	256.11090	3.33862	0.1811780	0.24388141	2.5371740	21	5 26.9	19.9
324514 2006 VH_{55}	17.9	X	167.97090	203.60168	208.83503	2.17366	0.1381187	0.23288356	2.6164363	21	4 19.6	21.9
324515 2006 VS_{55}	17.4	X	152.23635	305.08453	181.06009	1.42168	0.1203665	0.24090327	2.5580415	21	7 6.3	21.1
324516 2006 VV_{55}	17.2	X	237.15276	323.75378	72.07695	2.83913	0.0973961	0.24306595	2.5428454	21	6 9.7	20.8
324517 2006 VV_{72}	17.6	X	92.68563	106.22284	56.04562	4.08834	0.0991513	0.23594389	2.5937626	21	6 11.6	21.0
324518 2006 VW_{72}	17.4	X	204.56249	36.19649	3.99317	0.49202	0.1195765	0.23721633	2.5844789	21	5 9.7	21.3
324519 2006 VC_{85}	16.9	X	233.58748	62.29486	353.30014	3.23636	0.1351324	0.24488999	2.5302030	21	6 28.6	20.6
324520 2006 VS_{87}	17.1	X	164.98218	57.54913	10.28472	4.34903	0.1654783	0.23454556	2.6040615	21	5 6.3	21.2
324521 2006 VS_{92}	17.0	X	342.57469	93.91096	139.93840	3.00089	0.0845434	0.23122863	2.6289055	21	3 28.5	20.0
324522 2006 VJ_{101}	15.8	X	247.26524	118.38832	244.92288	14.28579	0.0808035	0.23699593	2.5860810	21	5 10.5	19.5
324523 2006 VU_{106}	16.2	X	72.47244	257.20382	199.66128	13.48607	0.0939592	0.22262850	2.6961800	21	2 10.6	19.8
324524 2006 VZ_{108}	17.4	X	111.56062	59.78214	268.40399	4.30943	0.2917554	0.27976538	2.3152972	21	—	—
324525 2006 VZ_{111}	17.0	X	214.11373	38.51230	3.97525	5.89440	0.2286303	0.24103043	2.5571418	21	5 16.5	21.3
324526 2006 VX_{113}	16.7	X	210.83217	351.78679	40.36160	6.77871	0.2155078	0.23703973	2.5857624	21	5 3.1	21.1
324527 2006 VN_{119}	17.5	X	197.63805	354.79074	69.07161	3.41829	0.1439457	0.23974704	2.5662594	21	6 1.7	21.6
324528 2006 VA_{128}	16.4	X	19.79549	286.69695	20.89219	8.23571	0.1461248	0.25539328	2.4603472	21	9 25.6	18.8
324529 2006 VW_{135}	17.5	X	119.49352	226.77450	262.40919	1.83275	0.0505207	0.23627419	2.5913447	21	5 25.7	21.1
324530 2006 VJ_{138}	17.1	X	68.35680	82.59519	67.27721	13.72971	0.2181419	0.22672105	2.6636357	21	5 12.1	20.2
324531 2006 VD_{139}	17.4	X	189.26464	350.84681	55.49776	2.73375	0.2035177	0.23557685	2.5964560	21	5 3.3	21.8
324532 2006 VR_{144}	17.2	X	235.29156	46.70278	326.96232	6.65387	0.2869386	0.24249722	2.5468198	21	4 23.8	21.9
324533 2006 VF_{146}	16.4	X	131.47545	54.19445	108.49331	6.74283	0.1393731	0.24276738	2.5449300	21	8 3.7	20.3
324534 2006 VW_{168}	16.8	X	84.35723	259.73993	244.04068	11.23420	0.1458424	0.22913279	2.6449120	21	5 13.1	20.2
324535 2006 VZ_{173}	16.8	X	145.40706	349.81705	97.69041	10.21631	0.1366197	0.23305609	2.6151448	21	5 14.2	20.9
324536 2006 WW_{9}	16.4	X	104.16022	249.03163	219.16442	12.62084	0.1571113	0.22914506	2.6448175	21	4 23.5	20.0
324537 2006 WL_{11}	16.5	X	170.74087	84.11698	18.61247	4.31030	0.1262714	0.23907339	2.5710779	21	6 25.4	20.4
324538 2006 WG_{12}	16.9	X	100.86301	279.46933	232.08550	11.93990	0.2041142	0.23270837	2.6177493	21	6 22.1	20.8
324539 2006 WA_{17}	17.0	X	227.82807	291.83450	116.61246	4.99291	0.1393320	0.24555771	2.5256141	21	6 12.6	20.9
324540 2006 WT_{27}	17.0	X	29.78053	257.47722	52.25027	3.15170	0.1966661	0.25757716	2.4464208	21	10 23.4	19.5
324541 2006 WM_{30}	17.1	X	117.77807	205.72746	310.03836	3.56452	0.1854669	0.24053667	2.5606400	21	7 14.9	21.1
324542 2006 WZ_{34}	16.7	X	141.71954	146.29592	102.92610	7.03108	0.0824534	0.26431920	2.4046410	21	12 3.7	20.1
324543 2006 WW_{41}	17.4	X	120.15320	346.68404	135.97212	3.52769	0.1390370	0.23458609	2.6037615	21	5 30.2	21.1
324544 2006 WH_{42}	17.3	X	107.81554	302.78576	153.08447	3.97485	0.0830906	0.22865915	2.6485631	21	4 2.7	20.8
324545 2006 WK_{44}	17.0	X	153.39429	0.08181	118.92140	5.48354	0.1951874	0.23835019	2.5762759	21	7 1.9	21.2
324546 2006 WO_{48}	16.7	X	122.71321	214.93968	307.62602	2.65320	0.1054733	0.24037827	2.5617648	21	7 21.0	20.3
324547 2006 WC_{50}	16.5	X	98.59641	47.90998	78.91213	13.23296	0.1208220	0.22970528	2.6405156	21	5 9.8	20.1
324548 2006 WD_{57}	17.0	X	120.34806	28.71907	71.64170	6.91978	0.0349960	0.22929204	2.6436872	21	4 19.1	20.5
324549 2006 WN_{64}	16.9	X	151.17734	106.22096	11.94976	6.04866	0.1590536	0.23865929	2.5740511	21	6 27.4	21.0
324550 2006 WB_{68}	16.7	X	226.00857	227.72641	195.78915	3.67189	0.2297632	0.24382014	2.5375990	21	6 23.4	21.0
324551 2006 WA_{69}	16.9	X	75.21153	313.68704	211.42320	6.44793	0.0409246	0.23334564	2.6129810	21	5 13.7	20.3
324552 2006 WG_{78}	17.6	X	96.39506	68.30030	234.39162	1.98025	0.2118592	0.27039029	2.3685106	21	12 30.5	21.5
324553 2006 WL_{80}	17.0	X	323.90813	300.12234	25.64082	2.54894	0.0948812	0.24674387	2.5175134	21	7 4.9	19.9
324554 2006 WM_{82}	17.2	X	271.52382	188.72270	183.31437	2.06354	0.1335376	0.24491406	2.5300372	21	6 14.9	20.7
324555 2006 WJ_{83}	17.0	X	53.37310	39.37710	75.19950	10.31407	0.2766603	0.21803769	2.7338940	21	3 7.2	19.6
324556 2006 WP_{92}	17.5	X	239.57707	230.63661	169.69999	1.48882	0.1284850	0.24430447	2.5342441	21	6 15.4	21.0
324557 2006 WZ_{97}	16.7	X	283.05985	293.67140	73.14998	1.30749	0.1385011	0.24681147	2.5170538	21	6 22.3	19.9
324558 2006 WR_{98}	17.3	X	171.00869	245.38548	160.60322	0.56520	0.1799916	0.23204556	2.6227317	21	4 16.7	21.4
324559 2006 WG_{102}	17.6	X	100.35078	47.47924	63.33915	3.04706	0.1588794	0.22741660	2.6582017	21	4 23.8	21.2
324560 2006 WR_{109}	17.1	X	67.48116	235.36298	78.56820	6.61403	0.2083721	0.26403675	2.4063556	21	12 16.9	20.6

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324561 2006 WM_{111}	16.9	X	51.57535	261.04466	79.44835	5.11791	0.1555335	0.26605613	2.3941639	21	12 27.5	20.1
324562 2006 WZ_{116}	17.5	X	56.95235	310.02003	2.23084	6.09711	0.1289097	0.26314729	2.4117750	21	11 21.4	20.8
324563 2006 WC_{120}	17.2	X	182.10611	26.52175	23.77932	7.74936	0.2134002	0.23516376	2.5994958	21	5 1.1	21.6
324564 2006 WP_{130}	15.8	X	46.86488	218.45794	121.21060	23.97713	0.2275968	0.26733468	2.3865242	21	—	—
324565 2006 WD_{136}	17.6	X	182.85530	234.02852	69.72366	7.09990	0.2132134	0.28666649	2.2779880	21	—	—
324566 2006 WX_{136}	16.7	X	186.12762	310.49710	113.34258	6.13602	0.1233963	0.24018360	2.5631488	21	5 22.9	20.7
324567 2006 WP_{140}	17.6	X	106.31279	95.47349	47.74019	3.15774	0.1725010	0.23481120	2.6020972	21	6 13.8	21.4
324568 2006 WF_{149}	17.0	X	151.42290	13.62983	66.80739	12.95654	0.1642251	0.23184501	2.6242440	21	5 12.2	21.1
324569 2006 WM_{152}	17.1	X	259.34873	204.29518	164.49925	6.29715	0.1833286	0.24358541	2.5392290	21	5 22.0	20.9
324570 2006 WW_{155}	17.4	X	157.36070	210.34750	56.54519	2.20571	0.1739996	0.27265080	2.3554010	21	—	—
324571 2006 WX_{170}	17.1	X	85.65917	204.04089	86.73074	4.25064	0.1756638	0.26301722	2.4125700	21	12 3.0	20.6
324572 2006 WN_{171}	17.4	X	35.05433	129.05158	186.65400	1.83010	0.2306715	0.26005166	2.4308769	21	11 14.6	20.1
324573 2006 WR_{179}	17.3	X	123.31809	252.37945	233.37539	3.76886	0.0964919	0.23537161	2.5979652	21	6 1.3	20.9
324574 2006 WX_{190}	16.1	X	223.06491	309.73484	78.73506	14.57343	0.0981184	0.23615114	2.5922448	21	5 17.9	20.0
324575 2006 WO_{193}	16.8	X	162.76990	1.45315	78.73350	6.56014	0.3148252	0.23257460	2.6187529	21	5 27.4	21.5
324576 2006 WH_{194}	16.3	X	197.76669	307.59419	90.68257	16.61283	0.1463841	0.23412876	2.6071511	21	5 6.9	20.7
324577 2006 WZ_{197}	16.0	X	329.46971	312.30595	302.68488	7.95229	0.1540223	0.21946230	2.7220500	21	3 23.3	19.5
324578 2006 WE_{198}	16.9	X	186.27650	293.40092	95.50003	7.31985	0.0277847	0.22420644	2.6835148	21	4 9.4	20.7
324579 2006 WQ_{198}	16.5	X	30.23031	85.85046	111.01987	14.59795	0.0452936	0.22468151	2.6797308	21	4 29.3	20.2
324580 2006 WT_{204}	16.4	X	246.90022	36.45091	292.94640	13.24899	0.1301599	0.22634865	2.6665564	21	3 17.3	20.7
324581 2006 XC	16.6	X	254.50973	14.45904	348.99375	3.87275	0.0965555	0.23887095	2.5725302	21	5 17.0	20.2
324582 2006 XK	15.8	X	143.39071	60.78812	325.02171	28.07318	0.4434362	0.22501390	2.6770911	21	3 8.1	21.1
324583 2006 XZ	16.6	X	81.83148	207.27019	76.44688	8.28415	0.1420471	0.26109472	2.4243984	21	11 17.7	20.0
324584 2006 XZ_{11}	16.6	X	69.86508	50.25026	76.88302	14.35701	0.1908932	0.22212093	2.7002858	21	4 14.3	20.0
324585 2006 XA_{12}	17.0	X	267.84931	6.21712	337.30125	1.63967	0.1475422	0.23797147	2.5790086	21	4 30.7	20.7
324586 2006 XB_{12}	16.6	X	250.09068	49.27981	336.34819	1.37322	0.1967022	0.24276486	2.5449475	21	5 31.1	20.5
324587 2006 XU_{15}	16.8	X	229.99158	116.66704	268.60235	3.10260	0.2100573	0.23815865	2.5776571	21	5 10.5	21.0
324588 2006 XH_{17}	16.9	X	247.35651	51.25840	330.50430	3.92285	0.1672374	0.23804083	2.5785076	21	5 25.7	21.0
324589 2006 XZ_{19}	17.1	X	184.41015	319.47566	93.98530	3.69692	0.1210347	0.23119859	2.6291332	21	5 7.8	21.1
324590 2006 XN_{20}	16.8	X	195.74515	289.29464	110.70323	3.36096	0.1307364	0.23114146	2.6295665	21	5 2.3	20.9
324591 2006 XF_{22}	16.5	X	113.02352	22.04450	87.48200	13.05006	0.1275781	0.22845660	2.6501283	21	5 7.1	20.4
324592 2006 XN_{34}	17.7	X	72.19553	45.51105	73.51814	9.43757	0.1106573	0.22100610	2.7093589	21	3 23.8	21.1
324593 2006 XJ_{46}	16.6	X	150.60292	284.82533	96.71723	13.58346	0.2808217	0.22493730	2.6776989	21	3 13.9	21.3
324594 2006 XX_{47}	16.2	X	146.59962	157.46378	286.65284	12.03270	0.1287914	0.22927811	2.6437943	21	5 4.1	20.5
324595 2006 XG_{53}	15.6	X	121.77488	141.97142	288.94161	24.78902	0.1294182	0.22059098	2.7127569	21	3 9.4	20.0
324596 2006 XF_{55}	16.6	X	155.57778	344.02779	82.92897	6.09834	0.2198412	0.22894649	2.6463466	21	5 2.9	21.0
324597 2006 XP_{55}	16.9	X	195.94494	326.05645	90.73256	5.24943	0.0585993	0.23225439	2.6211594	21	5 24.2	20.7
324598 2006 XD_{59}	17.2	X	94.47085	148.41152	293.68438	5.02312	0.2154190	0.21924493	2.7238489	21	3 15.5	20.8
324599 2006 XF_{62}	16.2	X	61.09107	16.08433	125.72834	8.36192	0.2278409	0.21871469	2.7282495	21	4 22.5	19.2
324600 2006 XJ_{65}	16.3	X	352.79051	134.78012	206.14751	5.60188	0.1360492	0.25327519	2.4740451	21	9 18.7	18.7
324601 2006 XL_{68}	17.1	X	181.59251	301.57223	104.47772	4.83589	0.2500854	0.23339347	2.6126240	21	4 29.3	21.7
324602 2006 YF_{2}	17.5	X	86.34695	345.30179	123.62469	2.35455	0.1639392	0.22076890	2.7112993	21	4 4.2	20.9
324603 2006 YB_{8}	17.0	X	335.96690	219.70378	108.86296	5.33523	0.0659199	0.23995390	2.5647843	21	8 1.4	20.0
324604 2006 YJ_{8}	15.6	X	60.54305	241.47160	297.38830	13.26413	0.0376631	0.22639759	2.6661721	21	5 6.6	19.3
324605 2006 YE_{9}	16.9	X	58.59736	201.78120	314.55756	6.29611	0.1201303	0.22062830	2.7124510	21	4 14.6	20.3
324606 2006 YA_{10}	16.4	X	49.56382	79.19128	310.12974	1.03997	0.0665740	0.20143881	2.8820883	21	—	—
324607 2006 YF_{16}	16.6	X	160.10157	318.55629	116.50281	11.39777	0.2238112	0.23270937	2.6177418	21	5 18.5	21.2
324608 2006 YP_{16}	17.0	X	152.43700	130.20002	312.95456	1.77145	0.1134804	0.22918652	2.6444986	21	5 10.7	20.9
324609 2006 YT_{19}	16.8	X	224.05339	6.84018	306.25743	5.00936	0.0196368	0.21576997	2.7530159	21	2 14.4	20.8
324610 2006 YF_{20}	17.5	X	101.16500	49.62694	83.50494	8.58459	0.1354062	0.23192210	2.6236624	21	5 21.4	21.0
324611 2006 YV_{22}	16.5	X	71.71857	231.33117	299.01584	6.39076	0.1334129	0.22820353	2.6520873	21	5 29.0	19.8
324612 2006 YO_{24}	16.2	X	268.07864	320.71264	84.80229	4.69017	0.0193716	0.24454047	2.5326133	21	8 15.8	19.4
324613 2006 YR_{25}	16.6	X	53.67370	69.48775	92.13183	14.93906	0.0537776	0.22385509	2.6863219	21	4 17.9	20.3
324614 2006 YE_{33}	16.0	X	6.03976	260.38032	310.95188	11.89565	0.0811183	0.22224142	2.6993097	21	3 28.3	19.4
324615 2006 YV_{33}	16.9	X	186.78698	66.45744	346.63132	4.81644	0.1364420	0.23049860	2.6344534	21	5 7.2	21.0
324616 2006 YO_{37}	17.1	X	135.60750	34.79019	86.46439	7.55585	0.1559665	0.23027912	2.6361271	21	6 15.4	20.9
324617 2006 YZ_{38}	16.5	X	33.07562	303.80563	305.32531	9.07536	0.1476657	0.23226985	2.6210431	21	7 20.8	19.2
324618 2006 YJ_{53}	16.4	X	181.57219	51.99855	307.92286	11.99913	0.1208536	0.21792964	2.7347976	21	2 24.2	20.8
324619 2006 YF_{55}	17.1	X	313.00410	262.91597	90.37785	4.33130	0.1474337	0.25059585	2.4916487	21	7 19.9	19.6
324620 2007 AG_{1}	16.5	X	5.68969	279.92180	303.32065	4.16037	0.1115885	0.22260725	2.6963515	21	4 16.6	19.5
324621 2007 AE_{10}	16.9	X	96.33037	282.34402	115.24233	8.86105	0.3184032	0.21494415	2.7600628	21	2 9.3	20.4
324622 2007 AQ_{10}	16.9	X	98.96679	104.08297	342.56364	6.89004	0.2183276	0.21969646	2.7201155	21	3 28.3	20.5
324623 2007 AQ_{21}	16.8	X	224.78646	303.30208	83.76918	3.13554	0.2200248	0.23467534	2.6031014	21	5 9.2	21.1
324624 2007 AQ_{23}	15.6	X	337.44361	286.59026	287.79258	11.87120	0.1553693	0.21390738	2.7689740	21	2 10.8	19.2
324625 2007 AV_{29}	16.5	X	133.23486	246.47856	153.43940	4.37424	0.1026910	0.21490214	2.7604224	21	2 24.9	20.5
324626 2007 BT_{5}	16.0	X	229.65127	196.94224	117.08826	12.29757	0.0576996	0.21742574	2.7390213	21	2 23.8	20.1
324627 2007 BW_{5}	15.7	X	267.52166	112.91362	282.45935	24.75890	0.2847156	0.17664689	3.1458068	21	6 23.3	20.7
324628 2007 BY_{6}	16.0	X	28.80846	2.99891	148.61805	12.37894	0.1945158	0.21071948	2.7968312	21	2 21.6	18.6
324629 2007 BJ_{13}	16.6	X	231.91011	191.51412	108.47998	7.79054	0.0792824	0.21214221	2.7843126	21	2 7.6	20.7
324630 2007 BK_{14}	16.6	X	228.98085	355.31750	340.74411	4.50313	0.1165061	0.22038275	2.7144654	21	3 15.8	20.9
324631 2007 BR_{14}	16.6	X	357.77435	265.46867	338.30544	4.58101	0.0652161	0.22486388	2.6782817	21	5 4.7	20.0
324632 2007 BP_{27}	15.8	X	42.90291	204.89476	313.30429	11.62403	0.1022408	0.21710283	2.7417366	21	3 18.1	19.2
324633 2007 BT_{27}	16.2	X	333.10086	67.89836	130.86267	7.90145	0.1022712	0.21072580	2.7967753	21	1 27.6	19.6
324634 2007 BW_{38}	16.6	X	117.33794	154.57696	279.63518	4.03054	0.0951173	0.21875073	2.7279498	21	3 17.2	20.3
324635 2007 BT_{39}	17.2	X	146.67316	319.26609	98.18606	3.38713	0.2024908	0.22381621	2.6866331	21	4 12.4	21.5
324636 2007 BA_{41}	16.4	X	240.61360	218.20555	127.85690	8.20854	0.1611134	0.22631311	2.6668356	21	4 9.5	20.7
324637 2007 BU_{42}	17.0	X	102.88132	106.01082	312.49574	8.46156	0.1586894	0.21435324	2.7651330	21	2 17.7	20.6
324638 2007 BT_{47}	17.0	X	40.67927	153.77482	24.22148	3.72797	0.1295886	0.21783244	2.7356111	21	4 18.9	19.9
324639 2007 BA_{67}	16.7	X	114.06492	289.58810	146.46332	5.45521	0.0244862	0.21333532	2.7739218	21	3 9.2	20.3
324640 2007 BP_{71}	16.5	X	207.23610	22.01986	297.13150	3.75947	0.0621338	0.20837749	2.8177482	21	2 3.9	20.8

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324641 2007 BP_{74}	16.5	X	348.73847	306.28596	326.43924	12.06892	0.1564928	0.22554206	2.6729101	21	5 22.7	19.6
324642 2007 BB_{76}	16.4	X	73.76425	112.94407	345.75377	5.11034	0.0417740	0.20984846	2.8045651	21	2 16.3	19.9
324643 2007 BG_{76}	16.4	X	73.89387	47.04314	40.46856	8.99593	0.1644626	0.21349293	2.7725563	21	2 20.3	19.7
324644 2007 CV	15.9	X	208.22257	40.02523	318.81252	25.27355	0.0999788	0.21935981	2.7228978	21	3 11.6	20.5
324645 2007 CU_{4}	16.8	X	162.29016	101.08308	301.20520	4.08534	0.1202443	0.22023356	2.7156912	21	3 30.1	21.0
324646 2007 CU_{5}	15.8	X	229.07082	273.25156	93.48741	15.73194	0.1760999	0.22956281	2.6416079	21	4 26.8	20.3
324647 2007 CE_{11}	16.2	X	27.69647	156.96457	136.81361	14.84650	0.0800797	0.23932977	2.5692413	21	9 8.8	19.3
324648 2007 CE_{13}	16.4	X	244.18903	308.64748	355.10342	3.58207	0.0806474	0.21361444	2.7715049	21	2 24.2	20.6
324649 2007 CK_{18}	16.0	X	3.84715	207.07063	346.36652	8.40394	0.0896451	0.21396127	2.7685090	21	3 8.2	19.1
324650 2007 CQ_{19}	16.6	X	355.86830	79.89914	153.10576	8.57649	0.2052279	0.21780338	2.7358543	21	4 10.6	19.3
324651 2007 CL_{24}	16.9	X	68.66772	274.87313	188.99746	4.09238	0.0267111	0.21230396	2.7828982	21	2 11.9	20.7
324652 2007 CZ_{28}	16.9	X	334.58335	260.39024	303.75773	2.89412	0.0097886	0.21467988	2.7623274	21	2 16.3	20.5
324653 2007 CA_{32}	16.7	X	354.46182	228.31873	315.10286	6.73201	0.1586064	0.21075986	2.7964740	21	2 1.5	19.9
324654 2007 CP_{37}	15.9	X	247.41806	200.38909	143.21691	14.37745	0.0379248	0.22120636	2.7077235	21	4 26.9	20.0
324655 2007 CK_{50}	16.3	X	353.25391	253.72616	291.45378	7.33472	0.1166210	0.21023271	2.8011468	21	2 5.4	19.6
324656 2007 CJ_{52}	16.5	X	3.79071	159.35639	39.53536	7.89522	0.2162575	0.21238524	2.7821882	21	3 9.5	19.2
324657 2007 CV_{52}	17.1	X	21.59156	33.42496	121.46888	4.06989	0.1597045	0.21292229	2.7775079	21	2 11.7	19.9
324658 2007 CL_{61}	16.8	X	51.74736	178.36190	302.16088	11.30159	0.2458685	0.21262700	2.7800789	21	2 25.9	19.4
324659 2007 CC_{65}	16.6	X	337.50564	236.29098	340.15719	8.66046	0.1573357	0.21102560	2.7941258	21	2 18.9	19.9
324660 2007 DR	15.9	X	60.87333	140.36565	6.13367	7.79229	0.1639446	0.21716875	2.7411817	21	4 13.1	19.0
324661 2007 DA_{5}	16.3	X	321.41820	147.71365	113.30755	13.75208	0.1269931	0.22242271	2.6978427	21	4 3.5	20.0
324662 2007 DK_{9}	16.6	X	52.75276	144.16583	328.95597	4.10036	0.0690178	0.20845861	2.8170171	21	2 7.5	20.0
324663 2007 DZ_{17}	17.5	X	70.31571	112.42277	334.88061	5.28561	0.1585315	0.20923066	2.8100831	21	2 10.3	20.7
324664 2007 DP_{19}	16.5	X	140.40208	294.91432	153.24645	4.38901	0.0695217	0.22079986	2.7110458	21	5 2.3	20.4
324665 2007 DG_{20}	16.4	X	212.82822	172.78210	149.86335	6.72007	0.0249945	0.20867960	2.8150280	21	2 14.6	20.5
324666 2007 DU_{28}	16.5	X	39.47395	85.96738	6.61860	6.08570	0.0075888	0.19982519	2.8975831	21	—	—
324667 2007 DW_{31}	16.2	X	230.22317	74.33496	146.28846	2.17175	0.0620900	0.19064800	2.9898395	21	—	—
324668 2007 DO_{34}	16.6	X	44.34338	121.23703	355.66065	5.40358	0.0275245	0.20499323	2.8486759	21	1 31.5	20.4
324669 2007 DG_{40}	16.8	X	203.55049	243.82312	141.09122	5.83338	0.1254838	0.22701842	2.6613091	21	4 22.4	21.0
324670 2007 DX_{48}	16.4	X	186.89089	228.04656	174.62315	4.50561	0.0240434	0.21892717	2.7264839	21	4 25.8	20.3
324671 2007 DH_{58}	16.7	X	96.37655	216.18300	207.75601	1.44042	0.0535991	0.20517969	2.8469498	21	2 3.5	20.6
324672 2007 DE_{61}	16.8	X	312.23224	138.21232	178.24326	7.04802	0.0665945	0.22604669	2.6689306	21	6 7.4	20.2
324673 2007 DR_{62}	16.7	X	259.56920	326.12251	356.38386	9.06970	0.0780388	0.21923606	2.7239224	21	4 2.8	20.7
324674 2007 DX_{63}	17.0	X	10.19484	324.22586	161.08258	2.27793	0.0144227	0.20175552	2.8790714	21	—	—
324675 2007 DY_{72}	16.9	X	287.29515	263.98613	5.19776	3.69924	0.0564710	0.21005087	2.8027631	21	3 5.9	20.9
324676 2007 DC_{79}	16.8	X	320.81933	247.96865	6.51064	4.52544	0.0721481	0.21540341	2.7561383	21	3 26.9	20.5
324677 2007 DM_{84}	15.5	X	206.27272	148.46292	36.61317	13.55129	0.0778566	0.17256725	3.1951933	21	11 8.4	20.3
324678 2007 DB_{93}	16.4	X	29.38611	214.40745	338.95677	5.87284	0.0298567	0.21903691	2.7255731	21	4 13.6	20.0
324679 2007 DN_{93}	16.5	X	347.59508	150.16568	100.92653	4.32412	0.1159180	0.21780660	2.7358274	21	4 28.9	19.6
324680 2007 DB_{103}	16.9	X	104.08788	86.58268	324.09056	5.60732	0.0463118	0.20904585	2.8117391	21	1 27.2	20.5
324681 2007 DL_{105}	16.8	X	15.71095	20.98514	183.83649	5.64867	0.1029780	0.21533297	2.7567393	21	4 12.7	19.9
324682 2007 DE_{106}	16.4	X	106.27161	211.76937	190.90596	1.71409	0.0691429	0.20314786	2.8659012	21	1 23.4	20.3
324683 2007 DR_{113}	16.1	X	350.53873	122.87088	38.89185	5.79266	0.0462339	0.19749699	2.9203107	21	1 16.2	20.0
324684 2007 EC_{2}	16.8	X	57.43233	300.57482	154.35984	2.57089	0.0551276	0.20420747	2.8559787	21	1 21.3	20.4
324685 2007 ED_{2}	16.7	X	217.01815	119.83691	199.57473	1.78406	0.0554570	0.20692989	2.8308742	21	2 14.9	21.0
324686 2007 ED_{7}	16.5	X	243.42756	105.91367	157.18681	2.38737	0.0344825	0.20177391	2.8788964	21	1 9.2	20.6
324687 2007 ED_{9}	16.5	X	200.90723	73.54913	144.97190	1.55688	0.1130206	0.18177266	3.0863867	21	12 11.7	21.3
324688 2007 EJ_{10}	16.6	X	351.90189	7.53994	197.78421	8.98626	0.1282662	0.21255253	2.7807281	21	2 27.2	19.9
324689 2007 EP_{16}	16.9	X	22.16881	95.78184	9.88405	15.21443	0.2196123	0.20116997	2.8846554	21	—	—
324690 2007 EB_{17}	16.5	X	208.89650	74.99517	157.32577	7.75050	0.1726702	0.18451258	3.0557564	21	12 30.1	21.4
324691 2007 EC_{19}	16.7	X	243.79997	54.09509	156.92084	6.03048	0.1195326	0.19086614	2.9875611	21	—	—
324692 2007 EF_{29}	16.5	X	352.59476	56.15057	144.46094	6.91137	0.0296522	0.21338799	2.7734653	21	3 7.3	20.0
324693 2007 EN_{38}	16.7	X	194.75462	89.49729	174.47436	13.46502	0.2610578	0.18317616	3.0706012	21	—	—
324694 2007 EC_{42}	16.0	X	3.39984	260.26386	179.92137	11.34348	0.0603499	0.18907433	3.0064063	21	—	—
324695 2007 EM_{42}	16.4	X	345.03875	44.76353	179.94044	9.81370	0.0823713	0.21052748	2.7985314	21	3 22.3	19.8
324696 2007 EH_{46}	16.0	X	256.70132	193.67240	0.12757	12.75457	0.1938068	0.18840420	3.0135310	21	—	—
324697 2007 EP_{46}	16.1	X	276.41177	334.11212	187.22899	4.77802	0.0859996	0.18571446	3.0425583	21	—	—
324698 2007 EL_{56}	16.7	X	241.52872	78.56029	168.36830	10.55310	0.0537836	0.19293564	2.9661589	21	—	—
324699 2007 ED_{75}	15.6	X	196.92036	265.44146	3.40842	8.61368	0.0958970	0.18884557	3.0088337	21	—	—
324700 2007 EN_{92}	15.8	X	38.10433	233.13351	304.99726	7.77414	0.0984712	0.21660042	2.7459747	21	4 7.9	19.1
324701 2007 EQ_{93}	15.7	X	74.65374	173.91859	174.87851	13.07772	0.1013472	0.18183694	3.0856593	21	—	—
324702 2007 EL_{97}	16.2	X	311.05166	86.34533	167.00607	11.33033	0.0327523	0.21546380	2.7556232	21	3 18.8	19.8
324703 2007 EQ_{100}	16.0	X	343.52051	268.73121	326.10928	12.52852	0.2192783	0.21149058	2.7900289	21	3 11.2	19.1
324704 2007 EX_{101}	15.8	X	49.62620	280.63914	155.53415	10.75411	0.1244347	0.19794804	2.9158728	21	—	—
324705 2007 EV_{109}	16.4	X	262.07248	127.46216	117.11926	3.40784	0.0519117	0.19697147	2.9255027	21	1 7.7	20.5
324706 2007 EJ_{111}	16.6	X	294.75256	132.04542	25.73641	10.03592	0.1493366	0.18950763	3.0018219	21	—	—
324707 2007 EH_{112}	16.0	X	314.96952	74.03610	16.29150	20.42858	0.1761516	0.18295953	3.0730245	21	11 18.7	19.8
324708 2007 EJ_{117}	15.6	X	126.70825	227.69392	47.23531	9.83846	0.0603442	0.17456529	3.1707655	21	12 2.2	20.3
324709 2007 EZ_{117}	16.5	X	310.99471	99.41909	39.60367	9.89034	0.1640088	0.18889763	3.0082808	21	—	—
324710 2007 EN_{126}	17.2	X	77.66558	131.91494	316.94041	3.95804	0.1304989	0.21077722	2.7963204	21	2 18.7	20.5
324711 2007 EA_{131}	16.7	X	56.87926	307.62904	172.70999	2.28083	0.0082552	0.20654258	2.8344121	21	2 17.7	20.5
324712 2007 EQ_{131}	16.8	X	282.71683	354.15943	176.49214	9.79731	0.1600455	0.19083267	2.9879103	21	—	—
324713 2007 EU_{133}	16.2	X	330.03777	75.76549	168.96144	5.17750	0.1061556	0.21130836	2.7916326	21	3 23.8	19.7
324714 2007 EA_{134}	16.6	X	279.76867	206.87388	4.74346	9.66646	0.0709643	0.19625630	2.9326055	21	—	—
324715 2007 EG_{134}	16.5	X	111.67235	63.50570	7.89621	6.56174	0.1262078	0.20967376	2.8061228	21	3 15.5	20.4
324716 2007 EF_{135}	16.9	X	129.25431	190.42203	196.12457	1.56686	0.0760509	0.20355758	2.8620542	21	2 1.6	20.9
324717 2007 EK_{135}	16.9	X	194.72505	342.18694	343.27064	1.42782	0.0653968	0.20260669	2.8710022	21	1 30.9	21.1
324718 2007 EB_{139}	16.7	X	299.98915	144.77381	141.10856	6.68201	0.0509459	0.21555761	2.7548237	21	4 14.8	20.5
324719 2007 EW_{139}	16.5	X	346.63936	140.34600	349.12446	11.75526	0.1701561	0.19751661	2.9201173	21	—	—
324720 2007 ER_{144}	16.6	X	115.65515	286.73490	131.81718	3.21541	0.0048761	0.20666091	2.8333300	21	2 14.8	20.6

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324721 2007 ES_{144}	16.5	X	348.84973	51.12691	5.82908	10.34793	0.1213534	0.18477057	3.0529112	21	12 11.4	20.4
324722 2007 EO_{145}	17.2	X	43.51008	355.49701	111.83736	2.96368	0.0372061	0.20276913	2.8694687	21	1 17.7	20.8
324723 2007 EY_{146}	15.8	X	97.61029	4.45044	19.36170	8.80651	0.1989326	0.19836512	2.9117841	21	1 10.5	19.7
324724 2007 ES_{147}	16.3	X	73.95463	332.94371	84.23720	3.25883	0.0458485	0.19876498	2.9078777	21	—	—
324725 2007 EA_{151}	16.5	X	307.93018	57.45267	118.50856	3.23578	0.0548355	0.19697271	2.9254904	21	—	—
324726 2007 EG_{165}	15.9	X	28.85228	236.34108	180.19479	11.11957	0.0781580	0.18454010	3.0554526	21	—	—
324727 2007 EO_{166}	16.4	X	300.41074	133.62395	117.11520	1.21220	0.0351652	0.20902017	2.8119694	21	3 1.9	20.2
324728 2007 EC_{168}	16.2	X	135.74523	174.81886	79.99879	2.40458	0.0773946	0.17386837	3.1792328	21	11 20.0	21.1
324729 2007 EH_{170}	16.5	X	355.73560	67.95005	180.37488	6.20417	0.0838209	0.22134375	2.7066028	21	5 10.7	19.7
324730 2007 EZ_{170}	16.0	X	122.08396	299.49938	179.39657	10.12699	0.0420473	0.22170253	2.7036820	21	5 17.1	19.8
324731 2007 ES_{171}	15.6	X	186.08584	268.96715	27.98167	10.55235	0.0663138	0.18945052	3.0024251	21	—	—
324732 2007 EY_{174}	15.4	X	173.94063	253.59695	7.40495	26.06750	0.1874872	0.18044490	3.1015085	21	—	—
324733 2007 EX_{179}	16.0	X	263.26122	340.44393	205.94781	11.82537	0.0287188	0.18633554	3.0357937	21	—	—
324734 2007 EO_{181}	15.9	X	170.26969	122.15959	202.85035	12.09062	0.0457604	0.19280571	2.9674913	21	1 2.7	20.4
324735 2007 EY_{182}	15.6	X	220.47577	275.29883	209.58115	14.70375	0.1731420	0.16793206	3.2537209	21	8 31.8	21.0
324736 2007 EX_{190}	16.1	X	192.97414	254.61087	11.32789	10.29057	0.0687619	0.18748170	3.0234083	21	—	—
324737 2007 EA_{191}	15.9	X	89.12159	141.20101	188.66336	9.44731	0.0592549	0.18023298	3.1039392	21	12 27.7	20.6
324738 2007 EF_{192}	16.2	X	172.53128	107.13142	138.25856	5.52700	0.1020609	0.18170212	3.0871855	21	12 16.2	21.0
324739 2007 EF_{197}	16.5	X	318.73882	239.66008	308.35895	0.94518	0.0690533	0.19727970	2.9224546	21	1 3.4	20.5
324740 2007 EU_{202}	16.8	X	239.37437	54.50404	178.52573	10.81574	0.0766709	0.19170289	2.9788612	21	—	—
324741 2007 ET_{210}	15.9	X	144.47378	262.12337	155.87091	24.81610	0.1970959	0.21820909	2.7324622	21	4 14.5	20.6
324742 2007 EJ_{217}	16.1	X	59.48395	300.02029	189.30487	11.50591	0.1025239	0.20912648	2.8110163	21	3 11.8	19.5
324743 2007 EC_{222}	15.8	X	271.34848	300.52756	203.40772	15.29937	0.1389263	0.18093704	3.0958820	21	11 29.9	20.1
324744 2007 ES_{222}	15.8	X	240.50496	250.34744	29.88173	7.02120	0.2029961	0.19221698	2.9735475	21	1 21.7	20.9
324745 2007 EH_{223}	15.6	X	219.75020	349.04204	266.69577	10.38551	0.1667202	0.18756930	3.0224668	21	—	—
324746 2007 EH_{224}	16.8	X	298.93777	307.54905	196.42956	3.19948	0.0717950	0.18680267	3.0307305	21	—	—
324747 2007 FO_{6}	16.7	X	58.49852	194.15095	198.25272	0.49347	0.0881783	0.19147681	2.9812056	21	—	—
324748 2007 FQ_{25}	16.7	X	267.23477	175.36284	23.40003	3.84605	0.0561285	0.19091723	2.9870281	21	—	—
324749 2007 FW_{30}	16.4	X	240.28736	15.32805	188.15395	11.33269	0.1045585	0.18564806	3.0432837	21	—	—
324750 2007 FR_{32}	16.4	X	200.52420	55.08378	174.03380	3.57642	0.1537794	0.17957784	3.1114839	21	12 19.8	21.4
324751 2007 FF_{33}	15.7	X	234.38696	234.78753	347.01972	8.62078	0.0425838	0.18955800	3.0012900	21	—	—
324752 2007 FS_{40}	15.7	X	295.34598	294.03753	185.06191	9.07397	0.0748438	0.18338528	3.0682665	21	12 10.9	19.9
324753 2007 FQ_{44}	16.4	X	180.66373	306.13580	10.69641	2.93754	0.1511431	0.19269167	2.9686620	21	1 12.9	21.2
324754 2007 FQ_{45}	15.9	X	273.20569	274.60400	209.68270	8.71683	0.0444092	0.17517751	3.1633736	21	11 20.1	20.3
324755 2007 FN_{46}	15.9	X	59.23558	324.92827	29.17900	11.29050	0.0819927	0.17686858	3.1431776	21	12 24.9	20.5
324756 2007 FQ_{49}	15.6	X	274.25817	108.08523	96.16622	15.19238	0.2110931	0.19049437	2.9914469	21	—	—
324757 2007 GB_{4}	16.0	X	178.28556	243.32366	55.74962	9.51297	0.0577858	0.19112286	2.9848851	21	—	—
324758 2007 GC_{5}	16.1	X	130.44345	284.05225	133.37483	7.32439	0.0568639	0.21236615	2.7823549	21	3 11.8	20.0
324759 2007 GL_{15}	16.3	X	159.25137	112.16579	187.66413	10.25738	0.0373198	0.19074230	2.9888541	21	—	—
324760 2007 GV_{16}	16.3	X	237.05441	205.06427	356.33534	1.84873	0.1169857	0.18212185	3.0824404	21	12 29.4	20.8
324761 2007 GC_{18}	16.3	X	165.05720	333.31492	330.70664	3.59602	0.1439477	0.18430475	3.0580532	21	—	—
324762 2007 GS_{19}	16.3	X	190.59990	320.00070	271.41392	0.91611	0.1308686	0.17703785	3.1411738	21	12 14.4	21.1
324763 2007 GB_{25}	15.2	X	237.46369	317.43505	229.77550	23.14976	0.1753329	0.18008548	3.1056338	21	12 4.6	19.9
324764 2007 GH_{29}	16.5	X	338.55712	108.46035	160.88420	14.24470	0.1137666	0.22250225	2.6971997	21	5 11.4	19.9
324765 2007 GK_{33}	16.4	X	259.07460	310.36705	195.32425	3.29985	0.0749140	0.17610922	3.1522065	21	11 24.1	20.7
324766 2007 GS_{33}	15.8	X	177.66346	51.41766	200.05309	4.45348	0.0966672	0.17813122	3.1283069	21	12 27.2	20.7
324767 2007 GJ_{37}	16.3	X	297.18800	67.23889	79.24036	3.56766	0.0663837	0.18500943	3.0502830	21	—	—
324768 2007 GA_{38}	16.0	X	158.28133	126.80126	197.50495	10.73511	0.1350205	0.18805019	3.0173118	21	—	—
324769 2007 GW_{39}	16.9	X	278.04725	111.24378	39.44166	14.59192	0.2238988	0.18418606	3.0593668	21	12 2.6	20.8
324770 2007 GR_{40}	16.2	X	121.72047	103.56879	214.72585	10.14542	0.0641901	0.17957870	3.1114739	21	—	—
324771 2007 GC_{42}	16.4	X	186.17188	54.43849	219.84269	4.99979	0.0530789	0.18476854	3.0529337	21	—	—
324772 2007 GD_{45}	16.2	X	199.20991	8.64460	193.88334	6.04765	0.0908179	0.17428312	3.1741869	21	11 22.8	21.0
324773 2007 GF_{46}	15.5	X	233.23622	117.45806	46.26799	17.09703	0.0734712	0.17405128	3.1770050	21	11 13.7	20.0
324774 2007 GX_{46}	15.7	X	358.05040	261.81188	205.41028	10.87519	0.0756830	0.18624724	3.0367531	21	—	—
324775 2007 GM_{48}	15.8	X	115.79230	130.67297	197.53581	5.50217	0.1462313	0.17670921	3.1450672	21	—	—
324776 2007 GE_{49}	15.3	X	186.61179	245.22036	49.77744	11.36926	0.1480220	0.18396231	3.0618470	21	—	—
324777 2007 GZ_{51}	15.9	X	206.79462	149.13071	57.56150	11.79227	0.0339657	0.17809079	3.1287804	21	12 9.9	20.5
324778 2007 GF_{53}	16.0	X	189.31381	62.78969	213.63906	10.44723	0.1008950	0.18533840	3.0466725	21	—	—
324779 2007 GJ_{57}	16.3	X	196.47276	142.06701	154.97857	6.17906	0.0498444	0.19189010	2.9769234	21	—	—
324780 2007 GK_{58}	16.2	X	80.24258	138.15924	176.56669	8.38262	0.1121550	0.17181248	3.2045441	21	12 6.3	21.0
324781 2007 GW_{58}	16.4	X	145.25758	128.72561	187.69645	11.63935	0.0265953	0.19108853	2.9852426	21	—	—
324782 2007 GQ_{61}	15.7	X	50.10654	162.68939	228.78860	11.07621	0.0358629	0.18224188	3.0810867	21	—	—
324783 2007 GH_{66}	15.5	X	272.16749	67.00607	46.65842	4.73093	0.0918373	0.17237375	3.1975840	21	10 29.7	19.9
324784 2007 GN_{66}	15.7	X	143.16735	301.03136	48.08730	10.83284	0.0799330	0.18878172	3.0095121	21	1 8.2	20.2
324785 2007 GS_{66}	16.2	X	272.14669	95.67509	57.12987	3.55403	0.0664849	0.17861076	3.1227051	21	12 20.2	20.5
324786 2007 GC_{73}	16.5	X	2.58637	122.24115	54.99522	10.01606	0.0699513	0.20397109	2.8581848	21	2 21.7	20.3
324787 Wlodarczyk	15.2	X	121.67215	260.09495	77.02158	17.21758	0.1021225	0.18231845	3.0802240	21	—	—
324788 2007 GU_{75}	15.7	X	52.94667	169.20694	199.36042	9.12189	0.0812528	0.17406902	3.1767892	21	—	—
324789 2007 GA_{76}	16.2	X	213.36760	205.30743	43.48814	12.37250	0.0388823	0.18663468	3.0325490	21	—	—
324790 2007 HJ_{7}	15.2	X	190.24551	219.06606	45.69114	25.35380	0.2499246	0.18052839	3.1005522	21	—	—
324791 2007 HT_{10}	16.0	X	18.58804	265.59661	197.47769	10.06164	0.0625352	0.19315264	2.9639369	21	—	—
324792 2007 HV_{12}	15.8	X	287.63607	105.83922	37.37254	9.50890	0.0902183	0.18418886	3.0593357	21	12 27.9	19.9
324793 2007 HH_{13}	15.8	X	82.11343	127.47806	191.81740	12.53042	0.0815306	0.17391809	3.1786269	21	12 10.1	20.6
324794 2007 HZ_{15}	15.5	X	324.61438	228.87141	201.11507	9.61240	0.0637000	0.17126070	3.2114234	21	11 19.9	19.8
324795 2007 HW_{19}	16.5	X	246.16183	52.41227	157.42126	1.66543	0.1225964	0.18474913	3.0531474	21	—	—
324796 2007 HZ_{19}	15.9	X	146.03482	233.84611	42.93206	9.33320	0.0439559	0.17713584	3.1400153	21	12 25.5	20.6
324797 2007 HG_{20}	16.0	X	220.55944	59.56909	214.97338	9.24366	0.0361566	0.19131605	2.9828754	21	—	—
324798 2007 HO_{20}	15.7	X	169.25081	279.52952	40.72412	11.22483	0.0758365	0.18898482	3.0073555	21	1 1.2	20.3
324799 2007 HD_{29}	15.5	X	151.33691	202.22856	68.16307	8.96266	0.2154507	0.17631885	3.1497074	21	12 23.1	20.9
324800 2007 HP_{44}	16.4	X	257.13907	129.32824	51.42810	1.72155	0.0271873	0.18349264	3.0670695	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324801 2007 HO_{45}	16.0	X	187.92874	106.77452	201.81438	8.91854	0.1135059	0.18765847	3.0215094	21	1 7.2	20.8
324802 2007 HW_{45}	15.4	X	136.39682	257.62179	45.73439	12.89948	0.2057840	0.17684456	3.1434622	21	—	—
324803 2007 HY_{46}	16.0	X	156.46259	79.04052	159.28187	9.56654	0.0496966	0.17487607	3.1670078	21	11 23.7	20.8
324804 2007 HL_{48}	15.4	X	53.26409	294.16404	52.36156	10.98918	0.0554521	0.17259104	3.1948996	21	12 3.7	19.8
324805 2007 HH_{49}	16.0	X	205.69127	124.07563	126.42797	4.94927	0.0977380	0.18275509	3.0753158	21	—	—
324806 2007 HN_{49}	15.1	X	187.85284	47.77901	209.36546	21.88275	0.1097893	0.18003045	3.1062667	21	—	—
324807 2007 HL_{50}	15.6	X	192.32887	47.52946	194.91874	10.33026	0.0691198	0.17860231	3.1228036	21	—	—
324808 2007 HE_{53}	14.9	X	22.46279	328.95615	61.30829	28.93477	0.1707122	0.17258676	3.1949525	21	12 30.5	19.4
324809 2007 HB_{57}	16.6	X	327.48760	244.07540	161.28049	5.18893	0.2393096	0.23894681	2.5719857	21	11 3.3	18.4
324810 2007 HT_{59}	16.4	X	280.68119	140.29707	59.33593	2.49451	0.1453311	0.19046257	2.9917797	21	—	—
324811 2007 HW_{59}	15.8	X	176.28728	238.79996	43.02871	10.82911	0.0443011	0.18436531	3.0573835	21	—	—
324812 2007 HY_{59}	15.8	X	122.11846	312.03200	40.47459	22.38692	0.1345738	0.18604503	3.0389532	21	—	—
324813 2007 HY_{64}	15.4	X	161.92180	290.55173	45.14868	10.67610	0.1251007	0.19062610	2.9900686	21	1 17.3	20.1
324814 2007 HO_{66}	15.2	X	156.58286	238.93671	89.82916	11.29218	0.2259175	0.18229066	3.0805370	21	1 12.2	20.3
324815 2007 HU_{67}	15.7	X	299.83305	288.28792	189.74113	13.14715	0.0744976	0.18155091	3.0888994	21	12 15.1	19.9
324816 2007 HD_{71}	15.5	X	107.38949	244.96398	48.62135	16.28567	0.0815839	0.17154700	3.2078493	21	12 3.8	20.4
324817 2007 HZ_{75}	15.7	X	123.90318	226.53756	62.28208	8.94704	0.0358262	0.17336573	3.1853749	21	12 14.4	20.3
324818 2007 HU_{80}	16.5	X	71.80457	180.46564	207.12574	4.69603	0.0600633	0.18651292	3.0338687	21	—	—
324819 2007 HZ_{80}	16.8	X	229.97068	44.62728	190.64892	1.05398	0.0720494	0.18698298	3.0287819	21	—	—
324820 2007 HB_{81}	15.3	X	323.28998	21.27160	32.32652	22.53694	0.0701498	0.17137494	3.2099961	21	10 27.0	19.4
324821 2007 HR_{81}	16.3	X	216.30338	243.98725	36.81637	4.83072	0.0443623	0.19268527	2.9687277	21	1 2.5	20.7
324822 2007 HQ_{84}	15.9	X	255.64182	80.71908	205.79320	12.16735	0.0506653	0.19849675	2.9104967	21	2 16.1	20.3
324823 2007 HL_{86}	15.7	X	8.59536	0.49501	63.78188	17.95871	0.0952091	0.17892291	3.1190721	21	—	—
324824 2007 HE_{87}	15.9	X	117.05829	133.05239	211.11399	9.00259	0.0553492	0.18198622	3.0839717	21	—	—
324825 2007 HY_{90}	16.6	X	240.00635	121.57505	64.47543	1.01538	0.2507726	0.18213008	3.0823475	21	11 27.8	21.3
324826 2007 HV_{91}	16.6	X	253.28442	66.94770	167.36289	2.06197	0.0227515	0.19523270	2.9428469	21	—	—
324827 2007 HL_{96}	15.3	X	156.88442	229.96602	54.72709	6.64093	0.0261836	0.18115407	3.0934088	21	—	—
324828 2007 HM_{96}	15.5	X	116.17067	245.66267	35.90240	8.43651	0.0274937	0.17293301	3.1906864	21	11 25.9	20.1
324829 2007 HC_{97}	15.7	X	344.50935	53.58621	61.82762	13.92610	0.1326217	0.19054968	2.9908679	21	—	—
324830 2007 HU_{97}	15.8	X	243.64765	119.29074	80.71991	8.06266	0.1004897	0.18014734	3.1049228	21	—	—
324831 2007 JU_{1}	15.6	X	183.97610	222.51450	36.89222	17.49621	0.1560925	0.18038715	3.1021705	21	—	—
324832 2007 JG_{3}	15.2	X	149.78026	205.95449	59.90283	11.44395	0.0312182	0.17739879	3.1369116	21	12 16.3	19.8
324833 2007 JQ_{3}	16.0	X	177.22780	89.65016	179.99612	10.77680	0.0516425	0.17951655	3.1121920	21	—	—
324834 2007 JN_{9}	15.9	X	166.23268	67.19476	193.22709	13.59358	0.2619959	0.17450943	3.1714420	21	12 21.7	21.7
324835 2007 JB_{10}	17.5	X	319.00440	78.36542	106.11031	23.99619	0.0602447	0.40149907	1.8197554	21	—	—
324836 2007 JD_{12}	15.8	X	274.04677	346.88985	184.72456	16.56911	0.0049160	0.17894812	3.1187792	21	—	—
324837 2007 JP_{12}	14.8	X	173.81352	186.48935	86.92780	19.24288	0.1926343	0.17784174	3.1317007	21	—	—
324838 2007 JB_{13}	15.5	X	230.18261	339.32766	210.81186	19.81595	0.0800999	0.17561836	3.1580774	21	12 11.2	20.4
324839 2007 JZ_{36}	15.3	X	178.85353	136.57406	97.99365	10.00861	0.0462227	0.17463574	3.1699127	21	12 11.7	20.1
324840 2007 JZ_{42}	17.7	X	174.33739	68.46071	194.72455	21.55479	0.0884368	0.38479647	1.8720409	21	—	—
324841 2007 JC_{43}	15.3	X	192.89366	148.62489	98.13857	11.17814	0.0559897	0.17964219	3.1107408	21	—	—
324842 2007 JG_{44}	15.2	X	172.31755	40.53222	226.71729	26.39178	0.1469591	0.17668387	3.1453678	21	—	—
324843 2007 KM	16.5	X	205.71047	65.02400	217.82914	10.24682	0.1085481	0.19192827	2.9765287	21	—	—
324844 2007 KW_{3}	15.1	X	84.23244	288.55566	43.82262	22.89121	0.0794400	0.17868269	3.1218670	21	12 25.6	20.0
324845 2007 KD_{4}	15.8	X	272.72551	0.05243	202.06116	11.19096	0.0939891	0.18591579	3.0403614	21	—	—
324846 2007 KY_{5}	16.0	X	292.85838	262.82530	228.99536	13.93253	0.2730397	0.18169551	3.0872603	21	11 27.2	19.4
324847 2007 LS_{1}	16.0	X	131.48689	100.82906	188.07126	7.92288	0.0352642	0.17329040	3.1862980	21	12 23.1	20.7
324848 2007 LW_{5}	15.7	X	262.83442	336.40966	173.68768	17.62048	0.1494483	0.17624038	3.1506423	21	11 25.9	20.3
324849 2007 LN_{6}	15.3	X	236.66611	49.59505	202.38994	9.64048	0.0713278	0.18716223	3.0268477	21	—	—
324850 2007 LS_{6}	16.1	X	148.36788	186.34017	108.98645	8.65642	0.1981350	0.17529782	3.1619261	21	—	—
324851 2007 LU_{7}	15.0	X	330.66407	250.13943	207.57911	22.07265	0.1506248	0.17584320	3.1553848	21	12 29.6	19.1
324852 2007 LZ_{7}	15.8	X	166.33259	159.84458	97.98258	8.53054	0.1232004	0.17457505	3.1706473	21	12 22.6	20.7
324853 2007 LO_{8}	15.4	X	163.93129	155.07169	100.56796	11.08363	0.0417174	0.17362083	3.1822540	21	12 19.9	20.2
324854 2007 LD_{27}	16.1	X	132.88876	106.39709	172.34247	16.23783	0.1231876	0.17045795	3.2214981	21	12 16.5	21.5
324855 2007 LH_{28}	15.9	X	224.46421	40.00511	185.78061	11.26651	0.0197796	0.17885580	3.1198523	21	—	—
324856 2007 LL_{33}	15.9	X	161.69329	144.38021	136.05896	26.72857	0.3287953	0.17543257	3.1603067	21	—	—
324857 2007 LG_{34}	16.2	X	322.77325	302.68386	190.01440	8.82590	0.1031108	0.18356896	3.0662193	21	—	—
324858 2007 LB_{37}	16.1	X	180.43059	87.54171	174.69880	14.05850	0.0844608	0.17691373	3.1426428	21	—	—
324859 2007 MS_{4}	15.8	X	331.72900	262.93639	224.25581	9.45807	0.0620252	0.18231830	3.0802257	21	—	—
324860 2007 RO_{227}	17.9	X	52.78966	21.95053	4.58528	1.43621	0.1910506	0.29622890	2.2286974	21	—	—
324861 2007 RM_{290}	16.7	X	266.44738	298.53882	213.02608	23.10748	0.2289787	0.28491952	2.2872901	21	12 11.1	19.3
324862 2007 RU_{301}	18.1	X	336.30021	99.80933	18.19956	4.81047	0.0745723	0.30193095	2.2005486	21	—	—
324863 2007 TC_{6}	17.6	X	314.29340	137.25624	347.34938	5.81013	0.0938380	0.29690698	2.2253028	21	—	—
324864 2007 TW_{66}	18.4	X	62.10369	240.13698	176.10938	5.59999	0.1722328	0.30415512	2.1898076	21	—	—
324865 2007 TQ_{119}	18.5	X	43.80261	49.05691	7.21879	1.67441	0.2092141	0.29813699	2.2191780	21	—	—
324866 2007 TZ_{125}	18.1	X	358.54977	76.46678	28.05013	3.00780	0.0922640	0.29949622	2.2124586	21	—	—
324867 2007 TX_{142}	17.5	X	52.50509	9.64296	46.41029	5.84999	0.1145809	0.30235400	2.1984954	21	—	—
324868 2007 TX_{171}	17.9	X	41.31302	233.29797	173.84949	5.65976	0.1356919	0.29899768	2.2149172	21	—	—
324869 2007 TN_{211}	17.4	X	140.92304	41.82846	316.41691	3.86876	0.0155328	0.30924794	2.1656994	21	—	—
324870 2007 TU_{218}	18.2	X	134.69198	137.92866	218.60310	3.00411	0.1581501	0.30767525	2.1730731	21	—	—
324871 2007 TT_{231}	17.5	X	338.89395	59.86175	43.53460	6.81547	0.1533138	0.29279557	2.2460860	21	—	—
324872 2007 TT_{232}	18.0	X	8.94871	230.88322	205.87639	3.70770	0.1600876	0.29429961	2.2384269	21	—	—
324873 2007 TV_{272}	17.8	X	62.29089	313.31914	67.41002	5.57715	0.1323324	0.29793162	2.2201977	21	—	—
324874 2007 TD_{275}	17.5	X	30.81509	16.44707	31.80397	8.07240	0.1028791	0.29855929	2.2170849	21	—	—
324875 2007 TW_{293}	17.8	X	338.61743	210.80743	217.65668	4.66356	0.0932472	0.28644955	2.2791380	21	—	—
324876 2007 TK_{318}	18.4	X	74.01500	187.67978	207.21472	4.04277	0.1781866	0.30136004	2.2033269	21	—	—
324877 2007 TZ_{362}	17.9	X	357.65952	49.53950	59.84288	6.15496	0.0808196	0.29736077	2.2230383	21	—	—
324878 2007 TU_{373}	17.7	X	19.83224	10.74831	37.77064	5.31604	0.1626753	0.29304381	2.2448174	21	—	—
324879 2007 TN_{380}	18.0	X	319.28994	272.49598	194.05658	5.08714	0.1165874	0.29210674	2.2496157	21	—	—
324880 2007 TT_{392}	17.6	X	109.73229	348.12601	35.24763	5.03805	0.1544100	0.30723747	2.1751369	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
324881 2007 TP_{398}	17.9	X	32.07878	70.83842	8.34863	6.15409	0.1081319	0.30084840	2.2058243	21	—	—
324882 2007 TG_{442}	17.6	X	320.40836	95.08454	353.93294	0.62962	0.0873962	0.29048069	2.2580031	21	—	—
324883 2007 UH_{14}	17.4	X	62.65603	326.40291	45.20976	8.29331	0.1276081	0.29623844	2.2286495	21	—	—
324884 2007 UG_{25}	18.3	X	287.02109	140.79885	67.79396	0.92674	0.0300898	0.30594502	2.1812585	21	—	—
324885 2007 UD_{38}	17.6	X	101.99799	8.37029	21.23142	2.58602	0.1129174	0.30637613	2.1792118	21	—	—
324886 2007 UE_{44}	18.2	X	293.38559	275.64690	193.51371	4.08624	0.1546704	0.28742214	2.2739936	21	12 13.9	20.0
324887 2007 UN_{65}	16.6	X	145.79846	288.84137	92.74049	6.04199	0.1080534	0.24082445	2.5585996	21	2 14.8	20.3
324888 2007 UN_{71}	17.2	X	11.06436	344.98379	84.31716	7.82491	0.1920759	0.29360955	2.2419328	21	—	—
324889 2007 UN_{101}	18.0	X	124.50420	134.36235	224.13635	0.64981	0.0668465	0.30340887	2.1933968	21	—	—
324890 2007 UK_{132}	17.4	X	355.41874	325.12316	84.87374	7.13199	0.1068240	0.28135444	2.3065712	21	—	—
324891 2007 UP_{139}	17.5	X	341.59750	106.13109	342.20054	7.62967	0.0774946	0.29157835	2.2523326	21	—	—
324892 2007 VD_{15}	17.8	X	78.84355	25.68918	14.36453	3.29074	0.1546870	0.30232580	2.1986322	21	—	—
324893 2007 VJ_{52}	17.5	X	295.17877	179.05407	285.57104	2.24739	0.1161400	0.28433386	2.2904299	21	12 12.4	19.3
324894 2007 VP_{54}	17.6	X	315.13922	305.05149	131.44411	2.72399	0.1052432	0.28339897	2.2954643	21	12 8.2	19.7
324895 2007 VW_{95}	17.3	X	32.29694	267.01191	143.38952	5.94417	0.1442841	0.29495033	2.2351335	21	—	—
324896 2007 VL_{103}	18.2	X	22.79444	27.13189	91.00613	2.71576	0.0277193	0.31019000	2.1613123	21	—	—
324897 2007 VO_{110}	18.3	X	73.57553	124.90689	251.50921	2.20535	0.1453490	0.29736700	2.2230072	21	—	—
324898 2007 VJ_{122}	17.5	X	328.84462	322.07045	257.38005	5.79260	0.1297932	0.31517156	2.1384776	21	1 20.3	19.9
324899 2007 VU_{126}	17.2	X	278.40480	65.84950	39.30557	11.00239	0.1675227	0.27987598	2.3146872	21	11 3.7	19.2
324900 2007 VG_{141}	18.5	X	80.74921	23.11748	17.27365	3.01641	0.1172219	0.30356040	2.1926668	21	—	—
324901 2007 VJ_{145}	17.8	X	349.11597	40.87655	5.89755	4.63463	0.1806970	0.28477096	2.2880855	21	—	—
324902 2007 VS_{157}	18.3	X	312.85617	59.34241	93.86343	4.02447	0.1132392	0.29674576	2.2261087	21	—	—
324903 2007 VU_{183}	17.5	X	304.60751	141.91203	283.51439	6.35703	0.1251694	0.27099884	2.3649634	21	10 24.6	19.8
324904 2007 VU_{192}	17.9	X	288.86288	8.20912	98.83819	3.02094	0.1531188	0.27732631	2.3288526	21	11 28.7	20.0
324905 2007 VD_{207}	17.7	X	77.14220	234.63801	176.32750	4.80623	0.0740957	0.30427914	2.1892126	21	—	—
324906 2007 VP_{211}	17.7	X	316.89094	105.54079	15.56347	3.48418	0.0820923	0.29212893	2.2495018	21	—	—
324907 2007 VV_{216}	16.9	X	343.77816	250.70733	250.71211	6.24239	0.0653927	0.30062678	2.2069082	21	—	—
324908 2007 VL_{231}	17.7	X	91.44396	98.45347	261.89089	2.07111	0.1603378	0.29876179	2.2160829	21	—	—
324909 2007 VP_{236}	18.2	X	192.85699	119.18448	231.40523	3.00142	0.0830884	0.31711471	2.1297328	21	2 10.1	20.9
324910 2007 VX_{237}	17.6	X	81.08214	223.44865	218.53583	5.71924	0.0346272	0.31071681	2.1588686	21	1 9.5	19.9
324911 2007 VP_{244}	16.0	X	289.56910	181.75691	287.72535	24.87836	0.1908363	0.28197948	2.3031614	21	11 30.1	18.5
324912 2007 VZ_{244}	17.7	X	307.02157	196.51963	253.57381	3.91519	0.1707079	0.28306862	2.2972499	21	12 10.8	19.4
324913 2007 VN_{247}	17.6	X	202.81249	40.39792	178.60502	7.07709	0.0835453	0.29099605	2.2553363	21	—	—
324914 2007 VB_{252}	17.9	X	349.59916	312.12067	133.54068	1.40197	0.1864549	0.29170340	2.2516889	21	—	—
324915 2007 VV_{289}	17.5	X	344.29937	250.31570	247.47325	5.25104	0.0202201	0.29999554	2.2100029	21	—	—
324916 2007 VZ_{290}	17.3	X	348.90628	343.08251	70.21177	5.01366	0.1299556	0.28477205	2.2880796	21	—	—
324917 2007 VW_{292}	17.1	X	331.90981	353.96340	92.29249	8.77112	0.2621127	0.28799282	2.2709885	21	—	—
324918 2007 VW_{308}	17.4	X	318.22020	314.02228	131.99902	3.97366	0.0817379	0.28378145	2.2934012	21	12 27.2	19.6
324919 2007 VC_{309}	17.7	X	303.83199	197.16949	295.17958	5.85319	0.1869864	0.28966571	2.2622364	21	—	—
324920 2007 VF_{311}	18.1	X	281.07552	167.52689	291.21622	0.62863	0.1580103	0.27892192	2.3199624	21	10 31.2	20.4
324921 2007 VW_{320}	17.5	X	327.05768	94.84448	338.86197	4.53005	0.1364623	0.28547322	2.2843315	21	12 29.1	19.5
324922 2007 VS_{326}	17.9	X	281.85178	120.20961	351.82193	2.97480	0.1344137	0.28091438	2.3089794	21	11 24.9	20.0
324923 2007 VB_{331}	17.3	X	29.99960	322.32269	81.74268	8.22747	0.1553876	0.28881216	2.2666914	21	—	—
324924 2007 VR_{333}	17.5	X	194.45822	103.48920	82.12119	3.08883	0.1538230	0.26986012	2.3716116	21	11 4.9	20.9
324925 Vivantdenon	17.8	X	154.84525	298.48826	61.77240	3.82554	0.1934163	0.31107246	2.1572228	21	1 25.9	20.7
324926 2007 WW_{1}	16.8	X	213.32651	30.83739	287.97071	6.59737	0.2176929	0.31561650	2.1364673	21	1 26.9	20.1
324927 2007 WL_{7}	17.6	X	151.36942	21.12779	355.04549	2.65201	0.1796705	0.31334388	2.1467851	21	2 9.7	20.3
324928 2007 WC_{11}	17.9	X	67.62141	225.64276	178.94216	5.81648	0.0686677	0.30069944	2.2065527	21	—	—
324929 2007 WE_{21}	17.2	X	197.55864	186.64489	286.93476	5.71654	0.0687106	0.25500496	2.4628444	21	8 8.3	20.6
324930 2007 WJ_{32}	18.0	X	36.43915	41.69055	33.39466	5.99580	0.0862525	0.29879907	2.2158986	21	—	—
324931 2007 WF_{56}	17.0	X	323.50868	139.76916	268.77633	6.92862	0.2308460	0.27711420	2.3300408	21	11 6.5	18.4
324932 2007 XC_{1}	17.7	X	309.61191	353.45592	83.45744	3.42898	0.1955611	0.27765978	2.3269876	21	11 22.5	19.0
324933 2007 XU_{15}	17.3	X	32.13936	51.81405	11.45551	6.20974	0.1317373	0.29312263	2.2444149	21	—	—
324934 2007 XZ_{20}	17.7	X	83.65040	139.07366	259.13432	3.09176	0.1215535	0.30073961	2.2063562	21	—	—
324935 2007 XC_{21}	17.5	X	289.52979	234.42008	269.61352	6.41526	0.0778646	0.28975463	2.2617736	21	—	—
324936 2007 XP_{23}	17.7	X	264.28795	36.75641	56.32181	3.01729	0.1651428	0.27310019	2.3528165	21	9 25.1	20.3
324937 2007 XV_{34}	17.5	X	357.73137	12.03169	45.61989	7.33117	0.0750542	0.28768999	2.2725819	21	—	—
324938 2007 XG_{37}	17.1	X	128.32736	341.57334	44.85014	5.21345	0.0895250	0.30717627	2.1754258	21	1 12.6	19.5
324939 2007 XG_{40}	17.0	X	59.35549	92.47320	295.65151	6.35774	0.1262162	0.29273488	2.2463964	21	—	—
324940 2007 XE_{46}	17.2	X	13.58650	296.09358	113.44713	8.32096	0.1570885	0.28905797	2.2654062	21	—	—
324941 2007 XR_{49}	17.8	X	342.45837	146.54792	276.72983	4.07572	0.1132779	0.28159133	2.3052774	21	—	—
324942 2007 XW_{53}	17.5	X	234.40284	203.64658	303.95824	1.45131	0.1375371	0.26873340	2.3782360	21	10 31.5	20.7
324943 2007 XM_{56}	17.2	X	222.55690	15.99720	91.04101	3.34115	0.1479969	0.26464202	2.4026851	21	8 24.7	20.6
324944 2007 XQ_{58}	17.3	X	90.94455	329.40924	70.07145	8.89859	0.1820856	0.30282742	2.1962035	21	—	—
324945 2007 YL_{6}	18.1	X	339.13888	142.67166	18.35861	3.92079	0.0986697	0.30312167	2.1947820	21	—	—
324946 2007 YU_{8}	17.9	X	45.93625	44.59232	353.52875	4.77815	0.0336321	0.28911368	2.2651152	21	—	—
324947 2007 YY_{13}	16.9	X	278.00746	161.00697	304.28700	9.34367	0.2105002	0.27508538	2.3414832	21	10 20.5	19.6
324948 2007 YT_{26}	17.1	X	77.55918	310.38959	66.27105	7.51495	0.1041765	0.29115899	2.2544948	21	—	—
324949 2007 YQ_{28}	17.7	X	143.96053	61.82917	288.39056	3.10259	0.1457932	0.30483055	2.1865717	21	—	—
324950 2007 YH_{30}	17.8	X	263.04379	338.72104	96.69726	2.43452	0.1570965	0.27014080	2.3699686	21	8 29.7	20.7
324951 2007 YW_{30}	18.0	X	200.35046	358.54268	95.41248	2.37732	0.1585915	0.26018110	2.4300706	21	7 13.1	21.8
324952 2007 YR_{43}	16.9	X	180.41797	271.29279	314.35313	4.61144	0.1089411	0.27482372	2.3429692	21	12 14.7	20.2
324953 2007 YC_{44}	17.4	X	191.23038	263.11753	295.55058	3.14153	0.1045681	0.27030231	2.3690245	21	11 21.1	20.8
324954 2007 YL_{53}	17.2	X	180.03396	278.21818	302.51135	3.84605	0.1850089	0.27219026	2.3580571	21	12 1.7	21.0
324955 2007 YE_{54}	17.3	X	233.61603	118.05298	65.92614	7.42369	0.0531196	0.28099513	2.3085371	21	—	—
324956 2007 YY_{54}	16.6	X	319.21035	106.47248	314.63088	18.60733	0.0647683	0.27530475	2.3402392	21	11 14.0	19.7
324957 2007 YG_{57}	17.2	X	15.06124	116.84195	286.31741	6.57193	0.0633963	0.28701203	2.2761593	21	—	—
324958 2007 YW_{62}	18.2	X	282.26247	205.32211	229.37176	0.79976	0.1520601	0.26965006	2.3728432	21	9 26.6	20.6
324959 2007 YN_{66}	18.0	X	298.93920	186.84509	258.32030	1.24692	0.1503853	0.27504633	2.3417048	21	11 14.1	19.8
324960 2007 YT_{72}	17.7	X	274.02657	143.47268	357.90383	4.82035	0.1577186	0.27949986	2.3167632	21	12 21.6	20.0

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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		°	°	°	°		°				
324961 2007 YV_{72}	17.0	X	244.18103	82.12924	12.53380	6.57125	0.0905555	0.26519490	2.3993445	21	9 10.9	20.1
324962 2007 YQ_{73}	17.6	X	280.89027	45.41755	44.02844	3.63271	0.1433404	0.27252662	2.3561165	21	10 19.1	20.0
324963 2007 YT_{74}	17.5	X	184.09675	265.64353	251.95372	1.28065	0.1071296	0.26279572	2.4139255	21	9 19.9	21.1
324964 2008 AY_{3}	17.0	X	197.77253	33.21581	108.14793	6.56312	0.1031632	0.26547433	2.3976605	21	9 17.9	20.5
324965 2008 AQ_{4}	17.3	X	229.49512	122.99698	12.01087	8.70047	0.2539298	0.26852104	2.3794897	21	9 26.4	20.8
324966 2008 AM_{7}	17.8	X	261.77903	44.84167	99.50344	1.88749	0.1527313	0.27684216	2.3315670	21	12 4.8	20.1
324967 2008 AC_{15}	17.8	X	201.15010	356.64098	163.56179	2.65569	0.1349120	0.26624342	2.3930409	21	10 11.4	21.3
324968 2008 AY_{19}	17.7	X	258.76386	279.81059	159.77485	2.36109	0.1812986	0.26578194	2.3958102	21	8 24.4	20.5
324969 2008 AV_{20}	17.6	X	189.69869	207.31820	355.25200	2.08091	0.1305732	0.26968379	2.3726453	21	11 22.2	20.9
324970 2008 AF_{27}	17.1	X	211.08981	229.75596	298.94617	5.80842	0.1208723	0.26942594	2.3741589	21	10 31.9	20.6
324971 2008 AJ_{30}	17.7	X	207.82915	98.22908	58.55772	4.77214	0.0993351	0.26850487	2.3795853	21	10 18.8	20.9
324972 2008 AJ_{32}	17.2	X	222.14753	49.75905	79.60436	3.51427	0.1361573	0.26494119	2.4008760	21	9 24.9	20.5
324973 2008 AE_{37}	17.1	X	228.82538	345.24604	123.58256	7.71088	0.0673097	0.26303150	2.4124827	21	9 14.6	20.3
324974 2008 AM_{43}	17.4	X	163.97684	75.36443	148.81330	2.51777	0.1543314	0.26810845	2.3819303	21	11 23.4	21.0
324975 2008 AA_{46}	17.6	X	178.74509	30.73818	284.68371	4.80151	0.1099056	0.30335931	2.1936357	21	—	—
324976 2008 AH_{56}	17.4	X	129.30279	353.50728	281.32287	4.09375	0.1064432	0.27659946	2.3329307	21	12 24.3	20.6
324977 2008 AH_{58}	17.8	X	197.59585	35.48804	142.64959	2.90057	0.1317914	0.26924673	2.3752122	21	10 31.9	21.3
324978 2008 AW_{64}	17.9	X	249.76478	198.24613	247.48222	2.36337	0.1602163	0.26390777	2.4071395	21	8 23.3	21.3
324979 2008 AJ_{71}	17.0	X	319.91106	22.49989	23.30869	7.25886	0.0809980	0.26945218	2.3740047	21	10 27.9	19.4
324980 2008 AS_{75}	17.9	X	267.21040	215.41761	221.43980	2.69671	0.1025665	0.26657598	2.3910503	21	9 13.1	20.6
324981 2008 AB_{88}	18.0	X	149.82546	44.48468	151.10223	1.47439	0.1409120	0.26340147	2.4102231	21	10 4.7	21.5
324982 2008 AL_{96}	17.3	X	341.68583	51.17881	340.99679	6.67727	0.1556248	0.27373337	2.3491868	21	11 19.5	19.5
324983 2008 AR_{98}	17.0	X	182.36696	251.23056	337.52273	5.38088	0.1430784	0.27431756	2.3458504	21	12 17.8	20.5
324984 2008 AJ_{107}	17.4	X	280.81046	336.98952	112.54595	4.35773	0.0608236	0.27106902	2.3645552	21	11 1.3	20.2
324985 2008 AQ_{114}	17.1	X	113.26161	305.38882	307.94603	5.37931	0.0815099	0.26763439	2.3847422	21	11 5.2	20.5
324986 2008 AQ_{136}	17.0	X	242.78004	276.96378	259.07169	4.77753	0.0524053	0.28017521	2.3130388	21	—	—
324987 2008 AB_{137}	17.4	X	160.41079	142.48916	13.45396	1.97335	0.1660509	0.25781683	2.4449043	21	8 25.1	21.1
324988 2008 BA_{7}	17.7	X	188.81471	63.46573	169.71512	1.08909	0.1718994	0.27457444	2.3443870	21	12 27.3	21.1
324989 2008 BJ_{7}	18.1	X	173.86237	262.30842	210.82487	1.81124	0.2089383	0.25275761	2.4774214	21	7 12.4	22.3
324990 2008 BW_{9}	17.1	X	314.20733	0.83358	33.14932	3.83220	0.1307645	0.26584335	2.3954412	21	9 27.9	19.3
324991 2008 BD_{10}	17.3	X	149.27525	179.57469	351.63900	6.74704	0.0988099	0.25588574	2.4571895	21	9 1.4	20.9
324992 2008 BA_{13}	15.9	X	67.13192	214.50931	331.99951	25.73370	0.3000741	0.23802581	2.5786160	21	7 21.5	19.6
324993 2008 BQ_{13}	17.8	X	264.50455	76.33225	27.00236	2.86139	0.1491235	0.27149816	2.3620629	21	10 11.3	20.6
324994 2008 BV_{14}	17.8	X	301.38905	251.61116	197.87286	5.50590	0.0783473	0.27445519	2.3450661	21	12 1.8	20.4
324995 2008 BA_{15}	18.1	X	277.45458	181.70923	250.41711	1.68535	0.1509025	0.26868793	2.3785043	21	9 14.3	20.6
324996 2008 BW_{15}	17.6	X	182.88230	171.75195	304.98658	6.87456	0.2037872	0.25551395	2.4595725	21	7 25.3	21.5
324997 2008 BF_{18}	17.1	X	167.33266	95.47632	171.87627	1.88162	0.1943034	0.27513997	2.3411735	21	—	—
324998 2008 BA_{26}	18.0	X	313.40608	210.83361	202.86336	0.90277	0.1766410	0.27194263	2.3594884	21	10 23.4	19.5
324999 2008 BX_{27}	17.7	X	228.40672	208.81799	295.35748	5.72654	0.1854753	0.26965292	2.3728264	21	10 11.0	21.3
325000 2008 BL_{28}	17.9	X	173.19463	104.19028	120.11424	3.02776	0.1573452	0.27132667	2.3630581	21	12 2.3	21.4
325001 2008 BH_{29}	18.2	X	256.76583	221.70101	241.62240	0.51862	0.1436631	0.26810281	2.3819637	21	9 29.9	21.1
325002 2008 BL_{31}	17.9	X	211.45090	203.54751	292.55378	0.45226	0.1227381	0.26234579	2.4166846	21	9 20.8	21.4
325003 2008 BW_{34}	17.4	X	228.52814	327.68484	154.35269	5.45612	0.0857755	0.26199573	2.4188368	21	9 28.2	20.6
325004 2008 BQ_{37}	15.7	X	307.87004	333.75365	359.52056	2.90148	0.2477222	0.24501753	2.5293248	21	5 23.1	18.7
325005 2008 BT_{38}	17.9	X	275.29296	310.00878	164.95043	4.48651	0.0838353	0.27054940	2.3675818	21	11 24.6	20.5
325006 2008 BO_{42}	16.9	X	287.88865	8.38809	47.86239	6.19614	0.2312803	0.26671698	2.3902075	21	8 29.2	19.5
325007 2008 BQ_{43}	17.6	X	181.75609	72.41457	82.40275	3.17401	0.1804347	0.26145897	2.4221462	21	9 13.3	21.4
325008 2008 BX_{44}	16.8	X	211.36383	60.83288	55.38755	7.67996	0.0643660	0.26035228	2.4290053	21	9 4.2	20.2
325009 2008 BM_{45}	17.0	X	271.35237	356.47210	82.04418	7.45641	0.1255876	0.26568188	2.3964117	21	9 23.7	19.9
325010 2008 BG_{47}	16.6	X	315.11470	279.23673	344.77553	11.20155	0.1863809	0.22436839	2.6822233	21	3 11.9	20.0
325011 2008 BU_{49}	17.2	X	114.63215	117.61238	354.85107	5.14112	0.1736003	0.23497541	2.6008847	21	5 12.3	21.0
325012 2008 BN_{52}	17.2	X	119.85627	100.20377	100.21963	6.14477	0.1249563	0.25427904	2.4675294	21	9 11.5	20.9
325013 2008 BU_{52}	17.0	X	184.08971	118.65583	85.05132	7.32934	0.0832178	0.26923104	2.3753046	21	11 23.1	20.2
325014 2008 CX_{5}	16.1	X	189.04988	234.38065	335.95698	9.17821	0.1833515	0.26948033	2.3738394	21	11 25.2	19.9
325015 2008 CF_{11}	17.8	X	200.27198	39.41214	77.47992	3.54980	0.1561376	0.25698443	2.4501810	21	8 13.4	21.7
325016 2008 CZ_{14}	17.5	X	206.25667	88.46139	69.08282	3.68157	0.1273837	0.26384244	2.4075369	21	10 14.6	20.9
325017 2008 CO_{17}	16.7	X	24.93266	93.60062	161.18149	14.57643	0.1049223	0.24369610	2.5384600	21	7 8.0	19.8
325018 2008 CV_{18}	18.0	X	164.04489	162.60128	49.28259	2.51026	0.1609846	0.26244058	2.4161027	21	11 6.8	21.8
325019 2008 CR_{19}	16.9	X	212.52605	16.36980	145.70812	12.54617	0.1379901	0.26803066	2.3823911	21	10 29.9	20.5
325020 2008 CA_{21}	17.4	X	333.90230	29.83080	356.69847	7.36920	0.1219835	0.26685144	2.3894045	21	10 22.1	19.8
325021 2008 CC_{24}	16.6	X	20.82518	335.32041	338.67608	5.78603	0.1162505	0.25646093	2.4535142	21	9 28.8	19.3
325022 2008 CX_{24}	17.4	X	152.59135	184.16487	73.86926	2.78873	0.2081431	0.26781469	2.3836717	21	12 22.2	21.1
325023 2008 CQ_{26}	17.7	X	299.93307	32.03554	358.86914	4.35438	0.0841650	0.26161281	2.4211965	21	9 2.2	20.5
325024 2008 CP_{33}	17.6	X	166.38903	170.56589	78.16089	1.88680	0.1884164	0.27076855	2.3663042	21	12 23.8	21.2
325025 2008 CN_{34}	17.8	X	309.21642	301.03800	125.19762	2.00411	0.1625917	0.27104970	2.3646676	21	11 5.1	19.6
325026 2008 CR_{36}	17.5	X	135.82639	28.58230	206.11430	1.76033	0.1926465	0.26153081	2.4217026	21	11 9.9	21.5
325027 2008 CX_{39}	17.5	X	102.74604	15.21511	221.66576	0.86045	0.1397492	0.25765199	2.4459471	21	10 8.9	21.1
325028 2008 CJ_{42}	17.8	X	166.88790	198.89391	239.18738	3.35698	0.1456330	0.24239331	2.5475475	21	5 20.9	21.7
325029 2008 CK_{48}	16.6	X	4.14264	298.33985	330.68518	14.94545	0.0998665	0.24220508	2.5488673	21	6 23.1	19.7
325030 2008 CQ_{49}	17.1	X	272.66243	343.79301	87.79501	2.37983	0.1451305	0.26454352	2.4032814	21	9 9.0	19.9
325031 2008 CT_{61}	17.7	X	29.65959	235.06297	354.44960	3.92121	0.1378073	0.23824536	2.5770316	21	6 12.1	20.4
325032 2008 CJ_{72}	17.0	X	223.28340	213.99560	278.13126	9.70985	0.1794090	0.26535540	2.3983769	21	9 17.4	20.8
325033 2008 CP_{74}	17.2	X	15.34607	346.80920	31.24275	7.26426	0.1203167	0.27471645	2.3435790	21	12 26.3	19.9
325034 2008 CB_{75}	17.2	X	345.27588	2.71608	83.34350	8.06131	0.1800811	0.28378083	2.2934046	21	—	—
325035 2008 CP_{91}	17.0	X	98.19698	5.47388	152.49294	6.29618	0.0417647	0.24217824	2.5490556	21	6 5.3	20.4
325036 2008 CE_{95}	17.4	X	129.35278	165.04158	90.05612	5.47911	0.2081272	0.26233459	2.4167534	21	11 29.9	21.5
325037 2008 CN_{96}	17.5	X	71.22592	265.61631	81.45521	5.26984	0.0935573	0.28256437	2.2999821	21	—	—
325038 2008 CL_{103}	17.1	X	112.89471	7.40436	267.22193	4.63671	0.1084602	0.26609161	2.3939510	21	12 5.4	20.5
325039 2008 CC_{106}	17.4	X	314.64423	356.56672	57.60898	4.97885	0.1453509	0.26943447	2.3741088	21	10 29.6	19.4
325040 2008 CN_{107}	17.2	X	334.68271	59.53031	335.73416	9.24540	0.2732306	0.27213089	2.3584001	21	11 14.6	18.6

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325041 2008 CZ_{108}	17.2	X	141.31340	48.13792	180.73359	5.19172	0.1284389	0.26084342	2.4259553	21	11 7.8	20.9
325042 2008 CL_{124}	17.4	X	294.47674	276.25170	196.05752	1.80713	0.1075214	0.27570392	2.3379798	21	12 20.7	19.7
325043 2008 CL_{126}	18.0	X	264.02409	240.24484	184.89290	1.54012	0.1848370	0.26195796	2.4190693	21	8 9.9	21.1
325044 2008 CK_{130}	17.2	X	181.83048	76.86142	168.36974	3.18541	0.1390205	0.27413472	2.3468934	21	—	—
325045 2008 CW_{136}	18.1	X	212.95090	11.38781	164.89851	1.58773	0.1235017	0.27010394	2.3701842	21	11 15.8	21.2
325046 2008 CC_{137}	17.4	X	298.66405	335.43423	149.00467	5.86329	0.0726488	0.27880437	2.3206145	21	—	—
325047 2008 CV_{137}	17.6	X	210.03053	16.18852	86.89454	2.32255	0.1472846	0.25544022	2.4600458	21	8 4.9	21.2
325048 2008 CM_{140}	17.3	X	117.31945	324.22110	299.48862	0.91042	0.1149355	0.26331401	2.4107568	21	11 26.0	20.8
325049 2008 CN_{152}	16.7	X	327.13170	358.05386	293.75614	4.08805	0.3105059	0.23474241	2.6026055	21	4 13.5	19.7
325050 2008 CV_{154}	17.7	X	258.20957	97.17887	13.33453	7.16742	0.0749613	0.26492215	2.4009910	21	10 21.7	20.7
325051 2008 CL_{159}	16.4	X	193.57151	13.20858	7.55172	11.41910	0.1146305	0.23304035	2.6152626	21	4 3.5	20.5
325052 2008 CV_{177}	17.3	X	199.48161	159.30005	41.23705	2.98875	0.1338155	0.27213731	2.3583631	21	11 30.3	20.7
325053 2008 CV_{178}	17.9	X	223.68603	339.06506	146.28458	3.11239	0.1556373	0.26427136	2.4049312	21	9 17.9	21.3
325054 2008 CV_{179}	17.0	X	277.97239	133.93436	268.21908	5.49155	0.2110684	0.26328499	2.4109340	21	7 22.6	20.1
325055 2008 CV_{189}	16.5	X	199.95628	104.26628	18.17572	22.98109	0.2738031	0.25725349	2.4484723	21	8 25.4	21.2
325056 2008 CV_{190}	18.1	X	170.27420	89.75255	64.85764	2.26107	0.1310178	0.25538257	2.4604160	21	9 2.3	21.9
325057 2008 CF_{191}	17.2	X	115.04031	236.06954	128.63585	3.74821	0.1026702	0.28974598	2.2618186	21	—	—
325058 2008 CY_{192}	17.6	X	87.20167	23.53939	228.49039	1.93334	0.1901838	0.25510038	2.4622301	21	10 16.8	21.2
325059 2008 CT_{199}	17.3	X	151.30827	249.49217	179.33576	4.05892	0.1953430	0.23401722	2.6079795	21	4 28.8	21.4
325060 2008 CF_{200}	16.9	X	102.36869	329.70869	345.79647	4.38798	0.2365514	0.26707418	2.3880758	21	—	—
325061 2008 CG_{202}	15.6	X	336.83702	47.73150	358.77669	12.99541	0.0899735	0.19662600	2.9289284	21	11 6.9	19.4
325062 2008 CL_{203}	16.8	X	322.71651	185.42751	140.55585	9.44306	0.1174590	0.24439032	2.5336506	21	6 29.9	19.7
325063 2008 CM_{208}	16.8	X	349.70980	61.84765	11.05439	7.06267	0.0820181	0.27935678	2.3175542	21	—	—
325064 2008 CW_{208}	16.8	X	93.25248	345.21238	163.34679	12.68593	0.1189225	0.23537265	2.5979576	21	5 30.4	20.5
325065 2008 CJ_{209}	16.3	X	146.60696	333.82509	103.70394	14.57698	0.1366898	0.23916385	2.5704295	21	5 5.4	20.4
325066 2008 CN_{209}	17.2	X	267.76065	81.80124	8.72751	6.41727	0.0726778	0.26725620	2.3869914	21	10 9.0	20.0
325067 2008 CS_{213}	17.2	X	307.79963	291.15446	166.25972	6.42307	0.0692852	0.27492364	2.3424015	21	12 23.6	19.7
325068 2008 CX_{213}	16.8	X	4.99829	79.24044	172.45132	14.73699	0.0634040	0.23670557	2.5881954	21	5 31.3	20.2
325069 2008 CC_{214}	16.5	X	65.93078	339.43036	194.42988	10.31788	0.1665683	0.23007256	2.6377047	21	6 1.3	19.8
325070 2008 CO_{215}	17.0	X	230.39618	16.41054	70.11992	7.91281	0.0751739	0.25441344	2.4666603	21	8 15.7	20.4
325071 2008 DF	16.8	X	208.83853	294.59805	239.62534	7.46152	0.1413096	0.26942055	2.3741905	21	11 5.1	20.1
325072 2008 DD_{1}	17.2	X	206.08067	82.73247	141.02534	5.61964	0.2036970	0.27590213	2.3368599	21	12 29.9	20.6
325073 2008 DV_{1}	17.8	X	250.74512	291.11588	165.23131	1.39105	0.1379466	0.26543427	2.3979017	21	9 13.0	20.6
325074 2008 DL_{2}	16.7	X	121.04597	77.87322	148.35521	6.89518	0.1389633	0.26033359	2.4291215	21	10 17.1	20.4
325075 2008 DQ_{2}	17.2	X	180.87647	81.45287	153.18669	9.65170	0.1726093	0.27345134	2.3508018	21	12 21.7	21.0
325076 2008 DT_{3}	17.1	X	221.52092	40.24125	114.41148	2.91884	0.1550011	0.26700915	2.3884636	21	10 25.0	20.3
325077 2008 DZ_{5}	18.1	X	234.34381	151.14664	354.06465	1.92543	0.1604404	0.27033963	2.3688064	21	10 25.3	21.1
325078 2008 DR_{6}	17.8	X	183.78694	245.81794	317.74411	5.21424	0.1247601	0.26995117	2.3710783	21	11 16.7	21.3
325079 2008 DF_{7}	17.8	X	161.94783	13.22008	171.49512	1.38227	0.1323533	0.26086792	2.4258034	21	10 2.2	21.6
325080 2008 DH_{8}	17.1	X	241.20853	152.59259	327.16805	6.28518	0.0851225	0.26380542	2.4077621	21	10 7.4	20.3
325081 2008 DB_{13}	17.6	X	130.98167	277.25949	314.81826	3.75380	0.2049407	0.26092069	2.4254763	21	11 1.2	21.8
325082 2008 DZ_{13}	17.6	X	138.03662	239.08960	39.45378	2.99098	0.2139739	0.26957701	2.3732718	21	—	—
325083 2008 DO_{25}	16.4	X	139.09424	203.24385	40.62648	8.70667	0.2309293	0.26248746	2.4158150	21	11 22.9	20.5
325084 2008 DX_{30}	17.8	X	209.09831	66.31528	120.48958	3.58886	0.1125605	0.27233433	2.3572254	21	11 27.0	21.0
325085 2008 DJ_{34}	17.5	X	163.34364	59.29505	178.27775	2.80831	0.1853691	0.26458098	2.4030546	21	12 7.3	21.4
325086 2008 DA_{36}	17.4	X	103.39000	69.81130	170.59565	6.54987	0.1002012	0.25396631	2.4695547	21	10 11.6	20.9
325087 2008 DC_{37}	16.8	X	342.36962	293.03108	344.12892	7.78416	0.2418624	0.23179453	2.6246250	21	5 4.0	19.4
325088 2008 DQ_{43}	17.6	X	208.42784	167.29041	56.61859	3.41512	0.1554951	0.27466466	2.3438736	21	—	—
325089 2008 DS_{43}	17.3	X	103.34547	204.22023	14.61849	5.27344	0.0641777	0.25057651	2.4917768	21	9 8.7	20.6
325090 2008 DU_{45}	17.1	X	164.44267	158.97180	13.76060	5.83377	0.1045168	0.25663140	2.4524276	21	9 20.1	20.7
325091 2008 DE_{53}	16.5	X	249.10000	186.40743	186.89622	10.31546	0.1142120	0.24014615	2.5634152	21	5 24.5	20.4
325092 2008 DX_{53}	17.0	X	94.37378	4.65279	153.55647	5.00257	0.0495329	0.23528929	2.5985711	21	6 1.7	20.5
325093 2008 DB_{54}	17.3	X	238.50966	13.21324	134.61167	3.39853	0.1176301	0.27005495	2.3704708	21	11 11.3	20.4
325094 2008 DE_{64}	17.3	X	107.15893	14.94934	147.61793	9.41426	0.0722165	0.24338965	2.5405904	21	6 27.4	20.8
325095 2008 DA_{68}	16.7	X	12.94801	266.03773	336.99549	14.67610	0.1295750	0.23438911	2.6052202	21	5 26.5	19.8
325096 2008 DN_{73}	16.9	X	20.31498	160.70055	179.40910	7.40666	0.1113957	0.26142016	2.4223859	21	11 8.4	19.6
325097 2008 DJ_{78}	15.9	X	143.51425	186.71558	2.82959	12.37093	0.0994181	0.18028999	3.1032848	21	9 14.4	20.6
325098 2008 DQ_{81}	17.0	X	297.72342	301.46584	338.45059	1.29492	0.1727694	0.22518162	2.6757616	21	3 12.9	20.7
325099 2008 DG_{82}	16.5	X	168.97136	293.78413	168.78970	15.22223	0.0720322	0.24250249	2.5467829	21	6 22.1	20.5
325100 2008 DP_{85}	16.9	X	356.06151	119.28815	164.72633	11.83156	0.1948811	0.23744770	2.5827998	21	6 26.8	19.4
325101 2008 DY_{87}	16.0	X	284.35650	333.61124	16.85396	13.98876	0.2067768	0.24169469	2.5524543	21	5 17.7	19.7
325102 2008 EY_{5}	20.1	X	105.19927	106.64956	245.47027	5.10915	0.6268005	1.98895006	0.6262102	21	—	—
325103 2008 EQ_{11}	16.1	X	0.16293	287.37093	44.45657	7.22936	0.1581039	0.25266942	2.4779979	21	9 26.7	18.4
325104 2008 EZ_{15}	16.4	X	174.97188	24.53608	14.01078	12.25277	0.1513467	0.22942221	2.6426871	21	4 9.1	20.5
325105 2008 EJ_{20}	16.7	X	53.52344	332.43842	343.56625	6.24015	0.1198373	0.25835963	2.4414788	21	11 19.6	20.0
325106 2008 EV_{29}	16.7	X	266.20451	105.57844	180.28323	8.01268	0.1584899	0.21775309	2.7362756	21	2 15.8	20.9
325107 2008 EL_{33}	16.4	X	256.76320	186.41524	176.39059	4.40383	0.2169215	0.23808749	2.5781707	21	5 7.9	20.4
325108 2008 EQ_{33}	17.6	X	251.24111	74.87950	330.08871	1.51839	0.2017013	0.25427527	2.4675538	21	6 26.3	21.1
325109 2008 EY_{33}	18.1	X	120.47371	348.43655	169.06993	3.20385	0.1199122	0.24564389	2.5250234	21	7 12.6	21.8
325110 2008 EZ_{41}	17.2	X	4.06739	216.95503	50.13239	3.34047	0.1133068	0.23661943	2.5888235	21	6 18.5	19.8
325111 2008 EQ_{43}	16.9	X	137.09397	142.95277	60.05093	4.56011	0.1287106	0.25606792	2.4560240	21	10 2.3	20.7
325112 2008 EM_{44}	17.4	X	104.02664	254.56273	13.27812	2.33362	0.1696057	0.25689141	2.4507725	21	11 20.2	21.3
325113 2008 ER_{44}	17.2	X	49.51816	110.85481	140.12607	2.58521	0.0229997	0.24501013	2.5293758	21	8 1.8	20.4
325114 2008 EH_{45}	18.1	X	187.90460	147.26804	1.94386	4.14574	0.1652627	0.25550175	2.4596509	21	9 10.9	22.0
325115 2008 EX_{47}	17.3	X	6.75556	244.28432	36.76156	3.76613	0.2086734	0.23665185	2.5885871	21	7 20.9	19.4
325116 2008 EG_{48}	17.1	X	71.10126	313.67867	189.68160	8.46698	0.0806272	0.22774927	2.6556126	21	4 14.3	20.4
325117 2008 EK_{50}	17.6	X	143.76385	258.12118	42.59109	1.92403	0.1901581	0.27610974	2.3356883	21	—	—
325118 2008 EA_{64}	17.3	X	295.74252	86.01262	251.73384	3.23208	0.0392233	0.24207381	2.5497887	21	6 15.8	20.3
325119 2008 EQ_{66}	17.1	X	184.47661	121.13375	304.36864	3.84967	0.1301664	0.24060653	2.5601443	21	5 20.9	21.1
325120 2008 EB_{68}	17.3	X	56.84853	298.56454	267.34757	2.87001	0.0736122	0.23949869	2.5680332	21	6 16.7	20.2

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325121 2008 EA_{71}	17.6	X	253.73638	71.16754	21.41489	5.10943	0.1860161	0.26265716	2.4147744	21	9 6.2	20.7
325122 2008 ES_{81}	16.6	X	333.40160	107.26909	182.88518	11.74133	0.2339977	0.23321212	2.6139782	21	5 12.2	19.3
325123 2008 EH_{86}	17.2	X	345.90954	194.45464	82.43028	4.47197	0.1047592	0.23614021	2.5923248	21	5 31.1	20.0
325124 2008 EM_{100}	17.2	X	211.37933	35.23401	140.75728	6.15165	0.0751284	0.26657124	2.3910786	21	11 20.4	20.5
325125 2008 EE_{110}	17.1	X	197.05130	64.66257	141.22092	7.64212	0.0643569	0.27470251	2.3436583	21	12 13.9	20.2
325126 2008 EM_{113}	17.5	X	193.75863	155.48832	346.58203	5.40798	0.1474820	0.25694082	2.4504583	21	9 7.9	21.2
325127 2008 EL_{119}	16.4	X	79.90581	32.55804	255.73137	5.48366	0.1135147	0.26191074	2.4193601	21	11 16.5	19.7
325128 2008 EQ_{119}	17.2	X	4.99533	273.04143	6.26719	11.40688	0.2102126	0.23832706	2.5764426	21	7 16.0	19.6
325129 2008 EN_{122}	16.8	X	284.75777	193.48971	185.75089	13.69477	0.0822588	0.24668615	2.5179062	21	7 19.1	20.3
325130 2008 EO_{123}	17.1	X	147.92153	228.51639	9.88456	3.75274	0.1631967	0.26680121	2.3897044	21	11 24.4	20.8
325131 2008 EC_{127}	17.5	X	73.06826	117.43944	183.97757	2.21443	0.1914131	0.25603808	2.4562148	21	12 4.3	21.0
325132 2008 EX_{129}	16.2	X	236.57369	233.15548	140.23568	9.09664	0.2698244	0.23841322	2.5758219	21	5 1.9	20.8
325133 2008 EO_{139}	16.0	X	306.88423	43.29530	338.43504	6.77558	0.1046939	0.25109585	2.4883398	21	8 27.0	18.6
325134 2008 EQ_{143}	16.4	X	5.60230	116.04741	127.09252	16.12533	0.0719310	0.23442105	2.6049835	21	5 23.1	19.8
325135 2008 EK_{146}	16.8	X	115.41208	307.54967	180.01580	14.83709	0.0894912	0.23850084	2.5751910	21	5 25.9	20.6
325136 2008 ED_{149}	15.5	X	259.39307	238.71516	142.76220	13.16530	0.1996086	0.24353364	2.5395888	21	6 6.7	19.5
325137 2008 EL_{149}	16.7	X	348.80039	132.02541	221.24929	7.89178	0.0432987	0.25381332	2.4705469	21	9 25.1	19.6
325138 2008 ED_{150}	17.7	X	163.54053	96.76491	61.67387	2.43552	0.1388990	0.25240120	2.4797531	21	8 31.4	21.6
325139 2008 ET_{150}	17.2	X	110.88190	68.14865	26.12692	14.67945	0.1662023	0.22827362	2.6515444	21	4 15.5	21.0
325140 2008 EE_{152}	16.6	X	230.50044	197.46305	192.63260	15.64029	0.1473664	0.23897139	2.5718094	21	5 23.4	20.8
325141 2008 EJ_{152}	17.2	X	11.51854	48.18242	242.29569	2.46135	0.0722955	0.24381350	2.5376451	21	8 3.9	20.2
325142 2008 EQ_{153}	16.8	X	214.95576	189.86232	198.63249	3.58519	0.1260446	0.23586010	2.5943768	21	5 5.8	20.9
325143 2008 ET_{154}	17.0	X	151.21660	334.67949	181.78495	7.76067	0.1246001	0.24449928	2.5328978	21	8 12.6	21.0
325144 2008 EL_{156}	17.2	X	167.47202	109.23112	354.06597	3.21119	0.0467707	0.24032607	2.5621357	21	6 19.9	20.8
325145 2008 ED_{157}	17.0	X	211.01295	218.29032	188.10298	14.45589	0.1928249	0.24003906	2.5641776	21	5 23.5	21.4
325146 2008 EZ_{158}	17.4	X	88.51137	309.25959	203.47885	6.47321	0.0940492	0.23267412	2.6180062	21	5 24.1	20.8
325147 2008 EX_{165}	17.6	X	105.45671	118.13875	66.91196	5.46304	0.1396765	0.24301898	2.5431731	21	8 5.7	21.2
325148 2008 EE_{166}	16.6	X	30.97738	153.09688	24.07917	14.36422	0.0716354	0.22463452	2.6801045	21	3 31.0	19.8
325149 2008 EP_{166}	16.2	X	82.66493	196.83446	62.82596	15.59102	0.0900594	0.25294371	2.4762061	21	10 16.9	19.8
325150 2008 EE_{167}	16.1	X	321.38091	140.03637	139.15032	13.54925	0.1576399	0.22557986	2.6726115	21	4 21.6	19.6
325151 2008 EB_{169}	16.8	X	25.16064	137.73458	104.75984	15.73478	0.2265175	0.23403099	2.6078772	21	7 3.9	19.0
325152 2008 EC_{169}	15.8	X	265.30293	194.37023	176.78331	18.83987	0.3593313	0.24234061	2.5479168	21	5 14.5	20.4
325153 2008 FS_{3}	17.2	X	244.22207	288.90772	163.40940	6.77515	0.1261845	0.25865283	2.4396334	21	8 30.8	20.5
325154 2008 FQ_{4}	17.3	X	43.49790	241.33210	15.08039	6.42104	0.1418884	0.24192978	2.5508005	21	8 21.0	20.2
325155 2008 FC_{10}	17.3	X	100.83840	133.44318	145.42132	0.71356	0.1768639	0.26241008	2.4162899	21	12 2.6	20.9
325156 2008 FO_{13}	17.2	X	130.67618	265.04318	179.75968	11.97691	0.2046613	0.23386936	2.6090786	21	5 1.4	21.3
325157 2008 FO_{14}	17.0	X	357.37474	233.58605	1.93565	2.36527	0.0894425	0.23151192	2.6267605	21	4 21.5	20.0
325158 2008 FW_{19}	17.5	X	104.71540	14.71989	256.23755	1.79635	0.1768475	0.25781404	2.4449220	21	11 25.6	21.3
325159 2008 FD_{20}	16.6	X	59.23114	155.33056	1.03426	14.22897	0.0599800	0.22963549	2.6410506	21	4 7.3	19.9
325160 2008 FM_{22}	16.7	X	176.36975	349.34309	68.91002	5.53256	0.0875315	0.23232214	2.6206497	21	5 4.5	20.6
325161 2008 FL_{24}	17.0	X	338.45993	124.77971	188.85446	30.65343	0.2699702	0.23540178	2.5977432	21	6 20.7	20.1
325162 2008 FW_{26}	17.1	X	123.49085	166.83511	26.21525	3.70206	0.0680766	0.24542998	2.5264904	21	8 29.9	20.6
325163 2008 FN_{37}	17.4	X	86.92629	1.80602	95.47428	3.90152	0.0539082	0.22156055	2.7048369	21	3 4.8	20.9
325164 2008 FH_{38}	17.1	X	32.38726	10.16658	134.31402	4.25813	0.0268264	0.21895550	2.7262488	21	2 15.5	20.4
325165 2008 FJ_{42}	17.1	X	247.53975	195.80407	189.16399	3.52643	0.1411483	0.24311666	2.5424918	21	6 3.0	20.9
325166 2008 FS_{46}	17.4	X	125.70529	151.19179	149.48637	3.49420	0.2022957	0.26943723	2.3740925	21	—	—
325167 2008 FL_{49}	16.4	X	163.86522	25.77413	18.86001	11.51212	0.1849928	0.22893277	2.6464523	21	4 8.9	20.6
325168 2008 FS_{49}	17.5	X	102.18383	347.13153	154.94925	0.96786	0.1534693	0.23639644	2.5904513	21	6 4.9	21.1
325169 2008 FZ_{50}	16.9	X	45.24029	219.24087	24.23688	7.45077	0.0548980	0.24201501	2.5502016	21	7 22.5	20.1
325170 2008 FC_{51}	17.1	X	358.96120	193.25702	76.47295	1.77736	0.1162688	0.23623415	2.5916376	21	6 12.8	19.8
325171 2008 FP_{54}	16.6	X	120.91036	88.18083	34.01884	7.02354	0.0682885	0.23301975	2.6154167	21	5 19.6	20.2
325172 2008 FX_{54}	16.7	X	102.89946	272.90435	198.29503	21.26204	0.1319104	0.22861135	2.6489323	21	4 23.8	20.3
325173 2008 FY_{54}	17.3	X	96.38512	109.93125	40.95828	2.58265	0.0398282	0.23335799	2.6128888	21	5 22.7	20.7
325174 2008 FC_{56}	16.8	X	119.30334	83.97185	194.80745	6.53686	0.1171123	0.26160996	2.4212141	21	12 16.9	20.5
325175 2008 FL_{63}	16.7	X	104.88981	200.32623	48.44201	7.78937	0.0818765	0.25387237	2.4701638	21	10 22.6	20.2
325176 2008 FX_{64}	16.9	X	196.45054	258.93777	99.02464	2.82294	0.0938981	0.21876947	2.7277940	21	3 12.6	21.0
325177 2008 FG_{66}	17.5	X	67.98339	71.78956	184.40849	2.18175	0.1769086	0.24377797	2.5378916	21	9 28.1	20.9
325178 2008 FR_{68}	16.8	X	124.36620	66.30283	38.13421	12.41827	0.1429748	0.23112231	2.6297116	21	5 9.7	20.6
325179 2008 FT_{69}	16.9	X	354.80958	267.60903	37.61351	5.58038	0.2496403	0.23469682	2.6029425	21	8 1.0	18.7
325180 2008 FH_{75}	17.4	X	94.19276	114.40320	91.06477	5.12527	0.1606208	0.24381091	2.5376631	21	8 22.8	21.1
325181 2008 FT_{76}	17.1	X	317.95924	134.24077	199.68228	1.06609	0.1139852	0.24602016	2.5224482	21	7 3.7	20.0
325182 2008 FJ_{77}	17.3	X	231.57780	19.69823	14.28528	2.18664	0.1570422	0.24019484	2.5630688	21	5 26.6	21.1
325183 2008 FC_{84}	16.8	X	103.38099	277.66615	183.53853	13.91729	0.0736159	0.22553814	2.6729411	21	4 2.3	20.3
325184 2008 FT_{88}	17.3	X	79.81954	354.01916	173.36187	3.68884	0.1513586	0.23246493	2.6195765	21	6 9.9	20.6
325185 2008 FF_{89}	17.9	X	209.58579	64.47489	140.69272	2.04562	0.1283873	0.27511153	2.3413348	21	12 19.3	21.1
325186 2008 FG_{89}	17.5	X	164.34838	111.40596	114.88672	2.16906	0.1483277	0.26959059	2.3731921	21	11 26.6	21.1
325187 2008 FC_{94}	16.3	X	144.76116	17.25120	51.00113	12.93217	0.1517568	0.22677091	2.6632452	21	4 20.7	20.4
325188 2008 FR_{96}	16.5	X	50.93630	40.31746	166.52507	12.06770	0.1238462	0.23458229	2.6037897	21	6 16.8	19.8
325189 2008 FC_{97}	16.4	X	122.08206	338.70724	196.86098	7.70436	0.0878411	0.24066422	2.5597351	21	8 2.4	20.2
325190 2008 FE_{103}	16.5	X	47.44681	69.11782	193.85264	16.74650	0.0566877	0.24223238	2.5486758	21	8 16.2	20.0
325191 2008 FL_{104}	16.2	X	115.50599	121.86422	187.98044	6.26002	0.0872162	0.18920864	3.0049834	21	—	—
325192 2008 FP_{106}	17.2	X	191.64764	284.39673	152.83950	3.71596	0.0902991	0.23961634	2.5671924	21	6 14.2	21.1
325193 2008 FK_{108}	17.3	X	203.07435	339.27716	54.98202	3.57232	0.1397079	0.23396051	2.6084009	21	5 1.0	21.4
325194 2008 FT_{111}	16.8	X	46.09758	22.64751	129.69003	6.13493	0.0970249	0.22154132	2.7049935	21	3 22.8	19.9
325195 2008 FY_{111}	16.6	X	60.84863	78.95574	169.66395	5.96175	0.1763888	0.23937800	2.5688962	21	9 7.8	19.8
325196 2008 FY_{113}	16.4	X	95.42815	242.93508	185.67456	6.77318	0.0394677	0.21534674	2.7566217	21	2 2.9	20.2
325197 2008 FX_{118}	16.8	X	171.89280	323.20187	43.55472	7.13212	0.0884438	0.22000103	2.7176044	21	2 27.6	20.9
325198 2008 FH_{120}	16.7	X	144.17036	243.23685	144.39495	6.72588	0.0962708	0.21919241	2.7242840	21	2 20.9	20.6
325199 2008 FA_{125}	16.8	X	346.63324	176.04313	128.12401	6.01799	0.2748894	0.23316983	2.6142943	21	6 29.6	18.5
325200 2008 FA_{129}	16.4	X	181.51378	304.63306	69.74423	4.06563	0.0738490	0.21905692	2.7254072	21	3 17.2	20.4

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325201 2008 FE_{131}	16.8	X	256.78984	198.16996	175.28239	9.05193	0.1753838	0.23869149	2.5738196	21	5 26.6	20.7
325202 2008 FX_{133}	17.0	X	96.87324	166.00884	38.78902	5.40685	0.0906236	0.24424872	2.5346297	21	8 16.4	20.5
325203 2008 FP_{134}	17.6	X	92.45554	334.51597	214.09576	2.63776	0.1347299	0.23941102	2.5686600	21	7 22.4	21.2
325204 2008 FT_{136}	16.0	X	143.04979	74.55959	27.85260	22.22251	0.0243156	0.23231352	2.6207146	21	5 11.0	19.8
325205 2008 FE_{137}	17.2	X	138.87390	320.65512	136.46744	4.71649	0.2485283	0.23773594	2.5807117	21	5 26.9	21.4
325206 2008 FF_{137}	16.4	X	129.51576	24.69032	114.33119	5.89028	0.1015799	0.23807679	2.5782479	21	6 26.8	20.0
325207 2008 FG_{137}	17.2	X	35.41747	74.16624	137.93199	12.14040	0.2265700	0.23212909	2.6221026	21	6 11.1	19.8
325208 2008 FM_{137}	16.8	X	238.34467	196.32916	142.63942	6.35586	0.0392827	0.22286575	2.6942661	21	4 6.5	20.6
325209 2008 GS_{4}	17.6	X	103.81940	240.19967	354.25985	1.12194	0.1495652	0.25356704	2.4721464	21	10 7.5	21.2
325210 2008 GM_{6}	17.0	X	194.43533	167.33584	148.31888	6.37685	0.0130647	0.21256087	2.7806554	21	1 13.9	21.0
325211 2008 GF_{9}	17.1	X	79.34893	134.76778	53.43668	2.35748	0.1175620	0.23594481	2.5937559	21	7 2.5	20.4
325212 2008 GT_{9}	16.7	X	138.52186	193.78361	195.04063	5.54398	0.0416816	0.21335426	2.7737576	21	2 7.9	20.6
325213 2008 GX_{9}	16.7	X	242.01006	265.87363	63.76719	4.31538	0.1062372	0.22018386	2.7160998	21	3 24.5	20.8
325214 2008 GQ_{15}	17.3	X	308.58426	282.63833	39.50811	3.55190	0.1309547	0.23532943	2.5982756	21	5 29.2	20.3
325215 2008 GQ_{17}	16.7	X	161.59689	221.07816	137.23814	6.79516	0.0426641	0.21459592	2.7630479	21	1 29.9	20.5
325216 2008 GQ_{18}	16.5	X	23.92178	23.03320	229.88267	11.93058	0.1171052	0.23795882	2.5790999	21	7 3.1	19.5
325217 2008 GF_{20}	16.2	X	357.69129	236.91167	37.87442	10.74264	0.2049860	0.23210460	2.6222869	21	6 13.8	18.6
325218 2008 GZ_{20}	16.8	X	302.86988	68.95619	200.97975	4.11927	0.0621015	0.22389497	2.6860029	21	3 22.5	20.4
325219 2008 GT_{21}	17.1	X	74.62611	154.63575	28.27213	7.85473	0.0966160	0.23534805	2.5981386	21	6 13.8	20.5
325220 2008 GO_{29}	17.3	X	238.19820	355.65574	14.56817	1.11794	0.0749153	0.23505136	2.6003244	21	5 10.1	20.9
325221 2008 GT_{30}	17.1	X	172.63576	18.29618	49.04255	3.88045	0.0306848	0.23381451	2.6094867	21	5 8.4	20.5
325222 2008 GS_{32}	17.1	X	19.74710	73.84179	132.87641	5.72003	0.0697109	0.22720941	2.6598175	21	4 22.4	20.3
325223 2008 GQ_{37}	16.6	X	317.60918	234.99924	55.55431	11.53478	0.1089869	0.22699886	2.6614620	21	5 4.6	19.9
325224 2008 GK_{38}	15.9	X	95.31757	155.10887	51.01771	13.81575	0.1119089	0.24033151	2.5620970	21	8 23.7	19.8
325225 2008 GO_{38}	16.4	X	358.73545	57.47033	208.65836	11.56800	0.1258235	0.23004211	2.6379374	21	6 7.3	19.3
325226 2008 GD_{39}	17.0	X	67.36803	52.99501	114.26124	4.62361	0.1878969	0.22928227	2.6437623	21	5 28.6	20.0
325227 2008 GJ_{40}	17.6	X	159.98860	126.17232	67.84203	3.66166	0.1216161	0.25911734	2.4367168	21	10 13.4	21.2
325228 2008 GD_{41}	17.3	X	111.43396	1.81177	127.13771	5.33809	0.0197439	0.23032711	2.6357609	21	5 12.6	20.8
325229 2008 GE_{43}	17.2	X	151.96930	186.49380	194.77853	5.92770	0.0387119	0.21724680	2.7405251	21	2 13.6	21.2
325230 2008 GJ_{43}	17.0	X	198.95352	30.34460	29.22979	4.36151	0.1431901	0.23732982	2.5836549	21	5 27.9	21.0
325231 2008 GD_{46}	16.7	X	123.85337	27.07191	74.48945	9.87665	0.0499134	0.22632885	2.6667119	21	4 28.3	20.4
325232 2008 GD_{49}	16.2	X	276.14802	6.39307	352.32138	14.96965	0.2755295	0.24325873	2.5415018	21	5 8.1	20.3
325233 2008 GU_{52}	16.8	X	279.68585	160.79714	182.80439	13.19379	0.0729192	0.23566280	2.5958247	21	5 29.0	20.5
325234 2008 GX_{57}	17.4	X	53.60422	11.11288	171.87821	2.67209	0.0639856	0.23177105	2.6248022	21	5 10.0	20.5
325235 2008 GT_{62}	17.2	X	24.85815	73.63420	207.80648	12.42058	0.2364888	0.23948046	2.5681635	21	9 1.3	19.9
325236 2008 GF_{64}	17.2	X	344.33213	132.99789	138.55505	2.73148	0.1679175	0.22892959	2.6464768	21	5 15.0	19.9
325237 2008 GV_{64}	17.5	X	73.00300	217.69619	72.39137	2.42019	0.1713340	0.25416373	2.4682757	21	11 17.5	21.0
325238 2008 GK_{67}	17.2	X	56.59601	149.25440	54.33596	5.05218	0.2079834	0.23417990	2.6067715	21	7 5.2	20.1
325239 2008 GC_{68}	16.5	X	117.14563	319.42199	79.00092	7.35592	0.0364168	0.21059021	2.7979756	21	1 27.6	20.3
325240 2008 GG_{68}	16.3	X	337.14574	79.03451	194.14941	14.16630	0.1229671	0.22806605	2.6531530	21	5 10.5	19.4
325241 2008 GU_{69}	16.0	X	264.97324	203.40019	92.96953	10.25961	0.0598416	0.21786097	2.7353722	21	3 16.3	20.1
325242 2008 GQ_{70}	17.3	X	143.93747	93.01742	189.39455	6.25275	0.1299909	0.27143895	2.3624064	21	—	—
325243 2008 GY_{71}	17.4	X	71.88160	71.74067	122.25578	2.72678	0.0427683	0.23709911	2.5853307	21	6 17.8	20.6
325244 2008 GB_{74}	16.2	X	255.81918	251.28393	74.81840	9.77607	0.1361466	0.22318071	2.6917307	21	4 3.6	20.4
325245 2008 GO_{74}	16.3	X	156.17594	222.82299	161.35330	10.30588	0.1242702	0.21637807	2.7478555	21	3 4.6	20.5
325246 2008 GU_{76}	17.0	X	238.60154	189.07103	180.18100	11.55930	0.0685859	0.23007476	2.6376879	21	5 12.9	20.9
325247 2008 GZ_{78}	16.8	X	8.97039	113.65065	202.98662	12.10456	0.2076844	0.24055936	2.5604789	21	9 19.2	19.2
325248 2008 GF_{80}	16.7	X	208.36411	239.52717	91.87189	6.74803	0.0598530	0.21834439	2.7313333	21	2 21.5	20.7
325249 2008 GN_{81}	16.4	X	284.09079	195.85621	89.07106	6.25074	0.0142673	0.21982349	2.7190674	21	3 29.4	20.1
325250 2008 GK_{83}	16.9	X	153.37912	339.06058	140.42212	5.12819	0.2244719	0.24258565	2.5462008	21	7 3.7	21.3
325251 2008 GJ_{85}	16.8	X	326.79511	186.07282	108.32455	4.67508	0.0849849	0.23439165	2.6052014	21	5 26.9	19.8
325252 2008 GB_{90}	17.7	X	18.27855	216.99689	57.47233	3.12238	0.1698670	0.23807641	2.5782507	21	8 3.1	20.2
325253 2008 GY_{90}	16.7	X	90.81247	63.30890	32.25165	7.83400	0.0069263	0.22034160	2.7148034	21	3 3.3	20.4
325254 2008 GK_{91}	17.0	X	302.41932	120.03842	175.01326	4.53427	0.0886639	0.22800922	2.6535938	21	4 21.5	20.4
325255 2008 GP_{96}	16.6	X	2.02972	218.85921	37.41055	13.89612	0.2435563	0.23006302	2.6377776	21	5 21.8	18.7
325256 2008 GL_{97}	17.1	X	19.87053	38.70603	217.28064	9.91892	0.1506203	0.23419433	2.6066645	21	7 3.3	19.9
325257 2008 GH_{98}	16.9	X	74.30130	88.46325	101.90913	6.07936	0.0618857	0.23397420	2.6082992	21	6 19.3	20.1
325258 2008 GA_{99}	16.5	X	102.69960	239.69703	201.49052	10.84486	0.1584768	0.22318403	2.6917040	21	3 16.6	20.2
325259 2008 GC_{99}	17.8	X	106.33608	334.34610	180.63481	0.86729	0.0536314	0.23668983	2.5883102	21	6 13.2	21.3
325260 2008 GC_{103}	16.5	X	247.15566	247.18665	67.19460	9.50354	0.1532722	0.21620535	2.7493187	21	3 11.0	21.0
325261 2008 GO_{106}	16.2	X	77.59831	357.68675	189.21529	18.70595	0.1621462	0.23444574	2.6048006	21	7 3.3	20.1
325262 2008 GP_{109}	16.8	X	356.87022	145.11518	82.44422	6.81082	0.1368630	0.22273083	2.6953541	21	4 11.2	19.8
325263 2008 GX_{109}	16.3	X	2.24419	120.83329	152.72977	8.64961	0.1208557	0.23237833	2.6202273	21	6 25.2	19.1
325264 2008 GZ_{109}	17.2	X	15.16275	257.20328	4.07600	7.41548	0.1225418	0.23733212	2.5836382	21	7 2.7	20.0
325265 2008 GQ_{113}	17.2	X	154.22066	284.82701	217.52575	3.21929	0.0643298	0.24434975	2.5339310	21	7 26.5	20.7
325266 2008 GR_{114}	16.9	X	241.47475	153.93037	163.75665	9.08545	0.0987937	0.21926350	2.7236951	21	3 7.9	20.8
325267 2008 GC_{115}	17.0	X	130.89591	39.00904	123.72056	5.45985	0.1290573	0.24295160	2.5436433	21	8 1.7	20.8
325268 2008 GG_{117}	16.6	X	319.36620	76.18919	160.97576	6.57803	0.0094417	0.21971139	2.7199922	21	3 11.1	20.2
325269 2008 GL_{118}	16.9	X	137.14038	269.38126	206.26039	6.69205	0.0697228	0.23442683	2.6049407	21	6 1.9	20.6
325270 2008 GE_{120}	16.3	X	140.87081	28.61866	109.59239	7.70059	0.0770132	0.24210438	2.5495740	21	7 6.8	19.8
325271 2008 GO_{120}	16.4	X	230.96577	259.66405	159.40832	12.80564	0.1397498	0.24373094	2.5382181	21	6 29.6	20.4
325272 2008 GY_{121}	16.4	X	359.73722	27.42038	151.80524	4.09415	0.0251034	0.21793060	2.7347895	21	2 15.8	19.8
325273 2008 GH_{128}	16.1	X	45.52144	78.17669	151.90241	29.18127	0.3261410	0.23315740	2.6143872	21	8 14.5	19.0
325274 2008 GV_{129}	17.1	X	104.77882	79.01608	85.42324	9.68223	0.1074997	0.23776238	2.5805204	21	7 1.9	20.7
325275 2008 GY_{130}	17.1	X	23.43695	78.75371	187.29093	11.60916	0.1675701	0.23622744	2.5916866	21	7 26.9	19.9
325276 2008 GA_{131}	16.3	X	17.59132	14.57410	253.63352	12.10706	0.2018170	0.23562901	2.5960728	21	7 20.8	18.8
325277 2008 GE_{131}	16.7	X	355.31313	209.10990	124.65163	4.39528	0.2569636	0.23937300	2.5689320	21	9 23.6	18.4
325278 2008 GQ_{132}	16.3	X	273.68000	324.55659	53.50700	10.61398	0.0995962	0.23664278	2.5886533	21	7 1.5	19.9
325279 2008 GC_{133}	16.1	X	151.09785	352.16298	80.92407	16.41682	0.0918634	0.22544388	2.6736861	21	5 1.8	20.2
325280 2008 GB_{134}	16.2	X	329.49749	50.36629	190.34248	12.81094	0.0580044	0.21954711	2.7213490	21	3 21.5	19.7

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325281 2008 GA_{137}	17.2	X	35.81512	58.26911	137.24329	3.04384	0.0263244	0.22713480	2.6603999	21	4 28.4	20.5
325282 2008 GU_{137}	17.2	X	357.46899	138.89671	117.98760	2.99686	0.1870676	0.22813533	2.6526158	21	5 18.9	19.5
325283 2008 GS_{138}	16.8	X	235.97315	195.04225	125.85825	7.43542	0.0517408	0.21942986	2.7223183	21	3 11.2	20.7
325284 2008 GO_{141}	17.4	X	307.00056	88.61913	180.25619	4.77491	0.0826373	0.22117508	2.7079788	21	3 24.7	21.0
325285 2008 GX_{144}	16.2	X	292.57943	326.46267	47.15084	14.17104	0.1818384	0.24114846	2.5563072	21	7 10.1	19.6
325286 2008 GB_{145}	16.4	X	75.24816	21.71929	47.37069	9.98682	0.1519523	0.21029746	2.8005717	21	1 26.5	19.8
325287 2008 HQ_{6}	17.2	X	120.66340	125.54175	31.24347	0.86277	0.0246430	0.23930951	2.5693863	21	6 30.8	20.6
325288 2008 HS_{8}	16.2	X	221.31010	189.35917	124.88969	10.46343	0.1416326	0.21171526	2.7880546	21	2 12.3	20.7
325289 2008 HC_{12}	16.0	X	149.58716	118.63631	27.28402	14.23697	0.0566043	0.24243593	2.5472489	21	7 31.9	19.9
325290 2008 HH_{13}	16.8	X	282.13465	313.86871	22.54065	12.02476	0.0801559	0.23423881	2.6063345	21	5 16.4	20.3
325291 2008 HB_{15}	16.8	X	329.81838	149.04035	119.77578	6.00398	0.1394951	0.22626065	2.6672478	21	4 20.9	19.9
325292 2008 HO_{15}	17.3	X	13.41902	126.13911	143.28494	5.80438	0.2272691	0.23242936	2.6198437	21	7 18.3	19.3
325293 2008 HU_{16}	16.8	X	323.62247	42.38441	210.96391	11.00485	0.0081468	0.22437260	2.6821898	21	4 4.6	20.5
325294 2008 HX_{23}	16.5	X	246.55671	221.03263	166.06370	14.85150	0.0615973	0.23478582	2.6022847	21	6 15.1	20.4
325295 2008 HW_{27}	17.6	X	123.33263	111.35947	15.08129	3.94156	0.1940567	0.23772419	2.5807967	21	6 12.6	21.6
325296 2008 HU_{28}	16.5	X	80.89145	272.50102	106.01212	3.20820	0.0479492	0.20212390	2.8755721	21	—	—
325297 2008 HF_{34}	16.6	X	341.70055	113.35040	205.23371	13.23870	0.0970324	0.23623868	2.5916044	21	7 21.2	19.9
325298 2008 HD_{35}	16.8	X	276.04484	151.86976	149.45751	9.55051	0.1415468	0.22035856	2.7146641	21	3 22.1	20.8
325299 2008 HM_{35}	17.0	X	34.72927	23.44022	196.09130	16.22004	0.1465819	0.23116277	2.6294049	21	6 9.0	20.1
325300 2008 HY_{35}	16.7	X	309.77381	232.70954	55.10216	14.01891	0.2529887	0.22269242	2.6956640	21	4 2.7	20.4
325301 2008 HY_{36}	15.7	X	101.87945	238.03061	96.98702	9.66412	0.1262789	0.18865497	3.0108599	21	—	—
325302 2008 HS_{42}	17.0	X	286.57739	171.49168	174.03887	6.70187	0.1192738	0.23761281	2.5816032	21	6 1.9	20.5
325303 2008 HV_{45}	16.5	X	317.89588	241.73765	78.69171	9.16975	0.2082137	0.22950187	2.6420755	21	5 30.6	19.3
325304 2008 HV_{46}	16.2	X	6.66982	156.26412	101.18584	15.05696	0.1525409	0.22997562	2.6384458	21	6 11.2	18.9
325305 2008 HU_{51}	16.8	X	150.10542	238.51660	220.49948	7.12345	0.1254864	0.23083203	2.6319159	21	5 30.7	20.8
325306 2008 HR_{52}	16.8	X	268.20502	169.62827	147.94851	8.32122	0.1402245	0.22094047	2.7098954	21	4 3.5	20.9
325307 2008 HK_{61}	16.9	X	80.69816	289.73454	239.86158	2.27237	0.0328522	0.22979024	2.6398647	21	5 26.1	20.1
325308 2008 HC_{62}	16.7	X	67.94597	57.11530	116.97670	5.51799	0.1177016	0.22872884	2.6480251	21	5 28.1	19.9
325309 2008 HO_{62}	16.4	X	30.25958	14.76143	139.38767	12.28440	0.0636567	0.21596362	2.7513699	21	2 26.9	19.7
325310 2008 HR_{65}	16.0	X	87.14662	117.38457	59.40683	10.04424	0.0831986	0.23381473	2.6094850	21	6 21.3	19.5
325311 2008 HK_{66}	16.8	X	78.41776	322.94996	232.66372	3.12059	0.1807972	0.23561495	2.5961762	21	7 20.6	20.2
325312 2008 HB_{67}	16.3	X	133.20068	235.97957	233.77815	6.60866	0.1604948	0.23025210	2.6363333	21	5 29.6	20.2
325313 2008 HU_{68}	16.6	X	242.08780	171.60091	171.19451	5.96450	0.0562490	0.22112236	2.7084091	21	4 13.5	20.5
325314 2008 HW_{68}	17.1	X	266.08226	114.28727	214.37383	5.16663	0.0325697	0.22454302	2.6808325	21	4 25.9	20.8
325315 2008 HY_{68}	15.7	X	114.72760	218.41508	119.33446	11.48980	0.1054642	0.19101321	2.9860274	21	—	—
325316 2008 HY_{69}	17.4	X	15.22983	25.80013	208.00493	3.20887	0.1254730	0.22825157	2.6517151	21	5 22.0	20.1
325317 2008 HL_{70}	16.7	X	25.01071	95.18878	135.58556	4.13687	0.1312752	0.23165759	2.6256592	21	6 5.8	19.4
325318 2008 JH_{2}	16.8	X	12.24851	69.66660	78.00696	7.72888	0.1032460	0.21250401	2.7811513	21	1 20.5	20.1
325319 2008 JQ_{2}	17.1	X	167.75774	69.11752	121.53145	7.01957	0.0818105	0.25687186	2.4508968	21	10 19.7	20.7
325320 2008 JX_{4}	16.3	X	313.84083	226.77890	31.57571	14.92421	0.0424900	0.22316997	2.6918171	21	3 30.3	19.9
325321 2008 JW_{5}	16.3	X	72.79594	169.14653	183.93926	14.84986	0.1499320	0.18366101	3.0651947	21	—	—
325322 2008 JS_{8}	16.1	X	303.55469	155.07694	96.13830	14.67556	0.1821967	0.21468788	2.7622588	21	2 16.1	20.2
325323 2008 JR_{12}	16.6	X	65.99552	88.88329	95.01549	15.49988	0.2276028	0.23143654	2.6273308	21	6 25.1	19.5
325324 2008 JY_{12}	16.9	X	64.57366	328.71658	159.94835	9.93429	0.1777179	0.22004192	2.7172678	21	3 31.0	19.9
325325 2008 JA_{14}	16.5	X	74.03753	65.74577	112.91851	7.03355	0.2101374	0.23119589	2.6291537	21	6 26.7	19.7
325326 2008 JK_{15}	16.5	X	133.82162	30.89481	19.00662	15.36563	0.1074812	0.22057189	2.7129135	21	3 14.8	20.5
325327 2008 JV_{16}	16.5	X	112.35145	72.49140	58.63922	22.10052	0.0998008	0.23052346	2.6342640	21	5 25.2	20.2
325328 2008 JX_{17}	16.4	X	62.52906	80.39370	104.44643	11.91763	0.0173742	0.22880400	2.6474452	21	5 22.6	20.0
325329 2008 JR_{19}	17.2	X	62.13346	96.71563	151.50791	6.23369	0.1259992	0.24333763	2.5409524	21	9 1.9	20.4
325330 2008 JK_{24}	15.9	X	96.36858	315.92250	112.41577	11.63217	0.0741857	0.21769971	2.7367228	21	2 11.8	19.5
325331 2008 JM_{27}	17.1	X	64.94528	76.39697	178.65610	6.81532	0.1506644	0.24205731	2.5499045	21	9 18.4	20.4
325332 2008 JK_{32}	16.9	X	11.80934	328.15530	217.76553	3.81267	0.0468709	0.21882128	2.7273634	21	3 10.4	20.3
325333 2008 JN_{33}	16.2	X	262.67162	141.41104	186.93192	10.50869	0.0601135	0.22361769	2.6882229	21	4 18.9	19.9
325334 2008 JY_{35}	16.9	X	179.92609	131.09384	211.48815	3.58391	0.0819205	0.20816476	2.8196676	21	2 3.3	21.2
325335 2008 JR_{36}	16.8	X	96.43669	297.24107	203.47607	12.21573	0.1489329	0.22857741	2.6491945	21	5 27.4	20.5
325336 2008 JG_{37}	16.3	X	215.84104	199.86669	124.71068	7.66448	0.1012035	0.20970081	2.8058814	21	2 20.7	20.6
325337 2008 JH_{37}	16.4	X	249.60603	235.41527	112.95141	13.01281	0.1736608	0.22128124	2.7071126	21	4 22.9	20.9
325338 2008 JG_{38}	16.8	X	355.75297	171.79593	101.49316	3.31210	0.1680731	0.22908533	2.6452772	21	6 10.3	19.2
325339 2008 JD_{40}	17.2	X	272.81602	116.87755	193.19283	7.70209	0.1382799	0.22020770	2.7159038	21	3 27.4	21.0
325340 2008 KX	16.5	X	48.05851	62.85192	86.94097	14.10509	0.1327414	0.21976724	2.7195314	21	4 1.3	19.9
325341 2008 KQ_{1}	16.8	X	26.50862	42.66963	155.87761	6.17313	0.2055801	0.22459054	2.6804543	21	4 27.9	19.2
325342 2008 KD_{8}	16.6	X	53.78731	61.09726	70.74937	14.69966	0.1679696	0.21894129	2.7263667	21	3 22.0	19.9
325343 2008 KU_{9}	17.0	X	33.11893	54.73042	214.20276	3.61350	0.2137883	0.23610051	2.5926154	21	8 28.1	19.7
325344 2008 KB_{10}	16.9	X	80.80649	354.08508	92.13163	5.55518	0.0401867	0.21083224	2.7958339	21	2 10.3	20.6
325345 2008 KG_{10}	17.0	X	86.18880	31.91710	102.03803	5.86833	0.0485165	0.22290847	2.6939219	21	4 21.1	20.6
325346 2008 KB_{11}	15.9	X	169.96247	257.15299	71.63523	15.75244	0.1629034	0.20244592	2.8725220	21	1 17.1	20.6
325347 2008 KM_{13}	16.8	X	94.23864	279.39585	230.67496	9.79951	0.1860409	0.23199118	2.6231416	21	6 10.6	20.4
325348 2008 KK_{17}	16.1	X	102.19750	193.02987	153.61415	8.13670	0.1679891	0.18859413	3.0115074	21	—	—
325349 2008 KK_{20}	16.8	X	294.18449	115.33334	163.16149	5.30017	0.0736853	0.21919973	2.7242233	21	3 22.7	20.5
325350 2008 KN_{23}	16.5	X	217.30791	170.26238	147.05076	4.87354	0.0971299	0.20968469	2.8060252	21	2 12.1	20.8
325351 2008 KF_{29}	16.3	X	119.50629	329.76091	113.84910	9.37704	0.0819141	0.21984021	2.7189296	21	4 5.9	20.2
325352 2008 KB_{33}	17.1	X	68.63042	64.81030	178.99025	6.48581	0.1076068	0.24052751	2.5607050	21	8 31.2	20.5
325353 2008 KJ_{38}	16.9	X	300.55595	125.58337	196.87116	4.60679	0.1598781	0.22713803	2.6603747	21	5 14.6	20.4
325354 2008 KT_{41}	16.7	X	3.53962	100.49909	114.38613	14.53216	0.1127401	0.22220108	2.6996364	21	4 11.3	20.1
325355 2008 LX_{6}	15.6	X	44.73330	157.11963	197.64993	15.72853	0.1827140	0.17711910	3.1402131	21	12 21.9	20.3
325356 2008 LU_{11}	16.8	X	250.92542	147.34594	175.93849	7.03295	0.1860285	0.21482394	2.7610924	21	3 18.1	21.0
325357 2008 LS_{12}	15.7	X	26.02610	158.55117	211.51223	15.61423	0.0718189	0.17577919	3.1561508	21	12 2.0	20.1
325358 2008 LG_{13}	16.9	X	17.12707	19.74293	192.98200	13.48399	0.0581357	0.22453788	2.6808734	21	4 25.7	20.2
325359 2008 MP	16.2	X	30.48037	230.62039	28.96000	25.14539	0.3283846	0.23145988	2.6271542	21	9 16.5	19.4
325360 2008 MK_{2}	15.5	X	147.36103	356.45080	298.98780	17.37938	0.1133398	0.18108016	3.0942505	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325361 2008 NB_5	15.1	X	143.69139	178.43066	112.43456	26.52390	0.0712130	0.17867025	3.1220118	21	—	—
325362 2008 OZ_{21}	14.9	X	85.69000	21.92989	325.14030	16.50060	0.1792765	0.17311910	3.1883995	21	—	—
325363 2008 PM	16.2	X	133.99648	104.99302	219.54576	7.84348	0.1660738	0.18167650	3.0874757	21	—	—
325364 2008 PC_3	16.2	X	162.61517	31.24255	256.64462	9.02685	0.1090943	0.18149773	3.0895027	21	—	—
325365 2008 PN_{17}	15.2	X	162.90139	333.63349	304.88420	16.33297	0.1817521	0.17839272	3.1252491	21	—	—
325366 Asturias	15.5	X	187.51297	278.83823	0.46985	13.85332	0.1608512	0.18289717	3.0737229	21	—	—
325367 2008 QA_{22}	15.4	X	122.13721	122.33350	183.95632	16.12672	0.2237386	0.17407808	3.1766789	21	—	—
325368 Ihorhuk	16.2	X	168.28609	130.37735	167.59617	13.81781	0.2746295	0.18380198	3.0636272	21	—	—
325369 Shishilov	15.7	X	98.60404	151.46924	186.53795	9.07567	0.0773168	0.17482615	3.1676106	21	—	—
325370 2008 QE_{39}	15.7	X	207.13253	65.49058	199.03865	9.26741	0.1079042	0.17936939	3.1138940	21	—	—
325371 2008 QM_{45}	15.5	X	118.66289	114.11823	197.62662	12.26093	0.0714575	0.17244634	3.1966866	21	—	—
325372 2008 RS_{22}	15.6	X	123.13522	155.53669	173.72994	17.22743	0.2212406	0.17687785	3.1430678	21	—	—
325373 2008 RW_{40}	15.9	X	225.59520	70.40155	174.88485	5.28783	0.1206449	0.17949387	3.1124541	21	—	—
325374 2008 RR_{85}	13.2	X	39.14509	0.41364	351.01246	18.29881	0.0340991	0.08110906	5.2855452	21	10 30.0	20.3
325375 2008 RR_{125}	16.1	X	213.04457	312.24443	327.63164	8.70937	0.2013765	0.18903065	3.0068693	21	—	—
325376 2008 SH_3	16.0	X	161.73836	221.77668	97.88107	3.24349	0.2792464	0.18340910	3.0680007	21	1 9.3	21.2
325377 2008 SO_{39}	15.9	X	88.68139	231.72840	60.15461	3.05117	0.0870394	0.15734295	3.3981133	21	11 12.8	20.7
325378 2008 SV_{98}	14.7	X	106.70083	312.92147	32.41052	19.34406	0.1909268	0.17162827	3.2068366	21	—	—
325379 2008 SG_{125}	15.4	X	174.81346	74.31053	210.64399	15.55049	0.2252835	0.17540260	3.1606667	21	—	—
325380 2008 SQ_{152}	14.7	X	114.44979	293.06830	57.73246	25.50856	0.2285492	0.17316066	3.1878892	21	—	—
325381 2008 SH_{181}	15.6	X	168.47352	94.14246	200.43978	15.34327	0.2361585	0.17649580	3.1476019	21	—	—
325382 2008 SJ_{230}	16.5	X	210.96908	64.94559	201.77861	14.44199	0.2303818	0.18381179	3.0635183	21	—	—
325383 2008 SC_{251}	15.9	X	146.78965	244.29164	27.29820	5.73740	0.1455183	0.16707969	3.2647777	21	12 19.4	21.3
325384 2008 SC_{268}	15.5	X	162.09997	266.61749	20.69080	24.92556	0.2423073	0.17519804	3.1631265	21	—	—
325385 2008 SG_{276}	14.9	X	36.76813	31.93107	170.20745	9.18655	0.0733111	0.12546824	3.9516656	21	5 20.6	20.2
325386 2008 SE_{301}	15.0	X	135.39166	267.69534	26.37111	18.35029	0.1416304	0.17106941	3.2138170	21	—	—
325387 2008 TZ_{37}	15.8	X	182.33808	91.72235	200.41929	11.58733	0.1508423	0.17999028	3.1067288	21	—	—
325388 2008 TM_{115}	15.2	X	208.82317	202.07525	78.52801	10.43013	0.2047876	0.18176683	3.0864527	21	—	—
325389 2008 TQ_{135}	15.9	X	175.09446	69.40818	225.53290	9.41153	0.2149177	0.17660912	3.1462554	21	—	—
325390 2008 UA_{69}	15.3	X	161.76987	193.74010	108.86734	6.13307	0.2004712	0.17645069	3.1481384	21	—	—
325391 2008 UM_{361}	15.2	X	226.91825	168.24211	138.03663	18.03966	0.1688904	0.18939538	3.0030078	21	2 9.2	20.1
325392 2008 VZ_{26}	17.6	X	229.18449	92.76808	38.24685	22.28960	0.1126036	0.37661531	1.8990544	21	10 24.9	19.2
325393 2008 WW_{65}	17.0	X	353.46058	221.94168	124.32647	24.04364	0.0846369	0.36096230	1.9535663	21	10 29.9	19.4
325394 2008 YV_{158}	17.6	X	10.86215	180.04031	134.48864	24.39994	0.0522888	0.35691225	1.9683172	21	9 28.1	19.9
325395 2009 CQ_5	17.5	X	314.85062	118.15819	278.66982	18.68391	0.0914613	1.09420892	0.9326869	21	—	—
325396 2009 DO_{129}	18.2	X	224.49625	25.42991	201.60020	2.67420	0.0924601	0.29872720	2.2162540	21	—	—
325397 2009 DQ_{136}	18.1	X	287.12632	357.42638	228.41134	3.77259	0.1162141	0.30843251	2.1695148	21	—	—
325398 2009 EF_{27}	17.9	X	228.91320	252.79499	357.58214	5.15839	0.1234441	0.30240403	2.1982530	21	—	—
325399 2009 EN_{28}	18.0	X	247.09027	139.69544	146.73990	2.10362	0.0813441	0.31158025	2.1548784	21	1 19.3	20.7
325400 2009 EU_{30}	17.4	X	214.71523	228.71137	51.03337	7.38688	0.0818659	0.30303361	2.1952072	21	—	—
325401 2009 FB_{72}	17.7	X	232.92509	332.19616	321.61706	1.13867	0.1497715	0.30906029	2.1665759	21	1 13.9	21.0
325402 2009 HH_2	17.9	X	228.84946	213.15247	63.16374	5.06385	0.1702681	0.30482567	2.1865950	21	—	—
325403 2009 HM_{22}	17.7	X	125.03741	141.86240	161.77617	5.87685	0.1826960	0.28885410	2.2664720	21	—	—
325404 2009 HO_{27}	17.7	X	237.80747	40.26588	209.19939	4.07060	0.1060625	0.30258192	2.1973913	21	—	—
325405 2009 HE_{83}	17.3	X	148.90732	6.46487	183.47645	22.56945	0.0492995	0.35789340	1.9647182	21	10 5.9	19.3
325406 2009 HX_{91}	17.3	X	233.60276	59.61668	214.32384	5.00652	0.0602842	0.30486097	2.1864262	21	—	—
325407 2009 HC_{92}	17.2	X	16.84219	256.25042	61.42486	6.51008	0.1334008	0.26332669	2.4106794	21	10 6.2	19.7
325408 2009 HH_{100}	17.3	X	65.73088	277.95356	143.01203	5.19737	0.0883656	0.30055156	2.2072764	21	—	—
325409 2009 JD_5	17.3	X	189.52702	111.04004	194.31249	6.84881	0.1597465	0.29870704	2.2163537	21	—	—
325410 2009 JX_{16}	17.6	X	87.02564	214.42350	73.71598	6.14391	0.0738152	0.27382715	2.3486504	21	11 23.1	20.5
325411 2009 KQ_1	17.5	X	257.90122	194.28764	52.69449	6.12543	0.1293381	0.30510315	2.1852691	21	—	—
325412 2009 KB_4	17.5	X	271.72732	199.67566	76.87579	3.55451	0.1520619	0.31200715	2.1529124	21	1 29.9	20.5
325413 2009 KP_5	17.8	X	196.60192	21.31164	193.57027	4.78714	0.1693410	0.28499513	2.2868855	21	12 14.5	21.0
325414 2009 KX_7	17.6	X	177.77446	233.64469	64.00843	4.07972	0.1733566	0.29347127	2.2426370	21	—	—
325415 2009 KM_{18}	17.5	X	189.36206	172.98614	81.20468	3.25554	0.1315589	0.28877004	2.2669118	21	—	—
325416 2009 KB_{19}	18.1	X	165.72383	38.59350	245.22795	4.89493	0.1572361	0.28905138	2.2654406	21	—	—
325417 2009 KF_{22}	17.4	X	337.49216	216.51433	182.53808	9.35598	0.0823075	0.27542386	2.3395645	21	11 21.6	20.0
325418 2009 KY_{35}	17.2	X	249.58753	3.56272	245.43789	7.54019	0.1392698	0.30066508	2.2067208	21	—	—
325419 2009 KA_{36}	17.3	X	177.59446	101.48477	165.44444	5.60055	0.1404847	0.28797868	2.2710629	21	—	—
325420 2009 MK_1	17.7	X	125.89623	308.74798	317.99388	1.81996	0.1791132	0.27548457	2.3392207	21	12 11.6	21.5
325421 2009 NF	16.6	X	25.67613	73.92814	240.86104	5.56920	0.1052699	0.25093689	2.4893906	21	10 5.2	19.4
325422 2009 NN_1	17.1	X	106.61905	354.39693	296.18352	7.81331	0.1924945	0.27031213	2.3689671	21	12 24.1	20.8
325423 2009 OC_2	17.2	X	130.04862	21.54314	263.28939	3.64079	0.2078895	0.27295314	2.3536614	21	—	—
325424 2009 OX_3	16.4	X	273.67291	316.80467	336.38817	12.73727	0.0872749	0.22324538	2.6912109	21	3 10.9	20.2
325425 2009 OZ_5	17.2	X	52.14988	127.15477	189.07854	1.82892	0.2014899	0.26072183	2.4267095	21	12 2.5	20.3
325426 2009 OZ_8	16.8	X	318.57985	137.08903	167.81582	13.57997	0.1832880	0.23559306	2.5963370	21	5 15.9	20.1
325427 2009 OG_9	15.4	X	63.15626	80.54563	271.46408	12.15246	0.2251080	0.18308133	3.0716614	21	—	—
325428 2009 OL_{13}	16.4	X	146.95546	214.35050	310.44823	5.37911	0.0504836	0.24627295	2.5207217	21	8 16.8	19.8
325429 2009 OL_{14}	16.2	X	56.22956	106.68378	272.51588	9.98630	0.1319010	0.18806016	3.0172052	21	—	—
325430 2009 OY_{15}	17.4	X	49.79301	25.08892	275.40387	4.20846	0.1463005	0.25637136	2.4540856	21	10 29.2	20.5
325431 2009 OJ_{16}	17.5	X	107.38447	87.55912	173.16324	2.48923	0.1980766	0.26325373	2.4111248	21	11 18.2	21.3
325432 2009 OJ_{19}	17.4	X	56.66420	119.82062	179.63833	1.23413	0.1808210	0.25747764	2.4470511	21	11 12.8	20.5
325433 2009 OR_{19}	17.2	X	355.08292	128.44007	169.61324	12.20937	0.1920621	0.24118705	2.5560346	21	7 16.2	19.6
325434 2009 OW_{20}	17.3	X	178.38642	138.63125	121.46842	12.42037	0.2300140	0.28029860	2.3123599	21	—	—
325435 2009 OP_{21}	16.9	X	327.86025	83.53596	223.61050	7.70001	0.1634802	0.23952707	2.5678302	21	6 4.8	19.7
325436 Khlebov	15.4	X	353.56778	258.10228	151.24112	19.03568	0.2250750	0.17840368	3.1251210	21	12 20.1	19.1
325437 2009 PE_7	16.6	X	190.93668	30.61194	300.78693	3.52014	0.1097607	0.20860202	2.8157259	21	2 3.3	21.0
325438 2009 PN_{19}	16.7	X	241.04677	104.96758	184.55248	9.30916	0.1221758	0.20987482	2.8043303	21	1 30.3	21.2
325439 2009 PM_{20}	16.0	X	100.67897	165.58142	168.73652	15.09602	0.0849179	0.18650238	3.0339830	21	—	—
325440 2009 PP_{20}	16.4	X	161.23292	247.57415	170.54381	9.69603	0.1349112	0.21486875	2.7607085	21	4 23.5	20.8

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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		°	°	°	°		°				
325441 2009 QK	16.1	X	285.25722	53.24671	176.65215	15.06445	0.0939847	0.20593417	2.8399919	21	1 8.2	20.5
325442 2009 QZ_{1}	16.0	X	206.33937	152.86506	168.85574	8.19881	0.2230602	0.21038423	2.7998016	21	2 6.3	20.8
325443 2009 QT_{3}	16.3	X	177.41680	145.86807	184.44917	10.84022	0.1481490	0.20559399	2.8431238	21	1 20.9	21.0
325444 2009 QE_{6}	15.8	X	39.31992	262.18288	147.26039	12.75595	0.0820350	0.19191441	2.9766720	21	—	—
325445 2009 QG_{6}	15.3	X	241.73500	18.65571	285.48345	19.95293	0.0981551	0.21107535	2.7936867	21	2 12.5	19.9
325446 2009 QD_{13}	15.8	X	355.71146	205.31142	184.62149	4.01945	0.1648681	0.17234578	3.1979299	21	11 20.4	19.5
325447 2009 QR_{13}	17.0	X	286.14447	74.70226	182.82825	11.47667	0.0788714	0.21264473	2.7799243	21	2 11.6	21.1
325448 2009 QC_{14}	16.5	X	151.90802	176.52715	176.83903	10.79648	0.0856129	0.20197067	2.8770264	21	1 18.4	20.9
325449 2009 QN_{14}	16.7	X	163.46858	172.02136	185.14959	6.17736	0.0986286	0.20527748	2.8460456	21	2 5.1	21.0
325450 2009 QM_{15}	17.0	X	301.96207	138.00848	132.32084	1.27941	0.0931493	0.21916589	2.7245037	21	3 19.0	20.5
325451 2009 QN_{16}	15.9	X	11.06862	252.58441	358.37825	11.33798	0.1693998	0.23311139	2.6147312	21	6 6.8	18.6
325452 2009 QA_{19}	15.4	X	352.83861	254.77216	156.35871	22.08891	0.0397652	0.17848858	3.1241299	21	12 8.7	20.1
325453 2009 QZ_{20}	16.2	X	260.78829	199.67820	150.83421	12.45259	0.1448209	0.23022316	2.6365543	21	5 7.5	20.3
325454 2009 QW_{24}	16.0	X	55.16186	218.53985	169.34041	8.35785	0.0939162	0.18866492	3.0107540	21	—	—
325455 Della Valle	16.2	X	36.75912	323.90973	57.03037	10.39879	0.1197503	0.17616717	3.1515152	21	—	—
325456 2009 QT_{27}	16.7	X	243.51627	165.51613	168.93350	7.15339	0.2917301	0.22237223	2.6982510	21	3 18.6	21.3
325457 2009 QZ_{29}	15.9	X	337.28181	149.94696	262.73831	3.53557	0.1485932	0.17373396	3.1808723	21	11 15.3	19.5
325458 2009 QR_{37}	15.4	X	320.17051	271.56171	161.88227	11.39039	0.0730829	0.17530980	3.1617820	21	11 20.0	19.7
325459 2009 QA_{39}	16.4	X	43.46049	231.59965	198.72381	3.76810	0.0677503	0.19247926	2.9708456	21	—	—
325460 2009 QV_{44}	16.1	X	14.49601	223.57730	179.71494	6.52617	0.1362005	0.18040250	3.1019944	21	—	—
325461 2009 QU_{46}	16.8	X	108.26018	220.52874	85.06913	3.73287	0.1919595	0.26817563	2.3815325	21	—	—
325462 2009 QR_{47}	15.7	X	73.72691	176.94844	170.56892	10.05605	0.0870354	0.18081168	3.0973128	21	—	—
325463 2009 QO_{50}	15.7	X	260.02827	280.88336	32.80538	14.83348	0.0914854	0.21274612	2.7790409	21	3 28.9	19.8
325464 2009 QN_{51}	16.6	X	233.98804	30.43014	261.29175	2.00750	0.1591287	0.21074675	2.7965899	21	1 26.4	21.0
325465 2009 QM_{52}	17.4	X	90.28219	284.31103	4.19269	2.35681	0.1853908	0.25985799	2.4320845	21	12 4.4	21.1
325466 2009 QR_{53}	17.0	X	126.02440	220.15737	48.98092	3.10187	0.1786013	0.26388863	2.4072559	21	12 12.9	20.7
325467 2009 QN_{54}	16.4	X	8.31347	71.09682	344.70204	9.17447	0.1414324	0.18139003	3.0907255	21	—	—
325468 2009 QO_{55}	17.6	X	112.09629	36.90650	223.24520	1.58504	0.1919459	0.25944098	2.4346900	21	11 20.3	21.6
325469 2009 QZ_{56}	15.8	X	60.69718	5.81619	0.98743	11.11783	0.0977280	0.18222376	3.0812910	21	—	—
325470 2009 QO_{57}	16.7	X	250.38206	348.44710	340.34776	4.35332	0.1101236	0.22067208	2.7120923	21	3 28.6	20.7
325471 2009 QR_{59}	16.3	X	297.16384	42.10389	262.02140	12.02390	0.2399678	0.22928506	2.6437409	21	3 27.7	20.3
325472 2009 QX_{59}	16.0	X	65.92251	171.70554	174.01321	9.69472	0.0773682	0.18172266	3.0869529	21	12 23.4	20.5
325473 2009 QM_{61}	16.4	X	277.82380	244.71339	60.25990	4.63144	0.1587502	0.22366633	2.6878332	21	3 26.2	20.4
325474 2009 QP_{62}	17.0	X	102.35852	156.05266	254.53860	0.97298	0.0649197	0.20292519	2.8679974	21	1 27.8	20.7
325475 2009 QS_{62}	17.5	X	119.91734	263.89534	5.67562	6.02718	0.2106412	0.26444617	2.4038712	21	12 8.6	21.6
325476 2009 RY	16.7	X	191.37940	195.56896	190.65625	13.15512	0.1838503	0.21542479	2.7559559	21	4 12.2	21.3
325477 2009 RG_{1}	16.8	X	79.44657	285.32001	45.33540	8.70144	0.2365448	0.26488523	2.4012141	21	—	—
325478 2009 RK_{1}	15.3	X	353.90423	190.30359	204.11768	19.15410	0.1373943	0.17282138	3.1920602	21	11 21.5	19.3
325479 2009 RF_{2}	15.8	X	270.34087	317.81941	37.15702	13.92828	0.2650303	0.22686973	2.6624718	21	5 4.7	20.1
325480 2009 RW_{2}	16.1	X	299.96606	33.26335	276.35884	13.11093	0.0945239	0.22860422	2.6489873	21	5 2.1	19.8
325481 2009 RK_{6}	15.6	X	277.32107	199.10667	319.06824	9.79399	0.0551444	0.18788787	3.0190494	21	—	—
325482 2009 RM_{6}	15.8	X	106.93390	77.81190	325.18979	9.33139	0.0893868	0.20306091	2.8667192	21	1 29.2	19.6
325483 2009 RJ_{8}	16.3	X	57.37414	101.15155	302.66466	1.00603	0.0906126	0.18757266	3.0224308	21	—	—
325484 2009 RX_{8}	16.0	X	63.22287	336.41869	1.65054	7.40558	0.0514472	0.17525389	3.1624544	21	12 5.2	20.6
325485 2009 RL_{9}	16.6	X	133.94520	127.25557	238.21196	1.34144	0.0740989	0.19735429	2.9217182	21	1 13.7	20.8
325486 2009 RN_{11}	16.2	X	93.89990	129.39638	189.99669	5.04782	0.1591366	0.18033772	3.1027372	21	12 29.9	21.2
325487 2009 RP_{12}	17.6	X	125.22678	246.37994	46.56784	1.04998	0.2210327	0.26783378	2.3835585	21	—	—
325488 2009 RF_{13}	16.0	X	347.55764	207.74081	186.76555	11.56290	0.0577749	0.16900900	3.2398843	21	11 8.6	20.4
325489 2009 RJ_{13}	16.4	X	299.51276	265.04471	19.35799	6.89227	0.1073389	0.21947835	2.7219173	21	4 1.1	20.0
325490 2009 RJ_{15}	17.0	X	247.66550	280.40189	21.30114	5.20626	0.0984802	0.21050361	2.7987430	21	2 25.8	21.2
325491 2009 RP_{17}	15.2	X	27.32249	353.05293	16.28938	19.51543	0.1268975	0.17267538	3.1938592	21	12 4.2	19.7
325492 2009 RW_{17}	16.6	X	4.44938	235.79568	22.57921	13.82656	0.1055138	0.22779210	2.6552797	21	6 3.4	19.8
325493 2009 RF_{18}	17.4	X	126.00746	131.26703	156.23619	3.85020	0.2970207	0.26817086	2.3815607	21	—	—
325494 2009 RK_{18}	16.5	X	2.63727	119.43488	173.77947	7.09106	0.1651070	0.23686042	2.5870673	21	7 25.9	18.9
325495 2009 RC_{19}	15.4	X	68.56050	131.50039	215.49078	11.29800	0.1567094	0.17930793	3.1146055	21	—	—
325496 2009 RP_{19}	15.9	X	171.15376	192.00293	192.66241	9.08178	0.1663563	0.21166239	2.7885189	21	3 22.0	20.4
325497 2009 RS_{25}	16.3	X	281.88987	230.79279	58.18187	5.19675	0.0386259	0.21207222	2.7849252	21	3 28.2	20.1
325498 2009 RK_{28}	16.7	X	213.68798	356.66475	340.10453	3.67525	0.2035891	0.21212746	2.7844417	21	3 2.3	21.4
325499 2009 RL_{30}	16.1	X	294.69663	62.42444	205.98360	8.76267	0.0955940	0.21412914	2.7670619	21	3 4.7	20.1
325500 2009 RX_{34}	15.9	X	162.41543	250.62548	25.13913	10.20253	0.0653288	0.18134780	3.0912053	21	—	—
325501 2009 RP_{35}	15.6	X	190.37266	226.15702	28.48851	16.98685	0.0674369	0.18232657	3.0801326	21	—	—
325502 2009 RK_{43}	15.9	X	104.52161	348.89109	349.17942	9.15071	0.1445311	0.18545497	3.0453957	21	—	—
325503 2009 RO_{43}	16.0	X	54.48036	46.04605	341.46560	6.96270	0.1372625	0.18271628	3.0757513	21	—	—
325504 2009 RC_{50}	17.4	X	124.78423	290.31709	13.21774	4.88457	0.2893418	0.27021674	2.3695246	21	—	—
325505 2009 RM_{50}	15.0	X	15.98535	20.80988	16.65752	21.88691	0.1216061	0.17430733	3.1738930	21	12 27.1	19.5
325506 2009 RC_{51}	15.3	X	346.63637	226.21153	196.82927	15.58039	0.0573276	0.17298193	3.1900847	21	12 11.4	19.8
325507 2009 RZ_{51}	15.6	X	202.98373	67.61153	192.59394	10.96709	0.0261795	0.18711400	3.0273678	21	—	—
325508 2009 RB_{52}	16.8	X	0.71856	96.87491	190.11652	12.46247	0.1407952	0.23353304	2.6115830	21	7 10.6	19.8
325509 2009 RA_{53}	15.9	X	355.46851	2.40801	36.30207	6.08284	0.1481571	0.16940850	3.2347887	21	11 27.5	19.7
325510 2009 RD_{53}	15.5	X	91.83275	168.42883	188.65615	9.49451	0.0962398	0.18397619	3.0616929	21	—	—
325511 2009 RF_{55}	16.2	X	44.77862	177.64183	177.18479	4.48757	0.1198471	0.17265231	3.1941438	21	12 13.5	20.6
325512 2009 RG_{56}	16.3	X	181.54023	64.56213	195.99924	18.08172	0.0483461	0.18137486	3.0908979	21	—	—
325513 2009 RO_{56}	16.5	X	185.20160	170.14129	149.65454	3.77078	0.0847883	0.19718653	2.9233752	21	1 15.5	21.0
325514 2009 RH_{57}	16.0	X	52.15110	174.57110	192.68408	14.97996	0.0043914	0.17482398	3.1676368	21	12 21.1	20.8
325515 2009 RS_{59}	15.5	X	67.16160	50.02097	337.33994	14.57557	0.1289552	0.18737319	3.0245754	21	—	—
325516 2009 RF_{60}	16.9	X	306.48387	102.73537	219.79342	10.45707	0.2985962	0.23286200	2.6165978	21	4 29.2	20.1
325517 2009 RT_{61}	16.2	X	228.01251	21.38251	299.35461	8.62676	0.2277709	0.21468774	2.7622600	21	2 19.6	21.0
325518 2009 RY_{61}	16.6	X	234.62532	154.38019	165.91483	8.16325	0.2128388	0.21519579	2.7579107	21	2 26.7	21.2
325519 2009 RF_{63}	15.0	X	355.35883	9.58117	7.68689	28.09191	0.1704024	0.17275553	3.1928713	21	10 22.9	19.0
325520 2009 RH_{65}	16.9	X	354.45199	118.21290	150.14870	2.12791	0.1282241	0.22658593	2.6646945	21	6 2.5	19.7

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	m		°	°	°	°		°				
325521 2009 RX_{66}	15.9	X	254.16848	344.88865	185.18639	9.81717	0.0248334	0.18097324	3.0954691	21	12 24.4	20.4
325522 2009 RN_{68}	15.4	X	168.31192	241.97754	21.16111	22.40235	0.0738571	0.18048898	3.1010035	21	—	—
325523 2009 RN_{69}	16.0	X	84.09286	137.91635	212.26434	8.81344	0.1785949	0.18301013	3.0724580	21	—	—
325524 2009 RY_{71}	16.1	X	274.53462	304.87265	198.33282	9.65994	0.0598612	0.17409547	3.1764673	21	12 12.0	20.5
325525 2009 RG_{72}	15.8	X	261.62978	342.60106	196.74534	17.53173	0.1553067	0.17809607	3.1287185	21	12 25.2	20.4
325526 2009 RJ_{74}	16.4	X	225.36037	0.11934	0.13800	13.84265	0.2574009	0.22263880	2.6960968	21	4 3.4	21.2
325527 2009 SE_{10}	16.2	X	282.56039	292.67143	197.93461	9.18341	0.0271196	0.18026617	3.1035582	21	12 12.1	20.6
325528 2009 SM_{12}	17.0	X	228.70593	143.08651	183.90968	1.90644	0.0810572	0.21394421	2.7686562	21	3 7.2	20.9
325529 2009 SL_{16}	17.5	X	138.46210	101.41314	179.06928	8.99255	0.2179388	0.27125883	2.3634520	21	—	—
325530 2009 SN_{19}	15.5	X	56.96337	210.01395	162.80931	10.10098	0.0872066	0.18127212	3.0920657	21	—	—
325531 2009 SY_{19}	17.2	X	95.64015	286.61145	358.99680	4.07409	0.1858127	0.26165807	2.4209173	21	12 5.8	21.0
325532 2009 SZ_{19}	16.1	X	31.63254	257.12877	170.84808	8.91958	0.0720070	0.19033579	2.9931082	21	—	—
325533 2009 ST_{38}	16.7	X	319.74448	318.12419	8.34500	5.37215	0.1405768	0.23247825	2.6194765	21	6 22.2	19.7
325534 2009 SW_{40}	16.5	X	102.10755	317.52391	20.56397	7.67452	0.0364757	0.18137486	3.0908979	21	—	—
325535 2009 SD_{43}	15.7	X	111.44527	305.67345	31.19158	11.04631	0.0493100	0.18176843	3.0864345	21	—	—
325536 2009 SX_{46}	15.9	X	176.36887	44.82611	223.98053	7.26409	0.0466217	0.18264836	3.0765137	21	—	—
325537 2009 SG_{49}	16.0	X	308.00846	335.70283	352.23659	14.38571	0.0983551	0.22833721	2.6510521	21	6 9.6	19.6
325538 2009 SF_{50}	16.9	X	206.34618	267.04422	28.78364	2.11954	0.0394155	0.20119130	2.8844516	21	1 7.6	21.0
325539 2009 SZ_{56}	15.5	X	34.74038	187.13634	217.14050	16.02686	0.1704356	0.18000978	3.1065045	21	—	—
325540 2009 SE_{57}	15.9	X	136.67025	62.55022	258.31431	5.41802	0.1336793	0.18823484	3.0153383	21	—	—
325541 2009 SG_{58}	15.9	X	143.36825	89.54441	227.86180	9.47587	0.0896274	0.18783395	3.0196272	21	—	—
325542 2009 SE_{60}	16.2	X	185.12557	19.30407	234.03181	7.71775	0.0176275	0.18167575	3.0874842	21	—	—
325543 2009 SP_{63}	16.4	X	167.22087	168.88097	178.48444	2.37510	0.0594425	0.20481441	2.8503337	21	1 26.0	20.4
325544 2009 SN_{70}	16.0	X	193.62235	86.52736	173.48697	8.71010	0.0427411	0.18385284	3.0630623	21	—	—
325545 2009 SZ_{70}	15.3	X	59.59960	201.30360	174.81055	9.97373	0.0888667	0.17939949	3.1135457	21	—	—
325546 2009 SG_{71}	17.1	X	274.75979	64.98812	200.18424	4.42289	0.1104814	0.21136382	2.7911442	21	2 5.5	21.2
325547 2009 SG_{72}	15.8	X	151.87980	272.65710	355.02993	8.98725	0.0168372	0.18112773	3.0937087	21	12 22.4	20.3
325548 2009 SQ_{74}	16.4	X	113.83281	283.63561	69.17034	6.59501	0.0385320	0.18736532	3.0246601	21	—	—
325549 2009 SG_{75}	16.3	X	342.45299	191.76024	54.28092	9.96958	0.0845925	0.21680036	2.7442861	21	4 17.9	19.6
325550 2009 SN_{75}	15.8	X	45.64368	330.42962	51.42909	10.23451	0.0743639	0.17784796	3.1316276	21	—	—
325551 2009 SM_{78}	16.6	X	312.95119	307.52116	351.11021	16.81329	0.2314277	0.22959205	2.6413837	21	4 10.4	20.1
325552 2009 SJ_{80}	16.6	X	153.72825	10.35289	333.46642	1.35152	0.1121972	0.20143647	2.8821107	21	1 13.7	20.9
325553 2009 SZ_{81}	16.8	X	190.76796	254.48468	11.58622	0.84493	0.0250086	0.19133300	2.9826992	21	—	—
325554 2009 SO_{83}	16.8	X	144.04566	186.12348	163.69728	6.15519	0.0786300	0.20014758	2.8944706	21	1 6.1	21.0
325555 2009 SH_{85}	16.6	X	334.20285	275.25002	355.20686	9.24979	0.1412208	0.22924832	2.6440233	21	4 23.2	19.8
325556 2009 SP_{90}	15.4	X	318.32378	182.44835	336.55828	10.85764	0.0675392	0.19285971	2.9669373	21	—	—
325557 2009 SK_{101}	16.8	X	210.59554	329.01888	11.09307	6.39022	0.0583442	0.21390600	2.7689859	21	3 6.4	20.9
325558 Guyane	15.7	X	333.45350	275.05873	178.47489	13.90953	0.0708560	0.17675621	3.1445096	21	12 30.5	20.1
325559 2009 SQ_{102}	16.5	X	349.53533	151.38924	343.51276	0.81222	0.0681345	0.19562861	2.9388751	21	—	—
325560 2009 SY_{104}	15.8	X	123.03326	213.78587	76.09103	6.20518	0.1294535	0.17932022	3.1144632	21	12 20.9	20.8
325561 2009 SC_{107}	16.1	X	138.76308	284.71359	85.40443	3.18827	0.0824397	0.19981918	2.8976412	21	1 26.2	20.1
325562 2009 SK_{107}	17.0	X	95.98366	91.34078	199.61475	13.90554	0.1598478	0.25774243	2.4453748	21	12 11.2	21.0
325563 2009 SQ_{110}	15.2	X	74.98636	333.16542	2.98079	16.82763	0.2291449	0.17793637	3.1305902	21	—	—
325564 2009 ST_{111}	16.8	X	265.76870	68.79573	248.63693	4.53820	0.1315936	0.21984287	2.7189077	21	3 28.0	20.8
325565 2009 SB_{114}	15.5	X	64.37712	139.07450	209.74371	10.06790	0.1056644	0.17872236	3.1214051	21	12 27.5	20.1
325566 2009 SS_{117}	16.1	X	101.31812	353.84555	350.92475	9.32690	0.1481720	0.18606680	3.0387161	21	—	—
325567 2009 SY_{121}	16.6	X	326.88869	49.46872	200.82819	12.24142	0.0683778	0.21657456	2.7461932	21	3 29.3	20.1
325568 2009 SR_{124}	16.9	X	4.90865	346.55521	315.71807	3.87762	0.2399409	0.24115911	2.5562320	21	8 22.6	18.8
325569 2009 SR_{126}	15.5	X	25.31168	52.53728	357.71199	10.51820	0.0827184	0.18036748	3.1023959	21	—	—
325570 2009 SZ_{126}	16.0	X	282.61763	86.69332	217.98464	8.23450	0.0909586	0.21909911	2.7250573	21	4 6.4	19.7
325571 2009 SF_{127}	15.6	X	61.69194	41.98733	340.62953	5.31533	0.1112995	0.18314478	3.0709519	21	—	—
325572 2009 SO_{130}	17.4	X	328.68545	134.51608	163.33065	4.37356	0.2280503	0.23104871	2.6302701	21	5 14.6	20.2
325573 2009 SX_{130}	16.1	X	5.26350	278.43283	185.41336	9.60300	0.0314842	0.18711830	3.0273214	21	—	—
325574 2009 SL_{131}	15.6	X	277.86971	350.11969	187.06422	10.79856	0.0139622	0.18425503	3.0586033	21	—	—
325575 2009 SQ_{132}	16.6	X	84.90111	272.84111	93.48207	3.50665	0.0717942	0.18480346	3.0525491	21	—	—
325576 2009 SV_{135}	16.6	X	136.72581	351.48707	328.05766	1.81879	0.1075722	0.18676508	3.0311372	21	—	—
325577 2009 SY_{135}	15.2	X	17.23547	35.69307	16.69810	15.82007	0.1110153	0.17699626	3.1416659	21	—	—
325578 2009 SV_{136}	16.1	X	1.99480	159.86471	252.04929	1.70352	0.0776846	0.17350492	3.1836710	21	12 20.1	20.3
325579 2009 SX_{136}	16.2	X	296.20998	331.18809	212.14577	8.05504	0.0124880	0.18905046	3.0066593	21	—	—
325580 2009 SE_{137}	16.2	X	326.74828	247.97748	20.72988	12.85797	0.2434278	0.22233304	2.6985681	21	3 29.6	19.2
325581 2009 SK_{137}	16.2	X	30.67386	349.16701	22.38064	9.14117	0.0623179	0.17161540	3.2069969	21	12 5.9	20.7
325582 2009 SC_{139}	15.5	X	49.28245	231.05836	172.26256	11.18145	0.0988804	0.18573048	3.0423833	21	—	—
325583 2009 SH_{140}	15.4	X	306.97393	244.12454	209.00065	14.71075	0.1831663	0.17063971	3.2192100	21	11 12.4	19.1
325584 2009 SW_{140}	16.1	X	207.32169	44.90827	224.78834	7.75078	0.0410366	0.19272075	2.9683634	21	—	—
325585 2009 SH_{143}	15.4	X	32.89807	354.39663	13.94271	14.30538	0.1174935	0.17620044	3.1511185	21	12 12.7	19.9
325586 2009 SL_{144}	16.6	X	338.95241	51.84687	169.04278	6.51580	0.1241870	0.21612891	2.7499670	21	3 1.3	19.9
325587 2009 SB_{145}	17.2	X	112.85417	252.33160	38.62844	2.61018	0.1690010	0.26519434	2.3993479	21	12 28.1	21.0
325588 Bridzius	15.7	X	15.53740	110.65180	289.03151	5.95008	0.1382096	0.17570617	3.1570251	21	12 31.7	19.8
325589 2009 SG_{150}	15.2	X	1.25612	66.88685	349.64310	9.17652	0.2135732	0.17571086	3.1569690	21	—	—
325590 2009 SQ_{154}	16.8	X	81.12780	321.34906	41.77239	2.61278	0.0992973	0.18447066	3.0562193	21	—	—
325591 2009 SV_{156}	16.3	X	291.44089	41.52343	80.99309	1.98973	0.1424274	0.17445265	3.1721302	21	11 29.4	20.3
325592 2009 SV_{157}	16.8	X	339.46834	259.15503	351.93698	1.40990	0.1839476	0.21957653	2.7211058	21	4 3.4	19.8
325593 2009 SB_{158}	15.8	X	290.58855	344.00975	202.19356	9.12713	0.0887557	0.18620030	3.0372635	21	—	—
325594 2009 SD_{158}	16.1	X	309.63499	323.20156	225.72204	10.28038	0.0561488	0.19372847	2.9580607	21	—	—
325595 2009 SB_{159}	16.1	X	333.07950	36.15348	221.12062	13.91410	0.1491534	0.21833366	2.7314227	21	4 4.2	19.5
325596 2009 SV_{160}	16.4	X	168.49162	318.46059	332.28376	2.24538	0.0654913	0.18614193	3.0378984	21	—	—
325597 2009 SM_{162}	16.3	X	71.02226	59.96949	345.61654	11.62341	0.0524285	0.19578254	2.9373346	21	—	—
325598 2009 SM_{166}	15.2	X	314.18093	302.36692	203.77936	15.99254	0.0769496	0.18193948	3.0844998	21	—	—
325599 2009 SD_{179}	15.6	X	11.80272	249.56956	160.02948	16.82188	0.0873026	0.18071948	3.0983662	21	—	—
325600 2009 SB_{185}	16.7	X	299.30937	341.84941	279.69121	4.00553	0.1162523	0.21231676	2.7827864	21	2 27.8	20.5

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	m		°	°	°	°		°				
325601 2009 SR_{185}	15.9	X	149.86297	73.55747	221.69014	8.59717	0.1344155	0.18577469	3.0419006	21	—	—
325602 2009 SC_{191}	15.2	X	100.64254	348.25153	343.32623	7.85578	0.0625495	0.18302666	3.0722731	21	—	—
325603 2009 SB_{198}	15.8	X	90.98358	36.31476	354.15445	10.37409	0.0677945	0.19137571	2.9822555	21	—	—
325604 2009 SJ_{204}	15.5	X	257.15552	256.32789	208.80705	20.76739	0.1125089	0.15933459	3.3697370	21	9 22.8	20.6
325605 2009 SA_{210}	15.3	X	75.34816	155.00551	197.27951	9.35721	0.0380851	0.18004053	3.1061507	21	—	—
325606 2009 SN_{213}	15.5	X	322.15595	29.33849	261.61658	14.82443	0.1685155	0.22790716	2.6543859	21	4 28.2	18.8
325607 2009 ST_{214}	15.7	X	352.35135	242.88228	190.52884	10.67912	0.0672799	0.17631308	3.1497762	21	12 31.8	20.1
325608 2009 SC_{216}	15.3	X	259.41366	165.85055	12.65679	9.89804	0.0454343	0.18321695	3.0701454	21	—	—
325609 2009 SU_{216}	16.7	X	232.31979	314.42770	12.13167	4.18744	0.0797611	0.21345683	2.7728689	21	3 11.7	20.8
325610 2009 SE_{217}	16.6	X	228.65672	288.87814	31.45495	2.68833	0.1979787	0.21309203	2.7760327	21	2 24.2	21.3
325611 2009 SG_{230}	15.8	X	46.70153	314.57028	66.68529	8.38146	0.1595294	0.18029293	3.1032511	21	—	—
325612 2009 SN_{231}	17.0	X	318.01917	329.51833	351.82857	7.55085	0.1967033	0.23465426	2.6032573	21	5 31.6	20.0
325613 2009 SL_{232}	15.3	X	41.99026	320.19171	44.07216	9.83615	0.0860532	0.17748371	3.1359110	21	12 16.4	19.7
325614 2009 SQ_{232}	15.8	X	47.42660	347.11451	78.45180	4.94665	0.1043655	0.19034616	2.9929994	21	—	—
325615 2009 SL_{234}	15.1	X	27.93767	294.14302	86.59163	9.61330	0.0770426	0.17429365	3.1740591	21	12 17.3	19.3
325616 2009 SO_{235}	16.7	X	342.51294	53.41417	266.67725	2.62702	0.1770058	0.23749397	2.5824643	21	7 23.9	19.1
325617 2009 SZ_{237}	15.6	X	27.79536	294.07142	94.71502	9.19300	0.1408022	0.17749539	3.1357734	21	—	—
325618 2009 SX_{239}	15.3	X	47.72360	234.40069	129.15310	17.39545	0.2185584	0.17793081	3.1306555	21	—	—
325619 2009 SB_{240}	15.9	X	202.35046	264.32465	69.45051	13.47111	0.1854886	0.20964174	2.8064084	21	2 23.9	20.8
325620 2009 SV_{242}	16.7	X	117.26128	73.42737	244.11434	7.75007	0.2975753	0.27064589	2.3670191	21	—	—
325621 2009 SM_{250}	16.8	X	301.41136	226.98332	55.33497	4.05136	0.0602828	0.21524546	2.7574864	21	4 9.2	20.4
325622 2009 SH_{254}	16.5	X	340.41972	295.39928	11.20542	12.44976	0.2704014	0.23652352	2.5895233	21	6 14.0	18.9
325623 2009 SM_{256}	16.2	X	238.65575	304.40774	190.06808	7.49185	0.0245076	0.16985162	3.2291601	21	10 23.4	20.7
325624 2009 SZ_{263}	16.0	X	292.47481	275.42560	29.01071	13.58091	0.1129463	0.22265002	2.6960063	21	4 16.7	19.4
325625 2009 SN_{267}	15.3	X	118.05292	122.16180	226.04462	8.18613	0.1073175	0.18698545	3.0287552	21	—	—
325626 2009 SF_{270}	16.8	X	227.97304	181.91786	162.35988	4.47590	0.1104194	0.21484422	2.7609186	21	3 27.2	20.9
325627 2009 SO_{270}	16.2	X	237.07768	186.19905	25.20807	12.75583	0.0037116	0.18621123	3.0371446	21	—	—
325628 2009 SA_{273}	15.7	X	339.38623	183.63711	237.63030	4.77314	0.1289900	0.17277600	3.1926191	21	11 30.2	19.5
325629 2009 SL_{274}	16.5	X	302.95267	253.97448	19.56911	8.49395	0.0847265	0.21745775	2.7387525	21	3 26.8	20.2
325630 2009 SY_{278}	15.8	X	207.74244	59.92195	136.96224	3.23874	0.0360777	0.17447222	3.1718930	21	11 30.1	20.4
325631 2009 SP_{279}	16.1	X	218.88521	184.17341	95.87003	3.97123	0.0409190	0.19699082	2.9253111	21	1 3.2	20.4
325632 2009 SK_{282}	16.1	X	136.51225	226.60860	144.09656	5.62939	0.1128460	0.19858277	2.9096562	21	1 27.4	20.2
325633 2009 SU_{283}	16.9	X	27.29617	140.49147	131.02707	5.15180	0.0833210	0.23525856	2.5987974	21	8 4.3	19.6
325634 2009 SW_{283}	16.5	X	112.50935	187.66036	154.74345	6.93616	0.0378163	0.18613442	3.0379800	21	—	—
325635 2009 SB_{287}	16.0	X	269.50884	217.81349	332.27390	6.65257	0.0609979	0.18513187	3.0489380	21	—	—
325636 2009 SU_{296}	16.1	X	46.07260	45.69563	28.66104	11.69618	0.0666408	0.19139411	2.9820643	21	—	—
325637 2009 SX_{297}	16.6	X	172.76761	277.64678	58.46700	6.50964	0.1119272	0.20044598	2.8915973	21	1 25.4	21.1
325638 2009 SE_{299}	15.6	X	101.32519	48.37255	264.92036	7.86384	0.0779660	0.17844289	3.1246632	21	12 23.3	20.1
325639 2009 SE_{307}	16.2	X	254.91037	34.61214	176.69580	11.07339	0.0876812	0.18825765	3.0150947	21	—	—
325640 2009 SO_{307}	17.7	X	353.54427	268.22467	31.53772	10.78466	0.2283550	0.23794644	2.5791894	21	7 19.7	19.9
325641 2009 SW_{307}	13.8	X	238.30223	202.54939	309.08699	5.57299	0.0577066	0.08391095	5.1672201	21	10 24.8	20.8
325642 2009 SY_{315}	15.7	X	28.23454	230.99436	160.31957	11.28248	0.0707727	0.17982731	3.1086056	21	12 30.6	20.1
325643 2009 SA_{318}	16.3	X	48.67596	182.68617	186.19872	10.34553	0.0549106	0.17857881	3.1230775	21	12 26.5	20.8
325644 2009 SJ_{321}	16.4	X	301.11046	69.12949	70.75794	3.36108	0.0226511	0.17870996	3.1215493	21	—	—
325645 2009 SR_{323}	15.1	X	100.76126	43.40390	87.16916	1.18905	0.1758275	0.12706617	3.9184660	21	5 27.1	20.7
325646 2009 SL_{324}	16.1	X	138.76895	250.66618	100.83934	3.65590	0.0268307	0.19596885	2.9354726	21	—	—
325647 2009 SL_{326}	16.5	X	66.91492	300.55279	66.89913	8.16084	0.1596012	0.18035543	3.1025341	21	—	—
325648 2009 SM_{328}	16.6	X	258.64590	5.19249	340.79178	11.52456	0.2069678	0.22206404	2.7007469	21	4 14.6	21.1
325649 2009 SL_{330}	15.8	X	321.58677	20.88056	295.94976	11.83688	0.2349786	0.23188133	2.6239700	21	5 24.9	18.9
325650 2009 ST_{330}	15.7	X	186.85822	282.02501	26.37539	12.43307	0.0564670	0.20101713	2.8861175	21	1 2.7	20.2
325651 2009 SV_{330}	16.6	X	146.38359	243.07920	52.83418	7.17971	0.1461993	0.27343893	2.3508729	21	—	—
325652 2009 SM_{332}	16.8	X	344.63443	332.50599	338.87564	11.44332	0.2807641	0.23942241	2.5685786	21	7 9.1	18.7
325653 2009 SN_{334}	15.2	X	112.66497	6.45305	325.89168	14.02004	0.1038931	0.18575401	3.0421264	21	—	—
325654 2009 SM_{335}	16.6	X	309.41143	298.64198	170.91587	2.66252	0.0253777	0.17750550	3.1356543	21	12 19.7	21.0
325655 2009 SB_{337}	15.4	X	100.03592	229.23694	130.10563	15.06505	0.1066772	0.19152656	2.9806893	21	—	—
325656 2009 SX_{341}	16.6	X	12.88872	266.06124	24.79358	12.83614	0.1584957	0.23981947	2.5657426	21	8 22.5	19.4
325657 2009 SA_{342}	16.2	X	0.81724	27.50932	210.92453	12.70245	0.1194081	0.22025104	2.7155475	21	5 2.7	19.2
325658 2009 SN_{345}	15.6	X	219.98835	34.87543	184.06378	10.61040	0.0687269	0.18575175	3.0421510	21	—	—
325659 2009 SR_{351}	15.6	X	201.63146	220.80704	23.59424	10.16740	0.0753239	0.18090751	3.0962188	21	—	—
325660 2009 SW_{353}	16.2	X	167.49838	53.19411	215.96226	9.78774	0.0725791	0.18002263	3.1063566	21	—	—
325661 2009 SD_{354}	15.6	X	235.83277	122.99479	39.09611	9.55421	0.0676648	0.17073180	3.2180524	21	11 14.8	20.2
325662 2009 SQ_{356}	16.8	X	216.76102	315.60242	16.39327	3.73207	0.0951757	0.21280560	2.7785231	21	3 2.1	21.0
325663 2009 SS_{358}	15.8	X	72.19708	118.55720	250.49268	10.21244	0.1628650	0.18298333	3.0727580	21	—	—
325664 2009 SC_{360}	14.9	X	42.50685	118.24569	238.02123	12.41968	0.0364187	0.17122334	3.2118905	21	11 30.6	19.4
325665 2009 SJ_{360}	15.7	X	90.08492	290.95832	46.45999	9.37446	0.0970807	0.18139063	3.0907187	21	—	—
325666 2009 SN_{360}	14.9	X	37.95637	310.11226	58.78209	29.98544	0.2522710	0.17406590	3.1768271	21	—	—
325667 2009 SS_{363}	16.6	X	184.02644	334.14756	354.00759	8.13099	0.0615701	0.19983411	2.8974968	21	1 25.0	21.0
325668 2009 SF_{364}	15.6	X	206.04548	61.20459	126.91812	5.49440	0.0857563	0.17029440	3.2235604	21	11 13.7	20.5
325669 2009 TF	16.1	X	186.25431	111.92487	174.66534	10.24966	0.0534278	0.19016242	2.9949271	21	—	—
325670 2009 TP_{2}	15.8	X	253.25126	299.88057	15.84319	14.33849	0.0601349	0.21607484	2.7504257	21	3 24.3	19.8
325671 2009 TU_{2}	16.7	X	266.48154	178.47258	154.19177	10.28703	0.1104461	0.22472470	2.6793874	21	4 24.8	20.7
325672 2009 TY_{4}	16.1	X	41.29337	170.62531	208.50480	12.23988	0.2176668	0.17757888	3.1347904	21	—	—
325673 2009 TO_{5}	15.5	X	355.57623	14.52965	212.95833	13.26222	0.1388056	0.21353257	2.7722132	21	4 4.6	18.7
325674 2009 TQ_{6}	15.5	X	336.92173	227.17623	216.97026	10.76200	0.0521369	0.17574724	3.1565332	21	12 23.3	19.8
325675 2009 TZ_{8}	15.1	X	62.63136	288.08855	41.39598	17.46571	0.1477153	0.17121778	3.2119601	21	12 4.8	19.9
325676 2009 TL_{13}	16.3	X	332.73917	256.36544	10.05098	8.24484	0.1039868	0.22130937	2.7068832	21	4 22.7	19.6
325677 2009 TB_{16}	15.5	X	119.09591	7.37136	312.22638	9.08831	0.0538347	0.18086240	3.0967337	21	—	—
325678 2009 TS_{17}	15.2	X	78.80563	284.70732	84.42454	12.68871	0.0886657	0.18286989	3.0740287	21	—	—
325679 2009 TH_{27}	13.4	X	339.45146	5.80779	53.29450	25.49477	0.0488706	0.08527050	5.1121489	21	11 12.2	19.9
325680 2009 TQ_{33}	15.9	X	15.96950	306.16044	82.27790	6.87696	0.1730728	0.17345924	3.1842299	21	12 22.3	19.6

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325681 2009 TX_{37}	15.7	X	4.77232	67.86504	9.16064	9.13717	0.0784202	0.17883313	3.1201160	21	—	—
325682 2009 TE_{38}	15.3	X	270.28341	248.00750	247.93214	9.02955	0.0429161	0.16919785	3.2374730	21	11 28.8	19.8
325683 2009 TQ_{38}	16.1	X	109.95690	46.72805	295.52870	8.42424	0.1329012	0.18738232	3.0244771	21	—	—
325684 2009 TL_{39}	15.6	X	125.25163	190.21742	166.93827	16.09068	0.1093140	0.19038226	2.9926211	21	—	—
325685 2009 TV_{40}	15.8	X	45.57316	278.54935	126.50169	11.91585	0.0985938	0.18171494	3.0870402	21	—	—
325686 2009 TN_{41}	15.8	X	89.32328	107.77157	248.75693	8.94320	0.1148273	0.18393523	3.0621475	21	—	—
325687 2009 TJ_{45}	15.4	X	0.00957	111.35717	276.84209	8.45997	0.0511357	0.17221166	3.1995901	21	11 14.7	19.7
325688 2009 TP_{46}	15.6	X	30.00626	349.32966	34.53561	10.33784	0.0873774	0.17707427	3.1407431	21	12 25.5	20.0
325689 2009 UX_{5}	15.8	X	57.33441	257.35938	92.33602	6.22860	0.1498557	0.17338588	3.1851280	21	12 26.1	20.3
325690 2009 UN_{13}	15.5	X	310.55593	31.83104	293.85829	2.70627	0.0348318	0.13906705	3.6896617	21	6 22.9	20.6
325691 2009 UP_{15}	15.6	X	38.00497	122.46056	289.61077	8.37692	0.0887230	0.18310777	3.0713657	21	—	—
325692 2009 UL_{16}	16.1	X	54.17284	42.27656	321.53967	11.14480	0.1866727	0.17855154	3.1233956	21	—	—
325693 2009 UB_{20}	15.0	X	45.60759	273.33755	87.11310	22.25827	0.3443514	0.17507682	3.1645863	21	—	—
325694 2009 UA_{22}	16.7	X	206.05475	200.26875	163.34542	9.67544	0.0711503	0.21161189	2.7889625	21	3 30.8	20.8
325695 2009 UF_{23}	13.2	X	314.35604	23.08079	39.59311	7.86740	0.0822838	0.08142605	5.2718186	21	10 13.7	19.8
325696 2009 UA_{34}	15.6	X	226.67329	203.26047	49.52438	9.96624	0.0933997	0.18578189	3.0418220	21	—	—
325697 2009 UZ_{35}	15.8	X	208.31483	216.80626	50.14174	8.43540	0.0394935	0.18731344	3.0252185	21	—	—
325698 2009 UP_{39}	15.7	X	145.61006	117.16239	215.97240	8.33237	0.1392766	0.18849682	3.0125438	21	—	—
325699 2009 UA_{47}	16.3	X	352.59258	255.30668	48.23545	13.51478	0.2293657	0.23240184	2.6200506	21	7 23.9	18.7
325700 2009 UT_{51}	15.2	X	111.70409	89.80381	38.37111	7.63273	0.2309974	0.12498658	3.9618114	21	6 9.3	21.3
325701 2009 UG_{52}	15.8	X	293.41684	263.12589	36.38863	11.59340	0.0879039	0.21647453	2.7470391	21	4 16.8	19.4
325702 2009 UE_{56}	15.5	X	279.95766	151.03244	36.48660	9.91634	0.0303909	0.18315837	3.0708000	21	—	—
325703 2009 UL_{57}	15.6	X	246.73791	353.43006	229.19634	13.38518	0.0690454	0.18420110	3.0592002	21	—	—
325704 2009 UZ_{68}	17.2	X	151.49439	270.74520	7.41826	8.72043	0.2103556	0.27331947	2.3515579	21	—	—
325705 2009 UB_{72}	15.5	X	305.11161	178.10201	233.80649	5.48201	0.0970025	0.15720585	3.4000887	21	9 22.7	20.1
325706 2009 UR_{73}	16.7	X	318.66529	278.74679	33.76534	6.33303	0.1177329	0.22721375	2.6597837	21	6 2.6	19.9
325707 2009 UN_{81}	17.1	X	217.63415	303.83871	9.64351	2.36996	0.1479364	0.20360424	2.8616170	21	2 8.9	21.7
325708 2009 UX_{89}	16.4	X	119.52780	75.21246	255.04733	7.67866	0.1041924	0.18323308	3.0699653	21	—	—
325709 2009 UF_{90}	15.7	X	123.93405	189.13871	203.69883	11.14476	0.1161433	0.19701758	2.9250462	21	2 6.6	20.1
325710 2009 UL_{90}	15.4	X	67.14611	255.93158	148.61437	11.98263	0.1128178	0.19016297	2.9949213	21	—	—
325711 2009 UY_{92}	15.8	X	316.98132	37.65751	227.80942	14.00036	0.1241412	0.21372118	2.7705820	21	3 24.5	19.7
325712 2009 UK_{96}	16.3	X	82.98953	208.90968	156.63374	2.20173	0.0805022	0.18142635	3.0903131	21	—	—
325713 2009 UO_{96}	16.8	X	277.40920	256.96528	73.50764	3.52811	0.1297218	0.22123388	2.7074989	21	4 30.1	20.5
325714 2009 UQ_{99}	15.7	X	212.91669	70.80533	215.57386	11.11846	0.0941302	0.19245066	2.9711399	21	1 3.6	20.5
325715 2009 UG_{102}	15.2	X	122.80527	14.99806	83.19588	4.41427	0.1833177	0.12509080	3.9596105	21	5 12.7	21.2
325716 2009 UZ_{102}	15.2	X	301.66639	293.25456	31.64983	17.62714	0.3422152	0.22808945	2.6529715	21	4 20.6	18.8
325717 2009 UA_{104}	15.9	X	72.96925	173.76370	192.19030	11.19400	0.0512517	0.18034480	3.1026560	21	—	—
325718 2009 UL_{116}	15.7	X	117.60332	327.47880	12.79033	10.79234	0.0892090	0.18485115	3.0520240	21	—	—
325719 2009 UU_{119}	16.3	X	249.93957	284.79164	32.29829	5.90989	0.0913397	0.21363726	2.7713075	21	3 19.2	20.3
325720 2009 UV_{119}	16.6	X	51.58353	327.50958	34.67672	5.06855	0.1189127	0.17658078	3.1465919	21	12 31.1	21.1
325721 2009 UT_{133}	16.0	X	244.94710	51.34814	43.91058	10.44473	0.0759495	0.15381909	3.4498157	21	9 9.3	21.1
325722 2009 UQ_{134}	16.2	X	94.30876	152.95509	205.54287	4.64171	0.1635488	0.18274244	3.0754578	21	—	—
325723 2009 UH_{140}	15.8	X	109.69668	332.00718	70.14388	13.31367	0.0835582	0.19458458	2.9493780	21	2 3.9	20.1
325724 2009 UC_{141}	15.2	X	239.41959	339.45293	198.04908	16.31369	0.0338979	0.17207314	3.2013071	21	12 12.9	20.0
325725 2009 UG_{141}	15.7	X	150.35668	358.40889	356.08133	8.90013	0.0724767	0.19316924	2.9637671	21	1 22.3	20.1
325726 2009 UM_{151}	15.8	X	135.05303	107.95844	240.78491	7.99260	0.1348960	0.19173963	2.9784807	21	1 3.0	20.2
325727 2009 UN_{155}	16.2	X	297.54701	173.37215	98.64299	4.95104	0.0597259	0.21404191	2.7678136	21	3 23.3	20.0
325728 2009 VS_{18}	16.4	X	135.21629	14.57905	318.01841	2.18056	0.1205798	0.18542289	3.0457469	21	—	—
325729 2009 VH_{29}	16.5	X	100.86867	54.26323	277.59720	3.97815	0.1458849	0.17790530	3.1309547	21	—	—
325730 2009 VD_{40}	15.7	X	101.71259	150.23832	170.23556	10.78477	0.0264348	0.17504515	3.1649680	21	12 26.7	20.4
325731 2009 VF_{40}	15.0	X	212.43134	198.73729	47.26816	10.46875	0.0329532	0.18041735	3.1018242	21	—	—
325732 2009 VX_{44}	15.5	X	133.52621	294.08089	81.59806	10.69523	0.0777167	0.19165313	2.9793769	21	1 29.2	19.8
325733 2009 VK_{47}	15.5	X	129.98848	261.16966	70.86383	11.86875	0.1539686	0.18413116	3.0599749	21	—	—
325734 2009 VH_{50}	15.0	X	269.40071	224.89097	202.12900	11.44697	0.0390223	0.15065140	3.4980065	21	8 31.7	20.1
325735 2009 VM_{55}	15.5	X	83.06566	318.56857	12.25410	4.97381	0.1003082	0.17130280	3.2108972	21	12 25.7	20.3
325736 2009 VM_{72}	15.4	X	347.87357	39.18546	73.54933	11.78124	0.0581109	0.18041844	3.1018118	21	—	—
325737 2009 VT_{76}	15.8	X	168.65694	334.84451	3.51965	12.06621	0.1479844	0.19616574	2.9335080	21	1 29.7	20.6
325738 2009 VF_{78}	15.5	X	129.65338	225.84209	101.31166	10.34418	0.1359823	0.18357372	3.0661663	21	—	—
325739 2009 VK_{79}	15.5	X	226.93571	301.07260	304.04487	8.76721	0.0602452	0.18391530	3.0623687	21	—	—
325740 2009 VD_{81}	13.1	X	8.15473	338.03463	43.20054	9.55816	0.1432339	0.08273674	5.2159943	21	11 8.5	19.3
325741 2009 VZ_{92}	16.1	X	82.29939	212.78316	182.32148	7.00504	0.1943816	0.18493269	3.0511268	21	1 2.9	19.9
325742 2009 VH_{106}	15.5	X	105.48306	236.84119	86.83867	16.40958	0.1784190	0.17790771	3.1309264	21	—	—
325743 2009 VT_{110}	15.9	X	58.28326	221.67383	192.71037	13.20787	0.0374619	0.18456428	3.0551857	21	—	—
325744 2009 WE_{1}	15.7	X	119.25622	268.45910	83.40092	12.37109	0.1273565	0.18420431	3.0591647	21	—	—
325745 2009 WG_{4}	15.4	X	217.45712	157.61333	62.64725	15.67241	0.1195571	0.17510083	3.1642971	21	12 27.8	20.3
325746 2009 WV_{12}	15.8	X	253.61580	166.59899	66.49237	11.70072	0.0658853	0.18659724	3.0329546	21	—	—
325747 2009 WQ_{47}	16.0	X	0.13159	121.70068	35.62395	10.76472	0.0267138	0.19776130	2.9177081	21	1 27.3	20.1
325748 2009 WV_{47}	15.8	X	115.61648	86.42185	268.17766	5.15611	0.0981717	0.18781428	3.0198380	21	—	—
325749 2009 WC_{53}	15.6	X	194.14932	217.94641	78.89477	10.61897	0.1407494	0.18707283	3.0278120	21	1 1.8	20.5
325750 2009 WN_{55}	17.0	X	318.26646	208.40255	121.36177	3.34950	0.1610297	0.23129456	2.6284059	21	6 21.4	19.9
325751 2009 WB_{74}	15.3	X	163.35858	228.67646	77.19478	12.09418	0.1085785	0.18234589	3.0799150	21	—	—
325752 2009 WW_{87}	15.3	X	202.63890	248.33278	48.90958	10.88147	0.0808357	0.18851857	3.0123120	21	1 9.4	20.0
325753 2009 WH_{90}	15.7	X	309.54197	259.93922	57.73126	13.59501	0.1635969	0.21878799	2.7276401	21	5 20.3	19.0
325754 2009 WE_{93}	16.0	X	60.84066	175.22845	221.39048	8.56945	0.0662570	0.17994487	3.1072515	21	—	—
325755 2009 WU_{97}	15.4	X	221.33093	199.71500	38.71509	10.73813	0.0239360	0.17986967	3.1081174	21	—	—
325756 2009 WN_{114}	16.1	X	27.80776	214.77866	39.00953	14.29958	0.2230692	0.23093633	2.6311233	21	8 3.3	19.0
325757 2009 WA_{163}	16.3	X	134.80576	268.60236	54.03239	5.67029	0.1437465	0.18035862	3.1024976	21	—	—
325758 2009 WM_{190}	15.9	X	144.97457	225.00697	80.95218	3.25520	0.0917339	0.17664448	3.1458354	21	—	—
325759 2009 WG_{204}	15.5	X	113.58672	7.86220	13.02986	12.22945	0.1544267	0.19035082	2.9929506	21	1 24.9	19.9
325760 2009 WN_{248}	15.4	X	44.54161	264.63485	107.31967	15.75071	0.0473491	0.17202055	3.2019595	21	12 23.8	19.8

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325761 2009 WH_{249}	15.9	X	15.16432	29.21658	20.24983	9.10620	0.0650421	0.17356388	3.1829500	21	—	—
325762 2010 AL_{94}	15.2	X	130.39215	269.98333	68.80828	12.97549	0.1040728	0.15363788	3.4525277	21	—	—
325763 2010 AU_{97}	15.7	X	36.07529	235.14596	145.97861	14.24978	0.0892736	0.17611770	3.1521053	21	12 30.5	20.2
325764 2010 AF_{105}	15.8	X	67.86998	311.48756	23.12293	8.34468	0.1425026	0.17464935	3.1697480	21	12 18.9	20.6
325765 2010 BJ_{7}	15.8	X	297.94094	71.48472	39.44876	10.39600	0.0281965	0.17185538	3.2040108	21	12 4.1	20.2
325766 2010 JX_{140}	17.0	X	38.65538	122.52734	241.77033	7.85678	0.2702879	0.28585915	2.2822751	21	—	—
325767 2010 KG_{108}	17.5	X	332.64454	209.27766	139.60820	4.00155	0.1479519	0.26668518	2.3903975	21	8 22.9	19.6
325768 2010 LV_{14}	16.8	X	91.08354	183.06760	156.61673	6.98385	0.1718777	0.21824157	2.7321911	21	—	—
325769 2010 LY_{63}	17.9	X	45.84875	350.44980	344.94540	11.12214	0.4134339	0.37552791	1.9027186	21	—	—
325770 2010 MO_{54}	16.3	X	327.41208	77.72270	316.87558	10.19431	0.2343433	0.17950791	3.1122919	21	9 24.7	19.5
325771 2010 MC_{67}	17.2	X	8.40656	34.20739	325.18342	4.62626	0.2556728	0.27459266	2.3442834	21	12 10.8	19.5
325772 2010 NH_{10}	16.4	X	119.80924	2.79280	45.46910	9.06073	0.1579209	0.22079038	2.7111234	21	3 2.7	20.3
325773 2010 NL_{35}	17.1	X	158.95589	259.97199	169.48520	12.17861	0.1714174	0.23409593	2.6073949	21	5 7.1	21.4
325774 2010 NR_{73}	16.6	X	168.84829	42.69396	346.57206	13.07550	0.2750171	0.22730041	2.6591076	21	3 26.9	21.5
325775 2010 NE_{76}	17.4	X	233.22584	34.43962	83.61741	4.27074	0.0787113	0.26554853	2.3972139	21	10 1.3	20.6
325776 2010 OV_{14}	16.7	X	357.90769	289.38857	83.95839	7.32965	0.2092007	0.27257641	2.3558296	21	12 3.9	18.5
325777 2010 OE_{29}	17.4	X	2.43716	248.32910	140.28764	6.18102	0.1057317	0.27649065	2.3335427	21	12 19.6	20.0
325778 2010 OG_{60}	16.8	X	153.61356	216.48277	211.66368	8.90357	0.1370624	0.23076593	2.6324184	21	4 25.3	20.9
325779 2010 OT_{76}	17.2	X	174.28036	258.05909	199.57779	11.62064	0.1504367	0.24168903	2.5524942	21	6 22.1	21.5
325780 2010 OC_{79}	16.6	X	160.58942	355.71697	42.71033	5.54659	0.2148395	0.22591927	2.6699340	21	4 2.2	21.0
325781 2010 OL_{104}	16.4	X	85.34573	284.72233	150.01616	8.55650	0.1666144	0.21329116	2.7743046	21	2 16.9	19.6
325782 2010 OV_{125}	17.3	X	182.59773	277.53130	134.06750	4.55979	0.2071473	0.23301826	2.6154278	21	5 5.9	21.8
325783 2010 PA_{10}	17.4	X	22.32861	344.72401	320.39627	16.79704	0.0852153	0.36196142	1.9499697	21	9 20.2	19.4
325784 2010 PP_{38}	16.2	X	7.02868	6.12158	18.71330	10.50538	0.2383552	0.18325357	3.0697364	21	12 13.4	19.7
325785 2010 PU_{46}	16.4	X	239.11335	0.27372	11.23584	14.07791	0.2855814	0.24124498	2.5556254	21	4 23.7	21.0
325786 2010 PC_{58}	17.6	X	296.00338	11.03672	3.44115	0.70520	0.1946960	0.26449309	2.4035869	21	7 13.7	20.3
325787 2010 PS_{58}	17.3	X	288.60796	241.71373	143.72365	7.62473	0.3133830	0.26012875	2.4303966	21	6 27.8	20.4
325788 2010 PK_{78}	16.4	X	185.32140	164.05412	236.76299	4.37898	0.2654110	0.23092150	2.6312360	21	4 23.6	21.2
325789 2010 QD_{1}	17.8	X	354.81208	88.24658	315.88007	1.91552	0.1955425	0.28369505	2.2938669	21	—	—
325790 2010 QX_{1}	15.8	X	204.23491	158.10226	235.50288	13.66493	0.2426216	0.23416597	2.6068750	21	4 28.4	20.4
325791 2010 RX_{4}	17.2	X	5.32489	192.81521	146.69101	6.88922	0.1516586	0.27272186	2.3549919	21	10 21.8	19.4
325792 2010 RO_{51}	16.6	X	175.56803	210.24786	180.45727	13.80342	0.2689394	0.23076334	2.6324381	21	4 6.5	21.2
325793 2010 RS_{60}	16.6	X	119.73870	241.32660	193.21549	12.72525	0.2478223	0.22320673	2.6915216	21	4 11.3	20.6
325794 2010 RH_{63}	17.5	X	276.08589	163.35742	255.13785	1.51302	0.1799817	0.26311758	2.4119565	21	8 18.0	20.3
325795 2010 RJ_{67}	16.1	X	209.53860	346.83481	22.34830	12.50677	0.2033383	0.23200513	2.6230364	21	4 5.7	20.6
325796 2010 RY_{68}	17.1	X	341.58043	103.47622	286.97916	6.41220	0.1036399	0.27615523	2.3354318	21	11 13.8	19.4
325797 2010 RQ_{69}	17.5	X	2.30795	188.71464	224.17696	5.75228	0.0886762	0.28667164	2.2779607	21	—	—
325798 2010 RF_{70}	17.4	X	24.87536	312.53305	359.91119	19.72241	0.0650913	0.35803841	1.9641876	21	10 7.7	19.2
325799 2010 RN_{79}	17.1	X	327.50010	130.37783	200.29795	20.83538	0.0535119	0.35123023	1.9894886	21	7 19.5	19.6
325800 2010 RC_{81}	17.5	X	61.68065	249.37209	166.42429	4.87768	0.1686866	0.29947109	2.2125824	21	—	—
325801 2010 RE_{81}	17.1	X	54.40620	283.40761	73.05775	4.21156	0.1584074	0.28732964	2.2744816	21	—	—
325802 2010 RO_{81}	17.6	X	358.53083	247.98088	148.83757	5.86805	0.1555509	0.28057681	2.3108311	21	—	—
325803 2010 RH_{93}	17.4	X	30.11616	177.59653	217.25833	6.56432	0.1244279	0.28937847	2.2637332	21	—	—
325804 2010 RS_{100}	18.1	X	287.47471	236.91865	310.61555	3.33881	0.1076545	0.30079016	2.2061090	21	—	—
325805 2010 RG_{101}	17.3	X	257.62580	240.77424	248.00709	3.01500	0.0577649	0.27677021	2.3319710	21	11 21.1	20.1
325806 2010 RT_{103}	17.6	X	347.29346	146.93769	229.01550	1.51623	0.2284512	0.27205895	2.3588158	21	11 16.4	19.0
325807 2010 RE_{105}	17.6	X	225.68661	303.79155	198.04275	3.23587	0.0482307	0.27115636	2.3640474	21	10 26.9	20.5
325808 2010 RZ_{105}	17.3	X	327.55976	209.28740	195.82736	6.85037	0.1060681	0.27293434	2.3537695	21	11 12.4	19.5
325809 2010 RY_{111}	17.0	X	213.49768	335.99121	174.61889	7.02173	0.0496320	0.27273101	2.3549392	21	10 24.3	20.0
325810 2010 RE_{112}	17.4	X	247.96619	254.38874	174.77677	9.52212	0.0964016	0.25895401	2.4377413	21	8 6.2	20.7
325811 2010 RG_{115}	18.5	X	330.61250	337.67244	212.41646	6.80319	0.0234548	0.31210383	2.1524677	21	—	—
325812 Zouchenglu	18.0	X	273.96274	50.20993	42.02018	5.78297	0.0813324	0.27021429	2.3695389	21	10 21.4	20.7
325813 2010 RF_{120}	16.8	X	124.49746	110.74326	329.70358	11.92868	0.2321389	0.22897459	2.6461301	21	4 14.8	21.1
325814 2010 RK_{120}	17.2	X	298.68374	206.68357	189.38031	4.51969	0.2105531	0.26467113	2.4025089	21	8 16.1	19.5
325815 2010 RS_{125}	17.3	X	165.41264	301.26269	144.26397	5.16201	0.1682234	0.24003438	2.5642110	21	5 31.2	21.4
325816 2010 RH_{130}	17.0	X	137.61433	196.05443	211.52041	3.01579	0.3090779	0.22380217	2.6867454	21	3 30.1	21.5
325817 2010 RX_{143}	17.7	X	343.50707	198.49943	273.51587	2.47031	0.0891477	0.29365554	2.2416987	21	—	—
325818 2010 RP_{145}	17.1	X	325.98436	257.41702	209.57505	4.91639	0.1471652	0.28525060	2.2855199	21	—	—
325819 2010 RF_{149}	17.8	X	296.18694	225.58530	197.58176	6.41901	0.0810234	0.27166310	2.3611067	21	10 14.5	20.1
325820 2010 RA_{154}	17.3	X	154.32820	122.28075	301.03470	3.87701	0.2789577	0.23041571	2.6350852	21	4 27.4	21.9
325821 2010 RM_{156}	17.5	X	297.14600	29.08079	92.85737	4.87334	0.0577513	0.28410380	2.2916661	21	—	—
325822 2010 RM_{164}	17.7	X	355.52587	68.11817	328.84471	4.58066	0.2250921	0.28135157	2.3065869	21	—	—
325823 2010 RA_{171}	17.5	X	297.21009	230.85876	205.46990	4.83019	0.1466747	0.27248926	2.3563319	21	10 28.5	19.6
325824 2010 RP_{173}	16.8	X	202.28895	47.68652	359.39361	0.81444	0.1673794	0.23570284	2.5955307	21	5 15.3	21.1
325825 2010 RH_{174}	17.4	X	285.79070	126.16757	293.86174	2.71520	0.1291869	0.26410378	2.4059484	21	9 12.8	20.2
325826 2010 RZ_{174}	17.9	X	281.73768	23.48285	22.24494	2.98283	0.1765010	0.26027311	2.4294978	21	8 10.5	20.7
325827 2010 SL_{3}	17.2	X	126.70086	106.12426	334.20324	4.31853	0.1407441	0.22587484	2.6702842	21	4 10.8	21.1
325828 2010 SY_{9}	17.6	X	124.71640	334.30303	16.56564	6.41225	0.1233181	0.30060086	2.2070351	21	—	—
325829 2010 SM_{10}	17.3	X	4.96642	98.66875	286.82724	6.07183	0.1299060	0.27956545	2.3164009	21	12 23.5	19.5
325830 2010 SN_{15}	17.6	X	194.52511	7.70523	285.26390	2.92109	0.1315068	0.30990438	2.1626400	21	—	—
325831 2010 SF_{18}	18.0	X	353.46782	236.08506	186.89358	2.90408	0.1494223	0.28407409	2.2918260	21	—	—
325832 2010 SN_{22}	17.0	X	186.11992	221.74517	174.87292	4.58549	0.1676666	0.23651185	2.5896085	21	4 18.8	21.1
325833 2010 SU_{29}	17.5	X	331.45265	195.63194	191.91185	4.58160	0.1950991	0.26843228	2.3800143	21	10 22.9	19.2
325834 2010 SV_{29}	17.6	X	274.16708	157.11813	246.58648	1.87369	0.1803076	0.25969610	2.4330952	21	7 24.9	20.8
325835 2010 SK_{37}	17.4	X	20.54469	225.01721	211.20216	7.24439	0.1065543	0.29241853	2.2480163	21	—	—
325836 2010 SP_{38}	15.9	X	137.84869	134.41228	316.97006	13.34507	0.1738178	0.23413890	2.6070759	21	5 6.5	20.2
325837 2010 SC_{39}	17.5	X	356.29134	47.73142	11.75410	2.89888	0.1337313	0.28289911	2.2981674	21	—	—
325838 2010 SJ_{40}	17.5	X	35.44993	160.12687	233.91166	4.98565	0.1498768	0.28692806	2.2766033	21	—	—
325839 2010 TX_{1}	17.8	X	121.72981	264.66750	91.83351	2.99678	0.1479876	0.30145832	2.2028480	21	—	—
325840 2010 TJ_{14}	17.4	X	117.24728	118.23796	359.03998	12.12631	0.0967406	0.23690885	2.5867147	21	5 8.6	21.1

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325841 2010 TO_{24}	17.5	X	316.48891	351.26840	44.65954	2.45806	0.1829699	0.26702224	2.3883855	21	9 30.6	19.4
325842 2010 TN_{25}	17.2	X	71.16418	195.71367	26.22210	21.00796	0.0517188	0.34623014	2.0085970	21	8 13.9	19.9
325843 2010 TV_{27}	17.9	X	287.52544	199.68104	292.64260	2.77764	0.0715807	0.28570317	2.2831057	21	—	—
325844 2010 TN_{30}	17.2	X	67.87359	143.10586	325.03912	1.60641	0.1549898	0.22032395	2.7149484	21	3 2.4	20.2
325845 2010 TL_{31}	17.9	X	255.87642	162.64745	334.80954	1.98654	0.1556966	0.27585479	2.3371273	21	11 14.2	20.4
325846 2010 TW_{32}	17.4	X	180.11637	320.65441	189.46996	7.55369	0.0757982	0.26043271	2.4285052	21	9 5.9	20.8
325847 2010 TQ_{35}	17.5	X	214.65101	36.79714	65.38243	3.34244	0.1661615	0.25395513	2.4696271	21	8 7.7	21.2
325848 2010 TR_{37}	17.4	X	16.59159	20.57088	358.39988	6.95264	0.1459020	0.27862645	2.3216023	21	—	—
325849 2010 TC_{38}	17.4	X	108.55403	0.49549	14.34852	4.98556	0.1934764	0.30135441	2.2033544	21	—	—
325850 2010 TA_{50}	17.4	X	108.08026	53.13655	64.04991	4.25359	0.1461313	0.23102621	2.6304409	21	5 9.5	20.9
325851 2010 TU_{52}	16.4	X	325.29193	256.05970	184.39624	6.83066	0.1127149	0.18715153	3.0269631	21	12 5.9	20.1
325852 2010 TO_{53}	17.7	X	155.64781	28.06935	163.48855	3.45778	0.0727289	0.26567081	2.3964782	21	10 5.8	20.9
325853 2010 TS_{57}	16.8	X	127.87011	199.96645	228.45190	5.30421	0.1999904	0.22470007	2.6795832	21	4 4.4	20.9
325854 2010 TM_{79}	17.7	X	267.90734	52.15652	34.64884	7.51499	0.0772630	0.26693773	2.3888896	21	10 5.8	20.4
325855 2010 TP_{82}	17.9	X	342.33787	113.70473	285.71776	3.70339	0.1256021	0.27715724	2.3297996	21	12 2.2	19.9
325856 2010 TL_{84}	17.4	X	352.44273	342.45354	20.59502	7.65133	0.1252747	0.27170252	2.3608783	21	10 25.4	19.5
325857 2010 TB_{85}	17.1	X	217.27240	107.02810	26.21163	8.34928	0.1483441	0.26561153	2.3968348	21	9 23.9	20.5
325858 2010 TY_{85}	16.9	X	105.77980	288.17958	183.08030	15.01592	0.2411268	0.22892225	2.6465334	21	5 14.0	20.9
325859 2010 TB_{86}	17.9	X	269.83499	39.52037	77.45418	2.36530	0.1292224	0.27544307	2.3394557	21	11 12.4	20.2
325860 2010 TR_{94}	18.0	X	245.15624	68.19152	17.31667	5.18056	0.1477366	0.25996904	2.4313919	21	8 22.3	21.4
325861 2010 TQ_{114}	16.7	X	309.71375	247.95078	205.23424	6.57453	0.2657316	0.18377434	3.0639344	21	11 10.7	19.8
325862 2010 TB_{117}	17.3	X	162.07856	101.39281	250.22743	5.10383	0.1785868	0.30974008	2.1634048	21	1 18.7	20.2
325863 2010 TZ_{118}	16.4	X	48.85742	276.04934	209.95408	12.61485	0.1816976	0.21678160	2.7444444	21	2 19.7	19.4
325864 2010 TA_{119}	18.1	X	218.36239	334.63670	305.56214	1.19939	0.2154445	0.31106565	2.1572543	21	—	—
325865 2010 TE_{122}	17.2	X	68.10835	143.05928	334.21276	1.64861	0.0889563	0.22211930	2.7002990	21	3 6.4	20.6
325866 2010 TB_{123}	17.8	X	305.98623	263.17583	289.29350	3.70128	0.0765196	0.30549707	2.1833902	21	—	—
325867 2010 TB_{142}	15.4	X	40.44694	298.16601	78.96153	9.33413	0.2018076	0.18148119	3.0896904	21	—	—
325868 2010 TN_{147}	16.8	X	216.21187	224.79638	185.02631	16.89714	0.1928506	0.24081429	2.5586716	21	6 1.2	21.3
325869 2010 TQ_{149}	15.0	X	304.23306	43.79787	80.90627	17.57678	0.0873267	0.17749163	3.1358177	21	12 26.7	19.0
325870 2010 TR_{149}	17.2	X	131.51674	33.27534	44.65836	5.22723	0.1604990	0.22632604	2.6667340	21	4 17.9	21.0
325871 2010 TA_{150}	16.1	X	228.93088	144.19197	213.22303	12.52147	0.2049989	0.23381365	2.6094930	21	4 4.9	20.6
325872 2010 TN_{153}	15.9	X	304.19580	42.40506	46.23383	14.29119	0.2251763	0.17717140	3.1395951	21	10 29.5	19.4
325873 2010 TM_{158}	17.2	X	79.04787	269.82869	150.10389	3.81521	0.1429975	0.21225095	2.7833616	21	1 15.4	20.6
325874 2010 TG_{164}	17.2	X	68.07038	210.36641	189.96648	4.59526	0.1393549	0.29472659	2.2362645	21	—	—
325875 2010 TJ_{165}	17.6	X	356.32066	185.53141	171.12281	1.59079	0.1986863	0.26969101	2.3726029	21	11 2.0	19.3
325876 2010 TO_{166}	16.3	X	108.52958	76.72738	325.14803	8.18085	0.1637723	0.21596136	2.7513891	21	2 6.5	19.8
325877 2010 TJ_{168}	13.2	X	281.45563	62.29004	24.22692	17.08806	0.0931288	0.08442283	5.1463119	21	10 1.5	20.0
325878 2010 TF_{169}	17.7	X	52.66916	343.09062	36.17548	6.39367	0.1733004	0.28806899	2.2705882	21	—	—
325879 2010 TK_{171}	15.6	X	247.34596	91.29557	36.39719	15.84689	0.0997733	0.17533389	3.1614924	21	10 17.7	20.1
325880 2010 TT_{172}	17.8	X	307.37691	314.94223	232.91690	1.84930	0.0289602	0.30308750	2.1949470	21	—	—
325881 2010 TZ_{175}	15.8	X	68.87808	314.01832	89.95273	16.17204	0.1347397	0.20457014	2.8526023	21	—	—
325882 2010 TT_{176}	16.2	X	149.94672	118.43353	321.84334	11.18882	0.1276814	0.23252452	2.6191290	21	4 30.9	20.4
325883 2010 TO_{178}	17.5	X	75.81363	274.63132	179.51117	3.46410	0.2288233	0.21703429	2.7423138	21	3 8.5	20.4
325884 2010 TA_{182}	17.5	X	100.49076	254.62587	101.57515	3.83844	0.1656976	0.29588245	2.2304368	21	—	—
325885 2010 UO_{9}	17.3	X	153.76715	217.56354	225.80564	1.41821	0.1834465	0.23239070	2.6201343	21	5 17.7	21.3
325886 2010 UA_{10}	16.7	X	92.26306	228.31311	223.44981	4.29091	0.0963752	0.21934761	2.7229988	21	3 7.6	20.2
325887 2010 UK_{12}	16.7	X	102.72340	89.96910	19.18652	7.42888	0.1802099	0.22536826	2.6742842	21	4 25.9	20.5
325888 2010 UC_{13}	17.3	X	111.58795	269.70815	30.21765	7.88421	0.1193007	0.28431095	2.2905529	21	—	—
325889 2010 UL_{13}	17.0	X	163.86562	101.66037	301.66599	1.56828	0.1763911	0.22791887	2.6542950	21	4 6.1	21.1
325890 2010 UP_{14}	17.8	X	130.24571	308.56377	33.07795	0.49427	0.1991158	0.29740459	2.2228199	21	—	—
325891 2010 UC_{15}	17.1	X	296.46700	193.64493	182.36823	7.31003	0.1297702	0.25764048	2.4460199	21	7 26.0	19.9
325892 2010 UD_{16}	17.5	X	64.76209	325.35937	46.98378	6.41297	0.2130538	0.28905180	2.2654384	21	—	—
325893 2010 UL_{26}	16.7	X	119.90849	159.20862	239.63965	3.13498	0.1083124	0.21320183	2.7750795	21	2 7.5	20.5
325894 2010 UO_{27}	17.4	X	190.59110	333.45939	225.39020	4.88220	0.0845800	0.27052665	2.3677146	21	11 23.5	20.5
325895 2010 UD_{29}	17.5	X	265.22754	273.21953	137.76865	1.83829	0.1787493	0.25610008	2.4558183	21	7 23.8	20.9
325896 2010 UF_{29}	17.1	X	240.01342	43.44554	317.83292	7.04816	0.1904424	0.24073400	2.5592404	21	4 17.7	21.3
325897 2010 UX_{30}	16.6	X	273.63501	270.46098	242.68887	8.96119	0.2618776	0.18407382	3.0606103	21	11 26.1	20.5
325898 2010 UK_{33}	17.0	X	106.26075	70.91821	331.61379	4.22788	0.1598224	0.21276327	2.7788917	21	2 4.4	20.7
325899 2010 UZ_{45}	16.2	X	49.45752	47.67673	308.81017	5.02964	0.0160639	0.18624261	3.0368034	21	12 8.9	20.5
325900 2010 UJ_{54}	17.8	X	197.56109	353.39554	345.25426	2.47403	0.0831753	0.31328267	2.1470647	21	2 2.1	20.6
325901 2010 UG_{55}	16.2	X	58.56107	67.31393	32.70071	5.20761	0.1200099	0.21035878	2.8000275	21	2 4.6	19.5
325902 2010 UU_{55}	16.3	X	68.85501	122.22526	52.95364	13.41491	0.1493795	0.22980115	2.6397811	21	6 2.3	19.6
325903 2010 UB_{56}	17.4	X	144.75632	349.71674	23.01977	5.15503	0.1811290	0.30738768	2.1744282	21	1 30.9	20.1
325904 2010 UG_{56}	16.9	X	217.23247	85.80698	288.78830	2.94431	0.1828250	0.23365776	2.6106535	21	4 16.8	21.1
325905 2010 UP_{57}	16.1	X	23.24191	221.44546	251.78273	11.76798	0.0725432	0.20292778	2.8679730	21	—	—
325906 2010 UR_{59}	16.8	X	147.80086	132.64538	284.00650	3.45818	0.1074630	0.22137884	2.7063169	21	3 31.8	20.8
325907 2010 UX_{61}	16.6	X	106.23282	176.38943	261.02523	6.47741	0.1415696	0.21899675	2.7259064	21	3 12.8	20.4
325908 2010 UE_{67}	16.0	X	278.74199	273.41287	208.02554	16.66581	0.2118504	0.17963692	3.1108016	21	11 1.2	20.1
325909 2010 US_{73}	16.4	X	225.23469	232.65856	142.44066	5.49138	0.2150873	0.23626656	2.5914005	21	4 26.4	20.8
325910 2010 UL_{74}	17.5	X	306.56062	127.28317	271.44159	2.51600	0.1083753	0.26513921	2.3996804	21	9 20.1	20.0
325911 2010 UE_{76}	15.7	X	290.12485	190.31373	275.55466	7.70179	0.1740157	0.17628468	3.1501145	21	10 31.1	19.8
325912 2010 UD_{77}	16.6	X	55.51251	210.05024	354.95648	3.18743	0.0762127	0.23346443	2.6120946	21	6 13.6	19.8
325913 2010 UW_{77}	16.5	X	299.03524	152.67247	1.28232	10.68956	0.2360104	0.19127439	2.9833085	21	—	—
325914 2010 UD_{80}	16.9	X	125.62375	262.71882	310.62805	6.03658	0.0758923	0.25845751	2.4408623	21	9 25.6	20.4
325915 2010 UT_{84}	16.5	X	221.91711	99.73838	261.81497	6.81033	0.2236634	0.23361422	2.6109779	21	4 1.9	21.1
325916 2010 UK_{90}	16.6	X	144.52784	327.37761	54.14741	6.94957	0.0545103	0.21592055	2.7517358	21	2 11.9	20.5
325917 2010 UC_{94}	16.0	X	278.54063	319.11379	55.64698	11.64957	0.3120230	0.24541433	2.5265977	21	6 1.0	19.8
325918 2010 UF_{94}	16.0	X	249.79090	295.32287	258.18330	4.78150	0.1565869	0.17692320	3.1425307	21	12 28.2	20.4
325919 2010 UL_{94}	16.4	X	118.18981	322.97031	115.95634	6.94073	0.1114492	0.22227890	2.6990063	21	3 31.8	20.2
325920 2010 UM_{94}	16.9	X	196.75199	47.20267	4.21123	14.46292	0.2021988	0.23735672	2.5834597	21	5 10.6	21.5

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
325921 2010 UP_{96}	16.1	X	168.61410	271.45495	113.96841	13.02297	0.1764702	0.22440478	2.6819333	21	3 26.4	20.6
325922 2010 UT_{99}	17.1	X	80.14347	295.10272	17.85721	7.25340	0.1254748	0.27584480	2.3371837	21	12 22.3	20.5
325923 2010 UR_{100}	15.8	X	317.81820	244.34729	265.13128	13.10308	0.2142317	0.19286860	2.9668462	21	—	—
325924 2010 UE_{102}	16.9	X	353.99735	109.30117	247.17178	9.28122	0.2550282	0.26737007	2.3863136	21	11 1.2	18.6
325925 2010 UU_{103}	18.1	X	278.22979	40.44847	208.14723	6.76961	0.1336144	0.30947067	2.1646601	21	—	—
325926 2010 VE_{6}	17.7	X	9.32107	175.76533	179.76961	6.36778	0.1273350	0.27064935	2.3669989	21	11 16.5	20.2
325927 2010 VB_{13}	16.1	X	175.88461	21.61861	48.82685	15.22964	0.1613666	0.23324156	2.6137583	21	5 19.5	20.3
325928 2010 VQ_{13}	15.9	X	234.48940	154.75831	236.71897	13.70191	0.0290364	0.23830212	2.5766224	21	6 7.9	19.4
325929 2010 VB_{17}	17.5	X	161.44868	348.56064	356.58254	2.94827	0.1963239	0.30648877	2.1786778	21	1 13.9	20.5
325930 2010 VM_{17}	17.8	X	189.33412	223.77718	121.42591	3.90669	0.1782699	0.31547460	2.1371079	21	2 7.7	20.8
325931 2010 VD_{18}	17.2	X	93.57772	210.29884	193.90861	5.80022	0.0975507	0.30142739	2.2029987	21	—	—
325932 2010 VK_{20}	16.0	X	59.65486	135.77797	259.74795	10.77556	0.0992757	0.19318746	2.9635808	21	—	—
325933 2010 VJ_{25}	16.8	X	115.64086	160.41121	237.74950	2.10548	0.0748771	0.20945155	2.8081071	21	1 28.9	20.6
325934 2010 VE_{29}	17.5	X	144.33570	322.31783	338.30220	2.13747	0.1407876	0.29125732	2.2539874	21	—	—
325935 2010 VJ_{29}	16.2	X	307.83261	47.53326	40.57805	16.87788	0.1971530	0.17915125	3.1164212	21	11 6.1	19.6
325936 2010 VL_{31}	13.1	X	289.79822	15.76522	81.28994	8.21059	0.1805792	0.08339509	5.1885069	21	10 11.8	19.8
325937 2010 VF_{33}	16.9	X	176.43000	265.55610	131.91257	3.18135	0.1518447	0.22834239	2.6510119	21	4 11.5	21.1
325938 2010 VG_{33}	18.1	X	255.98225	82.46086	162.27061	3.80025	0.1510019	0.30226504	2.1989268	21	—	—
325939 2010 VV_{38}	17.2	X	338.32929	257.10375	187.57612	6.95777	0.0878600	0.27967244	2.3158101	21	—	—
325940 2010 VF_{45}	15.9	X	191.77040	327.95910	54.74996	18.17097	0.1994001	0.22840437	2.6505324	21	4 13.7	20.5
325941 2010 VX_{48}	15.7	X	285.07879	249.48243	214.81903	10.50337	0.2244222	0.18004379	3.1061133	21	10 16.3	19.6
325942 2010 VK_{54}	16.5	X	289.95616	328.60907	355.96560	4.02417	0.2029981	0.24013350	2.5635052	21	4 23.5	20.1
325943 2010 VZ_{54}	16.9	X	215.15658	187.12571	191.55537	3.21488	0.1583092	0.23467962	2.6030697	21	4 22.5	21.1
325944 2010 VT_{56}	15.9	X	284.80588	277.12009	219.16335	14.83054	0.2277312	0.18188441	3.0851224	21	11 26.8	19.7
325945 2010 VR_{57}	13.3	X	288.26230	357.18132	96.71224	5.17959	0.1585449	0.08223614	5.2371406	21	10 7.9	20.0
325946 2010 VB_{63}	17.3	X	358.93738	353.42434	12.96172	5.63322	0.2427965	0.26936794	2.3744997	21	11 28.0	19.3
325947 2010 VS_{67}	16.5	X	113.15541	118.33075	310.73279	4.42686	0.0659739	0.21858308	2.7293445	21	3 2.1	20.2
325948 2010 VO_{69}	16.7	X	80.88543	237.42997	263.01998	5.26355	0.0469115	0.22761399	2.6566647	21	4 16.7	20.1
325949 2010 VP_{79}	18.0	X	141.01758	38.44228	192.75342	1.89967	0.1265538	0.26896925	2.3768456	21	11 10.5	21.6
325950 2010 VB_{80}	17.3	X	69.24297	250.98474	54.73569	5.98735	0.1293110	0.27310246	2.3528034	21	11 30.7	20.6
325951 2010 VC_{83}	17.0	X	211.73904	63.02954	310.76879	2.19598	0.2107273	0.23355228	2.6114396	21	4 10.8	21.4
325952 2010 VM_{86}	15.9	X	6.22182	218.16132	214.75509	9.98161	0.2215517	0.19050975	2.9912858	21	—	—
325953 2010 VJ_{90}	17.5	X	20.02447	10.97462	2.06947	1.30446	0.2041338	0.27471111	2.3436094	21	—	—
325954 2010 VS_{92}	17.9	X	268.42621	158.45056	38.54504	2.01460	0.1126880	0.29468365	2.2364817	21	—	—
325955 2010 VE_{93}	16.6	X	271.53060	301.06652	91.28083	15.42957	0.1072267	0.25198330	2.4824940	21	7 17.9	19.8
325956 2010 VJ_{95}	17.3	X	129.00318	134.95402	319.00760	3.48323	0.0686701	0.22712234	2.6604972	21	4 22.2	21.1
325957 2010 VO_{97}	17.8	X	235.99156	186.66828	128.70062	0.44894	0.1856155	0.31967097	2.1183640	21	2 11.2	21.0
325958 2010 VJ_{99}	15.1	X	269.96862	261.45381	231.25681	23.99233	0.3143211	0.17506250	3.1647589	21	10 15.4	19.8
325959 2010 VX_{101}	16.8	X	84.66309	175.00184	230.54767	1.30569	0.1083650	0.20373493	2.8603931	21	1 3.4	20.4
325960 2010 VX_{103}	16.1	X	5.91913	190.56251	343.22888	12.67872	0.0585300	0.21908190	2.7252000	21	2 16.9	19.4
325961 2010 VS_{105}	17.2	X	174.22325	216.68360	162.84118	2.90631	0.0906858	0.22275852	2.6951307	21	3 14.4	21.2
325962 2010 VU_{105}	16.9	X	128.70039	253.59586	200.84198	6.05168	0.1218768	0.22675808	2.6633457	21	5 1.4	20.7
325963 2010 VL_{108}	16.7	X	27.16782	338.57748	161.02799	4.83887	0.0250374	0.21482653	2.7610702	21	2 1.9	20.4
325964 2010 VN_{109}	17.4	X	241.23772	70.86274	156.97674	4.55439	0.1073605	0.29343687	2.2428123	21	—	—
325965 2010 VK_{120}	15.5	X	322.45387	358.70253	67.27741	18.34899	0.0962829	0.17668658	3.1453357	21	11 13.5	19.5
325966 2010 VE_{126}	15.7	X	281.58504	344.68237	104.64176	8.34326	0.1193087	0.17289017	3.1912134	21	10 12.1	20.1
325967 2010 VT_{126}	17.1	X	206.52717	232.77320	152.33569	3.05122	0.1289595	0.23033179	2.6357252	21	4 24.0	21.3
325968 2010 VO_{128}	17.2	X	351.72227	252.92760	248.20617	5.43966	0.0330949	0.29892603	2.2152712	21	—	—
325969 2010 VN_{133}	16.9	X	80.39173	215.34105	60.55617	6.98074	0.1153929	0.26580830	2.3956518	21	11 3.5	20.1
325970 2010 VN_{135}	16.5	X	335.51603	196.21802	224.22609	3.77608	0.1894961	0.18064473	3.0992208	21	11 25.0	19.6
325971 2010 VX_{143}	17.7	X	192.69117	42.03015	148.15550	5.05573	0.0910523	0.26919731	2.3755029	21	11 15.2	21.0
325972 2010 VX_{157}	17.6	X	323.18276	188.12987	34.45911	4.15813	0.0515026	0.31227635	2.1516749	21	2 2.4	20.0
325973 Cardinal	16.6	X	121.14438	191.91050	211.01282	7.86680	0.2076512	0.21400775	2.7681082	21	2 25.6	20.7
325974 2010 VS_{160}	17.0	X	244.85054	1.27127	0.62034	2.02558	0.1008376	0.23763365	2.5814522	21	5 3.9	20.8
325975 2010 VC_{162}	17.1	X	105.02343	180.37798	238.90981	3.44985	0.0566973	0.21405127	2.7677329	21	2 6.7	20.8
325976 2010 VF_{162}	17.4	X	30.26471	218.46611	156.10198	6.29807	0.1213487	0.28057341	2.3108497	21	—	—
325977 2010 VP_{162}	17.0	X	330.14701	331.00829	316.28125	1.95213	0.0934637	0.23935994	2.5690254	21	5 19.1	19.9
325978 2010 VR_{162}	17.2	X	210.78249	298.18175	269.20899	4.29856	0.1725070	0.27570108	2.3379959	21	12 17.9	20.4
325979 2010 VY_{162}	17.1	X	187.58511	137.27233	283.73640	3.09105	0.0663075	0.23450854	2.6043355	21	5 18.4	20.8
325980 2010 VK_{166}	16.6	X	325.02127	351.03882	74.55676	2.24342	0.1493573	0.17964011	3.1107648	21	11 12.7	19.9
325981 2010 VX_{168}	16.9	X	335.44424	324.87791	236.18861	3.86369	0.0950949	0.21295367	2.7772350	21	2 1.9	20.6
325982 2010 VX_{172}	16.9	X	22.78649	298.30603	131.57153	0.54668	0.0721887	0.19195307	2.9762724	21	—	—
325983 2010 VF_{174}	16.6	X	170.50944	243.97930	196.57658	14.08428	0.1593487	0.23347694	2.6120013	21	5 29.7	21.0
325984 2010 VB_{177}	17.4	X	90.09956	265.44712	268.11513	1.24862	0.1152108	0.23646562	2.5899460	21	6 26.5	20.6
325985 2010 VK_{177}	17.4	X	270.71660	333.52528	241.88356	4.58038	0.1117225	0.29540436	2.2328426	21	—	—
325986 2010 VL_{178}	17.2	X	109.06087	254.07421	235.20482	2.12156	0.1234347	0.22923769	2.6441051	21	5 23.3	20.9
325987 2010 VY_{178}	17.2	X	281.15208	18.84950	55.47369	5.84536	0.0856463	0.26166897	2.4208501	21	10 6.7	19.9
325988 2010 VU_{181}	16.3	X	297.71682	122.92606	79.00182	7.49769	0.0401994	0.20351266	2.8624754	21	—	—
325989 2010 VE_{186}	16.4	X	168.44231	57.90364	335.85908	6.38334	0.1021273	0.22453180	2.6809218	21	3 24.4	20.5
325990 2010 VQ_{188}	16.0	X	344.63651	221.02842	150.44216	6.13056	0.1584345	0.17239213	3.1973568	21	10 7.8	19.6
325991 2010 VM_{191}	15.7	X	4.52946	42.13114	71.14033	11.25161	0.0723228	0.19202904	2.9754874	21	—	—
325992 2010 VX_{192}	15.5	X	263.86501	69.48330	57.80369	26.41530	0.2476926	0.17132554	3.2106132	21	10 23.9	20.4
325993 2010 VJ_{195}	16.1	X	144.98470	59.11315	30.08523	22.53842	0.0487078	0.23067596	2.6331029	21	5 1.1	19.8
325994 2010 VT_{195}	16.5	X	113.22318	190.80781	224.00602	6.14752	0.1155338	0.21439770	2.7647506	21	2 18.7	20.4
325995 2010 VO_{200}	16.1	X	110.63267	207.40572	301.24793	9.29696	0.1038511	0.23476147	2.6024647	21	6 17.6	19.7
325996 2010 WH_{2}	17.0	X	26.48601	211.57557	74.56314	6.80714	0.0642001	0.25144088	2.4860629	21	8 26.7	20.0
325997 2010 WK_{3}	16.7	X	83.67818	112.95422	40.30786	13.51929	0.1109374	0.23385313	2.6091993	21	5 17.7	20.0
325998 2010 WE_{5}	16.8	X	171.68861	46.08476	295.05210	3.40966	0.0764988	0.21065035	2.7974431	21	1 24.2	21.0
325999 2010 WN_{7}	16.0	X	251.33212	119.68789	246.04784	5.80158	0.2311612	0.23988566	2.5652706	21	5 3.3	20.2
326000 2010 WN_{8}	15.6	X	180.72674	2.66636	290.24902	8.75686	0.1258026	0.18946268	3.0022966	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326001 2010 WA_{17}	17.1	X	39.04135	127.45868	39.63150	5.07318	0.1504990	0.21749933	2.7384034	21	4 3.8	20.0
326002 2010 WK_{19}	17.1	X	72.90169	114.99952	26.94768	4.51435	0.0270620	0.22373604	2.6872748	21	4 7.9	20.4
326003 2010 WU_{20}	17.3	X	65.44941	212.16156	68.73302	7.26373	0.1019255	0.25960934	2.4336373	21	10 21.6	20.5
326004 2010 WV_{22}	15.7	X	288.07624	26.49156	63.99217	6.81890	0.1258730	0.17282537	3.1920111	21	10 19.7	19.9
326005 2010 WQ_{23}	16.8	X	198.42107	49.51113	264.29183	3.24163	0.0591762	0.20913633	2.8109280	21	1 18.8	20.9
326006 2010 WB_{24}	17.3	X	47.08847	147.65189	27.83949	1.74597	0.1287091	0.22226037	2.6991563	21	4 26.2	20.0
326007 2010 WS_{25}	17.6	X	207.64718	178.46624	52.90617	6.82037	0.0934128	0.28093784	2.3088509	21	—	—
326008 2010 WR_{29}	16.4	X	164.60723	6.07725	90.93898	10.77516	0.0529988	0.23612336	2.5924481	21	6 8.9	20.0
326009 2010 WZ_{33}	17.1	X	141.42834	196.95127	80.77950	4.44350	0.1754130	0.27978010	2.3152159	21	—	—
326010 2010 WL_{47}	17.4	X	140.64102	47.39599	253.58239	5.36352	0.1400285	0.28490443	2.2873708	21	—	—
326011 2010 WM_{52}	16.6	X	75.86017	184.54378	282.82823	3.13634	0.0222580	0.21514783	2.7583205	21	2 24.8	20.4
326012 2010 WE_{53}	17.2	X	6.05893	61.42817	269.77822	5.52644	0.1409287	0.25913725	2.4365920	21	9 29.7	19.7
326013 2010 WR_{54}	17.2	X	204.56320	13.30284	273.83468	5.90913	0.1404533	0.29858646	2.2169504	21	—	—
326014 2010 WJ_{55}	16.2	X	39.80155	64.91641	100.74752	7.11485	0.0916804	0.21240344	2.7820292	21	4 2.4	19.6
326015 2010 WW_{55}	15.4	X	273.80075	24.88122	94.62651	9.08793	0.0737218	0.16881974	3.2423052	21	11 12.1	19.9
326016 2010 WA_{62}	17.2	X	89.78896	107.27232	57.34143	2.14337	0.1067050	0.22987585	2.6392092	21	6 12.4	20.7
326017 2010 WH_{62}	17.3	X	166.94485	217.29053	230.59974	1.54830	0.0964777	0.23212333	2.6221459	21	6 1.2	21.2
326018 2010 WS_{62}	16.1	X	313.57611	359.65210	253.21799	13.98940	0.0771089	0.21989150	2.7185067	21	3 6.2	20.1
326019 2010 WZ_{63}	16.8	X	86.83151	267.09144	259.78615	1.80801	0.0404112	0.23155435	2.6264396	21	5 31.9	20.2
326020 2010 WJ_{67}	17.4	X	18.00169	268.09894	43.21807	3.85530	0.0514157	0.25373195	2.4710751	21	9 15.8	20.2
326021 2010 WG_{69}	15.8	X	202.45180	153.36753	52.07859	5.30485	0.0931871	0.17727328	3.1383920	21	11 28.5	20.6
326022 2010 WK_{69}	16.1	X	247.68310	142.58414	65.21991	8.97706	0.0783183	0.18964915	3.0003284	21	—	—
326023 2010 WB_{73}	17.1	X	247.94538	109.53830	156.44111	5.49963	0.0291142	0.30219710	2.1992564	21	—	—
326024 2010 WQ_{73}	16.8	X	203.41873	319.76423	76.71412	5.24178	0.2076274	0.23217323	2.6217702	21	5 4.1	21.3
326025 2010 XO_{6}	17.0	X	107.07861	309.06489	170.66346	8.13571	0.0409325	0.22627927	2.6671014	21	4 28.2	20.6
326026 2010 XV_{10}	16.2	X	234.75943	198.20708	171.47971	5.08685	0.2682647	0.23695159	2.5864036	21	4 24.1	20.7
326027 2010 XV_{13}	16.2	X	237.14065	129.88205	244.03658	7.40315	0.3454490	0.23883166	2.5728124	21	4 24.3	21.1
326028 2010 XM_{18}	16.0	X	338.26057	337.47016	124.39962	7.70644	0.1517800	0.18608440	3.0385245	21	—	—
326029 2010 XM_{22}	17.3	X	165.63103	159.37924	65.03355	2.25390	0.1389232	0.26903628	2.3764508	21	11 25.4	20.8
326030 2010 XP_{25}	16.1	X	308.97693	241.44445	220.95538	8.07275	0.1005437	0.18194416	3.0844469	21	12 6.9	20.0
326031 2010 XR_{25}	16.8	X	39.33431	272.80981	184.47913	5.35942	0.0794990	0.20353638	2.8622530	21	—	—
326032 2010 XX_{32}	16.1	X	198.66842	251.18123	116.38302	12.10693	0.0921878	0.22402498	2.6849637	21	3 30.3	20.4
326033 2010 XX_{34}	16.6	X	14.85945	32.24428	39.31484	2.23562	0.1266239	0.18897233	3.0074880	21	—	—
326034 2010 XG_{36}	16.1	X	47.07638	16.57549	102.09356	5.54067	0.0606503	0.20881935	2.8137720	21	2 6.6	19.6
326035 2010 XJ_{37}	16.6	X	243.34465	16.30824	323.87494	4.60146	0.0354121	0.21975669	2.7196185	21	4 10.2	20.4
326036 2010 XW_{48}	15.4	X	256.12470	48.08221	110.61264	11.26952	0.0731593	0.17326225	3.1866431	21	12 6.9	19.9
326037 2010 XJ_{50}	15.6	X	41.81811	144.35511	283.25874	10.87068	0.0357465	0.19691003	2.9261112	21	—	—
326038 2010 XE_{53}	16.8	X	72.43657	131.41220	67.08778	15.98542	0.0635183	0.23846224	2.5754689	21	6 27.2	20.2
326039 2010 XM_{65}	15.2	X	92.89607	349.51328	29.05993	13.11032	0.1066193	0.19851311	2.9103368	21	—	—
326040 2010 XG_{75}	16.3	X	263.95230	277.08977	286.57162	7.94185	0.0954719	0.19095865	2.9865961	21	—	—
326041 2010 XO_{78}	16.7	X	349.39059	219.54091	222.04743	10.12427	0.1138085	0.18471205	3.0535561	21	—	—
326042 2010 XU_{82}	16.3	X	352.62765	83.38606	8.05090	10.51283	0.0253050	0.19085496	2.9876777	21	—	—
326043 2010 XA_{83}	16.1	X	265.01714	311.83934	68.85421	15.43706	0.1124453	0.24109476	2.5566868	21	6 20.5	19.6
326044 2010 XH_{83}	15.9	X	10.80079	314.86343	93.68071	4.91404	0.0996794	0.18344906	3.0675552	21	—	—
326045 2010 YN	16.7	X	38.70958	155.55003	129.43050	4.56351	0.0944642	0.24410156	2.5356483	21	9 14.9	19.6
326046 2011 AY_{5}	15.4	X	327.21278	52.63760	69.40607	5.58896	0.0513568	0.17980757	3.1088331	21	—	—
326047 2011 AG_{6}	17.0	X	97.53830	24.09906	338.44853	6.34171	0.0214873	0.18654461	3.0335250	21	—	—
326048 2011 AY_{7}	15.8	X	285.74028	254.73717	286.74097	7.05787	0.0640887	0.18526881	3.0474354	21	—	—
326049 2011 AJ_{8}	16.4	X	266.99258	207.88836	104.68752	5.46610	0.1270259	0.21783186	2.7356159	21	3 28.9	20.4
326050 2011 AM_{8}	15.0	X	340.28035	299.51842	108.50183	23.51069	0.0970138	0.16967197	3.2314391	21	11 22.1	19.5
326051 2011 AV_{9}	15.9	X	256.45239	97.63292	107.49537	10.23787	0.0804662	0.18265633	3.0764243	21	—	—
326052 2011 AZ_{9}	15.5	X	116.57746	211.52958	106.82336	10.84295	0.1087568	0.17986396	3.1081833	21	—	—
326053 2011 AW_{10}	15.6	X	220.77699	345.02494	98.97400	4.41227	0.0332051	0.14346563	3.6138557	21	7 29.3	20.8
326054 2011 AG_{11}	15.7	X	315.40792	291.75122	150.08516	14.10346	0.2647068	0.17197891	3.2024763	21	11 8.5	19.2
326055 2011 AO_{11}	15.5	X	275.34457	335.12489	108.66677	11.55706	0.0731427	0.15929680	3.3702700	21	10 3.3	20.4
326056 2011 AO_{16}	14.9	X	311.39551	320.45941	122.53392	18.24789	0.1172730	0.17014405	3.2254591	21	11 18.7	19.3
326057 2011 AP_{20}	15.3	X	309.48471	2.69698	120.72642	12.26232	0.0498569	0.17598487	3.1536911	21	—	—
326058 2011 AW_{31}	15.1	X	178.67194	138.57994	98.01497	16.84259	0.0960258	0.17012628	3.2256838	21	12 11.5	20.2
326059 2011 AE_{32}	15.8	X	145.32881	213.63675	324.97394	8.86048	0.0202803	0.14748430	3.5479066	21	8 25.3	20.8
326060 2011 AH_{33}	16.5	X	163.93689	46.43105	330.84879	4.15870	0.1708683	0.21042519	2.7994383	21	3 7.2	20.8
326061 2011 AE_{34}	15.3	X	296.71412	77.86040	86.83034	17.06659	0.0107129	0.18490557	3.0514252	21	—	—
326062 2011 AG_{39}	15.6	X	159.33016	217.45827	100.00901	12.13528	0.0831237	0.18955415	3.0013307	21	—	—
326063 2011 AN_{43}	16.3	X	197.07171	214.49628	39.03533	1.89119	0.1186333	0.17585388	3.1552571	21	—	—
326064 2011 AO_{47}	15.5	X	104.33583	333.32161	154.35817	3.35040	0.1619132	0.12400375	3.9827175	21	5 26.5	21.3
326065 2011 AH_{48}	15.8	X	235.66485	169.08865	100.11250	14.47980	0.0589883	0.19527605	2.9424114	21	1 8.3	20.1
326066 2011 AM_{48}	16.6	X	107.59782	100.77354	97.73724	4.26783	0.0480903	0.23749510	2.5824561	21	8 14.2	20.0
326067 2011 AD_{55}	16.8	X	175.19202	264.16276	98.53767	5.56917	0.1754717	0.21025916	2.8009118	21	3 3.1	21.4
326068 2011 AL_{58}	15.5	X	107.41470	214.70389	100.98940	11.20985	0.0545652	0.17741066	3.1367717	21	12 30.5	20.2
326069 2011 AM_{59}	15.4	X	99.30778	11.46669	125.86001	3.80762	0.1205240	0.12413801	3.9798454	21	5 27.3	21.0
326070 2011 AY_{60}	15.4	X	55.31188	189.77568	111.45540	13.24500	0.0668647	0.15705693	3.4022376	21	10 19.4	20.4
326071 2011 AS_{61}	15.6	X	318.13555	12.20254	110.70317	5.91694	0.0952828	0.17871559	3.1214839	21	—	—
326072 2011 AS_{64}	16.3	X	245.67309	121.59385	104.42044	5.22001	0.0911192	0.18466924	3.0540280	21	—	—
326073 2011 AE_{67}	15.6	X	222.95967	334.10919	291.51742	15.36429	0.0854186	0.19031649	2.9933106	21	—	—
326074 2011 AG_{67}	16.3	X	267.40492	224.15280	117.58563	7.06477	0.0117577	0.22370142	2.6875521	21	5 20.2	20.0
326075 2011 AV_{72}	16.2	X	306.73734	20.07639	137.28899	2.17028	0.1280039	0.18359473	3.0659324	21	—	—
326076 2011 AC_{74}	16.3	X	172.74175	331.05800	89.50801	8.96853	0.1107723	0.22255212	2.6967968	21	5 6.9	20.5
326077 2011 AA_{75}	14.7	X	97.79137	166.16109	341.87611	13.28240	0.1377749	0.12415184	3.9795499	21	6 7.4	20.6
326078 2011 AA_{77}	16.5	X	202.22026	232.37070	137.16073	8.92581	0.1307494	0.21630690	2.7484582	21	4 3.9	20.9
326079 2011 AQ_{77}	15.2	X	107.76235	272.06482	72.56645	11.36403	0.0441245	0.18302123	3.0723339	21	—	—
326080 2011 BV_{2}	16.6	X	146.85314	314.76986	57.09002	6.68893	0.0832797	0.20405876	2.8573661	21	2 7.7	20.8

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326081 2011 BD_4	15.8	X	285.29252	43.97457	119.44607	9.60434	0.0408236	0.17996661	3.1070012	21	—	—
326082 2011 BC_5	16.3	X	44.17715	122.61392	262.72713	3.86267	0.1231330	0.17920360	3.1158142	21	—	—
326083 2011 BV_8	16.1	X	197.97324	221.31508	110.33875	14.17108	0.0918225	0.20311115	2.8662465	21	2 13.3	20.6
326084 2011 BJ_{28}	15.5	X	158.98570	80.37208	354.62404	2.54390	0.2004085	0.12615738	3.9372616	21	5 16.7	21.8
326085 2011 BC_{34}	15.4	X	265.93272	109.80157	100.16466	6.80303	0.0856918	0.18314183	3.0709850	21	—	—
326086 2011 BR_{52}	15.6	X	104.08716	253.46180	92.02411	12.24688	0.1153268	0.18025470	3.1036898	21	—	—
326087 2011 BM_{60}	15.4	X	346.38740	329.62637	154.99112	17.48897	0.0599936	0.18238589	3.0794647	21	—	—
326088 2011 BV_{70}	16.4	X	213.48242	110.07740	176.19522	8.02061	0.1645959	0.18421058	3.0590953	21	1 6.2	21.5
326089 2011 BO_{79}	15.3	X	4.20959	329.30072	116.18897	12.19227	0.0512892	0.18029881	3.1031837	21	—	—
326090 2011 BR_{83}	15.4	X	113.14138	182.77144	171.60679	10.72308	0.0460868	0.18122711	3.0925776	21	—	—
326091 2011 BA_{85}	15.4	X	236.02258	196.37609	69.53665	12.25662	0.0302112	0.18968589	2.9999409	21	1 7.5	19.8
326092 2011 BA_{86}	16.0	X	256.26585	326.46719	120.87015	7.03666	0.0960081	0.15505388	3.4314759	21	9 7.2	20.9
326093 2011 BZ_{88}	17.0	X	43.60878	225.16548	136.06090	6.68089	0.2088333	0.26393564	2.4069701	21	—	—
326094 2011 BO_{96}	15.7	X	195.30235	203.27141	92.75131	12.88772	0.0782730	0.19063486	2.9899769	21	—	—
326095 2011 BM_{98}	16.5	X	249.40883	302.12663	8.42659	4.34159	0.0581335	0.20815215	2.8197814	21	3 12.9	20.6
326096 2011 BC_{101}	15.4	X	219.07552	206.02627	89.25642	11.44542	0.1694179	0.19605669	2.9345957	21	1 21.1	20.3
326097 2011 BF_{101}	16.0	X	263.17183	149.01071	25.12122	6.50237	0.0642440	0.17502003	3.1652708	21	—	—
326098 2011 BJ_{101}	16.6	X	287.00859	180.77073	111.94731	5.43872	0.0393039	0.21259543	2.7803541	21	4 8.8	20.4
326099 2011 BR_{103}	15.7	X	99.99317	161.63394	340.30071	2.29379	0.0879955	0.12442188	3.9737897	21	5 28.1	21.3
326100 2011 BQ_{115}	16.1	X	159.41751	359.06734	315.87055	8.15986	0.1032610	0.18782388	3.0197351	21	—	—
326101 2011 BN_{119}	15.4	X	116.91320	225.72529	117.65197	10.50398	0.0820070	0.17912199	3.1167606	21	—	—
326102 2011 BG_{145}	17.0	X	42.15545	205.63745	77.89446	1.55865	0.1591121	0.23808322	2.5782015	21	9 27.0	19.9
326103 2011 BF_{151}	17.1	X	305.40695	299.73389	6.61284	4.46759	0.0994922	0.22198662	2.7013748	21	5 7.4	20.5
326104 2011 CQ_{32}	15.3	X	249.96255	68.37555	308.14480	4.55383	0.0448299	0.13157760	3.8283773	21	6 9.2	20.8
326105 2011 CY_{33}	16.3	X	56.86711	125.56524	123.98218	11.41087	0.1233212	0.23279199	2.6171224	21	8 27.8	19.6
326106 2011 CG_{34}	15.2	X	95.57985	18.04236	144.83829	3.97576	0.1624811	0.12648008	3.9305618	21	6 27.1	20.9
326107 2011 CU_{39}	16.4	X	302.84350	352.87151	127.18063	1.97360	0.0516200	0.17271955	3.1933147	21	12 21.2	20.8
326108 2011 CK_{66}	16.5	X	52.58210	276.35221	183.72397	4.50567	0.0947225	0.19903124	2.9052837	21	1 23.8	20.1
326109 2011 EM_{18}	15.8	X	142.20235	158.92899	174.29407	10.95373	0.0498726	0.18148493	3.0896480	21	—	—
326110 2011 EH_{21}	15.2	X	113.97689	71.21520	75.34622	3.13401	0.1546037	0.12386085	3.9857801	21	6 26.1	21.0
326111 2011 GG_{61}	15.9	X	127.11636	147.65108	79.71063	13.80202	0.0961635	0.23001710	2.6381286	21	10 22.9	20.1
326112 2011 QB_{76}	13.4	X	150.87356	153.70845	330.57614	16.96135	0.0535482	0.08447446	5.1442148	21	7 1.9	20.6
326113 2011 UG_{108}	17.3	X	23.23890	217.14596	93.03391	7.67540	0.2714979	0.29639257	2.2278768	21	11 5.5	19.5
326114 2011 UW_{131}	16.0	X	48.77349	232.88679	234.75244	16.57679	0.1451354	0.23170527	2.6252990	21	1 16.9	19.1
326115 2011 UF_{224}	17.2	X	345.71288	62.96054	40.42055	4.66233	0.0712464	0.21858913	2.7292942	21	—	—
326116 2011 UU_{308}	15.3	X	192.12937	308.10696	284.78354	8.36751	0.0723533	0.18587975	3.0407543	21	12 23.6	19.7
326117 2011 UW_{313}	15.3	X	93.12901	291.30803	97.11091	3.93696	0.1496694	0.12369203	3.9894060	21	1 18.3	20.7
326118 2011 UR_{379}	15.8	X	344.94726	266.79555	119.07132	11.14862	0.1223732	0.19340808	2.9613266	21	11 2.9	19.5
326119 2011 WH_{45}	13.5	X	312.85705	343.75733	70.68498	4.22953	0.0689514	0.08444085	5.1455800	21	10 4.6	20.0
326120 2011 WP_{119}	15.4	X	234.36307	176.91678	271.66617	9.49364	0.0394049	0.17704459	3.1410941	21	8 16.4	20.0
326121 2011 WU_{126}	15.3	X	336.27348	314.76129	49.84019	12.11945	0.1404150	0.18510177	3.0492685	21	9 20.1	19.0
326122 2011 YA_{17}	16.8	X	194.24051	80.70055	308.41365	1.98236	0.2638813	0.24617014	2.5214236	21	4 14.9	21.4
326123 2011 YH_{32}	13.6	X	321.24722	206.60913	229.11720	5.38668	0.0418350	0.08446106	5.1447590	21	11 7.6	20.3
326124 2011 YZ_{53}	17.6	X	152.11024	26.54629	98.64674	3.40938	0.1564898	0.25449639	2.4661243	21	7 7.0	21.3
326125 2011 YY_{61}	12.9	X	295.03091	179.09784	281.72934	20.30903	0.1040614	0.08293456	5.2076968	21	10 21.7	19.9
326126 2011 YW_{63}	16.0	X	215.80181	108.12588	133.80145	3.40032	0.1337066	0.19247586	2.9708806	21	—	—
326127 2011 YS_{74}	13.1	X	317.82074	274.94045	155.95735	13.02618	0.1164961	0.08172476	5.2589648	21	10 26.4	19.7
326128 2011 YL_{75}	16.1	X	216.95992	234.73926	282.10438	1.95632	0.1204139	0.17522386	3.1628157	21	10 13.8	20.8
326129 2012 AM_{14}	15.5	X	165.22783	74.22322	112.36927	5.89273	0.1024196	0.16960850	3.2322452	21	10 2.6	20.6
326130 2012 AU_{17}	16.4	X	51.32713	139.38520	318.48259	11.40529	0.1758535	0.22093531	2.7099376	21	1 20.4	19.0
326131 2012 AM_{19}	15.3	X	269.11602	105.45119	332.95541	12.09062	0.2204660	0.17158819	3.2073360	21	8 24.5	19.7
326132 2012 BR_9	16.9	X	279.23285	175.53855	300.65754	6.98718	0.0480275	0.28273716	2.2990449	21	12 7.9	19.5
326133 2012 BF_{10}	16.7	X	58.59357	265.99822	184.47036	5.21366	0.1051732	0.21262589	2.7800885	21	1 17.9	20.0
326134 2012 BZ_{20}	17.5	X	232.89893	324.17581	140.41763	2.88597	0.1373884	0.26796264	2.3827943	21	9 2.7	20.9
326135 2012 BV_{23}	12.9	X	353.05956	266.87056	148.71211	14.27236	0.0539552	0.08159717	5.2644457	21	11 26.2	19.7
326136 2012 BG_{24}	15.5	X	320.88243	300.58512	144.26170	22.57962	0.1626489	0.18581568	3.0414532	21	12 6.4	19.4
326137 2012 BN_{24}	15.5	X	255.06786	50.28168	117.15300	6.31441	0.1282867	0.18421057	3.0590954	21	12 9.6	19.8
326138 2012 BW_{24}	15.4	X	168.15956	305.71928	297.76775	7.09393	0.0351120	0.18432839	3.0577916	21	12 11.9	20.0
326139 2012 BE_{25}	16.5	X	43.89255	142.95940	298.20451	6.79407	0.2022650	0.20988611	2.8042297	21	—	—
326140 2012 BF_{28}	16.6	X	117.70437	281.69292	137.96793	5.84014	0.0387705	0.22357849	2.6885371	21	2 21.0	20.2
326141 2012 BG_{28}	17.8	X	12.55539	119.44441	282.36497	0.99048	0.1703101	0.29688536	2.2254108	21	—	—
326142 2012 BW_{47}	15.2	X	288.20446	291.23209	147.62612	17.62107	0.1404143	0.17262127	3.1945266	21	10 5.3	19.6
326143 2012 BK_{53}	16.7	X	247.34171	121.25140	40.65485	1.21765	0.1172420	0.18003000	3.1062719	21	11 23.6	21.0
326144 2012 BO_{53}	17.3	X	224.68289	222.98915	338.65422	5.97801	0.1126072	0.28781097	2.2719451	21	—	—
326145 2012 BP_{53}	16.9	X	127.83077	298.67648	326.93502	3.28819	0.0502101	0.28024166	2.3126731	21	12 10.5	20.1
326146 2012 BS_{53}	17.2	X	110.86980	225.04100	359.81984	2.01639	0.1514828	0.26015743	2.4302180	21	10 3.2	20.6
326147 2012 BA_{54}	18.0	X	237.12893	72.10458	107.34732	3.29634	0.1206973	0.28641913	2.2792993	21	12 24.1	20.4
326148 2012 BR_{54}	16.1	X	134.64741	291.58857	134.33806	13.13534	0.0438329	0.22564372	2.6721072	21	3 26.7	19.9
326149 2012 BU_{55}	15.6	X	236.75576	168.31792	350.12006	8.24229	0.0754861	0.17625255	3.1504972	21	11 9.5	20.3
326150 2012 BX_{55}	16.5	X	87.48304	159.88148	339.16297	11.58342	0.1338647	0.23289401	2.6163580	21	5 4.0	20.1
326151 2012 BY_{56}	17.0	X	164.56327	239.15380	312.36935	5.29486	0.0622920	0.27121118	2.3637289	21	10 13.2	20.2
326152 2012 BM_{58}	16.7	X	6.03616	75.92895	72.90668	2.89284	0.0317060	0.21835035	2.7312835	21	1 16.5	20.1
326153 2012 BE_{67}	13.3	X	305.30546	172.78831	285.98840	16.31087	0.0597929	0.08227588	5.2354540	21	11 8.9	20.2
326154 2012 BK_{69}	18.2	X	224.55914	16.37886	98.46230	2.41733	0.1394335	0.27057946	2.3674065	21	9 7.5	21.4
326155 2012 BK_{72}	16.5	X	241.78421	165.83241	154.64424	4.97001	0.0902197	0.22740021	2.6583295	21	3 11.7	20.4
326156 2012 BK_{75}	15.5	X	152.85688	98.60634	114.99378	9.40951	0.0603722	0.17445565	3.1720938	21	10 23.7	20.4
326157 2012 BE_{76}	16.4	X	150.07135	147.23342	132.98912	2.16959	0.0550064	0.18767966	3.0212818	21	—	—
326158 2012 BN_{78}	17.1	X	119.70870	279.75436	331.72426	1.63792	0.0743428	0.27444211	2.3451406	21	11 12.2	20.2
326159 2012 BK_{87}	15.6	X	258.58450	312.56156	154.03960	15.16451	0.1893699	0.17568018	3.1573365	21	9 22.8	20.3
326160 2012 BB_{88}	15.7	X	253.94750	43.53209	118.05954	10.60216	0.0481665	0.18144225	3.0901325	21	12 12.3	20.0

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326161 2012 BE_{88}	15.8	X	252.63478	159.61904	9.74691	8.67553	0.0978056	0.18189707	3.0849792	21	12 10.9	20.3
326162 2012 BJ_{91}	16.4	X	178.55696	242.15411	148.27697	12.02233	0.0808652	0.22718980	2.6599705	21	4 3.9	20.4
326163 2012 BR_{91}	16.4	X	223.75384	179.51804	333.37134	6.07649	0.1075016	0.17326393	3.1866225	21	10 15.7	21.2
326164 Miketoomey	16.8	X	82.92590	297.99524	159.64481	5.73663	0.1718199	0.22341426	2.6898545	21	3 15.3	20.0
326165 2012 BH_{99}	17.1	X	344.15801	64.12865	318.74708	5.86032	0.1223287	0.28119661	2.3074342	21	11 9.1	19.4
326166 2012 BC_{101}	17.0	X	207.46019	221.19784	277.42595	5.48973	0.0680836	0.26757525	2.3850936	21	9 22.5	20.4
326167 2012 BD_{102}	15.9	X	304.91815	172.90455	308.54275	9.18994	0.0494588	0.19328097	2.9626248	21	12 31.4	19.9
326168 2012 BK_{111}	16.5	X	321.40808	307.51802	305.36819	3.90961	0.1162872	0.22690515	2.6621947	21	3 15.6	20.0
326169 2012 BT_{111}	16.2	X	354.47629	157.42635	323.25022	4.28132	0.0526075	0.20192485	2.8774616	21	—	—
326170 2012 BV_{111}	16.8	X	327.43753	236.43825	149.12599	2.78395	0.0278582	0.27137495	2.3627778	21	10 14.5	19.4
326171 2012 BS_{112}	16.0	X	257.66660	164.40121	331.59884	4.05594	0.0949581	0.17741142	3.1367627	21	11 6.0	20.4
326172 2012 BV_{112}	17.1	X	343.30701	306.49380	331.84362	3.89721	0.1059965	0.23948921	2.5681009	21	5 26.9	19.9
326173 2012 BC_{115}	15.6	X	237.66496	216.15227	302.03077	6.66831	0.1107274	0.18025556	3.1036800	21	11 6.8	20.2
326174 2012 BL_{117}	16.8	X	351.34864	2.25167	136.04508	4.75050	0.0461590	0.20876008	2.8143045	21	—	—
326175 2012 BL_{119}	16.5	X	259.90862	168.03233	320.87155	0.17755	0.1223010	0.17822395	3.1272217	21	10 28.9	20.9
326176 2012 BX_{121}	15.4	X	168.51982	243.45707	321.12875	14.78408	0.0346373	0.17800787	3.1297519	21	10 18.7	20.3
326177 2012 BF_{125}	17.0	X	181.39699	349.14744	169.62770	6.93097	0.0645762	0.26694372	2.3888538	21	9 22.2	20.3
326178 2012 BK_{126}	17.3	X	185.34722	131.11199	23.69178	3.87137	0.1635654	0.26446622	2.4037497	21	9 16.9	21.0
326179 2012 BR_{127}	16.2	X	277.76631	339.90590	111.69648	2.90636	0.1301357	0.17484948	3.1673288	21	10 5.7	20.4
326180 2012 BY_{131}	16.7	X	237.89113	226.35618	176.76714	7.07883	0.1331730	0.25686488	2.4509413	21	6 16.8	20.3
326181 2012 BE_{132}	15.8	X	220.88900	187.14716	325.36704	9.50280	0.1630664	0.17384337	3.1795375	21	10 5.3	20.9
326182 2012 BF_{132}	16.8	X	146.78934	109.37764	85.61038	6.93222	0.0758639	0.26695703	2.3887744	21	10 3.5	20.2
326183 2012 BB_{134}	16.7	X	40.09229	193.44943	348.15531	17.12971	0.1840924	0.22908402	2.6452873	21	4 17.9	19.6
326184 2012 BU_{134}	17.6	X	188.11962	273.52416	248.00738	2.73982	0.1702493	0.26729975	2.3867322	21	9 25.6	21.3
326185 2012 BN_{139}	17.5	X	215.06016	84.70153	345.63748	6.99477	0.2089475	0.25615313	2.4554793	21	6 23.9	21.7
326186 2012 CO	17.8	X	239.32228	31.12031	134.48449	3.55761	0.1186750	0.28242961	2.3007137	21	12 7.9	20.5
326187 2012 CO_1	17.1	X	69.11648	251.77902	152.08661	2.55790	0.0666804	0.20348331	2.8627506	21	—	—
326188 2012 CV_1	17.3	X	132.21394	133.58443	264.33473	2.72534	0.1357692	0.22377520	2.6869613	21	2 22.7	21.2
326189 2012 CB_3	16.3	X	208.38956	194.04567	330.01206	4.39651	0.0930719	0.16993601	3.2280910	21	10 14.6	21.2
326190 2012 CE_5	17.1	X	172.99838	185.90642	318.12863	0.87560	0.1268228	0.26082756	2.4260536	21	8 21.3	20.8
326191 2012 CK_7	16.4	X	247.84078	342.40044	147.27339	1.52930	0.1330141	0.17588055	3.1549381	21	10 14.4	20.8
326192 2012 CH_8	16.1	X	262.62020	159.38761	298.55858	3.45336	0.1695991	0.17307115	3.1889884	21	9 15.4	20.6
326193 2012 CN_8	16.3	X	51.03551	196.90522	295.23241	3.01653	0.0510556	0.22245902	2.6975492	21	2 24.3	19.8
326194 2012 CB_9	15.7	X	344.19192	50.52596	322.05966	6.71498	0.0216190	0.16874714	3.2432351	21	10 2.8	20.3
326195 2012 CA_{12}	17.6	X	82.57633	273.51023	339.99108	5.84182	0.0997014	0.26214506	2.4179182	21	10 1.8	20.9
326196 2012 CD_{13}	17.3	X	210.04136	78.28040	45.97078	2.67506	0.1491290	0.26590693	2.3950593	21	9 3.0	20.7
326197 2012 CX_{13}	17.4	X	5.03206	124.44778	127.95899	2.25701	0.1323114	0.23696633	2.5862964	21	5 29.4	19.9
326198 2012 CN_{14}	17.2	X	65.74856	311.37413	339.49848	6.78411	0.1186369	0.26826961	2.3809762	21	11 2.3	20.4
326199 2012 CH_{15}	16.3	X	197.18805	53.88104	131.97956	2.00825	0.1311639	0.17172655	3.2056130	21	10 29.2	21.3
326200 2012 CR_{15}	16.8	X	337.54052	317.12465	218.78888	1.06268	0.0130461	0.21388420	2.7691740	21	1 15.8	20.6
326201 2012 CS_{17}	17.1	X	19.84959	87.56965	150.52014	2.31430	0.0412436	0.24278688	2.5447936	21	6 1.8	20.2
326202 2012 CW_{18}	16.1	X	90.82414	91.01992	356.43570	24.83913	0.1598923	0.22323441	2.6912990	21	3 12.9	19.4
326203 2012 CW_{20}	17.2	X	192.30538	341.87147	194.82646	6.68105	0.0473758	0.27374894	2.3490977	21	11 1.2	20.3
326204 2012 CG_{21}	17.2	X	303.08559	112.41742	319.04390	6.45943	0.0693342	0.27937964	2.3174278	21	11 6.6	19.8
326205 2012 CK_{21}	18.0	X	163.22023	6.66304	173.44619	1.04469	0.1252680	0.26479920	2.4017342	21	9 27.9	21.6
326206 2012 CN_{21}	15.5	X	326.77061	141.77720	283.21716	10.63811	0.0450932	0.18034412	3.1026639	21	11 15.9	19.8
326207 2012 CH_{25}	15.6	X	212.42115	27.81172	246.89825	6.15971	0.2399597	0.19575047	2.9376554	21	—	—
326208 2012 CP_{28}	16.4	X	310.45686	165.76071	313.51935	9.11139	0.0649968	0.18853119	3.0121776	21	—	—
326209 2012 CL_{35}	17.5	X	169.28877	215.94739	333.59657	3.29222	0.1790588	0.26840071	2.3802009	21	10 13.5	21.2
326210 2012 CG_{37}	16.0	X	162.67579	128.56372	150.70312	3.42273	0.0711276	0.18775139	3.0205123	21	—	—
326211 2012 CP_{38}	16.2	X	205.80540	331.87197	201.56426	2.29532	0.0839817	0.17116029	3.2126793	21	10 25.9	20.9
326212 2012 CC_{39}	13.7	X	313.03913	304.30961	157.52819	5.33825	0.0358011	0.08027640	5.3220318	21	11 27.4	20.6
326213 2012 CJ_{39}	18.0	X	236.69056	195.10455	313.31727	1.93739	0.1202940	0.28104460	2.3082662	21	11 8.9	20.9
326214 2012 CM_{39}	16.7	X	212.70661	342.72020	313.34794	3.45550	0.0476001	0.21192796	2.7861888	21	1 12.9	20.8
326215 2012 CA_{41}	17.1	X	38.94910	150.98015	332.92628	3.50504	0.0515140	0.21473758	2.7618326	21	1 30.5	20.5
326216 2012 CC_{42}	16.9	X	320.73017	161.56256	339.98077	4.72139	0.0864809	0.19787203	2.9166195	21	—	—
326217 2012 CK_{42}	16.2	X	329.82586	14.41294	65.81941	2.56312	0.0609190	0.18405236	3.0608482	21	12 11.4	20.3
326218 2012 CX_{43}	17.6	X	161.39522	96.04116	140.82760	3.33477	0.1793765	0.27713795	2.3299077	21	12 6.8	21.3
326219 2012 CM_{44}	17.0	X	23.76143	49.86236	87.37519	3.59832	0.1788707	0.21285685	2.7780771	21	1 21.4	19.7
326220 2012 CM_{47}	17.6	X	217.64770	174.80078	52.30078	4.57645	0.1566264	0.28908899	2.2652441	21	—	—
326221 2012 CD_{50}	16.9	X	174.78077	12.63995	159.02971	2.55423	0.1231523	0.26370899	2.4083490	21	9 29.2	20.5
326222 2012 CQ_{50}	16.3	X	216.75535	343.76856	188.71131	4.22765	0.1486592	0.17358125	3.1827376	21	10 30.9	21.3
326223 2012 DH_1	16.5	X	171.01947	217.94749	154.25619	6.05806	0.0126078	0.21938258	2.7227094	21	2 24.1	20.3
326224 2012 DL_5	16.9	X	325.13515	117.25092	123.34966	4.03680	0.2518091	0.21721727	2.7407735	21	2 15.9	20.2
326225 2012 DW_5	18.1	X	36.59683	104.75368	320.80532	0.21522	0.0470846	0.30287454	2.1959757	21	—	—
326226 2012 DR_6	17.0	X	249.67056	98.80832	14.17065	6.86959	0.0668672	0.27460777	2.3441973	21	10 16.3	19.7
326227 2012 DZ_6	16.5	X	83.16324	240.74076	160.15254	6.35164	0.0899759	0.20516239	2.8471098	21	—	—
326228 2012 DQ_7	16.7	X	313.95461	244.76297	77.39220	5.79245	0.0452603	0.24624685	2.5208999	21	6 19.5	19.7
326229 2012 DY_7	16.3	X	359.34046	29.11503	3.55410	10.75828	0.1467464	0.28402684	2.2920801	21	12 29.2	18.9
326230 2012 DE_8	16.1	X	267.66600	355.06053	151.24689	10.01206	0.0732653	0.17912875	3.1166822	21	12 7.4	20.5
326231 2012 DS_8	17.2	X	119.42522	54.00629	52.00812	6.11283	0.2205963	0.23654918	2.5893361	21	5 16.2	20.9
326232 2012 DS_9	17.2	X	142.60930	291.57301	345.93162	2.98397	0.1487645	0.28415992	2.2913645	21	—	—
326233 2012 DD_{17}	16.1	X	83.49170	278.82028	134.91997	9.16571	0.0800376	0.20453065	2.8529694	21	1 8.2	19.7
326234 2012 DK_{17}	15.8	X	278.58168	331.92270	146.68765	13.35483	0.2513245	0.17909292	3.1170978	21	10 26.2	20.1
326235 2012 DO_{18}	15.5	X	269.34721	136.69127	330.17145	13.40219	0.0664473	0.17192675	3.2031240	21	10 14.3	20.2
326236 2012 DC_{20}	16.6	X	236.21291	78.16011	93.68753	10.79640	0.1024140	0.28179285	2.3041783	21	12 14.6	19.2
326237 2012 DG_{20}	15.6	X	239.34407	31.56266	119.88179	14.97083	0.1448640	0.17147629	3.2087311	21	11 3.7	20.6
326238 2012 DN_{20}	17.7	X	200.14798	241.54252	287.64371	2.14690	0.0889309	0.27273020	2.3549439	21	10 25.4	20.8
326239 2012 DT_{20}	15.9	X	261.69302	320.84029	166.82407	5.48104	0.0857694	0.17534287	3.1613845	21	11 4.9	20.3
326240 2012 DB_{21}	16.6	X	17.18796	339.34645	154.42370	8.60632	0.1590555	0.20897664	2.8123598	21	1 5.4	19.8

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326241 2012 DG_{21}	16.6	X	63.75543	154.60842	17.42917	4.31289	0.1513375	0.23069531	2.6329556	21	5 21.4	19.7
326242 2012 DS_{21}	17.1	X	104.93611	22.18869	143.12197	0.86040	0.0785689	0.24150558	2.5537866	21	6 29.1	20.4
326243 2012 DT_{21}	16.3	X	141.41984	228.80488	161.46861	6.91911	0.0150342	0.21267258	2.7796815	21	2 10.8	20.1
326244 2012 DN_{24}	16.0	X	201.50888	105.53863	149.44090	9.00862	0.1093716	0.18266551	3.0763212	21	—	—
326245 2012 DG_{25}	16.6	X	119.37989	359.53218	120.63075	6.13785	0.1383922	0.23226722	2.6210628	21	5 26.7	20.4
326246 2012 DL_{25}	16.7	X	37.16502	110.55490	46.23810	4.01954	0.1344548	0.21715155	2.7413265	21	3 16.2	19.7
326247 2012 DS_{25}	17.2	X	313.37242	27.59478	67.37351	3.51773	0.1251154	0.28281537	2.2986210	21	—	—
326248 2012 DB_{26}	15.4	X	345.54633	343.90305	152.06630	10.46856	0.0346621	0.19325256	2.9629152	21	—	—
326249 2012 DM_{26}	17.2	X	152.62295	149.00478	137.07153	6.57229	0.1830630	0.28154167	2.3055485	21	—	—
326250 2012 DC_{27}	17.7	X	177.91664	256.62031	305.17954	4.05707	0.1190346	0.27336165	2.3513159	21	11 9.3	21.2
326251 2012 DU_{36}	16.5	X	6.43729	19.82604	158.86127	13.77315	0.0945528	0.21827074	2.7319476	21	2 18.8	19.7
326252 2012 DC_{41}	16.7	X	35.54065	262.84114	168.06748	2.21132	0.0455483	0.19819078	2.9134915	21	—	—
326253 2012 DF_{42}	16.1	X	277.61334	314.22931	153.89296	6.65258	0.0565265	0.17453300	3.1711565	21	11 5.8	20.5
326254 2012 DD_{43}	17.7	X	135.32183	73.97895	150.82816	4.80293	0.1830999	0.26474113	2.4020854	21	10 30.1	21.6
326255 2012 DN_{48}	17.3	X	138.56564	252.91899	352.10134	5.73777	0.1817604	0.26910238	2.3760616	21	11 23.9	21.2
326256 2012 DK_{53}	16.4	X	278.17419	127.92612	139.91608	5.08687	0.0214361	0.21189146	2.7865087	21	2 25.5	20.1
326257 2012 DK_{56}	16.2	X	220.59656	47.54510	272.87377	4.65604	0.0167030	0.21741370	2.7391224	21	2 18.1	20.0
326258 2012 DV_{59}	15.3	X	259.81250	40.70113	95.39915	10.48685	0.0418134	0.17519124	3.1632083	21	11 19.8	19.8
326259 2012 DO_{66}	17.1	X	20.28052	55.21158	147.40542	4.01404	0.0317889	0.22859127	2.6490874	21	4 16.1	20.4
326260 2012 DE_{67}	16.6	X	228.82649	122.81404	144.83351	2.67052	0.0233444	0.20254416	2.8715930	21	—	—
326261 2012 DZ_{75}	15.2	X	214.24836	39.46493	161.21871	26.76925	0.1504740	0.17464058	3.1698541	21	12 3.6	20.6
326262 2012 EP_{1}	16.7	X	268.08768	136.58921	3.22679	0.32367	0.1369151	0.18113437	3.0936331	21	11 19.9	20.9
326263 2741 $P\text{–}L$	15.3	X	82.06467	26.53982	17.10537	20.16037	0.1339472	0.19942740	2.9014349	21	1 3.9	19.3
326264 3488 $T\text{–}3$	17.7	X	42.38280	141.48672	212.09847	0.57616	0.2014928	0.27216194	2.3582208	21	—	—
326265 3494 $T\text{–}3$	17.6	X	59.68435	209.21671	131.52640	0.66483	0.2340191	0.27279847	2.3545509	21	—	—
326266 5087 $T\text{–}3$	16.4	X	135.09117	281.29013	118.89612	8.63929	0.1848164	0.21227695	2.7831342	21	3 12.1	20.7
326267 1993 BG_{8}	15.1	X	86.22924	246.69445	120.15618	17.59418	0.1330897	0.17180697	3.2046125	21	—	—
326268 1993 TT_{2}	18.0	X	242.86958	56.89080	242.01726	3.00226	0.2523374	0.30253055	2.1976400	21	1 27.4	21.6
326269 1994 LL_{4}	17.4	X	153.89297	183.16211	73.08699	6.44000	0.2000396	0.27071850	2.3665958	21	12 21.7	21.4
326270 1994 SO_{7}	18.0	X	141.06734	104.37644	172.14776	3.61324	0.2719729	0.26594644	2.3948221	21	—	—
326271 1995 BK_{14}	15.5	X	164.87619	208.06022	141.79529	13.50234	0.0952532	0.18893070	3.0079298	21	2 1.2	20.1
326272 1995 BG_{15}	16.8	X	247.50831	342.90321	79.90238	2.29319	0.1303084	0.24324572	2.5415924	21	7 25.1	20.2
326273 1995 DP_{7}	15.9	X	199.71346	120.18875	147.34094	5.87910	0.1033274	0.17912954	3.1166731	21	—	—
326274 1995 QM_{14}	17.8	X	118.14503	86.92812	200.99333	5.89324	0.1065721	0.27327040	2.3518394	21	12 28.3	21.3
326275 1995 SR_{34}	17.4	X	79.13819	318.81572	1.08077	7.11546	0.1929214	0.27338592	2.3511768	21	—	—
326276 1995 SE_{43}	17.4	X	177.40202	221.90870	41.16714	3.98040	0.1283942	0.27693625	2.3310388	21	—	—
326277 1995 WS_{28}	16.6	X	205.28628	171.43213	166.93118	4.65709	0.0725800	0.20848859	2.8167471	21	2 25.2	20.6
326278 1996 GA_{16}	17.9	X	276.14312	25.40847	199.66602	4.95125	0.1314008	0.30521765	2.1847225	21	—	—
326279 1996 RE_{7}	16.4	X	323.56177	156.43141	171.69804	13.95993	0.1829689	0.23250366	2.6192856	21	6 25.3	19.5
326280 1996 TU_{27}	16.6	X	109.24268	39.95421	68.41949	6.22556	0.1230424	0.21963079	2.7206577	21	4 28.1	20.3
326281 1996 VT_{11}	17.6	X	91.83809	194.33193	153.81183	5.98273	0.1548526	0.28474205	2.2882403	21	—	—
326282 1996 VN_{25}	16.6	X	34.20115	142.03275	59.65756	5.96664	0.1005005	0.22008731	2.7168942	21	5 9.3	19.6
326283 1996 VZ_{25}	17.6	X	106.37082	179.68953	180.32271	6.92314	0.1437653	0.28718990	2.2752194	21	—	—
326284 1996 XX_{3}	18.1	X	298.84254	26.35204	57.19844	5.03144	0.1916324	0.27519950	2.3408358	21	11 7.4	19.9
326285 1996 XZ_{7}	17.0	X	50.28218	318.52913	87.11936	7.41295	0.1002329	0.28448888	2.2895977	21	—	—
326286 1997 SO_{30}	17.0	X	54.98574	238.67199	20.36465	5.01548	0.0725860	0.24105191	2.5569898	21	8 30.6	20.2
326287 1997 UB_{6}	16.8	X	285.94453	169.64197	214.76540	6.53378	0.1578246	0.24027302	2.5625128	21	7 16.6	20.1
326288 1997 UQ_{9}	15.2	X	90.30616	338.33300	30.75542	18.87166	0.2582550	0.17489691	3.1667562	21	—	—
326289 1997 WY_{6}	15.9	X	133.24796	233.47858	79.55233	5.59334	0.1404882	0.17204361	3.2016734	21	—	—
326290 Akhenaten	21.8	X	309.91051	309.33873	53.44848	3.37877	0.4402513	1.19617164	0.8789019	21	3 31.4	20.1
326291 1998 HM_{3}	19.1	X	113.33507	137.09727	210.81219	39.32970	0.0621686	0.70817074	1.2465529	21	—	—
326292 1998 HR_{3}	16.1	X	299.40349	99.20448	191.56848	16.30255	0.1514186	0.21312028	2.7757874	21	4 2.9	19.9
326293 1998 MH_{6}	17.2	X	123.85976	344.74088	288.15415	6.23151	0.1183942	0.26962683	2.3729795	21	12 15.4	20.7
326294 1998 RE_{31}	17.0	X	67.43334	140.69020	186.54643	9.74100	0.2461742	0.26593570	2.3948866	21	—	—
326295 1998 RU_{31}	15.7	X	94.91909	192.21298	193.91666	9.80425	0.2942469	0.18658039	3.0331372	21	1 22.8	19.9
326296 1998 SC_{44}	17.1	X	356.20661	52.48892	304.40953	1.38479	0.2185432	0.25763101	2.4460798	21	10 31.3	19.1
326297 1998 SQ_{51}	17.6	X	69.85199	3.18991	324.78300	1.43728	0.2237982	0.26408618	2.4060553	21	—	—
326298 1998 SW_{56}	16.9	X	31.61514	2.58825	15.75039	5.52096	0.2301164	0.26490106	2.4011185	21	—	—
326299 1998 SN_{172}	16.4	X	41.02361	60.63891	340.54634	3.00008	0.1300255	0.18210891	3.0825863	21	—	—
326300 1998 TL_{14}	16.4	X	37.95545	215.61827	193.71980	5.28105	0.0993406	0.18133152	3.0913904	21	—	—
326301 1998 TS_{26}	16.7	X	294.96791	10.10080	31.45938	5.70277	0.0793871	0.25276746	2.4773571	21	9 11.2	19.6
326302 1998 VN	20.5	X	273.15567	245.97129	227.93916	12.03307	0.3447842	0.60334047	1.3870573	21	—	—
326303 1998 VY_{31}	16.4	X	354.85190	335.85438	20.40580	13.71741	0.2555044	0.25641599	2.4538009	21	10 29.5	18.2
326304 1998 WO_{26}	16.4	X	136.01844	332.75080	26.01436	2.90495	0.2056394	0.18661321	3.0327815	21	1 26.4	21.0
326305 1998 WK_{40}	17.0	X	51.68163	103.59699	236.52042	1.40241	0.2263740	0.26154465	2.4216172	21	—	—
326306 1998 XY_{4}	16.9	X	119.03998	60.72894	58.07488	30.22421	0.3743795	0.23432132	2.6057226	21	6 10.6	21.7
326307 1998 XE_{10}	16.5	X	323.52547	295.06337	69.29623	10.06047	0.2699907	0.25344141	2.4729633	21	8 15.3	18.5
326308 1999 FS_{73}	16.9	X	250.88610	332.44362	8.06500	12.63423	0.0174286	0.22706917	2.6609125	21	4 20.3	20.6
326309 1999 RF_{2}	17.6	X	165.75865	135.17458	167.70809	2.67166	0.1612753	0.28754033	2.2733704	21	—	—
326310 1999 RO_{153}	17.6	X	130.56143	135.89240	216.26431	4.64049	0.2596592	0.28786754	2.2716474	21	—	—
326311 1999 RL_{162}	16.1	X	242.48670	314.21630	29.22497	10.18769	0.2595202	0.20979211	2.8050673	21	4 1.6	20.9
326312 1999 TG_{69}	17.1	X	41.95640	170.52189	217.84640	5.67464	0.1096195	0.27781772	2.3261056	21	—	—
326313 1999 TJ_{140}	16.2	X	244.44975	134.21751	216.91245	6.92425	0.2347145	0.20942775	2.8083198	21	4 11.1	20.9
326314 1999 TJ_{204}	17.1	X	3.89496	19.38412	13.53353	6.52715	0.2237707	0.27314980	2.3525316	21	—	—
326315 1999 UE_{22}	17.5	X	144.75653	148.03029	168.30988	0.66588	0.2271198	0.28415758	2.2913770	21	—	—
326316 1999 UH_{29}	16.2	X	223.07388	301.52954	34.36263	11.15693	0.1376089	0.20545907	2.8443684	21	3 15.9	20.9
326317 1999 VN_{23}	16.1	X	238.92960	309.61313	58.18017	6.79813	0.4892959	0.21087844	2.7954256	21	4 16.5	21.7
326318 1999 VK_{85}	15.8	X	285.71064	267.08402	76.20737	15.22757	0.4454716	0.21615527	2.7497434	21	4 22.9	20.6
326319 1999 VV_{124}	17.5	X	123.89205	234.82270	76.97676	5.32815	0.1608139	0.27804334	2.3248471	21	—	—
326320 1999 VK_{131}	16.5	X	185.52428	272.03903	44.85145	12.77291	0.0374468	0.19468133	2.9484008	21	1 12.2	21.0

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326321 1999 VT_{180}	16.6	X	147.02029	290.98625	59.07349	23.48253	0.2954481	0.28823997	2.2696902	21	1 22.9	20.4
326322 1999 VW_{205}	17.4	X	326.41314	335.40369	62.28919	2.48705	0.1961853	0.26848852	2.3796819	21	10 27.2	18.9
326323 1999 VY_{210}	15.6	X	74.60438	138.54996	242.56857	15.00301	0.1804828	0.18880214	3.0092951	21	—	—
326324 1999 XP_{69}	17.5	X	21.49935	136.84734	256.07725	3.10749	0.2279618	0.27327891	2.3517905	21	—	—
326325 1999 XL_{217}	16.1	X	281.46195	27.28458	102.65706	7.32692	0.2287571	0.17641914	3.1485136	21	11 14.1	20.1
326326 1999 XN_{223}	15.6	X	8.07892	21.42498	105.20932	11.24391	0.0326371	0.18658600	3.0330763	21	—	—
326327 1999 YR_{8}	15.6	X	88.67170	274.61638	108.04142	10.98203	0.0666328	0.18402524	3.0611489	21	—	—
326328 2000 BO_{9}	15.7	X	214.15240	128.05570	134.18977	15.69565	0.1268254	0.18011662	3.1052758	21	—	—
326329 2000 EY_{15}	15.6	X	115.99494	201.64530	168.06827	12.13884	0.1372954	0.18020655	3.1042427	21	1 9.0	20.2
326330 2000 ES_{72}	17.2	X	182.77842	195.71193	330.50432	2.08337	0.1401111	0.25572994	2.4581874	21	9 27.6	20.9
326331 2000 EA_{99}	16.7	X	162.91906	35.20431	169.39634	7.21182	0.0503172	0.25628560	2.4546330	21	10 31.8	20.2
326332 2000 GS_{146}	17.9	X	168.07192	80.78037	33.68235	46.84758	0.1971787	0.66158776	1.3044008	21	—	—
326333 2000 KX_{4}	16.2	X	20.68357	246.21817	73.41310	11.27669	0.4523711	0.24039763	2.5616272	21	12 2.1	19.0
326334 2000 QK_{7}	16.8	X	4.40280	160.84006	164.68744	13.75668	0.2871206	0.23639636	2.5904518	21	10 9.7	18.8
326335 2000 QF_{63}	16.6	X	296.79464	204.84404	134.67370	13.58082	0.1942840	0.22766458	2.6562712	21	5 29.9	20.3
326336 2000 QU_{93}	16.6	X	17.96800	122.24941	183.20583	11.29659	0.1980187	0.23608690	2.5927150	21	9 21.2	19.2
326337 2000 QC_{145}	16.0	X	332.39189	159.19244	158.79683	18.32778	0.2125914	0.22994104	2.6387103	21	6 24.8	19.1
326338 2000 QM_{197}	16.1	X	350.74237	328.30409	337.11921	7.10731	0.1915273	0.23240100	2.6200569	21	7 21.2	18.4
326339 2000 RZ_{56}	16.8	X	107.42522	127.47248	329.96720	5.80176	0.0076606	0.21525639	2.7573930	21	3 22.4	20.6
326340 2000 RC_{79}	16.1	X	352.19299	132.04176	202.44186	31.26437	0.3178232	0.23209729	2.6223420	21	9 9.7	18.3
326341 2000 RD_{98}	16.4	X	308.36339	91.96843	238.79240	11.30842	0.2898419	0.22827427	2.6515393	21	5 14.8	19.8
326342 2000 RT_{106}	17.2	X	304.26866	208.41135	112.29782	3.45277	0.1592303	0.22714159	2.6603469	21	5 17.9	20.4
326343 2000 SF_{13}	16.7	X	336.06498	182.73016	158.39226	5.34006	0.2961866	0.23365880	2.6106458	21	7 29.6	18.3
326344 2000 SR_{26}	16.7	X	324.04401	139.15517	184.46752	11.28732	0.2031581	0.23023396	2.6364718	21	6 16.6	19.7
326345 2000 SM_{34}	16.3	X	338.74827	168.95761	175.38196	13.49608	0.1596150	0.23298028	2.6157121	21	8 21.9	19.0
326346 2000 SZ_{55}	16.1	X	9.99057	109.97872	189.45134	11.19376	0.1739683	0.23240658	2.6200150	21	8 19.8	18.8
326347 2000 SU_{81}	15.9	X	292.27430	153.80103	181.77997	14.04185	0.1086103	0.22429802	2.6827843	21	5 30.3	19.7
326348 2000 SB_{136}	16.8	X	73.97656	164.85426	230.10002	6.37443	0.1681922	0.29692779	2.2251988	21	—	—
326349 2000 SP_{202}	16.5	X	262.54694	196.23481	183.03938	13.55454	0.1667188	0.22565629	2.6720080	21	6 10.4	20.7
326350 2000 SS_{217}	17.6	X	228.57880	264.17701	70.90225	7.00716	0.2960840	0.31195327	2.1531603	21	3 4.6	21.5
326351 2000 SX_{245}	17.3	X	74.33946	347.44435	47.63302	5.10283	0.1619306	0.29769080	2.2213949	21	—	—
326352 2000 SD_{263}	16.1	X	148.79368	20.55507	28.27085	9.54310	0.2000714	0.21339142	2.7734356	21	4 4.3	20.6
326353 2000 SC_{268}	16.1	X	322.87851	136.04253	194.39474	14.38155	0.1419170	0.22897795	2.6461042	21	7 1.8	19.4
326354 2000 SJ_{344}	22.7	X	7.25284	18.85171	14.74659	5.75509	0.1747424	0.80925312	1.1404593	21	—	—
326355 2000 SA_{347}	16.4	X	9.32872	173.45416	144.65433	14.68589	0.2987007	0.23470446	2.6028860	21	10 14.7	18.8
326356 2000 SP_{361}	16.5	X	256.74815	287.15692	70.31784	6.32822	0.2120515	0.22346846	2.6894196	21	5 2.9	20.8
326357 2000 SH_{367}	16.3	X	304.42674	32.65734	286.03259	12.08028	0.1653373	0.22704667	2.6610883	21	5 10.3	19.9
326358 2000 TV_{35}	16.3	X	115.64260	217.22558	221.32020	8.78151	0.2013429	0.21081569	2.7959802	21	4 5.5	20.5
326359 2000 TD_{41}	16.3	X	134.65751	214.68766	189.75460	8.99133	0.1554029	0.21209758	2.7847032	21	3 9.2	20.4
326360 2000 TE_{51}	16.4	X	322.08348	273.21409	61.19392	13.08769	0.2916012	0.22914313	2.6448324	21	6 11.8	19.1
326361 2000 UX_{5}	17.5	X	105.77134	6.62507	30.29820	7.55214	0.1592041	0.29939987	2.2129332	21	1 6.1	19.7
326362 2000 UD_{19}	15.6	X	276.78239	185.09274	179.37651	18.23234	0.2021991	0.22407218	2.6845866	21	6 3.8	19.8
326363 2000 UW_{81}	16.3	X	224.79578	342.27827	36.96429	14.31134	0.1941496	0.22050585	2.7134551	21	4 30.4	20.7
326364 2000 VC_{2}	16.0	X	290.03935	63.64900	59.98531	21.39649	0.3302750	0.28153905	2.3055628	21	11 29.6	17.2
326365 2000 VR_{19}	16.2	X	147.79310	202.20587	215.10409	8.16811	0.1398164	0.21196718	2.7858451	21	4 6.3	20.4
326366 2000 WV_{21}	16.1	X	300.35394	278.09752	74.08635	12.23056	0.2608559	0.22681551	2.6628961	21	6 6.9	19.2
326367 2000 WU_{30}	15.7	X	285.87975	261.69792	86.67228	12.90703	0.2171262	0.22283311	2.6945292	21	5 22.9	19.5
326368 2000 WE_{63}	15.5	X	338.39245	278.91308	45.56035	28.18304	0.3610009	0.23254602	2.6189675	21	6 17.4	17.8
326369 2000 WO_{74}	17.6	X	16.19521	27.04187	33.40642	7.52722	0.1737004	0.28930386	2.2641224	21	—	—
326370 2000 WW_{74}	17.1	X	101.19954	9.54830	37.37639	6.40545	0.1307563	0.29921994	2.2138203	21	1 8.5	19.2
326371 2000 WN_{120}	16.5	X	88.80345	13.19243	51.28132	7.25078	0.2954658	0.20168131	2.8797776	21	3 6.8	20.3
326372 2000 WF_{184}	17.4	X	14.91379	282.73846	135.24741	3.48899	0.1418775	0.28851905	2.2682263	21	—	—
326373 2000 XT_{14}	16.3	X	264.27245	213.96916	270.05824	24.18311	0.2180224	0.27960737	2.3161693	21	10 22.1	19.7
326374 2000 XO_{15}	16.0	X	250.40132	114.37131	244.99957	7.67745	0.1937697	0.21864148	2.7288584	21	4 28.5	20.3
326375 2001 BP_{53}	17.2	X	217.90077	69.63488	116.48019	7.44803	0.2477360	0.27488608	2.3426148	21	11 21.5	20.8
326376 2001 CE_{7}	17.0	X	245.74712	36.05390	123.48154	5.42158	0.1347824	0.27635209	2.3343226	21	12 5.2	19.7
326377 2001 DX_{22}	16.3	X	281.94823	107.96529	94.60540	2.86757	0.2800076	0.18753290	3.0228579	21	—	—
326378 2001 DK_{79}	15.2	X	91.24078	92.60140	252.30150	10.04079	0.0061735	0.18433015	3.0577722	21	—	—
326379 2001 FM_{58}	15.6	X	288.85916	222.99076	309.99944	14.04194	0.2723100	0.18454770	3.0553687	21	—	—
326380 2001 FG_{74}	15.5	X	277.84240	62.13827	183.64337	14.14114	0.4126031	0.18558004	3.0440272	21	—	—
326381 2001 FS_{175}	16.9	X	272.35064	333.26837	153.51383	22.21016	0.2136276	0.27521643	2.3407398	21	11 22.9	19.9
326382 2001 HQ_{19}	15.9	X	206.78669	68.86885	219.19543	14.46355	0.2190328	0.18005019	3.1060397	21	1 2.5	21.5
326383 2001 HG_{32}	17.4	X	305.61715	121.93688	64.11552	23.64075	0.0571747	0.37893192	1.8913065	21	—	—
326384 2001 HQ_{67}	17.3	X	201.21426	98.07216	103.05154	7.50021	0.2073898	0.27027821	2.3691653	21	11 26.9	20.9
326385 2001 KO_{51}	17.0	X	86.63655	56.07488	238.07702	13.79376	0.2880078	0.26028955	2.4293955	21	12 15.5	21.2
326386 2001 OA_{14}	18.5	X	94.93815	144.40467	309.51821	29.24462	0.4215903	0.86748340	1.0888347	21	—	—
326387 2001 OL_{68}	16.0	X	271.97373	231.90069	139.28591	14.16921	0.2141853	0.23976658	2.5661200	21	6 5.8	19.9
326388 2001 QD_{96}	18.3	X	173.02304	145.77484	330.28697	17.95838	0.4963619	0.68543614	1.2739666	21	7 25.1	20.2
326389 2001 QC_{117}	16.2	X	245.03413	38.64640	332.39271	17.37060	0.2283612	0.23390796	2.6087916	21	4 27.2	20.8
326390 2001 QZ_{133}	16.8	X	237.58493	194.13895	180.56952	17.94906	0.3104301	0.23425465	2.6062169	21	5 1.6	21.6
326391 2001 QE_{203}	16.4	X	226.76767	14.82506	351.23351	5.01967	0.2532555	0.23372123	2.6101809	21	4 11.7	21.0
326392 2001 QW_{204}	16.7	X	235.81211	180.59876	206.36659	6.61449	0.1875581	0.23620850	2.5918252	21	5 20.9	20.8
326393 2001 QX_{265}	16.1	X	247.31121	203.56810	191.41908	29.53759	0.0782985	0.24082320	2.5586085	21	6 21.3	20.4
326394 2001 QS_{327}	16.9	X	302.51039	146.82735	205.57503	11.99318	0.1372315	0.24104737	2.5570219	21	6 29.9	20.2
326395 2001 RM_{24}	16.6	X	199.83327	249.61307	166.33254	11.73679	0.1721987	0.23413386	2.6071133	21	5 26.8	21.1
326396 2001 RZ_{37}	16.5	X	240.27812	213.83706	171.46512	13.06211	0.2854094	0.23595667	2.5936690	21	5 17.8	21.2
326397 2001 RO_{91}	16.6	X	90.65275	286.68611	154.45479	7.06925	0.4144537	0.21710718	2.7416999	21	4 13.0	20.5
326398 2001 RH_{97}	16.6	X	209.52523	73.46902	340.87916	2.97276	0.1407922	0.23561442	2.5961800	21	5 31.9	20.7
326399 2001 RJ_{115}	16.9	X	269.11197	15.25861	2.67206	6.05875	0.1130452	0.23931294	2.5693618	21	6 23.1	20.5
326400 2001 SH_{67}	16.5	X	148.93790	192.15494	190.62012	8.99714	0.2923606	0.21986025	2.7187643	21	3 7.9	21.1

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		°	°	°	°		°				
326401 2001 SP_{100}	17.1	X	2.85651	119.56998	189.56679	12.10019	0.0566743	0.24303727	2.5430455	21	8 13.7	20.4
326402 2001 SB_{119}	16.5	X	171.73606	101.73728	200.73172	10.87576	0.3549703	0.16878891	3.2427001	21	1 1.4	22.6
326403 2001 SQ_{128}	17.2	X	324.98339	162.43930	176.24906	16.44823	0.2037806	0.24300164	2.5432941	21	7 9.7	20.1
326404 2001 SW_{136}	17.0	X	292.80916	173.28123	188.43307	14.42508	0.1604731	0.23962000	2.5671663	21	6 25.0	20.5
326405 2001 SL_{137}	17.3	X	220.47709	72.37222	310.27714	1.02687	0.2306351	0.23160866	2.6260290	21	4 28.8	21.7
326406 2001 SK_{146}	16.7	X	70.10503	78.43207	0.27232	25.38993	0.3323920	0.21473702	2.7618374	21	3 4.1	19.7
326407 2001 SO_{171}	16.6	X	252.82124	27.58178	20.97604	7.42019	0.1084787	0.23953339	2.5677851	21	7 16.5	20.2
326408 2001 SQ_{177}	16.2	X	295.35045	351.60442	33.31060	15.03630	0.1397167	0.24073346	2.5592443	21	8 13.7	19.6
326409 2001 SG_{205}	15.6	X	113.24380	127.79345	173.04412	16.69655	0.1153770	0.15831329	3.3842138	21	12 20.8	21.1
326410 2001 SM_{211}	16.8	X	322.18935	335.37424	4.42216	13.69763	0.1864236	0.24179622	2.5517397	21	7 14.1	19.7
326411 2001 SV_{219}	16.7	X	305.77720	166.34470	180.31397	14.67410	0.0865795	0.23952736	2.5678282	21	7 4.9	20.2
326412 2001 SW_{229}	16.9	X	273.55755	332.22384	30.14070	5.60811	0.1511856	0.23628688	2.5912519	21	5 31.9	20.5
326413 2001 SU_{323}	16.9	X	197.56728	60.61636	335.43885	11.49488	0.2750902	0.22870698	2.6481938	21	4 22.5	21.9
326414 2001 SB_{326}	16.2	X	200.83573	66.68416	354.09294	29.34975	0.0811254	0.23399938	2.6081120	21	5 22.7	20.8
326415 2001 SK_{326}	16.5	X	241.93211	202.33167	198.94511	6.14546	0.1125496	0.23920727	2.5701184	21	6 21.0	20.3
326416 2001 SV_{342}	16.8	X	138.97635	297.79011	185.35601	13.15765	0.2158401	0.23137500	2.6277967	21	6 25.1	21.4
326417 2001 TN_{12}	16.2	X	194.90337	17.90610	33.36676	14.03502	0.1851145	0.22814117	2.6525705	21	5 12.1	20.7
326418 2001 TH_{27}	16.8	X	262.29335	167.71762	217.50458	11.12229	0.1768575	0.23622189	2.5917272	21	6 15.3	20.6
326419 2001 TO_{30}	16.2	X	243.15592	335.78353	48.61339	16.10194	0.1728499	0.23332784	2.6131139	21	5 23.5	20.3
326420 2001 TS_{54}	16.5	X	211.47326	206.18832	204.09278	16.12630	0.2361713	0.23279222	2.6171207	21	5 26.7	21.2
326421 2001 TU_{76}	16.8	X	224.58497	354.67214	41.56640	3.62484	0.2681102	0.23134739	2.6280057	21	5 17.2	21.2
326422 2001 TN_{99}	16.9	X	358.51226	81.57327	253.73240	3.46499	0.1647490	0.24479121	2.5308836	21	9 21.9	19.4
326423 2001 TT_{111}	15.9	X	174.17146	201.81001	229.65373	14.71088	0.1209537	0.22820357	2.6520870	21	5 19.8	19.9
326424 2001 TA_{130}	17.1	X	58.76657	33.04287	215.43324	3.53177	0.0176754	0.23869040	2.5738273	21	8 9.1	20.4
326425 2001 TJ_{155}	17.4	X	254.25640	153.30049	213.05249	3.00353	0.2056012	0.23269310	2.6178638	21	5 10.6	21.4
326426 2001 TO_{156}	17.3	X	173.92388	22.89170	31.51806	4.37146	0.1081182	0.22772874	2.6557722	21	4 26.8	21.1
326427 2001 TT_{158}	16.7	X	203.82438	249.49667	194.49707	11.54144	0.1375652	0.23589104	2.5941500	21	7 2.9	21.0
326428 2001 TW_{165}	16.5	X	246.56219	9.00121	22.47764	13.53252	0.1964198	0.23398854	2.6081926	21	6 1.7	20.8
326429 2001 TF_{207}	16.3	X	92.24696	206.54812	16.10137	11.60302	0.1425284	0.24208371	2.5497191	21	9 11.8	20.0
326430 2001 TY_{240}	16.1	X	150.49051	64.70609	28.96197	14.14625	0.0659180	0.22715239	2.6602626	21	5 15.9	20.1
326431 2001 TM_{250}	16.3	X	142.69886	114.40646	24.07045	14.27126	0.0414330	0.23633913	2.5908700	21	7 8.4	20.2
326432 2001 UG_{34}	16.2	X	250.20012	281.90470	90.72548	7.31949	0.3024095	0.23363703	2.6108080	21	5 8.4	20.7
326433 2001 UF_{48}	16.6	X	160.54781	7.21583	58.12424	8.75073	0.2315310	0.22472786	2.6793623	21	5 5.2	21.2
326434 2001 UQ_{66}	16.8	X	269.61714	127.05251	244.41287	8.96600	0.1613516	0.23606861	2.5928490	21	6 7.9	20.3
326435 2001 UO_{99}	17.1	X	9.16580	259.18855	72.45763	4.60516	0.2248494	0.24572877	2.5244419	21	10 21.4	19.4
326436 2001 UK_{122}	15.9	X	99.66456	223.99241	224.97963	34.45482	0.2392457	0.21742370	2.7390384	21	4 3.2	20.1
326437 2001 UB_{145}	17.1	X	70.92175	44.19534	44.95720	10.82766	0.3023239	0.21362603	2.7714046	21	3 12.7	20.2
326438 2001 UT_{179}	15.8	X	284.24016	317.02044	51.49255	29.74826	0.0751677	0.23730477	2.5838367	21	7 4.5	19.7
326439 2001 UO_{202}	17.0	X	144.73222	157.69439	282.06732	3.36309	0.1233139	0.22488721	2.6780965	21	4 28.6	21.0
326440 2001 UZ_{206}	16.2	X	158.79280	44.37668	61.57470	14.11387	0.2215404	0.22957826	2.6414894	21	6 20.4	20.8
326441 2001 UV_{228}	16.5	X	161.90929	353.85754	86.96183	11.72993	0.1262441	0.22684299	2.6626810	21	5 21.4	20.7
326442 2001 VF	15.5	X	76.15727	333.36194	104.12534	29.92408	0.2738822	0.21390372	2.7690056	21	3 3.4	19.2
326443 2001 VT_{21}	16.5	X	213.46979	175.86910	227.57459	11.98062	0.2254352	0.22976611	2.6400495	21	5 19.7	20.9
326444 2001 VJ_{25}	16.5	X	262.13102	336.10282	50.43845	8.65083	0.1952345	0.23439857	2.6051501	21	6 14.1	20.5
326445 2001 VT_{50}	16.3	X	143.72430	171.03830	276.42243	7.52242	0.2225691	0.22451818	2.6810302	21	5 15.4	20.8
326446 2001 VK_{63}	16.7	X	246.53758	114.83273	276.40189	3.06263	0.2730177	0.23363750	2.6108045	21	5 28.3	20.9
326447 2001 VM_{64}	16.5	X	163.60821	65.52218	340.68362	3.42384	0.2250742	0.22298449	2.6933096	21	4 12.1	21.1
326448 2001 VA_{83}	15.8	X	143.18273	214.60554	226.22048	21.35418	0.0603882	0.22627123	2.6671646	21	4 21.8	19.7
326449 2001 VP_{89}	15.9	X	291.27363	77.54661	253.28881	11.19988	0.1942191	0.23362864	2.6108705	21	5 5.1	19.6
326450 2001 VZ_{92}	16.7	X	172.37866	240.32783	152.84883	9.18321	0.2558420	0.22281339	2.6946882	21	4 8.6	21.4
326451 2001 VE_{107}	16.8	X	297.89326	316.32874	32.89273	5.26885	0.2422889	0.23654991	2.5893307	21	6 1.2	20.1
326452 2001 VV_{133}	16.9	X	37.78026	98.44833	179.96318	14.20994	0.1011224	0.23945576	2.5683401	21	9 1.0	20.1
326453 2001 WR_{24}	16.7	X	278.21595	129.93242	238.96590	5.04328	0.1094486	0.23419831	2.6066350	21	6 23.2	20.2
326454 2001 WV_{27}	16.3	X	261.78810	333.47606	68.18232	13.79758	0.1495178	0.23548092	2.5971612	21	7 11.3	20.1
326455 2001 WL_{53}	16.9	X	265.00147	337.52550	41.68062	5.28185	0.0728237	0.23446316	2.6046716	21	6 25.5	20.4
326456 2001 WU_{97}	16.9	X	223.75463	189.68021	222.39181	3.05735	0.1275240	0.23149520	2.6268870	21	6 14.0	21.0
326457 2001 XZ_{23}	16.3	X	101.12168	50.48157	54.54820	8.57522	0.1694456	0.21626504	2.7488128	21	4 21.1	20.0
326458 2001 XN_{36}	16.2	X	320.02584	335.37884	29.46203	10.40567	0.2798220	0.24061532	2.5600819	21	8 3.9	18.6
326459 2001 XC_{92}	16.6	X	184.55683	148.25128	258.34452	3.43119	0.1068896	0.22519593	2.6756483	21	4 27.4	20.6
326460 2001 XZ_{109}	16.5	X	161.51739	327.87624	76.88068	13.83727	0.1837928	0.22263756	2.6961068	21	4 14.1	21.1
326461 2001 XT_{116}	16.6	X	87.05098	45.91188	67.11438	10.70831	0.2482147	0.21601580	2.7509268	21	4 26.6	20.3
326462 2001 XG_{153}	16.3	X	313.29783	169.09822	103.79521	6.14333	0.0116859	0.22146462	2.7056180	21	4 20.8	19.9
326463 2001 XA_{219}	16.1	X	21.20431	247.47108	48.07000	13.49419	0.1734259	0.23951122	2.5679436	21	9 18.5	19.0
326464 2001 YL_{31}	16.0	X	58.05673	278.91284	259.38614	7.72146	0.0969304	0.22289178	2.6940563	21	5 13.6	19.3
326465 2001 YE_{61}	16.7	X	103.09551	131.09724	298.71513	6.71991	0.2098614	0.21435330	2.7651324	21	3 10.2	20.5
326466 2001 YG_{117}	16.1	X	119.87178	349.76863	102.85276	15.16606	0.1424813	0.21693810	2.7431243	21	4 28.8	20.4
326467 2001 YW_{124}	16.2	X	103.28028	182.33872	287.24855	11.71255	0.1104392	0.21926364	2.7236939	21	4 12.8	20.2
326468 2002 AF_{33}	16.4	X	135.18770	295.01969	118.70339	8.83794	0.1559371	0.21525072	2.7574415	21	3 26.1	20.6
326469 2002 AL_{54}	16.3	X	51.32967	25.97406	125.27434	9.83203	0.0928059	0.21451211	2.7637675	21	4 1.6	19.8
326470 2002 AS_{81}	16.4	X	70.55674	326.07186	132.25261	9.43060	0.2905230	0.21219533	2.7838479	21	3 20.4	19.5
326471 2002 AT_{126}	16.9	X	104.52423	331.12435	141.66495	5.56253	0.1203056	0.21725101	2.7404897	21	4 28.4	20.7
326472 2002 AK_{138}	16.4	X	249.70589	270.25418	120.23040	17.66495	0.2301599	0.23007808	2.6376625	21	6 6.9	20.8
326473 2002 AY_{157}	16.4	X	71.02175	6.39678	136.82278	8.49571	0.1266793	0.21434786	2.7651792	21	4 25.2	19.9
326474 2002 AY_{168}	16.5	X	93.87628	326.65082	129.32074	8.80488	0.1882130	0.21456554	2.7633087	21	4 4.8	20.2
326475 2002 AL_{173}	16.9	X	52.58939	14.64870	104.37760	3.04261	0.2000892	0.20987441	2.8043339	21	2 27.1	19.6
326476 2002 AQ_{173}	16.2	X	109.02133	5.73845	117.59389	8.78879	0.0725389	0.21804056	2.7338700	21	5 11.9	20.1
326477 2002 AX_{209}	16.8	X	162.35757	284.80206	158.30033	14.46171	0.0749987	0.22671938	2.6636488	21	5 23.3	21.0
326478 2002 BN_{2}	16.6	X	313.95975	183.93178	137.48342	7.13699	0.0841631	0.22588934	2.6701698	21	6 14.4	20.0
326479 2002 CP_{8}	16.4	X	35.43043	37.53815	142.57676	8.67943	0.1543711	0.21365039	2.7711939	21	4 18.9	19.4
326480 2002 CN_{48}	16.2	X	122.69995	198.66196	250.12355	8.57131	0.1558739	0.21553643	2.7550042	21	4 19.4	20.3

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326481 2002 CH_{54}	15.6	X	24.11337	21.58825	151.47531	9.98708	0.0909422	0.20957405	2.8070127	21	3 16.1	19.0
326482 2002 CQ_{61}	16.0	X	44.59846	36.74672	106.99039	14.52137	0.1498253	0.21014628	2.8019147	21	3 19.3	19.4
326483 2002 CR_{173}	15.9	X	257.33577	28.78630	132.37491	9.79570	0.1714123	0.18999359	2.9967010	21	12 1.2	20.2
326484 2002 CK_{189}	16.7	X	102.55873	79.68651	20.30995	1.70551	0.1574204	0.21471294	2.7620439	21	4 12.6	20.5
326485 2002 EQ_{6}	18.5	X	299.21087	109.54125	357.04372	5.69790	0.2002641	0.29031932	2.2588398	21	12 20.4	20.1
326486 2002 EJ_{40}	15.8	X	55.40044	310.80649	169.77298	12.29214	0.0278171	0.20541755	2.8447516	21	2 16.6	19.6
326487 2002 EC_{51}	16.8	X	144.28596	266.55895	157.99384	4.75989	0.0661686	0.21512124	2.7585478	21	4 6.5	20.7
326488 2002 GU_{2}	17.4	X	177.48205	80.26753	196.43133	21.19502	0.3030157	0.28630208	2.2799206	21	—	—
326489 2002 GJ_{29}	16.8	X	27.74644	15.88419	166.62146	7.19167	0.0345831	0.21082409	2.7959060	21	4 1.9	20.4
326490 2002 GB_{87}	15.6	X	268.84910	100.03511	166.31477	9.85169	0.0616640	0.20021275	2.8938426	21	2 7.6	19.8
326491 2002 GE_{98}	17.3	X	303.80877	323.19590	205.63223	5.24184	0.0660852	0.29549986	2.2323615	21	—	—
326492 2002 GR_{172}	17.9	X	253.63663	54.65428	194.42142	9.36681	0.1321431	0.29771498	2.2212746	21	—	—
326493 2002 GG_{173}	17.2	X	299.99781	68.52311	125.07576	2.77790	0.0886335	0.29829999	2.2183695	21	—	—
326494 2002 GX_{184}	18.0	X	242.85996	244.57598	40.87814	5.07587	0.1271778	0.30193548	2.2005266	21	1 15.4	21.3
326495 2002 HN_{7}	16.3	X	210.78121	86.95202	190.96997	5.65922	0.0663949	0.19226236	2.9730796	21	—	—
326496 2002 HU_{8}	16.4	X	257.23383	118.13363	47.44965	6.34379	0.2682772	0.18798576	3.0180012	21	11 20.0	20.8
326497 2002 JG_{4}	16.7	X	283.31125	133.37753	101.49303	25.46166	0.2120250	0.29816890	2.2190197	21	—	—
326498 2002 JE_{10}	16.9	X	199.78416	235.37695	65.91226	10.99496	0.2824011	0.29351260	2.2424265	21	1 1.4	20.8
326499 2002 JJ_{65}	16.1	X	200.85950	37.89621	224.93850	8.32368	0.2530501	0.18454821	3.0553631	21	—	—
326500 2002 JJ_{85}	17.7	X	216.01292	206.84849	44.16145	3.99768	0.1636098	0.29065151	2.2571184	21	—	—
326501 2002 JD_{128}	17.4	X	269.42861	43.68565	167.25196	5.56044	0.1359643	0.29419132	2.2389762	21	—	—
326502 2002 JF_{138}	16.1	X	265.64910	64.54980	230.07585	7.81075	0.2187681	0.19832643	2.9121628	21	2 21.1	21.0
326503 2002 JE_{140}	16.3	X	249.61267	36.86741	260.85392	5.76587	0.2855954	0.19541875	2.9409788	21	2 9.1	21.5
326504 2002 KK_{16}	15.7	X	162.17671	243.91206	74.67996	10.79443	0.1292970	0.18137076	3.0909445	21	—	—
326505 2002 LV_{5}	17.3	X	223.12082	240.00582	37.01021	1.61199	0.1803602	0.29317888	2.2441278	21	—	—
326506 2002 LB_{45}	15.8	X	251.92515	335.99886	213.45532	22.16281	0.1998092	0.18643064	3.0347612	21	12 19.9	20.4
326507 2002 LB_{54}	17.4	X	166.85257	133.17990	178.96098	7.81966	0.1937625	0.28809752	2.2704383	21	—	—
326508 2002 LR_{61}	15.8	X	187.45495	182.15791	132.79663	11.20534	0.0962407	0.18995741	2.9970816	21	1 13.9	20.5
326509 2002 LQ_{62}	15.4	X	135.34348	70.49577	226.34180	25.87465	0.2292621	0.17829796	3.1263562	21	—	—
326510 2002 MH_{6}	15.9	X	200.10255	153.30932	127.45732	13.18227	0.0616450	0.18147559	3.0897541	21	—	—
326511 2002 NQ_{6}	17.5	X	20.43346	198.73586	157.90902	1.77269	0.2045769	0.26816972	2.3815674	21	12 16.4	20.1
326512 2002 NS_{6}	16.5	X	134.12495	193.62778	154.82406	2.16148	0.1687958	0.17944925	3.1129701	21	1 8.7	21.1
326513 2002 NB_{30}	15.8	X	251.26151	130.20952	116.31655	10.68383	0.1519689	0.18623384	3.0368988	21	—	—
326514 2002 NT_{39}	15.3	X	196.56273	319.51469	307.65304	9.28653	0.1171454	0.18001498	3.1064446	21	—	—
326515 2002 NB_{48}	17.2	X	151.42452	210.41592	108.89573	10.98467	0.2414576	0.28342618	2.2953173	21	—	—
326516 2002 NS_{48}	15.9	X	207.48336	174.49413	126.93863	10.00075	0.2326118	0.18513991	3.0488498	21	1 19.3	21.2
326517 2002 NW_{50}	15.7	X	184.72590	239.60885	87.07366	12.80390	0.1971899	0.18483801	3.0521686	21	2 1.1	20.9
326518 2002 NW_{54}	16.3	X	174.57583	230.32676	92.77797	5.39636	0.2149844	0.18273409	3.0755514	21	1 19.6	21.4
326519 2002 NR_{60}	18.1	X	174.37497	3.81347	278.04431	1.90772	0.1810871	0.28280498	2.2986773	21	—	—
326520 2002 NP_{62}	15.5	X	222.80051	176.20968	108.28234	11.67821	0.1604136	0.18598259	3.0396333	21	1 12.6	20.5
326521 2002 NZ_{63}	17.6	X	210.17527	132.49683	98.29884	3.67250	0.1779791	0.28315462	2.2967847	21	—	—
326522 2002 NS_{64}	17.3	X	118.35461	347.26956	328.31689	2.41855	0.2468880	0.27876072	2.3208567	21	—	—
326523 2002 NC_{70}	16.1	X	162.68117	43.61740	243.92986	6.46180	0.1621975	0.17724787	3.1386920	21	—	—
326524 2002 NV_{70}	15.6	X	218.00165	99.91774	138.61000	10.71503	0.0531930	0.17902545	3.1178810	21	—	—
326525 2002 NF_{76}	16.3	X	140.37306	121.00868	202.80976	8.26678	0.1150358	0.17732700	3.1377581	21	—	—
326526 2002 OF_{6}	16.0	X	219.20530	70.66526	225.29444	7.55165	0.1614878	0.18571025	3.0426043	21	1 20.6	21.1
326527 2002 OM_{7}	16.0	X	192.34564	110.72842	172.31587	16.78041	0.1939295	0.17938415	3.1137232	21	—	—
326528 2002 OP_{8}	15.4	X	171.38621	337.53480	302.31385	16.33900	0.1483455	0.17718703	3.1394104	21	—	—
326529 2002 OE_{9}	17.1	X	48.17380	174.75743	184.11974	4.98116	0.2162466	0.27168943	2.3609542	21	—	—
326530 2002 OA_{19}	17.9	X	187.38987	128.19457	181.44146	7.76927	0.2413901	0.28766520	2.2727125	21	—	—
326531 2002 OO_{19}	16.7	X	36.92205	222.63628	147.51290	13.26257	0.1682945	0.27171182	2.3608244	21	—	—
326532 2002 OX_{19}	18.0	X	168.95293	172.30409	138.85723	6.19413	0.2452571	0.28446866	2.2897062	21	—	—
326533 2002 OC_{26}	15.5	X	173.05990	189.69710	129.67813	13.48730	0.1314903	0.18051129	3.1007480	21	1 9.1	20.4
326534 2002 OR_{29}	17.6	X	72.47740	247.32046	92.87606	2.34655	0.2093090	0.27332112	2.3515484	21	—	—
326535 2002 OU_{33}	17.0	X	165.07904	2.92834	275.28024	5.16612	0.1248455	0.27941548	2.3172296	21	—	—
326536 2002 OU_{35}	15.8	X	226.33042	300.94522	258.40308	9.79167	0.1031645	0.17387131	3.1791970	21	12 15.1	20.4
326537 2002 OR_{36}	15.9	X	280.07518	3.25356	146.67569	9.77024	0.0464404	0.17428447	3.1741705	21	12 28.5	20.4
326538 2002 PO_{1}	15.4	X	117.13641	198.87804	152.64433	17.70554	0.2566899	0.17648598	3.1477187	21	1 5.9	20.3
326539 2002 PF_{4}	15.8	X	171.84773	106.37222	194.85715	8.60078	0.1079869	0.17988326	3.1079609	21	—	—
326540 2002 PV_{9}	15.1	X	134.07173	341.04984	308.21216	25.73296	0.1372362	0.17237849	3.1975253	21	—	—
326541 2002 PX_{11}	15.9	X	172.71199	123.34643	189.73903	10.02109	0.1093716	0.18165370	3.0877341	21	—	—
326542 2002 PC_{17}	16.4	X	152.45867	167.77902	171.72935	4.05749	0.1452131	0.18148617	3.0896339	21	1 13.3	21.2
326543 2002 PQ_{18}	15.3	X	153.23076	189.58125	142.18531	10.99846	0.0631986	0.18102104	3.0949242	21	—	—
326544 2002 PT_{22}	17.4	X	94.30379	32.97778	290.00282	3.38179	0.2615018	0.27495918	2.3421996	21	—	—
326545 2002 PS_{32}	15.3	X	107.16153	223.98325	144.56750	17.14429	0.2238860	0.17605035	3.1529091	21	1 10.7	19.9
326546 2002 PR_{36}	15.8	X	197.21519	355.59541	284.39022	4.10545	0.1361551	0.17965021	3.1106482	21	—	—
326547 2002 PV_{47}	16.7	X	42.08218	208.84149	179.16048	12.73106	0.2081342	0.27216941	2.3581776	21	—	—
326548 2002 PM_{68}	17.5	X	102.58958	151.17225	173.98436	5.25841	0.1578293	0.27598910	2.3363690	21	—	—
326549 2002 PZ_{70}	16.0	X	145.00542	144.96704	182.84543	16.70713	0.3261062	0.17617990	3.1513633	21	1 8.6	21.6
326550 2002 PC_{73}	15.5	X	211.17759	329.63739	274.59247	17.64598	0.2259421	0.18022143	3.1040718	21	—	—
326551 2002 PM_{76}	15.7	X	126.48655	84.44420	254.79436	9.08922	0.0821755	0.17771819	3.1331520	21	—	—
326552 2002 PP_{77}	15.2	X	161.93793	226.48391	95.69864	10.09784	0.1448058	0.17886525	3.1197423	21	1 3.4	20.1
326553 2002 PJ_{101}	15.7	X	156.70738	42.60089	261.88003	11.15916	0.1502893	0.17788366	3.1312086	21	—	—
326554 2002 PZ_{118}	15.8	X	148.02668	126.84165	212.69044	4.54310	0.2411038	0.17838016	3.1253958	21	1 17.7	20.9
326555 2002 PE_{122}	15.4	X	191.28299	104.86366	178.34384	14.72389	0.1733459	0.17879894	3.1205137	21	—	—
326556 2002 PR_{135}	15.4	X	165.67398	160.04583	146.61033	18.60922	0.2071476	0.17797321	3.1301582	21	—	—
326557 2002 PM_{156}	16.4	X	165.15139	161.45886	151.53753	1.17884	0.1606073	0.17946367	3.1128033	21	—	—
326558 2002 PP_{165}	16.0	X	173.34190	132.47056	151.95651	9.90403	0.0611064	0.17567071	3.1574500	21	—	—
326559 2002 PG_{166}	16.2	X	112.28217	288.50095	50.03822	1.84492	0.1548190	0.17344309	3.1844276	21	—	—
326560 2002 PS_{166}	17.8	X	149.78746	184.80281	120.44112	6.90982	0.2619754	0.27952583	2.3166197	21	—	—

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	m		°	°	°	°		°				
326561 2002 PZ_{174}	16.0	X	110.36099	235.18239	83.08326	6.48954	0.1406014	0.17187370	3.2037831	21	—	—
326562 2002 PD_{175}	16.0	X	178.87884	210.96251	81.10518	6.70701	0.1146833	0.17889242	3.1194264	21	—	—
326563 2002 PT_{176}	16.0	X	183.86902	152.12604	146.14636	11.42958	0.1160768	0.18062032	3.0995000	21	—	—
326564 2002 PU_{176}	15.7	X	217.75939	16.69005	219.81723	9.44530	0.0536836	0.17718751	3.1394048	21	—	—
326565 2002 PN_{180}	15.8	X	135.89039	343.03508	317.45962	17.11549	0.1009435	0.17345873	3.1842362	21	—	—
326566 2002 PB_{186}	15.7	X	205.67351	111.39057	172.59292	10.37360	0.0848406	0.18152675	3.0891734	21	—	—
326567 2002 PJ_{195}	16.1	X	203.52748	157.37730	129.81297	13.80990	0.1861056	0.18302734	3.0722654	21	—	—
326568 2002 PE_{196}	15.6	X	184.66333	187.49130	109.83169	11.72891	0.1223670	0.17910089	3.1170054	21	—	—
326569 2002 QN_{1}	15.4	X	145.74940	210.17544	130.91493	13.67228	0.1259883	0.17942304	3.1132733	21	1 7.4	20.1
326570 2002 QD_{11}	17.2	X	68.50921	193.59400	150.46175	6.75004	0.2500302	0.27319893	2.3522495	21	—	—
326571 2002 QT_{16}	15.7	X	71.20467	202.95570	188.70169	13.11057	0.0944721	0.17393059	3.1784746	21	—	—
326572 2002 QD_{22}	17.9	X	165.54289	132.00395	162.35716	6.80754	0.1245545	0.28130009	2.3068683	21	—	—
326573 2002 QG_{30}	17.6	X	176.74907	154.68757	108.94986	2.88849	0.1896976	0.28018562	2.3129815	21	—	—
326574 2002 QO_{33}	17.6	X	350.62509	328.29319	37.57891	3.41051	0.2119698	0.26284622	2.4136163	21	11 2.8	19.1
326575 2002 QY_{35}	17.0	X	333.33102	17.71940	358.83124	10.95262	0.2052566	0.26103275	2.4247821	21	10 4.1	18.6
326576 2002 QB_{45}	15.5	X	178.05174	187.63601	129.67253	16.73527	0.2387002	0.18069175	3.0986831	21	1 16.4	20.8
326577 2002 QQ_{56}	15.7	X	189.93291	115.10577	144.29222	11.79752	0.0590966	0.17470787	3.1690401	21	—	—
326578 2002 QB_{62}	17.5	X	139.24847	335.50526	324.84242	4.09823	0.1501701	0.27797576	2.3252239	21	—	—
326579 2002 QB_{70}	15.5	X	160.05011	103.73195	159.79436	11.13896	0.0693350	0.17115533	3.2127414	21	12 23.9	20.5
326580 2002 QM_{71}	16.3	X	174.15542	27.67517	300.96149	0.77942	0.2556487	0.18114262	3.0935391	21	1 27.1	21.5
326581 2002 QA_{88}	15.4	X	154.28712	104.24995	155.89041	9.60059	0.0502299	0.16927921	3.2364356	21	12 14.6	20.3
326582 2002 QO_{90}	17.3	X	89.51198	287.26895	52.74994	5.77417	0.1238312	0.27453668	2.3446020	21	—	—
326583 2002 QY_{94}	17.5	X	100.45376	302.70527	28.76834	2.63663	0.2305200	0.27592808	2.3367134	21	—	—
326584 2002 QQ_{95}	17.7	X	121.43363	226.36572	91.36020	3.59721	0.1827160	0.27756544	2.3275148	21	—	—
326585 2002 QO_{101}	16.1	X	202.26327	162.92090	102.37498	6.12186	0.0994281	0.17807068	3.1290159	21	—	—
326586 2002 QA_{104}	16.3	X	131.17140	159.25316	177.08895	10.52106	0.2060063	0.17568801	3.1572427	21	—	—
326587 2002 QD_{107}	15.7	X	132.93021	197.84307	141.26367	12.19215	0.1394845	0.17703472	3.1412108	21	—	—
326588 2002 QL_{108}	17.8	X	38.74473	230.08936	154.71440	2.36812	0.0828301	0.27457063	2.3444087	21	—	—
326589 2002 QR_{115}	15.3	X	152.27788	209.23634	114.85424	11.49729	0.0755749	0.17807749	3.1289361	21	—	—
326590 2002 QQ_{122}	16.0	X	164.72573	136.32618	178.37492	28.17064	0.2630474	0.17820058	3.1274951	21	1 4.5	21.8
326591 2002 QF_{125}	15.4	X	171.77892	164.13718	134.74902	17.54406	0.2069685	0.17742009	3.1366605	21	—	—
326592 2002 QN_{129}	16.8	X	285.21207	111.66563	317.40907	6.50609	0.1053684	0.26254719	2.4154486	21	9 26.8	19.6
326593 2002 QJ_{133}	15.2	X	173.43106	157.36511	146.25606	10.89506	0.0369562	0.17849756	3.1240252	21	—	—
326594 2002 QP_{142}	16.1	X	189.39952	117.23072	186.03953	16.88100	0.2088247	0.18035412	3.1025492	21	1 6.7	21.6
326595 2002 QK_{145}	15.7	X	114.58765	238.67305	116.95810	11.78525	0.0390529	0.17597537	3.1538047	21	—	—
326596 2002 QB_{146}	16.2	X	200.23909	186.74484	84.75597	2.74939	0.0851674	0.17869067	3.1217741	21	—	—
326597 2002 RF	16.9	X	22.98260	287.75276	56.70799	10.65064	0.2950135	0.26494915	2.4008279	21	12 16.6	19.7
326598 2002 RH_{4}	16.2	X	198.06360	94.46959	196.18621	15.92301	0.2127810	0.18100918	3.0950594	21	—	—
326599 2002 RY_{4}	15.3	X	102.16059	104.23956	227.38271	12.02662	0.0913757	0.17000923	3.2271641	21	—	—
326600 2002 RO_{5}	16.8	X	191.58601	92.64496	329.66369	15.65304	0.3137260	0.24274395	2.5450937	21	5 20.2	21.8
326601 2002 RL_{8}	17.9	X	149.07331	108.78252	218.44288	1.81554	0.2470694	0.28199796	2.3030608	21	—	—
326602 2002 RU_{12}	16.7	X	18.17719	24.56214	357.05461	5.23914	0.2197471	0.26695696	2.3887749	21	—	—
326603 2002 RC_{26}	17.6	X	129.85300	18.30261	292.29765	3.38440	0.2105091	0.27742059	2.3283249	21	—	—
326604 2002 RD_{30}	15.8	X	155.83434	123.74664	199.51075	8.84276	0.2369083	0.17710308	3.1404024	21	1 5.5	21.2
326605 2002 RW_{31}	15.1	X	142.55454	314.42561	341.15977	22.48490	0.1407607	0.17118620	3.2123551	21	—	—
326606 2002 RR_{37}	17.9	X	126.77212	117.66216	197.66405	4.46249	0.2190455	0.27769717	2.3267787	21	—	—
326607 2002 RH_{50}	15.5	X	172.38664	303.37719	23.31724	5.94493	0.2428507	0.17903607	3.1177576	21	1 24.9	20.9
326608 2002 RS_{52}	17.1	X	64.41182	328.22296	36.78921	4.17306	0.2478407	0.27183308	2.3601223	21	—	—
326609 2002 RR_{53}	16.9	X	310.30346	287.20978	112.22212	3.68022	0.2504896	0.25906325	2.4370560	21	9 11.3	18.8
326610 2002 RP_{70}	15.8	X	93.32756	157.85428	188.14882	15.34940	0.1796701	0.17068662	3.2186202	21	—	—
326611 2002 RK_{72}	17.1	X	334.67114	239.87205	149.28418	4.96074	0.1924509	0.26275728	2.4141609	21	11 2.8	18.9
326612 2002 RM_{73}	17.5	X	29.46707	36.22758	317.21944	3.43437	0.1715356	0.26710557	2.3878887	21	12 19.3	20.4
326613 2002 RL_{105}	16.9	X	37.13724	348.17724	8.29274	6.59935	0.2324427	0.26565744	2.3965586	21	—	—
326614 2002 RD_{112}	17.6	X	47.67357	58.05751	301.52255	6.30498	0.1240253	0.27044220	2.3682075	21	—	—
326615 2002 RS_{115}	15.8	X	155.58036	98.49607	223.00092	4.14426	0.1302893	0.17700981	3.1415055	21	—	—
326616 2002 RW_{126}	16.9	X	15.44306	283.93337	98.60812	5.92835	0.2519047	0.26790767	2.3831202	21	—	—
326617 2002 RA_{127}	15.7	X	82.64745	164.72351	211.50546	14.88998	0.2694171	0.17259085	3.1949019	21	—	—
326618 2002 RG_{139}	16.8	X	349.19679	224.75707	141.35428	8.46986	0.2423257	0.26205274	2.4184860	21	11 7.4	18.6
326619 2002 RT_{159}	15.8	X	72.25847	203.34730	165.77540	4.91659	0.1426420	0.17011512	3.2258248	21	—	—
326620 2002 RH_{163}	16.3	X	130.65264	181.77860	147.02531	1.27343	0.1587121	0.17361773	3.1822918	21	—	—
326621 2002 RZ_{172}	15.4	X	161.09820	273.13864	41.80277	12.51953	0.2533236	0.17625675	3.1504473	21	1 3.3	20.9
326622 2002 RG_{191}	16.7	X	42.01831	341.54697	8.47724	13.65549	0.2194321	0.26806633	2.3821798	21	—	—
326623 2002 RO_{196}	15.5	X	151.99035	89.16762	231.87929	8.70676	0.2157191	0.17545134	3.1600812	21	—	—
326624 2002 RG_{204}	17.9	X	128.43566	112.54995	203.94960	1.91384	0.2440906	0.27837839	2.3229812	21	—	—
326625 2002 RL_{210}	17.6	X	181.42165	52.75561	196.01938	1.84563	0.1401093	0.27444941	2.3450990	21	—	—
326626 2002 RB_{223}	17.1	X	36.71708	233.51587	111.03294	4.71413	0.2147924	0.26675004	2.3900100	21	12 23.5	20.0
326627 2002 RW_{242}	16.3	X	169.42695	321.49420	318.43610	9.68234	0.2144840	0.17575137	3.1564838	21	—	—
326628 2002 RT_{248}	15.8	X	116.84761	144.32277	164.01250	12.61944	0.0519458	0.16938603	3.2350748	21	12 30.0	20.8
326629 2002 RF_{249}	15.2	X	189.06657	253.13628	25.07239	13.42742	0.2339796	0.17484555	3.1673763	21	—	—
326630 2002 RZ_{249}	18.0	X	107.31632	114.71623	201.85294	6.18226	0.1231482	0.27366366	2.3495857	21	—	—
326631 2002 RU_{278}	17.0	X	301.20080	205.90164	228.01133	14.28331	0.1222248	0.26356735	2.4092118	21	11 1.1	19.5
326632 2002 RJ_{281}	15.8	X	209.78312	93.58317	155.41864	9.52385	0.0586573	0.17442842	3.1724240	21	—	—
326633 2002 SU_{5}	17.9	X	131.29911	114.69570	205.02840	1.46407	0.2295809	0.27705108	2.3303947	21	—	—
326634 2002 SB_{11}	15.8	X	167.72300	122.94861	184.79577	16.10575	0.2527773	0.17545335	3.1600572	21	—	—
326635 2002 ST_{20}	17.0	X	353.05731	355.21319	13.08758	6.47954	0.1512708	0.26182236	2.4199045	21	11 3.1	19.2
326636 2002 SX_{23}	16.4	X	21.52064	338.43933	54.63496	13.61142	0.2223662	0.26860287	2.3790064	21	—	—
326637 2002 SB_{24}	15.4	X	150.49428	229.67741	111.17044	13.54016	0.2686071	0.17719393	3.1393289	21	1 24.9	20.7
326638 2002 SS_{25}	16.6	X	326.25941	275.53434	107.00231	3.35282	0.1630854	0.25874847	2.4390321	21	10 2.3	18.7
326639 2002 SL_{26}	18.1	X	142.41231	131.08696	206.58298	1.47725	0.2323326	0.28114736	2.3077037	21	—	—
326640 2002 SE_{29}	17.1	X	67.93129	150.61084	197.01816	4.01825	0.2627539	0.27079370	2.3661576	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326641 2002 SZ_{31}	17.0	X	338.74533	250.44401	121.82597	4.85915	0.1959048	0.25989022	2.4318834	21	10 15.9	18.8
326642 2002 SG_{46}	17.1	X	357.36630	187.63492	173.60710	2.90137	0.1956891	0.26074883	2.4265420	21	11 9.1	19.1
326643 2002 ST_{47}	15.5	X	126.81231	315.20537	13.08106	12.68040	0.1728991	0.17182021	3.2044479	21	—	—
326644 2002 SX_{48}	15.5	X	129.29493	164.87826	164.76671	8.25924	0.1895966	0.17154205	3.2079110	21	—	—
326645 2002 SA_{56}	16.9	X	9.66063	306.64752	58.85487	7.24739	0.1403709	0.26327560	2.4109913	21	11 29.6	19.5
326646 2002 TE	17.5	X	136.55105	193.31108	145.34033	13.28617	0.3060320	0.28048488	2.3113360	21	—	—
326647 2002 TM_{20}	17.2	X	38.48491	131.33974	206.13562	4.65712	0.1942984	0.26504982	2.4002199	21	12 13.2	20.2
326648 2002 TE_{39}	16.6	X	48.91650	318.76947	31.98101	9.74155	0.2326942	0.26645342	2.3917834	21	—	—
326649 2002 TB_{55}	17.2	X	102.82264	280.16050	62.71173	3.55249	0.2475996	0.27606609	2.3359346	21	—	—
326650 2002 TG_{60}	17.0	X	305.83955	199.28595	208.60174	22.61022	0.1095499	0.36492562	1.9393959	21	10 24.9	17.7
326651 2002 TM_{66}	15.8	X	152.68972	5.42547	268.35775	24.12848	0.2156547	0.27443058	2.3452063	21	—	—
326652 2002 TS_{99}	17.1	X	96.51646	68.07541	244.28544	5.55260	0.1470674	0.27216883	2.3581810	21	—	—
326653 2002 TR_{103}	17.4	X	120.26082	59.06526	264.50809	2.75753	0.2339579	0.27562274	2.3384389	21	—	—
326654 2002 TE_{124}	15.8	X	141.47290	135.72061	215.94683	14.22370	0.1782709	0.17704162	3.1411292	21	1 17.7	20.9
326655 2002 TM_{159}	17.9	X	137.80383	236.00277	94.03692	10.00931	0.2739828	0.27881071	2.3205793	21	—	—
326656 2002 TM_{200}	17.2	X	16.60044	168.43131	217.76528	5.08693	0.1482633	0.26756957	2.3851273	21	—	—
326657 2002 TK_{205}	17.7	X	67.56926	127.96690	205.79549	20.54971	0.1079777	0.37222110	1.9139712	21	—	—
326658 2002 TL_{221}	15.1	X	172.59799	46.88192	248.64638	13.50790	0.2264694	0.17438870	3.1729057	21	—	—
326659 2002 TO_{224}	17.1	X	73.80029	299.16453	35.38826	3.13392	0.2428313	0.26912918	2.3759038	21	—	—
326660 2002 TO_{234}	15.4	X	134.10301	96.73789	228.96992	23.62024	0.3245178	0.17268986	3.1936806	21	—	—
326661 2002 TS_{267}	17.3	X	28.42291	145.45722	224.83043	3.58378	0.1737435	0.26574323	2.3960429	21	—	—
326662 2002 TT_{304}	17.1	X	111.44664	267.44490	50.51665	7.85058	0.1388375	0.27258086	2.3558040	21	—	—
326663 2002 TW_{324}	16.0	X	198.48773	82.59746	183.51111	18.53477	0.1817454	0.17497590	3.1658031	21	—	—
326664 2002 TK_{347}	17.1	X	75.73681	195.59813	101.73069	7.48378	0.1268042	0.26352300	2.4094821	21	11 27.1	20.5
326665 2002 TH_{366}	17.5	X	97.00437	174.64186	143.33065	5.99336	0.2393470	0.27145288	2.3623256	21	—	—
326666 2002 UJ_{1}	16.8	X	135.38164	129.01528	100.64557	8.42608	0.0526314	0.26062781	2.4272931	21	11 3.1	20.2
326667 2002 UZ_{3}	16.0	X	340.29833	305.62363	63.26328	15.28950	0.1320403	0.25736976	2.4477348	21	10 16.9	18.6
326668 2002 UC_{5}	15.1	X	121.62332	294.68556	42.00904	12.81583	0.2480506	0.17163293	3.2067786	21	—	—
326669 2002 UX_{9}	16.5	X	5.01986	308.29707	55.86716	7.62756	0.1345128	0.26081299	2.4261440	21	11 18.7	19.0
326670 2002 UU_{39}	16.7	X	55.23516	304.59446	42.98745	6.89075	0.1442864	0.26549294	2.3975485	21	—	—
326671 2002 UF_{48}	15.3	X	126.71819	142.20745	201.62871	26.90699	0.2538657	0.17112872	3.2130744	21	1 3.4	20.8
326672 2002 UA_{64}	18.1	X	141.75507	280.98167	18.04193	1.35721	0.1857930	0.27632918	2.3344516	21	—	—
326673 2002 VB_{5}	16.1	X	104.46688	287.98560	59.29011	24.09830	0.2626893	0.27379940	2.3488091	21	—	—
326674 2002 VL_{12}	16.6	X	172.48967	205.91681	266.88942	4.83389	0.2275806	0.24369199	2.5384885	21	7 10.9	21.0
326675 2002 VC_{108}	17.4	X	68.13502	101.13661	244.60963	5.88535	0.2220375	0.26817063	2.3815621	21	—	—
326676 2002 VR_{115}	17.8	X	256.54279	25.61315	32.45900	21.28797	0.0870684	0.35621947	1.9708684	21	8 25.7	20.4
326677 2002 VX_{115}	17.1	X	334.20908	198.56640	196.64576	5.90556	0.1353398	0.25877386	2.4388726	21	11 7.2	19.3
326678 2002 VM_{116}	16.6	X	31.48932	261.60047	105.39929	10.33811	0.1482446	0.26370767	2.4083571	21	—	—
326679 2002 VH_{127}	16.5	X	20.94819	286.64546	63.67589	13.09038	0.2704889	0.26161530	2.4211812	21	12 16.8	19.3
326680 2002 VM_{134}	15.8	X	120.10081	44.92190	45.07460	7.05771	0.1320344	0.18121698	3.0926928	21	4 21.2	20.3
326681 2002 VK_{140}	17.0	X	163.19856	152.79620	318.07680	7.04310	0.1475458	0.24247199	2.5469964	21	6 29.5	21.0
326682 2002 VO_{147}	16.6	X	149.14601	16.21716	119.05900	9.01561	0.2002409	0.24167534	2.5525905	21	7 19.1	20.7
326683 2002 WP	18.4	X	221.35946	1.17998	76.31669	19.14973	0.2159407	0.56438721	1.4501667	21	7 9.1	19.6
326684 2002 XJ_{9}	17.0	X	7.98261	182.73127	172.54165	1.02668	0.2024777	0.25899275	2.4374983	21	11 21.2	19.4
326685 2002 XT_{35}	16.9	X	70.40513	266.23079	68.05434	7.14539	0.1298046	0.26359876	2.4090204	21	—	—
326686 2002 XM_{43}	17.6	X	186.34027	344.20329	85.06963	6.10370	0.2218816	0.24001592	2.5643424	21	5 29.5	21.9
326687 2002 XZ_{70}	16.7	X	238.11845	3.50068	69.24231	5.24387	0.1619381	0.24580897	2.5238928	21	7 24.5	20.5
326688 2002 XG_{79}	16.4	X	220.77364	99.89908	345.36133	3.01806	0.1827836	0.24391501	2.5369410	21	7 20.6	20.4
326689 2002 XO_{80}	16.2	X	166.41553	328.07347	90.93765	34.68259	0.2554784	0.23353821	2.6115444	21	5 16.5	21.3
326690 2002 XY_{107}	16.7	X	147.75554	25.93024	86.81623	15.92297	0.2090765	0.23593346	2.5938390	21	6 19.7	20.9
326691 2002 XK_{116}	16.7	X	91.30640	158.84769	344.31516	12.66966	0.1083831	0.22595910	2.6696203	21	5 11.6	20.5
326692 2002 YP_{30}	16.6	X	265.43897	280.72505	98.77766	5.97126	0.2686395	0.24466969	2.5317215	21	5 31.8	20.5
326693 2003 AR_{1}	16.2	X	125.53956	283.88502	226.81154	3.62704	0.1633904	0.23490477	2.6014061	21	7 13.2	20.2
326694 2003 AN_{20}	16.8	X	159.72077	196.32741	250.73552	3.75970	0.2141315	0.23444276	2.6048227	21	5 29.1	21.1
326695 2003 AJ_{27}	15.9	X	114.66041	261.60198	280.92131	6.58235	0.1103987	0.23881548	2.5729286	21	8 5.9	19.6
326696 2003 AM_{46}	16.1	X	279.06984	28.85657	354.64745	4.19076	0.2134447	0.24595504	2.5228934	21	6 28.7	19.4
326697 2003 AY_{52}	16.4	X	198.59133	6.24374	98.26870	13.63938	0.1321534	0.24121908	2.5558083	21	7 26.9	20.4
326698 2003 AD_{78}	16.4	X	183.10700	44.26067	41.93314	8.47130	0.1656978	0.23723315	2.5843568	21	6 15.8	20.6
326699 2003 BF_{2}	16.1	X	85.22809	249.63913	246.43857	24.47779	0.3589701	0.22910782	2.6451042	21	6 5.5	19.8
326700 2003 BM_{2}	15.9	X	171.97635	79.44683	307.09843	10.91656	0.2839376	0.22962913	2.6410993	21	3 23.9	20.8
326701 2003 BK_{7}	16.3	X	145.58164	156.79291	328.54125	11.36984	0.1297480	0.23308611	2.6149202	21	6 30.5	20.4
326702 2003 BD_{49}	16.8	X	129.27845	316.00317	147.38352	8.13002	0.2624045	0.23000661	2.6382088	21	5 28.5	21.2
326703 2003 BX_{49}	17.3	X	159.81852	232.98940	235.89822	2.16296	0.2166781	0.23627740	2.5913213	21	6 25.6	21.5
326704 2003 BP_{55}	16.7	X	149.95763	346.18054	146.90969	8.70164	0.1485518	0.23579160	2.5948793	21	7 14.0	20.9
326705 2003 BQ_{66}	16.1	X	192.94773	295.28587	147.53810	14.43797	0.1477757	0.23578590	2.5949211	21	6 22.6	20.5
326706 2003 BY_{74}	16.8	X	94.47870	80.98987	89.54582	13.07412	0.1118750	0.23246223	2.6195968	21	6 27.5	20.2
326707 2003 BM_{76}	16.0	X	90.06353	139.73914	53.59638	11.40299	0.0903200	0.23460742	2.6036038	21	7 22.3	19.7
326708 2003 BN_{77}	16.8	X	140.51551	30.86619	101.98991	5.35077	0.2001245	0.23495520	2.6010339	21	7 8.3	20.9
326709 2003 BQ_{83}	16.2	X	173.60996	74.02185	59.68539	7.25442	0.0631801	0.23937674	2.5689052	21	8 10.7	20.0
326710 2003 BV_{92}	16.4	X	142.00234	345.29103	131.17874	14.48169	0.1185563	0.23160771	2.6260362	21	6 14.6	20.6
326711 2003 CW_{10}	16.6	X	185.03045	240.74074	188.51553	5.79601	0.2991293	0.23546815	2.5972550	21	5 29.3	21.4
326712 2003 CC_{15}	16.6	X	107.93417	21.19666	111.42195	5.89078	0.1501334	0.22979817	2.6398039	21	5 30.9	20.3
326713 2003 CS_{16}	16.5	X	50.97611	38.18525	145.82730	14.31489	0.1880953	0.22682380	2.6628312	21	5 27.7	19.7
326714 2003 DL_{7}	16.8	X	200.73350	341.36333	89.30039	5.89483	0.1771192	0.23594649	2.5937435	21	6 12.9	21.1
326715 2003 EO_{14}	17.1	X	109.31217	118.45444	30.08750	5.27705	0.2062271	0.23065850	2.6332357	21	6 28.8	21.1
326716 2003 ED_{16}	16.9	X	358.82515	233.16475	338.20955	25.66826	0.3487723	0.21806081	2.7337007	21	2 21.4	19.1
326717 2003 EA_{17}	16.2	X	160.82807	275.05963	182.77064	25.23638	0.3732662	0.23347709	2.6120002	21	6 17.7	21.7
326718 2003 EE_{31}	16.7	X	129.18157	343.21182	174.53299	13.65240	0.1051279	0.23302944	2.6153442	21	7 19.8	20.8
326719 2003 ED_{36}	16.7	X	61.26995	92.73858	108.12817	3.31628	0.1421480	0.22780843	2.6551528	21	6 27.3	19.7
326720 2003 EH_{47}	16.0	X	89.62576	262.22966	259.14764	11.42830	0.2111181	0.22921907	2.6442482	21	6 23.4	19.7

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326721 2003 EZ_{62}	16.3	X	113.61369	26.24365	151.26761	9.38447	0.0876698	0.23257329	2.6187628	21	7 26.9	20.0
326722 2003 FZ_{28}	16.2	X	13.15179	139.71473	84.24025	10.07659	0.1607444	0.22084228	2.7106987	21	5 7.2	18.9
326723 2003 FF_{67}	16.4	X	37.00477	133.34182	67.82344	5.83246	0.1850545	0.22266422	2.6958916	21	5 21.7	19.0
326724 2003 FD_{77}	16.2	X	27.35622	13.40809	204.61740	13.57346	0.1880373	0.22271671	2.6954680	21	5 27.9	18.9
326725 2003 FJ_{94}	15.9	X	351.96264	207.32981	78.12427	7.71142	0.2563877	0.22248817	2.6973136	21	6 14.8	18.0
326726 2003 FD_{131}	15.9	X	50.82846	89.54184	133.75925	14.74064	0.1266042	0.22682838	2.6627954	21	7 10.0	19.2
326727 2003 GT_{10}	16.1	X	43.41323	84.88705	150.00567	13.44826	0.1370050	0.22619060	2.6677984	21	7 15.2	19.3
326728 2003 GQ_{42}	15.9	X	122.90402	15.48473	125.23665	15.23776	0.2072947	0.23056260	2.6339658	21	7 2.7	20.2
326729 2003 GE_{43}	16.3	X	72.99243	68.79981	104.90584	13.97688	0.2032987	0.22561836	2.6723075	21	6 18.1	19.7
326730 2003 GF_{49}	16.1	X	33.21614	101.38695	88.46781	10.58460	0.0839522	0.21694888	2.7430335	21	4 24.8	19.5
326731 2003 GD_{55}	16.6	X	69.53784	10.05821	155.78484	14.67783	0.1910338	0.22309577	2.6924139	21	6 2.1	20.2
326732 2003 HB_{6}	17.6	X	354.89457	145.84799	161.61274	6.62058	0.5712258	0.22070409	2.7118300	21	9 17.8	15.8
326733 2003 HN_{15}	16.2	X	26.45616	62.52941	128.83151	10.03915	0.1467837	0.21531800	2.7568671	21	4 18.2	19.3
326734 2003 JG_{1}	16.4	X	355.50408	5.72324	187.23768	11.27965	0.1913286	0.21191772	2.7862786	21	2 8.6	19.6
326735 2003 JW_{16}	16.0	X	14.93418	106.53334	98.23406	11.10889	0.1944292	0.21625300	2.7489148	21	4 15.7	18.8
326736 2003 KM_{1}	15.9	X	37.37126	29.51329	162.07232	11.43538	0.0719476	0.21677096	2.7445342	21	5 1.6	19.4
326737 2003 KC_{2}	16.3	X	25.80841	102.30085	116.05251	9.90006	0.1903626	0.21920052	2.7242168	21	5 27.1	19.0
326738 2003 PA	17.9	X	221.88544	249.63964	83.29138	4.33544	0.2752903	0.31024707	2.1610472	21	2 23.9	21.7
326739 2003 QS_{15}	17.6	X	96.63779	188.95241	198.91942	5.72351	0.1583529	0.29624154	2.2286340	21	—	—
326740 2003 QZ_{18}	18.7	X	210.23820	163.53845	169.22363	2.15231	0.2381219	0.30789782	2.1720257	21	2 12.6	22.3
326741 2003 QW_{26}	16.6	X	330.23062	68.85102	349.92288	19.78538	0.3115084	0.27634270	2.3343755	21	12 31.1	18.4
326742 2003 QN_{47}	18.1	X	305.98606	324.21120	349.36068	28.01633	0.3685877	0.43119473	1.7352168	21	3 14.4	20.4
326743 2003 QF_{69}	17.4	X	211.12137	281.09173	11.24238	6.57800	0.1480022	0.30279917	2.1963401	21	—	—
326744 2003 QH_{75}	15.6	X	13.72578	216.75518	180.61264	14.84172	0.2610799	0.17200663	3.2021322	21	—	—
326745 2003 QG_{85}	16.9	X	284.11031	116.83718	36.27372	1.81825	0.1161688	0.17938641	3.1136971	21	12 30.9	21.0
326746 2003 RJ	15.8	X	341.24892	153.28553	148.40032	18.03189	0.2483552	0.21304598	2.7764327	21	6 16.9	18.7
326747 2003 RC_{13}	17.9	X	160.78751	186.29842	169.15430	4.09907	0.1914069	0.30188082	2.2007922	21	1 25.5	21.1
326748 2003 RK_{16}	17.5	X	147.40837	137.66800	210.06534	3.61285	0.2001555	0.29916329	2.2140997	21	1 2.5	20.3
326749 2003 RL_{24}	17.5	X	140.94595	11.06557	340.96507	2.10296	0.1478044	0.29800852	2.2198157	21	—	—
326750 2003 RS_{24}	15.7	X	125.43585	357.93646	326.43204	16.13629	0.1003791	0.18179138	3.0861748	21	—	—
326751 2003 SK_{12}	15.7	X	73.53134	208.73171	161.28424	9.44983	0.1186852	0.17978700	3.1090702	21	—	—
326752 2003 SD_{28}	15.7	X	55.22283	24.97861	344.09338	26.12970	0.1127136	0.17533379	3.1614936	21	—	—
326753 2003 SZ_{31}	16.2	X	48.55175	184.66147	204.31111	24.92279	0.1986846	0.28657165	2.2784906	21	—	—
326754 2003 SV_{62}	15.1	X	12.56468	226.55805	185.91291	27.00597	0.1760337	0.17482394	3.1676372	21	—	—
326755 2003 SO_{63}	17.8	X	262.14698	301.69726	321.29608	6.34783	0.1111334	0.30516140	2.1849910	21	1 6.1	20.8
326756 2003 SW_{66}	15.2	X	96.27847	332.90313	28.43003	25.35827	0.2410119	0.17899610	3.1182218	21	—	—
326757 2003 SG_{68}	16.1	X	34.27642	193.85459	207.48620	8.85443	0.0868191	0.17806752	3.1290530	21	—	—
326758 2003 SU_{70}	15.4	X	152.98336	30.52353	266.51154	8.32126	0.0663789	0.18150028	3.0894739	21	—	—
326759 2003 SQ_{85}	15.5	X	75.80672	73.22332	282.13583	14.81890	0.1175154	0.17704222	3.1411221	21	—	—
326760 2003 SC_{87}	15.6	X	142.63620	300.62269	52.07920	8.31274	0.1522110	0.18722568	3.0261639	21	1 21.0	20.3
326761 2003 SF_{93}	17.7	X	188.96119	128.19252	205.34682	5.75392	0.2306514	0.30222229	2.1991342	21	1 26.5	21.2
326762 2003 SN_{131}	17.1	X	83.69143	21.52623	13.81789	2.50137	0.1936247	0.29228176	2.2487175	21	—	—
326763 2003 SA_{135}	15.5	X	105.44785	193.87381	175.12492	16.78937	0.0295834	0.18322761	3.0700264	21	—	—
326764 2003 SQ_{141}	15.6	X	354.01516	169.23157	239.60501	6.18150	0.1121098	0.16860982	3.2449957	21	12 6.2	19.6
326765 2003 SJ_{164}	15.3	X	118.68524	306.18839	20.39785	22.64437	0.1948861	0.17826971	3.1266866	21	—	—
326766 2003 SN_{165}	15.7	X	66.17254	209.58233	181.18107	17.40415	0.2003795	0.17735301	3.1374514	21	—	—
326767 2003 SH_{177}	15.4	X	107.02282	119.68898	177.99725	11.67070	0.0939617	0.17349046	3.1838479	21	12 12.4	20.4
326768 2003 SX_{180}	18.0	X	70.18476	70.67230	302.66689	5.09418	0.1905712	0.28899021	2.2657603	21	—	—
326769 2003 SE_{192}	16.8	X	273.39032	6.27020	293.75946	4.39922	0.3073229	0.31204032	2.1527598	21	2 16.8	20.3
326770 2003 SM_{193}	15.9	X	174.53603	131.41866	196.32474	28.47602	0.1697470	0.18936235	3.0033570	21	1 16.6	21.3
326771 2003 SJ_{196}	15.2	X	147.47573	96.49774	225.47841	12.87381	0.0409395	0.18020362	3.1042764	21	—	—
326772 2003 SQ_{196}	15.3	X	146.72435	115.40140	237.81052	8.80054	0.1078953	0.18515382	3.0486970	21	1 17.6	19.9
326773 2003 SN_{199}	15.9	X	114.84274	156.02395	212.40765	9.65996	0.2008779	0.18263139	3.0767043	21	1 13.2	20.5
326774 2003 SU_{203}	18.1	X	230.23119	127.55248	181.53191	6.21862	0.1993525	0.30654359	2.1784180	21	1 29.4	21.6
326775 2003 SW_{215}	17.7	X	350.71558	221.55986	135.07141	1.83108	0.1915946	0.27465910	2.3439053	21	10 20.9	19.4
326776 2003 SL_{220}	17.1	X	77.96769	337.58902	33.16072	6.25806	0.1847333	0.28732660	2.2744976	21	—	—
326777 2003 SV_{222}	17.8	X	296.09882	75.23357	234.47468	19.40682	0.3898891	0.42732026	1.7456898	21	2 21.5	21.1
326778 2003 SF_{223}	15.1	X	82.21496	334.27405	38.06995	20.67954	0.1917093	0.17621956	3.1508905	21	—	—
326779 2003 SM_{224}	15.5	X	185.02309	275.57888	9.69276	11.85826	0.0790496	0.18280457	3.0747609	21	—	—
326780 2003 SJ_{225}	16.0	X	36.16300	13.07400	4.52154	4.62666	0.1714007	0.17169416	3.2060161	21	—	—
326781 2003 SF_{234}	15.5	X	154.40721	275.01261	40.62004	9.71982	0.0744255	0.18264307	3.0765732	21	—	—
326782 2003 SK_{234}	15.4	X	323.94035	83.40023	41.72583	9.82511	0.0463042	0.17779368	3.1322650	21	—	—
326783 2003 SA_{242}	17.8	X	4.69058	191.52183	240.43712	2.16739	0.1297801	0.28625955	2.2801464	21	—	—
326784 2003 SX_{244}	15.7	X	153.14289	301.45770	359.08455	10.72385	0.1423576	0.18227063	3.0807628	21	—	—
326785 2003 SH_{269}	16.1	X	112.21934	136.45122	212.47477	12.61013	0.1035778	0.17925336	3.1152376	21	—	—
326786 2003 SM_{279}	15.6	X	89.29217	174.75618	227.98666	9.24375	0.1118399	0.18628573	3.0363348	21	1 9.5	19.7
326787 2003 SM_{281}	15.3	X	331.95366	249.79117	241.10069	8.96081	0.0639544	0.18124075	3.0924224	21	—	—
326788 2003 SC_{284}	15.3	X	127.37843	162.17350	218.56630	12.92046	0.0722147	0.18902490	3.0069303	21	1 22.3	19.9
326789 2003 SA_{288}	15.3	X	62.73807	159.01882	242.72436	10.98020	0.0953999	0.17749036	3.1358326	21	—	—
326790 2003 SQ_{288}	17.4	X	314.01506	222.52540	140.72734	2.85002	0.2376056	0.26985574	2.3716373	21	7 22.1	19.4
326791 2003 SJ_{292}	15.5	X	110.33214	79.46075	233.22255	14.66457	0.0442824	0.17500526	3.1654489	21	12 27.2	20.3
326792 2003 SR_{293}	17.5	X	24.21939	92.75845	327.60918	5.10190	0.1080935	0.28779158	2.2720471	21	—	—
326793 2003 SY_{293}	15.3	X	106.69953	333.30566	42.57111	13.81771	0.2458297	0.18184287	3.0855922	21	1 24.6	19.9
326794 2003 SV_{295}	15.4	X	105.02370	145.70450	210.88948	23.74908	0.1163126	0.18085260	3.0968455	21	—	—
326795 2003 SZ_{295}	17.2	X	278.35331	157.90898	270.59117	5.68974	0.1978564	0.27067274	2.3668625	21	8 31.1	20.1
326796 2003 SP_{302}	15.4	X	82.48906	141.13905	252.75057	8.79853	0.0820222	0.18333423	3.0688360	21	—	—
326797 2003 SW_{302}	15.9	X	34.24168	13.68752	11.18347	14.97573	0.1689943	0.17287168	3.1914409	21	—	—
326798 2003 SF_{313}	17.2	X	288.33003	227.65840	206.70670	1.86831	0.1756504	0.27443504	2.3451809	21	10 3.7	19.2
326799 2003 SR_{322}	17.3	X	90.45757	289.41342	90.05250	3.58993	0.1776377	0.29276093	2.2462632	21	—	—
326800 2003 SK_{327}	16.7	X	179.04996	256.68451	40.40245	2.48044	0.1054154	0.18502255	3.0501388	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326801 2003 SW_{332}	17.6	X	8.07760	147.03719	315.94964	4.01367	0.0915778	0.29320182	2.2440108	21	—	—
326802 2003 SZ_{336}	15.5	X	341.24474	6.76483	68.35308	21.19898	0.0680694	0.17011200	3.2258642	21	12 16.4	19.8
326803 2003 SK_{337}	15.8	X	336.10860	64.89037	56.24037	10.04138	0.0338548	0.17856491	3.1232396	21	—	—
326804 2003 SG_{339}	16.3	X	247.22927	145.91060	51.91376	10.05193	0.0575943	0.17720673	3.1391778	21	—	—
326805 2003 SH_{339}	16.4	X	169.87262	234.23384	54.73716	10.53997	0.0345578	0.17983710	3.1084927	21	—	—
326806 2003 SP_{348}	18.0	X	276.31355	278.04789	176.57912	5.87714	0.0731073	0.27721524	2.3294746	21	10 31.6	20.6
326807 2003 SK_{393}	16.2	X	5.08107	325.20536	118.30909	6.62325	0.0480507	0.17714091	3.1399553	21	—	—
326808 2003 SR_{397}	16.0	X	271.93156	48.68931	138.38614	11.09197	0.0933104	0.17748261	3.1359238	21	—	—
326809 2003 SK_{418}	15.7	X	92.41761	203.88977	134.88933	9.99231	0.0761990	0.17485701	3.1672379	21	—	—
326810 2003 ST_{429}	16.4	X	133.38054	285.81117	33.19049	1.34497	0.0697359	0.17880647	3.1204261	21	—	—
326811 2003 SS_{431}	16.1	X	19.86669	183.13203	192.30789	10.08485	0.1086711	0.16916549	3.2378858	21	12 3.8	20.4
326812 2003 TG_{1}	15.3	X	149.68255	72.68242	268.45902	12.57645	0.3037630	0.18597726	3.0396914	21	1 22.9	20.6
326813 2003 TJ_{4}	17.7	X	180.61861	154.88943	178.47798	4.30067	0.1817718	0.29961520	2.2118728	21	1 16.6	20.9
326814 2003 TN_{9}	15.8	X	160.99777	159.32521	199.23434	7.90690	0.0664993	0.18891619	3.0080838	21	2 3.2	20.4
326815 2003 TQ_{19}	16.3	X	62.37508	216.70958	147.11677	0.31084	0.1709559	0.17475032	3.1685269	21	—	—
326816 2003 TY_{22}	16.3	X	123.47026	107.02507	253.28984	8.23153	0.1143727	0.18417825	3.0594533	21	1 2.9	20.7
326817 2003 TH_{27}	16.4	X	63.49162	130.27897	227.53245	8.21429	0.0996226	0.17409744	3.1764434	21	—	—
326818 2003 TG_{39}	15.5	X	342.24532	181.94632	236.28147	8.75704	0.0853223	0.16965909	3.2316027	21	11 29.3	19.6
326819 2003 TN_{44}	15.4	X	328.17616	287.76491	231.85503	14.24450	0.0257831	0.18287349	3.0739883	21	—	—
326820 2003 TM_{45}	16.0	X	10.71211	180.41754	224.97429	11.41895	0.1047347	0.17179334	3.2047821	21	12 25.6	20.3
326821 2003 TV_{50}	15.8	X	183.62591	13.87881	297.45195	10.70336	0.1275549	0.18856217	3.0118477	21	1 8.6	20.5
326822 2003 TQ_{54}	15.6	X	263.53185	126.00936	57.27723	10.01590	0.0629029	0.17684889	3.1434109	21	—	—
326823 2003 TT_{55}	15.4	X	264.28258	94.49437	67.37236	9.83199	0.0389323	0.17373209	3.1808952	21	12 23.4	19.8
326824 2003 TA_{56}	16.2	X	2.62963	5.88186	56.47265	9.93493	0.0682735	0.17349504	3.1837920	21	—	—
326825 2003 TF_{59}	15.8	X	202.35288	271.12493	38.37770	7.98198	0.0695902	0.18883638	3.0089313	21	1 24.3	20.5
326826 2003 UT_{1}	15.4	X	317.87363	35.86515	64.30628	9.80511	0.0360517	0.17367444	3.1815990	21	12 17.4	19.7
326827 2003 UL_{7}	15.6	X	53.24142	8.73633	33.16053	11.02736	0.0475373	0.17714392	3.1399197	21	—	—
326828 2003 UO_{24}	17.8	X	283.57425	253.83917	219.28404	18.72152	0.0396967	0.38900138	1.8585259	21	—	—
326829 2003 UT_{26}	16.3	X	312.39506	16.37153	68.58144	25.96998	0.2589189	0.27458701	2.3443155	21	12 7.3	17.4
326830 2003 UQ_{27}	15.2	X	20.11408	18.31296	48.58185	13.99742	0.1445197	0.17565990	3.1575795	21	—	—
326831 2003 UN_{29}	15.5	X	315.35705	12.87400	46.63100	9.07531	0.1690878	0.16210087	3.3312903	21	10 15.8	19.4
326832 2003 UY_{46}	17.6	X	112.16802	278.54719	91.81815	3.81910	0.1759348	0.29406577	2.2396134	21	—	—
326833 2003 UD_{48}	17.2	X	122.60669	224.82720	133.49448	7.56167	0.2253322	0.29374744	2.2412312	21	—	—
326834 2003 UZ_{51}	15.5	X	198.48872	24.09036	272.67964	10.82375	0.1273339	0.18538450	3.0461674	21	1 4.9	20.4
326835 2003 UN_{64}	15.1	X	34.51859	336.64988	40.81492	27.23520	0.1346213	0.17158178	3.2074158	21	12 26.1	19.9
326836 2003 UC_{70}	18.3	X	325.36431	196.35981	309.82180	2.44756	0.0372824	0.29122224	2.2541684	21	—	—
326837 2003 UU_{75}	17.6	X	191.28430	32.83507	261.69682	4.75151	0.1944706	0.29757971	2.2219477	21	—	—
326838 2003 UY_{76}	16.7	X	130.00348	88.16201	252.59772	9.04972	0.1742527	0.29301238	2.2449779	21	—	—
326839 2003 UB_{80}	16.9	X	144.71519	243.83780	126.55493	6.20312	0.1037028	0.29810220	2.2193507	21	1 16.2	19.3
326840 2003 UP_{90}	17.8	X	76.98343	195.49304	169.46172	5.80733	0.1714488	0.28765819	2.2727494	21	—	—
326841 2003 UO_{101}	15.6	X	11.65095	222.42672	194.45072	13.60831	0.1865730	0.17320104	3.1873937	21	—	—
326842 2003 UV_{111}	17.6	X	87.65700	329.82951	60.87974	3.71484	0.1664599	0.29229792	2.2486347	21	—	—
326843 2003 UM_{113}	15.9	X	151.87400	165.57085	173.08519	9.23038	0.2827228	0.18509236	3.0493719	21	1 21.7	21.2
326844 2003 UJ_{116}	15.6	X	95.70091	321.63999	41.57130	18.70537	0.1319954	0.17839832	3.1251836	21	—	—
326845 2003 UU_{118}	18.1	X	130.90852	284.23705	62.60618	3.28847	0.1196238	0.29394238	2.2402402	21	—	—
326846 2003 UD_{130}	16.9	X	14.64440	90.47139	304.44611	4.14282	0.2293657	0.28010380	2.3134319	21	—	—
326847 2003 UO_{136}	17.8	X	132.07255	154.39883	203.54203	1.47756	0.1915396	0.29564472	2.2316323	21	—	—
326848 2003 UZ_{145}	15.2	X	125.05680	287.85941	59.58170	17.37584	0.2136612	0.18007359	3.1057706	21	1 3.5	20.0
326849 2003 UC_{156}	17.8	X	239.31244	209.88044	84.86893	5.82741	0.1810303	0.30470404	2.1871769	21	1 22.1	21.2
326850 2003 UY_{156}	15.3	X	113.03336	293.29762	72.46346	11.24808	0.1854338	0.18159436	3.0884067	21	1 8.6	19.7
326851 2003 UT_{168}	17.3	X	42.22657	131.34164	269.90768	1.61076	0.2049073	0.28501736	2.2867666	21	—	—
326852 2003 UL_{175}	15.9	X	108.55809	132.40610	218.38744	7.67933	0.0710286	0.17851544	3.1238166	21	—	—
326853 2003 UQ_{184}	15.7	X	103.68529	261.35002	119.07162	5.73028	0.1553694	0.18145595	3.0899769	21	1 10.2	19.8
326854 2003 UY_{185}	17.0	X	30.88644	6.68006	51.65340	7.43512	0.0788754	0.28663149	2.2781734	21	—	—
326855 2003 UL_{187}	17.0	X	307.91328	155.93738	290.31772	4.09668	0.1952660	0.27540129	2.3396923	21	12 1.9	18.8
326856 2003 UQ_{187}	15.1	X	112.39393	91.86360	265.84484	8.43680	0.1123367	0.17824958	3.1269219	21	—	—
326857 2003 UT_{192}	16.4	X	275.20375	106.88600	43.97922	25.54319	0.1728208	0.27935579	2.3175597	21	—	—
326858 2003 UM_{201}	15.6	X	81.46587	150.58989	210.34222	16.14993	0.1481769	0.17529157	3.1620012	21	—	—
326859 2003 UN_{202}	16.9	X	90.28520	320.09064	53.87830	9.10419	0.1482055	0.28926666	2.2643165	21	—	—
326860 2003 UC_{206}	17.2	X	164.71274	129.80551	223.33953	3.59635	0.2366389	0.29947051	2.2125852	21	1 30.8	20.5
326861 2003 UK_{207}	17.5	X	354.28356	52.19731	353.84640	2.97110	0.1195054	0.27899543	2.3195549	21	—	—
326862 2003 UN_{212}	17.5	X	115.29466	334.84498	15.88197	3.72957	0.1958162	0.29007147	2.2601263	21	—	—
326863 2003 UT_{220}	15.8	X	90.72579	136.68317	225.41453	9.02742	0.0120149	0.17872401	3.1213857	21	—	—
326864 2003 UR_{226}	16.1	X	142.94044	43.59763	284.91762	2.60633	0.2872896	0.18189010	3.0850581	21	1 5.6	21.2
326865 2003 UC_{237}	15.2	X	132.18324	304.41539	61.91615	11.94892	0.0910898	0.18375320	3.0641694	21	1 19.6	19.8
326866 2003 UW_{240}	17.7	X	139.29682	4.79739	336.93472	3.35221	0.1503203	0.29315174	2.2442663	21	—	—
326867 2003 UO_{243}	17.2	X	75.40470	343.90437	34.59556	3.99419	0.2184787	0.28733445	2.2744562	21	—	—
326868 2003 UB_{248}	16.3	X	126.04079	310.61296	28.39277	5.77061	0.1433495	0.18007398	3.1057660	21	—	—
326869 2003 UF_{250}	17.6	X	140.42602	269.27373	92.30258	3.08230	0.2369628	0.29640561	2.2278115	21	1 19.0	20.3
326870 2003 UY_{270}	15.7	X	121.96966	254.89136	82.79363	10.19280	0.0553754	0.17926418	3.1151123	21	—	—
326871 2003 UA_{294}	15.3	X	79.34363	234.83607	130.26282	17.67969	0.2281086	0.17563809	3.1578409	21	—	—
326872 2003 UA_{295}	17.6	X	352.69621	165.69733	265.73406	2.37331	0.0870678	0.28396110	2.2924338	21	—	—
326873 2003 UN_{303}	15.8	X	22.34299	61.13736	352.93866	9.98981	0.0055326	0.17401883	3.1774000	21	—	—
326874 2003 UP_{314}	15.6	X	153.24831	63.49622	228.58722	13.89109	0.0413113	0.17327610	3.1864732	21	—	—
326875 2003 UB_{317}	17.8	X	151.45361	19.86717	330.92384	3.19075	0.0859750	0.29941326	2.2128673	21	—	—
326876 2003 UE_{317}	17.9	X	319.53505	77.97598	6.22135	4.77629	0.1897753	0.28033763	2.3121452	21	12 30.7	19.6
326877 2003 UG_{339}	18.1	X	315.55989	19.70373	52.13976	2.87886	0.1934846	0.27732250	2.3288739	21	11 28.1	19.6
326878 2003 UB_{350}	16.3	X	251.65335	135.40436	85.41586	4.04997	0.0592855	0.18237184	3.0796228	21	—	—
326879 2003 UU_{355}	15.8	X	113.74729	307.27726	19.43056	10.64622	0.0751622	0.17531366	3.1617355	21	—	—
326880 2003 UM_{364}	15.6	X	130.52408	109.42174	184.06345	18.06010	0.1612076	0.17544537	3.1601530	21	12 31.0	21.1

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326881 2003 UD_{372}	15.8	X	96.59870	175.28739	228.20192	11.33635	0.1244188	0.18937357	3.0032383	21	1 19.8	20.0
326882 2003 UP_{374}	16.1	X	341.49871	210.60066	209.06882	9.84910	0.0956661	0.17253229	3.1956249	21	12 1.4	20.2
326883 2003 UY_{399}	16.4	X	203.46366	111.80965	222.64830	26.79373	0.1951839	0.19147418	2.9812329	21	2 13.3	22.0
326884 2003 UA_{415}	16.1	X	281.29106	44.96392	108.32386	9.08508	0.1217602	0.17213907	3.2004895	21	12 24.8	20.2
326885 2003 VB_{10}	15.5	X	91.70693	142.74570	224.60341	8.28125	0.1960238	0.17669826	3.1451971	21	—	—
326886 2003 WD	16.3	X	24.86412	320.03855	69.40788	2.19526	0.1191541	0.17020384	3.2247036	21	12 28.3	20.5
326887 2003 WJ_{7}	17.7	X	201.08751	48.45377	282.59262	5.41256	0.2988497	0.30273858	2.1966332	21	2 4.9	21.7
326888 2003 WX_{13}	17.6	X	5.97674	154.58792	241.75868	2.64187	0.1142618	0.27892369	2.3199526	21	—	—
326889 2003 WN_{14}	15.9	X	31.67566	186.44335	230.00682	8.33730	0.0724535	0.17413186	3.1760248	21	—	—
326890 2003 WS_{17}	15.3	X	118.44112	250.05302	105.40880	15.58734	0.2197519	0.17983925	3.1084680	21	1 6.9	19.6
326891 2003 WS_{18}	15.5	X	173.24763	18.55755	298.88189	10.61835	0.3216012	0.18423086	3.0588707	21	1 16.8	20.9
326892 2003 WM_{23}	16.0	X	106.16662	138.68145	226.27251	14.54937	0.1693238	0.17849585	3.1240451	21	—	—
326893 2003 WN_{23}	16.1	X	98.68263	170.30501	206.25235	4.79033	0.1869745	0.17904902	3.1176074	21	1 3.7	20.3
326894 2003 WV_{25}	16.2	X	244.09495	238.07950	264.21114	22.52787	0.1925133	0.27190666	2.3596965	21	10 23.9	19.7
326895 2003 WQ_{28}	17.3	X	92.26196	135.60275	246.59905	6.43344	0.1186526	0.28997724	2.2606159	21	—	—
326896 2003 WN_{45}	17.0	X	159.87759	172.05658	308.87872	2.75908	0.1465419	0.25524276	2.4613144	21	7 8.9	20.7
326897 2003 WX_{48}	17.9	X	297.82188	49.38766	51.63045	3.94112	0.1694720	0.27621345	2.3351037	21	12 4.8	19.6
326898 2003 WL_{56}	15.5	X	131.51200	52.61879	256.48943	12.00278	0.1039878	0.17208996	3.2010984	21	—	—
326899 2003 WS_{73}	16.9	X	81.05141	318.29073	51.85799	6.95349	0.1464265	0.28520726	2.2857514	21	—	—
326900 2003 WL_{75}	17.2	X	24.65870	279.72286	135.23598	6.96033	0.1180876	0.28177062	2.3042994	21	—	—
326901 2003 WF_{80}	15.7	X	135.27968	279.51411	51.69924	17.20526	0.2288943	0.17808131	3.1288914	21	—	—
326902 2003 WY_{88}	17.4	X	196.84224	287.44774	69.53236	6.72213	0.2042551	0.30386747	2.1911894	21	3 7.3	21.0
326903 2003 WD_{94}	15.5	X	105.13159	310.89984	39.55337	17.48316	0.1000650	0.17628534	3.1501066	21	—	—
326904 2003 WS_{120}	17.0	X	259.00715	28.24867	57.36153	7.25278	0.2223441	0.26490574	2.4010902	21	8 31.1	20.3
326905 2003 WT_{124}	17.2	X	281.10296	94.79136	350.66341	4.80390	0.1967792	0.26837650	2.3803440	21	10 1.9	19.8
326906 2003 WC_{143}	15.3	X	161.87459	224.14137	71.76400	12.07744	0.0301964	0.17332172	3.1859140	21	—	—
326907 2003 WS_{150}	17.3	X	83.68066	244.85072	140.92751	4.64981	0.1340858	0.28842474	2.2687208	21	—	—
326908 2003 WH_{161}	16.3	X	60.40924	288.45607	81.62750	3.75828	0.1692093	0.17097312	3.2150235	21	—	—
326909 2003 WU_{161}	17.1	X	357.70067	293.80026	114.39359	6.51656	0.2374154	0.27806400	2.3247319	21	—	—
326910 2003 WF_{171}	15.4	X	123.30448	280.59934	75.26652	16.52794	0.1335054	0.18173654	3.0867956	21	—	—
326911 2003 WG_{172}	17.2	X	278.99702	298.43510	142.28668	6.40107	0.2055273	0.26761007	2.3848867	21	9 22.9	19.9
326912 2003 WM_{172}	17.4	X	340.60797	301.96857	138.86393	6.38081	0.2061081	0.27757046	2.3274867	21	—	—
326913 2003 XZ_{2}	17.1	X	349.08890	306.38090	118.50229	5.14532	0.2228176	0.27794082	2.3254187	21	—	—
326914 2003 XE_{18}	18.2	X	224.76734	129.46591	349.43151	7.42137	0.3069128	0.26133828	2.4228919	21	8 27.6	22.2
326915 2003 XU_{39}	15.3	X	126.45886	255.15003	107.20144	17.53082	0.2409622	0.18066267	3.0990156	21	1 26.0	20.1
326916 2003 YM_{17}	16.8	X	241.11568	39.25982	86.32774	24.05313	0.2429335	0.26662479	2.3907585	21	10 11.2	20.8
326917 2003 YR_{29}	15.1	X	91.68267	272.99681	106.39861	20.61727	0.2321454	0.17399662	3.1776704	21	1 6.3	19.0
326918 2003 YC_{36}	16.7	X	237.48085	332.57778	140.24937	10.39270	0.1678599	0.26265270	2.4148017	21	9 17.1	20.1
326919 2003 YX_{61}	17.5	X	268.05529	187.30418	278.48162	3.12741	0.2015542	0.26740163	2.3861259	21	10 8.6	20.3
326920 2003 YE_{71}	17.4	X	60.88896	71.24609	305.08408	1.63064	0.2593146	0.28412584	2.2915476	21	—	—
326921 2003 YW_{103}	15.0	X	68.43156	302.06663	77.09626	13.31035	0.0981516	0.17305697	3.1891625	21	—	—
326922 2003 YK_{143}	17.7	X	271.74281	65.57358	30.66996	5.08469	0.1991704	0.26758324	2.3850461	21	10 4.1	20.2
326923 2003 YY_{145}	16.7	X	133.17038	73.45667	29.84315	8.37815	0.1641734	0.24520237	2.5280535	21	5 19.1	20.5
326924 2003 YW_{161}	15.8	X	124.61172	220.01873	128.51239	10.47056	0.0811391	0.17602199	3.1532477	21	—	—
326925 2004 BN_{18}	17.3	X	245.39972	79.96130	84.77290	22.44536	0.0852788	0.38075436	1.8852667	21	—	—
326926 2004 BM_{28}	17.4	X	267.89862	2.61569	75.36746	2.86494	0.1818057	0.26168988	2.4207212	21	9 5.0	20.3
326927 2004 BP_{28}	17.0	X	332.80093	97.20462	330.78530	6.53364	0.0933110	0.26999768	2.3708061	21	12 23.0	19.5
326928 2004 BE_{41}	17.4	X	264.35770	143.18203	301.17078	3.37207	0.1515527	0.26179247	2.4200887	21	9 10.7	20.5
326929 2004 BZ_{43}	16.6	X	215.34199	13.72337	135.51118	14.93664	0.1032844	0.26093220	2.4254050	21	10 20.9	20.3
326930 2004 BU_{67}	17.1	X	253.52346	21.67039	132.19130	6.94129	0.0237205	0.27055921	2.3675246	21	12 23.5	19.9
326931 2004 BG_{76}	16.3	X	146.21449	300.78884	126.78207	26.74755	0.1475247	0.24186683	2.5512431	21	4 28.2	20.8
326932 2004 BG_{80}	17.3	X	268.44304	331.10581	132.56418	6.53781	0.1294309	0.26521872	2.3992008	21	10 23.0	20.1
326933 2004 BT_{136}	17.5	X	264.10029	12.18320	98.78088	2.21653	0.1386921	0.26591783	2.3949939	21	10 23.2	20.1
326934 2004 CB_{7}	17.3	X	198.51803	334.41885	197.08787	10.69506	0.1689735	0.26215457	2.4178597	21	10 19.8	21.0
326935 2004 CH_{11}	17.1	X	138.78968	31.69231	155.64135	13.20879	0.1147105	0.25387045	2.4701763	21	9 12.0	20.8
326936 2004 CT_{11}	17.8	X	249.66838	171.69153	280.53588	1.71801	0.1657383	0.25960016	2.4336946	21	8 31.5	21.1
326937 2004 CC_{45}	17.8	X	248.44675	54.51051	50.58336	6.21992	0.0787133	0.26091230	2.4255283	21	10 3.4	20.8
326938 2004 CR_{56}	17.2	X	263.40450	24.54619	99.12681	6.54242	0.1666341	0.26532491	2.3985606	21	11 5.8	20.0
326939 2004 CL_{57}	17.2	X	229.40681	53.40070	76.10173	6.67382	0.1447010	0.26192033	2.4193011	21	10 3.9	20.6
326940 2004 CN_{76}	16.5	X	262.46955	335.16980	155.70637	8.39980	0.0356190	0.26686756	2.3893083	21	12 3.8	19.5
326941 2004 CS_{81}	17.3	X	231.99180	148.16111	331.56713	6.46128	0.0733225	0.25964955	2.4333860	21	9 27.2	20.5
326942 2004 CR_{121}	17.7	X	159.11251	139.78289	87.97597	2.07158	0.1383989	0.26220393	2.4175562	21	11 22.6	21.2
326943 2004 DY_{15}	17.3	X	177.42475	6.07704	185.07174	2.34491	0.1324871	0.25900951	2.4373931	21	10 25.7	20.9
326944 2004 DP_{19}	17.3	X	244.28869	166.82972	277.26373	10.77195	0.2185065	0.25833142	2.4416565	21	8 4.9	21.0
326945 2004 DF_{39}	17.3	X	161.08405	103.86981	126.80688	2.01441	0.1296519	0.26287151	2.4134614	21	11 28.6	21.0
326946 2004 EN_{20}	18.4	X	341.89187	246.38166	185.55082	40.12050	0.3796457	0.38670533	1.8658753	21	—	—
326947 2004 EO_{46}	17.0	X	354.70094	6.06027	3.81658	5.93960	0.1246595	0.25863550	2.4397423	21	11 4.9	19.4
326948 2004 FT_{1}	17.4	X	124.53245	87.60375	194.94092	22.60616	0.0531365	0.37779906	1.8950855	21	—	—
326949 2004 FR_{2}	18.1	X	141.82124	245.64942	9.02095	19.89667	0.0821612	0.37444481	1.9063860	21	—	—
326950 2004 FZ_{7}	18.2	X	204.74193	37.58665	91.87949	3.46865	0.1406019	0.25473819	2.4645635	21	9 4.7	21.8
326951 2004 FV_{15}	18.0	X	81.20449	259.85195	7.53085	20.38491	0.0558307	0.36692963	1.9323281	21	10 22.7	20.3
326952 2004 FC_{61}	17.7	X	127.48440	99.84994	128.42601	1.23259	0.1779617	0.25442664	2.4665750	21	10 25.1	21.5
326953 2004 FN_{67}	16.4	X	146.24990	149.35903	52.01351	6.69432	0.0784242	0.25221710	2.4809596	21	10 8.4	20.0
326954 2004 FG_{131}	16.8	X	160.40029	118.90126	79.35174	7.45706	0.1043766	0.25493361	2.4633038	21	10 20.7	20.5
326955 2004 GU_{11}	17.5	X	134.33064	160.92975	100.74571	22.51032	0.0678876	0.37366862	1.9090250	21	—	—
326956 2004 GY_{11}	17.3	X	158.41585	124.15400	77.23879	23.37143	0.0501033	0.36929023	1.9240846	21	11 13.9	19.7
326957 2004 GF_{34}	16.7	X	83.63115	291.00902	301.99468	8.67616	0.1503609	0.24501367	2.5293514	21	9 8.7	20.3
326958 2004 GH_{47}	17.7	X	56.10990	29.66726	195.20023	2.63765	0.1170928	0.24037381	2.5617964	21	7 18.9	20.7
326959 2004 HP_{1}	17.0	X	293.97030	34.09759	48.11380	22.58429	0.1158232	0.36964911	1.9228391	21	11 25.6	18.1
326960 2004 HL_{20}	16.3	X	298.49401	349.06937	23.56528	12.96673	0.1249843	0.24557342	2.5255064	21	8 1.2	19.5

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
326961 2004 HJ_{71}	16.9	X	62.17887	39.33464	211.27208	11.78735	0.0726353	0.24505201	2.5290876	21	8 22.9	20.4
326962 2004 JC_{2}	17.6	X	166.74741	87.62645	160.12897	24.54781	0.1585599	0.37462466	1.9057758	21	—	—
326963 2004 JC_{7}	16.3	X	334.48562	125.94254	199.39526	30.33772	0.2713304	0.23455553	2.6039877	21	6 26.6	19.5
326964 2004 JR_{14}	16.7	X	71.92665	112.97805	128.14659	4.14853	0.1386758	0.24180050	2.5517097	21	9 8.3	20.0
326965 2004 JL_{18}	16.5	X	38.94331	222.89466	56.68808	16.02027	0.1085594	0.24227451	2.5483803	21	9 18.4	19.9
326966 2004 JB_{20}	16.7	X	1.54036	231.99953	47.94088	12.37926	0.1673796	0.23619755	2.5919053	21	7 4.2	19.3
326967 2004 JE_{20}	16.9	X	56.76437	270.87114	26.11223	4.18144	0.2326810	0.24555235	2.5256509	21	11 13.9	20.3
326968 2004 JX_{21}	17.2	X	50.02132	68.12142	222.23094	5.77087	0.0952150	0.24646844	2.5193886	21	10 6.5	20.3
326969 2004 JG_{44}	16.7	X	349.76551	110.19664	213.14572	16.19971	0.3399051	0.23656902	2.5891913	21	8 5.8	18.4
326970 2004 JQ_{45}	16.2	X	70.48043	136.18409	95.79052	13.84767	0.1458233	0.23933178	2.5692270	21	8 29.8	19.8
326971 2004 KB_{12}	16.7	X	28.30403	240.36727	33.31315	12.96460	0.0792188	0.24210431	2.5495744	21	8 15.9	20.0
326972 2004 LV_{4}	16.5	X	31.32154	100.90520	196.71079	12.24131	0.1895303	0.24121347	2.5558479	21	10 3.5	19.1
326973 2004 LR_{7}	16.0	X	14.87063	192.89498	96.58198	15.54823	0.2453710	0.23461156	2.6035731	21	9 4.5	18.6
326974 2004 LO_{31}	16.9	X	61.63640	207.53370	60.42010	9.03216	0.2674026	0.23943541	2.5684856	21	10 20.9	20.6
326975 2004 MJ	16.1	X	180.63452	304.23895	74.71553	9.35894	0.1940660	0.21517336	2.7581024	21	3 29.7	20.8
326976 2004 MY_{6}	17.3	X	341.20708	93.53973	235.54832	4.65019	0.2569518	0.23276560	2.6173202	21	7 27.7	19.2
326977 2004 NU_{1}	15.8	X	264.92794	38.53543	304.43338	11.25959	0.1872328	0.22078874	2.7111368	21	4 18.6	20.2
326978 2004 NT_{2}	16.1	X	3.33141	181.30800	141.12113	14.55917	0.1850575	0.23405029	2.6077338	21	9 18.6	18.6
326979 2004 NH_{16}	16.3	X	341.11931	11.74171	292.78277	13.74426	0.1815693	0.22919958	2.6443981	21	6 26.8	18.8
326980 2004 NA_{20}	16.1	X	352.49657	342.75562	279.54918	10.71759	0.1515771	0.22658700	2.6646861	21	5 16.5	18.9
326981 2004 OH_{8}	16.8	X	275.56350	209.81117	116.10098	7.03866	0.2307142	0.22132570	2.7067500	21	4 12.2	21.0
326982 2004 OV_{14}	16.1	X	0.54201	193.44209	90.63346	13.51228	0.1629070	0.23024498	2.6363876	21	7 8.1	18.5
326983 2004 PJ_{4}	16.7	X	345.63611	133.94334	173.89163	13.35864	0.2751213	0.23040832	2.6351415	21	7 2.2	19.0
326984 2004 PM_{5}	17.0	X	298.00095	116.10949	222.84479	3.13670	0.2062822	0.22589500	2.6701253	21	5 25.6	20.5
326985 2004 PV_{20}	16.7	X	357.93652	144.98742	160.50914	13.24350	0.1825943	0.22968771	2.6406502	21	8 3.8	19.3
326986 2004 PM_{38}	15.8	X	331.43568	188.13952	146.86318	20.19586	0.2368868	0.22863597	2.6487421	21	7 15.0	18.4
326987 2004 PB_{60}	16.6	X	344.70406	289.93006	9.62654	7.76977	0.2311193	0.22712275	2.6604941	21	6 20.9	19.0
326988 2004 PN_{77}	16.0	X	31.88047	90.95564	162.59703	12.43181	0.1297031	0.22981569	2.6396698	21	7 20.6	19.1
326989 2004 PG_{78}	16.7	X	312.40674	343.52979	310.34743	12.76176	0.1933839	0.22198981	2.7013489	21	4 9.6	20.5
326990 2004 PB_{79}	16.5	X	341.32187	37.00706	263.57000	5.66130	0.2054178	0.22731506	2.6589933	21	6 17.4	18.7
326991 2004 PC_{80}	16.6	X	348.11923	134.96735	166.58459	17.29468	0.1895229	0.22777857	2.6553849	21	7 5.8	19.5
326992 2004 PZ_{86}	16.4	X	318.69139	147.36494	154.84861	12.19657	0.0452634	0.22379848	2.6867750	21	6 1.9	20.1
326993 2004 PG_{88}	16.8	X	344.75227	68.55990	217.96280	5.60019	0.2121855	0.22562571	2.6722494	21	6 2.7	19.2
326994 2004 PQ_{91}	16.2	X	247.41918	354.15483	337.35401	6.53345	0.0995590	0.21657453	2.7461935	21	3 29.3	20.3
326995 2004 PN_{115}	17.1	X	34.08926	105.70388	177.55552	11.40878	0.2341201	0.23468478	2.6030315	21	9 25.3	19.8
326996 2004 QJ_{4}	16.1	X	355.41962	237.48999	22.98189	12.37313	0.1333980	0.22635465	2.6665093	21	5 19.2	19.0
326997 2004 QE_{18}	16.3	X	229.99979	199.25939	151.90815	9.23342	0.1346147	0.21563958	2.7541256	21	4 7.3	20.7
326998 2004 QG_{27}	15.9	X	350.84848	47.91402	238.10991	14.66850	0.2045509	0.22514144	2.6760800	21	6 16.2	18.3
326999 2004 QG_{28}	16.8	X	149.46615	228.64470	199.70146	5.45890	0.0541614	0.21368639	2.7708827	21	4 15.1	20.8
327000 2004 RZ_{5}	16.3	X	226.96868	339.63478	29.65792	9.10062	0.2071442	0.21592200	2.7517235	21	4 20.2	20.9
327001 2004 RB_{16}	16.6	X	323.03894	135.15838	172.10824	12.40757	0.1717054	0.22416561	2.6838406	21	5 28.8	19.9
327002 2004 RD_{19}	16.2	X	162.56749	30.48634	343.87217	14.49106	0.1499325	0.20593255	2.8400069	21	3 2.5	20.6
327003 2004 RU_{21}	16.6	X	172.11718	34.02943	313.04305	1.06149	0.0735730	0.20356933	2.8619441	21	2 1.9	20.9
327004 2004 RO_{29}	16.2	X	309.98745	192.24358	134.91381	15.10147	0.1603392	0.22616363	2.6680105	21	6 6.9	19.7
327005 2004 RG_{51}	16.9	X	300.44278	203.89675	132.84990	4.75374	0.1929966	0.22345140	2.6895564	21	5 29.2	20.3
327006 2004 RY_{53}	16.6	X	231.08493	168.38801	183.00197	9.19797	0.1614237	0.21434033	2.7652440	21	4 5.3	21.1
327007 2004 RG_{56}	16.4	X	214.44436	168.32344	171.84664	20.84929	0.1015594	0.20998750	2.8033270	21	3 8.3	20.6
327008 2004 RY_{56}	16.7	X	210.06408	71.05440	267.50968	3.05147	0.1085800	0.20892917	2.8127858	21	3 1.0	21.1
327009 2004 RK_{84}	16.2	X	132.23157	212.83391	202.99043	14.81218	0.1321775	0.20287745	2.8684473	21	3 18.1	20.5
327010 2004 RU_{92}	16.4	X	209.14603	125.53895	251.78063	7.21523	0.2288427	0.21396337	2.7684909	21	4 12.7	21.3
327011 2004 RZ_{95}	16.3	X	6.92456	71.05687	185.54059	11.93904	0.1709099	0.22538099	2.6741834	21	6 9.9	19.1
327012 2004 RF_{136}	15.9	X	194.67203	95.64206	242.93995	11.26409	0.0666568	0.20572574	2.8419099	21	2 10.1	20.4
327013 2004 RK_{136}	15.7	X	280.13315	78.09909	242.79910	11.03746	0.1409394	0.21753646	2.7380919	21	4 16.3	19.6
327014 2004 RO_{141}	16.5	X	283.16645	306.68031	345.32558	11.86509	0.1308759	0.21506421	2.7590354	21	3 16.6	20.6
327015 2004 RU_{147}	16.3	X	259.96560	191.59994	167.56619	9.44673	0.1491391	0.21884281	2.7271845	21	5 16.2	20.5
327016 2004 RR_{163}	16.6	X	296.99159	78.16413	3.67711	23.96970	0.3626004	0.17116709	3.2125942	21	9 16.9	20.5
327017 2004 RQ_{181}	16.0	X	164.14838	218.93392	191.04829	15.10899	0.1542001	0.20956577	2.8070866	21	4 16.7	20.4
327018 2004 RC_{199}	15.6	X	254.32986	42.12074	306.72567	5.46054	0.2680769	0.21470847	2.7620822	21	4 11.8	20.4
327019 2004 RU_{204}	16.8	X	216.46143	80.53873	282.41842	4.97206	0.0813381	0.21268788	2.7795482	21	4 5.5	21.2
327020 2004 RU_{206}	16.3	X	16.05886	44.39403	236.55774	12.28918	0.2258343	0.23092786	2.6311877	21	8 7.1	18.9
327021 2004 RT_{209}	16.2	X	211.92828	118.35941	230.93069	11.29578	0.1749927	0.21083175	2.7958382	21	3 11.9	21.0
327022 2004 RR_{212}	15.7	X	301.25654	17.97181	269.53983	13.78237	0.1633479	0.21606822	2.7504819	21	3 22.3	19.8
327023 2004 RU_{219}	16.1	X	308.07790	23.03402	271.78133	8.51301	0.1830848	0.21806614	2.7336562	21	4 10.2	19.8
327024 2004 RO_{225}	16.3	X	263.73009	337.16781	351.75616	11.94804	0.2124377	0.21570347	2.7535816	21	3 31.6	20.7
327025 2004 RW_{229}	16.6	X	324.63335	137.83401	193.17419	6.34325	0.2398985	0.22498335	2.6773335	21	6 22.6	19.4
327026 2004 RH_{238}	16.5	X	70.93498	287.81429	197.29776	4.05024	0.0201358	0.20874621	2.8144291	21	3 14.3	20.3
327027 2004 RM_{238}	17.0	X	242.36383	7.09590	335.60015	3.29775	0.1082127	0.21417606	2.7666578	21	4 7.2	21.1
327028 2004 RG_{246}	16.3	X	337.96312	114.09403	198.97905	12.19855	0.1916069	0.22425608	2.6831188	21	6 29.7	19.2
327029 2004 RY_{253}	16.1	X	263.47635	293.60166	83.22518	10.02166	0.2264209	0.22189797	2.7020943	21	5 31.9	20.2
327030 Alanmaclure	16.1	X	228.68747	326.25120	19.65643	11.72622	0.0604978	0.21150128	2.7899348	21	4 2.3	20.2
327031 2004 RD_{290}	16.2	X	234.85709	330.20846	33.10802	12.35359	0.1754352	0.21757663	2.7377548	21	4 21.7	20.6
327032 2004 RA_{312}	16.4	X	287.29333	289.12041	359.98068	4.14485	0.0767737	0.21342178	2.7731726	21	3 26.9	20.3
327033 2004 RK_{323}	16.5	X	149.88167	55.29298	303.41681	8.56931	0.2345282	0.19912904	2.9043323	21	2 6.8	21.2
327034 2004 RO_{324}	16.3	X	254.17846	113.40846	232.34443	6.76537	0.1436551	0.21526233	2.7573424	21	4 20.4	20.5
327035 2004 RB_{335}	16.1	X	230.36233	198.57963	140.18208	13.01155	0.1200965	0.21228497	2.7830641	21	3 25.5	20.5
327036 2004 RN_{345}	16.4	X	64.48121	78.48328	0.23277	7.56988	0.1479239	0.19840212	2.9114221	21	1 23.4	19.9
327037 2004 RS_{346}	15.5	X	348.06687	65.00816	15.27755	25.94533	0.2536808	0.17900018	3.1181745	21	—	—
327038 2004 RV_{346}	17.0	X	27.99199	254.16046	160.92017	0.99310	0.1469886	0.18589354	3.0406039	21	—	—
327039 2004 RY_{356}	16.3	X	244.31874	317.45391	28.85311	9.60919	0.1102537	0.21503880	2.7592528	21	4 15.2	20.5
327040 2004 SV_{4}	16.6	X	271.11387	121.78868	210.38047	6.96599	0.2362894	0.21584000	2.7524204	21	4 11.5	20.9

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		°	°	°	°		°				
327041 2004 SY_{21}	16.4	X	327.28446	282.64453	353.36608	11.22698	0.1455710	0.21943136	2.7223058	21	4 19.1	19.8
327042 2004 SM_{23}	17.0	X	133.82755	359.39837	15.88801	2.80470	0.0696912	0.19743586	2.9209135	21	1 25.9	21.2
327043 2004 SX_{29}	15.7	X	69.39053	14.69846	2.35173	10.68179	0.2439303	0.18805447	3.0172661	21	—	—
327044 2004 SE_{38}	17.0	X	229.08850	73.55093	251.72627	2.74594	0.0932540	0.21014029	2.8019679	21	3 4.3	21.3
327045 2004 SO_{47}	15.0	X	354.08194	16.64301	30.10145	17.30381	0.0753332	0.17832943	3.1259884	21	11 29.6	19.3
327046 2004 SO_{59}	15.9	X	251.07492	303.27691	49.39425	14.07176	0.2178942	0.21402078	2.7679957	21	4 22.9	20.4
327047 2004 TB_{5}	15.5	X	40.40278	180.88860	220.99943	11.05101	0.1851360	0.18412017	3.0600967	21	—	—
327048 2004 TJ_{23}	16.6	X	58.44342	40.45839	355.27818	9.29812	0.0313649	0.18961662	3.0006715	21	—	—
327049 2004 TN_{39}	16.0	X	356.93589	112.11936	12.00279	10.96426	0.1609224	0.19108945	2.9852331	21	—	—
327050 2004 TN_{55}	15.5	X	300.78750	79.48028	46.46801	11.54950	0.1431640	0.17945030	3.1129580	21	12 18.4	19.4
327051 2004 TW_{55}	16.9	X	311.64036	272.36756	42.95186	11.80561	0.2852786	0.21953429	2.7214549	21	4 30.5	20.2
327052 2004 TY_{61}	16.3	X	93.80167	238.61268	182.68135	12.06222	0.1293907	0.19895134	2.9060615	21	2 6.7	20.2
327053 2004 TP_{72}	17.0	X	303.68235	228.98993	54.21398	3.03125	0.0946913	0.21166652	2.7884826	21	4 8.3	20.6
327054 2004 TT_{85}	16.9	X	99.71049	199.18309	177.72062	0.83506	0.0849915	0.19311107	2.9643622	21	—	—
327055 2004 TZ_{85}	16.9	X	236.04868	106.38211	182.50184	1.88656	0.0379751	0.20203490	2.8764165	21	1 31.5	21.0
327056 2004 TA_{89}	16.3	X	8.11266	280.37784	170.92306	5.30310	0.1486179	0.18822085	3.0154877	21	—	—
327057 2004 TX_{144}	16.2	X	71.91135	5.44150	15.59348	2.87382	0.2188999	0.18668601	3.0319931	21	—	—
327058 2004 TG_{146}	16.2	X	249.48282	135.51240	194.40622	8.95480	0.1627729	0.21101983	2.7941767	21	3 26.3	20.7
327059 2004 TG_{149}	16.6	X	78.47586	17.84753	13.48131	15.22454	0.0027217	0.19110752	2.9850449	21	—	—
327060 2004 TK_{155}	16.1	X	317.82260	93.03972	23.70167	5.91450	0.1656175	0.18340093	3.0680919	21	—	—
327061 2004 TS_{157}	16.2	X	262.49819	100.49858	224.44236	12.91892	0.1779069	0.21123469	2.7922817	21	3 29.1	20.6
327062 2004 TF_{203}	15.2	X	316.03544	268.31487	234.40847	11.07875	0.1272772	0.18302464	3.0722957	21	—	—
327063 2004 TG_{204}	15.3	X	296.28624	271.05816	231.74360	24.23449	0.2725631	0.17704558	3.1410824	21	12 14.4	18.9
327064 2004 TE_{205}	15.7	X	349.74730	24.05439	43.58424	21.76370	0.1834887	0.17786236	3.1314587	21	12 29.4	19.6
327065 2004 TA_{206}	16.0	X	18.34100	219.73722	217.83281	7.84123	0.1026307	0.18447530	3.0561681	21	—	—
327066 2004 TE_{215}	16.7	X	149.31968	159.76705	205.40466	5.73559	0.0832816	0.20043900	2.8916645	21	1 29.7	21.0
327067 2004 TM_{235}	16.4	X	135.49331	179.96790	198.46557	7.56864	0.0867185	0.19741833	2.9210863	21	1 30.8	20.7
327068 2004 TS_{296}	16.1	X	107.13800	133.41425	221.73131	9.31230	0.0525499	0.18696806	3.0289430	21	—	—
327069 2004 TY_{305}	15.6	X	165.35601	41.95714	248.49076	9.29722	0.0752865	0.19204180	2.9753556	21	—	—
327070 2004 TN_{306}	15.9	X	87.53342	93.25697	308.26079	7.35012	0.0794600	0.19446773	2.9505593	21	1 1.8	19.8
327071 2004 TQ_{356}	16.2	X	235.47035	175.60003	168.26242	14.33895	0.2022982	0.21108481	2.7936033	21	3 30.2	20.8
327072 2004 TD_{369}	15.9	X	328.59735	87.29347	33.12117	7.82666	0.0952928	0.18352198	3.0667426	21	—	—
327073 2004 UD_{5}	16.3	X	251.13230	167.52003	165.87682	14.48931	0.2077624	0.21221856	2.7836448	21	3 31.0	20.8
327074 2004 UT_{6}	15.7	X	314.35413	49.44663	47.83710	10.67897	0.1856853	0.17656302	3.1468030	21	11 30.1	19.3
327075 2004 VW_{12}	15.5	X	8.44184	28.12864	63.46426	19.93377	0.2169817	0.18356917	3.0662170	21	—	—
327076 2004 VO_{13}	16.2	X	241.63479	230.22547	105.97210	12.51880	0.3453860	0.21097966	2.7945314	21	3 22.7	21.5
327077 2004 VW_{27}	15.1	X	140.35060	79.99417	244.94794	21.20869	0.0198308	0.18575977	3.0420635	21	—	—
327078 2004 VR_{35}	15.6	X	76.78814	350.69235	61.04711	11.20612	0.0970581	0.18902007	3.0069816	21	1 2.6	19.5
327079 2004 VW_{35}	15.5	X	268.78381	61.15271	66.22462	15.57873	0.1354657	0.17162481	3.2068798	21	11 7.6	19.9
327080 2004 VK_{38}	16.7	X	93.77210	332.73107	53.51223	2.99693	0.0778960	0.18941351	3.0028162	21	—	—
327081 2004 VV_{42}	16.3	X	285.35517	64.35911	74.69093	2.10090	0.1575771	0.17784039	3.1317166	21	12 9.6	20.3
327082 Tournesol	16.2	X	108.59015	304.38388	66.26393	12.15727	0.0438278	0.18984273	2.9982883	21	—	—
327083 2004 VK_{68}	16.0	X	336.03898	23.80282	66.42560	6.50971	0.1173642	0.17923581	3.1154410	21	—	—
327084 2004 VS_{86}	15.7	X	85.57768	316.15219	83.70231	10.57880	0.0968951	0.18872570	3.0101076	21	—	—
327085 2004 VF_{89}	15.4	X	355.30986	163.45829	267.77877	9.56744	0.1058967	0.17949591	3.1124306	21	—	—
327086 2004 WW_{7}	15.6	X	163.47733	98.34399	231.92914	12.47478	0.1051043	0.19272848	2.9682840	21	1 6.3	20.2
327087 2004 XH_{1}	16.8	X	359.24177	312.58256	12.11615	12.00007	0.4738217	0.23026706	2.6362191	21	10 23.5	17.8
327088 2004 XE_{8}	15.4	X	24.41784	341.23206	76.15538	21.34044	0.1706296	0.18192777	3.0846321	21	—	—
327089 2004 XT_{14}	16.0	X	27.70369	32.62001	35.50362	10.50634	0.0159109	0.18360355	3.0658342	21	—	—
327090 2004 XR_{21}	15.2	X	40.23381	153.33918	254.88310	15.96359	0.1340079	0.18182246	3.0858231	21	—	—
327091 2004 XA_{25}	15.8	X	106.49635	268.64838	113.67528	3.12860	0.2551683	0.18983950	2.9983223	21	1 28.5	19.9
327092 2004 XB_{25}	15.6	X	11.57327	326.44160	93.47107	14.29588	0.2088751	0.17853914	3.1235401	21	—	—
327093 2004 XO_{31}	15.2	X	0.66631	332.54906	102.74085	11.80316	0.1920405	0.17663013	3.1460058	21	—	—
327094 2004 XO_{33}	15.3	X	329.20622	337.55442	82.86462	29.09470	0.1525939	0.17054417	3.2204122	21	11 19.8	19.4
327095 2004 XG_{56}	15.7	X	74.08438	315.35630	77.61995	11.47314	0.1195857	0.18319614	3.0703779	21	—	—
327096 2004 XL_{94}	15.7	X	318.37300	194.23717	272.18690	7.77863	0.0580008	0.17454093	3.1710605	21	12 25.6	19.8
327097 2004 XJ_{96}	15.7	X	331.85820	50.34143	91.44949	16.69967	0.0489294	0.18007496	3.1057548	21	—	—
327098 2004 XM_{140}	15.4	X	329.48624	353.50576	109.70156	16.73932	0.1312024	0.17400763	3.1775363	21	—	—
327099 2004 XQ_{144}	18.1	X	325.08334	215.57533	286.57180	3.17201	0.1149929	0.29717370	2.2239711	21	—	—
327100 2004 XU_{159}	15.7	X	11.93603	25.72357	72.74310	10.62134	0.0505213	0.18021879	3.1041022	21	—	—
327101 2004 XS_{179}	15.6	X	331.03993	346.56484	97.81210	10.05440	0.0994275	0.17399487	3.1776916	21	12 16.3	19.5
327102 2004 XF_{186}	18.4	X	72.65167	60.14500	351.15212	4.34337	0.1201103	0.30317124	2.1945428	21	—	—
327103 2005 AT_{12}	15.2	X	35.25708	318.00608	112.08302	19.43885	0.1543814	0.18058438	3.0999112	21	—	—
327104 2005 AH_{48}	18.2	X	353.80487	2.17824	112.99247	3.54473	0.1066947	0.29764608	2.2216174	21	—	—
327105 2005 AT_{55}	15.4	X	75.47966	261.36400	127.55455	10.00779	0.0815911	0.17947994	3.1126152	21	—	—
327106 2005 AC_{68}	17.4	X	304.29695	214.67864	324.17452	5.57162	0.0735834	0.29851106	2.2173237	21	—	—
327107 2005 AA_{69}	15.3	X	275.20792	55.96941	107.75233	11.40289	0.0640518	0.17224262	3.1992067	21	—	—
327108 2005 BC_{27}	15.1	X	343.11278	10.14301	67.08735	31.27213	0.2373395	0.17271757	3.1933391	21	12 28.4	18.7
327109 2005 CP_{1}	17.2	X	100.54199	274.17886	127.85164	6.45365	0.0793245	0.30339907	2.1934440	21	—	—
327110 2005 CY_{13}	17.3	X	83.64818	301.20525	109.51221	4.33802	0.0943345	0.30100479	2.2050602	21	—	—
327111 2005 CH_{44}	18.0	X	276.70497	124.87812	1.00346	2.55889	0.1158693	0.28401519	2.2921428	21	12 10.2	20.3
327112 2005 CZ_{46}	17.4	X	339.14758	4.68269	142.48432	4.84253	0.0518291	0.29714804	2.2240991	21	—	—
327113 2005 CG_{65}	17.1	X	11.85614	345.72400	112.98520	4.90716	0.0493247	0.29526898	2.2335251	21	—	—
327114 2005 EV_{7}	16.8	X	220.53690	273.03126	6.74965	3.97278	0.1591249	0.29223777	2.2489432	21	—	—
327115 2005 EM_{27}	17.3	X	325.30645	319.82988	161.39519	5.31506	0.2629368	0.29127929	2.2538741	21	—	—
327116 2005 ES_{55}	17.9	X	165.62622	106.67346	169.70357	3.55359	0.1677971	0.28417236	2.2912976	21	—	—
327117 2005 EH_{63}	16.0	X	241.75910	298.98073	166.35697	1.93057	0.0323425	0.15267413	3.4670419	21	9 18.2	20.9
327118 2005 EW_{65}	18.1	X	217.81442	143.33022	167.45394	3.90680	0.1386419	0.30024772	2.2087653	21	1 21.5	21.4
327119 2005 EN_{80}	15.5	X	68.33747	285.75541	122.97300	11.47172	0.1154426	0.17930204	3.1146737	21	—	—
327120 2005 EF_{91}	17.0	X	144.97391	14.22449	321.71538	9.00931	0.1901116	0.29114378	2.2545734	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327121 2005 EB_{115}	17.4	X	207.78143	302.06686	4.63197	5.61650	0.1835236	0.29599978	2.2298473	21	1 10.9	20.9
327122 2005 EL_{137}	17.8	X	229.40001	129.78872	65.62601	1.18961	0.1480349	0.28111588	2.3078760	21	12 29.6	20.6
327123 2005 EW_{141}	18.0	X	271.05361	41.89822	180.71883	2.00209	0.0901396	0.29686934	2.2254909	21	—	—
327124 2005 ER_{144}	17.7	X	183.68370	151.27509	161.46093	6.14125	0.1311744	0.29325777	2.2437253	21	—	—
327125 2005 EQ_{145}	17.6	X	352.22536	57.61025	13.81945	6.33371	0.1695220	0.28601999	2.2814194	21	—	—
327126 2005 ER_{148}	17.4	X	208.15108	256.59439	31.24389	7.10606	0.1685107	0.29043982	2.2582150	21	—	—
327127 2005 EY_{148}	17.4	X	279.20878	134.73429	33.01864	6.72399	0.0243666	0.28566566	2.2833055	21	—	—
327128 2005 EM_{150}	17.3	X	265.70731	84.87465	88.08049	4.01694	0.1423971	0.28477527	2.2880624	21	—	—
327129 2005 EW_{150}	17.5	X	232.32525	99.71289	129.03287	3.17360	0.1134184	0.28626495	2.2801177	21	—	—
327130 2005 EL_{151}	17.8	X	247.46998	40.83464	149.22415	4.74903	0.0678407	0.28354634	2.2946689	21	—	—
327131 2005 EO_{164}	17.2	X	8.39757	64.29239	54.66581	5.60592	0.0931204	0.29737849	2.2229499	21	—	—
327132 2005 EJ_{181}	17.4	X	319.74832	92.19850	30.44278	6.41376	0.1182248	0.28871666	2.2671912	21	—	—
327133 2005 EB_{185}	18.0	X	182.72492	303.31676	303.65299	2.10926	0.1724344	0.27951688	2.3166692	21	—	—
327134 2005 EN_{186}	17.5	X	328.85902	37.97153	47.23061	3.46717	0.1865630	0.28646020	2.2790815	21	—	—
327135 2005 EA_{195}	17.7	X	340.48316	325.81714	185.14797	5.79661	0.0971353	0.29497551	2.2350063	21	—	—
327136 2005 EV_{195}	17.0	X	159.95133	136.44917	189.13146	7.40031	0.1617140	0.29062421	2.2572597	21	—	—
327137 2005 EV_{206}	18.1	X	225.81645	27.17315	201.66403	5.44738	0.1737014	0.28425071	2.2908765	21	—	—
327138 2005 EJ_{213}	18.1	X	212.26081	69.19743	162.04845	2.57675	0.1132146	0.28468104	2.2885673	21	—	—
327139 2005 ES_{213}	17.6	X	200.80607	4.10801	247.33868	0.93058	0.1413859	0.28465232	2.2887212	21	—	—
327140 2005 EE_{224}	19.9	X	357.97633	208.30239	19.96293	21.82031	0.3732938	0.42764025	1.7448188	21	1 14.9	22.3
327141 2005 EC_{249}	17.6	X	351.51483	301.39126	177.76169	5.65382	0.0397184	0.29223172	2.2489742	21	—	—
327142 2005 EJ_{257}	17.6	X	114.76096	158.61404	210.60762	4.02575	0.1691990	0.29224646	2.2488986	21	—	—
327143 2005 ET_{262}	17.7	X	303.26563	302.17832	210.58546	2.51297	0.0909080	0.28937910	2.2637299	21	—	—
327144 2005 EW_{264}	17.8	X	166.00112	77.57548	198.98849	5.52907	0.1888636	0.28197515	2.3031850	21	—	—
327145 2005 GB_{9}	17.1	X	130.25948	215.59185	98.31624	3.32860	0.1775253	0.28119681	2.3074331	21	—	—
327146 2005 GA_{26}	17.6	X	61.37957	341.28601	29.66067	4.08331	0.1445527	0.28071571	2.3100687	21	—	—
327147 2005 GM_{33}	17.3	X	184.03343	51.58457	197.03968	23.03791	0.1629437	0.28010287	2.3134370	21	—	—
327148 2005 GF_{45}	17.5	X	194.67667	355.70357	239.11857	4.91590	0.1974538	0.27929928	2.3178723	21	—	—
327149 2005 GW_{48}	17.8	X	309.55444	288.10433	186.72215	5.11807	0.1714871	0.28345769	2.2951472	21	—	—
327150 2005 GS_{57}	17.6	X	298.36753	299.28314	185.71047	5.67593	0.1049358	0.28187973	2.3037047	21	—	—
327151 2005 GX_{71}	17.9	X	347.78370	89.99407	28.12517	3.26097	0.0536943	0.29043153	2.2582579	21	—	—
327152 2005 GM_{84}	17.4	X	23.37156	269.48761	167.49525	2.40376	0.0264314	0.29071903	2.2567688	21	—	—
327153 2005 GO_{84}	16.6	X	162.09566	298.53186	17.12044	22.84405	0.2485540	0.28423126	2.2909810	21	—	—
327154 2005 GW_{96}	16.8	X	119.01473	146.35320	183.82249	5.81733	0.1384258	0.28174905	2.3044170	21	—	—
327155 2005 GJ_{100}	17.5	X	192.37041	315.01613	340.21598	4.31786	0.1972200	0.29155573	2.2524492	21	—	—
327156 2005 GT_{113}	17.2	X	225.83854	199.20109	36.51476	8.84456	0.1570844	0.28529283	2.2852944	21	—	—
327157 2005 GP_{126}	17.4	X	113.55475	288.54960	29.07712	7.19831	0.1288766	0.27726133	2.3292165	21	—	—
327158 2005 GK_{127}	16.7	X	179.34301	226.29149	54.89273	26.18885	0.1764578	0.28173976	2.3044677	21	—	—
327159 2005 GO_{163}	17.8	X	198.57511	57.26306	195.33482	1.34779	0.1189709	0.28264537	2.2995426	21	—	—
327160 2005 GF_{167}	17.3	X	138.14543	244.47078	47.61088	7.69063	0.1046738	0.27664459	2.3326769	21	—	—
327161 2005 HZ	18.3	X	217.75992	59.42098	173.98936	0.87361	0.1722135	0.28258094	2.2998922	21	—	—
327162 2005 HJ_{5}	17.2	X	243.50321	100.11745	81.87893	9.06240	0.1482976	0.27879542	2.3206642	21	12 30.4	19.9
327163 2005 JC_{2}	17.4	X	147.16029	111.44546	200.60059	20.21279	0.1619284	0.28430136	2.2906044	21	—	—
327164 2005 JX_{2}	17.7	X	124.46092	60.18126	207.66205	1.24291	0.1489333	0.27047154	2.3680362	21	12 10.6	21.4
327165 2005 JC_{16}	17.2	X	167.35148	190.33278	63.78445	6.89459	0.2327068	0.27570477	2.3379750	21	12 29.6	21.1
327166 2005 JR_{38}	17.7	X	55.39144	276.45417	41.74303	1.94996	0.1957854	0.26502881	2.4003468	21	12 8.2	21.0
327167 2005 JM_{47}	18.4	X	135.41909	128.62907	168.38549	2.02083	0.2064174	0.27542509	2.3395575	21	—	—
327168 2005 JG_{59}	17.4	X	182.39825	198.86988	87.72883	3.44641	0.1926565	0.28223059	2.3017951	21	—	—
327169 2005 JE_{81}	16.6	X	129.71601	316.76154	353.54968	24.24652	0.2215530	0.27850276	2.3222896	21	—	—
327170 2005 JM_{84}	17.9	X	153.45593	67.30963	214.14343	6.10636	0.1166265	0.28002272	2.3138784	21	—	—
327171 2005 JN_{85}	18.0	X	121.38385	96.02454	205.70583	3.09293	0.1674432	0.27376230	2.3490213	21	—	—
327172 2005 JC_{89}	17.7	X	178.51332	208.72695	63.04780	5.82282	0.3092957	0.27847359	2.3224518	21	—	—
327173 2005 JQ_{105}	17.7	X	89.55058	251.86043	72.92188	6.30378	0.2310684	0.27101256	2.3648836	21	—	—
327174 2005 JJ_{120}	17.5	X	233.94158	23.18207	114.27357	4.60042	0.1769479	0.27074320	2.3664519	21	10 15.3	20.7
327175 2005 JJ_{121}	17.5	X	141.73536	222.24909	83.26571	7.74868	0.2652351	0.27572091	2.3378837	21	—	—
327176 2005 JP_{127}	17.6	X	174.05715	116.41621	146.06233	2.79749	0.2028189	0.27688265	2.3313397	21	—	—
327177 2005 JJ_{185}	17.9	X	141.57166	171.09875	127.94001	2.99993	0.2112095	0.27558473	2.3386538	21	—	—
327178 2005 KD_{8}	17.1	X	219.43849	51.74756	159.69230	2.56436	0.1243613	0.27744342	2.3281972	21	—	—
327179 2005 KF_{13}	17.1	X	54.31488	190.38826	136.40909	3.93734	0.1899268	0.25800115	2.4437398	21	12 16.4	20.5
327180 2005 LH_{5}	17.2	X	97.93441	177.82229	132.96352	7.19523	0.1265717	0.27115517	2.3640544	21	—	—
327181 2005 LH_{23}	16.8	X	99.61996	220.27528	94.83523	5.81768	0.2691113	0.26610540	2.3938683	21	—	—
327182 2005 LN_{26}	17.4	X	149.11149	149.46040	153.51735	6.69495	0.1342322	0.27767157	2.3269217	21	—	—
327183 2005 LF_{32}	17.3	X	154.00081	154.02459	100.13803	8.30124	0.1747656	0.27237061	2.3570162	21	12 20.6	21.1
327184 2005 LF_{40}	18.1	X	149.80514	146.56907	119.01626	3.28499	0.2057274	0.26822874	2.3812181	21	12 29.1	22.1
327185 2005 LZ_{41}	17.9	X	173.06571	201.45642	85.53316	3.64421	0.2033818	0.27805823	2.3247640	21	—	—
327186 2005 LC_{42}	17.0	X	105.48882	202.85351	110.02840	3.04649	0.2182041	0.26712804	2.3877548	21	—	—
327187 2005 LF_{53}	17.4	X	84.34866	178.83025	124.30526	3.15043	0.2013155	0.26075078	2.4265299	21	12 18.6	21.2
327188 2005 MQ_{5}	17.1	X	81.58529	240.83732	77.37440	4.94200	0.1626786	0.26794022	2.3829272	21	—	—
327189 2005 MA_{7}	17.1	X	94.53822	246.64264	85.72674	7.69426	0.1324247	0.27236024	2.3570759	21	—	—
327190 2005 MY_{7}	17.1	X	95.25810	38.58353	239.95252	6.63888	0.1942830	0.26008773	2.4306521	21	11 27.9	20.9
327191 2005 MD_{12}	17.7	X	138.71911	178.53457	96.35464	2.57167	0.1658341	0.26758663	2.3850259	21	12 31.6	21.6
327192 2005 MH_{22}	16.9	X	302.97038	299.58562	125.17134	6.16954	0.0383187	0.25686056	2.4509687	21	10 31.8	19.9
327193 2005 MQ_{28}	17.0	X	16.28773	73.48828	248.67850	6.76164	0.1289260	0.25224826	2.4807553	21	10 2.6	19.8
327194 2005 MG_{30}	17.3	X	26.26436	207.65818	154.88533	7.27462	0.1231781	0.25910207	2.4368125	21	12 18.0	20.3
327195 2005 MU_{30}	17.4	X	96.31287	4.06186	280.24615	2.78014	0.1745914	0.26026285	2.4295617	21	12 4.3	21.0
327196 2005 MR_{33}	17.5	X	91.38384	126.99736	164.27362	2.36585	0.1478698	0.26181204	2.4199681	21	12 6.8	21.1
327197 2005 MC_{39}	17.2	X	310.70046	55.57498	299.48526	4.06794	0.0667768	0.24511367	2.5286635	21	7 29.1	20.1
327198 2005 MA_{54}	16.7	X	29.98590	274.64869	77.14656	8.73110	0.2109665	0.25645955	2.4535230	21	12 21.3	19.8
327199 2005 NQ	17.8	X	105.62063	350.18168	287.48394	1.73235	0.1925303	0.26211268	2.4181173	21	12 6.0	21.6
327200 2005 NV_{7}	17.2	X	91.61926	46.82741	263.88780	4.39366	0.2484738	0.26321729	2.4113473	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327201 2005 NW_{15}	17.2	X	11.04780	251.30263	96.79812	3.81327	0.1894073	0.25461843	2.4653362	21	11 14.1	19.5
327202 2005 NN_{40}	17.3	X	68.08281	147.23533	157.96560	1.14576	0.1851532	0.25964784	2.4333967	21	12 3.7	20.6
327203 2005 NX_{40}	17.6	X	116.16742	130.96109	142.75439	1.75457	0.1656406	0.26419948	2.4053673	21	12 9.9	21.4
327204 2005 NB_{46}	17.8	X	121.92297	100.81088	158.27760	1.46134	0.1550455	0.26173526	2.4204413	21	11 26.7	21.5
327205 2005 NU_{48}	16.7	X	76.01637	358.54921	303.18839	11.37955	0.2480461	0.25957069	2.4338788	21	12 13.2	20.6
327206 2005 NQ_{66}	17.7	X	90.45261	290.10533	33.33761	1.65132	0.1774091	0.26527260	2.3988760	21	—	—
327207 2005 NF_{70}	17.7	X	130.98742	174.13876	110.09918	2.60926	0.1747176	0.26666229	2.3905343	21	—	—
327208 2005 NB_{82}	17.4	X	112.31538	139.98972	113.07095	10.84025	0.1921612	0.25941632	2.4348443	21	11 15.3	21.5
327209 2005 NA_{91}	17.1	X	113.79468	166.21168	127.54723	7.38013	0.1067737	0.26589315	2.3951421	21	12 30.2	20.7
327210 2005 NH_{101}	17.6	X	151.50969	331.06289	282.09355	0.76283	0.1409387	0.26562204	2.3967716	21	12 16.9	21.2
327211 2005 NQ_{124}	18.1	X	142.06911	239.96098	48.60052	2.72391	0.2354140	0.26924079	2.3752472	21	—	—
327212 2005 NY_{124}	16.7	X	29.51359	91.29577	261.40469	6.21603	0.1887741	0.25901518	2.4373575	21	12 19.2	19.6
327213 2005 NT_{125}	16.7	X	107.87324	251.55066	45.38204	7.54948	0.1188091	0.26448372	2.4036437	21	12 28.5	20.4
327214 2005 ON_{2}	17.1	X	84.78840	256.22304	55.02921	7.19334	0.2143398	0.26216900	2.4177710	21	12 30.0	21.0
327215 2005 OC_{17}	17.1	X	141.95609	67.38697	166.26329	14.57341	0.0571876	0.25836417	2.4414501	21	11 15.7	20.8
327216 2005 OX_{17}	17.5	X	53.16457	141.72478	179.53739	6.55777	0.1320086	0.25628574	2.4546321	21	11 30.6	20.8
327217 2005 OD_{25}	17.0	X	281.85482	58.07464	301.57039	7.26204	0.1577407	0.23907353	2.5710768	21	6 7.4	20.4
327218 2005 OM_{28}	17.1	X	20.46578	224.67562	70.69906	2.28777	0.1191201	0.24544736	2.5263711	21	9 2.9	19.9
327219 2005 PN_{23}	16.7	X	146.48809	94.65607	163.00804	4.67053	0.1694730	0.26424962	2.4050631	21	12 17.2	20.6
327220 2005 QO	17.0	X	88.40160	172.72273	164.99480	14.51755	0.2876243	0.26510601	2.3998808	21	—	—
327221 2005 QS_{26}	16.9	X	172.93523	4.59148	83.20868	3.53616	0.0922771	0.23035814	2.6355242	21	6 7.5	20.7
327222 2005 QC_{28}	17.1	X	122.39882	263.71671	11.06537	2.43559	0.1940296	0.26225378	2.4172499	21	12 16.8	21.0
327223 2005 QW_{61}	16.9	X	118.97913	346.61377	273.95829	4.75498	0.1853188	0.25914266	2.4365581	21	11 25.8	20.8
327224 2005 QN_{90}	17.0	X	236.96970	32.70798	296.58326	2.20684	0.1049554	0.22581305	2.6707713	21	3 15.2	21.1
327225 2005 QD_{100}	17.0	X	43.24226	96.17128	171.71428	15.05340	0.0816500	0.24473986	2.5312376	21	8 23.2	20.2
327226 2005 QQ_{100}	17.3	X	23.88070	125.75920	204.45717	3.39564	0.2269143	0.25191964	2.4829122	21	11 15.6	19.9
327227 2005 QH_{108}	17.1	X	110.67787	94.11060	193.18745	3.96884	0.1890714	0.26082932	2.4260427	21	12 21.7	21.1
327228 2005 QO_{112}	17.1	X	59.49042	97.05145	176.40570	10.28783	0.0313322	0.24622144	2.5210733	21	9 17.8	20.2
327229 2005 QO_{120}	17.6	X	68.45914	291.36202	6.80814	1.19342	0.1765291	0.25592696	2.4569257	21	11 23.2	20.9
327230 2005 QD_{160}	16.3	X	65.89167	314.73262	21.10680	8.87895	0.3141831	0.25986428	2.4320453	21	—	—
327231 2005 QO_{167}	16.8	X	18.56546	54.02154	224.39297	7.42313	0.1533278	0.24461326	2.5321109	21	8 3.7	19.5
327232 2005 QH_{182}	16.3	X	109.10209	108.58655	347.97773	8.70564	0.1476377	0.21934039	2.7230585	21	4 11.3	20.2
327233 2005 QT_{187}	17.8	X	72.23661	356.76321	298.44725	1.68094	0.1946919	0.25523511	2.4613636	21	11 25.4	21.3
327234 2005 RL_{12}	16.5	X	174.52697	351.46866	163.32151	3.99423	0.0805448	0.24635126	2.5201875	21	9 6.0	20.0
327235 2005 RN_{21}	16.7	X	156.90625	51.16492	213.98199	6.99672	0.2353347	0.26682838	2.3895422	21	—	—
327236 2005 RG_{46}	17.2	X	9.08913	226.41893	75.44805	8.85715	0.1925250	0.24193153	2.5507882	21	9 2.6	19.6
327237 2005 RK_{46}	16.8	X	28.40471	48.66019	149.56959	11.85156	0.0271888	0.22324187	2.6912391	21	4 25.0	20.5
327238 2005 RG_{47}	16.0	X	93.12966	339.30930	140.95156	15.06576	0.0453620	0.21743144	2.7389735	21	4 15.3	19.9
327239 2005 SN_{18}	16.5	X	164.84603	50.40813	3.78911	6.16489	0.1196891	0.22258327	2.6965452	21	4 17.0	20.6
327240 2005 SO_{20}	16.4	X	224.59434	319.73663	44.89614	5.26439	0.2323416	0.22473957	2.6792692	21	4 12.2	21.0
327241 2005 SQ_{21}	16.4	X	28.56828	112.11931	236.09392	6.87252	0.2475460	0.25612652	2.4556493	21	12 20.3	19.5
327242 2005 SY_{28}	16.3	X	100.61201	104.28219	2.76042	14.13100	0.1613851	0.21804165	2.7338609	21	4 15.6	20.2
327243 2005 SQ_{32}	17.1	X	326.78283	155.08140	181.89649	9.59990	0.1336141	0.23862902	2.5742687	21	7 19.9	20.0
327244 2005 SN_{43}	17.5	X	1.00702	358.03817	308.39865	2.53942	0.1843085	0.24116202	2.5562115	21	8 15.2	19.4
327245 2005 SC_{45}	17.3	X	21.46836	78.90450	207.77190	13.63014	0.1001380	0.23952150	2.5678701	21	8 13.5	20.6
327246 2005 SQ_{45}	17.0	X	160.37753	62.10005	347.78329	2.64209	0.0697654	0.22040313	2.7142981	21	4 4.1	21.0
327247 2005 SZ_{46}	17.2	X	161.96207	73.52437	341.99164	2.15734	0.0750773	0.22158993	2.7045979	21	4 13.3	21.2
327248 2005 SS_{53}	16.4	X	217.30448	345.05413	20.44342	13.36876	0.1902056	0.22326193	2.6910779	21	4 8.0	20.7
327249 2005 SO_{72}	16.4	X	204.91454	42.33337	19.91851	14.00920	0.0982704	0.23084905	2.6317865	21	6 5.9	20.6
327250 2005 SG_{94}	16.7	X	192.70891	235.27552	169.95111	14.48057	0.1592924	0.22896782	2.6461822	21	5 8.1	21.2
327251 2005 SG_{97}	16.2	X	239.91103	92.73293	266.33508	9.82232	0.1292022	0.22810247	2.6528705	21	4 20.4	20.4
327252 2005 SP_{98}	16.3	X	328.73500	193.92765	340.89842	8.94890	0.0500907	0.20873261	2.8145514	21	—	—
327253 2005 SD_{102}	17.0	X	222.62018	44.53430	325.96771	4.62113	0.0892579	0.22526058	2.6751363	21	4 20.6	21.0
327254 2005 SB_{106}	16.0	X	282.95916	114.80429	196.08291	11.92339	0.2116794	0.22797889	2.6538292	21	3 29.6	19.8
327255 2005 SF_{108}	17.1	X	321.69631	305.54525	5.68813	3.35326	0.0896748	0.23388530	2.6089601	21	6 9.9	20.2
327256 2005 SM_{116}	18.2	X	338.99284	216.65742	205.15254	20.12392	0.0878506	0.37927190	1.8901761	21	—	—
327257 2005 SV_{118}	16.9	X	308.69500	192.32078	154.88639	9.45355	0.1770565	0.23865989	2.5740467	21	6 27.5	19.9
327258 2005 SA_{119}	17.4	X	96.76511	265.32953	49.14201	12.00191	0.3089298	0.26186190	2.4196609	21	—	—
327259 2005 SJ_{120}	16.3	X	92.00592	197.62539	5.41751	9.14050	0.1263314	0.23797494	2.5789835	21	8 13.6	20.0
327260 2005 SD_{122}	17.2	X	80.14075	300.39714	209.94471	14.05647	0.0560220	0.22486297	2.6782889	21	5 3.6	20.7
327261 2005 SA_{126}	17.8	X	4.87913	25.45389	17.21670	21.01660	0.1234367	0.38030596	1.8867483	21	—	—
327262 2005 SJ_{133}	16.7	X	132.06696	62.78453	20.82013	5.03464	0.0892204	0.21921051	2.7241340	21	4 17.0	20.4
327263 2005 SM_{138}	17.3	X	8.22701	125.86121	148.11229	2.49489	0.0671547	0.23613358	2.5923734	21	7 5.5	20.1
327264 2005 ST_{166}	16.1	X	229.28720	163.41929	139.92094	12.40770	0.2330074	0.21893042	2.7264569	21	2 2.2	20.9
327265 2005 SG_{168}	17.5	X	33.48684	96.46255	200.72937	2.42055	0.1306242	0.24606040	2.5221732	21	9 27.8	20.3
327266 2005 SS_{171}	17.2	X	315.04861	29.36728	301.64610	2.68680	0.1390129	0.23732267	2.5837068	21	6 20.8	20.1
327267 2005 SR_{179}	16.5	X	199.13194	220.76387	184.78986	12.46086	0.1435284	0.22742610	2.6581277	21	5 13.5	20.9
327268 2005 SD_{187}	17.1	X	148.16826	123.96300	316.34371	4.99564	0.0677357	0.22404411	2.6848108	21	4 26.9	21.0
327269 2005 SV_{192}	16.6	X	220.44139	207.40180	211.70527	14.26477	0.0756771	0.23114632	2.6295296	21	6 22.3	20.7
327270 2005 SV_{202}	17.5	X	274.52218	211.80360	171.02207	1.36460	0.0205341	0.23812563	2.5778954	21	7 21.6	20.8
327271 2005 SJ_{211}	16.7	X	331.59747	321.87932	1.21094	9.24124	0.1367409	0.23821023	2.5772850	21	7 11.9	19.6
327272 2005 SY_{211}	17.1	X	321.06977	80.91854	212.90690	2.33008	0.0500077	0.22885968	2.6470158	21	5 21.6	20.4
327273 2005 SP_{216}	17.1	X	215.27123	159.29995	213.02708	3.90670	0.1287905	0.22372558	2.6873586	21	4 15.7	21.4
327274 2005 SS_{225}	16.9	X	174.35711	193.37248	212.19026	8.62202	0.0855119	0.22047624	2.7136981	21	4 15.4	21.0
327275 2005 SS_{233}	16.9	X	335.67286	95.28089	211.40720	7.06467	0.1235028	0.23342195	2.6124115	21	6 23.5	19.9
327276 2005 SM_{237}	16.7	X	316.61833	300.02003	359.00212	3.77146	0.0658869	0.22862444	2.6488312	21	5 18.6	20.0
327277 2005 SJ_{247}	16.8	X	284.30080	149.45018	203.16636	7.12831	0.0804573	0.23285412	2.6166568	21	6 14.1	20.4
327278 2005 ST_{255}	16.8	X	127.30541	80.08265	337.61244	0.90515	0.2229216	0.21660633	2.7459247	21	3 26.0	21.1
327279 2005 SD_{265}	17.5	X	338.23735	147.15033	192.77656	14.03897	0.1702127	0.24165652	2.5527231	21	8 12.1	20.2
327280 2005 SC_{280}	16.6	X	288.25845	304.88161	45.77075	15.12773	0.1567752	0.23446992	2.6046216	21	6 1.9	20.2

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327281 2005 ST_{291}	16.7	X	17.29924	248.56827	4.11532	14.62867	0.0735933	0.23199008	2.6231499	21	6 19.6	20.1
327282 2005 TR_{9}	16.4	X	265.71030	168.62364	194.66963	14.89273	0.2653001	0.23109634	2.6299087	21	5 13.3	20.7
327283 2005 TL_{15}	18.3	X	175.97313	128.44464	199.13226	20.25444	0.1326683	0.39992465	1.8245283	21	—	—
327284 2005 TC_{33}	16.9	X	133.29151	324.03155	119.14271	2.89560	0.0779338	0.22190384	2.7020466	21	4 18.1	20.6
327285 2005 TT_{42}	16.7	X	191.66789	3.08446	30.75372	3.88974	0.1182517	0.22500051	2.6771973	21	4 19.6	20.8
327286 2005 TQ_{46}	17.6	X	223.66408	324.42236	213.50538	21.95379	0.0296271	0.37774551	1.8952646	21	—	—
327287 2005 TE_{55}	16.9	X	186.86293	54.66588	354.59354	2.55972	0.0292680	0.22642284	2.6659739	21	5 1.9	20.6
327288 2005 TE_{64}	16.3	X	167.34998	216.22280	202.06562	9.42703	0.1089593	0.22141776	2.7059997	21	4 26.3	20.3
327289 2005 TO_{77}	15.9	X	95.82988	68.08913	38.50622	15.03510	0.0408453	0.21860942	2.7291253	21	3 31.2	19.6
327290 2005 TN_{97}	16.5	X	104.61421	229.38951	231.94935	3.72876	0.0649844	0.21743675	2.7389289	21	4 1.8	20.2
327291 2005 TV_{101}	16.2	X	202.70811	184.18417	174.93947	14.25027	0.2104114	0.21961853	2.7207589	21	3 19.5	20.7
327292 2005 TJ_{104}	16.6	X	235.11591	146.37578	225.53102	10.80990	0.1229197	0.22755349	2.6571356	21	5 5.5	20.7
327293 2005 TG_{116}	16.9	X	31.64839	2.23092	246.66445	2.85399	0.0602797	0.23532533	2.5983058	21	7 6.8	19.9
327294 2005 TJ_{116}	17.0	X	127.05771	195.75102	321.62898	2.70591	0.0307606	0.23457901	2.6038139	21	7 11.2	20.5
327295 2005 TS_{120}	17.2	X	329.68391	87.52589	202.14896	14.95592	0.0676185	0.23080536	2.6321186	21	5 27.4	20.6
327296 2005 TX_{120}	17.3	X	89.49846	45.27911	155.84605	1.42546	0.0591274	0.23472321	2.6027474	21	7 24.8	20.8
327297 2005 TF_{121}	17.2	X	137.62719	299.82230	167.90011	2.75412	0.0557229	0.22595371	2.6696627	21	5 21.9	20.9
327298 2005 TX_{138}	17.2	X	130.70301	344.27536	75.58792	2.62399	0.0945080	0.21639799	2.7476869	21	3 18.9	21.0
327299 2005 TB_{141}	16.5	X	87.54593	152.54120	76.12469	4.26914	0.2116911	0.24101909	2.5572219	21	9 21.1	20.3
327300 2005 TK_{141}	17.0	X	94.73876	345.13824	135.43370	3.18417	0.0422491	0.22072870	2.7116284	21	4 12.8	20.6
327301 2005 TP_{144}	17.0	X	73.38341	355.14618	155.17479	5.85001	0.1766008	0.21996509	2.7179004	21	5 14.1	20.4
327302 2005 TJ_{146}	16.9	X	77.35149	346.10089	144.70168	4.51122	0.0624459	0.21922162	2.7240420	21	4 5.9	20.5
327303 2005 TW_{154}	16.9	X	34.60595	308.67978	294.46125	4.00796	0.0956516	0.23482633	2.6019854	21	7 7.7	19.7
327304 2005 TV_{166}	17.3	X	308.47985	279.10099	339.16107	1.20159	0.0246053	0.21870130	2.7283608	21	3 21.4	20.9
327305 2005 TK_{178}	16.4	X	358.54677	156.06739	185.62690	14.97563	0.0354283	0.24252561	2.5466210	21	9 23.9	19.3
327306 2005 TD_{193}	16.7	X	171.86973	290.38733	118.35029	4.55853	0.0901972	0.22230110	2.6988266	21	4 19.4	20.7
327307 2005 UK_{7}	17.6	X	0.62733	175.22864	213.76278	20.59316	0.0762670	0.37605163	1.9009516	21	—	—
327308 2005 UL_{10}	16.7	X	252.96617	314.77900	52.57204	14.18466	0.1786438	0.22976429	2.6400634	21	5 13.1	20.8
327309 2005 UV_{13}	17.2	X	301.51640	93.91466	209.43950	3.78114	0.0376123	0.22702670	2.6612444	21	5 8.7	20.5
327310 2005 UR_{14}	16.9	X	339.97585	211.16835	55.38053	3.70959	0.0348142	0.22562660	2.6722424	21	5 13.3	20.3
327311 2005 UZ_{14}	17.7	X	301.42987	277.67956	46.30730	5.09386	0.1608163	0.23131470	2.6282534	21	5 16.4	20.8
327312 2005 UB_{18}	16.9	X	202.11353	14.69377	21.68015	5.18938	0.1169227	0.22493277	2.6777348	21	5 2.4	21.1
327313 2005 UL_{21}	16.9	X	204.11531	123.41351	268.90887	2.54691	0.0915126	0.22374369	2.6872136	21	4 29.9	20.9
327314 2005 UE_{27}	16.7	X	312.18472	286.68344	53.26857	5.49109	0.0595512	0.23377149	2.6098068	21	7 11.3	19.9
327315 2005 UA_{28}	17.3	X	142.68180	55.88351	36.70964	5.72750	0.0833395	0.22151073	2.7052425	21	5 9.9	21.2
327316 2005 UK_{31}	17.9	X	26.92831	178.51636	130.93254	0.59522	0.2108597	0.24443513	2.5333409	21	10 17.9	20.5
327317 2005 UA_{35}	16.7	X	61.65886	120.53599	49.08704	12.11069	0.0368786	0.21990258	2.7184154	21	5 1.6	20.2
327318 2005 UF_{40}	16.9	X	162.06844	351.46402	66.83342	2.57456	0.0749304	0.21762136	2.7373797	21	4 18.9	20.8
327319 2005 UW_{42}	16.7	X	185.99414	196.95942	205.06735	11.89128	0.1453005	0.22182558	2.7026821	21	4 25.5	21.1
327320 2005 UU_{43}	16.0	X	273.71730	101.78100	235.79767	12.04887	0.0369310	0.22593271	2.6698281	21	5 17.0	19.4
327321 2005 UG_{44}	16.0	X	178.56808	330.57558	48.72084	13.23722	0.1559815	0.21693429	2.7431565	21	3 27.9	20.6
327322 2005 UO_{53}	16.8	X	261.35330	163.04689	206.78838	15.66658	0.1461550	0.23086755	2.6316459	21	5 29.9	20.8
327323 2005 UM_{78}	17.6	X	6.65212	228.40475	32.48149	2.94639	0.1209768	0.23118665	2.6292237	21	6 14.2	20.4
327324 2005 UL_{81}	16.7	X	185.79955	327.24234	74.23013	7.50723	0.1813506	0.22017542	2.7161692	21	4 27.1	21.2
327325 2005 UO_{84}	16.9	X	13.21991	63.68718	204.17040	2.72554	0.1456645	0.23339990	2.6125760	21	7 8.8	19.4
327326 2005 UJ_{90}	16.8	X	135.40614	49.93205	357.46438	6.12011	0.0745411	0.21307244	2.7762029	21	3 6.1	20.8
327327 2005 UP_{94}	17.1	X	223.88226	13.46675	13.00333	5.60405	0.0493024	0.22515001	2.6760121	21	5 16.1	20.8
327328 2005 UH_{100}	16.5	X	28.43826	82.54633	194.93105	8.07157	0.1291972	0.23581561	2.5947031	21	8 17.9	19.5
327329 2005 UY_{101}	16.1	X	49.95686	84.73589	72.42994	7.58377	0.0152360	0.21698521	2.7427273	21	3 31.1	19.8
327330 2005 UU_{110}	16.3	X	316.22811	270.11101	50.12348	16.59060	0.2209763	0.23150747	2.6267942	21	5 22.7	19.3
327331 2005 UN_{120}	16.6	X	44.68853	120.17360	27.34355	5.31016	0.1100519	0.21368828	2.7708664	21	3 15.6	19.8
327332 2005 UX_{126}	16.9	X	270.95486	306.83369	44.13607	6.47033	0.1475937	0.22865637	2.6485846	21	5 14.9	20.8
327333 2005 UB_{128}	17.1	X	319.68454	307.73657	36.73917	3.77299	0.1294350	0.23587494	2.5942681	21	7 21.6	20.0
327334 2005 UV_{133}	16.6	X	45.72109	253.76299	7.25348	8.08671	0.1978806	0.23829858	2.5766479	21	9 8.6	19.6
327335 2005 UW_{141}	16.1	X	175.95139	333.33620	67.61062	18.00444	0.1700655	0.21912257	2.7248628	21	4 22.4	20.8
327336 2005 UJ_{142}	16.8	X	322.68385	228.95114	110.08604	8.90915	0.2470120	0.23794466	2.5792023	21	6 29.8	19.1
327337 2005 UN_{154}	16.5	X	33.89665	50.50400	239.30728	2.93705	0.1775794	0.23896643	2.5718450	21	9 23.4	19.3
327338 2005 UY_{160}	15.9	X	149.16042	341.59542	57.12998	12.80444	0.1473650	0.21450566	2.7638229	21	3 24.0	20.3
327339 2005 UP_{165}	17.1	X	279.08226	292.19091	32.55706	6.06067	0.0307544	0.22505092	2.6767975	21	5 7.2	20.5
327340 2005 UP_{169}	17.3	X	353.16835	300.85351	34.23496	6.68327	0.2381540	0.24228613	2.5482988	21	9 19.7	19.1
327341 2005 UR_{173}	17.0	X	264.97499	95.42112	240.06241	1.08052	0.0810641	0.22436142	2.6822788	21	4 26.7	20.5
327342 2005 US_{177}	16.2	X	345.42893	153.20106	44.93391	15.38847	0.0668837	0.21084838	2.7956912	21	2 26.3	20.1
327343 2005 UZ_{185}	17.0	X	307.31570	249.44257	62.55005	4.48317	0.0863968	0.22595685	2.6696380	21	5 21.1	20.3
327344 2005 UE_{186}	17.0	X	287.79278	269.53980	65.18220	3.47981	0.0992230	0.22720674	2.6598384	21	5 22.5	20.5
327345 2005 UB_{189}	16.9	X	91.61782	100.77776	26.27451	4.96747	0.0599179	0.21929989	2.7233938	21	4 18.4	20.3
327346 2005 UZ_{190}	17.0	X	291.84588	261.85716	39.61777	6.69851	0.0361864	0.22196849	2.7015219	21	4 23.7	20.6
327347 2005 UG_{195}	16.7	X	133.87260	225.35471	200.62369	3.47458	0.0537855	0.21449030	2.7639548	21	3 23.5	20.6
327348 2005 UA_{199}	17.0	X	15.64779	67.50826	211.25947	7.98884	0.0828652	0.23411896	2.6072239	21	7 23.5	20.2
327349 2005 UT_{203}	16.9	X	105.02846	48.02561	53.11752	3.30396	0.0491946	0.21594344	2.7515413	21	4 2.4	20.6
327350 2005 UD_{205}	16.1	X	217.96524	322.99835	56.84683	13.77808	0.1661679	0.22307551	2.6925769	21	4 29.2	20.5
327351 2005 UH_{227}	17.6	X	15.19401	112.91857	205.37495	2.65275	0.2752196	0.24434812	2.5339423	21	10 20.0	19.8
327352 2005 UQ_{227}	16.9	X	217.43633	314.45169	59.60377	2.65633	0.0989847	0.22202563	2.7010584	21	4 22.1	21.0
327353 2005 UR_{228}	17.1	X	275.77430	281.48347	67.71973	4.26963	0.1575808	0.22946264	2.6423767	21	5 17.7	20.6
327354 2005 US_{231}	16.7	X	27.16468	335.47056	221.62348	6.73260	0.0903288	0.21889529	2.7267486	21	4 19.2	19.8
327355 2005 UH_{235}	16.8	X	94.09537	266.07810	176.91955	4.40216	0.0426555	0.21055731	2.7982671	21	2 21.7	20.6
327356 2005 UG_{236}	16.8	X	131.11027	267.98343	141.61916	3.89140	0.0592861	0.21157268	2.7893071	21	3 1.8	20.6
327357 2005 UR_{236}	16.3	X	278.10537	149.36135	212.95867	15.09440	0.1927246	0.23172078	2.6251819	21	6 2.1	20.1
327358 2005 US_{241}	16.1	X	141.93810	144.09628	247.22238	13.89816	0.1014873	0.20990338	2.8040758	21	2 18.0	20.5
327359 2005 UL_{243}	16.7	X	172.05976	24.36914	20.79582	6.30087	0.0405074	0.21665303	2.7455300	21	4 10.7	20.5
327360 2005 UV_{244}	15.4	X	312.10686	19.21430	261.44102	14.44755	0.1368024	0.22046841	2.7137623	21	4 1.4	19.3

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327361 2005 UW_{254}	16.3	X	148.20761	326.97845	69.85484	10.32841	0.1647691	0.21498442	2.7597181	21	3 21.2	20.7
327362 2005 UM_{256}	17.0	X	122.87558	34.04499	53.37597	2.49967	0.0470655	0.21978243	2.7194061	21	4 6.3	20.6
327363 2005 UL_{260}	17.6	X	338.83638	113.05990	199.21996	3.87731	0.1445725	0.23417231	2.6068279	21	7 5.9	20.2
327364 2005 UG_{266}	16.4	X	77.64274	218.50719	129.48976	2.71849	0.0607718	0.19212315	2.9745156	21	—	—
327365 2005 UB_{269}	16.7	X	116.78166	57.00647	42.08435	5.35432	0.0755994	0.21976431	2.7195556	21	4 17.7	20.3
327366 2005 UJ_{276}	17.0	X	49.89564	7.26183	241.89046	3.37880	0.1503667	0.23507568	2.6001450	21	8 17.2	20.1
327367 2005 UF_{282}	16.4	X	40.69204	214.14848	46.20513	13.51411	0.1529922	0.23717400	2.5847864	21	8 28.8	19.7
327368 2005 UN_{283}	16.9	X	174.11113	259.56846	144.47372	2.99440	0.1053163	0.22011251	2.7166867	21	4 15.8	21.1
327369 2005 UX_{291}	16.9	X	241.86298	339.14448	9.76331	5.29758	0.0777298	0.22225660	2.6991868	21	4 16.7	20.7
327370 2005 UW_{293}	16.7	X	237.02823	354.75118	36.99635	12.90861	0.1639310	0.22836477	2.6508388	21	5 27.3	20.9
327371 2005 UF_{309}	17.2	X	80.39263	269.85403	196.99200	4.95247	0.0957381	0.21435938	2.7650801	21	3 12.1	20.7
327372 2005 UT_{310}	16.7	X	81.36219	104.23024	58.46731	4.30456	0.0362992	0.22578596	2.6709849	21	5 18.3	20.0
327373 2005 UP_{321}	16.3	X	327.33581	299.52926	49.47616	15.46254	0.1373225	0.23649611	2.5897234	21	8 18.6	19.4
327374 2005 UX_{322}	17.1	X	236.51456	132.76474	234.68164	5.24954	0.1340111	0.22511227	2.6763111	21	4 30.1	21.2
327375 2005 UU_{324}	17.3	X	150.89968	289.50378	155.77926	3.02353	0.0884505	0.22458824	2.6804726	21	5 11.7	21.2
327376 2005 UM_{328}	16.4	X	150.08664	210.72613	196.91945	11.56557	0.0933236	0.21862499	2.7289957	21	3 22.6	20.4
327377 2005 UO_{332}	16.7	X	98.14421	350.64895	112.90169	4.83110	0.0568393	0.21449918	2.7638786	21	3 30.1	20.4
327378 2005 UF_{333}	16.6	X	9.21490	163.90111	67.36659	7.85814	0.2001841	0.22145758	2.7056753	21	5 7.1	18.9
327379 2005 UP_{343}	16.2	X	221.07613	313.08126	94.92277	14.56109	0.1731532	0.22659064	2.6646576	21	6 4.8	20.6
327380 2005 UG_{349}	17.7	X	3.31481	357.73788	11.05124	20.50802	0.0797391	0.37281163	1.9119495	21	12 6.7	19.9
327381 2005 UW_{371}	16.8	X	5.03135	262.49042	49.26258	9.30935	0.1723073	0.23738250	2.5832727	21	9 7.1	19.4
327382 2005 UK_{375}	16.3	X	150.57720	29.83739	352.17476	5.76512	0.0767162	0.21178315	2.7874587	21	2 20.8	20.3
327383 2005 UL_{378}	17.5	X	334.21281	245.67045	63.12983	4.92016	0.0974359	0.23145932	2.6271585	21	6 27.1	20.4
327384 2005 UG_{381}	17.4	X	116.39084	338.77213	108.78997	1.46589	0.0388183	0.21535126	2.7565832	21	3 28.5	21.0
327385 2005 UH_{387}	17.0	X	234.00328	113.52696	257.36140	4.99744	0.0412778	0.22237672	2.6982147	21	5 9.4	20.7
327386 2005 UN_{390}	16.2	X	75.01009	304.62803	203.57765	11.53312	0.0887110	0.21990989	2.7183552	21	4 28.8	19.5
327387 2005 UG_{412}	15.8	X	286.37845	145.88988	226.35311	14.47058	0.1297245	0.23254559	2.6189707	21	7 3.6	19.5
327388 2005 UX_{414}	16.9	X	251.35293	302.74726	77.20454	3.96314	0.0783892	0.22927550	2.6438143	21	6 8.2	20.5
327389 2005 UL_{430}	16.8	X	124.32426	167.42782	309.97602	1.72958	0.0202407	0.22175151	2.7032839	21	5 12.3	20.5
327390 2005 UU_{438}	16.5	X	339.81167	296.38067	27.08473	9.33244	0.1762781	0.23855634	2.5747915	21	7 27.7	19.0
327391 2005 UV_{439}	15.8	X	340.44929	37.55030	264.39042	14.73736	0.1504949	0.23617084	2.5921007	21	6 22.9	18.4
327392 2005 UQ_{460}	16.0	X	117.17046	56.04476	49.82994	9.98521	0.0670933	0.21642348	2.7474711	21	4 26.8	19.7
327393 2005 UU_{463}	16.8	X	208.43992	302.21113	67.73315	6.14198	0.0837214	0.22088663	2.7103358	21	4 9.9	20.9
327394 2005 UE_{467}	16.4	X	117.30501	74.07121	32.36023	14.72658	0.0818966	0.21794305	2.7346854	21	4 27.4	20.1
327395 2005 UH_{478}	16.2	X	108.59400	41.30432	62.23383	13.94253	0.0710641	0.21687839	2.7436278	21	4 17.5	20.1
327396 2005 UL_{489}	16.2	X	121.44234	137.44392	302.58811	7.76108	0.0275813	0.21769107	2.7367953	21	3 18.5	20.0
327397 2005 UH_{493}	16.5	X	114.30425	125.93145	289.56127	12.26913	0.1939183	0.21039268	2.7997266	21	3 1.0	20.7
327398 2005 UL_{505}	15.8	X	135.06358	164.25222	137.67822	11.39352	0.0698204	0.17589204	3.1548007	21	—	—
327399 2005 UL_{512}	16.7	X	3.35985	245.21303	52.78201	9.85249	0.1854719	0.23608489	2.5927298	21	8 12.2	19.2
327400 2005 UE_{521}	17.1	X	108.91897	286.39022	168.93251	4.99966	0.0886409	0.21946892	2.7219953	21	4 5.1	20.8
327401 2005 VU	17.6	X	40.27128	83.47982	255.50094	7.02003	0.2372713	0.25560011	2.4590198	21	12 21.3	20.9
327402 2005 VV_{3}	17.6	X	84.08925	297.34476	29.92694	22.31360	0.0250248	0.37893686	1.8912901	21	—	—
327403 2005 VQ_{11}	16.9	X	204.36195	18.58224	354.07298	3.74249	0.0786844	0.21945238	2.7221320	21	4 5.8	21.1
327404 2005 VU_{22}	17.4	X	19.19422	114.10631	165.36390	3.45697	0.1899963	0.23691847	2.5866447	21	8 13.4	19.9
327405 2005 VO_{32}	15.9	X	293.80890	118.17642	236.52973	13.99160	0.1249540	0.23088394	2.6315214	21	6 22.2	19.4
327406 2005 VA_{33}	16.2	X	75.13925	32.05929	76.48919	5.17400	0.0615123	0.20939439	2.8086181	21	3 7.1	19.9
327407 2005 VG_{42}	17.1	X	334.02436	168.09395	180.32490	6.99909	0.2840320	0.24097140	2.5575593	21	8 6.6	18.8
327408 2005 VY_{42}	16.2	X	138.01803	343.34360	98.68743	11.94730	0.2307475	0.21640181	2.7476545	21	5 9.9	20.8
327409 2005 VA_{52}	16.4	X	298.03409	145.55251	192.28184	13.69643	0.1871126	0.23294269	2.6159935	21	5 28.1	19.9
327410 2005 VH_{58}	16.6	X	24.41632	26.72505	245.41321	4.40028	0.1859487	0.23647453	2.5898809	21	8 10.9	19.2
327411 2005 VL_{75}	16.1	X	252.25508	106.33056	238.08377	12.50512	0.1452920	0.22421757	2.6834260	21	4 14.3	20.4
327412 2005 VG_{89}	16.8	X	220.87445	267.24672	92.74626	6.11192	0.1323410	0.22023098	2.7157124	21	4 9.4	21.1
327413 2005 VY_{91}	17.3	X	351.10389	82.84264	203.18561	2.48832	0.0733528	0.23007853	2.6376591	21	6 24.4	20.5
327414 2005 VS_{101}	16.0	X	10.51527	168.17286	74.22385	14.79256	0.0625962	0.22294062	2.6936629	21	5 26.4	19.1
327415 2005 VV_{107}	16.9	X	331.76994	224.26004	1.95695	3.48375	0.0385071	0.21428557	2.7657150	21	3 10.4	20.4
327416 2005 VF_{112}	16.5	X	300.26147	82.22452	266.64769	6.01219	0.1567713	0.23115281	2.6294804	21	6 19.6	19.6
327417 2005 VP_{119}	17.0	X	112.36882	303.44383	134.85963	3.77616	0.0669197	0.21317193	2.7753390	21	3 16.4	20.8
327418 2005 VL_{122}	17.6	X	213.66584	276.16038	197.86762	23.15019	0.1696740	0.35955319	1.9586671	21	8 20.6	20.7
327419 2005 VR_{128}	17.5	X	190.26652	233.51116	171.99923	5.53277	0.0985955	0.22533016	2.6745855	21	5 4.3	21.6
327420 2005 VO_{135}	16.8	X	221.56734	62.96813	279.20495	3.61313	0.0566556	0.21438986	2.7648181	21	3 17.5	20.8
327421 Yanamandra	16.4	X	232.84933	120.23810	241.53142	5.52393	0.0174104	0.21955066	2.7213196	21	4 28.3	20.1
327422 2005 WU_{15}	17.1	X	356.84555	89.76311	252.09336	2.68346	0.2831400	0.24266404	2.5456524	21	10 12.2	18.8
327423 2005 WH_{21}	17.0	X	239.34175	308.98319	54.86380	7.32576	0.0815245	0.22216490	2.6999295	21	5 4.4	21.0
327424 2005 WF_{22}	17.1	X	336.94691	276.06713	36.12109	3.69587	0.2485696	0.23380238	2.6095769	21	6 19.4	19.2
327425 2005 WK_{29}	16.3	X	177.07673	337.74572	58.35299	7.29589	0.0351562	0.21556071	2.7547973	21	4 7.8	20.2
327426 2005 WY_{34}	16.8	X	165.45128	132.95264	248.92001	5.92383	0.1436258	0.21234637	2.7825276	21	3 9.8	21.2
327427 2005 WC_{36}	16.5	X	170.54955	311.45461	88.53522	5.09180	0.1046674	0.21477789	2.7614870	21	4 8.9	20.7
327428 2005 WR_{36}	16.5	X	335.47176	3.57024	238.30598	6.58160	0.0935530	0.21435815	2.7650907	21	3 26.0	20.1
327429 2005 WP_{39}	16.5	X	179.94258	313.33476	76.89268	4.48650	0.2024047	0.21656846	2.7462448	21	4 8.9	21.1
327430 2005 WA_{59}	16.5	X	176.30678	340.77605	47.95559	6.61345	0.0530199	0.21385043	2.7694655	21	3 29.4	20.5
327431 2005 WY_{69}	16.9	X	304.65076	30.09039	232.60161	3.51770	0.0180222	0.21310277	2.7759395	21	3 22.7	20.7
327432 2005 WL_{75}	17.0	X	325.73190	261.22567	357.65558	3.09212	0.0459395	0.21943231	2.7222980	21	4 11.0	20.5
327433 2005 WY_{77}	16.7	X	159.59178	339.63509	60.25257	5.06722	0.1076360	0.21288118	2.7778655	21	3 28.5	20.9
327434 2005 WK_{81}	16.8	X	249.28291	229.41455	73.81688	5.43618	0.0501729	0.21019821	2.8014532	21	3 6.3	20.9
327435 2005 WO_{89}	15.8	X	106.35906	39.43971	78.35815	17.18992	0.0318901	0.21538160	2.7563244	21	4 29.3	19.8
327436 2005 WF_{95}	16.7	X	6.97365	237.87363	81.10540	14.02342	0.2970864	0.23951457	2.5679196	21	10 14.4	19.1
327437 2005 WE_{96}	15.8	X	73.08345	15.41840	78.50253	16.25824	0.1085892	0.20481228	2.8503535	21	2 24.4	19.7
327438 2005 WY_{98}	16.9	X	355.19666	265.17022	79.92483	5.15873	0.2198096	0.24065084	2.5598300	21	10 9.6	19.0
327439 2005 WR_{102}	16.1	X	109.58076	236.17265	208.36288	11.96796	0.1580206	0.21079436	2.7961688	21	3 31.5	20.1
327440 2005 WJ_{104}	16.1	X	141.42972	322.86856	95.18305	5.22950	0.0935849	0.21341691	2.7732147	21	3 30.6	20.1

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327441 2005 WS_{104}	16.2	*X*	192.87242	300.44066	88.22966	13.85530	0.1690990	0.21840519	2.7308263	21	4 21.7	20.9
327442 2005 WY_{105}	16.2	*X*	296.29210	160.06657	201.34353	13.63560	0.2650962	0.23490641	2.6013940	21	6 13.0	19.8
327443 2005 WD_{110}	16.1	*X*	224.72565	110.76692	244.28720	10.24051	0.0462964	0.21700195	2.7425862	21	4 5.1	20.3
327444 2005 WR_{116}	17.1	*X*	154.74970	34.82417	83.46054	25.22805	0.0955448	0.34948256	1.9961157	21	6 25.0	19.5
327445 2005 WE_{121}	16.1	*X*	251.65518	279.99744	80.64401	13.61660	0.1267723	0.22413775	2.6840630	21	5 12.2	20.2
327446 2005 WK_{126}	17.6	*X*	277.30144	144.98940	225.91595	2.10997	0.1608796	0.23220384	2.6215397	21	6 17.0	21.0
327447 2005 WZ_{126}	16.1	*X*	272.48358	140.84764	213.10722	10.74577	0.1944079	0.22860039	2.6490170	21	5 15.8	20.1
327448 2005 WU_{128}	16.6	*X*	3.18556	65.42010	241.31258	2.84458	0.1597490	0.23558171	2.5964204	21	8 17.4	19.0
327449 2005 WB_{131}	17.2	*X*	4.29598	249.07581	66.44073	3.01310	0.1853761	0.23726833	2.5841013	21	9 8.5	19.5
327450 2005 WH_{137}	17.1	*X*	29.32196	238.64519	57.70690	6.29628	0.1772868	0.23935814	2.5690383	21	9 29.9	19.9
327451 2005 WR_{149}	17.0	*X*	201.92121	338.15051	38.53976	5.17296	0.0612809	0.21594658	2.7515146	21	4 10.4	21.0
327452 2005 WU_{153}	16.1	*X*	251.60489	251.55295	99.33638	7.40011	0.0390252	0.22347089	2.6894001	21	5 8.6	19.8
327453 2005 WM_{161}	17.2	*X*	340.84306	108.42851	217.76122	1.61903	0.1571682	0.23520832	2.5991675	21	7 30.9	19.7
327454 2005 WT_{164}	16.4	*X*	23.72440	139.91184	63.67368	9.63545	0.0761136	0.21824035	2.7322013	21	4 25.7	19.8
327455 2005 WF_{166}	16.0	*X*	295.35035	278.12167	89.80720	24.98727	0.2238667	0.23133219	2.6281209	21	6 27.1	19.1
327456 2005 WS_{166}	16.8	*X*	77.82515	33.09132	85.44550	3.07499	0.0345413	0.21200742	2.7854926	21	3 18.7	20.4
327457 2005 WG_{167}	16.9	*X*	337.70190	265.71602	66.49175	4.39785	0.1829320	0.23507841	2.6001250	21	8 3.1	19.3
327458 2005 WJ_{178}	15.9	*X*	53.03811	82.05318	310.32656	2.36496	0.2121177	0.19202633	2.9755153	21	—	—
327459 2005 WJ_{179}	16.2	*X*	112.13964	3.61011	85.82326	11.28865	0.1058803	0.21320597	2.7750436	21	4 9.8	20.2
327460 2005 WH_{186}	16.2	*X*	344.94897	324.41371	121.96950	4.50395	0.2113957	0.18493495	3.0511019	21	—	—
327461 2005 XN_{37}	16.8	*X*	179.22149	312.32478	80.35195	6.94315	0.0565378	0.21135241	2.7912447	21	4 7.9	20.9
327462 2005 XU_{56}	16.1	*X*	81.20479	265.94808	184.66832	10.86764	0.1126696	0.20687163	2.8314057	21	2 22.9	19.8
327463 2005 XO_{69}	17.1	*X*	255.66125	31.96333	336.71583	2.43126	0.1596408	0.22564410	2.6721042	21	5 19.1	21.0
327464 2005 XE_{76}	16.4	*X*	131.54604	38.74849	73.46159	6.49954	0.0394525	0.21874462	2.7280006	21	5 18.7	20.1
327465 2005 XT_{76}	17.0	*X*	238.26919	317.56889	32.62154	5.41932	0.0724574	0.22077023	2.7112884	21	4 16.1	20.7
327466 2005 XT_{92}	17.4	*X*	146.08385	235.58978	252.90858	16.73621	0.1128445	0.34860312	1.9994714	21	6 29.9	20.0
327467 2005 XK_{101}	16.1	*X*	217.07745	254.74918	303.51123	5.42092	0.0324939	0.17847758	3.1242583	21	12 12.7	20.5
327468 2005 XT_{109}	15.8	*X*	31.56702	313.88126	113.23958	9.93026	0.1525422	0.18893111	3.0079254	21	—	—
327469 2005 XX_{109}	16.2	*X*	197.00042	92.00219	148.11693	9.64266	0.0561893	0.17645549	3.1480812	21	—	—
327470 2005 XC_{115}	16.7	*X*	265.07461	73.74050	232.98505	5.44467	0.0345820	0.21776856	2.7361460	21	3 25.3	20.6
327471 2005 YL_{2}	17.4	*X*	283.65671	293.65891	61.24734	5.48428	0.1530057	0.22952069	2.6419311	21	6 4.5	21.0
327472 2005 YM_{8}	15.9	*X*	208.05457	8.41879	30.76842	14.22403	0.1161923	0.22257086	2.6966454	21	5 10.5	20.1
327473 2005 YJ_{16}	16.4	*X*	328.88098	358.82256	117.65010	9.16424	0.1695876	0.18594070	3.0400898	21	—	—
327474 2005 YW_{18}	16.8	*X*	284.95371	77.63019	258.89358	1.04053	0.0585899	0.22465784	2.6799190	21	5 27.4	20.2
327475 2005 YJ_{29}	16.0	*X*	329.72674	50.67571	104.61595	14.04463	0.0406153	0.19266545	2.9689314	21	—	—
327476 2005 YM_{47}	16.4	*X*	303.52316	220.04005	78.61770	14.72263	0.1604322	0.22186345	2.7023745	21	4 23.0	20.2
327477 2005 YH_{58}	16.2	*X*	76.90524	287.71383	120.02571	7.87095	0.0218770	0.19304295	2.9650596	21	—	—
327478 2005 YR_{58}	16.3	*X*	337.69081	341.12618	177.77603	3.70942	0.1823114	0.19207539	2.9750086	21	—	—
327479 2005 YY_{58}	16.3	*X*	97.04562	287.73853	99.14575	3.19037	0.0970009	0.19520631	2.9431121	21	—	—
327480 2005 YR_{77}	16.3	*X*	265.75389	212.92167	85.92758	4.59134	0.1664835	0.20923003	2.8100888	21	3 7.1	20.6
327481 2005 YD_{80}	15.9	*X*	273.45804	219.44452	301.76633	6.38733	0.0192474	0.18434814	3.0575733	21	—	—
327482 2005 YK_{81}	16.8	*X*	286.68690	157.53647	112.22290	7.46745	0.0166152	0.20642100	2.8355249	21	3 14.6	20.8
327483 2005 YD_{86}	16.0	*X*	340.04766	210.22800	289.15059	11.81995	0.0926830	0.19208139	2.9749467	21	—	—
327484 2005 YV_{88}	16.7	*X*	281.98040	336.35588	244.94842	0.76968	0.0358675	0.19511395	2.9440408	21	1 4.6	20.9
327485 2005 YK_{116}	16.8	*X*	189.95743	315.90760	27.73736	1.80752	0.0047391	0.20033329	2.8926816	21	2 15.1	20.7
327486 2005 YW_{140}	16.8	*X*	160.95965	3.38134	2.89578	1.70359	0.0800799	0.20291240	2.8681179	21	2 14.2	21.1
327487 2005 YD_{143}	16.5	*X*	59.51545	316.45057	111.62230	10.13257	0.0791047	0.19274515	2.9681129	21	—	—
327488 2005 YM_{147}	16.4	*X*	150.45984	344.71698	30.60974	2.35924	0.0798180	0.20277928	2.8693729	21	2 14.1	20.6
327489 2005 YE_{179}	15.9	*X*	298.00222	194.11460	111.83841	15.59896	0.1760031	0.21501592	2.7594486	21	4 24.6	20.0
327490 2005 YF_{181}	17.6	*X*	312.43795	290.49320	103.90289	24.05856	0.1081478	0.36577858	1.9363798	21	11 1.9	19.8
327491 2005 YG_{181}	16.2	*X*	263.96372	197.69489	161.64631	13.80753	0.1223379	0.22552068	2.6730790	21	5 24.7	20.3
327492 2005 YB_{189}	16.3	*X*	153.98617	94.49490	133.54547	0.20679	0.1231080	0.17491951	3.1664834	21	11 7.4	21.3
327493 2005 YL_{193}	16.3	*X*	208.84430	217.62754	126.30928	7.30181	0.0812077	0.20452450	2.8530266	21	3 10.8	20.6
327494 2005 YS_{197}	16.7	*X*	38.53643	15.65454	103.80739	6.81734	0.0327064	0.20013738	2.8945690	21	1 27.3	20.4
327495 2005 YM_{200}	16.3	*X*	256.68963	167.26438	89.11441	3.17804	0.0445850	0.19707314	2.9244964	21	1 16.8	20.4
327496 2005 YE_{245}	17.3	*X*	294.22456	31.83318	114.12959	2.51641	0.2126351	0.18385246	3.0630664	21	12 27.3	20.7
327497 2005 YU_{281}	16.1	*X*	118.59695	354.43677	98.12825	5.72025	0.0336629	0.21291007	2.7776142	21	4 8.6	19.9
327498 2006 AL_{10}	17.1	*X*	174.16361	99.54473	284.57223	2.92233	0.1089869	0.20818950	2.8194442	21	3 20.8	21.4
327499 2006 AR_{22}	15.8	*X*	316.99861	49.79127	59.12585	20.85460	0.3888633	0.18198264	3.0840122	21	12 2.8	17.7
327500 2006 AQ_{36}	16.1	*X*	315.56927	45.24511	116.24234	11.12384	0.0594449	0.18919137	3.0051663	21	—	—
327501 2006 AE_{56}	16.1	*X*	252.69272	158.07170	132.05327	10.98510	0.0380107	0.20235329	2.8733985	21	2 22.9	20.2
327502 2006 AO_{62}	16.3	*X*	121.06070	83.75243	314.65611	7.71141	0.0809672	0.20074404	2.8887343	21	2 7.7	20.2
327503 2006 AJ_{69}	16.1	*X*	267.51276	247.66301	116.62900	14.48048	0.1396261	0.22229164	2.6989031	21	6 2.4	20.2
327504 2006 AP_{70}	16.2	*X*	243.33964	230.22721	297.22308	8.63277	0.0583337	0.17773258	3.1329829	21	12 2.6	20.7
327505 2006 AF_{78}	16.1	*X*	252.51345	323.95593	233.40629	2.04111	0.2114880	0.17644578	3.1481968	21	12 28.4	20.5
327506 2006 AE_{79}	15.8	*X*	33.95415	141.57301	304.47661	10.01225	0.0499768	0.19047464	2.9916534	21	—	—
327507 2006 AB_{105}	16.1	*X*	289.00750	32.97384	153.41776	10.00939	0.0577173	0.18275529	3.0753137	21	—	—
327508 2006 BS	15.4	*X*	283.82170	106.37073	26.32106	26.61925	0.2006909	0.17837125	3.1254998	21	11 15.1	19.6
327509 2006 BV_{6}	15.4	*X*	226.54399	63.13471	131.70982	17.21667	0.1798868	0.17630939	3.1498201	21	12 5.4	20.5
327510 2006 BO_{17}	15.9	*X*	252.85204	298.86042	301.88773	9.17276	0.0621387	0.19154142	2.9805352	21	—	—
327511 2006 BB_{25}	16.2	*X*	164.12430	226.11641	131.45380	9.65804	0.0586647	0.19906655	2.9049402	21	2 5.6	20.2
327512 Bíró	16.8	*X*	290.23645	96.89137	101.82229	4.77555	0.1106260	0.18936155	3.0033655	21	—	—
327513 2006 BJ_{46}	16.3	*X*	271.93331	58.06515	145.84943	2.34382	0.0795979	0.18425840	3.0585660	21	—	—
327514 2006 BF_{54}	15.8	*X*	298.80667	345.95505	151.23978	18.14729	0.1567360	0.17917062	3.1161966	21	12 29.6	19.8
327515 2006 BO_{61}	15.7	*X*	176.64810	294.83468	77.03483	15.92278	0.1635462	0.20518328	2.8469165	21	3 21.5	20.6
327516 2006 BV_{67}	16.6	*X*	82.53777	1.91839	52.50012	2.72699	0.1039447	0.19459291	2.9492938	21	1 13.9	20.4
327517 2006 BY_{71}	16.2	*X*	64.79518	345.90805	73.82697	4.24690	0.1357656	0.19218140	2.9739145	21	—	—
327518 2006 BU_{78}	15.6	*X*	74.37737	47.51923	334.32000	10.20461	0.0508952	0.18359466	3.0659332	21	—	—
327519 2006 BN_{79}	15.7	*X*	172.72265	127.32788	130.06719	11.39597	0.0637913	0.17500125	3.1654973	21	12 30.5	20.6
327520 2006 BD_{88}	16.8	*X*	265.79496	109.04783	99.75031	2.90160	0.0727542	0.18619992	3.0372676	21	—	—

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327521 2006 BM_{94}	15.8	X	161.93373	125.27331	159.77285	9.67207	0.0467981	0.17947203	3.1127067	21	—	—
327522 2006 BK_{97}	16.4	X	350.06217	79.07785	6.04811	2.22293	0.1181901	0.18032506	3.1028824	21	—	—
327523 2006 BS_{108}	16.6	X	226.86312	174.75592	63.84712	1.75098	0.1405136	0.18334886	3.0686728	21	—	—
327524 2006 BM_{112}	16.4	X	268.28412	258.78020	338.47667	6.34092	0.0876583	0.19094839	2.9867031	21	1 4.5	21.0
327525 2006 BN_{112}	16.3	X	282.08645	25.89764	123.46953	6.64094	0.0908676	0.17982869	3.1085896	21	12 26.6	20.4
327526 2006 BP_{112}	16.3	X	307.14975	30.03154	127.64867	11.20482	0.0929572	0.18520323	3.0481548	21	—	—
327527 2006 BQ_{126}	16.0	X	115.88739	190.62051	158.22951	9.87606	0.0748250	0.18354476	3.0664888	21	—	—
327528 2006 BH_{128}	15.9	X	58.62673	234.08033	155.79604	9.87379	0.1122749	0.18254195	3.0777093	21	—	—
327529 2006 BW_{136}	16.4	X	251.29773	157.82869	77.08754	2.33182	0.1500546	0.18632819	3.0358735	21	—	—
327530 2006 BK_{137}	16.1	X	175.51402	232.41375	153.47152	13.26880	0.1099543	0.20376089	2.8601501	21	3 29.2	20.6
327531 2006 BT_{142}	16.6	X	307.04191	153.54987	338.34707	10.87406	0.0431348	0.17883925	3.1200447	21	—	—
327532 2006 BU_{145}	16.1	X	346.33297	261.11836	218.33730	3.73613	0.1924205	0.18849772	3.0125341	21	—	—
327533 2006 BE_{150}	15.5	X	334.71448	43.45474	83.78141	12.61855	0.1406149	0.18641515	3.0349293	21	—	—
327534 2006 BR_{151}	16.3	X	99.08860	344.49184	87.02903	3.12731	0.0395397	0.19799555	2.9154063	21	2 17.5	20.2
327535 2006 BY_{151}	16.4	X	247.85030	213.66381	66.61124	3.00399	0.0622574	0.19561944	2.9389670	21	2 4.2	20.8
327536 2006 BJ_{154}	15.9	X	289.70527	100.67308	124.21358	4.71598	0.0512539	0.19165921	2.9793138	21	1 16.6	19.9
327537 2006 BT_{157}	15.9	X	205.34254	151.96732	145.98023	10.60551	0.0079171	0.18871039	3.0102704	21	1 10.1	20.2
327538 2006 BE_{169}	16.4	X	255.61912	234.65853	345.13389	3.56623	0.1392314	0.18206748	3.0830539	21	—	—
327539 2006 BU_{179}	16.2	X	264.52327	222.28062	20.76512	1.31214	0.1466411	0.18982784	2.9984451	21	1 1.9	20.9
327540 2006 BN_{180}	16.0	X	214.73164	128.05510	135.14766	9.05172	0.0199009	0.18706862	3.0278574	21	—	—
327541 2006 BO_{186}	15.1	X	194.13095	96.04170	160.02352	25.80748	0.2391523	0.17501244	3.1653624	21	—	—
327542 2006 BV_{193}	16.1	X	292.52424	199.34262	304.93091	8.19748	0.0470082	0.18053339	3.1004949	21	—	—
327543 2006 BQ_{246}	16.9	X	239.18216	184.65201	159.46025	4.60529	0.1115047	0.21087591	2.7954479	21	4 8.3	21.1
327544 2006 BM_{250}	15.8	X	212.16276	95.97387	146.34470	10.76826	0.0944158	0.18000401	3.1065709	21	—	—
327545 2006 BR_{256}	15.9	X	352.68913	108.01619	341.78049	11.34488	0.1056661	0.18202091	3.0835799	21	—	—
327546 2006 BL_{258}	16.2	X	252.64421	130.78319	88.40038	4.21151	0.0904742	0.18280738	3.0747293	21	—	—
327547 2006 BQ_{262}	16.6	X	230.32728	152.24944	104.59566	1.83660	0.1496038	0.18330378	3.0691758	21	—	—
327548 2006 BX_{276}	16.4	X	237.37671	134.58715	69.81953	2.34653	0.0945967	0.17684887	3.1434112	21	—	—
327549 2006 BB_{278}	15.9	X	272.67807	99.79152	103.40943	10.52403	0.0236300	0.18962163	3.0006186	21	—	—
327550 2006 BO_{280}	16.0	X	296.85411	198.34838	332.58436	8.30135	0.0792286	0.18444449	3.0565084	21	—	—
327551 2006 BS_{281}	16.4	X	54.92675	1.98502	63.33207	2.96691	0.0726940	0.18804346	3.0173838	21	—	—
327552 2006 CO_{10}	16.3	X	282.11499	137.55275	13.53189	10.23533	0.1656785	0.17714274	3.1399337	21	12 17.8	20.4
327553 2006 CK_{11}	15.7	X	220.81901	105.79868	133.79479	9.85949	0.0956706	0.18477695	3.0528410	21	—	—
327554 2006 CB_{20}	16.9	X	28.08721	162.45106	262.30685	1.71189	0.1772677	0.18793327	3.0185632	21	—	—
327555 2006 CE_{25}	15.5	X	352.19514	129.07570	319.86724	11.45977	0.0860236	0.18400502	3.0613731	21	—	—
327556 2006 CR_{40}	16.0	X	204.78089	223.77374	2.85029	9.31518	0.0486362	0.17493389	3.1663099	21	12 30.7	20.8
327557 2006 CT_{42}	16.3	X	334.15541	336.04725	179.32829	9.68298	0.0958528	0.18663822	3.0325105	21	—	—
327558 2006 CE_{52}	16.5	X	258.73616	338.22774	254.49815	0.74494	0.2084217	0.18636345	3.0354906	21	—	—
327559 2006 CS_{63}	16.4	X	341.54290	125.25743	97.39485	8.75880	0.1565065	0.20881755	2.8137881	21	3 9.4	19.8
327560 2006 DB	15.7	X	22.45697	106.56643	8.32059	9.92572	0.0572857	0.19153504	2.9806013	21	1 1.9	19.7
327561 2006 DE_{2}	16.4	X	315.42425	176.98025	335.48071	4.07201	0.0153616	0.18373689	3.0643507	21	—	—
327562 2006 DS_{5}	16.5	X	164.14549	297.43362	318.16617	1.27763	0.1456551	0.17313749	3.1881736	21	12 17.2	21.7
327563 2006 DG_{6}	15.2	X	270.80323	110.59193	118.52984	12.44514	0.0697101	0.18801479	3.0176905	21	—	—
327564 2006 DH_{6}	15.5	X	275.98723	150.06004	355.76159	17.04953	0.1671698	0.17677615	3.1442732	21	11 28.4	20.0
327565 2006 DL_{13}	15.8	X	327.00432	316.45616	172.83160	13.70900	0.3262874	0.18518874	3.0483138	21	—	—
327566 2006 DO_{15}	15.6	X	46.13735	252.02009	137.53018	12.94381	0.0764888	0.18046191	3.1013136	21	—	—
327567 2006 DP_{27}	15.8	X	159.88318	290.85009	356.43522	15.15089	0.0768319	0.17587690	3.1549817	21	—	—
327568 2006 DP_{29}	15.9	X	227.66104	246.10364	81.94263	3.17107	0.0610766	0.20027108	2.8932806	21	3 11.9	20.1
327569 2006 DD_{33}	15.9	X	288.21481	16.64863	172.26450	16.73235	0.1574075	0.18148454	3.0896524	21	—	—
327570 2006 DR_{38}	15.6	X	1.19189	91.44084	350.49860	10.56925	0.1097511	0.18070928	3.0984827	21	—	—
327571 2006 DT_{40}	15.8	X	211.72438	188.54417	77.44446	5.45568	0.0126769	0.18401253	3.0612898	21	—	—
327572 2006 DJ_{46}	16.5	X	266.61973	49.20139	143.10894	3.01666	0.1099174	0.18162736	3.0880326	21	—	—
327573 2006 DK_{71}	15.4	X	228.00201	82.64174	160.78726	12.47981	0.0912953	0.18074625	3.0980602	21	—	—
327574 2006 DM_{100}	16.6	X	210.63578	121.31610	119.00127	2.55537	0.1237478	0.17848194	3.1242074	21	—	—
327575 2006 DR_{104}	15.6	X	284.21829	343.02980	178.68833	9.39524	0.0505959	0.17738375	3.1370889	21	—	—
327576 2006 DE_{122}	15.4	X	300.39239	16.88393	131.91371	16.29293	0.1276061	0.17943291	3.1131591	21	—	—
327577 2006 DB_{125}	15.9	X	280.57239	167.38032	146.68952	11.14500	0.1628354	0.21084977	2.7956789	21	4 12.2	20.1
327578 2006 DT_{130}	15.4	X	257.17884	111.36824	146.25812	15.66626	0.0834218	0.18889607	3.0082974	21	1 16.1	20.0
327579 2006 DX_{130}	16.1	X	266.12333	112.63821	11.49234	10.91666	0.0334353	0.16961730	3.2321335	21	11 7.9	20.7
327580 2006 DW_{131}	16.5	X	275.38825	132.21154	51.07247	4.25324	0.1476774	0.18014160	3.1049888	21	—	—
327581 2006 DC_{132}	15.7	X	311.96521	327.57175	146.47416	12.32481	0.0888100	0.17681792	3.1437780	21	12 25.6	19.9
327582 2006 DM_{132}	16.0	X	291.49505	40.25328	121.93503	5.92024	0.0789860	0.18017358	3.1046214	21	—	—
327583 2006 DT_{135}	16.7	X	205.88515	269.61543	8.10196	2.23885	0.0904566	0.18409812	3.0603409	21	—	—
327584 2006 DX_{139}	15.9	X	304.22653	66.97851	68.10178	5.09186	0.0626903	0.17761209	3.1343996	21	—	—
327585 2006 DT_{144}	16.0	X	196.87685	78.86444	156.94021	9.62865	0.0496590	0.17504310	3.1649928	21	12 31.6	20.8
327586 2006 DE_{157}	15.8	X	187.70095	116.27703	152.96125	9.76750	0.0882265	0.17779147	3.1322909	21	—	—
327587 2006 DX_{159}	16.4	X	243.86342	55.40436	150.88193	3.03221	0.1104456	0.17750921	3.1356105	21	—	—
327588 2006 DB_{160}	15.6	X	315.46321	316.81142	162.17064	10.63171	0.0381465	0.17673006	3.1448198	21	—	—
327589 2006 DM_{165}	16.5	X	223.42829	104.68279	148.90394	8.04589	0.1346210	0.17996821	3.1069828	21	—	—
327590 2006 DQ_{166}	15.8	X	359.70045	54.53571	10.15730	11.39085	0.0604501	0.17490612	3.1666449	21	—	—
327591 2006 DO_{169}	15.7	X	14.31163	56.39670	13.28778	11.71418	0.0554466	0.17773962	3.1329001	21	—	—
327592 2006 DJ_{182}	15.8	X	356.33541	107.04099	336.82294	6.22230	0.0891121	0.17826257	3.1267700	21	—	—
327593 2006 DP_{188}	16.5	X	194.88106	178.12292	108.15131	2.45160	0.2243326	0.17745854	3.1362074	21	—	—
327594 2006 DM_{189}	15.6	X	359.76747	234.13571	173.24048	27.63033	0.2339210	0.17329743	3.1862117	21	12 27.3	19.7
327595 2006 DK_{194}	16.4	X	85.45482	17.16285	333.17613	8.46269	0.0660626	0.17827614	3.1266113	21	—	—
327596 2006 DY_{195}	15.5	X	292.06176	50.88596	91.20995	11.89324	0.1301196	0.17812546	3.1283744	21	12 26.9	19.3
327597 2006 DH_{196}	16.0	X	357.31567	299.27220	163.53879	19.41175	0.2355501	0.18659393	3.0329905	21	—	—
327598 2006 DP_{197}	15.3	X	276.71625	310.51775	212.09530	16.28184	0.1893306	0.17696563	3.1420283	21	12 20.3	19.6
327599 2006 DQ_{201}	15.7	X	290.38271	13.58588	109.15468	18.56260	0.1776779	0.17678719	3.1441422	21	11 28.8	19.8
327600 2006 DQ_{202}	15.4	X	230.18158	141.86553	118.02075	16.49317	0.2063780	0.18157142	3.0886668	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327601 2006 DQ_{211}	15.7	X	210.47627	268.62222	354.97028	12.62153	0.2698837	0.17525974	3.1623840	21	—	—
327602 2006 DS_{214}	15.7	X	166.71853	285.36214	347.58319	13.55093	0.0851242	0.17570036	3.1570947	21	—	—
327603 2006 EF_{3}	16.5	X	289.49255	3.96238	148.08930	7.69690	0.1227982	0.17905555	3.1175316	21	—	—
327604 2006 EP_{17}	15.9	X	187.03072	70.62341	181.08879	8.95105	0.0323551	0.17404132	3.1771262	21	—	—
327605 2006 EK_{19}	15.9	X	23.68696	230.58727	182.43097	8.46143	0.0602751	0.17442984	3.1724067	21	—	—
327606 2006 ER_{35}	15.8	X	247.45633	160.81444	5.06776	10.90763	0.0647808	0.17116388	3.2126343	21	12 1.9	20.6
327607 2006 ED_{37}	16.0	X	124.09561	228.06534	81.01027	2.36115	0.1647699	0.17155378	3.2077649	21	—	—
327608 2006 EC_{47}	15.8	X	201.85297	216.16606	10.67718	6.81453	0.0584231	0.17532311	3.1616220	21	12 26.2	20.5
327609 2006 EN_{47}	16.4	X	19.32663	281.26085	148.93296	10.32481	0.0538743	0.18099042	3.0952732	21	—	—
327610 2006 EK_{54}	15.9	X	321.61685	135.80113	7.18018	8.57775	0.0315536	0.18170037	3.0872053	21	—	—
327611 2006 EY_{71}	15.7	X	240.79025	188.55869	25.24786	7.63103	0.0632235	0.17677543	3.1442817	21	—	—
327612 2006 FC_{12}	16.4	X	199.28862	208.64311	47.17618	3.74507	0.0715487	0.17552891	3.1591502	21	—	—
327613 2006 FO_{19}	16.1	X	260.34960	339.42913	197.07886	4.69407	0.1035534	0.17162138	3.2069225	21	12 26.9	20.5
327614 2006 FN_{20}	15.5	X	60.87049	166.95582	212.20065	9.46825	0.0516545	0.16917334	3.2377857	21	—	—
327615 2006 FR_{27}	16.3	X	232.50386	130.43858	57.43037	2.34797	0.2769283	0.16929366	3.2362514	21	11 18.7	21.5
327616 2006 FN_{42}	15.0	X	114.11371	169.03944	195.53998	26.55108	0.0674420	0.17816903	3.1278643	21	—	—
327617 2006 GD_{4}	15.7	X	336.50078	109.43142	343.36168	12.92668	0.1593501	0.17848717	3.1241465	21	—	—
327618 2006 GP_{4}	15.9	X	247.61375	69.06054	151.57362	7.46302	0.0157030	0.17859227	3.1229206	21	—	—
327619 2006 GM_{18}	15.6	X	8.44819	109.60594	345.30477	10.07671	0.0992376	0.18323490	3.0699449	21	—	—
327620 2006 GO_{41}	15.5	X	197.79830	279.68769	16.89686	19.49681	0.4079577	0.17375479	3.1806181	21	1 15.3	21.9
327621 2006 GK_{54}	16.1	X	204.00377	257.03882	355.64636	12.12108	0.1418906	0.17693357	3.1424079	21	—	—
327622 2006 HS_{2}	16.1	X	213.00193	64.05672	170.37964	9.47632	0.0956741	0.17432737	3.1736497	21	—	—
327623 2006 HT_{2}	15.9	X	142.63119	308.16541	25.17126	11.87833	0.0829322	0.17981568	3.1087396	21	—	—
327624 2006 HK_{42}	15.4	X	240.30607	123.63151	99.88330	13.89208	0.1806192	0.17563487	3.1578795	21	—	—
327625 2006 HU_{55}	14.9	X	252.26196	265.26693	245.00861	23.28502	0.3377108	0.17368369	3.1814860	21	10 13.4	20.2
327626 2006 HD_{76}	15.1	X	127.21043	125.60238	205.86386	23.75427	0.1249120	0.16798833	3.2529944	21	—	—
327627 2006 HS_{104}	15.1	X	248.14512	123.94821	78.61398	17.42858	0.1912816	0.17351563	3.1835400	21	12 31.2	19.8
327628 2006 JY_{52}	15.6	X	145.96515	257.48838	41.16360	8.93163	0.0856856	0.17056349	3.2201690	21	—	—
327629 2006 KQ_{84}	15.5	X	358.72110	188.40755	205.13035	10.00706	0.0823454	0.15772031	3.3926910	21	11 21.1	20.0
327630 2006 MC_{3}	15.7	X	91.02170	124.68280	164.57927	10.80162	0.0478094	0.15620911	3.4145369	21	11 10.1	20.8
327631 2006 OU_{8}	17.6	X	184.81234	200.59028	125.88217	6.72117	0.1914944	0.30006522	2.2096608	21	1 13.2	20.9
327632 2006 OJ_{10}	17.1	X	146.06134	204.90269	126.46587	6.23647	0.1919168	0.29271102	2.2465185	21	—	—
327633 2006 PX_{1}	17.9	X	161.45512	173.53649	175.25575	6.16896	0.2370941	0.29812640	2.2192306	21	1 22.6	21.2
327634 2006 PM_{5}	17.2	X	77.14624	322.46943	31.27558	2.81716	0.2392386	0.28309132	2.2971271	21	—	—
327635 2006 PZ_{6}	17.8	X	231.96707	305.61579	359.26827	2.63277	0.1902882	0.30561102	2.1828474	21	1 28.0	21.1
327636 2006 PL_{8}	17.9	X	247.00209	319.46858	332.33365	4.60274	0.1732081	0.30703040	2.1761148	21	1 25.1	21.3
327637 2006 PS_{22}	17.3	X	22.71626	334.19271	36.03886	5.48542	0.2553695	0.27325793	2.3519109	21	—	—
327638 2006 PN_{32}	17.0	X	73.64652	299.38177	69.50359	6.03864	0.1578973	0.28269433	2.2992771	21	—	—
327639 2006 QL_{7}	17.7	X	181.94017	161.97970	147.94292	5.48237	0.1878819	0.29497027	2.2350327	21	—	—
327640 2006 QS_{7}	17.6	X	168.69450	152.15762	162.05900	7.21481	0.1784090	0.29396218	2.2401396	21	—	—
327641 2006 QP_{8}	17.7	X	164.13440	4.53320	319.35765	1.42478	0.1810120	0.29437685	2.2380354	21	—	—
327642 2006 QF_{10}	17.4	X	182.16522	283.95990	39.28472	5.69790	0.2402695	0.29795913	2.2200610	21	1 11.9	20.9
327643 2006 QG_{10}	17.4	X	175.58225	265.88374	85.19136	7.03381	0.1982876	0.29966101	2.2116474	21	2 7.4	20.7
327644 2006 QJ_{12}	17.0	X	83.69748	257.82996	109.99602	6.52253	0.1275160	0.28661531	2.2782592	21	—	—
327645 2006 QO_{16}	17.5	X	39.37448	34.87744	351.27066	3.53380	0.2231264	0.27954715	2.3165019	21	—	—
327646 2006 QX_{18}	17.2	X	95.02657	339.30424	12.17011	3.29682	0.1811029	0.28480679	2.2878936	21	—	—
327647 2006 QT_{21}	17.6	X	139.02964	111.37454	230.15855	0.61837	0.2448005	0.29248034	2.2476996	21	—	—
327648 2006 QC_{23}	17.1	X	67.70651	336.76042	30.17940	11.48538	0.1381717	0.28124365	2.3071769	21	—	—
327649 2006 QT_{26}	17.8	X	149.33993	187.92717	170.42037	3.38943	0.1883419	0.29545902	2.2325672	21	1 17.7	20.7
327650 2006 QM_{28}	17.4	X	82.77448	74.71209	267.30077	1.36077	0.1687431	0.28086948	2.3092255	21	—	—
327651 2006 QA_{33}	17.1	X	225.61594	328.28723	328.14090	7.33359	0.1899358	0.30086126	2.2057614	21	1 13.2	20.6
327652 2006 QG_{38}	17.4	X	173.30432	23.93826	289.09655	4.22111	0.1930590	0.29419616	2.2389516	21	—	—
327653 2006 QX_{38}	17.1	X	223.95042	2.49463	294.24128	6.09759	0.1565526	0.30197304	2.2003441	21	1 10.5	20.3
327654 2006 QM_{47}	18.0	X	143.46939	312.22047	50.82851	3.87429	0.1802842	0.29504429	2.2346589	21	1 17.6	20.8
327655 2006 QF_{59}	16.8	X	93.77330	35.07264	321.21471	9.80770	0.1936035	0.28630527	2.2799036	21	—	—
327656 2006 QW_{60}	16.8	X	17.72381	242.55095	146.63176	7.13825	0.1203304	0.27695157	2.3309529	21	—	—
327657 2006 QV_{61}	17.0	X	77.60032	193.71902	189.42822	8.52731	0.2222340	0.28488972	2.2874496	21	—	—
327658 2006 QG_{62}	16.7	X	62.15722	240.54418	155.79605	7.79230	0.1599145	0.28269992	2.2992468	21	—	—
327659 2006 QJ_{62}	17.3	X	245.66077	167.14547	142.15868	9.01421	0.2484952	0.30618610	2.1801133	21	2 11.8	21.0
327660 2006 QX_{88}	17.7	X	146.61996	330.45041	15.70200	4.52905	0.2026715	0.29211800	2.2495579	21	1 2.3	20.6
327661 2006 QO_{92}	17.2	X	78.93926	239.16800	163.36111	6.93252	0.1215785	0.29164656	2.2519814	21	—	—
327662 2006 QT_{98}	15.2	X	320.17776	118.63315	224.11792	3.17261	0.2150997	0.12468673	3.9681605	21	7 5.3	19.9
327663 2006 QV_{112}	18.0	X	207.32711	88.81452	239.14655	3.20302	0.1938199	0.30243752	2.1980907	21	2 3.0	21.6
327664 2006 QR_{113}	17.2	X	89.99511	353.59372	357.45581	6.89345	0.1414665	0.28327867	2.2961141	21	—	—
327665 2006 QQ_{120}	17.1	X	40.30566	179.36747	213.70232	5.83345	0.2025208	0.28011480	2.3133713	21	—	—
327666 2006 QN_{135}	17.4	X	176.81937	104.78083	199.07309	6.17668	0.1473606	0.29207417	2.2497829	21	—	—
327667 2006 QD_{137}	17.1	X	71.24769	9.67206	277.26433	5.87181	0.1038975	0.27425285	2.3462194	21	11 3.7	20.2
327668 2006 QV_{161}	17.6	X	85.15444	201.34873	162.51164	5.62345	0.1468540	0.28312025	2.2969705	21	—	—
327669 2006 QU_{169}	17.6	X	20.43761	307.38595	64.19378	3.65788	0.2148565	0.27341786	2.3509937	21	—	—
327670 2006 QH_{187}	17.5	X	194.86661	256.83224	87.95567	5.53267	0.2112684	0.30255354	2.1975287	21	2 17.1	21.0
327671 2006 RF_{9}	17.2	X	168.57311	163.98874	154.03314	6.23279	0.2042107	0.29235670	2.2483332	21	—	—
327672 2006 RO_{11}	17.7	X	198.18562	146.66374	172.19767	4.06945	0.2114530	0.29821230	2.2188044	21	1 16.7	21.1
327673 2006 RQ_{11}	17.5	X	98.08645	52.47393	307.62572	1.40825	0.1947668	0.28472179	2.2883489	21	—	—
327674 2006 RT_{17}	16.8	X	168.27509	196.83983	239.22354	9.41243	0.1554208	0.24166234	2.5526821	21	5 20.2	20.8
327675 2006 RO_{23}	17.5	X	130.17982	342.60990	354.20836	1.23462	0.2642205	0.28789284	2.2715143	21	—	—
327676 2006 RA_{24}	16.9	X	332.35882	176.47204	231.88288	5.95632	0.2027809	0.26746664	2.3857392	21	11 28.6	18.5
327677 2006 RZ_{30}	17.3	X	140.51182	108.89593	258.35418	3.21966	0.2004050	0.29335523	2.2432284	21	1 21.2	20.1
327678 2006 RX_{32}	17.3	X	46.41332	0.78768	359.32734	5.53172	0.2844131	0.27408218	2.3471932	21	—	—
327679 2006 RS_{37}	17.1	X	41.40686	264.55772	132.70283	6.75333	0.1219342	0.27914260	2.3187396	21	—	—
327680 2006 RT_{38}	17.4	X	186.84112	240.76630	63.09607	3.39265	0.1888591	0.29422731	2.2387936	21	—	—

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327681 2006 RK_{42}	17.4	X	263.34504	290.89221	188.77608	7.33637	0.0760797	0.26766242	2.3845757	21	11 13.9	20.2
327682 2006 RP_{44}	17.4	X	239.37067	175.47083	32.02966	3.78731	0.0861339	0.28116658	2.3075985	21	—	—
327683 2006 RM_{47}	16.8	X	239.93672	188.74250	18.40310	7.80881	0.0568167	0.28139475	2.3063509	21	—	—
327684 2006 RE_{53}	17.4	X	193.66942	261.34845	19.50050	5.26391	0.1292109	0.28760321	2.2730390	21	—	—
327685 2006 RJ_{53}	17.3	X	142.99238	196.44281	138.38273	5.93904	0.1724225	0.28813282	2.2702529	21	—	—
327686 2006 RE_{58}	17.4	X	47.07233	225.13808	168.04276	5.27259	0.1767074	0.27906620	2.3191627	21	—	—
327687 2006 RZ_{79}	17.9	X	206.96696	183.49366	134.65714	1.71992	0.2048951	0.29943116	2.2127790	21	1 23.4	21.5
327688 2006 RK_{82}	17.2	X	279.20427	249.37522	193.95111	5.92425	0.1097504	0.26355849	2.4092657	21	10 10.7	19.9
327689 2006 RU_{90}	17.4	X	294.42881	270.47740	178.71523	4.04946	0.1114451	0.26652998	2.3913254	21	11 15.1	19.8
327690 2006 RW_{93}	17.8	X	123.21006	110.25273	210.10781	6.33787	0.1276054	0.28162263	2.3051066	21	—	—
327691 2006 RH_{97}	18.2	X	169.56080	71.79776	239.13033	1.73498	0.2238211	0.29047520	2.2580315	21	—	—
327692 2006 RZ_{101}	17.5	X	137.86671	220.74900	142.79670	5.61127	0.1943006	0.29124557	2.2540480	21	1 12.9	20.3
327693 2006 RC_{102}	17.6	X	202.89217	288.51589	17.04145	2.57700	0.1764678	0.29657544	2.2269609	21	1 3.9	21.0
327694 2006 RS_{105}	17.7	X	222.63387	118.72179	353.22887	1.99457	0.1315837	0.25681894	2.4512335	21	8 31.5	21.2
327695 Yokoono	18.2	X	217.47718	327.00599	194.44384	4.37354	0.0925313	0.26730855	2.3866798	21	11 5.4	21.3
327696 2006 SH_{4}	16.9	X	17.68862	67.77675	315.21838	6.18993	0.1271934	0.27281249	2.3544703	21	—	—
327697 2006 SZ_{8}	17.3	X	223.81599	221.46740	74.71811	5.30195	0.1744398	0.29966685	2.2116187	21	1 10.6	20.7
327698 2006 SD_{16}	17.6	X	24.56402	161.47888	221.31072	3.99861	0.1228695	0.27359599	2.3499731	21	—	—
327699 2006 SX_{21}	17.5	X	325.31156	105.90528	277.36012	2.99190	0.2320223	0.26265324	2.4147983	21	9 22.5	19.2
327700 2006 SB_{34}	17.5	X	141.64937	173.24583	187.58273	5.68883	0.1575684	0.29304331	2.2448199	21	1 7.7	20.3
327701 2006 SQ_{35}	17.5	X	134.14229	153.54404	209.43149	2.06074	0.1982953	0.29099212	2.2553566	21	1 8.1	20.1
327702 2006 SA_{36}	17.4	X	164.48766	231.11738	85.25842	5.75621	0.1867831	0.29137449	2.2533831	21	—	—
327703 2006 SD_{36}	16.8	X	203.41412	253.19749	61.14066	5.96334	0.1995005	0.29875446	2.2161192	21	1 16.7	20.3
327704 2006 SZ_{36}	16.8	X	185.04157	280.47929	348.28141	6.14036	0.0604599	0.28277290	2.2988512	21	—	—
327705 2006 SR_{41}	17.0	X	16.60010	216.61306	171.07981	4.83249	0.1686753	0.27286193	2.3541859	21	—	—
327706 2006 SP_{42}	17.2	X	322.70060	239.01283	191.74922	3.27420	0.2230298	0.26699231	2.3885640	21	12 11.7	18.8
327707 2006 SE_{52}	16.9	X	161.21973	184.06008	156.21393	6.90431	0.1438562	0.29156206	2.2524166	21	1 2.9	20.0
327708 2006 SW_{54}	17.3	X	165.16918	191.47196	135.32783	7.75861	0.1711196	0.29197949	2.2502693	21	—	—
327709 2006 SF_{76}	17.5	X	291.89834	358.22111	57.16528	2.14158	0.1507394	0.25920362	2.4361761	21	9 14.9	19.9
327710 2006 SM_{77}	16.9	X	138.76319	142.80850	212.99723	25.88512	0.2621937	0.29124721	2.2540395	21	1 7.5	20.6
327711 2006 SJ_{91}	17.5	X	101.69348	141.13073	196.08724	10.04326	0.2321193	0.28105714	2.3081975	21	—	—
327712 2006 SZ_{97}	17.4	X	198.77052	195.20616	25.88053	6.42081	0.0714919	0.27471866	2.3435665	21	—	—
327713 2006 SV_{103}	17.9	X	180.25076	221.56903	6.93226	2.07226	0.0474345	0.27521804	2.3407307	21	12 24.2	20.8
327714 2006 SG_{135}	14.6	X	320.58708	316.27186	33.73792	9.39782	0.2681991	0.12633058	3.9336621	21	7 9.2	19.3
327715 2006 SL_{135}	17.0	X	338.36003	142.21490	247.73912	6.05886	0.0612507	0.26648555	2.3915912	21	11 4.1	19.5
327716 2006 SS_{136}	16.9	X	115.74234	257.94210	84.53974	7.43153	0.1478730	0.28662617	2.2782016	21	—	—
327717 2006 SD_{138}	16.9	X	327.42571	319.17639	90.54063	6.92616	0.0987185	0.26725995	2.3869691	21	11 17.9	19.3
327718 2006 ST_{138}	18.1	X	221.30913	267.18077	51.52117	6.82646	0.2518761	0.30387031	2.1911757	21	2 7.6	21.9
327719 2006 SP_{139}	17.2	X	178.95511	235.28042	99.79374	7.38614	0.1851142	0.29544930	2.2326162	21	1 19.4	20.4
327720 2006 ST_{154}	17.3	X	313.94121	319.23872	60.94245	7.61441	0.2762481	0.25916486	2.4364190	21	8 15.9	19.3
327721 2006 SQ_{157}	17.8	X	271.65283	270.93205	170.40589	4.08688	0.2072885	0.25999309	2.4312419	21	9 8.9	20.7
327722 2006 SV_{159}	17.7	X	275.84183	65.26602	32.04384	7.50365	0.0971566	0.26360982	2.4089530	21	10 26.9	20.3
327723 2006 SK_{161}	17.4	X	185.20094	240.12116	63.63826	2.35580	0.1872306	0.29135222	2.2534979	21	—	—
327724 2006 SX_{185}	17.8	X	101.52834	331.93075	24.34036	3.99075	0.1686503	0.28207494	2.3026418	21	—	—
327725 2006 SQ_{188}	18.2	X	200.26555	108.75607	89.70912	2.10600	0.1298357	0.27336930	2.3512721	21	11 29.6	21.5
327726 2006 SJ_{194}	17.8	X	55.45400	128.31870	220.70918	3.27726	0.2143044	0.27439743	2.3453952	21	—	—
327727 2006 SY_{204}	18.2	X	204.64327	101.90563	29.84842	0.52419	0.1580644	0.25765632	2.4459196	21	9 4.9	21.8
327728 2006 SB_{212}	17.5	X	306.72856	348.07849	120.34947	1.54686	0.0851494	0.27137261	2.3627913	21	—	—
327729 2006 SR_{214}	17.3	X	131.74165	291.63188	14.99157	5.36119	0.1756291	0.28139289	2.3063611	21	—	—
327730 2006 SM_{279}	17.1	X	95.80597	123.95012	231.62944	6.29329	0.1445419	0.28172367	2.3045554	21	—	—
327731 2006 SE_{283}	17.1	X	125.46806	199.22041	161.94276	6.15463	0.1293894	0.28893694	2.2660388	21	—	—
327732 2006 SP_{283}	17.1	X	123.83390	188.88595	156.13416	5.93552	0.1917365	0.28500901	2.2868113	21	—	—
327733 2006 SE_{300}	17.1	X	323.76188	257.82561	128.62414	7.39441	0.1422561	0.26262489	2.4149722	21	10 6.8	19.4
327734 2006 SP_{317}	17.5	X	263.81282	8.97596	152.78427	4.44292	0.0776421	0.27498296	2.3420646	21	—	—
327735 2006 ST_{322}	17.3	X	332.44300	353.91947	59.73622	3.32505	0.1961901	0.26685903	2.3893592	21	12 6.3	18.9
327736 2006 SG_{328}	17.4	X	112.47937	151.58549	174.54595	6.07102	0.1494070	0.28035176	2.3120676	21	—	—
327737 2006 SC_{336}	17.7	X	314.00216	305.23244	105.22776	3.95882	0.1394164	0.26353514	2.4094081	21	10 22.8	20.0
327738 2006 SC_{351}	17.5	X	175.28997	150.55476	161.04043	6.39696	0.1352105	0.29183053	2.2510349	21	—	—
327739 2006 SC_{353}	17.5	X	179.26247	147.34203	162.60122	4.90834	0.1708330	0.29097100	2.2554658	21	—	—
327740 2006 SG_{364}	17.0	X	299.99382	31.28027	28.10925	6.85744	0.1108627	0.25796158	2.4439897	21	10 10.4	19.6
327741 2006 SE_{365}	17.3	X	6.55607	163.04386	235.36840	5.48182	0.0923200	0.27169897	2.3608989	21	—	—
327742 2006 SH_{391}	17.7	X	39.39840	171.26798	214.95501	7.08642	0.1509432	0.27650541	2.3334596	21	—	—
327743 2006 TG_{2}	17.6	X	148.34552	206.26240	80.38639	2.48181	0.1588726	0.28082419	2.3094738	21	—	—
327744 2006 TM_{23}	17.4	X	319.15126	235.93221	181.50841	2.99583	0.1330433	0.26361529	2.4089197	21	11 11.8	19.7
327745 2006 TD_{29}	17.7	X	171.56428	270.71728	49.40662	2.17046	0.2715579	0.29160956	2.2521720	21	1 1.7	21.2
327746 2006 TO_{39}	17.4	X	173.42928	59.16900	32.89090	13.83142	0.1565587	0.24099670	2.5573803	21	6 12.8	21.7
327747 2006 TG_{50}	17.0	X	331.11909	324.37999	67.62745	7.78095	0.1351046	0.26250739	2.4156927	21	10 29.5	19.2
327748 2006 TQ_{55}	17.4	X	179.00600	206.02271	135.08739	6.10014	0.2414317	0.29506165	2.2345712	21	1 30.6	20.9
327749 2006 TA_{69}	17.0	X	111.72420	279.25929	59.24034	5.66323	0.1390531	0.28253305	2.3001521	21	—	—
327750 2006 TP_{70}	16.9	X	94.44250	267.47654	165.60968	12.55444	0.2978128	0.22361683	2.6882298	21	3 19.5	20.3
327751 2006 TP_{72}	16.9	X	139.68308	229.64181	73.53531	8.31884	0.1581106	0.28150077	2.3057718	21	—	—
327752 2006 TM_{75}	17.0	X	153.84745	275.41838	68.47723	8.30356	0.1614418	0.28995561	2.2607283	21	1 2.4	20.0
327753 2006 TX_{77}	18.0	X	204.71743	110.22481	202.28490	6.34127	0.2046021	0.29552861	2.2322167	21	1 13.9	21.7
327754 2006 TQ_{95}	17.6	X	154.61136	292.08926	18.98060	4.01440	0.2592978	0.28693784	2.2765516	21	—	—
327755 2006 TX_{123}	17.4	X	201.95690	231.65176	54.22796	6.07536	0.1646462	0.28870352	2.2672600	21	—	—
327756 2006 TP_{127}	17.5	X	272.97228	2.20400	73.97117	3.43483	0.0707091	0.25881454	2.4386170	21	9 28.2	20.4
327757 2006 UW_{7}	17.2	X	4.59139	314.85399	50.45567	5.88536	0.2467943	0.26526022	2.3989506	21	12 8.1	19.4
327758 2006 UV_{13}	17.4	X	309.06110	357.94948	59.68415	4.55211	0.1614726	0.26076297	2.4264542	21	10 20.5	19.6
327759 2006 UZ_{27}	17.7	X	205.62463	227.98098	214.47955	5.29463	0.1608445	0.24633009	2.5203319	21	7 2.4	21.8
327760 2006 US_{36}	17.2	X	114.18473	276.38361	224.72093	11.36544	0.2426871	0.23620380	2.5918595	21	6 26.6	21.4

ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327761 2006 UL_{38}	17.3	X	169.20095	304.13096	35.09607	6.56872	0.1980275	0.29201779	2.2500725	21	1 18.0	20.6
327762 2006 UQ_{52}	17.3	X	270.28462	230.37307	216.26812	4.66950	0.0886359	0.26193625	2.4192030	21	10 3.5	20.0
327763 2006 UE_{53}	17.0	X	155.16203	198.30271	60.15620	7.45511	0.0876548	0.27096019	2.3651883	21	12 30.1	20.5
327764 2006 UL_{54}	14.8	X	336.74684	42.88732	297.54269	5.67245	0.3243880	0.12497447	3.9620672	21	7 21.1	18.7
327765 2006 UU_{68}	17.4	X	127.75368	276.68873	79.95846	4.32785	0.2536903	0.28787870	2.2715886	21	—	—
327766 2006 UC_{69}	17.4	X	136.38601	234.59394	106.18544	4.01054	0.1919111	0.28635960	2.2796152	21	—	—
327767 2006 UD_{78}	17.4	X	289.29327	68.89833	7.30775	4.83229	0.1061176	0.26154418	2.4216201	21	10 16.1	19.9
327768 2006 UC_{79}	17.5	X	185.01528	354.28449	291.52248	1.91199	0.2067520	0.28716750	2.2753377	21	—	—
327769 2006 UY_{84}	17.5	X	146.20105	271.43916	47.41789	7.92698	0.1356144	0.28131729	2.3067743	21	—	—
327770 2006 UF_{87}	17.1	X	83.12793	134.35615	227.12298	5.87899	0.1739179	0.27772983	2.3265963	21	—	—
327771 2006 UK_{91}	17.2	X	113.56600	142.95790	184.91607	5.48990	0.1871168	0.28098648	2.3085844	21	—	—
327772 2006 UH_{92}	17.3	X	195.68581	219.99717	47.84108	5.54483	0.1439531	0.28383613	2.2931067	21	—	—
327773 2006 UW_{107}	17.3	X	7.81439	301.38543	75.23289	4.17058	0.1385575	0.26568415	2.3963980	21	12 12.9	19.6
327774 2006 UT_{118}	17.9	X	226.16780	117.16347	41.95895	4.01846	0.0262544	0.26686466	2.3893256	21	11 21.7	21.0
327775 2006 UW_{128}	17.7	X	8.67655	126.92773	234.26557	1.07524	0.1584536	0.26522221	2.3991798	21	11 25.4	20.0
327776 2006 UV_{132}	17.6	X	141.46419	42.37798	215.12543	6.17063	0.1057708	0.27015172	2.3699047	21	12 13.9	21.1
327777 2006 UC_{149}	18.0	X	265.02755	303.12035	180.99657	1.31415	0.0468647	0.26655703	2.3911636	21	11 25.3	20.7
327778 2006 UV_{156}	17.4	X	173.25163	140.35760	172.63862	4.36096	0.1974888	0.29020954	2.2594094	21	—	—
327779 2006 UC_{175}	17.2	X	287.25849	18.63949	62.36477	4.20546	0.0976699	0.26460883	2.4028860	21	10 23.5	19.7
327780 2006 UL_{177}	17.5	X	67.34820	275.65777	85.07533	4.33194	0.1696352	0.27718771	2.3296289	21	—	—
327781 2006 US_{179}	17.5	X	163.48217	151.08528	178.75041	8.06840	0.2444652	0.29058980	2.2574379	21	1 3.1	21.0
327782 2006 UD_{181}	17.4	X	22.87204	263.45004	137.23110	6.68668	0.1203921	0.27303062	2.3532161	21	—	—
327783 2006 UJ_{182}	17.0	X	59.76944	218.43190	147.75886	4.68852	0.2263042	0.27522397	2.3406971	21	—	—
327784 2006 UW_{183}	17.1	X	33.58338	18.80395	341.46548	10.24144	0.2130455	0.27156963	2.3616484	21	—	—
327785 2006 UL_{184}	16.7	X	125.81724	40.46229	293.19913	6.77722	0.2152763	0.28230280	2.3014026	21	—	—
327786 2006 UO_{195}	17.2	X	271.18867	34.09118	34.09225	7.26450	0.0957935	0.25686956	2.4509115	21	9 11.6	20.3
327787 2006 UF_{196}	17.3	X	124.63185	234.85106	35.73341	4.16275	0.0529696	0.26838257	2.3803081	21	12 10.9	20.6
327788 2006 UT_{198}	17.4	X	162.15196	207.55264	215.47292	4.29121	0.1916512	0.23439693	2.6051622	21	4 30.3	21.6
327789 2006 UM_{220}	17.6	X	168.75232	339.23275	344.07848	5.26487	0.2219075	0.29168115	2.2518034	21	—	—
327790 2006 UH_{223}	16.6	X	192.35060	331.58577	317.06299	4.77895	0.1391548	0.28854178	2.2681072	21	—	—
327791 2006 UU_{227}	17.0	X	339.82840	188.97152	174.58934	8.72057	0.0555305	0.25973519	2.4328511	21	9 30.2	19.7
327792 2006 UD_{231}	17.4	X	23.31159	327.20184	60.04979	7.11741	0.1336321	0.27296329	2.3536030	21	—	—
327793 2006 UT_{253}	17.5	X	195.63113	129.29546	44.60456	8.03830	0.0834454	0.26136964	2.4226980	21	10 27.3	20.8
327794 2006 UB_{266}	15.4	X	75.42762	264.55656	241.22055	24.18448	0.4249406	0.22532073	2.6746602	21	6 15.3	19.3
327795 2006 UC_{280}	17.4	X	176.69305	278.62386	210.61946	4.72429	0.1044186	0.24758149	2.5118321	21	8 3.7	21.3
327796 2006 UU_{281}	17.2	X	148.69289	285.71396	211.45940	3.41180	0.2246117	0.24081751	2.5586488	21	7 21.4	21.6
327797 2006 UO_{282}	17.1	X	127.88058	232.19612	53.62399	7.74699	0.1103523	0.27201613	2.3590634	21	—	—
327798 2006 UY_{335}	16.9	X	151.01068	222.98309	58.48487	7.30761	0.1197338	0.27355498	2.3502080	21	—	—
327799 2006 UN_{337}	17.0	X	259.12219	27.67688	66.67465	5.71607	0.0936944	0.25883860	2.4384659	21	10 1.1	20.1
327800 2006 VU	17.4	X	49.52757	337.13863	9.54494	1.39630	0.1997930	0.27041043	2.3683929	21	—	—
327801 2006 VD_{5}	17.4	X	108.85627	109.98302	235.90619	4.24120	0.0891614	0.28614686	2.2807450	21	—	—
327802 2006 VM_{19}	17.0	X	268.48458	206.47487	253.37935	5.41445	0.0967978	0.25929709	2.4355906	21	10 16.7	19.9
327803 2006 VF_{22}	17.4	X	172.91879	174.44613	56.60437	4.93516	0.1080385	0.26721708	2.3872244	21	12 12.2	20.7
327804 2006 VH_{22}	17.2	X	131.44447	212.33774	55.86595	6.88706	0.1082801	0.26788420	2.3832594	21	12 16.3	20.7
327805 2006 VB_{25}	17.1	X	279.13007	15.84503	80.06115	3.17506	0.0374018	0.26132788	2.4229562	21	11 7.7	20.0
327806 2006 VD_{28}	16.5	X	54.62125	281.69880	251.30103	13.06081	0.0865222	0.23143236	2.6273625	21	4 26.9	19.7
327807 2006 VP_{29}	17.1	X	158.13823	76.36747	46.37133	4.75316	0.1752159	0.23971357	2.5664982	21	7 10.9	21.3
327808 2006 VX_{34}	17.4	X	140.24774	143.11744	49.59097	5.26238	0.0793254	0.25344412	2.4729456	21	9 20.5	21.0
327809 2006 VS_{38}	17.1	X	188.64359	333.17704	236.98820	5.09802	0.1212761	0.26624641	2.3930230	21	12 1.6	20.6
327810 2006 VG_{50}	16.7	X	63.26400	259.21382	58.24947	7.43300	0.1145725	0.26360145	2.4090040	21	12 5.2	19.8
327811 2006 VA_{51}	16.9	X	2.67620	76.00862	267.72518	3.78919	0.1709584	0.25723245	2.4486058	21	10 17.1	19.1
327812 2006 VG_{63}	17.2	X	358.88807	127.52104	238.24284	5.25171	0.1495734	0.26103741	2.4247532	21	11 11.7	19.6
327813 2006 VQ_{72}	16.9	X	1.01206	100.98200	240.79179	7.89149	0.0113610	0.25468318	2.4649183	21	9 24.6	20.1
327814 2006 VZ_{74}	16.6	X	161.50694	248.10212	240.68555	7.77077	0.1211859	0.24135979	2.5548149	21	7 17.8	20.6
327815 2006 VD_{81}	16.8	X	107.67632	61.57450	226.31026	8.16879	0.0099959	0.26449830	2.4035553	21	12 10.3	19.9
327816 2006 VW_{104}	16.8	X	150.93423	211.79466	40.85551	6.77797	0.1119099	0.26819334	2.3814276	21	12 16.4	20.4
327817 2006 VX_{132}	17.8	X	190.65065	109.93400	195.77253	3.26466	0.2414709	0.28903923	2.2655041	21	—	—
327818 2006 VZ_{151}	17.5	X	131.98941	213.27788	112.00521	1.97902	0.2379360	0.28307433	2.2972190	21	—	—
327819 2006 VJ_{152}	16.9	X	324.50654	62.43736	346.73955	5.71397	0.1108992	0.26190483	2.4193965	21	11 6.3	19.4
327820 2006 VF_{155}	17.2	X	209.38031	296.63363	132.61064	6.57995	0.1970523	0.24458863	2.5322809	21	6 18.3	21.4
327821 2006 VF_{171}	16.9	X	97.52331	64.20458	252.57575	5.33095	0.1189291	0.26908539	2.3761616	21	—	—
327822 2006 WU_{18}	17.0	X	10.55322	340.65532	38.09330	6.87659	0.1169227	0.26417483	2.4055170	21	12 16.0	19.7
327823 2006 WF_{22}	17.6	X	42.85774	218.36258	122.31457	4.41099	0.1836956	0.26567633	2.3964450	21	12 21.3	20.8
327824 2006 WF_{23}	17.3	X	133.06296	30.16207	95.36761	5.59498	0.1642482	0.23465457	2.6032550	21	6 19.0	21.2
327825 2006 WU_{24}	16.6	X	134.65270	301.75630	100.08830	6.14167	0.1681503	0.22398115	2.6853139	21	3 10.2	20.6
327826 2006 WY_{30}	17.8	X	277.67443	103.38970	358.55153	4.59858	0.0626470	0.26502564	2.4003659	21	11 8.9	20.7
327827 2006 WE_{42}	17.5	X	29.69340	190.10035	199.30725	5.86426	0.1066967	0.27101767	2.3648539	21	—	—
327828 2006 WM_{46}	17.3	X	278.73906	99.05450	349.79959	1.58944	0.0833199	0.25812575	2.4429533	21	10 20.2	20.2
327829 2006 WH_{48}	17.0	X	161.61128	62.78029	53.64633	7.38886	0.0958998	0.24003940	2.5641752	21	7 2.9	20.9
327830 2006 WV_{55}	16.5	X	48.17626	103.27171	105.84203	12.40498	0.1447833	0.22643904	2.6658467	21	6 18.6	19.5
327831 2006 WF_{61}	17.3	X	123.79449	241.59058	96.07995	5.60027	0.2047994	0.28302651	2.2974777	21	—	—
327832 2006 WU_{67}	16.8	X	212.39199	8.65865	75.75670	6.41941	0.2201723	0.24313176	2.5423866	21	7 9.1	21.0
327833 2006 WN_{68}	17.3	X	329.24060	171.77565	187.46713	4.41483	0.1014002	0.25239402	2.4798001	21	9 1.3	20.0
327834 2006 WT_{70}	17.2	X	128.67784	222.68181	38.87604	6.04132	0.0860663	0.26569929	2.3963070	21	12 3.9	20.6
327835 2006 WZ_{81}	17.2	X	189.73756	15.12675	46.32594	13.02133	0.1826928	0.23790910	2.5794593	21	5 20.8	21.5
327836 2006 WA_{82}	17.5	X	124.28870	3.76319	100.66715	3.44836	0.1697796	0.23061728	2.6335495	21	5 14.9	21.5
327837 2006 WE_{85}	17.1	X	191.30451	209.94623	216.92583	3.65941	0.1823978	0.23788594	2.5796267	21	5 30.7	21.3
327838 2006 WM_{86}	16.3	X	105.26364	215.18370	247.63604	8.44525	0.3054985	0.22542352	2.6738471	21	5 7.5	20.3
327839 2006 WC_{89}	15.8	X	153.23174	19.62206	87.13760	33.94806	0.1836176	0.23366442	2.6106039	21	6 16.4	19.9
327840 2006 WG_{95}	17.5	X	168.43141	277.25114	216.83833	5.19772	0.1730497	0.24413270	2.5354326	21	8 1.6	21.7

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327841 2006 WH_{106}	17.0	X	120.01166	111.01514	70.47406	8.21977	0.1572881	0.24276905	2.5449183	21	8 20.6	21.0
327842 2006 WQ_{125}	16.5	X	89.52243	102.01704	77.07890	13.72698	0.1927331	0.23494299	2.6011240	21	7 15.6	20.2
327843 2006 WS_{189}	16.3	X	106.56370	296.89692	214.19171	11.78450	0.2606169	0.23257374	2.6187594	21	7 3.4	20.6
327844 2006 WL_{192}	16.9	X	166.12467	31.28326	87.13236	14.59278	0.1794147	0.23993567	2.5649142	21	7 12.5	21.2
327845 2006 WC_{194}	17.0	X	252.80527	227.34186	167.48949	2.55650	0.1525007	0.24386436	2.5372922	21	6 20.4	20.6
327846 2006 WC_{199}	17.3	X	340.97407	269.42132	92.56065	2.47030	0.2119222	0.25662801	2.4524492	21	10 2.5	19.0
327847 2006 WQ_{202}	16.5	X	70.58568	229.41272	280.65610	7.00591	0.1513713	0.22237966	2.6981909	21	4 30.6	19.8
327848 2006 XN_{1}	17.8	X	99.66719	296.15008	25.90543	1.66129	0.1986327	0.27356704	2.3501389	21	—	—
327849 2006 XA_{8}	16.1	X	124.74956	62.88161	98.49840	8.15532	0.1969166	0.23798989	2.5788755	21	7 30.8	20.2
327850 2006 XC_{24}	16.8	X	154.30627	345.89880	128.18090	5.61717	0.2114205	0.23696300	2.5863206	21	6 27.3	21.1
327851 2006 XC_{43}	16.7	X	35.06737	249.72569	108.99551	3.29562	0.2252777	0.26189403	2.4194630	21	—	—
327852 2006 XN_{50}	16.8	X	352.11516	254.78253	113.30516	15.16430	0.1423551	0.25365370	2.4715833	21	11 7.5	19.6
327853 2006 XR_{50}	16.9	X	177.02394	315.84099	117.33779	8.43232	0.1826444	0.23228650	2.6209178	21	5 27.7	21.3
327854 2006 XK_{54}	16.4	X	131.78886	208.72574	256.85690	12.67452	0.2134332	0.23070414	2.6328884	21	5 27.3	20.5
327855 2006 XL_{55}	16.8	X	66.03504	221.25355	288.01909	10.30869	0.1305899	0.22103217	2.7091459	21	4 16.5	20.2
327856 2006 XU_{60}	16.9	X	102.88484	16.47101	87.43715	6.22766	0.3038527	0.22276945	2.6950426	21	5 8.9	20.9
327857 2006 XF_{65}	16.3	X	198.15058	357.52044	96.84588	15.83225	0.0413483	0.24287393	2.5441856	21	7 16.5	19.8
327858 2006 XN_{71}	17.2	X	55.95111	279.12268	267.00120	1.50902	0.0239478	0.22821438	2.6520032	21	5 12.3	20.6
327859 2006 YA_{4}	16.9	X	163.95814	24.47678	73.96082	13.47170	0.1128414	0.23453228	2.6041598	21	6 11.9	20.9
327860 2006 YX_{9}	17.2	X	191.74327	251.03992	210.42176	1.59832	0.1829043	0.24165845	2.5527095	21	7 13.4	21.4
327861 2006 YO_{10}	16.2	X	64.27395	55.92310	111.97474	22.59312	0.1654481	0.22411999	2.6842048	21	5 27.8	19.8
327862 2006 YM_{14}	16.8	X	158.10715	298.89232	181.61563	3.82075	0.1222226	0.23683212	2.5872734	21	7 4.9	20.9
327863 2006 YC_{20}	16.6	X	156.15702	89.30155	329.72842	11.79847	0.2708380	0.22840271	2.6505452	21	4 19.4	21.4
327864 2006 YV_{34}	16.7	X	84.27079	101.22528	66.93775	5.93871	0.1273243	0.22810879	2.6528216	21	6 12.9	20.2
327865 2006 YN_{35}	16.5	X	191.65196	309.20862	94.54340	14.05648	0.1830586	0.23074477	2.6325793	21	5 7.2	21.1
327866 2006 YV_{35}	16.4	X	13.56026	281.09081	318.23932	7.84733	0.0810186	0.22879685	2.6475003	21	5 23.8	19.7
327867 2006 YA_{50}	16.4	X	197.56992	118.43229	295.44282	13.06716	0.1480968	0.23180301	2.6245610	21	5 17.7	20.8
327868 2006 YB_{51}	16.1	X	184.33037	120.01743	319.28192	13.23398	0.1764350	0.24029597	2.5623497	21	6 8.2	20.5
327869 2006 YB_{52}	16.7	X	324.67236	159.31333	135.68627	10.50619	0.1437227	0.22538170	2.6741778	21	5 19.4	20.0
327870 2006 YL_{54}	17.0	X	114.97933	301.59397	147.13750	5.72018	0.1532807	0.22195851	2.7016029	21	4 14.1	20.9
327871 2007 AN_{3}	16.4	X	71.13606	145.85945	91.92796	5.23155	0.1942726	0.23788768	2.5796141	21	9 12.3	20.0
327872 2007 AR_{3}	17.2	X	181.03254	90.12199	2.19831	3.16685	0.1614933	0.23524457	2.5989004	21	6 22.4	21.4
327873 2007 AH_{7}	16.1	X	73.11554	216.92412	303.08019	10.87183	0.1731075	0.22288756	2.6940904	21	5 22.2	19.6
327874 2007 AQ_{12}	16.5	X	80.47100	62.40038	136.47938	5.88748	0.1312688	0.23260380	2.6185337	21	7 20.5	19.9
327875 2007 AJ_{17}	16.8	X	147.07087	298.99744	123.45160	9.93753	0.1684843	0.22378545	2.6868792	21	4 19.0	21.1
327876 2007 AQ_{17}	16.4	X	76.89845	46.25422	125.18614	12.30390	0.2188151	0.22496276	2.6774968	21	6 22.9	20.0
327877 2007 AC_{18}	16.9	X	175.30792	20.19241	87.71129	3.12722	0.1346153	0.23626755	2.5913933	21	7 6.9	20.8
327878 2007 AY_{20}	17.0	X	29.19024	51.25250	133.58570	4.22183	0.1303158	0.21753190	2.7381301	21	4 9.9	19.9
327879 2007 AT_{27}	17.2	X	167.57791	284.45689	163.37349	2.99812	0.0864782	0.22982020	2.6396353	21	6 1.9	21.1
327880 2007 AB_{29}	16.6	X	0.49055	136.69439	141.35106	7.81748	0.0533478	0.23304006	2.6152647	21	6 28.7	19.8
327881 2007 AP_{30}	16.5	X	143.95222	160.99143	293.26438	6.24057	0.0081848	0.22471223	2.6794865	21	5 3.7	20.3
327882 2007 AE_{31}	16.6	X	317.75372	335.88538	330.51262	11.27487	0.1609628	0.22787968	2.6545994	21	5 13.1	20.1
327883 2007 BB_{5}	16.9	X	169.54796	3.50929	99.70226	5.42262	0.1417576	0.23439636	2.6051665	21	6 25.1	20.8
327884 2007 BX_{6}	16.1	X	70.50028	23.88029	138.31960	13.50574	0.1014352	0.22116076	2.7080956	21	5 16.9	19.8
327885 2007 BB_{34}	16.9	X	287.57921	237.58681	131.86957	1.22337	0.0798480	0.23976266	2.5661479	21	7 12.2	20.1
327886 2007 BF_{34}	17.5	X	225.74126	308.48431	126.22932	2.44672	0.1444706	0.24073841	2.5592092	21	7 14.2	21.4
327887 2007 BM_{35}	16.9	X	41.19340	158.23111	117.56018	13.59484	0.1396490	0.24011984	2.5636025	21	9 16.2	20.1
327888 2007 BD_{36}	17.2	X	250.10554	317.42974	94.99116	0.74344	0.0480146	0.24023863	2.5627573	21	7 25.3	20.3
327889 2007 BD_{38}	16.8	X	167.69288	155.22713	273.73321	4.96701	0.1913396	0.23000327	2.6382344	21	5 11.7	21.2
327890 2007 BP_{38}	16.3	X	164.02826	303.34446	132.17394	16.87346	0.1373579	0.22839700	2.6505894	21	5 20.6	20.8
327891 2007 BQ_{47}	16.8	X	49.00328	123.84456	24.04936	4.05426	0.0410225	0.21497008	2.7598409	21	3 16.9	20.4
327892 2007 BL_{49}	16.5	X	65.26039	233.32596	259.81520	7.09807	0.2355050	0.21775831	2.7362318	21	4 11.7	19.6
327893 2007 BC_{58}	16.4	X	155.34244	334.14960	133.21012	7.73997	0.1831584	0.23130548	2.6283232	21	6 18.9	20.7
327894 2007 BU_{58}	16.8	X	64.73964	314.20976	182.30571	3.22027	0.1395763	0.21679251	2.7443523	21	4 4.2	20.0
327895 2007 BO_{59}	17.0	X	200.37677	231.23149	203.22447	3.57686	0.1666772	0.23584843	2.5944625	21	6 17.6	21.1
327896 2007 BH_{63}	17.3	X	118.08125	319.68316	158.54062	2.20750	0.0532383	0.22430295	2.6827450	21	5 11.1	20.9
327897 2007 BH_{74}	16.2	X	45.96853	129.06769	114.88686	15.73043	0.1150551	0.23223663	2.6212930	21	7 30.9	19.3
327898 2007 BS_{88}	17.0	X	341.49509	270.34326	108.95520	4.02626	0.1910010	0.25366286	2.4715238	21	10 31.4	19.0
327899 2007 BH_{102}	16.5	X	79.83849	59.20733	74.56231	6.41326	0.0733196	0.21905392	2.7254320	21	4 16.0	20.0
327900 2007 CP_{27}	16.9	X	51.08834	86.84297	124.57155	7.15393	0.1794338	0.22781977	2.6550647	21	7 1.8	19.9
327901 2007 CQ_{31}	16.9	X	31.73845	35.80550	136.78950	6.06504	0.1527259	0.21650813	2.7467549	21	3 29.9	19.7
327902 2007 CX_{38}	16.8	X	192.35705	256.51713	141.18269	9.62420	0.1209724	0.22571621	2.6715351	21	4 28.8	21.1
327903 2007 CL_{39}	17.1	X	55.49398	25.90480	144.12765	7.45615	0.0677665	0.22129191	2.7070255	21	4 28.7	20.5
327904 2007 CZ_{50}	17.0	X	51.83643	213.15459	325.14344	3.14770	0.0247503	0.22298884	2.6932746	21	4 25.3	20.6
327905 2007 CX_{51}	16.8	X	124.33101	316.77892	101.81014	10.56691	0.3022946	0.22045598	2.7138643	21	4 6.9	21.4
327906 2007 CR_{56}	16.4	X	79.06095	8.31800	161.27771	13.47503	0.0906963	0.22428918	2.6828548	21	6 4.4	20.2
327907 2007 CQ_{58}	15.8	X	38.74894	101.30300	106.55637	14.66655	0.1150633	0.22212781	2.7002300	21	5 30.2	19.1
327908 2007 CV_{78}	16.7	X	111.55860	23.90308	94.82785	4.92509	0.0498971	0.22141588	2.7060150	21	5 4.0	20.4
327909 2007 CK_{79}	16.5	X	40.13432	63.11358	68.97260	8.59930	0.1710586	0.21185349	2.7868417	21	2 20.6	19.5
327910 2007 DU_{4}	17.2	X	168.75807	122.38436	297.95118	2.39781	0.0905452	0.22739134	2.6583986	21	4 27.2	21.1
327911 2007 DC_{12}	16.3	X	48.79372	110.14669	83.18873	6.47103	0.0817281	0.22314728	2.6919995	21	5 20.0	19.5
327912 2007 DQ_{12}	16.0	X	172.91475	303.96316	122.98432	14.58342	0.0657523	0.22224871	2.6992507	21	5 15.9	20.2
327913 2007 DA_{14}	17.3	X	163.58028	304.16395	146.11205	3.42141	0.1060413	0.23044607	2.6348537	21	6 1.7	21.3
327914 2007 DP_{21}	16.3	X	92.73575	294.57475	150.82232	9.34159	0.1147127	0.21171230	2.7880806	21	3 6.9	20.0
327915 2007 DH_{23}	15.9	X	310.87390	156.74435	159.84906	14.45397	0.1167722	0.22554329	2.6729004	21	5 31.2	19.5
327916 2007 DT_{24}	16.8	X	110.87220	86.36188	331.22285	7.16198	0.1923167	0.21224225	2.7834376	21	3 4.2	20.7
327917 2007 DJ_{25}	16.7	X	355.76171	74.63923	165.46410	6.42421	0.0493373	0.21964658	2.7205272	21	5 1.9	20.1
327918 2007 DZ_{26}	16.8	X	336.41143	151.84360	138.78473	6.65173	0.0302074	0.22524845	2.6752324	21	6 11.6	20.3
327919 2007 DX_{27}	16.1	X	209.38408	210.53108	92.84280	3.30343	0.0653478	0.20254997	2.8715382	21	1 20.1	20.3
327920 2007 DV_{29}	16.9	X	209.53845	197.51073	129.42230	2.32999	0.0252951	0.20804014	2.8207935	21	2 16.7	20.7

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Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
327921 2007 DX_{31}	16.3	X	175.02359	28.97080	354.40521	7.91214	0.2729296	0.21660354	2.7459483	21	3 27.3	21.1
327922 2007 DW_{36}	16.3	X	281.24019	346.90533	166.95129	15.93588	0.1809349	0.18889923	3.0082638	21	12 22.1	20.3
327923 2007 DN_{42}	16.7	X	275.50099	245.61937	123.39560	6.22079	0.2937173	0.24240195	2.5474870	21	5 26.2	20.5
327924 2007 DK_{43}	15.9	X	78.69899	319.96758	184.53072	9.12827	0.0779401	0.21949188	2.7218054	21	4 28.4	19.4
327925 2007 DK_{47}	16.2	X	21.42163	190.88892	341.57268	3.47225	0.0402821	0.21289634	2.7777335	21	3 8.9	19.6
327926 2007 DF_{49}	16.0	X	6.36538	169.66901	34.03424	17.41717	0.0798153	0.21298936	2.7769248	21	4 1.7	19.5
327927 2007 DH_{51}	16.0	X	170.83803	338.17893	329.70157	11.24741	0.0356983	0.19810728	2.9143101	21	—	—
327928 2007 DY_{59}	16.0	X	26.63260	15.25745	178.83766	13.15128	0.2245354	0.21369637	2.7707964	21	4 24.6	18.5
327929 2007 DU_{63}	17.2	X	197.64425	248.80671	145.15914	3.10382	0.1050023	0.22220666	2.6995911	21	4 27.2	21.3
327930 2007 DT_{67}	17.2	X	61.65769	73.62565	67.68877	1.25755	0.0404245	0.21387132	2.7692852	21	3 25.6	20.8
327931 2007 DK_{74}	16.7	X	198.25291	207.07121	165.84370	4.88948	0.0976725	0.21629759	2.7485370	21	4 1.8	20.9
327932 2007 DL_{78}	16.6	X	147.56775	296.73138	150.16013	14.26609	0.1307366	0.22545709	2.6735816	21	5 16.8	21.0
327933 2007 DW_{78}	16.8	X	269.23829	347.67824	356.45473	5.87825	0.0599550	0.22452969	2.6809386	21	5 14.7	20.6
327934 2007 DX_{90}	16.9	X	129.63791	135.09789	333.69074	5.63325	0.0999796	0.22367073	2.6877979	21	5 16.3	20.8
327935 2007 DV_{98}	16.8	X	50.10847	355.42272	148.50151	8.70261	0.1606165	0.21418704	2.7665632	21	3 25.3	19.8
327936 2007 DX_{110}	16.8	X	318.46508	296.42946	339.37056	5.30345	0.1884043	0.21706399	2.7420636	21	4 1.2	20.2
327937 2007 DE_{113}	16.5	X	105.06252	254.21714	189.38046	4.13012	0.0438788	0.21025077	2.8009863	21	3 8.9	20.2
327938 2007 EX_{5}	16.9	X	325.29784	290.71413	338.54619	2.64571	0.1568492	0.21697685	2.7427977	21	4 8.6	20.1
327939 2007 EY_{10}	16.6	X	118.91563	304.59934	165.42312	11.22070	0.1887368	0.22291573	2.6938635	21	5 20.7	20.8
327940 2007 EW_{13}	16.8	X	309.71448	28.56688	204.99910	1.24889	0.0594253	0.20590742	2.8402379	21	2 16.3	20.5
327941 2007 EQ_{14}	16.5	X	121.15522	298.82707	161.34578	12.96332	0.1070610	0.22081696	2.7109058	21	5 1.7	20.5
327942 2007 EX_{18}	16.2	X	335.34874	93.30769	165.15936	8.96467	0.0443186	0.22040812	2.7142571	21	4 27.8	19.7
327943 Xavierbarcons	16.5	X	211.20329	2.41693	350.27748	10.95858	0.0489302	0.21499669	2.7596131	21	3 19.8	20.4
327944 2007 EW_{29}	16.4	X	300.89998	345.31493	24.57850	7.29240	0.3259249	0.23516611	2.5994784	21	6 21.0	19.7
327945 2007 ED_{30}	16.4	X	115.21304	300.53779	158.90345	12.82846	0.1691274	0.21812553	2.7331600	21	5 2.2	20.6
327946 2007 EO_{37}	16.2	X	72.94822	340.37357	184.34063	11.79112	0.0698597	0.21831682	2.7315632	21	5 16.9	19.9
327947 2007 EJ_{38}	16.7	X	263.50802	129.15423	191.09872	6.27608	0.0516613	0.21409789	2.7673311	21	4 10.5	20.5
327948 2007 ET_{46}	15.8	X	287.21124	99.38282	2.50440	10.36686	0.0500841	0.17855559	3.1233483	21	11 6.5	20.2
327949 2007 EE_{54}	16.3	X	306.05889	0.15229	173.47305	2.75447	0.1305904	0.19229520	2.9727411	21	—	—
327950 2007 EW_{62}	16.1	X	166.31193	230.12191	154.74298	6.93798	0.0655594	0.21100999	2.7942635	21	3 12.8	20.1
327951 2007 EO_{72}	16.2	X	336.84454	98.56823	175.51444	12.33479	0.0731022	0.21779941	2.7358876	21	5 18.5	19.8
327952 2007 EP_{76}	16.6	X	118.76554	247.26544	195.62172	9.30827	0.1755471	0.21328937	2.7743202	21	4 12.9	20.7
327953 2007 EQ_{81}	17.1	X	264.49049	246.55829	114.60946	1.21814	0.1088092	0.22808313	2.6530205	21	5 26.6	20.6
327954 2007 ES_{104}	17.0	X	270.13925	298.58606	13.70194	4.12086	0.0557303	0.21471065	2.7620635	21	4 7.2	20.7
327955 2007 EC_{110}	16.4	X	346.82234	152.32858	46.00086	5.75379	0.1205868	0.20519865	2.8467744	21	2 17.6	19.9
327956 2007 EG_{132}	16.5	X	305.26354	170.44986	181.06061	13.58122	0.1817073	0.22778912	2.6553029	21	6 26.7	19.9
327957 2007 EN_{134}	16.7	X	82.22915	140.16545	323.64155	7.52843	0.1502797	0.21476709	2.7615796	21	3 17.1	20.1
327958 2007 EH_{139}	16.8	X	215.71300	352.98738	36.79260	5.75122	0.0286479	0.22062222	2.7125009	21	5 12.8	20.6
327959 2007 EQ_{146}	17.1	X	176.66224	288.72439	98.95334	3.36171	0.0741762	0.21305957	2.7763147	21	3 28.8	21.1
327960 2007 EF_{148}	16.7	X	308.85994	226.09672	42.27041	5.33246	0.0750355	0.21262961	2.7800561	21	3 30.5	20.3
327961 2007 EB_{149}	16.6	X	148.17015	5.75336	47.63859	5.00805	0.0629335	0.21234793	2.7825140	21	3 28.4	20.5
327962 2007 EJ_{151}	16.6	X	161.95553	1.18750	27.75553	5.31051	0.1242509	0.21151374	2.7898252	21	3 18.2	20.8
327963 2007 EP_{158}	16.8	X	264.79890	123.16087	184.32351	1.73179	0.0609566	0.21780814	2.7358144	21	3 24.8	20.7
327964 2007 EG_{159}	17.3	X	154.15751	280.07647	146.72154	2.64158	0.0976776	0.22181599	2.7027600	21	4 22.6	21.3
327965 2007 EV_{166}	16.1	X	357.13060	30.16033	189.83627	7.96265	0.1645265	0.21199412	2.7856091	21	3 27.1	18.8
327966 2007 EP_{189}	17.2	X	126.39663	249.33547	198.74185	3.78953	0.0349039	0.21552439	2.7551067	21	4 9.6	20.9
327967 2007 EH_{205}	16.4	X	163.89226	309.06899	58.23158	6.58855	0.0797172	0.20221551	2.8747036	21	2 21.2	20.7
327968 2007 EB_{210}	16.6	X	182.00195	316.14679	134.30832	5.67479	0.0551441	0.22955904	2.6416368	21	6 20.9	20.4
327969 2007 EA_{221}	16.4	X	183.80744	80.71034	192.70010	9.74614	0.0729680	0.18652426	3.0337456	21	—	—
327970 2007 FD_{7}	17.0	X	179.99726	220.85791	179.94989	6.14038	0.0158728	0.21505750	2.7590929	21	4 14.8	20.9
327971 2007 FH_{8}	16.9	X	86.02764	136.43688	344.69966	3.96082	0.0193542	0.21346453	2.7728023	21	3 28.1	20.5
327972 2007 FH_{15}	16.5	X	336.67018	13.65834	224.12956	7.24176	0.1562278	0.20968526	2.8060201	21	3 14.5	20.0
327973 2007 FM_{22}	16.1	X	319.48565	127.01725	182.83001	14.00840	0.1175357	0.22013609	2.7164928	21	6 3.1	19.7
327974 2007 FN_{26}	17.0	X	115.04017	76.20862	2.49995	4.14136	0.0429696	0.20923268	2.8100650	21	3 16.4	20.9
327975 2007 FJ_{30}	16.7	X	282.39774	85.95231	193.69048	6.00147	0.0140051	0.20863074	2.8154675	21	3 17.7	20.4
327976 2007 FP_{33}	16.9	X	321.93766	85.52115	181.66246	3.89672	0.0591512	0.21519489	2.7579184	21	4 16.9	20.3
327977 2007 FO_{34}	16.2	X	6.47357	187.37155	61.24323	6.48362	0.0396821	0.22133319	2.7066890	21	5 27.7	19.4
327978 2007 FS_{39}	16.0	X	322.18568	100.27357	160.78604	11.61539	0.1782192	0.21205906	2.7850404	21	3 24.1	19.5
327979 2007 FT_{45}	16.1	X	33.24311	65.68729	108.97048	15.14124	0.0682539	0.21203691	2.7852343	21	4 7.2	19.9
327980 2007 FX_{45}	15.9	X	77.66418	241.04156	157.34330	9.20641	0.0939101	0.18979997	2.9987386	21	—	—
327981 2007 FC_{47}	17.2	X	337.10094	108.54873	174.41400	10.27034	0.2252246	0.21745885	2.7387432	21	5 12.4	20.1
327982 Balducci	16.1	X	263.88460	129.11787	83.27124	9.77506	0.0962720	0.18925470	3.0044958	21	—	—
327983 2007 GD_{12}	16.2	X	343.10188	110.01170	161.91677	14.64563	0.1001927	0.21850875	2.7299635	21	5 23.9	19.7
327984 2007 GL_{20}	15.8	X	114.12574	319.42538	43.35049	9.27233	0.0631230	0.18712517	3.0272474	21	—	—
327985 2007 GY_{21}	16.1	X	168.57452	254.77359	46.10694	13.72826	0.0909572	0.18401334	3.0612808	21	—	—
327986 2007 GK_{22}	15.8	X	163.27243	250.59209	48.43590	10.40698	0.0814461	0.18268925	3.0760547	21	—	—
327987 2007 GP_{22}	16.5	X	77.81735	230.48609	210.76124	11.44755	0.0020730	0.19678638	2.9273368	21	1 24.9	20.9
327988 2007 GR_{22}	16.4	X	170.95855	107.29888	207.71005	6.61853	0.1520706	0.18663230	3.0325747	21	1 1.9	21.3
327989 2007 GC_{32}	15.9	X	143.56953	210.78241	156.73905	9.72488	0.0890470	0.19847403	2.9107189	21	1 27.9	20.1
327990 2007 GJ_{33}	16.9	X	260.29928	76.14398	187.18953	1.93129	0.1245440	0.19532398	2.9419301	21	1 21.7	21.5
327991 2007 GM_{38}	15.8	X	159.62120	170.26481	195.23196	11.18427	0.1336616	0.19829017	2.9125179	21	2 13.7	20.5
327992 2007 GK_{40}	15.3	X	168.37803	249.97959	42.86852	16.64081	0.0376700	0.18443825	3.0565773	21	—	—
327993 2007 GP_{42}	16.9	X	176.68557	247.97374	26.00445	0.45158	0.1572585	0.18093455	3.0959104	21	—	—
327994 2007 GQ_{48}	15.5	X	120.20394	319.65979	61.46469	10.40834	0.0857754	0.19087475	2.9874712	21	1 21.4	19.8
327995 2007 GV_{52}	16.0	X	239.58318	21.38271	203.49843	10.68999	0.0896317	0.18512827	3.0489775	21	—	—
327996 2007 GQ_{57}	15.9	X	146.81117	123.72398	193.12824	16.44674	0.2285756	0.18164139	3.0878736	21	—	—
327997 2007 GU_{59}	15.8	X	208.75444	255.18373	32.22076	11.18184	0.1089632	0.19002281	2.9963938	21	1 3.8	20.7
327998 2007 GG_{62}	16.2	X	195.81835	246.63855	12.98569	9.75361	0.0631262	0.18395224	3.0619586	21	—	—
327999 2007 GL_{64}	15.2	X	155.84123	12.43686	219.26528	9.84161	0.0301293	0.17051720	3.2207517	21	11 12.8	19.8
328000 2007 GW_{66}	16.2	X	4.52896	217.96173	226.11040	8.78359	0.0664948	0.18248357	3.0783656	21	—	—