Circular No. 8696

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SUPERNOVA 2005nc AND GRB 050525A

M. Della Valle, Istituto Nazionale di Astrofisica (INAF), Firenze; D. Malesani, International School for Advanced Studies, Trieste; S. Benetti, INAF, Padova; G. Chincarini, University of Milano-Bicocca; L. Stella, INAF, Roma; and G. Tagliaferri, INAF, Brera, on behalf of a larger collaboration (Della Valle *et al.* 2006, *Ap.J. Let.*, in press), report the discovery of an apparent supernova associated with the γ-ray burst GRB 050525A (Blustin *et al.* 2005, *Ap.J.* **637**, 901). Observations obtained with the Telescopio Nazionale Galileo and with the Very Large Telescope (VLT) at the European Southern Observatory show that the early afterglow light curve is well described by a broken power law with a break 0.3 day after the γ-ray event. At $\sim$ 5 days after the burst, an apparent flattening is observed starting on May 30 (R magnitudes: May 30.28 UT, 23.96 $\pm$ 0.15; June 3.28, 24.03 $\pm$ 0.04; 7.24, 24.09 $\pm$ 0.07; 12.30, 24.01 $\pm$ 0.16), followed by a further dimming (June 30.15, R = 24.59 $\pm$ 0.09; July 6.19, 24.85 $\pm$ 0.08; Sept. 7.12, 25.04 $\pm$ 0.09; Oct. 1.00, > 25.1). A measurement of the position of SN 2005nc from the VLT frames yields $\alpha = 18^{h}32^{m}32^{s}.58$, $\delta = +26^{\circ}20'22''.6$ (equinox 2000.0; uncertainty $0''.25$); Ryckoff *et al.* had given position end figures $32^{s}.6$, $23''.5$ (uncertainty $\sim 1''$; cf. *GCN* 3468) for the afterglow. Inspection of a 2-hr integrated VLT spectrum (range 500–1000 nm, resolution 2 nm), obtained on 2005 June 28 (36 days after the GRB outburst, observer frame) confirms the redshift of the parent galaxy reported by Foley *et al.* (2005, *GCN* 3483) to be $z = 0.606$ and finds similarities with the early stages of the type-Ic broad-lined supernova 1998bw (Patat *et al.* 2001, *Ap.J.* **555**, 900).

COMET P/2006 F1 (KOWALSKI)

This comet (cf. *IAUC* 8690) has been found via additional astrometry, including prediscovery images from Jan. 10, to be of short period; further astrometry and the following orbital elements appear on *MPEC* 2006-F49.

$$
\begin{array}{lll}
T = 2008 \text{ Feb. } 6.3775 \text{ TT} & \omega = 184^{\circ}.7393 & \\
e = 0.122551 & \Omega = 125.0685 & \left.\right\} 2000.0 \\
q = 4.134874 \text{ AU} & i = 21.1773 &
\end{array}
$$

$$a = 4.712383 \text{ AU} \qquad n^{\circ} = 0.0963481 \qquad P = 10.23 \text{ years}$$

2006 March 30 *Daniel W. E. Green*