

General Information

Mission Information

Project name	220628_A_5060475_nad2011_FINAL
Processing date	2022-06-30 00:09:20
Mission date	2022-06-28 19:22:02
Mission duration	04:56:34.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N7881
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
20220628.000	POS Data
20220628.001	POS Data
20220628.002	POS Data
20220628.003	POS Data
20220628.004	POS Data
20220628.005	POS Data
20220628.006	POS Data
20220628.007	POS Data
20220628.008	POS Data
20220628.009	POS Data
20220628.010	POS Data
20220628.011	POS Data
20220628.012	POS Data
20220628.013	POS Data
20220628.014	POS Data
20220628.015	POS Data
20220628.016	POS Data
20220628.017	POS Data
20220628.018	POS Data
20220628.019	POS Data
20220628.020	POS Data
20220628.021	POS Data
20220628.022	POS Data
20220628.023	POS Data
20220628.024	POS Data
20220628.025	POS Data
20220628.026	POS Data
20220628.027	POS Data
20220628.028	POS Data
20220628.029	POS Data
20220628.030	POS Data
20220628.031	POS Data
20220628.032	POS Data
20220628.033	POS Data
20220628.034	POS Data
20220628.035	POS Data
20220628.036	POS Data
20220628.037	POS Data
20220628.038	POS Data
20220628.039	POS Data

Input Files

File Name	File Type
Ephm1790.22g	GLONASS Broadcast Ephemeris
Ephm1790.22n	GPS Broadcast Ephemeris
Ephm1800.22g	GLONASS Broadcast Ephemeris
Ephm1800.22n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_220628_A_5060475_nad2011_FINAL.out	SBET Trajectory File

Rover Data Summary

First raw data file	20220628.000		
Last raw data file	20220628.039		
Start GPS week	2216		
Start time	242521.353 (6/28/2022 7:22:01 PM)		
End time	260316.729 (6/29/2022 12:18:36 AM)		
Start of fine alignment	242895.110 (6/28/2022 7:28:15 PM)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
Correction data	None		
IMU Installation Lever Arms & Mounting Angles			
Reference to IMU lever arm (m)	0.000	0.000	0.000
Reference to IMU mounting angles (deg)	0.000	0.000	180.000
Reference to Primary GNSS lever arm (m)	0.126	-0.066	-1.071
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

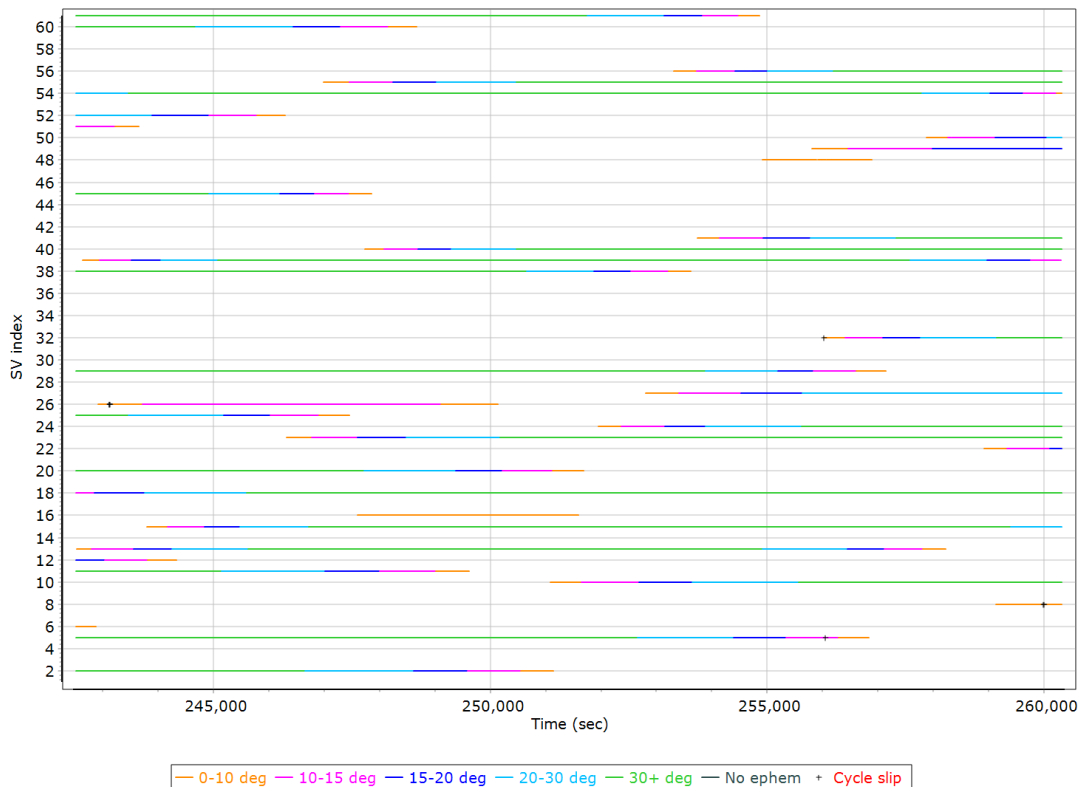
Rover Data QC

Raw IMU Import QC Summary

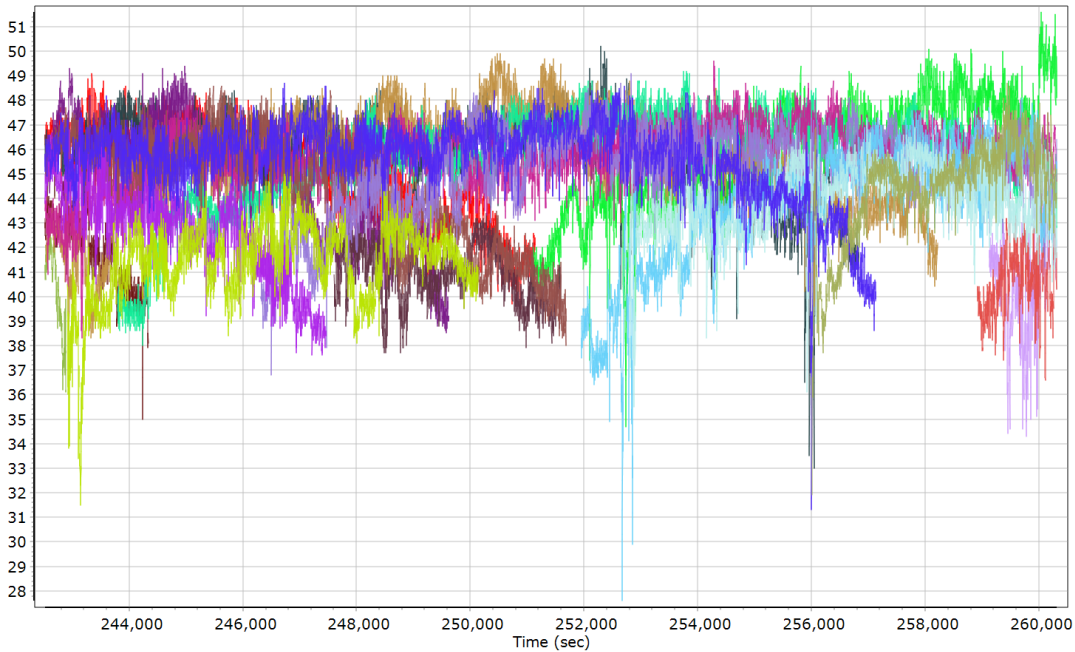
IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_220628_A_5060475_nad2011_FINAL.log
IMU Records Processed	3558314
Termination Status	Normal
IMU Anomalies	0

Primary Observables & Satellite Data

GPS/GLONASS L1 Satellite Lock/Elevation

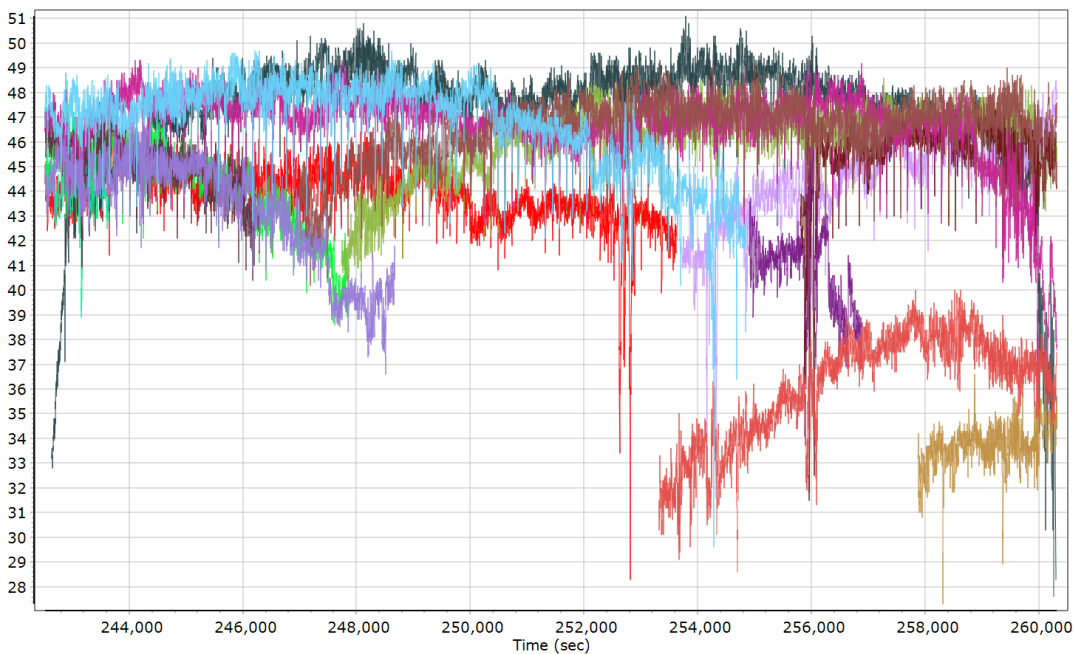


GPS L1 SNR



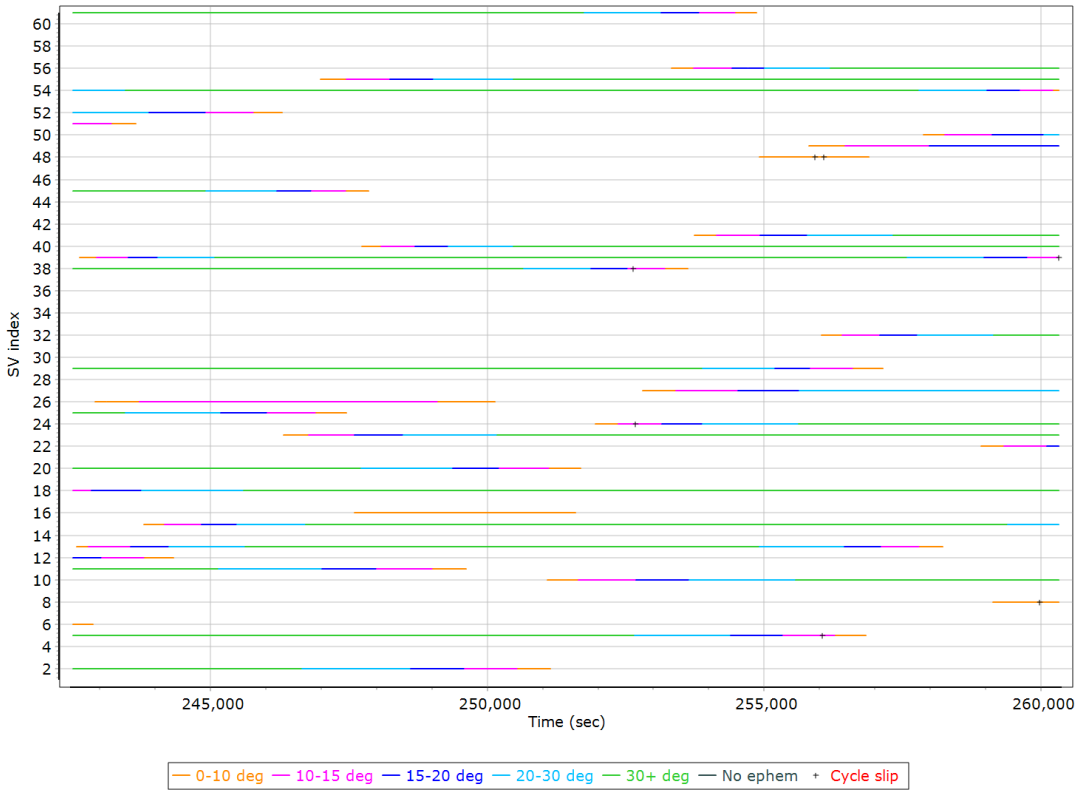
- | | | | |
|---------------------------|---------------------------|---------------------------|---------------------------|
| GPS PRN 02 L1 SNR (dB/Hz) | GPS PRN 05 L1 SNR (dB/Hz) | GPS PRN 06 L1 SNR (dB/Hz) | GPS PRN 08 L1 SNR (dB/Hz) |
| GPS PRN 10 L1 SNR (dB/Hz) | GPS PRN 11 L1 SNR (dB/Hz) | GPS PRN 12 L1 SNR (dB/Hz) | GPS PRN 13 L1 SNR (dB/Hz) |
| GPS PRN 15 L1 SNR (dB/Hz) | GPS PRN 16 L1 SNR (dB/Hz) | GPS PRN 18 L1 SNR (dB/Hz) | GPS PRN 20 L1 SNR (dB/Hz) |
| GPS PRN 22 L1 SNR (dB/Hz) | GPS PRN 23 L1 SNR (dB/Hz) | GPS PRN 24 L1 SNR (dB/Hz) | GPS PRN 25 L1 SNR (dB/Hz) |
| GPS PRN 26 L1 SNR (dB/Hz) | GPS PRN 27 L1 SNR (dB/Hz) | GPS PRN 29 L1 SNR (dB/Hz) | GPS PRN 32 L1 SNR (dB/Hz) |

GLONASS L1 SNR

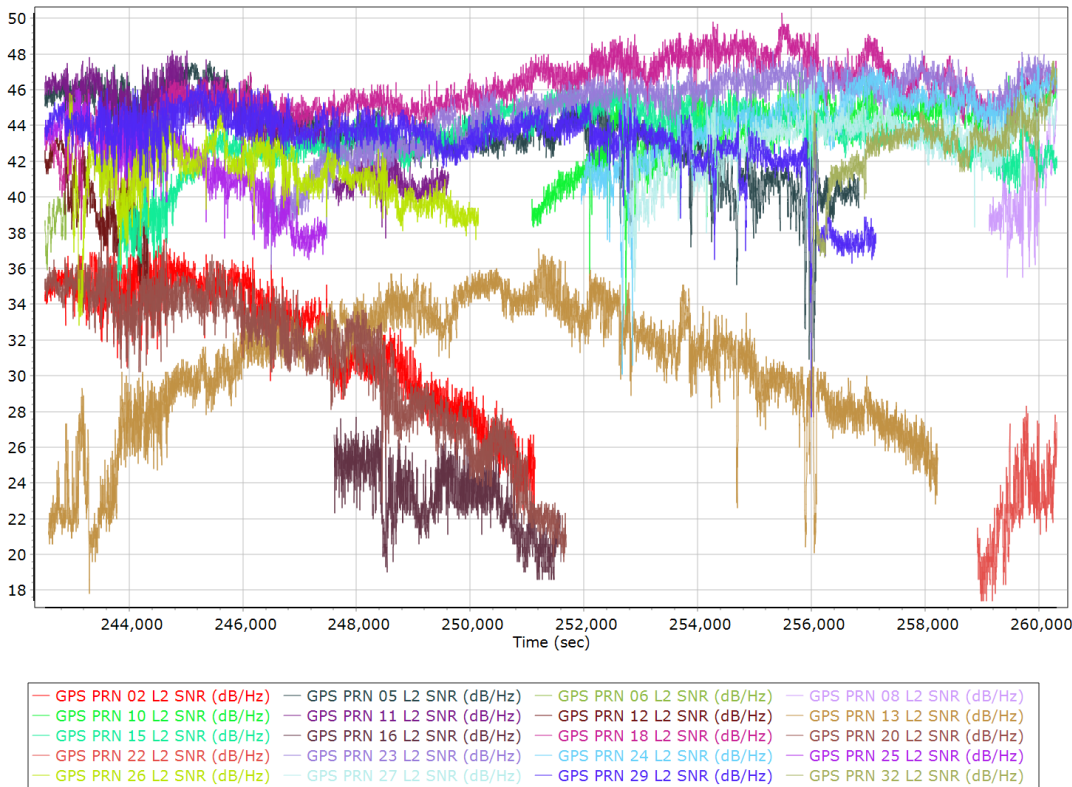


- | | | |
|---------------------------|---------------------------|---------------------------|
| GLONASS 01 L1 SNR (dB/Hz) | GLONASS 02 L1 SNR (dB/Hz) | GLONASS 03 L1 SNR (dB/Hz) |
| GLONASS 04 L1 SNR (dB/Hz) | GLONASS 08 L1 SNR (dB/Hz) | GLONASS 11 L1 SNR (dB/Hz) |
| GLONASS 12 L1 SNR (dB/Hz) | GLONASS 13 L1 SNR (dB/Hz) | GLONASS 14 L1 SNR (dB/Hz) |
| GLONASS 15 L1 SNR (dB/Hz) | GLONASS 17 L1 SNR (dB/Hz) | GLONASS 18 L1 SNR (dB/Hz) |
| GLONASS 19 L1 SNR (dB/Hz) | GLONASS 23 L1 SNR (dB/Hz) | GLONASS 24 L1 SNR (dB/Hz) |

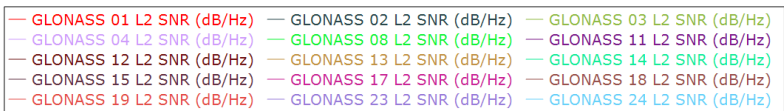
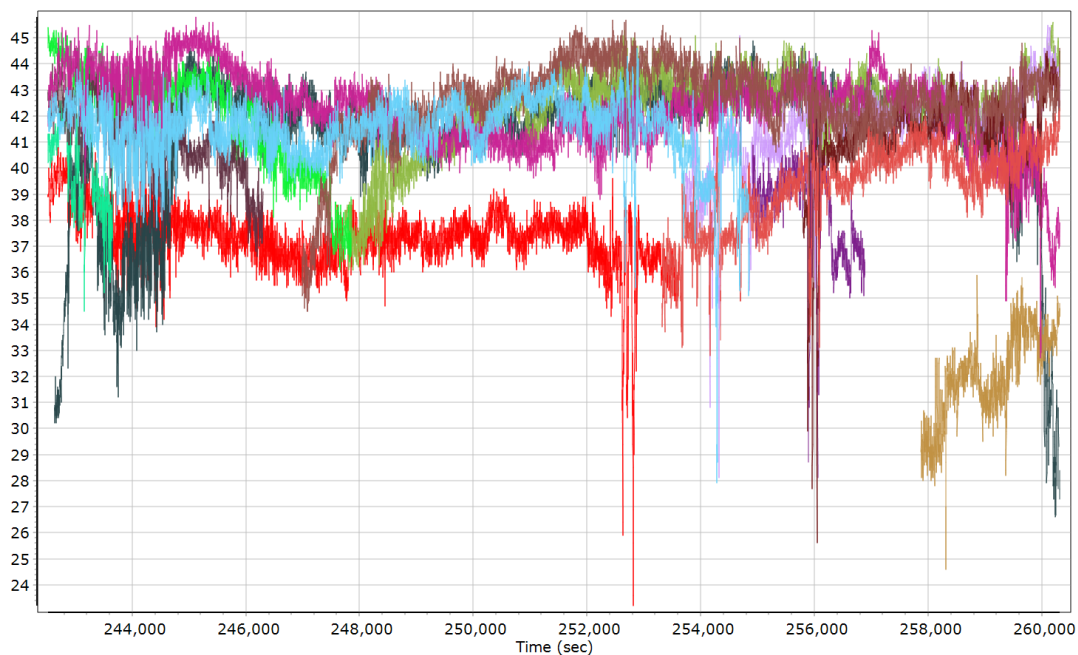
GPS/GLONASS L2 Satellite Lock/Elevation



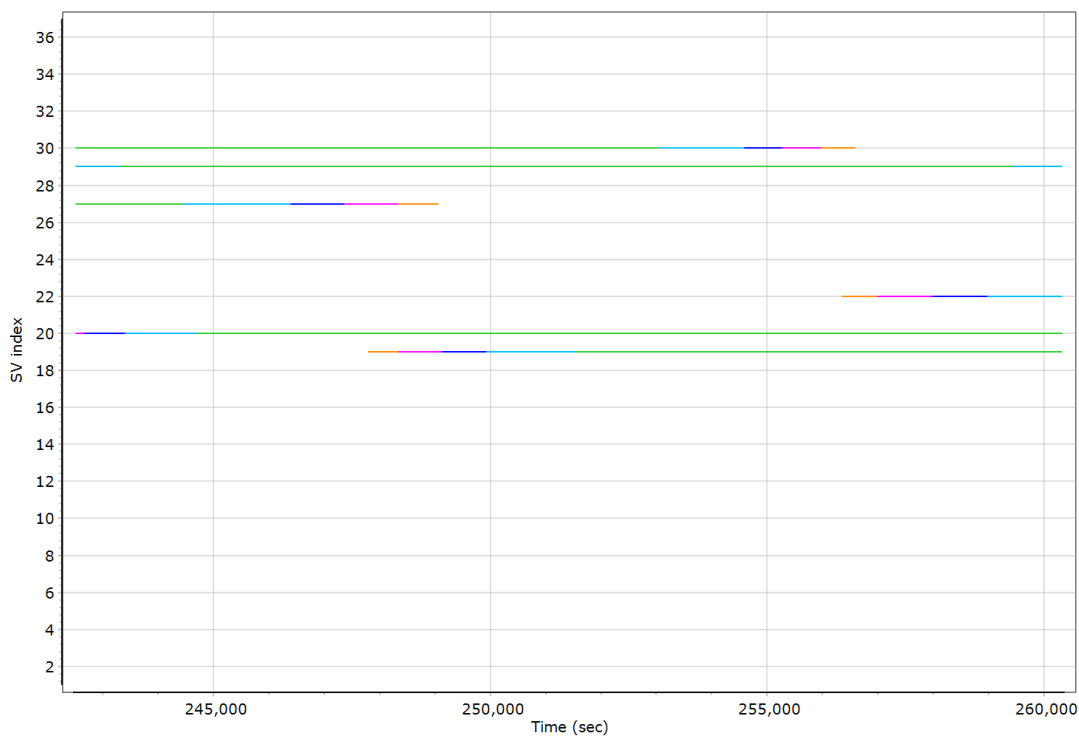
GPS L2 SNR



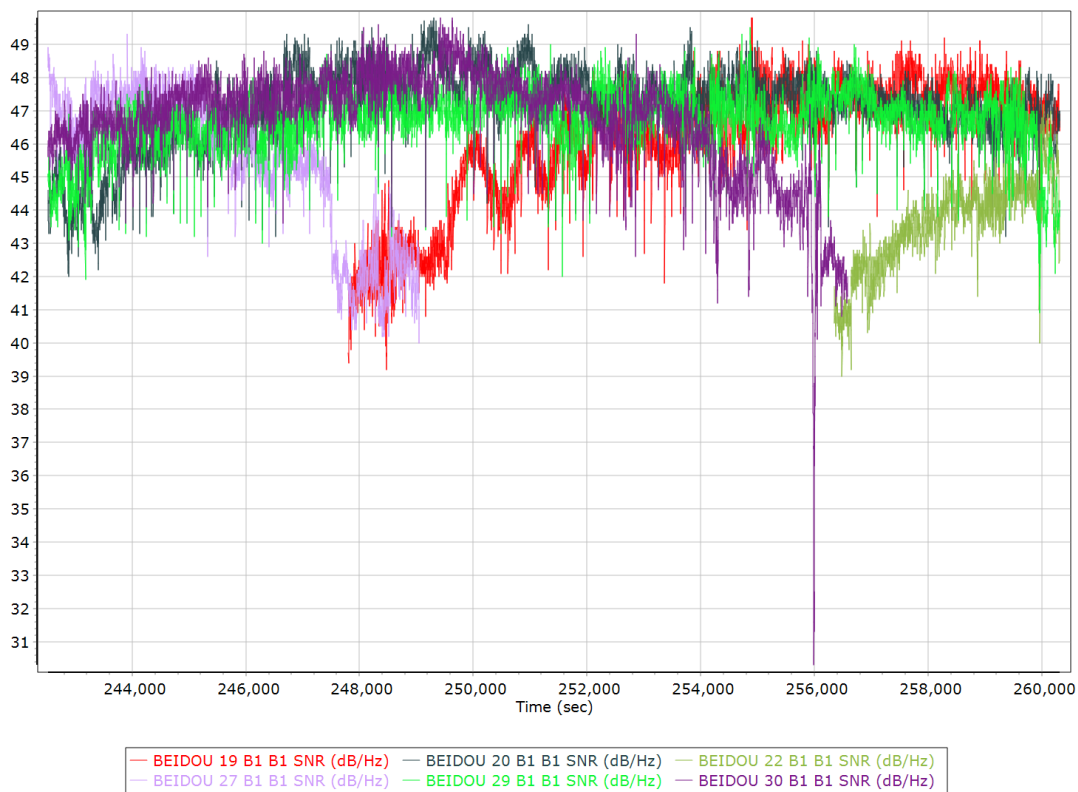
GLONASS L2 SNR



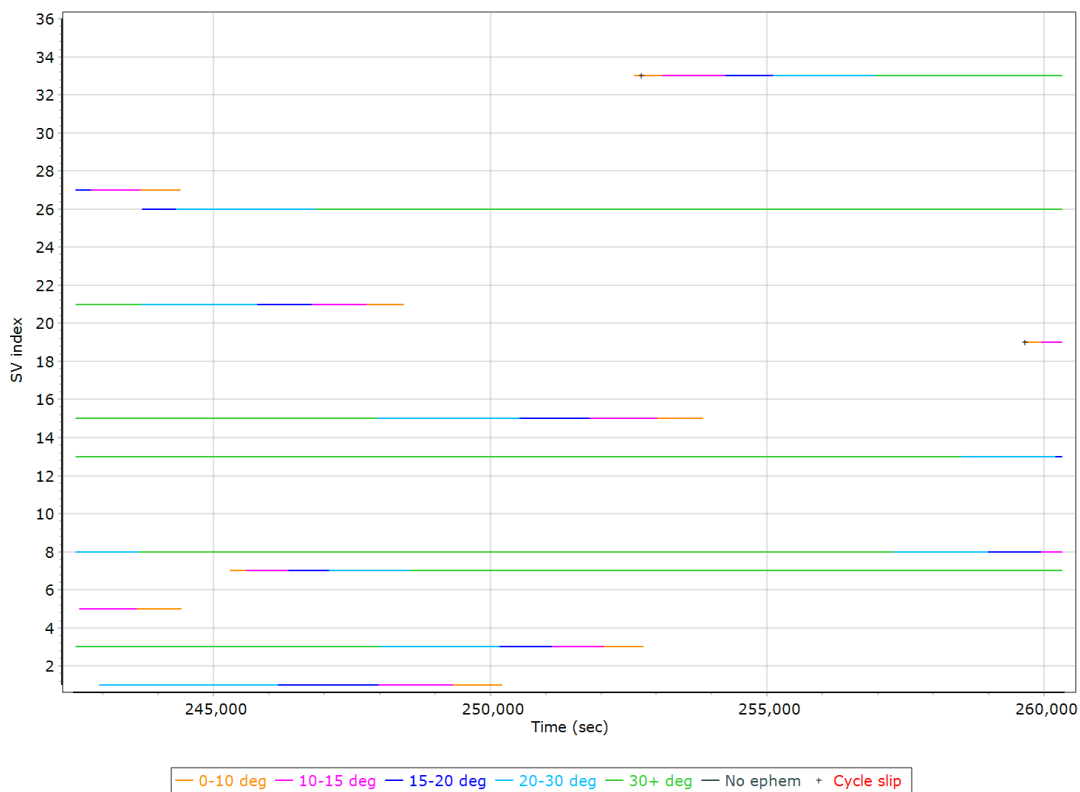
BEIDOU Satellite Lock/Elevation



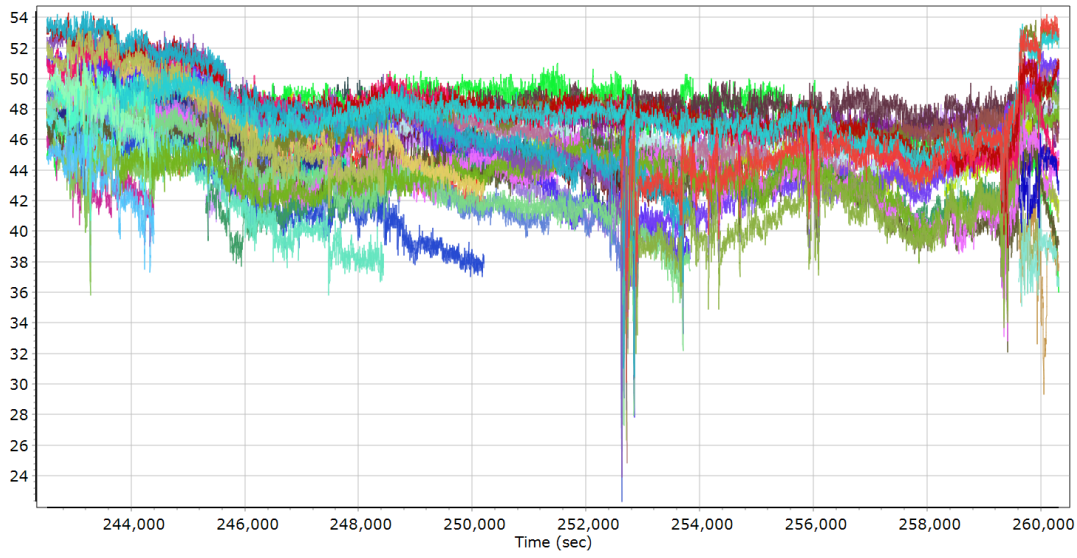
BEIDOU SNR



GALILEO Satellite Lock/Elevation



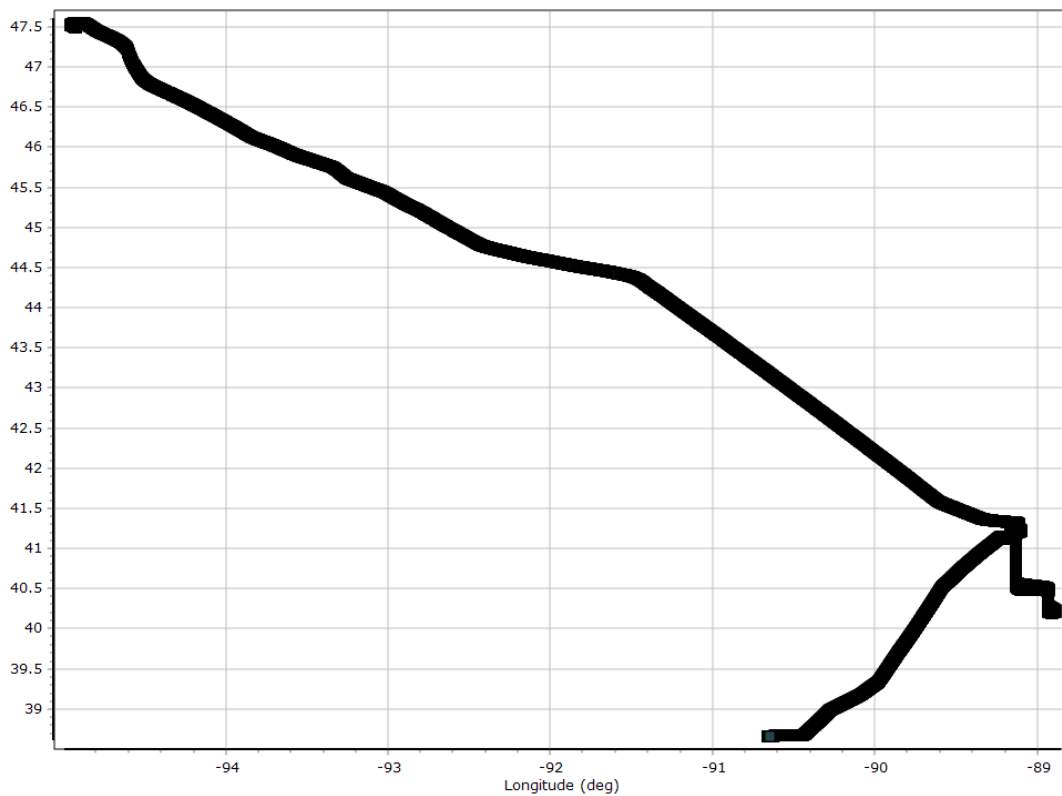
GALILEO SNR



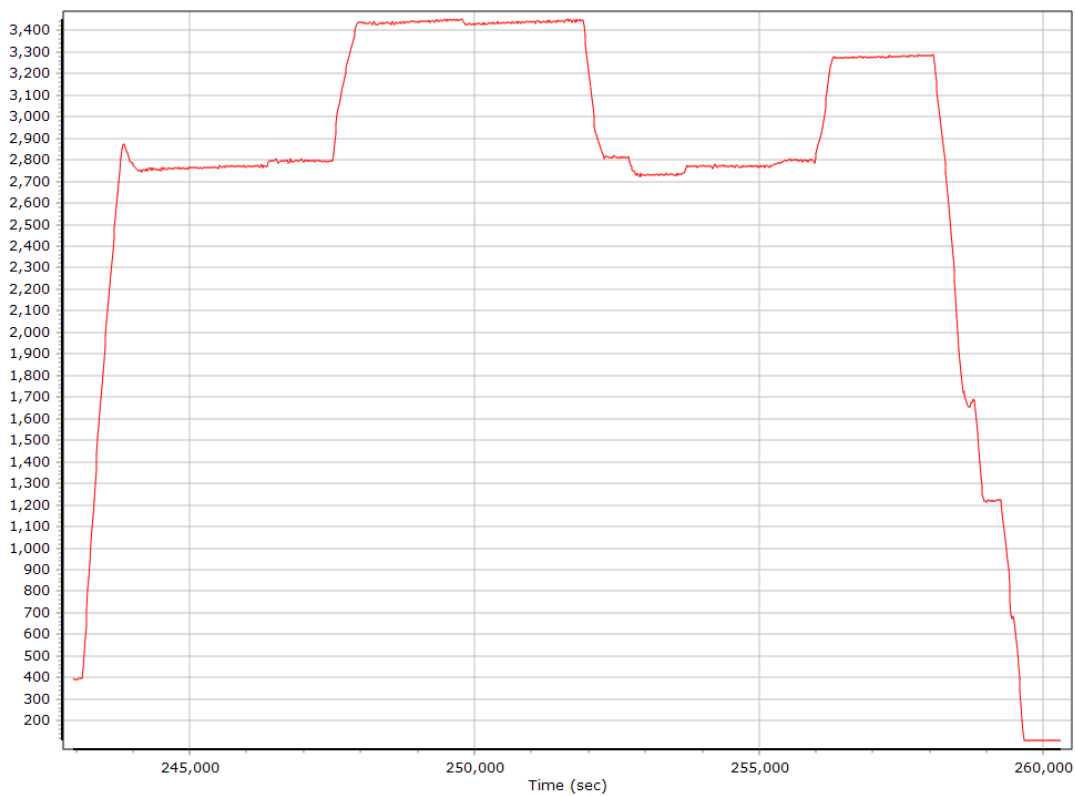
- | | |
|---|---|
| — GALILEO 01 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 03 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 05 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 07 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 08 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 13 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 15 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 19 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 21 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 26 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 27 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 33 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 01 L5E5A BPSK10_PD SNR (dB/Hz) | — GALILEO 03 L5E5A BPSK10_PD SNR (dB/Hz) |
| — GALILEO 05 L5E5A BPSK10_PD SNR (dB/Hz) | — GALILEO 07 L5E5A BPSK10_PD SNR (dB/Hz) |
| — GALILEO 08 L5E5A BPSK10_PD SNR (dB/Hz) | — GALILEO 13 L5E5A BPSK10_PD SNR (dB/Hz) |
| — GALILEO 15 L5E5A BPSK10_PD SNR (dB/Hz) | — GALILEO 19 L5E5A BPSK10_PD SNR (dB/Hz) |

Smoothed Trajectory Information

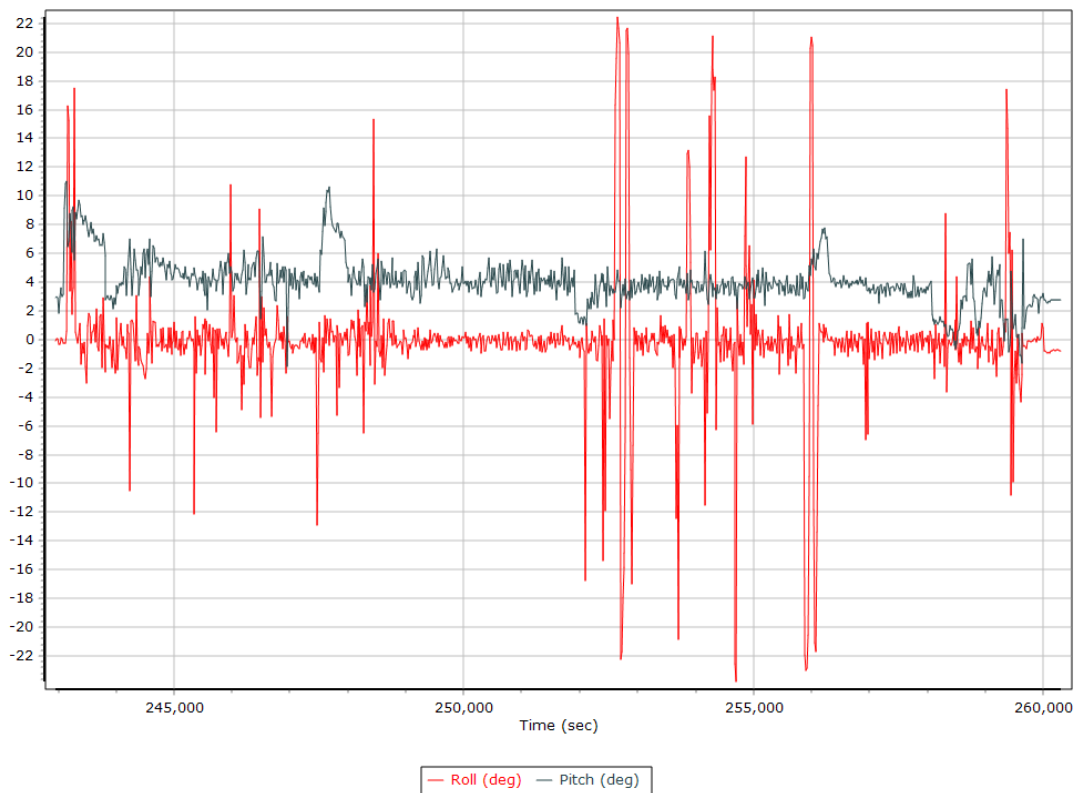
Top View



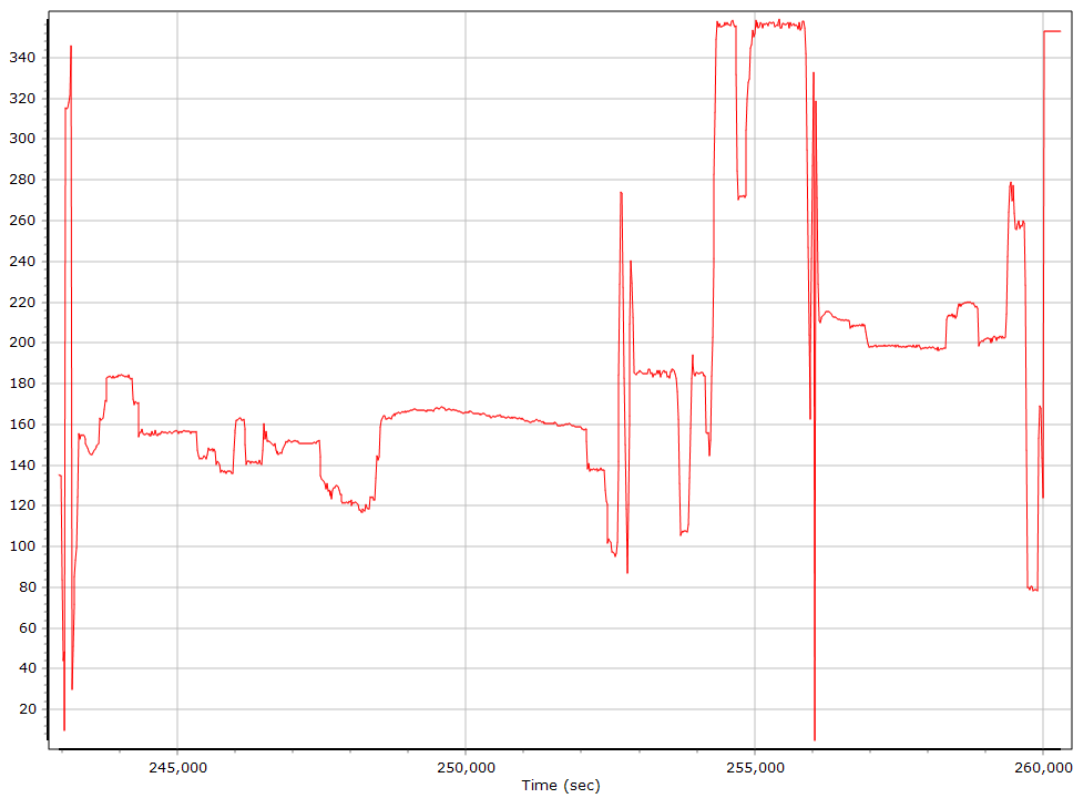
Altitude



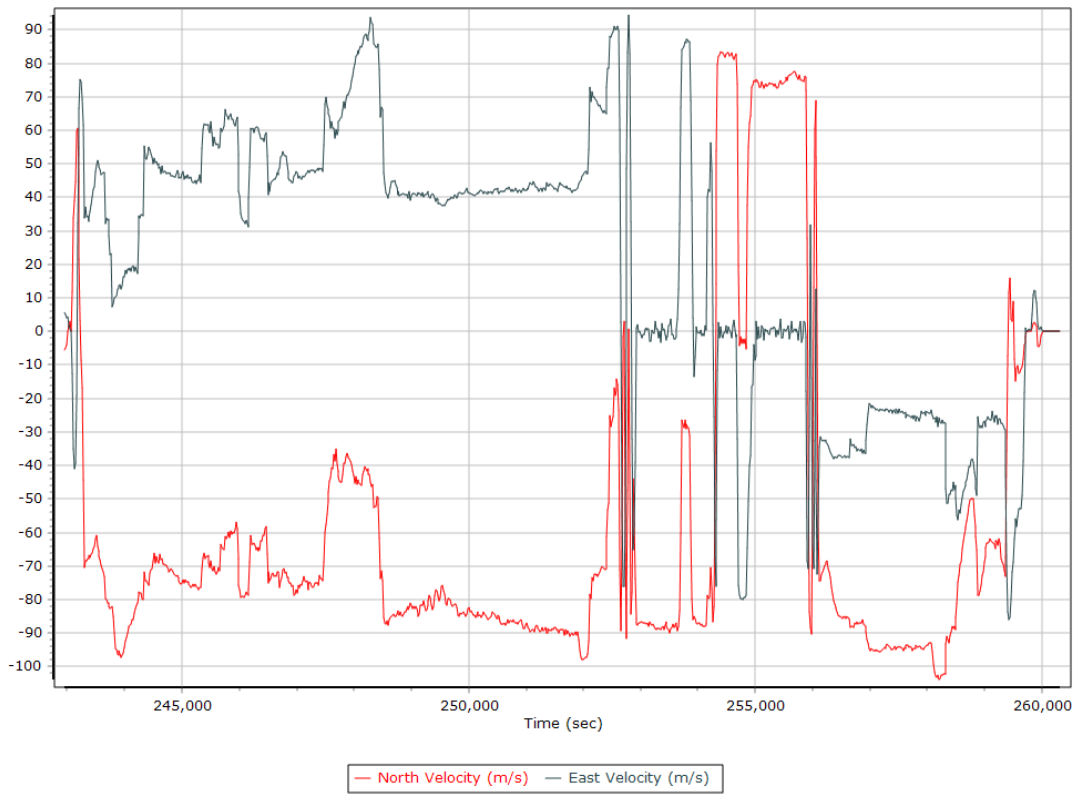
Roll/Pitch



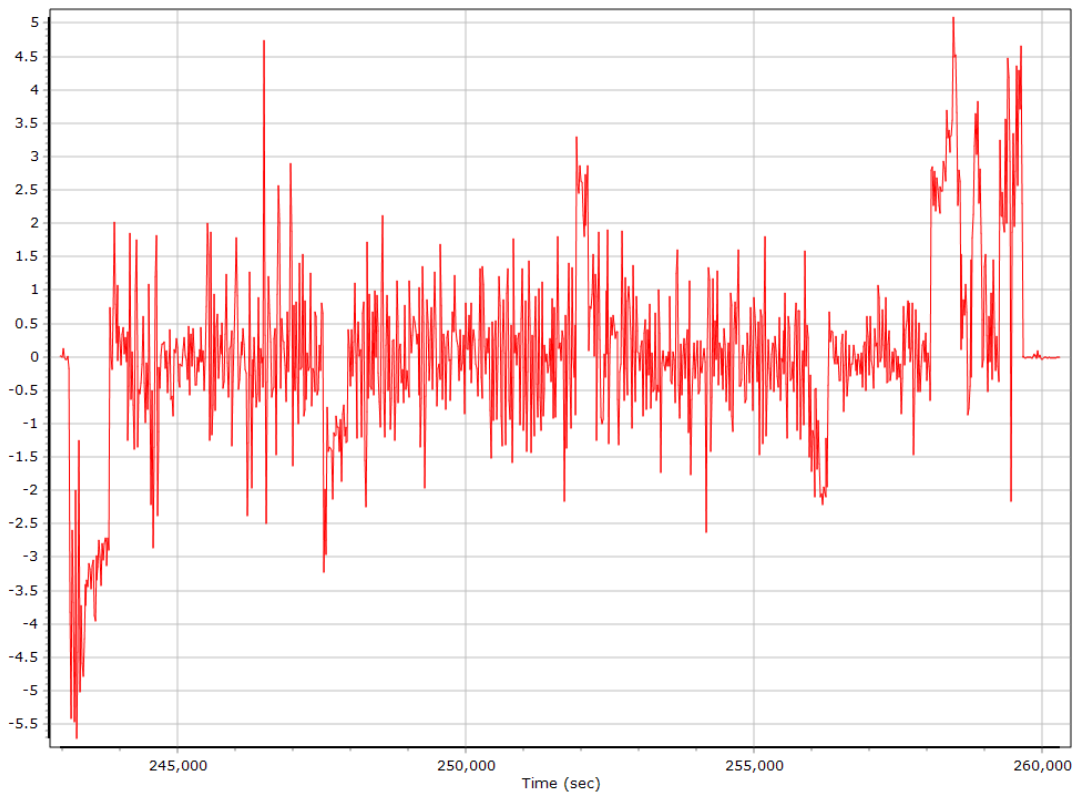
Heading



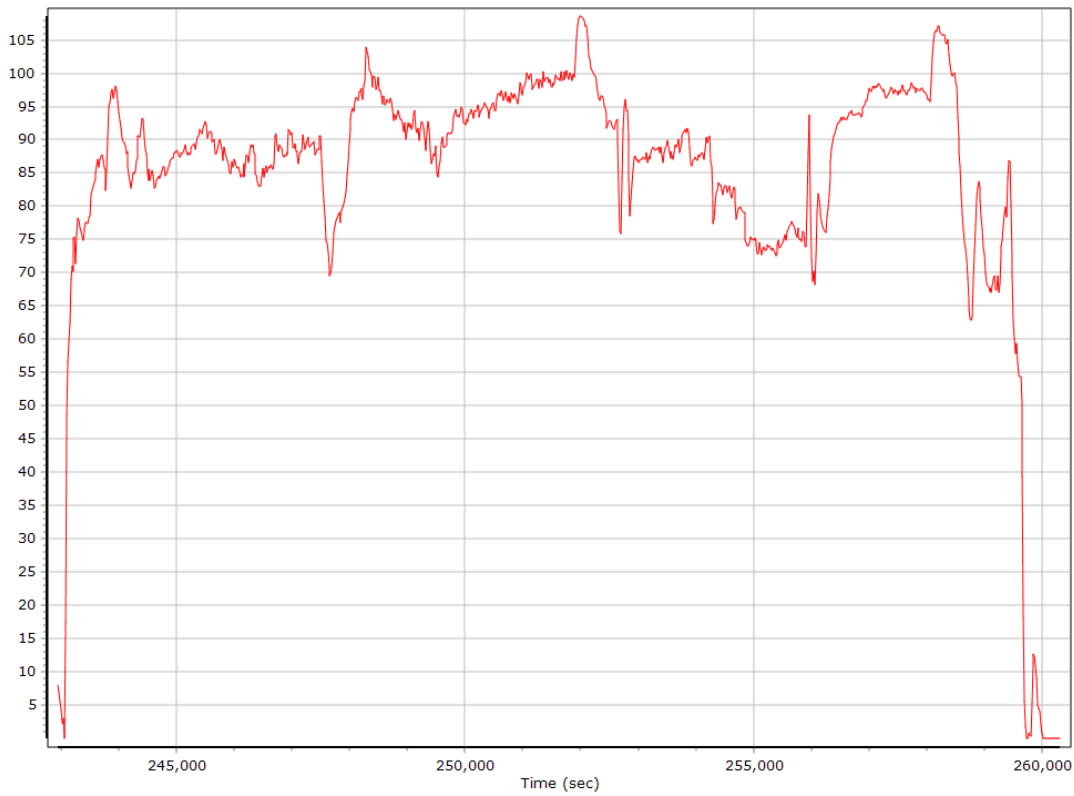
North/East Velocity



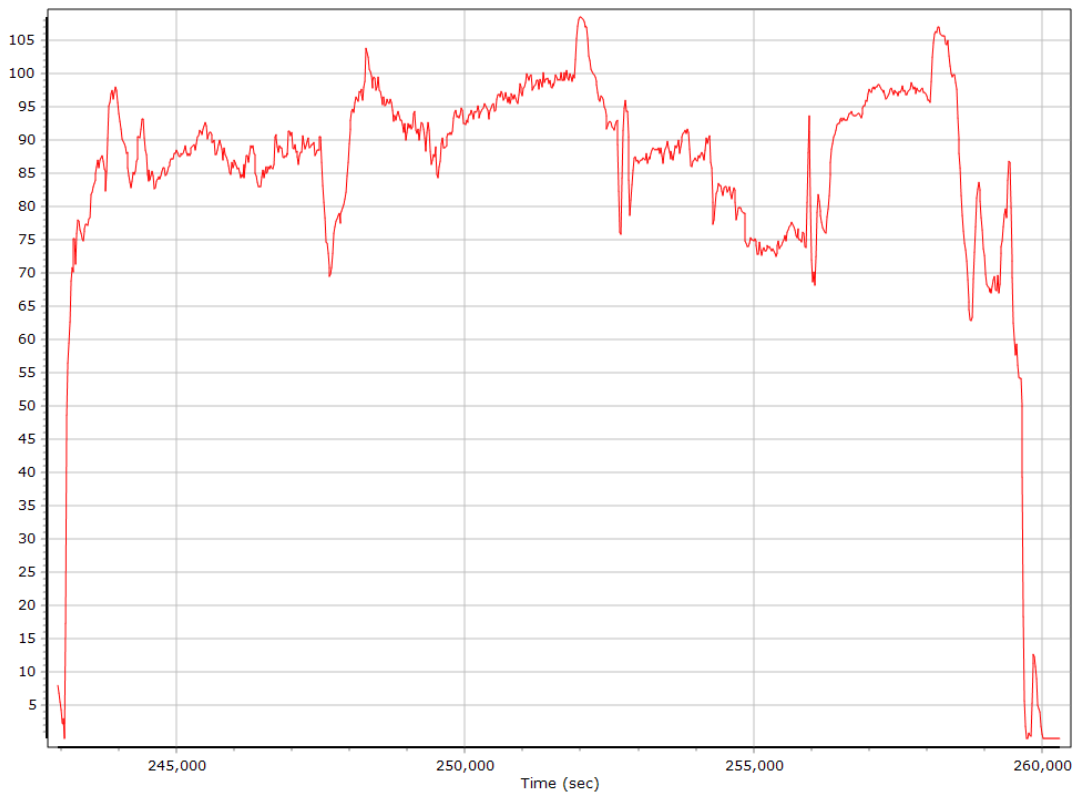
Down Velocity



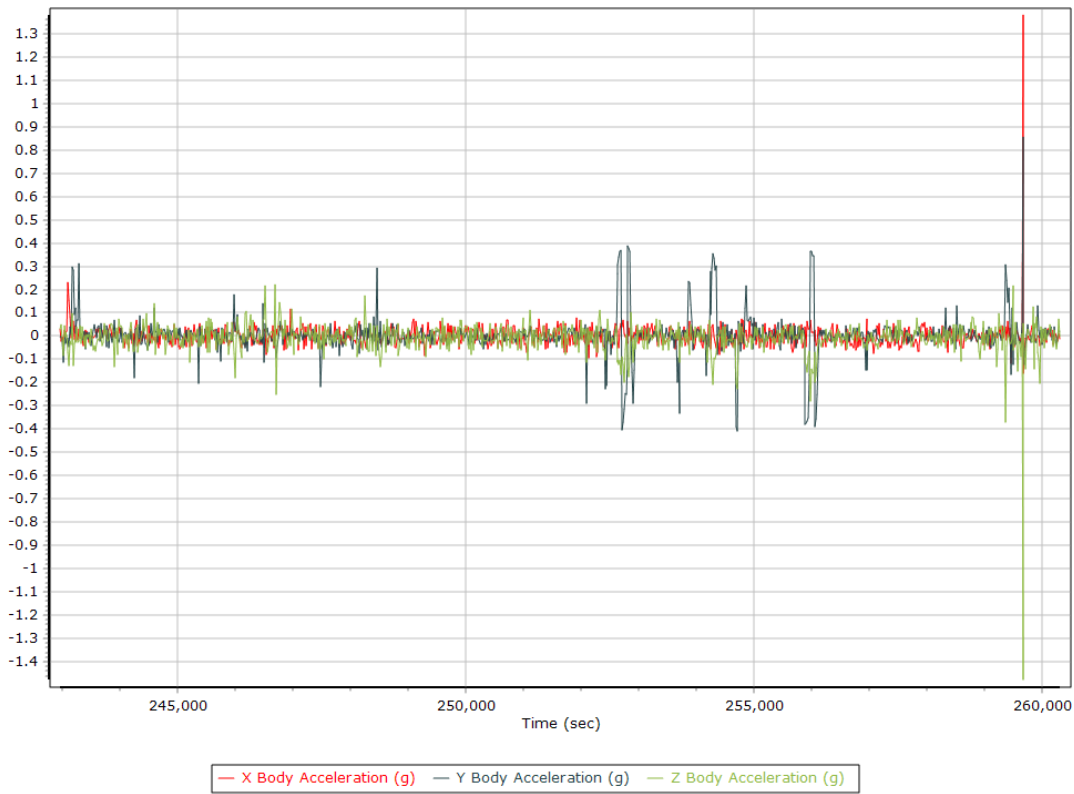
Total Speed



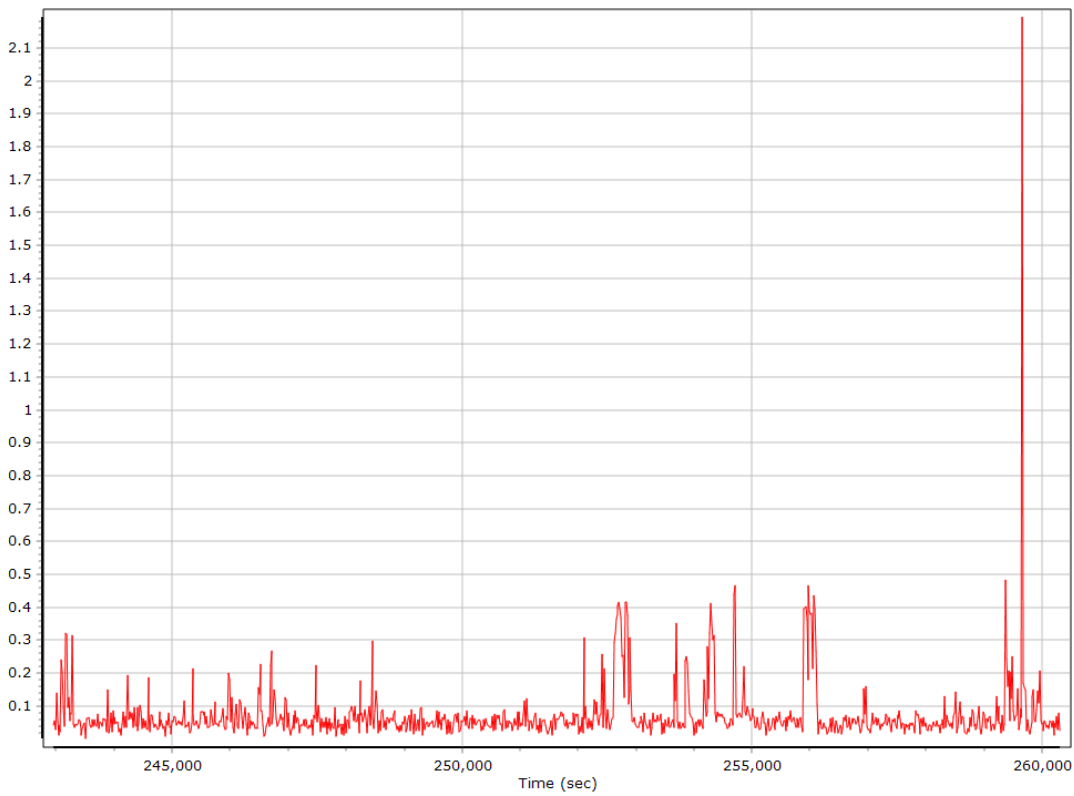
Ground Speed



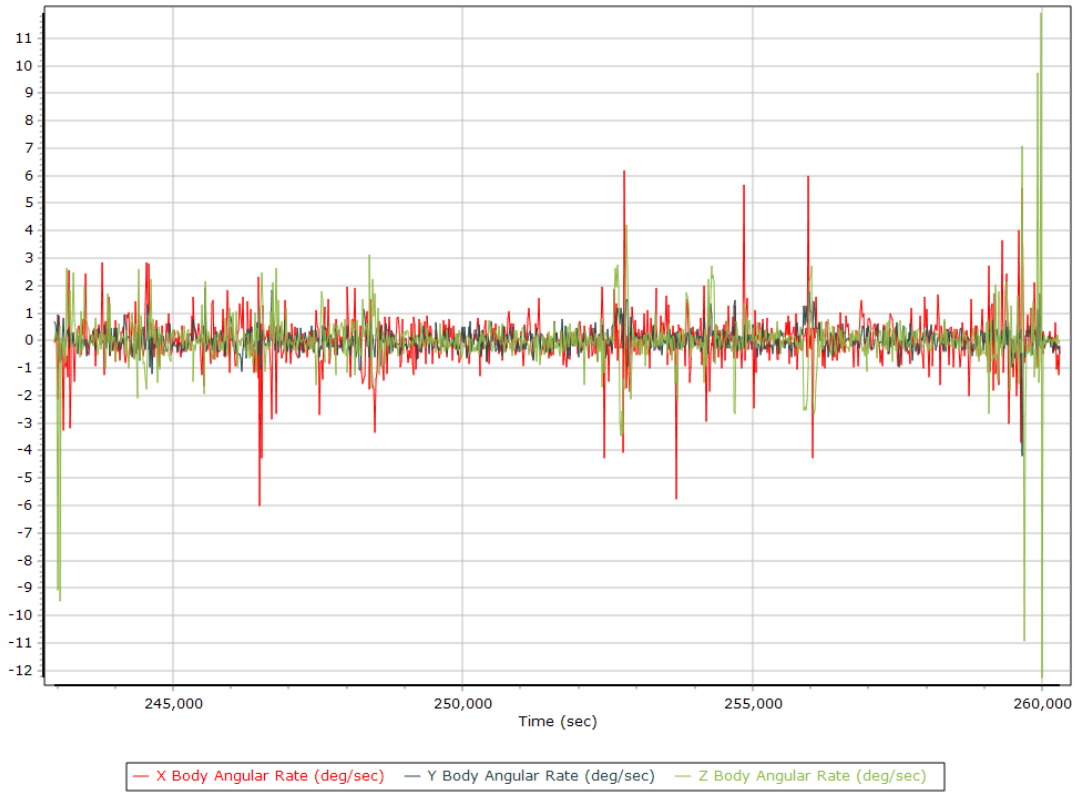
Body Acceleration



Total Body Acceleration

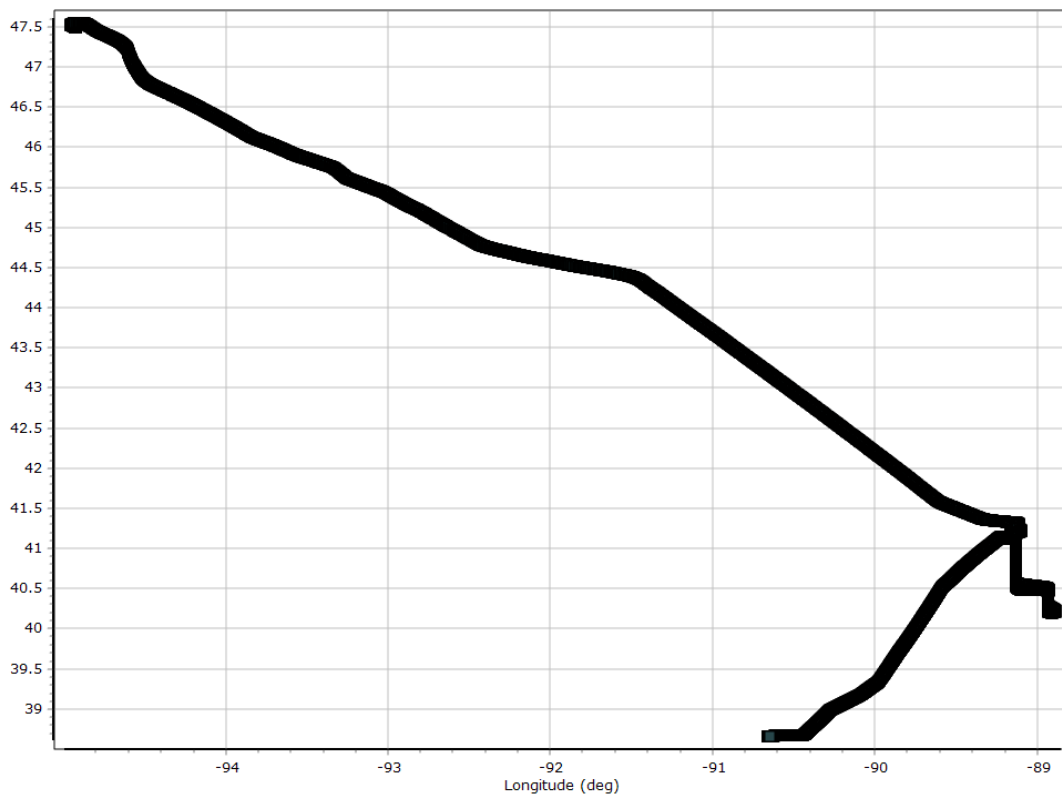


Body Angular Rate

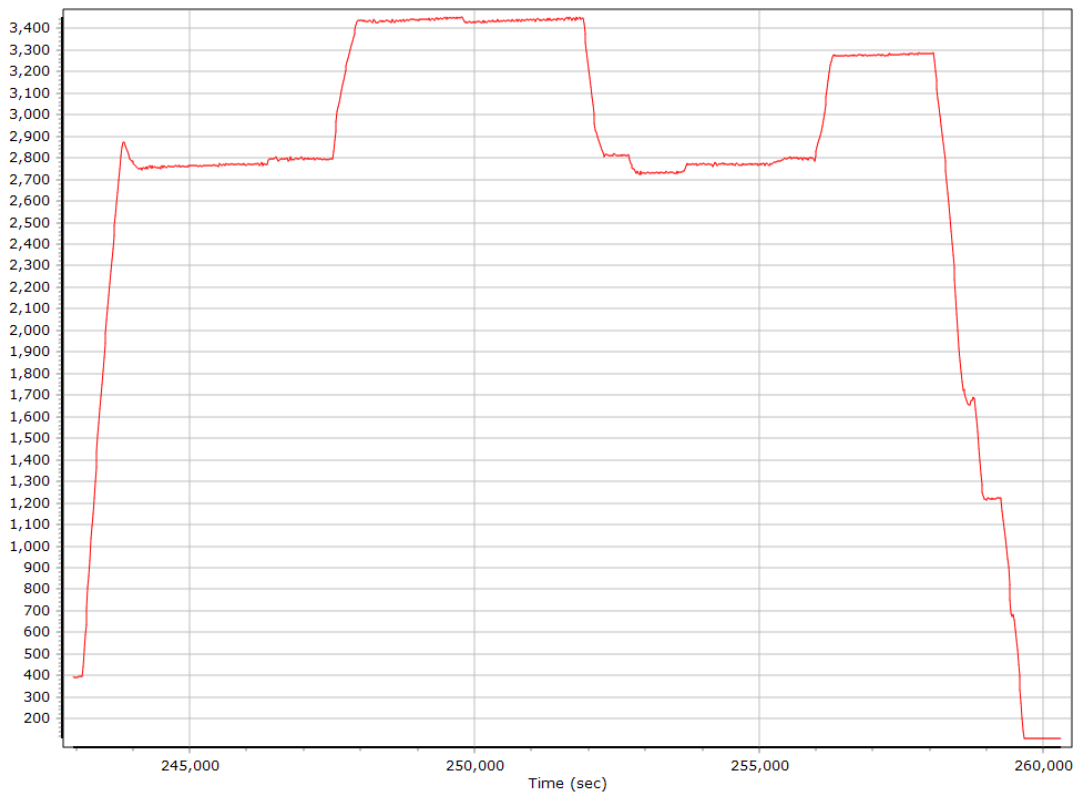


Forward Processed Trajectory Information

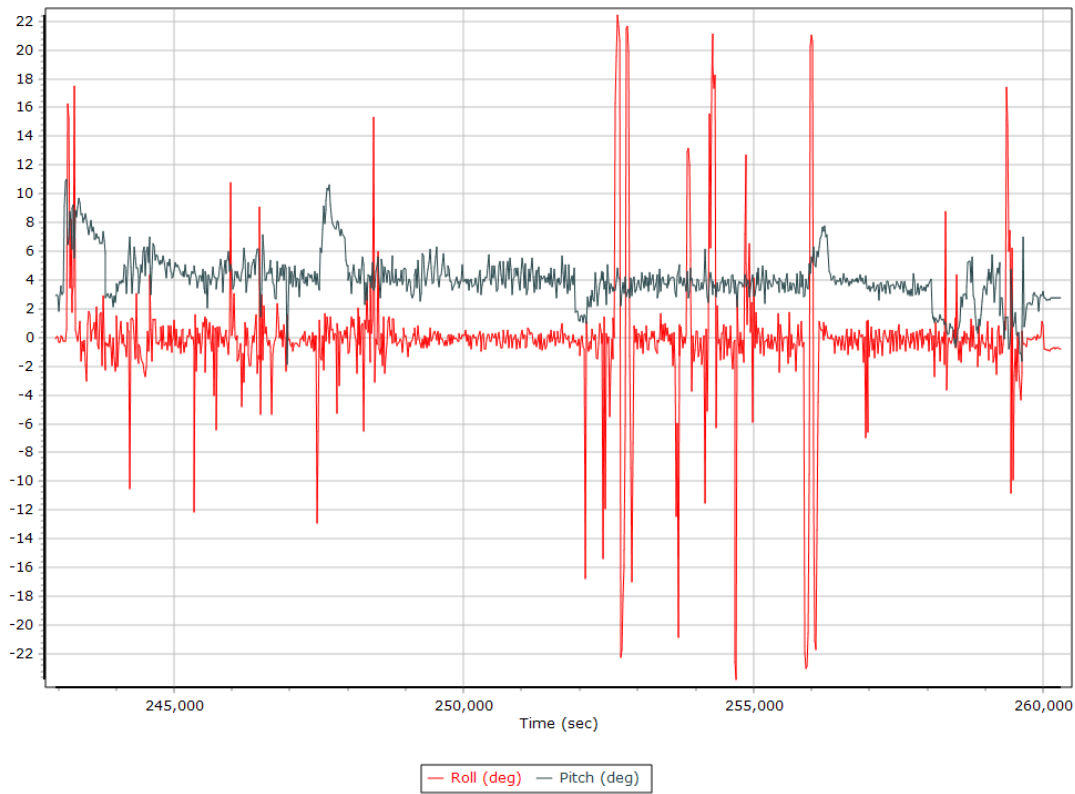
Top View



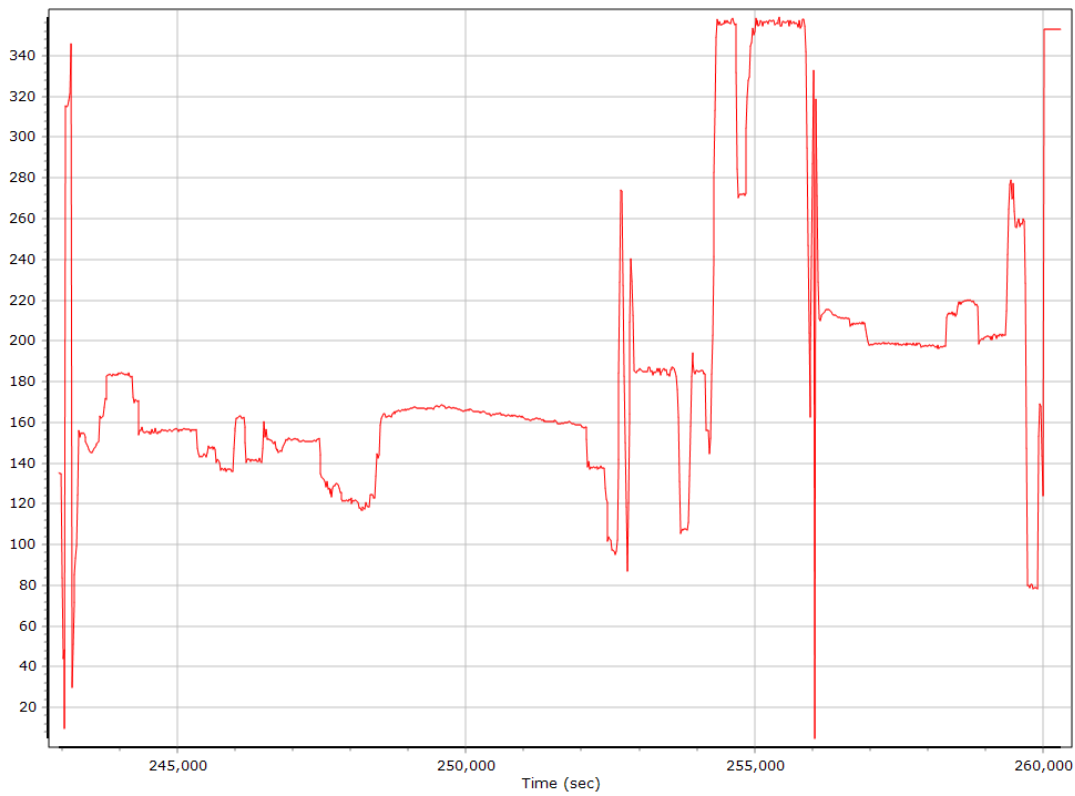
Altitude



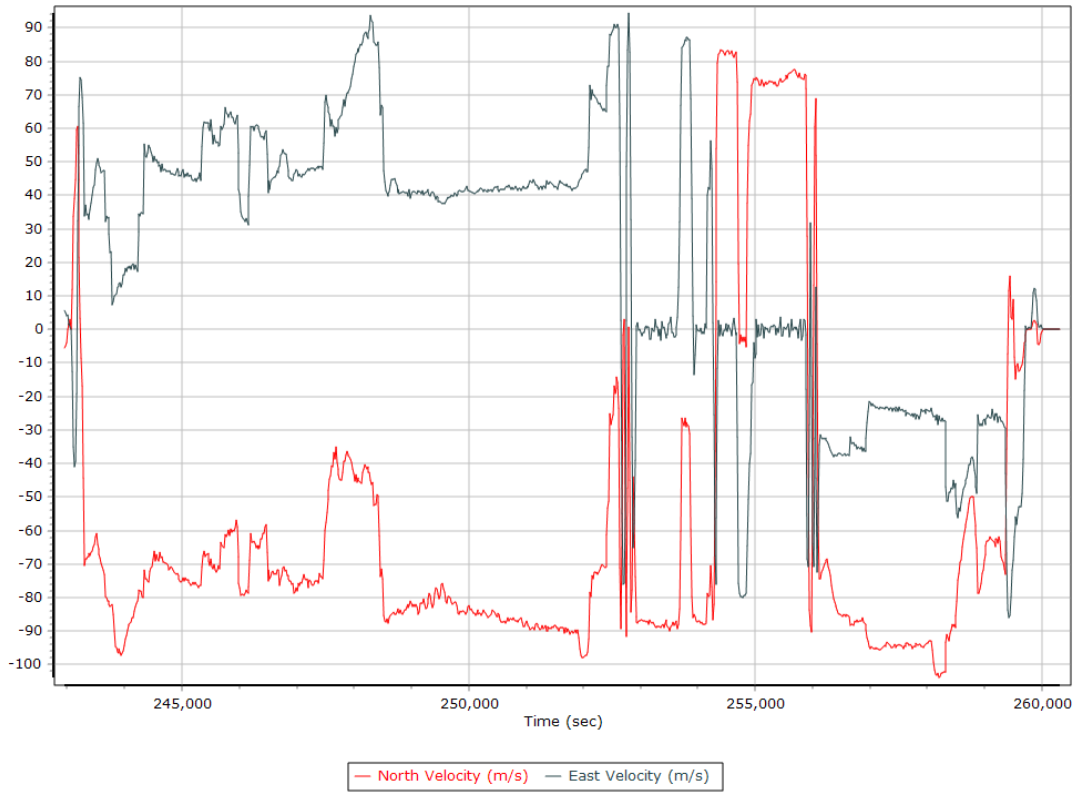
Roll/Pitch



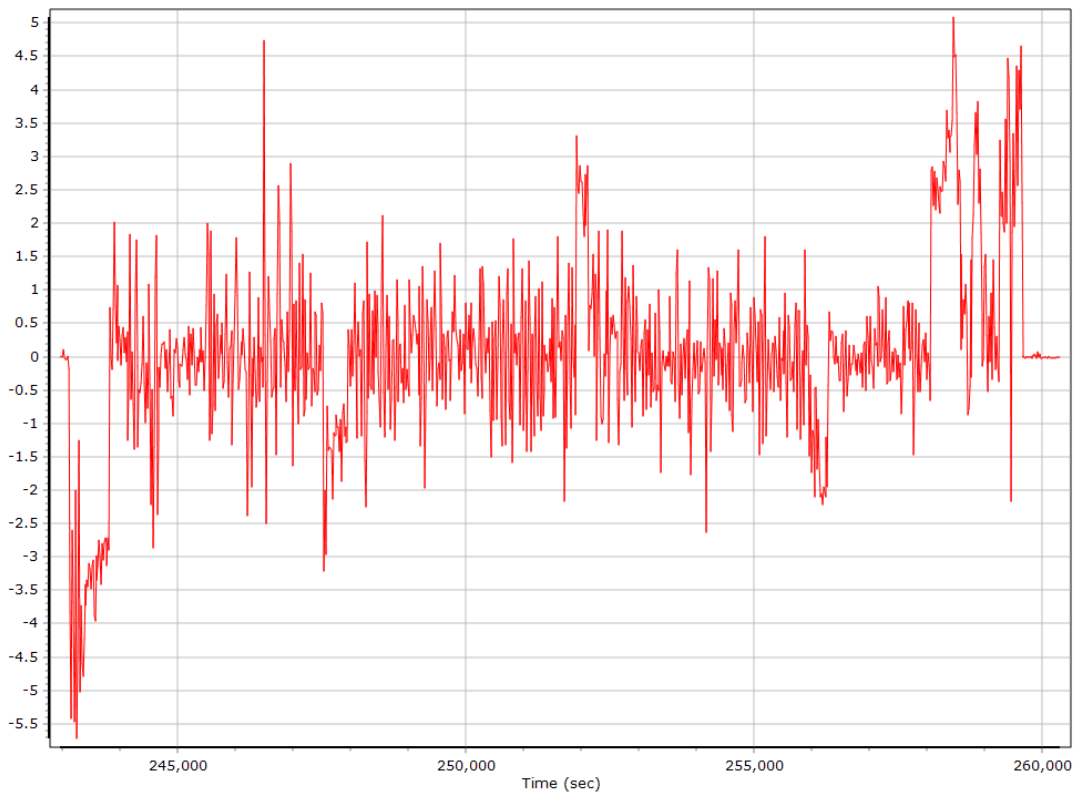
Heading



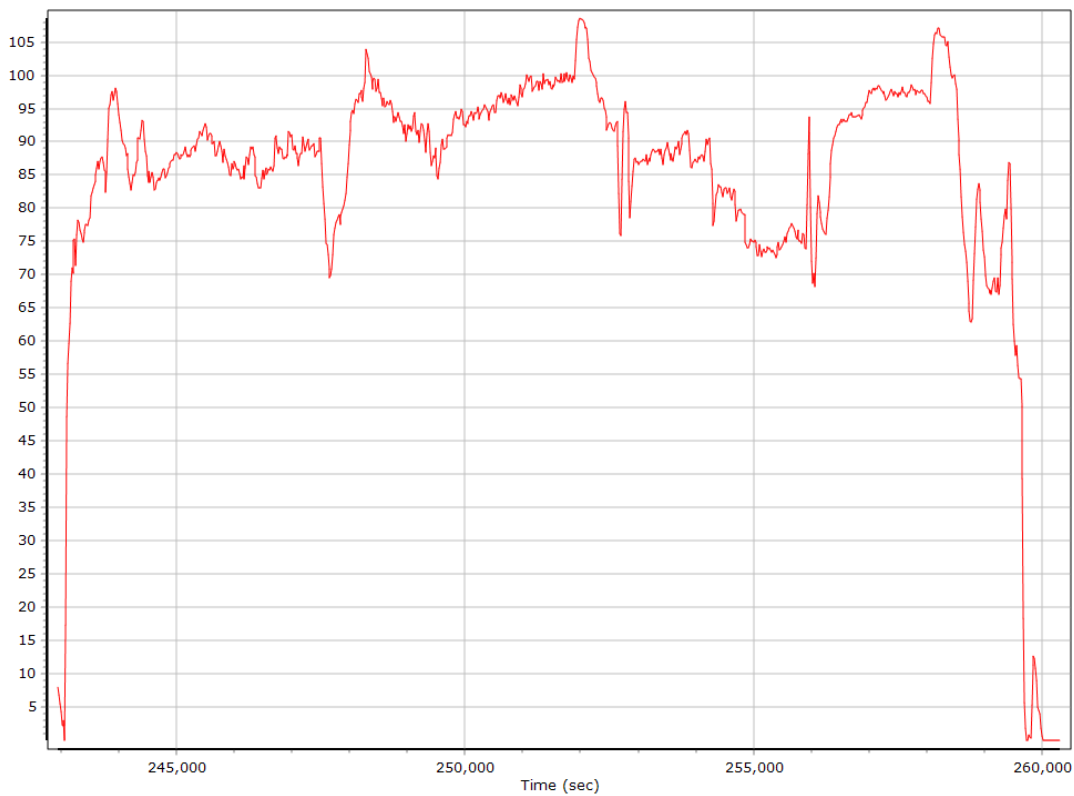
North/East Velocity



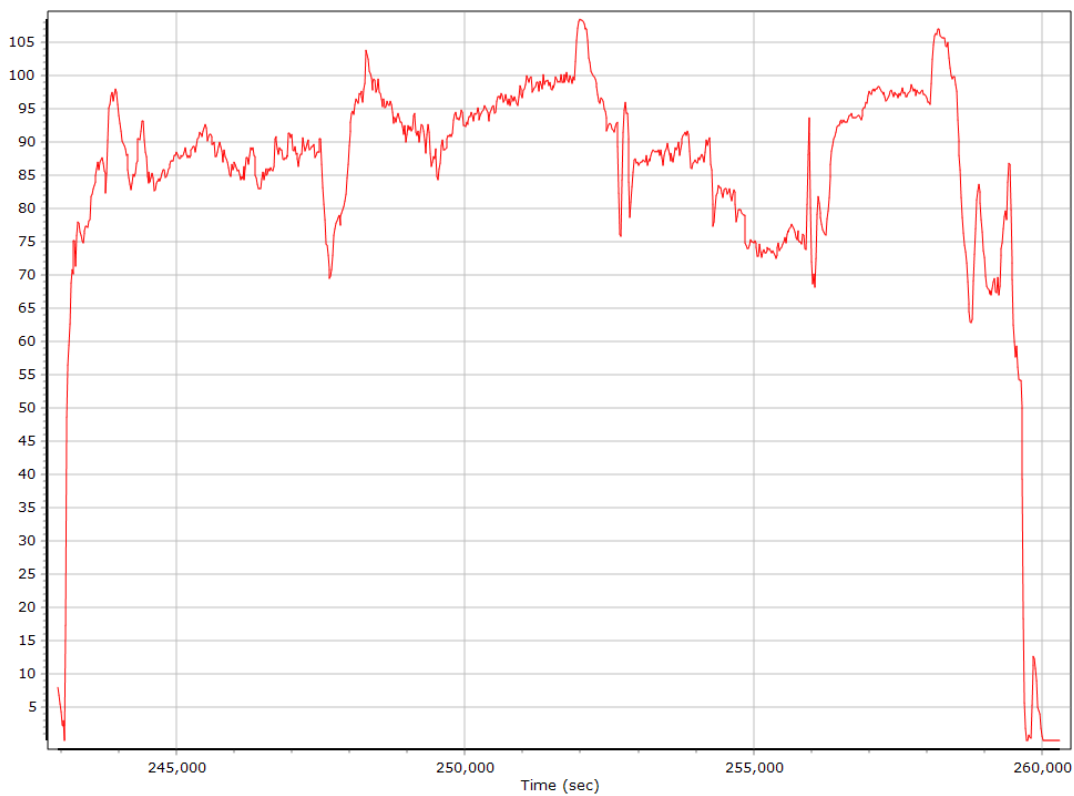
Down Velocity



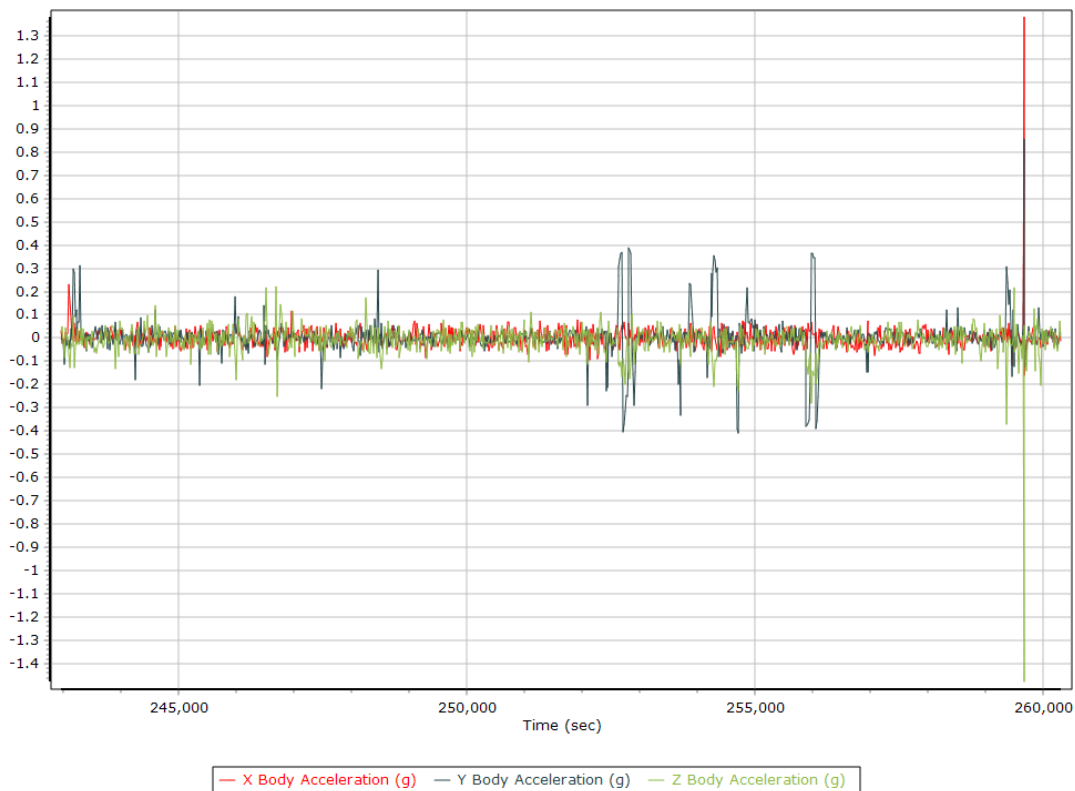
Total Speed



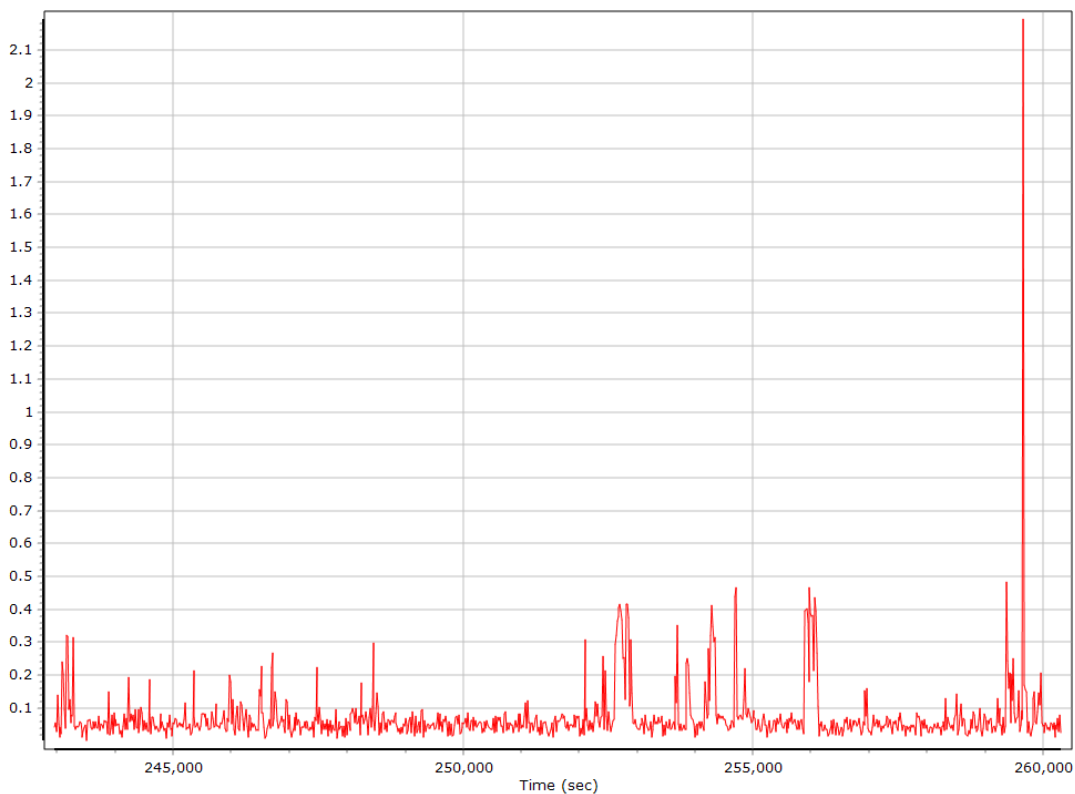
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

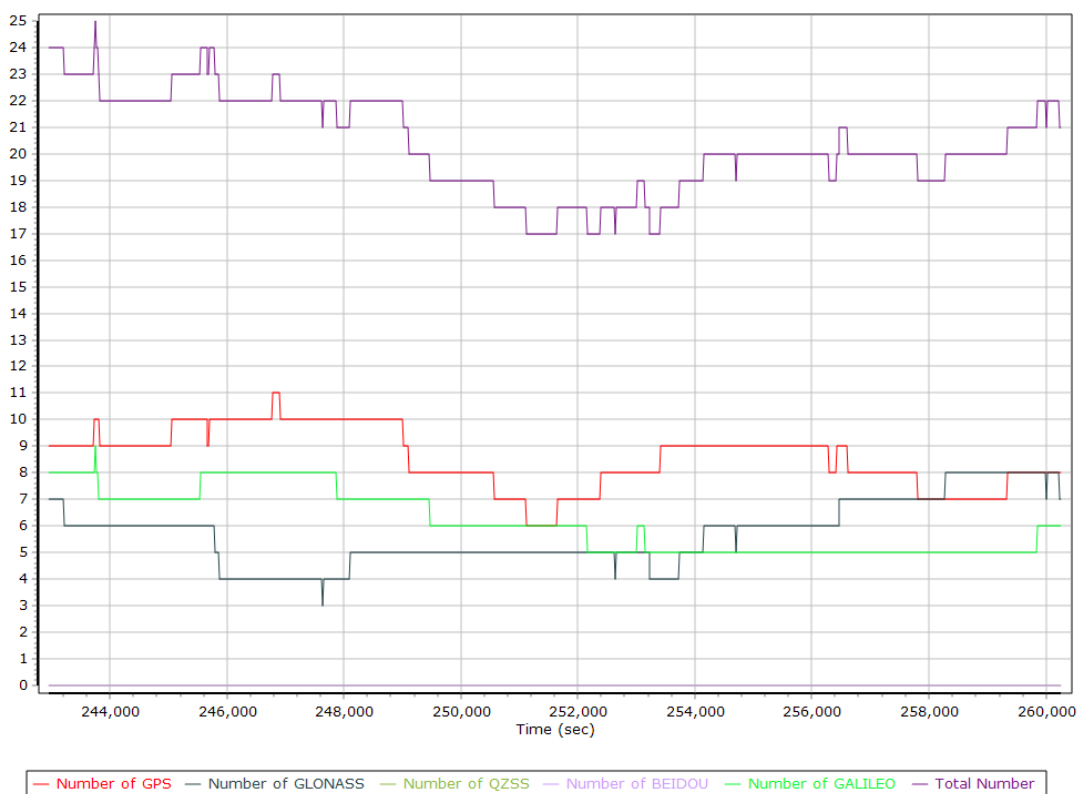


GNSS QC

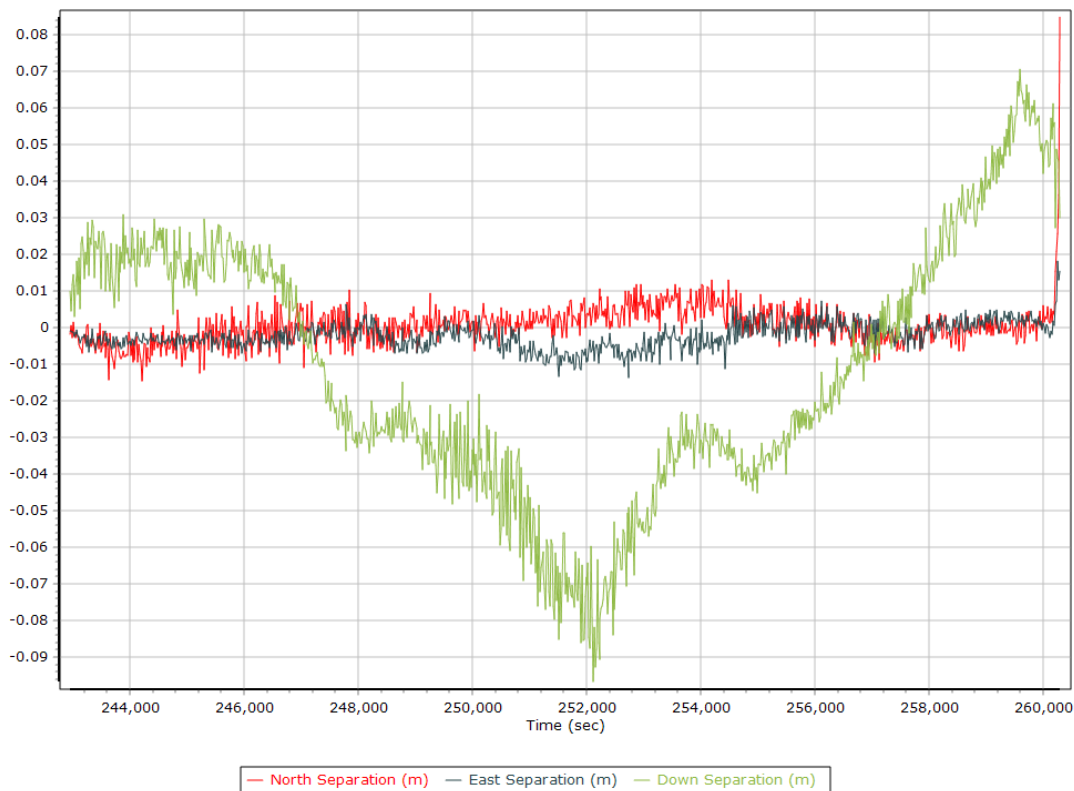
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	11	9
Number of GLONASS SV	3	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	5	9	6
Total number of SV	17	25	20
PDOP	1.00	1.51	1.16
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	17744.00	0.00	0.00
Percentage	100.00	0.00	0.00

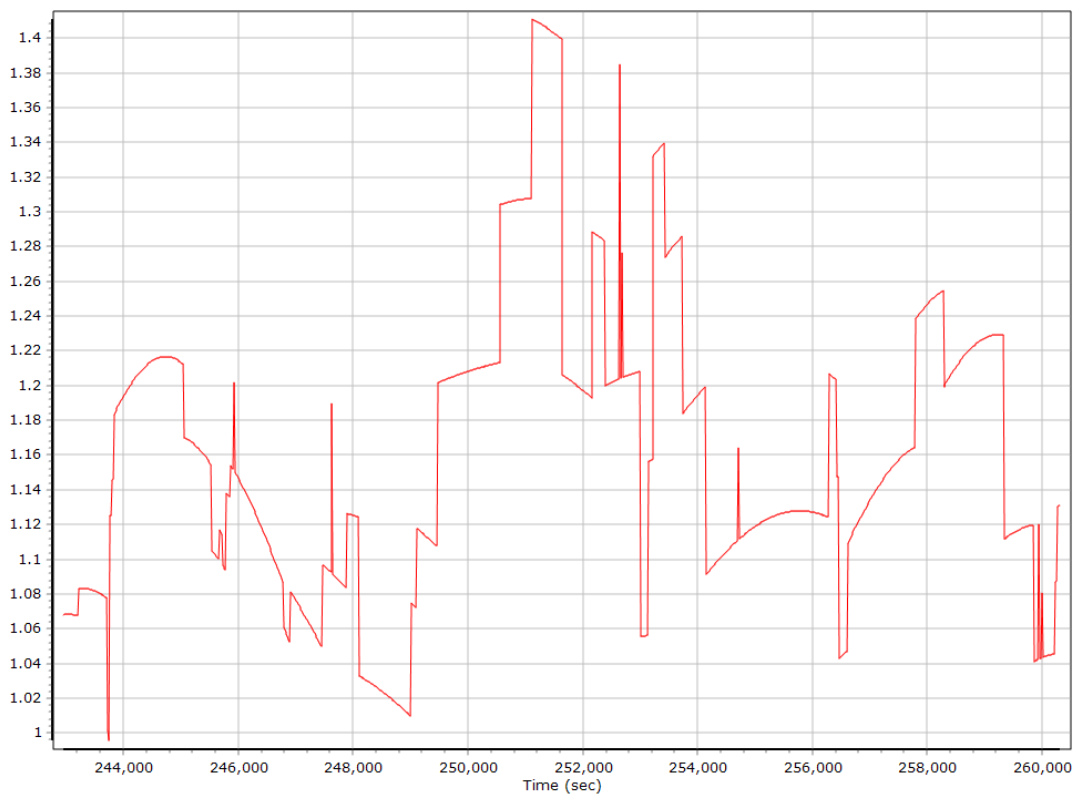
Num SVs in solution



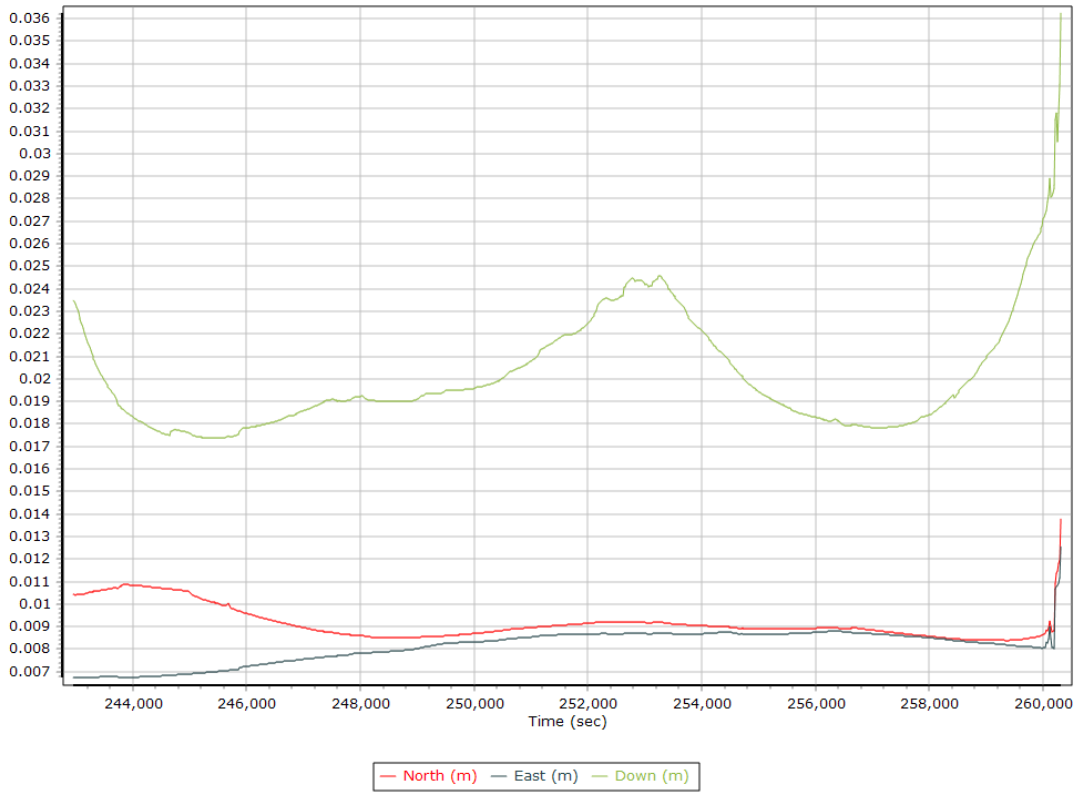
Forward/Reverse Separation



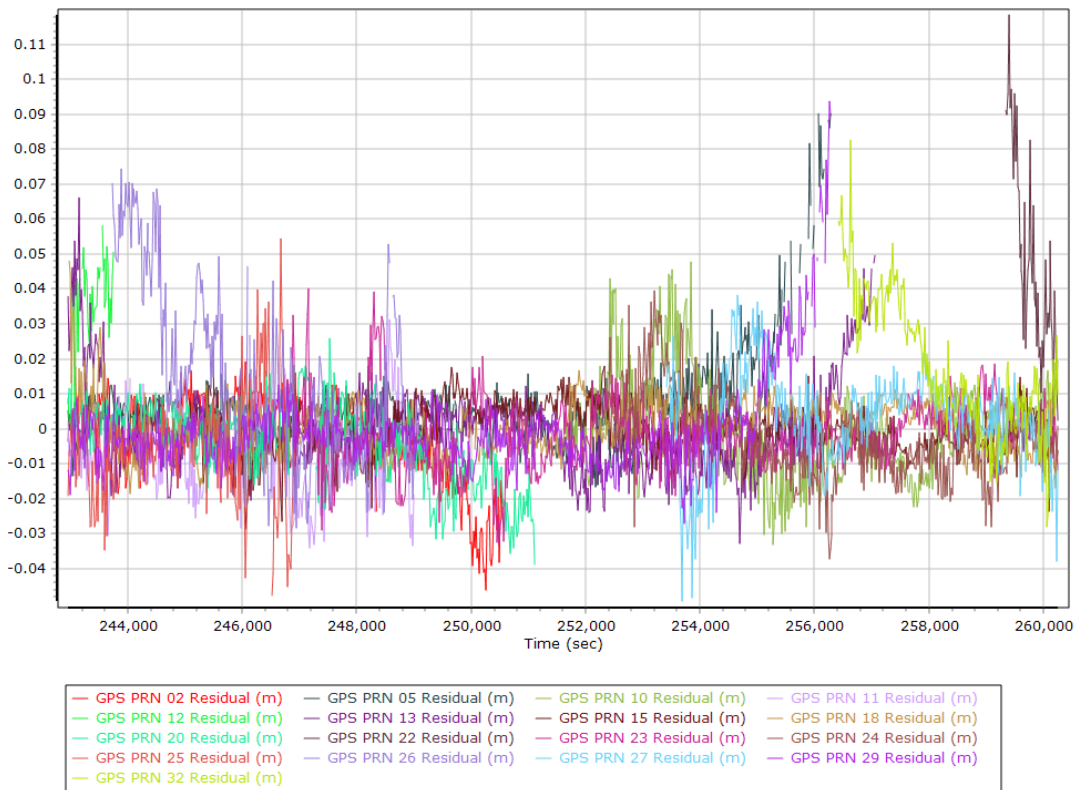
PDOP



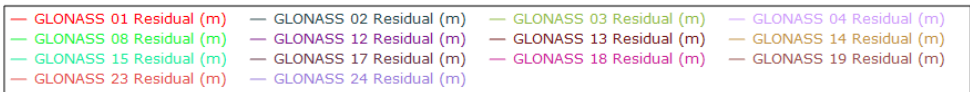
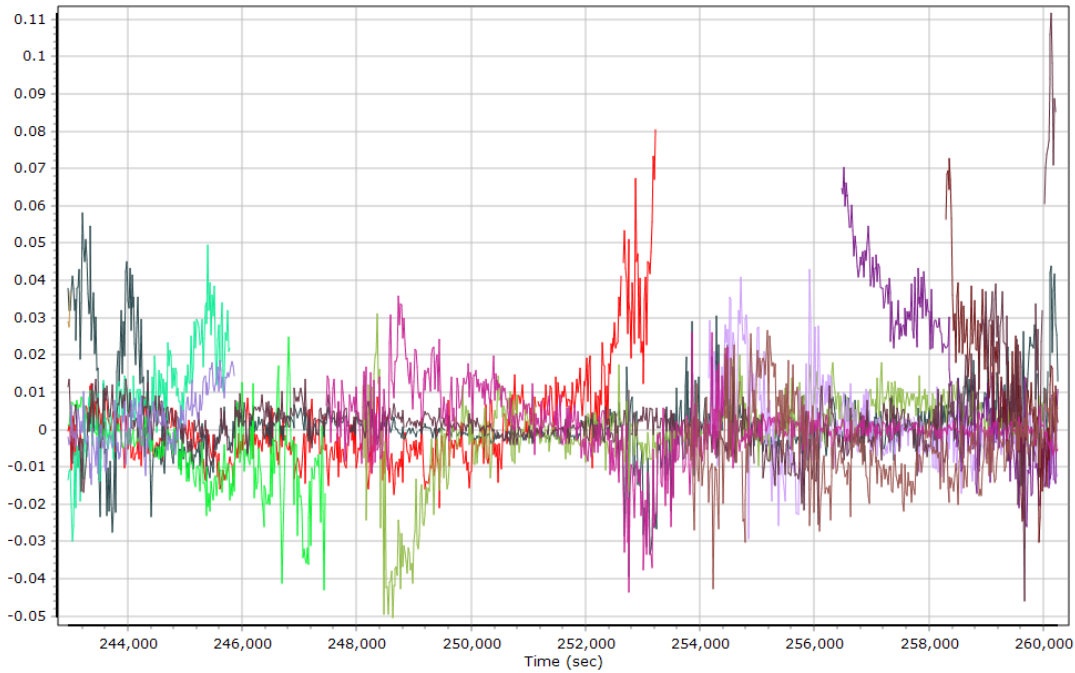
Estimated Position Accuracy



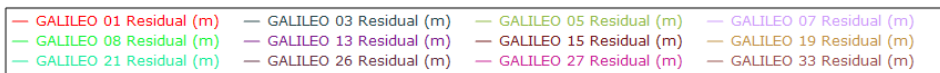
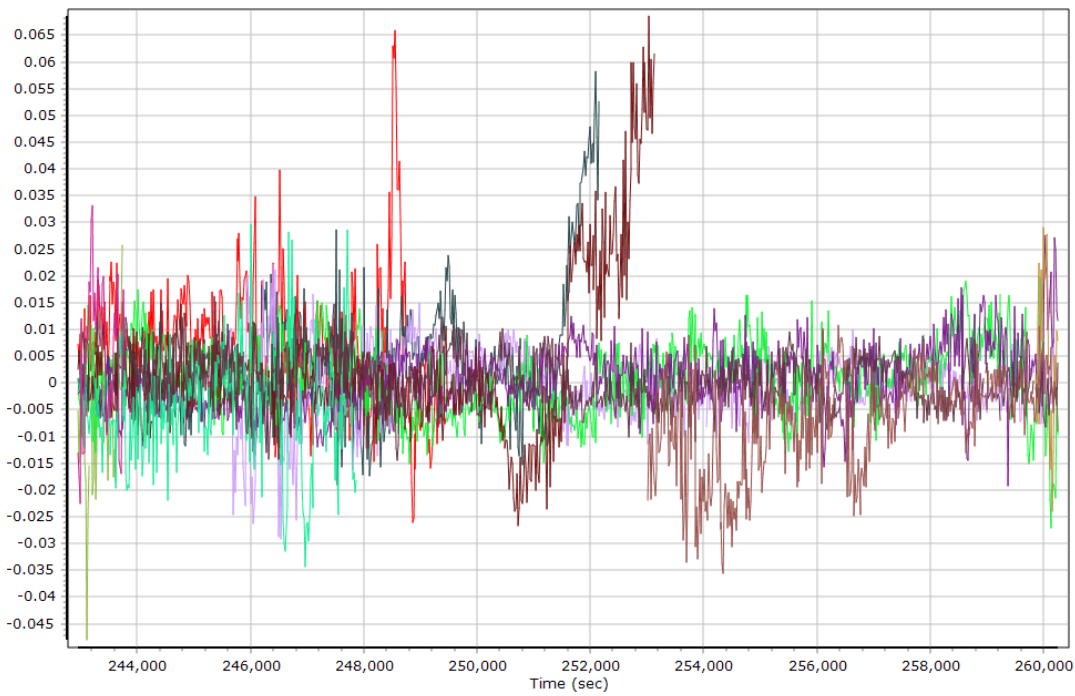
GPS Residuals



GLONASS Residuals



GALILEO Residuals



GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	242522.000 (6/28/2022 7:22:02 PM)		
Processing end time	260316.000 (6/29/2022 12:18:36 AM)		
Initial attitude source	Real-Time VNAV/RNAV Attitude		
IMU Sensor Context	Processing with Onboard IMU		
Reference to IMU lever arm (m)	0.000	0.000	0.000
Reference to IMU mounting angles (deg)	0.000	0.000	180.000
Reference to Primary GNSS lever arm (m)	0.210	-0.171	-1.093
Reference 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

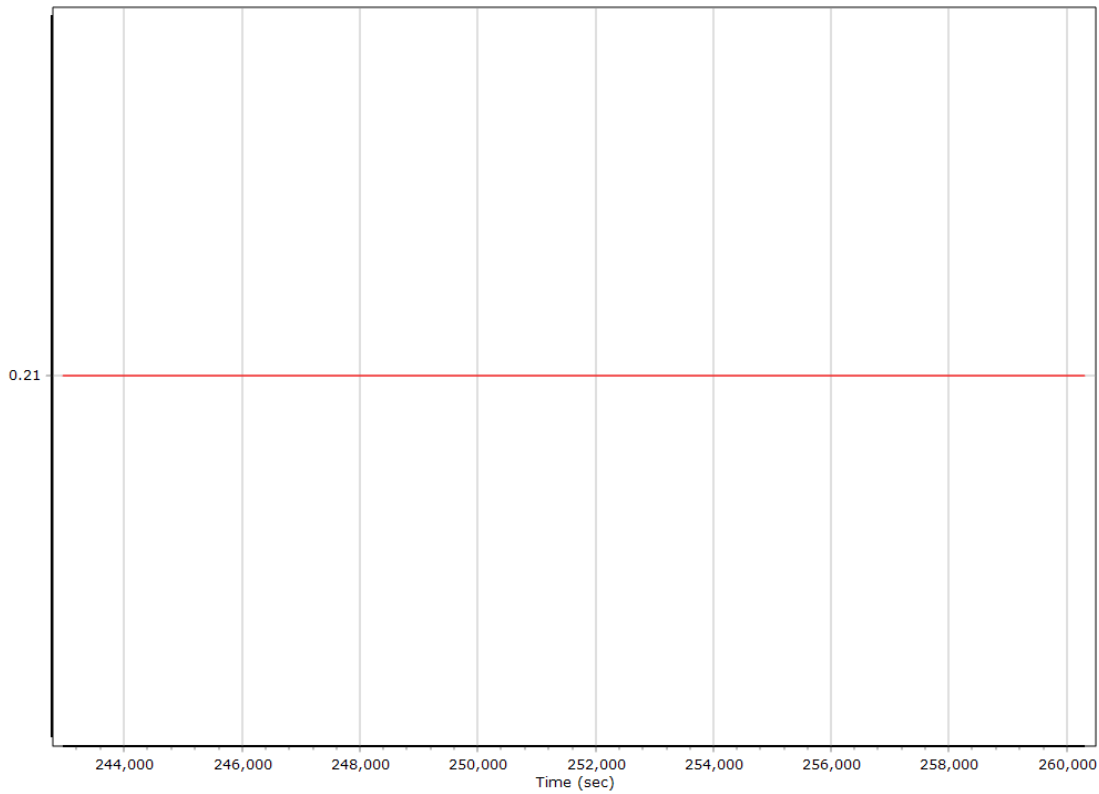
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

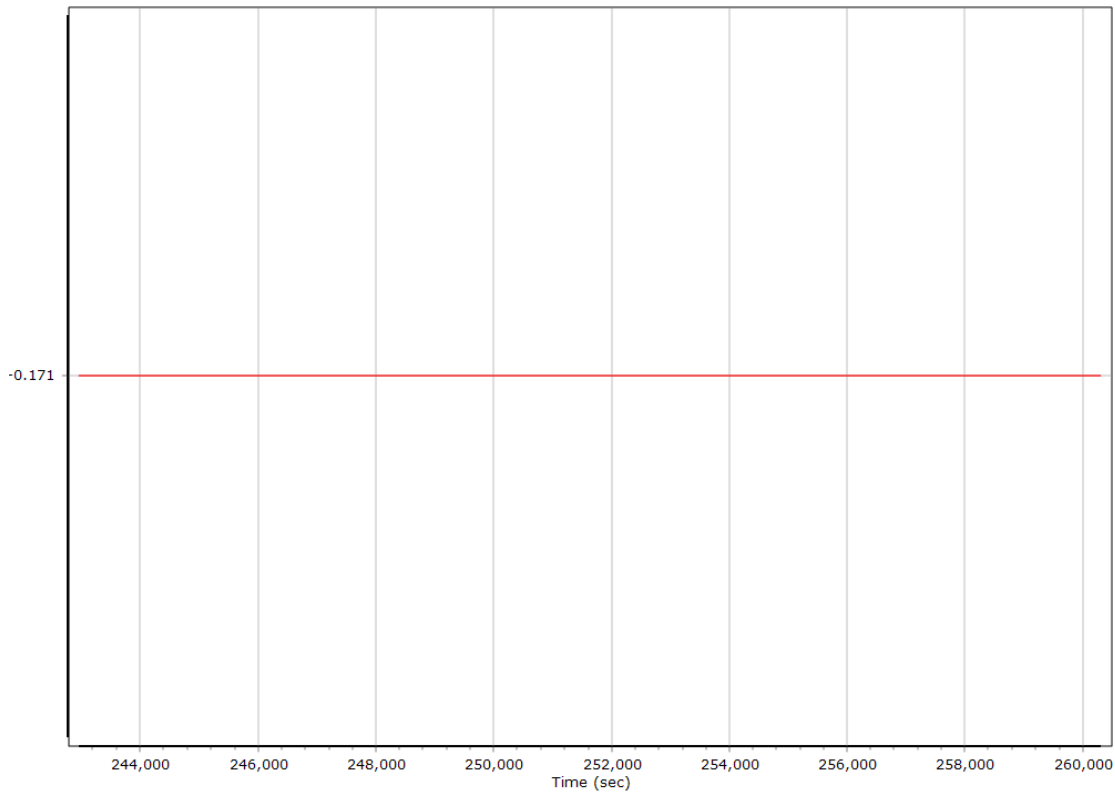
Reference-Primary GNSS Lever Arm Automatic Calibration Results

Original Reference to Primary GNSS lever arm (m)	0.126	-0.066	-1.071
Iteration 1 Reference to Primary GNSS lever arm (m)	0.207	-0.167	-1.093
Iteration 2 Reference to Primary GNSS lever arm (m)	0.210	-0.171	-1.093
Primary GNSS Lever Arm In use	Iteration 2		

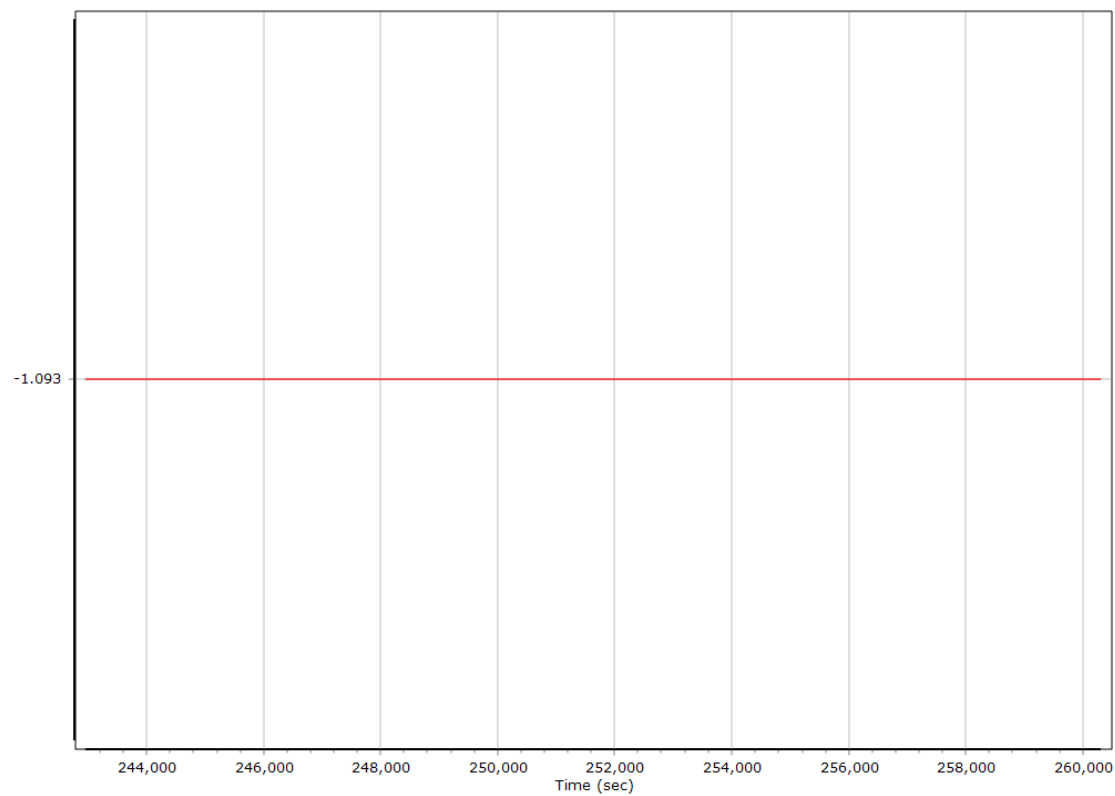
X Reference-Primary GNSS Lever Arm (m)



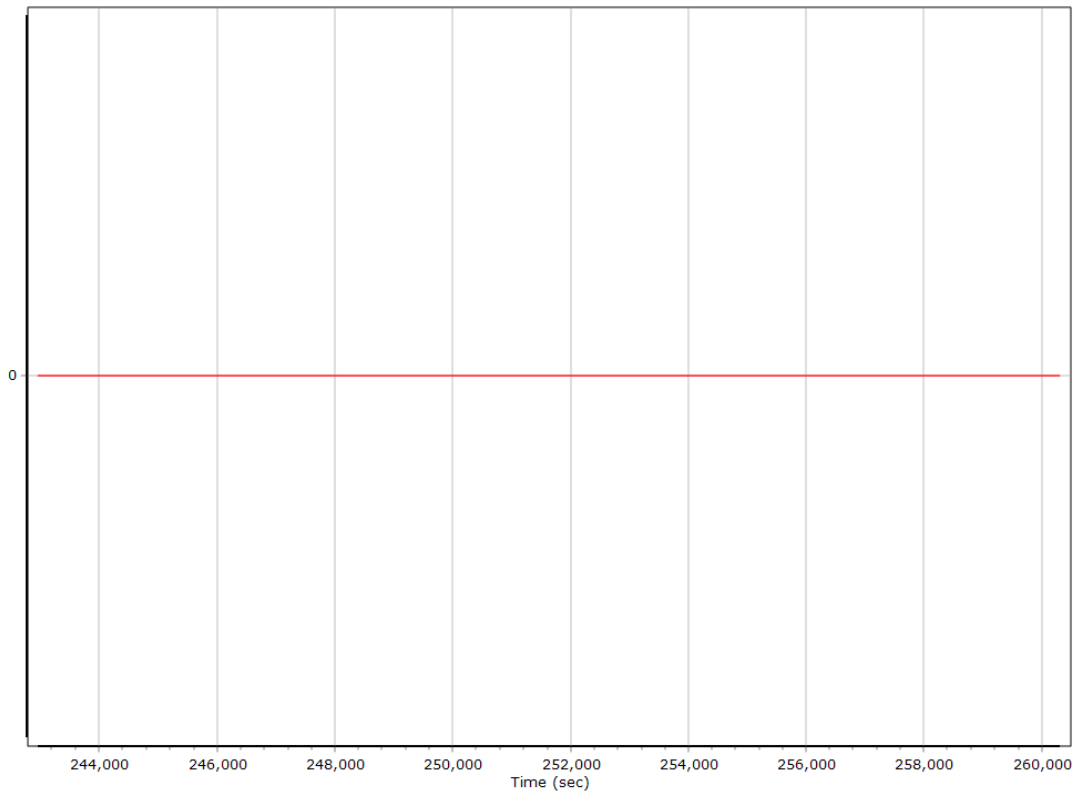
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



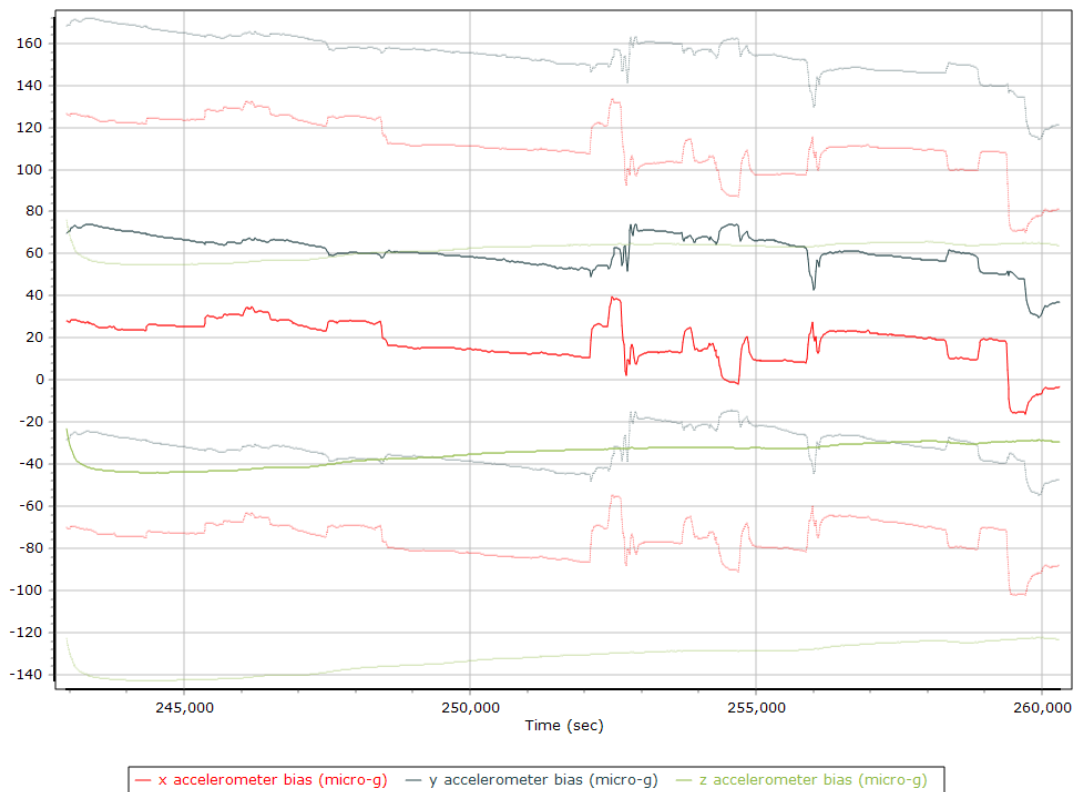
Reference-Primary GNSS Lever Arm Figure of Merit



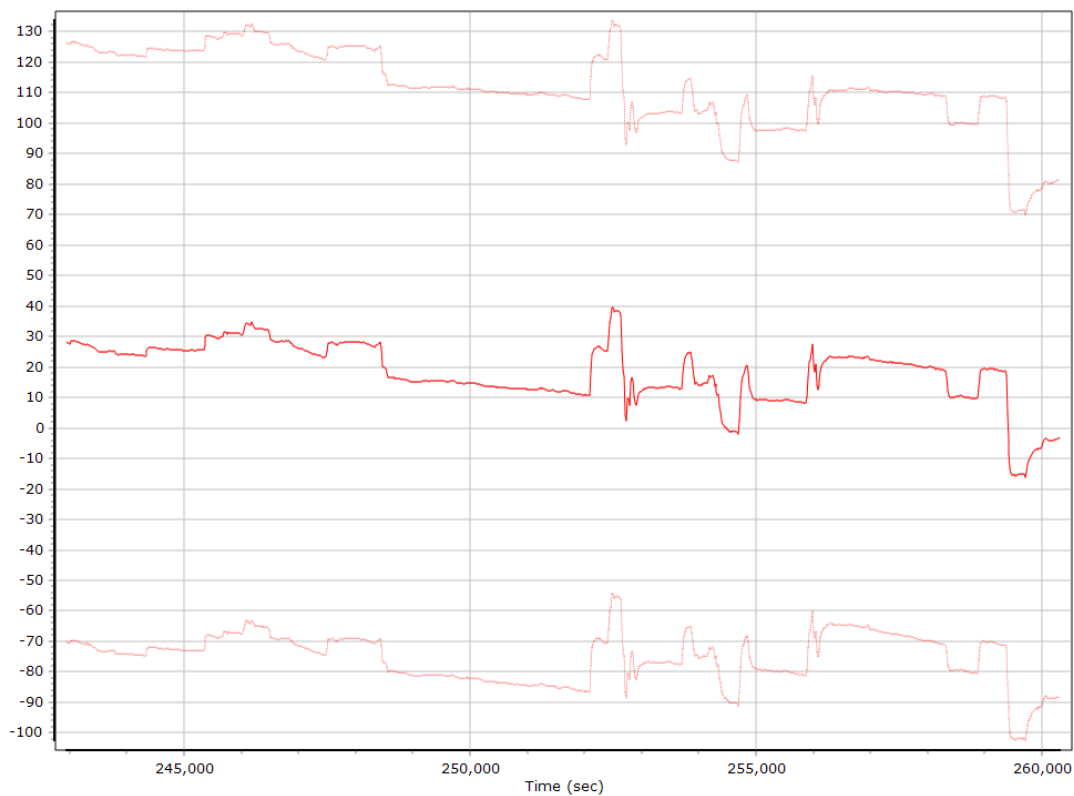
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

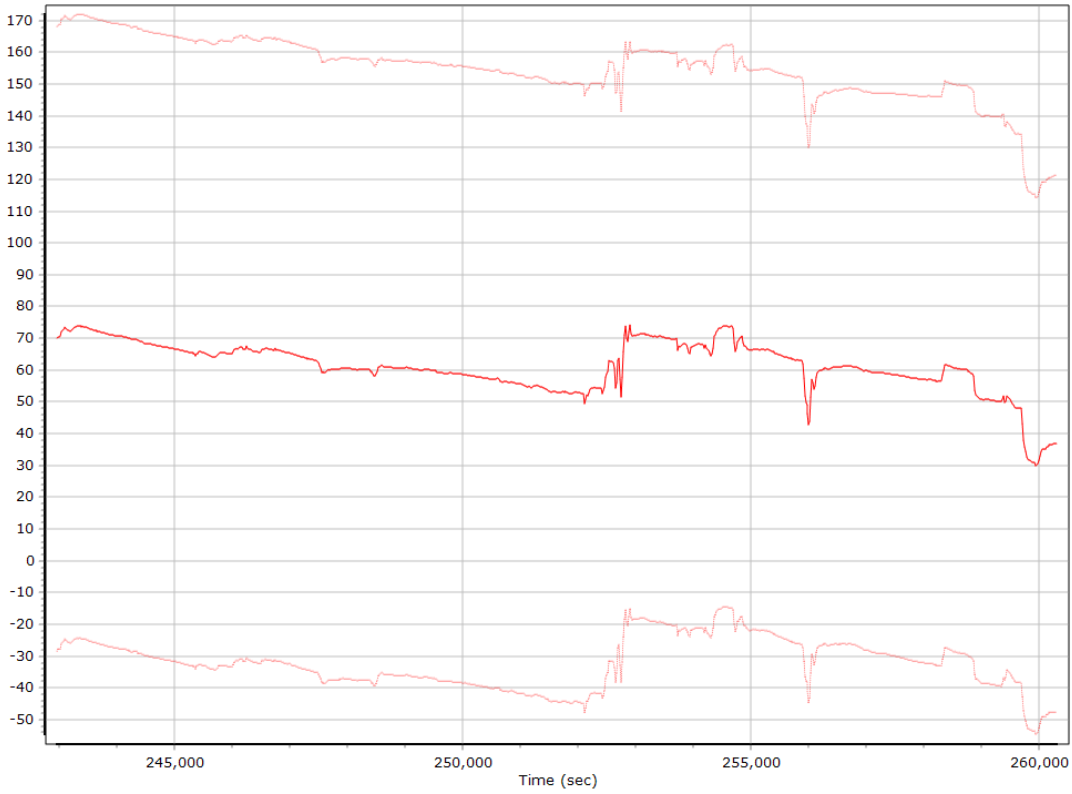
Accelerometer Bias (micro-g)



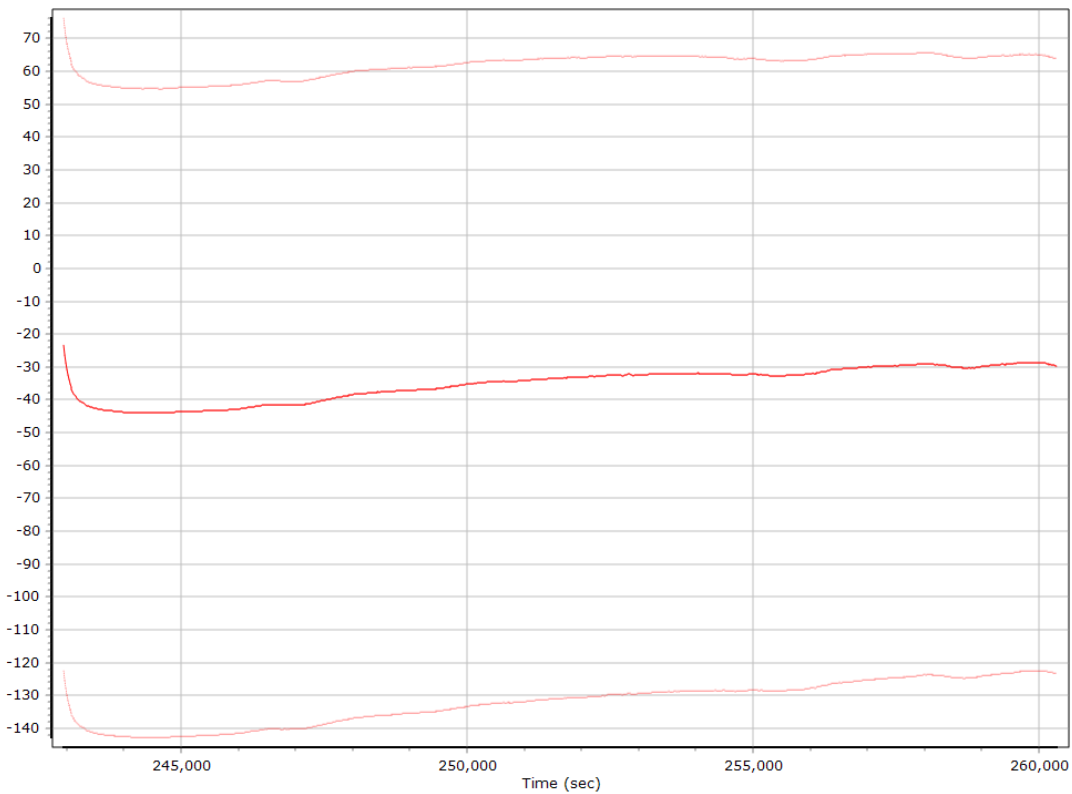
X Accelerometer Bias (micro-g)



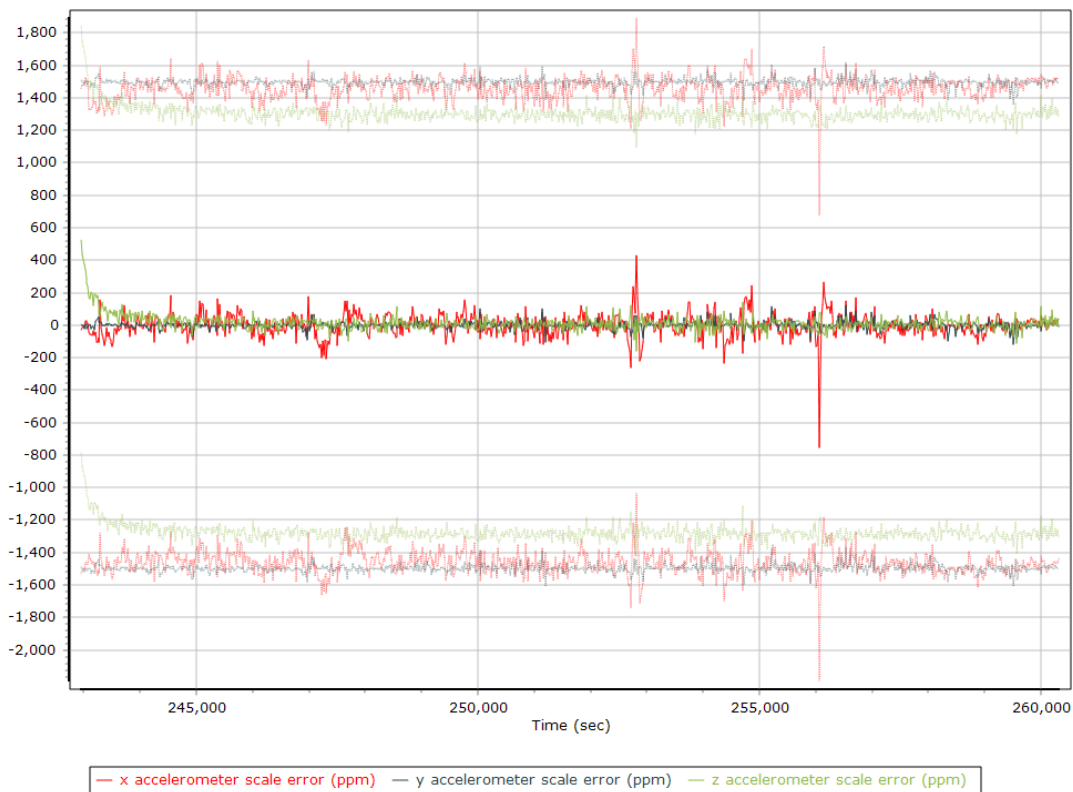
Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



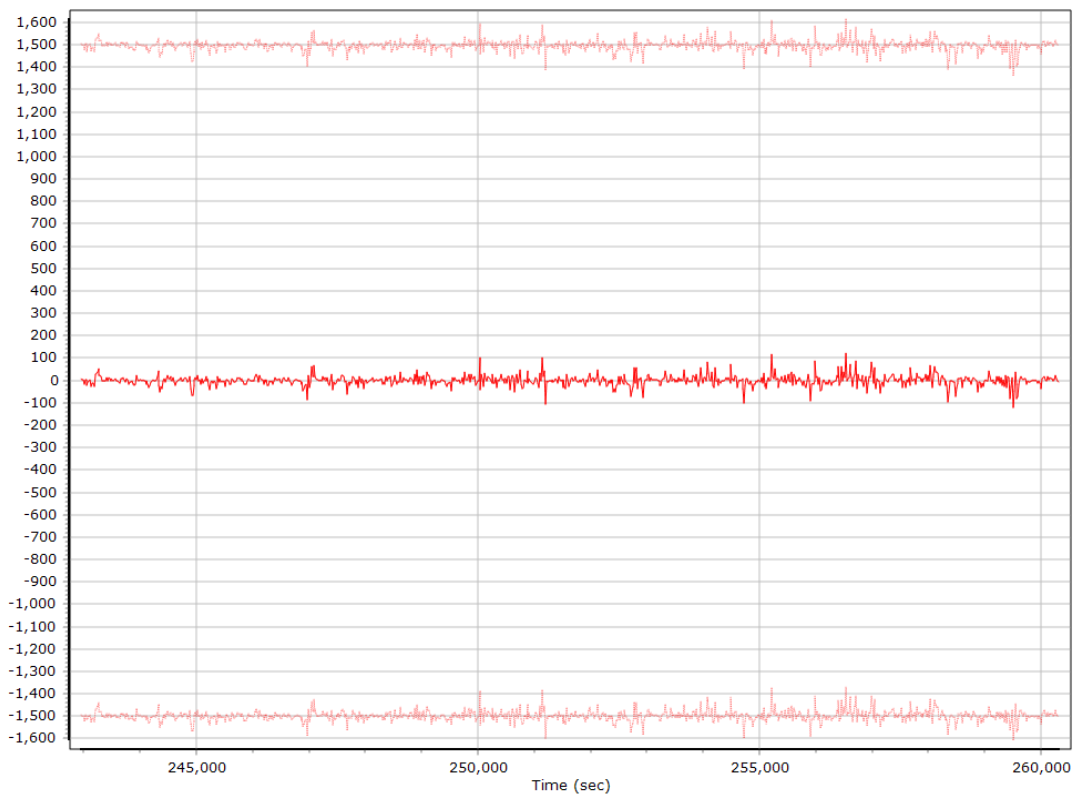
Accelerometer Scale Error (ppm)



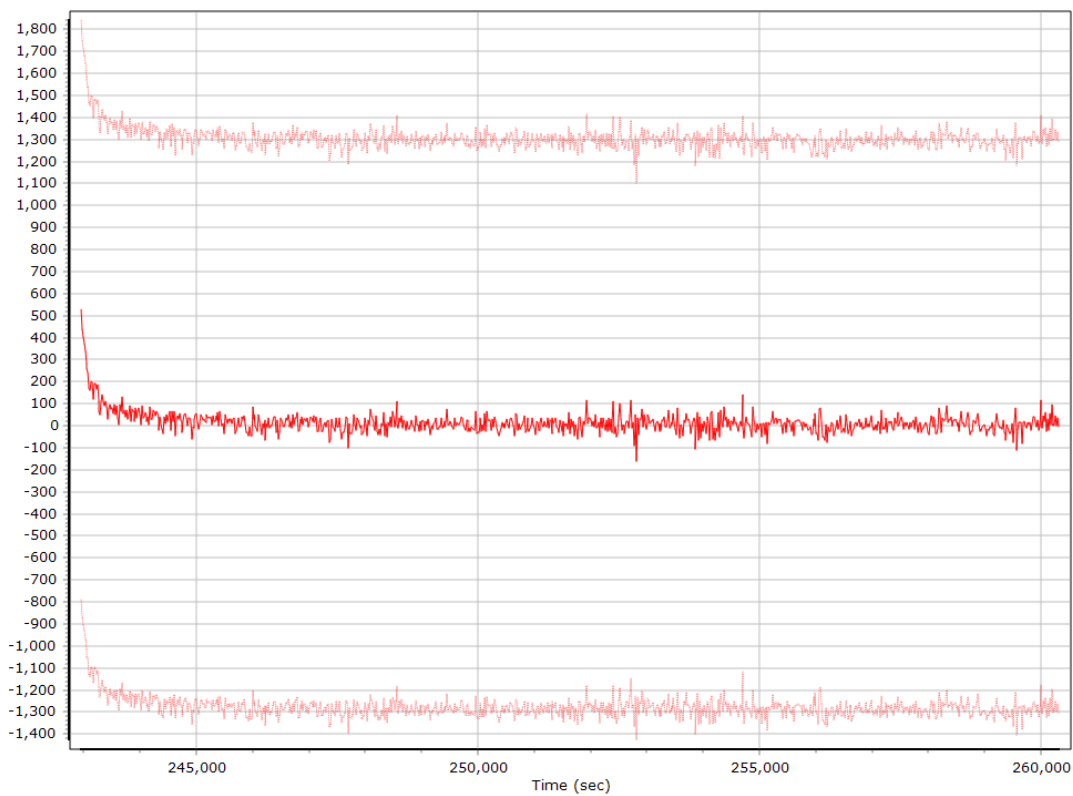
X Accelerometer Scale Error (ppm)



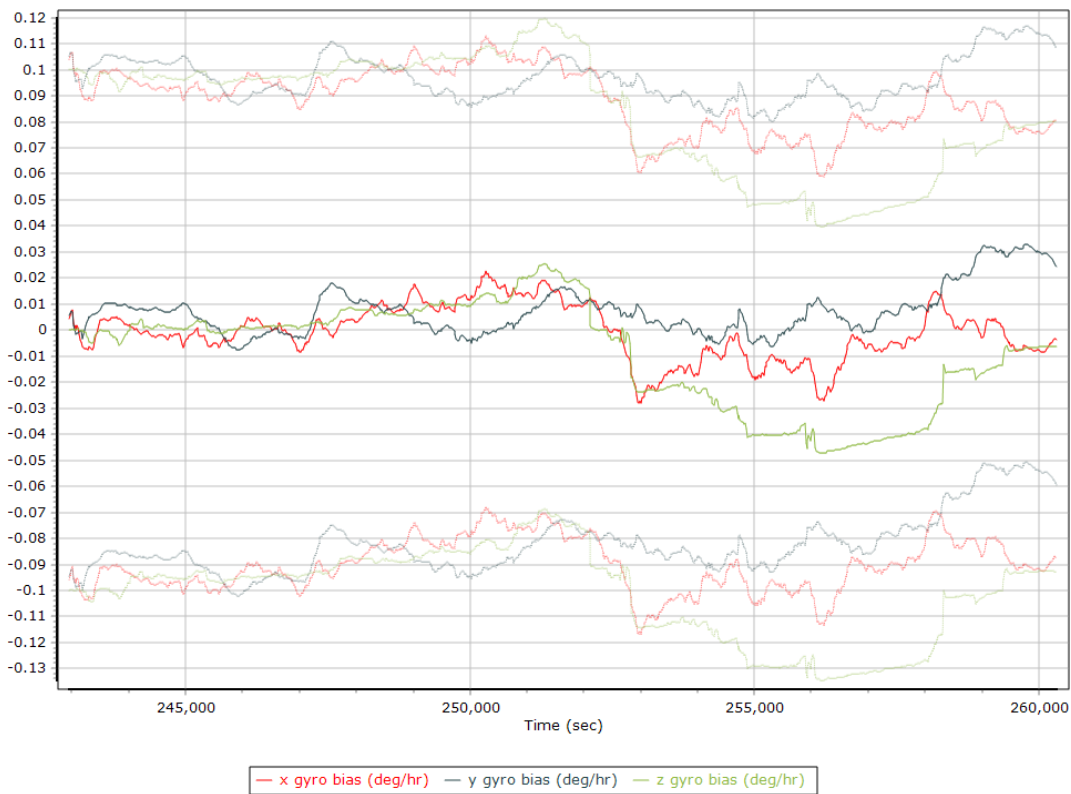
Y Accelerometer Scale Error (ppm)



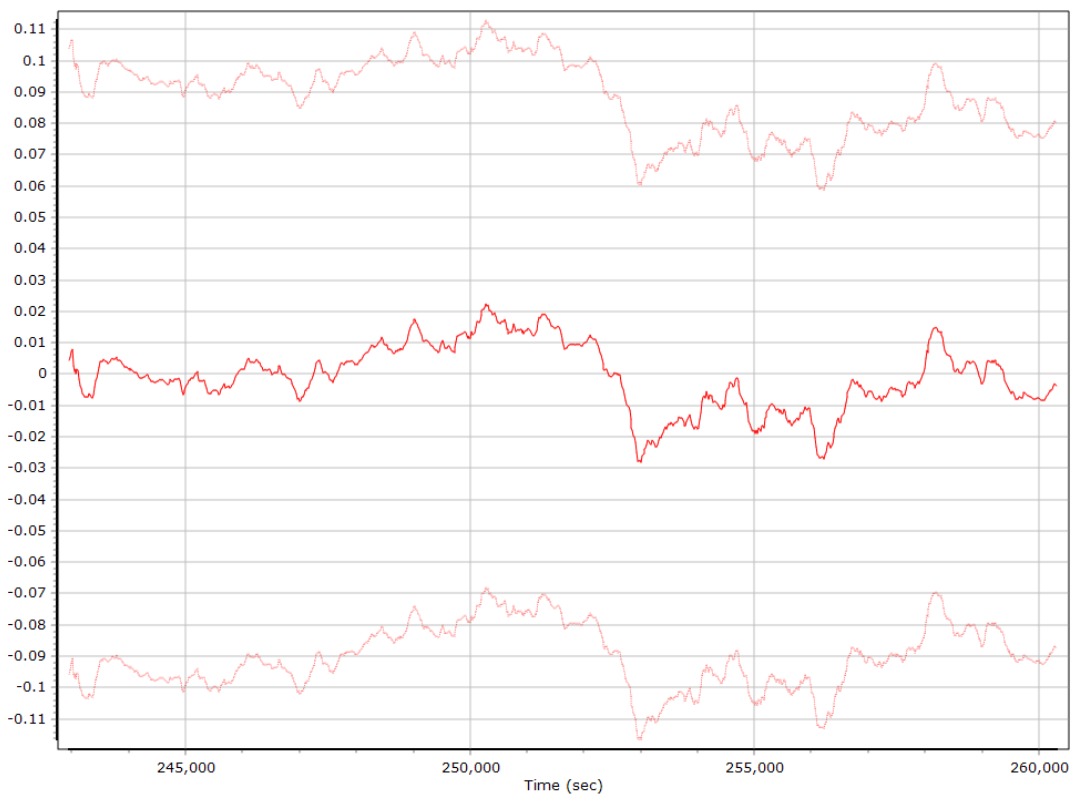
Z Accelerometer Scale Error (ppm)



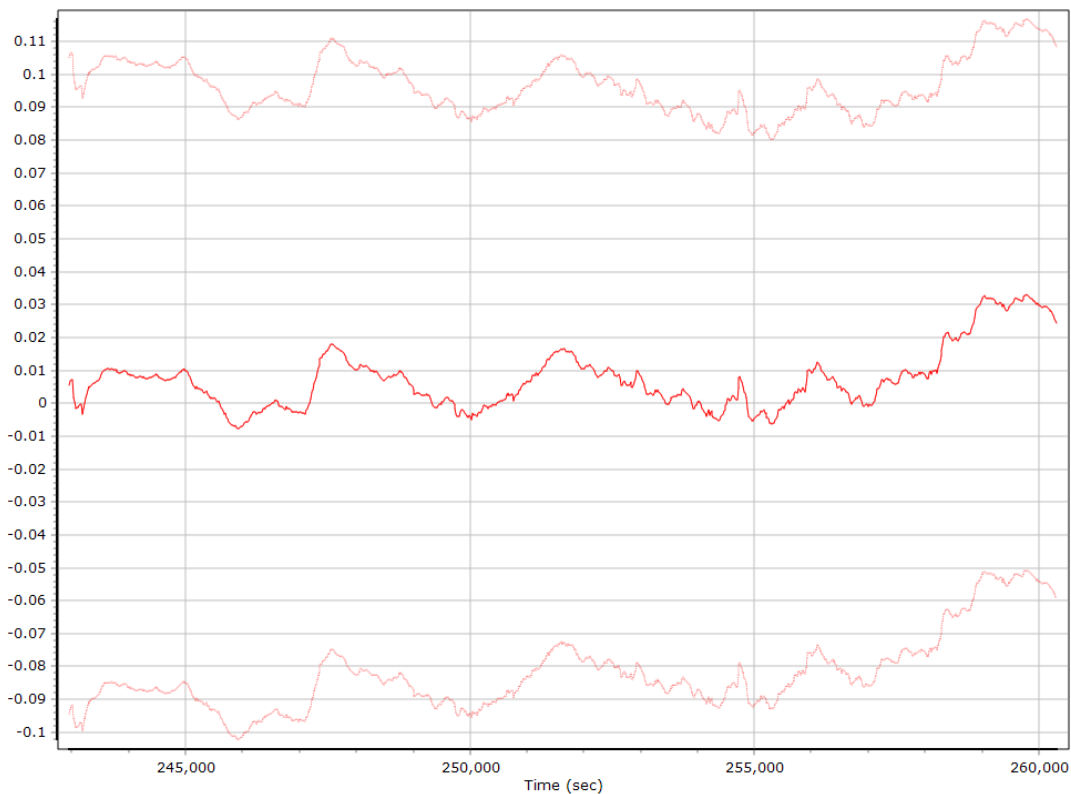
Gyro Bias (deg/h)



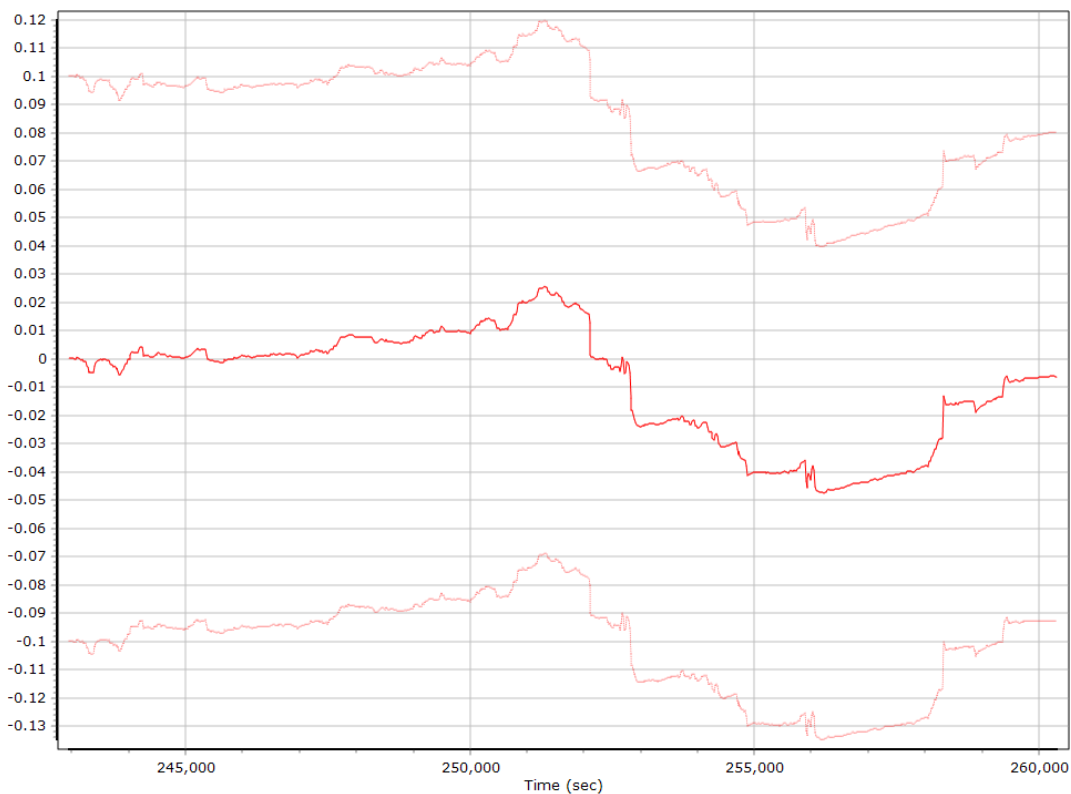
X Gyro Bias (deg/h)



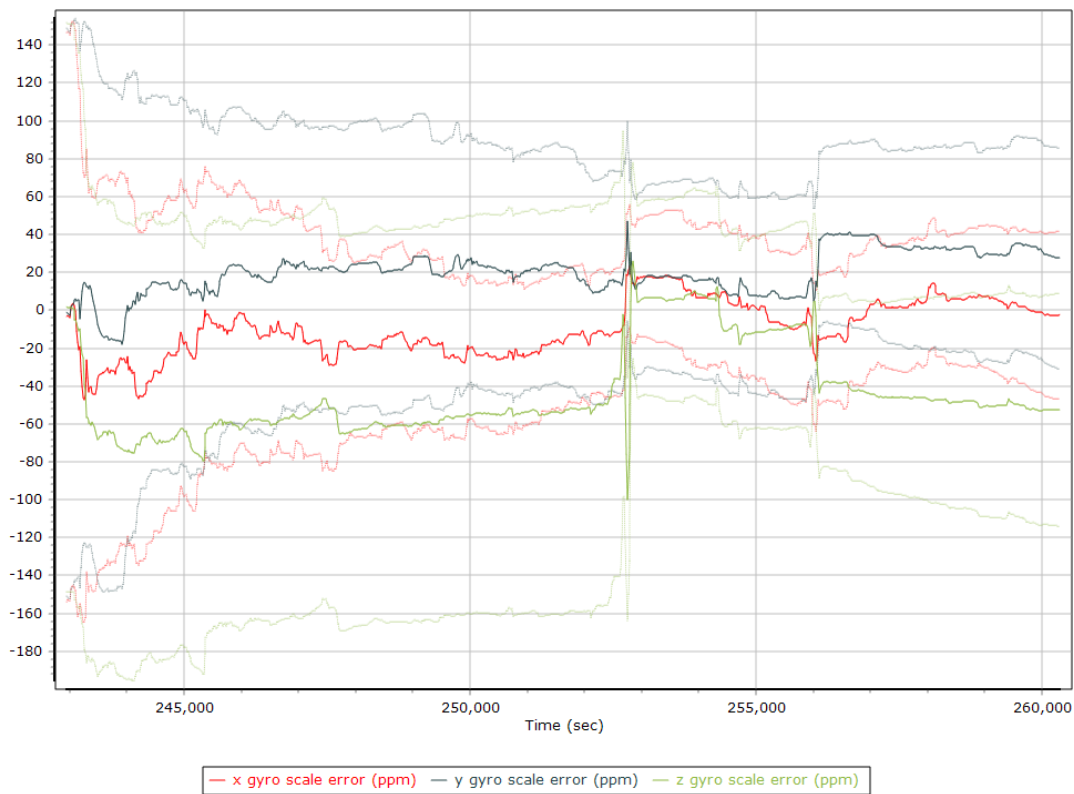
Y Gyro Bias (deg/h)



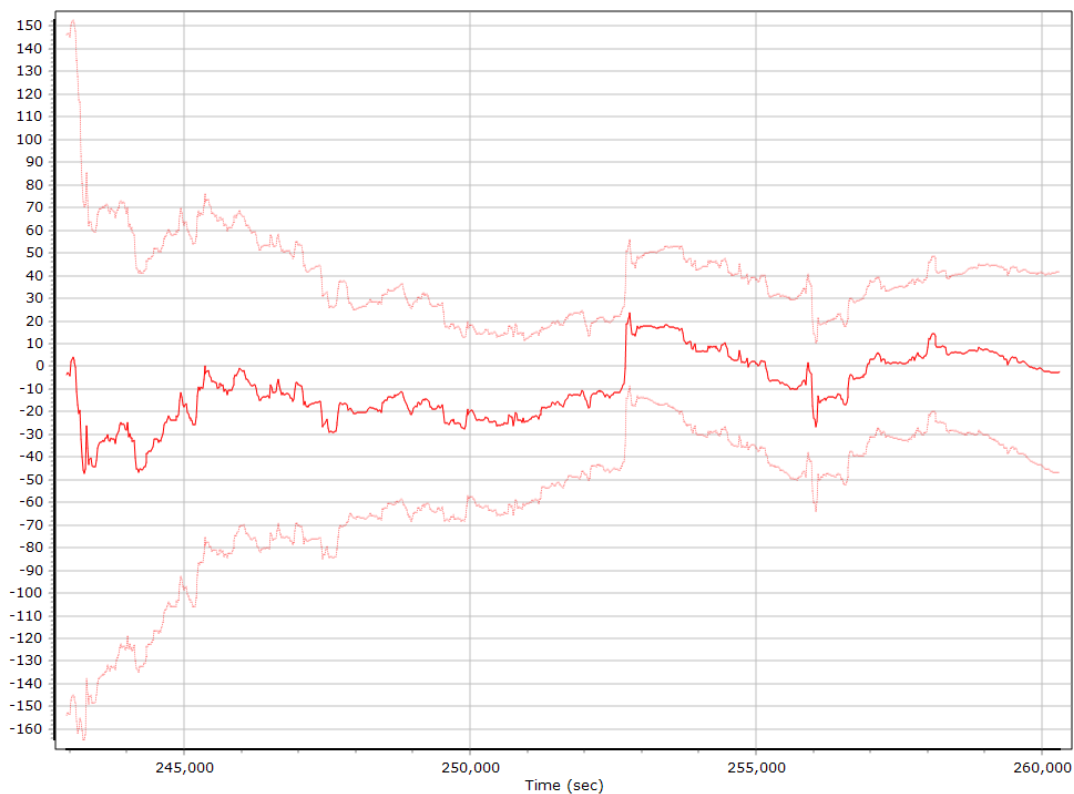
Z Gyro Bias (deg/h)



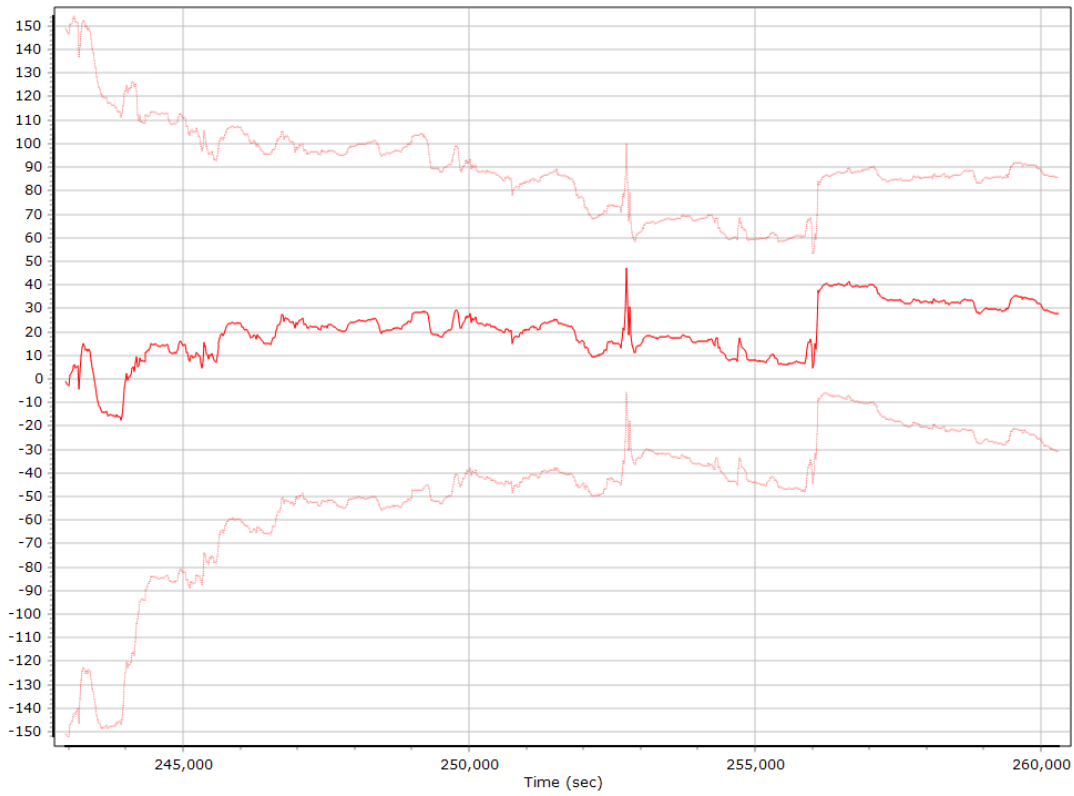
Gyro Scale Error (ppm)



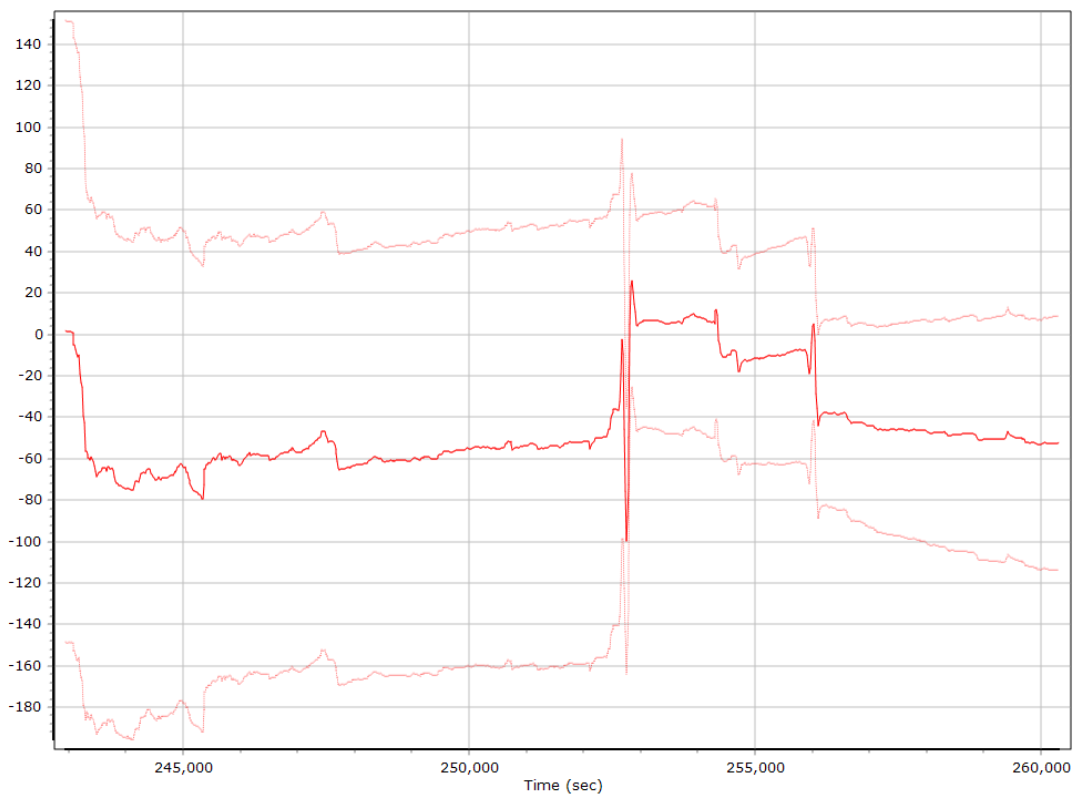
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

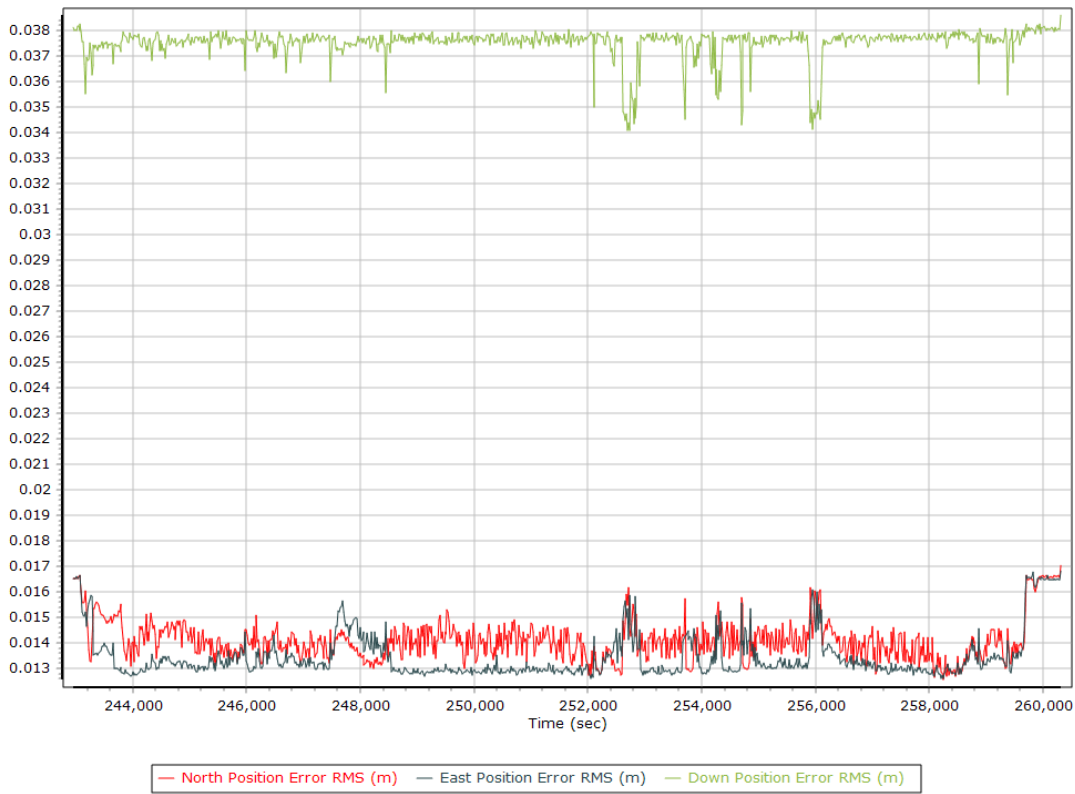


Z Gyro Scale Error (ppm)

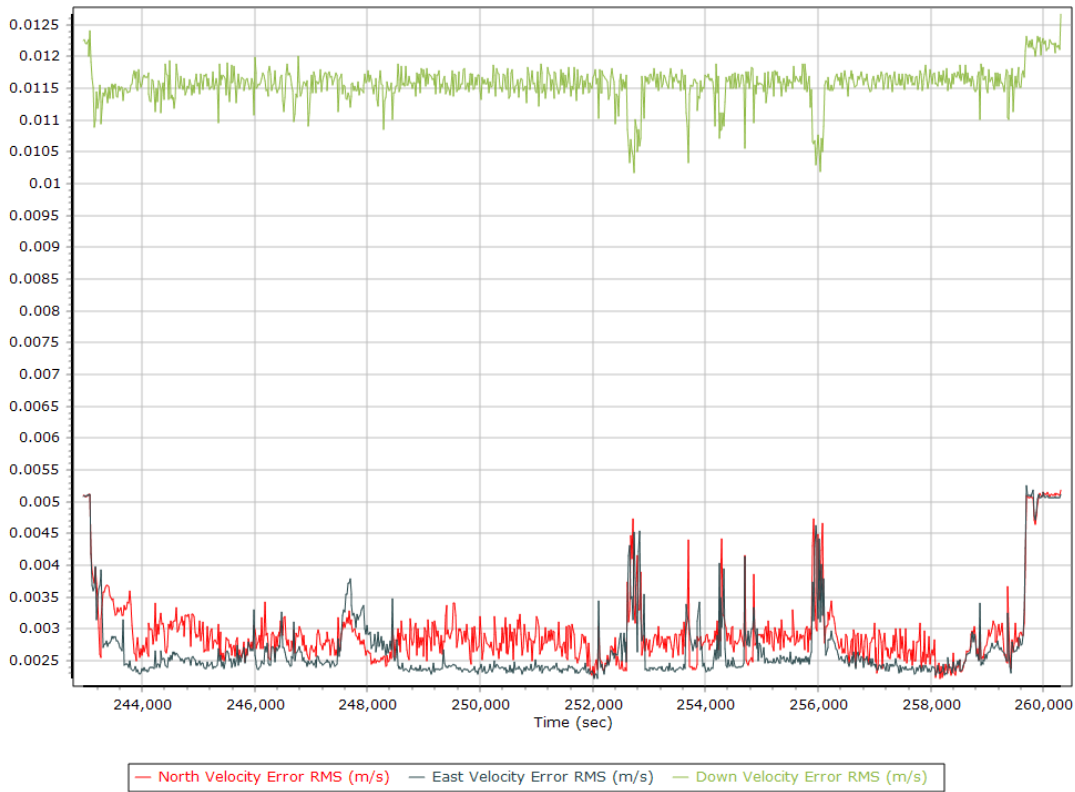


Smoothed Performance Metrics

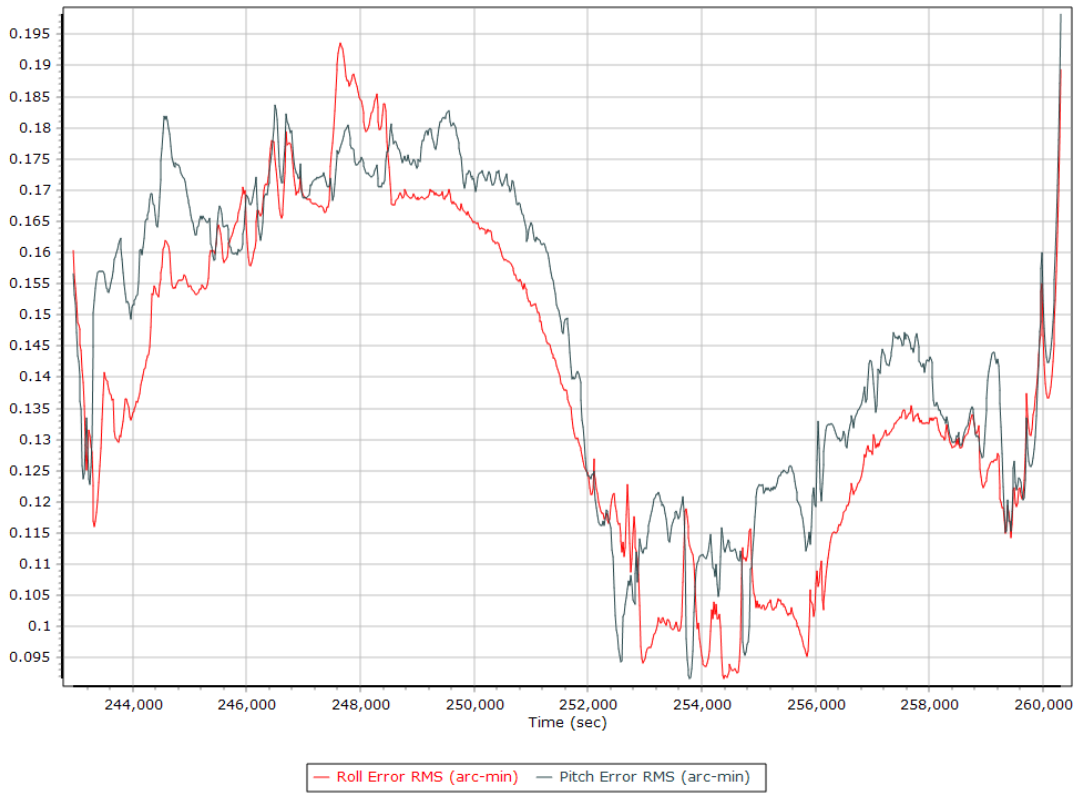
Position Error RMS (m)



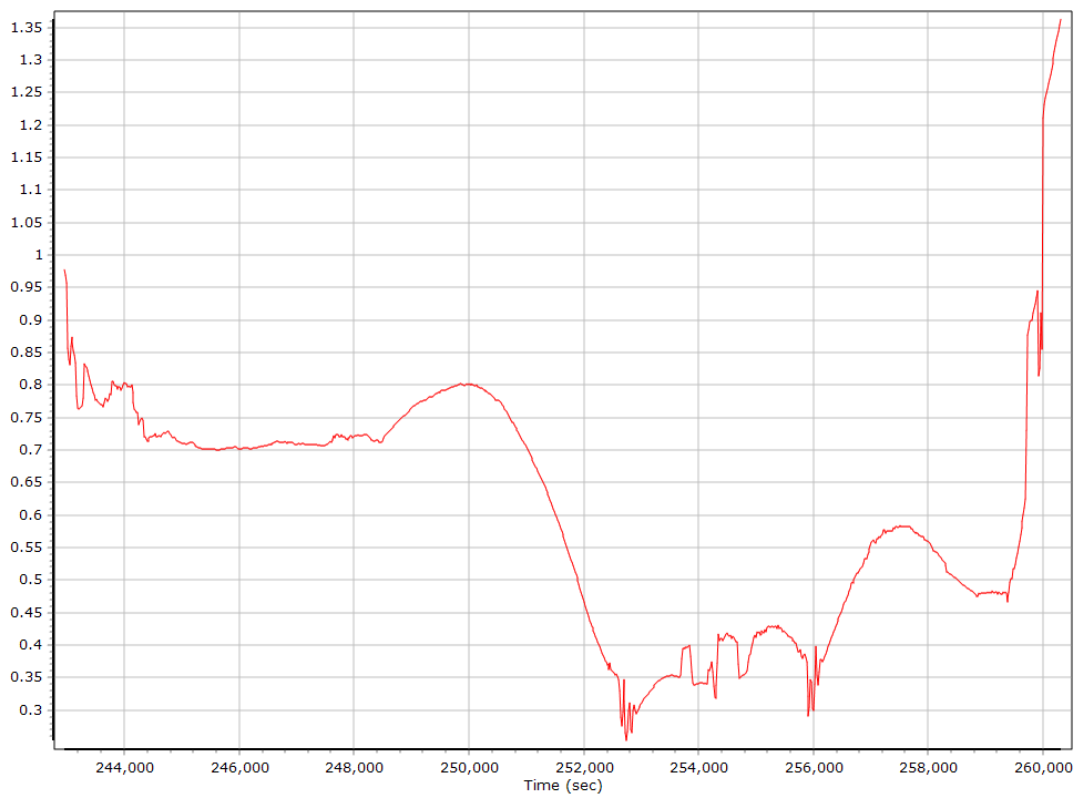
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

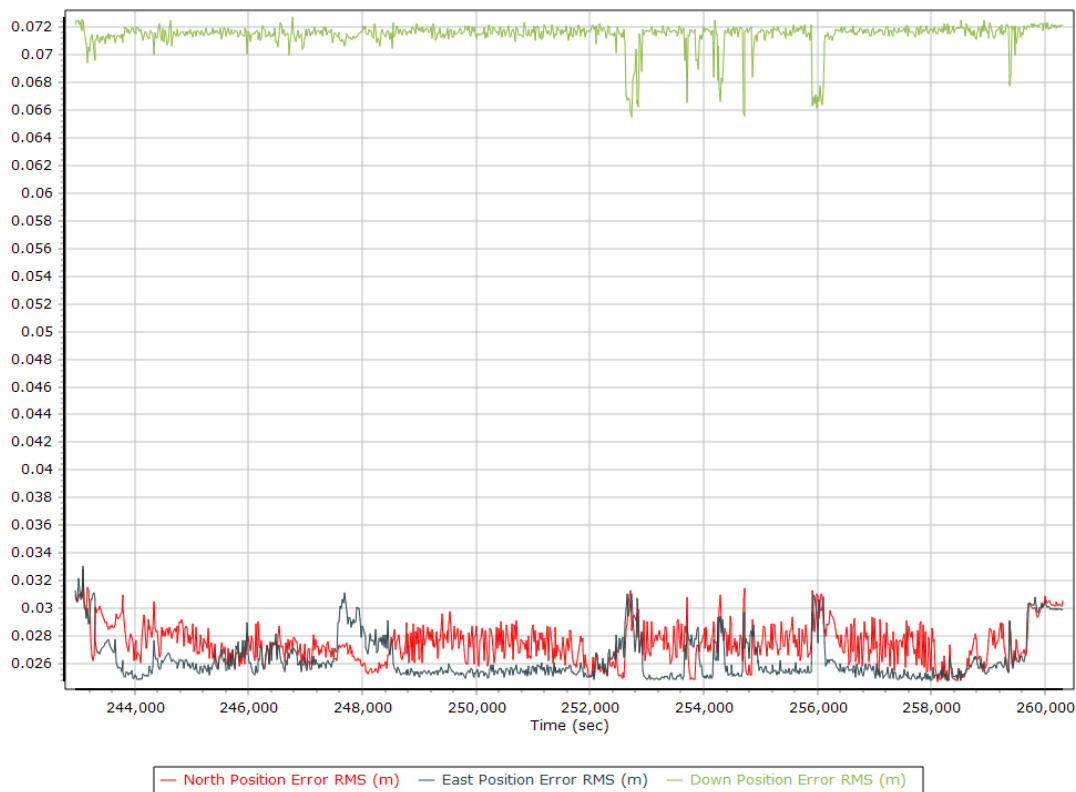


Heading Error RMS (arc-min)

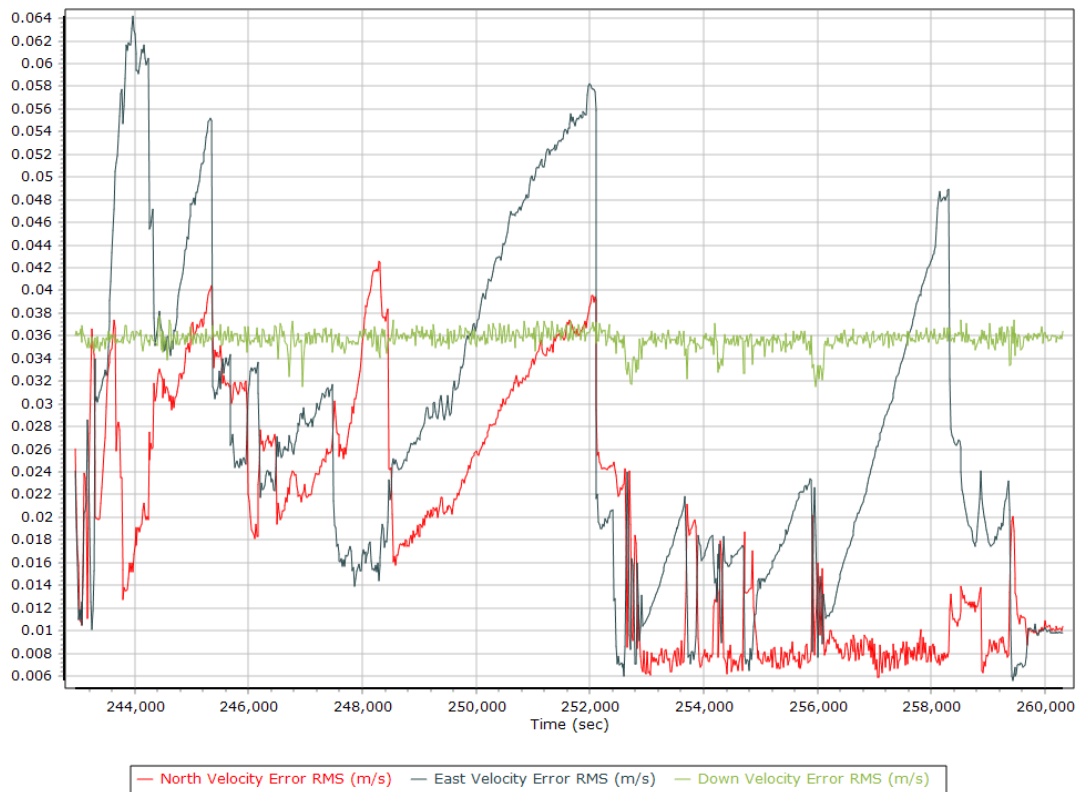


Forward Processed Performance Metrics

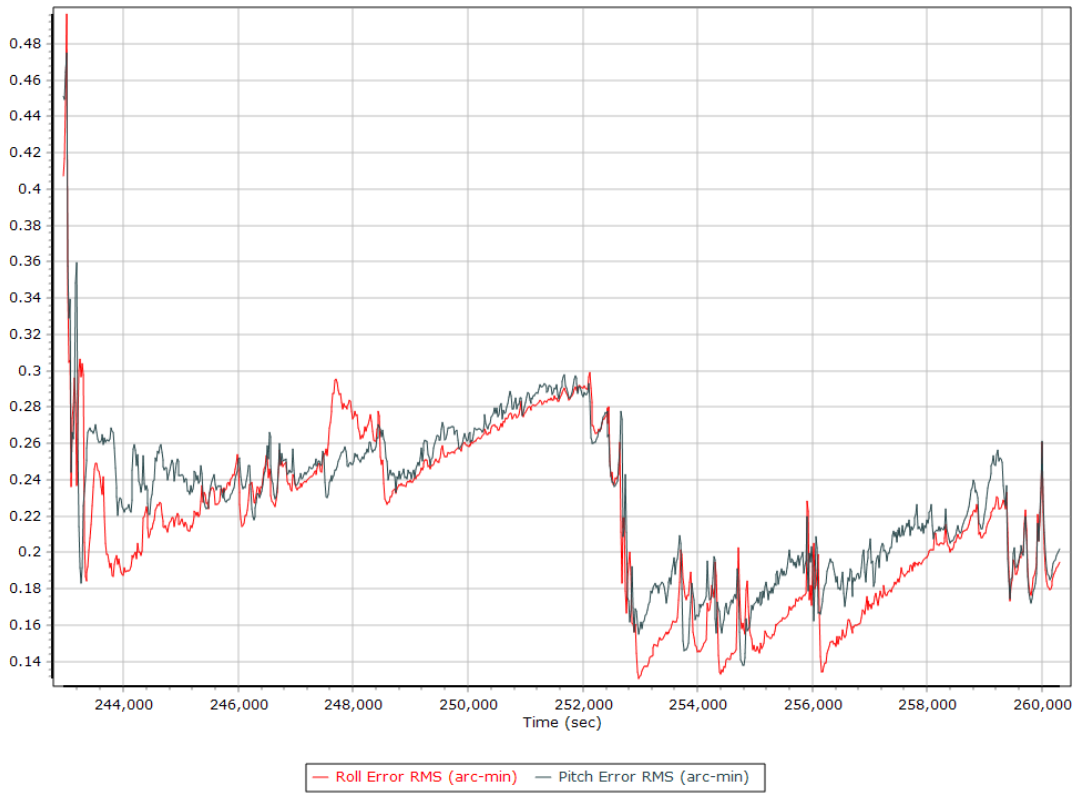
Position Error RMS (m)



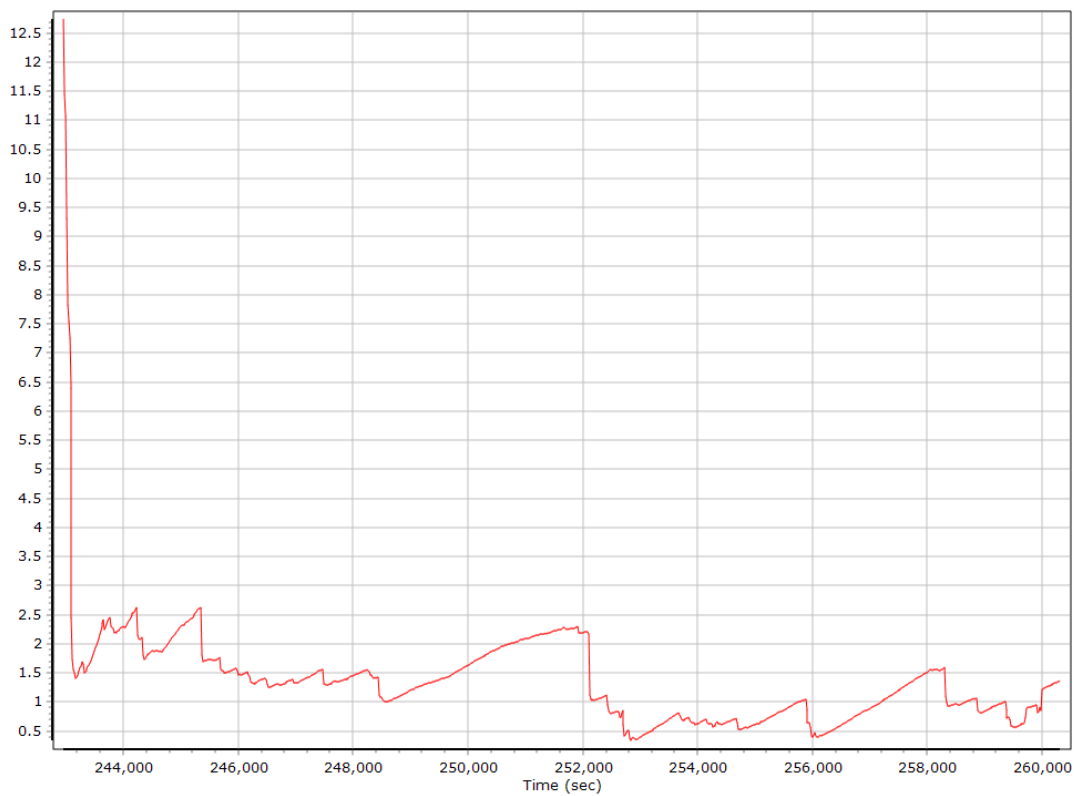
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

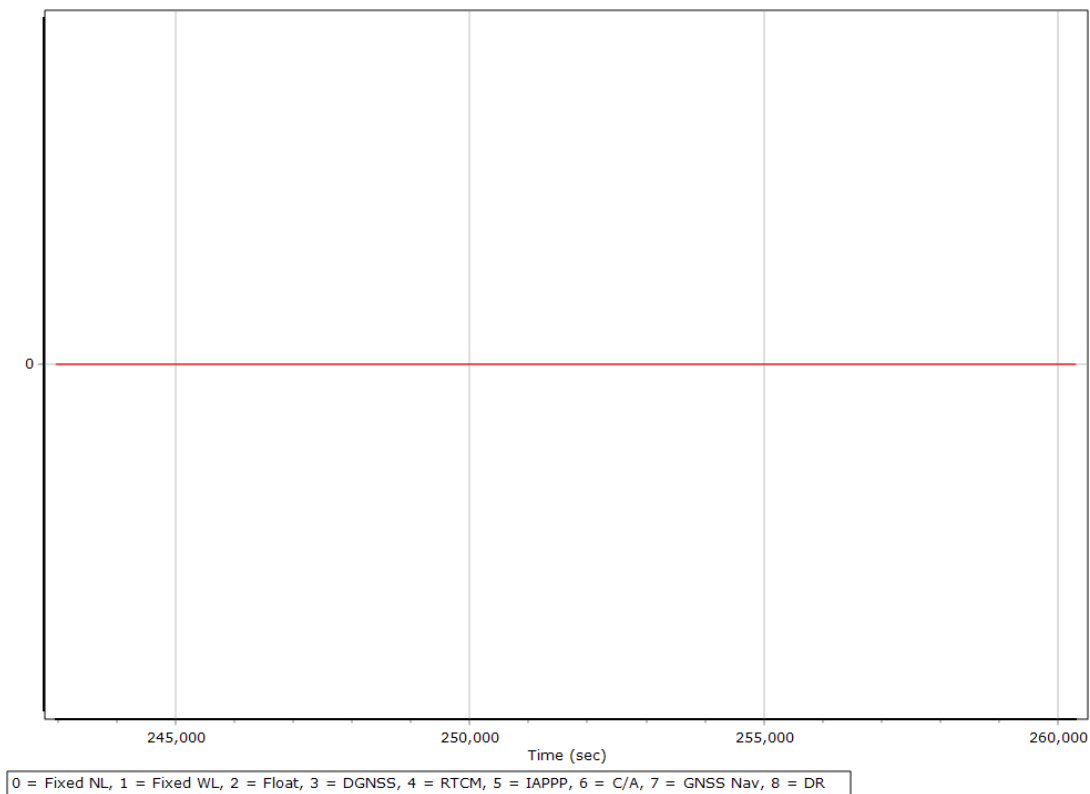


Heading Error RMS (arc-min)

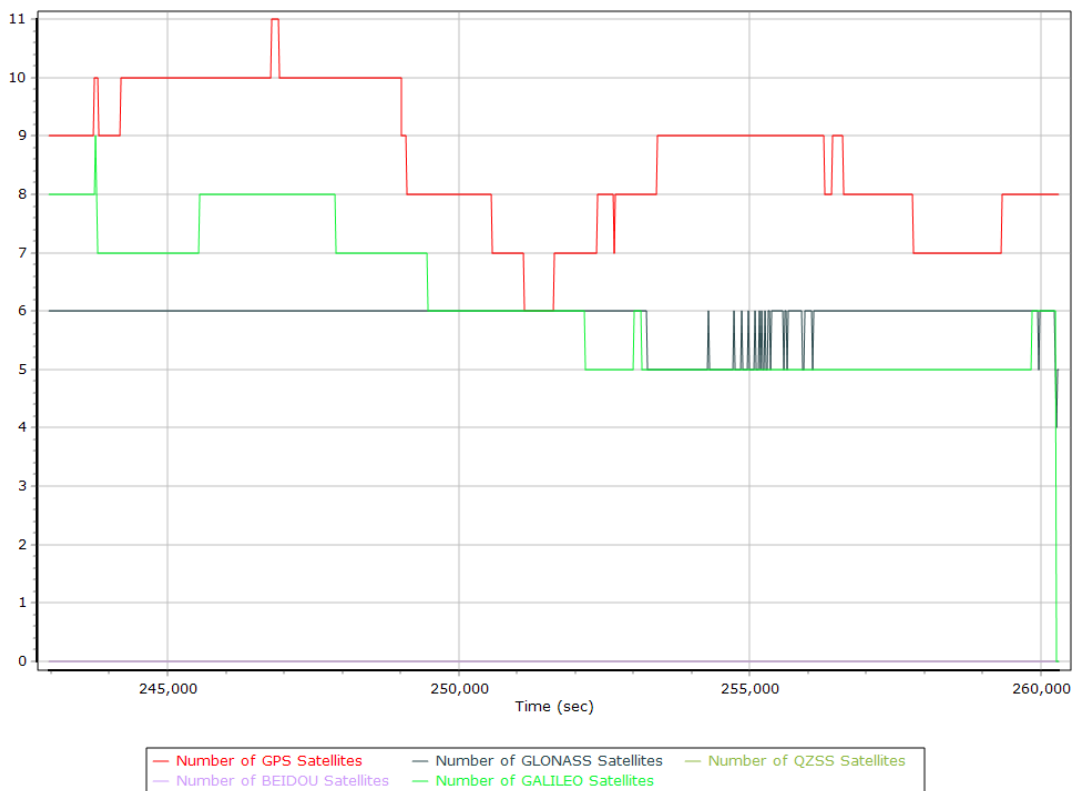


Forward Processed Solution Status

Processing Mode



Number of Satellites



Baseline Length

