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POSITION AND DISTANCE OF NOVA VULPECULAE 1984

The position of Nova Vul 1984 was measured on a plate taken with the new 60 cm Ritchey-Chretien f/8 telescope of the Hoher List Observatory. 18 AGK 3 stars were used. Third order terms were taken into account. The result,

$$\alpha_{1950} = 19^h24^m03^s.442 \pm 0^s.013 \qquad \delta_{1950} = +27^\circ15'54''.50 \pm 0''.26$$

is in good agreement with the results published by Argyle (1984) and Kosai and Huruhata (1984). As already noted by Shao (1984), the nova coincides with an oval object on the POSS, which is certainly a blend of several stars (see Fig. 1). Its minor diameter yields upper limits for the brightness of the prenova: $B=16^m.3$, $R=16^m.8$.

Furthermore, it was attempted to determine the distance and absolute magnitude of the nova. Two Cassegrain spectra (31 Å mm^{-1}), taken with the 1.06 m telescope of the Hoher List Observatory, were analyzed with the PDS 2020GM in Münster. The interstellar Ca II H line is severely blended with the stellar H and H ε absorption lines, the Ca II K line has an equivalent width of 0.39 Å. According to distance calibrations by Binnendijk (1952), Beals and Oke (1953), and Allen (1973), the distance of the nova is about 1.2 kpc.

The nova, whose galactic coordinates are $l = 61^\circ.098$ and $b = +5^\circ.197$, lies in field 267 of Neckel's and Klare's (1980) study of interstellar absorption. $A_V = 1^m.4$ can be assumed.

The maximum apparent magnitude, $m_V = 6^m.3$, thus leads to an absolute magnitude $M_V = -5^m.5$, somewhat fainter than the mean absolute magnitude of slow novae.

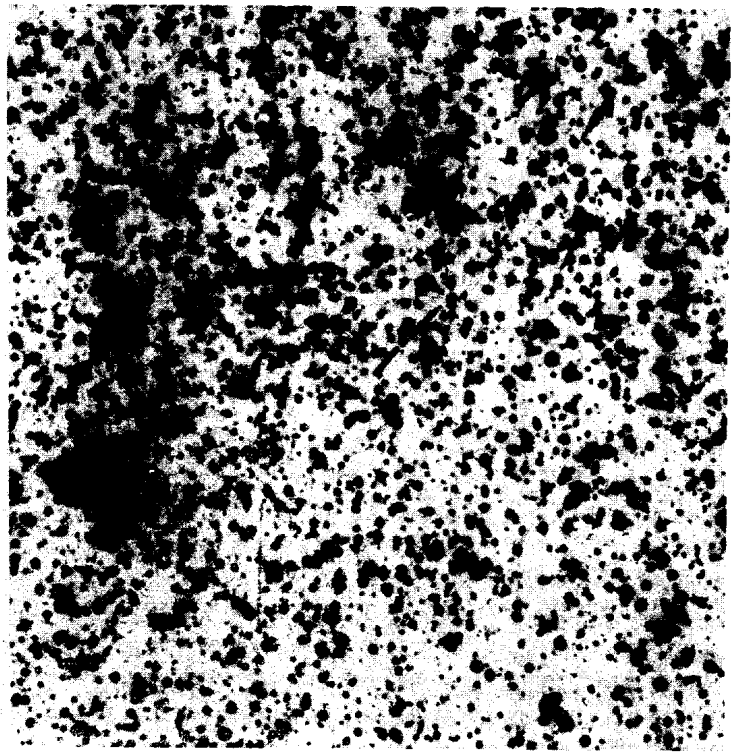

Figure 1
The field of Nova Vulpeculae 1984. The pernova is marked on this reproduction of the Palomar Observatory Sky Survey blue plate. The field size is 15'x 15', north is up.

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