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Number 1588

Konkoly Observatory  
Budapest  
1979 April 24

FLARE OBSERVATIONS OF UV CETI DURING NOVEMBER 1975

The flare star UV Ceti (R.A.= $01^{\text{h}}36^{\text{m}}24^{\text{s}}$ , declination= $-18^{\circ}13'$  (1950), visual magnitude 12.9 at minimum, spectral type dM5.5e) was monitored from Boyden Observatory during November 1975.

Of the 17 flares recorded, three were very intense; the outbursts peaking at  $18^{\text{h}}15^{\text{m}}32^{\text{s}}$  and  $02^{\text{h}}07^{\text{m}}05^{\text{s}}$  on the night of 2-3 November were confirmed visually through the 15 cm finder. Throughout this work the 41 cm Nishimura reflector was used with an uncooled EMI 6256A photomultiplier tube and a Johnson B filter.

Possibly of particular interest are the six spike events noted during the period. Generally they were of 3 to 6 seconds duration with  $(I_{\text{O+f}} - I_{\text{O}})/I_{\text{O}}$  values between 1.10 and 2.05. They are significantly shorter in lifespan than UV Ceti flares we have previously recorded.

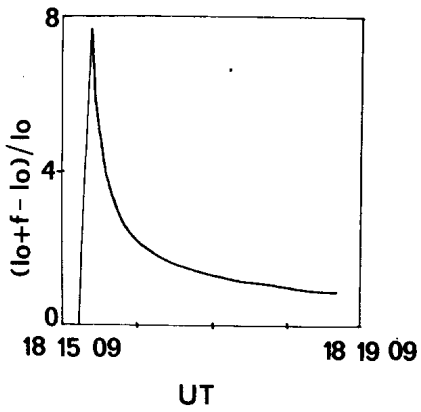
We are particularly indebted to Prof. F.D.I. Hodgson, Director of the Institute of Groundwater Studies at the University, for making his department's Hewlett Packard Model 9825 micro-computer and digitizer available for the reduction of our photometric data.

A.H. JARRETT and J. VAN ROOYEN  
Boyden Observatory  
Astronomy Department  
University of The Orange Free State  
Bloemfontein  
Republic of South Africa

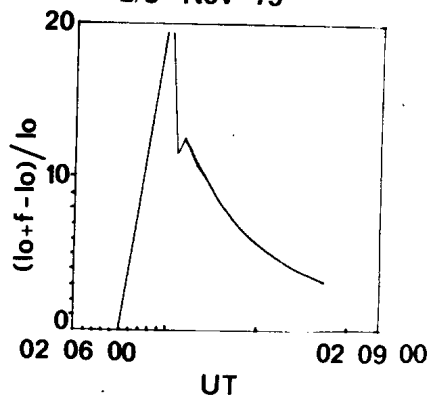
DATE 1975	MONITORING TIME U.T.	FLARE MAXIMUM U.T.	$\frac{I_{\text{off}} - I_0}{I_0}$	$2.5 \log \left[ \frac{I_{\text{off}} - I_0}{I_0} \right]$	$\sigma(\text{mag})$ $= -2.5 \log \frac{ \sigma }{I_0}$	$m_{\text{lim}}^m$ $= \sigma(\text{mag}) - 1.19$
02/03 Nov	18 <sup>h</sup> 00 <sup>m</sup> 02 <sup>s</sup> - 21 <sup>h</sup> 32 <sup>m</sup> 18 <sup>s</sup>	+ 18 <sup>h</sup> 15 <sup>m</sup> 32 <sup>s</sup>	7.40	2.17	2.19	1.01
	21 38 24 - 22 04 24	* 23 27 00	1.11	0.11	2.20	1.06
	00 09 29 - 01 12 30	+ 02 07 05	> 18.59	> 3.17	2.15	0.96
	01 13 54 - 02 22 02					
03/04 Nov	17 48 15 - 19 28 07	17 58 15	3.21	1.27	1.89	0.70
	19 29 09 - 20 59 07	* 18 45 28	2.05	0.78	1.89	0.70
	21 04 54 - 20 27 00	18 47 40	2.02	0.76	1.89	0.70
	20 32 09 - 02 20 11	22 53 49	1.18	0.18	1.97	0.78
04/05 Nov		* 01 53 24	1.39	0.35	1.97	0.78
	18 03 00 - 23 07 42	22 21 01	1.74	0.60	2.03	0.84
	23 12 02 - 02 06 14	* 22 23 46	1.10	0.11	2.03	0.84
		01 03 18	1.62	0.52	1.89	0.70
05/06 Nov		01 09 12	1.25	0.24	1.89	0.70
	22 15 06 - 02 01 02	23 32 48	1.15	0.15	1.86	0.67
		* 23 51 41	2.01	0.76	1.86	0.67
14/15 Nov	17 48 06 - 01 50 06	19 20 51	1.42	0.38	1.86	0.67
29/30 Nov		19 27 38	2.07	0.79	1.31	0.12
	18 05 21 - 18 45 00				2.28	1.09
	18 49 12 - 19 16 54					
	19 22 24 - 22 00 19					

\* SPIKE EVENT  
+ CONFIRMED VISUALLY

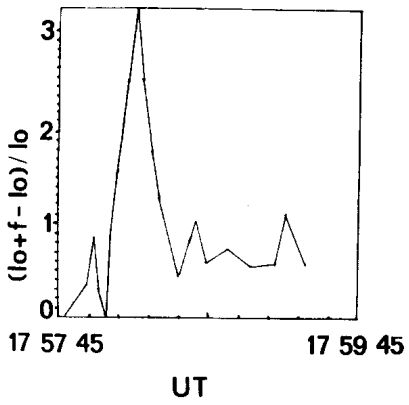
UV CETI  
2/3 Nov '75



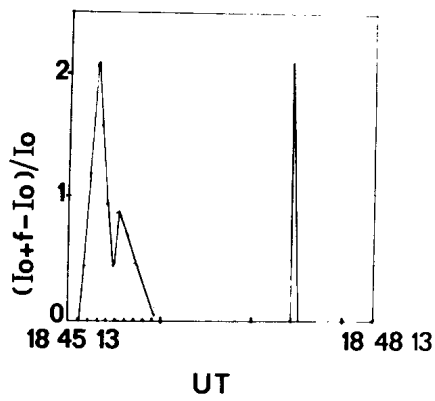
UV CETI  
2/3 Nov '75



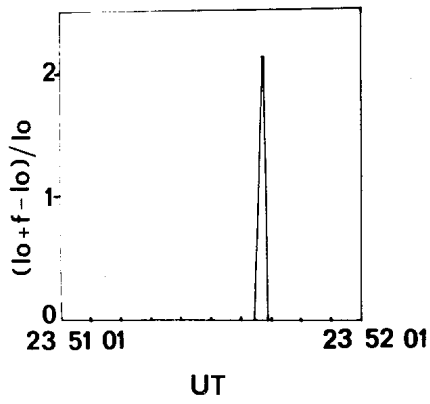
UV CETI  
3/4 Nov '75



UV CETI  
3/4 Nov '75



UV CETI  
5/6 Nov '75



UV CETI  
14.15 Nov'75

