Circular No. 8505

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)

POSSIBLE NOVA IN SERPENS

Further to *IAUC* 8402 and 8495, G. Pojmanski reports the ASAS discovery of a possible nova located at $\alpha = 17^{\rm h}49^{\rm m}24^{\rm s}$, $\delta = -13^{\circ}00'00''$ (equinox 2000.0); he gives the following V magnitudes for the new object: Mar. 14.389 UT, [14; 18.345, 13.3; 21.374, 11.8; 27.352, 12.7. G. Masi, University of Rome 'Tor Vergata', reports that he and R. Wilcox obtained five unfiltered CCD images of this object remotely on Apr. 4.353 (with the new star at mag 11.5) using the 0.36-m f/7 'SoTIE' telescope at Las Campanas, yielding the following precise position: $\alpha = 17^{\rm h}49^{\rm m}24^{\rm s}.57$, $\delta = -12^{\circ}59'59''.2$. Masi adds that nothing is visible at this location on Digitized Sky Survey images (including a 1982 plate with limiting mag ~ 19.5).

SUPERNOVA 2005bd IN MCG +09-11-2

Further to *IAUC* 8473, T. Boles reports the discovery of an apparent supernova (mag 17.7) on unfiltered CCD images taken on Apr. 3.932 and 4.849 UT. The new object is located at $\alpha = 6^{h}12^{m}03^{s}50$, $\delta = +51^{o}52'03''.3$, which is $\approx 0''.9$ west and 12''.0 north of the center of MCG +09-11-2. Nothing is present at this location on Boles' images from 2004 Nov. 20 and 2005 Jan. 5 (limiting mag 19.5) or on Digitized Sky Survey plates from 1989 (limiting red mag 21.0) and 1992 (limiting blue mag 20.5).

SUPERNOVA 2005bc IN NGC 5698

M. Modjaz, R. Kirshner, and P. Challis, Harvard-Smithsonian Center for Astrophysics, report that a spectrum (range 340–730 nm) of SN 2005bc (cf. *IAUC* 8504), obtained on Apr. 3.33 UT by P. Nutzman with the Mt. Hopkins 1.5-m telescope (+ FAST), shows it to be a type-Ia supernova with a spectral-feature age (cf. Riess *et al.* 1997, *A.J.* **114**, 722) of ~ 3 (\pm 2) days before maximum light. The supernova expansion velocity, derived from the minimum of Si II (rest 635.5 nm) and adopting the NED recession velocity of 3679 km/s for the host galaxy, is ~ 12000 km/s. A higher-S/N spectrogram taken on Apr. 4.33 confirms the classification and exhibits Si II absorption at 580 nm (rest 597.9 nm) that is stronger than usual, relative to the Si II absorbtion at 610 nm (rest 635.5 nm), suggesting that this supernova might be less luminous than a normal type-Ia supernova. Interstellar Na I D absorption at the redshift of the host galaxy with an equivalent width of ~ 0.2 nm is detected, indicating gas along the line-ofsight in the host galaxy and thus suggesting reddening by dust.

2005 April 4

© Copyright 2005 CBAT

Daniel W. E. Green