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INFORMATION BULLETIN ON VARIABLE STARS

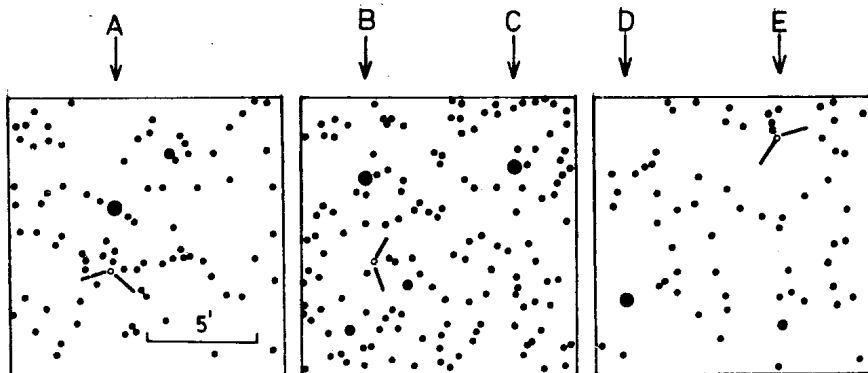
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THREE NEW FLARE STARS

In the summer 1979 a series of objective prism plates was obtained with the four degree objective prism of the Byurakan 40" Schmidt telescope. Selected dark cloud complexes were observed in order to study H_{α} -emission objects. To obtain unwidened spectra Kodak 103aE and IIIaF emulsions were used in conjunction with an RG-1 filter isolating the spectral interval $\lambda\lambda$ 6100-6900 A. The dispersion at H_{α} with the 4° objective-prism is about 1100 A/mm.

The by-product of our study has been the discovery of three new flare stars. Figures 1, 2 and 3 give the identification charts.



The arrows point to the brightest stars in the fields, which have the following designations : A = BD +54^o2452, B = BD +48^o3309, C = BD +48^o3306, D = BD 57^o2317, E = BD +57^o2316.

In Table I. some informations are summarized about these flare stars - the approximate coordinates (1950.0), data of flare ups and the remarks on their spectra in maximum light. In all

Table I

No.	RA. 1950.0	D.	m_{pg} min.	Remarks Δm_{pg}	Date
1.	20 ^h 56 ^m .4	55°14'7	18 ^m .2	the continuum is enhanced, $\Delta m \sim 1m.5$ strong H $_{\alpha}$ emission	22.08.1979
2.	21 11.1	48 44.2	17.1	the continuum is weakly enhanced $\Delta m \sim 1m.0$ strong H $_{\alpha}$ emission	26.07.1979
3.	21 20.7	57 36.4	18.5	strong H $_{\alpha}$ emission without enhancement of continuum	31.07.1979

three cases the appearance of a strong H $_{\alpha}$ -emission line was registered accompanied with a weak red continuum enhancement. This phenomenon was observed only once for each of the three stars. On the other plates these three stars do not show any sign of activity (e.g. H $_{\alpha}$ -emission). The colour of these stars estimated on the basis of POSS blue and red prints, as well as the rapid appearance and disappearance of strong H $_{\alpha}$ -emission suggest that these stars are flare stars.

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