COMMISSION 27 OF THE I. A. U.
INFORMATION BULLETIN ON VARIABLE STARS
Number 2005

Konkoly Observatory
Budapest
1981 August 25
HU ISSN 0374-0676

NOTE ON THE PERIOD OF THE W UMa STAR AH Vir

AH Vir belongs to Binnendijk's subclass "W" of the W UMa stars. It is well known to have a variable lightcurve and a variable period (Bakos, 1977). The most recent period of Bakos is

$$t_{\text{Min I}} = 2442155^{d}.6164 + 0^{d}.40753126 \cdot E \ .$$

The latest published photoelectric observations are given by Hoffmann (1981) made in March 1977. He determined four minima items which showed that the last period of Bakos was still valid.

On April 14./15., 1980, we made 80 V and 77 B photoelectric measurements with the 75 cm telescope of the Wilhelm Foerster Observatory Berlin and an 1P21 photomultiplier with usual Schott filter combinations for the UBV system. With the Pogson method we determined one primary minimum :

V	2444 344^{d}.4535	$\pm$ 0^{d}.0009	(hel.)
B	344.4510	$\pm$ 0.0010	

Using the mean value from the both colours and Bakos' above given elements, we derive an O-C value of O-C = - 0^{d}.0146 (E=5371). This large O-C value indicates that the orbital period of AH Vir has changed again between 1977 and 1980.

The only other source of published minima times since Hoffmann's observations are the BBSAG-Bulletins No.31-53, where one photoelec-

tric and 22 visual minima determinations are given. From the minima items given by Bakos, Hoffmann, in the BBSAG-Bulletins and in this notice, one can estimate that the period change took place around May 1979. As a first approximation of the new period value, based strongly on the lower accurate visual minima determinations, we estimate $P=0^{d}.40751314$. Notice that the trend of increasing periods found by Bakos has stopped and the period decreased.
Our observations cover about 40% of the lightcurve and show no hints of lightcurve activities during Max.II and the primary minimum. $\Delta m = m_{MinI} - m_{MaxII}$ is found to be:

$$\Delta m\ (V) = 0.58 \pm 0.02$$

$$\Delta m\ (B) = 0.64 \pm 0.02\ .$$

U. HOPP, S.WITZIGMANN
Wilhelm Foerster Observatory
D-1000 Berlin - 41, F.R.G.

References :

Bakos, G.A.: 1977, Bull.Astron.Inst.Czech. 28.157

Hoffmann,M.: 1981, Inf. Bull.var.stars No.1933