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## THE PERIOD VARIATIONS OF UX Dra

New times of minimum light of the carbon star UX Dra were derived from the three colour photoelectric observations made at Brno Observatory and from the observations made by Dzervitis et al. (1973). They are collected in the following table:

JD <sub>min</sub>		(O-C)	E	Observer
244	1705:	-3.7	0	Dzervitis et al.
	2040:	9.0	2	Dzervitis et al.
	4331	-2.6	16	Vetešnik
	4500	-1.3	17	Vetešnik
	4665	2.7	18	Vetešnik
	4833	-4.8	19	Vetešnik
	5005	-1.7	20	Vetešnik
	5179	3.0	21	Vetešnik

The minima express the effect of the lengthening of the period and can be well represented with the quadratic formula

$$JD_{min} = 244 1708.7 + 160^{d}.7 E + 0^{d}.21 E^{2}$$

This ephemeris was used for the computation of the (0-C)'s in the table above.

Our attention was also directed to consider the behaviour of the light changes of the star in the time of the old photographic observations made by Payne-Gaposhkin (1952). It was found that the period varied almost linearly in two long term cycles in the duration of about 5000 days. The lengthening of the period from 155 to 185 days was interrupted with an abrupt break at the end of each cycle. The breaks during which the period fell down to the minimum value were: JD 241 7400, 242 2000 and 242 8000. The mean period of about 170 days is keeping till this time.

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References:

Dzervitis, U., Paupers, O., Spulgis, G. 1979, Issl. Solnca i Krasnych Zvezd, Riga, No. 9, 5.

Payne-Gaposhkin, C. 1952, Harvard Ann., 118, 217.