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A NEW FLARE STAR NEAR HZ HER

While obtaining high-speed photometric observations of the X-ray source HZ Her, a nearby field star was observed to flare. The star is indicated by the arrow in Figure 1.

The observations were obtained on the 91-cm reflector at McDonald Observatory using the high-speed photometer described by Nather and Warner (1971). The observed flare is shown in Figure 2 and was detected with an Amperex 56DVP, operated uncooled, with no filter (white light).

Preliminary colors, based on only one observation, were provided by P.E. Boynton (1973) which show the star to be about 10th magnitude and having colors consistent with a K-dwarf. If spectra of the star confirm its suspected K-type classification, it will be one of the few early type (K) UV Ceti stars known.

Its proximity to the X-ray source Her X-1 = HZ Her may allow simultaneous optical and X-ray monitoring to look for X-ray emission produced by flare events, as predicted by Grindlay (1970).

University of Texas at Austin
Austin, Texas 78712

THOMAS J. MOFFETT
PAUL A. VANDEN BOUT

References:

- Boynton, P.E. 1973, private communication.
Grindlay, J.E. 1970, Ap.J. 162, 187.
Nather, R.E., and Warner, B. 1971, M.N.R.A.S. 152, 209.

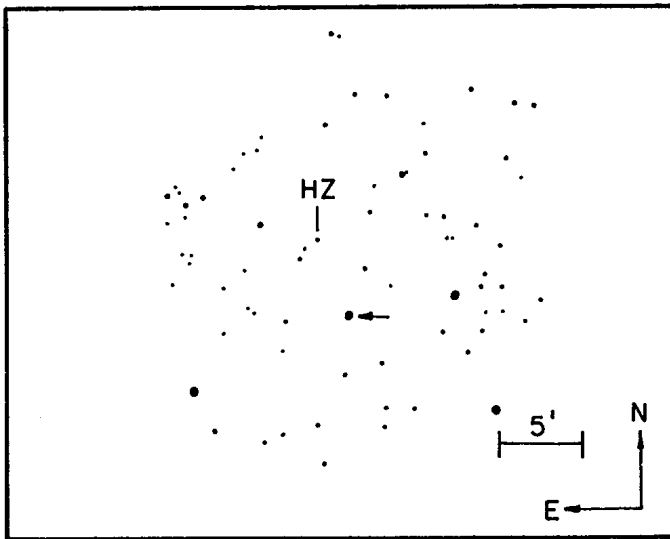


Figure 1. Field centered on HZ Her ($16^{\text{h}}54^{\text{m}}14^{\text{s}}$, $+35^{\circ} 29:8$ (1900)).
The flare star is indicated by the arrow.

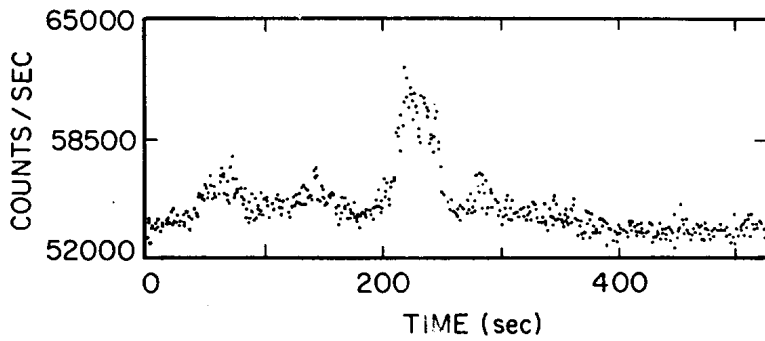


Figure 2.
Light curve of flare event observed on 02 July 1973 using no filter.
The origin of the time axis is UT 08 02 51.