A Long Period Spectroscopic Binary, 1

accepted for the plate shows that some slight changes might be made in the wave-lengths and better agreement secured among the lines themselves. The revised velocities would not be materially different, as the differences in the long run would tend to balance one another, and the procedure has not been carried out. A sample of the residuals is given in the accompanying table for the nine lines most frequently used, the order indicating the frequency of measurement.

RESIDUALS FROM LINES

Line	Av Num d Res	Average Algebraic Residual	Line	Average Numerical Residual	Average Algebraic Residual
55-19 11 4 34 435 1 435 1 4308	2°3 1°9 5°1 2°9 2°5	+ 0°8 - 1°4 - 1°7 + 0 8 + 1°2	4522 4501 4395 4508	2.7 2.2 5.0 2.6	+ 1'4 1'6 + 3'7 - 2'0

A plot of our own observations seemed to indicate a period of about six years. The early observations were now brought forward using periods of 2270, 2200 and 2160 days. The latter seemed to suit the reliable observations, best and it was accordingly used. Graphical values for the elements were obtained in the usual way.

P = 2160 days	Ì
e = '35	
$\omega = 0^{\circ}$	Preliminary
K = 6.5 km.	Elements
$\gamma = -12.27$ km.	
T = 1, D, 2, 410, 036.0	j

Although, as previously stated, there was a gap in the enrive requiring further observations to fill up, yet it seemed desirable to make a least squares solution of all the dependable measures to date. For purposes of grouping, the very early observations at Potsdam ere weighted one-half as were also the Lowell approximate measuress, while all others including our own were each

183