General Information

Mission Information

Project name	2SU20304A_186
Processing date	2020-11-05 13:27:50
Mission date	2020-10-30 15:12:22
Mission duration	04:47:37.000
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
2SU_20_304_A.436	POS Data
2SU_20_304_A.437	POS Data
2SU_20_304_A.438	POS Data
2SU_20_304_A.439	POS Data
2SU_20_304_A.440	POS Data
2SU_20_304_A.441	POS Data
2SU_20_304_A.442	POS Data
2SU_20_304_A.443	POS Data
2SU_20_304_A.444	POS Data
2SU_20_304_A.445	POS Data
2SU_20_304_A.446	POS Data
2SU_20_304_A.447	POS Data
2SU_20_304_A.448	POS Data
2SU_20_304_A.449	POS Data
2SU_20_304_A.450	POS Data
2SU_20_304_A.451	POS Data
2SU_20_304_A.452	POS Data
2SU_20_304_A.453	POS Data
2SU_20_304_A.454	POS Data
2SU_20_304_A.455	POS Data
2SU_20_304_A.456	POS Data
2SU_20_304_A.457	POS Data
2SU_20_304_A.458	POS Data
2SU_20_304_A.459	POS Data
2SU_20_304_A.460	POS Data
2SU_20_304_A.461	POS Data
2SU_20_304_A.462	POS Data
2SU_20_304_A.463	POS Data
2SU_20_304_A.464	POS Data
2SU_20_304_A.465	POS Data
2SU_20_304_A.466	POS Data
2SU_20_304_A.467	POS Data
2SU_20_304_A.468	POS Data
2SU_20_304_A.469	POS Data
2SU_20_304_A.470	POS Data
2SU_20_304_A.471	POS Data
2SU_20_304_A.472	POS Data
2SU_20_304_A.473	POS Data
2SU_20_304_A.474	POS Data
2SU_20_304_A.475	POS Data
2SU_20_304_A.476	POS Data
2SU_20_304_A.477	POS Data
2SU_20_304_A.478	POS Data

Input Files

File Name	File Type
Ephm3040.20g	GLONASS Broadcast Ephemeris
Ephm3040.20n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_2SU20304A_186.out	SBET Trajectory File

Rover Data Summary

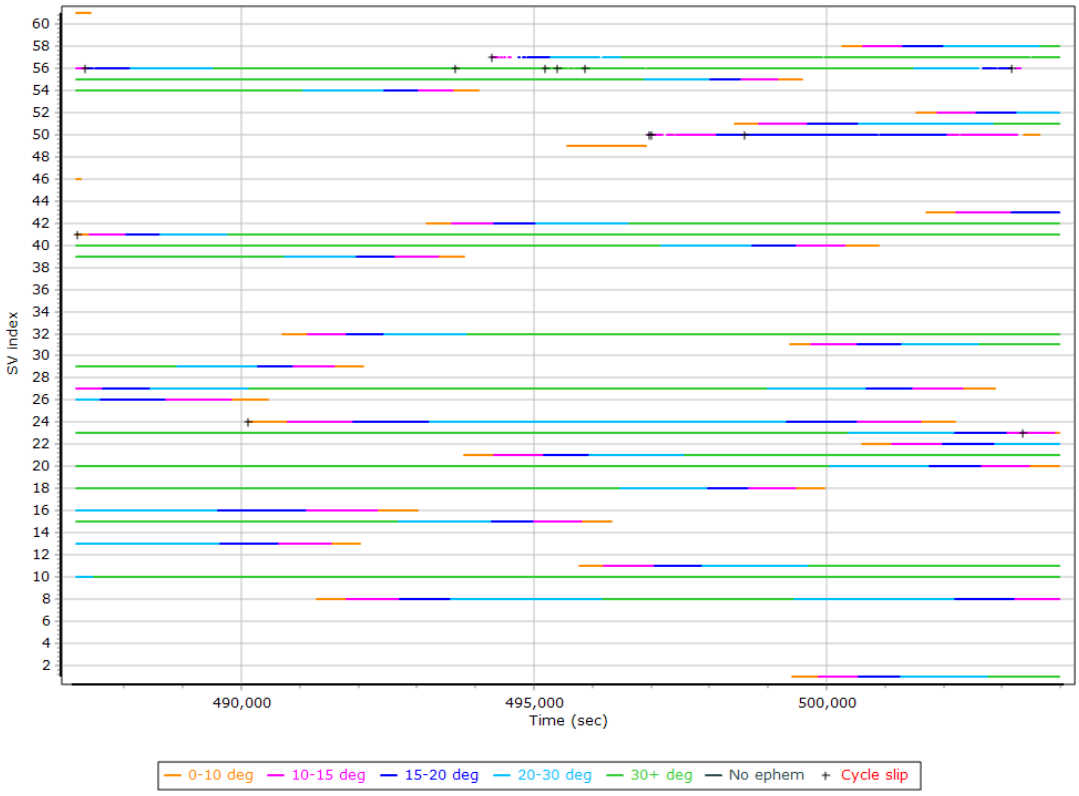
First raw data file	2SU_20_304_A.436		
Last raw data file	2SU_20_304_A.478		
Start GPS week	2129		
Start time	486723.145 (10/30/2020 15:12:03)		
End time	503982.386 (10/30/2020 19:59:42)		
Start of fine alignment	487127.509 (10/30/2020 15:18:47)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS 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

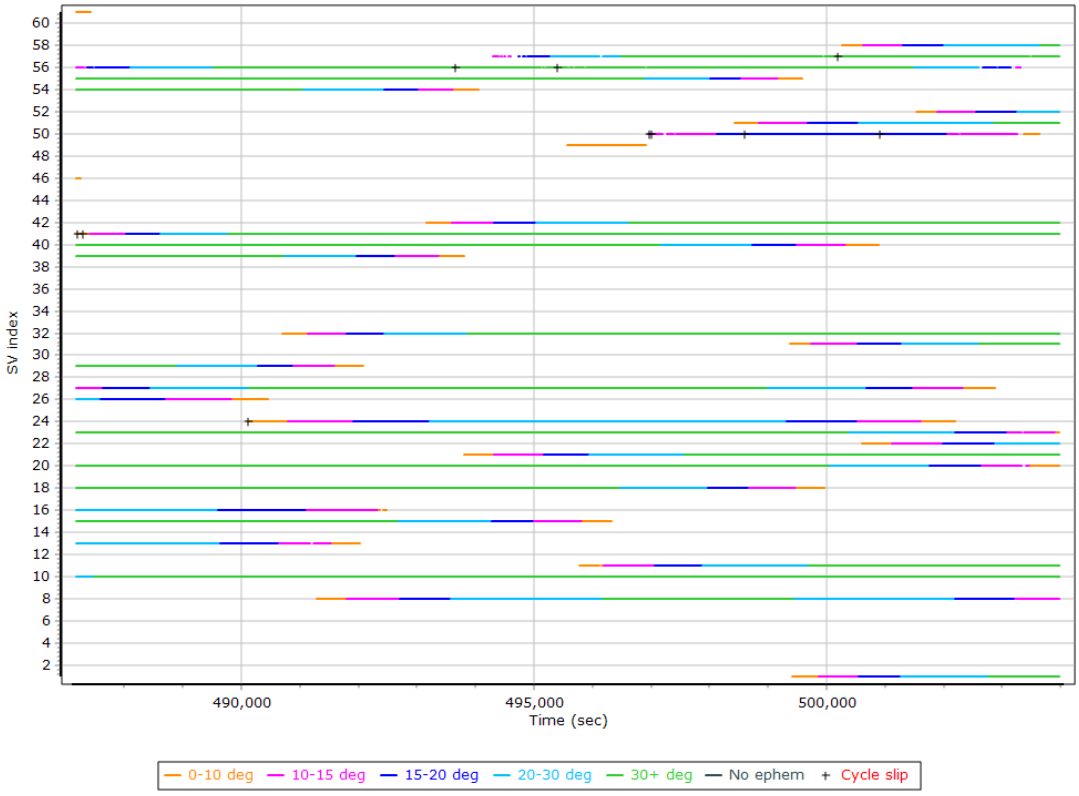
Raw IMU Import QC Summary

IMU data input file	imu_2SU20304A_186.dat
IMU data check log file	imudt_2SU20304A_186.log
IMU Records Processed	3451335
Termination Status	Normal
IMU Anomalies	0

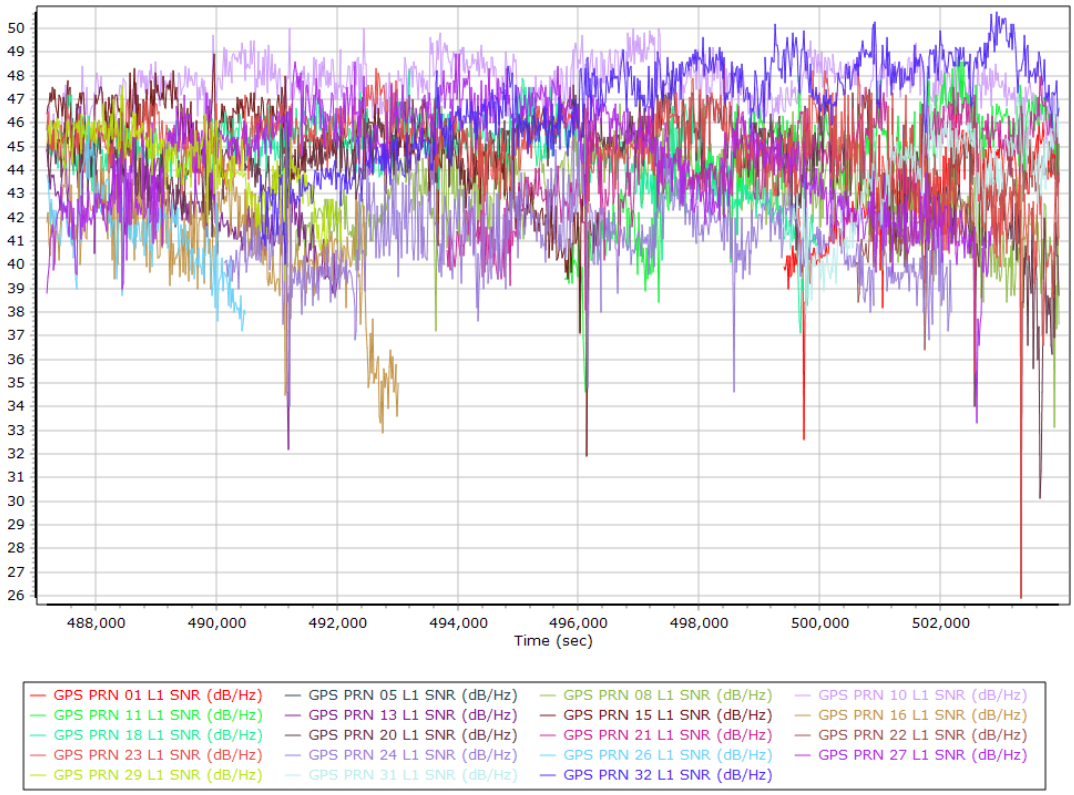
L1 Satellite Lock/Elevation



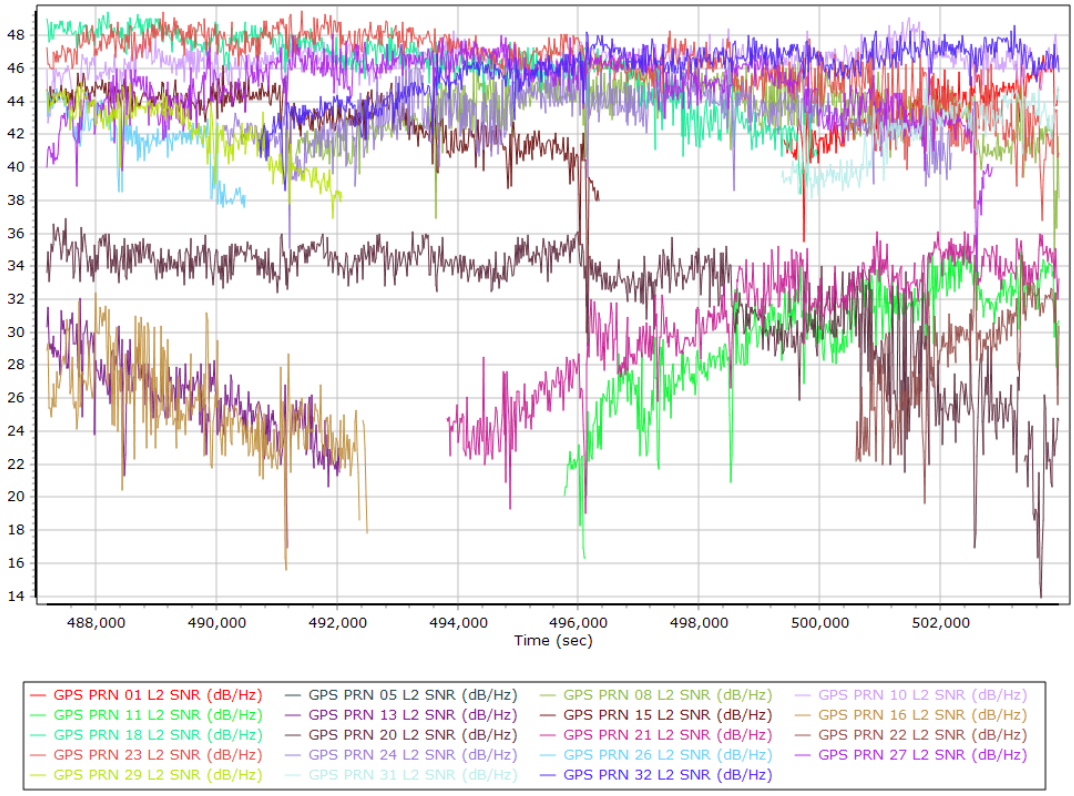
L2 Satellite Lock/Elevation



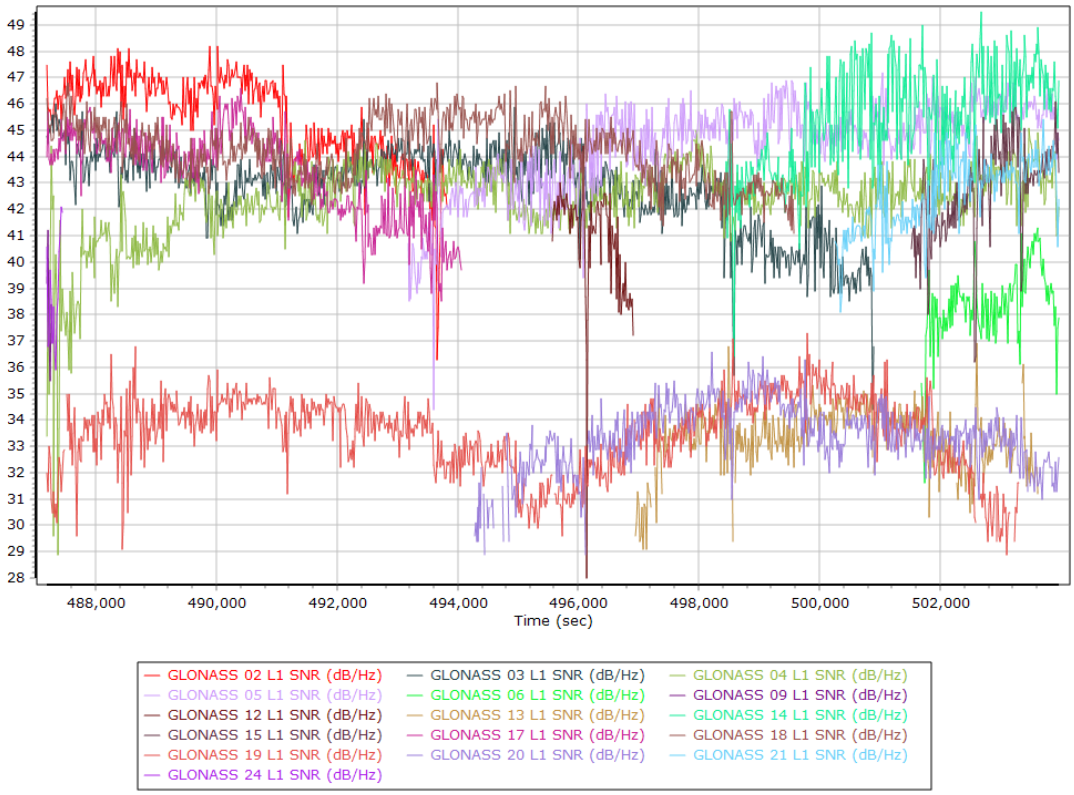
GPS L1 SNR



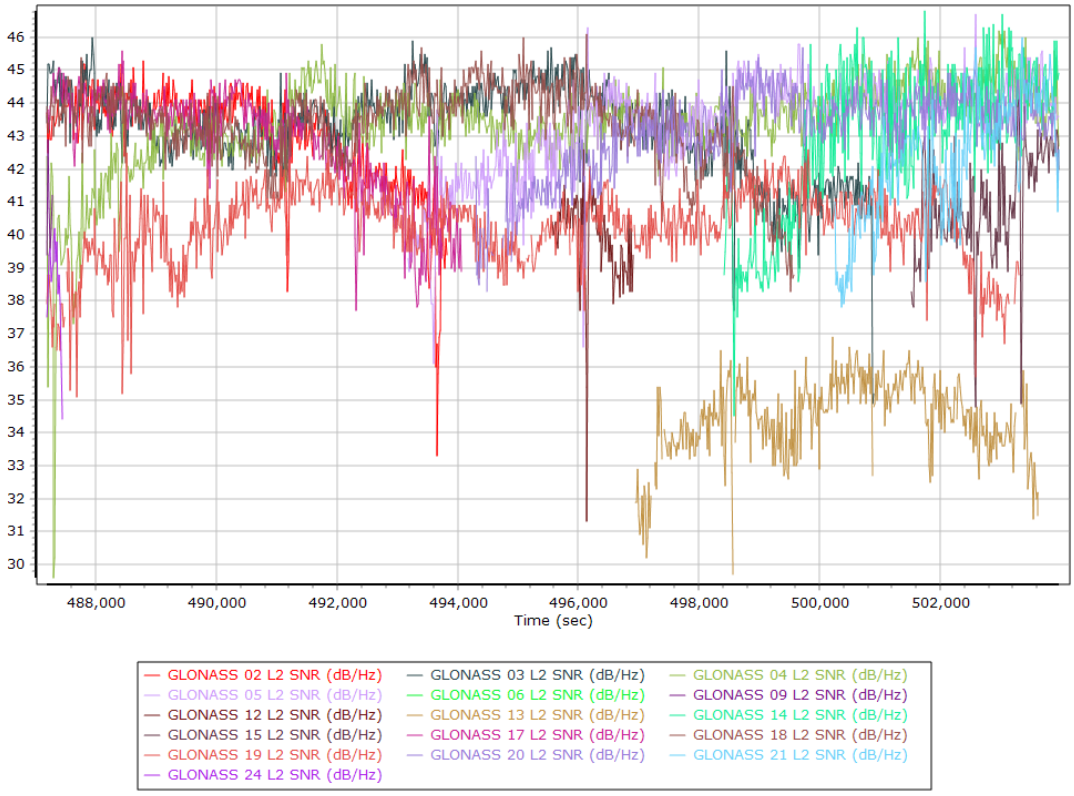
GPS L2 SNR



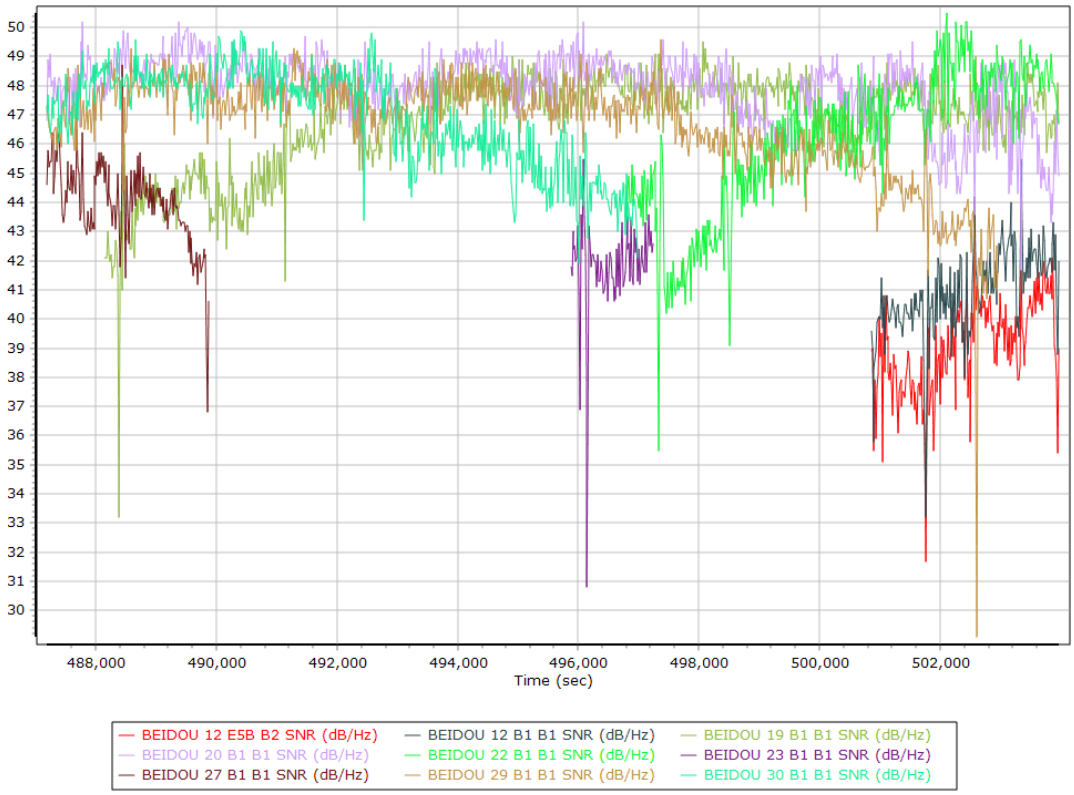
GLONASS L1 SNR



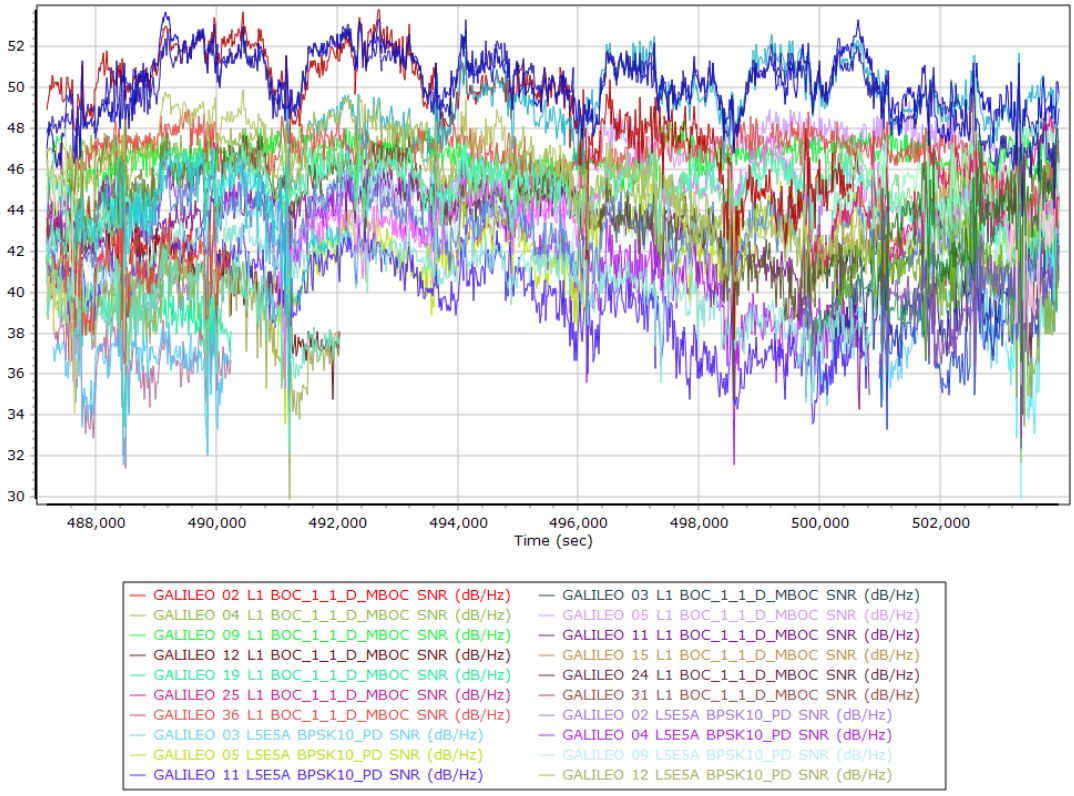
GLONASS L2 SNR



BEIDOU SNR

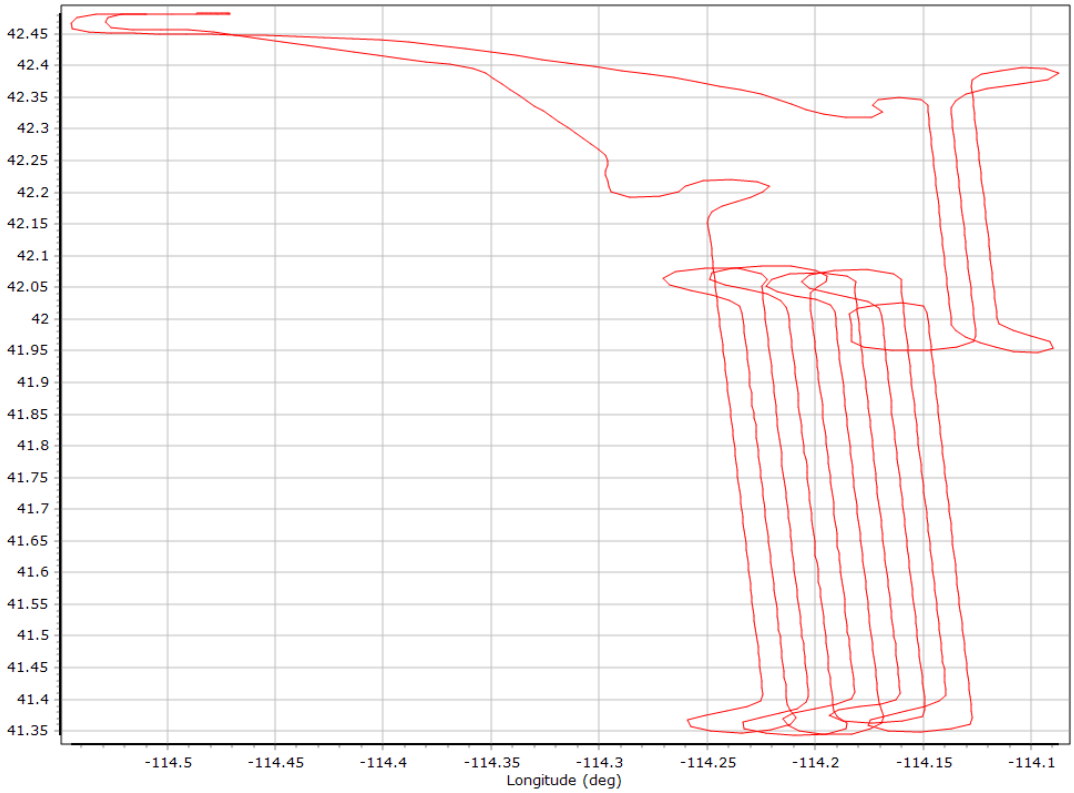


GALILEO SNR

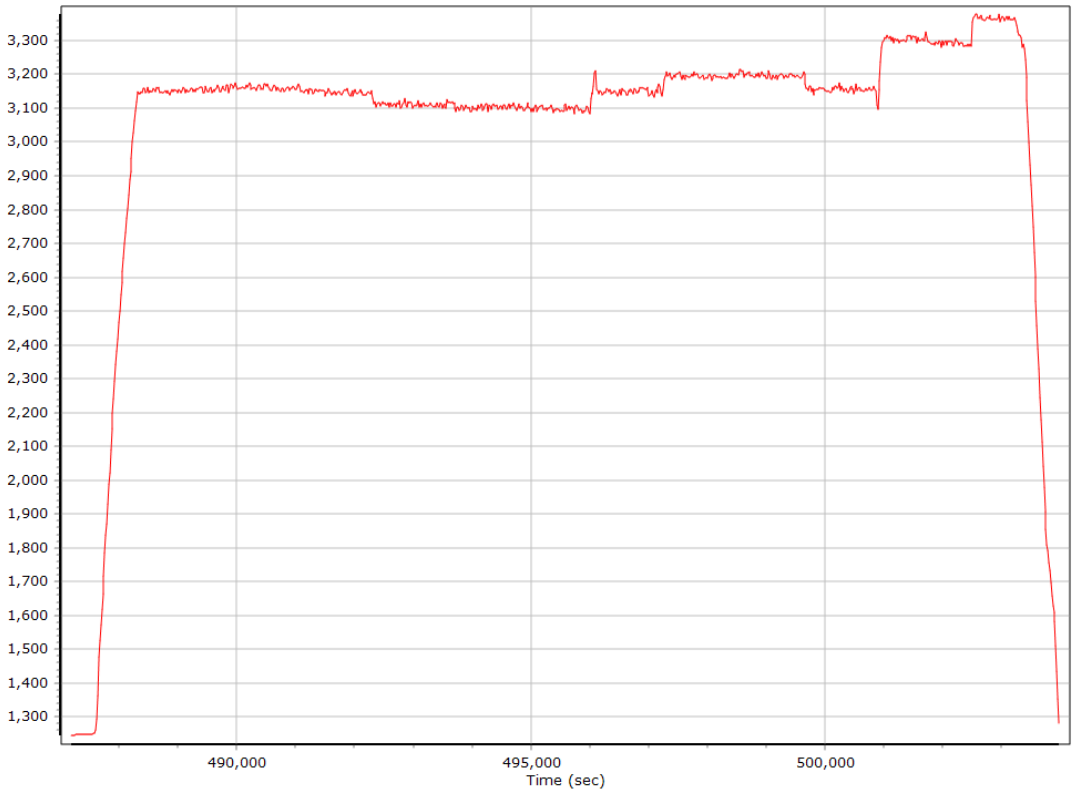

52
50
48
46
44
42
40
38
36
34
32
30
488,000
490,000
492,000
494,000
496,000
498,000
500,000
502,000
Time (sec)
GALILEO 02 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 03 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 04 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 05 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 09 L1 BOC_1_1_D_MBOC 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 15 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 31 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 04 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 05 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

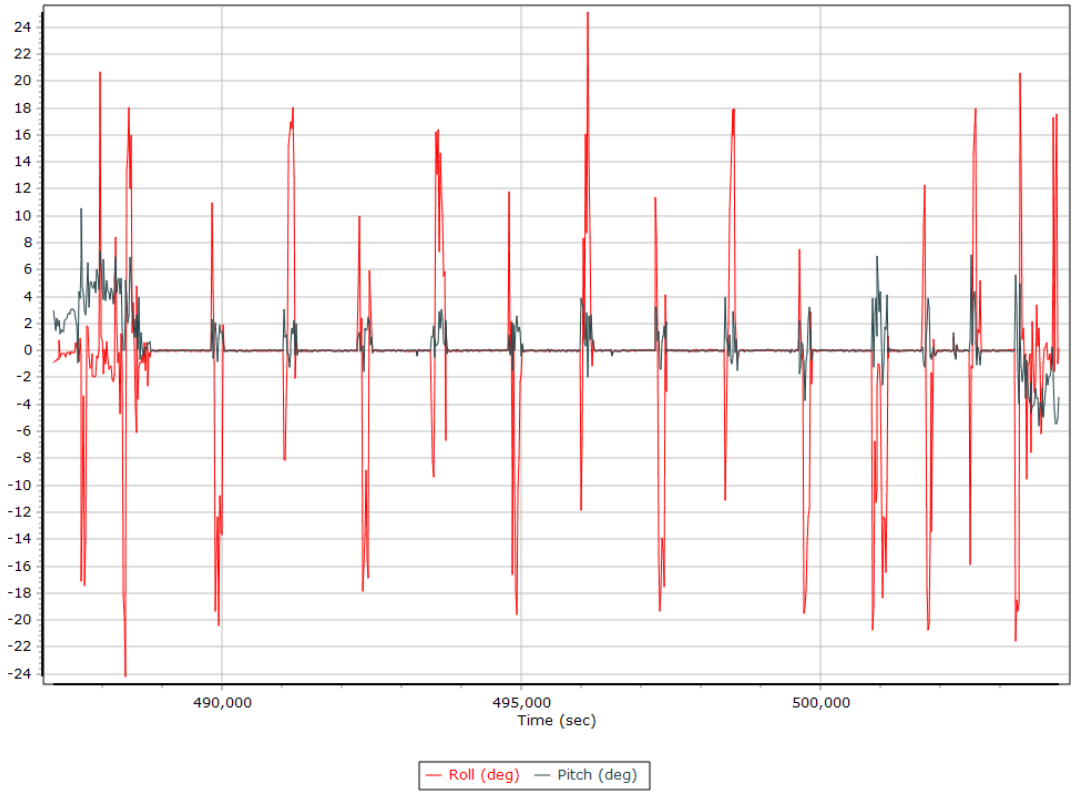
Top View



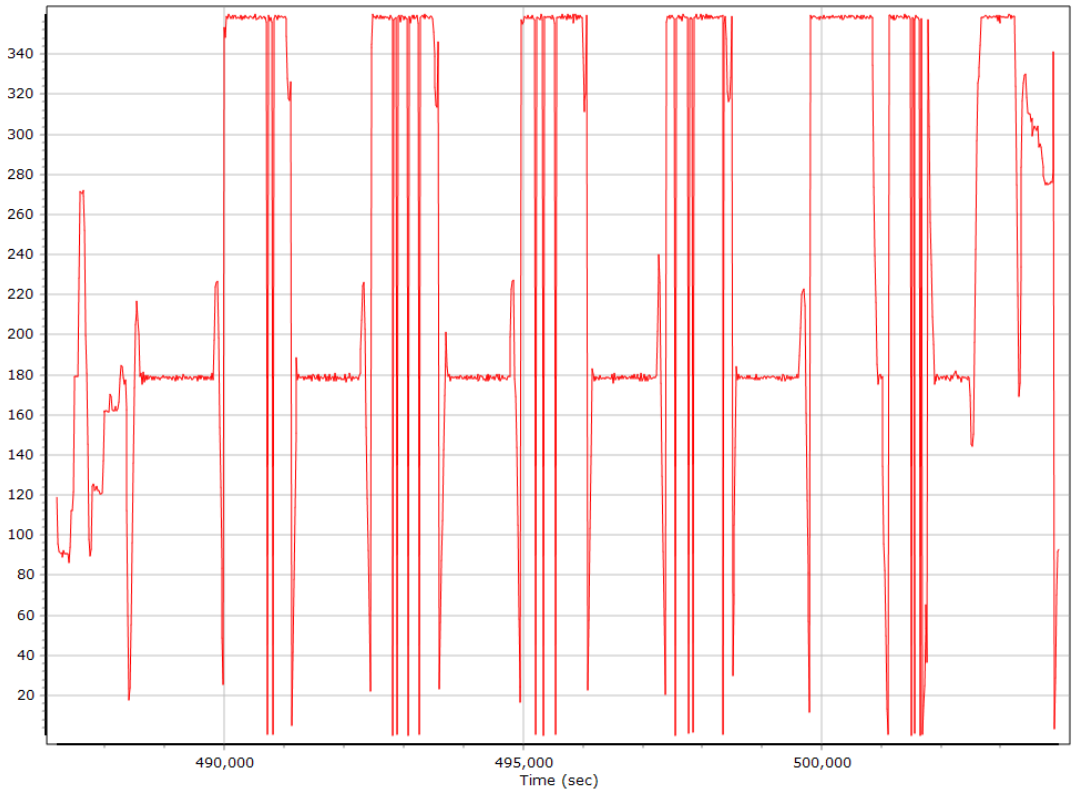
Altitude



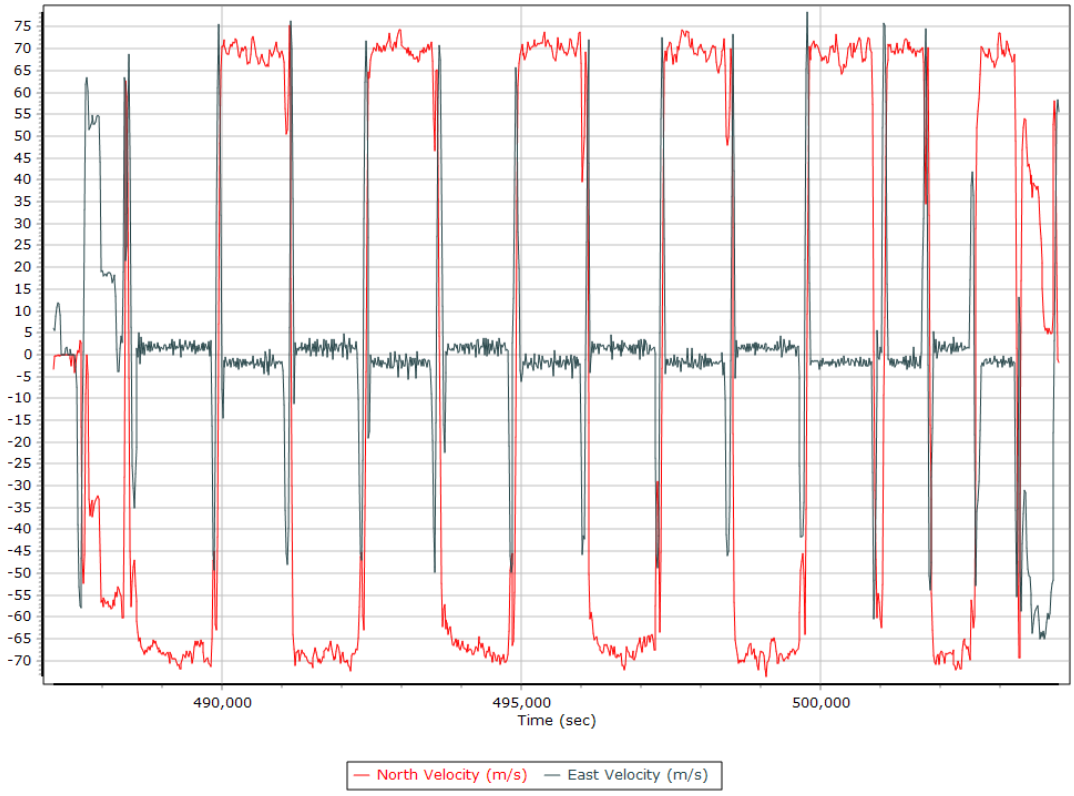
Roll/Pitch



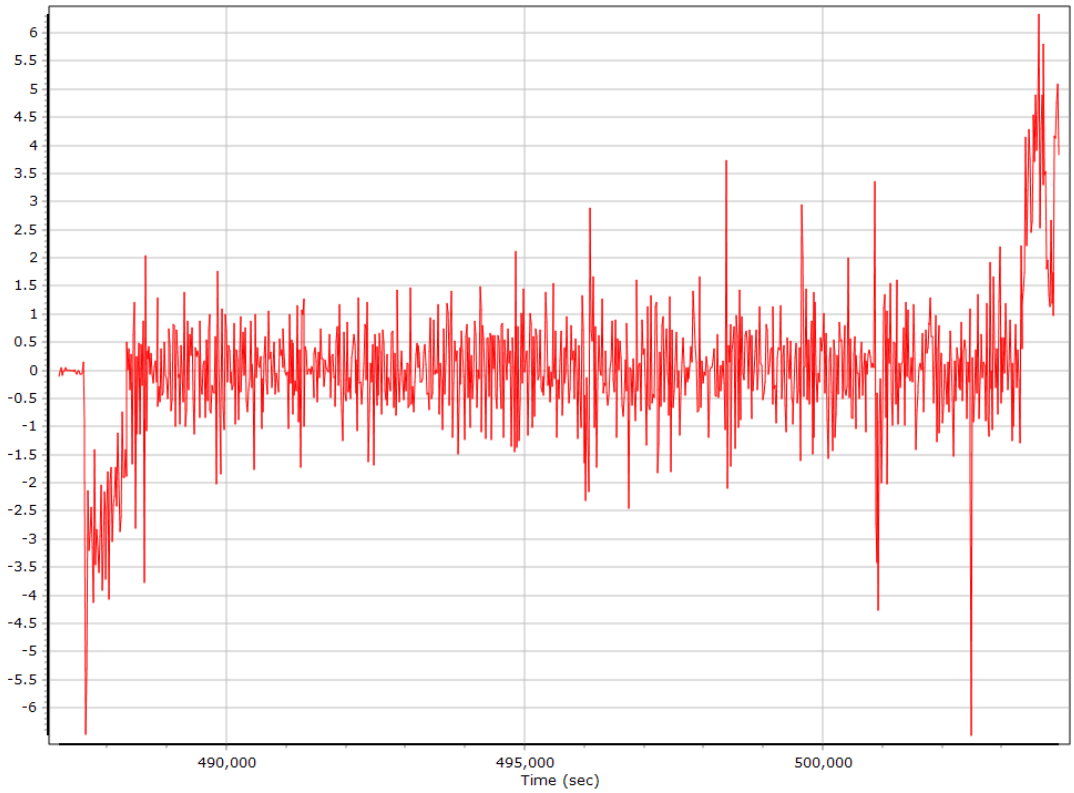
Heading



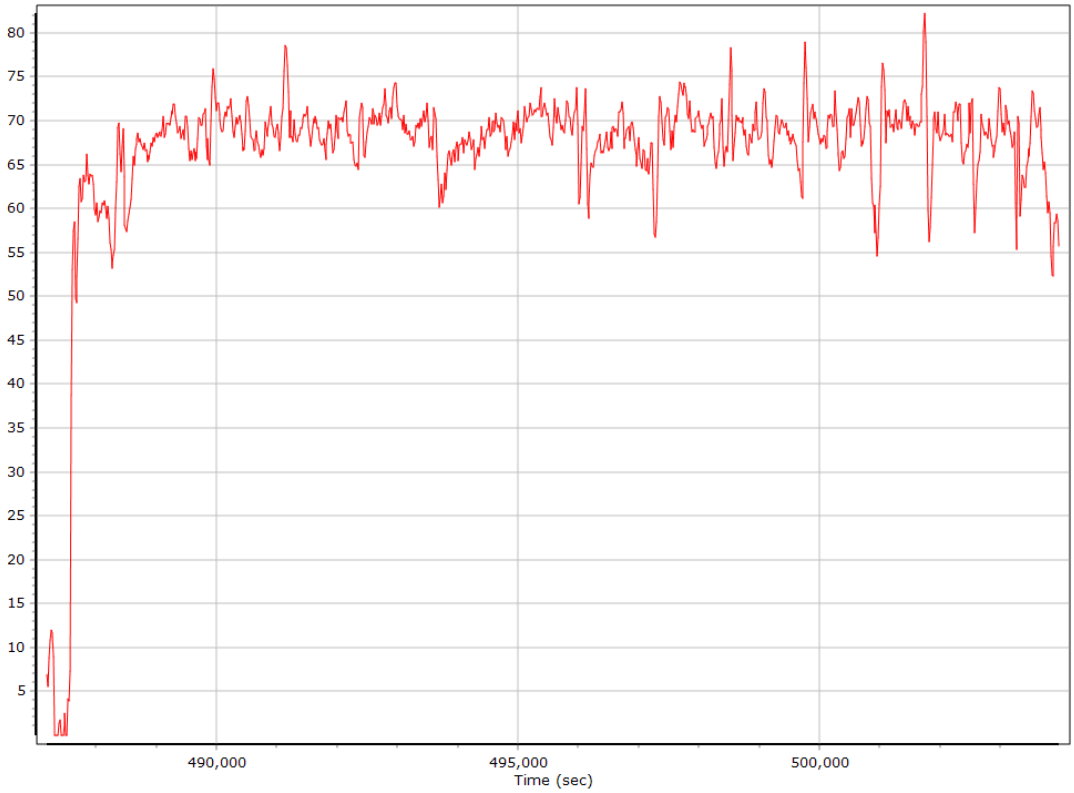
North/East Velocity



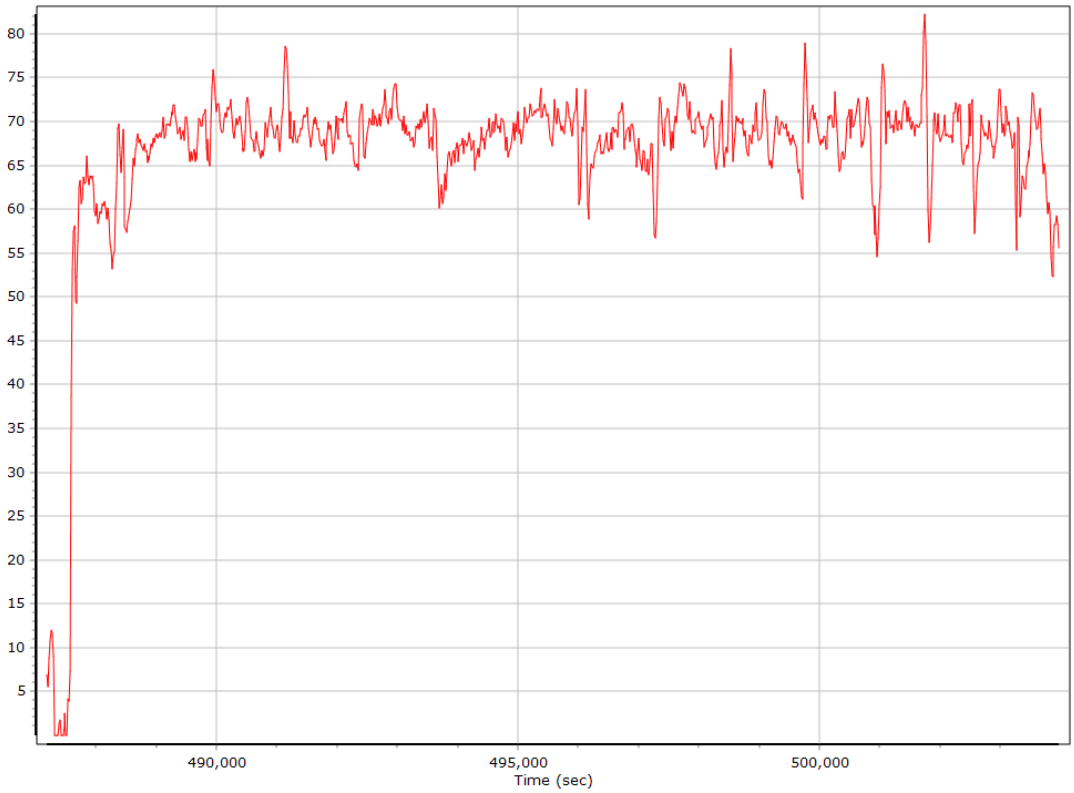
Down Velocity



Total Speed

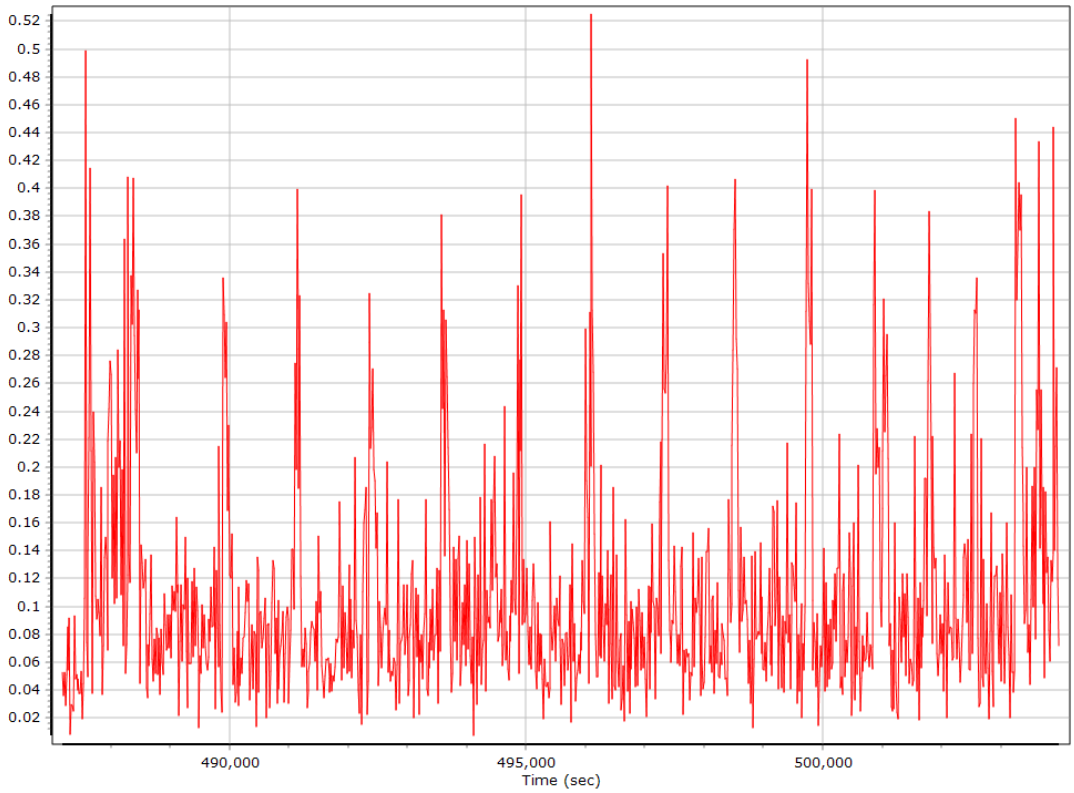


Ground Speed



Body Acceleration

Total Body Acceleration



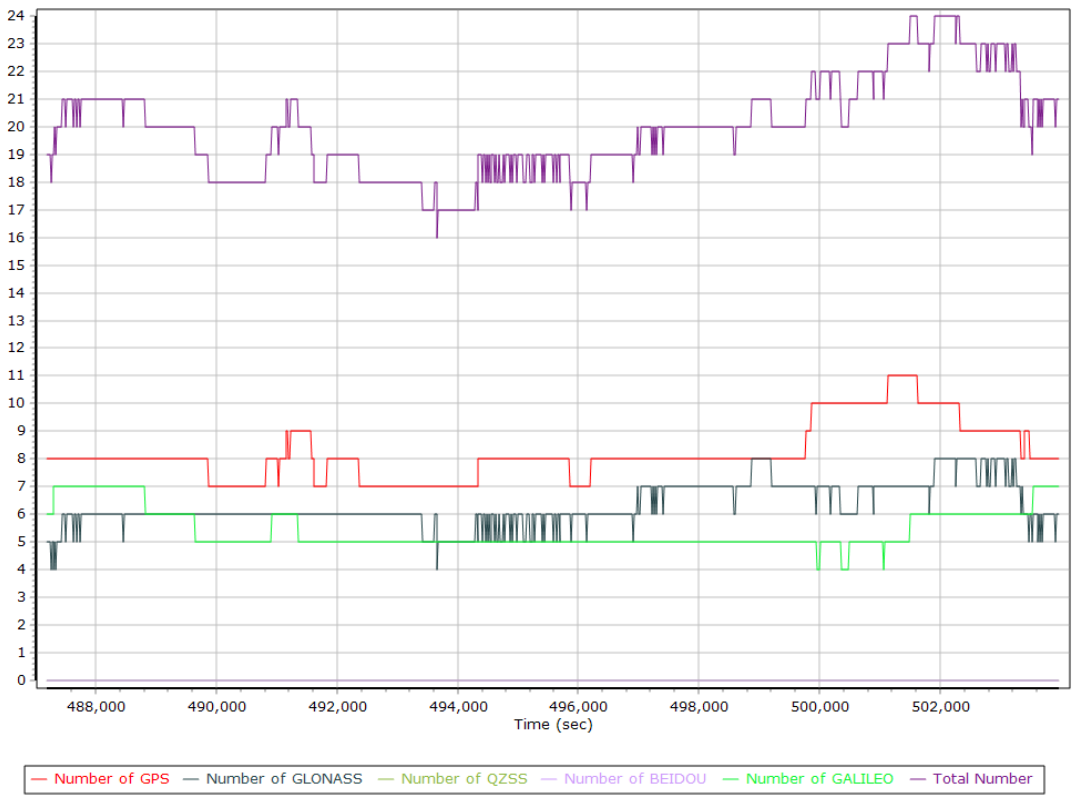
Body Angular Rate

GNSS QC

GNSS QC Statistics

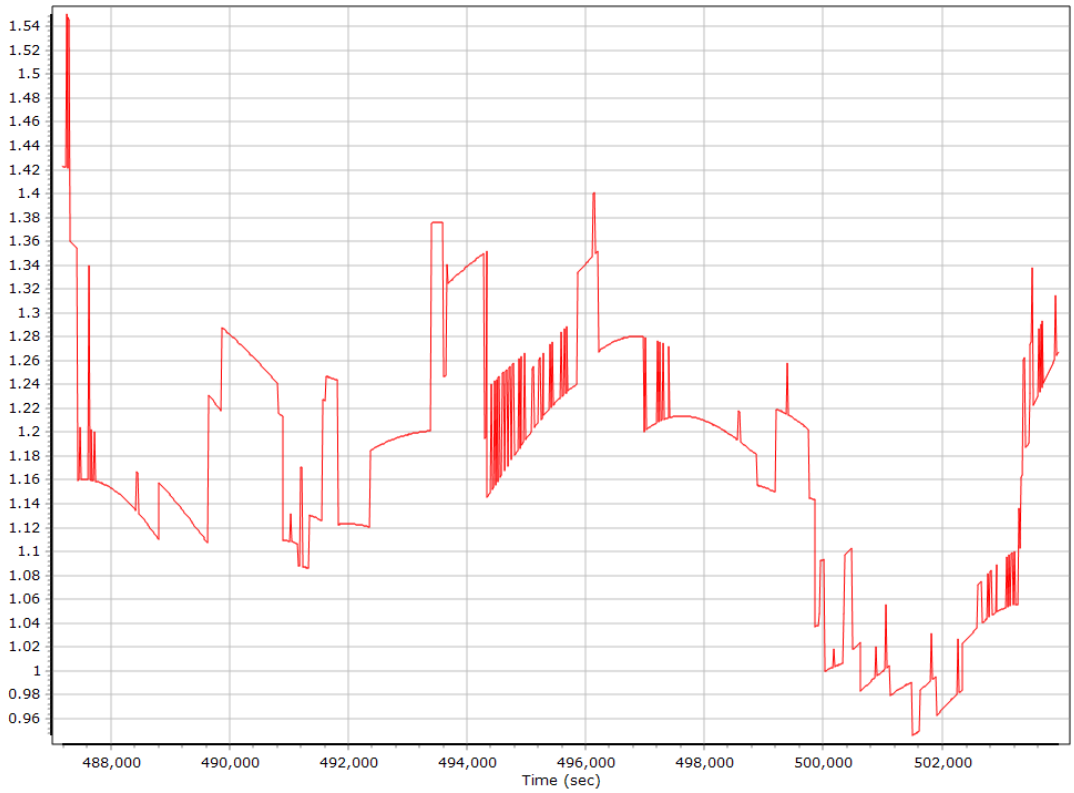
Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	7	11	8
Number of GLONASS SV	0	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	4	7	5
Total number of SV	15	24	20
PDOP	0.95	1.56	1.18
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	17232.00	0.00	0.00
Percentage	100.00	0.00	0.00

Num SVs in solution

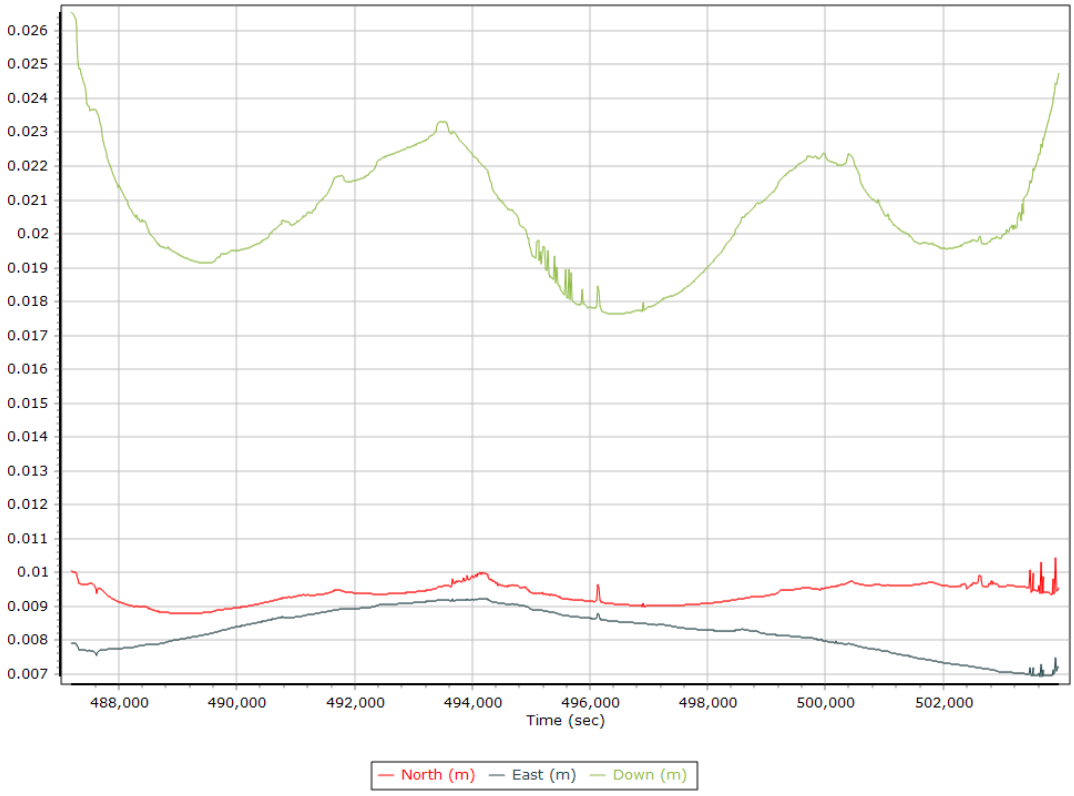


Forward/Reverse Separation

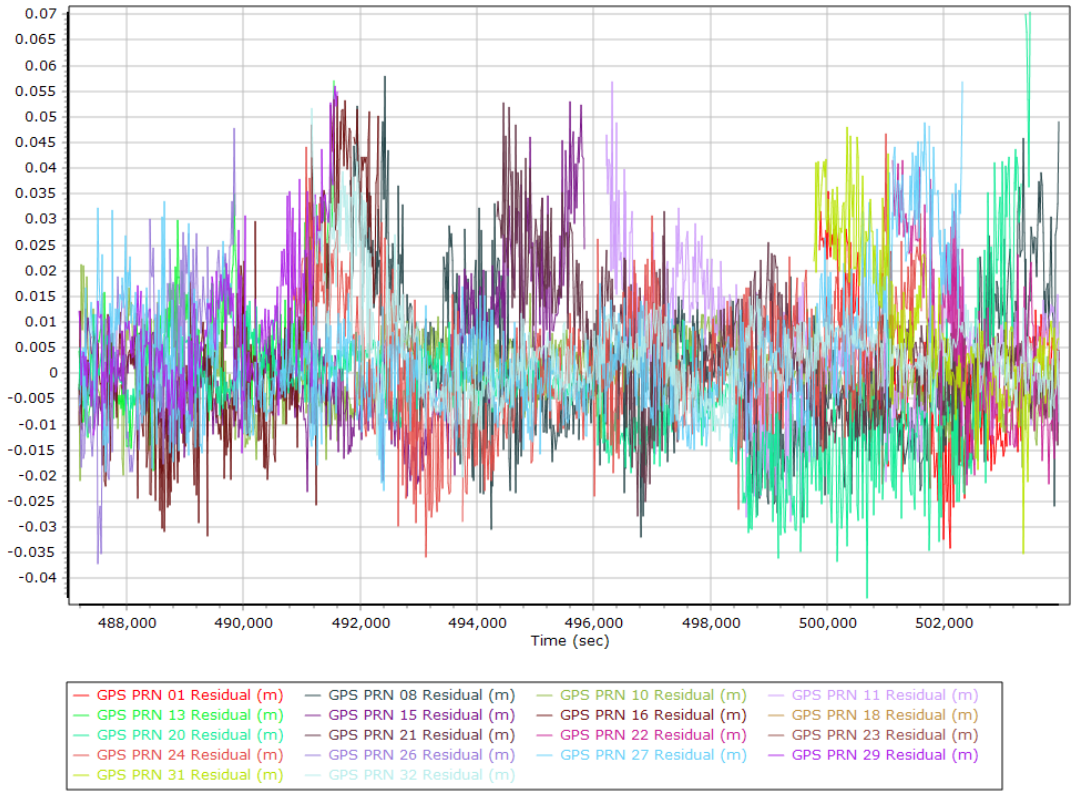
PDOP



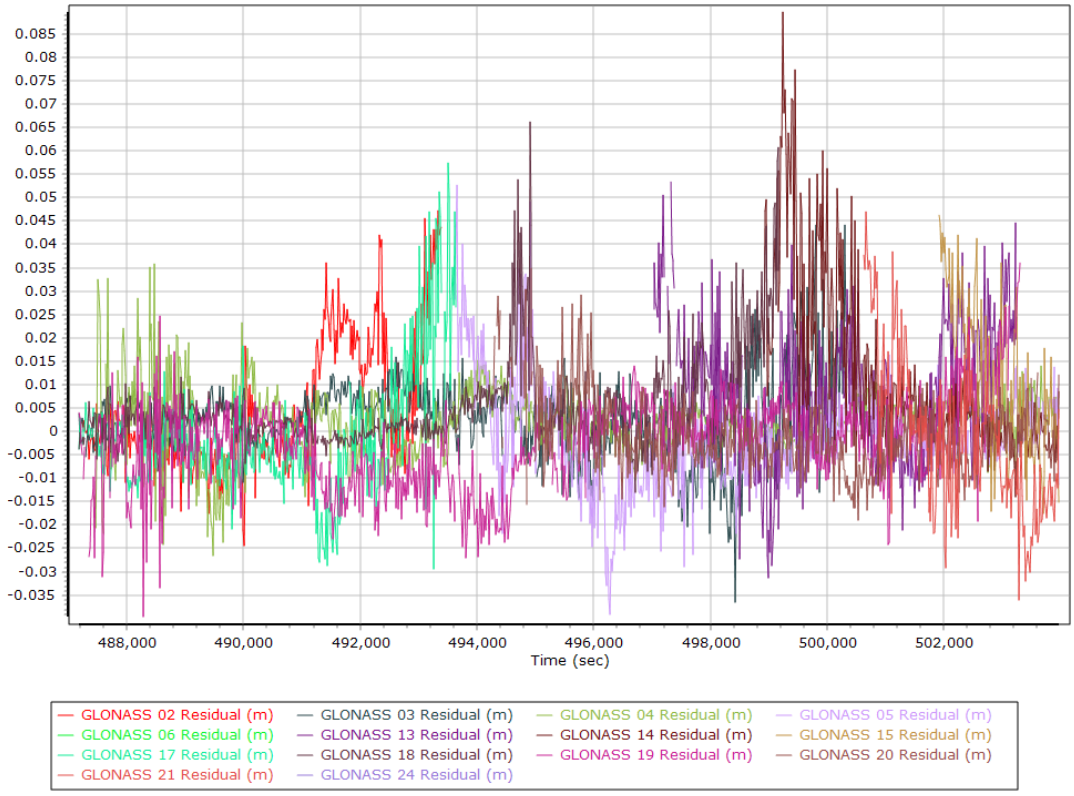
Estimated Position Accuracy



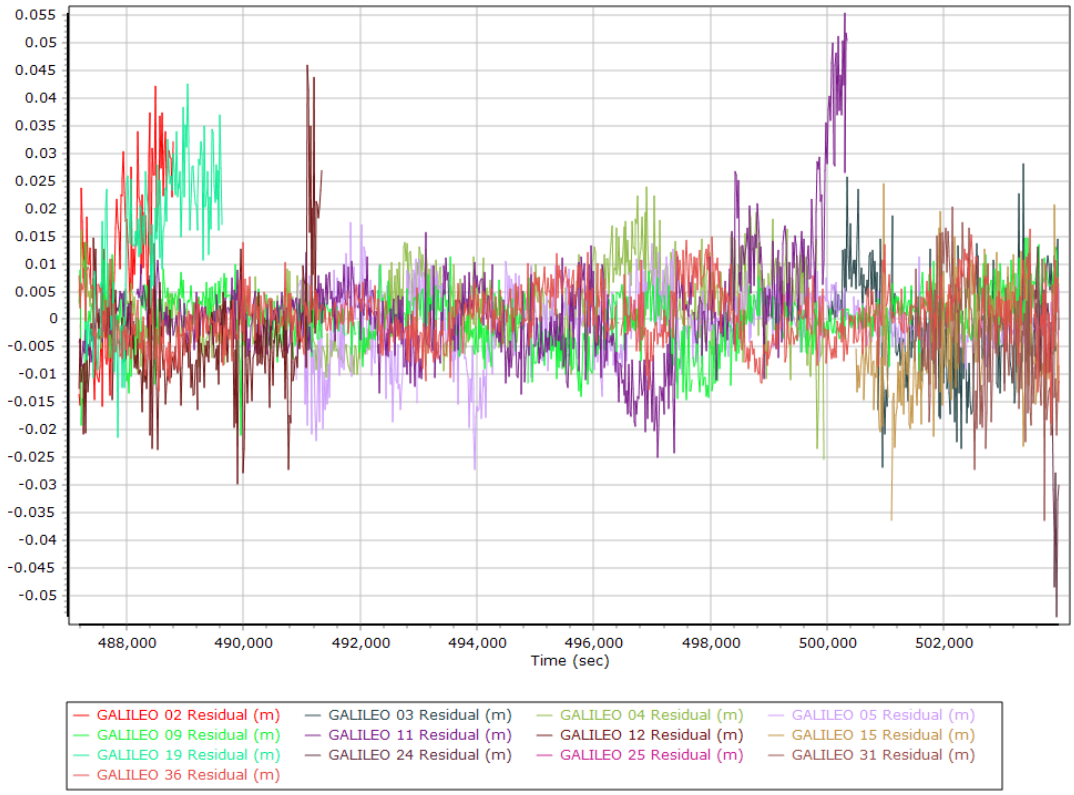
GPS Residuals



GLONASS Residuals



GALILEO Residuals



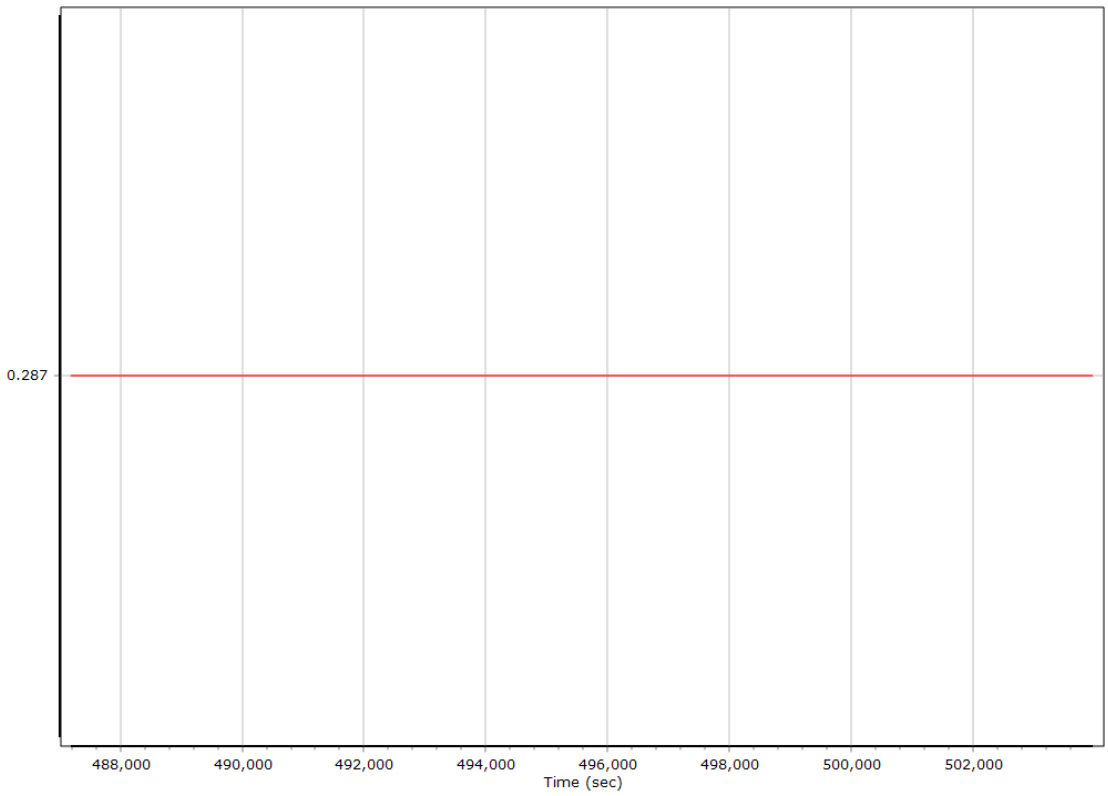
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	True		
Processing start time	486724.000 (10/30/2020 15:12:04)		
Processing end time	503981.000 (10/30/2020 19:59:41)		
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

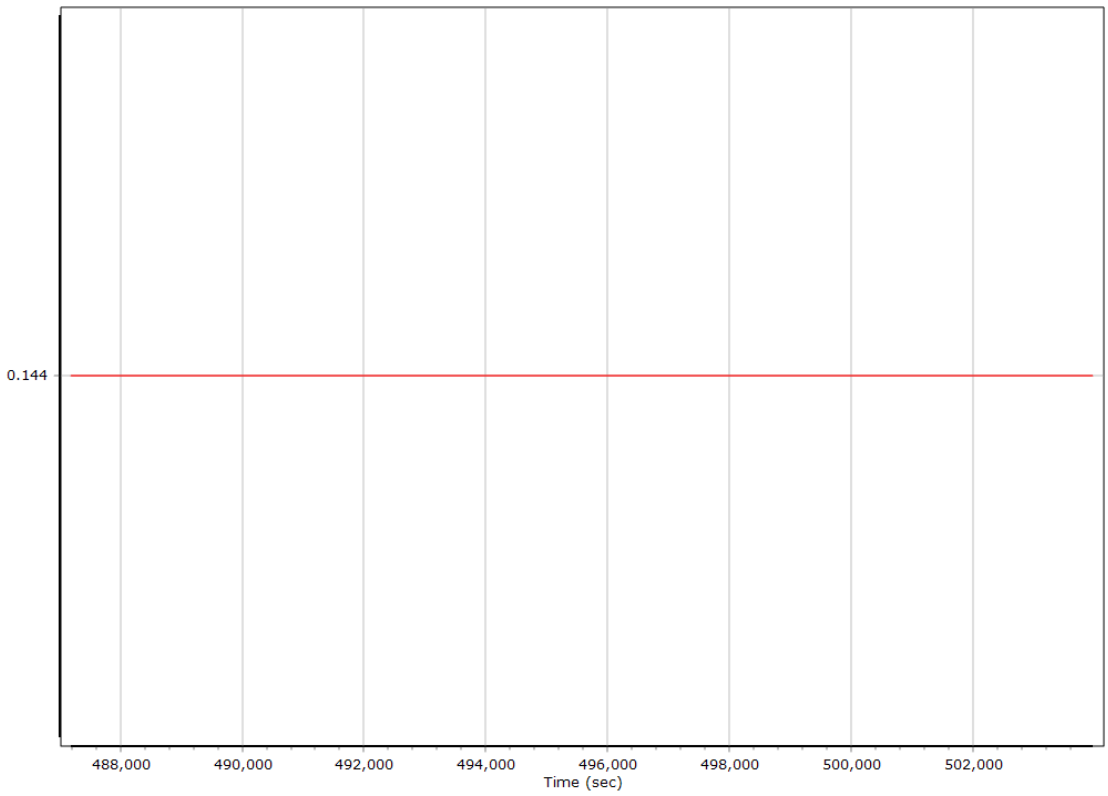
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

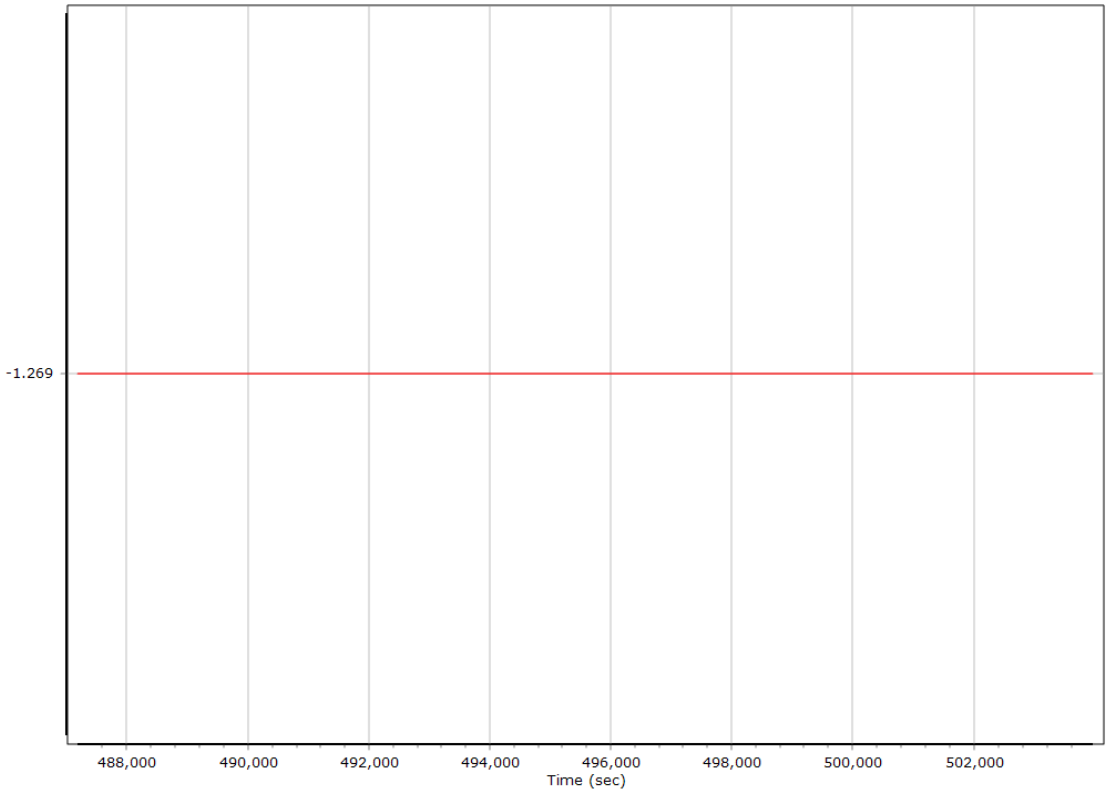
X Reference-Primary GNSS Lever Arm (m)



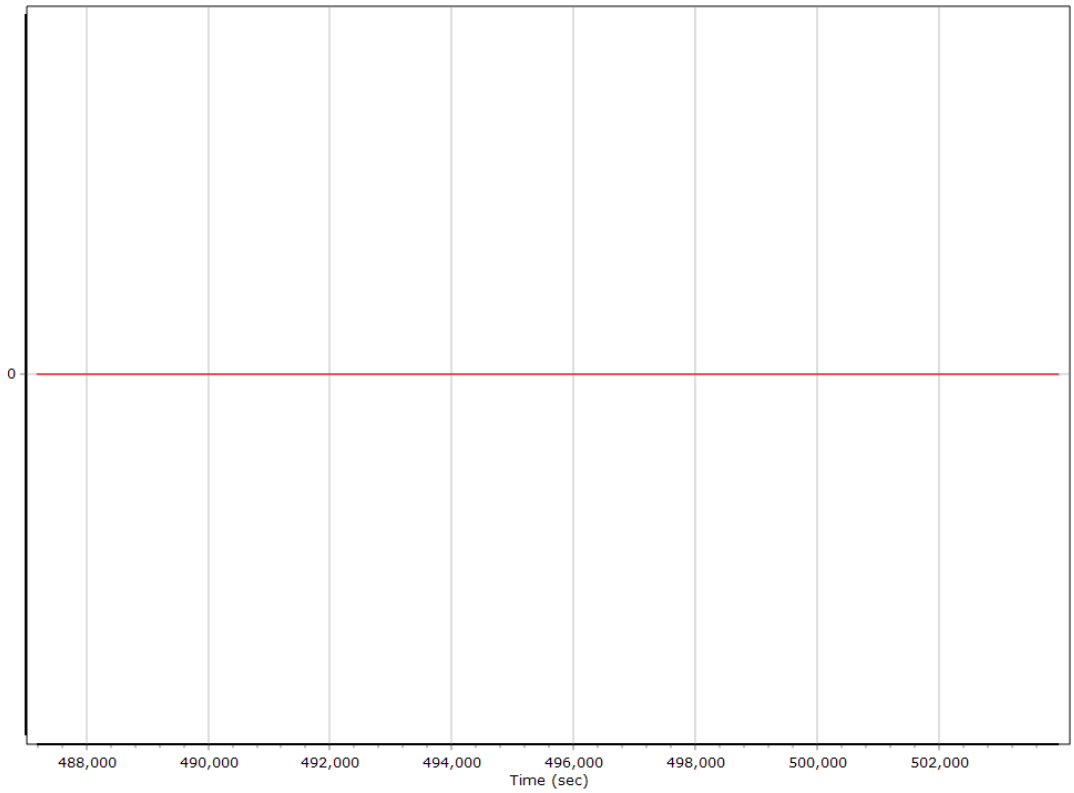
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



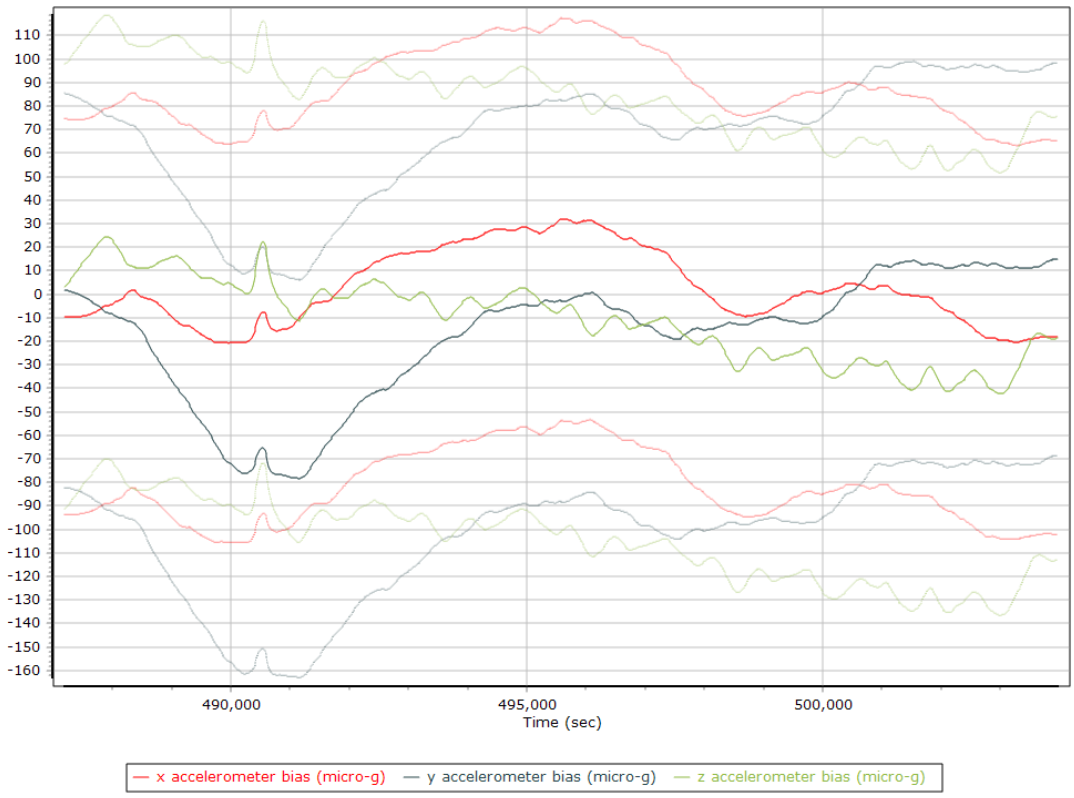
Reference-Primary GNSS Lever Arm Figure of Merit



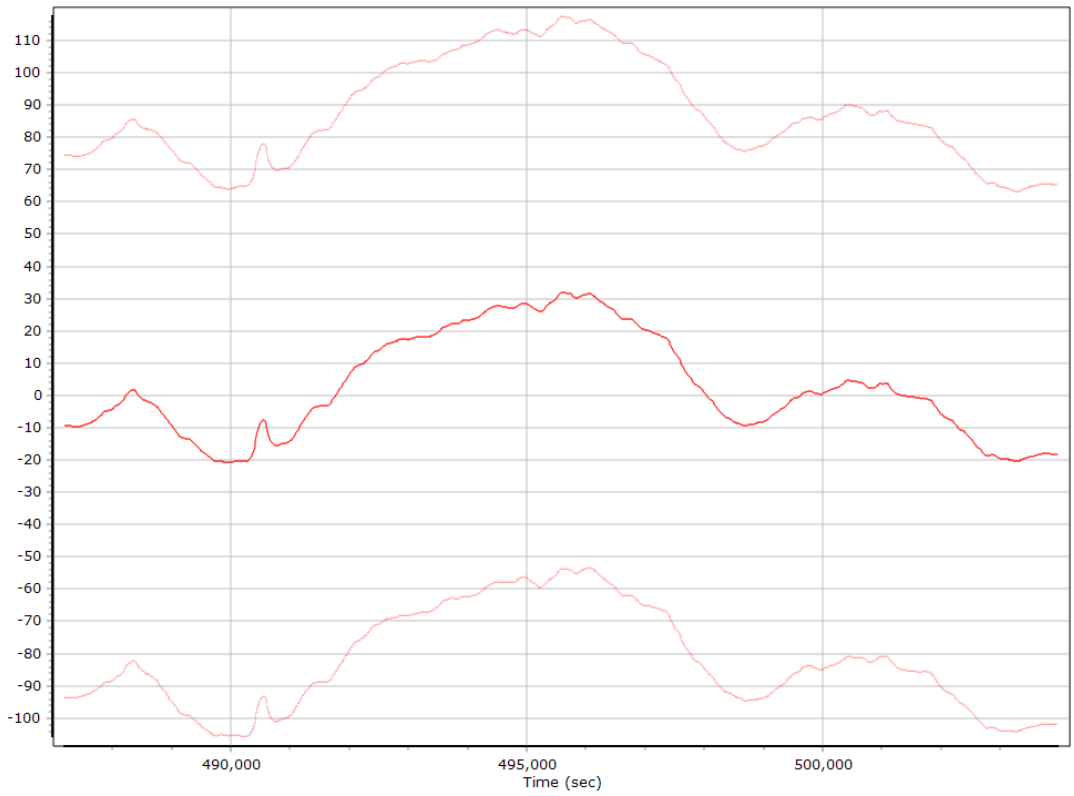
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

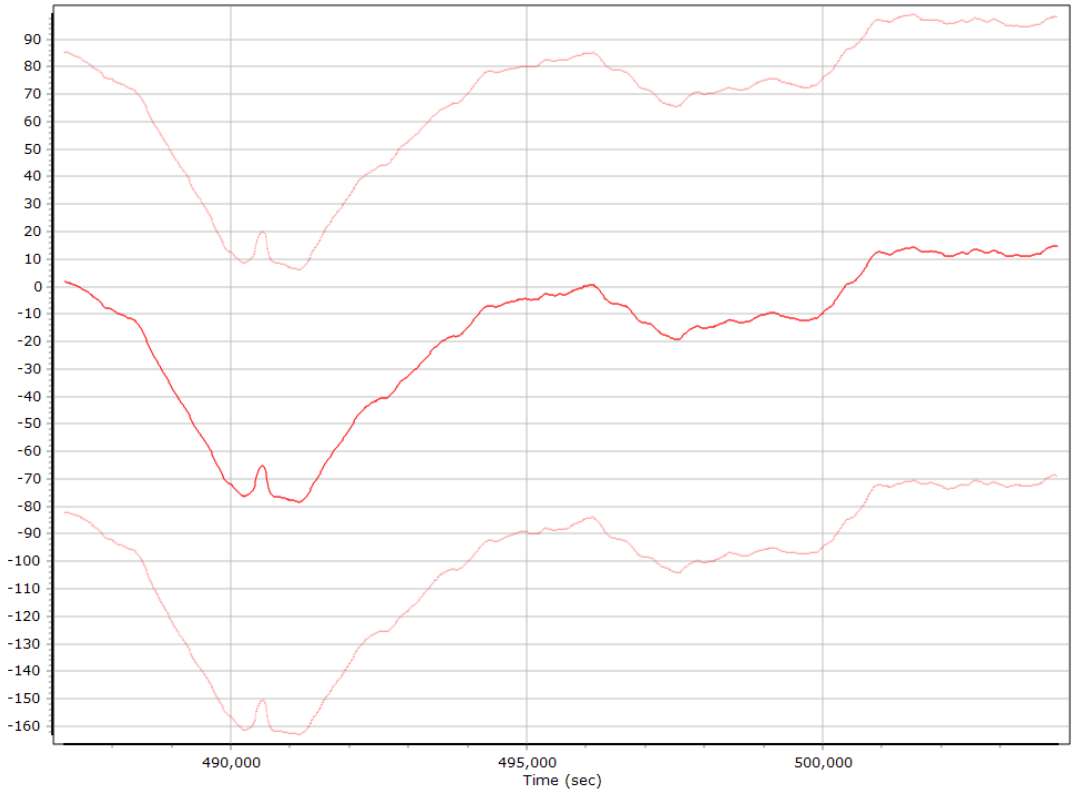
Accelerometer Bias (micro-g)



X Accelerometer Bias (micro-g)

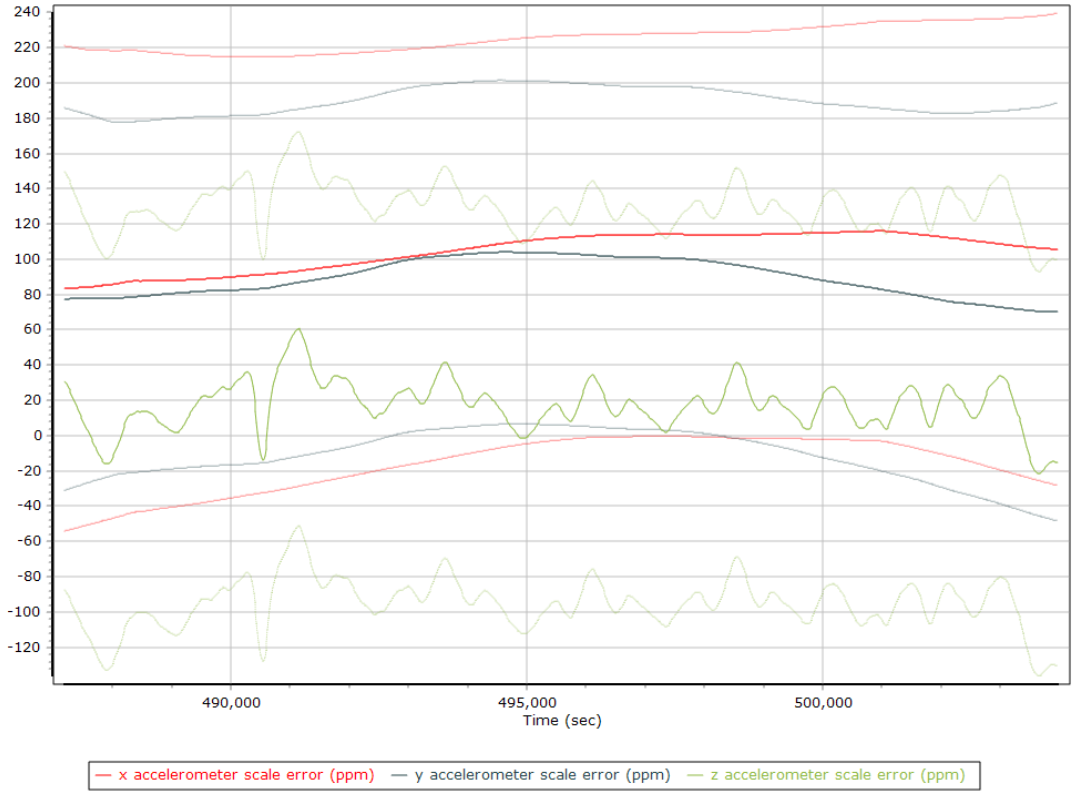


Y Accelerometer Bias (micro-g)

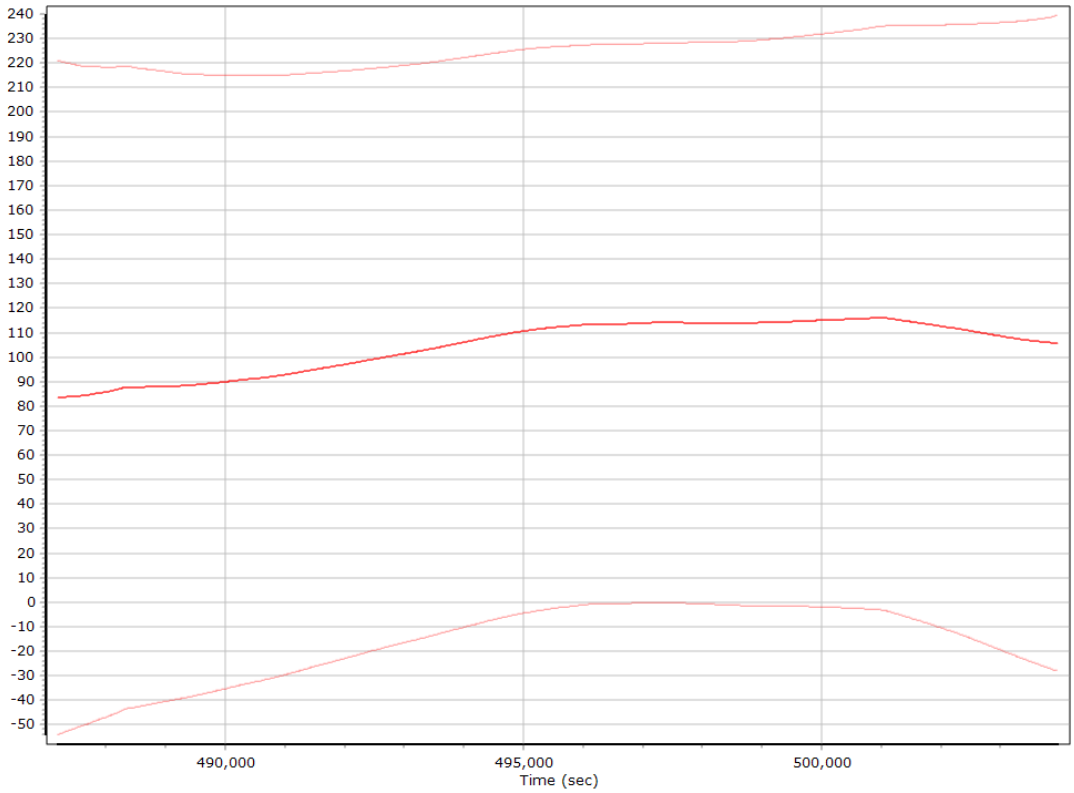


Z Accelerometer Bias (micro-g)

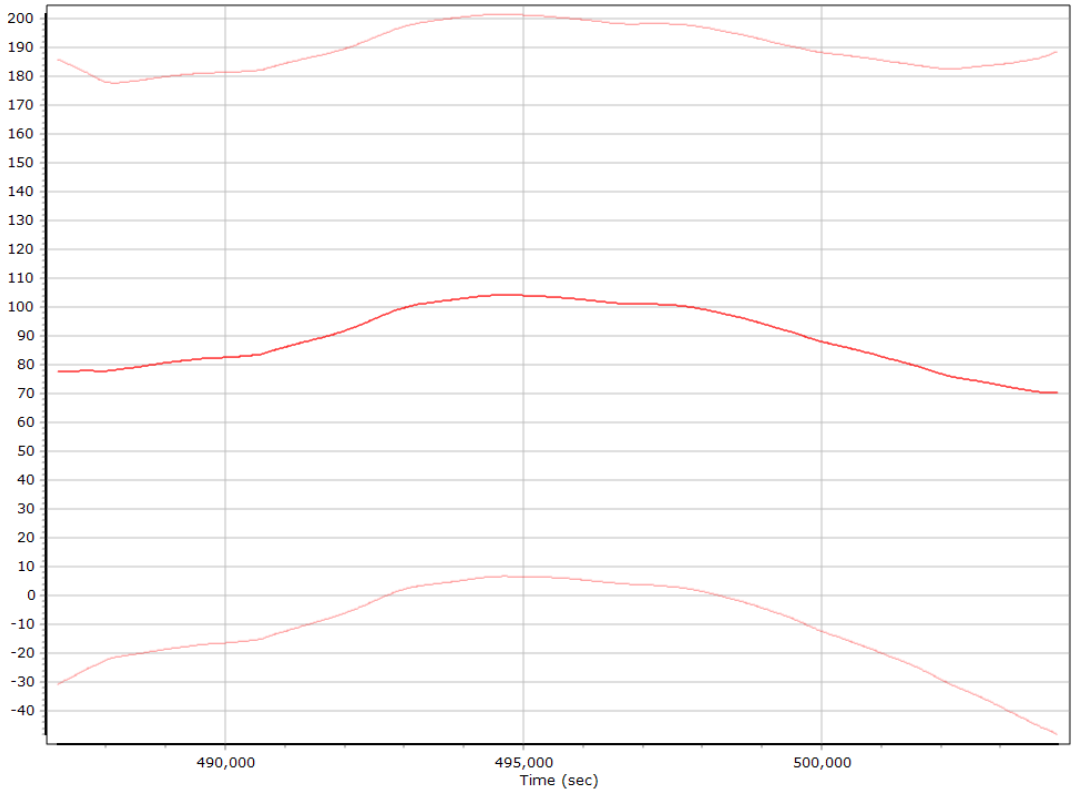
Accelerometer Scale Error (ppm)



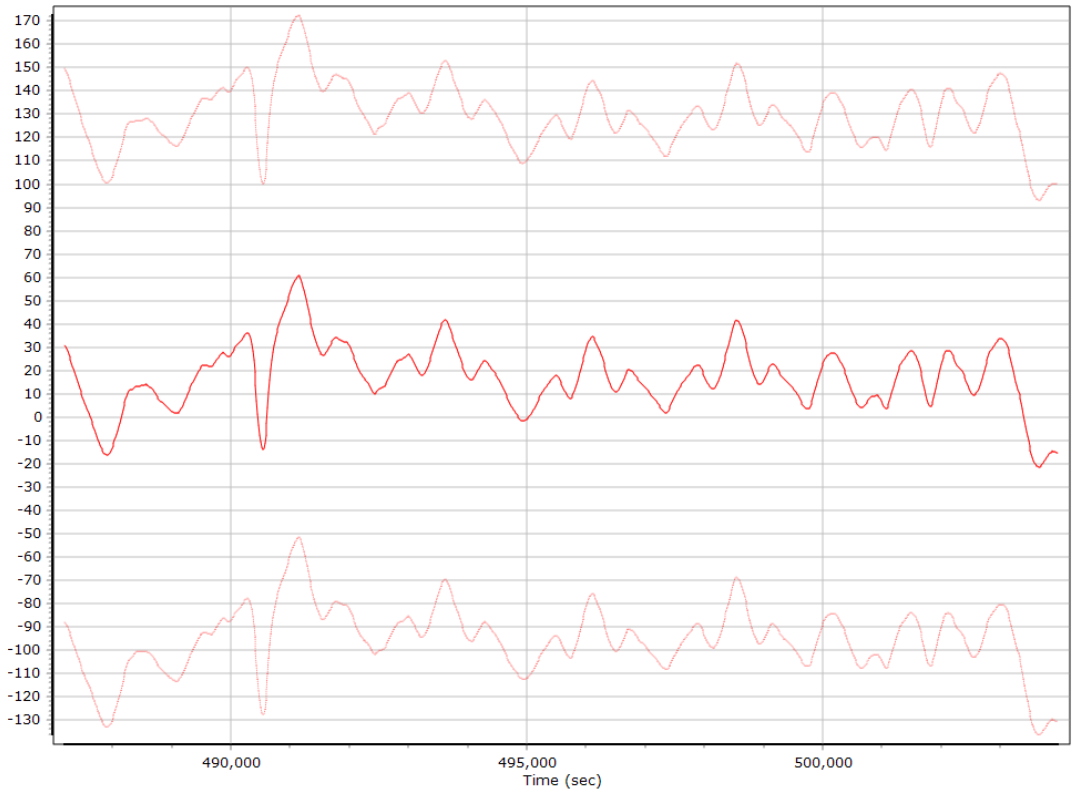
X Accelerometer Scale Error (ppm)



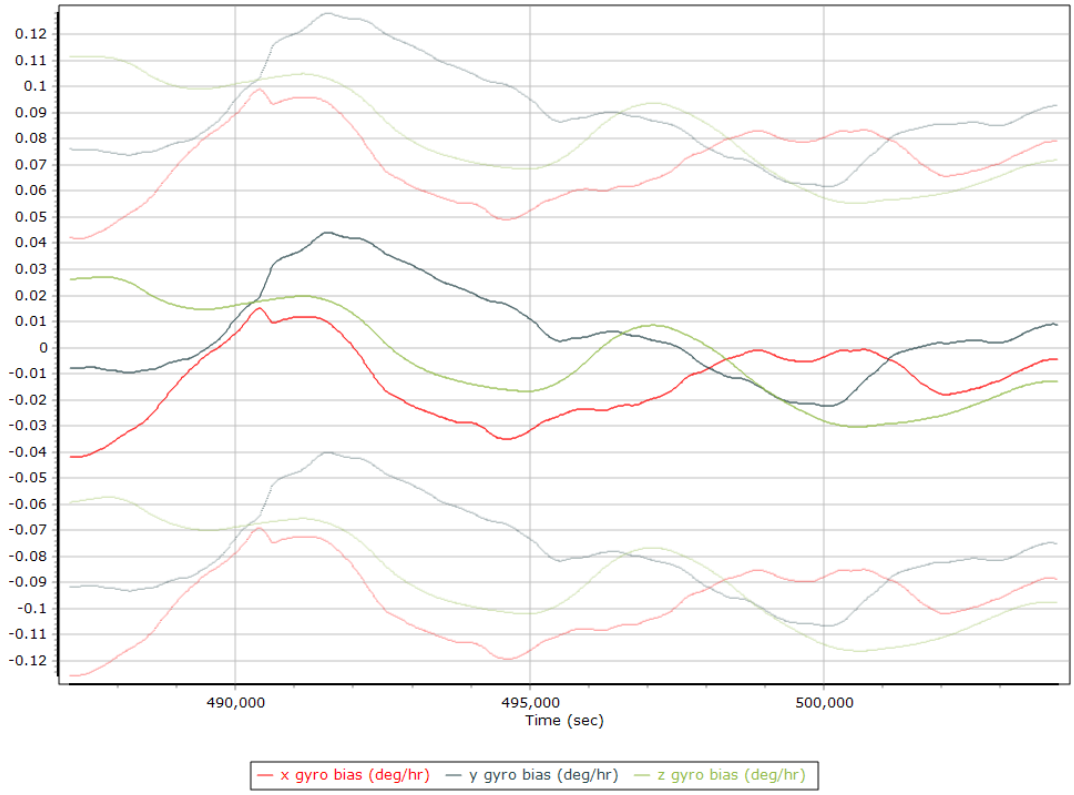
Y Accelerometer Scale Error (ppm)



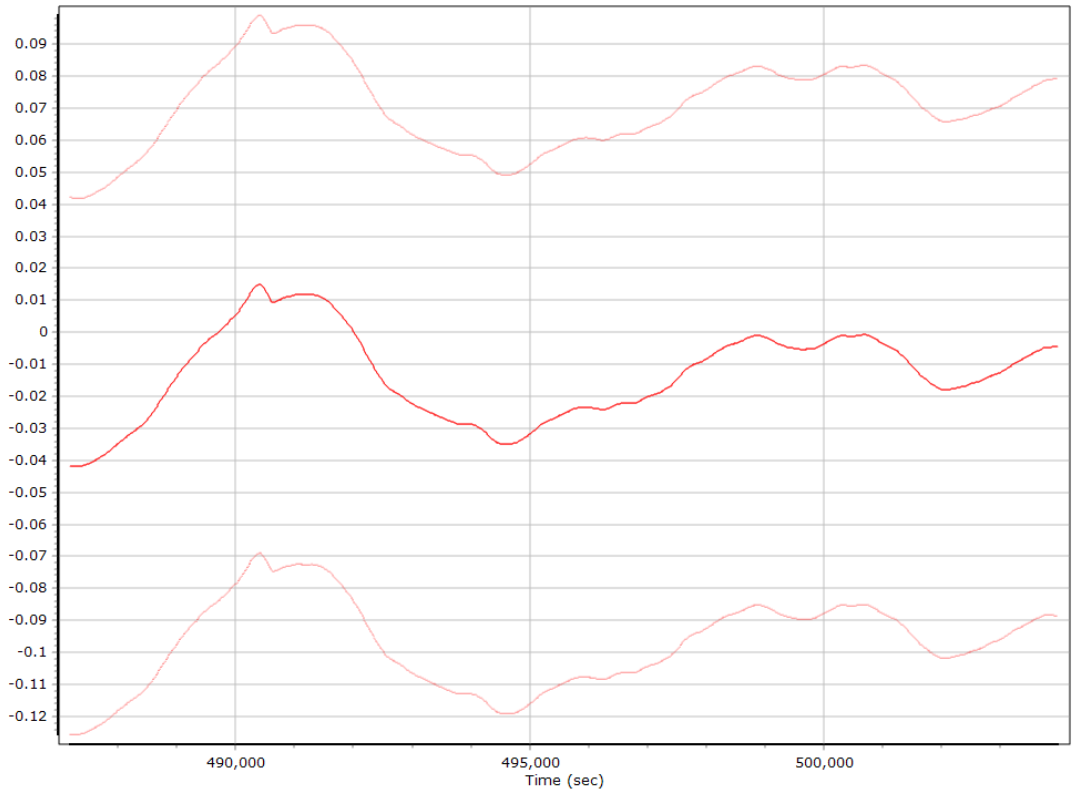
Z Accelerometer Scale Error (ppm)



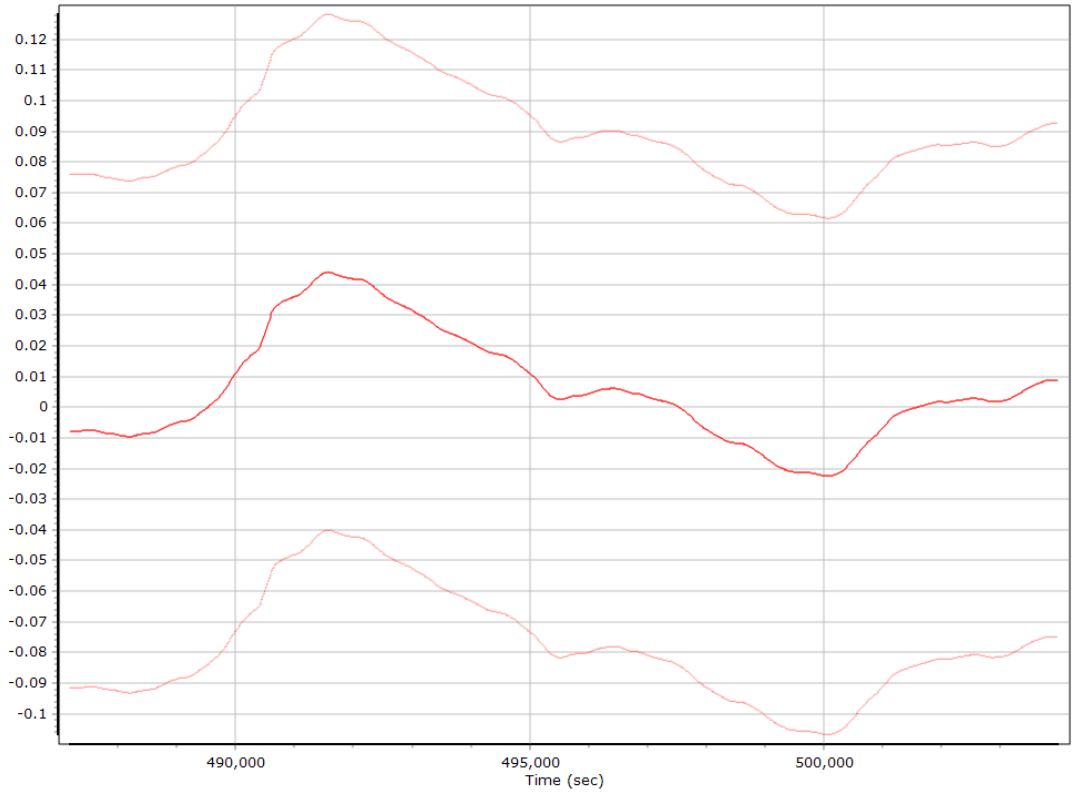
Gyro Bias (deg/h)



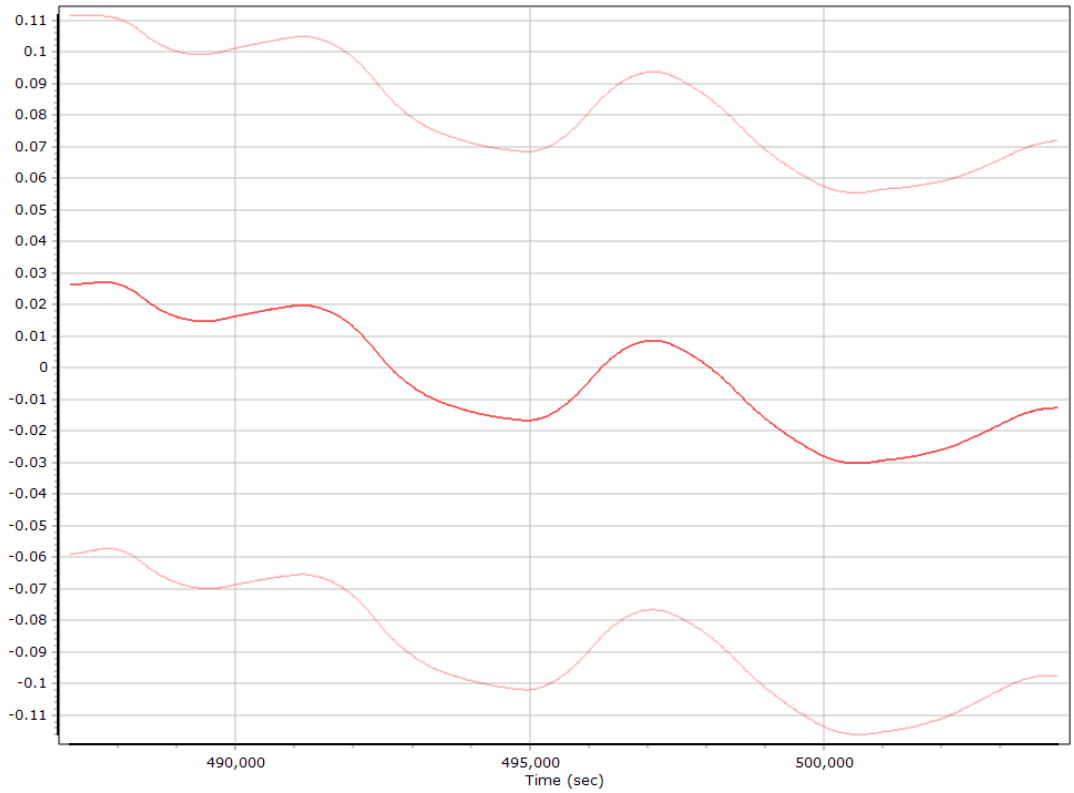
X Gyro Bias (deg/h)



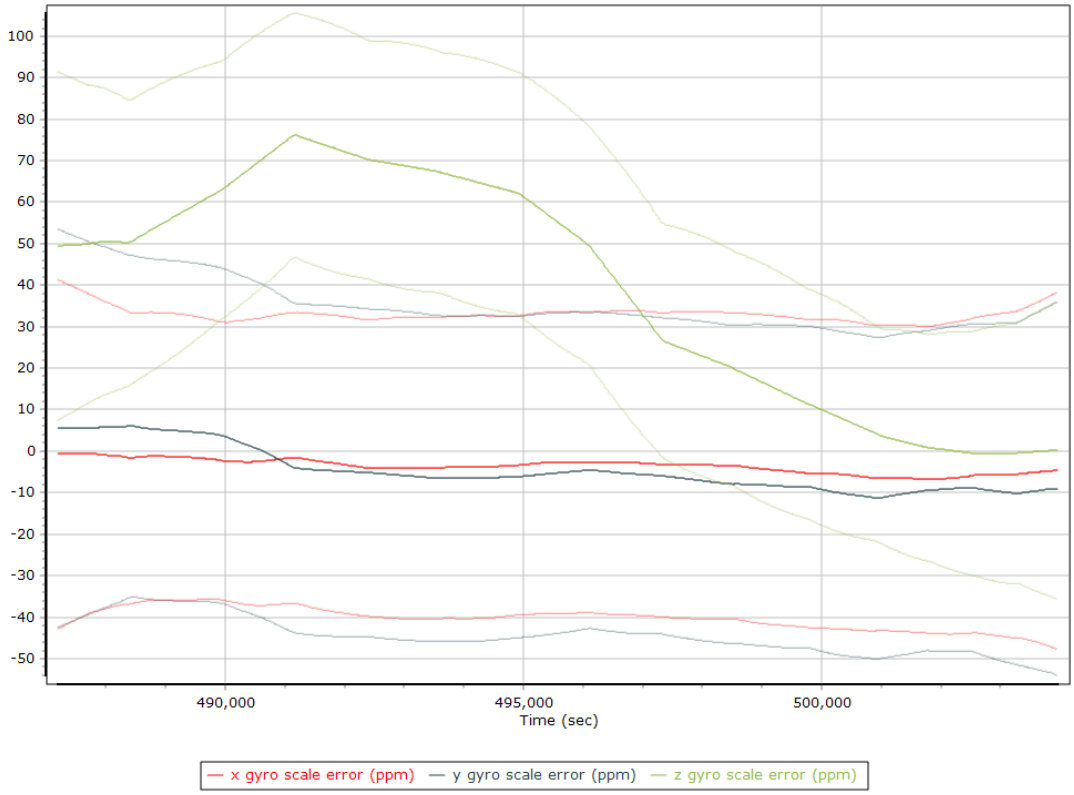
Y Gyro Bias (deg/h)



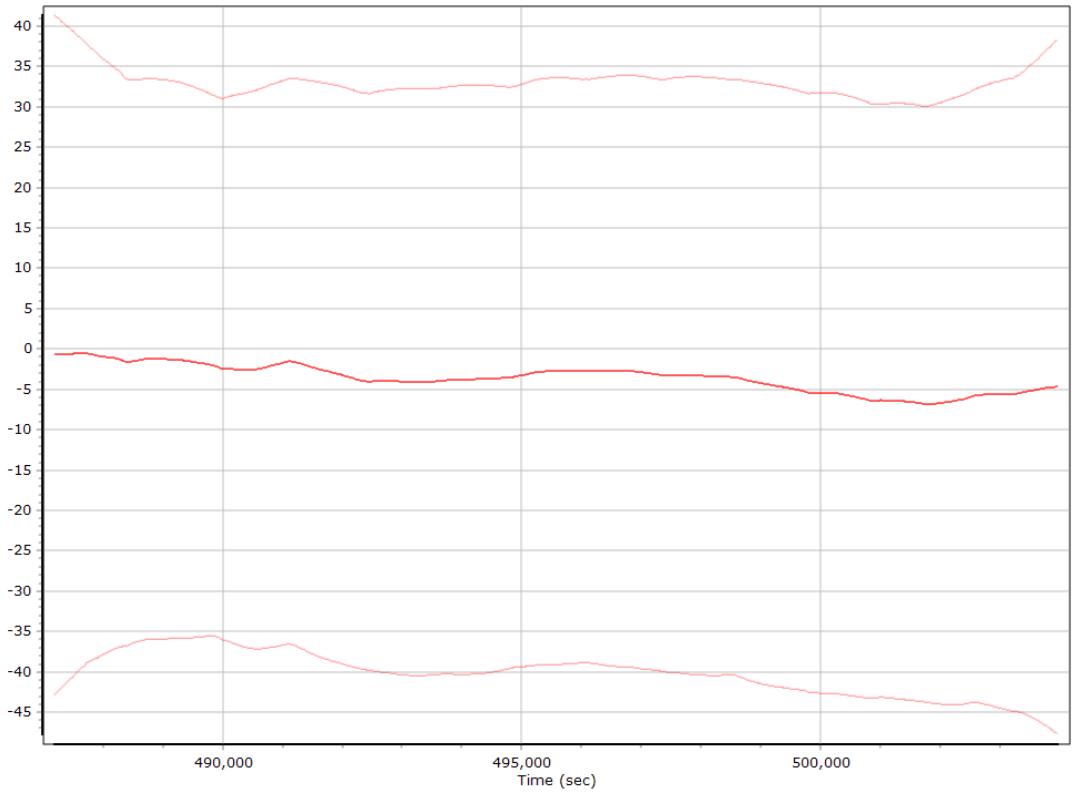
Z Gyro Bias (deg/h)



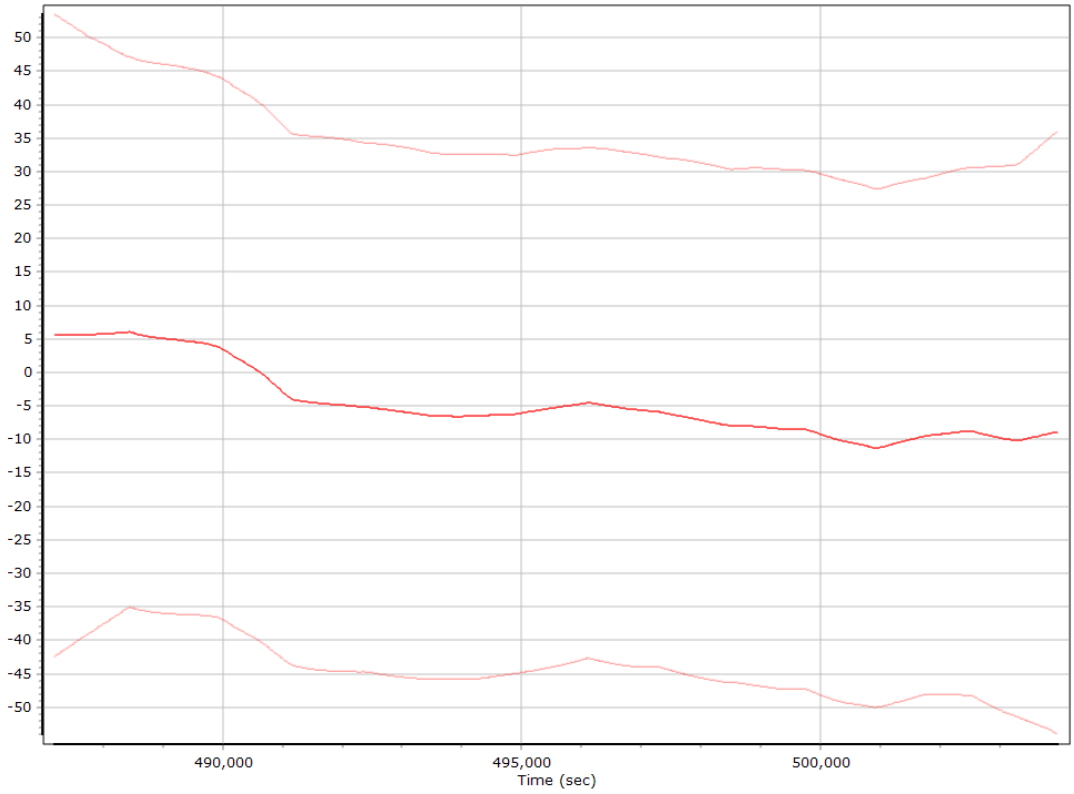
Gyro Scale Error (ppm)



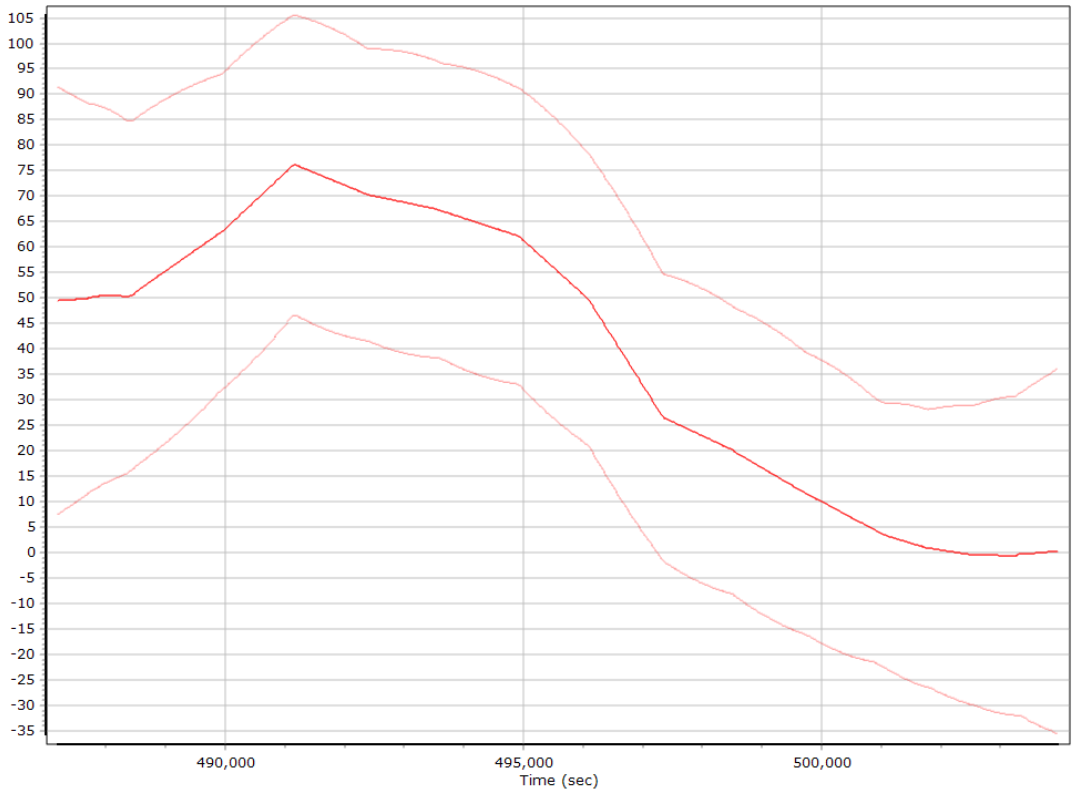
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

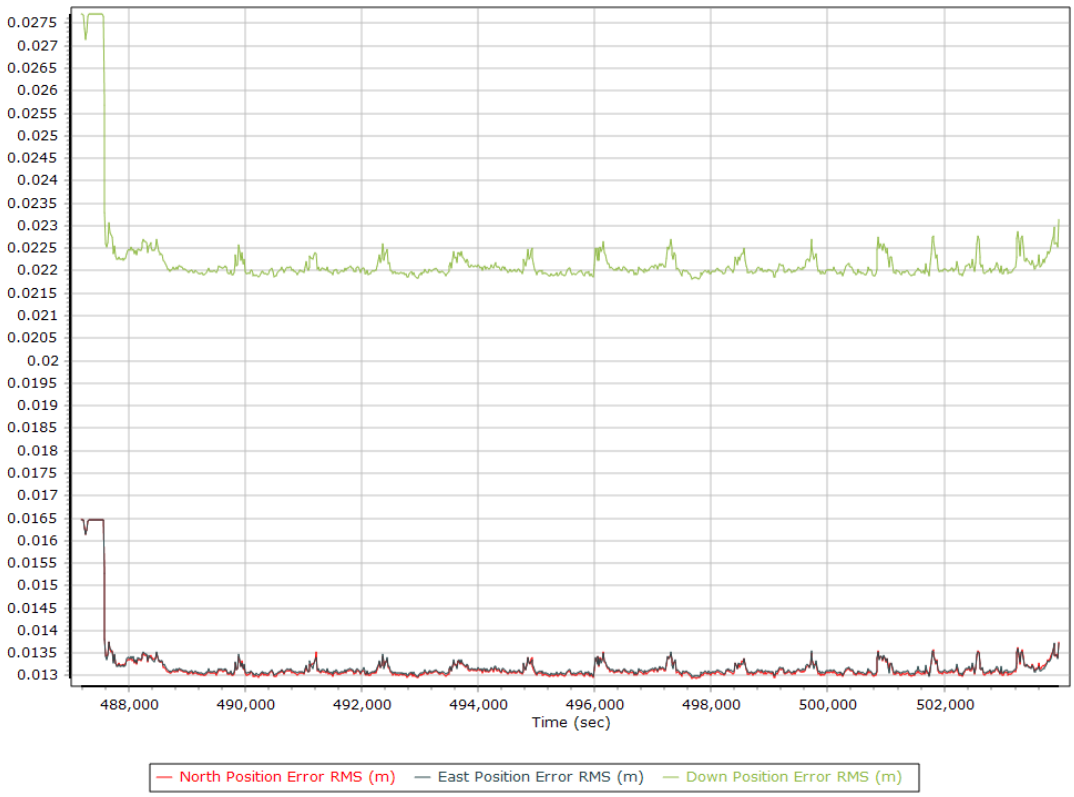


Z Gyro Scale Error (ppm)

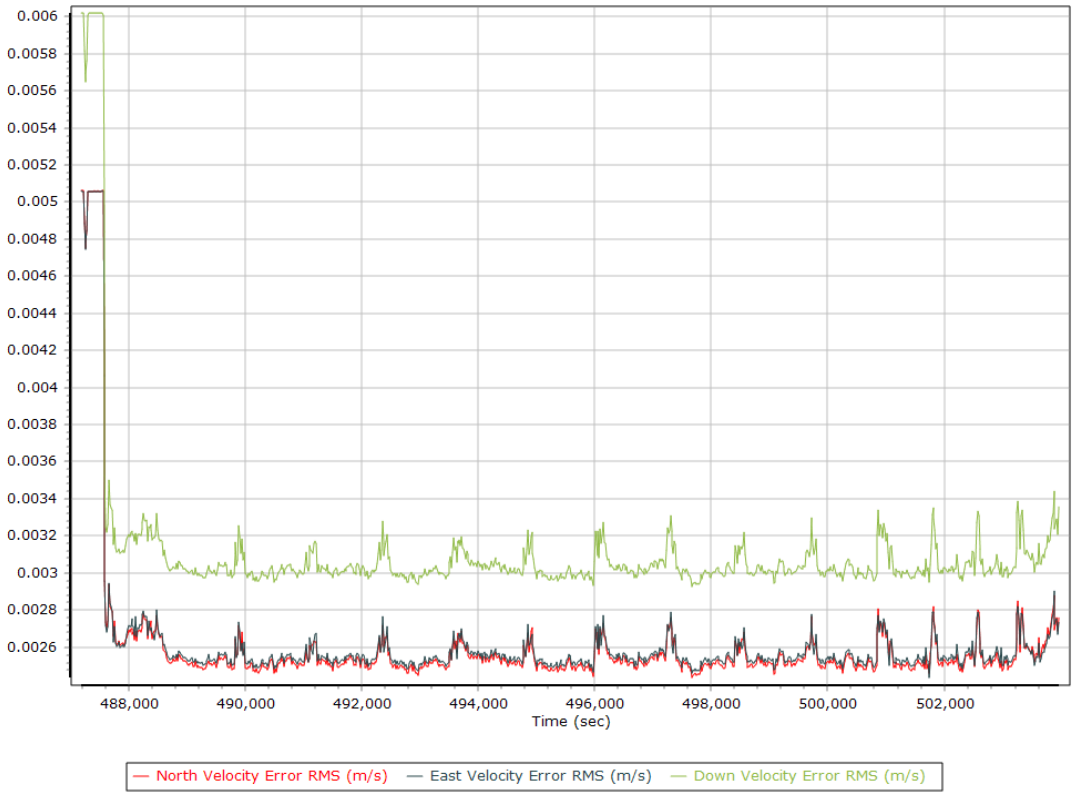


Smoothed Performance Metrics

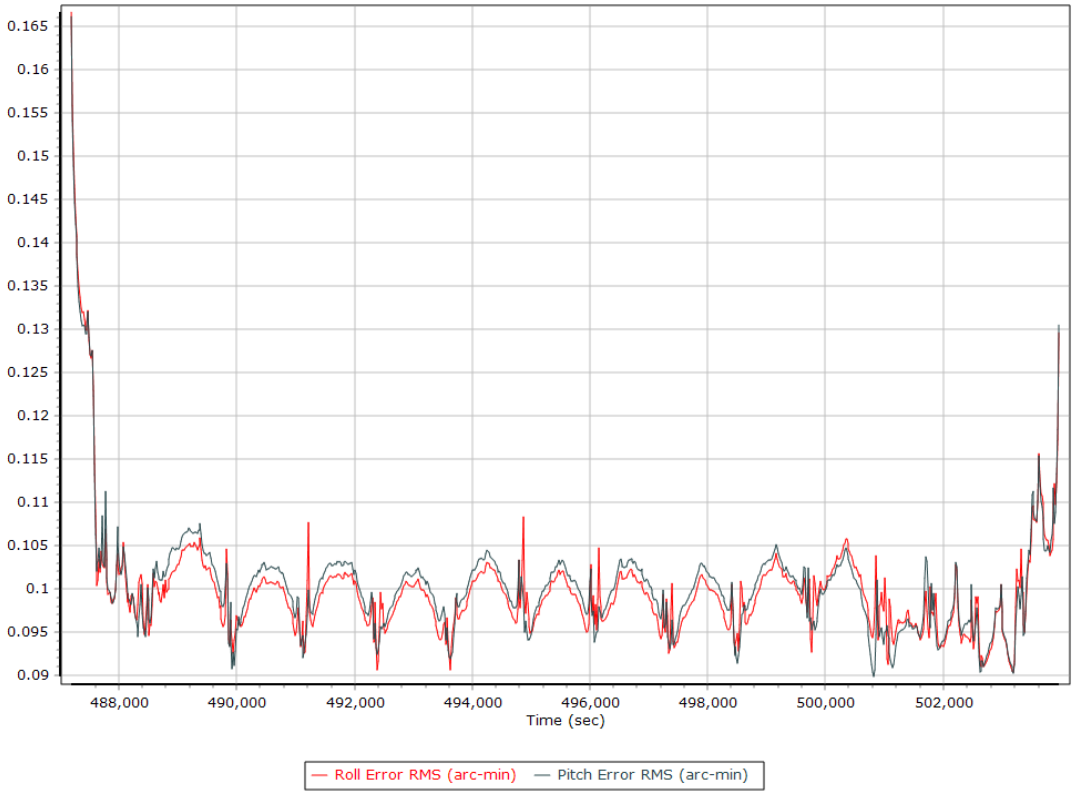
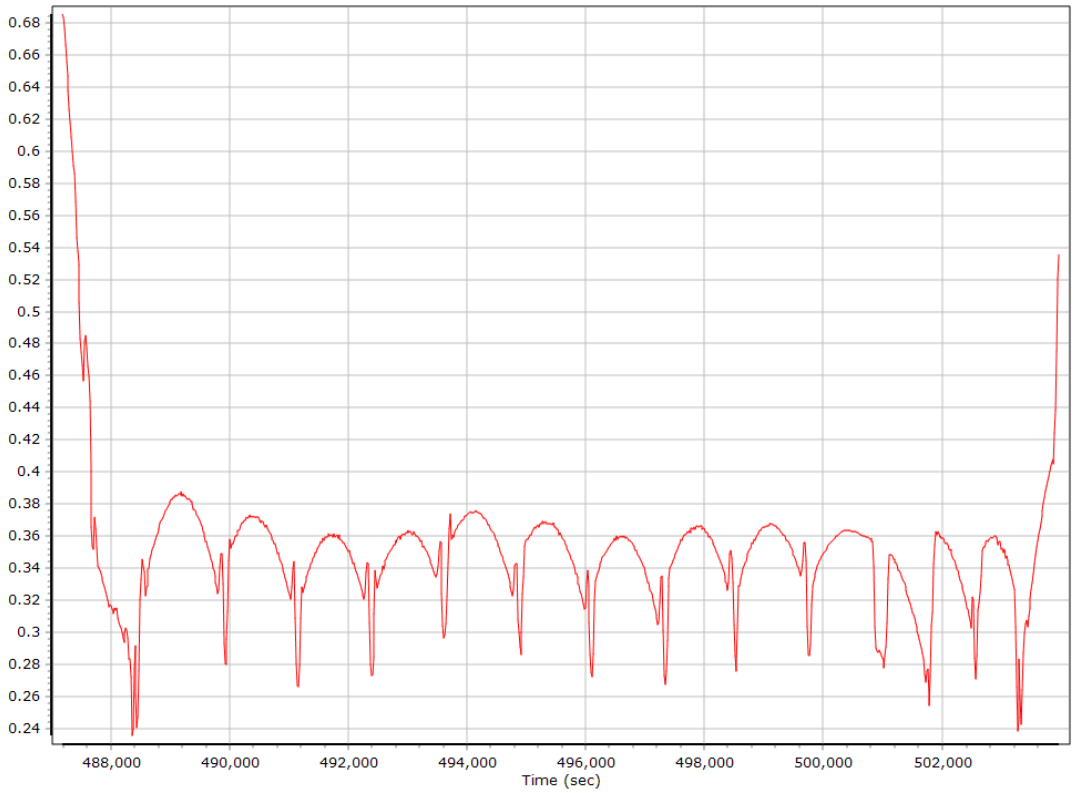
Position Error RMS (m)



Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)