General Information

Mission Information

Project name	2SU20303A_186
Processing date	2020-10-30 12:31:08
Mission date	2020-10-28 19:31:52
Mission duration	04:20:45.000
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
2SU20303A.364	POS Data
2SU20303A.365	POS Data
2SU20303A.366	POS Data
2SU20303A.367	POS Data
2SU20303A.368	POS Data
2SU20303A.369	POS Data
2SU20303A.370	POS Data
2SU20303A.371	POS Data
2SU20303A.372	POS Data
2SU20303A.373	POS Data
2SU20303A.374	POS Data
2SU20303A.375	POS Data
2SU20303A.376	POS Data
2SU20303A.377	POS Data
2SU20303A.378	POS Data
2SU20303A.379	POS Data
2SU20303A.380	POS Data
2SU20303A.381	POS Data
2SU20303A.382	POS Data
2SU20303A.383	POS Data
2SU20303A.384	POS Data
2SU20303A.385	POS Data
2SU20303A.386	POS Data
2SU20303A.387	POS Data
2SU20303A.388	POS Data
2SU20303A.389	POS Data
2SU20303A.390	POS Data
2SU20303A.391	POS Data
2SU20303A.392	POS Data
2SU20303A.393	POS Data
2SU20303A.394	POS Data
2SU20303A.395	POS Data
2SU20303A.396	POS Data
2SU20303A.397	POS Data
2SU20303A.398	POS Data
2SU20303A.399	POS Data
2SU20303A.400	POS Data
2SU20303A.401	POS Data
2SU20303A.402	POS Data

Input Files

File Name	File Type
Ephm3020.20g	GLONASS Broadcast Ephemeris
Ephm3020.20n	GPS Broadcast Ephemeris
igu21292_18.sp3	GPS Precise Ephemeris
igu21293_18.sp3	GPS Precise Ephemeris
igu21294_18.sp3	GPS Precise Ephemeris
Ephm3030.20g	GLONASS Broadcast Ephemeris
Ephm3030.20n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_2SU20303A_186.out	SBET Trajectory File
export_2SU20303A_186.out	Custom Smoothed BET Export Output

Rover Data Summary

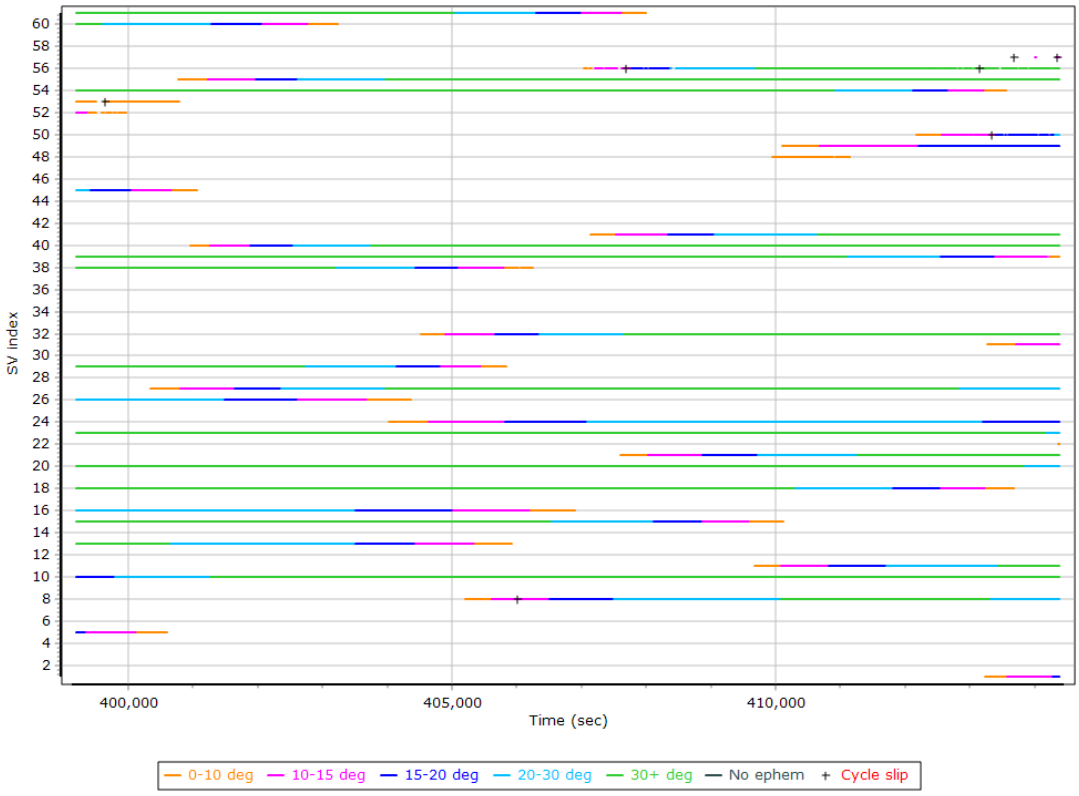
First raw data file	2SU20303A.364		
Last raw data file	2SU20303A.402		
Start GPS week	2129		
Start time	398750.409 (10/29/2020 14:45:50)		
End time	414396.335 (10/29/2020 19:06:36)		
Start of fine alignment	399129.274 (10/29/2020 14:52:09)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event 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

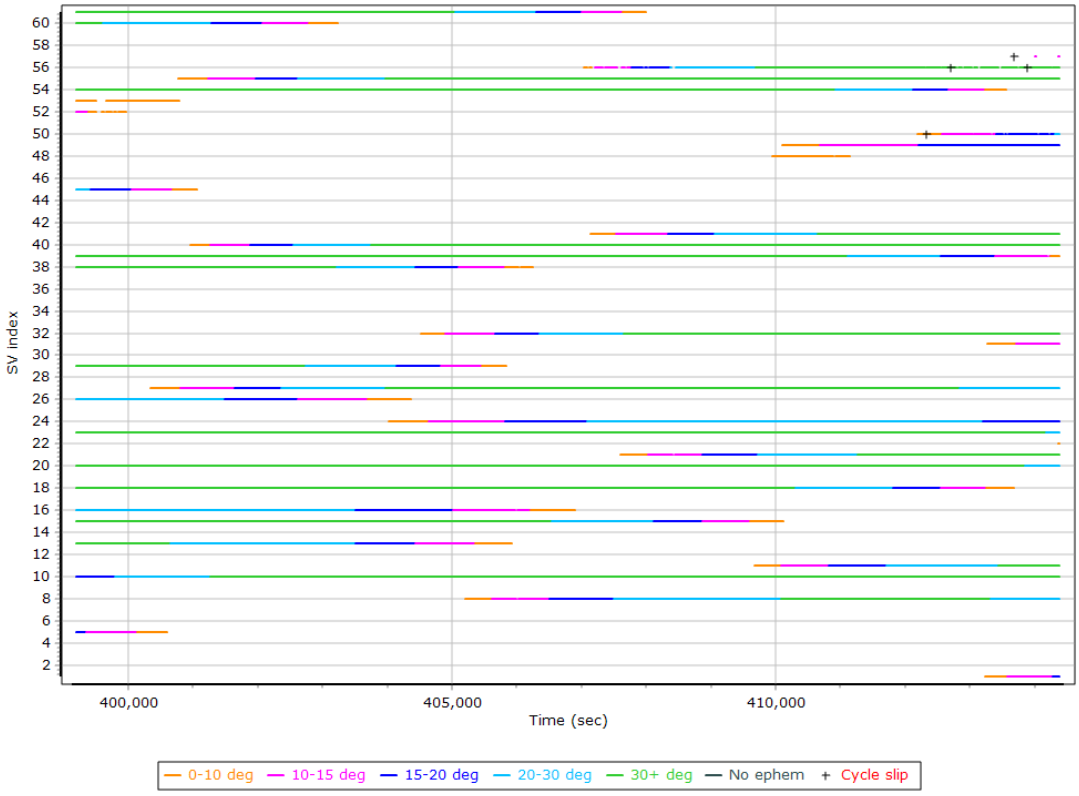
Raw IMU Import QC Summary

IMU data input file	imu_2SU20303A_186.dat
IMU data check log file	imudt_2SU20303A_186.log
IMU Records Processed	3128760
Termination Status	Normal
IMU Anomalies	0

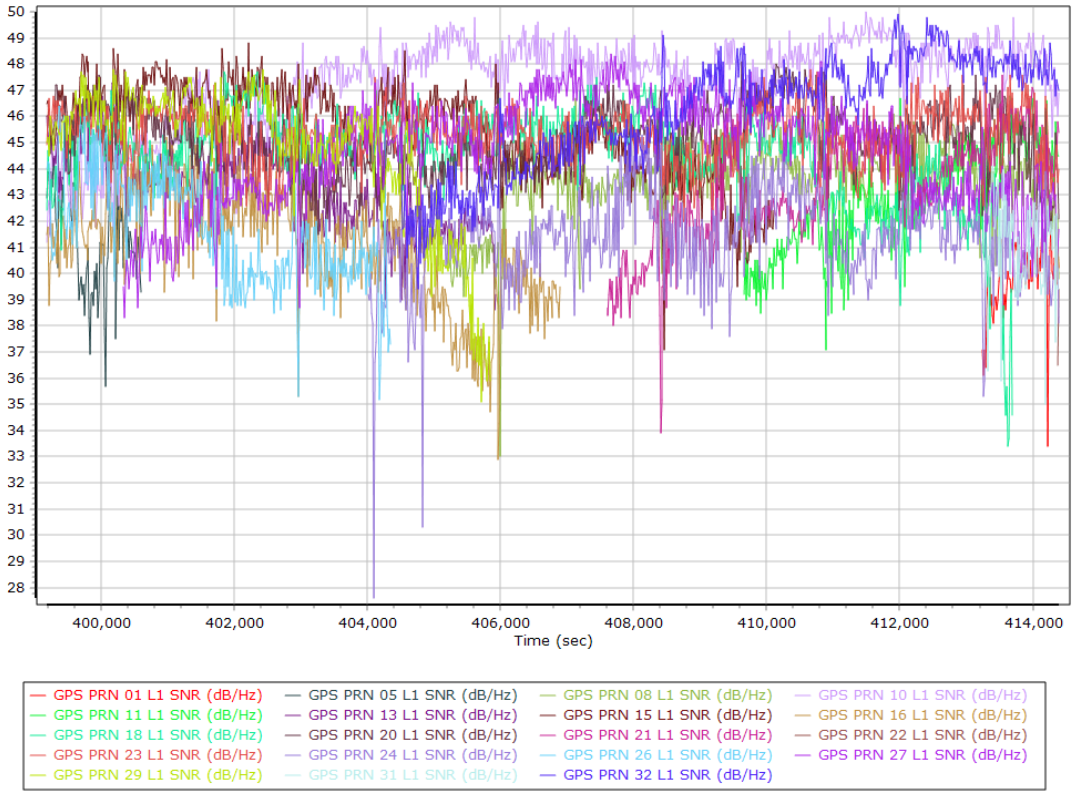
L1 Satellite Lock/Elevation



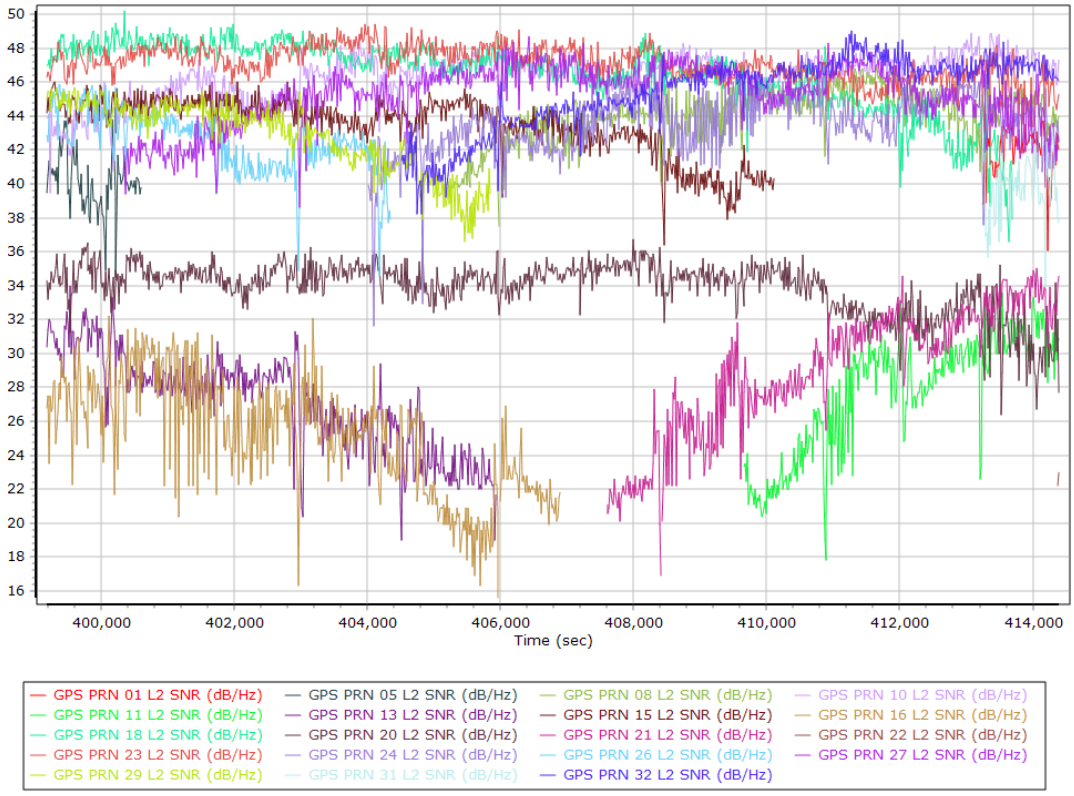
L2 Satellite Lock/Elevation



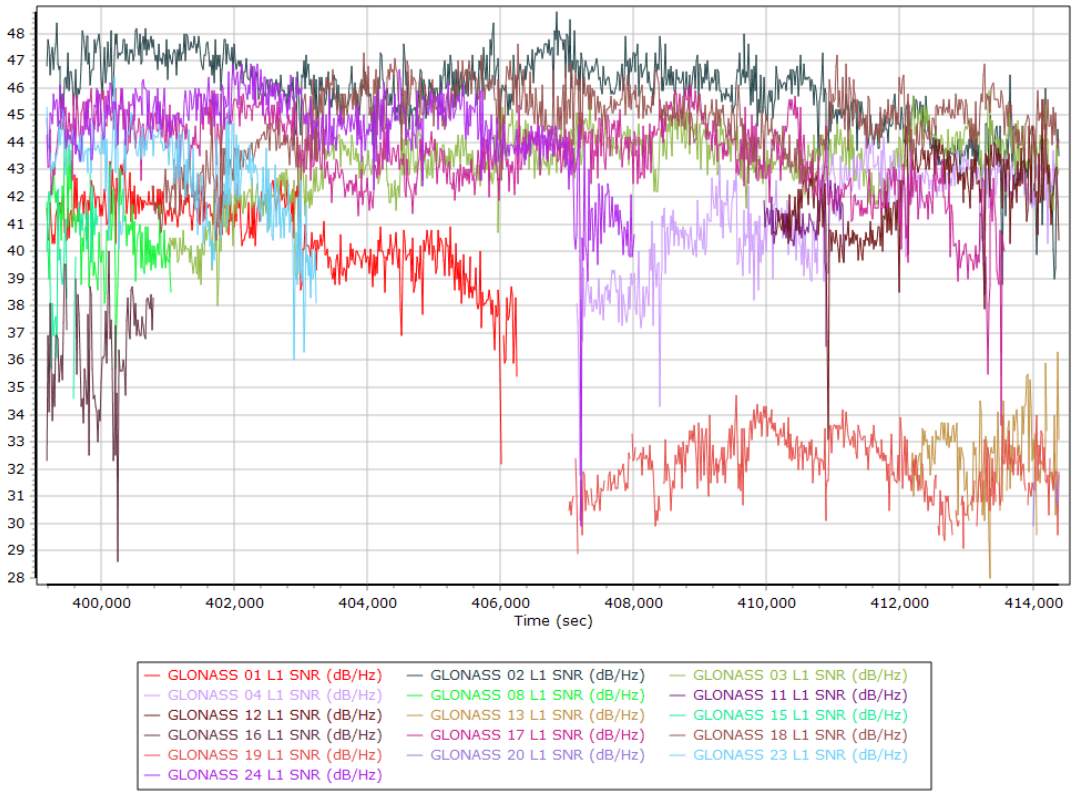
GPS L1 SNR



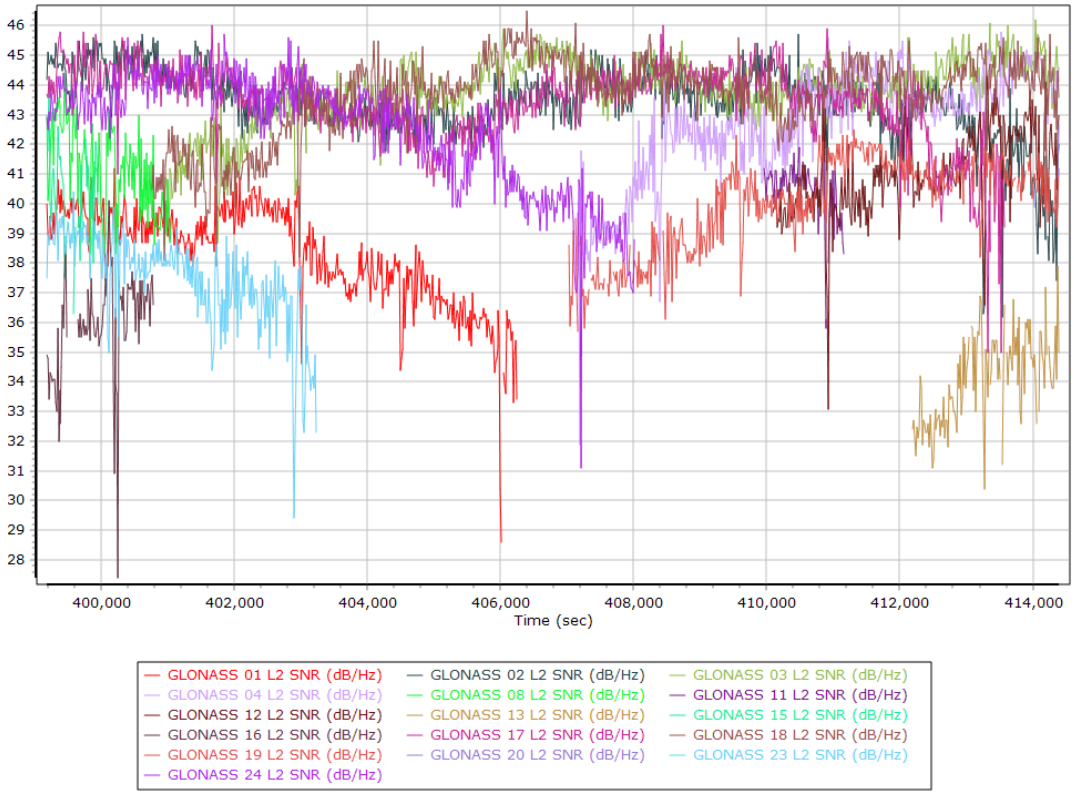
GPS L2 SNR



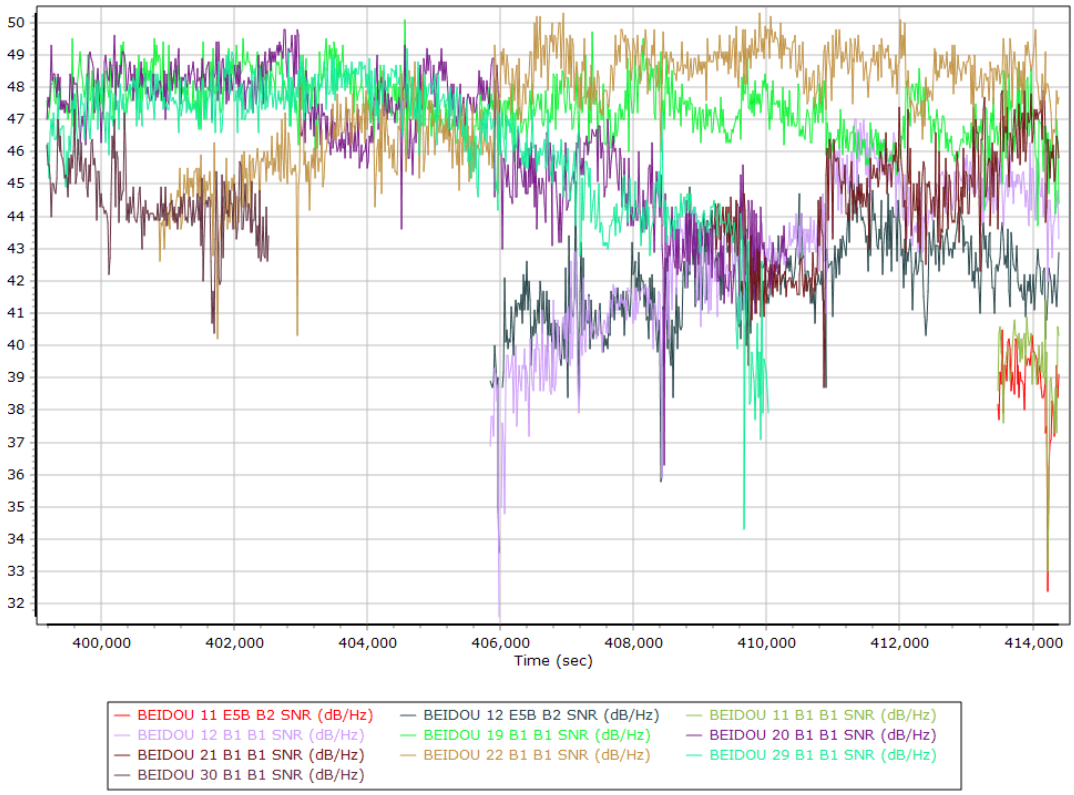
GLONASS L1 SNR



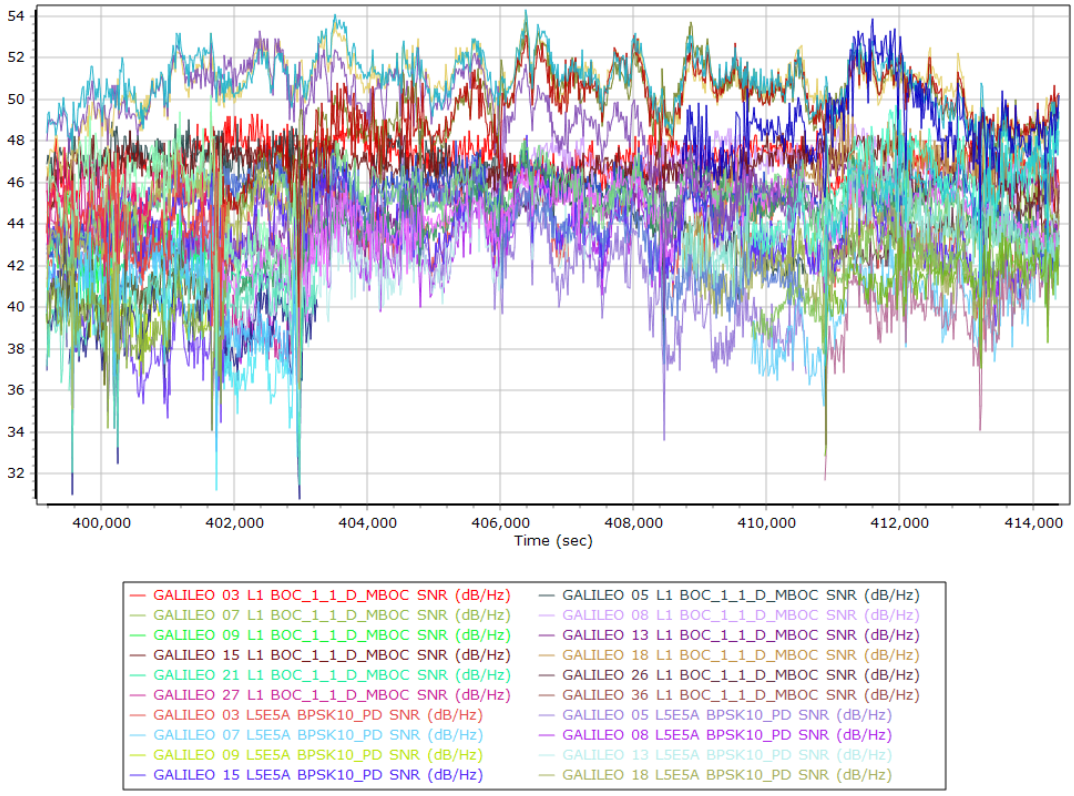
GLONASS L2 SNR



BEIDOU SNR



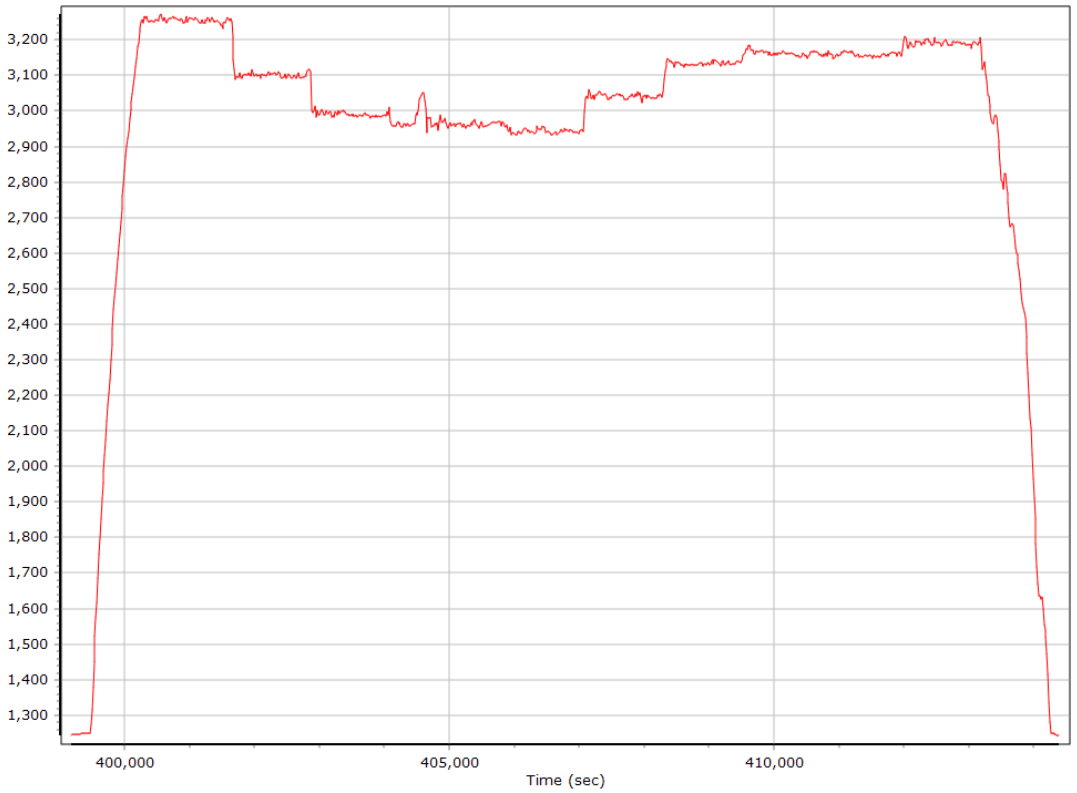
GALILEO SNR


54
52
50
48
46
44
42
40
38
36
34
32
400,000
402,000
404,000
406,000
408,000
410,000
412,000
414,000
Time (sec)
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 09 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 18 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 36 L1 BOC_1_1_D_MBOC 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 09 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 13 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 15 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 18 L5E5A BPSK10_PD SNR (dB/Hz)

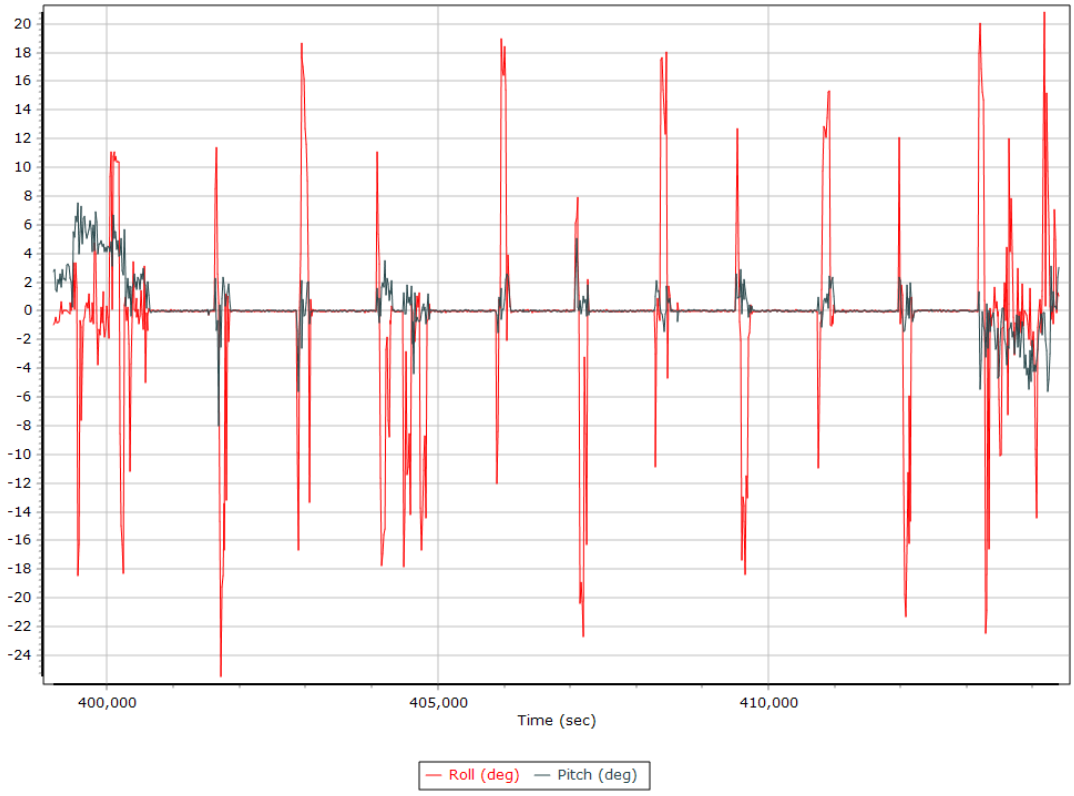
Trajectory Information

Top View

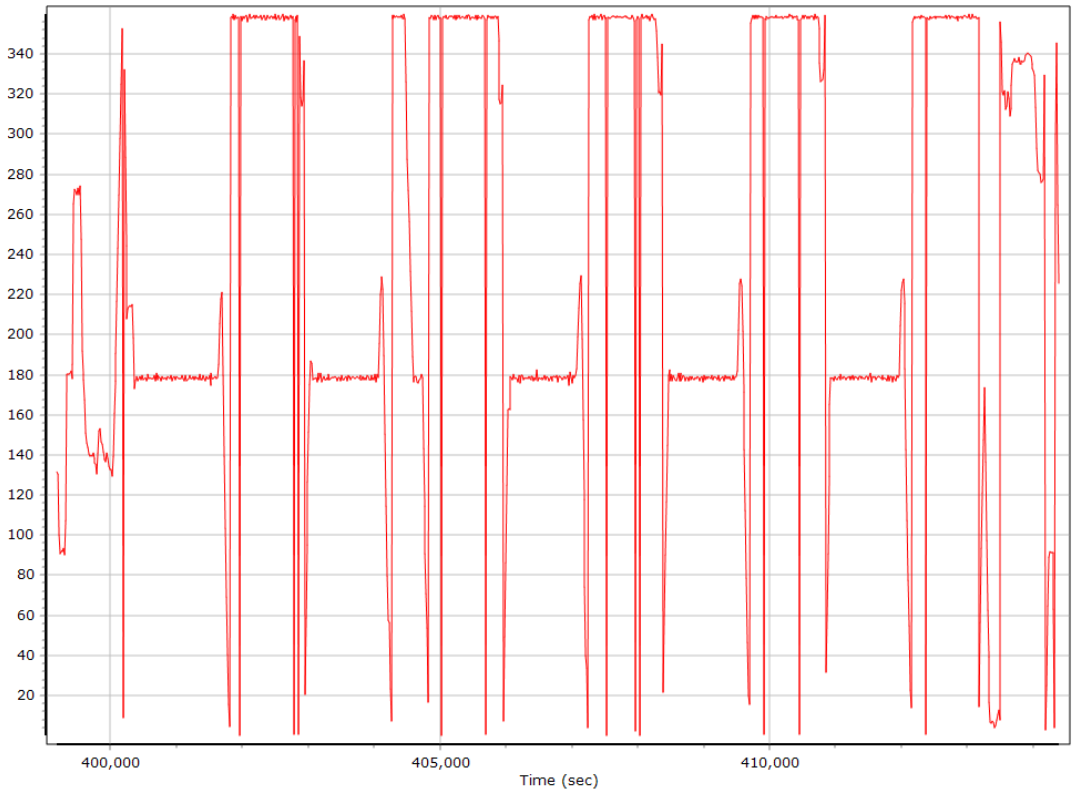
Altitude



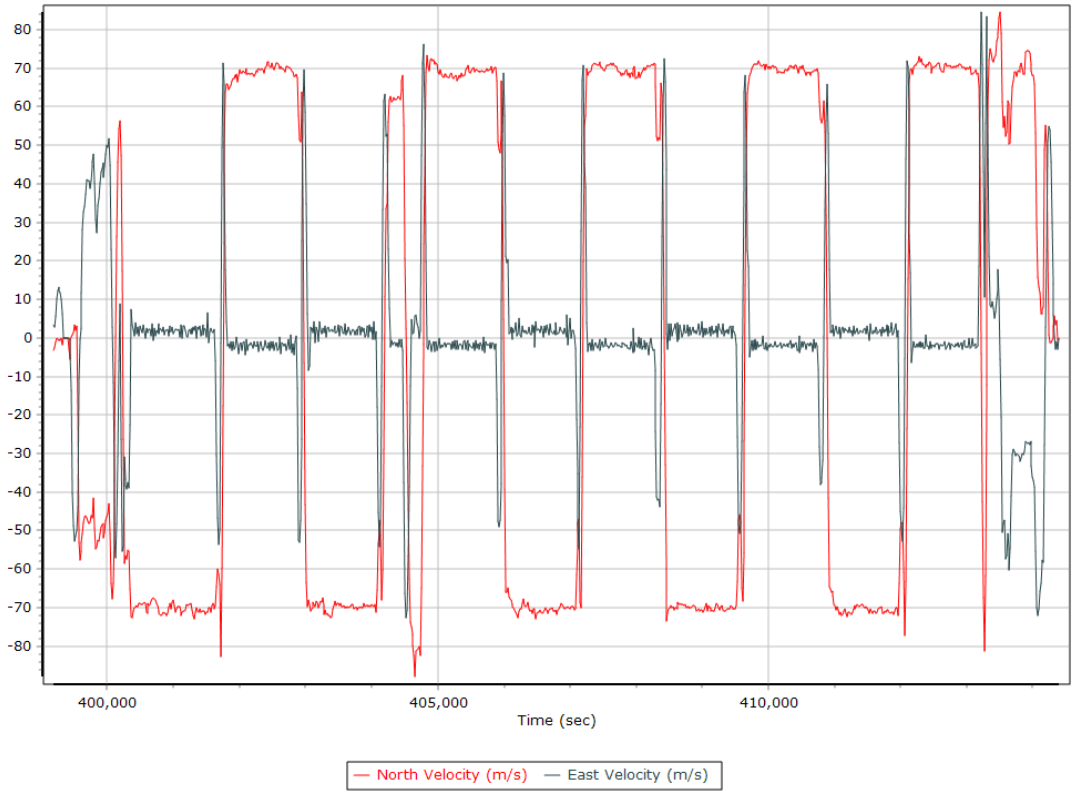
Roll/Pitch



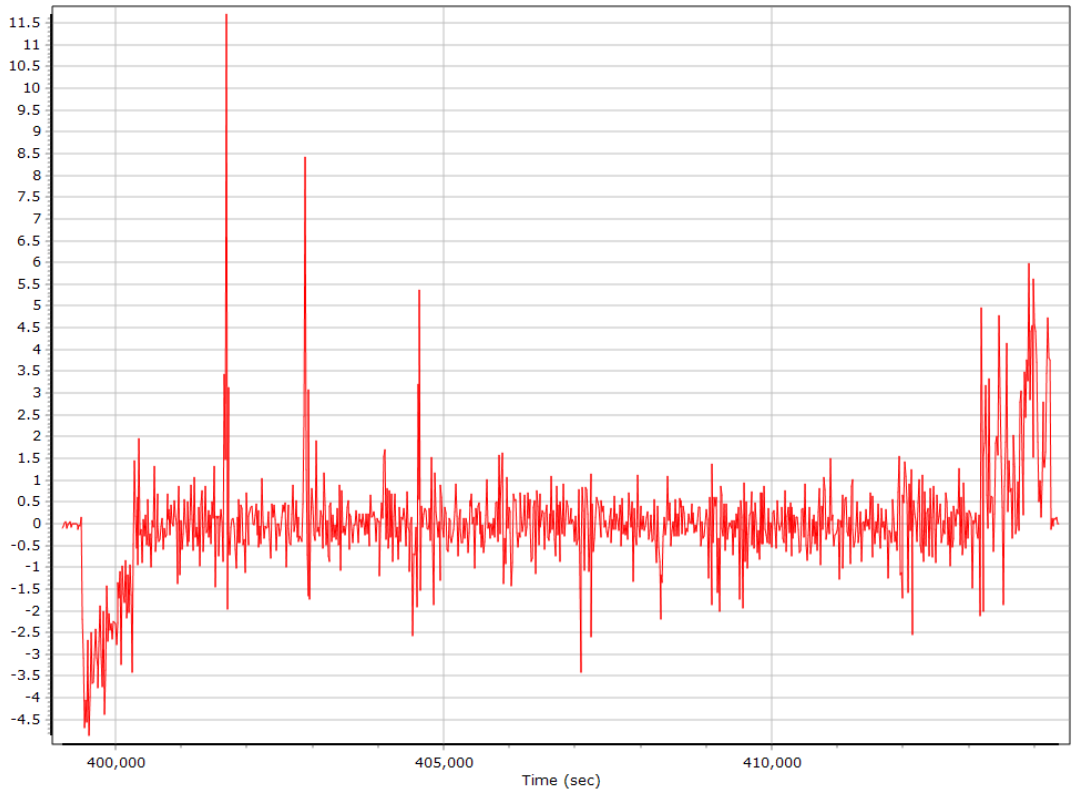
Heading



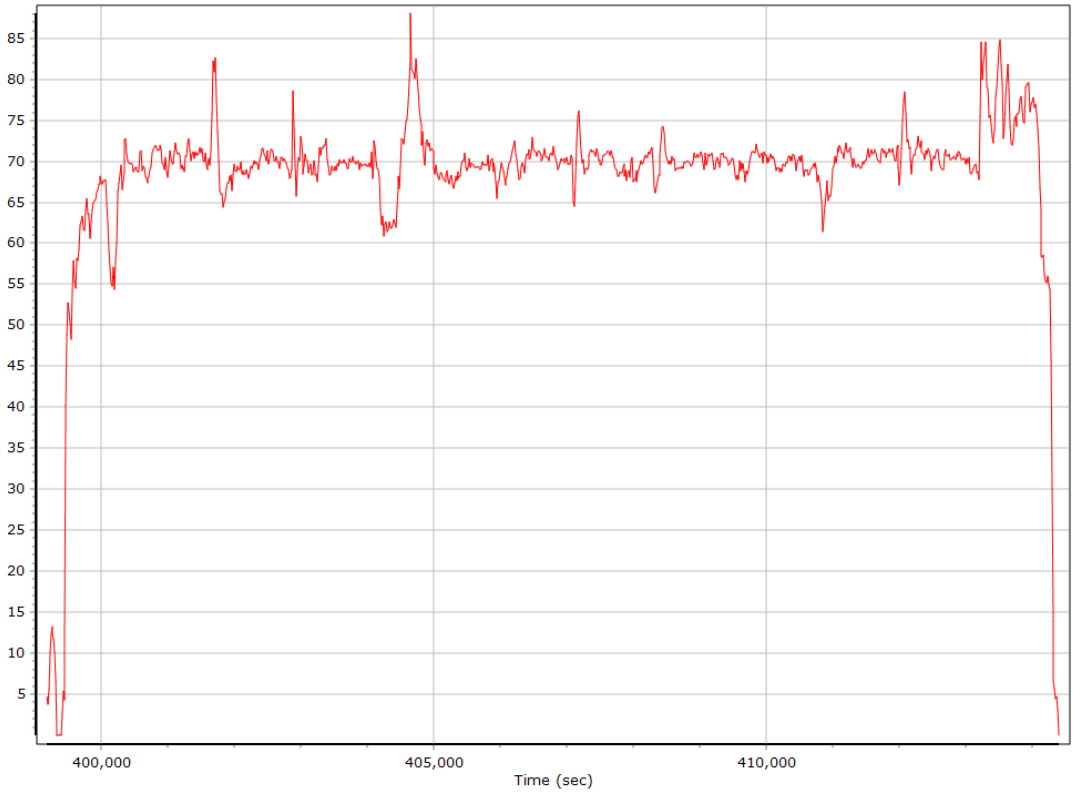
North/East Velocity



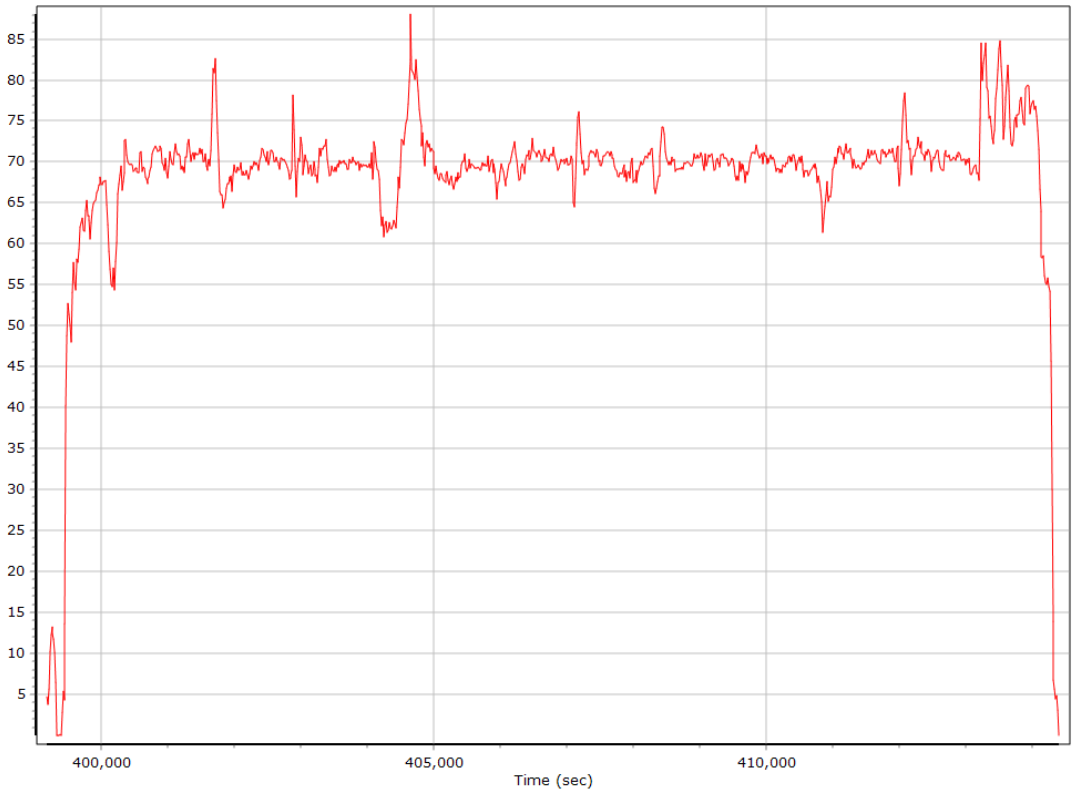
Down Velocity



Total Speed

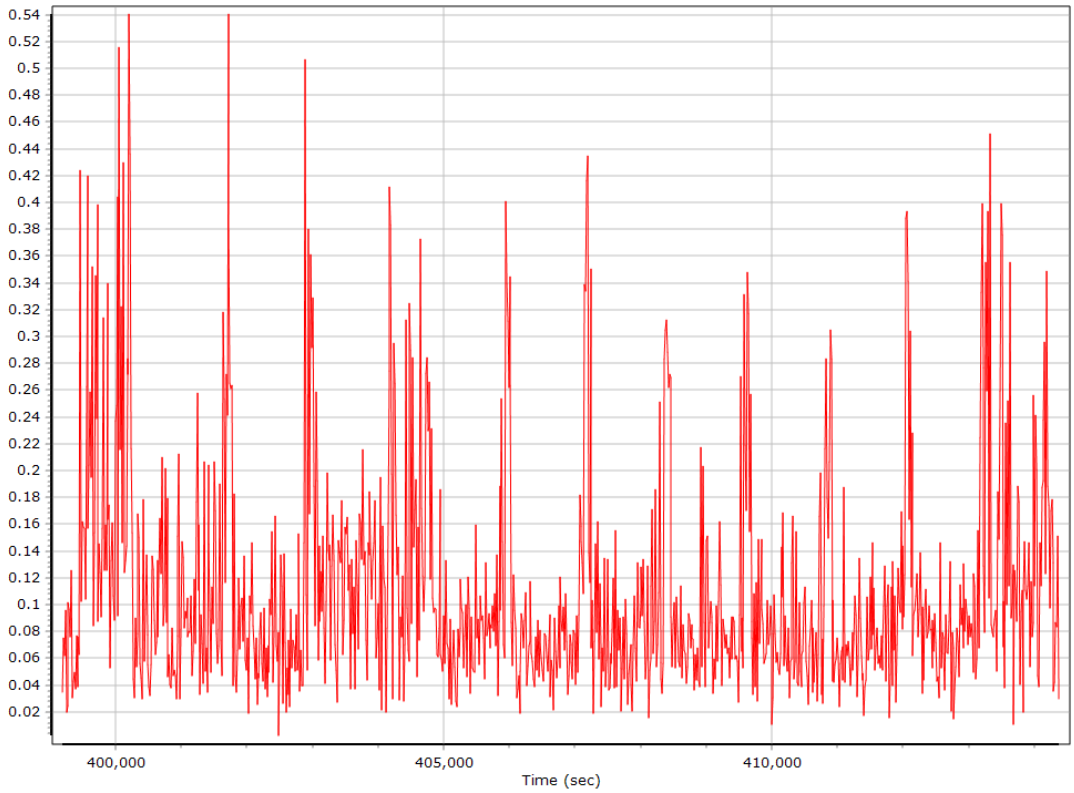


Ground Speed



Body Acceleration

Total Body Acceleration



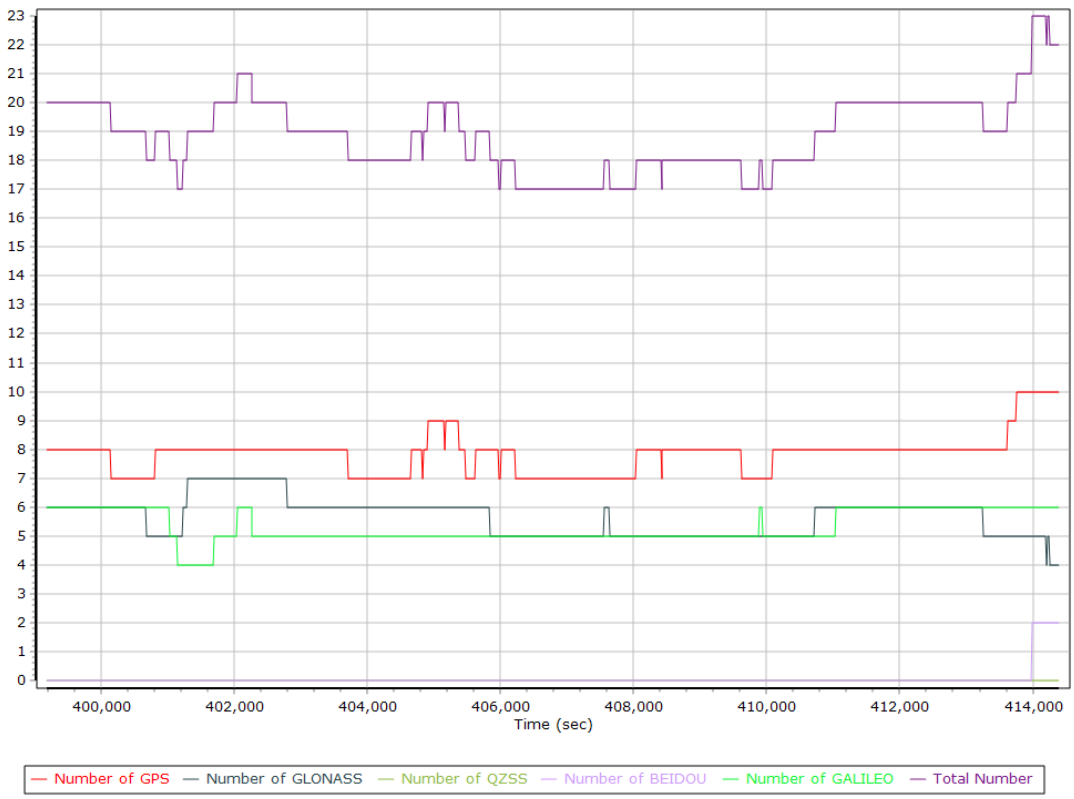
Body Angular Rate

GNSS QC

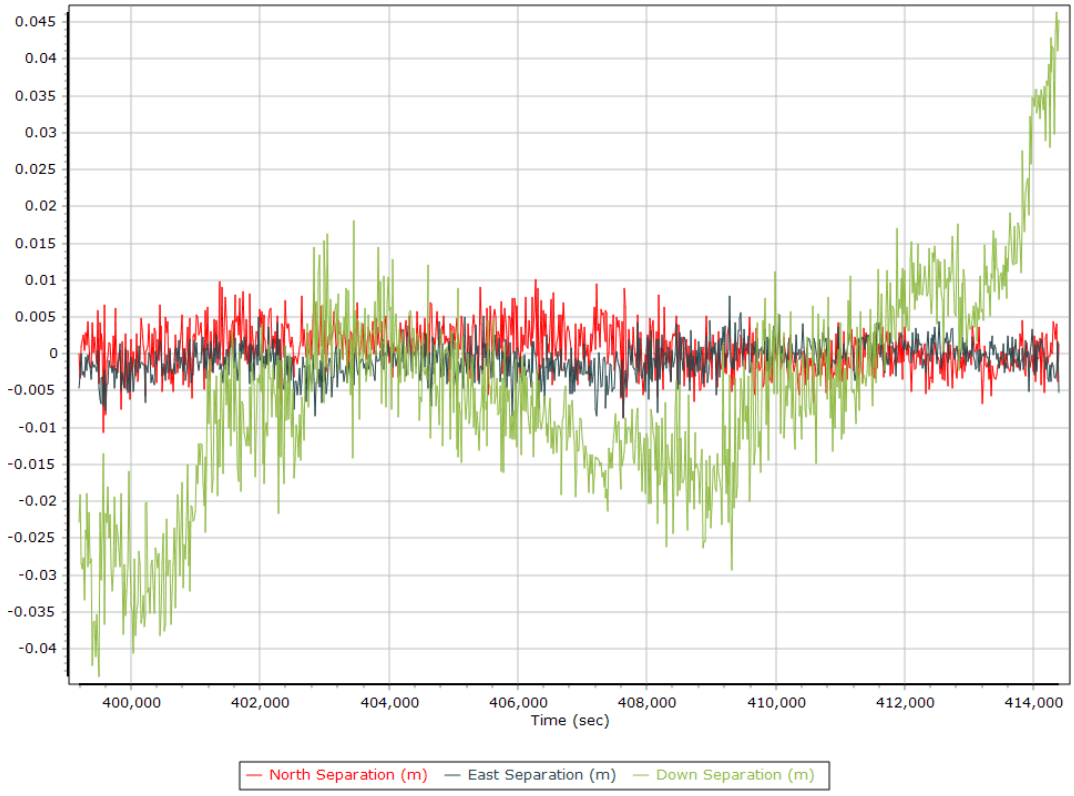
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	7	10	8
Number of GLONASS SV	0	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	2	0
Number of GALILEO SV	4	6	5
Total number of SV	14	23	19
PDOP	1.05	1.57	1.21
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	15639.00	0.00	0.00
Percentage	100.00	0.00	0.00

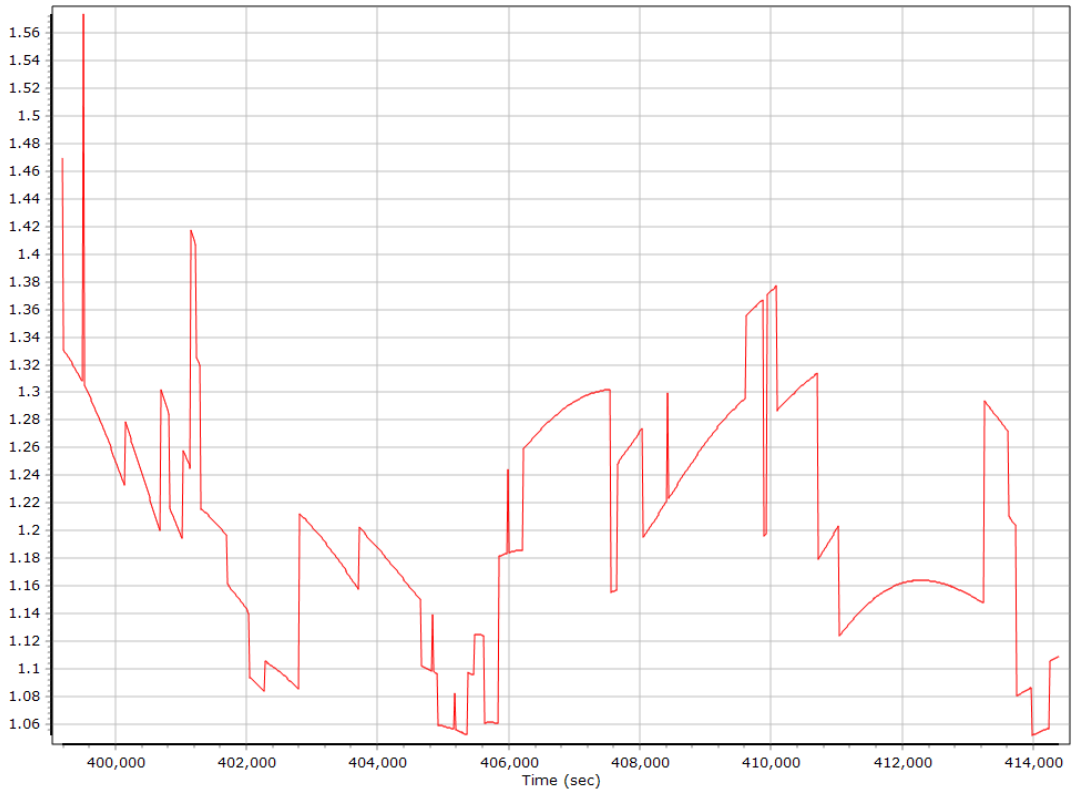
Num SVs in solution



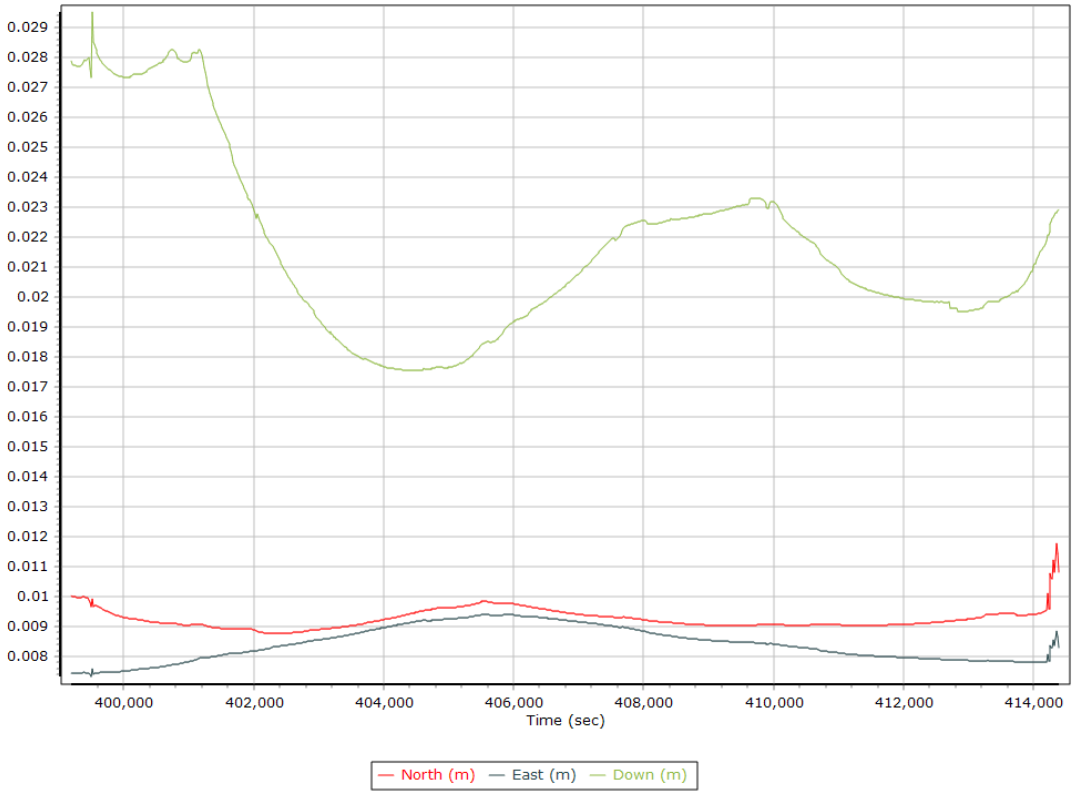
Forward/Reverse Separation



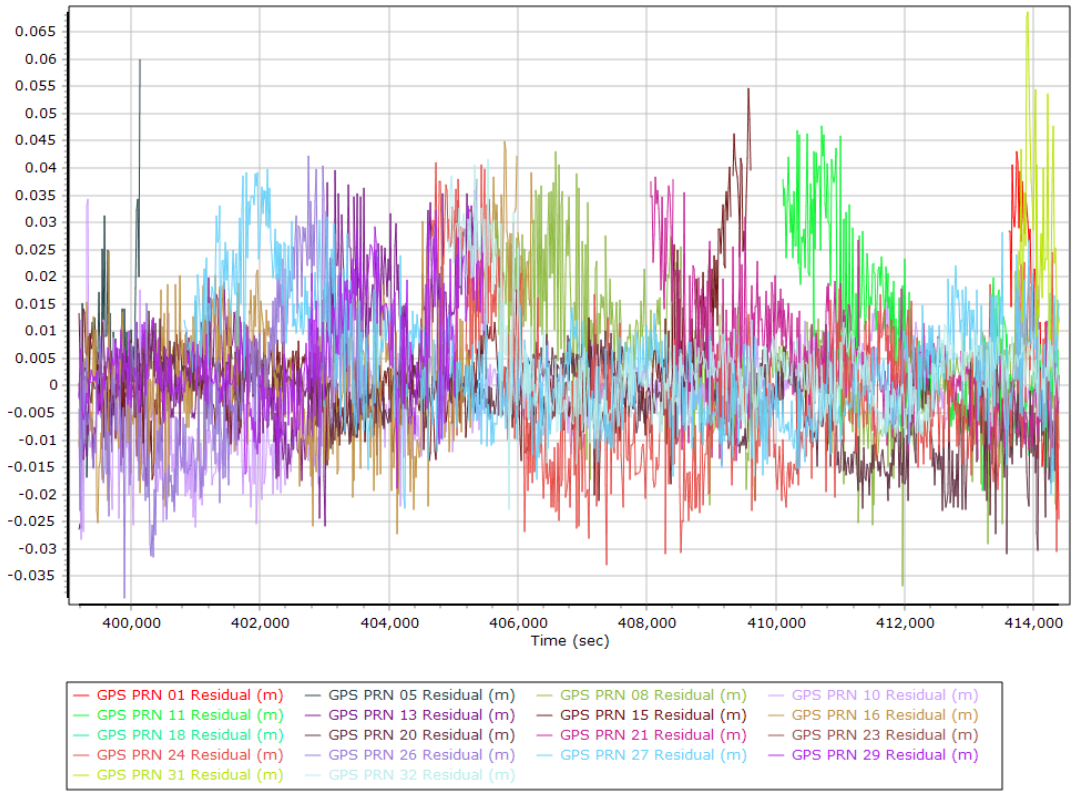
PDOP



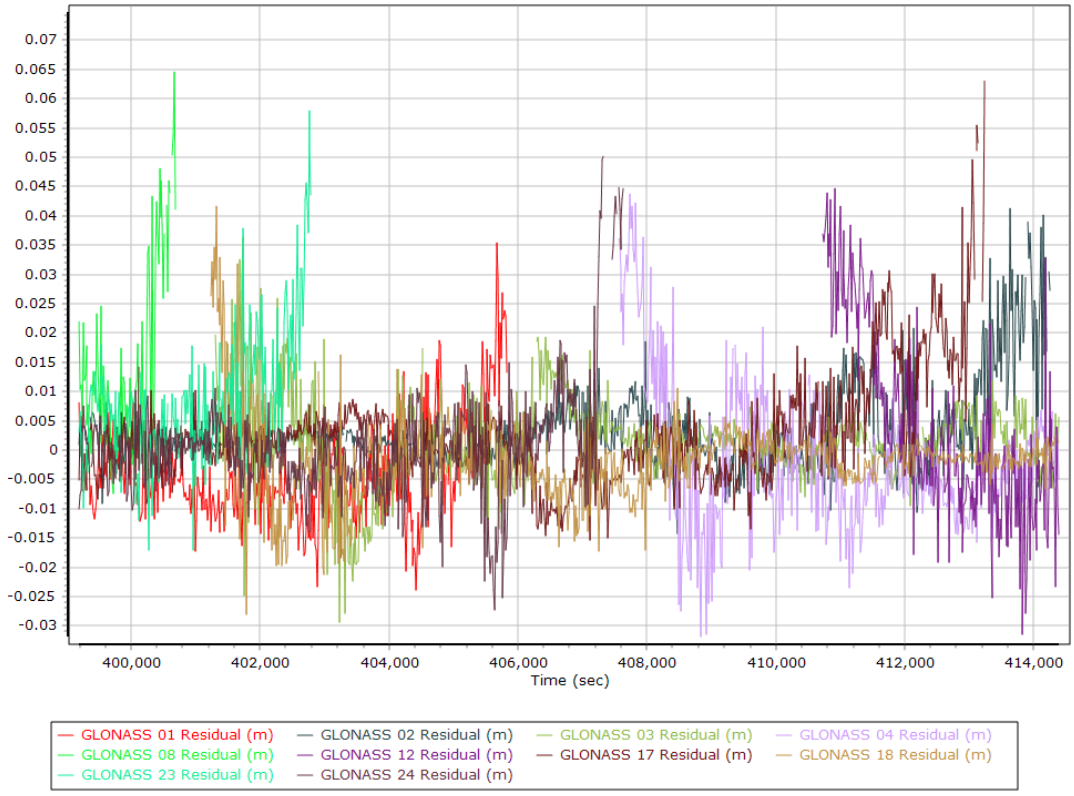
Estimated Position Accuracy



GPS Residuals

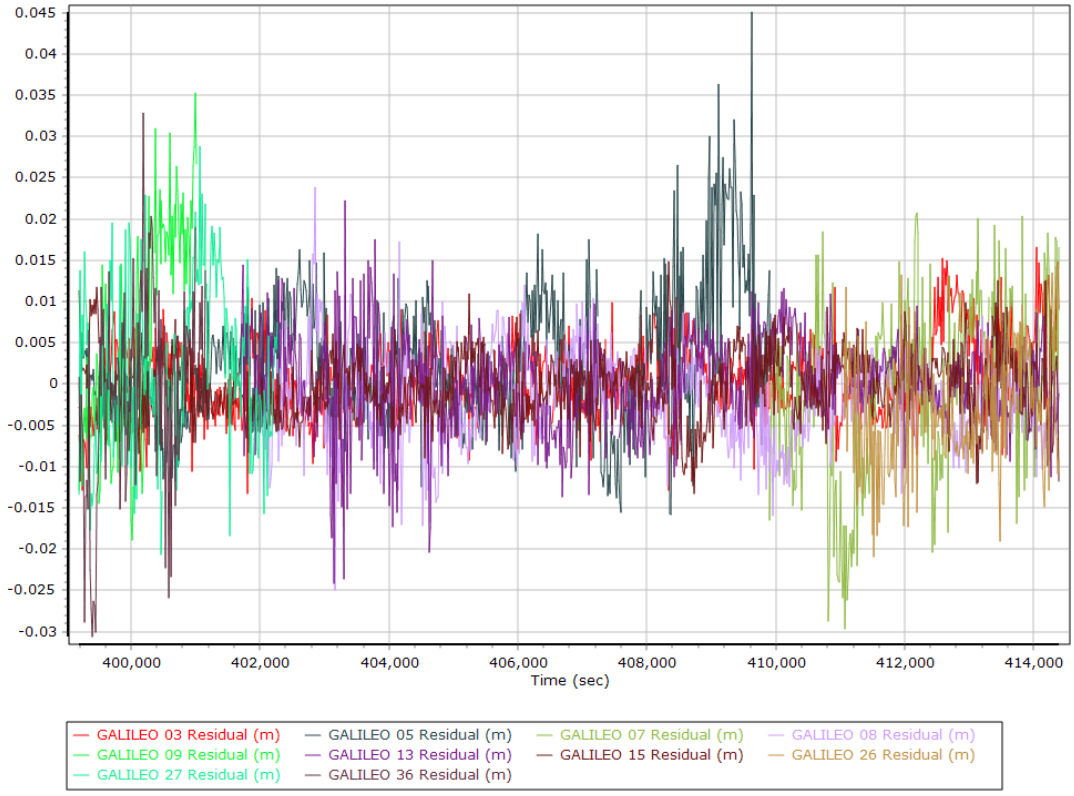


GLONASS Residuals



BEIDOU Residuals

GALILEO Residuals



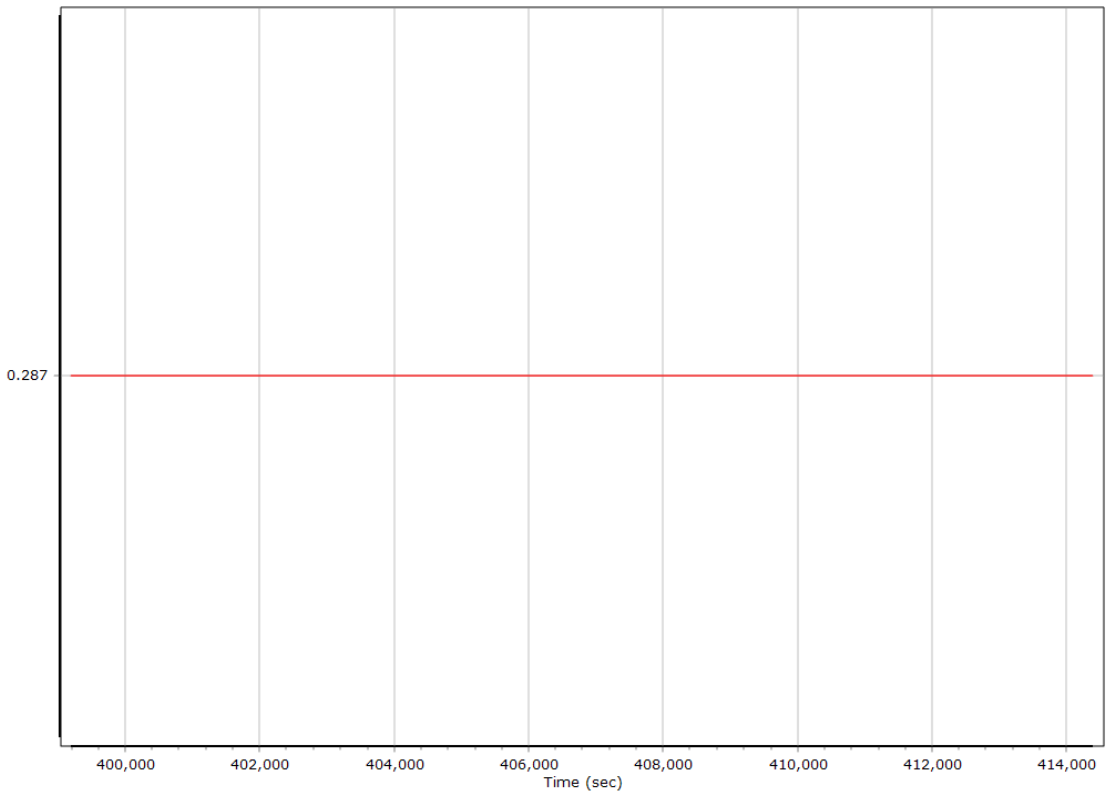
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	True		
Processing start time	398751.000 (10/29/2020 14:45:51)		
Processing end time	414396.000 (10/29/2020 19:06:36)		
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

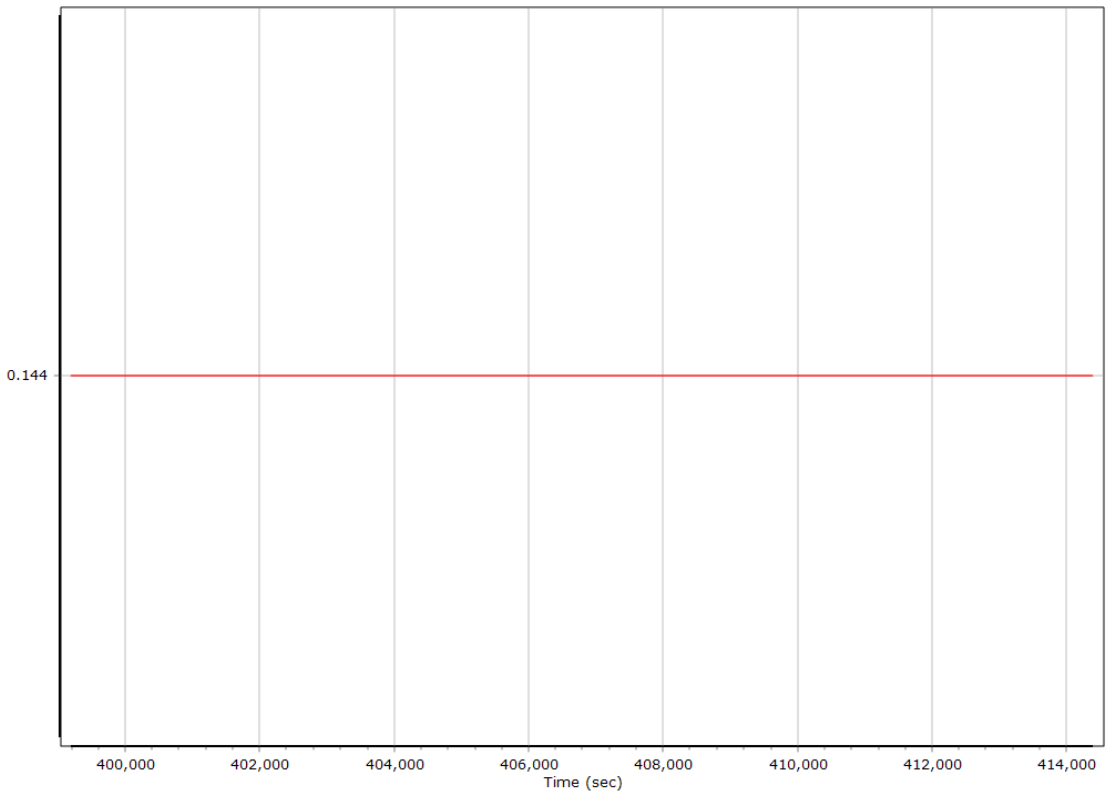
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

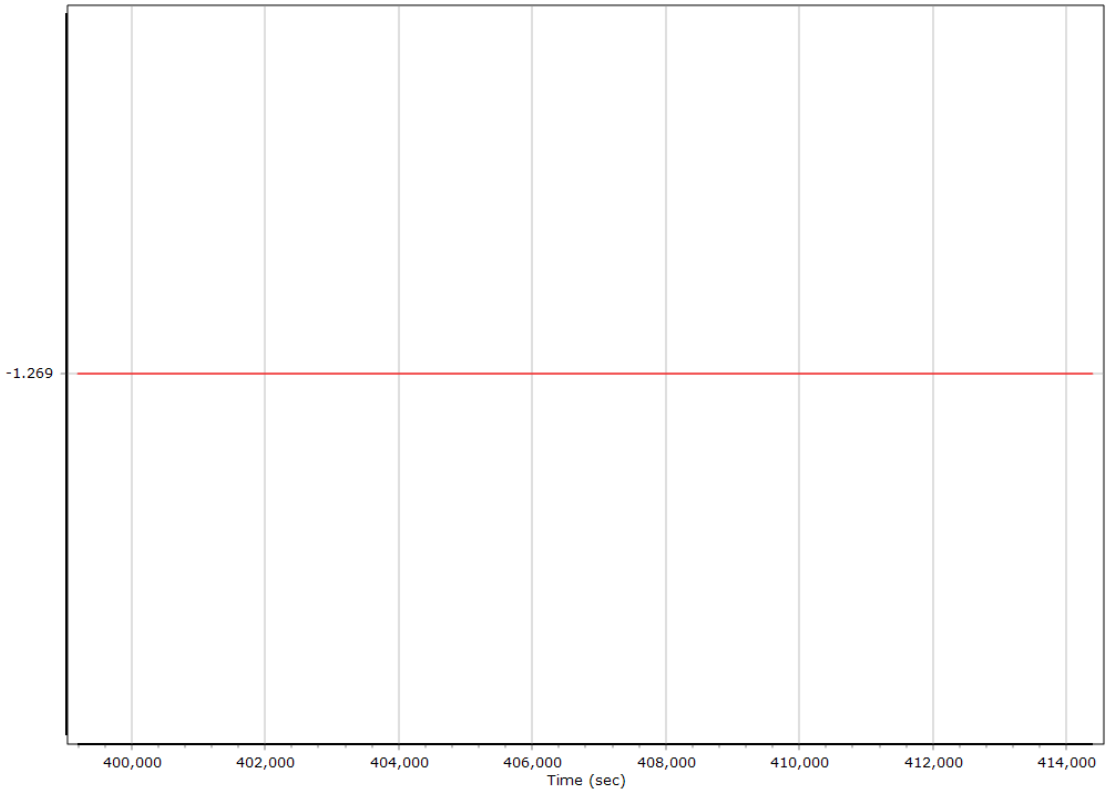
X Reference-Primary GNSS Lever Arm (m)



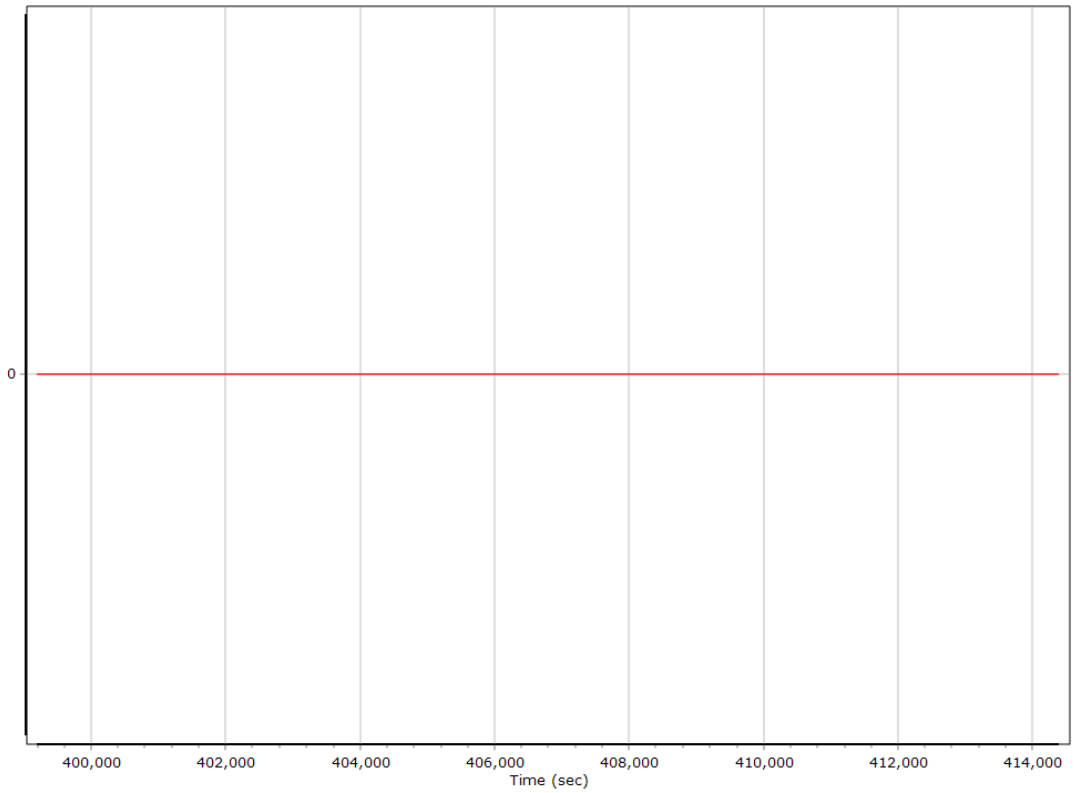
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



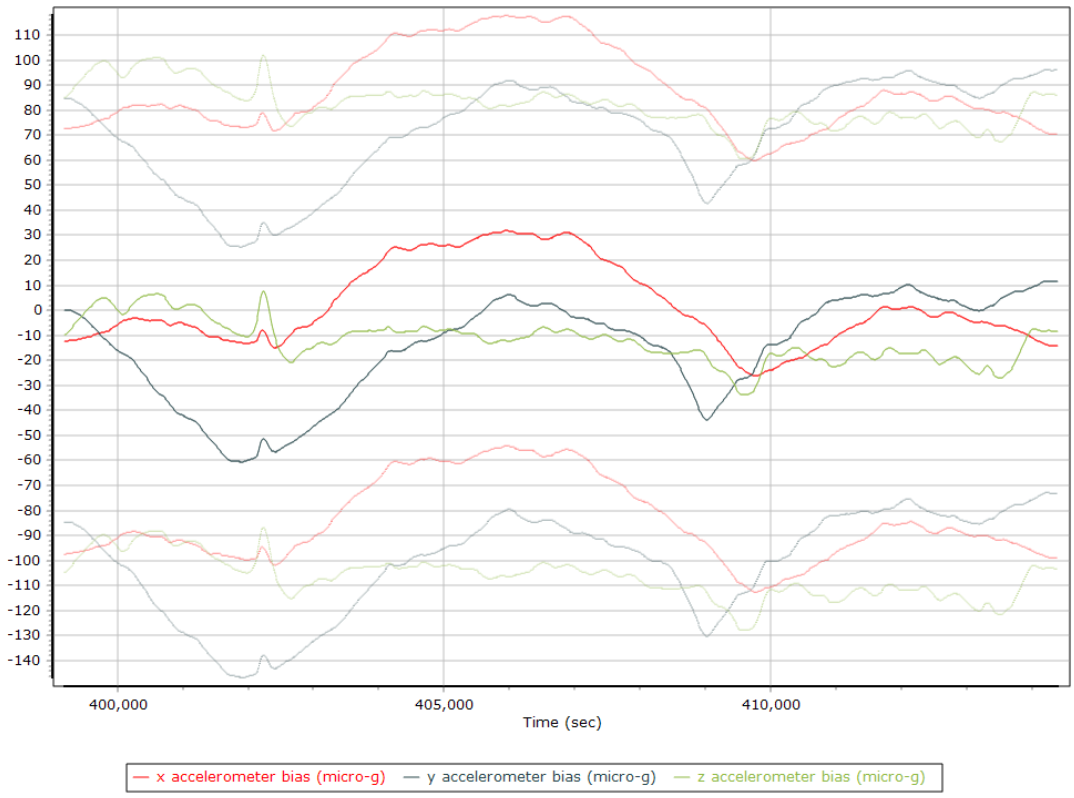
Reference-Primary GNSS Lever Arm Figure of Merit



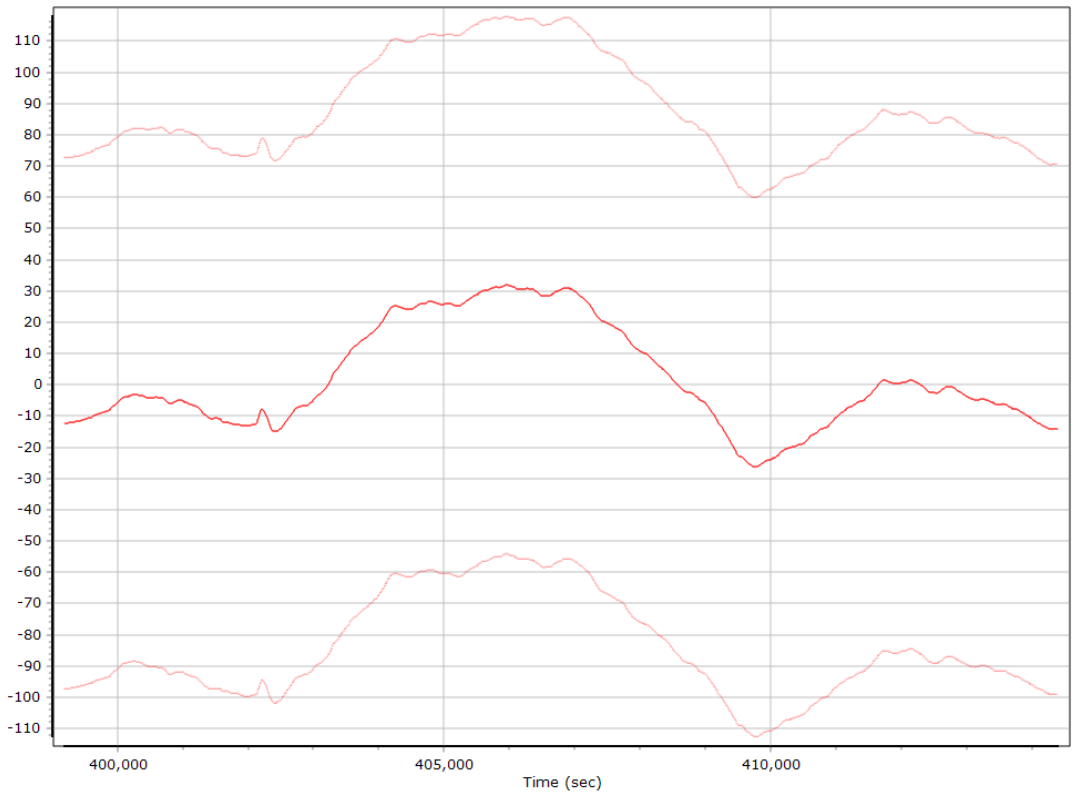
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

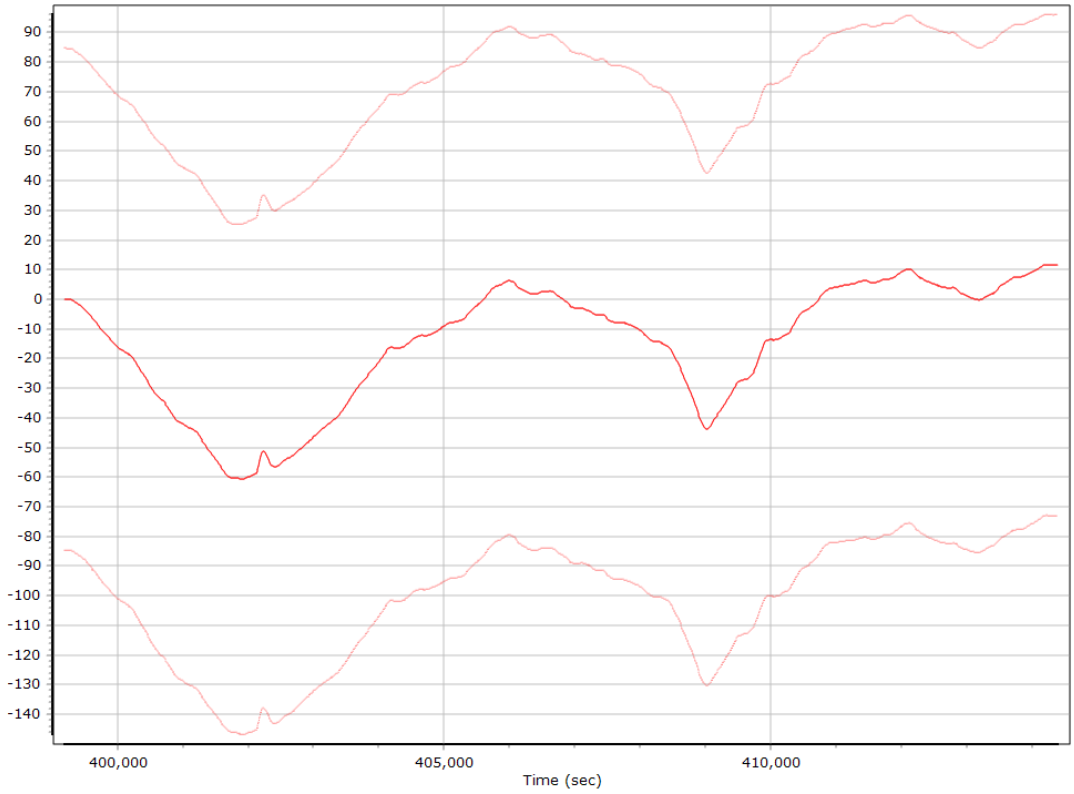
Accelerometer Bias (micro-g)



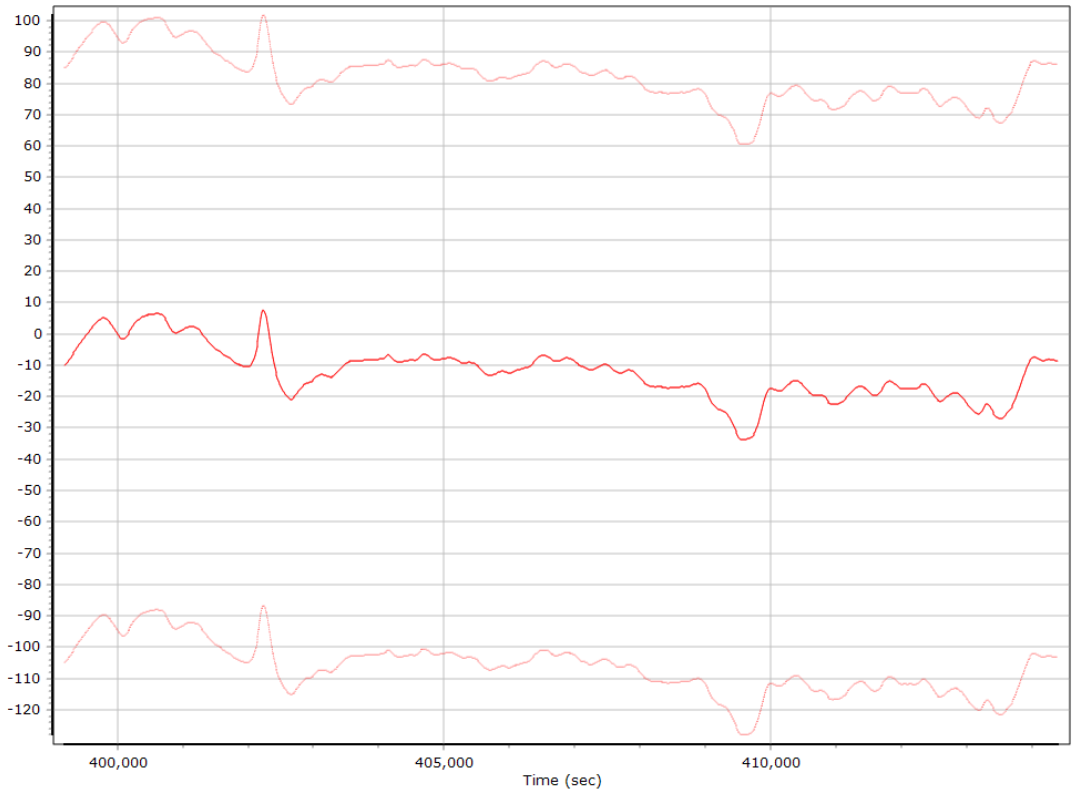
X Accelerometer Bias (micro-g)



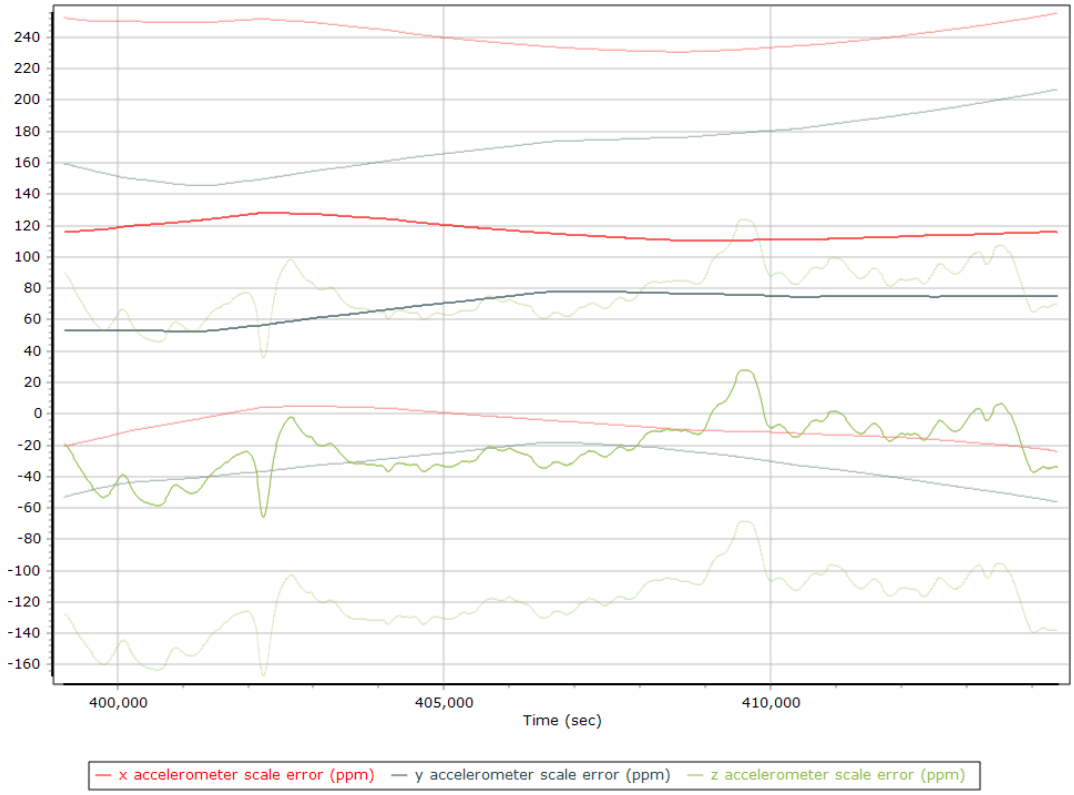
Y Accelerometer Bias (micro-g)



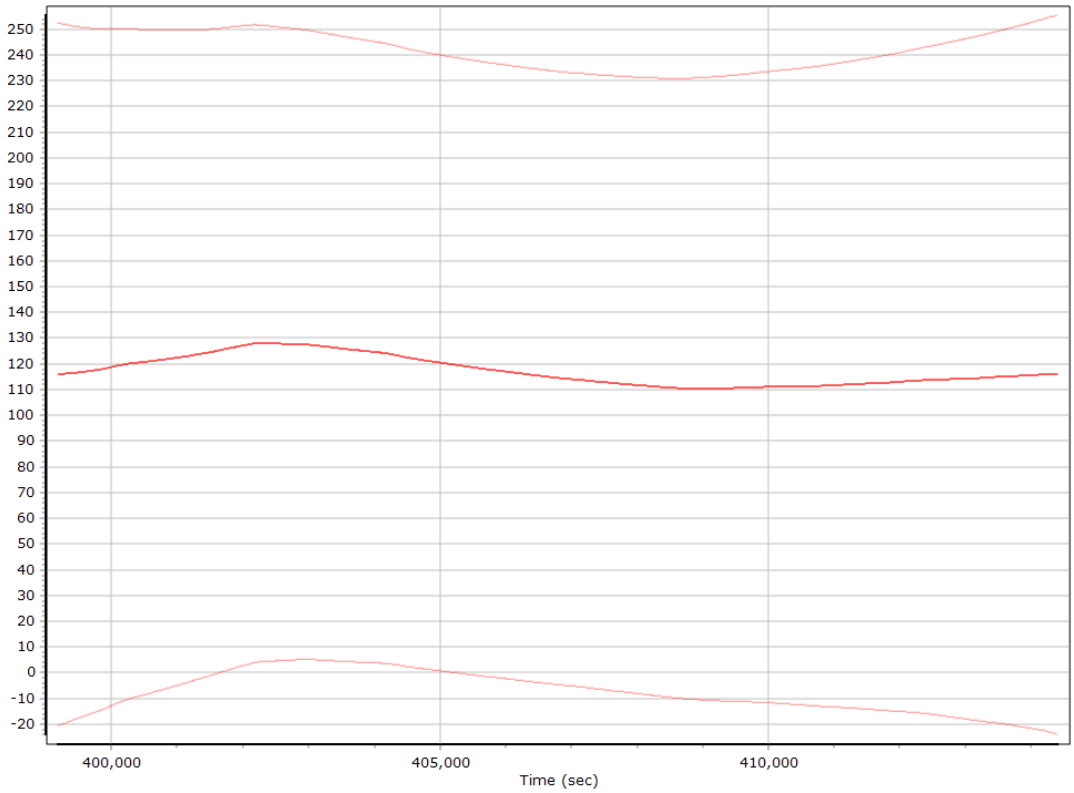
Z Accelerometer Bias (micro-g)



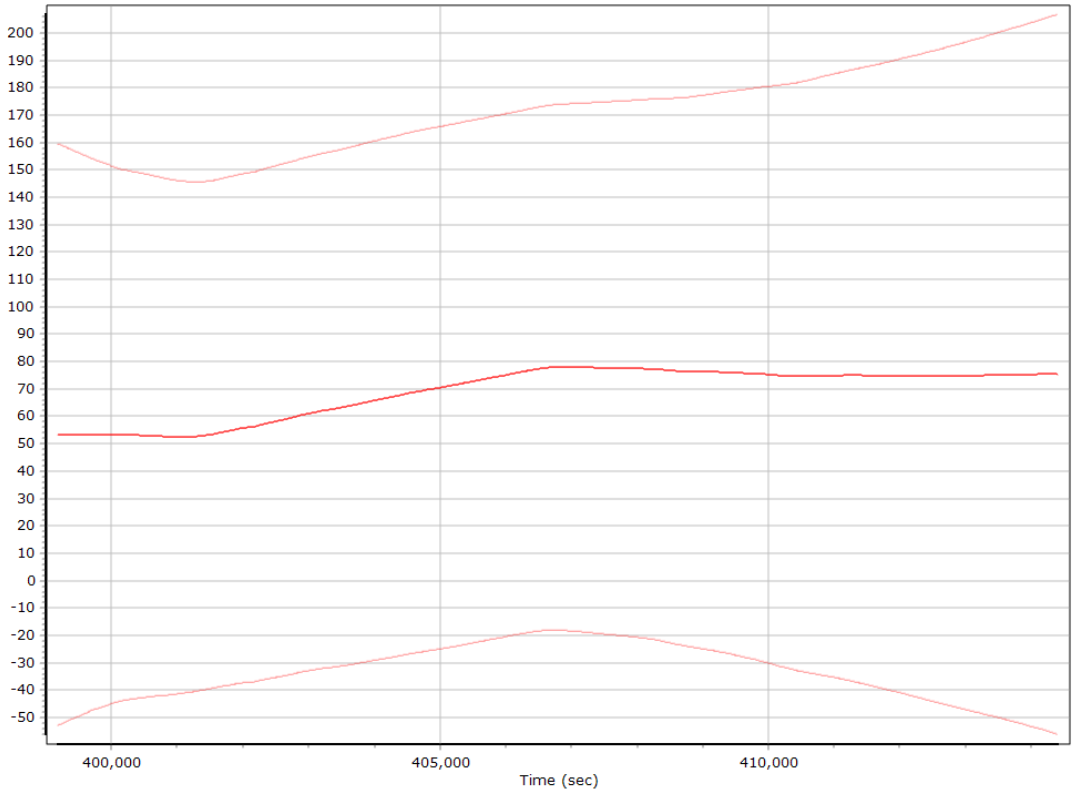
Accelerometer Scale Error (ppm)



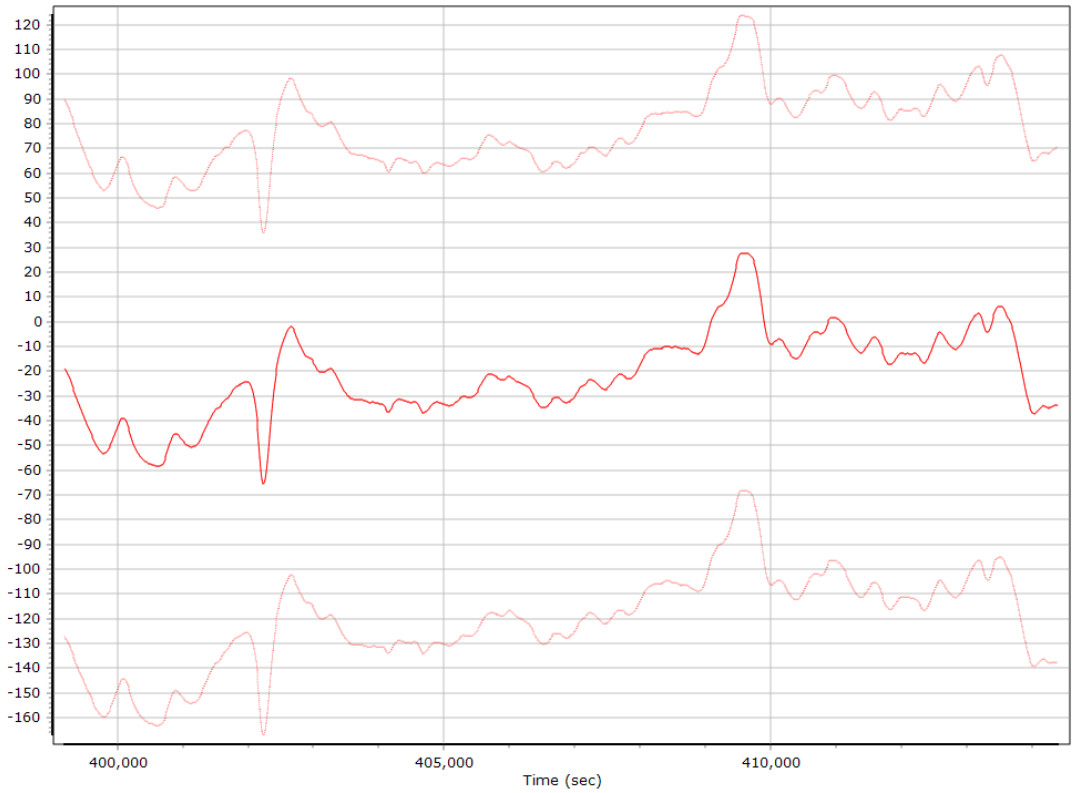
X Accelerometer Scale Error (ppm)



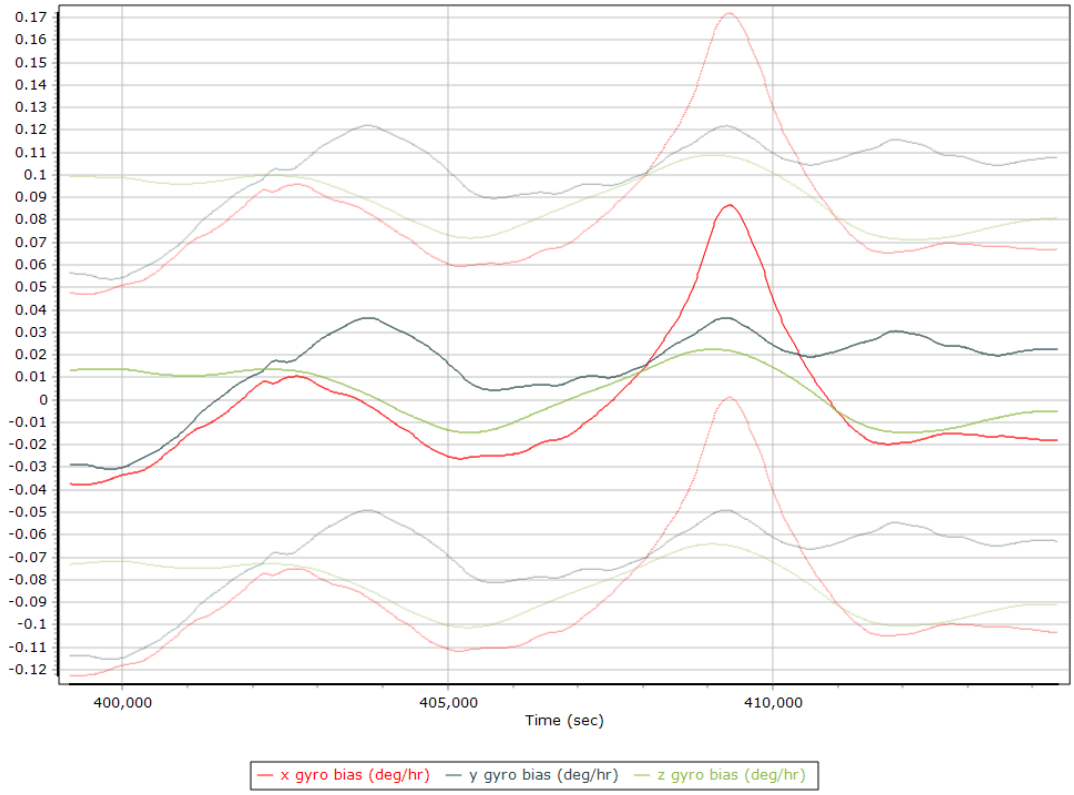
Y Accelerometer Scale Error (ppm)



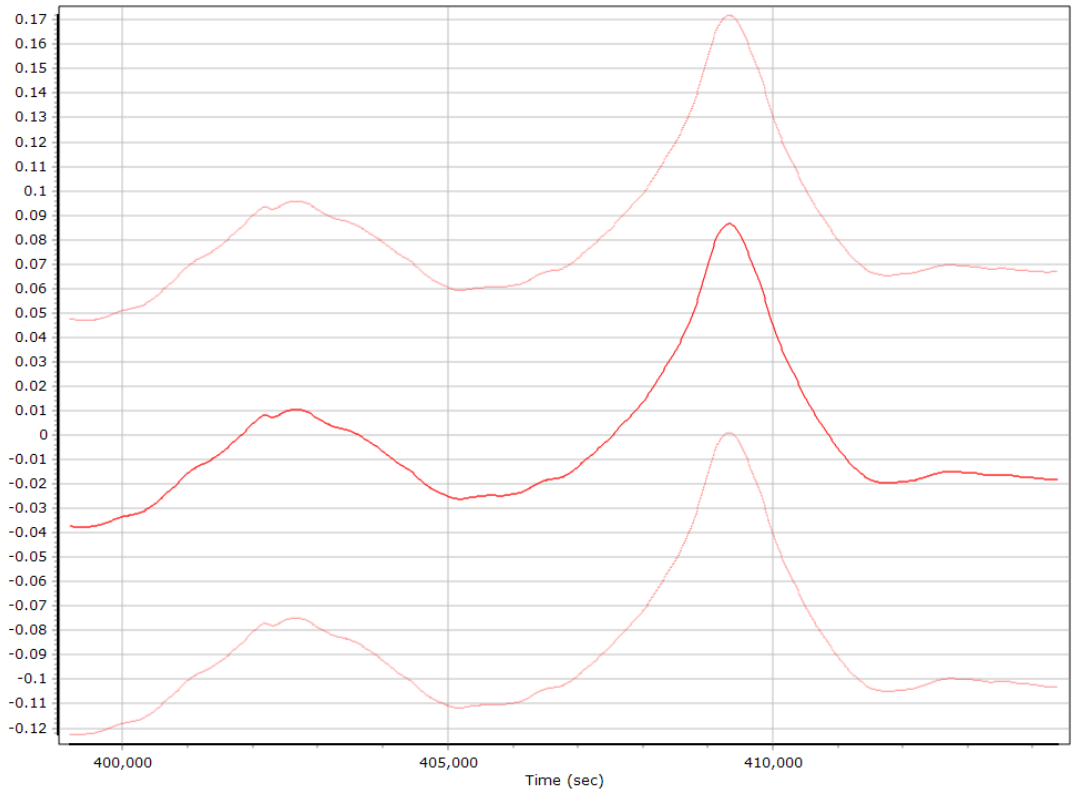
Z Accelerometer Scale Error (ppm)



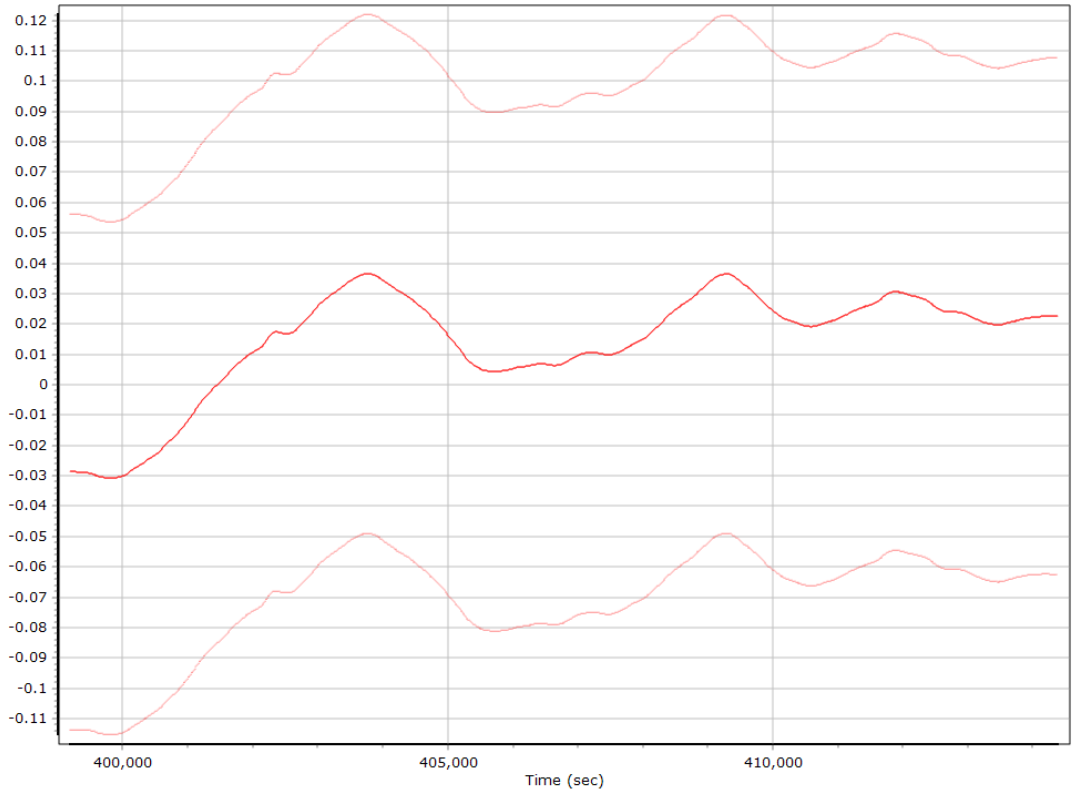
Gyro Bias (deg/h)



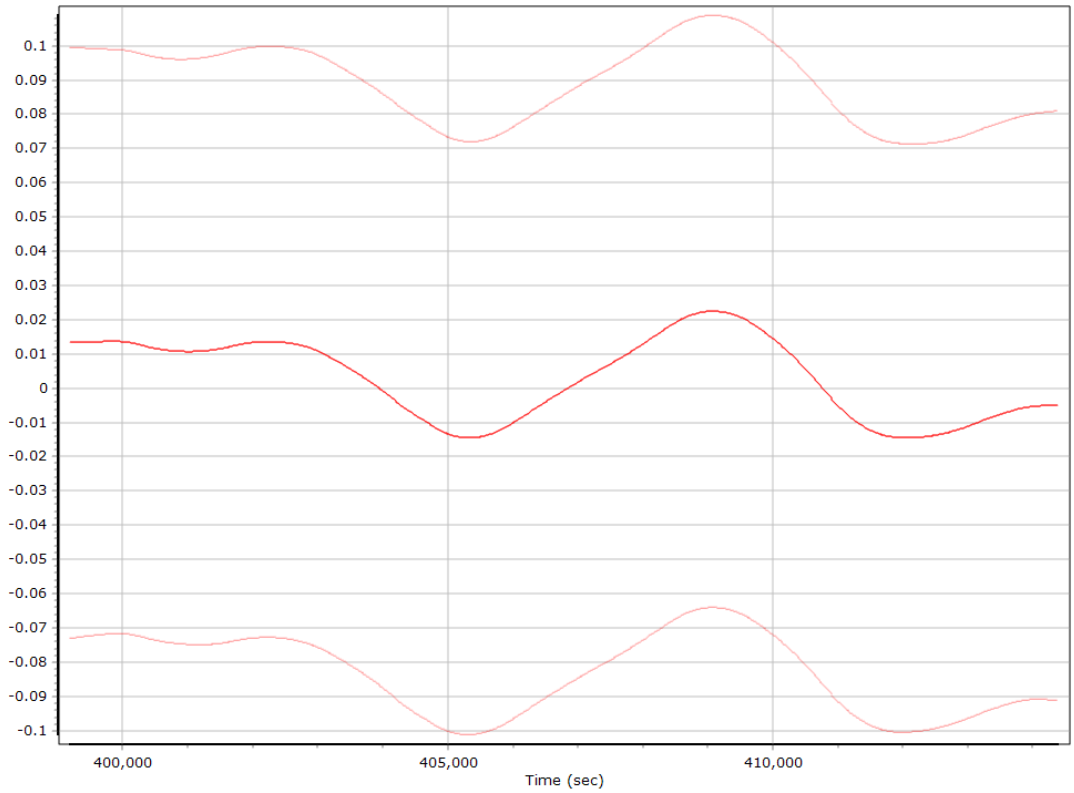
X Gyro Bias (deg/h)



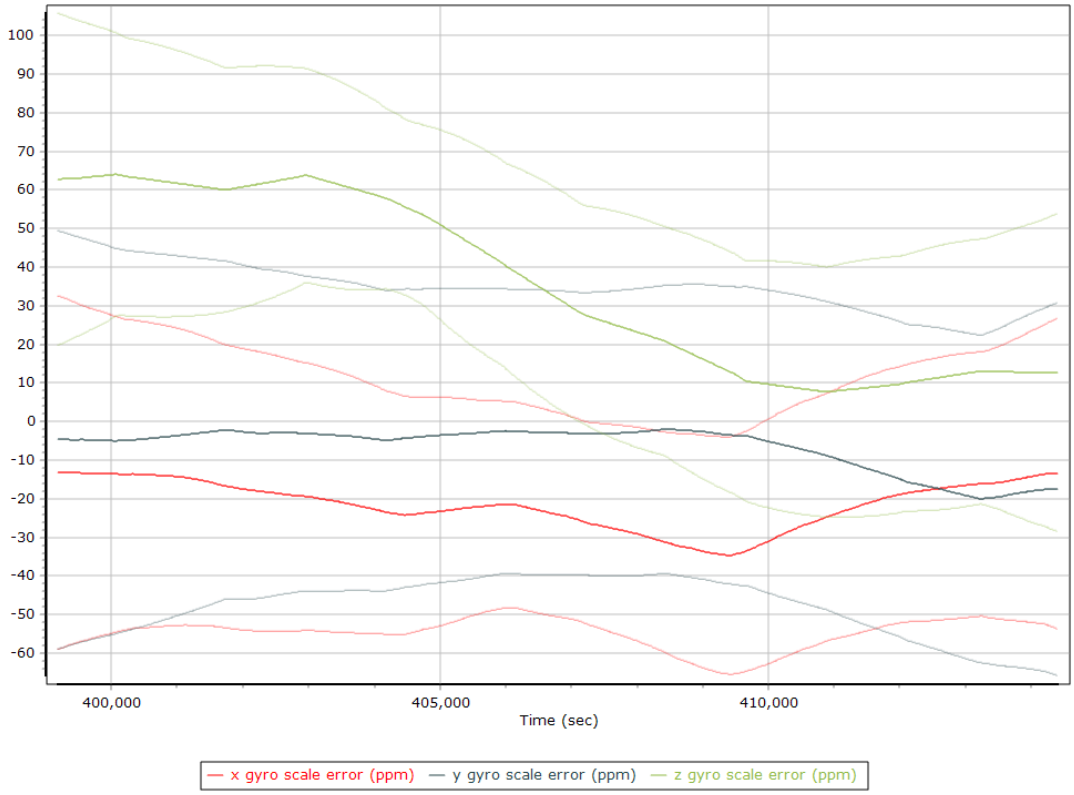
Y Gyro Bias (deg/h)



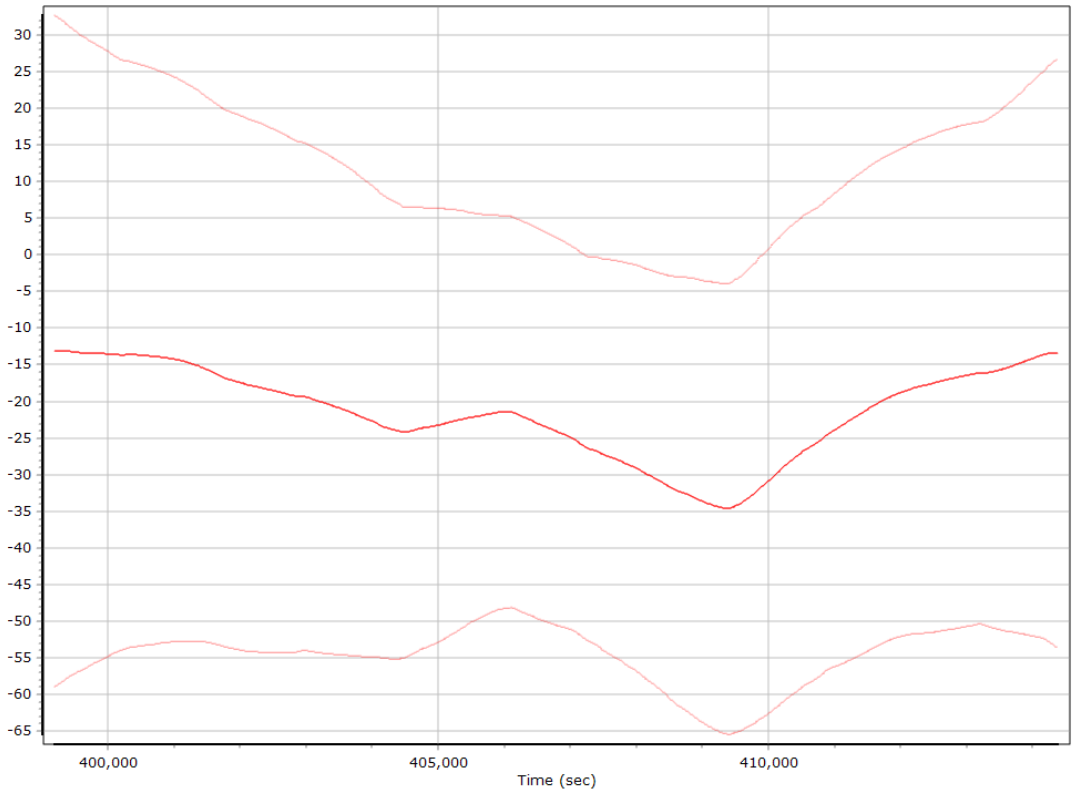
Z Gyro Bias (deg/h)



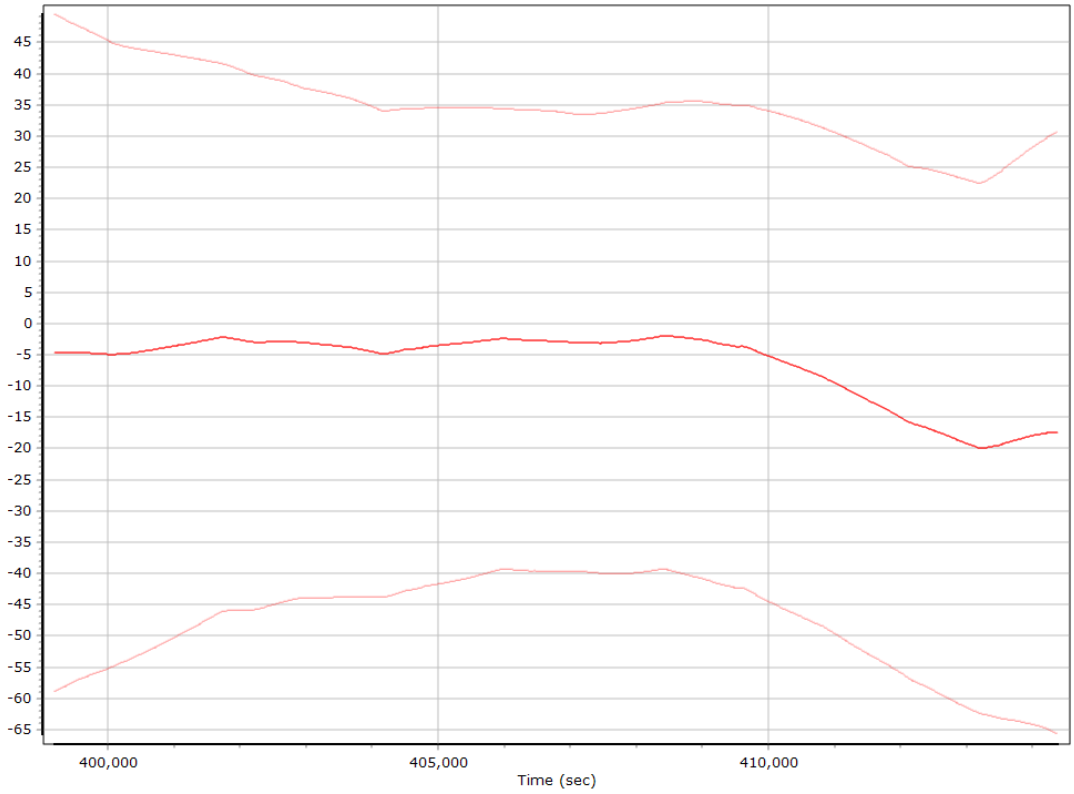
Gyro Scale Error (ppm)



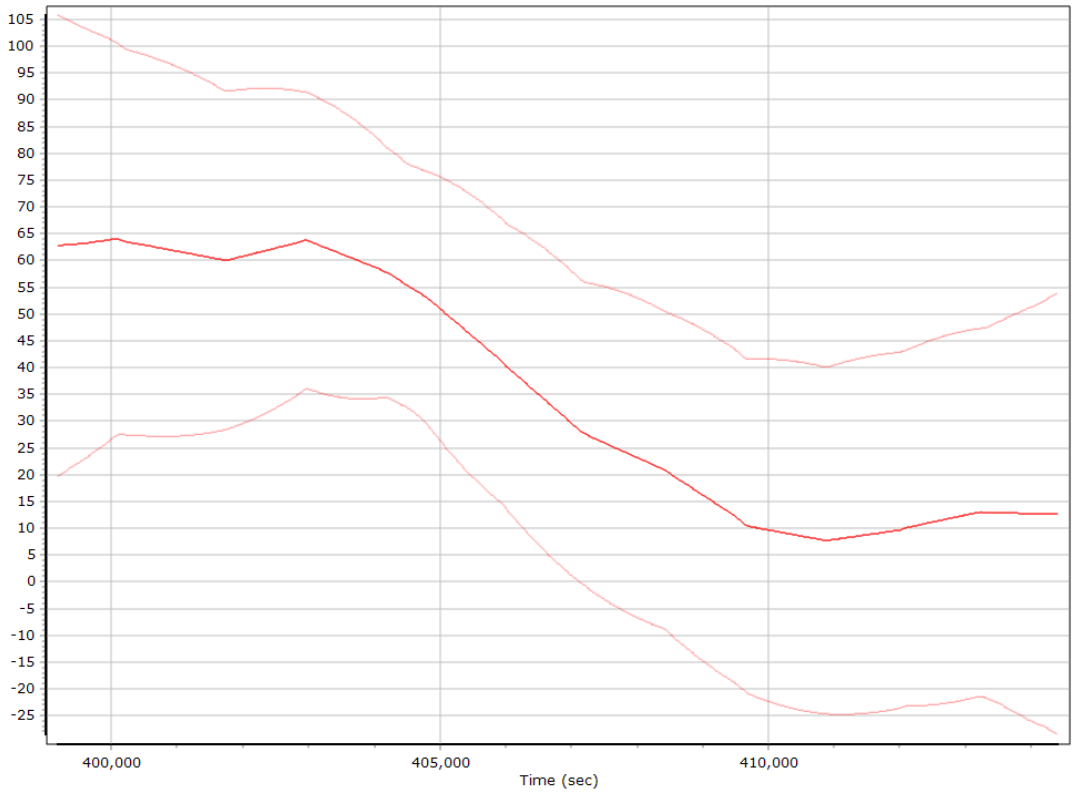
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

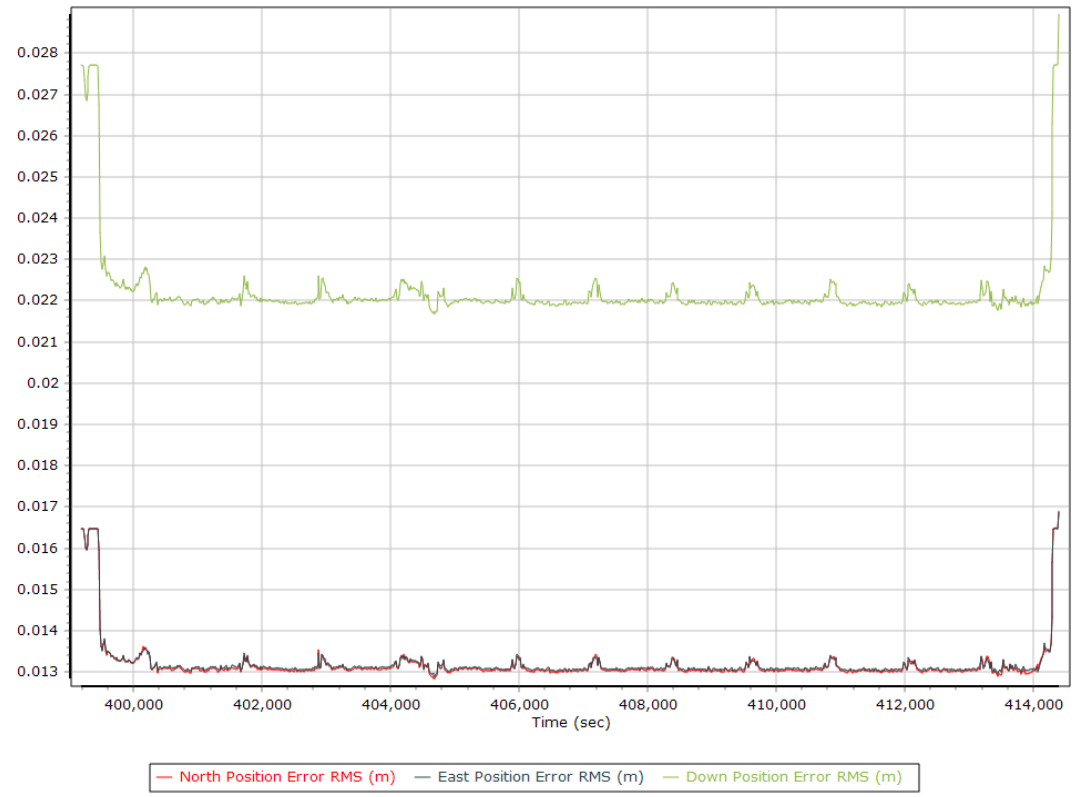


Z Gyro Scale Error (ppm)

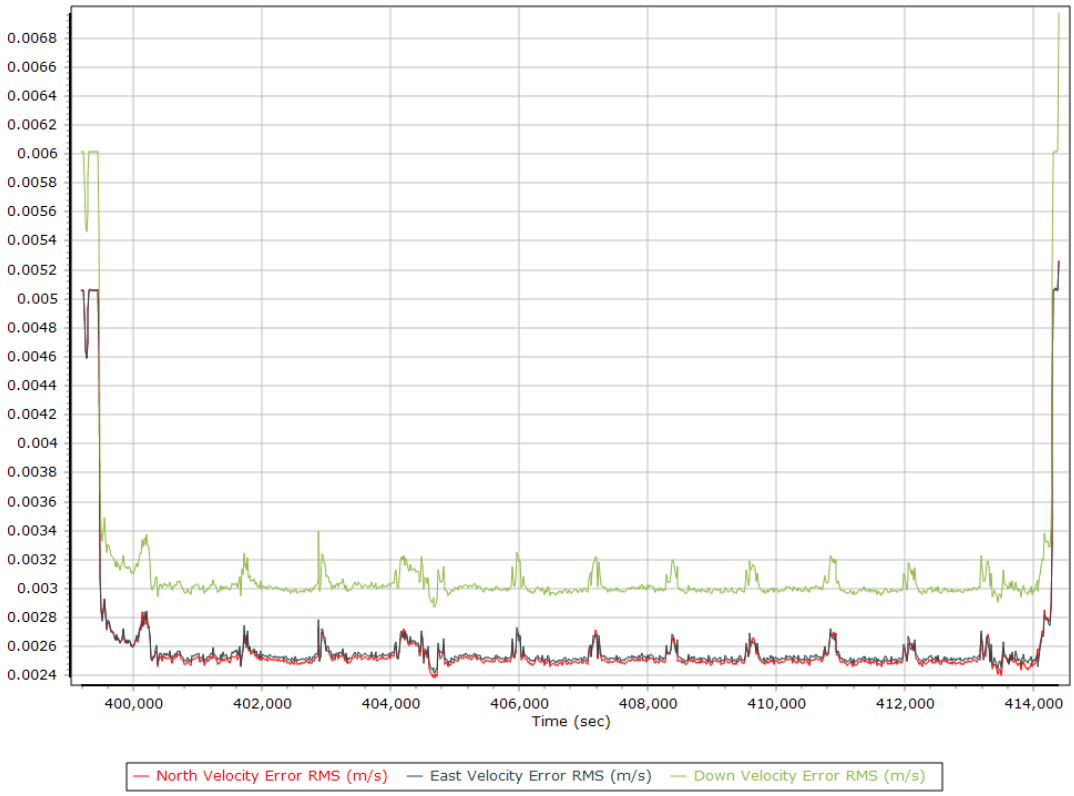


Smoothed Performance Metrics

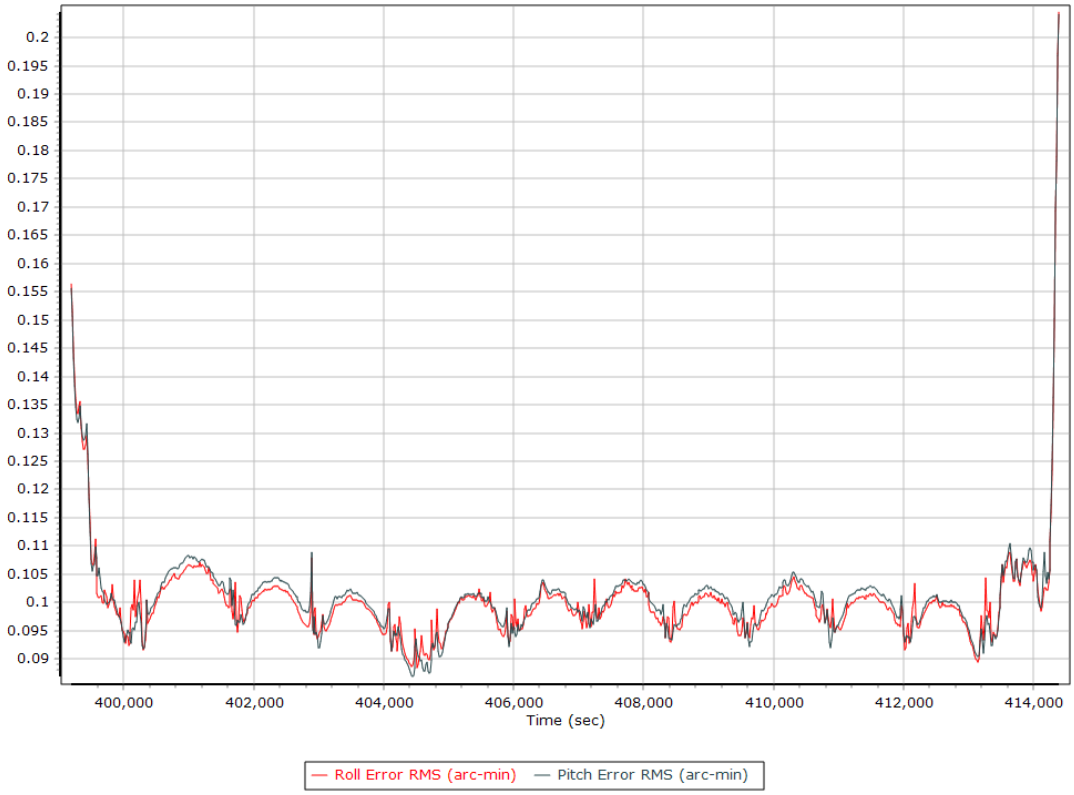
Position Error RMS (m)



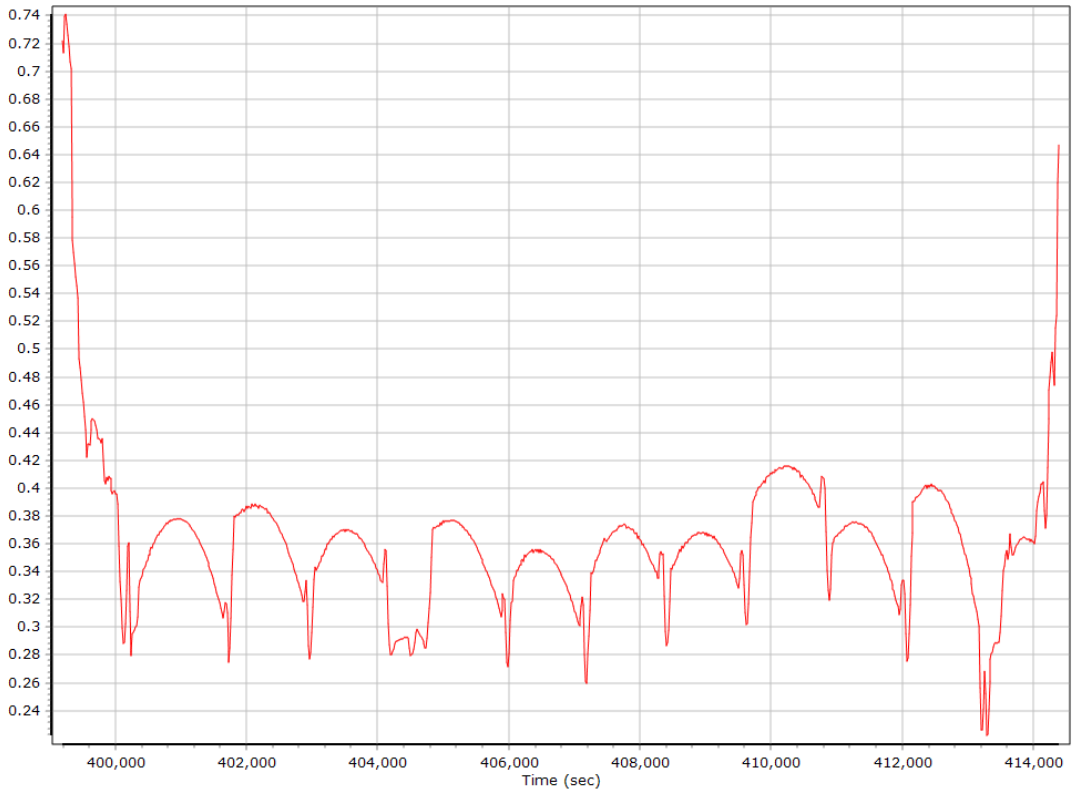
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)



Export Summary

Export file	export_2SU20303A_186.out		
Export format	Custom Smoothed BET		
Solution in use	Post-processed		
Output rate	All Records		
Reference to Output lever arm (m)	0.000	0.000	0.000
Reference mounting angles (deg)	0.000	0.000	0.000
Output units (Coordinate / Lat & Lon)	Meter	Deg Decimal	
Export start time	329958.003 (10/28/2020 19:39:18)		
Export end time	344311.002 (10/28/2020 23:38:31)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 20 (66W to 60W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2010		