Antenna Induced Biases in GNSS Receiver Measurements

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Antennas can introduce significant biases in code and carrier phase measurements obtained from GNSS receivers. For fixed pattern antennas, these biases can be calibrated. The same is not true for controlled reception pattern (adaptive) antennas whose combined pattern varies with the interference signal scenario. We have developed efficient approaches [1] for on-the-fly estimation of antenna induced biases in GNSS receiver measurements. Currently, we are verifying the accuracy of the estimated biases experimentally [2] using digitized data collected using our multi-channel Data Acquisition System as well as with real-world GPS antenna, antenna electronics and GPS receivers [3].

Further Reading:

