Circular No. 8946

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)

LUMINOUS TRANSIENT IN NGC 300

L. A. G. Monard, Pretoria, South Africa, reports his discovery of a variable object (mag 14.2) on unfiltered CCD images taken on May 14.14 UT, the object located at $\alpha = 0^{\mathrm{h}}54^{\mathrm{m}}34^{\mathrm{s}}.16$, $\delta = -37^{\circ}38'28''.6$, which is $227''$ west and $153''$ north of the core of the Sculptor-group galaxy NGC 300. Nothing is visible at this position on a red Digitized Sky Survey image (limiting mag about 20.5). Additional approximate magnitudes for the variable from Monard's earlier images: 2007 Dec. 30.8, [18.5; 2008 Feb. 8.75, [18.0; Apr. 17.1, [15.5; 24.16, 16.5; May 15.14, 14.2.

Following posting of this object on the Central Bureau's unconfirmed-objects webpage, H. E. Bond, Space Telescope Science Institute; F. M. Walter, Stony Brook University; and J. Velasquez, Cerro Tololo Interamerican Observatory, report that a spectrum (resolution 1.72 nm), obtained on May 15.4 UT with the SMARTS 1.5-m telescope at Cerro Tololo, shows emission lines of Hα, Hβ, the Ca II triplet at 854.2, 849.8, and 866.2 nm, and — remarkably — strong emission at the forbidden [Ca II] doublet at 729.1 and 732.3 nm. Ca II H and K are seen in absorption. The Balmer lines are only slightly resolved at the velocity resolution (790 km/s) of the spectra. The mean heliocentric radial velocity of the features is $\sim +430$ km/s, probably consistent with membership in NGC 300. At an optical absolute magnitude of -12.5, the object is photometrically and spectroscopically not a classical nova, luminous blue variable, or supernova. The spectrum is fairly similar to that of V838 Mon on 2002 Feb. 13 (Wisniewski *et al.* 2003, *Ap.J.* **588**, 486, Fig. 5) — an object suggested to represent the collision or merger of two stars. Continued spectroscopic and photometric monitoring of this transient in NGC 300 is urged.

COMET C/2008 J1 (BOATTINI)

Improved parabolic orbital elements for this comet (cf. *IAUC* 8940) from *MPEC* 2008-J55:

$$T = 2008\ \text{July}\ 13.387\ \text{TT} \qquad q = 1.72402\ \text{AU} \qquad \left.\begin{array}{l} \omega = 68^{\circ}.253 \\ \Omega = 273.511 \\ i = 61.854 \end{array}\right\} 2000.0$$