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INTERNATIONAL ASTRONOMICAL UNION**

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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. $\sim 100^\circ$. 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		$13^{\text{h}}50^{\text{m}}13.13^{\text{s}}$	$+58^\circ24'51''.1$	18.9

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

$$\begin{array}{rcl}
 T = 2008 \text{ Apr. } 20.148 \text{ TT} & \omega = 100.558 & \\
 q = 2.00238 \text{ AU} & \Omega = 23.885 & \\
 & i = 100.404 & \left. \vphantom{\begin{array}{l} \omega \\ \Omega \\ i \end{array}} \right\} 2000.0
 \end{array}$$

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).