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THE PERIOD OF EQ TAURI

From estimates of 392 exposures with the 25.4 cm reflector, the light elements

$$\text{Min.} = \text{JD (Hel)} 2436646.569 + 0^d341351 \text{ E (A)}$$

have been determined. The 12 observed minima are listed in Table I, in which the numbers of observations used to determine the values of  $O$  are listed under  $n$ . For the three minima with  $n = 24, 21$  and  $21$ , both descending and ascending branches were completely covered.

The elements (A) give a much better light curve from the 44 visual observations by Tsesevich than the ones he published. A normal minimum:  $2430651.325$ , with  $O - C = -0^d096$  for  $E = -17563$ , has been derived from his observations.

Magalashvili and Kumsishvili have attempted to fit two seasons of photoelectric observations with a slight revision of the period,  $0^d41350$ , of Tsesevich. Their light curves show several discontinuities which do not appear in plots using the period (A). Results from the reduction of their observations are given in Table II, in which the subscripts I, B and V refer to observations in integral, blue and visual light.

From the residuals in Table II alone, the elements

$$\text{Min.} = \text{JD (Hel)} 2440213.328 + 0^d341346 \text{ E (B)}$$

have been derived. The mean  $O - C$  from the 21 times of minima, using elements (B), is  $0.0009$ , which is one-tenth of the mean from the 5 minima in their Table 3. Primary minima in B and V have few observations.

Since the residuals, computed with elements (A), of the earliest and latest observations are much too large for errors of observations, the period must be considered to be variable.

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References:

- Tsesevich, V.P., Odessa Publication IV, Part III, 1954.  
Magalashvili, N.L. and J.I. Kumsishvili, Abastumani Bull. 40, 2, 1971.

Table I. Minima (Oklahoma)

Q	n	E	0-C
2436546.568	6	0	-0 <sup>d</sup> .001
6905.653	3	759	- .001
6910.602	12	773.5	- .002
6946.616	24	879	- .001
7257.584	9	1790	- .003
7257.658	3	1812.5	+ .001
7285.651	21	1901.5	+ .003
7355.554	29	2077	- .001
7357.607	21	2083	+ .004
7367.676	6	2112.5	- .003
7371.586	6	2124	- .003
7706.633	6	3105.5	- .002

Table II. Minima (Abastumani)

C	E	0 <sub>I</sub> -C	0 <sub>B</sub> -C	0 <sub>V</sub> -C
2440212.492	+10446.5	-0 <sup>d</sup> .019		
213.346	10449	- .019		
229.218	10495.5	- .016		
504.518	11302	- .024	-0 <sup>d</sup> .021	-0 <sup>d</sup> .023
508.444	11313.5	- .023	- .021	- .023
509.468	11316.5	- .022	- .022	- .022
510.492	11319.5	- .023	- .020	- .022
511.516	11322.5	- .020	- .021	- .022
512.540	11325.5	- .023	- .023	- .022