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AN ATTEMPTED CONFIRMATION OF ARCHER VARIABLES NEAR THE COMA STAR CLUSTER

Archer (1959) announced the discovery of 24 variable stars in the vicinity of the Coma star cluster. Faulkner (1983) previously identified Archer's star Number 5 with RZ Com. Tan *et al.* (1984) made photometric observations of Archer's star numbers 3, 4, 7, 14, 16, 17, 18, 19, 21, 22, and 23, and concluded that these 12 stars are not variable. Because Archer published coordinates, but no Finder Charts, it is difficult to positively identify some of the stars that he studied. Comparison of his coordinates with the Palomar Sky Survey prints produced what the present author feels are the best identifications of 14 of the 24 Archer stars. These stars are listed in Table I along with their BD numbers. The remaining 10 stars could not be identified with any confidence.

Table I

Archer No.	BD No.
1	+29° 2252
3	+26° 2333
7	+27° 2151
9	+28° 2087
10	+27° 2152
12	+24° 2457
13	+26° 2347
14	+28° 2077
19	+30° 2281
20	+26° 2338
21	+26° 2332
22	+23° 2483
23	+27° 2129
24	+22° 2485

The 14 stars listed in Table I were observed photoelectrically on six nights during 1983, and on one night each in 1984 and 1985. UBV differential observations relative to nearby comparison stars were made with the 41 cm. telescope of the Morgan-Monroe Station of the Goethe Link Observatory. The method of observations has been described elsewhere (Faulkner, 1986). None of the 14 stars displayed any variations beyond the observational error of  $\pm 0.02$  magnitude. Archer suggested a period of about 2 days for Star 1, gave no period for Stars 12 and 24, and suggested very short periods for the remaining 11 stars observed. The variability of these latter stars should have been easily detected, leading to the conclusion that they are not variable. Combining these results with those of Tan et al. shows that 15 of the 24 Archer variables, if properly identified, are not variables. This casts doubt upon the remaining Archer variables.

DANNY R. FAULKNER  
Astronomy Department  
Swain Hall West 319  
Indiana University  
Bloomington, IN 47405  
U.S.A.

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