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LIGHT CURVE OF V482 CYGNI, AN R CrB STAR

There are some 700 plates at the Maria Mitchell Observatory with useful images of V482 Cyg. This R Coronae Borealis variable has recently been studied in the infrared by Gaustad et al. (1988), who discuss its association with three close companions and determine its absolute magnitude on the reasonable assumption that the association is a physical one. The Maria Mitchell data through 1970 had been reported by Esther Hu (1971). At the suggestion of John Gaustad, we have extended her work.

Figure 1 is the photographic light curve through January 1988. The magnitudes are estimates relative to B. S. Whitney's (1949) photographic sequence augmented by a star of magnitude 15.4 pg, from Wachmann (1966). We made one other change in Whitney's sequence. On our plates the star marked b on his chart looks about 0.6 mag too faint, relative to its neighbors, for its published magnitude, 12.05 pg. A reasonable although not a unique explanation for the discrepancy is that the wrong star is marked on Whitney's chart. There is a somewhat brighter star 11 arcmin north preceding and we have calibrated our magnitude estimates on the assumption that Whitney's magnitude 12.05 refers to this star. A curve through his photographic mean points is superimposed on the Maria Mitchell data in Fig. 1. The agreement is entirely satisfactory.

V482 Cyg is typically 12.2 in maximum and can drop below 15.4. The start of the current minimum was suspected by JD 2447030 (August 1987). The magnitude reached 13.0 by 2447115 (November), and thereafter the drop has been rapid, as reported in IAU Circulars 4511 and 4515. The current faintness of the variable provides a good opportunity for observers with

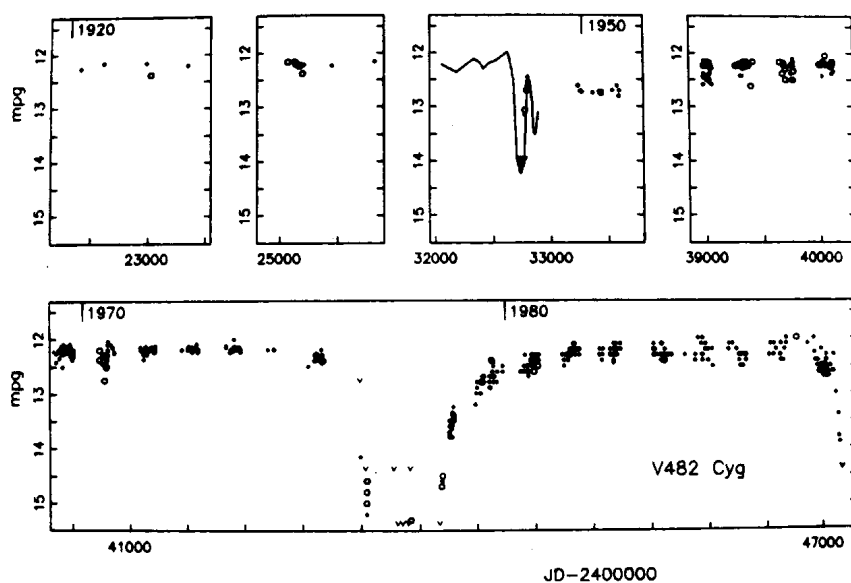


Figure 1. Photographic light curve of V482 Cygni. The circles indicate low weight. The symbol V means that the variable was fainter than the indicated magnitude.

appropriate equipment not only to study conditions in minimum but also to get data about the fainter companions. Gaustad et al. estimate that their V magnitudes are in the range 13.6-16.8. They are all within 7 arcsec of the variable.

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EMILIA P. BELSERENE, DAVID L. SUMMERS, ELLEN A. SCHEER

Maria Mitchell Observatory
Nantucket MA 02554 USA

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