Circular No. 8954

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/2008 L3 (HILL)

R. E. Hill reports his discovery of another comet on CCD images taken with the 0.68-m Catalina Schmidt telescope (discovery observation tabulated below), the co-added images from the discovery night showing a diffuse coma of diameter $\sim 10''$–$12''$ and a diffuse, fan-shaped tail $1'$–$2'$ long in p.a. 100°; additional co-added images from June 14.2 UT show a poorly defined diffuse nuclear region, a coma diameter of $8''$–$10''$, and a broad tail fan $\sim 2'$ long in p.a. 110°. Following posting on the Minor Planet Center's 'NEOCP' webpage, several other CCD astrometrists have reported cometary appearance. J. E. McGaha (Tucson, AZ, U.S.A., 0.36-m reflector) writes that his stacked images from June 13.4 UT show a round $20''$ coma without condensation and an apparent ill-defined $45''$ elongation in p.a. 150°; his stacked images from June 14.2 show a round $30''$ coma without condensation. R. Ligustri (Talmassons, Udine, Italy, 0.35-m reflector, June 13.9) notes that stacked images show a $30''$ coma elongated in p.a. 119°. M. Pietschnig (Vienna, Austria, 0.35-m reflector, June 13.9) finds the comet diffuse with a $10''$ coma, a bright knot $5''$ from the coma's center in p.a. 117°, and a tail $\sim 30''$ long in p.a. 120°. G. Hug (Eskridge, KS, U.S.A., 0.7-m reflector, June 14.14–14.15) detects a short, diffuse tail in p.a. $\sim 100°$. P. Birtwhistle (Great Shefford, Berkshire, England, 0.40-m reflector, June 15.0) reports a diffuse, poorly condensed coma of diameter $10''$ in poor seeing.

2008 UT	α_{2000}	δ_{2000}	Mag.
June 13.27522	$13^h50^m13^s.13$	$+58^\circ24'51''.1$	18.9

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2008-L56.

$$T = 2008\ \text{Apr.}\ 20.148\ \text{TT} \qquad \left.\begin{array}{l}\omega = 100^\circ.558\\ \Omega = 23.885\\ i = 100.404\end{array}\right\}2000.0$$
$$q = 2.00238\ \text{AU}$$

COMET C/2008 A1 (McNAUGHT)

Visual total-magnitude and coma-diameter estimates: Apr. 11.96 UT, 12.2, $2'$ (M. Goiato, Araçatuba, Brazil, 22-cm reflector; moonlight); 24.94, 11.6, $4'$ (Goiato); May 5.40, 11.8, $2'$ (D. A. J. Seargent, Cowra, NSW, Australia, 25-cm reflector); 7.44, 11.4, $2'$ (Seargent); 11.93, 10.8, $4'$ (Goiato; moonlight); 25.92, 10.3, $5'$ (Goiato); June 6.92, 9.9, $5'$ (Goiato).

2008 June 15 *Daniel W. E. Green*