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1987 BV PHOTOELECTRIC OBSERVATIONS OF CG Cyg

This eclipsing binary was observed from 7 July through 22 July 1987 with the 1.2 m Kryonerion telescope and a single channel photon counting photometer described by Dapergolas and Korakitis (1987). The photometer employs a high gain 9789 QB phototube and conventional BV filters. Its output is fed directly to a microcomputer enabling rapid data access.

Castle et al. (1977), Milone et al. (1979), Jassur (1980), Naftilan and Milone (1985), Sowell et al. (1987), and finally Dapergolas et al. (1988) have also presented photometric observations for this star.

The data reduction method is the standard one. The check and comparison stars are the stars a and b, respectively named by Yü (1923). The data were obtained with an accuracy of ±0.015 mag.

Table I lists the dates of observations and phases covered whereas Figures 1 and 2 summarize the results for B and V colours.

Table I

Date	Phase
7 July 1987	.24 - .44
8 July 1987	.68 - .03
9 July 1987	.31 - .44
10 July 1987	.88 - .21
16 July 1987	.45 - .72
22 July 1987	.88 - .08

In Table II the times of minima and the O-C values are listed for the V and B bands respectively. Times of minima are calculated using the method described by Kwee and van Woerden (1956) whereas the O-C values were determined from the linear ephemeris $T = 2\,439\,425^{d}.1221 + 0^{d}.631\,141 \cdot E$ given by Milone and Ziebarth (1974).

From the V light curve presented here, it can be suggested that there are irregularities outside the eclipses already reported by Milone et al. (1979).

The observed difference between the primary and secondary minima is 0.30 mag and 0.41 mag for the V and B colours respectively, whereas these values are reported as being 0.30 mag and 0.34 mag by Dapergolas et al. (1988) indicating that the variation in the depth is similar for both colours. The

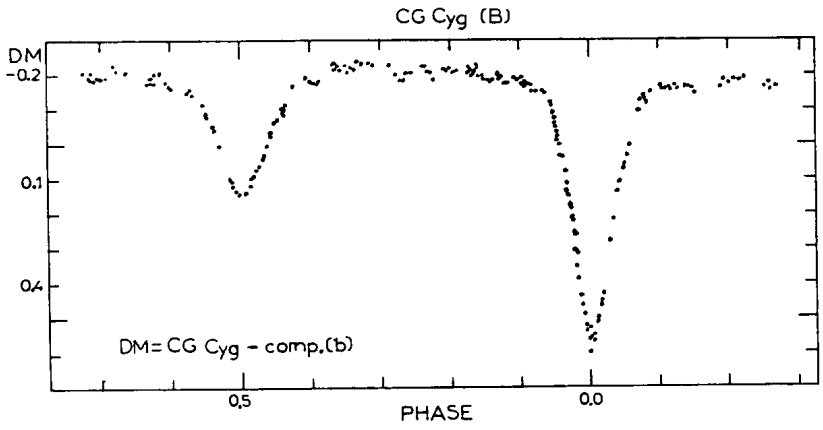

Figure 1

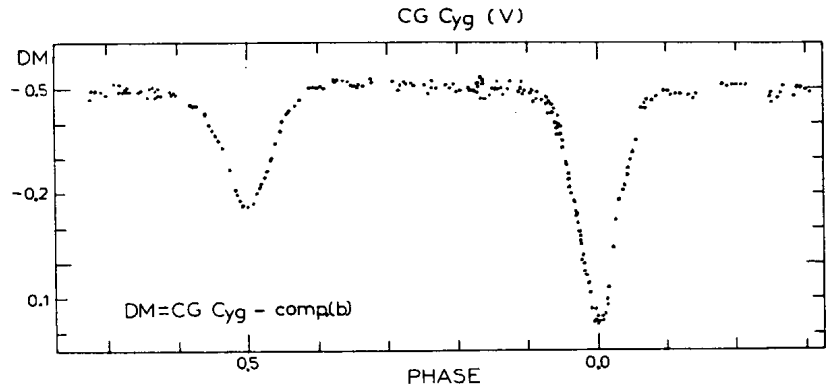

Figure 2

Table II

	V		B	
Type of minima	Heliocentric Jul. Day	(O-C) phase	Heliocentric Jul. Day	(O-C) phase
Primary	2446987.4749 ±0.0003	0.0339	2446987.4746 ±0.0003	0.0339
Secondary	2446993.4694 ±0.0003	0.5317	2446993.4687 ±0.0003	0.5305
Primary	2446999.4658 ±0.0002	0.0326	2445990.4655 ±0.0004	0.0322

observed variation of the differences between the primary and secondary minima is probably due to a variably asymmetric light curve already reported by Milone et al. (1979).

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