

MPEC 2012-D22 : DAILY ORBIT UPDATE (2012 FEB. 19 UT)

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M.P.E.C. 2012-D22

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Update to [MPEC 2012-D11](#)

Full-precision elements for the objects listed here are available at <http://www.minorplanetcenter.org/iau/MPCORB.html>

New identification:

K05Uc7Y K12C45W
K10S32R K12C46A

MPCW
MPCW

New multiple-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Opp	C
J95D01W	21.2	0.15	K123E	265.256	326.997	348.877	15.064	0.43689	1.04014	3	X
J95F00J	20.3	0.15	K123E	258.597	316.422	4.716	25.034	0.27047	1.08542	3	X
J99R07R	15.7	0.15	K123E	19.986	125.153	10.728	9.855	0.02802	2.99285	6	X
J99T72R	16.3	0.15	K123E	38.662	43.755	68.122	7.000	0.12306	3.11309	4	X
J99TH0V	15.8	0.15	K123E	49.820	55.447	23.355	16.201	0.20876	3.13905	4	X
J99V91C	15.4	0.15	K123E	133.646	333.654	41.121	11.071	0.12940	3.05306	5	X
J99VL5Y	15.9	0.15	K123E	359.267	152.013	20.201	13.743	0.08240	2.96980	6	X
K00C59J	17.9	0.15	K123E	332.447	68.507	142.773	41.366	0.21561	1.78720	3	X
K00G06N	17.3	0.15	K123E	328.012	185.363	16.214	12.854	0.17773	2.55089	6	X
K00S24A	15.8	0.15	K123E	308.830	265.046	6.829	27.450	0.40026	2.61200	4	X
K01A50V	15.5	0.15	K123E	342.425	80.366	117.219	11.030	0.05593	2.98125	7	X
K01D23W	15.6	0.15	K123E	16.978	1.763	140.738	17.165	0.24886	3.06980	3	X
K01F71E	15.5	0.15	K123E	327.023	198.584	9.303	17.580	0.16952	3.15168	4	X
K01F80Z	17.6	0.15	K123E	330.592	334.077	240.616	7.315	0.29273	2.38596	4	X
K01FI0Y	15.3	0.15	K123E	346.707	178.361	11.440	17.687	0.16372	3.15519	4	X
K01G04E	17.9	0.15	K123E	19.787	24.083	88.659	5.490	0.42610	2.42073	3	X

K01RC3X	16.1	0.15	K123E	206.332	317.581	356.649	22.435	0.03938	2.62311	4 X
K01SU4M	16.3	0.15	K123E	32.692	82.297	8.081	12.949	0.21593	2.78767	3 X
K01V82W	15.8	0.15	K123E	67.009	201.103	231.744	17.076	0.15191	2.75123	3 X
K01W56X	16.0	0.15	K123E	66.333	214.594	232.210	8.135	0.11057	2.75017	5 X
K02A00W	20.7	0.15	K123E	270.698	118.287	162.764	0.569	0.25616	1.06979	3 X
K02C34U	17.4	0.15	K123E	45.571	33.898	76.426	6.492	0.07148	2.21597	7 X
K02CB5S	16.6	0.15	K123E	336.055	61.037	167.443	24.975	0.19332	2.19447	5 X
K02CK8J	18.1	0.15	K123E	42.583	338.590	129.167	2.101	0.11674	2.23116	6 X
K02CR2S	15.4	0.15	K123E	309.352	185.447	34.501	12.091	0.10438	2.93604	5 X
K02CT1A	17.2	0.15	K123E	48.269	58.570	46.899	7.978	0.08400	2.21739	4 X
K02GB0H	17.1	0.15	K123E	288.079	227.727	28.096	8.192	0.11050	2.25701	4 X
K02J28T	14.9	0.15	K123E	242.175	230.988	55.774	10.636	0.06788	3.08254	5 X
K02JA4A	15.2	0.15	K123E	228.526	230.533	69.657	12.031	0.07337	3.11539	7 X
K02JE7N	16.3	0.15	K123E	352.765	139.074	34.601	12.636	0.25616	2.99485	4 X
K02JE9U	16.2	0.15	K123E	331.900	118.425	72.369	11.545	0.05225	3.09763	3 X
K02L32C	17.2	0.15	K123E	310.696	127.570	92.496	6.117	0.11423	2.29673	7 X
K02R27D	17.7	0.15	K123E	36.535	73.106	355.989	25.652	0.53316	2.68548	2 X
K02S34U	16.3	0.15	K123E	294.079	258.523	9.249	23.157	0.25138	2.34515	4 X
K02U40P	15.9	0.15	K123E	67.639	340.707	78.810	14.437	0.23251	2.61607	9 X
K02U60D	16.7	0.15	K123E	77.934	333.008	84.695	10.016	0.14688	2.57707	6 X
K02VA7P	16.6	0.15	K123E	39.922	43.816	43.678	12.804	0.30437	2.66108	3 X
K02X39J	16.9	0.15	K123E	24.437	80.223	48.618	4.628	0.23694	2.63482	5 X
K02X52L	16.8	0.15	K123E	61.363	355.327	76.647	13.390	0.22336	2.64894	4 X
K03B05W	16.7	0.15	K123E	348.046	185.460	327.573	29.719	0.16422	2.74928	2 X
K03B20Z	19.0	0.15	K123E	276.206	117.148	126.697	29.308	0.05297	1.47857	2 X
K03B76P	16.0	0.15	K123E	74.197	333.800	89.570	15.167	0.23382	2.68910	4 X
K03E40X	15.8	0.15	K123E	55.731	339.612	115.143	13.550	0.15133	2.71939	6 X
K03F71Y	16.6	0.15	K123E	353.567	126.658	38.190	14.556	0.14243	2.77890	3 X
K03FB7Y	16.4	0.15	K123E	9.269	120.461	31.740	11.373	0.13552	2.74141	4 X
K03H35R	16.8	0.15	K123E	356.870	126.445	25.496	8.585	0.23963	2.78283	3 X
K03O24F	16.6	0.15	K123E	101.905	255.850	132.819	21.623	0.26055	2.32461	4 X
K03UE5R	16.9	0.15	K123E	64.673	19.064	63.371	6.242	0.14462	2.40078	6 X
K03W63S	16.6	0.15	K123E	31.901	62.434	60.160	4.853	0.17259	2.41916	4 X
K03Y63O	16.7	0.15	K123E	31.054	20.936	106.038	11.869	0.14179	2.45183	4 X
K03YB5M	17.3	0.15	K123E	74.061	141.685	298.009	19.506	0.08933	1.89258	3 X
K03YB8C	17.1	0.15	K123E	298.964	288.670	304.122	15.971	0.04849	1.88784	4 X
K04B06V	17.6	0.15	K123E	15.532	112.028	33.778	5.118	0.21863	2.47363	4 X
K04B20E	16.4	0.15	K123E	39.512	28.519	57.940	7.133	0.23547	2.53044	3 X
K04B21H	17.1	0.15	K123E	34.530	49.431	72.603	6.031	0.17269	2.46401	4 X
K04BB6S	17.2	0.15	K123E	310.786	218.962	9.309	19.698	0.07129	1.90379	5 X
K04C41Z	16.9	0.15	K123E	62.199	332.607	80.456	8.429	0.21854	2.53529	4 X
K04C58G	17.0	0.15	K123E	358.407	54.980	107.177	16.910	0.11796	2.51831	4 X
K04D09Y	16.0	0.15	K123E	14.343	351.044	135.443	22.443	0.04983	2.56157	3 X
K04E03K	16.6	0.15	K123E	48.666	52.354	28.275	17.886	0.21355	2.55341	4 X
K04F26B	16.4	0.15	K123E	328.157	203.227	15.231	13.605	0.11292	2.53582	6 X
K04F38N	16.4	0.15	K123E	309.249	222.172	352.439	17.396	0.13283	2.58584	3 X
K04FE1N	16.3	0.15	K123E	326.333	193.990	12.232	12.082	0.12047	2.57953	4 X
K04FE3S	15.8	0.15	K123E	299.146	200.747	41.420	12.545	0.13011	2.59149	5 X
K04FE7W	15.9	0.15	K123E	298.285	108.710	127.585	13.637	0.12889	2.62513	4 X
K04G27P	17.5	0.15	K123E	343.996	78.251	115.123	9.306	0.28924	2.56331	4 X
K04G60L	17.1	0.15	K123E	7.797	87.353	63.428	5.433	0.13875	2.58531	5 X
K04H75C	16.5	0.15	K123E	306.638	234.811	358.914	14.003	0.21818	2.60388	5 X
K04K12L	16.3	0.15	K123E	318.305	93.461	139.934	8.312	0.15778	2.59115	6 X
K04K13G	16.6	0.15	K123E	326.240	20.687	193.265	13.051	0.22555	2.61275	4 X
K04L18A	16.3	0.15	K123E	285.467	109.236	109.663	7.854	0.20555	2.70723	6 X
K04R38R	16.2	0.15	K123E	232.889	353.700	312.941	7.414	0.15007	2.87784	5 X
K04R92P	15.5	0.15	K123E	106.541	61.417	326.688	9.306	0.10131	3.07189	3 X
K04S02L	15.7	0.15	K123E	199.614	316.008	17.738	9.728	0.08768	2.92538	4 X
K04T33Q	15.6	0.15	K123E	338.503	168.826	13.748	9.531	0.12220	3.09274	4 X
K04TQ5T	15.3	0.15	K123E	106.807	18.295	33.733	14.353	0.02664	3.12210	6 X
K04TQ7H	15.0	0.15	K123E	339.958	157.096	34.363	17.616	0.10117	3.09412	5 X

K05B02G	16.3	0.15	K123E	62.890	68.907	345.707	23.353	0.34529	2.28476	3 X
K05B10M	18.2	0.15	K123E	357.313	264.670	244.513	1.153	0.17758	2.30538	4 X
K05E02K	17.5	0.15	K123E	312.519	74.681	143.606	2.370	0.15450	2.31767	3 X
K05E21T	17.4	0.15	K123E	285.824	100.126	157.624	5.423	0.14179	2.29936	5 X
K05EB9F	17.2	0.15	K123E	21.409	282.455	211.479	6.433	0.19591	2.32350	5 X
K05ED6K	16.7	0.15	K123E	293.446	74.656	177.824	22.290	0.22715	2.33776	4 X
K05EE5W	18.1	0.15	K123E	327.531	192.059	14.506	4.875	0.16812	2.33140	4 X
K05EF6L	17.1	0.15	K123E	338.887	118.976	56.876	7.766	0.14695	2.31875	4 X
K05EG9Q	17.2	0.15	K123E	317.195	93.754	136.726	23.607	0.29693	2.34329	3 X
K05EN3A	17.3	0.15	K123E	8.125	43.155	120.646	7.054	0.13773	2.29531	5 X
K05G03H	17.0	0.15	K123E	321.399	147.355	74.598	6.134	0.18356	2.34378	5 X
K05G43H	17.8	0.15	K123E	335.608	146.214	49.040	11.570	0.20803	2.34302	3 X
K05GB9R	16.6	0.15	K123E	323.041	181.961	64.010	23.996	0.20722	2.30570	5 X
K05JA6D	17.2	0.15	K123E	229.422	242.924	79.490	3.423	0.20195	2.40478	3 X
K05Q79R	16.6	0.15	K123E	155.206	10.851	354.943	20.478	0.10260	1.90687	5 X
K05R03E	15.5	0.15	K123E	131.320	194.809	176.124	27.234	0.15280	2.77679	4 X
K05S33A	16.1	0.15	K123E	272.311	223.778	43.658	7.267	0.08339	2.68643	5 X
K05S85W	16.6	0.15	K123E	6.650	146.674	18.107	8.402	0.15547	2.75832	7 X
K05SF9P	15.2	0.15	K123E	191.415	301.581	28.323	15.922	0.19859	2.74788	4 X
K05SS7S	16.3	0.15	K123E	37.162	48.470	73.394	15.930	0.10108	2.87102	5 X
K05Uc7Y	17.6	0.15	K123E	359.868	31.914	112.673	2.853	0.04118	2.89931	5 X
K05V02R	15.9	0.15	K123E	122.802	344.898	49.962	16.066	0.13313	2.84422	5 X
K05W01K	16.0	0.15	K123E	44.291	88.845	0.840	24.884	0.33682	3.11583	4 X
K05W54T	15.3	0.15	K123E	30.383	15.007	103.392	18.237	0.18419	3.11836	4 X
K05WA1G	16.2	0.15	K123E	29.529	348.784	107.704	17.319	0.42950	3.18357	3 X
K05WB3A	15.6	0.15	K123E	85.651	304.016	95.573	15.753	0.25472	3.04445	4 X
K05X51B	15.5	0.15	K123E	351.884	99.734	68.566	10.891	0.00646	3.04309	4 X
K05Y41V	15.8	0.15	K123E	26.661	35.382	107.173	10.620	0.04737	3.08086	3 X
K05Y69J	16.9	0.15	K123E	88.246	111.838	305.041	3.736	0.12372	3.11796	4 X
K05Y84O	15.3	0.15	K123E	189.890	240.422	96.600	11.690	0.05668	2.97857	6 X
K05Y92U	15.1	0.15	K123E	280.866	142.867	117.895	17.607	0.17635	3.06435	4 X
K05YH5U	15.5	0.15	K123E	313.204	275.991	301.969	14.679	0.07741	3.10283	6 X
K05YI1K	15.9	0.15	K123E	17.643	98.950	30.585	13.642	0.22771	3.18368	5 X
K05YK5K	15.3	0.15	K123E	348.751	65.872	122.453	10.873	0.06421	3.08090	7 X
K06A08L	18.4	0.15	K123E	13.151	65.695	312.190	35.888	0.88719	3.33826	2 X
K06A18O	15.8	0.15	K123E	38.761	174.388	298.177	14.999	0.17638	3.17943	3 X
K06A47L	15.0	0.15	K123E	290.069	151.128	83.861	9.951	0.04065	3.09813	5 X
K06B06V	15.2	0.15	K123E	347.038	63.692	131.815	17.202	0.17795	3.15324	4 X
K06BL4Z	15.2	0.15	K123E	44.680	55.206	80.444	17.181	0.03713	3.08733	4 X
K06C00J	20.2	0.15	K123E	160.980	29.578	303.311	10.245	0.75487	0.67647	3 X
K06C62B	14.6	0.15	K123E	12.911	105.978	69.045	27.334	0.18761	3.18097	4 X
K06D03V	15.2	0.15	K123E	44.681	325.442	164.832	23.976	0.06351	3.21614	5 X
K06DB9P	14.6	0.15	K123E	279.560	157.202	116.407	18.018	0.20922	3.18518	8 X
K06H25J	17.6	0.15	K123E	60.520	308.703	164.225	3.607	0.06381	2.14700	5 X
K06QA1C	17.5	0.15	K123E	124.287	257.056	39.982	5.476	0.35717	2.61853	3 X
K06S88U	17.3	0.15	K123E	200.927	266.422	31.129	5.546	0.07647	2.52148	7 X
K06S95O	17.6	0.15	K123E	109.351	194.633	188.497	3.321	0.28176	2.59115	4 X
K06SO2S	17.5	0.15	K123E	55.055	301.131	152.070	3.676	0.18258	2.56137	4 X
K06SQ3D	18.0	0.15	K123E	171.305	209.522	129.988	1.367	0.23828	2.48338	5 X
K06SV4F	17.4	0.15	K123E	291.639	98.789	127.701	2.035	0.14001	2.45582	5 X
K06Sa1N	17.1	0.15	K123E	31.126	74.185	44.086	13.434	0.22342	2.66854	5 X
K06Se2Q	17.4	0.15	K123E	184.924	141.696	211.457	4.425	0.14487	2.45163	3 X
K06T30H	17.2	0.15	K123E	12.092	96.575	33.064	5.757	0.09925	2.62443	5 X
K06T41A	17.2	0.15	K123E	41.215	66.042	30.906	12.797	0.17113	2.67349	4 X
K06T41U	16.7	0.15	K123E	39.994	22.434	66.205	11.109	0.19840	2.67289	3 X
K06U08E	17.1	0.15	K123E	40.246	47.008	63.365	4.888	0.20839	2.62720	6 X
K06U71N	17.0	0.15	K123E	42.529	333.433	135.661	2.267	0.22973	2.62724	5 X
K06US9U	16.9	0.15	K123E	34.273	69.337	36.910	12.710	0.16605	2.70123	4 X
K06V50N	15.6	0.15	K123E	134.723	320.343	58.842	15.384	0.19699	2.58475	5 X
K06VB2B	16.7	0.15	K123E	39.145	325.696	116.330	10.316	0.26181	2.78927	3 X
K06WB0L	18.1	0.15	K123E	185.670	256.824	122.269	2.051	0.19225	2.41420	3 X

K06X06R	15.9	0.15	K123E	39.044	249.856	221.996	9.582	0.10855	2.69180	5 X
K06X21M	18.5	0.15	K123E	142.843	351.515	99.107	2.190	0.14894	2.39312	3 X
K06Y07M	17.8	0.15	K123E	123.336	268.155	195.079	5.859	0.31175	2.44028	5 X
K07B08P	15.7	0.15	K123E	41.352	9.524	114.789	13.745	0.11954	2.80126	5 X
K07B20G	16.2	0.15	K123E	352.749	92.889	91.666	8.587	0.16393	2.77482	5 X
K07B32J	18.3	0.15	K123E	190.649	295.196	134.708	2.103	0.18764	2.34466	4 X
K07DA9F	15.1	0.15	K123E	325.979	183.556	30.684	18.367	0.19707	2.87912	4 X
K07E00T	18.3	0.15	K123E	48.593	329.429	143.422	45.231	0.05731	1.84808	3 X
K07E71O	18.0	0.15	K123E	69.134	75.422	4.092	20.236	0.11046	1.87720	3 X
K07EC4U	15.2	0.15	K123E	322.162	15.900	194.753	20.469	0.16098	3.12609	4 X
K07EH4Y	15.4	0.15	K123E	279.466	254.225	7.461	26.089	0.18791	3.10059	5 X
K07EK1N	15.1	0.15	K123E	315.512	99.789	125.970	26.519	0.22023	3.08838	3 X
K07EM3C	15.5	0.15	K123E	328.813	76.810	100.358	13.985	0.12316	3.14515	5 X
K07G30E	15.8	0.15	K123E	304.656	205.888	46.231	9.124	0.28614	3.09856	3 X
K07G75A	15.6	0.15	K123E	358.272	37.713	107.665	17.701	0.17750	3.15052	4 X
K07H01O	15.0	0.15	K123E	17.447	121.971	32.051	11.113	0.07180	3.05632	8 X
K07H13J	15.8	0.15	K123E	309.658	189.029	46.093	12.722	0.20246	3.08594	5 X
K07H54L	15.5	0.15	K123E	311.044	174.024	45.339	10.887	0.07150	3.08229	3 X
K07H71A	15.9	0.15	K123E	3.677	97.060	61.237	10.765	0.17256	3.14039	3 X
K07J42D	16.2	0.15	K123E	343.743	63.290	130.895	20.942	0.34158	3.07393	2 X
K07K07K	15.5	0.15	K123E	338.124	48.974	129.064	28.528	0.22566	3.16595	4 X
K07RJ1G	17.1	0.15	K123E	341.563	347.289	338.226	1.037	0.16063	2.97970	4 X
K07RQ8E	16.4	0.15	K123E	335.584	246.338	89.202	2.189	0.16860	2.96447	6 X
K07RV8C	16.0	0.15	K123E	258.998	202.168	198.444	8.776	0.13140	3.05883	4 X
K07T80G	17.0	0.15	K123E	46.009	320.254	99.763	2.413	0.16350	2.38025	3 X
K07TH0D	16.8	0.15	K123E	38.958	90.862	23.896	7.467	0.15607	2.29121	5 X
K07TN3Q	16.7	0.15	K123E	44.387	125.078	204.240	4.773	0.08920	2.80951	6 X
K07TT9F	16.6	0.15	K123E	355.084	100.746	241.846	1.723	0.16188	2.89721	5 X
K07V64C	16.9	0.15	K123E	48.398	67.693	48.683	6.230	0.10175	2.28989	7 X
K07VE5B	18.0	0.15	K123E	125.252	191.961	162.208	2.845	0.21366	2.32497	3 X
K07VV7P	17.1	0.15	K123E	338.250	125.262	49.853	6.016	0.16631	2.32537	5 X
K07VX2O	16.7	0.15	K123E	358.419	145.737	15.700	8.451	0.10739	2.29831	5 X
K07W63R	17.2	0.15	K123E	96.900	315.286	105.948	5.411	0.02718	2.28433	4 X
K07X46A	16.9	0.15	K123E	38.561	359.262	101.407	12.395	0.19916	2.39563	4 X
K08A03Y	17.2	0.15	K123E	15.149	32.607	108.205	6.568	0.10316	2.39621	6 X
K08A19L	16.5	0.15	K123E	349.196	75.594	113.583	7.340	0.11534	2.42070	5 X
K08B02F	16.8	0.15	K123E	33.312	88.637	332.753	22.552	0.46777	2.59697	2 X
K08B13A	16.1	0.15	K123E	337.530	214.484	332.037	25.737	0.30006	2.57811	4 X
K08B44X	17.2	0.15	K123E	45.589	60.518	55.514	7.684	0.06483	2.42729	5 X
K08C70W	16.7	0.15	K123E	15.386	79.758	42.924	10.346	0.18416	2.60994	3 X
K08CA1H	17.5	0.15	K123E	171.773	321.778	17.770	4.874	0.20421	2.38152	4 X
K08CH9E	17.1	0.15	K123E	358.098	111.146	51.538	11.344	0.11925	2.54640	5 X
K08CH9Z	17.1	0.15	K123E	348.907	124.340	45.551	12.422	0.12667	2.56239	6 X
K08CJ4B	16.3	0.15	K123E	348.327	166.705	3.249	23.383	0.13651	2.63743	4 X
K08D15W	17.0	0.15	K123E	303.396	209.546	11.117	10.639	0.06057	2.53125	4 X
K08D56J	16.6	0.15	K123E	2.810	25.224	114.561	15.052	0.04842	2.62373	3 X
K08D68T	16.8	0.15	K123E	2.601	134.971	13.591	14.714	0.09373	2.67554	4 X
K08E48H	17.2	0.15	K123E	349.126	236.465	18.782	7.018	0.08141	2.33841	3 X
K08E82V	16.6	0.15	K123E	324.172	219.987	329.830	13.121	0.19844	2.64886	3 X
K08EG6L	16.7	0.15	K123E	352.194	64.126	89.358	9.883	0.15662	2.64111	4 X
K08EG9B	16.8	0.15	K123E	309.293	137.778	104.818	15.741	0.22737	2.60733	4 X
K08FA1P	16.4	0.15	K123E	310.340	153.809	71.144	12.992	0.13512	2.69081	6 X
K08FD0A	16.1	0.15	K123E	334.975	174.343	28.421	12.516	0.13215	2.62004	4 X
K08G01L	15.9	0.15	K123E	271.062	265.318	10.749	12.562	0.15348	2.65972	4 X
K08G04D	16.0	0.15	K123E	298.952	351.148	249.150	8.225	0.16087	2.65982	7 X
K08G32N	17.3	0.15	K123E	329.224	48.555	132.781	6.019	0.12369	2.75169	2 X
K08G70O	17.0	0.15	K123E	353.483	77.688	91.947	9.729	0.15617	2.72789	5 X
K08G71J	16.9	0.15	K123E	35.780	52.519	59.303	12.540	0.15645	2.62697	5 X
K08GB1R	15.8	0.15	K123E	306.500	187.458	37.550	14.611	0.11590	2.67525	4 X
K08GC8H	16.2	0.15	K123E	332.302	78.199	151.947	29.181	0.32644	2.61348	4 X
K08H34T	16.6	0.15	K123E	6.723	71.036	106.356	13.703	0.21658	2.61683	4 X

K08H41S	16.9	0.15	K123E	318.144	2.504	215.373	7.924	0.12639	2.68987	4 X
K08H54L	15.5	0.15	K123E	103.000	212.111	116.109	4.103	0.20166	3.98305	4 X
K08J08M	17.5	0.15	K123E	334.279	113.872	90.108	6.235	0.22738	2.59414	3 X
K08J09T	16.9	0.15	K123E	336.142	141.847	55.575	14.211	0.19888	2.68352	3 X
K08J20C	16.2	0.15	K123E	324.652	118.810	102.574	13.710	0.21794	2.65237	6 X
K08J21W	16.9	0.15	K123E	328.398	128.373	83.541	8.185	0.23517	2.65840	4 X
K08N02J	16.1	0.15	K123E	346.976	54.248	125.896	26.140	0.10277	2.72018	3 X
K08P01F	22.1	0.15	K123E	56.705	284.101	129.657	2.755	0.49467	1.36004	2 X
K08R23N	17.6	0.15	K123E	91.910	50.222	4.256	20.415	0.10102	1.88937	4 X
K08T57L	14.9	0.15	K123E	62.006	24.354	45.378	1.398	0.06687	5.21991	6 X
K08X27Y	16.4	0.15	K123E	240.451	4.143	38.390	11.433	0.05150	3.09860	4 X
K09C53K	17.2	0.15	K123E	345.475	223.886	319.194	16.770	0.05850	1.98927	3 X
K09F34X	16.6	0.15	K123E	335.351	53.120	28.587	13.804	0.08259	2.73856	3 X
K09H05Y	18.3	0.15	K123E	298.026	84.673	140.679	4.807	0.11580	2.24866	4 X
K09K01Q	17.5	0.15	K123E	300.206	194.384	52.765	6.130	0.13027	2.18478	4 X
K09Q04B	15.4	0.15	K123E	53.966	107.419	3.411	14.843	0.05350	3.09423	4 X
K09R42P	16.6	0.15	K123E	251.809	302.930	339.548	9.145	0.08447	2.99621	3 X
K09SI8X	16.0	0.15	K123E	231.530	318.589	348.709	12.200	0.21291	2.78029	3 X
K09SK5W	17.8	0.15	K123E	153.264	299.822	198.676	9.662	0.12347	2.29168	4 X
K09T20Y	16.0	0.15	K123E	220.109	220.819	87.594	5.515	0.14901	3.06495	6 X
K09U28Q	17.2	0.15	K123E	150.437	100.165	45.110	6.468	0.03373	2.26978	5 X
K09V67H	17.9	0.15	K123E	347.559	282.413	24.811	3.494	0.16001	2.24203	5 X
K09W29E	18.0	0.15	K123E	278.964	284.683	97.568	1.662	0.11763	2.25589	4 X
K10C19G	19.4	0.15	K123E	284.285	117.537	148.992	61.930	0.18678	1.56333	2 S
K10O17X	16.0	0.15	K123E	92.049	75.124	316.657	13.592	0.13355	3.02081	3 X
K10OC0U	15.0	0.15	K123E	55.352	74.590	19.533	18.886	0.21441	3.06311	3 X
K10Q04U	17.6	0.15	K123E	341.293	259.383	297.079	13.337	0.14043	1.92801	3 X
K10R14S	15.7	0.15	K123E	56.149	271.021	175.091	24.395	0.19444	2.77447	6 X
K10RE9J	18.2	0.15	K123E	130.588	36.033	341.435	6.175	0.12436	2.39983	3 X
K10S32R	18.2	0.15	K123E	50.234	310.159	153.487	7.388	0.08313	2.43796	3 X
K10S37E	16.1	0.15	K123E	84.886	38.945	358.055	16.903	0.22587	3.09729	4 X
K10T20L	16.1	0.15	K123E	70.963	177.110	254.296	11.580	0.14899	2.75496	3 X
K10T28M	16.4	0.15	K123E	342.354	173.296	357.622	12.543	0.16505	2.43112	5 X
K10V48X	15.5	0.15	K123E	38.274	246.438	215.631	10.562	0.21899	3.11248	6 X
K10V76Q	15.7	0.15	K123E	22.261	274.032	216.138	15.288	0.19435	3.16197	3 X
K10V89F	16.1	0.15	K123E	0.807	268.111	254.216	9.827	0.08695	3.05304	4 X
K10VB8P	15.8	0.15	K123E	6.908	239.351	279.032	7.628	0.08759	2.96341	7 X
K10VD0F	15.3	0.15	K123E	44.505	226.757	242.192	12.409	0.11418	3.08051	5 X
K10VD3N	17.0	0.15	K123E	256.748	215.419	60.682	6.984	0.11597	2.39554	5 X
K10VH9D	13.7	0.15	K123E	29.755	15.446	58.798	26.526	0.21033	5.20150	2 X
K10W03K	16.9	0.15	K123E	8.373	113.441	40.361	13.516	0.11063	2.60984	4 X
K10W08K	14.7	0.15	K123E	7.942	245.711	254.923	15.263	0.11413	3.34969	4 X
K10W53R	15.8	0.15	K123E	344.055	278.972	264.015	8.082	0.09789	3.03984	3 X
K10X24H	15.5	0.15	K123E	80.965	322.285	110.413	9.972	0.06062	3.00454	6 X
K11B53W	17.1	0.15	K123E	184.983	304.319	110.065	3.290	0.04524	2.36000	7 X
K11C68S	17.8	0.15	K123E	163.764	128.459	301.441	0.362	0.15356	2.38727	3 X
K11E42H	15.5	0.15	K123E	305.192	284.769	15.458	9.959	0.09211	3.19718	5 X
K11F16R	17.5	0.15	K123E	52.864	193.866	46.172	6.077	0.12033	2.25746	6 X
K11G59A	15.4	0.15	K123E	17.095	243.409	18.562	10.802	0.07177	3.08977	5 X
K11L00T	17.9	0.15	K123E	77.252	68.616	195.495	4.731	0.12025	2.18156	5 X
K11SA2L	18.2	0.15	K123E	17.868	51.389	59.730	10.038	0.48984	2.20241	3 X
K11SI0Q	16.9	0.15	K123E	295.437	110.056	18.313	4.121	0.03660	2.72145	6 X
K11SM1M	16.8	0.15	K123E	35.272	343.077	27.913	7.256	0.05076	2.74523	5 X
K11U15Z	17.6	0.15	K123E	86.431	120.992	178.118	7.782	0.27226	2.72752	3 X
K11UR6M	17.4	0.15	K123E	51.043	356.496	25.508	12.835	0.19662	2.68080	2 X
K11UT9Q	16.6	0.15	K123E	77.433	291.364	64.660	5.067	0.06353	2.67457	5 X
K11Y11K	15.4	0.15	K123E	330.340	81.673	96.387	15.603	0.18194	3.14230	4 X
K11Y15V	17.1	0.15	K123E	3.051	162.450	1.913	5.967	0.54521	2.84367	3 X
K12A01C	17.1	0.15	K123E	36.330	281.630	163.409	29.049	0.30852	2.61847	2 X
K12B13Y	17.5	0.15	K123E	344.047	323.890	247.681	3.867	0.42996	2.41095	3 X
K12B74F	17.3	0.15	K123E	118.433	214.057	146.744	4.962	0.19625	2.43197	4 X

New perturbed one-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Arc C
K11V05O	21.8	0.15	K123E	27.864	221.312	228.147	8.085	0.45486	1.90223	109 X
K11W46Q	24.0	0.15	K123E	38.269	235.605	219.875	1.073	0.36747	1.65715	83 X
K11W69L	19.4	0.15	K123E	21.837	24.258	16.749	10.606	0.62127	2.82471	83 X
K11X02S	18.2	0.15	K123E	72.002	99.381	225.951	30.793	0.74076	1.64065	68 X
K11Y62W	23.4	0.15	K123E	9.021	105.432	34.437	3.094	0.40771	2.01407	50 X
K12A11A	20.1	0.15	K123E	0.229	145.672	21.315	6.406	0.48402	1.97681	35 X
K12A22T	20.3	0.15	K123E	118.753	76.535	322.373	27.332	0.15957	1.15145	35 X
K12B11N	20.9	0.15	K123E	342.441	69.609	153.849	4.359	0.39509	1.45733	30 X
K12B23S	21.5	0.15	K123E	347.385	258.796	317.917	5.387	0.57954	1.93586	30 X
K12B23T	19.0	0.15	K123E	346.377	43.228	182.392	9.110	0.60095	1.97507	29 X
K12B76Z	18.8	0.15	K123E	336.528	9.739	240.212	7.398	0.67920	2.40896	25 X
K12B77L	23.3	0.15	K123E	311.637	146.530	124.437	20.727	0.50837	0.94293	23 X
K12B77M	23.9	0.15	K123E	10.821	358.062	130.743	12.831	0.58925	2.46680	11 X
K12B77O	22.2	0.15	K123E	317.998	327.176	306.242	12.348	0.56067	0.94384	22 X
K12B86J	21.7	0.15	K123E	33.204	99.266	302.548	1.339	0.63880	1.98242	21 X
K12BC4B	21.4	0.15	K123E	287.955	122.708	137.726	15.813	0.21140	1.15536	20 X
K12BC4C	19.7	0.15	K123E	2.322	200.297	314.915	41.743	0.47513	2.30150	19 X
K12BD4J	18.0	0.15	K123E	345.331	136.890	145.935	20.777	0.83417	2.25685	30 X
K12C00A	23.5	0.15	K123E	58.467	320.362	131.531	35.783	0.16093	1.24249	17 X
K12C00S	23.1	0.15	K123E	25.105	238.187	168.602	1.128	0.70759	2.37936	16 X
K12C02P	20.7	0.15	K123E	313.755	129.599	112.373	8.102	0.39823	1.73796	17 X
K12C17C	20.5	0.15	K123E	334.128	234.695	343.649	11.803	0.36425	1.62038	15 X
K12C19L	21.7	0.15	K123E	44.487	294.651	129.086	2.846	0.43535	1.54564	8 X
K12C21A	19.2	0.15	K123E	359.190	35.573	128.185	28.832	0.65717	2.64173	7 X
K12C29C	22.5	0.15	K123E	24.985	230.330	171.242	1.915	0.76907	2.38936	5 W
K12C29L	23.4	0.15	K123E	13.288	170.823	334.492	8.099	0.34437	1.75123	5 X
K12C29M	21.8	0.15	K123E	0.444	40.512	132.760	6.115	0.40060	2.02450	5 X
K12C46N	24.8	0.15	K123E	13.934	23.244	122.934	2.241	0.19920	1.44599	5 S
K12C46O	23.1	0.15	K123E	89.138	63.979	349.888	3.611	0.19326	1.31675	3 S
K12C46P	25.8	0.15	K123E	34.391	347.812	141.936	7.302	0.06903	1.15113	6 X
K12C46Q	27.2	0.15	K123E	70.343	28.308	16.382	0.620	0.43756	1.20440	2 S
K12C46R	27.0	0.15	K123E	11.976	196.677	318.872	2.663	0.24223	1.34021	5 S
K12D00N	18.0	0.15	K123E	65.254	236.236	146.417	26.135	0.64735	2.27277	2 S
K12D00O	20.1	0.15	K123E	359.215	341.242	195.585	10.407	0.51247	2.23339	1 S
K12D00P	25.4	0.15	K123E	16.773	149.602	334.269	4.035	0.46891	2.06874	1 S

New one-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Arc C
K11Y26J	17.1	0.15	K121E	352.283	12.828	120.266	26.586	0.20711	2.42192	55 X
K12A11R	17.7	0.15	K121E	18.608	114.091	343.779	18.067	0.10226	1.95344	33 X
K12A13W	16.3	0.15	K121E	328.336	49.491	117.969	21.030	0.10940	3.18767	35 X
K12A17R	17.1	0.15	K121E	16.491	338.147	119.562	35.141	0.22774	2.60211	50 W
K12B01A	16.9	0.15	K121E	2.482	167.828	322.635	12.793	0.09975	2.64745	32 X
K12B10U	16.0	0.15	K121E	299.419	67.227	151.451	16.649	0.08773	3.03637	29 W
K12B13F	17.3	0.15	K121E	38.298	313.290	122.571	26.965	0.11564	2.00939	32 X
K12B15A	17.4	0.15	K121E	243.388	112.869	144.652	7.799	0.06534	2.39582	45 X
K12B19W	17.3	0.15	K1223	341.983	58.117	120.019	30.921	0.33150	2.58900	31 W
K12B23D	15.9	0.15	K121E	347.754	65.290	88.526	9.420	0.19215	3.13309	25 W
K12B24D	15.7	0.15	K1223	126.926	322.564	48.270	8.847	0.07159	3.05329	31 X
K12B24E	14.7	0.15	K1223	19.392	43.236	94.368	15.982	0.07708	3.39568	31 W
K12B53O	17.6	0.15	K1223	314.586	223.332	338.728	5.976	0.11189	2.27244	28 X
K12B54H	16.5	0.15	K1223	254.105	285.688	332.257	11.155	0.04102	2.63939	26 W
K12B56Z	17.3	0.15	K1223	1.139	224.285	275.888	1.421	0.11326	2.37317	22 W
K12B58A	15.7	0.15	K121E	152.861	206.888	119.976	19.193	0.03357	3.08309	54 X
K12B67S	17.2	0.15	K1223	347.238	52.719	119.630	15.227	0.29723	2.76869	31 W
K12B72G	18.0	0.15	K1223	319.918	59.956	142.784	6.360	0.25853	2.41629	28 X
K12B78O	17.9	0.15	K1223	47.287	82.851	351.047	0.815	0.17499	2.26577	25 X
K12BA6T	17.6	0.15	K1223	347.765	45.849	99.701	7.794	0.04414	2.24024	28 X

K12BB1Z	17.5	0.15	K1223	21.617	164.655	310.343	3.728	0.12525	2.40959	16	W
K12BB2W	18.6	0.15	K1223	29.601	126.493	329.820	5.117	0.25647	2.58157	20	W
K12BB9X	16.5	0.15	K1223	256.911	110.370	146.926	2.072	0.13384	2.91274	22	X
K12BC7T	15.4	0.15	K1223	240.700	127.103	143.579	10.540	0.05815	3.14766	28	X
K12BD0W	18.0	0.15	K1223	293.138	86.411	121.672	24.940	0.05225	1.88735	19	X
K12BD2F	16.8	0.15	K1223	308.260	109.290	85.722	6.941	0.07488	2.38799	28	X
K12BD4B	16.9	0.15	K1223	332.361	192.930	348.246	17.087	0.18293	2.64259	27	X
K12C02C	16.4	0.15	K1223	175.463	0.094	332.611	8.230	0.09633	3.04323	15	W
K12C14B	18.8	0.15	K1223	343.962	177.637	345.506	1.188	0.11437	2.30422	14	X
K12C15H	16.7	0.15	K1223	333.999	46.694	131.771	1.956	0.12630	3.21030	14	X
K12C34A	15.4	0.15	K1223	220.601	148.704	134.143	10.347	0.08106	3.11963	22	X
K12C35L	18.0	0.15	K1223	328.012	213.474	333.750	3.229	0.17532	2.36822	14	X
K12C35M	16.3	0.15	K1223	288.084	282.324	328.910	12.627	0.29740	3.10092	7	X
K12C37O	18.2	0.15	K1223	5.797	161.257	339.635	3.948	0.15730	2.61320	15	W
K12C37X	16.9	0.15	K1223	30.344	330.003	134.210	7.936	0.05334	2.77779	15	W
K12C41L	17.3	0.15	K1223	65.253	89.476	326.505	7.438	0.14719	2.61261	14	X
K12C45J	15.8	0.15	K1223	70.586	78.715	347.109	14.661	0.17096	3.24530	5	X
K12C45S	16.7	0.15	K1223	258.450	110.631	145.445	5.966	0.08854	3.05480	14	W
K12C46B	16.0	0.15	K1223	143.232	213.903	149.477	9.529	0.09632	3.05381	5	W
K12C46M	18.8	0.15	K1223	70.015	86.054	333.916	24.033	0.11508	1.77434	3	W
K12C46S	27.9	0.15	K1223	316.391	344.318	223.362	0.441	0.29633	1.28786	1	EX
K12D00H	19.6	0.15	K1223	357.256	8.592	137.451	2.392	0.21331	2.39599	3	W
K12D00M	21.0	0.15	K1223	6.196	343.491	148.176	26.801	0.21234	1.80361	2	X

New observations:

J95D01W	KC2012	02	18.51707	13	12	02.22	-04	30	42.3		oED022291
J95D01W	KC2012	02	18.52205	13	12	02.09	-04	30	47.3		oED022291
J95D01W	KC2012	02	18.52704	13	12	01.96	-04	30	52.5		oED022291
J95F00J	KC2012	02	18.53250	15	02	10.08	-10	11	42.3		oED022291
J95F00J	KC2012	02	18.53611	15	02	10.37	-10	11	49.5		oED022291
J95F00J	KC2012	02	18.53988	15	02	10.72	-10	11	56.4		oED022291
K02A00W	KC2012	02	06.99264	09	40	55.83	+12	44	20.7		tED022204
K02A00W	KC2012	02	06.99877	09	40	54.76	+12	44	26.8		tED022204
K02A00W	KC2012	02	07.00489	09	40	53.68	+12	44	32.0	18.4	RtED022204
K02R27D	C2012	02	18.38558	11	50	14.49	+18	13	04.2	20.4	VrED022703
K02R27D	C2012	02	18.39293	11	50	13.52	+18	13	02.5	19.9	VrED022703
K02R27D	C2012	02	18.40026	11	50	12.73	+18	13	00.0	19.8	VrED022703
K02R27D	C2012	02	18.40757	11	50	11.86	+18	12	57.1	19.2	VrED022703
K06A08L	KC2012	02	06.85984	05	01	24.19	+31	53	06.1		tED022204
K06A08L	KC2012	02	06.86076	05	01	25.40	+31	52	54.7		tED022204
K06A08L	KC2012	02	06.86168	05	01	26.59	+31	52	43.4		tED022204
K06A08L	KC2012	02	06.86259	05	01	27.80	+31	52	32.1		tED022204
K06A08L	KC2012	02	06.86351	05	01	28.99	+31	52	20.9	16.3	RtED022204
K06C00J	KC2012	02	06.86747	04	05	55.90	-01	11	30.7	16.6	RtED022204
K06C00J	KC2012	02	06.87061	04	05	58.98	-01	11	03.8		tED022204
K06C00J	KC2012	02	06.87369	04	06	01.94	-01	10	37.2		tED022204
K08P01F	C2012	02	18.38274	11	54	54.46	+10	21	12.8	18.1	VrED022703
K08P01F	C2012	02	18.39008	11	54	51.19	+10	21	34.0	18.7	VrED022703
K08P01F	C2012	02	18.39748	11	54	47.91	+10	21	52.8	18.6	VrED022703
K11SA2L	C2012	01	30.61725	08	10	34.24	+72	20	53.2	17.5	VrED022168
K11SA2L	C2012	01	30.62084	08	10	35.98	+72	20	50.3	17.6	VrED022168
K11SA2L	C2012	01	30.67628	08	11	02.95	+72	20	04.3	18.0	VrED022168
K11SA2L	C2012	01	30.67894	08	11	04.19	+72	20	02.1	18.2	VrED022168
K11SA2L	C2012	02	18.22554209	47	51.87	+63	07	26.0		17.7	VoED022H21
K11SA2L	C2012	02	18.22821009	47	52.26	+63	07	19.9		17.7	VoED022H21
K11SA2L	C2012	02	18.23204309	47	52.84	+63	07	10.9		18.0	VoED022H21
K11SA2L	C2012	02	18.23874909	47	53.77	+63	06	55.4		17.9	VoED022H21
K11SA2L	C2012	02	18.24066109	47	54.05	+63	06	51.0		18.0	VoED022H21
K11SA2L	C2012	02	18.45887	09	48	33.07	+62	58	16.7	17.8	VuED022379
K11SA2L	C2012	02	18.50527	09	48	39.89	+62	56	33.4	17.4	VuED022379
K11SA2L	C2012	02	18.51426	09	48	41.27	+62	56	13.3	17.4	VuED022379

K11SA2L	C2012	02	18.51718	09	48	41.68	+62	56	06.9	17.4	VuED022379
K11SA2L	C2012	02	18.52663	09	48	42.96	+62	55	45.4	17.2	VuED022379
K11SA2L	C2012	02	18.52955	09	48	43.33	+62	55	38.6	17.4	VuED022379
K11SA2L	C2012	02	18.54296	09	48	45.30	+62	55	08.6	17.6	VuED022379
K11V05O	KC2012	02	19.14037	06	46	51.41	-12	04	19.6		oED022291
K11V05O	KC2012	02	19.14306	06	46	52.05	-12	04	15.0		oED022291
K11V05O	KC2012	02	19.14584	06	46	52.74	-12	04	11.7		oED022291
K11W46Q	KC2012	02	18.48698	11	11	47.48	-00	42	42.6		oED022291
K11W46Q	KC2012	02	18.49975	11	11	46.72	-00	42	33.9		oED022291
K11W69L	KC2012	02	19.17437	04	33	40.53	+39	31	48.4		oED022291
K11W69L	KC2012	02	19.17740	04	33	41.26	+39	31	48.3		oED022291
K11W69L	KC2012	02	19.18043	04	33	42.03	+39	31	47.1		oED022291
K11X02S	KC2012	02	19.10846	05	01	56.79	-14	33	22.9		oED022291
K11X02S	KC2012	02	19.11447	05	01	57.09	-14	33	17.1		oED022291
K11X02S	KC2012	02	19.12153	05	01	57.44	-14	33	09.9		oED022291
K11Y15V	C2012	02	18.44326	12	09	28.65	+09	33	31.8	16.2	VrED022703
K11Y15V	C2012	02	18.45069	12	09	29.08	+09	33	21.6	16.3	VrED022703
K11Y15V	C2012	02	18.45806	12	09	29.59	+09	33	11.7	16.2	VrED022703
K11Y15V	C2012	02	18.46549	12	09	30.06	+09	33	01.6	16.3	VrED022703
K11Y62W	KC2012	02	18.08349007	32	55.50	+35	48	32.9		22.1	VoED022H21
K11Y62W	KC2012	02	18.09375007	32	56.92	+35	48	26.3		22.2	VoED022H21
K11Y62W	KC2012	02	18.13514607	33	02.49	+35	47	56.0			oED022H21
K12A11A	KC2012	02	18.07048904	39	44.90	+53	20	01.8		19.5	VtED022H21
K12A11A	KC2012	02	18.07764304	39	45.35	+53	20	03.7		19.6	VtED022H21
K12A11A	KC2012	02	18.08479404	39	45.81	+53	20	05.7		19.5	VtED022H21
K12A22T	HC2012	02	07.07755	11	56	19.92	-10	07	05.3		tED022204
K12A22T	KC2012	02	07.08914	11	56	16.54	-10	07	59.7	19.0	RtED022204
K12B11N	JC2012	02	18.38829	13	30	06.97	-08	40	54.9	18.1	RoED022695
K12B11N	JC2012	02	18.38953	13	30	07.72	-08	40	56.7	18.1	RoED022695
K12B11N	JC2012	02	18.39065	13	30	08.39	-08	40	58.3	18.1	RoED022695
K12B23S	HC2012	02	19.19330	06	13	44.12	+22	37	46.8		oED022291
K12B23S	IC2012	02	19.19442	06	13	43.79	+22	37	45.1		oED022291
K12B23T	C2012	02	18.23838	07	21	27.96	-06	52	25.9	17.9	cED022704
K12B23T	C2012	02	18.25041	07	21	24.88	-06	52	20.8	18.2	cED022704
K12B23T	C2012	02	18.26321	07	21	21.60	-06	52	15.4	18.2	cED022704
K12B23T	C2012	02	18.27527	07	21	18.54	-06	52	10.0	18.3	cED022704
K12B23T	JC2012	02	18.29228	07	21	14.30	-06	52	02.5	17.1	RoED022695
K12B23T	JC2012	02	18.29370	07	21	13.94	-06	52	01.9	17.1	RoED022695
K12B23T	JC2012	02	18.29432	07	21	13.78	-06	52	01.6	17.1	RoED022695
K12B23T	JC2012	02	18.29493	07	21	13.62	-06	52	01.4	16.8	RoED022695
K12B76Z	HC2012	02	18.33240	08	13	19.06	+03	34	15.1		oED022291
K12B76Z	HC2012	02	18.33462	08	13	18.76	+03	34	15.8		oED022291
K12B76Z	HC2012	02	18.33687	08	13	18.46	+03	34	16.2		oED022291
K12B77L	KC2012	02	18.03670404	24	33.08	+48	50	22.5		22.2	VoED022H21
K12B77L	KC2012	02	18.05384404	24	20.89	+48	50	46.6		22.5	VoED022H21
K12B77L	KC2012	02	18.06920204	24	09.95	+48	51	07.1		22.2	VoED022H21
K12B77M	KC2012	02	07.02050	08	10	33.86	+56	07	25.0	18.2	RtED022204
K12B77M	KC2012	02	07.02654	08	10	49.95	+56	08	55.8		tED022204
K12B77M	KC2012	02	07.03228	08	11	05.23	+56	10	21.8		tED022204
K12B77O	KC2012	02	18.09340505	01	26.22	+01	25	15.2		20.6	VtED022H21
K12B77O	KC2012	02	18.10257905	01	19.85	+01	24	44.9		20.7	VtED022H21
K12B77O	KC2012	02	18.11174605	01	13.50	+01	24	14.0		21.1	VtED022H21
K12B86J	IC2012	02	18.12518206	40	03.42	+21	56	44.4			tED022H21
K12B86J	IC2012	02	18.13889706	40	07.18	+21	56	39.2			tED022H21
K12B86J	IC2012	02	18.15409506	40	11.36	+21	56	33.7			tED022H21
K12B86J	KC2012	02	19.12839	06	44	41.47	+21	50	36.3		oED022291
K12B86J	KC2012	02	19.13113	06	44	42.19	+21	50	35.5		oED022291
K12B86J	KC2012	02	19.13388	06	44	42.92	+21	50	34.2		oED022291
K12BC4B	KC2012	02	06.97416	09	24	03.84	+15	09	32.1		tED022204
K12BC4B	KC2012	02	06.98332	09	24	02.68	+15	10	06.9	19.0	RtED022204
K12BC4B	C2012	02	18.19190	08	59	31.81	+28	06	47.0	19.0	VrED022703

K12BC4B	C2012	02	18.19973	08	59	30.48	+28	07	21.7	19.3	VrED022703
K12BC4B	C2012	02	18.20763	08	59	29.18	+28	07	55.3	19.2	VrED022703
K12BC4B	C2012	02	18.21552	08	59	27.88	+28	08	30.2	19.9	VrED022703
K12BC4C	KC2012	02	06.94623	07	41	15.23	+34	08	08.4		tED022204
K12BC4C	KC2012	02	06.95234	07	41	13.17	+34	07	18.3		tED022204
K12BC4C	KC2012	02	06.95845	07	41	11.12	+34	06	27.0	18.2	RtED022204
K12BC4C	KC2012	02	18.16396106	57	06.02	+08	10	42.3		19.2	VtED022H21
K12BC4C	KC2012	02	18.16772106	57	05.38	+08	10	13.9			tED022H21
K12BC4C	IC2012	02	18.17147306	57	04.77	+08	09	45.7			tED022H21
K12BD4J	C2012	02	18.45674	10	59	29.99	+14	51	08.4		oED022291
K12BD4J	C2012	02	18.45942	10	59	29.66	+14	51	16.5		oED022291
K12BD4J	C2012	02	18.46211	10	59	29.33	+14	51	24.4		oED022291
K12C00A	KC2012	02	18.14791708	30	40.38	+72	18	02.8		22.1	VoED022H21
K12C00A	KC2012	02	18.16152408	30	39.41	+72	18	53.4		22.0	VoED022H21
K12C00A	KC2012	02	18.17497408	30	38.35	+72	19	43.8		22.3	VoED022H21
K12C00S	KC2012	02	18.34164	08	15	35.15	+17	44	01.5		oED022291
K12C00S	KC2012	02	18.34769	08	15	35.66	+17	44	02.7		oED022291
K12C00S	KC2012	02	18.35372	08	15	36.17	+17	44	02.7		oED022291
K12C02P	KC2012	02	18.35906	08	29	12.42	+27	59	19.9		oED022291
K12C02P	KC2012	02	18.36294	08	29	12.01	+27	59	22.6		oED022291
K12C02P	KC2012	02	18.36677	08	29	11.61	+27	59	26.0		oED022291
K12C17C	HC2012	02	06.90316	09	38	23.27	+35	16	28.4		tED022204
K12C17C	KC2012	02	06.91910	09	38	21.04	+35	16	24.1	19.1	RtED022204
K12C17C	C2012	02	18.19076	09	09	19.18	+33	28	06.0	19.6	VrED022703
K12C17C	C2012	02	18.19859	09	09	17.82	+33	27	58.2	19.4	VrED022703
K12C17C	C2012	02	18.20649	09	09	16.41	+33	27	51.3	19.5	VrED022703
K12C17C	C2012	02	18.21442	09	09	14.94	+33	27	42.9	19.0	VrED022703
K12C19L	KC2012	02	19.18616	06	03	53.43	+25	50	21.3		oED022291
K12C19L	IC2012	02	19.18804	06	03	54.15	+25	50	22.3		oED022291
K12C19L	KC2012	02	19.18973	06	03	54.97	+25	50	23.2		oED022291
K12C21A	KC2012	02	18.02552	03	05	42.36	+12	49	11.2	20.8	VuED022H21
K12C21A	KC2012	02	18.02903	03	05	42.20	+12	49	29.5	20.4	VuED022H21
K12C21A	KC2012	02	18.03605	03	05	41.90	+12	50	06.0	20.6	VuED022H21
K12C21A	KC2012	02	18.80540	03	05	13.61	+13	56	58.6		uED022J95
K12C21A	KC2012	02	18.81314	03	05	13.36	+13	57	39.2		uED022J95
K12C21A	KC2012	02	18.82765	03	05	12.72	+13	58	54.7	19.7	RuED022J95
K12C21A	JC2012	02	19.10986	03	05	02.17	+14	23	46.8	20.8	VoED022695
K12C21A	JC2012	02	19.11086	03	05	02.11	+14	23	51.9	20.7	VoED022695
K12C21A	JC2012	02	19.11157	03	05	02.08	+14	23	55.7	20.8	VoED022695
K12C29C	KC2012	02	18.42723	10	32	12.42	+06	21	05.6		oED022291
K12C29C	KC2012	02	18.42990	10	32	11.81	+06	21	10.5		oED022291
K12C29C	KC2012	02	18.43263	10	32	11.24	+06	21	15.0		oED022291
K12C29L	HC2012	02	18.50329	11	15	22.75	+07	50	01.0		oED022291
K12C29L	HC2012	02	18.50458	11	15	22.72	+07	49	56.9		oED022291
K12C29L	HC2012	02	18.50585	11	15	22.73	+07	49	52.5		oED022291
K12C29M	HC2012	02	18.50840	11	35	50.98	+13	38	45.1		oED022291
K12C29M	HC2012	02	18.51038	11	35	51.21	+13	38	47.3		oED022291
K12C29M	HC2012	02	18.51240	11	35	51.47	+13	38	49.7		oED022291
K12C46P	KC2012	02	18.84687	08	25	25.57	+26	46	05.6		uED022J95
K12C46P	KC2012	02	18.86472	08	25	26.48	+26	47	22.6		uED022J95
K12C46P	KC2012	02	18.89195	08	25	27.81	+26	49	18.2	21.8	RuED022J95
00433	C2012	02	19.03853	10	06	43.96	-21	18	12.6	8.8	VcED022J93
00433	C2012	02	19.04315	10	06	43.47	-21	18	23.1	8.8	VcED022J93
00433	C2012	02	19.04745	10	06	43.05	-21	18	32.6	8.8	VcED022J93
01036	C2012	02	18.12118	03	50	38.81	-03	23	17.2		cED022704
01036	C2012	02	18.13306	03	50	39.83	-03	23	11.0		cED022704
01036	C2012	02	18.14491	03	50	40.85	-03	23	05.7		cED022704
01036	C2012	02	18.15674	03	50	41.90	-03	23	00.3		cED022704
01036	C2012	02	18.16856	03	50	42.93	-03	22	54.7		cED022704
01862	C2012	02	18.41241	10	56	34.36	+17	32	05.8	19.3	VrED022703
01862	C2012	02	18.41912	10	56	33.68	+17	32	08.7	19.2	VrED022703

01862	C2012	02	18.42593	10	56	33.00	+17	32	13.2	19.2	VrED022703
01862	C2012	02	18.43271	10	56	32.38	+17	32	18.6	18.6	VrED022703
03103	C2012	01	31.83155	10	36	21.36	+19	18	44.4	15.0	VrED022168
03103	C2012	01	31.83433	10	36	21.09	+19	18	51.9	15.0	VrED022168
03103	C2012	01	31.89005	10	36	15.49	+19	21	21.8	15.6	VrED022168
03103	C2012	01	31.89283	10	36	15.19	+19	21	29.2	15.7	VrED022168
03103	C2012	02	01.69775	10	34	57.27	+19	57	18.1	15.1	VrED022168
03103	C2012	02	01.69914	10	34	57.12	+19	57	21.9	15.2	VrED022168
03103	C2012	02	01.70053	10	34	56.98	+19	57	25.5	15.3	VrED022168
03103	C2012	02	02.80811	10	33	06.01	+20	46	18.2	15.7	VrED022168
03103	C2012	02	02.81095	10	33	05.73	+20	46	25.7	15.6	VrED022168
03103	C2012	02	02.85122	10	33	01.49	+20	48	11.7	15.1	VrED022168
03103	C2012	02	02.85400	10	33	01.19	+20	48	19.1	14.9	VrED022168
03103	C2012	02	18.21772	10	04	46.56	+30	23	04.4	15.3	VrED022703
03103	C2012	02	18.22499	10	04	45.73	+30	23	17.3	15.4	VrED022703
03103	C2012	02	18.23223	10	04	44.86	+30	23	30.6	15.5	VrED022703
03103	C2012	02	18.23956	10	04	44.00	+30	23	42.0	15.4	VrED022703
03103	C2012	02	19.05510	10	03	13.97	+30	47	11.9	15.1	VcED022J93
03103	C2012	02	19.06072	10	03	13.34	+30	47	21.7	15.2	VcED022J93
03103	C2012	02	19.06634	10	03	12.71	+30	47	30.7	15.2	VcED022J93
03352	C2012	02	18.49887	13	44	58.99	+02	23	14.9	15.9	VrED022703
03352	C2012	02	18.50443	13	44	59.28	+02	23	16.7	16.0	VrED022703
03352	C2012	02	18.51012	13	44	59.56	+02	23	18.5	16.0	VrED022703
03352	C2012	02	18.51576	13	44	59.82	+02	23	20.1	16.0	VrED022703
03352	C2012	02	19.07023	13	45	31.03	+02	26	05.2	15.9	VcED022J93
03352	C2012	02	19.07657	13	45	31.30	+02	26	06.9	15.8	VcED022J93
03352	C2012	02	19.08081	13	45	31.52	+02	26	08.5	15.8	VcED022J93
03554	C2012	02	19.08674	14	32	12.03	-03	44	45.7	16.3	VcED022J93
03554	C2012	02	19.09270	14	32	11.91	-03	44	55.9	16.3	VcED022J93
03554	C2012	02	19.09867	14	32	11.78	-03	45	05.9	16.2	VcED022J93
16816	C2012	02	01.61008	23	24	18.04	+38	07	26.2	17.6	VrED022168
16816	C2012	02	01.61349	23	24	17.73	+38	07	24.7	17.4	VrED022168
16816	C2012	02	01.69208	23	24	11.42	+38	06	45.7	17.8	VrED022168
32906	C2012	01	30.61019	08	27	16.90	+43	19	37.5	16.6	VrED022168
32906	C2012	01	30.61280	08	27	16.57	+43	19	31.4	16.3	VrED022168
32906	C2012	01	30.67159	08	27	09.82	+43	17	29.1	16.6	VrED022168
32906	C2012	01	30.67356	08	27	09.58	+43	17	25.2	16.9	VrED022168
32906	C2012	02	18.15787	08	05	49.52	+32	54	23.5	17.1	VrED022703
32906	C2012	02	18.16457	08	05	49.27	+32	54	11.8	17.1	VrED022703
32906	C2012	02	18.17132	08	05	49.05	+32	53	59.5	17.0	VrED022703
32906	C2012	02	18.17928	08	05	48.80	+32	53	45.0	17.0	VrED022703
85990	C2012	02	18.25222	10	40	59.91	+20	04	39.5	18.2	VrED022703
85990	C2012	02	18.25893	10	40	58.40	+20	04	52.5	18.3	VrED022703
85990	C2012	02	18.26576	10	40	56.92	+20	05	06.3	18.1	VrED022703
85990	C2012	02	18.27256	10	40	55.34	+20	05	19.5	18.3	VrED022703
99942	KC2012	02	18.03996102	47	21.87	+10	51	00.8	20.5	VtED022H21	
99942	KC2012	02	18.05445702	47	25.45	+10	51	17.5	20.3	VtED022H21	
99942	KC2012	02	18.05926102	47	26.64	+10	51	23.4	20.4	VtED022H21	
99942	KC2012	02	18.06393202	47	27.81	+10	51	29.3	20.4	VtED022H21	
A1873	C2012	01	31.82622	10	38	13.00	+32	49	42.6	17.9	VrED022168
A1873	C2012	01	31.82871	10	38	12.83	+32	49	52.4	17.6	VrED022168
A1873	C2012	01	31.89468	10	38	07.97	+32	54	10.7	17.8	VrED022168
A1873	C2012	01	31.89804	10	38	07.73	+32	54	23.9	17.7	VrED022168
A1873	C2012	01	31.93803	10	38	04.76	+32	57	00.4	17.4	VrED022168
A1873	C2012	01	31.94139	10	38	04.52	+32	57	13.3	17.5	VrED022168
A1873	C2012	02	01.66824	10	37	13.20	+33	44	07.3	17.0	VrED022168
A1873	C2012	02	01.71401	10	37	09.86	+33	47	05.0	17.5	VrED022168
A1873	C2012	02	01.71581	10	37	09.71	+33	47	11.8	17.1	VrED022168
A1873	C2012	02	01.71743	10	37	09.58	+33	47	18.2	17.4	VrED022168
A1873	C2012	02	02.82142	10	35	47.04	+34	57	22.1	17.7	VrED022168
A1873	C2012	02	02.82316	10	35	46.83	+34	57	28.9	17.8	VrED022168

A1873	C2012	02	02.86419	10	35	43.60	+35	00	03.3	17.6	VrED022168
D7925	C2012	02	18.25612	10	46	47.64	+33	35	05.6	17.1	VrED022703
D7925	C2012	02	18.26293	10	46	46.52	+33	35	22.7	17.5	VrED022703
D7925	C2012	02	18.26977	10	46	45.40	+33	35	39.8	17.4	VrED022703
D8524	C2012	01	31.83635	08	23	55.40	+00	56	53.1	17.1	VrED022168
D8524	C2012	01	31.83809	08	23	55.30	+00	56	54.4	17.3	VrED022168
D8524	C2012	01	31.88768	08	23	52.31	+00	57	33.7	16.9	VrED022168
D8524	C2012	01	31.92814	08	23	49.92	+00	58	06.3	17.5	VrED022168
D8524	C2012	01	31.93149	08	23	49.74	+00	58	08.9	17.6	VrED022168
D8524	C2012	02	01.67802	08	23	09.41	+01	08	08.9	17.4	VrED022168
D8524	C2012	02	01.67964	08	23	09.32	+01	08	09.5	17.3	VrED022168
D8524	C2012	02	02.80174	08	22	09.62	+01	23	09.9	17.2	VrED022168
D8524	C2012	02	02.80348	08	22	09.52	+01	23	11.3	17.2	VrED022168
D8524	C2012	02	02.84474	08	22	07.24	+01	23	44.4	18.6	VrED022168
E1018	C2012	02	18.19020	09	16	13.72	+34	14	10.5	15.9	VrED022703
E1018	C2012	02	18.19803	09	16	13.44	+34	14	22.8	15.9	VrED022703
E1018	C2012	02	18.20591	09	16	13.11	+34	14	35.4	15.9	VrED022703
E1018	C2012	02	18.21388	09	16	12.79	+34	14	48.0	15.9	VrED022703
E1018	C2012	02	18.55049	09	16	06.13	+34	23	14.0	16.3	VuED022379
E1018	C2012	02	18.55234	09	16	06.07	+34	23	17.1	16.1	VuED022379
E1018	C2012	02	18.56880	09	16	05.41	+34	23	41.9	16.2	VuED022379
E2348	KC2012	02	18.82305	09	18	42.01	+28	12	00.7	18.7	VuED022A13
E2348	KC2012	02	18.84431	09	18	40.95	+28	12	04.0	18.7	VuED022A13
E2563	C2012	01	31.82159	13	39	51.13	+18	21	36.1	16.9	VrED022168
E2563	C2012	01	31.82454	13	39	51.48	+18	21	24.5	16.6	VrED022168
E2563	C2012	01	31.90076	13	40	00.83	+18	16	22.0	16.9	VrED022168
E2563	C2012	01	31.90238	13	40	01.02	+18	16	15.6	17.0	VrED022168
E2563	C2012	01	31.94353	13	40	05.96	+18	13	32.3	16.6	VrED022168
E2563	C2012	01	31.94625	13	40	06.28	+18	13	21.2	16.8	VrED022168
E2563	C2012	02	02.82686	13	44	00.48	+16	03	28.1	16.7	VrED022168
E2563	C2012	02	02.82970	13	44	00.81	+16	03	17.3	16.4	VrED022168
E2563	C2012	02	02.87003	13	44	05.65	+16	00	24.3	16.7	VrED022168
E2563	C2012	02	02.87153	13	44	05.81	+16	00	17.6	16.6	VrED022168
E2563	C2012	02	02.87344	13	44	06.04	+16	00	09.6	16.8	VrED022168
E2563	C2012	02	18.52282	14	13	50.52	-08	29	36.6	15.8	VrED022703
E2563	C2012	02	18.52787	14	13	50.95	-08	30	11.7	15.8	VrED022703
E2563	C2012	02	18.53299	14	13	51.38	-08	30	47.2	15.7	VrED022703
E2563	C2012	02	18.53803	14	13	51.81	-08	31	21.6	15.6	VrED022703
F2941	C2012	02	18.22275	10	25	57.46	+25	23	25.3	19.2	VrED022703
F2941	C2012	02	18.22998	10	25	56.35	+25	23	28.3	18.8	VrED022703
F2941	C2012	02	18.23728	10	25	55.16	+25	23	31.5	19.0	VrED022703
F2941	C2012	02	18.24469	10	25	53.97	+25	23	36.7	18.6	VrED022703
G2038	C1996	03	15.24985	08	42	52.54	+05	06	06.1	18.3	RoED022566
G2038	C1996	03	15.27071	08	42	51.37	+05	06	04.9	18.4	RoED022566
G2038	C1996	03	15.29277	08	42	50.13	+05	06	03.6	18.3	RoED022566
H5706	KC2012	02	17.03854705	22	19.81	+22	56	48.6	20.1	VtED022H21	
H5706	KC2012	02	17.05139805	22	20.77	+22	56	47.8	20.0	VtED022H21	
H5706	KC2012	02	17.06487905	22	21.77	+22	56	47.2	20.2	VtED022H21	
H5706	KC2012	02	17.07800605	22	22.74	+22	56	46.5	20.1	VtED022H21	
I9008	C2012	02	18.13952	15	18	11.40	-14	23	59.3	18.7	uED022A14
I9008	C2012	02	18.14698	15	18	11.07	-14	23	59.4	18.7	uED022A14
I9008	C2012	02	18.15445	15	18	10.76	-14	23	59.4	18.7	uED022A14
K9924	C2012	02	01.61615	03	11	40.80	+11	25	27.2	17.3	VrED022168
K9924	C2012	02	01.68693	03	11	55.32	+11	22	07.5	16.7	VrED022168
K9924	C2012	02	01.68872	03	11	55.65	+11	22	03.0	17.1	VrED022168
K9924	C2012	02	01.69011	03	11	55.94	+11	21	58.7	16.8	VrED022168
N7805	C2012	02	17.96639	10	08	46.61	+39	44	40.6	18.9	RrED022106
N7805	C2012	02	17.98182	10	08	43.35	+39	44	24.6	18.2	RrED022106
N7805	C2012	02	17.99723	10	08	40.14	+39	44	06.7	17.6	RrED022106
N7805	C2012	02	18.01265	10	08	36.85	+39	43	49.7	18.2	RrED022106
R5792	C2012	02	18.29966	09	16	13.69	-05	58	59.5	18.3	cED022704

R5792	C2012	02	18.31172	09	16	10.48	-05	59	45.1	18.1	cED022704
R5792	C2012	02	18.32407	09	16	07.21	-06	00	32.2	18.4	cED022704
R5792	C2012	02	18.33619	09	16	04.00	-06	01	18.9	18.0	cED022704
R5792	C2012	02	18.34826	09	16	00.80	-06	02	04.2	18.0	cED022704
T4739	C2012	02	18.12104	03	50	43.28	-02	06	35.2	18.7	cED022704
T4739	C2012	02	18.13293	03	50	46.36	-02	06	51.2	18.9	cED022704
T4739	C2012	02	18.14478	03	50	49.44	-02	07	10.0	19.2	cED022704
T4739	C2012	02	18.15660	03	50	52.56	-02	07	28.3	19.0	cED022704
T4739	C2012	02	18.16842	03	50	55.60	-02	07	46.5	18.7	cED022704

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