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 K5 (McNAUGHT)

R. H. McNaught reports his discovery of a comet on CCD images obtained with the 0.5-m Uppsala Schmidt telescope at Siding Spring (discovery observation tabulated below), the object being slightly diffuse with a diameter of 10″. After posting on the Minor Planet Center's 'NEOCP' webpage, C. Jacques and E. Pimentel (Belo Horizonte, Minas Gerais, Brazil, 0.30-m *f*/3 reflector, May 28.34–28.35 UT) find that the comet shows a condensed coma of diameter 20″. G. Sostero, E. Guido, P. Camilleri, and E. Prosperi report that sixteen stacked 60-s unfiltered exposures, obtained remotely with a 0.35-m *f*/7 reflector at the Skylive-Grove Creek Observatory (near Trunkey, Australia) on May 28.5 under good seeing conditions, show that this object has a small, compact coma nearly 6″ in diameter, with a hint of elongation toward the northeast.

2009 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
May 27.60529	$19^h45^m35^s.31$	$-74^\circ00'35''.4$	17.7	McNaught

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2009-K67.

$$T = 2010 \text{ Apr. } 18.616 \text{ TT} \qquad q = 1.35690 \text{ AU} \qquad \left.\begin{array}{l}\omega = 67^\circ.954\\ \Omega = 259.967\\ i = 101.624\end{array}\right\} 2000.0$$

COMET P/2009 K1 (GIBBS)

As predicted on *IAUC* 9044, additional astrometry has shown this comet to be of short period; orbital elements from *MPEC* 2009-K48: T = 2009 June 25.934 TT, q = 1.32261 AU, e = 0.63948, $\omega = 27^\circ.086$, $\Omega = 172^\circ.802$, $i = 5^\circ.745$ (equinox 2000.0), P = 7.03 years.

COMET C/2001 D1 = C/2004 X7 = C/2008 S2 = C/1997 J6 (SOHO)

Further to *IAUC* 8986, R. Kracht has identified very weak images of a presumed comet on SOHO images from 1997 that he and B. G. Marsden have linked (via measurements by K. Battams) to the comets in 2001, 2004, and 2008 with nongravitational forces.

Comet	2009 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/1997 J6	May 1.917	$2^h29^m.7$	$+14^\circ25'$	C2	RK	2009-H56

2009 May 29 *Daniel W. E. Green*