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CV IN CORVUS: NO OUTBURSTS ON BAMBERG PLATES

The discovery by C.W. Tombaugh of a cataclysmic variable in Corvus at $\alpha = 12^{\text{h}}17^{\text{m}}49^{\text{s}}$ and $\delta = -18^{\circ}10'27''$ (1950.0) was communicated by Levy (1990). The search by Levy through 260 Harvard College Observatory plates revealed 9 other maxima between 1932 and 1988. Another outburst was reported in 1990 (Levy, 1990) increasing the number of known outbursts to 11. The magnitudes of these outbursts were estimated to reach up to 12^{m} .

The position of the object was investigated on 107 plates taken with 7-25 cm aperture cameras at the Southern Stations of the Bamberg Observatory during years 1964-1967 and 1971-1974. The limiting magnitudes of these plates (13-15 mag.) are too low to enable the studies of the object in quiescence (~ 17-18 mag.) but is enough to record the outbursts of the object as described by Levy (1990).

The investigated Bamberg plates represent nearly 100 h of monitoring time. Assuming the typical dwarf nova behaviour, i.e. the duration of the outbursts > 1 day, one would expect to detect ~ 4 brightenings (taken the 9 outbursts detected on 260 HCO plates into account). Since none was found, we conclude that there probably exists active and inactive long-term periods in which the outbursts occur and/or not occur. Similar behaviour was already observed e.g. in GK Per (Hudec, 1981). With the exception of the 1971 Apr 20 outburst, all other brightenings revealed by Levy (1990) appeared in the time periods 1932-1952 and 1983-1990, while the majority of our data corresponds to time period 1964-1967 with only sparse data for 1971-1974. Thus I conclude that the outbursts were less frequent or even absent in the time period 1964-1967. Another explanation is however also possible, namely that the outbursts are, in fact, fainter than ~ 14^{m} , i.e. fainter than reported by Levy (1990).

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References:

- Hudec, R.: 1981, Bull. Astr. Inst. Czechosl. 32, 93.
Levy, D.H.: 1990, I.A.U. Circ. No.4983.