General Information

Mission Information

Project name	19-058_062620
Processing date	2020-07-25 01:19:10
Mission date	2020-06-26 20:46:11
Mission duration	04:19:12.970
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
200626_204611_INS-GPS_1.raw	POS Data

Input Files

File Name	File Type
Ephm1780.20g	GLONASS Broadcast Ephemeris
Ephm1780.20n	GPS Broadcast Ephemeris
Ephm1790.20g	GLONASS Broadcast Ephemeris
Ephm1790.20n	GPS Broadcast Ephemeris
igl21114.sp3	GLONASS Precise Ephemeris
igl21115.sp3	GLONASS Precise Ephemeris
igl21116.sp3	GLONASS Precise Ephemeris
igl21120.sp3	GLONASS Precise Ephemeris
igs21114.sp3	GPS Precise Ephemeris
igs21115.sp3	GPS Precise Ephemeris
igs21116.sp3	GPS Precise Ephemeris
igs21120.sp3	GPS Precise Ephemeris

Output Files

Filename	File type
sbet_062620.out	SBET Trajectory File

Rover Data Summary

First raw data file	200626_204611_INS-GPS_1.raw		
Last raw data file	200626_204611_INS-GPS_1.raw		
Start GPS week	2111		
Start time	506771.075 (06/26/2020 20:45:53)		
End time	522323.863 (06/27/2020 01:05:05)		
Start of fine alignment	507158.778 (06/26/2020 20:52:20)		
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

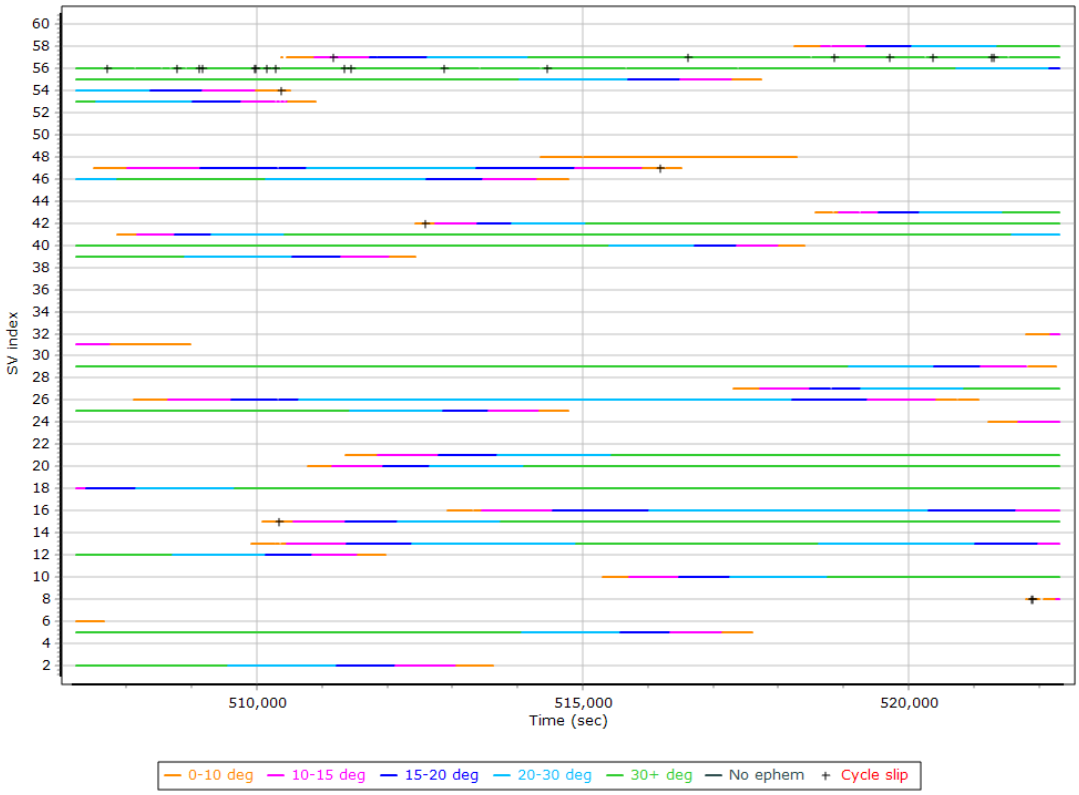
Rover Data QC

Raw IMU Import QC Summary

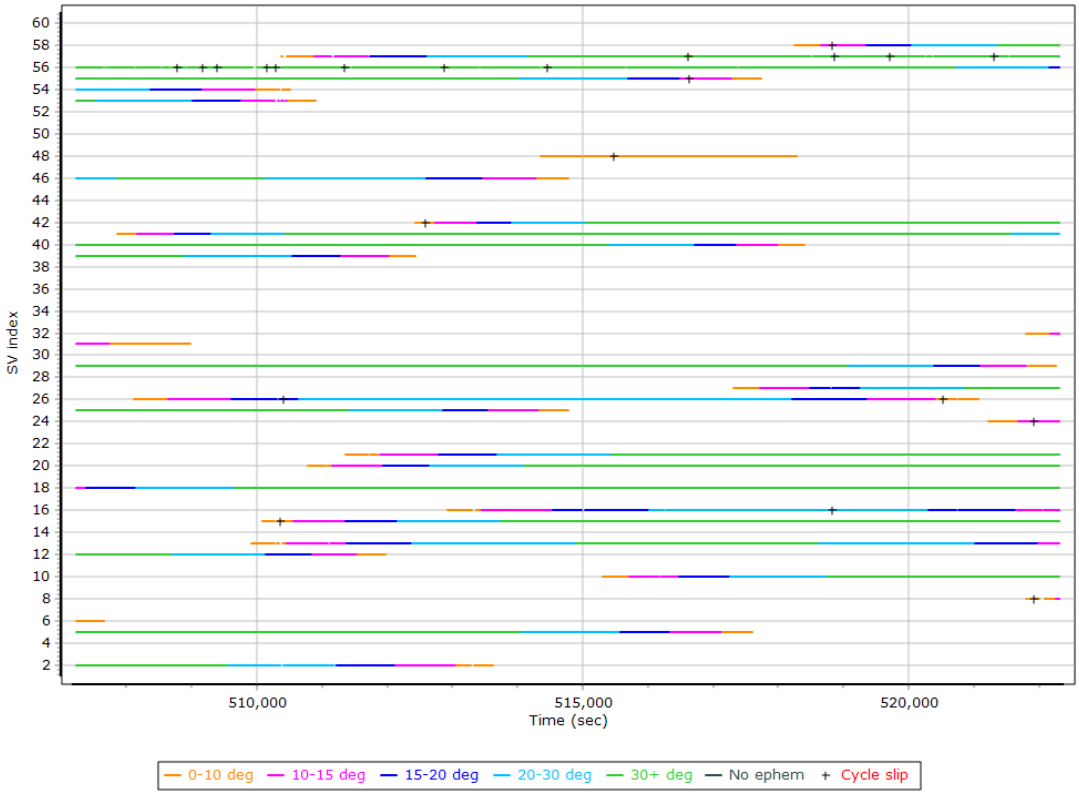
IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_062620.log
IMU Records Processed	3109924
Termination Status	Normal
IMU Anomalies	0

Primary Observables & Satellite Data

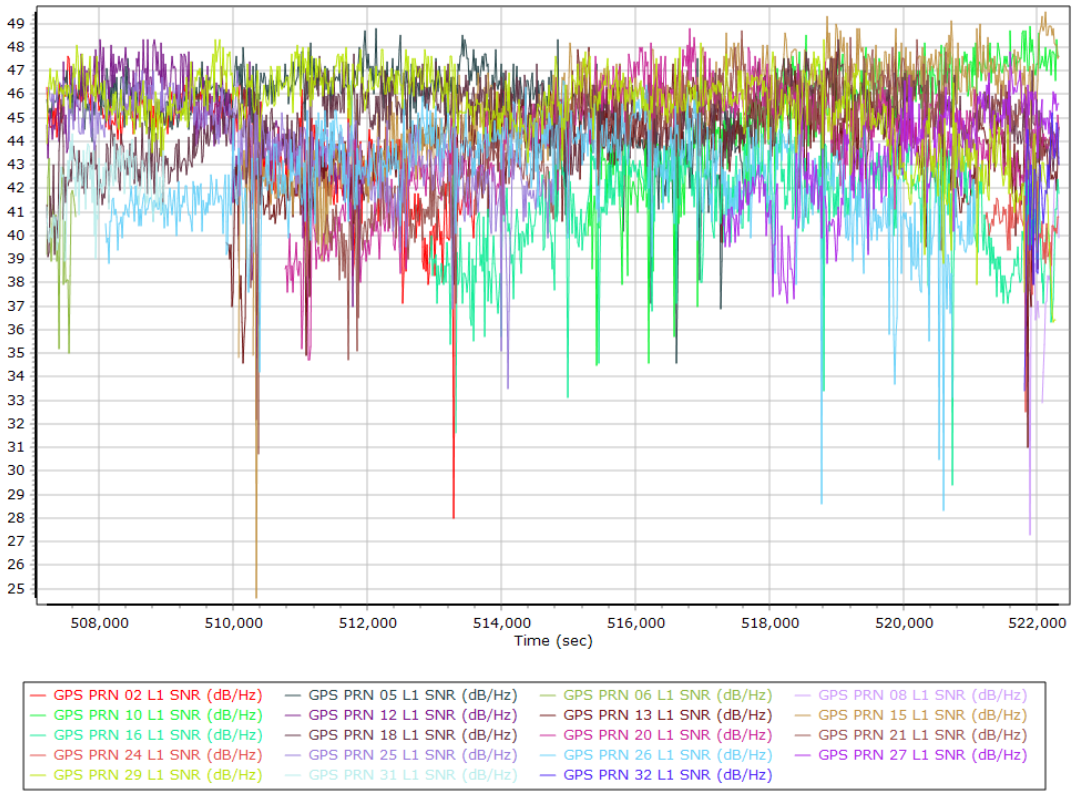
L1 Satellite Lock/Elevation



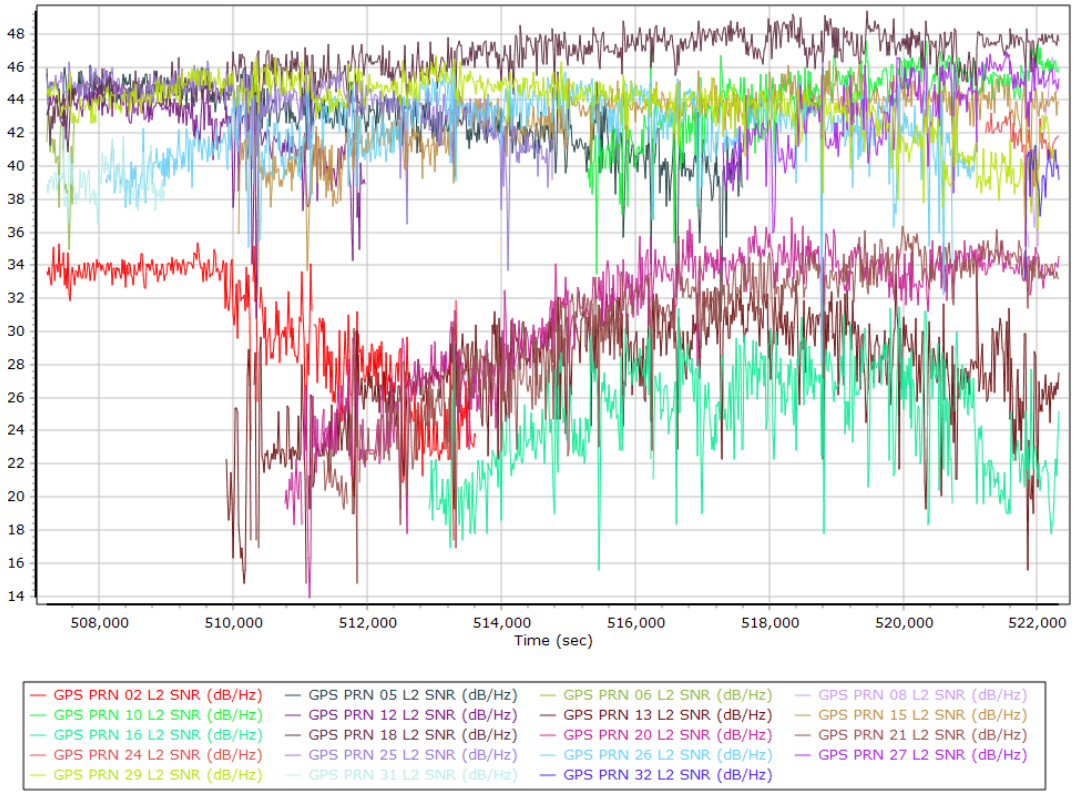
L2 Satellite Lock/Elevation



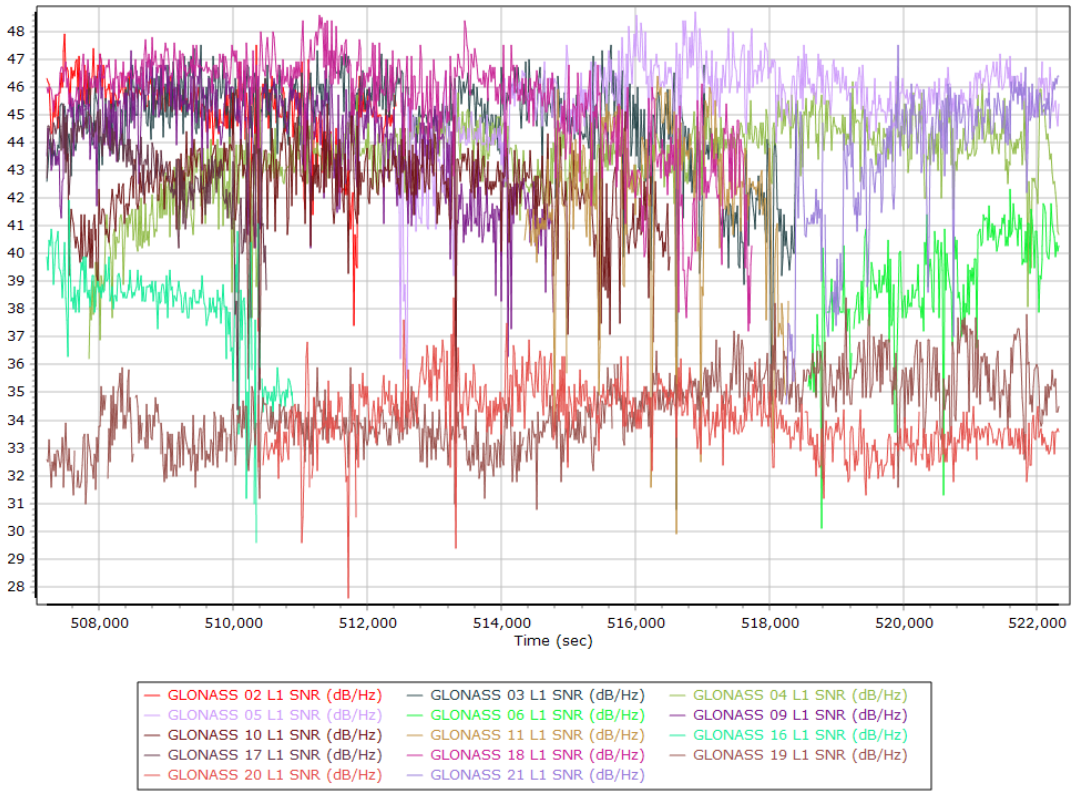
GPS L1 SNR



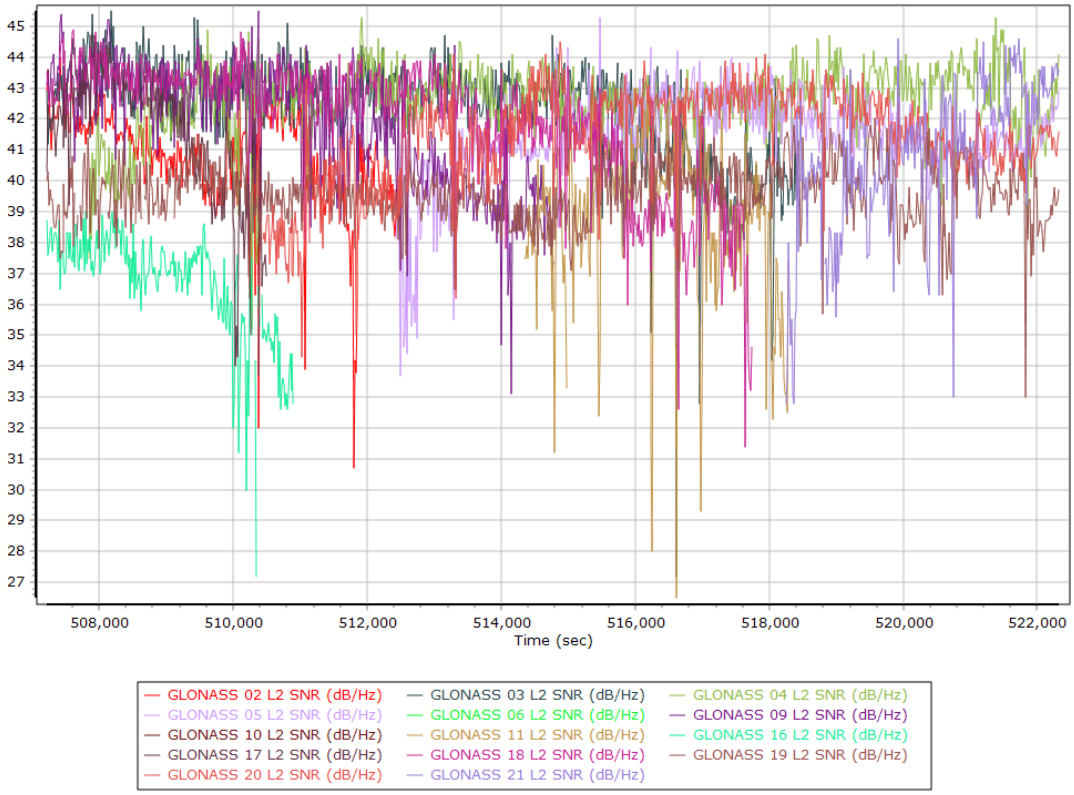
GPS L2 SNR



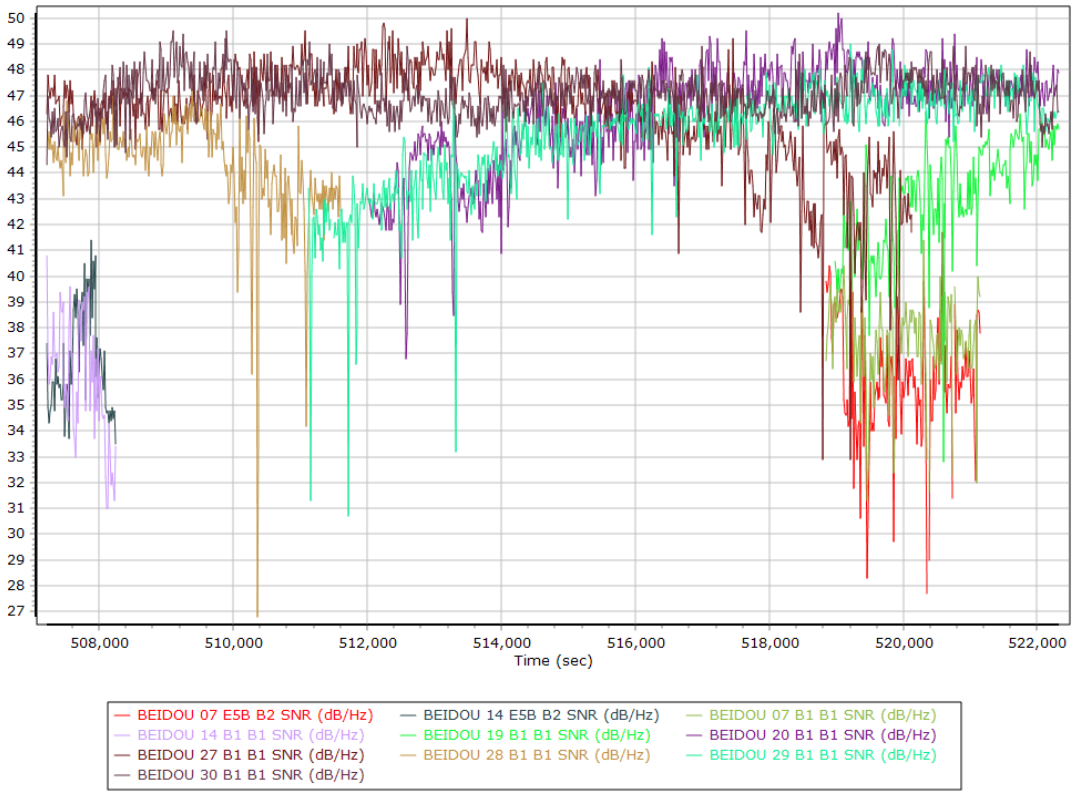
GLONASS L1 SNR



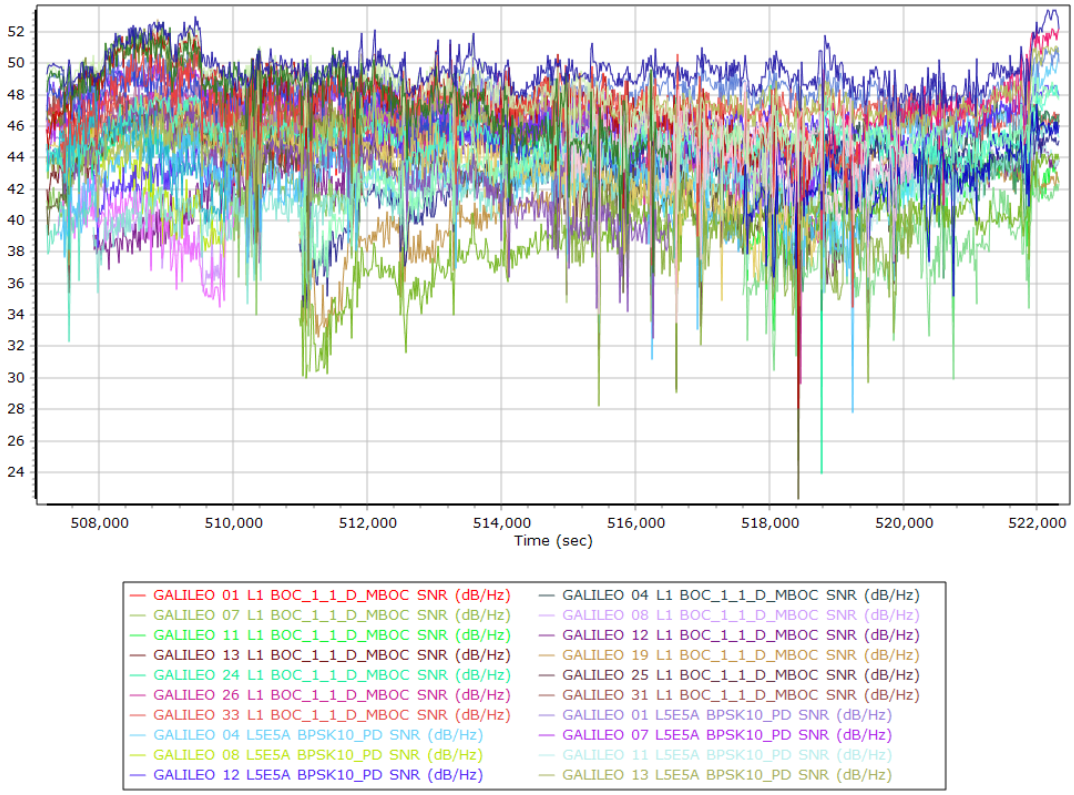
GLONASS L2 SNR



BEIDOU SNR



GALILEO SNR


52
50
48
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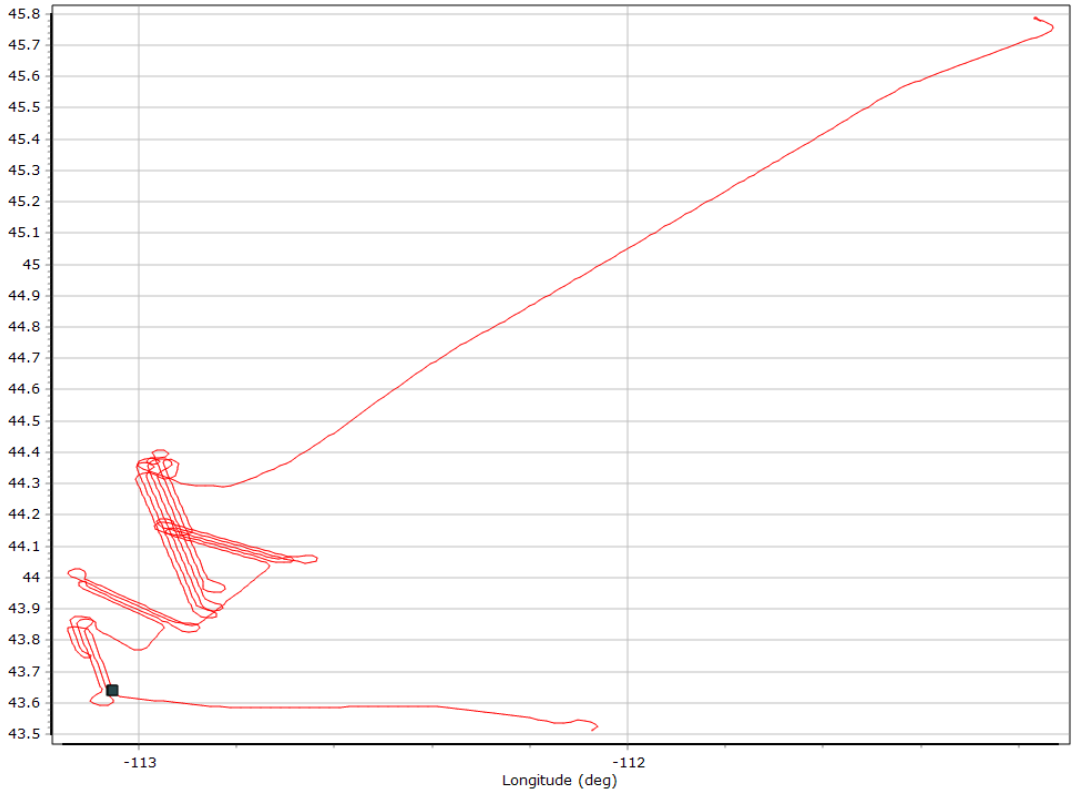
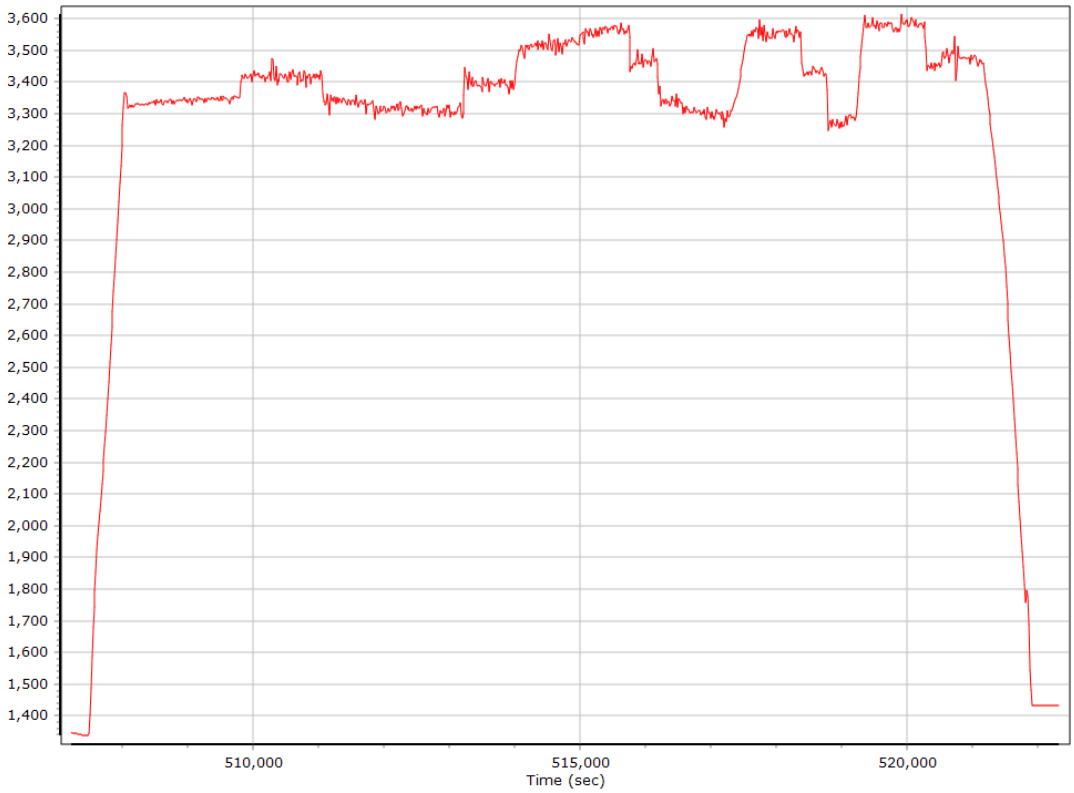
44
42
40
38
36
34
32
30
28
26
24
508,000
510,000
512,000
514,000
516,000
518,000
520,000
522,000
Time (sec)
GALILEO 01 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 04 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 08 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 11 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 12 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 13 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 26 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 31 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 33 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 07 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 08 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 11 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 13 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

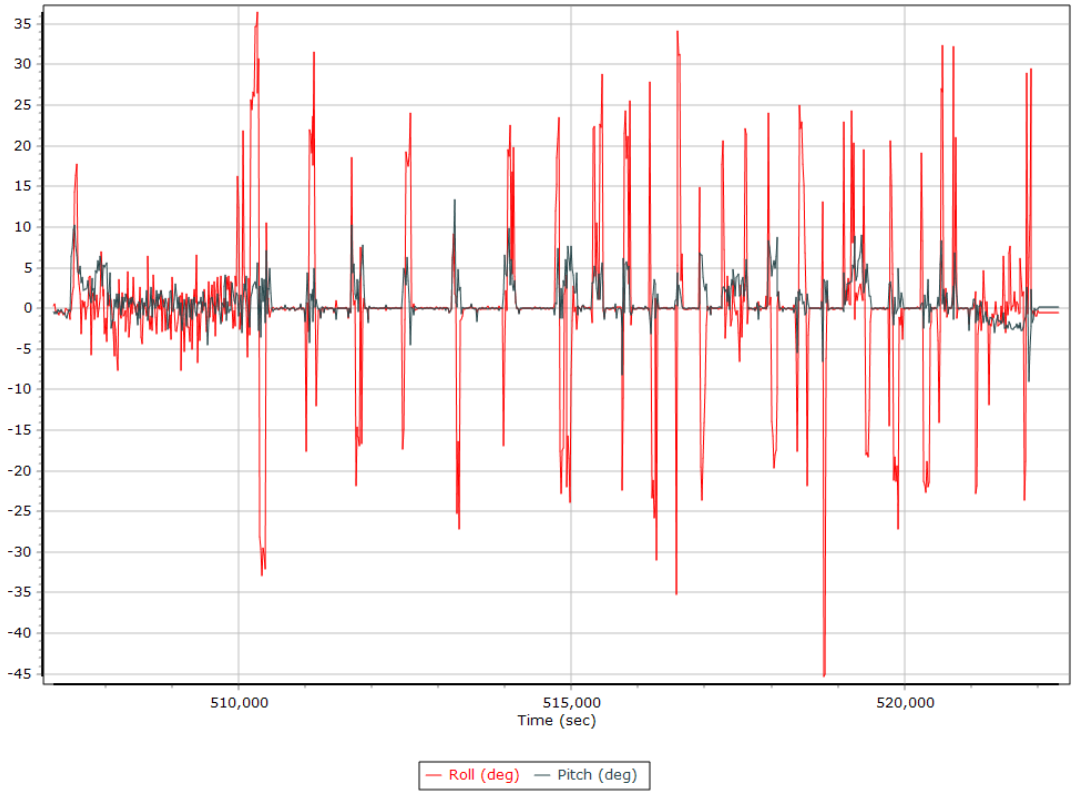
Top View



Altitude



Roll/Pitch



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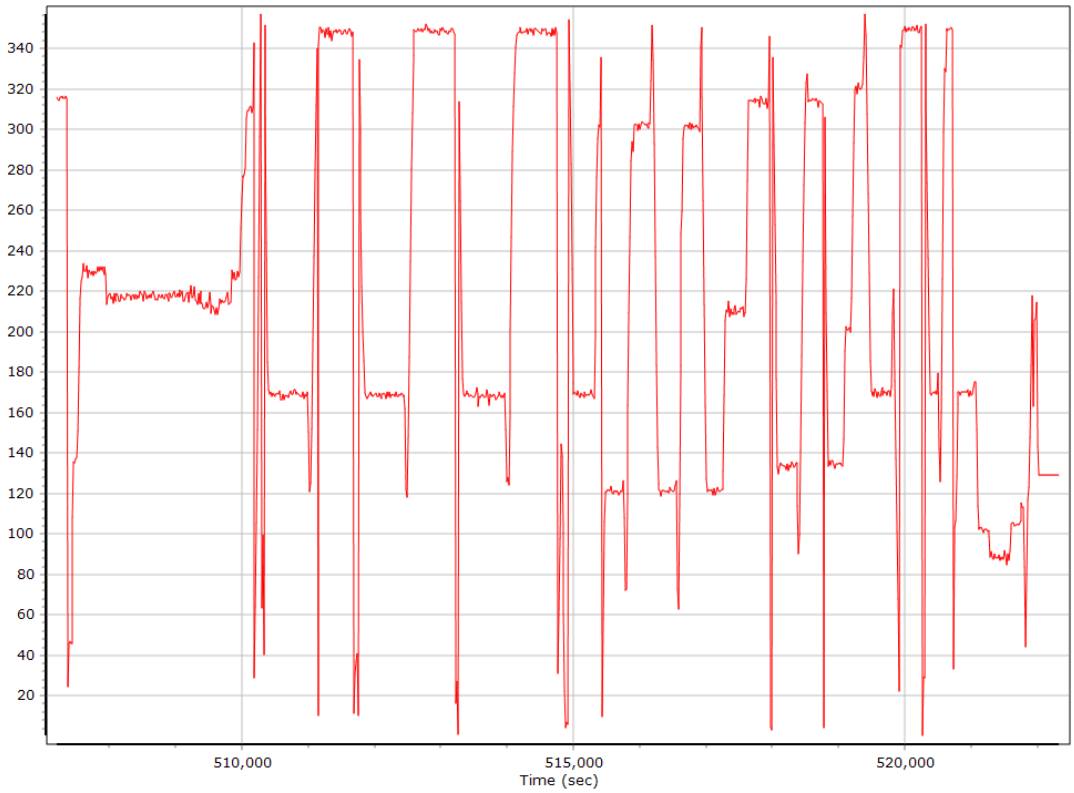
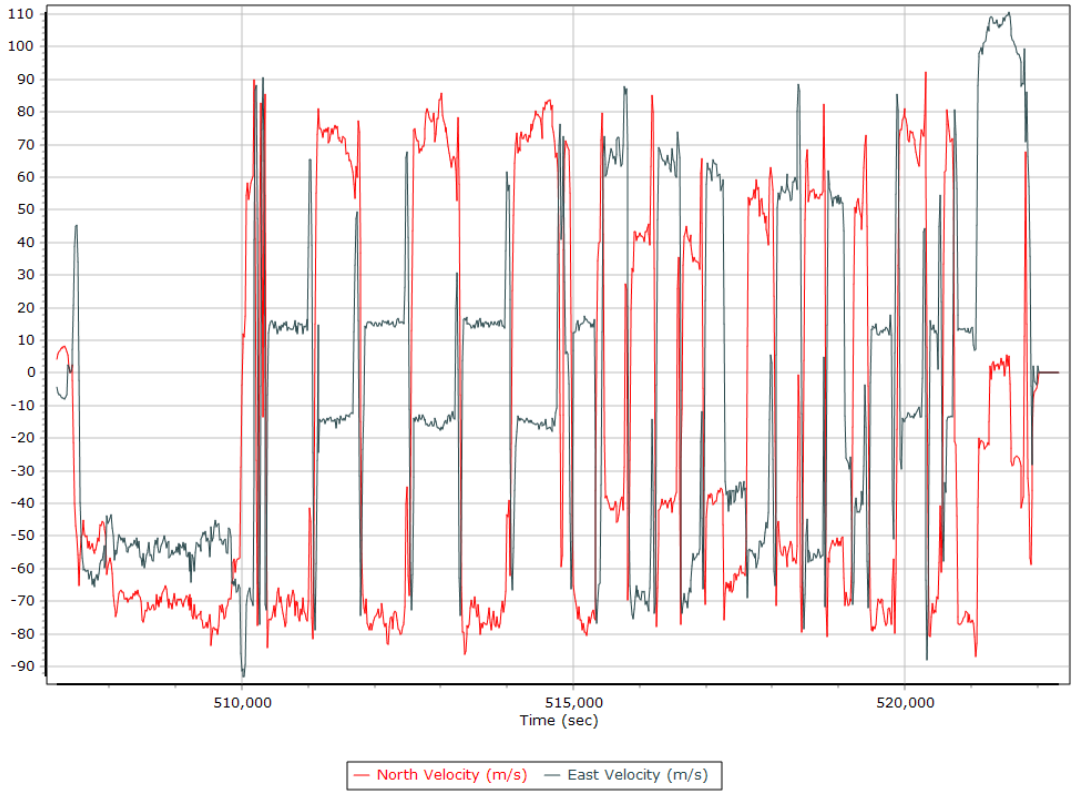
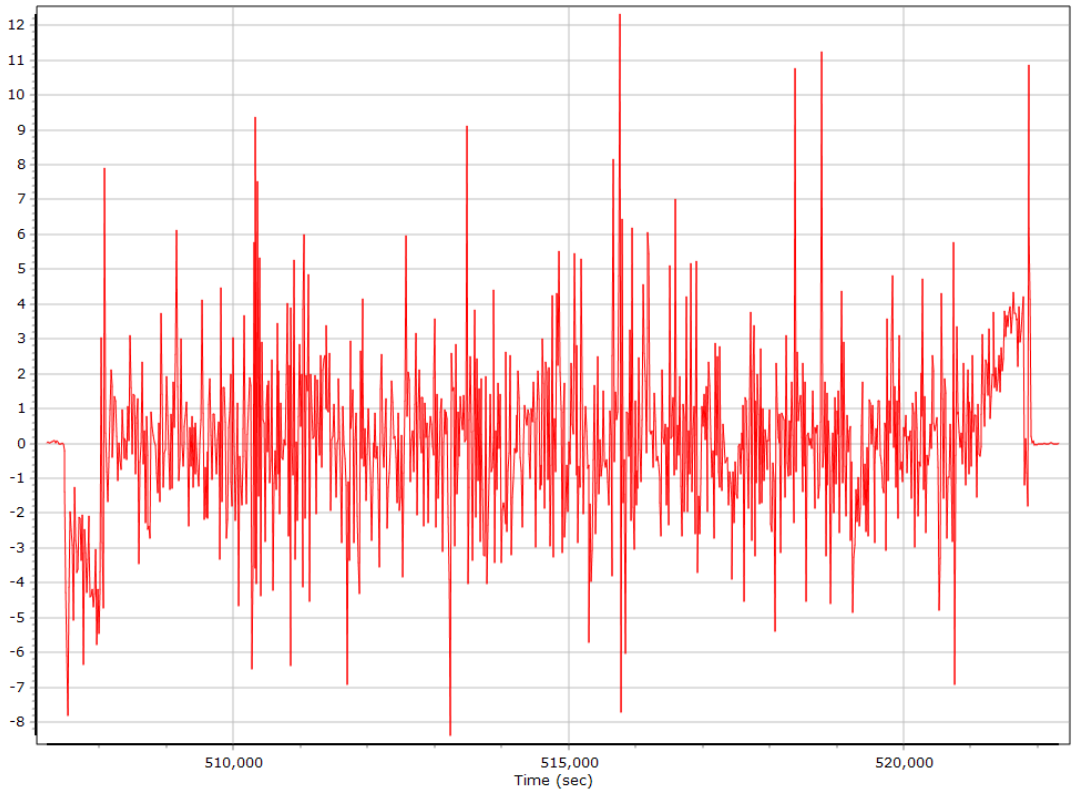


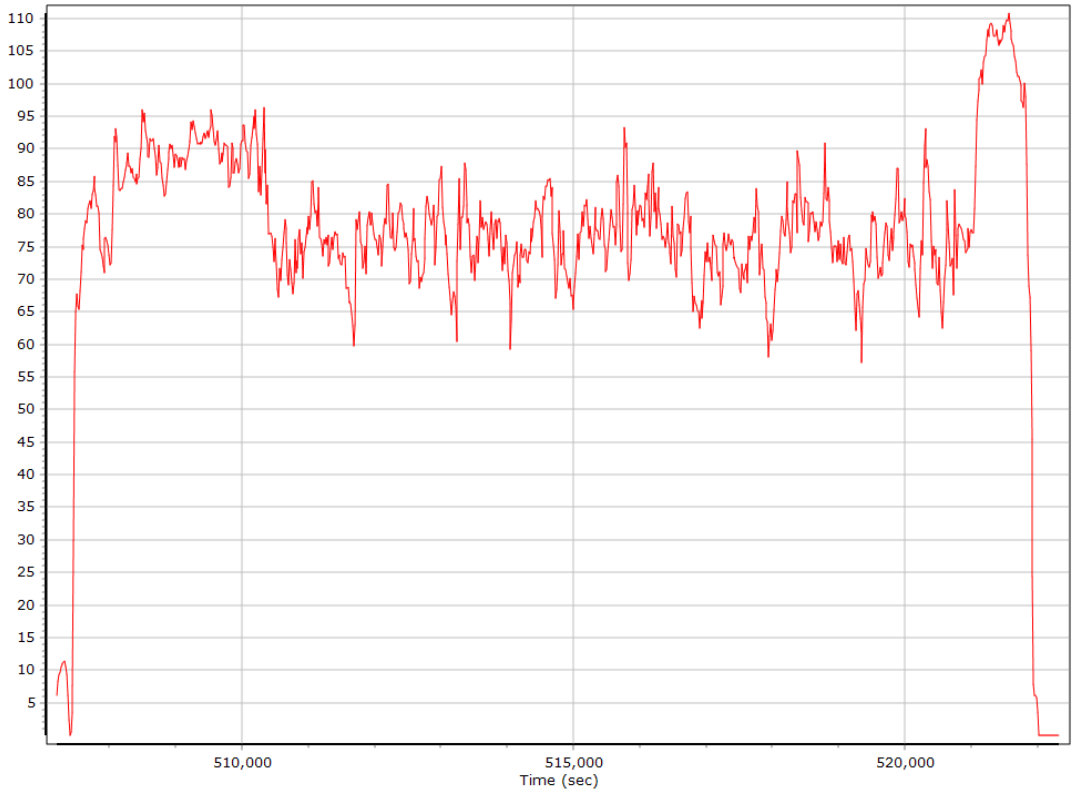
North/East Velocity



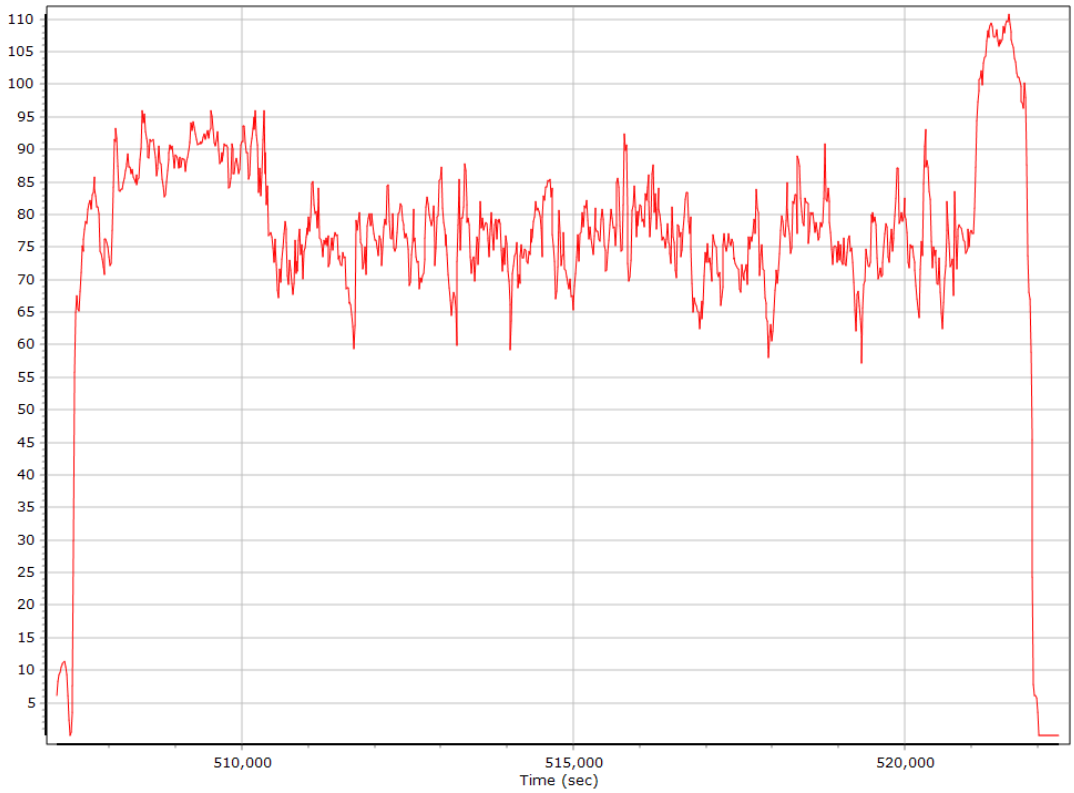
Down Velocity



Total Speed

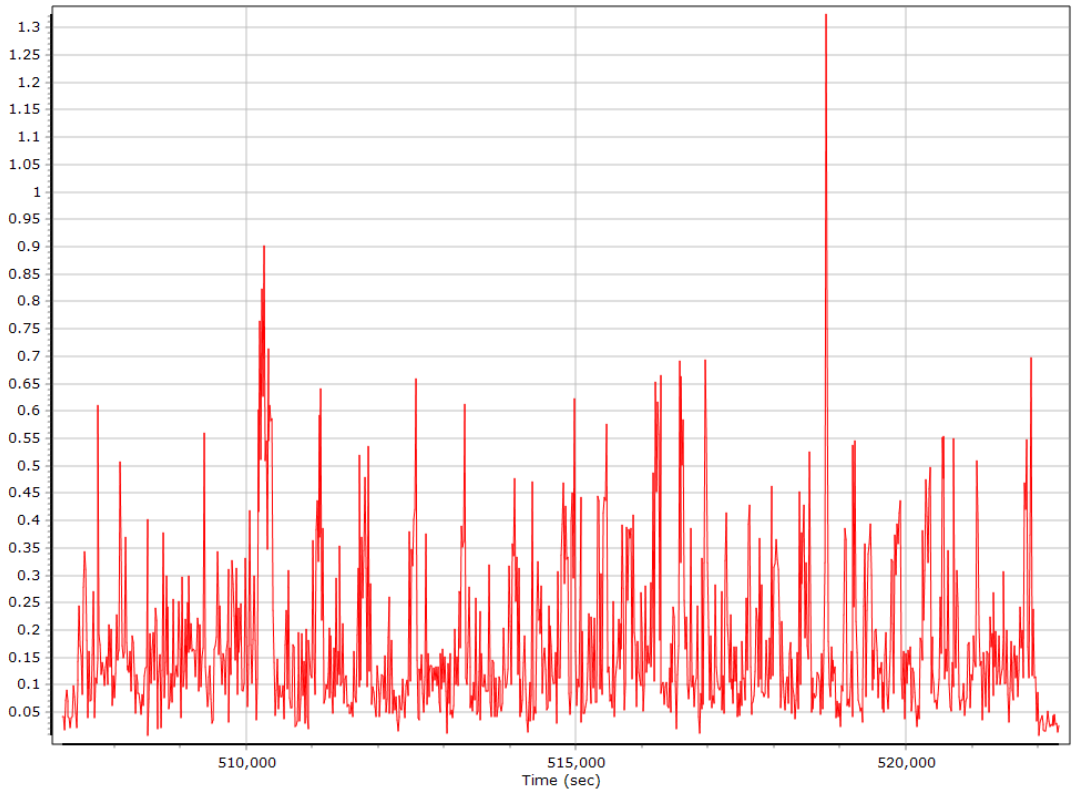


Ground Speed



Body Acceleration

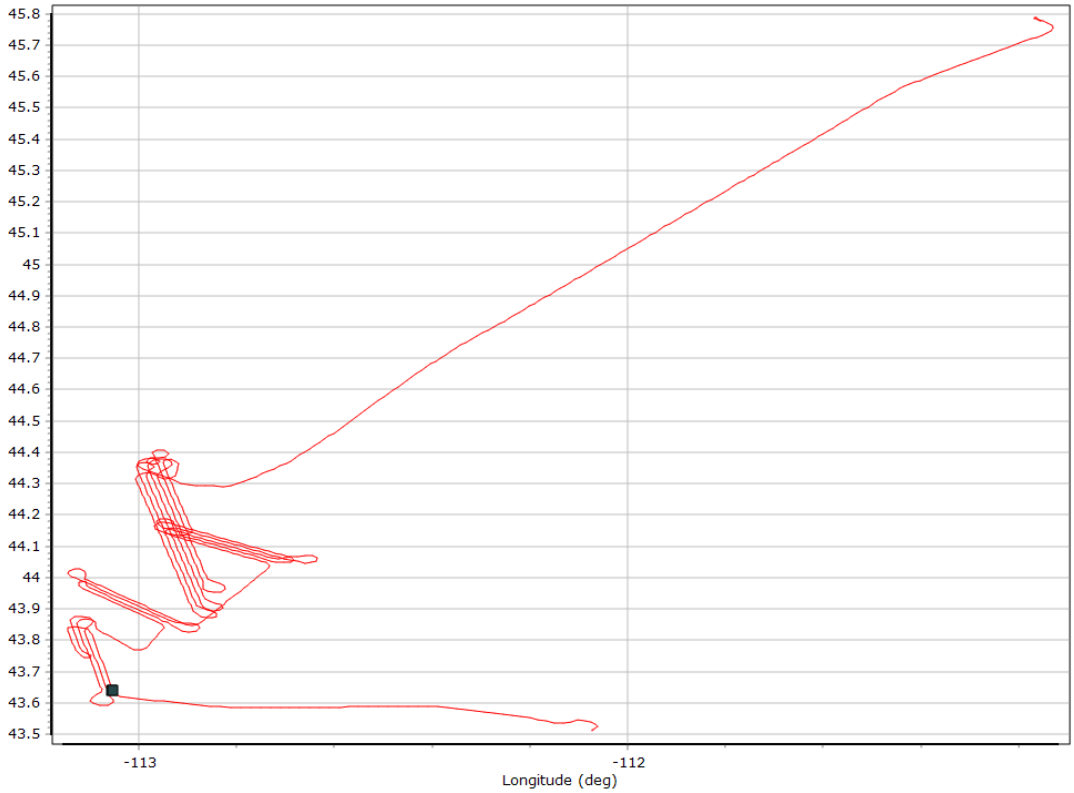
Total Body Acceleration



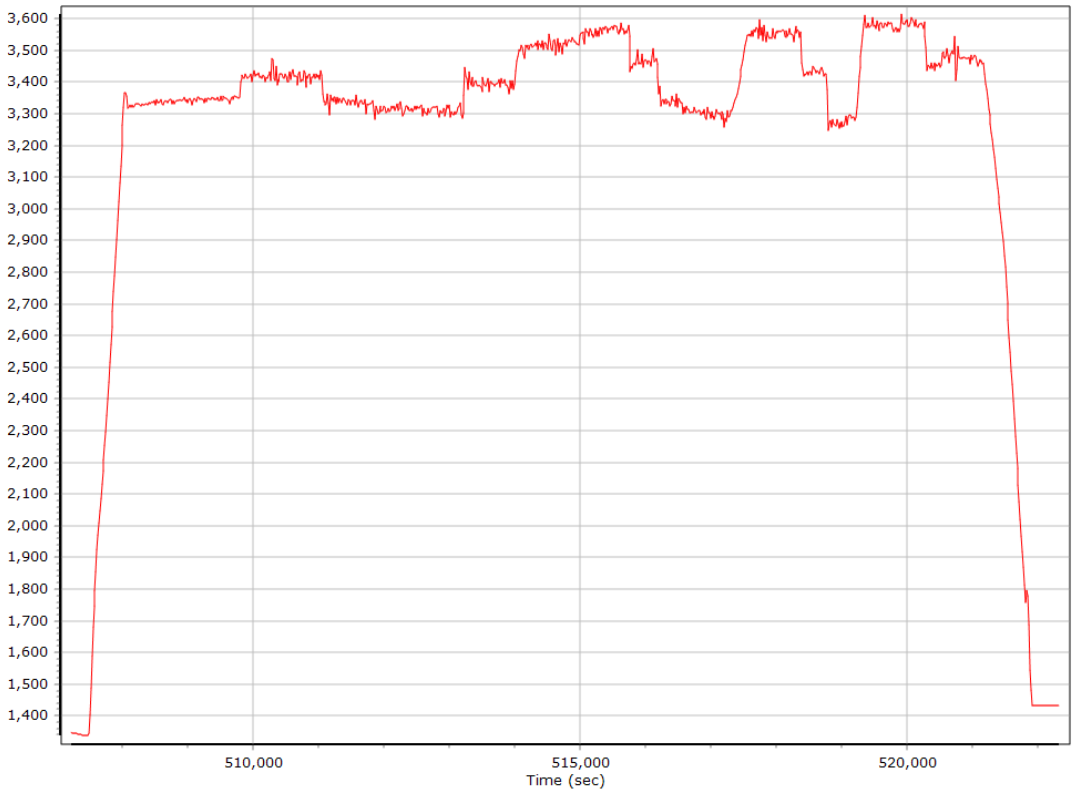
Body Angular Rate

Forward Processed Trajectory Information

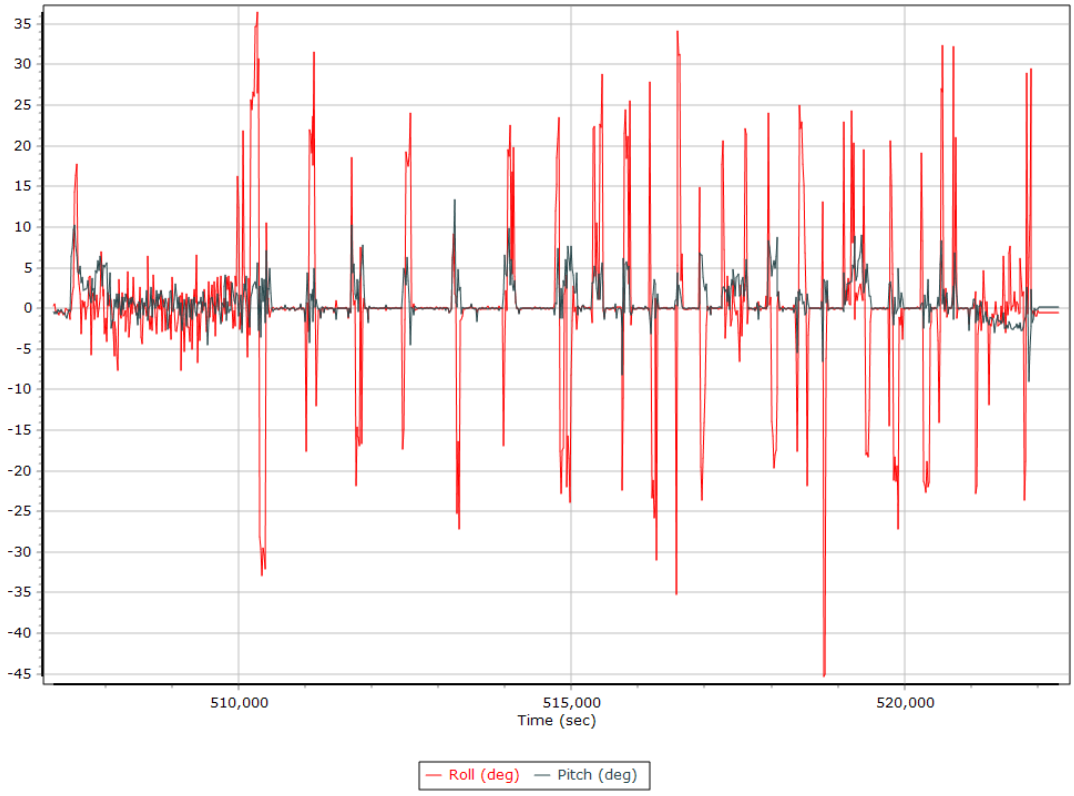
Top View



Altitude



Roll/Pitch



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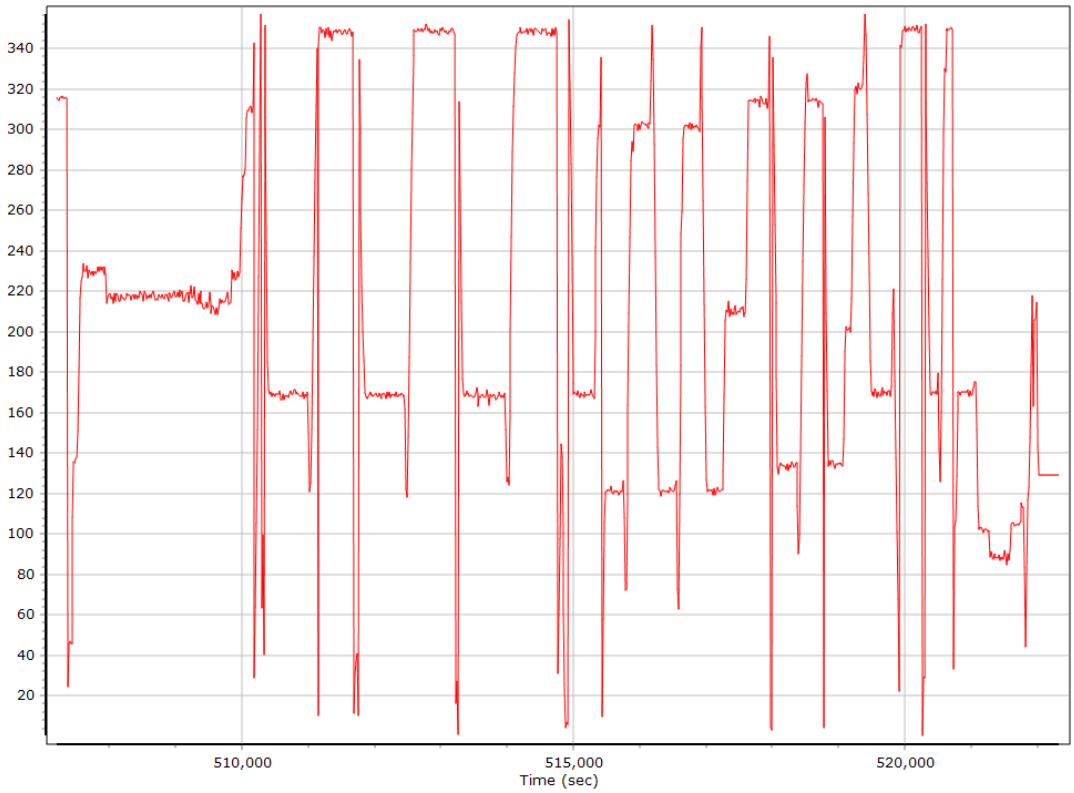
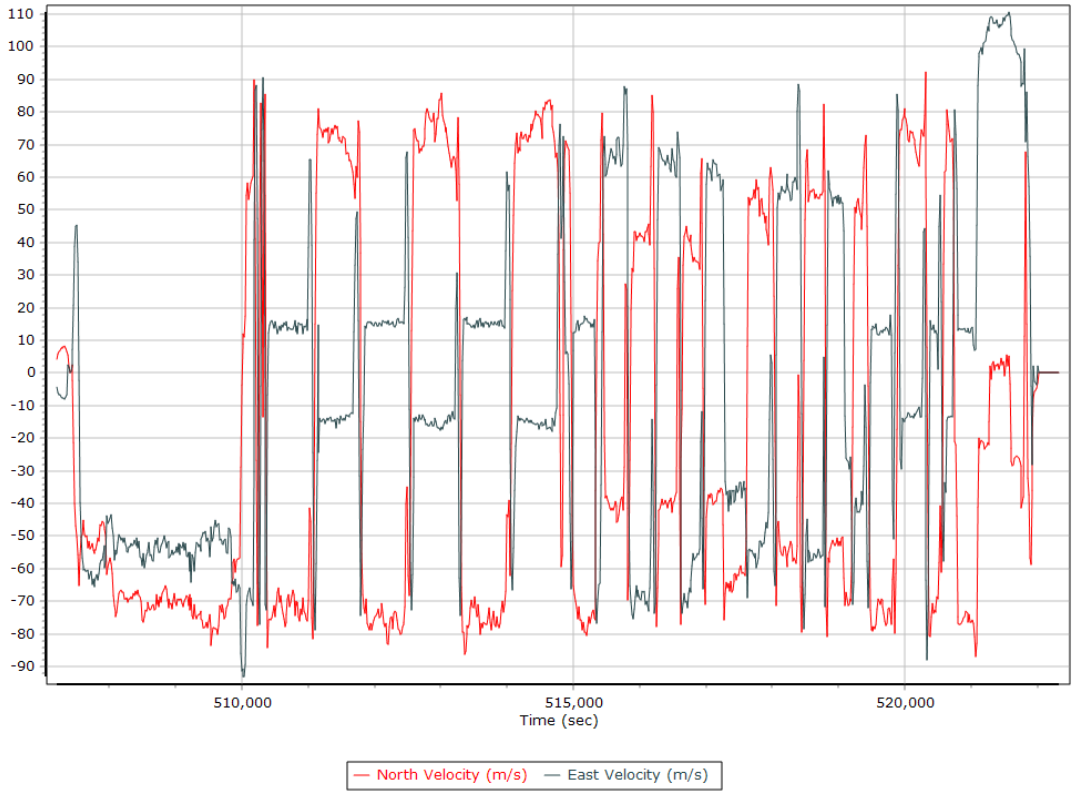
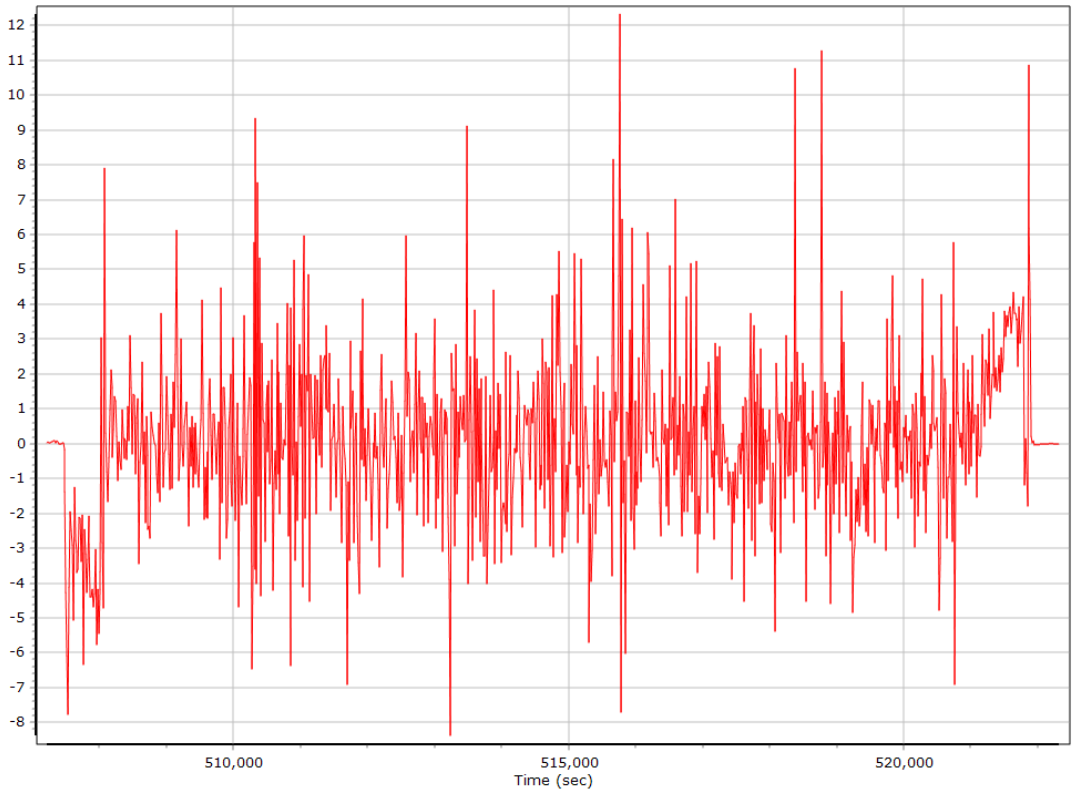


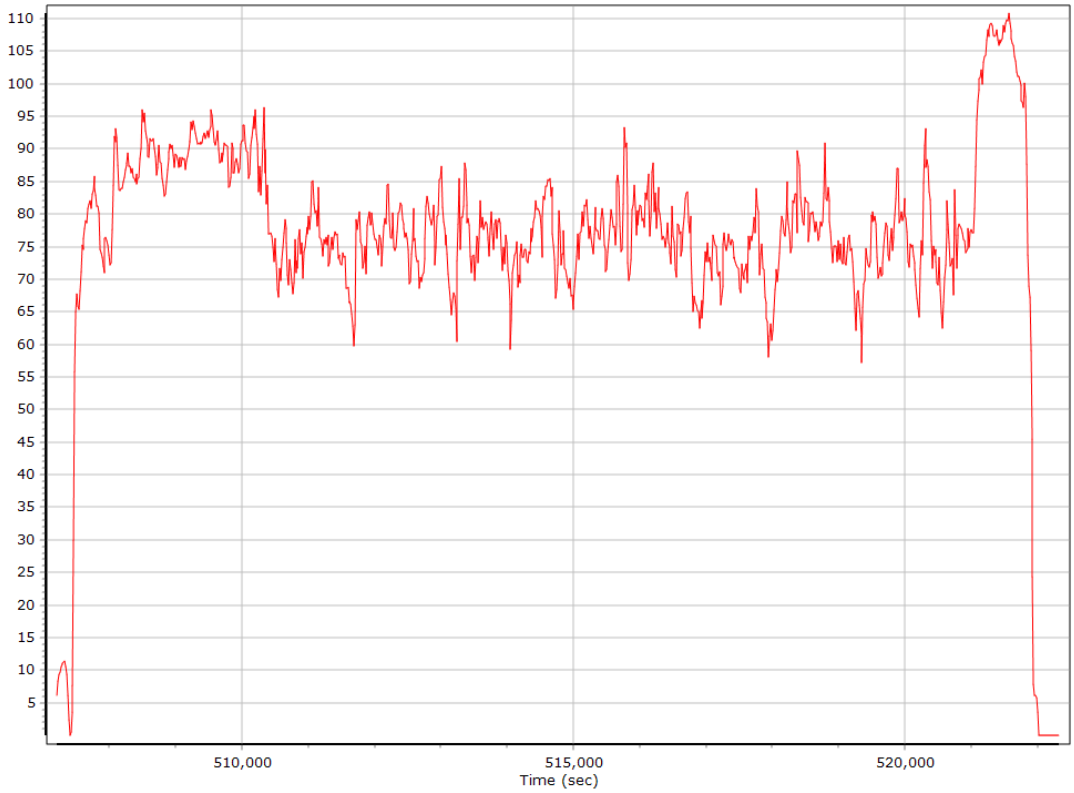
North/East Velocity



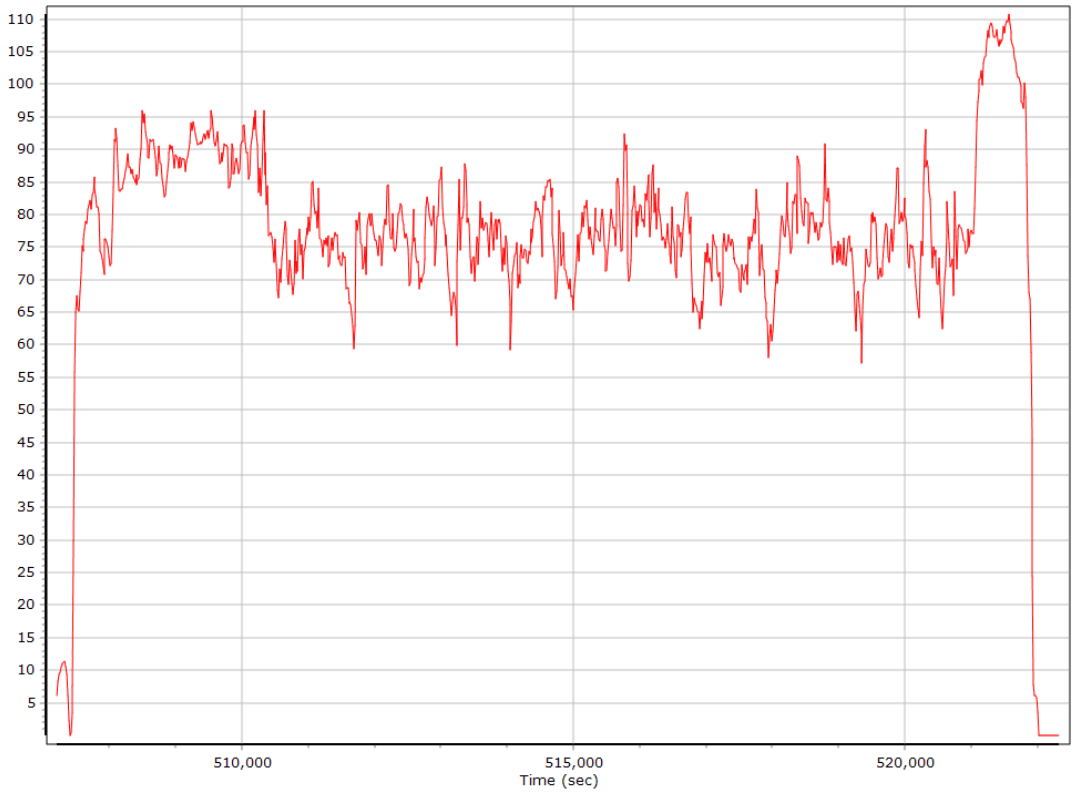
Down Velocity



Total Speed

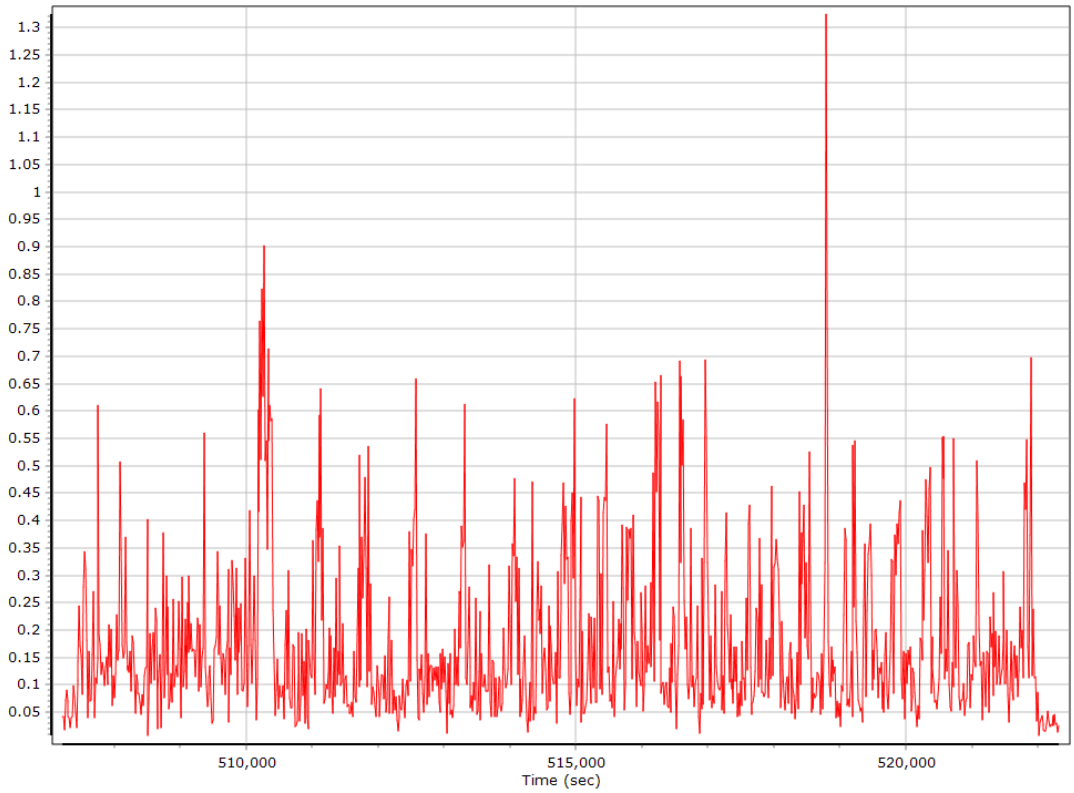


Ground Speed



Body Acceleration

Total Body Acceleration



Body Angular Rate

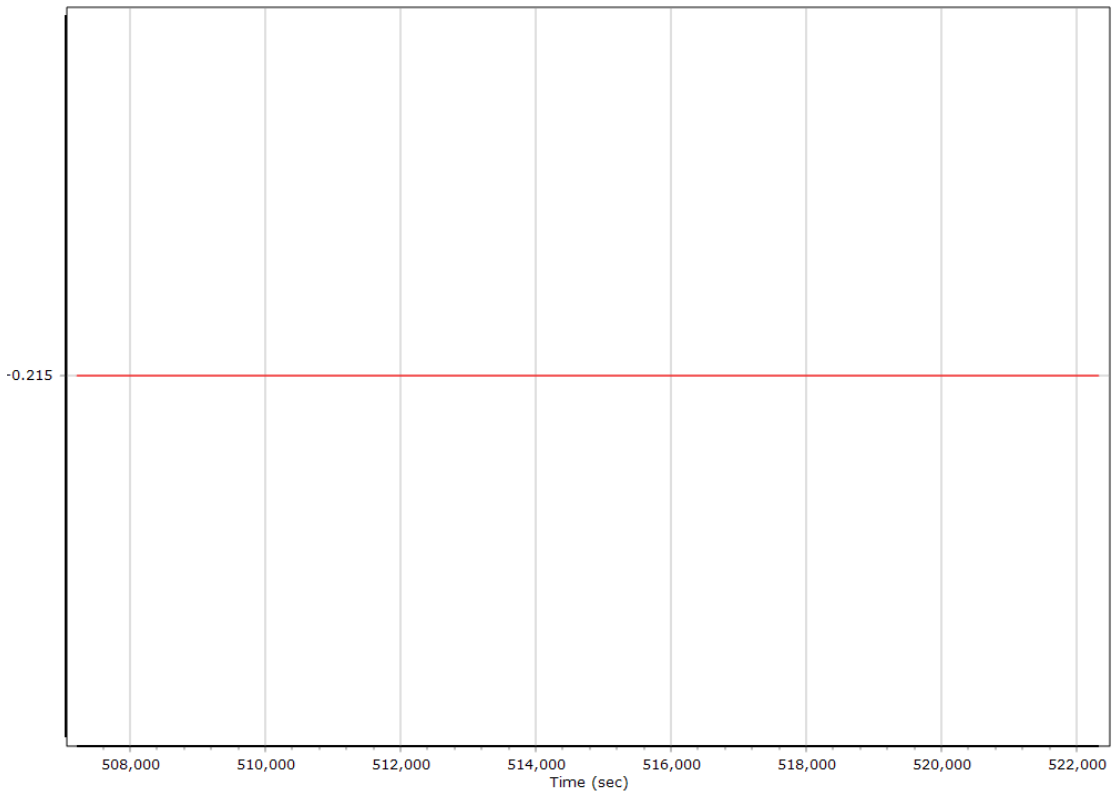
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Trimble RTX Nav		
Stabilized mount	True		
Processing start time	506771.030 (06/26/2020 20:45:53)		
Processing end time	522324.000 (06/27/2020 01:05:06)		
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)	-0.215	-0.027	-0.964
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

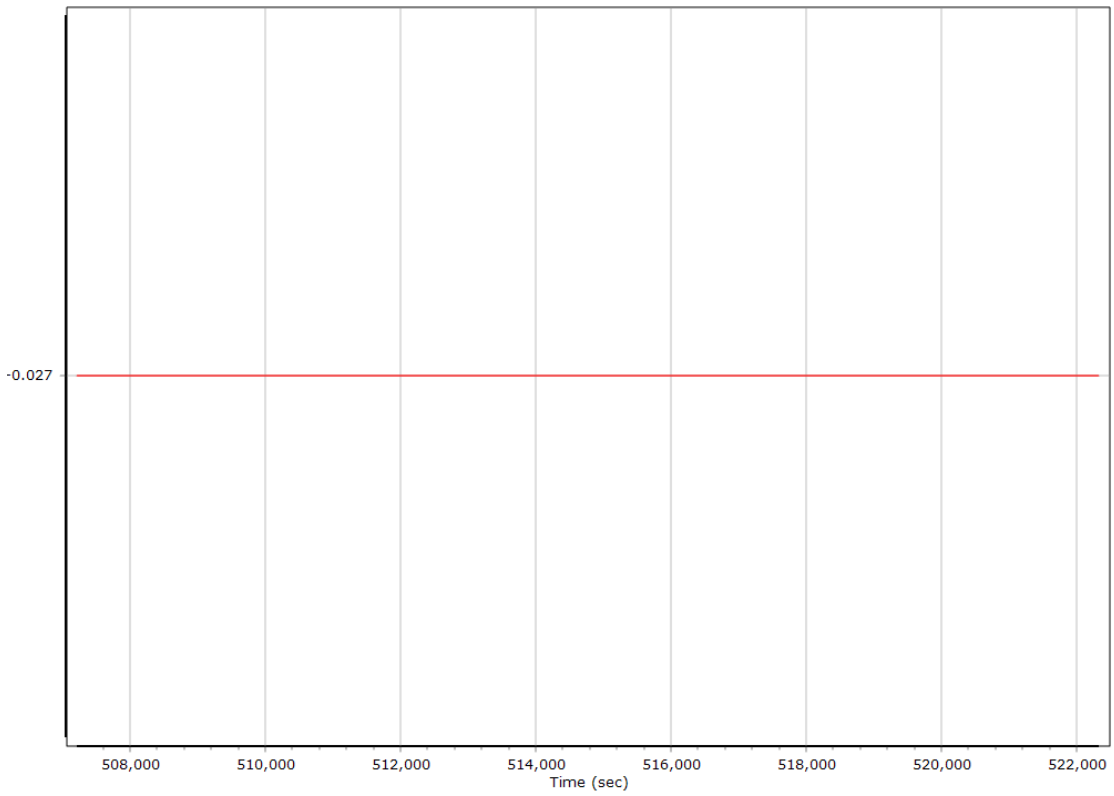
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

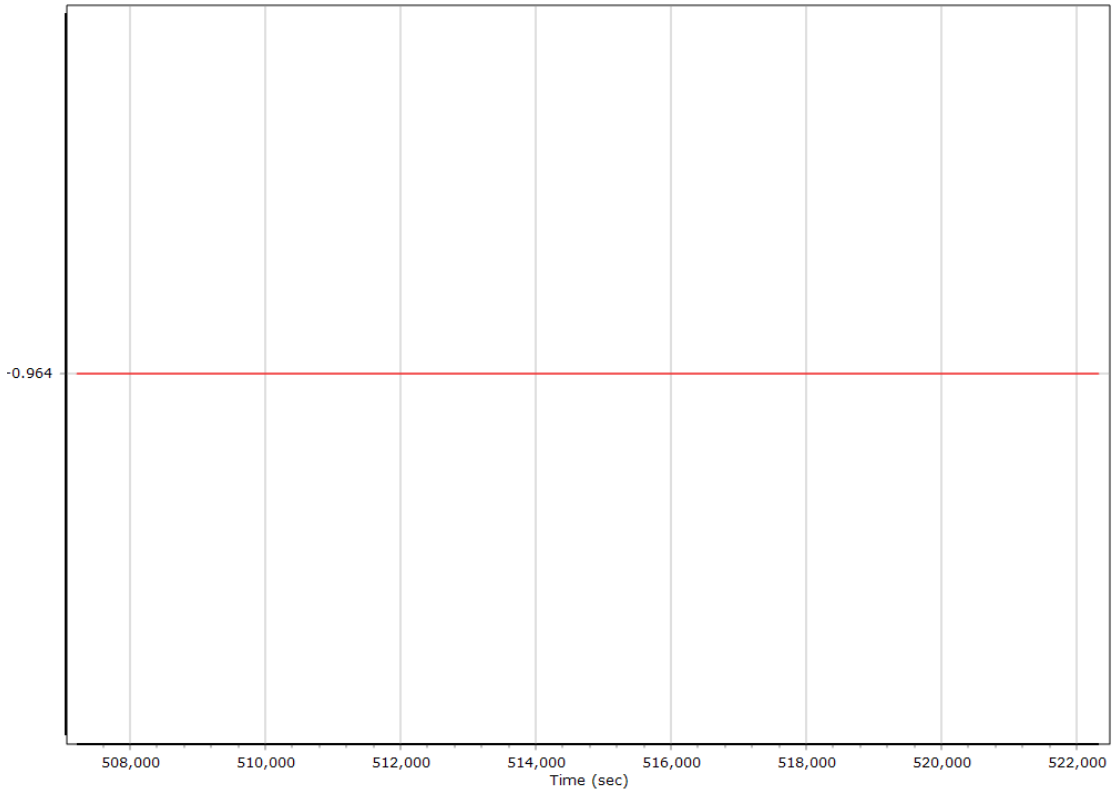
X Reference-Primary GNSS Lever Arm (m)



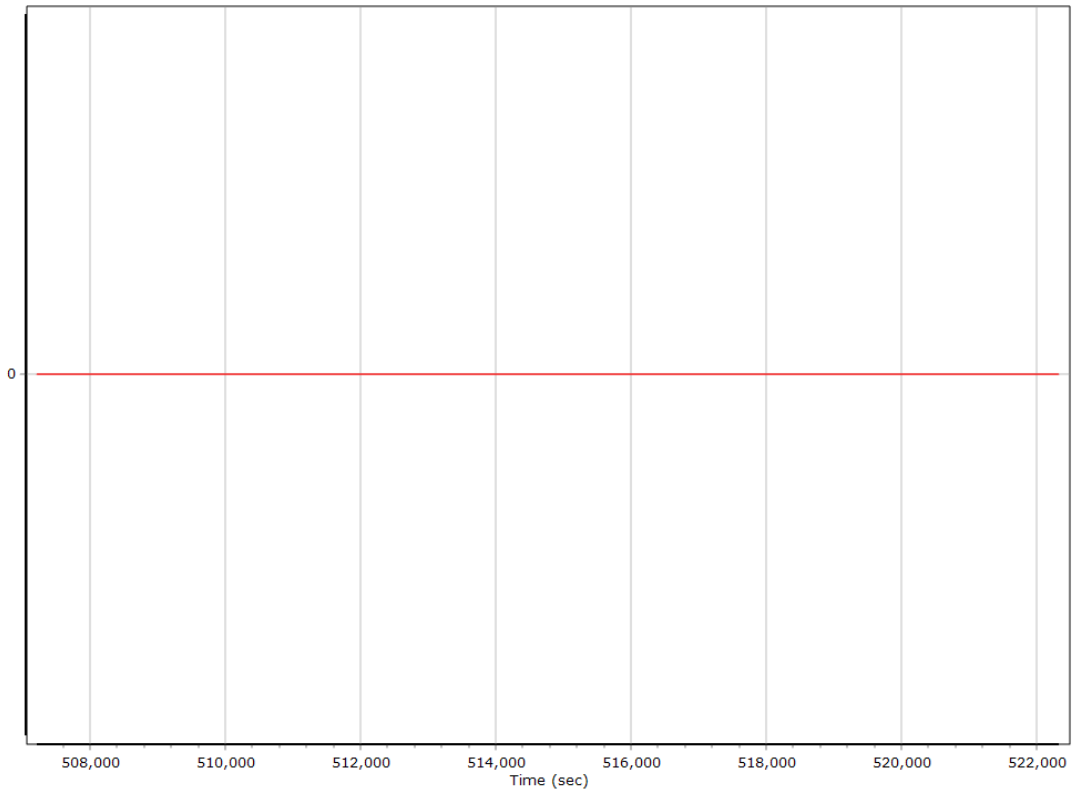
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



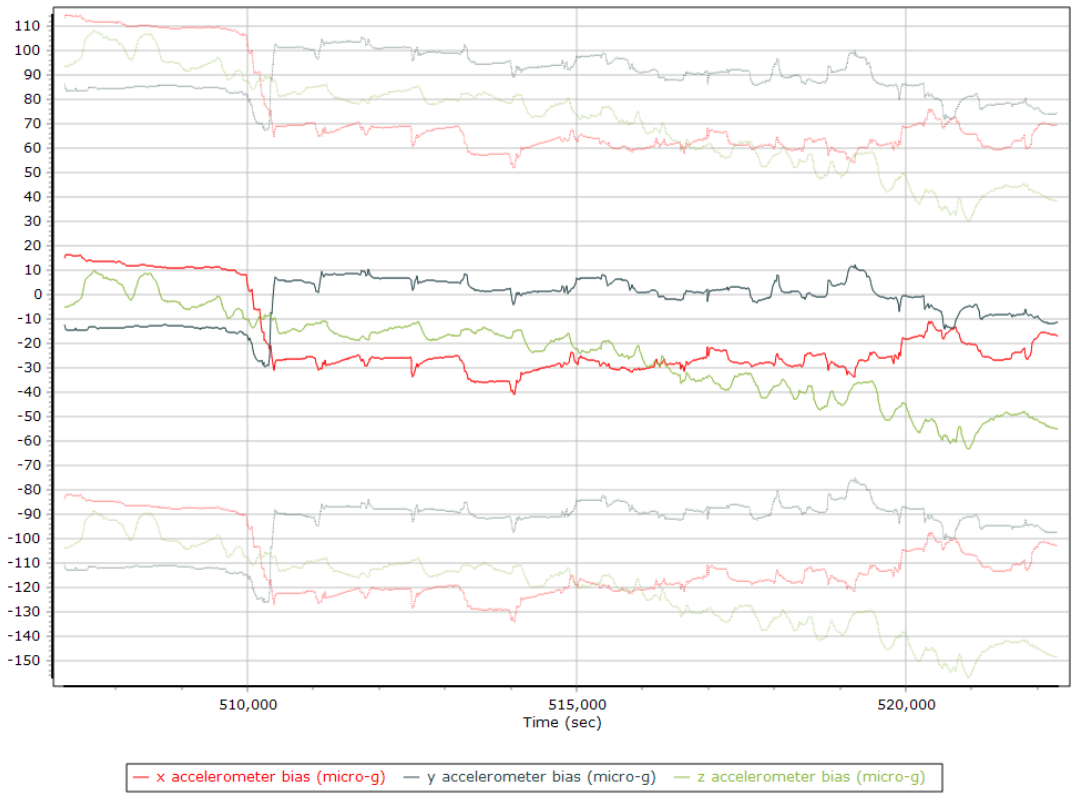
Reference-Primary GNSS Lever Arm Figure of Merit



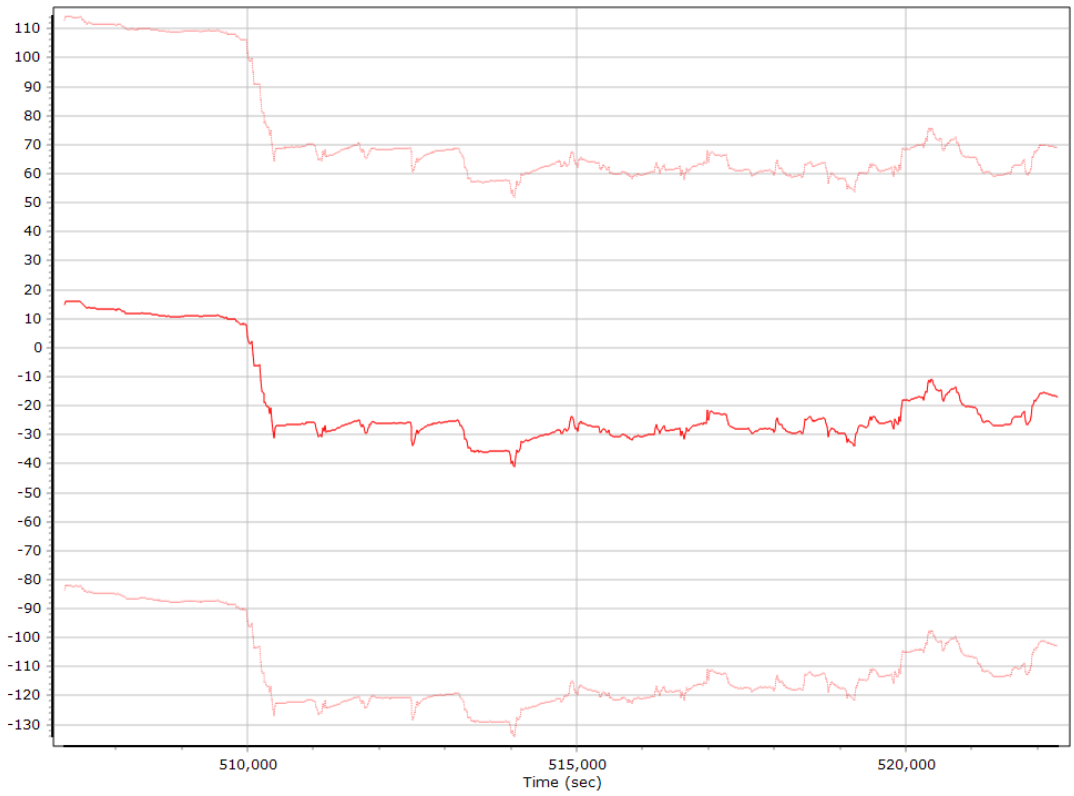
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

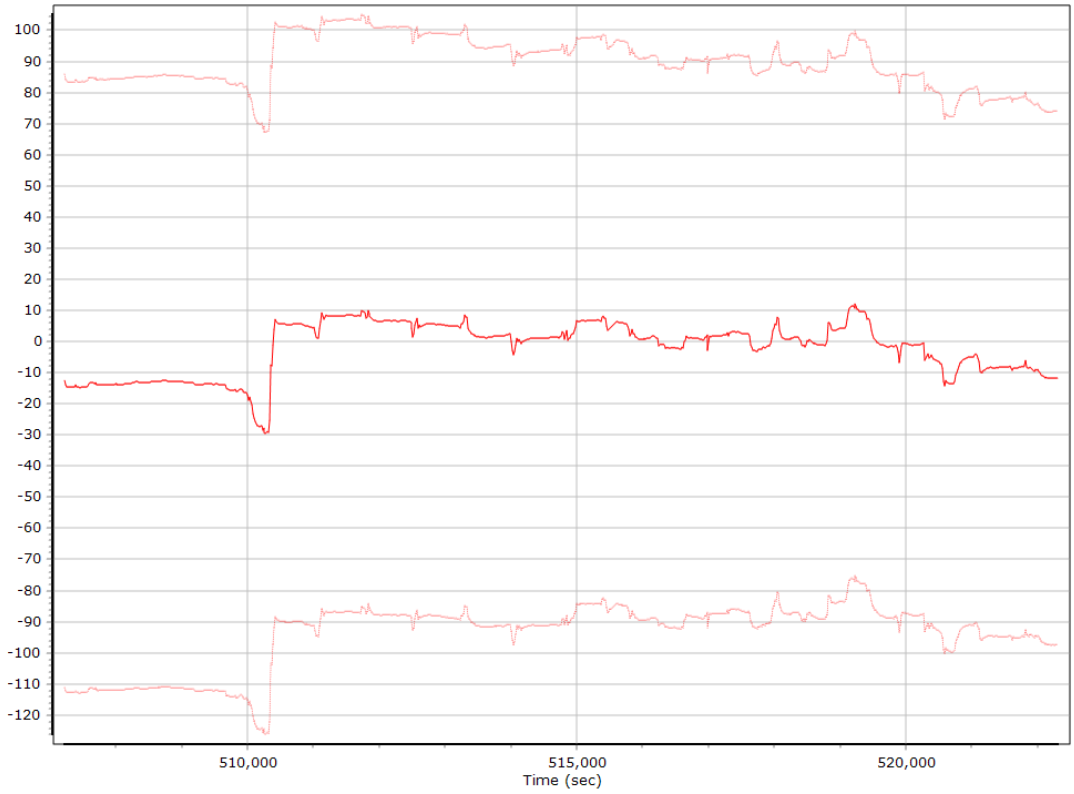
Accelerometer Bias (micro-g)



X Accelerometer Bias (micro-g)

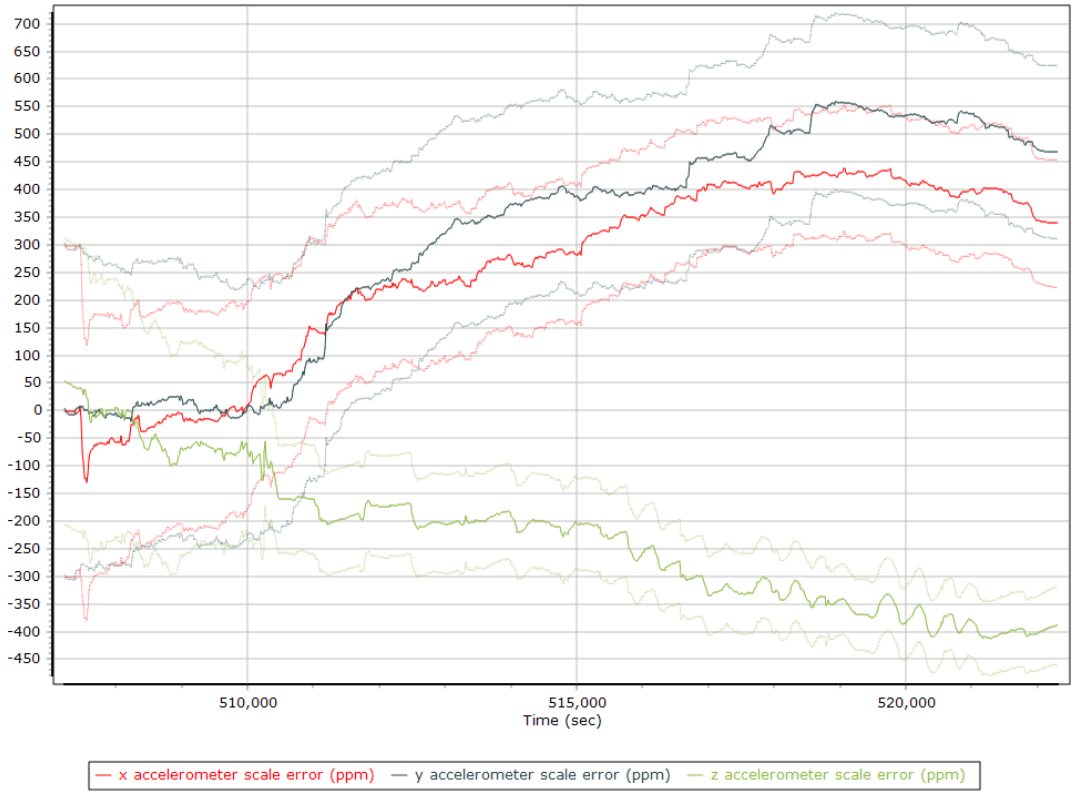


Y Accelerometer Bias (micro-g)

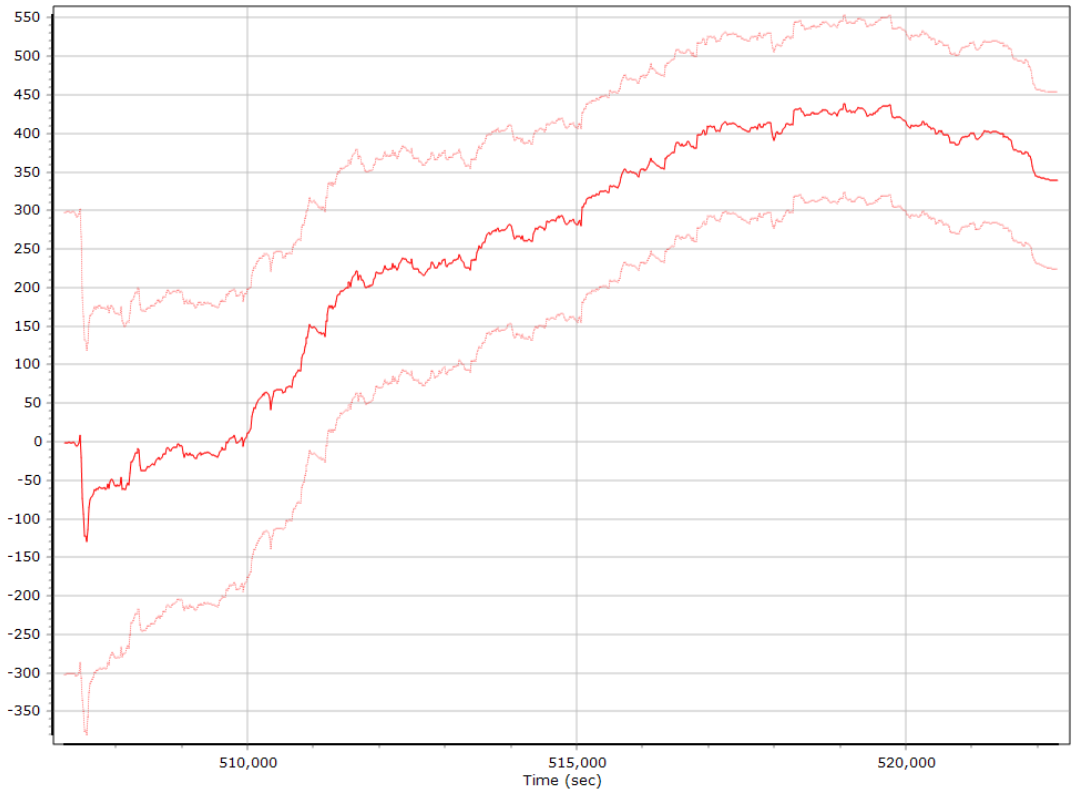


Z Accelerometer Bias (micro-g)

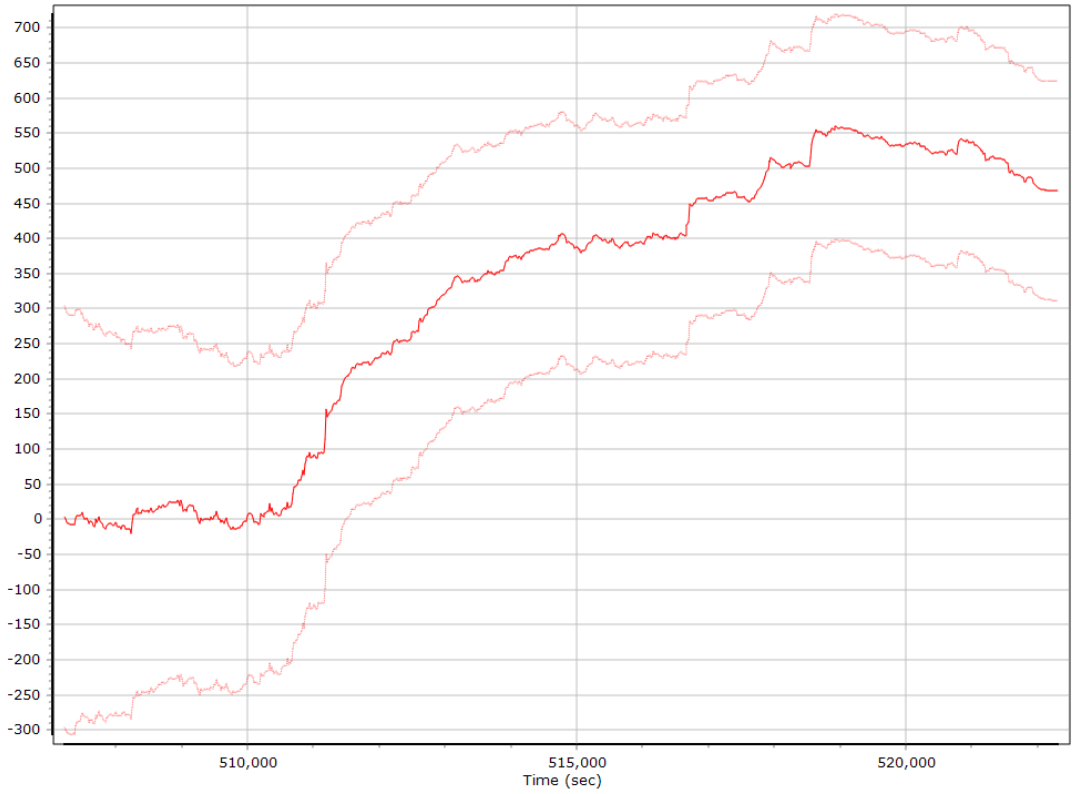
Accelerometer Scale Error (ppm)



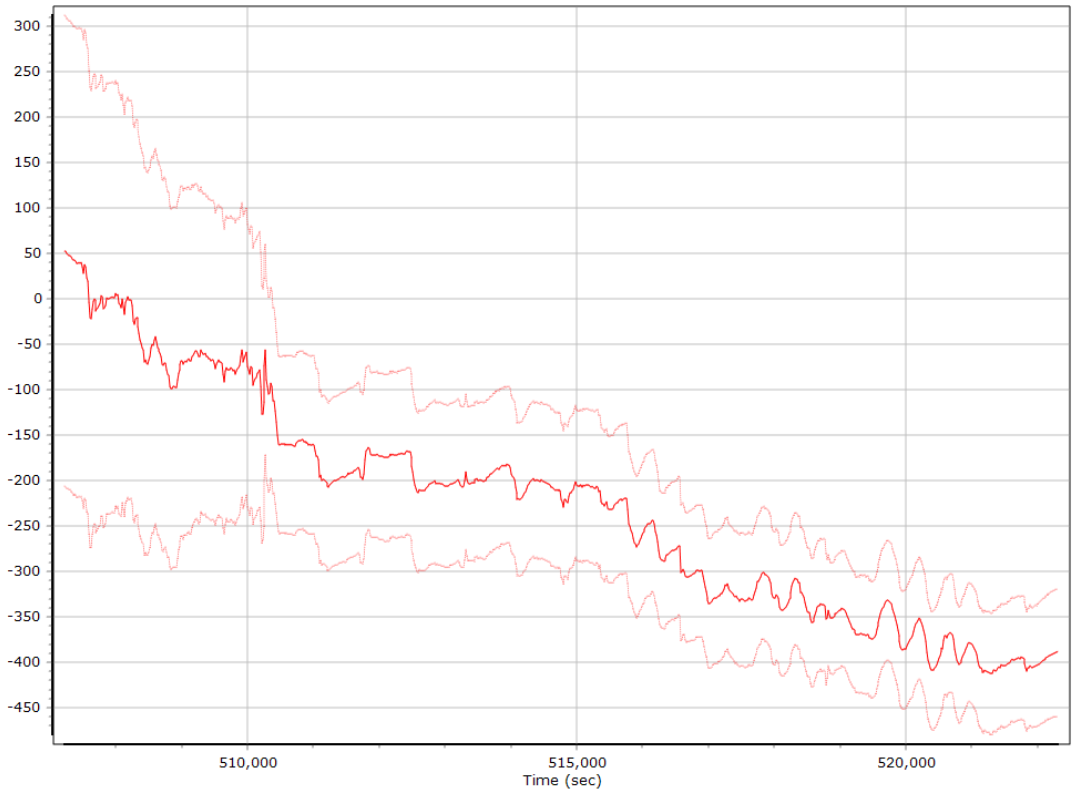
X Accelerometer Scale Error (ppm)



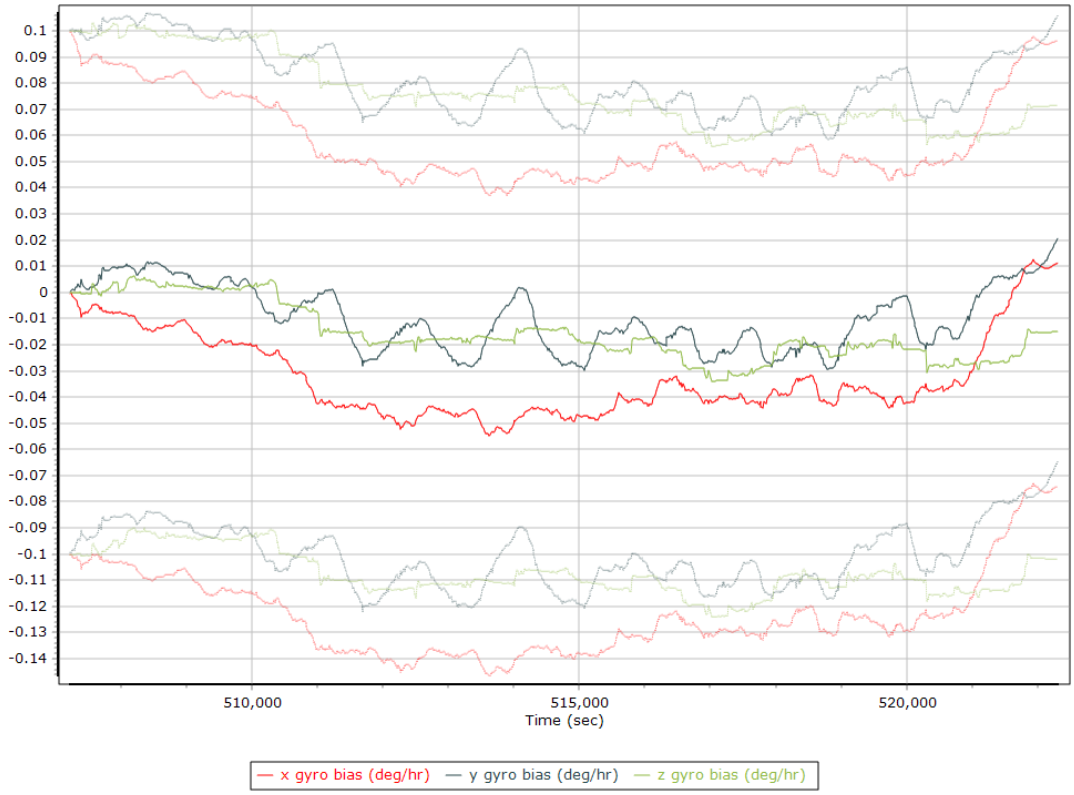
Y Accelerometer Scale Error (ppm)



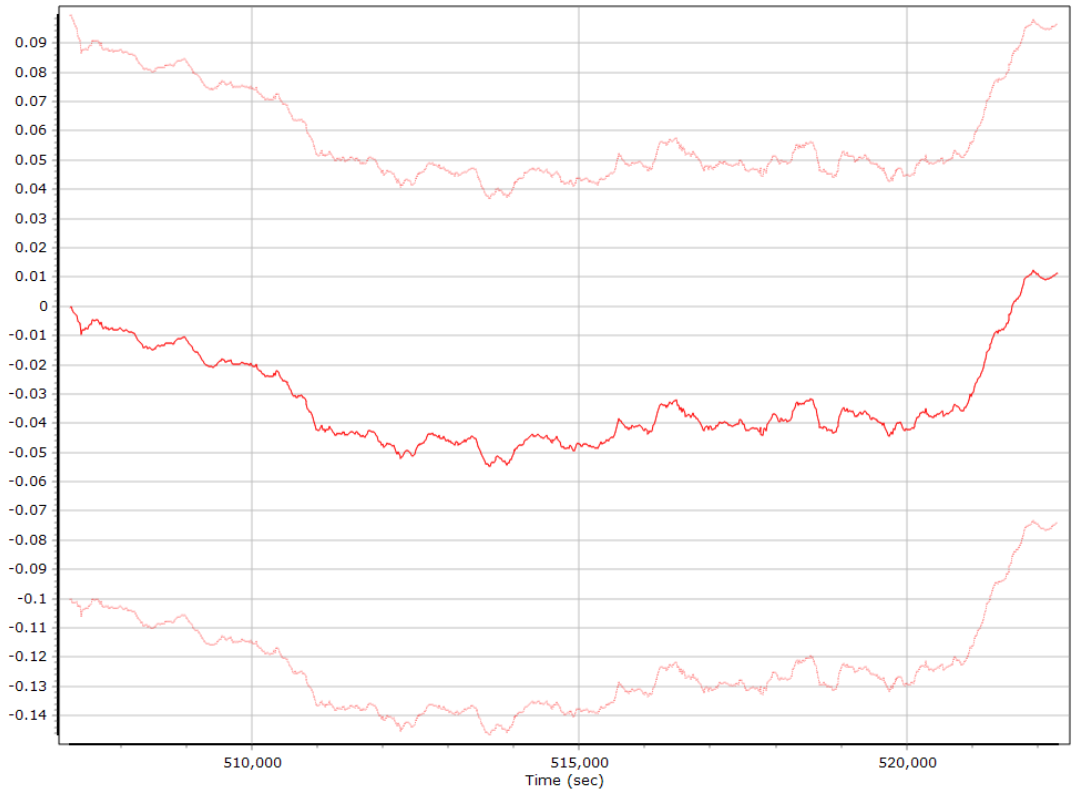
Z Accelerometer Scale Error (ppm)



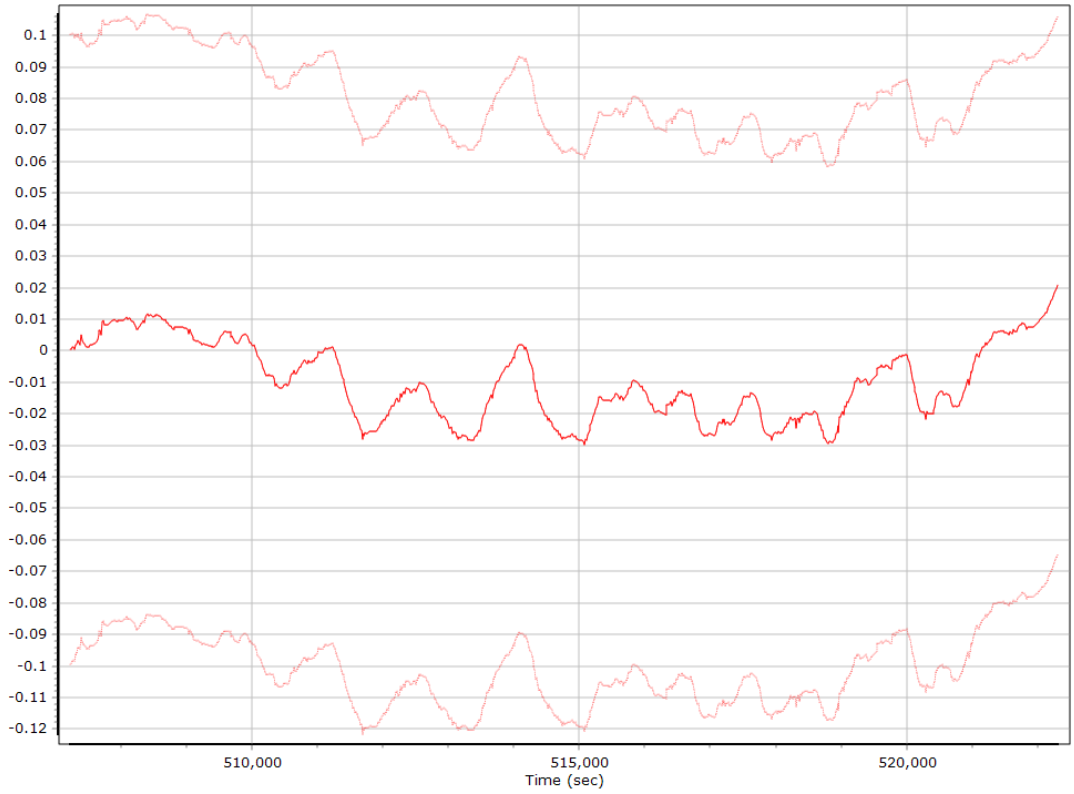
Gyro Bias (deg/h)



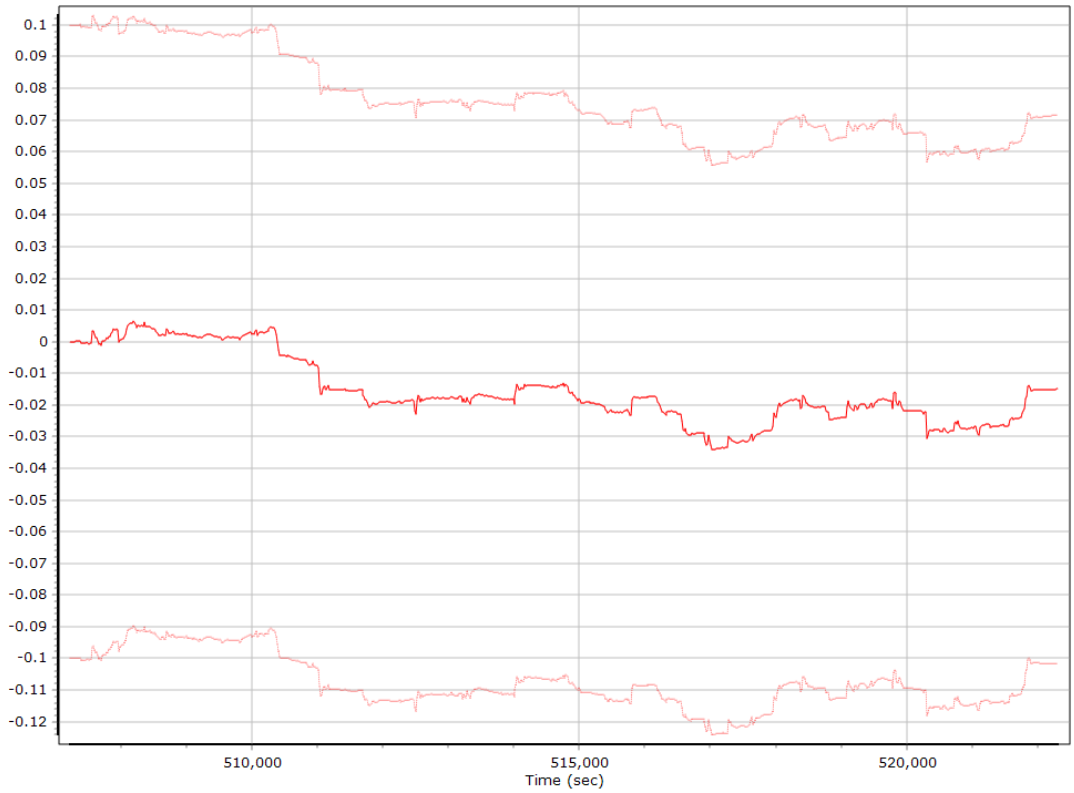
X Gyro Bias (deg/h)



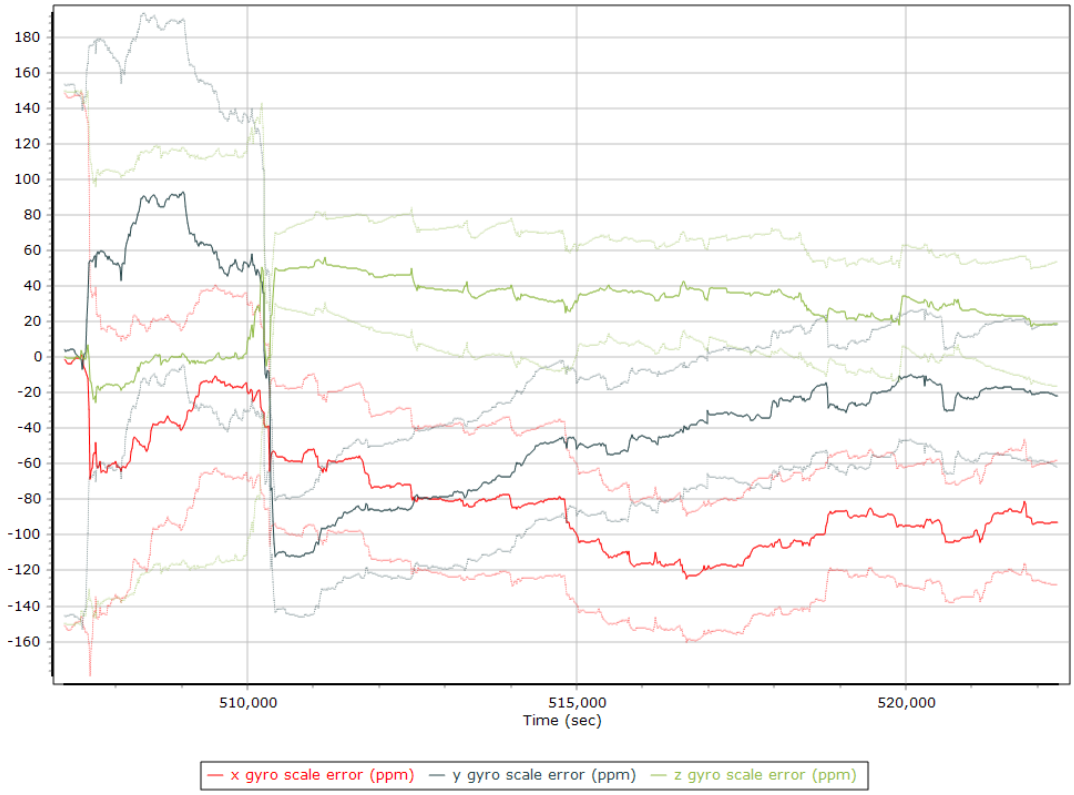
Y Gyro Bias (deg/h)



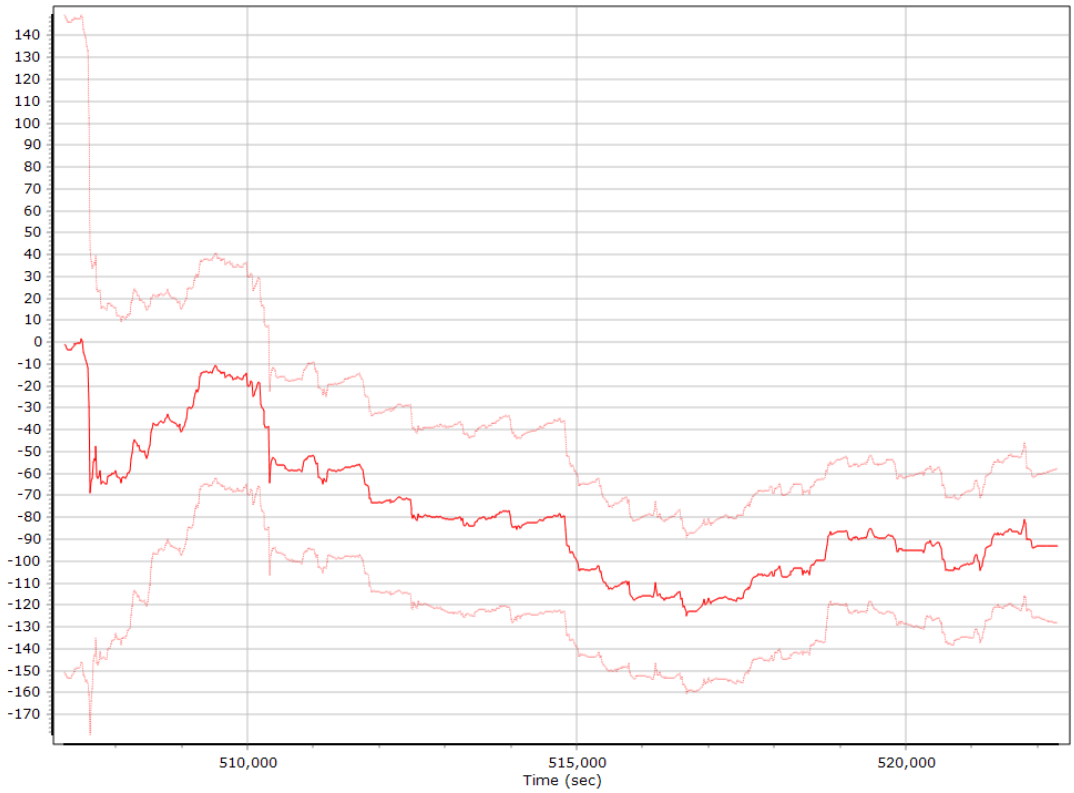
Z Gyro Bias (deg/h)



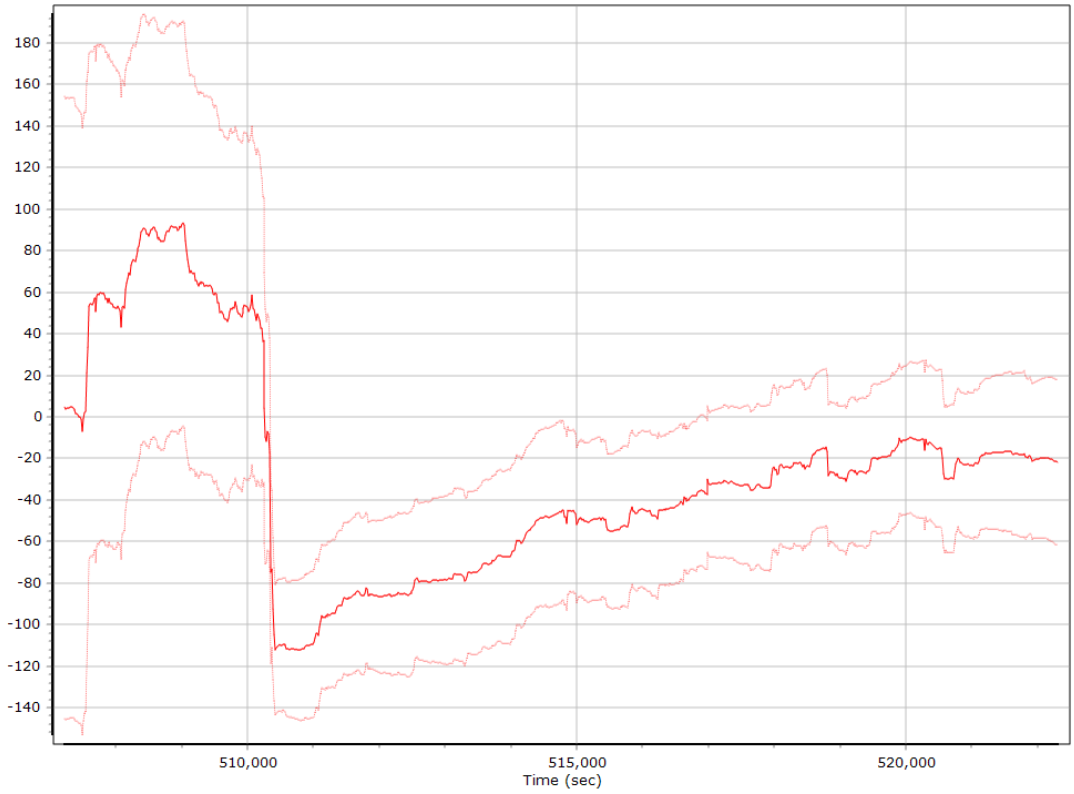
Gyro Scale Error (ppm)



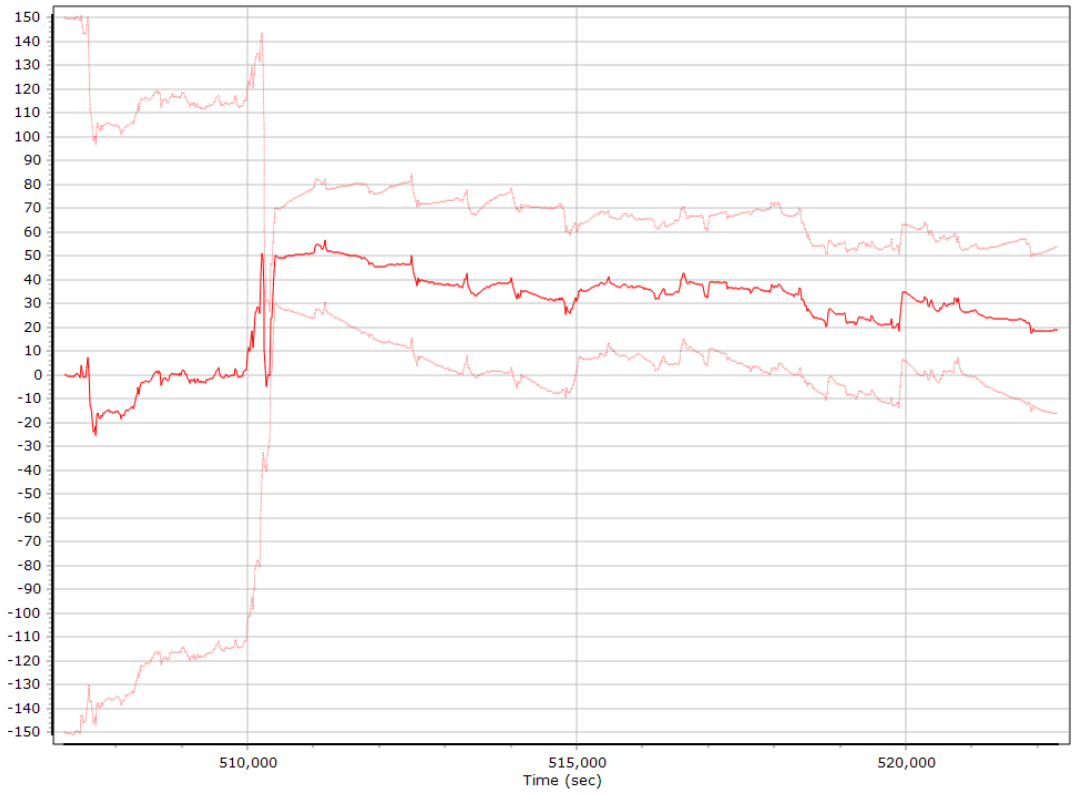
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

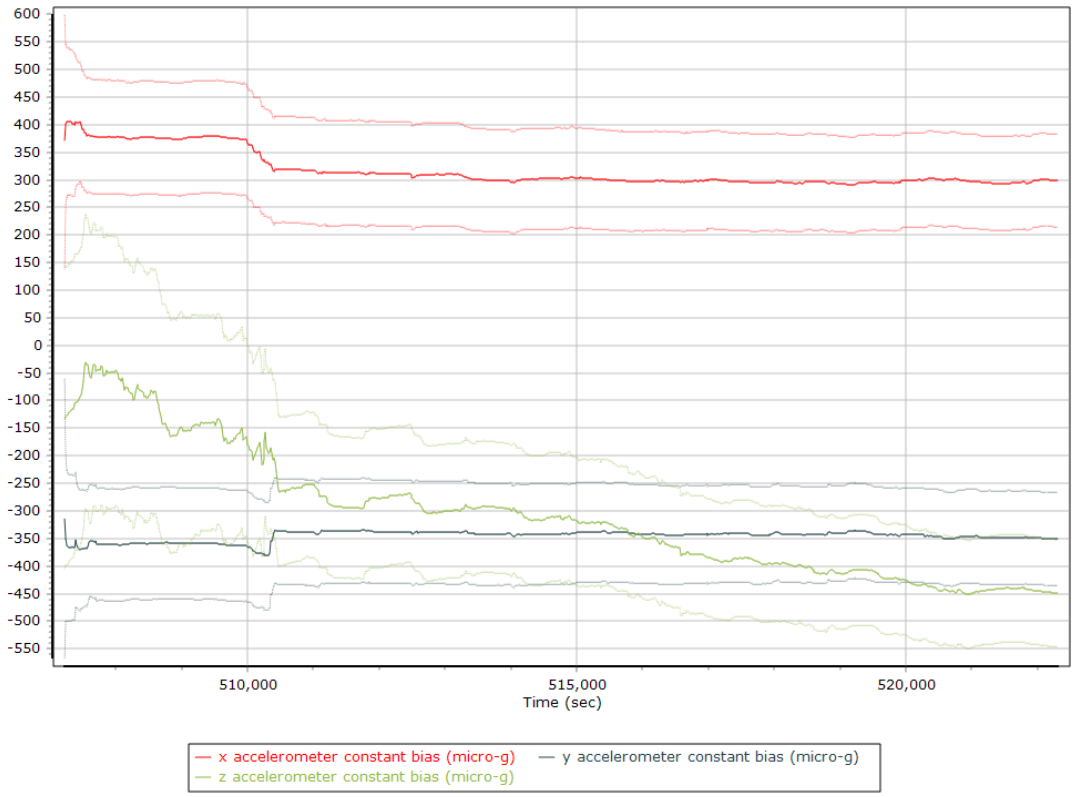


Z Gyro Scale Error (ppm)

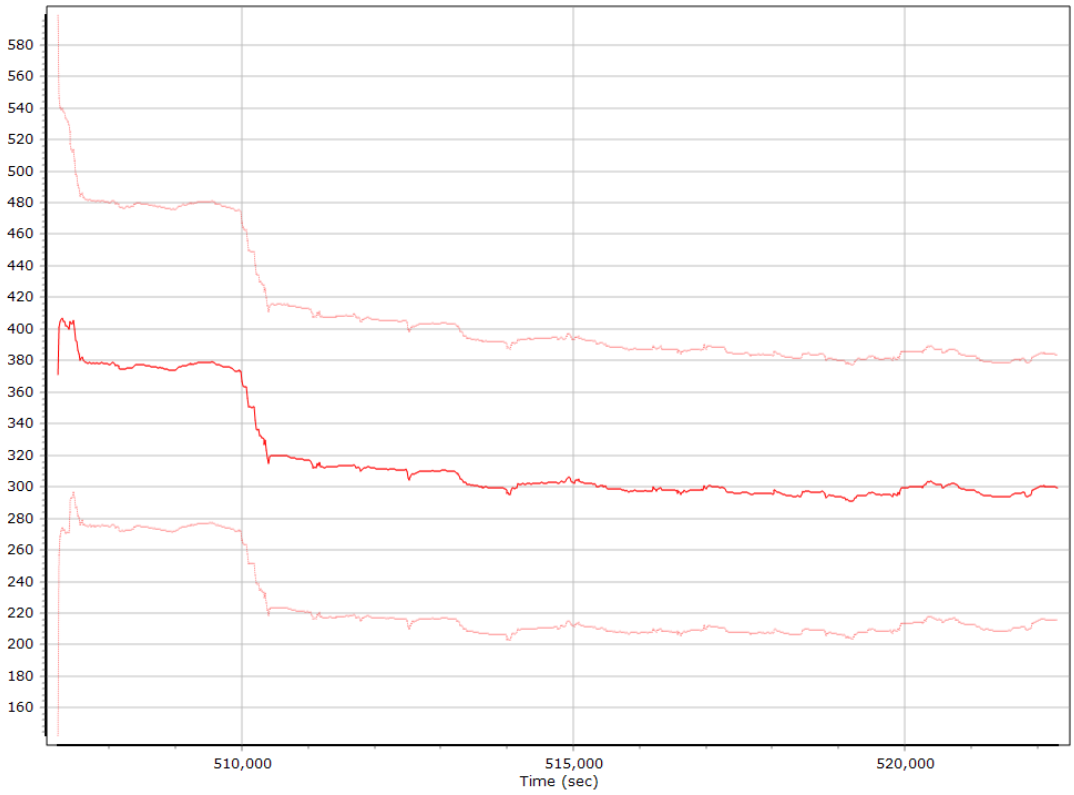


Forward Processed Estimated Constant Errors, Reference Frame

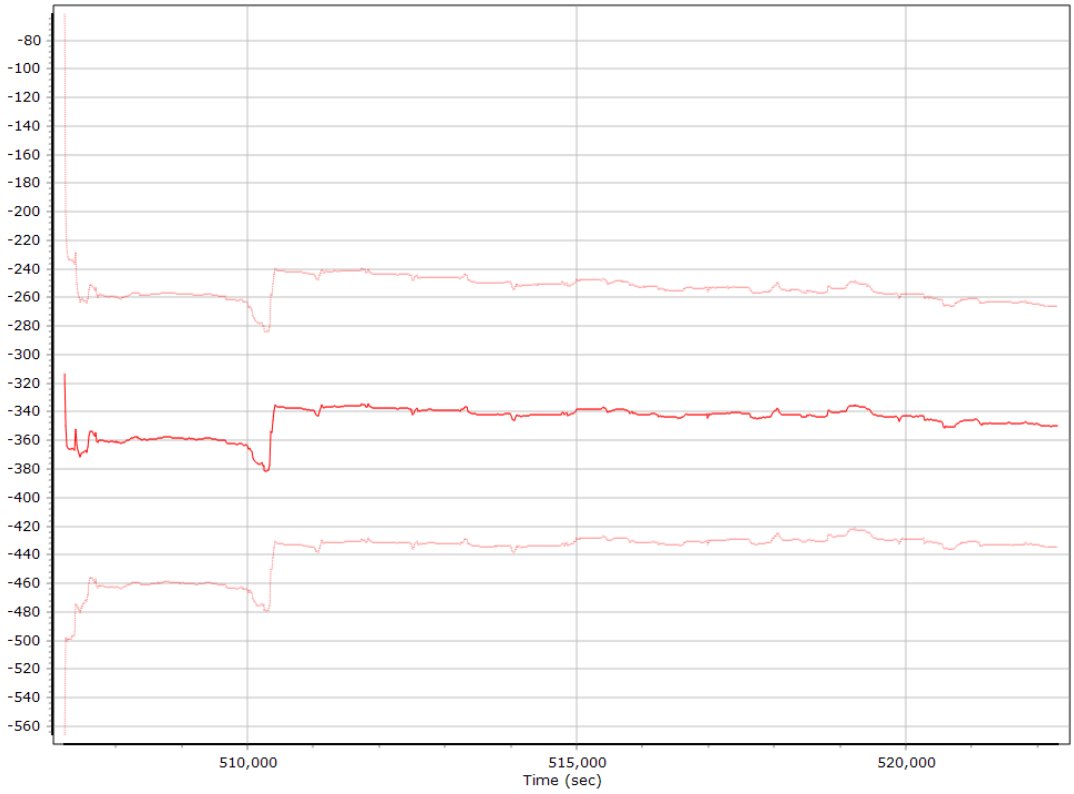
Accelerometer Bias (micro-g)



X Accelerometer Bias (micro-g)

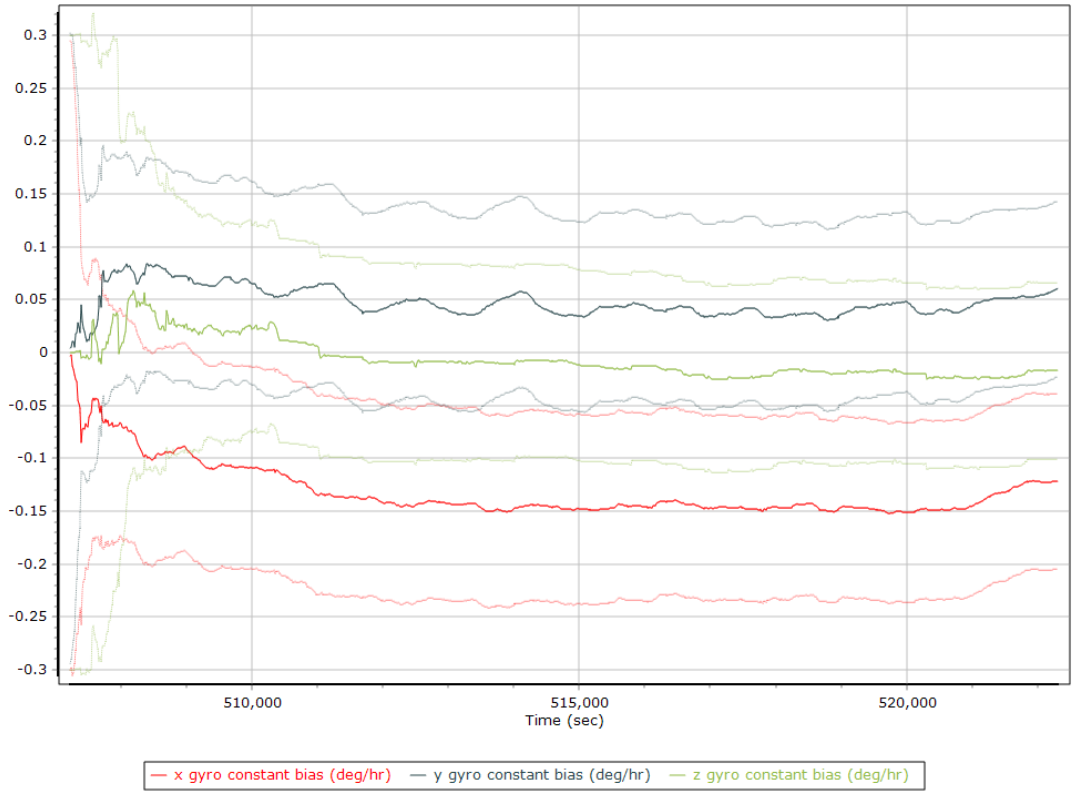


Y Accelerometer Bias (micro-g)

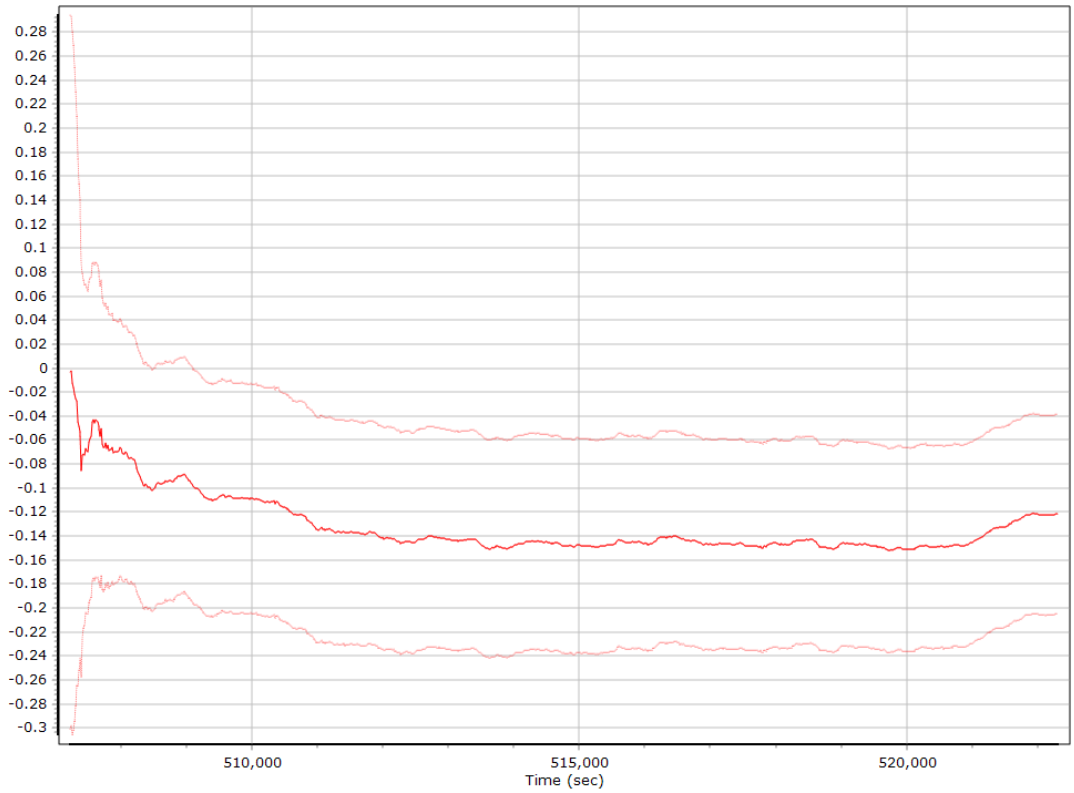


Z Accelerometer Bias (micro-g)

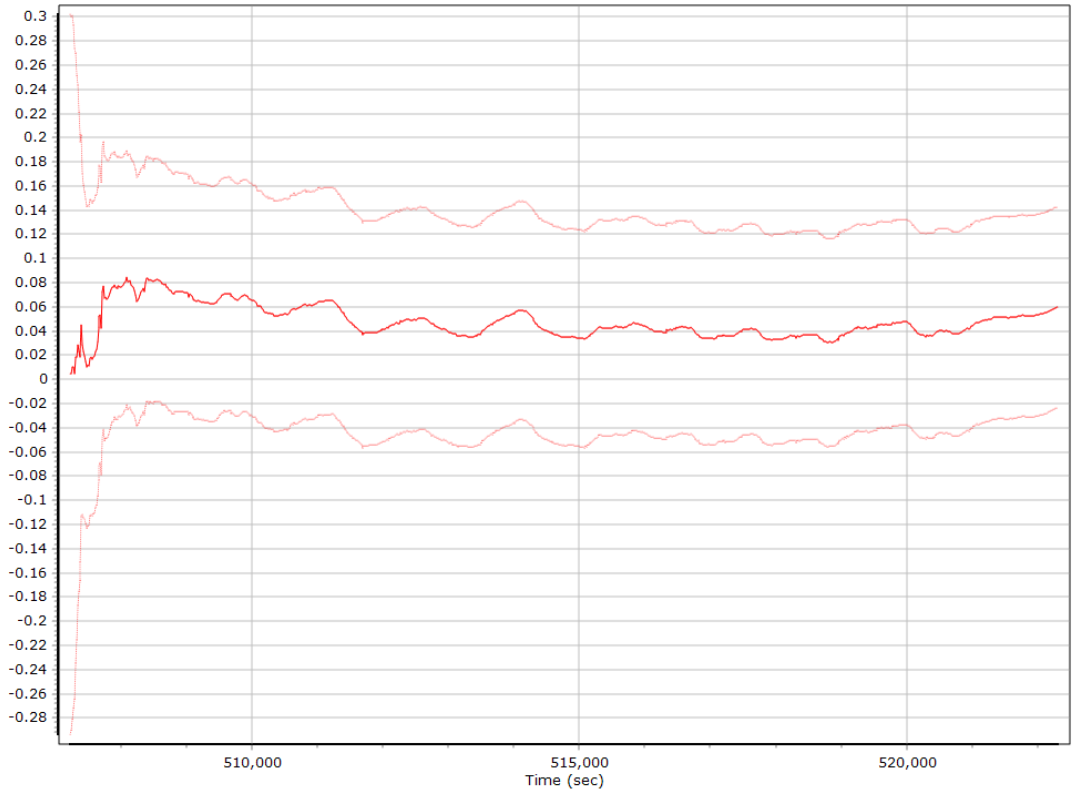
Gyro Bias (deg/h)



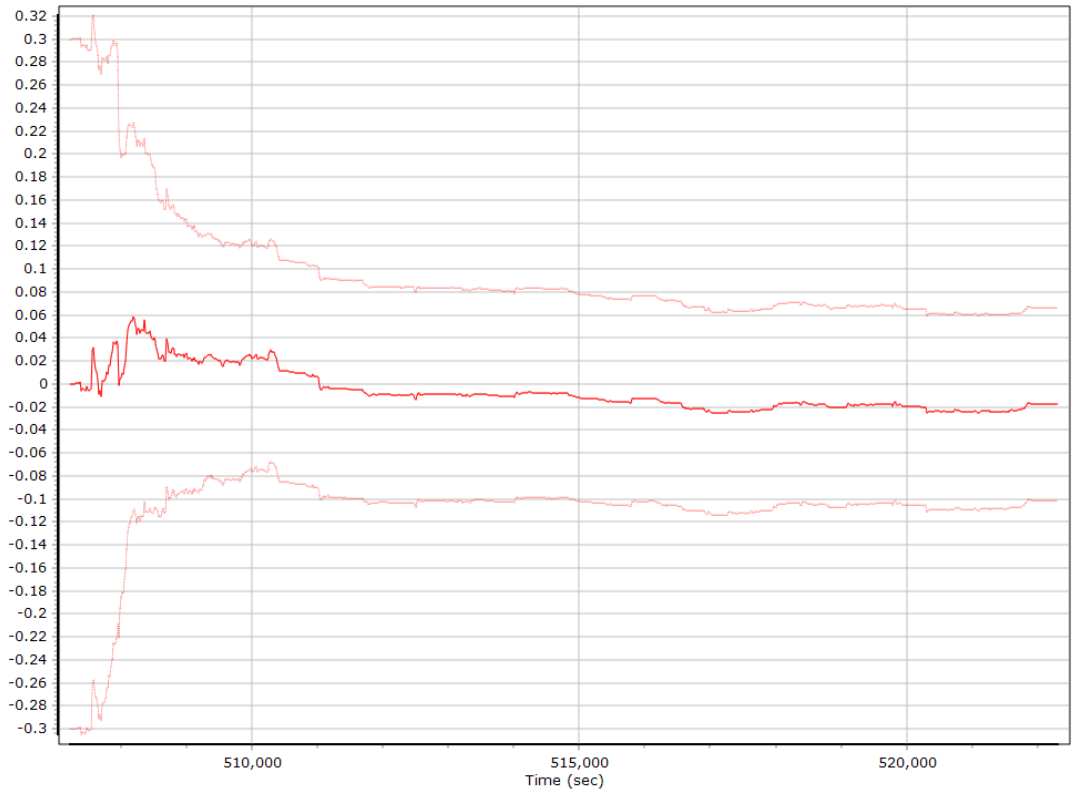
X Gyro Bias (deg/h)



Y Gyro Bias (deg/h)

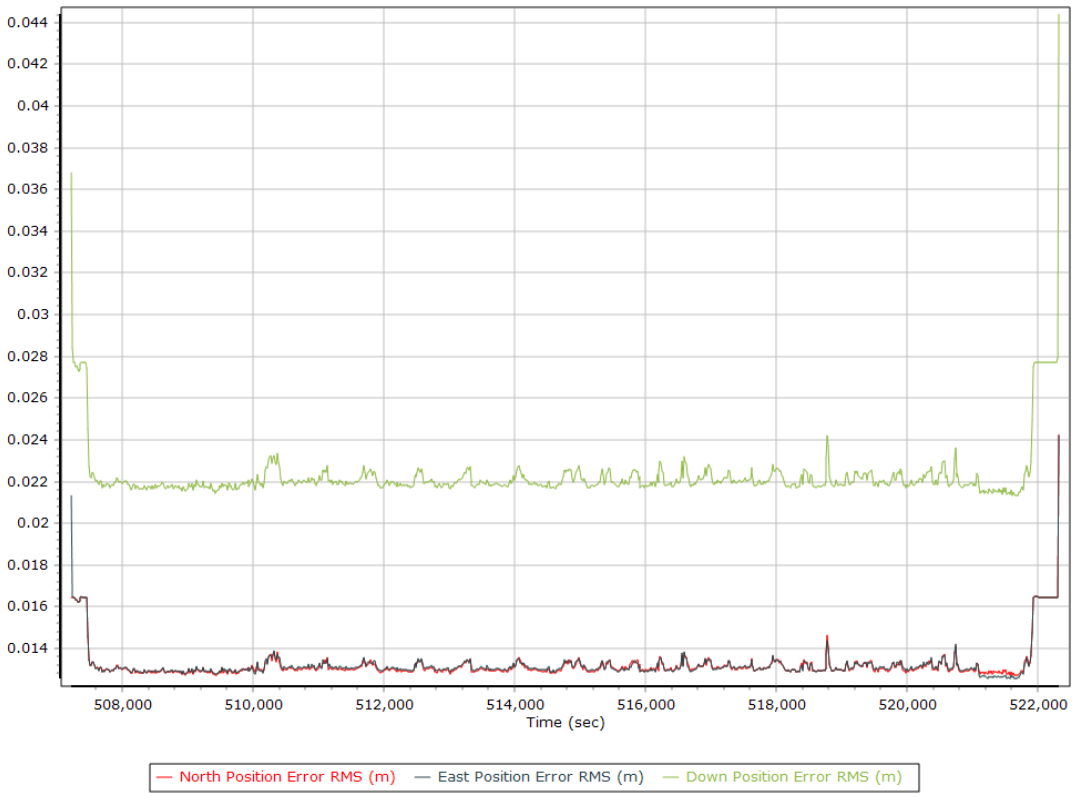


Z Gyro Bias (deg/h)

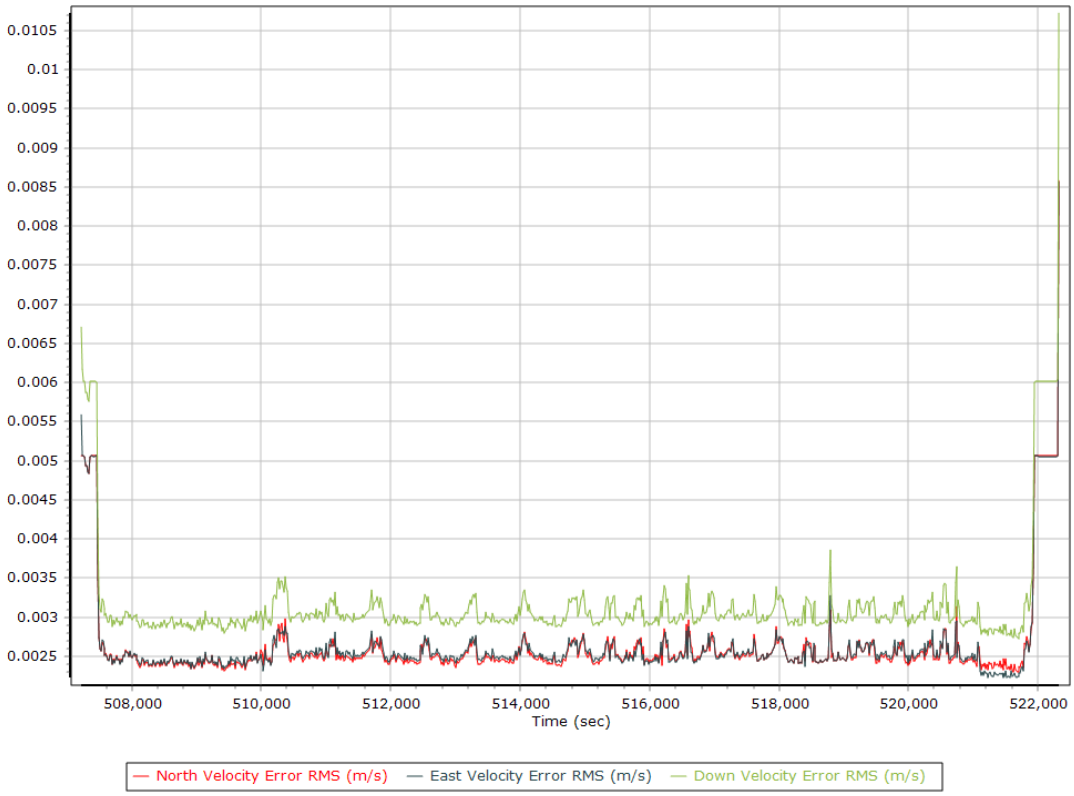


Smoothed Performance Metrics

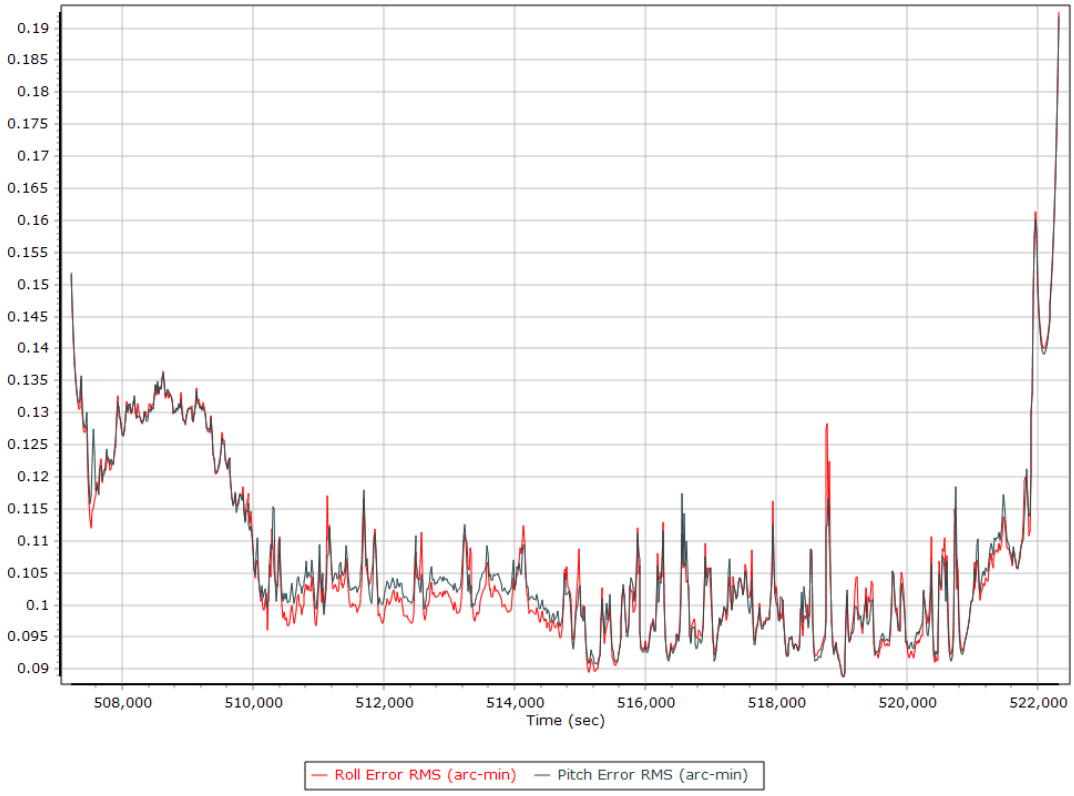
Position Error RMS (m)



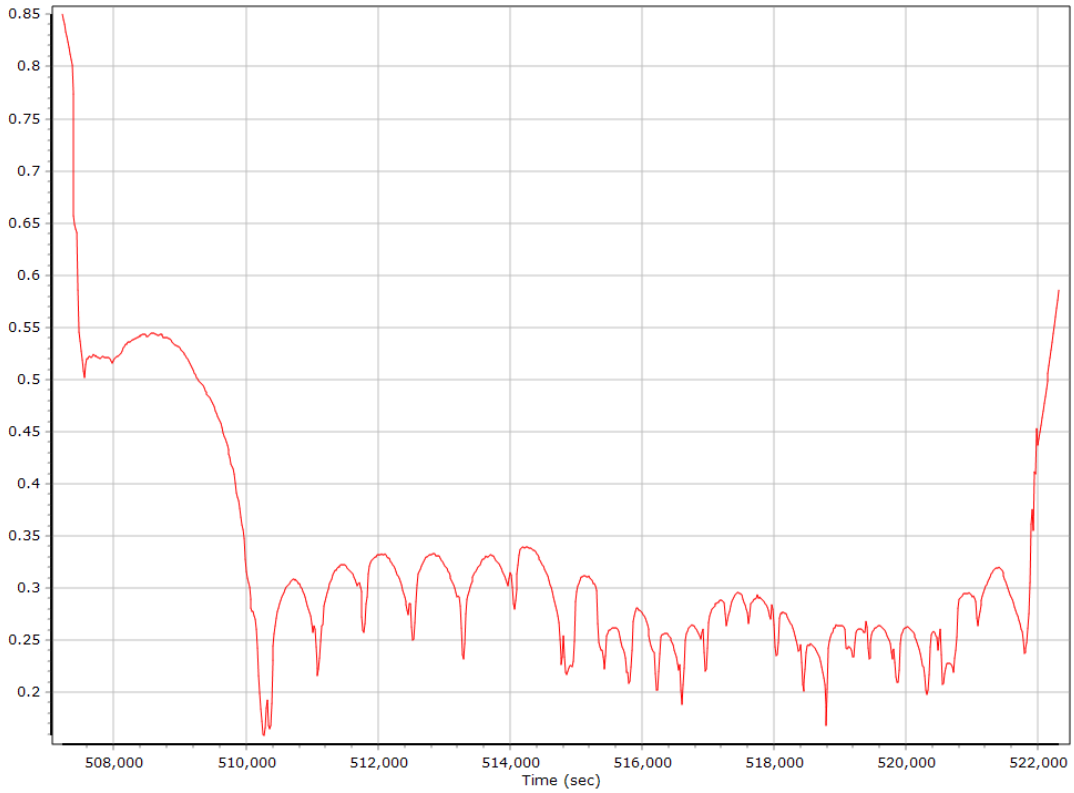
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

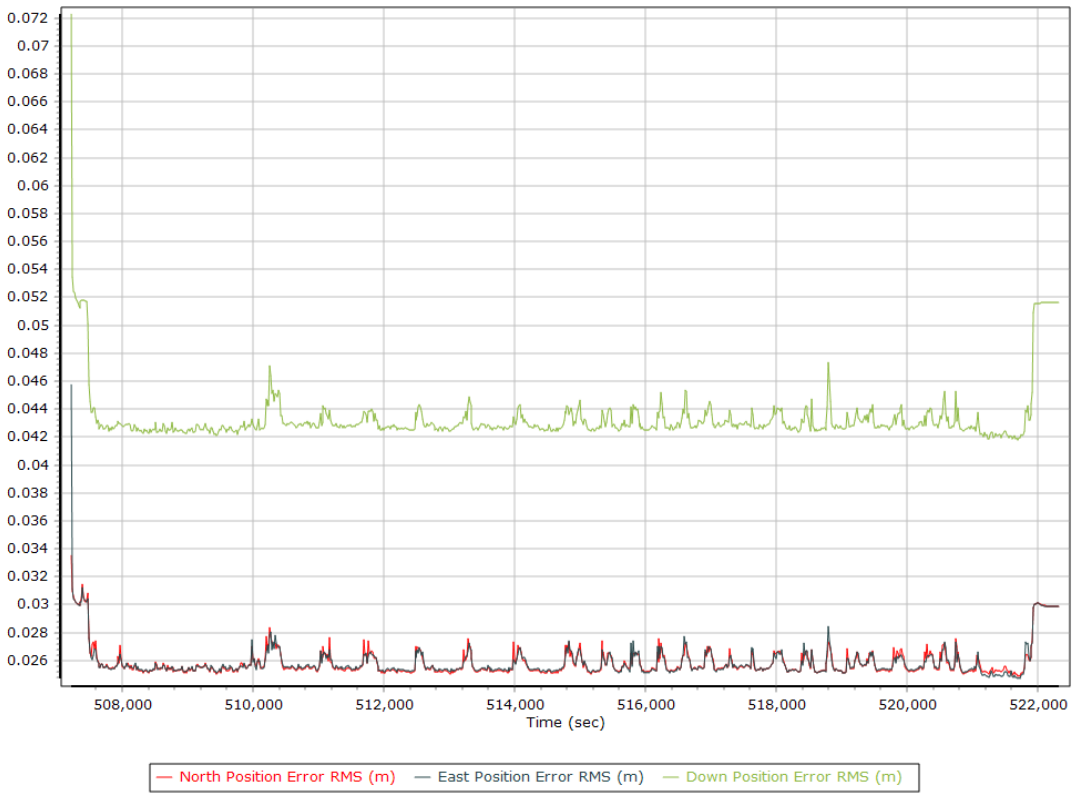


Heading Error RMS (arc-min)

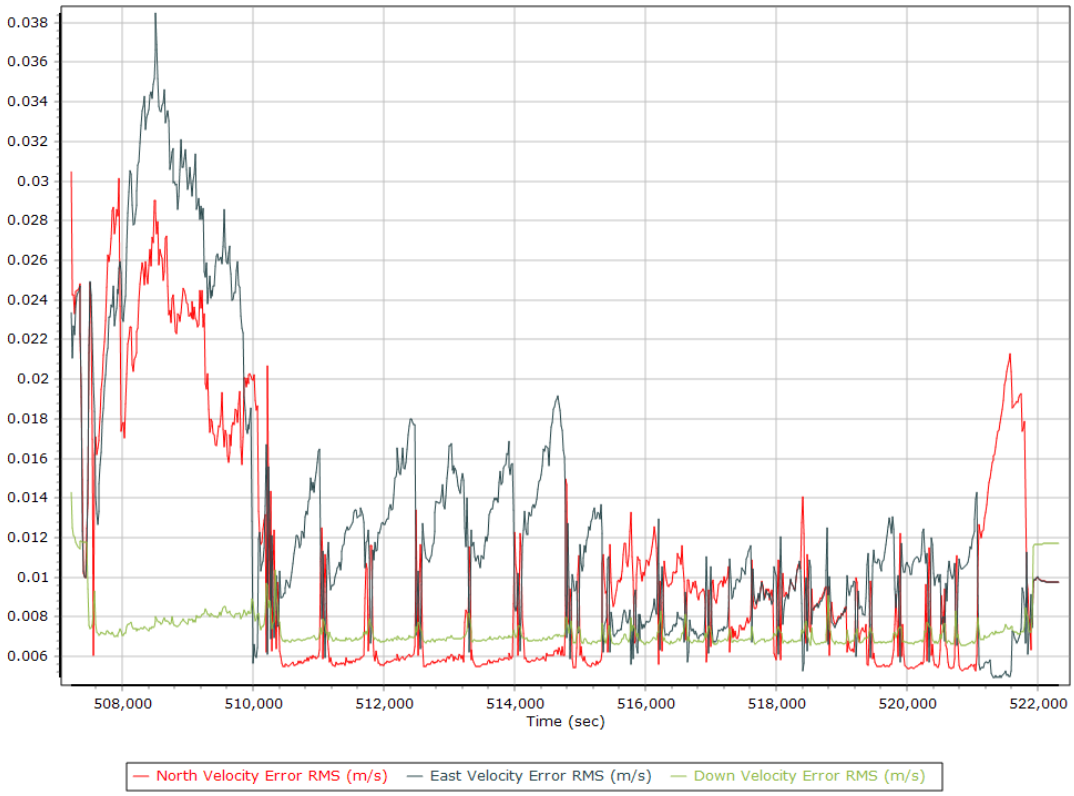


Forward Processed Performance Metrics

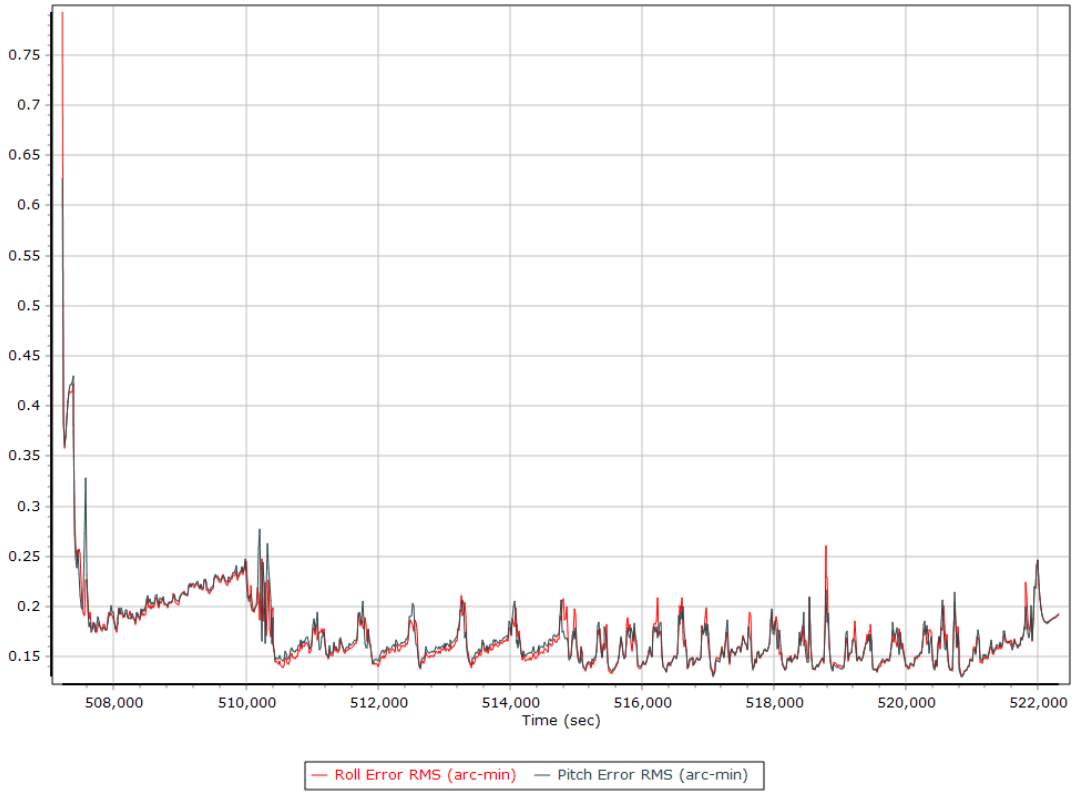
Position Error RMS (m)



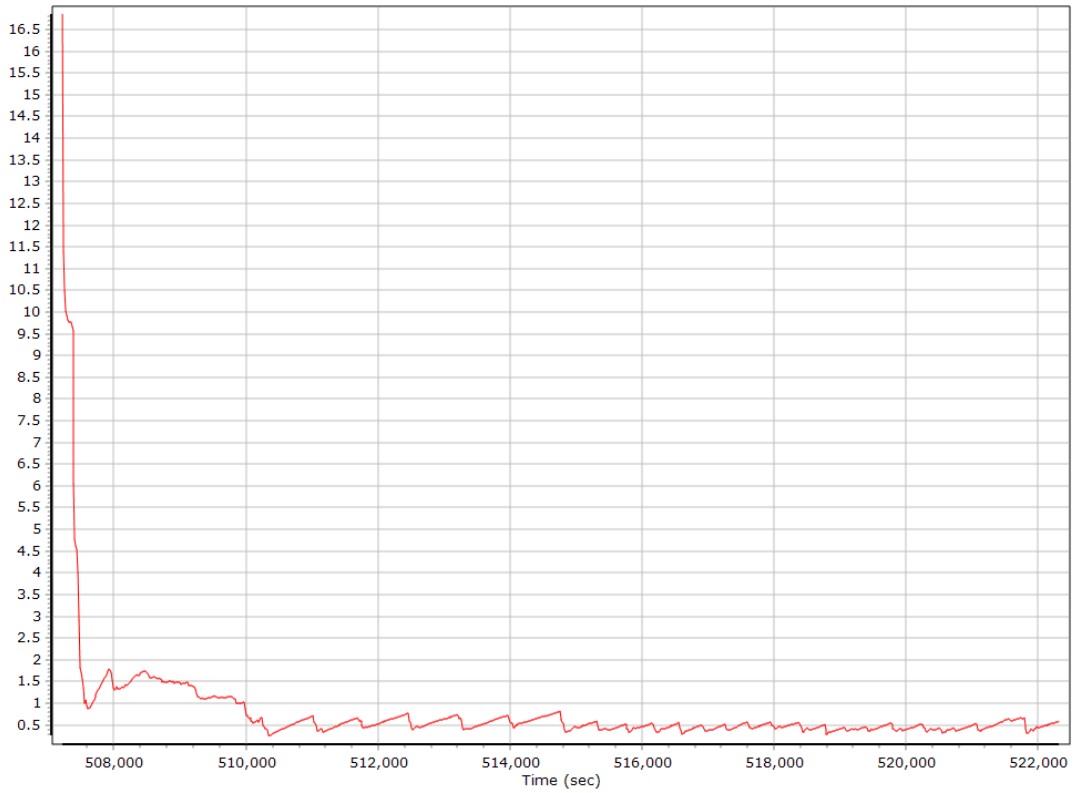
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

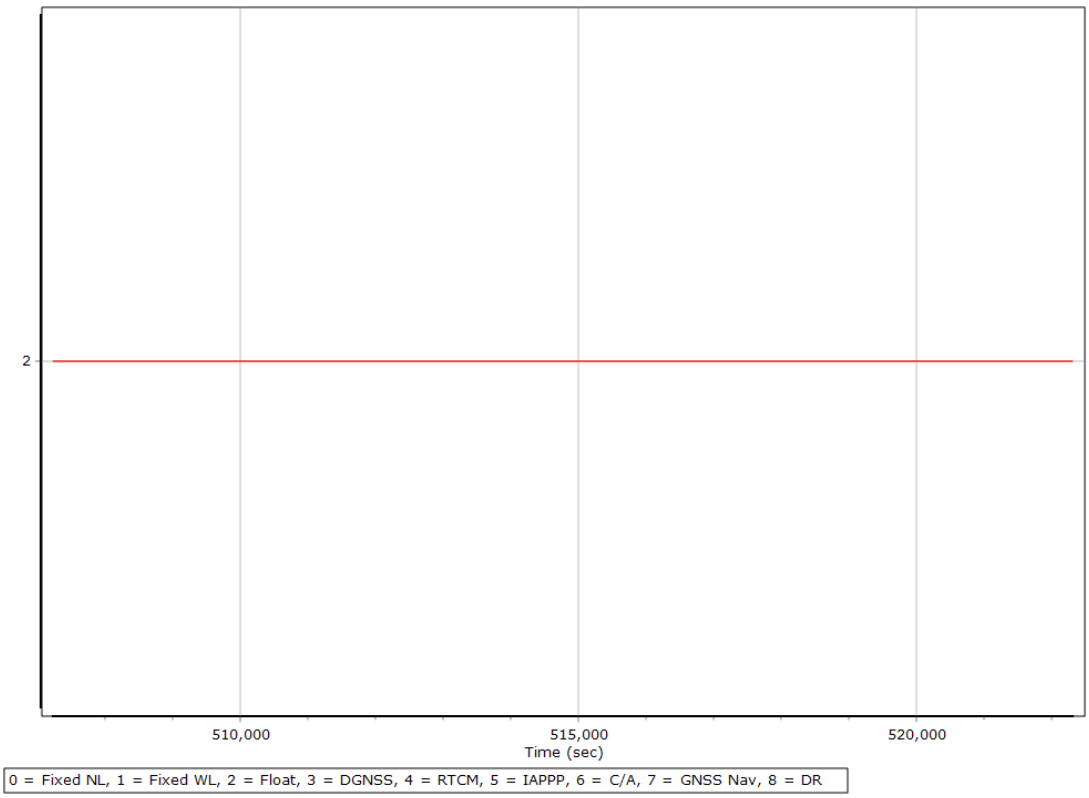


Heading Error RMS (arc-min)

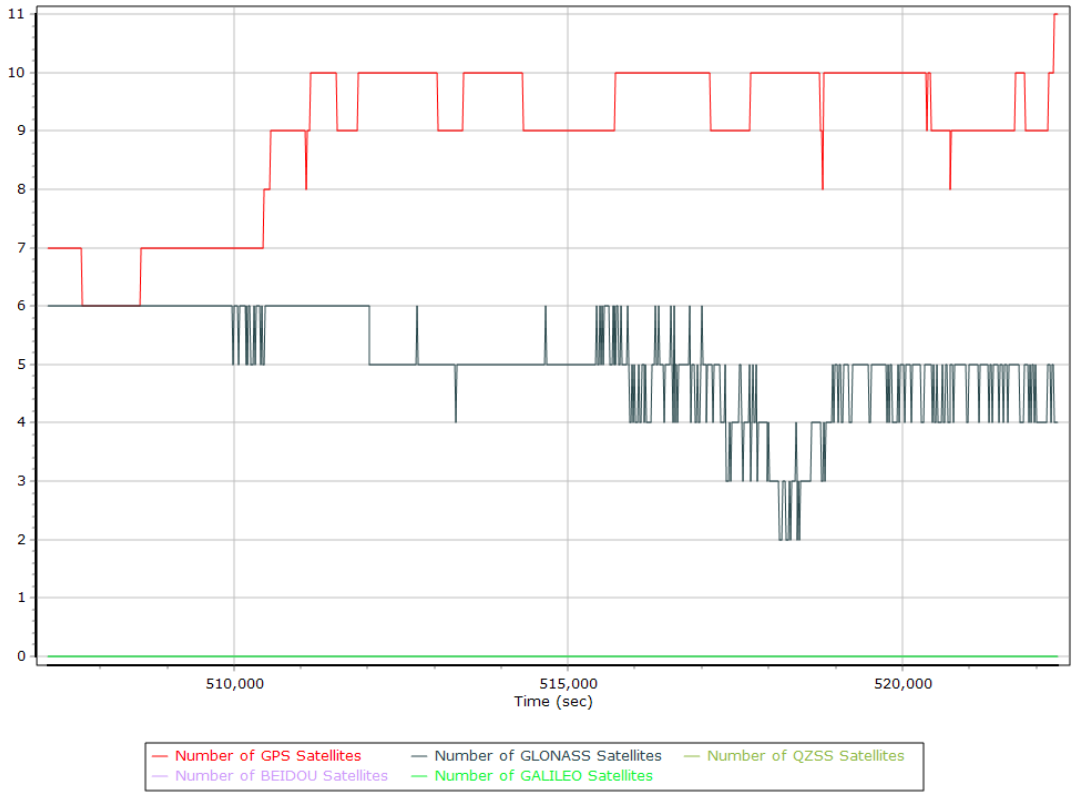
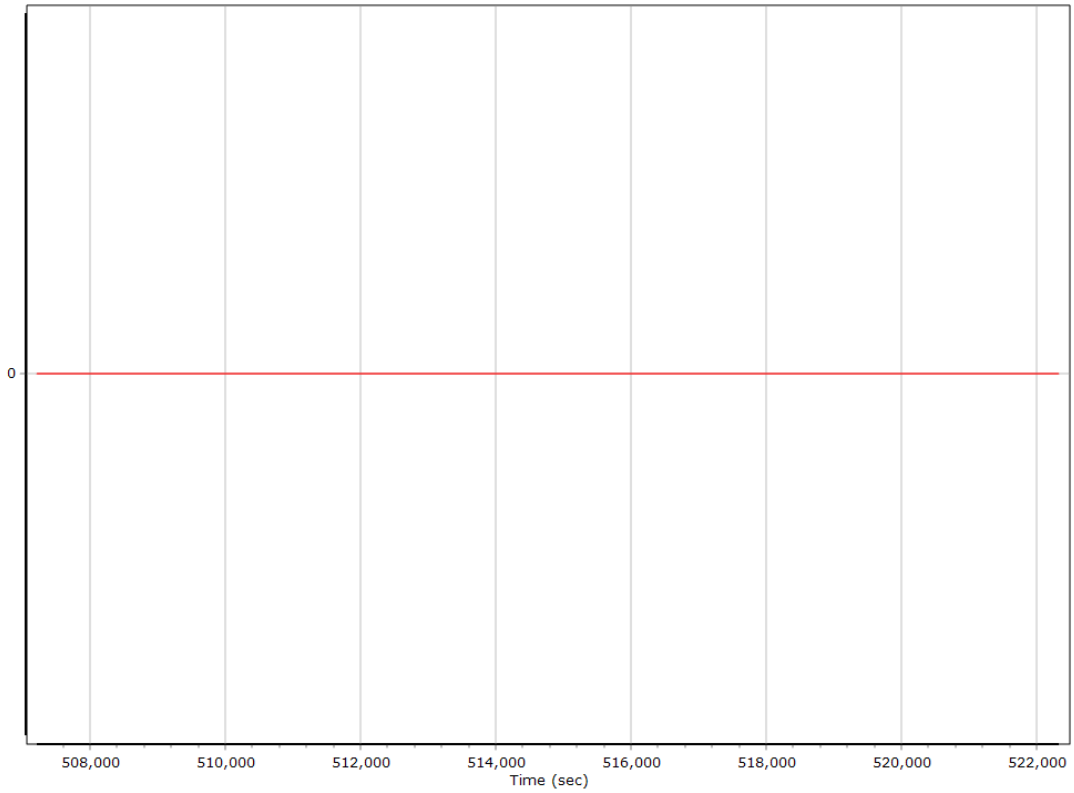


Forward Processed Solution Status

Processing Mode



Number of Satellites



Baseline Length