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OBJECT STEPANYAN 153519 POSSIBLY OF U GEMINORUM TYPE

The object at $15^{\text{h}}35^{\text{m}}7 + 19^{\circ}01'$ (1950) was detected by J.A. Stepanyan (I.B.V.S. No.1630) as being faint ($\approx 18^{\text{m}}$) on the POSS prints of April 1950 and bright ($\approx 14^{\text{m}}$) on Byurakan objective prism plates of the spring of 1979.

The inspection of roughly one thousand Sonneberg sky patrol plates showed that the brightening of the star was not due to one eruption of unknown date, but that maxima of the star are not very seldom. Their brightness reaches 13.2^{m} pg (comparison to Mt. Wilson SA 84), their duration several weeks. In all years, for which good series of plates are available, eruptions as well as phases of invisibility ($> 14^{\text{m}}$) can be noticed.

At my request Drs.P.Notni and G.A. Richter kindly took three grating spectrograms of 140 \AA/mm with the image tube device at the 2 m telescope of Tautenburg Observatory under difficult observing conditions. These plates confirm the findings of Stepanyan (l.c.): The spectrum is characterized by broad ($\approx 50 \text{ \AA}$) emission lines (consisting of several components each?) of $\text{H}\alpha, \beta, \gamma, \text{HeI } 5875$ and $\text{HeII } 4686$, typical of the U Gem stars and superposed on a fairly strong continuum. According to a crude estimate of the observers at the slit the object's visual brightness was then (1979 Oct. 13.8 and 14.7 UT) ≈ 15.5 , about halfway between maximum and minimum level.

Some more details of the photometric behaviour will be given in Mitt. über Veränderlichen Sterne Sonneberg.

W. WENZEL
Sternwarte Sonneberg
Zentralinstitut für Astrophysik
Akademie der Wissenschaften der DDR