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 2004gf, 2004gg, 2004gh, 2004gi

Four new apparent supernovae have been reported from unfiltered CCD images, 2004gf by T. Boles (cf. *IAUC* 8437), and the rest by M. Moore, K. Shimasaki, and W. Li (LOSS/KAIT; cf. *IAUC* 8443).

SN	2004 UT	α_{2000}	δ_{2000}	Mag.	*Offset*
2004gf	Nov. 20.872	$21^h57^m52^s.39$	$+42°18'57''.8$	17.2	$26''.3$ W, $35''.6$ N
2004gg	Nov. 16.50	9 46 49.10	+16 02 44.5	18.5	$6''.1$ W, $10''.7$ N
2004gh	Nov. 16.55	10 24 31.55	–23 33 18.2	17.6	$0''.7$ E, $7''.5$ S
2004gi	Nov. 17.55	10 39 23.34	–27 54 40.0	14.9	$21''.4$ W, $4''.8$ N

Additional magnitudes from the respective discoverers: SN 2004gf in UGC 11864, 1989 July 9, [20.0 (blue, Digitized Sky Survey); Sept. 3, [20.5 (red, Digitized Sky Survey); 2004 Oct. 4, [19.5; Nov. 21.871, 17.2. SN 2004gg in UGC 5234, May 2.21, [19.5; Nov. 22.58, 18.7. SN 2004gh in MCG –04-25-6, May 4.20, [19.0; Nov. 22.56, 17.6. SN 2004gi in MCG –05-25-32, May 4.21, [19.5, Nov. 22.58, 15.1. SN 2003W also appeared in UGC 5234, somewhat closer to the galaxy's center.

COMET C/2004 RG_{113} (LINEAR)

M. Bezpalko, Lincoln Laboratory, reports the LINEAR discovery of an apparent comet with a short tail in p.a. $\sim 195°$ on Nov. 20.435 UT. This object was identified by the Minor Planet Center with the apparently asteroidal object 2004 RG_{113} (also found by LINEAR; cf. *MPS* 113143 — Sept. 19 batch), with the discovery observations given below.

2004 UT	α_{2000}	δ_{2000}	Mag.
Sept. 6.39770	$5^h30^m15^s.54$	$+41°08'17''.9$	19.2
Nov. 20.43521	7 32 14.63	+53 40 09.8	18.4

The available observations, the following orbital elements, and an ephemeris appear on *MPEC* 2004-W38.

$$\text{Epoch} = \text{2005 Mar. 11.0 TT}$$

$$\begin{array}{llll} T = \text{2005 Mar. 3.7235 TT} & \omega = 125°.3104 & \\ e = 0.997212 & \Omega = 8.7720 & \left.\right\} 2000.0 \\ q = 1.942281 \text{ AU} & i = 21.6180 & \end{array}$$

2004 November 23 *Daniel W. E. Green*