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MPEC 2011-N01 : DAILY ORBIT UPDATE (2011 JULY 1 UT)

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M.P.E.C. 2011-N01

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DAILY ORBIT UPDATE (2011 JULY 1 UT)

Update to [MPEC 2011-M52](#)

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

New identification:

K11K10D	K03UZ1F	K10J12D	MPCS
K11K16W	K00H24J		MPCS
K11K27F	K10D87O		MPCS
K11K33T	K05YS8W		MPCS
K11K34A	K05JD0G		MPCS
K11K37Z	K10K22Q		MPCS
K11K38L	K10E91B		MPCS
K11K39L	K08UH1A		MPCS
K11K39W	K08YB1D	K10K82Q	MPCS
K11K46O	K07RP5U		MPCS
K11K47E	J97W12Y		MPCS
K11L04Z	K03UT3Y		MPCS
K11L08D	K03N05R	K05ES6R	MPCS
K11L14L	K06P23T		MPCS
K11L21P	J99F83O		MPCS
K11L23S	K05GC5G		MPCS

New multiple-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Opp	C
J96V10U	15.9	0.15	K118R	28.123	304.661	351.996	10.966	0.13248	2.99080	5	X
J99S02O	15.2	0.15	K118R	311.703	92.528	335.906	21.878	0.36966	2.55112	4	X
J99T04O	16.7	0.15	K118R	355.465	119.188	197.868	12.427	0.17513	2.57074	7	X
J99V55G	16.5	0.15	K118R	336.876	128.544	219.000	12.431	0.22028	2.58366	4	X
K00O49S	17.1	0.15	K118R	355.900	20.227	326.047	7.815	0.30749	2.38243	3	X
K00P06E	16.5	0.15	K118R	21.100	184.789	129.689	24.114	0.06304	1.95728	7	X
K00QI4S	15.9	0.15	K118R	358.287	342.266	353.648	10.287	0.24287	3.09866	5	X
K00QK5F	15.3	0.15	K118R	343.528	12.210	349.610	17.858	0.21688	3.13728	7	X

Contact US	K00QM9M	17.5	0.15	K118R	15.684	284.714	22.062	2.672	0.24102	2.38522	5 X
Index	K00R36R	16.5	0.15	K118R	303.296	82.070	303.755	18.672	0.10573	1.97511	5 X
Site Map	K00R90N	15.8	0.15	K118R	225.846	15.757	323.872	10.241	0.14191	2.62157	5 X
Search Site	K00S16X	12.3	0.15	K118R	16.773	344.851	331.281	17.099	0.06601	5.20644	6 X
Links	K00SB2E	16.4	0.15	K118R	333.424	15.773	3.008	1.848	0.22227	2.39960	6 X
Minor Planet Center	K00SQ1N	16.8	0.15	K118R	355.780	264.500	80.588	2.338	0.19401	2.40483	6 X
Central Bureau for Astro. Tel.	K00U03O	16.9	0.15	K118R	18.485	249.566	59.739	3.051	0.23705	2.40993	8 X
Cometary Science Archive	K00Y11K	15.2	0.15	K118R	331.355	259.316	129.779	25.277	0.32377	3.16164	5 X
<i>International Comet Quarterly</i>	K01B73C	16.1	0.15	K118R	73.153	97.211	130.953	23.549	0.25030	2.74522	3 X
Smithsonian Astro. Obs.	K01P13O	18.5	0.15	K118R	0.941	222.850	107.850	3.708	0.34138	2.23361	2 S
MPC Blog	K01P43F	17.7	0.15	K118R	7.258	226.387	98.685	7.474	0.25498	2.22706	4 X
	K01QB1D	15.2	0.15	K118R	352.129	34.171	296.590	24.215	0.35120	2.98596	5 X
	K01SM8E	17.5	0.15	K118R	216.602	184.123	183.662	7.014	0.10241	2.44862	4 X
	K01ST4H	15.4	0.15	K118R	343.315	43.140	315.252	11.914	0.16272	2.92597	6 X
	K01TB5J	14.9	0.15	K118R	289.053	163.618	233.503	15.734	0.23770	3.11439	4 X
	K01U08E	15.3	0.15	K118R	290.720	156.534	204.587	16.711	0.21224	3.15154	4 X
	K01U19Q	18.1	0.15	K118R	108.773	354.150	45.980	5.941	0.30870	2.61527	2 S
	K01U59Y	17.0	0.15	K118R	90.193	186.939	270.345	3.503	0.18066	2.56143	5 X
	K01V12B	16.3	0.15	K118R	272.368	164.327	253.468	22.580	0.21548	2.32328	3 X
	K01XL7X	15.7	0.15	K118R	293.581	154.544	235.876	16.517	0.21576	3.07789	4 X
	K02AD1P	16.8	0.15	K118R	1.538	26.619	307.056	18.071	0.08837	1.91815	4 X
	K02B20L	17.0	0.15	K118R	334.905	47.294	316.353	17.975	0.08667	1.92003	4 X
	K02C01M	16.9	0.15	K118R	322.072	84.185	308.236	45.015	0.46187	2.29932	4 X
	K02C10J	15.6	0.15	K118R	347.296	250.478	124.802	22.542	0.40626	2.30911	6 X
	K02CN4E	16.3	0.15	K118R	154.479	19.974	90.459	15.912	0.07645	2.52982	4 X
	K02CV6M	16.6	0.15	K118R	342.447	167.869	90.814	15.234	0.11675	2.59918	4 X
	K02D01U	16.9	0.15	K118R	52.077	155.238	118.234	25.073	0.09063	1.95596	6 X
	K02D21C	16.9	0.15	K118R	111.078	299.488	152.514	11.168	0.13286	2.70507	6 X
	K02G06J	16.3	0.15	K118R	53.479	61.343	170.975	11.721	0.20642	2.62958	5 X
	K02H12P	15.9	0.15	K118R	36.299	144.816	99.535	13.547	0.32962	2.65061	5 X
	K02J49X	16.7	0.15	K118R	15.891	54.557	232.144	12.312	0.16536	2.64540	6 X
	K02J67H	15.8	0.15	K118R	357.621	97.089	219.284	10.292	0.25600	2.65620	6 X
	K02JC0L	16.8	0.15	K118R	0.599	190.008	88.891	15.547	0.23460	2.68799	4 X
	K02N04B	16.7	0.15	K118R	21.708	54.652	193.304	11.636	0.20818	2.73664	7 X
	K02N76Y	16.3	0.15	K118R	220.403	205.459	118.333	19.941	0.13468	3.13368	4 X
	K02N76Z	17.9	0.15	K118R	271.363	288.501	318.706	9.784	0.14044	2.29028	3 X
	K02O36D	16.5	0.15	K118R	174.497	32.730	84.576	2.565	0.02310	2.78829	4 X
	K02O36E	15.9	0.15	K118R	358.501	257.589	322.361	9.078	0.04778	2.98524	6 X
	K02O36F	18.9	0.15	K118R	297.633	298.964	5.991	1.658	0.21085	2.18029	2 X
	K02O36G	16.1	0.15	K118R	284.758	251.675	18.066	2.476	0.08891	3.06204	8 X
	K02PB3H	16.1	0.15	K118R	330.188	65.086	326.167	23.671	0.29400	2.71282	4 X
	K02PH0K	16.2	0.15	K118R	356.797	104.799	209.834	14.123	0.13764	2.74109	5 X
	K02PJ7D	17.4	0.15	K118R	125.430	44.749	201.175	3.536	0.13504	2.56614	6 X
	K02PJ7F	16.7	0.15	K118R	93.963	322.848	253.417	4.074	0.14341	2.69603	6 X
	K02PJ7G	16.3	0.15	K118R	8.792	258.314	148.203	9.538	0.18551	2.54275	8 X
	K02PJ7P	16.7	0.15	K118R	262.278	228.611	190.482	4.047	0.09835	2.73160	5 X
	K02PJ7Q	17.9	0.15	K118R	302.761	135.739	159.021	6.637	0.09152	2.18462	5 X
	K02PJ7S	17.6	0.15	K118R	72.043	60.605	203.947	3.727	0.16739	2.64457	6 X
	K02PJ7V	16.8	0.15	K118R	339.072	30.457	280.929	5.459	0.00882	2.78411	5 X
	K02PJ7W	17.1	0.15	K118R	301.911	78.834	277.603	5.752	0.05323	2.77522	3 X
	K02PJ7X	17.8	0.15	K118R	125.921	145.749	184.013	2.821	0.18809	2.43379	4 X
	K02PJ8A	15.6	0.15	K118R	41.481	253.332	262.258	11.308	0.06439	3.11880	4 X
	K02PJ8B	14.8	0.15	K118R	38.198	130.437	226.217	9.792	0.27644	3.95488	2 X
	K02PJ8C	17.3	0.15	K118R	353.244	100.602	283.613	11.322	0.20342	2.65114	3 X
	K02Q10Z	16.7	0.15	K118R	207.586	15.021	322.575	27.420	0.15817	3.18546	2 S
	K02Q24X	15.7	0.15	K118R	316.733	129.284	252.254	23.481	0.27364	2.79003	3 X
	K02Q77Q	16.2	0.15	K118R	203.465	236.464	139.323	10.689	0.11608	3.07357	7 X
	K02QD9Y	16.3	0.15	K118R	354.660	139.296	181.001	4.134	0.09622	2.75656	4 X
	K02QE5U	17.0	0.15	K118R	9.096	148.281	253.146	5.295	0.17553	2.57565	5 X
	K02QE6B	16.2	0.15	K118R	275.090	188.112	84.851	2.749	0.08917	3.12017	6 X
	K02QE6C	16.5	0.15	K118R	76.526	203.392	125.815	5.659	0.04662	2.54682	8 X
	K02QE6E	18.2	0.15	K118R	35.653	346.627	344.568	4.356	0.16189	2.63574	3 S
	K02QE6G	16.1	0.15	K118R	204.918	90.061	335.097	10.424	0.09090	2.91181	3 X
	K02QE6J	16.7	0.15	K118R	46.854	201.727	137.095	5.041	0.13712	2.59788	5 X
	K02QE6K	16.6	0.15	K118R	356.065	255.698	46.445	1.990	0.04653	2.79611	9 X
	K02QE6M	16.5	0.15	K118R	324.066	353.528	355.111	4.377	0.08017	2.77180	5 X
	K02QE6P	17.0	0.15	K118R	248.928	339.445	347.414	9.488	0.16885	3.05429	2 X
	K02QE6R	18.3	0.15	K118R	196.240	300.735	45.550	2.944	0.24805	2.31134	3 X
	K02QE6S	17.3	0.15	K118R	164.944	179.321	127.727	5.458	0.06607	2.41076	4 X
	K02QE6Y	17.1	0.15	K118R	75.842	188.889	99.589	3.318	0.17659	2.61486	4 X
	K02S44J	16.7	0.15	K118R	260.798	321.420	29.895	8.499	0.21344	2.22446	3 X
	K02TH0P	15.8	0.15	K118R	4.548	23.321	307.102	9.543	0.23190	2.76011	3 X
	K02TL8N	16.1	0.15	K118R	326.703	146.997	249.485	8.723	0.25703	2.74363	4 X
	K02Tc6Z	17.1	0.15	K118R	73.349	53.466	47.280	14.944	0.14405	2.41790	3 X
	K02Tc7B	16.7	0.15	K118R	204.307	155.959	152.336	6.878	0.11661	2.41231	4 X
	K02V54T	16.1	0.15	K118R	328.225	65.544	324.137	8.041	0.17821	2.79130	2 S
	K02VA0Y	16.1	0.15	K118R	336.678	86.762	281.145	7.074	0.30148	2.79292	3 X
	K02VD8T	17.0	0.15	K118R	23.924	265.717	73.043	14.784	0.09445	2.78298	3 X
	K02VD8Y	15.7	0.15	K118R	82.344	294.192	248.089	21.721	0.01123	3.11510	4 X
	K03G28W	16.5	0.15	K118R	33.376	213.218	72.498	7.119	0.23610	2.40540	4 X
	K03H01L	17.7	0.15	K118R	22.572	248.400	47.864	3.810	0.20705	2.41920	5 X
	K03H16G	16.6	0.15	K118R	11.164	186.512	106.146	6.884	0.24737	2.46470	6 X
	K03O09M	17.2	0.15	K118R	350.449	128.487	203.440	8.780	0.26286	2.53642	4 X
	K03O13A	15.6	0.15	K118R	28.958	336.060	302.752	15.861	0.14933	2.51643	7 X
	K03O13N	16.7	0.15	K118R	271.594	17.065	312.826	9.057	0.31428	2.73207	2 S

K03Q23N	17.1	0.15	K118R	0.733	104.112	186.076	4.826	0.27081	2.57245	4	X
K03Q72Z	17.2	0.15	K118R	31.450	334.349	328.876	18.461	0.05253	1.92836	3	X
K03QB2J	16.8	0.15	K118R	331.127	194.382	143.218	8.139	0.36182	2.61251	3	X
K03R13Q	16.2	0.15	K118R	308.775	117.806	220.880	11.812	0.28319	2.66813	2	S
K03S41R	17.2	0.15	K118R	22.953	352.588	313.642	17.839	0.08185	1.92042	5	X
K03SA0R	16.9	0.15	K118R	301.211	162.720	228.016	13.651	0.26208	2.59523	3	X
K03SH3W	16.5	0.15	K118R	355.342	145.671	165.939	14.057	0.17448	2.59683	5	X
K03SJ5L	16.3	0.15	K118R	320.760	126.087	225.274	13.396	0.11834	2.64902	7	X
K03U22K	16.7	0.15	K118R	292.330	170.372	196.125	13.681	0.24889	2.69535	2	S
K03UK5A	15.5	0.15	K118R	292.523	131.737	245.089	20.895	0.02401	2.68674	6	X
K03UM3X	16.7	0.15	K118R	348.467	355.115	12.261	4.759	0.34090	2.56319	5	X
K03V09N	16.3	0.15	K118R	332.075	318.405	65.427	5.387	0.28809	2.58678	6	X
K03W06Y	16.5	0.15	K118R	276.021	176.318	194.514	8.523	0.33515	2.75297	2	S
K03W86U	16.0	0.15	K118R	335.250	94.986	245.354	6.844	0.35862	2.64652	6	X
K04B11C	15.3	0.15	K118R	324.584	106.035	300.704	25.760	0.49587	2.63574	3	X
K04B89L	16.4	0.15	K118R	42.951	287.490	282.652	7.169	0.26684	2.25091	4	X
K04BG1W	15.9	0.15	K118R	167.942	301.487	139.899	13.108	0.14047	3.13132	2	S
K04FE1E	17.3	0.15	K118R	354.907	28.415	207.301	5.070	0.18372	2.34506	5	X
K04L23Y	15.5	0.15	K118R	303.338	74.790	253.040	21.346	0.19622	2.41470	5	X
K04N19L	17.6	0.15	K118R	356.648	77.719	256.884	4.448	0.24381	2.28759	3	X
K04P08Q	17.4	0.15	K118R	359.341	209.399	128.434	5.234	0.25422	2.30290	5	X
K04P29W	16.9	0.15	K118R	340.706	26.109	341.190	5.552	0.18232	2.30433	5	X
K04P32J	17.2	0.15	K118R	355.162	351.274	352.787	3.987	0.29156	2.30394	5	X
K04P52V	16.5	0.15	K118R	182.627	18.417	352.192	9.160	0.26480	2.72087	3	X
K04PA3L	16.3	0.15	K118R	345.448	27.187	332.574	7.445	0.20627	2.34217	6	X
K04Q05K	16.3	0.15	K118R	204.583	356.510	2.384	14.511	0.26078	2.66806	2	S
K04R38M	16.7	0.15	K118R	53.272	127.532	134.570	7.053	0.16739	2.33064	5	X
K04R79W	16.3	0.15	K118R	10.534	199.287	107.388	16.600	0.31413	2.34153	6	X
K04R84P	17.1	0.15	K118R	338.874	124.351	223.064	6.532	0.14083	2.34379	4	X
K04RN4U	18.5	0.15	K118R	13.408	78.147	194.951	1.980	0.27997	2.35210	4	X
K04T69M	16.5	0.15	K118R	193.643	355.399	24.860	12.765	0.19395	2.70358	2	S
K04TB6A	17.2	0.15	K118R	330.250	239.441	121.424	4.586	0.25454	2.35362	4	X
K04X10R	16.5	0.15	K118R	264.084	304.924	76.938	6.674	0.27473	2.56729	3	X
K05A77C	12.4	0.15	K118R	16.181	344.649	330.793	19.823	0.08669	5.27083	8	X
K05B11V	16.1	0.15	K118R	69.897	136.641	105.311	10.681	0.15501	2.65061	4	X
K05C05B	16.1	0.15	K118R	41.378	200.183	328.760	11.736	0.26712	3.16827	2	S
K05EK3P	16.4	0.15	K118R	13.730	159.050	129.864	9.725	0.08090	3.12206	5	X
K05G82R	15.8	0.15	K118R	15.872	118.580	167.686	15.007	0.13916	2.85327	5	X
K05K07V	15.5	0.15	K118R	67.344	339.804	235.315	16.159	0.17110	3.13826	4	X
K05M04F	16.7	0.15	K118R	12.663	96.756	187.133	12.890	0.26207	3.20212	3	X
K05M45G	15.9	0.15	K118R	35.153	173.027	120.571	8.613	0.12261	3.16692	4	X
K05O09G	17.5	0.15	K118R	290.489	354.783	320.422	3.411	0.16664	2.23438	3	X
K05R07E	17.3	0.15	K118R	144.459	26.424	327.321	4.498	0.26836	2.62322	2	S
K05S05F	18.6	0.15	K118R	338.563	108.061	207.747	4.021	0.21301	2.16610	3	X
K05S09F	16.6	0.15	K118R	98.585	344.758	39.847	10.954	0.27712	2.71801	3	X
K05S34E	17.4	0.15	K118R	350.590	168.903	136.626	3.738	0.17164	2.18882	6	X
K05S70A	17.3	0.15	K118R	292.037	290.537	41.248	7.798	0.14091	2.28363	2	X
K05S90V	17.8	0.15	K118R	244.976	343.777	16.330	7.336	0.12876	2.34984	2	S
K05D3G	17.9	0.15	K118R	28.303	271.107	17.215	3.651	0.21379	2.14327	4	X
K05T94L	17.8	0.15	K118R	67.093	328.534	233.795	5.577	0.06766	2.29229	4	X
K05TA4B	16.9	0.15	K118R	284.964	31.902	300.151	4.569	0.18366	2.30055	2	S
K05T12S	16.8	0.15	K118R	261.113	297.491	80.135	8.292	0.17588	2.25078	3	S
K05U99M	17.1	0.15	K118R	145.773	34.384	86.569	7.111	0.07261	2.37429	4	X
K05UU2Q	17.2	0.15	K118R	212.568	302.015	90.185	7.354	0.12518	2.41577	3	X
K05Uj9N	17.3	0.15	K118R	238.137	158.533	239.850	6.231	0.11525	2.34078	4	X
K05U17P	17.3	0.15	K118R	184.644	182.475	247.317	5.426	0.08225	2.39309	2	S
K05Up8O	16.0	0.15	K118R	311.867	210.271	103.276	10.020	0.27815	3.98838	3	X
K05Uq3H	15.8	0.15	K118R	340.680	190.830	92.352	1.959	0.13575	3.94775	2	S
K05W86W	17.4	0.15	K118R	289.563	135.379	202.287	1.535	0.23674	2.30902	2	S
K05X04N	19.8	0.15	K118R	49.404	93.600	70.741	58.047	0.58139	1.87771	3	X
K05Y47M	16.4	0.15	K118R	225.683	219.394	78.802	14.731	0.16264	2.70176	4	X
K05YT1P	17.2	0.15	K118R	77.932	30.213	146.741	4.653	0.14111	2.58356	5	X
K06A75U	17.3	0.15	K118R	50.891	95.822	113.369	4.747	0.11985	2.59686	3	X
K06B20V	17.4	0.15	K118R	68.860	33.978	136.069	1.962	0.14485	2.68423	2	S
K06BE2U	16.8	0.15	K118R	344.693	146.323	147.166	9.180	0.06703	2.59515	4	X
K06BN1P	17.0	0.15	K118R	63.805	127.326	108.550	7.012	0.09608	2.47604	5	X
K06BN7U	16.5	0.15	K118R	17.011	189.851	99.808	5.394	0.18021	2.45364	5	X
K06D64M	16.2	0.15	K118R	28.320	28.205	102.198	8.437	0.22963	3.01209	2	S
K06F14A	16.8	0.15	K118R	324.277	130.673	190.425	12.182	0.17920	2.74622	3	X
K06F14E	17.4	0.15	K118R	108.857	19.825	168.403	3.866	0.11474	2.61120	4	X
K06F46C	16.3	0.15	K118R	70.139	8.593	200.174	12.747	0.18702	2.68320	6	X
K06G11E	16.9	0.15	K118R	343.600	143.788	114.162	3.111	0.01769	2.86558	4	X
K06G39O	16.2	0.15	K118R	46.158	135.418	116.233	11.627	0.19237	2.67371	7	X
K06H60E	16.4	0.15	K118R	25.493	92.670	178.906	14.626	0.13011	2.69269	4	X
K06H66T	16.2	0.15	K118R	329.694	92.401	219.712	22.832	0.08358	2.80601	4	X
K06J20R	16.3	0.15	K118R	293.779	139.908	182.419	11.778	0.06526	2.96720	5	X
K06S00N	15.7	0.15	K118R	317.369	106.642	258.013	11.132	0.16542	3.08858	4	X
K06SI9V	19.7	0.15	K118R	285.772	61.242	4.317	15.864	0.32154	1.89255	2	X
K06ST0A	14.9	0.15	K118R	338.025	222.410	142.534	28.458	0.12748	3.05506	4	X
K06TD0C	16.1	0.15	K118R	318.451	212.114	159.658	15.803	0.28289	3.16937	3	X
K06UH3U	17.6	0.15	K118R	171.961	299.815	60.367	3.172	0.22391	2.38260	4	X
K06UL7Q	16.5	0.15	K118R	1.513	240.186	84.826	22.217	0.58550	3.00195	3	X
K07C23U	17.1	0.15	K118R	120.635	295.031	142.675	7.809	0.15174	2.42169	6	X
K07DB1Y	16.5	0.15	K118R	50.072	21.295	203.828	21.622	0.07929	2.42902	4	X
K07E65T	17.1	0.15	K118R	8.120	222.433	104.042	3.656	0.23749	2.18212	8	X

K07EA1U	16.9	0.15	K118R	28.143	104.791	125.054	4.673	0.06804	2.40855	8 X
K07EJ3X	16.0	0.15	K118R	7.810	217.559	346.926	12.423	0.19423	2.62335	3 X
K07G08F	18.0	0.15	K118R	47.143	19.602	196.398	4.639	0.12281	2.40720	4 X
K07G41G	18.5	0.15	K118R	14.580	35.642	218.307	0.911	0.15651	2.47798	3 X
K07H28H	17.8	0.15	K118R	37.699	65.846	207.700	1.604	0.23552	2.37000	6 X
K07H85Q	18.2	0.15	K118R	66.642	100.533	124.969	2.855	0.18080	2.36257	4 X
K07L18L	16.4	0.15	K118R	339.772	244.471	103.161	11.533	0.18429	2.48349	3 X
K07P17N	17.3	0.15	K118R	352.247	188.401	138.564	15.918	0.26927	2.54690	3 X
K07P24D	15.2	0.15	K118R	343.971	331.700	319.087	12.922	0.18424	2.77521	6 X
K07RE9V	15.5	0.15	K118R	252.981	258.810	132.935	17.192	0.24189	3.13015	3 X
K07RP3M	17.2	0.15	K118R	44.683	61.126	174.353	13.937	0.27236	2.60479	5 X
K07RV5H	15.9	0.15	K118R	233.745	183.942	210.345	8.616	0.04225	3.05263	4 X
K07S15Q	16.2	0.15	K118R	317.793	242.339	101.849	9.938	0.28987	2.73513	2 S
K07S23P	16.8	0.15	K118R	4.124	3.992	300.609	5.693	0.19443	2.65467	5 X
K07T11D	16.9	0.15	K118R	334.262	153.348	197.274	11.156	0.21584	2.70348	4 X
K07T34B	16.1	0.15	K118R	350.863	314.032	37.163	5.323	0.19388	2.65340	3 X
K07T71C	16.0	0.15	K118R	319.307	51.949	341.218	12.339	0.17465	2.66017	4 X
K07T94Y	15.7	0.15	K118R	282.672	305.166	45.357	12.423	0.29160	3.04193	2 S
K07TB3R	16.7	0.15	K118R	14.942	194.587	112.585	7.008	0.26343	2.63337	7 X
K07TF2M	15.9	0.15	K118R	280.467	149.491	206.086	9.226	0.11128	3.02778	3 X
K07TI6R	16.3	0.15	K118R	296.734	245.668	96.773	6.108	0.19273	3.00715	5 X
K07U38B	16.8	0.15	K118R	8.327	303.705	19.649	6.503	0.29270	2.64521	5 X
K07V08Z	17.0	0.15	K118R	350.399	277.910	65.339	24.763	0.40950	2.62569	3 X
K07VT8V	17.1	0.15	K118R	330.345	239.980	128.803	13.066	0.31849	2.69601	3 X
K07W06R	16.6	0.15	K118R	307.353	71.676	350.980	3.766	0.05934	2.65359	5 X
K07X15G	15.3	0.15	K118R	17.498	27.407	255.616	19.339	0.10609	3.13753	5 X
K08H24S	13.3	0.15	K118R	352.817	155.270	183.999	21.421	0.09501	5.31274	7 X
K08L16V	20.2	0.15	K118R	359.598	121.162	237.196	4.688	0.62448	2.08977	2 X
K08P00E	17.2	0.15	K118R	278.743	229.000	100.249	3.421	0.21643	2.46099	3 X
K08Q35N	16.5	0.15	K118R	294.284	306.337	26.744	23.837	0.29103	2.40998	2 S
K08R45L	18.4	0.15	K118R	330.466	183.848	151.791	1.888	0.23908	2.24102	4 X
K08RC9D	16.8	0.15	K118R	14.703	42.655	260.201	6.046	0.14671	2.44722	2 S
K08RD7L	17.4	0.15	K118R	351.131	345.037	297.831	5.740	0.12861	2.36928	4 X
K08S07Q	19.8	0.15	K118R	258.397	272.352	184.991	16.572	0.29782	1.35388	2 W
K08S52Z	18.2	0.15	K118R	238.286	253.909	182.901	1.122	0.16038	2.36716	3 X
K08S95O	16.8	0.15	K118R	241.055	155.420	222.760	5.587	0.07729	2.68199	2 S
K08SG1G	15.4	0.15	K118R	135.231	46.731	12.377	15.698	0.07636	3.21774	3 X
K08SJ3G	15.6	0.15	K118R	134.566	33.660	50.313	10.730	0.07965	3.15207	2 S
K08SO2H	16.5	0.15	K118R	257.278	323.491	27.544	14.618	0.11591	2.75507	2 S
K08SQ6E	16.9	0.15	K118R	268.802	175.210	193.878	15.614	0.27423	2.56608	3 X
K08SR3D	16.5	0.15	K118R	222.657	300.333	80.087	12.320	0.08909	3.08938	2 S
K08SS2K	16.1	0.15	K118R	87.059	304.980	218.061	8.611	0.03045	3.11334	2 S
K08SS3B	16.4	0.15	K118R	351.738	226.107	32.802	14.408	0.09061	2.77451	3 X
K08SS3N	16.2	0.15	K118R	187.730	189.692	222.669	17.077	0.19816	3.09062	2 S
K08SS6S	16.2	0.15	K118R	248.330	83.321	256.665	10.383	0.21339	2.78212	3 X
K08T04Q	16.6	0.15	K118R	238.861	317.019	346.701	2.591	0.18788	3.12221	2 S
K08T92W	17.0	0.15	K118R	276.307	303.415	18.575	14.169	0.12753	2.69080	2 S
K08T94V	17.1	0.15	K118R	11.415	336.124	339.191	6.770	0.22954	2.21211	6 X
K08T94X	17.1	0.15	K118R	3.356	357.510	336.833	6.067	0.19621	2.18923	7 X
K08TA6O	17.2	0.15	K118R	315.734	277.844	30.453	4.963	0.06706	2.61405	3 X
K08TH4J	16.8	0.15	K118R	83.515	317.576	225.603	14.301	0.08555	2.85843	4 X
K08TI3J	16.5	0.15	K118R	134.764	278.079	252.075	6.061	0.05519	2.36743	4 X
K08U38Y	17.5	0.15	K118R	309.153	100.720	233.073	9.942	0.15149	2.54561	3 X
K08U39Y	17.3	0.15	K118R	283.914	305.848	32.581	5.406	0.16411	2.67268	2 S
K08U81G	17.6	0.15	K118R	282.069	179.893	188.392	8.481	0.16127	2.43585	3 X
K08U92L	16.6	0.15	K118R	231.931	313.568	74.086	12.401	0.17905	2.70586	3 X
K08UD4B	16.7	0.15	K118R	246.845	331.838	42.207	6.012	0.09632	2.76495	2 S
K08UE3A	16.7	0.15	K118R	263.834	149.585	219.258	10.295	0.07288	2.67950	3 X
K08UF0U	16.4	0.15	K118R	119.054	51.221	45.414	10.405	0.04449	3.21797	2 S
K08UF1G	16.0	0.15	K118R	16.220	199.425	51.306	9.321	0.18204	2.76761	2 S
K08UF4F	15.7	0.15	K118R	231.253	315.376	52.200	10.788	0.03920	3.08608	2 S
K08UK1W	16.0	0.15	K118R	231.904	209.479	224.576	14.146	0.06652	2.55501	4 X
K08UP6U	17.3	0.15	K118R	16.636	195.820	57.459	10.313	0.08853	2.73095	3 X
K08UZ3R	17.2	0.15	K118R	295.198	84.090	253.368	5.003	0.03108	2.73924	3 X
K08V03O	16.5	0.15	K118R	264.758	137.000	237.512	27.955	0.16197	2.58261	3 X
K08V09H	16.5	0.15	K118R	244.924	299.052	75.055	10.352	0.18580	2.75200	2 S
K08V12A	17.3	0.15	K118R	36.615	165.744	109.859	5.139	0.23300	2.34177	4 X
K08V80E	15.7	0.15	K118R	206.079	316.856	104.308	9.162	0.11245	3.17111	2 S
K08W25Q	16.8	0.15	K118R	339.575	68.060	227.529	10.908	0.11698	2.59873	4 X
K08W87J	15.7	0.15	K118R	310.588	205.212	62.591	17.578	0.17082	3.15341	3 X
K08W95L	16.5	0.15	K118R	258.481	291.442	93.904	7.133	0.16184	2.64487	2 S
K08WA2D	16.4	0.15	K118R	259.225	145.335	237.674	8.675	0.18249	2.57966	2 X
K08WD3K	16.2	0.15	K118R	299.676	271.089	78.992	13.775	0.19594	2.58020	3 X
K08X14N	16.2	0.15	K118R	127.390	62.257	55.565	11.035	0.04795	3.15321	2 S
K08X35V	16.9	0.15	K118R	332.182	30.554	270.155	6.884	0.12368	2.76935	3 X
K09BI2O	15.6	0.15	K118R	266.481	232.954	144.838	9.456	0.12000	3.01087	3 X
K09C21Q	15.8	0.15	K118R	51.054	306.787	307.974	8.320	0.04919	3.17475	4 X
K09D46H	14.9	0.15	K118R	60.641	305.287	267.198	23.068	0.29567	3.14522	4 X
K09SJ8V	17.1	0.15	K118R	154.200	19.959	330.247	4.995	0.12215	3.00620	2 S
K09UE8B	17.3	0.15	K118R	169.005	155.625	223.341	4.090	0.08401	2.76876	3 X
K09V26C	18.4	0.15	K118R	259.070	164.462	227.102	19.308	0.07591	1.89022	2 X
K09V37Z	15.5	0.15	K118R	110.143	12.858	64.542	17.722	0.13026	3.04902	3 X
K09V83Q	17.0	0.15	K118R	77.030	75.174	41.229	9.853	0.11929	3.03652	2 X
K09W13G	16.3	0.15	K118R	14.273	100.649	66.353	17.862	0.11481	3.08261	2 S
K09WI8E	17.6	0.15	K118R	100.506	238.249	247.461	8.665	0.11643	2.52463	4 X

K09WM9F	17.3	0.15	K118R	105.943	219.755	212.112	7.364	0.11235	3.01543	2 S
K09WP0A	17.6	0.15	K118R	131.489	36.027	70.326	13.203	0.13670	2.54261	2 S
K09WP5P	15.3	0.15	K118R	103.504	306.875	93.196	4.576	0.14050	3.95086	2 S
K09WQ2F	17.5	0.15	K118R	202.553	327.477	94.869	8.720	0.14956	2.28795	3 X
K09X01S	17.6	0.15	K118R	134.684	0.546	121.597	5.967	0.09993	2.31335	3 X
K09X24Z	16.5	0.15	K118R	169.921	308.779	118.167	13.732	0.01101	2.86492	2 S
K10A41Q	16.5	0.15	K118R	130.198	59.097	47.362	5.233	0.08068	2.75885	2 S
K10A45K	16.9	0.15	K118R	141.993	2.429	89.436	5.435	0.03954	2.75720	3 X
K10A79P	17.3	0.15	K118R	339.137	232.937	128.529	23.879	0.09574	1.93267	4 X
K10A93F	16.5	0.15	K118R	178.765	359.656	89.473	12.461	0.13332	3.09604	2 X
K10AD4Z	17.4	0.15	K118R	116.059	306.759	94.799	2.816	0.16683	3.05456	2 S
K10C03O	17.1	0.15	K118R	262.889	239.196	129.879	7.362	0.08688	2.66928	2 S
K10C39Q	17.4	0.15	K118R	13.724	340.249	338.192	5.312	0.18455	2.19162	6 X
K10CD9E	16.4	0.15	K118R	199.248	308.962	110.428	3.387	0.07888	3.02157	6 X
K10CF2H	16.5	0.15	K118R	56.398	69.926	154.656	17.096	0.19175	3.12756	4 X
K10CF8R	16.4	0.15	K118R	71.175	20.524	161.566	11.079	0.16692	3.14229	2 X
K10CH7A	16.6	0.15	K118R	105.055	294.508	215.724	1.505	0.09193	3.06414	4 X
K10D00P	18.6	0.15	K118R	275.384	286.785	174.622	36.443	0.39588	1.76601	2 W
K10D75D	16.2	0.15	K118R	42.800	58.869	169.780	11.604	0.04148	3.10337	5 X
K10E29J	16.5	0.15	K118R	162.945	309.347	186.349	12.416	0.12162	2.61693	6 X
K10E82L	16.4	0.15	K118R	286.436	213.478	168.916	15.769	0.05904	2.58748	5 X
K10EC6A	15.4	0.15	K118R	75.766	12.482	191.900	17.217	0.14642	3.12080	7 X
K10ED2X	15.7	0.15	K118R	245.059	197.152	202.177	15.569	0.01275	3.19656	5 X
K10HA7W	16.0	0.15	K118R	331.186	115.159	224.890	17.334	0.05871	3.07914	5 X
K10L68M	20.8	0.15	K118R	317.445	137.530	232.779	12.275	0.26136	1.06113	2 X
K10O70V	15.7	0.15	K118R	20.897	120.320	182.884	16.785	0.14311	3.12773	7 X
K10V11E	16.1	0.15	K118R	90.025	48.688	306.659	8.960	0.06313	3.02246	3 X
K11A08W	16.9	0.15	K118R	28.827	182.651	304.392	4.119	0.09285	3.06537	2 X
K11A39C	17.0	0.15	K118R	278.532	270.165	338.582	3.243	0.05071	2.77732	5 X
K11B06E	17.4	0.15	K118R	93.404	298.252	107.831	2.569	0.18640	3.08212	4 X
K11B06U	17.8	0.15	K118R	79.102	339.440	93.046	3.257	0.22444	2.68771	3 X
K11BA0R	16.0	0.15	K118R	61.656	320.050	163.955	12.379	0.01341	3.09211	5 X
K11BA9D	17.6	0.15	K118R	340.772	35.730	182.352	4.691	0.07646	2.71800	3 X
K11C12X	17.2	0.15	K118R	293.618	16.397	252.755	3.117	0.16744	2.57023	5 X
K11C24G	16.2	0.15	K118R	48.543	59.283	101.794	26.760	0.39561	3.16239	3 X
K11C60U	16.6	0.15	K118R	167.130	207.872	160.401	2.754	0.03069	3.24627	5 X
K11C71J	17.1	0.15	K118R	107.789	308.856	154.734	24.250	0.09868	1.99605	3 S
K11E04U	14.9	0.15	K118R	295.187	110.706	159.571	32.733	0.08043	3.20836	2 S
K11E78O	15.5	0.15	K118R	68.891	22.043	117.083	3.695	0.11631	3.21499	5 X
K11F34C	15.8	0.15	K118R	343.689	103.934	171.832	5.543	0.14238	3.05485	5 X
K11F59P	17.7	0.15	K118R	67.638	285.161	232.716	1.945	0.03597	2.68580	4 X
K11F68B	17.4	0.15	K118R	59.261	90.280	63.580	5.836	0.01129	2.76869	2 X
K11FF5F	18.2	0.15	K118R	337.629	222.367	69.120	5.428	0.16002	2.32225	3 X
K11FF5M	15.5	0.15	K118R	258.151	213.001	124.933	8.747	0.09091	3.06867	6 X
K11G32T	18.1	0.15	K118R	351.112	100.081	178.571	5.911	0.11708	2.25586	4 X
K11G55A	18.1	0.15	K118R	19.342	316.493	320.162	8.689	0.48138	2.16959	2 X
K11G62J	19.5	0.15	K118R	105.006	303.884	160.707	11.864	0.33704	2.01122	2 X
K11G63Y	16.1	0.15	K118R	33.086	125.250	75.416	11.885	0.06950	3.03963	4 X
K11H05Z	16.5	0.15	K118R	35.242	64.761	143.966	5.578	0.19631	2.61596	5 X
K11H09K	17.1	0.15	K118R	6.098	69.526	171.898	8.661	0.12900	2.65330	4 X
K11H18Y	16.4	0.15	K118R	353.462	180.094	85.552	13.494	0.09131	2.69221	4 X
K11H38A	16.5	0.15	K118R	309.354	258.203	64.674	17.529	0.20527	2.75263	4 X
K11H40Z	15.5	0.15	K118R	163.822	0.126	77.826	18.982	0.11035	3.09503	4 X
K11H43K	17.0	0.15	K118R	48.874	69.104	133.757	11.857	0.10033	2.57498	4 X
K11H45G	15.2	0.15	K118R	195.871	295.781	127.005	14.285	0.12020	3.22659	7 X
K11H57U	16.8	0.15	K118R	57.291	26.865	154.685	14.970	0.16198	3.09679	3 X
K11H71S	18.2	0.15	K118R	22.984	136.437	103.087	3.472	0.13691	2.39479	4 X
K11H71V	18.6	0.15	K118R	15.938	31.324	213.623	7.823	0.37170	2.89419	2 X
K11H72Q	16.3	0.15	K118R	328.262	218.418	102.904	14.965	0.24000	2.62152	3 X
K11H79R	17.8	0.15	K118R	345.028	153.768	126.992	5.804	0.12312	2.56250	4 X
K11H80M	16.5	0.15	K118R	316.989	208.619	127.253	10.958	0.26210	2.53813	4 X
K11H84Q	17.2	0.15	K118R	41.730	1.030	212.234	3.448	0.09282	2.59899	3 X
K11H84S	17.6	0.15	K118R	27.975	4.681	228.237	6.645	0.11811	2.41471	3 X
K11H88O	17.9	0.15	K118R	0.644	22.564	214.018	2.983	0.06113	2.59683	4 X
K11H89T	18.6	0.15	K118R	12.591	157.965	93.293	7.590	0.11118	2.45110	3 X
K11H94Z	16.6	0.15	K118R	283.354	238.582	99.244	6.624	0.06030	2.78595	4 X
K11H95J	16.4	0.15	K118R	355.147	89.508	181.781	15.585	0.08415	3.20104	3 X
K11J04E	15.9	0.15	K118R	316.339	190.930	109.147	10.325	0.05619	3.17631	4 X
K11J04Q	16.4	0.15	K118R	24.093	59.254	158.703	11.866	0.13540	3.13087	5 X
K11J12S	15.8	0.15	K118R	1.366	215.483	46.155	15.745	0.24306	3.16204	4 X
K11J16H	18.4	0.15	K118R	20.713	37.583	200.452	5.360	0.18196	2.40147	3 X
K11J16X	16.3	0.15	K118R	73.894	94.236	58.986	21.474	0.20413	3.12726	5 X
K11J17B	15.5	0.15	K118R	303.033	230.421	95.271	8.890	0.18417	3.16355	5 X
K11J18B	17.3	0.15	K118R	30.645	5.792	227.072	6.627	0.12096	2.24385	6 X
K11J18C	16.2	0.15	K118R	9.857	265.973	356.471	8.401	0.24075	2.54938	4 X
K11J20P	16.5	0.15	K118R	15.137	111.185	128.762	2.986	0.01616	2.95305	7 X
K11J25Z	16.9	0.15	K118R	335.346	82.975	214.747	14.423	0.12639	2.55622	4 X
K11J27Q	16.1	0.15	K118R	45.624	84.931	121.671	6.100	0.08700	3.02617	6 X
K11J27R	15.9	0.15	K118R	356.692	175.218	78.608	12.550	0.04286	3.01198	5 X
K11J28H	16.3	0.15	K118R	55.802	137.687	61.514	6.210	0.10725	2.58310	4 X
K11J28U	17.8	0.15	K118R	337.444	224.630	86.133	2.434	0.19227	2.35619	4 X
K11J28Z	16.0	0.15	K118R	10.489	39.202	213.504	8.259	0.10538	3.01612	5 X
K11J29J	18.2	0.15	K118R	5.616	85.129	181.053	2.280	0.15146	2.41443	4 X
K11J29V	17.5	0.15	K118R	352.589	165.275	135.990	7.490	0.24312	2.22883	3 X
K11J29X	17.7	0.15	K118R	15.117	83.226	182.356	5.745	0.17015	2.30722	6 X

K11J300	16.0	0.15	K118R	47.657	85.604	128.518	13.527	0.11075	2.73264	3 X
K11J31B	16.4	0.15	K118R	43.918	325.701	228.849	9.506	0.17433	3.13301	3 X
K11K00W	16.4	0.15	K118R	350.304	193.248	83.051	10.765	0.12613	2.79348	3 X
K11K01R	17.0	0.15	K118R	5.294	146.785	123.371	13.726	0.22374	2.58907	4 X
K11K02H	17.3	0.15	K118R	331.212	221.497	84.330	7.265	0.12927	2.44810	5 X
K11K04X	17.6	0.15	K118R	322.238	113.167	208.924	4.893	0.16823	2.30086	6 X
K11K06K	16.0	0.15	K118R	20.512	138.744	90.460	2.451	0.12042	3.15986	7 X
K11K07D	15.9	0.15	K118R	2.654	161.880	106.887	24.539	0.09644	3.19387	3 X
K11K07S	16.3	0.15	K118R	311.933	214.995	97.960	5.524	0.05579	2.80729	5 X
K11K07T	18.0	0.15	K118R	55.951	359.609	201.353	3.486	0.12659	2.27395	4 X
K11K08U	17.7	0.15	K118R	357.087	47.817	228.778	6.968	0.24372	2.53427	4 X
K11K08V	18.3	0.15	K118R	0.698	42.130	236.768	2.264	0.24535	2.36140	3 X
K11K09G	15.7	0.15	K118R	349.961	241.607	38.350	3.326	0.19259	3.94797	3 X
K11K10D	16.1	0.15	K118R	350.192	127.657	147.863	5.775	0.04986	2.76963	5 X
K11K10P	16.7	0.15	K118R	44.885	43.963	171.840	14.037	0.13094	2.64244	3 X
K11K11U	16.0	0.15	K118R	333.320	264.726	47.928	18.919	0.27329	3.13964	5 X
K11K12M	16.2	0.15	K118R	95.918	50.838	113.163	22.757	0.12212	2.61696	3 X
K11K15H	18.0	0.15	K118R	25.323	125.670	119.237	4.461	0.12265	2.20789	4 X
K11K16W	16.3	0.15	K118R	41.944	22.523	212.364	25.507	0.22125	2.33661	3 X
K11K19C	17.4	0.15	K118R	332.051	209.166	95.719	7.377	0.10470	2.48375	6 X
K11K20S	16.2	0.15	K118R	244.454	293.210	82.489	5.161	0.05851	2.96310	3 X
K11K21L	17.6	0.15	K118R	333.018	210.530	98.578	3.443	0.13740	2.29716	3 X
K11K21X	16.6	0.15	K118R	319.646	169.432	140.703	10.766	0.09597	3.04037	3 X
K11K22G	17.1	0.15	K118R	17.022	73.642	167.770	7.238	0.22140	3.07699	2 X
K11K22L	17.5	0.15	K118R	346.180	143.668	147.071	5.939	0.08750	2.29025	6 X
K11K22N	16.1	0.15	K118R	350.588	121.310	163.685	17.858	0.16121	3.11890	3 X
K11K24J	16.6	0.15	K118R	353.910	211.621	82.772	15.132	0.25111	2.60721	4 X
K11K24T	17.3	0.15	K118R	98.604	87.709	69.852	8.037	0.06643	2.39142	3 X
K11K24W	15.9	0.15	K118R	28.005	162.964	58.191	19.060	0.06547	3.19093	4 X
K11K24Y	17.0	0.15	K118R	27.461	125.064	106.102	6.075	0.10596	2.72693	5 X
K11K24Z	18.0	0.15	K118R	37.823	108.386	119.695	4.353	0.08763	2.25635	6 X
K11K25V	17.0	0.15	K118R	16.246	38.360	217.277	12.758	0.13039	2.64160	2 X
K11K26B	17.6	0.15	K118R	210.113	181.403	230.575	5.120	0.10634	2.37326	5 X
K11K27B	17.4	0.15	K118R	352.372	183.791	107.305	3.456	0.25164	2.60073	3 X
K11K27E	17.3	0.15	K118R	337.008	239.866	75.753	6.447	0.21268	2.23611	6 X
K11K27F	17.7	0.15	K118R	48.543	128.214	81.700	5.608	0.16851	2.40694	2 S
K11K28M	17.2	0.15	K118R	63.094	285.830	269.122	4.052	0.06121	2.31792	3 X
K11K28X	16.4	0.15	K118R	13.138	142.959	121.519	10.096	0.16103	2.75847	5 X
K11K29G	16.6	0.15	K118R	339.430	183.472	106.278	5.965	0.13103	2.76372	5 X
K11K29S	16.0	0.15	K118R	29.263	156.997	69.555	13.377	0.12306	3.19122	5 X
K11K30E	16.4	0.15	K118R	31.969	332.888	251.699	11.253	0.17014	2.80427	4 X
K11K30Q	18.2	0.15	K118R	10.533	237.590	32.675	4.254	0.17096	2.16919	3 X
K11K31U	16.6	0.15	K118R	313.235	218.451	126.998	7.917	0.29663	2.53749	3 X
K11K32H	17.6	0.15	K118R	356.607	207.981	72.669	13.392	0.15726	2.52062	2 X
K11K33T	17.3	0.15	K118R	13.576	144.715	110.635	5.944	0.20882	2.54590	4 X
K11K34A	15.3	0.15	K118R	8.475	137.265	111.609	10.581	0.04402	3.12440	2 X
K11K34G	17.2	0.15	K118R	28.268	335.301	259.042	4.107	0.20134	2.63113	3 X
K11K34L	17.9	0.15	K118R	20.789	248.726	3.889	3.826	0.15178	2.28655	4 X
K11K35E	15.5	0.15	K118R	35.734	347.161	225.260	8.315	0.06538	3.02949	8 X
K11K35K	16.9	0.15	K118R	24.922	61.662	185.508	7.866	0.17251	2.53539	3 X
K11K37Z	15.5	0.15	K118R	347.054	26.435	250.285	16.342	0.06692	3.10515	4 X
K11K38L	15.8	0.15	K118R	335.265	126.392	164.141	9.669	0.04067	2.98208	5 X
K11K39L	16.9	0.15	K118R	326.230	342.971	324.820	2.680	0.05784	2.66953	4 X
K11K39W	15.8	0.15	K118R	116.132	229.869	272.794	8.432	0.04635	3.10273	5 X
K11K40L	17.8	0.15	K118R	353.873	276.481	13.732	4.503	0.13659	2.33117	4 X
K11K43K	18.2	0.15	K118R	249.120	285.580	91.800	2.570	0.07565	2.21155	3 X
K11K45A	17.2	0.15	K118R	72.298	78.616	108.503	3.169	0.02932	2.68607	6 X
K11K46O	17.7	0.15	K118R	355.440	21.826	260.303	2.432	0.17240	2.79619	2 X
K11K47E	16.2	0.15	K118R	257.064	138.598	226.758	11.759	0.01565	3.03014	2 S
K11L01C	17.2	0.15	K118R	7.952	88.644	195.111	10.596	0.36663	2.60931	3 X
K11L01K	17.0	0.15	K118R	286.454	149.572	187.691	5.897	0.03620	2.73361	6 X
K11L04Z	16.0	0.15	K118R	2.829	204.758	105.117	15.533	0.26702	2.60532	6 X
K11L07X	16.5	0.15	K118R	130.430	32.054	84.945	10.445	0.11588	2.75665	2 X
K11L08D	17.2	0.15	K118R	26.580	143.288	120.988	24.486	0.05170	1.95514	4 X
K11L12F	17.0	0.15	K118R	355.381	179.425	104.962	4.322	0.18332	2.56169	2 S
K11L14L	15.9	0.15	K118R	313.803	216.812	108.335	5.809	0.19961	3.18495	3 X
K11L15L	18.1	0.15	K118R	1.892	253.991	23.053	5.472	0.17791	2.27355	4 X
K11L21P	15.4	0.15	K118R	156.827	331.879	123.685	12.897	0.08142	3.23307	2 S
K11L22O	16.1	0.15	K118R	312.809	216.256	119.421	13.490	0.19132	2.58567	3 S
K11L23S	16.7	0.15	K118R	319.443	121.042	185.907	6.249	0.10986	3.19296	2 S
K11L24U	15.3	0.15	K118R	25.255	6.006	228.618	15.367	0.19783	3.07293	3 X
K11M03A	15.7	0.15	K118R	318.036	228.930	98.103	10.474	0.13749	2.62416	2 X

New perturbed one-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Arc	C
K11B45A	21.6	0.15	K118R	53.436	286.211	303.243	18.023	0.39036	1.55858	151	W
K11D19L	18.9	0.15	K118R	61.013	293.667	274.204	28.194	0.41250	1.60859	207	X
K11E40Z	21.1	0.15	K118R	38.107	276.270	333.166	24.158	0.44221	1.72164	113	X
K11E78Z	17.2	0.15	K118R	12.529	179.541	109.991	17.838	0.53841	2.40001	108	X
K11H00R	19.8	0.15	K118R	258.193	294.949	98.437	16.204	0.05187	1.31505	68	X
K11J00K	18.4	0.15	K118R	32.178	10.713	203.443	6.697	0.46452	1.90940	61	X
K11K03E	23.9	0.15	K118R	36.937	29.334	231.580	8.642	0.28771	1.58538	39	X
K11K04F	19.2	0.15	K118R	1.246	281.506	41.083	10.005	0.61349	2.60182	37	X
K11K04H	21.7	0.15	K118R	28.913	348.785	242.604	18.559	0.46260	2.33452	38	X
K11K09N	18.8	0.15	K118R	2.105	98.687	218.695	19.282	0.48203	2.27151	37	X

K11L01J	19.3	0.15	K118R	357.118	216.332	140.587	7.455	0.69622	2.40837	27 X
K11L19A	19.2	0.15	K118R	4.909	201.431	99.108	19.580	0.63565	2.95239	22 X
K11L19C	18.3	0.15	K118R	353.619	139.079	219.515	10.446	0.73071	3.20916	21 X
K11L19J	21.2	0.15	K118R	359.949	30.090	296.864	1.541	0.61908	2.61913	22 X
K11M00D	28.1	0.15	K118R	53.219	4.966	272.369	2.449	0.03789	1.05602	9 W
K11M00E	19.5	0.15	K118R	0.964	167.125	234.073	24.457	0.72269	1.33903	9 X
K11M00J	22.8	0.15	K118R	98.504	99.928	93.867	10.390	0.20820	1.22091	8 X
K11M00K	20.7	0.15	K118R	20.872	15.124	262.805	7.451	0.46036	2.09434	7 X
K11M00L	22.5	0.15	K118R	15.631	353.200	296.700	1.690	0.43520	2.14868	8 X
K11M00T	19.4	0.15	K118R	15.294	343.872	280.140	13.615	0.57808	3.07759	8 X
K11M00U	20.2	0.15	K118R	0.027	281.441	100.330	7.191	0.65862	1.33752	8 X
K11M01V	20.3	0.15	K118R	7.638	66.772	253.255	6.577	0.30485	1.79174	5 X
K11M01W	22.3	0.15	K118R	325.308	124.267	277.294	3.274	0.27583	1.05527	5 X
K11M02W	21.0	0.15	K118R	356.073	196.061	138.029	7.958	0.52614	2.29546	4 X
K11M02X	20.4	0.15	K118R	11.963	16.854	287.943	41.529	0.46325	2.31502	4 X
K11M02Y	22.4	0.15	K118R	16.140	8.007	270.643	9.643	0.45549	2.17993	3 X
K11M02Z	25.7	0.15	K118R	33.360	355.167	275.512	4.486	0.32213	1.55924	3 X
K11M03Q	24.8	0.15	K118R	98.888	301.165	274.096	5.673	0.11015	1.12267	2 X
K11M03R	18.2	0.15	K118R	5.483	163.728	157.542	11.096	0.42798	2.42016	2 X
K11M03S	17.5	0.15	K118R	352.521	95.001	241.875	25.110	0.46282	2.63236	1 X

New one-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Arc C
K11M03T	17.5	0.15	K116S	304.421	224.845	98.726	27.766	0.07949	2.11480	1 X
K11M03U	15.9	0.15	K116S	354.208	54.953	269.368	15.401	0.23618	2.92937	5 S

New observations:

K02C01M	QC2011	06	27.63494	21	04	09.00	-48	57	17.5	19.9	VrEN001E12
K05X04N	KC2011	06	20.88743	12	45	58.29	+04	39	08.5	20	RvEN001204
K05X04N	KC2011	06	20.90669	12	46	00.08	+04	36	13.3		VEN001204
K06SI9V	7C2006	09	27.30589	00	07	17.01	-00	22	29.5	18.7	roEN001705
K06SI9V	7C2006	09	27.30673	00	07	16.92	-00	22	28.7		oEN001705
K06SI9V	7C2006	09	27.30922	00	07	16.60	-00	22	25.7		oEN001705
K06SI9V	7C2006	09	29.33303	00	03	15.27	+00	18	05.1	19.1	roEN001705
K06SI9V	7C2006	09	29.33387	00	03	15.16	+00	18	06.1		oEN001705
K06SI9V	7C2006	09	29.33635	00	03	14.84	+00	18	09.1		oEN001705
K06SI9V	7C2006	09	30.26248	00	01	23.58	+00	37	05.9	19.0	roEN001705
K06SI9V	7C2006	09	30.26331	00	01	23.47	+00	37	07.3		oEN001705
K06SI9V	7C2006	09	30.26580	00	01	23.15	+00	37	10.3		oEN001705
K06UL7Q	QC2011	06	26.59396	19	59	24.26	-41	45	55.2	16.1	VrEN001E12
K06UL7Q	QC2011	06	26.60907	19	59	25.97	-41	46	53.4	16.3	VrEN001E12
K06UL7Q	QC2011	06	26.62427	19	59	27.69	-41	47	51.9	16.4	VrEN001E12
K06UL7Q	QC2011	06	26.63957	19	59	29.42	-41	48	50.5	16.4	VrEN001E12
K08L16V	KC2011	06	20.96097	18	31	11.91	-09	19	22.0	17.8	RvEN001204
K08L16V	KC2011	06	20.97294	18	31	11.63	-09	18	49.7		VEN001204
K08L16V	KC2011	06	20.98505	18	31	11.43	-09	18	16.9		VEN001204
K10L68M	C2011	07	01.18106	12	30	52.55	+03	37	21.2		oEN001291
K10L68M	HC2011	07	01.18653	12	30	53.15	+03	37	22.4		oEN001291
K11B45A	C2011	06	30.28466	00	26	43.20	-38	09	37.5	20.9	VoEN001807
K11B45A	C2011	06	30.28993	00	26	40.75	-38	09	18.2	20.7	VoEN001807
K11B45A	C2011	06	30.29521	00	26	38.23	-38	08	59.8	20.8	VoEN001807
K11D19L	KC2011	06	21.02724	20	38	38.86	-19	20	34.4		VEN001204
K11D19L	KC2011	06	21.03043	20	38	37.18	-19	20	04.6		VEN001204
K11D19L	KC2011	06	21.03359	20	38	35.49	-19	19	35.3		VEN001204
K11D19L	KC2011	06	21.03674	20	38	33.82	-19	19	06.0		VEN001204
K11D19L	KC2011	06	21.03990	20	38	32.14	-19	18	36.6	16.1	RvEN001204
K11D19L	KC2011	06	30.90945	19	33	45.33	+01	13	40.2	16.3	RwEN001I99
K11D19L	KC2011	06	30.91287	19	33	44.32	+01	13	58.7	15.9	RwEN001I99
K11D19L	KC2011	06	30.91630	19	33	43.29	+01	14	17.6	16.0	RwEN001I99
K11E40Z	C2011	06	30.40218	03	27	13.57	-44	50	15.7	21.6	VoEN001807
K11E40Z	C2011	06	30.41293	03	27	10.99	-44	50	04.7	21.2	VoEN001807
K11E78Z	KC2011	06	29.94767	19	08	33.64	+12	52	03.2	13.9	VuEN001I76
K11E78Z	C2011	06	30.13966	19	09	45.10	+12	29	20.0	14.0	RoEN001H26
K11E78Z	C2011	06	30.14007	19	09	45.25	+12	29	17.2	13.9	RoEN001H26
K11E78Z	C2011	06	30.14047	19	09	45.40	+12	29	14.4	14.0	RoEN001H26
K11E78Z	C2011	06	30.14250	19	09	46.10	+12	29	00.0	14.0	RoEN001H26
K11E78Z	KC2011	06	30.57518	19	12	26.91	+11	38	11.6	13.3	RrEN001D96
K11E78Z	KC2011	06	30.61862	19	12	42.27	+11	32	50.6	13.5	RrEN001D96
K11E78Z	KC2011	06	30.93906	19	14	46.52	+10	51	10.2	13.9	VuEN001I76
K11E78Z	C2011	07	01.25153	19	16	48.01	+10	11	08.2	13.6	VoEN001695
K11E78Z	C2011	07	01.25229	19	16	48.29	+10	11	02.4	13.6	VoEN001695
K11E78Z	C2011	07	01.25355	19	16	48.77	+10	10	52.3	14.0	VoEN001695
K11G55A	QC2011	06	27.78613	22	17	14.05	-55	54	05.5	16.2	VrEN001E12
K11G55A	QC2011	06	27.80943	22	17	17.53	-55	52	30.7	16.1	VrEN001E12
K11G55A	QC2011	06	27.82118	22	17	19.29	-55	51	42.6	16.2	VrEN001E12
K11G55A	`C2011	06	28.74847	22	20	02.27	-54	49	26.4	15.8	RuEN001D90
K11G55A	`C2011	06	28.75421	22	20	03.03	-54	49	03.3	15.9	RuEN001D90
K11G55A	`C2011	06	28.75927	22	20	03.70	-54	48	42.9	15.9	RuEN001D90
K11H00R	C2011	07	01.20183	13	58	04.38	+04	16	40.5	21.5	VoEN001291
K11H00R	C2011	07	01.20558	13	58	04.56	+04	16	33.1	22.1	VoEN001291
K11H00R	C2011	07	01.20927	13	58	04.74	+04	16	26.9	21.7	VoEN001291
K11J00K	C2011	07	01.16231	12	06	17.79	+08	29	11.5	19.8	VoEN001695
K11J00K	C2011	07	01.16727	12	06	19.30	+08	29	05.2	19.8	VoEN001695
K11J00K	C2011	07	01.17872	12	06	22.79	+08	28	50.8	19.6	VoEN001695
K11K03E	KC2011	06	30.18669517	38	07.49	+22	06	59.4		21.9	VoEN001H21

K11K03E	KC2011	06	30.19955217	38	08.99	+22	07	09.9	22.5	VoEN001H21	
K11K03E	KC2011	06	30.21233917	38	10.43	+22	07	19.7	22.0	VoEN001H21	
K11K04F	`C2011	06	28.45783	13	49	31.41	-37	39	40.3	18.3	RuEN001D90
K11K04F	`C2011	06	28.46476	13	49	30.44	-37	39	47.8	18.7	RuEN001D90
K11K04F	`C2011	06	28.47168	13	49	29.46	-37	39	55.0	18.9	RuEN001D90
K11K04F	`C2011	06	28.47861	13	49	28.49	-37	40	02.4	18.6	RuEN001D90
K11K04H	KC2011	06	30.14766616	14	26.60	+06	33	23.5	21.9	VoEN001H21	
K11K04H	KC2011	06	30.15971316	14	27.74	+06	33	34.7	22.2	VoEN001H21	
K11K09N	KC2011	06	30.25173	16	52	14.01	+30	36	08.8	19.7	VoEN001H21
K11K09N	KC2011	06	30.25507	16	52	13.93	+30	36	15.0	19.8	VoEN001H21
K11K09N	KC2011	06	30.25781	16	52	13.88	+30	36	20.1	19.7	VoEN001H21
K11K09N	KC2011	06	30.26055	16	52	13.83	+30	36	25.1	19.6	VoEN001H21
K11K09N	KC2011	06	30.26743	16	52	13.68	+30	36	37.7	19.7	VoEN001H21
K11L01J	KC2011	06	30.13480	15	15	18.93	+03	28	29.0	19.4	VoEN001H21
K11L01J	KC2011	06	30.14118	15	15	17.66	+03	28	32.3	19.4	VoEN001H21
K11L01J	KC2011	06	30.14778	15	15	16.34	+03	28	35.8	19.4	VoEN001H21
K11L01J	KC2011	07	01.13845315	12	04.90	+03	36	52.1	19.5	VoEN001H21	
K11L01J	KC2011	07	01.14554015	12	03.49	+03	36	55.5	19.6	VoEN001H21	
K11L01J	KC2011	07	01.15265915	12	02.04	+03	36	59.1	19.4	VoEN001H21	
K11L19A	KC2011	07	01.11958314	31	27.18	+04	21	53.3	19.1	VoEN001H21	
K11L19A	KC2011	07	01.12400314	31	26.90	+04	21	33.9	19.1	VoEN001H21	
K11L19A	KC2011	07	01.12857714	31	26.58	+04	21	13.4		oEN001H21	
K11L19C	KC2011	07	01.11067716	01	09.87	-03	21	16.3	20.2	VoEN001H21	
K11L19C	KC2011	07	01.11487216	01	09.43	-03	21	12.9	20.3	VoEN001H21	
K11L19C	KC2011	07	01.11904816	01	08.99	-03	21	09.6	20.3	VoEN001H21	
K11L19C	JC2011	07	01.15090	16	01	06.04	-03	20	43.2	20.0	VoEN001695
K11L19C	JC2011	07	01.15220	16	01	05.89	-03	20	42.1	20.1	VoEN001695
K11L19C	JC2011	07	01.15286	16	01	05.83	-03	20	41.6	19.8	VoEN001695
K11L19C	JC2011	07	01.15352	16	01	05.76	-03	20	41.0	19.9	VoEN001695
K11L19J	JC2011	07	01.18616	14	39	23.60	-18	33	13.6	21.1	VoEN001695
K11L19J	JC2011	07	01.19144	14	39	23.26	-18	33	11.0	21.4	VoEN001695
K11L19J	JC2011	07	01.20157	14	39	22.56	-18	33	06.2	21.8	VoEN001695
K11M00D	C2011	06	26.92618	16	10	48.37	+29	41	48.7	15.6	RuEN001215
K11M00D	C2011	06	26.92785	16	10	40.86	+29	40	25.6	15.2	RuEN001215
K11M00D	C2011	06	26.92951	16	10	33.33	+29	39	01.9	14.9	RuEN001215
K11M00D	C2011	06	26.93118	16	10	25.82	+29	37	37.6	15.1	RuEN001215
K11M00D	KC2011	07	01.03753	23	19	05.49	+54	31	22.5	19.7	RuEN001J95
K11M00D	KC2011	07	01.05711	23	18	44.50	+54	34	02.5		uEN001J95
K11M00D	KC2011	07	01.06592	23	18	34.46	+54	35	11.2	19.3	RuEN001J95
K11M00E	KC2011	06	24.99393	17	03	50.39	+44	47	19.4		VEN001204
K11M00E	KC2011	06	25.00369	17	03	45.54	+44	48	21.3		VEN001204
K11M00E	KC2011	06	25.01359	17	03	40.62	+44	49	24.1	19.0	RvEN001204
K11M00E	KC2011	06	30.23150	16	12	14.43	+53	28	43.7	19.6	VoEN001H21
K11M00E	KC2011	06	30.23781	16	12	09.89	+53	29	17.4	19.7	VoEN001H21
K11M00E	KC2011	06	30.24092	16	12	07.65	+53	29	34.2	19.7	VoEN001H21
K11M00E	KC2011	06	30.24403	16	12	05.43	+53	29	50.5	19.7	VoEN001H21
K11M00J	KC2011	06	30.15462	15	21	30.93	-16	38	45.5	21.2	VoEN001H21
K11M00J	KC2011	06	30.15944	15	21	31.69	-16	39	10.7	21.4	VoEN001H21
K11M00J	KC2011	06	30.16857	15	21	33.16	-16	39	58.2	20.8	VoEN001H21
K11M00J	KC2011	06	30.17208	15	21	33.70	-16	40	16.3	21.0	VoEN001H21
K11M00K	KC2011	06	25.02452	21	14	42.41	-00	47	21.9	18.3	RvEN001204
K11M00K	KC2011	06	25.03242	21	14	43.76	-00	46	50.8		VEN001204
K11M00K	KC2011	06	25.04036	21	14	45.17	-00	46	20.0		VEN001204
K11M00L	C2011	06	30.20375	20	38	52.97	-20	42	53.1	20.9	VoEN001807
K11M00L	C2011	06	30.21098	20	38	53.98	-20	42	45.8	21.0	VoEN001807
K11M00L	C2011	06	30.21822	20	38	54.99	-20	42	38.7	20.7	VoEN001807
K11M00T	KC2011	06	30.29244	20	32	47.18	-13	54	30.8	19.1	VoEN001H21
K11M00T	KC2011	06	30.29535	20	32	47.14	-13	54	23.2	19.2	VoEN001H21
K11M00T	KC2011	06	30.29790	20	32	47.11	-13	54	16.6	19.2	VoEN001H21
K11M00T	KC2011	06	30.30045	20	32	47.08	-13	54	10.0	19.2	VoEN001H21
K11M00T	KC2011	06	30.30279	20	32	47.05	-13	54	03.8	19.1	VoEN001H21
K11M00U	KC2011	06	30.11704	13	12	00.00	+01	28	44.4	19.9	VoEN001H21
K11M00U	KC2011	06	30.12215	13	11	57.53	+01	28	49.9	20.2	VoEN001H21
K11M00U	KC2011	06	30.12865	13	11	54.41	+01	28	57.0	20.6	VoEN001H21
K11M00U	KC2011	07	01.10558213	04	14.49	+01	46	44.5	19.9	VoEN001H21	
K11M00U	KC2011	07	01.10871113	04	13.01	+01	46	48.0	20.1	VoEN001H21	
K11M00U	KC2011	07	01.11183613	04	11.49	+01	46	51.7	19.7	VoEN001H21	
K11M00U	KC2011	07	01.11505613	04	09.98	+01	46	55.5	19.9	VoEN001H21	
K11M01V	C2011	06	30.22830	21	21	33.11	-00	42	42.2	20.0	VoEN001807
K11M01V	C2011	06	30.23410	21	21	33.59	-00	42	30.8	20.2	VoEN001807
K11M01V	C2011	06	30.23988	21	21	34.07	-00	42	19.5	20.1	VoEN001807
K11M01V	KC2011	06	30.30643	21	21	39.89	-00	40	37.9	20.5	VoEN001H21
K11M01V	KC2011	06	30.30882	21	21	40.07	-00	40	33.1	20.2	VoEN001H21
K11M01V	KC2011	06	30.31122	21	21	40.28	-00	40	28.4	20.4	VoEN001H21
K11M01V	KC2011	06	30.31361	21	21	40.50	-00	40	23.8	20.5	VoEN001H21
K11M01W	C2011	06	30.24587	21	54	31.75	-09	47	12.0	19.8	VoEN001807
K11M01W	C2011	06	30.25227	21	54	33.06	-09	46	54.1	19.7	VoEN001807
K11M01W	KC2011	06	30.32395	21	54	48.45	-09	44	37.7	20.0	VoEN001H21
K11M01W	KC2011	06	30.32699	21	54	49.08	-09	44	29.3	20.2	VoEN001H21
K11M01W	KC2011	06	30.33003	21	54	49.70	-09	44	21.0	20.5	VoEN001H21
K11M01W	KC2011	06	30.33323	21	54	50.38	-09	44	12.3	20.6	VoEN001H21
K11M02W	KC2011	06	30.19093	16	23	43.27	-00	58	02.8	21.2	VoEN001H21
K11M02W	KC2011	06	30.19542	16	23	42.92	-00	58	04.3	21.2	VoEN001H21
K11M02W	KC2011	06	30.19991	16	23	42.57	-00	58	05.7	21.2	VoEN001H21
K11M02W	KC2011	06	30.20440	16	23	42.22	-00	58	07.1	21.2	VoEN001H21

