

COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
NUMBER 478

Konkoly Observatory
Budapest
1970 October 27

POSSIBLE FLARE STAR NEAR M31

In a recent note Sharov and Alksnis (1970) have drawn attention to a possible nova (their No. 5) at a distance of 169' from the nucleus of M31. From a single observation on August 20 1969 they obtain $B = 17.6$ for this star. This observation is of particular interest because no other object associated with the Andromeda Nebula has ever been found at such a great distance from the nucleus of M31. Inspection of plates obtained with the 48-inch (126 cm) Schmidt telescope on Palomar Mountain shows a faint red star at the position of the object reported by Sharov and Alksnis. From a comparison with Arp's photoelectric sequence in M31 Field IV (Baade and Swope 1963) this star is found to have $V = 19.2$ and $B-V = 1.6$. These data suggest the possibility that Sharov and Alksnis may have observed a flare of an M dwarf star on Aug. 20 1969.

Inspection of this star on 43 Palomar Schmidt plates obtained between 1965 and 1970 shows no other major flares during a total exposure time of 1004 min. A single observation of marginal quality indicates that a small flare, during which the star brightened to $B = 20.1$ may have occurred on Dec. 22 1968.

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