

COMMISSION 27 OF THE I. A. U.  
 INFORMATION BULLETIN ON VARIABLE STARS  
 NUMBER 352

Konkoly Observatory  
 Budapest  
 1969 June 2

THE FLARE STAR YZ CMi

Members of the Variable Star Section, Royal Astronomical Society of New Zealand, monitored YZ CMi during the periods 1969 Jan.11-25; Feb.10-24 for a total of 65 hours. The first period was for the international observing session; the second was chosen as the star selected by the I.A.U. Working Group for that period - AD Leo - is not well placed for N.Z. observers. All observations were visual except Feb.19 1230-1337 and Feb.22 1137-1302 (U.T.), when Andrews and Rowe monitored YZ CMi with photoelectric photometer at the West Melton Observatory (Christchurch). A summary of the hours of coverage and times of 31 suspected flares are given below.

<u>1969</u>	<u>U.T.</u>	<u>OBSERVERS</u>
Jan.10	1037-1121	Bt
11	1105-1206	Jn
12	1006-1101; 1119-1202; 1235-1315	Bt
13	1135-1244	Jn
16	1001-1124	Bt
17	1345-1600	Jn
18	0945-1200; 1230-1340; 1424-1615	Bt; Hv; Mt.
19	0912-1345	Jn; MA; Wk.
20	0854-0910; 0931-1031; 1050-1317	Ce; Fe; Hv; Mt.
22	0852-0934; 1345-1615	MA; Jn.
24	0848-0936; 0950-1505	MA; Wk.
Feb.12	0912-1400	Bt; En.
13	0952-1200; 1242-1424	Bt
18	0815-1202; 1204-1300	Bt; MA; MJ; Wk.
19	0808-1337	Bt; Ce; En; MA; Wk; and p.e.
20	0922-0927; 1025-1130; 1141-1300	Bt; Ce
21	0819-1200; 1214-1245	Ce; Cl; Fe; Hv; MJ.
22	0900-1357; 1401-1430	Ce; Cs; En; Fe; MA and p.e.
23	0826-1012; 1018-1102	MA; Wk.

Total Coverage: - 65 hrs 4 mins. (Visual observers: - F.M. Bateson (Bt); G.W.Christie (Cl); S.Clements (Ce); R.W.Cross (Cs); R.W.Evans (En); D.C.Fisher (Fe); S.R.Hovell (Hv); M.V.Jones (Jn); B.F. Marino (MA); G.McCallum (MJ); V.L. Matchett (Mt); W.S.G.Walker (Wk). Photo-electric observers (p.e) F.Andrews and C.Rowe.

SUSPECTED FLARES

1969	U.T.	Am Vis.	DURATION (mins).	OB- SERVER	REMARKS	
Jan. 16	10 <sup>h</sup> 04.5 <sup>m</sup>	0.3	1.5	Bt		
	10 11.5	0.4	) 12.5	Bt		
	10 13.0	0.4				
	18	10 23.5	0.3	2.5	Bt	
		13 30.25	0.3	3.5	Bt	
		14 37	0.3	4	Mt	
	20	15 02	0.3	2	Mt	
		10 28.25	0.3	1	Fe	
		13 24.3	0.3	~ 4	Mt	) Suspect a period of prolonged activity.
		13 29.6	0.3	~ 1½	Mt	
13 37.4		0.3	~ 1	Mt		
13 38.6		0.3	~ 1	Mt		
Feb. 12	13 11.0	0.4	) 13.5	Bt		
	13 18.5	0.3			Bt	
	13 51.8	0.3	1	Bt		
	13	10 27.0	0.6	3	Bt	
		10 35.0	0.3	3	Bt	
		10 49.0	0.3	15.5	Bt	
		11 26.5	0.3	1	Bt	
		11 30.0	0.6	6	Bt	
		12 56.0	0.3	3	Bt	
		13 17.5	0.3	2	Bt	
		13 22.5	0.3	1.5	Bt	
		13 40.0	0.3	) 4	Bt	
		13 42.2	0.3			Bt
19	13 52.5	0.4	5	Bt		
	09 57.0	0.3	4	En and MA.	Independently observed at same time from separate sites.	
20	12 24.5	0.3	1.5	Bt		
	12 40.5	0.3	1	Bt		
21	10 44.6	0.3	2	Fe		
22	09 55.5	0.2	2.5	Ce	) Same flare? Observed from separate sites.	
	09 56.3	0.3	0.3	Fe		

Chart 151 (1) was used by all observers with magnitude sequence from Circular 135 (2). A full discussion of these results appears in Circular 136 (3).

Mt. John Observatory  
1969 May 16

F.M. BATESON

REFERENCE

- (1) Bateson, F.M., Jones, A.F., and Stranson, I. 1968. Charts for Southern Variables, Series 1. Published by F.M. Bateson, Lake Tekapo, N.Z.
- (2) Circular 135, V.S.S., RASNZ. 1968
- (3) Circular 136, V.S.S., RASNZ. 1969