

ROYAL ASTRONOMICAL SOCIETY OF NEW ZEALAND.

VARIABLE STAR SECTION.

CIRCULAR No. 142.

66 OPHIUCHI (BD +4° 3570).

SUMMARY:

The purpose of this note is to draw the attention of observers to 66 Ophiuchi which, on the basis of observations by A.A. and B. Page in 1969 August, is probably an early type flare star.

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GENERAL:

66 Ophiuchi is BD +4° 3570 = HD 164284 = HR 6712 = GC 24500. Its 1950 position is:-

17h 57m 47.10s N. 4° 22' 11.61"

It is also listed as CSV 7741 (1) with a range 4.68 to 4.85v. Light variation was discovered by Cousins (2;3) and confirmed by Eggen (4). It was also observed by Woods (5) and Mendoza (6). It is a Be star with variable shell (7). The spectral class varies in the range B2 - B6Ve (8).

This star appears on the charts issued for Barnard's Star (9).

OBSERVATIONS:

A.A. & B. Page observed Barnard's Star photographically in 1969 August and obtained images of 66 Ophiuchi on the same exposures. Between 1969 August 3 and 9 they obtained 203 exposures each of 60 seconds duration on 41 Ilford HPS plates used with a Wratten 12 filter. The instrument was the Page 30cm Schmidt (effective wave length 5800Å, plate scale 9.9mm to one degree). The plates were examined by them under a blink microscope and initial magnitude evaluations derived from measurement and step analysis. Two flares were detected on August 5 and 9, 1969, the magnitudes (ptg) of which were 0.7 and 1.8 respectively.

These and subsequent observations, including an unconfirmed visual flare by Menzies, are the subject of a paper by A.A. and B. Page. I am indebted to them for an advance copy of their MSS (10).

APPEAL:

The purpose of this note is to draw the attention of observers to this star with the request that they monitor it when possible. It is hoped that a co-operative programme will be arranged for this coming (southern) winter. This will be announced later. Photoelectric monitoring, for several consecutive hours, ~~are~~ specially requested.

V.S.S. CIRCULAR No. 142 (cont).

REFERENCES:

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- (4) Eggen O.J. AJ 60, 65, 1955
- (5) Woods, M.L. Commonwealth Mem No. 12, 1955.
- (6) Mendoza, E.E. ApJ 128, 207, 1958
- (7) Slettebak, A. ApJ 119, 460, 1954.
- (8) Herman, R; Barin, Th. & Pendzel M. AAp.22, 540, 1959.
- (9) Bateson, F.M., Jones, A.F. & Stranson, I. Charts for Southern Variables, Series 5. 1968. Published by F.M. Bateson, N.Z.
- (10) Page, A.A. & B. 66 Oph (BD +4°3570-A Probable Early Type Flare Star. MSS in advance of paper to be read at AGM, ASA 1969 December.

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