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THE PERIOD OF VARIABLE 7 IN M13

Arp, in the course of his work on the color-magnitude diagram of M13 = NGC 6205, found that his observations of Variable 7 of this cluster could be fitted with a period of  $0^d.2388$  (Arp 1955, Astron. J. 60, 317). Recently, however, Demers (1971, Astron. J. 76, 445) has questioned this period, finding that it did not represent well his magnitude measures from plates taken to determine the UBV colors of the M13 variables. But because his data, as well as Arp's, was very limited for a period determination he did not try to find a better value.

In an attempt to clarify the situation we have measured the brightness of Variable 7 with an iris photometer on the 57 blue plates of M13 at our disposal. As the star was found to show considerable variation within a few hours, the period is obviously short and we therefore used the method of Lafler and Kinman (1965, Astrophys. J. Suppl. 9, 216) to search for the possible periods in the range 0.20 to 0.33 d. We found that for this range only two periods (which differ by one in their reciprocals) will fit our data:  $0.23803$  d. and  $0.31293$  d. While the former period is close to that derived by Arp, we prefer the larger value because, first, periods of this order are more common and, second, it produced a light curve with significantly smaller scatter. In addition, the longer period fits Demer's U, B, and V observations within the uncertainties expected from photographic photometry. Thus, the characteristics of Variable 7 as derived from our observations are:  
Period =  $0^d.312929$ , Epoch of maximum: JD 24 40051.763, Mean B magnitude = 15.15, and Amplitude = 0.35 mag.

The details of this study will be published elsewhere along with the results for the other variables in this cluster.

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