



INS-T-306

Tersus GNSS-Aided Inertial Navigation Systems

Test Report
Version 1.0-20170516

Test data: **April 24, 2017**

Device: INS-T-306

Serial number: F1690039

INS-T performance:

- GNSS: Single antenna, GPS L1/L2, GLONASS, 20 Hz positions, 20 Hz measurements,
- IMU: 200 Hz IMU measurements, 1 deg/hr gyro Bias in-run stability, 5 micro g accelerometers Bias in-run stability

Flying platform: UAV (quadrocopter)

Project: airborne scanner carrying platform (survey)

Used PP software: Novatel Inertial Explorer

Test files:

INS data: **INERDATE1.Trs**

Base station data: **BaseStation_170125_XXXXX**

GNSS raw data: **INERDATE2.Trs**

Post-processing results



Smoothed TC Combined - Map

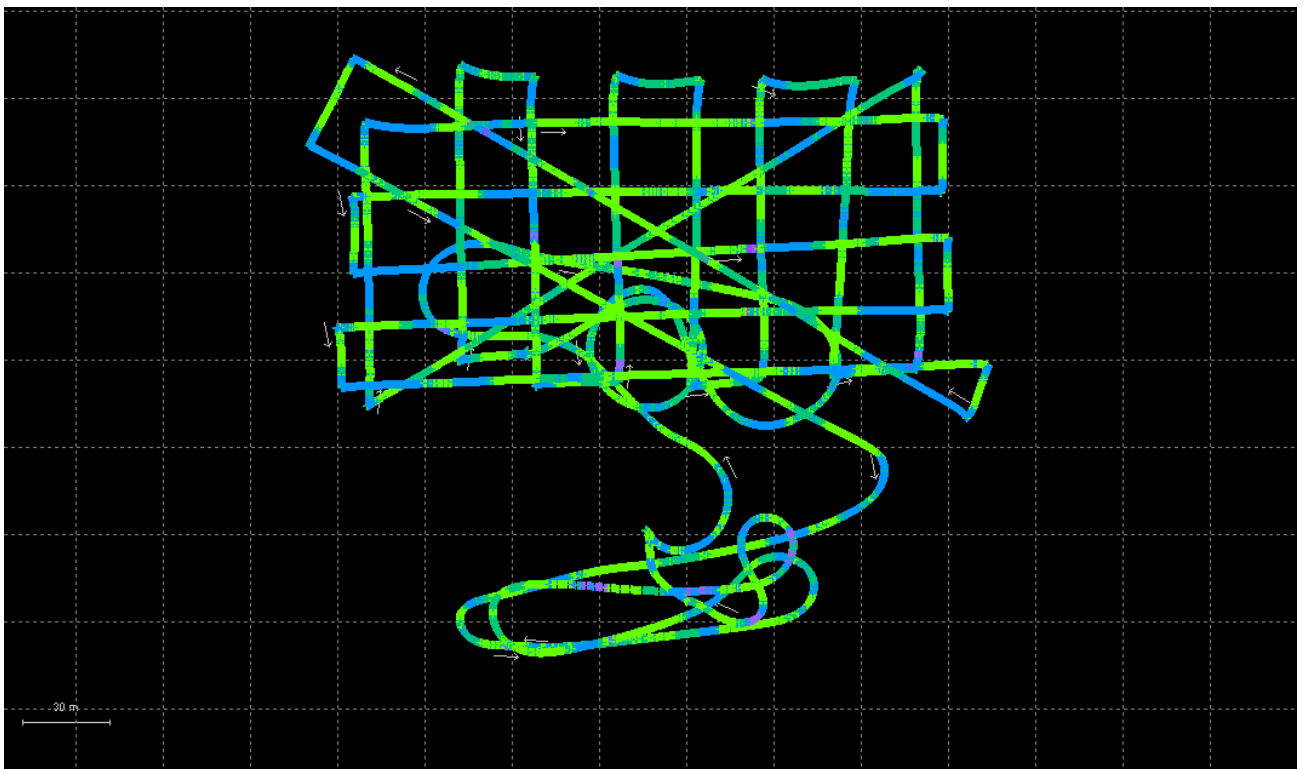


Fig 1.1

Estimated post-processed position accuracy in whole test time is shown in Table 1.1 and Fig 1.2.

Table 1.1. Estimated position accuracy

	East, m	North, m	Height, m
STD	0.0008	0.0008	0.0015
RMS	0.0041	0.0046	0.0077
Mean	0.0041	0.0045	0.0076

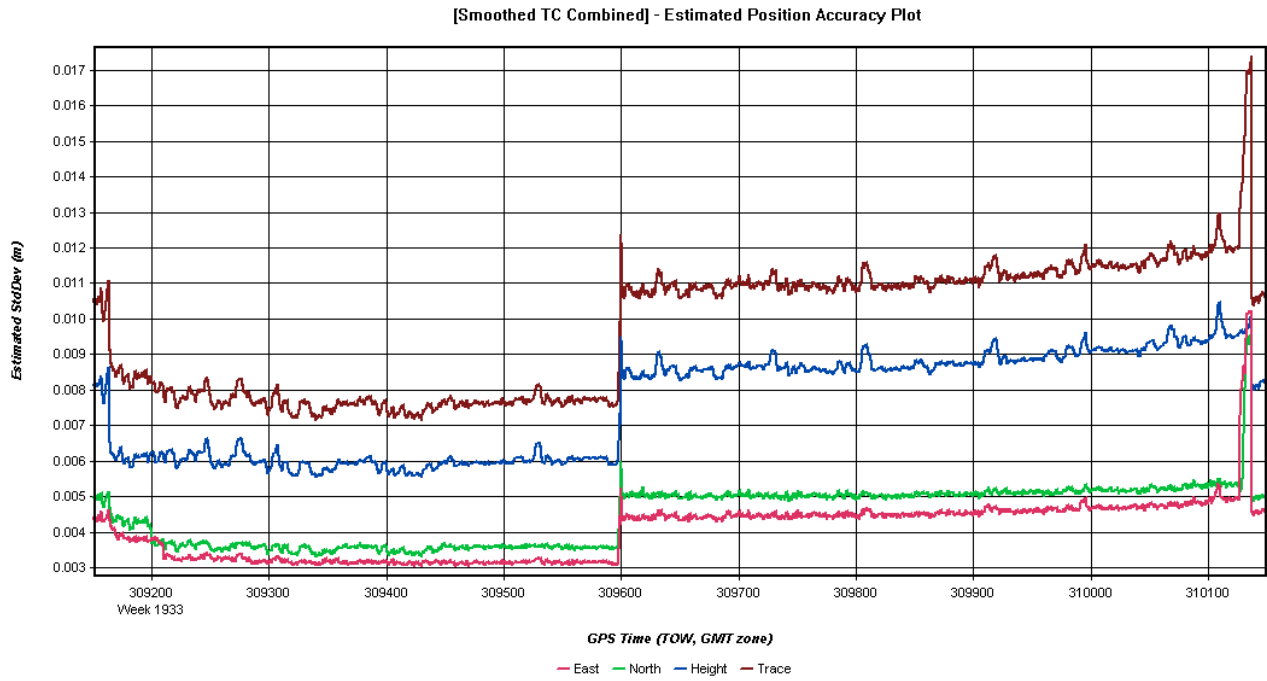


Fig 1.2

Estimated post-processed attitude accuracy is shown in Table 1.2 and Fig 1.3.

Table 1.2. Estimated attitude accuracy

	Heading, arc min	Pitch, arc min	Roll, arc min
STD	0.182	0.029	0.022
RMS	1.990	0.293	0.289
Mean	1.982	0.292	0.289

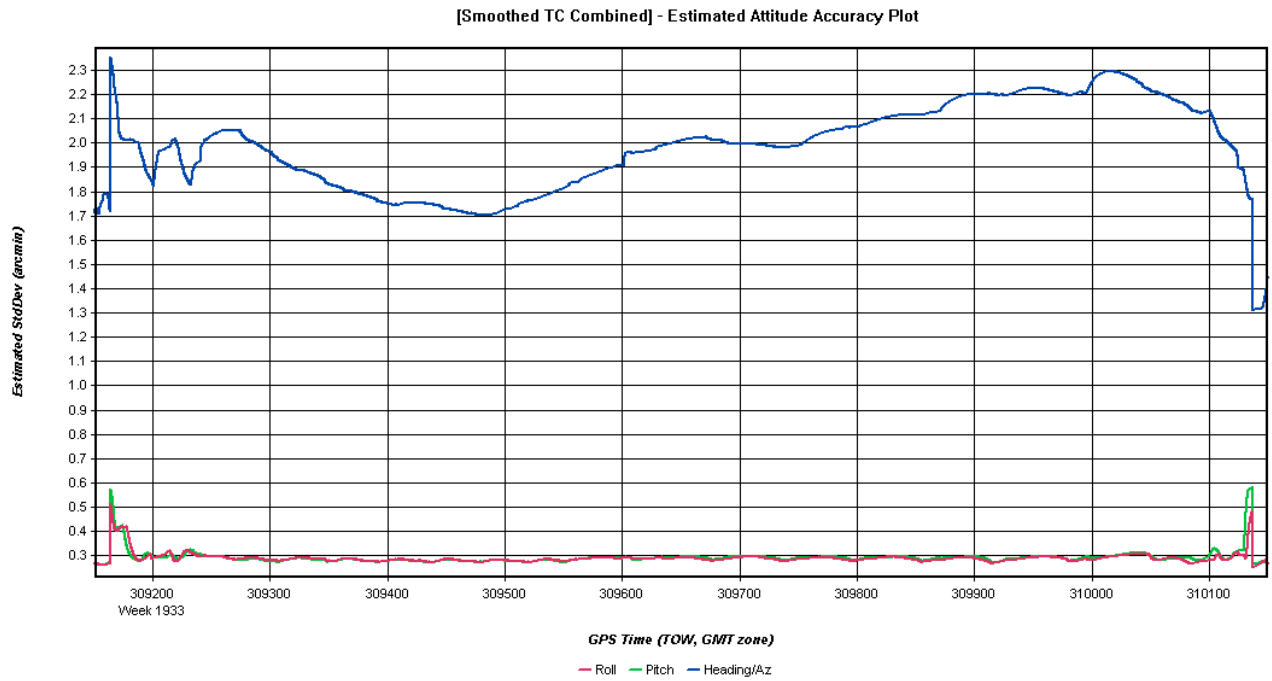


Fig 1.3

Estimated post-processed velocity accuracy is shown in Table 1.3 and Fig 1.4.

Table 1.3 Estimated velocity accuracy

	East, m/s	North, m/s	Height, m/s
STD	0.002	0.002	0.001
RMS	0.006	0.007	0.005
Mean	0.006	0.006	0.005

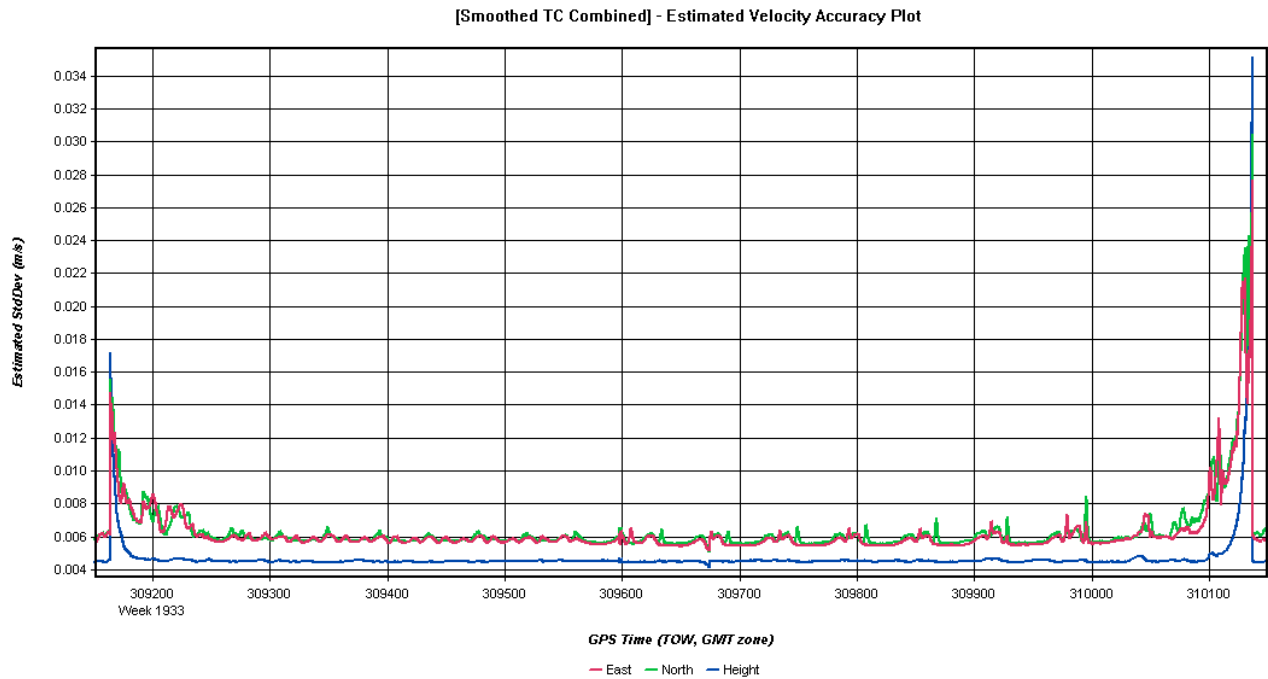


Fig 1.4