

The Probable Cataclysmic Variable NSV 07302: Appeal for Observations

[E. V. Kazarovets](#)^{#1}, [N. N. Samus](#)^{#1,2}

#1. Institute of Astronomy, Russian Academy of Sciences, Moscow, Russia;

#2. Sternberg Astronomical Institute, Lomonosov Moscow State University, Moscow, Russia

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(E-mail for contact: helene@inasan.ru, samus@sai.msu.ru)

Star Name:	NSV 07302,
Coordinates (J2000):	15 54 12.79, −67 05 33.0
Variability type:	NL (UGZ?);
Limits, System:	16.3–18.3(BJ);
Period:	
Epoch:	JD

Remarks:

The variable star HV 8795, now known as NSV 07302, was discovered by Luyten (1933) as varying between photographic magnitudes 16.5 and 18. Like many Luyten's variables published with only rough coordinates and no finding chart, it was effectively lost. The real variable was recovered by us, rather close to Luyten's original position, using publicly available archive photographs. The star is quite white, its 2MASS magnitudes are 15.553(J), 15.282(H), and 15.720(K_s). The US Naval Observatory Image and Catalog Archive provides three wide-band "blue" images (J plates). The first of them (epoch 1976.2368) shows the star at 16.3^m, the second one (1976.2533), at 17.9^m, and the third one (1979.4538), at 18.3^m. Four of the five red plates available show the star faint (17.6–17.8^m), while the fifth one (epoch 1993.5346), at 16.5^m. Our eye estimates on plate archive images use USNO-A2.0 stars for comparison.

The star seems a very probable cataclysmic variable. If it turns out to be a dwarf nova, we would, very tentatively, expect it to be an UGZ variable, judging from continuous variations in blue light and a large percentage of images showing it bright.

We appeal to observers in the southern hemisphere for new observations of this interesting variable in order to reveal its nature with more certainty.

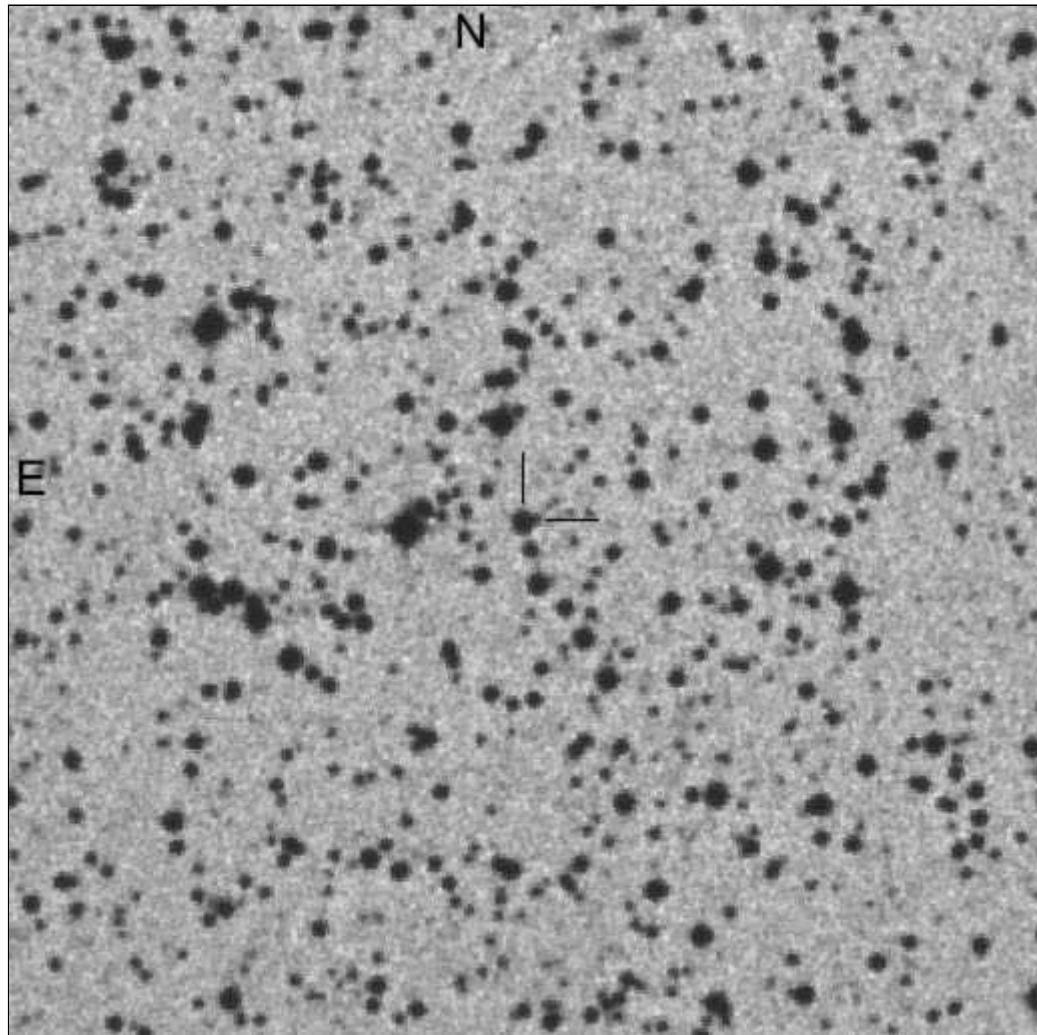
This study made use of images provided by the US Naval Observatory Image and Catalog Archive.

References:

Luyten, W.J., 1933, Astron. Nachr., 250, 259

Light Curve

Finding Chart



The finding chart of NSV 7302 (from the blue plate of the USNO Image and Catalog Archive showing the star bright). The side of the chart is 5 arcminutes.