

Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION

Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.
 IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)
 CBAT@CFA.HARVARD.EDU (science)
 URL <http://cfa-www.harvard.edu/iau/cbat.html> ISSN 0081-0304
 Phone 617-495-7440/7244/7444 (for emergency use only)

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 ~ 5 days after the burst, an apparent flattening is observed starting on May 30 (R magnitudes: May 30.28 UT, 23.96 ± 0.15 ; June 3.28, 24.03 ± 0.04 ; 7.24, 24.09 ± 0.07 ; 12.30, 24.01 ± 0.16), followed by a further dimming (June 30.15, $R = 24.59 \pm 0.09$; July 6.19, 24.85 ± 0.08 ; Sept. 7.12, 25.04 ± 0.09 ; Oct. 1.00, > 25.1). A measurement of the position of SN 2005nc from the VLT frames yields $\alpha = 18^{\text{h}}32^{\text{m}}32^{\text{s}}.58$, $\delta = +26^{\circ}20'22''.6$ (equinox 2000.0; uncertainty $0''.25$); Ryckoff *et al.* had given position end figures $32^{\text{s}}.6$, $23''.5$ (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.

$$\left. \begin{array}{ll} T = 2008 \text{ Feb. } 6.3775 \text{ TT} & \omega = 184.7393 \\ e = 0.122551 & \Omega = 125.0685 \\ q = 4.134874 \text{ AU} & i = 21.1773 \end{array} \right\} 2000.0$$

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