Circular No. 8624

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://cfa-www.harvard.edu/iau/cbat.html ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

COMET P/2005 U1 (READ)

M. T. Read reports the discovery of a diffuse comet with a tail $\sim 20''$ long toward the southwest on CCD mosaic images taken with the Spacewatch 0.9-m $f/3$ reflector on Oct. 24.3 UT (discovery observation tabulated below). The cometary appearance has been confirmed on Spacewatch images taken with the 1.8-m $f/2.7$ reflector by T. H. Bressi on Oct. 25.35–25.36 ($20''$ tail extending westward), by T. Gehrels on Oct. 26.30–26.31 ($6''$ coma and tail at least $10''$ long in p.a. 260°) and 27.28–27.29 (small, elongated coma and tail > long in p.a. 260°), and by J. V. Scotti on Oct. 28.4 (slightly diffuse, with $0'.37$ tail in p.a. 249°). E. J. Christensen reports that images taken with the Mt. Lemmon 1.5-m reflector on Oct. 28.3 show a $6''$ coma and a $10''$ tail in p.a. 240°–250°.

2005 UT	α_{2000}	δ_{2000}	Mag.
Oct. 24.32776	$3^h21^m11^s.94$	$+18^\circ09'17''.8$	20.2

The available astrometry (including prediscovery Catalina observations on Oct. 23), the following preliminary orbital elements, and an ephemeris appear on *MPEC* 2005-U74.

$$
\begin{array}{llll}
T = 2005\ \text{July}\ 7.146\ \text{TT} & \omega = 316^\circ.571 & & \\
e = 0.31063 & \Omega = 51.812 & \Big\}\ 2000.0 & \\
q = 2.25603\ \text{AU} & i = 1.188 & & \\
a = 3.27260\ \text{AU} & n^\circ = 0.166481 & P = 5.92\ \text{years} &
\end{array}
$$

COMET C/2004 U1 (LINEAR)

J. Young, Table Mountain Observatory, reports the discovery of a very faint second component (of total mag ~ 20.0), moving at the same rate as the primary component of C/2004 U1 (total mag ~ 18.5), on stacked CCD images taken by D. Mayes with the 0.6-m $f/16$ Cassegrain reflector on Oct. 20.3 and 21.3 UT. The companion appears to be a well-defined spot along what may be a faint tail of the primary. The astrometry has been published on *MPEC* 2005-U66.

COMET C/2005 T4 (SWAN)

Magnitude estimates and coma diameters from sets of three co-added 3-min exposures by T. Lovejoy (Thornlands, Qld., 100-mm $f/2.8$ telephoto lens): Oct. 9.378 UT, 10.5, $2'$–$3'$; 18.372, 12, –.

2005 October 28 *Daniel W. E. Green*