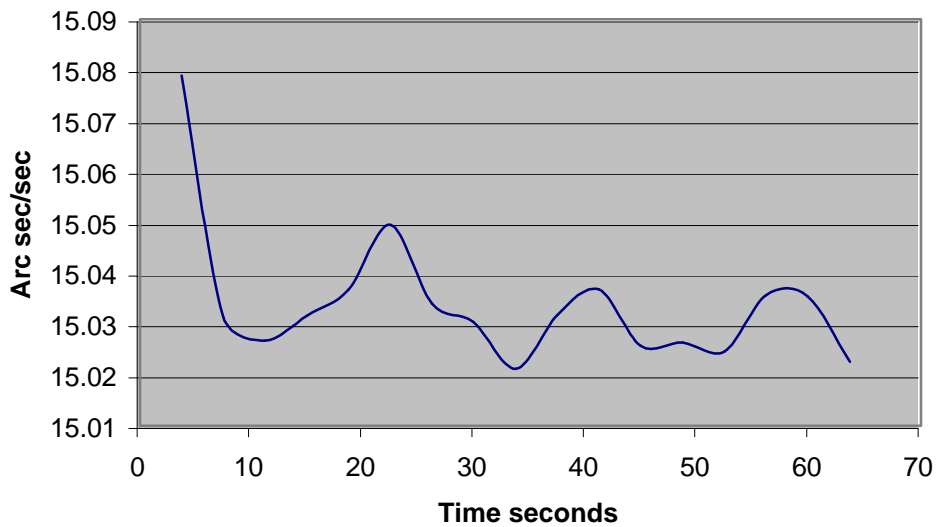


Sidereal Tracking



This graph is of the raw Sidereal tracking rate of a LX200GPS.
The scope is in polar mode and PEC & Smart Mount are turned off

Prior to measurement the RA motor drive reference crystal was calibrated to 20Mhz with an accuracy of 0.05 parts per million.

Tracking rate is measured from the RA motor encoder output using a value of 7.111111 pulses per Arc Second of OTA slew

The measurement of encoder pulses gives the tracking rate that the Autostar is actually outputting. This also has the advantage that gearbox errors are eliminated.

This is a true representation of the tracking servo control loop.

These errors are inherent in the design and cannot be removed by PEC or mechanical modifications.