General Information

Mission Information

Project name	2SU20301A_186
Processing date	2020-10-28 13:09:37
Mission date	2020-10-27 14:46:27
Mission duration	04:26:22.996
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N9642
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
2SU20301A.269	POS Data
2SU20301A.270	POS Data
2SU20301A.271	POS Data
2SU20301A.272	POS Data
2SU20301A.273	POS Data
2SU20301A.274	POS Data
2SU20301A.275	POS Data
2SU20301A.276	POS Data
2SU20301A.277	POS Data
2SU20301A.278	POS Data
2SU20301A.279	POS Data
2SU20301A.280	POS Data
2SU20301A.281	POS Data
2SU20301A.282	POS Data
2SU20301A.283	POS Data
2SU20301A.284	POS Data
2SU20301A.285	POS Data
2SU20301A.286	POS Data
2SU20301A.287	POS Data
2SU20301A.288	POS Data
2SU20301A.289	POS Data
2SU20301A.290	POS Data
2SU20301A.291	POS Data
2SU20301A.292	POS Data
2SU20301A.293	POS Data
2SU20301A.294	POS Data
2SU20301A.295	POS Data
2SU20301A.296	POS Data
2SU20301A.297	POS Data
2SU20301A.298	POS Data
2SU20301A.299	POS Data
2SU20301A.300	POS Data
2SU20301A.301	POS Data
2SU20301A.302	POS Data
2SU20301A.303	POS Data
2SU20301A.304	POS Data
2SU20301A.305	POS Data
2SU20301A.306	POS Data
2SU20301A.307	POS Data
2SU20301A.308	POS Data

Input Files

File Name	File Type
Ephm3010.20g	GLONASS Broadcast Ephemeris
Ephm3010.20n	GPS Broadcast Ephemeris
igu21291_18.sp3	GPS Precise Ephemeris
igu21292_18.sp3	GPS Precise Ephemeris
Ephm3010.20g	GLONASS Broadcast Ephemeris
Ephm3010.20n	GPS Broadcast Ephemeris
Ephm3010.20g	GLONASS Broadcast Ephemeris
Ephm3010.20n	GPS Broadcast Ephemeris
Ephm3010.20g	GLONASS Broadcast Ephemeris
Ephm3010.20n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_2SU20301A_186.out	SBET Trajectory File

Rover Data Summary

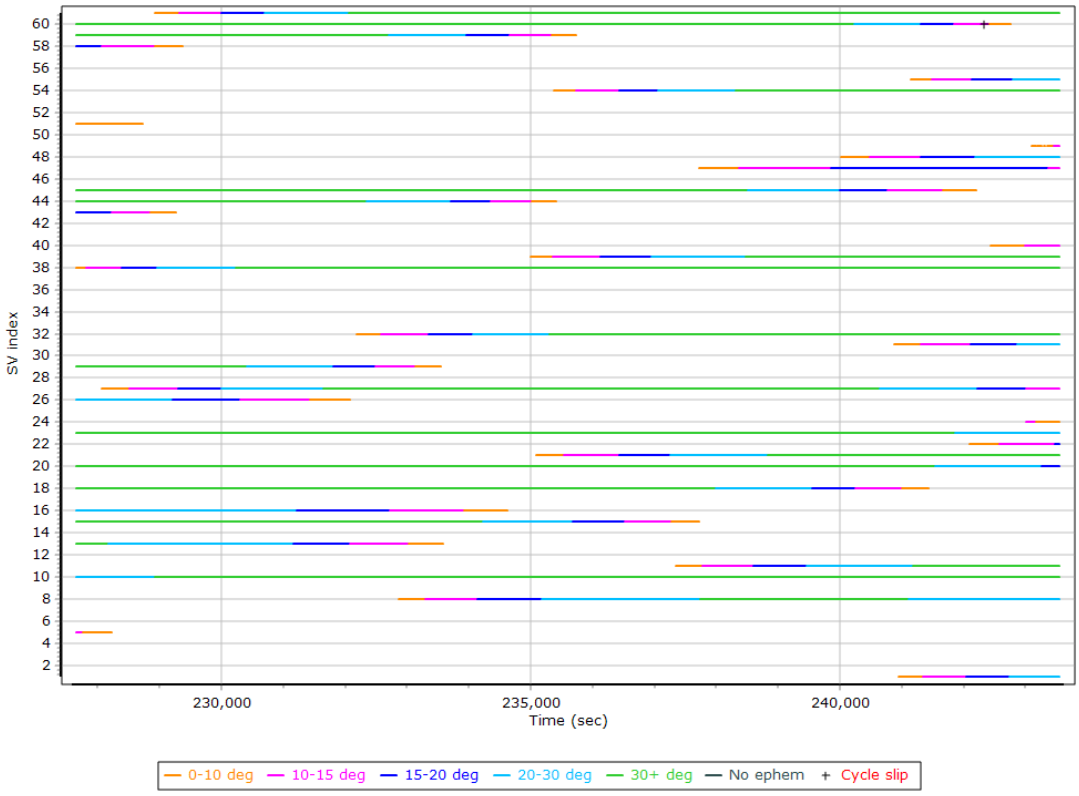
First raw data file	2SU20301A.269		
Last raw data file	2SU20301A.308		
Start GPS week	2129		
Start time	227574.009 (10/27/2020 15:12:54)		
End time	243558.010 (10/27/2020 19:39:18)		
Start of fine alignment	227597.513 (10/27/2020 15:13:17)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	None		
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

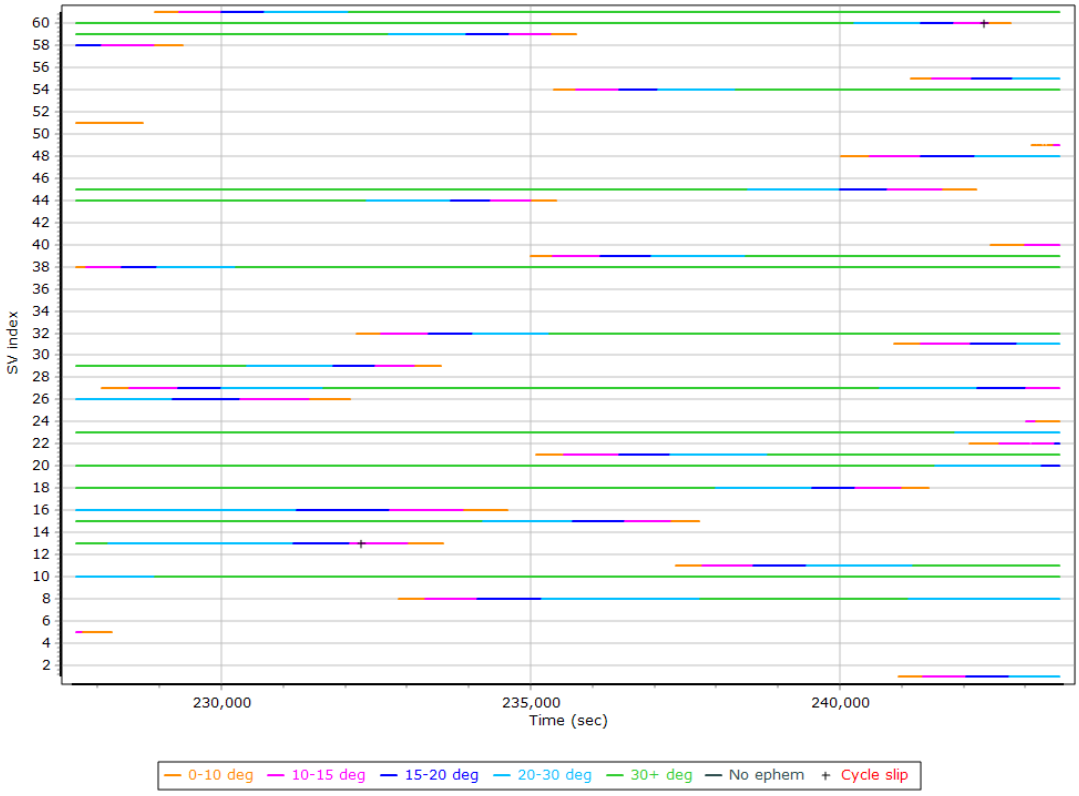
Raw IMU Import QC Summary

IMU data input file	imu_2SU20301A_186.dat
IMU data check log file	imudt_2SU20301A_186.log
IMU Records Processed	3196263
Termination Status	Normal
IMU Anomalies	0

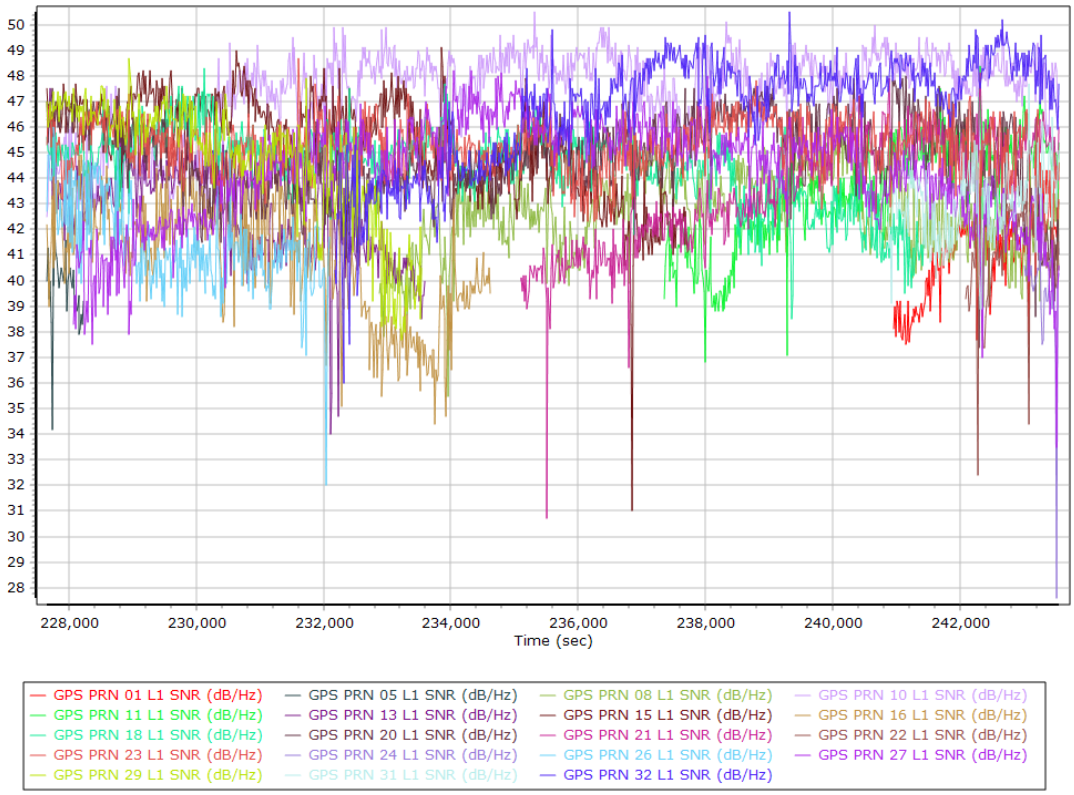
L1 Satellite Lock/Elevation



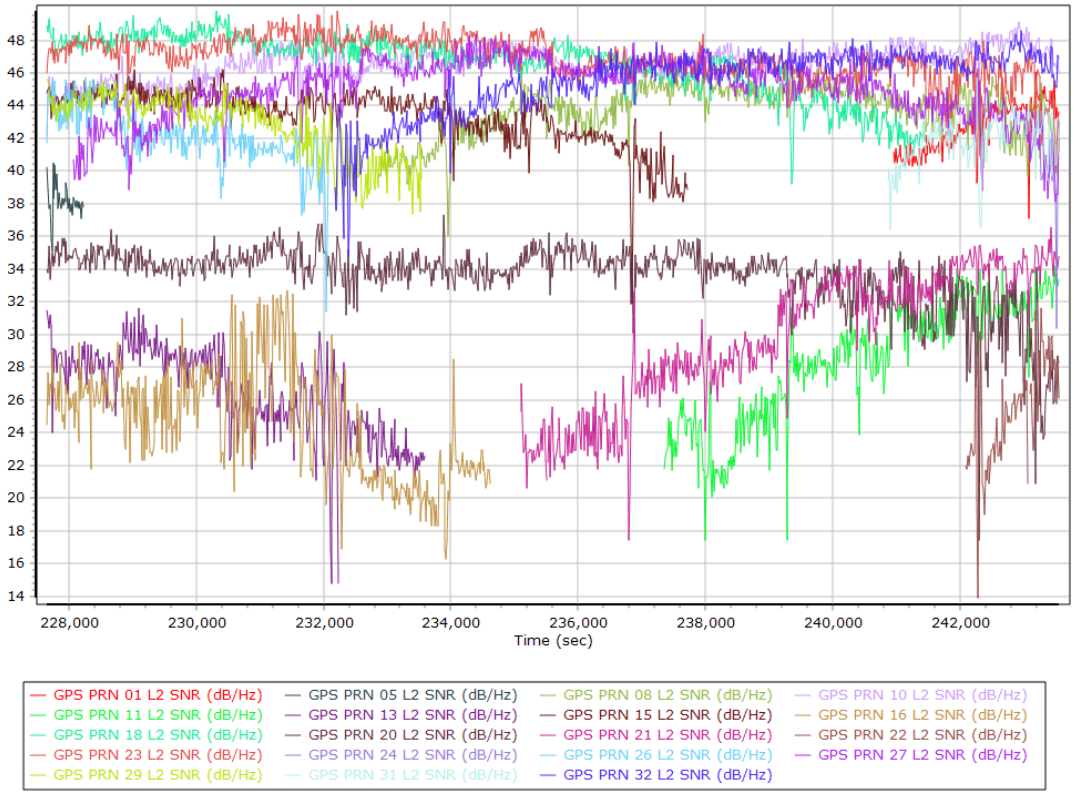
L2 Satellite Lock/Elevation



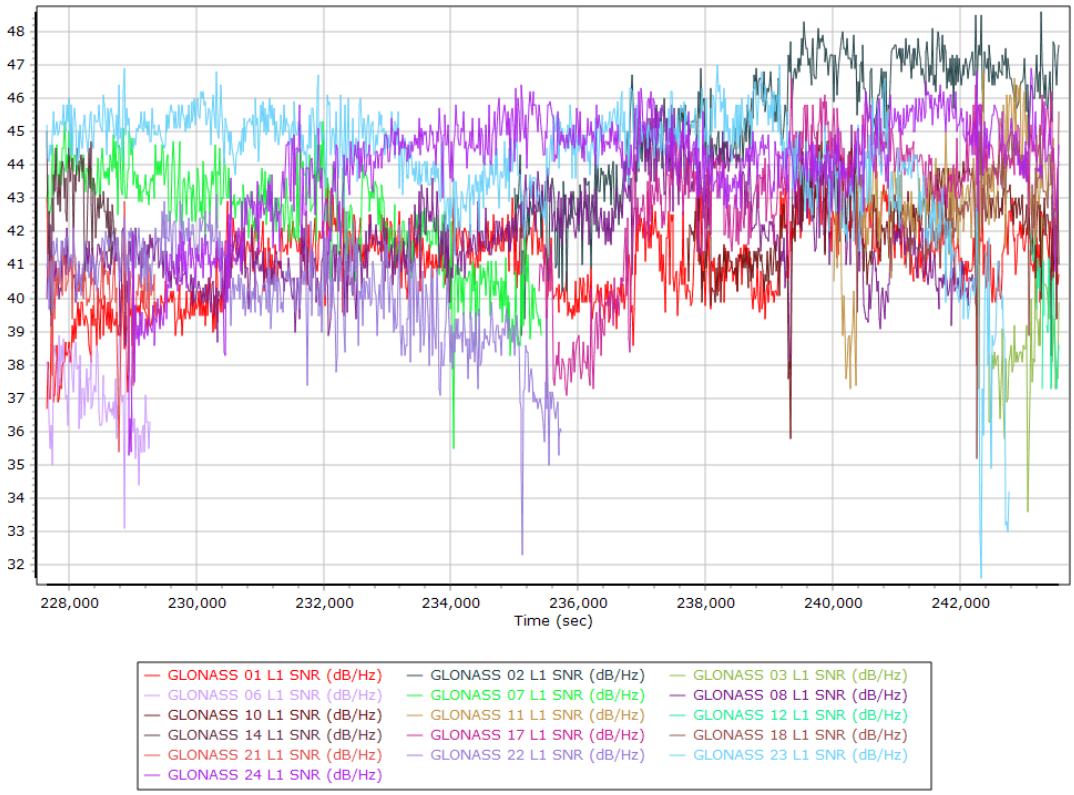
GPS L1 SNR



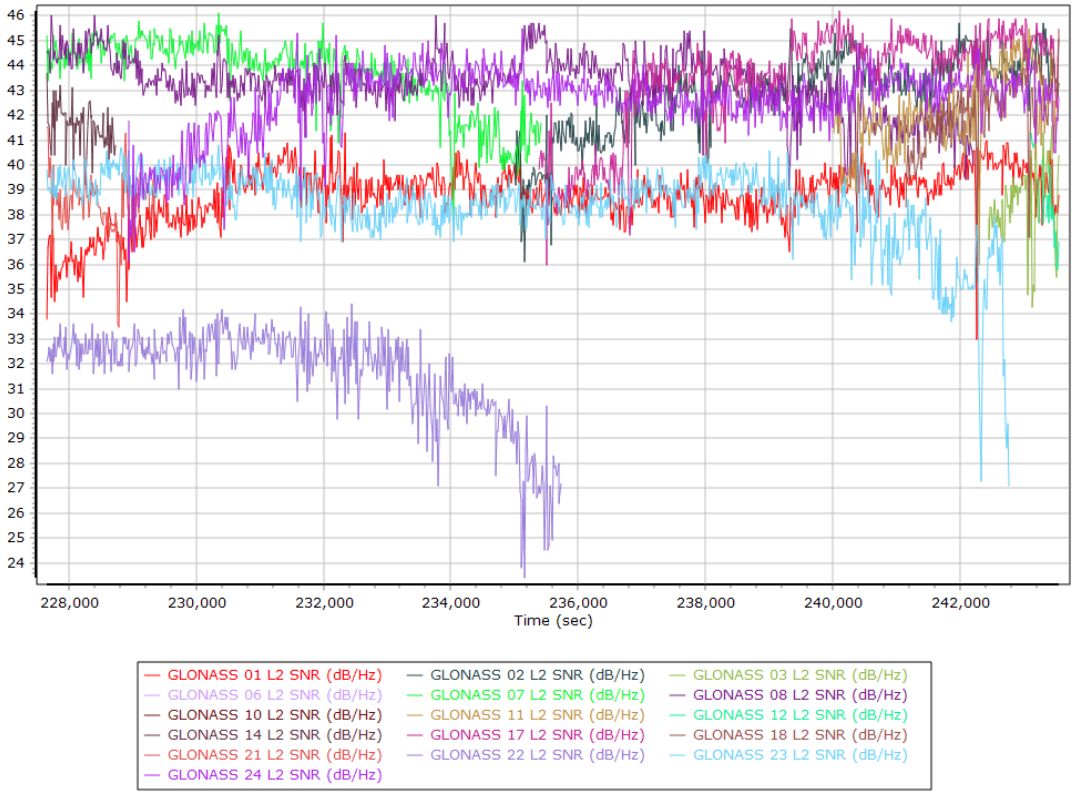
GPS L2 SNR



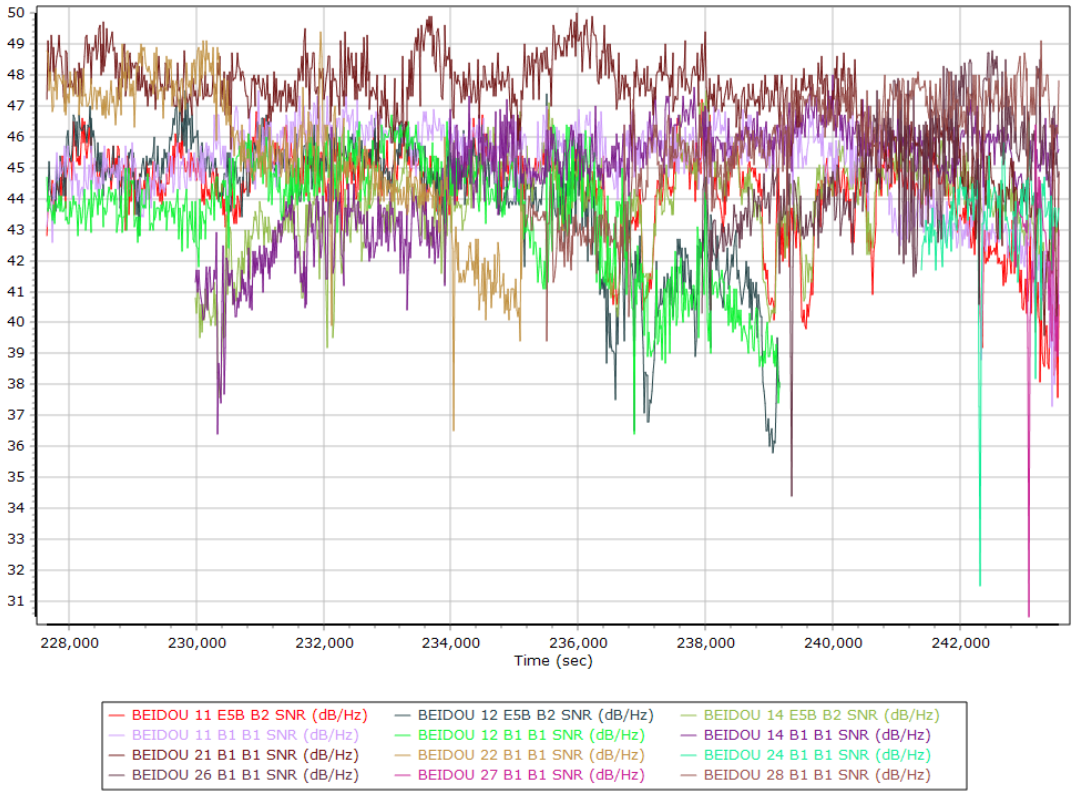
GLONASS L1 SNR



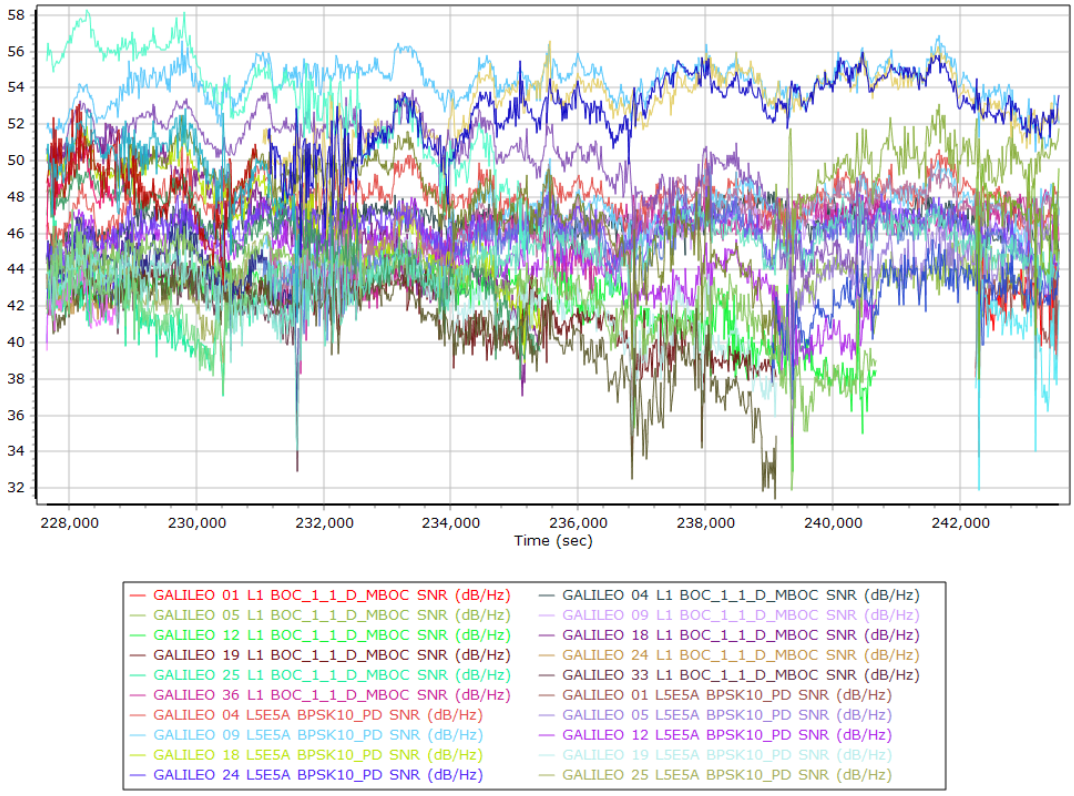
GLONASS L2 SNR



BEIDOU SNR

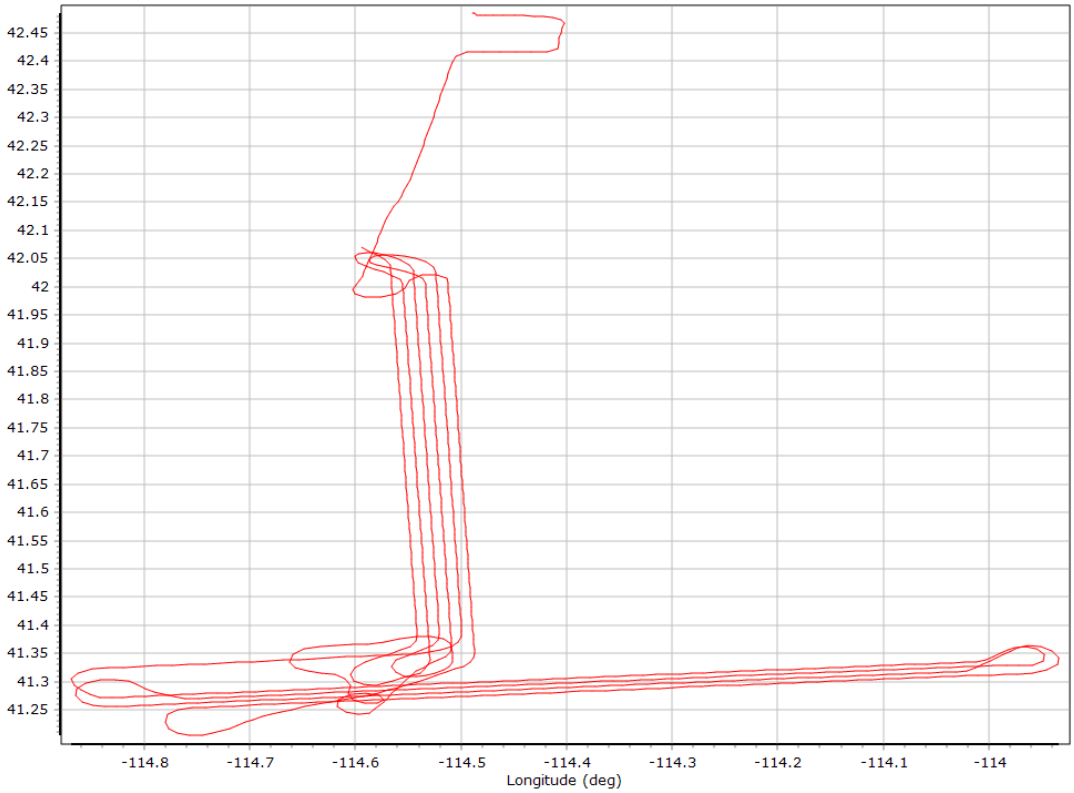


GALILEO SNR

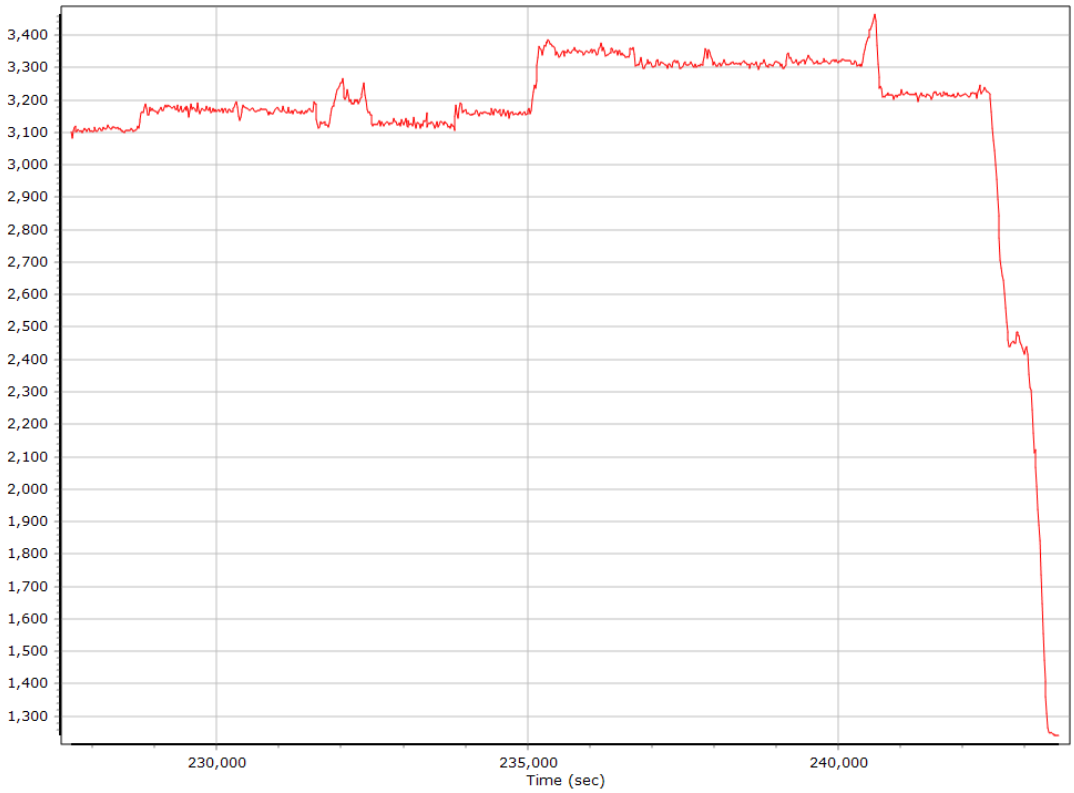

58
56
54
52
50
48
46
44
42
40
38
36
34
32
228,000
230,000
232,000
234,000
236,000
238,000
240,000
242,000
Time (sec)
GALILEO 01 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 04 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 05 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 09 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 12 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 18 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 19 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 24 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 25 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 01 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 04 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 05 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 09 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 18 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 19 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 24 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 25 L5E5A BPSK10_PD SNR (dB/Hz)

Trajectory Information

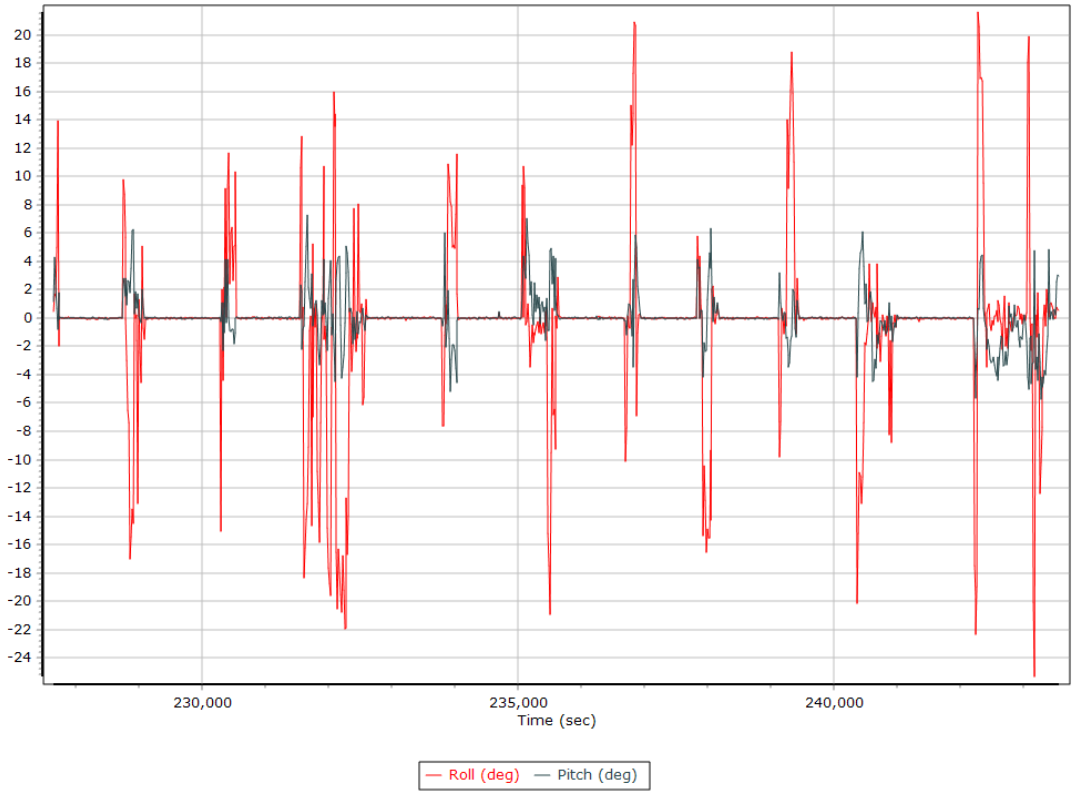
Top View



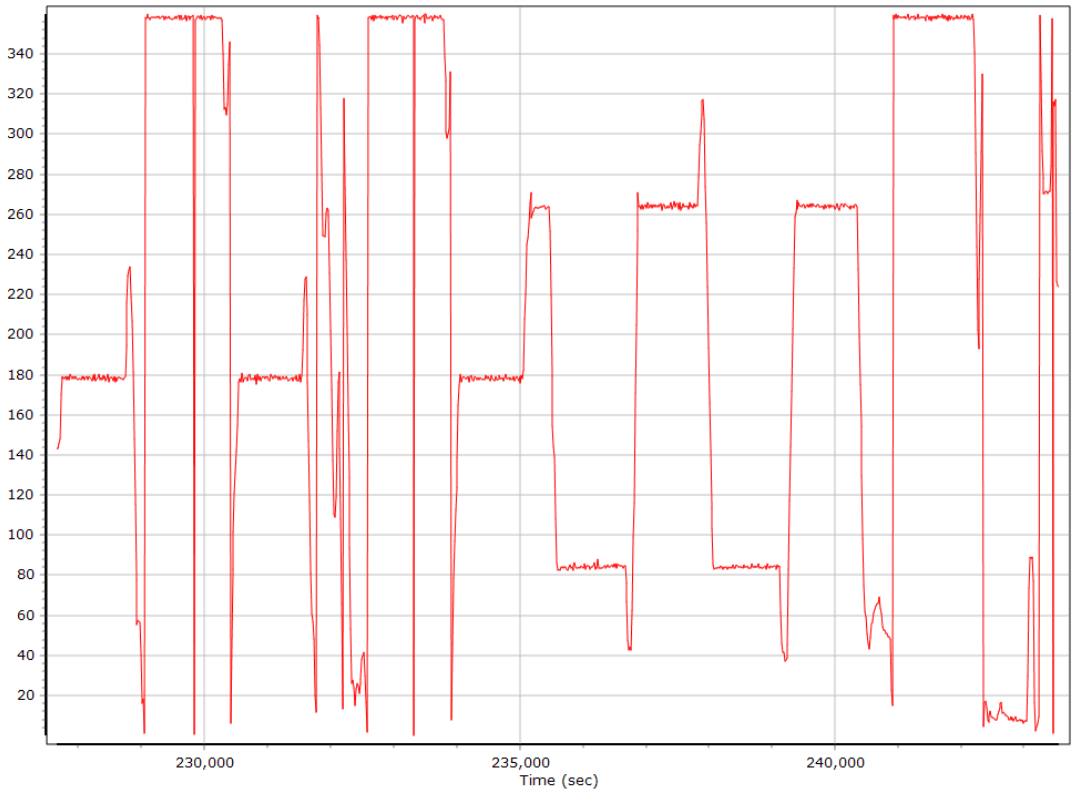
Altitude



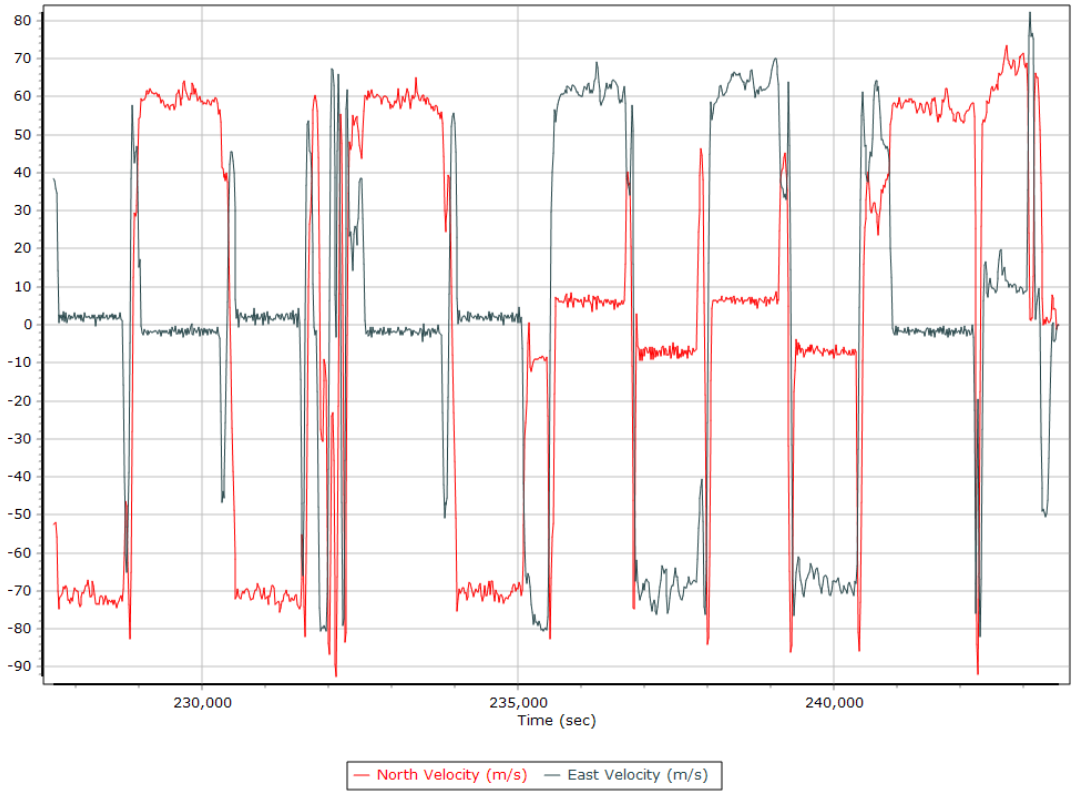
Roll/Pitch



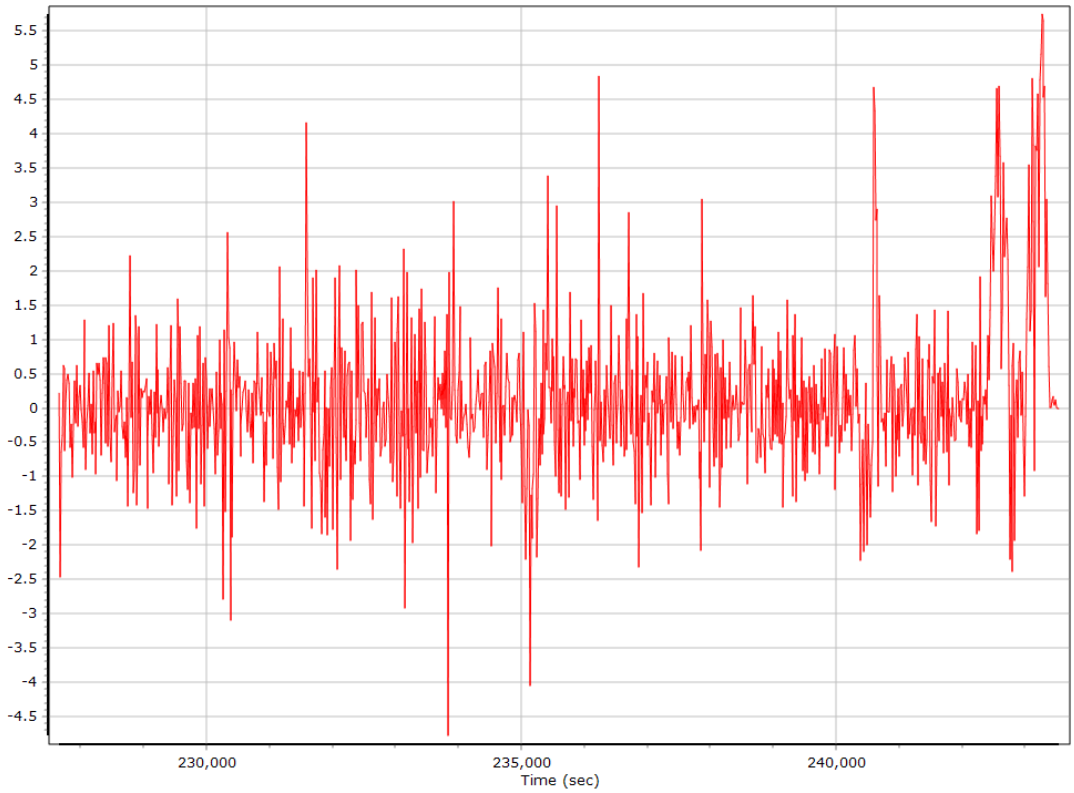
Heading



North/East Velocity

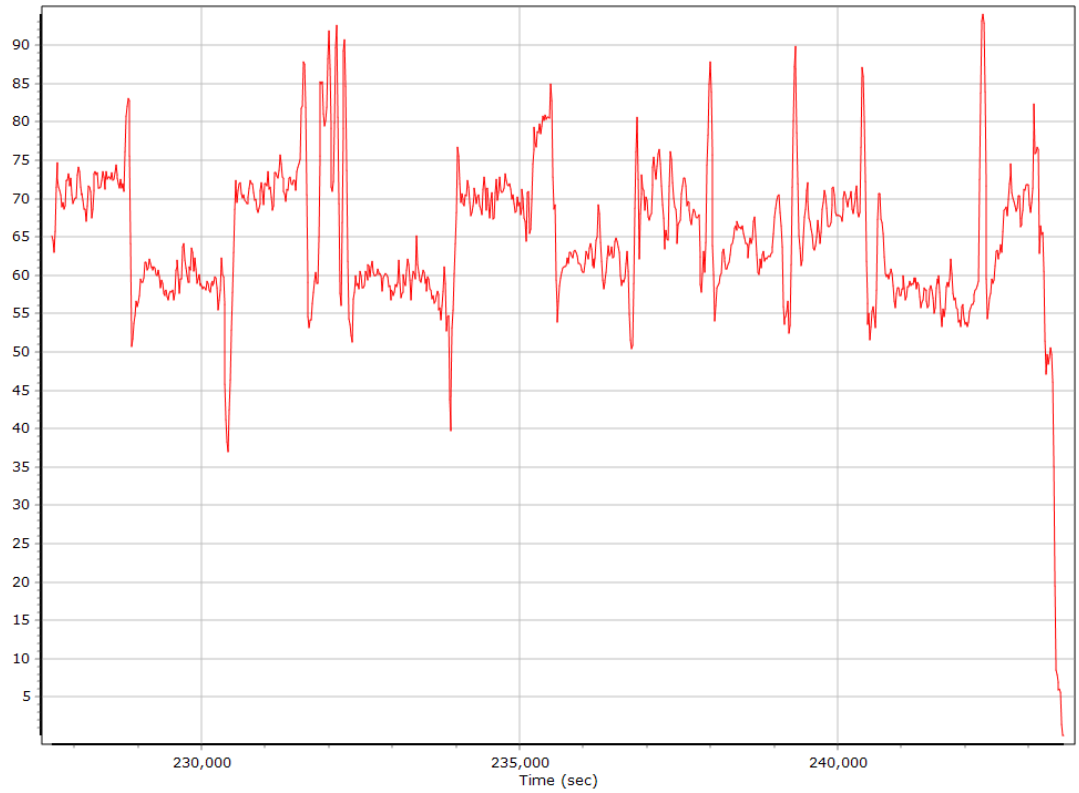


Down Velocity

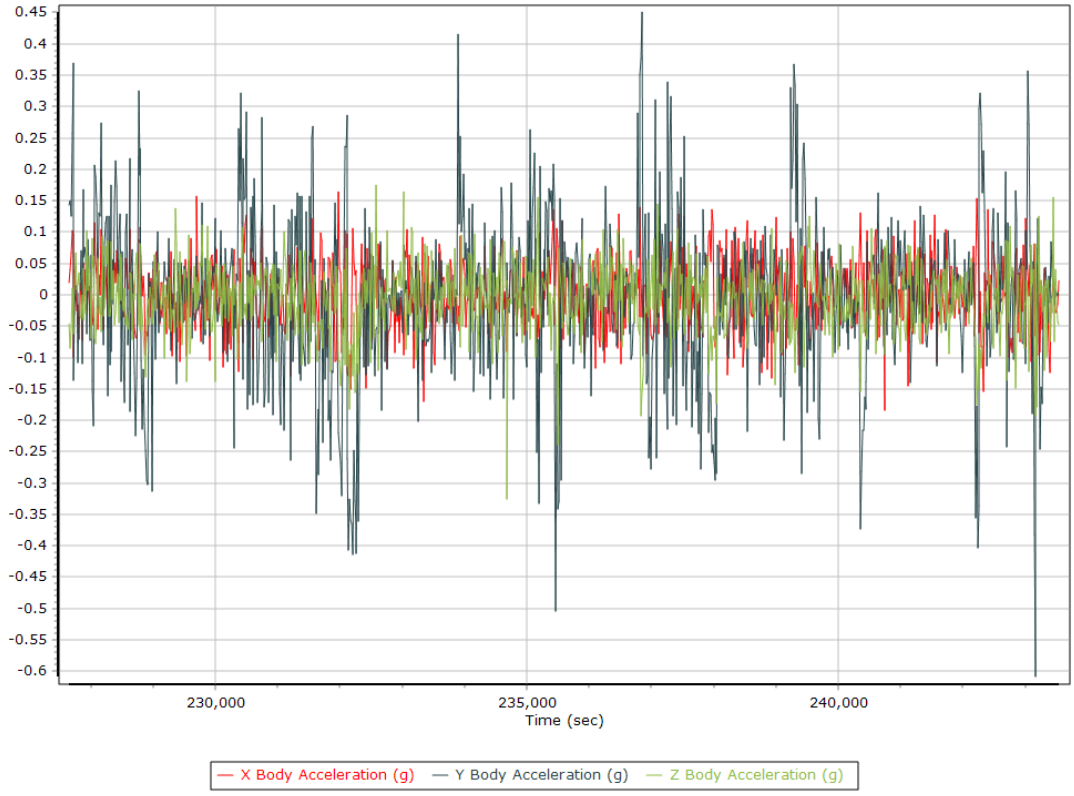


Total Speed

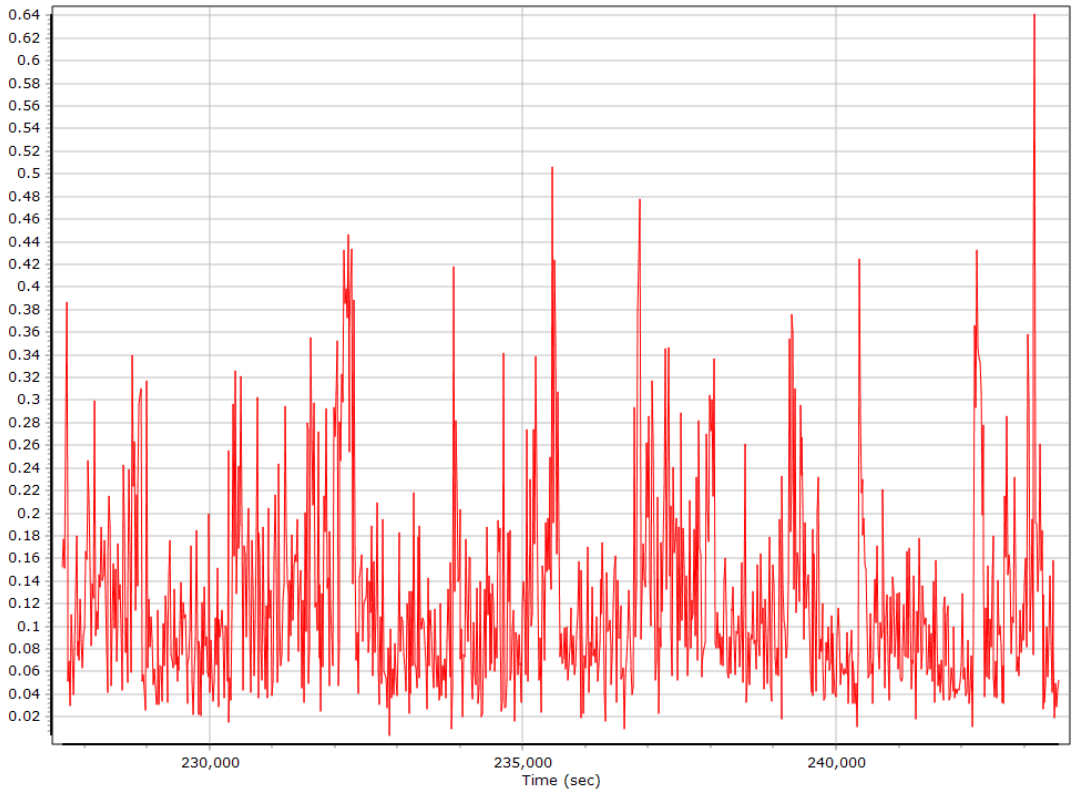
Ground Speed



Body Acceleration



Total Body Acceleration



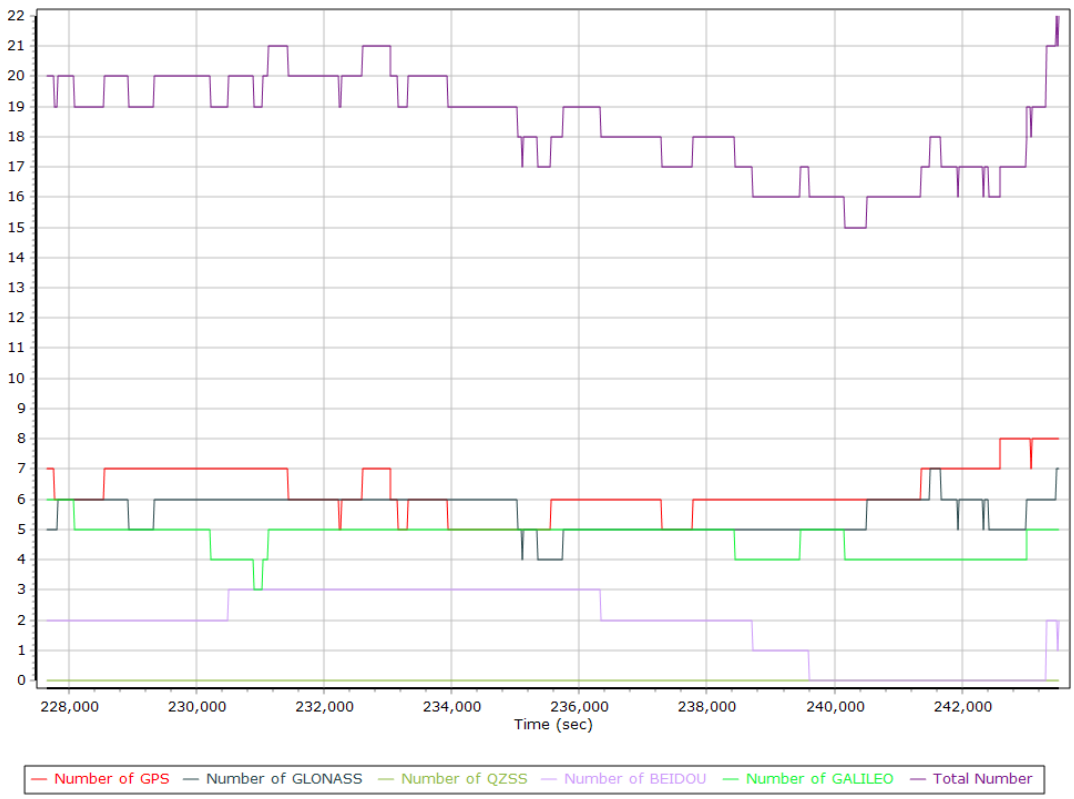
Body Angular Rate

GNSS QC

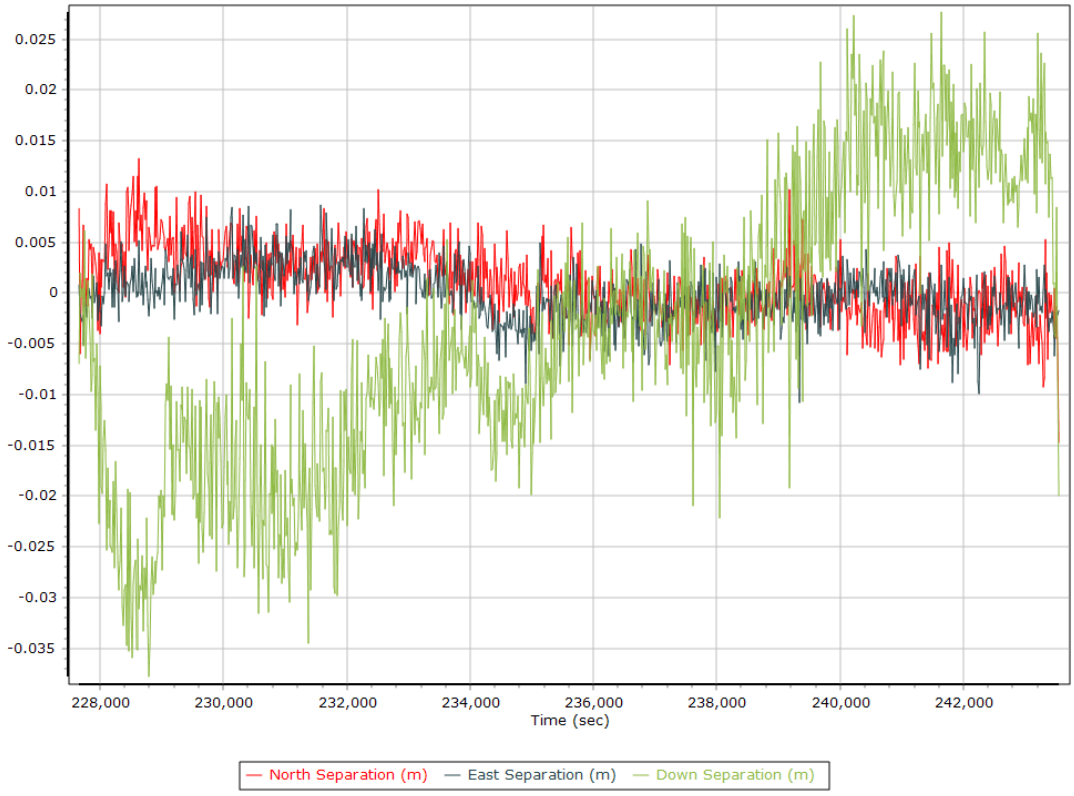
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	5	8	6
Number of GLONASS SV	4	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	3	2
Number of GALILEO SV	3	6	5
Total number of SV	15	22	18
PDOP	1.06	1.62	1.28
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	15923.00	0.00	0.00
Percentage	100.00	0.00	0.00

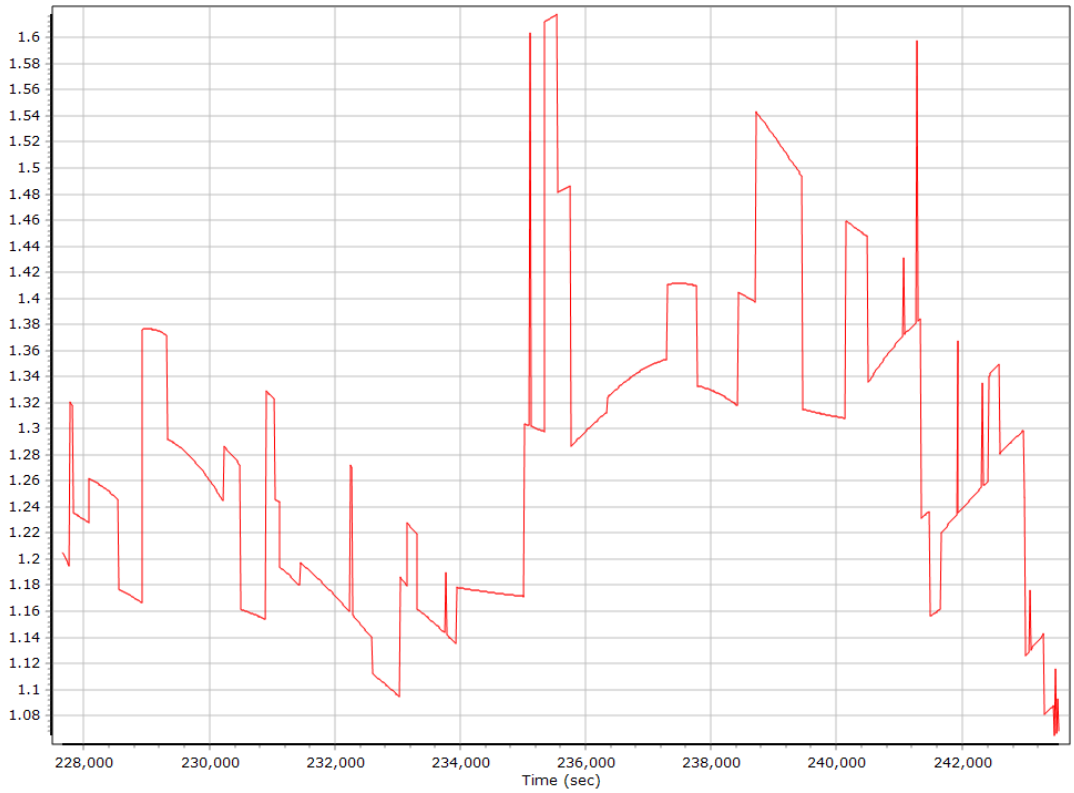
Num SVs in solution



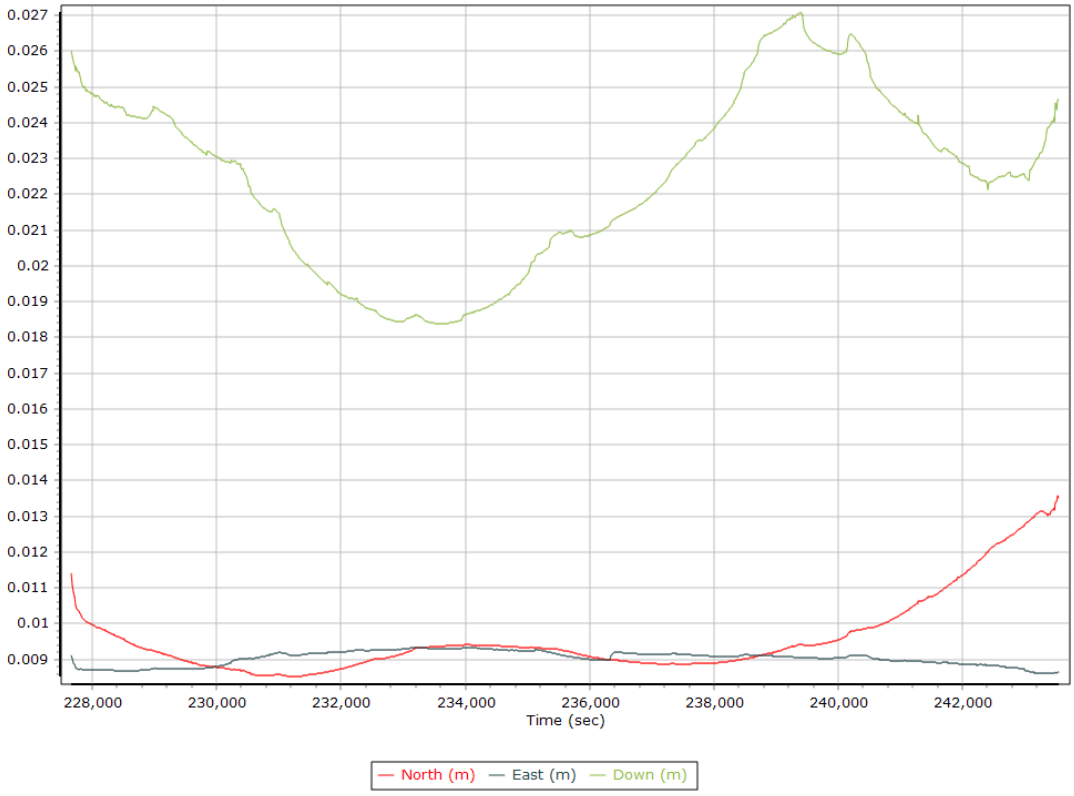
Forward/Reverse Separation



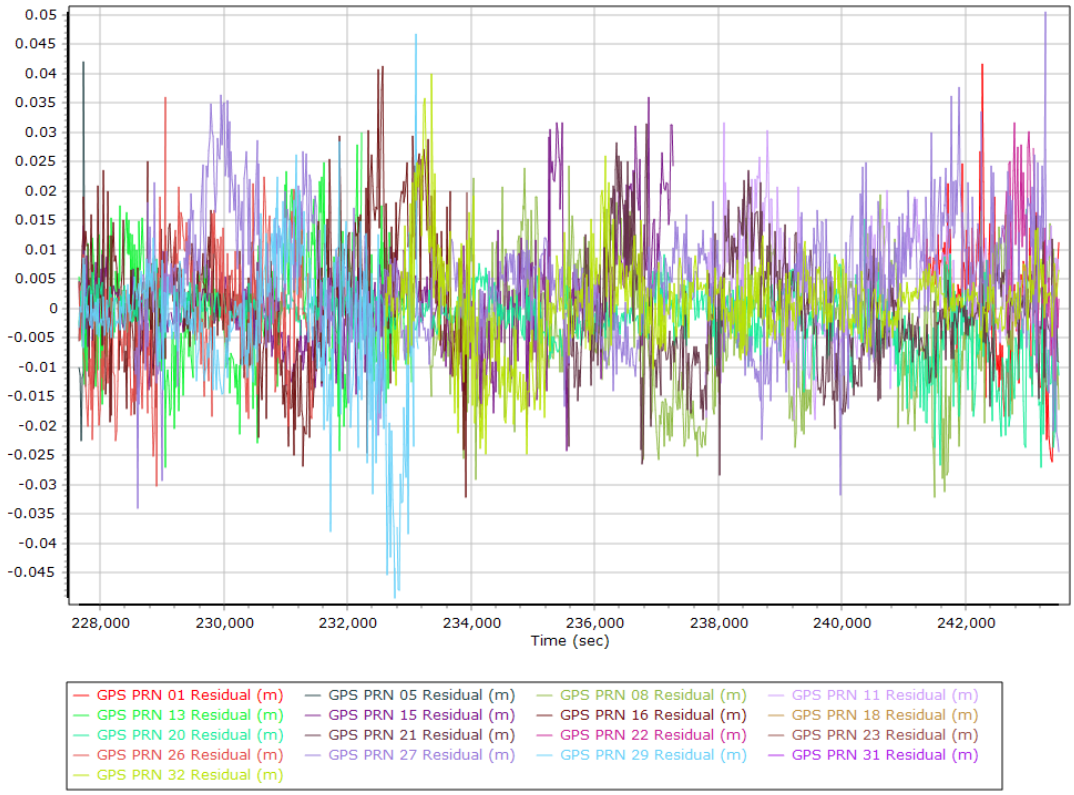
PDOP



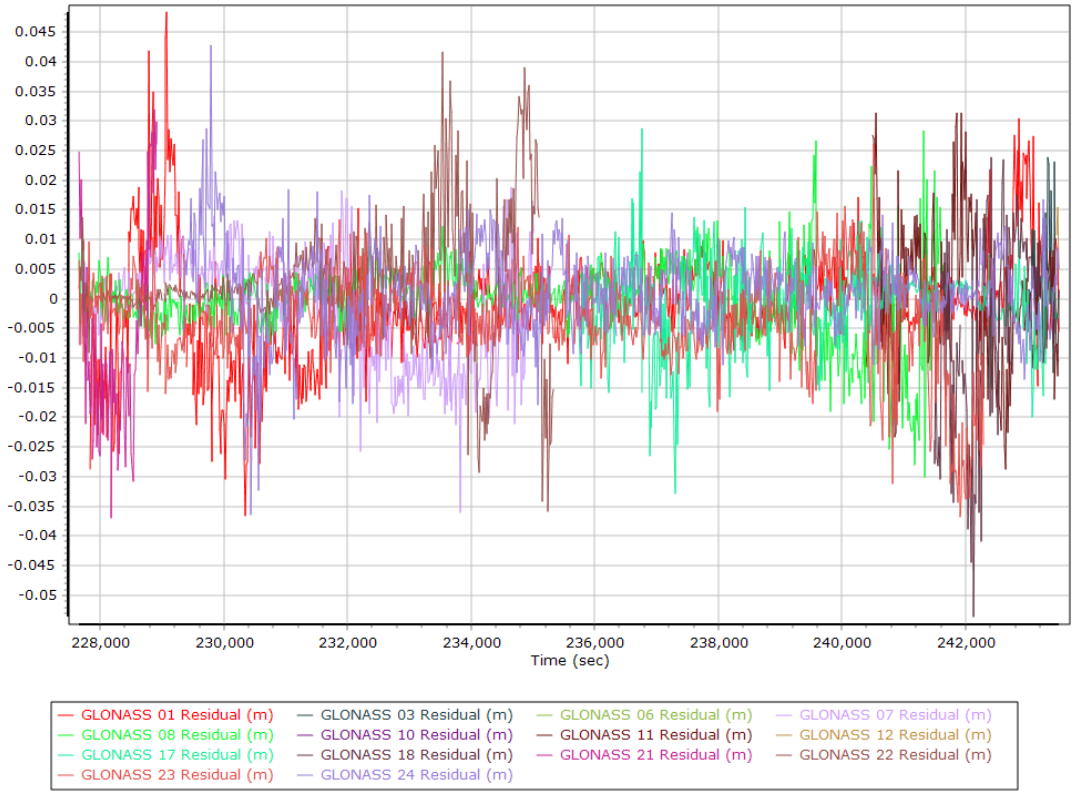
Estimated Position Accuracy



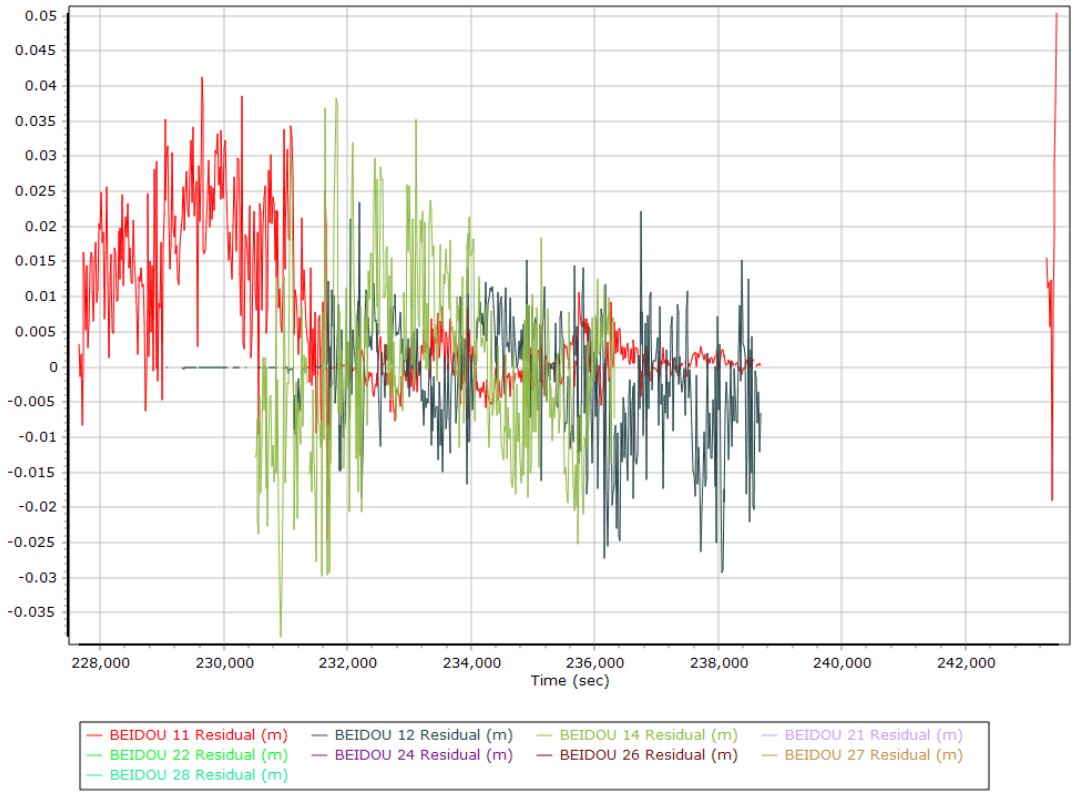
GPS Residuals



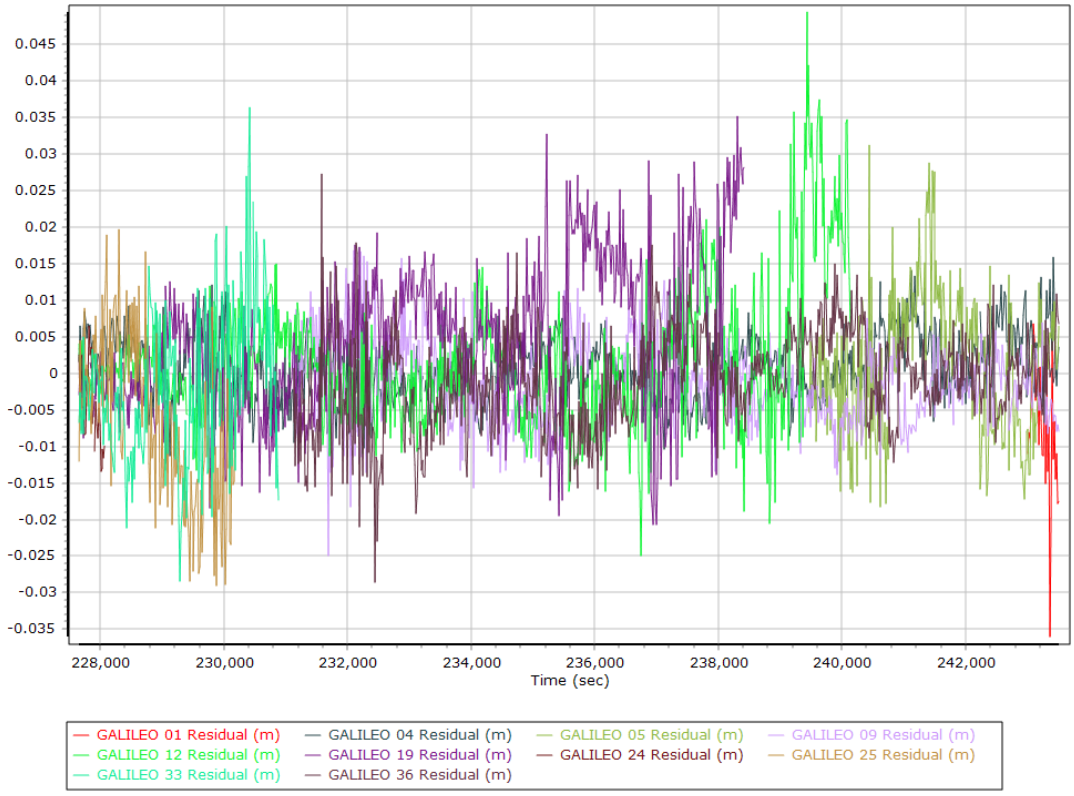
GLONASS Residuals



BEIDOU Residuals



GALILEO Residuals



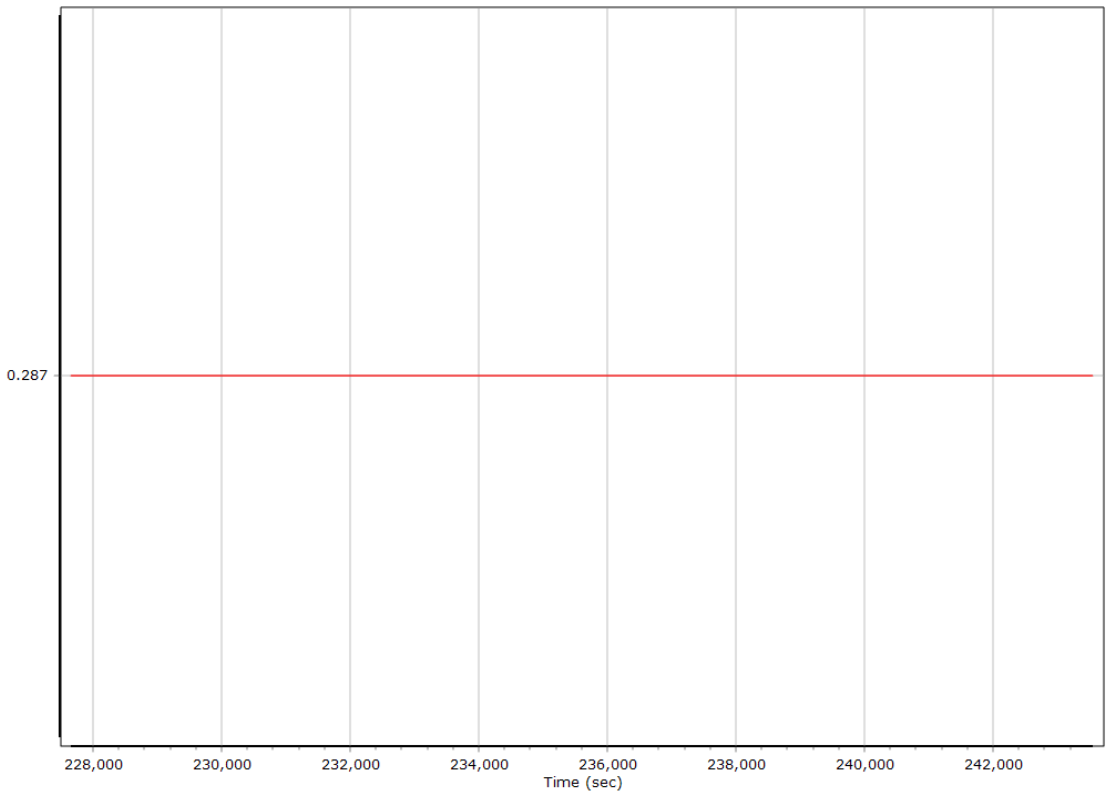
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	True		
Processing start time	227574.004 (10/27/2020 15:12:54)		
Processing end time	243557.000 (10/27/2020 19:39:17)		
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)	0.287	0.144	-1.269
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

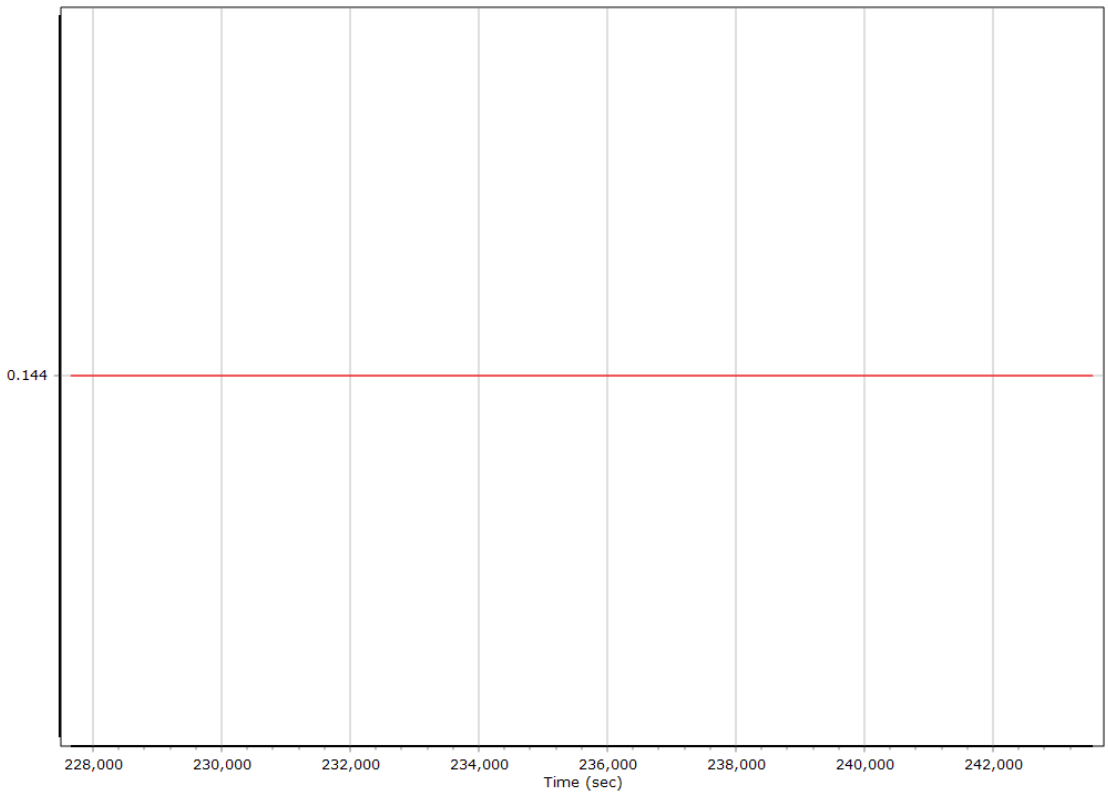
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

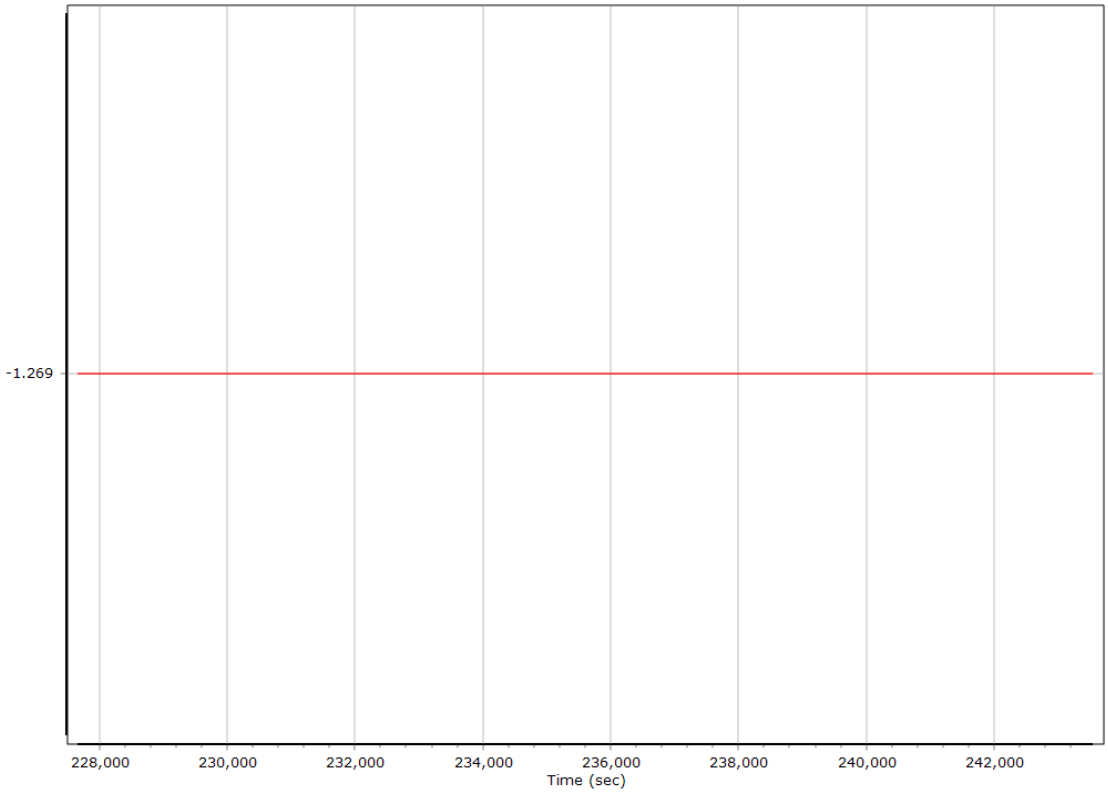
X Reference-Primary GNSS Lever Arm (m)



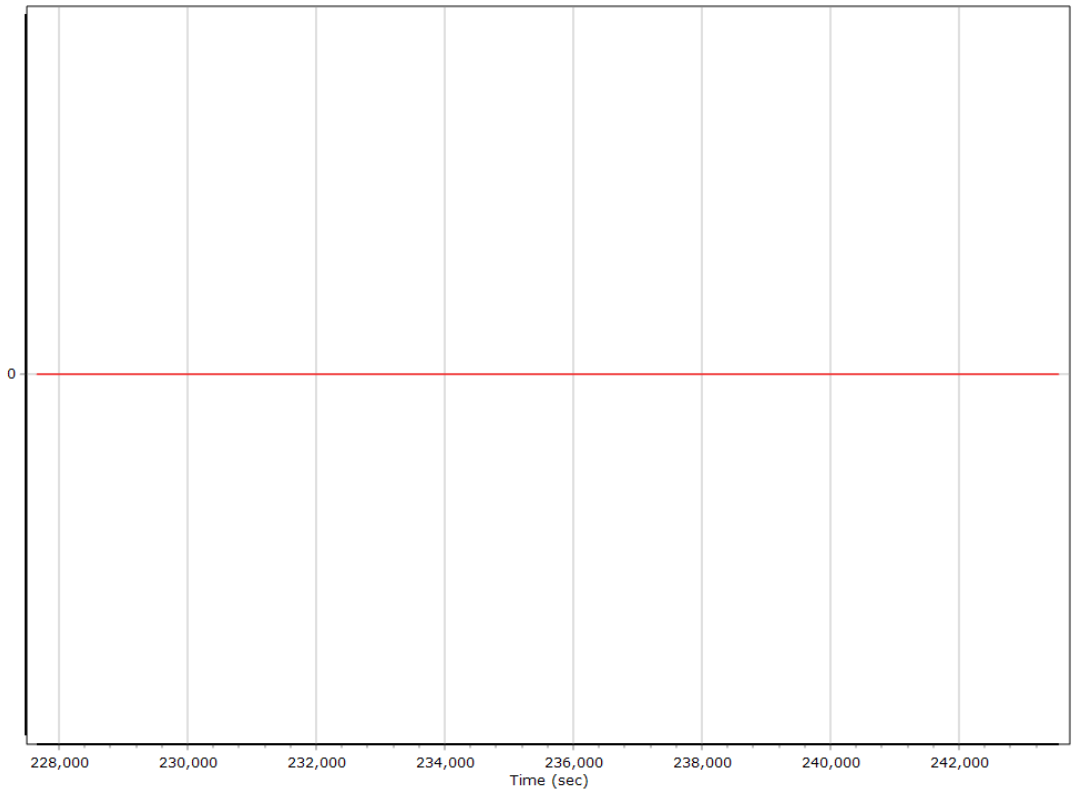
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



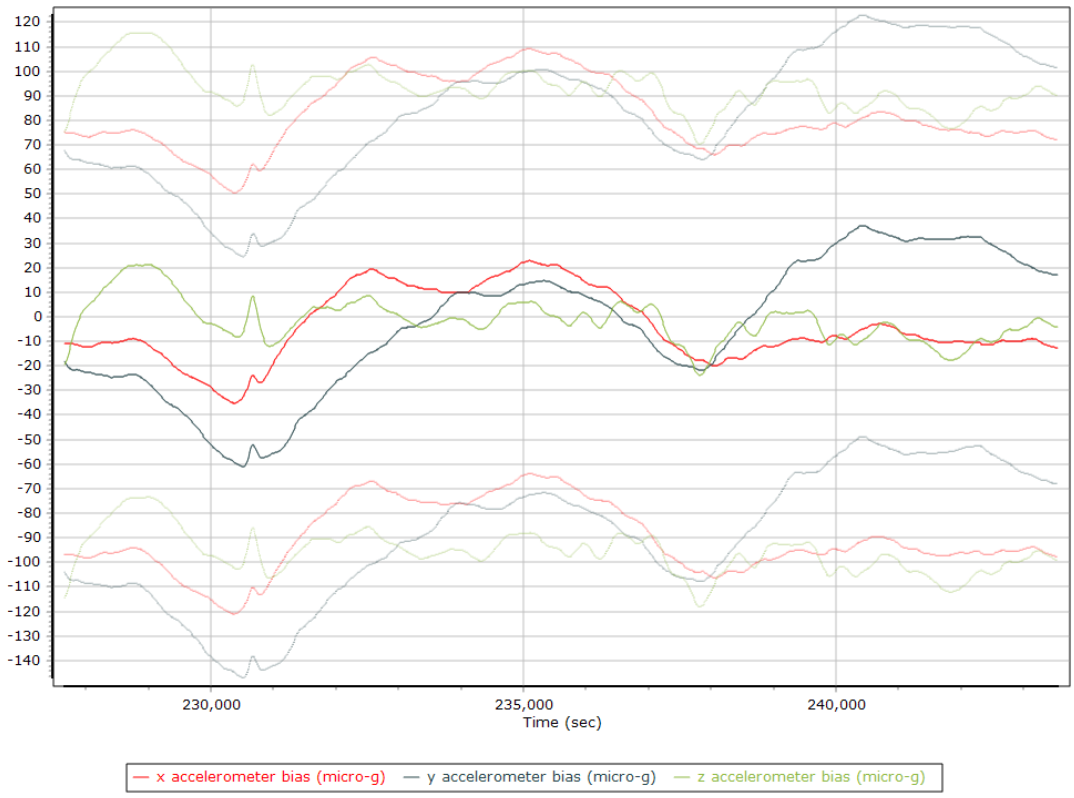
Reference-Primary GNSS Lever Arm Figure of Merit



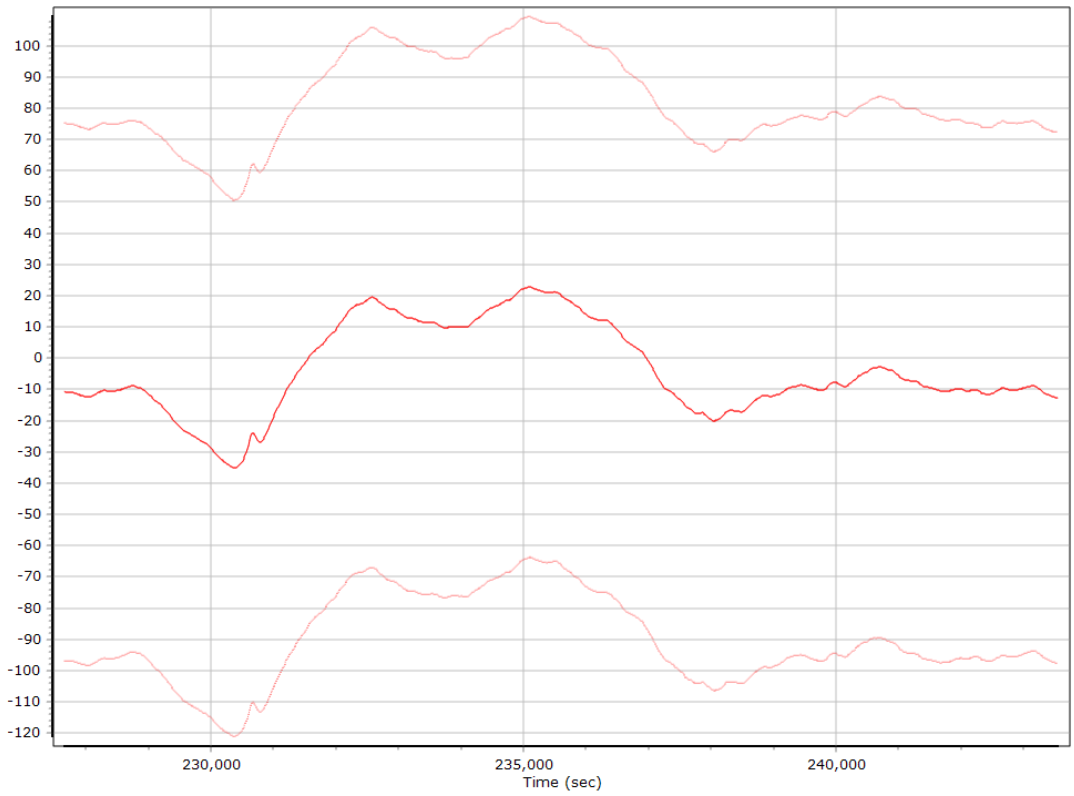
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

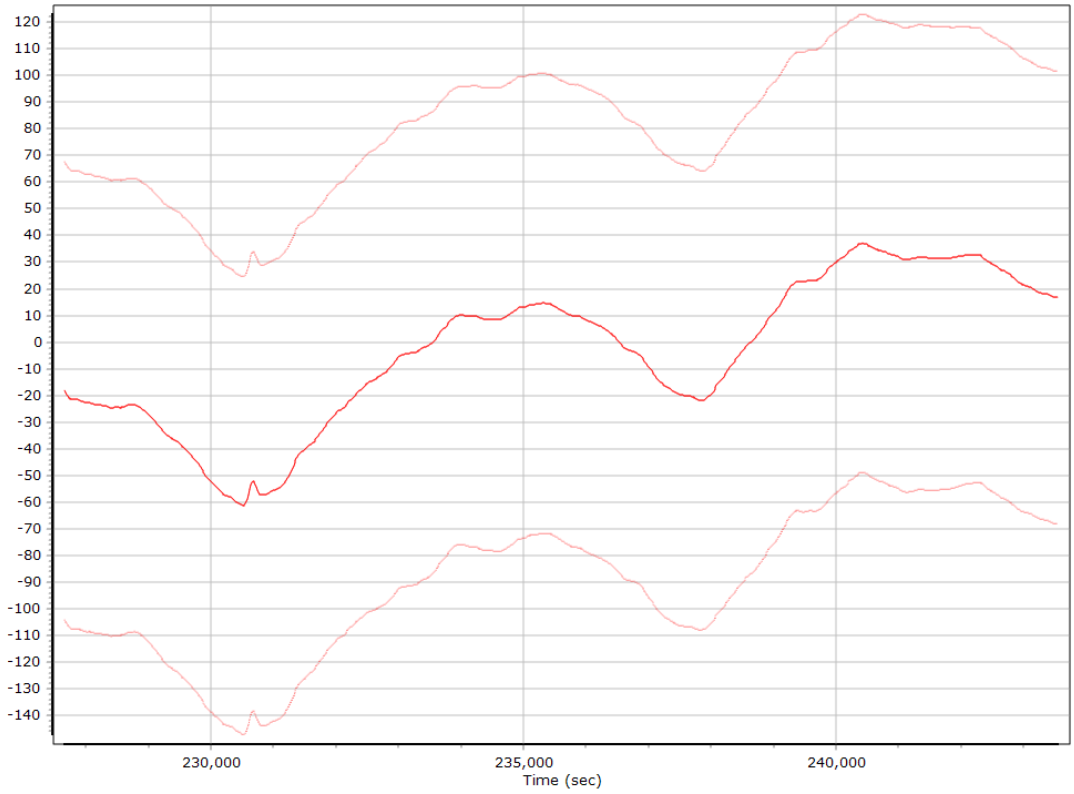
Accelerometer Bias (micro-g)



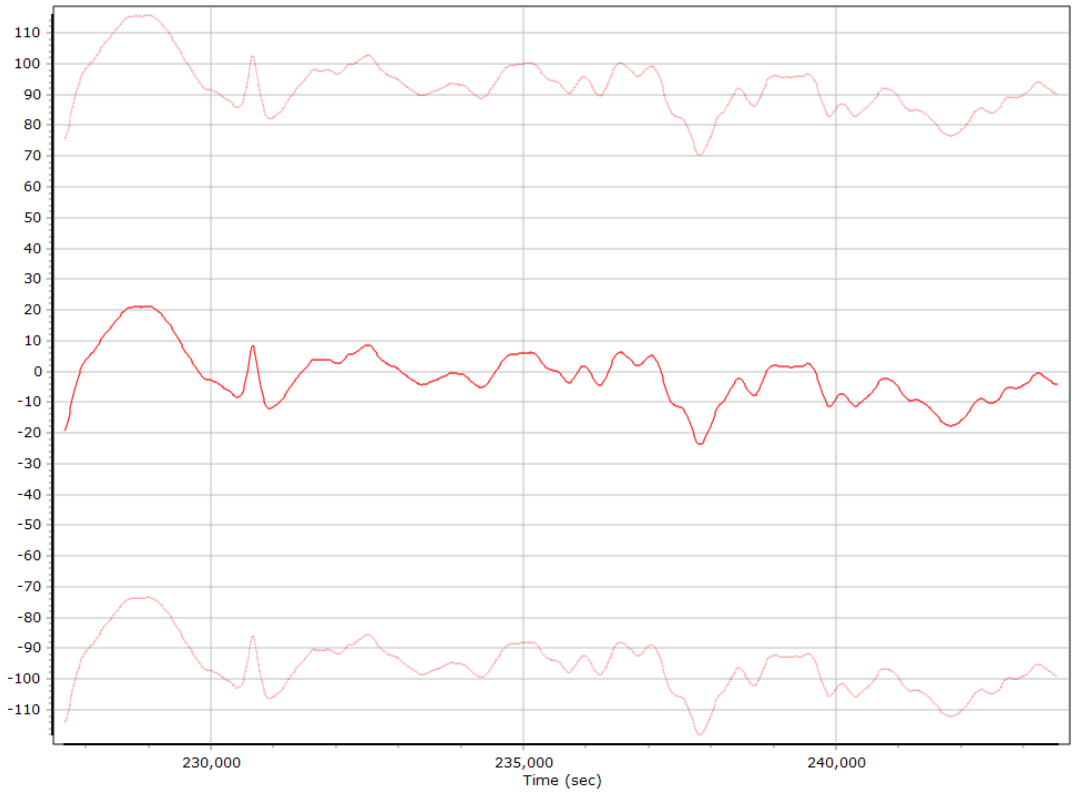
X Accelerometer Bias (micro-g)



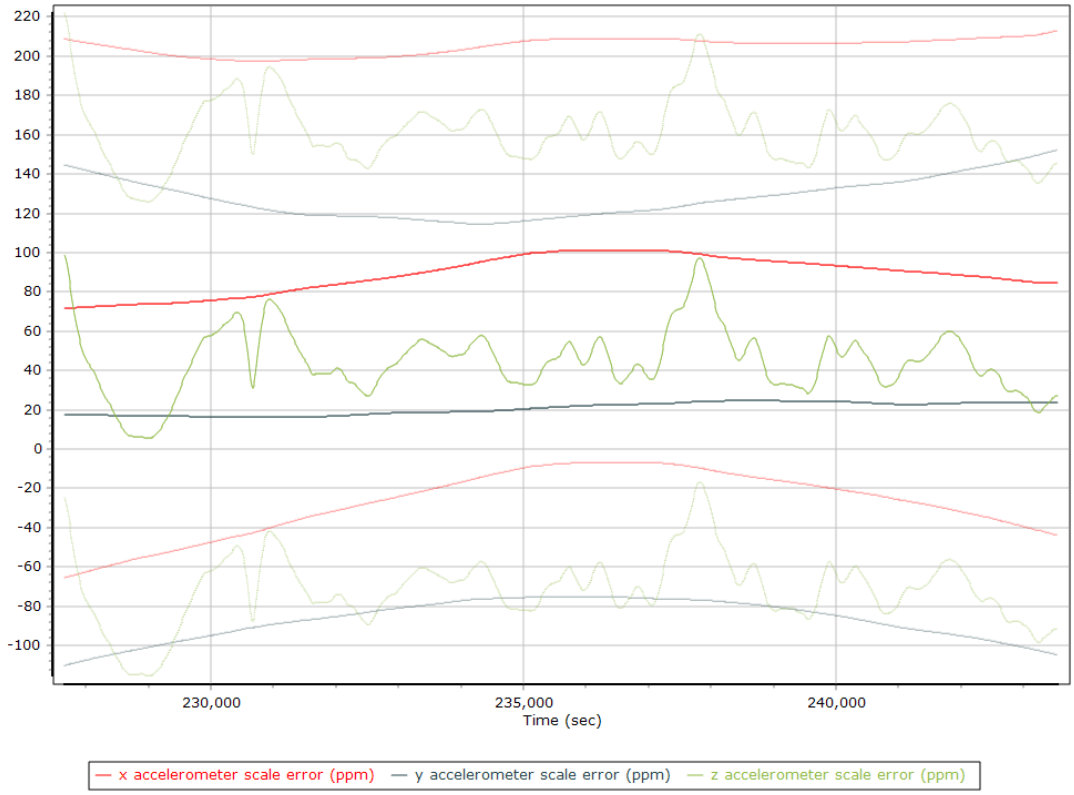
Y Accelerometer Bias (micro-g)



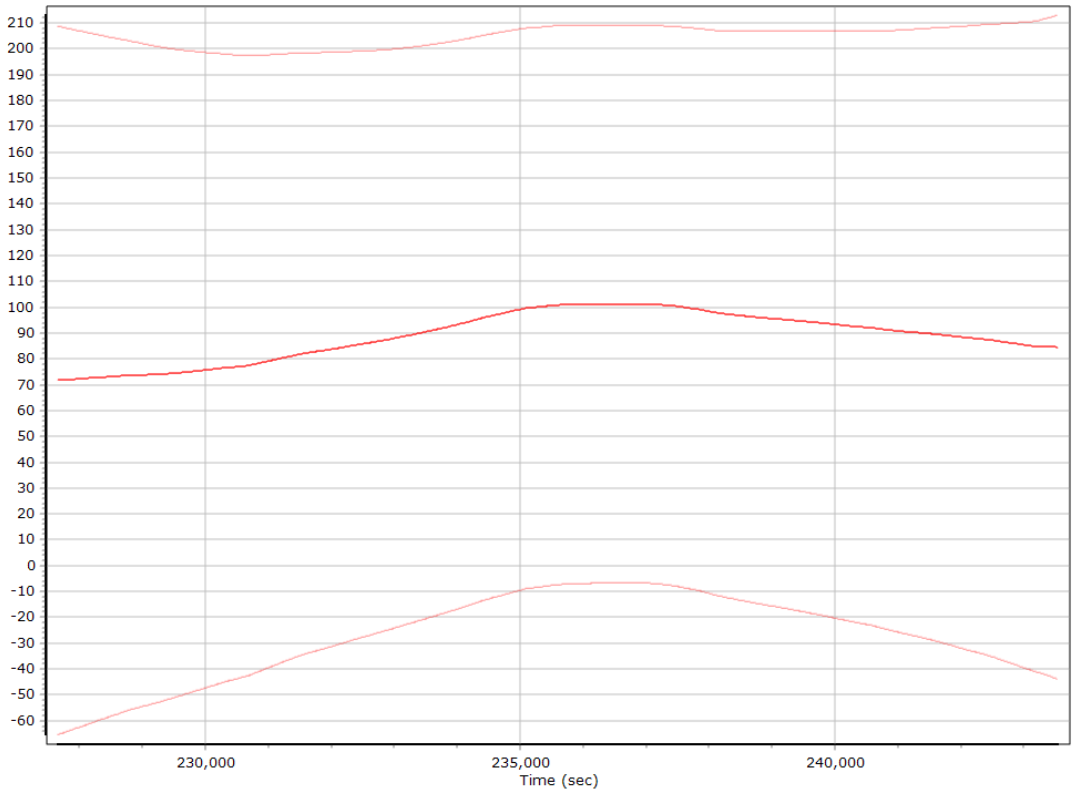
Z Accelerometer Bias (micro-g)



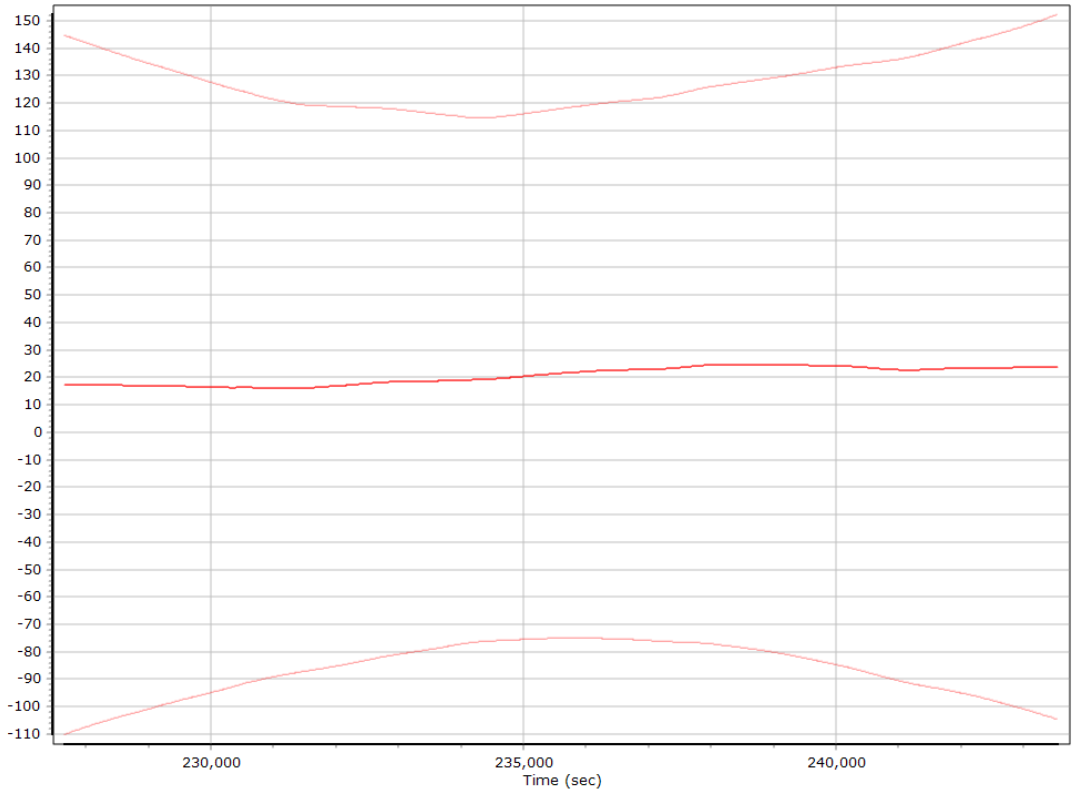
Accelerometer Scale Error (ppm)



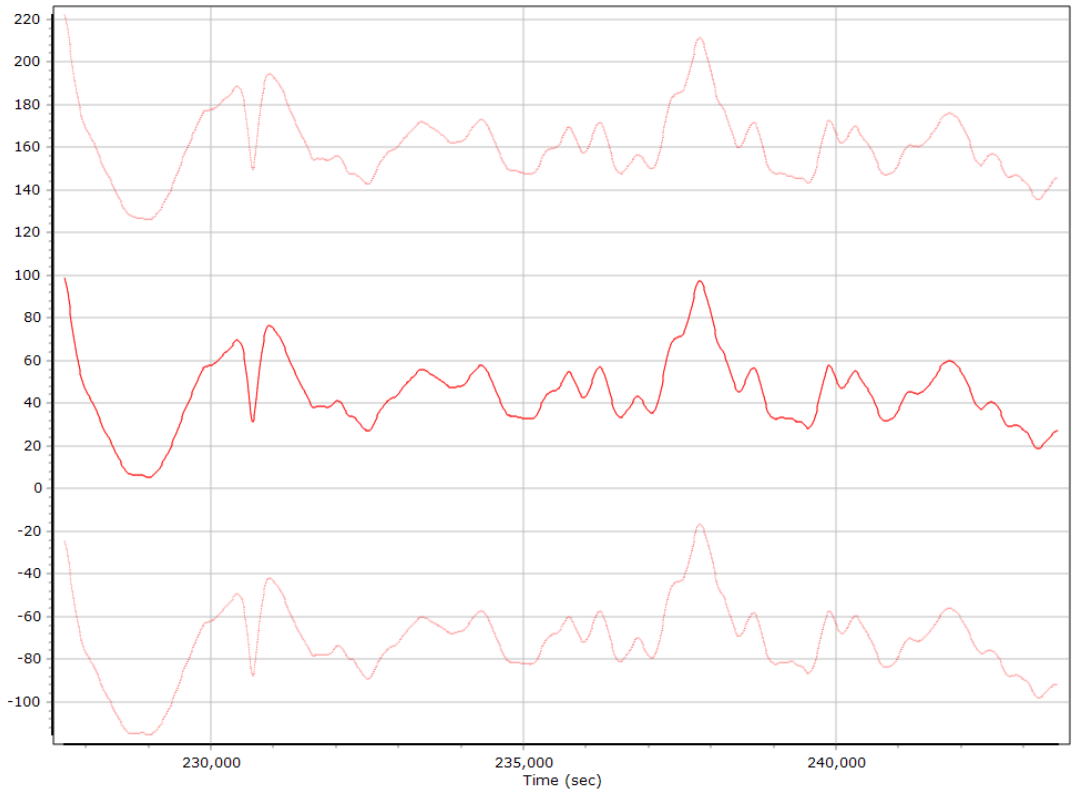
X Accelerometer Scale Error (ppm)



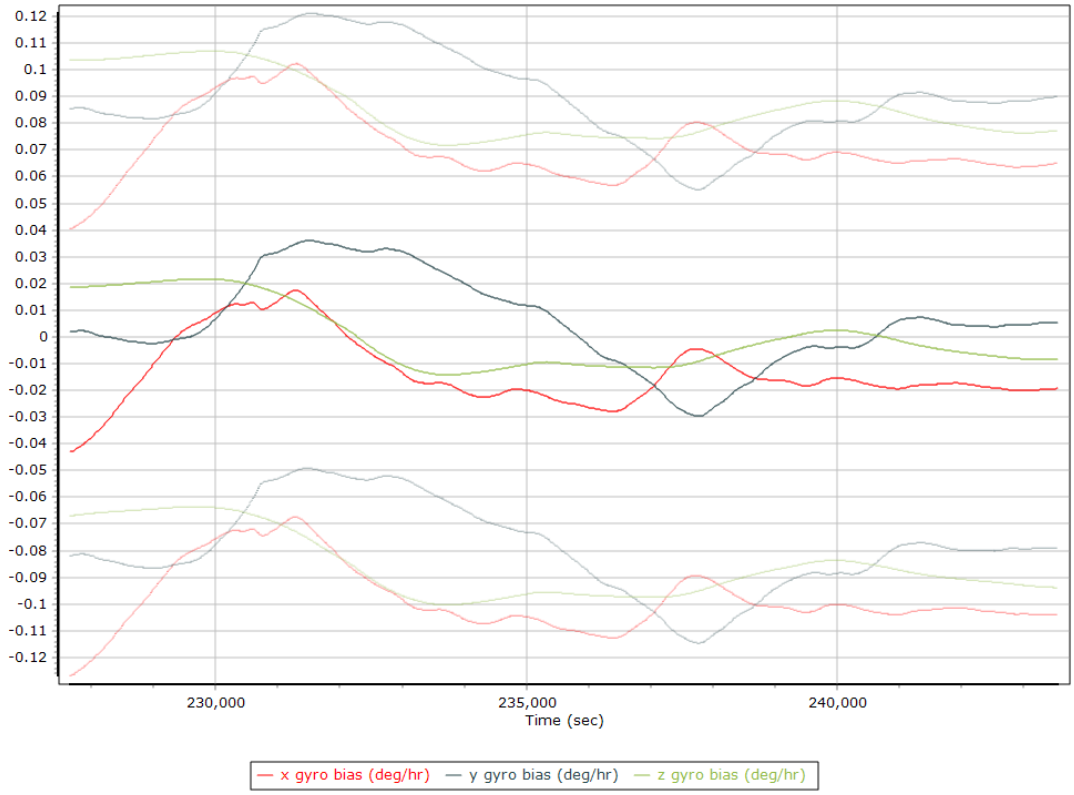
Y Accelerometer Scale Error (ppm)



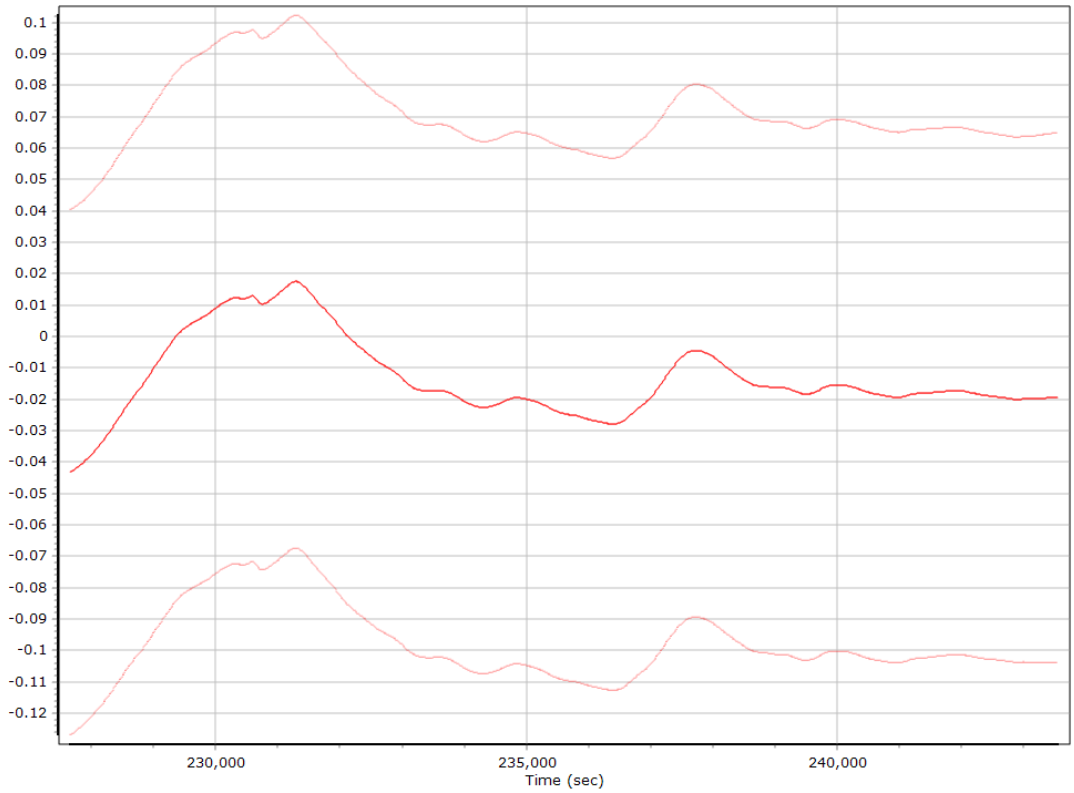
Z Accelerometer Scale Error (ppm)



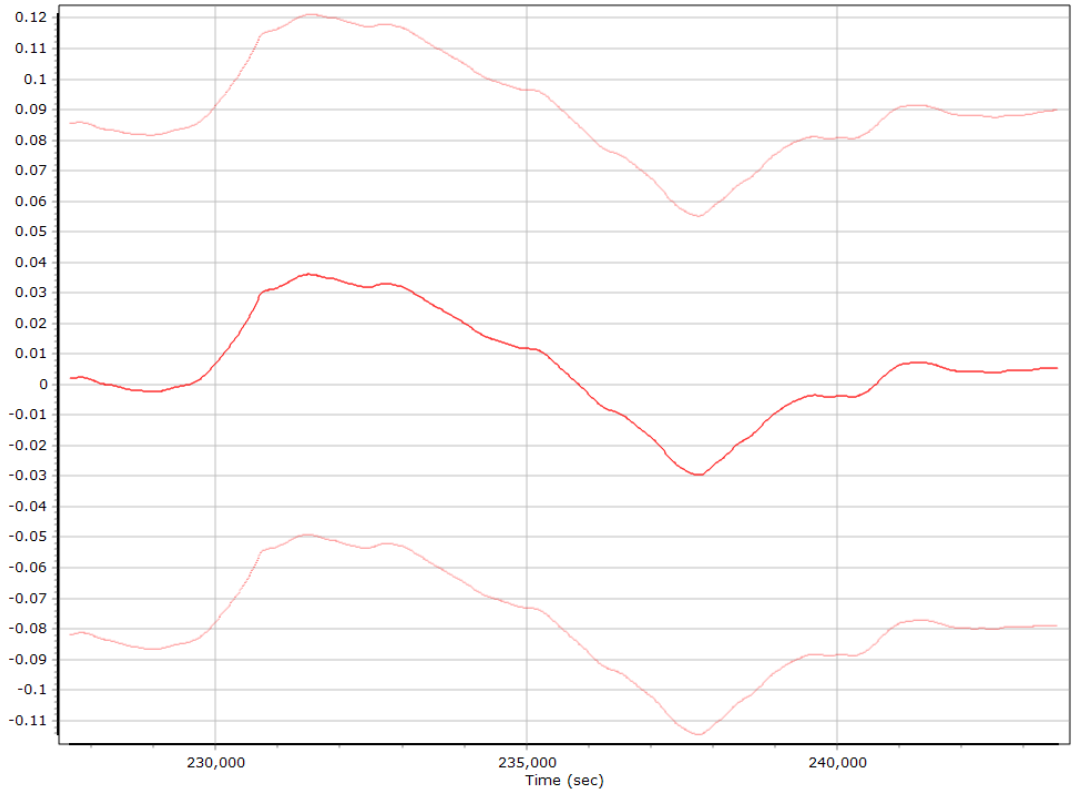
Gyro Bias (deg/h)



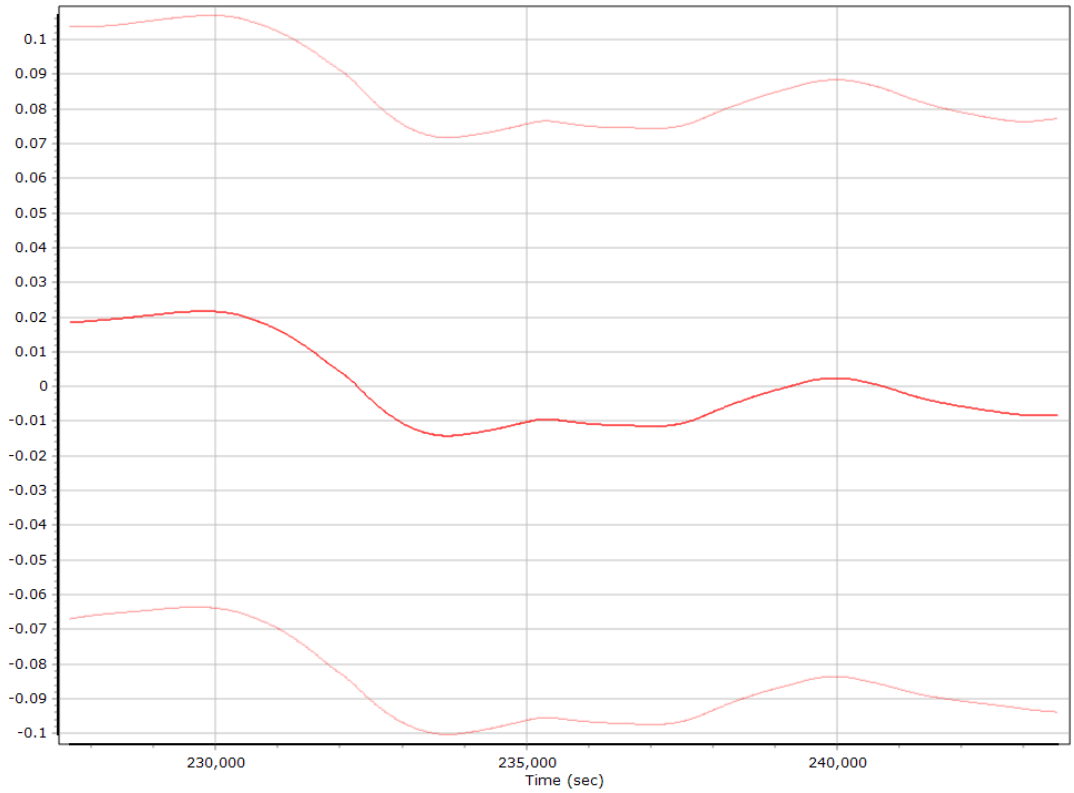
X Gyro Bias (deg/h)



Y Gyro Bias (deg/h)

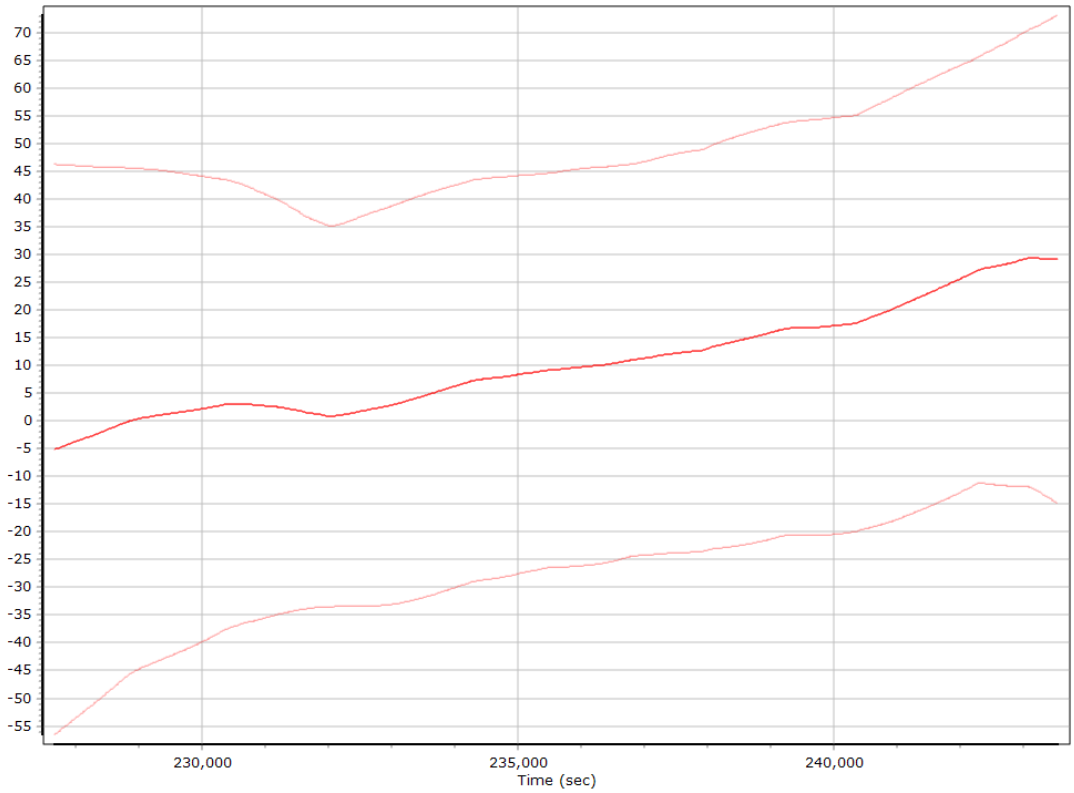


Z Gyro Bias (deg/h)

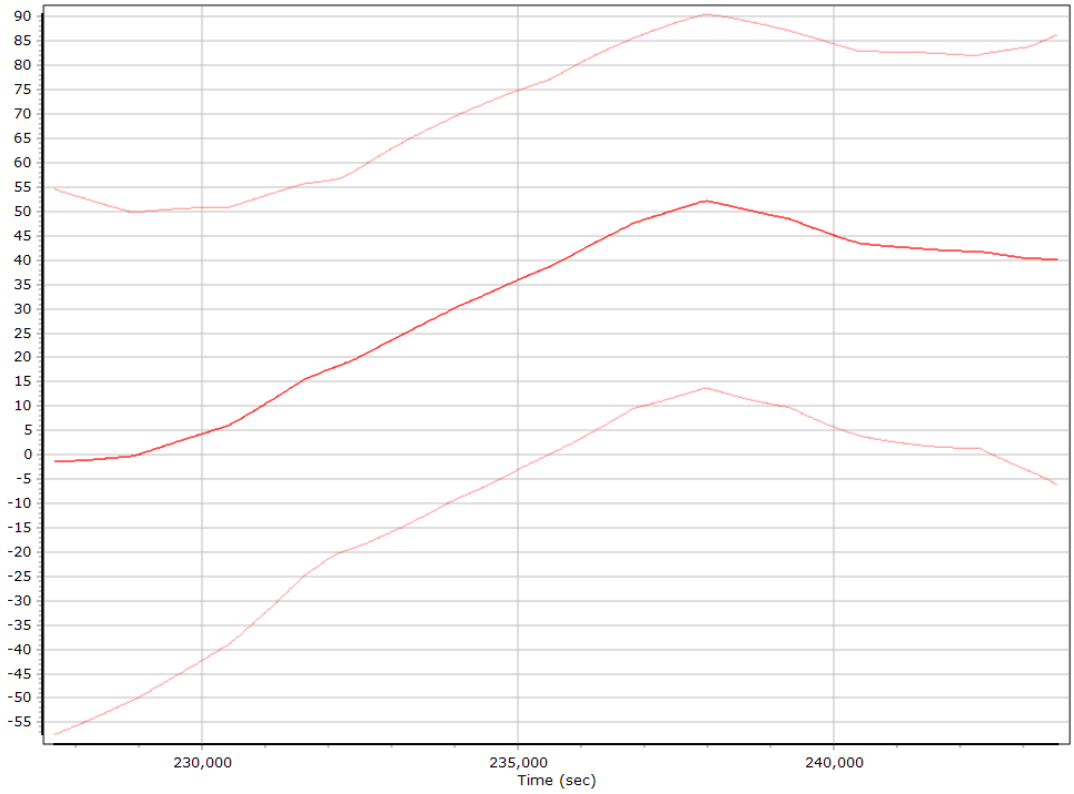


Gyro Scale Error (ppm)

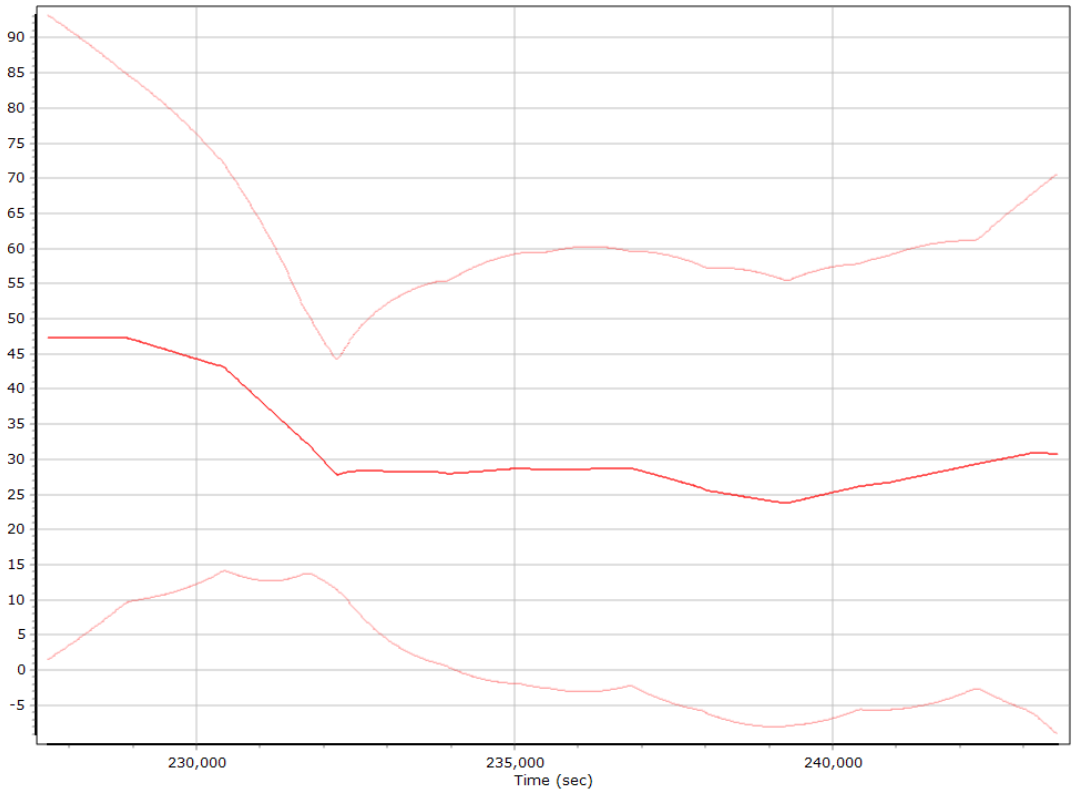
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

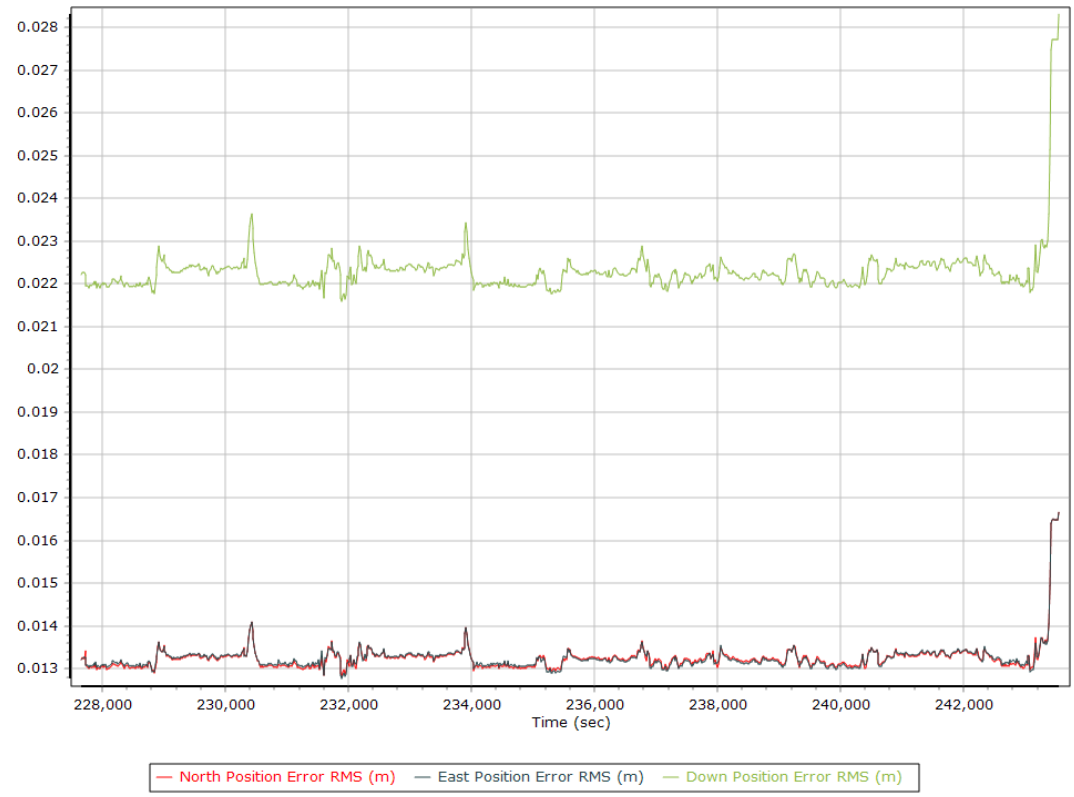


Z Gyro Scale Error (ppm)

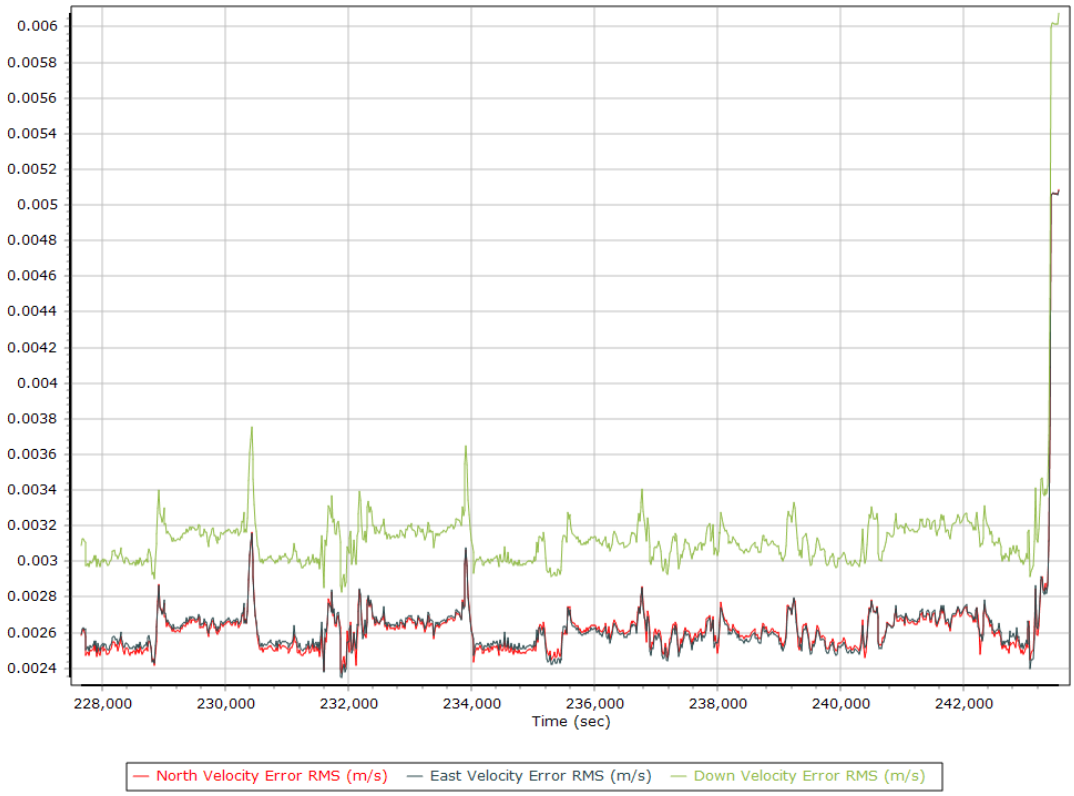


Smoothed Performance Metrics

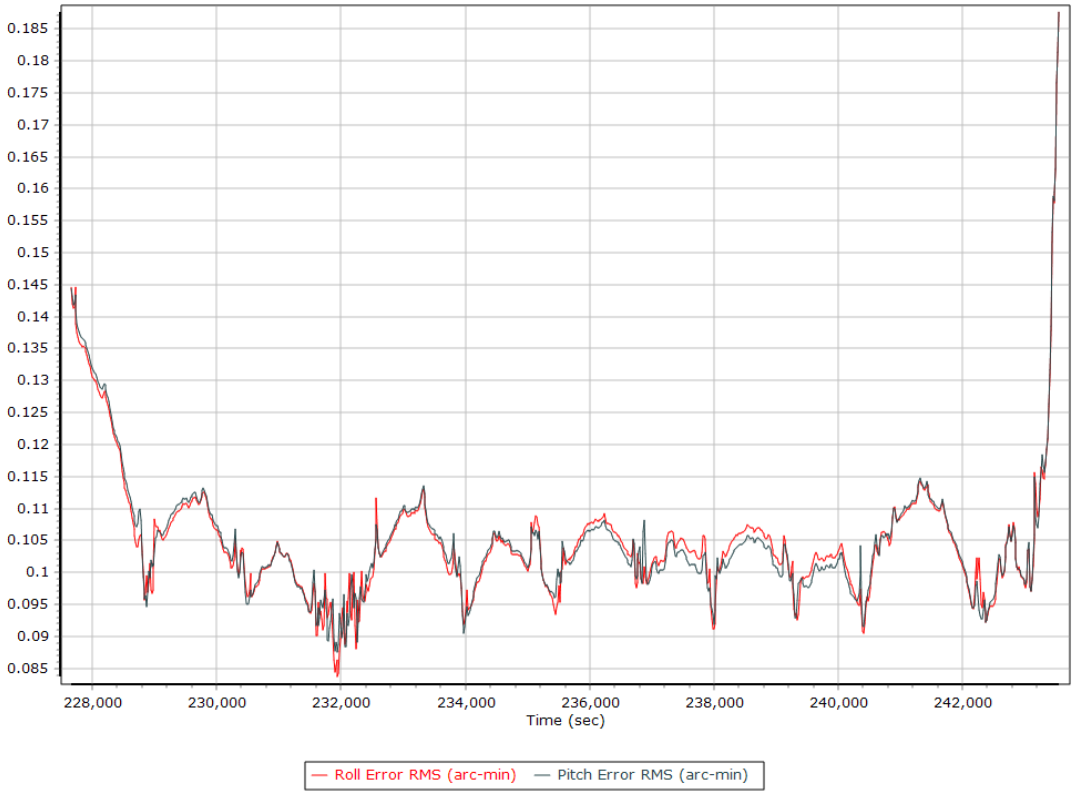
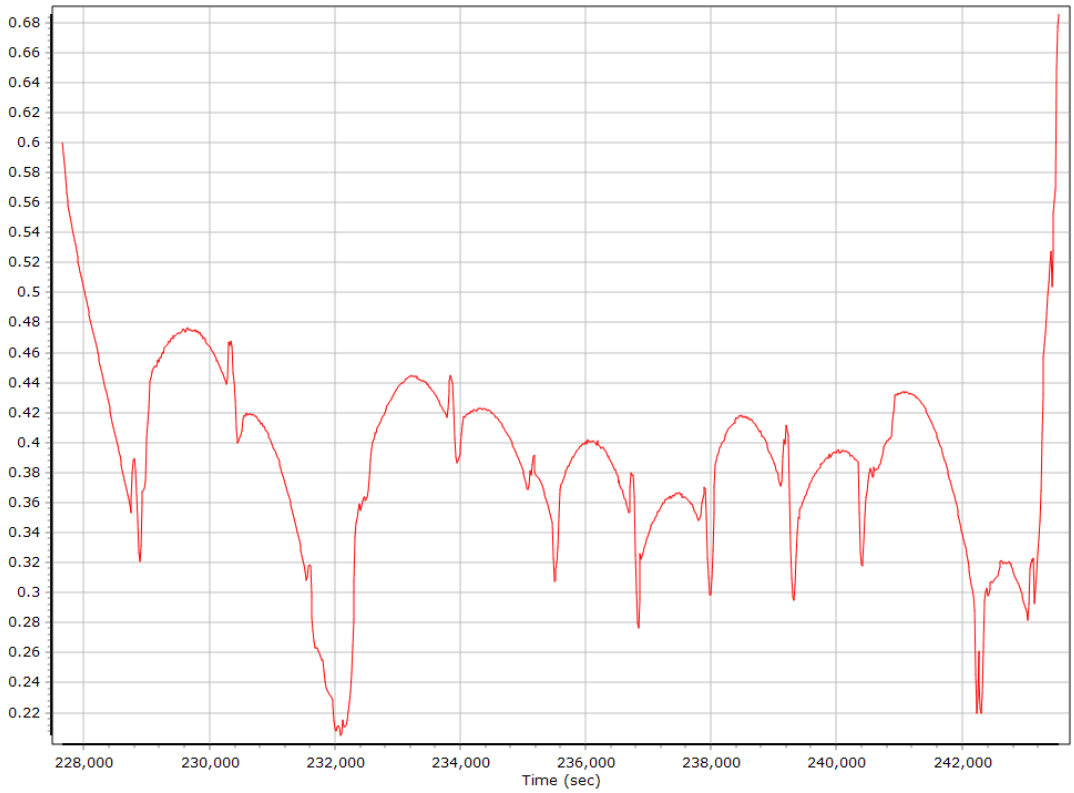
Position Error RMS (m)



Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)