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COMET C/2007 U1 (LINEAR)

An apparently asteroidal object reported by the LINEAR survey (discovery observation tabulated below) that was posted on the Minor Planet Center's 'NEOCP' webpage has been found to show cometary appearance by several CCD observers. G. Sostero, E. Guido, and V. Gonano (Remanzacco, Italy, 0.45-m reflector) write that their co-adding of 73 unfiltered 60-s exposures obtained on Oct. 21.1 UT reveals a tiny coma nearly 18″ in diameter of mag ~ 18.6, elongated toward the northwest. K. Sárneczky and L. L. Kiss report that their co-added 900-s R-band image taken with the 2.3-m reflector at Siding Spring on Oct. 21.8 shows a 6″ coma and 12″-long tail in p.a. 150°. L. Buzzi (Varese, Italy, 0.60-m reflector) notes that his exposures from Oct. 21.1 and 22.1 show that the object appears slightly diffuse with a central condensation and a 10″ round coma, but no tail.

2007 UT	α_{2000}	δ_{2000}	Mag.
Oct. 19.40678	$7^h43^m54^s.42$	$+2°29'27''.5$	19.4

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2007-U53.

$$T = 2008\text{ Aug. } 7.291\text{ TT} \qquad \omega = 1^\circ.431$$
$$\Omega = 50.142 \quad (2000.0)$$
$$q = 3.30999\text{ AU} \qquad i = 157.756$$

V5558 SAGITTARII

R. J. Rudy, D. K. Lynch, R. W. Russell, The Aerospace Corporation; and C. E. Woodward, University of Minnesota, report 0.8- to 5.5-μm spectroscopy of V5558 Sgr on Oct. 10 and 11 UT using the Infrared Telescope Facility (+ SpeX). The bright, narrow-lined, slowly evolving nova V5558 Sgr (cf. *IAUC* 8874) showed a spectrum dominated by low-excitation emission lines. The P-Cyg profiles have disappeared from the hydrogen lines but were present on the He I triplet at 1.0830 μm and the singlet at 2.0581 μm, which were both weak. N I lines were strong, but C I features are weak or absent entirely. Fe II features were strong, and the infrared complexes at 1, 1.6, and 2 μm were present. Line widths (FWHM) were ~ 1600 km/s. The O I lines, which included a large contribution from continuum fluorescence, indicate a reddening of $E(B-V) \sim 0.8$. No dust formation was detected.

2007 October 22 *Daniel W. E. Green*