

Central Bureau for Astronomical Telegrams

INTERNATIONAL ASTRONOMICAL UNION

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NOVA CEPHEI 2014 = TCP J20542386+6017077

Koichi Nishiyama, Kurume, Japan; and Fujio Kabashima, Miyaki, Japan, report the discovery of an apparent nova (mag 11.7) in Cepheus on two 40-s unfiltered CCD frames (limiting magnitude 13.7) taken around Mar. 8.792 UT using a 105-mm f/4 camera lens (+ SBIG STL6303E camera). The variable was confirmed immediately on five 5-s unfiltered CCD frames taken around Mar. 8.7987 UT (limiting magnitude 18.3) using a Meade 200R 0.40-m f/9.8 reflector (+ SBIG STL1001E camera). The new object is located at R.A. = 20h54m23s.86, Decl. = +60d17'07".7 (equinox 2000.0). The variable was designated TCP J20542386+6017077 when it was posted at the Central Bureau's TOCP webpage.

Additional magnitudes for TCP J20542386+6017077, obtained via CCD unless noted otherwise): Mar. 3.8405 UT, [13.9 (Nishiyama and Kabashima); 7.781, 12.9 (Nishiyama and Kabashima; pre-discovery; limiting mag 13.8); 8.922, V = 11.90 +/- 0.01 (Arto Oksanen, Hankasalmi, Finland; 0.40-m reflector + SBIG STL-1001E camera + V filter; position end figures 22s.60, 08".9); 9.161, V = 11.55 +/- 0.02 (Oksanen); 9.199, 11.5 (Patrick Schmeer, Bischmisheim, Germany; visual); 9.244, B = 12.65, V = 11.62, R\_c = 10.76, I\_c = 10.02 (Seiichiro Kiyota, Kamagaya, Japan; remotely using an iTelescope 0.15-m f/7.3 refractor near Nerpio, Spain; position end figures 23s.75, 06".9; UCAC3 reference stars; image posted at URL [http://meineko.sakura.ne.jp/ccd/TCP\\_J20542386+6017077.jpg](http://meineko.sakura.ne.jp/ccd/TCP_J20542386+6017077.jpg)).

U. Munari, INAF Astronomical Observatory of Padova; and A. Milani, P. Valisa, F. Castellani, and R. Belligoli, ANS Collaboration, write that the transient TCP J20542386+6017077 is a classical nova. On Mar. 9.792 UT, they obtained a low-resolution spectrogram (range 395-852 nm, 0.21 nm/pixel) with the Multi Mode Spectrograph attached to the Varese 0.61-m telescope. The spectrum shows a red continuum with superimposed strong emission lines from the Balmer series, O I 777.4- and 844.6-nm, Ca II 849.8-nm, and Fe II multiplets 42, 48, and 49. All emission lines shows strong P-Cyg absorptions that are blue-shifted by 660 km/s for the Balmer lines, 780 km/s for the Fe II lines, and 900 km/s for the O I lines. The emission lines have a width of about 800 km/s. The intensity of the O I 844.6-nm emission line is about twice that of O I 777.4-nm, indicating that fluorescent pumping from hydrogen Lyman-beta is already taking place. On Mar. 10.094 UT, they obtained with an "ANS Collaboration" 0.4-m telescope the following photometric magnitudes, fully reduced for color equations: B = 13.21, V = 11.94, R\_c = 11.04, I\_c = 10.13. The color B-V = +1.27 agrees well with the red slope of the continuum observed in the low-resolution spectrum. Overall, the object appears as a highly reddened "Fe II-type" nova observed close to maximum brightness.

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