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A NEW CATAclySMIC VARIABLE S 10930 IN LYRA

When blinking a pair of Sonneberg 400/1600 mm astrograph plates in the course of the search for an optical counterpart of the BATSE gamma-ray burst source 920804 (19<sup>h</sup>53<sup>m</sup>UT) (Greiner, 1993) I detected a new U Geminorum type variable at the following position (1950.0):

$$\alpha = 18^{\text{h}}59^{\text{m}}58^{\text{s}}, \quad \delta = +42^{\circ}50'4''.$$

On 597 exposures taken with the astrographs 40/1600 mm, 400/1900 mm, and 170/1200 mm in the years 1963 to 1992 mainly by R. Brandt, L. Meinunger and G. A. Richter, I found 10 eruptions. The star was brighter than 15<sup>m</sup>3<sup>pg</sup> on altogether 26 plates and in most cases invisible, much fainter than the quoted value, on the remainder.

Observed maximum brightness: 13<sup>m</sup>2<sup>pg</sup>, brightness estimated on the POSS I prints: 18<sup>m</sup>0 (not conspicuously coloured). List of observed eruptions:

Date of highest brightness UT	Observed maximum pg	Lower limit of duration	Number of eruption plates
1970 June 2	15 <sup>m</sup> 4		2
1973 Sep. 1	13.3		1
1983 June 10	14.7	5 <sup>d</sup>	6
1985 July 4	13.2	13	7
1986 Sep. 11	13.9		1
1987 Oct. 1	13.5		1
1988 Apr. 19 <sup>(1)</sup>	15.2		1
1988 July 10 <sup>(1)</sup>	14.7	12	1 <sup>(2)</sup>
1989 Oct. 4	13.4		2
1992 Sep. 17	14.0	5	4

Remarks: <sup>(1)</sup> fainter than 17<sup>m</sup>2 between the two 1988 dates

<sup>(2)</sup> one additional plate yields 15<sup>m</sup>5 at July 22

The pg magnitude system (see Figure 1) has been linked to the Mt. Wilson Selected Area 38.

The methods described by Wenzel and Richter (1986) or Richter (1986) for statistically evaluating the mean cycle length concurrently yield 300±50 days. This value does not severely disagree with modern Kukarkin-Paregano relationships, although it must be borne in mind that these statistical considerations do not include possibly existing undetected short eruptions of lower maximum brightness.

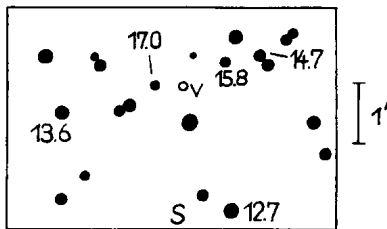


Figure 1

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