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**AN IMPROVED PERIOD FOR THE  
ECLIPSING CATAclySMIC VARIABLE  
UU AQUARI**

UU Aqr, at  $\alpha=22^{\text{h}}06^{\text{m}}29^{\text{s}}$ ,  $\delta=-4^{\circ}00'53''$  (1950.0) was first suggested to be a semiregular variable, with a period of 66.2 days (Kholopov, 1985).

Stephenson (1986) included it in his list of H $\alpha$  emission stars, giving it the designation S196. Volkov, Shugarov, and Seregina (1986) (hereafter VSS) found the star to be an eclipsing cataclysmic variable. They observed the star over a period of 54 days in 1985, and found the orbital period to be 0.1635806 days, with a zero epoch of HJD 2446347.2667. Downes and Keyes (1988) published a low-resolution spectrum of UU Aqr. The spectrum is typical for a cataclysmic variable. Figure 1 is a finder chart for UU Aqr (Photograph © 1960 National Geographic Society- Palomar Sky Survey).

We observed five eclipses of UU Aqr with a two-channel photometer mounted on the University of Washington's 0.8m. telescope at the Manastash Ridge Observatory in central Washington. The filter system used approximated the Johnson V band. The comparison star used was SAO 145900, a 9th magnitude K5 star 7.3 arcminutes from UU Aqr (see Figure 1). The observed eclipses occurred between September 10 and 18, 1988 UT (HJD 2447414 and HJD 2447422). Our derived period was consistent, within our timing uncertainty, with that found by VSS.

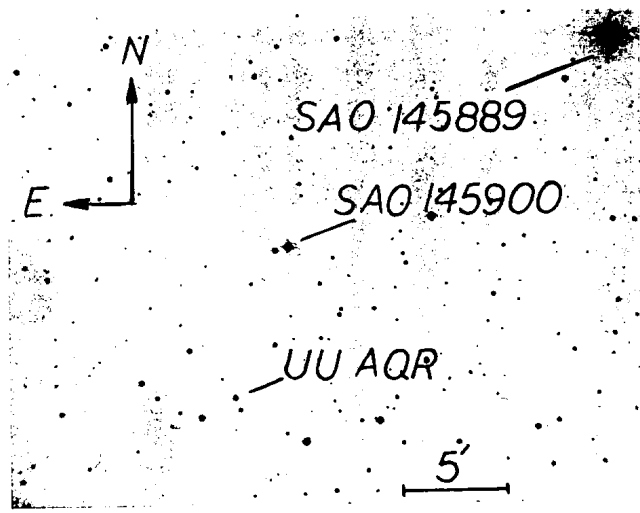


Figure 1

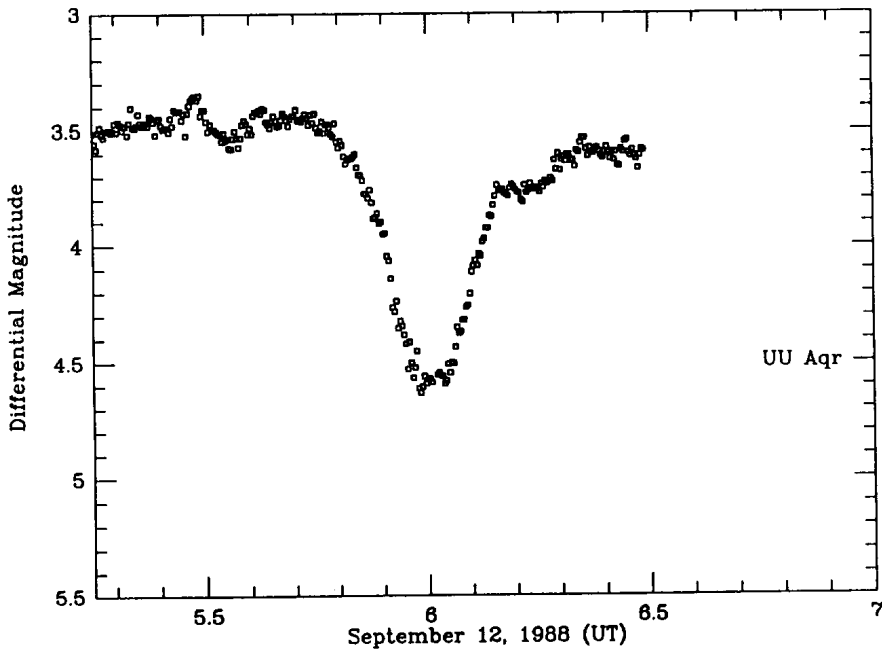


Figure 2

By combining our data with that of VSS, we determined that our first eclipse was within 0.0039 days of the predicted time for epoch 6523. Taking our uncertainty in the time estimate for minimum light of 0.0003 days and theirs, estimated at 0.0001 days, we derived an improved ephemeris:

$$\text{HJD}=2446347.2667+\text{E} \cdot (0.163579089 \pm 0.000000061) \text{ days.}$$

Figure 2 is a representative eclipse. The asymmetry seen on the egress side of the eclipse, and evident in the VSS light curves, is probably due to the eclipse of a hot spot on the accretion disk. This asymmetry is similar to that observed in the UX UMa system by Warner and Nather (1972).

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