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COMET C/2007 B2 (SKIFF)

B. A. Skiff, Lowell Observatory, reports his discovery of a comet on LONEOS CCD images obtained with the 0.59-m Schmidt telescope (discovery observation tabulated below), the object showing a small, slightly fuzzy, strongly condensed coma, perhaps 10″ in diameter, with no tail. Confirming CCD images were taken by Skiff with the Lowell Perkins 1.8-m telescope, in which 3- and 5-min *R*-filter exposures show the coma to be strongly concentrated and essentially circular, with a diameter of 6″ (and again no tail).

2007 UT	α_{2000}	δ_{2000}	Mag.
Jan. 23.28763	$9^h54^m55^s.52$	$+43°55'31''.8$	18.1

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2007-B39.

$$\begin{array}{llll} T = 2008\ \text{Oct. } 11.159\ \text{TT} & \omega = 216^\circ.688 & \\ & \Omega = 12.989 & \Big\} 2000.0 \\ q = 2.66771\ \text{AU} & i = 28.259 & \end{array}$$

SUPERNOVA 2004et IN NGC 6946

J. Rho, California Institute of Technology, together with T. H. Jarrett and R. Chevalier, report x-ray emission from SN 2004et (cf. *IAUC* 8413) in the spiral galaxy NGC 6946. The x-ray detection was serendipitously found using archival Chandra X-ray Observatory data of three separate pointings, each ~ 29000 s in length. For the location of 2004et, a total of 202, 151, and 158 photons were detected for the observations on 2004 Oct. 22, Nov. 6, and Dec. 3, respectively. The spectrum of the first observation is best fitted by a thermal model with a temperature of 1.3 keV (lower limit 0.5 keV) and a line-of-sight absorption of 1×10^{22} cm^{-2} [upper limit 2×10^{22} cm^{-2}]. The estimated extinction to the supernova, $A_v = 0.41$ mag (Zwitter *et al.* 2004, *IAUC* 8413), is consistent with a foreground atomic-hydrogen column density of 3×10^{21} cm^{-2}, corresponding to the lower envelope of the present x-ray absorption measurements. The inferred unabsorbed luminosity (0.4–10 keV) is ~ 4×10^{38} erg/s (using a distance of 5.5 Mpc), which falls into the luminosity range of known x-ray supernovae. The x-ray hardness ratio declines between the first and last epoch, consistent with a slight temperature decrease over the time period.

2007 January 24 *Daniel W. E. Green*