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COMET C/2006 XA_1 (LINEAR)

An apparently asteroidal object discovered by the LINEAR survey (discovery observation tabulated below, from *MPS* 192575; also rediscovered by LINEAR on 2007 Jan. 8), and posted on the Minor Planet Center's 'NEOCP' website, has been reported as being cometary in appearance by numerous CCD observers, including D. Healy (Sierra Vista, AZ, U.S.A., 0.81-m *f*/4.4 Ritchey-Chretien telescope; Jan. 9.11–9.17 UT, diffuse coma), E. Cortès (Mataro, Spain, 0.25-m *f*/4.4 Schmidt-Cassegrain telescope; Jan. 9.8, concentrated coma with no tail), J. E. McGaha (Tucson, AZ, U.S.A., 0.36-m *f*/10 Schmidt-Cassegrain telescope; Jan. 10.15–10.16, four stacked 60-s CCD images show a round 24″ coma and a faint, stellar nucleus with no tail), E. Guido and G. Sostero (Castellammare di Stabia, Italy, observing remotely using a 0.25-m *f*/3.4 reflector near Mayhill, NM, U.S.A.; Jan. 10.34–10.35, 10″ tail in p.a. 310°), and J. Young (Table Mountain, 0.61-m *f*/16 Cassegrain reflector; Jan. 10.2, 12″ faint outer coma surrounding a 5″ centrally condensed area; no tail seen in moderate cirrus overcast).

2006 UT	α_{2000}	δ_{2000}	Mag.
Dec. 9.20056	$2^h39^m54^s.17$	$+58°47'10''.8$	17.6

Additional astrometry, the following parabolic orbital elements, and an ephemeris appear on *MPEC* 2007-A34.

$$T = 2007\ \text{July}\ 20.959\ \text{TT} \qquad \left.\begin{aligned}\omega &= 187^\circ.386\\ \Omega &= 318.611\\ i &= 30.634\end{aligned}\right\}2000.0$$
$$q = 1.80118\ \text{AU}$$

SUPERNOVA 2006tf

Further to *IAUC* 8622, R. Quimby, F. Castro, and P. Mondol, University of Texas, report the discovery of a supernova on unfiltered CCD images taken on 2006 Dec. 12.48 and 16.48 UT (both at mag $\sim$ 16.7) using the 0.45-m ROTSE-IIIb telescope at the McDonald Observatory. SN 2006tf is located at $\alpha = 12^h46^m15^s.82$, $\delta = +11°25'56''.3$ (equinox 2000.0), which is 0″.2 east and 0″.7 north of the center of the faint apparent host galaxy; nothing appeared at this location in co-added of ROTSE-IIIb images taken between 2004 Dec. and 2005 June (limiting mag $\sim$ 19.1). A spectrum (range 420-890 nm) of 2006tf, obtained on Dec. 22.50, shows it to be a type-IIn supernova (details on *CBET* 793).

2007 January 10 *Daniel W. E. Green*