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://cfa-www.harvard.edu/iau/cbat.html` ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

COMET C/2007 D1 (LINEAR)

An apparently asteroidal object discovered by the LINEAR survey (discovery observation tabulated below), and posted on the Minor Planet Center's 'NEOCP' webpage, has been found to show cometary appearance by several CCD astrometrists. Images taken by J. Tichá and M. Tichý on Feb. 17.9 UT with the Kleť 1.06-m telescope show the object as diffuse with a coma diameter of 15″ and total mag 17.4, while their images on Feb. 18.9 show a diffuse, 14″ coma and a wide tail at p.a. 300°. Frames taken by A. C. Gilmore on Feb. 18.43 and 18.59 with the Mt. John 1.0-m *f*/7.7 reflector show a coma of diameter ~ 5″ and a stubby tail ~ 20″ long pointing due west. G. Hug (Eskridge, KS, U.S.A., 0.7-m reflector) notes that his photos from Feb. 18.2 reveal a short but broad 'diffusion' extending toward p.a. ~ 280° from a nearly stellar condensation. J. G. Ries (McDonald Observatory, 0.76-m reflector) writes that his *R*-band images obtained on Feb. 18.3 show an extended source with an tail ≈ 48″ long pointing a little south of due west. L. Donato, V. Gonano, E. Guido, and G. Sostero (Remanzacco, Italy, 0.45-m *f*/4.4 reflector) report that co-adding twenty-five 120-s exposures from Feb. 18.8 reveals the presence of a diffuse coma with a diameter of almost 14″ and a fan tail almost 25″ long toward p.a. 255°.

2007 UT	α_{2000}	δ_{2000}	Mag.
Feb. 17.28460	$9^h45^m25^s.25$	$-6^\circ53'38''.3$	18.9

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2007-D22.

$$\begin{array}{lll} T = 2007\ \text{Feb. } 17.505\ \text{TT} & \omega = 289^\circ.556 & \\ & \Omega = 219.980 & \Big\} 2000.0 \\ q = 2.56366\ \text{AU} & i = 12.659 & \end{array}$$

COMET P/2007 C1 (CHRISTENSEN)

As suggested might be the case on *IAUC* 8805, this comet is of short period; orbital elements from *MPEC* 2007-D09:

$$\begin{array}{lll} T = 2007\ \text{Mar. } 7.163\ \text{TT} & \omega = 96^\circ.655 & \\ e = 0.41270 & \Omega = 56.865 & \Big\} 2000.0 \\ q = 2.04436\ \text{AU} & i = 8.002 & \end{array}$$

$$a = 3.48097\ \text{AU} \qquad n^\circ = 0.151759 \qquad P = 6.49\ \text{years}$$

2007 February 19 *Daniel W. E. Green*