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COMET P/2008 Y2 (GIBBS)

A. R. Gibbs reports his discovery of a comet with a narrow $16''$–$20''$ tail in p.a. 280°–285° and a well-condensed coma of size $13''.5 \times 9''$ on co-added unfiltered CCD images obtained with the Catalina Sky Survey (CSS) 0.68-m Schmidt telescope (discovery observation tabulated below). E. Beshore (Mt. Lemmon 1.5-m reflector, 2009 Jan. 1.46–1.48 UT) adds that four co-added 30-s exposures show a condensed nuclear condensation with a tail $\sim 1'$ long in p.a. $\approx 280°$. T. Spahr, Smithsonian Astrophysical Observatory, identified this comet with pre-discovery astrometry in the Minor Planet Center (MPC) archive from 2008 Dec. 1 (Mt. Lemmon) and 21 (CSS). Following posting on the MPC's 'NEOCP' webpage, several other CCD astrometrists have noted the object's cometary appearance. J. V. Scotti writes that Spacewatch images taken with the 1.8-m *f*/2.7 reflector show a $9''$ coma and a $0'.48$ tail in p.a. 284° on 2009 Jan. 1.34–1.35. R. Ligustri (Udine, Italy) co-added ten 180-s exposures taken remotely with a 0.25-m *f*/3 reflector near Mayhill, NM, U.S.A., on Jan. 1.44–1.45 to see a coma of diameter $\sim 15''$; twenty-four 120-s co-added images obtained similarly by E. Guido, G. Sostero, and P. Camilleri on Jan. 1.45–1.48 show a compact coma of diameter $\sim 10''$ and a narrow $10''$-long tail in p.a. 270°.

2008 UT	α_{2000}	δ_{2000}	Mag.
Dec. 31.36701	$10^h04^m12^s.21$	$+19°49'55''.3$	18.2

The available astrometry, the following elliptical orbital elements, and an ephemeris appear on *MPEC* 2009-A3.

$$\begin{array}{lll} T = 2009\ \text{Jan. } 22.4628\ \text{TT} & \omega = 162°.3785 & \\ e = 0.543639 & \Omega = 330.8890 & \Big\}\,2000.0 \\ q = 1.638444\ \text{AU} & i = 7.2768 & \end{array}$$

$$a = 3.590233\ \text{AU} \qquad n° = 0.1448839 \qquad P = 6.80\ \text{years}$$

COMET P/2008 X4 (CHRISTENSEN)

K. Kadota, Ageo, Japan, has reported astrometry for this comet (cf. *IAUC* 9005) from CCD images obtained with a 0.25-m *f*/5 reflector on 2008 Dec. 14.35 (at low altitude in very bright twilight), 30.9, and 31.9 UT, for which he provided total magnitudes 11, 10.6, and 10.5, respectively. The astrometry for Dec. 30 and 31, together with improved orbital elements by B. G. Marsden and an ephemeris, appear on *MPEC* 2009-A1.

2009 January 1 *Daniel W. E. Green*