

besides this only those lines which are most intense show at all for the secondary component, it is easy to see why they were overlooked on the few plates on which from two to ten show at all. The table of observations lists only those plates which show double lines since these were the only plates used in the final determination of the orbits. The second column gives the initial of the person securing the spectrogram. All of the measures were made by the author except that the lines of the secondary component on plates 2484 and 2937 were also measured by Mr. Harper, the mean of his measures and the author's being used.

The writer had to leave Victoria on September 18, 1919, to resume his duties at the University of Washington and bad weather prevented securing more plates, at phases which would show the double lines, before October 15, and after that it was inadvisable to attempt to get any more plates in 1919, owing to the unfavourable position of the star for observation. However, in April 1920, Mr. Harper and Dr. Plaskett kindly secured three more plates at such phases as to show the lines double. Again in August 1920, four more plates were again secured at such phases as to show some of the lines double. Sixteen plates in all were therefore secured which show double lines and the orbit is based entirely on the measures of these sixteen plates. The remaining twenty-six plates were measured on either the Hartmann Comparator or the Gaertner measuring machine or on both, but none of these measures were used in the final computations for the orbital elements.

The lines of the secondary component are quite faint whereas those of the principal component are rather diffuse and much more numerous. The probable error of a plate for the principal component is ± 2.36 and for the secondary ± 4.65 km. per second. The mass of the secondary component is 0.903 times that of the principal component.

In the following table of observations the phases are reckoned from the final value of periastron passage using the corrected period 10.5217 days.