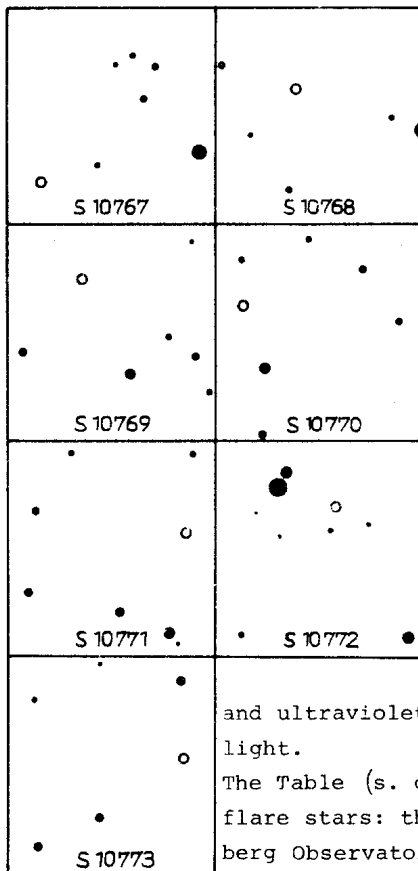


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NEW FLARE STARS IN THE PLEIADES



On 14 plates of the 50/70/172 cm Schmidt-type telescope at Sonneberg Observatory in the period from 1972 September 6 to 1973 January 6 seven new flare stars were discovered. Of two previously known objects, No.157 (G.Haro, E.Chavira, Flare Stars in the Pleiades Region II. Tonantzintla y Tacubaya Bol. 5., p.181) and No.196 (V.A.Ambar-tsumyan et al., Flare Stars in Pleiades, II. Astrofisika 7, p. 319.) flares were observed. The effective observational time amounts to 42.6 hours. The observations were made on 53 different exposures (3 to 5 per plate and 40 to 60 minutes for each) in blue (ORWO-ZU2-emulsion + filter GG 13) and ultraviolet (ORWO-ZU 2-emulsion + filter UG 2) light.

The Table (s. overleaf) summarizes the data of the flare stars: the variable star number of Sonneberg Observatory, the position 1900.0, the brightness in minimum in B or U (ΔB , ΔU), the observed amplitudes of the flares in B or U (ΔB , ΔU), the mean Julian Dates of the exposures in maximum brightness and their duration. The Table also comprises the known flare stars 157 and 196.

In the Figure identification charts are given. They represent areas approximately $4' \times 4'$. North is on the top.

Data for Observed Flares

No.	Design.	RA	1900.0 D	B _{Min.}	U _{Min.}	ΔB	ΔU	J.D. 244.....	J.D. 1596.540	Exp. time
1	S 10767	3 ^h 37 ^m 0	+25 ^o 00'	17.0		0.5		1596.540	1596.540	60 min
2	S 10768	3 38.7	+24 17	>17.5		>1.1		1683.317	1683.317	40
3	S 10769	3 40.5	+22 44	17.3		1.2		1597.519	1597.519	60
4	S 10770	3 42.2	+24 12	17.4		0.6		1600.513	1600.513	40
5	S 10771	3 43.4	+24 30	17.3		0.6		1595.507	1595.507	60
6	S 10772	3 44.4	+22 22	17.0		0.5		1601.542	1601.542	40
7	S 10773	3 44.8	+24 28	17.1	>17.7		>0.9	1682.264	1682.264	60
	157	3 43.1	+23 26	17.1		0.9		1597.519	1597.519	60
	196	3 39.3	+24 15		>17.8		>0.8	1602.604	1602.604	40
								1685.333	1685.333	50

February 9, 1973

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