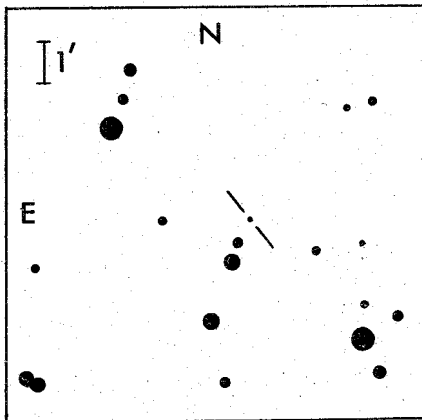


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A SUSPECTED VARIABLE EMISSION-LINE OBJECT  
IN THE DIRECTION OF THE LARGE MAGELLANIC CLOUD

A new emission-line object ( $\alpha = 5^{\text{h}}45^{\text{m}}.7$ ,  $\delta = -71^{\circ}17'$ , 1975), possibly associated with the Large Magellanic Cloud, appears to have shown strongly variable H $\alpha$  emission. This object, for which we provide an identification chart, is not listed in the surveys of either Henize (Ap.J. Suppl. 2, 315, 1956) or Lindsay and Mullan (Irish A.J. 6, 51, 1963). However, on red-sensitive objective-prism plates, taken with the Curtis Schmidt telescope at the Cerro Tololo Inter-American Observatory on March 24, 1968 and Nov. 15, 1974, it shows a rather strong and sharp H $\alpha$  emission line. No continuum is visible (i.e.  $V > 15$  mag), giving the appearance of a planetary nebula. At our request, Dr. Henize kindly examined his original LMC survey plates, which have a limiting magnitude comparable to our own plates, and confirmed that emission at H $\alpha$  was not evident at that epoch.



Images of this object appear on the charts in the Hodge-Wright atlas of the LMC and from these one can estimate  $B_{v16.0}$  and  $V_{v16.0}$ . It is not listed among the Harvard variable stars. On deep blue-sensitive objective-prism plates, also taken with the Curtis telescope on March 20, 1968 and Jan. 7, 1975, the spectrum contains strong emission in the Balmer series and [OIII]  $\lambda 5007$  and  $\lambda 4959$ . We also suspect variable emission at He II  $\lambda 4686$  and [OIII]  $\lambda 4363$ . The suspected spectral variability would suggest that this is some type of eruptive variable star rather than a planetary nebula. However, the available data indicate a rather small range in light variability.

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