Circular No. 9095

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 W1 (HILL)

R. E. Hill, Lunar and Planetary Laboratory, reports his discovery of a comet (discovery observation tabulated below) on CCD images taken with the 0.68-m Schmidt telescope in the course of the Catalina Sky Survey; three co-added 30-s exposures in $4''$–$5''$ seeing show a small nuclear condensation $7''$–$8''$ across with a diffuse, faint tail $20''$–$30''$ long in p.a. $\sim 300°$. Four co-added 40-s exposures in $2''$–$3''$ seeing by Hill on Nov. 19.4 UT show a nuclear condensation $4''$–$5''$ across with a $1''$–$2''$ coma and a tail $20''$–$30''$ long and $10''$–$12''$ wide in p.a. $\sim 300°$. After posting on the Minor Planet Center's 'NEOCP' webpage, other CCD astrometrists have also noted the object's cometary appearance. F. Fratev, Sofia, Bulgaria, reports that twenty-one stacked 40-s CCD exposures obtained with a 0.35-m reflector at Plana, Bulgaria, on Nov. 19.1 shows a diffuse coma nearly $10''$ in diameter and a tail $\sim 60''$ long in p.a. 275°. G. Hug (Scranton, KS, U.S.A., 0.56-m reflector, Nov. 19.5) notes a condensed nuclear condensation and a short, diffuse tail $20''$ long in p.a. 290°. A. R. Gibbs (Mt. Lemmon 1.5-m reflector, Nov. 19.5) writes that four co-added 60-s unfiltered CCD images taken in good seeing show a bright, diffuse coma of size $5'' \times 7''$ with a $30''$ tail in p.a. 290° whose width is constant and equal to the coma diameter. D. Chestnov, Moscow, reports that five stacked 300-s unfiltered CCD exposures taken by T. Kryachko and B. Satovski with a 0.3-m reflector at the Zelenchukskaya Station of Engelhardt Observatory on Nov. 19.04 show a tiny coma and a $0'.2$ tail in p.a. 285°.

2009 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Nov. 18.50653	$9^h46^m17^s.11$	$+28°51'20''.0$	18.5	Hill

The available astrometry, the following very preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2009-W34; the true orbit may well be of short period.

$$T = 2009\ \text{June}\ 26.522\ \text{TT} \qquad \left.\begin{aligned}\omega &= 18°.740\\ \Omega &= 54.303\\ i &= 14.413\end{aligned}\right\}2000.0$$
$$q = 2.46311\ \text{AU}$$

V496 SCUTI

Visual magnitude estimates (cf. *IAUC* 9093): Nov. 14.724 UT, 7.6 (P. Schmeer, Bischmisheim, Germany); 18.719, 7.2 (Schmeer); 18.722, 7.3 (K. Hornoch, Vohancice, Czech Republic).

2009 November 19 *Daniel W. E. Green*