

AN UNUSUAL NEW VARIABLE STAR

by

MARY BREWSTER
 Maria Mitchell Observatory
 Nantucket, Massachusetts

Abstract

The light curve of this newly discovered variable shows both short-term and long-term variations during the interval 1895 to the present.

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A variable star discovered last year by Pamela Owensby at the Maria Mitchell Observatory is puzzling. I have studied this star ($18^{\text{h}} 18^{\text{m}} 49^{\text{s}} -25^{\circ} 37'$ [1900]) using approximately 500 plates from the Nantucket series and approximately 600 Harvard plates of the A, B, MC, MF, and RB series, and three early observations from the Lick Atlas, Wolf-Palisa chart, and the Barnard Atlas. The resulting light curve shows the entirety of the observations from 1895 to the present (Figure 1). The large scatter throughout the light curve is attributed to short period fluctuations. However, no regularity has been found in these variations.

Except for its vastly longer time scale, the light curve of this variable is reminiscent of CI Cygni, a symbiotic star whose "period" is only 2.3 years and which shows occasional nova-like outbursts.

It will be interesting to see how this new variable star behaves in the next twenty years or so. With only fragments of an apparent long-period cycle available at present, it is impossible to predict what will happen.

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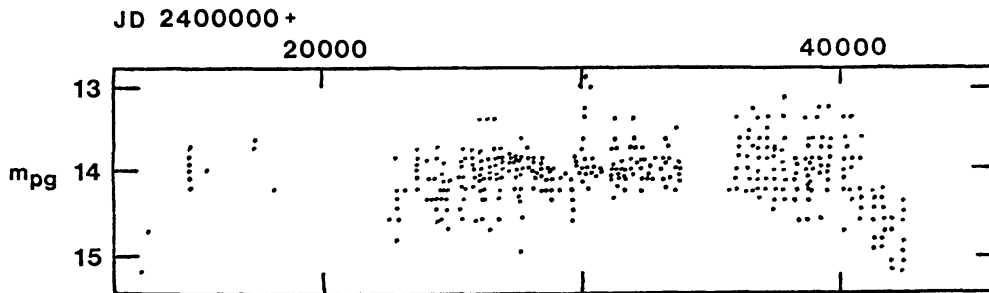


Figure 1. The observations from 1895 through 1975.

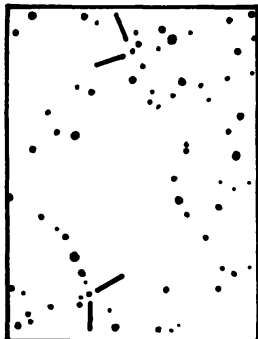


Figure 2. Finding chart for the new variable (upper). Lower star is V515 Sgr. Diagram is approximately $15' \times 20'$. South is up.