Circular No. 8901

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URL `http://www.cfa.harvard.edu/iau/cbat.html` ISSN 0081-0304
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COMET C/2007 W3 (LINEAR)

An apparently asteroidal object discovered by the LINEAR project (discovery observation tabulated below), and posted on the Minor Planet Center's NEOCP webpage, has been found to show cometary appearance by several astrometric CCD observers, including R. Holmes (Charleston, IL, U.S.A., 0.61-m $f/4.0$ astrograph; Dec. 1.31 UT; measurer S. Foglia; five stacked images show a coma diameter of $6''$ and no tail); Q.-z. Ye (Department of Atmosphere Science, Sun Yat-sen University, Guangzhou, China; Lulin Sky Survey 0.41-m Ritchey-Chrétien reflector; Dec. 2.6; four combined 60-s unfiltered exposures show a small bright core $< 2''$ in diameter with a total coma diameter of $\sim 7''$–$8''$ that was slightly elongated in p.a. 90°); J. Young (Table Mountain, 0.61-m $f/16$ Cassegrain reflector; Dec. 3.3; very round $6''$ coma with bright central condensation and a possible hint of a broad, stubby $10''$ tail in p.a. 190°); and E. Guido and G. Sostero (Castellammare di Stabia, Italy, remotely using a 0.25-m $f/3.4$ reflector located near Mayhill, NM, U.S.A.; Dec. 3.5; 60 co-added unfiltered exposures show a coma nearly $8''$ in diameter, slightly elongated toward the northeast).

2007	UT	α_{2000}	δ_{2000}	Mag.
Nov.	29.31590	$6^h09^m41^s.63$	$+72^\circ37'01''.9$	19.6

The available astrometry, the following preliminary orbital elements, and an ephemeris appear on *MPEC* 2007-X13.

$$T = 2008 \text{ June } 2.793 \text{ TT} \qquad \left.\begin{array}{l}\omega = 112^\circ.585 \\ \Omega = 73.074 \\ i = 78.679\end{array}\right\} 2000.0$$
$$q = 1.77775 \text{ AU}$$

V598 PUPPIS

R. W. Russell, R. J. Rudy, and D. K. Lynch, The Aerospace Corporation; and C. E. Woodward, University of Minnesota, report 0.8- to 2.5-μm spectroscopy of this nova (cf. *IAUC* 8898, 8899) using the Infrared Telescope Facility (+ SpeX) on Nov. 30.52 UT. V598 Pup was in its coronal stage with no low excitation lines present. [Si VI] 1.96-μm and [Ca VIII] 2.32-μm were strong, along with He I 1.0830-μm and the H I lines. At least two of the unidentified novae lines were present (1.55 and 2.09 μm). The FWHM of the lines was ≈ 2400 km/s, and there was no evidence of thermal emission from dust.

2007 December 3 *Daniel W. E. Green*