COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
NUMBER 306

Konkoly Observatory
Budapest
1968 October 30

NOVA VULPECULAE

A series of photo-electric observations in B and V has been made from April to September 1968 with a photometer attached to the 50 cm reflector of ITA Observatory.

Several stars were used for comparison; the V magnitudes were taken from various sources and then adjusted to fit the observed magnitude differences. Differential atmospheric extinction was always taken into account, although the corrections were generally small. These adjusted values, shown in table 1, were actually used to derive the V magnitudes of the nova. SAO 87734 and 87733 were observed on all nights, the others only ocasionally. Thus, the relative values of the present V observations are quite accurate, but they may be systematically too high or too low by as much as 0.1^m due to the uncertainty in the adopted magnitudes for the comparison stars.

The color-indices B-V were obtained directly, not via comparison stars. Very serious difficulties were encountered in correcting for atmospheric extinction, since most observations were made at high zenith distances and under bad weather conditions. The B-V values may be in error by as much as 0.1^m.

All magnitudes and color indices were transformed from the instrumental into the standard UBV system. Since the instrumental system is well matched, only small corrections had to be applied and it is believed, that no significant error was introduced in this step.

Table 2 gives the final results.

Table 1:
Adopted values for the V magnitudes of the comparison stars.

Star (SAO number)	V	Star (SAO number)	V
87734	7.55	87633	5.43
87733	6.85	87883	4.53
87785	6.44	87840	5.52
87766	6.92		

Table 2:
Observed V magnitudes and color indices.

JD	V	B-V	JD	V	B-V
2439900+			2440000+		
75.726	5.84	0.57	5.708	7.67	0.50
79.698	5.78	0.54	11.670	7.84	0.43
96.680	7.25	0.51	35.649	8.61	0.24
97.677	7.27	0.52	37.660	8.67	0.24
			106.635	10.15	0.00

The ITA Astronomical Observatory
São José dos Campos, SP, Brazil

G.R. QUAST

RED VARIABLE IN LUPUS

This star, $\alpha = 15^h03^m.0$, $\delta = -41°17'$, was announced in IAU Circ. no.2090. Two photo-electric observations in B and V were made:

JD	V	B-V
2440083.413	8.31	2.17
2440106.414	8.76	2.38

Together with the variable, also the stars below were observed:

Star	V	B-V
$\alpha = 15^h03^m.1$; $\delta = -41°21'$	9.83	1.66
SAO 225473	8.28	1.21
SAO 225481	8.22	0.97
SAO 225422 (=HD 133220)	6.68	1.64

Only later it was found that SAO 225422 is also variable, as indicated in Royal Observatory Bulletin Nr 121; it was observed on JD 2440106.414. All the V magnitudes listed above may be systematically in error by as much as 0.2^m, since no reliable values could be found in catalogs; but the magnitude differences should be correct to within 0.04^m.

The ITA Astronomical Observatory
São José dos Campos, SP, Brasil G.R. QUAST