Circular No. 8619

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 C/2005 T4 (SWAN)

R. D. Matson, Newport Coast, California; and M. Mattiazzo, Wallaroo, South Australia, have independently reported the presence of a comet in SOHO SWAN images during the first half of October (the object appearing rather faint in the ultraviolet images). The SWAN positions below are from Matson. E. J. Christensen reports that Catalina Sky Survey (0.68-m Schmidt telescope) images on Oct. 22.1 UT show a moderately condensed, roughly circular coma of diameter $\sim 2'$ in three coadded 20-second exposures. R. H. McNaught, observing with the 1.0-m *f*/8 reflector at Siding Spring Observatory on Oct. 22.4, reports a diffuse $1'$ coma with a $3''$ (FWHM) central condensation (used for the magnitude estimates below). J. E. McGaha (Tucson, Arizona, 0.62-m *f*/5.1 reflector) reports that his images on Oct. 23.1 show a fan-shaped coma of size $20'' \times 30''$ toward p.a. 120°. A. Hale (Cloudcroft, New Mexico, 0.41-m reflector) writes that a visual observation on Oct. 23.08 showed a diffuse coma of diameter $1'.5$ and total mag 12.1.

2005 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Oct. 6	$15^{h}00^{m}.7$	$-\ 0°20'$		SWAN
9	15 29.2	$-$ 3 28		"
11	15 47.9	$-$ 5 10		"
13	16 06.9	$-$ 6 43		"
22.06892	16 27 $47^{s}.50$	$-$ 9 13 $25''.2$	12.4	Christensen
22.07064	16 27 47.68	$-$ 9 13 27.0		"
22.07230	16 27 47.91	$-$ 9 13 28.7		"
22.39354	16 28 24.32	$-$ 9 17 53.4	18.1	McNaught
22.39504	16 28 24.50	$-$ 9 17 55.1	18.0	"
22.39654	16 28 24.67	$-$ 9 17 56.3	18.0	"
22.39809	16 28 24.83	$-$ 9 17 57.4	17.9	"
22.39960	16 28 24.99	$-$ 9 17 58.8	17.9	"
22.40110	16 28 25.18	$-$ 9 18 00.0	17.7	"

Additional precise positions, the following preliminary parabolic orbital elements by B. G. Marsden (from 12 precise positions, Oct. 22–23), and an ephemeris appear on *MPEC* 2005-U19:

$$T = 2005\ \text{Oct.}\ 9.602\ \text{TT} \qquad \omega = 40°.696$$
$$\Omega = 25.945 \quad \text{2000.0}$$
$$q = 0.64699\ \text{AU} \qquad i = 160.126$$

2005 October 24 *Daniel W. E. Green*