

ELEMENTS AND OPPOSITION DATES OF NEAS

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2017 SEPTEMBER 4.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
433 Eros	11.16	0.46	71.28026	178.81658	304.32219	10.82760	0.2225890	0.55987951	1.458	1.133	1.782	Am	—	—
719 Albert	15.5	X	270.45572	156.11659	183.91803	11.57357	0.5467614	0.22980900	2.640	1.196	4.083	Am	3 19.2	20.8
887 Alinda	13.4	-0.12	41.87305	350.36225	110.53701	9.35601	0.5671312	0.25250800	2.479	1.073	3.885	Am	—	—
1036 Ganymed	9.45	0.30	137.95809	132.46507	215.55216	26.69338	0.5337168	0.22683711	2.663	1.242	4.084	Am	1 22.9	14.5
1221 Amor	17.7	X	27.88556	26.65236	171.34409	11.87940	0.4355971	0.37073309	1.919	1.083	2.755	Am	—	—
1566 Icarus	16.9	X	31.62857	31.38634	88.00485	22.82426	0.8268342	0.88047746	1.078	0.187	1.970	Ap	—	—
1580 Betulia	14.8	X	252.41322	159.49597	62.29133	52.09578	0.4875911	0.30263509	2.197	1.126	3.268	Am	12 10.5	18.6
1620 Geographos	15.60	X	246.00313	276.89823	337.20374	13.33746	0.3354012	0.70927382	1.245	0.828	1.663	Ap	—	—
1627 Ivar	13.2	0.60	229.01588	167.76348	133.14386	8.45131	0.3965908	0.38767436	1.863	1.124	2.602	Am	—	—
1685 Toro	14.23	X	33.96500	127.15583	274.27152	9.38042	0.4361520	0.61634916	1.367	0.771	1.964	Ap	—	—
1862 Apollo	16.25	0.09	255.61737	285.97486	35.63643	6.35536	0.5597590	0.55293579	1.470	0.647	2.293	Ap	1 27.1	18.8
1863 Antinous	15.54	X	139.55058	268.00448	346.47746	18.39767	0.6063119	0.29020893	2.259	0.890	3.629	Ap	11 28.2	21.0
1864 Daedalus	14.85	X	23.04916	325.64230	6.63797	22.21053	0.6143799	0.55811933	1.461	0.563	2.359	Ap	4 6.8	15.8
1865 Cerberus	16.84	X	205.19092	325.25252	212.92845	16.09516	0.4669294	0.87808361	1.080	0.576	1.584	Ap	10 20.2	16.7
1866 Sisyphus	12.4	X	85.91816	293.09407	63.49810	41.20213	0.5385622	0.37830640	1.893	0.874	2.913	Ap	—	—
1915 Quetzálcoatl	18.97	0.10	12.49676	347.88330	162.95107	20.40173	0.5704833	0.24286022	2.544	1.093	3.996	Am	—	—
1916 Boreas	14.93	X	252.12512	335.83438	340.64275	12.88381	0.4496835	0.28770623	2.272	1.251	3.294	Am	2 12.9	19.6
1917 Cuyo	13.9	X	301.66203	194.54166	188.31484	23.96171	0.5056143	0.31283245	2.149	1.062	3.236	Am	5 24.6	17.9
1943 Anteros	15.75	X	332.16765	338.36610	246.33340	8.70612	0.2560827	0.57607916	1.430	1.064	1.797	Am	—	—
1980 Tezcatlipoca	13.92	X	328.59570	115.48587	246.57431	26.86937	0.3648145	0.44098222	1.709	1.086	2.333	Am	5 25.8	15.4
1981 Midas	15.2	X	256.48051	267.79630	356.89825	39.83300	0.6502366	0.41645132	1.776	0.621	2.931	Ap	—	—
2059 Baboquivari	15.9	X	176.47523	191.72790	200.92335	11.07597	0.5301781	0.22821657	2.652	1.246	4.058	Am	4 8.6	21.3
2061 Anza	16.56	X	251.57430	156.95351	207.40713	3.79695	0.5357542	0.28865247	2.268	1.053	3.482	Am	4 3.7	21.5
2062 Aten	16.80	X	162.58969	147.98426	108.55847	18.93292	0.1827831	1.03685704	0.967	0.790	1.143	At	—	—
2063 Bacchus	17.3	X	113.13483	55.31253	33.10339	9.43307	0.3493596	0.88067752	1.078	0.701	1.455	Ap	—	—
2100 Ra—Shalom	16.05	0.12	313.07948	356.06000	170.81924	15.75353	0.4365449	1.29862826	0.832	0.469	1.195	At	—	—
2101 Adonis	18.8	X	111.98425	43.47240	349.62884	1.32565	0.7647907	0.38428936	1.874	0.441	3.307	Ap	5 14.5	22.6
2102 Tantalus	16.0	X	129.37748	61.54851	94.36528	64.00400	0.2991528	0.67259465	1.290	0.904	1.676	Ap	6 24.4	15.6
2135 Aristaeus	17.94	X	15.75430	290.87841	191.21748	23.06174	0.5028649	0.48717006	1.600	0.795	2.404	Ap	—	—
2201 Oljato	15.25	X	255.68976	98.26427	74.99046	2.52239	0.7129709	0.30726270	2.175	0.624	3.726	Ap	10 11.1	19.6
2202 Pele	17.2	X	336.55697	217.94294	169.98180	8.74545	0.5131822	0.28448416	2.290	1.115	3.465	Am	7 12.4	18.9
2212 Hephaistos	13.87	X	98.43335	209.34957	27.56149	11.55928	0.8376690	0.31050965	2.160	0.351	3.969	Ap	11 7.4	19.1
2329 Orthos	14.5	X	0.91524	146.00481	169.31464	24.45533	0.6534393	0.26349221	2.410	0.835	3.984	Ap	4 10.8	16.8
2340 Hathor	20.2	X	347.37930	39.98058	211.43337	5.85673	0.4499262	1.27144949	0.844	0.464	1.224	At	—	—
2368 Beltrivata	15.21	X	39.63251	43.08098	287.33788	5.22220	0.4131124	0.32263673	2.105	1.236	2.975	Am	12 24.8	17.6
2608 Seneca	17.52	X	353.11609	37.35035	167.36812	14.68183	0.5715806	0.24705250	2.515	1.078	3.953	Am	—	—
3102 Krok	16.2	X	149.37135	154.76696	172.08569	8.44409	0.4495454	0.31254855	2.150	1.184	3.117	Am	—	—
3103 Eger	15.38	X	203.96357	254.05128	129.77528	20.92832	0.3542671	0.59229701	1.404	0.907	1.902	Ap	2 20.2	15.8
3122 Florence	14.1	X	351.43851	27.84691	336.09522	22.15080	0.4233003	0.41885479	1.769	1.020	2.518	Am	8 24.1	11.9
3199 Nefertiti	14.84	X	221.89650	53.41123	340.01277	32.96204	0.2841210	0.49887023	1.575	1.127	2.022	Am	3 18.0	17.2
3200 Phaethon	14.6	X	261.42479	322.17357	265.23070	22.25322	0.8899365	0.68767633	1.271	0.140	2.402	Ap	12 11.0	13.4
3271 Ul	16.6	X	183.35056	159.07843	158.84100	25.07525	0.3959958	0.32363993	2.101	1.269	2.933	Am	—	—
3288 Seleucus	15.3	X	77.17530	349.29461	218.65477	5.93060	0.4562789	0.34004073	2.033	1.105	2.960	Am	8 24.4	17.9
3352 McAuliffe	15.8	X	73.07042	15.94139	107.36920	4.77272	0.3690801	0.38265665	1.879	1.186	2.573	Am	—	—
3360 Syrinx	15.9	X	108.01339	63.45308	242.55230	21.15978	0.7455465	0.25448372	2.466	0.628	4.305	Ap	—	—
3361 Orpheus	19.03	X	259.92905	301.76441	189.39958	2.68475	0.3227385	0.74069232	1.210	0.819	1.600	Ap	10 26.8	15.8
3362 Khufu	18.3	X	276.53190	55.04816	152.44780	9.91682	0.4685675	1.00129669	0.990	0.526	1.453	At	—	—
3551 Verenia	16.75	X	76.57040	193.23895	173.83796	9.51569	0.4878277	0.32574810	2.092	1.071	3.112	Am	—	—
3552 Don Quixote	12.9	X	332.46512	316.42068	350.02584	31.09155	0.7088912	0.11213128	4.259	1.240	7.278	Am	3 12.5	18.7
3553 Mera	16.4	X	154.57918	288.89682	232.53460	36.77252	0.3201296	0.46735328	1.645	1.118	2.171	Am	7 28.6	20.0
3554 Amun	15.82	X	80.29975	359.41018	358.62495	23.36199	0.2804807	1.02591517	0.974	0.701	1.247	At	—	—
3671 Dionysus	16.5	X	65.73138	204.24726	82.08570	13.53148	0.5411561	0.30221670	2.199	1.009	3.389	Ap	12 4.3	20.2
3691 Bede	14.7	X	341.02583	234.90845	348.76549	20.36051	0.2843163	0.41701537	1.774	1.270	2.279	Am	—	—
3752 Camillo	15.3	X	283.95556	312.20595	147.97704	55.55657	0.3016541	0.58653512	1.413	0.987	1.840	Ap	9 23.6	16.5
3753 Cruithne	15.6	X	257.45921	43.83119	126.23442	19.80535	0.5148547	0.98895630	0.998	0.484	1.511	At	—	—
3757 Anagolay	18.95	X	342.61758	17.14871	74.96879	3.86785	0.4454626	0.39654836	1.835	1.018	2.652	Am	—	—
3838 Epona	15.6	X	277.77815	49.67912	235.51105	29.20909	0.7023325	0.53390564	1.505	0.448	2.562	Ap	—	—
3908 Nyx	17.3	X	288.11079	126.60965	261.25537	2.18578	0.4595220	0.36839649	1.927	1.042	2.813	Am	5 19.5	20.4
3988 Huma	17.9	X	61.26468	86.91160	229.81994	10.76797	0.3165518	0.51346361	1.545	1.056	2.033	Am	—	—
4015 Wilson—Harrington	15.99	X	299.50147	95.36306	266.83070	2.79672	0.6308146	0.23134642	2.628	0.970	4.286	Ap	4 20.8	21.0
4034 Vishnu	18.4	X	71.14737	296.61911	157.95871	11.16874	0.4440287	0.90343674	1.060	0.589	1.530	Ap	—	—
4055 Magellan	14.7	X	303.88679	154.36318	164.84569	23.25119	0.3260240	0.40125649	1.820	1.227	2.414	Am	3 9.4	17.2
4179 Toutatis	15.30	0.10	68.37709	278.71154	124.40461	0.44743	0.6293851	0.24402136	2.536	0.940	4.132	Ap	—	—
4183 Cuno	14.4	X	338.28000	236.34040	294.89544	6.70511	0.6343499	0.35316552	1.982	0.725	3.240	Ap	—	—
4197 Morpheus	14.6	X	339.88024	122.40450	7.18433	12.57663	0.7715789	0.28314290	2.297	0.525	4.069	Ap	—	—
4257 Ubasti	15.8	X	28.66987	278.91971	169.21501	40.71613	0.4682051	0.46624809	1.647	0.876	2.418	Ap	—	—
4341 Poseidon	16.0	X	93.19167	15.65142	108.10774	11.85164	0.6795021	0.39651133	1.835	0.588	3.082	Ap	6 14.9	18.0
4401 Aditi	16.0	X	235.57699	68.14389	22.90219	26.64972	0.5647655	0.23786970	2.580	1.123	4.037	Am	7 11.3	21.9
4450 Pan	17.1	X	152.71327	291.78734	311.84052	5.51966	0.5866192	0.56899275	1.442	0.596	2.288	Ap	12 3.1	19.8
4486 Mithra	15.6	X	91.92846	168.87538	82.23976	3.03945	0.6628519	0.30204784	2.200	0.742	3.658	Ap	11 14.7	20.1
4487 Pochahontas	17.4	X	50.12001	173.93725	198.13628	16.41002	0.2968793	0.43301908	1.730	1.217	2.244	Am	—	—
4503 Cleobulus	15.6	X	71.30185	76.33757	46.00561	2.51347	0.5232010	0.22136732	2.706	1.290	4.122	Am	5 10.1	18.2
4544 Xanthus	17.1	X	105.21044	333.84235	23.99139	14.14652	0.2502452							

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ECLIPTIC AND EQUINOX 2000.0, EPOCH 2017 SEPTEMBER 4.0 TT

Planet	H	G	M	ω	Ω	i	e	μ	a	q	Q	T	Oppos.	V
4954 Eric	12.6	X	162.84602	52.50453	358.50008	17.43478	0.4488288	0.34791621	2.002	1.104	2.901	Am	4 5.3	16.1
4957 BruceMurray	14.9	X	282.14754	97.48723	254.90124	35.01075	0.2188821	0.50318246	1.565	1.223	1.908	Am	3 7.1	18.2
5011 Ptah	16.4	X	29.03101	105.75080	10.77985	7.40744	0.4998288	0.47113370	1.636	0.818	2.453	Ap	—	—
5131 1990 BG	14.7	X	23.59092	135.81758	110.38912	36.42463	0.5692344	0.54404705	1.486	0.640	2.332	Ap	—	—
5143 Heracles	13.9	X	93.74437	227.76873	309.52437	9.03304	0.7723337	0.39702439	1.833	0.417	3.249	Ap	8 28.3	17.5
5189 1990 UQ	17.9	X	12.36681	159.63833	135.33311	3.58320	0.4779840	0.50994242	1.552	0.810	2.293	Ap	3 2.9	19.1
5324 Lyapunov	15.5	X	325.28236	320.99189	352.32190	19.60276	0.6045226	0.19098504	2.986	1.181	4.792	Am	3 17.2	20.4
5332 Davidaguilar	14.6	X	254.73597	305.78707	142.92423	25.47350	0.4566137	0.30980499	2.163	1.175	3.151	Am	7 18.1	18.8
5370 Taranis	15.2	X	27.91423	161.27417	177.84522	19.13119	0.6358663	0.16235731	3.328	1.212	5.444	Am	—	—
5381 Sekhmet	16.6	X	300.47273	37.41164	58.54211	48.96939	0.2962549	1.06875364	0.947	0.667	1.228	At	—	—
5496 1973 NA	16.0	X	240.92893	118.02032	101.03805	68.00554	0.6359603	0.25937374	2.435	0.886	3.984	Ap	12 19.9	21.3
5587 1990 SB	13.8	X	133.67180	86.73125	189.97624	18.09574	0.5443565	0.26552858	2.397	1.092	3.702	Am	12 21.9	19.3
5590 1990 VA	19.7	X	287.14138	34.47080	216.30278	14.18630	0.2794910	1.00725052	0.986	0.710	1.261	At	—	—
5604 1992 FE	17.1	X	286.35931	82.58612	311.95986	4.71358	0.4061500	1.10109060	0.929	0.552	1.306	At	—	—
5620 Jasonwheeler	17.0	X	204.41613	153.76277	128.69334	7.87116	0.4223779	0.31066467	2.159	1.247	3.071	Am	—	—
5626 1991 FE	14.2	X	132.39292	231.50323	173.25768	3.85336	0.4538491	0.30272324	2.197	1.200	3.194	Am	3 15.2	17.3
5645 1990 SP	17.1	X	339.41702	48.17756	45.76218	13.50727	0.3872863	0.62488058	1.355	0.830	1.880	Ap	—	—
5646 1990 TR	15.3	X	218.55517	325.68335	14.14123	7.91185	0.4362102	0.31397136	2.144	1.209	3.079	Am	3 4.1	19.6
5653 Camarillo	16.1	X	77.73022	122.51147	9.97386	6.87392	0.3042540	0.41008209	1.794	1.248	2.340	Am	—	—
5660 1974 MA	15.4	X	3.93930	126.90514	302.29144	38.06650	0.7621405	0.41303755	1.786	0.425	3.147	Ap	—	—
5693 1993 EA	16.6	X	214.41858	258.88706	97.04791	5.05434	0.5852321	0.68785121	1.271	0.527	2.015	Ap	1 27.7	15.6
5731 Zeus	15.6	X	135.89816	217.02476	281.68574	11.42683	0.6536132	0.28957584	2.263	0.784	3.742	Ap	7 24.0	20.6
5751 Zao	14.8	X	134.07596	25.25473	121.68513	16.07347	0.4237171	0.32325016	2.103	1.212	2.994	Am	7 21.1	18.4
5786 Talos	17.1	X	159.08169	8.35352	161.31074	23.23037	0.8268228	0.87632347	1.081	0.187	1.976	Ap	9 10.3	18.9
5797 Bivoj	18.8	X	166.28763	168.44294	198.98111	4.18812	0.4441154	0.37834446	1.893	1.052	2.734	Am	6 20.1	22.2
5828 1991 AM	16.0	X	339.32881	152.73444	125.44314	30.11534	0.6950236	0.44549895	1.698	0.518	2.878	Ap	1 13.5	19.8
5836 1993 MF	14.7	X	107.39219	77.97406	238.78133	7.94971	0.5364185	0.25859435	2.440	1.131	3.749	Am	—	—
5863 Tara	15.6	X	113.42112	115.44467	168.92794	19.48816	0.5055842	0.29749929	2.222	1.099	3.346	Am	12 23.7	20.6
5869 Tanith	17.2	X	262.08983	230.73455	227.91030	17.93090	0.3210789	0.40400759	1.812	1.230	2.394	Am	8 7.1	20.2
5879 Almeria	17.4	X	125.63141	355.68381	145.86818	21.57453	0.2892934	0.47598887	1.625	1.155	2.095	Am	6 13.9	19.3
6037 1988 EG	18.7	X	261.92568	242.07401	182.48110	3.49979	0.4997483	0.68772131	1.271	0.636	1.906	Ap	6 2.3	20.3
6047 1991 TB ₁	17.8	X	221.57645	103.74847	6.12460	23.47362	0.3521120	0.56193068	1.454	0.942	1.966	Ap	8 2.3	20.4
6050 Miwablock	14.9	X	329.00142	285.04714	88.19300	6.40563	0.4372347	0.30166158	2.202	1.239	3.165	Am	6 19.3	16.7
6053 1993 BW ₃	14.8	X	347.49467	74.86204	318.33343	21.58224	0.5292911	0.31332532	2.147	1.011	3.283	Ap	9 10.1	14.1
6063 Jason	15.9	X	43.51012	337.16019	169.39333	4.91960	0.7663871	0.29947498	2.213	0.517	3.908	Ap	—	—
6178 1986 DA	15.1	X	233.19911	127.36420	64.64258	4.30556	0.5817901	0.20783704	2.823	1.180	4.465	Am	10 28.8	20.8
6239 Minos	18.5	X	309.96676	239.68672	344.60273	3.94279	0.4128015	0.79769637	1.151	0.676	1.627	Ap	—	—
6455 1992 HE	13.9	X	185.99135	262.74899	26.95600	37.34424	0.5723307	0.29390580	2.240	0.958	3.523	Ap	—	—
6456 Golombek	15.9	X	265.82357	347.08130	313.62264	8.22449	0.4094001	0.30353813	2.193	1.295	3.090	Am	1 30.1	20.1
6489 Golevka	19.2	X	217.99916	68.53671	209.56418	2.26692	0.6128020	0.25169932	2.484	0.962	4.007	Ap	—	—
6491 1991 OA	18.9	X	215.03025	323.59624	301.90068	5.94640	0.5909127	0.24934609	2.500	1.023	3.977	Am	—	—
6569 Ondaatje	16.4	X	233.28708	167.28093	111.49333	22.63934	0.2208480	0.47531747	1.626	1.267	1.985	Am	—	—
6611 1993 VW	16.8	X	235.09709	281.35961	230.95048	8.69689	0.4844395	0.44617601	1.696	0.874	2.518	Ap	9 18.6	19.8
7025 1993 QA	18.3	X	25.43062	323.39289	146.64145	12.60659	0.3149052	0.54975601	1.476	1.011	1.941	Ap	—	—
7088 Ishtar	16.7	X	72.68843	354.73247	102.67091	8.29932	0.3904468	0.35342557	1.981	1.208	2.755	Am	—	—
7092 Cadmus	15.1	X	117.28901	93.83276	57.70025	17.81091	0.6980085	0.24426119	2.535	0.765	4.304	Ap	8 10.9	20.8
7236 1987 PA	18.3	X	257.35599	337.86587	308.53392	16.33611	0.5596325	0.21938536	2.723	1.199	4.246	Am	1 17.0	20.1
7335 1989 JA	17.0	X	341.87472	232.24471	61.32477	15.19563	0.4840278	0.41831787	1.771	0.914	2.628	Ap	2 24.8	20.1
7336 Saunders	18.8	X	353.72161	181.50869	174.49241	7.19581	0.4813329	0.28160392	2.305	1.196	3.415	Am	7 25.4	18.6
7341 1991 VK	16.7	X	92.60590	173.35532	294.81856	5.41549	0.5064936	0.39438670	1.842	0.909	2.774	Ap	3 28.5	15.6
7350 1993 VA	17.1	X	0.89119	336.59873	133.13645	7.26002	0.3909969	0.62418992	1.356	0.826	1.886	Ap	—	—
7358 Oze	14.6	X	285.73352	92.21175	265.48712	4.66060	0.5019102	0.30221231	2.199	1.095	3.303	Am	4 11.2	18.9
7474 1992 TC	18.0	X	261.45714	275.62990	88.62669	7.08788	0.2922366	0.50308802	1.566	1.108	2.023	Am	3 28.9	20.1
7480 Norwan	17.0	X	232.79166	256.82666	124.39545	9.45222	0.3170682	0.50205383	1.568	1.071	2.065	Am	3 30.9	19.2
7482 1994 PC ₁	16.8	X	47.47450	47.62512	117.89217	33.48667	0.3283394	0.63100985	1.346	0.904	1.788	Ap	—	—
7753 1988 XB	18.6	X	94.23331	280.08707	73.42552	3.12294	0.4818981	0.55427720	1.468	0.760	2.175	Ap	—	—
7822 1991 CS	17.4	X	188.52143	249.42121	156.86506	37.12043	0.1646940	0.82828392	1.123	0.938	1.308	Ap	—	—
7839 1994 ND	17.8	X	83.69008	228.31567	102.53642	27.11407	0.5184113	0.30932330	2.165	1.043	3.288	Am	—	—
7888 1993 UC	15.1	X	69.83687	323.06455	165.91735	26.08109	0.6640572	0.25933667	2.435	0.818	4.053	Ap	6 10.5	18.6
7889 1994 LX	15.2	X	328.52377	349.13632	111.28438	36.90476	0.3462175	0.69564430	1.261	0.825	1.698	Ap	—	—
7977 1977 QQ ₅	15.1	X	1.67853	248.09362	134.19560	25.16342	0.4667225	0.29681144	2.226	1.187	3.265	Am	—	—
8013 Gordonmoore	16.9	X	126.00927	146.72714	105.56520	7.56853	0.4316994	0.30204154	2.200	1.250	3.150	Am	11 22.7	21.3
8014 1990 MF	18.7	X	261.60684	114.40241	210.24473	1.86672	0.4559081	0.42694628	1.747	0.950	2.543	Ap	2 10.2	22.0
8034 Akka	17.9	X	49.89680	68.17292	232.87001	2.02415	0.4089777	0.39805974	1.830	1.082	2.579	Am	12 2.9	20.0
8035 1992 TB	17.1	X	165.51303	6.05735	185.64363	28.30734	0.4623869	0.63395500	1.342	0.721	1.963	Ap	10 8.9	18.9
8037 1993 HO ₁	16.4	X	296.04296	105.68668	22.47179	5.90866	0.4176587	0.35201175	1.987	1.157	2.816	Am	10 30.3	17.2
8176 1991 WA	16.9	X	44.18604	241.86992	66.54007	39.59935	0.6429391	0.49864451	1.575	0.562	2.588	Ap	12 30.8	20.1
8201 1994 AH ₂	15.8	X	285.46108	25.11913	164.11657	9.55377	0.7070090	0.24377960	2.538	0.744	4.332	Ap	11 13.7	19.7
8507 1991 CB ₁	17.3	X	280.04420	345.74985	317.43198	14.58571	0.5944749	0.44979002	1.687	0.684	2.690	Ap	1 24.5	21.0
8566 1996 EN	16.3	X	144.02871	125.12332	164.14160	37.97377	0.4303352	0.53310140	1.506	0.858	2.155	Ap	—	—
8567 1996 HW ₁	15.3	X	23.47716	177.29906	177.13147	8.45070	0.4494423	0.33692377	2.045	1.126	2.965	Am	—	—
8709 Kadlu	16.9	X	265.38034	153.56015	119.26190	3.51620	0.4894741	0.24524762	2.528	1.290				

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
10145 1994 CK ₁	16.9	X	90.51843	27.34819	328.48952	4.54924	0.6330125	0.37633313	1.900	0.697	3.103	Ap	—	—
10150 1994 PN	15.3	X	87.56923	234.02781	113.00736	45.95423	0.5436671	0.26932424	2.375	1.084	3.666	Am	—	—
10165 1995 BL ₂	17.3	X	23.85258	348.43151	312.44817	23.89341	0.5036968	0.71834142	1.235	0.613	1.857	Ap	2 9.6*	18.4
10302 1989 ML	19.3	X	221.62979	183.36478	104.34732	4.37814	0.1363975	0.68693710	1.272	1.099	1.446	Am	—	—
10563 lzhdubar	16.8	X	90.39216	132.20621	56.56470	63.46345	0.2663992	0.97546618	1.007	0.739	1.275	Ap	—	—
10636 1998 QK ₅₆	17.5	X	88.61397	286.14739	173.08526	13.56321	0.5132783	0.38105615	1.884	0.917	2.851	Ap	—	—
10860 1995 LE	17.2	X	117.21557	75.41684	257.28698	4.15013	0.5744172	0.23824200	2.577	1.097	4.057	Am	—	—
11054 1991 FA	17.0	X	233.77945	92.11625	339.21613	3.07714	0.4475527	0.35419668	1.978	1.093	2.864	Am	6 12.6	20.9
11066 Sigurd	15.2	X	314.04997	22.00617	349.24582	36.88288	0.3753815	0.60046311	1.391	0.869	1.914	Ap	4 5.5	17.9
11284 Belenus	18.1	X	8.11591	171.00743	311.78743	1.99237	0.3371994	0.42937384	1.740	1.153	2.327	Am	—	—
11311 Peleus	16.1	X	274.50792	313.39785	59.35668	25.48775	0.5356758	0.31991272	2.117	0.983	3.251	Ap	4 29.3	20.5
11398 1998 YP ₁₁	16.3	X	51.87659	74.65445	144.80660	15.02533	0.3890434	0.43663914	1.721	1.051	2.390	Am	2 9.4	15.4
11405 1999 CV ₃	15.2	X	140.66789	96.34095	141.29661	22.86138	0.3938584	0.55888750	1.460	0.885	2.035	Ap	11 28.9	18.1
11500 Tomaiyowit	18.3	X	199.71094	289.45637	234.44700	10.30984	0.3557795	0.87857550	1.080	0.696	1.464	Ap	9 22.6	18.7
11885 Summanus	18.5	X	346.75458	116.06732	359.88896	19.41891	0.4745788	0.44330530	1.703	0.895	2.512	Ap	—	—
12538 1998 OH	15.8	X	58.30498	321.71788	220.74871	24.52917	0.4060870	0.51501142	1.541	0.915	2.167	Ap	—	—
12711 Tukmit	15.8	X	108.05167	322.87056	294.98745	38.48515	0.2721771	0.76275609	1.186	0.863	1.509	Ap	12 22.4	17.2
12923 Zephyr	15.8	X	199.23117	147.06500	168.21221	5.30448	0.4920198	0.35876402	1.962	0.996	2.927	Ap	1 7.1	19.3
13553 Masaakikoyama	16.4	X	261.97733	109.89702	193.52462	5.87457	0.4641520	0.30429038	2.189	1.173	3.205	Am	1 28.5	20.9
13651 1997 BR	17.6	X	42.34082	133.78459	116.67319	17.24708	0.3056501	0.63863238	1.335	0.927	1.744	Ap	1 16.1	18.1
14402 1991 DB	18.6	X	264.59960	51.33725	158.25104	11.41774	0.4021605	0.43865820	1.715	1.026	2.405	Am	—	—
14827 Hypnos	18.3	X	206.80887	238.09130	57.97579	1.98085	0.6658545	0.20588243	2.840	0.949	4.732	Ap	1 10.7	24.6
15745 Yuliya	17.2	X	228.09702	140.57308	132.63230	14.42716	0.2551274	0.43713244	1.719	1.281	2.158	Am	—	—
15817 Lucianotesi	18.5	X	99.09616	94.29105	162.51048	13.87275	0.1181427	0.64644625	1.325	1.168	1.481	Am	11 13.9	19.1
16064 Davidharvey	16.7	X	230.82599	104.81674	335.57709	4.53950	0.5890649	0.20496442	2.849	1.171	4.527	Am	6 23.8	22.8
16636 1993 QP	18.7	X	304.62817	47.30738	296.81877	7.20891	0.4676154	0.28073171	2.310	1.230	3.390	Am	4 9.4	22.7
16657 1993 UB	16.6	X	330.71473	21.15216	31.29910	24.98651	0.4617447	0.28705344	2.276	1.225	3.327	Am	9 21.1	17.9
16816 1997 UF ₉	16.1	X	56.37136	157.93478	37.18300	25.91253	0.6040599	0.56901035	1.442	0.571	2.314	Ap	8 19.1	17.4
16834 1997 WU ₂₂	15.6	X	246.72330	334.30709	260.80076	15.98930	0.4422086	0.55416321	1.468	0.819	2.117	Ap	—	—
16912 Rhiannon	17.9	X	258.93883	221.21300	169.21054	24.52108	0.2727371	0.42531810	1.751	1.274	2.229	Am	5 12.9	21.0
16960 1998 QS ₅₂	14.3	X	244.08833	242.94817	260.47921	17.54638	0.8578027	0.30141882	2.203	0.313	4.093	Ap	8 18.7	20.0
17181 1999 UM ₃	16.4	X	293.67770	36.82836	113.57585	10.64791	0.6729433	0.26965076	2.373	0.776	3.970	Ap	10 12.6	19.9
17182 1999 VU	16.9	X	257.08616	203.13790	333.54344	9.27212	0.5531788	0.60335924	1.387	0.620	2.154	Ap	11 8.7	17.5
17188 1999 WC ₂	16.5	X	115.52158	287.25525	269.83425	29.44571	0.6368691	0.29868666	2.216	0.805	3.628	Ap	9 6.2	21.0
17274 2000 LC ₁₆	16.6	X	282.64270	21.20311	305.85488	5.57000	0.5535449	0.21792041	2.735	1.221	4.249	Am	3 9.4	22.0
17511 1992 QN	17.1	X	196.53859	202.37030	355.94227	9.58362	0.3588767	0.75922581	1.190	0.763	1.617	Ap	11 19.5	17.4
18106 Blume	17.7	X	162.02668	234.94018	109.24968	4.22024	0.5125409	0.25815403	2.443	1.191	3.695	Am	2 3.8	22.3
18109 2000 NG ₁₁	17.0	X	204.16548	319.20750	59.53624	0.80859	0.38194364	0.38194364	1.881	1.190	2.573	Am	3 19.2	19.9
18172 2000 QL ₇	15.6	X	143.46954	100.70381	338.53874	17.82384	0.5101963	0.26084850	2.426	1.188	3.664	Am	5 5.9	20.6
18736 1998 NU	15.8	X	209.14528	222.83690	297.54047	2.80577	0.4883010	0.27301185	2.353	1.205	3.502	Am	9 15.1	20.6
18882 1999 YN ₄	15.9	X	318.40739	242.67549	291.70730	36.81392	0.2318475	0.45056848	1.685	1.294	2.076	Am	—	—
19356 1997 GH ₃	16.8	X	68.01567	333.88378	186.70009	3.00482	0.5631743	0.24914540	2.501	1.093	3.910	Am	7 1.5	19.6
19764 2000 NF ₅	15.9	X	59.01984	9.53114	281.52138	1.32561	0.4427117	0.29527480	2.233	1.245	3.222	Am	11 23.9	19.0
20086 1994 LW	16.8	X	25.17872	57.85609	237.24078	21.78014	0.6226847	0.17344205	3.184	1.202	5.167	Am	11 7.9	20.0
20236 1998 BZ ₇	17.6	X	240.50076	104.20319	111.51522	6.50066	0.5591023	0.33926322	2.036	0.898	3.174	Ap	12 4.8	20.9
20255 1998 FX ₂	18.2	X	53.00105	17.55598	180.97322	9.94885	0.4910005	0.31217828	2.152	1.095	3.209	Am	7 7.9	19.0
20425 1998 VD ₃₅	20.4	X	163.43077	296.16839	227.37179	6.98416	0.4764566	0.50360133	1.565	0.819	2.310	Ap	8 25.7	23.2
20429 1998 YN ₁	17.7	X	162.33748	147.60387	61.77074	6.29962	0.4642162	0.50770735	1.556	0.834	2.279	Ap	10 28.1	20.3
20460 Robwhiteley	15.1	X	66.84196	283.64970	280.08825	33.94011	0.4121998	0.38339695	1.877	1.103	2.650	Am	7 16.2	16.0
20790 2000 SE ₄₅	16.4	X	237.11845	168.84163	302.98922	8.33502	0.5612681	0.21732538	2.740	1.202	4.278	Am	8 1.4	22.1
20826 2000 UV ₁₃	13.8	X	133.68405	198.61317	347.36508	31.88059	0.6329877	0.26110646	2.424	0.890	3.959	Ap	9 13.7	19.3
21088 Chelyabinsk	14.3	X	318.91773	27.13256	297.85220	38.45478	0.2384476	0.44210640	1.707	1.300	2.113	Am	2 28.8	17.7
21277 1996 TO ₅	16.0	X	227.62386	250.17982	167.39946	20.95053	0.5204052	0.26893190	2.377	1.140	3.614	Am	5 29.6	21.4
21374 1997 WS ₂₂	17.4	X	97.53832	197.21324	59.21945	23.98129	0.1205263	0.68911314	1.269	1.116	1.422	Am	11 13.9	16.9
22099 2000 EX ₁₀₆	17.9	X	272.27076	186.57339	136.46499	9.84467	0.2762347	0.84918162	1.104	0.799	1.410	Ap	—	—
22753 1998 WT	17.7	X	61.26525	324.73068	307.42769	3.20347	0.5698273	0.73226882	1.219	0.524	1.914	Ap	1 19.7*	18.3
22771 1999 CU ₃	16.8	X	42.18578	305.73079	338.99172	11.40097	0.5240197	0.49781803	1.577	0.750	2.403	Ap	3 21.6*	15.8
23183 2000 OY ₂₁	16.0	X	279.00203	301.41782	119.68740	40.95790	0.4012822	0.40007889	1.824	1.092	2.556	Am	7 4.6	19.1
23187 2000 PN ₉	16.1	X	226.43273	293.53319	164.36019	51.31338	0.5893884	0.39271839	1.847	0.758	2.935	Ap	7 13.7	21.1
23548 1994 EF ₂	17.6	X	294.40785	123.84674	346.19007	23.36168	0.5161545	0.28393975	2.293	1.109	3.476	Am	9 8.6	20.5
23606 1996 AS ₁	18.2	X	323.56010	357.51062	296.65152	14.35809	0.3609475	0.42566671	1.750	1.118	2.382	Am	2 9.4	20.9
23714 1998 EC ₃	16.7	X	59.54761	128.92068	127.87547	8.39625	0.5166948	0.31747635	2.128	1.029	3.228	Am	10 26.2	19.8
24443 2000 OG	16.4	X	297.68001	231.09567	178.21807	25.79200	0.8226295	0.28080054	2.310	0.410	4.210	Ap	5 30.3	21.8
24445 2000 PM ₈	14.7	X	60.44755	218.68613	203.36158	23.85521	0.5448494	0.29974164	2.211	1.006	3.416	Ap	—	—
24475 2000 VN ₂	16.3	X	10.43238	32.63849	76.48161	14.63638	0.4414228	0.35513517	1.975	1.103	2.847	Am	—	—
24761 Ahau	17.3	X	24.47913	287.47806	121.08266	21.91988	0.3059817	0.63902122	1.335	0.926	1.743	Ap	—	—
25143 Itokawa	19.2	X	260.79178	162.81121	69.08003	1.62146	0.2801684	0.64686898	1.324	0.953	1.695	Ap	—	—
25330 1999 KV ₄	16.6	X	228.89643	85.98802	50.61002	14.32913	0.3706802	0.51549530	1.540	0.969	2.111	Ap	9 13.7	19.0
25916 2001 CP ₄₄	13.6	X	281.04692	199.68348	94.71454	15.74557	0.4980450	0.24053774	2.561	1.285	3.836	Am	2 5.7	18.9
26166 1995 QN ₃	16.8	X	263.											

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
30997 1995 <i>UO</i> ₅	17.0	X	331.13043	151.08795	38.67277	36.21975	0.6434806	0.50584589	1.560	0.556	2.564	Ap	—	—
31210 1998 <i>BX</i> ₇	16.3	X	267.56894	271.48747	144.92618	8.95774	0.5025093	0.23458294	2.604	1.295	3.912	Am	6 16.7	21.3
31221 1998 <i>BP</i> ₂₆	17.1	X	232.15365	186.67069	331.06090	20.21885	0.2569009	0.43568590	1.723	1.281	2.166	Am	10 5.3	19.6
31345 1998 <i>PG</i>	17.3	X	215.36273	156.11313	222.73553	6.50124	0.3911134	0.34426662	2.016	1.228	2.805	Am	3 28.9	21.0
31346 1998 <i>PB</i> ₁	17.2	X	222.12572	350.47902	299.75318	5.96337	0.4299363	0.34094258	2.029	1.157	2.902	Am	—	—
31662 1999 <i>HP</i> ₁₁	19.5	X	329.88495	311.99582	13.97398	18.81336	0.5477904	0.48802171	1.598	0.723	2.473	Ap	3 15.5	22.3
31669 1999 <i>VT</i> ₆	16.0	X	356.63426	39.11397	78.82974	9.54040	0.5771009	0.31546868	2.137	0.904	3.370	Ap	—	—
32906 1994 <i>RH</i>	15.8	X	262.04034	92.30526	331.24840	18.93316	0.4415119	0.29278532	2.246	1.254	3.238	Am	6 25.1	20.3
33342 1998 <i>WT</i> ₂₄	17.9	X	142.94866	167.39043	81.88539	7.35775	0.4177066	1.61684260	0.719	0.419	1.019	At	—	—
34613 2000 <i>UR</i> ₁₃	16.0	X	359.33639	286.14732	315.31221	6.17524	0.3874485	0.33116035	2.069	1.267	2.871	Am	1 22.9	18.5
35107 1991 <i>VH</i>	16.7	X	147.85380	206.94450	139.36482	13.91092	0.1443055	0.81253912	1.137	0.973	1.302	Ap	—	—
35396 1997 <i>XF</i> ₁₁	16.9	X	233.07213	102.91853	213.75572	4.09847	0.4838858	0.56875037	1.443	0.745	2.141	Ap	—	—
35432 1998 <i>BG</i> ₉	19.3	X	333.39755	1.32582	115.43656	13.07549	0.5403003	0.24782063	2.510	1.154	3.866	Am	—	—
35670 1998 <i>SU</i> ₂₇	19.3	X	22.20677	169.55775	271.46920	7.10582	0.5942660	0.31837307	2.124	0.862	3.386	Ap	—	—
36017 1999 <i>ND</i> ₄₃	19.2	X	187.90022	52.05407	332.12334	5.55002	0.3143050	0.52410411	1.524	1.045	2.002	Am	2 8.2	19.3
36183 1999 <i>TX</i> ₁₆	16.1	X	122.21167	311.16921	54.66843	38.22203	0.3326146	0.51017074	1.551	1.035	2.067	Am	—	—
36236 1999 <i>VV</i>	15.8	X	334.48783	19.75400	241.08104	58.04215	0.4236770	0.64078566	1.332	0.768	1.897	Ap	—	—
36284 2000 <i>DM</i> ₈	14.9	X	150.77203	317.94174	323.17827	46.76145	0.5537407	0.54538660	1.484	0.662	2.305	Ap	—	—
37336 2001 <i>RM</i>	15.6	X	271.98902	117.96325	223.68038	36.65998	0.4833240	0.29120777	2.254	1.165	3.344	Am	3 13.8	20.8
37638 1993 <i>VB</i>	19.3	X	346.25115	323.04693	145.67496	5.07771	0.5191629	0.37340351	1.910	0.918	2.901	Ap	—	—
37655 Illapa	17.9	X	268.66539	303.71992	139.68874	18.00239	0.7524132	0.54863928	1.478	0.366	2.590	Ap	6 27.4	21.3
38071 1999 <i>GU</i> ₃	19.6	X	33.84303	8.80909	195.53406	12.73068	0.5069252	0.32622184	2.090	1.030	3.149	Am	—	—
38086 Beowulf	17.3	X	242.67431	178.93938	165.34530	23.67198	0.5662121	0.58230083	1.420	0.616	2.224	Ap	2 11.9	19.7
38091 1999 <i>JT</i> ₃	16.2	X	224.74764	225.06671	64.85516	9.33288	0.4011713	0.30843718	2.169	1.299	3.040	Am	—	—
38239 1999 <i>OR</i> ₃	18.2	X	107.47022	28.04480	199.97616	9.44180	0.5759927	0.33939112	2.035	0.863	3.208	Ap	10 22.5	22.4
39565 1992 <i>SL</i>	18.4	X	318.09162	344.76892	0.97887	8.59837	0.3341717	0.46843622	1.642	1.093	2.191	Am	4 15.0	20.4
39572 1993 <i>DQ</i> ₁	16.5	X	44.31124	344.79576	313.56677	10.01995	0.4919791	0.33898389	2.037	1.035	3.039	Am	11 27.7	19.3
39796 1997 <i>TD</i>	15.8	X	331.13692	170.95651	158.96212	12.91145	0.4676094	0.29193467	2.250	1.198	3.303	Am	4 20.4	18.9
40263 1999 <i>FQ</i> ₅	17.7	X	189.71073	198.67944	172.83665	25.84528	0.1610552	0.53924554	1.495	1.254	1.736	Am	—	—
40267 1999 <i>GJ</i> ₄	15.4	X	182.15014	211.91645	148.25276	34.50238	0.48084009	0.63631239	1.339	0.256	2.421	Ap	2 19.7	15.4
40329 1999 <i>ML</i>	17.6	X	108.84932	112.00678	210.96665	2.52113	0.4543774	0.28899396	2.266	1.236	3.295	Am	—	—
41429 2000 <i>GE</i> ₂	20.5	X	207.98988	297.18842	351.96132	2.17323	0.5552915	0.49042737	1.593	0.708	2.477	Ap	—	—
41440 2000 <i>HZ</i> ₂₃	19.9	X	249.41404	200.04874	64.07128	15.10720	0.2114164	0.49841280	1.575	1.242	1.909	Am	—	—
42286 2001 <i>TN</i> ₄₁	16.5	X	33.48377	150.88627	55.85733	24.07312	0.3918531	0.58275706	1.420	0.863	1.976	Ap	—	—
48603 1995 <i>BC</i> ₂	17.6	X	217.92634	81.73549	328.30540	5.02434	0.4302022	0.37113939	1.918	1.093	2.743	Am	5 5.9	21.5
52340 1992 <i>SY</i>	17.8	X	160.45487	115.48259	5.82017	8.04681	0.5500443	0.30012935	2.209	0.994	3.425	Ap	7 12.4	22.6
52381 1993 <i>HA</i>	20.0	X	66.05807	263.82914	183.28748	7.72543	0.1440958	0.68196538	1.278	1.094	1.462	Am	—	—
52387 1993 <i>OM</i> ₇	17.8	X	19.28426	195.50693	297.59925	24.15061	0.1896910	0.67880457	1.282	1.039	1.525	Am	—	—
52689 1998 <i>FF</i> ₂	18.9	X	290.48523	265.07392	4.71120	10.98335	0.2923447	0.50499503	1.562	1.105	2.018	Am	—	—
52750 1998 <i>KK</i> ₁₇	16.5	X	163.69977	334.06841	141.37224	11.16437	0.5249364	0.57815765	1.427	0.678	2.176	Ap	6 25.3	18.7
52760 1998 <i>ML</i> ₁₄	17.5	X	21.55681	20.32431	338.72371	2.42737	0.6234087	0.26363926	2.409	0.907	3.910	Ap	—	—
52761 1998 <i>MN</i> ₁₄	17.9	X	339.50932	350.40207	259.00142	19.48199	0.2242349	0.50844248	1.555	1.206	1.903	Am	—	—
52762 1998 <i>MT</i> ₂₄	14.8	X	67.64172	254.36328	309.21577	33.89246	0.6515252	0.26207103	2.418	0.843	3.994	Ap	8 23.9	18.9
52768 1998 <i>OR</i> ₂	15.9	X	103.80549	174.44565	27.06424	5.87964	0.5727566	0.26847016	2.380	1.017	3.743	Ap	9 20.1	20.5
53110 1999 <i>AR</i> ₇	16.7	X	260.34254	58.21582	85.44758	40.62607	0.2142976	0.46733085	1.645	1.292	1.997	Am	12 1.7	18.0
53319 1999 <i>JM</i> ₈	15.2	X	19.00935	166.76955	133.64577	13.82873	0.6411276	0.21896805	2.726	0.978	4.474	Ap	11 19.2	17.8
53409 1999 <i>LU</i> ₇	18.7	X	323.25545	147.72612	206.72923	10.87121	0.6279744	0.32355663	2.101	0.782	3.421	Ap	4 19.0	22.1
53426 1999 <i>SL</i> ₅	17.2	X	287.09956	43.29363	239.10731	22.77723	0.5384851	0.36966790	1.923	0.887	2.958	Ap	1 4.9	21.7
53429 1999 <i>TF</i> ₅	18.9	X	110.80153	64.00541	199.26336	26.79355	0.6399052	0.34254517	2.023	0.728	3.317	Ap	12 4.2	23.9
53430 1999 <i>TY</i> ₁₆	16.6	X	327.43591	156.92997	241.93432	60.43113	0.4041202	0.32427401	2.098	1.250	2.946	Am	6 26.5	20.1
53435 1999 <i>VM</i> ₄₀	14.7	X	40.47833	354.22817	51.42552	15.38640	0.4853685	0.28085787	2.309	1.188	3.430	Am	—	—
53550 2000 <i>BF</i> ₁₉	19.0	X	105.92081	324.87411	313.23006	7.17439	0.4195124	0.53892482	1.495	0.868	2.123	Ap	12 23.8	21.3
53789 2000 <i>ED</i> ₁₀₄	17.3	X	79.93790	318.31072	190.04339	40.79074	0.2691058	0.61428098	1.371	1.002	1.739	Ap	—	—
54071 2000 <i>GQ</i> ₁₄₆	17.2	X	160.80001	128.25850	36.36683	23.44303	0.1974778	0.64306618	1.329	1.067	1.592	Am	9 6.2	18.9
54401 2000 <i>LM</i>	17.1	X	231.74484	67.06392	240.87344	18.95088	0.2623881	0.44050176	1.711	1.262	2.160	Am	—	—
54509 YORP	22.7	X	79.66080	278.86585	278.28139	1.59932	0.2302176	0.97648141	1.006	0.775	1.238	Ap	—	—
54660 2000 <i>UJ</i> ₁	17.8	X	139.45359	157.97393	223.72381	46.69041	0.2809061	0.54912140	1.477	1.062	1.892	Am	—	—
54686 2001 <i>DU</i> ₈	16.5	X	45.35232	265.85512	161.75336	33.20822	0.3417352	0.41617209	1.777	1.170	2.384	Am	—	—
54690 2001 <i>EB</i>	17.1	X	3.07380	99.60582	33.54983	35.36407	0.2563650	0.47385073	1.629	1.212	2.047	Am	—	—
54789 2001 <i>MZ</i> ₇	15.0	X	62.86955	19.98150	130.09759	24.46350	0.2872213	0.41637889	1.776	1.266	2.286	Am	—	—
55408 2001 <i>TC</i> ₂	18.5	X	144.72154	353.52173	193.84547	30.39110	0.2245844	0.85452982	1.100	0.853	1.347	Ap	9 4.1	18.9
55532 2001 <i>WG</i> ₂	16.1	X	148.20470	132.33211	81.48556	38.50825	0.6957361	0.40994908	1.795	0.546	3.043	Ap	11 11.0	21.0
65674 1988 <i>SM</i>	18.1	X	191.51730	313.25673	0.89919	10.95075	0.3440403	0.45900233	1.664	1.092	2.237	Am	—	—
65679 1989 <i>UQ</i>	19.4	X	147.28462	14.89570	178.22762	1.29978	0.2647919	1.12593165	0.915	0.673	1.157	At	10 14.5	16.0
65690 1991 <i>DG</i>	19.1	X	149.91133	63.30916	180.16647	11.14988	0.3629978	0.57797130	1.427	0.909	1.945	Ap	12 9.4	21.2
65706 1992 <i>NA</i>	16.5	X	266.83063	8.60085	349.24530	9.64043	0.5553556	0.26515995	2.400	1.067	3.732	Am	4 1.8	21.6
65717 1993 <i>BX</i> ₃	20.9	X	349.62266	289.97727	175.55779	2.79087	0.2806670	0.59828558	1.395	1.003	1.786	Ap	—	—
65733 1993 <i>PC</i>	18.4	X	328.72466	168.44364										

ELEMENTS AND OPPOSITION DATES OF NEAS

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2017 SEPTEMBER 4.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
66959 1999 XO ₃₅	16.6	X	159.21809	293.25315	82.13429	20.56416	0.5677918	0.24374800	2.538	1.097	3.979	Am	3 23.9	22.1
67367 2000 LY ₂₇	17.0	X	336.99127	184.76095	264.54080	9.02334	0.2127016	0.65844265	1.309	1.030	1.587	Am	—	—
67381 2000 OL ₈	19.8	X	149.35447	266.78962	294.96956	10.66575	0.5429923	0.64954333	1.320	0.603	2.037	Ap	10 7.3	22.2
67399 2000 PJ ₆	18.2	X	279.73814	225.26131	332.89761	14.69299	0.3461448	0.66413744	1.301	0.851	1.751	Ap	—	—
68031 2000 YK ₂₉	18.1	X	68.98904	31.86221	123.65940	15.17198	0.1285194	0.61035183	1.376	1.200	1.553	Am	—	—
68063 2000 YJ ₆₆	15.5	X	309.11338	50.34135	308.86267	5.71993	0.4574416	0.27655796	2.333	1.266	3.400	Am	5 4.7	19.3
68216 2001 CV ₂₆	16.5	X	51.62870	48.66327	18.17742	17.99812	0.3264866	0.65024466	1.320	0.889	1.750	Ap	—	—
68267 2001 EA ₁₆	16.9	X	221.79439	317.40648	8.02584	38.82663	0.4274145	0.53134123	1.510	0.864	2.155	Ap	—	—
68278 2001 FC ₇	18.5	X	58.59203	234.50643	99.11917	2.62039	0.1145580	0.57284749	1.436	1.271	1.600	Am	—	—
68346 2001 KZ ₆₆	16.8	X	189.23204	140.24547	219.39490	16.69461	0.4166766	0.53252250	1.507	0.879	2.136	Ap	1 7.7	17.7
68347 2001 KB ₆₇	19.9	X	157.04186	243.87566	245.92125	17.13789	0.3797673	1.04315121	0.963	0.597	1.329	At	—	—
68348 2001 LO ₇	14.2	X	322.75157	181.55700	236.27383	25.47648	0.31226736	0.31226736	2.152	0.339	3.965	Ap	6 10.8	18.2
68350 2001 MK ₃	15.9	X	20.89214	328.45201	128.88052	29.56265	0.2474540	0.45683642	1.670	1.256	2.083	Am	—	—
68359 2001 OZ ₁₃	17.8	X	41.91247	29.13436	99.24328	9.85642	0.1742123	0.52728640	1.517	1.253	1.782	Am	—	—
68372 2001 PM ₉	18.8	X	353.09644	322.21050	253.04150	8.10077	0.4157947	0.47884724	1.618	0.945	2.291	Ap	—	—
68548 2001 XR ₃₁	16.5	X	117.26463	24.69821	302.06171	22.71787	0.4365245	0.44208712	1.707	0.962	2.452	Ap	—	—
68950 2002 QF ₁₅	16.4	X	216.45839	255.51497	236.24146	25.15509	0.3442124	0.90721273	1.057	0.693	1.421	Ap	7 28.1	17.9
69230 Hermes	17.5	X	155.82579	92.74723	34.22064	6.06782	0.6239078	0.46297844	1.655	0.622	2.687	Ap	7 15.9	20.9
85182 1991 AQ	17.1	X	5.38973	242.95053	339.68318	3.12803	0.7767679	0.29768750	2.221	0.496	3.947	Ap	—	—
85184 1991 JG ₁	18.4	X	149.45384	322.71525	226.40873	33.87845	0.1846295	0.61189930	1.374	1.120	1.628	Am	8 31.1	20.7
85236 1993 KH	18.6	X	182.70694	293.84976	54.39861	12.80497	0.3111887	0.71902454	1.234	0.850	1.618	Ap	—	—
85275 1994 LY	16.2	X	302.11884	202.83590	141.17250	17.71498	0.4416827	0.37923052	1.890	1.055	2.725	Am	4 9.0	19.7
85490 1997 SE ₅	14.7	X	284.88108	93.60470	248.27724	2.55299	0.6631037	0.13515455	3.761	1.267	6.254	Am	3 26.9	21.7
85585 Mjolnir	17.0	X	103.77184	95.34637	2.36217	4.08305	0.3562137	0.66689087	1.297	0.835	1.760	Ap	—	—
85628 1998 KV ₂	21.6	X	307.12591	50.46897	66.79544	13.02934	0.3316443	0.49016268	1.593	1.065	2.121	Am	—	—
85640 1998 OX ₄	21.1	X	165.39435	117.16992	299.65950	4.51311	0.4858894	0.49606942	1.580	0.813	2.348	Ap	4 3.3	22.8
85709 1998 SG ₃₆	15.9	X	128.53807	29.72404	186.60537	24.83980	0.3375784	0.46670718	1.646	1.090	2.202	Am	10 12.9	18.3
85713 1998 SS ₄₉	15.6	X	359.74107	102.46767	41.49315	10.76443	0.6392650	0.36938797	1.924	0.694	3.154	Ap	—	—
85770 1998 UP ₁	20.5	X	66.80602	234.25216	18.35390	33.18079	0.3451252	0.98823099	0.998	0.654	1.343	At	10 24.1	19.9
85774 1998 UT ₁₈	19.2	X	76.69475	50.08241	64.66590	13.58984	0.3289047	0.59293657	1.403	0.942	1.865	Ap	—	—
85804 1998 WQ ₅	15.3	X	16.46360	269.78167	285.76004	27.66300	0.3544322	0.43649697	1.721	1.111	2.331	Am	—	—
85818 1998 XM ₄	15.5	X	184.62306	301.27163	235.65639	62.71603	0.4165582	0.46222082	1.657	0.967	2.347	Ap	9 21.6	19.9
85839 1998 YO ₄	16.4	X	146.74112	199.53820	28.55145	9.32352	0.2480798	0.46344570	1.654	1.243	2.064	Am	11 7.4	18.5
85867 1999 BY ₉	18.1	X	149.03451	287.42729	254.41351	0.94373	0.3022777	0.39809219	1.830	1.277	2.383	Am	9 7.2	20.8
85938 1999 DJ ₄	18.6	X	106.44074	197.62105	19.91748	9.14595	0.4836370	0.39067891	1.853	0.957	2.749	Ap	10 5.7	21.6
85953 1999 FK ₂₁	18.1	X	282.42485	172.37860	180.49663	12.60904	0.7031187	1.55238347	0.739	0.219	1.258	At	—	—
85989 1999 JD ₆	17.1	X	130.48505	309.18874	130.20277	17.05628	0.6328373	1.18772830	0.883	0.324	1.442	At	—	—
85990 1999 JV ₆	20.2	X	300.95018	235.46964	124.33342	5.35840	0.3111511	0.97421549	1.008	0.694	1.321	Ap	—	—
86039 1999 NC ₄₃	16.0	X	199.71982	120.60868	311.76089	7.12386	0.5793533	0.42237347	1.759	0.740	2.779	Ap	5 24.8	19.9
86067 1999 RM ₂₈	16.4	X	66.78822	301.81560	136.09932	30.53987	0.3235785	0.40237581	1.817	1.229	2.405	Am	—	—
86324 1999 WA ₂	15.7	X	211.66365	75.28087	293.70433	34.59793	0.4342590	0.35732572	1.967	1.113	2.821	Am	2 23.3	20.2
86326 1999 WK ₁₃	17.3	X	47.07102	312.49955	78.47795	34.30384	0.3630880	0.39354482	1.844	1.175	2.514	Am	—	—
86450 2000 CK ₃₃	18.2	X	265.59937	215.59652	124.87326	18.10590	0.4148345	1.03473704	0.968	0.566	1.370	At	—	—
86666 2000 FL ₁₀	16.9	X	353.21071	258.80676	186.97015	29.01501	0.4268596	0.55692275	1.463	0.839	2.088	Ap	—	—
86667 2000 FO ₁₀	17.4	X	117.70809	172.44927	208.35317	14.28779	0.5947316	1.23717339	0.859	0.348	1.370	At	—	—
86819 2000 GK ₁₃₇	17.4	X	23.63050	150.27141	164.92148	10.05853	0.5055324	0.34948510	1.996	0.987	3.005	Ap	12 3.9	19.3
86829 2000 GR ₁₄₆	15.9	X	344.99235	31.32693	78.52500	14.38178	0.5747842	0.55706748	1.463	0.622	2.304	Ap	—	—
86878 2000 HD ₂₄	17.7	X	105.28650	214.83313	231.04776	9.47933	0.6185057	0.63414674	1.342	0.512	2.172	Ap	—	—
87024 2000 JS ₆₆	18.7	X	359.84122	84.92174	230.55306	14.43397	0.1896982	0.75307714	1.196	0.970	1.423	Ap	2 24.2	19.4
87025 2000 JT ₆₆	18.1	X	319.96970	359.57177	120.51991	25.31629	0.4835160	0.72549193	1.227	0.634	1.820	Ap	—	—
87309 2000 QP	17.6	X	184.57146	188.15298	294.28675	34.74317	0.4630803	1.26334771	0.847	0.455	1.240	At	—	—
87311 2000 QJ ₁	16.4	X	294.83609	343.43790	191.46812	7.69262	0.5123876	0.49146078	1.590	0.775	2.405	Ap	—	—
87684 2000 SY ₂	16.0	X	202.26688	47.75682	162.05287	19.22792	0.6427760	1.23874108	0.859	0.307	1.411	At	—	—
88188 2000 XH ₄₄	16.0	X	262.67711	195.03916	340.22874	11.36693	0.3916804	0.34638743	2.008	1.221	2.794	Am	11 18.4	18.6
88213 2001 AF ₂	19.4	X	84.01482	194.97516	114.27765	17.81284	0.5952103	1.05778503	0.954	0.386	1.522	At	2 18.7	19.6
88254 2001 FM ₁₂₉	17.6	X	333.34616	140.03228	272.26746	1.52141	0.6296881	0.76683776	1.182	0.438	1.927	Ap	6 13.7	18.1
88263 2001 KQ ₁	15.6	X	195.75210	241.48076	232.91634	38.82429	0.4319275	0.32477646	2.096	1.191	3.001	Am	7 4.5	20.5
88264 2001 KN ₂₀	17.0	X	44.92662	201.40284	104.96522	12.06923	0.4518859	0.31299856	2.148	1.178	3.119	Am	12 4.8	19.8
88710 2001 SL ₉	17.6	X	59.89923	329.31399	202.85653	21.90094	0.2700409	0.90145062	1.061	0.775	1.348	Ap	—	—
88959 2001 TZ ₄₄	17.4	X	325.39728	114.96995	38.98727	53.82828	0.5639778	0.43556492	1.724	0.752	2.696	Ap	—	—
89136 2001 US ₁₆	20.2	X	149.79221	67.10802	175.96361	1.90523	0.2528674	0.62412505	1.356	1.013	1.699	Ap	12 16.8	20.9
89355 2001 VS ₇₈	15.7	X	172.03348	84.91868	103.11437	22.66440	0.3081981	0.41260796	1.787	1.236	2.338	Am	10 16.4	19.3
89830 2002 CE	14.9	X	117.79194	5.70611	19.93386	43.70068	0.5073761	0.32917834	2.077	1.023	3.131	Am	3 11.9	18.3
89958 2002 LY ₄₅	17.0	X	48.04509	222.57618	188.48699	9.96034	0.8864143	0.46858314	1.642	0.186	3.097	Ap	—	—
89959 2002 NT ₇	16.4	X	165.61782	300.67346	132.06410	42.33404	0.5287315	0.43116583	1.735	0.818	2.653	Ap	5 24.4	20.7
90075 2002 VU ₉₄	15.2	X	26.51212	30.61688	226.77850	8.91551	0.5761282	0.31620901	2.134	0.904	3.363	Ap	2 21.4*	16.4
90147 2002 YK ₁₄	18.3	X	89.15160	105.01862	282.73069	27.98975	0.3317199	0.55062647	1.474	0.985	1.963	Ap	—	—
90367 2003 LC ₅	17.8	X	69.28648	313.80425	86.85427	16.88000	0.4263723	0.79340362	1.156	0.663	1.648	Ap	—	—
90373 2003 SZ ₂₁₉	18.6	X	241.73858	218.67533	189.44252	9.87315	0.2046862	0.47503116	1.627					

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
99799 2002 <i>LJ</i> ₃	18.3	X	137.62824	249.73955	122.45718	7.55921	0.2756452	0.55777801	1.462	1.059	1.864	Am	—	—
99907 1989 <i>VA</i> ¹	17.9	X	79.27679	2.84606	225.60117	28.80064	0.5947271	1.58542654	0.728	0.295	1.162	At	11 15.3	15.4
99935 2002 <i>AV</i> ₄	16.0	X	226.61530	322.97108	16.37208	12.77199	0.6449498	0.46321667	1.654	0.587	2.721	Ap	2 19.6	19.6
99942 Apophis	19.2	X	215.85628	126.68736	204.05952	3.33682	0.1915064	1.11217201	0.923	0.746	1.099	At	—	—
100004 1983 <i>VA</i>	16.4	X	3.38952	12.07894	77.31652	16.27078	0.6991439	0.23549774	2.597	0.781	4.413	Ap	—	—
100085 1992 <i>UY</i> ₄	17.8	X	284.99256	42.00461	305.35365	2.64072	0.6188076	0.22783777	2.655	1.012	4.298	Ap	3 29.3	23.2
100756 1998 <i>FM</i> ₅	16.3	X	262.55843	311.64799	176.85919	11.52594	0.5516419	0.28833553	2.269	1.017	3.521	Am	9 1.8	20.6
100926 1998 <i>MQ</i>	16.7	X	333.12076	138.80036	221.11417	24.24418	0.4076394	0.41402861	1.783	1.056	2.510	Am	5 24.7	18.4
101869 1999 <i>MM</i>	19.3	X	254.71543	268.77027	110.97825	4.76424	0.6109914	0.47609423	1.624	0.632	2.617	Ap	4 13.6	22.8
101873 1999 <i>NC</i> ₅	16.4	X	13.16332	295.19539	128.85082	45.76574	0.3933204	0.34088942	2.030	1.231	2.828	Am	—	—
101955 Bennu	20.9	X	312.63682	66.29017	2.02955	6.03494	0.2037448	0.82490363	1.126	0.897	1.355	Ap	—	—
102873 1999 <i>WK</i> ₁₁	17.5	X	330.78673	220.35141	72.61860	7.46277	0.4668195	0.31649504	2.133	1.137	3.128	Am	2 27.9	20.9
103067 1999 <i>XA</i> ₁₄₃	16.8	X	345.55886	104.00101	116.64981	38.54535	0.5818435	0.39378536	1.843	0.771	2.916	Ap	—	—
105140 2000 <i>NL</i> ₁₀	15.8	X	344.56309	281.60996	237.37270	32.52826	0.6169846	1.12735512	0.914	0.167	1.661	At	—	—
105141 2000 <i>NF</i> ₁₁	18.9	X	90.19921	115.88244	123.74292	14.82358	0.1890717	0.58181005	1.421	1.152	1.690	Am	10 4.8	19.9
106538 2000 <i>WK</i> ₆₃	16.2	X	112.97047	41.63523	163.50003	10.33860	0.7639610	0.26106937	2.425	0.572	4.277	Ap	10 7.4	21.8
106589 2000 <i>WN</i> ₁₀₇	16.0	X	59.85291	11.64368	163.42380	14.33356	0.6146348	0.31284703	2.149	0.828	3.470	Ap	7 14.7	17.8
108519 2001 <i>LF</i>	17.9	X	13.49523	343.78638	267.28861	16.39502	0.2709822	0.48539239	1.604	1.169	2.038	Am	1 23.7	19.5
108906 2001 <i>PL</i> ₉	17.8	X	37.09549	343.97196	172.08205	20.92479	0.3604394	0.71793189	1.235	0.790	1.680	Ap	—	—
111253 2001 <i>XU</i> ₁₀	15.1	X	38.73353	6.93400	310.16535	42.01978	0.4393811	0.42439548	1.754	0.983	2.524	Ap	—	—
112221 2002 <i>KH</i> ₄	15.5	X	191.38021	356.27281	230.10164	58.75543	0.4451852	0.28832435	2.269	1.259	3.279	Am	11 20.4	20.2
112985 2002 <i>RS</i> ₂₈	15.8	X	217.06063	105.32754	211.99667	46.98555	0.4927520	0.29800152	2.220	1.126	3.314	Am	1 14.9	21.4
115052 2003 <i>RD</i> ₆	17.3	X	229.81804	88.18670	190.54162	31.32311	0.3182398	0.45728879	1.669	1.138	2.200	Am	—	—
136564 1977 <i>VA</i>	19.1	X	230.41040	172.62977	224.49018	2.98532	0.3946561	0.38680766	1.866	1.129	2.602	Am	4 27.5	22.3
136582 1992 <i>BA</i>	19.9	X	54.74756	107.37102	140.20046	10.49752	0.0677661	0.63416506	1.342	1.251	1.433	Am	5 6.2	19.4
136617 1994 <i>CC</i>	17.7	X	321.06797	24.84192	268.54977	4.68058	0.4168534	0.47021596	1.638	0.955	2.321	Ap	1 30.6	20.3
136618 1994 <i>CN</i> ₂	16.8	X	121.23543	248.26785	99.34010	1.43918	0.3951070	0.49963475	1.573	0.951	2.194	Ap	—	—
136635 1994 <i>VA</i> ₁	19.0	X	71.53506	310.99314	231.74520	7.63763	0.1749723	0.49940728	1.573	1.298	1.849	Am	1 28.3	18.8
136745 1995 <i>WL</i> ₈	18.0	X	8.36964	131.63601	247.94361	17.78705	0.4845808	0.27095491	2.365	1.219	3.511	Am	—	—
136770 1996 <i>PC</i> ₁	20.4	X	139.45421	45.84578	326.29356	25.110979	0.4517124	0.39531761	1.839	1.008	2.669	Ap	1 19.8	21.6
136773 1996 <i>TR</i> ₆	18.6	X	229.87977	117.61111	196.31077	22.10122	0.1802614	0.49400825	1.585	1.299	1.871	Am	—	—
136793 1997 <i>AQ</i> ₁₈	18.4	X	26.55407	37.01501	296.27505	17.37285	0.4653004	0.80228700	1.147	0.613	1.681	Ap	3 16.6	19.8
136795 1997 <i>BQ</i>	18.1	X	310.56556	147.43522	50.20917	11.00635	0.4784427	0.42737697	1.746	0.910	2.581	Ap	—	—
136818 Selket	19.1	X	252.11035	203.78469	259.95174	12.77833	0.3462911	1.08565361	0.938	0.613	1.262	At	7 10.9	18.0
136839 1997 <i>WT</i> ₂₂	18.8	X	278.51564	74.74926	71.96128	8.15955	0.3059111	0.54422258	1.486	1.031	1.940	Am	—	—
136849 1998 <i>CS</i> ₁	17.7	X	237.86509	97.65867	110.79374	7.78943	0.5783481	0.54108635	1.492	0.629	2.354	Ap	12 5.3	18.7
136874 1998 <i>FH</i> ₇₄	15.7	X	30.65178	193.30966	197.60515	21.25510	0.8849837	0.30200142	2.200	0.253	4.147	Ap	—	—
136897 1998 <i>HJ</i> ₄₁	18.5	X	324.93327	120.12279	211.87243	38.87907	0.1247135	0.61912752	1.363	1.193	1.533	Am	3 27.6	19.9
136900 1998 <i>HL</i> ₄₉	17.3	X	218.73328	238.95814	206.19085	11.00210	0.6365161	0.42699934	1.747	0.635	2.858	Ap	6 17.7	21.4
136923 1998 <i>HJ</i> ₂	16.3	X	342.14898	287.31535	51.11823	6.62553	0.4410380	0.31598193	2.135	1.193	3.076	Am	5 14.0	18.1
136993 1998 <i>ST</i> ₄₉	17.7	X	130.38105	47.94912	18.32907	24.51238	0.5935411	0.28056650	2.311	0.939	3.682	Ap	4 20.8	22.0
137032 1998 <i>UO</i> ₁	16.6	X	178.93089	252.41918	358.49942	25.50369	0.7632372	0.48902964	1.596	0.378	2.813	Ap	12 9.6	20.9
137044 1998 <i>UC</i> ₅₀	16.7	X	133.69163	166.12442	335.11844	4.38493	0.4295514	0.28852775	2.268	1.294	3.242	Am	7 15.9	20.9
137052 Tjelvar	17.0	X	215.11410	209.87772	64.30910	14.91481	0.8095180	0.70699152	1.248	0.238	2.258	Ap	—	—
137062 1998 <i>WM</i>	16.6	X	179.80904	172.53902	45.65172	22.51707	0.3153187	0.72734831	1.225	0.838	1.611	Ap	12 7.1	17.2
137064 1998 <i>WP</i> ₅	18.9	X	187.95463	97.55847	36.14351	19.50336	0.1951488	0.61186541	1.374	1.106	1.642	Am	8 4.9	20.6
137078 1998 <i>XZ</i> ₄	16.3	X	13.65381	9.62703	324.45482	23.15018	0.6379548	0.36513186	1.939	0.702	3.175	Ap	4 22.4	18.1
137084 1998 <i>XS</i> ₁₆	16.4	X	198.62178	358.28360	273.00170	26.55445	0.4965574	0.73844595	1.212	0.610	1.814	Ap	—	—
137099 1998 <i>YW</i> ₃	18.2	X	228.19925	194.82723	94.28462	28.79296	0.4626231	0.85429863	1.100	0.591	1.609	Ap	—	—
137108 1999 <i>AJ</i> ₁₀	17.9	X	162.34546	268.31075	314.39847	39.93003	0.5621719	0.55940306	1.459	0.639	2.279	Ap	10 20.5	22.0
137120 1999 <i>BJ</i> ₈	18.1	X	13.98669	221.82797	339.62296	8.99172	0.5501818	0.37653790	1.899	0.854	2.944	Ap	—	—
137125 1999 <i>CT</i> ₃	18.6	X	237.05164	268.22672	321.93711	34.23400	0.1318745	0.57830185	1.427	1.239	1.615	Am	—	—
137126 1999 <i>CF</i> ₉	18.0	X	275.61776	90.22560	157.10142	5.54726	0.6003549	0.41756302	1.773	0.708	2.837	Ap	—	—
137158 1999 <i>FB</i>	17.9	X	214.32120	3.01788	37.12068	12.90054	0.6070399	0.76902902	1.180	0.464	1.896	Ap	4 4.1	18.3
137170 1999 <i>HF</i> ₁	14.5	X	32.62850	253.38086	155.88486	25.66191	0.4625081	1.32944477	0.819	0.440	1.198	At	—	—
137175 1999 <i>JA</i> ₁₁	18.4	X	86.64724	328.29041	116.26386	16.43151	0.3411008	0.69585972	1.261	0.831	1.691	Ap	—	—
137199 1999 <i>KX</i> ₄	16.9	X	195.13692	76.41010	104.94202	16.56955	0.2925712	0.56029340	1.457	1.031	1.884	Am	10 28.1	18.9
137427 1999 <i>TF</i> ₂₁₁	15.2	X	183.56420	161.80175	348.15585	39.18528	0.6100926	0.25725460	2.448	0.955	3.942	Ap	9 1.5	20.9
137671 1999 <i>XP</i> ₃₅	18.5	X	107.95805	198.24536	263.47117	21.10360	0.1841475	0.57354450	1.435	1.170	1.699	Am	—	—
137799 1999 <i>YB</i>	18.5	X	112.78457	192.68130	30.99631	6.79072	0.0748365	0.64897633	1.321	1.222	1.420	Am	9 16.7	17.8
137802 1999 <i>YT</i>	16.9	X	211.69128	272.63505	116.43917	31.57845	0.3520079	0.41623253	1.777	1.151	2.402	Am	4 16.9	20.7
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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
138852 2000 <i>WN</i> ₁₀	20.2	X	20.48172	225.16982	60.91571	21.49952	0.2986471	0.98348687	1.001	0.702	1.301	Ap	11 11.8	18.5
138859 2000 <i>WN</i> ₆₃	18.9	X	86.92713	144.33962	55.92597	13.15017	0.5317898	0.49941815	1.573	0.737	2.410	Ap	9 12.2	21.0
138877 2000 <i>XG</i> ₄₇	16.6	X	90.64691	127.47668	43.97511	25.27762	0.5418516	0.31447369	1.242	0.981	3.302	Ap	8 12.9	20.6
138883 2000 <i>YL</i> ₂₉	16.7	X	98.71226	115.86219	182.78117	21.89219	0.3439235	0.51767403	1.536	1.008	2.064	Ap	—	—
138893 2000 <i>YH</i> ₆₆	18.1	X	329.71127	341.33635	265.28111	18.34389	0.7436380	0.77592274	1.173	0.301	2.045	Ap	—	—
138911 2001 <i>AE</i> ₂	19.2	X	125.14573	43.08069	171.46944	1.66161	0.0816305	0.62858912	1.350	1.239	1.460	Am	9 17.5	18.4
138925 2001 <i>AU</i> ₄₃	15.9	X	24.99780	149.27350	129.31358	72.14647	0.3767516	0.37731309	1.897	1.182	2.611	Am	7 30.5	14.7
138937 2001 <i>BK</i> ₁₆	17.5	X	228.42588	252.36969	98.93875	31.81167	0.6778355	0.33022701	2.073	0.668	3.478	Ap	3 21.6	23.0
138947 2001 <i>BA</i> ₄₀	18.7	X	252.62951	359.99303	270.90657	12.84498	0.2537772	0.83269309	1.119	0.835	1.403	Ap	—	—
138971 2001 <i>CB</i> ₂₁	18.4	X	199.23841	271.74382	353.76476	7.90181	0.3335362	0.93657762	1.035	0.690	1.380	Ap	—	—
139047 2001 <i>EB</i> ₁₆	17.2	X	183.28121	346.24113	149.56030	46.99617	0.3860576	0.38797362	1.862	1.143	2.581	Am	8 5.9	20.9
139056 2001 <i>FY</i>	19.1	X	110.31176	110.40917	111.25518	4.73303	0.3273610	0.38052317	1.886	1.269	2.503	Am	10 4.0	21.9
139211 2001 <i>GN</i> ₂	18.0	X	176.23950	3.38938	173.57801	26.06978	0.4523083	0.38867136	1.860	1.018	2.701	Am	9 21.8	21.6
139289 2001 <i>KR</i> ₁	17.6	X	135.44009	291.35141	102.85113	23.23568	0.8413728	0.69717777	1.260	0.200	2.319	Ap	—	—
139345 2001 <i>KA</i> ₆₇	16.7	X	276.48700	37.74874	108.55876	22.35982	0.7020348	0.40659114	1.805	0.538	3.071	Ap	9 29.8	20.1
139359 2001 <i>ME</i> ₁	16.6	X	259.88406	301.80702	85.03662	5.90598	0.8693253	0.22941399	2.643	0.345	4.940	Ap	4 26.2	23.1
139622 2001 <i>QU</i> ₁₄₂	18.4	X	120.38238	337.85859	83.27355	9.31559	0.3112297	0.58067020	1.423	0.980	1.866	Ap	—	—
140039 2001 <i>SO</i> ₇₃	18.4	X	259.69060	30.87119	197.23144	4.85590	0.5689258	0.40129147	1.820	0.785	2.856	Ap	—	—
140158 2001 <i>SX</i> ₁₆₉	18.3	X	255.72821	42.64611	126.90966	2.51369	0.4606888	0.63059589	1.347	0.726	1.967	Ap	11 27.1	16.4
140288 2001 <i>SN</i> ₂₈₉	16.7	X	349.11455	225.59694	357.11307	53.23141	0.5078170	0.41362896	1.784	0.878	2.690	Ap	—	—
140333 2001 <i>TD</i> ₂	18.8	X	59.67039	199.07191	12.86203	19.03365	0.4816001	1.04473974	0.962	0.499	1.425	At	—	—
140928 2001 <i>VG</i> ₇₅	18.1	X	79.75486	257.29036	245.48984	20.66527	0.2968579	0.52660996	1.519	1.068	1.970	Am	—	—
141018 2001 <i>WC</i> ₄₇	18.9	X	96.73257	101.38009	91.62670	2.86907	0.2412867	0.59579683	1.399	1.061	1.736	Am	6 26.1	16.6
141052 2001 <i>XR</i> ₁	17.3	X	19.14769	304.13204	291.53695	17.65892	0.5501896	0.70915668	1.245	0.560	1.931	Ap	—	—
141053 2001 <i>XT</i> ₁	18.7	X	151.83765	31.20503	316.40283	2.73289	0.5795632	0.52180114	1.528	0.642	2.414	Ap	—	—
141056 2001 <i>XV</i> ₄	17.2	X	68.16284	300.52597	259.19773	28.86224	0.4444652	0.40245026	1.817	1.009	2.624	Ap	7 14.0	18.3
141078 2001 <i>XQ</i> ₃₀	18.9	X	25.29965	270.59170	234.80117	11.47184	0.4504425	0.38749436	1.863	1.024	2.703	Am	—	—
141079 2001 <i>XS</i> ₃₀	17.7	X	66.58643	0.86408	251.46167	28.53267	0.8282028	0.78424639	1.165	0.200	2.129	Ap	11 26.6	19.7
141354 2002 <i>AJ</i> ₂₉	17.3	X	180.50221	0.52313	203.97177	10.91645	0.4504214	0.35128882	1.989	1.093	2.885	Am	10 26.5	21.1
141424 2002 <i>CD</i>	20.0	X	156.96935	331.79312	8.68936	6.87657	0.1767760	1.01613027	0.980	0.807	1.153	At	—	—
141432 2002 <i>CQ</i> ₁₁	20.0	X	109.01202	272.78594	81.35600	2.46331	0.4283131	1.01833714	0.978	0.559	1.398	At	—	—
141447 2002 <i>CW</i> ₅₉	17.1	X	68.89246	7.25565	151.13880	32.10163	0.5059966	0.26817861	2.382	1.176	3.587	Am	6 22.6	20.3
141484 2002 <i>DB</i> ₄	16.4	X	294.69177	94.12027	234.26604	16.60418	0.3694821	1.24036063	0.858	0.541	1.175	At	—	—
141495 2002 <i>EZ</i> ₁₁	18.3	X	175.66456	317.70293	51.95393	2.35373	0.8022330	0.83796301	1.114	0.220	2.008	Ap	—	—
141498 2002 <i>EZ</i> ₁₆	18.3	X	313.14713	25.34424	262.91016	30.13982	0.5664663	1.11401977	0.922	0.400	1.444	At	—	—
141525 2002 <i>FV</i> ₅	17.9	X	149.77719	308.10123	38.86726	34.03105	0.7246891	0.86987102	1.087	0.299	1.874	Ap	—	—
141526 2002 <i>FA</i> ₆	19.9	X	270.95150	173.40202	174.68736	30.09730	0.3225543	0.96503483	1.014	0.687	1.341	Ap	—	—
141527 2002 <i>FG</i> ₇	18.9	X	146.46308	247.50089	187.62572	9.20757	0.6268678	0.52918964	1.514	0.565	2.463	Ap	5 1.8	20.4
141531 2002 <i>GB</i>	19.1	X	288.53727	8.31378	40.82766	22.55645	0.5290537	0.997483352	0.992	0.467	1.517	At	5 3.8	19.1
141593 2002 <i>HK</i> ₁₂	18.1	X	116.27371	2.24625	307.06004	2.35135	0.5288208	0.34793351	2.002	0.943	3.061	Ap	—	—
141614 2002 <i>JV</i> ₁₅	19.4	X	110.30905	127.33852	200.66977	7.18226	0.5361303	0.47656832	1.623	0.753	2.494	Ap	—	—
141670 2002 <i>JS</i> ₁₀₀	16.6	X	9.62208	192.12780	144.21347	13.31351	0.4845184	0.26746167	2.386	1.230	3.542	Am	11 22.1	17.9
141761 2002 <i>MC</i>	17.2	X	236.83554	159.83678	151.58262	18.90346	0.5084847	0.23831553	2.577	1.266	3.887	Am	2 1.7	22.8
141765 2002 <i>MP</i> ₃	16.2	X	69.08947	270.14843	100.36916	33.06388	0.4694664	0.34860378	1.999	1.061	2.938	Am	—	—
141851 2002 <i>PM</i> ₆	17.7	X	216.72122	224.39755	304.13913	19.17588	0.8501085	0.75173125	1.198	0.180	2.216	Ap	9 9.8	20.7
141874 2002 <i>PO</i> ₃₄	17.8	X	304.60661	290.86446	143.70889	10.98339	0.3486999	0.39662455	1.835	1.195	2.474	Am	8 31.2	18.6
142040 2002 <i>QE</i> ₁₅	16.3	X	323.66828	160.50033	226.40295	28.25525	0.3447524	0.45798863	1.667	1.092	2.242	Am	6 25.7	18.2
142348 2002 <i>RX</i> ₂₁₁	18.2	X	347.02460	324.11298	96.70064	6.06366	0.4584079	0.33219012	2.065	1.118	3.011	Am	—	—
142464 2002 <i>TC</i> ₉	18.1	X	114.33031	29.25647	191.85519	16.27903	0.1545017	0.71945840	1.233	1.043	1.424	Am	9 25.0	17.2
142555 2002 <i>TB</i> ₅₈	16.2	X	159.03477	267.95981	219.34688	23.41258	0.5655951	0.23143240	2.627	1.141	4.113	Am	7 13.5	22.2
142561 2002 <i>TR</i> ₆₈	18.1	X	34.97470	122.41237	150.17087	16.65121	0.2932713	0.45501812	1.674	1.183	2.165	Am	7 27.4	16.9
142563 2002 <i>TR</i> ₆₉	17.1	X	206.15143	192.20667	342.00277	20.48870	0.3435157	0.46081791	1.660	1.090	2.230	Am	10 1.7	19.9
142781 2002 <i>UM</i> ₁₁	16.1	X	119.79937	229.03196	229.01881	41.03863	0.3874551	0.36163336	1.951	1.195	2.707	Am	4 24.9	18.4
143381 2003 <i>BC</i> ₂₁	16.1	X	219.40523	113.94695	292.21250	5.46662	0.5096357	0.23537908	2.598	1.274	3.922	Am	5 10.1	21.6
143404 2003 <i>BD</i> ₄₄	16.8	X	34.35079	89.20800	181.31679	2.66263	0.6062165	0.35695801	1.968	0.775	3.161	Ap	3 20.2*	14.9
143409 2003 <i>BQ</i> ₄₆	17.9	X	88.35297	44.14936	163.83395	8.16699	0.3513828	0.36214322	1.949	1.264	2.634	Am	8 23.6	20.1
143487 2003 <i>CR</i> ₂₀	18.7	X	222.49906	88.73202	177.15747	4.98920	0.7297214	0.31820047	2.125	0.574	3.675	Ap	—	—
143527 2003 <i>EN</i> ₁₆	18.6	X	352.62550	242.07425	181.77479	17.31285	0.3522701	0.46021407	1.661	1.076	2.247	Am	—	—
143624 2003 <i>HM</i> ₁₆	15.9	X	53.89692	46.99211	195.97650	35.60636	0.5763274	0.35729708	1.967	0.833	3.100	Ap	10 8.3	18.1
143637 2003 <i>LP</i> ₆	16.3	X	37.07181	260.54585	144.70215	43.59195	0.8836738	0.42708713	1.746	0.203	3.290	Ap	—	—
143643 2003 <i>NP</i> ₇	18.3	X	152.22007	323.47228	285.24489	11.10802	0.4170760	0.30601351	2.181	1.271	3.091	Am	11 29.9	22.8
143649 2003 <i>QQ</i> ₄₇	17.4	X	67.74617	104.99516	0.99739	62.10178	0.1869877	0.87164431	1.085	0.882	1.288	Ap	—	—
143651 2003 <i>QO</i> ₁₀₄	16.0	X	234.15399	183.51795	58.22322	11.60738	0.5244701	0.31587288	2.135	1.015	3.255	Ap	—	—
143678 2003 <i>SA</i> ₂₂₄	16.3	X	167.29073	141.91038	2.83135	13.86182	0.3287600	0.46532907	1.649	1.107	2.192	Am	8 7.8	19.0
143947 2003 <i>YQ</i> ₁₁₇	15.3	X	150.49882	135.70290	217.53371	21.03076	0.6552595	0.30607452	2.181	0.752	3.610	Ap	2 6.4	19.7
143992 2004 <i>AF</i>	16.0	X	359.19398	57.94353	315.67817	27.13742	0.5540316	0.35621050	1.971	0.879	3.063	Ap	—	—
144332 2004 <i>DV</i> ₂₄														

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Planet	H	G	M	ω	Ω	i	e	μ	a	q	Q	T	Oppos.	V
152637	1997	NC ₁	170.63449	16.57275	96.51237	16.72487	0.2080822	1.22463437	0.865	0.685	1.045	At	—	—
152664	1998	FW ₄	345.83651	81.02466	357.76068	3.46930	0.7214578	0.24752407	2.512	0.700	4.325	Ap	—	—
152667	1998	FR ₁₁	25.07473	158.52426	129.90809	6.66032	0.7060893	0.20895950	2.813	0.827	4.798	Ap	11 20.8	19.5
152671	1998	HL ₃	309.81250	188.12562	163.68473	2.67951	0.3660080	0.82180274	1.129	0.716	1.542	Ap	2 27.9	19.8
152679	1998	KU ₂	223.65726	120.28285	205.76927	4.92724	0.5529577	0.29186967	2.251	1.006	3.495	Ap	2 7.5	21.6
152680	1998	KJ ₉	345.61364	260.06810	98.59536	10.93039	0.6397833	0.56577057	1.448	0.522	2.374	Ap	4 22.3	21.5
152685	1998	MZ ₁₀	149.06490	39.89561	121.63379	0.14610	0.5731024	0.63072090	1.347	0.575	2.118	Ap	8 21.2	21.3
152742	1998	XE ₁₂	23.58941	353.11031	280.06040	13.43313	0.7390895	1.19755589	0.878	0.229	1.527	At	12 18.7	19.2
152754	1999	GS ₆	112.11444	134.87874	314.50615	2.02070	0.4973458	0.75836778	1.191	0.599	1.783	Ap	—	—
152756	1999	JV ₃	121.89241	101.55033	229.05871	15.22566	0.4149373	0.56405343	1.451	0.849	2.053	Ap	—	—
152770	1999	RR ₂₈	316.53613	284.34089	178.39997	7.13558	0.6534177	0.38274658	1.879	0.651	3.106	Ap	8 30.7	19.6
152787	1999	TB ₁₀	341.97416	137.35332	1.93404	15.95267	0.2314231	0.61929914	1.363	1.048	1.679	Am	—	—
152828	1999	VT ₂₅	8.21987	319.15953	222.00375	5.14889	0.5231662	0.78686515	1.162	0.554	1.770	Ap	—	—
152889	2000	CF ₅₉	75.38665	222.43000	141.79481	41.56902	0.6407724	0.45301042	1.679	0.603	2.755	Ap	—	—
152895	2000	CQ ₁₀₁	357.38965	173.93355	29.84866	2.97237	0.4918212	0.28413397	2.292	1.164	3.419	Am	—	—
152931	2000	EA ₁₀₇	358.81855	278.02410	52.90100	28.57739	0.4557423	1.09941978	0.930	0.506	1.353	At	—	—
152941	2000	FM ₁₀	100.18441	343.94770	18.55190	8.73827	0.6810517	0.54685241	1.481	0.472	2.490	Ap	—	—
152942	2000	FN ₁₀	146.54934	235.38046	8.21159	27.08264	0.4561382	0.36504408	1.939	1.055	2.823	Am	11 13.5	21.1
152952	2000	GC ₂	170.07852	280.23041	358.70166	55.29703	0.1870189	0.60568178	1.383	1.125	1.642	Am	—	—
152964	2000	GP ₈₂	269.51183	332.99937	114.89833	13.22642	0.3932329	0.59739057	1.396	0.847	1.945	Ap	7 23.2	18.9
152978	2000	GJ ₁₄₇	248.68852	240.79708	57.87465	25.00782	0.2365803	0.78680029	1.162	0.887	1.437	Ap	—	—
153002	2000	JG ₅	96.64062	233.35292	213.15239	31.46245	0.7957345	0.63497268	1.341	0.274	2.407	Ap	—	—
153195	2000	WB ₁	173.26446	262.88539	21.41745	41.11194	0.6189731	0.66411816	1.301	0.496	2.106	Ap	—	—
153201	2000	WO ₁₀₇	153.89167	213.69949	69.25903	7.77085	0.7806130	1.13270020	0.911	0.200	1.623	At	1 21.0	19.2
153219	2000	YM ₂₉	185.32263	0.72631	116.58350	40.32443	0.4351697	0.32640905	2.089	1.180	2.998	Am	7 15.5	22.7
153220	2000	YN ₂₉	14.06137	138.14616	67.86867	5.88093	0.6765280	0.24619973	2.521	0.816	4.227	Ap	—	—
153243	2001	AU ₄₇	158.84453	9.36222	311.91612	35.97603	0.5306033	0.66580033	1.299	0.610	1.988	Ap	—	—
153249	2001	BW ₁₅	63.45989	297.91599	328.93121	41.22726	0.5907604	0.31976596	2.118	0.867	3.369	Ap	10 17.5	19.6
153267	2001	CB ₃₂	10.34008	330.38157	75.59499	9.67017	0.6145331	0.41455231	1.781	0.687	2.876	Ap	—	—
153271	2001	CL ₄₂	100.47367	270.80358	12.07418	21.65464	0.4023365	0.50721965	1.557	0.931	2.184	Ap	12 23.1	20.3
153306	2001	JL ₁	28.73863	272.52571	226.65732	26.98031	0.5227956	0.24150984	2.554	1.219	3.889	Am	—	—
153311	2001	MG ₁	16.06853	218.49622	142.36157	28.41496	0.6458231	0.24920737	2.501	0.886	4.116	Ap	—	—
153315	2001	NH ₆	186.77685	288.37460	112.56301	34.69517	0.4497628	0.71597797	1.237	0.681	1.794	Ap	—	—
153349	2001	PJ ₉	275.85856	291.14950	283.85807	10.53796	0.6392071	0.40847901	1.799	0.649	2.949	Ap	—	—
153415	2001	QP ₁₅₃	126.09323	244.29079	317.68759	50.20770	0.2138924	1.17102689	0.891	0.701	1.082	At	—	—
153460	2001	RN	223.03571	30.35361	211.49471	10.09306	0.5810979	0.58641120	1.414	0.592	2.235	Ap	—	—
153591	2001	SN ₂₆₃	148.56700	172.86287	325.82616	6.68535	0.4783401	0.35201103	1.987	1.036	2.937	Am	7 23.0	20.7
153792	2001	VB ₇₅	32.17727	244.23028	276.29133	10.61633	0.7419233	0.32387268	2.100	0.542	3.658	Ap	—	—
153814	2001	WN ₅	46.22653	44.56818	277.50726	1.91965	0.4669616	0.44001664	1.712	0.913	2.511	Ap	—	—
153842	2001	XT ₃₀	197.10142	219.11421	140.20403	9.01879	0.5686253	0.21624908	2.749	1.186	4.312	Am	3 14.9	22.7
153951	2002	AC ₃	70.41727	215.05992	314.46187	15.47108	0.3422364	0.39612644	1.836	1.208	2.465	Am	2 20.1	17.1
153953	2002	AD ₉	257.54914	9.76182	2.60176	31.03420	0.8088817	0.41718996	1.774	0.339	3.209	Ap	3 31.0	21.3
153957	2002	AB ₂₉	304.95536	73.23375	89.71880	46.52576	0.7585202	0.24442540	2.533	0.612	4.455	Ap	11 15.1	21.8
153958	2002	AM ₃₁	93.94049	197.93399	144.39755	4.64468	0.4516497	0.44347649	1.703	0.934	2.472	Ap	—	—
154007	2002	BY	63.94300	23.66827	214.28269	2.72438	0.3465612	0.40199776	1.818	1.188	2.448	Am	9 3.8	18.9
154019	2002	CZ ₉	25.37681	80.79380	142.89289	4.97108	0.3602652	0.64580406	1.326	0.848	1.803	Ap	—	—
154020	2002	CA ₁₀	107.84945	222.13224	145.39956	12.12905	0.5900482	0.51512688	1.541	0.632	2.451	Ap	—	—
154029	2002	CY ₄₆	264.79025	319.36968	346.18446	44.18945	0.4562514	0.37928482	1.890	1.016	2.764	Ap	2 16.4	20.8
154035	2002	CV ₅₉	99.22094	347.12641	13.10419	49.06149	0.5322124	0.74048271	1.210	0.566	1.854	Ap	—	—
154144	2002	FA ₅	2.58834	126.32475	172.60001	23.61865	0.2960228	0.39685579	1.834	1.291	2.377	Am	5 6.7	18.8
154229	2002	JN ₉₇	62.56435	341.48767	67.69926	10.07584	0.7187472	0.39129521	1.851	0.521	3.182	Ap	—	—
154244	2002	KL ₆	112.31293	98.03922	213.28664	3.24617	0.5484018	0.28132754	2.307	1.042	3.572	Am	—	—
154268	2002	RM ₁₂₉	282.37964	357.49971	132.69888	14.56969	0.4648308	0.53053874	1.511	0.809	2.214	Ap	10 21.2	18.5
154269	2002	SM	19.78076	217.20035	10.91163	14.43002	0.4863139	0.38494638	1.872	0.961	2.782	Ap	—	—
154275	2002	SR ₄₁	7.21572	258.13762	247.83894	11.57842	0.4906736	0.87420524	1.083	0.552	1.615	Ap	—	—
154276	2002	SY ₅₀	216.55868	99.40046	34.29709	8.74430	0.6892944	0.44293833	1.704	0.530	2.879	Ap	8 17.2	21.6
154278	2002	TB ₉	329.06019	322.56532	196.33650	29.71456	0.5913823	0.40669861	1.804	0.737	2.871	Ap	—	—
154300	2002	UO	125.69838	184.15357	90.74683	8.30039	0.4722782	0.74135150	1.209	0.638	1.780	Ap	—	—
154302	2002	UQ ₃	174.00107	280.89920	222.82398	28.81907	0.5616730	0.43714431	1.719	0.754	2.685	Ap	7 31.9	22.0
154330	2002	VX ₉₄	5.28974	215.08890	320.18402	7.16127	0.4086715	0.54934426	1.477	0.873	2.080	Ap	—	—
154347	2002	XK ₄	336.01992	24.95472	331.67249	17.75079	0.6918393	0.39171512	1.850	0.570	3.130	Ap	4 8.2	19.5
154453	2003	CJ ₁₁	197.74071	356.28748	61.69354	20.75751	0.8335634	0.23666072	2.588	0.431	4.746	Ap	5 18.4	21.6
154555	2003	HA	320.40501	277.12962	53.51082	36.82694	0.5802142	0.76478202	1.184	0.497	1.871	Ap	3 14.6	19.6
154589	2003	MX ₂	349.98301	300.59589	58.69290	7.18366	0.4586727	0.28448216	2.290	1.239	3.340	Am	7 24.6	16.7
154590	2003	MA ₃	11.43705	228.94287	152.64680	1.41329	0.4023568	0.84818019	1.105	0.661	1.550	Ap	—	—
154631	2003	WO ₂₅	323.30693	176.00974	357.87490	15.90261	0.4916122	0.50723000	1.557	0.792	2.323	Ap	—	—
154652	2004	EP ₂₀	348.28694	191.32734	159.60400	16.17399	0.4505472	0.90499161	1.059	0.582	1.535	Ap	3 20.0	18.9
154656	2004	FE ₃	248.98930	338.21403	339.13188	22.95375	0.6470900	0.28077827	2.310	0.815	3.804	Ap	2 13.4	21.8
154658	2004	FA ₁₈	129.63072	318.61727	29.61462	19.28973	0.4547787	0.85839165	1.097	0.598	1.595	Ap	—	—
154715	2004	LB ₆	114.38676	190.56556	182.79165	4.09957	0.4910481	0.47864752	1.619	0.824	2.413	Ap	—	—
154807	2004	PP ₉₇	346.33908	68.58681	15.15126	15.53174	0.31643							

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
155341 2006 SA ₂₁₈	18.2	X	8.37052	277.95198	144.40795	18.51989	0.2416133	0.54877867	1.478	1.121	1.835	Am	—	—
159399 1998 UL ₁	16.6	X	171.09009	353.19261	214.87153	41.97069	0.2140436	0.52235013	1.527	1.200	1.854	Am	11 6.2	18.1
159402 1999 AP ₁₀	16.1	X	49.48403	46.93599	357.38761	7.62477	0.5747639	0.26904802	2.376	1.011	3.742	Ap	—	—
159454 2000 DJ ₈	18.1	X	259.49540	262.93062	139.55580	37.74687	0.2528476	0.58792947	1.411	1.054	1.768	Am	5 25.8	21.0
159459 2000 KB	16.2	X	279.84465	185.33300	185.37646	56.16730	0.7987618	0.27580222	2.337	0.470	4.204	Ap	4 10.8	21.9
159467 2000 QK ₂₅	18.2	X	331.07942	240.38375	138.83264	6.13586	0.2830535	0.40498643	1.809	1.297	2.321	Am	7 30.1	18.2
159495 2000 UV ₁₆	17.2	X	273.63300	352.62300	341.73244	4.06601	0.4826766	0.27357019	2.350	1.216	3.484	Am	3 13.5	21.9
159504 2000 WO ₆₇	17.0	X	184.14322	237.73745	107.69002	9.69306	0.6178001	0.25972314	2.433	0.930	3.936	Ap	2 21.9	22.3
159518 2001 FF ₇	17.9	X	120.95002	59.33682	190.17561	47.51681	0.4443607	0.32287713	2.104	1.169	3.039	Am	11 14.4	22.7
159533 2001 HH ₃₁	17.6	X	151.27149	275.92917	71.64301	12.85152	0.2891168	0.46322484	1.654	1.176	2.133	Am	—	—
159555 2001 SJ ₂₇₆	18.6	X	254.18397	123.46270	214.96390	29.44124	0.2298967	0.47340022	1.630	1.256	2.005	Am	2 2.9	21.7
159560 2001 TO ₁₀₃	17.0	X	349.44803	261.57029	42.27265	25.72901	0.4343302	0.29932990	2.213	1.252	3.175	Am	4 16.1	19.4
159608 2002 AC ₂	16.4	X	243.56513	208.11011	102.70373	58.87945	0.3515024	0.45497889	1.674	1.086	2.263	Am	1 5.3	18.9
159609 2002 AQ ₃	17.1	X	91.33866	243.44986	124.27336	40.01423	0.4628499	0.32130798	2.111	1.134	3.088	Am	—	—
159635 2002 CZ ₄₆	18.0	X	57.90436	246.28584	173.43735	16.24276	0.3241762	0.44340704	1.703	1.151	2.255	Am	—	—
159677 2002 HQ ₁₁	19.4	X	67.06930	322.14862	153.32438	6.04761	0.5955954	0.39148933	1.851	0.748	2.953	Ap	—	—
159686 2002 LB ₆	16.3	X	66.39296	140.95862	244.79443	24.70753	0.6889410	0.40695369	1.803	0.561	3.046	Ap	—	—
159699 2002 PQ ₁₄₂	17.7	X	248.78836	332.10288	151.34149	16.78663	0.1762828	0.44610553	1.696	0.481	2.911	Ap	8 9.8	21.4
159856 2004 JW ₆	17.9	X	37.64932	174.53026	143.95220	9.74544	0.4647079	0.31149046	2.155	1.154	3.157	Am	12 13.9	20.7
159857 2004 LJ ₁	15.4	X	286.61094	139.97168	235.58345	23.14005	0.5934627	0.28937871	2.264	0.920	3.607	Ap	4 28.8	20.0
159923 2004 YJ ₃₂	16.4	X	128.26562	234.23360	118.79298	7.52671	0.5252802	0.24621598	2.521	1.197	3.845	Am	1 25.4	20.3
159928 2005 CV ₆₉	18.0	X	270.99993	95.62462	157.49953	27.75134	0.4194212	0.46321390	1.654	0.960	2.348	Ap	—	—
159929 2005 UK	17.5	X	336.97092	19.41703	222.57228	54.44653	0.4074986	0.38043337	1.886	1.118	2.655	Am	—	—
161989 Cacus	17.1	X	345.39633	102.16017	161.24181	26.06033	0.2139745	0.82805978	1.123	0.883	1.363	Ap	—	—
161995 1983 LB	17.2	X	308.05297	220.64564	81.19752	25.27064	0.4787388	0.28498163	2.287	1.192	3.382	Am	3 5.3	21.9
161998 1988 PA	17.6	X	92.57261	137.58092	162.14958	8.22265	0.4051109	0.31314248	2.148	1.278	3.018	Am	12 26.5	21.6
161999 1989 RC	19.0	X	350.20542	181.35008	140.15997	7.37052	0.5121661	0.27969659	2.316	1.130	3.502	Am	4 28.1	21.1
162000 1990 OS	19.4	X	141.29282	21.45722	346.61811	1.09394	0.4628783	0.45324663	1.678	0.902	2.455	Ap	—	—
162004 1991 VE	18.2	X	345.84370	193.63005	61.88038	7.21944	0.6646424	1.17241911	0.891	0.299	1.483	At	—	—
162011 Konnohmaru	16.6	X	354.13097	343.02384	66.74132	4.55683	0.5987416	0.20713644	2.829	1.135	4.523	Am	—	—
162015 1994 TF ₂	19.2	X	276.66539	349.75349	175.24745	23.75279	0.2840004	0.99583789	0.993	0.711	1.275	At	—	—
162038 1996 DH	16.6	X	140.14635	351.53393	309.30143	17.23123	0.2765936	0.49305310	1.587	1.148	2.026	Am	—	—
162039 1996 JG	19.5	X	266.68274	280.20766	52.87621	5.28168	0.6604567	0.40744417	1.802	0.612	2.992	Ap	2 26.4	23.7
162058 1997 AE ₁₂	17.9	X	296.48649	60.82034	304.82160	4.85185	0.5541165	0.27065625	2.367	1.055	3.679	Am	4 25.3	22.5
162063 1997 EH ₂₉	19.0	X	226.07574	198.62564	175.14311	13.01678	0.6665705	0.73661546	1.214	0.405	2.024	Ap	3 7.4	19.8
162080 1998 DG ₁₆	19.9	X	185.77115	356.85447	344.36731	16.20566	0.3582157	1.16067169	0.897	0.576	1.218	At	—	—
162082 1998 HL ₁	18.9	X	186.49159	148.50559	213.56899	20.04871	0.1872113	0.70838701	1.246	1.013	1.480	Ap	—	—
162116 1998 SA ₁₅	19.4	X	21.48845	331.29811	114.28446	7.09977	0.5575521	0.37157078	1.916	0.848	2.985	Ap	—	—
162117 1998 SD ₁₅	19.1	X	121.65310	35.84232	183.94497	26.79897	0.3448323	1.09444363	0.933	0.611	1.254	At	11 14.8	19.6
162120 1998 SH ₃₆	20.6	X	181.15510	278.71832	217.93932	2.13161	0.5708738	0.86850851	1.088	0.467	1.709	Ap	7 28.7	21.2
162142 1998 VR	18.6	X	186.58158	170.69613	46.38543	21.80676	0.3179484	1.20306136	0.876	0.597	1.154	At	—	—
162149 1998 YQ ₁₁	17.3	X	93.95000	245.65506	256.65551	11.93955	0.3959836	0.38419655	1.874	1.132	2.616	Am	5 22.9	18.1
162157 1999 CV ₈	16.7	X	258.18831	279.28253	132.00841	15.26401	0.3516980	0.66734263	1.297	0.841	1.753	Ap	5 19.5	21.4
162161 1999 DK ₃	17.3	X	329.45279	103.02976	149.75392	43.14103	0.4434191	0.32038836	2.115	1.177	3.053	Am	1 11.9	21.6
162162 1999 DB ₇	19.9	X	334.95769	29.87980	157.61578	10.84095	0.1948360	0.74439021	1.206	0.971	1.441	Ap	—	—
162168 1999 GT ₆	17.0	X	298.12851	78.80964	206.24986	4.06191	0.5872692	0.21001473	2.803	1.157	4.449	Am	1 29.3	22.5
162173 Ryugu	19.2	X	154.02170	211.44686	251.59100	5.88391	0.1902842	0.75966870	1.190	0.963	1.416	Ap	—	—
162181 1999 LF ₆	18.2	X	270.33610	140.85648	208.52620	18.94434	0.2804674	0.58899484	1.409	1.014	1.805	Ap	2 18.3	20.2
162183 1999 NB ₅	21.0	X	4.37044	123.13934	235.39082	1.43088	0.5352195	0.33019109	2.073	0.964	3.183	Ap	—	—
162186 1999 OP ₃	15.1	X	58.56947	271.15752	311.54757	27.56883	0.6103263	0.22074677	2.711	1.057	4.366	Am	9 4.7	19.4
162195 1999 RK ₄₅	19.4	X	290.66463	4.09772	120.02739	5.89203	0.7730416	0.48776850	1.598	0.363	2.834	Ap	8 24.1	21.9
162196 1999 RL ₄₅	18.7	X	69.32040	234.16575	171.99499	22.44369	0.3749710	0.39938036	1.826	1.141	2.511	Am	—	—
162210 1999 SM ₅	19.1	X	68.96790	319.11553	327.75621	5.20113	0.6944190	0.28255098	2.300	0.703	3.897	Ap	12 15.9	23.8
162214 1999 TC ₁₀	18.6	X	3.41616	58.07650	28.20676	19.25575	0.5834374	0.27782451	2.326	0.969	3.683	Ap	—	—
162215 1999 TL ₁₂	18.9	X	162.91679	346.76467	202.34562	17.33736	0.4365982	0.87624753	1.082	0.609	1.554	Ap	10 6.9	19.1
162269 1999 VO ₆	17.0	X	215.05879	302.50227	206.88545	40.11033	0.7379836	0.81466619	1.135	0.297	1.973	Ap	8 23.2	20.2
162273 1999 VL ₁₂	17.2	X	70.01190	40.90989	234.41516	20.18390	0.2360929	0.48983945	1.594	1.218	1.970	Am	10 30.5	18.4
162361 2000 AF ₆	20.1	X	309.93124	200.14264	110.78466	2.69659	0.4113817	1.19849713	0.878	0.517	1.239	At	—	—
162385 2000 BM ₁₉	18.4	X	346.20600	247.58939	70.34317	6.88854	0.3586134	1.54658463	0.741	0.475	1.006	At	—	—
162416 2000 EH ₂₆	21.7	X	309.09184	19.09490	215.24031	0.39854	0.4785344	0.39054017	1.854	0.967	2.741	Ap	—	—
162421 2000 ET ₇₀	18.0	X	129.35680	46.10340	331.15573	22.32325	0.1237228	1.07007243	0.947	0.830	1.064	At	—	—
162422 2000 EV ₇₀	20.5	X	109.12155	314.49266	108.93701	1.39897	0.5311350	0.74293827	1.207	0.566	1.849	Ap	—	—
162433 2000 FK ₁₀	19.2	X	309.15789	246.97206	41.69116	13.94242	0.4814344	0.62209962	1.359	0.705	2.013	Ap	—	—
162452 2000 HO ₁₄	18.3	X	11.58556	53.77289	217.45538	5.46154	0.4473676	0.28975827	2.262	1.250	3.274	Am	3 30.9	19.1
162463 2000 JH ₅	17.6	X	182.23644	353.42230	80.21122	22.21523	0.2381790	0.80386388	1.146	0.873	1.418	Ap	—	—
162470 2000 KX ₄₃	19.3	X	319.63924	31.76242	83.76444	35.27243	0.5528254	0.83976190	1.113	0.498	1.728	Ap	—	—
162472 2000 LL	19.1	X	32.28004	66.86927	245.65954	31.85811	0.1183223	0.69792441	1.259	1.110	1.408	Am	10 24.2	19.4
162474 2000 LB ₁₆	18.5	X	109.33925	285.26512	80.86781	50.70909	0.3575495	0.71303582	1.241	0.797	1.685	Ap	—	—
162483 2000 PJ ₅	17.5	X	118.91153	7.63763	124.42261									

ELEMENTS AND OPPOSITION DATES OF NEAS

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2017 SEPTEMBER 4.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
162740	2000	WF ₆	122.15678	158.93171	264.39537	39.08738	0.5019292	0.25501957	2.463	1.227	3.699	Am	3 27.0	23.3
162741	2000	WG ₆	273.79049	330.11456	60.76071	11.84733	0.4994010	0.27922914	2.318	1.161	3.476	Am	5 18.2	21.6
162781	2000	XL ₄₄	358.38349	163.91700	332.07347	10.04089	0.4268302	0.29696850	2.225	1.275	3.175	Am	—	—
162783	2000	YJ ₁₁	64.72019	339.09279	64.96375	7.26280	0.2321497	0.65497139	1.313	1.008	1.618	Am	—	—
162825	2001	BO ₆₁	334.47709	78.74797	159.86314	9.07615	0.7433815	0.41711282	1.774	0.455	3.093	Ap	—	—
162854	2001	DE ₄₇	15.23163	297.73002	122.43685	21.26526	0.1493581	0.64774162	1.323	1.125	1.521	Am	—	—
162873	2001	FB ₇	322.66379	198.73085	357.91209	20.19569	0.0864110	0.59465718	1.401	1.280	1.522	Am	—	—
162882	2001	FD ₅₈	263.70527	45.94497	341.21602	6.49730	0.5753742	0.86361193	1.092	0.464	1.720	Ap	3 27.5	19.2
162900	2001	HG ₃₁	28.12877	66.90500	36.93835	6.17430	0.5300864	0.23705386	2.586	1.215	3.956	Am	—	—
162903	2001	JV ₂	36.72753	301.25411	216.91219	47.49096	0.2374518	0.66144166	1.305	0.995	1.614	Ap	—	—
162911	2001	LL ₅	179.78144	205.09797	281.87367	7.95161	0.3394070	0.74566304	1.204	0.796	1.613	Ap	7 3.7	19.1
162913	2001	MT ₁₈	174.42634	356.09472	170.56505	8.64413	0.5195633	0.68783636	1.271	0.611	1.931	Ap	9 8.1	19.9
162922	2001	OY ₁₃	281.28538	291.20474	284.24674	10.29925	0.3818158	0.65120988	1.318	0.815	1.822	Ap	—	—
162926	2001	OB ₃₆	40.96920	289.18876	113.04555	42.67391	0.6190981	0.19558421	2.939	1.120	4.759	Am	—	—
162979	2001	RA ₁₂	198.19413	326.03296	311.60637	17.08462	0.5440751	0.33912362	2.037	0.929	3.145	Ap	—	—
162980	2001	RR ₁₇	282.85811	351.43088	177.63740	30.39724	0.4888408	0.50919899	1.553	0.794	2.312	Ap	—	—
162998	2001	SK ₁₆₂	302.66602	186.31538	285.42467	1.67884	0.4738005	0.36878603	1.926	1.013	2.838	Ap	10 2.3	18.9
163000	2001	SW ₁₆₉	208.26566	284.87140	8.44090	3.5436	0.0514489	0.70669685	1.248	1.184	1.313	Am	—	—
163001	2001	SE ₁₇₀	70.46730	124.96303	216.55255	19.97815	0.4535700	0.31853746	2.123	1.160	3.086	Am	—	—
163014	2001	UA ₅	215.43399	27.52134	58.69085	9.94889	0.4456274	0.41269174	1.787	0.990	2.583	Ap	6 18.5	20.9
163015	2001	UX ₁₆	103.28234	254.49163	213.43256	10.61877	0.3682880	0.58430375	1.417	0.895	1.939	Ap	—	—
163023	2001	XU ₁	156.58153	208.51011	69.70485	27.15306	0.5463514	1.38427825	0.797	0.362	1.233	Ap	—	—
163026	2001	XR ₃₀	171.32399	294.40586	247.91002	11.85877	0.3652586	0.66718771	1.297	0.823	1.771	Ap	9 23.4	22.8
163051	2001	YJ ₄	180.12770	322.35244	247.84048	9.28260	0.5694000	0.28789729	2.271	0.978	3.565	Ap	10 27.4	21.4
163067	2002	AP ₃	97.71108	117.65849	87.44560	7.59917	0.5881808	0.33743501	2.043	0.841	3.245	Ap	9 25.1	23.7
163070	2002	AO ₇	28.96372	240.65999	278.05784	14.53617	0.6350627	0.19844088	2.911	1.062	4.760	Am	—	—
163081	2002	AG ₂₉	177.29994	43.81642	212.89486	11.49387	0.2034082	0.86961454	1.087	0.866	1.308	Ap	—	—
163132	2002	CU ₁₁	126.70296	110.52650	157.76321	48.77928	0.2951766	0.73176368	1.220	0.860	1.580	Ap	—	—
163191	2002	EQ ₉	60.41387	44.16720	179.18168	16.30362	0.4646086	0.39644383	1.835	0.983	2.688	Ap	8 26.9	20.6
163243	2002	FB ₃	213.64962	148.30304	203.60498	20.27764	0.6017461	1.48302946	0.762	0.303	1.220	At	—	—
163249	2002	GT	216.03100	135.10945	201.75866	6.96888	0.3348586	0.63224056	1.344	0.894	1.795	Ap	—	—
163250	2002	GH ₁	180.58984	350.98434	170.31447	35.02234	0.5397171	0.22343863	2.690	1.238	4.141	Am	9 3.5	21.4
163252	2002	GD ₁₁	306.93680	200.94023	95.64283	9.00356	0.4410107	0.31701045	2.130	1.191	3.070	Am	2 16.9	21.5
163295	2002	HW	358.85766	76.95764	32.97439	5.82540	0.6404777	0.25370040	2.471	0.888	4.054	Ap	—	—
163335	2002	LJ	294.42944	155.62811	247.05561	56.31282	0.6671305	0.64405893	1.328	0.442	2.214	Ap	5 19.1	19.6
163348	2002	NN ₄	322.56949	222.23857	259.50184	5.41460	0.4342925	1.20110499	0.876	0.496	1.257	At	—	—
163364	2002	OD ₂₀	277.87963	275.25618	259.97484	4.18855	0.3690663	0.61756998	1.366	0.862	1.870	Ap	—	—
163373	2002	PZ ₃₉	196.31741	259.96788	328.95588	1.66854	0.5420574	1.468	0.666	2.270	Ap	12 6.7	20.9	
163412	2002	RV ₂₅	221.40779	46.12348	18.18521	34.49916	0.4510686	0.37425714	1.907	1.047	2.767	Am	5 11.9	21.7
163454	2002	RN ₁₂₉	171.61514	198.59668	332.14206	23.12365	0.3699062	0.78671037	1.162	0.732	1.592	Ap	9 6.5	19.5
163667	2002	WC ₁	193.65292	81.84690	42.23188	6.45457	0.5779263	0.23934865	2.569	1.084	4.054	Am	7 30.1	25.4
163679	2002	XG ₈₄	46.43806	349.65820	29.81570	5.05978	0.4717962	0.53934618	1.495	0.790	2.200	Ap	—	—
163683	2002	YP ₂	177.68087	281.37213	50.51265	20.62355	0.6882058	0.49774536	1.577	0.492	2.662	Ap	1 18.2	21.1
163691	2003	BB ₄₃	304.48930	60.63267	149.01427	40.88458	0.5227294	0.26269373	2.415	1.152	3.677	Am	—	—
163692	2003	CY ₁₈	157.12220	180.87066	114.41862	7.19925	0.4105083	0.52275893	1.526	0.900	2.153	Ap	—	—
163693	Atira		81.77707	252.93235	103.89915	25.61787	0.3221495	1.54491826	0.741	0.502	0.980	Ar	—	—
163694	2003	DP ₁₃	114.07668	283.07438	326.74020	9.81228	0.5431347	0.22940074	2.643	1.207	4.078	Am	11 10.9	22.8
163696	2003	EB ₅₀	347.48210	278.97397	65.64715	29.50087	0.5191112	0.50042780	1.571	0.756	2.387	Ap	5 1.2*	18.5
163697	2003	EF ₅₄	1.03294	353.68221	268.50856	2.95100	0.4728084	0.48286931	1.609	0.848	2.370	Ap	1 11.7	22.3
163732	2003	KP ₂	16.11148	190.64169	193.41252	44.64865	0.6966313	0.21608802	2.750	0.834	4.666	Ap	—	—
163758	2003	OS ₁₃	239.29029	244.24261	272.21756	41.54719	0.7409950	0.66805595	1.296	0.336	2.256	Ap	8 18.5	21.3
163760	2003	OR ₁₄	143.70339	211.84522	211.53252	13.07091	0.5012945	0.24676786	2.517	1.255	3.779	Am	4 25.3	21.4
163818	2003	RX ₇	348.18474	245.84040	241.07615	10.38990	0.3543832	0.72321668	1.229	0.794	1.665	Ap	—	—
163899	2003	SD ₂₂₀	322.66883	326.47342	274.05041	8.45910	0.2106218	1.30921101	0.828	0.653	1.002	At	—	—
163902	2003	SW ₂₂₂	163.91361	164.95432	283.74295	16.10963	0.2480351	0.46052852	1.661	1.249	2.073	Am	4 20.3	19.2
164120	2003	YK	77.87083	189.58396	345.65216	11.03129	0.4080199	0.53006039	1.512	0.895	2.129	Ap	—	—
164121	2003	YT ₁	202.75883	91.04500	68.33526	44.06384	0.2919172	0.84330021	1.110	0.786	1.433	Ap	9 24.7	18.6
164184	2004	BF ₆₈	172.26382	2.54677	202.23639	4.60254	0.4535119	0.47484138	1.627	0.889	2.365	Ap	10 25.6	22.0
164201	2004	EC	294.67051	10.28908	28.85352	34.66239	0.8604262	0.34943587	1.996	0.279	3.714	Ap	5 3.5	20.7
164202	2004	EW	350.60471	56.11668	342.94468	4.66970	0.2792443	1.00324351	0.988	0.712	1.264	At	—	—
164206	2004	FN ₁₈	96.18349	232.75035	214.49299	18.28377	0.4094725	0.44426313	1.701	1.004	2.398	Ap	—	—
164207	2004	GU ₉	25.27229	280.14541	38.59610	13.65012	0.1361053	0.98349358	1.001	0.865	1.138	Ap	3 3.5	20.5
164211	2004	JA ₂₇	17.40905	270.21318	67.78262	2.25825	0.4231237	0.45835551	1.666	0.961	2.371	Ap	12 29.1	20.2
164214	2004	LZ ₁₁	80.48647	248.88256	72.11211	5.46212	0.3923258	0.31932235	2.120	1.288	2.952	Am	—	—
164215	Doloreshill		93.00579	76.61368	236.01619	4.87854	0.3959296	0.32036580	2.115	1.278	2.953	Am	—	—
164216	2004	OT ₁₁	75.57889	326.28598	295.11545	19.93614	0.5651236	0.31224389	2.152	0.936	3.368	Ap	11 7.5	21.5
164217	2004	PT ₄₂	205.22979	179.05075	144.99814	48.92360	0.4161805	0.34525850	2.012	1.175	2.850	Am	1 22.9	21.3
164221	2004	QE ₂₀	14.69142	74.30982	272.60179	6.48194	0.2054316	0.53366282	1.505	1.196	1.815	Am	12 7.2	19.6
164222	2004	RN ₉	204.65342	67.15970	0.98257	16.11150	0.2471099	0.66165707	1.304	0.982	1.627	Ap	4 3.8	20.6
164294	2004	XZ ₁₃₀	254.02143	5.16442	211.39015	2.95093	0.4545817	2.03074108	0.618	0.337	0.898	Ar	—	—
164341	2005	CO	355.44592	42.86227	140.68739	13.01171								

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
170086	2002	<i>XR</i> ₁₄	175.78606	120.12100	75.66427	2.13013	0.6254925	0.37461269	1.906	0.714	3.098	Ap	10 13.0	22.4
170502	2003	<i>WM</i> ₇	159.47364	143.78906	48.56843	10.40923	0.8803200	0.25278521	2.477	0.296	4.658	Ap	10 7.2	23.6
170891	2004	<i>TY</i> ₁₆	147.60233	177.35977	329.91203	8.14772	0.4047734	0.35302451	1.983	1.180	2.785	Am	7 29.9	20.5
170903	2004	<i>WS</i> ₂	49.29662	115.33232	87.76038	8.26254	0.6032228	0.63794233	1.336	0.530	2.143	Ap	—	—
171486	1996	<i>MO</i>	358.52614	4.71068	165.13803	6.08369	0.5120549	0.41001588	1.794	0.876	2.713	Ap	—	—
171576	1999	<i>VP</i> ₁₁	6.12441	61.59321	208.12093	17.29342	0.5835074	0.87289097	1.084	0.452	1.717	Ap	—	—
171819	2001	<i>FZ</i> ₆	228.72955	297.35873	17.37891	9.95211	0.1664670	0.53881974	1.496	1.247	1.745	Am	—	—
171839	2001	<i>JM</i> ₁	107.56406	321.89574	226.69081	17.07324	0.3109684	0.55822758	1.461	1.007	1.915	Ap	7 27.4	20.4
172034	2001	<i>WR</i> ₁	327.51735	48.51436	6.53557	25.03184	0.2026431	0.68270468	1.277	1.019	1.536	Am	—	—
172678	2003	<i>YM</i> ₁₃₇	73.44721	127.22112	77.05596	2.70242	0.6898717	0.23611188	2.593	0.804	4.381	Ap	9 16.6	23.2
172718	2004	<i>BD</i> ₈₅	185.75015	284.38606	267.40111	19.57184	0.2045186	0.48248902	1.610	1.281	1.939	Am	10 18.9	21.1
172722	2004	<i>BV</i> ₁₀₂	58.07460	17.17038	341.33696	7.22262	0.6996507	0.51394029	1.544	0.464	2.624	Ap	—	—
172974	2004	<i>YW</i> ₅₅	191.16114	256.62438	239.42402	8.47334	0.2465143	0.47062221	1.637	1.233	2.040	Am	8 3.7	21.7
173232	1998	<i>XC</i> ₉	40.15965	120.90389	320.14360	9.31907	0.5321061	0.21610737	2.750	1.287	4.214	Am	—	—
173561	2000	<i>YV</i> ₁₃₇	299.48383	211.37385	137.24949	28.00003	0.3108035	0.56581472	1.448	0.998	1.898	Ap	4 1.9	20.7
173664	2001	<i>JU</i> ₂	194.97090	227.26699	100.78910	4.01424	0.2688900	0.52716176	1.518	1.110	1.926	Am	—	—
173689	2001	<i>PK</i> ₉	338.00171	313.82556	273.00443	10.41875	0.3949178	0.41513673	1.780	1.077	2.483	Am	—	—
174050	2002	<i>CC</i> ₁₉	218.68468	20.09741	134.75460	50.05726	0.1133719	0.67685381	1.285	1.139	1.430	Am	12 16.2	19.6
174806	2003	<i>XL</i> ₉	119.06211	207.07556	317.63431	10.97266	0.5723469	0.24683200	2.517	1.076	3.957	Am	8 13.7	22.3
174881	2004	<i>BU</i> ₅₈	125.56538	171.79044	120.18161	57.22415	0.5570392	0.70191295	1.254	0.555	1.952	Ap	—	—
175114	2004	<i>QQ</i>	322.61121	31.41046	288.12981	5.72279	0.6634472	0.29201738	2.250	0.757	3.743	Ap	3 5.6	21.1
175189	2001	<i>EC</i> ₂₂₄	23.37619	78.84308	169.39777	2.62416	0.3866402	0.33405185	2.057	1.262	2.852	Am	3 18.8	18.2
175706	1996	<i>FG</i> ₃	184.78821	24.02876	299.70680	1.99110	0.3498176	0.91080504	1.054	0.685	1.423	Ap	—	—
175729	1998	<i>BB</i> ₁₀	293.67985	259.19608	124.31980	11.53494	0.4248415	0.68722943	1.272	0.731	1.812	Ap	4 29.6	22.0
175921	2000	<i>DM</i> ₁	263.73546	306.67133	342.79659	20.69951	0.4838587	0.61535898	1.369	0.707	2.031	Ap	—	—
177016	2003	<i>BM</i> ₄₇	139.17471	155.32218	137.60664	13.80463	0.5819910	0.78887529	1.160	0.485	1.835	Ap	—	—
177049	2003	<i>EE</i> ₁₆	286.76753	259.59839	127.13426	0.65028	0.6144685	0.58413258	1.417	0.546	2.288	Ap	4 26.7	22.4
177255	2003	<i>WC</i> ₂₅	18.04401	9.56130	347.72909	10.25141	0.4858948	0.28352181	2.295	1.180	3.410	Am	—	—
177614	2004	<i>HK</i> ₃₃	26.93921	221.45353	104.78992	5.43844	0.5202516	0.37977225	1.889	0.906	2.871	Ap	12 27.4	19.6
177651	2004	<i>XM</i> ₁₄	180.52204	186.34861	89.42620	42.40187	0.6988551	0.79481683	1.154	0.348	1.961	Ap	—	—
178601	2000	<i>CG</i> ₅₉	217.73819	29.55875	28.68579	4.17822	0.4918004	0.25333527	2.474	1.257	3.690	Am	5 23.4	22.8
178871	2001	<i>MA</i> ₈	168.50802	357.52733	269.61838	7.58525	0.4626954	0.26956881	2.373	1.275	3.471	Am	12 26.9	22.5
179806	2002	<i>TD</i> ₆₆	288.59430	125.64097	335.72817	4.92062	0.5340424	0.38914133	1.858	0.866	2.850	Ap	8 19.2	22.5
180186	2003	<i>QZ</i> ₃₀	238.10490	243.05350	178.12164	8.56868	0.6315413	0.26192744	2.419	0.891	3.947	Ap	6 2.7	22.9
183548	2003	<i>HU</i> ₄₂	82.34220	196.23611	203.12356	10.53579	0.3405452	0.39350953	1.844	1.216	2.472	Am	—	—
184266	2004	<i>VW</i> ₁₄	30.10896	42.32936	101.16116	3.85145	0.6006770	0.31976852	2.118	0.846	3.390	Ap	—	—
184990	2006	<i>KE</i> ₈₉	105.90611	299.19556	88.64578	45.09284	0.7992962	0.91180169	1.053	0.211	1.895	Ap	—	—
185702	1998	<i>HK</i> ₃	239.95974	267.60129	27.12944	24.70227	0.2999604	0.39873850	1.828	1.280	2.377	Am	—	—
185716	1998	<i>SF</i> ₃₅	163.85460	253.73823	218.61814	35.19312	0.2737565	0.45053473	1.685	1.224	2.147	Am	6 4.6	20.4
185851	2000	<i>DP</i> ₁₀₇	255.78391	289.74475	358.69567	8.67177	0.3765637	0.61785518	1.365	0.851	1.879	Ap	—	—
185853	2000	<i>ER</i> ₇₀	339.64311	338.56701	111.63024	36.90258	0.3108658	0.38931893	1.858	1.280	2.435	Am	—	—
186822	2004	<i>FE</i> ₃₁	156.09070	150.31772	200.78357	13.06557	0.4525320	0.49960659	1.573	0.861	2.285	Ap	—	—
186823	2004	<i>FN</i> ₃₂	329.40378	161.13410	190.08137	21.96095	0.6768394	0.74510512	1.205	0.389	2.021	Ap	3 16.3	21.4
186844	2004	<i>GA</i> ₁	158.93413	54.58835	261.55314	7.77627	0.6723478	0.26008063	2.431	0.796	4.065	Ap	1 11.2	22.3
187026	2005	<i>EK</i> ₇₀	242.54088	347.05004	329.81301	30.00103	0.1354571	1.04843936	0.960	0.830	1.090	At	—	—
187040	2005	<i>JS</i> ₁₀₈	205.99605	243.87593	110.87709	6.04000	0.3225560	0.62397966	1.356	0.919	1.794	Ap	—	—
188174	2002	<i>JC</i>	66.86397	306.91076	69.39800	40.85606	0.3908347	1.33001138	0.819	0.499	1.139	At	—	—
188452	2004	<i>HE</i> ₆₂	75.67335	21.40118	302.85094	24.69498	0.5724044	0.24207881	2.550	1.090	4.009	Am	—	—
189008	1996	<i>FR</i> ₃	291.00476	36.35635	27.49203	8.10381	0.7951024	0.30928648	2.166	0.444	3.887	Ap	6 12.1	21.1
189011	2000	Ogmios	262.41172	130.38056	254.43779	18.69822	0.2323125	0.53637788	1.500	1.152	1.849	Am	4 15.2	21.2
189040	2000	<i>MU</i> ₁	291.41043	63.65254	130.09467	13.09392	0.3825913	0.61264550	1.373	0.848	1.898	Ap	—	—
189058	2000	<i>UT</i> ₁₆	53.94603	91.31568	257.26355	26.23316	0.5114189	0.23923905	2.570	1.256	3.884	Am	—	—
189062	2000	<i>VA</i> ₄₅	135.38214	287.54031	35.10505	12.85311	0.3872988	0.36839712	1.927	1.181	2.674	Am	—	—
189173	2002	<i>XY</i> ₄	286.67281	273.74957	268.96445	43.07851	0.5702300	0.39364465	1.844	0.792	2.895	Ap	12 20.2	18.4
189263	2005	<i>CA</i>	320.57232	203.96101	202.10762	16.75326	0.5891503	0.21884001	2.727	1.120	4.334	Am	7 2.6	19.6
189552	2000	<i>RL</i> ₇₇	39.96921	234.44929	194.89355	30.28600	0.5350906	0.24118524	2.556	1.188	3.924	Am	—	—
189630	2001	<i>LE</i> ₆	154.65331	201.51432	290.56834	12.62957	0.6930520	0.74420939	1.206	0.370	2.042	Ap	7 18.2	19.1
189700	2001	<i>TA</i> ₄₅	37.64011	126.63548	204.93737	10.72294	0.1913838	0.55692433	1.463	1.183	1.743	Am	12 21.9	19.7
189865	2003	<i>NC</i>	217.70215	224.20089	288.53011	21.61280	0.8053886	0.59136999	1.406	0.274	2.538	Ap	8 23.2	23.2
189973	2003	<i>XE</i> ₁₁	167.81484	173.12762	223.49374	26.95804	0.3769414	0.39322198	1.845	1.150	2.541	Am	3 5.1	20.7
190119	2004	<i>VA</i> ₆₄	129.40039	19.91200	225.53883	29.93978	0.8905528	0.25451115	2.466	0.270	4.662	Ap	11 23.5	23.4
190135	2005	<i>QE</i> ₃₀	9.03599	216.95368	259.85081	6.23047	0.6886183	0.34381690	2.018	0.628	3.408	Ap	—	—
190161	2005	<i>TJ</i> ₁₇₄	221.02313	55.94846	304.83397	3.98082	0.4529455	0.29405655	2.240	1.225	3.254	Am	3 15.9	21.4
190166	2005	<i>UP</i> ₁₅₆	18.53927	91.15561	193.40675	4.20831	0.4696033	0.32030907	2.116	1.122	3.109	Am	5 21.2	15.3
190208	2006	<i>AQ</i>	332.37060	104.84168	326.13946	4.07998	0.4870281	0.33470850	2.054	1.054	3.055	Am	—	—
190491	2000	<i>FJ</i> ₁₀	289.71984	232.29857	189.78622	5.28235	0.2346123	0.65060805	1.319	1.010	1.628	Ap	7 18.5	20.7
190758	2001	<i>QH</i> ₉₆	352.20504	130.39889	178.62133	13.95240	0.3642845	0.42601731	1.749	1.112	2.386	Am	4 5.9	19.7
190788	2001	<i>RT</i> ₁₇	156.28814	199.58993	350.02356	20.11250	0.7921511	0.69008164	1.268	0.264	2.273	Ap	9 27.7	21.1
191094	2002	<i>EA</i> ₃	356.33373	259.34534	349.44901	32.1674								

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
197588	2004	HE ₁₂	127.13567	162.18940	338.07298	42.70166	0.4659997	0.39319991	1.845	0.985	2.705	Ap	7 31.9	21.1
198752	2005	EA ₆₀	68.33098	115.97002	334.96227	1.75451	0.5196399	0.24676940	2.517	1.209	3.825	Am	2 27.7	19.4
198856	2005	LR ₃	40.60438	26.32006	73.82244	25.00156	0.3350372	0.46335660	1.654	1.100	2.208	Am	—	—
199003	2005	WJ ₅₆	358.46382	297.68854	288.05910	21.61495	0.1520462	1.04953497	0.959	0.813	1.105	At	—	—
199145	2005	YY ₁₂₈	132.03681	314.72432	300.34890	3.76937	0.7315619	0.46521347	1.650	0.443	2.856	Ap	12 5.9	22.1
199801	2007	AE ₁₂	36.10582	86.91855	245.51728	2.28494	0.5692352	0.45091684	1.684	0.726	2.643	Ap	—	—
200754	2001	BJ ₂₅	299.99352	83.75562	279.79323	15.51121	0.5169773	0.42350719	1.756	0.848	2.664	Ap	4 10.7	22.2
200840	2001	XN ₂₅₄	128.76349	278.27683	264.53512	1.94017	0.5582410	0.27802890	2.325	1.027	3.623	Am	9 6.7	22.4
202411	2005	RC	314.34106	40.53864	192.01213	16.26422	0.7516849	0.31193411	2.153	0.535	3.772	Ap	—	—
202435	2005	XH ₈	203.49209	159.08595	79.71819	29.06610	0.6915991	0.64806189	1.322	0.408	2.237	Ap	12 16.2	19.4
202683	2006	US ₂₁₆	256.89517	56.33707	193.31226	3.43168	0.5624434	1.93874305	0.637	0.279	0.995	At	—	—
203015	2007	AL ₁₂	279.81177	147.04304	298.91482	26.75875	0.1433210	0.54354126	1.487	1.274	1.700	Am	8 27.7	19.7
203217	2001	FX ₉	78.23541	291.97663	184.49260	3.49642	0.3307304	0.36678692	1.933	1.294	2.572	Am	—	—
203471	2002	AU ₄	95.65956	205.16974	99.45576	17.18407	0.3735305	1.24560145	0.855	0.536	1.175	At	1 25.1	17.6
204131	2003	YL	119.90271	29.41152	291.97111	5.65808	0.6323729	0.80295074	1.146	0.421	1.871	Ap	—	—
204232	2004	DG ₂	145.03737	343.36024	329.27394	17.33637	0.5633522	0.70735302	1.248	0.545	1.950	Ap	—	—
205378	2001	BJ ₁₆	288.99958	210.02534	134.59606	19.35700	0.1413731	0.61920630	1.363	1.171	1.556	Am	3 3.4	19.2
205388	2001	DV ₈	82.68123	212.71715	325.41405	12.36675	0.1709219	0.61232958	1.373	1.139	1.608	Am	—	—
205744	2002	BK ₂₅	148.06556	103.85148	156.20290	11.93133	0.7476818	0.28281200	2.299	0.580	4.017	Ap	12 12.5	24.0
206359	2003	QM ₄₇	230.14882	302.97724	149.16820	33.10572	0.3034992	0.41075346	1.792	1.248	2.336	Am	7 12.1	21.7
206378	2003	RB	295.23669	44.03422	317.16976	6.72422	0.4390191	0.41217888	1.788	1.003	2.573	Ap	4 14.3	21.9
206910	2004	NL ₈	44.52095	270.98927	157.58052	4.97392	0.7211473	0.23972385	2.566	0.716	4.417	Ap	—	—
207398	2006	AS ₂	283.72831	79.57102	125.98784	2.59318	0.6390828	0.32540272	2.093	0.756	3.431	Ap	12 17.9	21.8
207945	1991	JW	192.76418	301.90530	53.87427	8.71038	0.1186351	0.93058433	1.039	0.916	1.162	Ap	—	—
207970	1996	BZ ₃	18.44914	278.16575	178.31925	3.37236	0.5240534	0.22936355	2.643	1.258	4.028	Am	—	—
208023	1999	AQ ₁₀	75.04994	300.52028	327.12623	6.49802	0.2356341	1.09169489	0.934	0.714	1.154	At	—	—
208115	2000	CT ₁₀₁	348.60186	292.36566	135.59291	23.29345	0.3548092	0.66537474	1.299	0.838	1.761	Ap	—	—
208565	2002	CT ₁₁	74.33192	24.87667	6.07206	53.86381	0.5386393	0.69844113	1.258	0.580	1.936	Ap	—	—
208617	2002	EB ₃	196.54057	300.26384	1.59671	9.92228	0.6837590	0.42291139	1.758	0.556	2.960	Ap	—	—
209215	2003	WP ₂₅	142.71985	226.41514	4.76793	2.56199	0.1210465	1.00224754	0.989	0.869	1.109	At	—	—
209924	2005	WS ₅₅	329.98394	203.30625	283.62458	23.77226	0.4533192	0.34088411	2.030	1.110	2.950	Am	—	—
210012	2006	KT ₁	29.79392	189.34680	138.66752	9.25052	0.4730110	0.28118100	2.308	1.216	3.399	Am	12 15.0	19.4
211871	2004	HO	73.43892	163.76208	146.13406	7.87303	0.5109102	0.39290043	1.846	0.903	2.789	Ap	—	—
211914	2004	RM ₂₅₁	4.38054	110.11119	350.34565	19.33893	0.5983904	0.23345868	2.612	1.049	4.175	Am	—	—
212359	2006	EV ₅₂	255.40523	167.10061	168.52992	15.95128	0.7074114	0.34420973	2.016	0.590	3.443	Ap	2 25.9	21.7
212546	2006	SV ₁₉	214.41588	182.55085	116.22649	7.35498	0.5154581	0.31655093	2.132	1.033	3.231	Am	1 2.7	22.0
213053	1998	WT ₃₀	184.67486	126.60652	36.05022	0.51201	0.3371219	0.40385021	1.813	1.202	2.424	Am	9 9.1	22.7
213869	2003	SG ₁₇₀	122.12228	309.25367	199.30886	36.98270	0.6034313	0.38869921	1.859	0.737	2.982	Ap	7 20.5	22.1
214088	2004	JN ₁₃	212.71610	278.87255	85.53518	13.29515	0.6926766	0.20071461	2.889	0.888	4.890	Ap	3 31.5	22.0
214869	2007	PA ₈	1.41492	292.32537	142.62526	1.98413	0.6612217	0.20756355	2.825	0.957	4.693	Ap	—	—
215167	2000	EL ₂₆	291.58966	96.81922	152.36331	26.97100	0.3089988	0.44857672	1.690	1.168	2.212	Am	—	—
215188	2000	NM	311.54588	71.31292	373.37538	22.27422	0.6629044	0.22357224	2.689	0.906	4.471	Ap	3 26.6	21.0
215442	2002	MQ ₃	298.02830	346.87249	109.07704	36.28419	0.2742322	1.12861538	0.914	0.663	1.164	At	—	—
215588	2003	HF ₂	175.52226	230.93440	189.97558	3.05670	0.6755190	0.83845428	1.114	0.361	1.866	Ap	—	—
215757	2004	FU ₆₄	76.07445	286.42811	20.90596	24.88167	0.3669169	0.39566635	1.838	1.163	2.512	Am	12 28.5	21.2
216115	2006	SU ₁₉	174.62149	10.55892	152.25637	2.09147	0.5863811	0.52239956	1.527	0.632	2.422	Ap	9 3.7	21.9
216258	2006	WH ₁	320.54996	263.27952	240.61862	2.64232	0.4851283	0.45519363	1.674	0.862	2.486	Ap	—	—
216523	2001	HY ₇	36.38135	211.25657	205.11313	5.21127	0.4121696	1.12824931	0.914	0.537	1.290	At	—	—
216689	2004	HM ₁	288.39189	159.58235	152.00158	4.15876	0.5302263	0.21399614	2.768	1.300	4.236	Am	2 26.9	22.0
216707	2004	XP ₁₆₄	3.01307	310.27809	126.99009	22.64790	0.4123540	0.30658546	2.178	1.280	3.076	Am	—	—
216985	2000	QK ₁₃₀	160.36385	66.31865	173.92593	4.72256	0.2617780	0.76829485	1.181	0.872	1.490	Ap	—	—
217013	2001	AA ₅₀	88.36628	58.62228	306.25467	43.87862	0.1979580	0.64936078	1.321	1.059	1.582	Am	—	—
217390	2005	CK ₂₅	339.62648	108.90372	148.34867	28.48204	0.4779921	0.47535203	1.626	0.849	2.403	Ap	—	—
217430	2005	SN ₂₅	42.64991	45.11517	168.32593	13.00980	0.2706104	0.72250554	1.230	0.897	1.563	Ap	—	—
217628	Lugh		250.33488	310.22807	183.12350	4.02277	0.7030798	0.24188679	2.551	0.757	4.345	Ap	8 23.6	21.9
217683	1999	RP ₃₆	137.32472	321.56018	57.91160	5.48520	0.4173612	0.29646370	2.228	1.298	3.157	Am	2 14.5	21.6
217796	2000	TO ₆₄	257.24865	177.74380	223.69316	37.51027	0.6183694	0.21657308	2.746	1.048	4.444	Am	5 18.4	22.9
217807	2000	XK ₄₄	168.44944	347.57864	48.13180	11.23856	0.3852842	0.43533953	1.724	1.060	2.388	Am	3 13.3	20.2
217837	2001	LC	63.07684	2.45909	112.39219	16.96562	0.67373767	0.91008411	1.055	0.340	1.769	Ap	—	—
218017	2001	XV ₂₆₆	301.96105	265.02679	214.11700	12.00359	0.1926178	0.75319928	1.196	0.966	1.427	Ap	—	—
218863	2006	WO ₁₂₇	117.86112	314.17008	167.72267	10.99869	0.5505478	0.30349228	2.193	0.986	3.400	Ap	6 20.1	20.3
219021	1991	LH	324.46385	203.78394	281.05072	53.14382	0.7327667	0.62371281	1.357	0.363	2.351	Ap	8 5.6	19.8
219071	1997	US ₉	325.01147	357.37310	212.21785	20.01852	0.2820781	0.91248556	1.053	0.756	1.350	Ap	—	—
219527	2001	QK ₁₄₂	33.75494	319.63438	40.50774	5.78200	0.5376209	0.25190001	2.483	1.148	3.818	Am	—	—
220124	2002	TE ₆₆	116.25024	290.57848	191.02259	51.34328	0.3780208	0.56051826	1.457	0.906	2.008	Ap	—	—
220839	2004	VA	283.37138	43.14055	109.65491	3.69711	0.5961303	0.37612490	1.901	0.768	3.034	Ap	10 17.8	19.2
220909	2005	EO ₁	9.47565	40.82113	231.20902	13.87673	0.7048919	0.24401498	2.536	0.748	4.324	Ap	2 8.1	21.1
221455	2006	BC ₁₀	326.80227	233.93538	21.30415	0.92955	0.6584300	0.34441902	2.016	0.688	3.343	Ap	—	—
221787	2007	VZ ₃₀	272.46564	99.17944	344.69785	2.45351	0.1948614	0.48478003	1.605	1.292	1.918	Am	8 22.1	22.2
221980	1996	EO	4.23585	64.62680	356.52067	21.59647	0.4007051	0.63439102	1.341	0.804	1.879	Ap	—	—
222008	1998	QQ ₆₃	79.00365	265.47022	104.47831	1.67110	0.551							

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
226198 2002 UN ₃	18.6	X	85.37938	112.68888	28.02050	8.69753	0.2575313	0.42801504	1.744	1.295	2.193	Am	1 30.4	18.1
226219 2002 VT ₈₅	17.9	X	124.39988	87.20519	256.03373	5.98731	0.4439247	0.28368420	2.294	1.276	3.312	Am	—	—
226514 2003 UX ₃₄	20.0	X	165.14106	218.49221	4.37550	2.56445	0.6158527	0.85998376	1.095	0.421	1.770	Ap	11 21.3	21.0
226554 2003 WR ₂₁	19.5	X	116.80532	107.93031	85.86099	9.27401	0.2615036	0.83306368	1.119	0.826	1.411	Ap	8 18.7	18.4
228368 2000 WK ₁₀	18.4	X	165.98346	244.48036	57.99012	14.73569	0.7018747	0.54820159	1.479	0.441	2.516	Ap	—	—
228502 2001 TE ₂	20.0	X	208.69449	35.83035	171.17851	7.62422	0.1966035	0.87407530	1.083	0.870	1.296	Ap	—	—
228587 2002 AP ₇	19.3	X	358.67195	283.45864	98.58401	23.86736	0.0934477	0.61845352	1.364	1.237	1.492	Am	—	—
229007 2003 XF ₁₁	17.0	X	99.28326	173.91755	116.01515	8.61336	0.8468975	0.30261585	2.197	0.336	4.058	Ap	—	—
229672 2006 WR ₁	17.9	X	316.23896	132.08380	106.00823	38.18216	0.6139190	0.64041004	1.333	0.515	2.151	Ap	—	—
230089 2000 WP ₁₄₈	19.4	X	341.44238	237.91087	252.02062	21.27891	0.2641384	0.65097101	1.319	0.970	1.667	Ap	—	—
230111 2001 BE ₁₀	19.1	X	210.57354	30.57111	297.79738	17.50753	0.3691457	1.31968448	0.823	0.519	1.127	At	—	—
230118 2001 DB ₃	17.3	X	240.91966	264.48955	340.49476	24.51606	0.5615445	0.22463403	2.680	1.175	4.185	Am	—	—
230420 2002 PP ₆	18.9	X	66.07616	272.23651	135.66075	20.09888	0.6536624	0.27781960	2.326	0.806	3.847	Ap	—	—
230549 2003 BH ₆	20.6	X	140.69882	313.33953	119.79766	13.10968	0.3561235	0.56072020	1.456	0.938	1.975	Ap	—	—
230599 2003 FJ ₁	17.7	X	160.56919	182.06501	128.59427	20.96163	0.8171181	0.30831518	2.170	0.397	3.943	Ap	1 12.7	22.3
230979 2005 AT ₄₂	16.5	X	198.19953	52.72015	157.05272	11.20317	0.6108394	0.20299965	2.867	1.116	4.619	Am	11 4.5	22.8
231134 2005 TU ₄₅	17.1	X	139.70230	76.91362	120.17189	28.54091	0.4955796	0.35531220	1.974	0.996	2.953	Ap	10 8.2	21.7
231792 2000 DH ₈	18.5	X	359.08409	25.36353	159.18915	37.58738	0.3053536	0.39540037	1.838	1.277	2.400	Am	—	—
231937 2001 FO ₃₂	17.7	X	126.10852	123.27372	181.78194	38.96262	0.8259528	0.44423294	1.701	0.296	3.106	Ap	—	—
232368 2003 AZ ₂	18.2	X	18.09209	186.91410	131.62552	22.86610	0.2235137	0.58275966	1.420	1.102	1.737	Am	11 9.1	19.2
232382 2003 BT ₄₇	17.2	X	8.11030	235.58248	352.53595	7.45965	0.4913411	0.27571538	2.338	1.189	3.487	Am	1 16.1	20.0
232691 2004 AR ₁	19.8	X	351.61540	50.21463	336.57953	9.07988	0.4699398	0.9802921	1.576	0.836	2.317	Ap	—	—
234061 1999 HE ₁	17.7	X	352.66177	221.91325	65.83209	8.16766	0.5724263	0.27157272	2.362	1.010	3.713	Ap	3 7.7	20.9
234145 2000 EW ₇₀	21.3	X	352.10900	125.61694	178.16659	5.43172	0.3212444	1.08553126	0.938	0.636	1.239	At	—	—
234341 2001 FZ ₅₇	18.9	X	182.97673	339.97535	22.10840	20.66898	0.6042912	1.07426811	0.944	0.374	1.515	At	—	—
235086 2003 HW ₁₁	17.5	X	319.23655	154.20378	150.41504	7.39887	0.4660169	0.27330685	2.352	1.256	3.448	Am	3 8.7	21.2
235700 2004 TR ₁₃	18.5	X	200.45503	249.90509	12.19815	17.85106	0.7294159	0.34392144	2.018	0.546	3.489	Ap	12 29.3	23.4
235756 2004 VC	18.7	X	293.95685	94.19154	194.17598	39.14671	0.2588036	0.81687917	1.133	0.840	1.427	Ap	—	—
236716 2007 FV ₄₂	17.9	X	61.75626	181.62857	100.98226	9.83350	0.4727055	0.30715117	2.176	1.147	3.204	Am	11 22.4	21.3
237442 1999 TA ₁₀	18.4	X	302.54862	84.75618	214.67598	20.84412	0.2415534	0.53340443	1.506	1.142	1.870	Am	1 14.4	20.6
237551 2000 WQ ₁₉	18.3	X	76.46725	270.72598	38.81042	34.27685	0.3468646	0.59105172	1.406	0.918	1.894	Ap	—	—
237805 2002 CF ₂₆	17.3	X	350.69468	33.57321	342.10926	35.30957	0.3412068	0.48512125	1.604	1.057	2.151	Am	—	—
238063 2003 EG	16.5	X	59.77627	326.90792	359.06441	31.77598	0.31010642	1.738	0.498	2.978	Am	—	—	
238456 2004 RK	19.4	X	270.84450	264.35971	178.81290	18.14879	0.3002662	0.60240272	1.388	0.972	1.805	Ap	7 23.0	21.0
238649 1999 VO ₁₁	18.6	X	71.73207	71.79758	68.00242	15.79481	0.6366155	0.29183251	2.251	0.818	3.684	Ap	6 15.3	20.8
240320 2003 HS ₄₂	20.2	X	45.04205	192.24501	38.27902	15.82491	0.1213578	0.55932296	1.459	1.282	1.636	Am	3 12.4	20.6
241370 2008 LW ₈	17.4	X	72.58913	118.61894	223.13186	17.27012	0.3936380	0.45446607	1.675	1.016	2.335	Ap	—	—
241596 1998 XM ₂	17.2	X	293.90527	99.09085	248.54565	27.09848	0.3402317	0.40642509	1.805	1.191	2.419	Am	3 28.3	20.7
241662 2000 KO ₄₄	17.6	X	295.80309	235.31611	114.34808	28.62164	0.3884704	0.39814668	1.830	1.119	2.541	Am	4 22.5	21.3
242147 2003 BH ₈₄	16.9	X	223.06478	35.51280	383.26190	23.35000	0.7195429	0.35956032	1.959	0.549	3.368	Ap	1 25.5	21.8
242187 2003 KR ₁₈	17.9	X	330.46204	86.71896	244.09921	5.58442	0.4800626	0.27434108	2.346	1.220	3.472	Am	4 16.3	21.3
242191 2003 NZ ₆	19.0	X	267.96174	311.58989	124.61737	18.24146	0.4923610	1.39465892	0.793	0.403	1.184	At	5 11.2	19.4
242211 2003 QB ₉₀	18.2	X	357.98745	208.85230	129.33031	4.83498	0.4745155	0.27916869	2.319	1.218	3.419	Am	7 5.9	17.9
242216 2003 RN ₁₀	15.7	X	79.87364	4.57953	267.20740	39.63576	0.5409711	0.29579932	2.231	1.024	3.438	Am	11 27.1	20.2
242450 2004 QY ₂	14.7	X	123.97883	104.96348	295.31011	37.02587	0.4772748	0.87332090	1.084	0.567	1.601	Ap	—	—
242643 2005 NZ ₆	17.4	X	286.00649	48.28653	39.43763	8.48816	0.8643328	0.39675385	1.834	0.249	3.420	Ap	7 2.9	21.7
242708 2005 UK ₁	18.1	X	310.09969	345.96387	180.35399	0.79029	0.6952796	0.24903380	2.502	0.762	4.242	Ap	11 10.8	20.1
243025 2006 UM ₂₁₆	15.9	X	188.51267	146.00942	251.20131	15.77977	0.5214051	0.22411382	2.684	1.285	4.084	Am	4 15.8	21.8
243147 2007 TX ₁₈	17.3	X	111.93673	16.01622	284.13572	7.35267	0.4148123	0.31524884	2.138	1.251	3.025	Am	—	—
243298 2008 EN ₈₂	15.5	X	207.88155	194.74403	206.97382	12.02549	0.5553345	0.24902720	2.502	1.113	3.892	Am	5 1.6	20.9
243566 1995 SA	17.4	X	312.53639	52.77510	170.36838	19.94992	0.6415116	0.25578919	2.458	0.881	4.035	Ap	—	—
244670 2003 KN ₁₈	18.6	X	117.62592	354.66328	168.71513	11.90132	0.4861045	0.42637074	1.748	0.898	2.598	Ap	7 31.6	21.3
244977 2004 BE ₆₈	18.4	X	326.64383	191.17180	210.92831	15.74745	0.4448803	0.42208935	1.760	0.977	2.543	Ap	7 14.4	20.0
246138 2007 OG ₃	18.1	X	60.50357	272.06775	78.32755	1.69300	0.4816900	0.30952298	2.164	1.122	3.207	Am	—	—
247156 2000 YH ₂₉	17.9	X	37.43781	284.76924	103.76988	21.84133	0.5286156	0.29850063	2.217	1.045	3.390	Am	—	—
247360 2001 XU	19.2	X	280.34161	285.96478	261.08542	19.06818	0.8370743	0.23874836	2.573	0.419	4.728	Ap	10 18.3	24.4
247517 2002 QY ₆	19.8	X	297.61124	355.35728	164.23385	12.75300	0.6990971	1.33470284	0.817	0.246	1.388	At	—	—
248083 2004 QU ₂₄	16.1	X	34.44292	270.87456	189.58405	23.34249	0.6137840	0.16256430	3.325	1.284	5.366	Am	—	—
248590 2006 CS	16.3	X	103.19871	346.42909	172.40304	52.35957	0.6982747	0.19842628	2.911	0.878	4.944	Ap	8 11.2	22.6
248818 2006 SZ ₂₁₇	17.4	X	31.63974	162.97244	241.38284	29.22142	0.2855845	0.45547933	1.673	1.195	2.151	Am	—	—
248926 2006 WZ ₂	16.8	X	0.28658	65.88247	354.42423	24.65779	0.3302526	0.44684003	1.694	1.135	2.254	Am	—	—
249595 1997 GH ₂₈	17.7	X	111.13056	105.20890	354.47590	7.01261	0.3714277	0.34742185	2.004	1.260	2.748	Am	4 12.1	19.3
249615 1999 TB ₅	19.0	X	150.41468	238.73189	195.65560	30.43518	0.3935118	0.35701287	1.968	1.194	2.742	Am	4 25.9	22.1
249816 2001 FD ₉₀	19.1	X	192.46880	47.71432	202.22290	7.29886	0.4776252	0.33660889	2.047	1.069	3.024	Am	12 22.3	23.2
249886 2001 RY ₁₁	17.4	X	287.70345	71.54437	295.51964	22.84342	0.2834134	0.54570317	1.483	1.063	1.903	Am	3 29.3	20.0
250162 2002 TY ₅₇	19.3	X	214.33742	259.88343	118.98306	3.45470	0.3272771	0.36976666	1.922	1.293	2.552	Am	3 27.4	22.6
250458 2004 BO ₄₁	17.9	X	39.51144	254.40656	337.77844	35.55660	0.4928909	0.95880516	1.019	0.517	1.521	Ap	—	—
250577 2005 AC	18.2	X	221.08258	285.60300	135.79056	46.87657	0.5179458	0.91630979	1.050	0.506	1.594	Ap	—	—
250614 2005 GG	16.2													

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
252793 2002 FW ₅	19.3	X	153.38307	85.46629	21.75195	46.44800	0.2177546	0.65368013	1.315	1.029	1.601	Am	4 4.7	19.4
253062 2002 TC ₇₀	21.0	X	168.82309	162.04206	134.78050	2.14699	0.1967838	0.61519647	1.369	1.100	1.639	Am	—	—
253106 2002 UR ₃	16.6	X	355.68892	141.23168	51.89890	48.61177	0.7929924	0.60875538	1.379	0.285	2.472	Ap	—	—
253586 2003 TX ₇	19.3	X	272.93235	270.49943	204.10902	38.75045	0.2073158	0.56551860	1.448	1.148	1.748	Am	10 31.2	18.6
253841 2003 YG ₁₁₈	17.1	X	309.42949	232.56280	348.23809	8.09512	0.6419273	0.28517562	2.286	0.819	3.753	Ap	—	—
254417 2004 VV	17.3	X	115.86159	354.63238	342.74659	52.47924	0.6044752	0.32956606	2.076	0.821	3.330	Ap	—	—
254419 2004 VT ₆₀	17.5	X	146.97831	247.37602	57.55640	43.51238	0.4340053	0.32961379	2.076	1.175	2.976	Am	—	—
255071 2005 UH ₆	18.3	X	15.55988	200.19671	19.31531	2.64048	0.6324874	0.98391551	1.001	0.368	1.634	Ap	—	—
255501 2006 BG	18.5	X	75.21289	341.14510	281.01360	4.81625	0.7318793	0.45136061	1.683	0.451	2.915	Ap	11 27.9	22.0
256004 2006 UP	23.0	X	162.63439	335.06628	47.93181	2.28556	0.3009886	0.49383272	1.585	1.108	2.062	Am	—	—
256412 2007 BT ₂	17.0	X	18.92999	149.02294	31.00724	26.86067	0.2240220	0.47255450	1.632	1.267	1.998	Am	—	—
256670 2007 XT ₅₈	18.1	X	98.61541	267.89161	266.05856	2.31338	0.3633551	0.34512411	2.013	1.281	2.744	Am	7 19.1	20.3
257744 2000 AD ₂₀₅	18.6	X	40.25166	192.02686	157.23815	7.92740	0.5858848	0.44729708	1.693	0.701	2.685	Ap	—	—
257838 2000 JQ ₆₆	17.7	X	131.51608	103.83606	188.96945	7.06098	0.4186365	0.30914647	2.166	1.259	3.073	Am	—	—
258325 2001 VB ₂	18.9	X	17.48944	319.75643	50.06266	7.94014	0.3959281	0.43751996	1.718	1.038	2.399	Am	—	—
259221 2003 BA ₂₁	19.1	X	318.33558	18.13614	308.87938	23.70616	0.8331012	0.85400459	1.100	0.184	2.017	Ap	2 6.7	20.9
259802 2004 BJ ₈₆	18.9	X	266.29584	65.36857	124.12048	31.42855	0.3297148	0.42400088	1.755	1.176	2.333	Am	—	—
260141 2004 QT ₂₄	18.3	X	165.37674	76.58416	36.13632	17.74724	0.2520477	0.81726087	1.133	0.847	1.419	Ap	—	—
260277 2004 TR ₁₂	18.2	X	206.31151	77.76241	155.39061	19.35522	0.2096714	1.16362335	0.895	0.708	1.083	At	—	—
261938 2006 OB ₅	20.2	X	279.51176	357.36084	356.17616	0.71091	0.2186617	0.51920472	1.533	1.198	1.868	Am	3 23.5	21.6
262623 2006 WY ₂	18.6	X	135.54593	159.94691	99.84969	27.55216	0.3328380	1.01090099	0.983	0.656	1.311	At	—	—
263976 2009 KD ₅	18.4	X	152.00119	294.32182	104.51534	13.47254	0.2614681	0.92116467	1.046	0.773	1.320	Ap	—	—
264308 1999 NA ₅	20.4	X	242.60063	318.88317	262.15497	4.27731	0.2485679	0.57249134	1.436	1.079	1.794	Am	—	—
264357 2000 AZ ₉₃	21.0	X	300.71976	8.03152	277.42864	8.57883	0.3602492	1.52781299	0.747	0.478	1.016	At	—	—
264993 2003 DX ₁₀	20.4	X	307.15637	193.83392	61.92374	3.14606	0.4108141	0.61095555	1.376	0.810	1.941	Ap	—	—
265032 2003 OU	16.6	X	330.22024	175.48620	206.33687	40.13779	0.7024037	0.28194959	2.303	0.685	3.921	Ap	5 20.0	20.6
265187 2003 YS ₁₁₇	18.2	X	161.68077	322.04424	300.42535	29.55907	0.3303314	0.70582013	1.249	0.837	1.662	Ap	—	—
265196 2004 BW ₅₈	18.6	X	307.84375	301.75807	132.68172	15.20710	0.3787607	0.56158349	1.455	0.904	2.006	Ap	9 2.0	17.8
265482 2005 EE	21.3	X	238.08491	284.77668	110.81795	6.17220	0.3278760	0.82154847	1.129	0.759	1.499	Ap	2 20.5	18.8
265661 2005 UB	16.6	X	216.66880	3.12214	272.11593	27.69391	0.7382496	0.37758201	1.896	0.496	3.295	Ap	—	—
265962 2006 CG	19.0	X	354.45553	119.20254	233.98014	4.35096	0.3360271	0.39830625	1.829	1.215	2.444	Am	8 22.8	17.6
267131 2000 EK ₂₆	18.2	X	275.06330	305.43297	126.53655	15.63707	0.6592504	0.26416513	2.406	0.820	3.991	Ap	6 27.4	23.2
267136 2000 EF ₁₀₄	18.9	X	163.01154	346.77963	66.36942	10.81725	0.4178388	0.80165184	1.148	0.668	1.627	Ap	—	—
267221 2001 AD ₂	19.8	X	339.07093	111.27050	211.16612	1.66026	0.6596702	0.93054382	1.039	0.354	1.725	Ap	1 29.9	20.4
267223 2001 DQ ₈	18.1	X	250.59207	14.77474	342.72721	12.79061	0.9009731	0.39402127	1.843	0.182	3.503	Ap	3 16.7	23.2
267270 2001 RP ₁₇	18.2	X	238.23418	60.68495	353.25893	8.15409	0.5155250	0.23043246	2.635	1.277	3.993	Am	5 27.1	23.7
267337 2001 VK ₅	17.9	X	72.21429	263.92123	54.24690	19.43250	0.5140053	0.68938132	1.269	0.617	1.921	Ap	—	—
267494 2002 JB ₉	15.9	X	129.46825	277.94429	70.32868	46.75758	0.7845460	0.22006290	2.717	0.585	4.849	Ap	3 9.3	22.3
267720 2003 CA	18.9	X	43.69835	234.76022	126.22460	21.15595	0.7197163	0.60852402	1.379	0.387	2.372	Ap	—	—
267729 2003 FC ₅	18.3	X	179.63824	270.65269	189.24103	5.82607	0.6090607	0.37153348	1.916	0.749	3.084	Ap	6 22.7	22.6
267759 2003 MC ₇	18.8	X	329.09055	101.18882	137.04753	21.21097	0.1843427	0.61217832	1.374	1.120	1.627	Am	—	—
267940 2004 EM ₂₀	20.3	X	138.45382	314.83483	343.81156	14.14004	0.5238941	0.84792879	1.106	0.526	1.685	Ap	—	—
269690 1996 RG ₃	18.4	X	111.75981	300.07559	158.22496	3.57112	0.6047277	0.34850361	2.000	0.790	3.209	Ap	5 20.2	21.2
271480 2004 FX ₃₁	17.5	X	220.26951	285.75399	169.18422	24.75063	0.4419377	0.69625487	1.261	0.704	1.818	Ap	6 22.6	19.9
274138 2008 FU ₆	17.8	X	17.79599	129.10509	192.85872	12.83103	0.5689333	0.64697176	1.324	0.571	2.077	Ap	3 13.2	19.1
274855 2009 RB ₄	18.5	X	0.58698	75.02178	182.18344	9.53697	0.3008212	0.46982834	1.639	1.146	2.132	Am	1 21.5	20.4
275545 1998 UN ₁	19.1	X	100.63092	87.70142	217.88211	32.42777	0.2207794	0.52930770	1.514	1.179	1.848	Am	—	—
275558 1999 RH ₃₃	18.1	X	304.65086	351.48895	168.35331	11.01653	0.1708288	0.51018034	1.551	1.286	1.816	Am	—	—
275611 1999 XX ₂₆₂	18.1	X	136.42981	102.65105	334.69236	8.22866	0.1819141	0.51926359	1.533	1.254	1.812	Am	—	—
275677 2000 RS ₁₁	19.1	X	177.01778	301.64389	172.19978	17.09686	0.3205553	0.68048868	1.280	0.870	1.690	Ap	6 11.1	20.3
275714 2000 YH ₄	18.6	X	103.29977	269.46258	85.59366	17.96890	0.4587568	0.54222408	1.489	0.806	2.173	Ap	—	—
275792 2001 QH ₁₄₂	18.4	X	295.19880	253.44614	318.34032	30.59678	0.2218162	0.52215165	1.527	1.189	1.866	Am	—	—
275974 2001 XD	18.2	X	162.39262	232.65804	64.02517	11.31296	0.7958667	0.33703490	2.045	0.417	3.672	Ap	—	—
275975 2001 XF ₁	19.2	X	328.67077	231.57586	87.79810	22.02955	0.4636798	0.54802170	1.479	0.793	2.165	Ap	3 10.4	22.1
275976 2001 XV ₁₀	16.2	X	324.21790	342.05062	31.40960	22.35313	0.5852831	0.30117198	2.204	0.914	3.494	Ap	5 14.8	19.7
276033 2002 AJ ₁₂₉	18.7	X	288.22658	211.01238	138.05382	15.44899	0.9149038	0.61393673	1.371	1.117	2.625	Ap	3 12.2	22.3
276049 2002 CE ₂₆	16.8	X	310.08011	228.05923	161.90543	47.29176	0.5608526	0.29537056	2.233	0.981	3.485	Ap	6 10.1	21.5
276111 2002 GM ₉	18.6	X	297.93509	273.72842	44.14258	17.32137	0.3490449	0.38688983	1.865	1.214	2.516	Am	3 13.1	22.0
276274 2002 SS ₄₁	17.2	X	7.34848	101.78549	190.12360	63.68320	0.3823477	0.32276599	2.105	1.300	2.910	Am	4 23.1	19.1
276392 2002 XH ₄	19.4	X	178.24088	213.71690	93.47579	14.52100	0.2706040	0.48328630	1.608	1.173	2.043	Am	—	—
276397 2002 XA ₄₀	17.1	X	157.64256	66.61236	300.82002	4.44862	0.4813171	0.28931619	2.264	1.174	3.354	Am	2 20.2	21.0
276409 2002 YN ₂	18.4	X	273.04824	38.46030	290.69895	50.26179	0.5871036	0.71146019	1.243	0.513	1.972	Ap	1 17.8	19.9
276468 2003 HQ ₃₂	17.9	X	84.65861	291.27726</										

ELEMENTS AND OPPOSITION DATES OF NEAS

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2017 SEPTEMBER 4.0 TT

	Planet	H	G	M	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
277958	2006 SP ₁₃₄	16.9	X	357.34691	192.28511	16.65744	13.04349	0.7362436	0.33571634	2.050	0.541	3.560	Ap	—	—
278327	2007 HA ₅₉	15.3	X	306.74173	17.54016	57.16366	54.68228	0.7264897	0.24778092	2.510	0.687	4.334	Ap	6 21.7	20.6
278381	2007 MR	21.9	X	214.38708	217.64761	172.77939	5.82738	0.2588891	0.95231979	1.023	0.758	1.288	Ap	—	—
279744	1998 KM ₃	19.8	X	291.65451	85.21927	263.12523	4.66028	0.6110135	0.45593047	1.672	0.650	2.693	Ap	3 17.5	23.5
279816	2000 JE ₅	19.1	X	142.10174	285.17664	41.24425	50.74042	0.4006592	0.71530778	1.238	0.742	1.734	Ap	—	—
280136	2002 OM ₄	17.2	X	169.25124	28.12540	143.07072	55.31310	0.5628264	0.53860432	1.496	0.654	2.338	Ap	9 10.4	20.6
280244	2002 WP ₁₁	18.1	X	326.10149	56.17825	267.89277	5.39339	0.4403768	0.31792985	2.126	1.190	3.062	Am	3 31.7	21.2
280491	2004 MO ₇	19.0	X	198.20443	61.37590	38.55464	24.08296	0.4838714	0.84889839	1.105	0.570	1.639	Ap	5 29.3	19.7
281070	2006 OY ₁₀	18.7	X	180.42918	92.42419	234.04262	35.63285	0.5743616	0.40599163	1.806	0.769	2.844	Ap	—	—
281365	2008 CM ₁₁₆	17.5	X	335.35832	355.79985	0.12884	18.70801	0.6631798	0.47333747	1.631	0.549	2.712	Ap	4 7.8	20.3
281375	2008 JV ₁₉	20.8	X	291.67074	310.52927	141.98926	7.22479	0.2484349	1.00737288	0.986	0.741	1.230	At	—	—
283457	2008 MQ ₃	19.1	X	286.08763	25.14050	313.36147	5.56629	0.4545825	0.29512082	2.234	1.219	3.250	Am	3 22.6	23.4
283460	2001 PD ₁	18.3	X	275.42821	95.26802	262.01841	5.96017	0.4582559	0.29514306	2.234	1.210	3.258	Am	5 2.0	22.6
283729	2002 UX	17.9	X	142.90335	84.33047	283.87373	20.20506	0.1635201	0.55106821	1.473	1.233	1.714	Am	—	—
284114	2005 TZ ₅₁	17.9	X	300.54164	127.53025	280.36332	10.83712	0.4299546	0.31809010	2.125	1.212	3.039	Am	7 2.7	20.8
284422	2006 YD	17.4	X	168.43673	352.06710	223.38849	7.73223	0.6931754	0.23157215	2.626	0.806	4.447	Ap	10 28.9	23.5
285110	1995 MA ₁	17.4	X	59.07922	265.86418	87.65231	25.84039	0.5873116	0.23374978	2.610	1.077	4.143	Am	—	—
285179	1996 TY ₁₁	19.3	X	2.71236	158.70577	30.65426	13.93162	0.5354920	0.72416775	1.228	0.570	1.886	Ap	—	—
285263	1998 QE ₂	17.3	X	49.75761	345.64613	250.14141	12.85860	0.5718016	0.26124969	2.423	1.038	3.809	Am	9 14.5	20.4
285331	1999 FN ₅₃	18.3	X	359.98642	191.67134	50.59817	20.16421	0.4557259	0.43109122	1.735	0.945	2.526	Ap	—	—
285339	1999 JR ₆	18.1	X	250.20514	27.21400	52.66022	20.33773	0.6753480	0.61704370	1.366	0.444	2.289	Ap	6 13.9	21.1
285540	2000 GU ₁₂₇	18.5	X	224.05961	138.81108	171.97548	8.48887	0.7269064	0.32283526	2.104	0.575	3.634	Ap	1 23.1	23.7
285567	2000 OM	18.6	X	289.37390	73.91939	123.57937	13.58363	0.6408992	0.44420788	1.701	0.611	2.791	Ap	—	—
285571	2000 PQ ₉	18.1	X	186.60828	6.89169	297.23187	13.47394	0.4317460	0.37524142	1.904	1.082	2.726	Am	—	—
285625	2000 RD ₃₄	17.8	X	13.55184	132.01843	309.04849	6.92979	0.3468629	0.35823138	1.963	1.282	2.645	Am	—	—
285638	2000 SO ₁₀	17.5	X	290.07163	204.00440	356.44174	36.96689	0.5403615	0.66532233	1.300	0.597	2.002	Ap	—	—
285818	2001 BZ ₃₉	18.7	X	3.33045	197.03618	225.13242	8.83864	0.4216411	0.35165733	1.988	1.150	2.826	Am	—	—
285838	2001 FA ₁	17.9	X	146.66908	326.76026	175.78419	33.80954	0.3597186	0.38156226	1.883	1.205	2.560	Am	7 16.9	21.8
285944	2001 RZ ₁₁	16.5	X	343.63681	340.48654	324.03638	53.06843	0.5066284	0.30369275	2.192	1.081	3.303	Am	2 21.8	20.4
285990	2001 SK ₉	18.0	X	290.95522	34.51576	195.78591	25.98046	0.7892066	0.41316761	1.785	0.376	3.194	Ap	—	—
286079	2001 TW ₁	19.2	X	190.38114	208.79589	27.36512	31.32941	0.5260463	1.13295582	0.911	0.432	1.391	At	—	—
286080	2001 TX ₁	21.1	X	216.13618	354.14327	159.21279	2.79964	0.4825413	0.91956713	1.047	0.542	1.553	Ap	9 15.9	20.6
288592	2004 JW ₂₀	20.5	X	209.47820	207.48499	235.19176	14.73678	0.5614777	1.05982916	0.953	0.418	1.488	At	4 23.3	19.4
288807	2004 RW ₁₆₄	18.5	X	277.80704	342.83004	164.95787	36.77419	0.3767651	0.54186134	1.490	0.929	2.051	Ap	—	—
288914	2004 SX	19.1	X	146.11124	258.50838	178.62186	15.28261	0.3274398	0.42039944	1.765	1.187	2.343	Am	4 8.5	20.7
289227	2004 XY ₆₀	18.9	X	158.90574	130.84012	122.62454	23.76642	0.7966970	1.92382744	0.640	0.130	1.150	At	—	—
289315	2005 AN ₂₆	18.5	X	233.66814	208.30658	175.86713	4.92191	0.6372807	0.27848532	2.322	0.842	3.802	Ap	4 19.6	23.8
290772	2005 VC	17.6	X	255.75179	290.22730	227.99543	4.48262	0.5944086	0.32769749	2.084	0.845	3.322	Ap	9 30.4	21.5
292165	2006 SC ₆	18.1	X	7.49482	355.52969	152.99769	30.25701	0.5805845	0.74706267	1.203	0.505	1.901	Ap	—	—
292220	2006 SU ₄₉	19.5	X	67.23887	198.98318	303.13829	5.51869	0.3120519	0.58708385	1.413	0.972	1.853	Ap	—	—
293054	2006 WP ₁₂₇	18.4	X	205.79504	22.94060	178.30829	6.07995	0.7672689	0.24457355	2.532	0.589	4.475	Ap	10 23.7	24.5
293726	2007 RQ ₁₇	22.6	X	31.08344	302.18578	350.55206	2.00858	0.3692686	0.49682891	1.579	0.996	2.162	Ap	10 24.6	22.0
294739	2008 CM	17.2	X	329.21542	130.63740	279.58280	36.00290	0.50284769	1.566	0.927	2.206	Ap	7 25.3	18.2	
296318	2009 EN ₂	18.5	X	321.38757	138.08378	144.83580	47.35492	0.5246608	0.46120024	1.659	0.789	2.530	Ap	1 20.4	22.2
297274	1996 SK	16.8	X	161.29466	284.34221	197.41952	1.96379	0.7944766	0.25960700	2.434	0.500	4.367	Ap	7 18.1	22.7
297300	1998 SC ₁₅	19.2	X	353.36631	277.41698	198.74550	16.08198	0.4143893	0.68634045	1.273	0.745	1.800	Ap	—	—
297418	2000 SP ₄₃	18.0	X	164.80120	224.37978	350.58055	10.34984	0.4669622	1.34859332	0.811	0.432	1.190	At	—	—
299582	2006 GQ ₂	18.6	X	336.17042	64.48216	13.93188	25.84252	0.4657801	0.67227948	1.291	0.689	1.892	Ap	—	—
301011	2008 JO	18.4	X	46.22992	194.75225	276.89959	5.36647	0.5452061	0.53182438	1.509	0.686	2.331	Ap	—	—
301844	1990 UA	19.6	X	309.72136	202.57532	104.26530	0.92850	0.5260041	0.46834300	1.642	0.778	2.506	Ap	2 7.8	22.5
302010	2000 SH ₈	17.7	X	225.68684	86.27191	1.88485	56.37732	0.4893556	0.44934568	1.688	0.862	2.514	Ap	—	—
302156	2001 SF ₂₈₆	18.9	X	106.14623	18.99676	231.97442	29.50926	0.6453559	0.68999927	1.268	0.450	2.087	Ap	1 10.8*	20.3
302169	2001 TD ₄₅	19.9	X	196.52597	212.43252	30.28213	25.39726	0.7774811	1.38579339	0.797	0.177	1.416	At	—	—
302311	2002 AA	19.3	X	325.46549	64.65827	302.22058	11.27122	0.3023568	0.80151107	1.148	0.801	1.495	Ap	4 5.4	20.1
302523	2002 KH ₃	17.5	X	158.38435	35.11834	259.05246	10.24287	0.5839213	0.22484853	2.678	1.114	4.242	Am	—	—
302591	2002 QE ₇	19.7	X	150.67316	88.42826	244.49425	12.11111	0.1812411	0.55316051	1.470	1.203	1.736	Am	—	—
302800	2003 AA	19.4	X	181.77349	325.70525	111.93965	23.49558	0.2802608	0.43412328	1.727	1.243	2.212	Am	5 18.4	22.4
302830	2003 FB	18.8	X	71.31110	46.13077	38.68482	16.97627	0.4421774	0.55120569	1.473	0.822	1.215	Ap	—	—
302831	2003 FH	19.0	X	239.78589	274.34493	24.15943	25.79970	0.5406236	0.60203839	1.389	0.638	2.140	Ap	—	—
302871	2003 HA ₂₂	19.4	X	179.89020	163.44836	121.80412	1.60846	0.3947093	0.38354253	1.876	1.136	2.617	Am	—	—
303174	2004 FH ₁₁	16.7	X	321.29669	87.97775	203.60006	21.38161	0.4464098	0.29083322	2.256	1.249	3.263	Am	2 15.9	21.0
303248	2004 QV ₁₆	18.1	X	216.46146	49.19729	196.25408	28.53556	0.5741562	0.41890993	1.769	0.753	2.785	Ap	12 26.2	21.8
303250	2004 RU ₁₀	18.2	X	223.88018	65.22701	119.02762	15.90833	0.6568863	1.14665082	0.904	0.310	1.498	At	—	—
303262	2004 RJ ₈₄	18.6	X	320.51986	189.76171	342.96446	13.23352	0.3106743	0.86043613	1.095	0.755	1.435	Ap	—	—
303449	2005 BE ₂	18.2	X	88.98565	162.39522	92.61989	6.57653	0.6259685	0.34442030	2.016	0.754	3.277	Ap	11 18.0	22.3
303450	2005 BY ₂	20.5	X	247.80676	130.20608	74.48208	7.28746	0.3305110	0.68952741	1.269	0.850	1.688	Ap	—	—
303933	2005 VQ	19.0	X	107.64673	184.19530	54.44623	19.12948	0.4887869	0.82523456	1.126	0.575	1.676	Ap	11 16.5	19.6
304088	2006 HX ₅	19.2	X	242.48384	49.47486	38.05381	21.23928	0.2507400	0.46808699</						

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
307070 2002 AV ₃₁	20.6	X	217.17349	267.37866	119.31129	14.97552	0.2494409	0.65732458	1.310	0.983	1.637	Ap	1 31.1	19.2
307161 2002 DY ₃	18.4	X	194.22388	137.97834	354.97242	24.16578	0.2742535	0.54098764	1.492	1.083	1.901	Am	8 16.2	20.6
307493 2002 XP ₉₀	18.6	X	342.09413	324.13548	78.60011	23.11599	0.5874365	0.32883223	2.079	0.858	3.300	Ap	8 14.9	19.4
307564 2003 FQ ₆	20.8	X	236.54289	233.55319	86.60049	3.61949	0.1315572	0.61382429	1.371	1.191	1.552	Am	—	—
307918 2004 EU ₉	18.9	X	236.34357	202.40890	161.10570	28.58537	0.5053015	1.19308959	0.880	0.436	1.325	At	—	—
308041 2004 TN	19.0	X	73.22498	159.93378	17.15554	14.04532	0.4358334	0.57743024	1.428	0.806	2.051	Ap	—	—
308043 2004 TH ₁₀	18.6	X	4.25936	266.51812	271.47259	14.29693	0.8288326	0.70497024	1.250	0.214	2.287	Ap	—	—
308127 2004 XM ₁₃₀	18.0	X	207.70522	190.05151	309.20417	28.12752	0.4636961	0.27748958	2.328	1.248	3.407	Am	8 16.2	22.9
308242 2005 GO ₂₁	16.5	X	204.12663	156.62391	272.69280	24.92729	0.3399796	1.50782912	0.753	0.497	1.009	At	—	—
308635 2005 YU ₅₅	21.9	X	290.31002	273.56039	35.94022	0.34034	0.4304489	0.79185941	1.157	0.659	1.655	Ap	—	—
308899 2006 SL ₁₉₈	18.3	X	173.32638	213.11261	173.27043	16.55296	0.3737807	0.40813495	1.800	1.127	2.473	Am	2 28.3	20.5
309203 2007 GG	17.7	X	159.18694	299.54196	137.16353	5.28895	0.5585891	0.22789377	2.654	1.172	4.137	Am	5 23.3	23.3
309214 2007 LL	20.4	X	337.56382	311.45413	247.07767	10.05380	0.1741193	1.01489436	0.981	0.810	1.151	At	—	—
309662 2008 EE	19.6	X	118.24682	232.42833	343.58546	16.15523	0.2119747	1.01385071	0.981	0.773	1.189	At	—	—
309728 2008 JF	18.0	X	138.60428	235.82089	90.67146	19.80159	0.3929042	0.37421154	1.907	1.158	2.657	Am	—	—
310402 1999 EE ₅	18.5	X	193.89767	192.98537	355.49657	30.99332	0.2815118	0.45702648	1.669	1.199	2.139	Am	10 9.4	21.3
310442 2000 CH ₅₉	19.9	X	128.88183	109.27279	213.93950	3.26769	0.4232514	1.22957191	0.863	0.498	1.228	At	—	—
310560 2001 QL ₁₄₂	17.8	X	43.76949	72.08026	165.59801	26.61475	0.4990122	0.91705289	1.049	0.526	1.573	Ap	—	—
310737 2002 QG ₂₄	17.8	X	165.37983	108.98302	132.97826	5.68355	0.4897320	0.28512204	2.286	1.167	3.406	Am	11 29.2	22.7
310842 2003 AK ₁₈	19.7	X	63.66222	23.81406	301.63875	7.40262	0.3841155	1.20061899	0.877	0.540	1.213	At	2 12.9	18.0
311044 2004 BB ₁₀₃	17.1	X	79.27361	71.49258	271.11385	55.86414	0.6219027	0.37411786	1.907	0.721	3.093	Ap	—	—
311066 2004 DC	18.1	X	149.10889	156.22541	74.94501	19.45061	0.3995957	0.47196497	1.634	0.981	2.287	Ap	11 18.7	21.0
311321 2005 NP ₁	18.6	X	359.14467	307.51541	275.00854	34.69863	0.2967805	0.39912688	1.827	1.285	2.369	Am	—	—
311554 2006 BQ ₁₄₇	18.7	X	13.26226	153.20003	146.79786	24.38368	0.4221273	1.32735819	0.820	0.474	1.166	At	—	—
311555 2006 BA ₁₄₈	18.4	X	298.54840	26.08013	327.60671	15.76170	0.6140790	0.47323281	1.631	0.629	2.632	Ap	3 21.4	22.0
311925 2007 BF ₇₂	19.7	X	192.74150	303.75631	49.40153	4.10459	0.2156513	0.57466859	1.433	1.124	1.742	Am	—	—
312070 2007 TA ₁₉	19.4	X	306.31862	58.02223	181.20982	22.62992	0.5095158	1.05760679	0.954	0.468	1.440	At	—	—
312473 2008 SX ₂₄₅	18.4	X	354.37200	292.94426	209.02699	11.82554	0.4581039	0.35034844	1.993	1.080	2.906	Am	—	—
312942 1995 EK ₁	17.3	X	191.45436	299.73921	352.69153	9.06455	0.7766439	0.28948150	2.263	0.505	4.021	Ap	1 1.2	22.6
312956 1997 CZ ₃	19.6	X	215.58826	33.55221	314.25500	6.61689	0.5408022	0.59168065	1.405	0.645	2.165	Ap	1 29.6	20.3
313276 2002 AX ₁	19.7	X	87.42003	25.35171	294.70454	32.99974	0.5416537	1.19402336	0.880	0.403	1.357	At	2 4.9	20.4
313538 2002 YB ₁₂	18.5	X	190.81149	305.95813	271.12612	14.01699	0.5515748	0.44979258	1.687	0.757	2.618	Ap	11 13.0	21.9
313548 2003 BL ₁	19.3	X	208.37985	110.62902	324.14636	22.45589	0.3205050	0.43998255	1.712	1.164	2.260	Am	5 22.3	22.7
313552 2003 BX ₃₃	20.9	X	208.77996	221.21551	143.21707	7.92069	0.70680738	1.182	0.682	1.682	1.682	Ap	—	—
313809 2004 BH ₄₁	19.3	X	285.35007	200.35415	123.20900	30.44530	0.5001177	0.75456868	1.195	0.597	1.793	Ap	1 15.2	20.0
314079 2005 CV ₂₅	19.7	X	144.79112	357.38264	326.71863	23.87356	0.3109509	0.69941069	1.257	0.866	1.648	Ap	—	—
314082 Dryope	17.5	X	226.70285	139.32767	116.81914	16.14287	0.5749602	0.29448516	2.237	0.951	3.524	Ap	—	—
314212 2005 NJ ₁	18.5	X	302.77866	82.46826	316.31947	6.46628	0.6516100	0.31659473	2.132	0.743	3.522	Ap	5 28.7	22.4
315020 2007 BG ₄₉	18.7	X	351.29823	281.47616	332.85404	7.89423	0.3209074	0.39366639	1.844	1.252	2.436	Am	1 26.8	21.1
315098 2007 EX	16.9	X	75.23063	78.82002	297.45884	18.70011	0.4179010	1.21110492	0.872	0.508	1.236	At	—	—
315508 2008 AB ₃₁	20.2	X	232.49622	255.62850	303.04042	30.01779	0.3204313	0.48601833	1.602	1.089	2.116	Am	12 24.2	21.7
316695 1996 TE ₉	18.8	X	250.38167	3.92397	13.90321	21.63680	0.3261047	0.41047736	1.793	1.208	2.378	Am	4 11.4	21.8
317212 2002 CW ₄₆	19.0	X	153.66970	71.06467	346.23683	12.23453	0.3442894	0.39648060	1.835	1.203	2.467	Am	3 21.0	20.9
317255 2002 DJ ₅	19.8	X	54.95352	296.10423	347.96154	6.43785	0.5675645	0.59482306	1.400	0.606	2.195	Ap	3 2.0*	19.1
317643 2003 FH ₁	18.2	X	141.07997	29.12259	40.22818	14.64459	0.4396723	0.76502094	1.184	0.663	1.705	Ap	—	—
317685 2003 NO ₄	18.2	X	105.33735	171.17063	135.38488	22.69845	0.3126848	0.43892068	1.715	1.169	2.251	Am	—	—
318050 2004 FC ₃₂	18.7	X	341.11937	172.75552	80.84405	10.93411	0.3392081	0.36974322	1.923	1.270	2.575	Am	1 18.7	21.4
318160 2004 QZ ₂	18.1	X	274.96140	208.10820	219.78184	0.97242	0.4955120	0.29027711	2.259	1.140	3.378	Am	7 2.5	22.2
318411 2005 AH ₁₄	17.1	X	189.51502	192.40721	59.34987	12.83322	0.6084082	0.27971224	2.316	0.907	3.724	Ap	12 14.9	22.2
318450 2005 EJ	20.0	X	99.26274	92.12185	33.51760	12.45848	0.1541140	0.56735496	1.445	1.222	1.668	Am	—	—
319988 2007 DK	19.5	X	65.96048	355.04158	290.85553	5.17780	0.5502373	0.59774397	1.396	0.628	2.164	Ap	12 19.8	21.6
320378 2007 UR ₃	21.3	X	331.07155	316.18674	156.10697	1.31144	0.2836127	0.50585890	1.560	1.118	2.002	Am	—	—
322652 1999 JO ₈	16.9	X	78.15565	205.90537	80.04525	24.35437	0.5741583	0.22820660	2.652	1.129	4.175	Am	12 9.2	21.9
322705 2000 DK ₈	19.3	X	142.63862	340.81947	102.74304	12.69150	0.6890172	0.24523757	2.528	0.786	4.270	Ap	5 30.4	24.9
322756 2001 CK ₃₂	19.0	X	75.32972	234.11350	109.43034	8.13032	0.3825529	1.59586858	0.725	0.448	1.003	At	—	—
322763 2001 FA ₇	17.0	X	345.96066	62.43259	352.54586	22.85588	0.5365256	0.34674074	2.007	0.930	3.083	Ap	—	—
322775 2001 HA ₈	17.2	X	125.73611	202.64412	95.73361	11.45620	0.5285608	0.26727848	2.387	1.125	3.648	Am	—	—
322913 2002 CM ₁	16.8	X	223.86023	84.21564	308.15431	44.98836	0.4616061	0.28258213	2.300	1.238	3.362	Am	3 24.0	22.6
322966 2002 KF ₄	16.9	X	21.49823	193.65585	77.89881	37.03580	0.5768135	0.19931950	2.902	1.228	4.577	Am	10 19.9	20.2
323179 2003 HR ₃₂	18.1	X	35.66837	352.70558	341.95173	8.28121	0.6869362	0.42631357	1.748	0.547	2.950	Ap	—	—
323300 2003 UD ₂₂	19.6	X	59.98007	23.52463	253.81766	10.07646	0.3182952	0.78003672	1.169	0.797	1.541	Ap	2 10.4*	19.6
325102 2008 EY ₅	20.1	X	200.85803	106.52083	245.59666	5.10821	0.6266333	1.98848667	0.626	0.234	1.019	At	—	—
325395 2009 CQ ₅	17.6	X	222.98218											

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>		
329338	2001	<i>JW</i> ₂	19.1	X	88.61739	87.89872	247.26773	9.58685	0.4884808	0.44542178	1.698	0.869	2.528	Ap	—	—
329340	2001	<i>LM</i> ₅	19.2	X	51.17590	255.80303	270.19083	12.54779	0.0344991	0.72111991	1.232	1.189	1.274	Am	—	—
329343	2001	<i>QG</i> ₉₆	19.7	X	50.45128	192.61916	170.50705	23.49722	0.2689386	0.44149979	1.708	1.249	2.167	Am	—	—
329390	2001	<i>YP</i> ₂	19.0	X	225.66542	288.67703	92.67059	27.93429	0.4797013	0.34791888	2.002	1.042	2.962	Am	4 23.9	23.7
329395	2002	<i>AC</i>	17.9	X	204.94781	132.15508	72.95583	34.74901	0.6487131	0.29119064	2.254	0.792	3.717	Ap	11 11.2	23.3
329437	2002	<i>OA</i> ₂₂	19.4	X	23.26824	318.64460	174.10574	6.88326	0.2430873	1.08938946	0.935	0.708	1.163	At	—	—
329520	2002	<i>SV</i>	19.8	X	18.23341	327.01019	352.65357	16.77647	0.2366617	0.59326407	1.403	1.071	1.735	Am	10 10.2	18.4
329571	2002	<i>VC</i> ₉₂	18.9	X	98.44530	231.77599	243.60910	27.32089	0.2785899	0.55827230	1.461	1.054	1.868	Am	—	—
329614	2003	<i>KU</i> ₂	17.7	X	50.55549	246.74902	105.26268	5.40180	0.6770108	0.22362589	2.688	0.868	4.508	Ap	—	—
329669	2003	<i>UD</i> ₈	16.6	X	31.61681	108.35075	238.40019	3.88664	0.5354254	0.21985772	2.719	1.263	4.174	Am	—	—
329713	2003	<i>WO</i> ₇	18.8	X	173.97216	245.77516	91.26153	7.66525	0.4362756	0.31241028	2.151	1.213	3.090	Am	1 20.9	22.3
329770	2004	<i>JA</i>	17.9	X	197.03342	54.30314	56.92732	29.60277	0.62428360	0.51469945	1.542	0.762	2.208	Ap	7 5.5	21.0
329774	2004	<i>LE</i>	16.6	X	3.86735	185.20048	211.53476	40.46002	0.8375581	0.22917382	2.645	0.430	4.860	Ap	—	—
329915	2005	<i>MB</i>	17.1	X	268.78879	42.82583	88.64257	41.38610	0.7927772	1.00770328	0.985	0.204	1.766	At	9 1.9	19.4
330233	2006	<i>KV</i> ₈₆	18.7	X	194.00112	153.81723	220.06312	37.07775	0.3740362	0.51408614	1.543	0.966	2.121	Ap	1 26.7	21.4
330659	2008	<i>GG</i> ₂	22.7	X	253.22865	0.44807	198.71757	13.01784	0.2778271	0.49288580	1.587	1.146	2.028	Am	—	—
330809	2008	<i>VK</i> ₁₄	19.8	X	245.30464	30.00432	308.19487	6.90945	0.5056110	0.51469945	1.542	0.762	2.322	Ap	2 10.5	21.8
330825	2008	<i>XE</i> ₃	16.3	X	65.19889	44.50436	315.22044	7.47609	0.5507372	0.23418408	2.607	1.171	4.042	Am	—	—
331471	1984	<i>QY</i> ₁	15.4	X	124.56650	337.03947	142.34059	14.25503	0.8943805	0.24974502	2.497	0.264	4.731	Ap	7 12.3	21.4
331509	1999	<i>YA</i>	18.3	X	101.51380	265.55235	106.19418	38.23689	0.3392996	0.45393512	1.677	1.108	2.246	Am	—	—
331510	2000	<i>AE</i> ₆	17.5	X	5.61125	279.62540	119.69396	11.89460	0.5531581	0.22012513	2.717	1.214	4.219	Am	—	—
331769	2003	<i>BQ</i> ₃₅	19.8	X	322.10820	223.98206	137.00591	8.48232	0.2452998	0.57915355	1.425	1.076	1.775	Am	5 17.6	20.5
331792	2003	<i>MT</i> ₂	16.0	X	97.95199	304.52154	305.14640	27.89179	0.5331162	0.22362725	2.688	1.255	4.121	Am	10 25.4	21.7
331876	2004	<i>CL</i>	20.5	X	163.29668	274.59168	109.45286	13.30560	0.5362848	0.67705293	1.284	0.596	1.973	Ap	—	—
331963	2004	<i>XK</i> ₃₅	17.6	X	298.94727	64.05166	263.86440	31.47367	0.4165284	0.36118737	1.953	1.139	2.766	Am	2 25.7	22.1
331990	2005	<i>FD</i>	19.6	X	318.94980	270.91686	13.37301	11.32978	0.3939552	0.55826585	1.461	0.885	2.036	Ap	1 9.2	22.0
331999	2005	<i>HA</i> ₈	19.2	X	107.54797	173.35790	102.15009	13.39106	0.2859492	0.42922310	1.741	1.243	2.238	Am	12 10.8	21.8
332408	2007	<i>MM</i> ₁₃	17.8	X	85.82979	294.43128	242.63117	38.19808	0.5686088	0.59435744	1.401	0.604	2.198	Ap	7 7.9	19.3
332446	2008	<i>AF</i> ₄	19.7	X	8.06895	293.39173	109.37793	8.91930	0.4109075	0.60633573	1.382	0.814	1.951	Ap	—	—
332775	2009	<i>VO</i> ₂₄	19.7	X	328.91180	343.51543	163.71598	6.05562	0.4618488	0.51215340	1.547	0.833	2.262	Ap	—	—
333284	1999	<i>PJ</i> ₁	18.1	X	79.86060	80.50037	319.49079	34.47847	0.3595912	0.45457850	1.675	1.073	2.278	Am	—	—
333311	2001	<i>MR</i> ₃	19.1	X	160.03072	59.43891	220.39354	4.42472	0.4512539	0.27045678	2.368	1.299	3.437	Am	—	—
333358	2001	<i>WN</i> ₁	19.5	X	241.56721	127.34841	243.67411	14.07396	0.3031090	0.53549897	1.502	1.047	1.957	Am	3 5.8	21.8
333478	2004	<i>SD</i> ₂₀	18.2	X	189.28456	94.45010	46.59314	21.33395	0.4648478	1.20385652	0.875	0.468	1.282	At	8 16.1	19.1
333480	2004	<i>TC</i> ₁₀	20.2	X	214.96507	135.99443	16.60331	14.10492	0.4748315	0.83092894	1.121	0.664	1.577	Ap	9 22.1	20.4
333510	2005	<i>MD</i>	18.7	X	34.59535	202.44091	188.98829	20.76229	0.6080593	0.42264024	1.759	0.689	2.828	Ap	—	—
333521	2005	<i>PO</i>	19.9	X	317.67511	249.47850	300.54653	12.51444	0.3731879	0.70331265	1.252	0.785	1.720	Ap	—	—
333555	2005	<i>VY</i> ₁₇	17.3	X	42.92220	66.37287	79.19908	25.42873	0.4387999	0.35255597	1.984	1.114	2.855	Am	—	—
333578	2006	<i>KM</i> ₁₀₃	20.2	X	177.32679	196.94841	169.50075	11.68217	0.3768073	0.49922321	1.574	0.981	2.167	Ap	1 7.5	20.6
333707	2008	<i>YT</i> ₃₀	19.4	X	243.64283	334.09487	269.58938	16.14164	0.2753376	0.68902432	1.270	0.920	1.619	Ap	—	—
333755	2010	<i>VC</i> ₁	19.3	X	91.43382	2.21822	182.24872	20.95738	0.5586792	0.79294623	1.156	0.510	1.802	Ap	8 6.5	19.5
333888	1998	<i>ST</i> ₄	16.4	X	334.82132	207.04620	239.31150	9.30101	0.5992148	0.20881735	2.814	1.128	4.500	Am	9 30.2	17.4
333889	1998	<i>SV</i> ₄	18.1	X	54.12653	359.50723	177.25201	53.29997	0.6420060	1.33595440	0.816	0.292	1.341	At	—	—
333908	1999	<i>TN</i> ₁₂	17.8	X	342.27858	150.34731	212.34570	37.28405	0.3908334	0.38040460	1.886	1.149	2.624	Am	6 17.2	20.1
334412	2002	<i>EZ</i> ₂	20.1	X	191.09966	186.24527	181.10063	13.02565	0.0460520	0.70586281	1.249	1.192	1.307	Am	—	—
334673	2003	<i>AL</i> ₁₈	17.9	X	215.18736	246.60502	312.98396	15.72709	0.4167382	0.45080271	1.685	0.983	2.387	Ap	11 9.1	20.9
335746	2007	<i>EJ</i> ₂₆	18.3	X	96.56902	224.34557	176.38066	29.04520	0.2688510	0.46862641	1.642	1.200	2.083	Am	—	—
335758	2007	<i>EM</i> ₈₈	19.6	X	79.86833	336.98294	78.25056	3.57701	0.2676095	0.46470777	1.651	1.209	2.093	Am	—	—
337053	1996	<i>XW</i> ₁	19.1	X	17.30574	264.63637	247.88422	30.58832	0.4543326	0.43483015	1.726	0.942	2.509	Ap	—	—
337069	1998	<i>FX</i> ₁₃₄	18.6	X	241.67986	253.94720	349.52181	5.21705	0.4289150	0.29062702	2.257	1.289	3.225	Am	—	—
337075	1998	<i>QC</i> ₁	19.7	X	264.48172	115.26277	308.50225	9.63987	0.5912610	0.35309245	1.982	0.810	3.155	Ap	6 13.3	23.9
337084	1998	<i>SE</i> ₃₆	19.6	X	199.98151	27.14634	199.25243	11.67658	0.090293	0.63442551	1.341	1.209	1.474	Am	—	—
337118	1999	<i>TX</i> ₂	18.3	X	201.55637	53.54937	179.95773	61.38512	0.4635616	0.67995943	1.281	0.687	1.875	Ap	—	—
337119	1999	<i>TK</i> ₁₂	18.6	X	18.24885	112.13229	359.12689	24.48895	0.3928561	0.45145146	1.683	1.022	2.344	Am	—	—
337228	2000	<i>FL</i> ₁	15.5	X	348.29753	7.26933	78.88125	43.64848	0.5280650	0.21802746	2.734	1.290	4.178	Am	—	—
337248	2000	<i>RH</i> ₆₀	20.0	X	42.07323	354.39452	177.89013	19.64707	0.5513325	1.31310052	0.826	0.371	1.281	At	—	—
337252	2000	<i>SD</i> ₈	20.7	X	138.95159	211.60146	19.12281	6.54764	0.3136736	0.82166233	1.129	0.775	1.483	Ap	11 28.0	20.7
337345	2001	<i>KO</i> ₂₀	20.6	X	113.09611	66.33187	75.26841	14.19424	0.1213726	0.73146758	1.220	1.072	1.368	Am	—	—
337557	2001	<i>SF</i> ₂₆₂	18.6	X	80.36665	10.02785	347.29608	43.34585	0.2339210	0.44808600	1.691	1.296	2.087	Am	—	—
337558	2001	<i>SG</i> ₂₆₂	19.3	X	263.60235	99.70013	359.46880	4.81621	0.5818943	0.35854146	1.962	0.820	3.104	Ap	7 27.9	23.0
337866	2001	<i>WL</i> ₁₅	18.6	X	207.26444	14.43844	112.18571	6.94057	0.4742327	0.35181079	1.987	1.045	2.930	Am	8 6.9	22.5
338049	2002	<i>NY</i> ₃₁	17.2	X	180.69030	282.81459	118.11919	40.90650	0.5454021	0.29953742	2.212	1.006	3.419	Ap	5 4.2	22.7
338172	2002	<i>RV</i> ₁₁₂	17.4	X	186.27855	199.63191	196.07486	16.50854	0.4894890	0.29763485	2.222	1.134	3.309	Am	4 11.1	21.8
338176	2002	<i>RC</i> ₁₁₈	16.8	X	331.68763	222.19456	208.96270	28.02639	0.5665700	0.19440135	2.951	1.279	4.62			

ELEMENTS AND OPPOSITION DATES OF NEAS

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2017 SEPTEMBER 4.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
344074 1997 <i>UH</i> ₉	18.7	X	259.22974	180.90246	42.41160	25.49286	0.4747432	1.30333787	0.830	0.436	1.224	At	—	—
344076 1998 <i>HJ</i> ₃	18.8	X	302.00153	94.08476	223.66753	6.55887	0.7461945	0.35204112	1.986	0.504	3.469	Ap	2 15.9	23.7
344133 2000 <i>AD</i> ₆	18.4	X	141.30615	335.27218	112.80411	30.07089	0.4240929	0.29952433	2.212	1.274	3.151	Am	5 24.9	22.8
344143 2000 <i>JQ</i> ₃	18.2	X	156.37153	218.33043	54.71217	7.76905	0.4852260	0.25469304	2.465	1.269	3.661	Am	12 26.9	23.4
344756 2003 <i>VO</i> ₂	20.8	X	335.34170	229.02064	268.64491	7.12148	0.1004843	0.65344335	1.315	1.183	1.447	Am	—	—
345646 2006 <i>TN</i>	19.9	X	101.27856	131.63343	24.35451	17.27559	0.3452322	0.50503240	1.562	1.023	2.101	Am	5 14.9	19.3
345705 2006 <i>VB</i> ₁₄	18.6	X	220.20650	346.43541	258.73344	31.02289	0.4212910	1.46753593	0.767	0.444	1.090	At	—	—
345722 2007 <i>BG</i> ₂₉	18.1	X	208.72257	245.08287	60.98717	18.50838	0.3347527	1.29750466	0.833	0.554	1.111	At	—	—
345813 2007 <i>HX</i> ₄	17.7	X	46.26186	14.49777	41.68014	56.56167	0.3316891	0.65179173	1.317	0.880	1.754	Ap	—	—
345853 2007 <i>PU</i> ₁₁	16.2	X	26.87694	195.03005	207.94013	13.81038	0.5527894	0.20786270	2.822	1.262	4.383	Am	—	—
347634 2001 <i>SW</i> ₂₆₉	19.5	X	256.22666	29.44383	191.25277	24.46690	0.5542302	0.82903193	1.122	0.500	1.744	Ap	—	—
347813 2002 <i>NP</i> ₁	17.6	X	157.67333	145.14798	315.05733	19.12385	0.1652897	0.70680569	1.248	1.042	1.454	Am	—	—
348304 2005 <i>AN</i> ₁₉	18.1	X	212.62549	47.15760	121.48332	39.84076	0.3350064	0.36621145	1.935	1.287	2.583	Am	10 22.9	22.3
348306 2005 <i>AY</i> ₂₈	21.5	X	65.18181	155.91409	117.52465	5.88370	0.5701101	1.20940990	0.872	0.375	1.370	At	—	—
348314 2005 <i>BC</i>	17.9	X	308.88001	84.20467	292.47576	30.12258	0.2780787	0.75965997	1.190	0.859	1.520	Ap	3 25.9	20.1
348400 2005 <i>JF</i> ₂₁	17.3	X	218.47056	206.06232	132.26187	10.85082	0.5357553	0.29689147	2.225	1.033	3.418	Am	2 21.1	22.1
348461 2005 <i>SH</i> ₁₉	17.1	X	121.90240	158.35225	18.44761	47.71490	0.8550099	0.28727273	2.275	0.330	4.220	Ap	9 30.5	23.1
348595 2005 <i>XE</i> ₁	18.9	X	308.98040	314.75868	83.19525	29.13098	0.1516956	0.56484809	1.449	1.230	1.669	Am	8 31.7	20.4
348776 2006 <i>KE</i> ₃₇	19.1	X	192.03736	243.22044	95.68750	21.36848	0.2086800	0.67691961	1.285	1.017	1.553	Ap	—	—
349063 2006 <i>XA</i>	17.3	X	79.78147	300.93314	252.91175	10.30955	0.4132297	0.30211589	2.200	0.998	3.401	Ap	8 17.7	20.7
349068 2006 <i>YT</i> ₁₃	18.3	X	320.89071	105.48052	116.73092	38.24279	0.4259311	0.64762747	1.323	0.760	1.887	Ap	—	—
349074 2006 <i>BM</i> ₈	18.3	X	240.20426	179.25219	87.64297	27.63669	0.7207514	0.63434409	1.341	0.375	2.308	Ap	—	—
349219 2007 <i>SV</i> ₁₁	18.2	X	134.30536	23.72779	292.23874	32.21837	0.4936455	0.43168317	1.734	0.878	2.590	Ap	—	—
349507 2008 <i>QY</i>	18.6	X	106.77717	254.80897	1.98260	13.57855	0.5814412	0.78143657	1.167	0.489	1.846	Ap	1 31.1*	18.3
349925 2009 <i>WC</i> ₂₆	17.4	X	109.24902	350.91052	12.00438	12.00438	0.6972121	0.30792196	2.172	0.658	3.686	Ap	9 17.3	22.1
349928 2009 <i>WD</i> ₁₀₆	18.6	X	344.77383	16.69036	294.56157	10.97766	0.7762308	0.36658365	1.934	0.433	3.434	Ap	2 18.1	22.5
350462 1998 <i>KG</i> ₃	22.1	X	260.18715	267.72090	207.95777	5.50524	0.1181040	0.78850270	1.160	1.023	1.297	Am	—	—
350513 2000 <i>BG</i> ₁₉	17.9	X	351.33829	79.57820	147.57366	12.57541	0.5612929	0.22753993	2.657	1.166	4.149	Am	—	—
350523 2000 <i>EA</i> ₁₄	21.1	X	28.78556	205.98966	203.86660	3.55554	0.2026108	0.83492153	1.117	0.891	1.343	Ap	—	—
350536 2000 <i>QY</i> ₆₉	19.7	X	303.09718	65.02596	341.99652	25.20249	0.1638296	0.57851678	1.426	1.193	1.660	Am	8 21.7	19.6
350713 2001 <i>XP</i> ₈₈	20.7	X	86.91765	261.37721	97.80947	6.74547	0.1946946	0.63040817	1.347	1.085	1.609	Am	—	—
350751 2002 <i>AW</i>	20.8	X	250.38120	118.87428	162.36951	0.57161	0.2562321	0.88969402	1.071	0.796	1.345	Ap	—	—
350964 2003 <i>BT</i> ₃₅	18.8	X	276.48646	41.58808	122.57485	57.26483	0.1711682	0.59844109	1.395	1.156	1.633	Am	—	—
350988 2003 <i>GW</i>	16.8	X	258.31022	90.61820	183.21022	49.43854	0.4762334	0.40125119	1.821	0.954	2.687	Ap	—	—
351278 2004 <i>SB</i> ₂₀	18.8	X	106.66933	209.36588	30.27266	30.27266	0.4132090	0.76617861	1.183	0.694	1.672	Ap	11 6.2	19.9
351331 2004 <i>XH</i> ₂₉	18.8	X	237.03953	334.06213	232.07745	22.62627	0.5031806	0.60724239	1.381	0.686	2.076	Ap	12 17.9	19.1
351340 2004 <i>YC</i> ₅	18.1	X	290.33558	27.12521	334.59879	11.39584	0.6171093	0.36771562	1.930	0.739	3.120	Ap	4 4.8	22.4
351370 2005 <i>EY</i>	17.2	X	30.70335	185.72990	62.42374	17.24129	0.8909053	0.24689802	2.516	0.275	4.758	Ap	11 9.2	21.0
351508 2005 <i>RN</i> ₃₃	19.6	X	66.11046	300.06276	100.71166	7.18952	0.2567147	0.43178345	1.734	1.289	2.179	Am	—	—
351545 2005 <i>TE</i> ₁₅	19.7	X	75.27245	241.16773	10.90555	13.12971	0.3435880	0.74568762	1.204	0.791	1.618	Ap	2 4.3*	19.7
351815 2006 <i>OF</i> ₁₅	18.4	X	304.54540	246.26151	122.51882	23.18476	0.3543938	0.34630841	2.008	1.297	2.720	Am	5 28.4	21.6
352102 2007 <i>AG</i> ₁₂	19.5	X	226.97591	68.18050	305.46947	41.97522	0.6561336	0.32610762	2.090	0.719	3.462	Ap	3 5.2	25.2
352143 2007 <i>LR</i> ₃₂	17.2	X	128.20536	71.89947	266.66934	10.18470	0.5172608	0.23215410	2.622	1.266	3.978	Am	1 8.9	21.2
353190 2009 <i>ST</i>	19.7	X	265.73445	269.80110	189.29160	10.89918	0.3684636	0.36028774	1.956	1.235	2.677	Am	8 11.9	22.8
353938 1998 <i>QR</i> ₁₅	18.1	X	38.33023	57.00425	320.16021	9.45754	0.5593240	0.21428415	2.766	1.219	4.313	Am	—	—
353947 1999 <i>CT</i> ₈	18.8	X	177.31999	40.05831	337.14256	44.49889	0.3939506	0.70560480	1.250	0.757	1.742	Ap	—	—
354030 2001 <i>RB</i> ₁₈	18.5	X	152.13226	175.17434	198.33303	4.18142	0.5412898	0.27378378	2.349	1.077	3.620	Am	3 2.3	22.8
354101 2001 <i>YF</i> ₁	19.2	X	163.73551	289.87090	279.48010	20.01521	0.3394543	0.54398486	1.486	0.982	1.991	Ap	10 22.4	21.9
354127 2002 <i>BP</i> ₂₆	19.2	X	357.45367	202.76197	347.36536	30.25425	0.3945801	0.44599990	1.697	1.027	2.366	Am	—	—
354182 2002 <i>DU</i> ₃	20.7	X	171.75129	245.49961	0.69642	8.70104	0.2382125	0.80397930	1.145	0.873	1.418	Ap	—	—
354332 2003 <i>AD</i> ₁	18.2	X	318.24547	44.78517	117.53277	27.12983	0.3228129	0.40161024	1.819	1.232	2.407	Am	—	—
354663 2005 <i>LY</i> ₁₉	16.3	X	178.00427	120.21466	338.44782	30.00319	0.2399108	0.48614127	1.602	1.218	1.986	Am	5 9.7	19.1
354713 2005 <i>SG</i> ₁₉	16.6	X	338.54090	249.22881	13.08880	24.90609	0.5890962	0.23186126	2.624	1.078	4.170	Am	2 4.6	21.3
354876 2006 <i>BG</i> ₅₅	15.8	X	53.22728	167.63735	140.92585	12.44893	0.5981528	0.55276487	1.470	0.591	2.350	Ap	—	—
354952 2006 <i>FJ</i> ₉	19.3	X	291.83769	101.57697	166.43931	4.12406	0.3455787	0.42600865	1.749	1.145	2.354	Am	—	—
355046 2006 <i>SO</i> ₁₉	19.5	X	24.79514	169.72818	98.32810	14.24519	0.2719419	0.71179344	1.242	0.904	1.580	Ap	1 10.5	19.6
355256 2007 <i>KN</i> ₄	16.8	X	249.92387	51.16790	232.44805	12.54170	0.6308417	0.16142871	3.341	1.233	5.448	Am	1 11.0	23.9
355770 2008 <i>RE</i> ₈₀	18.4	X	127.90696	26.16559	182.03269	16.59377	0.2460332	0.54644750	1.482	1.117	1.846	Am	9 25.7	19.3
356285 2010 <i>DE</i>	17.3	X	224.27123	276.95473	177.01654	23.98591	0.3969866	0.32085088	2.113	1.274	2.952	Am	7 7.2	21.8
356394 2010 <i>QD</i> ₂	17.4	X	193.02145	125.83601	120.70053	10.64021	0.7854489	0.34586176	2.010	0.431	3.589	Ap	12 9.2	22.4
356991 1998 <i>QA</i> ₁	18.9	X	104.13273	332.95185	299.02195	8.16853	0.5324848	0.32294599	2.104	0.984	3.224	Ap	12 6.8	23.3
357005 1999 <i>HA</i> ₂	17.9	X	353.38062	344.21874	147.33932	15.08056	0.6978232	0.21096293	2.795	0.844	4.745	Ap	—	—
357022 1999 <i>YR</i> ₃	19.1	X	358.73410	250.23152	293.28553	34.51689	0.3295623	0.67679295	1.285	0.861	1.708	Ap	—	—
357024 1999 <i>YG</i> ₁₄	19.1	X	158.24307	9.61148	3.03322	3.72916	0.4002223	0.46448779	1.651	0.990	2.312	Ap	1 2.5	18.3
357028 2000 <i>EJ</i> ₂₆	19.4	X	211.53079	285.86085	10.52210	9.22639	0.6146716	0.60621257	1.383	0.533	2.233	Ap	—	—
357058 2001 <i>OC</i> ₂₅	20.1	X	126.94074	142.57788	153.69184	10.69107	0.2494894	0.57214079	1.437	1.079	1.796	Am	—	—
357311 2003 <i>DG</i> ₁₄	16.6	X	24.50172	9.93364</										

ELEMENTS AND OPPOSITION DATES OF NEAS

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
360191 1988 TA	20.6	X	68.45908	105.19572	194.71846	2.53125	0.4783464	0.51578882	1.540	0.803	2.276	Ap	12 30.1	23.0
360192 1991 FB	19.0	X	73.82793	219.99259	17.98591	9.03986	0.5697086	0.27088039	2.366	1.018	3.713	Am	10 13.9	23.1
360433 2002 JR ₉	17.7	X	31.15456	204.31955	122.50454	9.79425	0.6353099	0.26678463	2.390	0.872	3.908	Ap	—	—
360502 2003 EO ₁₆	20.5	X	198.69357	167.91534	177.96050	13.22737	0.2495299	1.09114772	0.934	0.701	1.168	At	—	—
361071 2006 AO ₄	15.4	X	334.74796	50.49484	318.43161	24.37288	0.5852274	0.23167815	2.626	1.089	4.162	Am	5 31.0	19.1
361123 2006 GW ₂	20.3	X	162.91971	114.92699	136.00374	9.41921	0.1909650	0.56545060	1.448	1.172	1.725	Am	—	—
361518 2007 FD	17.1	X	275.67318	183.51411	222.53347	6.95893	0.6026890	0.33369497	2.059	0.818	3.299	Ap	5 28.5	21.2
361532 2007 HF ₄₄	19.2	X	164.44398	314.08263	116.38586	2.99183	0.3152307	0.48681482	1.600	1.096	2.105	Am	4 6.5	20.2
361538 2007 JZ ₂₀	18.5	X	248.64742	139.01608	200.50102	40.48106	0.3351977	0.65637351	1.311	0.872	1.751	Ap	—	—
361611 2007 TY ₁₈	18.2	X	90.76512	301.79898	6.10853	8.05729	0.4079981	0.31154648	2.155	1.276	3.034	Am	—	—
361689 2007 VY ₇	19.3	X	338.78515	9.53228	108.07318	6.36072	0.5035392	0.40298047	1.815	0.901	2.729	Ap	—	—
361754 2007 YV ₂₉	19.0	X	49.39569	321.82327	59.32473	21.88254	0.3569781	0.61249734	1.373	0.883	1.863	Ap	—	—
361861 2008 ED ₆₉	17.0	X	309.16187	173.21717	149.56627	36.32677	0.7391761	0.19826171	2.913	0.760	5.066	Ap	3 8.7	22.8
362310 2009 UM ₃	18.0	X	43.52528	128.69965	162.47548	12.72347	0.7861452	0.25868393	2.439	0.522	4.357	Ap	12 17.8	22.6
363024 1998 OK ₁	19.3	X	337.97792	298.52818	109.70087	13.99043	0.4293496	0.62438261	1.356	0.774	1.938	Ap	—	—
363027 1998 ST ₂₇	19.5	X	62.19242	322.46874	197.55699	21.05818	0.5299723	1.32888411	0.819	0.385	1.254	At	—	—
363067 2000 CO ₁₀₁	19.1	X	350.53686	64.92580	353.07323	15.32292	0.0901088	0.88251042	1.076	0.979	1.173	Ap	—	—
363069 2000 EV ₁₀₆	19.3	X	157.35906	255.30898	170.88653	33.47098	0.3487545	0.46551771	1.649	1.074	2.224	Am	3 31.2	20.8
363071 2000 GD ₁₄₇	20.3	X	247.50450	182.24659	357.43857	7.09237	0.5492403	0.37815089	1.894	0.854	2.934	Ap	10 25.9	23.4
363075 2000 OG ₈	17.7	X	317.35833	71.73027	295.17413	5.26586	0.5468221	0.22706831	2.661	1.206	4.116	Am	5 16.7	21.9
363076 2000 PH ₆	17.8	X	297.61754	199.68076	152.34057	10.49957	0.5184065	0.22384159	2.686	1.294	4.079	Am	5 15.2	22.6
363084 2000 RD ₅₃	19.9	X	31.46008	212.77657	175.98765	9.28516	0.4281704	0.41275837	1.787	1.022	2.551	Am	—	—
363116 2001 GQ ₂	20.1	X	38.35536	280.29121	37.14218	21.82237	0.5030087	0.73641842	1.214	0.604	1.825	Ap	4 2.7	20.4
363163 2001 SE ₂₈₆	17.8	X	141.34960	199.19398	268.53748	26.81426	0.4564350	0.33937063	2.036	1.106	2.965	Am	6 8.4	21.3
363267 2002 GS	19.9	X	229.42578	264.15807	34.73955	19.76195	0.4037036	0.62646754	1.353	0.807	1.899	Ap	—	—
363298 2002 KL ₃	18.1	X	183.86165	293.28028	73.26337	20.74235	0.7488240	0.36141119	1.952	0.490	3.414	Ap	3 24.7	23.0
363305 2002 NV ₁₆	21.4	X	310.46520	179.23414	183.33588	3.50144	0.2198566	0.71617403	1.237	0.965	1.509	Ap	4 8.9	21.0
363344 2002 QC ₇	20.0	X	127.72085	184.43406	336.03910	26.80651	0.1960109	0.77957101	1.169	0.940	1.398	Ap	—	—
363505 2003 UC ₂₀	18.1	X	155.53865	59.68036	188.41045	3.80421	0.3368174	1.42731089	0.781	0.518	1.044	At	—	—
363599 2004 FG ₁₁	21.0	X	227.94382	228.15711	84.07928	3.11867	0.7236956	0.49275389	1.588	0.439	2.736	Ap	1 16.4	24.2
363617 2004 KK ₁₇	18.3	X	210.46776	31.52575	103.69109	41.54639	0.5755015	0.55471329	1.467	0.623	2.311	Ap	8 15.9	21.8
363626 2004 RA ₁₁	18.8	X	47.97928	276.42735	169.76903	39.35903	0.3993295	0.40003345	1.824	1.096	2.553	Am	—	—
363734 2004 XN ₅₀	18.8	X	320.01034	253.34191	62.46202	3.31360	0.7782266	0.45195850	1.682	0.373	2.990	Ap	2 15.9	22.9
363790 2005 JE ₄₆	17.7	X	194.68553	114.69052	238.40770	8.26555	0.5525299	0.37533733	1.903	0.852	2.955	Ap	2 16.8	21.5
363814 2005 ND ₇	17.8	X	127.88867	241.48502	110.10283	52.58152	0.4822953	0.35814967	1.964	1.017	2.911	Ap	—	—
363831 2005 PY ₁₆	19.2	X	124.60900	193.47961	159.35348	6.41820	0.5256373	0.35510791	1.975	0.937	3.013	Ap	—	—
364136 2006 CJ	20.2	X	103.70248	29.62734	303.26480	10.23405	0.7548570	1.77129612	0.677	0.166	1.187	At	—	—
364762 2007 XC ₁₀	19.4	X	309.47771	112.54529	254.03836	47.93753	0.2261062	0.47829853	1.619	1.253	1.985	Am	5 27.9	20.6
364877 2008 EM ₉	17.3	X	186.61829	181.73346	229.68610	9.42815	0.8521414	0.35916630	1.960	0.290	3.630	Ap	5 6.1	22.4
365014 2008 OX ₂	20.7	X	63.46592	251.89960	220.24765	6.64852	0.6019103	0.91899852	1.048	0.417	1.678	Ap	—	—
365071 2009 AV	18.1	X	147.42455	322.10348	150.74772	45.86441	0.0739721	0.94314657	1.030	0.954	1.106	Ap	—	—
365246 2009 NE	15.9	X	289.00515	198.80336	230.43759	35.15245	0.8652195	0.22562464	2.672	0.360	4.984	Ap	6 11.2	22.0
365424 2010 KX ₇	19.1	X	248.51061	61.82279	46.50795	21.48656	0.1710432	1.00079805	0.990	0.821	1.159	At	—	—
365449 2010 NJ ₁	20.4	X	266.01018	358.51663	128.28373	11.22422	0.5405175	1.03427720	0.968	0.445	1.492	At	9 9.3	19.0
366470 2002 FD	19.4	X	95.03940	267.13218	182.21354	22.81169	0.2822308	0.58007285	1.424	1.022	1.826	Am	—	—
366615 2003 LO ₆	16.9	X	322.59917	6.43004	254.33258	34.59140	0.5760279	0.19865726	2.909	1.233	4.585	Am	1 9.0	22.5
366733 2004 BG ₁₂₁	19.1	X	6.36117	206.84089	128.66052	19.42488	0.3424924	0.48165648	1.612	1.060	2.164	Am	11 26.1	19.8
366746 2004 LJ	20.2	X	310.17830	256.04218	246.75092	18.28352	0.4614919	0.86950993	1.087	0.585	1.589	Ap	—	—
366774 2004 TB ₁₈	17.7	X	42.57622	13.06531	121.02103	13.20488	0.4503902	0.40309621	1.815	0.998	2.632	Ap	—	—
366833 2005 MC	16.5	X	306.44406	125.05183	287.33734	27.28846	0.5928829	0.23305016	2.615	1.065	4.166	Am	6 30.1	20.6
367248 2007 MK ₁₃	20.0	X	234.37610	259.95825	95.09652	19.88003	0.1397975	0.95024967	1.025	0.881	1.168	Ap	—	—
367390 2008 MB ₅	19.1	X	73.35840	278.59028	115.23860	20.40294	0.3640284	0.57778069	1.428	0.908	1.947	Ap	—	—
367525 2009 QZ ₆	17.8	X	90.27795	304.62622	281.77993	18.91398	0.2330784	0.48907121	1.595	1.224	1.967	Am	8 22.9	19.3
367638 2009 WR ₆	18.4	X	254.06380	114.81482	284.86445	26.49636	0.2773845	0.45939322	1.663	1.202	2.125	Am	5 8.7	21.4
367684 2010 OS ₂₂	18.1	X	115.01976	179.56895	256.94074	9.36462	0.6887865	0.47067106	1.637	0.509	2.764	Ap	4 16.6	18.8
367789 2011 AG ₅	21.8	X	276.67395	53.55662	135.66873	3.68218	0.3903142	0.57585582	1.431	0.872	1.989	Ap	—	—
367943 Duende	24.0	X	246.77414	195.58975	146.96126	11.60932	0.0893486	1.13485103	0.910	0.829	0.992	At	—	—
368184 2000 RN ₇₇	19.5	X	305.66993	211.71172	312.74934	16.10241	0.3180172	1.06317055	0.951	0.648	1.253	At	—	—
368203 2001 KO ₂	20.4	X	47.86364	327.82900	243.05278	12.23752	0.6123641	0.25061691	2.492	0.966	4.017	Ap	8 16.5	23.1
368565 2004 FE ₅	20.0	X	293.56130	243.36716	189.47546	18.30983	0.6004188	0.70942259	1.245	0.498	1.993	Ap	6 24.6	22.2
368664 2005 JA ₂₂	18.6	X	355.80140	252.15024	166.36460	13.24208	0.2987858	0.51834627	1.535	1.076	1.993	Am	—	—
368790 2005 XK ₈	19.8	X	263.15882	173.42462	277.78504	25.45744	0.2539522	0.48193981	1.611	1.202	2.020	Am	7 30.9	21.9
368949 2006 YN	19.6	X	12.29326	307.78558	106.28854	15.27345	0.2249614	0.54886939	1.477	1.145	1.810	Am	—	—
369057 2008 DK ₅	21.3	X	355.40000	80.73592	345.83358	4.27259	0.6149906	0.50857312	1.554	0.598	2.510	Ap	—	—
369264 2009 MS	16.3	X	86.73745	219.53521	252.08478	52.40284	0.5694309	0.34718639	2.005	0.863	3.147	Ap	5 9.9	18.5
369296 2009 SU ₁₉	18.0	X	172.78086	342.49444	172.76537	14.51746	0.8993315	0.32827619	2.081	0.210	3.953	Ap	8 26.1	23.5
369452 2010 LG ₁₄	17.9	X	236.76108	182.82153	271.29668	34.20677	0.7426144	0.92223486	1.045	0.269	1.822	Ap	6 23.3	19.2
369454 2010 NZ ₁	19.4	X	226.21471	37.92961	159.03515	32.77784	0.6464850	0.61251356	1.373	0.485	2.261	Ap	11 13.2	22.2
369983 1998 QB ₂₈	20.2	X	161.36947	2										

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
373393 1972 <i>RB</i>	19.1	X	109.51667	153.01300	177.09696	5.25215	0.4876823	0.31334449	2.147	1.100	3.194	Am	—	—
373428 1999 <i>TC</i> ₅	18.5	X	59.99594	282.66127	192.43454	29.10808	0.5472334	0.34435973	2.016	0.913	3.119	Ap	—	—
373503 2001 <i>CK</i> ₄₂	20.0	X	227.58252	220.03188	6.01001	10.27273	0.2808903	0.58177845	1.421	1.022	1.820	Am	—	—
373579 2002 <i>AW</i> ₁₁	18.7	X	328.37404	91.13999	95.56829	18.33019	0.3304792	0.56630824	1.447	0.969	1.925	Ap	—	—
374038 2004 <i>HW</i>	17.0	X	3.76906	62.78149	219.90018	0.83000	0.6343260	0.22286359	2.694	0.985	4.403	Ap	3 11.5	19.2
374158 2004 <i>UL</i>	18.8	X	320.92022	149.57133	39.57459	23.78506	0.9267331	0.69159781	1.266	0.093	2.440	Ap	—	—
374188 2005 <i>AD</i> ₃	17.2	X	96.33850	277.78024	294.03678	14.55971	0.5042351	0.26468439	2.402	1.191	3.614	Am	9 13.7	21.8
374267 2005 <i>LW</i>	18.9	X	356.02141	354.71557	138.14265	3.13215	0.6404382	0.55465833	1.467	0.528	2.407	Ap	—	—
374449 2005 <i>XD</i> ₁	19.4	X	231.87661	198.65140	287.38880	18.28570	0.3064595	0.47776810	1.621	1.124	2.117	Am	8 18.1	21.9
374851 2006 <i>VV</i> ₂	16.8	X	304.83136	145.10617	9.85344	23.72038	0.6051470	0.26723392	2.387	0.943	3.832	Ap	10 28.6	19.3
374855 2006 <i>VQ</i> ₁₃	20.0	X	188.50724	73.80666	233.71470	16.69712	0.4457499	0.85478922	1.100	0.609	1.590	Ap	—	—
375054 2007 <i>PF</i> ₆	20.7	X	347.80397	251.19352	316.38630	25.60065	0.4165471	0.66595755	1.299	0.758	1.840	Ap	—	—
375103 2007 <i>TD</i> ₇₁	18.4	X	351.42710	220.72620	49.58958	49.75689	0.2796915	0.67568839	1.286	0.926	1.646	Ap	—	—
375505 2008 <i>UN</i> ₉₀	20.0	X	144.86568	313.05955	33.53009	17.54602	0.1257365	0.59217828	1.404	1.228	1.581	Am	—	—
375657 2009 <i>CP</i> ₅	21.5	X	47.92392	268.38795	330.27328	13.11655	0.3143172	0.72658255	1.225	0.840	1.611	Ap	—	—
376707 1995 <i>OO</i>	17.0	X	49.03395	211.99932	348.85196	23.53690	0.7776960	0.31103076	2.157	0.480	3.835	Ap	9 8.6	19.6
376729 1998 <i>YB</i> ₈	19.1	X	348.52677	342.86337	106.62364	8.87798	0.4681589	0.26138570	2.423	1.288	3.557	Am	—	—
376775 2000 <i>HW</i> ₂₃	18.4	X	139.08832	245.07566	46.39507	7.74864	0.4223600	0.31150278	2.155	1.245	3.066	Am	—	—
376778 2000 <i>JY</i> ₈	17.2	X	287.08045	41.35844	109.01661	16.51412	0.6043453	0.21191819	2.786	1.102	4.470	Am	10 17.1	21.8
376788 2000 <i>RV</i> ₃₇	19.3	X	140.60020	210.94122	330.35306	16.33057	0.4959912	0.92809499	1.041	0.525	1.557	Ap	9 6.9	19.4
376848 2001 <i>RY</i> ₄₇	19.4	X	286.56946	214.03415	11.23222	17.60845	0.3929359	1.14179689	0.907	0.550	1.263	At	—	—
376864 2001 <i>VT</i> ₁₀₃	19.9	X	161.27965	242.92730	224.25067	4.74073	0.3597080	0.40780829	1.801	1.153	2.449	Am	6 9.8	22.5
376879 2001 <i>WV</i> ₁	22.0	X	270.01393	45.78024	59.81631	21.74079	0.1217597	0.74040851	1.210	1.063	1.357	Am	—	—
376883 2001 <i>XE</i> ₁	19.2	X	220.42522	273.05782	231.12457	20.95268	0.2108357	0.48535565	1.604	1.266	1.942	Am	9 11.0	21.7
377097 2002 <i>WQ</i> ₄	19.6	X	105.93931	244.41030	267.08247	3.94212	0.5552707	0.35948029	1.959	0.871	3.047	Ap	7 17.3	22.5
377732 2005 <i>XJ</i> ₈	17.0	X	102.29570	67.32679	115.97161	23.57744	0.6213326	0.36742128	1.931	0.731	3.130	Ap	9 4.5	21.0
377972 2006 <i>MF</i> ₁₀	19.4	X	146.31378	64.39626	196.67902	3.04624	0.4226629	0.29768722	2.221	1.283	3.160	Ap	12 11.4	23.9
378124 2006 <i>VT</i> ₂	18.2	X	135.37617	152.61626	59.46226	31.81757	0.7231256	0.69458662	1.263	0.350	2.176	Ap	11 2.4	21.1
378160 2006 <i>WX</i> ₁	19.5	X	274.15981	290.91795	328.01285	11.63436	0.3002012	1.12313484	0.917	0.641	1.192	At	—	—
378358 2007 <i>LD</i>	19.2	X	207.87074	316.88433	226.24902	16.49502	0.4392826	0.43450764	1.726	0.968	2.485	Ap	10 15.4	22.2
378526 2007 <i>VH</i> ₁₈₆	20.2	X	329.71628	15.15625	51.48205	19.23928	0.1969705	0.49905178	1.574	1.264	1.884	Am	—	—
378610 2008 <i>FT</i> ₆	17.4	X	71.47900	52.21658	41.96551	13.58491	0.4255975	0.31508199	2.139	1.229	3.049	Am	—	—
378842 2008 <i>TD</i> ₄	19.7	X	251.84379	54.83954	221.92115	14.46126	0.6173837	0.40088474	1.822	0.697	2.946	Ap	—	—
380128 1997 <i>WB</i> ₂₁	20.1	X	101.85777	81.82948	281.07073	3.39111	0.3175736	0.55842873	1.460	0.997	1.924	Ap	—	—
380160 2000 <i>JO</i> ₇₈	17.7	X	140.10416	349.96142	310.55123	7.32947	0.4367835	0.31218869	2.152	1.212	3.092	Am	—	—
380188 2000 <i>WC</i> ₆₇	18.6	X	268.22573	249.33752	251.76739	9.99813	0.5736589	0.22321434	2.691	1.147	4.235	Am	9 14.5	23.6
380205 2001 <i>CA</i> ₃₂	19.5	X	7.78106	124.71712	353.38663	21.40644	0.4669085	0.29751793	2.222	1.185	3.260	Am	—	—
380321 2002 <i>HF</i> ₈	18.1	X	86.77227	261.68508	48.71025	4.77126	0.4902664	0.27924618	2.318	1.182	3.455	Am	—	—
380359 2002 <i>TN</i> ₃₀	17.0	X	24.17243	91.75439	20.66535	19.85094	0.4459490	0.27623626	2.335	1.294	3.376	Am	—	—
380455 2003 <i>UL</i> ₃	17.9	X	10.80211	13.01690	153.14386	14.65553	0.7983289	0.29344114	2.243	0.452	4.033	Ap	—	—
380476 2003 <i>YO</i> ₁	19.4	X	246.48641	161.41886	65.16607	14.25883	0.3992183	0.79110752	1.158	0.696	1.620	Ap	—	—
380524 2004 <i>GY</i>	20.1	X	230.61417	182.87162	50.88076	23.43756	0.2180896	0.56554677	1.448	1.132	1.764	Am	—	—
380636 2004 <i>XN</i> ₁₄	19.7	X	294.26843	115.70315	120.86965	10.74352	0.2665005	1.09663507	0.931	0.683	1.180	At	—	—
380818 2005 <i>YV</i> ₁₂₈	20.6	X	140.59156	191.79107	127.73806	14.13916	0.5123071	1.11145238	0.923	0.450	1.396	At	—	—
380929 2006 <i>HU</i> ₃₀	19.6	X	106.89533	274.27465	44.65707	24.00734	0.4198053	0.56172838	1.455	0.844	2.065	Ap	—	—
380981 2006 <i>SU</i> ₁₃₁	18.8	X	351.88602	167.69883	107.40353	9.65840	0.3951765	0.43428170	1.727	1.045	2.409	Am	2 8.1	20.9
381181 2007 <i>LV</i> ₁₉	19.7	X	286.51814	301.32612	264.07382	14.88970	0.3205072	0.55213542	1.472	1.000	1.943	Ap	—	—
381564 2008 <i>UW</i> ₅	18.2	X	133.61108	204.33016	297.93736	9.41876	0.3889937	0.39749196	1.832	1.119	2.545	Am	7 9.6	20.7
381677 2009 <i>BJ</i> ₈₁	18.4	X	133.85553	90.14826	108.80299	5.84135	0.4555486	0.39129396	1.851	1.008	2.695	Ap	9 28.9	21.9
381906 2010 <i>CL</i> ₁₉	17.9	X	13.83149	76.76725	243.83543	7.31307	0.6454909	0.51428217	1.543	0.547	2.539	Ap	3 14.4	19.9
381989 2010 <i>HR</i> ₈₀	19.9	X	201.70779	291.30034	6.24798	26.71557	0.4956350	0.63029734	1.347	0.679	2.015	Ap	—	—
382395 1990 <i>SM</i>	16.4	X	323.20146	107.64308	136.27136	11.60874	0.7640916	0.32253987	2.106	0.497	3.715	Ap	—	—
382406 1996 <i>AJ</i>	20.3	X	212.11375	238.26678	90.98602	2.53610	0.7813927	0.65752993	1.310	0.286	2.333	Ap	1 19.9	20.4
382459 2000 <i>ST</i> ₂₀	19.2	X	186.81044	72.55565	343.35678	16.83882	0.3104472	0.38392870	1.875	1.293	2.457	Am	4 11.8	22.4
382503 2001 <i>RE</i> ₈	18.9	X	193.69598	4.66739	263.81759	14.03990	0.2330559	0.51750146	1.536	1.178	1.895	Am	—	—
382625 2002 <i>PC</i> ₁₃₀	18.4	X	42.90578	80.71093	312.15736	19.50530	0.4829327	0.27492481	2.342	1.211	3.474	Am	—	—
382745 2003 <i>CC</i>	20.4	X	271.09183	103.16632	136.33702	2.32401	0.3268858	0.53626713	1.500	1.010	1.991	Ap	—	—
382758 2003 <i>GY</i>	20.2	X	254.76572	334.13111	321.82467	4.67414	0.3171414	0.60819035	1.380	0.942	1.817	Ap	—	—
382825 2003 <i>XB</i> ₂₂	19.4	X	356.93729	118.25752	108.80740	29.95117	0.3935516	0.59150983	1.405	0.852	1.959	Ap	—	—
382875 2004 <i>KE</i> ₁	21.6	X	282.44797	283.67891	42.77455	2.88383	0.1806949	0.66593889	1.299	1.064	1.533	Am	1 2.9	21.2
383610 2007 <i>JJ</i> ₃₅	18.3	X	147.46776	324.12409	230.61438	56.07358	0.3049531	0.41725151	1.774	1.233	2.315	Am	9 17.5	22.4
385186 1994 <i>AW</i> ₁	17.7	X	269.62930	37.01947	290.37035	24.09539	0.0757756	0.84821073	1.105	1.022	1.189	Am	—	—
385252 2001 <i>EB</i> ₁₈	19.3	X	19.86722	101.91553	155.48094	50.06225	0.1836939	0.91217382	1.053	0.860	1.246	Ap	—	—
385268 2001 <i>RC</i> ₁₂	15.7	X	270.43962	185.42775	208.93807	27.37084	0.6412328	0.17073394	3.218	1.155	5.282	Am	5 17.8	22.2
385343 2002 <i>LV</i>	16.6	X	92.83948	224.20345	132.20433	29.54317	0.6052284	0.27995727	2.314	0.914	3.715	Ap	—	—
385402 2002 <i>WZ</i> ₂	17.0	X	310.85446	48.14177	261.36791	51.33018	0.8842928	0.25519856	2.462	0.285	4.638	Am	1 16.9	23.5
385423 2003 <i>DE</i> ₆	19.2	X	156.14218	68.71890	160.13219	23.19580	0.3287540	0.44484750	1.700	1.141	2.258	Ap	1	

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
387668 2002 SZ	20.4	X	88.45193	276.52547	346.87754	22.89337	0.4333612	0.66703514	1.297	0.735	1.859	Ap	11 22.4	22.7
387717 2003 DN ₄	19.3	X	211.24946	141.59403	157.80582	36.31495	0.4770110	0.80433120	1.145	0.599	1.691	Ap	—	—
387733 2003 GS	18.9	X	196.58815	181.81760	196.24805	12.03240	0.2184680	1.16856075	0.893	0.698	1.088	At	—	—
387746 2003 MH ₄	20.0	X	76.87817	323.00953	259.83682	3.88331	0.5138888	0.35820100	1.964	0.955	2.973	Ap	9 21.5	22.8
387793 2003 WL ₂₅	16.5	X	298.32998	24.98319	267.13593	23.77076	0.7417124	0.26592113	2.395	0.619	4.171	Ap	1 20.1	22.2
387816 2004 FM ₁₇	19.5	X	246.28422	196.49213	169.87306	6.76162	0.2498411	1.18290864	0.885	0.664	1.107	At	—	—
387871 2004 RD ₂₅₂	19.1	X	65.05944	174.70076	288.13114	10.39394	0.6000650	0.32363372	2.101	0.840	3.362	Ap	—	—
388185 2006 CX ₁₀	17.7	X	278.20130	189.70858	32.17425	27.10531	0.5129983	0.23975115	2.566	1.250	3.883	Am	—	—
388188 2006 DP ₁₄	18.9	X	110.82031	59.21849	317.25856	11.78489	0.7764687	0.61751835	1.366	0.305	2.426	Ap	—	—
388189 2006 DS ₁₄	20.5	X	288.67501	187.49414	162.26726	26.53309	0.3366338	1.22789308	0.864	0.573	1.154	At	—	—
388468 2007 DB ₈₃	18.3	X	162.60801	162.29066	55.25367	10.90551	0.3001796	0.42552805	1.751	1.225	2.276	Am	11 6.4	20.9
388567 2007 QX ₁₄	18.0	X	307.99065	250.46769	20.48291	5.22079	0.4616562	0.27387855	2.348	1.264	3.432	Am	1 21.8	22.4
388798 2008 BU ₂	18.4	X	260.33282	212.86044	115.31617	38.41373	0.7244455	0.65960487	1.307	0.360	2.254	Ap	2 1.7	20.8
388838 2008 EZ ₅	19.5	X	34.23545	227.92670	15.23631	8.02739	0.5081558	0.32684020	2.087	1.027	3.148	Am	3 25.1*	17.9
388945 2008 TZ ₃	20.4	X	223.72223	219.40694	44.19558	8.80684	0.3903620	0.49170727	1.590	0.969	2.210	Ap	—	—
389694 2011 QD ₄₈	18.1	X	322.65461	106.66840	358.89079	19.06487	0.4920471	0.51306524	1.545	0.785	2.306	Ap	—	—
390522 1996 GD ₁	20.6	X	119.97750	293.59375	38.10265	18.38442	0.3526247	0.76313805	1.186	0.768	1.604	Ap	—	—
390536 1999 KK ₁	18.2	X	305.94701	229.97938	76.74652	7.10287	0.4607035	0.32016416	2.116	1.141	3.091	Am	2 27.3	22.1
390725 2003 HB	19.7	X	315.42542	306.73286	70.39118	18.10910	0.3805761	1.25826791	0.850	0.526	1.173	At	—	—
390929 2005 GP ₂₁	20.5	X	283.23890	1.40243	10.01471	18.80446	0.2245353	0.65863423	1.308	1.015	1.602	Ap	4 1.3	20.8
391033 2005 TR ₁₅	19.1	X	11.97976	59.36041	214.10448	3.91614	0.4335654	0.32016977	2.116	1.199	3.034	Am	3 26.5	20.2
391151 2005 YU ₉₃	17.1	X	272.47953	311.68876	296.72249	24.16388	0.8833227	0.23787502	2.580	0.301	4.858	Ap	12 22.6	22.2
391211 2006 HZ ₅₁	18.5	X	86.57080	193.34140	84.29132	12.41200	0.4498983	0.37709439	1.897	1.044	2.751	Am	12 3.9	21.7
391275 2006 SJ ₁₃₄	17.9	X	104.75102	303.25178	129.78320	26.07684	0.4766048	0.30190906	2.205	1.154	3.255	Am	4 4.8	20.9
391449 2007 FL ₁	18.5	X	305.80865	172.92113	72.19208	28.66472	0.5036183	0.27293467	2.354	1.168	3.539	Am	—	—
391451 2007 FE ₂₀	19.5	X	173.42907	279.47672	282.30255	7.61010	0.2729727	0.42443122	1.754	1.275	2.232	Am	10 20.3	22.3
391508 2007 RV ₁₇	19.1	X	63.64261	321.72591	146.83043	11.09676	0.6843574	0.32077843	2.113	0.667	3.560	Ap	—	—
392211 2009 TG ₁₀	17.6	X	77.86869	12.17299	210.68236	40.85707	0.4234925	0.35528187	1.974	1.138	2.810	Am	9 7.8	21.0
392476 2011 GD ₃	19.0	X	143.08416	357.45349	39.30074	13.69855	0.6604950	0.63821372	1.336	0.454	2.219	Ap	—	—
392704 2012 AE ₁	19.0	X	61.92297	356.51158	16.80411	10.05262	0.4727131	0.53227515	1.508	0.795	2.221	Ap	—	—
393359 1998 ME ₃	19.2	X	342.55333	165.30819	129.50881	5.99706	0.4829380	0.30673776	2.177	1.126	3.229	Am	3 10.2	22.0
393569 2003 JC ₁₃	20.3	X	243.53918	172.00699	505.82813	8.50765	0.3153283	0.89502673	1.066	0.730	1.403	Ap	—	—
393908 2005 UH ₃	17.5	X	96.11626	309.16667	53.34823	44.77116	0.5465352	0.43451724	1.726	0.783	2.670	Ap	—	—
394130 2006 HY ₅₁	17.2	X	238.93973	341.88318	40.78757	33.19501	0.9695224	0.23576483	2.595	0.079	5.111	Ap	4 20.4	24.0
394155 2006 QS	20.0	X	263.74906	142.94258	164.40208	4.59052	0.5115811	0.24241241	2.547	1.244	3.851	Am	2 8.4	25.3
394392 2007 EP ₈₈	18.5	X	357.07874	47.04374	328.57484	20.75844	0.8859401	1.28642927	0.837	0.096	1.579	At	3 23.7	19.7
394783 2008 HD ₃	19.8	X	25.55112	223.74772	222.08545	52.01106	0.3358474	0.81904846	1.131	0.751	1.511	Ap	—	—
395143 2010 CN ₁	19.0	X	79.31811	192.41084	216.45588	20.97506	0.4391058	0.53707449	1.499	0.841	2.157	Ap	—	—
395207 2010 HQ ₈₀	19.6	X	214.77430	66.28472	218.50278	27.85237	0.4894044	0.50196310	1.568	0.801	2.335	Ap	—	—
395289 2011 BJ ₂	18.2	X	151.04358	84.12430	34.01262	49.90124	0.3472492	0.67238362	1.290	0.842	1.738	Ap	4 27.6	17.0
396593 2001 HC	19.0	X	117.90548	28.18331	326.61484	23.74085	0.4993657	1.20493347	0.875	0.438	1.311	At	—	—
396730 2003 KX ₁₆	18.5	X	147.78591	28.28038	94.31138	23.62855	0.5788502	0.63936195	1.334	0.562	2.107	Ap	6 26.6	19.4
396793 2004 JN ₂	20.2	X	203.25449	179.90565	228.34824	19.76610	0.6085295	0.89333049	1.068	0.418	1.717	Ap	—	—
396794 2004 KT	17.8	X	128.72129	238.47487	267.97980	43.65112	0.6636860	0.39037074	1.854	0.624	3.085	Ap	7 15.2	22.1
397237 2006 KZ ₁₁₂	16.7	X	305.70738	358.18652	166.29294	37.78365	0.8868676	0.24565143	2.525	0.286	4.764	Ap	10 3.6	21.0
397326 2006 TC ₁	19.0	X	233.03124	160.78776	326.11145	4.49540	0.3751252	0.43687034	1.720	1.075	2.365	Am	8 24.6	21.7
397471 2007 LV	18.2	X	99.71337	262.09224	70.29885	16.99730	0.2708826	0.42116986	1.763	1.285	2.240	Am	—	—
397474 2007 PP ₆	17.3	X	24.45226	12.88758	77.19696	18.52335	0.8328699	0.30812411	2.171	0.363	3.979	Ap	—	—
397847 2008 TA ₁	18.7	X	26.96548	145.64079	22.05527	14.83113	0.4484890	0.59723755	1.396	0.770	2.023	Ap	—	—
398188 2010 LE ₁₅	19.5	X	173.43578	328.67531	134.26026	13.24673	0.2736572	1.22698324	0.864	0.628	1.101	At	—	—
399307 1991 RJ ₂	18.9	X	337.04555	150.93805	171.79428	8.94378	0.4270917	0.30006227	2.210	1.266	3.153	Am	4 20.9	21.4
399308 1993 GD	20.7	X	166.89738	202.02234	201.45785	15.46454	0.2380822	0.85150649	1.102	0.840	1.365	Ap	—	—
399325 1999 GY ₅	20.0	X	48.73600	232.16024	203.43014	24.44097	0.6145967	0.80302183	1.146	0.442	1.851	Ap	—	—
399433 2001 YK ₄	18.6	X	241.06574	210.39542	156.14411	4.40392	0.7781876	0.22741723	2.658	0.590	4.727	Ap	4 2.6	25.0
399446 2002 GF ₁	20.5	X	54.75992	154.62542	66.76690	1.82195	0.4017005	0.33148672	2.068	1.237	2.898	Am	8 2.6	21.2
399457 2002 PD ₄₃	19.1	X	298.55131	210.82179	315.16034	26.04817	0.9560081	0.24799015	2.509	0.110	4.908	Ap	9 9.9	24.3
399611 2004 BE ₁₁	19.3	X	206.36644	37.93200	138.29109	15.24746	0.1657202	0.70370131	1.252	1.044	1.459	Am	12 1.4	19.5
399774 2005 NB ₇	18.7	X	80.63191	348.16074	199.20916	12.69629	0.5173803	0.33725253	2.044	0.987	3.102	Ap	8 6.6	21.6
401856 2000 KW ₄₃	20.2	X	354.67337	63.53979	82.69267	24.27752	0.4778359	0.56307199	1.452	0.758	2.146	Ap	—	—
401857 2000 PG ₃	16.1	X	185.35986	141.15424	323.62882	22.00777	0.8556277	0.20780691	2.823	0.408	5.238	Ap	7 10.1	23.2
401885 2001 RV ₁₇	20.5	X	307.08683	4.55457	153.92949	7.52316	0.3424116	1.12680360	0.915	0.601	1.228	At	—	—
401925 2002 AT ₁₅	18.4	X	31.94485	266.48694	108.45554	36.37585	0.4755308	0.37814269	1.894	0.993	2.795	Ap	—	—
401954 2002 RW ₂₅	18.8	X	212.28447	71.73496	92.06872	1.32742	0.2868902	1.31213827	0.826	0.589	1.063	At	—	—
401998 2003 MO	18.4	X	34.66189	164.52710	240.15006	21.42184	0.8772639	0.35704417	1.968	0.242	3.694	Ap	—	—
402267 2005 QE ₁₆₆	17.0	X	207.12782	234.36903	188.86799	12.95369	0.5281210	0.21600549	2.751	1.298	4.204	Am	5 27.9	23.0
403039 2008 AE	19.8	X	217.88273	26.86894	132.15775	11.57020	0.1307237	0.68363529	1.276	1.109	1.443	Am	11 20.0	19.7
403247 2008 XO ₂	19.2	X	201.72896	197.02742	39.08420	9.47394	0.3172281	0.45009744	1.686	1.151	2.221	Am	—	—
403775 2011 HS ₄	21.0	X	88.01407	314.21860	117.54882	5.46124	0.6800722	1.08422933	0.938	0.300	1.577	At	—	—
404108 2012 SF ₅₁	15.2	X	5.71420	156.67077	1.14									

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
408751 1987 <i>SF</i> ₃	19.0	X	322.13055	134.53435	187.02364	3.34542	0.5339740	0.29147249	2.253	1.050	3.456	Am	3 21.2	22.7
408752 1991 <i>TB</i> ₂	17.0	X	282.01385	199.36044	291.95233	7.93239	0.7918103	0.33678639	2.046	0.426	3.666	Ap	8 24.3	21.2
408792 2000 <i>GF</i> ₂	20.5	X	33.16408	108.05842	176.05139	9.63105	0.3774570	0.63484308	1.341	0.835	1.847	Ap	2 21.8*	20.9
408869 2001 <i>SD</i> ₃₄₈	19.0	X	96.87211	89.46294	202.83779	14.38589	0.3282905	0.38078581	1.885	1.266	2.504	Am	12 20.5	22.3
408980 2002 <i>RB</i> ₁₂₆	18.7	X	306.64114	224.86185	6.94840	15.05074	0.7224671	0.57661899	1.430	0.397	2.462	Ap	—	—
408982 2002 <i>SP</i>	20.8	X	29.62820	169.40621	350.90758	20.84874	0.6004635	1.14549355	0.905	0.361	1.448	At	—	—
409204 2003 <i>WX</i> ₂₅	18.7	X	270.42751	39.39117	40.05221	23.96653	0.5834936	0.19885541	2.907	1.211	4.603	Am	7 12.1	24.6
409256 2004 <i>HO</i> ₁	18.2	X	356.06416	265.07834	43.41485	25.77357	0.5205102	0.30068445	2.207	1.058	3.355	Am	4 16.8	20.4
409266 2004 <i>RK</i> ₉	21.2	X	103.74774	284.24594	354.83015	6.22667	0.4258296	0.39593447	1.837	1.055	2.619	Am	12 14.4	24.6
409342 2004 <i>XM</i> ₃₅	19.8	X	33.38710	322.83656	119.11658	5.35570	0.3007564	0.39582594	1.837	1.285	2.390	Am	—	—
409836 2006 <i>QY</i> ₁₁₀	18.1	X	22.08022	221.50291	222.69836	6.40734	0.5730681	0.36907849	1.925	0.822	3.028	Ap	—	—
409934 2006 <i>UG</i> ₆₄	18.6	X	63.39770	202.91748	152.47223	20.97913	0.3701258	0.37710392	1.897	1.195	2.600	Am	—	—
410088 2007 <i>EJ</i>	18.1	X	248.05853	3.65356	61.78428	8.33096	0.6299203	0.24949380	2.499	0.925	4.073	Ap	6 10.1	23.5
410195 2007 <i>RT</i> ₁₄₇	18.4	X	279.75093	344.93669	99.17008	3.83499	0.4696613	0.28467012	2.289	1.213	3.364	Am	7 29.5	22.0
410622 2008 <i>QF</i>	21.6	X	5.12745	136.42896	192.60272	3.78403	0.3768998	0.32917394	2.077	1.294	2.860	Am	8 29.6	20.1
410627 2008 <i>RG</i> ₁	20.7	X	41.37372	257.33266	347.85348	13.09356	0.4428469	0.65313121	1.316	0.733	1.898	Ap	—	—
410649 2008 <i>SO</i>	20.8	X	13.67162	72.01967	191.06455	7.13870	0.2336298	0.64182679	1.331	1.020	1.642	Am	1 9.3	21.5
410650 2008 <i>SQ</i>	18.5	X	260.55335	151.04613	269.87114	6.71407	0.5835086	0.19406123	2.955	1.231	4.679	Am	6 14.5	24.5
410777 2009 <i>FD</i>	22.1	X	215.57894	281.46852	9.35918	3.12789	0.4929294	0.78510858	1.164	0.590	1.737	Ap	—	—
410778 2009 <i>FG</i> ₁₉	18.1	X	221.38714	120.37613	187.58151	54.50158	0.19866347	0.19866347	2.909	0.815	5.003	Ap	1 27.1	25.4
410832 2009 <i>QO</i> ₈	19.2	X	89.73640	256.94537	341.76811	32.99893	0.3419218	0.38163294	1.882	1.239	2.526	Am	9 22.7	22.1
411165 2010 <i>DF</i> ₁	21.8	X	217.56646	101.76252	154.90543	20.07491	0.5029970	0.48769914	1.598	0.794	2.402	Ap	—	—
411201 2010 <i>LJ</i> ₁₄	17.8	X	283.89466	295.26838	177.44560	12.02997	0.3416841	0.47532681	1.626	1.070	2.182	Am	10 7.2	17.9
411280 2010 <i>SL</i> ₁₃	19.3	X	106.90867	266.57760	196.12214	3.04137	0.4151501	0.34728799	2.005	1.172	2.837	Am	4 21.6	20.7
411611 2011 <i>QF</i> ₁₄	18.7	X	348.07130	296.87482	138.49720	3.39112	0.4828536	0.34177595	2.026	1.048	3.004	Am	—	—
411655 2011 <i>WW</i> ₄	18.6	X	337.35164	9.08701	318.38212	7.60405	0.4210348	0.30993445	2.163	1.252	3.073	Am	4 20.7	21.2
412976 1987 <i>WC</i>	19.9	X	305.20158	308.37624	51.83630	15.84581	0.2338925	0.61988255	1.362	1.044	1.681	Am	4 19.9	20.7
412977 1990 <i>UO</i>	19.5	X	312.37450	333.48339	205.61868	31.56068	0.7703379	0.69930079	1.257	0.285	2.229	Ap	—	—
412983 1996 <i>FO</i> ₃	20.3	X	165.69812	162.68305	333.61522	5.81347	0.2904003	0.56869408	1.443	1.024	1.862	Am	7 13.4	21.5
412995 1999 <i>LP</i> ₂₈	20.1	X	59.29367	306.97849	87.96470	16.31146	0.0907169	0.73217362	1.219	1.109	1.330	Am	—	—
413002 1999 <i>VG</i> ₂₂	18.7	X	102.09472	222.75674	271.31833	2.85083	0.3296193	0.46667328	1.646	1.104	2.189	Am	3 23.3	16.6
413021 2000 <i>SY</i> ₁₆₂	19.4	X	303.60096	188.02822	213.26543	7.67409	0.4580242	0.28374502	2.294	1.243	3.344	Am	6 24.9	22.9
413038 2001 <i>MF</i> ₁	16.9	X	250.46018	76.39860	288.75217	23.94988	0.5767490	0.22818734	2.652	1.123	4.182	Am	3 25.8	23.1
413091 2001 <i>UV</i> ₁₆	18.2	X	278.45120	92.39662	30.81111	38.06189	0.5027068	0.30424618	2.189	1.089	3.290	Am	10 3.4	21.9
413123 2001 <i>XS</i> ₁	19.0	X	221.43596	164.84636	266.92396	10.93592	0.5560100	0.22590667	2.670	1.185	4.155	Am	6 10.4	24.7
413192 2002 <i>VY</i> ₉₄	16.8	X	160.32561	233.25618	280.92290	9.13952	0.6579863	0.16883535	3.242	1.109	5.375	Am	8 18.2	23.8
413216 2003 <i>MA</i>	18.9	X	272.99054	158.19186	96.00972	21.95828	0.3019608	0.46868107	1.641	1.146	2.137	Am	—	—
413260 2003 <i>TL</i> ₄	19.4	X	330.63238	321.94152	220.06512	12.18549	0.3815151	1.44016329	0.777	0.480	1.073	At	—	—
413421 2004 <i>VA</i> ₁₅	18.3	X	223.37330	332.04860	34.76104	17.87258	0.5875604	0.19867556	2.909	1.200	4.618	Am	4 4.9	24.7
413563 2005 <i>TG</i> ₄₅	17.6	X	277.05521	230.41614	273.44821	23.33750	0.3721852	1.75232864	0.681	0.428	0.935	Ar	—	—
413577 2005 <i>UL</i> ₅	20.3	X	288.99617	127.75486	58.91298	14.31792	0.5697983	1.08791316	0.936	0.403	1.470	At	—	—
413820 2006 <i>QR</i> ₈₉	19.7	X	33.64996	263.54823	166.46880	9.24029	0.3668102	0.37964234	1.889	1.196	2.582	Am	—	—
413989 2007 <i>EL</i> ₈₈	19.0	X	232.45197	116.16198	198.47158	30.84318	0.5218522	0.83202781	1.120	0.535	1.704	Ap	—	—
414286 2008 <i>OC</i> ₆	18.6	X	1.91027	295.85244	177.61267	21.84487	0.1992044	1.11143580	0.923	0.739	1.107	At	—	—
414287 2008 <i>OB</i> ₉	17.7	X	176.41551	238.22205	202.97611	13.50342	0.7571939	0.17129754	3.211	0.780	5.642	Ap	6 8.4	25.0
414429 2009 <i>DC</i> ₄₃	18.0	X	160.47757	172.80191	84.25973	20.84022	0.4897162	0.40798236	1.800	0.919	2.682	Ap	12 18.2	21.5
414532 2009 <i>SM</i> ₁₀₃	16.8	X	244.72938	26.19329	300.42685	12.70186	0.5548591	0.20597637	2.840	1.264	4.415	Am	2 20.4	22.9
414586 2009 <i>UV</i> ₁₈	16.1	X	125.72213	62.69018	86.80009	8.34275	0.6332073	0.17444212	3.172	1.163	5.181	Am	8 5.1	22.6
414746 2010 <i>EH</i> ₂₀	18.0	X	234.71684	207.65356	120.75265	23.86003	0.5224847	0.23204555	2.623	1.252	3.993	Am	2 23.4	23.8
414772 2010 <i>OC</i> ₁₀₃	19.0	X	291.53827	178.28533	17.96655	23.11246	0.6720866	0.75492744	1.195	0.392	1.997	Ap	—	—
420480 2010 <i>SV</i> ₃	20.8	X	313.74634	224.29254	24.20872	6.19872	0.515250	0.52943578	1.513	0.733	2.293	Ap	—	—
414903 2010 <i>XT</i> ₄₅	17.5	X	243.25856	88.92149	202.47805	13.62935	0.2776342	0.48467482	1.605	1.159	2.051	Am	—	—
414960 2011 <i>CS</i> ₄	20.1	X	154.76850	105.70380	287.60191	7.70145	0.3269262	0.48355785	1.608	1.082	2.133	Am	—	—
414990 2011 <i>EM</i> ₅₁	21.9	X	37.56908	142.17367	134.20719	1.86528	0.3349526	0.64931179	1.321	0.878	1.763	Ap	2 19.4*	21.5
415027 2011 <i>SG</i> ₅	18.3	X	29.15078	26.53227	229.81516	26.62630	0.3862314	0.65763105	1.310	0.804	1.815	Ap	—	—
415029 2011 <i>UL</i> ₂₁	15.8	X	301.38546	284.77827	275.56288	34.85255	0.6533177	0.31877004	2.122	0.736	3.509	Ap	—	—
415267 2013 <i>BQ</i> ₄₅	18.3	X	81.46658	235.38856	339.23891	15.60800	0.4750990	0.27402628	2.348	1.232	3.463	Am	9 9.8	21.9
415710 1998 <i>WC</i> ₂	18.5	X	204.27748	270.25653	208.45834	26.60843	0.5617379	0.24180108	2.552	1.118	3.985	Am	7 20.8	24.6
415711 1998 <i>WT</i> ₇	19.0	X	27.55901	235.89396	248.27524	40.69891	0.1100021	0.79717622	1.152	1.025	1.279	Am	—	—
415713 1998 <i>XX</i> ₂	19.9	X	358.10126	153.00368	74.44186	6.97243	0.3674145	1.54424932	0.741	0.469	1.014	At	—	—
415715 1999 <i>AU</i> ₂₃	18.2	X	324.90490	117.92214	293.60907	20.43267	0.4115544	0.31007095	2.162	1.272	3.052	Am	8 11.9	19.9
415745 2000 <i>GV</i> ₁₄₇	19.2	X	163.96119	216.04170	68.68978	10.56589	0.4564588	0.42709493	1.746	0.949	2.543	Ap	—	—
415746 2000 <i>JN</i> ₁₀	17.7	X	9.04001	254.56856	47.14742	21.45416	0.4289927	0.29051038	2.258	1.289	3.226	Am	6 2.3	17.9
415949 2001 <i>XY</i> ₁₀	19.3	X	223.19119	219.66952	92.94707	30.99357	0.3872298	1.21114496	0.872	0.534	1.209	At	—	—
415986 2002 <i>AT</i> ₅	18.1	X	204.29828	179.77106	332.74615	25.79941	0.5422544	0.22573082	2.671	1.223	4.120	Am	9 1.2	23.9
415987 2002 <i>AE</i> ₉	19.0	X	330.13714	129.16725	127.48279	37.88940	0.4361834	0.82915567	1.122	0.633	1.612	Ap	—	—
416002 2002 <i>BN</i>	20.5	X	292.85173											

ELEMENTS AND OPPOSITION DATES OF NEAS

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2017 SEPTEMBER 4.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
416680 2004 XD ₅₀	18.4	X	11.46023	63.77501	106.06809	20.65580	0.3767964	0.39966479	1.825	1.138	2.513	Am	—	—
416694 2004 YR ₃₂	17.6	X	126.32680	88.54579	90.38366	20.51846	0.7010864	0.18410428	3.060	0.915	5.206	Ap	9 16.7	24.5
416801 2005 GC ₁₂₀	19.6	X	108.04610	258.25637	67.97340	16.53253	0.4975688	0.75564976	1.194	0.600	1.788	Ap	—	—
416804 2005 GP ₁₂₈	18.7	X	259.74751	116.39122	166.86178	5.29366	0.5758753	0.22192509	2.702	1.146	4.258	Am	1 12.1	24.6
416851 2005 MM ₁₃	18.9	X	131.55190	254.74400	100.57835	22.99364	0.3183633	0.44674630	1.695	1.155	2.234	Am	—	—
417167 2005 WH ₅₇	19.0	X	123.19049	125.38330	262.11423	40.45160	0.3682769	0.44156054	1.708	1.079	2.337	Am	—	—
417201 2005 XM ₄	19.7	X	316.42186	345.32696	81.88186	34.14574	0.0641901	0.66202327	1.304	1.220	1.388	Am	—	—
417210 2005 XV ₇₇	20.6	X	82.88743	9.26290	282.26116	16.84931	0.4140711	1.41910444	0.784	0.460	1.109	At	—	—
417211 2005 XL ₈₀	18.2	X	14.28966	143.59047	53.38174	10.89549	0.4875284	0.43430935	1.727	0.885	2.569	Ap	—	—
417217 2005 YS	19.6	X	17.48738	327.88492	288.63589	19.58641	0.5504116	1.64374685	0.711	0.320	1.102	At	12 4.8	18.8
417264 2006 AT ₂	17.2	X	192.13539	39.13942	144.15798	21.14970	0.5984216	0.22075904	2.711	1.089	4.334	Am	10 7.2	23.4
417419 2006 KM ₂₁	20.9	X	130.17397	214.24659	117.22001	9.35495	0.1274113	0.75065386	1.199	1.046	1.352	Am	—	—
417581 2006 VA ₃	17.3	X	73.83259	307.75176	312.96808	53.34440	0.6783871	0.48565715	1.603	0.516	2.690	Ap	2 9.2	17.3
417612 2006 WQ ₂₉	18.3	X	289.78908	136.56716	112.01150	8.07242	0.3936410	0.48660499	1.601	0.971	2.231	Ap	—	—
417634 2006 XG ₁	18.5	X	287.03370	344.11052	38.47791	20.49259	0.5955054	0.25575155	2.458	0.994	3.922	Ap	5 8.1	23.3
417655 2006 YF ₁₃	19.9	X	169.39054	95.41309	205.29708	10.53351	0.4034350	1.11895518	0.919	0.548	1.290	At	—	—
417816 2007 FA ₂₁	20.2	X	98.91994	135.40524	156.43744	16.32802	0.2656970	0.70506367	1.250	0.918	1.582	Ap	—	—
417871 2007 MB ₂₄	18.2	X	11.47791	269.15767	271.17121	47.71200	0.7000403	0.38359899	1.876	0.563	3.189	Ap	—	—
417874 2007 NC ₅	18.1	X	246.74425	20.52237	165.86610	19.33368	0.8873161	0.25779597	2.445	0.276	4.615	Ap	10 13.3	23.9
417949 2007 TB ₂₃	18.7	X	165.70606	173.82405	40.11664	38.29092	0.1977713	0.69505881	1.262	1.013	1.512	Ap	11 13.9	19.3
418094 2007 WV ₄	19.3	X	76.34000	297.63028	249.90465	38.33272	0.4411409	0.54392066	1.486	0.831	2.142	Ap	—	—
418135 2008 AG ₃₃	19.6	X	144.01592	155.61900	38.35170	16.00115	0.3737000	0.55826563	1.461	0.968	1.954	Ap	10 1.2	21.6
418198 2008 CN ₇₀	19.0	X	322.52934	114.32282	150.71607	24.45381	0.3796179	1.25362328	0.852	0.528	1.175	At	—	—
418233 2008 DV	18.3	X	26.16253	258.51334	308.99426	31.30940	0.4515623	0.43302525	1.730	0.949	2.512	Ap	—	—
418265 2008 EA ₃₂	16.5	X	95.53842	181.84021	100.96124	28.26388	0.3049820	2.03900019	0.616	0.428	0.804	Ar	—	—
418416 2008 LV ₁₆	20.3	X	356.72726	121.94199	236.54534	4.71271	0.6254305	0.32628760	2.090	0.783	3.397	Ap	5 31.4	20.7
418797 2008 VF	19.5	X	261.32281	3.25404	234.42864	26.19991	0.3258442	1.14286089	0.906	0.611	1.201	At	—	—
418846 2008 WJ ₆₀	21.3	X	129.72441	169.95869	259.44981	16.69313	0.2914627	0.48769368	1.598	1.133	2.064	Am	—	—
418849 2008 WM ₆₄	20.6	X	344.35372	256.49858	91.46917	33.52416	0.1069598	0.97826572	1.005	0.798	1.112	Ap	4 15.4*	22.2
418896 2009 AK ₁₅	20.4	X	236.91514	6.42436	186.84658	13.82953	0.4291309	0.65680105	1.311	0.848	1.873	Ap	12 27.2	19.0
418900 2009 BE ₂	19.2	X	43.40815	138.22138	93.10954	23.43346	0.3534641	0.50614407	1.559	1.008	2.111	Ap	1 18.8	20.1
418929 2009 DM ₁	17.0	X	270.50666	219.75938	197.57631	15.20099	0.6401403	0.20030394	2.893	1.041	4.745	Am	6 11.4	23.0
419022 2009 QF ₃₁	18.5	X	352.98446	167.83252	336.26476	42.41207	0.1427993	0.54484998	1.485	1.273	1.697	Am	—	—
419464 2010 CC ₁₈₀	18.7	X	311.50568	216.98700	352.35614	15.24392	0.3219144	0.38439318	1.873	1.270	2.476	Am	—	—
419472 2010 DW ₁	19.9	X	196.52442	9.61799	157.14136	23.76678	0.2001586	0.72689402	1.225	0.980	1.470	Ap	10 18.3	20.6
419624 2010 SO ₁₆	20.5	X	173.30099	108.98878	40.39652	14.51959	0.0754351	0.98140921	1.003	0.927	1.079	Ap	—	—
419829 2010 XK ₅₂	18.0	X	220.22985	210.09988	291.36539	15.62754	0.5177399	0.23916610	2.570	1.240	3.901	Am	8 23.7	23.6
419880 2011 AH ₃₇	19.7	X	245.74648	322.36997	102.08347	9.65844	0.6719922	0.24283053	2.544	0.835	4.254	Ap	6 8.1	25.4
419922 2011 BJ ₂₄	17.7	X	289.98041	188.85111	191.07690	8.08346	0.6410856	0.26435040	2.404	0.863	3.946	Ap	5 6.2	22.6
420048 2011 DL ₁₉	18.8	X	43.40006	293.73784	274.15421	28.20259	0.4123022	0.48288061	1.609	0.946	2.272	Ap	—	—
420187 2011 GA ₅₅	18.1	X	338.31819	316.89580	319.83157	8.71778	0.4837839	0.30884325	2.168	1.119	3.216	Am	2 9.4	21.4
420210 2011 HF	20.4	X	4.87621	149.65744	204.90970	10.62266	0.2348588	0.67768481	1.284	0.982	1.585	Ap	—	—
420262 2011 KD ₁₁	20.1	X	89.99346	253.32701	257.59031	17.12932	0.4226469	0.49294905	1.587	0.916	2.258	Ap	—	—
420286 2011 RZ	18.6	X	19.50669	278.37561	332.10858	36.58268	0.5328754	0.31658762	2.132	0.996	3.268	Ap	2 16.0	19.9
420302 2011 XZ ₁	17.5	X	26.84664	36.27118	273.71917	6.66494	0.4608696	0.31500308	2.139	1.153	3.125	Am	11 14.6	19.1
420591 2012 HF ₃₁	19.4	X	173.14189	30.32360	325.80487	9.10250	0.4427502	0.50895019	1.554	0.866	2.242	Ap	—	—
420738 2012 TS	20.8	X	142.51015	20.50416	190.82814	16.45694	0.1133897	0.99979210	0.991	0.878	1.103	At	12 25.1	20.7
422637 1985 WA	18.0	X	235.79917	351.31862	43.40246	9.82028	0.6075242	0.20653619	2.834	1.112	4.556	Am	5 4.7	24.2
422638 1994 CB	21.2	X	322.72991	288.51979	310.65572	18.25523	0.1451309	0.79981367	1.149	0.983	1.316	Ap	—	—
422659 1998 LD	19.9	X	52.39562	347.80848	247.19707	22.50669	0.1734202	0.56879370	1.443	1.192	1.693	Am	2 12.4	21.2
422686 2000 AC ₆	21.5	X	324.73529	188.40424	101.45958	4.69558	0.2863629	1.25049505	0.853	0.609	1.098	At	—	—
422699 2000 PD ₃	18.3	X	344.29479	109.91254	298.88235	7.69042	0.5934028	0.34896996	1.998	0.812	3.184	Ap	—	—
422787 2001 WS ₁	16.7	X	280.37886	5.10959	1.33517	13.24392	0.6176399	0.23610993	2.593	0.991	4.194	Ap	4 15.1	22.2
422977 2003 MV ₇	20.0	X	203.09943	200.47933	136.40039	10.37606	0.2393134	0.46217104	1.657	1.260	2.053	Am	—	—
423022 2003 TJ ₂	18.9	X	106.50247	298.96517	341.49559	17.44560	0.4741126	0.65122760	1.318	0.693	1.943	Ap	—	—
423100 2004 BX ₁	18.4	X	213.53411	168.82422	92.78403	19.47848	0.8379341	0.26320834	2.411	0.391	4.432	Ap	12 24.3	24.0
423210 2004 RD ₈₄	19.0	X	54.98901	100.25019	331.35487	24.24799	0.4156219	0.40129356	1.820	1.064	2.577	Am	—	—
423321 2005 ED ₃₁₈	20.8	X	317.64423	164.17908	82.06784	2.38974	0.4495700	0.39172908	1.850	1.018	2.682	Am	—	—
423709 2006 BQ ₆	19.7	X	101.49749	304.73452	307.66986	12.99602	0.4047398	0.55194168	1.472	0.876	2.068	Ap	11 12.7	22.1
423747 2006 CX	18.9	X	49.42373	160.92041	354.82208	28.96182	0.2962155	0.43929810	1.714	1.206	2.221	Am	—	—
424089 2007 DU ₁₀₃	17.7	X	199.57199	294.53886	338.28322	23.19880	0.5009836	0.25506552	2.462	1.229	3.696	Ap	—	—
424392 2007 YJ	21.9	X	9.20668	198.98358	29.13240	3.30579	0.2800235	0.84982261	1.104	0.795	1.413	Am	—	—
424482 2008 DG ₅	19.6	X	145.26901	59.66311	244.04564	5.70672	0.2426567	0.70038564	1.256	0.951	1.560	Ap	—	—
424532 2008 EZ ₉₇	18.0	X	171.69970	197.19490	68.76623	8.48315	0.4741852	0.26324822	2.411	1.268	3.554	Am	12 26.5	23.0
424965 2009 AM ₁₅	18.8	X	82.41511	131.48200	166.19393	28.86864	0.4870171	1.34576519	0.812	0.417	1.208	At	—	—
424969 2009 BT ₅	20.6	X	176.20174	73.30563	130.51979	21.21403	0.1291942	0.64717116	1.324	1.153	1.495	Am	12 4.7	21.6
425047 2009 QE ₈	18.0	X	192.81142	295.48432	334.11377	8.48416	0.4418028	0.30090570	2.206	1.231	3.180	Am	—	—
425250 2009 WG ₅₄	21.2	X	294.46805	85.86294	64.37826	13.02654	0.2877066	0.50407154	1.564	1.114	2.014	Am	—	—
425450 2010 EV ₄₅	19.6	X	324.93235	118.22087	125.83924	7.93460								

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>		
428223	2006	WW	16.1	X	183.48988	197.88903	88.23338	32.76651	0.8679921	0.22478430	2.679	0.354	5.004	Ap	—	—
428681	2008	JA ₈	18.0	X	220.08853	231.37524	62.50449	24.21166	0.5064025	0.28006150	2.314	1.142	3.485	Am	1 2.2	23.1
428694	2008	OS ₉	19.4	X	142.08521	288.21587	133.51769	19.12204	0.6481885	0.48619535	1.602	0.564	2.640	Ap	4 23.0	21.8
429073	2009	ND ₁	17.3	X	242.16085	292.04096	98.05296	11.80574	0.5698722	0.21755263	2.738	1.178	4.298	Am	5 6.4	23.3
429094	2009	SG ₂	20.1	X	328.48132	252.93895	9.09499	25.97944	0.1701361	0.83052629	1.121	0.930	1.312	Ap	—	—
429382	2010	NW ₁₁₇	18.2	X	315.03421	148.57631	252.72725	3.40969	0.5336367	0.27314264	2.353	1.097	3.608	Am	6 27.1	21.1
429389	2010	PR ₁₀	21.6	X	75.91079	65.24286	334.49112	9.16277	0.1760621	0.75150534	1.198	0.987	1.409	Ap	—	—
429584	2011	EU ₂₉	19.9	X	247.22720	251.14958	177.26389	2.57628	0.7002491	0.24957451	2.498	0.749	4.248	Ap	6 11.3	25.6
429733	2011	LX ₁₀	16.6	X	220.08040	306.53491	293.06857	22.54763	0.4947200	0.24297225	2.543	1.285	3.802	Am	12 20.9	21.7
429736	2011	MB ₂	20.3	X	219.82241	321.15550	64.76407	12.61017	0.4156099	0.92374986	1.044	0.610	1.478	Ap	—	—
429746	2011	SA ₁₆	17.3	X	174.48464	317.54586	275.41033	20.11167	0.5325441	0.21797455	2.734	1.278	4.191	Am	11 17.9	23.3
430439	2000	LF ₆	19.0	X	160.99504	151.35732	87.62470	15.57598	0.5919028	0.19365735	2.959	1.207	4.710	Am	11 22.8	26.3
430440	2000	OH	17.5	X	197.12273	355.38800	283.77944	18.67876	0.5917247	0.26161909	2.421	0.988	3.854	Ap	—	—
430544	2002	GM ₂	18.6	X	290.57646	84.03515	339.66002	3.35480	0.8084067	0.30252480	2.198	0.421	3.974	Ap	6 11.6	23.4
430552	2002	HU ₁₁	17.9	X	169.41945	174.30346	115.33421	20.74926	0.5621105	0.22718666	2.660	1.165	4.155	Am	—	—
430802	2004	XK ₄	21.0	X	34.72898	50.66111	69.34506	8.45277	0.3522036	0.39894098	1.828	1.184	2.471	Am	—	—
430804	2005	AD ₁₃	17.9	X	254.26319	263.51090	102.86586	12.37253	0.5919028	0.36193938	1.950	0.478	3.422	Ap	4 5.6	22.9
431107	2006	GU	17.7	X	166.34914	146.09500	149.13223	17.67833	0.5850636	0.22309236	2.692	1.117	4.268	Am	—	—
431394	2007	FS ₃₅	19.5	X	272.50916	107.36630	183.01384	0.31915	0.3899960	0.36979750	1.922	1.173	2.672	Am	1 13.5	23.1
431698	2008	ES	18.3	X	226.54866	164.70678	134.27838	9.11258	0.7567469	0.28332011	2.296	0.558	4.033	Ap	1 14.8	24.0
431760	2008	HE	18.1	X	284.96427	185.33468	132.32099	9.84412	0.9506210	0.28967402	2.262	0.112	4.413	Ap	5 7.9	23.6
431775	2008	JO ₂₄	18.9	X	303.09702	142.87130	215.84346	26.65878	0.2910537	0.40807629	1.800	1.276	2.324	Am	1 12.4	21.9
431776	2008	JQ ₂₄	17.9	X	197.73743	238.17141	87.85955	9.59076	0.4308644	0.28624161	2.280	1.298	3.263	Am	1 26.5	22.4
432226	2009	HU ₂	18.5	X	279.46845	166.51303	185.29987	16.70529	0.3219357	0.48666150	1.601	1.085	2.116	Am	3 22.6	20.7
432509	2010	FF ₇	19.5	X	212.22390	342.49190	61.05407	16.18037	0.8282305	0.59175771	1.405	0.241	2.569	Ap	4 29.6	22.7
432655	2010	XL ₆₉	19.8	X	99.81560	108.62024	94.63664	12.66928	0.2102591	0.52068117	1.530	1.208	1.852	Am	8 5.9	20.4
433303	2013	NX	22.1	X	224.95382	312.63412	112.63419	6.32110	0.1697779	0.93948843	1.032	0.857	1.208	Ap	—	—
433939	1995	DW ₁	21.2	X	323.40782	327.03286	348.82851	15.06212	0.4368987	0.92902550	1.040	0.586	1.495	Ap	—	—
433953	1997	XR ₂	20.9	X	316.19355	84.60444	250.69089	7.19187	0.2008473	0.88279481	1.076	0.860	1.292	Ap	—	—
433960	1999	JU ₆	19.7	X	63.32180	69.07531	22.17421	22.45793	0.2006709	0.55342664	1.469	1.174	1.764	Am	11 16.6	20.1
433992	2000	HD ₇₄	18.0	X	155.85664	223.53620	55.20432	49.27915	0.5979648	0.19773739	2.918	1.173	4.663	Am	12 16.6	24.8
434007	2000	VH ₆₁	18.4	X	213.06122	252.97669	207.51325	9.32738	0.5413676	0.21569829	2.754	1.263	4.244	Am	7 8.8	24.4
434051	2001	UW ₁₆	19.5	X	251.86915	106.68557	37.04661	37.60100	0.1782132	0.61858002	1.364	1.121	1.607	Am	11 13.9	19.6
434053	2001	UP ₂₇	20.5	X	276.50125	343.44798	47.83413	25.82346	0.1278377	0.54463872	1.485	1.295	1.675	Am	5 19.8	21.3
434096	2002	GO ₅	18.0	X	343.30647	64.95695	22.98000	13.80367	0.7667106	0.37724396	1.897	0.443	3.351	Ap	—	—
434154	2002	SL	19.8	X	233.14471	152.52133	139.02103	6.54087	0.5007766	0.30172236	2.202	1.099	3.304	Am	1 3.9	24.5
434188	2003	AD ₂₃	18.8	X	18.08950	241.62290	101.53246	23.34528	0.7626849	0.46694211	1.645	0.990	2.900	Ap	4 25.4	20.8
434196	2003	HG ₂	21.3	X	164.87676	225.34671	214.26357	19.77940	0.1346113	0.90213891	1.062	0.319	1.205	Ap	—	—
434313	2004	GP	19.4	X	171.60923	278.63314	115.66583	14.54955	0.4884624	1.69526579	0.697	0.356	1.037	At	—	—
434326	2004	JG ₆	18.4	X	315.53977	352.99265	37.03186	18.94501	0.5311980	1.94680036	0.635	0.298	0.973	Ar	—	—
434344	2004	RV ₁₀	19.7	X	307.81154	272.40730	161.55709	36.86718	0.2856809	0.60989424	1.377	0.984	1.771	Ap	—	—
434500	2005	SB ₇₁	21.2	X	186.80456	100.42700	200.61293	13.20981	0.2571764	0.69405318	1.263	0.938	1.588	Ap	—	—
434632	2005	WE	19.8	X	270.75373	22.62492	289.94863	12.36464	0.2513969	0.79791788	1.151	0.862	1.441	Ap	—	—
434633	2005	WB ₁	20.9	X	160.55279	265.70653	61.43389	22.88266	0.3553827	0.69371536	1.264	0.815	1.713	Ap	—	—
434677	2006	BZ ₇	17.5	X	132.23847	188.74389	262.95688	68.41859	0.3663401	0.54187963	1.490	0.944	2.036	Ap	—	—
434734	2006	FX	20.4	X	121.17101	299.43896	181.21423	24.63136	0.4382016	0.53926884	1.495	0.840	2.150	Ap	5 16.9	20.8
434740	2006	GZ	19.5	X	293.29945	292.44688	25.62103	12.48588	0.3797120	0.52203118	1.528	0.948	2.108	Ap	2 15.7	22.1
434751	2006	HV ₅₇	18.5	X	162.98177	18.04252	264.56070	6.01746	0.5866449	0.21984102	2.719	1.126	4.312	Am	—	—
434786	2006	PW	18.1	X	222.67965	325.09413	132.96937	35.88522	0.6515920	0.60718552	1.381	0.481	2.281	Ap	7 5.1	21.5
435058	2006	XG ₂	20.2	X	132.20512	189.90589	41.34613	20.11697	0.1401378	0.63433538	1.341	1.154	1.529	Am	—	—
435138	2007	GD ₄₉	16.8	X	142.38516	296.44004	84.95150	30.87297	0.4969735	0.24363367	2.539	1.277	3.801	Am	1 26.9	21.7
435159	2007	LQ ₁₉	17.1	X	150.45409	207.61881	110.86971	17.07074	0.6300090	0.23470093	2.603	0.963	4.243	Ap	1 10.7	22.0
435302	2007	US ₆	18.3	X	330.16209	224.95042	225.64979	12.42256	0.4468826	0.29750053	2.222	1.229	3.215	Am	—	—
435404	2008	AT ₂₈	18.4	X	22.39107	263.76422	130.40275	8.86120	0.4439453	0.30018717	2.209	1.228	3.190	Am	—	—
435441	2008	DJ ₅	20.0	X	164.15447	326.75957	358.90933	8.06972	0.4179299	0.70194567	1.254	0.730	1.778	Ap	—	—
435548	2008	QT ₃	18.5	X	18.69449	160.67448	272.03311	7.22762	0.5275708	0.34520607	2.013	0.951	3.074	Ap	—	—
435730	2008	UK ₉₀	18.9	X	345.06935	91.41728	48.82587	34.65567	0.3709452	0.34747120	2.004	1.261	2.747	Am	—	—
436030	2009	JO ₂	19.4	X	35.82150	239.68719	203.46636	19.63496	0.4782252	1.17701213	0.888	0.464	1.313	At	—	—
436035	2009	KJ ₂₂	20.0	X	242.91132	51.34322	243.67041	5.73522	0.4357634	0.32352057	2.102	1.186	3.017	Am	1 8.4	24.2
436037	2009	NJ	18.6	X	37.93675	132.67218	254.50589	8.19037	0.6593770	0.38544804	1.870	0.637	3.103	Ap	—	—
436094	2009	SC ₂₂₉	19.0	X	211.62429	22.76722	295.29461	6.93088	0.4736987	0.31395295	2.144	1.128	3.160	Am	1 21.7	23.2
436116	2009	TB ₃	21.3	X	171.02058	249.58545	12.17934	12.22342	0.2192134	0.65090091	1.319	1.030	1.608	Am	—	—
436324	2010	GZ ₆	19.5	X	100.94896	73.91845	199.44914	44.84237	0.1439523	0.59407852	1.401	1.200	1.603	Am	12 1.9	21.8
436325	2010	GR ₇	18.4	X	322.09553	191.98401	157.57339	24.13391	0.8455456	0.39765532	1.831	0.283	3.380	Ap	3 26.0	22.7
436329	2010	GX ₆₂	20.1	X	172.76746	316.14509	207.89765	21.66035	0.7043107	0.19410133	2.954	0.874	5.035	Ap	8 31.3	27.1
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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
437905 2001 XU ₃₀	19.8	X	279.44097	106.59648	72.46619	8.91492	0.6674560	0.30358880	2.193	0.729	3.656	Ap	11 4.8	22.9
437908 2001 XW ₂₆₆	19.5	X	228.42447	90.05137	205.76632	4.61455	0.4516072	0.28547751	2.284	1.253	3.316	Am	1 7.0	24.1
437965 2003 AL ₇₃	19.4	X	205.28347	336.38954	217.37120	9.63643	0.6938045	0.24287309	2.544	0.779	4.309	Ap	10 15.4	25.2
437994 2003 UL ₁₂	17.3	X	106.18233	274.80685	193.15163	19.73827	0.7006156	0.16524041	3.289	0.985	5.593	Ap	6 14.5	23.9
438017 2003 YO ₃	18.7	X	290.11109	168.70248	291.40552	24.60727	0.3660049	0.56472547	1.450	0.919	1.980	Ap	8 26.4	20.1
438105 2005 GO ₂₂	18.7	X	265.94330	18.73141	62.02509	1.58512	0.8239928	0.37235563	1.914	0.337	3.490	Ap	6 22.8	23.3
438107 2005 GY ₁₁₀	18.2	X	352.07572	169.08281	294.67178	12.63847	0.6862370	0.39207917	1.849	0.580	3.117	Ap	—	—
438116 2005 NX ₄₄	17.4	X	265.84639	215.06948	308.95942	36.64108	0.9073887	0.29896923	2.215	0.205	4.225	Ap	8 31.1	23.1
438317 2006 JX	19.9	X	45.51310	315.39434	233.34352	23.88859	0.2722362	0.44113400	1.709	1.244	2.174	Am	—	—
438429 2006 WN ₁	18.9	X	243.40381	93.48780	239.25483	4.01494	0.4505470	0.32401213	2.099	1.154	3.045	Am	2 19.9	23.2
438430 2006 WL ₃	20.0	X	250.47941	67.10876	81.33561	20.39193	0.2407245	0.62295932	1.358	1.031	1.685	Am	12 1.9	19.0
438452 2007 AS ₁₂	19.1	X	319.69155	266.86493	126.31154	21.00924	0.2441656	0.53117932	1.510	1.141	1.879	Am	7 28.8	18.2
438661 2008 EP ₆	19.4	X	104.39098	130.32847	303.27947	17.71973	0.2932653	0.74113558	1.209	0.855	1.564	Ap	—	—
438897 2009 WN	18.8	X	258.74113	236.13106	249.36004	32.78919	0.2213327	0.60794944	1.380	1.075	1.685	Am	10 3.3	20.7
438902 2009 WF ₁₀₄	17.3	X	124.72083	94.08920	81.93768	17.00255	0.6585241	0.18283899	3.074	1.050	5.099	Am	9 10.0	24.0
438908 2009 XO	20.5	X	355.21717	140.47349	27.86856	0.35388	0.5417731	0.39022977	1.855	0.850	2.859	Ap	—	—
438955 2010 LN ₁₄	21.1	X	231.02270	33.46745	342.76337	1.49309	0.4747737	0.79465008	1.154	0.606	1.702	Ap	2 2.3	17.3
438990 2010 SG ₁₃	18.3	X	285.74374	225.06894	253.00655	33.82546	0.7481369	0.70322511	1.252	0.315	2.189	Ap	7 27.4	21.2
439313 2012 VE ₈₂	19.5	X	256.35802	186.43366	110.46009	9.93559	0.5439065	0.32188980	2.109	0.962	3.256	Ap	1 18.1	24.0
439437 2013 NK ₄	18.7	X	276.67062	50.52556	33.79698	6.52807	0.5498408	0.95237908	1.023	0.461	1.586	Ap	6 27.0	19.0
439854 1998 XA ₅	18.8	X	203.57868	211.25175	274.19085	31.76110	0.3069423	0.50662211	1.558	1.080	2.037	Am	7 21.4	21.4
439877 1999 XM ₁₄₁	19.5	X	273.56899	105.72696	73.02480	21.62014	0.3693425	0.71692339	1.236	0.780	1.693	Ap	—	—
439889 2000 PG ₅	20.1	X	241.21684	358.68107	309.78970	6.11907	0.4580515	0.32709290	2.086	1.131	3.042	Am	1 23.8	24.4
439898 2000 TG ₂	20.0	X	338.54474	200.33661	206.86027	12.00217	0.2456406	0.52501535	1.522	1.148	1.896	Am	—	—
439908 2000 XH ₄₇	19.3	X	340.53290	104.68097	295.87037	16.94352	0.2542486	0.52295242	1.526	1.182	1.870	Am	—	—
440012 2002 LE ₂₇	19.3	X	242.01602	83.61467	226.26381	3.09804	0.4544242	0.30641896	2.179	1.189	3.169	Am	1 26.8	23.9
440212 2004 OB	18.8	X	319.45241	223.24905	174.58774	3.44289	0.4306369	0.45240441	1.681	0.957	2.404	Ap	6 29.3	19.9
441058 2007 PH ₂₅	16.4	X	151.86072	331.82636	150.29604	53.25883	0.8129028	0.24343087	2.540	0.475	4.605	Ap	7 23.8	23.0
441103 2007 SP ₆	18.1	X	147.21955	330.89558	68.49784	13.99542	0.5463868	0.23968805	2.567	1.164	3.969	Am	4 9.1	23.3
441304 2008 AU ₂₆	20.9	X	351.78739	128.49532	299.66852	2.66099	0.1024254	0.59827817	1.395	1.252	1.538	Am	—	—
441641 2008 WZ ₁₃	18.6	X	337.50688	133.65720	51.94735	8.17990	0.5609154	0.34932353	1.997	0.877	3.117	Ap	—	—
441823 2009 QO ₅	22.1	X	356.90752	188.80478	145.79055	8.55423	0.2380472	0.48912289	1.595	1.216	1.975	Am	7 2.2	21.5
441825 2009 SK ₁	18.5	X	29.82896	104.44884	184.40075	30.81835	0.2226510	0.48200596	1.611	1.252	1.970	Am	7 26.9	19.7
441952 2010 LR ₆₈	18.3	X	105.97472	294.70567	113.63784	4.57623	0.6076437	0.18524232	3.048	1.196	4.900	Am	4 1.8	23.5
441987 2010 NY ₆₅	21.5	X	140.67451	251.43368	268.07264	11.66972	0.2687337	0.98624422	1.000	0.630	1.369	At	—	—
442037 2010 PR ₆₆	19.3	X	158.66776	319.45723	292.77958	17.57361	0.6866789	0.19661243	2.929	0.918	4.940	Ap	12 3.3	26.1
442177 2010 XC ₂₄	20.0	X	291.79004	298.41523	269.40684	38.94946	0.0633033	0.74961307	1.200	1.124	1.276	Am	—	—
442243 2011 MD ₁₁	18.1	X	180.06471	333.19349	15.94054	16.17859	0.4973416	0.24915088	2.501	1.257	3.745	Am	2 24.5	23.3
442523 2011 WU ₉₅	19.4	X	324.49845	242.36136	67.70448	6.71625	0.4245230	0.45806184	1.667	0.959	2.374	Ap	3 1.3	22.0
442559 2012 AU ₁₀	18.2	X	271.37061	307.41868	125.25075	39.11944	0.3159500	0.46171765	1.658	1.134	2.182	Am	7 16.9	20.2
442605 2012 HY ₃₃	19.1	X	271.38829	270.74463	63.63544	14.69600	0.5433470	0.34897435	1.998	0.912	3.084	Ap	3 12.5	23.6
442609 2012 KU ₄₂	17.7	X	201.47242	207.74422	136.25890	18.98471	0.5150152	0.30190717	2.201	1.067	3.334	Am	2 19.1	22.2
442742 2012 WP ₃	17.6	X	236.78116	141.62134	227.19154	22.56192	0.3838352	0.32361436	2.101	1.295	2.908	Am	3 28.5	21.9
443103 2013 WT ₆₇	18.0	X	245.18918	98.98781	322.78064	21.46916	0.1921844	0.93616559	1.035	0.836	1.234	Ap	—	—
443104 2013 XK ₂₂	24.3	X	106.59949	265.68998	268.38300	6.99276	0.2033790	0.92166034	1.046	0.833	1.258	Ap	—	—
443806 1998 FL ₃	22.0	X	180.52540	121.31788	180.12671	26.38666	0.2477234	0.69700682	1.260	0.948	1.572	Ap	—	—
443837 2000 TJ ₁	19.6	X	313.03699	52.45741	190.43417	39.54022	0.0809508	0.78834517	1.161	1.067	1.254	Am	—	—
443880 2001 UZ ₁₆	19.4	X	302.14350	28.58402	323.15343	12.67508	0.42235746	0.42235746	1.759	1.010	2.509	Ap	4 3.2	22.6
443923 2002 RU ₂₅	17.4	X	258.53263	306.32792	5.08427	28.90415	0.4831355	0.30688414	2.177	1.125	3.228	Am	2 19.3	22.4
443972 2003 TN ₁	19.6	X	5.96317	54.54051	13.69457	19.23281	0.1358804	0.57468242	1.433	1.238	1.627	Am	—	—
444004 2004 AS ₁	20.5	X	21.33694	262.06770	322.55552	17.21489	0.1744367	0.88979255	1.071	0.884	1.257	Ap	—	—
444185 2005 SR ₁	19.2	X	251.70313	135.83505	147.41449	3.26179	0.4987763	0.29782960	2.221	1.113	3.328	Am	1 3.2	23.9
444193 2005 SE ₇₁	18.2	X	225.86788	78.20975	39.13340	24.83085	0.1945444	0.89136859	1.069	0.861	1.277	Ap	9 4.9	19.2
444584 2006 UK	20.1	X	292.61367	252.24791	244.09834	4.73060	0.5385885	0.54052091	1.493	0.689	2.296	Ap	11 1.1	18.1
444627 2006 WU	18.9	X	85.15564	208.96514	332.26037	2.90983	0.3554478	0.41215726	1.788	1.153	2.424	Am	7 4.6	19.5
444628 2006 WQ ₁	19.4	X	78.95858	205.22201	111.82588	14.40964	0.2403625	0.55020570	1.475	1.120	1.830	Am	—	—
444935 2008 CQ ₁	19.3	X	287.49680	303.70739	290.34746	3.34280	0.4317017	0.30311257	2.195	1.247	3.142	Am	—	—
445025 2008 NS ₁	17.5	X	164.84056	209.01246	307.82080	14.05394	0.8030258	0.26144818	2.422	0.477	4.367	Ap	8 23.7	23.6
445267 2009 SD ₂₂₉	19.5	X	257.82174	181.04366	124.11478	8.11875	0.4099938	0.32420990	2.099	1.238	2.959	Am	1 28.5	23.4
445305 2010 DM ₅₆	19.9	X	73.61222	48.13773	349.65675	25.60600	0.2924769	0.66059324	1.306	0.924	1.688	Ap	—	—
445775 2011 YA	18.6	X	284.53998	226.62844	340.93763	5.25432	0.7561391	0.31976942	2.118	0.516	3.719	Ap	11 28.9	21.3
445830 2012 CL ₁₉	22.2	X	333.30754	295.21164	128.57022	2.86472	0.4413295	0.50494039	1.562	0.873	2.251	Ap	—	—
445974 2013 BJ ₁₈	20.3	X	112.21331	159.57294	90.84664	3.71052	0.3637387	0.54854679	1.478	0.940	2.016	Ap	11 20.6	22.2
446789 1998 FN ₉	20.7	X	303.24607	329.26995	183.87409	14.62648	0.2354591	0.59723052	1.397	1.068	1.725	Am	—	—
446791 1998 SJ ₇₀	18.3	X	259.07463	246.88148	21.55609	7.30631	0.7051564	0.29432994	2.238	0.660	3.817	Ap	—	—
446804 1999 VN ₆	19.6	X	265.41086	43.57547	58.07716	19.48340	0.3702943	0.43194336	1.733	1.091	2.375	Am	8 28.6	22.4
446826 2001 PE ₁	18.2	X	162.76862	191.01046	183.15134	3.47373	0.5975964	0.21355068	2.772	1.115	4.429	Am	3 17.0	24.0
446833 2001 RB ₁₂	21.0	X	214.44515	141.65406	333.24511	6.61170	0.3813038	0.91324309						

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Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
448003 2008 DE	19.5	X	52.34468	179.15368	55.94519	14.76118	0.4136567	0.43910467	1.714	1.005	2.423	Ap	9 4.9	20.6
448628 2010 VF ₁	20.4	X	247.99764	334.28111	216.37758	22.14105	0.6532513	0.71022786	1.244	0.431	2.057	Ap	11 18.6	20.0
448721 2011 BN ₂₄	20.9	X	72.84090	61.76053	195.78796	3.93548	0.4120444	0.51365598	1.544	0.908	2.180	Ap	11 1.8	22.4
448724 2011 BB ₄₅	19.4	X	15.55045	351.24787	304.86013	17.11950	0.3046836	0.51497643	1.542	1.072	2.011	Am	3 25.3	20.7
448818 2011 UU ₂₀	18.0	X	134.40099	137.13828	355.18369	21.99415	0.5289598	0.25276964	2.477	1.167	3.788	Am	7 18.6	23.3
448972 2011 YV ₁₅	17.2	X	54.27174	162.50707	1.87293	5.97082	0.5460564	0.20582189	2.841	1.290	4.392	Am	6 16.2	19.8
449074 2012 FR ₆₂	19.2	X	251.97902	274.38071	206.81315	39.52695	0.2624604	0.45995779	1.662	1.226	2.098	Am	9 9.4	21.9
449089 2012 SC ₂₂	20.1	X	358.46179	167.46222	344.37670	12.60399	0.6318519	0.65092053	1.319	0.485	2.152	Ap	—	—
449107 2012 VJ ₈₂	19.7	X	297.97347	271.78612	257.46399	15.72170	0.3899758	0.62196314	1.359	0.829	1.889	Ap	—	—
450142 1998 XN ₂	19.9	X	239.23979	126.90021	255.26991	1.78736	0.5417792	0.34862838	1.999	0.916	3.083	Ap	4 15.1	24.3
450143 1999 ED ₅	19.6	X	321.44029	273.97917	5.56241	18.18206	0.4660668	0.42727694	1.746	0.932	2.559	Ap	1 24.7	23.2
450159 2000 JJ ₅	18.9	X	228.71195	50.58231	60.09791	9.47157	0.7009245	0.37319390	1.911	0.571	3.250	Ap	7 23.2	23.5
450160 2000 RM ₁₂	16.6	X	150.49764	102.04624	354.42469	57.26735	0.6677097	0.25994978	2.432	0.808	4.055	Ap	—	—
450185 2001 WJ ₂	19.9	X	63.27614	297.98663	57.19075	27.33374	0.2441926	0.56685691	1.446	1.093	1.799	Am	—	—
450203 2002 NA ₃₁	20.0	X	347.71903	219.92817	125.51696	19.97144	0.2885635	0.45836039	1.666	1.185	2.147	Am	6 22.4	20.6
450237 2002 XY ₃₈	22.9	X	133.63388	119.48225	159.37057	2.10125	0.2172483	1.13374737	0.911	0.713	1.109	At	—	—
450238 2002 XN ₄₀	18.2	X	194.20181	216.22151	271.06838	25.65799	0.4251861	0.30816727	2.171	1.248	3.094	Am	7 24.6	22.9
450259 2003 WQ ₇	19.6	X	218.26627	100.07909	38.67189	17.79390	0.4535128	0.40798414	1.800	0.984	2.617	Ap	9 6.2	23.3
450263 2003 WD ₁₅₈	18.8	X	313.01897	102.29187	92.27593	16.71538	0.4093635	0.57852411	1.426	0.843	2.010	Ap	—	—
450270 2004 AE	20.7	X	334.62924	193.13886	307.60146	18.72620	0.3325366	0.57542085	1.432	0.956	1.908	Ap	—	—
450293 2004 LV ₃	18.8	X	161.84830	121.31957	273.49380	35.33973	0.2757213	0.72134837	1.231	0.892	1.571	Ap	—	—
450300 2004 QD ₁₄	20.6	X	201.00192	109.29904	75.27072	6.24775	0.3378694	1.07828314	0.942	0.624	1.260	At	—	—
450648 2006 UC ₆₃	19.7	X	245.65179	328.01273	219.67213	16.66303	0.2818976	0.55154054	1.473	1.057	1.888	Am	—	—
450649 2006 UY ₆₄	19.5	X	161.88518	210.89807	30.79595	26.21611	0.1572952	1.09613333	0.932	0.785	1.078	At	—	—
450779 2007 SE ₁₁	17.8	X	212.27785	353.26514	50.06067	48.29299	0.3564627	0.35964213	1.958	1.260	2.656	Am	5 5.1	21.5
450894 2008 BT ₁₈	18.3	X	284.48260	139.28200	107.66631	8.13382	0.5935204	0.29765383	2.222	0.903	3.540	Ap	—	—
451003 2008 UD ₁	19.2	X	248.06084	6.59905	154.23529	6.47650	0.4634959	0.43851927	1.716	0.921	2.511	Ap	10 16.8	21.4
451124 2009 KC ₃	18.0	X	145.41203	337.24154	340.09132	10.00934	0.6986751	0.17159604	3.207	0.966	5.448	Ap	1 19.4	24.5
451157 2009 SQ ₁₀₄	21.0	X	32.57274	95.63317	56.55069	4.01833	0.2796357	0.67684324	1.285	0.925	1.644	Ap	—	—
451217 2009 XE ₁₁	16.9	X	67.67542	107.69048	99.86438	14.06504	0.6122686	0.16353523	3.312	1.284	5.339	Am	9 12.8	22.4
451297 2010 TK ₅₄	19.2	X	9.79485	222.92122	28.18465	30.80657	0.4950851	0.39477524	1.840	0.929	2.751	Ap	1 30.5	22.5
451370 2011 AK ₅	21.5	X	238.15933	325.66638	316.81155	5.52276	0.2307270	0.76142286	1.188	0.914	1.462	Ap	—	—
451397 2011 EZ ₇₈	17.2	X	236.88802	179.70973	109.87690	17.92266	0.5426414	0.26613935	2.394	1.095	3.693	Am	1 7.5	22.3
452302 1995 YR ₁	20.4	X	257.98871	109.40815	107.07453	3.56979	0.8272589	0.44553028	1.698	0.293	3.102	Ap	11 23.5	22.8
452307 1997 XV ₁₁	18.3	X	212.77032	270.18239	241.25687	44.26726	0.1717754	0.38630205	1.867	1.274	2.461	Am	8 26.6	22.7
452313 1998 XR ₁₆	18.5	X	145.48698	68.17531	91.84123	20.53797	0.5784810	0.28702980	2.276	0.959	3.593	Ap	8 25.8	23.7
452314 1999 LN ₂₈	19.3	X	280.35765	186.60438	115.62571	9.19798	0.4677293	0.31456604	2.141	1.140	3.143	Am	2 6.2	23.5
452334 2001 LB	21.0	X	333.33374	118.15281	80.91238	20.79454	0.1892781	0.71713408	1.236	1.002	1.470	Ap	—	—
452376 2002 AC ₅	20.0	X	272.47267	331.61987	82.41413	16.55056	0.4939240	0.42257228	1.759	0.890	2.627	Ap	6 7.8	22.9
452389 2002 NW ₁₆	18.0	X	33.64349	317.45666	301.55691	14.16387	0.0303156	0.84411822	1.109	1.075	1.142	Am	—	—
452397 2002 PD ₁₃₀	20.4	X	276.36804	105.24226	269.13898	8.78540	0.3437073	0.38195550	1.881	1.235	2.528	Am	4 28.1	23.5
452421 2002 VX ₉₉	18.6	X	140.26014	259.93867	234.32618	24.49785	0.5121614	0.23086207	2.632	1.284	3.980	Am	7 10.6	23.8
452474 2004 BG ₁₁	18.2	X	232.99025	83.84251	108.22209	34.12055	0.4873243	0.41643273	1.776	0.911	2.641	Ap	11 24.7	22.0
452561 2005 AB	17.5	X	55.14300	63.71728	126.27058	8.15875	0.6558186	0.17086329	3.216	1.107	5.326	Am	8 13.6	21.9
452639 2005 UY ₆	18.3	X	150.49723	180.77346	343.62043	12.16414	0.8701223	0.29070373	2.257	0.293	4.221	Ap	9 3.1	24.1
452807 2006 KV ₈₉	21.4	X	101.34641	87.76989	71.72071	3.55431	0.2727176	0.79938212	1.150	0.836	1.463	Ap	—	—
453100 2007 WU ₄	19.9	X	169.82741	283.28396	67.01660	29.22054	0.5073442	0.24158448	2.553	1.258	3.849	Am	2 28.6	24.5
453309 2008 VQ ₄	18.4	X	235.77210	232.61981	256.36748	11.58191	0.3318854	0.42569572	1.750	1.169	2.331	Am	8 26.5	22.2
453563 2010 BB	20.2	X	232.04679	28.94329	279.79949	10.02753	0.2772902	1.32666811	0.820	0.593	1.048	At	—	—
453687 2010 VY ₁₉₀	19.3	X	300.23077	142.90951	241.85116	19.97795	0.3094535	0.40502656	1.809	1.249	2.369	Am	6 7.3	21.3
453707 2010 XY ₇₂	18.6	X	246.05058	307.04440	34.44440	31.48397	0.2288099	0.81695798	1.133	0.874	1.393	Ap	—	—
453729 2011 BO ₂₄	18.8	X	260.38166	178.59214	91.49225	20.36520	0.2779574	0.60758182	1.381	0.997	1.764	Ap	—	—
453778 2011 JK	18.4	X	133.39153	10.82513	203.38151	6.69040	0.4634948	0.37325810	1.910	1.025	2.796	Am	10 14.2	21.8
454078 2012 VV ₉₃	17.5	X	164.80887	145.67377	314.17751	25.01181	0.4912768	0.29442828	2.238	1.138	3.337	Am	6 18.2	22.4
454094 2013 BZ ₄₅	21.9	X	108.54290	98.55620	131.17823	11.87222	0.1441699	0.96543738	1.014	0.868	1.160	Ap	11 12.0	21.2
454100 2013 BO ₇₃	20.1	X	128.29851	298.14068	24.81502	4.54408	0.4184579	0.64122613	1.332	0.775	1.889	Ap	—	—
454101 2013 BP ₇₃	20.4	X	89.55210	251.83824	80.06373	6.85082	0.6287654	0.64396191	1.328	0.493	2.163	Ap	—	—
454177 2013 GJ ₃₅	15.9	X	193.12520	219.30324	291.23342	41.18753	0.4891576	0.31505775	2.139	1.093	3.185	Am	8 8.6	21.0
454266 2014 FM ₇	19.0	X	255.28942	332.18151	109.76821	19.04450	0.2910762	0.42249467	1.759	1.247	2.271	Am	7 17.4	21.1
455146 1999 FS	19.6	X	124.24894	21.46250	179.16867	10.11315	0.4248653	0.29668054	2.226	1.281	3.172	Am	9 19.8	23.7
455148 1994 UG	21.1	X	345.36036	225.41468	13.63543	5.21475	0.2927598	0.71449868	1.239	0.876	1.602	Ap	—	—
455157 1997 YM ₃	17.1	X	140.44389	77.57645	300.22595	3.86371	0.6615938	0.16490021	3.293	1.115	5.472	Am	3 17.2	23.8
455176 1999 VF ₂₂	20.6	X	339.67851	271.68225	3.51121	3.90287	0.7385339	0.65521190	1.313	0.343	2.282	Ap	—	—
455184 2000 ED ₁₄	20.8	X	243.52143	310.10512	3.89774	13.77756	0.5665975	1.29179446	0.835	0.362	1.308	At	—	—
455185 2000 EB ₁₀₇	17.2	X	98.76161	43.45757	177.46281	25.23369	0.5832417	0.18612870	3.038	1.266	4.810	Am	10 9.2	23.1
455192 2000 QN ₁₃₀	18.1	X	146.49693	301.52326	103.22803	2.56806	0.5731962	0.19886199	2.907	1.241	4.573	Am	4 13.9	23.9
455193 2000 RJ ₆₀	18.6	X	282.50499	67.80676	324.37573	35.30919	0.3247041	0.39756312	1.832	1.237	2.427	Am	5 22.7	22.4
455199 2000 YK ₄	19.8	X	246.23810	234.03102	281.57640	26.06310	0.3726479	0.45798417	1.667	1				

ELEMENTS AND OPPOSITION DATES OF NEAS

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2017 SEPTEMBER 4.0 TT

Planet	<i>H</i>	<i>G</i>	<i>M</i>	ω	Ω	<i>i</i>	<i>e</i>	μ	<i>a</i>	<i>q</i>	<i>Q</i>	<i>T</i>	Oppos.	<i>V</i>
455659 2005 BO ₁	21.5	X	75.75743	174.17104	113.35746	10.67540	0.3561191	1.06577138	0.949	0.611	1.287	At	1 8.7	19.9
455687 2005 EK ₉₄	19.2	X	144.17047	154.91722	103.05922	14.18199	0.4797227	0.35417566	1.978	1.029	2.928	Am	12 10.8	23.4
455736 2005 HC ₃	17.8	X	158.42190	107.34875	94.78943	32.01891	0.3737043	0.35299053	1.983	1.242	2.724	Am	10 29.3	22.3
455795 2005 SF	18.7	X	158.28259	148.87654	110.46915	10.09791	0.6542784	0.36140435	1.952	0.675	3.229	Ap	12 16.3	23.2
455956 2005 VE	20.7	X	58.47655	31.69703	223.39280	22.41666	0.2752368	0.89839758	1.064	0.771	1.356	Ap	—	—
456051 2006 AW	18.7	X	206.54616	112.98816	281.60079	10.42941	0.5973502	0.29864533	2.217	0.893	3.541	Ap	4 16.1	23.9
456301 2006 SV ₁₃₄	18.7	X	147.79418	64.36815	217.20057	21.54088	0.4808008	0.38617572	1.868	0.970	2.766	Ap	—	—
456536 2007 BA	18.9	X	269.43426	204.70915	293.23432	12.81378	0.3095884	0.44532275	1.698	1.173	2.224	Am	10 21.4	20.5
456537 2007 BG	19.5	X	245.25727	133.34881	168.34866	12.73909	0.3307103	1.41218994	0.787	0.527	1.047	At	—	—
456618 2007 HB	19.7	X	157.32109	103.79341	67.39785	23.27343	0.3967570	0.32174924	2.109	1.272	2.946	Am	9 16.3	24.3
456651 2007 RT ₁₉	18.3	X	13.52422	96.55326	197.96577	24.38632	0.3765449	0.38782981	1.862	1.161	2.563	Am	5 8.8	18.5
456863 2007 VX ₇	19.5	X	319.08844	105.47032	243.89390	16.81695	0.3756128	0.38350338	1.876	1.172	2.581	Am	4 28.5	21.9
456898 2007 VG ₁₈₄	17.4	X	252.87080	155.83438	146.94730	16.10404	0.6710399	0.26774313	2.384	0.784	3.984	Ap	1 25.8	23.1
456938 2007 YV ₅₆	21.0	X	348.29447	265.73053	102.42348	6.24413	0.6222052	0.49837652	1.576	0.595	2.556	Ap	5 11.9	22.5
456946 2008 AF ₃₂	21.2	X	29.23065	80.16954	105.31559	27.18191	0.1108455	0.73995950	1.211	1.076	1.345	Am	—	—
456973 2008 BS ₂	18.1	X	99.46386	351.06061	311.10577	14.14172	0.4710898	0.49306101	1.587	0.839	2.334	Ap	—	—
457059 2008 EG	20.1	X	44.49670	355.50948	327.46259	26.78379	0.7389550	1.07658893	0.943	0.246	1.640	At	2 14.1	20.9
457212 2008 JR ₂₆	19.8	X	165.60116	96.60381	230.72622	16.81450	0.1775963	0.59866671	1.394	1.147	1.642	Am	—	—
457260 2008 RY ₂₄	17.7	X	228.65613	130.72421	285.01716	4.38353	0.4603479	0.29870435	2.216	1.196	3.237	Am	5 23.9	22.3
457647 2009 CZ	18.0	X	152.80310	188.92399	46.61760	21.98877	0.7174016	0.28667615	2.278	0.644	3.912	Ap	11 15.2	23.5
457662 2009 DZ	21.9	X	326.13964	335.78791	151.50022	14.11169	0.3017405	0.56287652	1.453	1.014	1.891	Ap	—	—
457663 2009 DN ₁	20.7	X	277.86141	314.23244	280.90175	7.85952	0.2853439	0.56931095	1.442	1.030	1.853	Am	—	—
457768 2009 KN ₄	18.3	X	351.84914	38.31221	308.25309	9.14259	0.5245847	0.36458529	1.941	0.923	2.959	Ap	5 13.4	19.9
457912 2009 UW ₁₈	19.6	X	220.92670	59.82114	227.23000	16.98767	0.4389368	0.68143291	1.279	0.718	1.840	Ap	—	—
458062 2009 YO	18.7	X	334.78574	1.80690	266.34695	32.00384	0.5628729	0.70293929	1.253	0.548	1.958	Ap	—	—
458116 2010 DA	20.3	X	355.54543	122.19235	162.35130	20.53370	0.5655820	0.94217787	1.030	0.448	1.613	Ap	11 26.3	20.7
458122 2010 EW ₄₅	17.7	X	210.62116	135.34084	233.09633	2.10776	0.6690487	0.33199814	2.066	0.684	3.448	Ap	3 21.8	22.5
458135 2010 GE ₂₅	20.2	X	170.54653	235.24715	324.55329	21.65028	0.4690121	0.33185120	2.066	1.097	3.035	Am	10 3.4	24.9
458198 2010 RT ₁₁	18.7	X	150.74484	17.61564	221.78525	2.25820	0.4062173	0.31942763	2.119	1.258	2.980	Am	11 19.7	22.9
458368 2010 WJ	18.4	X	327.85505	107.68355	262.55362	27.02408	0.2853893	0.40881784	1.798	1.285	2.311	Am	6 27.3	19.3
458375 2010 WY ₈	21.2	X	326.10941	81.46312	88.86716	5.98366	0.1355686	0.60457731	1.385	1.197	1.573	Am	—	—
458418 2011 AM ₁₂	19.5	X	264.94014	237.71605	124.79429	38.50093	0.5374952	0.39028077	1.854	0.858	2.851	Ap	4 14.1	24.2
458436 2011 AL ₅₂	17.4	X	139.89961	171.69234	272.71317	13.39545	0.6335228	0.20929759	2.809	1.030	4.589	Am	5 26.4	23.4
458452 2011 BR ₁₅	20.0	X	231.50926	72.11370	216.86313	10.22693	0.2769761	1.20726651	0.874	0.632	1.115	At	—	—
458723 2011 KQ ₁₂	19.4	X	202.11079	142.85811	83.66195	19.28307	0.5032457	0.40462370	1.810	0.899	2.721	Ap	12 3.9	22.6
458732 2011 MD ₅	17.9	X	159.16506	223.69045	171.19389	10.65691	0.6027465	0.25059292	2.492	0.990	3.994	Ap	4 7.1	23.1
458745 2011 QY ₃₇	18.4	X	159.59520	281.00039	136.04808	7.55637	0.5123947	0.25067365	2.491	1.215	3.768	Am	4 29.3	23.5
458964 2011 WM ₂	20.3	X	9.99254	315.29491	57.51220	15.87370	0.2879595	0.50609265	1.559	1.110	2.009	Am	—	—
459046 2012 AS ₁₀	17.1	X	157.65678	194.85933	50.95440	12.50213	0.4868365	0.48824995	1.597	0.820	2.375	Ap	12 6.1	20.0
459119 2012 BJ ₁₃₄	18.2	X	205.97075	138.19248	144.58865	21.24046	0.8327933	0.29078573	2.256	0.377	4.136	Ap	—	—
459200 2012 DK ₆₁	21.0	X	255.77776	301.35482	336.15982	6.26686	0.1656825	0.71091211	1.243	1.037	1.449	Am	—	—
459386 2012 KJ ₁₁	16.9	X	168.71275	305.28927	339.64940	35.83120	0.5715716	0.50184825	1.568	0.672	2.465	Ap	—	—
459451 2012 WG ₃₂	17.6	X	44.44623	300.47641	26.58138	17.61531	0.4961154	0.39663011	1.835	0.924	2.745	Ap	—	—
459458 2012 XR ₁₃₄	18.5	X	178.22690	355.12310	218.04999	11.87424	0.7715441	0.34431188	2.016	0.461	3.572	Ap	10 30.2	23.6
459462 2013 AY ₅₂	19.9	X	87.37183	251.78177	116.38667	18.34787	0.4746877	0.65407096	1.314	0.690	1.938	Ap	—	—
459683 2013 MY ₅	19.7	X	305.76412	279.01074	102.90455	2.99609	0.4533721	0.46010837	1.662	0.908	2.415	Ap	5 18.7	21.8
459872 2014 EK ₂₄	23.3	X	287.59505	63.14746	340.68596	4.80411	0.0699396	0.97564631	1.007	0.936	1.077	Ap	—	—
461353 1999 LS ₇	20.8	X	261.35201	123.75440	252.31009	13.05219	0.3009276	0.97063134	1.010	0.706	1.314	Ap	—	—
461365 2000 JF ₁	19.1	X	112.47638	220.26024	54.92508	11.40125	0.4520221	0.30508839	2.185	1.198	3.173	Am	12 10.1	23.5
461397 2001 SD ₁₇₀	18.0	X	220.65041	215.89605	197.03439	25.26944	0.5283455	0.28719774	2.275	1.073	3.477	Am	5 18.3	23.2
461501 2003 FT ₃	18.6	X	88.21357	84.65102	181.59375	4.31995	0.5674000	0.22439523	2.682	1.160	4.204	Am	11 22.2	23.8
461852 2006 GY ₂	18.8	X	155.45054	216.70021	54.31903	30.56508	0.4959064	0.38918626	1.858	0.937	2.779	Ap	12 27.3	23.0
461912 2006 RG ₂	18.2	X	150.92866	75.29663	30.80452	8.58665	0.6501853	0.22279238	2.695	0.943	4.447	Ap	6 24.7	24.2
462041 2007 DL ₈	17.4	X	111.22172	135.28669	154.76216	19.62723	0.7634604	0.22696898	2.662	0.630	4.694	Ap	—	—
462238 2008 CN ₁	20.6	X	199.00915	7.20487	331.53021	7.21740	0.3477142	1.45636479	0.771	0.503	1.039	At	—	—
462329 2008 JZ ₃₀	18.5	X	95.43519	91.64307	161.05473	25.45348	0.5276388	0.23694301	2.586	1.222	3.951	Am	11 12.9	23.9
462550 2009 CB ₃	19.4	X	335.83511	229.45317	158.78572	21.51732	0.7237246	0.89714709	1.065	0.294	1.835	Ap	5 3.9	21.4
462559 2009 DD ₁	20.3	X	317.31287	104.99121	158.30360	29.38768	0.0807960	0.71221899	1.242	1.141	1.342	Am	—	—
462736 2010 BL ₂	16.4	X	135.02796	199.57646	91.22609	59.86194	0.7840992	0.29679076	2.226	0.481	3.971	Ap	—	—
462775 2010 GY ₆	19.4	X	271.53990	116.01060	204.69045	21.90883	0.2342662	0.67534477	1.287	0.985	1.588	Ap	—	—
462959 2011 DU	20.9	X	303.29582	120.09405	176.93862	2.94383	0.3178057	0.77708030	1.172	0.799	1.544	Ap	—	—
463216 2012 DU ₃₀	18.3	X	106.11061	61.62158	147.22020	28.23603	0.5072923	0.23472094	2.603	1.282	3.923	Am	9 27.5	23.5
463257 2012 GG														