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FLARE STARS IN THE OBSCURING CLOUDS
 OF OPHIUCHUS AND SCORPIUS

From the 31st of March to the 24th of May of this year, 36 ultraviolet multiple exposure plates were obtained using our Tonantzintla Schmidt camera and centering at $\alpha = 16^h 23^m$ and $\delta = -24^\circ 20'$, covering about 20 square degrees. In most cases 6 different consecutive exposures of 10 or 15 minutes each were made, with a time interval of less than one second between exposures. There were 210 different exposures with a total time of effective observation of 43h5m.

The field covered during our present search coincides with the region in Ophiuchus and Scorpius in which Struve and Rudkjöbing (ApJ 109, 92 1949) and Haro (Astr.J. 54, 188 1949) found 23 H α emission objects. By the way, it has been proven that the great majority, if not all, of these emission stars are of the T Tauri type. In particular the Struve et al. object N^o24, described as "(underexposed) a double star", in which they did not detect emission lines corresponds to the Haro H α emission star N^o7 and shows a very red and small cometary nebula. It seems that both the H α emission and the red cometary nebula are mainly related to southern component of this double star.

Table 1

Flare Stars in Ophiuchus and Scorpius

Tonantzintla Number	R.A. (1900)	Dec. (1900)	Mag. in U at Minimum	Δ m U	Date of Flare-Up
1	16 ^h 17 ^m 9	-25 ^o 44'	>18.5	>4.7	23-V-1974
2	16 19 2	-26 09	>18.0	>3.5	22-V-1974
3	16 20 0	-24 43	15.8	2.0	23-V-1974
4	16 22 3	-25 00	18.0	3.0	26-IV-1974

Table 1 gives the data for the 4 flare stars found. The brightest flare star, during minimum, is N^o3 and it is located in a rather obscure area in Ophiuchus. Flare stars Nos. 1, 2 and 4 lie in Scorpius. The coordinates and magnitudes are approximate. Identification charts for these 4 flare stars and the reproduction of the outburst photographs will be published later.

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G. HARO
 E. CHAVIRA

Instituto Nacional de Astrofísica,
 Óptica y Electrónica
 Tonantzintla, México