

General Information

Mission Information

Project name	13284-1805_20181211b
Processing date	2018-12-13 20:49:16
Mission date	2018-12-11 20:47:23
Mission duration	02:47:20.000
Processing mode	IN-Fusion SmartBase
GPS Station	ASB

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N9865
IMU type	57
Receiver type	BD982
Antenna type	AV37

Project File List

Rover Data Files

File name	File type
181211_204704_INS-GPS_1.raw	POS Data

Input Files

File Name	File type
Ephm3450.18g	GLONASS Broadcast Ephemeris
Ephm3450.18n	GPS Broadcast Ephemeris
GALP345A.18g	GLONASS Broadcast Ephemeris
WVHU345A.18g	GLONASS Broadcast Ephemeris
WVHU345A.18n	GPS Broadcast Ephemeris
WVHU345A.18o	GNSS SingleBase
WVLA345A.18g	GLONASS Broadcast Ephemeris
WVLA345A.18n	GPS Broadcast Ephemeris
WVLA345A.18o	GNSS SingleBase
WVMZ345A.18g	GLONASS Broadcast Ephemeris
WVMZ345A.18n	GPS Broadcast Ephemeris
WVMZ345A.18o	GNSS SingleBase
WVOH345A.18g	GLONASS Broadcast Ephemeris
WVOH345A.18n	GPS Broadcast Ephemeris
WVOH345A.18o	GNSS SingleBase
WVRA345A.18g	GLONASS Broadcast Ephemeris
WVRA345A.18n	GPS Broadcast Ephemeris
WVRA345A.18o	GNSS SingleBase
WVRH345A.18g	GLONASS Broadcast Ephemeris
WVRH345A.18n	GPS Broadcast Ephemeris
WVHA345A.18o	GNSS SingleBase
WVHA345A.18n	GPS Broadcast Ephemeris
WVHA345A.18g	GLONASS Broadcast Ephemeris
GALP345A.18n	GPS Broadcast Ephemeris
GALP345A.18o	GNSS SingleBase
KYGB345A.18g	GLONASS Broadcast Ephemeris
KYGB345A.18n	GPS Broadcast Ephemeris
KYGB345A.18o	GNSS SingleBase
KYPA345A.18g	GLONASS Broadcast Ephemeris
KYPA345A.18n	GPS Broadcast Ephemeris
KYPA345A.18o	GNSS SingleBase
MCON345A.18g	GLONASS Broadcast Ephemeris
MCON345A.18n	GPS Broadcast Ephemeris
MCON345A.18o	GNSS SingleBase
WVCH345A.18g	GLONASS Broadcast Ephemeris
WVCH345A.18n	GPS Broadcast Ephemeris
WVCH345A.18o	GNSS SingleBase
WVFL345A.18g	GLONASS Broadcast Ephemeris
WVFL345A.18n	GPS Broadcast Ephemeris
WVFL345A.18o	GNSS SingleBase
WVRH345A.18o	GNSS SingleBase
stkr3450.18o	GNSS SingleBase
ohho3450.18o	GNSS SingleBase
igr20311.sp3	GPS Precise Ephemeris
igr20312.sp3	GPS Precise Ephemeris
igu20313_00.sp3	GPS Precise Ephemeris
igu20313_06.sp3	GPS Precise Ephemeris
igu20313_12.sp3	GPS Precise Ephemeris
igu20313_18.sp3	GPS Precise Ephemeris

Output Files

Filename	File type
sbet_Mission 1.out	SBET Trajectory File

Rover Data Summary

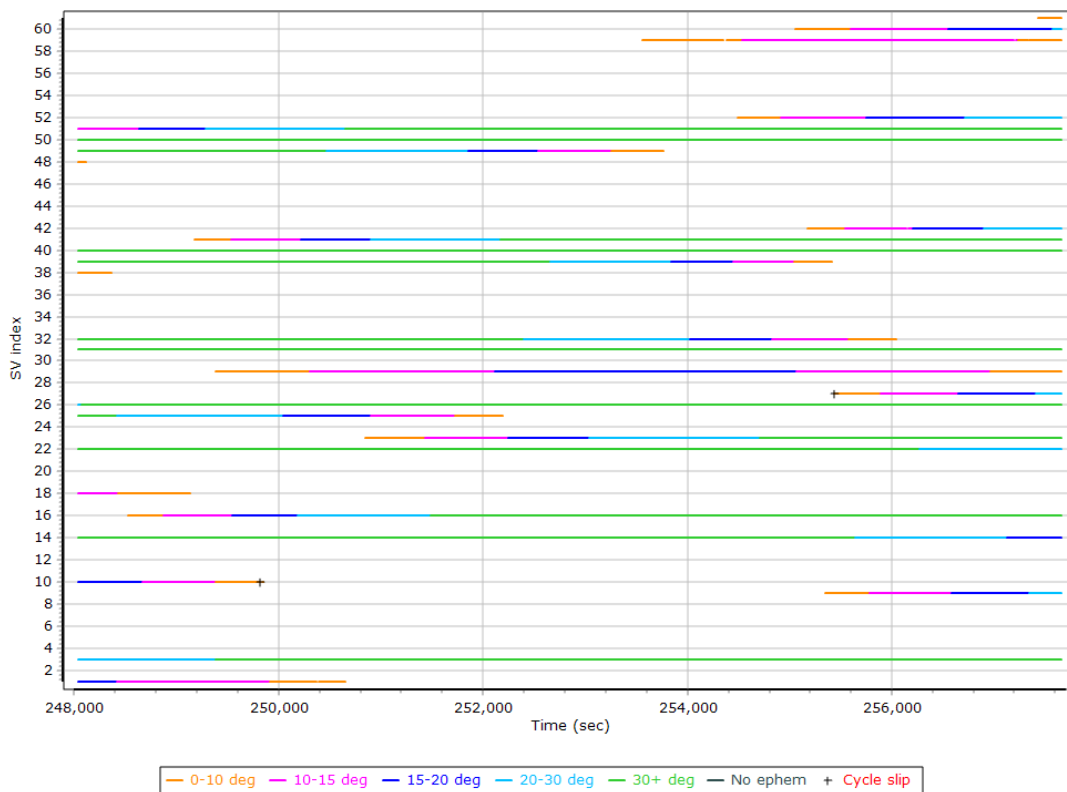
First raw data file	181211_204704_INS-GPS_1.raw		
Last raw data file	181211_204704_INS-GPS_1.raw		
Start GPS week	2031		
Start time	247624.303 (12/11/2018 8:47:04 PM)		
End time	257665.788 (12/11/2018 11:34:25 PM)		
Start of fine alignment	247978.099 (12/11/2018 8:52:58 PM)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	Event 1 Input, Event 2 Input, Event 3 Input, Event 4 Input, Event 5 Input, Event 6 Input		
Correction data	None		
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]	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm std dev [m]	-1.000		
Aircraft to Reference mounting angles [deg]	0.000	0.000	0.000

Raw Data QC

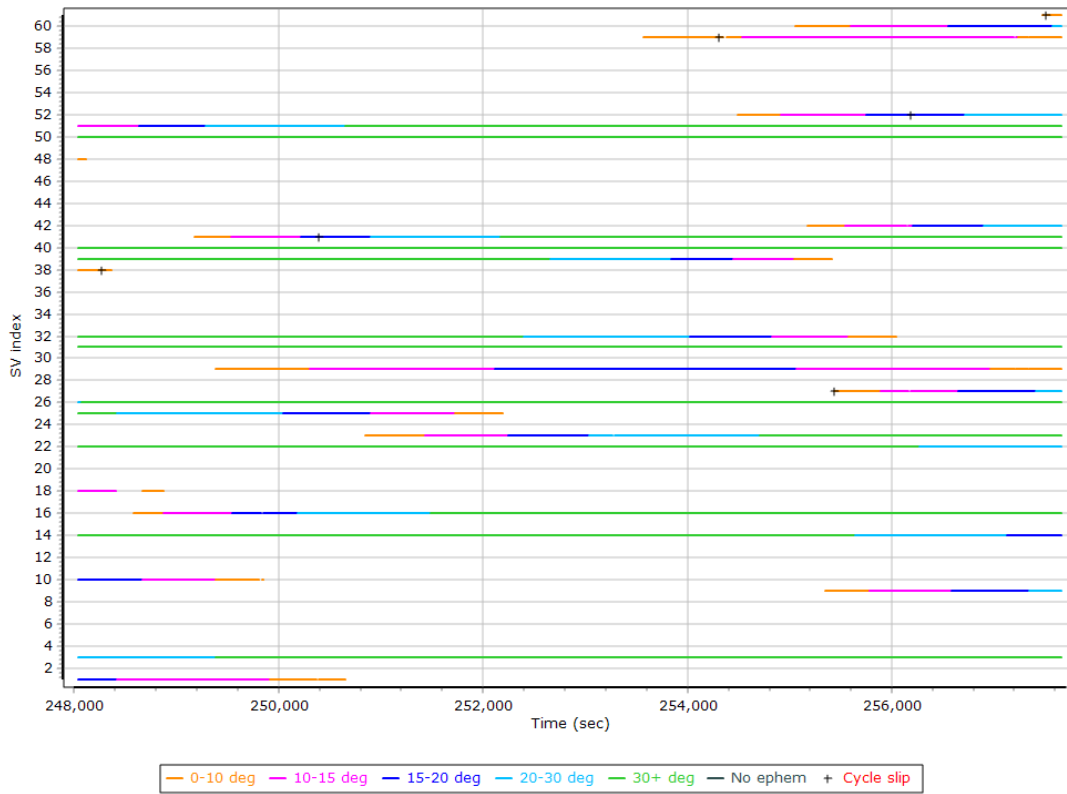
Raw IMU Import QC Summary

IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_Mission 1.log
IMU Records Processed	2007819
Termination Status	Normal
IMU Anomalies	0

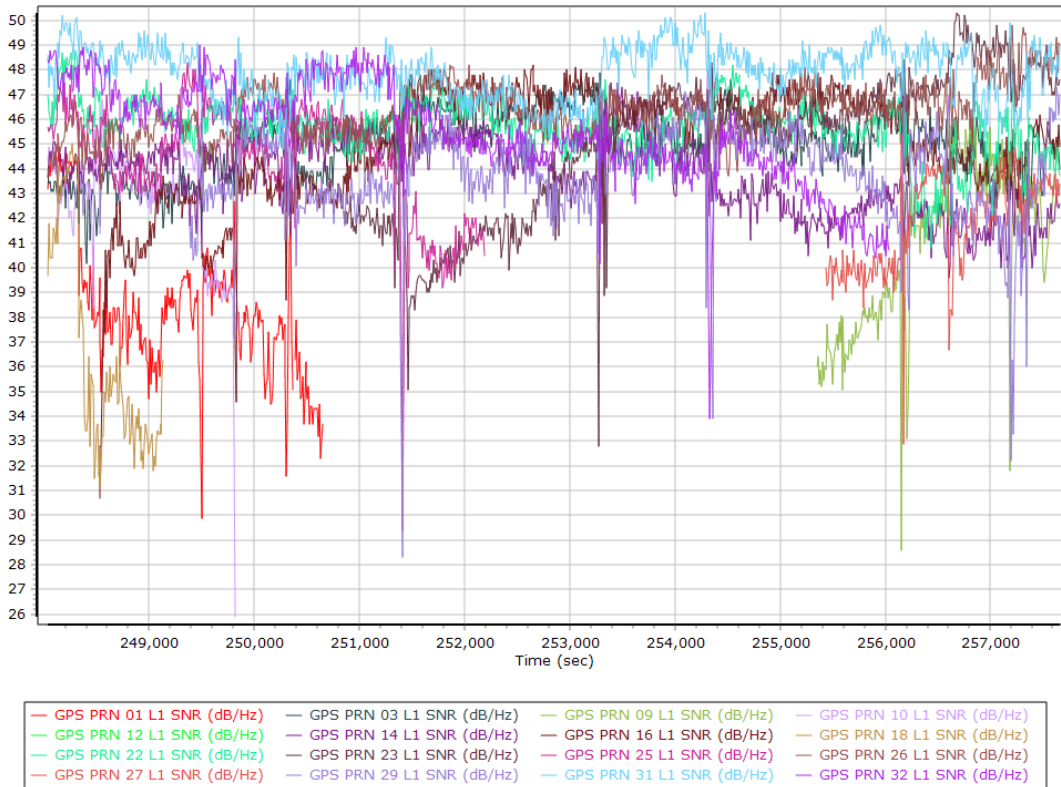
L1 Satellite Lock/Elevation



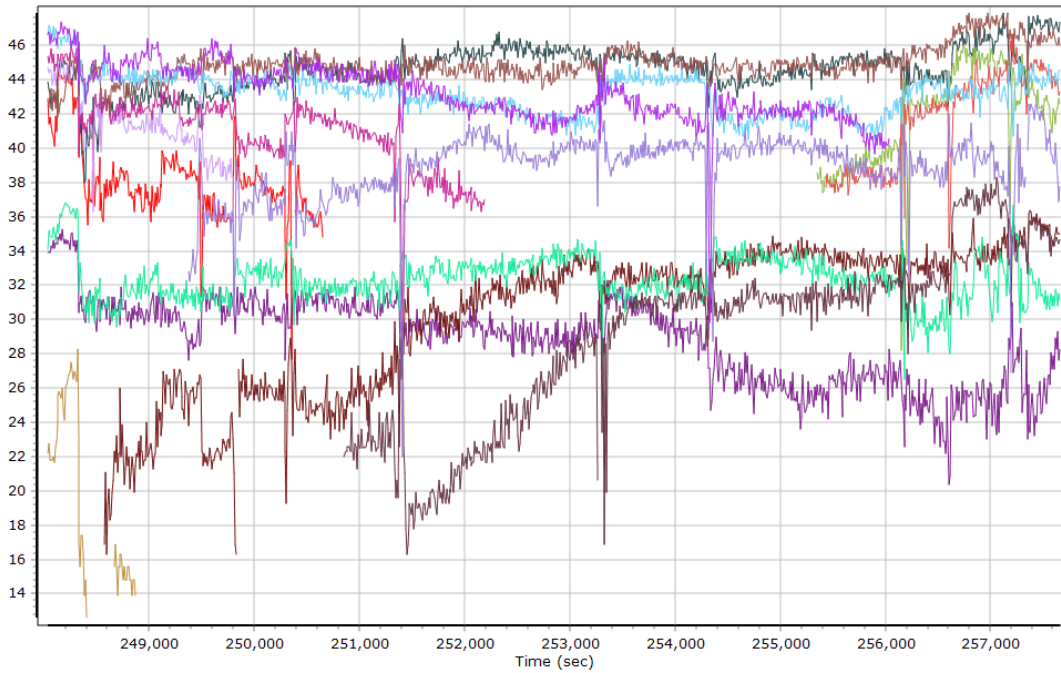
L2 Satellite Lock/Elevation



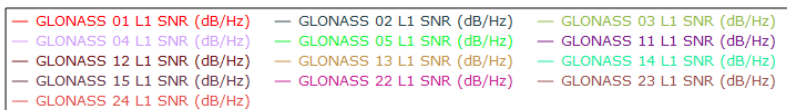
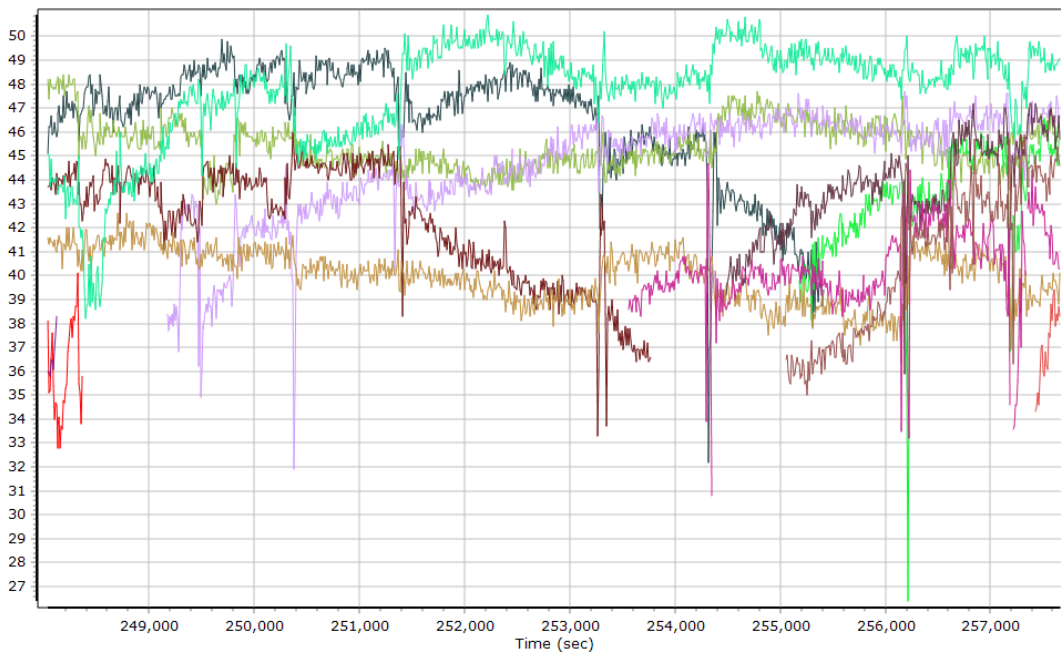
GPS L1 SNR



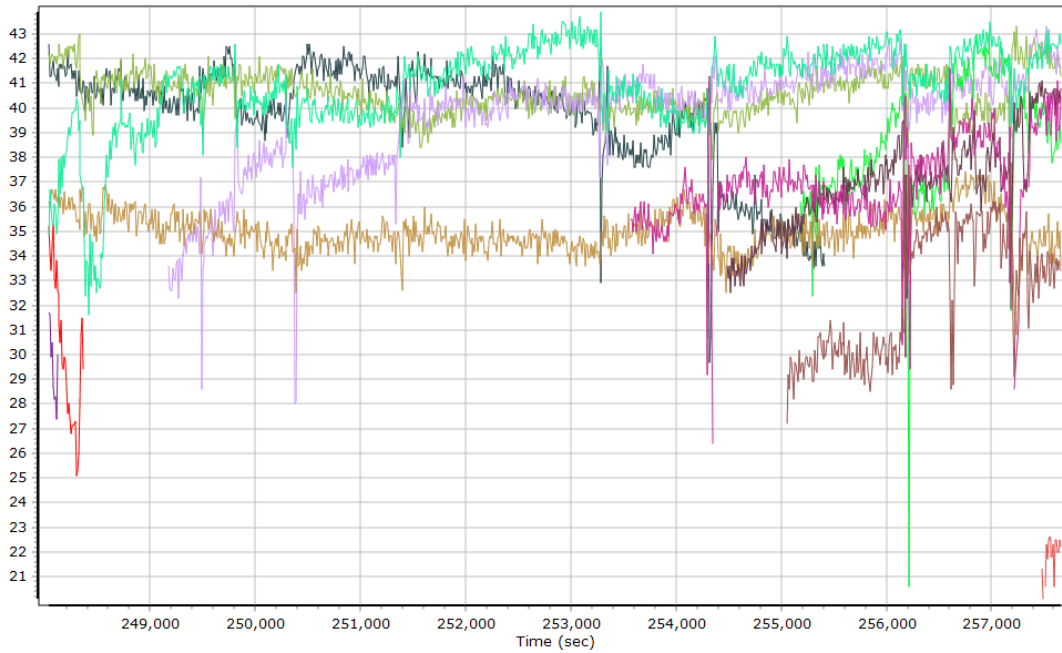
GPS L2 SNR



GLONASS L1 SNR

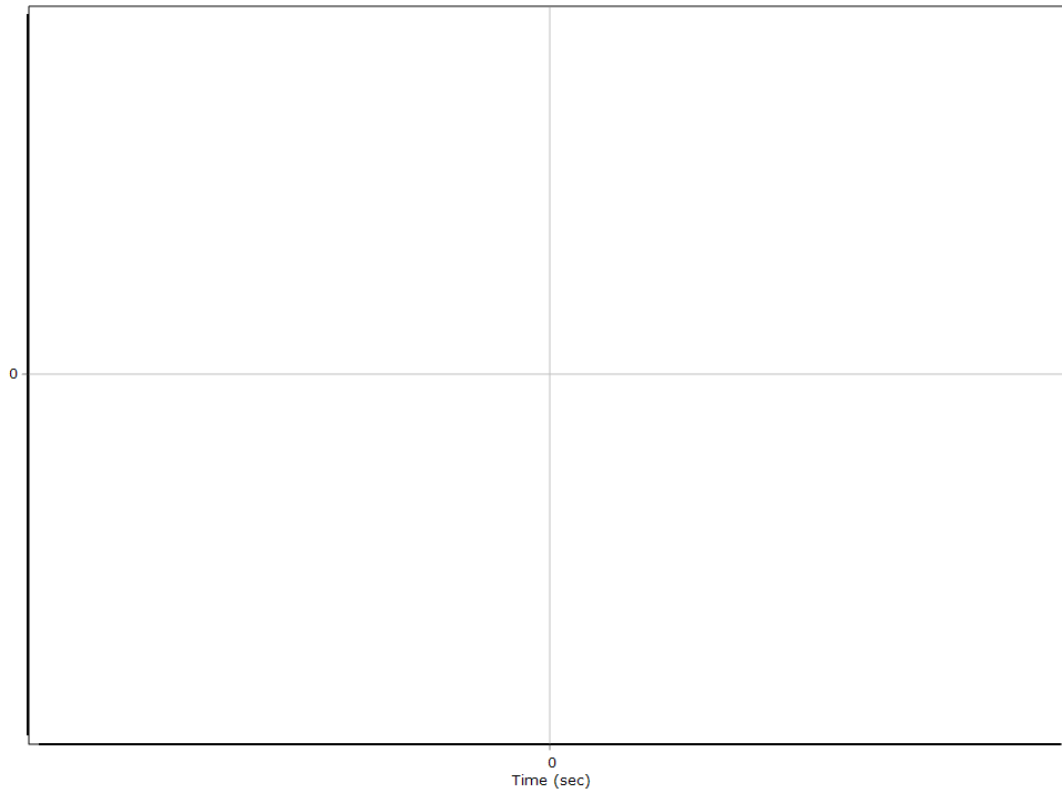


GLONASS L2 SNR



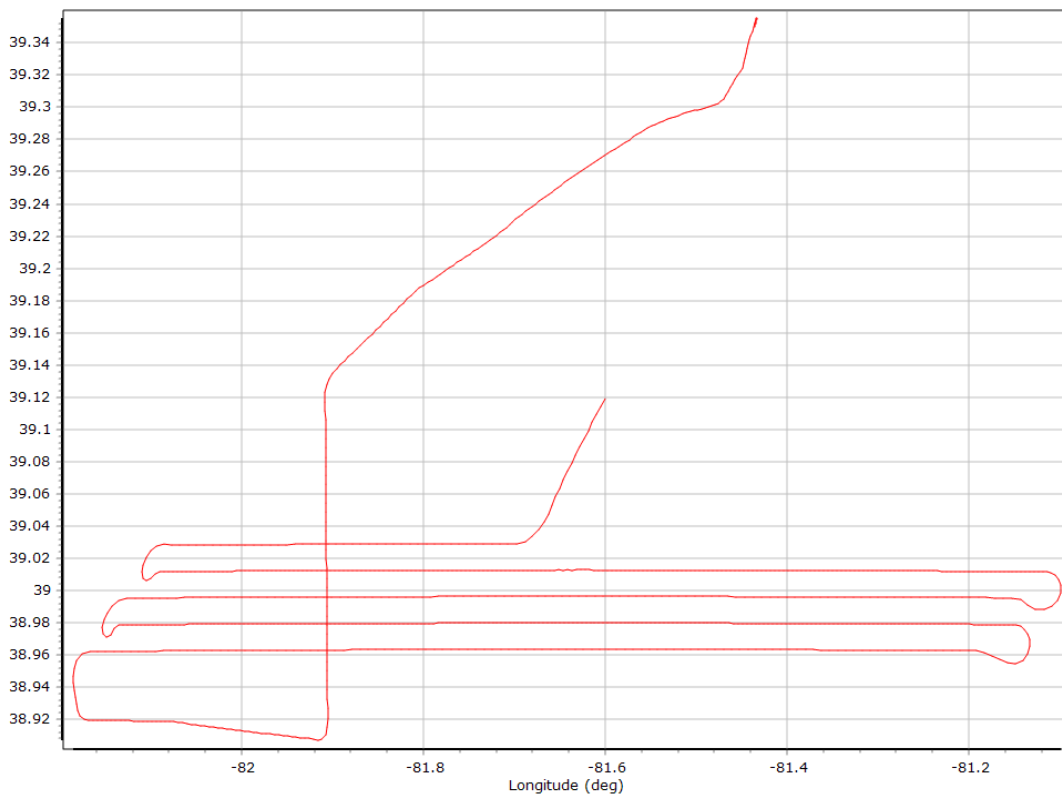
- | | | |
|---------------------------|---------------------------|---------------------------|
| GLONASS 01 L2 SNR (dB/Hz) | GLONASS 02 L2 SNR (dB/Hz) | GLONASS 03 L2 SNR (dB/Hz) |
| GLONASS 04 L2 SNR (dB/Hz) | GLONASS 05 L2 SNR (dB/Hz) | GLONASS 11 L2 SNR (dB/Hz) |
| GLONASS 12 L2 SNR (dB/Hz) | GLONASS 13 L2 SNR (dB/Hz) | GLONASS 14 L2 SNR (dB/Hz) |
| GLONASS 15 L2 SNR (dB/Hz) | GLONASS 22 L2 SNR (dB/Hz) | GLONASS 23 L2 SNR (dB/Hz) |
| GLONASS 24 L2 SNR (dB/Hz) | | |

BEIDOU SNR

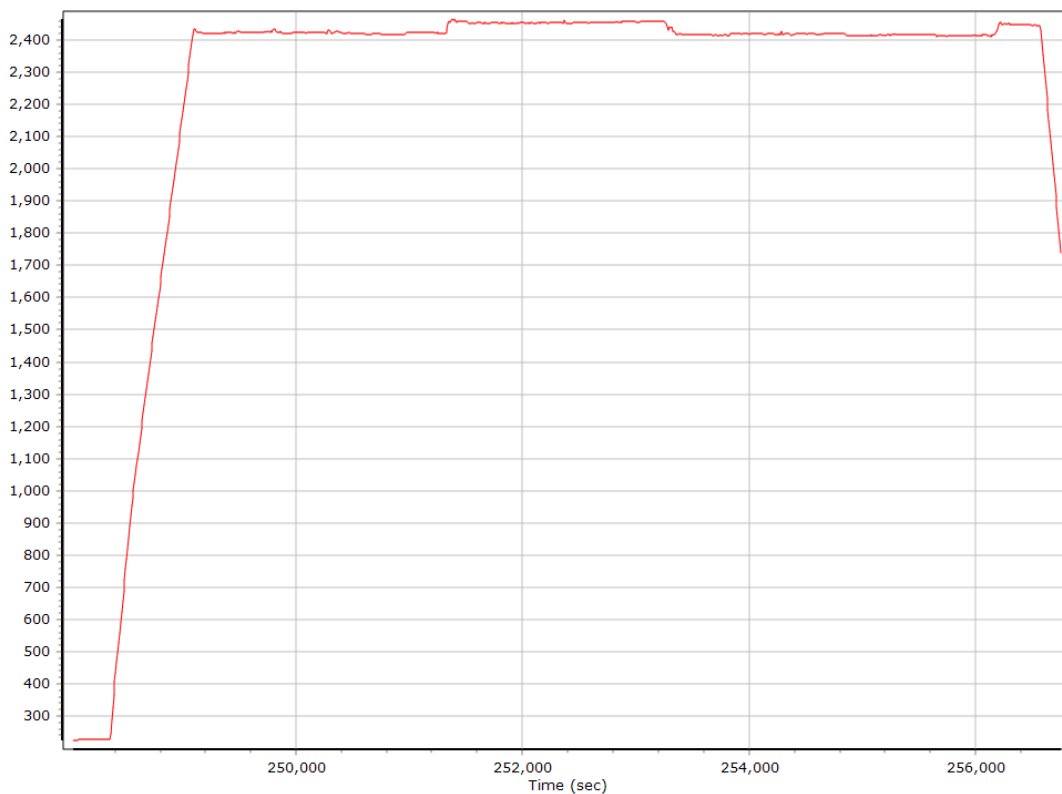


Trajectory Information

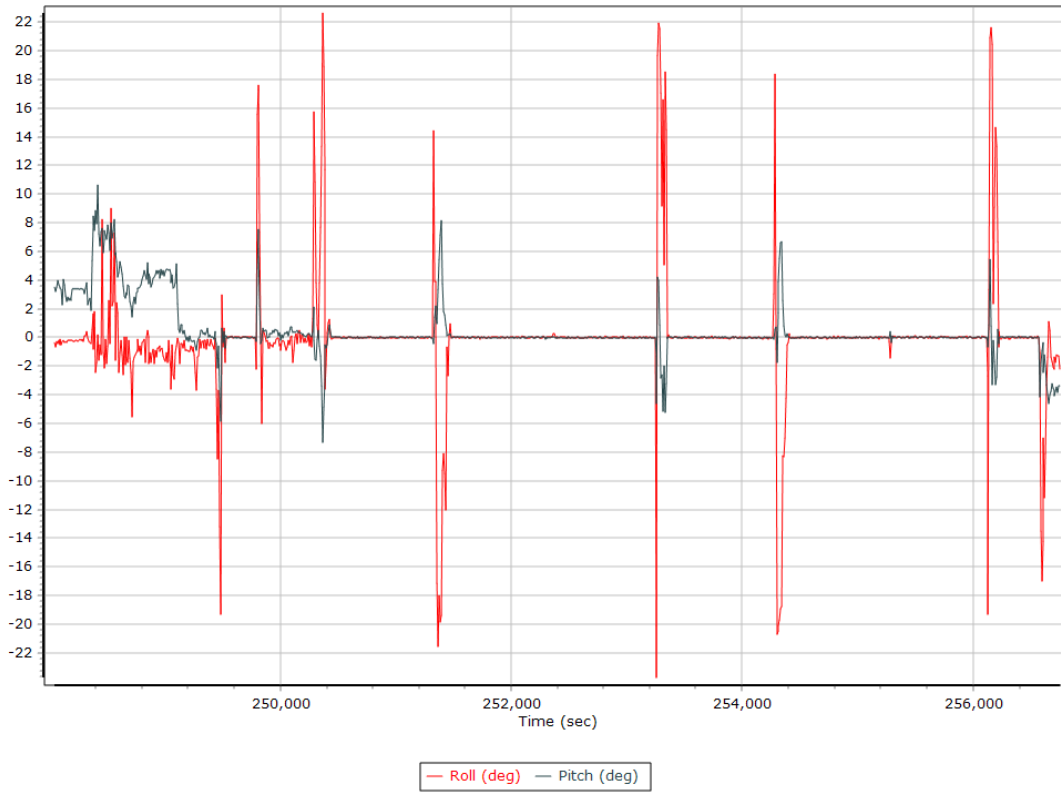
Top View



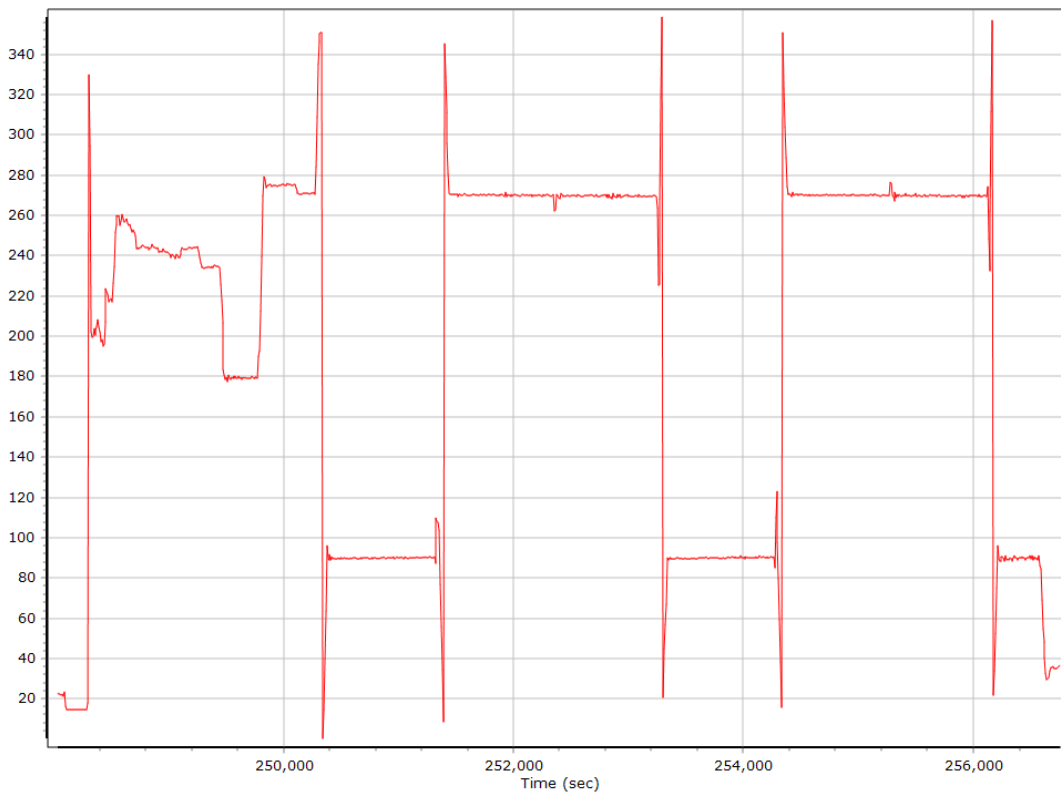
Altitude



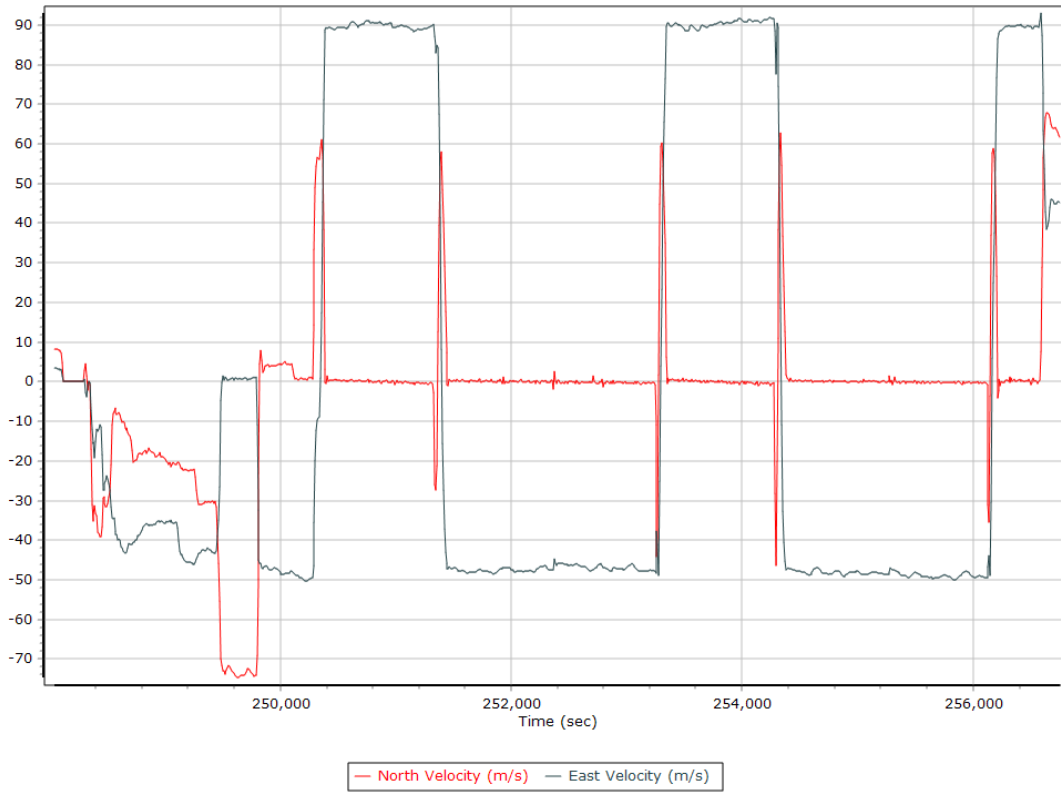
Roll/Pitch



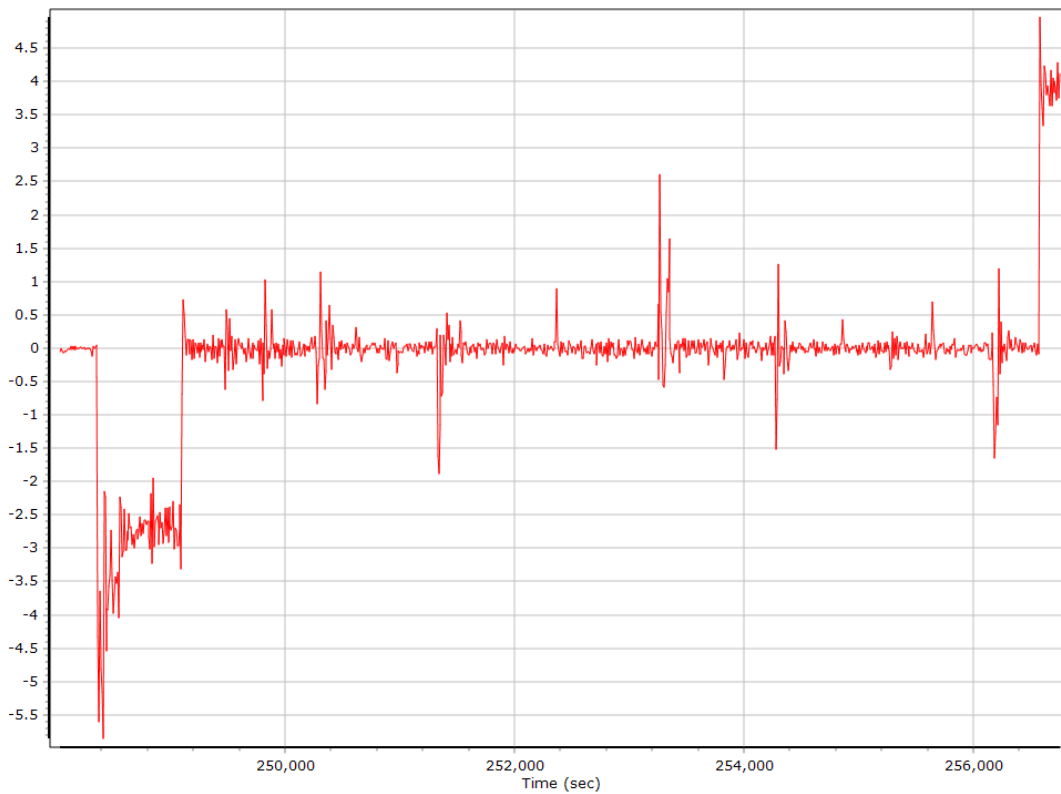
Heading



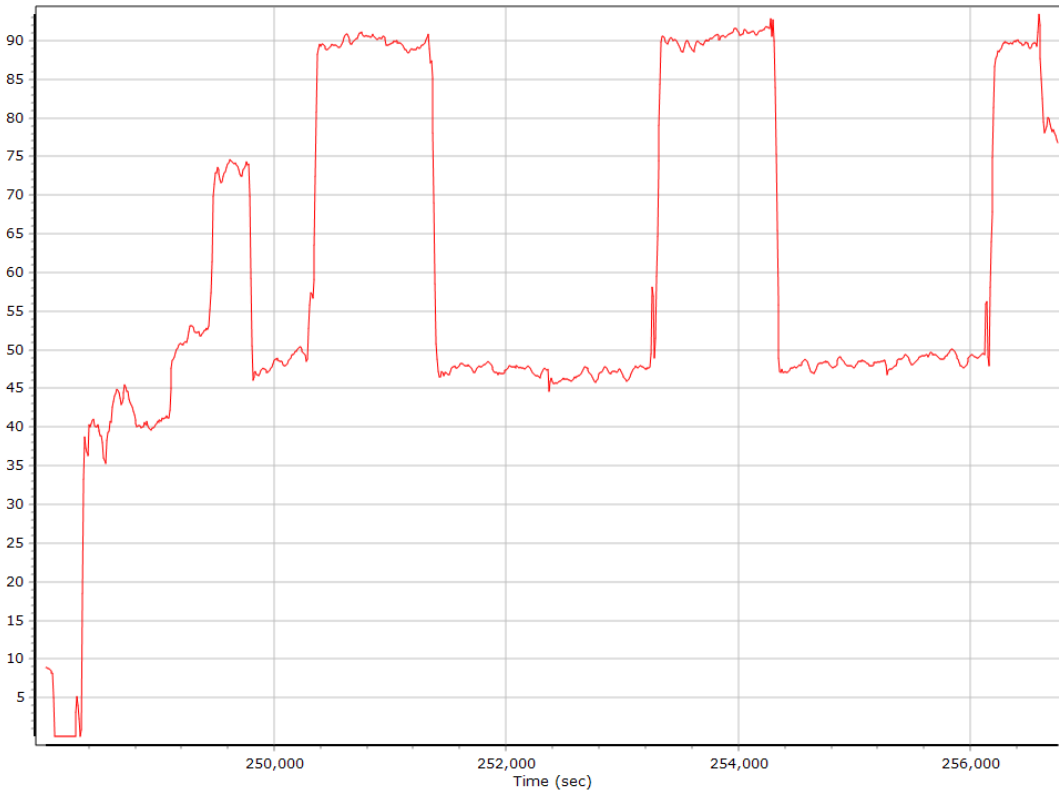
North/East Velocity



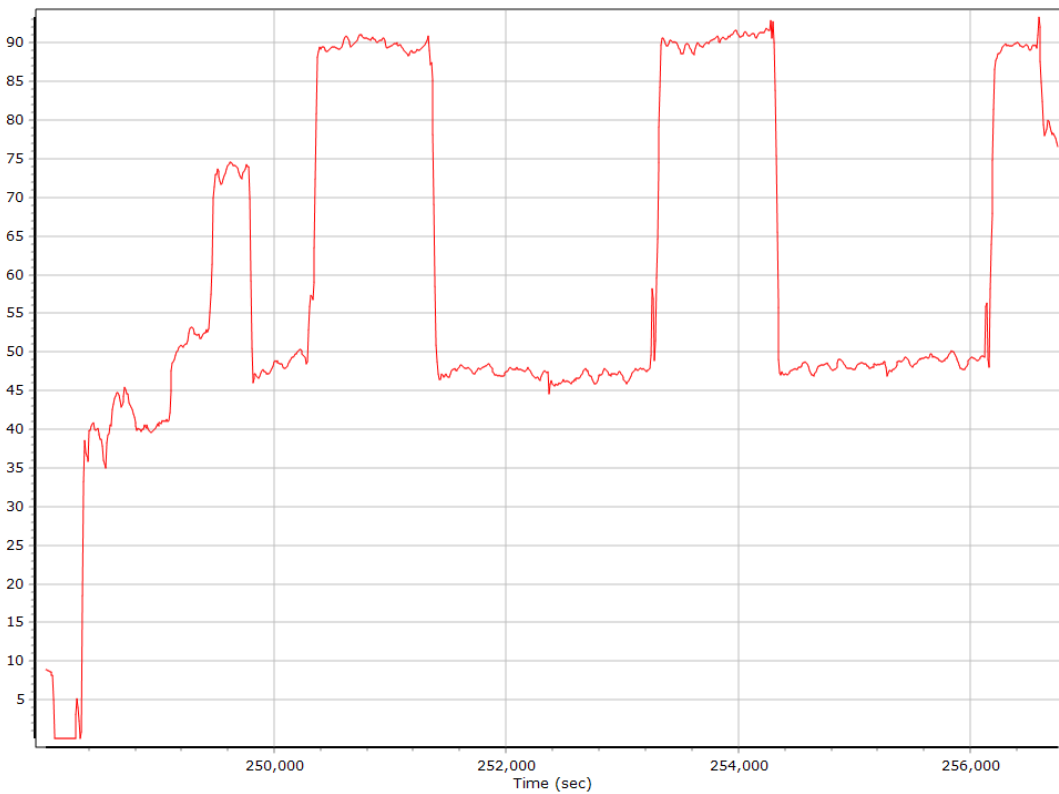
Down Velocity



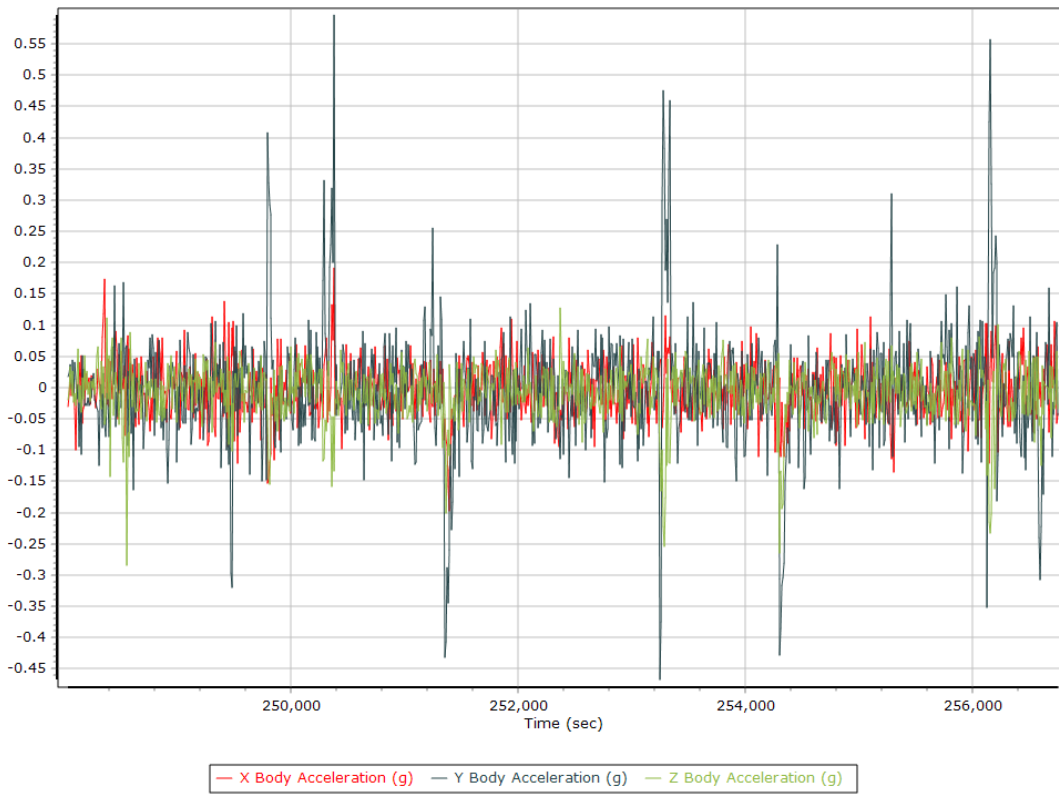
Total Speed



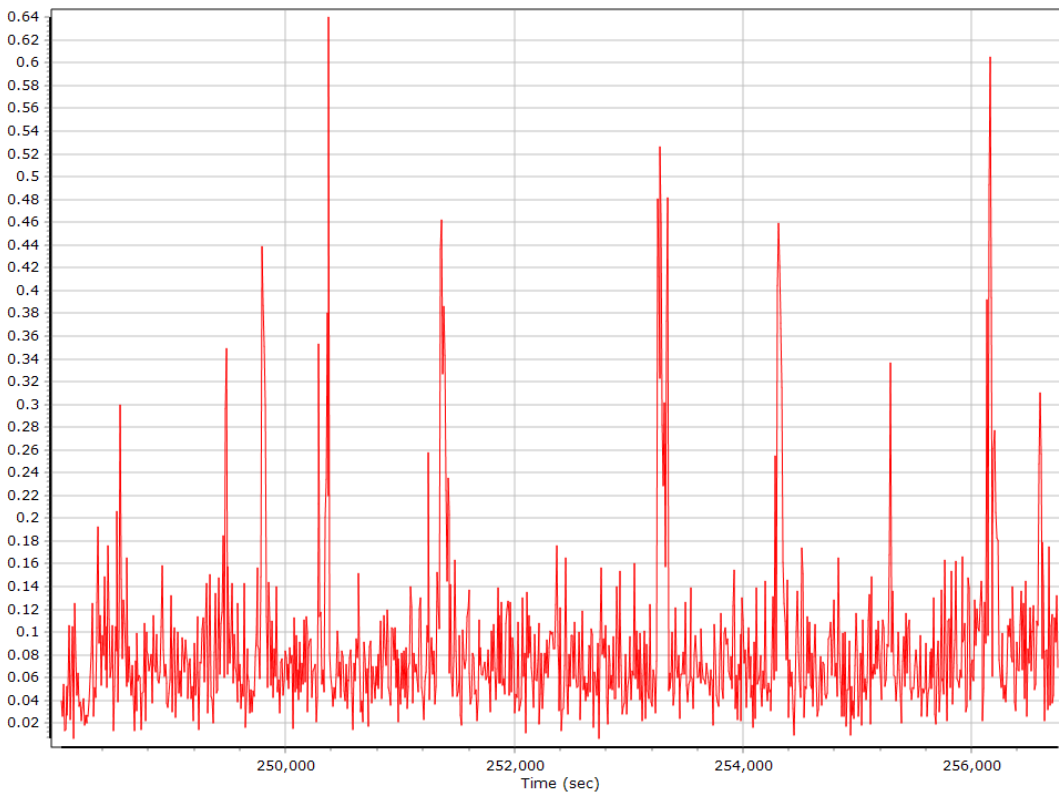
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate



SmartBase Processing Summary

Smart Select Options

Archive enabled	False
User database enabled	False
Include high-rate data sites	False
Target GNSS Selection	GNSS

Basestation Selection

Date	ID	Dist	Data Type	Rate	Service	Database	Status
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SmartBase Results

SmartBase status	
Primary station Id	
Primary station data rate [sec]	0.0
VRS/ASB generation rate [sec]	0.0
VRS/ASB timespan	
Number of reference stations	0
Primary station GPS measurement usage [%]	0.0
Average number of satellites per epoch	0.0
Max number of GPS stations used	0
Min number of GPS stations used	0
Total full data gap [sec]	0
Total individual satellite data gap [sec]	0
GPS precise vs. broadcast ephemeris used	0.0 % / 0.0 %
Termination Status	

SmartBase Quality Check

GNSS QC

GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length [km]	0.35	48.94	
Number of GPS SV	8	10	9
Number of GLONASS SV	0	8	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Total number of SV	9	18	15
PDOP	1.05	1.74	1.39
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (s)	10010.00	0.00	1.00
Percentage	99.99	0.00	0.01

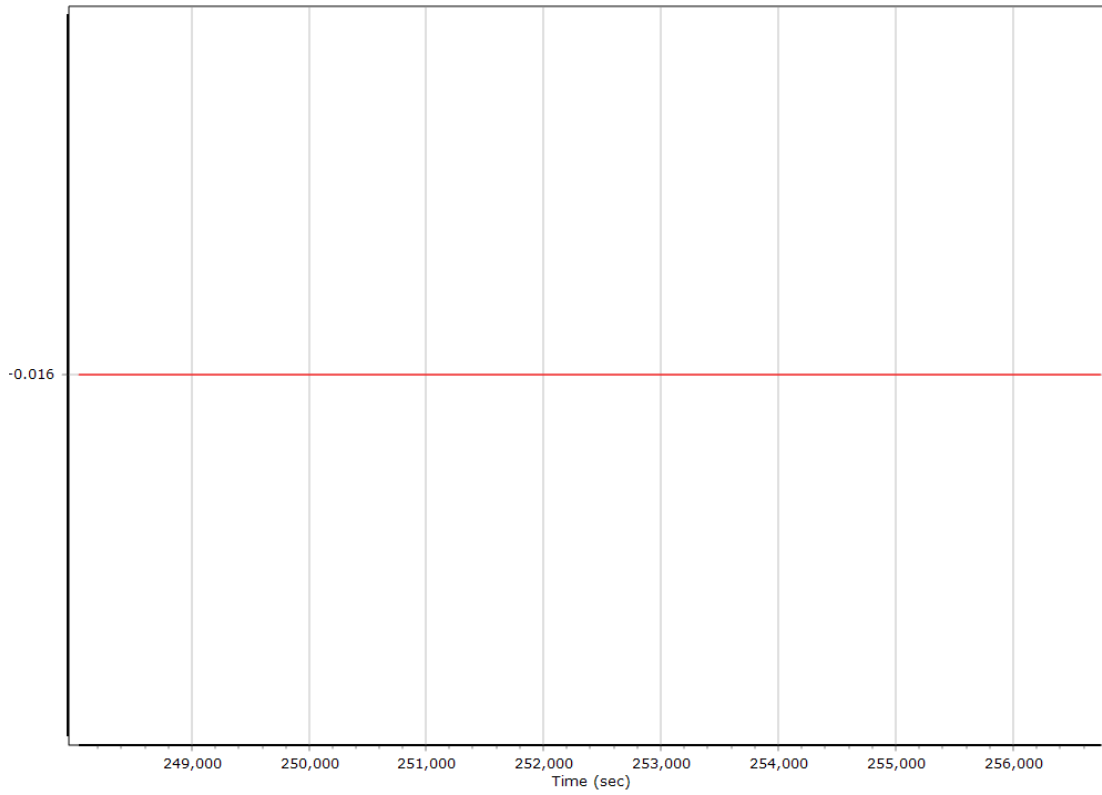
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion SmartBase		
Stabilized mount	True		
Base station	ASB		
Processing start time	247625.000 (12/11/2018 8:47:05 PM)		
Processing end time	257665.000 (12/11/2018 11:34:25 PM)		
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]	-0.016	0.008	-0.680
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

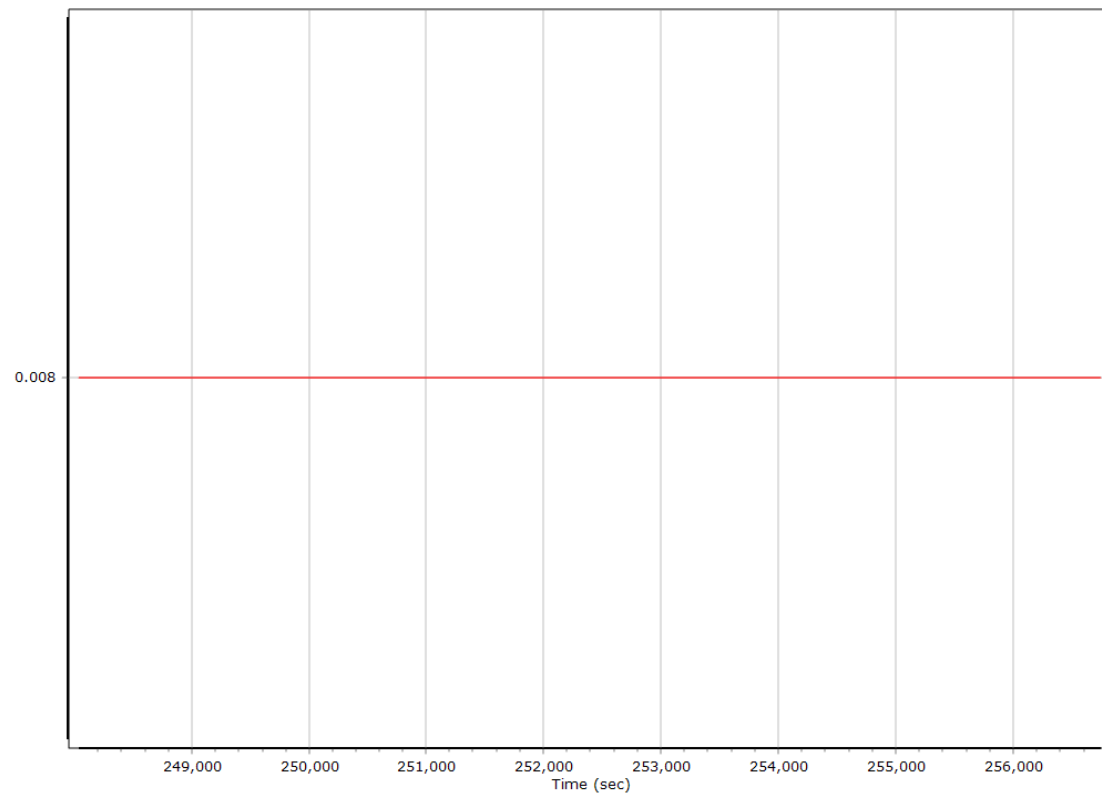
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm

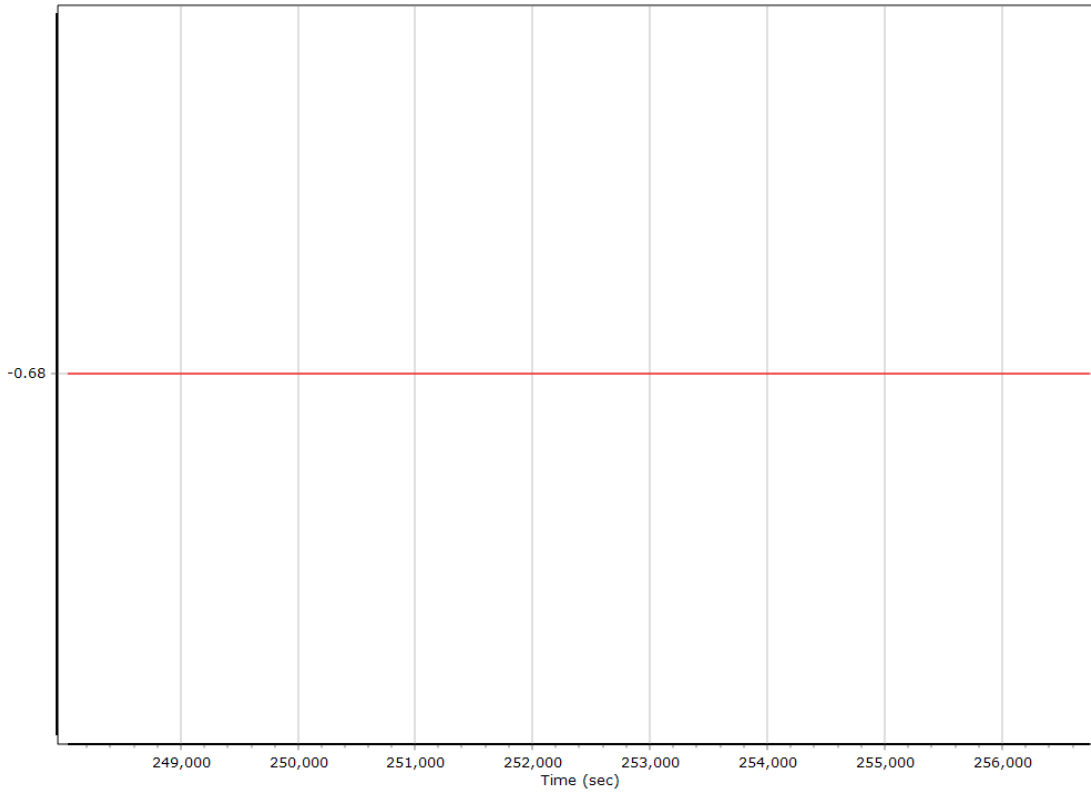
X Reference-Primary GNSS Lever Arm (m)



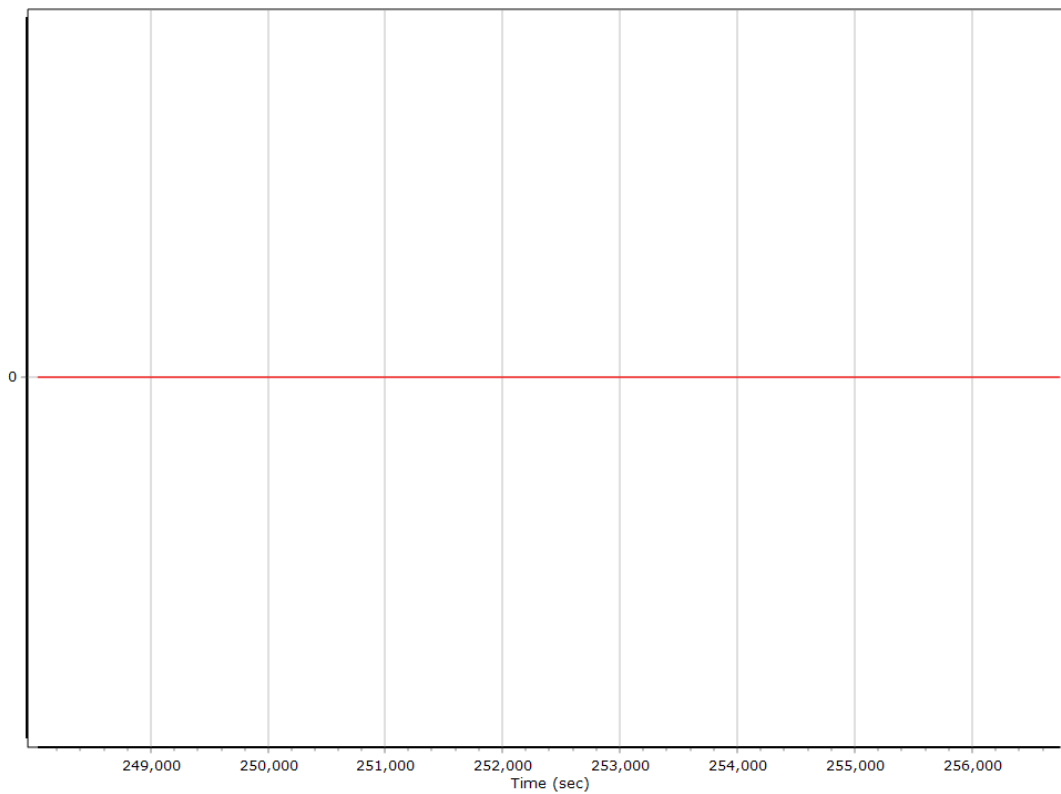
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



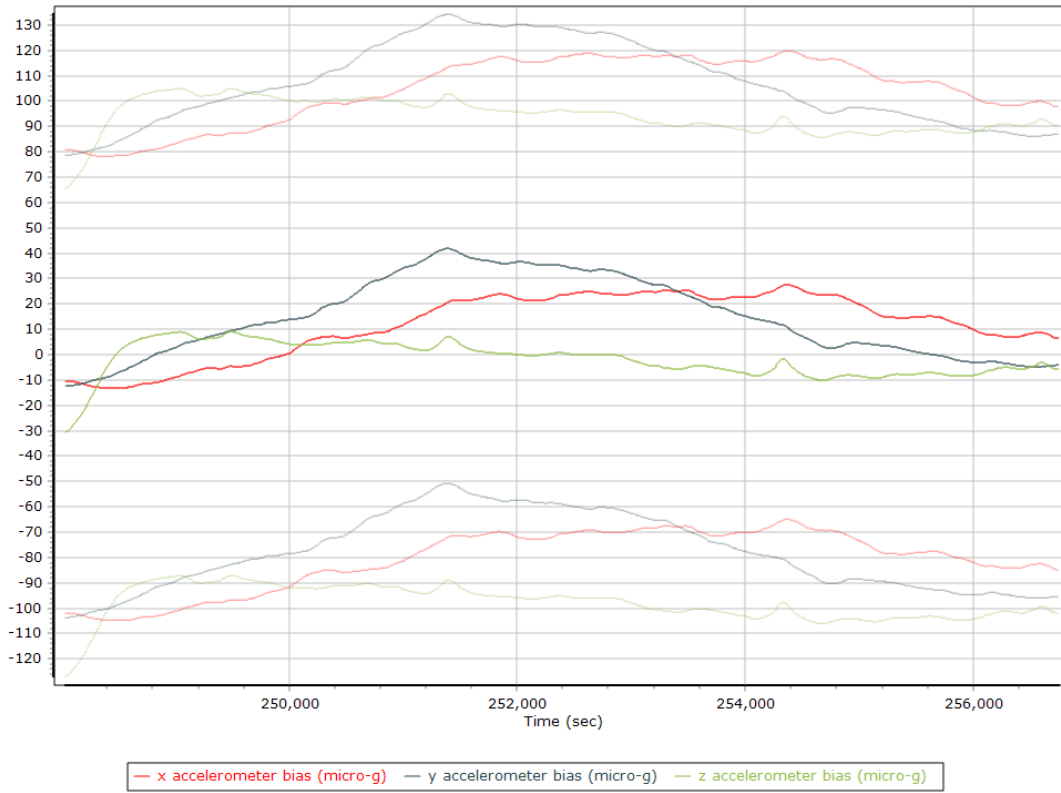
Reference-Primary GNSS Lever Arm Figure of Merit



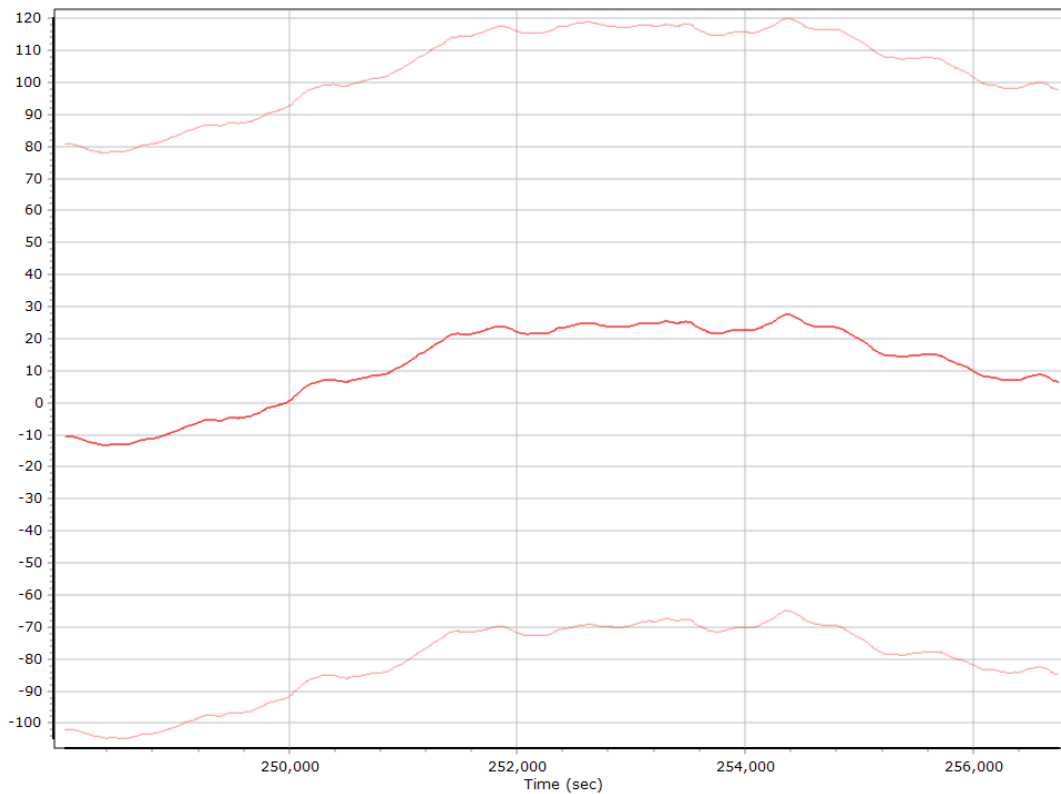
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

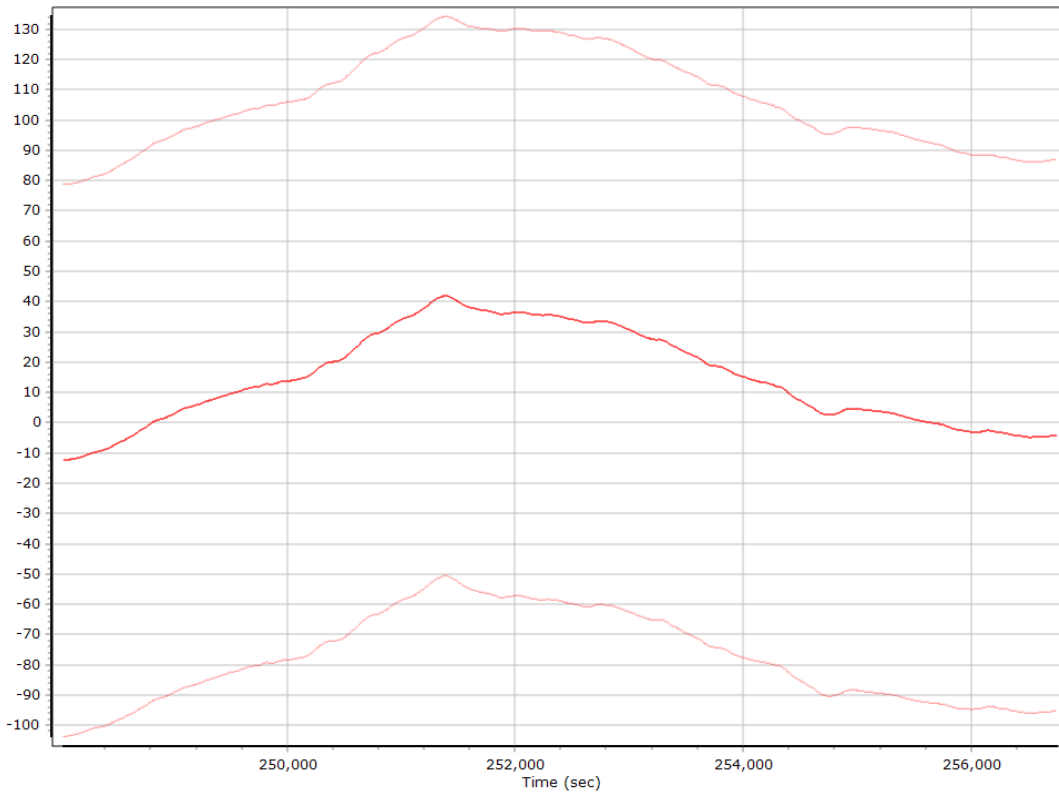
Accelerometer Bias (micro-g)



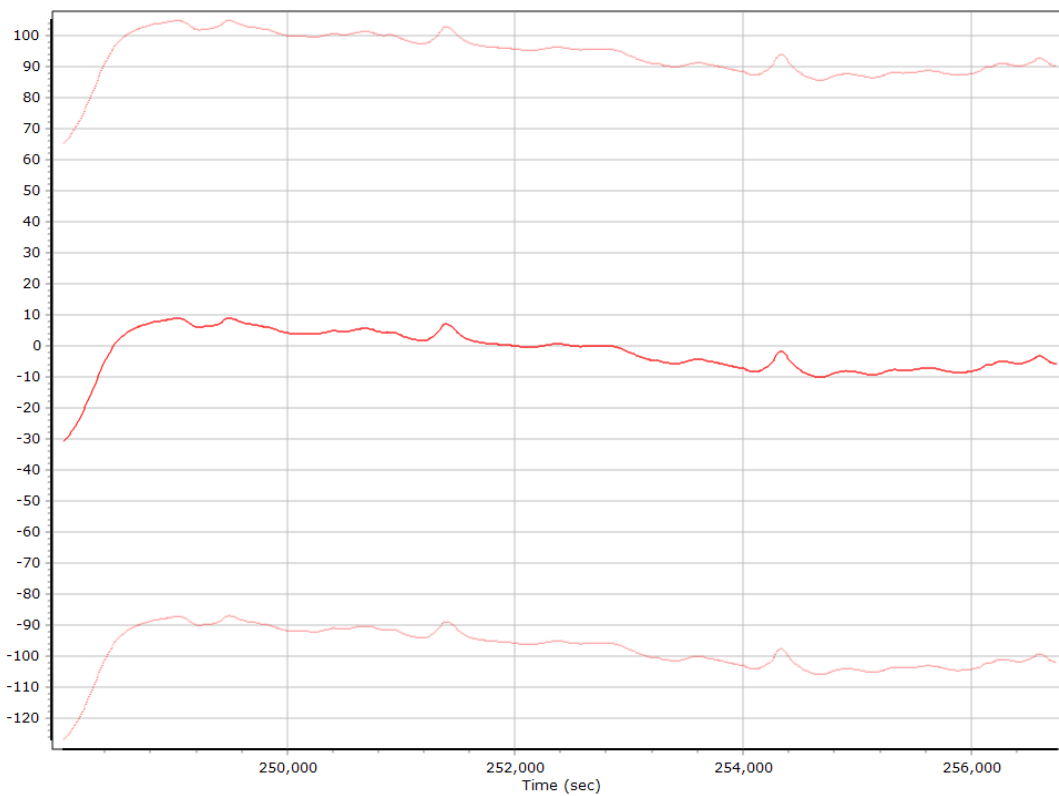
X Accelerometer Bias (micro-g)



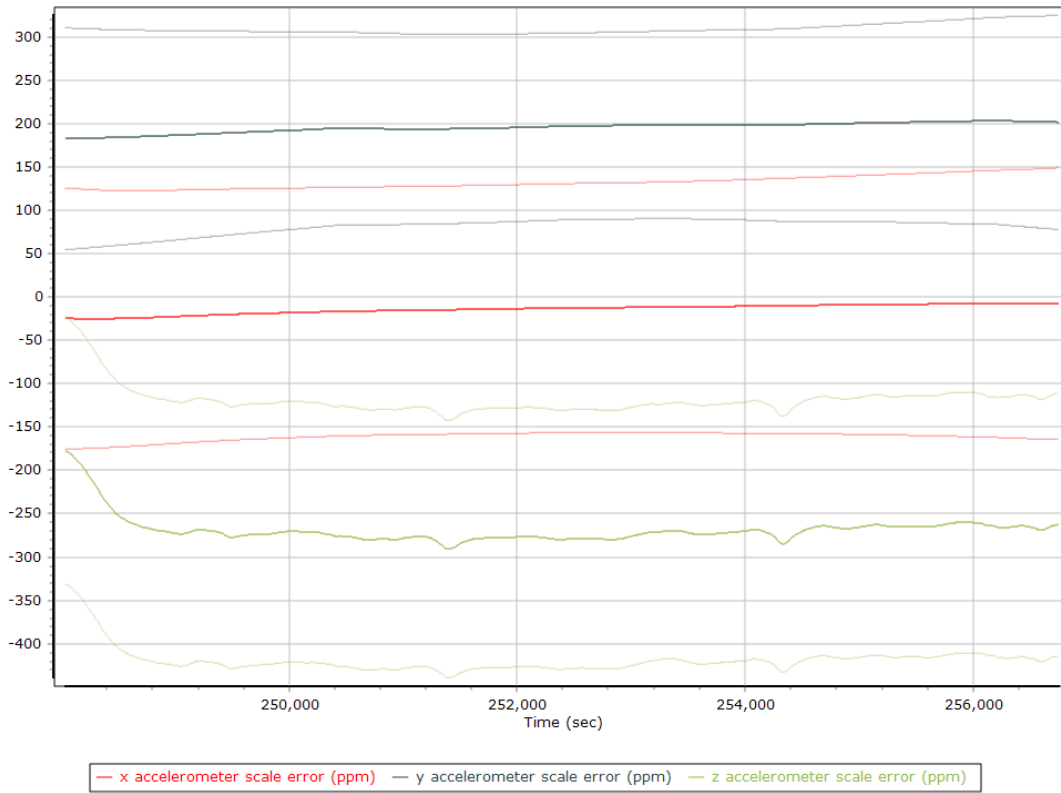
Y Accelerometer Bias (micro-g)



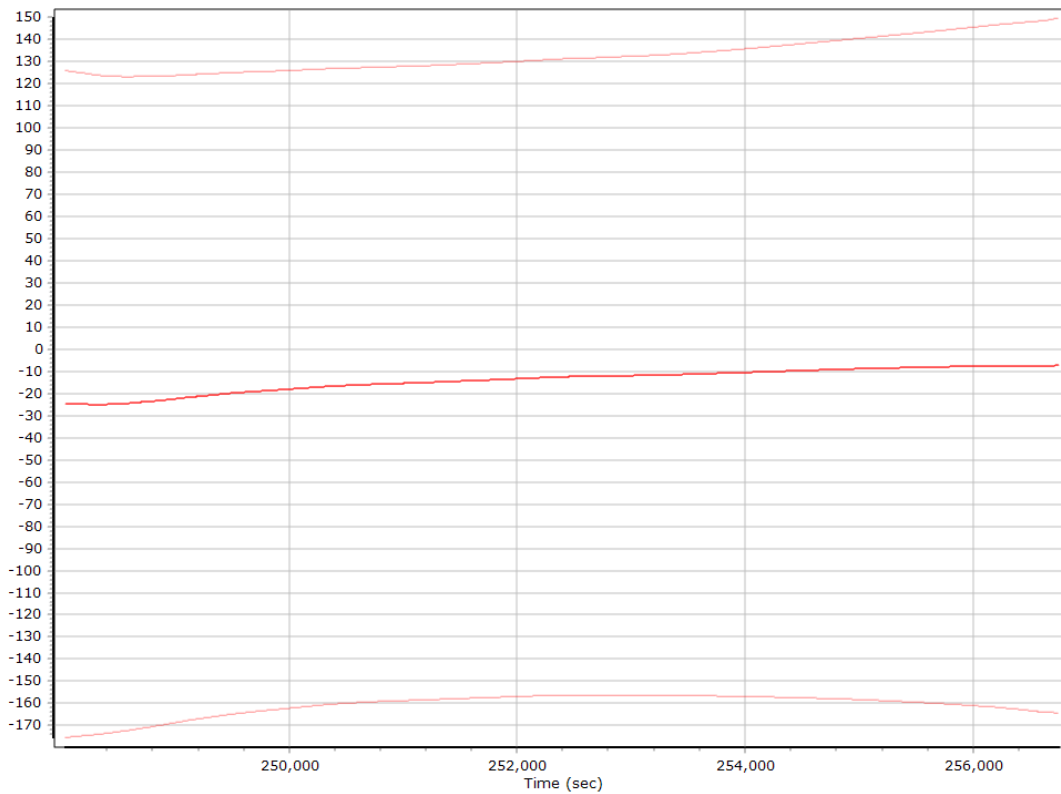
Z Accelerometer Bias (micro-g)



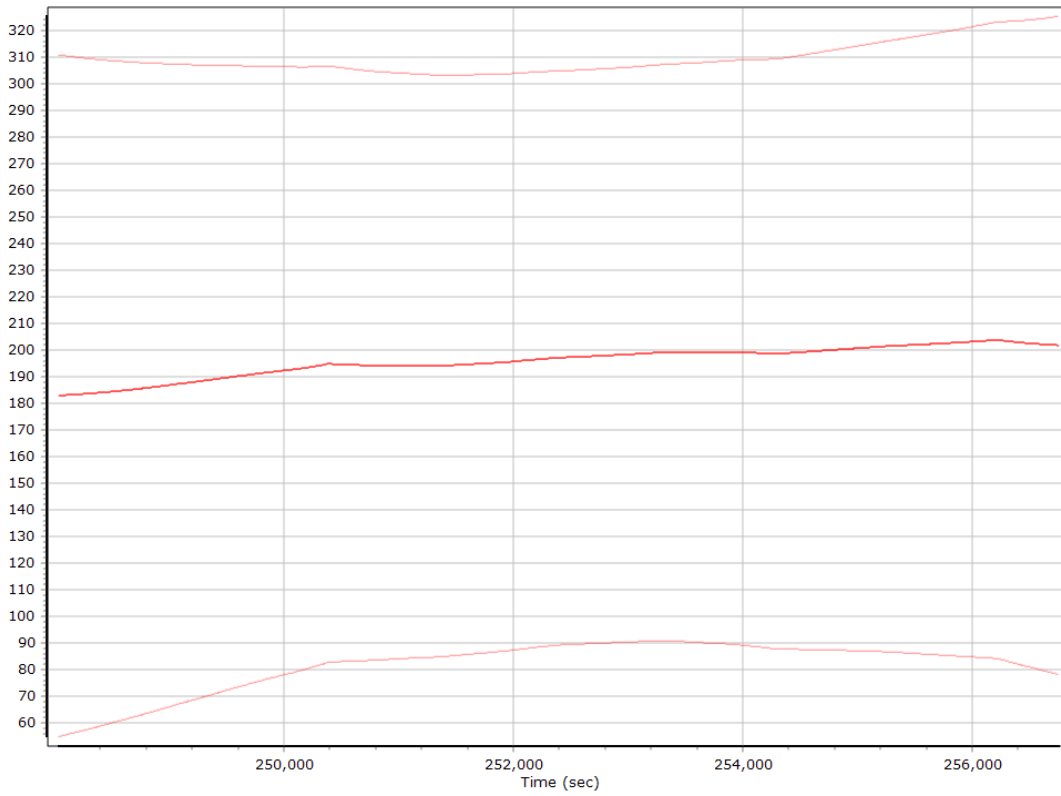
Accelerometer Scale Error (ppm)



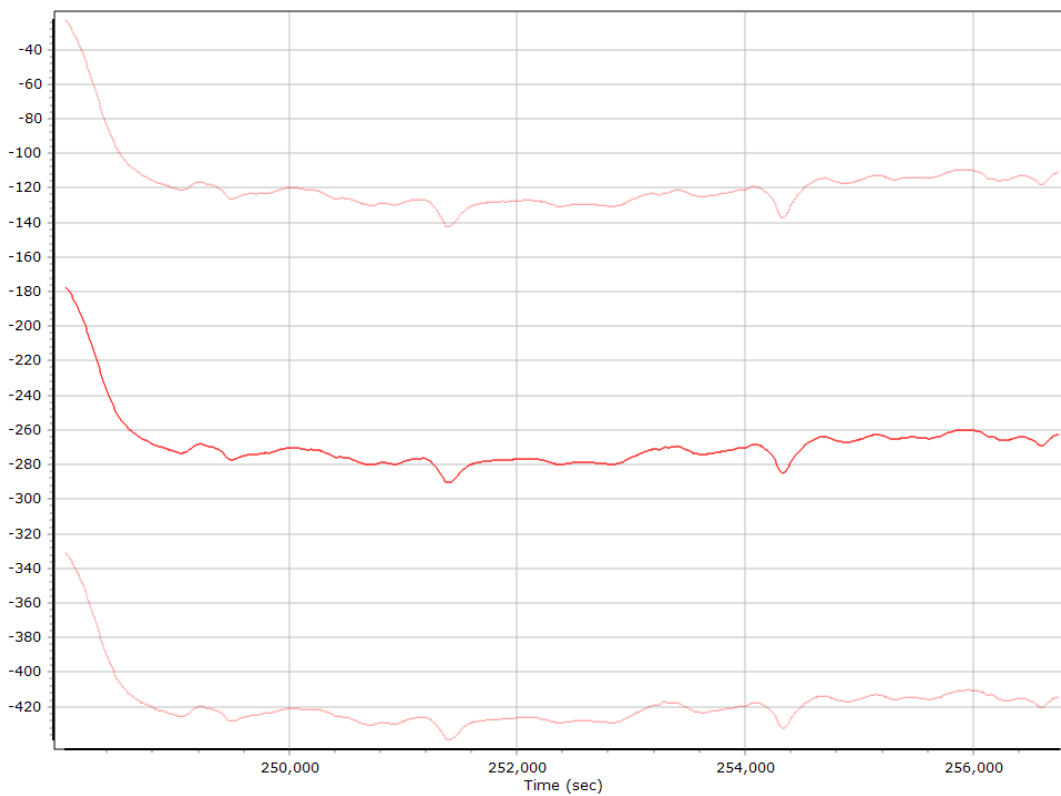
X Accelerometer Scale Error (ppm)



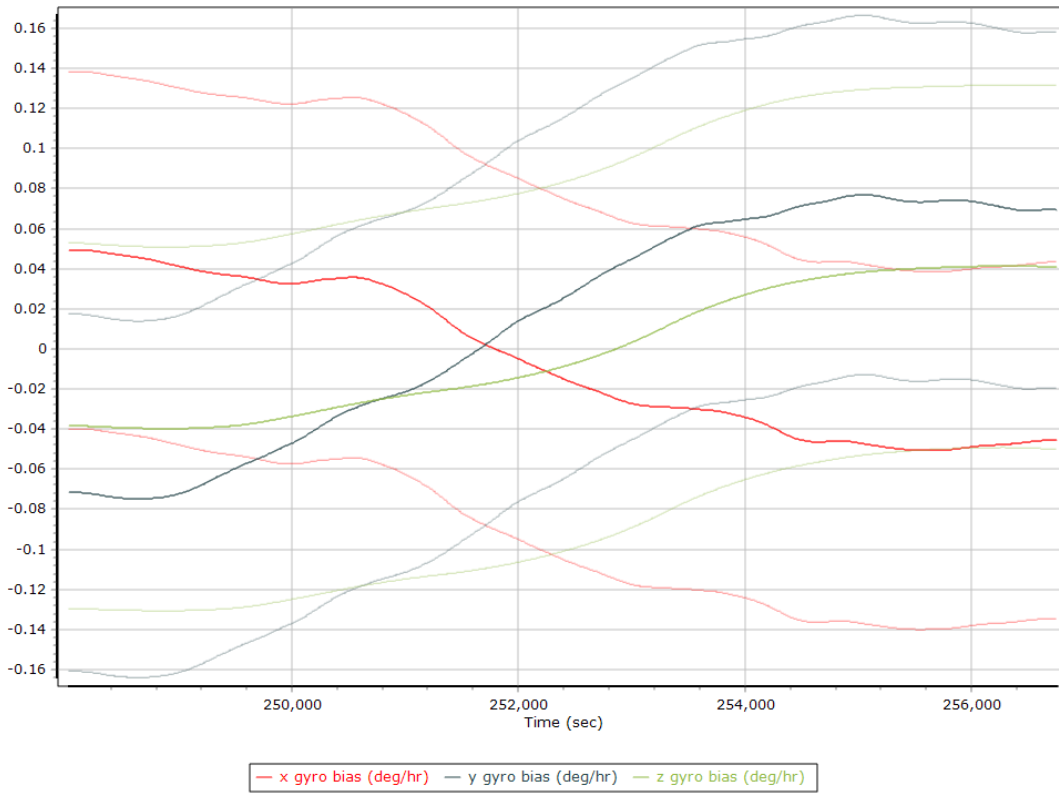
Y Accelerometer Scale Error (ppm)



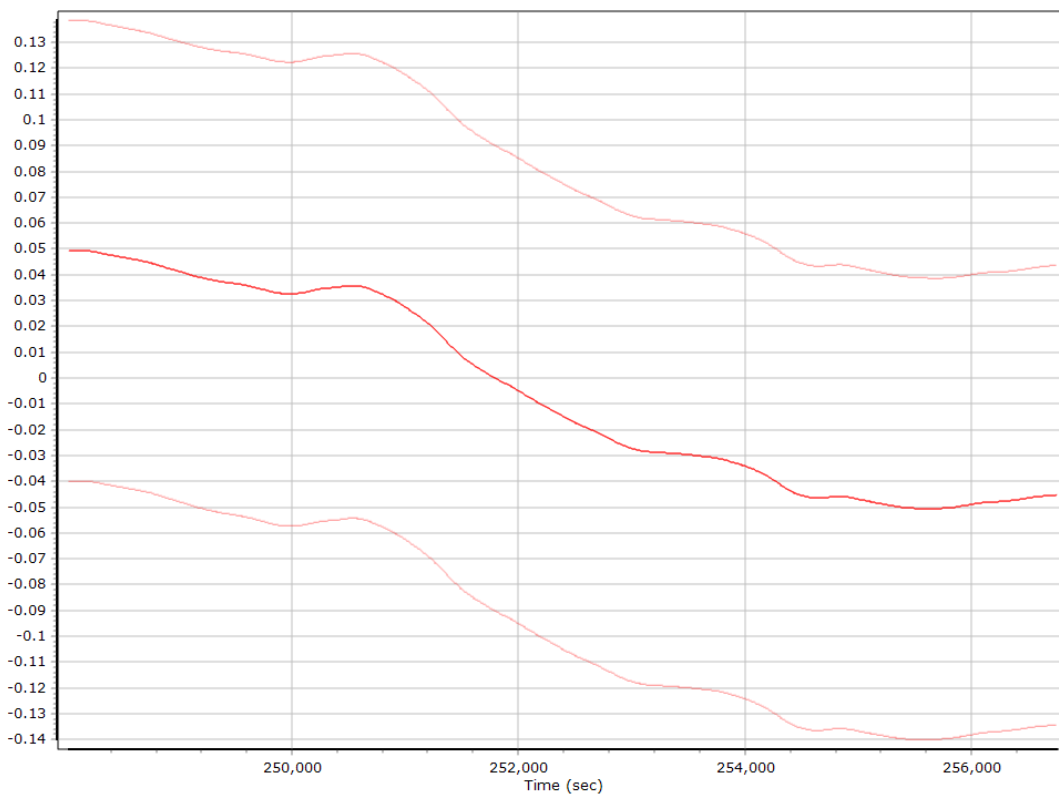
Z Accelerometer Scale Error (ppm)



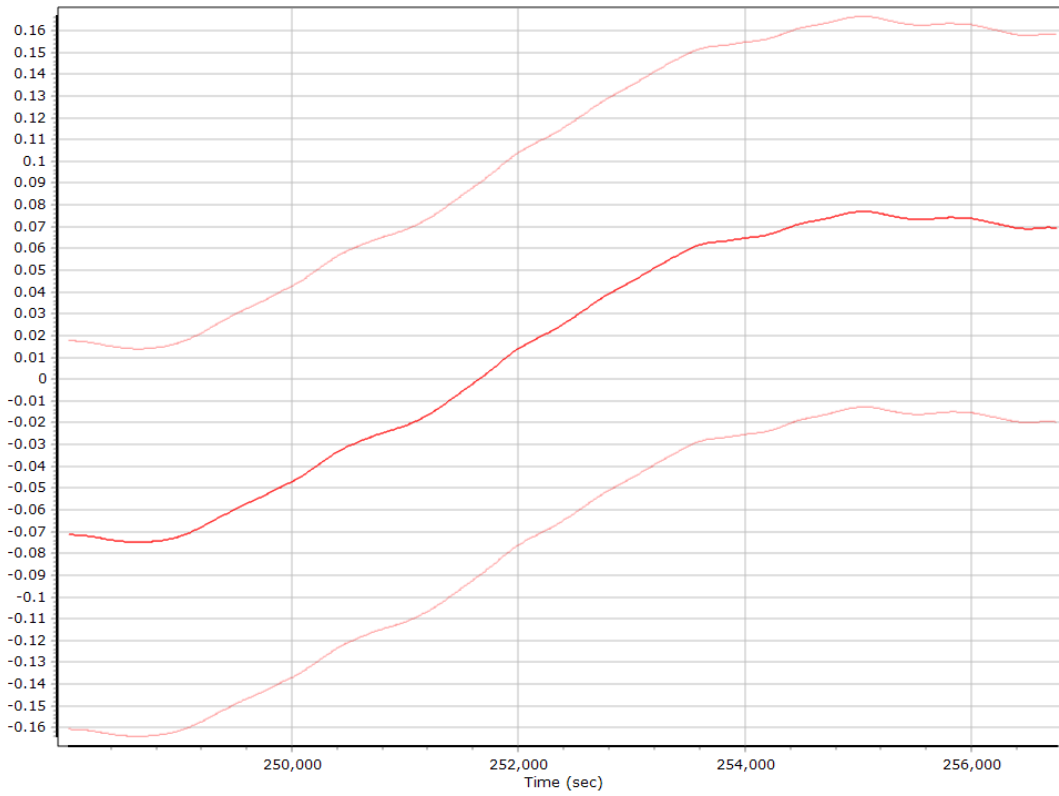
Gyro Bias (deg/h)



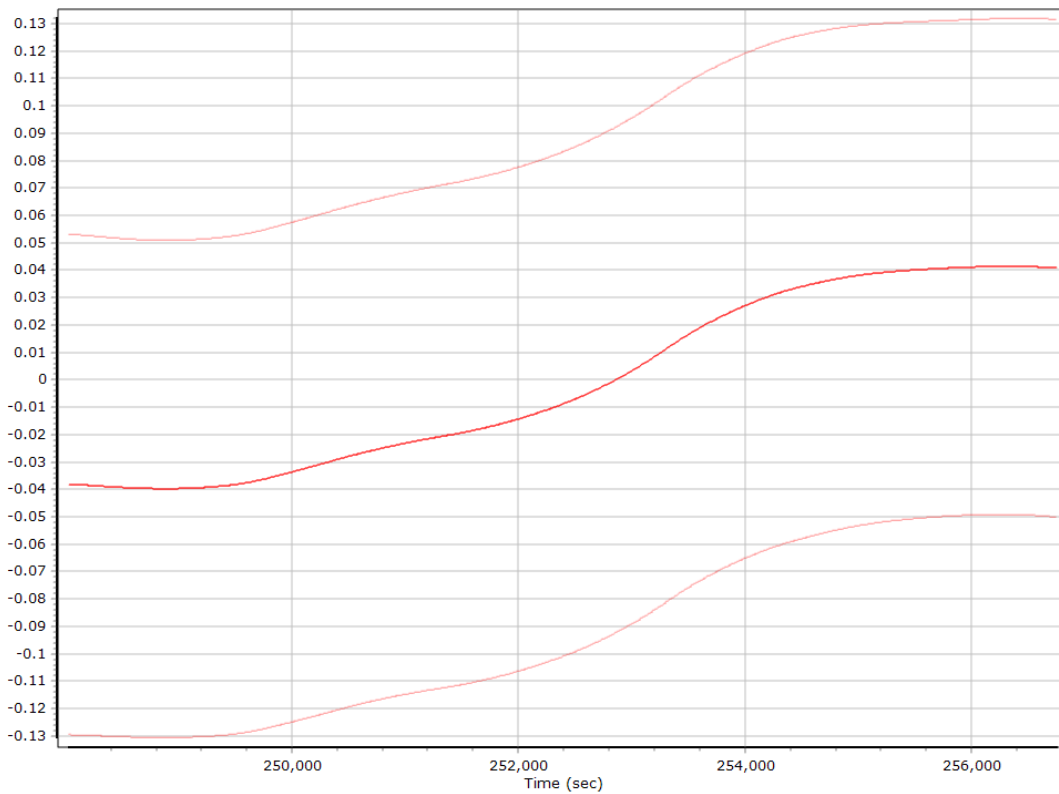
X Gyro Bias (deg/h)



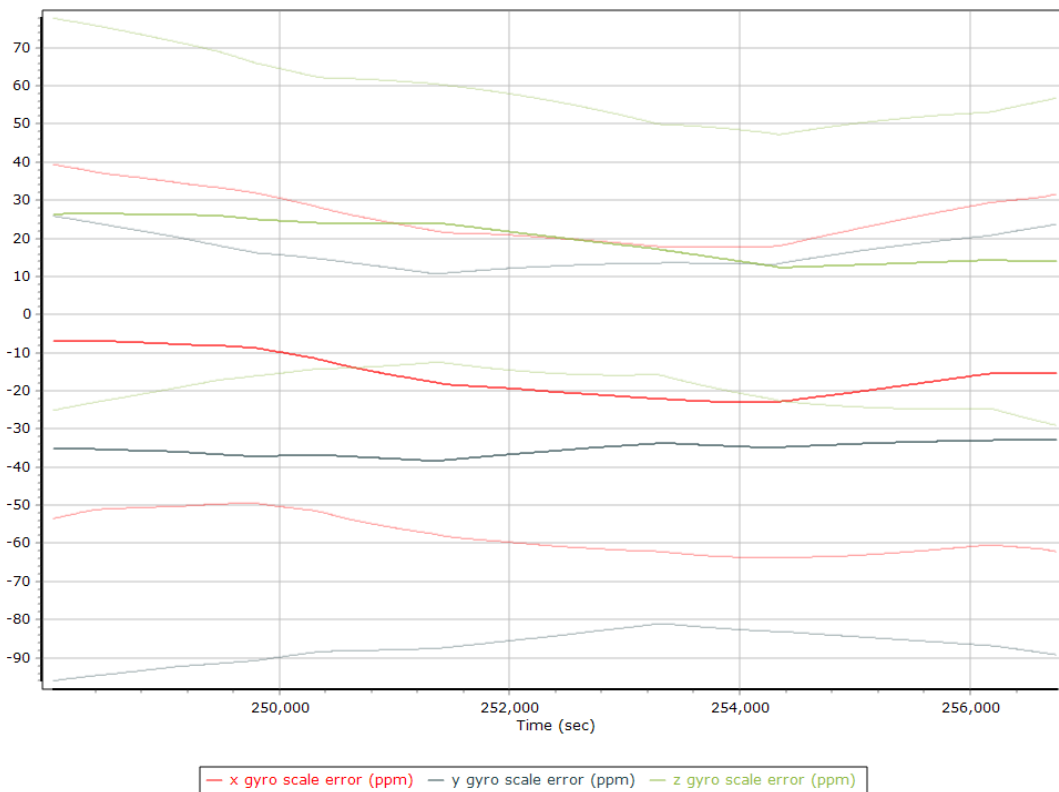
Y Gyro Bias (deg/h)



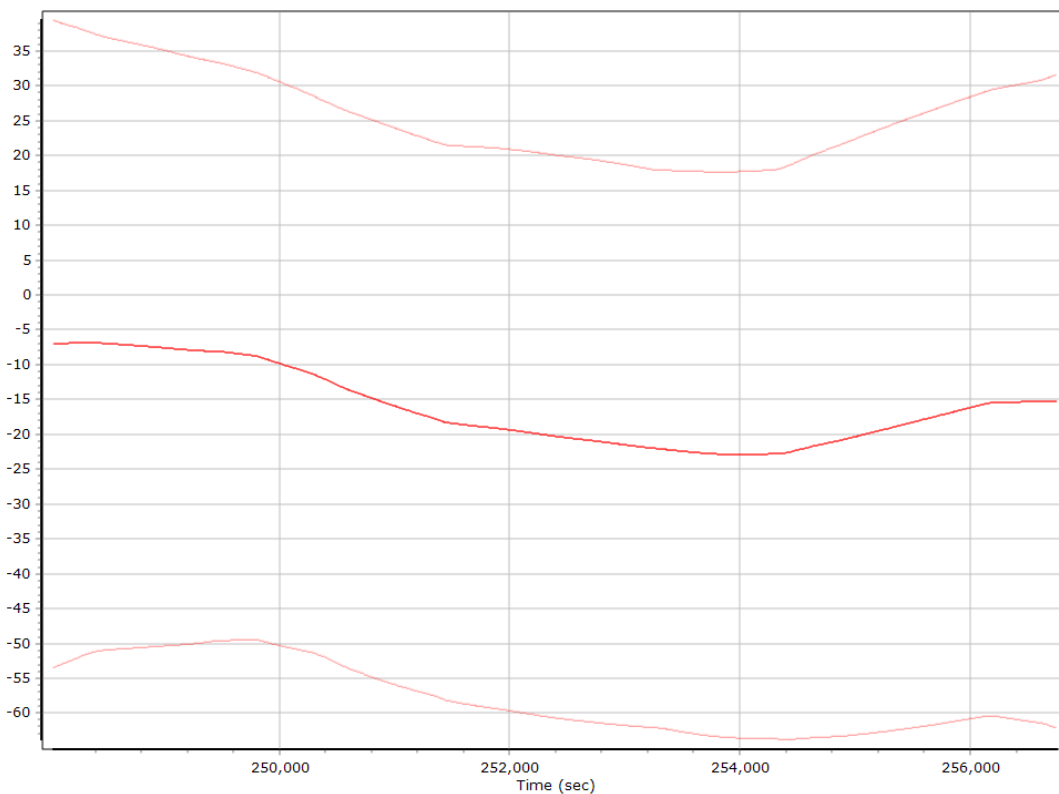
Z Gyro Bias (deg/h)



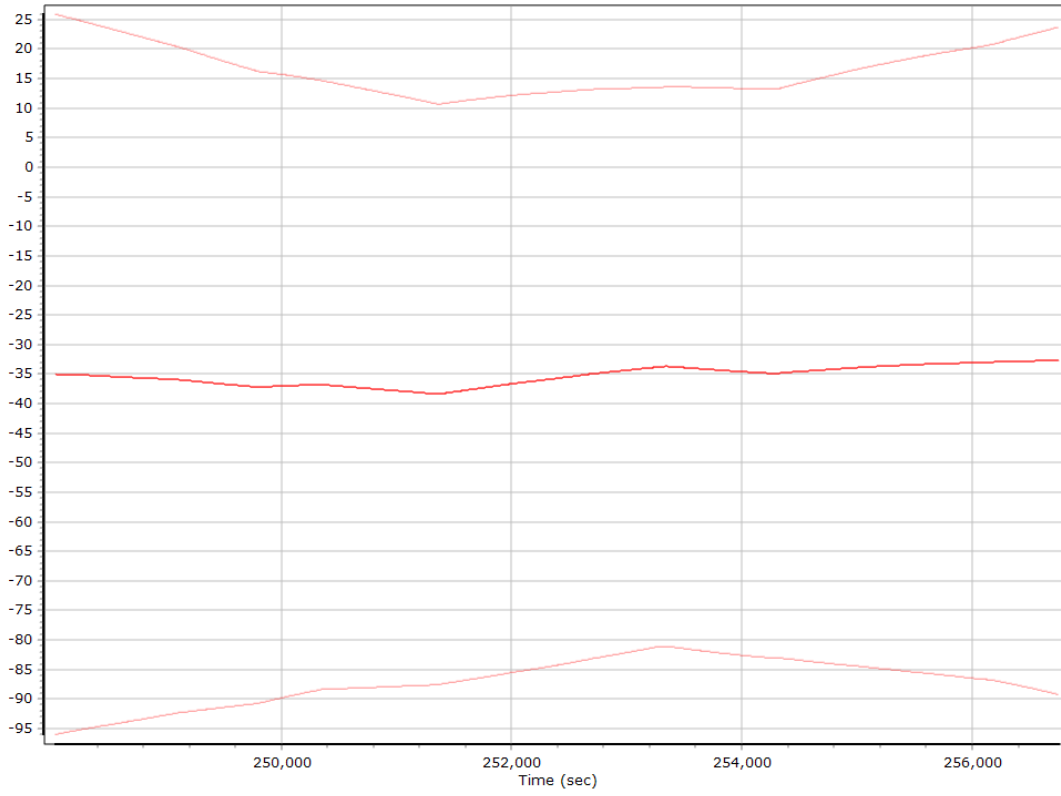
Gyro Scale Error (ppm)



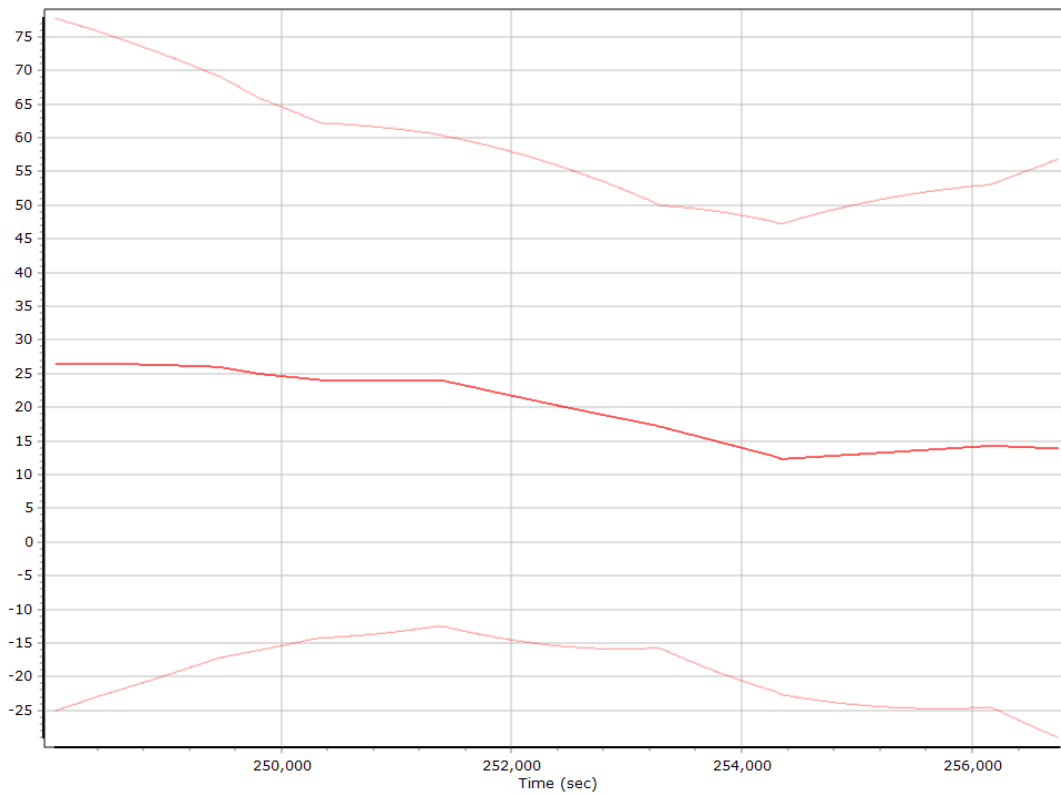
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

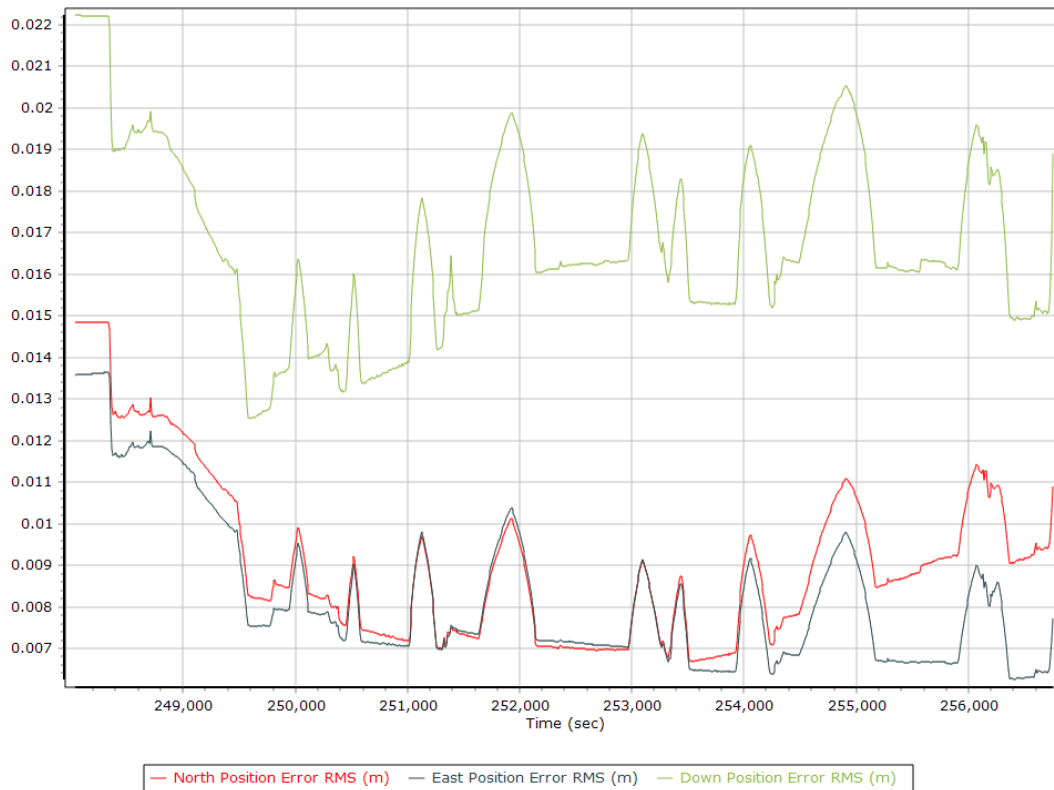


Z Gyro Scale Error (ppm)

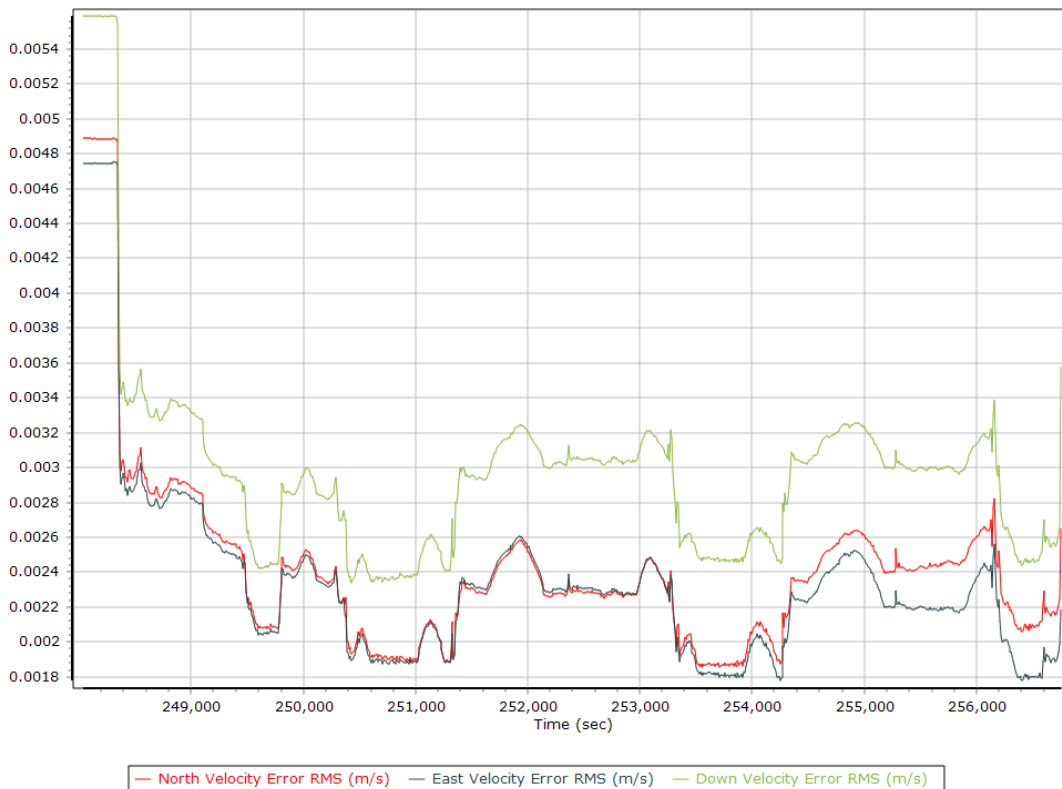


Smoothed Performance Metrics

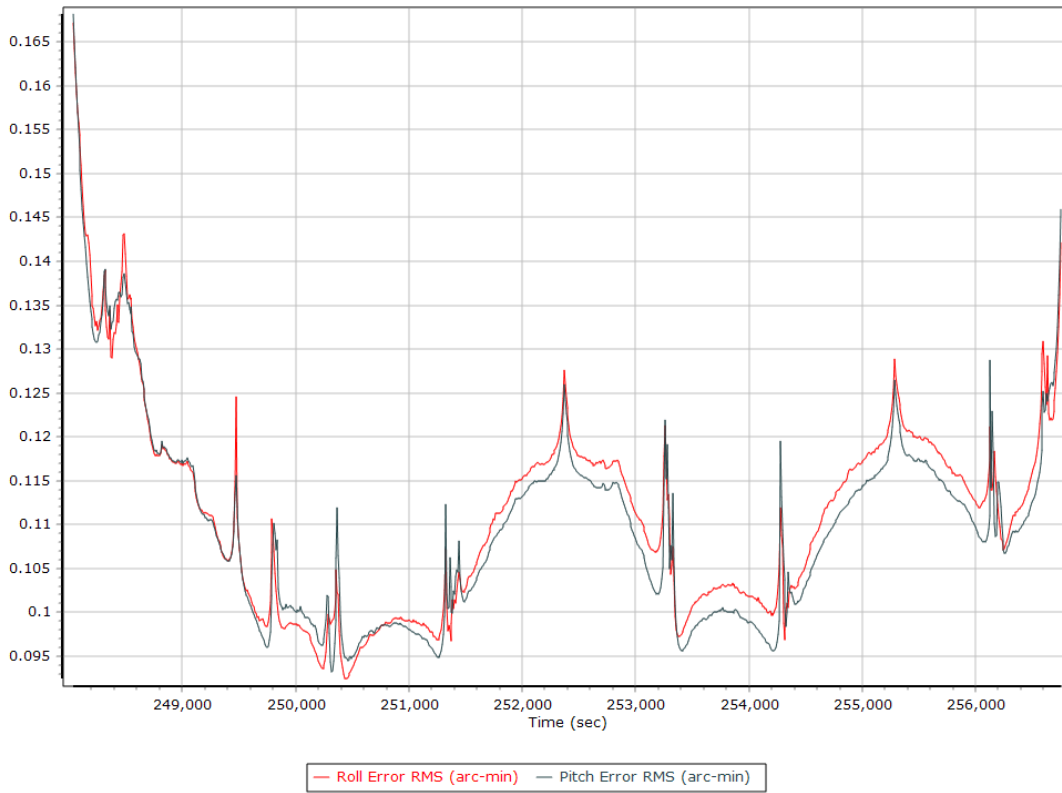
Position Error RMS (m)



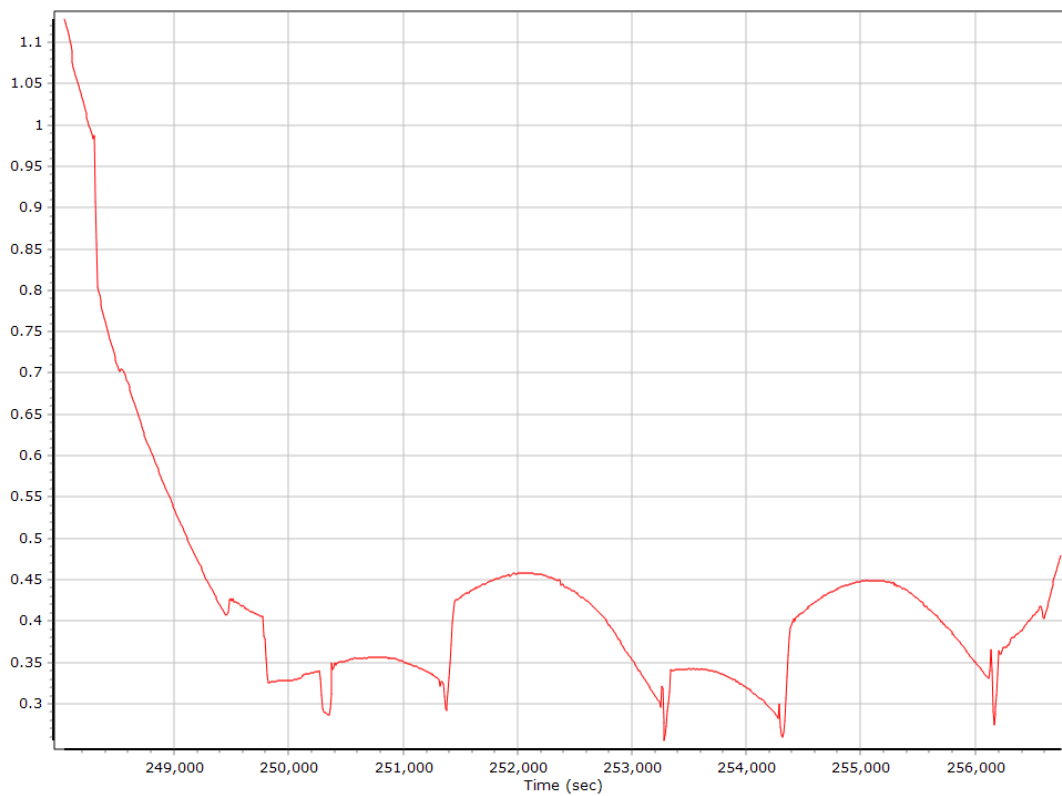
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

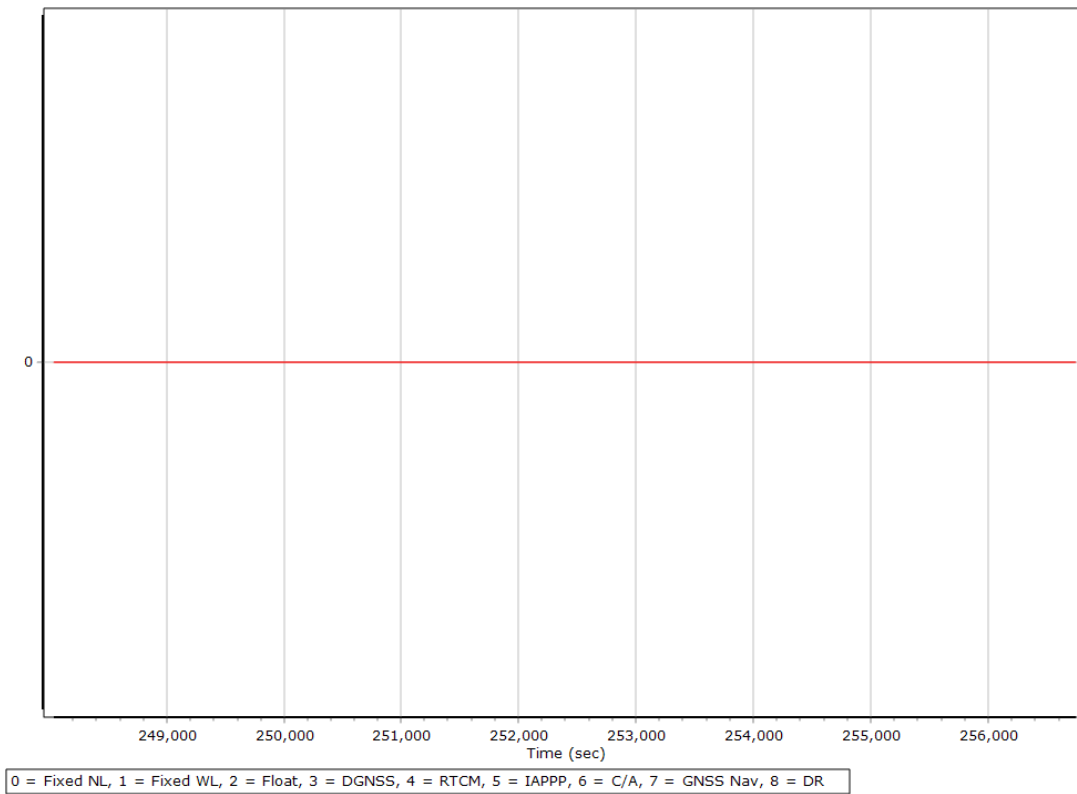


Heading Error RMS (arc-min)

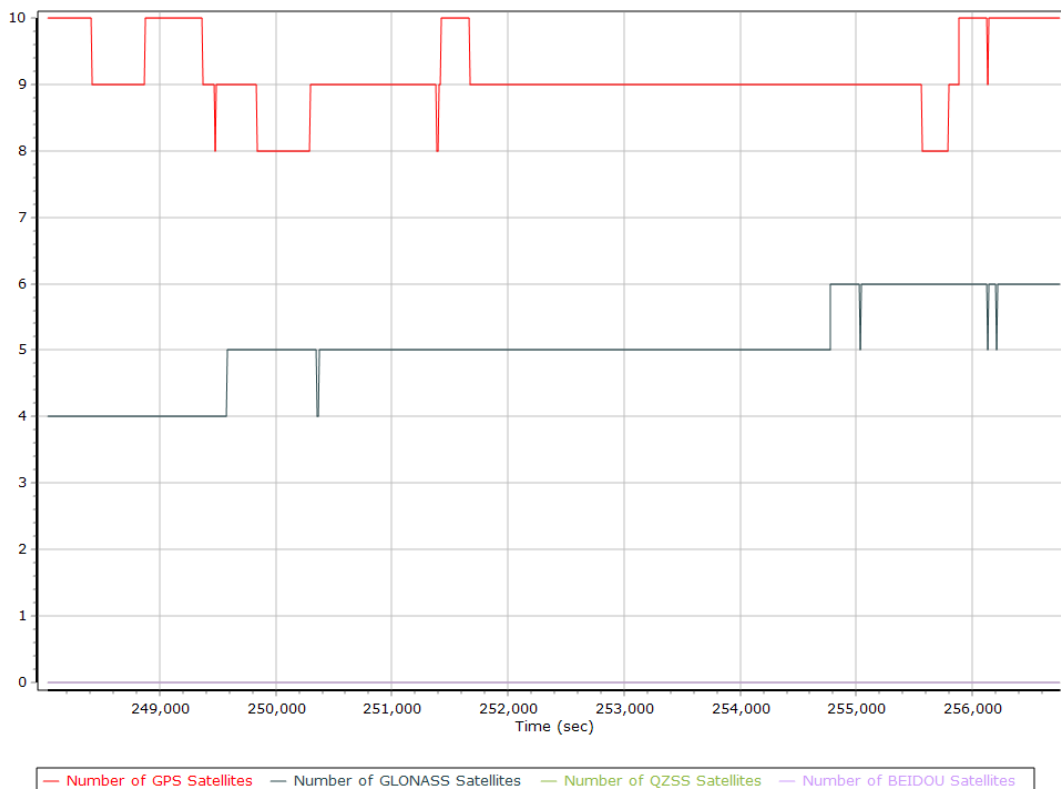


Smoothed Solution Status

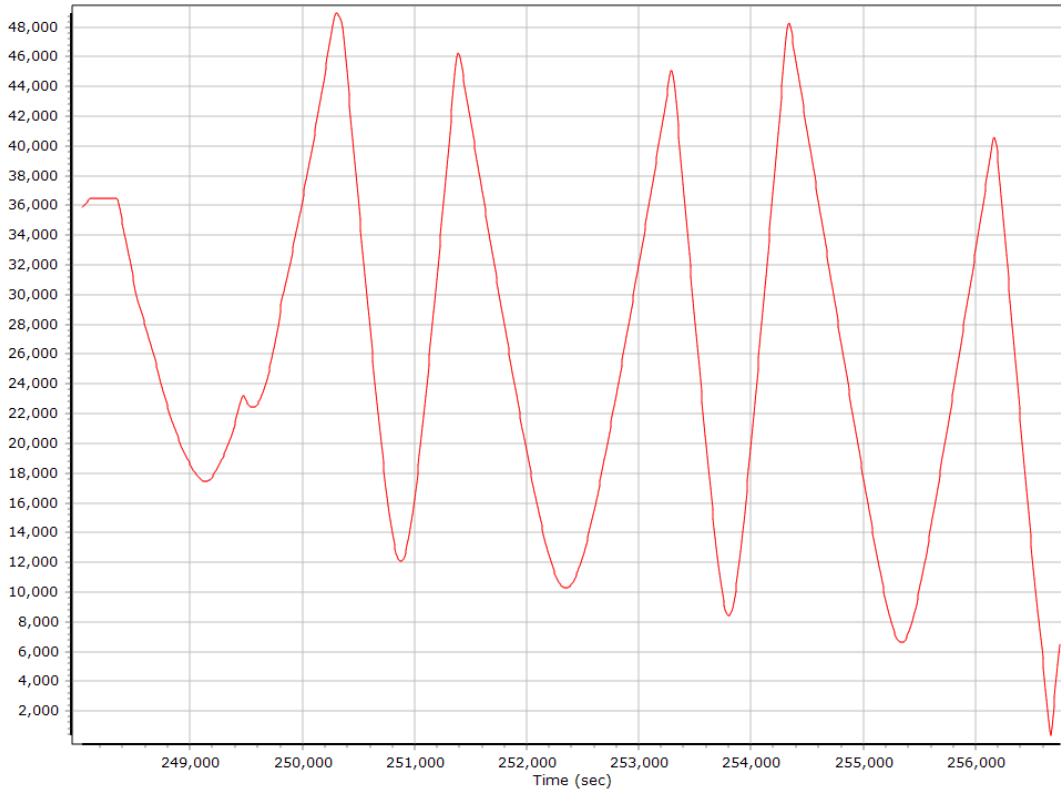
Processing Mode



Number of Satellites



Baseline Length



SBET IAKAR Separation

