Circular No. 8465

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)

SUPERNOVAE 2004gw, 2005B, 2005D, 2005E, 2005F, 2005G

Further to *IAUC* 8459, J. Graham and W. Li report the LOSS discovery of three apparent supernovae on unfiltered KAIT images:

SN	2004 UT	α_{2000}	δ_{2000}	Mag.	*Offset*
2005E	Jan. 13.22	$2^h39^m14^s.34$	$+ 1°05'55''.0$	16.8	139″ W, 19″ N
2005F	Jan. 13.42	9 04 53.68	+13 33 56.3	17.7	52″ E, 14″ N
2005G	Jan. 14.60	13 44 32.79	+ 4 46 44.3	16.5	13″.4 W, 12″.0 N

Additional unfiltered CCD magnitudes (KAIT unless noted otherwise): SN 2005E in NGC 1032, 2004 Dec. 19.20, [19.0; 24.23, [18.0; 2005 Jan. 14.10, 16.8 (M. Schwartz, 0.8-m Tenagra II telescope); 14.20, 16.8. SN 2005F in MCG +02-23-27, 2004 Dec. 17.43, [19.5; 2005 Jan. 13.91, 17.8 (O. Trondal, Oslo, Norway, 0.25-m telescope); 14.43, 17.8. SN 2005G in UGC 8690, 2004 June 25.20 UT, [19.0; 2005 Jan. 15.56, 16.5.

R. J. Foley and A. V. Filippenko, University of California, Berkeley, report that inspection of CCD spectra (range 320–920 nm), obtained on Jan. 15 UT with the Keck I 10-m telescope (+ LRIS), reveals that SN 2005E is of type Ib/c, close to (or perhaps a few days before) maximum brightness. The presence of weak He I absorption lines favors the type-Ib classification, although the differences between type-Ib and -Ic supernovae can be difficult to discern at early times. SN 2005F is of type Ia, ~ 2.5 weeks past maximum. Adopting the NED redshift of 8545 km/s, the minimum of the 635.5-nm Si II feature is at a velocity of 10700 km/s. SN 2004gw (*IAUC* 8459) is probably of type Ia, 3–4 weeks past maximum brightness, although it exhibits a number of spectral peculiarities that render the classification uncertain. SN 2005D (*IAUC* 8464) is of type II, roughly a month after the explosion. Hα has a classic P-Cyg profile, and the other Balmer and Fe II lines are strong. Adopting the NED redshift of 8505 km/s, the ejecta velocity measured from the Hα absorption minimum is unusually large, $\sim$ 13000 km/s. Weak He I absorption lines are present, suggesting that the object is specifically of type IIb; indeed, its spectral characteristics are similar to those of the first-reported spectrum of SN 2004ex (*IAUC* 8420), which eventually developed prominent He I lines (*IAUC* 8446), although SN 2005D has stronger He I absorption and a redder continuum, consistent with it being somewhat older than SN 2004ex.

Corrigendum. On *IAUC* 8462, 'Supernova 2005B in UGC 11066', line 9, *for* SN 2005A *read* SN 2005B

2005 January 15 *Daniel W. E. Green*