General Information

Mission Information

Project name	062720
Processing date	2020-07-31 21:05:38
Mission date	2020-06-27 14:37:57
Mission duration	06:18:03.000
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.902	POS Data
ALS.903	POS Data
ALS.904	POS Data
ALS.905	POS Data
ALS.906	POS Data
ALS.907	POS Data
ALS.908	POS Data
ALS.909	POS Data
ALS.910	POS Data
ALS.911	POS Data
ALS.912	POS Data
ALS.913	POS Data
ALS.914	POS Data
ALS.915	POS Data
ALS.916	POS Data
ALS.917	POS Data
ALS.918	POS Data
ALS.919	POS Data
ALS.920	POS Data
ALS.921	POS Data
ALS.922	POS Data
ALS.923	POS Data
ALS.924	POS Data
ALS.925	POS Data
ALS.926	POS Data
ALS.927	POS Data
ALS.928	POS Data
ALS.929	POS Data
ALS.930	POS Data
ALS.931	POS Data
ALS.932	POS Data
ALS.933	POS Data
ALS.934	POS Data
ALS.935	POS Data
ALS.936	POS Data
ALS.937	POS Data
ALS.938	POS Data
ALS.939	POS Data
ALS.940	POS Data
ALS.941	POS Data
ALS.942	POS Data
ALS.943	POS Data
ALS.944	POS Data
ALS.945	POS Data
ALS.946	POS Data
ALS.947	POS Data
ALS.948	POS Data
ALS.949	POS Data
ALS.950	POS Data
ALS.951	POS Data
ALS.952	POS Data

Input Files

File Name	File Type
Ephm1790.20g	GLONASS Broadcast Ephemeris
Ephm1790.20n	GPS Broadcast Ephemeris
igl21115.sp3	GLONASS Precise Ephemeris
igl21116.sp3	GLONASS Precise Ephemeris
igl21120.sp3	GLONASS Precise Ephemeris

File Name	File Type
igs21115.sp3	GPS Precise Ephemeris
igs21116.sp3	GPS Precise Ephemeris
igs21120.sp3	GPS Precise Ephemeris

Output Files

Filename	File type
sbet_062720.out	SBET Trajectory File

Rover Data Summary

First raw data file	ALS.902		
Last raw data file	ALS.952		
Start GPS week	2111		
Start time	571088.461 (06/27/2020 14:37:50)		
End time	593753.923 (06/27/2020 20:55:35)		
Start of fine alignment	571669.400 (06/27/2020 14:47:31)		
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

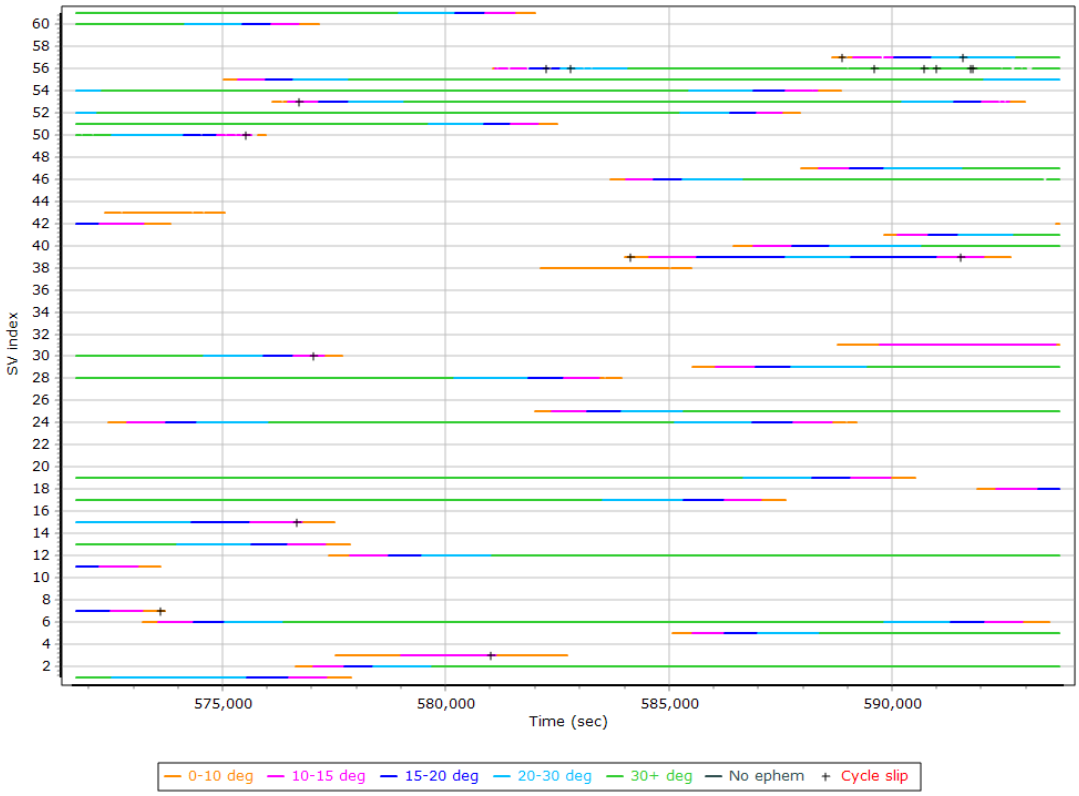
Rover Data QC

Raw IMU Import QC Summary

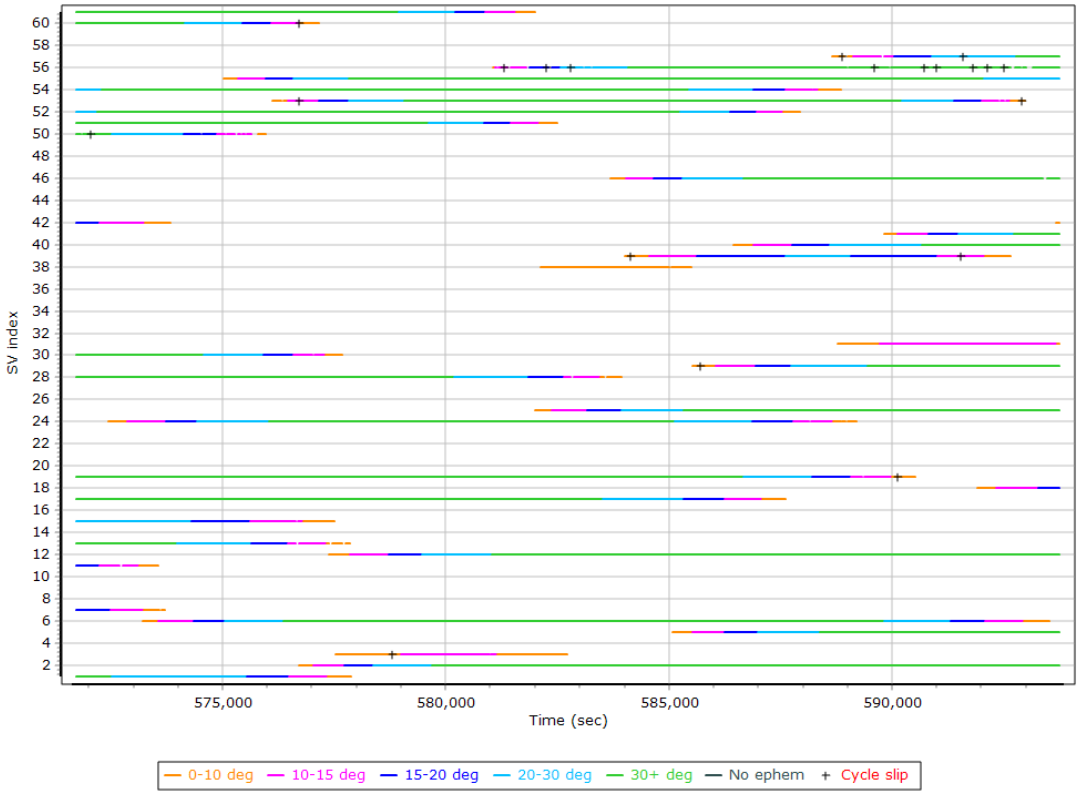
IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_062720.log
IMU Records Processed	4535795
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
571088.226 : WARNING : Gap of 571076.2642 seconds in CHECKDT input data	

Primary Observables & Satellite Data

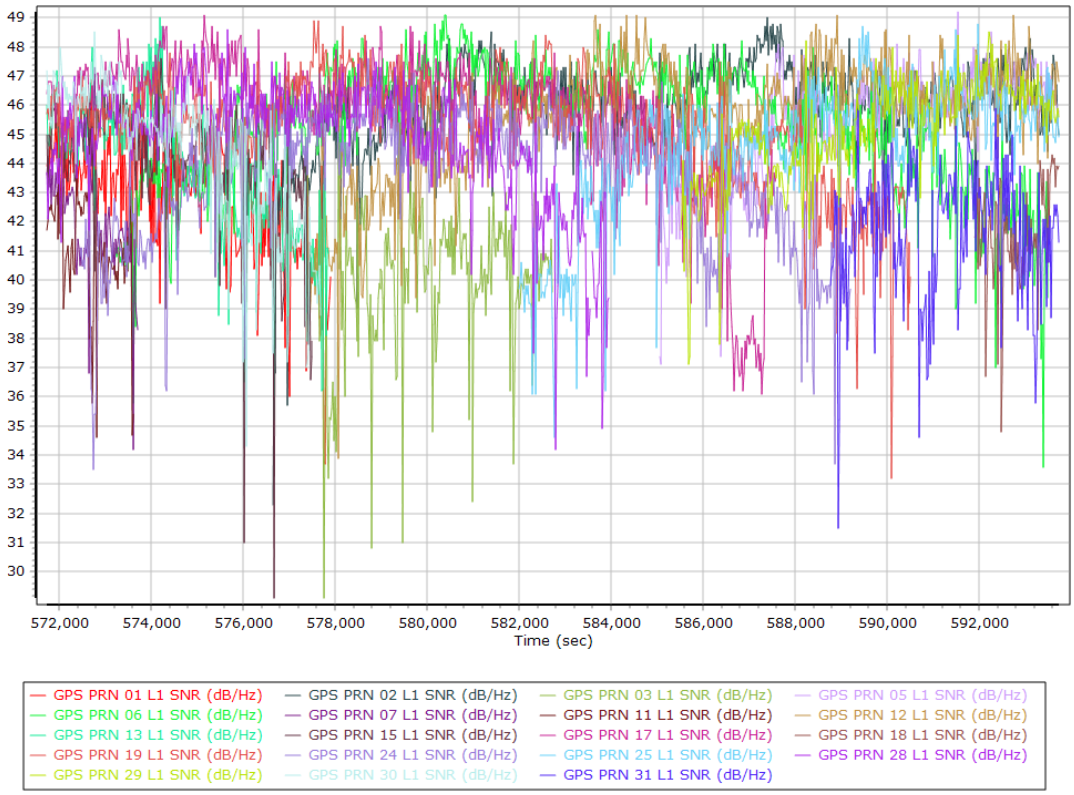
L1 Satellite Lock/Elevation



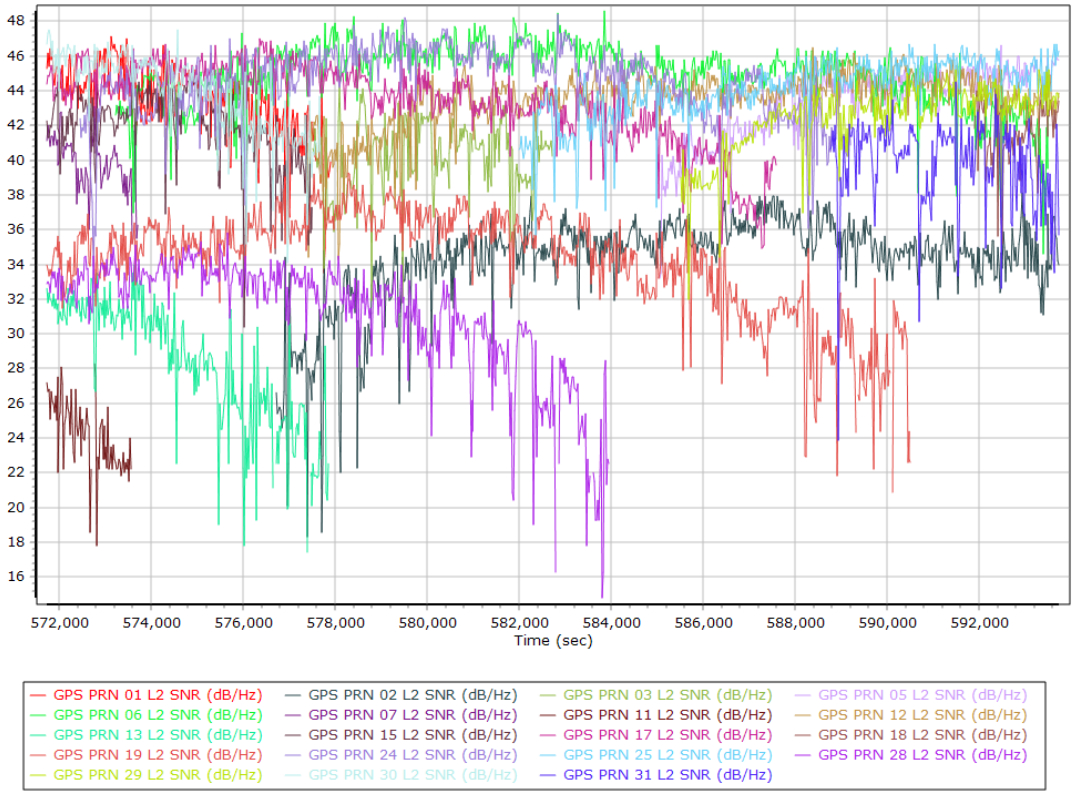
L2 Satellite Lock/Elevation



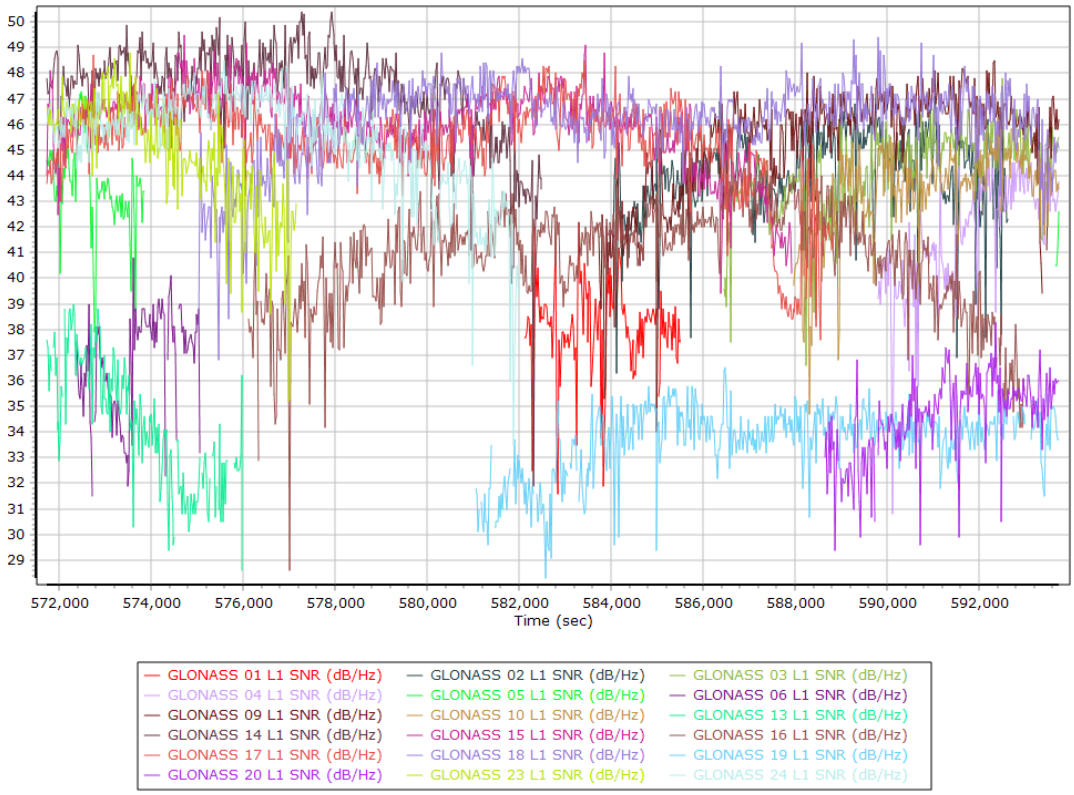
GPS L1 SNR



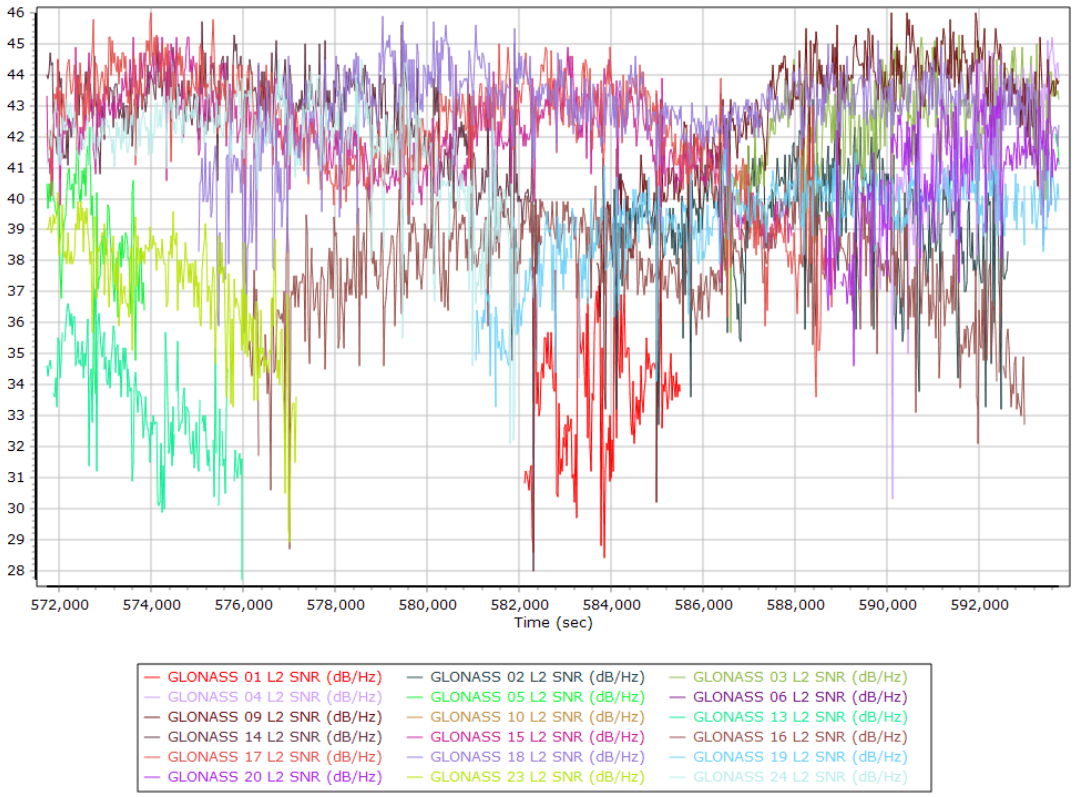
GPS L2 SNR



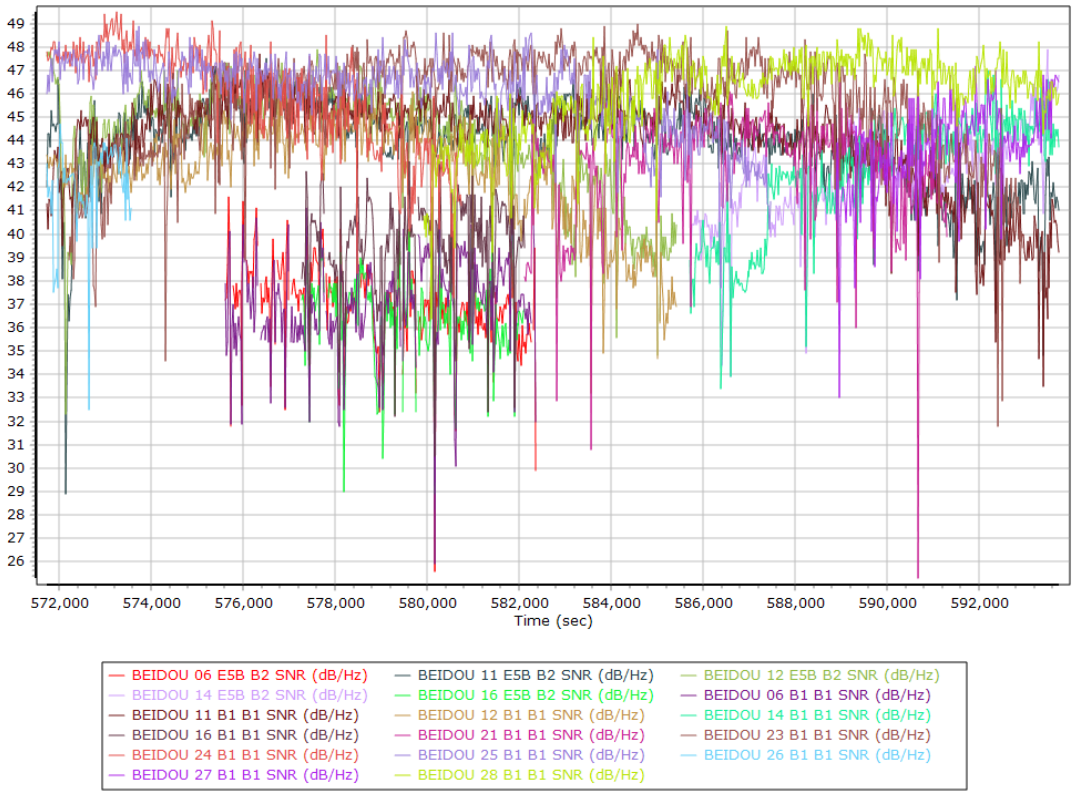
GLONASS L1 SNR



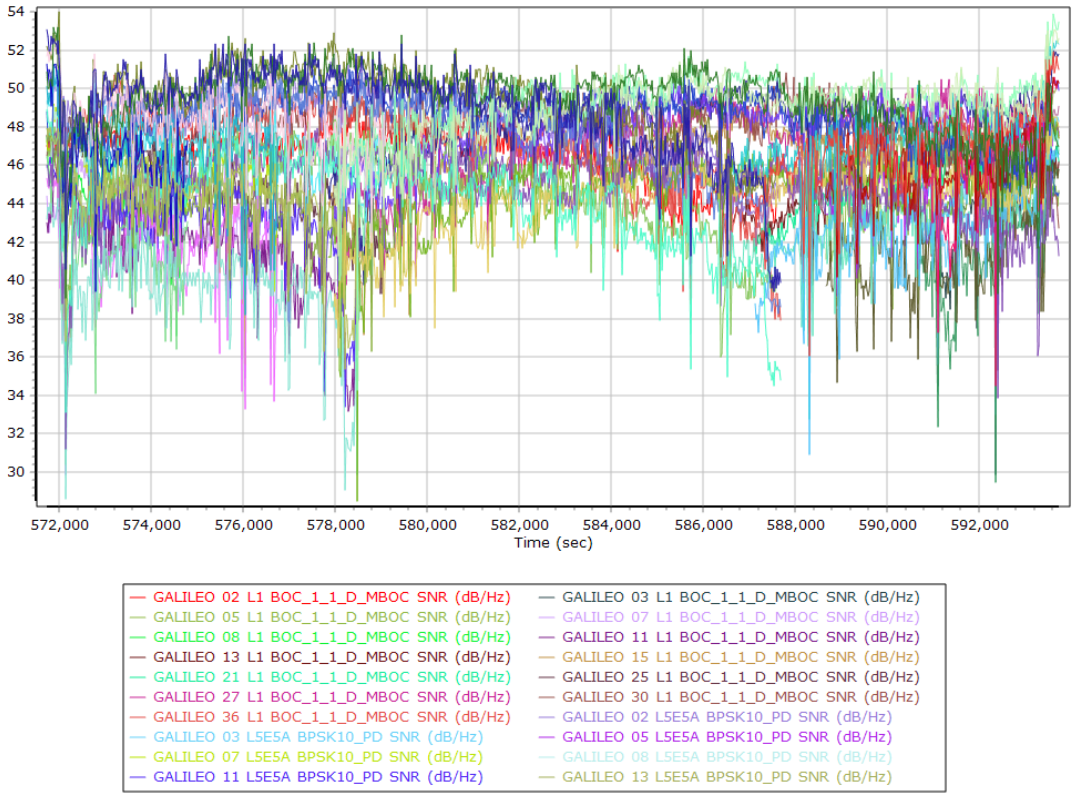
GLONASS L2 SNR



BEIDOU SNR



GALILEO SNR


54
52
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46
44
42
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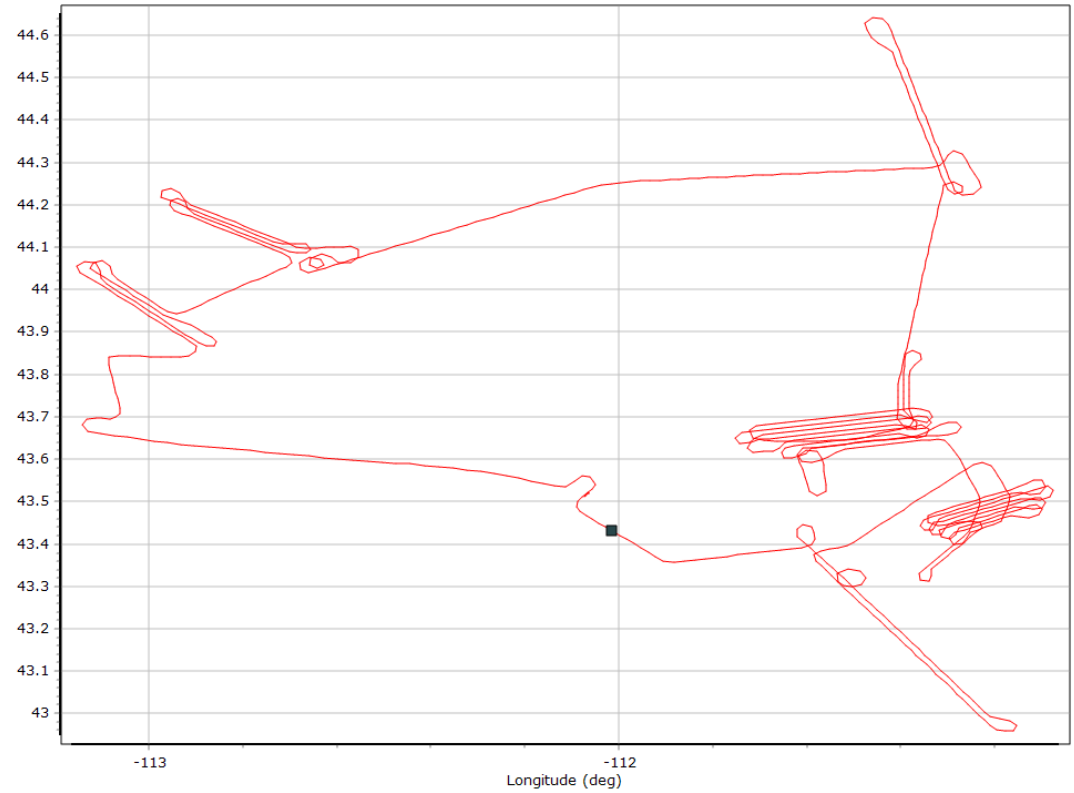
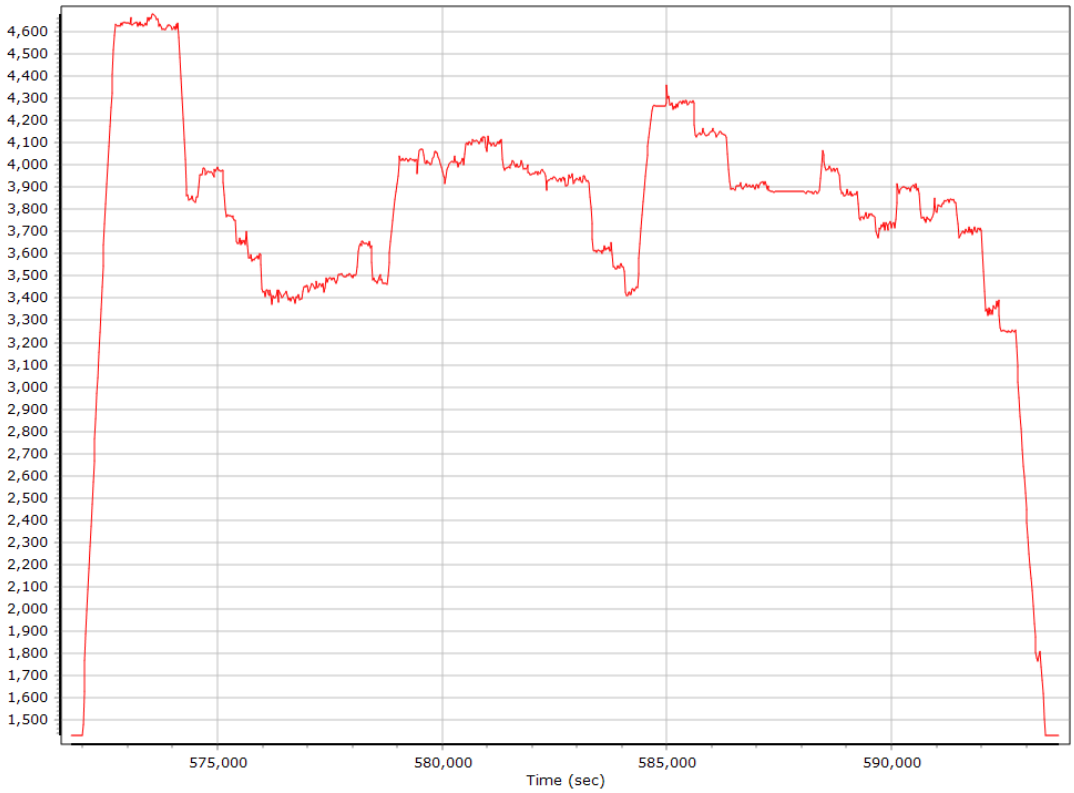
36
34
32
30
572,000
574,000
576,000
578,000
580,000
582,000
584,000
586,000
588,000
590,000
592,000
Time (sec)
GALILEO 02 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 03 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 05 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 08 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 11 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 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 25 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 27 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 30 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 36 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 02 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 11 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 13 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

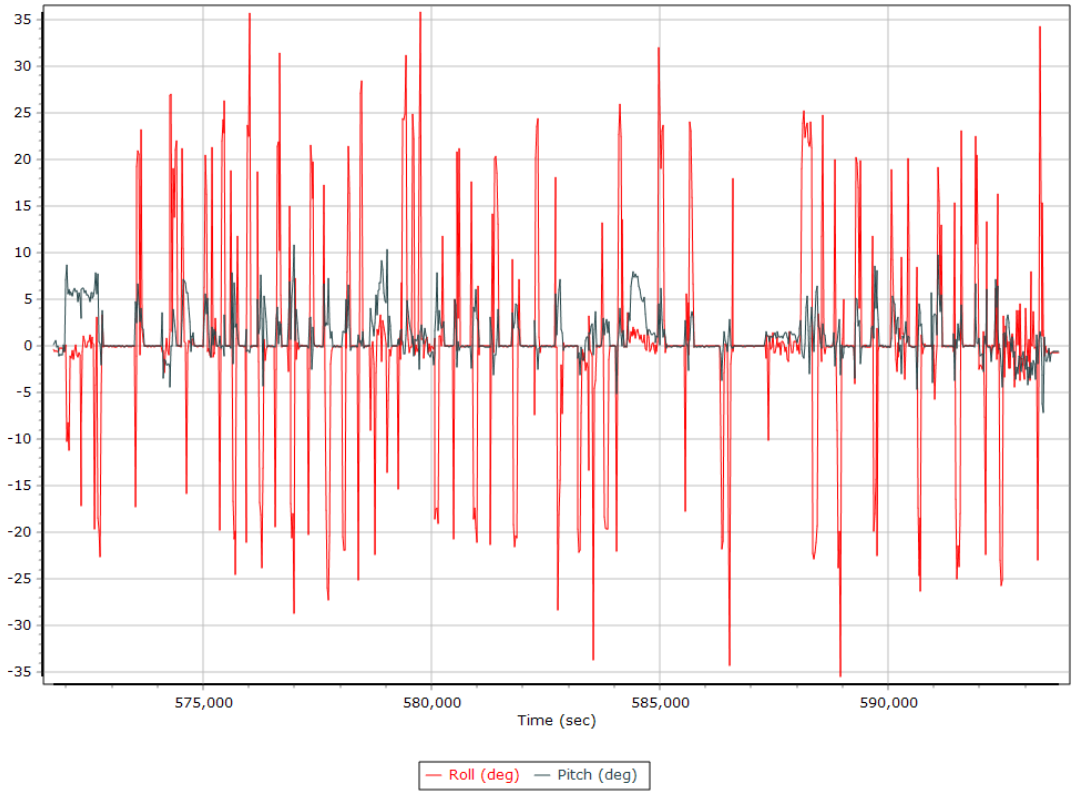
Top View



Altitude



Roll/Pitch



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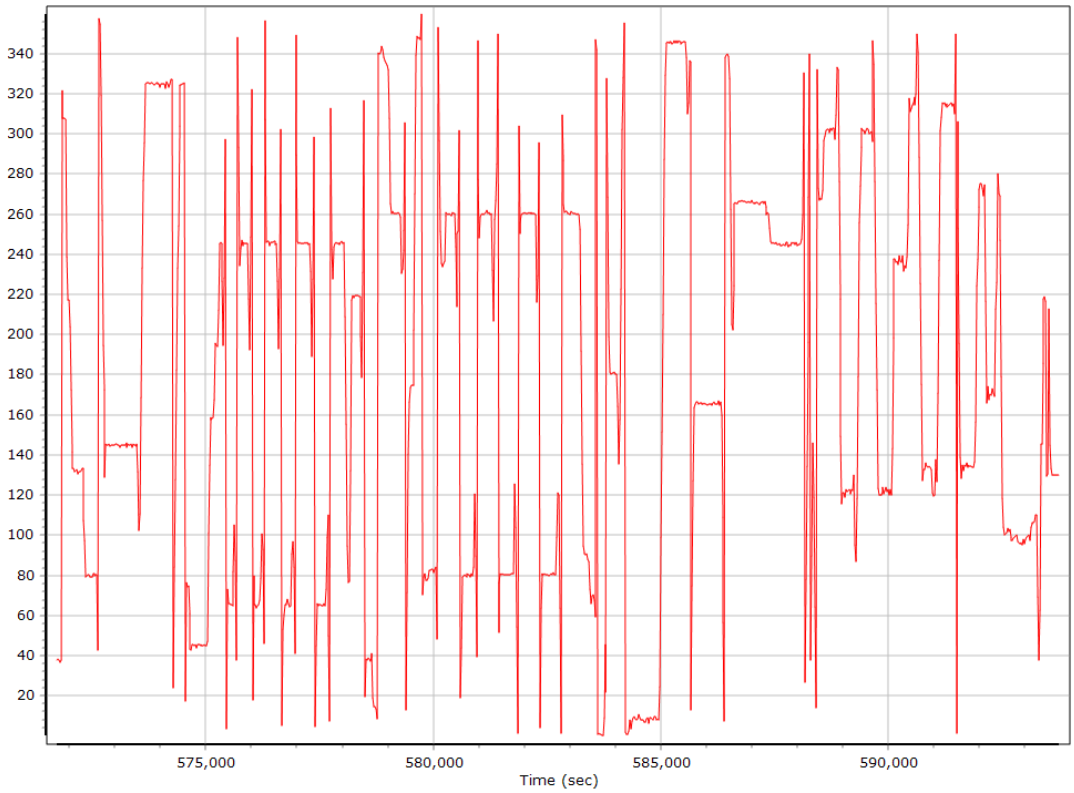
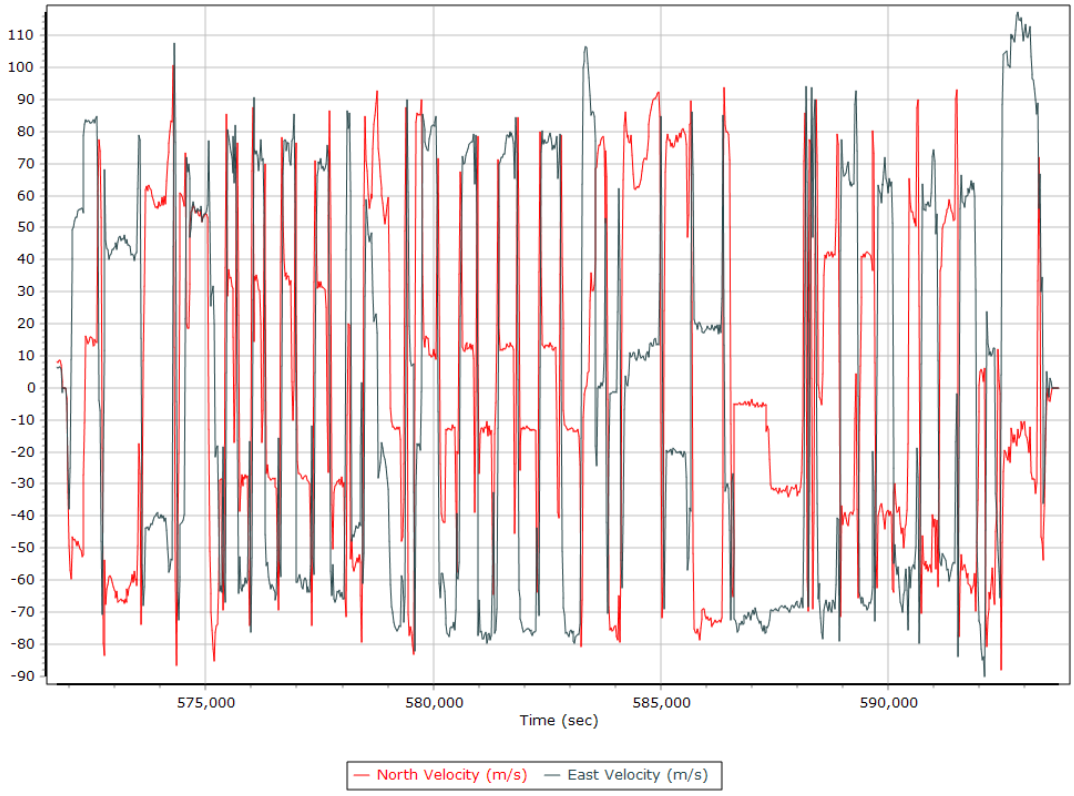
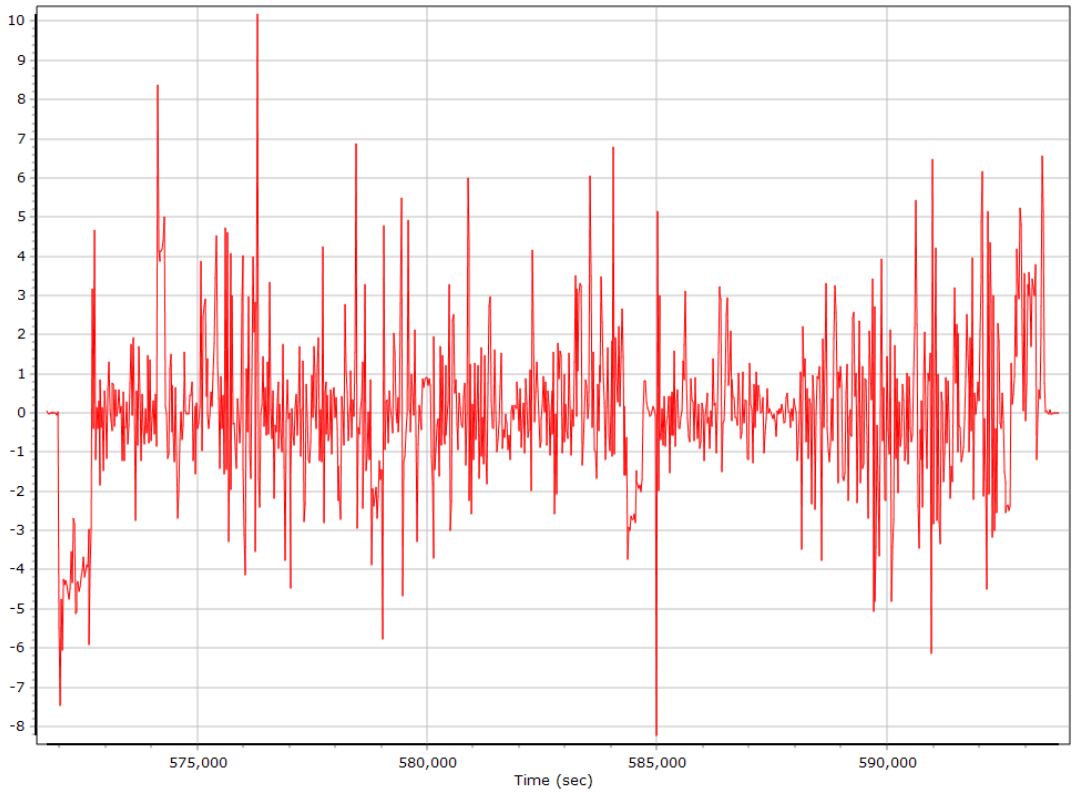


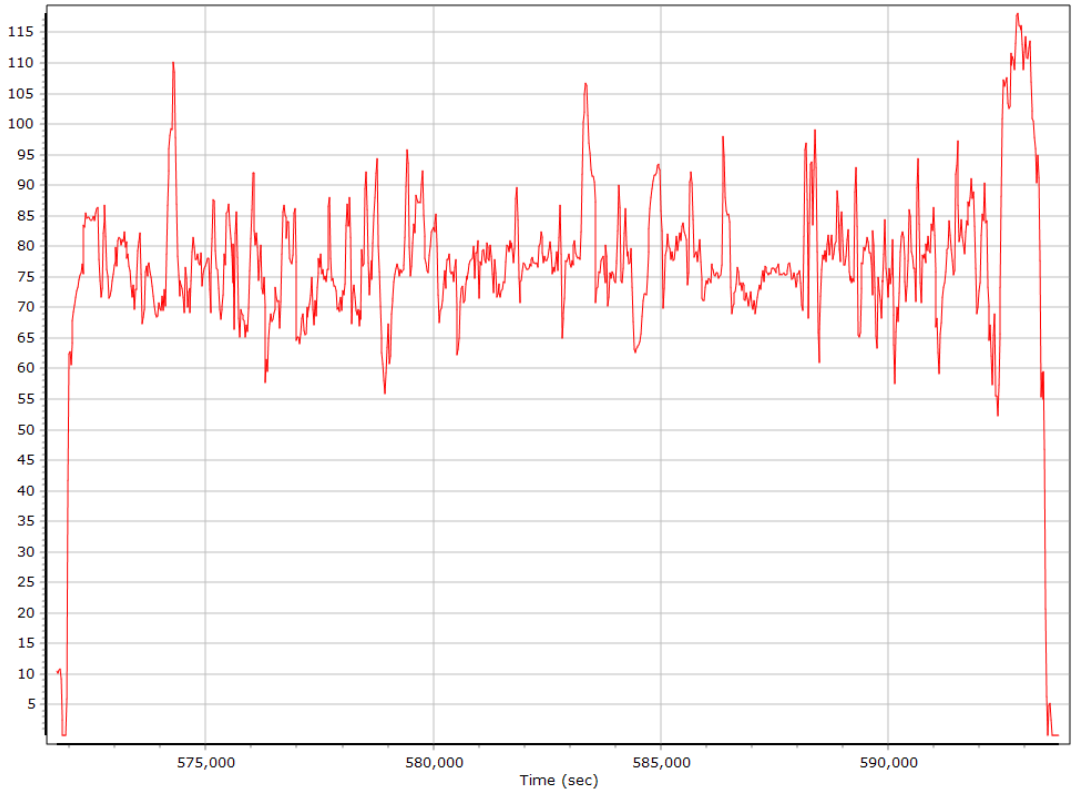
North/East Velocity



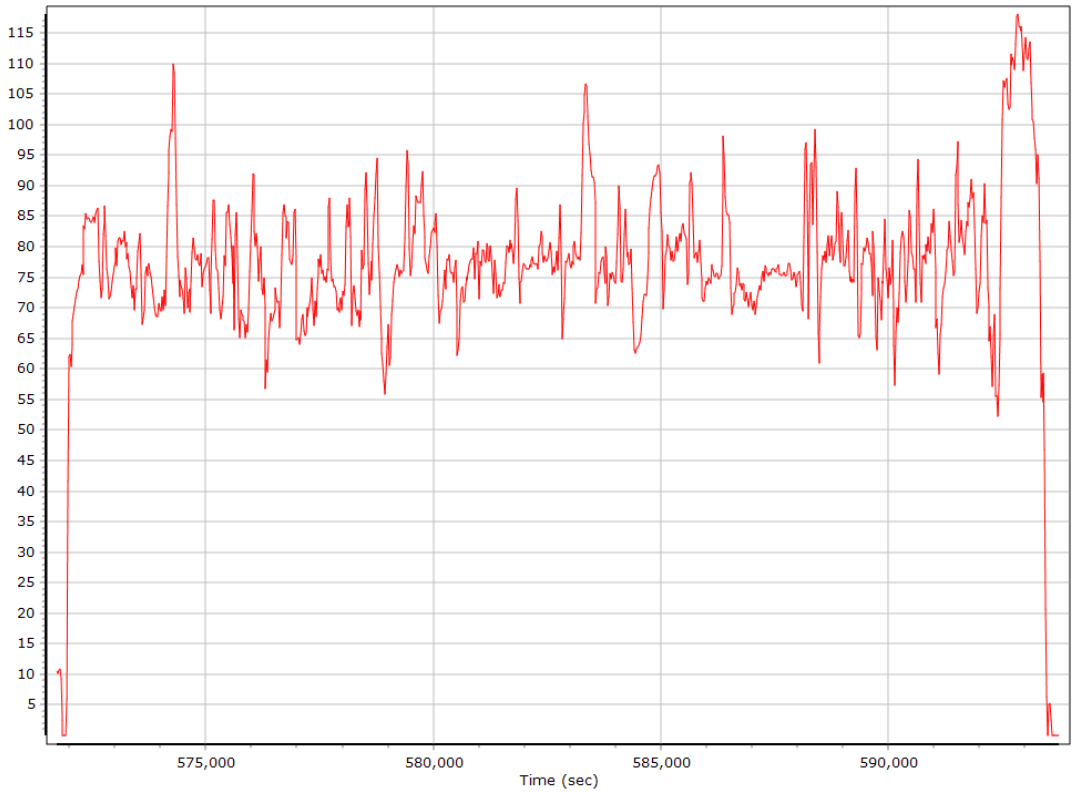
Down Velocity



Total Speed

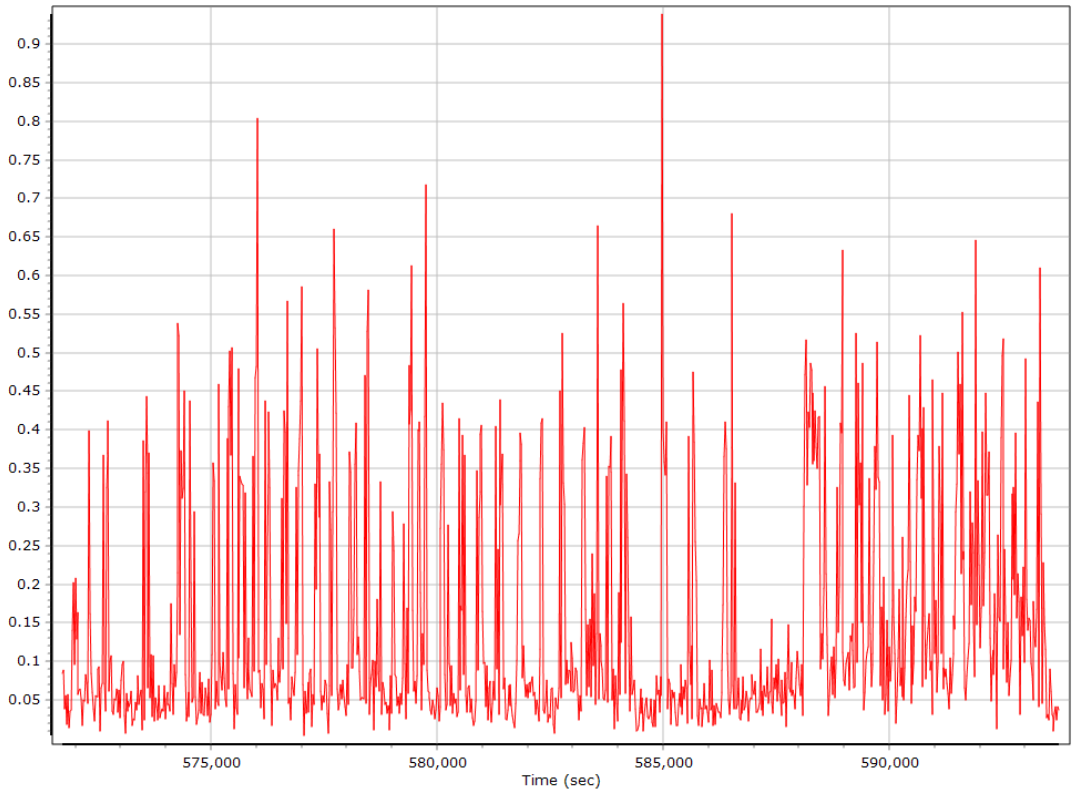


Ground Speed



Body Acceleration

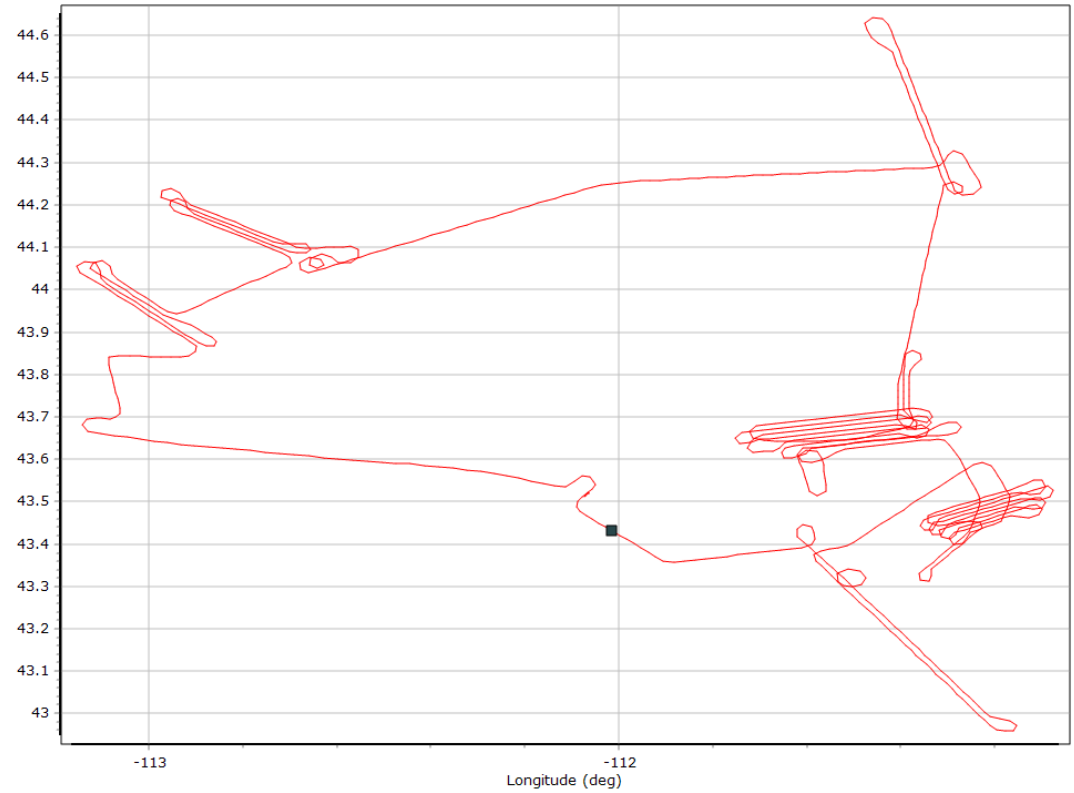
Total Body Acceleration



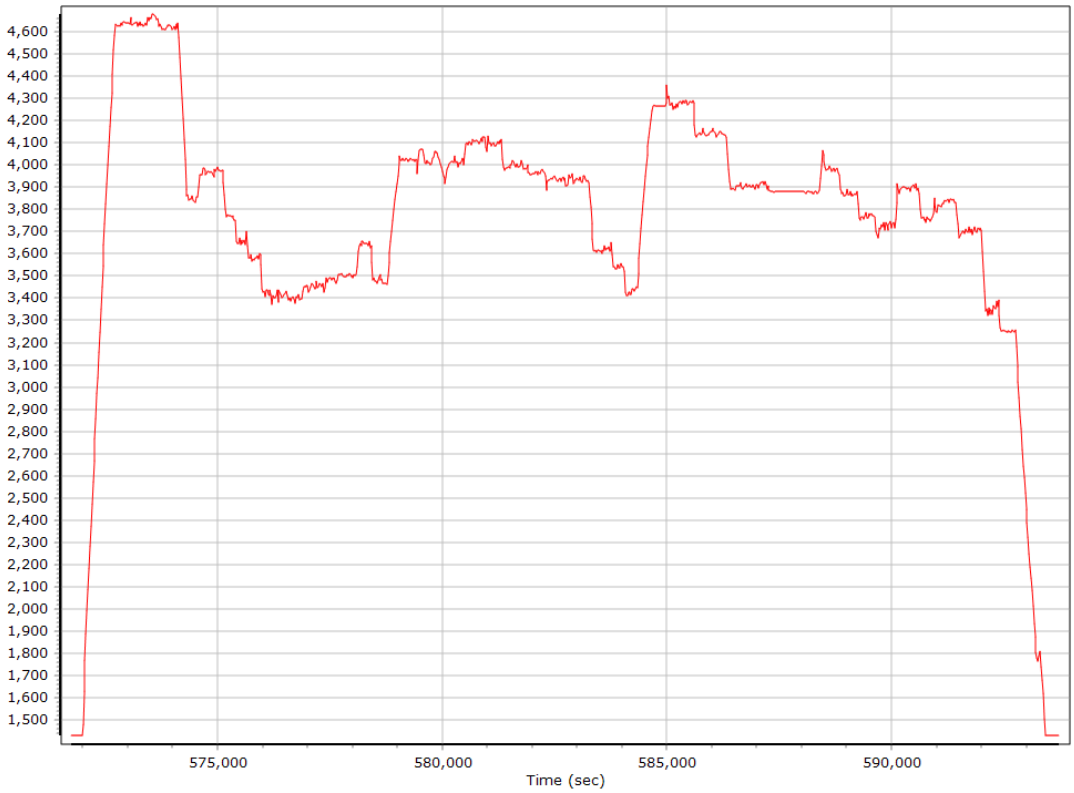
Body Angular Rate

Forward Processed Trajectory Information

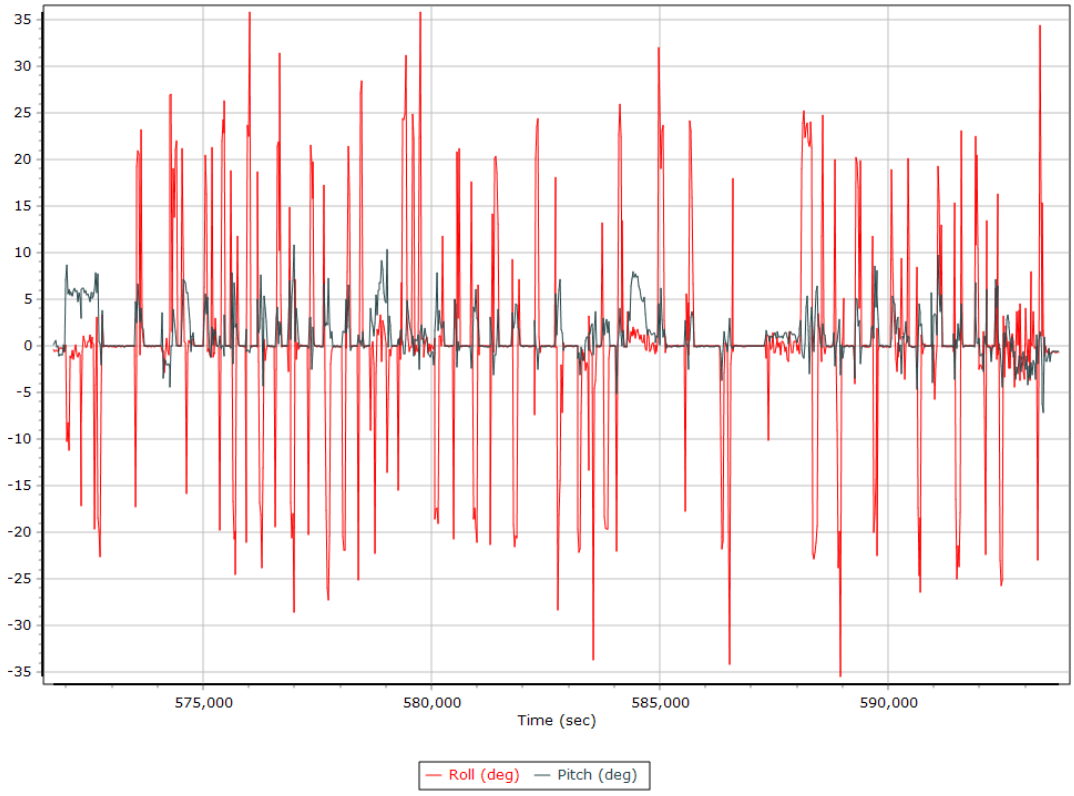
Top View



Altitude



Roll/Pitch



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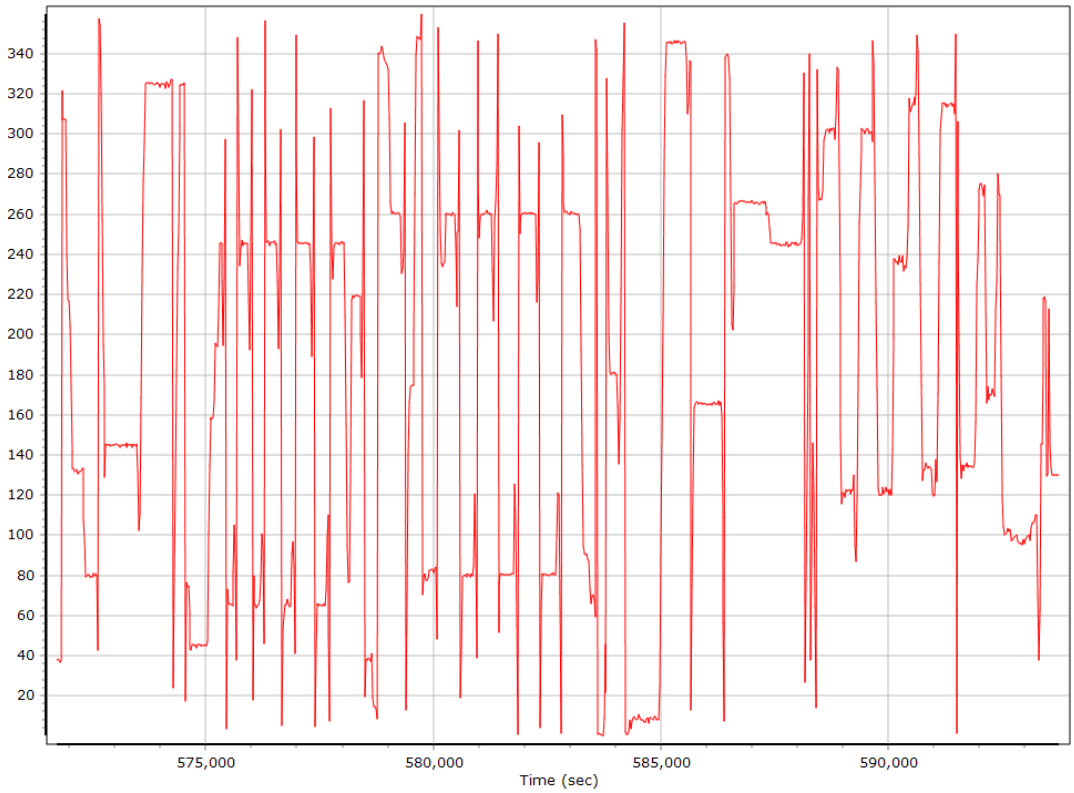
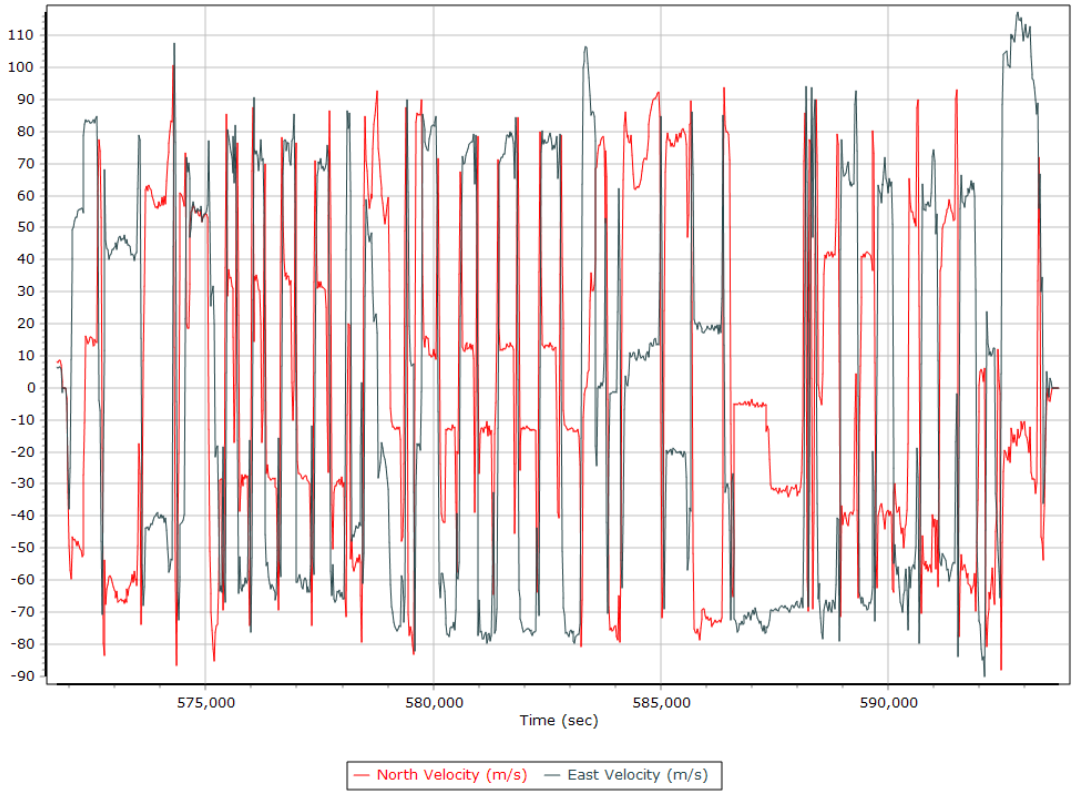
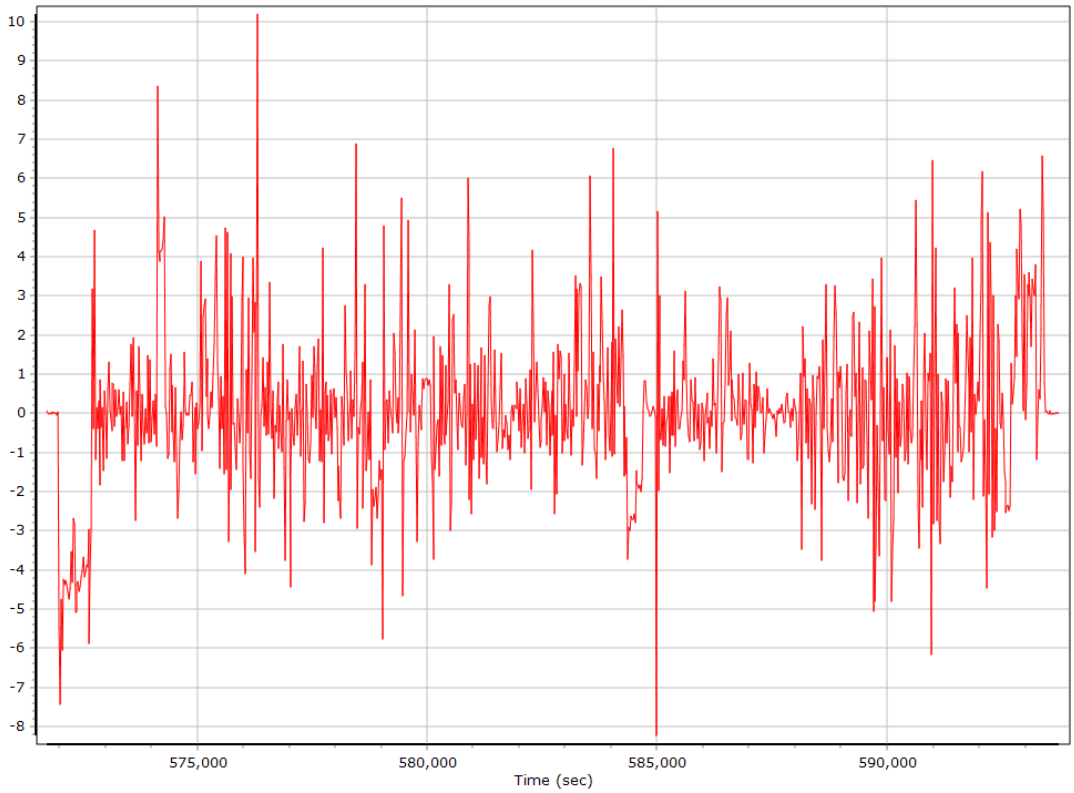


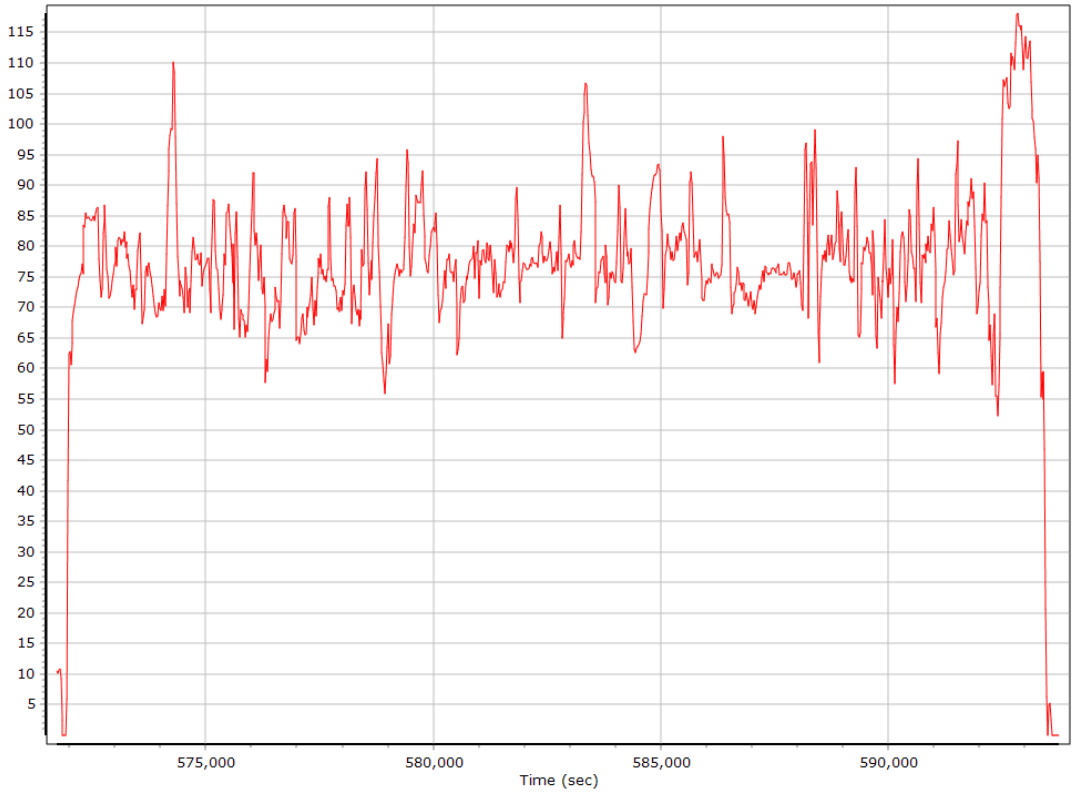
North/East Velocity



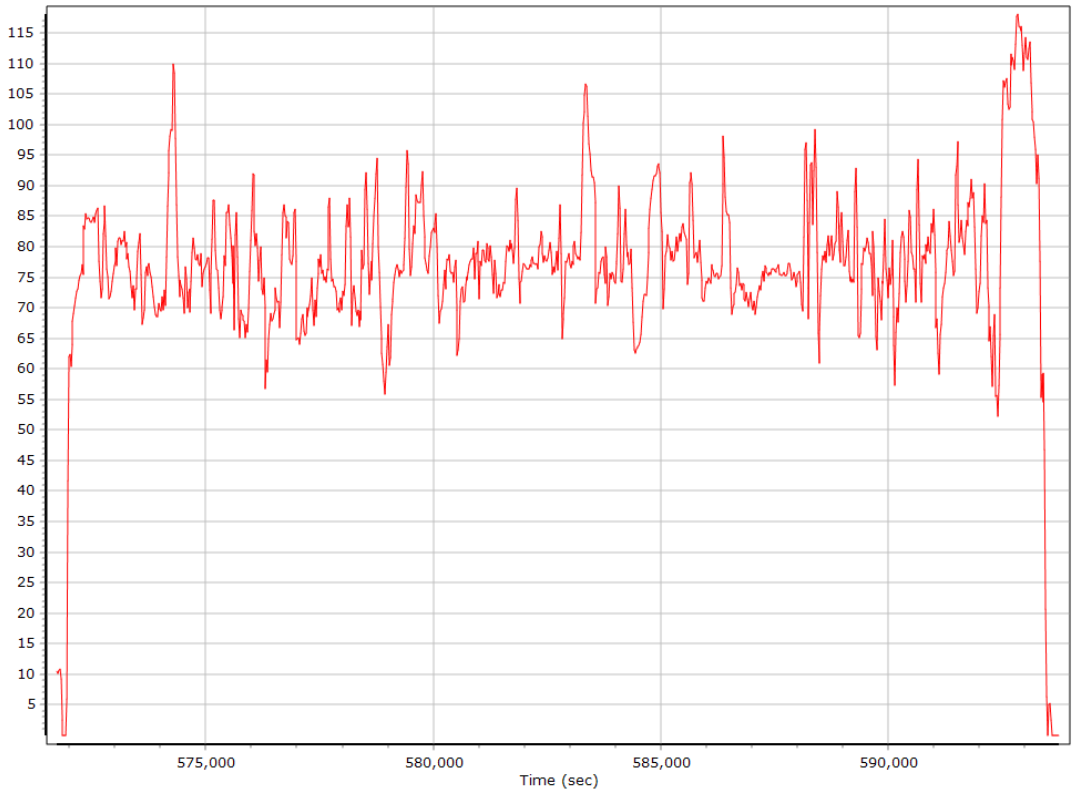
Down Velocity



Total Speed

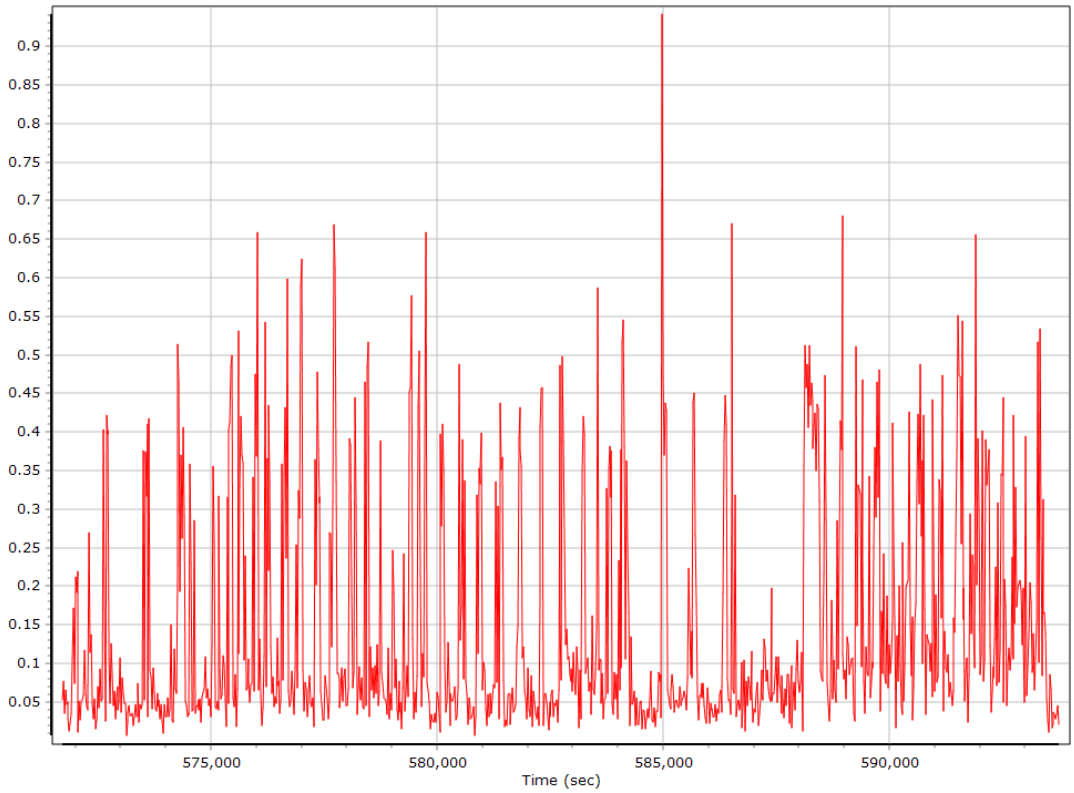


Ground Speed



Body Acceleration

Total Body Acceleration



Body Angular Rate

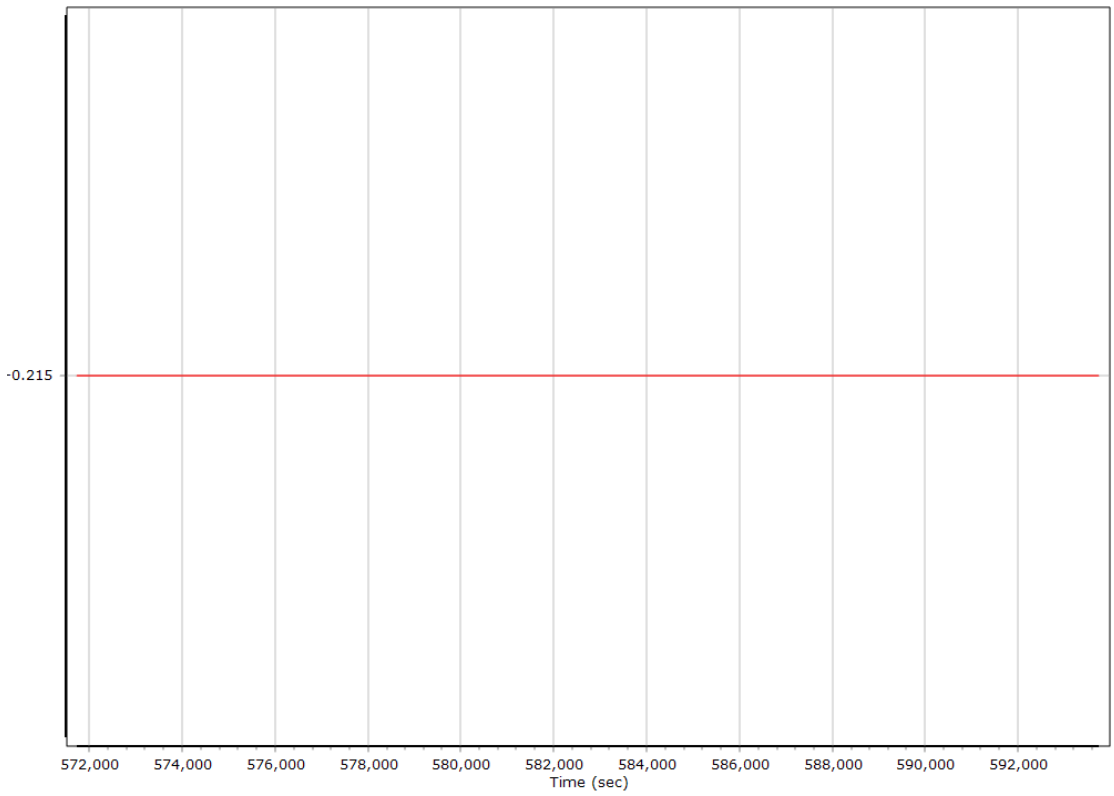
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Trimble RTX Nav		
Stabilized mount	True		
Processing start time	571077.000 (06/27/2020 14:37:39)		
Processing end time	593760.000 (06/27/2020 20:55:42)		
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

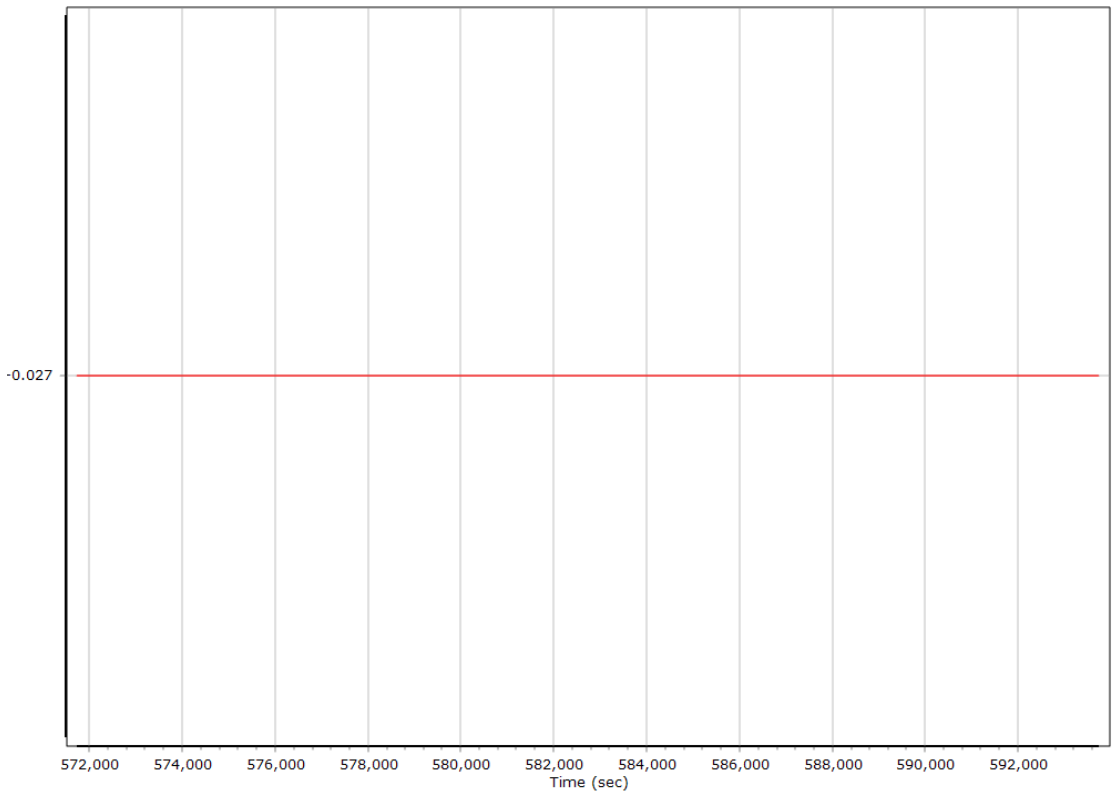
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

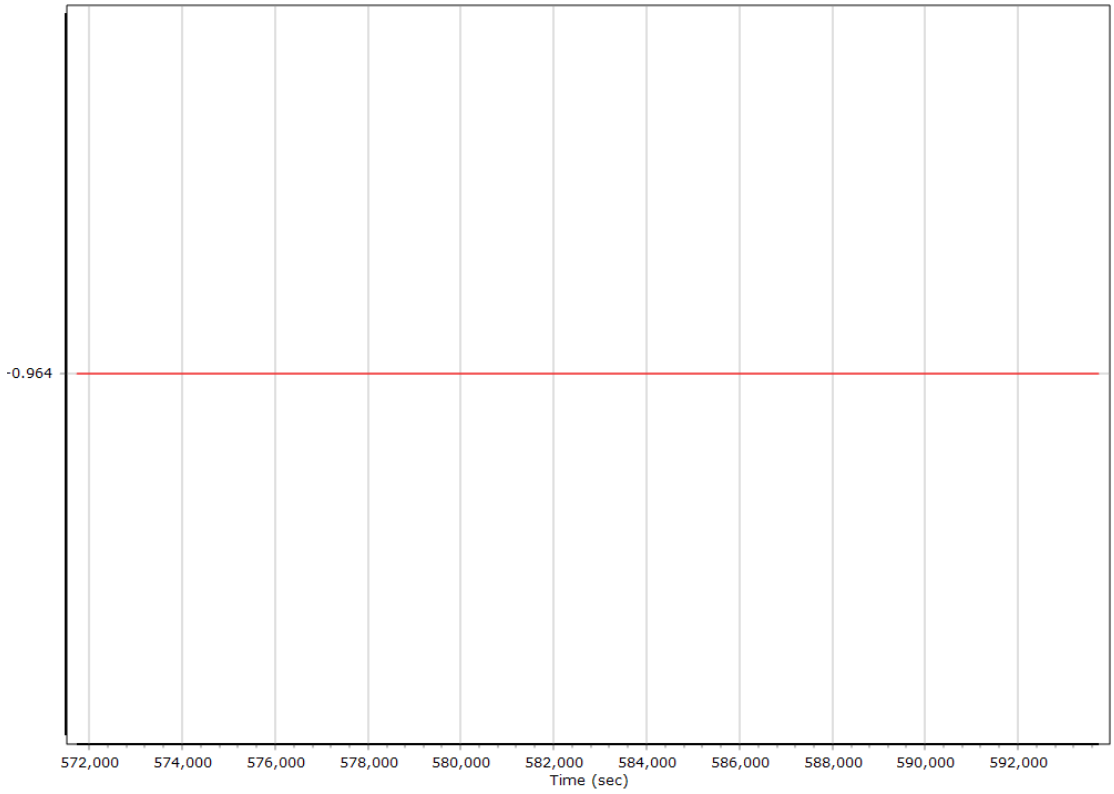
X Reference-Primary GNSS Lever Arm (m)



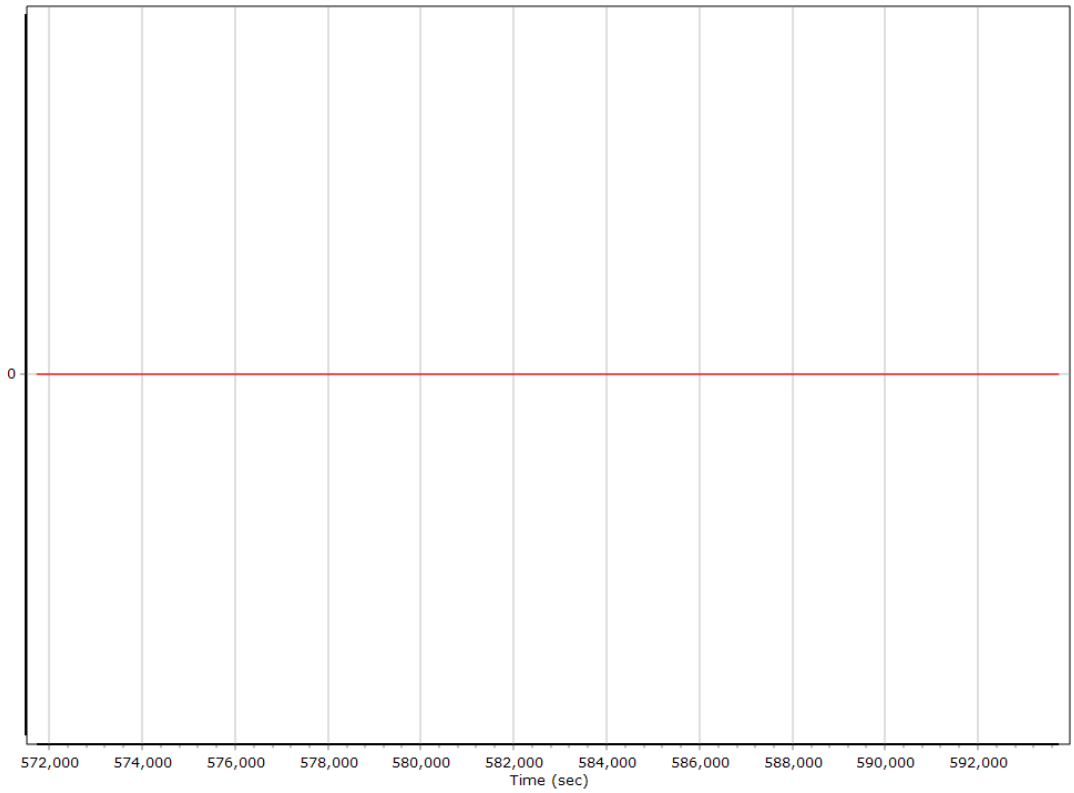
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



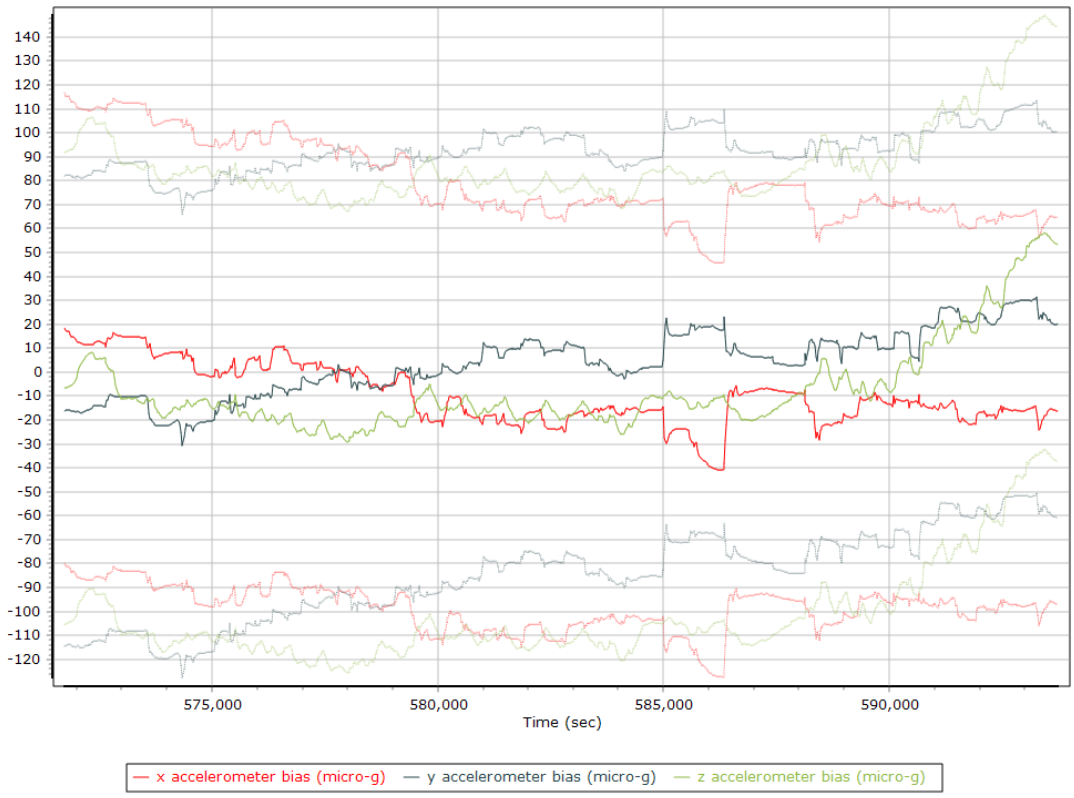
Reference-Primary GNSS Lever Arm Figure of Merit



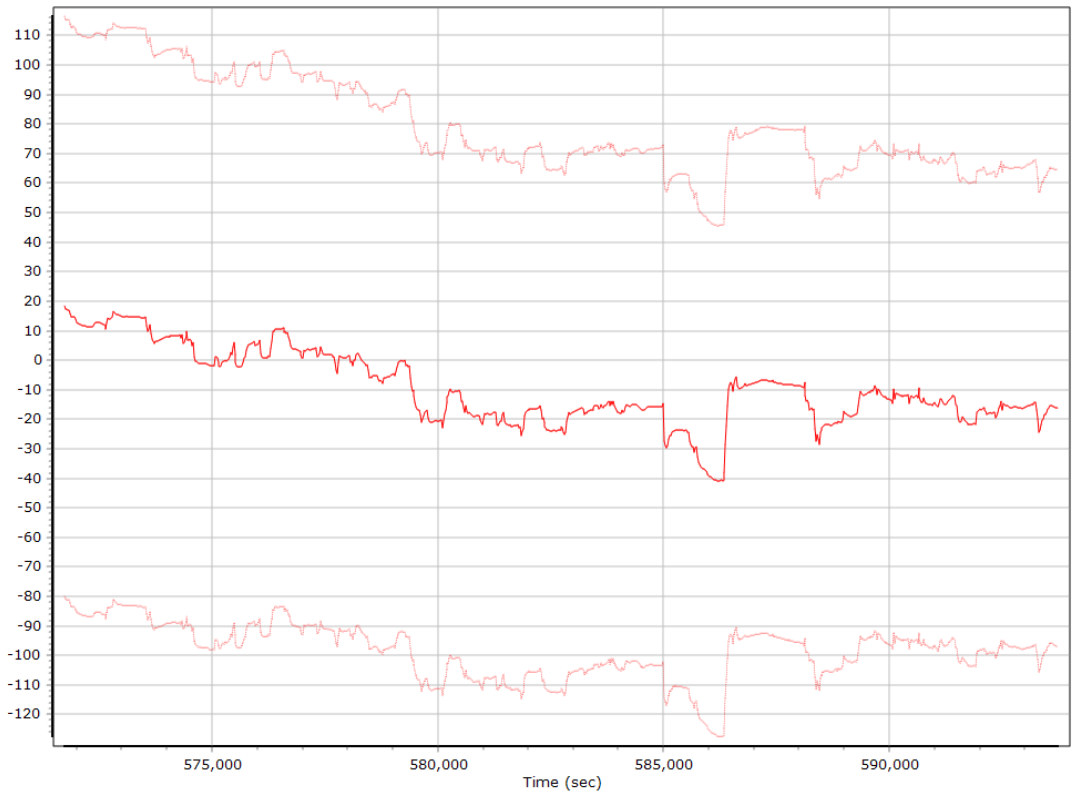
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

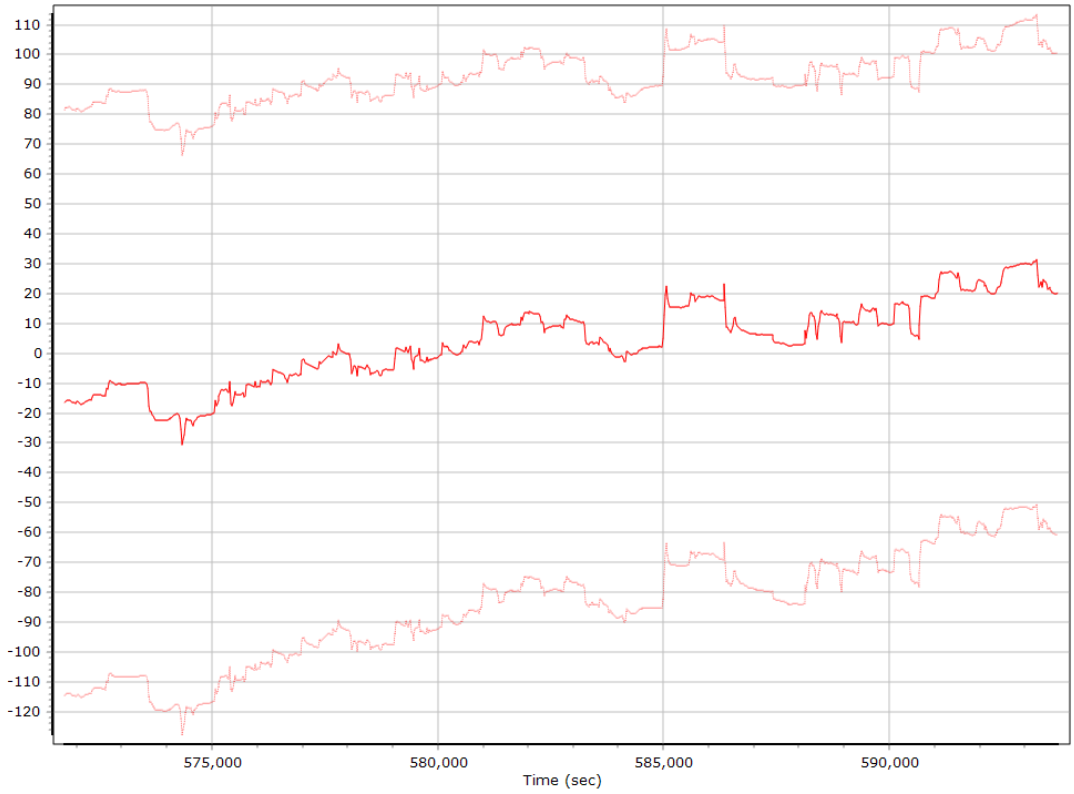
Accelerometer Bias (micro-g)



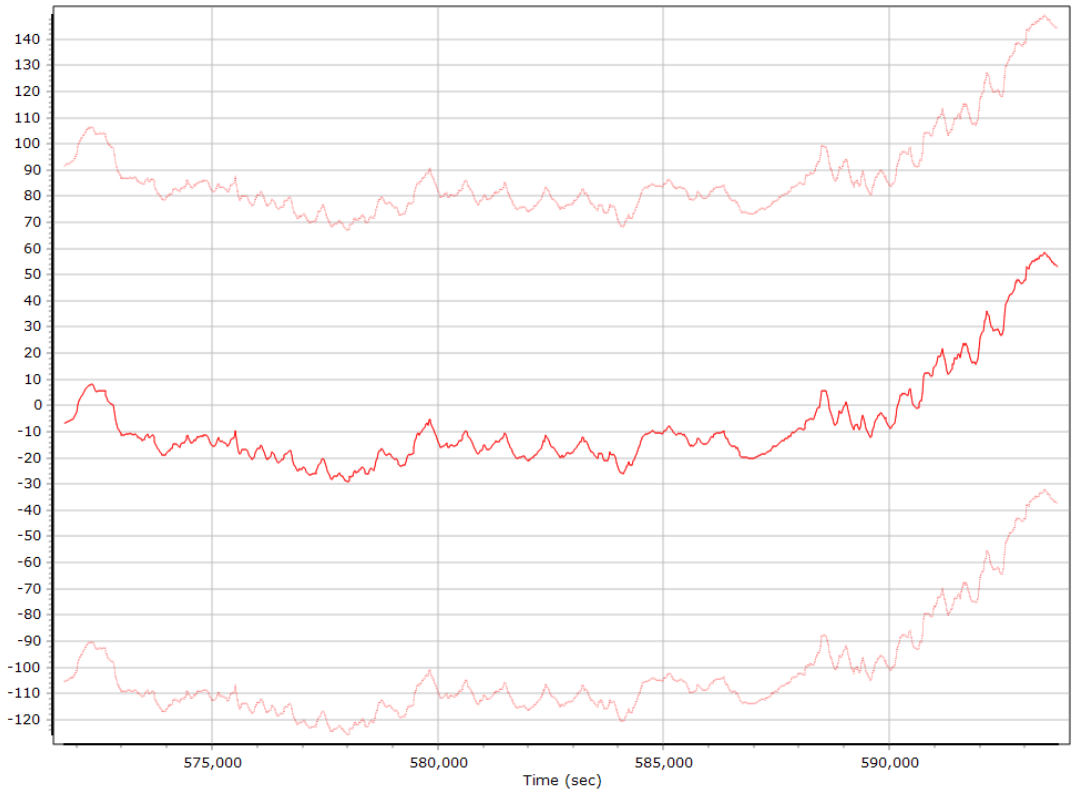
X Accelerometer Bias (micro-g)



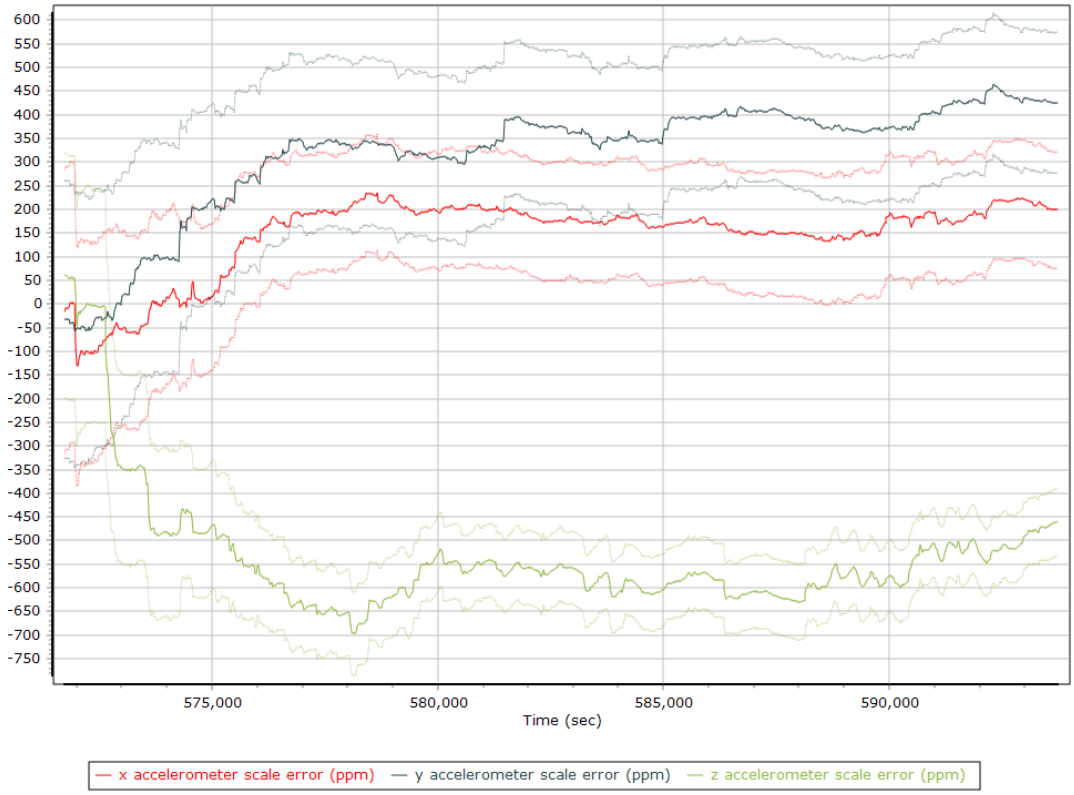
Y Accelerometer Bias (micro-g)



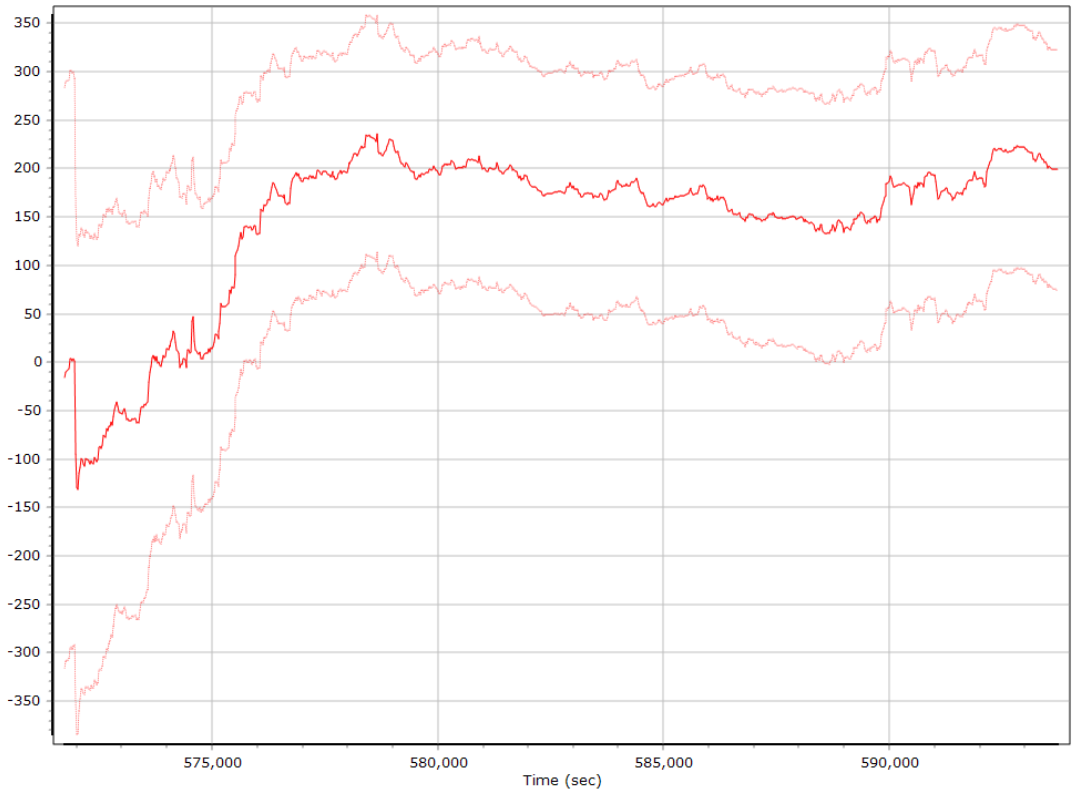
Z Accelerometer Bias (micro-g)



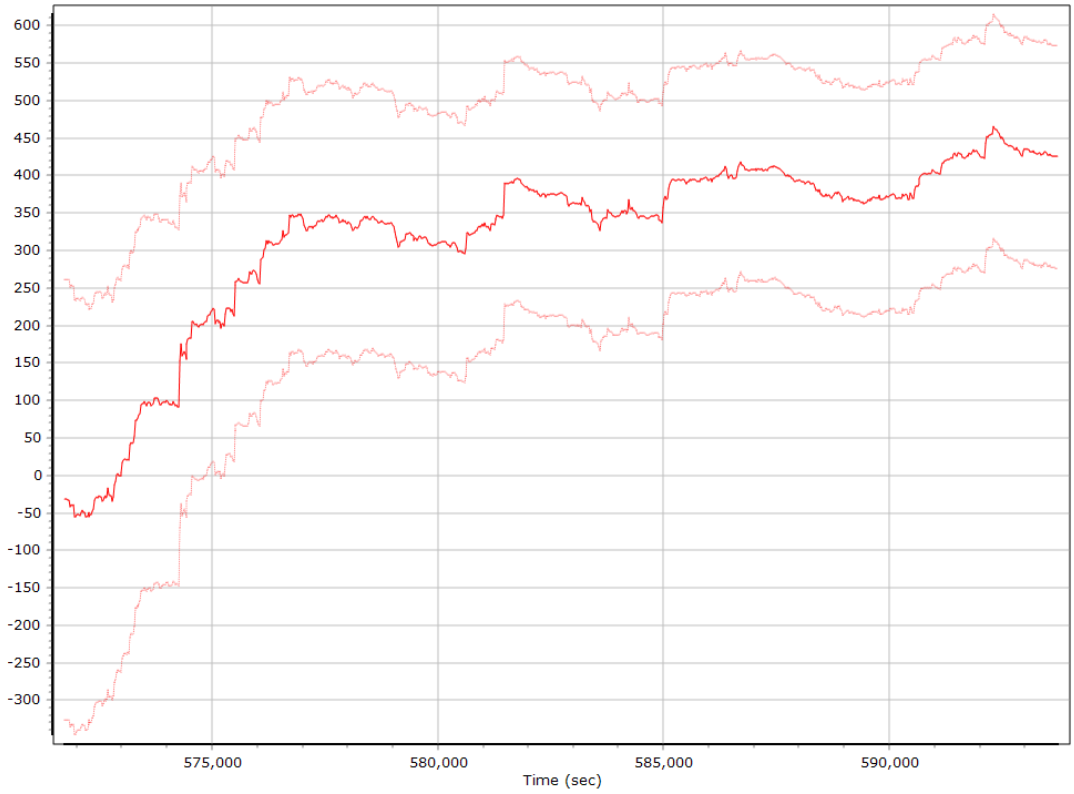
Accelerometer Scale Error (ppm)



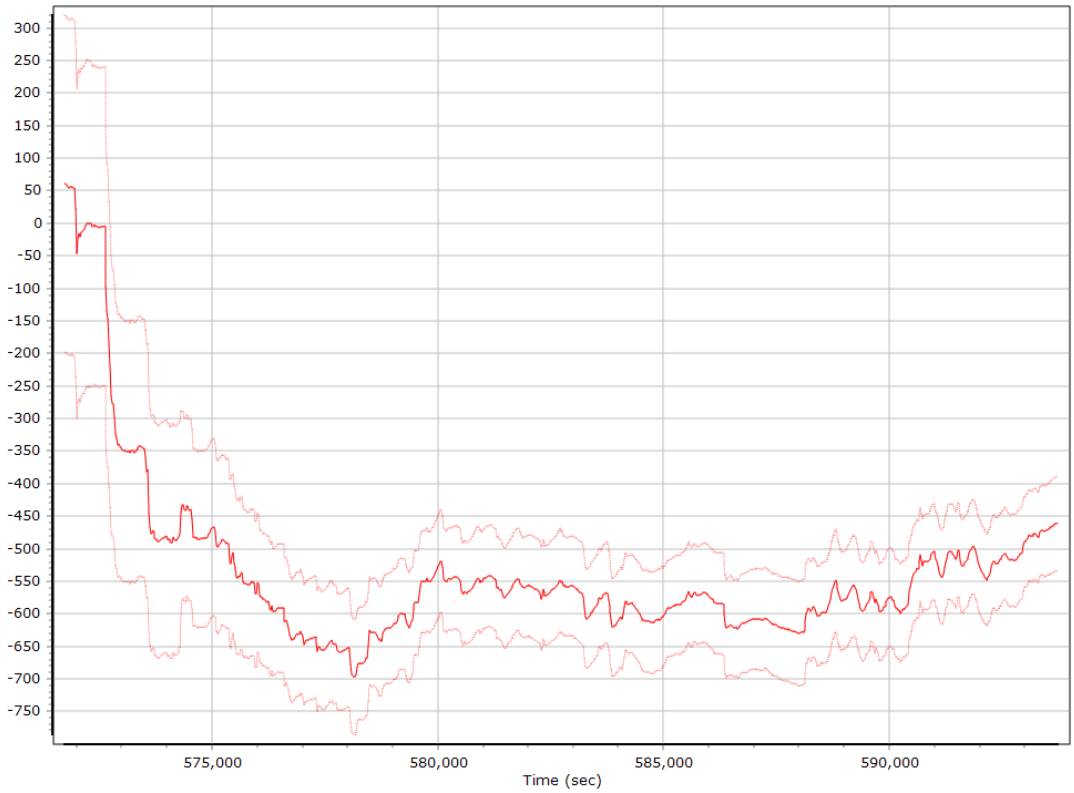
X Accelerometer Scale Error (ppm)



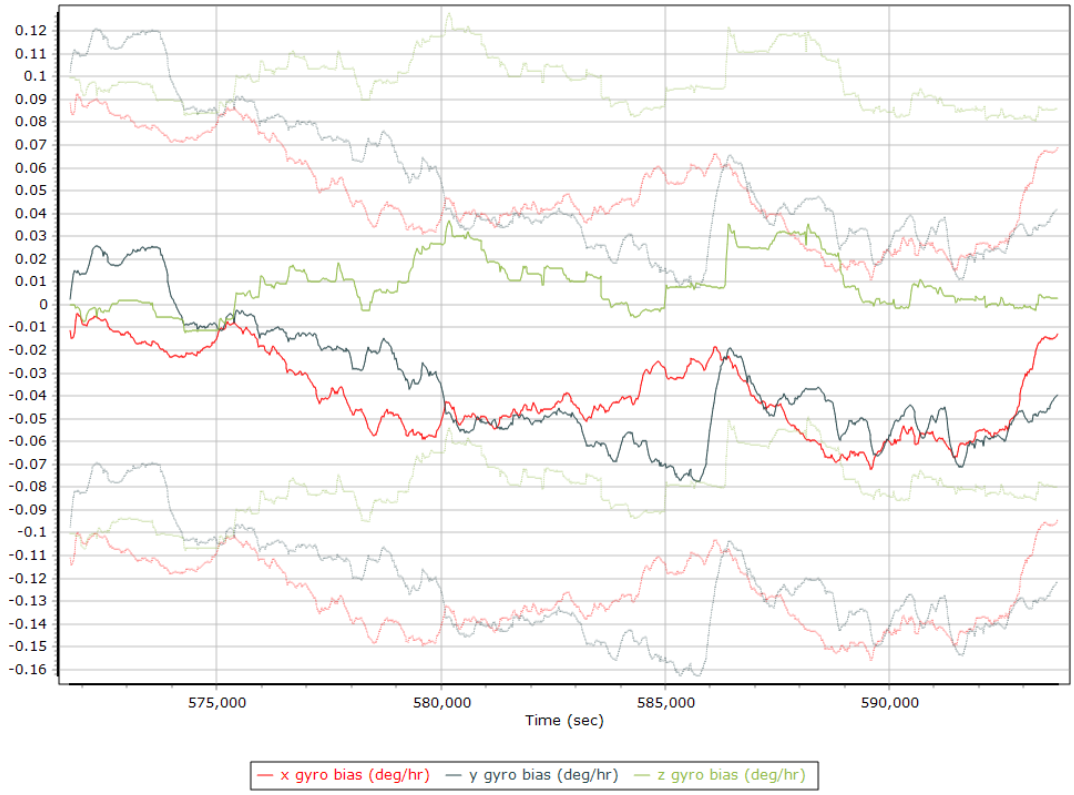
Y Accelerometer Scale Error (ppm)



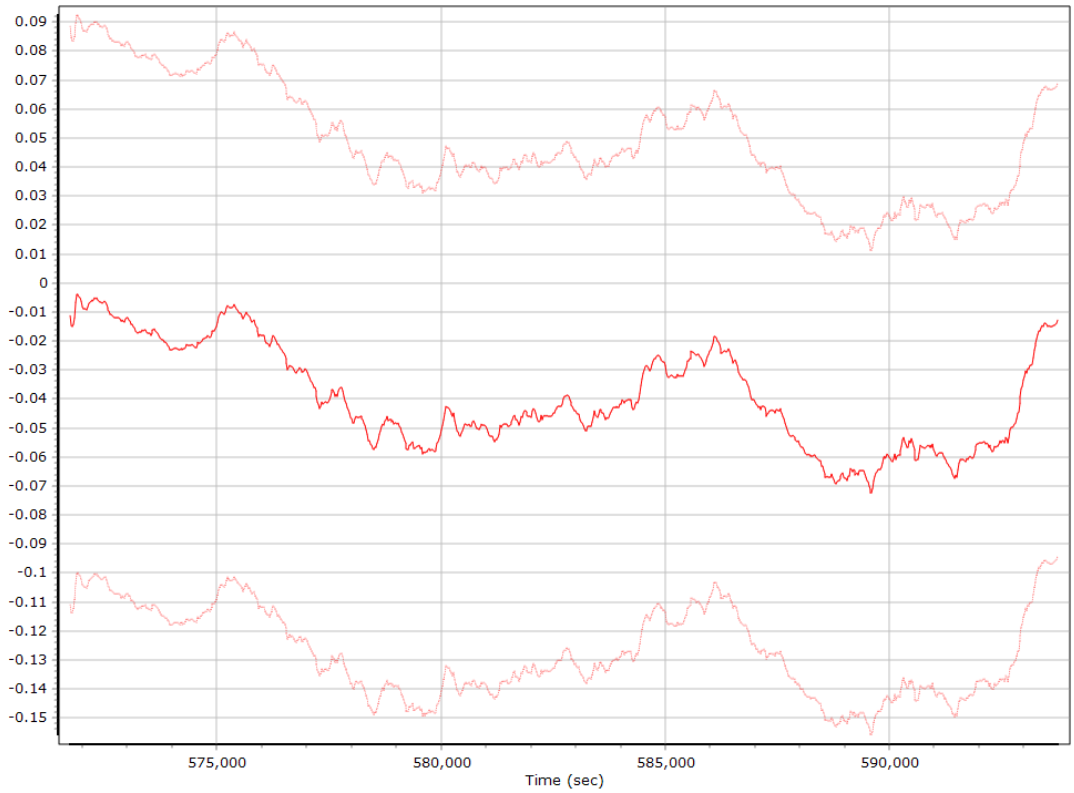
Z Accelerometer Scale Error (ppm)



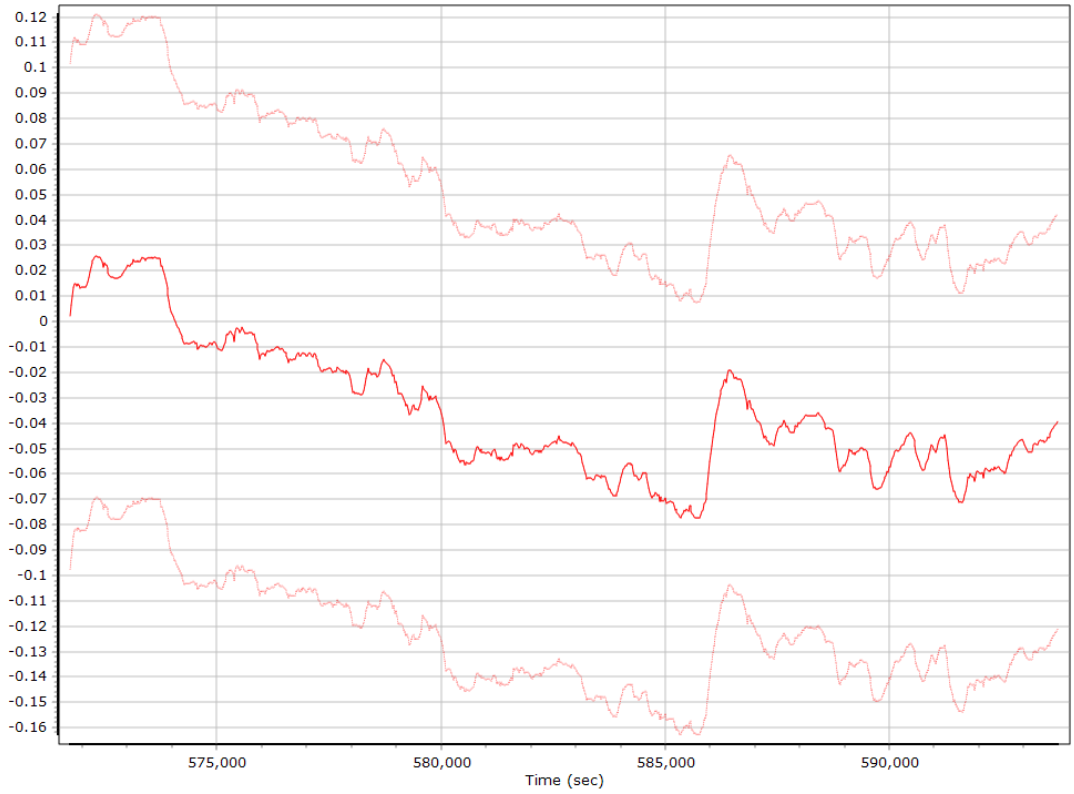
Gyro Bias (deg/h)



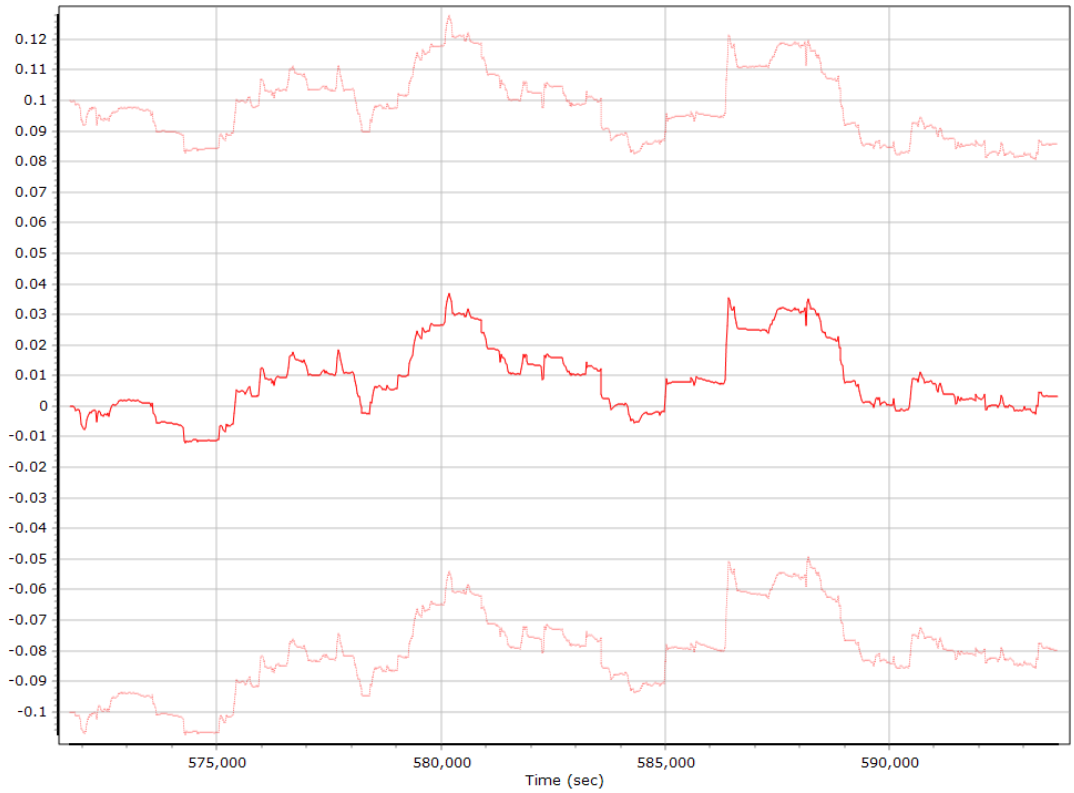
X Gyro Bias (deg/h)



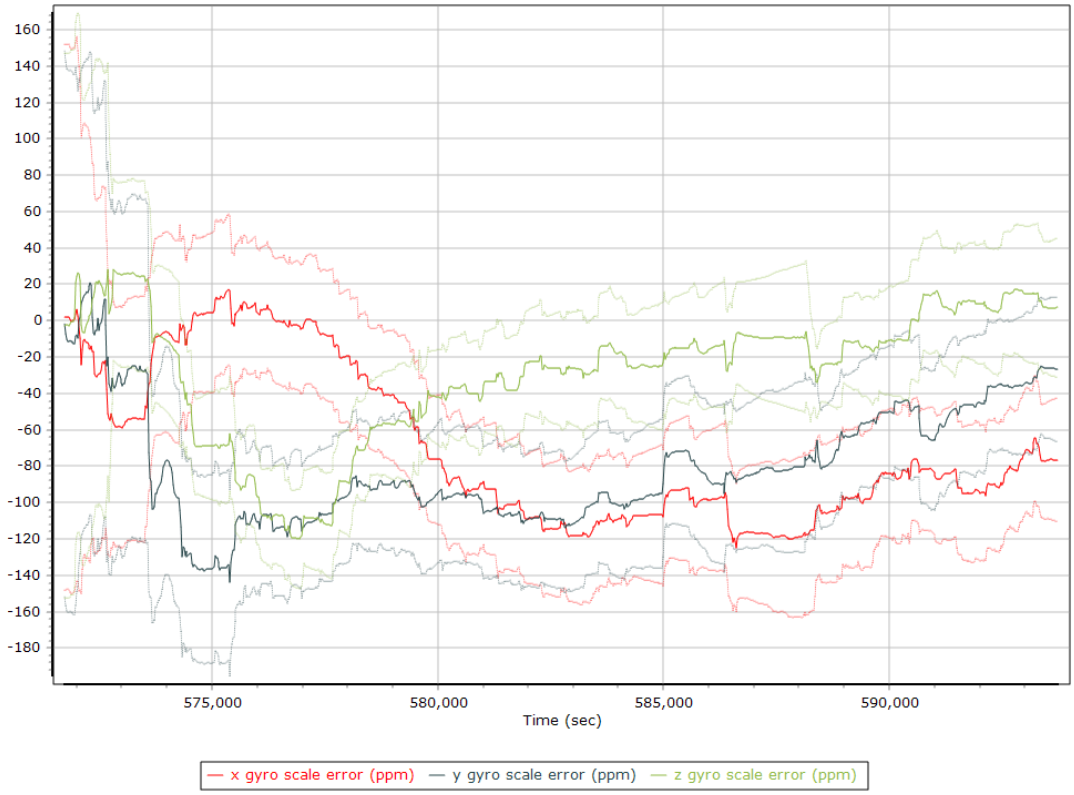
Y Gyro Bias (deg/h)



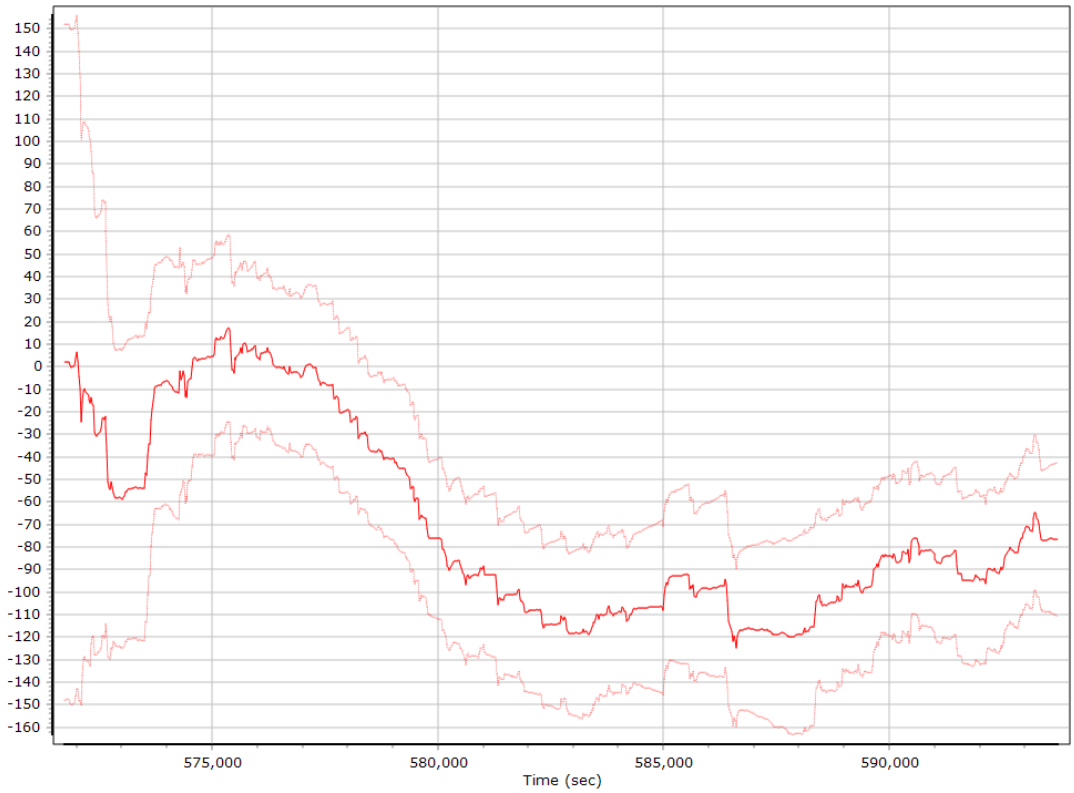
Z Gyro Bias (deg/h)



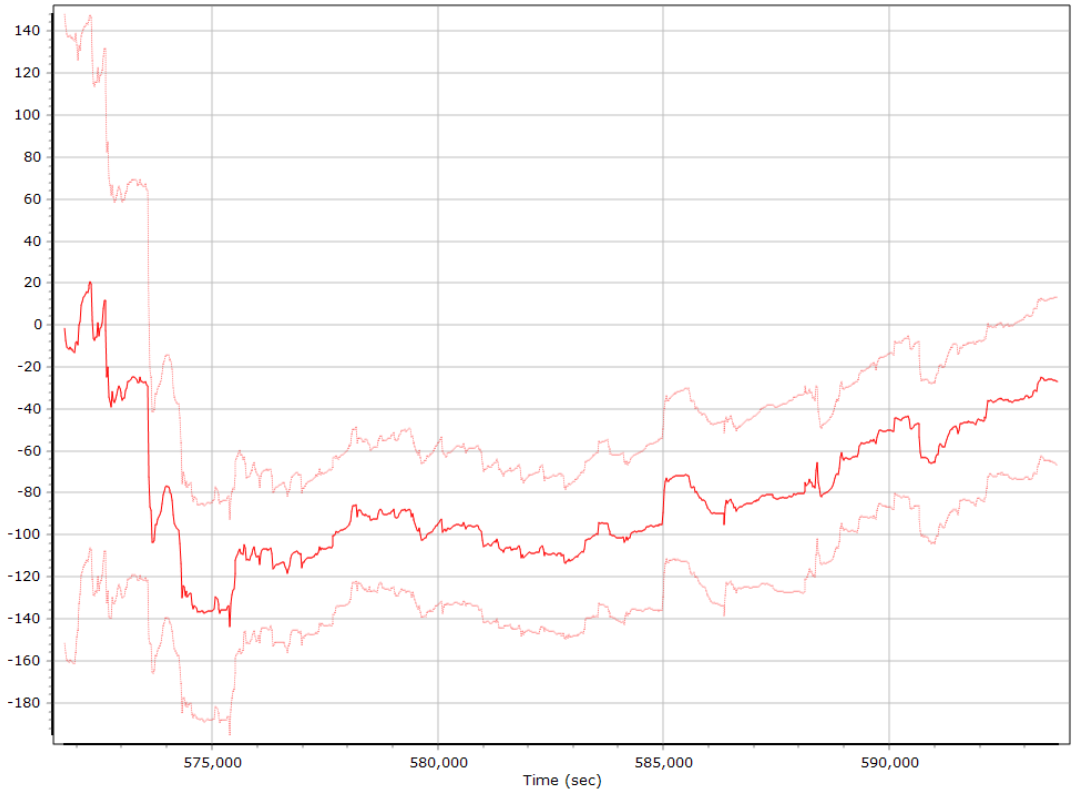
Gyro Scale Error (ppm)



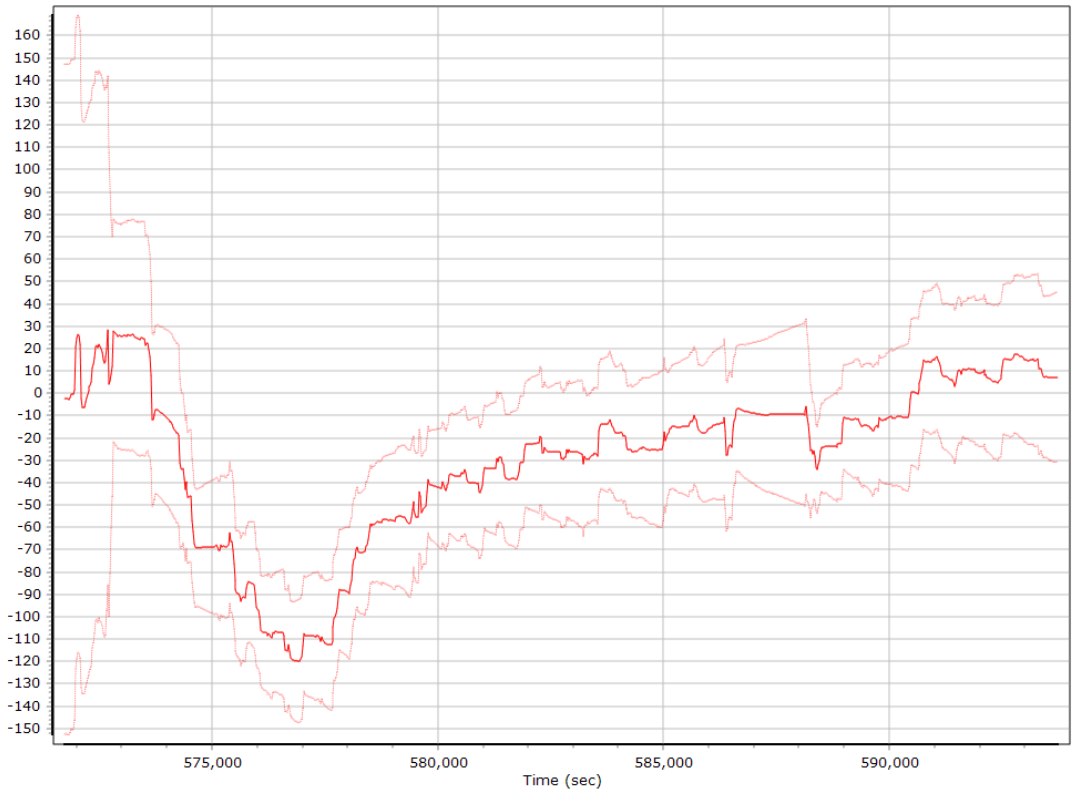
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

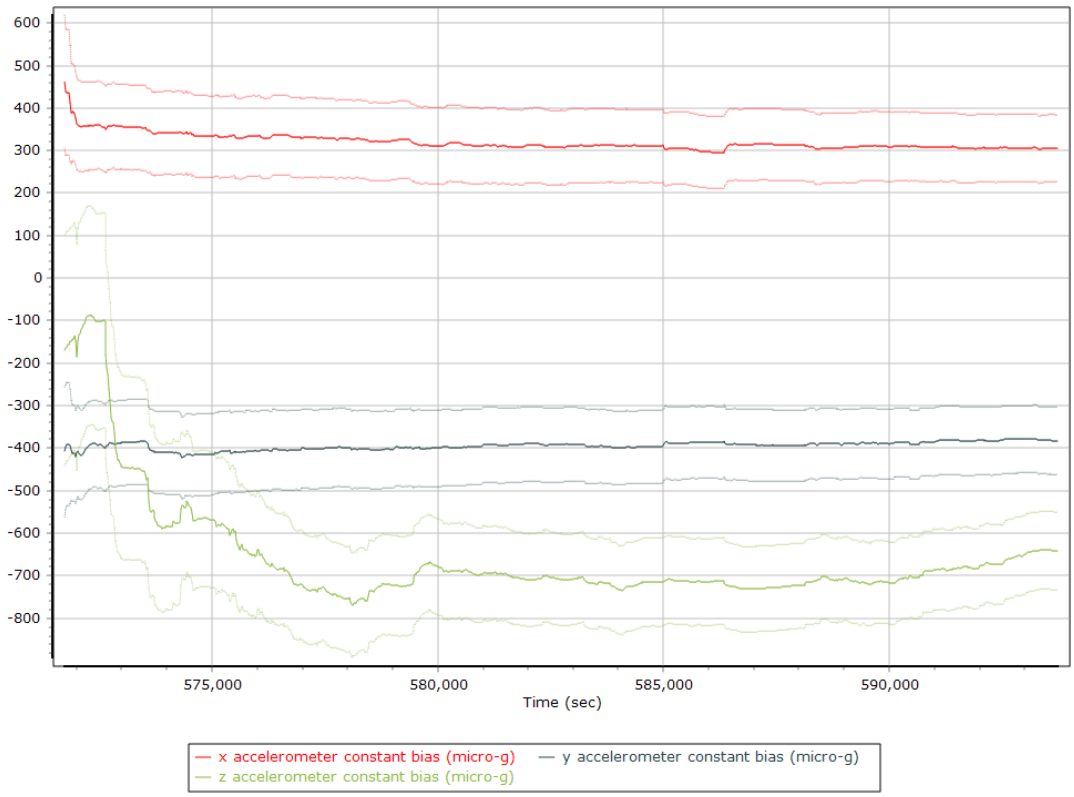


Z Gyro Scale Error (ppm)

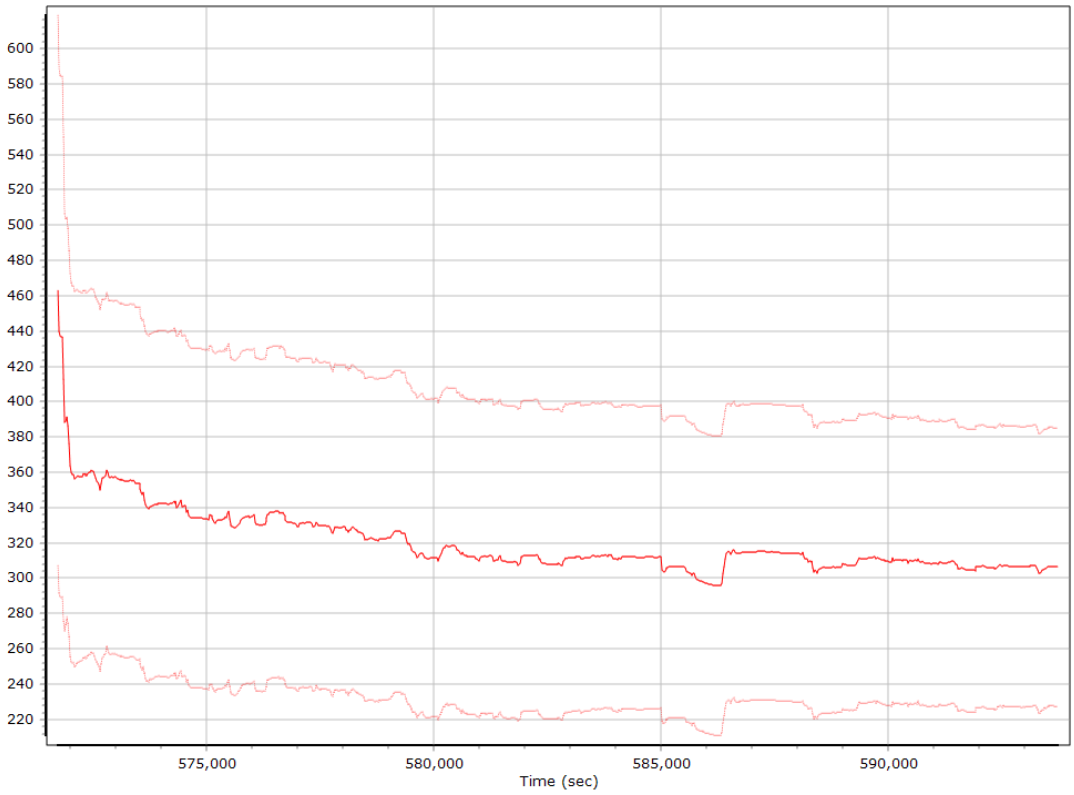


Forward Processed Estimated Constant Errors, Reference Frame

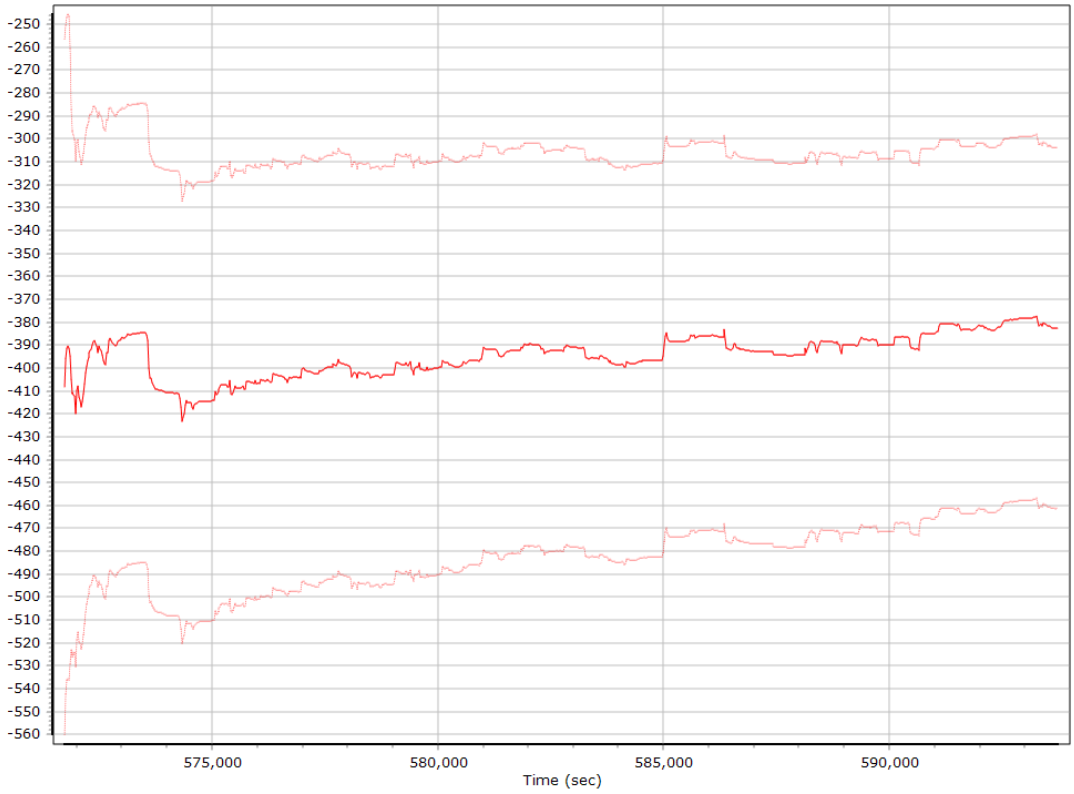
Accelerometer Bias (micro-g)



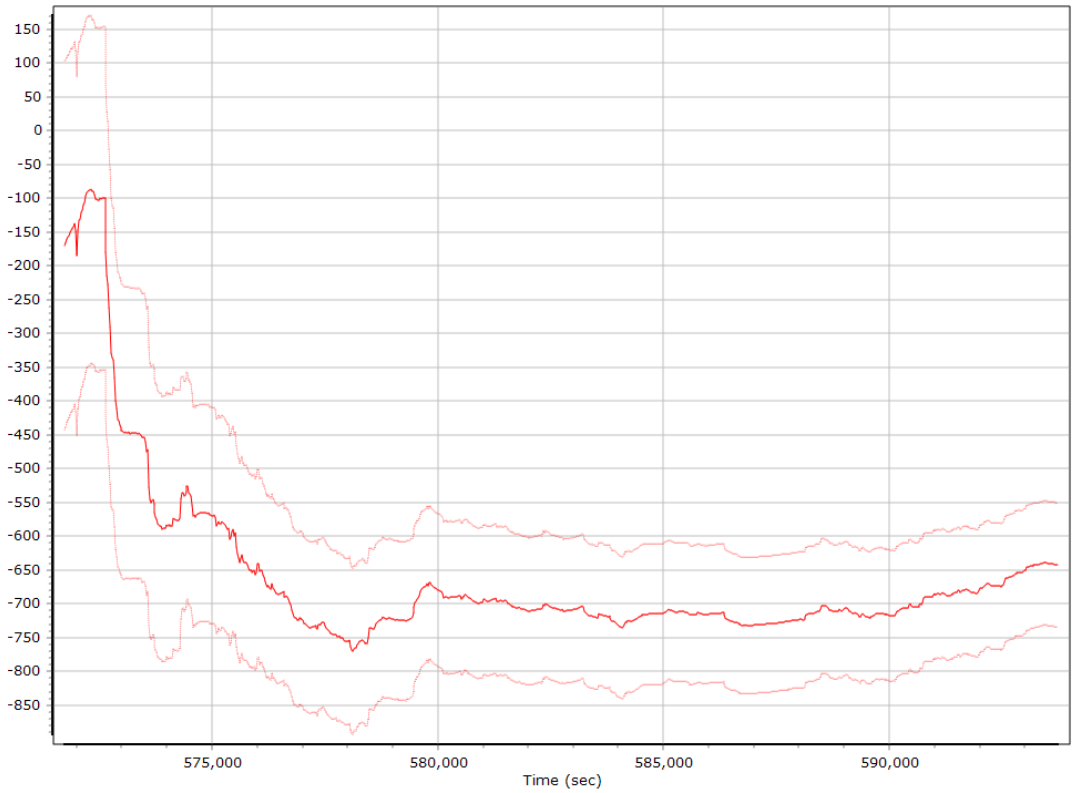
X Accelerometer Bias (micro-g)



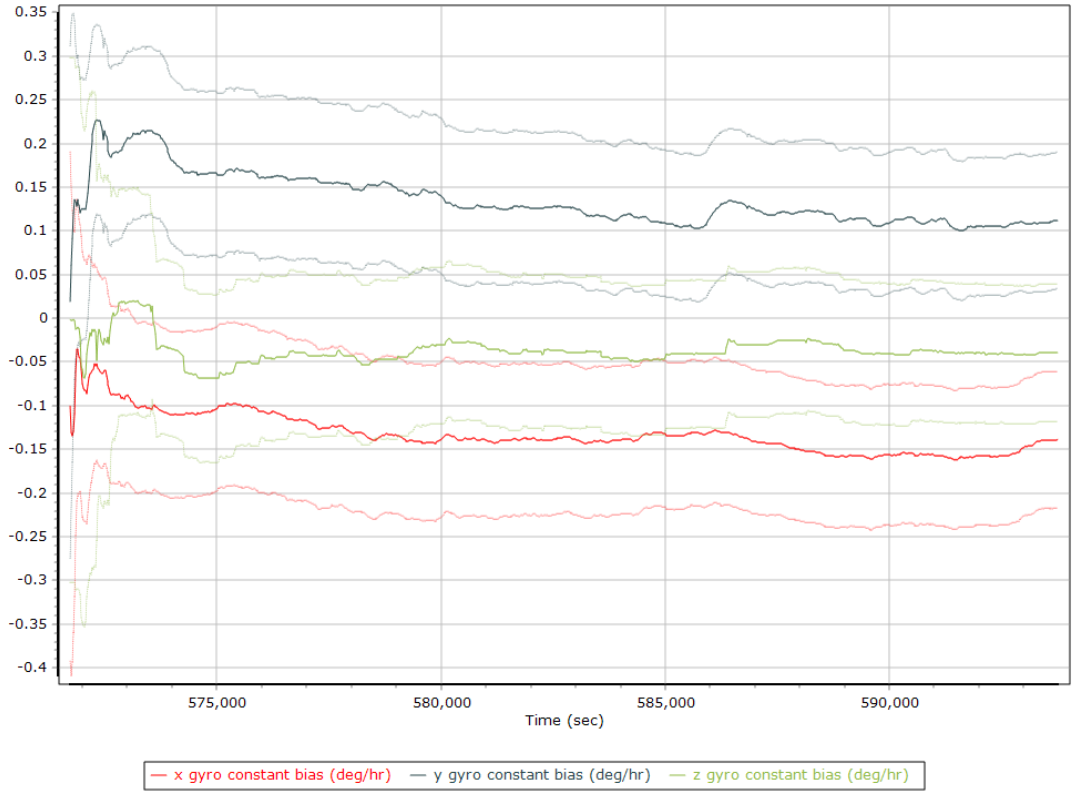
Y Accelerometer Bias (micro-g)



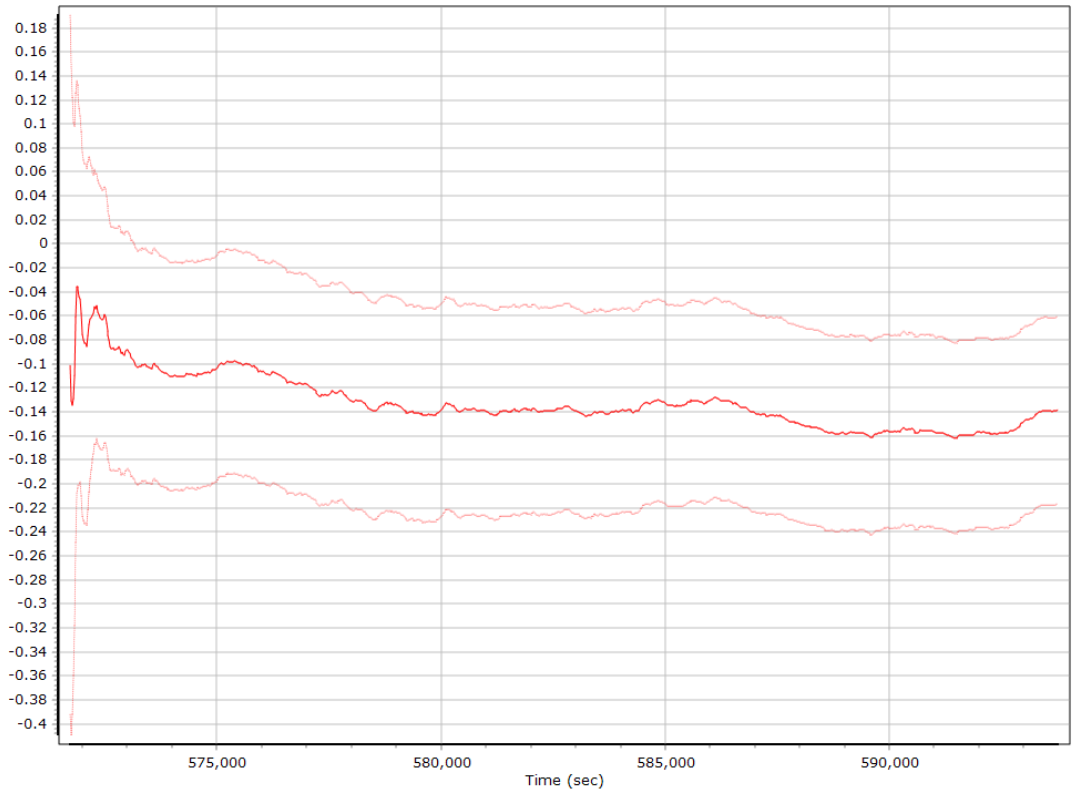
Z Accelerometer Bias (micro-g)



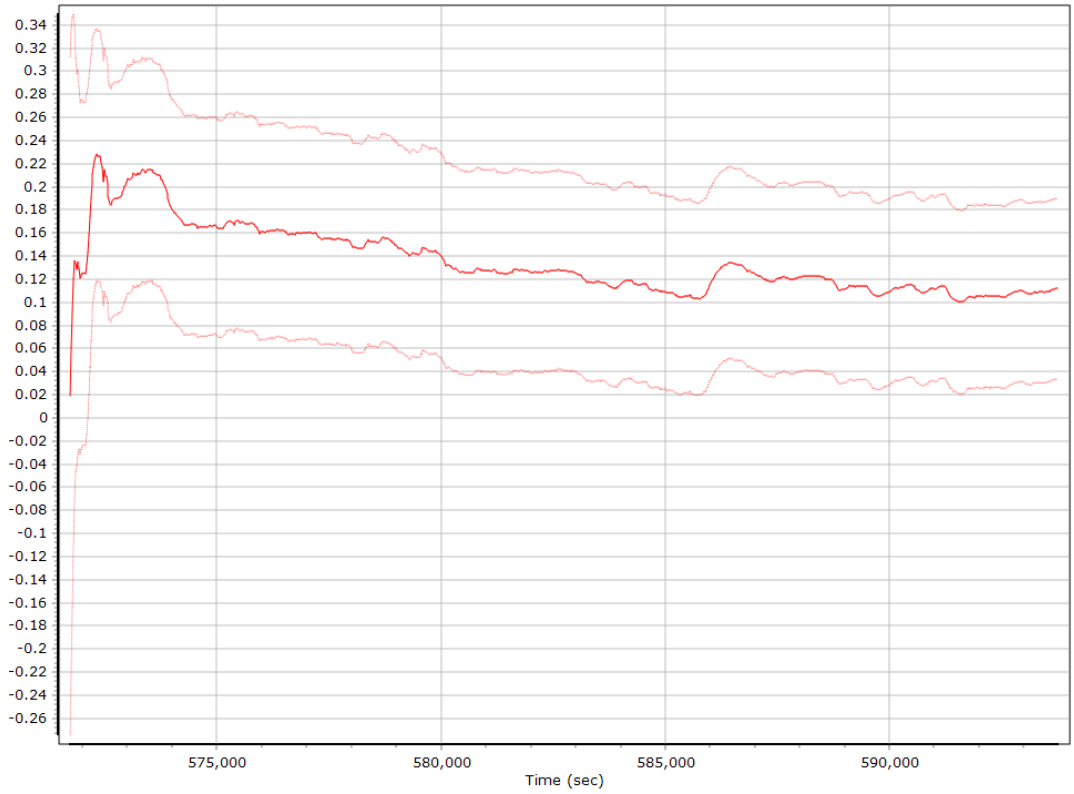
Gyro Bias (deg/h)



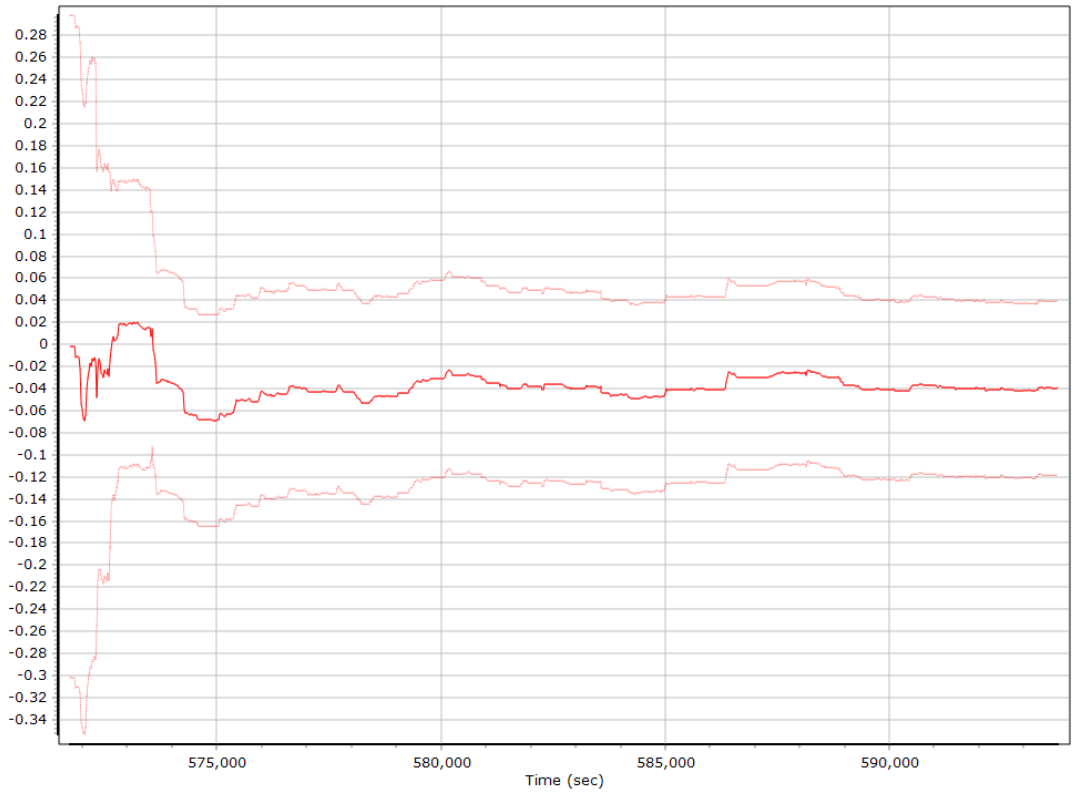
X Gyro Bias (deg/h)



Y Gyro Bias (deg/h)

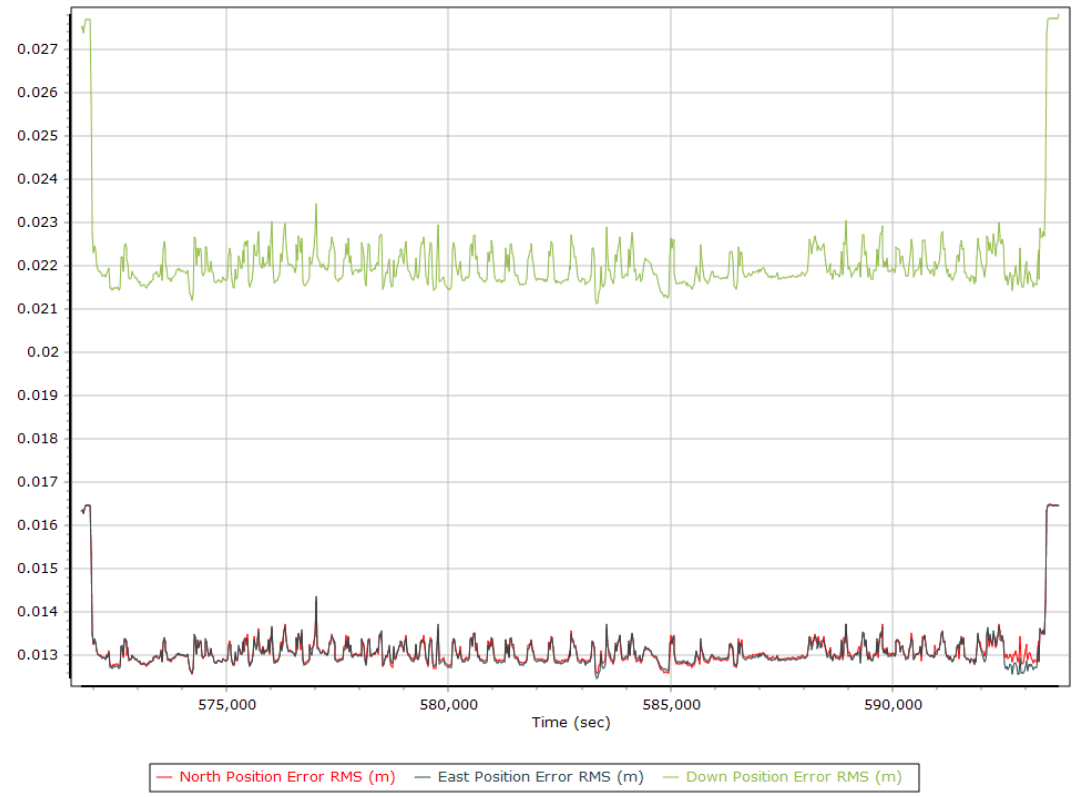


Z Gyro Bias (deg/h)

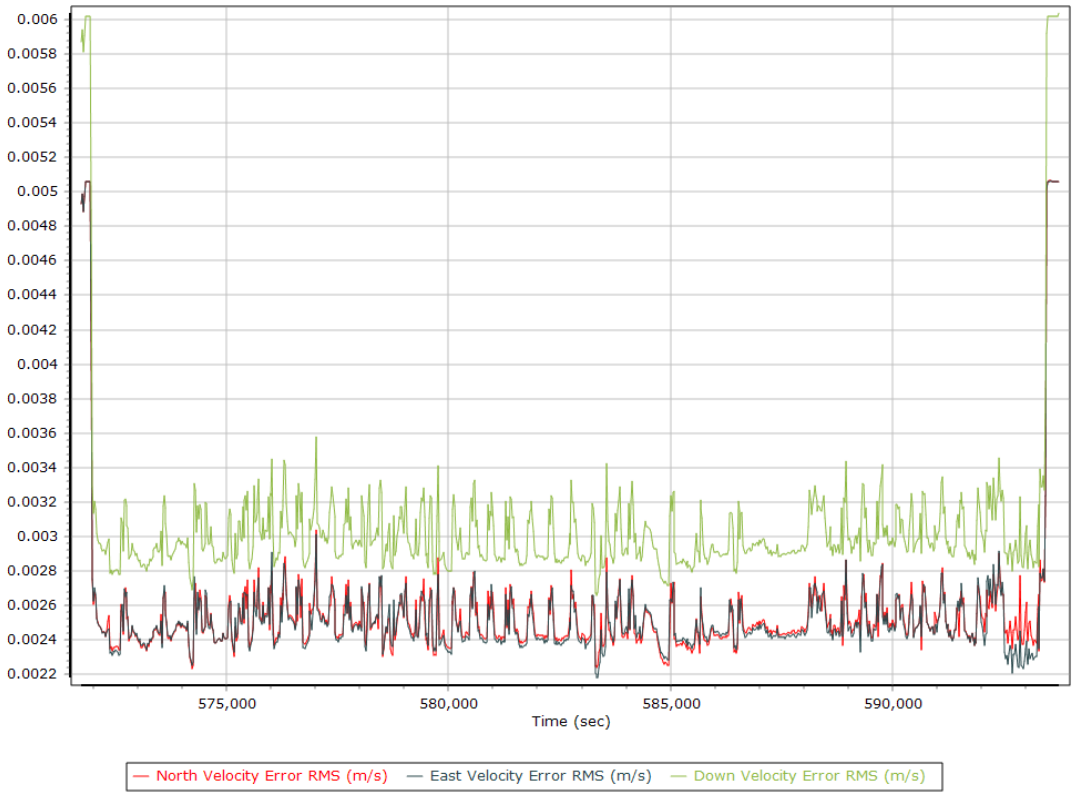


Smoothed Performance Metrics

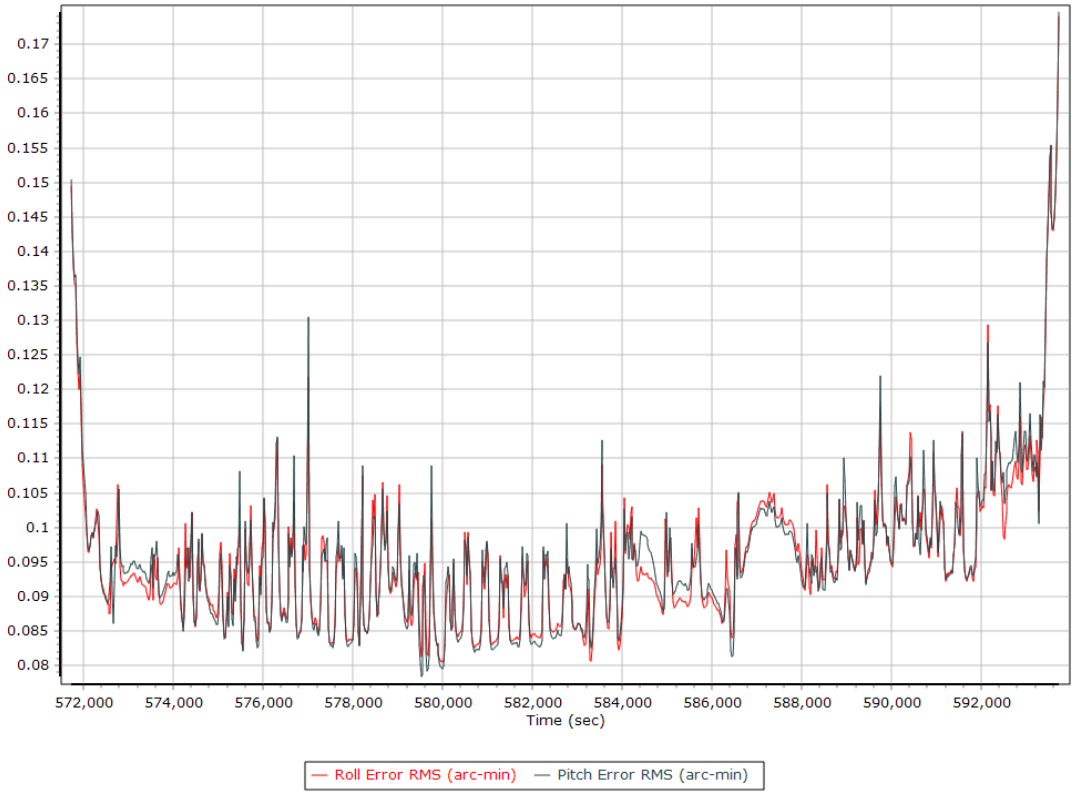
Position Error RMS (m)



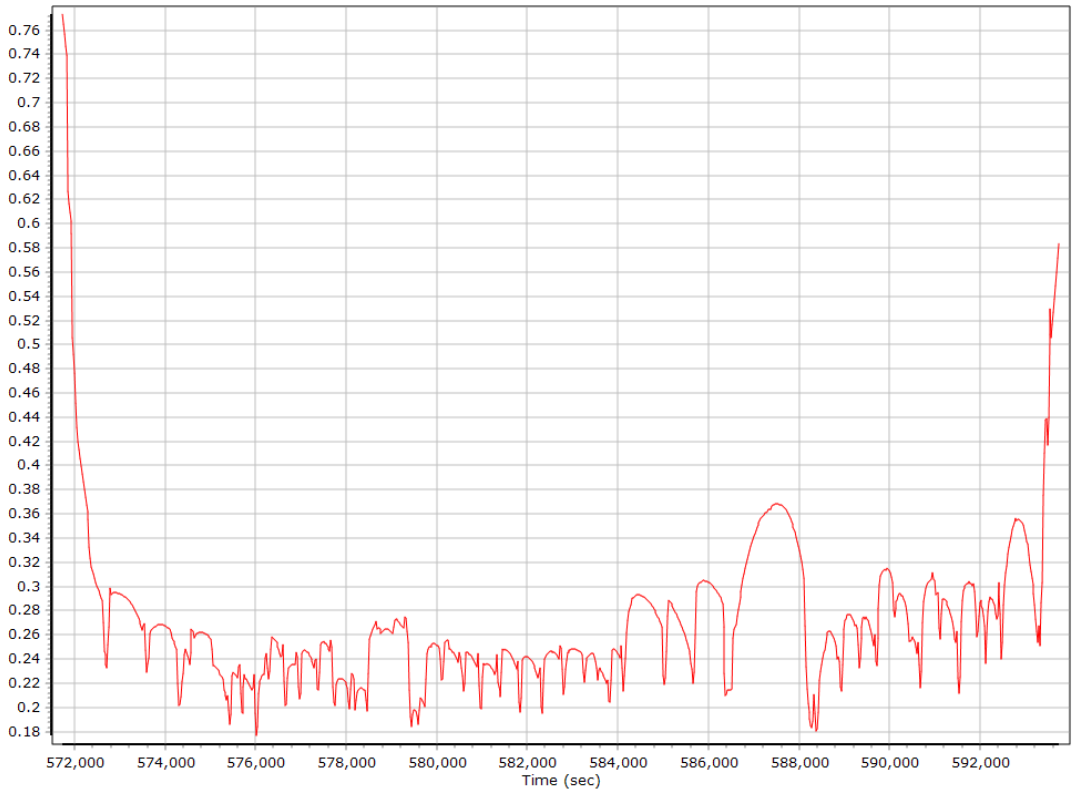
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



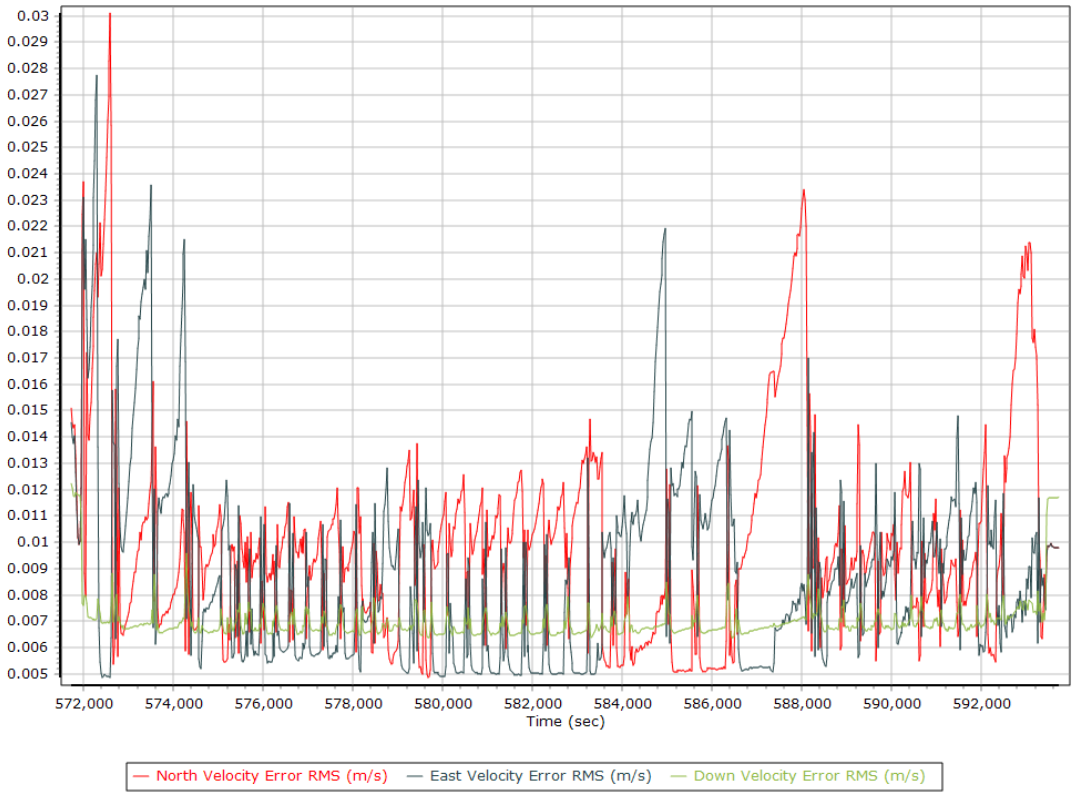
Heading Error RMS (arc-min)



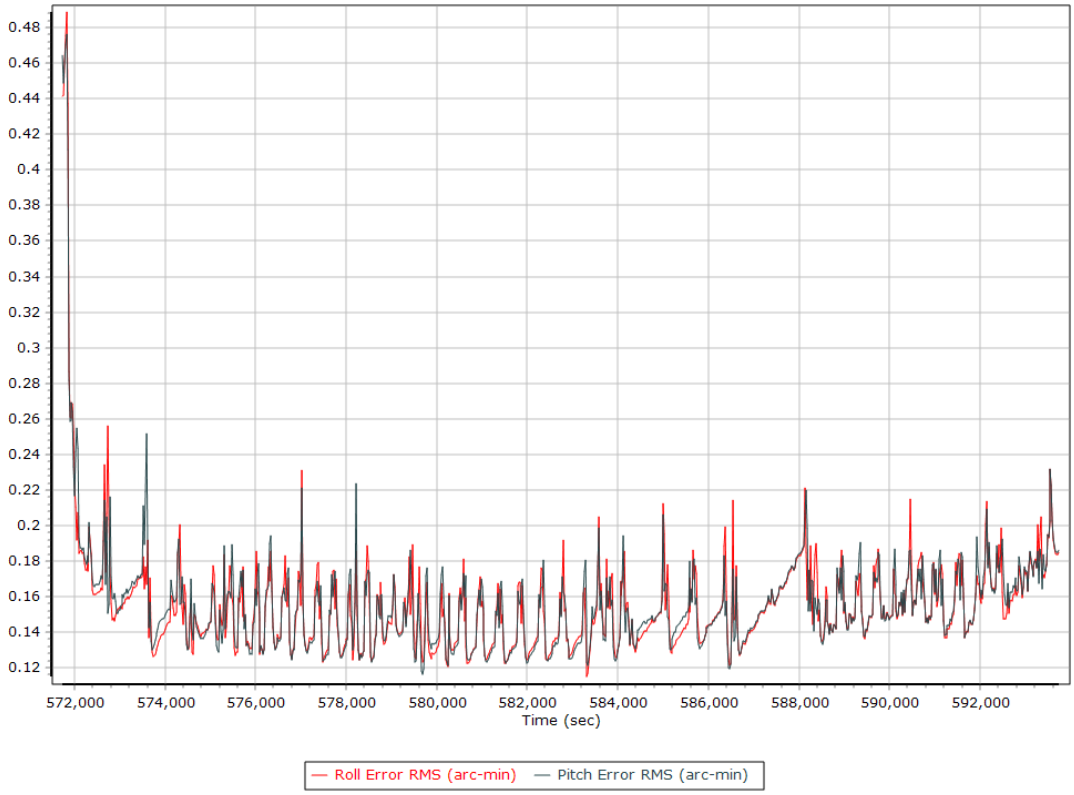
Forward Processed Performance Metrics

Position Error RMS (m)

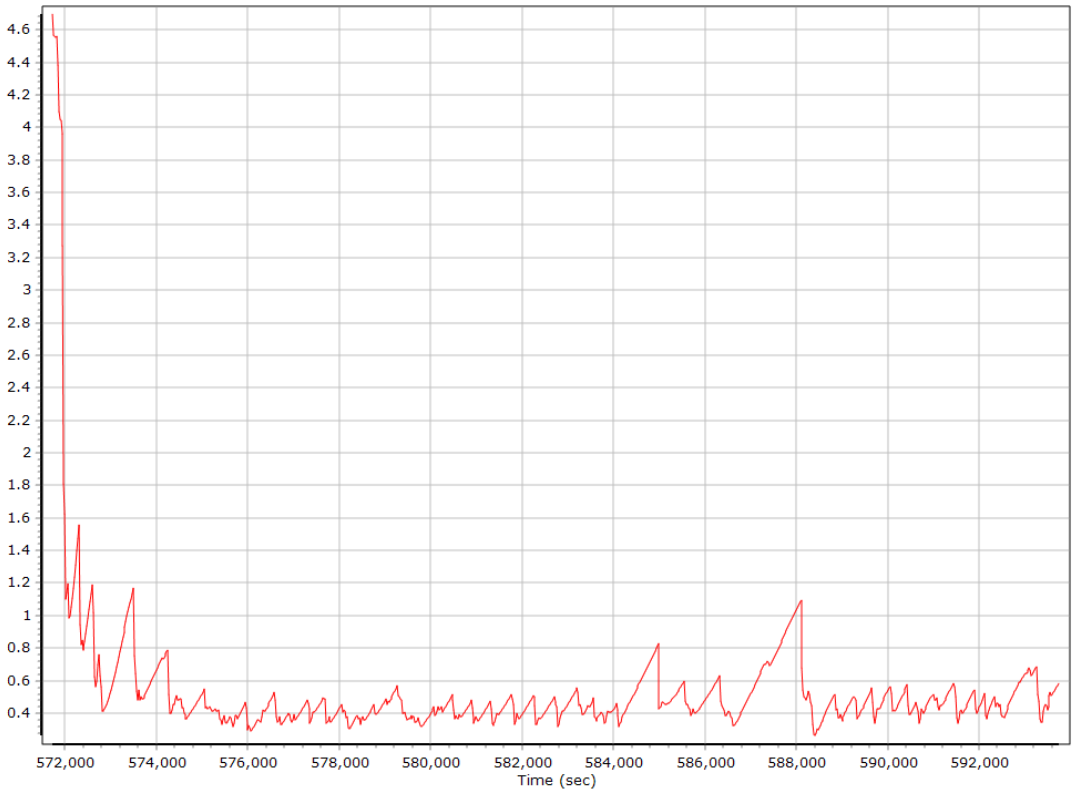
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

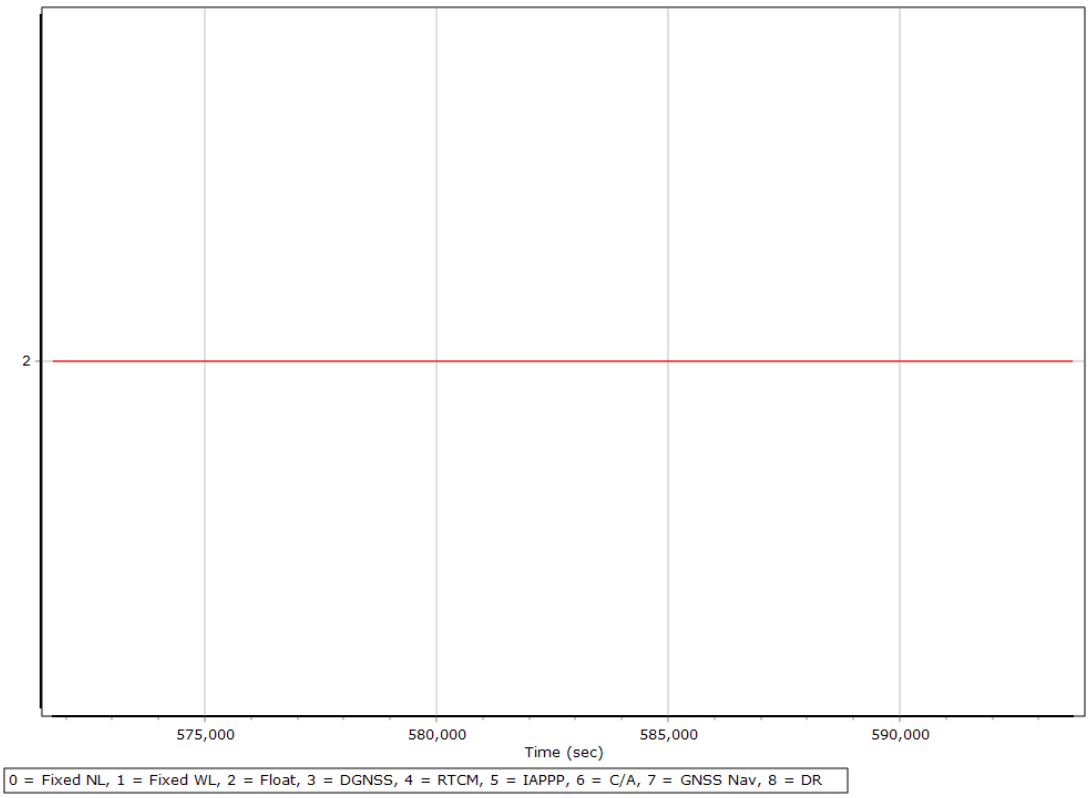


Heading Error RMS (arc-min)

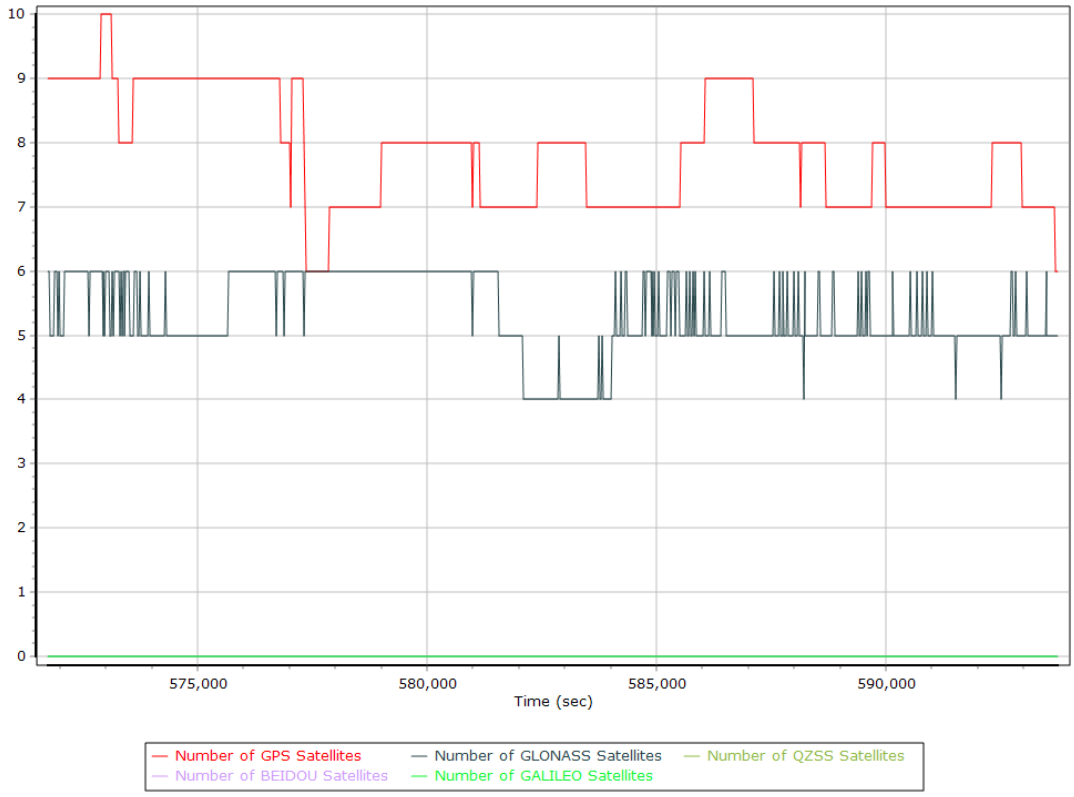
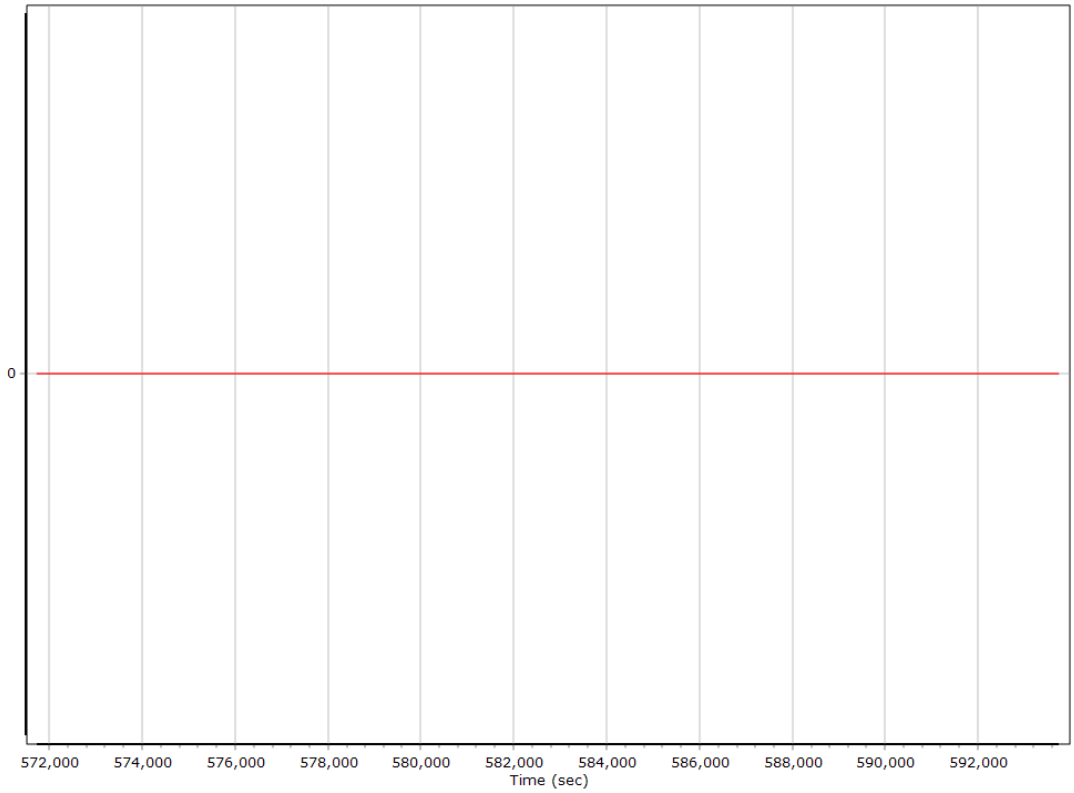


Forward Processed Solution Status

Processing Mode



Number of Satellites



Baseline Length