Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION

CBAT Director: Daniel W. E. Green; Room 209; Dept. of Earth and Planetary Sciences; Harvard University; 20 Oxford St.; Cambridge, MA 02138, U.S.A.
cbatiau@eps.harvard.edu ISSN 0081-0304
URL http://www.cfa.harvard.edu/iau/cbat.html

COMET P/2010 B2 (WISE)

A. Mainzer, Jet Propulsion Laboratory, reports that an object discovered by the new earth-orbiting satellite WISE appears extended with a hazy coma of diameter $\sim 10''$-$20''$ and a tail $\sim 15''$ long toward the west-northwest in all the WISE infrared images (discovery observation tabulated below). Following posting on the Minor Planet Center's 'NEOCP' webpage, D. J. Tholen (Institute for Astronomy, University of Hawaii) writes that three stacked 20-s Megacam r-band images taken at Mauna Kea with the 3.6-m Canada-France-Hawaii Telescope (average seeing $\sim 1''.45$) by A. Draginda in morning twilight on Feb. 7.66 UT show that the object is clearly non-stellar in all three images, but with no obvious tail. J. V. Scotti (Lunar and Planetary Laboratory, University of Arizona) reports that images taken on Feb. 8.47 with the Spacewatch 1.8-m $f/2.7$ reflector at Kitt Peak show the object to be diffuse with a coma diameter of $8''$ (magnitude $V = 20.2$), with a possible westward tail involved with a field star.

2010 UT	α_{2000}	δ_{2000}	*Observer*
Jan. 22.63762	$14^h01^m10^s.72$	$-11^\circ10'02''.3$	WISE

The available astrometry, the following elliptical orbital elements, residuals, and an ephemeris appear on *MPEC* 2010-C23.

$$\text{Epoch} = 2010 \text{ Jan. } 4.0 \text{ TT}$$

$$\begin{array}{lll} T = 2009 \text{ Dec. } 20.8910 \text{ TT} & \omega = 155^\circ.4007 & \\ e = 0.463138 & \Omega = 0.6617 & \left.\right\} 2000.0 \\ q = 1.606972 \text{ AU} & i = 8.8897 & \end{array}$$

$$a = 2.993271 \text{ AU} \qquad n^\circ = 0.1903203 \qquad P = 5.18 \text{ years}$$

COMETS C/2009 P4, C/2009 P5, C/2009 Q6, C/2009 Q7 (SOHO)

Further to *IAUCs* 9112, 9113, and 9114, additional Kreutz sungrazers have been found on SOHO website images. All were small and stellar in appearance except for C/2009 P5 (slightly elongated, with peak mag $\sim$ 6.5). C/2009 P4 and C/2009 Q6 peaked near mag 7, whereas C/2009 Q7 (which was also found by M. Kusiak) peaked near mag $\sim$ 7–7.5.

Comet	2009 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2009 P4	Aug. 9.971	$9^h03^m.1$	$+14^\circ20'$	C3	BZ	2009-W09
C/2009 P5	11.071	8 59.4	+13 21	C3	BZ	2009-W09
C/2009 Q6	20.904	9 41.8	+11 11	C3	ZX	2009-W10
C/2009 Q7	22.763	9 51.5	+10 49	C3	ZX	2009-W10

2010 February 8 Daniel W. E. Green