General Information

Mission Information

Project name	2SU20305A_186
Processing date	2020-11-02 13:47:19
Mission date	2020-10-31 16:15:57
Mission duration	05:11:33.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

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

Project File List

Rover Data Files

File name	File type
2SU20305A.000	POS Data
2SU20305A.001	POS Data
2SU20305A.002	POS Data
2SU20305A.003	POS Data
2SU20305A.004	POS Data
2SU20305A.005	POS Data
2SU20305A.006	POS Data
2SU20305A.007	POS Data
2SU20305A.008	POS Data
2SU20305A.009	POS Data
2SU20305A.010	POS Data
2SU20305A.011	POS Data
2SU20305A.012	POS Data
2SU20305A.013	POS Data
2SU20305A.014	POS Data
2SU20305A.015	POS Data
2SU20305A.016	POS Data
2SU20305A.017	POS Data
2SU20305A.018	POS Data
2SU20305A.019	POS Data
2SU20305A.020	POS Data
2SU20305A.021	POS Data
2SU20305A.022	POS Data
2SU20305A.023	POS Data
2SU20305A.024	POS Data
2SU20305A.025	POS Data
2SU20305A.026	POS Data
2SU20305A.027	POS Data
2SU20305A.028	POS Data
2SU20305A.029	POS Data
2SU20305A.030	POS Data
2SU20305A.031	POS Data
2SU20305A.032	POS Data
2SU20305A.033	POS Data
2SU20305A.034	POS Data
2SU20305A.035	POS Data
2SU20305A.036	POS Data
2SU20305A.037	POS Data
2SU20305A.038	POS Data
2SU20305A.039	POS Data
2SU20305A.040	POS Data
2SU20305A.041	POS Data
2SU20305A.042	POS Data
2SU20305A.043	POS Data
2SU20305A.044	POS Data
2SU20305A.045	POS Data
2SU20305A.046	POS Data

Input Files

File Name	File Type
Ephm3050.20g	GLONASS Broadcast Ephemeris
Ephm3050.20n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_2SU20305A_186.out	SBET Trajectory File

Rover Data Summary

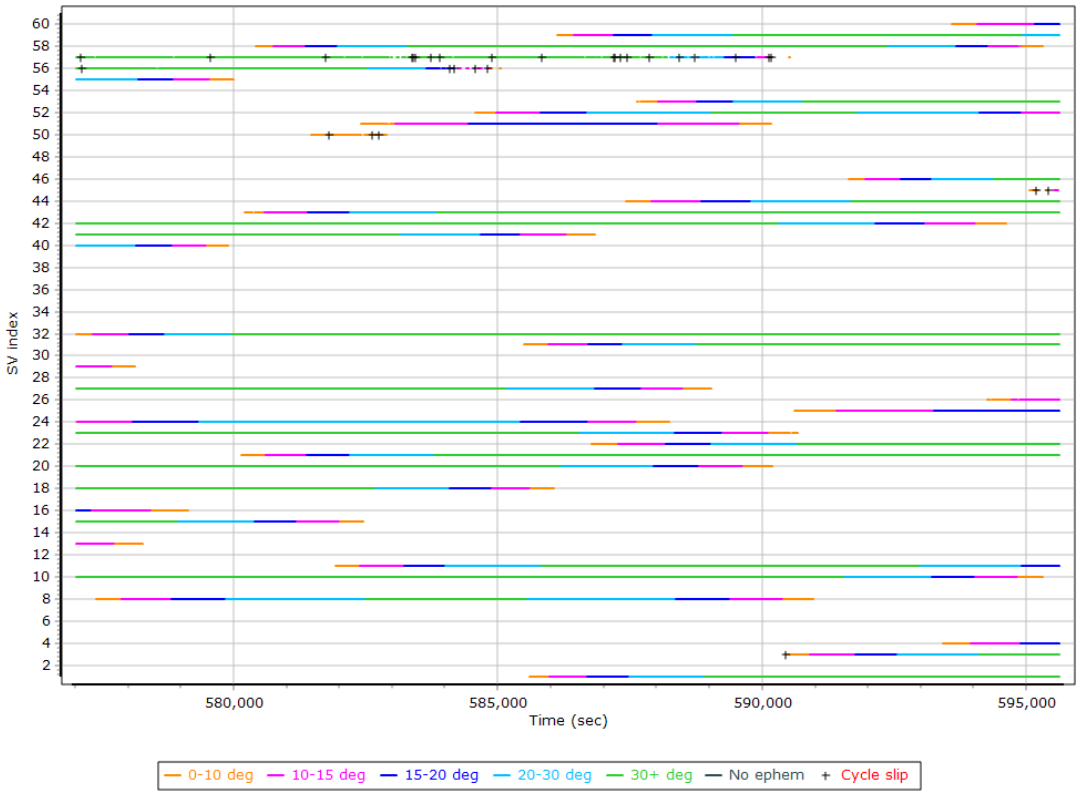
First raw data file	2SU20305A.000		
Last raw data file	2SU20305A.046		
Start GPS week	2129		
Start time	576938.162 (10/31/2020 16:15:38)		
End time	595631.724 (10/31/2020 21:27:11)		
Start of fine alignment	576962.226 (10/31/2020 16:16:02)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	None		
Correction data	None		
IMU Installation Lever Arms & Mounting Angles			
Gimbal to IMU lever arm (m)	0.000	0.000	0.000
Gimbal to IMU mounting angles (deg)	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm (m)	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

Raw Data QC

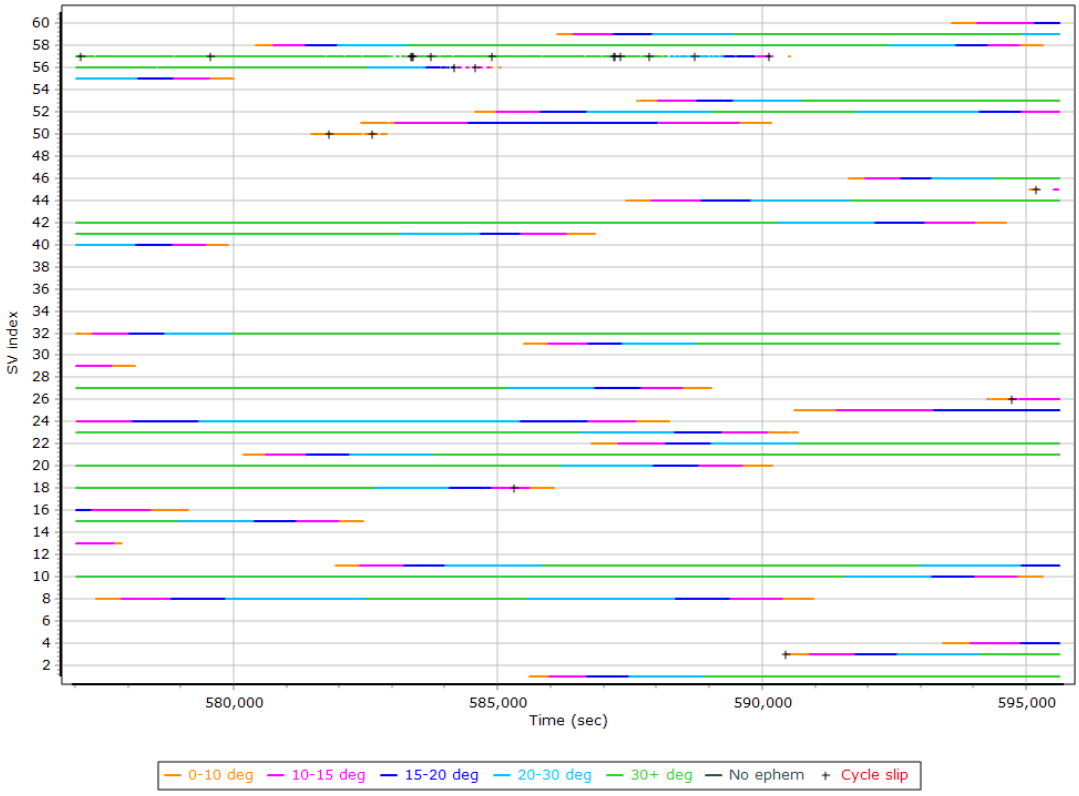
Raw IMU Import QC Summary

IMU data input file	imu_2SU20305A_186.dat
IMU data check log file	imudt_2SU20305A_186.log
IMU Records Processed	3738298
Termination Status	Normal
IMU Anomalies	0

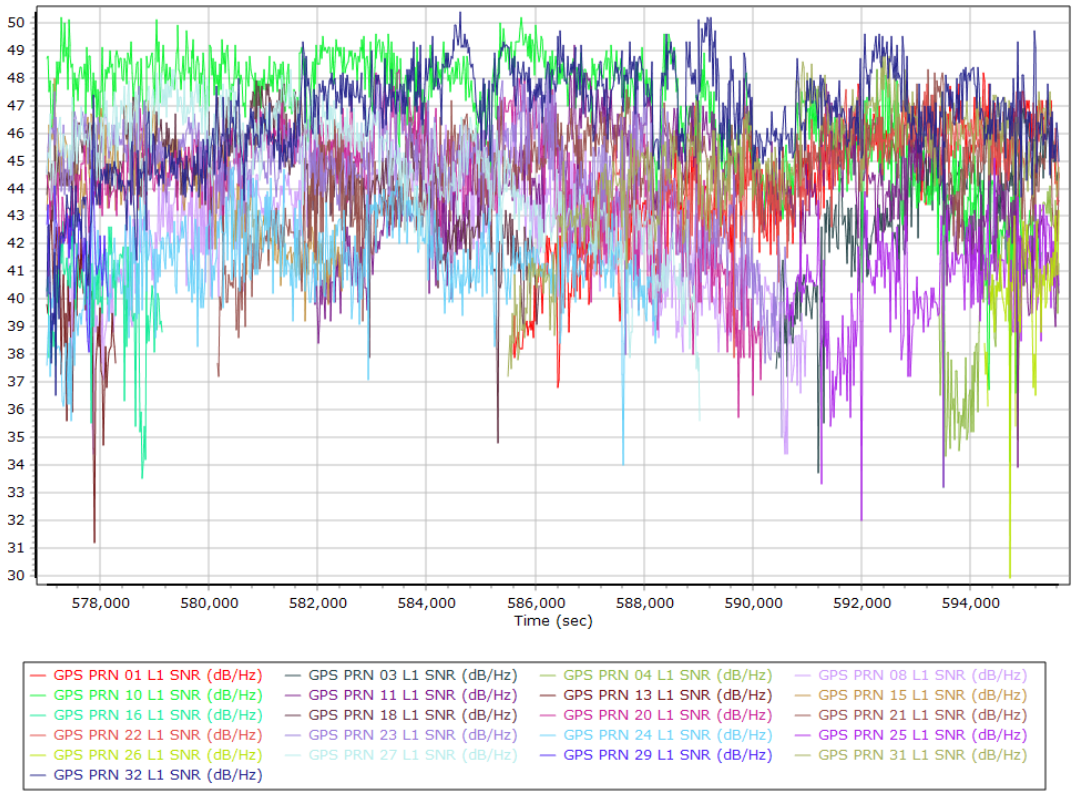
L1 Satellite Lock/Elevation



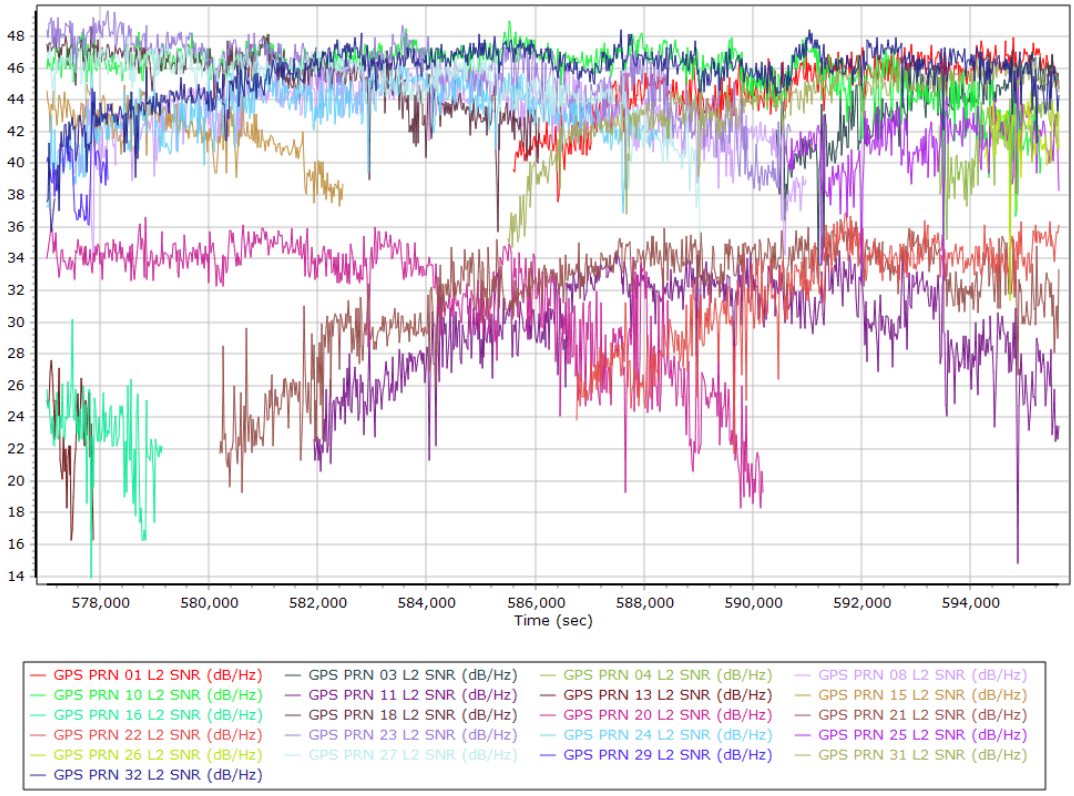
L2 Satellite Lock/Elevation



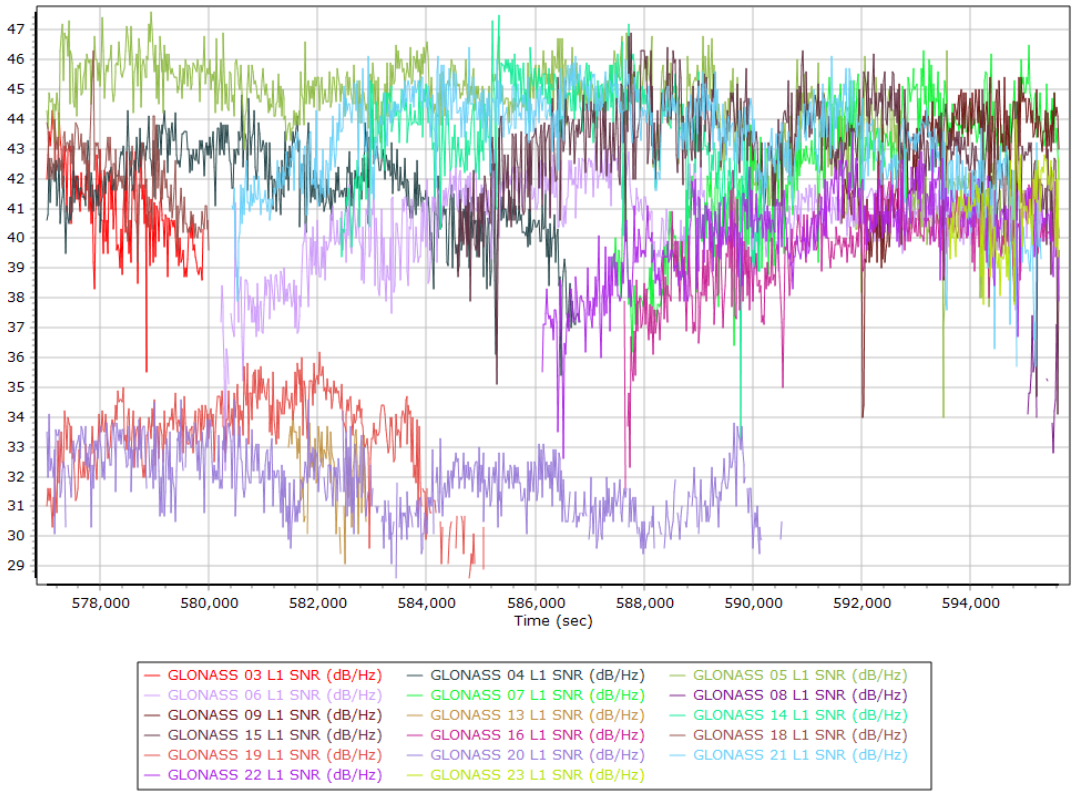
GPS L1 SNR



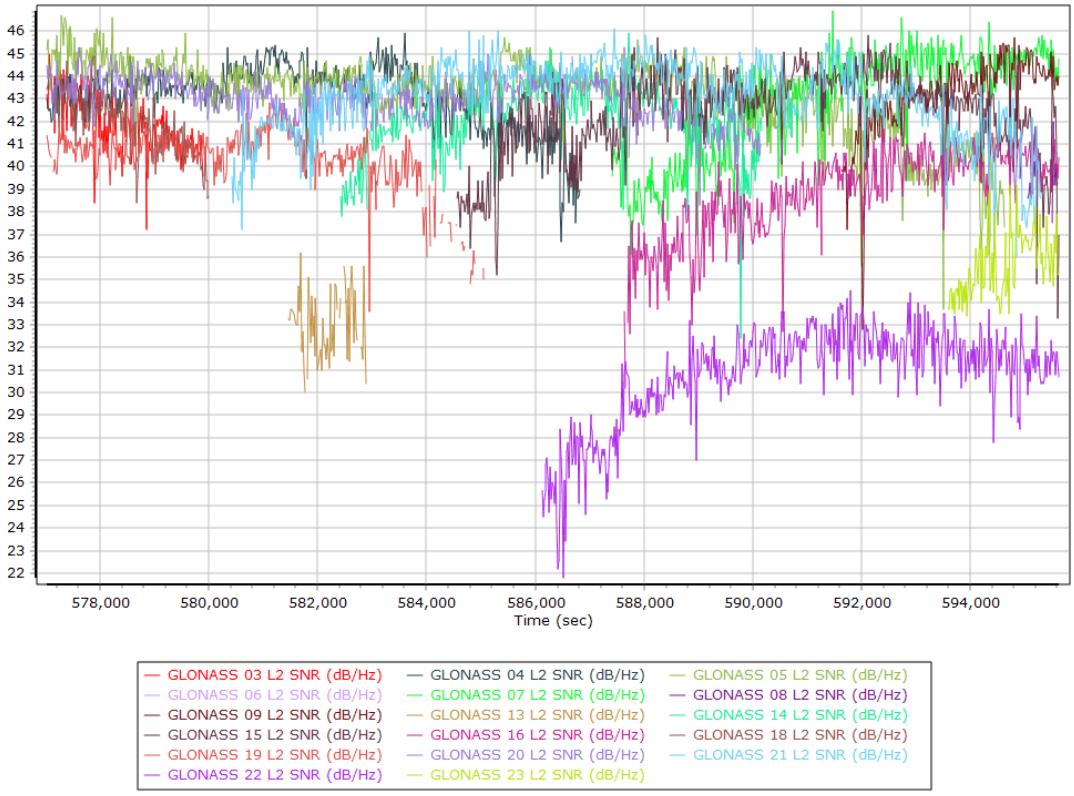
GPS L2 SNR



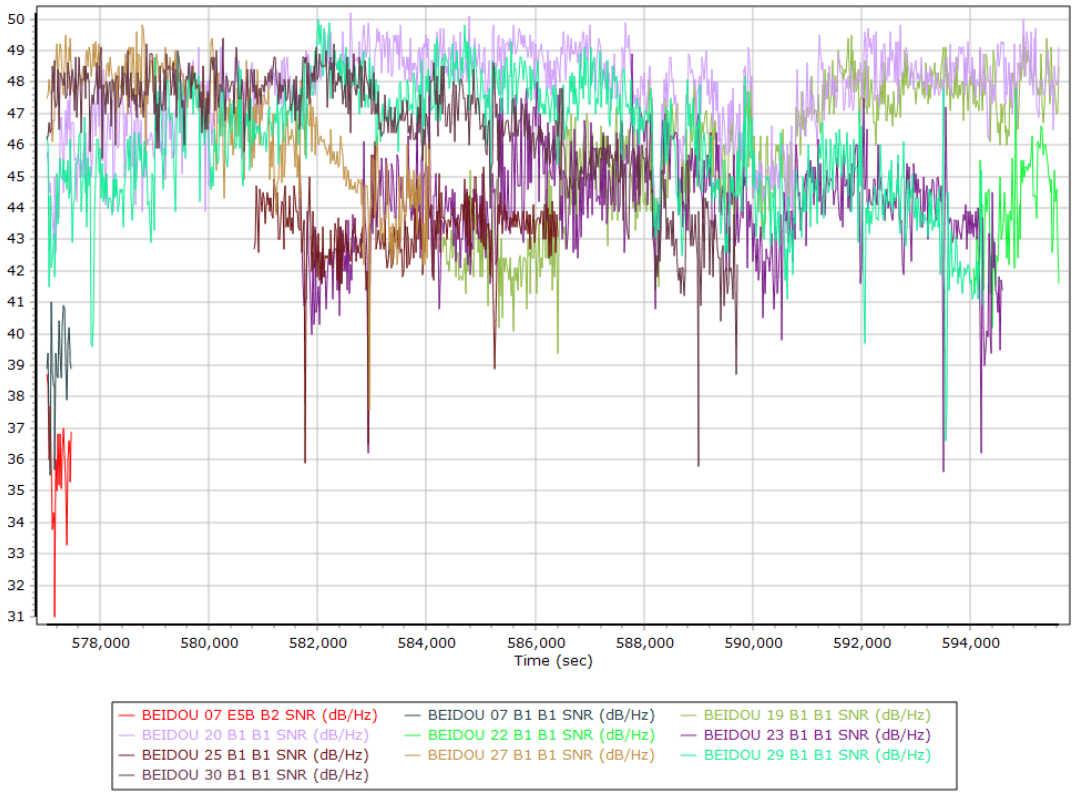
GLONASS L1 SNR



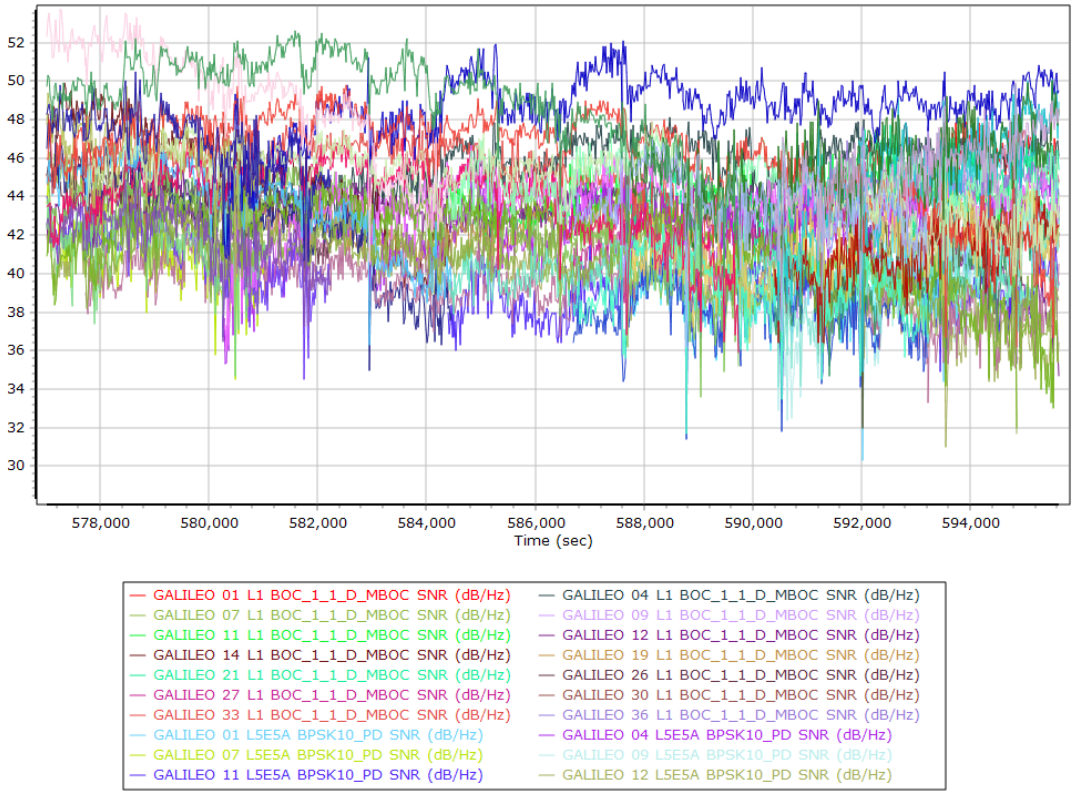
GLONASS L2 SNR



BEIDOU SNR

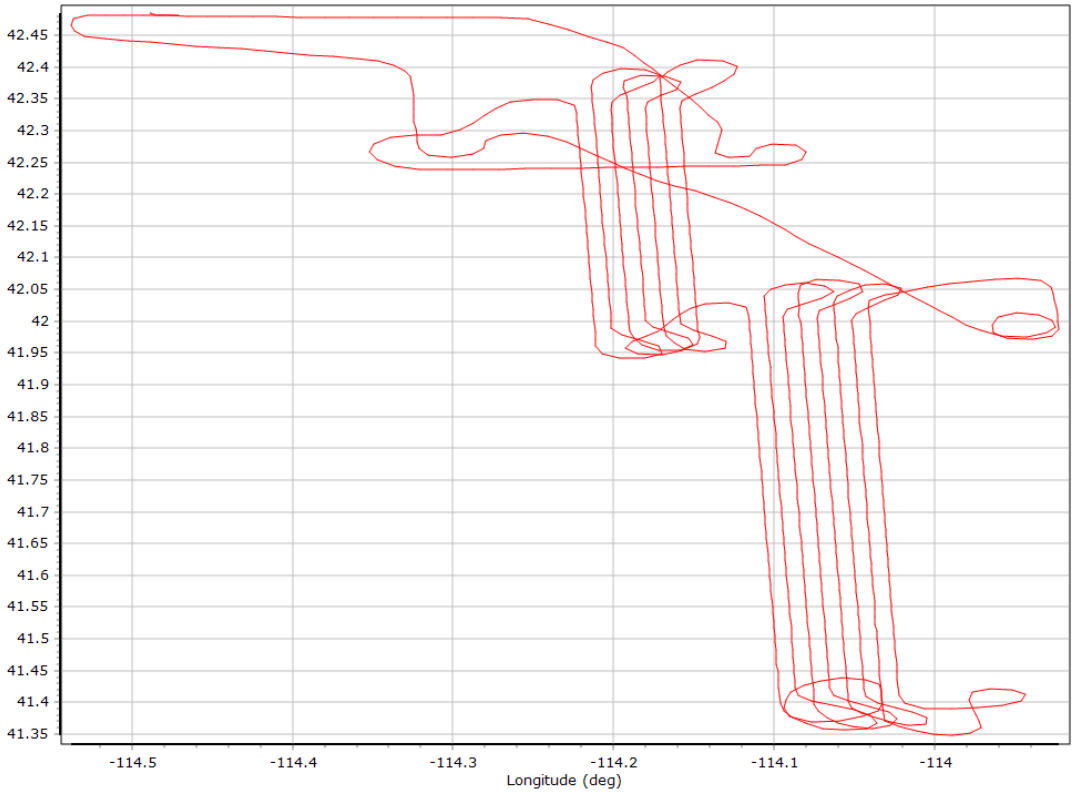


GALILEO SNR

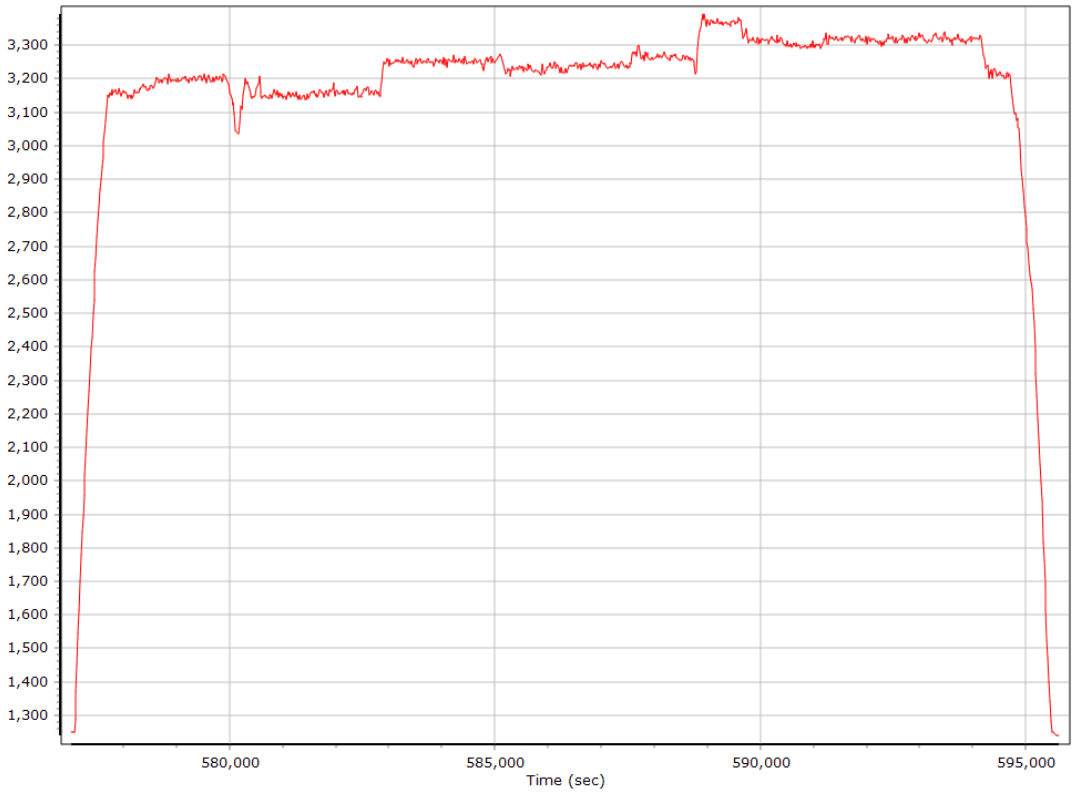

52
50
48
46
44
42
40
38
36
34
32
30
578,000
580,000
582,000
584,000
586,000
588,000
590,000
592,000
594,000
Time (sec)
GALILEO 01 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 04 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 09 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 11 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 12 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 14 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 19 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 21 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 26 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 33 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 36 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 01 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 04 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 07 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)

Trajectory Information

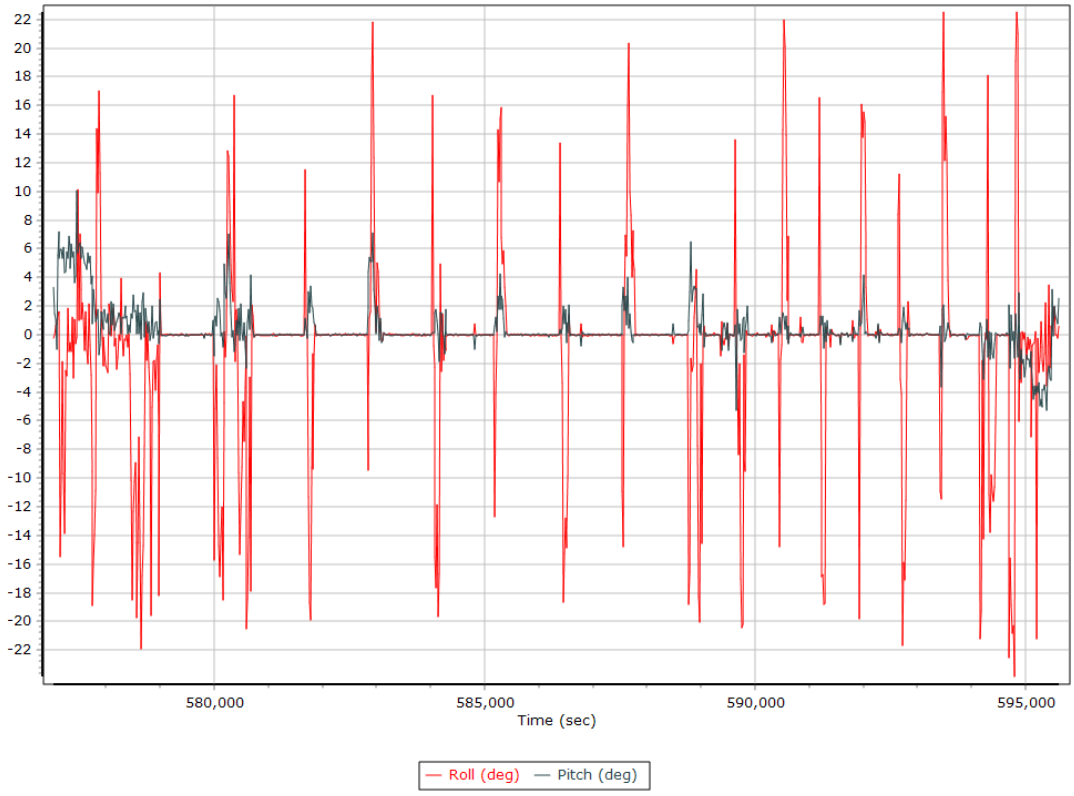
Top View



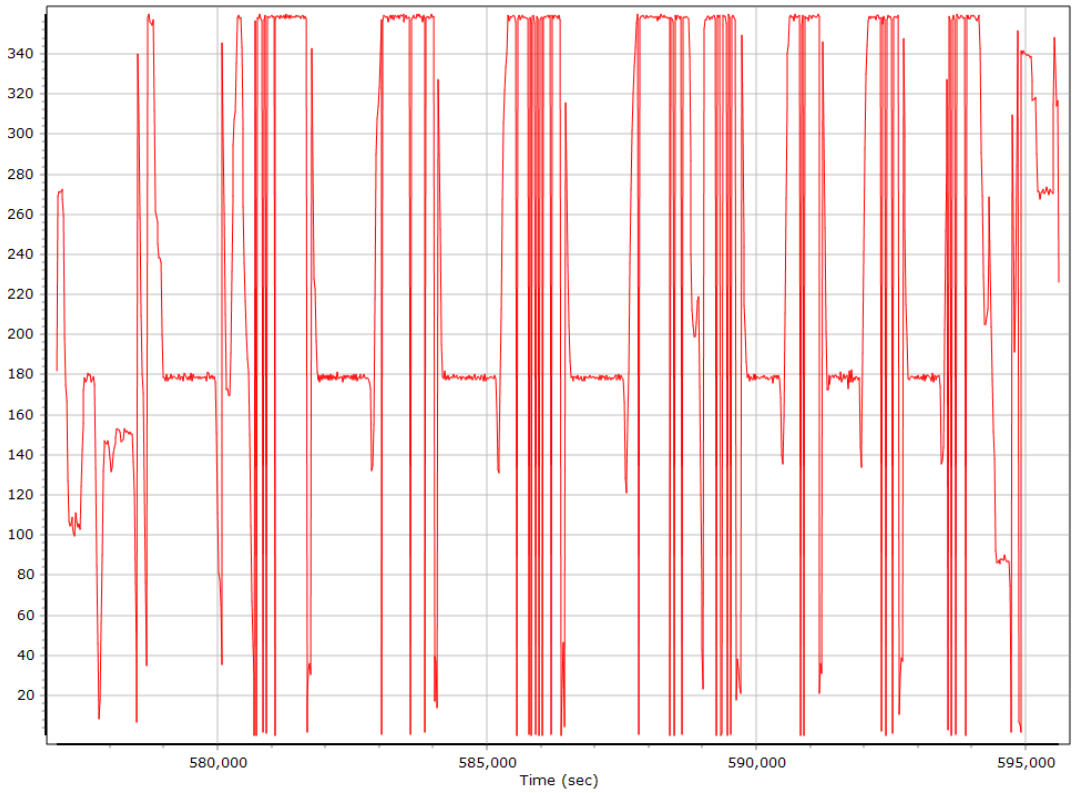
Altitude



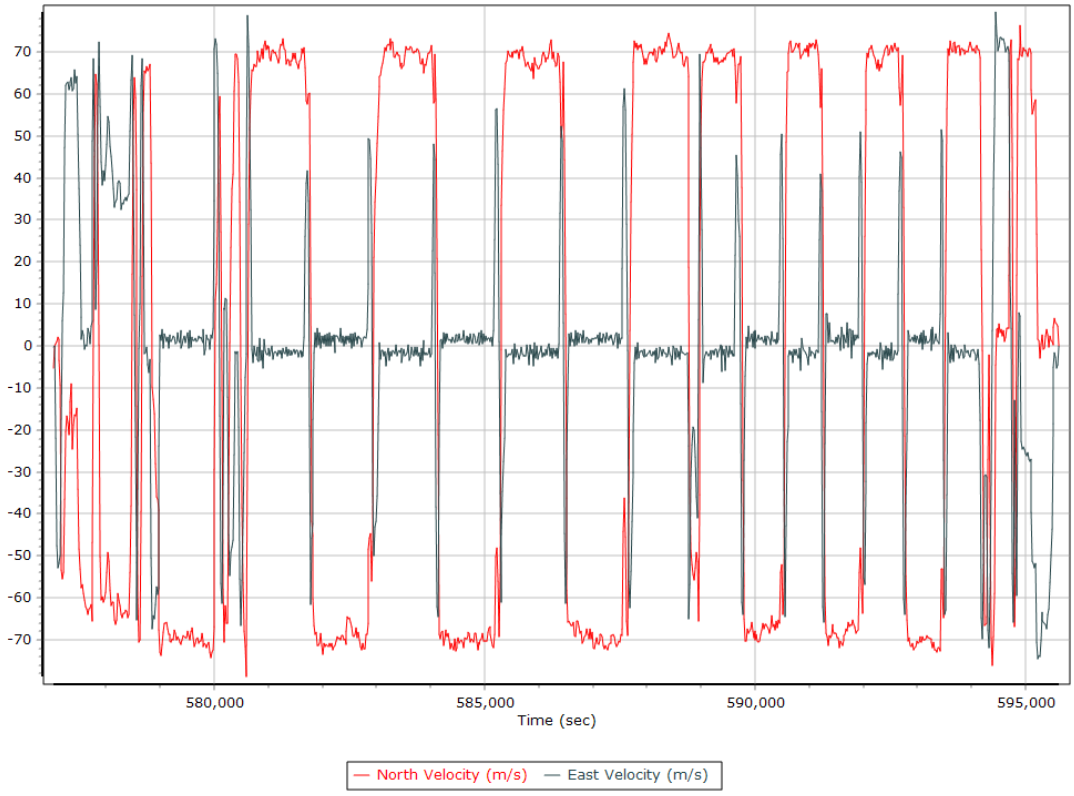
Roll/Pitch



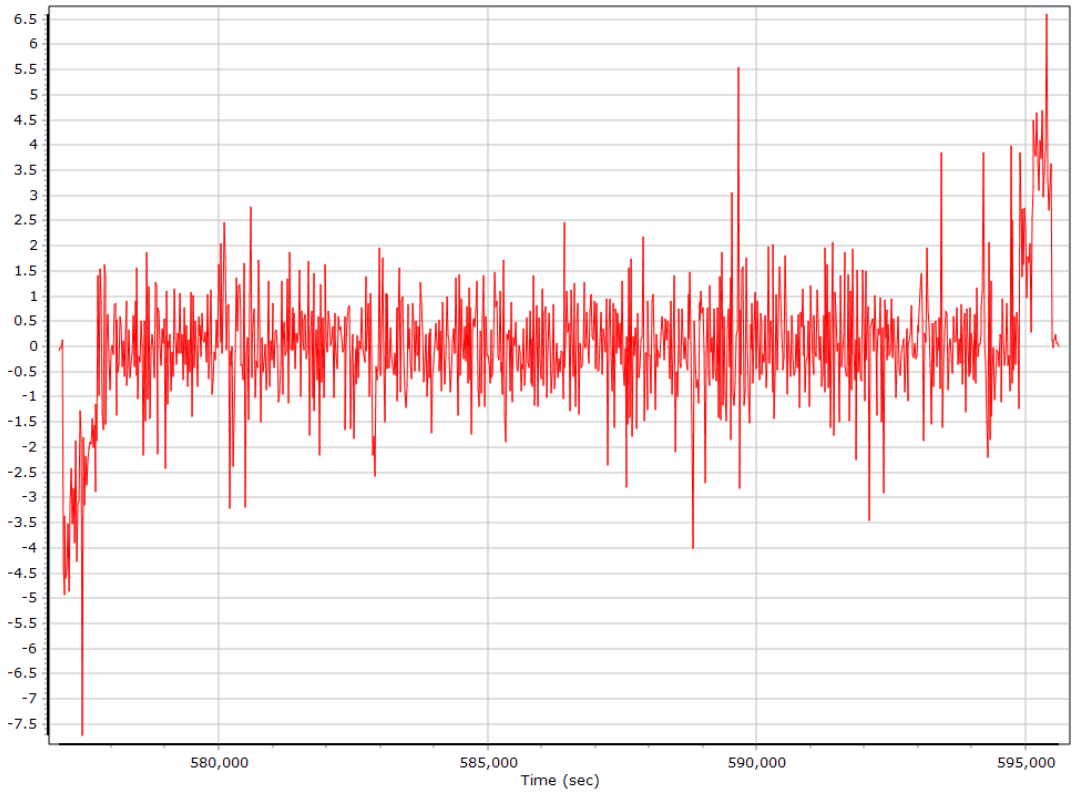
Heading



North/East Velocity



Down Velocity

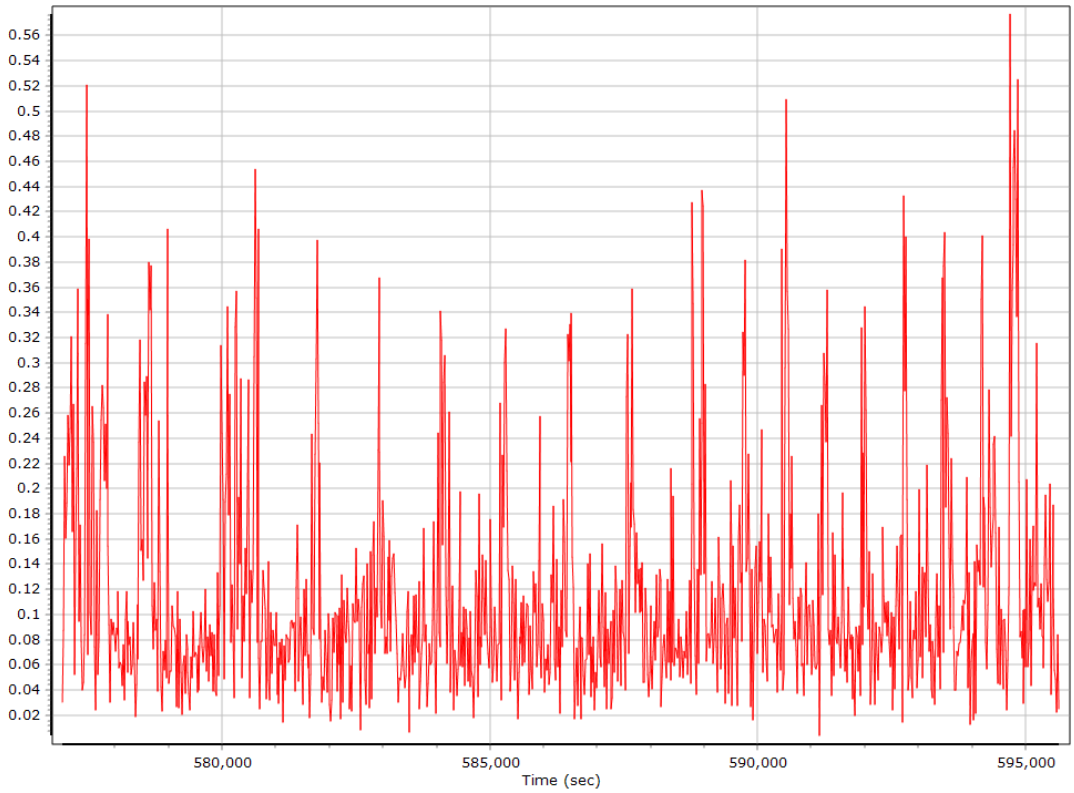


Total Speed

Ground Speed

Body Acceleration

Total Body Acceleration



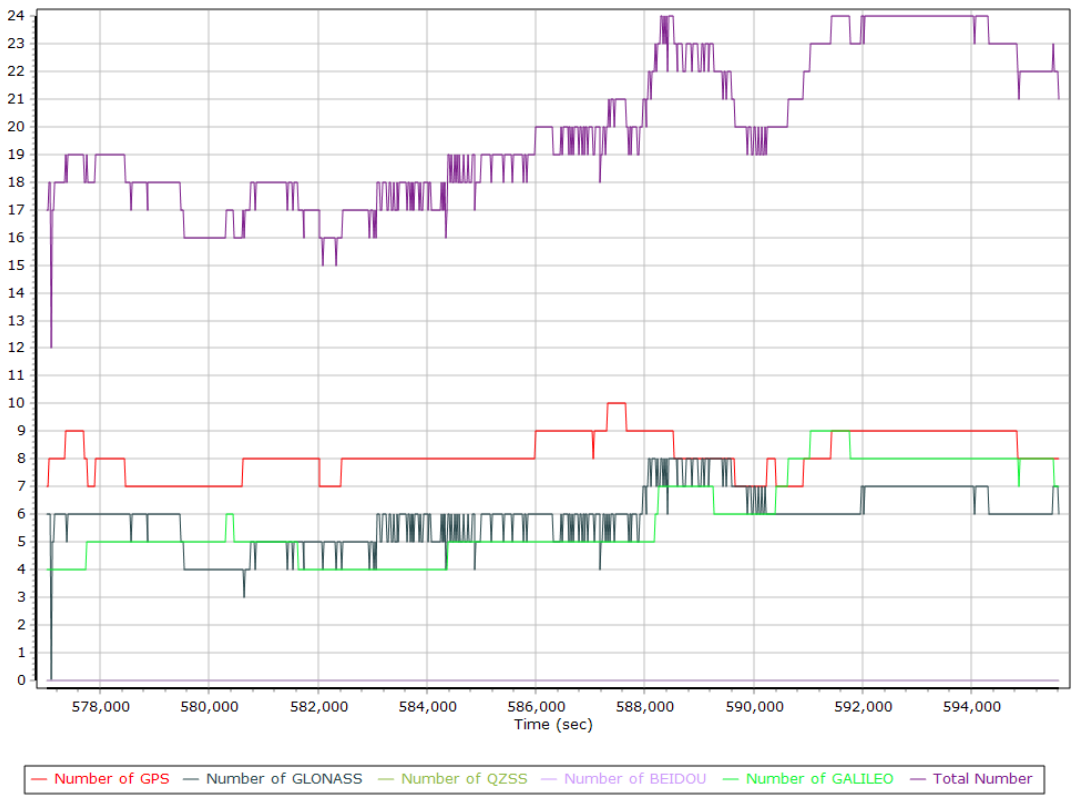
Body Angular Rate

GNSS QC

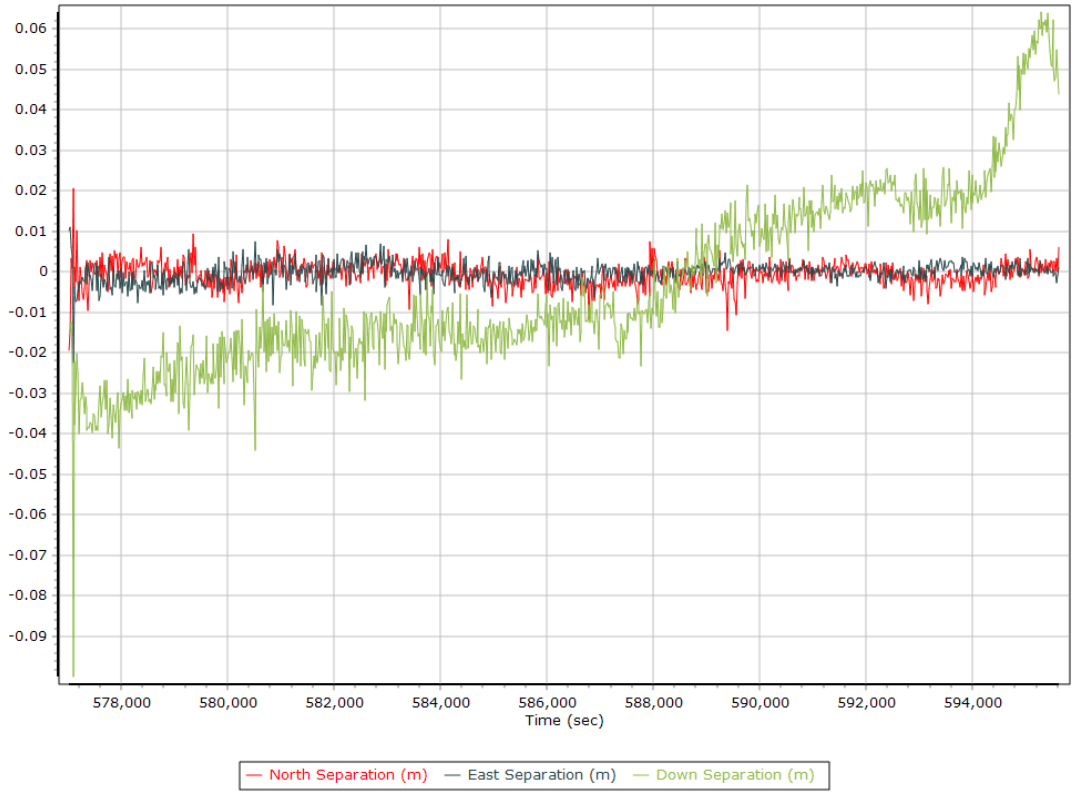
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	7	10	8
Number of GLONASS SV	0	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	4	9	6
Total number of SV	12	24	20
PDOP	0.97	1.58	1.21
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	18654.00	0.00	0.00
Percentage	100.00	0.00	0.00

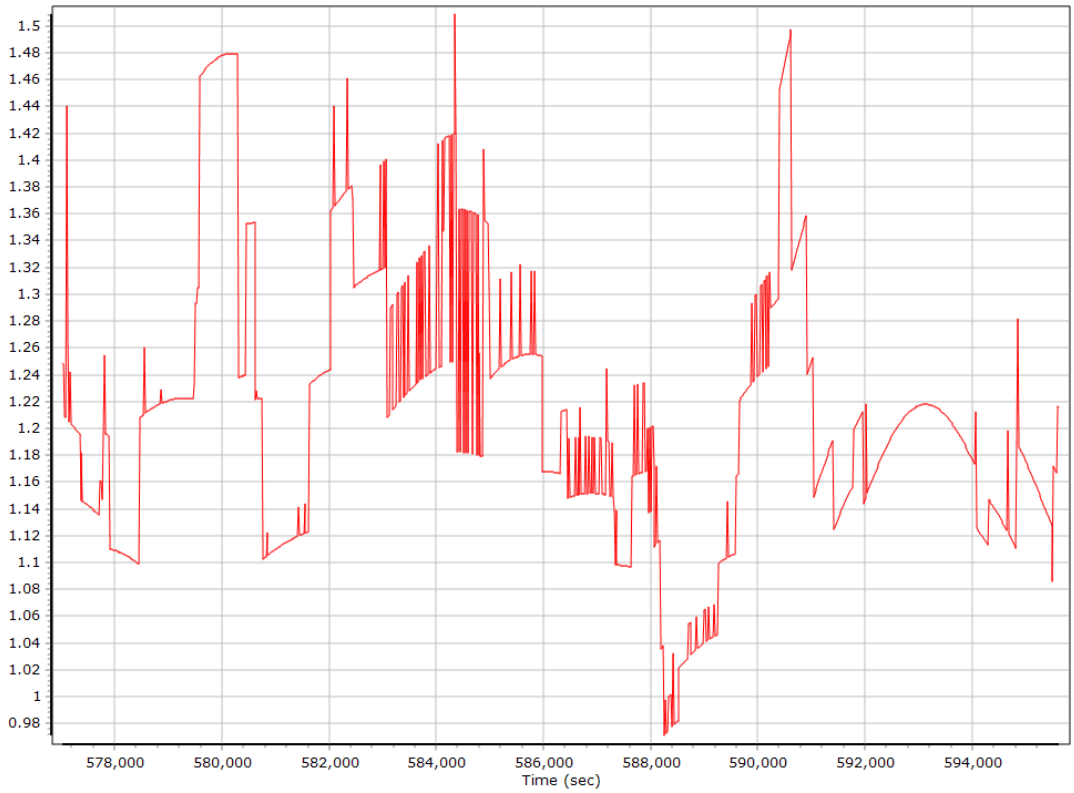
Num SVs in solution



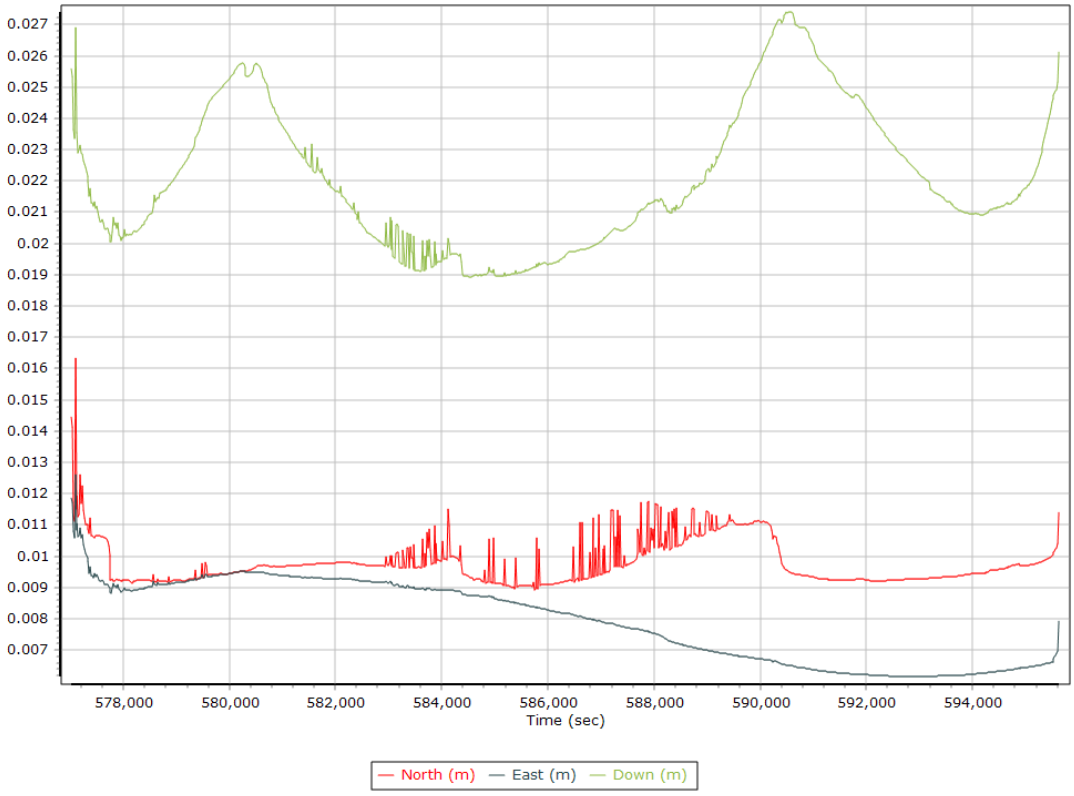
Forward/Reverse Separation



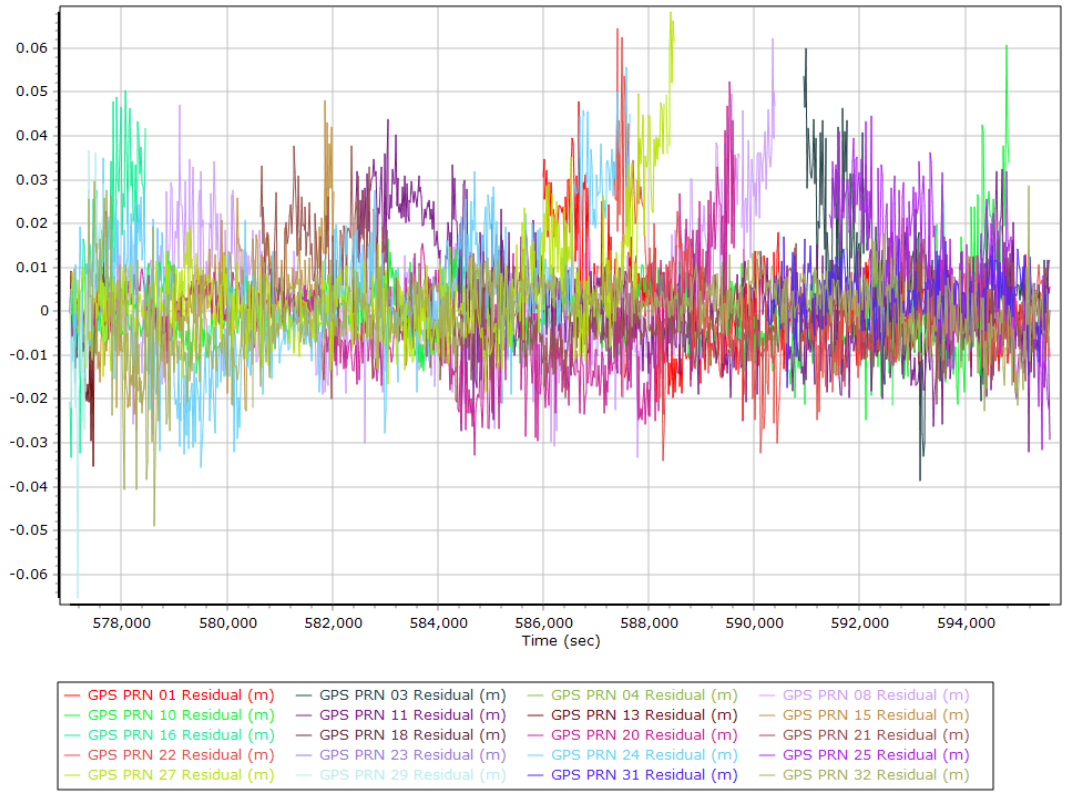
PDOP



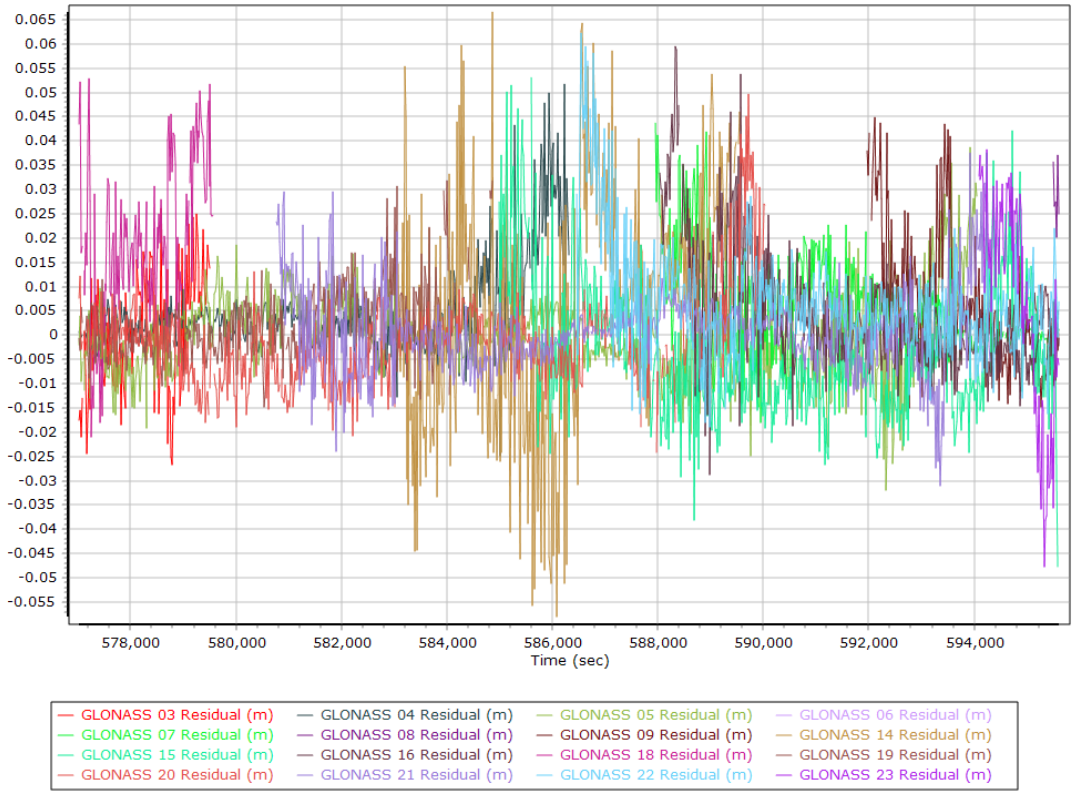
Estimated Position Accuracy



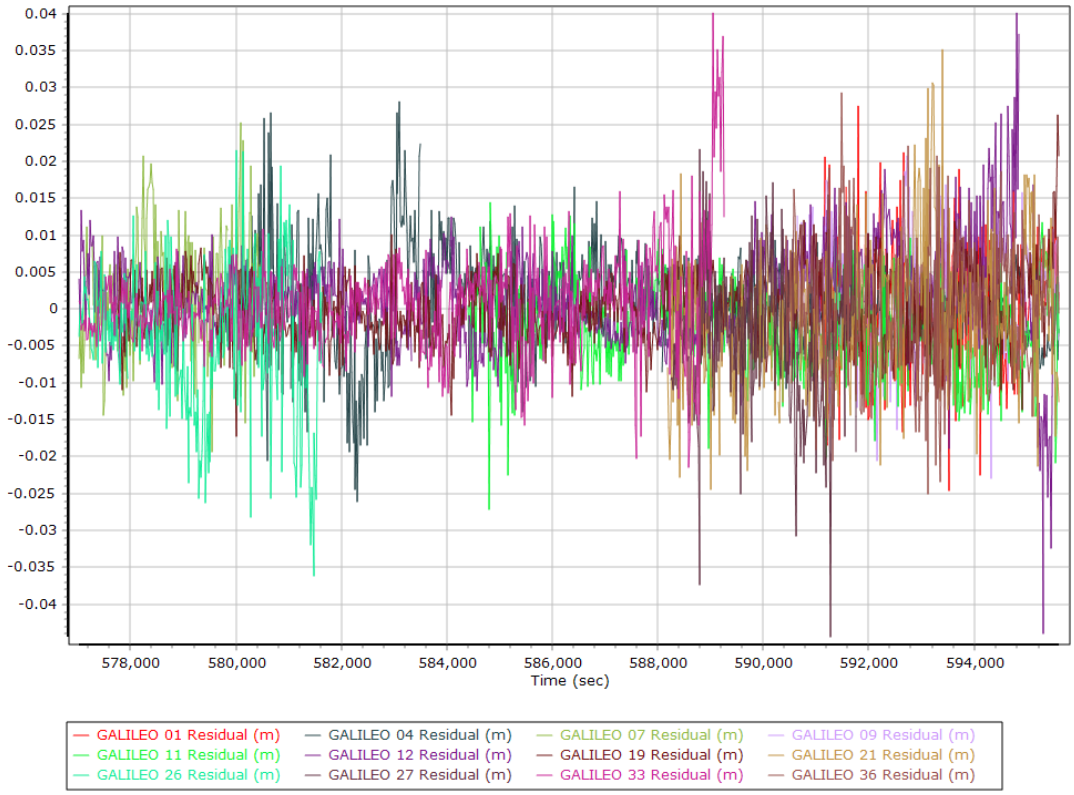
GPS Residuals



GLONASS Residuals



GALILEO Residuals



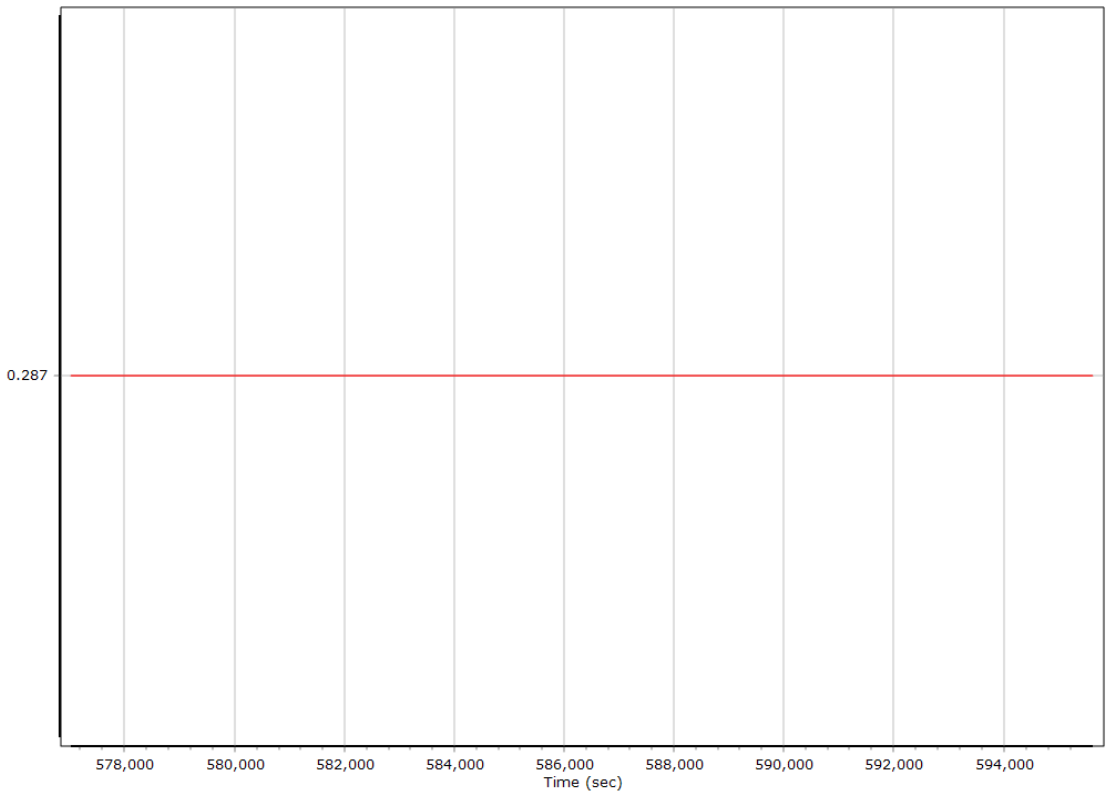
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	True		
Processing start time	576939.000 (10/31/2020 16:15:39)		
Processing end time	595632.000 (10/31/2020 21:27:12)		
Initial attitude source	Real-Time VNAV/RNAV Attitude		
IMU Sensor Context	Processing with Onboard IMU		
Gimbal to IMU lever arm (m)	0.000	0.000	0.000
Gimbal to IMU mounting angles (deg)	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm (m)	0.287	0.144	-1.269
Gimbal to Primary GNSS lever arm std dev (m)	0.030	0.030	0.030
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

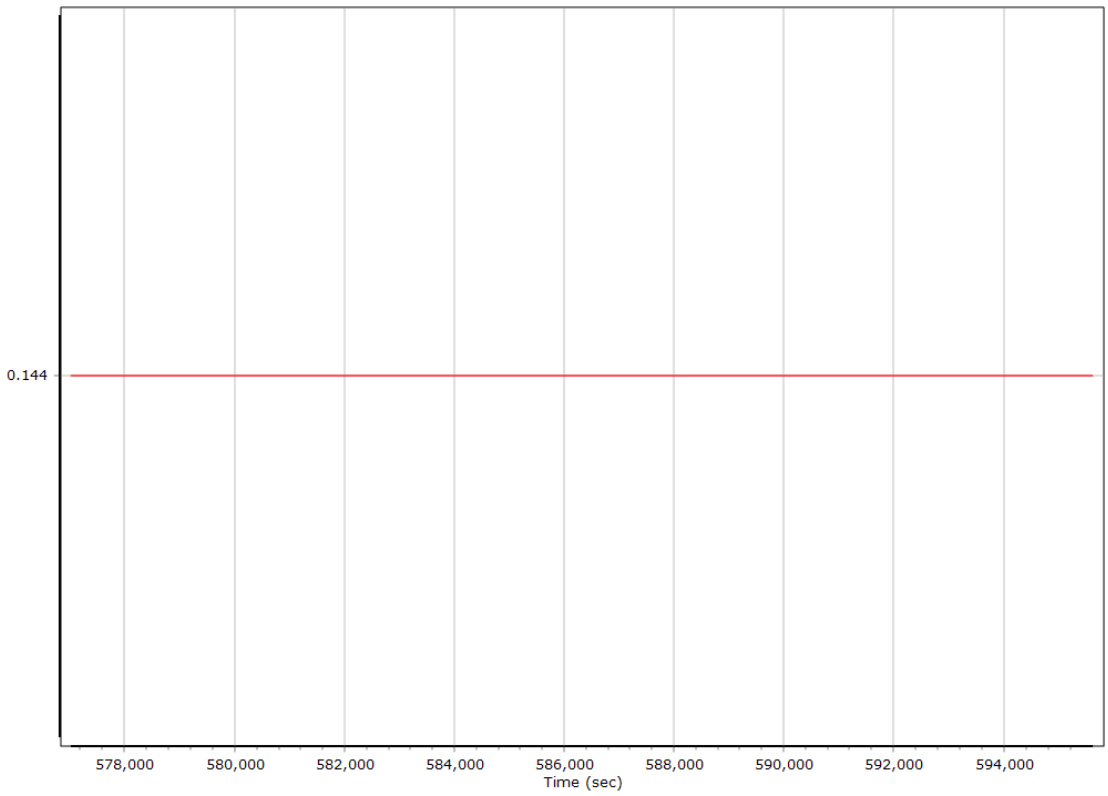
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

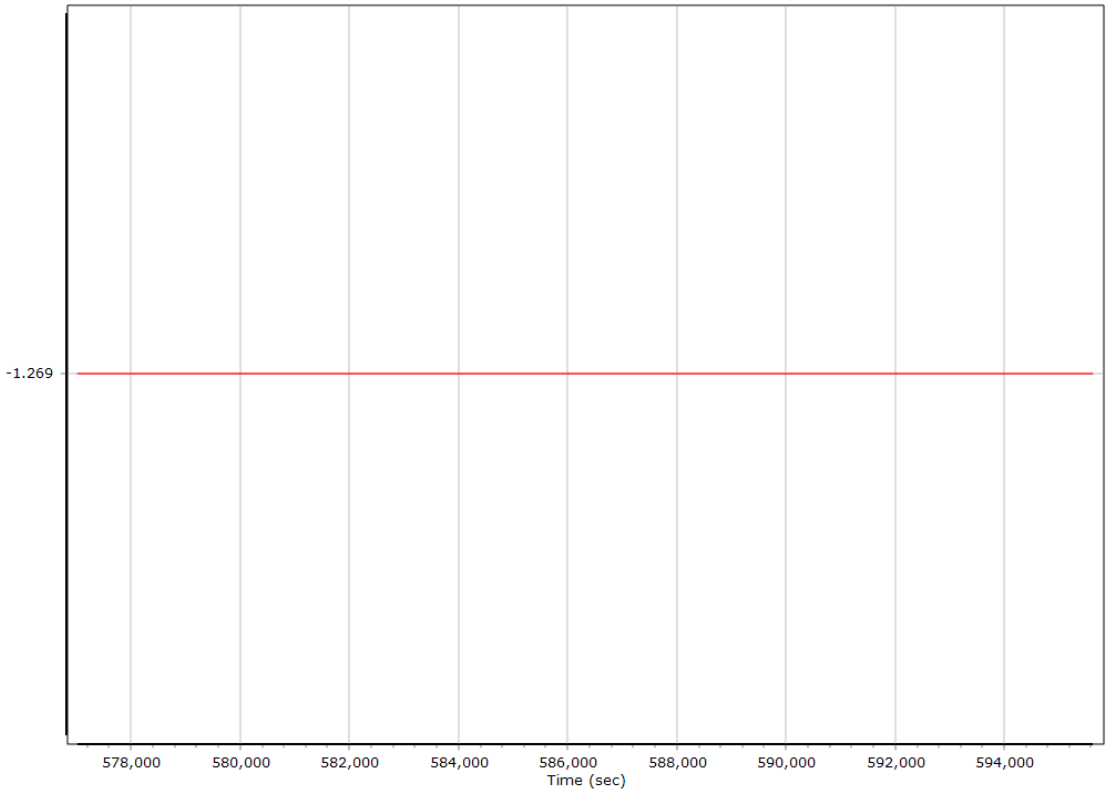
X Reference-Primary GNSS Lever Arm (m)



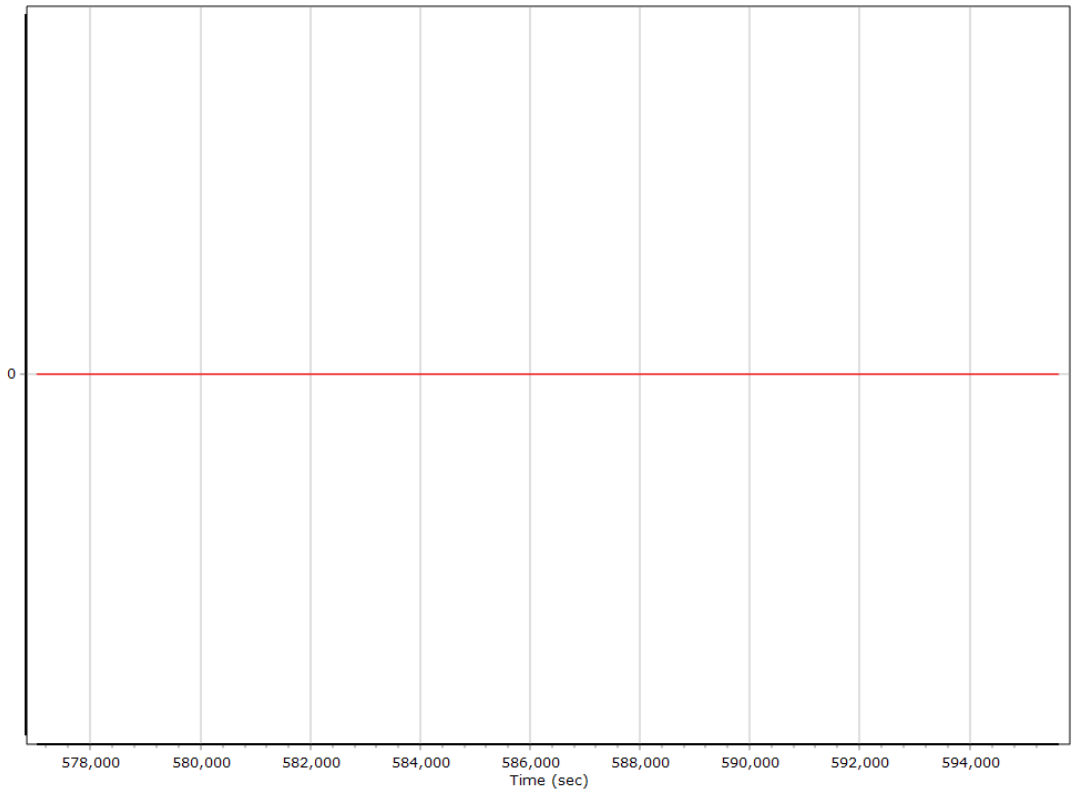
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



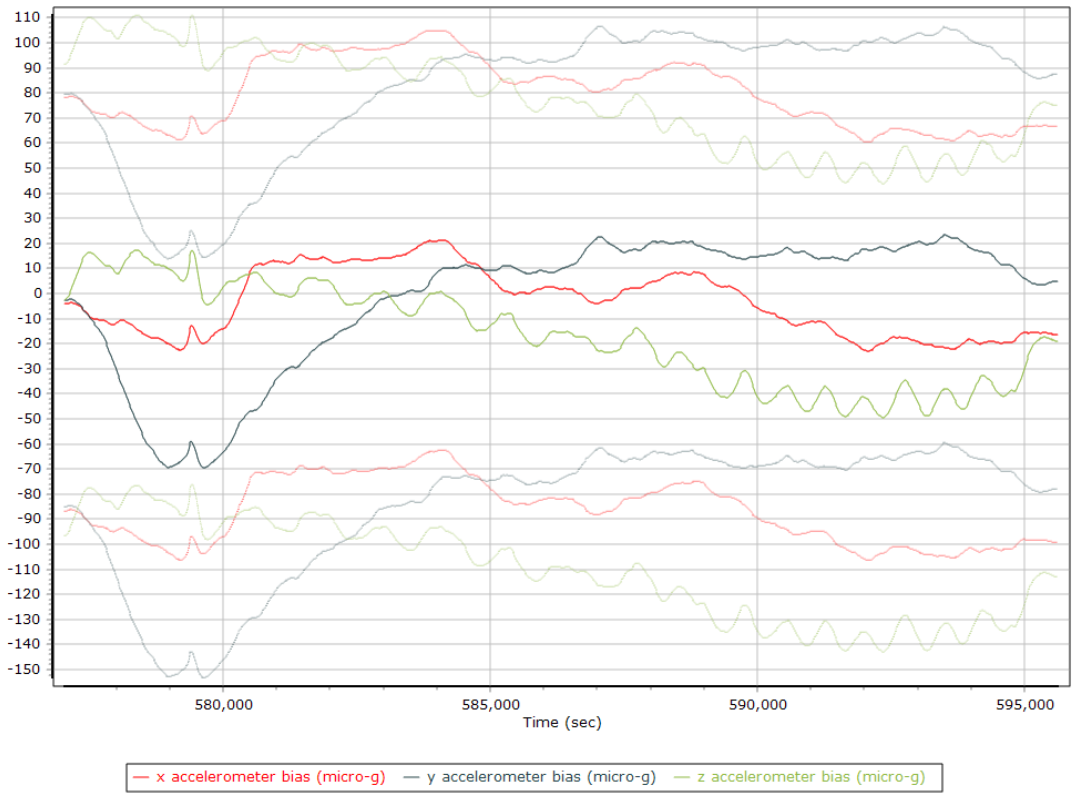
Reference-Primary GNSS Lever Arm Figure of Merit



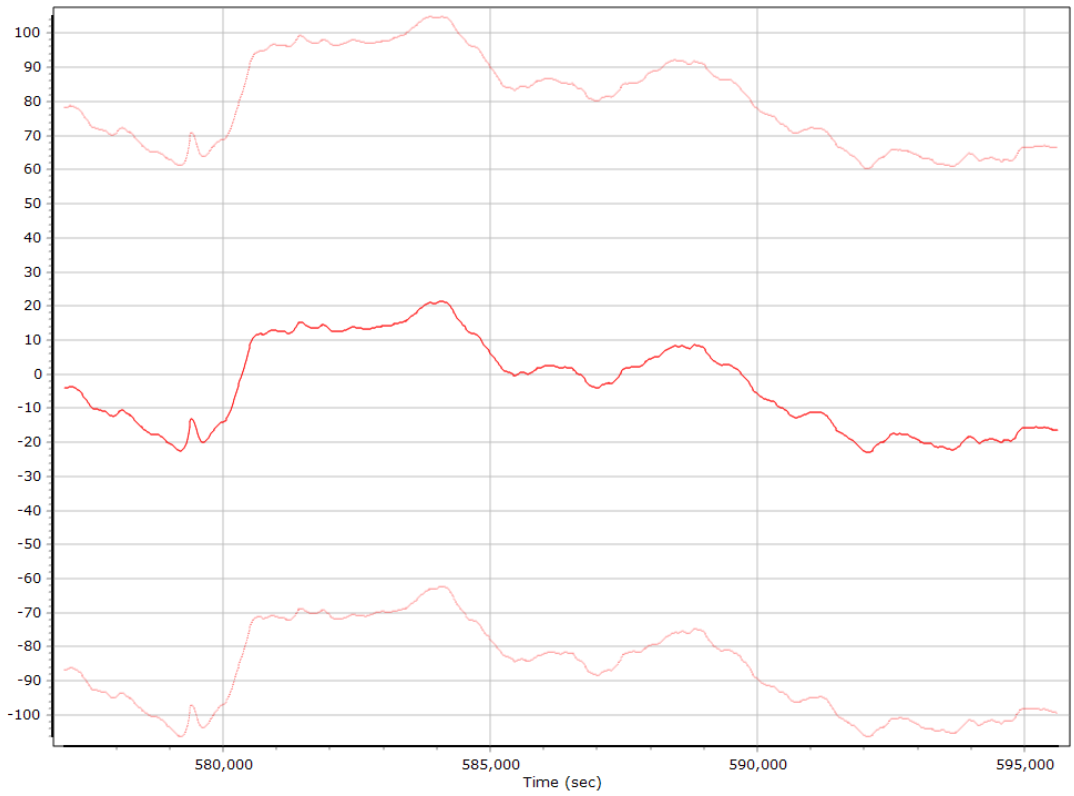
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

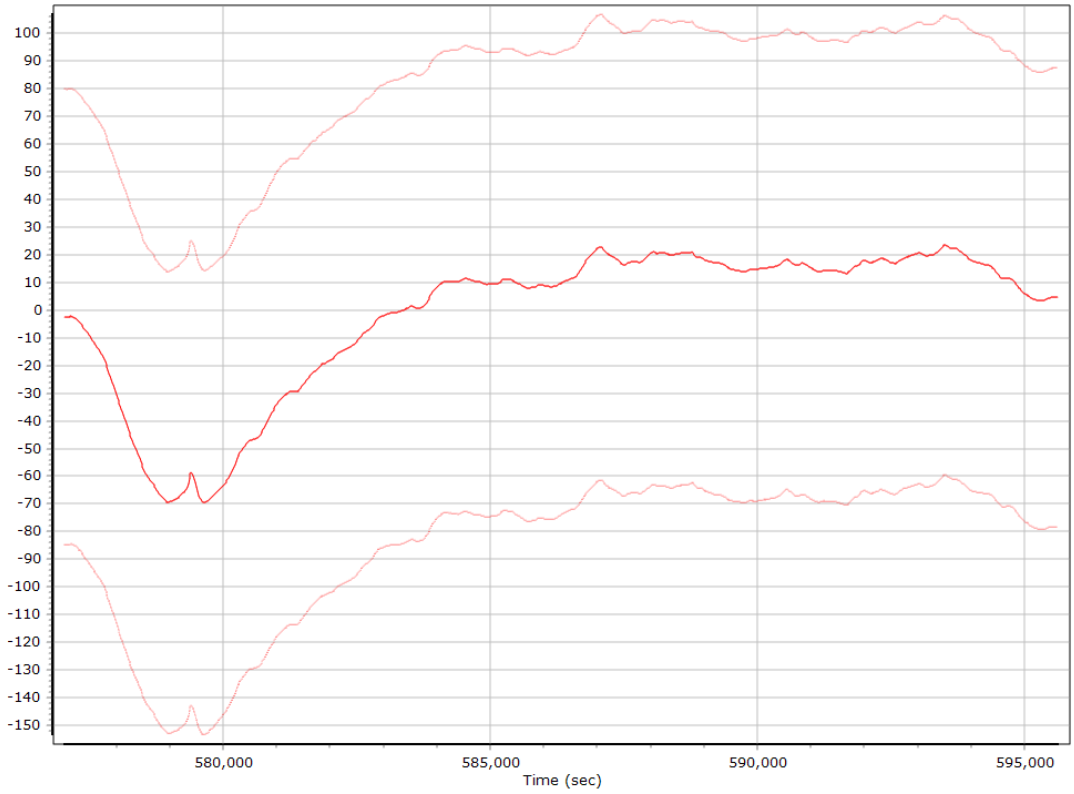
Accelerometer Bias (micro-g)



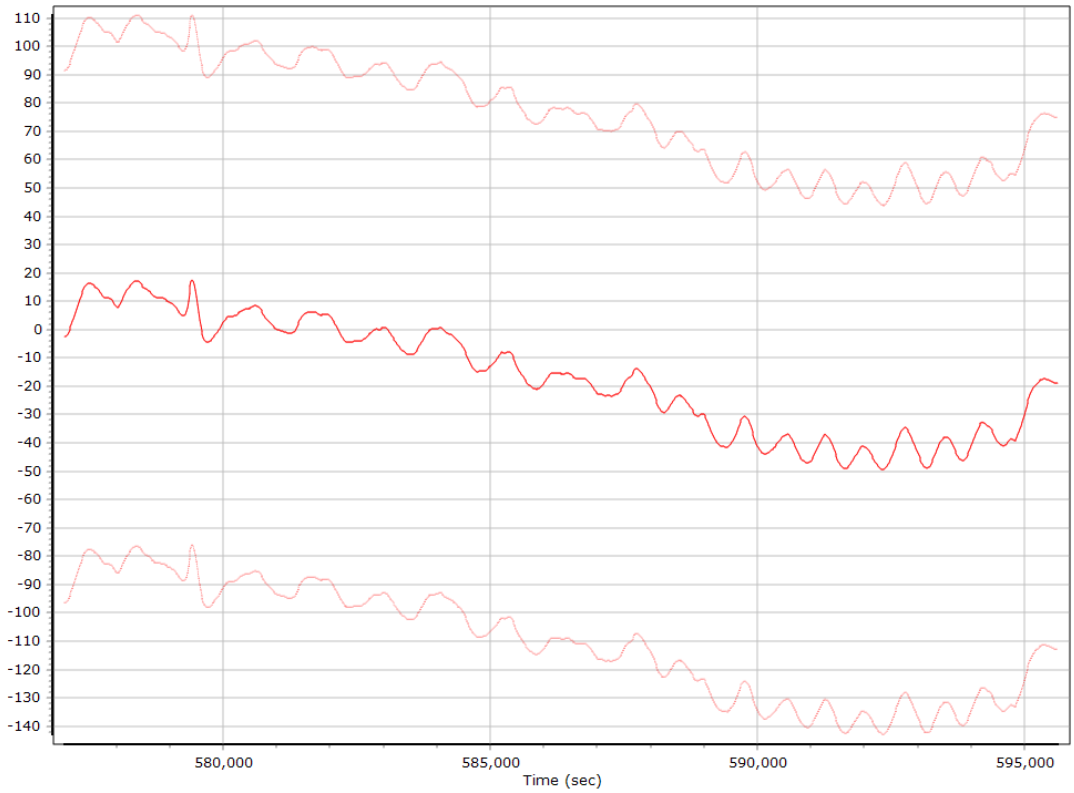
X Accelerometer Bias (micro-g)



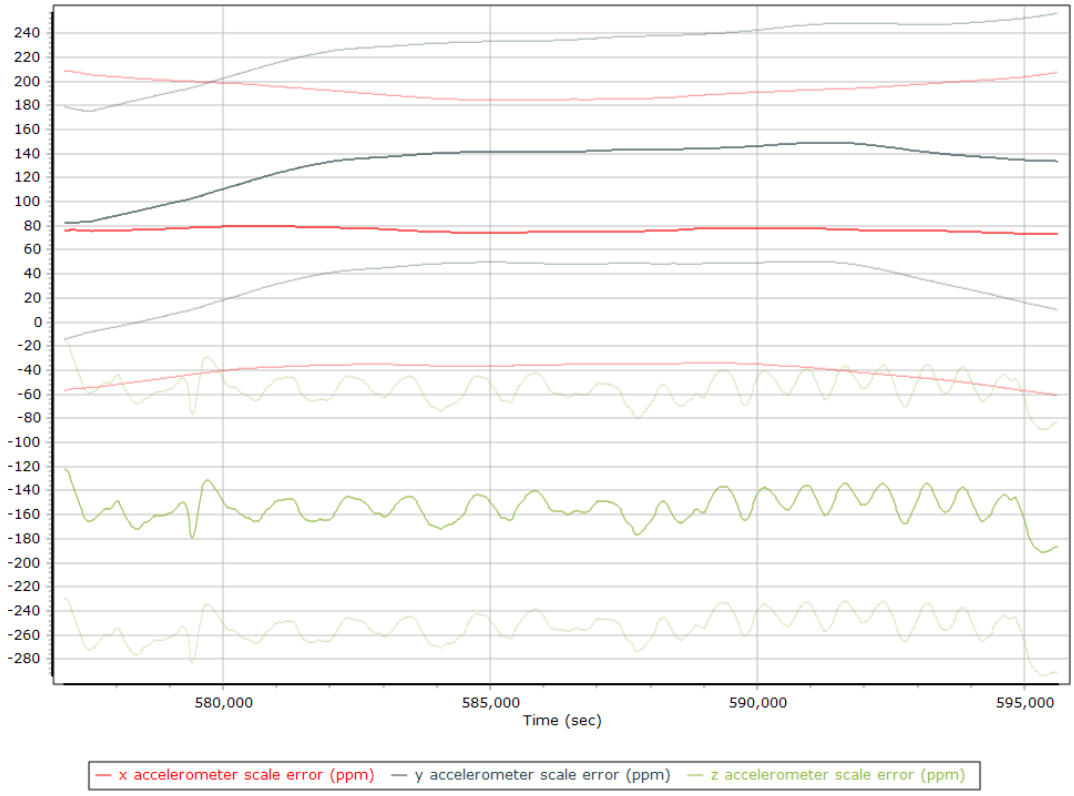
Y Accelerometer Bias (micro-g)



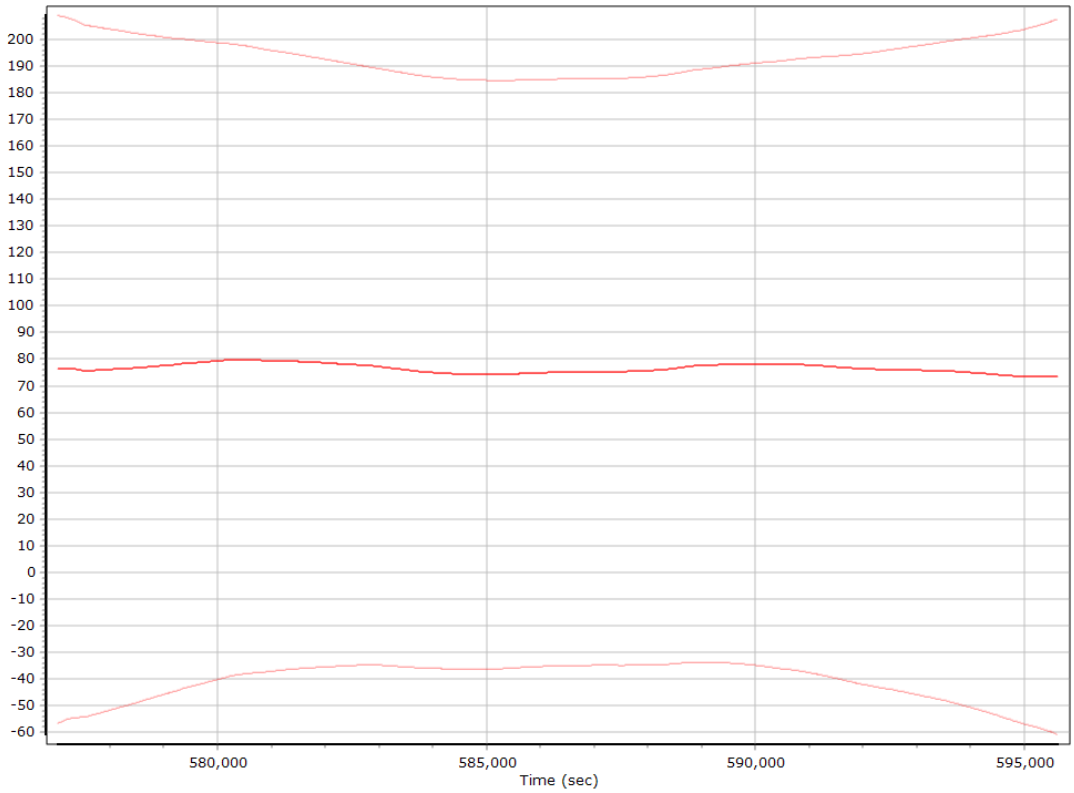
Z Accelerometer Bias (micro-g)



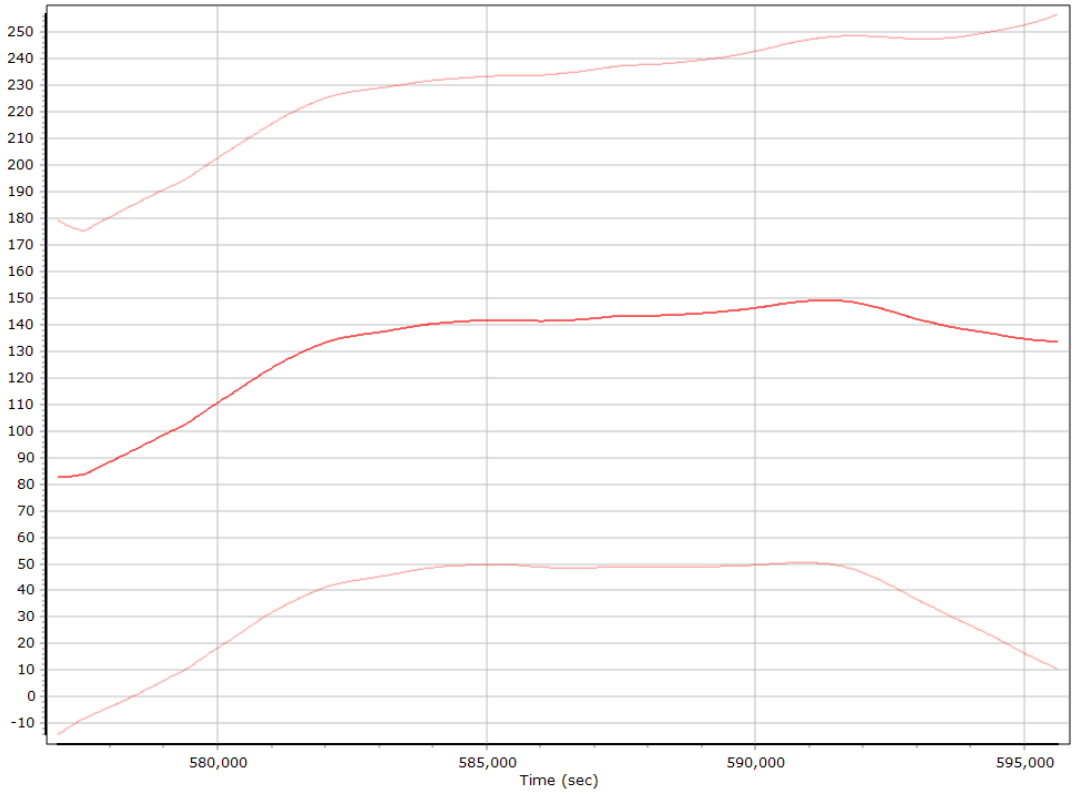
Accelerometer Scale Error (ppm)



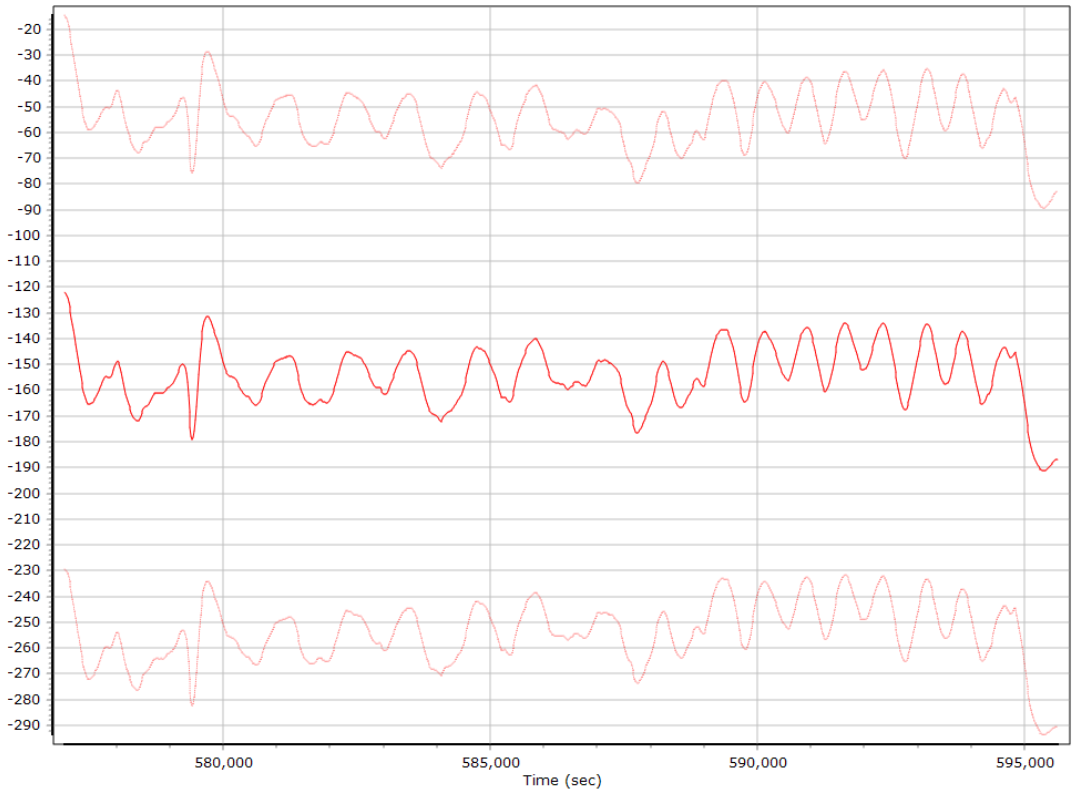
X Accelerometer Scale Error (ppm)



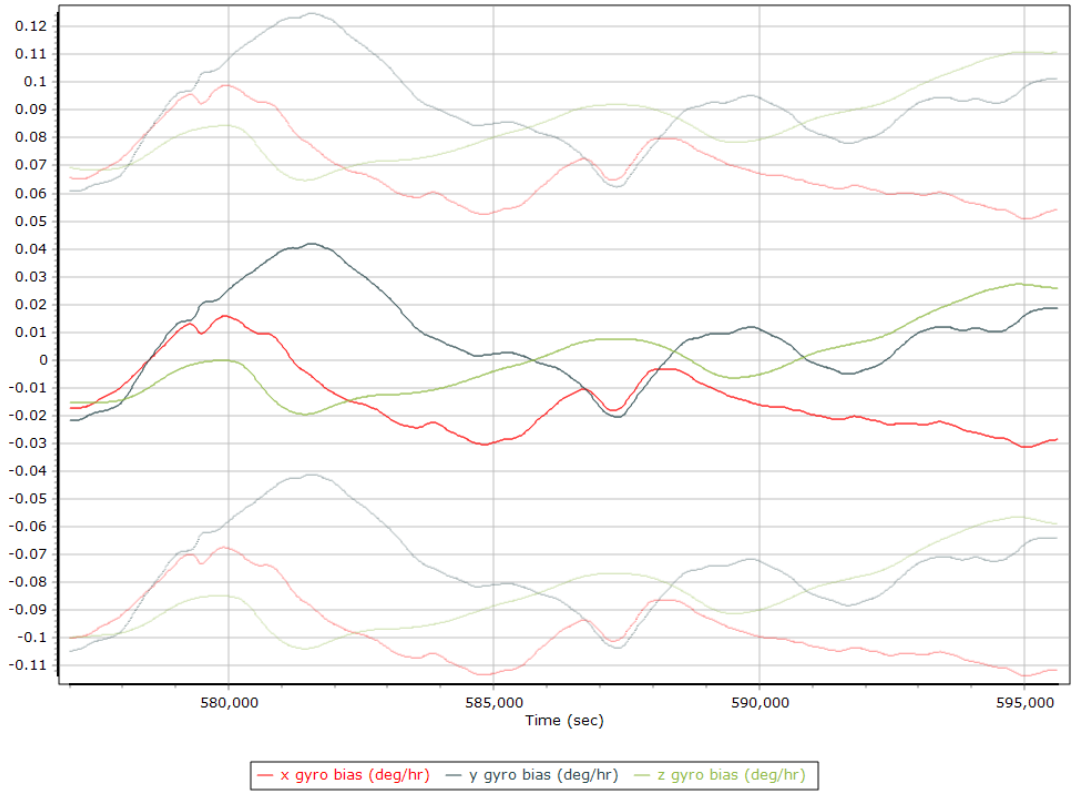
Y Accelerometer Scale Error (ppm)



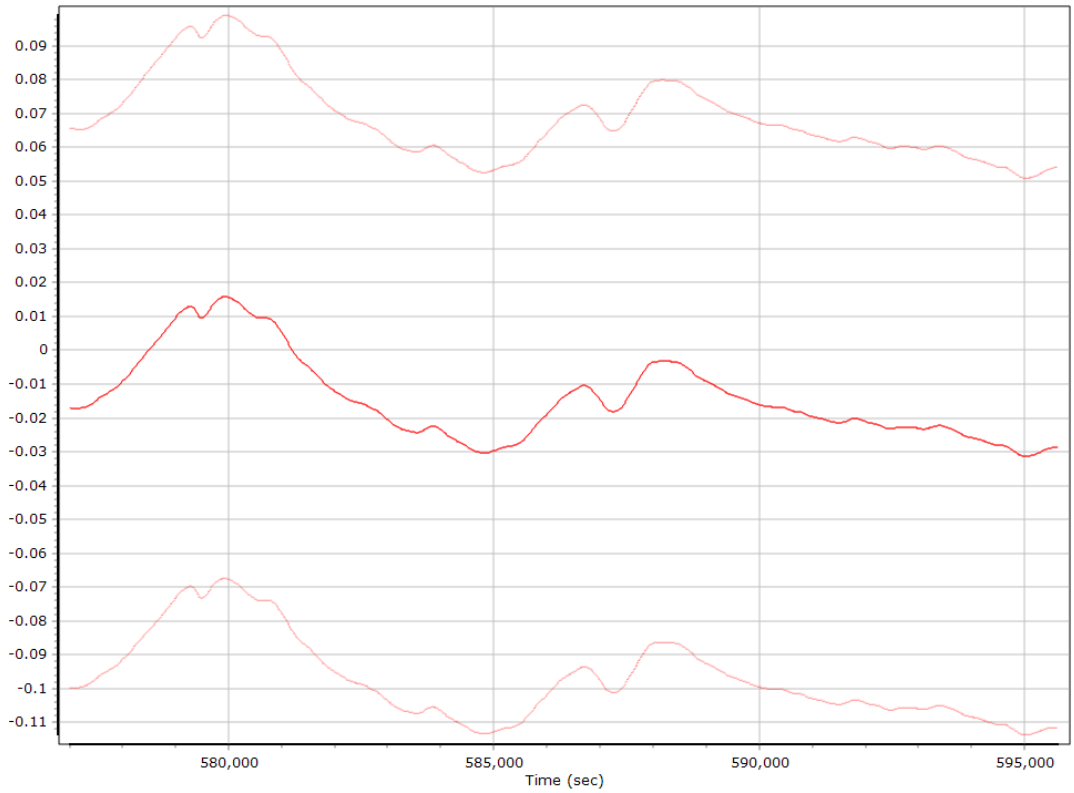
Z Accelerometer Scale Error (ppm)



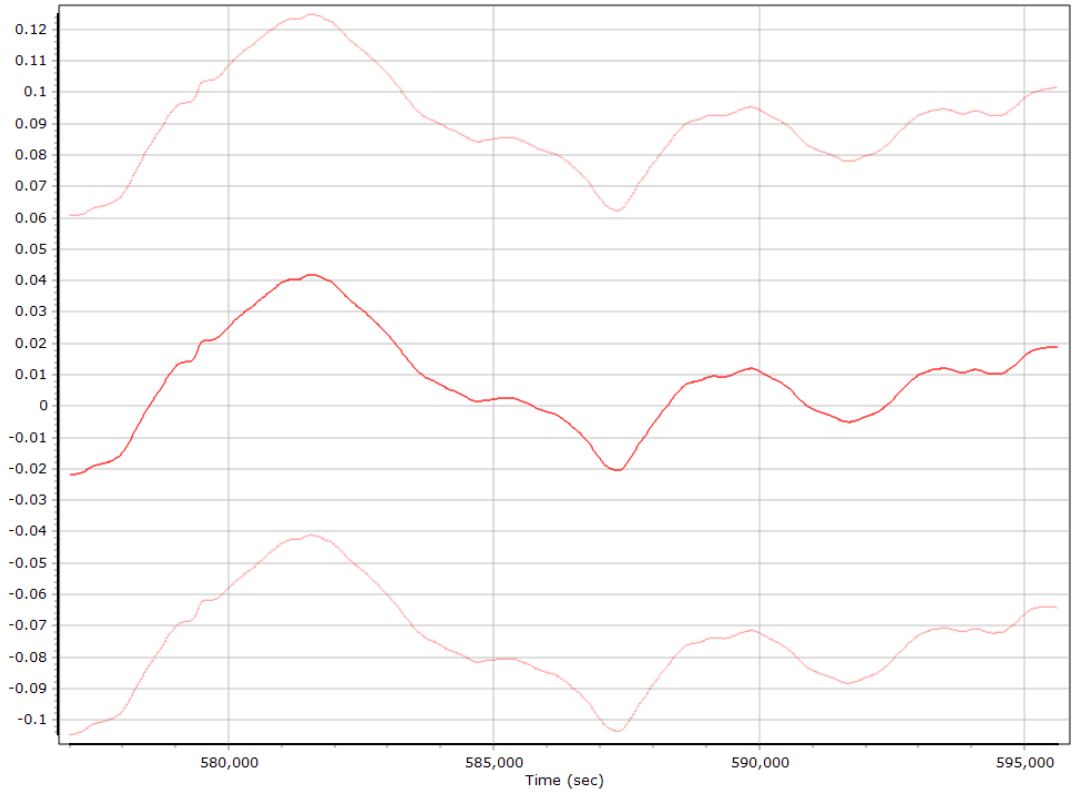
Gyro Bias (deg/h)



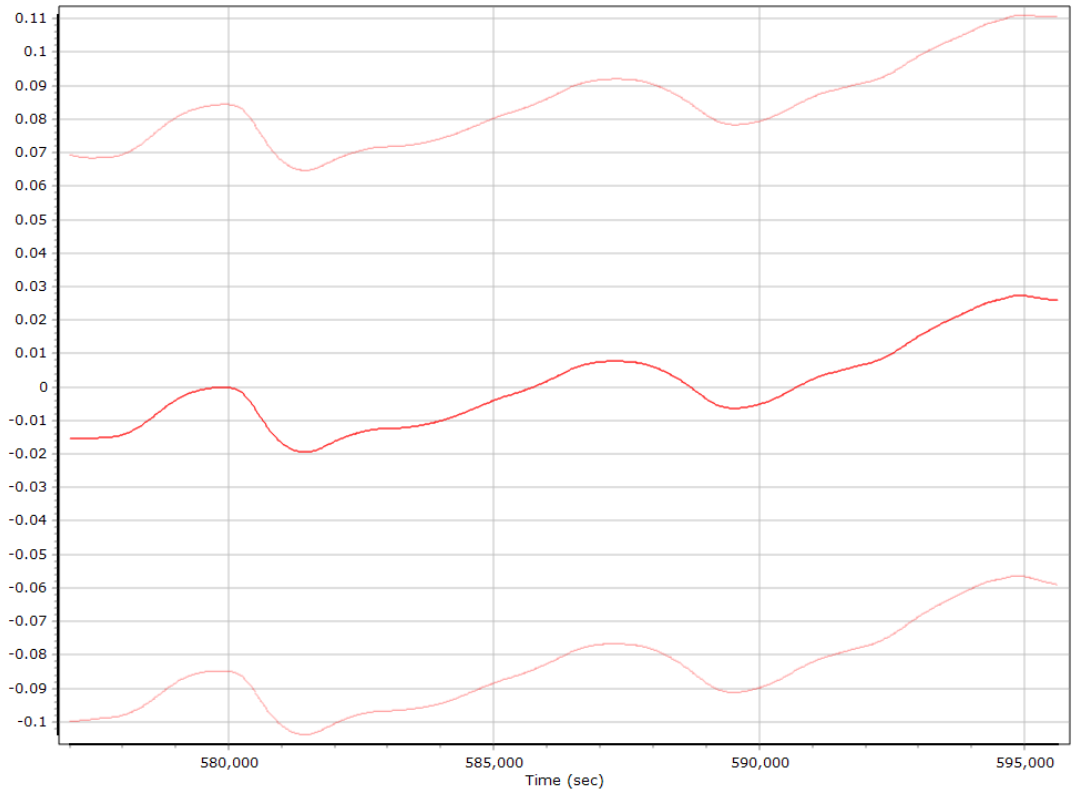
X Gyro Bias (deg/h)



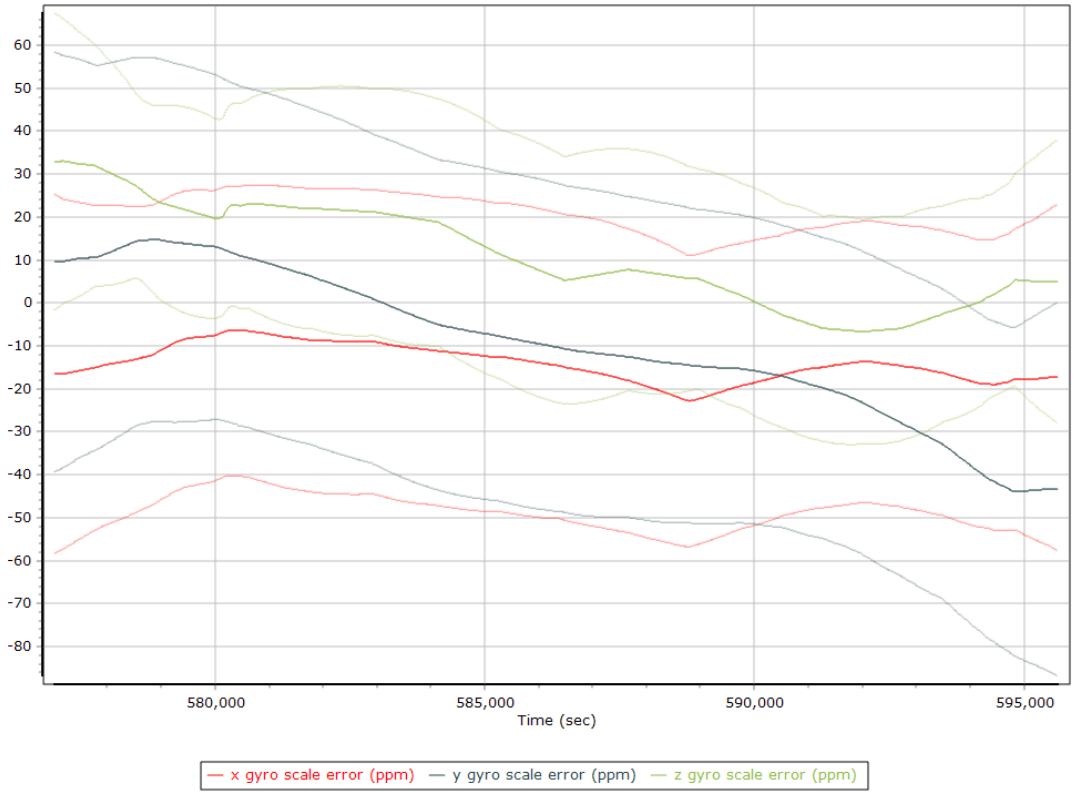
Y Gyro Bias (deg/h)



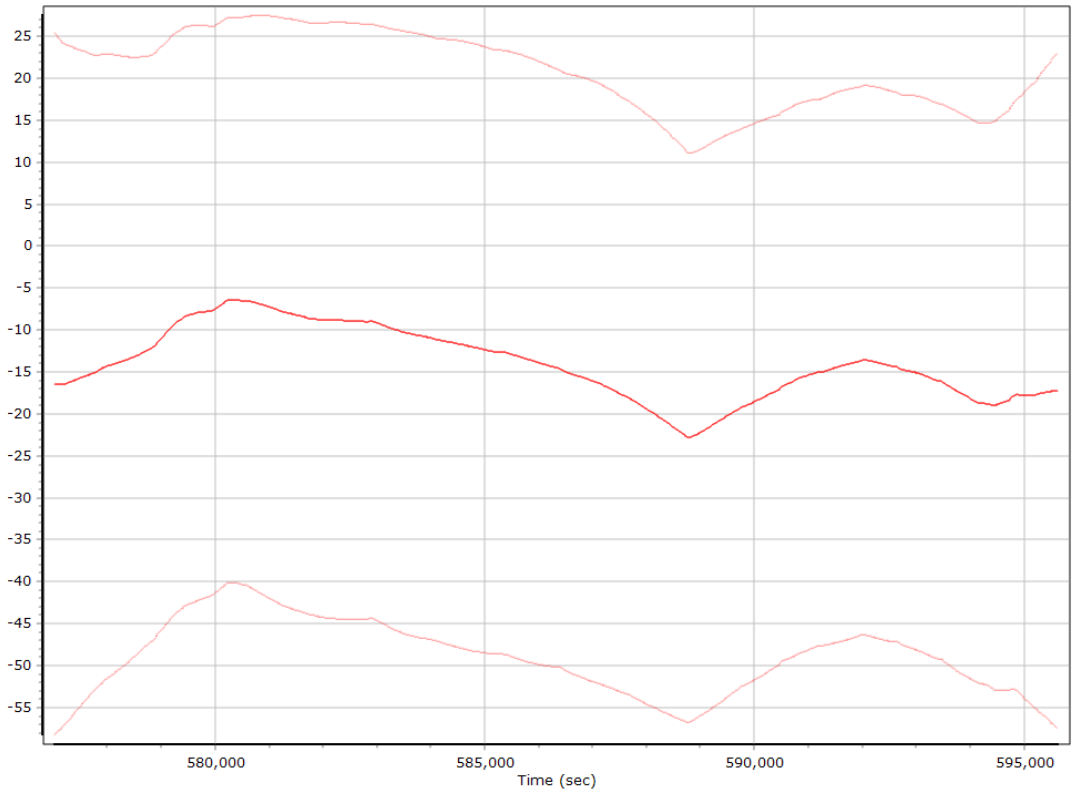
Z Gyro Bias (deg/h)



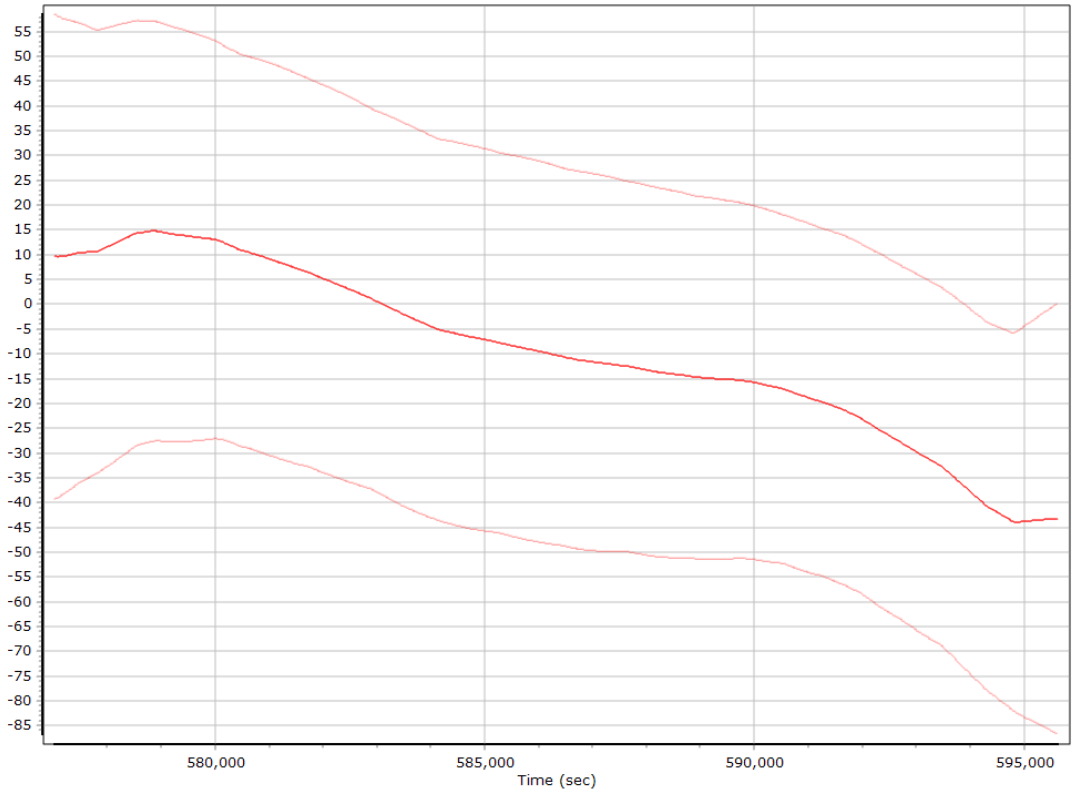
Gyro Scale Error (ppm)



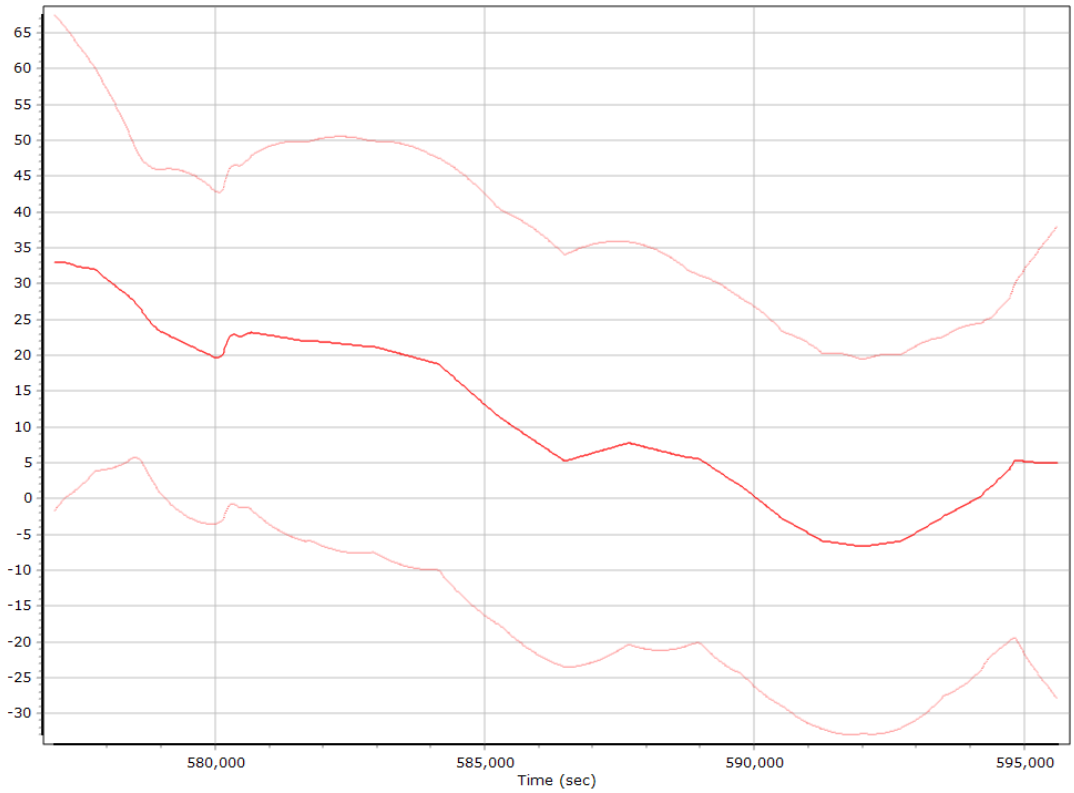
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)



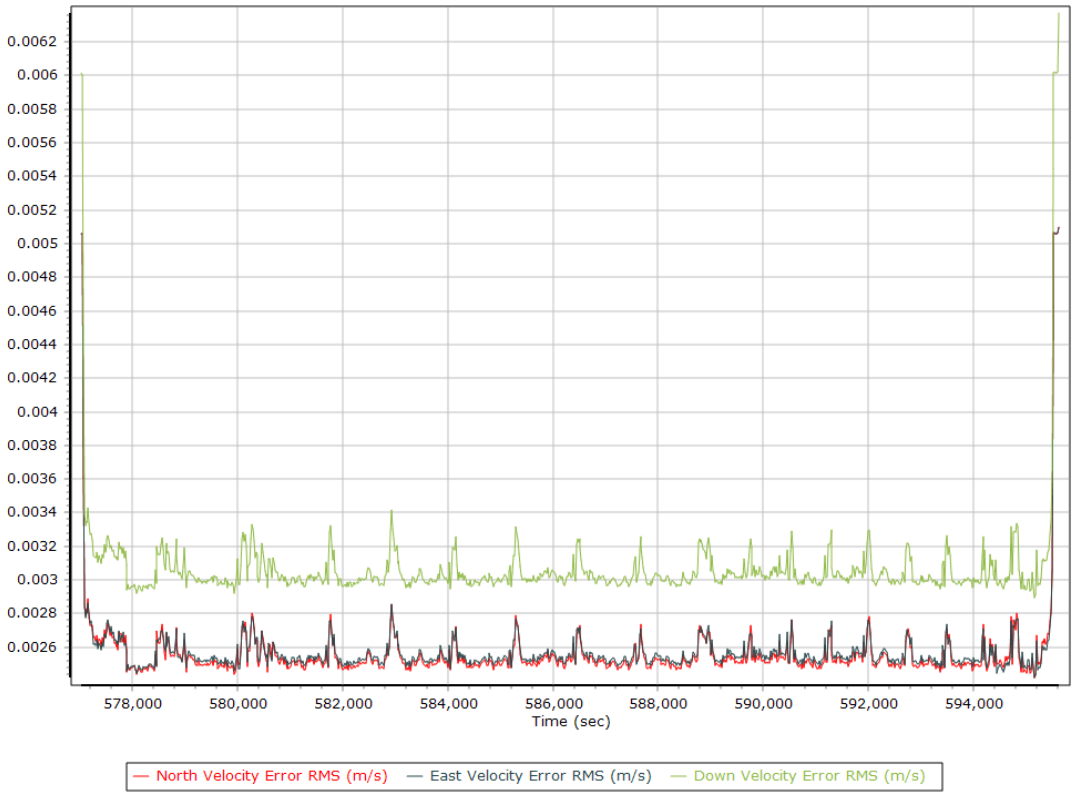
Z Gyro Scale Error (ppm)



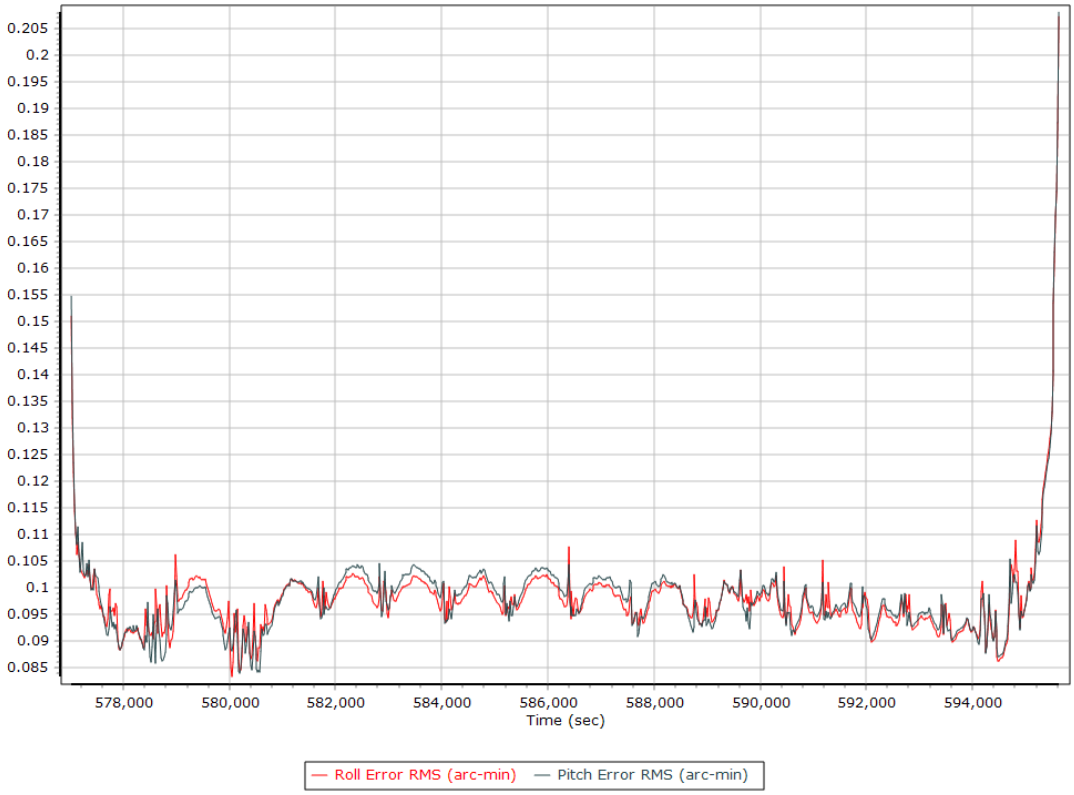
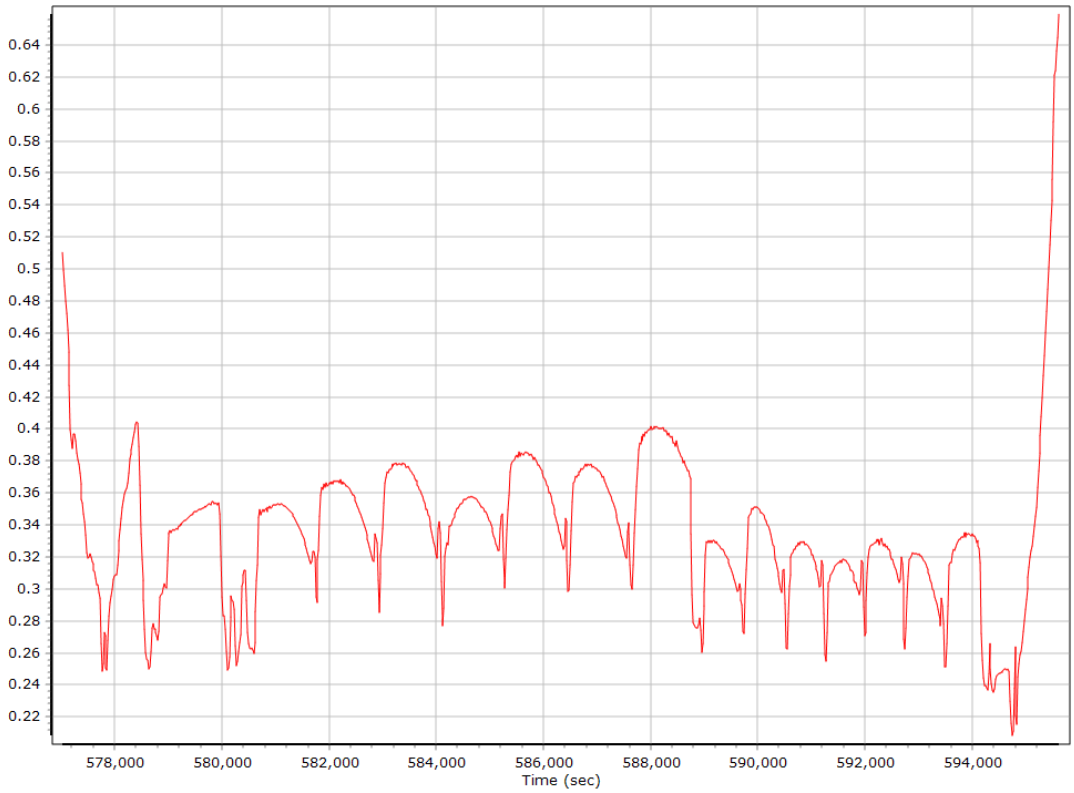
Smoothed Performance Metrics

Position Error RMS (m)

Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)