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FLARES OF YZ CMi

The star YZ CMi (dM4.5e) was observed photoelectrically on a total of eight nights in the period Oct.-Dec.1972 and the record of the effective coverage appears in Table I, during which three flares were detected.

The details of the characteristics of the flares and the disc areas involved in the flare events are given in Table II. The techniques and the procedures adopted are the same as employed earlier by us (Kapoor and Sinvhall, 1973).

The flares have light curves (Figs.1-3) more or less analogous to the Type II flares of Oskanyan (1969).

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References:

- Kapoor, R.C. and Sinvhall, S.D.: 1973, I.B.V.S.(submitted).  
Oskanyan, V.S.: 1969, Non-periodic Phenomena in Variable Stars  
(Ed.L.Detre, Academic Press, Budapest), 131.

TABLE I

EFFECTIVE COVERAGE OF YZ CMi

(Times are rounded to the nearest minute of U.T.)

Date 1972	19 <sup>h</sup> 11 <sup>m</sup> -34 <sup>m</sup> ,	19 <sup>h</sup> 35 <sup>m</sup> -58 <sup>m</sup> ,	20 <sup>h</sup> 00 <sup>m</sup> -28 <sup>m</sup> ;
30 Oct.	20 30 -32 ,	20 34 -43 ,	20 44 -21 11;
	21 12 -14 ,	21 16 -44 ,	21 15 -22 17;
	22 20 -46 ,	22 47 -23 09,	23 10 -47.
2 Nov.	19 53 -20 09,	20 17 -27 ,	20 32 -21 00;
	21 02 -59 ,	22 00 -47 ,	22 50 -23 38.
6 Nov.	19 38 -20 00,	20 05 -17 ,	20 25 -41 ;
	20 52 -21 14,	21 34 -46 ,	21 48 -22 04;
	22 06 -13 ,	23 25 -44 .	
8 Nov.	19 00 -22 ,	19 28 -40 ,	20 01 -06;
	20 07 -13 ,	20 24 -43 ,	22 08 -26.
13 Nov.	19 07 -17 ,	20 07 -16 ,	21 50 -22 43;
	22 46 -23 50.		
4 Dec.	17 55 -58 ,	18 01 -24 ,	18 37 -44;
	18 46 -50 ,	18 53 -19 06,	19 07 -14;
	19 22 -49 ,	19 58 -20 20,	20 22 -50;
	20 52 -21 01,	21 25 -37 ,	21 46 -51;
	21 52 -57 ,	22 40 -46 ,	23 01 -16;
	23 22 -41.		
6 Dec.	17 14 -47 ,	17 49 -18 04,	18 06 -13;
	18 15 -19 ,	18 20 -26 ,	18 42 -19 25.
11 Dec.	16 08 -09 ,	16 11 -22 ,	16 24 -17 45;
	17 57 -19 31,	19 37 -20 53,	20 55 -23 48.

(Total Coverage: 26<sup>h</sup>26<sup>m</sup> spread over 8 nights)

TABLE II

CHARACTERISTICS OF THE FLARES ON YZ CMi

(dm4.5e; V=+11.20; B-V=+1.61)

Date 1972	UT <sub>max</sub>	Flare Duration before max. t <sub>b</sub>	after max. t <sub>a</sub>	X <sub>fm+s</sub> X <sub>s</sub>	Δm <sub>B</sub>	σ X <sub>S</sub>	P <sub>min</sub>	F <sub>Z</sub>	Energy relea- sed at flare max 10 <sup>29</sup> erg/sec	Excess emission during the event max 10 <sup>30</sup> ergs
6 Nov.	20 <sup>h</sup> 33 <sup>m</sup> 48 <sup>s</sup>	2.30 <sup>m</sup>	3.80 <sup>m</sup>	1.98	0.74	0.027	1.41	1.47	2.15	9.20
4 Dec.	18 14 32	0.55	3.75	1.75	0.61	0.060	0.66	1.66	1.91	4.30
11 Dec.	23 30 53	0.70	12.90	1.90	0.70	0.017	2.49	1.37	2.07	16.24



