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://www.cfa.harvard.edu/iau/cbat.html` ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

POSSIBLE REDDENED SUPERNOVAE IN NGC 972 AND NGC 5900

C. C. Dudley and J. Fischer, Naval Research Laboratory, report the discovery of two possible high-extinction supernovae in images obtained with the U.S. Naval Observatory 1.55-m telescope (+ 2.1-μm K' filter + ASTROCAM 1024×1024 ALADDIN InSb imager) at Flagstaff (discovery observations tabulated below, with discovery dates and approximate K' magnitudes at time of discovery).

PSN	2007 UT	α_{2000}	δ_{2000}	Mag.	*Offset*
K0210-1	2002 Oct. 16.3	$2^h34^m13^s.34$	$+29^\circ18'36''.2$	14.7	5″ S
K0304-1	2003 Apr. 17.4	15 15 06.97	+42 12 19.3	17.7	20″ E, 17″ S

Additional approximate K' magnitudes for PSN K0210-1 in NGC 972: 2002 July 26.5 UT, [17.5 (3σ); Nov. 26.3 UT, 15.7; 2003 Jan. 13.1, 16.8 (3σ). W. Li, University of California, infers that examination of KAIT images during 2002 Sept. 5–Dec. 3 shows nothing obvious at the position of K0210-1 (though there may have been a very faint optical transient visible during that time located $\sim$ 16″.2 west and 19″.5 north of the nucleus of NGC 972). Additional approximate K' magnitudes for PSN K0304-1 in NGC 5900: 2003 May 17.3, 17.9. Li adds that there is no obvious optical transient at the position of K0304-1 in KAIT images taken between 2003 Mar. 5 and July 5 (limiting mag $\sim$ 21.0).

It is estimated that PSN K0210-1 was first detected no more than 60 days past maximum light and so was never brighter than $K' = 13.4$, assuming an average fading of 0.02 mag/day from Mattila and Meikle (2001, *MNRAS* **342**, 325, Table 5); it is anticipated that K0210-1 experienced $\sim$ 1 mag of extinction in K'. If the limiting mag is 21 near the nucleus in the optical for PSN K0210-1, then these observations suggest $\sim$ 6 mag of visual extinction or greater toward the infrared object. Assuming that both K0210-1 and K0304-1 have the intrinsic colors of A-type stars, a limiting mag of 21 in the optical suggests at least 3 magnitudes of visual extinction for the source in NGC 5900; for a late-time observation, the source could be intrinsically much redder, requiring less or no extinction. Additional optical observations within a few months of the above observations would be useful to help to set limits on the extinction of each object.

COMET C/2006 OF_2 (BROUGHTON)

Visual total-mag estimates by J. J. Gonzalez, Leon, Spain (20-cm reflector): June 28.02 UT, 11.9; Aug. 9.06, 10.8; Sept. 6.98, 9.9; 29.15, 10.0.

2008 October 6 *Daniel W. E. Green*