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PHOTOELECTRIC OBSERVATION OF THE FLARE
STAR UV Cet IN DECEMBER 1985

The flare star UV Cet was monitored in cooperation with EXOSAT program on December 22, 1985 from 16^h19^m to 18^h49^m UT and on December 23 from 16^h46^m to 20^h01^m UT using the 1.25 m Cassegrain telescope with a five-channel photon-counting UBVR-I-photometer. The UBVR-I bands are close to the Johnson standard system, 2 sec integration time and 20" diaphragm were used.

During the first night no flare activity was observed, see Fig. 1 where records of star+background and background only are shown.

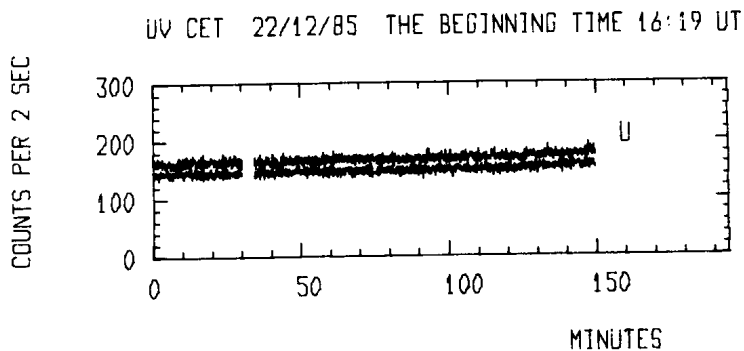


Figure 1

Note that a flare limit detection in a single integration is 0.3 mag at the 1 σ level. During the second night rather high flare activity was observed: five flares are recorded and they are shown in Fig. 2.

UV CET 23/12/85 THE BEGINNING TIME 16:46 UT

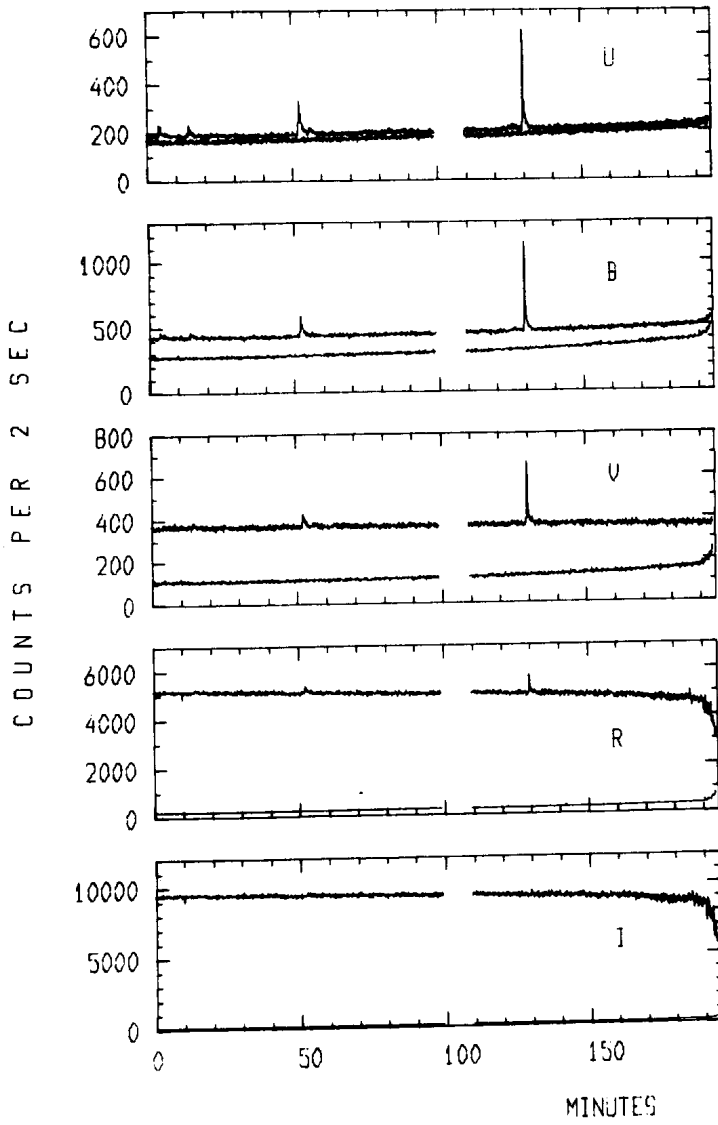


Figure 2

A clear preflare is observed before the last, the most powerful flare.
 Few characteristics of the recorded flares are given in Table I :

Table I

N	UT_{\max}	t_a	t_b	P	Δm_u
	23/12/85				
1	16 ^h 50 ^m .5	0.5	4.2	6.2	1.2
2	17 ^h 00 ^m .9	1.5	2.5	4.5	1.3
3	17 ^h 38 ^m .7	0.3	3.2	9.4	2.1
4	17 ^h 42 ^m .3	0.5	3.8	6.1	0.9
5	18 ^h 56 ^m .1	0.2	2.5	7.8	3.2

- The universal time of the flare maximum, UT_{\max} .
- The flare duration before and after its maximum, t_a and t_b (min).
- The equivalent duration of the flare, P (min).
- The amplitude of the flare in U-band, Δm_u .

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