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OBSERVATIONS OF TZ Boo, BL Leo, AND V524 Mon

In February 1981 photoelectric observations of several eclipsing binaries have been made with the 1.06m telescope of Hoher List Observatory and its double beam photometer.

Among them are:

1) TZ Boo. A complete new light curve could be obtained.

The magnitudes at the four main phases were

Phase	0.00	B	11 ^m .49	V	10 ^m .79
	0.25		11.11		10.41
	0.50		11.47		10.77
	0.75		11.14		10.46

A minimum time has been determined

JD hel. 2444650.5625 Ep. 16885.5 O-C -0^d.015

according to the light elements (Hoffmann, 1980a)

JD hel. min. I = 2439632.8418 + 0^d.2971620E

The tendency of the O-C's noticed in 1980 (Hoffmann, 1980b) has continued and increased to -0^p.05. So it is suggested that the period of TZ Boo has in fact become shorter.

The light curve shows an almost round shaped, slightly declining minimum at phase 0.5 when there should be the flat and sharply limited occultation minimum. Also a brighter maximum at phase 0.25 is not usual for TZ Boo, although it has been observed previously, for instance in 1975.

2) BL Leo. A minimum time has been observed, but there are only few measurements defining the rising branch after the minimum. The minimum was at

JD hel. 2444648.615 Ep. 24821.5 O-C -0^d.009

So the light elements

JD hel. min. I = 2437650.654 + 0^d.2819318E

given by Meinunger and Wenzel (1968) seem to be generally confirmed.

3) V524 Mon. A complete light curve has been measured in B. Comparison star has been a 10th magnitude star 24mm above the variable in the chart by Wachmann (1966). The following minima times have been determined:

JD hel. 2444648.295	Ep. 35970.5	O-C +0 ^d .003
2444648.434	35971.0	0.000

These data are obviously still well consistent with the light elements by Wachmann

JD hel. min. I = 2434446.442 + 0^d.28361714E

The accuracy of the individual measurements has been lowered by a strongly moonlit sky. Therefore only normal points are given in Fig. 1 where the light curve is shown. There are no

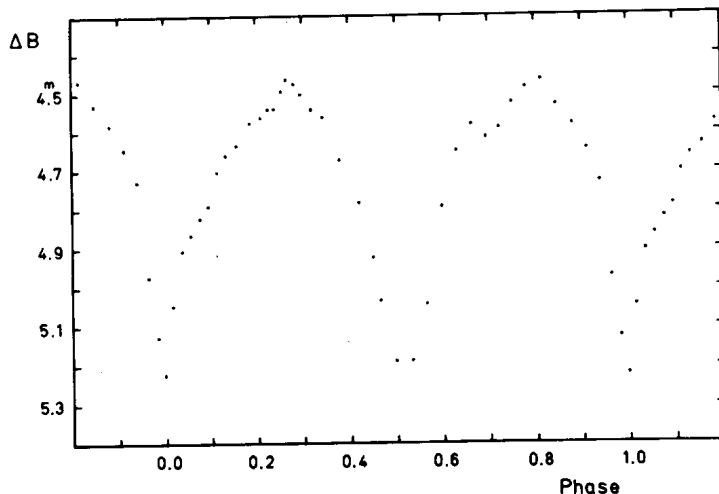


Fig. 1 B light curve of V524 Mon (normal points).

detectable brightness differences between the maxima as well as between the minima within the limits of accuracy. The

minimum at phase 0.5 seems to be slightly wider. So that minimum may be of occultation type.

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References:

- Hoffmann, M., 1980a, Astron. Astrophys. Suppl. Ser. 40, 263
Hoffmann, M., 1980b, Inf. Bull. Variable Stars No. 1877
Meinunger, L., Wenzel, W., 1968, Veröff. Sternw. Sonneberg
7, H. 4, 389
Wachmann, A. A., 1966, Abh. Hamburg-Bergedorf 7, 341