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COMET C/2004 X1 (LINEAR)

A. Milner, Lincoln Laboratory, reports the discovery by LINEAR of a comet with an apparent tail in p.a. 90° (discovery observation below). Following posting on the 'NEO Confirmation Page', other observers have confirmed the object's cometary nature from CCD images, including E. J. Christensen at Catalina (0.68-m Schmidt telescope, Dec. 9.10–9.11 UT; coma diameter $\sim 8''$ with red mag 16.2–16.6 and faint $20''$ tail in p.a. 60°) and M. Tichý, M. Kočer, and J. Tichá at Kleť (1.06-m KLENOT telescope, Dec. 9.70; diffuse with coma diameter $25''$ and a wide tail in p.a. 70°).

2004 UT	α_{2000}	δ_{2000}	Mag.
Dec. 7.07585	$21^h56^m11^s.20$	$-4^\circ32'40''.1$	18.7

The available astrometry, preliminary parabolic orbital elements (T = 2004 Nov. 7.37 TT, q = 0.8103 AU, $\omega = 355^\circ.10$, $\Omega = 0^\circ.18$, $i = 5^\circ.67$, equinox 2000.0), and an ephemeris appear on *MPEC* 2004-X31. It is possible that this comet is of short period.

SUPERNOVA 2004gc IN ARP 327

M. Modjaz, R. Kirshner, and P. Challis, Harvard-Smithsonian Center for Astrophysics; and T. Matheson, National Optical Astrononmy Observatory, report that a spectrogram (range 350–740 nm) of SN 2004gc (cf. *IAUC* 8442), obtained by M. Calkins on Dec. 8.42 UT with the F. L. Whipple Observatory 1.5-m telescope (+ FAST), shows it to be a supernova of type Ia, with a spectral-feature age (Riess *et al.* 1997, *A.J.* **114**, 722) of $\sim$ 3 weeks past maximum brightness. Adopting the NED recession velocity of 9620 km/s for the host galaxy, the supernova expansion velocity, derived from the minimum of Si II (rest 635.5 nm), is $\sim$ 9400 km/s.

V2540 OPHIUCHI

T. Ak, Istanbul University; A. Retter, Pennsylvania State University; and A. Liu, Exmouth, W. Australia, report that unfiltered CCD photometric observations were made of V2540 Oph using a 0.3-m telescope at Exmouth over 26 nights between May 2003 and June 2004. The analysis suggests a periodic signal with an amplitude of $\sim$ 0.02 mag. The ephemeris is $T_{\rm min}$ = HJD 2453151.3098 ($\pm$ 0.0062) + 0.284750 ($\pm$ 0.000008)E. The periodicity very likely represents the binary period.

2004 December 9 *Daniel W. E. Green*