General Information

Mission Information

Project name	19-058_092920
Processing date	2020-10-27 17:36:17
Mission date	2020-09-29 15:07:14
Mission duration	07:51:21.000
Processing mode	IN-Fusion Trimble RTX Nav

Rover Hardware Information

Product	POS AV 610 VER6 HW2.4-12
Serial number	S/N6310
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
ALS.907	POS Data
ALS.908	POS Data
ALS.909	POS Data
ALS.910	POS Data
ALS.911	POS Data
ALS.912	POS Data
ALS.913	POS Data
ALS.914	POS Data
ALS.915	POS Data
ALS.916	POS Data
ALS.917	POS Data
ALS.918	POS Data
ALS.919	POS Data
ALS.920	POS Data
ALS.921	POS Data
ALS.922	POS Data
ALS.923	POS Data
ALS.924	POS Data
ALS.925	POS Data
ALS.926	POS Data
ALS.927	POS Data
ALS.928	POS Data
ALS.929	POS Data
ALS.930	POS Data
ALS.931	POS Data
ALS.932	POS Data
ALS.933	POS Data
ALS.934	POS Data
ALS.935	POS Data
ALS.936	POS Data
ALS.937	POS Data
ALS.938	POS Data
ALS.939	POS Data
ALS.940	POS Data
ALS.941	POS Data
ALS.942	POS Data
ALS.943	POS Data
ALS.944	POS Data
ALS.945	POS Data
ALS.946	POS Data
ALS.947	POS Data
ALS.948	POS Data
ALS.949	POS Data
ALS.950	POS Data
ALS.951	POS Data
ALS.952	POS Data
ALS.953	POS Data
ALS.954	POS Data
ALS.955	POS Data
ALS.956	POS Data
ALS.957	POS Data
ALS.958	POS Data
ALS.959	POS Data
ALS.960	POS Data
ALS.961	POS Data
ALS.962	POS Data
ALS.963	POS Data
ALS.964	POS Data
ALS.965	POS Data

File name	File type
ALS.966	POS Data
ALS.967	POS Data
ALS.968	POS Data
ALS.969	POS Data
ALS.970	POS Data

Input Files

File Name	File Type
Ephm2730.20g	GLONASS Broadcast Ephemeris
Ephm2730.20n	GPS Broadcast Ephemeris
igl21251.sp3	GLONASS Precise Ephemeris
igl21252.sp3	GLONASS Precise Ephemeris
igl21253.sp3	GLONASS Precise Ephemeris
igs21251.sp3	GPS Precise Ephemeris
igs21252.sp3	GPS Precise Ephemeris
igs21253.sp3	GPS Precise Ephemeris

Output Files

Filename	File type
sbet_19-058_092920.out	SBET Trajectory File

Rover Data Summary

First raw data file	ALS.907		
Last raw data file	ALS.970		
Start GPS week	2125		
Start time	227301.278 (09/29/2020 15:08:03)		
End time	255508.062 (09/29/2020 22:58:10)		
Start of fine alignment	227829.204 (09/29/2020 15:16:51)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	Event 1 Input		
Correction data	Trimble RTX		
IMU Installation Lever Arms & Mounting Angles			
Gimbal to IMU lever arm (m)	0.000	0.000	0.000
Gimbal to IMU mounting angles (deg)	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm (m)	-0.011	0.039	-1.317
Gimbal to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

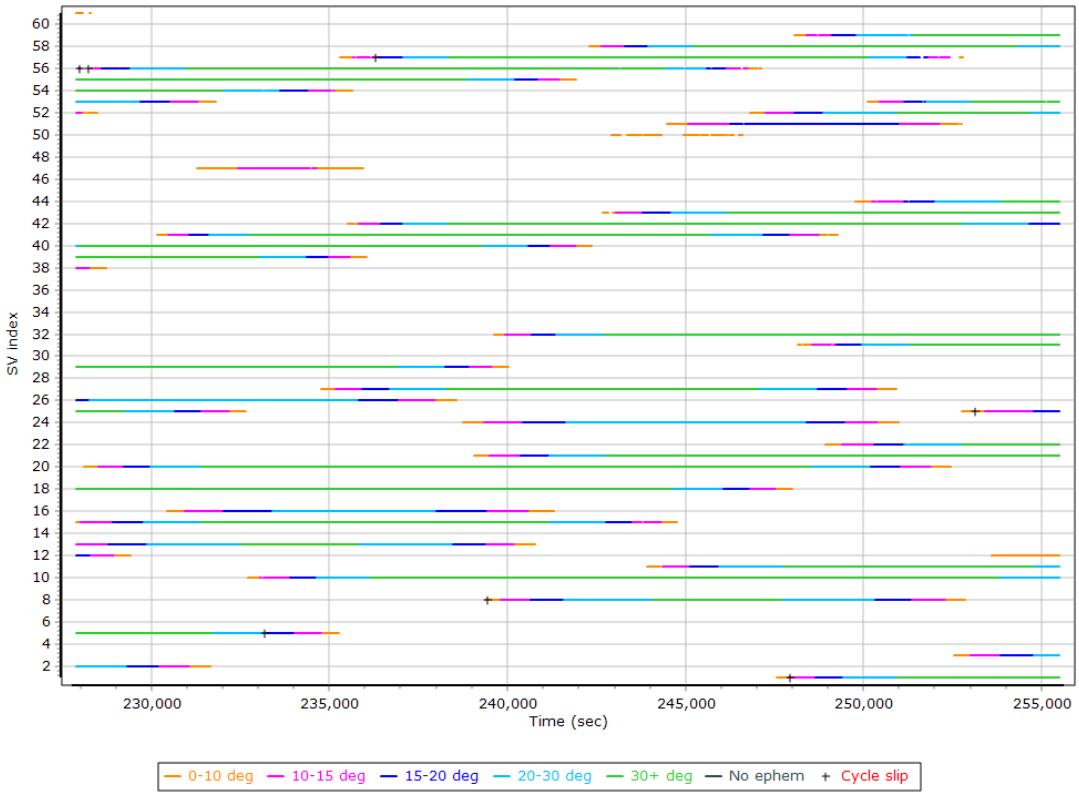
Rover Data QC

Raw IMU Import QC Summary

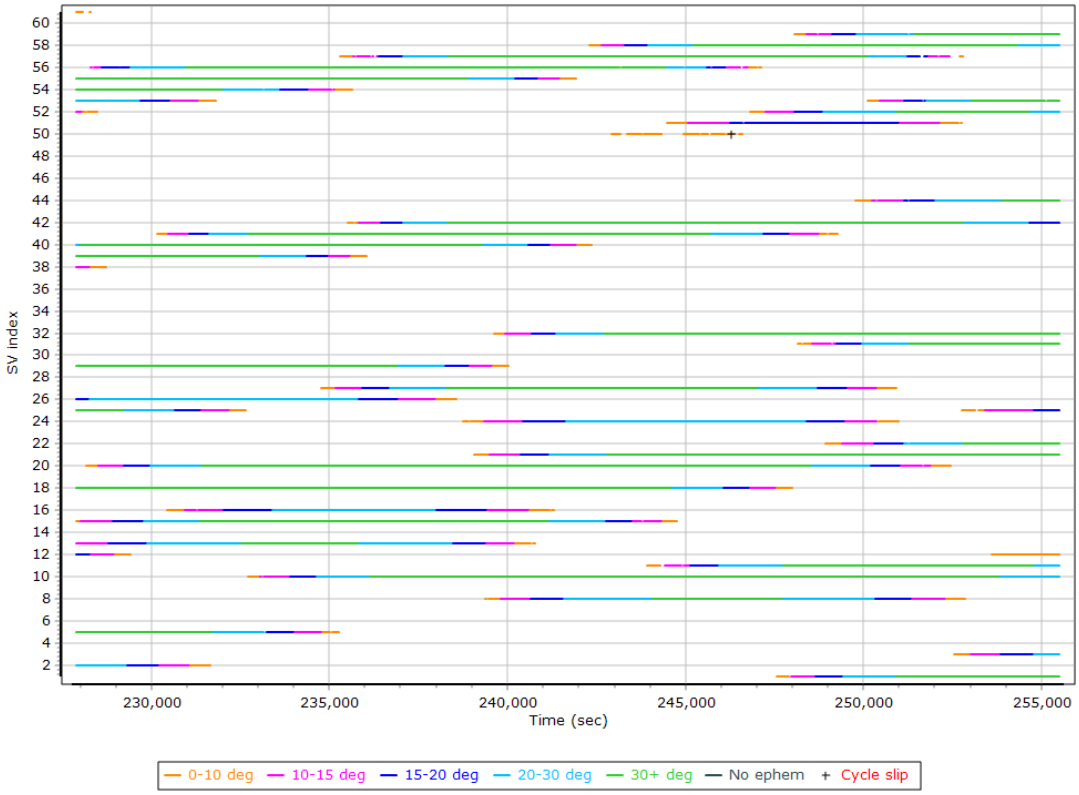
IMU data input file	imu_19-058_092920.dat
IMU data check log file	imudt_19-058_092920.log
IMU Records Processed	5655121
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
227301.028 : WARNING : Gap of 227233.0684 seconds in CHECKDT input data	

Primary Observables & Satellite Data

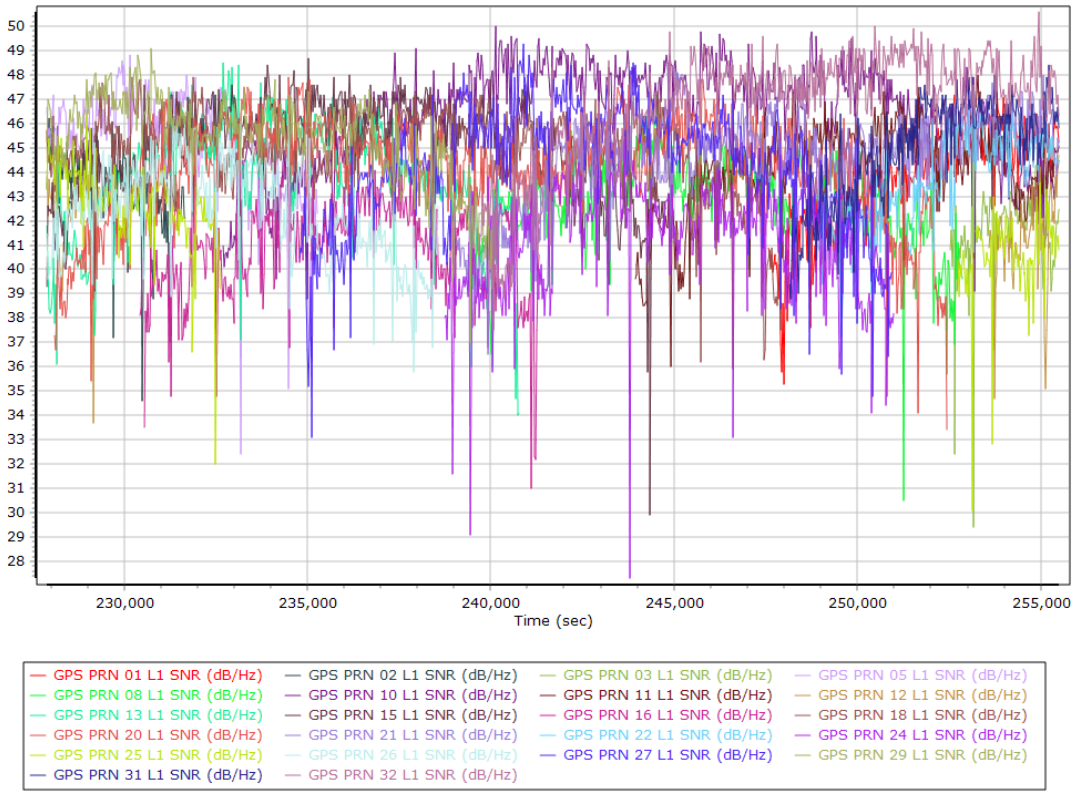
L1 Satellite Lock/Elevation



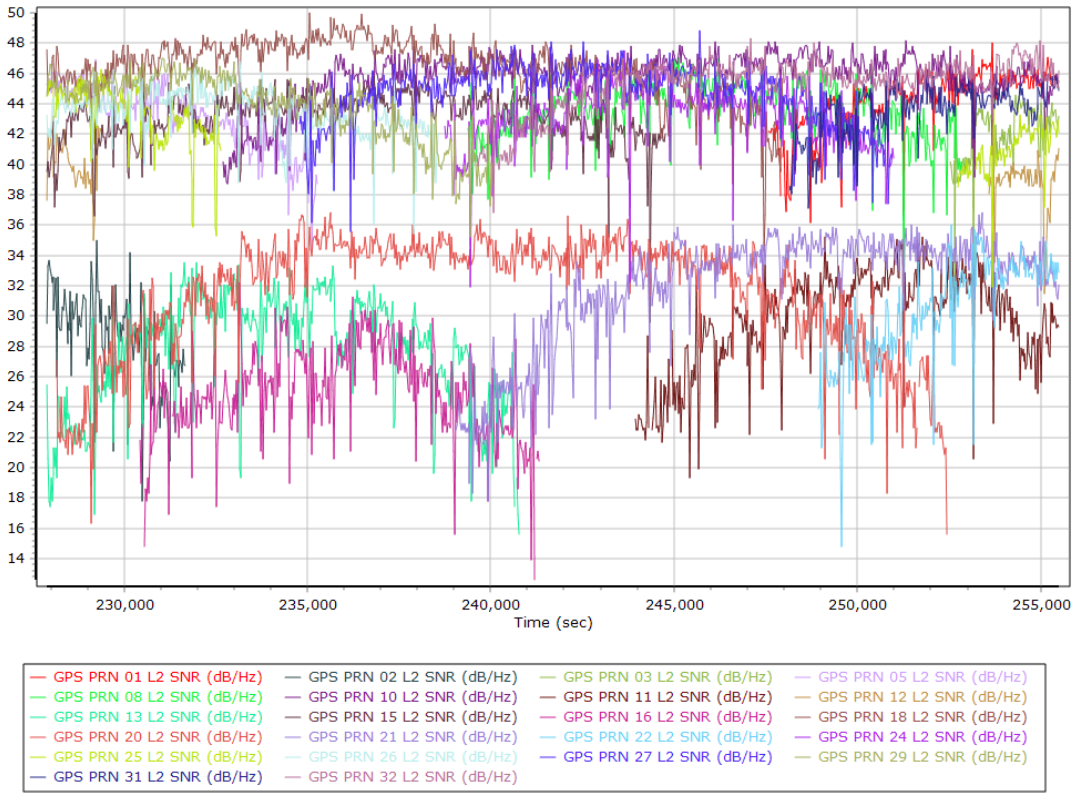
L2 Satellite Lock/Elevation



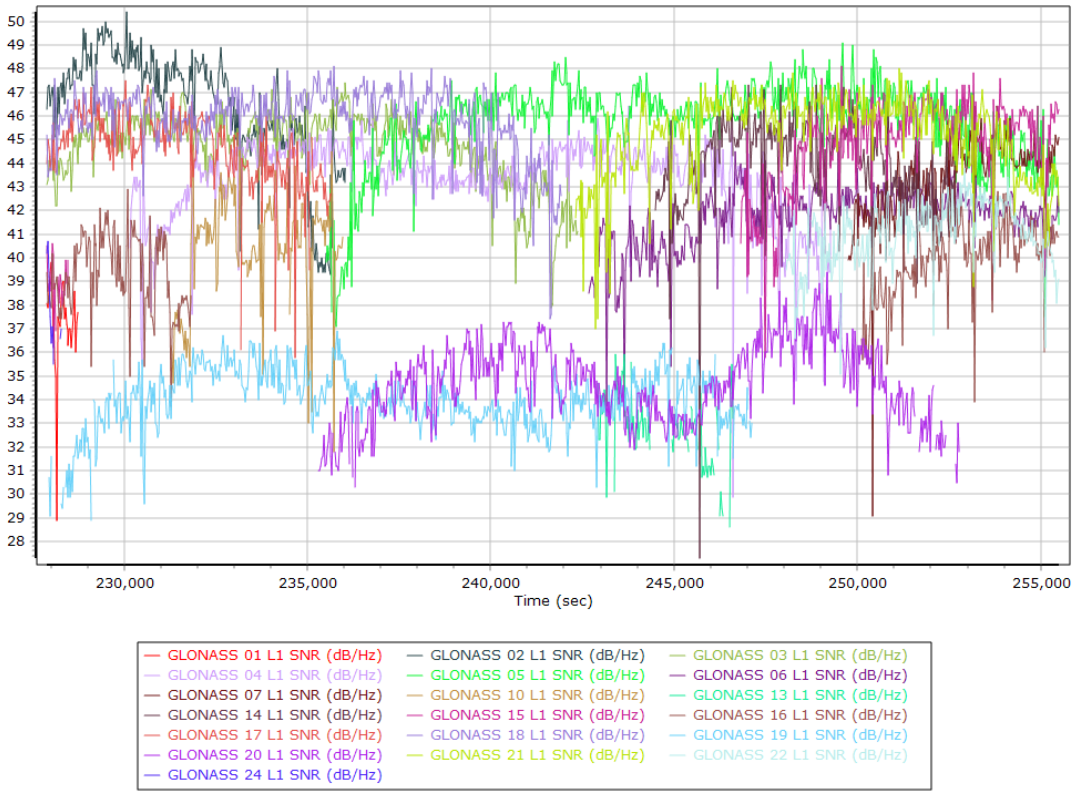
GPS L1 SNR



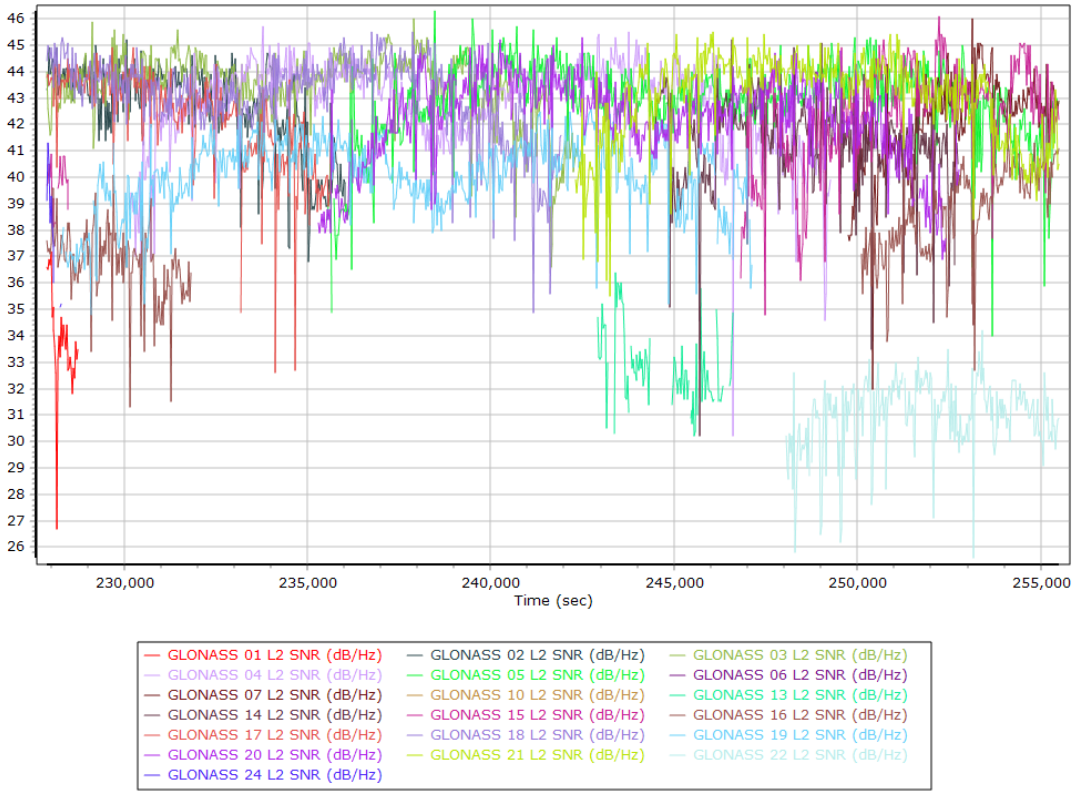
GPS L2 SNR



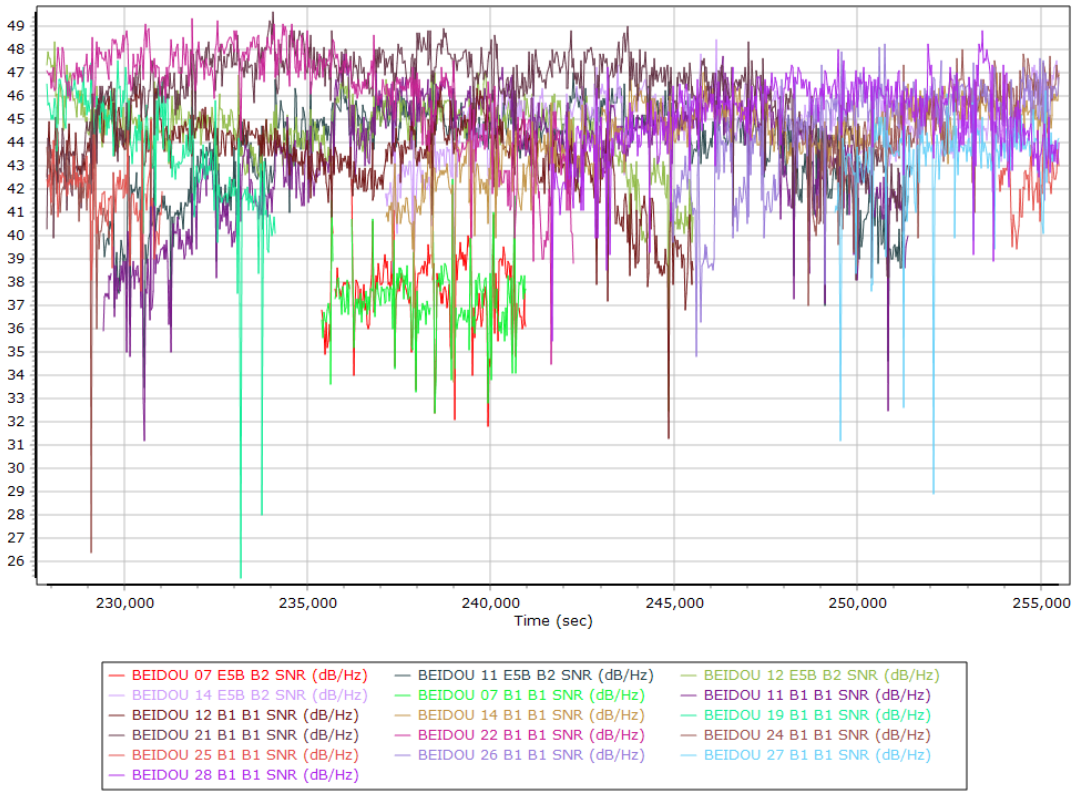
GLONASS L1 SNR



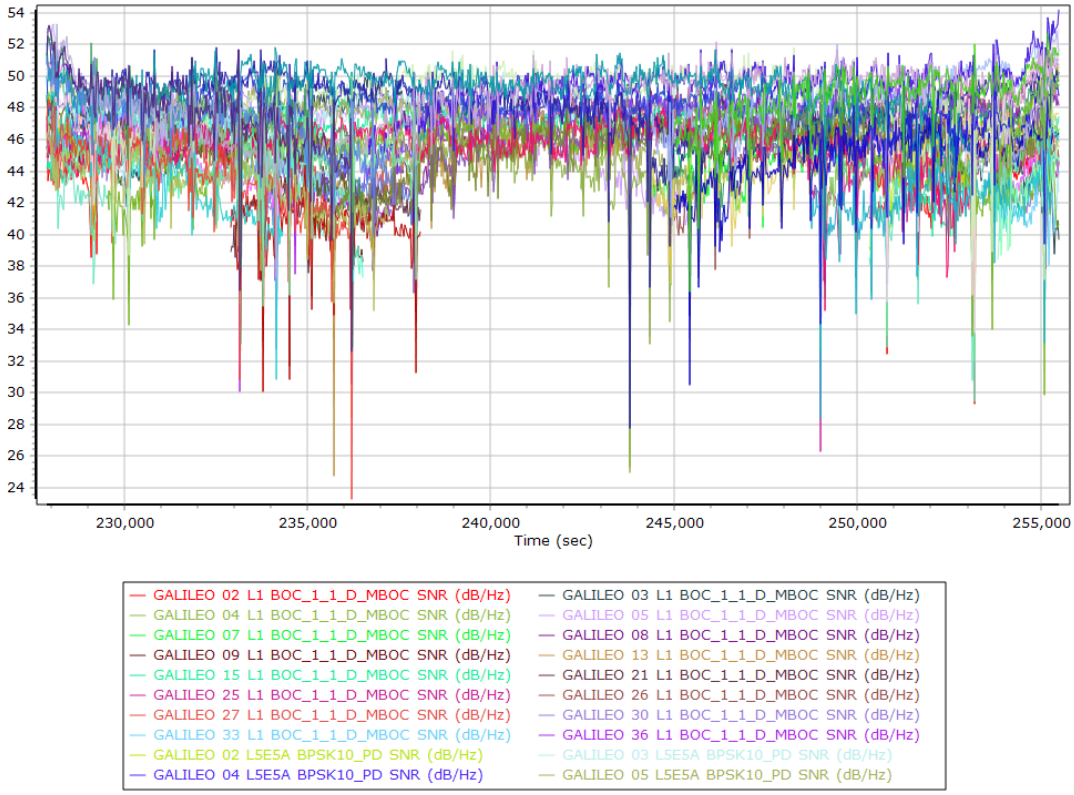
GLONASS L2 SNR



BEIDOU SNR

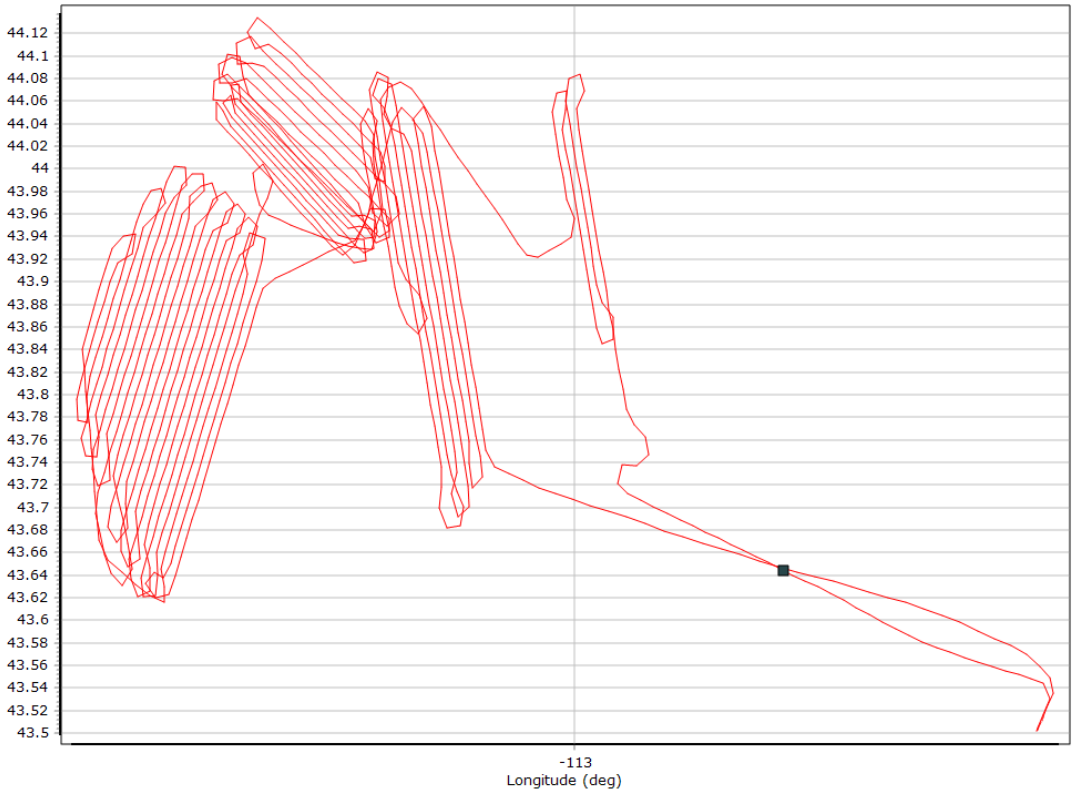


GALILEO SNR

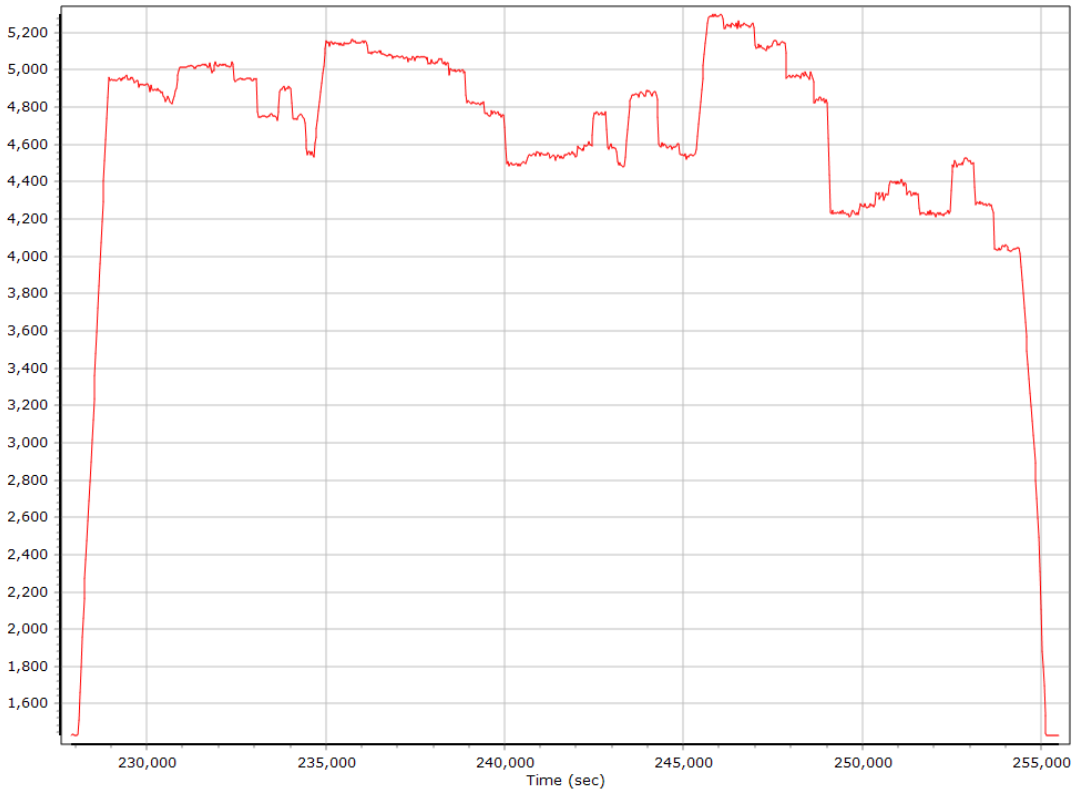

54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
230,000
235,000
240,000
245,000
250,000
255,000
Time (sec)
GALILEO 02 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 03 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 04 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 05 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 08 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 09 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 13 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 15 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 21 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 25 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 26 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 27 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 30 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 33 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 36 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 02 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 03 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 04 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 05 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

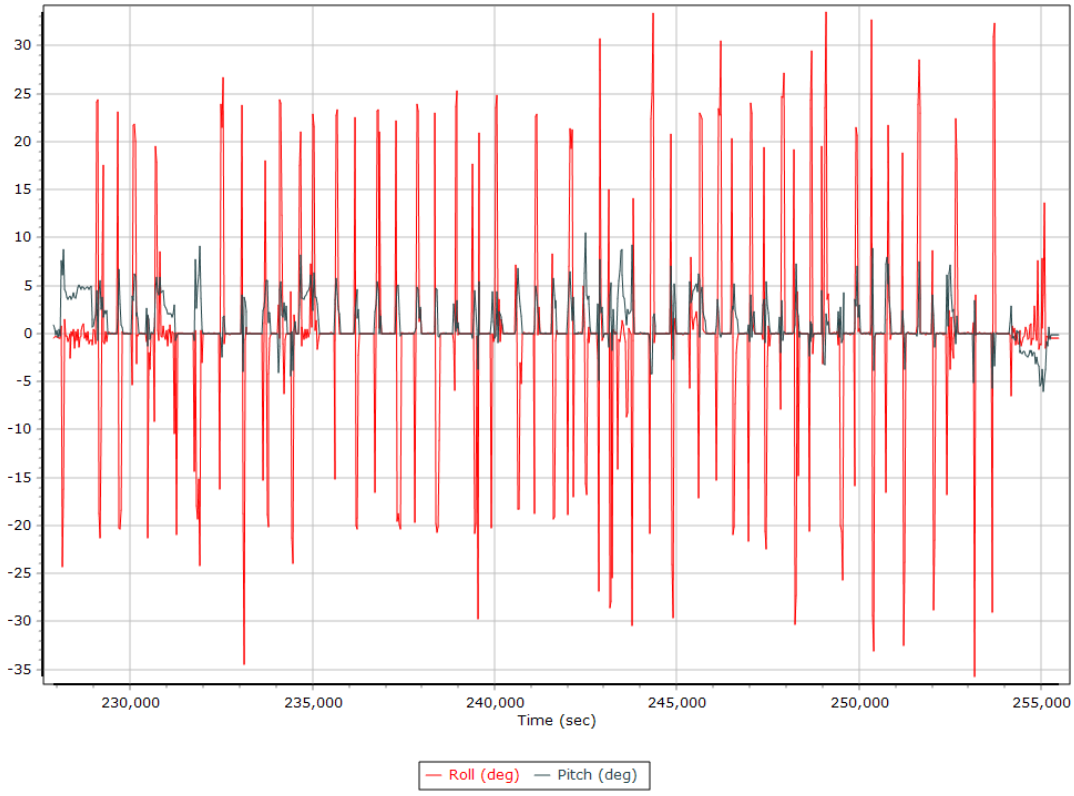
Top View



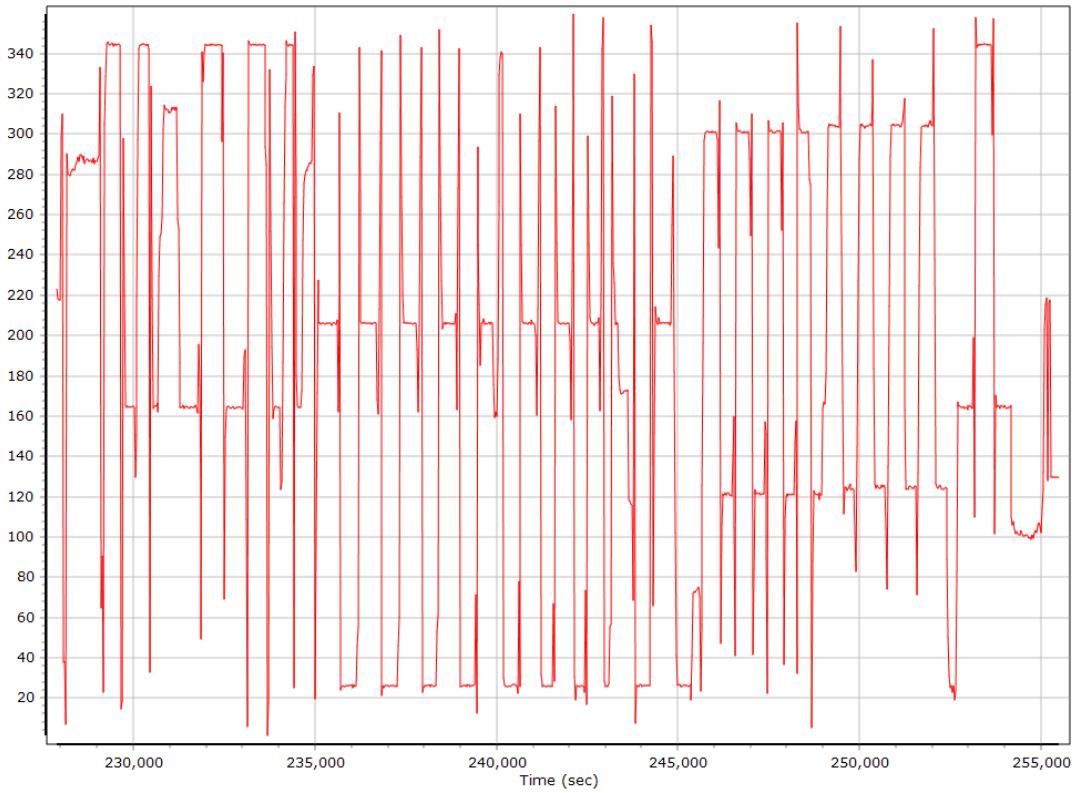
Altitude



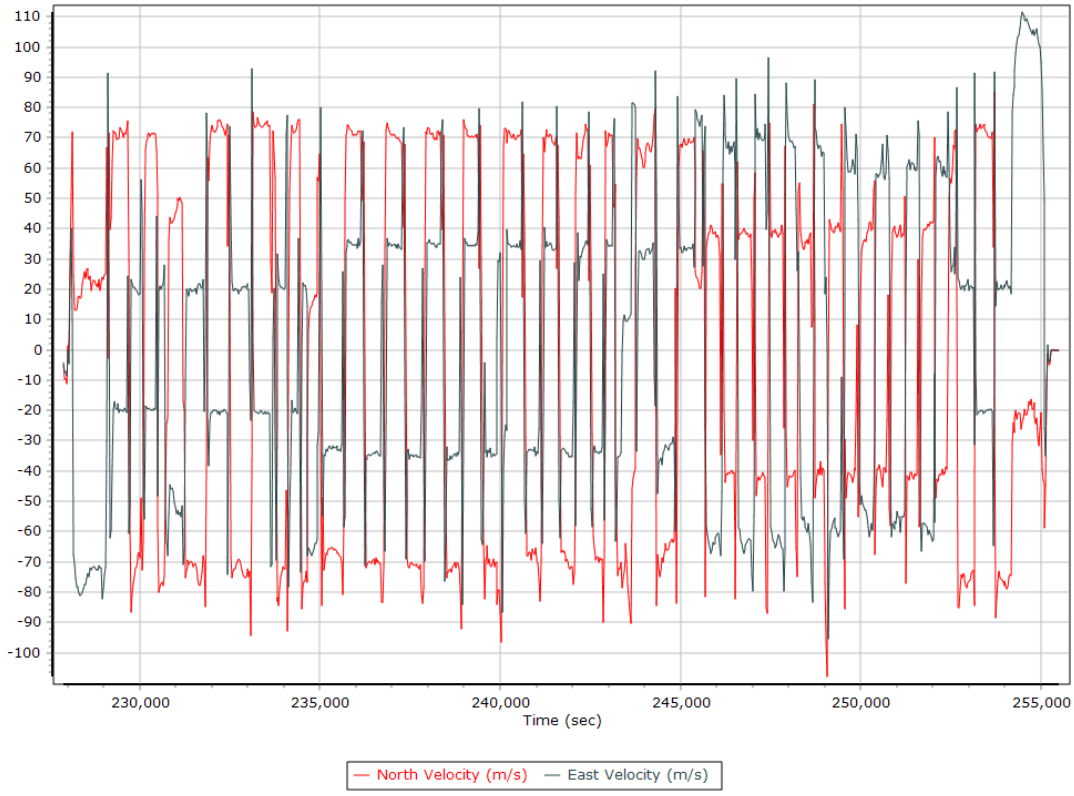
Roll/Pitch



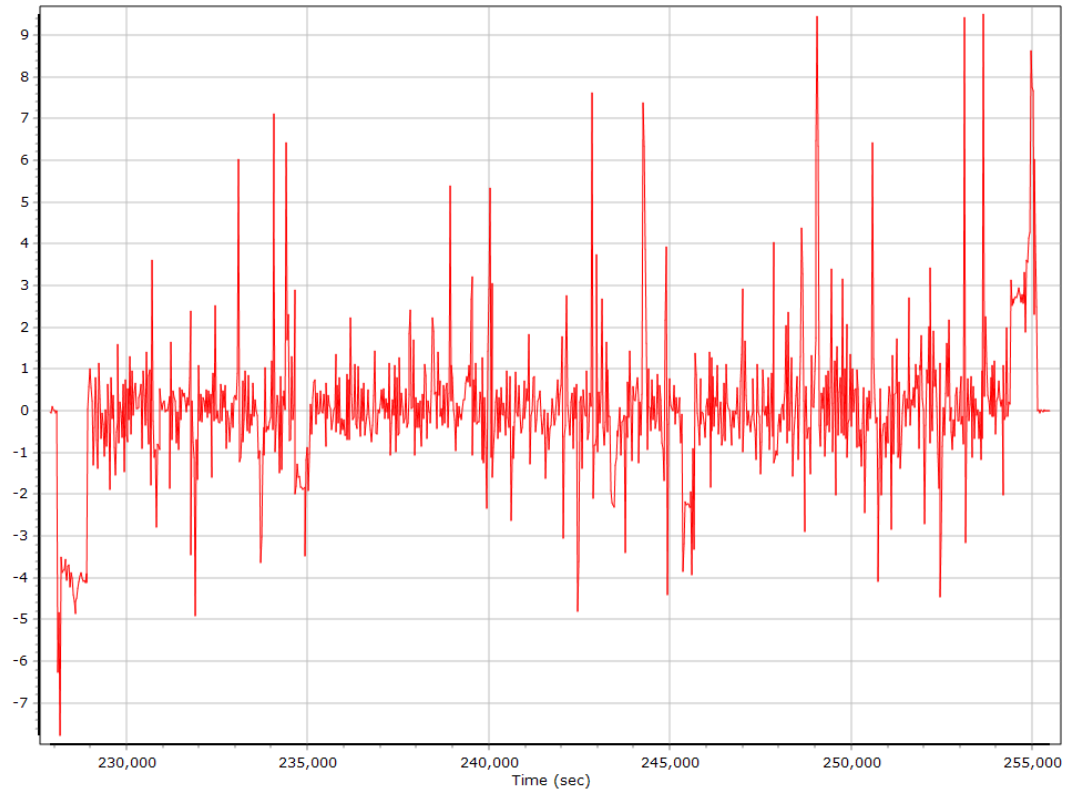
Heading



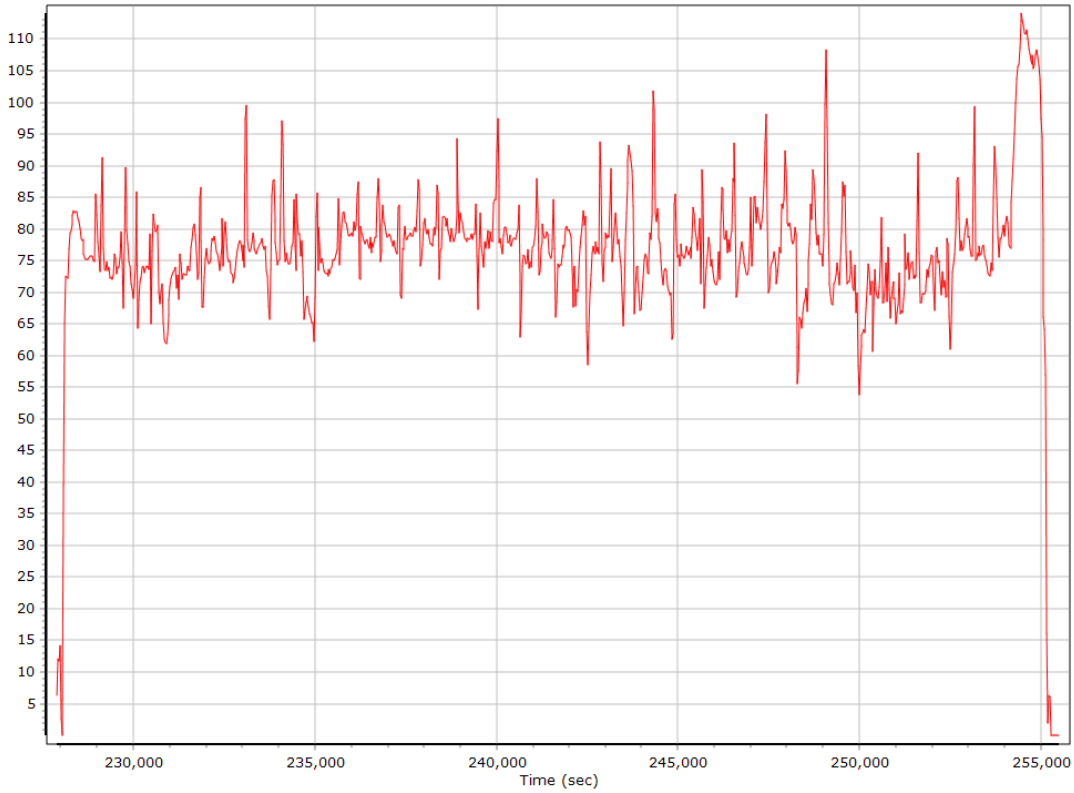
North/East Velocity



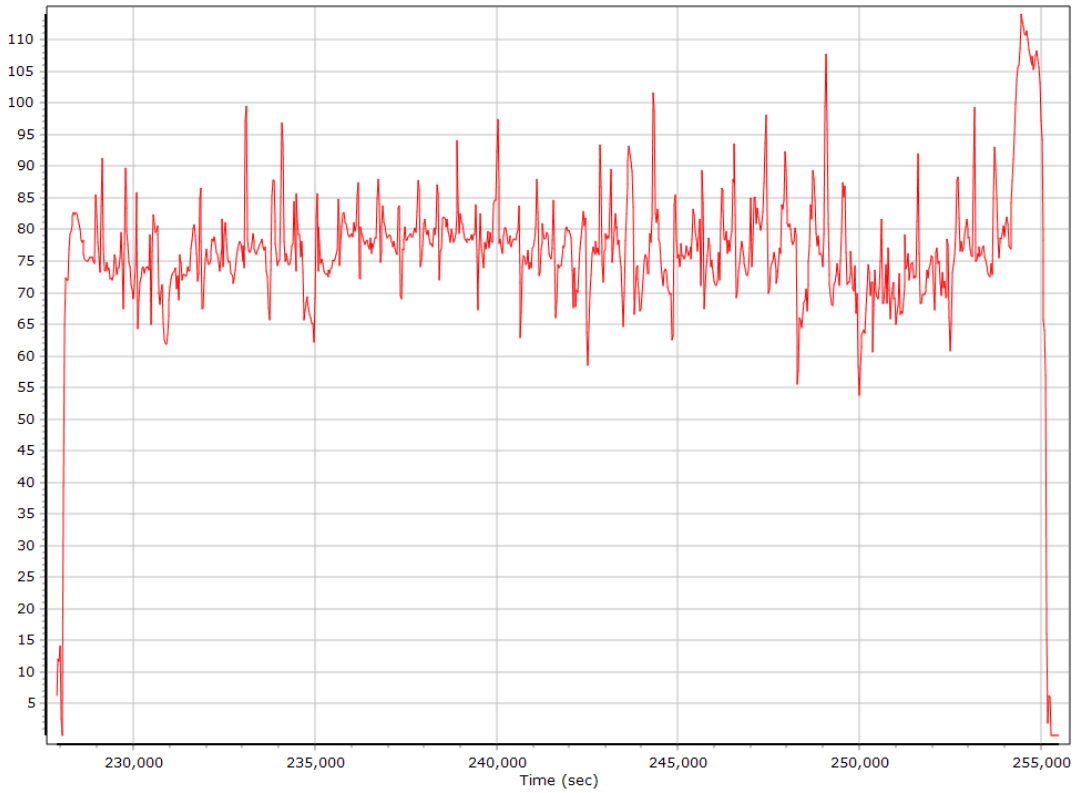
Down Velocity



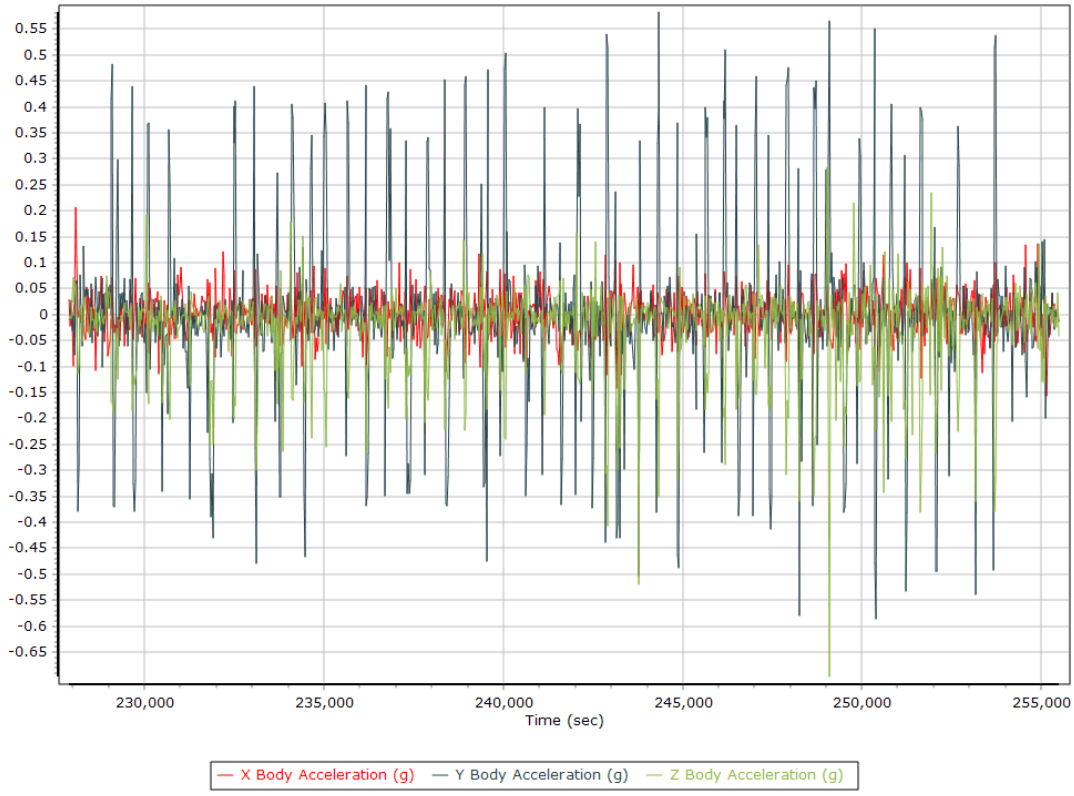
Total Speed



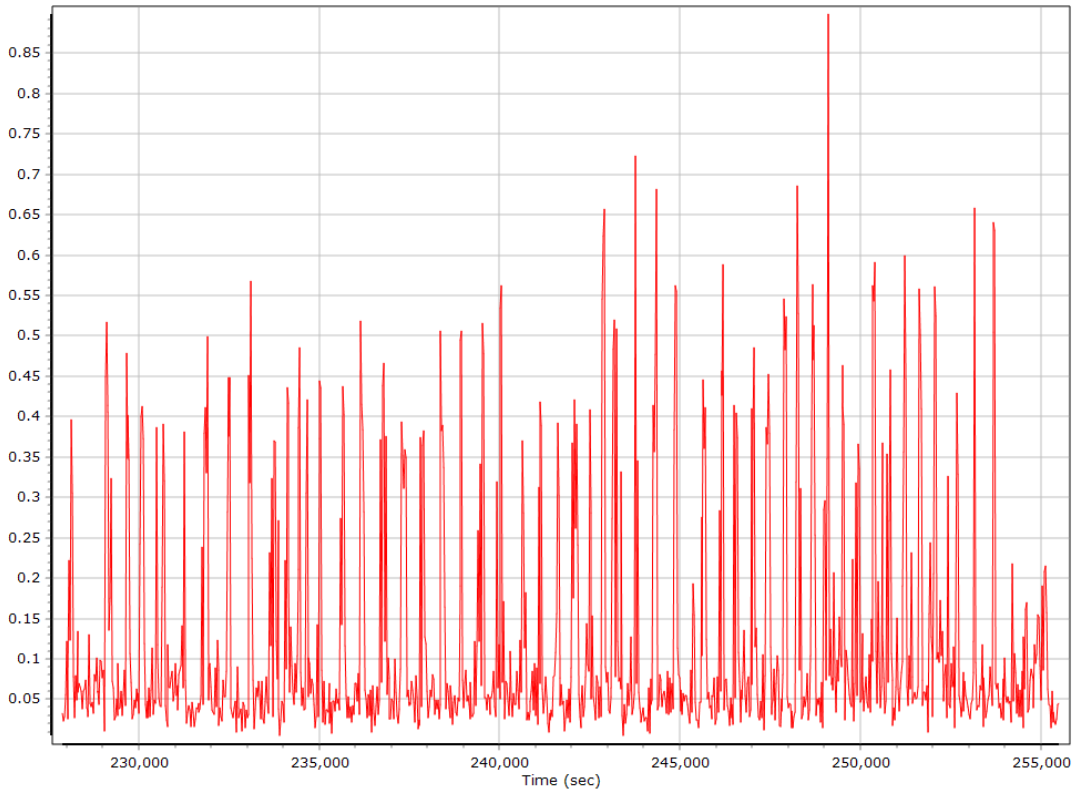
Ground Speed



Body Acceleration



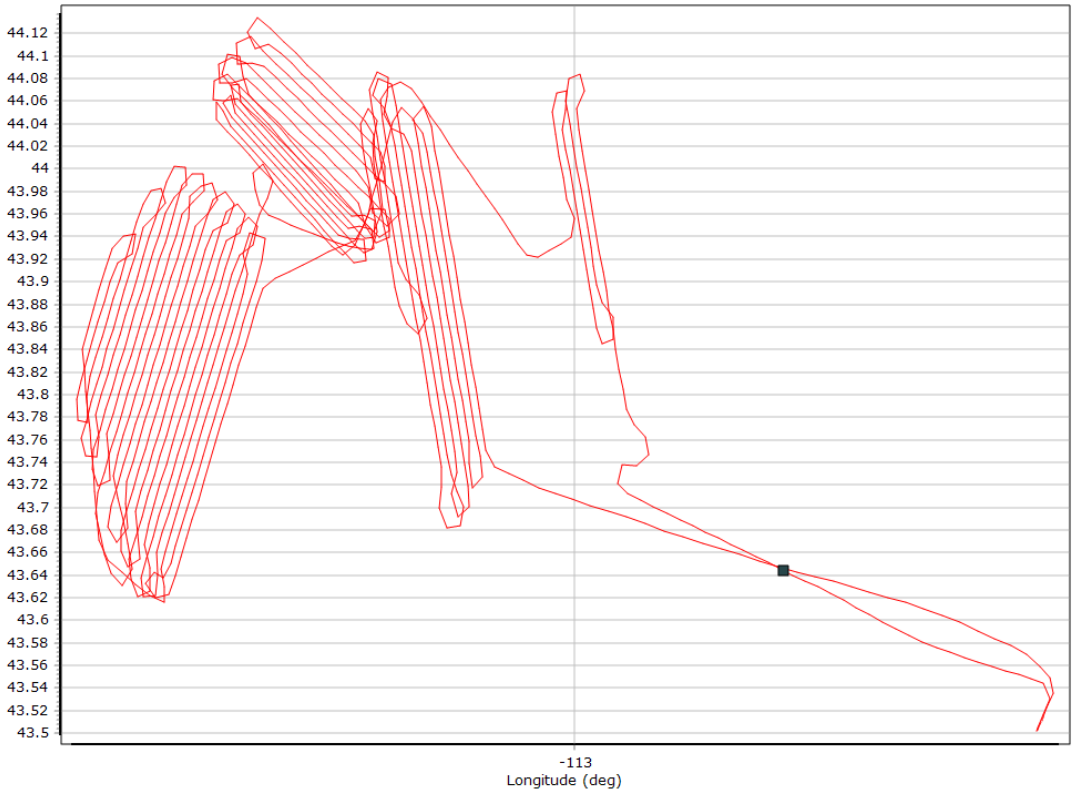
Total Body Acceleration



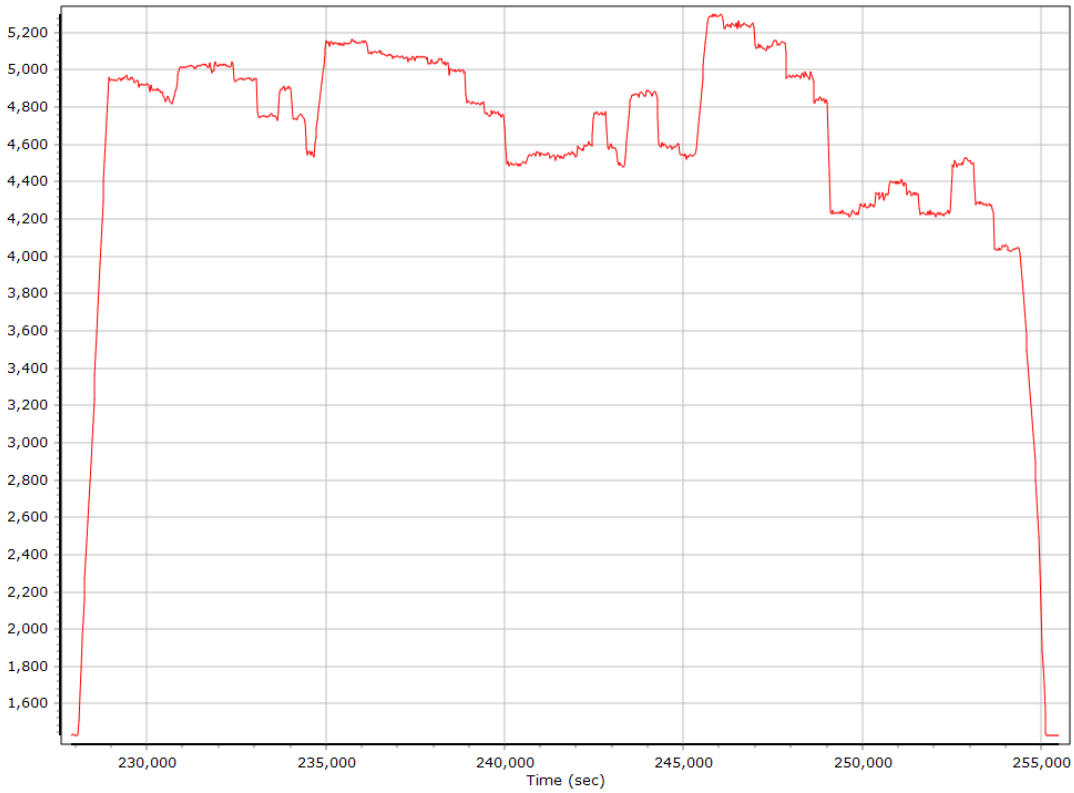
Body Angular Rate

Forward Processed Trajectory Information

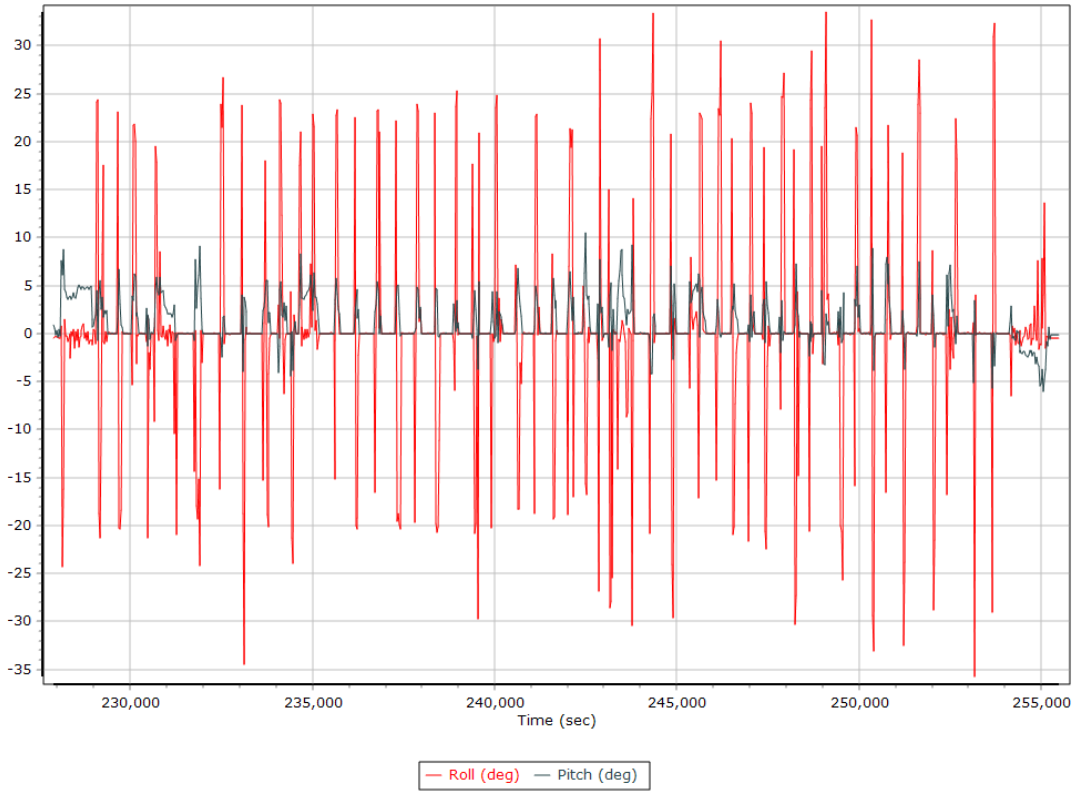
Top View



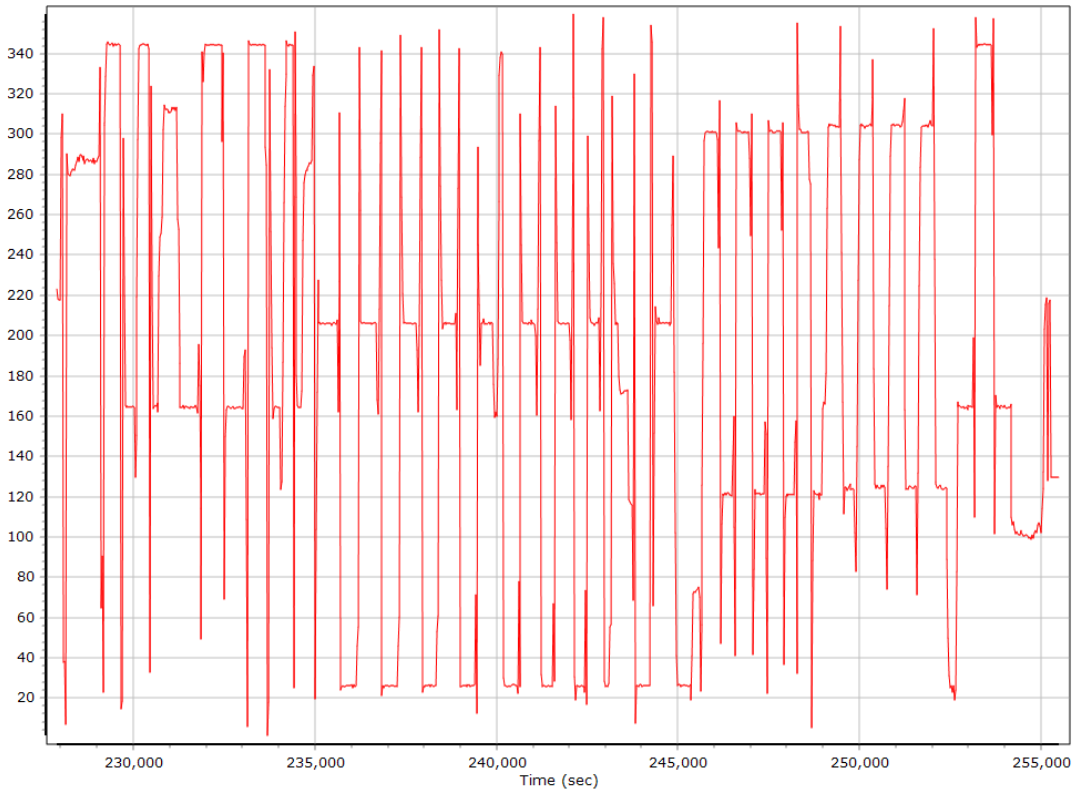
Altitude



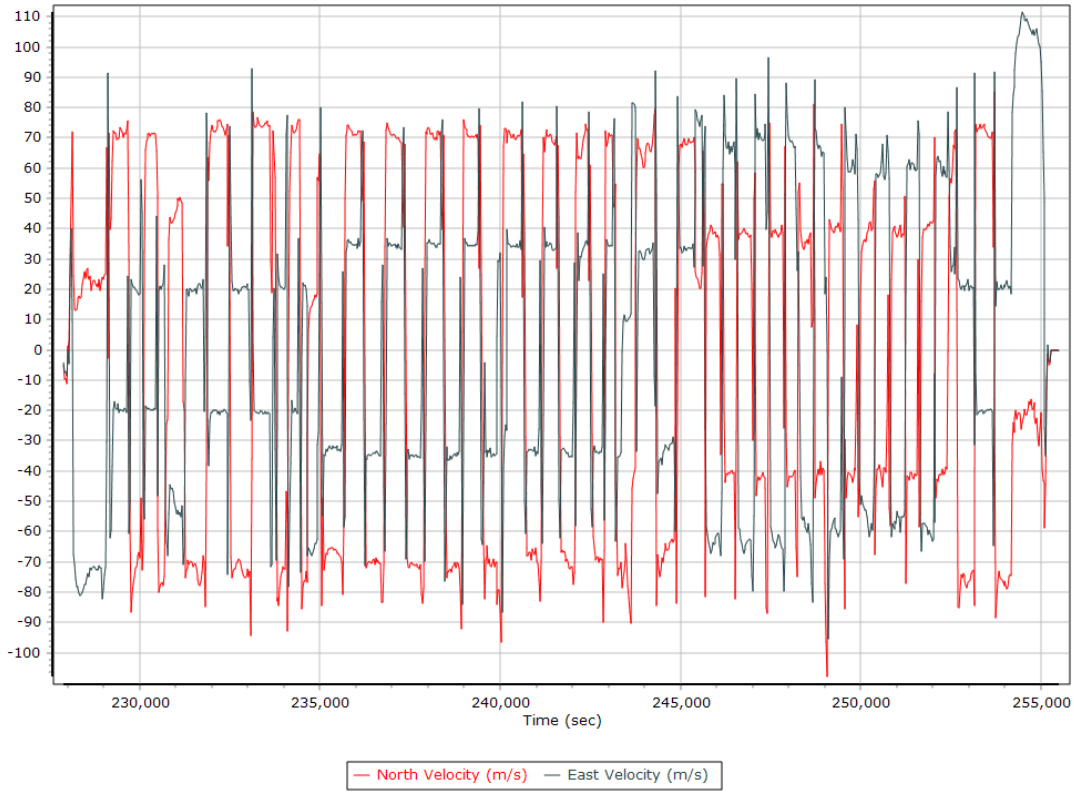
Roll/Pitch



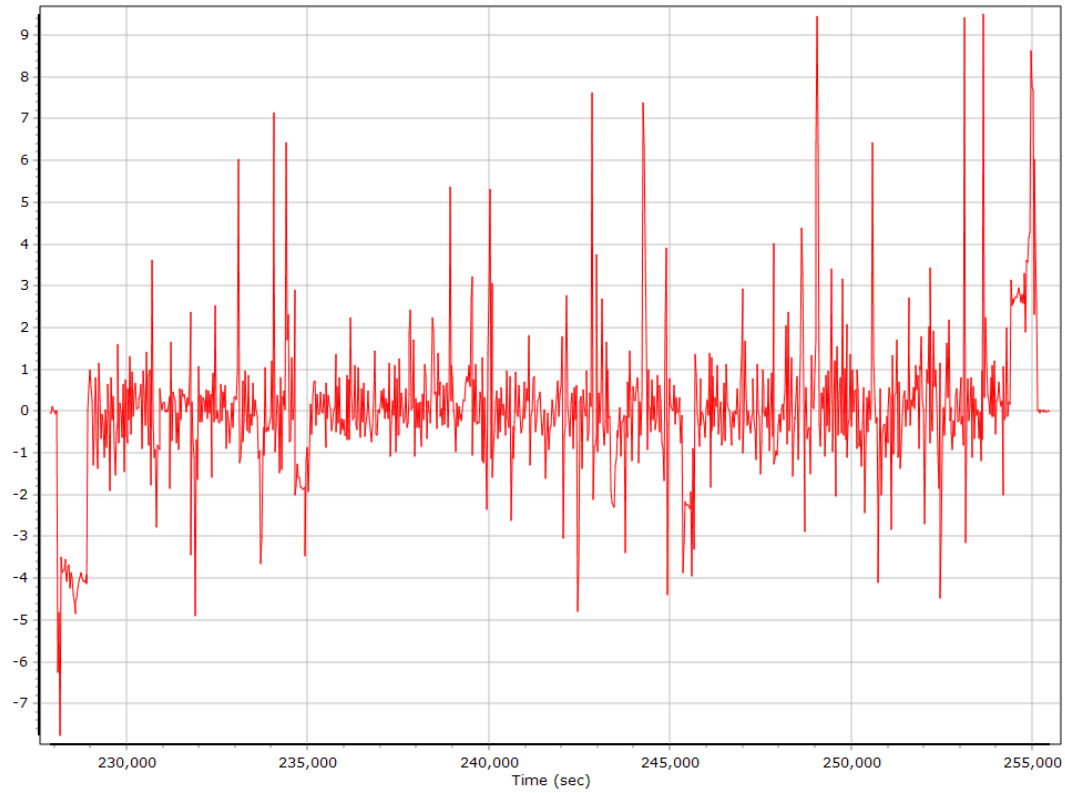
Heading



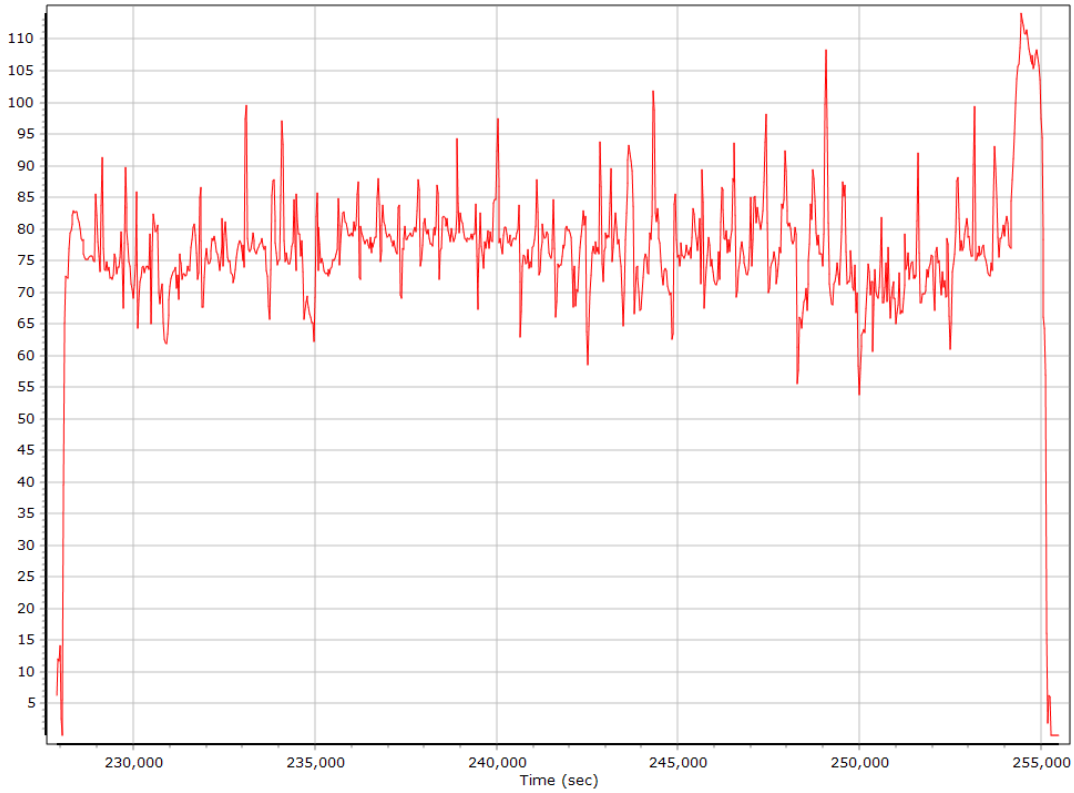
North/East Velocity



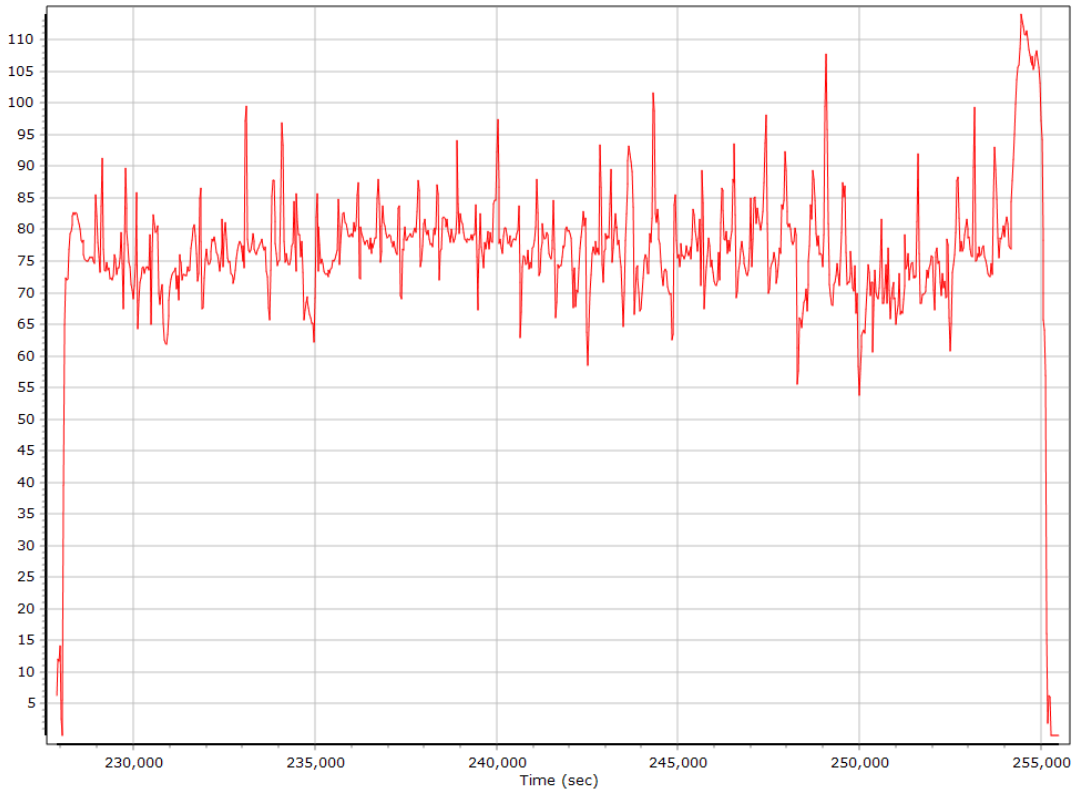
Down Velocity



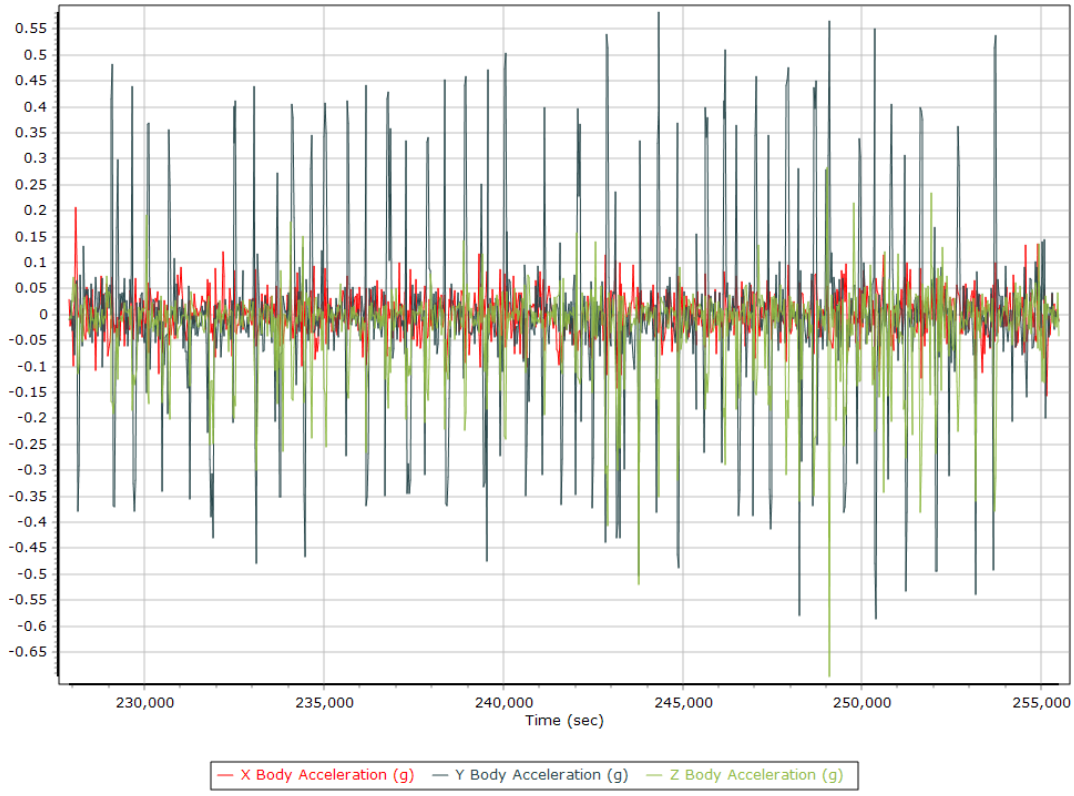
Total Speed



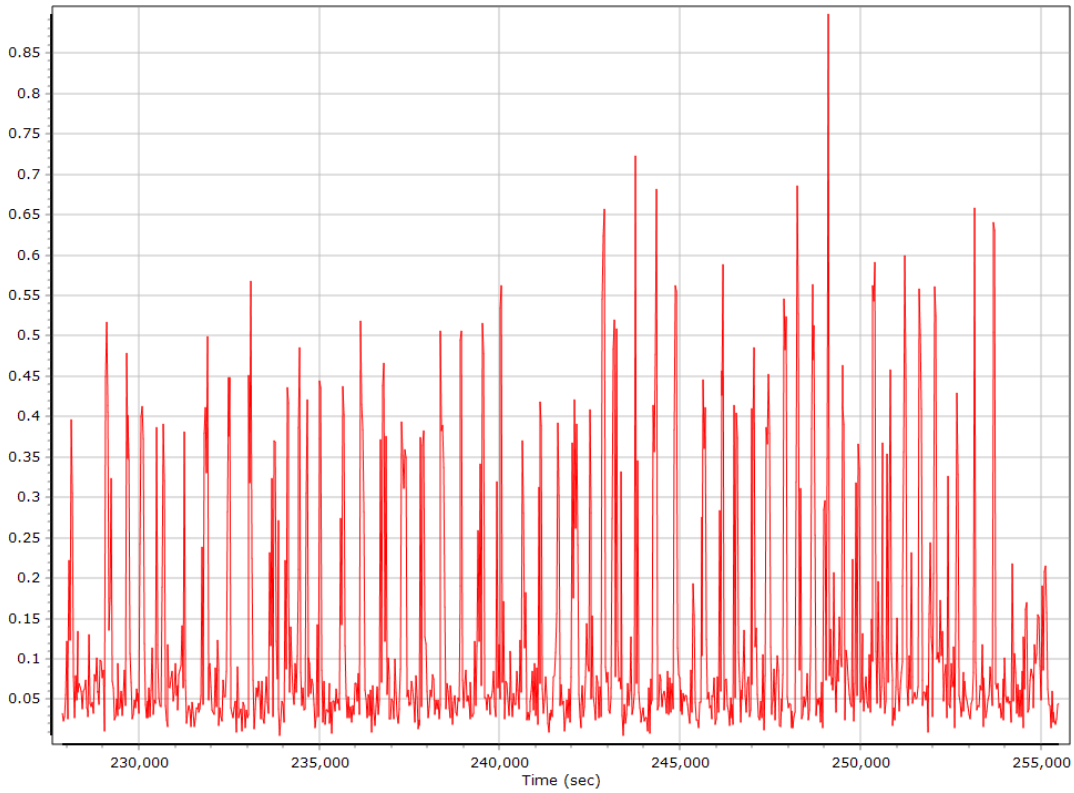
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

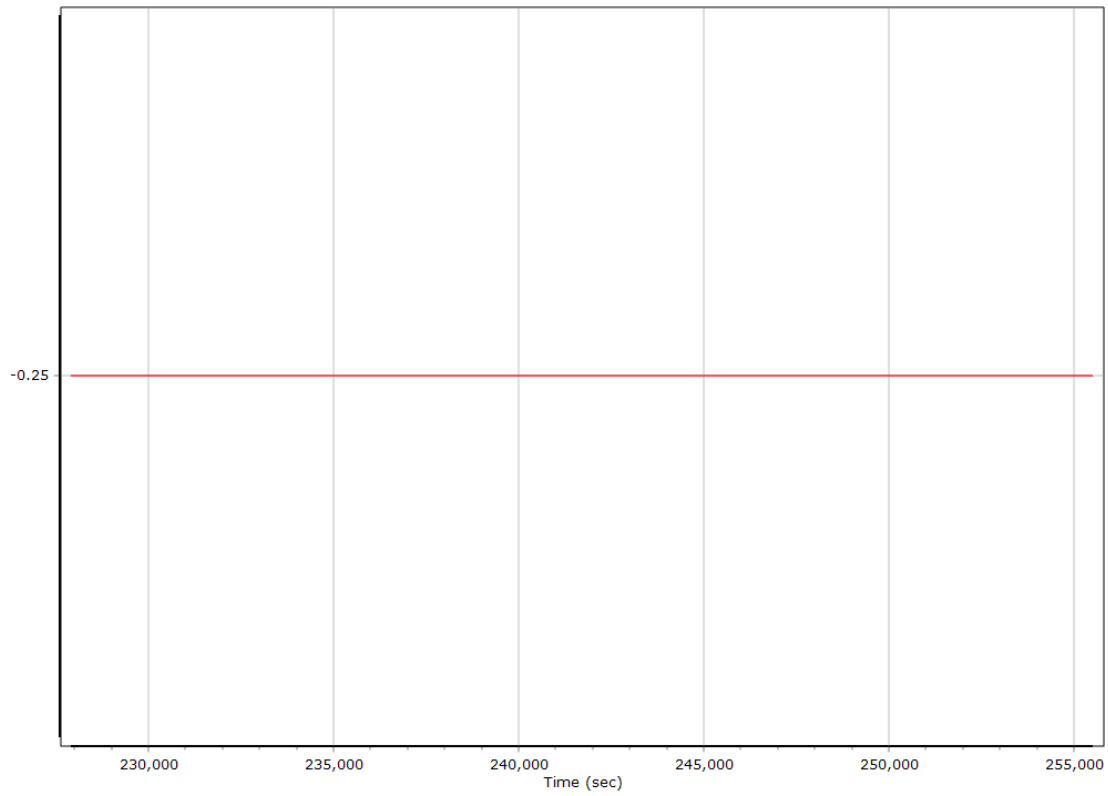
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Trimble RTX Nav		
Stabilized mount	True		
Processing start time	227234.000 (09/29/2020 15:06:56)		
Processing end time	255515.000 (09/29/2020 22:58:17)		
Initial attitude source	Real-Time VNAV/RNAV Attitude		
IMU Sensor Context	Processing with Onboard IMU		
Gimbal to IMU lever arm (m)	0.000	0.000	0.000
Gimbal to IMU mounting angles (deg)	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm (m)	-0.250	-0.028	-1.296
Gimbal to Primary GNSS lever arm std dev (m)	0.030	0.030	0.030
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

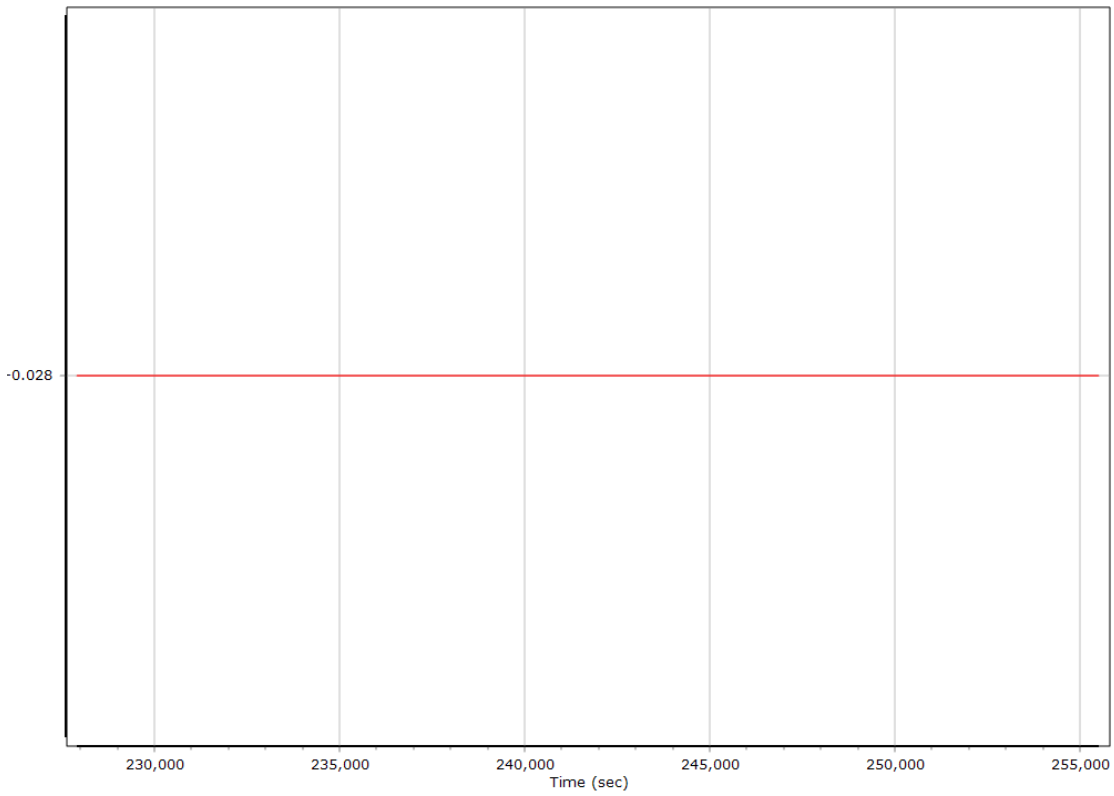
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

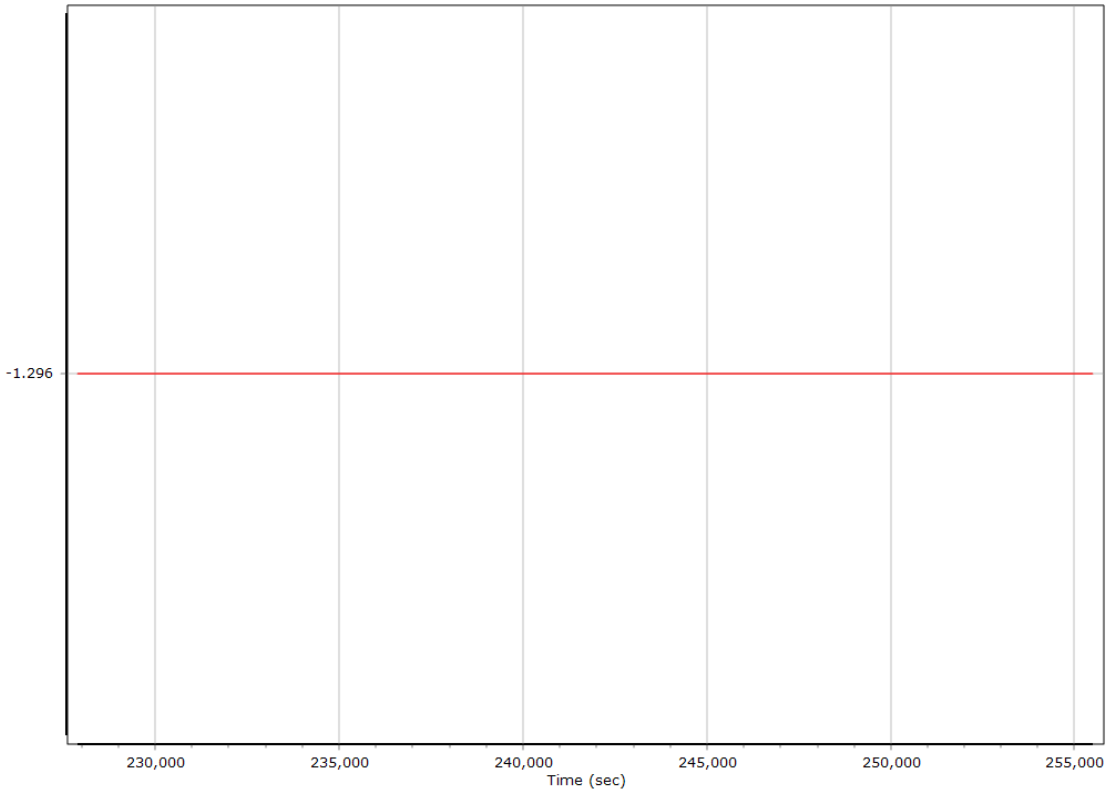
X Reference-Primary GNSS Lever Arm (m)



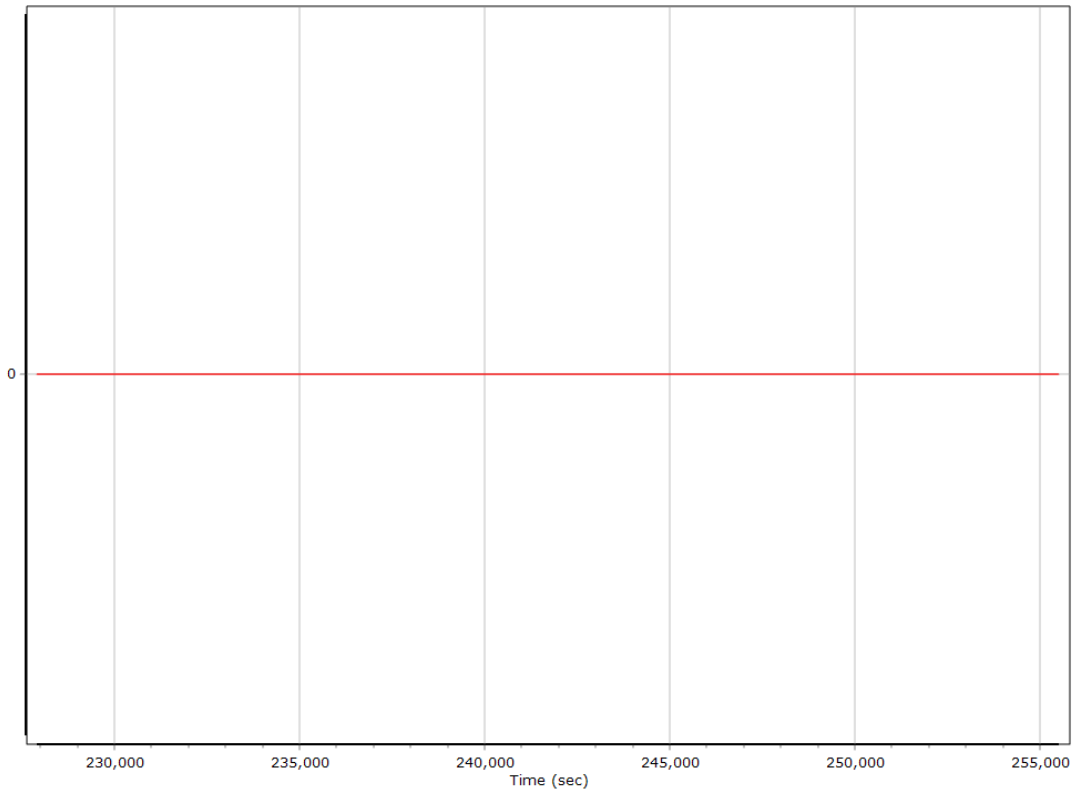
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



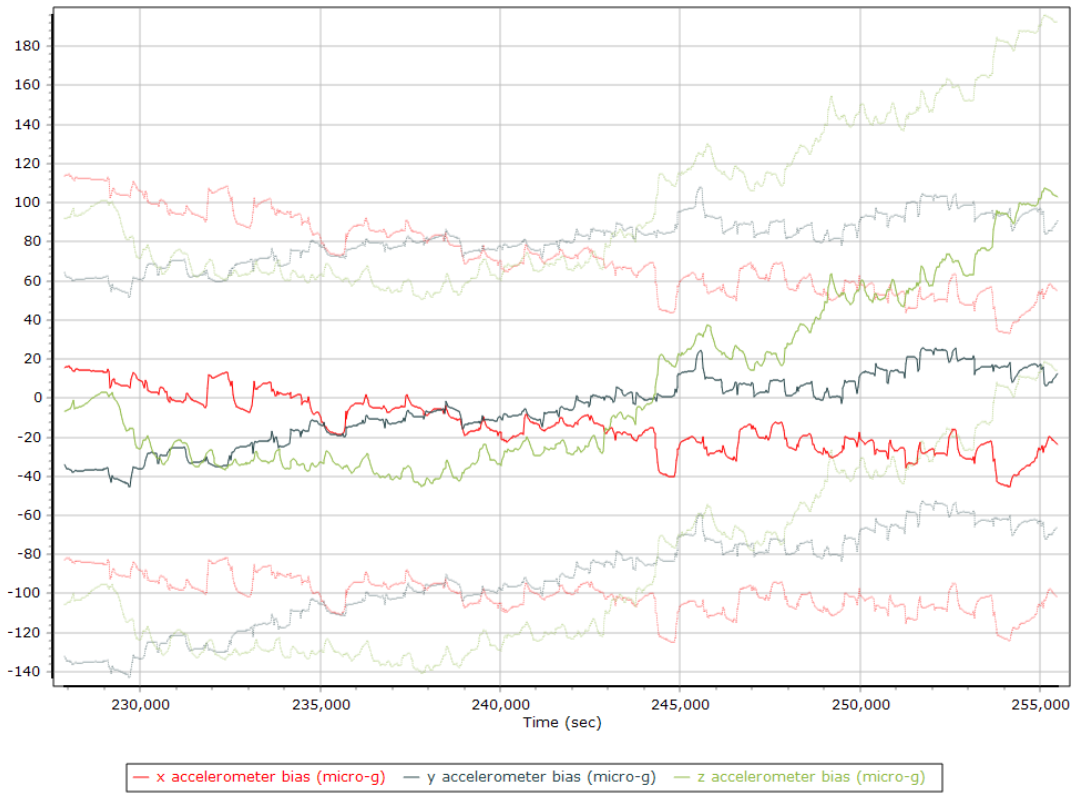
Reference-Primary GNSS Lever Arm Figure of Merit



IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

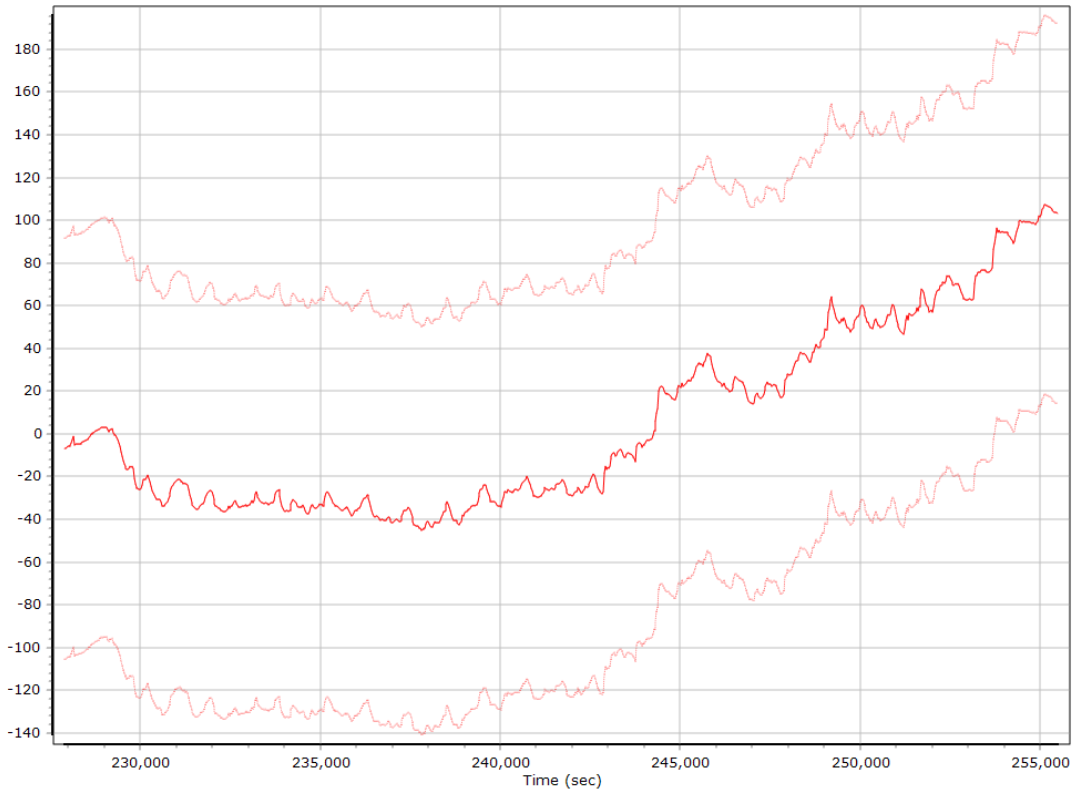
Accelerometer Bias (micro-g)



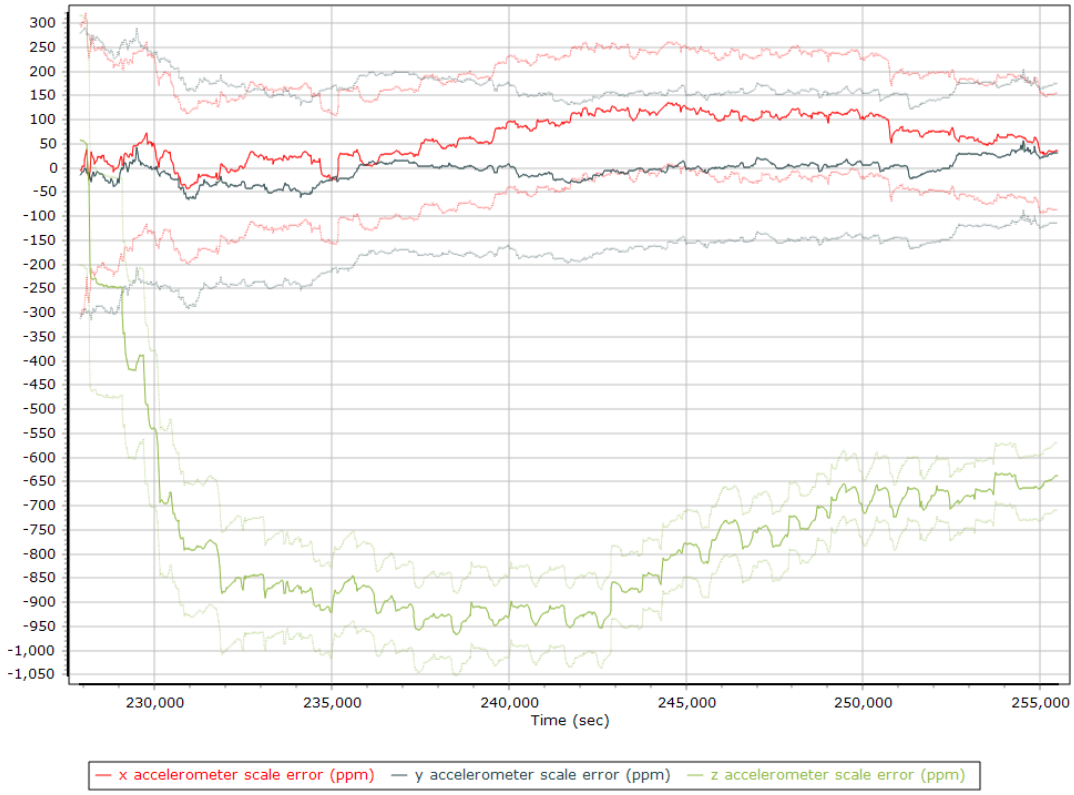
X Accelerometer Bias (micro-g)

Y Accelerometer Bias (micro-g)

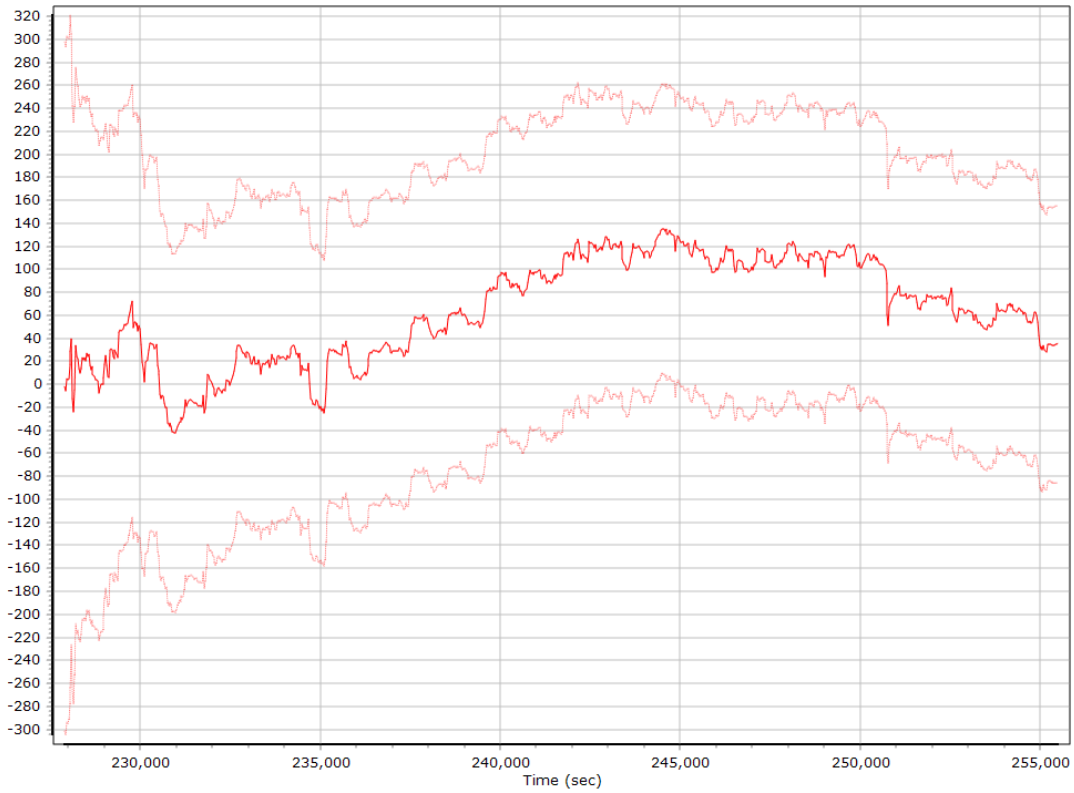
Z Accelerometer Bias (micro-g)



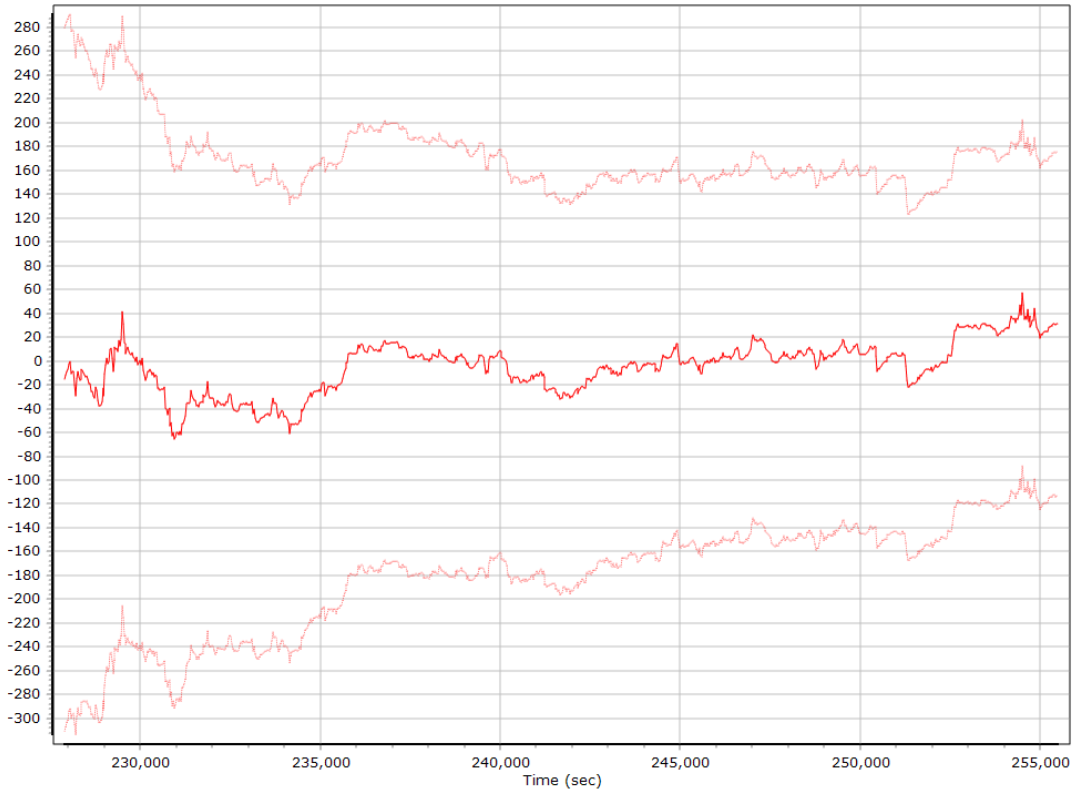
Accelerometer Scale Error (ppm)



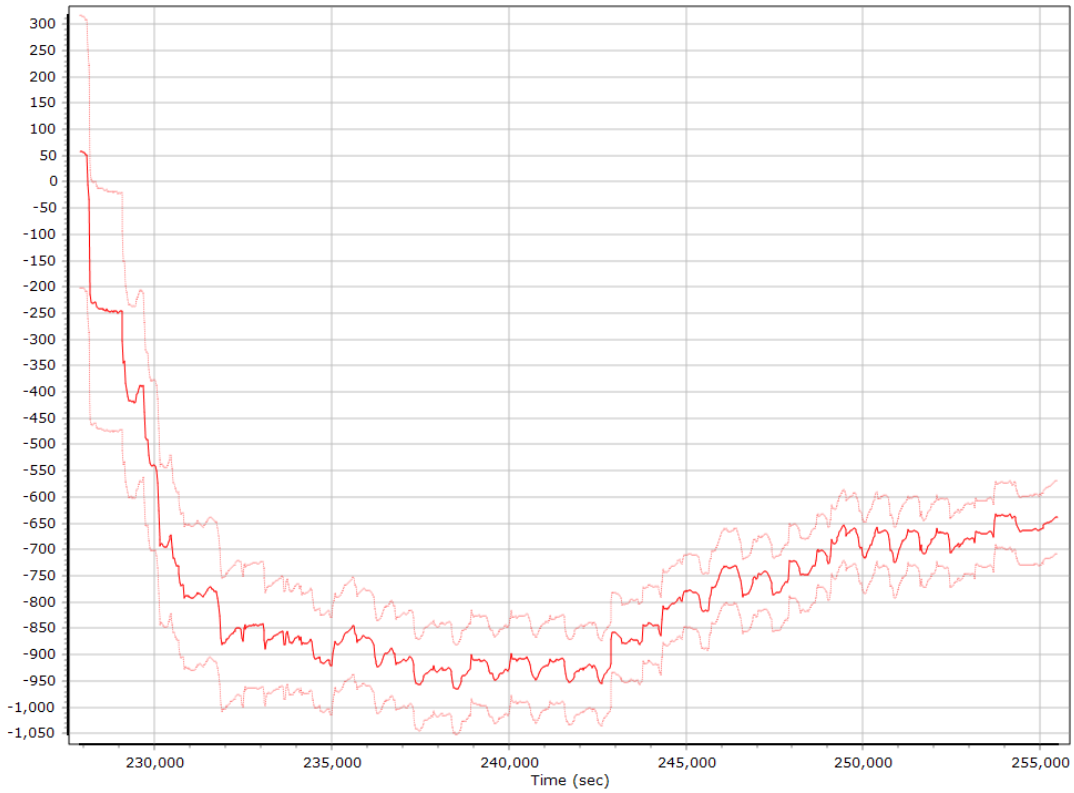
X Accelerometer Scale Error (ppm)



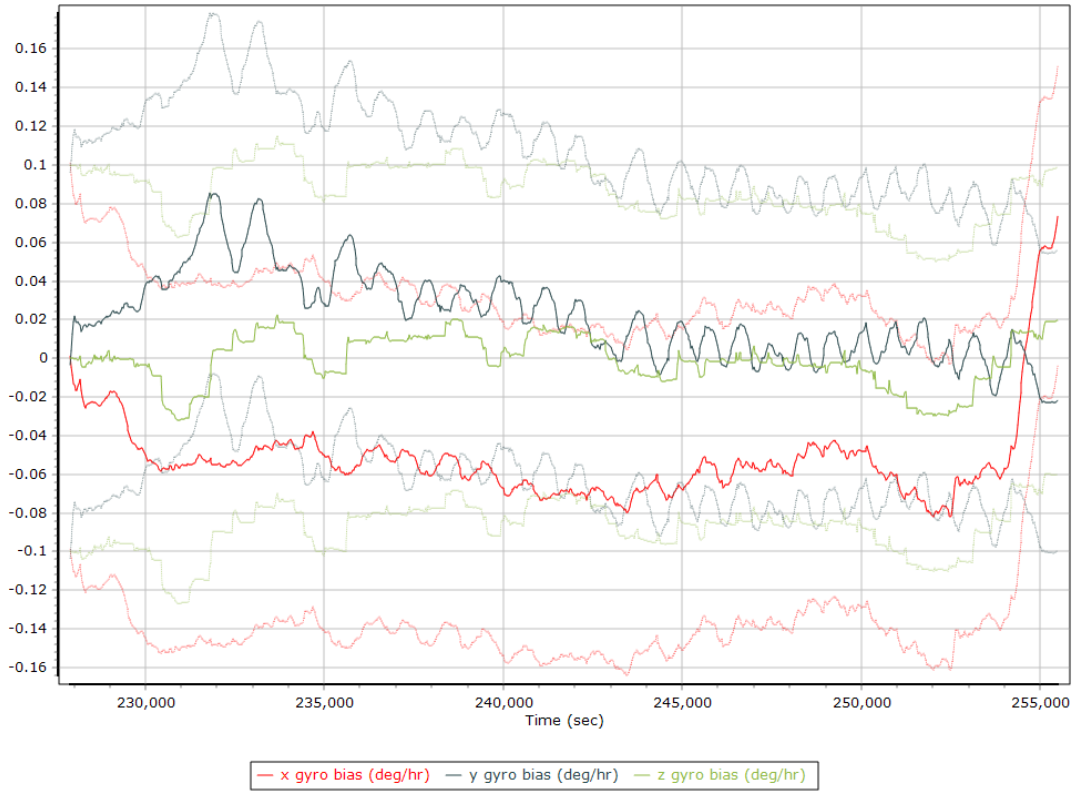
Y Accelerometer Scale Error (ppm)



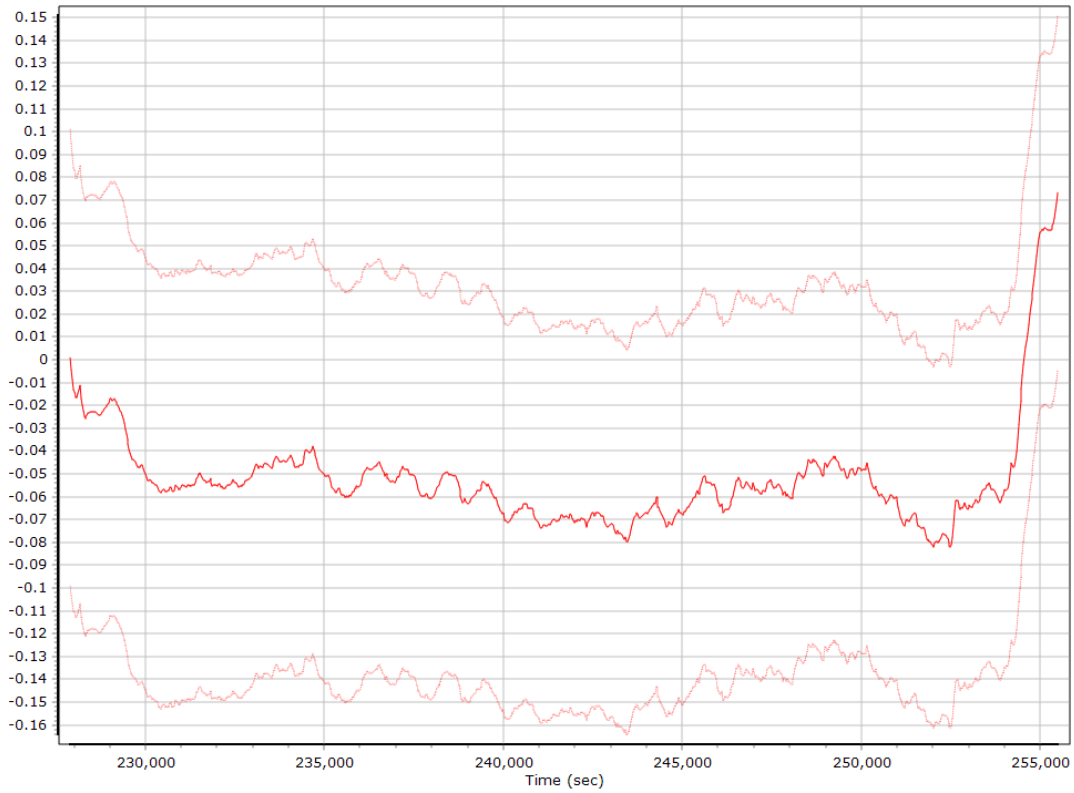
Z Accelerometer Scale Error (ppm)



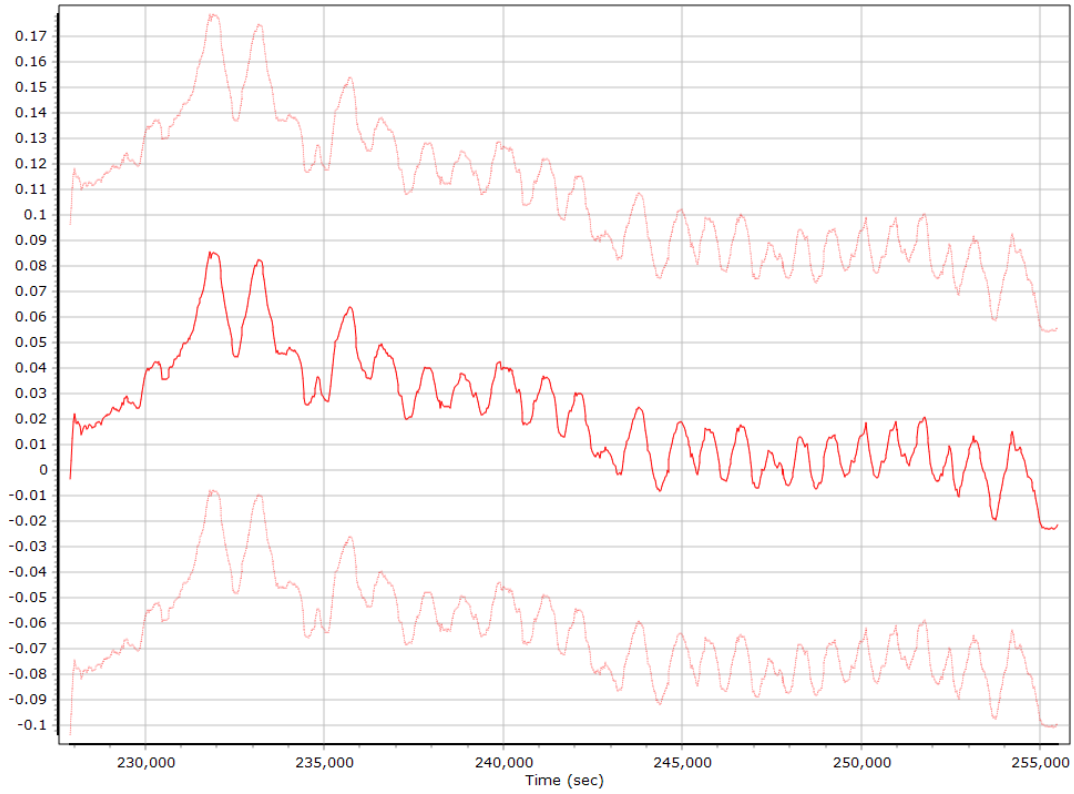
Gyro Bias (deg/h)



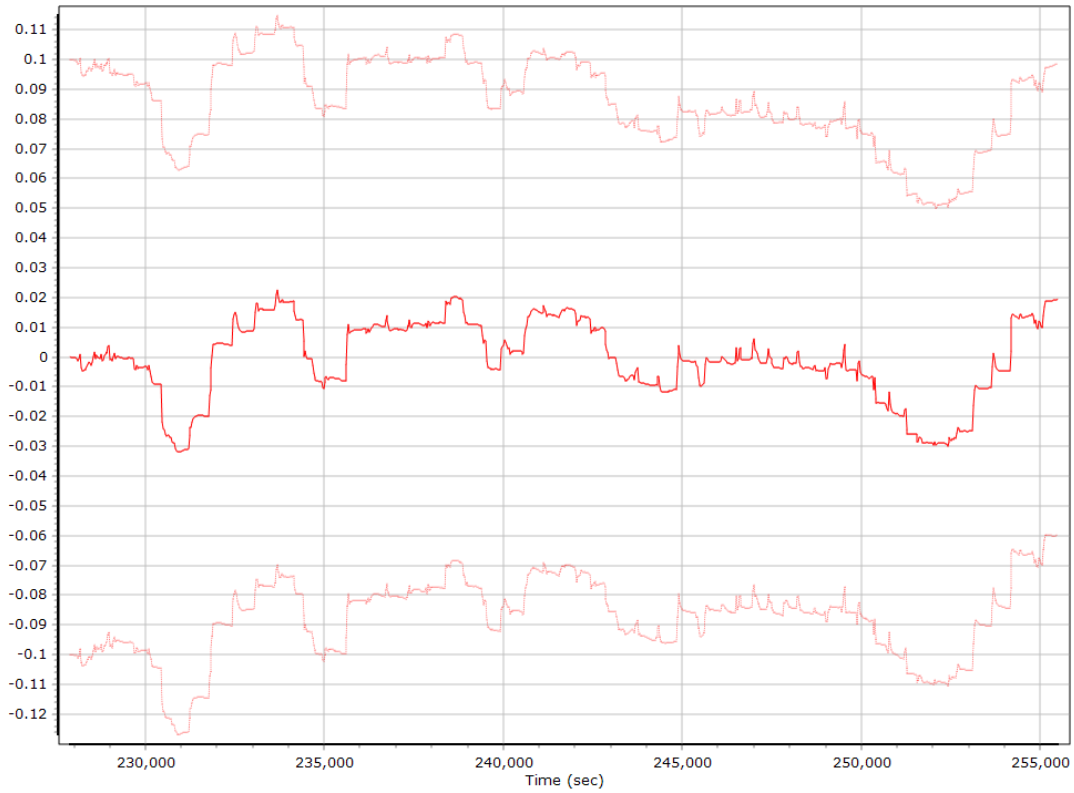
X Gyro Bias (deg/h)



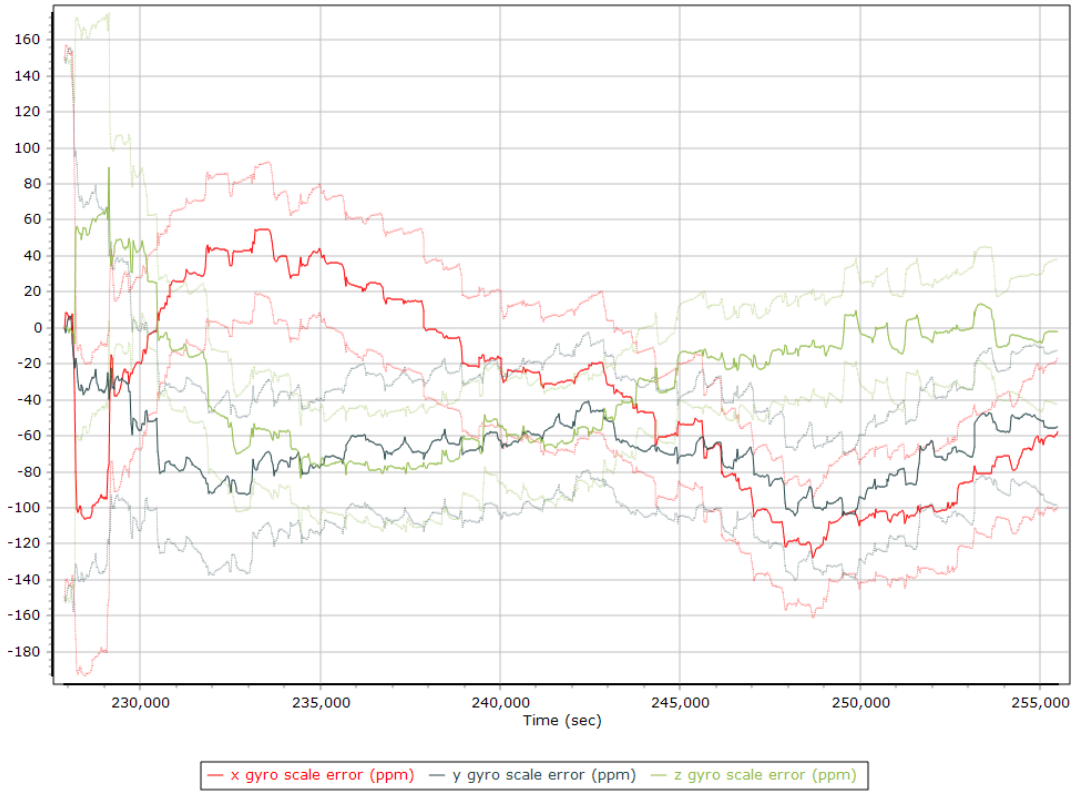
Y Gyro Bias (deg/h)



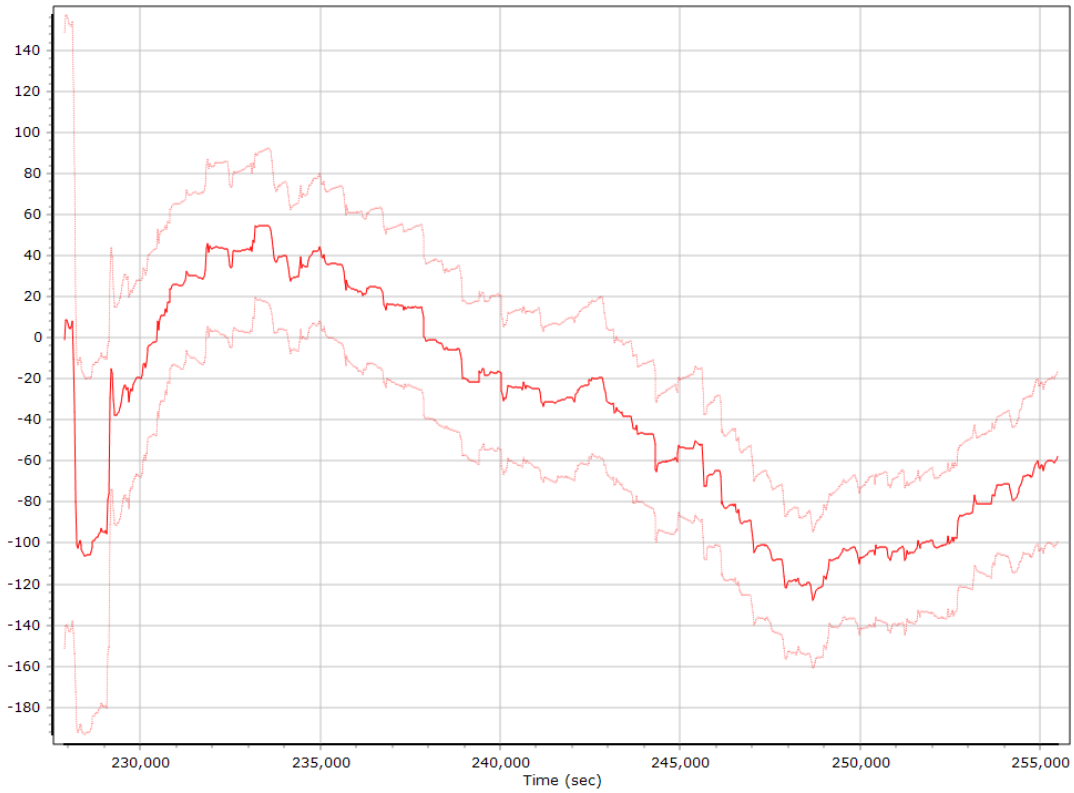
Z Gyro Bias (deg/h)



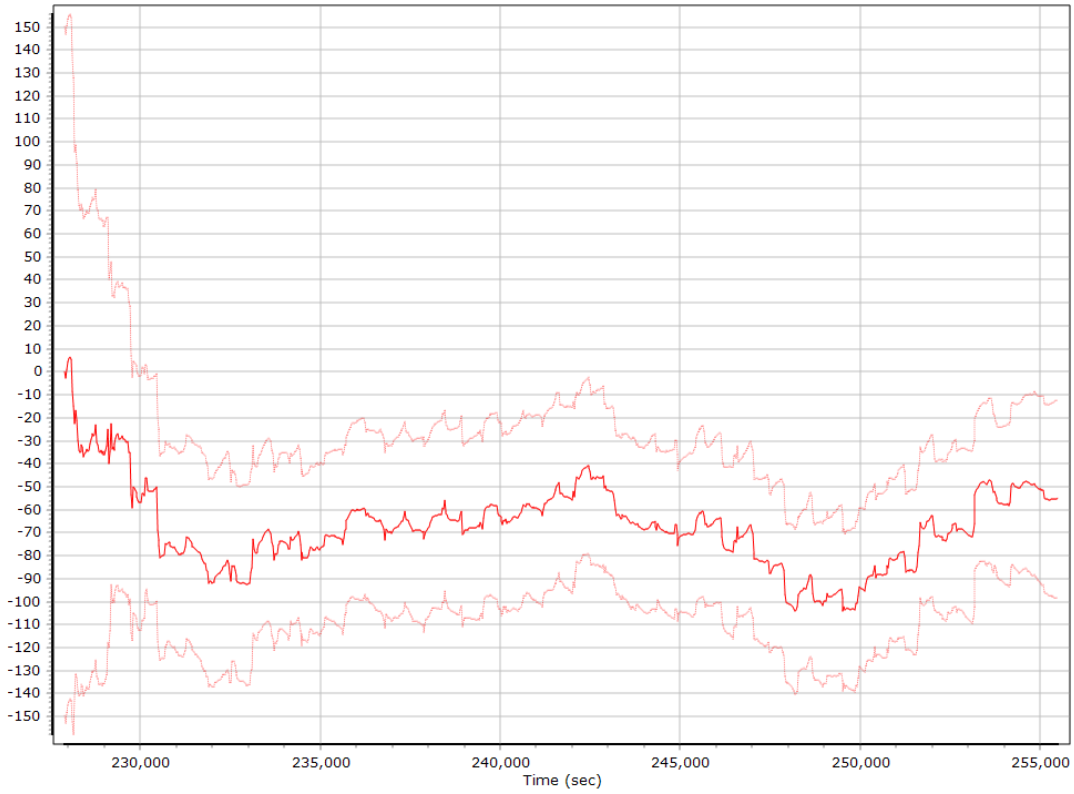
Gyro Scale Error (ppm)



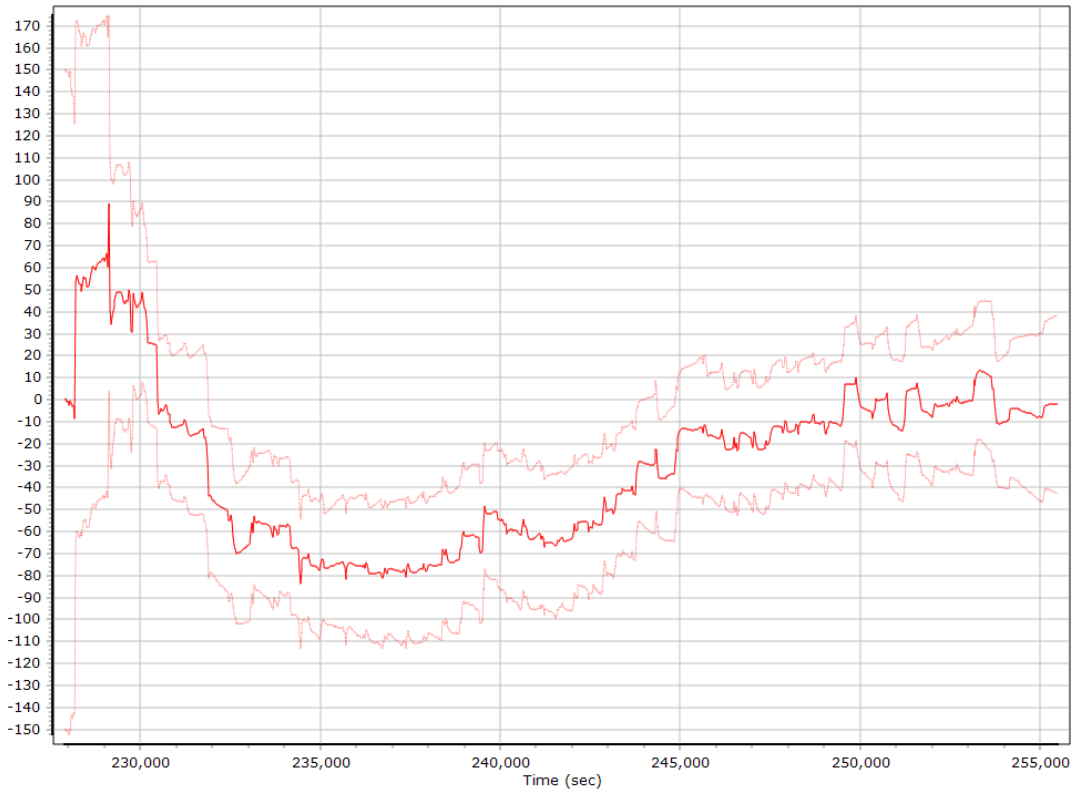
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

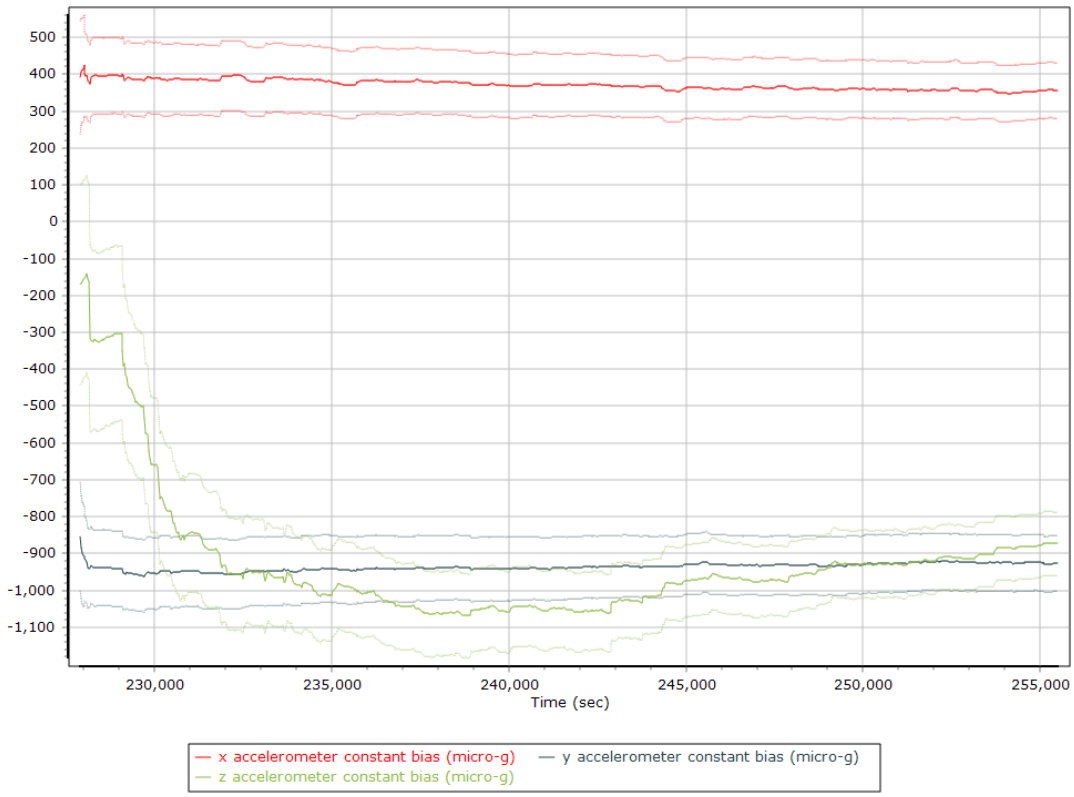


Z Gyro Scale Error (ppm)

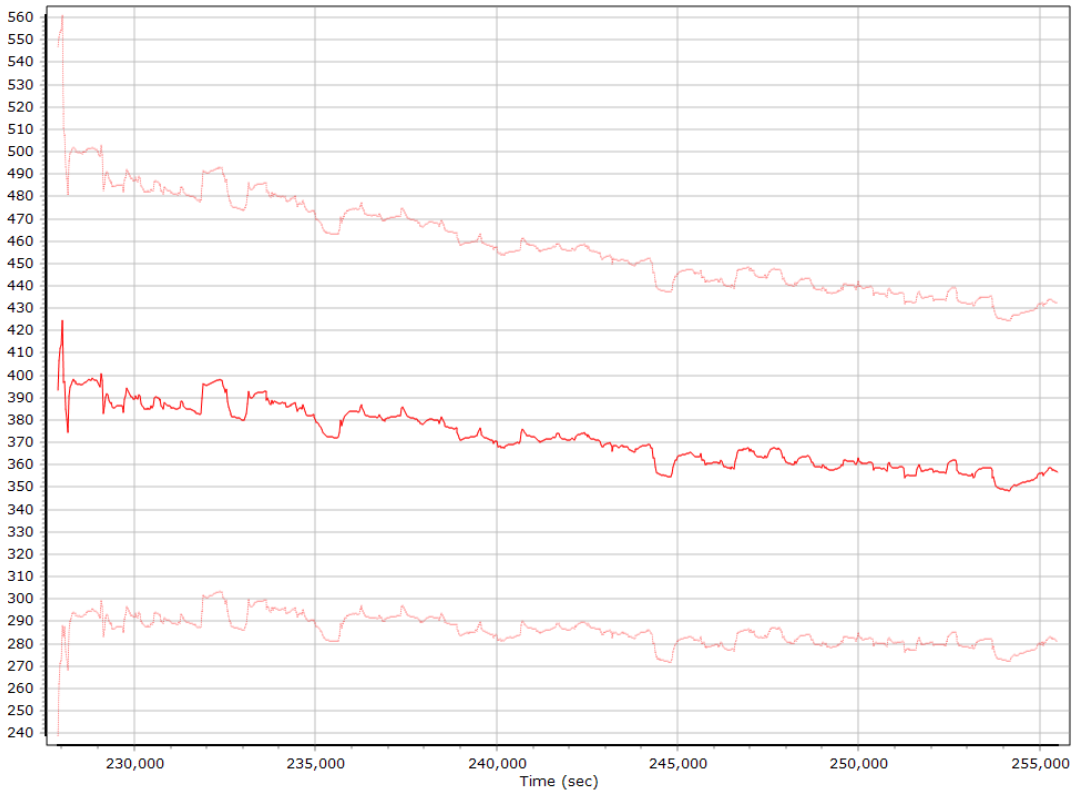


Forward Processed Estimated Constant Errors, Reference Frame

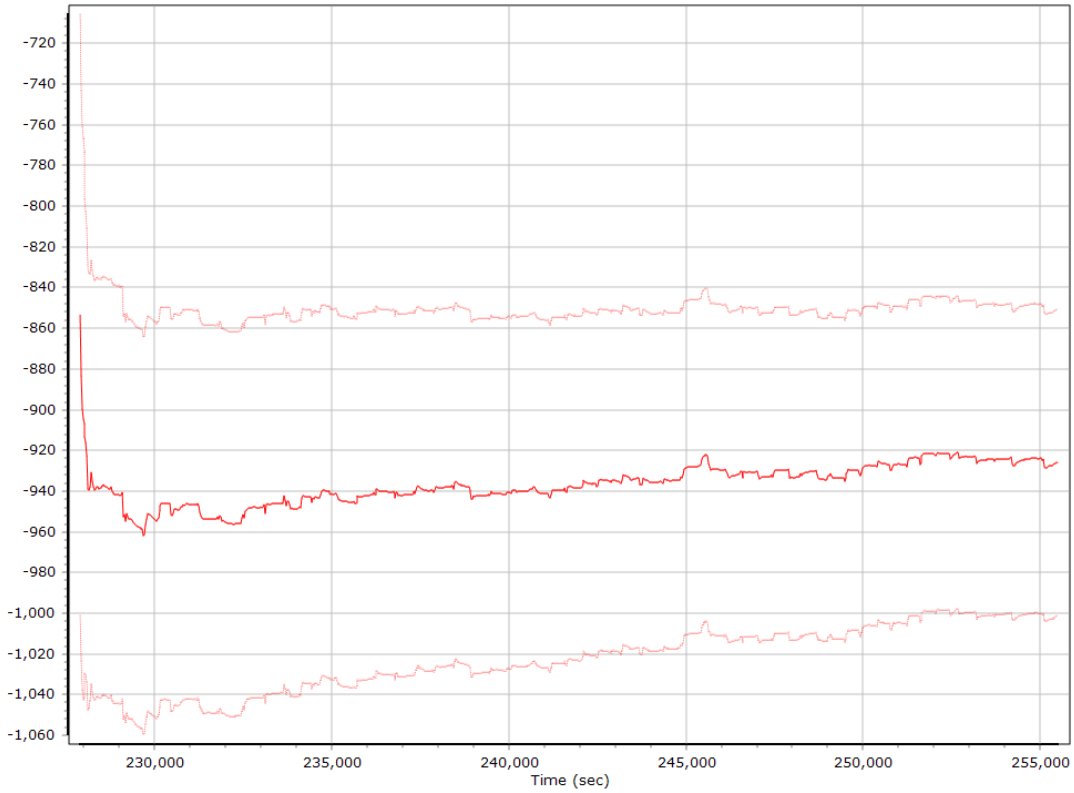
Accelerometer Bias (micro-g)



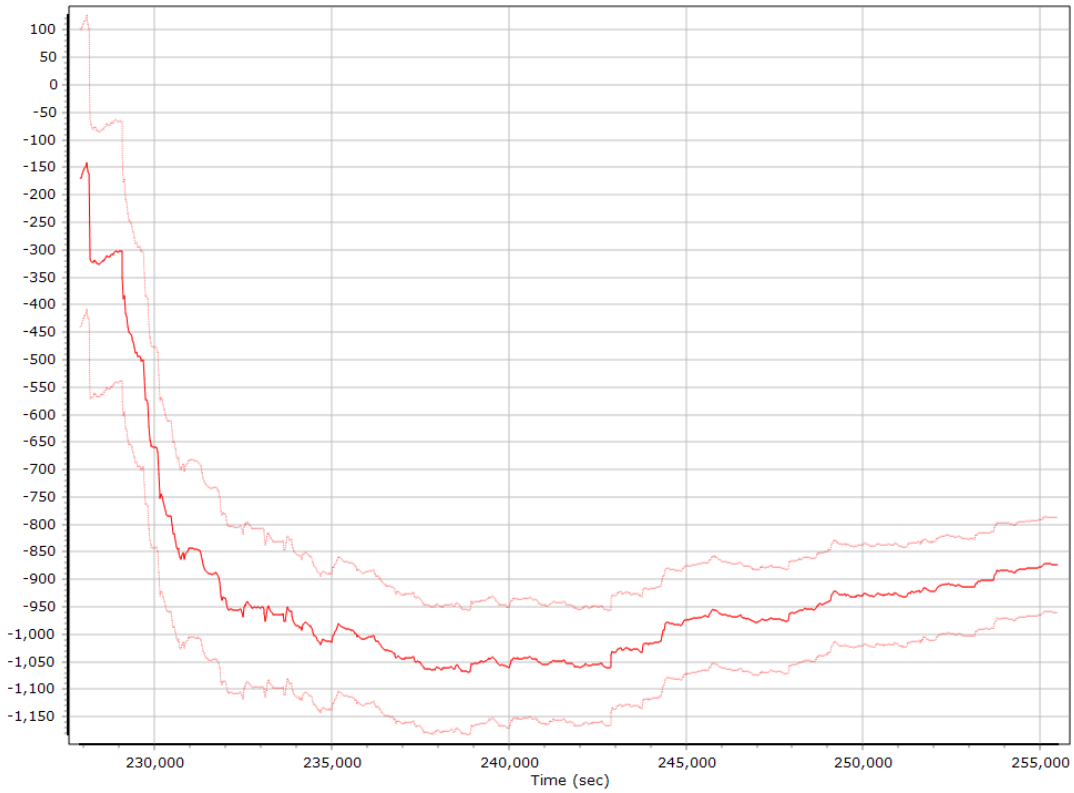
X Accelerometer Bias (micro-g)



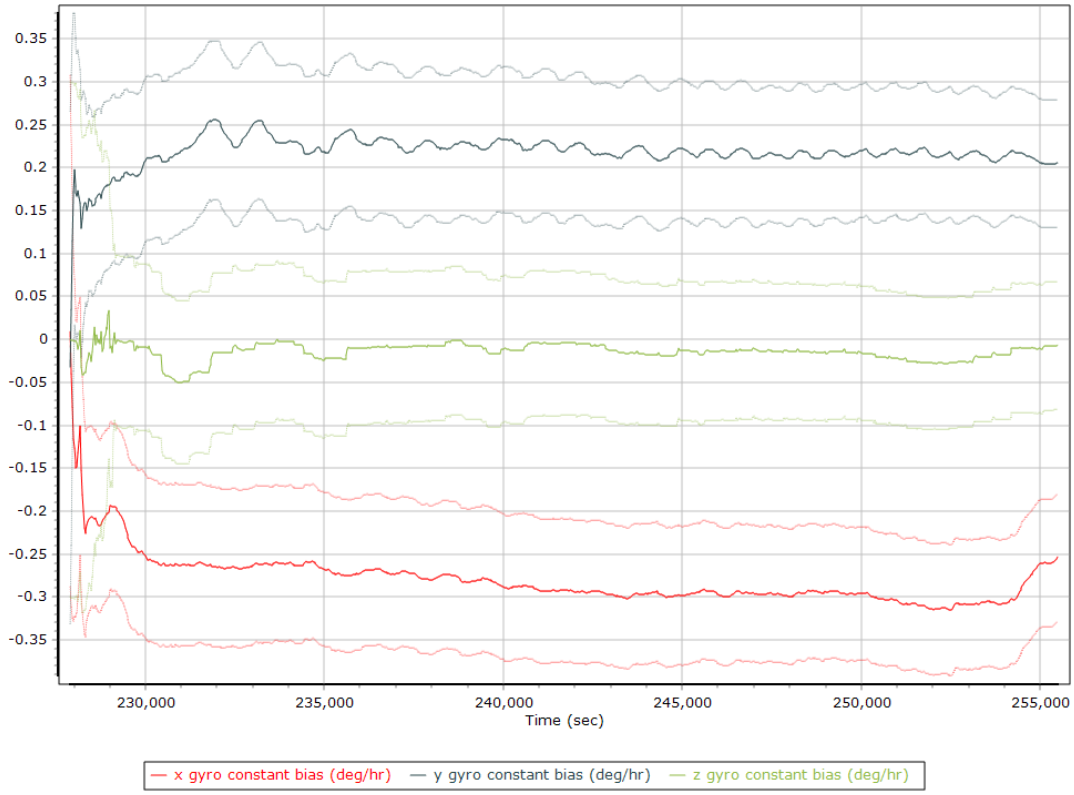
Y Accelerometer Bias (micro-g)



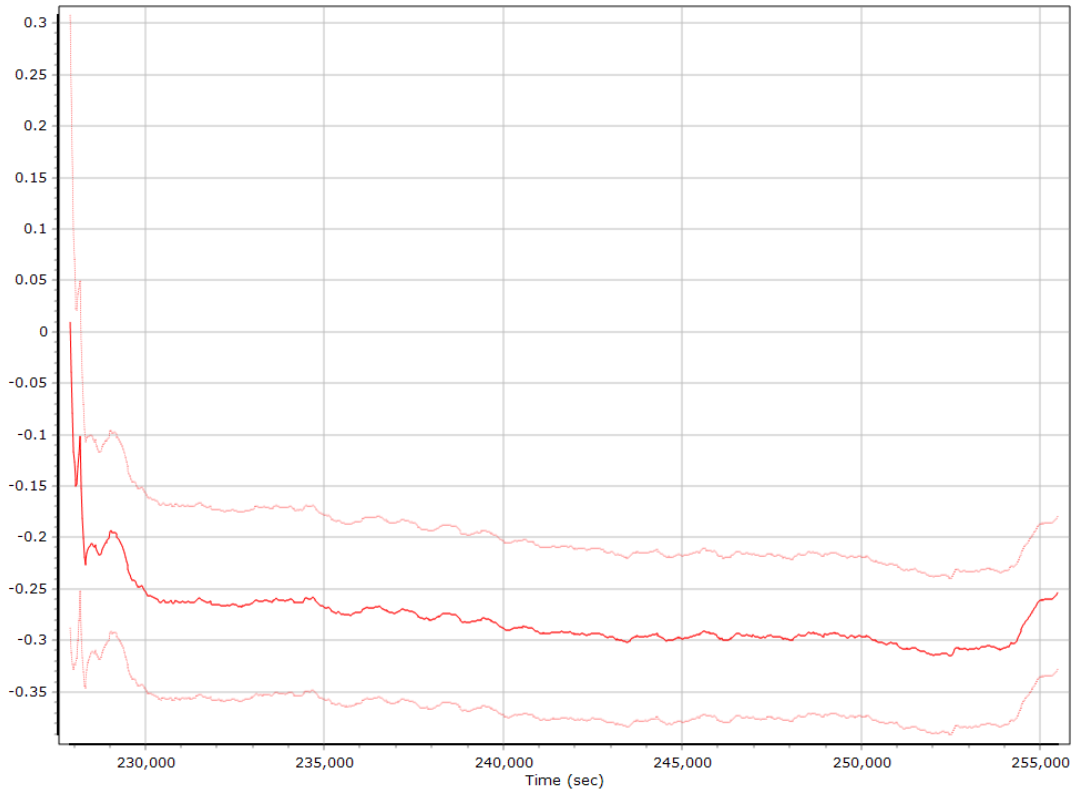
Z Accelerometer Bias (micro-g)



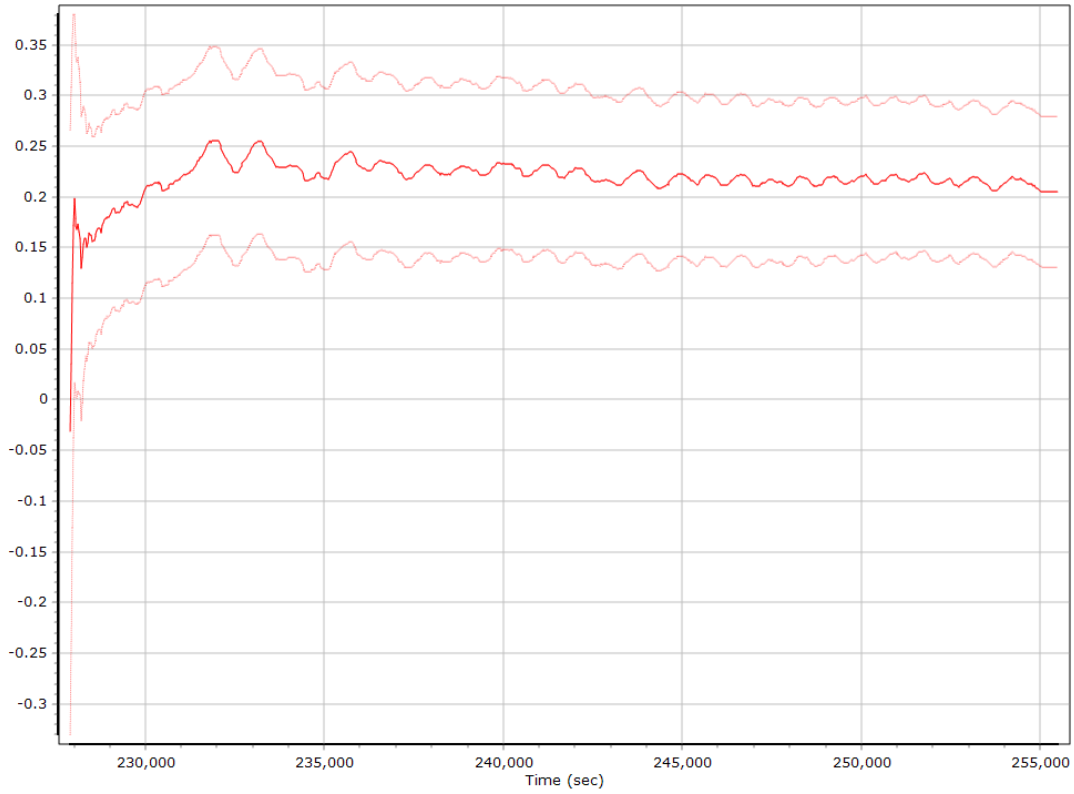
Gyro Bias (deg/h)



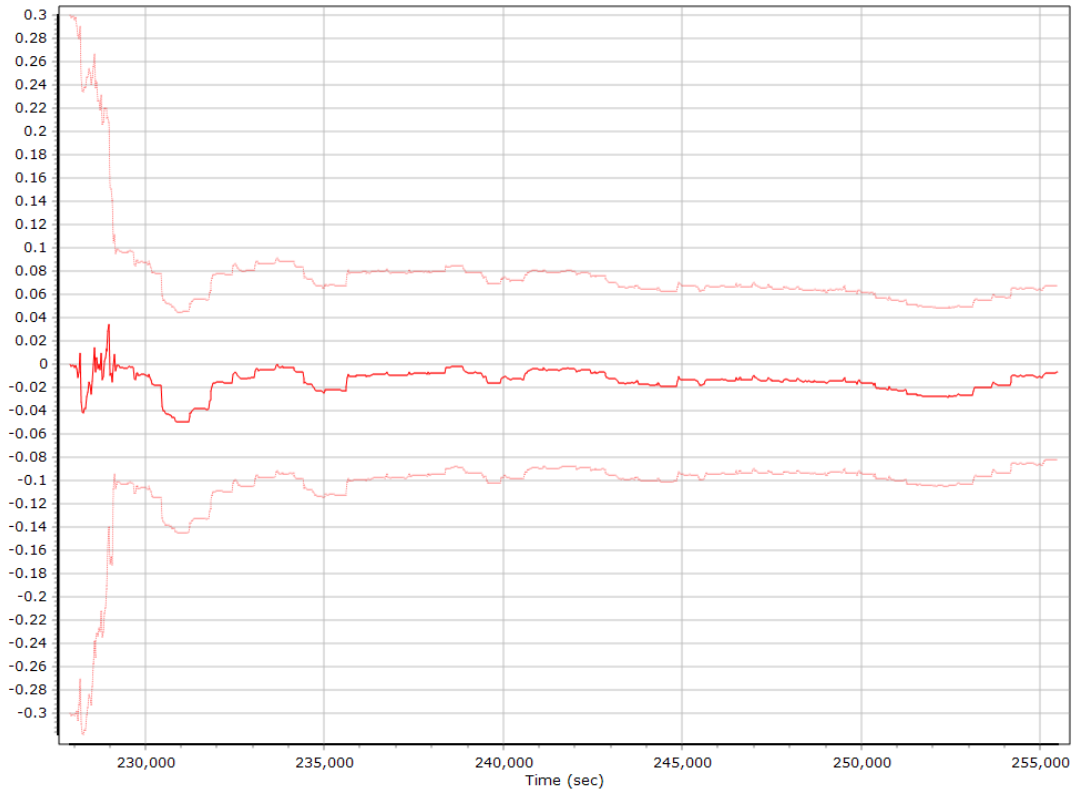
X Gyro Bias (deg/h)



Y Gyro Bias (deg/h)

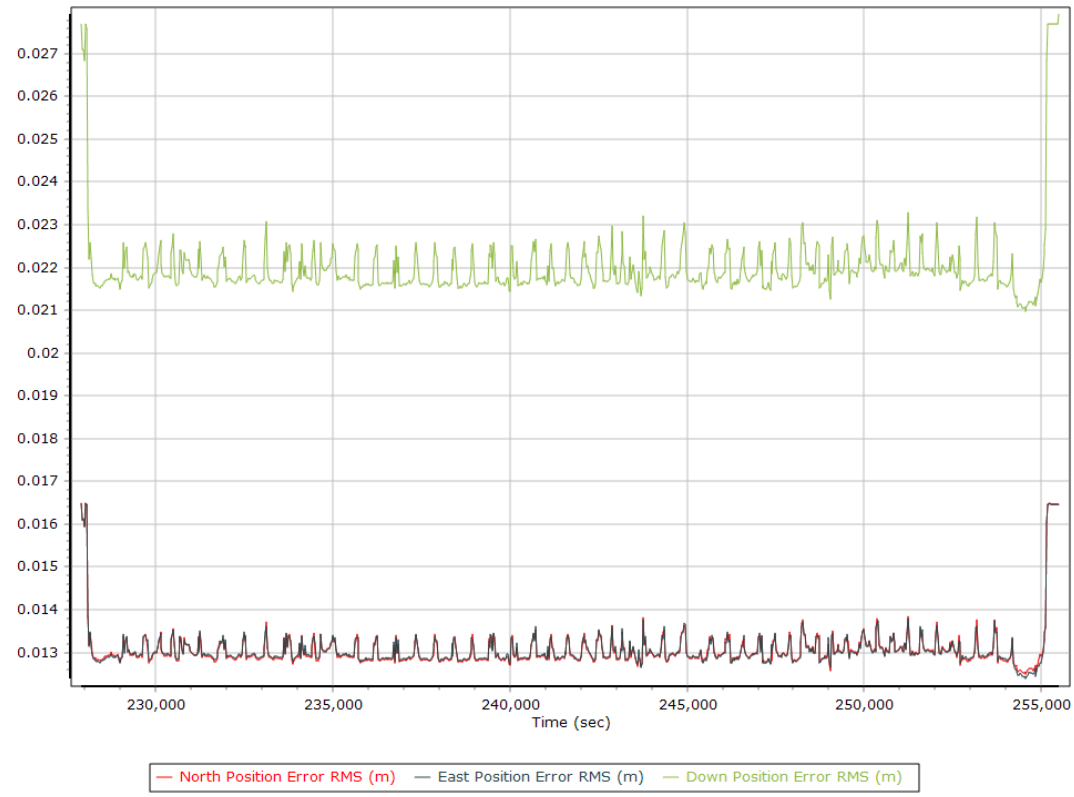


Z Gyro Bias (deg/h)

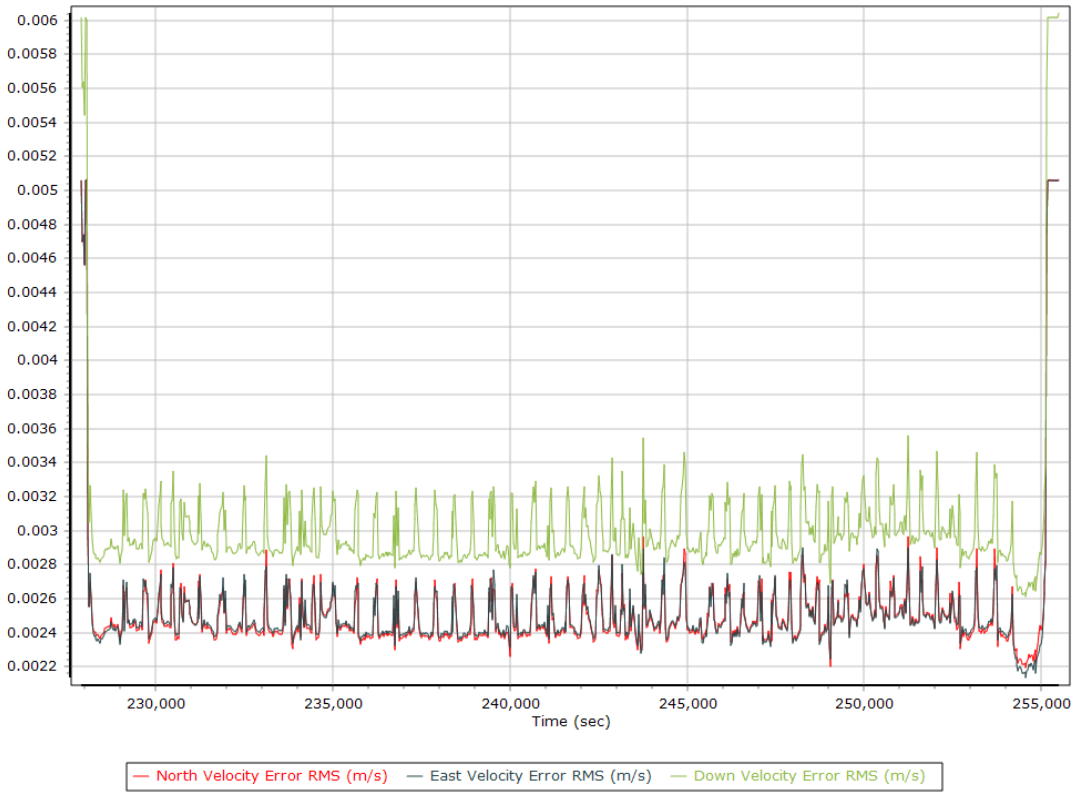


Smoothed Performance Metrics

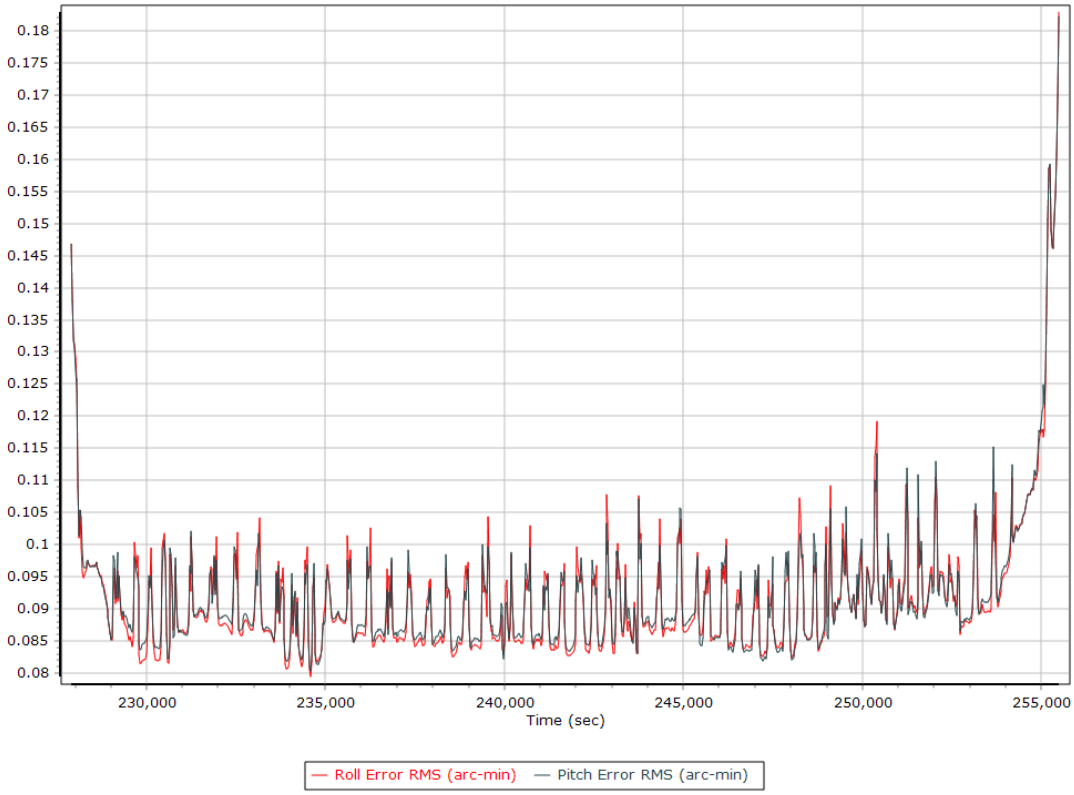
Position Error RMS (m)



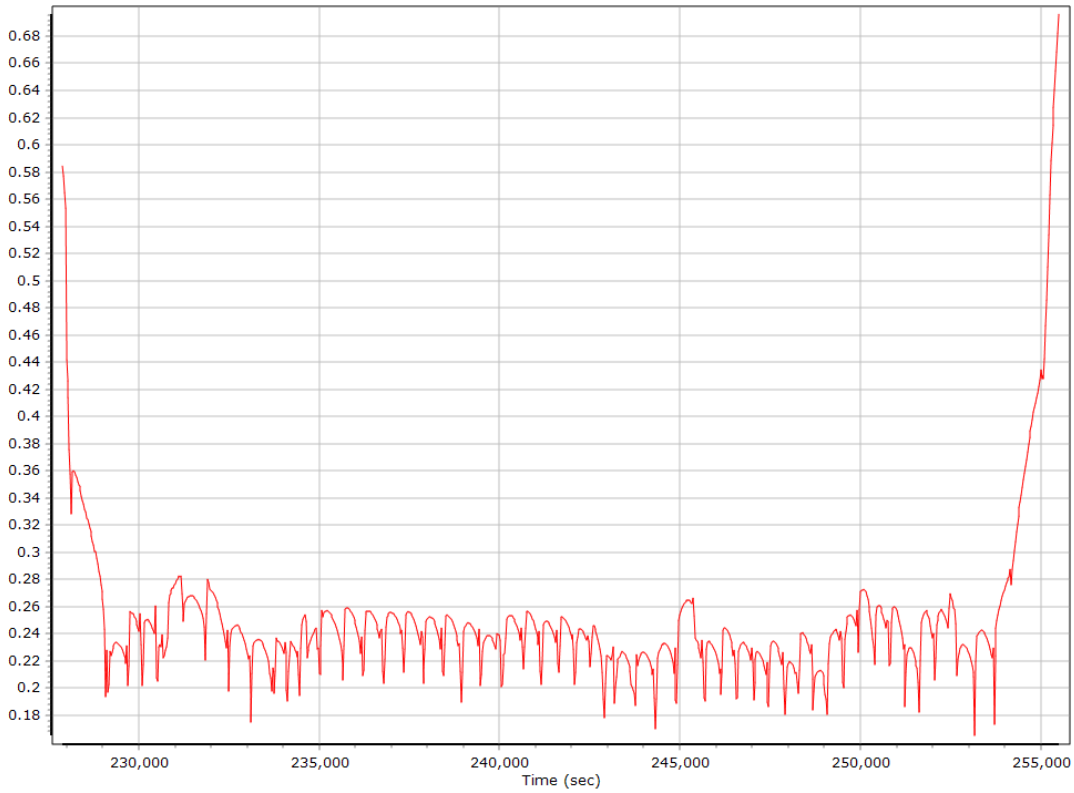
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



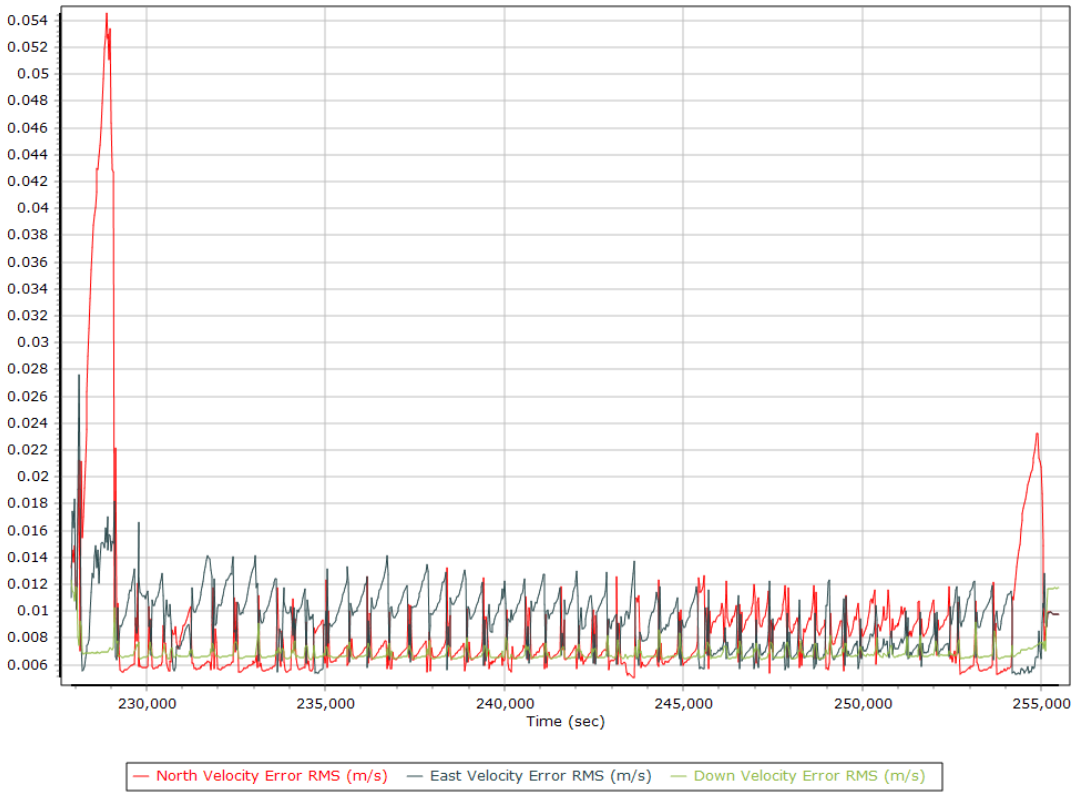
Heading Error RMS (arc-min)



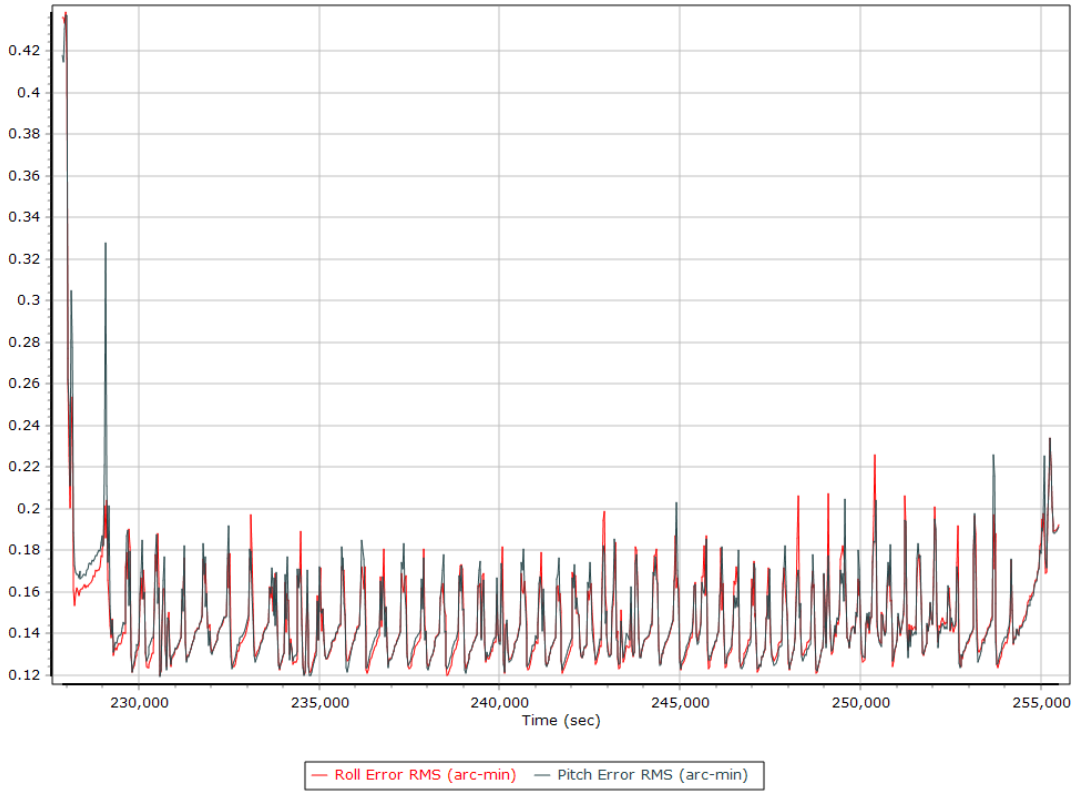
Forward Processed Performance Metrics

Position Error RMS (m)

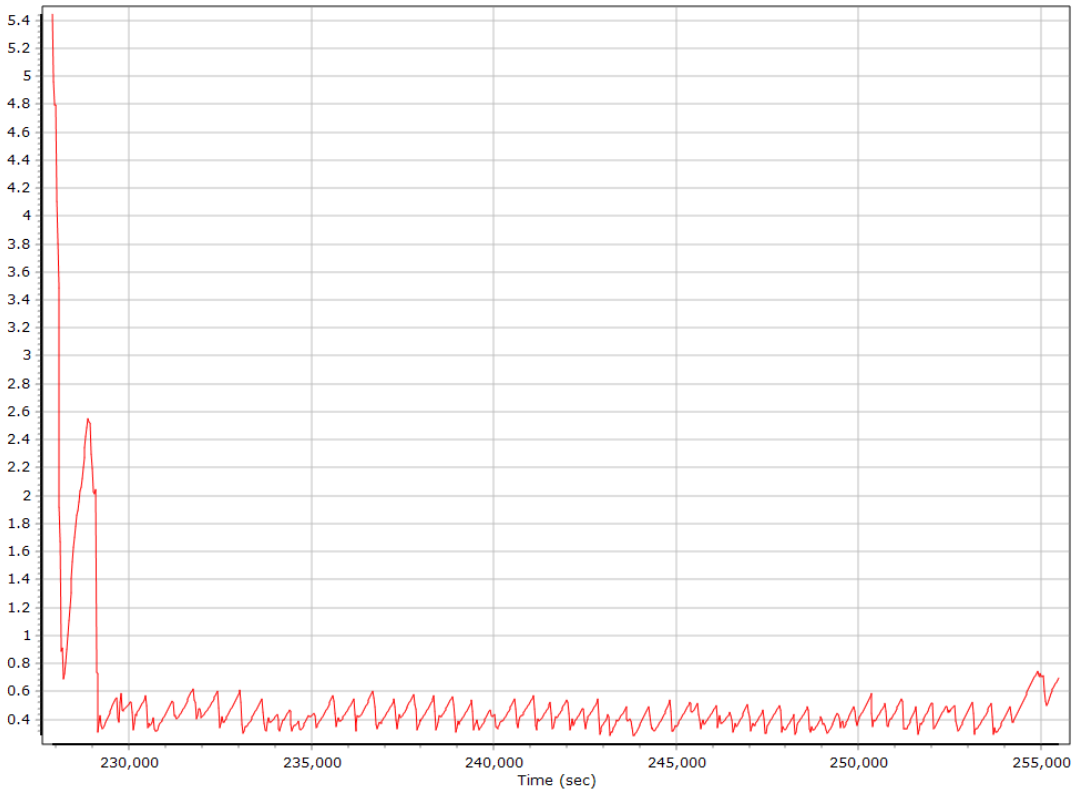
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

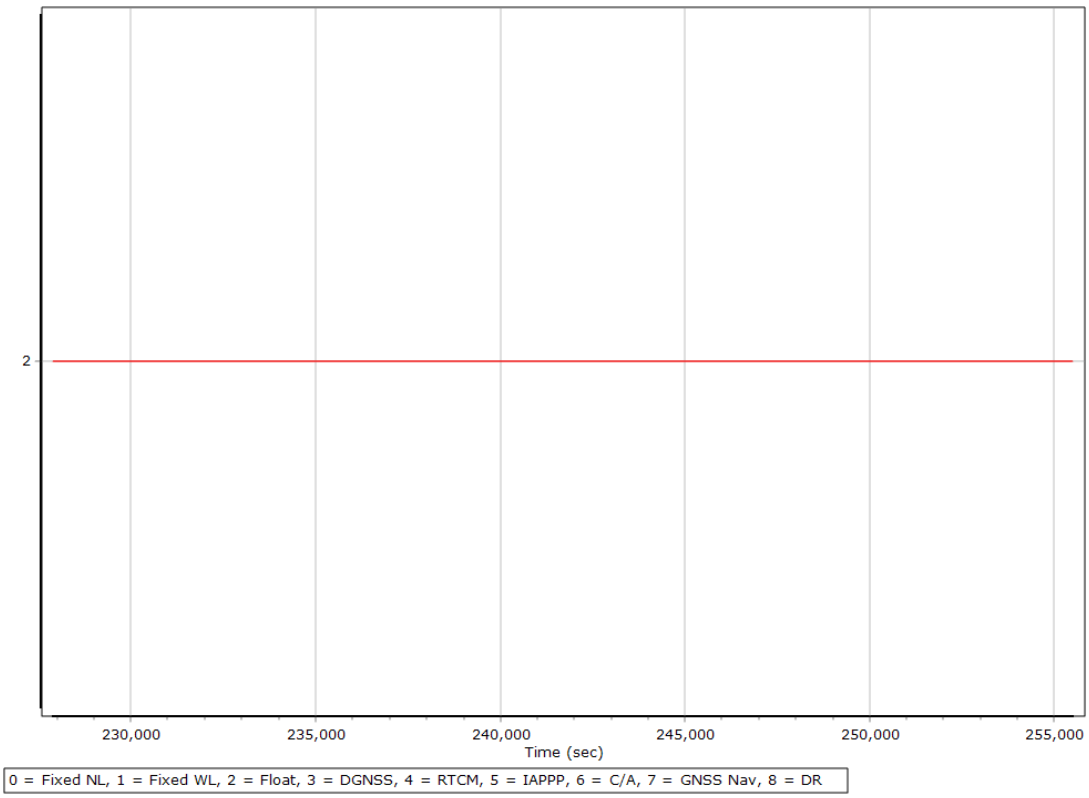


Heading Error RMS (arc-min)

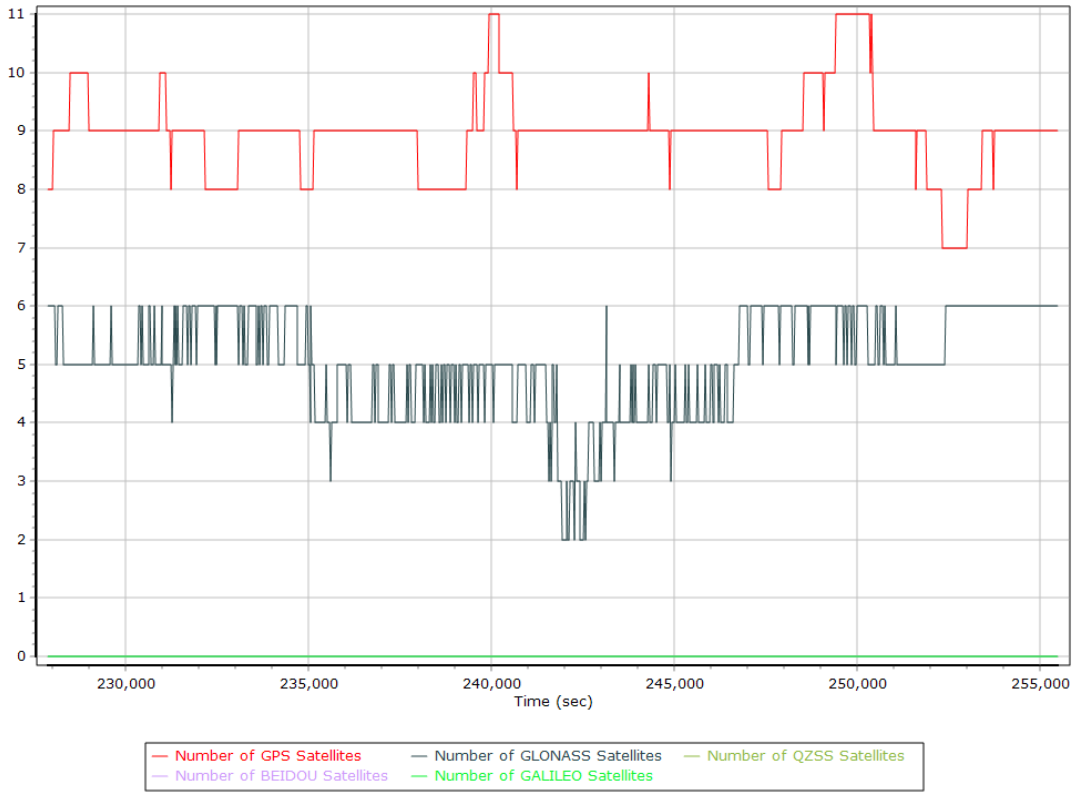
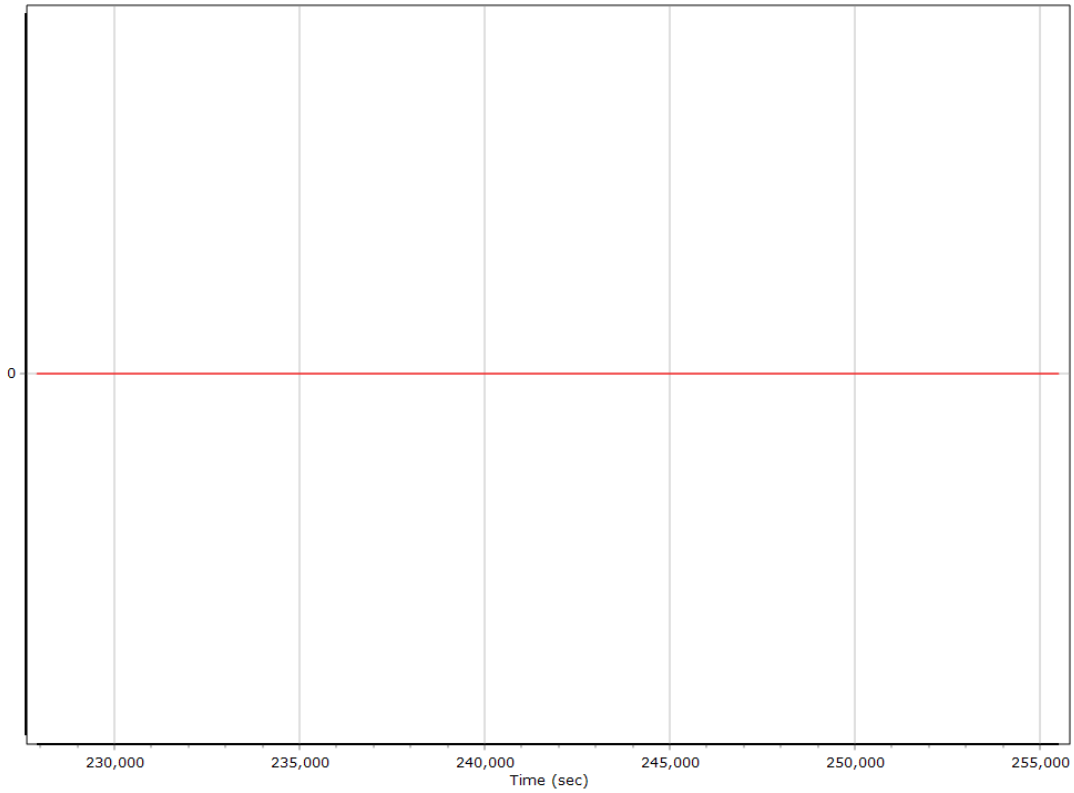


Forward Processed Solution Status

Processing Mode



Number of Satellites



Baseline Length