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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)
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V1065 CENTAURI = NOVA CENTAURI 2007

W. Liller, Viña del Mar, Chile, reports his discovery of a possible nova (mag ≈ 8.2) located at $\alpha = 11^{\rm h}43^{\rm m}.2$, $\delta = -58^{\rm o}03'$ (equinox 2000.0), appearing on two Technical Pan films taken near Jan. 23.354 UT with an 85-mm-focal-length camera lens and an orange filter. Nothing brighter than magnitude 11.5 was seen at this position on exposures from Jan. 15.36. Nothing is seen at this position on the "Real Sky Digitized Southern Sky Survey", encompassing images made with the 1.2-m Schmidt telescope at Siding Spring (limiting magnitude presumed to be 19 or fainter). B. Heathcote (Australia) reports the following precise position for the new star from CCD images obtained on Jan. 25.708: $\alpha = 11^{\rm h}43^{\rm m}10^{\rm s}.33$, $\delta = -58^{\rm o}04'04''.3$ (equinox 2000.0), with magnitudes $B = 9.08$ and $V = 8.59$. A low-resolution spectrum by Heathcote shows strong Hα emission. P. Schmeer (Germany) reports that this position is very close to a star of red mag 18.4 in the USNO-B1.0 catalogue with position end figures $10^{\rm s}.24$, $04''.5$ and of red mag 17.1 in the Guide-Star Catalogue with position end figures $10^{\rm s}.231$, $03''.85$; the 2MASS catalogue contains an object at position end figures $10^{\rm s}.12$, $04''.1$ (with magnitudes $J = 16.6$, $K = 15.1$). E. O. Waagen, AAVSO, forwards a report from P. Nelson (Australia) that gives the same position as Heathcote (presumably re-measured) from a V-band CCD image obtained on Jan. 25.656 (with the new variable star at $V = 8.5$). Waagen also provides position end figures $10^{\rm s}.34$, $04''.2$ forwarded from C. Stockdale (Victoria, Australia) from an image taken on Jan. 25.611 (the magnitude measured as $V = 8.7$). Visual magnitude esimates: Jan. 25.031, 8.7 (A. Amorim, Florianopolis, Brazil); 25.529, 8.3 (A. Pearce, Nedlands, W. Australia).

F. M. Walter, Department of Physics and Astronomy, Stony Brook University, writes that red and blue spectra, obtained on Jan. 26.3 UT with the SMARTS 1.5-m telescope at Cerro Tololo, shows the new variable to be a classical nova near maximum. The Hα line has an equivalent width of ~ 93.0 nm and a FWHM of 6.0 nm. There is a possible wind absorption feature at -2550 km/s (650.7 nm), and there seems to be P-Cyg structure near the Na D lines. The blue spectrum is highly structured; Hγ and Hδ are in emission with wind absorption at about -2000 km/s, but there is still an optically-thick photosphere.

N. N. Samus, Institute of Astronomy, Russian Academy of Sciences, reports that this nova has been given the designation V1065 Cen.

