Digitizing Resolution of the Trimble NetR8 Receiver

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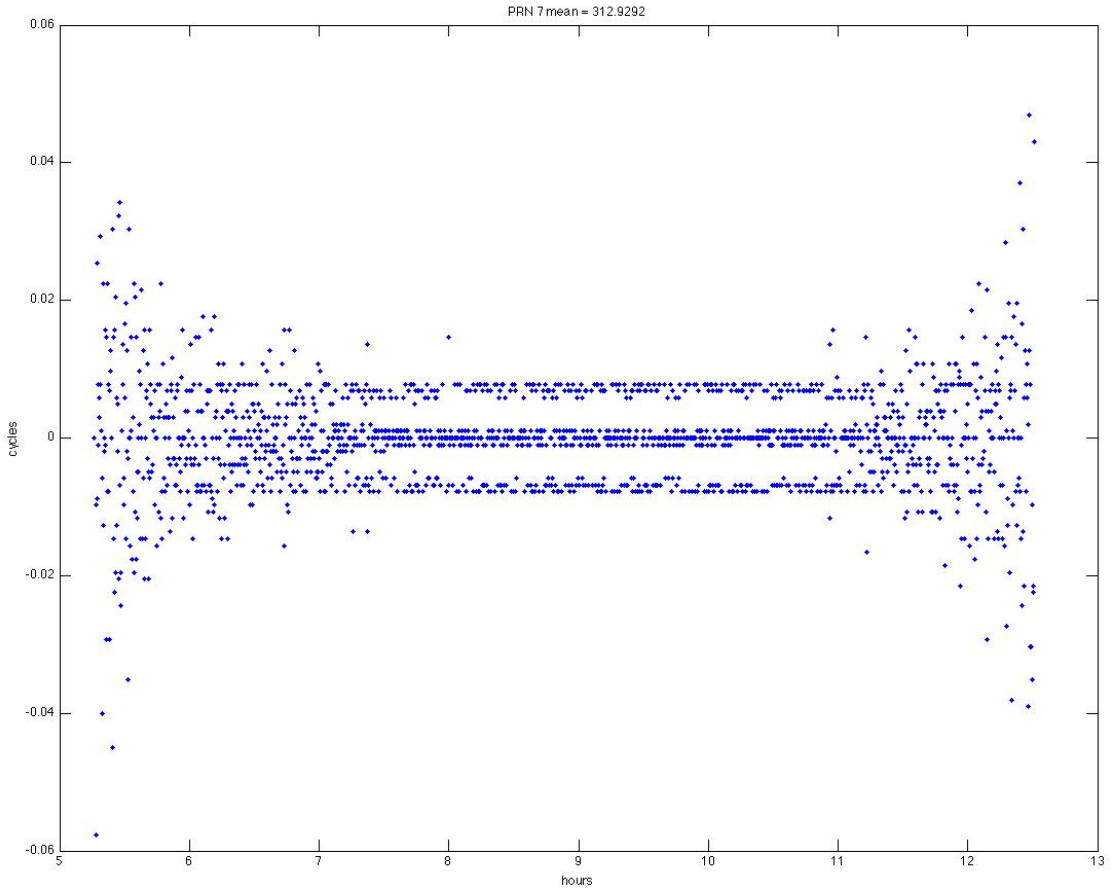
While differencing the L2 and L2C carrier phase measurements made with a NetR8 receiver, we have observed a banding pattern; the difference between each band is ~0.0009765625 (1/1024) cycles.

This banding demonstrates that the digitizing resolution of the NetR8 receiver is 1/1024 (1/2^10) of a cycle - the receiver is using an 10 bit A-D conversion.

This analysis was done using a translation of RT27-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 NetR8 receiver.



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