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MPEC 2010-X90 : 2010 XU45

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M.P.E.C. 2010-X90

Issued 2010 Dec. 11, 02:27 UT

The Minor Planet Electronic Circulars contain information on unusual minor planets and routine data on comets. They are published on behalf of Commission 20 of the International Astronomical Union by the Minor Planet Center, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.

Prepared using the [Tamkin Foundation Computer Network](#)

MPC@CFA.HARVARD.EDU

URL <http://www.minorplanetcenter.org/iau/mpc.html> ISSN 1523-6714

2010 XU45

Observations:

K10X45U*	C2010	12	09.34493	08	07	32.05	+30	47	04.2	20.1	VrEX090703
K10X45U	C2010	12	09.35248	08	07	31.15	+30	46	49.4	19.1	VrEX090703
K10X45U	C2010	12	09.36010	08	07	30.18	+30	46	33.4	19.8	VrEX090703
K10X45U	C2010	12	09.36766	08	07	29.35	+30	46	17.0	19.8	VrEX090703
K10X45U	C2010	12	09.40733	08	07	24.88	+30	44	53.7	19.8	VrEX090703
K10X45U	C2010	12	09.41475	08	07	23.91	+30	44	36.2	19.6	VrEX090703
K10X45U	C2010	12	09.42965	08	07	22.15	+30	44	04.8	19.9	VrEX090703
K10X45U	SC2010	12	09.97152	08	06	22.89	+30	24	42.4	19.7	RuEX090473
K10X45U	SC2010	12	09.97291	08	06	22.74	+30	24	39.5	19.7	RuEX090473
K10X45U	JC2010	12	10.40635	08	05	33.72	+30	09	15.0	20.2	VoEX090695
K10X45U	JC2010	12	10.40715	08	05	33.62	+30	09	13.2	20.2	VoEX090695
K10X45U	C2010	12	10.40778	08	05	33.49	+30	09	11.1	19.4	VrEX090G96
K10X45U	JC2010	12	10.40782	08	05	33.53	+30	09	11.9	20.6	VoEX090695
K10X45U	JC2010	12	10.40851	08	05	33.44	+30	09	10.2	20.3	VoEX090695
K10X45U	C2010	12	10.41599	08	05	32.56	+30	08	53.9	20.0	VrEX090G96
K10X45U	C2010	12	10.42437	08	05	31.56	+30	08	36.0	20.3	VrEX090G96
K10X45U	C2010	12	10.45360	08	05	27.98	+30	07	32.4	19.6	RoEX090H01
K10X45U	C2010	12	10.46026	08	05	27.19	+30	07	18.0	19.7	RoEX090H01
K10X45U	C2010	12	10.46746	08	05	26.32	+30	07	02.4	19.3	RoEX090H01
K10X45U	C2010	12	10.47364	08	05	25.58	+30	06	48.9	19.7	RoEX090H01
K10X45U	C2010	12	10.62097	08	05	09.98	+30	01	29.0	20.3	RoEX090300
K10X45U	C2010	12	10.62448	08	05	09.56	+30	01	20.7	20.5	RoEX090300
K10X45U	C2010	12	10.62624	08	05	09.40	+30	01	18.3	20.3	RoEX090300
K10X45U	C2010	12	10.64935	08	05	06.66	+30	00	28.5	20.5	RoEX090300
K10X45U	C2010	12	10.65285	08	05	06.23	+30	00	20.5	20.1	RoEX090300
K10X45U	C2010	12	10.65461	08	05	05.91	+30	00	16.3	20.2	RoEX090300
K10X45U	C2010	12	10.65636	08	05	05.78	+30	00	15.2	20.7	RoEX090300
K10X45U	C2010	12	10.65812	08	05	05.56	+30	00	10.6	20.4	RoEX090300

Observer details:

[300 Bisei Spaceguard Center--BATTeRS.](#) Observers A. Asami, T. Sakamoto. 1.0-m f/3.0 reflector + CCD.

[473 Remanzacco.](#) Observers L. Donato, V. Gonano, E. Guido, G. Sostero. 0.45-m f/4.4 Newtonian reflector + CCD.

[695 Kitt Peak.](#) Observers M. Trueblood, L. Lebofsky, R. Crawford. [Measurer R. Crawford.](#) 2.1-m f/7.7 Ritchey-Chretien + CCD.

[703 Catalina Sky Survey.](#) Observer S. M. Larson. Measurers J. D. Ahern, E. C. Beshore, A. Boattini, G. J. Garradd, A. R. Gibbs, A. D. Grauer, R. E. Hill, R. A. Kowalski, S. M. Larson, R. H. McNaught. 0.68-m Schmidt + CCD.

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G96 Mt. Lemmon Survey. Observer R. A. Kowalski. Measurers J. D. Ahern, A. Boattini, G. J. Garradd, A. R. Gibbs, A. D. Grauer, R. A. Kowalski, S. M. Larson, R. H. McNaught. 1.5-m reflector
 ro. Observer W. H. Ryan. 2.4-m f/8.9

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Orbit elements:

Select to language 8. DT 245 5600.65 Earth MOID = 0.4205 AU MPC

M	48.51154			(2000.0)	P		Q
n	0.36461081	Peri.	118.18003		+0.71453255		-0.55801568
a	1.9405121	Node	278.88430		+0.39125962		+0.81875280
e	0.3390577	Incl.	25.28352		+0.57996478		+0.13513829
P	2.70	H	19.6	G	0.15	U	9

Residuals in seconds of arc

101209 703	0.7+	0.5-	101210 695	0.0	0.4+	101210 300	0.1-	0.3-
101209 703	0.3+	0.6+	101210 G96	0.5-	0.2-	101210 300	0.2-	1.1-
101209 703	0.9-	0.6+	101210 695	0.1-	0.5+	101210 300	0.5+	0.2+
101209 703	0.4-	0.2+	101210 695	0.2-	0.3+	101210 300	0.6+	0.4-
101209 703	1.3+	0.8+	101210 G96	0.2+	0.2+	101210 300	0.4+	0.9-
101209 703	0.1-	0.9-	101210 G96	0.3+	0.3+	101210 300	1.0-	1.3-
101209 703	0.5-	0.6-	101210 H01	0.1+	0.3+	101210 300	0.0	1.3+
101209 473	0.5-	0.5-	101210 H01	0.2+	0.3+	101210 300	0.1-	0.5+
101209 473	0.3-	0.5-	101210 H01	0.1+	0.3+			
101210 695	0.1+	0.5+	101210 H01	0.1+	0.2+			

Ephemeris:

2010 XU45 a,e,i = 1.94, 0.34, 25 q = 1.2826

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
2010 11 11		08 27 59.9	+44 47 19	0.6428	1.3392	108.3	44.6	21.0
...								
2010 11 26		08 25 21.4	+38 01 49	0.5746	1.3810	122.1	37.3	20.6
...								
2010 12 04		08 16 17.3	+33 50 31	0.5449	1.4070	131.4	31.7	20.4
...								
2010 12 10		08 06 19.3	+30 23 49	0.5283	1.4278	139.3	26.7	20.2
2010 12 11		08 04 26.0	+29 47 55	0.5262	1.4314	140.7	25.8	20.2
2010 12 12		08 02 29.3	+29 11 38	0.5242	1.4350	142.1	24.9	20.1
...								
2010 12 18		07 49 48.8	+25 27 14	0.5169	1.4572	150.8	19.2	20.0
...								
2010 12 26		07 31 20.5	+20 20 20	0.5205	1.4882	162.5	11.4	19.7
...								
2011 01 10		06 58 40.7	+11 38 56	0.5742	1.5498	168.0	7.5	19.9

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