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FAINT COMPANIONS TO UX ANTLIAE

Recently, UBV photometry was provided for stars in the fields of the R CrB type stars UX Ant and UW Cen (Milone, 1994); later, identifications in several catalogues ("Guide Star Catalogue" (GSC), Henry Draper Catalogue, Cordoba Durchmusterung and Cape Photographic Durchmusterung) of the photometrically observed stars were also published in these Bulletins (Skiff, 1994). Precisely, it was said (Milone et al., 1990, Note 1; Milone, 1994, Note 2) that the variable star UX Ant has "a faint near-by companion" but, unfortunately, there is an erroneous identification of the close companion in Note 2. In fact, the reason for the large discrepancy in the B magnitude of the near-by star as indicated in Notes 1 and 2 is, that we are referring to different stars (see Figure 1): it was star 1 for which we measured $B=16.5$ (Note 1), whereas for star 2 it was found, $V=14.55$, $B-V=0.41$ (Note 2). This is the point we want to emphasize here, as (faint) stars of known brightness neighboring a variable star can be useful in several respects.

It is worth mentioning that there are several examples of close companions among the variable stars of the R CrB type. The following cases were noted (indicated distances in arc seconds from the variable are only approximate): UX Ant, component 1: $B=16.5$, $\rho=15''$ to the NW, component 2: $B=14.96$, $\rho=45''$ to the NE; UW Cen, $B=14.19$, $\rho=20''$ to the NNW; Y Mus, $B=16.0$, $\rho=15''$ to the W; RZ Nor, $B=13.7$, $\rho=8''$ to the NE; RY Sgr, $B=16.48$, $\rho=12''$, (Andrews et al., 1967; Feast, 1968).

Figure 1.

Details of the region around UX Ant

Star F: $V=11.78$, $B-V=0.45$

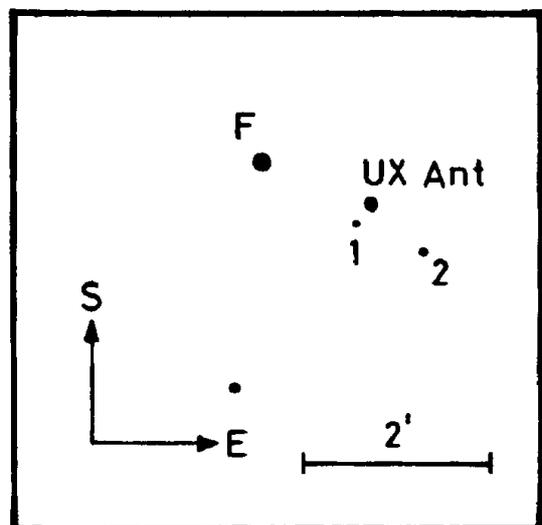
(see IBVS No. 4002.

According to Skiff (1994),

UX Ant=GSC 7212-0077;

star F=GSC 7212-0258

=CoD -36°6812).



Very probably these are not physical pairs, but the point rather is that the variable being studied can be misidentified when it weakens.

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References:

- Andrews, P. J., Catchpole, R. M., Feast, M. W., Jones, D. H. P., Lloyd Evans, T., and Walker, E. N., 1967, *IBVS*, No. 235
Feast, M. W., 1968, "Non-periodic phenomena in variable stars", IAU Colloquium, Budapest, p. 253
Milone, L. A., 1994, *IBVS*, No. 4002
Milone, L. A., Minniti, E. R., and Paolantonio, S., 1990, *IBVS*, No. 3526
Skiff, B. A., 1994, *IBVS*, No. 4030