Circular No. 9113

Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION

Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.
IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)
CBAT@CFA.HARVARD.EDU (science)
URL `http://www.cfa.harvard.edu/iau/cbat.html` ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

COMET C/2010 B1 (CARDINAL)

As first announced on *CBET* 2141, an apparently asteroidal object discovered by R. D. Cardinal (Rothney Astrophysical Observatory, University of Calgary, 0.50-m f/1.0 reflector; discovery observation tabulated below), and placed on the 'NEO Confirmation Page', has been reported as cometary by several CCD astrometrists. Y. Ikari (Moriyama, Shiga-Ken, Japan, 0.26-m reflector) notes that some of his exposures on Jan. 22.6 UT showed a coma of diameter 0′.2. D. Chestnov, Moscow, writes that three stacked 300-s unfiltered exposures on Jan. 22.8 by T. Kryachko (Engelhardt Observatory, Zelenchukskaya Station, 0.3-m reflector) showed that the object appeared "softer" than the surrounding stars, having a 0′.1–0′.2 coma with a strong condensation but no tail. J. M. Aymami (Tiana, Spain, 0.25-m reflector) remarks that 39 co-added images totaling 3900 seconds, taken around Jan. 22.9, showed a compact-but-nebulous object displaying what seemed to be a faint coma measuring 7″.5.

2010	UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Jan.	19.22247	$8^{\rm h}12^{\rm m}28^{\rm s}.90$	$+73^\circ42'01''.1$	17.7	Cardinal

The following parabolic orbital elements from *MPEC* 2010-B54 are from observations spanning Jan. 19–26:

$$\left.\begin{array}{rcl} T &=& \text{2011 Feb. 6.807 TT} \\ q &=& \text{2.93361 AU} \end{array}\right\} \quad \left.\begin{array}{rcl} \omega &=& 211^\circ.674 \\ \Omega &=& 277.262 \\ i &=& 101.937 \end{array}\right\} 2000.0$$

COMETS C/2009 M6, C/2009 M7, C/2009 M8, C/2009 N1 (SOHO)

Additional presumed comets have been found on SOHO website images — Kreutz sungrazers except for C/2009 M8 and C/2009 N1 (non-group). C/2009 M6 was very faint (mag ∼ 8.5) and slightly diffuse. C/2009 M7 was diffuse (mag ∼ 8). C/2008 M8 was appeared stellar, appearing quite bright (mag ∼ 6.5–7) but fading fast in C2 images. C/2009 N1 was slightly diffuse (mag ∼ 7) in C3 images, and a faint, diffuse streak in C2 images.

Comet	2009	UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2009 M6	June	25.604	$6^{\rm h}09^{\rm m}.9$	$+21^\circ52'$	C2	MU	2009-P02
C/2009 M7		26.908	6 15.3	+21 48	C2	BZ	2009-P20
C/2009 M8		30.071	6 32.4	+25 58	C3/2	RK	2009-P20
C/2009 N1	July	2.596	6 42.8	+26 41	C3/2	BZ	2009-P20

