Circular No. 9016

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/2009 B2 (LINEAR)

An apparently asteroidal object that was discovered by the LINEAR survey (discovery observation tabulated below) has been found to show cometary appearance by CCD astrometrists elsewhere, following posting on the Minor Planet Center's 'NEOCP' webpage. F. Hormuth (Calar Alto 1.23-m reflector, Jan. 30.2 UT) writes that an unfiltered, stacked, 600-s image shows a coma diameter of $\sim 5''$ and a short, faint tail of length $\sim 10''$ in p.a. $\sim 340^{\circ}$. J. Young (Table Mountain 0.61-m $f/16$ Cassegrain reflector, Jan. 31.50–31.55) notes a coma of diameter $8''$ with a small bright area slightly southeast of a broad and very short extension spanning p.a. 310°-340°. R. S. McMillan (0.9-m $f/3$ Spacewatch reflector, Jan. 31.5; apparent independent discovery) reports a short $8''$ tail toward the north.

2009 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Jan. 29.47388	$14^{h}50^{m}27^{s}.51$	$-15^{\circ}38'30''.9$	19.4	LINEAR

The available astrometry, the following preliminary parabolic orbital elements by B. G. Marsden, and an ephemeris appear on *MPEC* 2009-B91.

$$
\begin{array}{lll}
T = 2009\ \text{Mar. } 10.773\ \text{TT} & \omega = 193^{\circ}.959 & \\
 & \Omega = 18.905 & \Big\}\ 2000.0 \\
q = 2.32776\ \text{AU} & i = 156.994 &
\end{array}
$$

COMET P/2008 Y1 (BOATTINI)

Additional astrometry has shown that this comet (cf. *IAUC* 9007) is of short period, the following orbital elements taken from *MPEC* 2009-B62:

$$
\begin{array}{lll}
T = 2009\ \text{Feb. } 25.1897\ \text{TT} & \omega = 162^{\circ}.4578 & \\
e = 0.732532 & \Omega = 259.7532 & \Big\}\ 2000.0 \\
q = 1.270613\ \text{AU} & i = 8.8036 &
\end{array}
$$

$$a = 4.750529\ \text{AU} \qquad n^{\circ} = 0.0951900 \qquad P = 10.35\ \text{years}$$

COMET P/2008 Y3 (McNAUGHT)

Additional astrometry has shown that this comet (cf. *IAUC* 9009) is of short period; the following orbital elements were published on *MPC* 64767: Epoch = 2009 Jan. 9.0 TT, T = 2009 Jan. 11.9366 TT, $e = 0.447539$, $q = 4.434228$ AU, $\omega = 238^{\circ}.2745$, $\Omega = 262^{\circ}.9356$, $i = 38^{\circ}.8137$ (equinox 2000.0), $P = 22.74$ years.

2009 January 31 *Daniel W. E. Green*