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)

COMET P/2007 A1 (LOVAS)

Below are orbital elements by B. G. Marsden linking 38 observations of P/1986 W1 = P/2007 A1 (cf. *IAUC* 8791; mean residual 0''.7):

Epoch = 1986 Sept. 7.0 TT

$$\begin{array}{llll} T = 1986\text{ Sept. } 2.2572\text{ TT} & \omega = 71^\circ.4102 & \\ e = 0.592752 & \Omega = 283.7467 & \Big\}2000.0 \\ q = 1.458819\text{ AU} & i = 1.5296 & \end{array}$$

a = 3.582141 AU $\quad n^\circ$ = 0.1453751 $\quad P$ = 6.78 years

Epoch = 2006 Dec. 11.0 TT

$$\begin{array}{llll} T = 2006\text{ Dec. } 12.4538\text{ TT} & \omega = 77^\circ.4035 & \\ e = 0.604101 & \Omega = 278.3039 & \Big\}2000.0 \\ q = 1.395368\text{ AU} & i = 1.5532 & \end{array}$$

a = 3.524554 AU $\quad n^\circ$ = 0.1489525 $\quad P$ = 6.62 years

SUPERNOVAE 2007A, 2007B, 2007C

Three apparent supernovae have been discovered on unfiltered CCD frames: 2007A by T. Puckett and T. Orff (cf. *IAUC* 8781; 0.35-m reflector at Ellijay, GA; source of tabulated data below) and by D. Madison and W. Li (LOSS/KAIT; cf. *IAUC* 8789); and 2007B (0.6-m reflector) and 2007C (0.3-m reflector) by K. Itagaki (via S. Nakano; cf. *IAUC* 8782).

SN	2007 UT	α_{2000}	δ_{2000}	Mag.	*Offset*
2007A	Jan. 2.02	$0^h25^m16^s.66$	$+12^\circ53'12''.5$	16.0	1''.2 W, 10''.1 N
2007B	Jan. 5.38	22 35 31.10	+34 48 06.6	16.7	7'' W, 6'' S
2007C	Jan. 7.86	13 08 49.30	− 6 47 01.0	15.9	9'' E, 22'' S

Additional magnitudes for 2007A in NGC 105: 2005 Dec. 15, [19.1 (Puckett); 2006 Dec. 7.15, [19.5 (KAIT); 20.13, [18.3 (KAIT); 2007 Jan. 3.12, 16.3 (KAIT); 4.14, 16.0 (J. Newton, Portal, AZ, 0.40-m reflector). The LOSS team reports position end figures $16^s.68$, 12''.7 for 2007A. Additional magnitudes for 2007B in NGC 7315: 2006 Dec. 25.41, [19.0; 2007 Jan. 7.395, 16.4. Additional magnitudes for 2007C in NGC 4981: 2006 Dec. 23.87, [18.5 (Itagaki); 2007 Jan. 8.704, 16.0 (K. Kadota, Ageo, Japan, 0.25-cm *f*/5 reflector; position end figures $49^s.32$, 47'00''.3); 8.71, 15.8 (Itagaki). All three objects were found near maximum: 2007A and 2007B being type-Ia supernovae, and 2007C of type Ib (details on *CBETs* 796, 799, and 800).

2007 January 10 *Daniel W. E. Green*