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Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION
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SUPERNOVA 2014by IN UGC 9267 = PSN J14274900+1133400

M. Bombardini and M. Villi, Faenza, Italy) report the discovery of an apparent supernova (mag 15.5-16.0) on several unfiltered CCD images (limiting mag 19.0) taken on July 15.86 UT with a 0.35-m reflector (+ SBIG ST9 camera).
The new object is located at R.A. = 14h27m49s, Decl. = +11d33'40" (equinox 2000.0), which is 10"-15" west and 7"-12" north of the center of the galaxy UGC 9267. Nothing is visible at this position on their previous images taken on May 20 or on Palomar Sky Survey red and blue plates (no limiting magnitudes provided). The variable was designated PSN J14274900+1133400 when it was posted at the Central Bureau's TOCP webpage and is here designated SN 2014by based on the spectroscopic confirmation reported below. Additional CCD magnitudes for 2014by: July 16.075, V = 16 (M. Richmond, Rochester Institute of Technology; 30.5-m reflector + SBIG ST-8E camera; offset about 15" west and 6" north); 17.861, 16.1 (E. Conseil, 0.35-m f/11 Slooh Space robotic telescope T2 at Mt. Teide, Canary Islands; approximate R magnitude; image posted at website URL https://www.flickr.com/photos/econseil/14659342556/); 18.480, 16.2 (J. Brimacombe, Cairns, Australia; remotely using a 41-cm RCOS telescope + U9000 camera; position end figures 48s.58, 42".3; image posted at URL https://www.flickr.com/photos/43846774@N02/14699984836/); 19.816, 16.3 (G. Masi, remotely using a 43-cm telescope at Ceccano, Italy; position end figures 48s.57, 42".4; spectroscopy with a 36-cm telescope via nine 300-s images taken using a 100-lines/mm grating with a dispersion of 3.45 nm/pixel show shows Si II absorption around 627 nm, suggesting that this is a type-Ia supernova; assuming a recessional velocity of 7433 km/s for the host galaxy (UGC 9267, via NED), an expansion velocity of 11200 km/s is derived from the minimum of the Si II 635-nm line); 26.866, 16.3 (X. Bros, Catalonia, Spain; 35-cm telescope; position end figures 48s.62, 42".8; image posted at URL http://www.anysllum.com/PSN_UGC9267.jpg).

L. Tomasella, S. Benetti, A. Pastorello, E. Cappellaro, N. Elias-Rosa, P. Ochner, and M. Turatto report that an optical spectrogram (range 340-820 nm; resolution 1.3 nm) of PSN J14274900+1133400 = SN 2014by, obtained on July 16.84 UT with the Asiago 1.82-m Copernico Telescope (+ AFOSC) under the Asiago Transient Classification Program (Tomasella et al. 2014, as posted at website URL http://arxiv.org/abs/1403.7233), shows that this is a normal type-Ia supernova. Assuming a recessional velocity of 7433 km/s for the host galaxy (UGC 9267; de Vaucouleurs et al. 1991, RC3.9, via NED), a good match is found with several type-Ia supernovae a few days before B-band maximum light. An expansion velocity of 11500 km/s is derived from the minimum of the Si II 635.5-nm line. The Asiago classification spectrum is posted at website URL http://sngroup.oapd.inaf.it. Classification was made via GELATO (Harutyunyan et al. 2008, A.Ap. 488, 383).

D. D. Balam, Dominion Astrophysical Observatory, National Research Council of Canada; M. L. Graham, Las Cumbres Observatory Global Telescope, University of California at Santa Barbara; and E. Y. Hsiao, Aarhus University, report that a spectrogram (range 369-700 nm, resolution 0.3 nm) of PSN J14274900+1133400 = SN 2014by, obtained on July 22.24 UT with the 1.82-m Plaskett Telescope of the National Research Council of Canada, shows it to be a type-Ia supernova approximately one week past maximum light. Cross- correlation with a library of supernova spectra using the "Supernova Identification" code (Blondin and Tonry 2007, Ap.J. 666, 1024) indicates that 2014by is most similar to the type-Ia supernova 1995E at seven days post-maximum light. The photospheric velocity estimated from the Si II 635.5-nm feature is about 9850 km/s.

NOTE: These 'Central Bureau Electronic Telegrams' are sometimes
superseded by text appearing later in the printed IAU Circulars.