Digitizing Resolution of the Topcon NET-G3A Receiver

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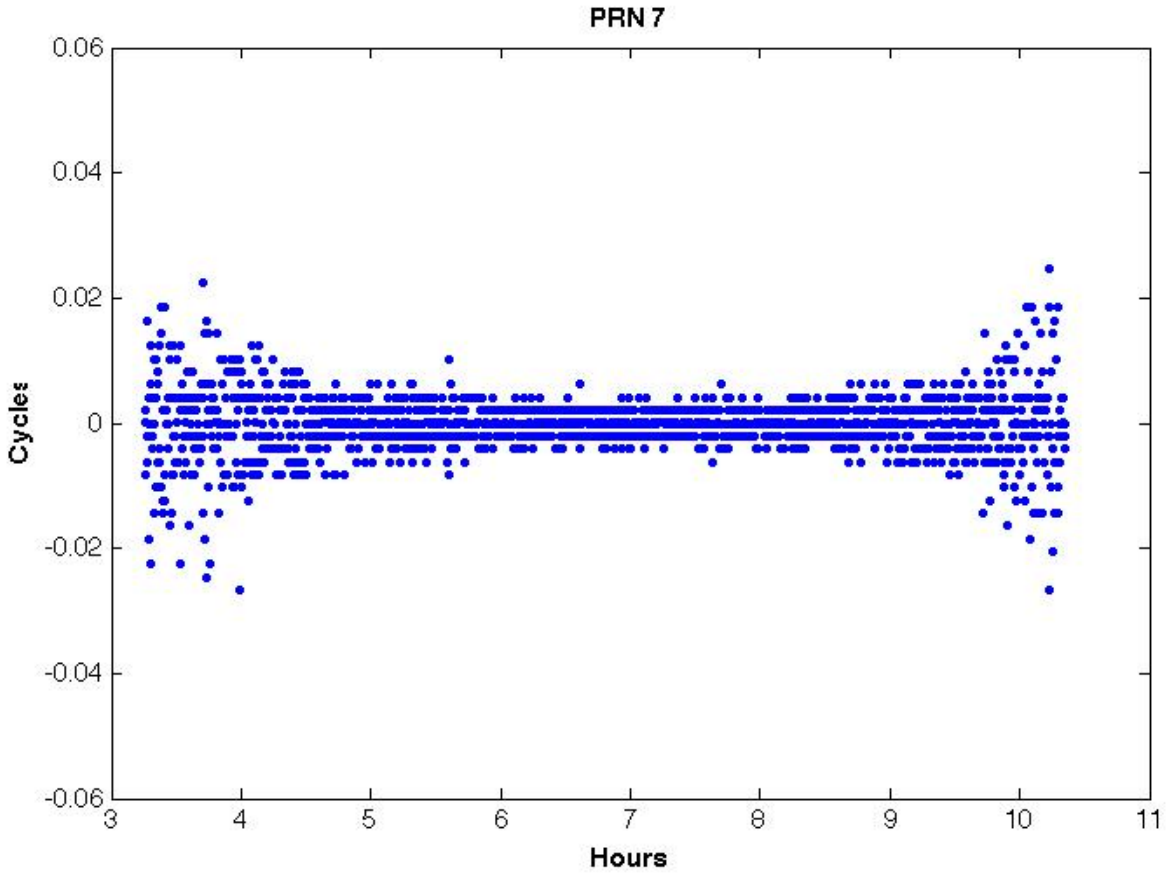
While differencing the L2 and L2C carrier phase measurements made with a Topcon NET-G3A receiver, we have observed a banding pattern; the difference between each band is ~0.002047434 cycles.

Multiplying 0.002047434 cycles with the L2 wavelength we find that 0.002047434 cycles = 0.5 mm

This banding demonstrates that the digitizing resolution of the NET-G3A receiver is 0.5 mm for the L2 signal.

This analysis was done using a translation of tps-format data using extended resolution on the phase values beyond the usual 0.001 cycle resolution available in RINEX observation format.

The following figure shows the difference between the L2 and L2C carrier phase measurements for PRN 7 from a NET-G3A receiver.



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