

**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 A3 (HILL)*

R. E. Hill reports his discovery of another comet with the Catalina 0.68-m Schmidt telescope (discovery observation tabulated below); four co-added 30-s CCD exposures show a well-condensed nuclear condensation  $4''$ – $5''$  across with a possible  $2''$  coma beyond that and a broad, diffuse tail  $10''$ – $15''$  long in p.a.  $80^\circ$ . Four follow-up co-added 30-s CCD exposures by A. Boattini with the Mt. Lemmon 1.5-m reflector on Jan. 8.16–8.17 show a well-condensed comet with a coma  $\sim 5''$ – $6''$  wide and a broad, fan-shaped tail  $\sim 15''$  long in p.a.  $75^\circ$ . Following posting on the Minor Planet Center's 'NEOCP' webpage, other CCD astrometrists have also noted the object's cometary appearance. A. Novichonok, Kondopoga, Russia, reports that five stacked 300-s images taken remotely by T. Kryachko with the 0.3-m f/8 Astrotel reflector at Zelenchukskaya Station on Jan. 8.7 UT show a round, diffuse coma of diameter  $10''$  and a wide, faint  $15''$  tail in p.a.  $280^\circ$ . H. Sato (Ota-ku, Tokyo, Japan, remotely using an RAS Observatory 0.25-m f/3.4 reflector near Mayhill, NM, U.S.A.; Jan. 9.1 UT) finds a  $10''$  coma elongated toward p.a.  $95^\circ$ . W. H. Ryan (Magdalena Ridge Observatory, 2.4-m f/8.9 reflector; Jan. 9.12–9.15) notes a coma and a faint tail in p.a.  $\sim 80^\circ$  on *R*-band images. E. Guido (Castellammare di Stabia, Italy) reports that he and G. Sostero co-added eighteen 120-s unfiltered exposures taken remotely as done by Sato (above) on Jan. 9.14–9.16, showing a coma nearly  $10''$  in diameter, slightly elongated toward p.a.  $50^\circ$ . K. Kadota (Ageo, Saitama-ken, Japan, 0.25-m f/5 reflector; Jan. 9.5) reports the comet to be diffuse with central condensation, with a coma diameter of  $0.4$  and a faint tail  $1.5$  long in p.a.  $80^\circ$ .

2010 UT	$\alpha_{2000}$	$\delta_{2000}$	Mag.	Observer
Jan. 8.09596	$1^{\text{h}}44^{\text{m}}01.92^{\text{s}}$	$+8^\circ13'15''.6$	17.3	Hill

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2010-A48.

$$\begin{array}{ll}
 T = 2010 \text{ Mar. } 27.292 \text{ TT} & \omega = 38.455 \\
 q = 1.65798 \text{ AU} & \Omega = 63.847 \\
 & i = 15.064
 \end{array}
 \left. \vphantom{\begin{array}{l} T \\ q \end{array}} \right\} 2000.0$$

*COMET 217P/2009 F3 (LINEAR)*

Visual total-magnitude estimates by M. Goiato (Aracatuba, Brazil, 22-cm reflector): Nov. 13.12 UT, 10.6; Dec. 6.06, 10.9; 18.21, 12.1.