

COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS

Number 3881

Konkoly Observatory
Budapest
19 May 1993

HU ISSN 0324 - 0676

A NEW SEMIREGULAR VARIABLE STAR IN LYRA

A new variable star ($\alpha = 19^{\text{h}}10^{\text{m}}52^{\text{s}}.2$, $\delta = +30^{\circ}14'30''$, equinox 1950.0, epoch 1973.4) was discovered by one of us (A.P.K.). Figure 1 presents the finding chart. The comparison stars have the following B magnitudes: a - 16.18, b - 16.35, c - 16.69, d - 17.10; these values were found photographically, using the photoelectric and photographic sequences in the globular cluster M 56 (Barbon, 1965). The variable was subsequently studied on 252 plates of Moscow collection, taken at JD 2433034–2448459 with the 40 cm astrograph of the Sternberg Institute Crimean Laboratory; the eye estimates were performed by A. Katsyka.

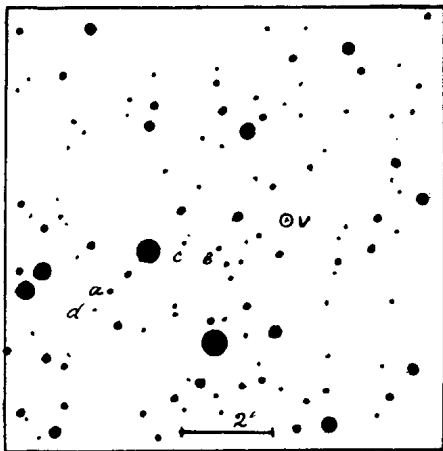


Figure 1. The finding chart for the new variable.

The new variable turns out to be a semiregular star, its cycle length being about 60 to 70 days. The following cycle length values were found for different time intervals: JD 2437118–2439406, ~ 70 days; JD 2440764–2442684, $64^{\text{d}}.1$; JD 2445847–2446732, $74^{\text{d}}.3$. The observations cannot be represented with a single set of linear light elements. The limits of brightness variation are from $16^{\text{m}}.4$ to $17^{\text{m}}.1$ B , the amplitude is about $0^{\text{m}}.7$.

The star does not seem obviously red on Palomar Sky Survey prints, so the variable most probably belongs to the SRD type. Its galactic latitude is $b = +9^{\circ}1$, and the star might be rather far from the galactic plane. The cycle length values given above contain a hint to alternating periods. Taking all this into account, the new variable could be a candidate to the UU Her class of semiregulars (Sasselov *et al.*, 1987).

The new variable deserves more detailed investigation to reveal its properties and improve classification.

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