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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)

SUPERNOVAE 2005ds, 2005em, 2005er, 2005es, 2005et, 2005eu

Further to *IAUC* 8608, W. Li reports the LOSS discovery of an apparent supernova on unfiltered KAIT images taken on Oct. 4.37 (at mag 17.9) and 5.36 UT (mag 17.6). SN 2005eu is located at $\alpha = 2^h27^m43^s.26$, $\delta = +28°10'36''.6$ (equinox 2000.0), which is $0''.9$ west and $0''.8$ south of the nucleus of the a small, faint galaxy that is near IC 226. A KAIT image taken on Sept. 15.35 showed nothing at this position (limiting mag $\sim$ 19.5).

N. Morrell, G. Folatelli, and M. M. Phillips, on behalf of the Carnegie Supernova Project, report spectroscopic observations (range 380–920 nm) of SN 2005er (cf. *IAUC* 8608), SN 2005es (cf. *IAUC* 8608), SN 2005et (cf. *IAUC* 8610), and SN 2005em (cf. *IAUC* 8604) obtained on Oct. 5.13, 5.18, 5.27, and 5.35 UT, respectively, with the Las Campanas 2.5-m du Pont telescope (+ WFCCD spectrograph). SN 2005em is probably a type-IIb supernova a few days after maximum light, the spectrogram showing some resemblance to those of SN 1987K. SN 2005er is a peculiar type-Ia supernova, similar to SN 1991bg, probably a few days after maximum light. Strong Ti II absorptions are observed. Assuming the NED recession velocity of 7847 km/s for the host galaxy (from Wegner *et al.* 1999, *MNRAS* **305**, 259), an expansion velocity of 9600 km/s is derived from the absorption minimum of the Si II 635.5-nm doublet. SN 2005es is a young type-II supernova showing a rather featureless, blue continuum in the somewhat-noisy spectrogram. Hα and Hβ are seen with P-Cyg profiles. Assuming the NED recession velocity of 11287 km/s for the host galaxy (from Huchra *et al.* 1999, *Ap.J. Suppl.* **121**, 287), an expansion velocity of 9600 km/s is derived from the absorption minimum of Hβ. SN 2005et is a type-Ia supernova about one week after maximum light. The spectrogram is similar to that of SN 1989B at eight days after maximum; an expansion velocity of 10000 km/s is derived from the minimum of the Si II 635.5-nm line, adopting the NED recession velocity of 10371 km/s for the host galaxy (from Wegner *et al.*, *op.cit.*).

R. J. Foley and A. V. Filippenko, University of California at Berkeley; and T. Matheson, National Optical Astronomy Observatory, report that inspection of CCD spectra (range 470–990 nm), obtained on Oct. 5 UT with the Keck II 10-m telescope (+ DEIMOS), shows that SN 2005er is of type Ia, resembling SN 1991bg (Filippenko *et al.* 1992, *A.J.* **104**, 1543) near maximum brightness. Spectra of SN 2005es show that it is a young type-II supernova. Spectra of SN 2005ds (*IAUC* 8592) confirm that it is of type IIn, as suspected previously (*IAUC* 8594).

2005 October 6 *Daniel W. E. Green*