

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

NUMBER 601

Konkoly Observatory
Budapest
1971 December 21

PHOTOELECTRIC OBSERVATIONS OF THE FLARE STAR UV CET
DURING THE 1971 OCTOBER 11-27 INTERNATIONAL PATROL

The preliminary results of UV Cet photoelectric observations carried out at the Catania Astrophysical Observatory during the observing period proposed by the IAU Working Group on Flare Stars (Andrews et al. 1971, IBVS 516) are given.

The observations were made in b light with a 91 cm cassegrain type reflector feeding a classical one-channel photoelectric photometer.

The patrol intervals in U.T. are given in Table 1. During the 1511 hours of patrol time 9 flares were observed, the characteristics of which are given in Table 2. The light curves of the observed flares in the b color of our natural system are shown in Figures 1-3.

The explanation of symbols and details of the observing equipment can be found in a preceding number of this Bulletin (Cristaldi and Rodonò 1971, IBVS 525).

Catania Astrophysical Observatory, Italy
December 6, 1971

S.CRISTALDI and M.RODONO

Table 1. Detailed Coverage

Date 1971 Oct.	Coverage (U.T.)	Total coverage	$\frac{33}{T_0}$
11-12	22 46 ^{46m} -2258; 2300-2310; 2312-2328; 2330-2340; 0000-0004; 0006-0108; 0110-0124	145 ^m	0.40
12	2131-2205; 2207-2215; 2216-2239	65	0.50
13	2137-2257; 2324-2400; 0000-2502	178	0.46
16-17	2240-2400; 0000-0025; 0028-0054; 0101-0131	161	0.40
21-22	2108-2222; 2250-2400; 0000-0058; 0100-0101	204	0.41
23	2024-2149	85	0.16
24-25	2156-2212; 2244-2312; 0004-0013; 0021-0034	66	0.14

Table 2. Characteristics of Flares

no.	t_{\max} (U.T.) October	JD 244...	d_b	d_a	$\frac{3\sigma}{I_{\text{or}}}$	$\left(\frac{I_f}{I_o}\right)_{\max}$	E n e r g y P e r g	Air mass	f sky
1/71a	11, 23 ^b 58.3 ^m	1236.5037	0.2	3.3	0.40	6.48	2.70 1.33×10^{30}	1.47	2 1
2/71	13, 23 40.6	1238.4916	0.1	0.3	0.43	1.85	0.22 1.09×10^{29}	1.46	0 4
3/71	14, 00 33.5	1238.5283	0.1	0.7	0.49	3.53	0.52 2.56×10^{29}	1.58	0 4
4/71	21, 21 37.1	1246.4057	0.1	1.4	0.42	2.51	0.57 2.81×10^{29}	1.51	0 1
5/71	21, 23 57.2	1246.4613	0.1	0.5	0.39	3.66	0.32 1.58×10^{29}	1.44	0 0
6/71	22, 00 53.2	1246.5419	0.1	3.9	0.42	7.22	4.00 1.97×10^{30}	1.85	2 0
7/71	23, 20 35.4	1248.3623	0.4	3.1	0.16	1.17	1.15 5.67×10^{29}	1.73	0 2
8/71	23, 20 38.7	1248.3649	0.2	3.6	0.16	3.26	0.87 4.32×10^{29}	1.71	0 2
9/71	23, 21 05.4	1248.3834	0.2	3.8	0.17	7.69	2.38 1.17×10^{30}	1.58	0 2
10/71	23, 21 19.2	1248.3930	0.9	7.9	0.16	1.00	1.53 7.54×10^{29}	1.54	0 2





