

General Information

Mission Information

Project name	13284-1806_20181213_FINAL
Processing date	2019-05-29 14:56:57
Mission date	2018-12-13 12:20:18
Mission duration	05:26:44.530
Processing mode	IN-Fusion SmartBase
GPS Station	ASB

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N8223
IMU type	57
Receiver type	BD982
Antenna type	AV37

Project File List

Rover Data Files

File name	File type
181213_122017_INS-GPS_1.raw	POS Data

Input Files

File Name	File type
Ephm3470.18g	GLONASS Broadcast Ephemeris
Ephm3470.18n	GPS Broadcast Ephemeris
igl20313.sp3	GLONASS Precise Ephemeris
igl20314.sp3	GLONASS Precise Ephemeris
igl20315.sp3	GLONASS Precise Ephemeris
igs20313.sp3	GPS Precise Ephemeris
igs20314.sp3	GPS Precise Ephemeris
igs20315.sp3	GPS Precise Ephemeris
bkvl347f00.18o	GNSS SingleBase
zefr347f00.18g	GLONASS Broadcast Ephemeris
orl1347f00.18o	GNSS SingleBase
orl1347f00.18n	GPS Broadcast Ephemeris
orl1347f00.18g	GLONASS Broadcast Ephemeris
flwd347f00.18o	GNSS SingleBase
flwd347f00.18n	GPS Broadcast Ephemeris
flwd347f00.18g	GLONASS Broadcast Ephemeris
flhs347f00.18o	GNSS SingleBase
flhs347f00.18n	GPS Broadcast Ephemeris
flhs347f00.18g	GLONASS Broadcast Ephemeris
flgr347f00.18o	GNSS SingleBase
flgr347f00.18n	GPS Broadcast Ephemeris
flgr347f00.18g	GLONASS Broadcast Ephemeris
zefr347f00.18n	GPS Broadcast Ephemeris
fleu347f00.18o	GNSS SingleBase
fleu347f00.18g	GLONASS Broadcast Ephemeris
flem347f00.18o	GNSS SingleBase
flem347f00.18n	GPS Broadcast Ephemeris
flem347f00.18g	GLONASS Broadcast Ephemeris
fldc347f00.18o	GNSS SingleBase
fldc347f00.18n	GPS Broadcast Ephemeris
fldc347f00.18g	GLONASS Broadcast Ephemeris
fld7347f00.18o	GNSS SingleBase
fld7347f00.18n	GPS Broadcast Ephemeris
fld7347f00.18g	GLONASS Broadcast Ephemeris
brtw347f00.18o	GNSS SingleBase
brtw347f00.18n	GPS Broadcast Ephemeris
brtw347f00.18g	GLONASS Broadcast Ephemeris
fleu347f00.18n	GPS Broadcast Ephemeris
zefr347f00.18o	GNSS SingleBase
ocla347f00.18g	GLONASS Broadcast Ephemeris
ocla347f00.18n	GPS Broadcast Ephemeris
ocla347f00.18o	GNSS SingleBase

Output Files

Filename	File type
sbet_Mission 1.out	SBET Trajectory File

Rover Data Summary

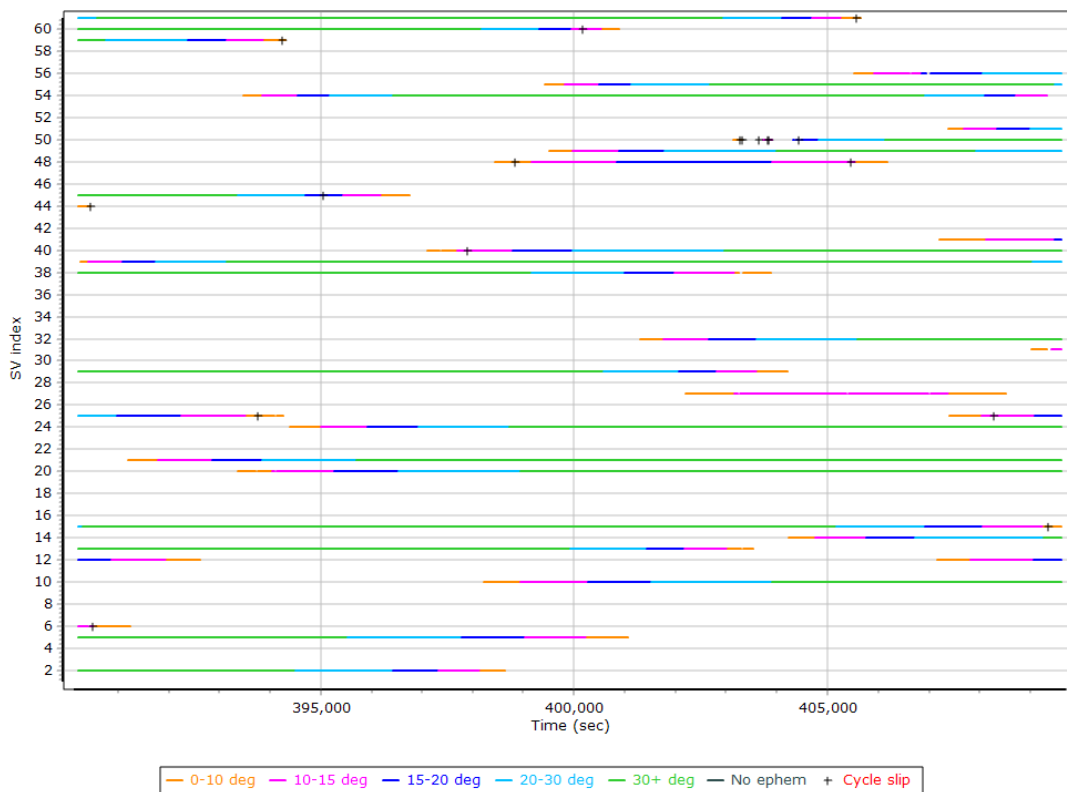
First raw data file	181213_122017_INS-GPS_1.raw		
Last raw data file	181213_122017_INS-GPS_1.raw		
Start GPS week	2031		
Start time	390017.463 (12/13/2018 12:19:59 PM)		
End time	409621.993 (12/13/2018 5:46:43 PM)		
Start of fine alignment	390160.808 (12/13/2018 12:22:22 PM)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	None		
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	0.000
Reference to Primary GNSS lever arm [m]	0.080	-0.198	-0.950
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

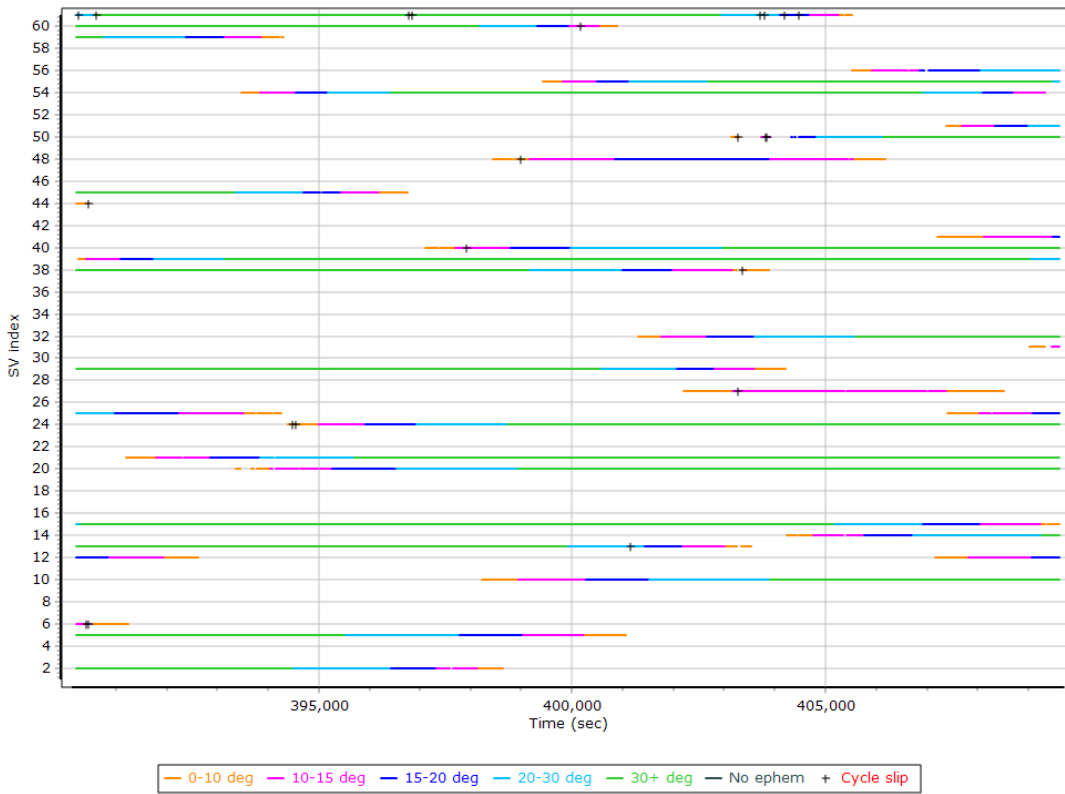
Raw IMU Import QC Summary

IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_Mission 1.log
IMU Records Processed	3921176
Termination Status	Normal
IMU Anomalies	0

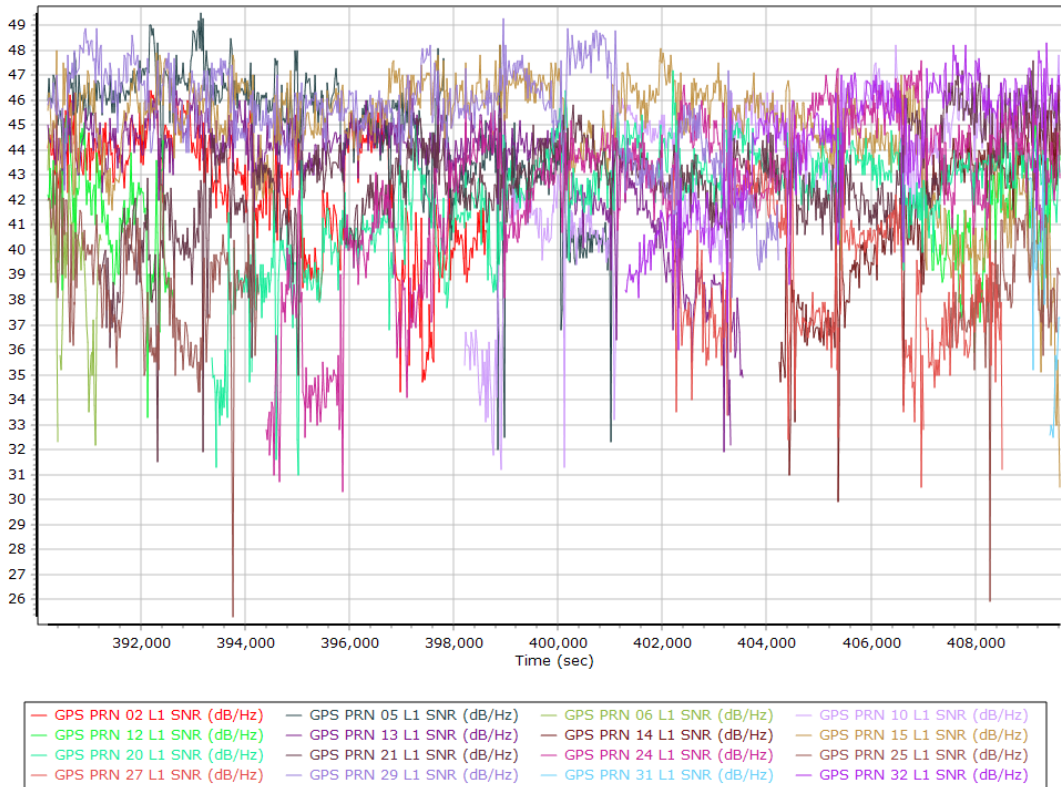
L1 Satellite Lock/Elevation



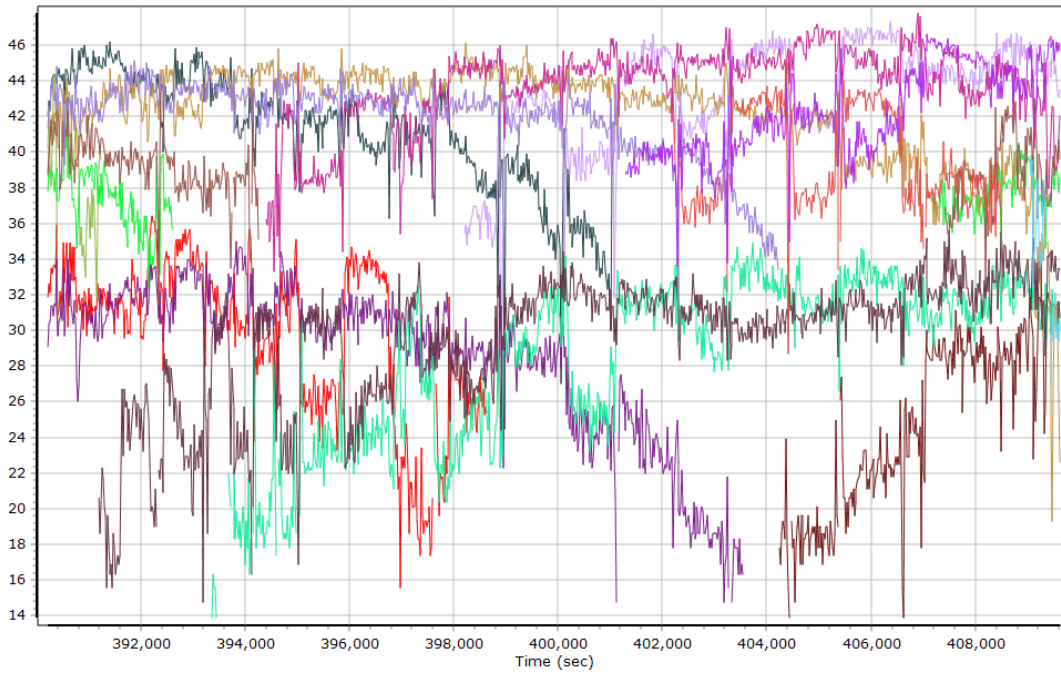
L2 Satellite Lock/Elevation



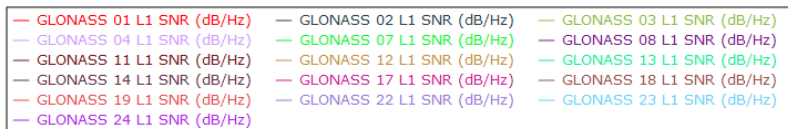
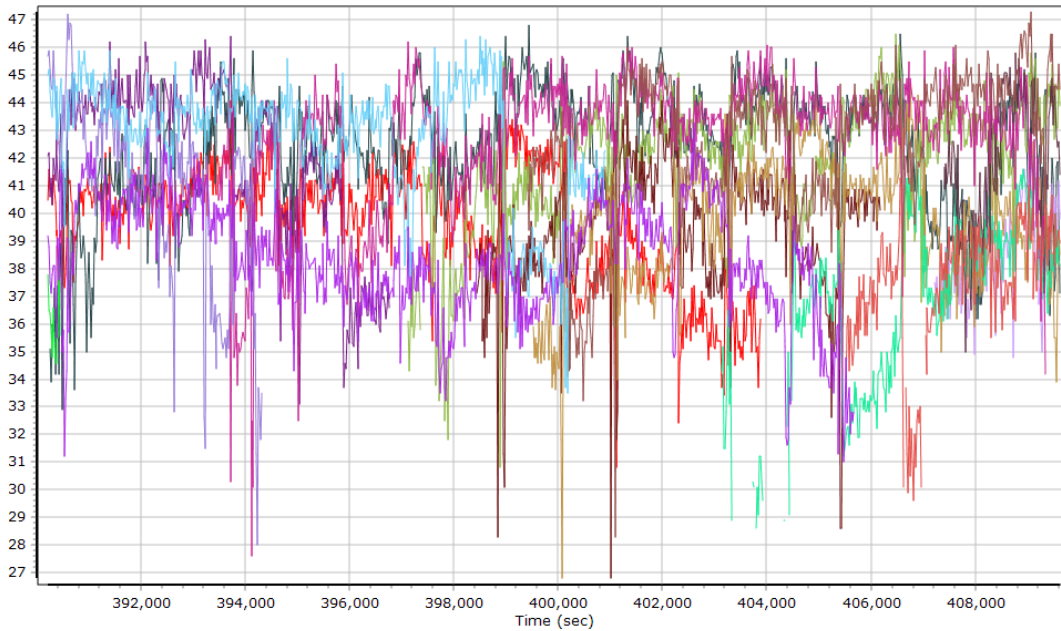
GPS L1 SNR



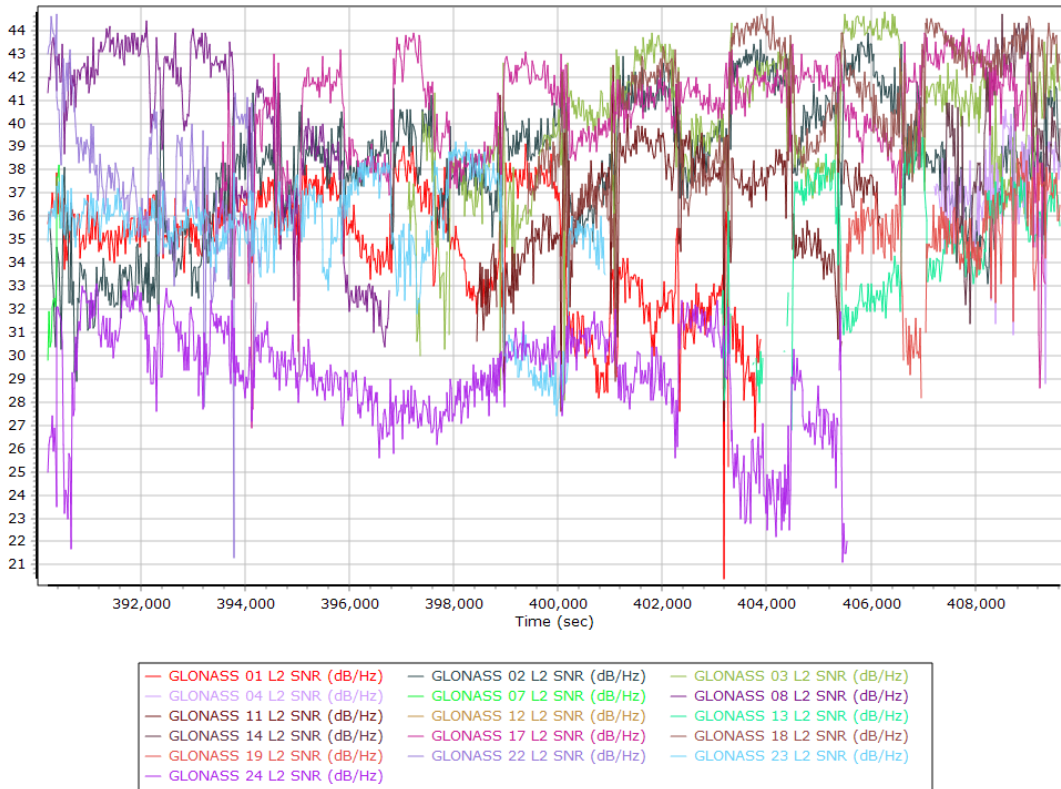
GPS L2 SNR



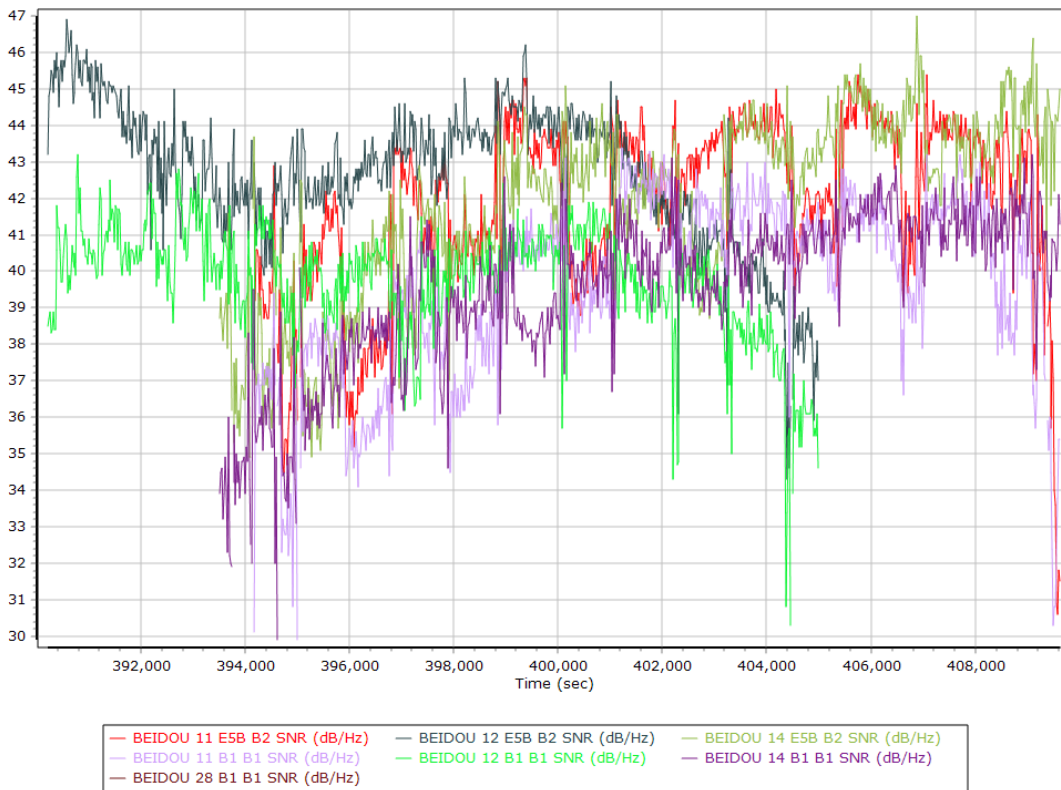
GLONASS L1 SNR



GLONASS L2 SNR

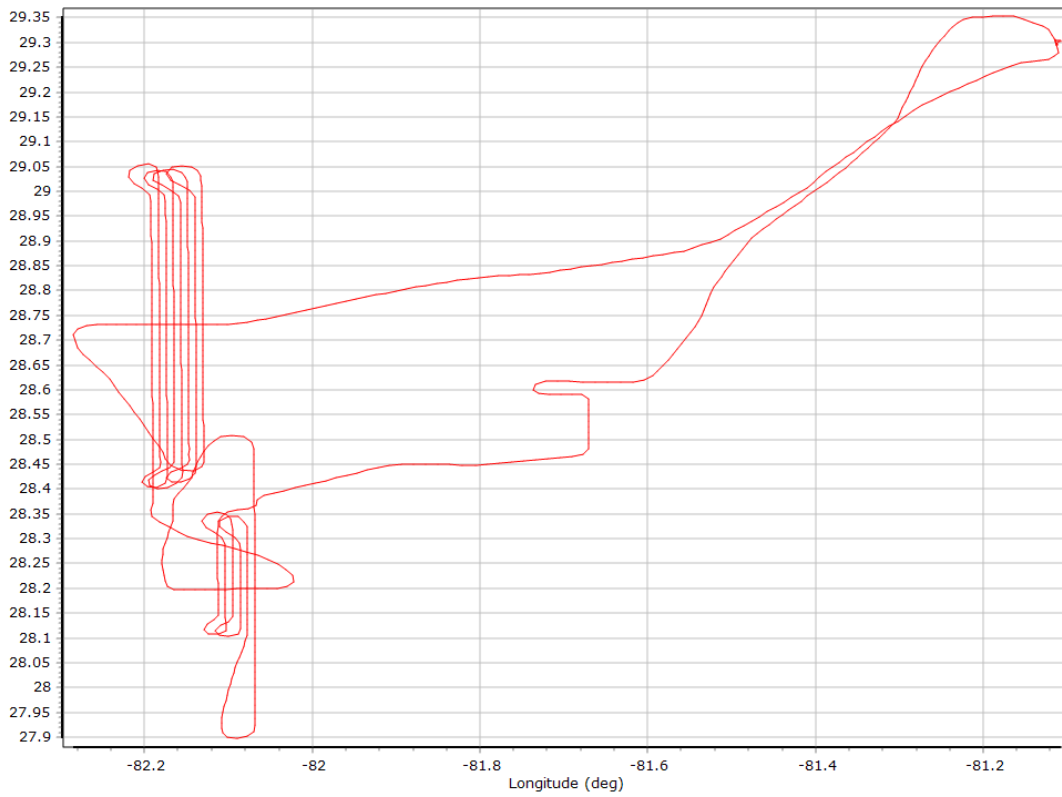


BEIDOU SNR

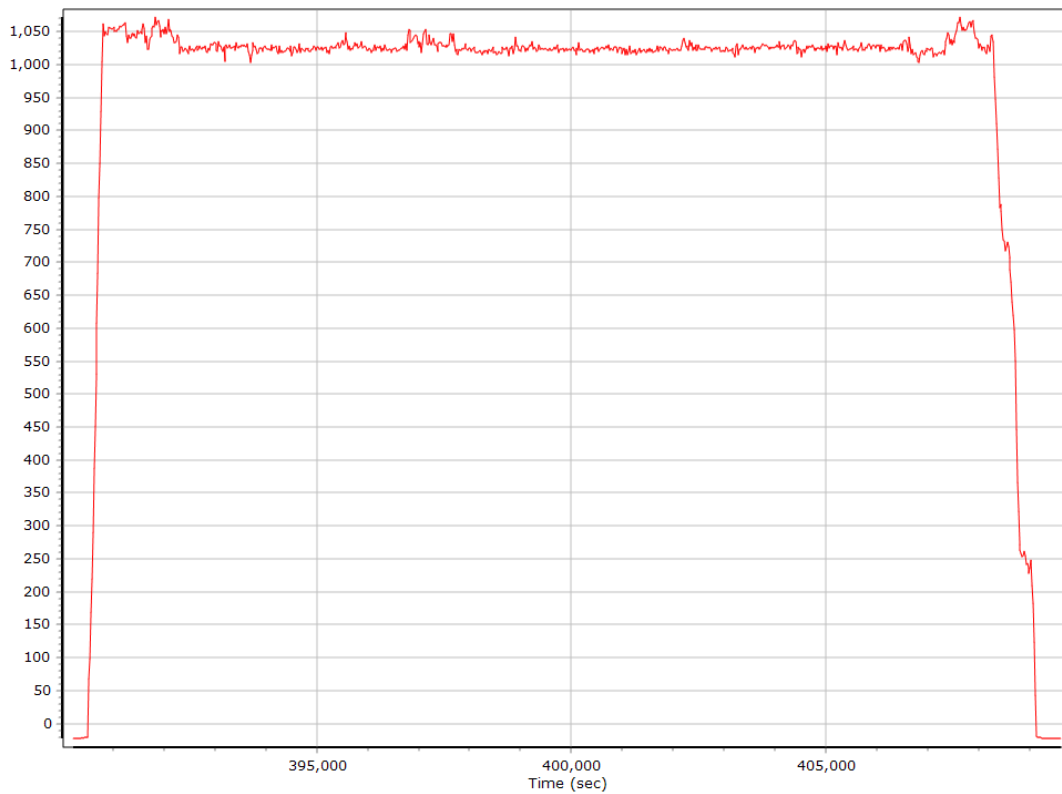


Trajectory Information

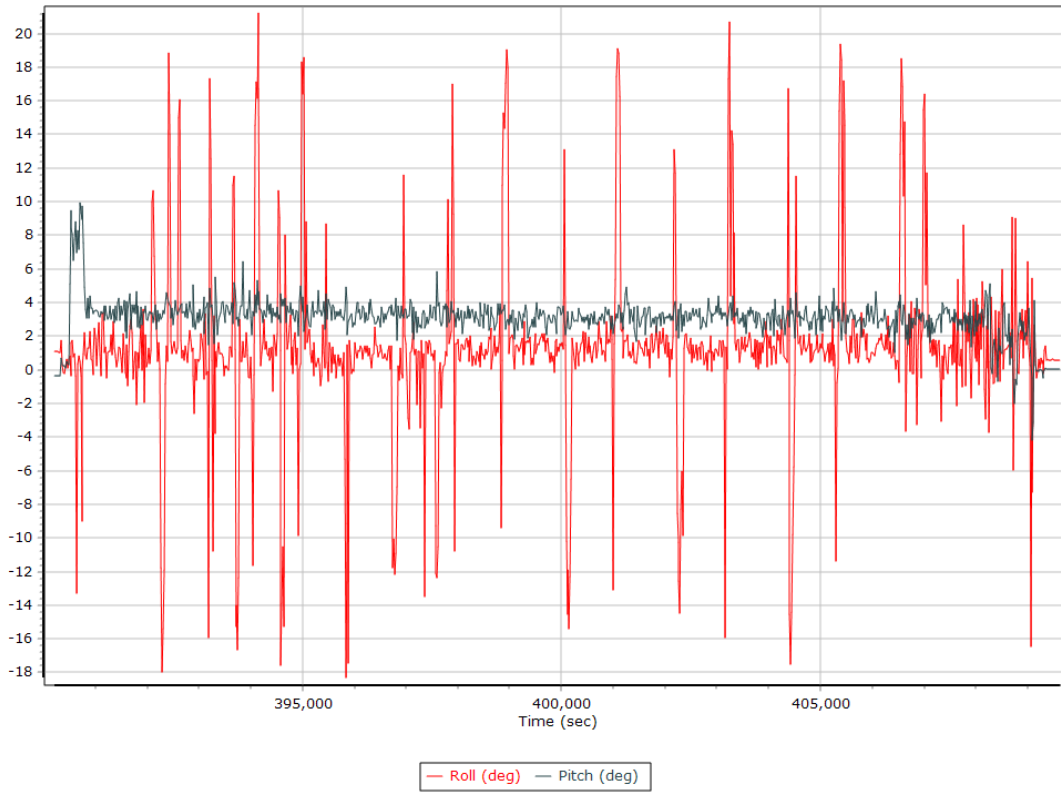
Top View



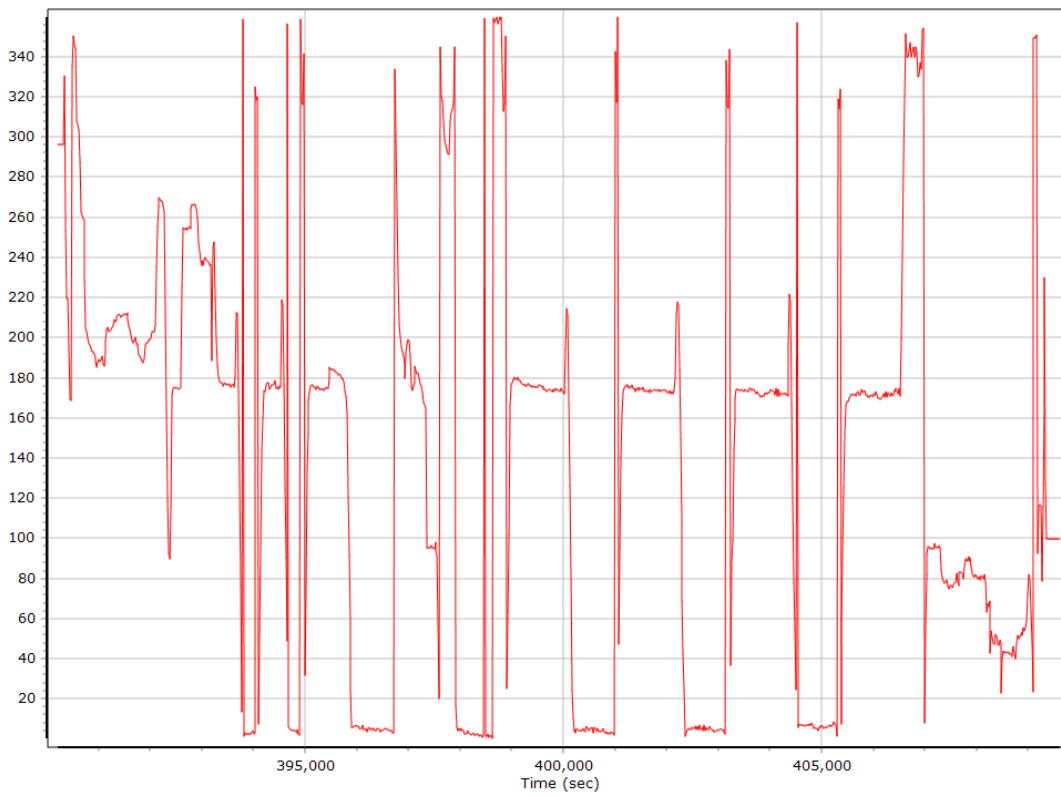
Altitude



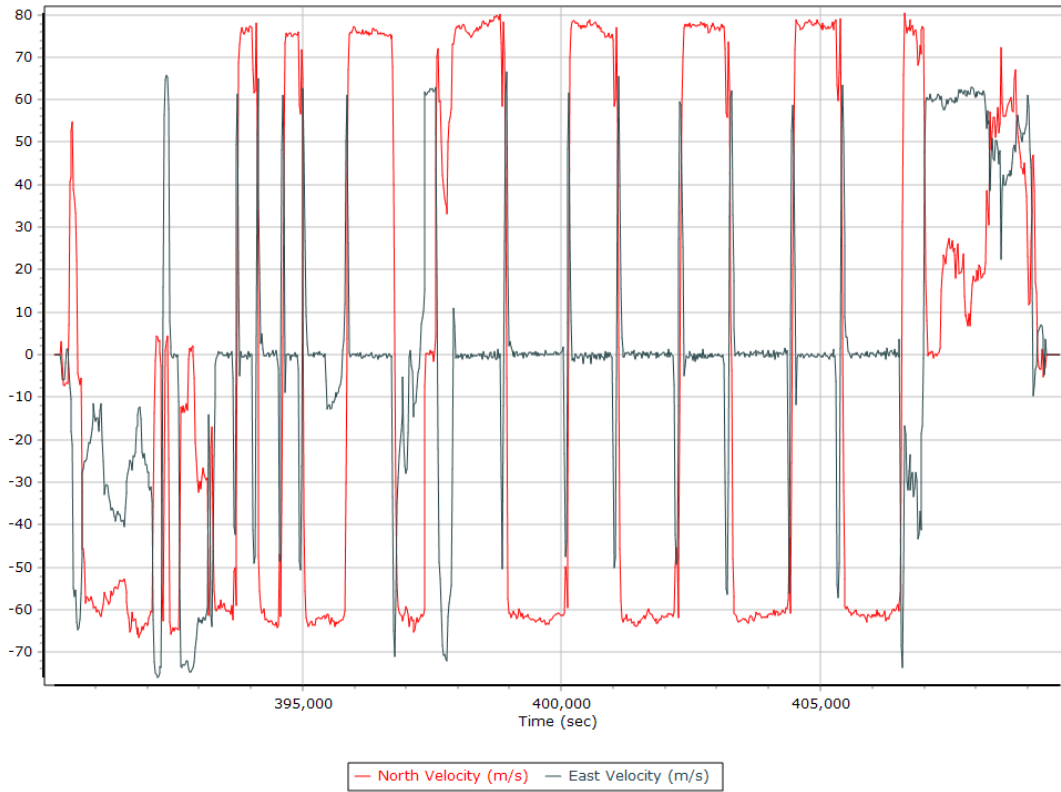
Roll/Pitch



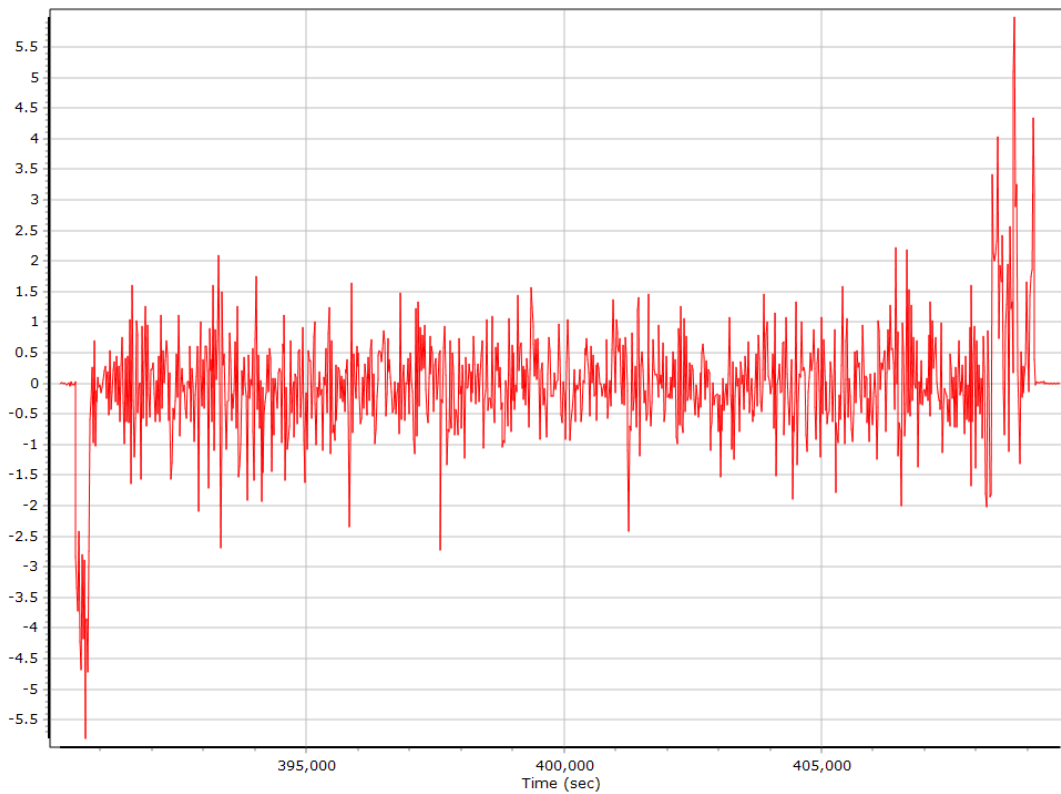
Heading



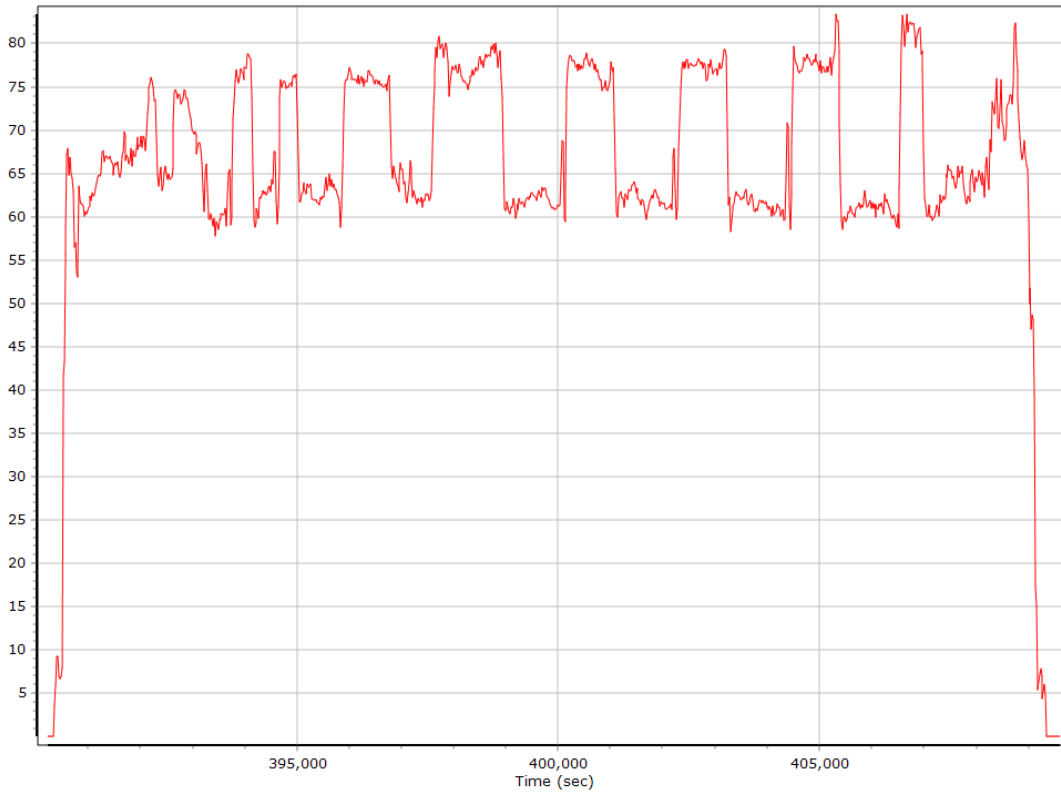
North/East Velocity



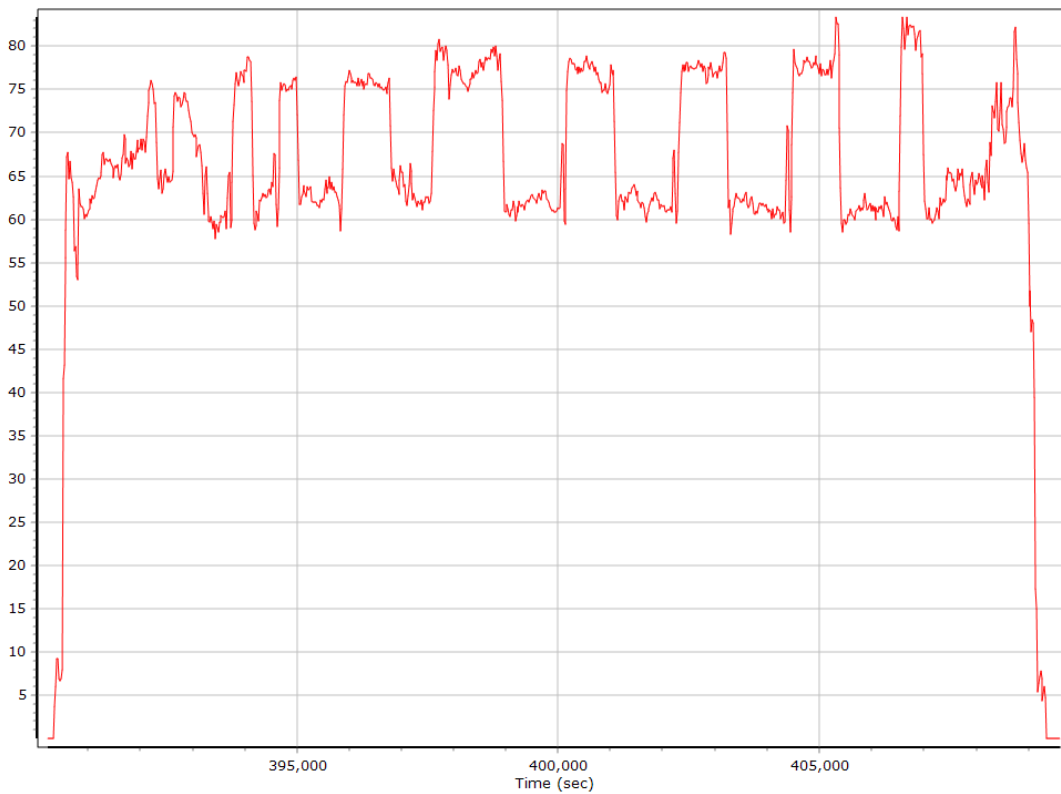
Down Velocity



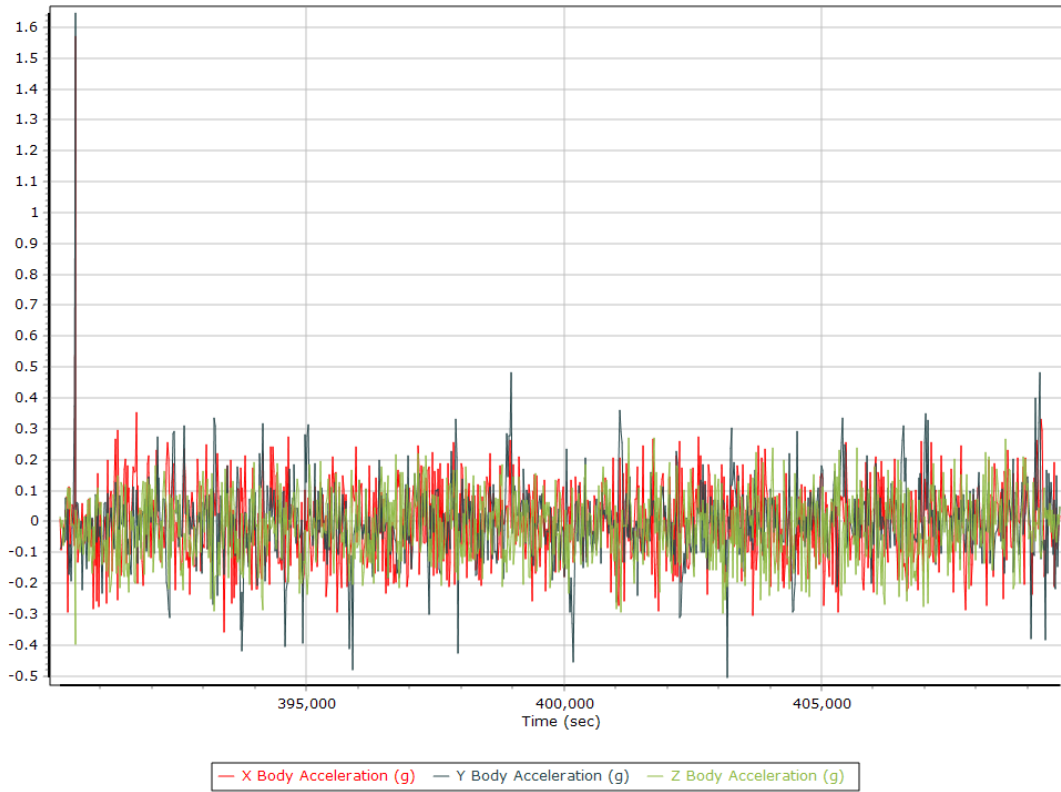
Total Speed



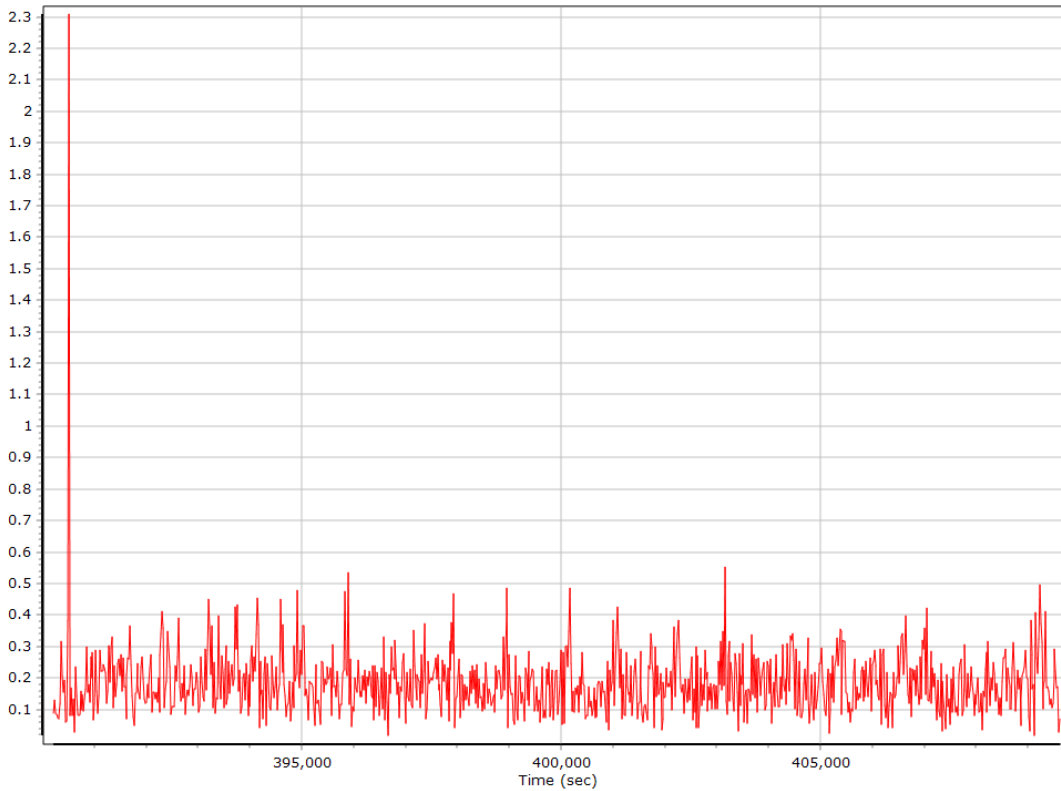
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate



SmartBase Processing Summary

Smart Select Options

Archive enabled	False
User database enabled	False
Include high-rate data sites	False
Target GNSS Selection	GNSS

Basestation Selection

Date	ID	Dist	Data Type	Rate	Service	Database	Status
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SmartBase Results

SmartBase status	
Primary station Id	
Primary station data rate [sec]	0.0
VRS/ASB generation rate [sec]	0.0
VRS/ASB timespan	
Number of reference stations	0
Primary station GPS measurement usage [%]	0.0
Average number of satellites per epoch	0.0
Max number of GPS stations used	0
Min number of GPS stations used	0
Total full data gap [sec]	0
Total individual satellite data gap [sec]	0
GPS precise vs. broadcast ephemeris used	0.0 % / 0.0 %
Termination Status	

SmartBase Quality Check

GNSS QC

GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length [km]	11.50	109.38	
Number of GPS SV	5	9	7
Number of GLONASS SV	0	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Total number of SV	7	17	13
PDOP	1.24	4.82	1.53
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (s)	19567.00	0.00	1.00
Percentage	99.99	0.00	0.01

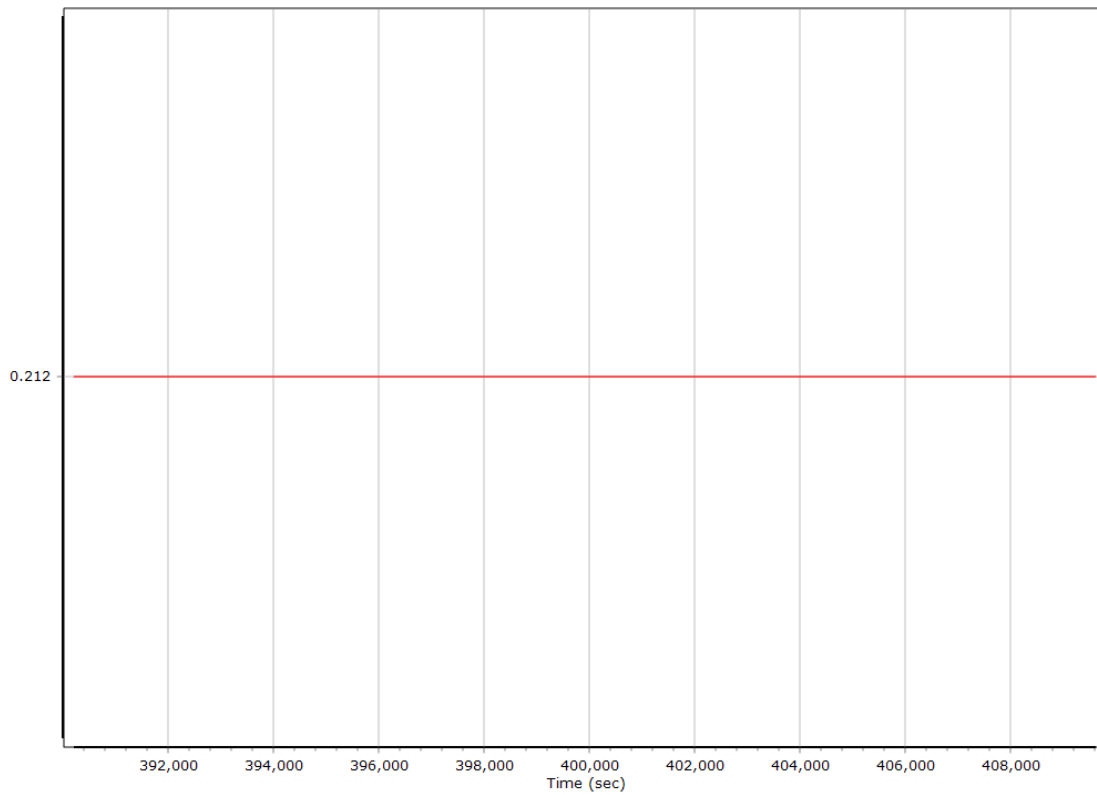
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion SmartBase		
Stabilized mount	False		
Base station	ASB		
Processing start time	390018.000 (12/13/2018 12:20:00 PM)		
Processing end time	409626.000 (12/13/2018 5:46:48 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	0.000
Reference to Primary GNSS lever arm [m]	0.212	0.092	-0.769
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

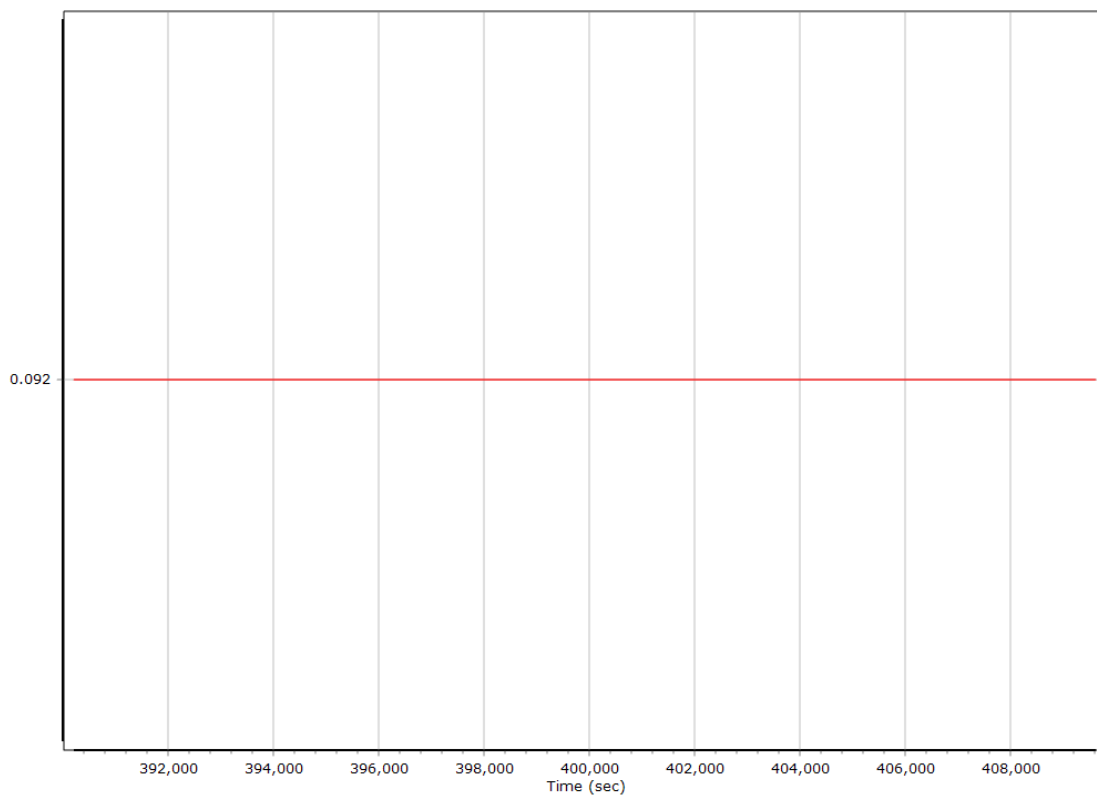
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm

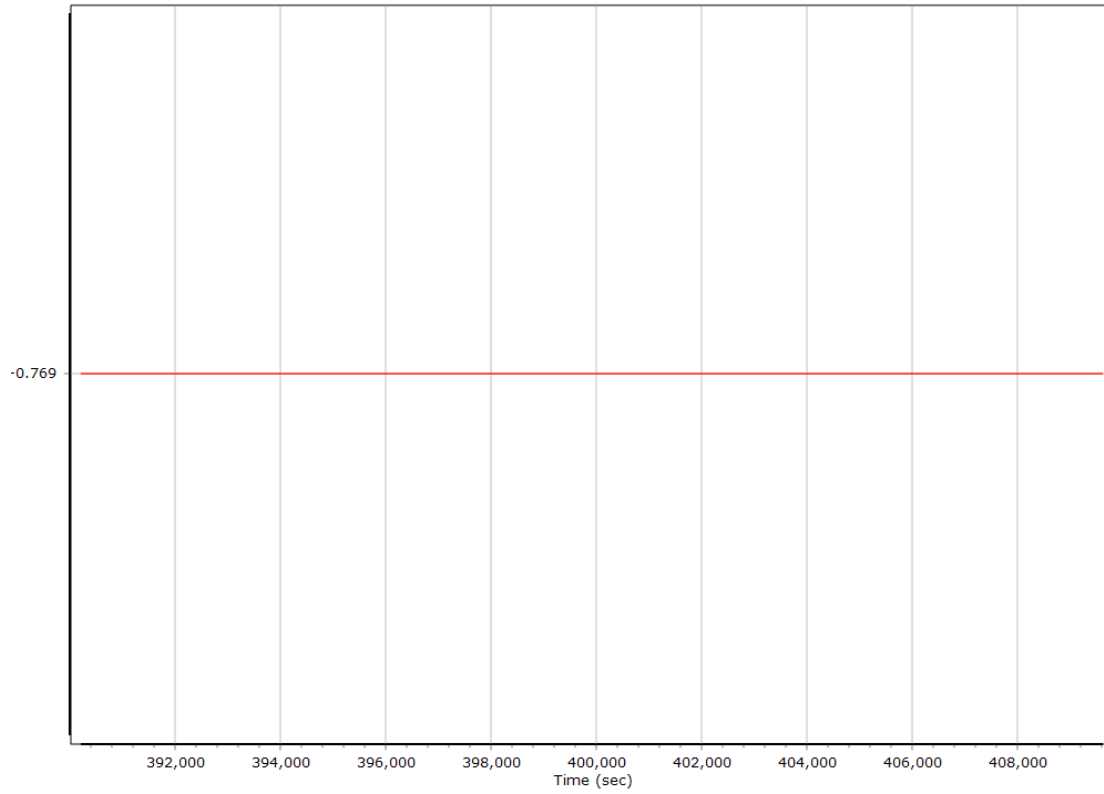
X Reference-Primary GNSS Lever Arm (m)



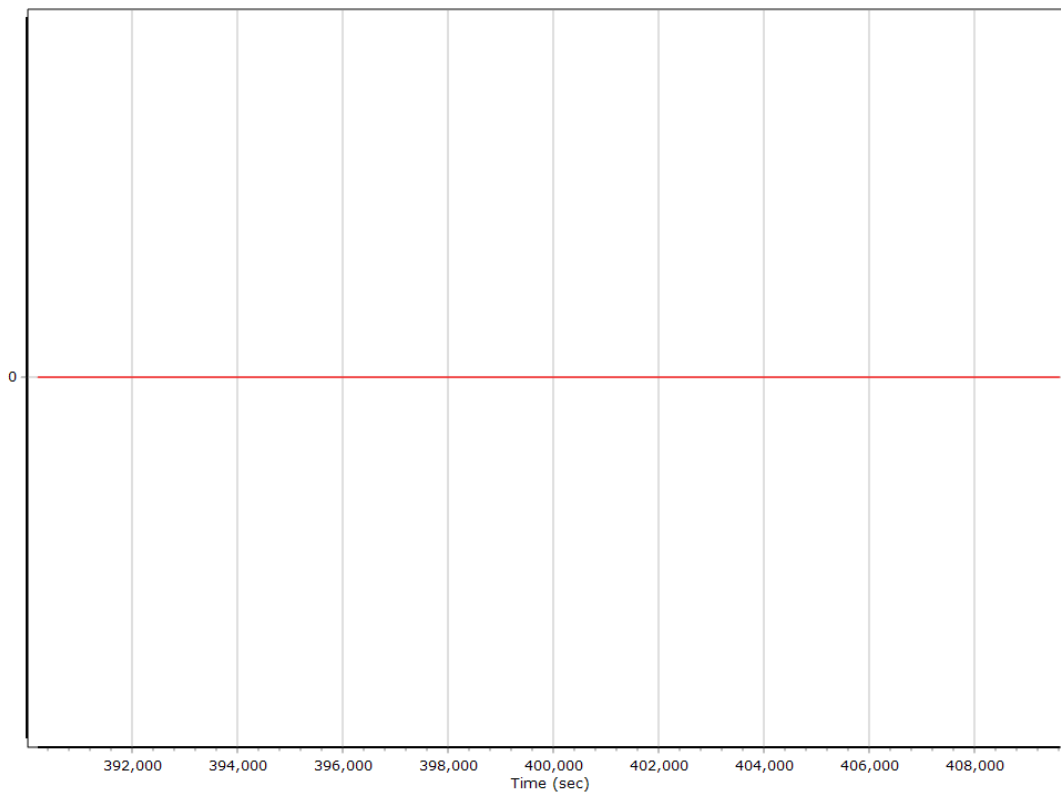
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



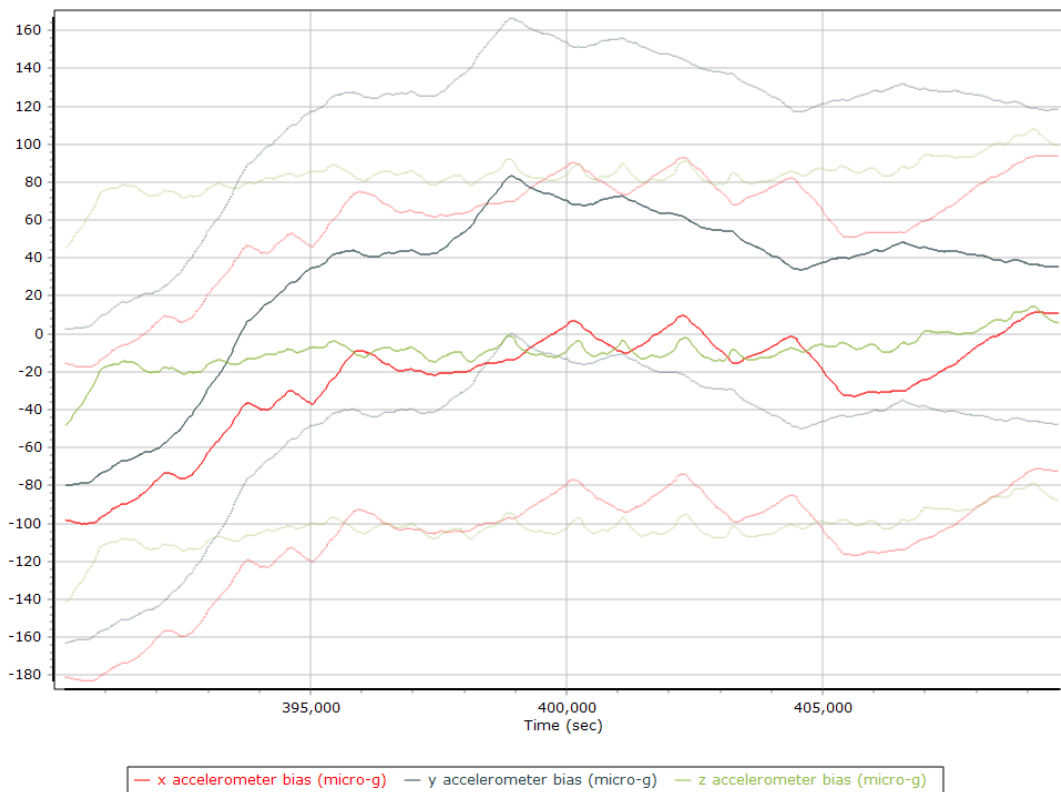
Reference-Primary GNSS Lever Arm Figure of Merit



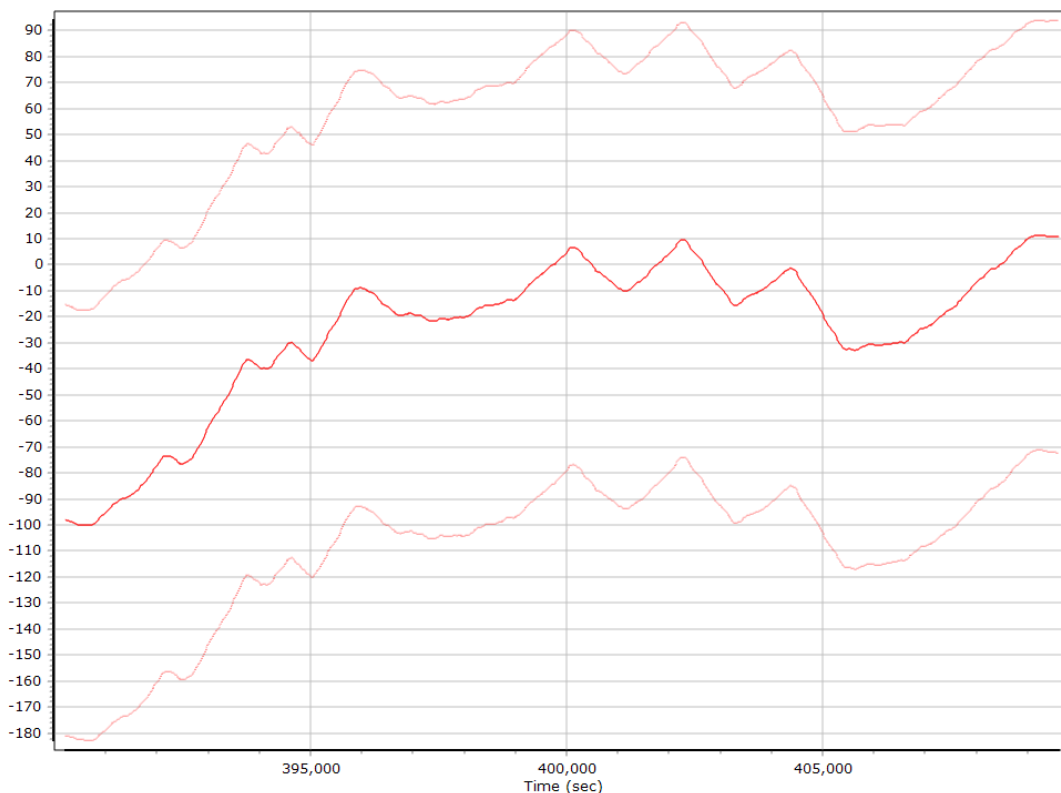
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

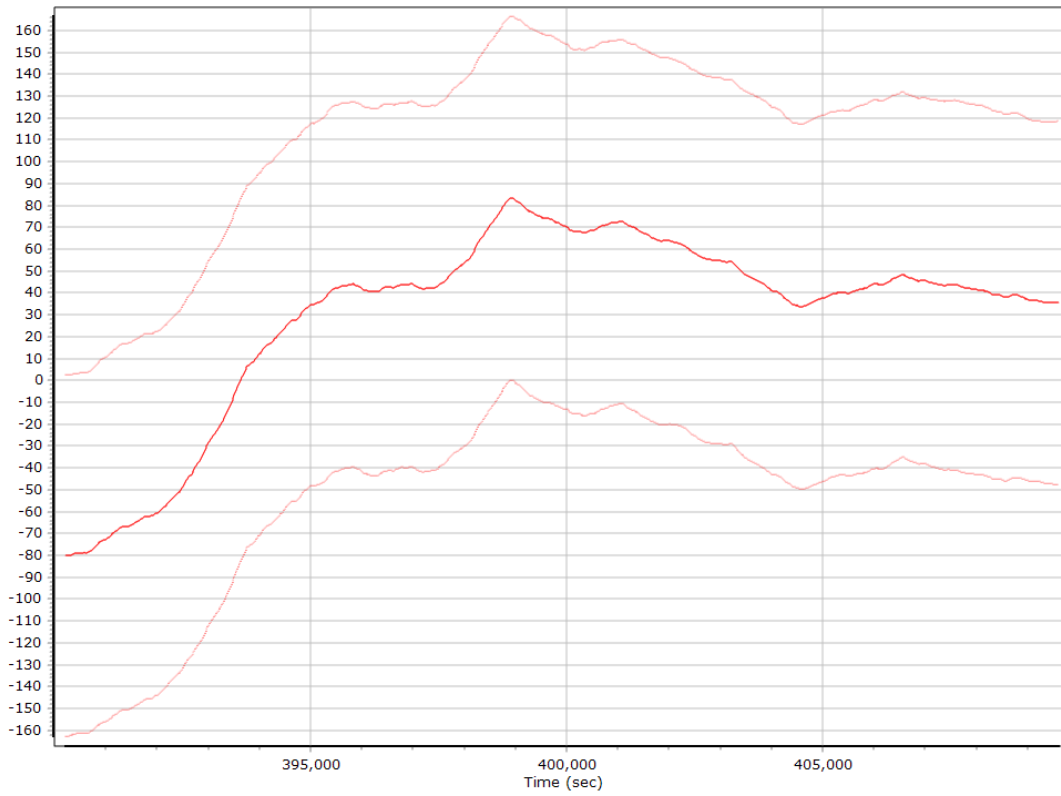
Accelerometer Bias (micro-g)



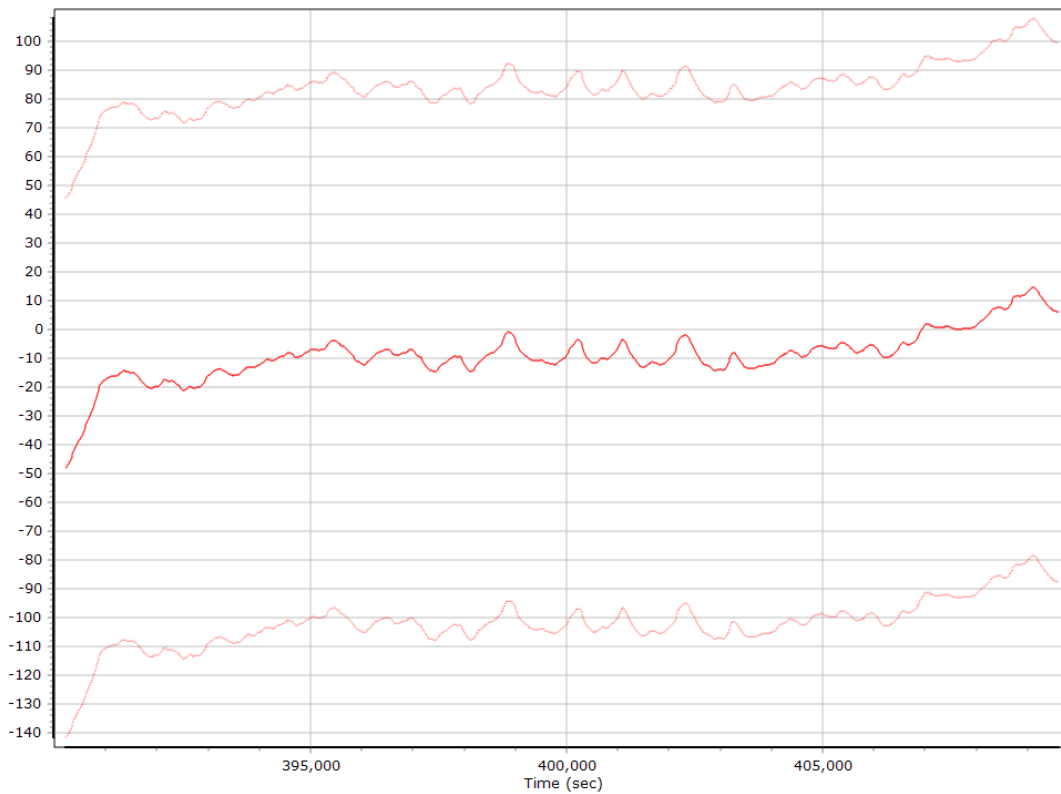
X Accelerometer Bias (micro-g)



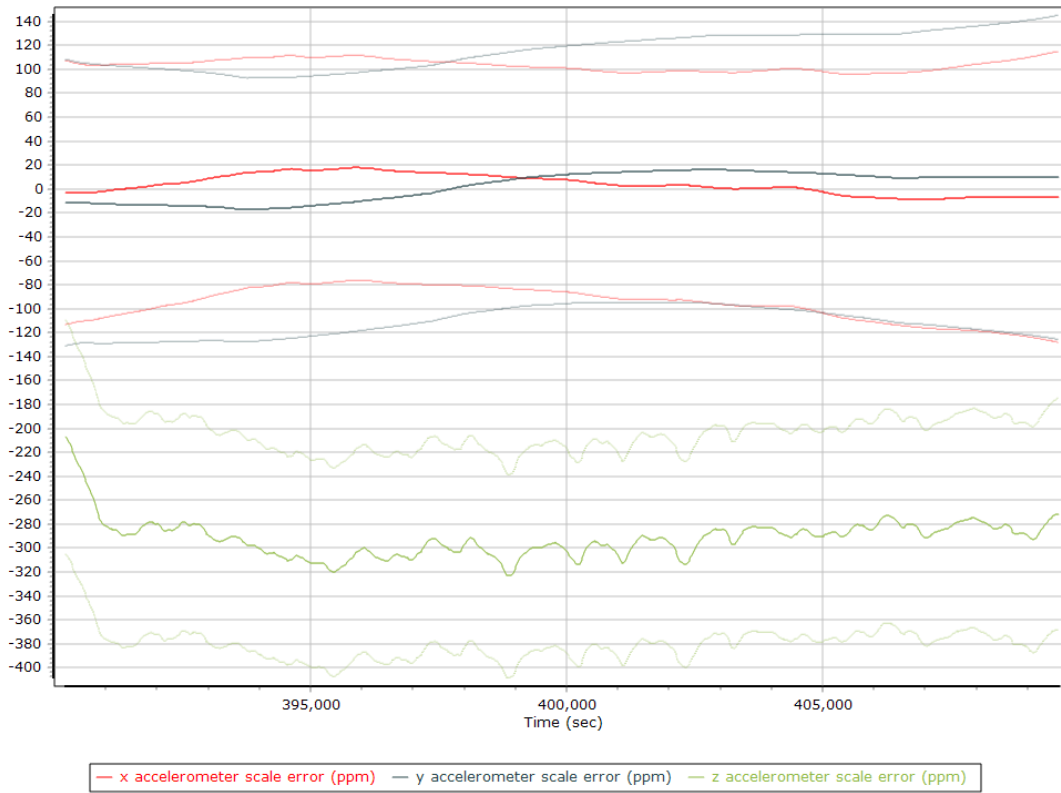
Y Accelerometer Bias (micro-g)



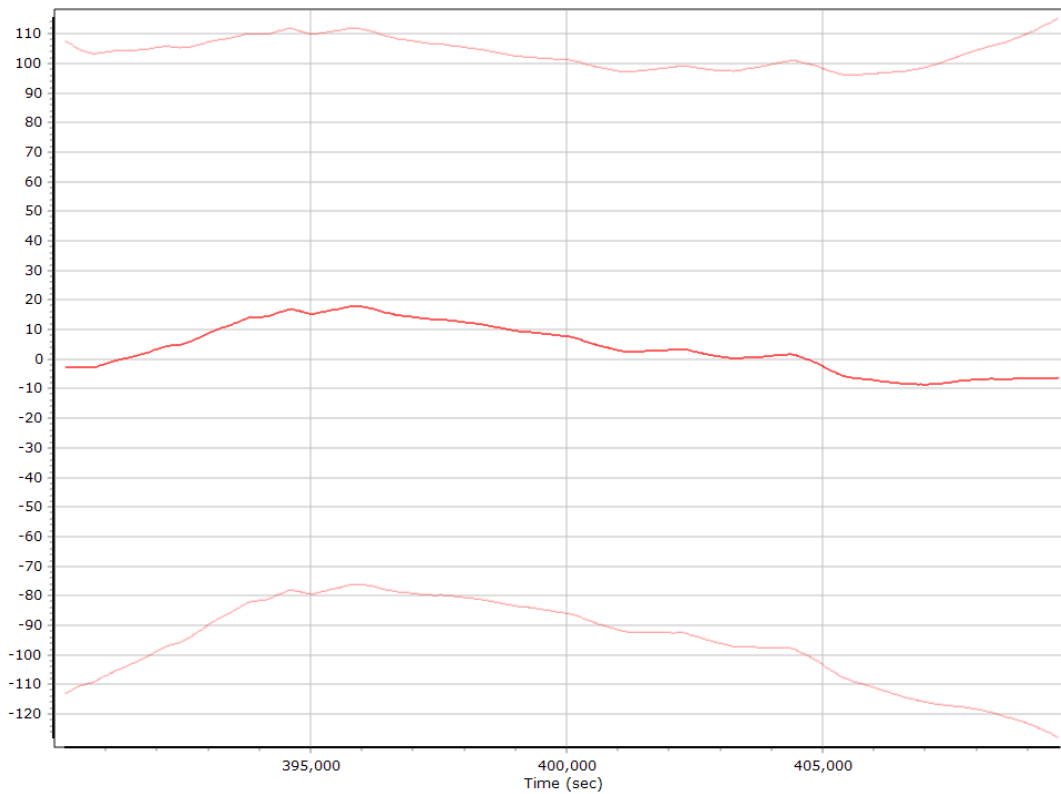
Z Accelerometer Bias (micro-g)



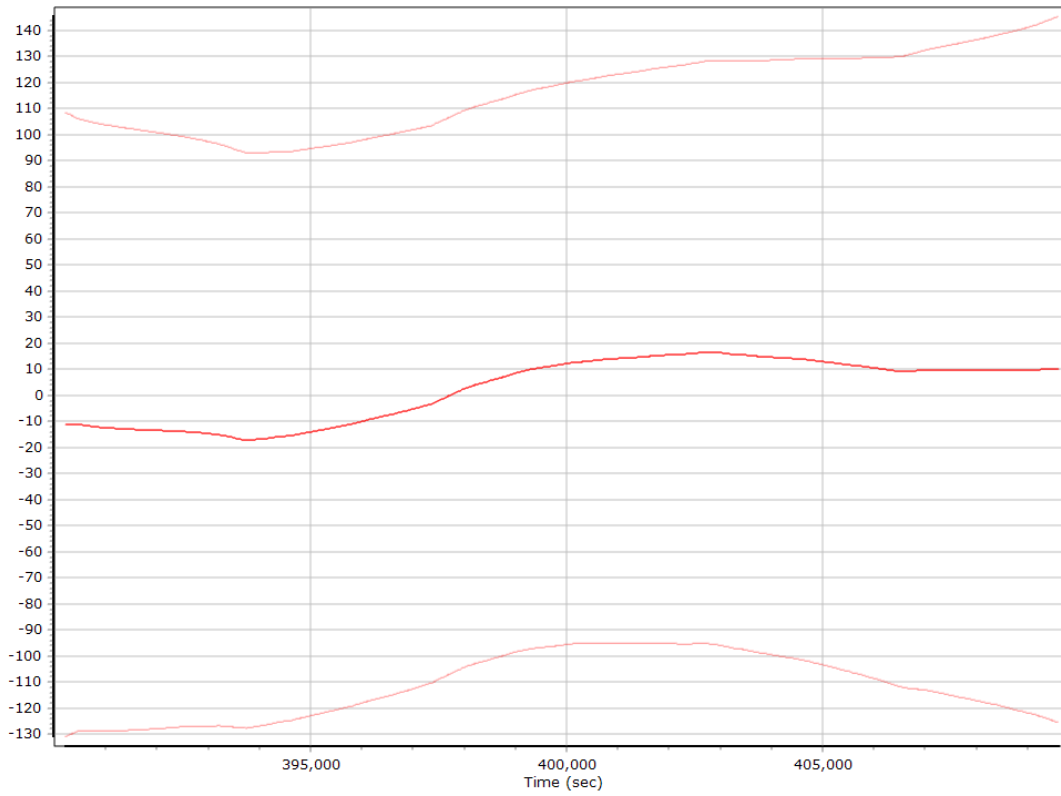
Accelerometer Scale Error (ppm)



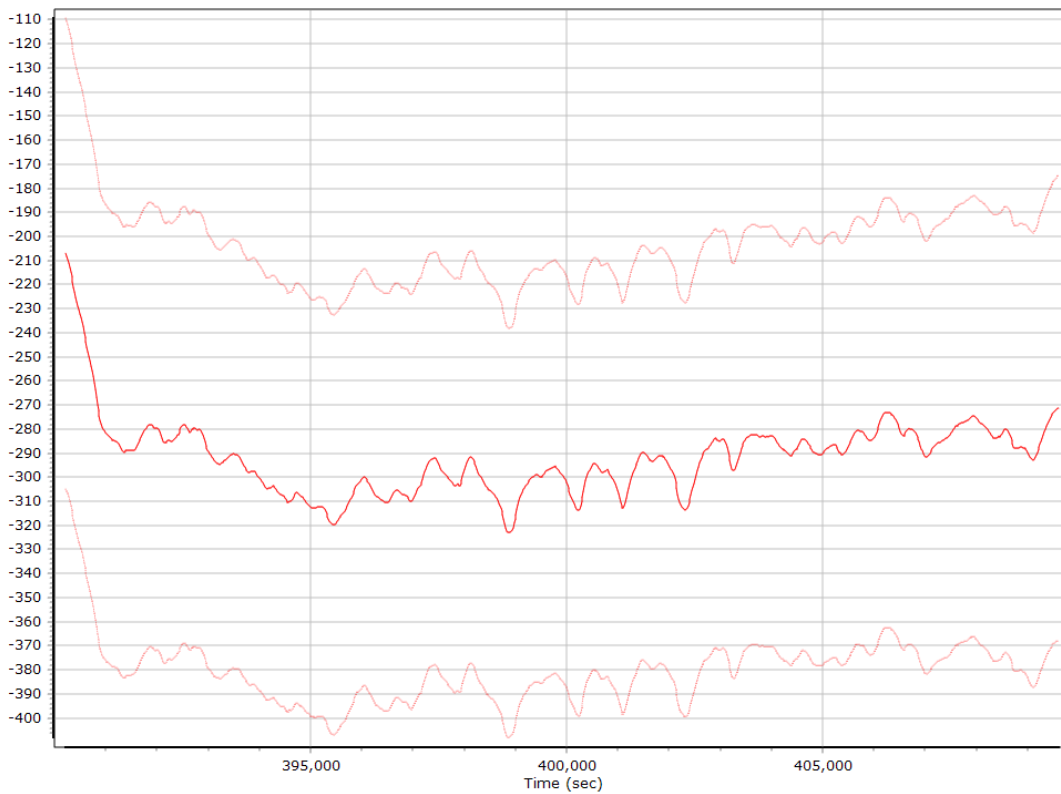
X Accelerometer Scale Error (ppm)



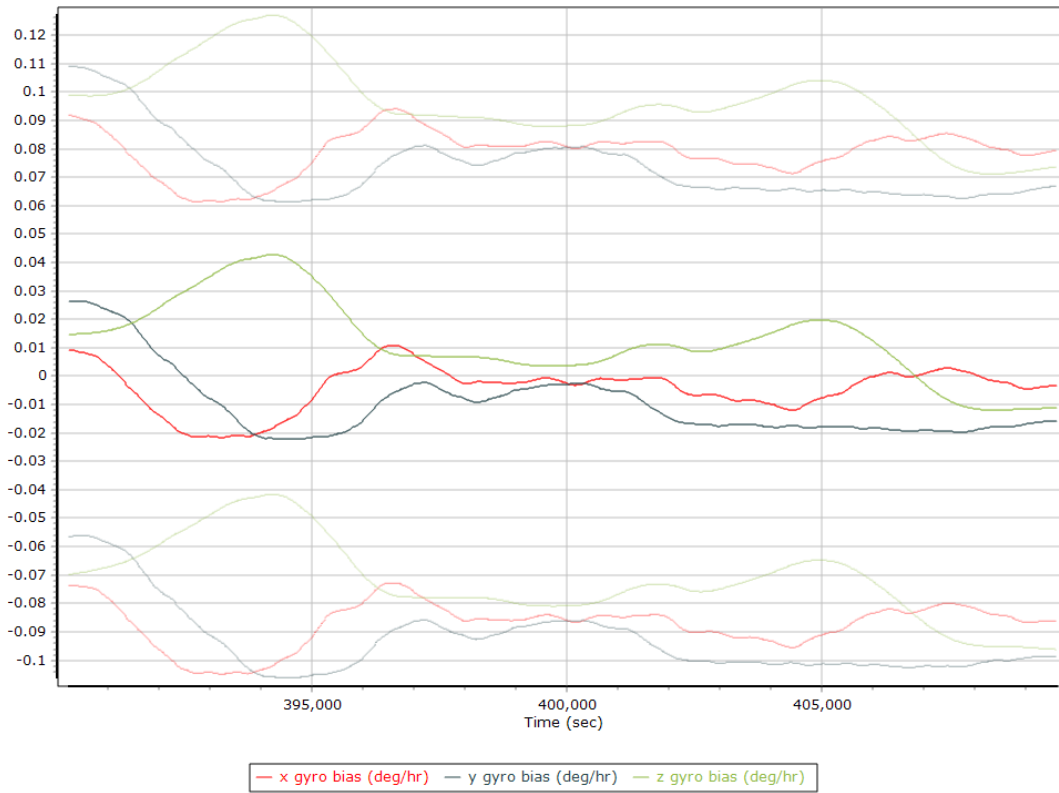
Y Accelerometer Scale Error (ppm)



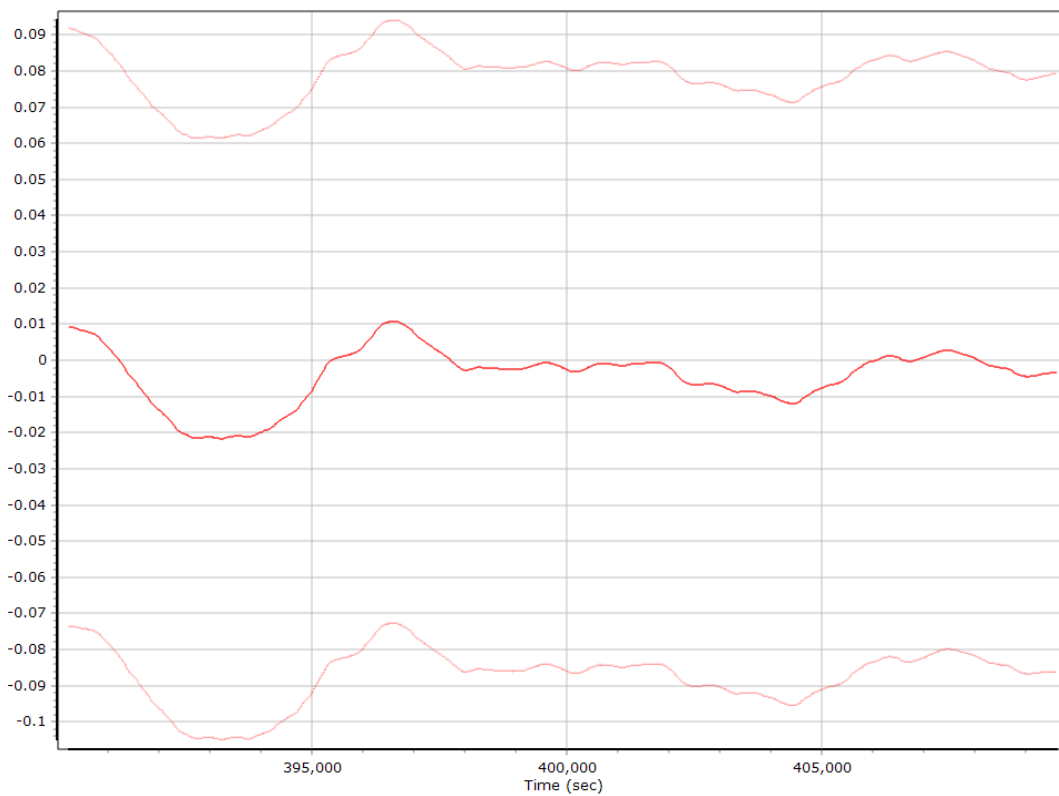
Z Accelerometer Scale Error (ppm)



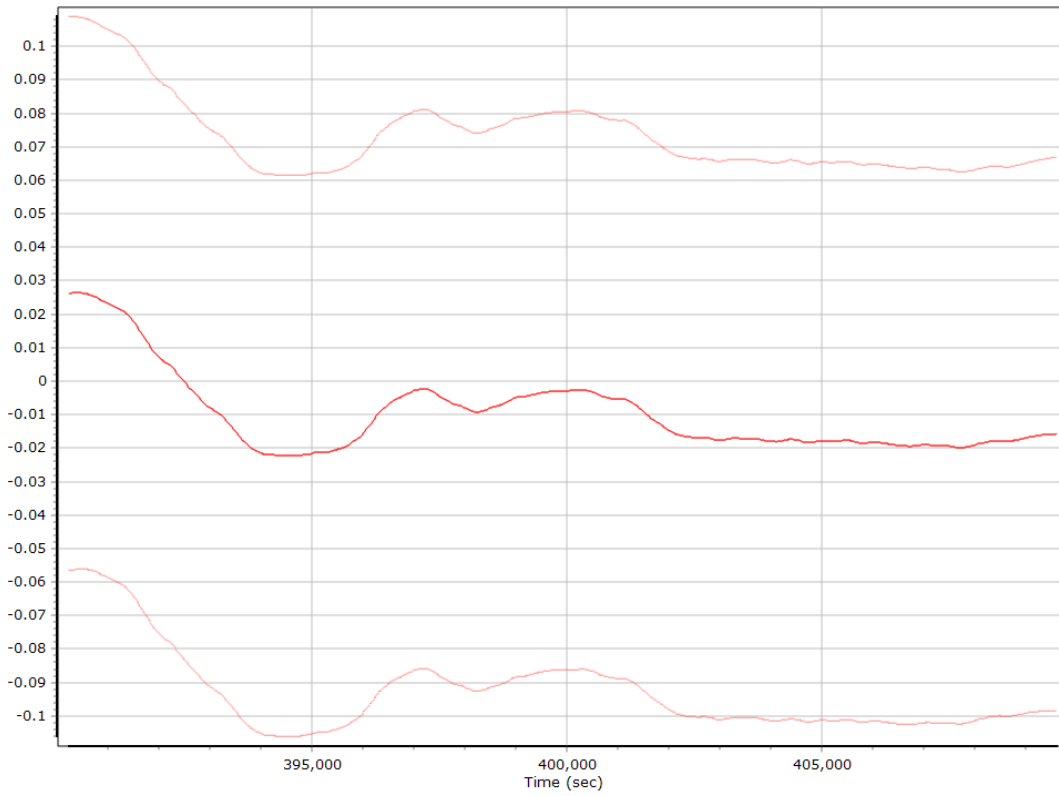
Gyro Bias (deg/h)



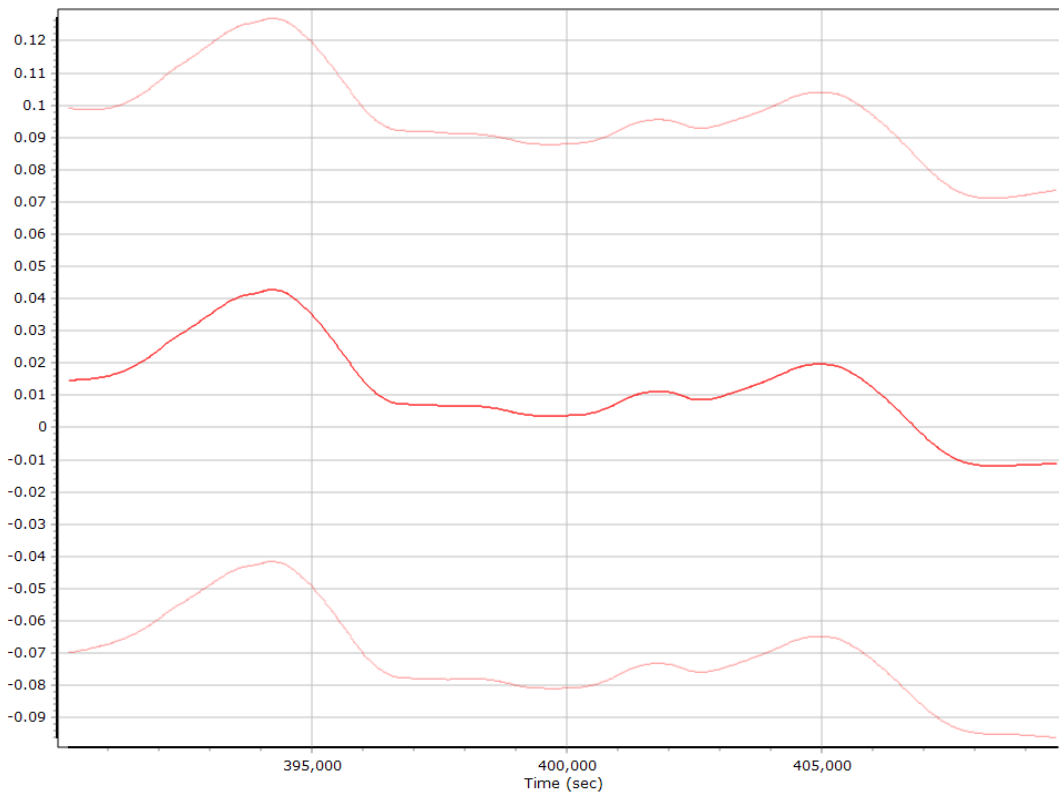
X Gyro Bias (deg/h)



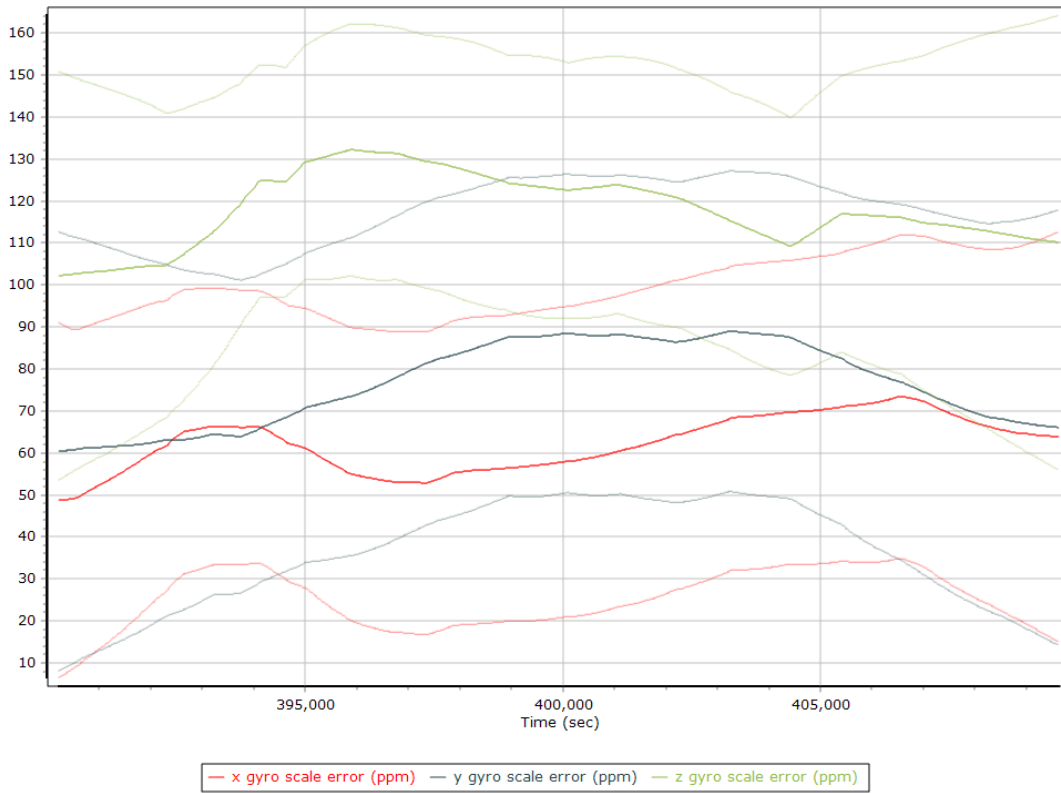
Y Gyro Bias (deg/h)



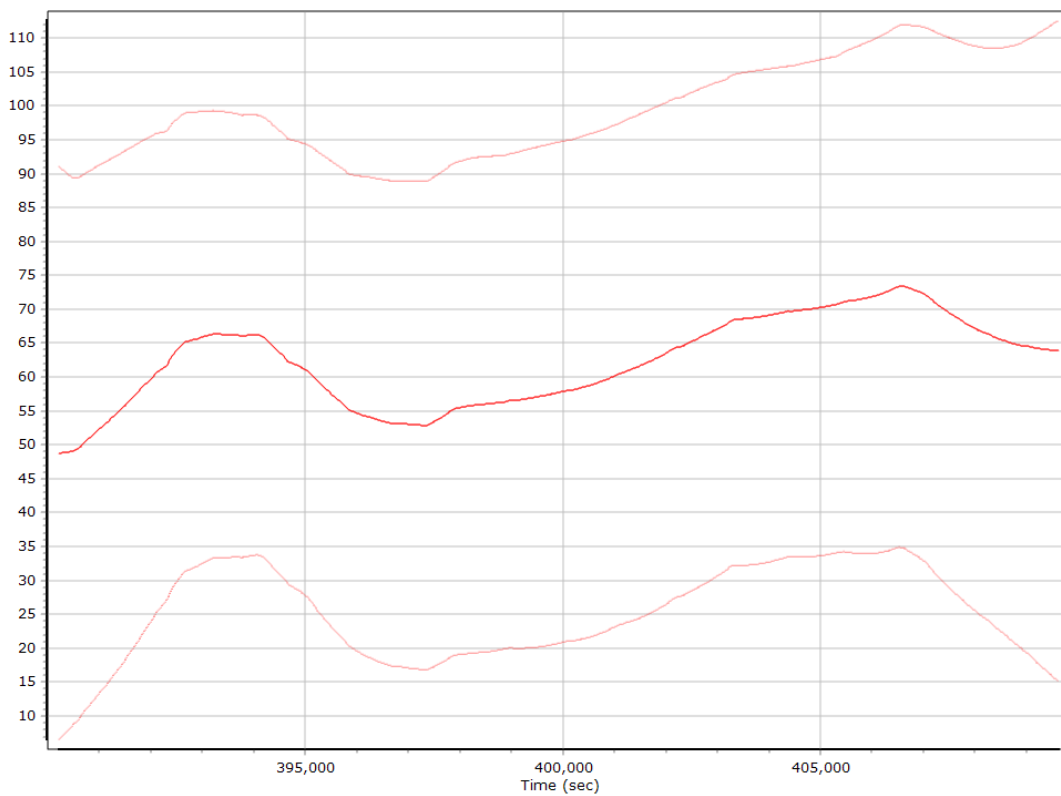
Z Gyro Bias (deg/h)



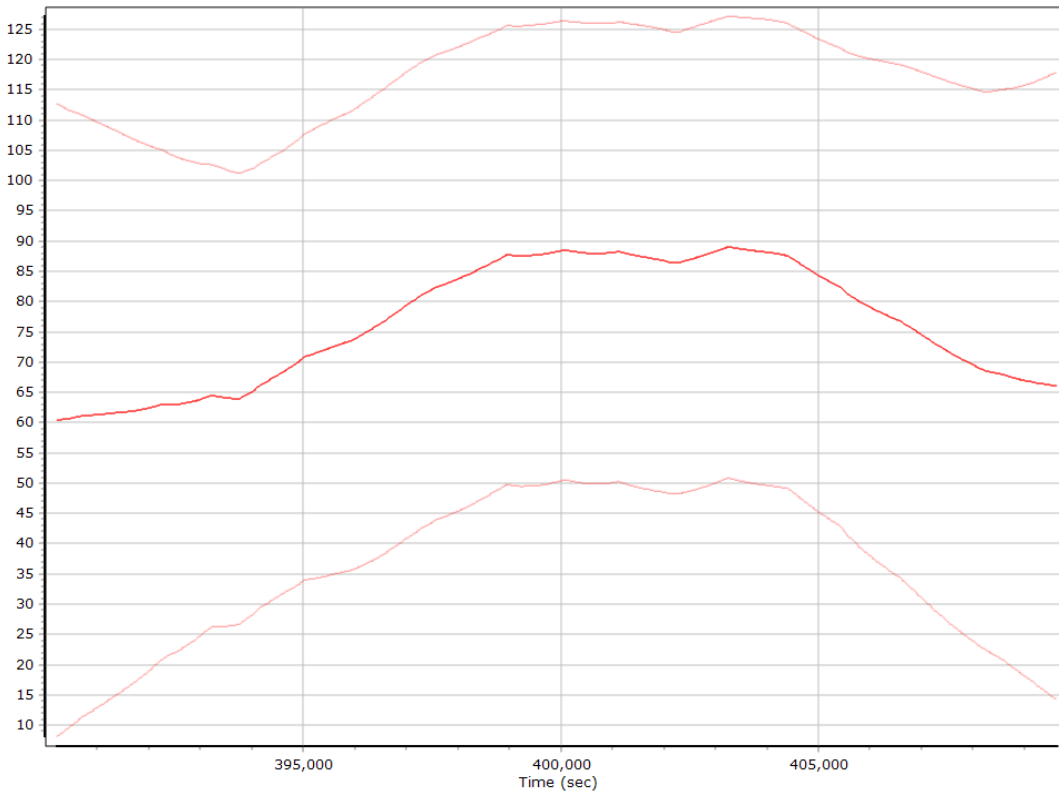
Gyro Scale Error (ppm)



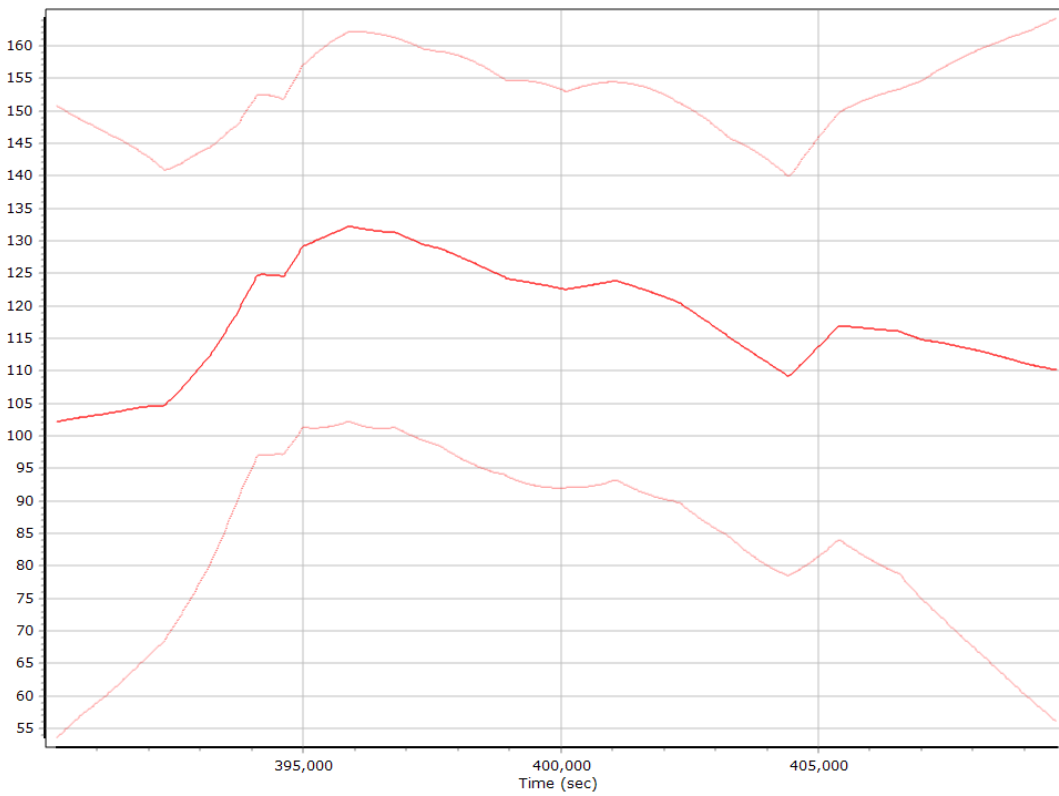
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

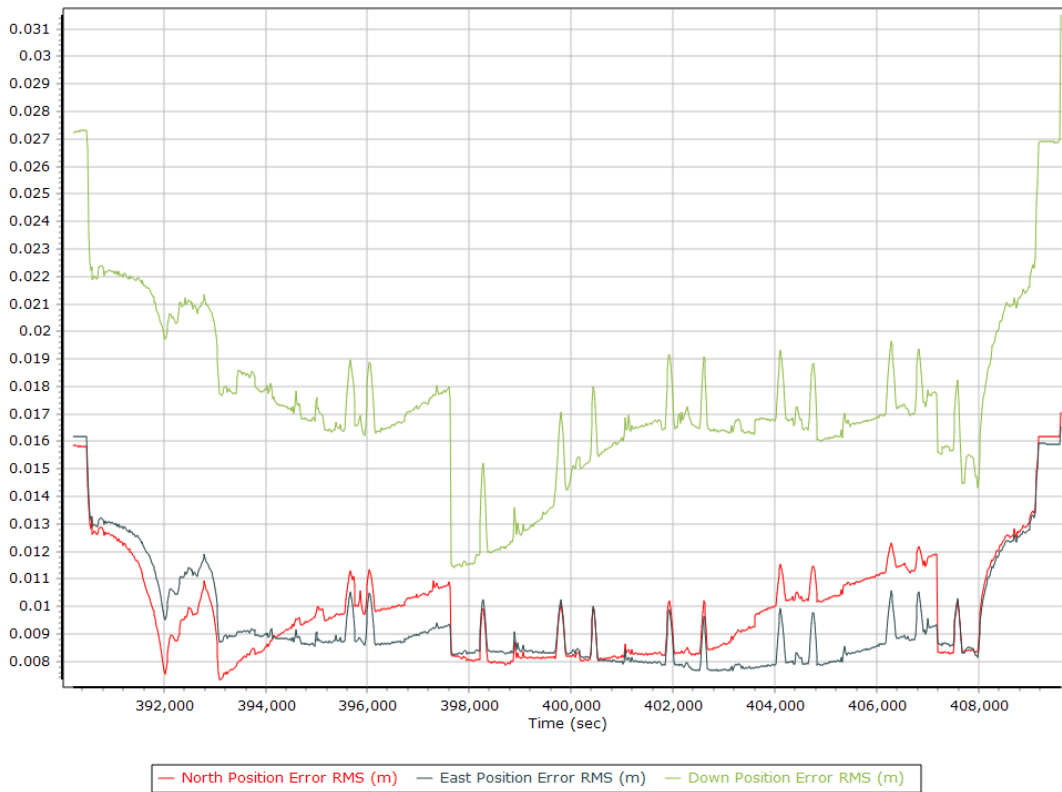


Z Gyro Scale Error (ppm)

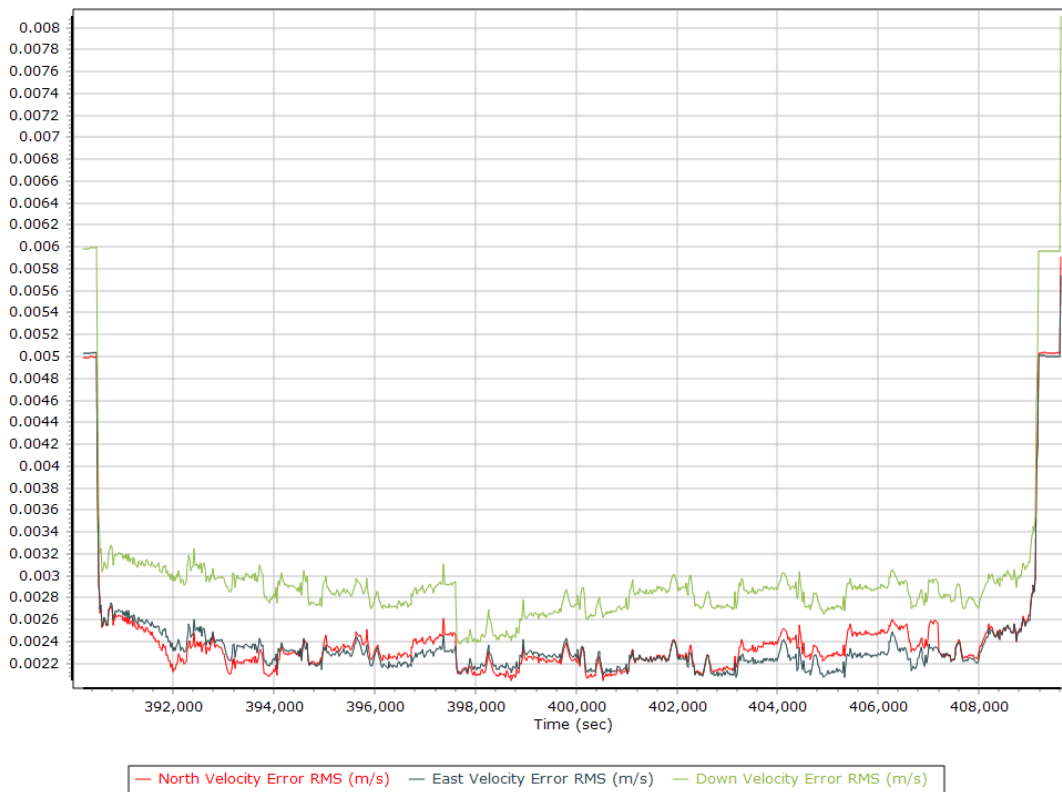


Smoothed Performance Metrics

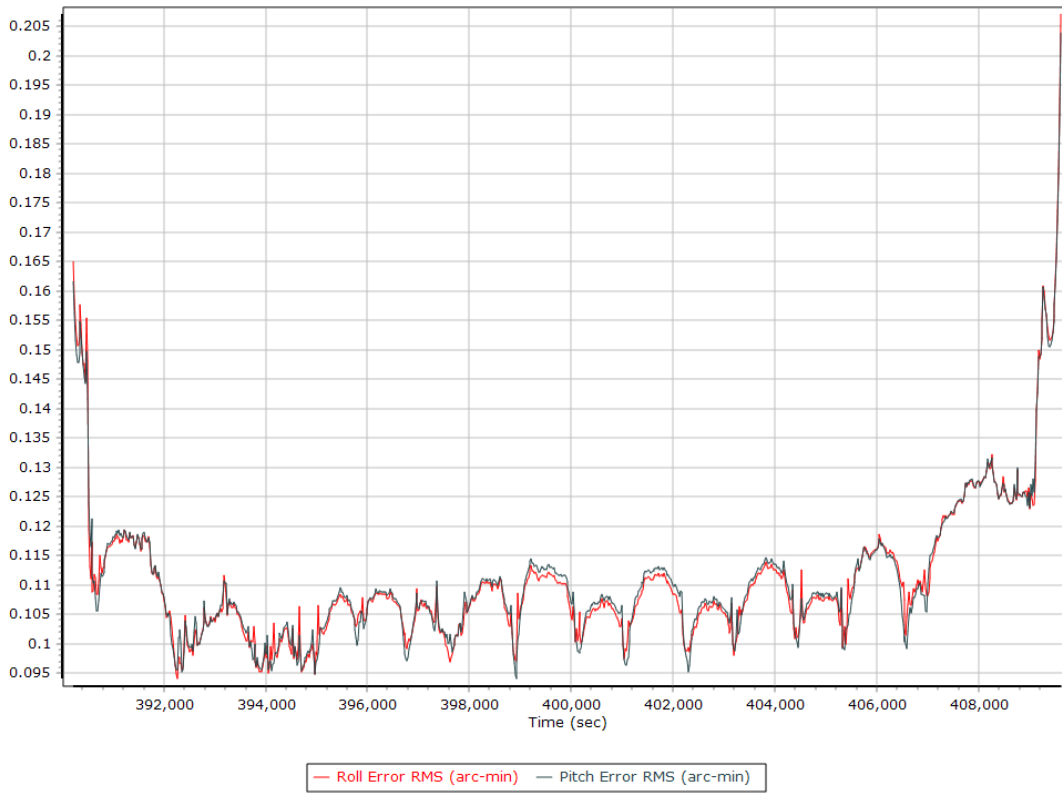
Position Error RMS (m)



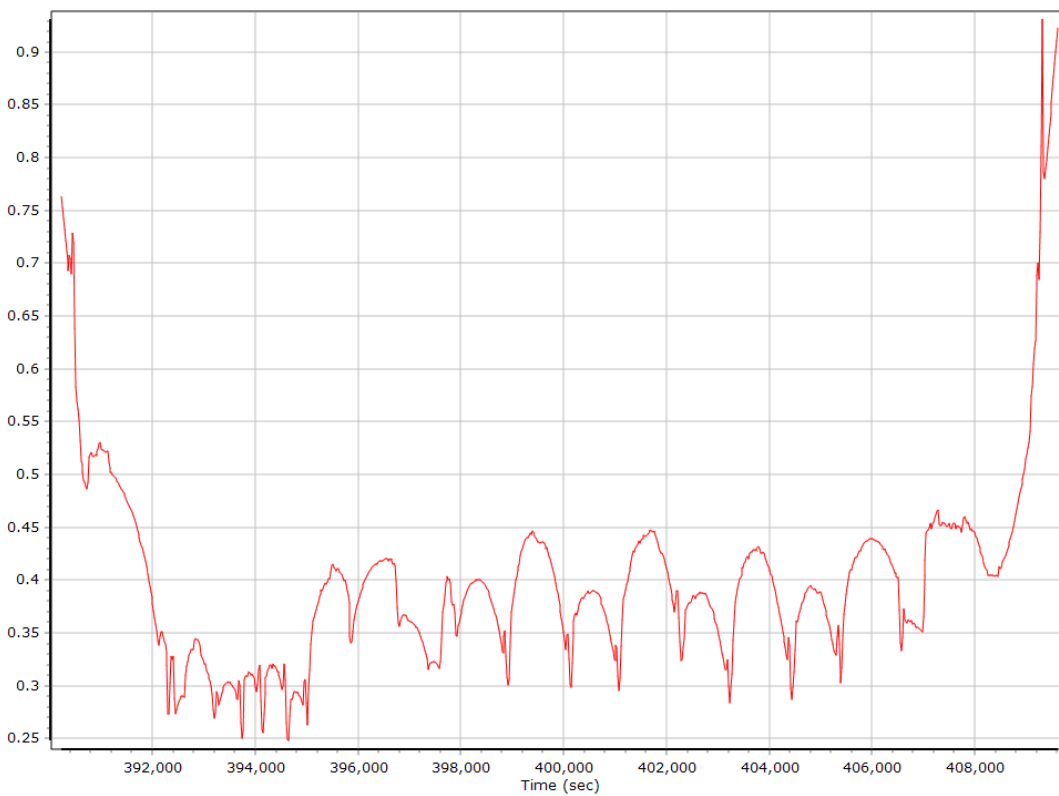
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

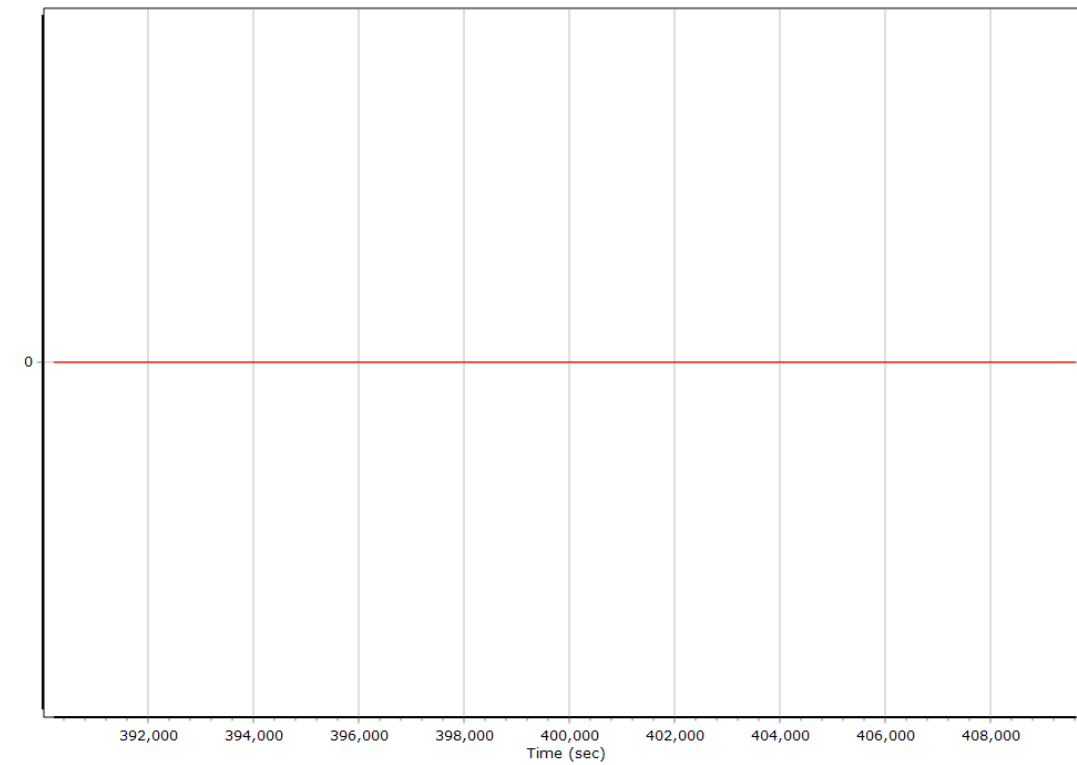


Heading Error RMS (arc-min)



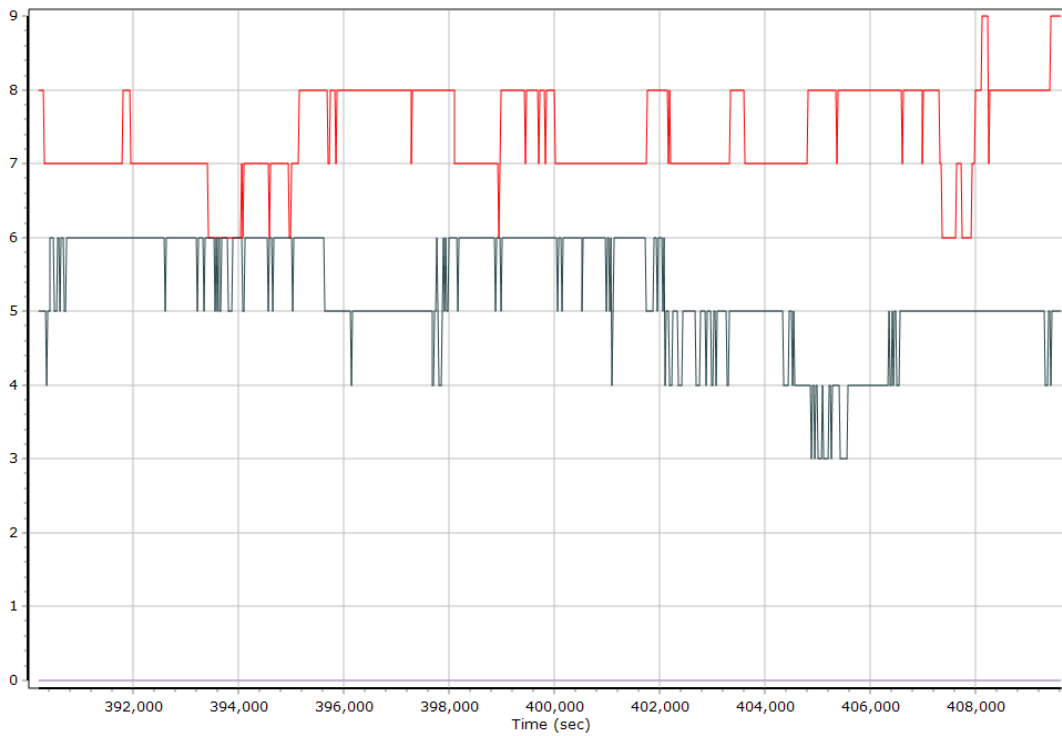
Smoothed Solution Status

Processing Mode



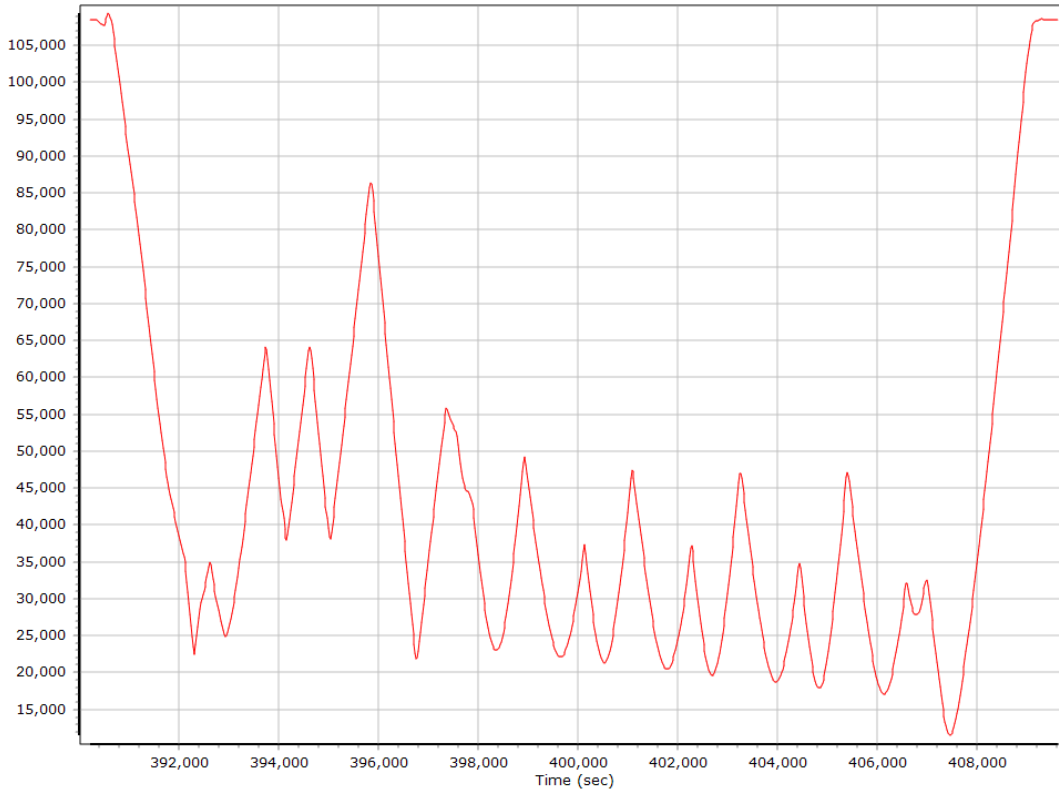
0 = Fixed NL, 1 = Fixed WL, 2 = Float, 3 = DGNSS, 4 = RTCM, 5 = IAPPP, 6 = C/A, 7 = GNSS Nav, 8 = DR

Number of Satellites



— Number of GPS Satellites — Number of GLONASS Satellites — Number of QZSS Satellites — Number of BEIDOU Satellites

Baseline Length



SBET IAKAR Separation

