General Information

Mission Information

Project name	19-058_061220
Processing date	2020-07-20 21:30:38
Mission date	2020-06-12 14:02:08
Mission duration	07:18:20.000
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.645	POS Data
ALS.646	POS Data
ALS.647	POS Data
ALS.648	POS Data
ALS.649	POS Data
ALS.650	POS Data
ALS.651	POS Data
ALS.652	POS Data
ALS.653	POS Data
ALS.654	POS Data
ALS.655	POS Data
ALS.656	POS Data
ALS.657	POS Data
ALS.658	POS Data
ALS.659	POS Data
ALS.660	POS Data
ALS.661	POS Data
ALS.662	POS Data
ALS.663	POS Data
ALS.664	POS Data
ALS.665	POS Data
ALS.666	POS Data
ALS.667	POS Data
ALS.668	POS Data
ALS.669	POS Data
ALS.670	POS Data
ALS.671	POS Data
ALS.672	POS Data
ALS.673	POS Data
ALS.674	POS Data
ALS.675	POS Data
ALS.676	POS Data
ALS.677	POS Data
ALS.678	POS Data
ALS.679	POS Data
ALS.680	POS Data
ALS.681	POS Data
ALS.682	POS Data
ALS.683	POS Data
ALS.684	POS Data
ALS.685	POS Data
ALS.686	POS Data
ALS.687	POS Data
ALS.688	POS Data
ALS.689	POS Data
ALS.690	POS Data
ALS.691	POS Data
ALS.692	POS Data
ALS.693	POS Data
ALS.694	POS Data
ALS.695	POS Data
ALS.696	POS Data
ALS.697	POS Data
ALS.698	POS Data
ALS.699	POS Data
ALS.700	POS Data
ALS.701	POS Data
ALS.702	POS Data
ALS.703	POS Data

Input Files

File Name	File Type
Ephm1640.20g	GLONASS Broadcast Ephemeris
Ephm1640.20n	GPS Broadcast Ephemeris
igl21094.sp3	GLONASS Precise Ephemeris
igl21095.sp3	GLONASS Precise Ephemeris
igl21096.sp3	GLONASS Precise Ephemeris
igs21094.sp3	GPS Precise Ephemeris
igs21095.sp3	GPS Precise Ephemeris
igs21096.sp3	GPS Precise Ephemeris

Output Files

Filename	File type
sbet_19-058_061220.out	SBET Trajectory File

Rover Data Summary

First raw data file	ALS.645		
Last raw data file	ALS.703		
Start GPS week	2109		
Start time	482539.753 (06/12/2020 14:02:01)		
End time	508826.095 (06/12/2020 21:20:08)		
Start of fine alignment	483081.682 (06/12/2020 14:11:03)		
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

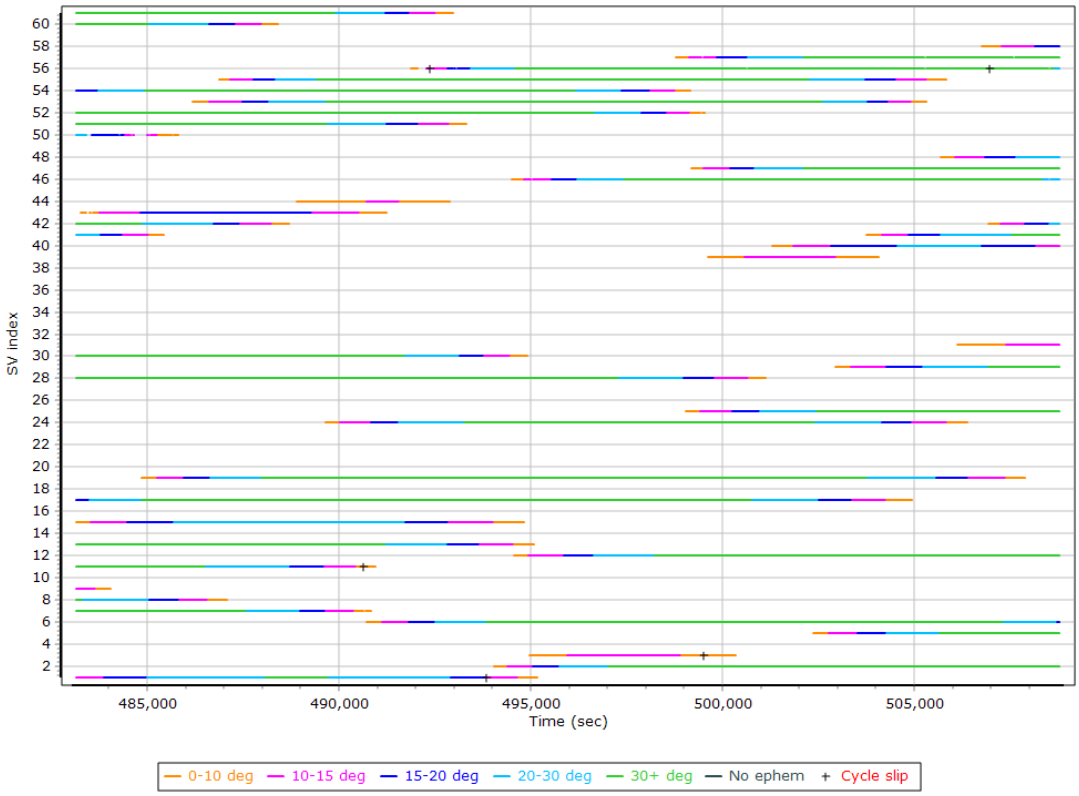
Rover Data QC

Raw IMU Import QC Summary

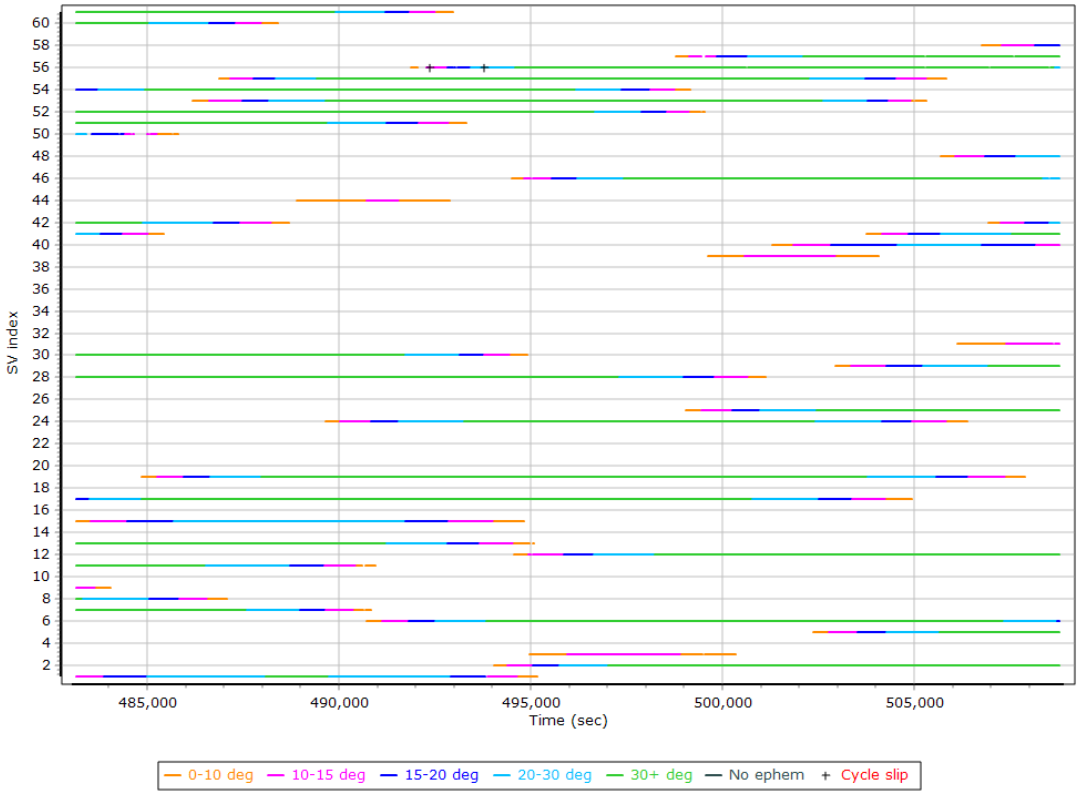
IMU data input file	imu_19-058_061220.dat
IMU data check log file	imudt_19-058_061220.log
IMU Records Processed	5258938
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
482539.518 : WARNING : Gap of 482527.5566 seconds in CHECKDT input data	

Primary Observables & Satellite Data

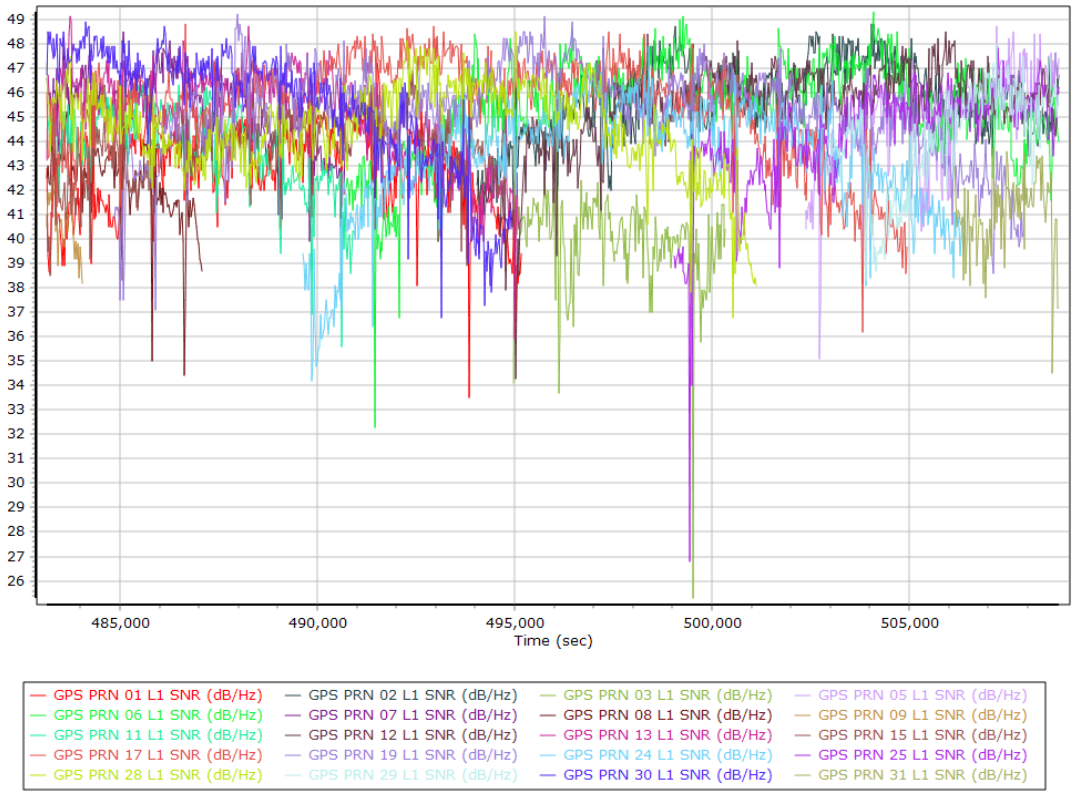
L1 Satellite Lock/Elevation



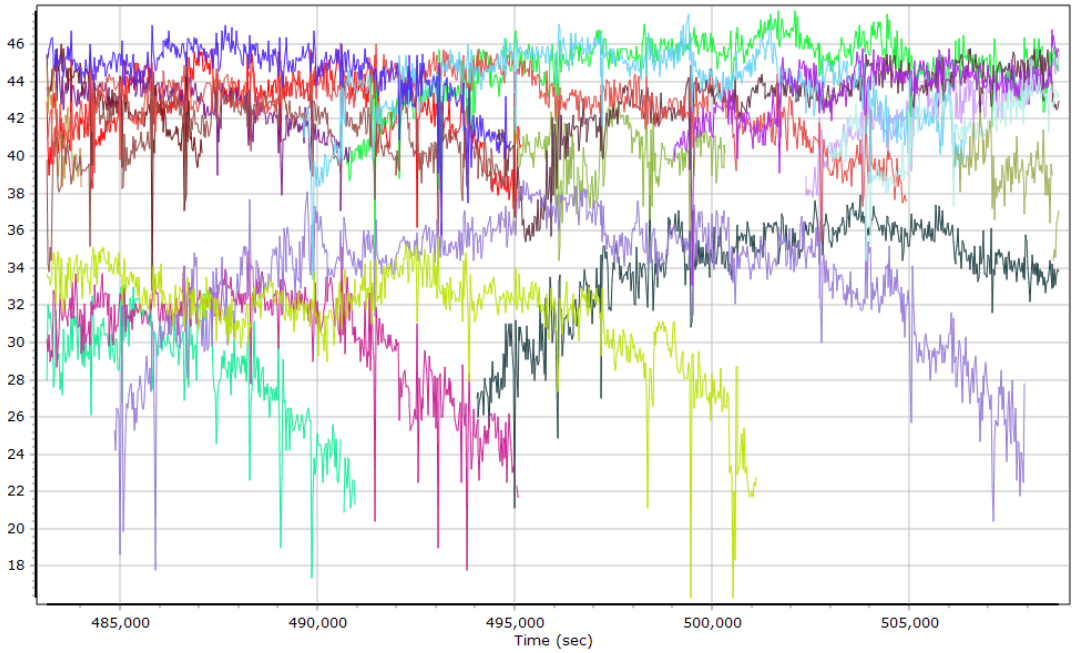
L2 Satellite Lock/Elevation



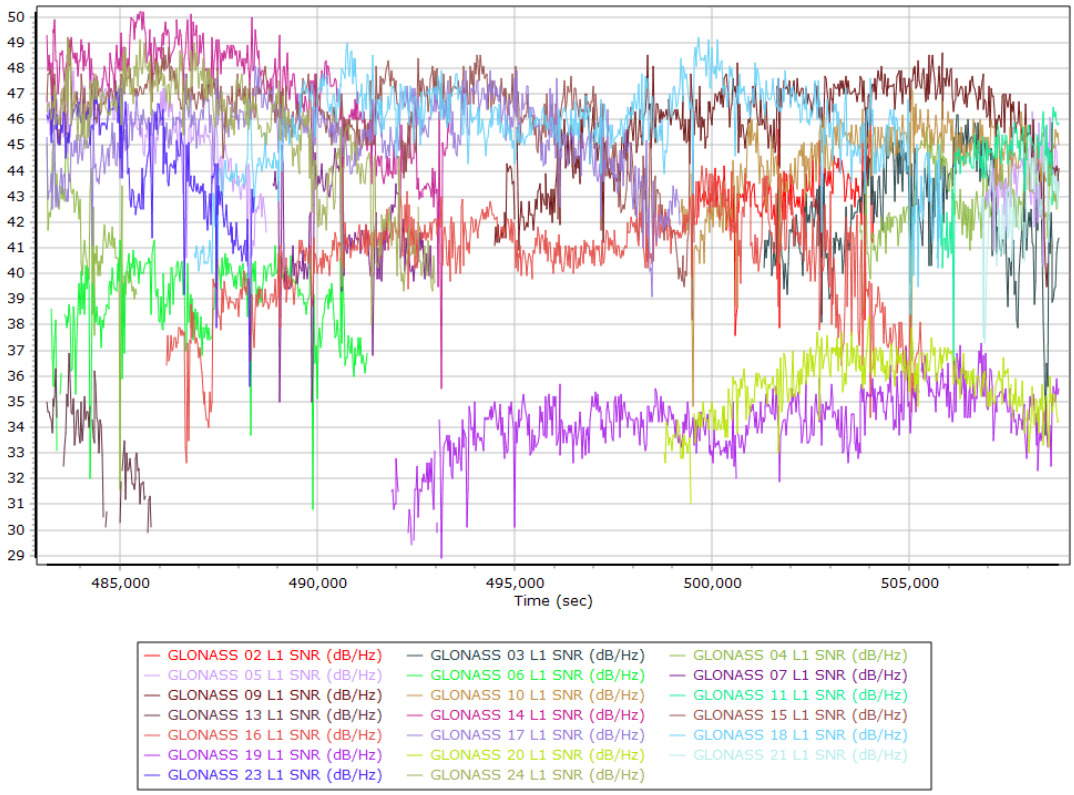
GPS L1 SNR



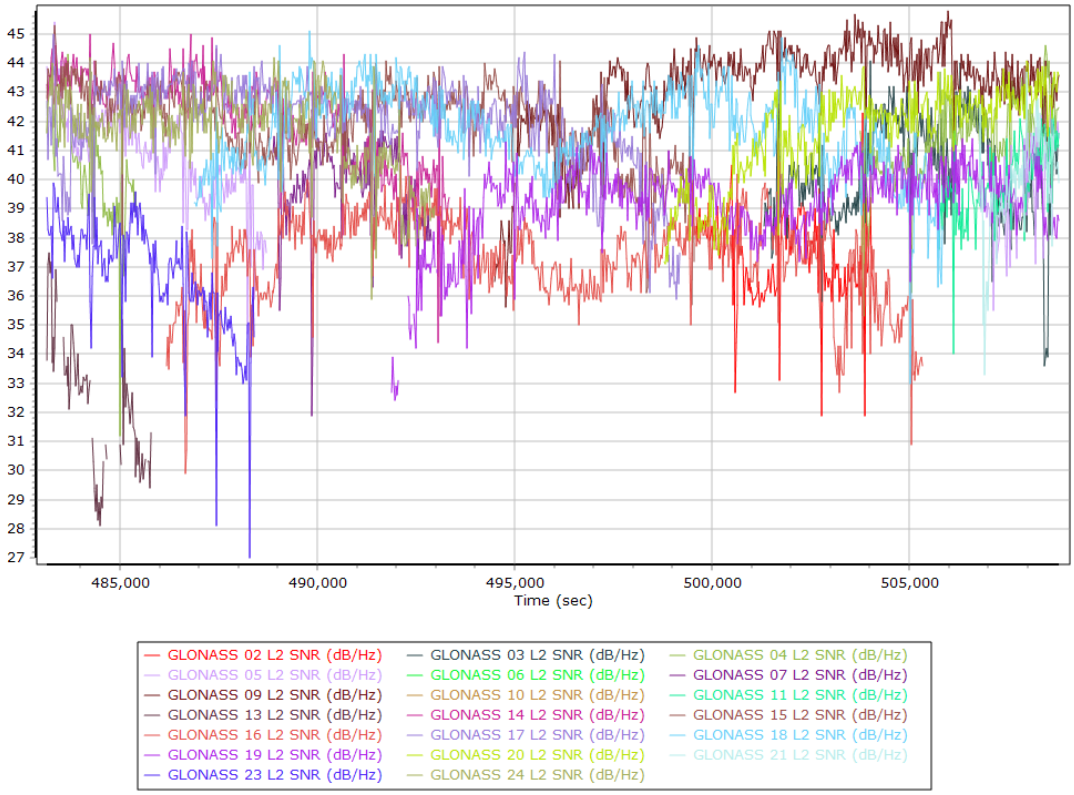
GPS L2 SNR



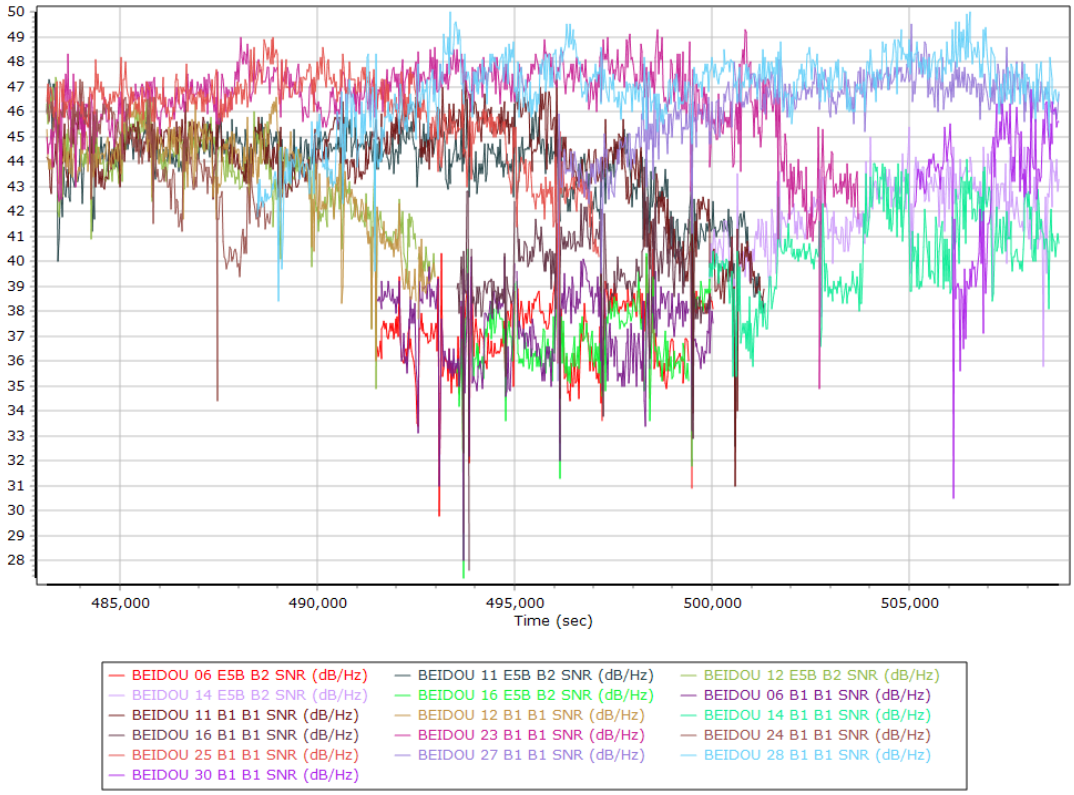
GLONASS L1 SNR



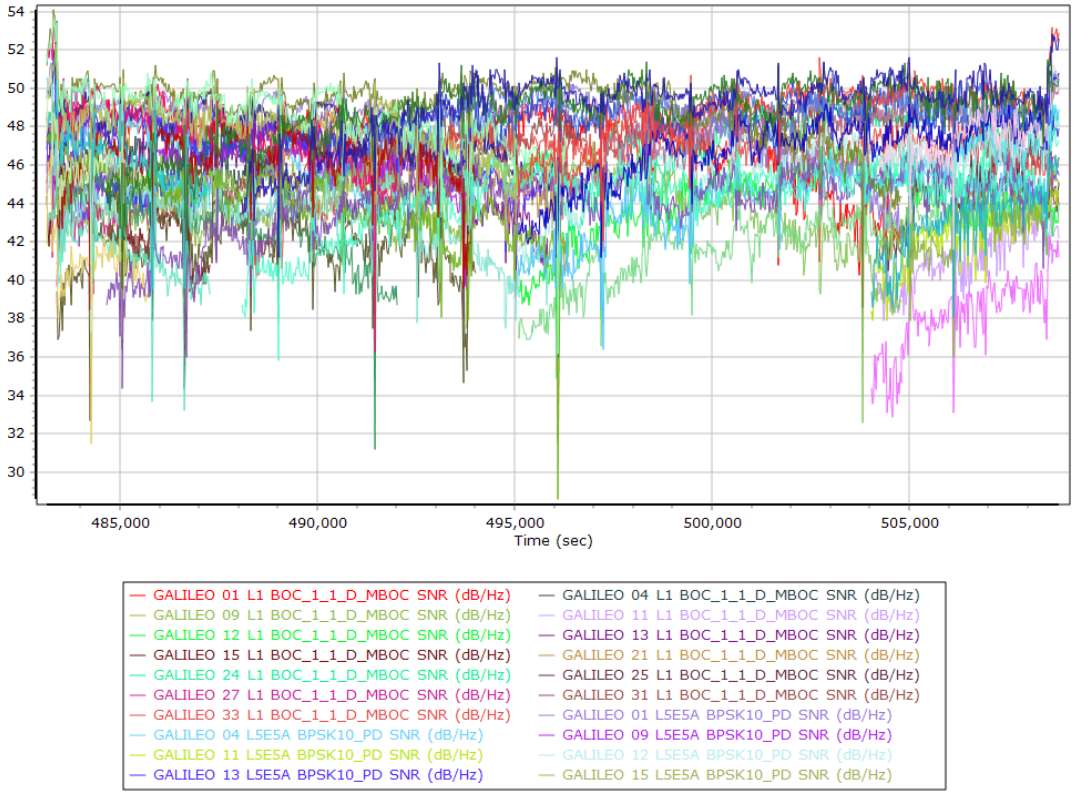
GLONASS L2 SNR



BEIDOU SNR

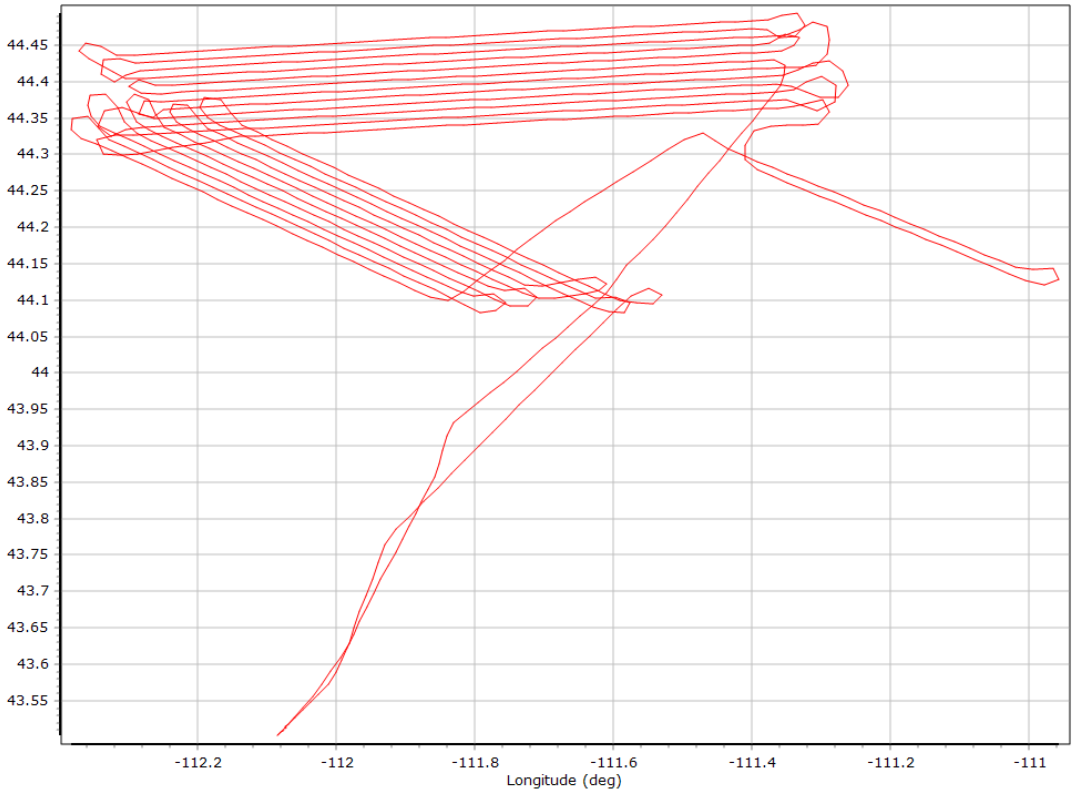


GALILEO SNR

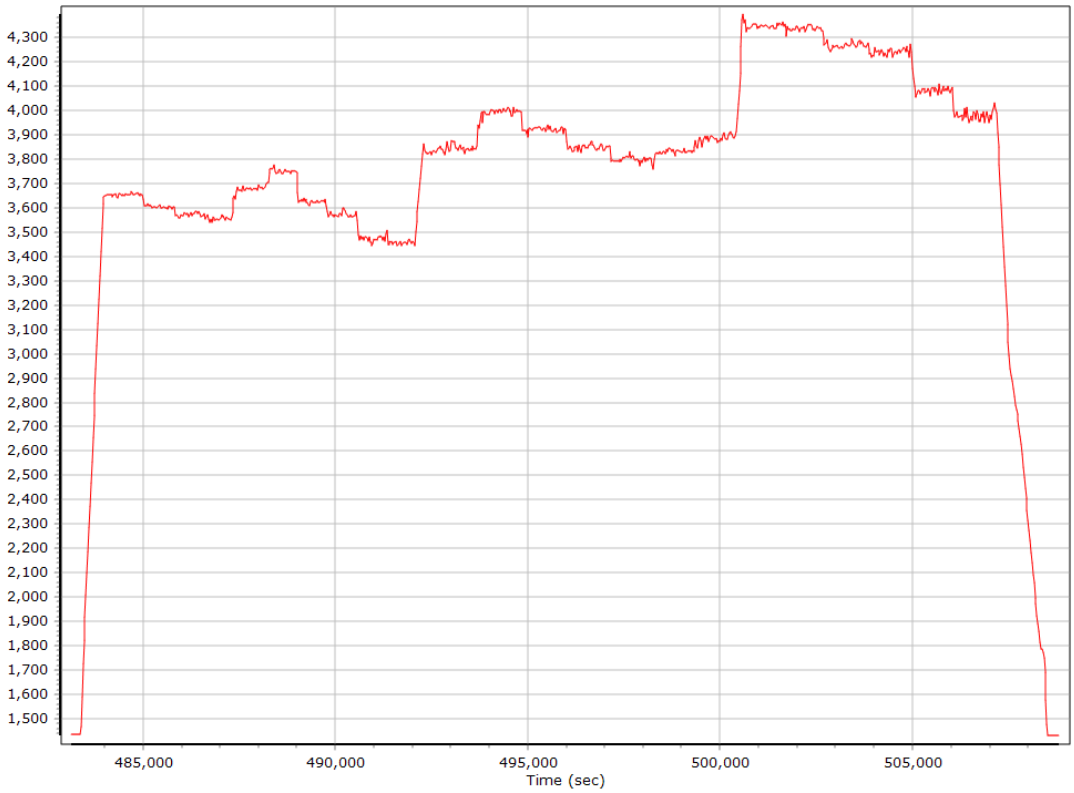

54
52
50
48
46
44
42
40
38
36
34
32
30
485,000
490,000
495,000
500,000
505,000
Time (sec)
GALILEO 01 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 04 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 09 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 11 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 12 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 13 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 15 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 21 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 27 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 09 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)
GALILEO 15 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

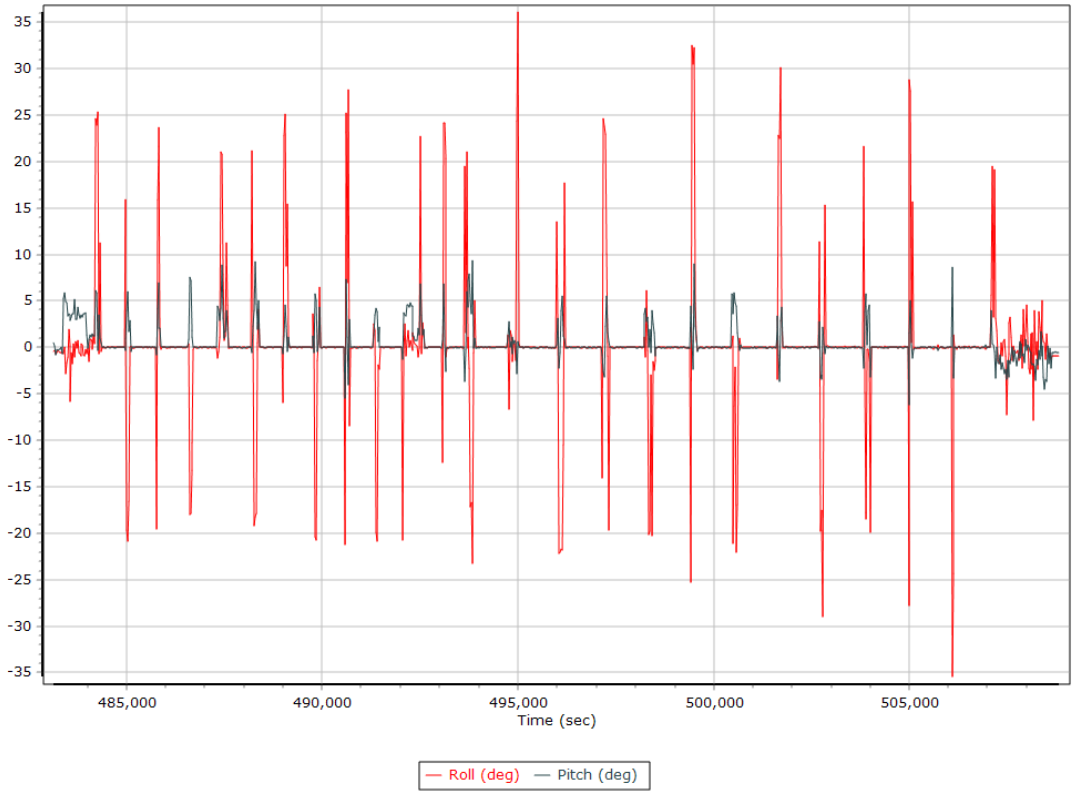
Top View



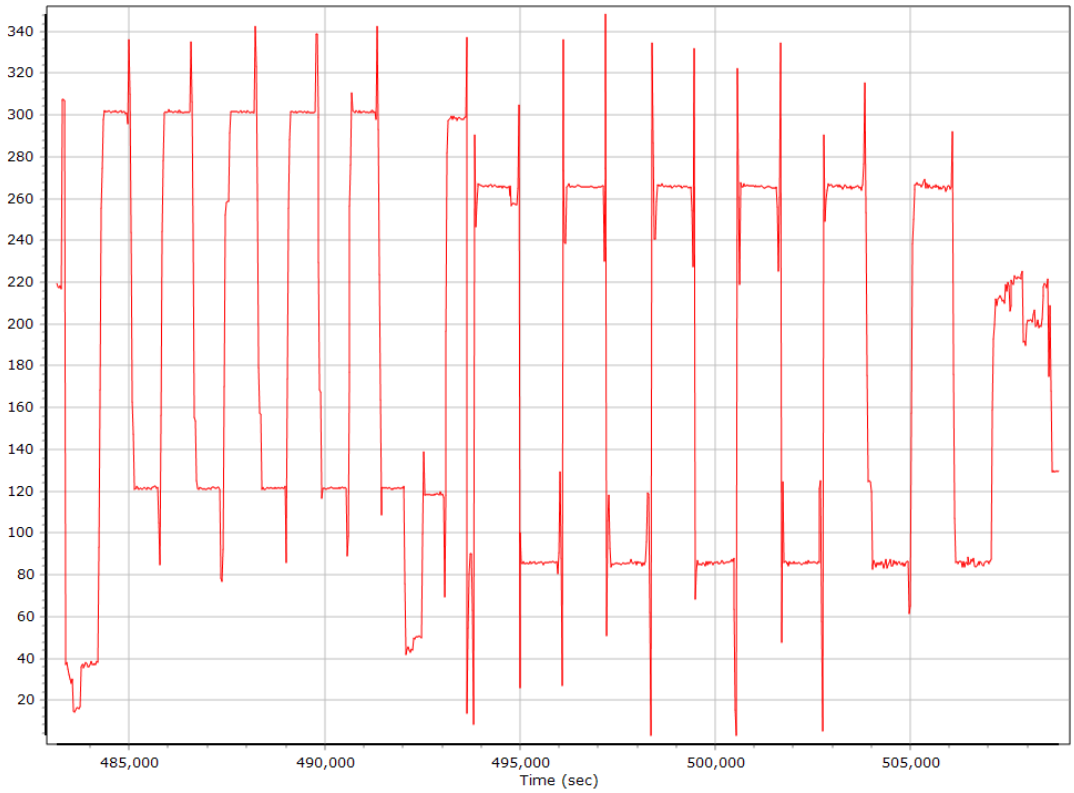
Altitude



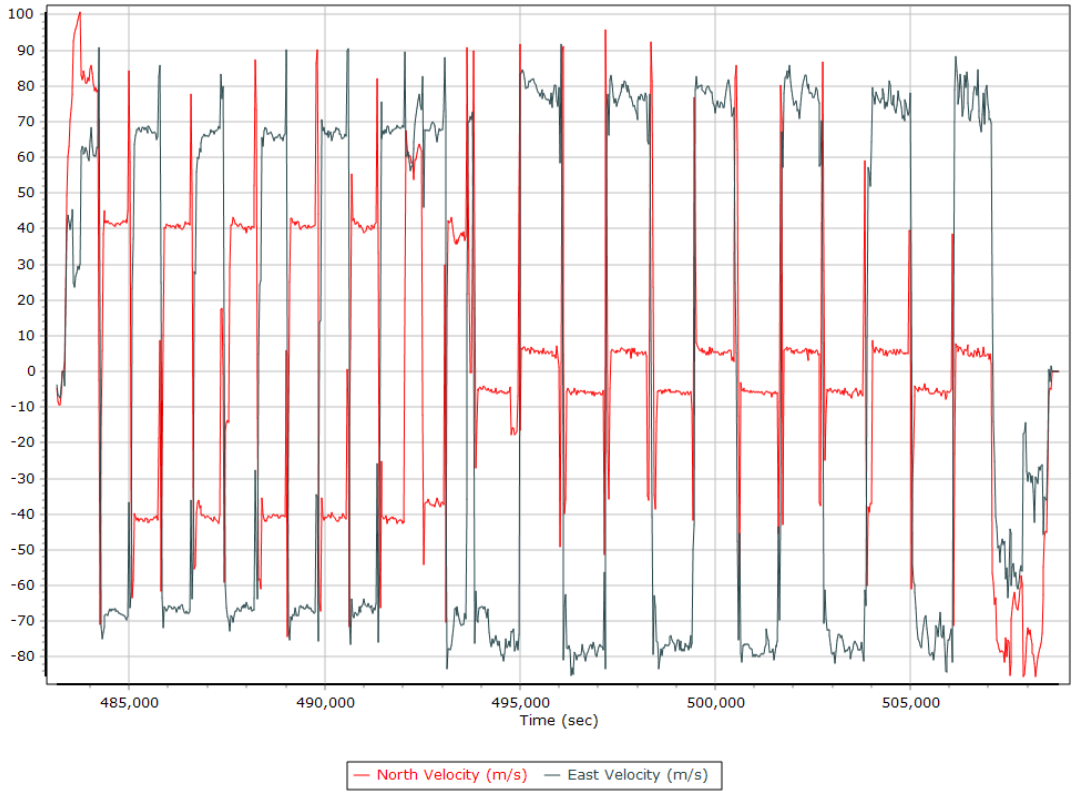
Roll/Pitch



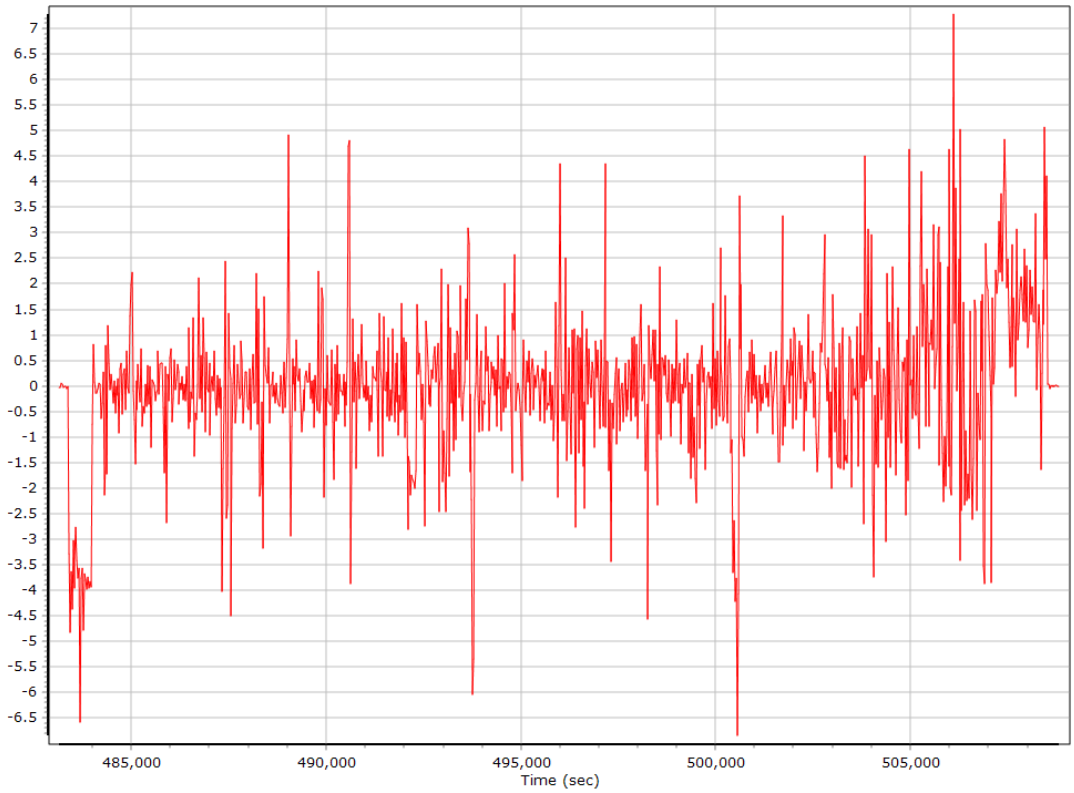
Heading



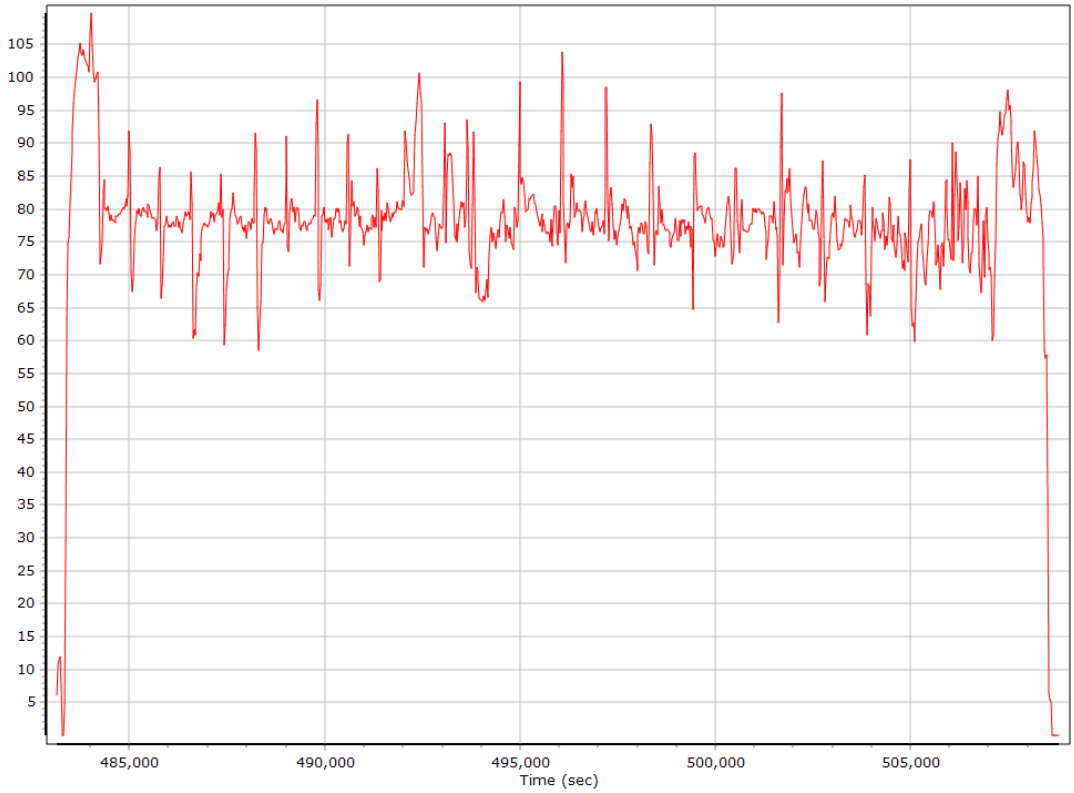
North/East Velocity



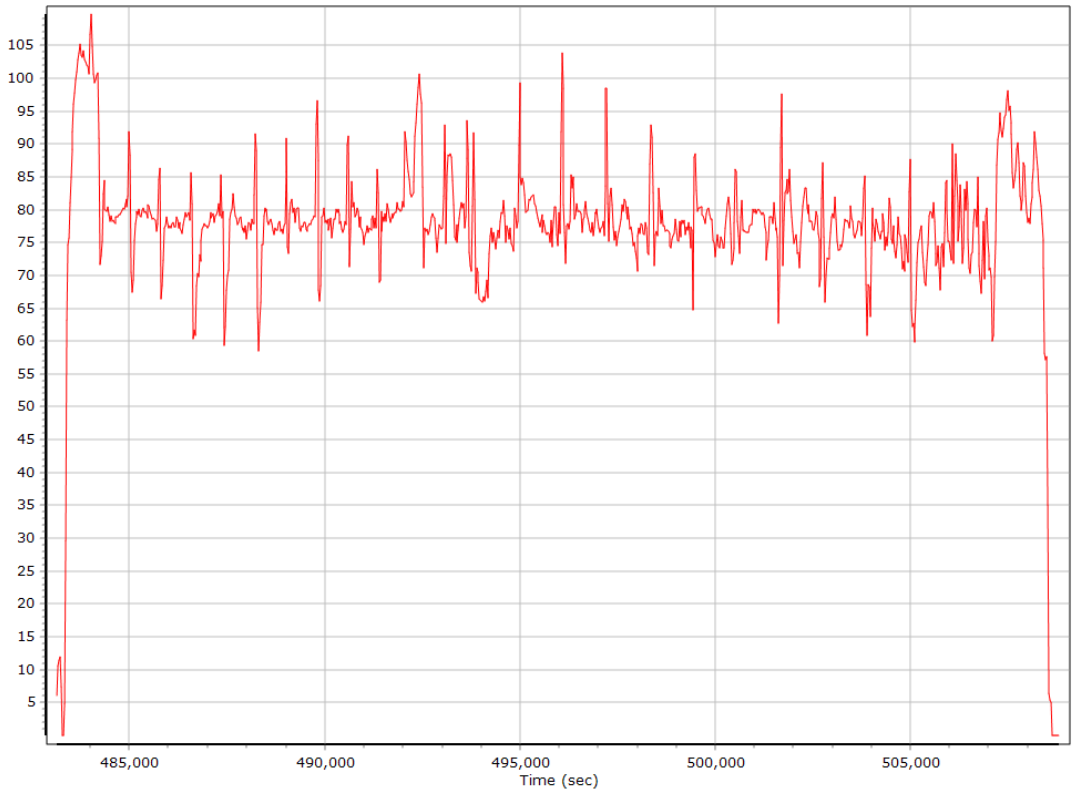
Down Velocity



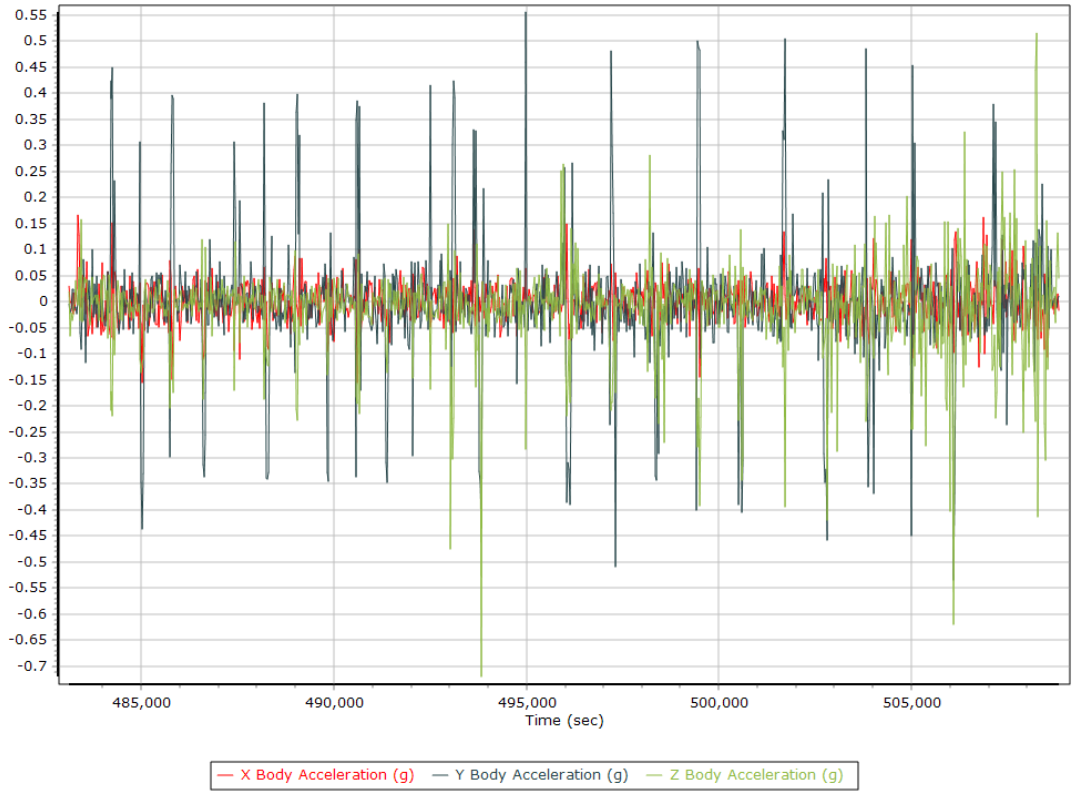
Total Speed



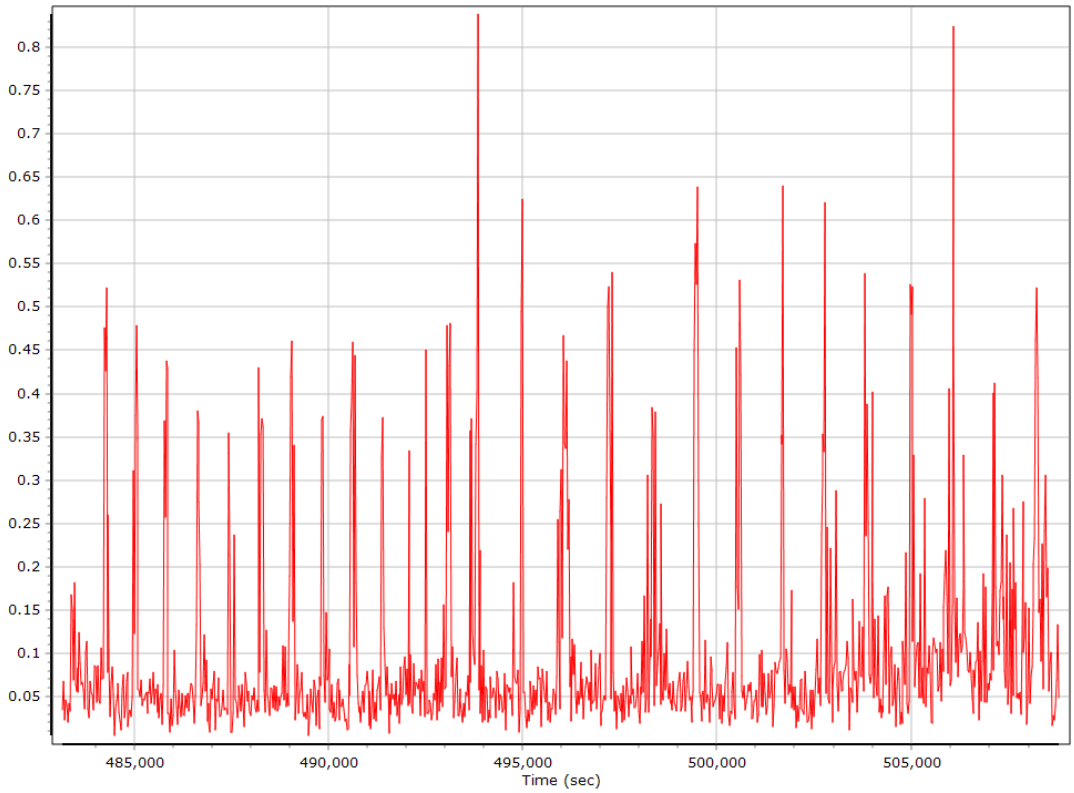
Ground Speed



Body Acceleration



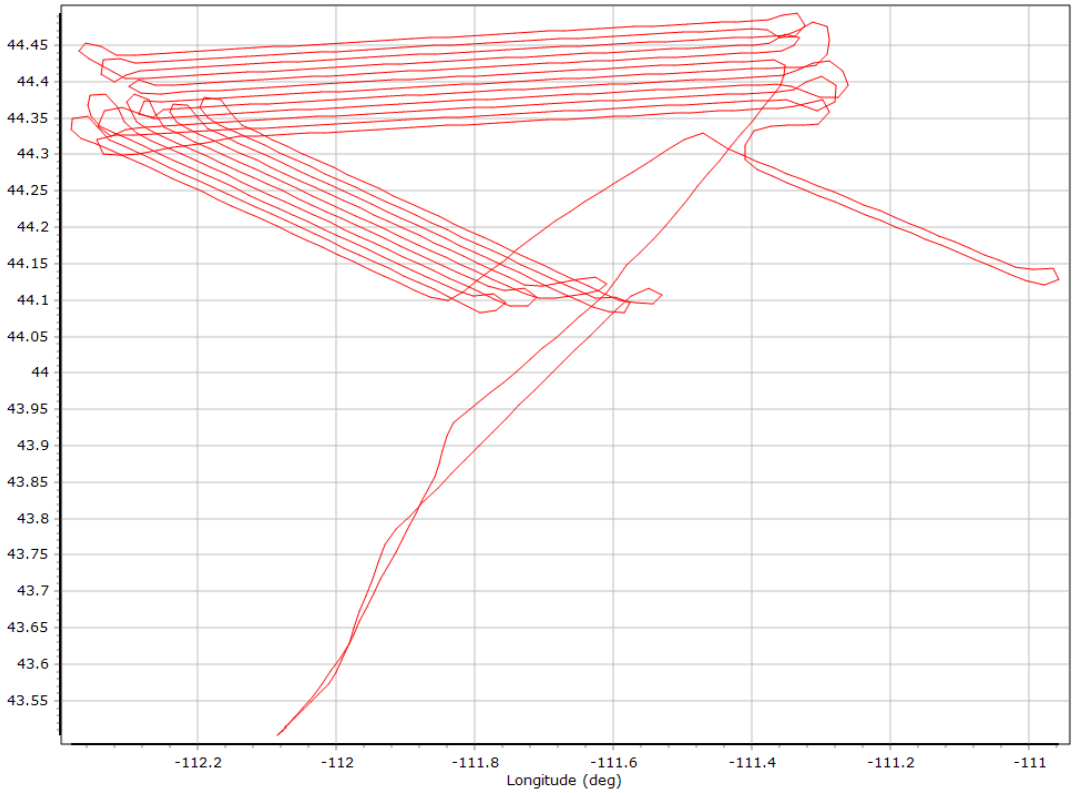
Total Body Acceleration



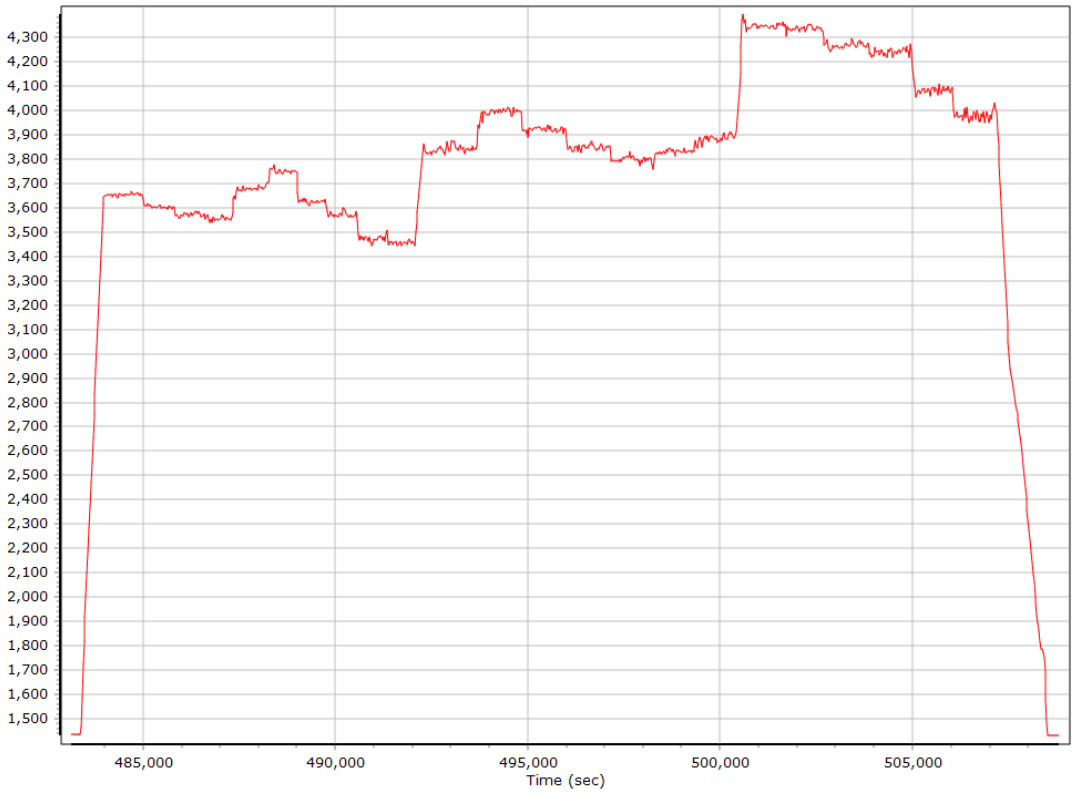
Body Angular Rate

Forward Processed Trajectory Information

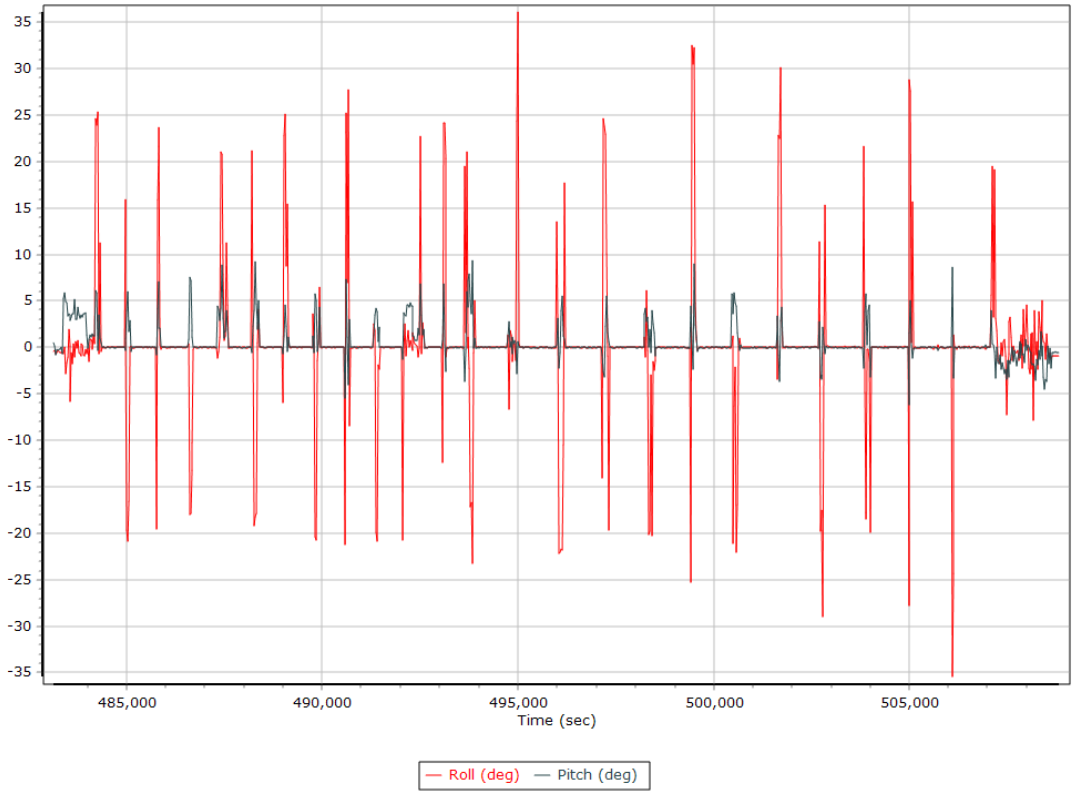
Top View



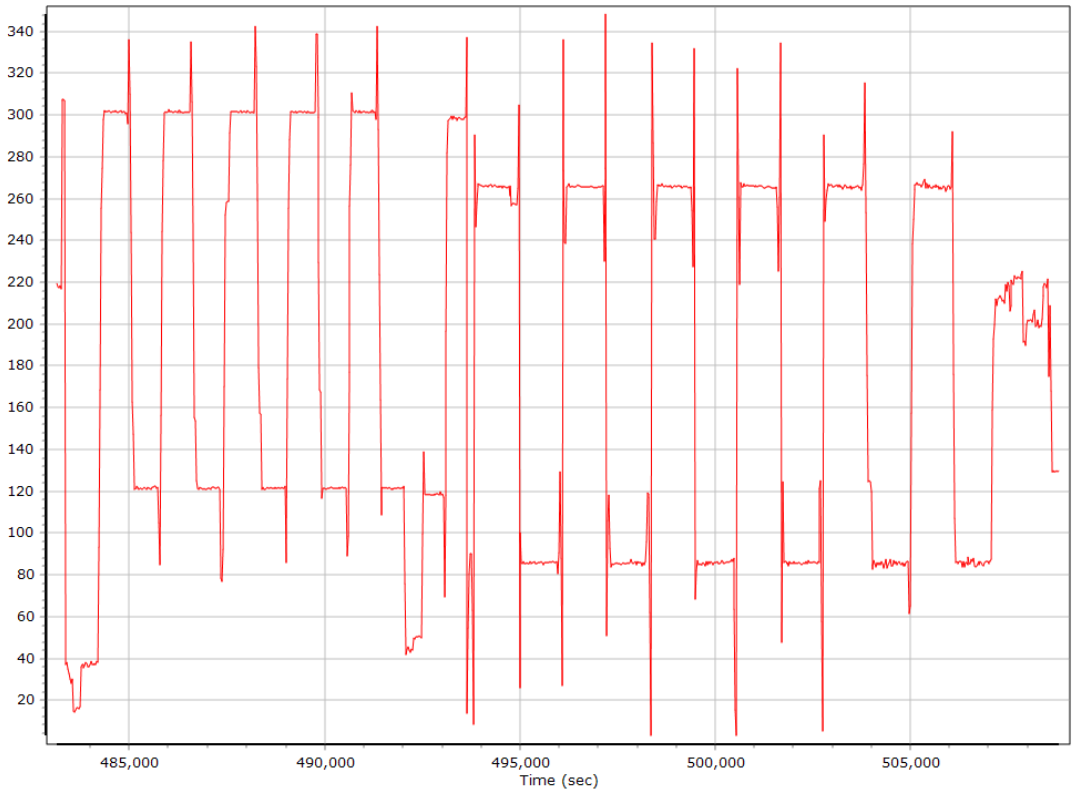
Altitude



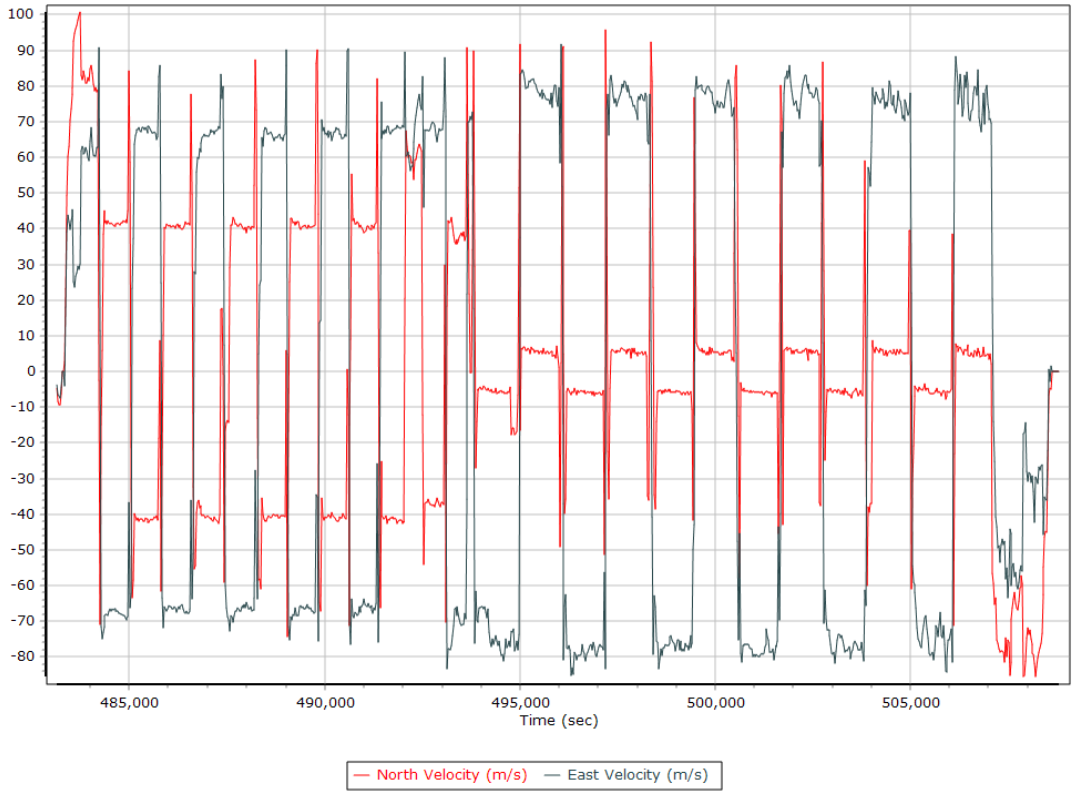
Roll/Pitch



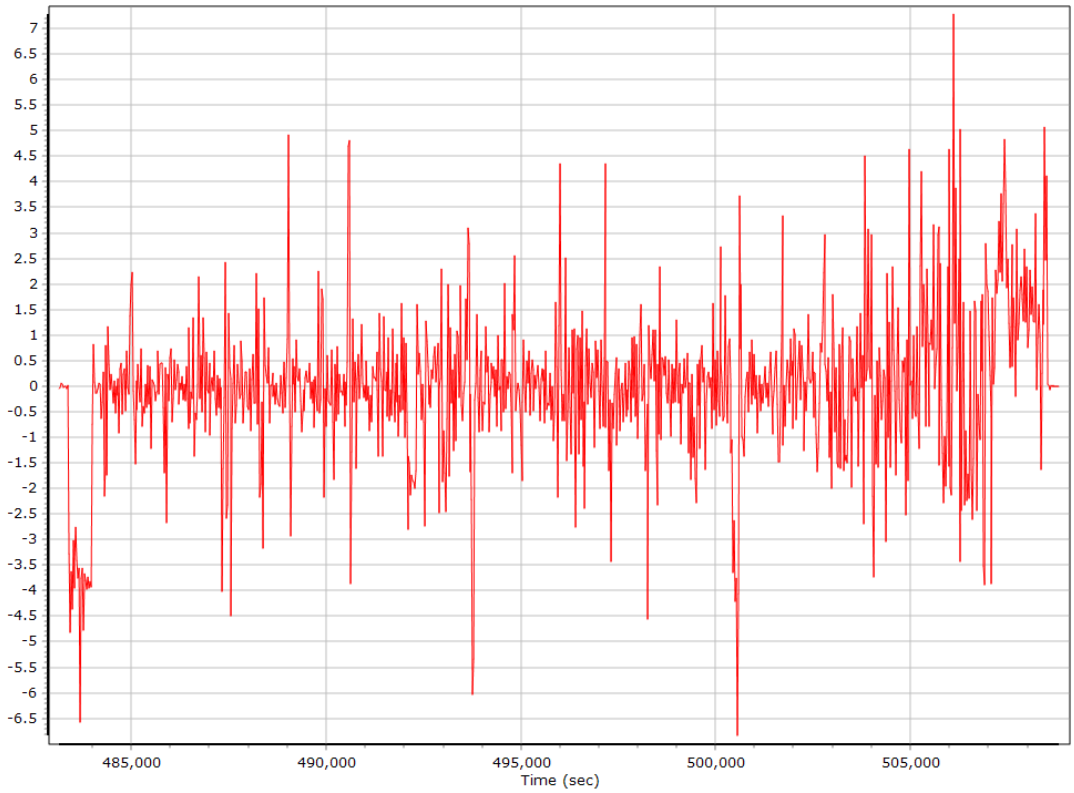
Heading



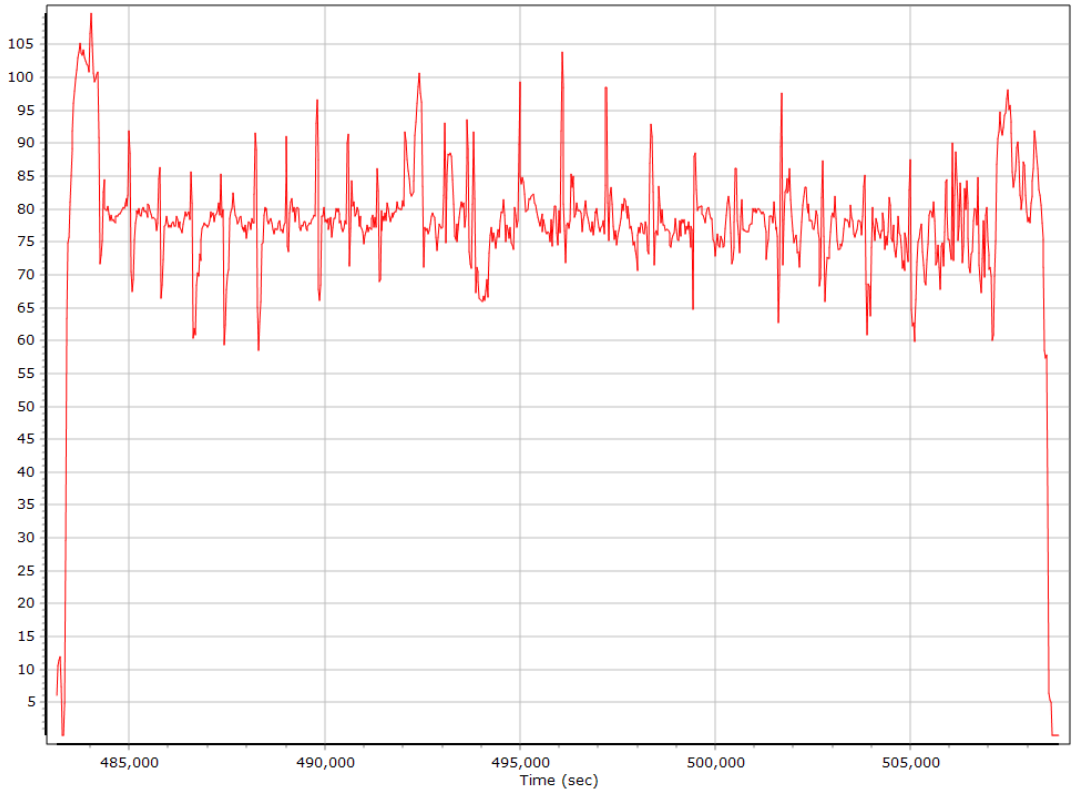
North/East Velocity



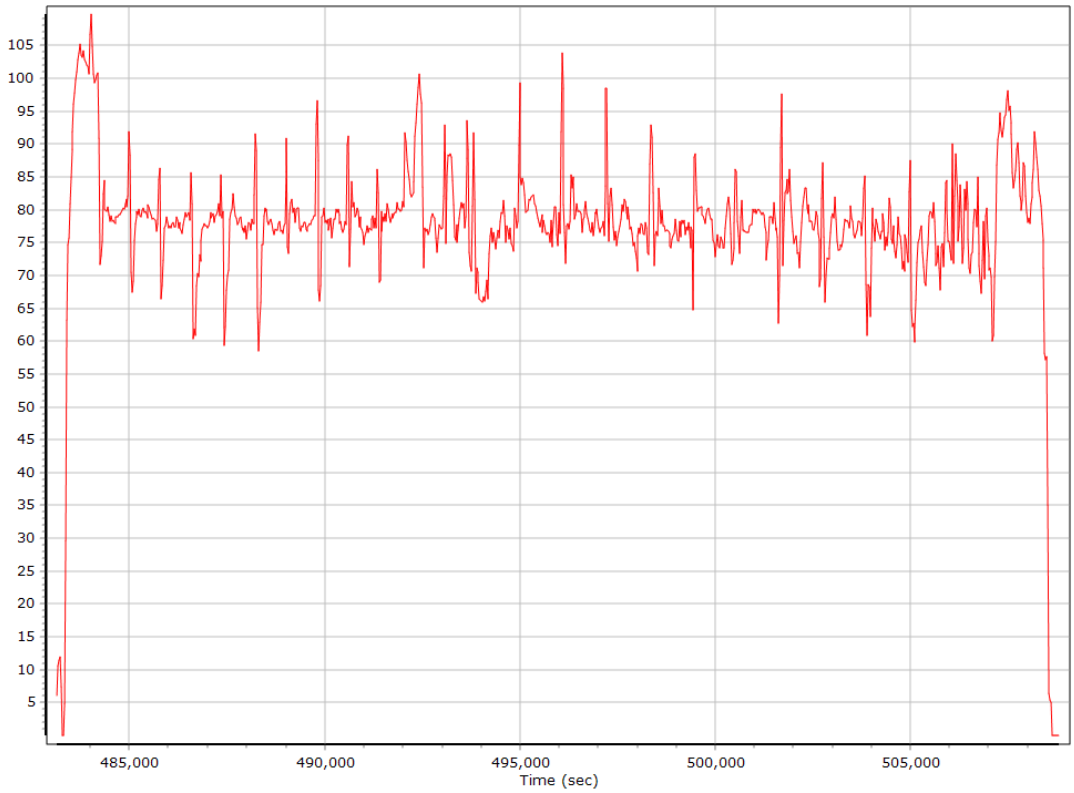
Down Velocity



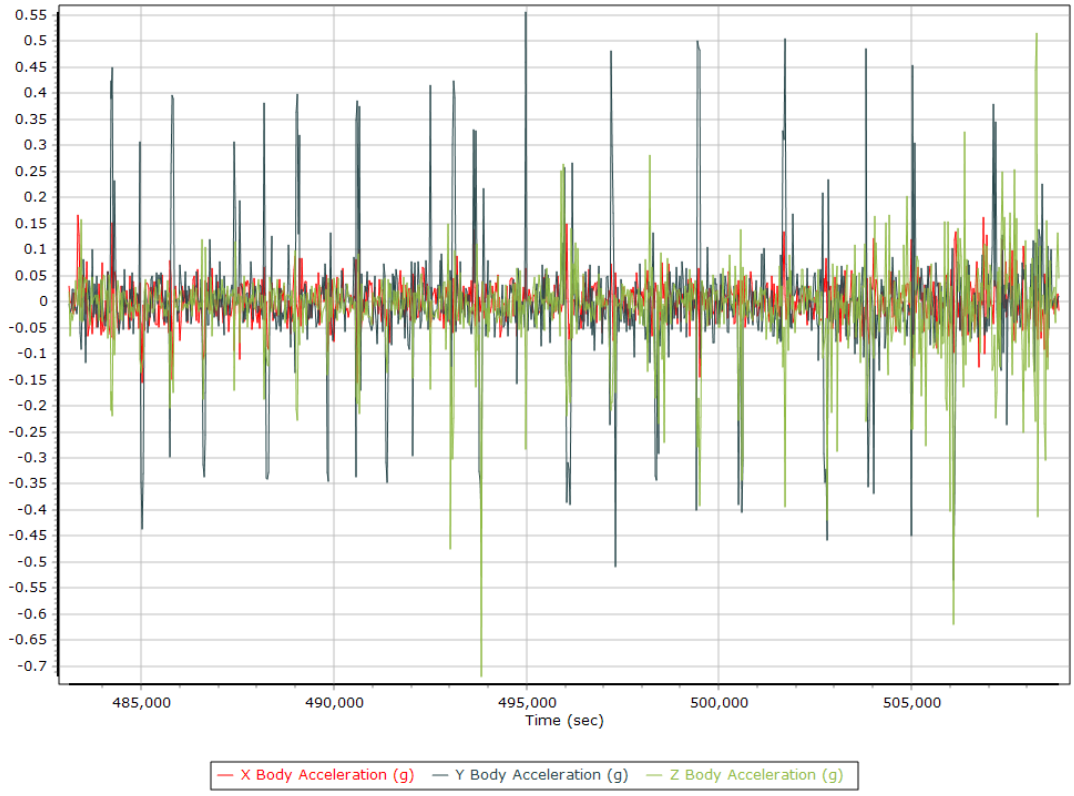
Total Speed



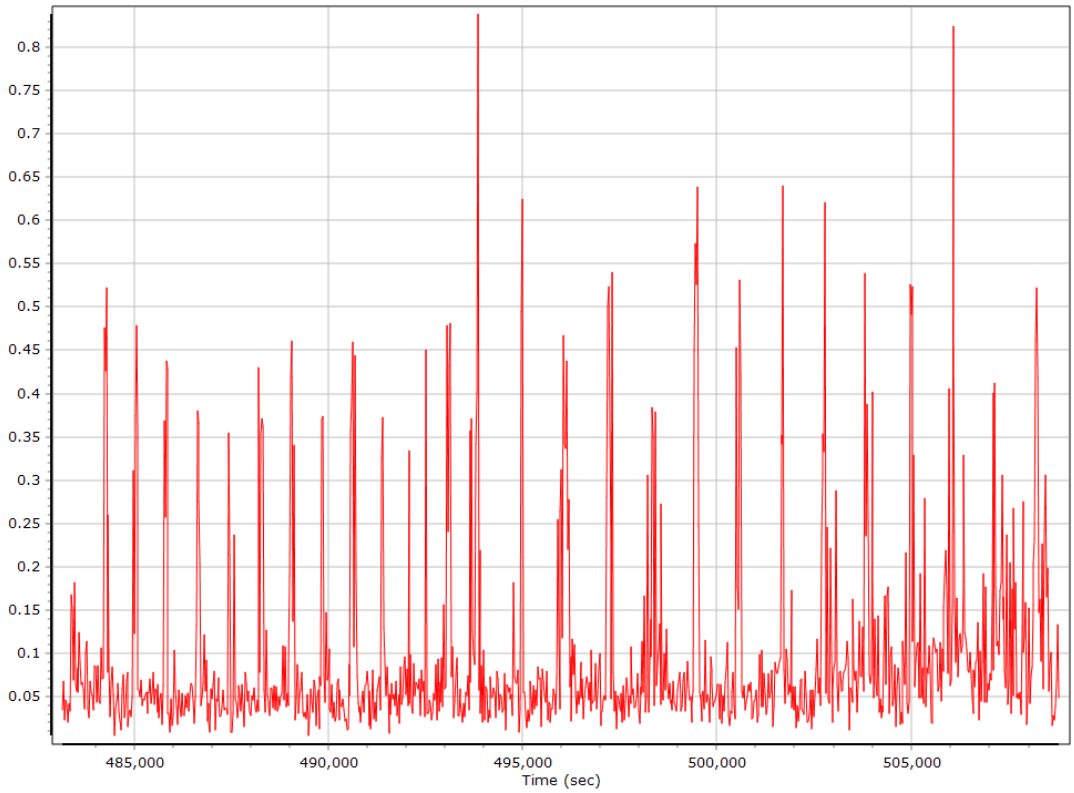
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

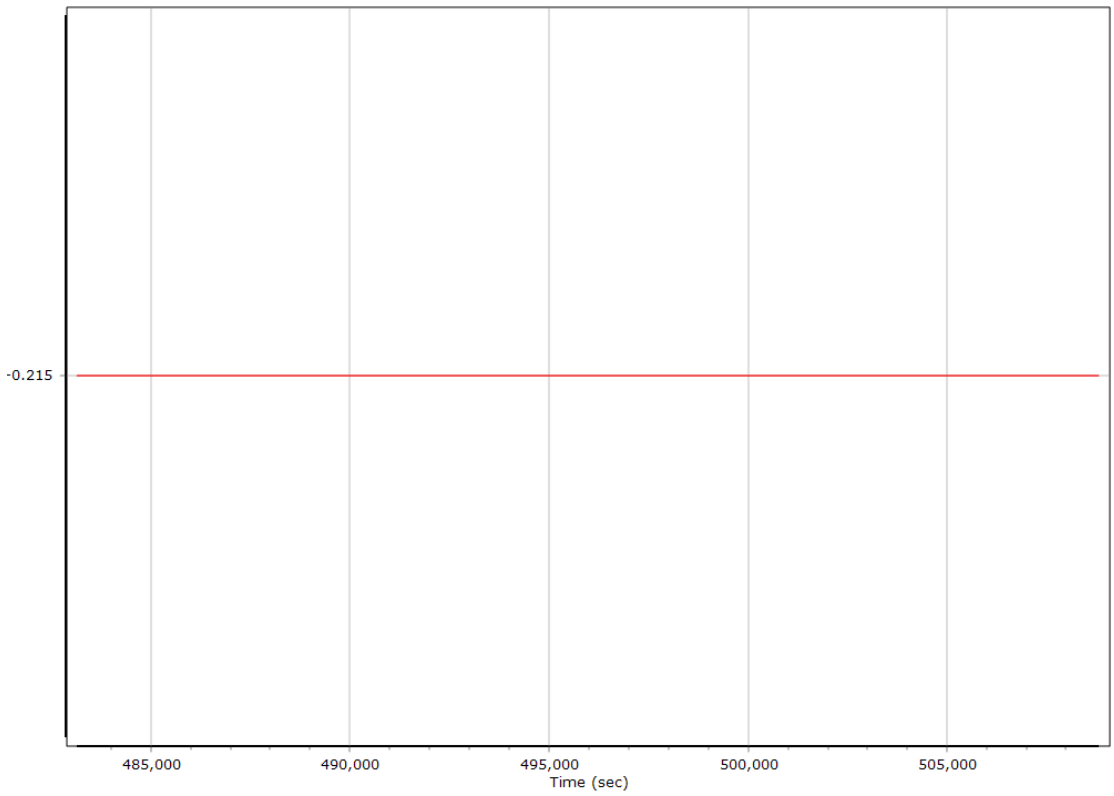
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Trimble RTX Nav		
Stabilized mount	True		
Processing start time	482528.000 (06/12/2020 14:01:50)		
Processing end time	508828.000 (06/12/2020 21:20:10)		
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

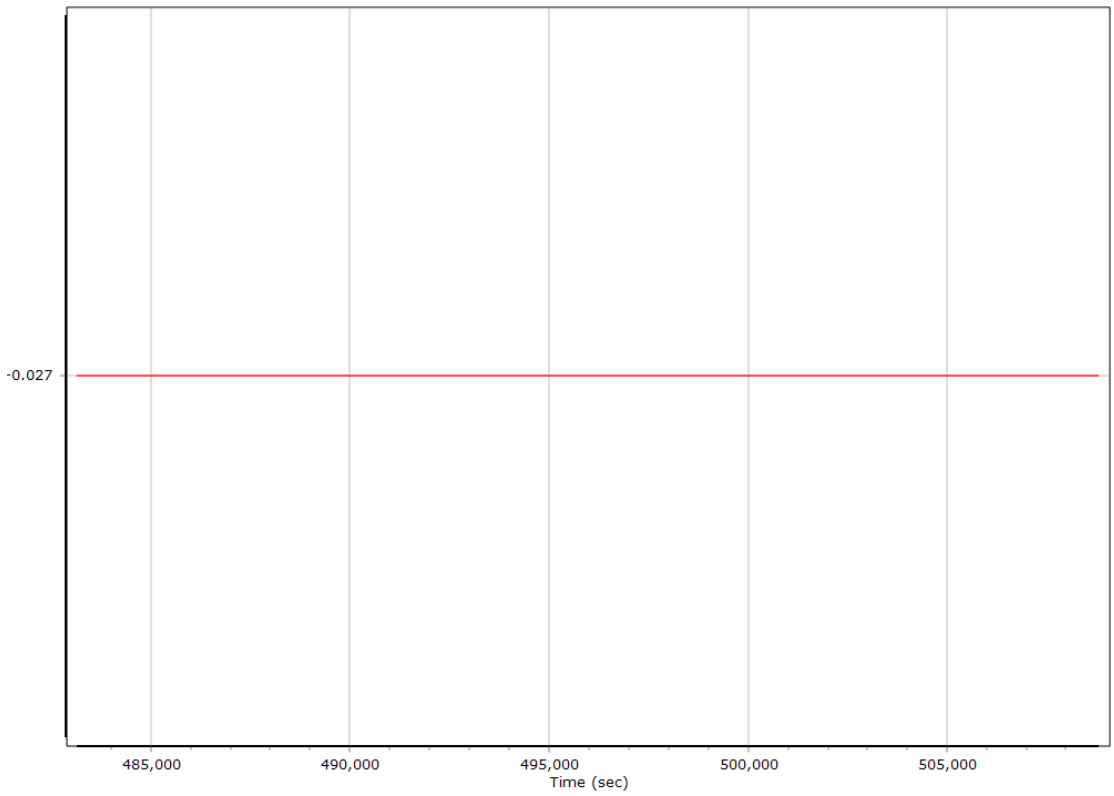
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

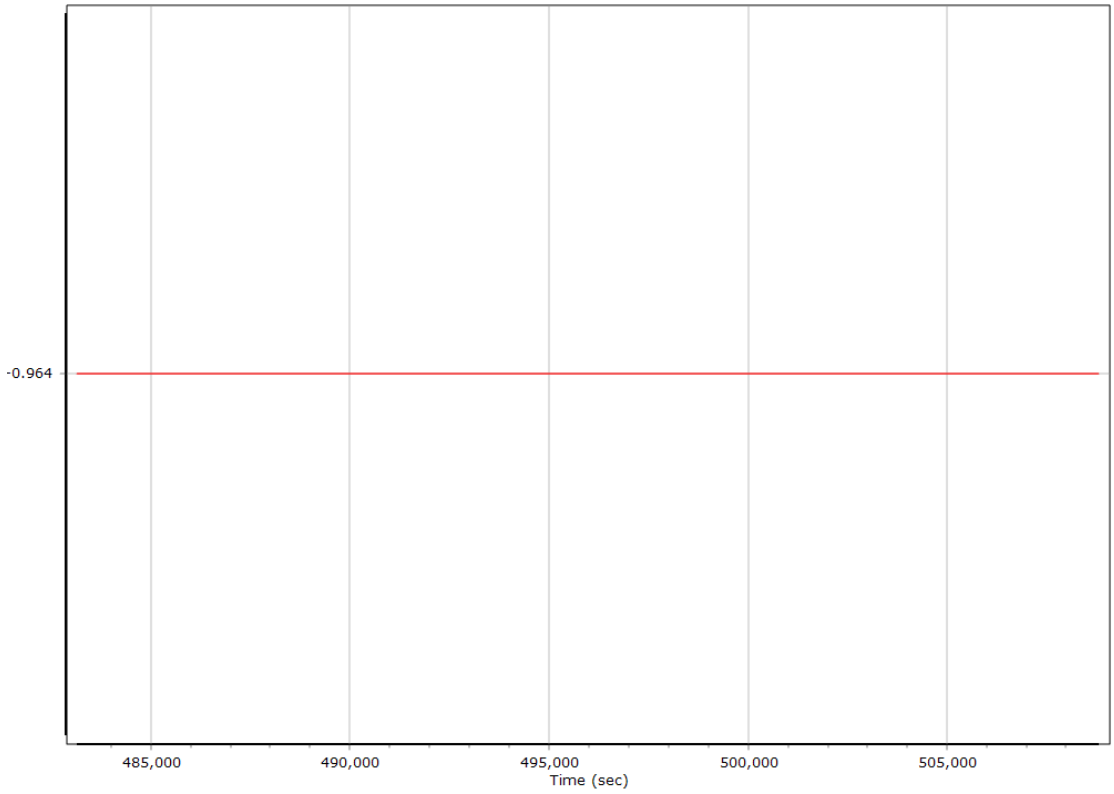
X Reference-Primary GNSS Lever Arm (m)



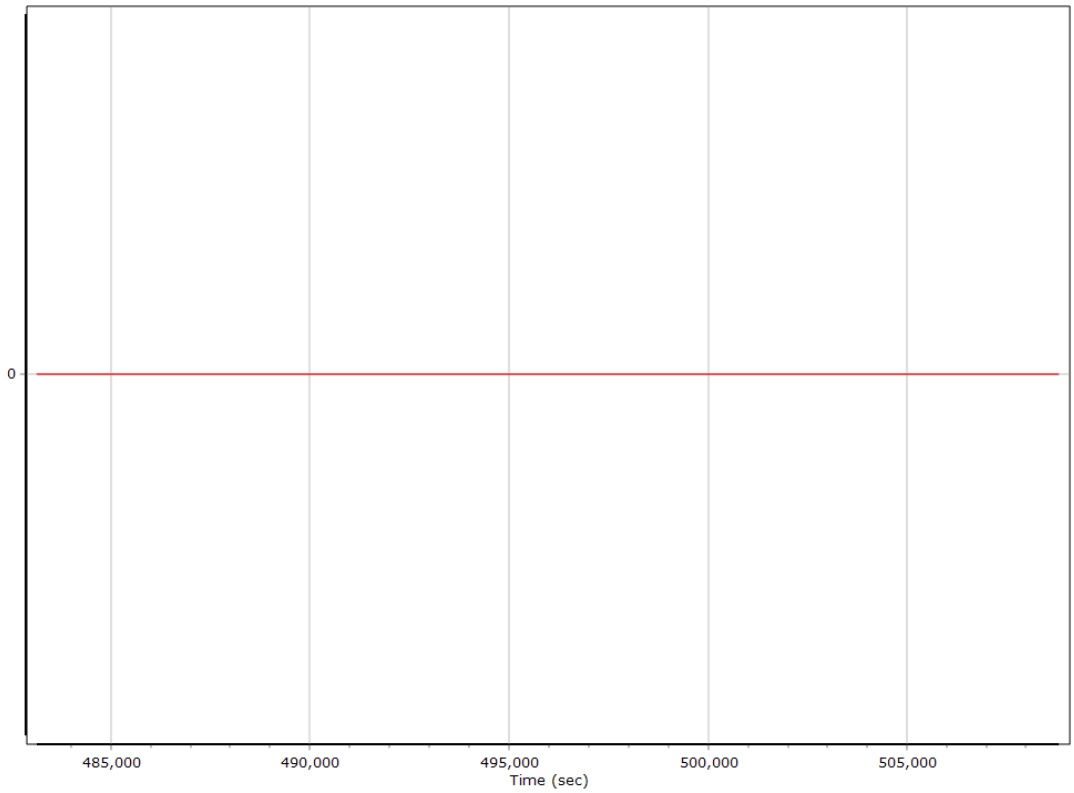
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



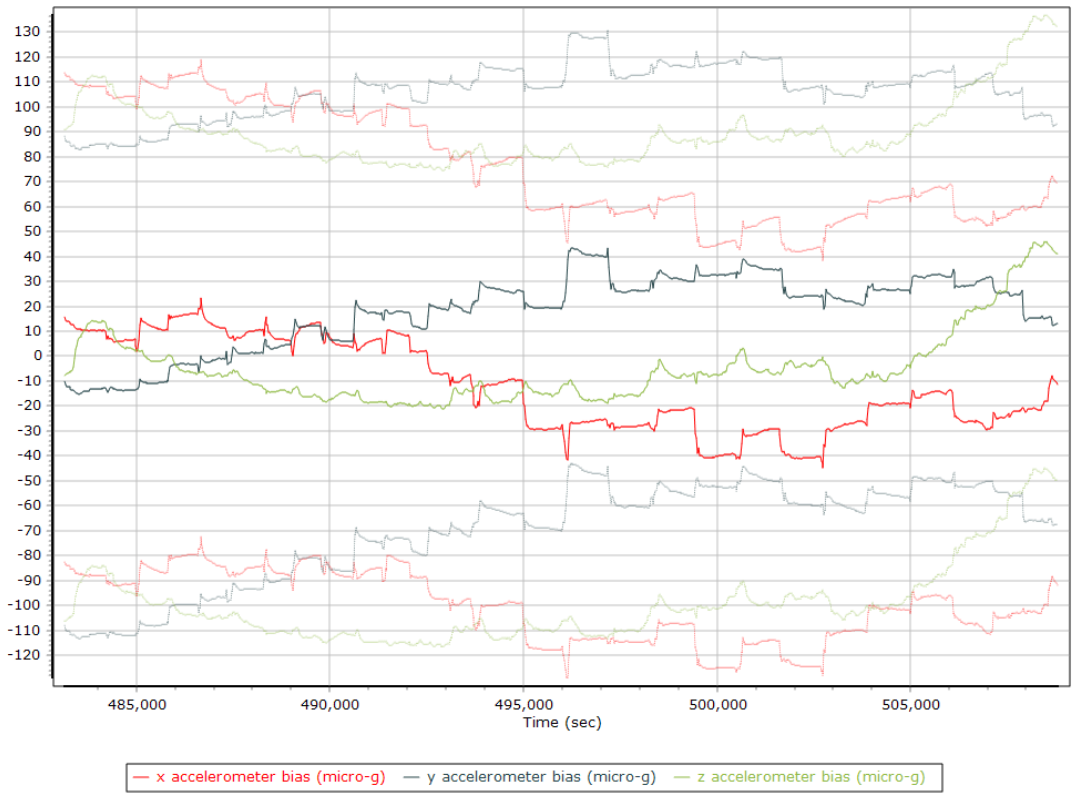
Reference-Primary GNSS Lever Arm Figure of Merit



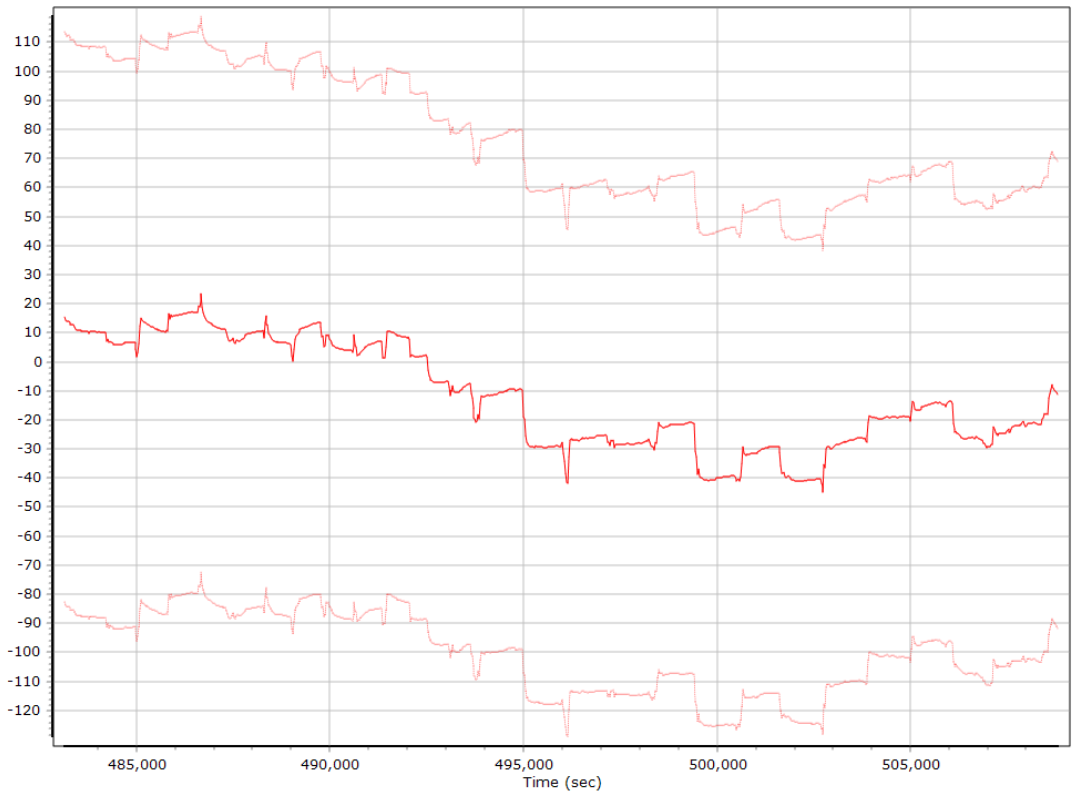
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

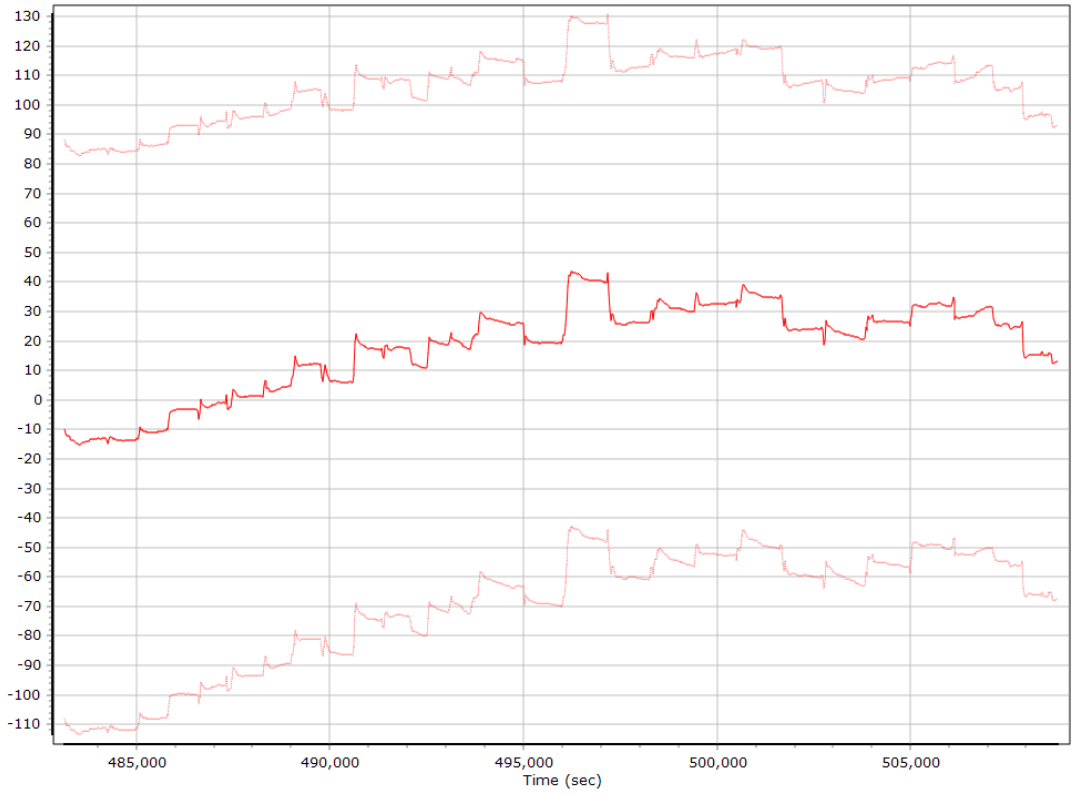
Accelerometer Bias (micro-g)



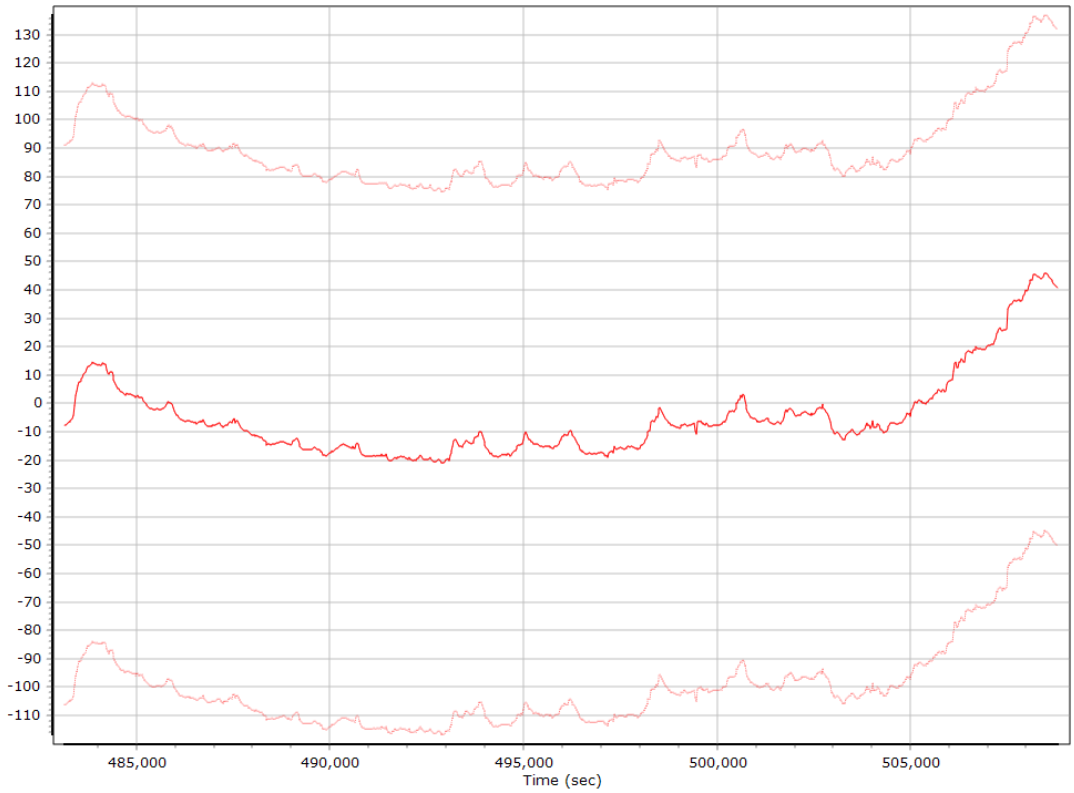
X Accelerometer Bias (micro-g)



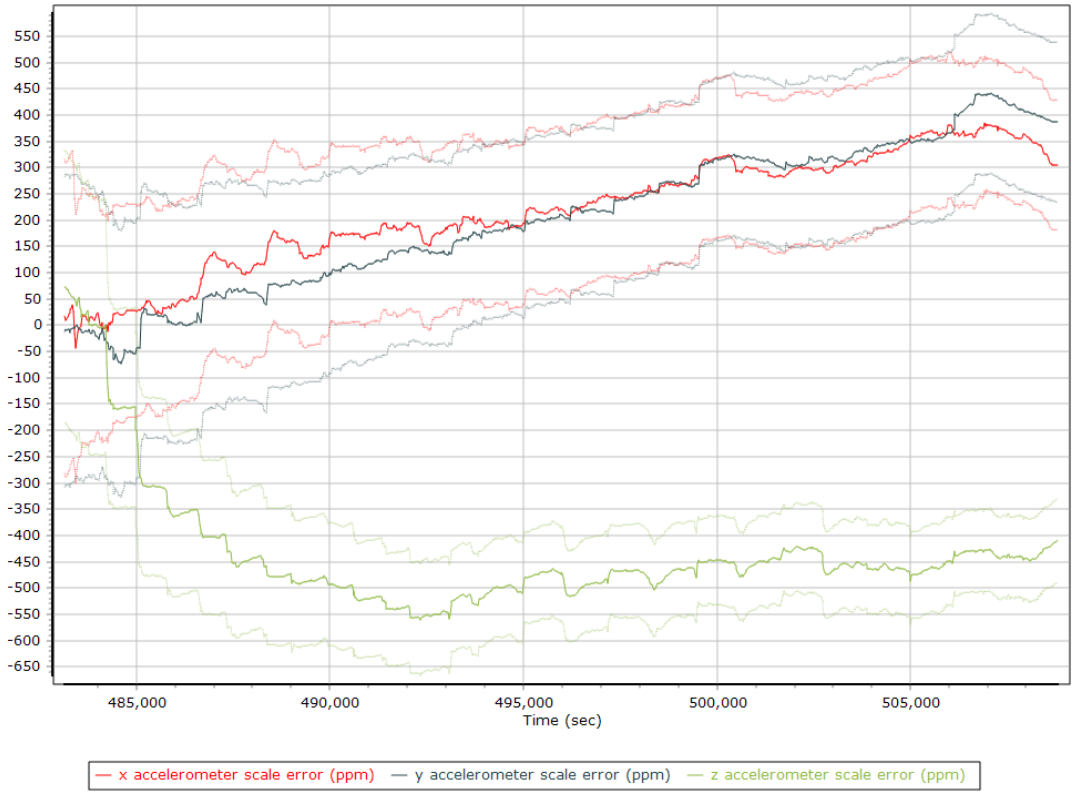
Y Accelerometer Bias (micro-g)



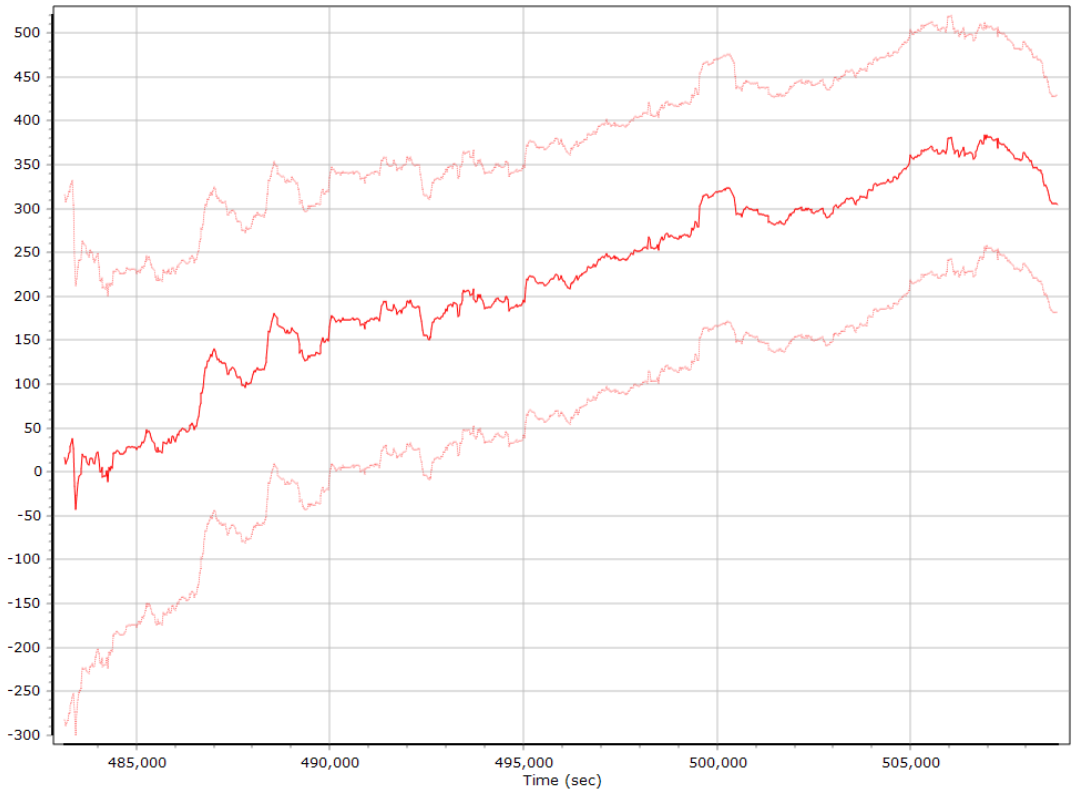
Z Accelerometer Bias (micro-g)



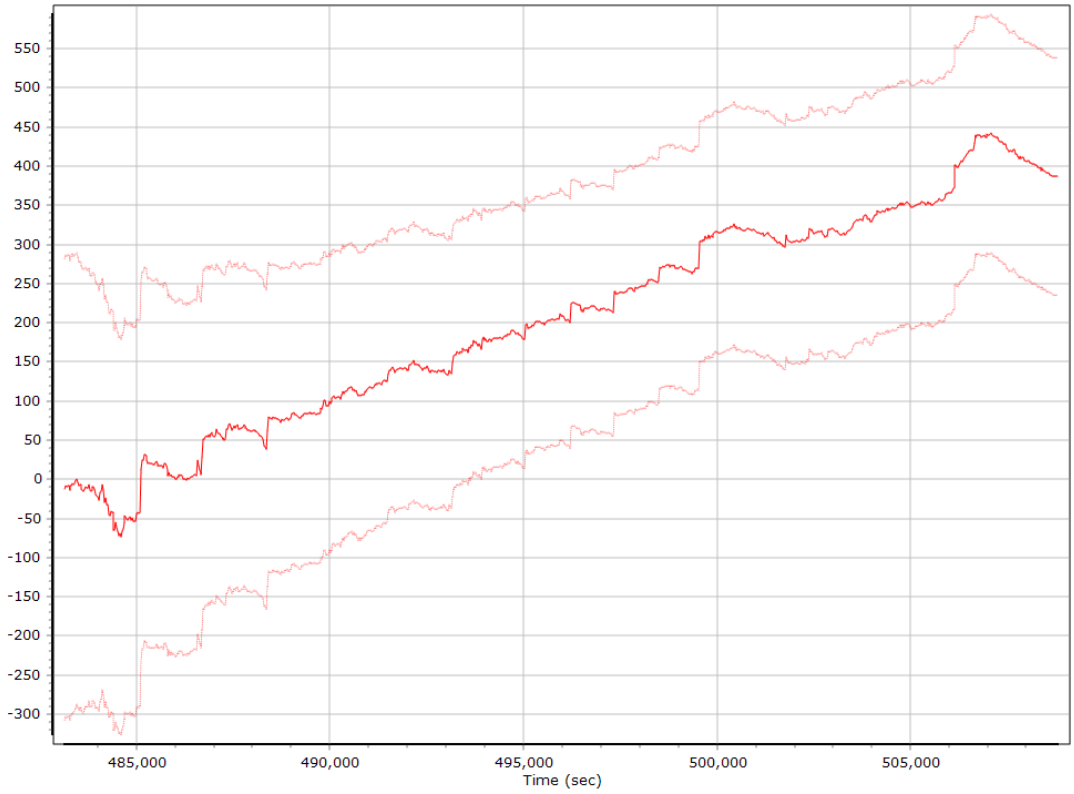
Accelerometer Scale Error (ppm)



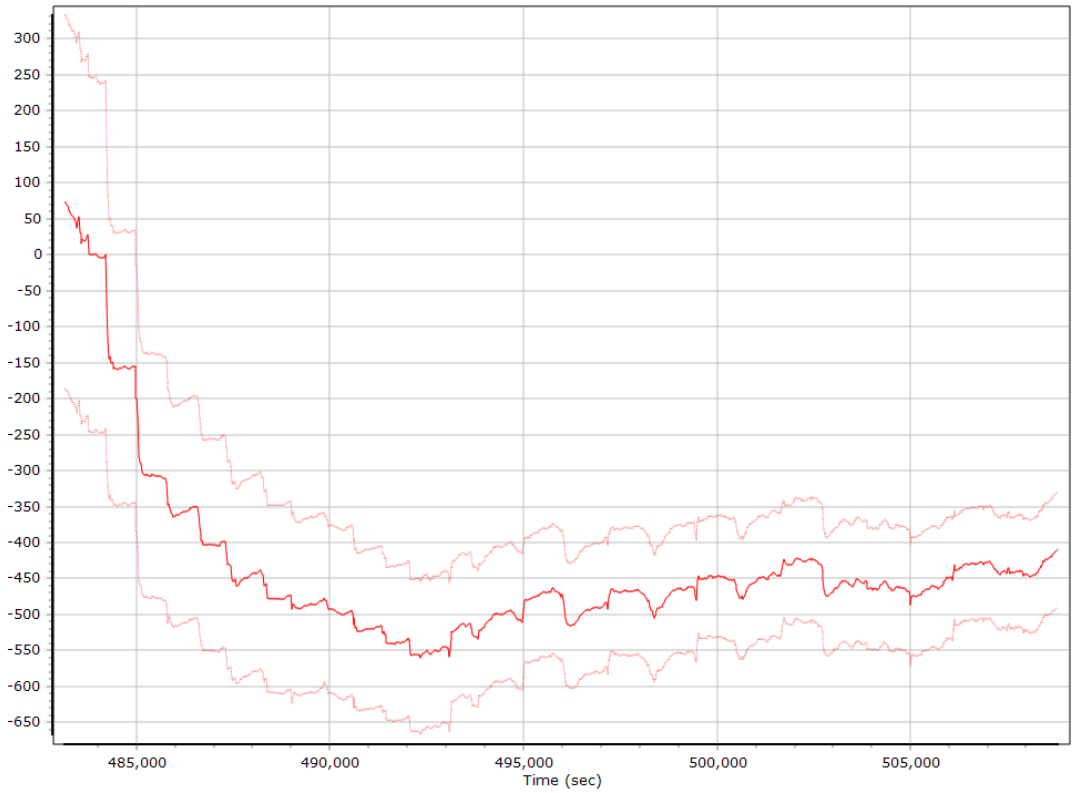
X Accelerometer Scale Error (ppm)



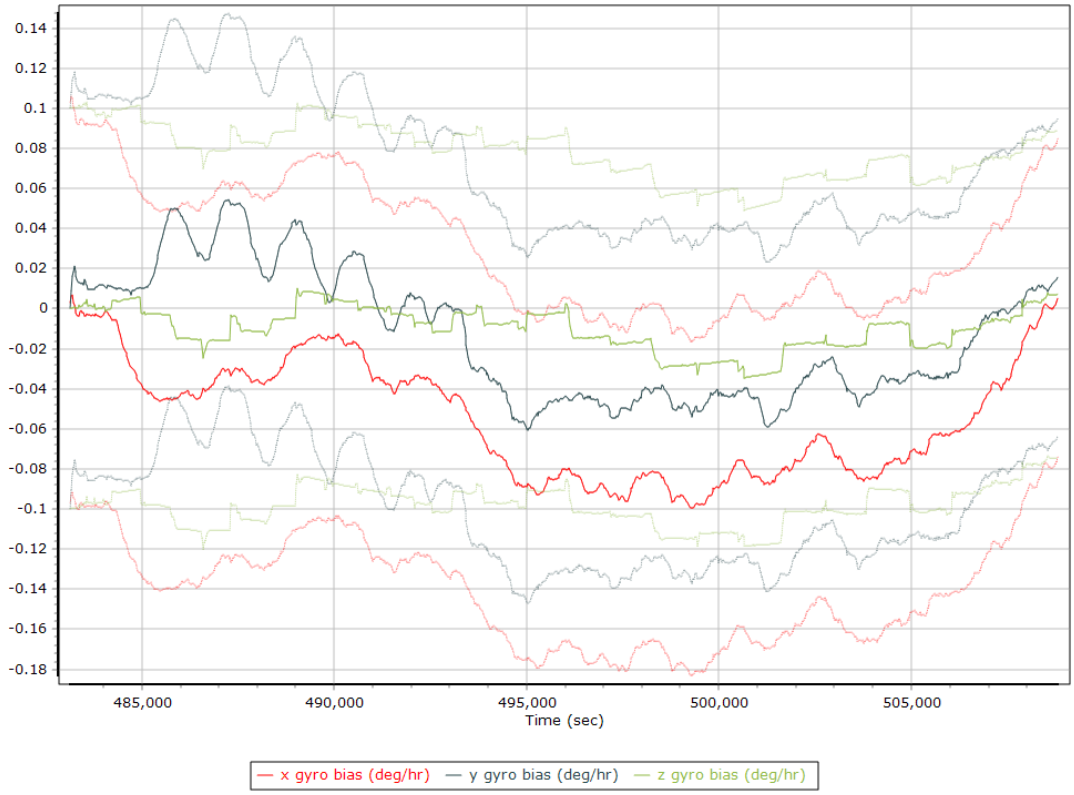
Y Accelerometer Scale Error (ppm)



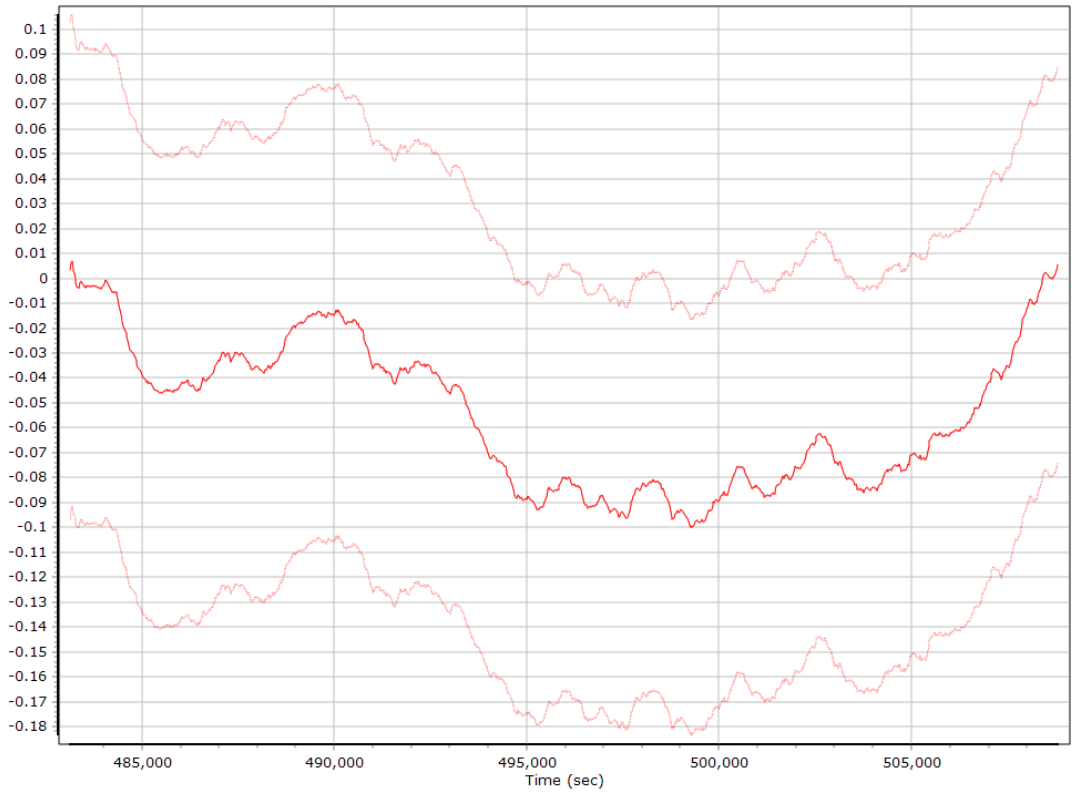
Z Accelerometer Scale Error (ppm)



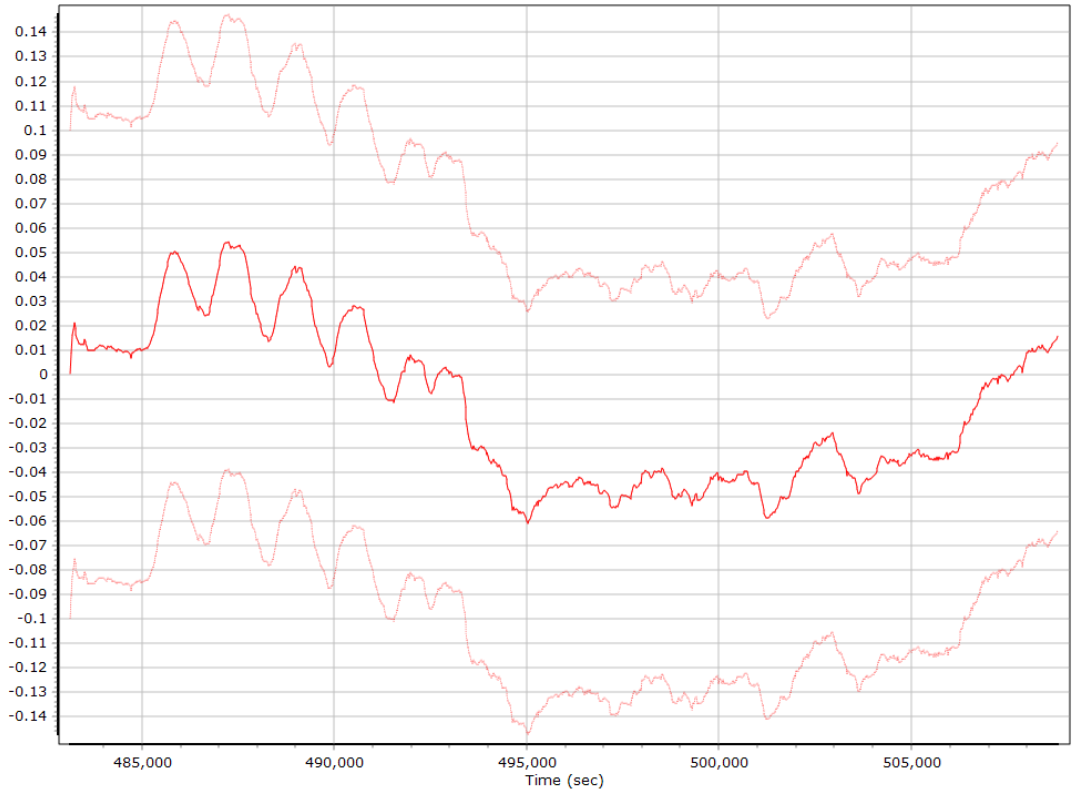
Gyro Bias (deg/h)



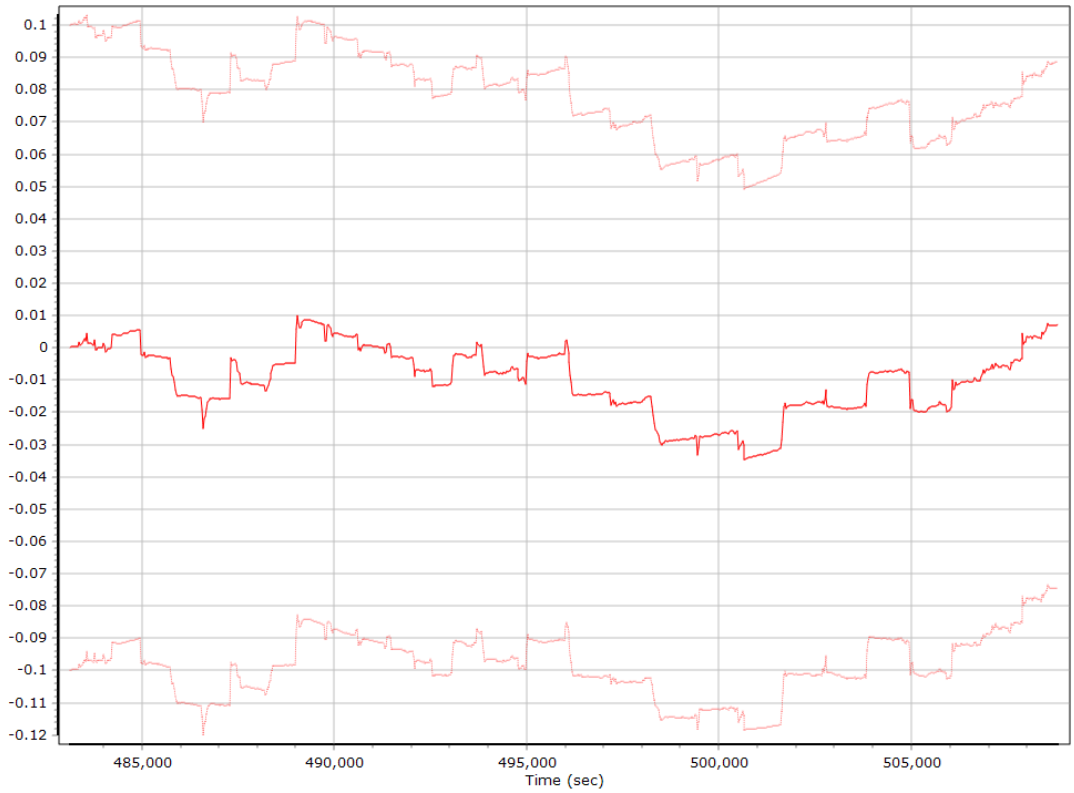
X Gyro Bias (deg/h)



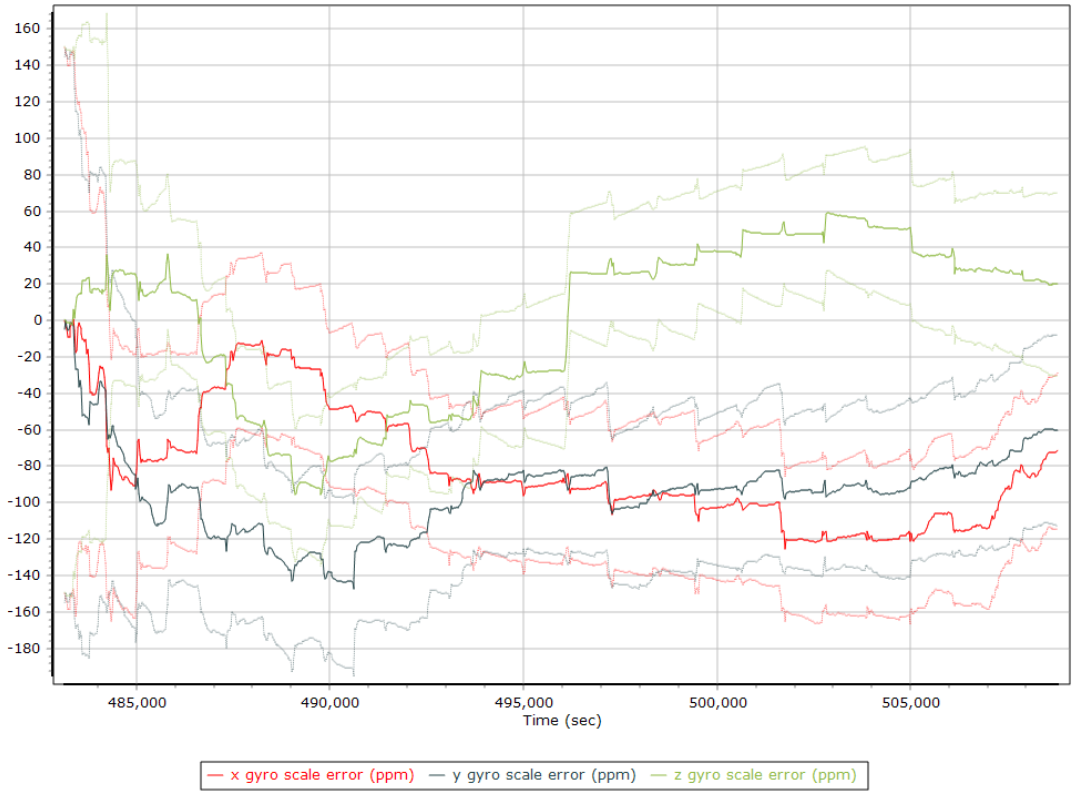
Y Gyro Bias (deg/h)



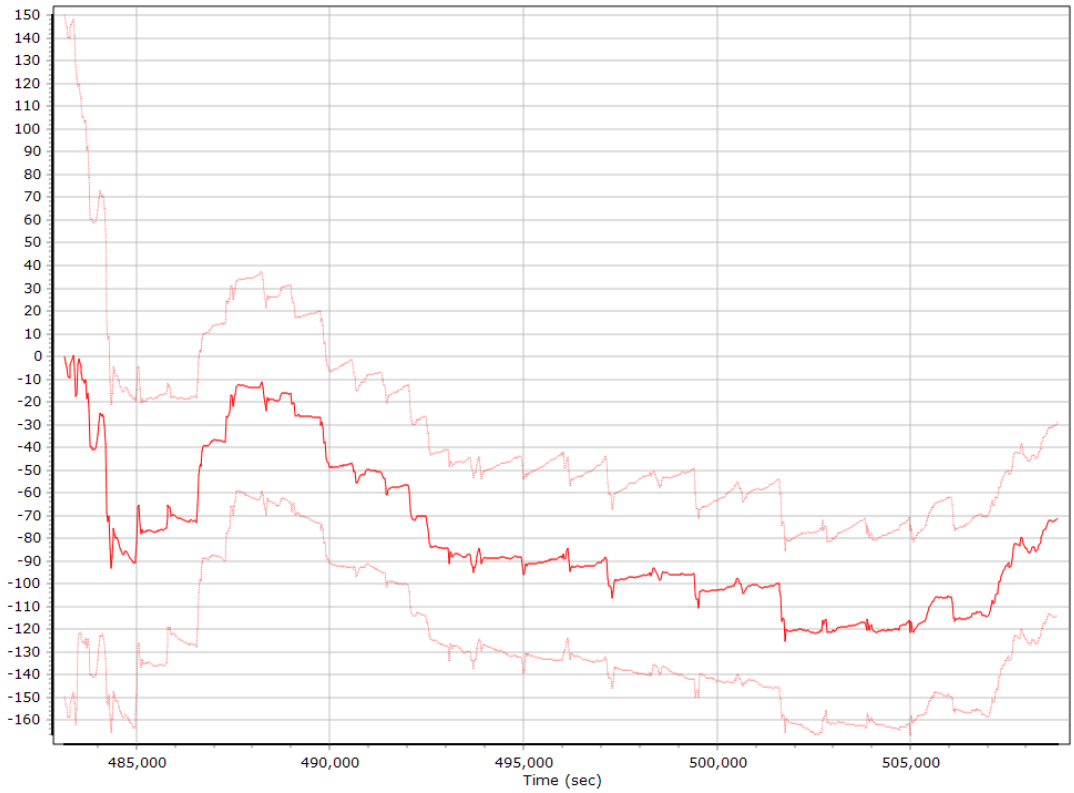
Z Gyro Bias (deg/h)



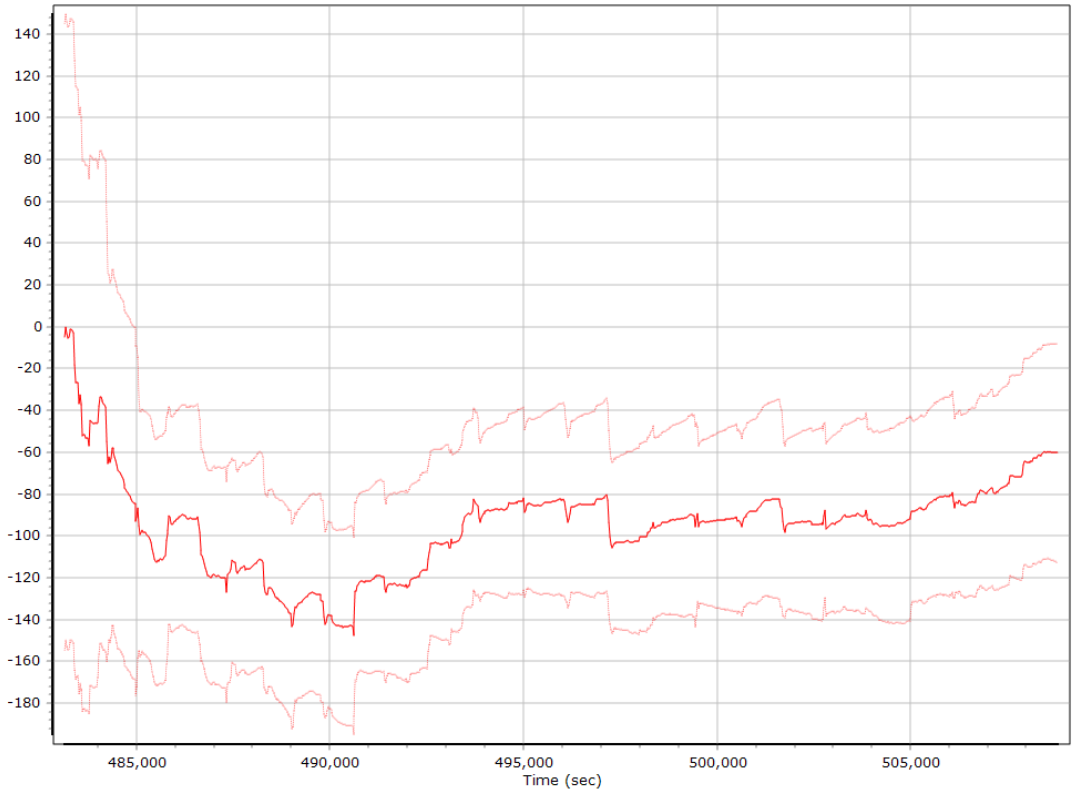
Gyro Scale Error (ppm)



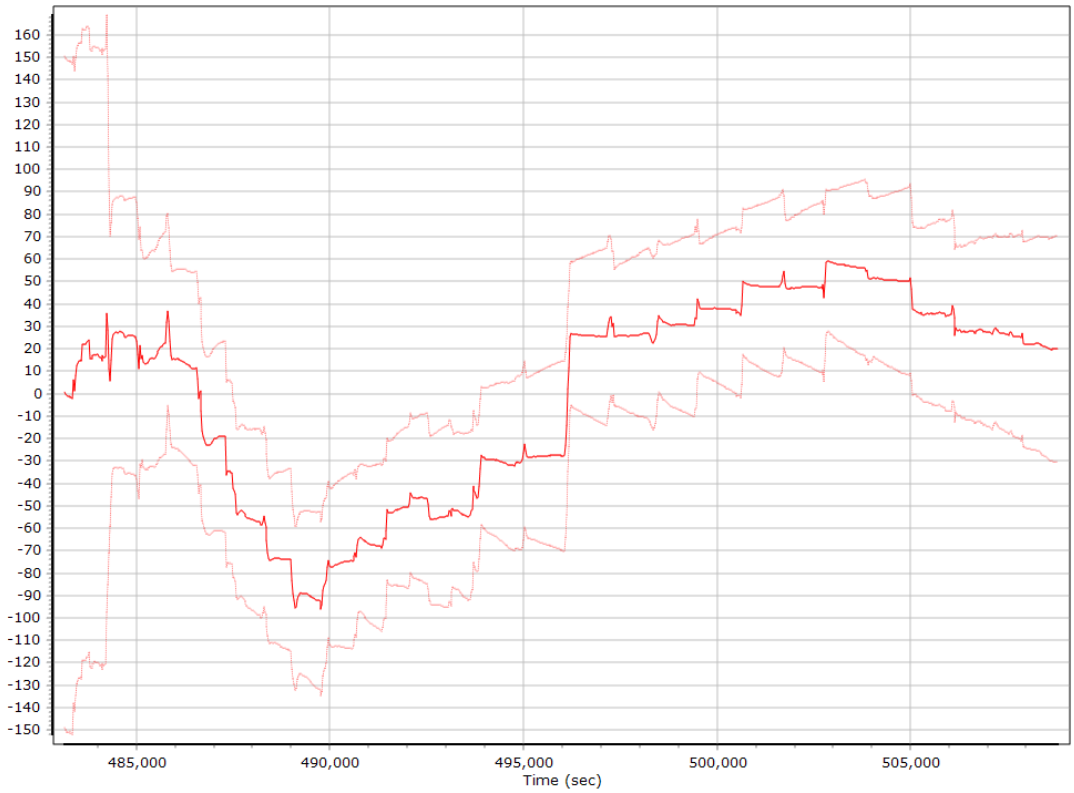
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

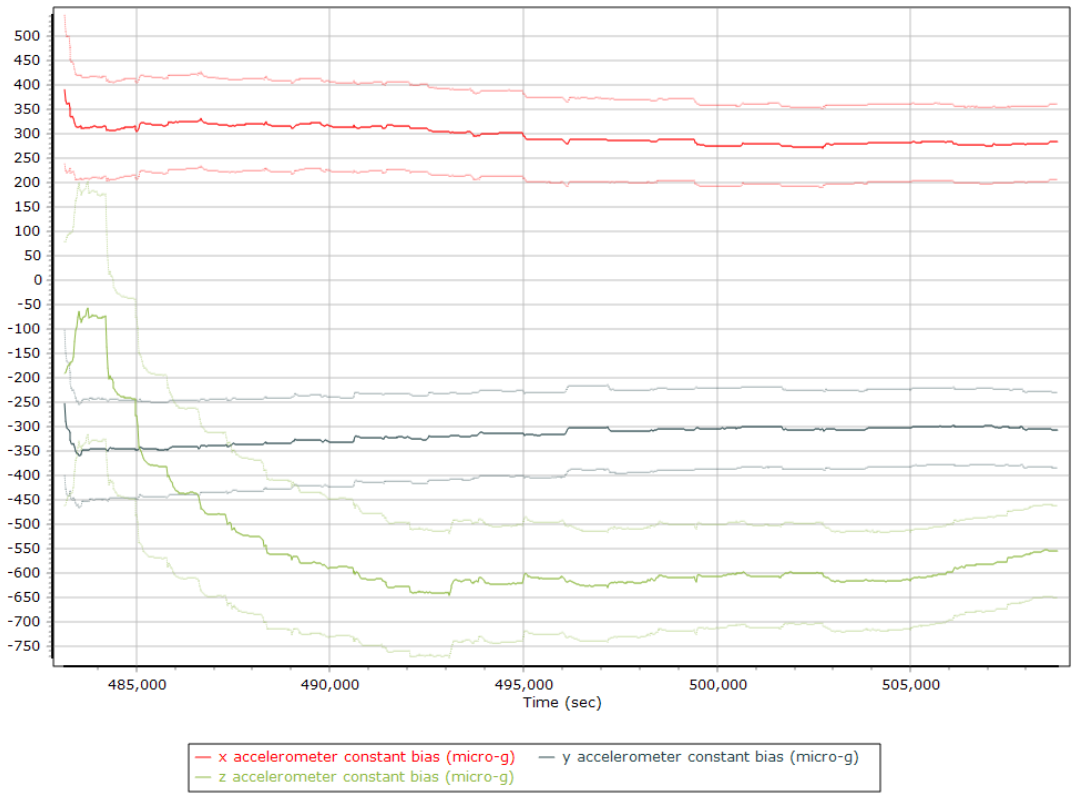


Z Gyro Scale Error (ppm)

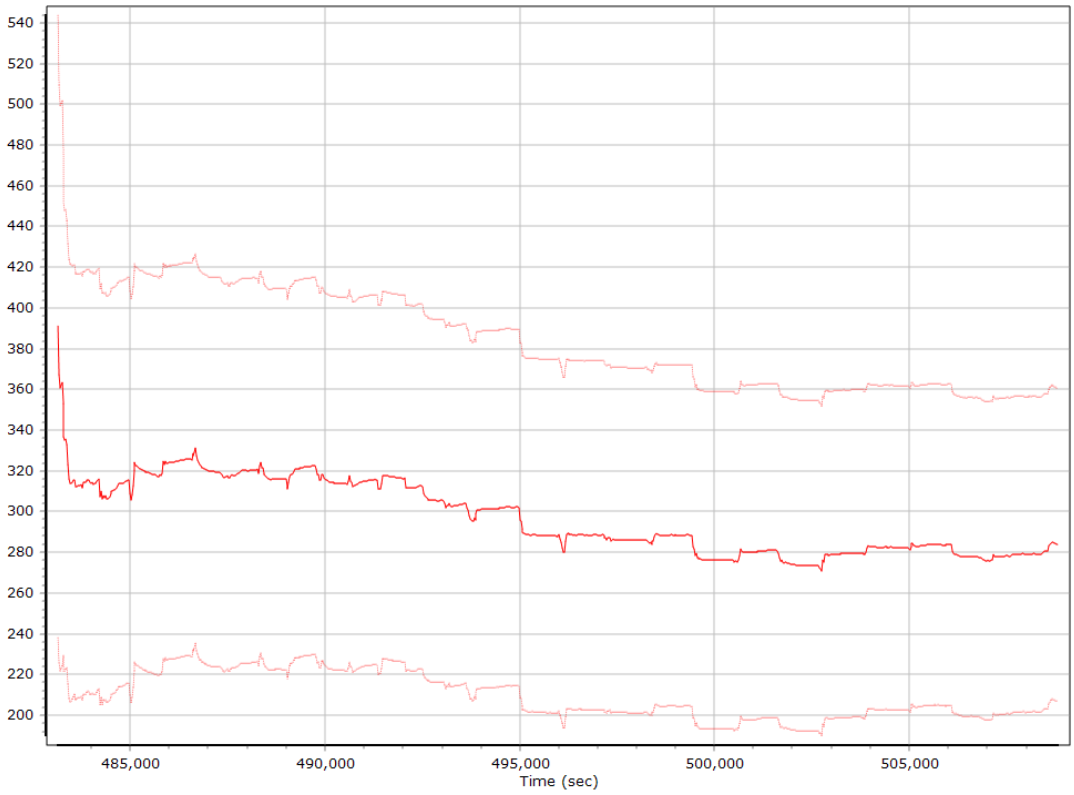


Forward Processed Estimated Constant Errors, Reference Frame

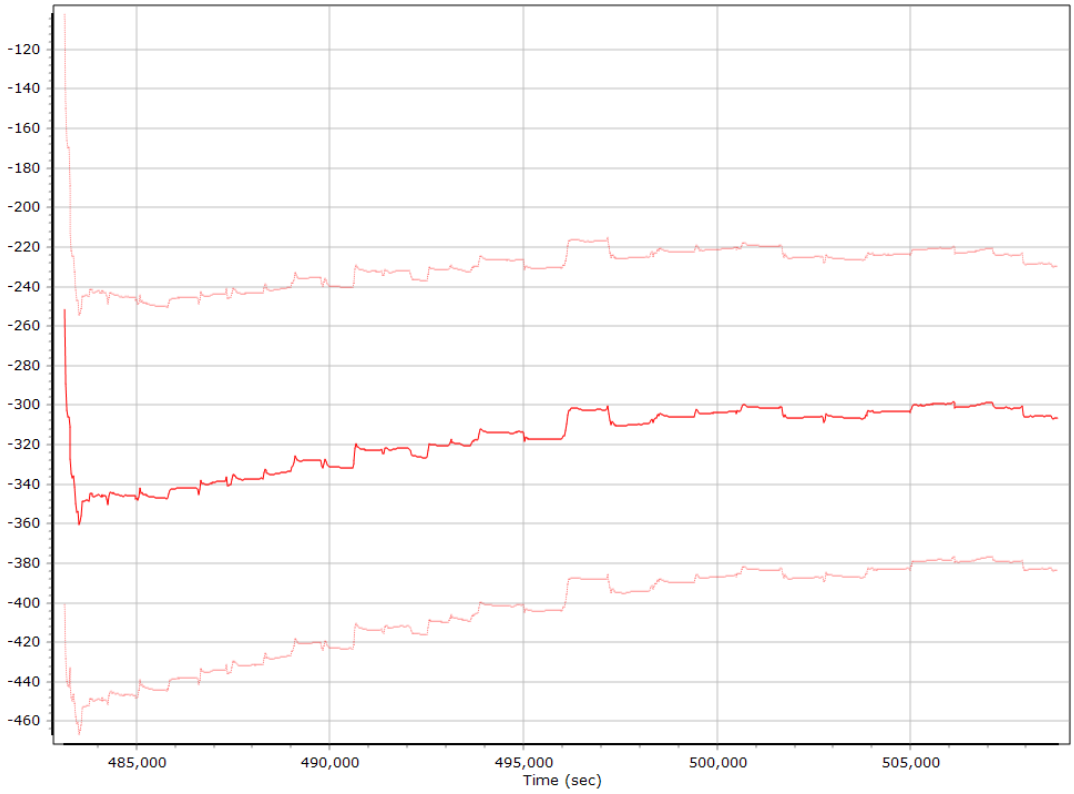
Accelerometer Bias (micro-g)



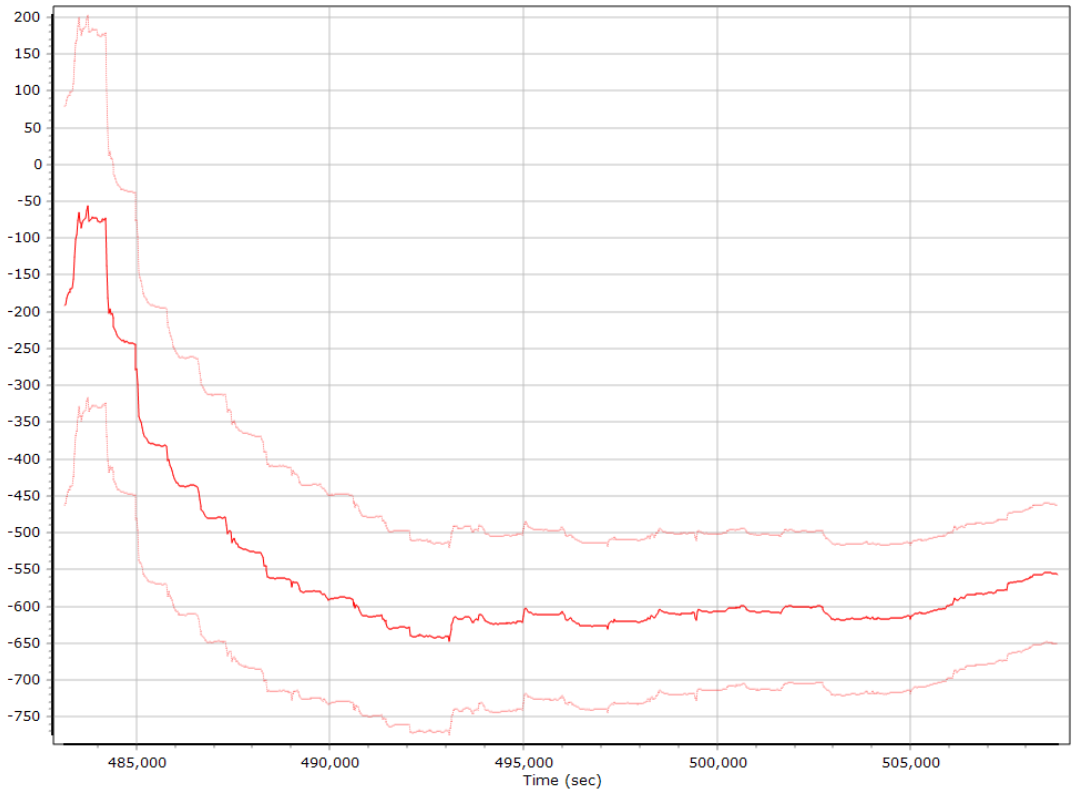
X Accelerometer Bias (micro-g)



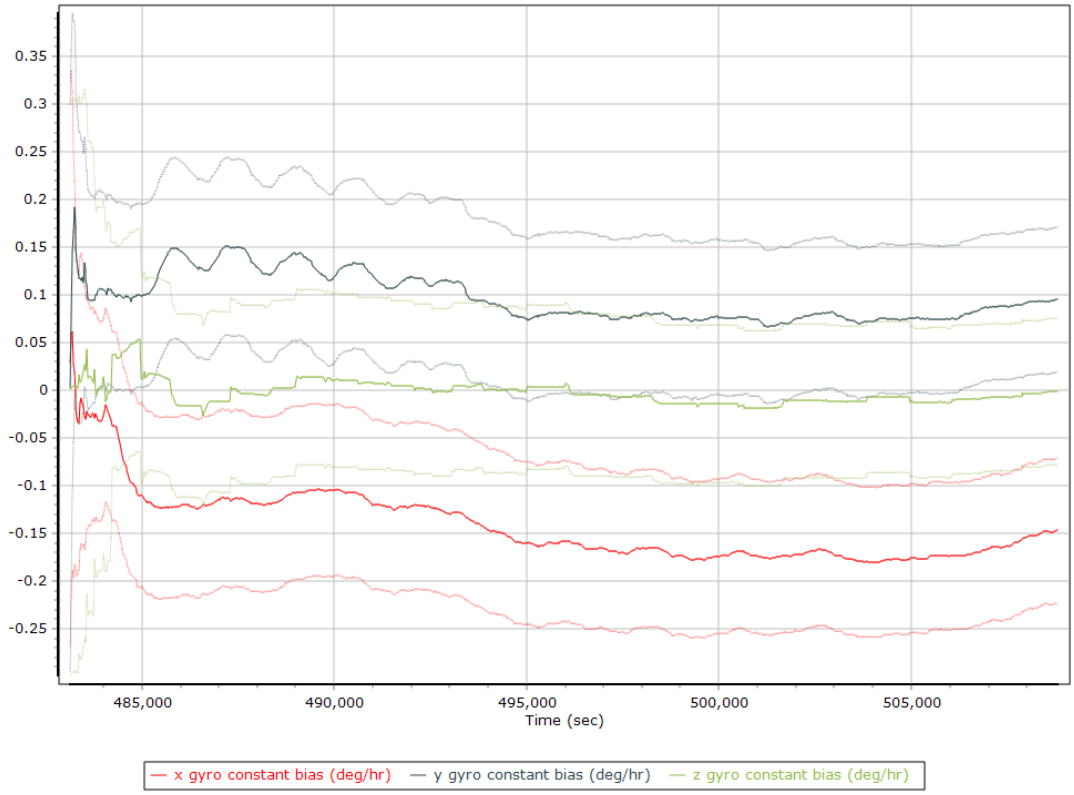
Y Accelerometer Bias (micro-g)



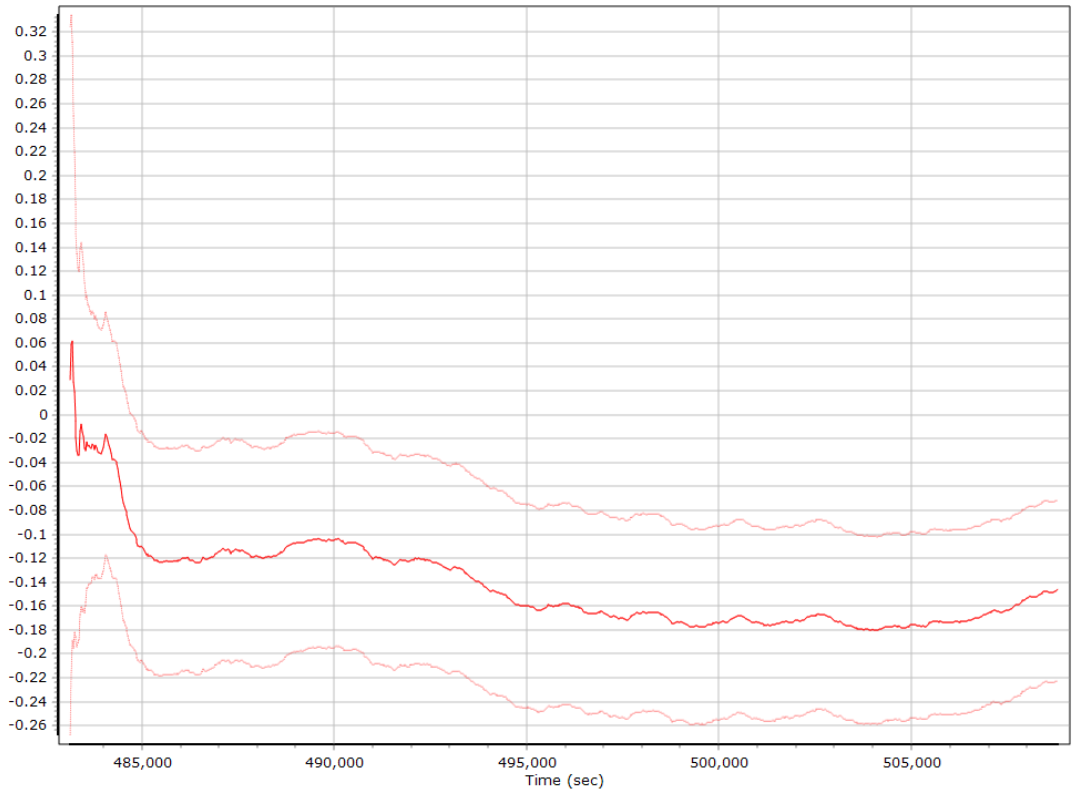
Z Accelerometer Bias (micro-g)



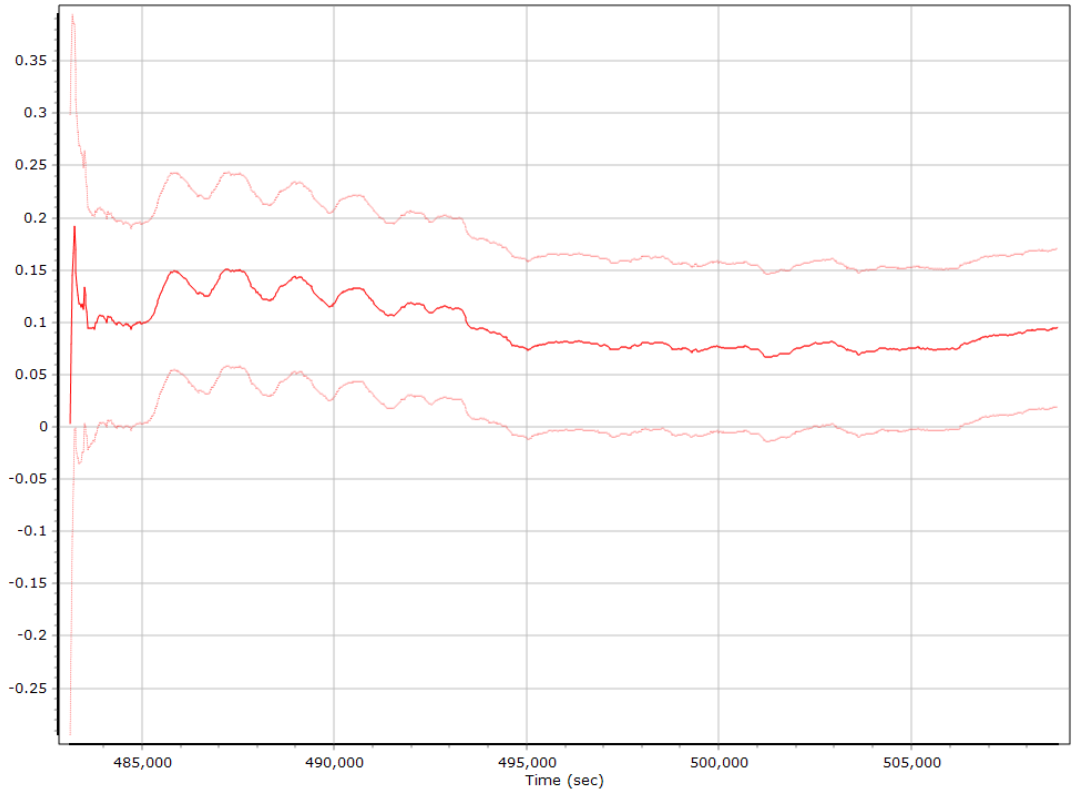
Gyro Bias (deg/h)



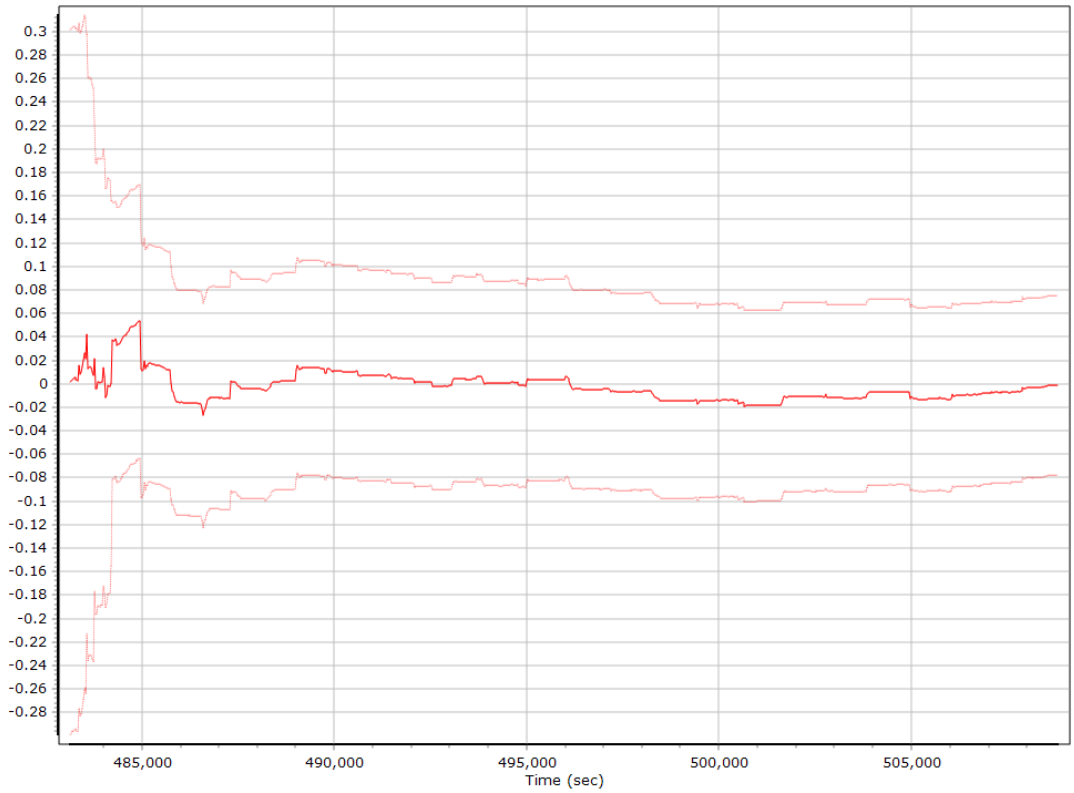
X Gyro Bias (deg/h)



Y Gyro Bias (deg/h)

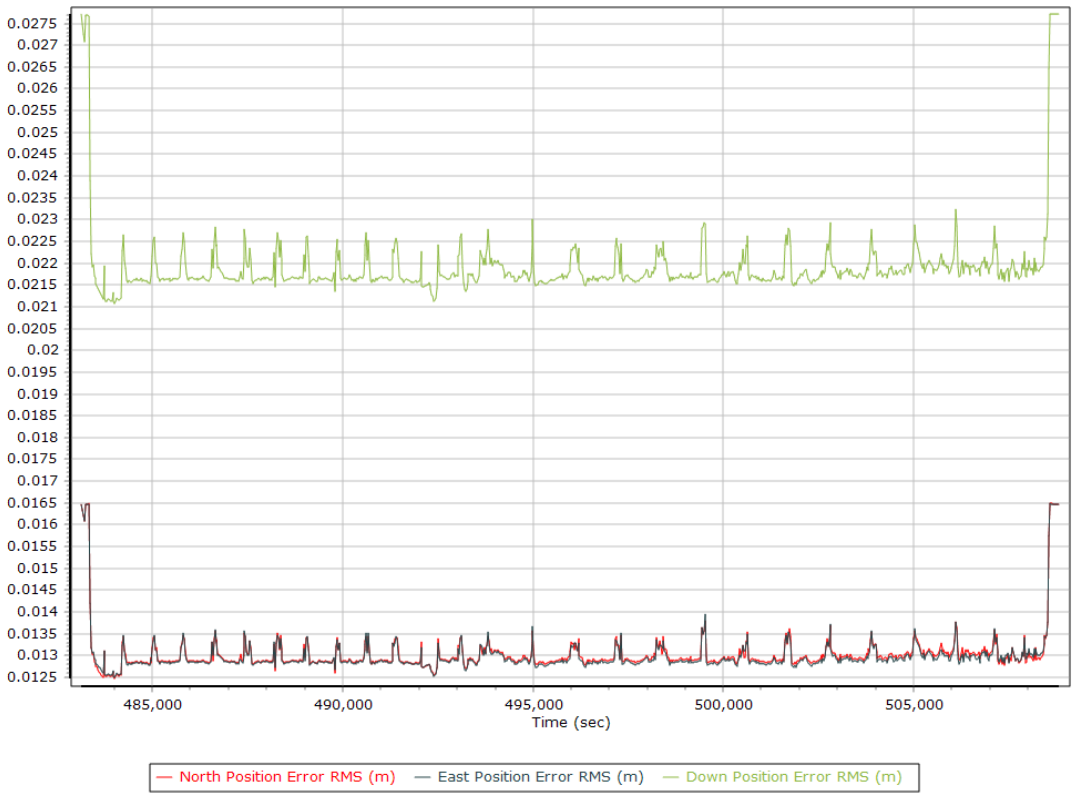


Z Gyro Bias (deg/h)

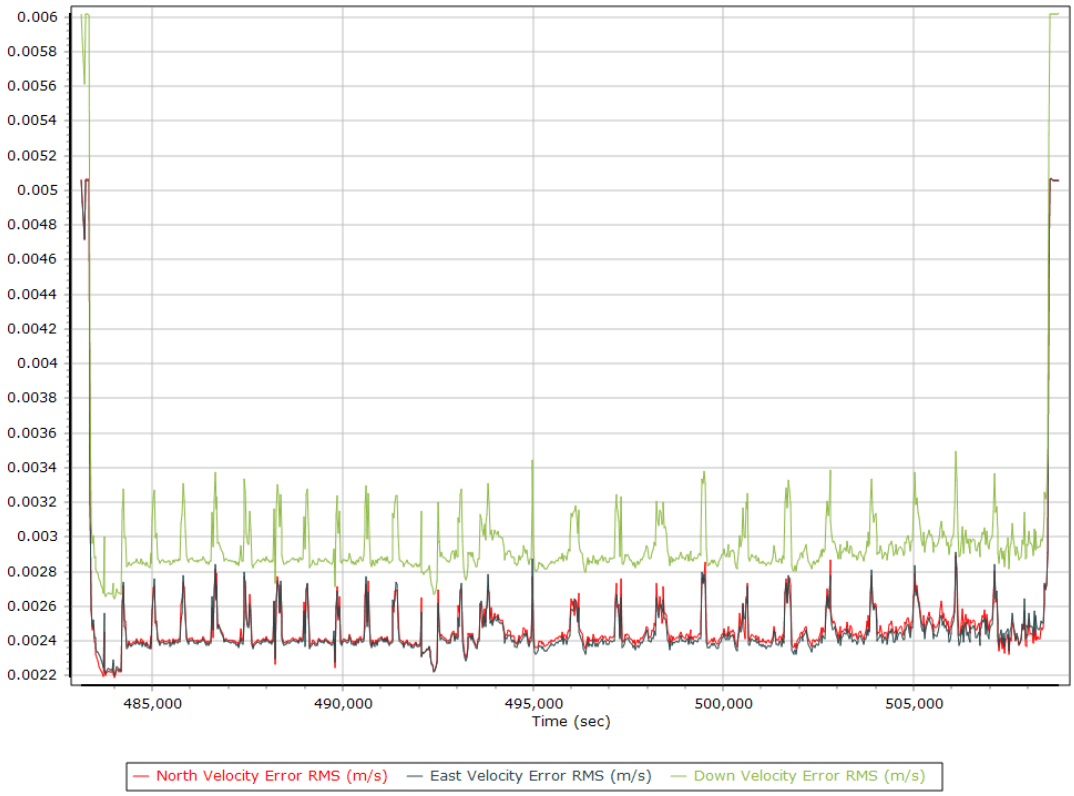


Smoothed Performance Metrics

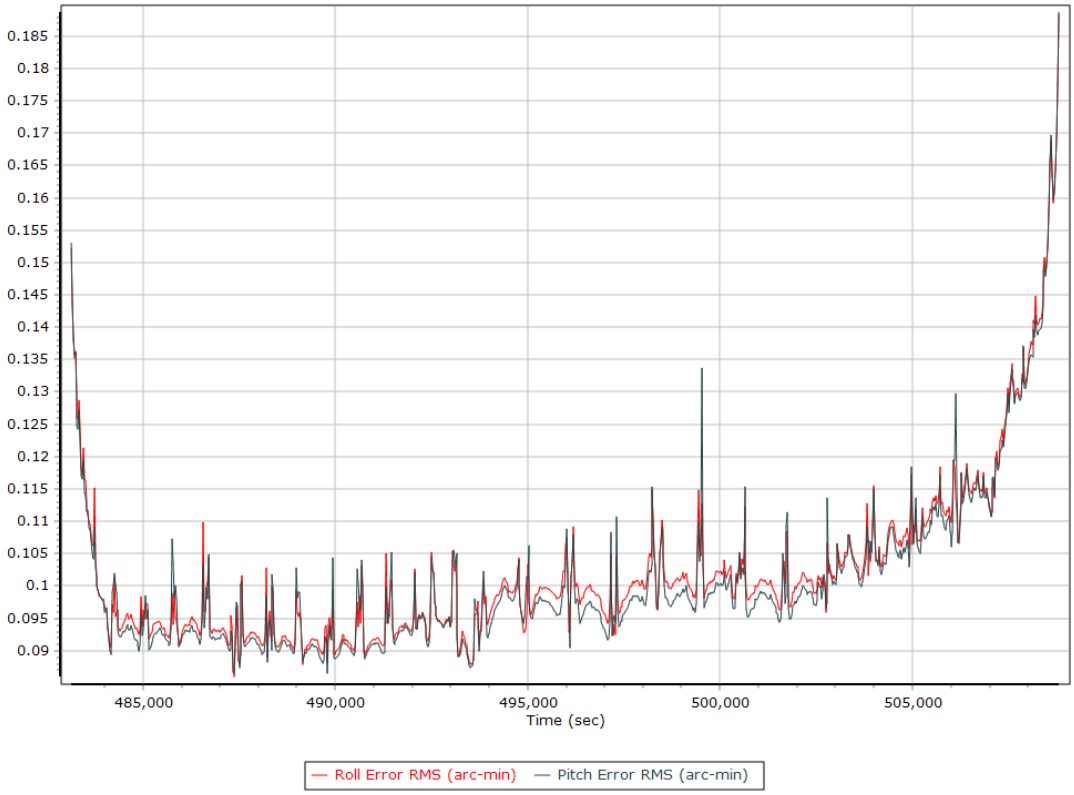
Position Error RMS (m)



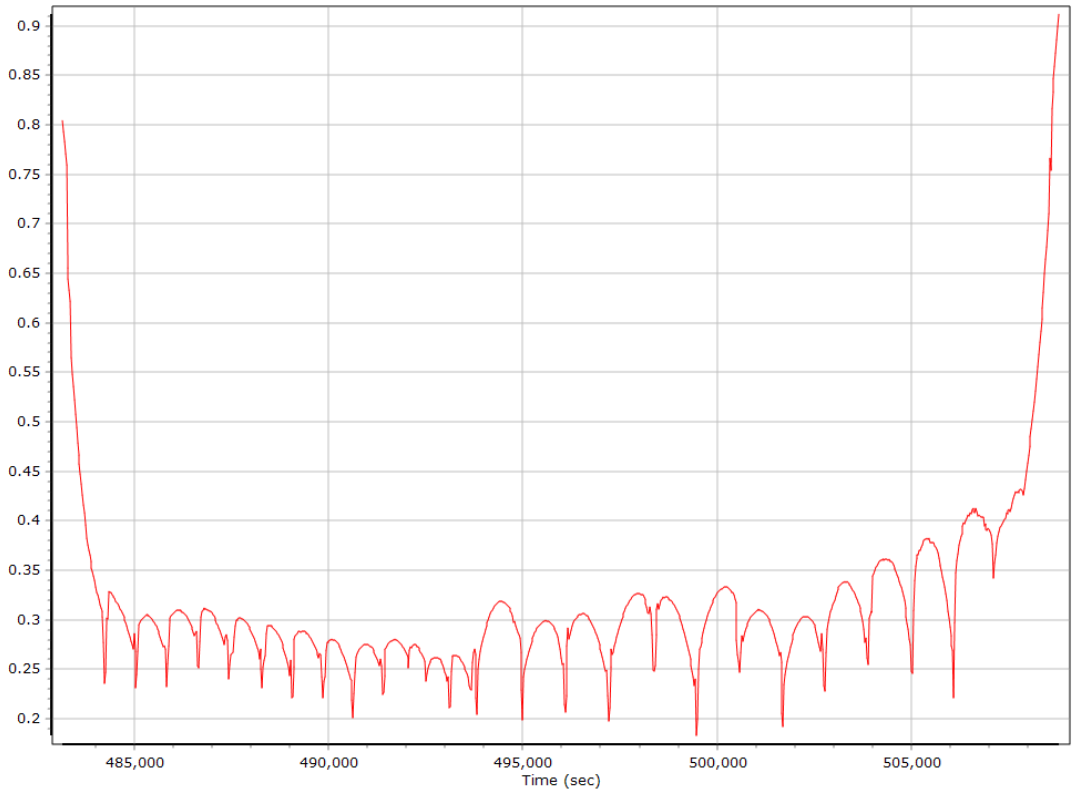
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

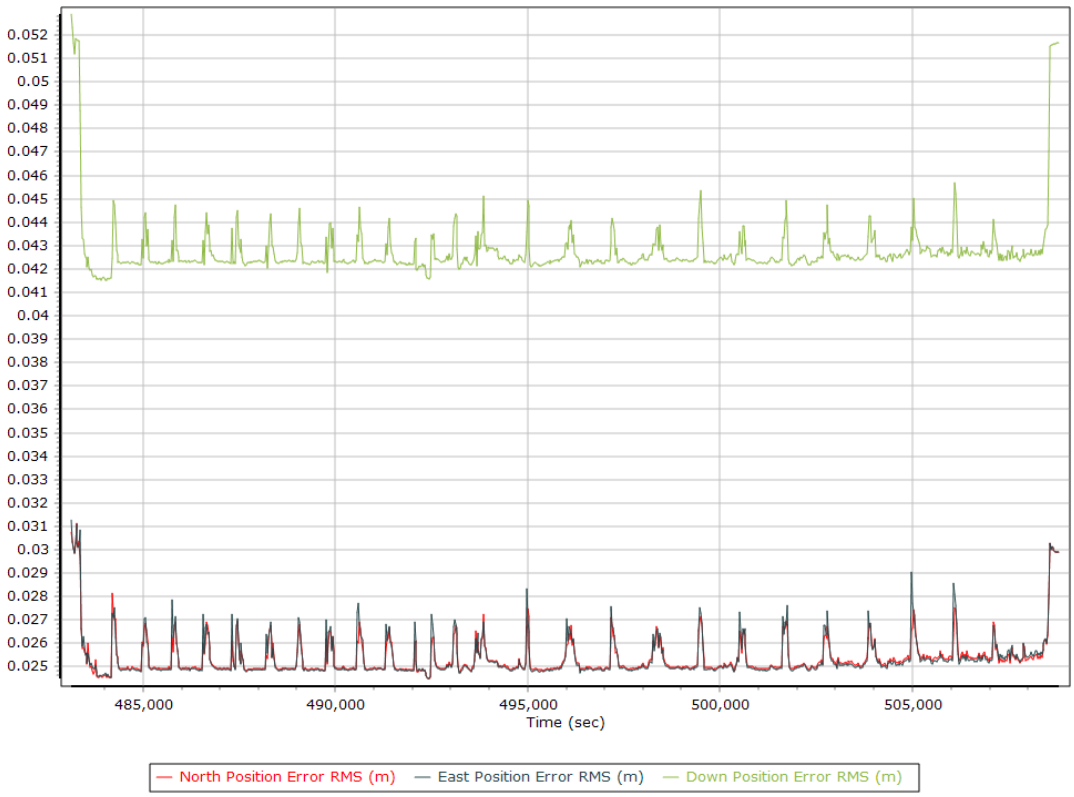


Heading Error RMS (arc-min)

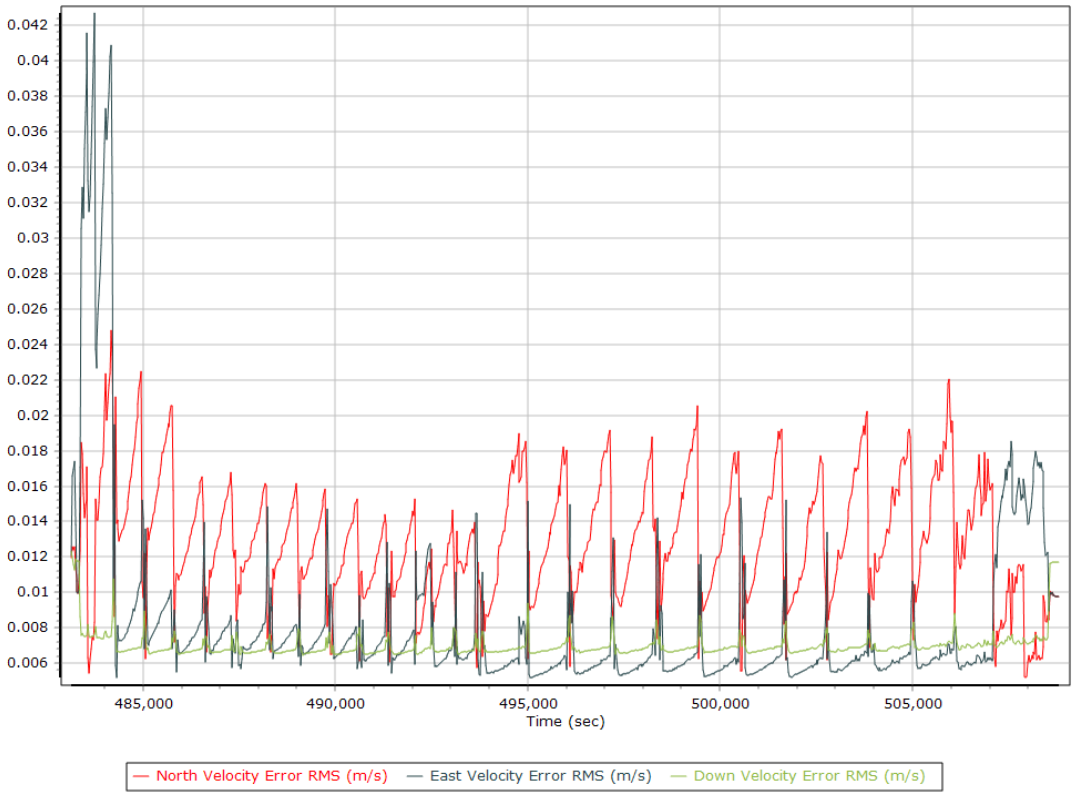


Forward Processed Performance Metrics

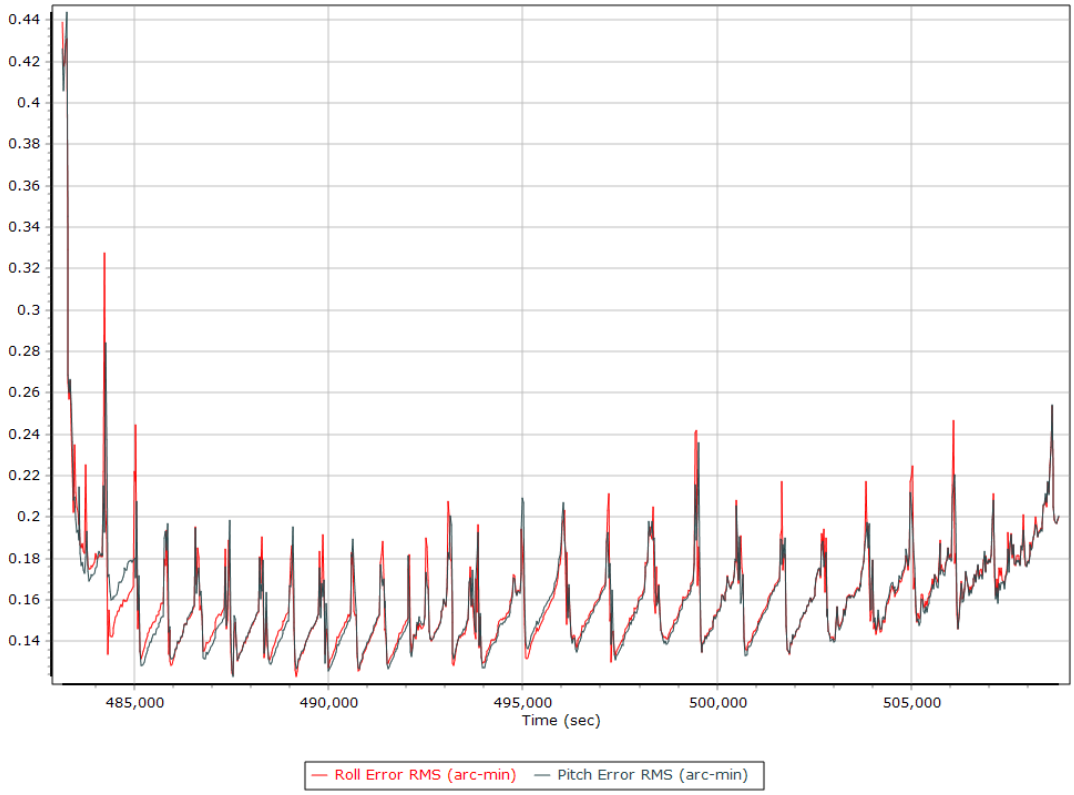
Position Error RMS (m)



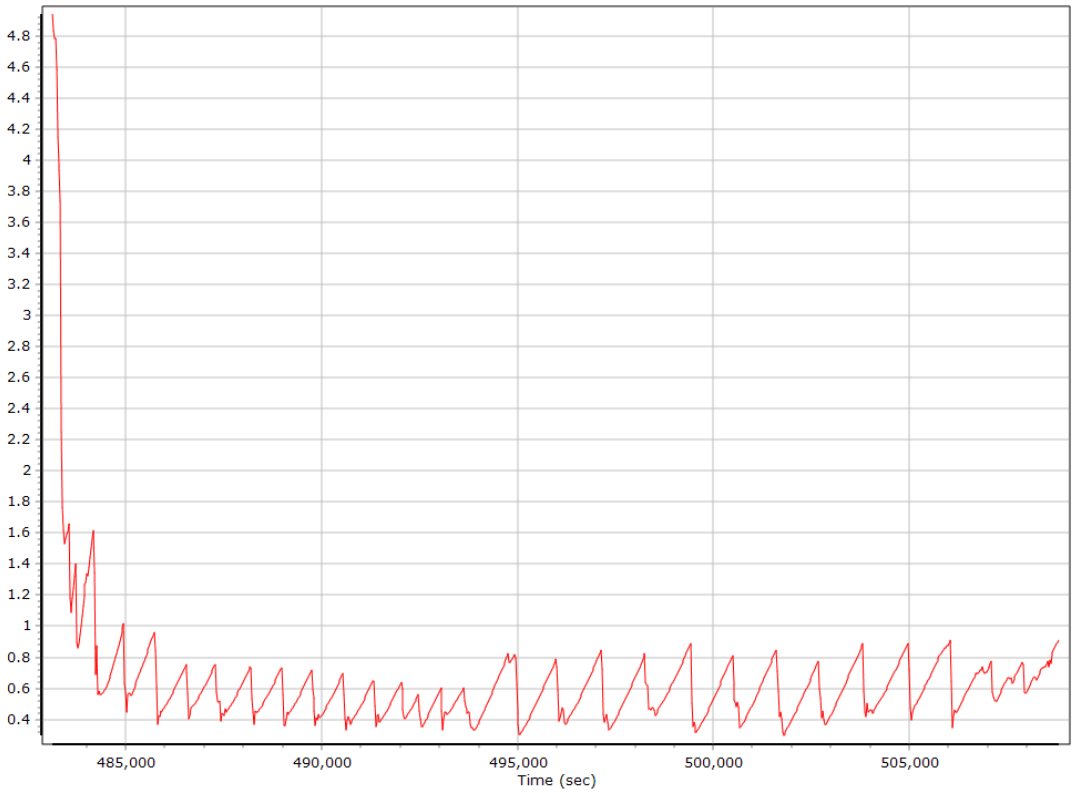
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

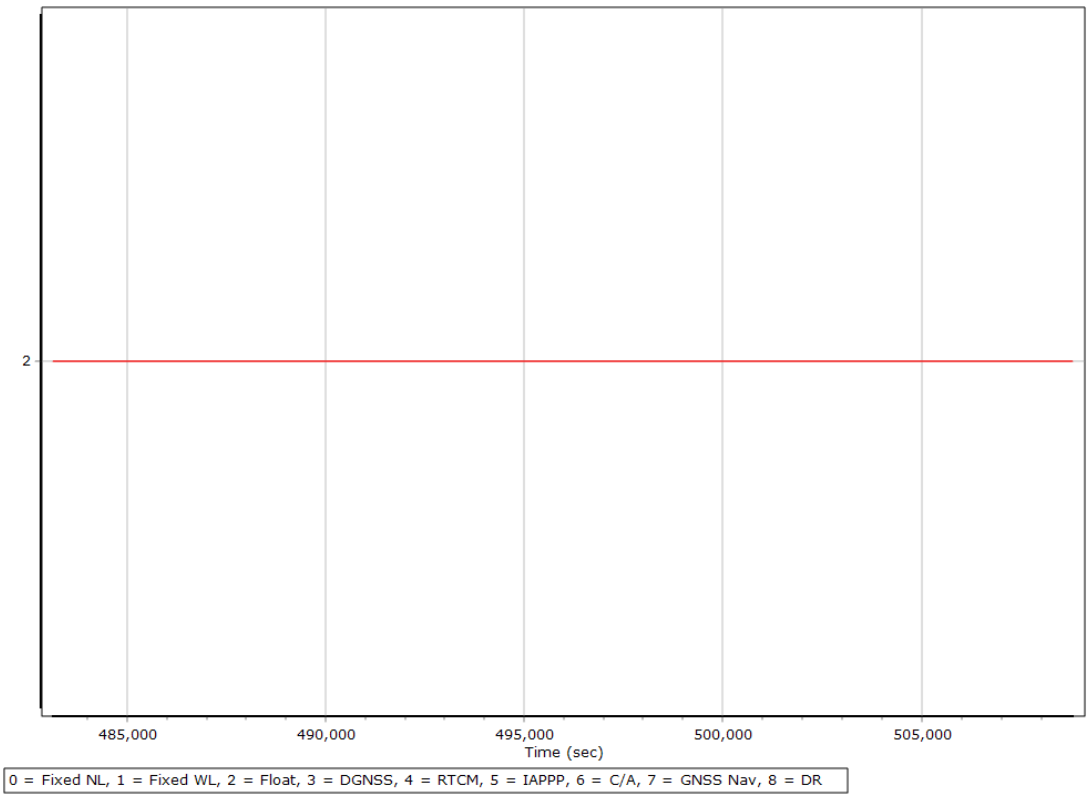


Heading Error RMS (arc-min)

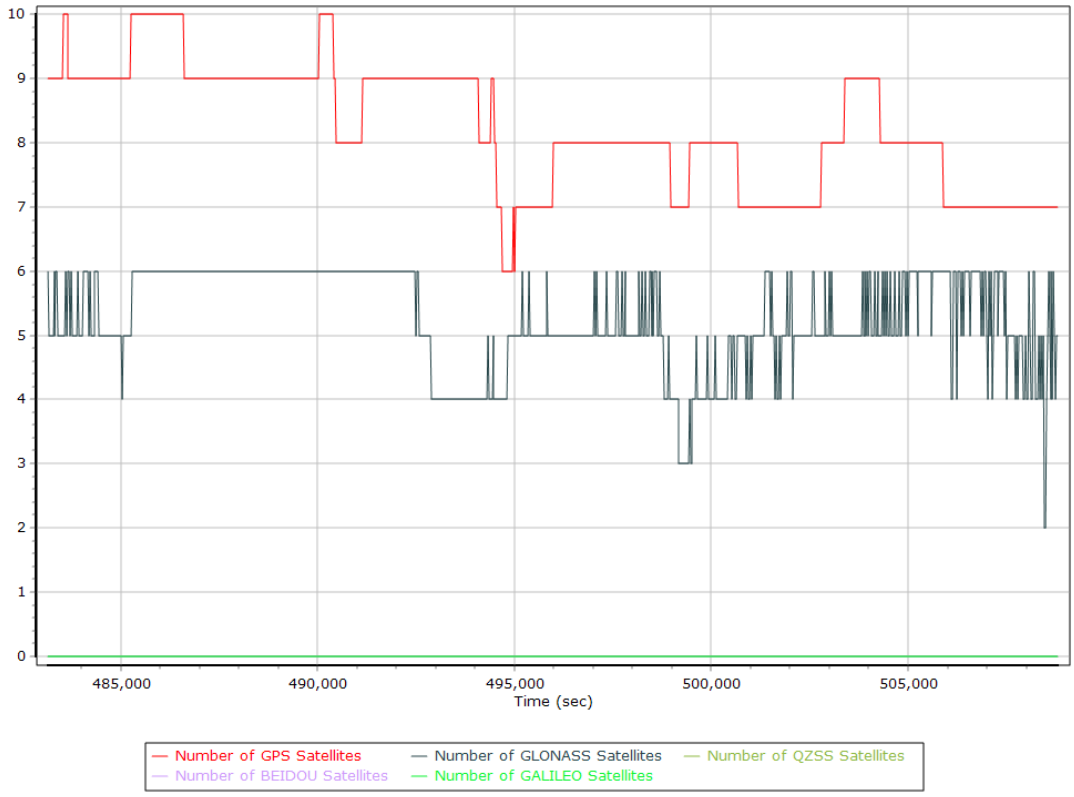
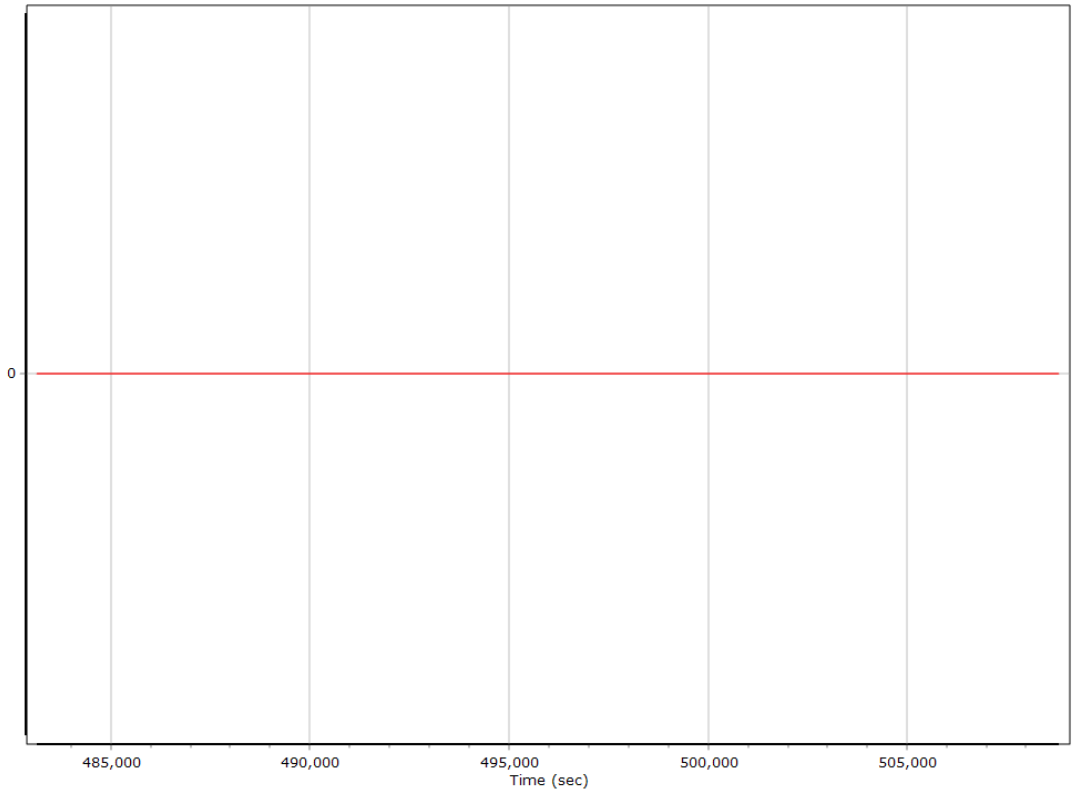


Forward Processed Solution Status

Processing Mode



Number of Satellites



Baseline Length