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OBSERVATIONS OF ERUPTIONS OF THE TRUE
AK CANCRI

Since its discovery by Morgenroth (1933) on Sonneberg plates AK Cnc = 77.1933 has remained a rather mysterious object. In the course of time the following, partly contradictory, observational results have been reported:

- Short period pulsational variability probable (Morgenroth, 1933),
- U Geminorum type classification without particulars (Tsesevich, 1967),
- visually never seen, fainter than $\approx 13^m6$ (AFOEV, 1987, ff),
- always visible near 13^m6 (AAVSO, 1988, ff),
- „blue star“ on POSS (Vogt and Bateson, 1981; 1982),
- „no certain emissions“ and no late-type bands showing (Williams, 1983),
- „spectral features and/or red continuum indicative of a late-type secondary evident“ (Szkody and Howell, 1991),
- finding charts of Khruzina and Shugarov (1991) and Vogt and Bateson (1981; 1982) (see also Bateson and Morel, 1983) denote different objects.

I investigated the location of the star on 95 exposures of the Sonneberg 140/700 mm Triplet astrograph mainly taken in the years 1928 to 1934 and sporadically in the fifties and sixties – the discovery plates among them – and came to the following conclusions:

- The finding charts of Bateson and collaborators mark the correct star,
- the variable is indeed a cataclysmic dwarf nova,
- the range of variability in the blue range is 12^m8 to $\approx 19^m0$ (POSS).

5 eruptions are visible on our plates:

1930 Dec.	23	13^m6	pg
1931 March	8	12.8	
	13	13.5	
	15	13.5:	
1931 Dec.	10	13.4	
1932 Dec.	4	12.8	
1967 Feb.	14	13.4	

According to the statistical considerations of Wenzel and Richter (1986) the mean cycle length should be about 100 days. My brightness scale has been linked to the photometric sequence of the nearby M67 (Racine, 1971). Considering their scanty nature, the observations of the AFOEV are in agreement with ours.

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