General Information

Mission Information

Project name	19-058_060520
Processing date	2020-07-02 20:40:35
Mission date	2020-06-05 17:55:58
Mission duration	06:48:06.000
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.458	POS Data
ALS.459	POS Data
ALS.460	POS Data
ALS.461	POS Data
ALS.462	POS Data
ALS.463	POS Data
ALS.464	POS Data
ALS.465	POS Data
ALS.466	POS Data
ALS.467	POS Data
ALS.468	POS Data
ALS.469	POS Data
ALS.470	POS Data
ALS.471	POS Data
ALS.472	POS Data
ALS.473	POS Data
ALS.474	POS Data
ALS.475	POS Data
ALS.476	POS Data
ALS.477	POS Data
ALS.478	POS Data
ALS.479	POS Data
ALS.480	POS Data
ALS.481	POS Data
ALS.482	POS Data
ALS.483	POS Data
ALS.484	POS Data
ALS.485	POS Data
ALS.486	POS Data
ALS.487	POS Data
ALS.488	POS Data
ALS.489	POS Data
ALS.490	POS Data
ALS.491	POS Data
ALS.492	POS Data
ALS.493	POS Data
ALS.494	POS Data
ALS.495	POS Data
ALS.496	POS Data
ALS.497	POS Data
ALS.498	POS Data
ALS.499	POS Data
ALS.500	POS Data
ALS.501	POS Data
ALS.502	POS Data
ALS.503	POS Data
ALS.504	POS Data
ALS.505	POS Data
ALS.506	POS Data
ALS.507	POS Data
ALS.508	POS Data
ALS.509	POS Data
ALS.510	POS Data
ALS.511	POS Data
ALS.512	POS Data

Input Files

File Name	File Type
Ephm1570.20g	GLONASS Broadcast Ephemeris

File Name	File Type
Ephm1570.20n	GPS Broadcast Ephemeris
Ephm1580.20g	GLONASS Broadcast Ephemeris
Ephm1580.20n	GPS Broadcast Ephemeris
igl21084.sp3	GLONASS Precise Ephemeris
igl21085.sp3	GLONASS Precise Ephemeris
igl21086.sp3	GLONASS Precise Ephemeris
igl21090.sp3	GLONASS Precise Ephemeris
igs21084.sp3	GPS Precise Ephemeris
igs21085.sp3	GPS Precise Ephemeris
igs21086.sp3	GPS Precise Ephemeris
igs21090.sp3	GPS Precise Ephemeris

Output Files

Filename	File type
sbet_19-058_060520.out	SBET Trajectory File

Rover Data Summary

First raw data file	ALS.458		
Last raw data file	ALS.512		
Start GPS week	2108		
Start time	496570.252 (06/05/2020 17:55:52)		
End time	521036.222 (06/06/2020 00:43:38)		
Start of fine alignment	497293.236 (06/05/2020 18:07:55)		
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

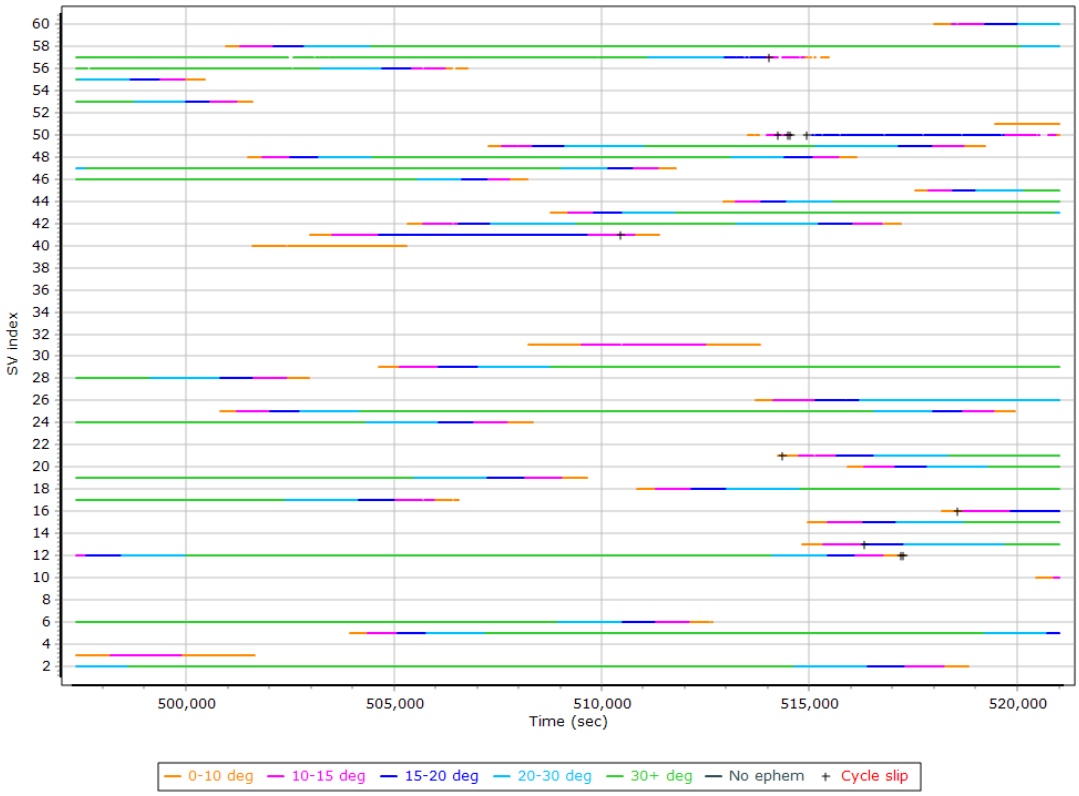
Rover Data QC

Raw IMU Import QC Summary

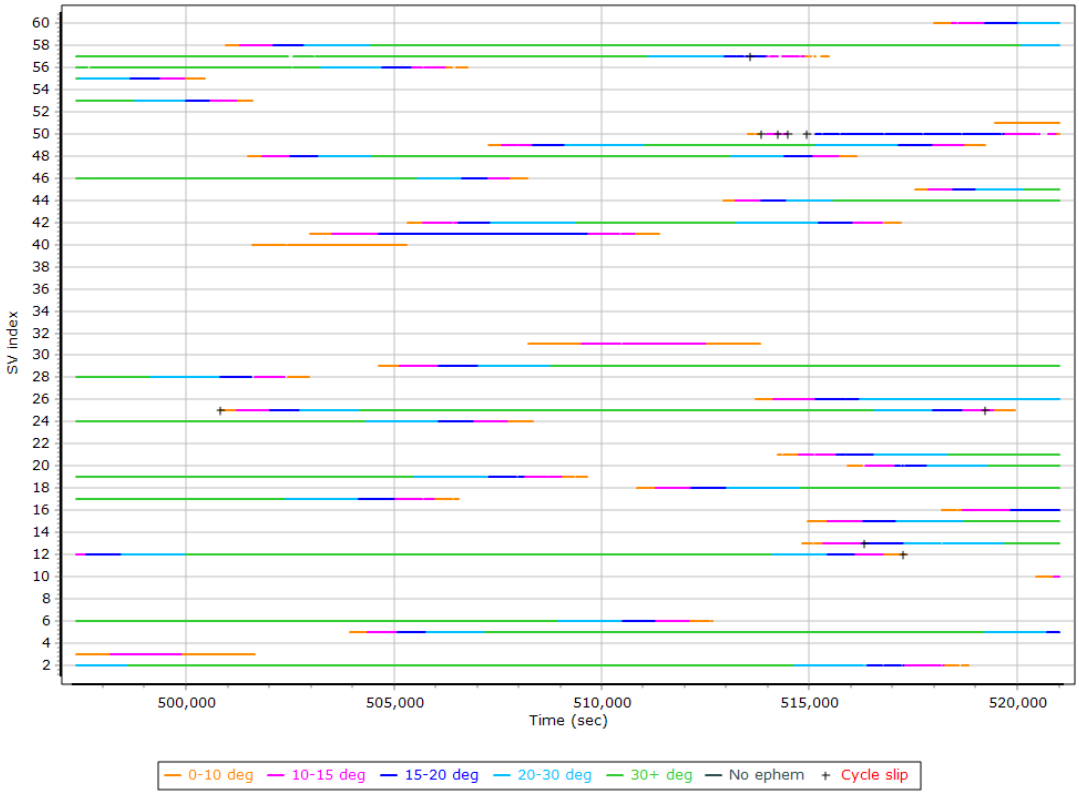
IMU data input file	imu_19-058_060520.dat
IMU data check log file	imudt_19-058_060520.log
IMU Records Processed	4896339
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
496569.017 : WARNING : Gap of 496557.0603 seconds in CHECKDT input data	

Primary Observables & Satellite Data

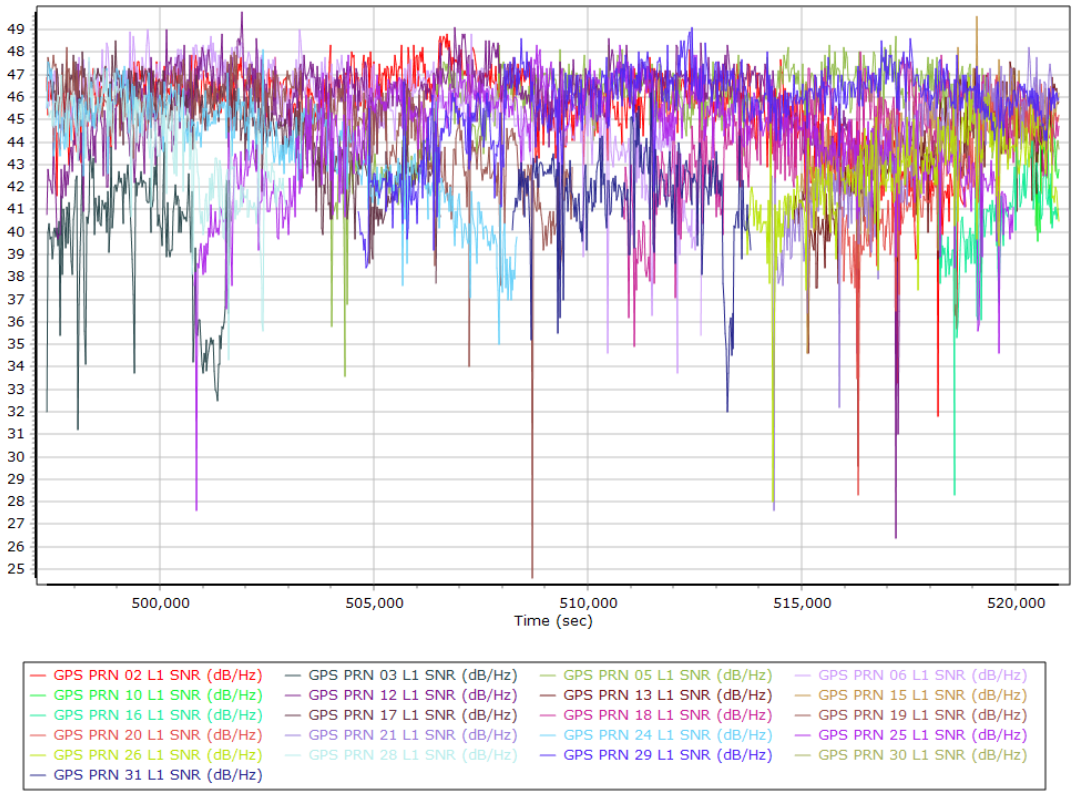
L1 Satellite Lock/Elevation



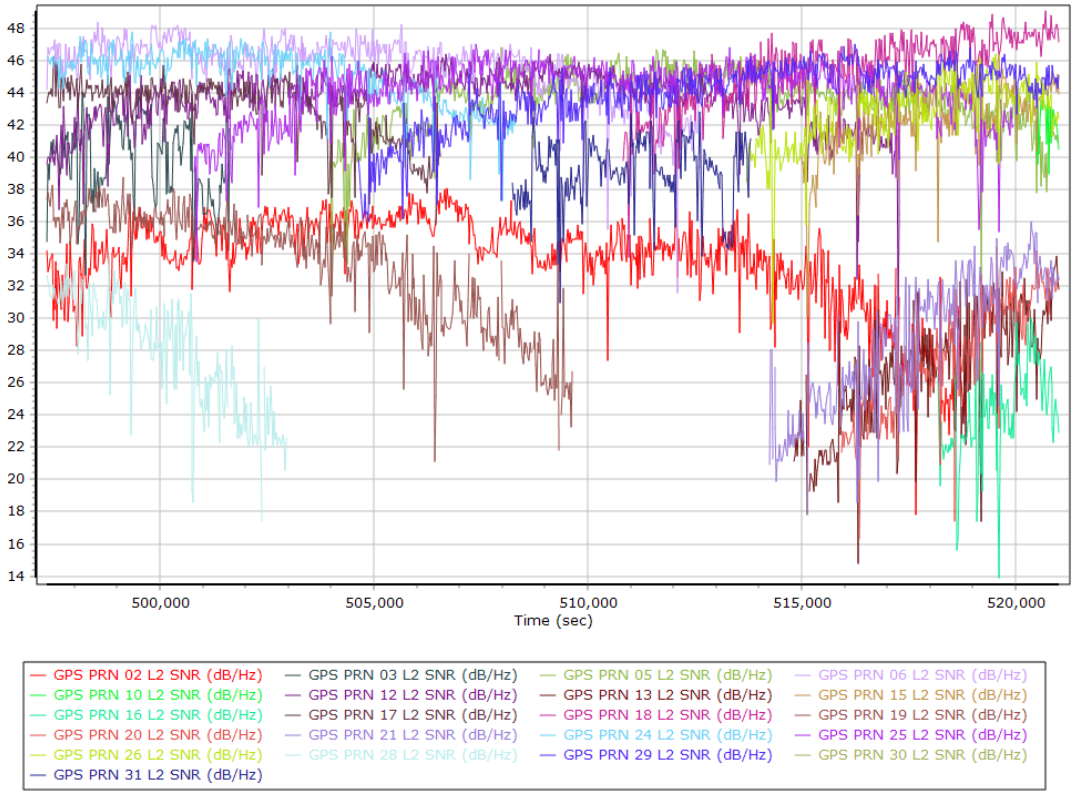
L2 Satellite Lock/Elevation



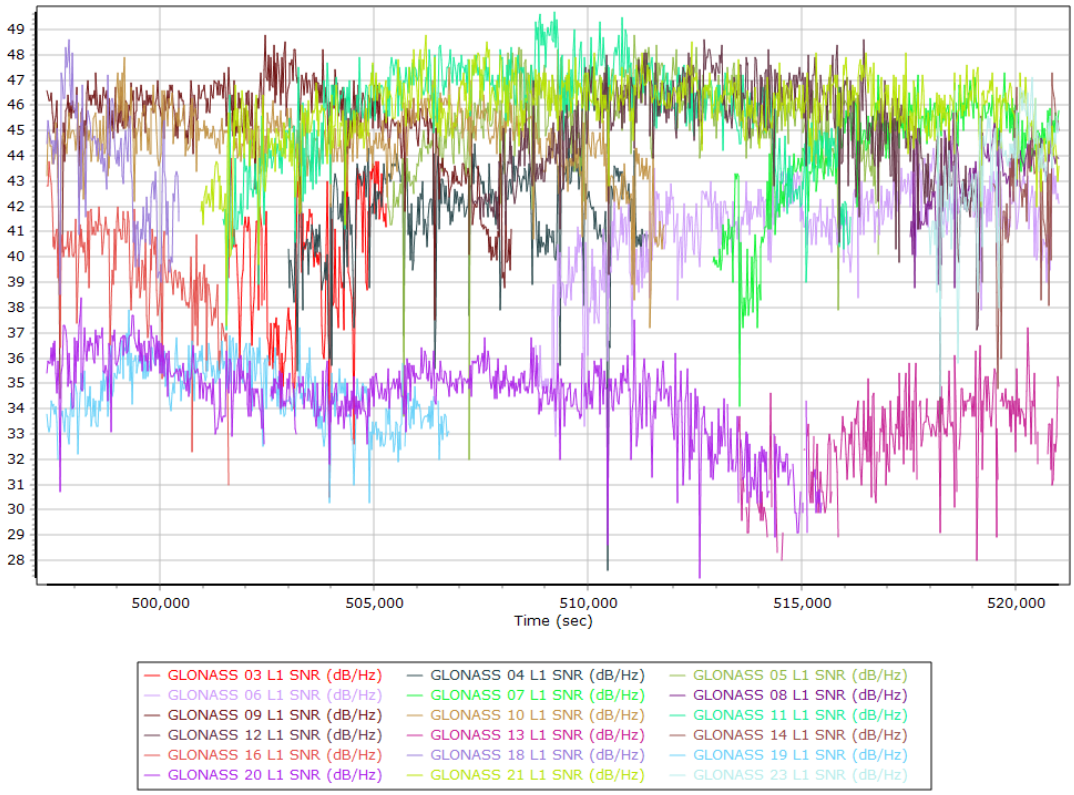
GPS L1 SNR



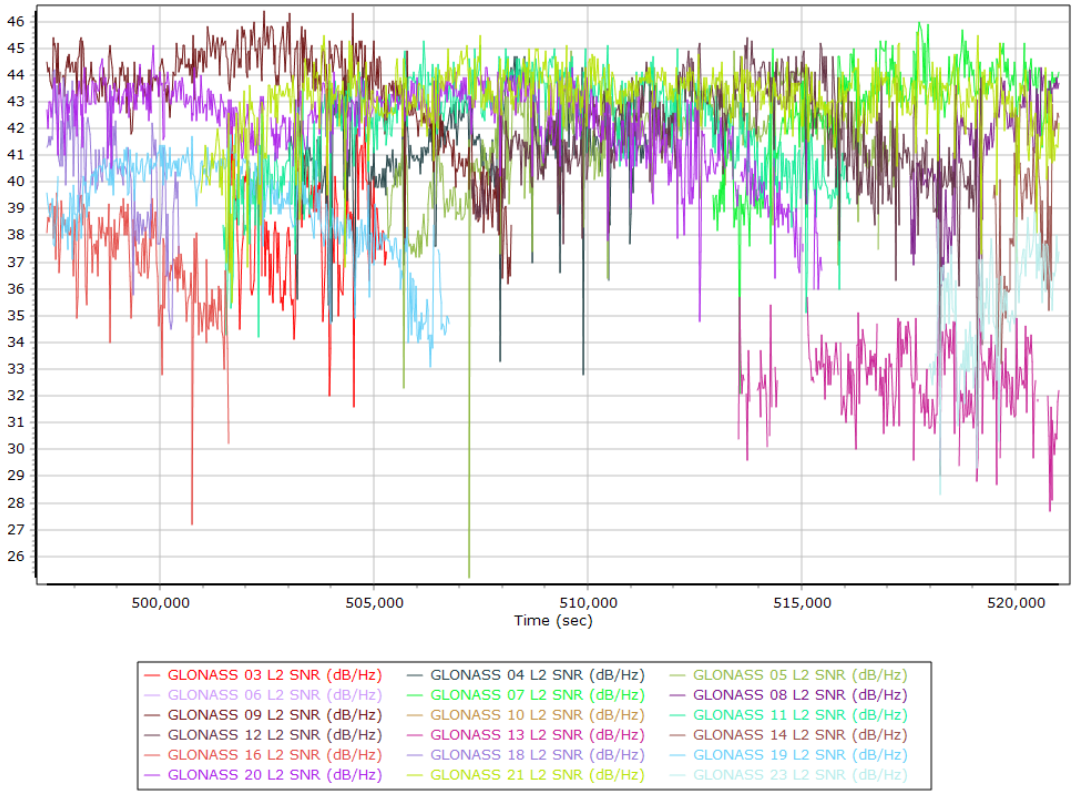
GPS L2 SNR



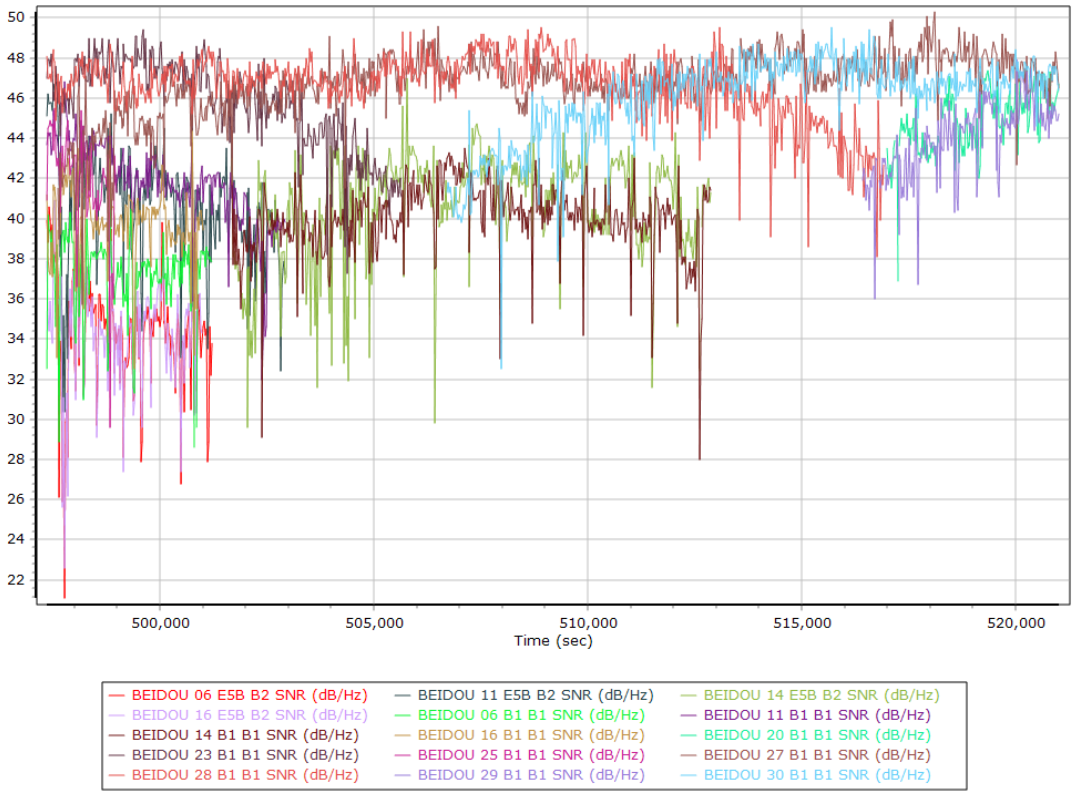
GLONASS L1 SNR



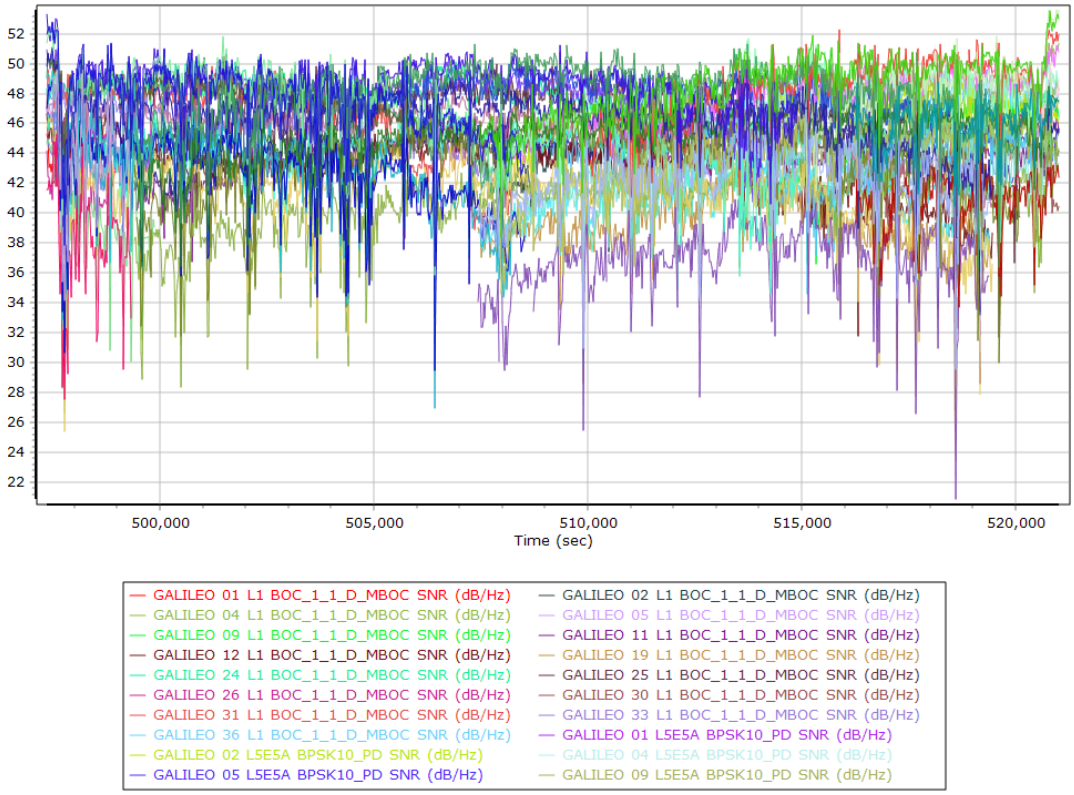
GLONASS L2 SNR



BEIDOU SNR

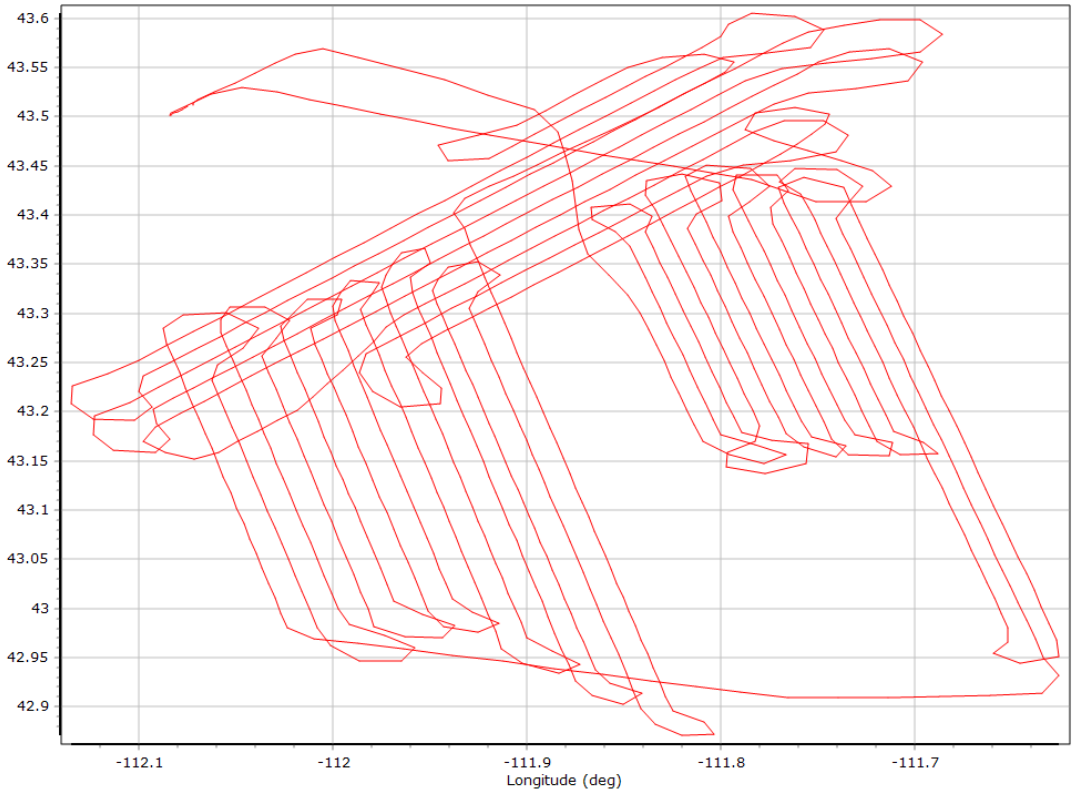


GALILEO SNR

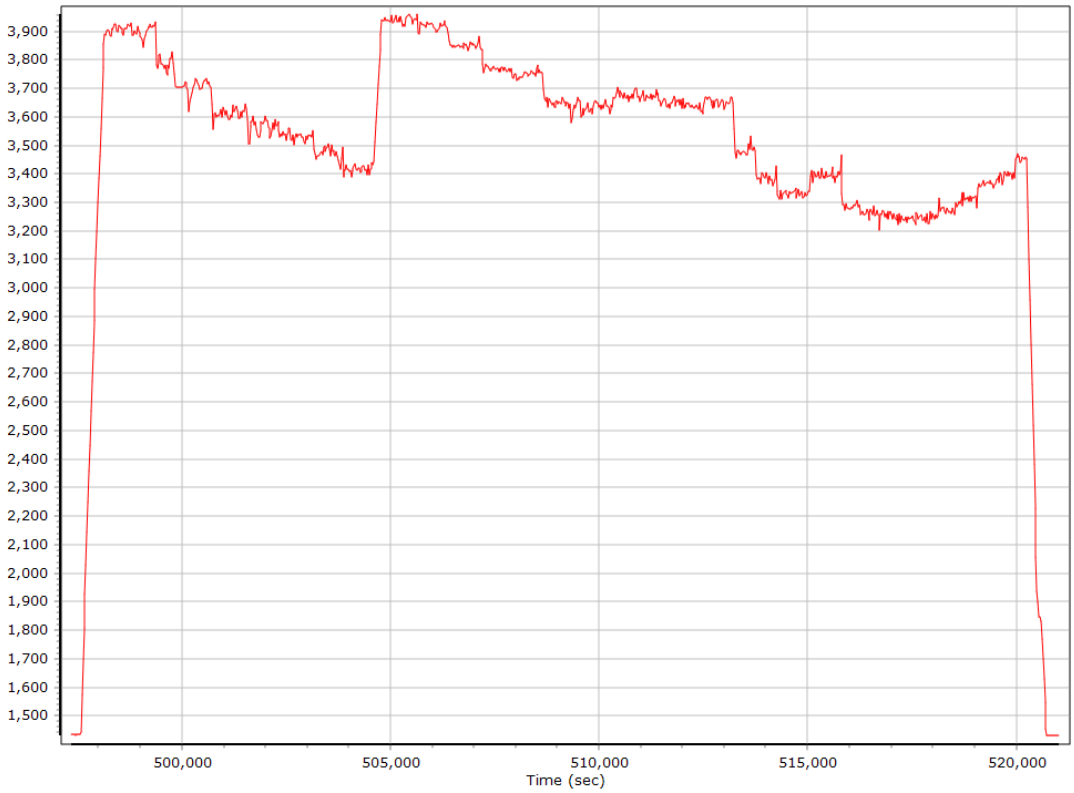

52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
500,000
505,000
510,000
515,000
520,000
Time (sec)
GALILEO 01 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 02 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 04 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 05 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 09 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 11 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 12 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 30 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 36 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 01 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 02 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)

Smoothed Trajectory Information

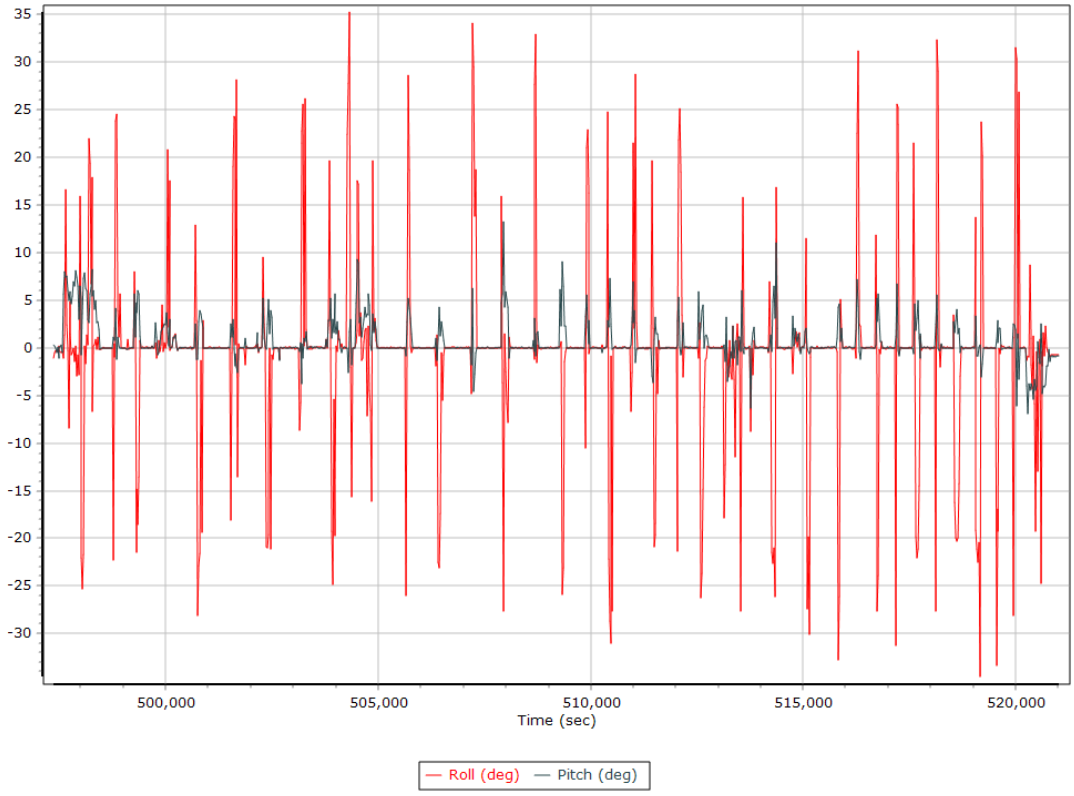
Top View



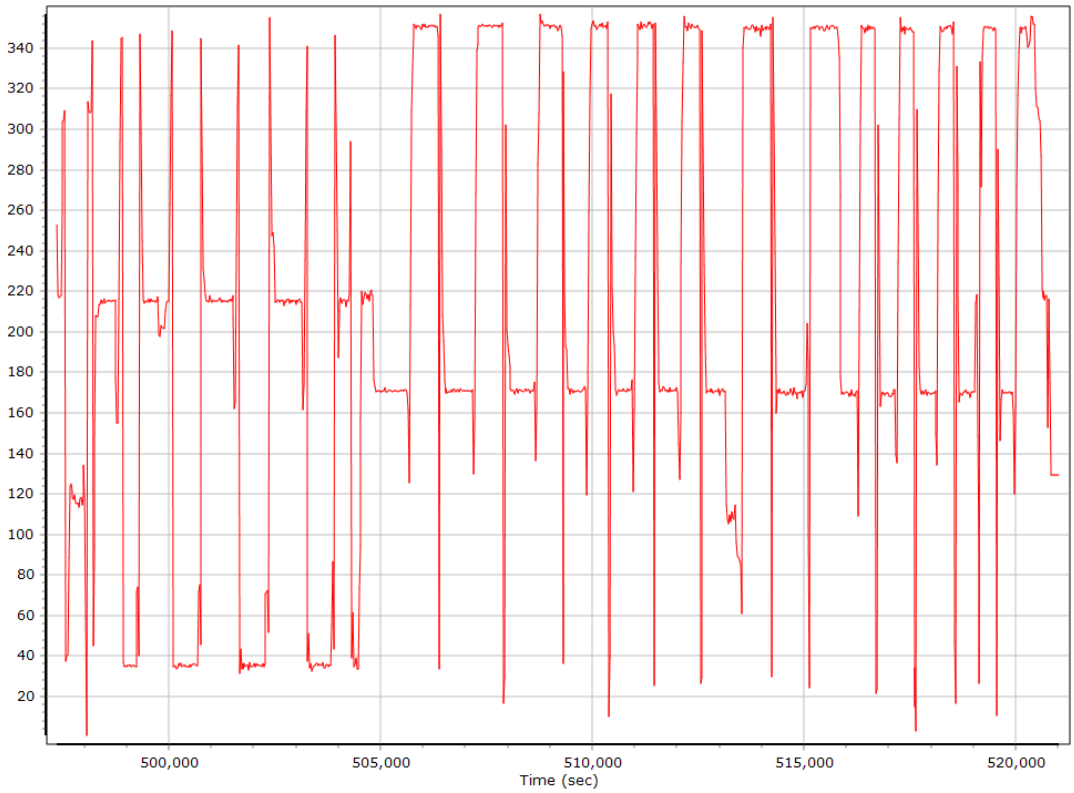
Altitude



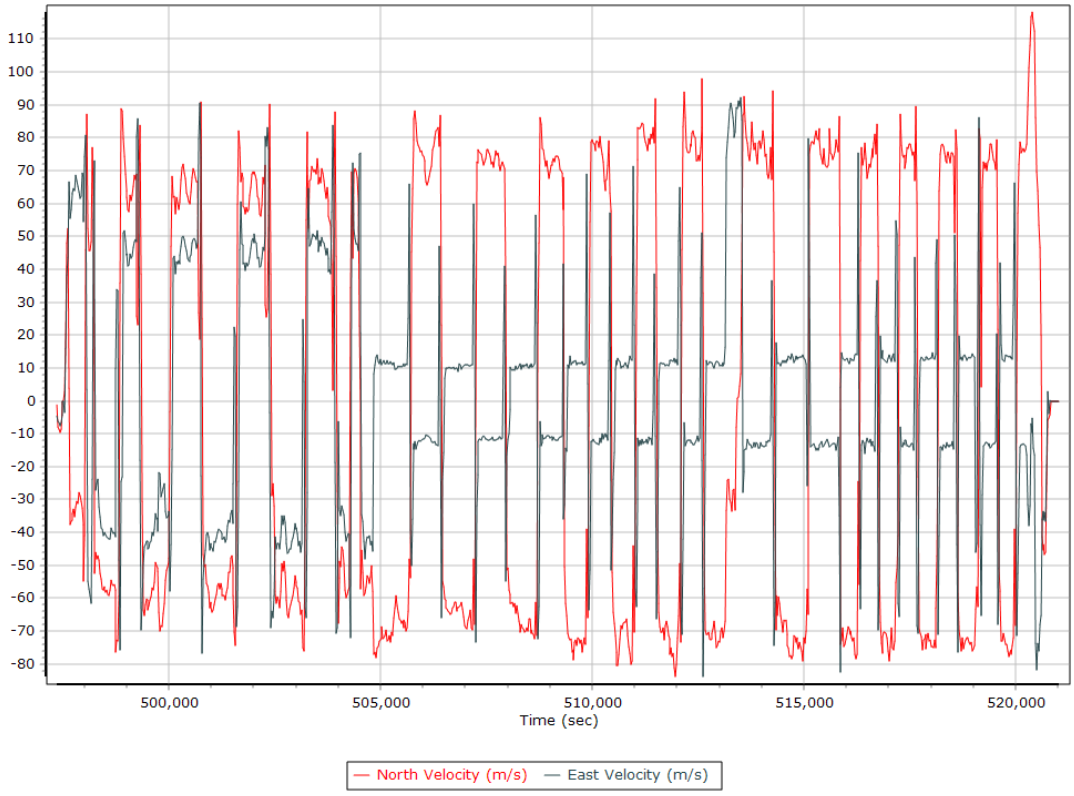
Roll/Pitch



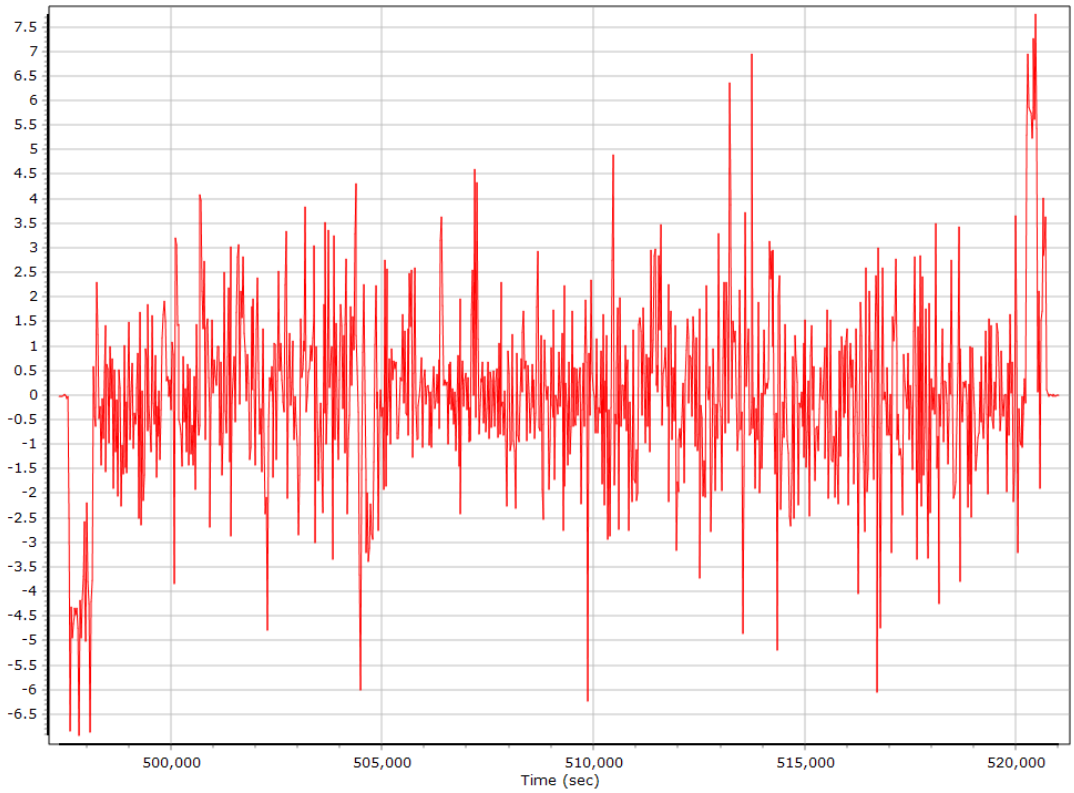
Heading



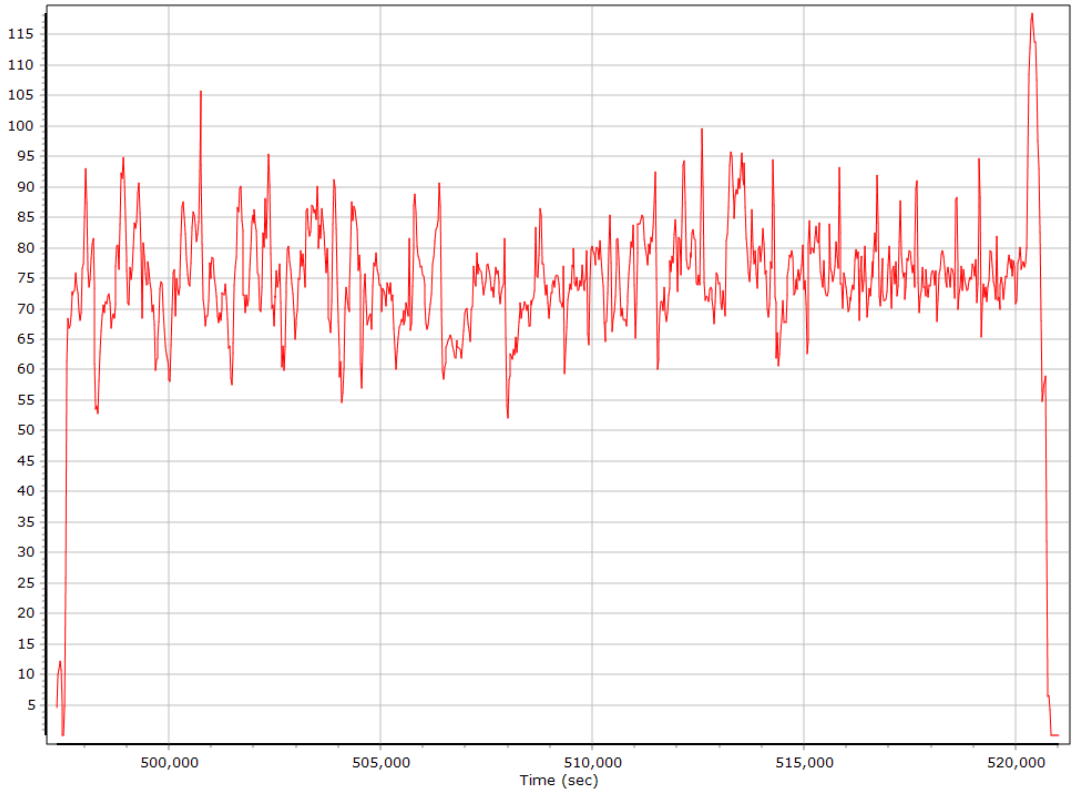
North/East Velocity



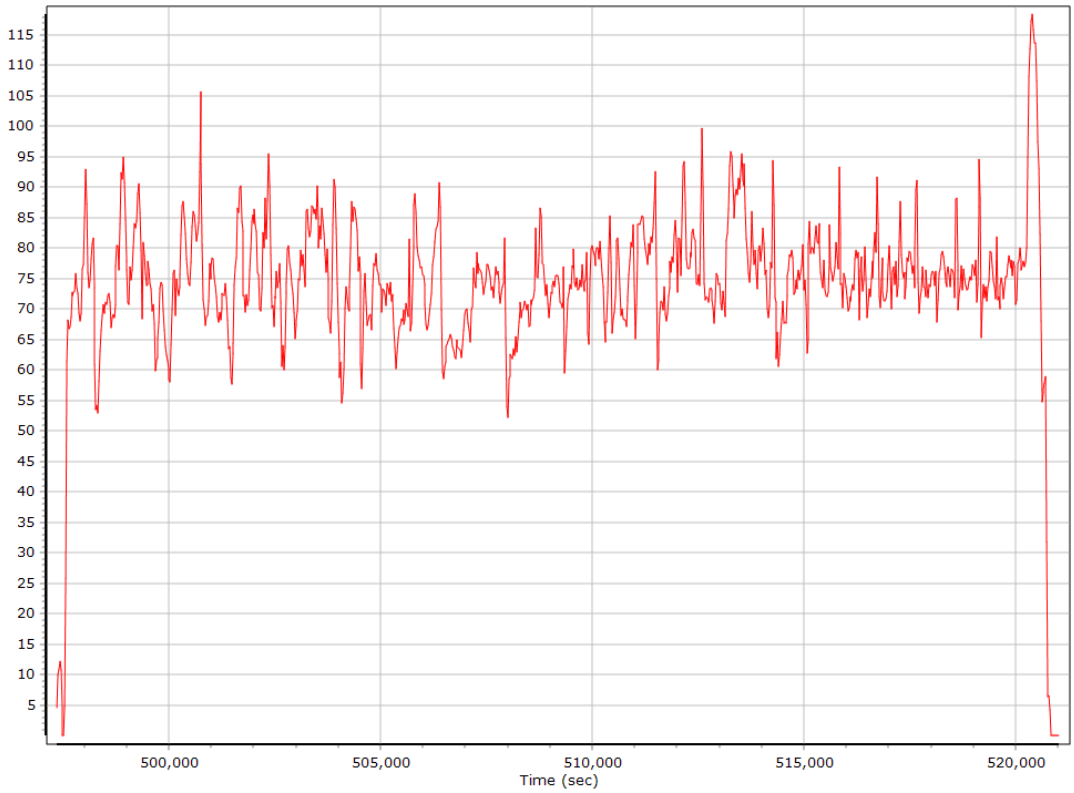
Down Velocity



Total Speed

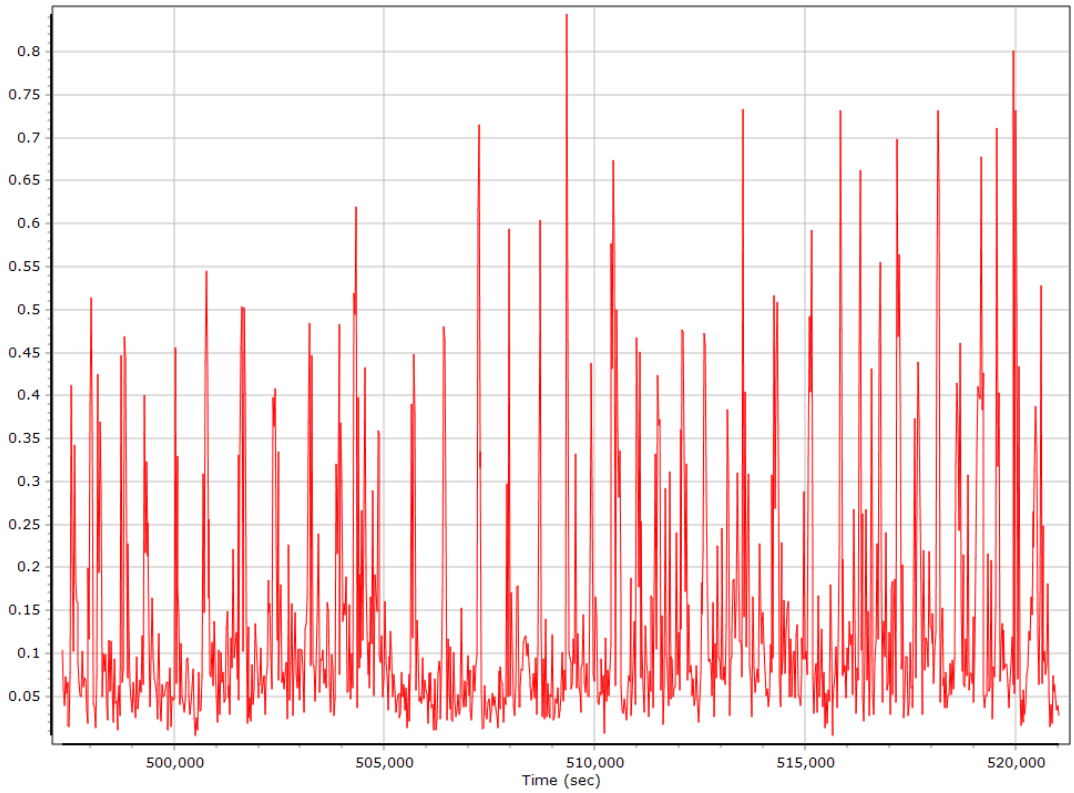


Ground Speed



Body Acceleration

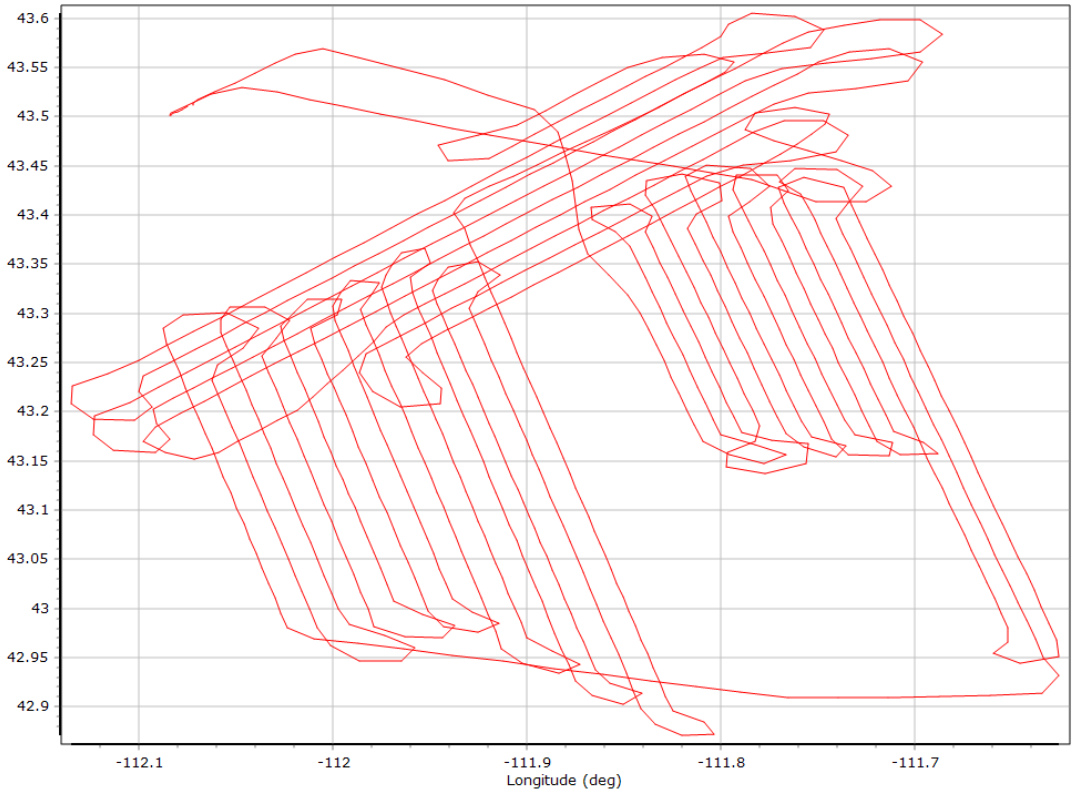
Total Body Acceleration



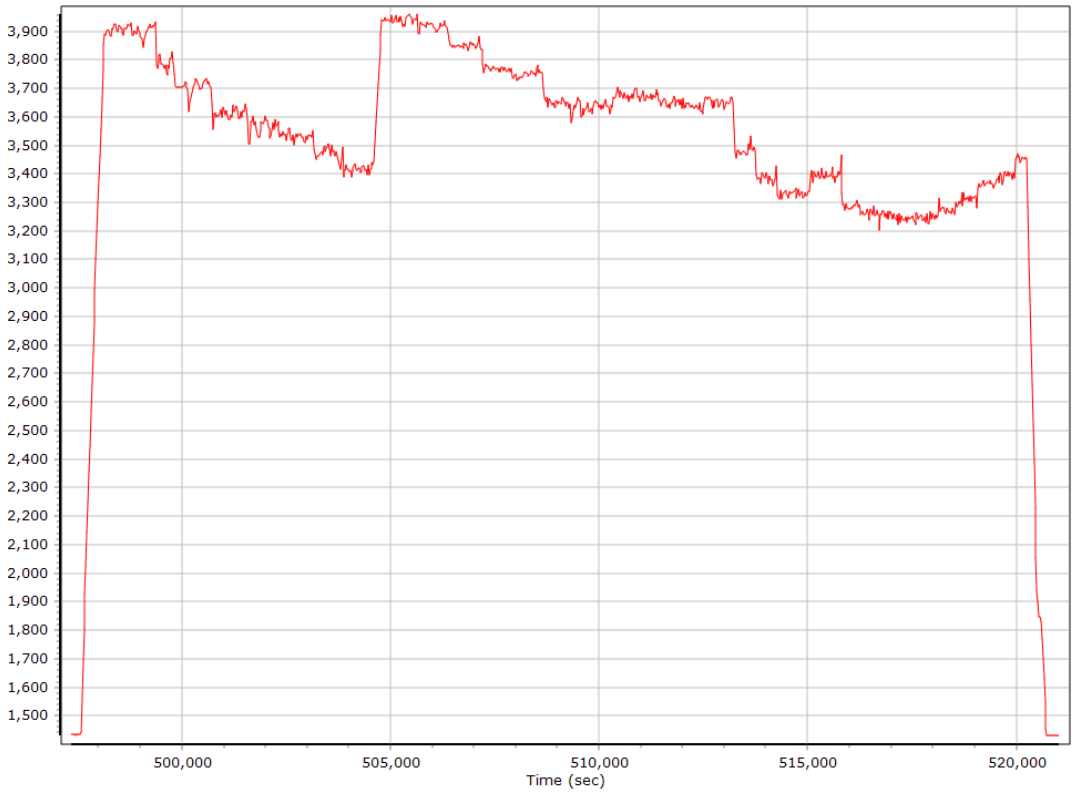
Body Angular Rate

Forward Processed Trajectory Information

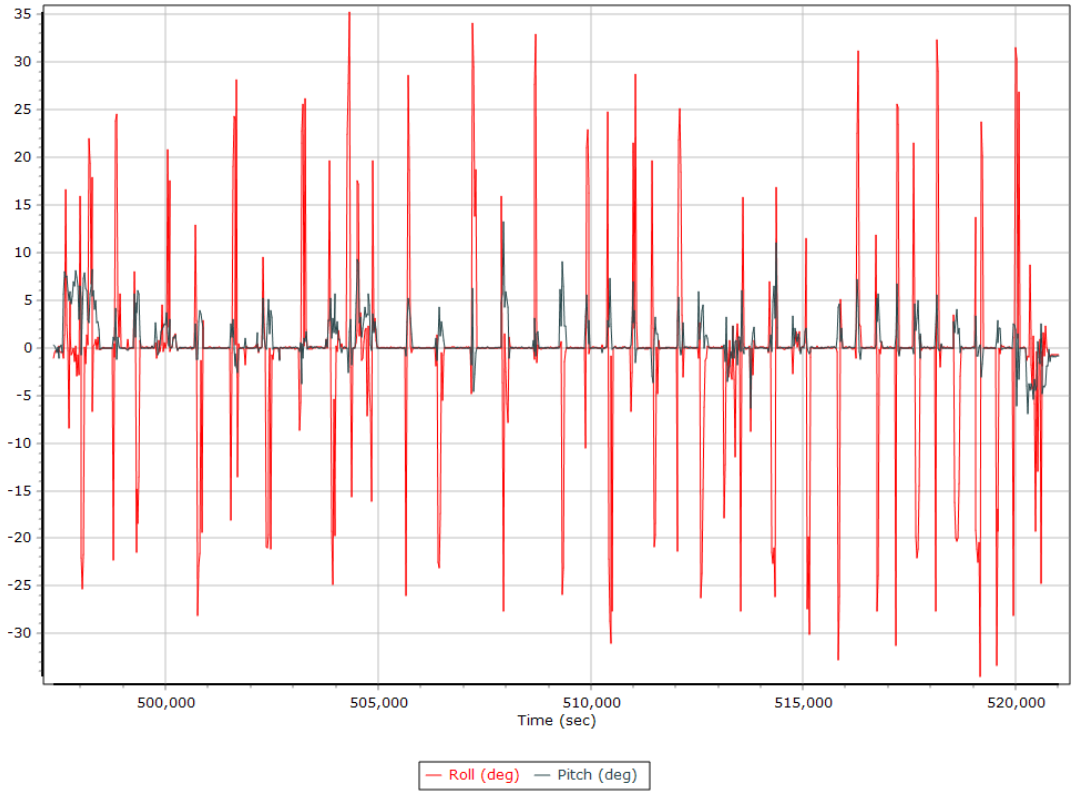
Top View



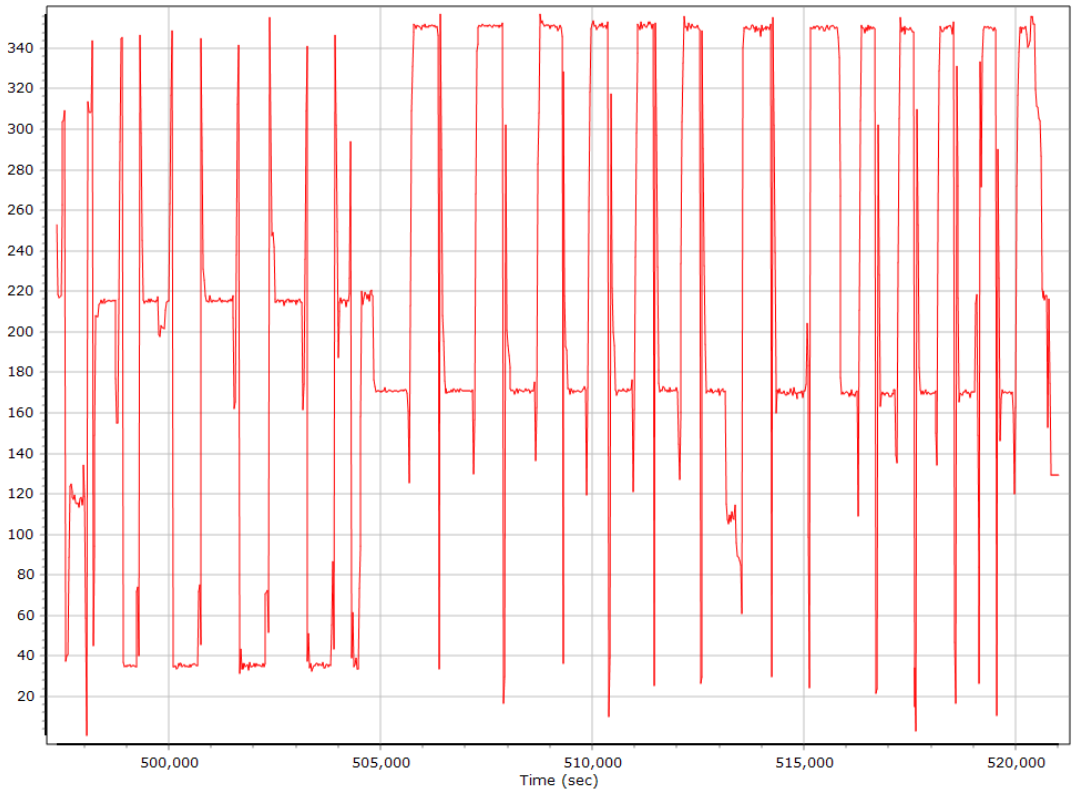
Altitude



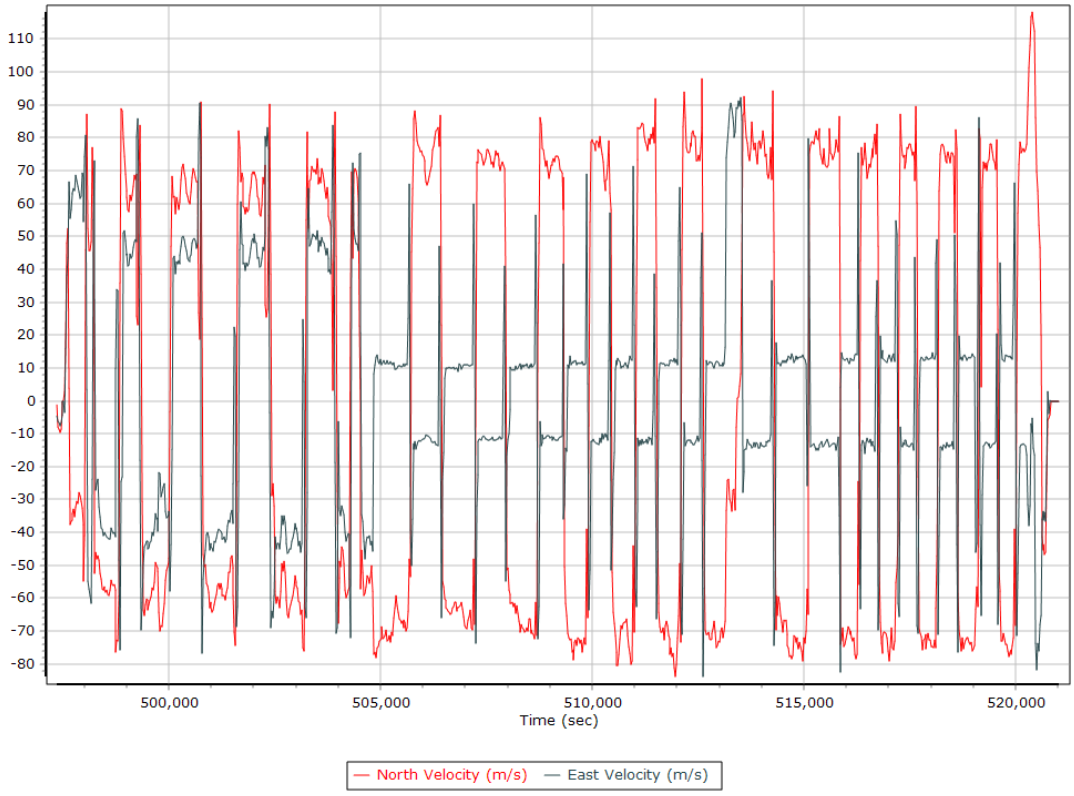
Roll/Pitch



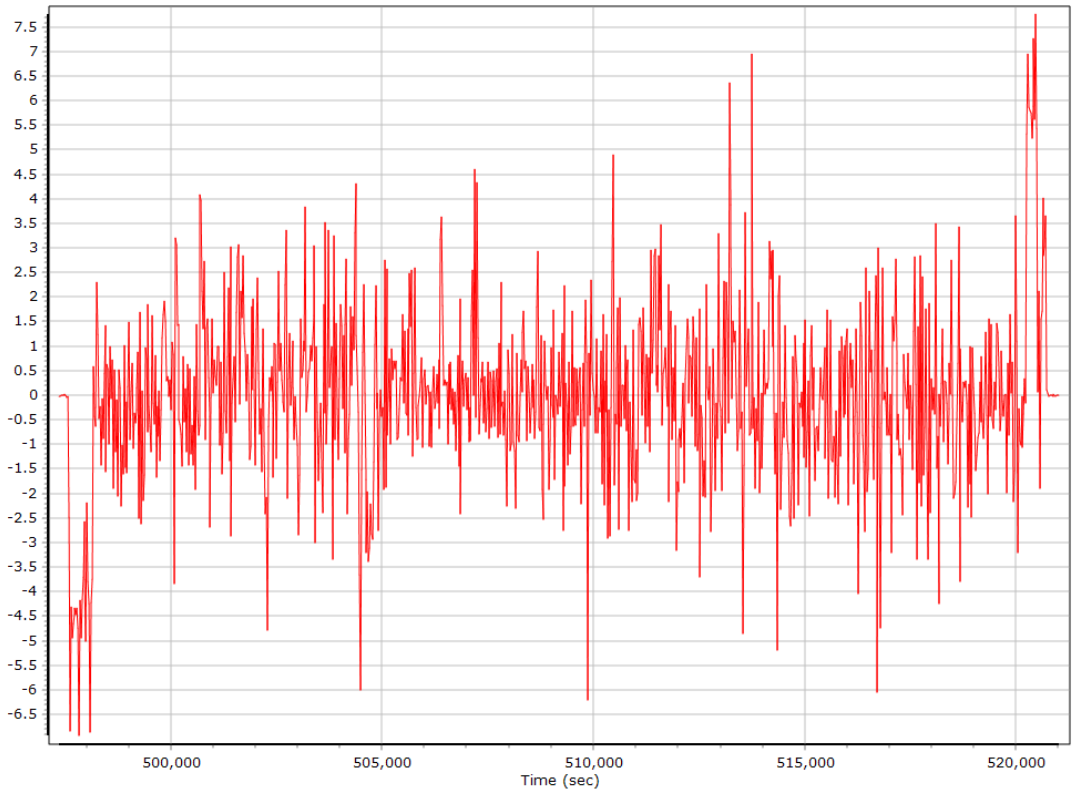
Heading



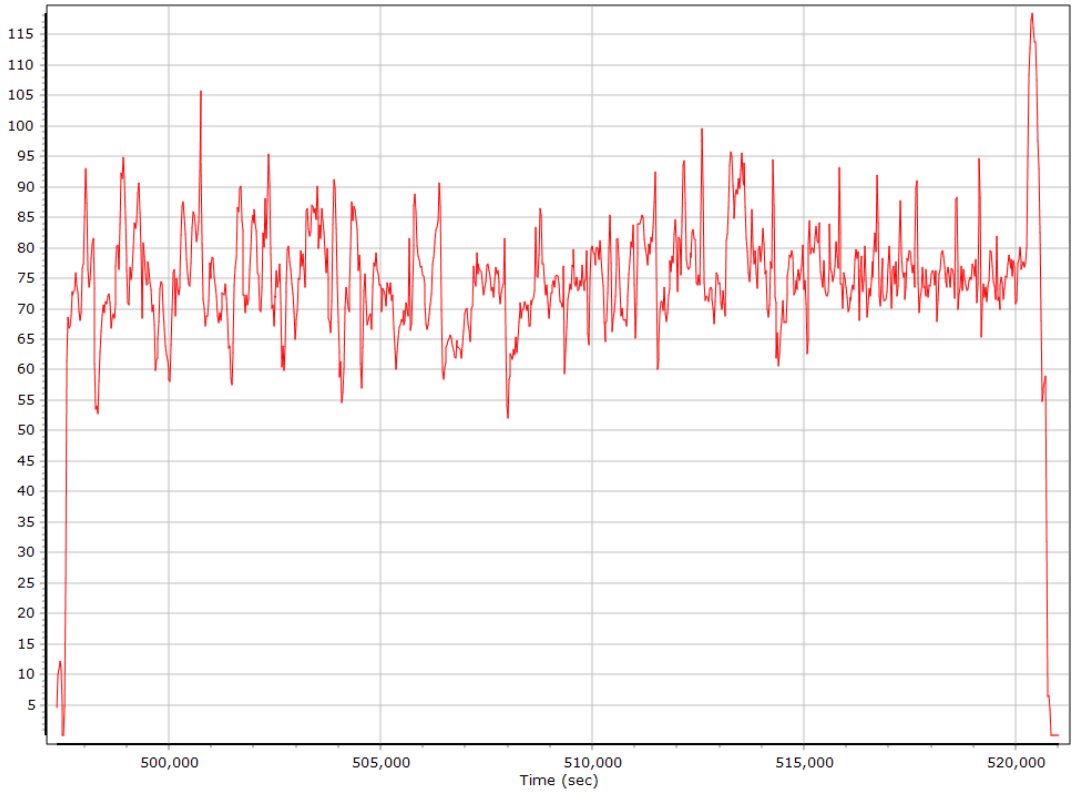
North/East Velocity



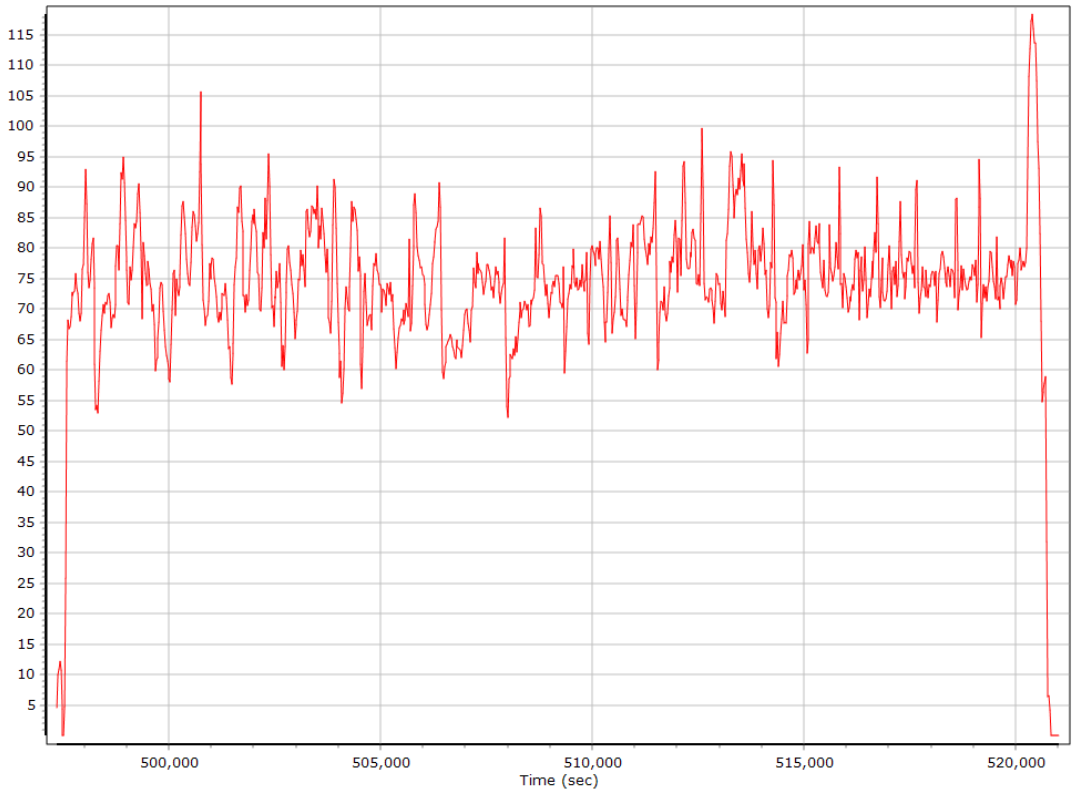
Down Velocity



Total Speed

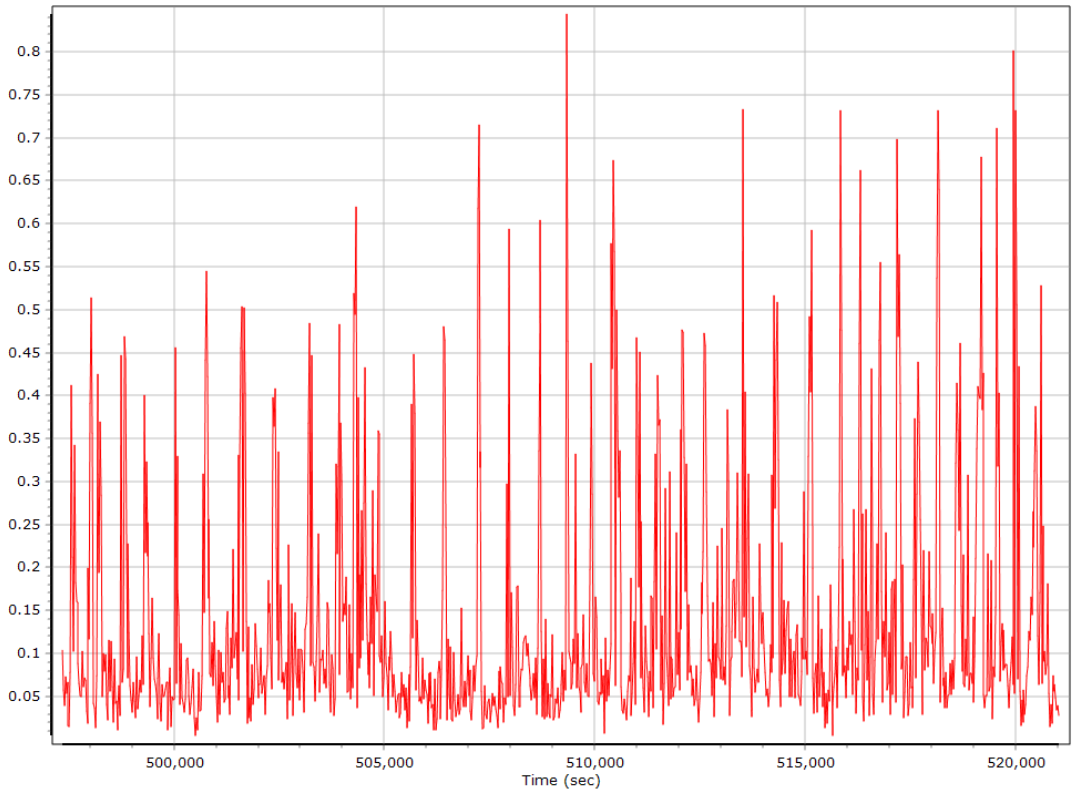


Ground Speed



Body Acceleration

Total Body Acceleration



Body Angular Rate

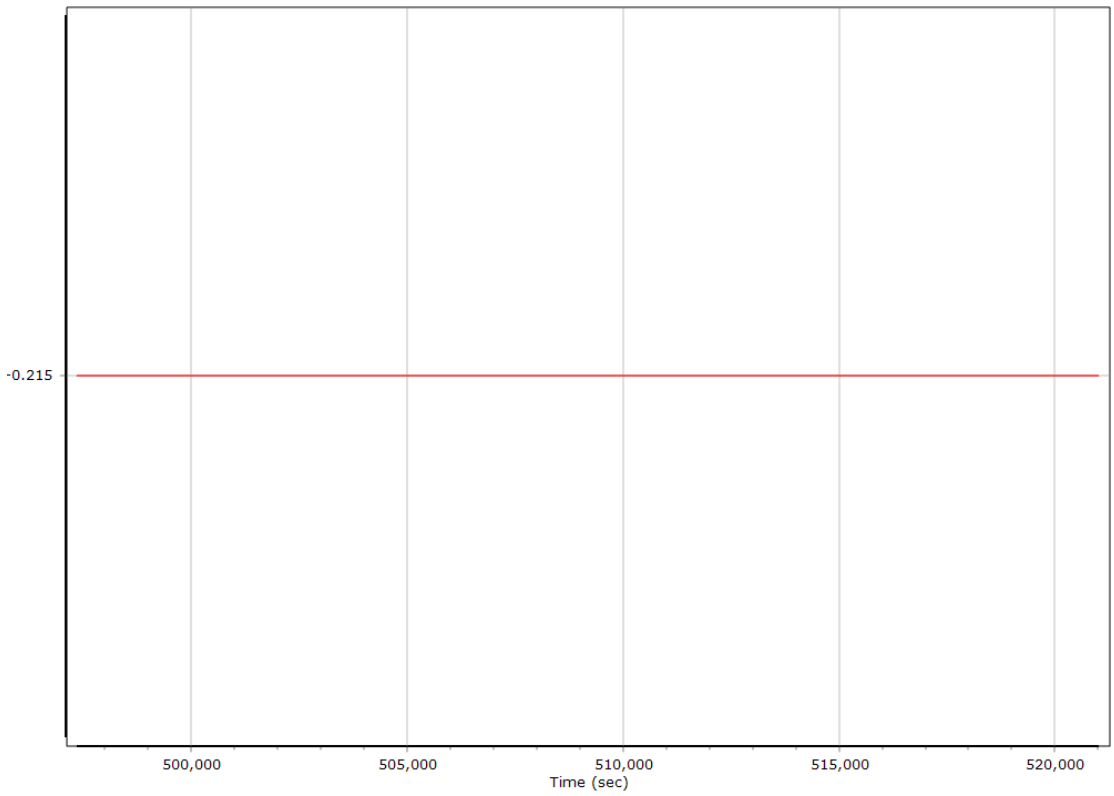
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Trimble RTX Nav		
Stabilized mount	True		
Processing start time	496558.000 (06/05/2020 17:55:40)		
Processing end time	521044.000 (06/06/2020 00:43:46)		
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

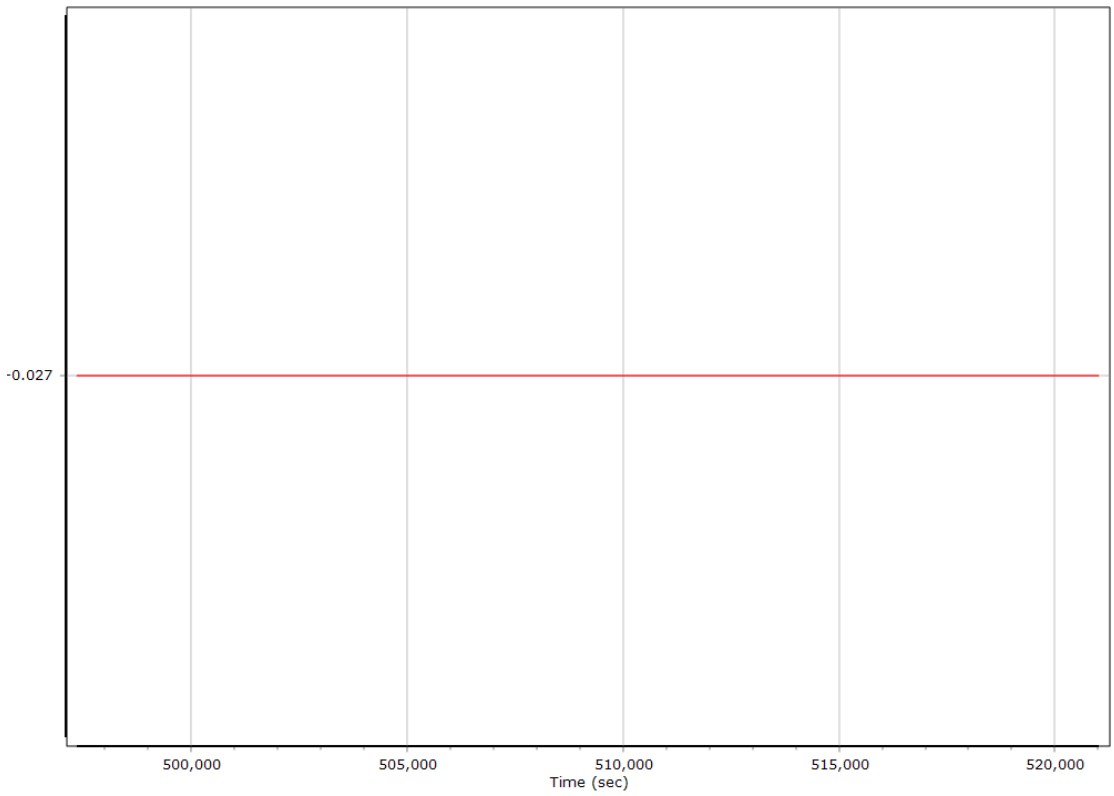
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

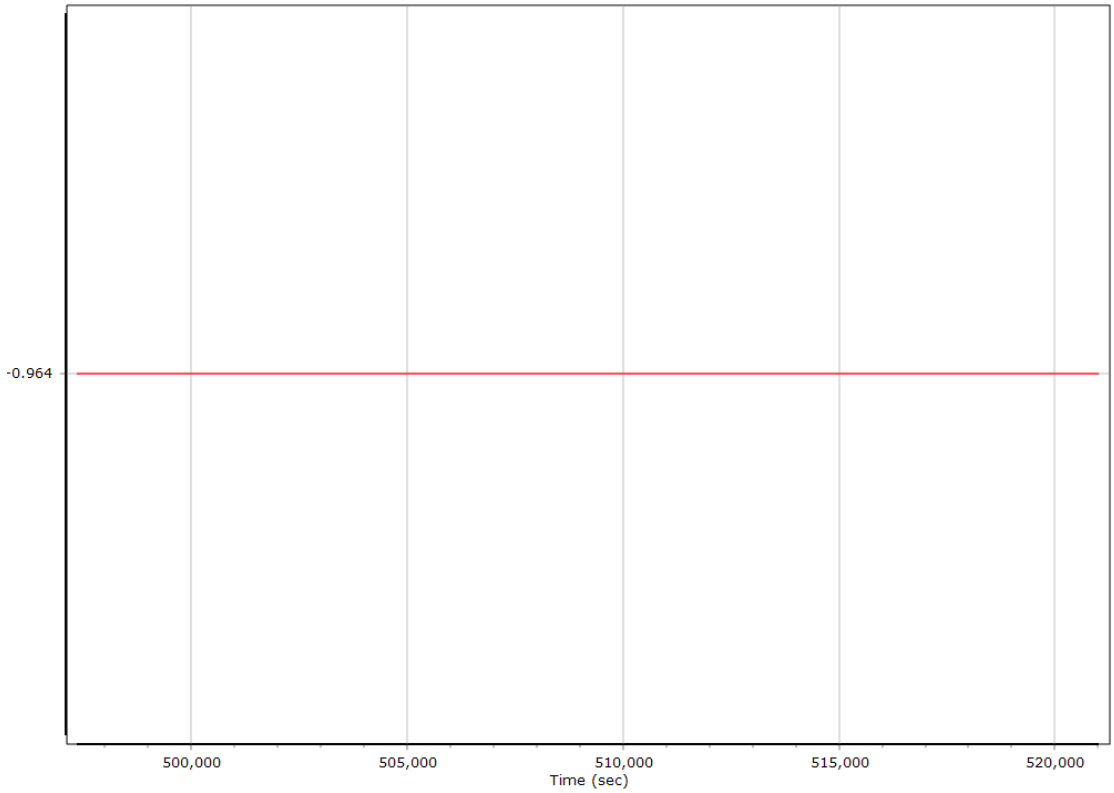
X Reference-Primary GNSS Lever Arm (m)



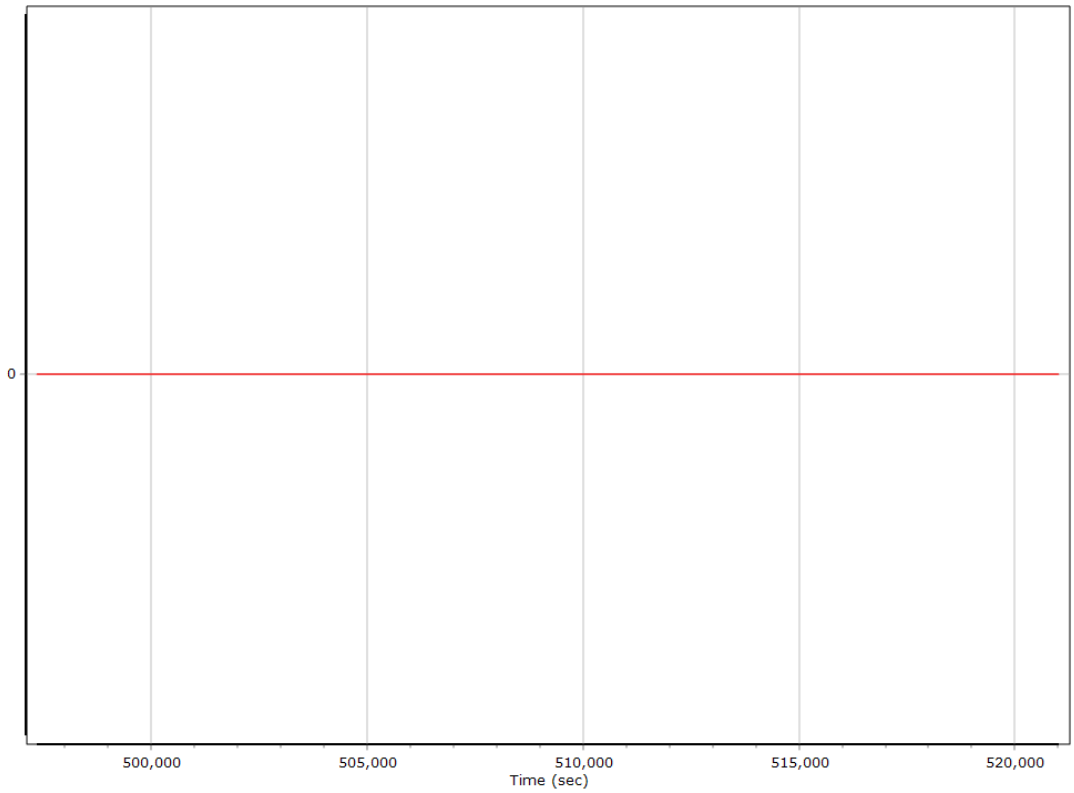
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



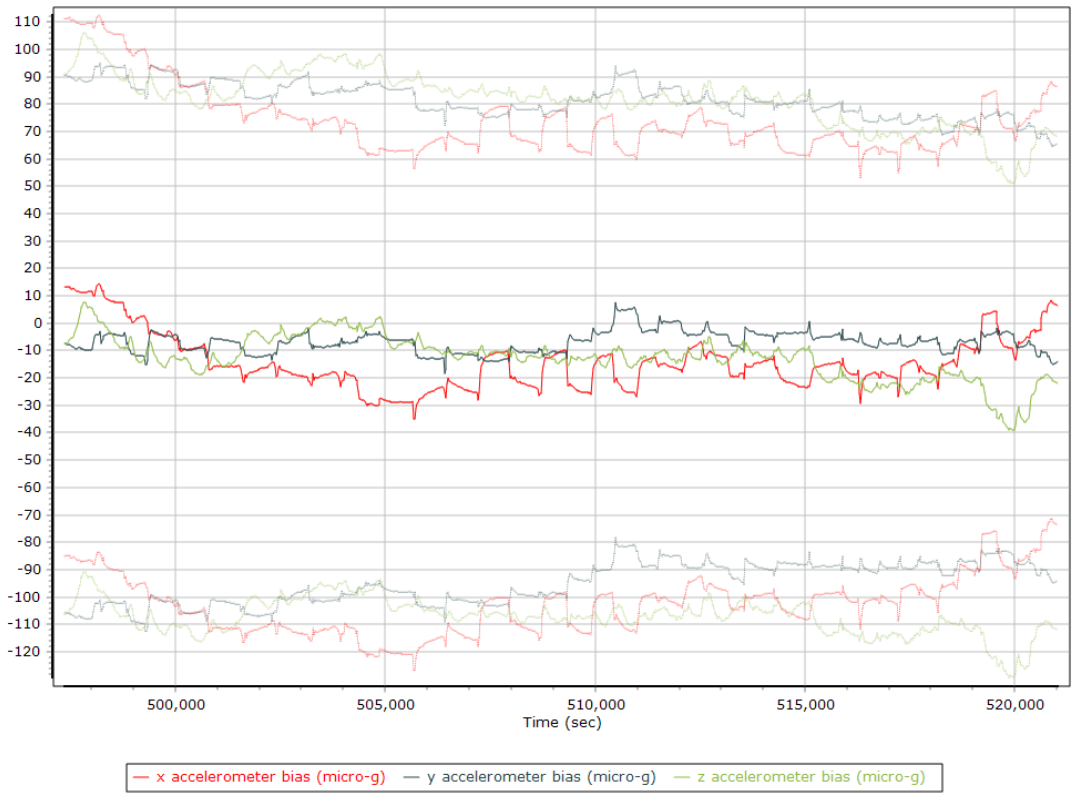
Reference-Primary GNSS Lever Arm Figure of Merit



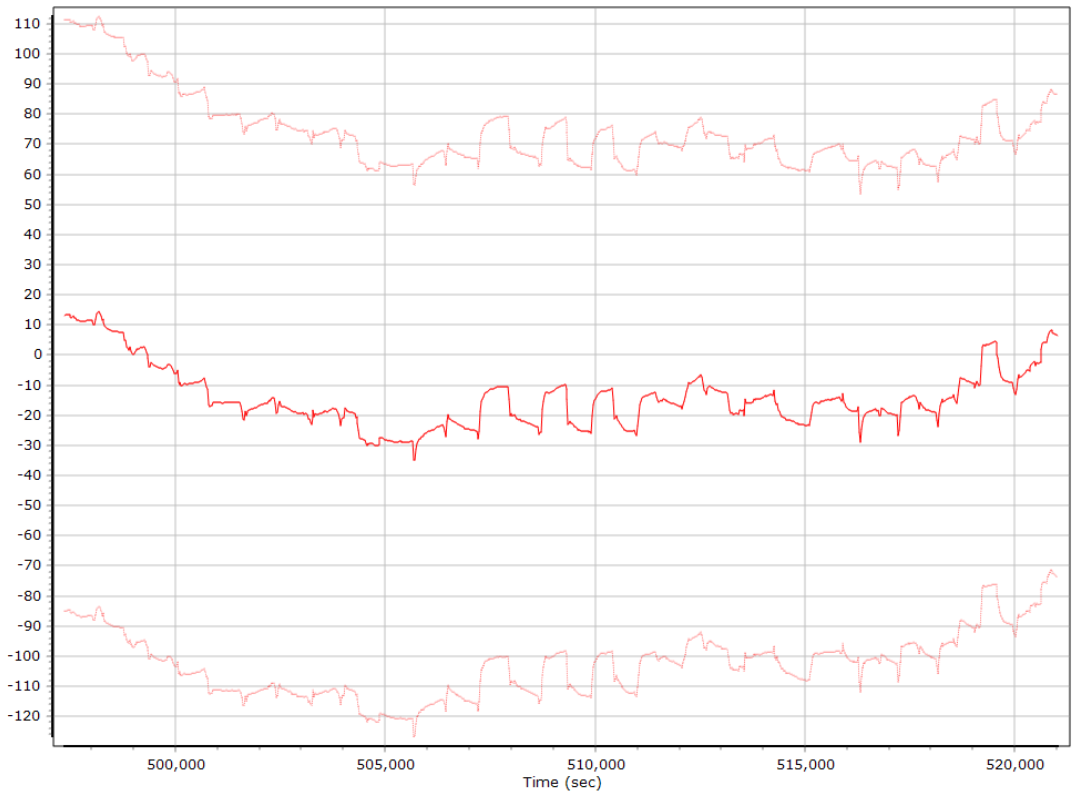
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

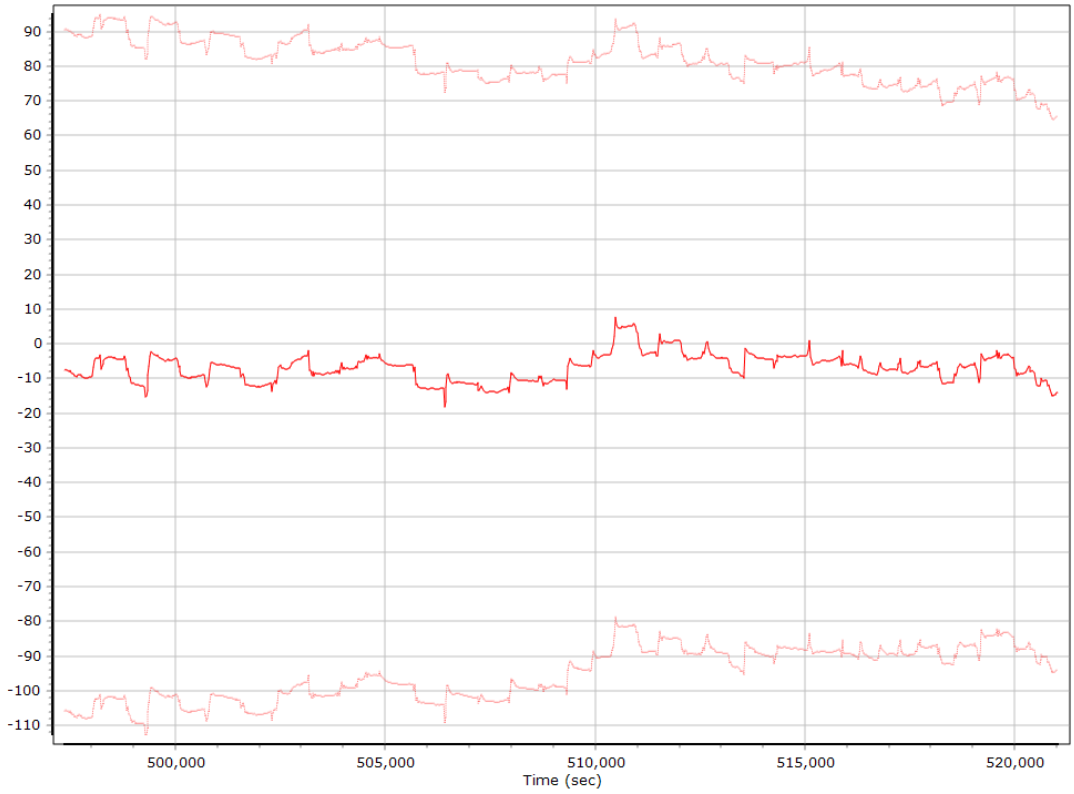
Accelerometer Bias (micro-g)



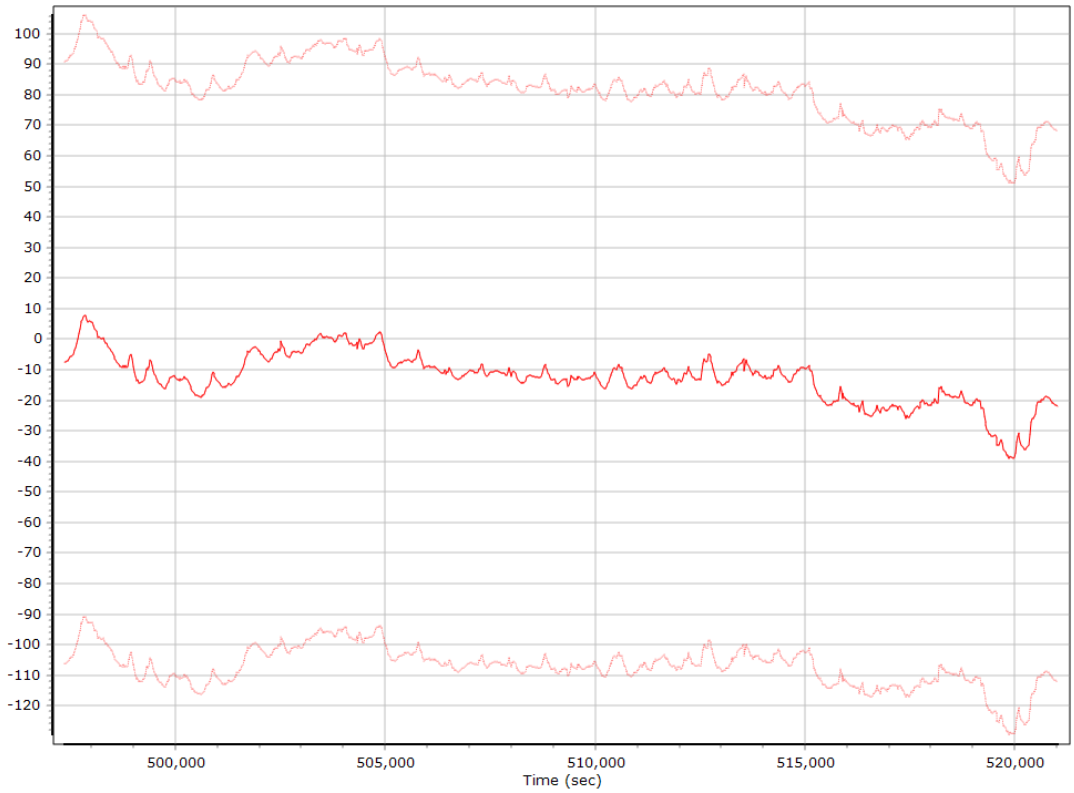
X Accelerometer Bias (micro-g)



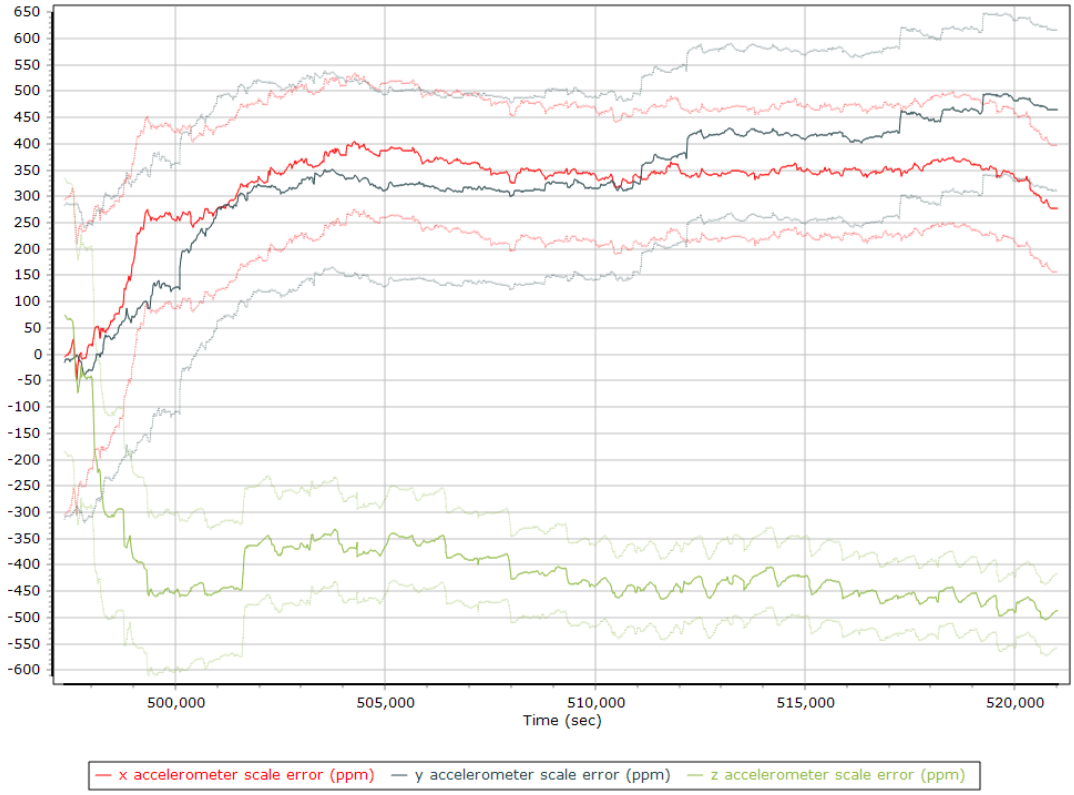
Y Accelerometer Bias (micro-g)



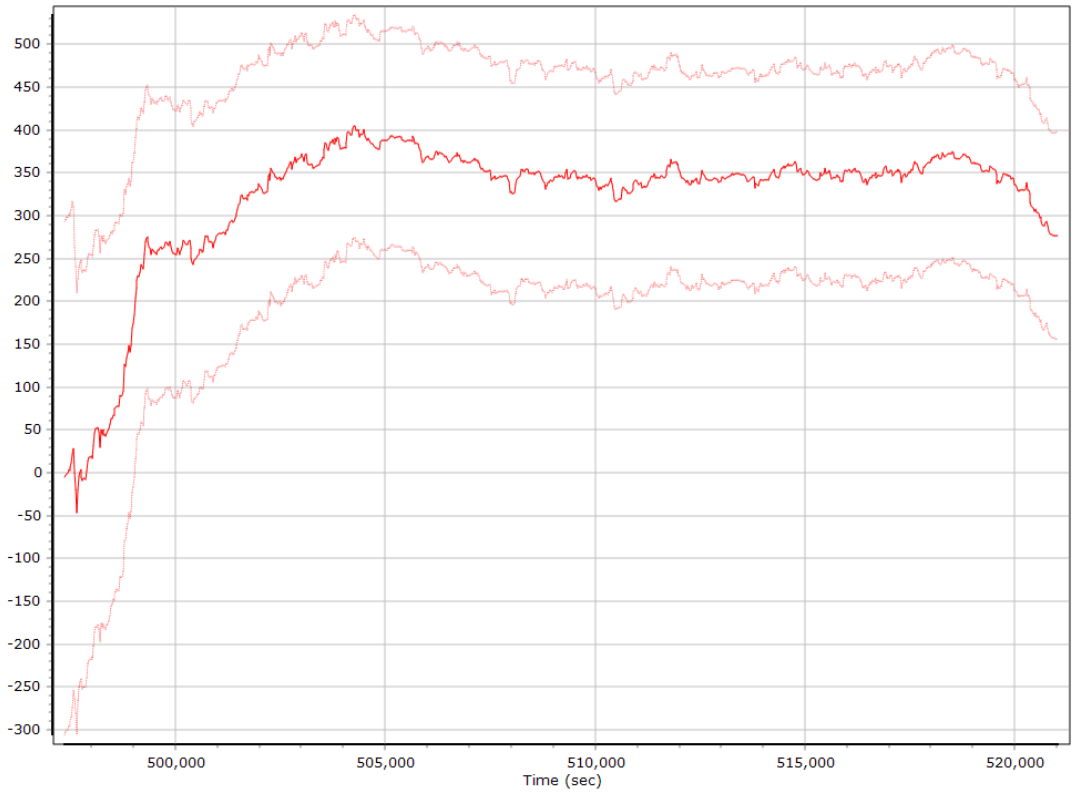
Z Accelerometer Bias (micro-g)



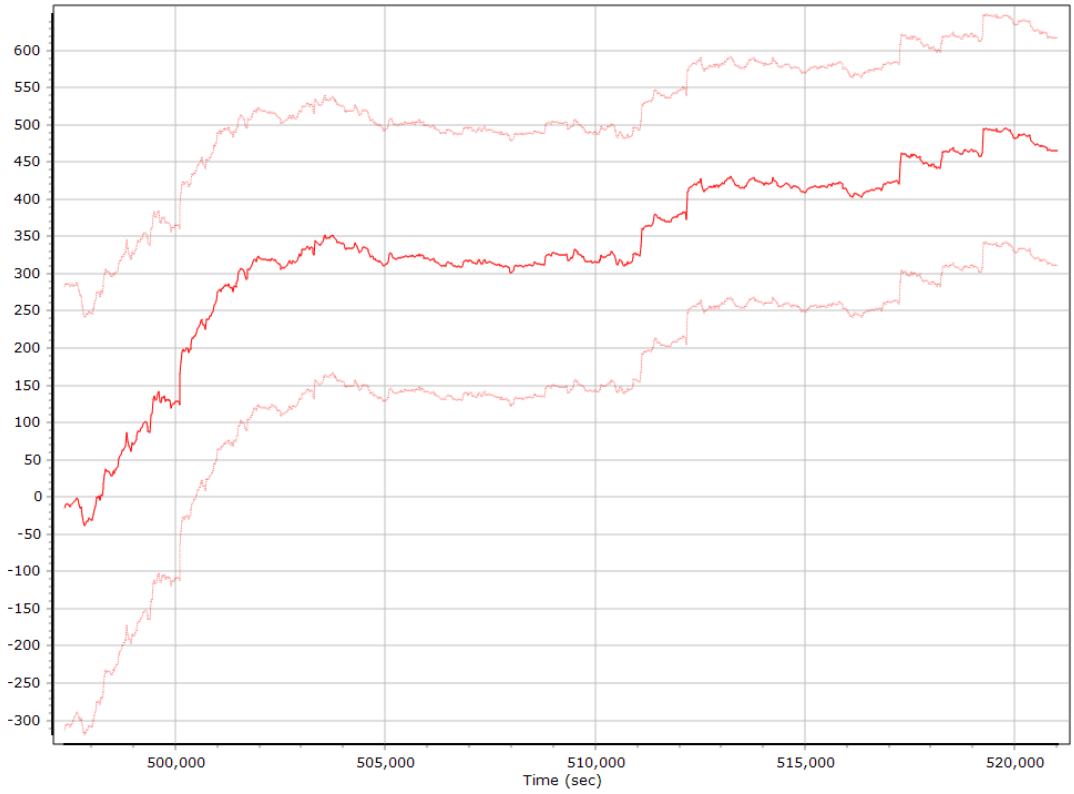
Accelerometer Scale Error (ppm)



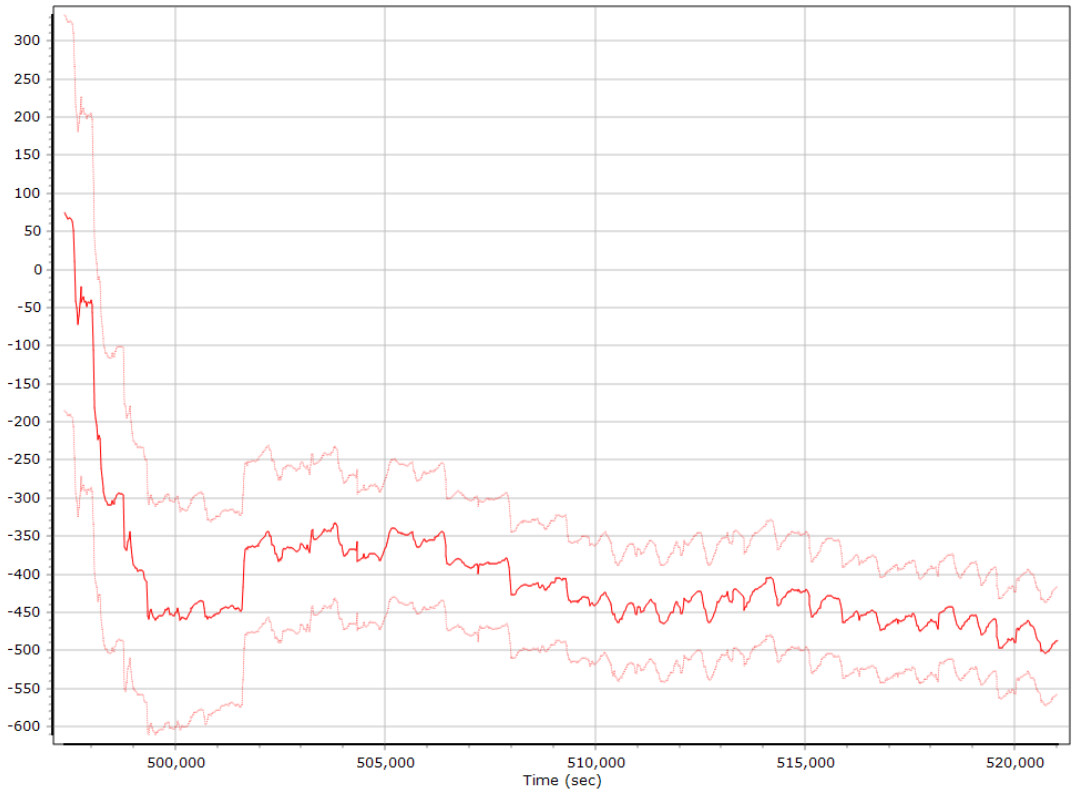
X Accelerometer Scale Error (ppm)



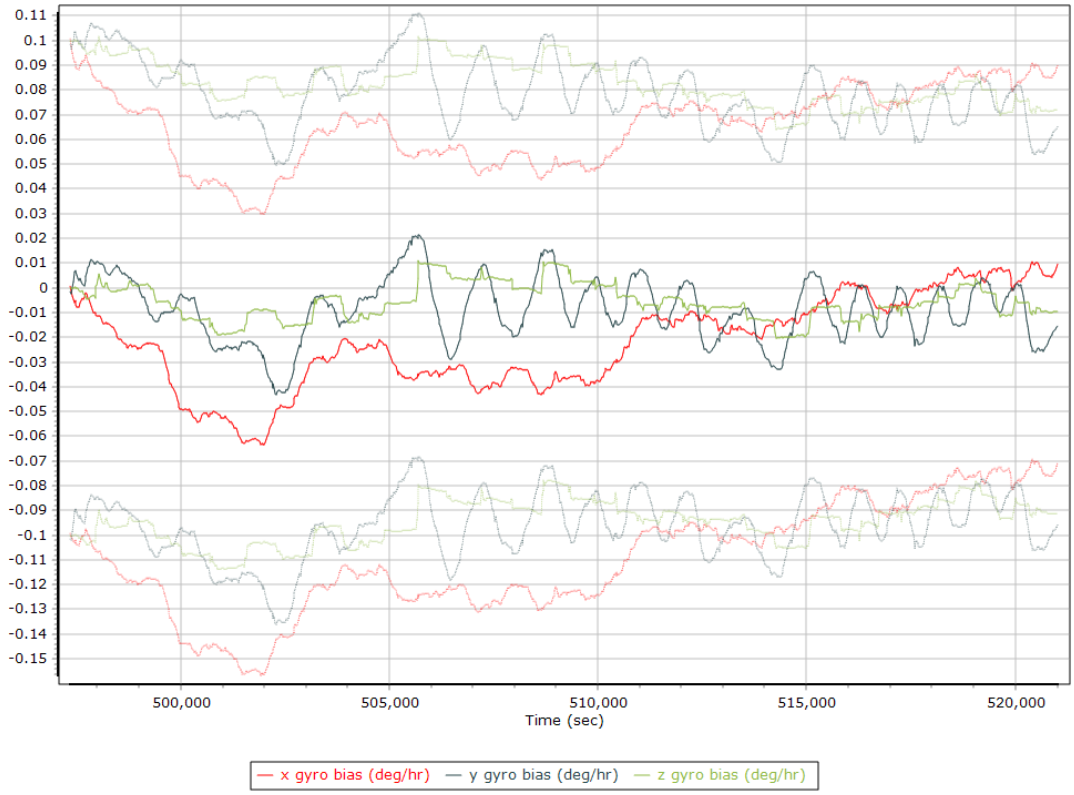
Y Accelerometer Scale Error (ppm)



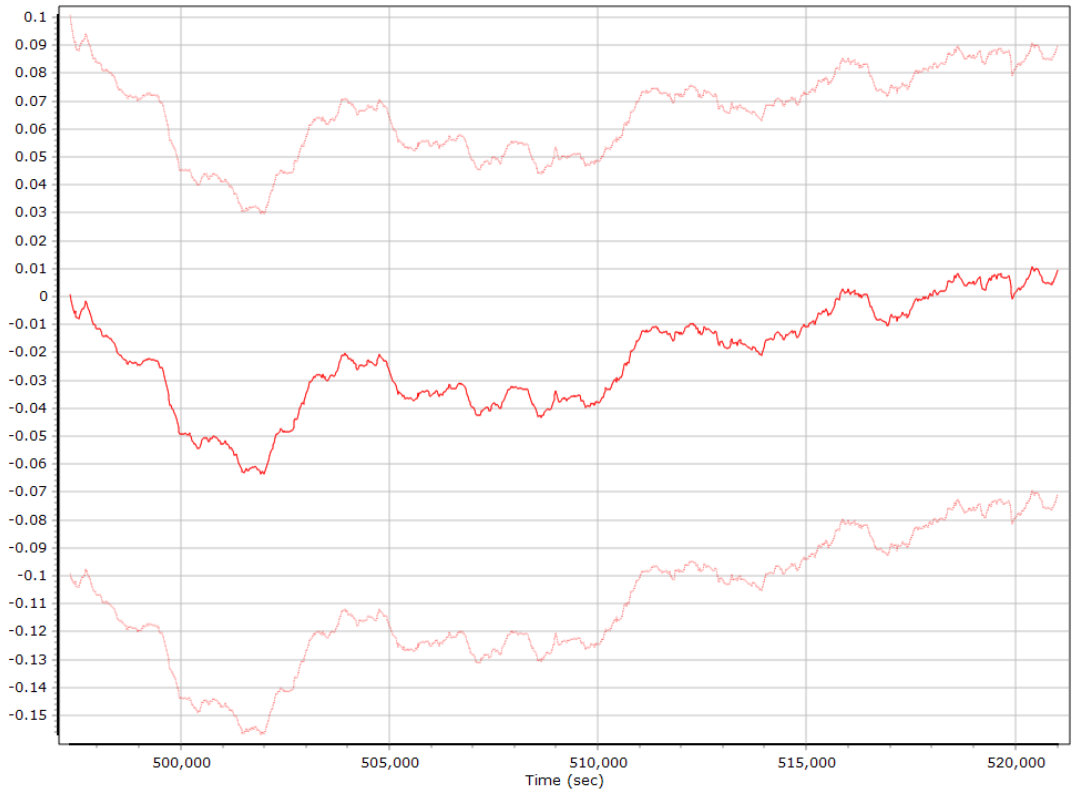
Z Accelerometer Scale Error (ppm)



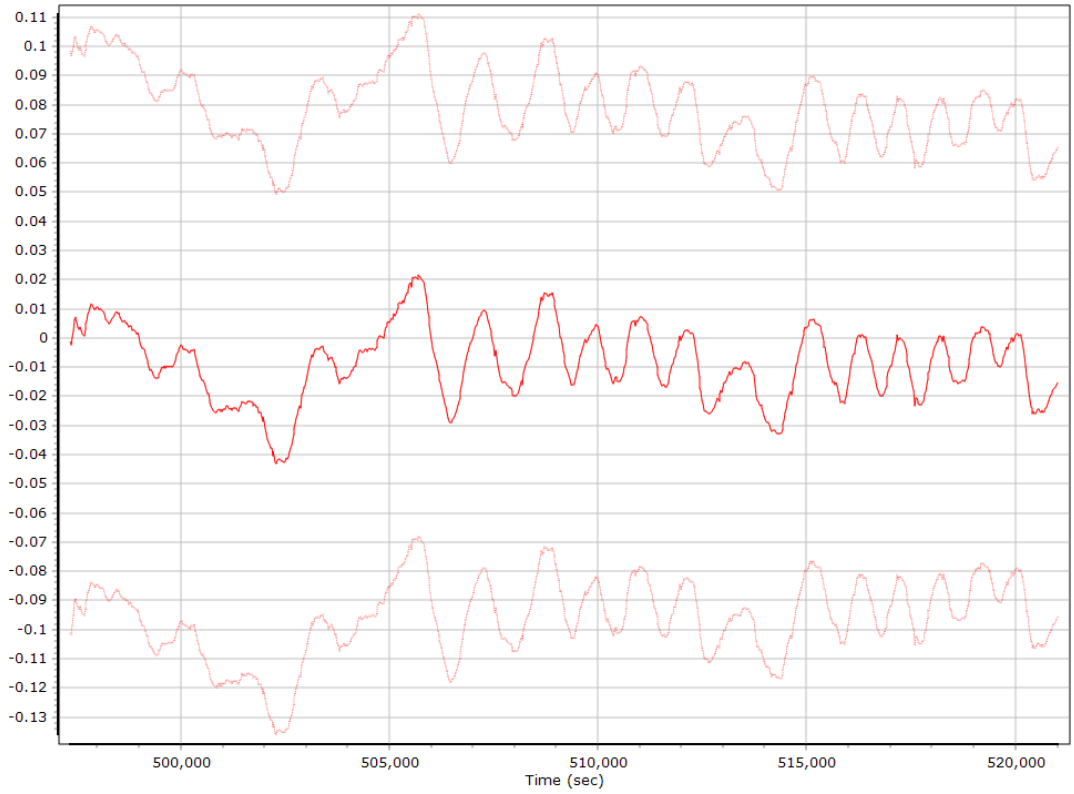
Gyro Bias (deg/h)



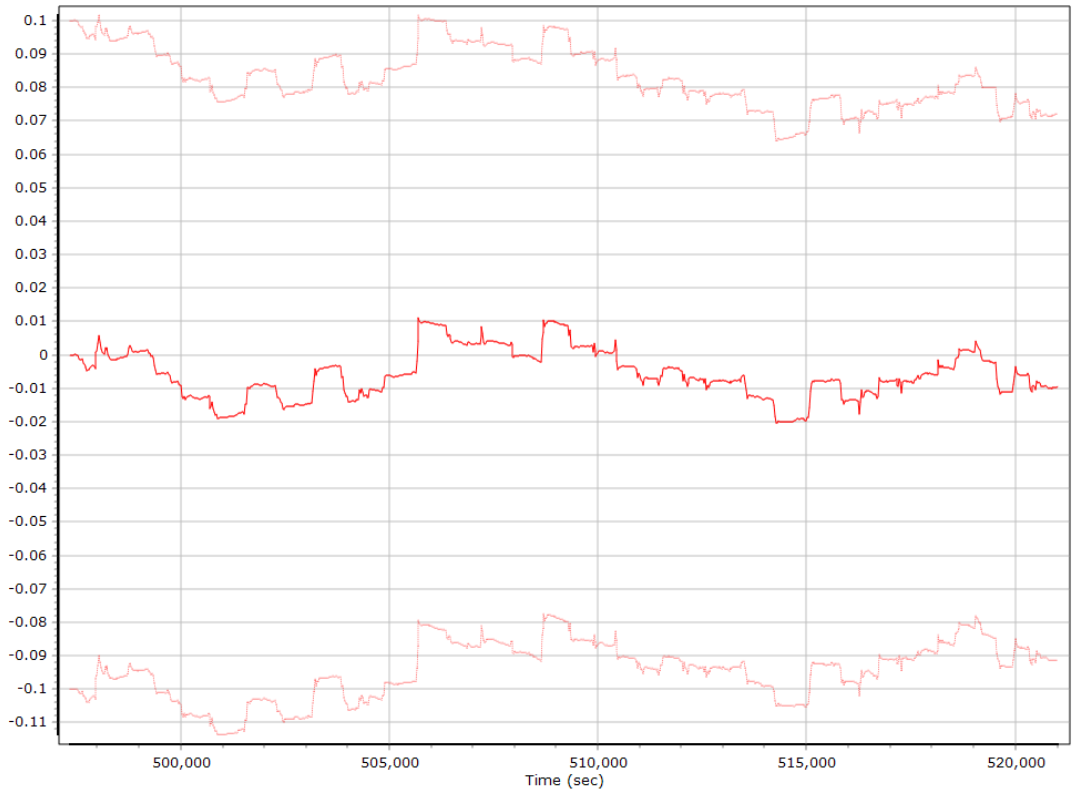
X Gyro Bias (deg/h)



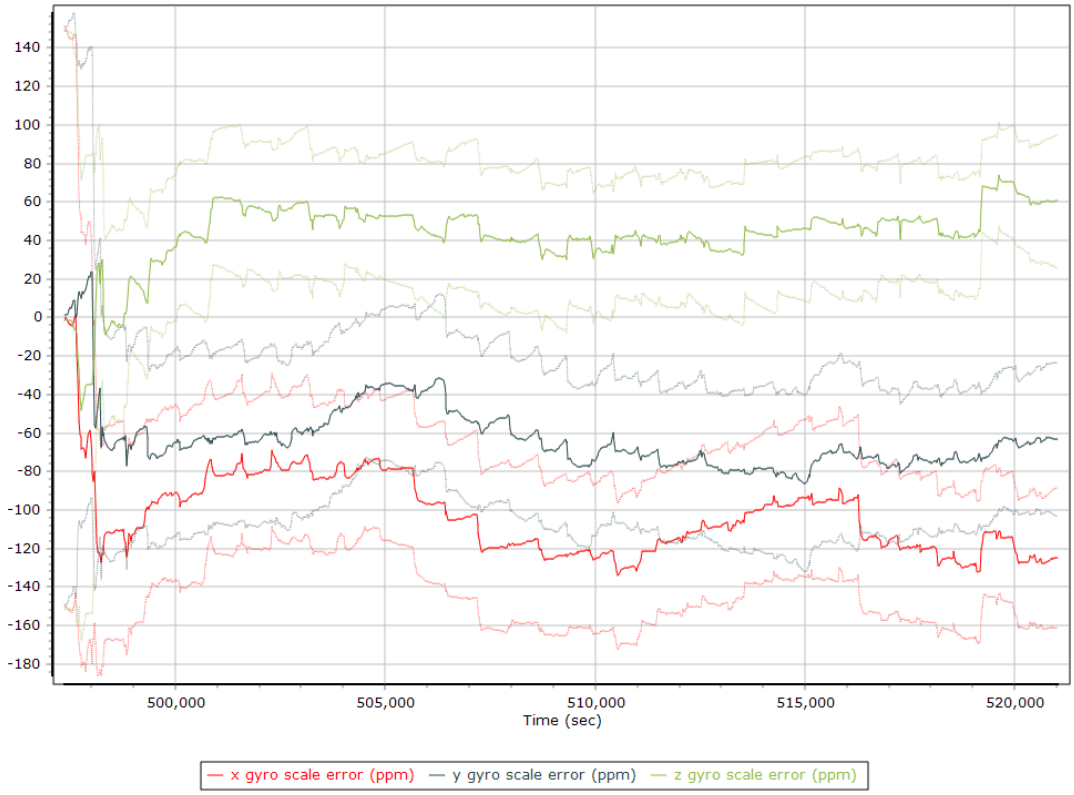
Y Gyro Bias (deg/h)



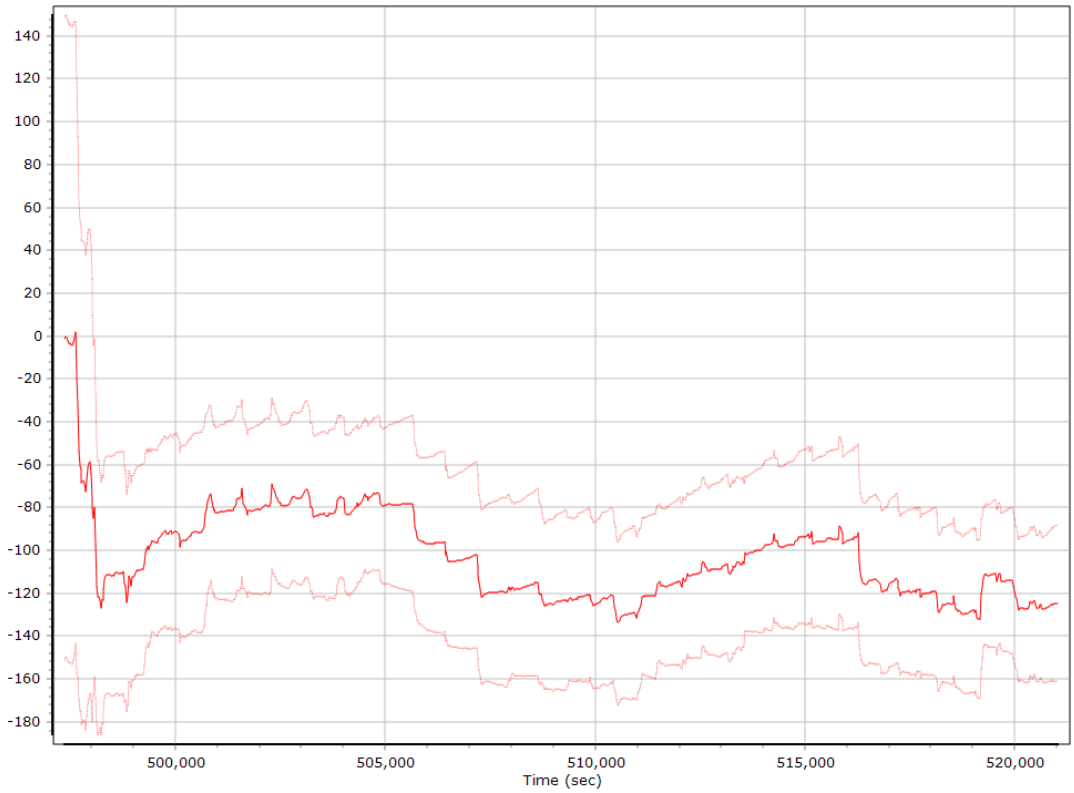
Z Gyro Bias (deg/h)



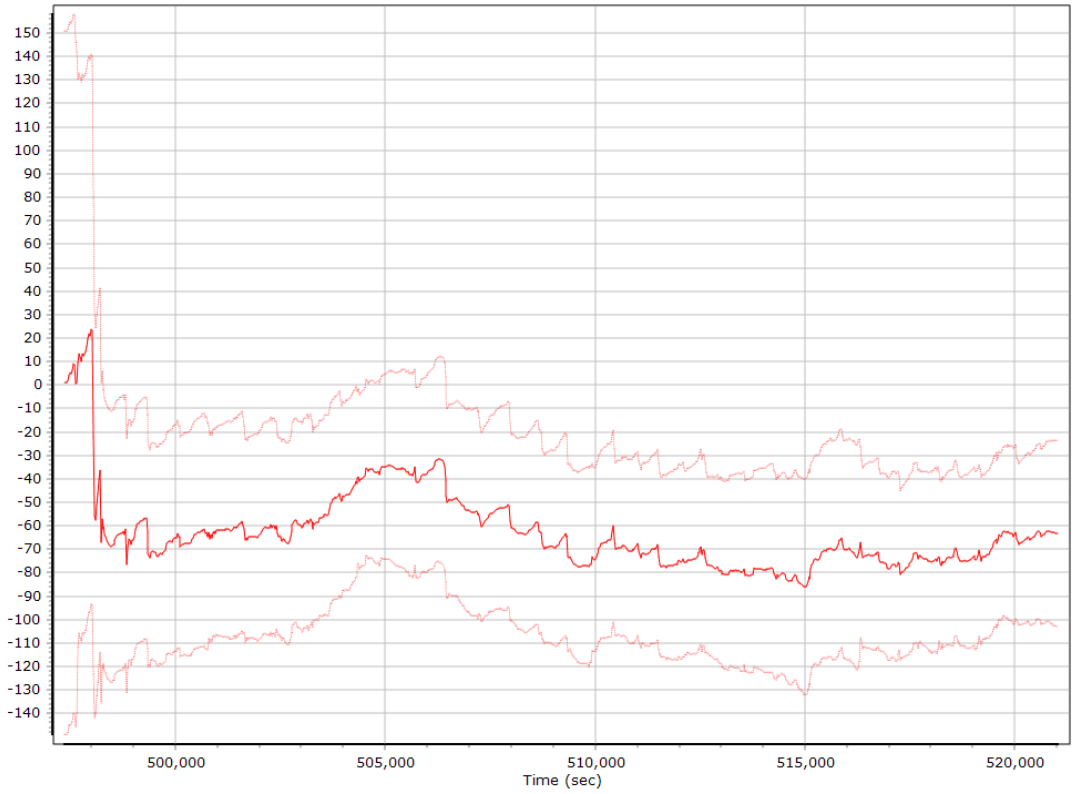
Gyro Scale Error (ppm)



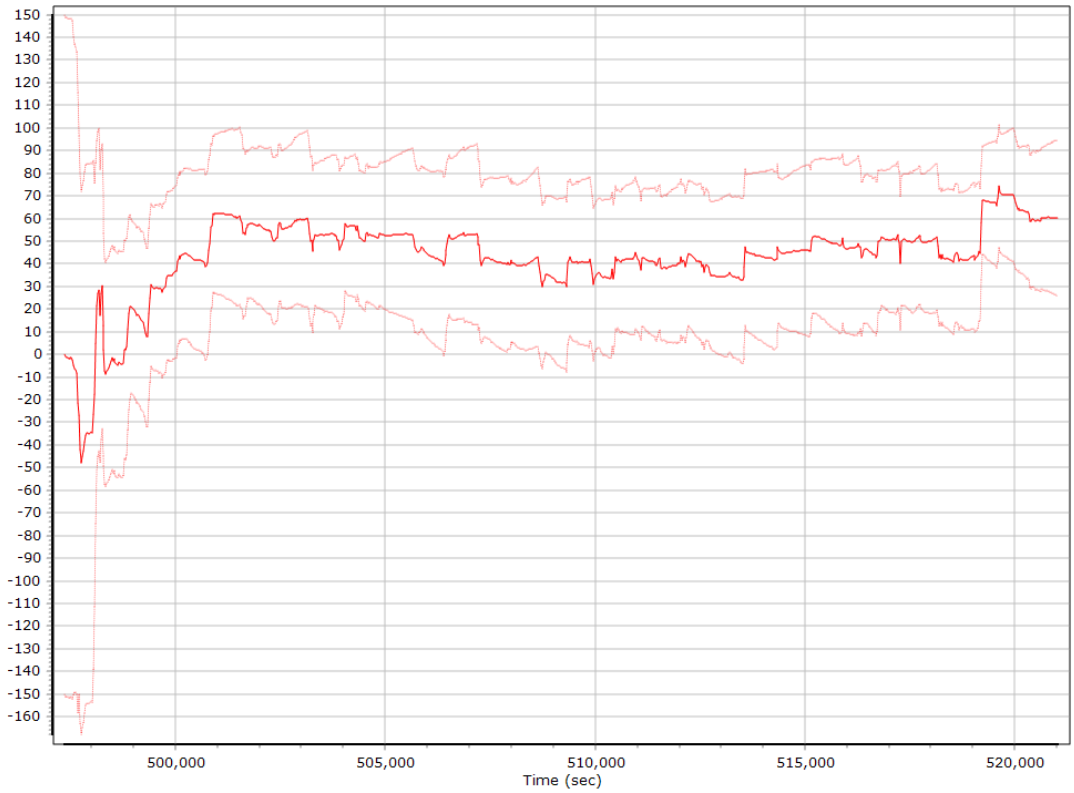
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

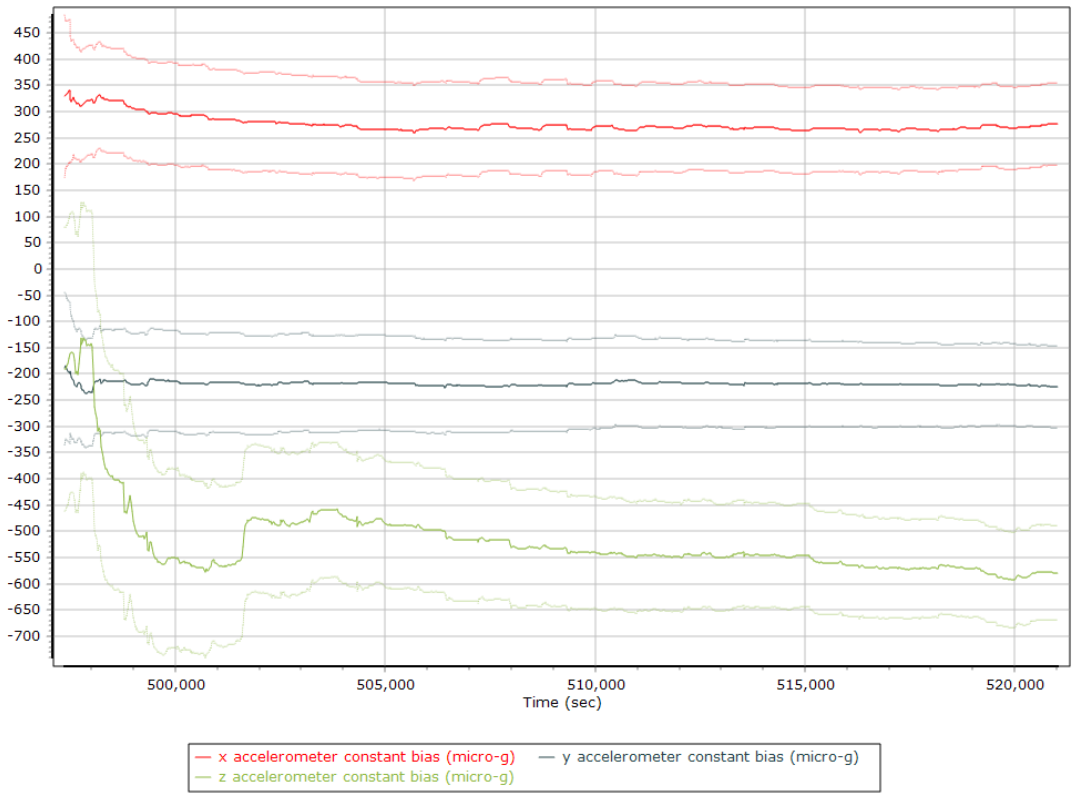


Z Gyro Scale Error (ppm)

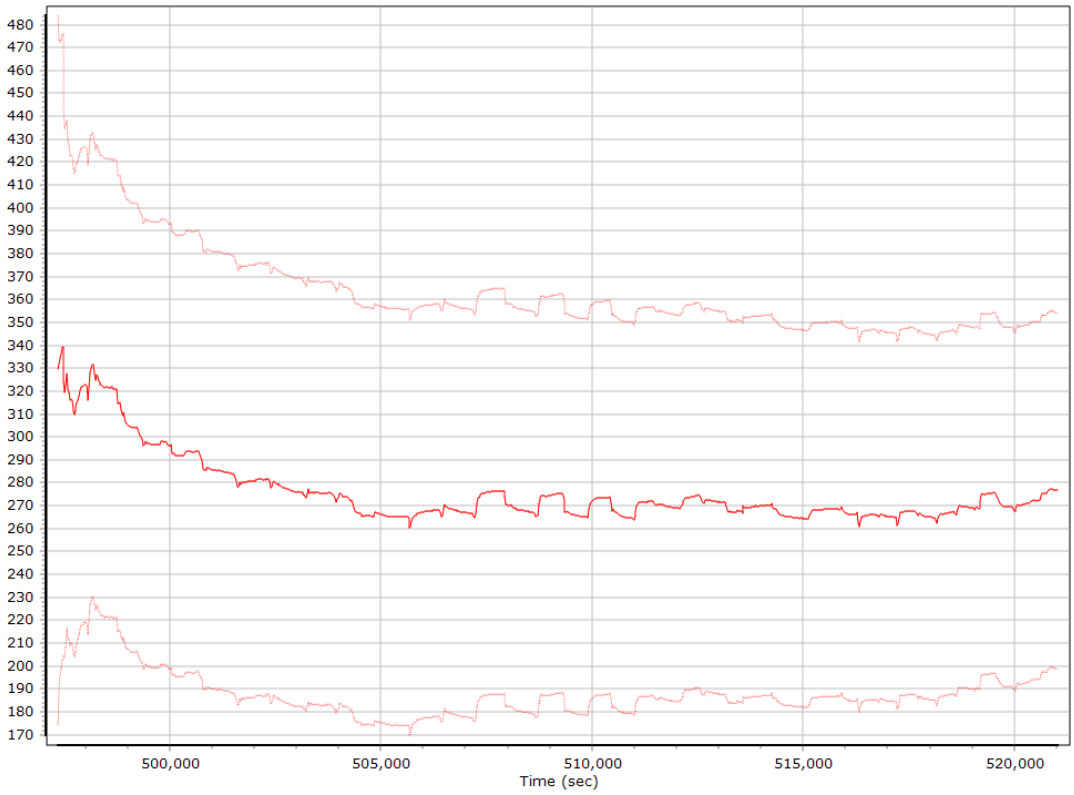


Forward Processed Estimated Constant Errors, Reference Frame

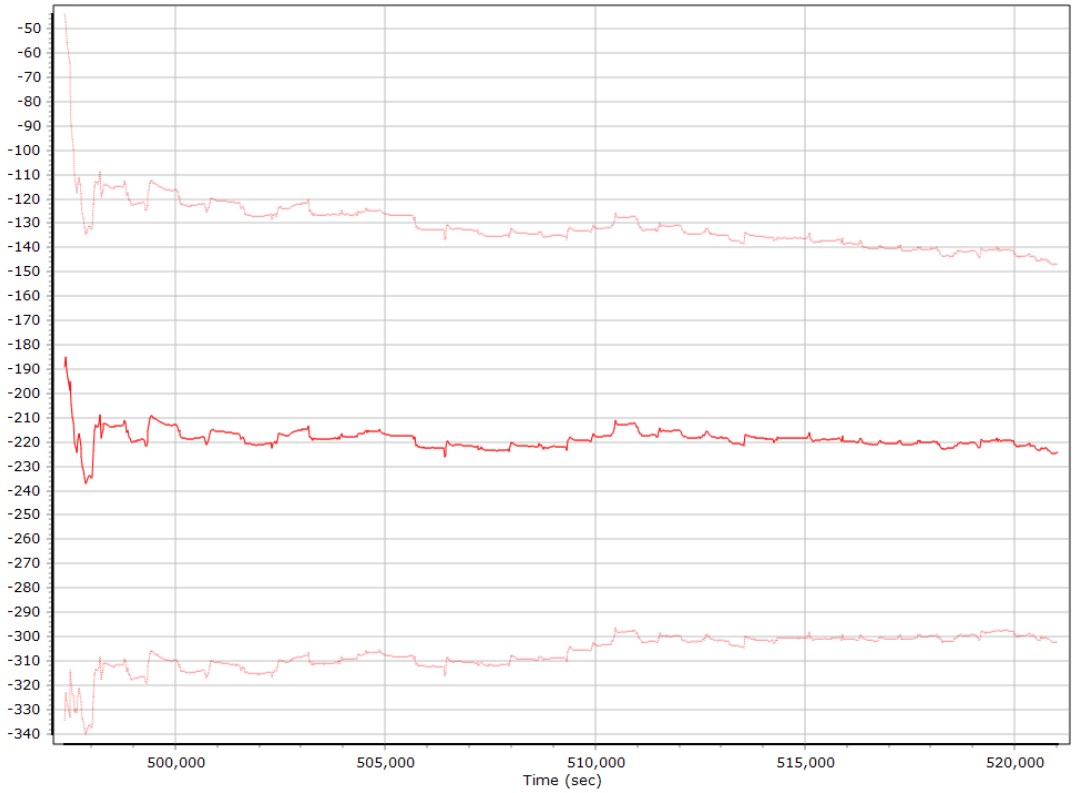
Accelerometer Bias (micro-g)



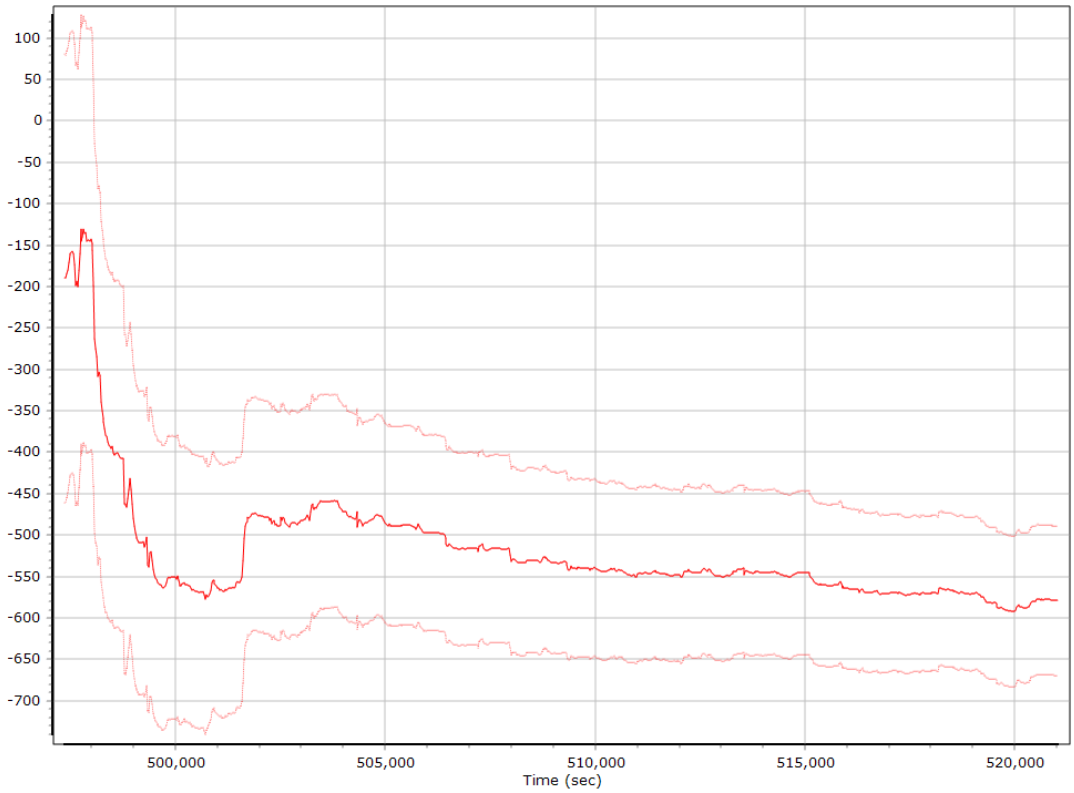
X Accelerometer Bias (micro-g)



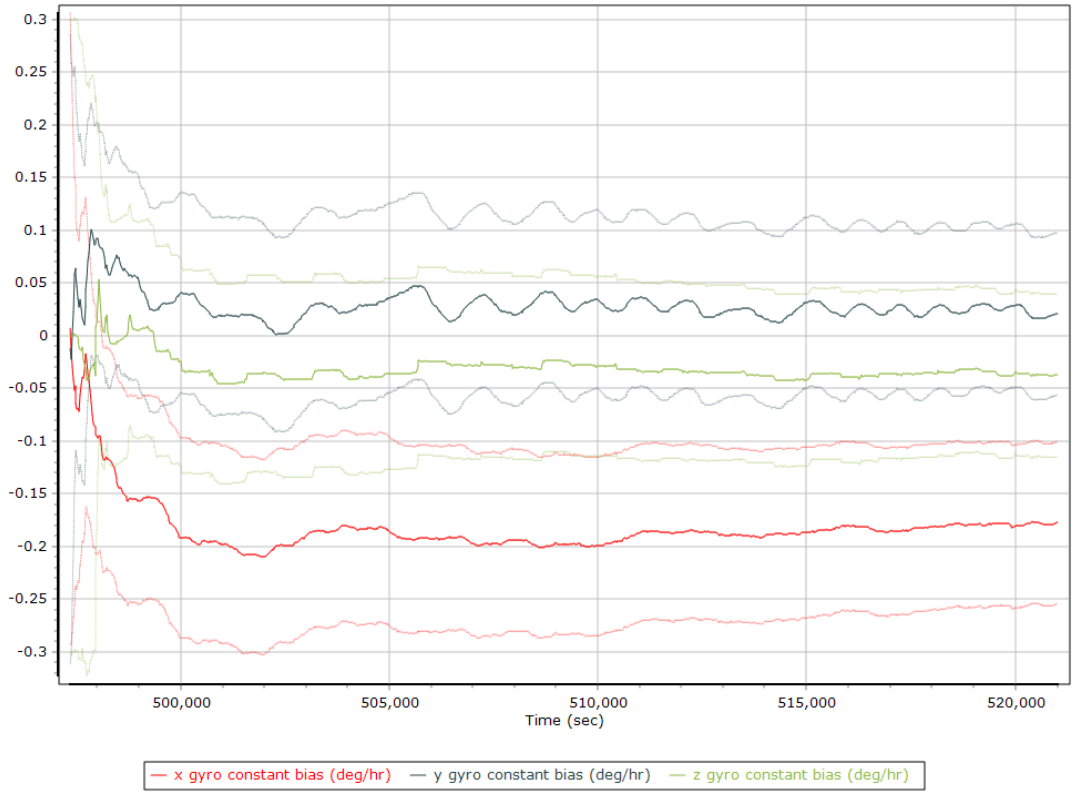
Y Accelerometer Bias (micro-g)



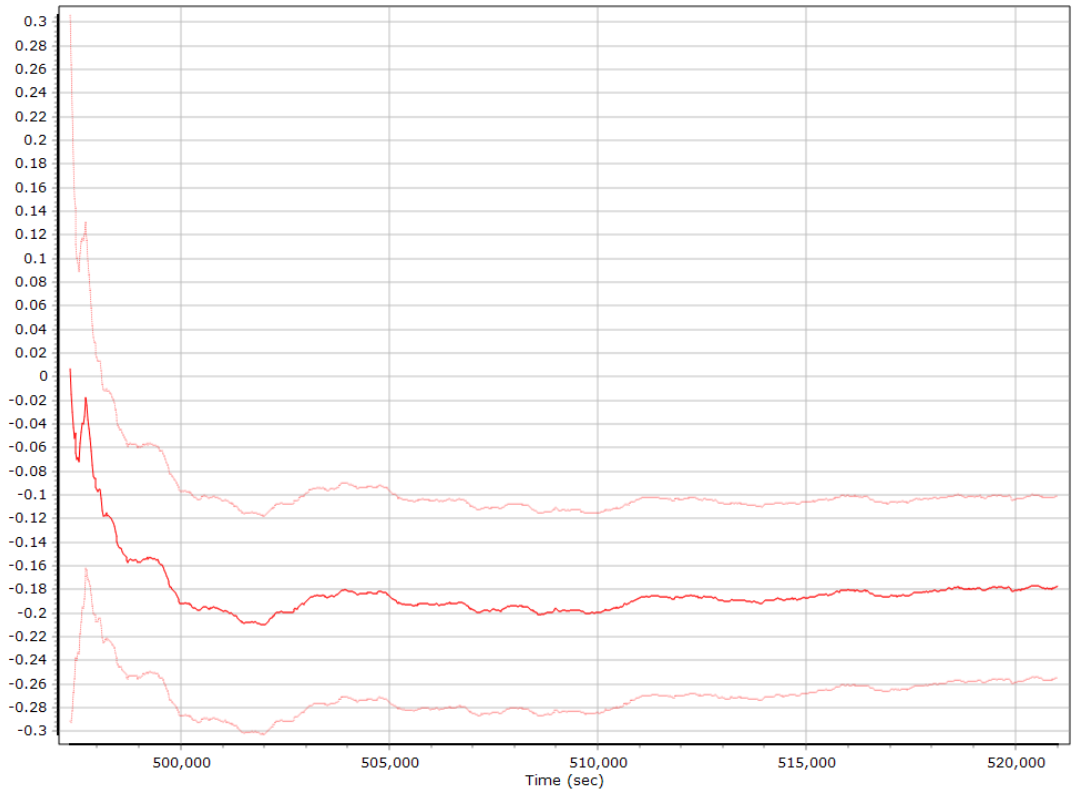
Z Accelerometer Bias (micro-g)



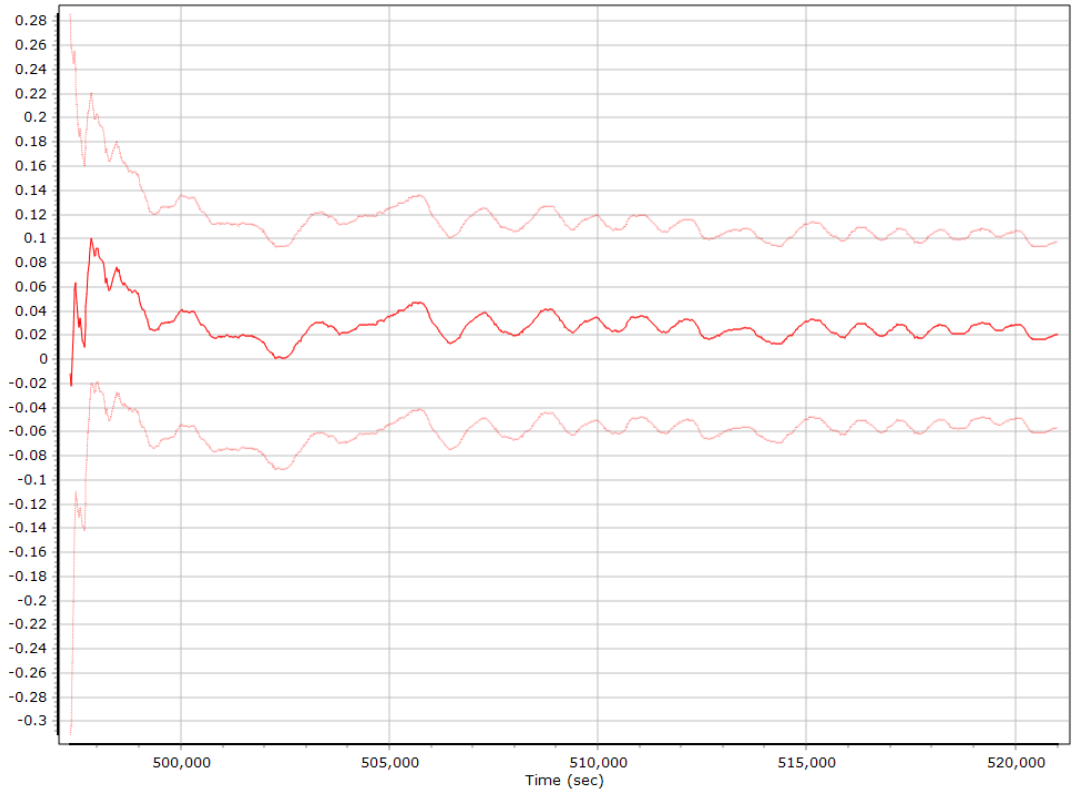
Gyro Bias (deg/h)



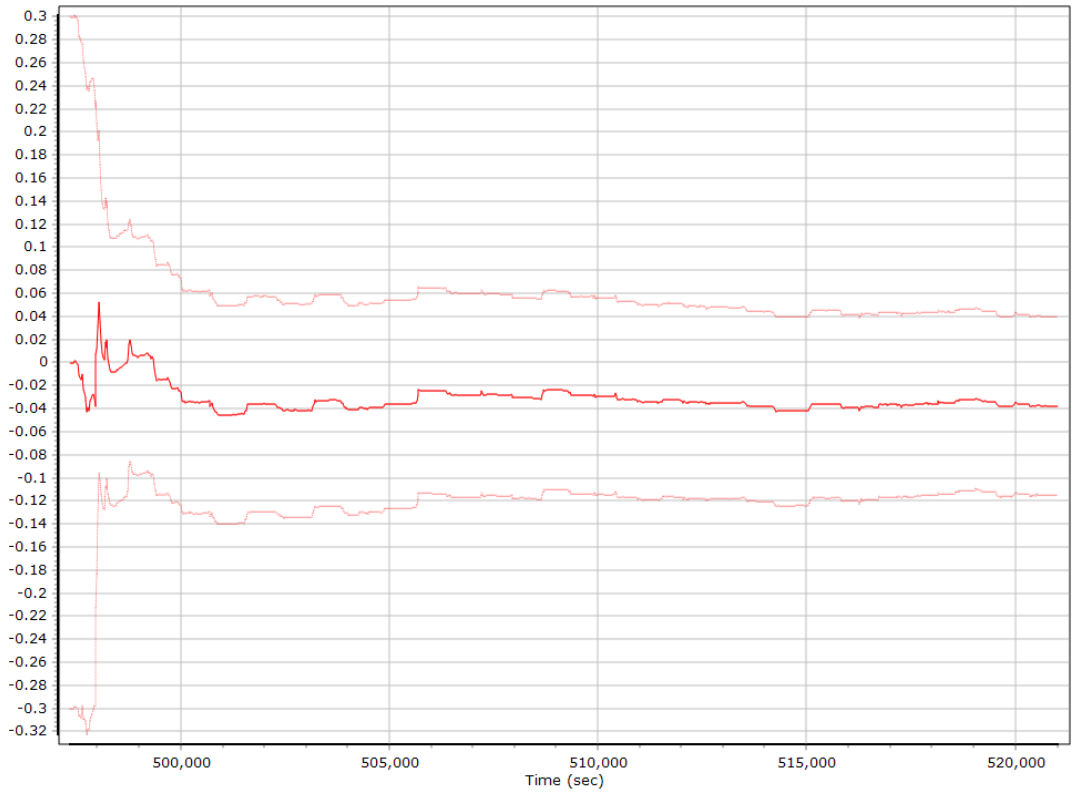
X Gyro Bias (deg/h)



Y Gyro Bias (deg/h)

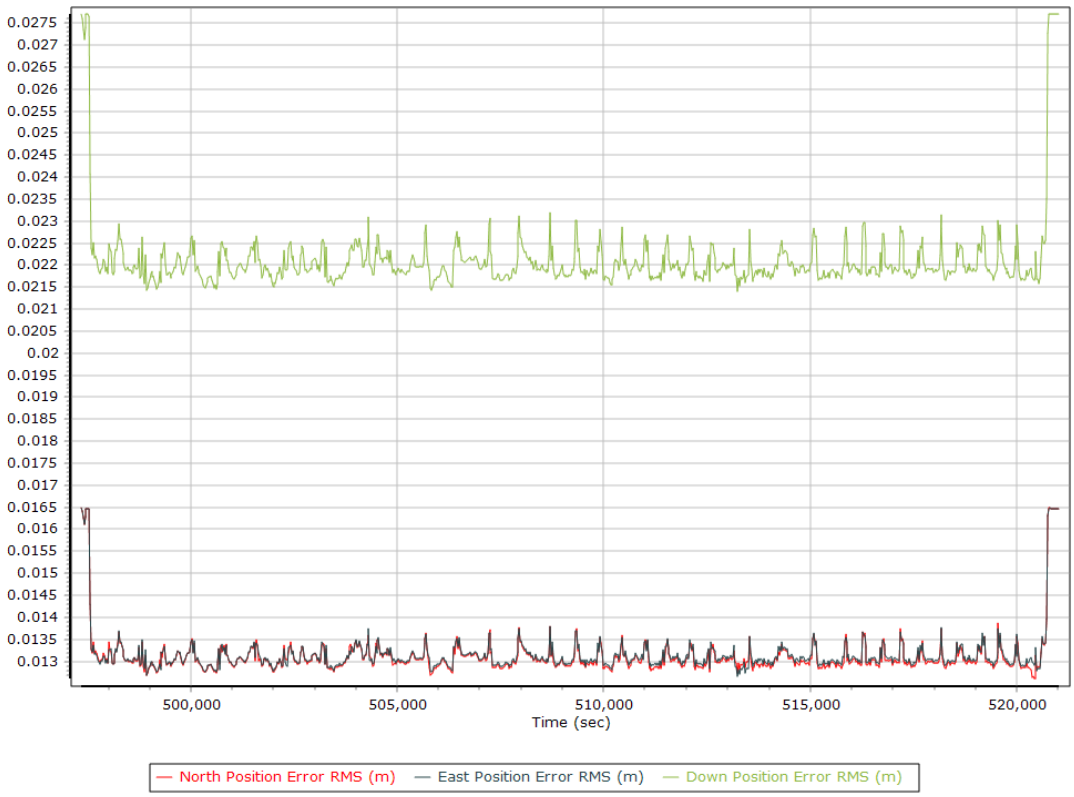


Z Gyro Bias (deg/h)

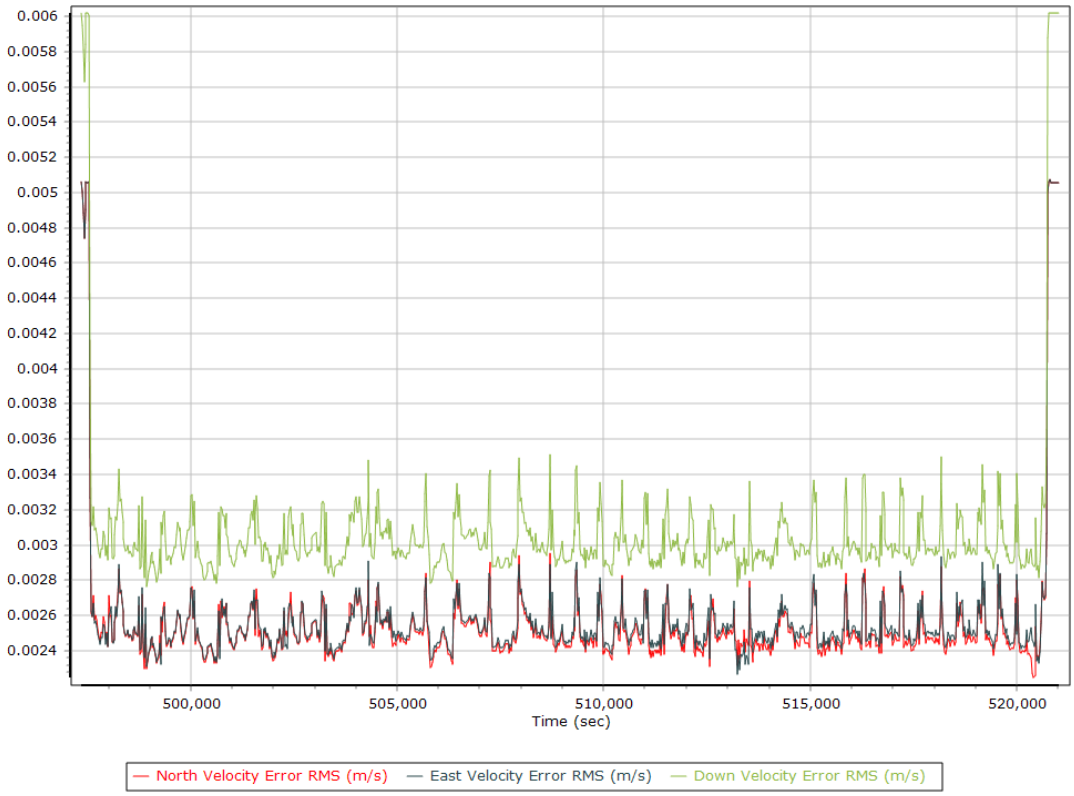


Smoothed Performance Metrics

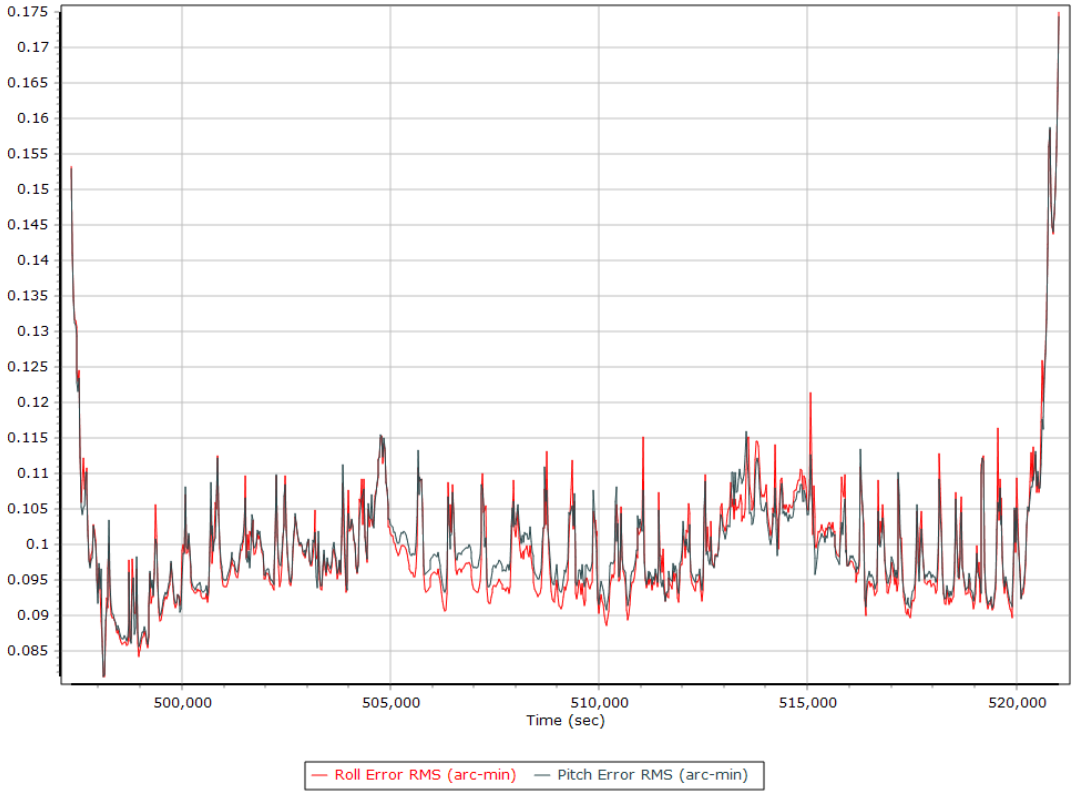
Position Error RMS (m)



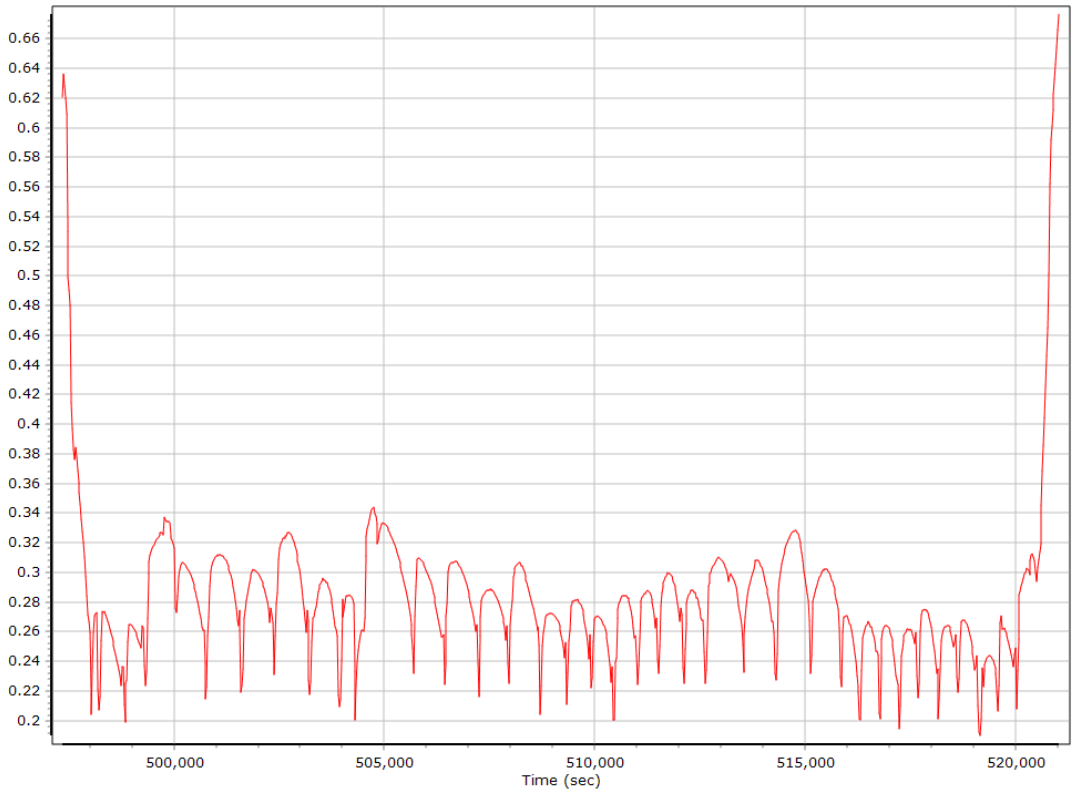
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

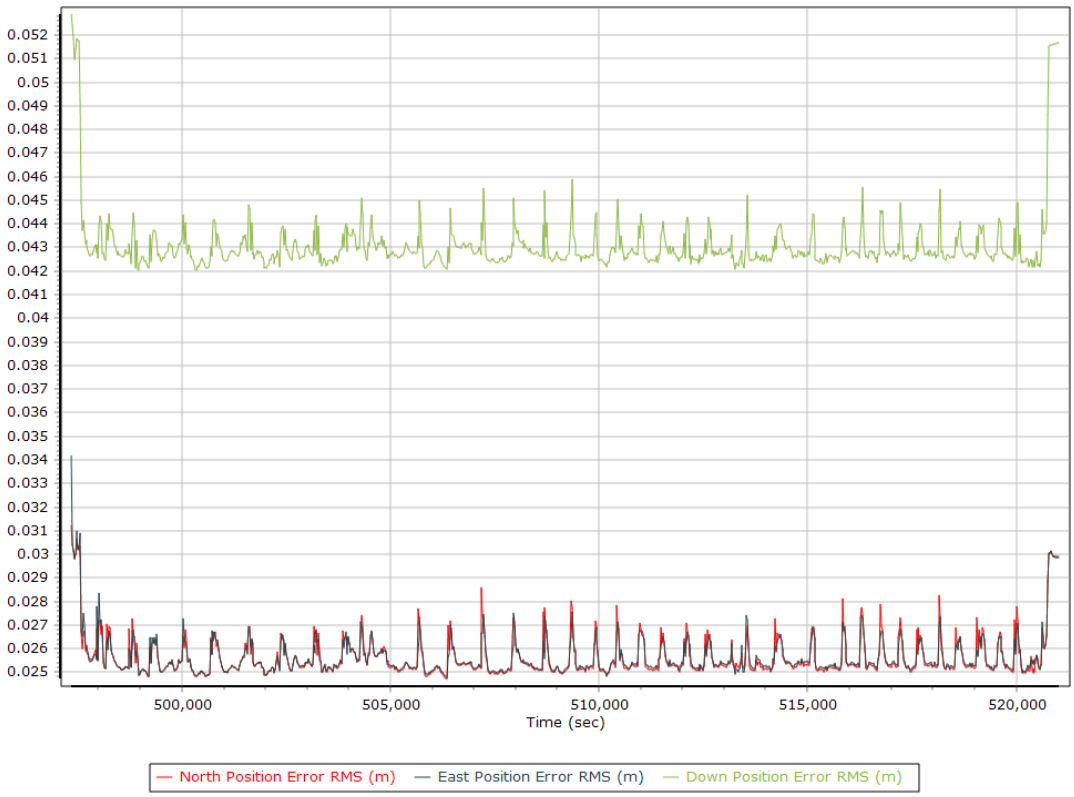


Heading Error RMS (arc-min)

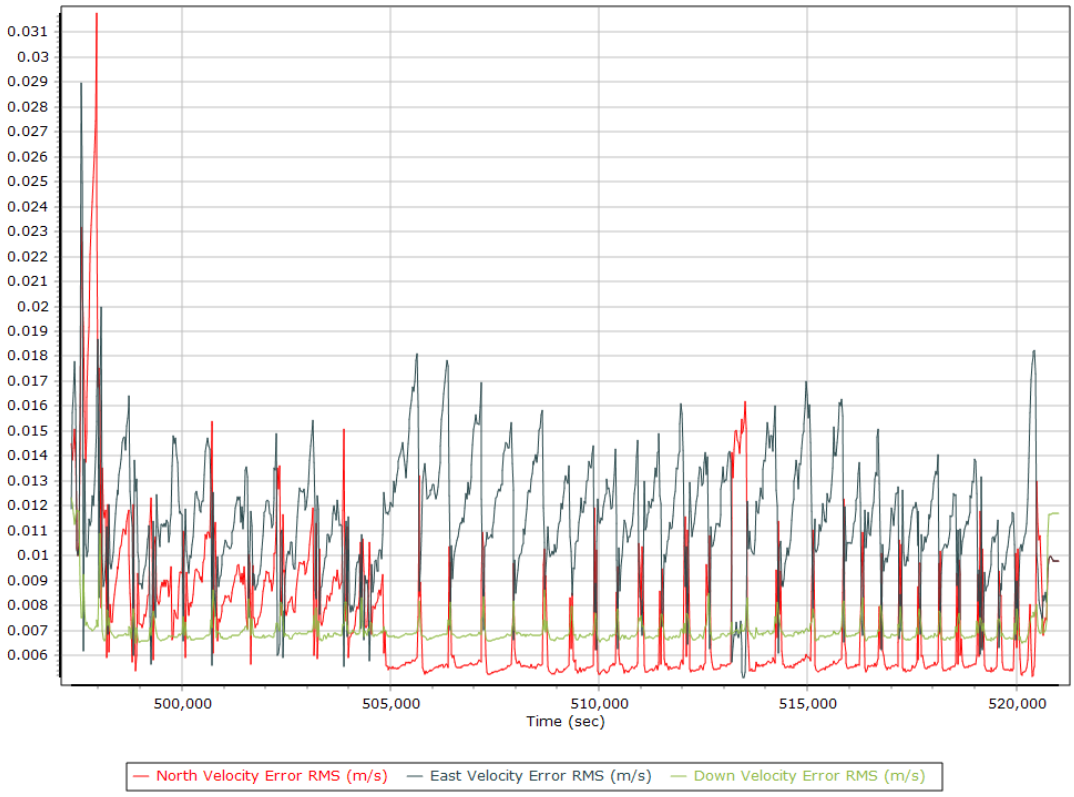


Forward Processed Performance Metrics

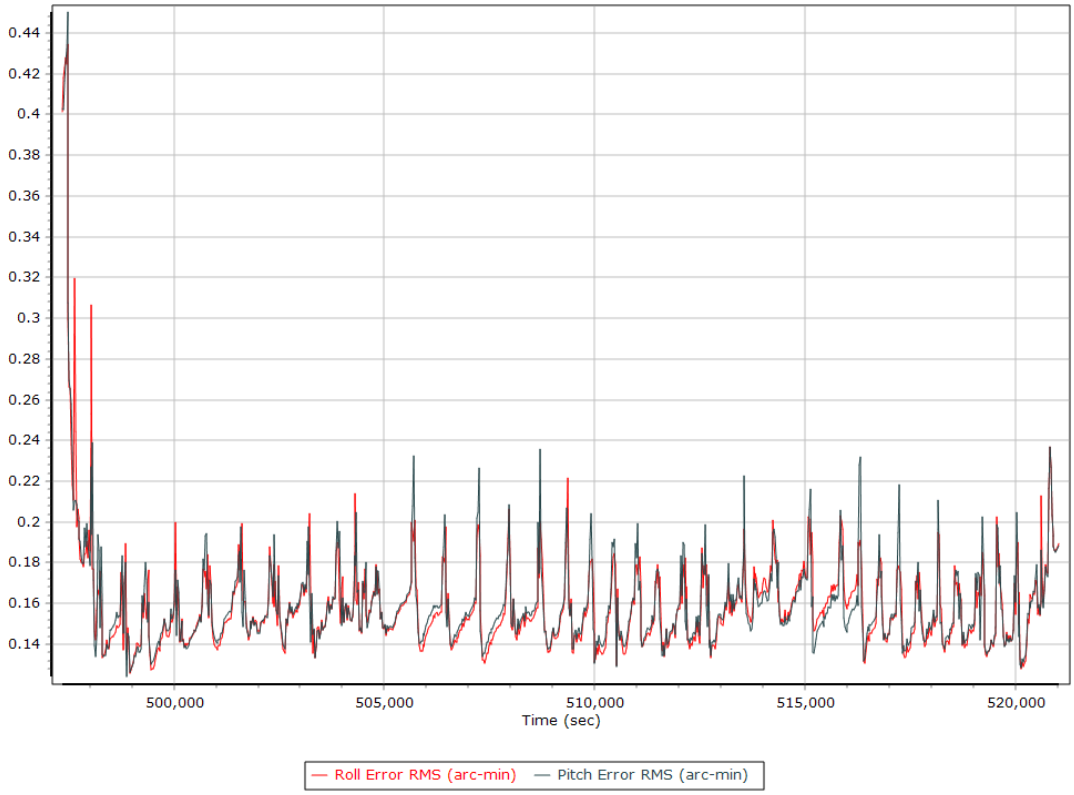
Position Error RMS (m)



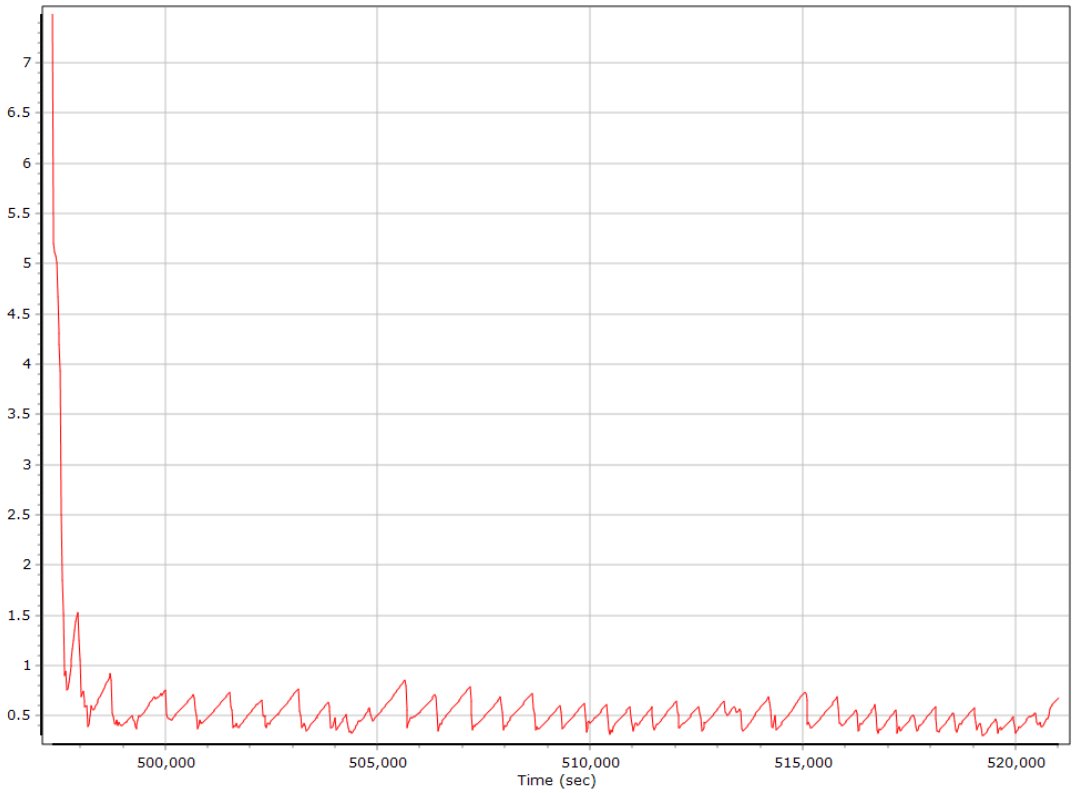
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

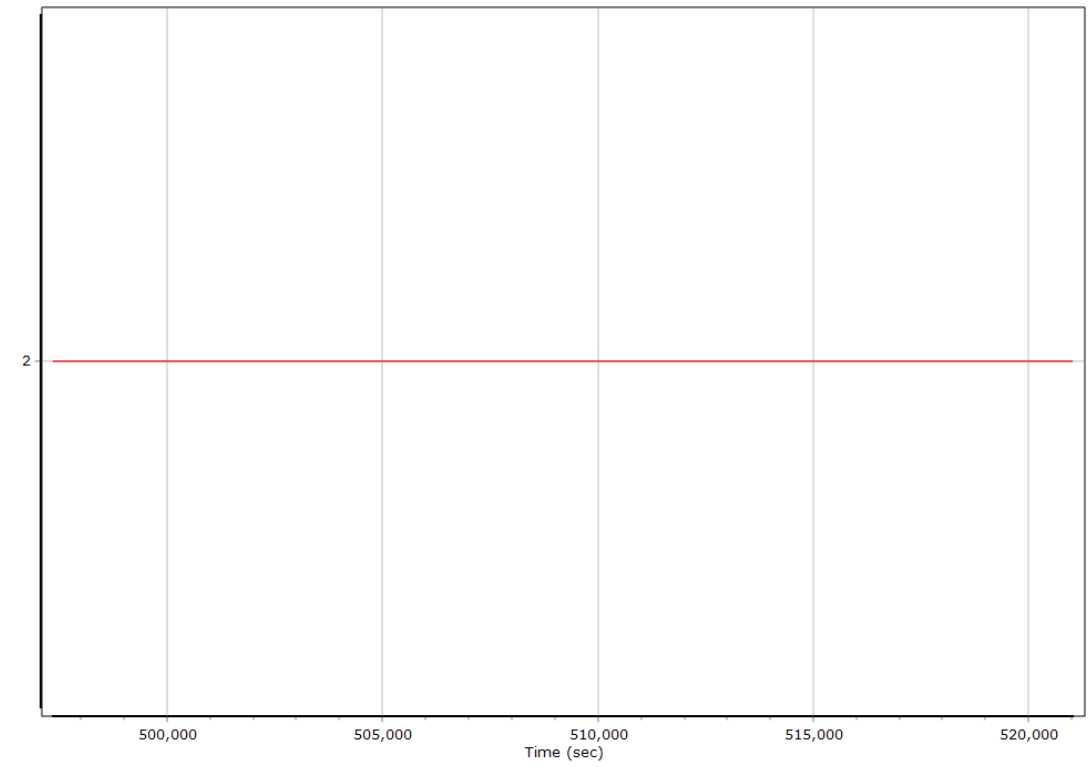


Heading Error RMS (arc-min)



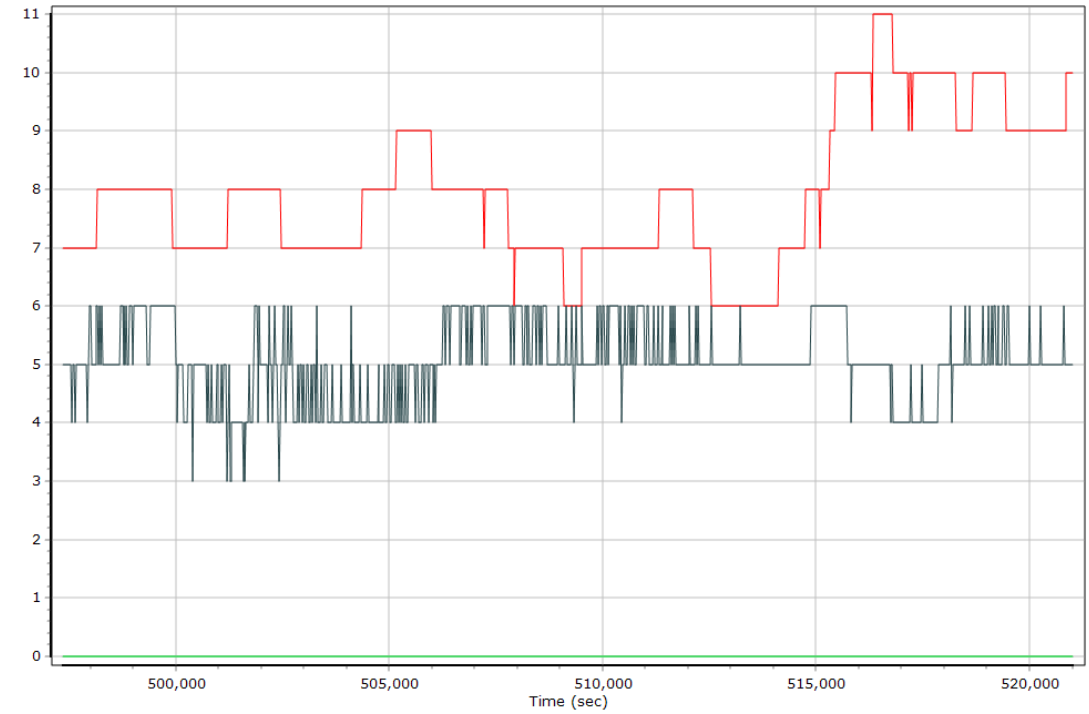
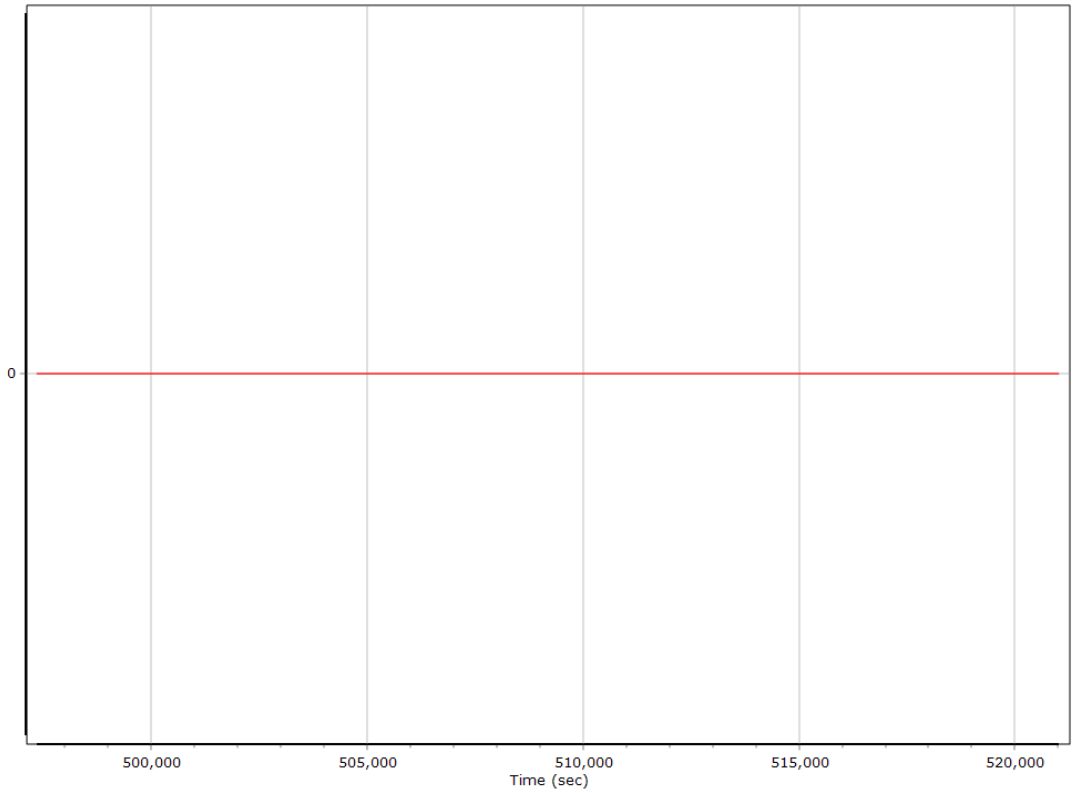
Forward Processed Solution Status

Processing Mode



0 = Fixed NL, 1 = Fixed WL, 2 = Float, 3 = DGNSS, 4 = RTCM, 5 = IAPPP, 6 = C/A, 7 = GNSS Nav, 8 = DR

Number of Satellites



Baseline Length