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**Be VARIABLE 59 Cyg**  
**RAPID LIGHT VARIATIONS DETECTED**

V832 Cyg (59 Cyg, HR 8047, HD 200120), a B1Ve star, is a member of the Cyg OB7 association and is the brightest component of a multiple system of stars ADS 14526. It forms a common-motion pair with component *B* (4.4<sup>m</sup> fainter) at 20.1". Component *C* at 26" is optical, and there is also component *D* at 38". McAlister et al.(1984) discovered a speckle-interferometric component *a* at 0.21" and Tarasov and Tuominen (1987) suggested that V832 Cyg may be a spectroscopic binary with an orbital period of 29.14 days. V832 Cyg is also a famous spectral variable, for which correlated optical and UV long-term spectroscopic changes were documented (see Doazan et al. 1989 and references therein).

For a long time, V832 Cyg has been known as a long-term light variable. GCVS quotes a range from 4.5 to 4.9<sup>m</sup>. Lynds (1959) observed a steady decline of brightness from 4.66<sup>m</sup> to 4.76<sup>m</sup> between June and October 1958 and there are some other photometric observations scattered in the astronomical literature.

We observed the star as one of the targets of the long-term observing campaign on bright Be stars initiated and organized by Harmanec, Horn and Koubský (1981). UB<sub>V</sub> observations were secured at Hvar in 1985 and 1988 and BV observations were obtained in Toronto in 1986, 1987, and 1988. The 1986 Toronto observations were already published by Percy et al. (1988).

In all cases,

HD 199311  $V = 6.689^m$ ,  $B-V = +0.086^m$ ,  $U-B = +0.086^m$

and

HD 199479  $V = 6.846^m$ ,  $B-V = -0.033^m$ ,  $U-B = -0.220^m$

served as the comparison and check (their UB<sub>V</sub> values quoted originating from the homogenized Hvar all-sky photometry). The check star was observed *as frequently as* the variable.

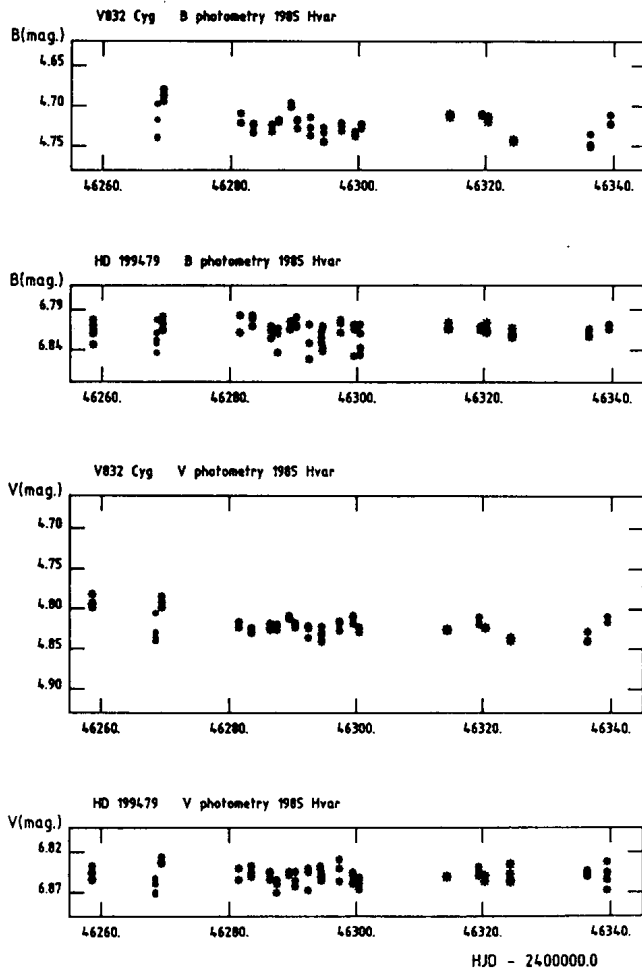


Figure 1

Figure 1 is the plot of the individual V and B observations of V832 Cyg and the check, HD 199479, versus time for the 1985 observing season. Figure 2 is the same diagram for the 1988 data (symbols \* and  $\square$  are used to distinguish Hvar and Toronto data, respectively).

Although some of the data are somewhat noisier than usual, it is clearly seen that while the variable was relatively quiet on a time scale of days and shorter in 1985, rapid variations up to  $0.1^m$  were detected in 1988. The 1986 and 1987 Toronto data show no significant variations *within* the seasons (i.e.  $\sigma(\text{variable}) = \sigma(\text{check})$ ), but the variable was

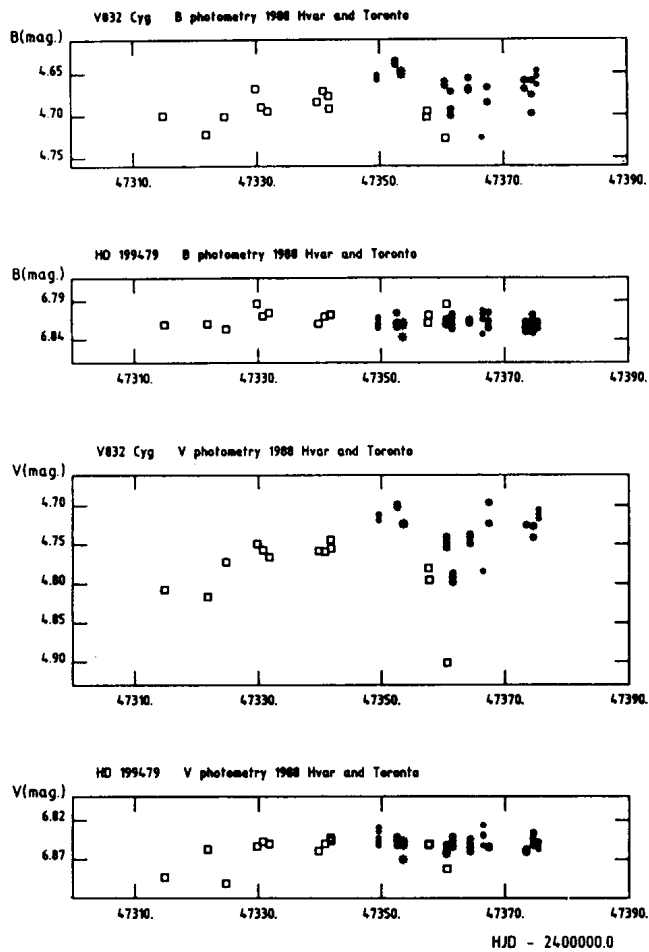


Figure 2

about  $0.02^m$  brighter in V and B in 1987 relative to 1986. The corresponding mean values are

1986 V =  $4.780^m$ , B =  $4.664^m$ ; 42 observations, and

1987 V =  $4.759^m$ , B =  $4.645^m$ ; 7 observations;

typical r.m.s. error of the means being  $0.0075^m$ . Our data thus clearly indicate a gradual secular brightening of the star from 1985 to 1988. They are not numerous enough and well distributed in time, however, to warrant a meaningful period analysis. We only want

to alert the Be star observers that further monitoring of this intriguing object would be very desirable. We plan a detailed study of the photometric behaviour of V832 Cyg in the future.

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P. HADRAVA, P. HARMANEC

J. HORN, P. KOUBSKÝ, S. KŘÍŽ

Astronomical Institute, ČSAV

251 65 Ondřejov

Czechoslovakia

J.R. PERCY

Department of Astronomy

University of Toronto

Toronto, Ontario

M5S 1A1 Canada

H. BOŽIĆ

Hvar Observatory

Faculty of Geodesy

University of Zagreb

41000 Zagreb, Jugoslavia

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