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 INFORMATION BULLETIN ON VARIABLE STARS

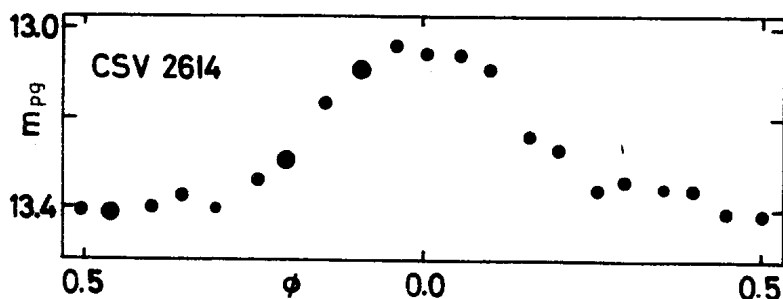
NUMBER 240

Konkoly Observatory
 Budapest
 1967 December 27

A LIKELY RRS VARIABLE IN SCORPIUS

The 13th-magnitude suspected variable CSV 2614 = HV 10535 was estimated on about 200 plates in the Harvard Observatory collection. They were taken mostly between JD 2427900-30133 with the 10-inch Metcalf triplet at Boyden, South Africa. Exposures were 45 minutes, and the plate quality was usually good.

Variability was first noted by Emily Hughes Boyce (HA, 109, 2), who described the star as of W UMa type, but gave no elements. Night runs revealed cycles of about 0.1 day, and the mean light curve (Fig. 1) indicated an RR Lyrae-type star.



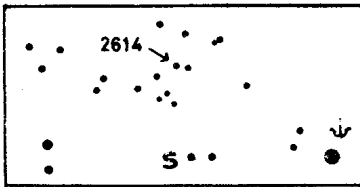
Fifteen normal maxima were obtained by fitting the mean light curve to the individual observations. A weighted least squares solution gave these elements:

$$\text{JD}_{\text{max } \odot} = 2429382.2570 + 0^{\text{d}}10240124\text{E},$$

$\quad \quad \quad \pm 12 \quad \quad \quad \pm 14 \quad \quad \quad (\text{m. e.})$

with an average residual of 0.003 day.

The mean light curve range is $m_{\text{pg}} = 13.05 - 13.41$, and $M - m = 0^{\text{P}}.38$. However, since the exposures spanned about 30 percent of the period, the true amplitude must be considerably larger. Averages of the seven brightest and eight faintest observations gave the range 12.87 - 13.51. At minimum, the standard deviation of one estimate was 0.06 magnitude, but at maximum 0.13; perhaps there is a Blazko effect.



Photoelectric observations are needed to improve these results, and the writer would enjoy receiving such data. A finder chart is given in Fig. 2. The approximate 1950 position of CSV 2614 is $16^{\text{h}} 10^{\text{m}}.2, -9^{\circ} 46'$, about 21' north-east of Psi Scorpii.

It is planned to publish a more complete discussion in Variable Stars.

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