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SUSPECTED LONG-PERIOD VARIABLE NEAR NGC 2368

The infrared object IRC-10162 (1950: $7^h18^m37^s$ $-10^\circ16'6$) has been suggested as a member of the loose open cluster NGC 2368 by Cohen (1971), who has published finding charts of the field. Low dispersion (495 A mm^{-1}) near-infrared (6500-9000 Å) image tube spectra have recently been obtained of IRC-10162 with the 1 meter reflector at the Wise Observatory. Those observations (summarized below) indicate that the star exhibits spectral changes which might be expected of a long-period variable:

U.T. Date	J.D.	Spectral Type
27 November 1972	2441649.5	M7
13 January 1973	2441696.4	M9

The spectral types were estimated from the strengths of the near-infrared VO bands (heads at 7400 and 7900 Å). Standards used for comparison were o Cet at minimum light (M9), RT Vir (M8), and Z Cnc (M6). The IRC catalogue (Neugebauer et al. 1969) records three observations of IRC-10162 over an interval of approximately one year. During this time a $\Delta I = 0^m.56$ (effective wavelength of I = 8400 Å) was observed. Both the spectroscopic and photometric observations indicate that IRC-10162 is a variable star. We suggest that it is most likely a long-period variable.

The intergrated magnitude of NGC 2368 is 11.8 (Collinder 1931). According to Cohen (1971) there is no photometry, however, available for individual cluster members. From a cursory inspection of Cohen's finding charts, IRC-10162 appears to be among the brightest stars of the cluster which is in accord with the hypothesis that the alleged long-period variable is a cluster member. Because there are so few long-period variables known to be members of clusters, we urge that further observations be made of IRC-10162 to confirm type variability as well as cluster membership.

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