## COMMISSION 27 OF THE I. A. U. INFORMATION BULLETIN ON VARIABLE STARS Number 1746

Konkoly Observatory Budapest 1980 February 25

FLARE STAR OBSERVATIONS IN THE NGC 7000 AND IC 5070 REGION IN 1977 - 1979

Four new flare stars and an outburst repetition of the object previously known in this Cygnus region were discovered during  $46^{\rm h}40^{\rm m}$  effective observational time on the ultraviolet plates obtained with the 60/90/180 cm Schmidt telescope at the Konkoly Observatory in the period 1977-1979. The centre of observed field is: RA =  $20^{\rm h}52^{\rm m}$ ; Decl. =  $+43^{\rm o}00'(1950.0)$ , the observations were made on Kodak 103aO emulsion through a Schott UG-2 filter. The multiple exposure plates contain a series of 6-exposures of 10 minutes each.

## Table I.

Konkoly No.	RA. <sub>1950.0</sub> D.		<sup>m</sup> u min.	$\Delta m_u$	Date
1	20 <sup>h</sup> 43 <sup>m</sup> 1	43 <sup>0</sup> 33′	20 <sup>m</sup> 5:	> 6 <sup>m</sup> 2	28.09.1979
2	48.8	44 25	17.5	2.2	27.09.1979
2*	48.8	44 25	17.5	0.8	27.09.1979
3	49.0	44.08	19.5	3.2	28.08.1979
4	51.6	44 53	20.5	4.2	24.11.1978
T1	21 00.7	42 08	17.8	3.6	28.08.1979

\*In the star No.2 two subsequent flare ups were discovered. Forty minutes after the first outburst the star reached its minimum level. The second outburst occurred about 100 minutes after the first one. These two flare ups are considered as separate flares.

Table I gives the serial number for the new flare stars found in this region at the Konkoly Observatory; approximate coordinates for 1950.0; the approximate minimum brightness in U-band; and the date of the flare events.

In this table the data for the observed flare-up of the already known flare star Tonantzintla No. 1 (Haro G, Chavira E. I.B.V.S.,No. 624, 1972) are also presented.

I. JANKOVICS

J. KELEMEN

Konkoly Observatory
Budapest, Hungary

M.K. TSVETKOV

KATYA P. TSVETKOVA

Department of Astronomy

Bulgarian Academy of Sciences