

COMMISSION 27 OF THE I. A. U.
 INFORMATION BULLETIN ON VARIABLE STARS
 NUMBER 799

Konkoly Observatory
 Budapest
 1973 May 26

THE NON-EXISTENCE OF NOVA CARINAE 1970

Knigge (IBVS No.765 1973) has reported the appearance of a probable nova = BV 1543 Car from sky patrol plates taken with the 10-inch Metcalf telescope at Boyden Observatory, South Africa. His plate material shows a brightening of the star, from $m_{pg}=15.2$ to 12.4, between 1969 Mar. 23 and 1970 Feb. 7 and then a steady decrease in brightness back to $m_{pg}=15.2$ by late March 1970. From this material it was presumed that the variable was a nova and that the maximum had probably been missed occurring between the first two dates above. From spectrum plates available at this Observatory it is clear that this star is actually a long-period variable of spectral type M.

We have available five 10^o objective-prism plates of this region obtained with the University of Michigan's Curtis Schmidt-type telescope situated at Cerro Tololo, Chile. The table below summarizes the data for these plates and the appearance of the variable; the dispersions are 108 Å mm⁻¹ and 420 Å mm⁻¹ at H γ and H α , respectively.

U.T. Date	Emulsion	Filter	Appearance
1968 May 28	IIa-O	-	fainter than plate limit ($m_r \gtrsim 11.5$)
1970 Feb. 13	IIa-O	-	H γ , δ emission; very faint TiO band heads
1970 Mar. 9	IIa-O	-	H γ , δ very faint; no continuum
1971 Feb. 18	IIa-F	RG 1	fainter than plate limit ($m_r \gtrsim 12$)
1972 Mar. 21	O98-O2	RG 1	$m_r \sim 10$; type M4 or M5

That this long-period variable is, in fact, identical to BV 1543 Car is clear from comparison of the field with the chart given by Knigge. The emission lines on our February 1970 plate are of equal strength implying that the star was 0.2 to 0.3 phase past maximum at that time (Merrill, P.W.: "Spectra of Long-Period Variable Stars" p.53.)