General Information

Mission Information

Project name	191025_A_5060380_nad2011_FINAL
Processing date	2019-10-28 14:05:08
Mission date	2019-10-25 14:27:13
Mission duration	05:01:20.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N7769
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
191025a.111	POS Data
191025a.112	POS Data
191025a.113	POS Data
191025a.114	POS Data
191025a.115	POS Data
191025a.116	POS Data
191025a.117	POS Data
191025a.118	POS Data
191025a.119	POS Data
191025a.120	POS Data
191025a.121	POS Data
191025a.122	POS Data
191025a.123	POS Data
191025a.124	POS Data
191025a.125	POS Data
191025a.126	POS Data
191025a.127	POS Data
191025a.128	POS Data
191025a.129	POS Data
191025a.130	POS Data
191025a.131	POS Data
191025a.132	POS Data
191025a.133	POS Data
191025a.134	POS Data
191025a.135	POS Data
191025a.136	POS Data
191025a.137	POS Data
191025a.138	POS Data

Input Files

File Name	File Type
Ephm2980.19g	GLONASS Broadcast Ephemeris
Ephm2980.19n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_191025_A_5060380_nad2011_FINAL.out	SBET Trajectory File

Rover Data Summary

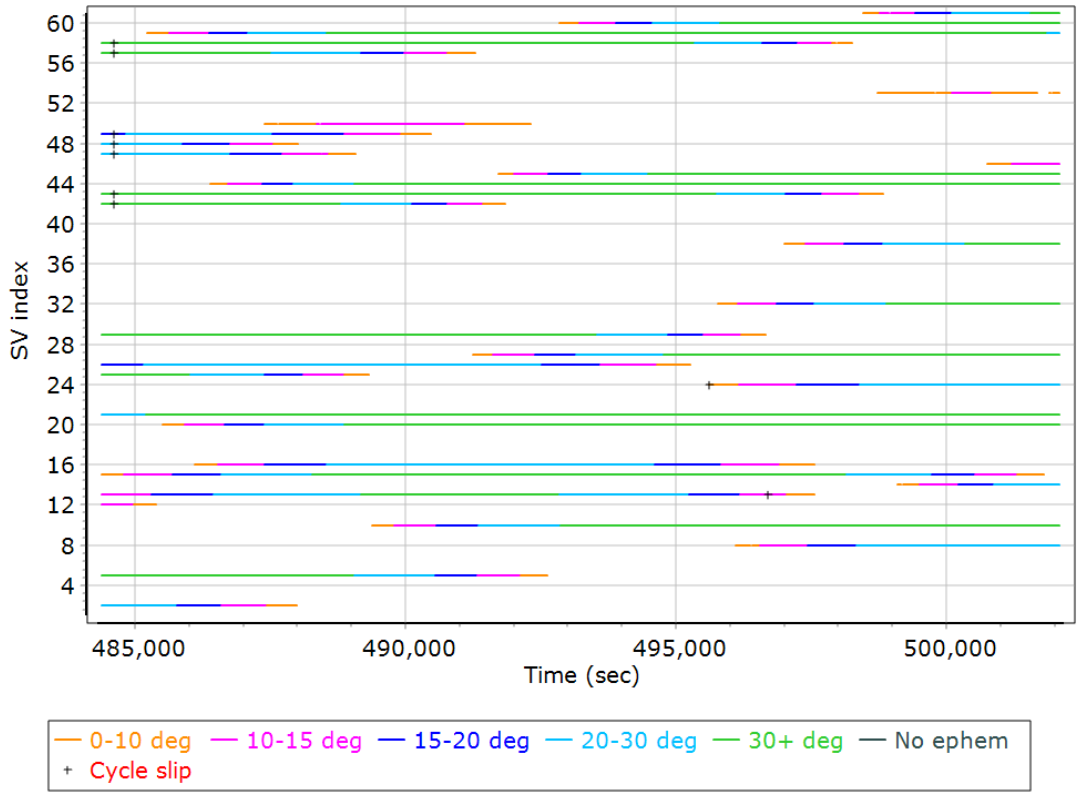
First raw data file	191025a.111		
Last raw data file	191025a.138		
Start GPS week	2076		
Start time	22.238 (10/20/2019 12:00:22 AM)		
End time	502114.802 (10/25/2019 7:28:34 PM)		
Start of fine alignment	484325.006 (10/25/2019 2:32:05 PM)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
Correction data	None		
IMU Installation Lever Arms & Mounting Angles			
Reference to IMU lever arm (m)	0.000	0.000	0.000
Reference to IMU mounting angles (deg)	0.000	0.000	180.000
Reference to Primary GNSS lever arm (m)	0.556	-0.429	-0.965
Reference 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

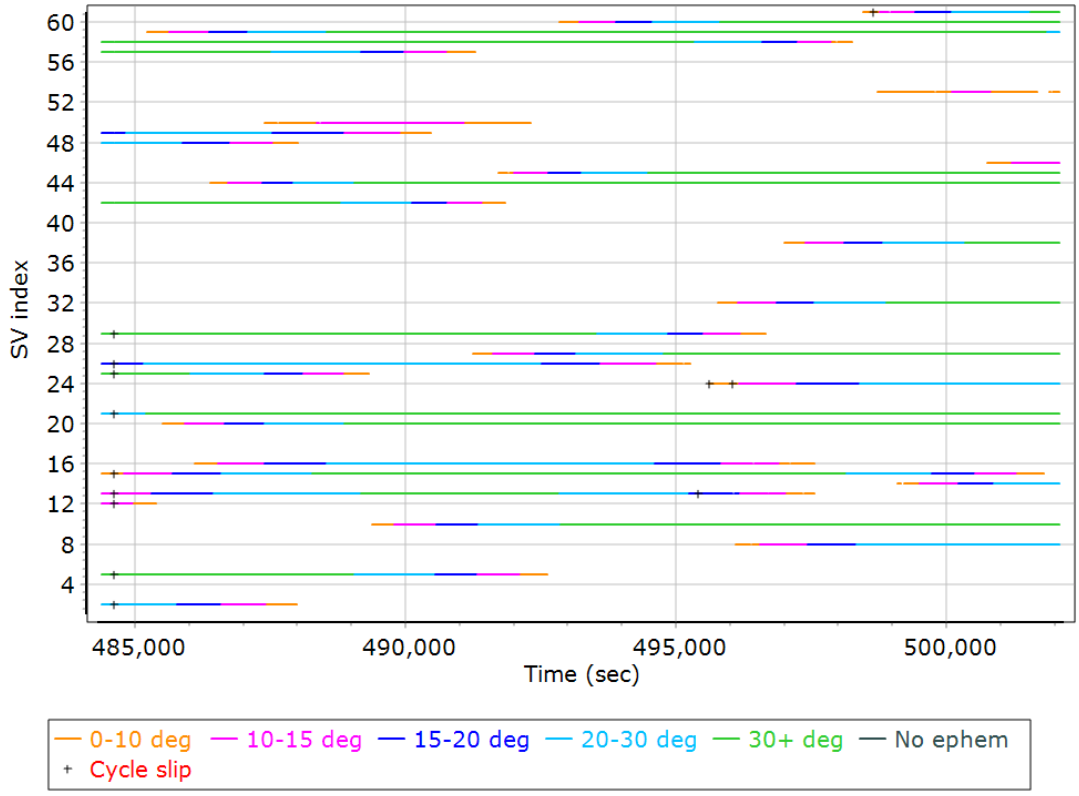
Raw IMU Import QC Summary

IMU data input file	imu_191025_A_5060380_nad2011_FINAL.dat
IMU data check log file	imudt_191025_A_5060380_nad2011_FINAL.log
IMU Records Processed	3615835
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
484041.940 : WARNING : Gap of 484017.9521 seconds in CHECKDT input data	

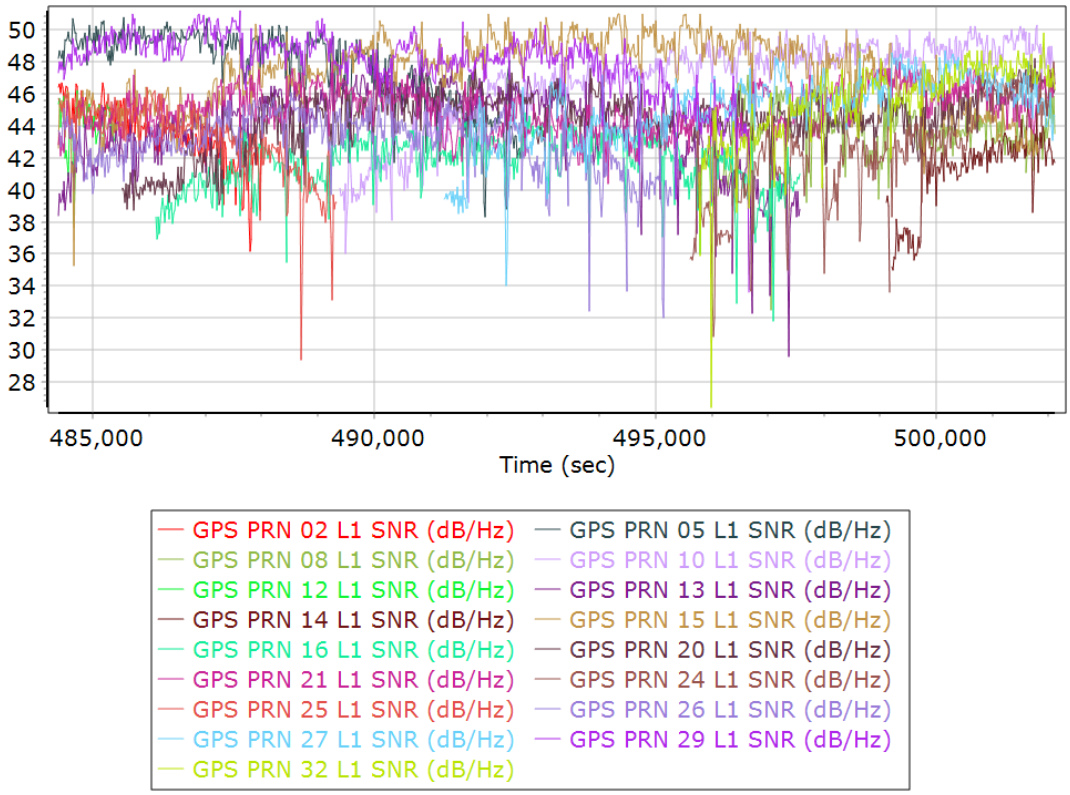
L1 Satellite Lock/Elevation



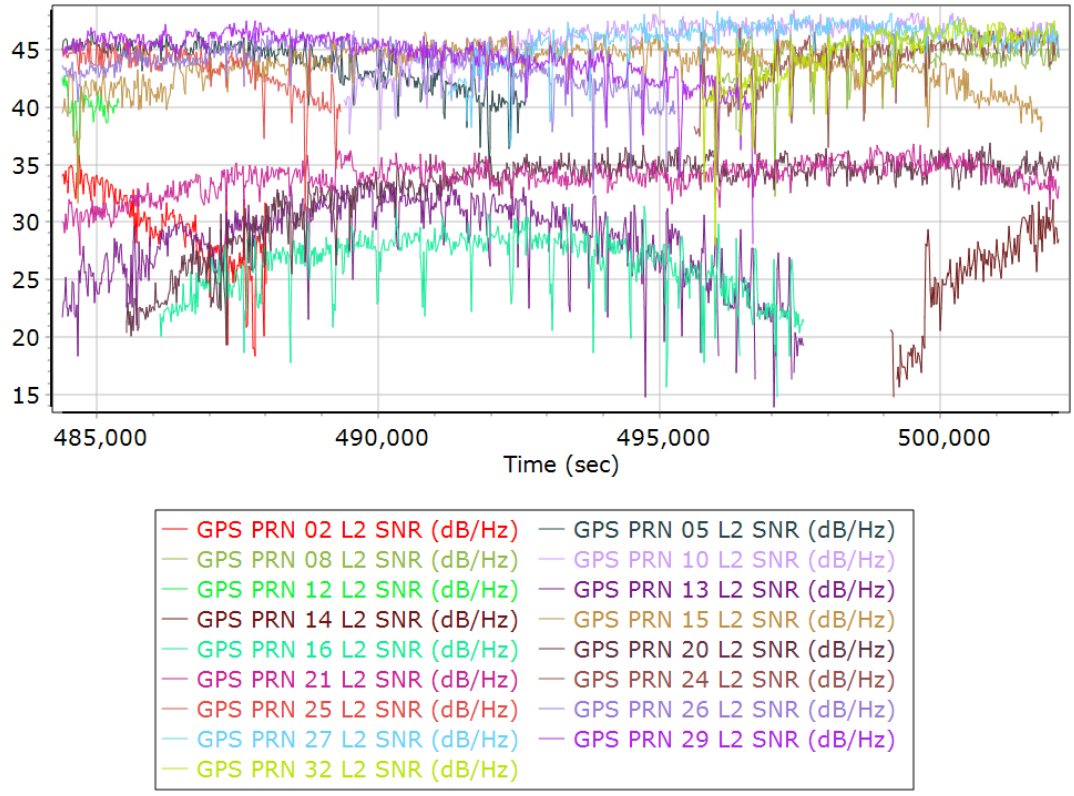
L2 Satellite Lock/Elevation



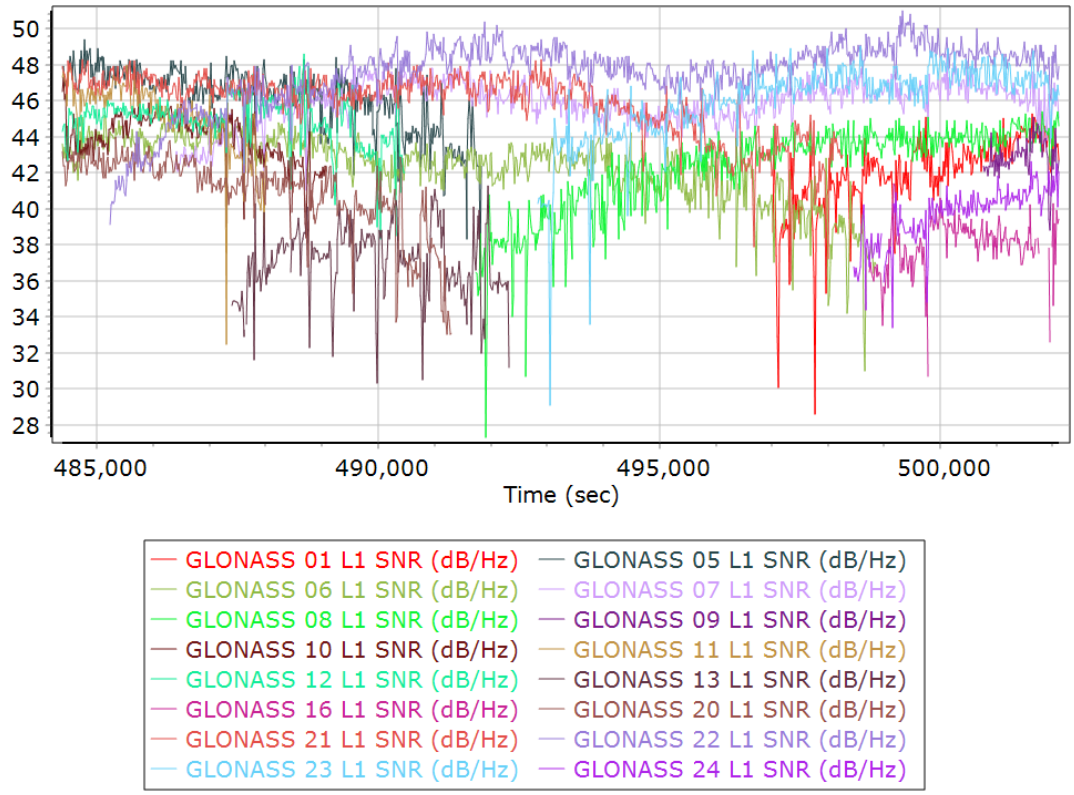
GPS L1 SNR



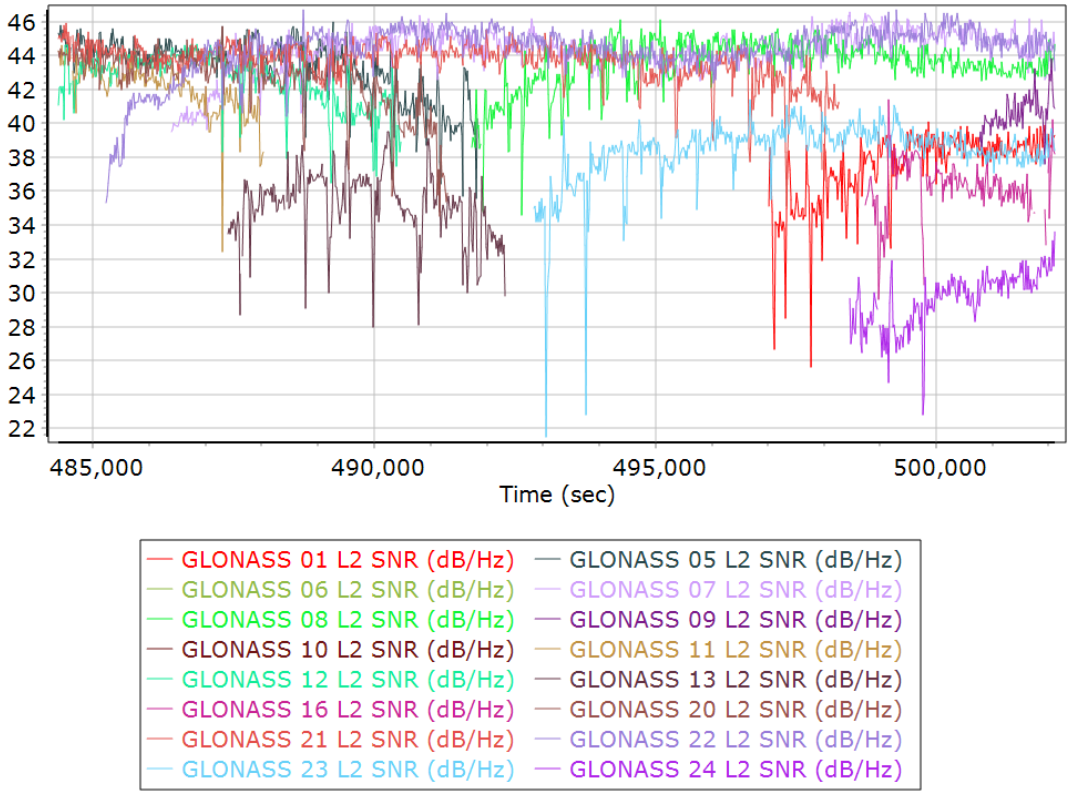
GPS L2 SNR



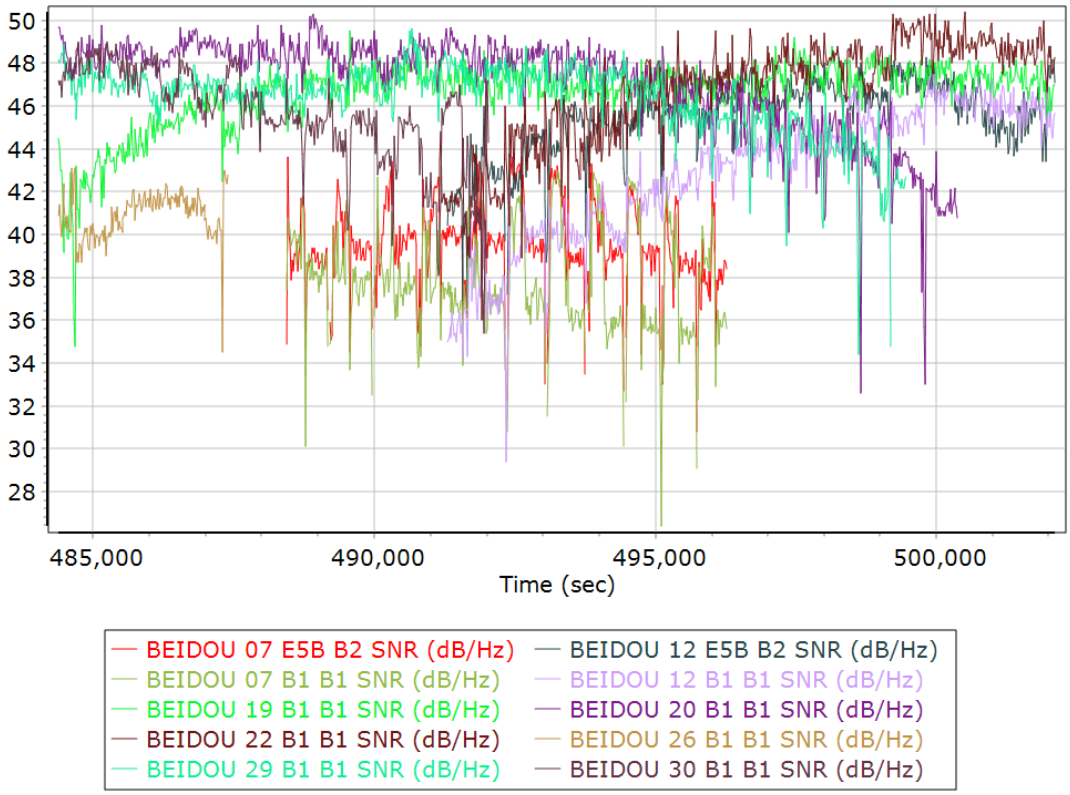
GLONASS L1 SNR



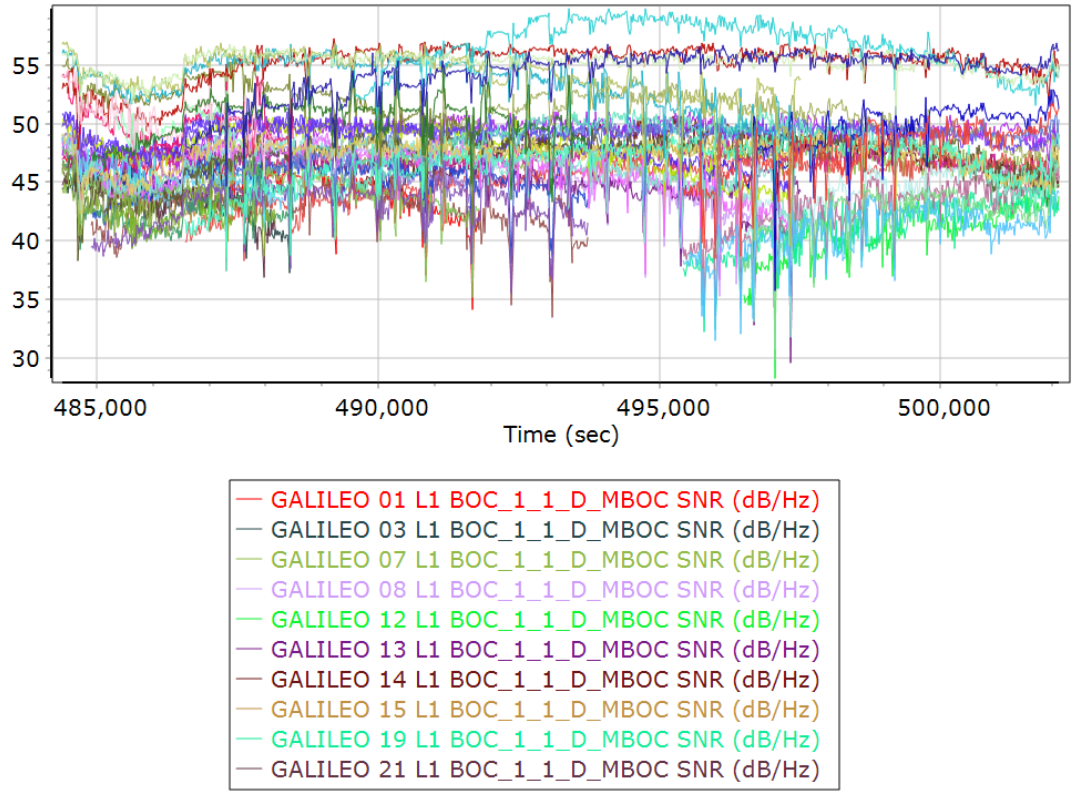
GLONASS L2 SNR



BEIDOU SNR

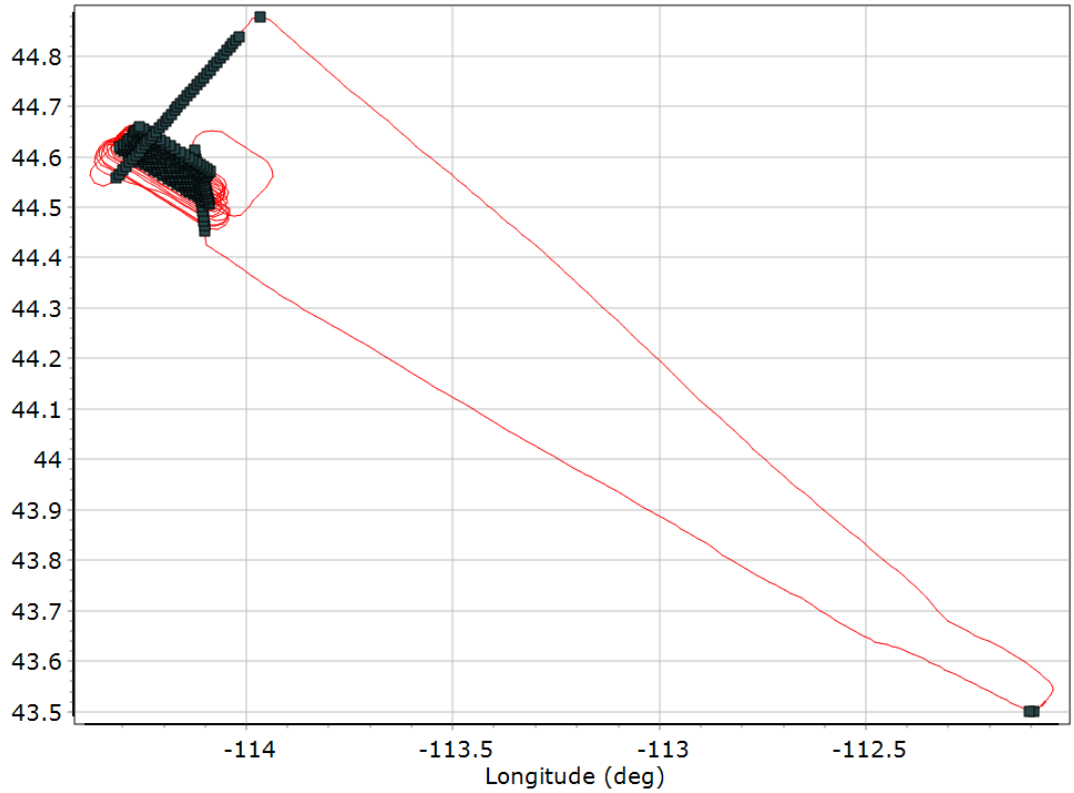


GALILEO SNR

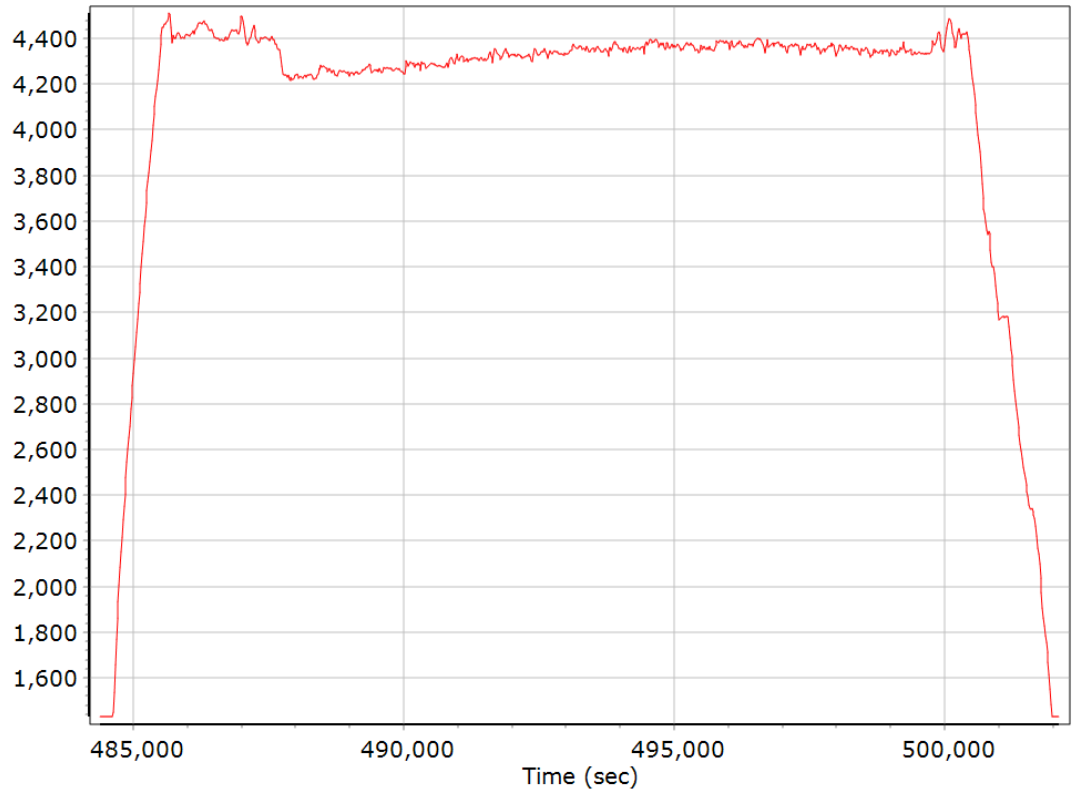

55
50
45
40
35
30
485,000
490,000
495,000
500,000
Time (sec)
GALILEO 01 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 03 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 08 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 12 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 13 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 14 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 21 L1 BOC_1_1_D_MBOC SNR (dB/Hz)

Trajectory Information

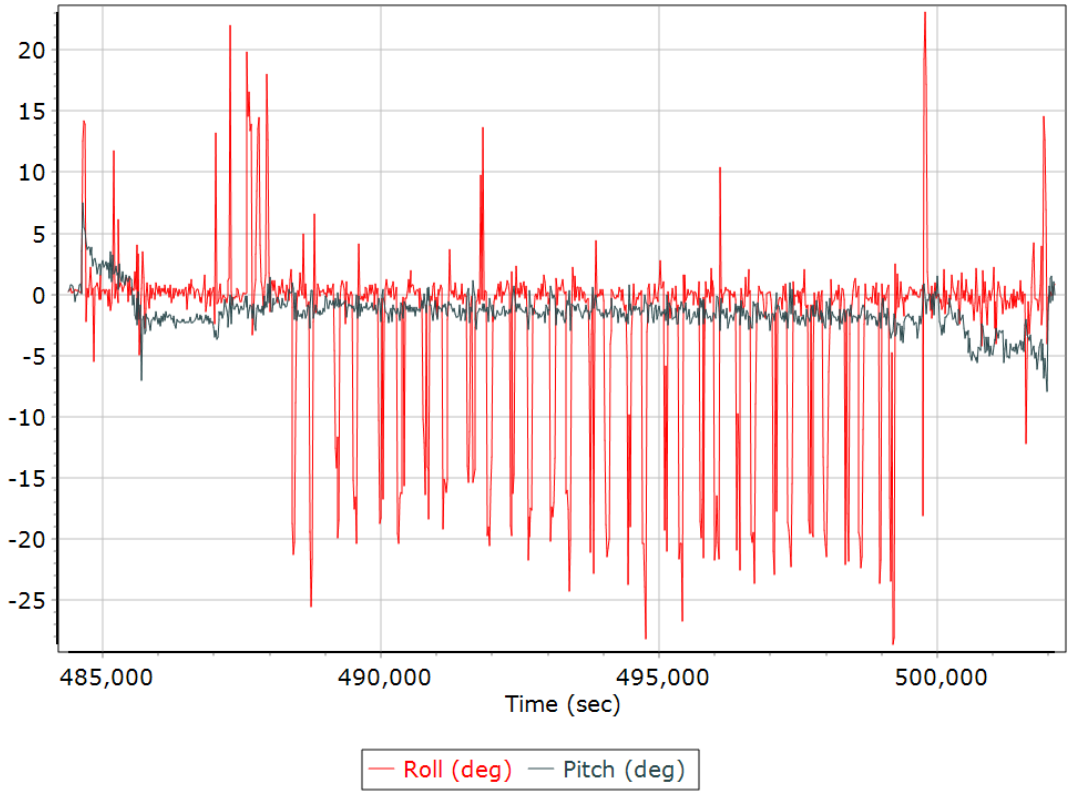
Top View



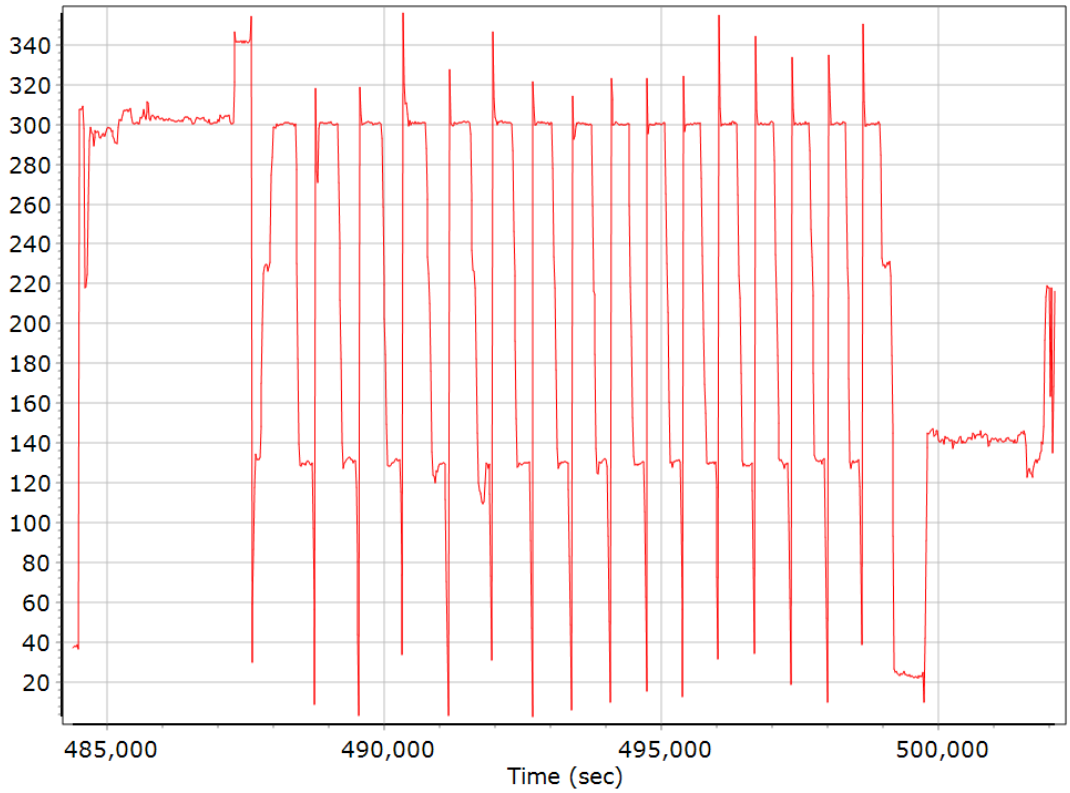
Altitude



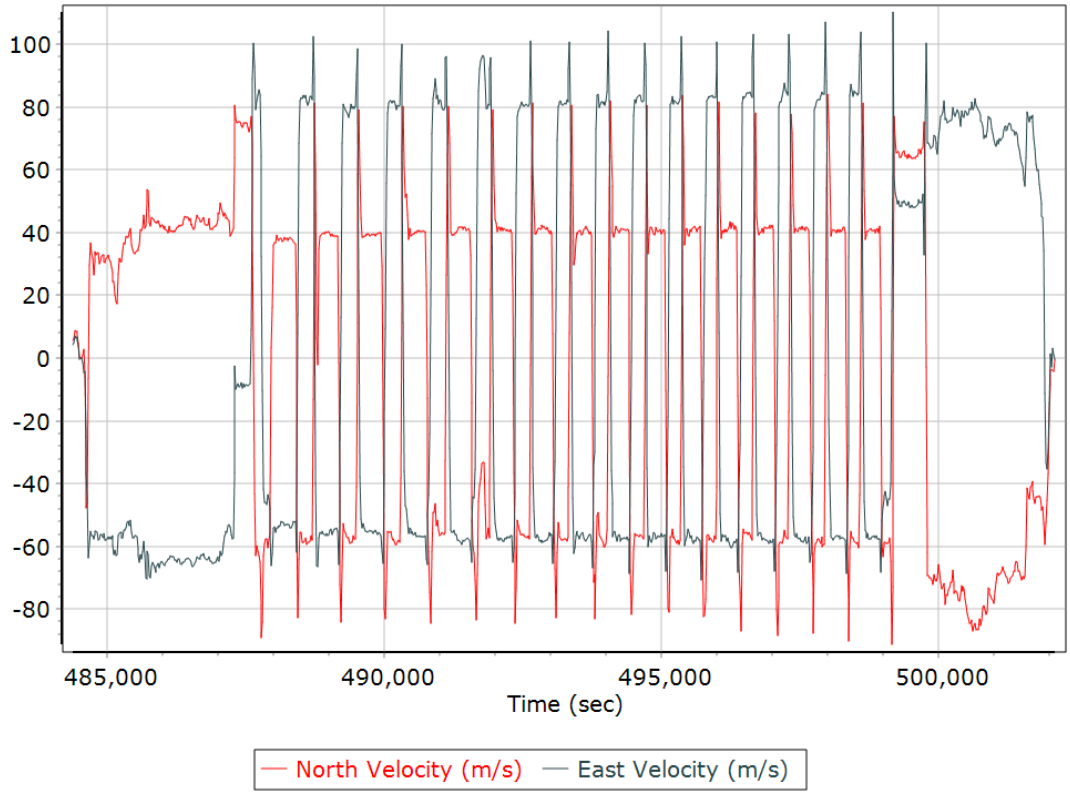
Roll/Pitch



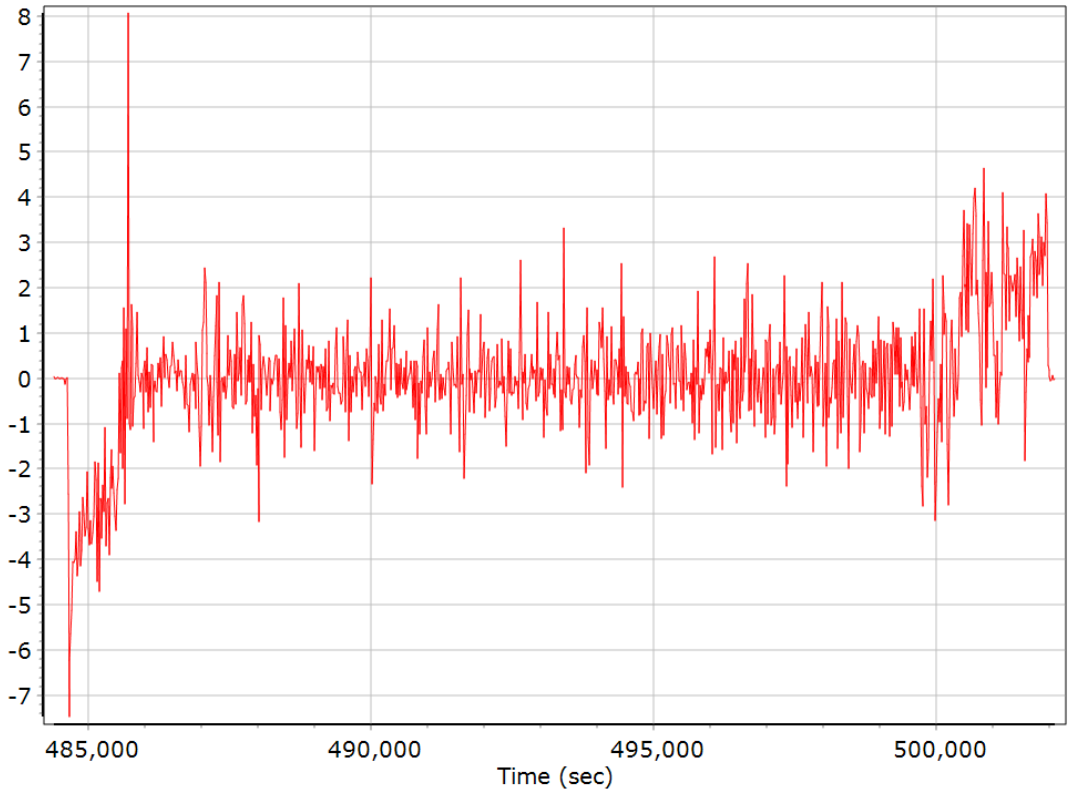
Heading



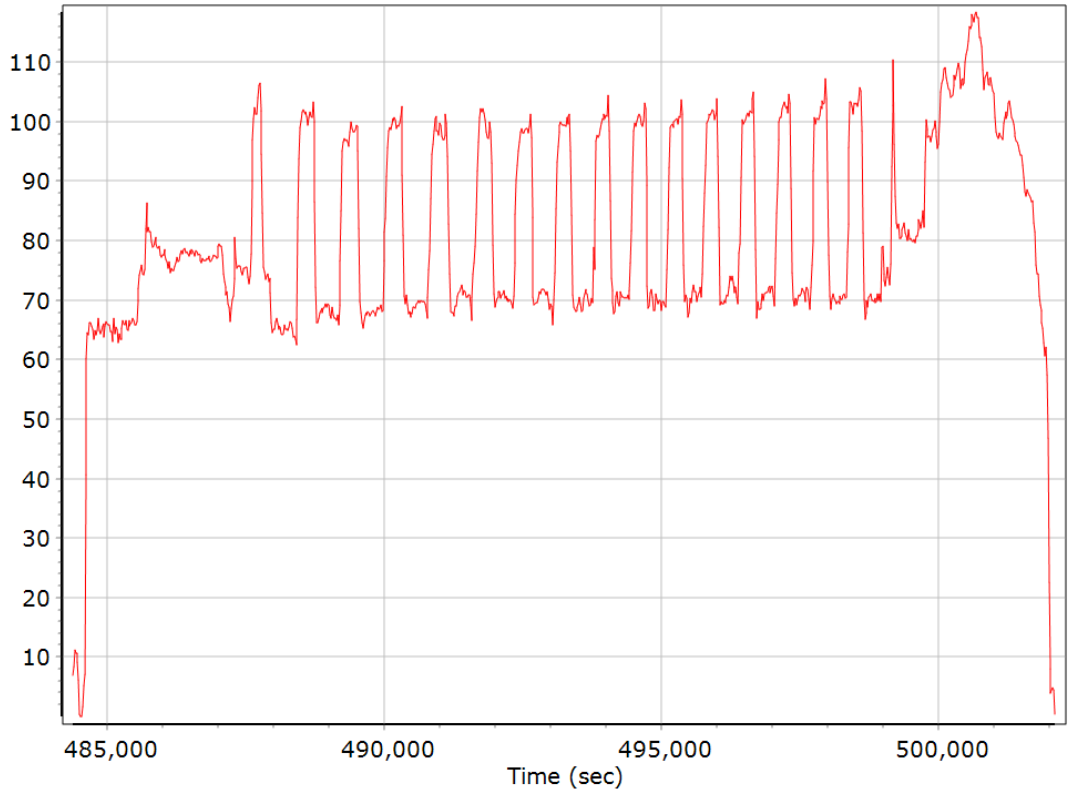
North/East Velocity



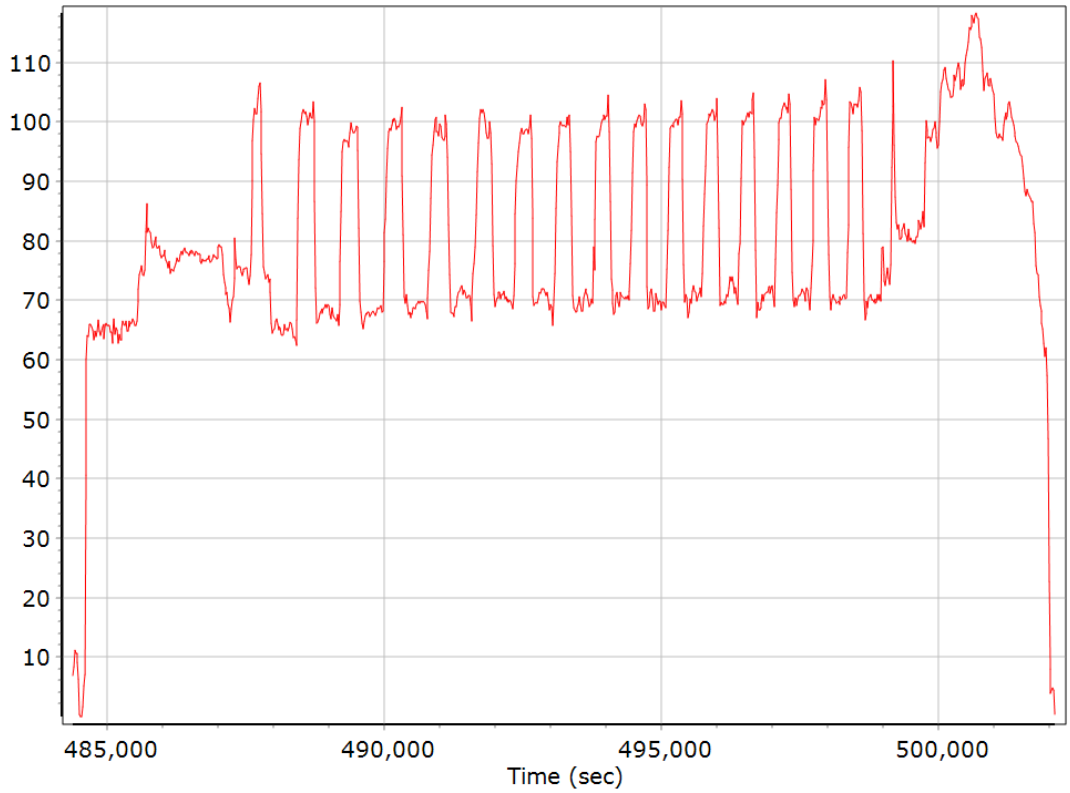
Down Velocity



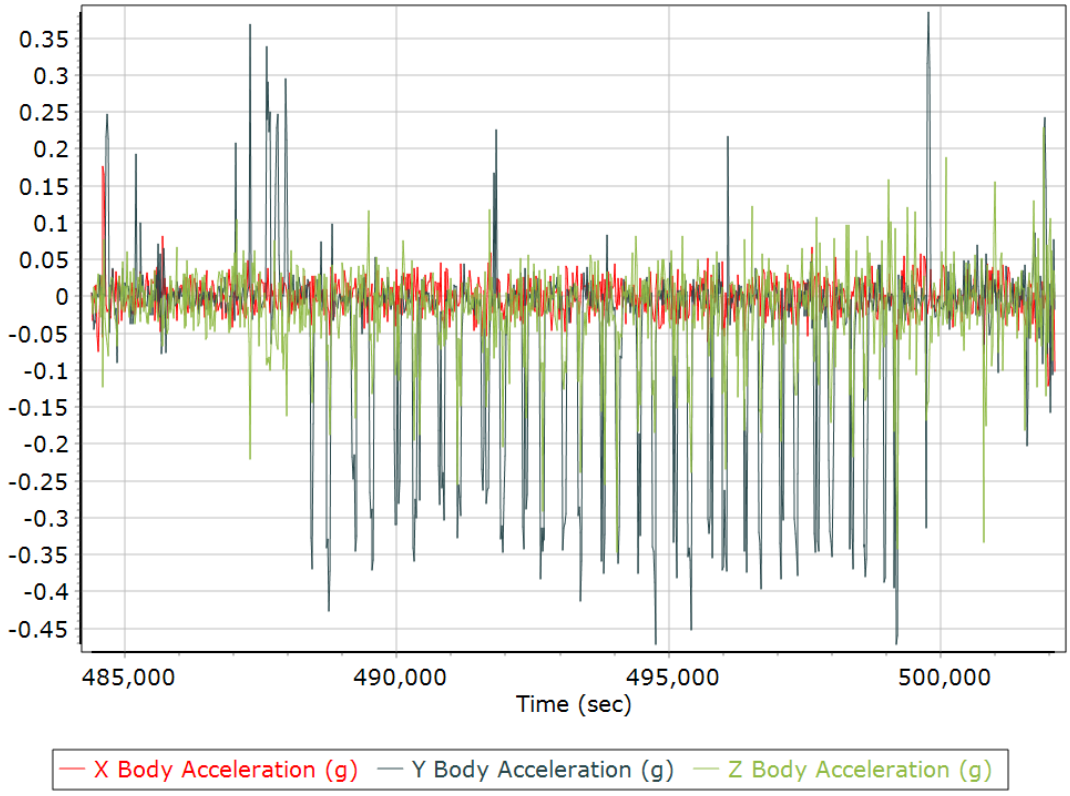
Total Speed



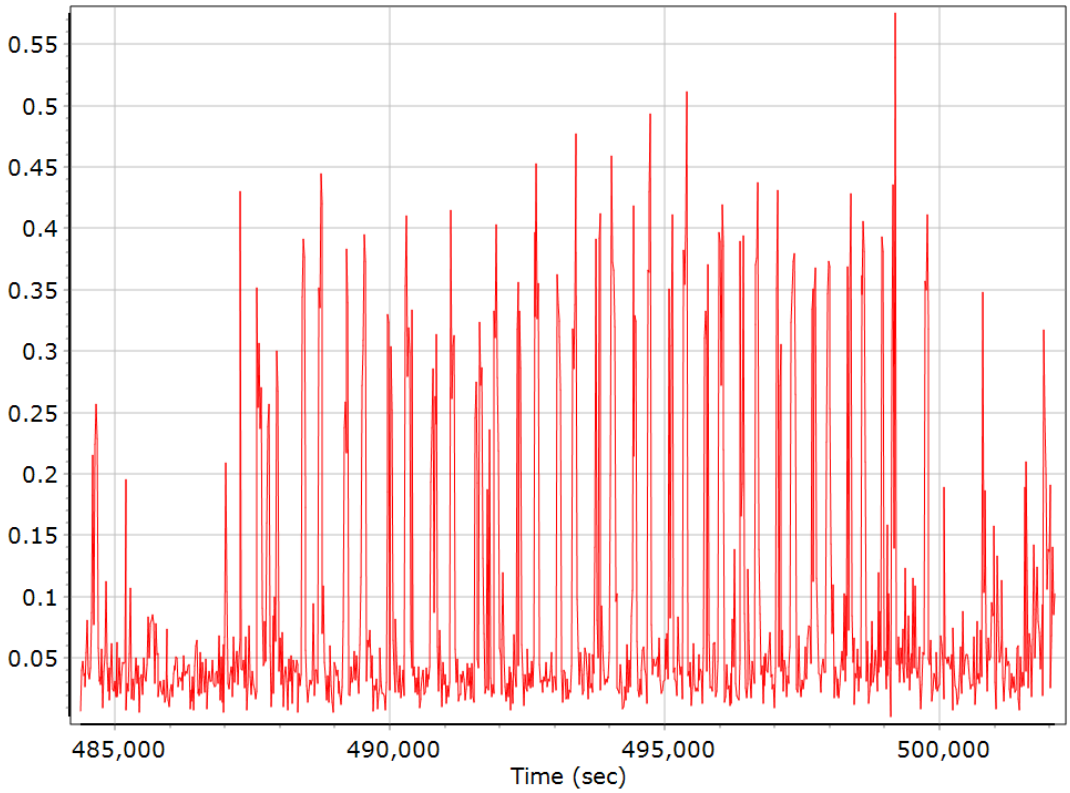
Ground Speed



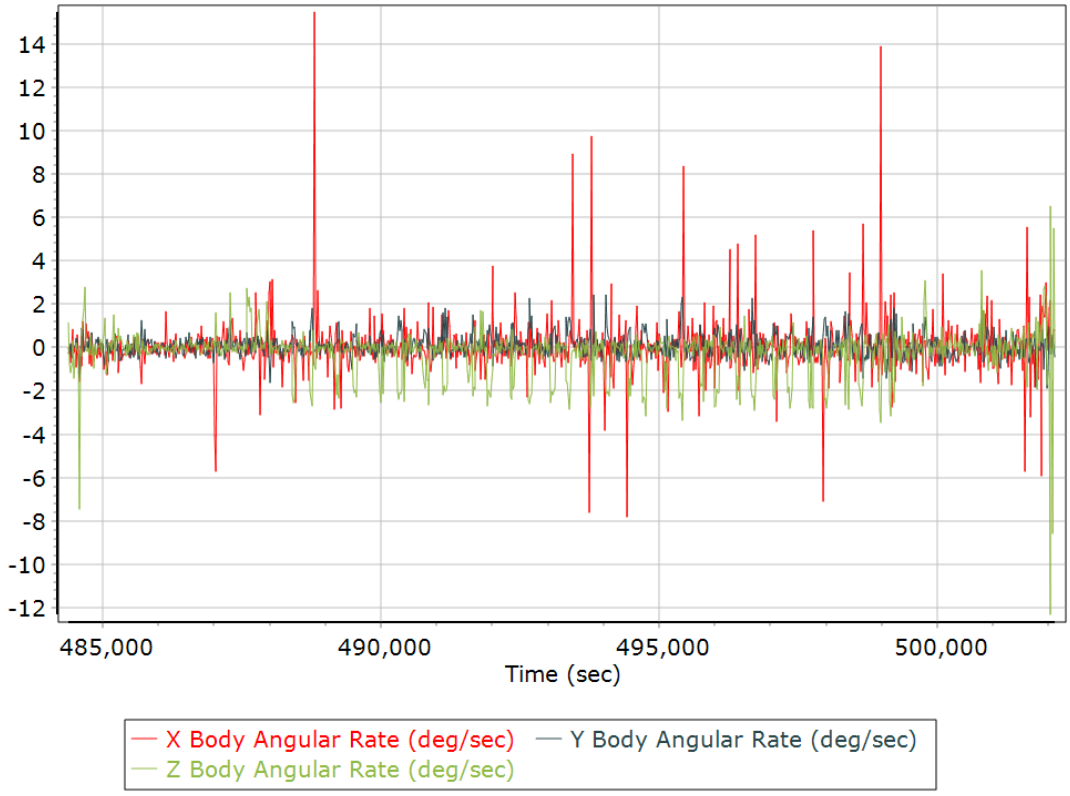
Body Acceleration



Total Body Acceleration



Body Angular Rate

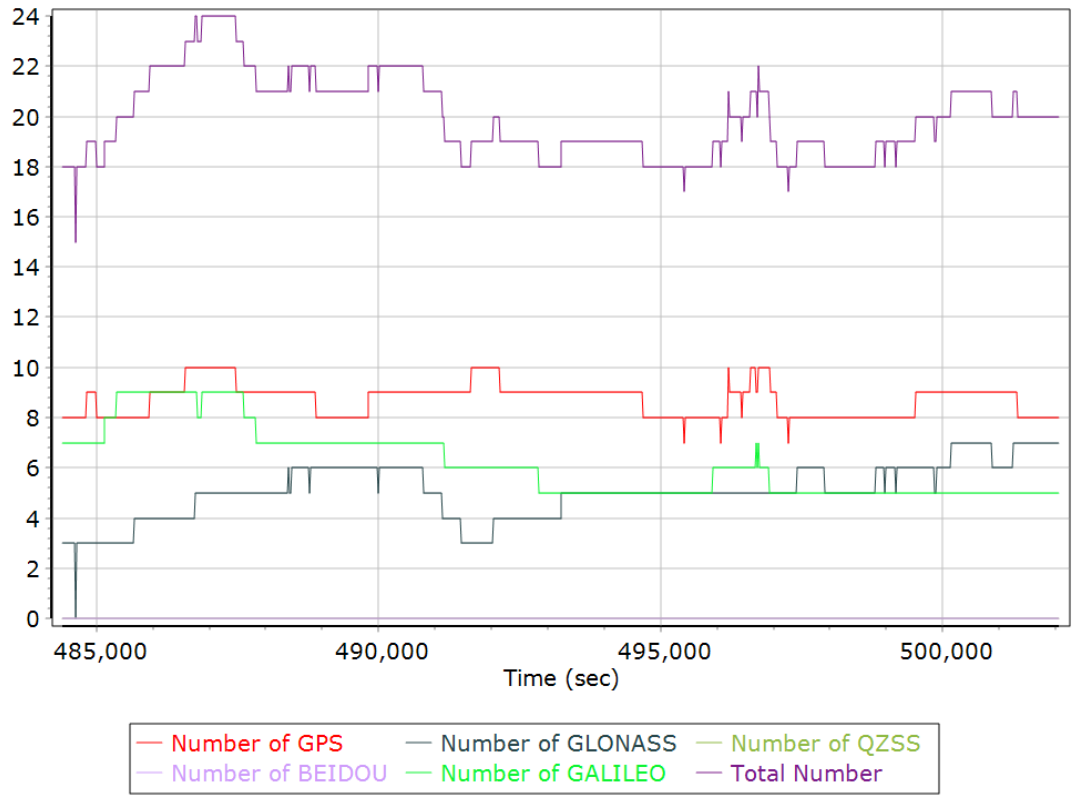


GNSS QC

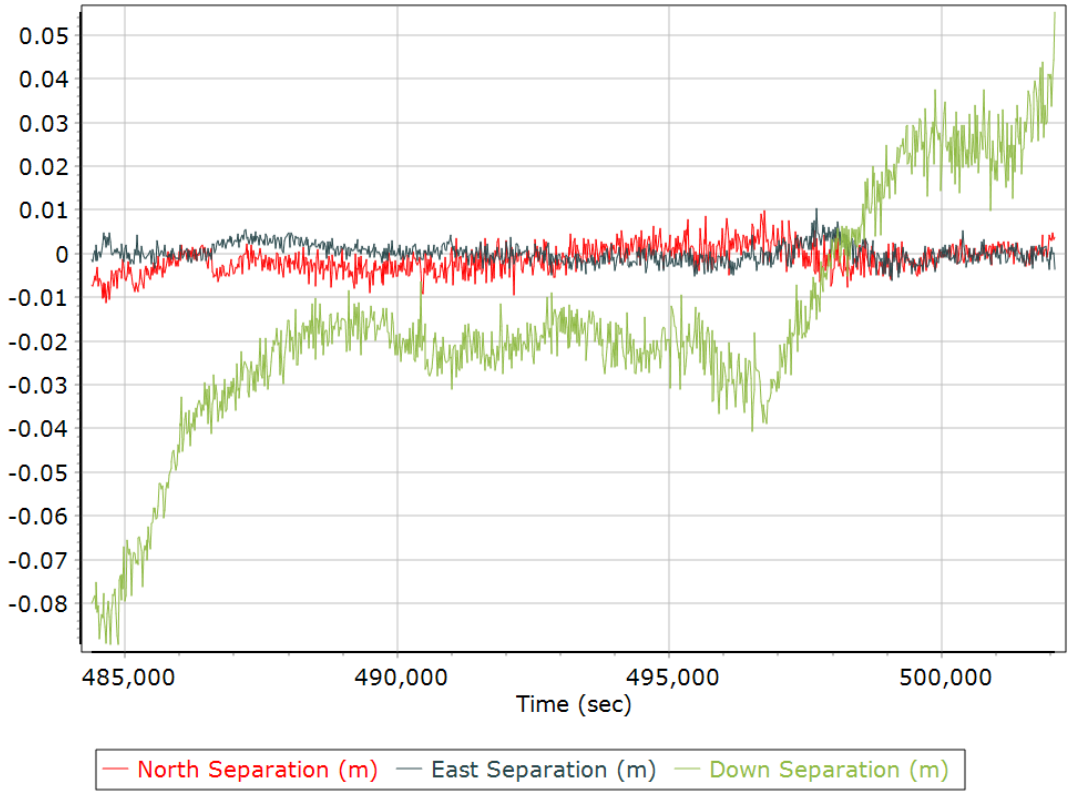
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	9
Number of GLONASS SV	0	7	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	2	9	6
Total number of SV	8	24	20
PDOP	0.89	2.24	1.19
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	18028.00	0.00	2.00
Percentage	99.99	0.00	0.01

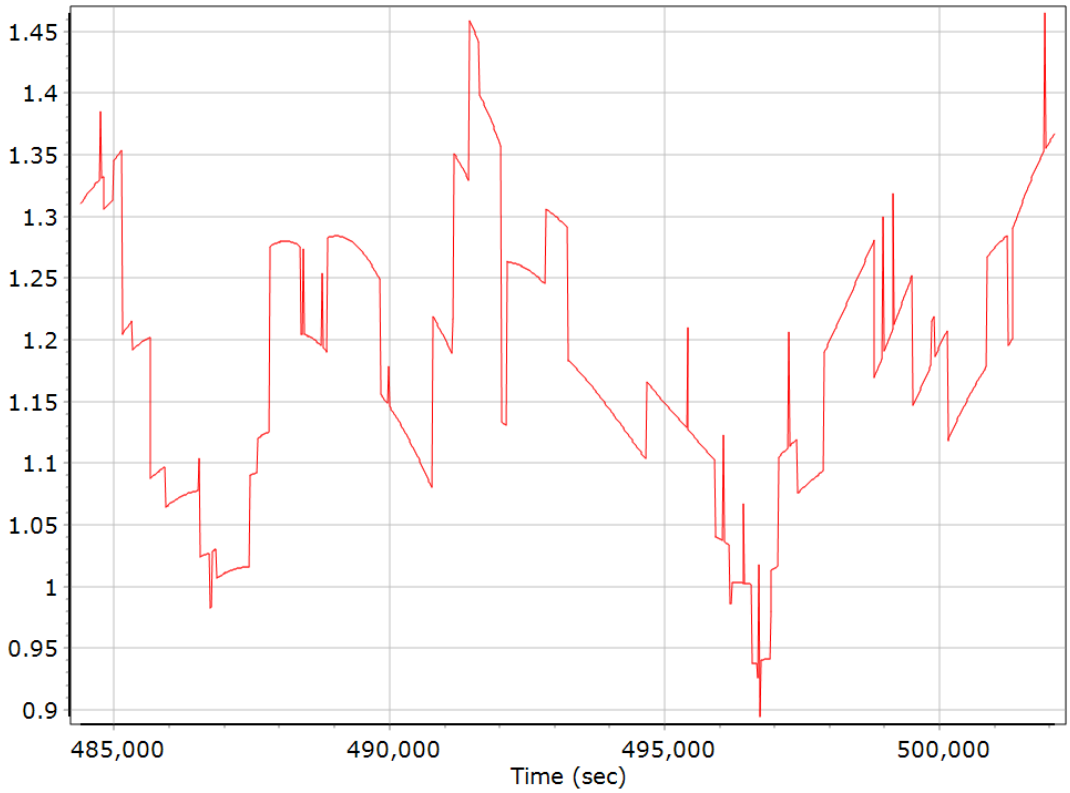
Num SVs in solution



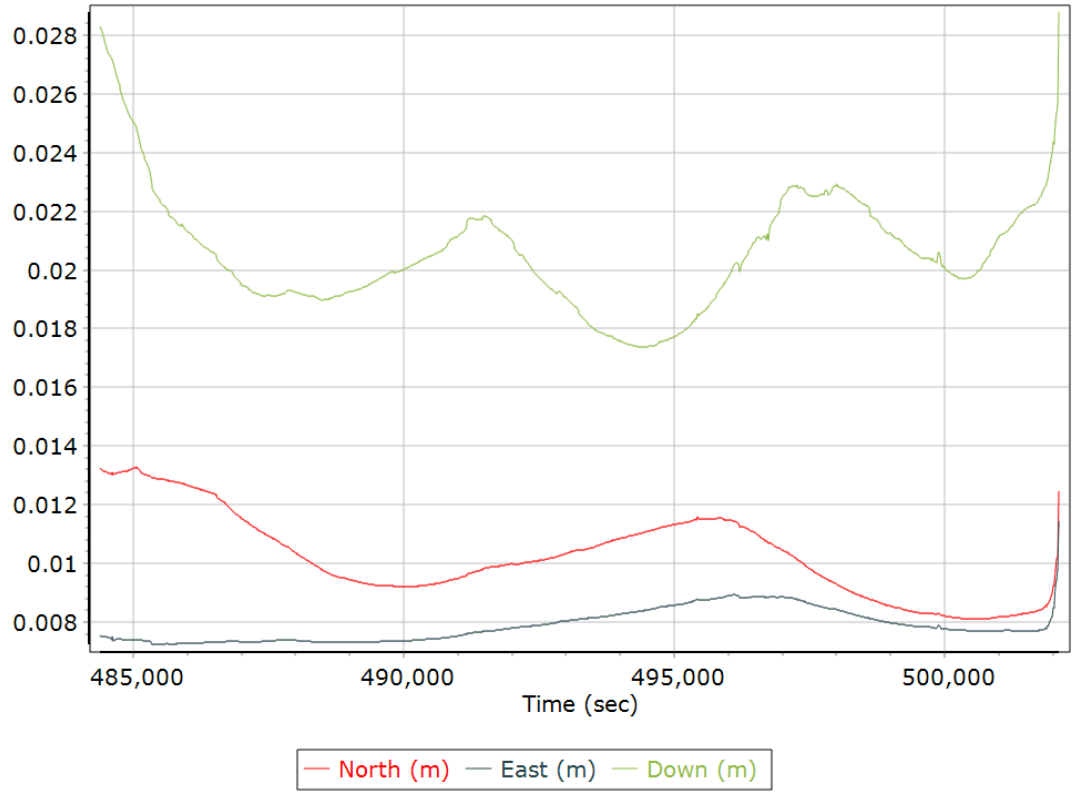
Forward/Reverse Separation



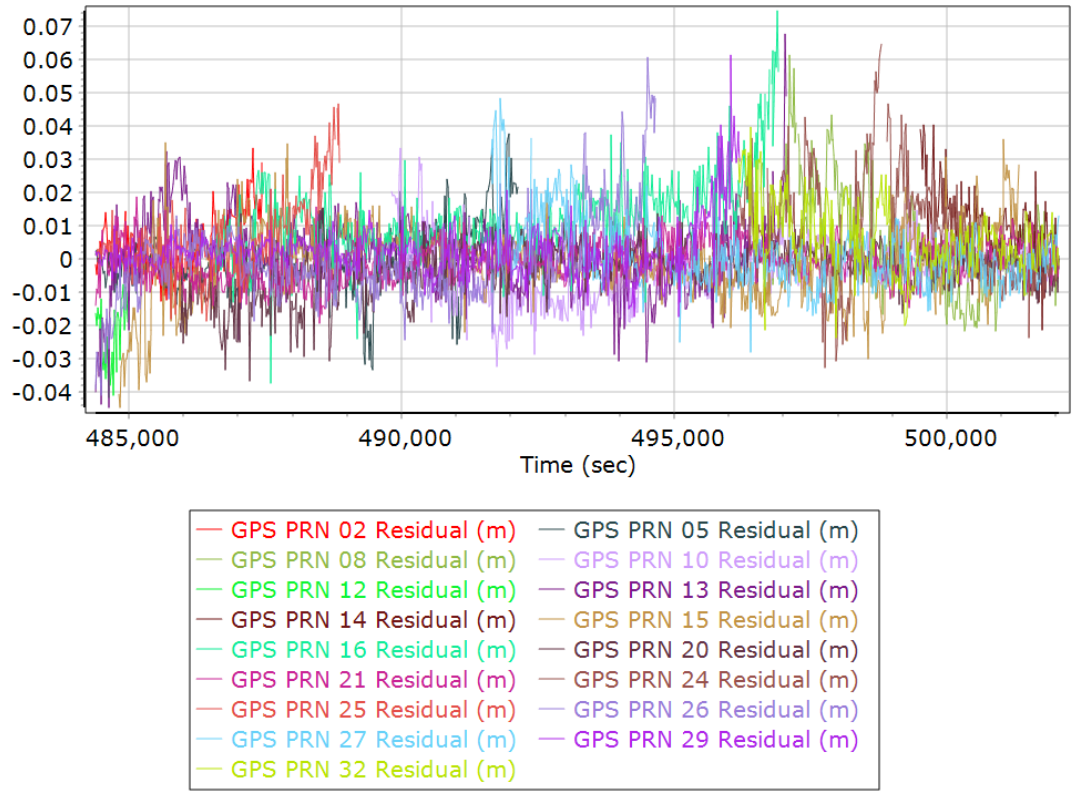
PDOP



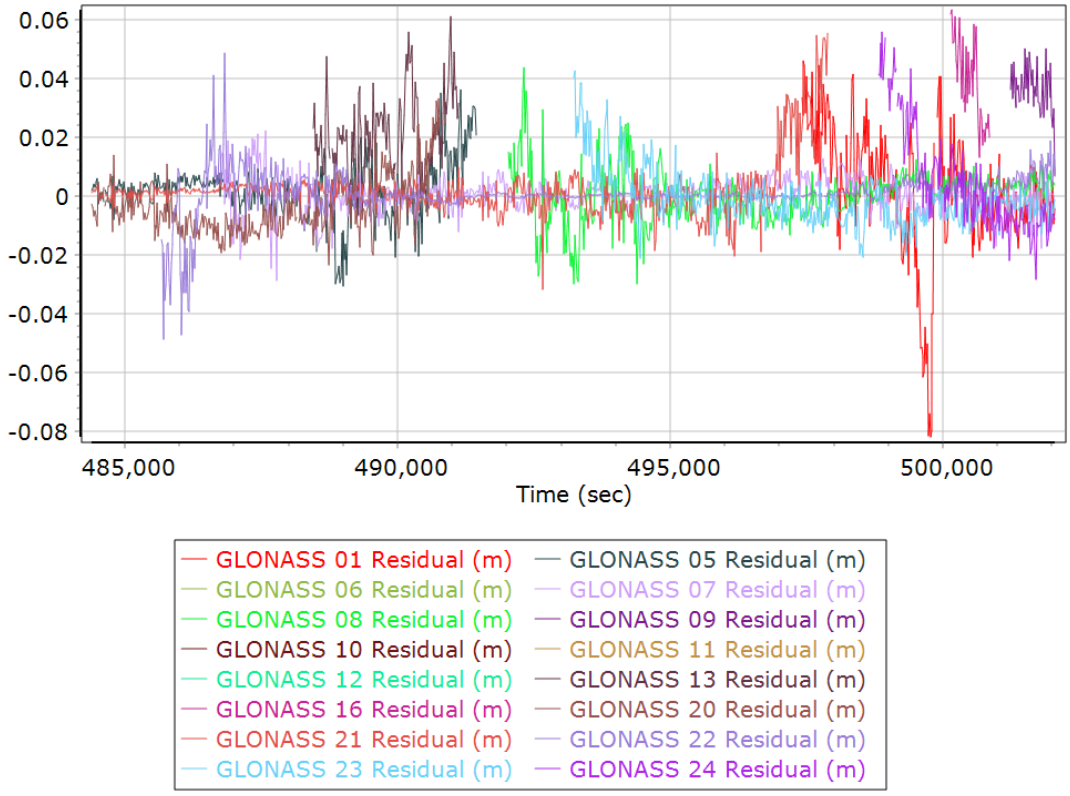
Estimated Position Accuracy



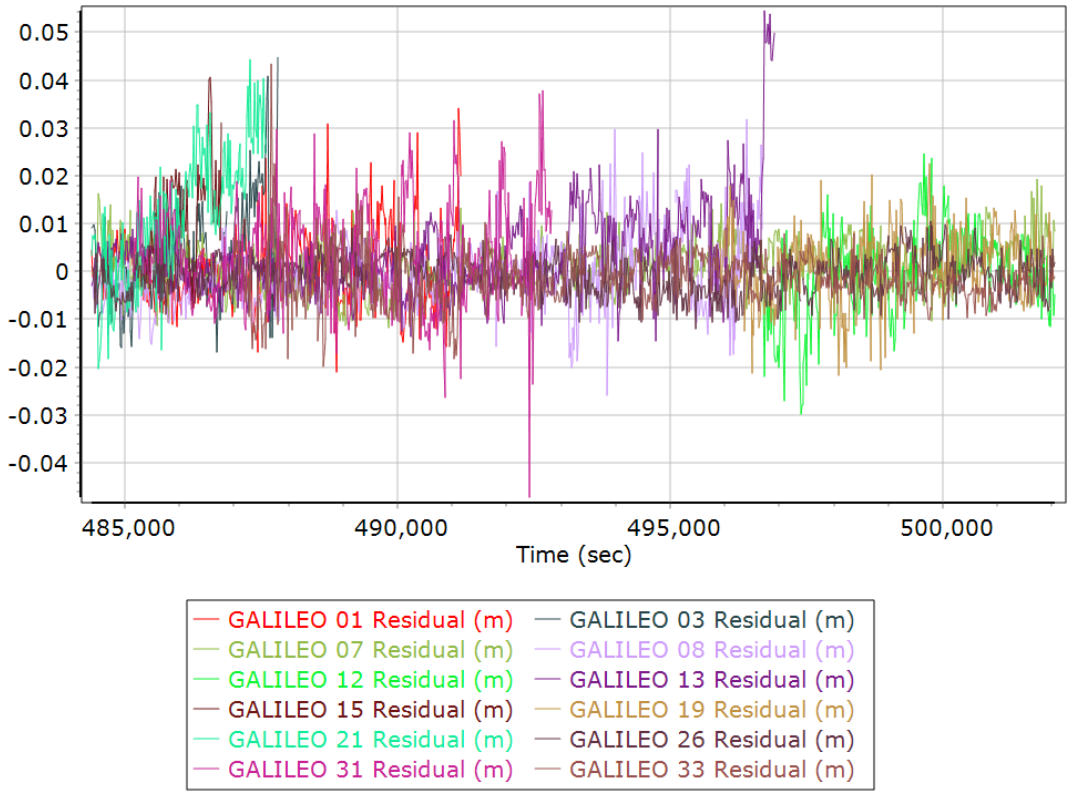
GPS Residuals



GLONASS Residuals



GALILEO Residuals



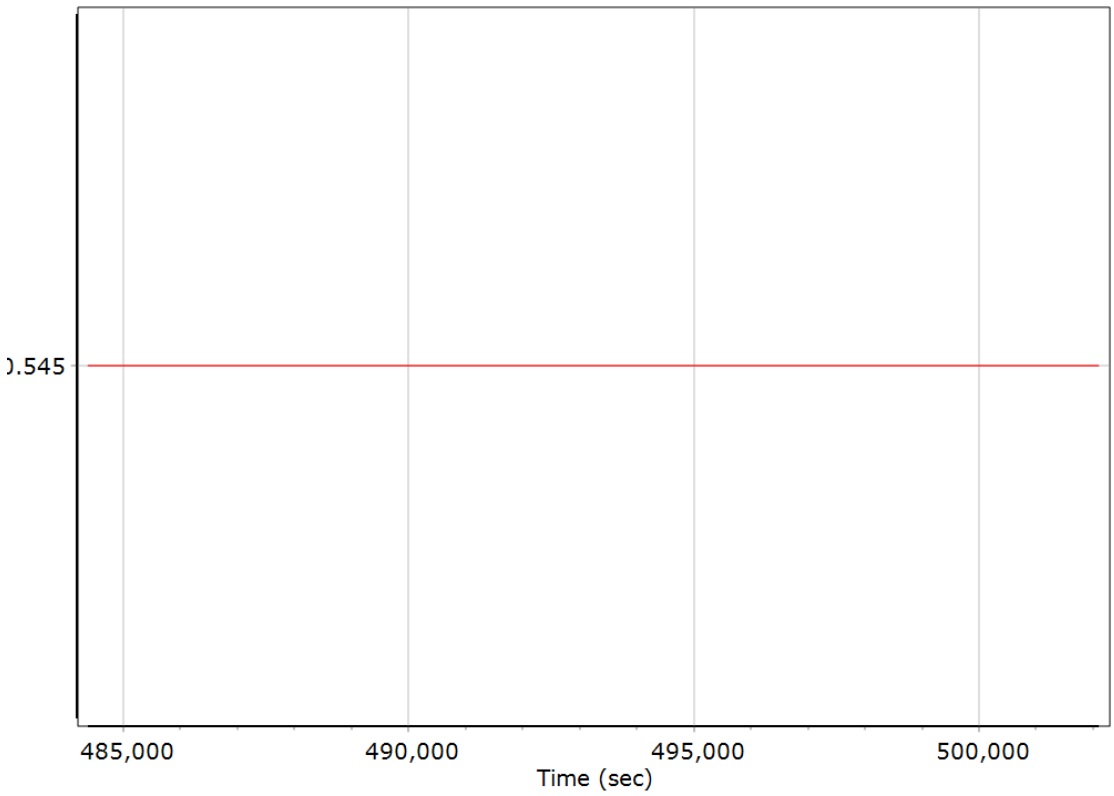
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	484033.000 (10/25/2019 2:27:13 PM)		
Processing end time	502113.000 (10/25/2019 7:28:33 PM)		
Initial attitude source	Real-Time VNAV/RNAV Attitude		
IMU Sensor Context	Processing with Onboard IMU		
Reference to IMU lever arm (m)	0.000	0.000	0.000
Reference to IMU mounting angles (deg)	0.000	0.000	180.000
Reference to Primary GNSS lever arm (m)	0.545	-0.423	-0.964
Reference 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

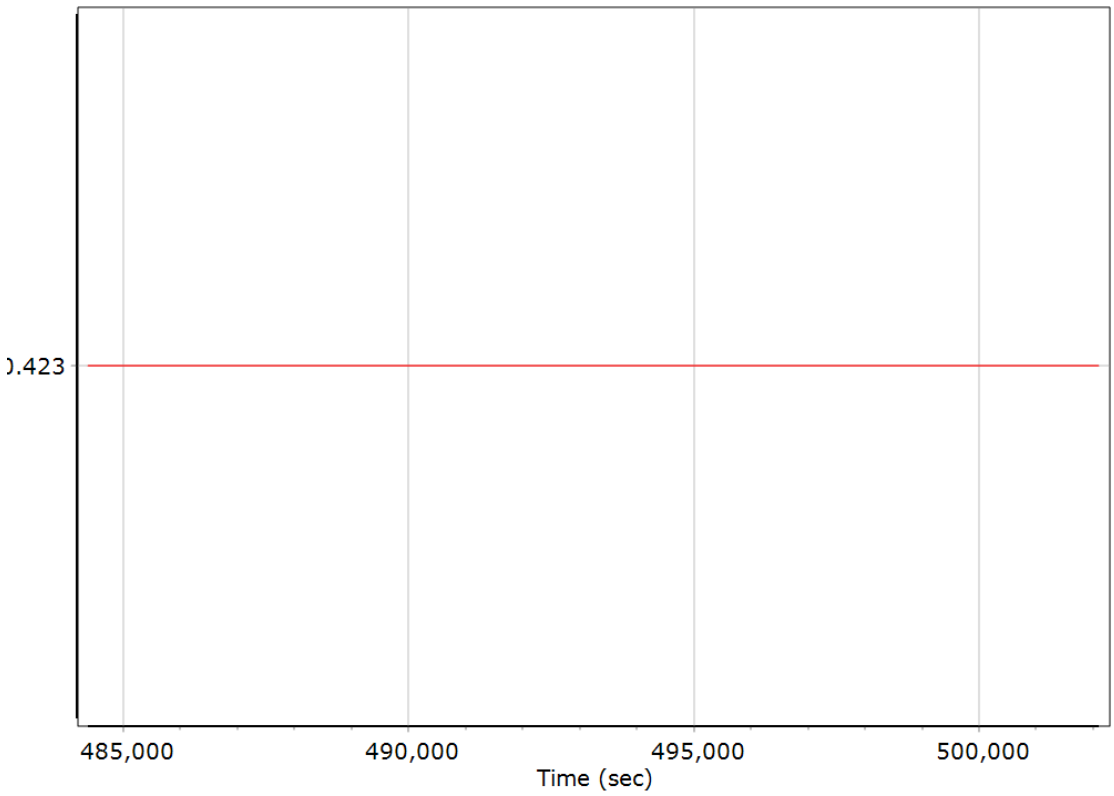
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

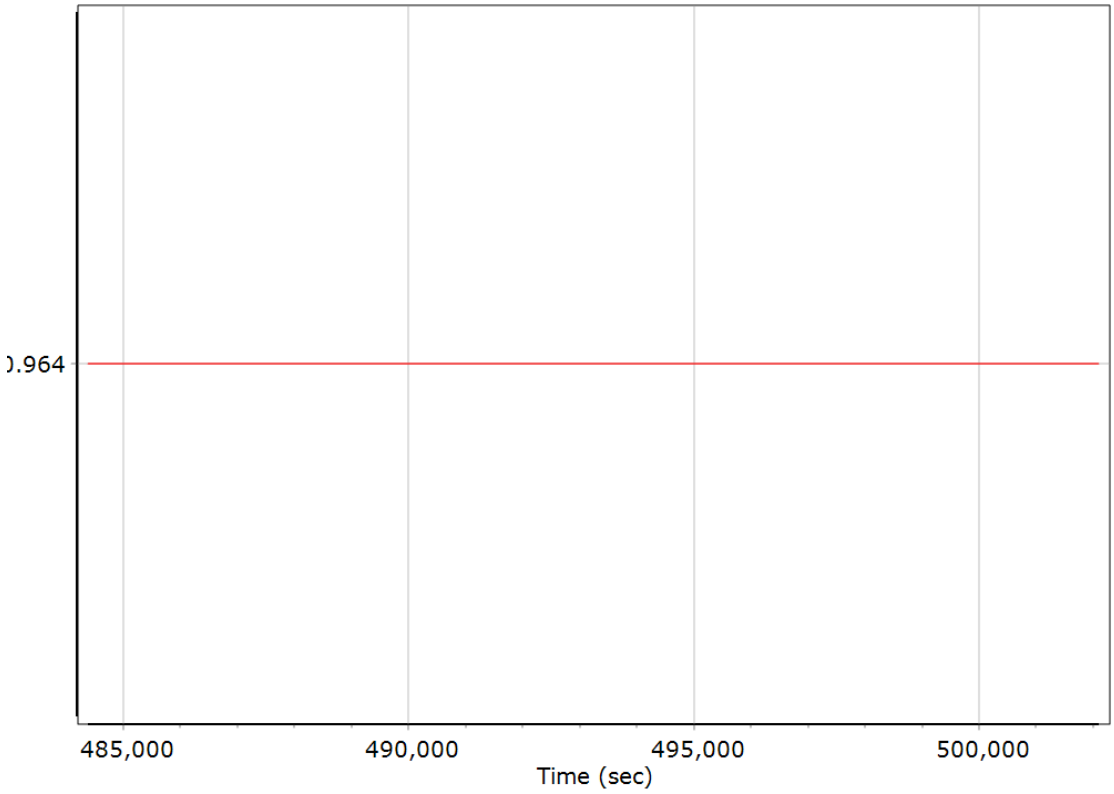
X Reference-Primary GNSS Lever Arm (m)



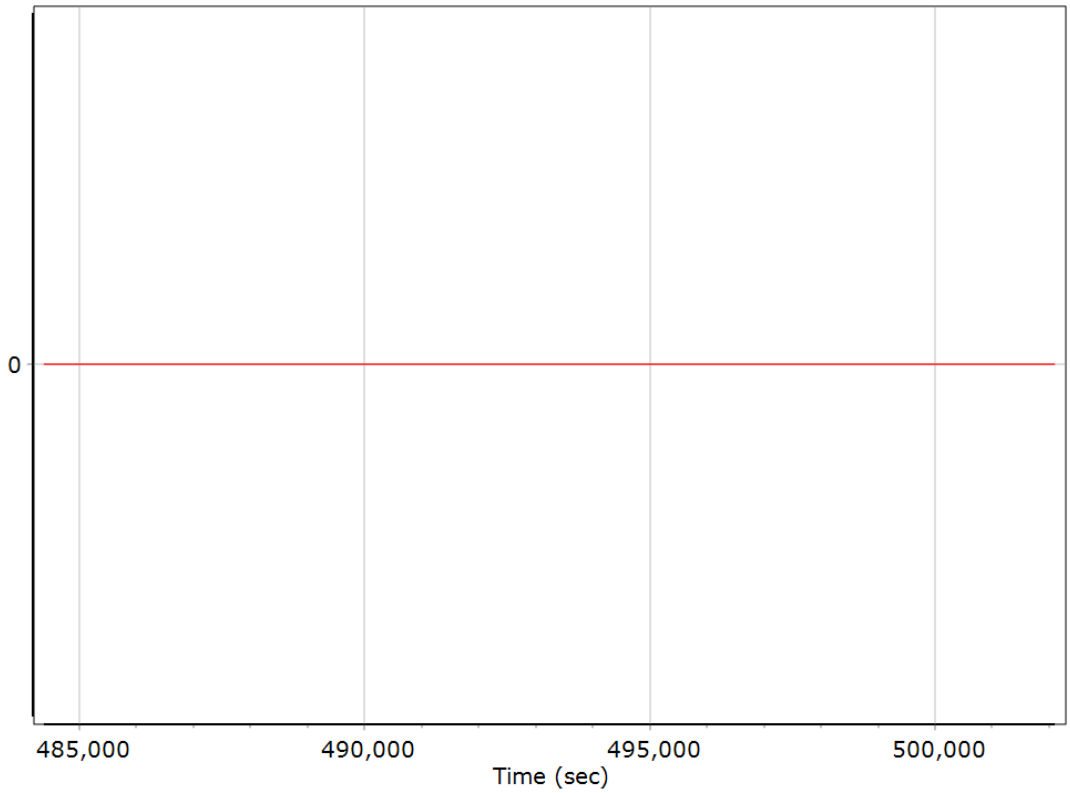
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



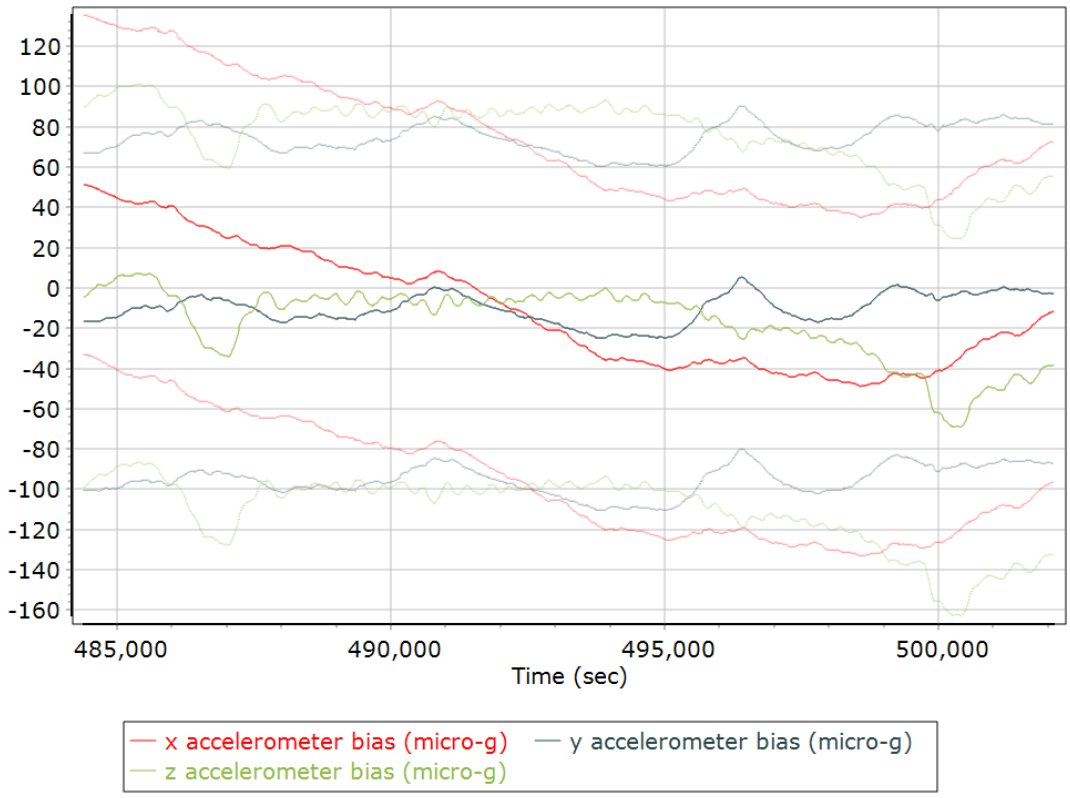
Reference-Primary GNSS Lever Arm Figure of Merit



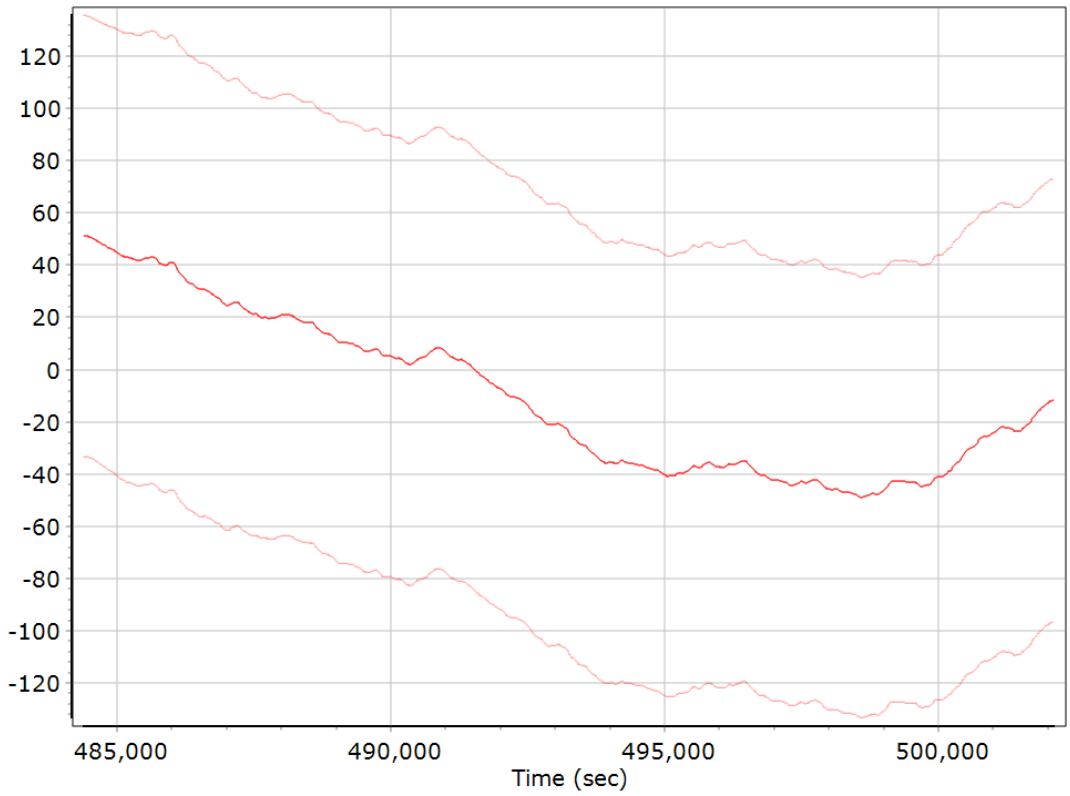
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

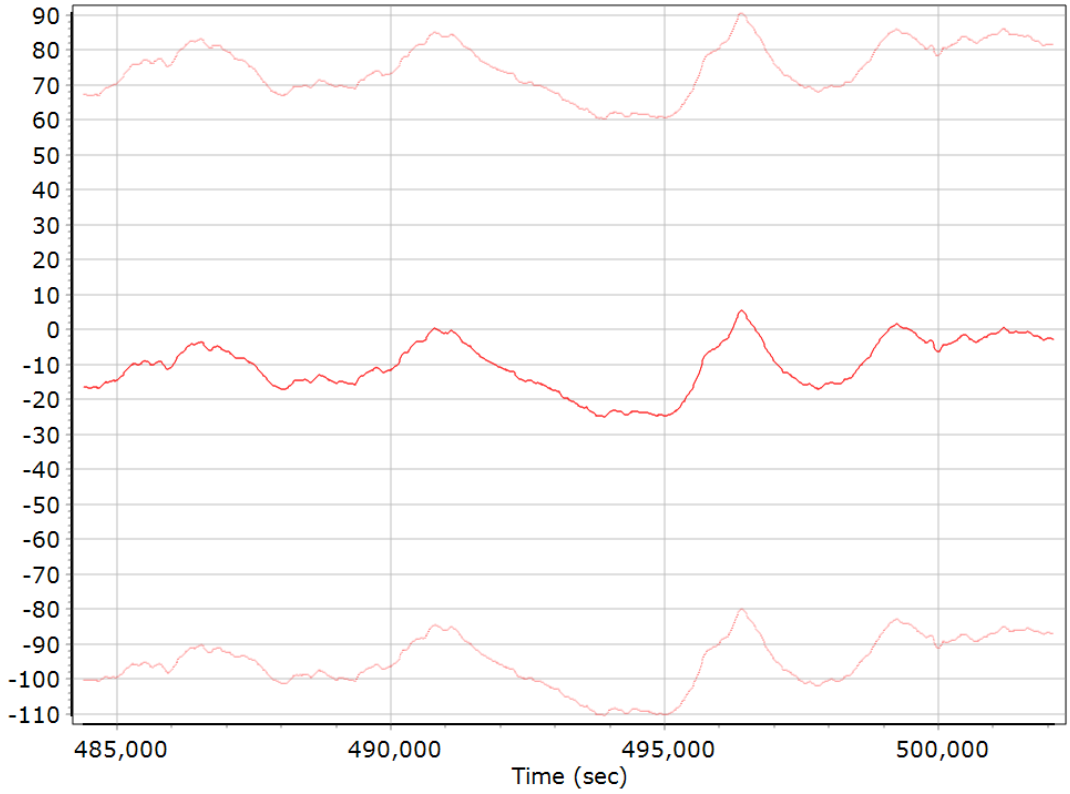
Accelerometer Bias (micro-g)



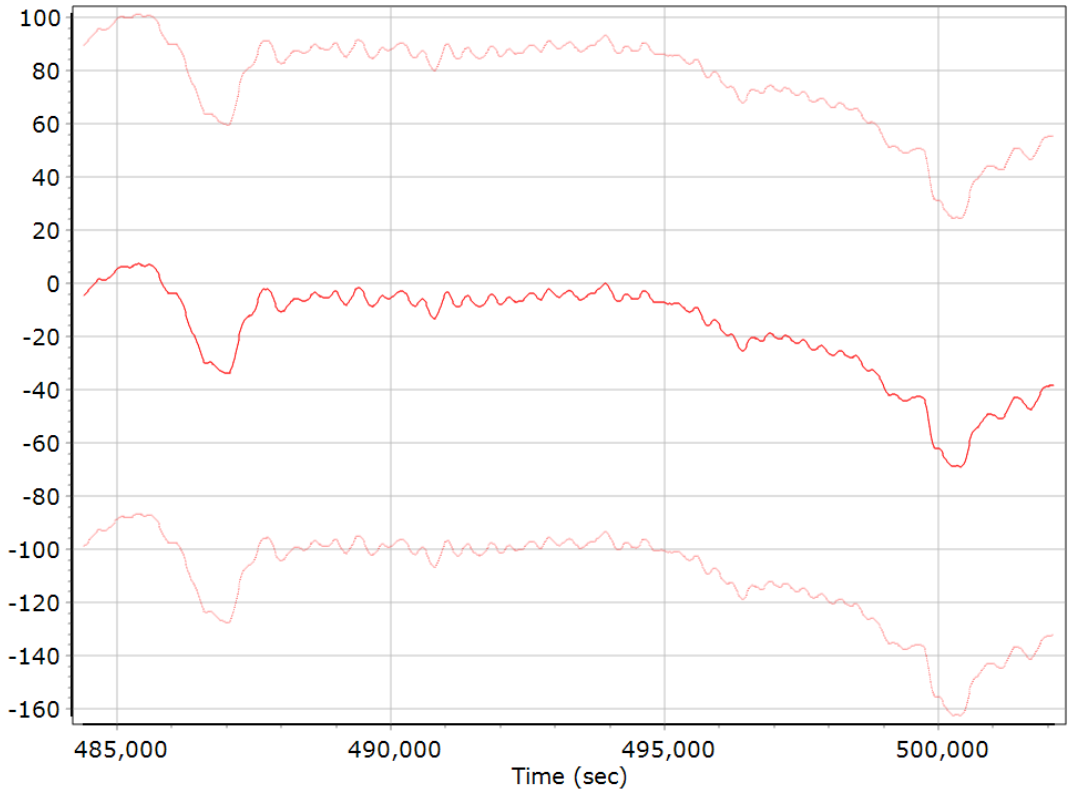
X Accelerometer Bias (micro-g)



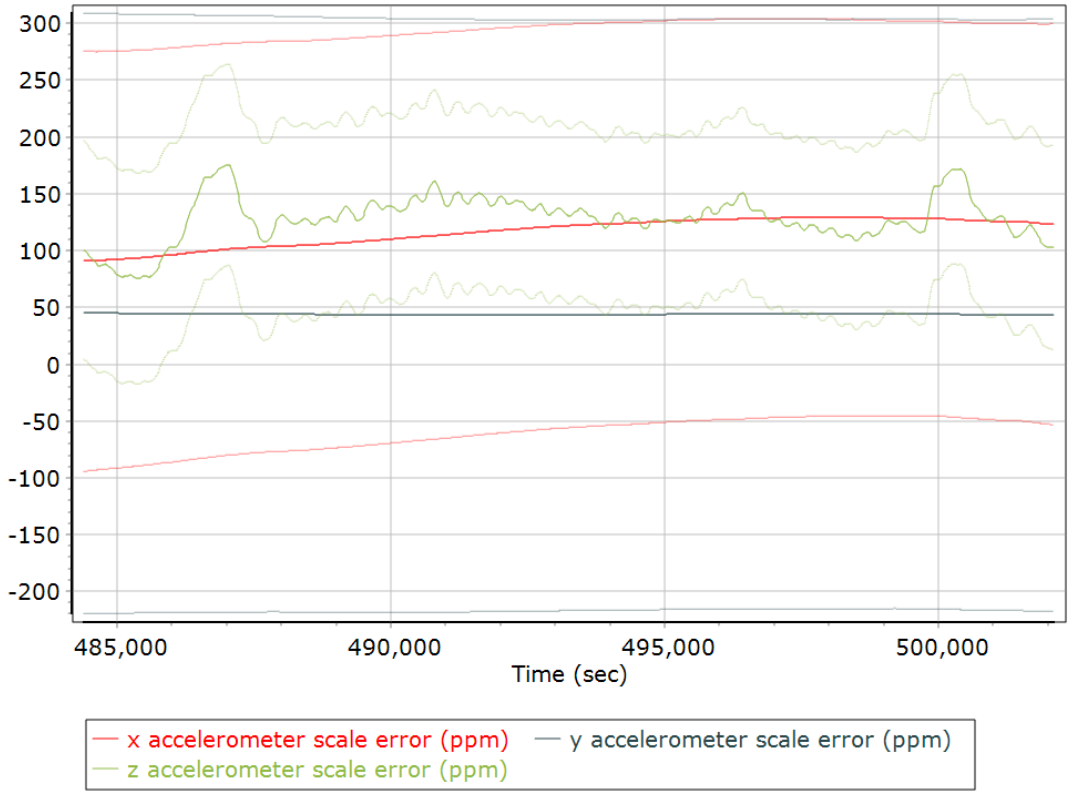
Y Accelerometer Bias (micro-g)



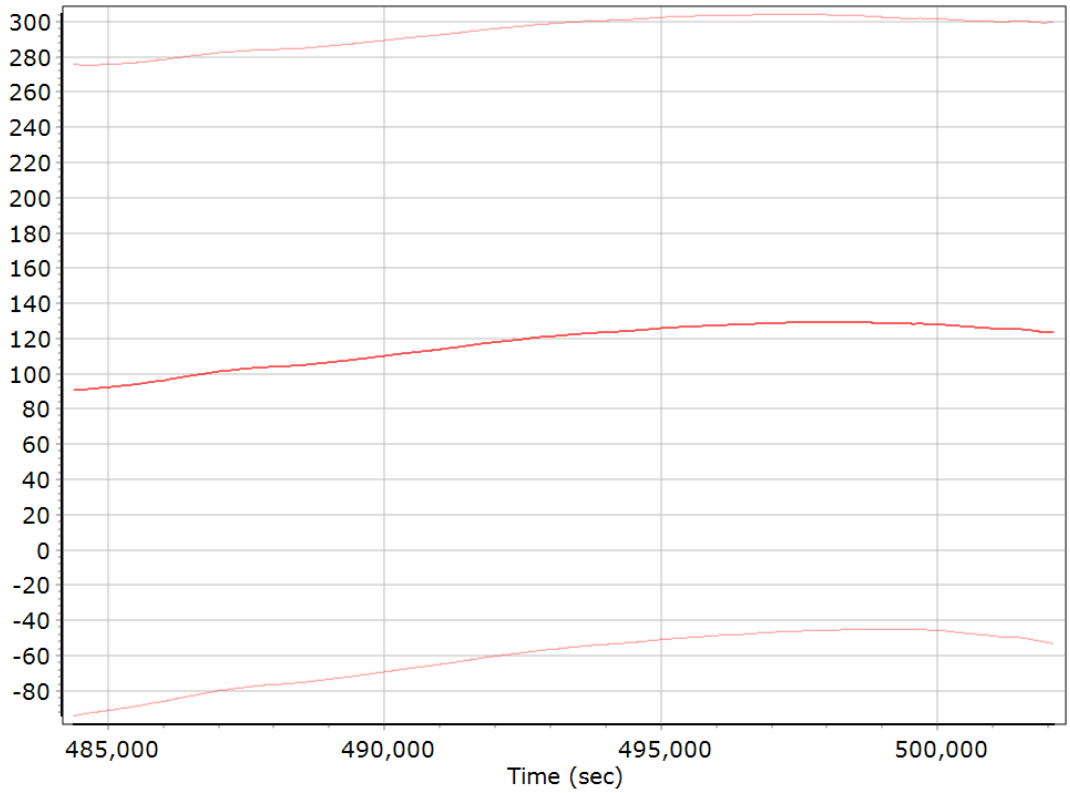
Z Accelerometer Bias (micro-g)



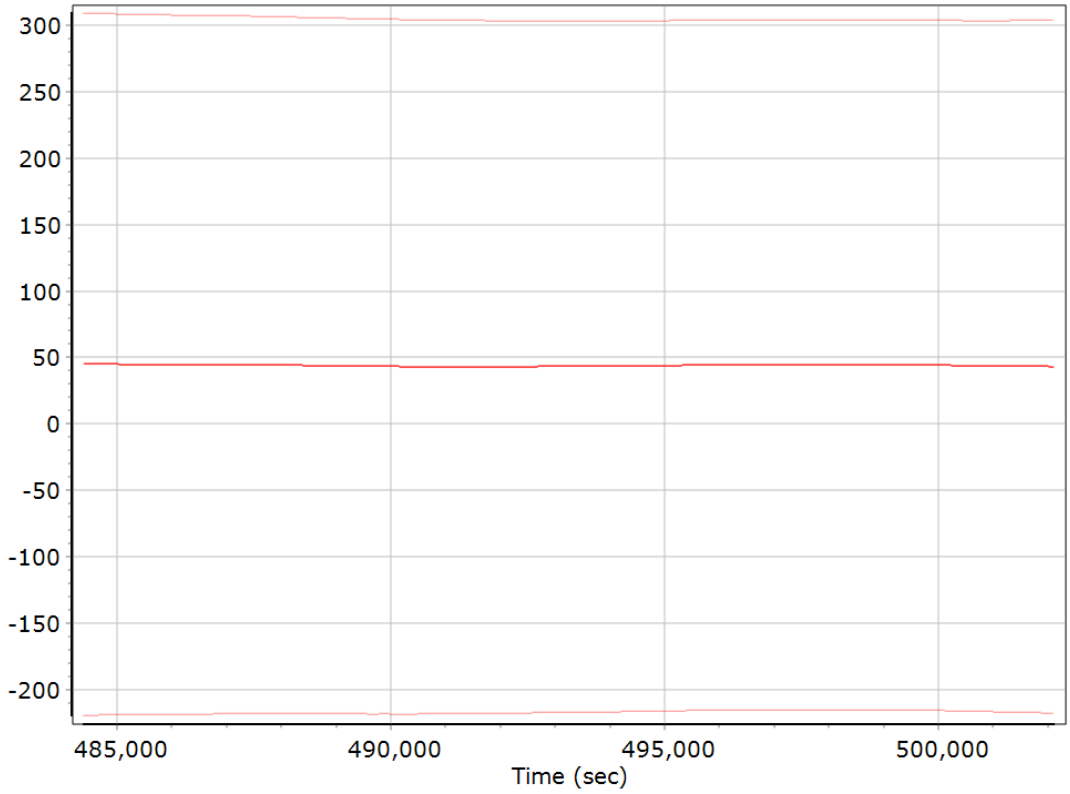
Accelerometer Scale Error (ppm)



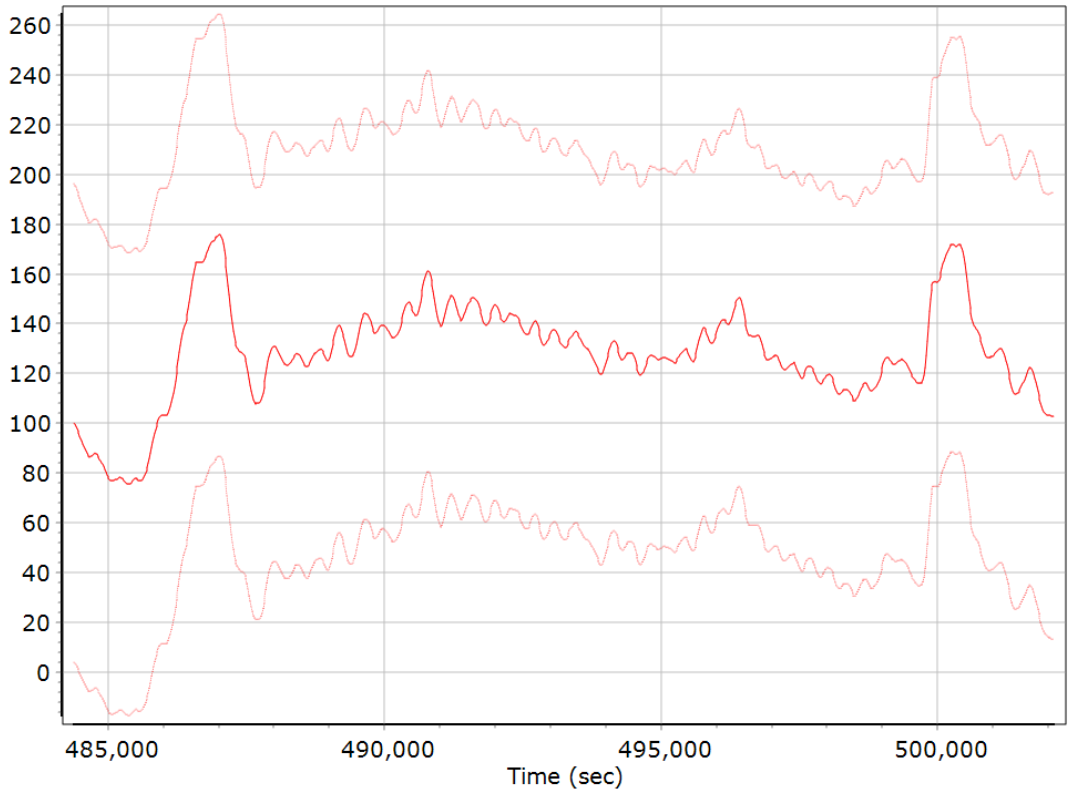
X Accelerometer Scale Error (ppm)



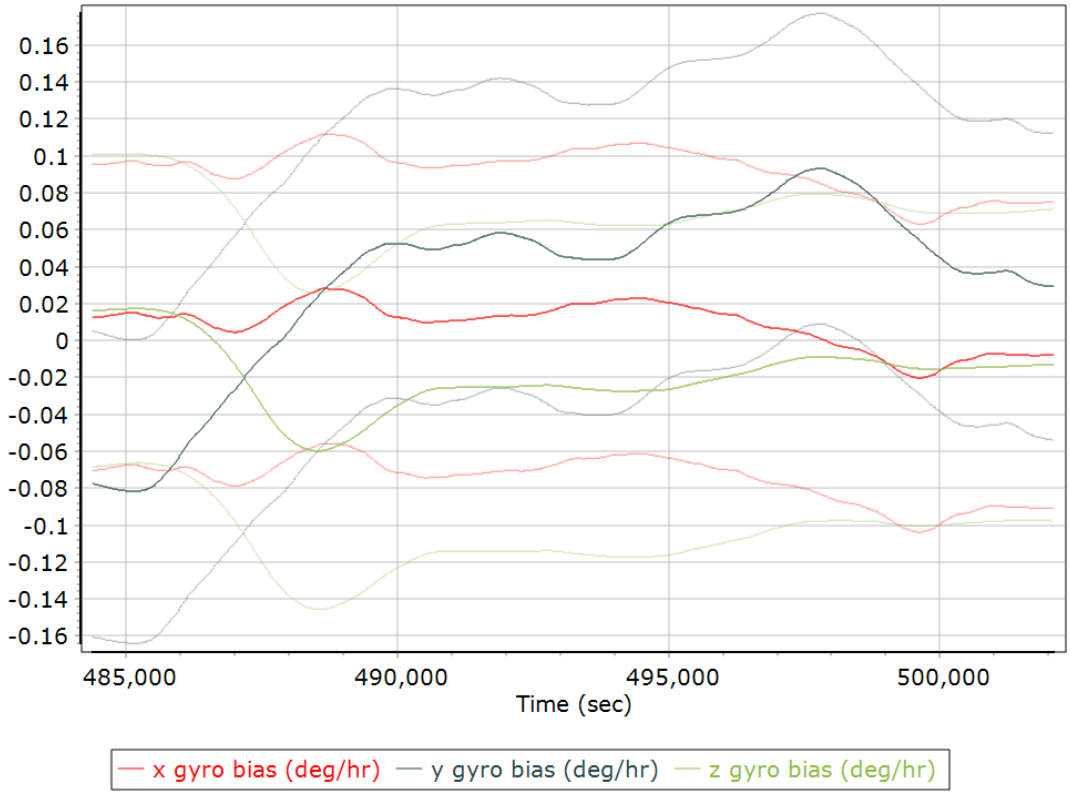
Y Accelerometer Scale Error (ppm)



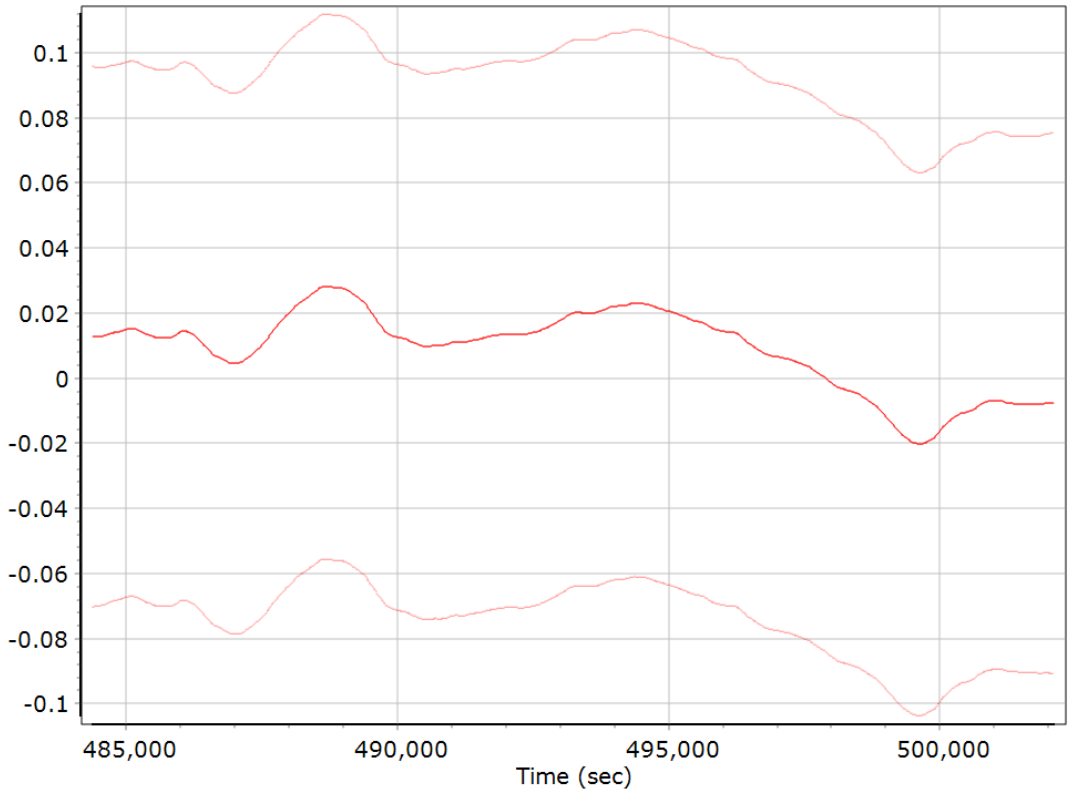
Z Accelerometer Scale Error (ppm)



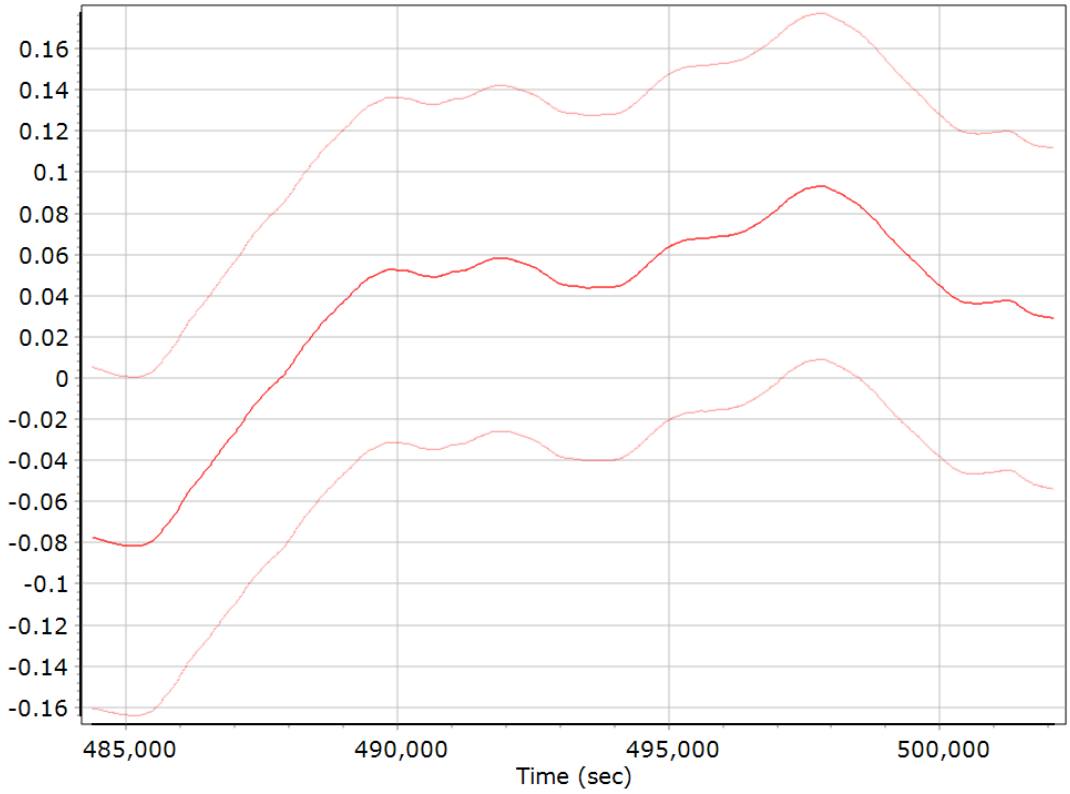
Gyro Bias (deg/h)



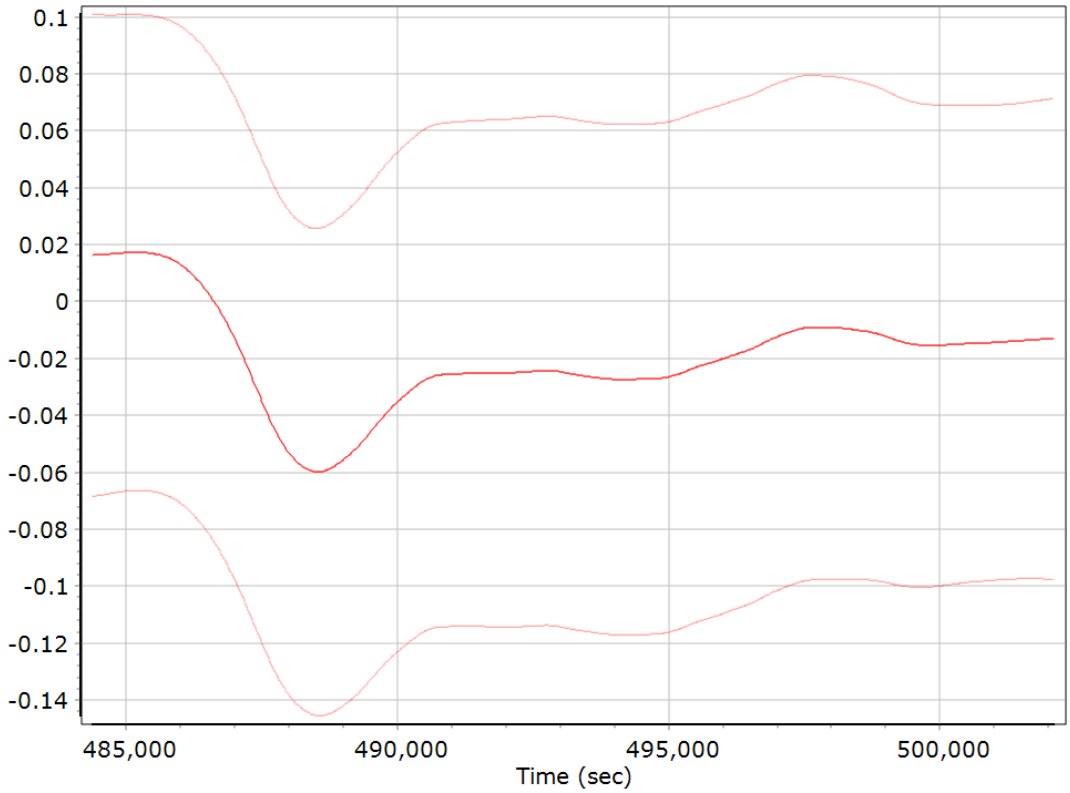
X Gyro Bias (deg/h)



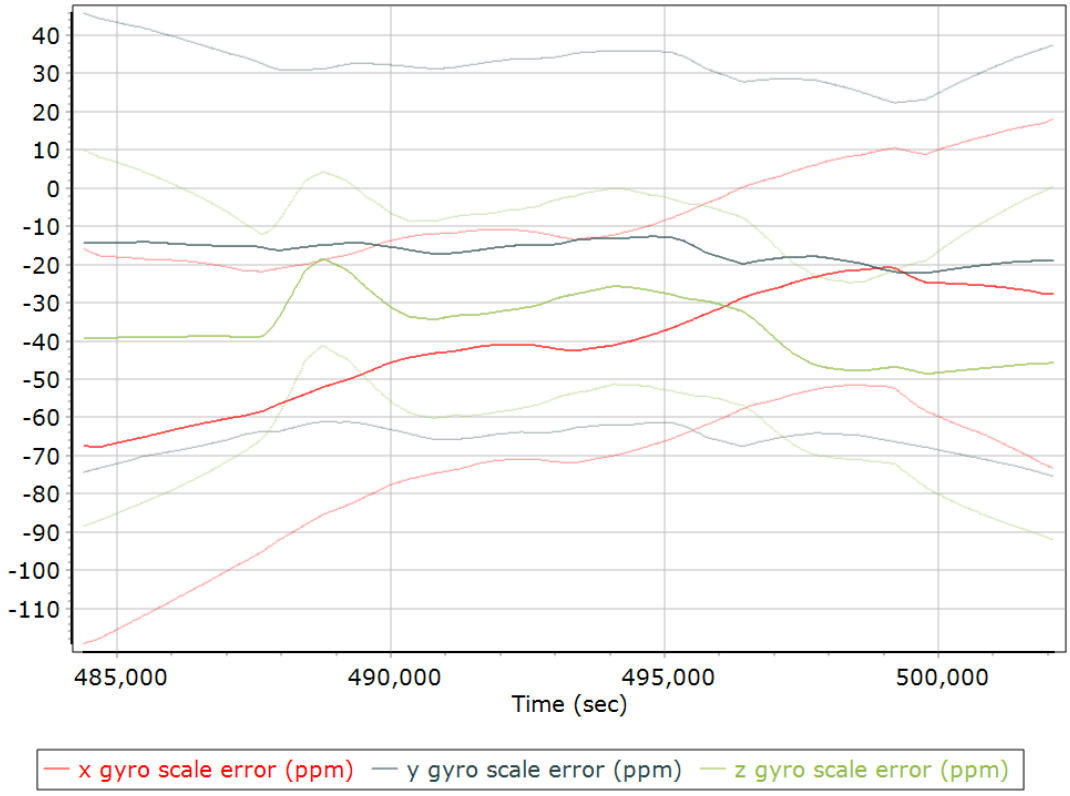
Y Gyro Bias (deg/h)



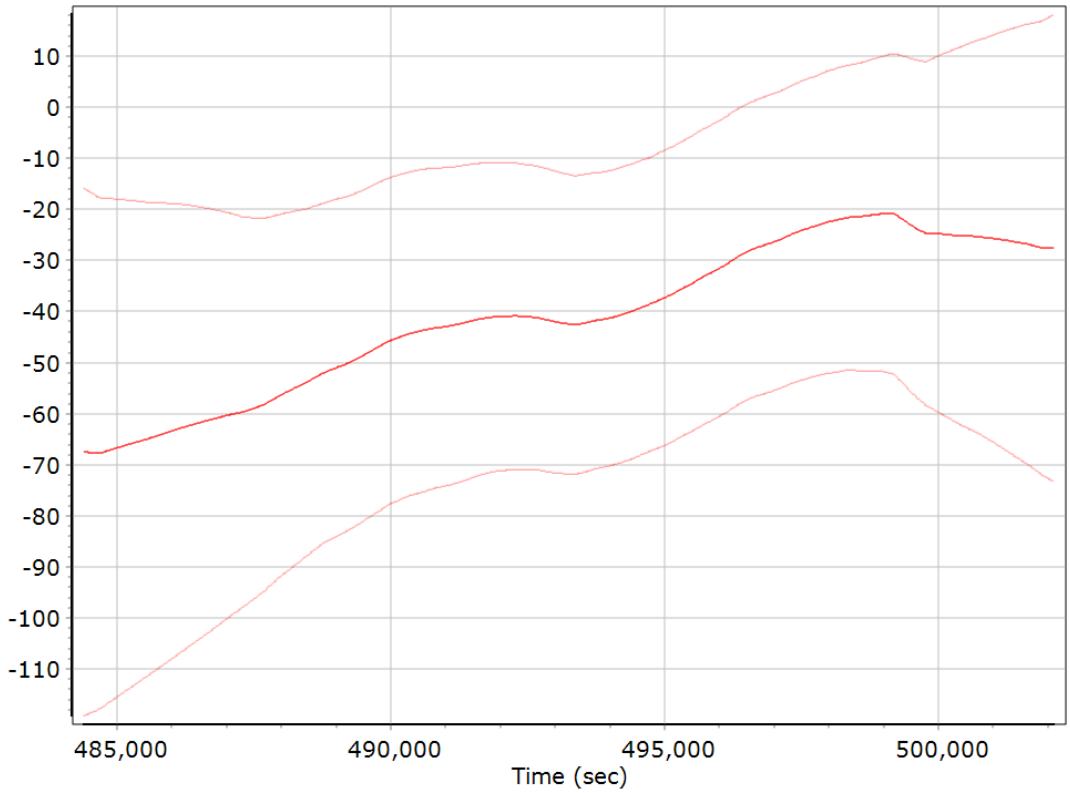
Z Gyro Bias (deg/h)



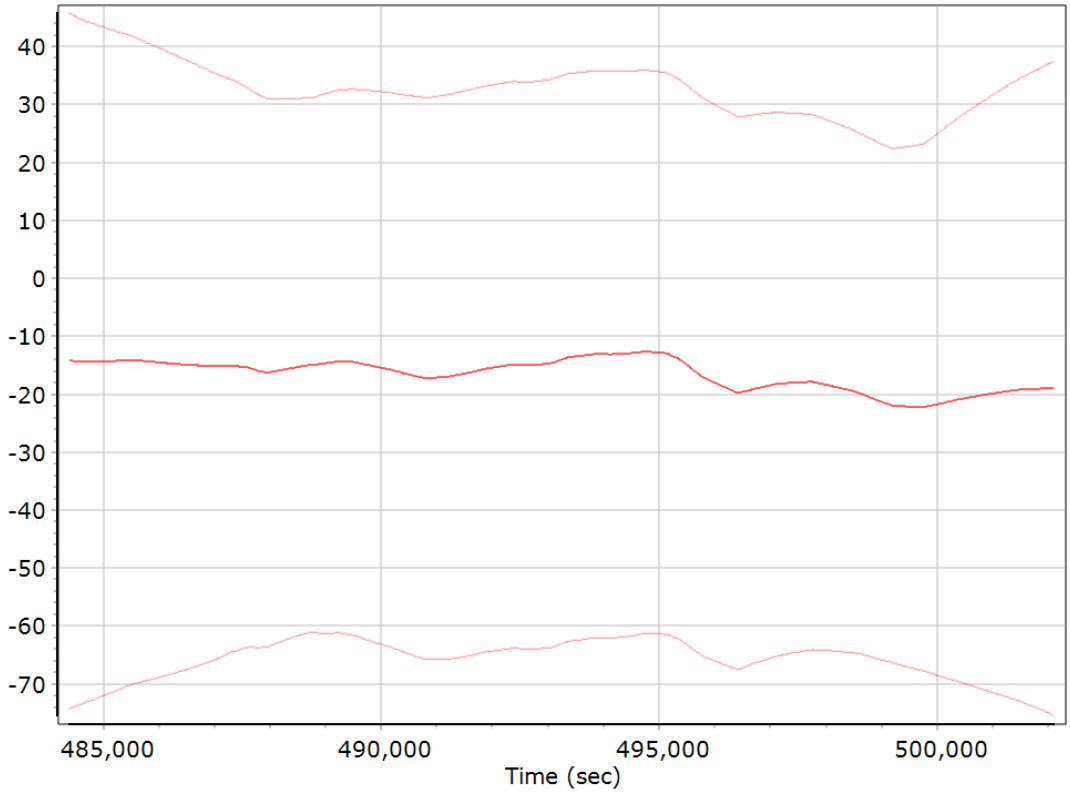
Gyro Scale Error (ppm)



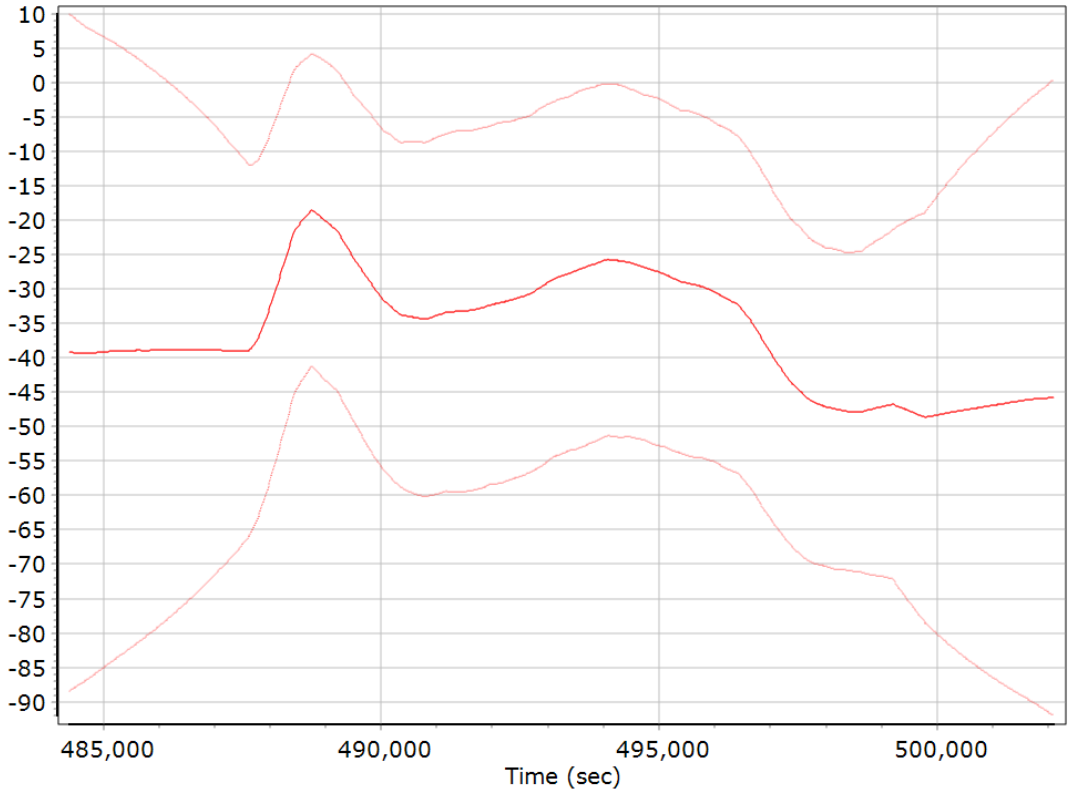
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

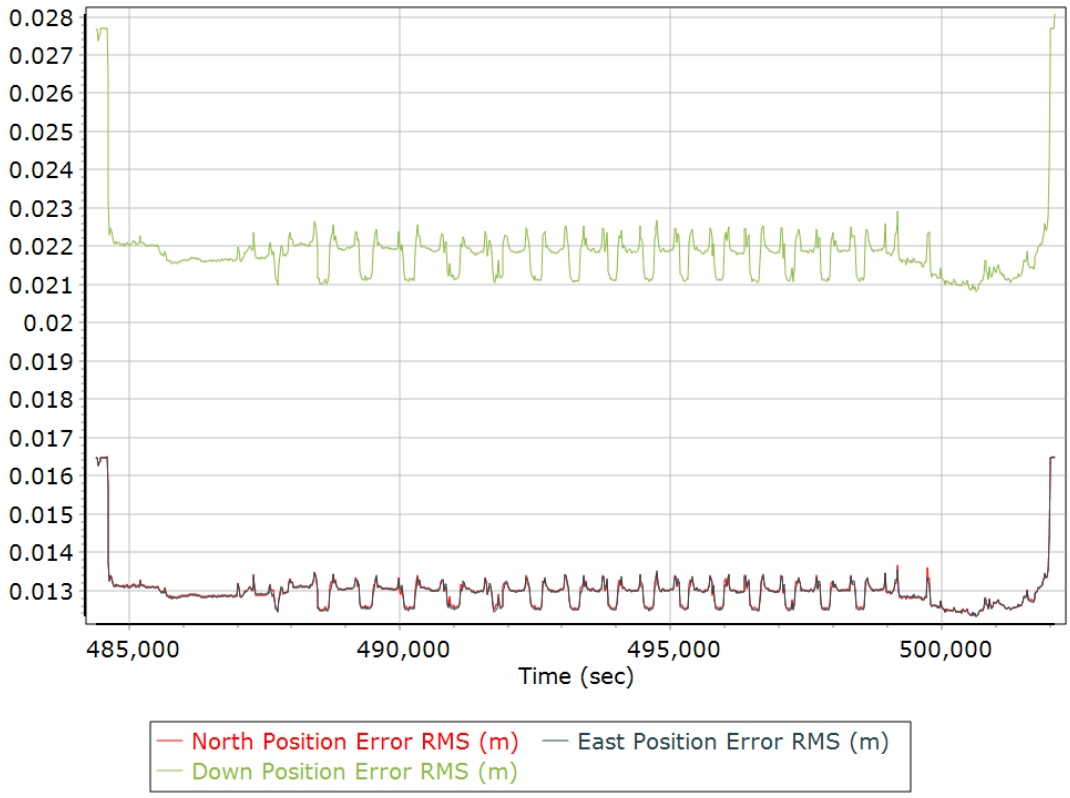


Z Gyro Scale Error (ppm)

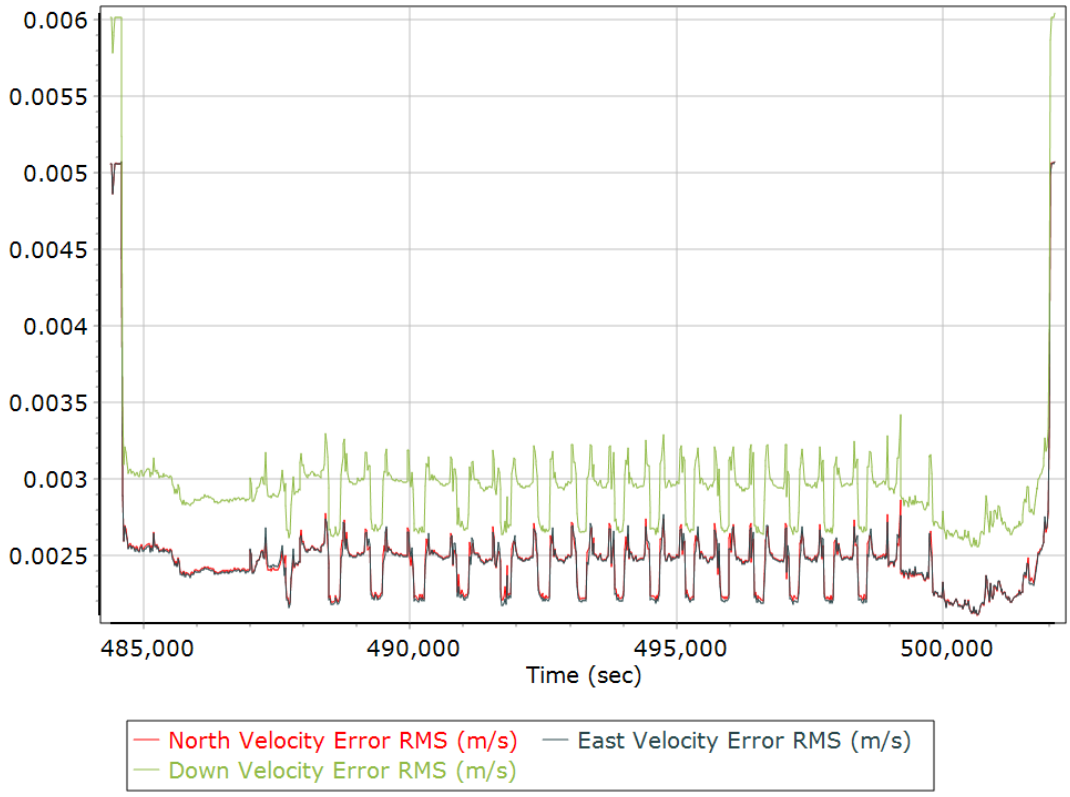


Smoothed Performance Metrics

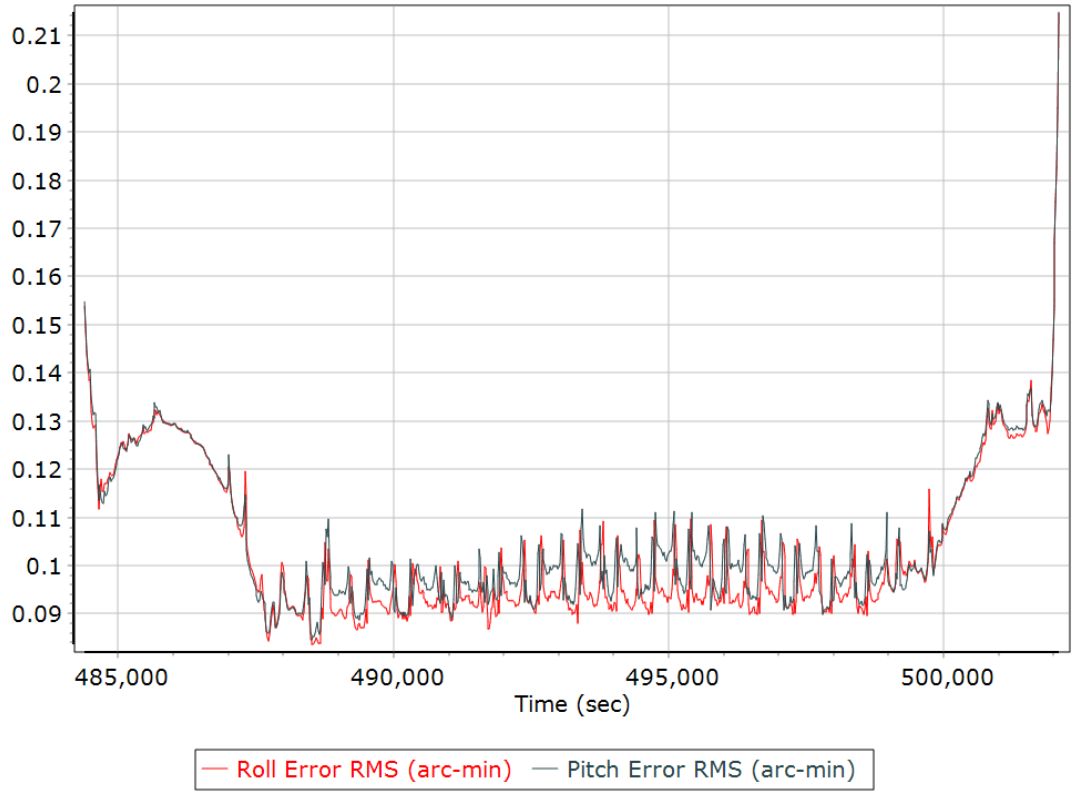
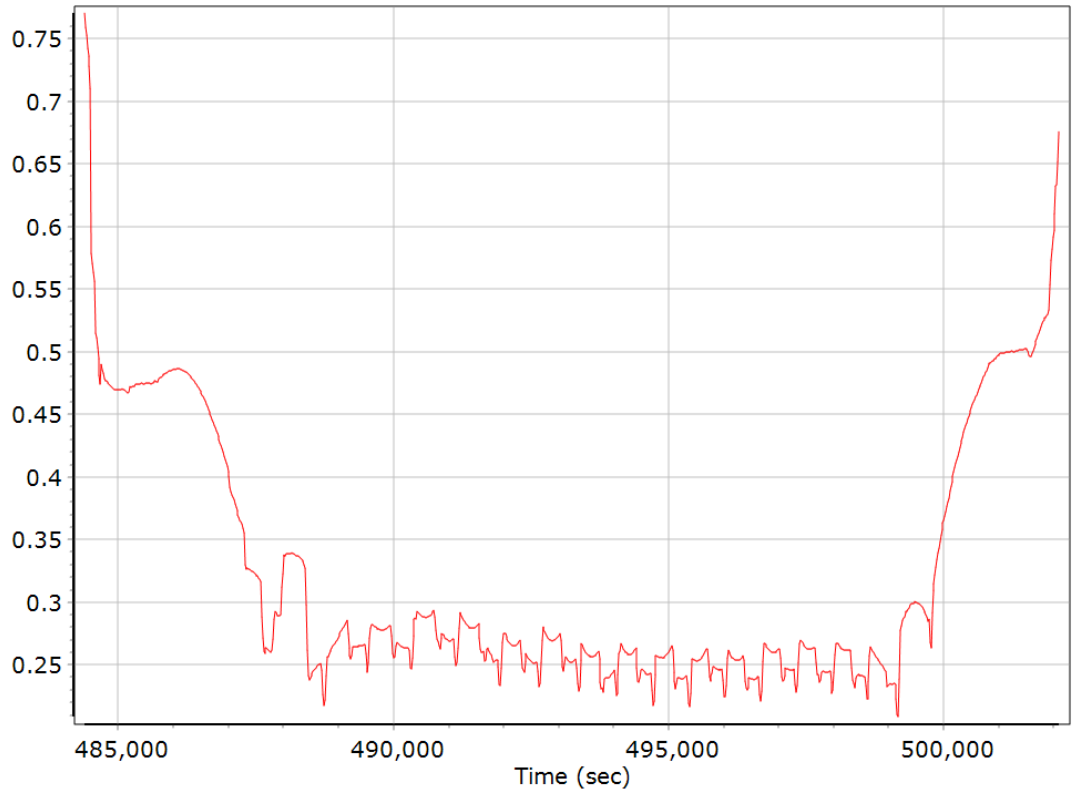
Position Error RMS (m)



Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)