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FURTHER REMARKS CONCERNING VARIABLE 14 IN M5

In a recent note in this Bulletin (Oshorn, 1971) the results of a surface gravity and effective temperature determination were presented for the M5 star Arp II-51 (Arp, 1955) which, based on Bailey's (1917) chart of the variables in M5, had been identified as Variable 14 of the cluster. It was noted that from Arp's (1962) UBV colors of the star its position in the cluster H-R diagram was inconsistent with that of an RR Lyrae type variable as the period indicates Variable 14 is. However, Coutts (1971) and Kukarkin (1971) have pointed out that Variable 14 is marked incorrectly on Bailey's chart, and rather that II-51, the star marked, the variable is the star 20 seconds of arc to the east. Because of this confusion the following additional information concerning my observations is presented.

Star II-51 was observed as part of a program of measuring the surface gravities, effective temperatures, and metal abundances of a number of late-type globular cluster stars by use of intermediate-band photoelectric photometry. The star was observed with the David Dunlap Observatory (DDO) intermediate-band system on four nights in 1969 at the Kitt Peak National Observatory. The reduction of these observations gave consistent values for the DDO colors but yielded magnitudes of (DDO system) 15.42, 15.44, 15.54 and 15.56 for the four nights. Both this range of 0.14 magnitudes and the standard deviation of the measures were the largest of any of the stars on the observing program, including several objects over a magnitude fainter and hence considerably more difficult. These facts suggested that II-51 might be a variable and thus its position in the cluster was compared with those of the known variables using Bailey's chart, which led to the mis-identification.

It is noted that the observing notes and the reductions have been re-examined and confirm both the derived magnitudes and that it was indeed II-51 that was observed

and not the variable. Whether or not II-51 is in fact also a variable as indicated by the DDO observations should be investigated.

WAYNE OSBORN
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