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ON THE GENUINE V2045 OPHIUCHI

A star at the 1950 position of  $16^{\text{h}}48^{\text{m}}37^{\text{s}}.0 - 6^{\circ}9'39''$  was announced by Nassau et al. (1964) as a new Mira-type variable, on account of its objective-prism spectrum which indicated an M-type giant showing  $H\delta$  in emission stronger than  $H\gamma$ . The only brightness value known up to now has been Nassau's  $\text{mpg}=12^{\text{m}}.1$  from a Cleveland plate, and despite of this meagre data the object gained entry to the GCVS as V2045 Oph.

Because of our very fragmentary knowledge of the star we tried to investigate it on photovisual plates of the Sonneberg Sky Patrol (taken between 1963 and 1991 mainly by H. Huth and B. Fuhrmann), since it must be avoided that Nassau's observation one day will be taken for a single burst of some strange eruptive object. This danger proved to be even larger than we originally thought because the object indicated on the chart of Nassau et al. (l. c.) is neither red nor conspicuously variable on our plates.

However, it turned out that approximately  $3'.7$  to the south of indicated star a typical Mira star exists. It is depicted just inside of Nassau's chart (22 mm apart from the eastern and 2 mm from the southern margin) and can also easily be identified by its red colour on the POSS O and E sheets, where it is obviously near minimum phase. We have hints for 7 maxima on our plates. Their dates yield a period of roughly  $304^{\text{d}}$  and a maximum brightness of  $12^{\text{m}}.0$  pv (roughly equal to the brightness of star A of our chart), the minimum being below the threshold fainter than about  $13^{\text{m}}.5$  pv. On our blue sensitive plates taken simultaneously with the photovisual ones the star appears in maximum slightly brighter than  $14^{\text{m}}.0$ .

Doubtless we have observed the genuine M5e Mira-type star, and the chart of Nassau et al. (l. c.) is wrong. Also the position given by these authors fits our object. It is very probable, therefore, that at JD 243 7111 they met the star during an extraordinarily bright maximum. On our chart the variable is indicated by its designation and the wrong star by two strokes.

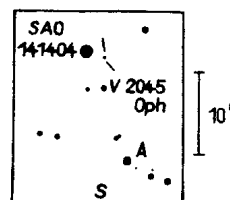


Figure 1

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Reference :

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