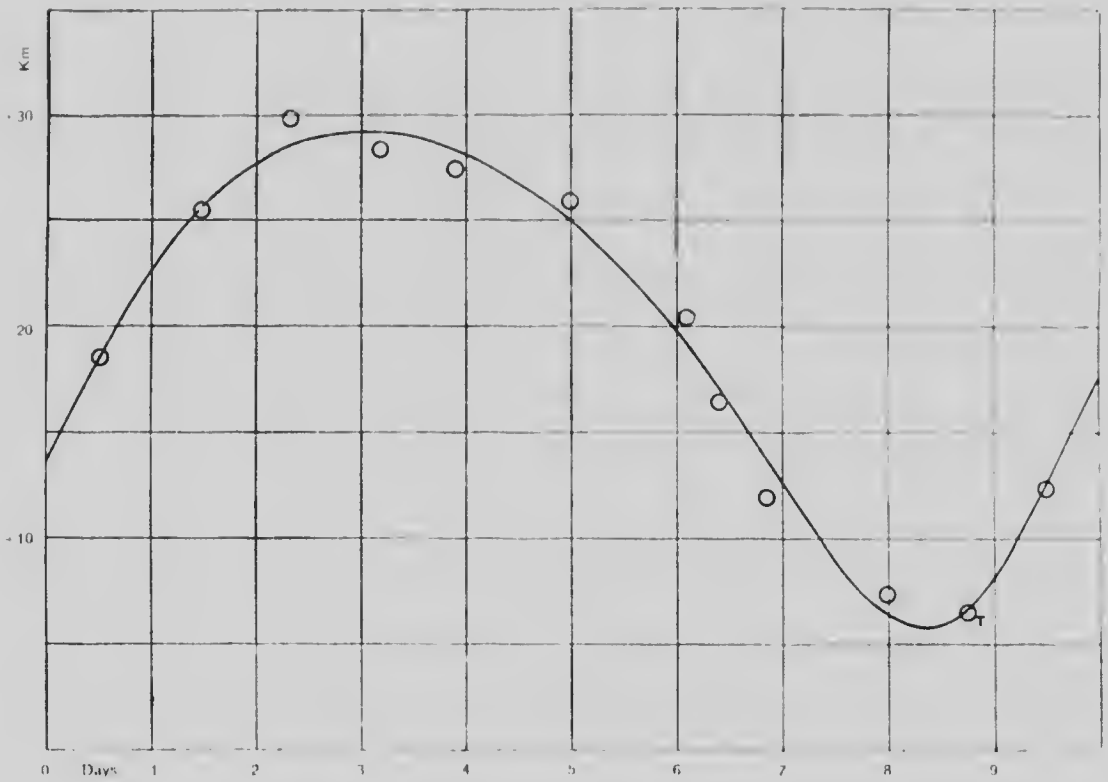
The final elements are

| | | |
|---|---|---|
| P | = 9·590 days | |
| $e$ | = 0·2065 | ± ·0344 |
| K | = 11·74 km. | ± ·33 km. |
| $\gamma$ | = +19·71 km. | ± ·22 km. |
| $\omega$ | = 203°28 | ± 6°.80 |
| T | = J. D. 2,421,898·741 | ± ·196 day |
| $a \sin i$ | = 1,510,000 km. | |
| $\frac{m_1^3 \sin^3 i}{(m+m_1)^2}$ | = ·0015 ⊙ | |




These elements are suggestive of the spectroscopic elements for the cepheid variables. The period is the shortest yet found for a star of G type if we exclude the Cepheids but is quite normal for a star of that class. The range is small and the eccentricity high for a binary of such short period. The orbit is minute. The observations do not fit the curve as well as the character of the spectrum would lead one to expect, the probable error of a single plate being, for Victoria, 4·61 km., for Ottawa, 3·00 km. All these characteristics belong also to the Cepheids. On the other hand the star has not been observed to vary and accepting Adams' value for the parallax and luminosity, $\pi = 0{\cdot}052$, $L = 6{\cdot}92$ the absolute magnitude is +2·82. According to Shapley's curve in the Astronomical Society of the Pacific, February, 1918, for the Cepheid variables, a star of this period and apparent