

General Information

Mission Information

Project name	13284-1806_20190404_10s_mit_1s
Processing date	2019-04-25 14:46:51
Mission date	2019-04-04 12:10:07
Mission duration	04:56:00.040
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
190404_121006_INS-GPS_1.raw	POS Data

Input Files

File Name	File type
Ephm0940.19g	GLONASS Broadcast Ephemeris
Ephm0940.19n	GPS Broadcast Ephemeris
igl20473.sp3	GLONASS Precise Ephemeris
igl20474.sp3	GLONASS Precise Ephemeris
igl20475.sp3	GLONASS Precise Ephemeris
igs20473.sp3	GPS Precise Ephemeris
igs20474.sp3	GPS Precise Ephemeris
igs20475.sp3	GPS Precise Ephemeris
bkvl0940.19g	GLONASS Broadcast Ephemeris
flhs0940.19g	GLONASS Broadcast Ephemeris
flhs0940.19n	GPS Broadcast Ephemeris
flhs0940.19o	GNSS SingleBase
flks0940.19g	GLONASS Broadcast Ephemeris
flks0940.19n	GPS Broadcast Ephemeris
flks0940.19o	GNSS SingleBase
gnvl0940.19g	GLONASS Broadcast Ephemeris
fleu0940.19o	GNSS SingleBase
gnvl0940.19n	GPS Broadcast Ephemeris
ormd0940.19g	GLONASS Broadcast Ephemeris
ormd0940.19n	GPS Broadcast Ephemeris
ormd0940.19o	GNSS SingleBase
snfd0940.19g	GLONASS Broadcast Ephemeris
snfd0940.19n	GPS Broadcast Ephemeris
snfd0940.19o	GNSS SingleBase
zefr0940.19g	GLONASS Broadcast Ephemeris
gnvl0940.19o	GNSS SingleBase
zefr0940.19n	GPS Broadcast Ephemeris
fleu0940.19n	GPS Broadcast Ephemeris
flem0940.19o	GNSS SingleBase
bkvl0940.19n	GPS Broadcast Ephemeris
bkvl0940.19o	GNSS SingleBase
dln0940.19g	GLONASS Broadcast Ephemeris
dln0940.19n	GPS Broadcast Ephemeris
dln0940.19o	GNSS SingleBase
dunn0940.19g	GLONASS Broadcast Ephemeris
dunn0940.19n	GPS Broadcast Ephemeris
fleu0940.19g	GLONASS Broadcast Ephemeris
dunn0940.19o	GNSS SingleBase
flbn0940.19n	GPS Broadcast Ephemeris
flbn0940.19o	GNSS SingleBase
flcc0940.19g	GLONASS Broadcast Ephemeris
flcc0940.19n	GPS Broadcast Ephemeris
flcc0940.19o	GNSS SingleBase
flem0940.19g	GLONASS Broadcast Ephemeris
flem0940.19n	GPS Broadcast Ephemeris
flbn0940.19g	GLONASS Broadcast Ephemeris
zefr0940.19o	GNSS SingleBase
avon094m00.19o.gps+glo.rnx2	GNSS SingleBase
bart094m00.19o.gps+glo.rnx2	GNSS SingleBase
crnr094m00.19o.gps+glo.rnx2	GNSS SingleBase
flbf094m00.19o.gps+glo.rnx2	GNSS SingleBase
flfd094m00.19o.gps+glo.rnx2	GNSS SingleBase
flfr094m00.19o.gps+glo.rnx2	GNSS SingleBase
fllp094m00.19o.gps+glo.rnx2	GNSS SingleBase
flmc094m00.19o.gps+glo.rnx2	GNSS SingleBase

File Name	File type
frut094m00.19o.gps+glo.rnx2	GNSS SingleBase
gsps094m00.19o.gps+glo.rnx2	GNSS SingleBase
kreg094m00.19o.gps+glo.rnx2	GNSS SingleBase
lkcy094m00.19o.gps+glo.rnx2	GNSS SingleBase
okcb094m00.19o.gps+glo.rnx2	GNSS SingleBase
wach094m00.19o.gps+glo.rnx2	GNSS SingleBase
xcty094m00.19o.gps+glo.rnx2	GNSS SingleBase

Output Files

Filename	File type
sbet_Mission 1.out	SBET Trajectory File

Rover Data Summary

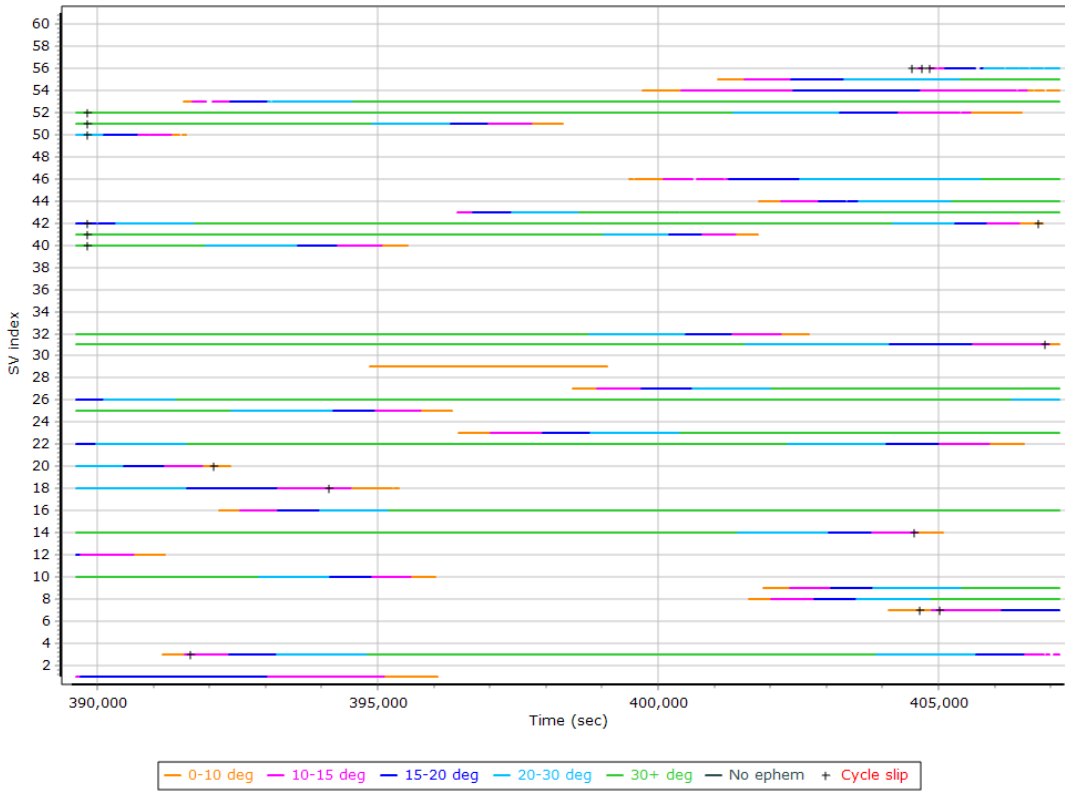
First raw data file	190404_121006_INS-GPS_1.raw		
Last raw data file	190404_121006_INS-GPS_1.raw		
Start GPS week	2047		
Start time	389406.411 (4/4/2019 12:09:48 PM)		
End time	407166.451 (4/4/2019 5:05:48 PM)		
Start of fine alignment	389567.056 (4/4/2019 12:12:29 PM)		
Available subsystems	Primary 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

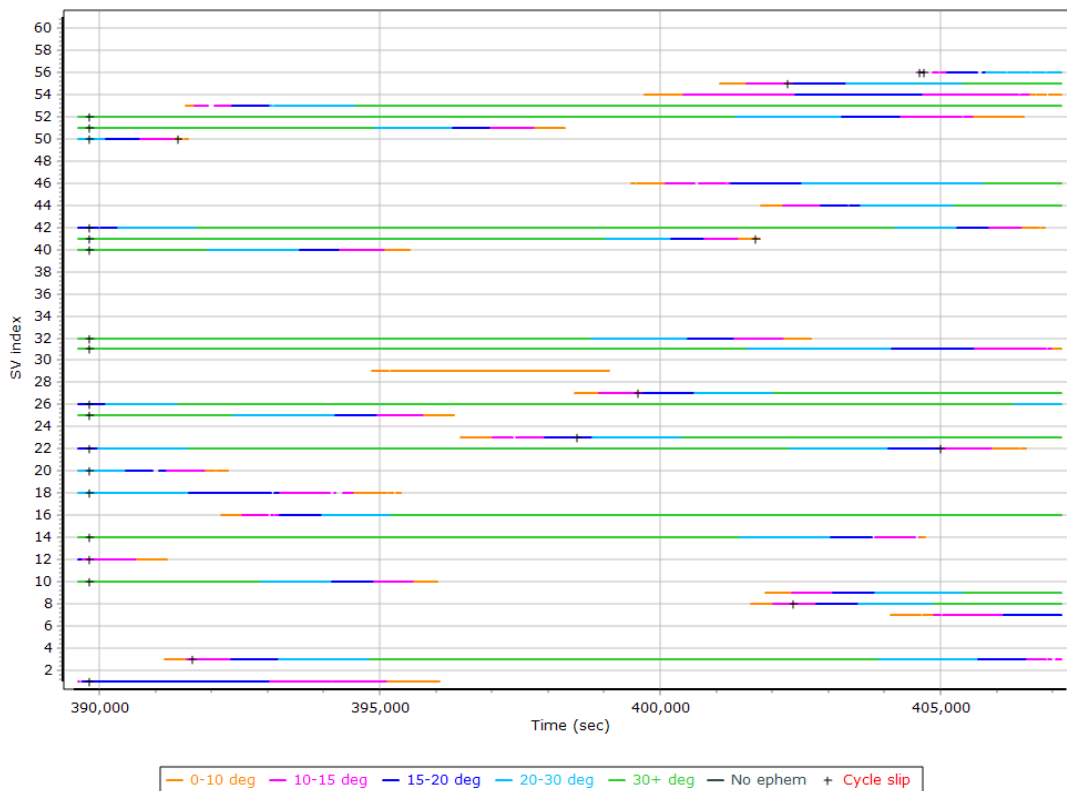
Raw IMU Import QC Summary

IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_Mission 1.log
IMU Records Processed	3551322
Termination Status	Normal
IMU Anomalies	0

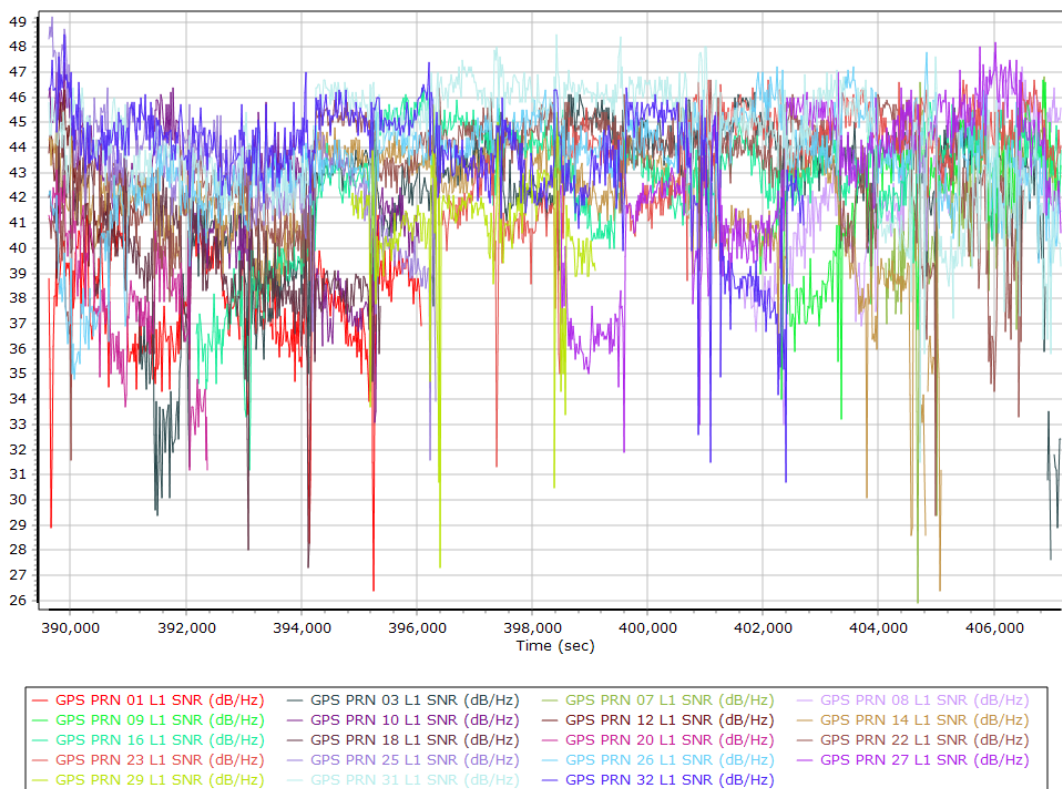
L1 Satellite Lock/Elevation



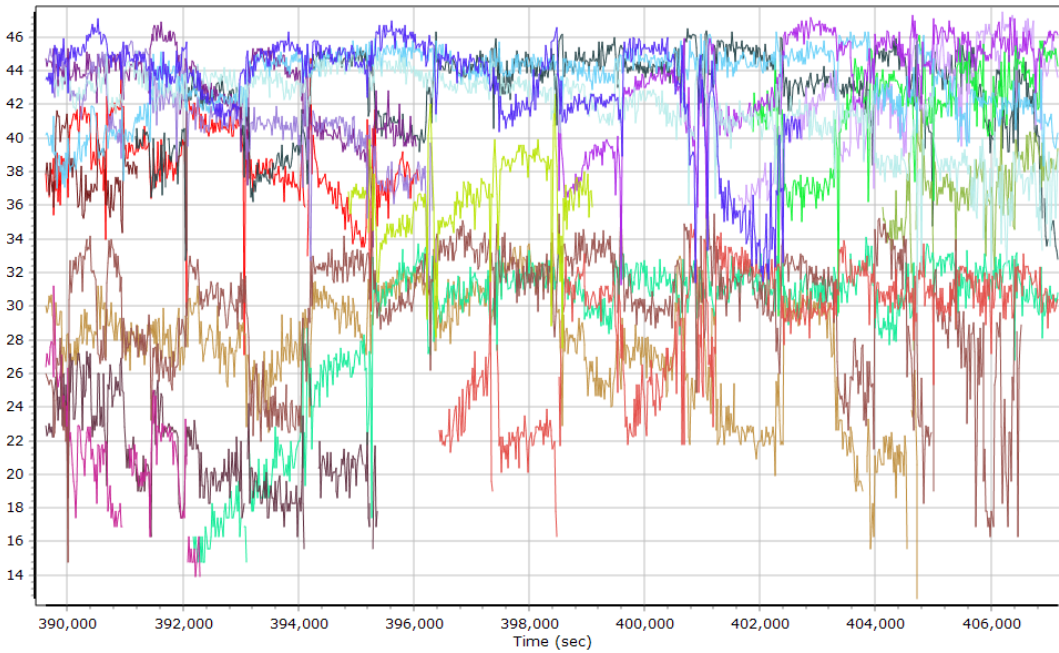
L2 Satellite Lock/Elevation



GPS L1 SNR

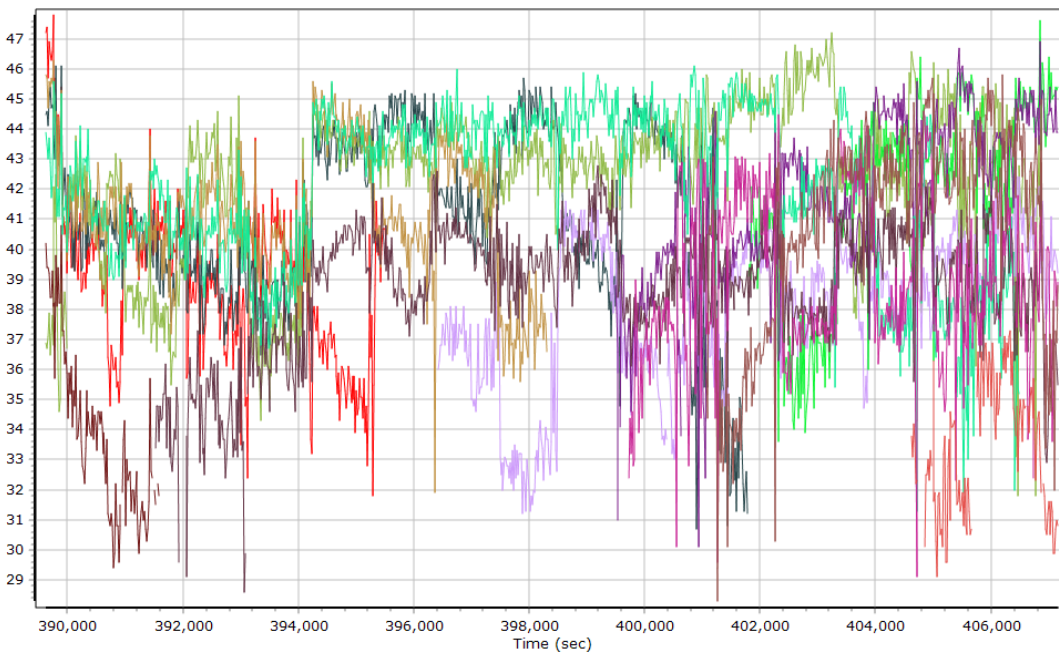


GPS L2 SNR



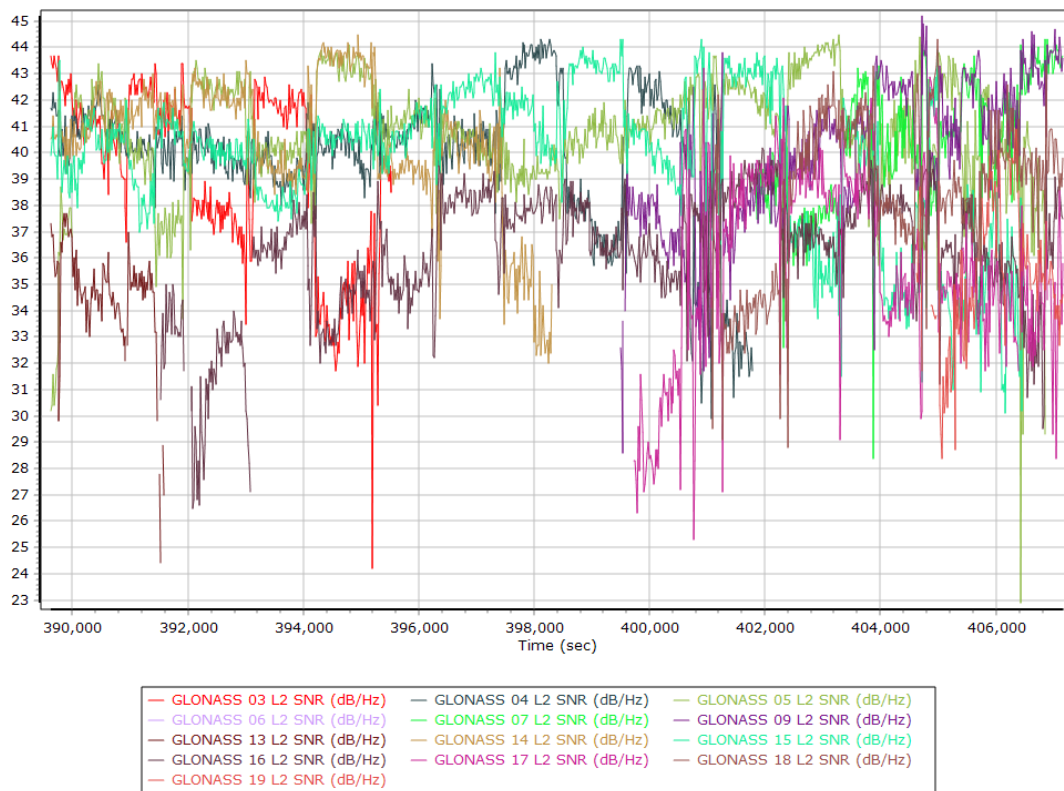
- | | | | |
|---------------------------|---------------------------|---------------------------|---------------------------|
| GPS PRN 01 L2 SNR (dB/Hz) | GPS PRN 03 L2 SNR (dB/Hz) | GPS PRN 07 L2 SNR (dB/Hz) | GPS PRN 08 L2 SNR (dB/Hz) |
| GPS PRN 09 L2 SNR (dB/Hz) | GPS PRN 10 L2 SNR (dB/Hz) | GPS PRN 12 L2 SNR (dB/Hz) | GPS PRN 14 L2 SNR (dB/Hz) |
| GPS PRN 16 L2 SNR (dB/Hz) | GPS PRN 18 L2 SNR (dB/Hz) | GPS PRN 20 L2 SNR (dB/Hz) | GPS PRN 22 L2 SNR (dB/Hz) |
| GPS PRN 23 L2 SNR (dB/Hz) | GPS PRN 25 L2 SNR (dB/Hz) | GPS PRN 26 L2 SNR (dB/Hz) | GPS PRN 27 L2 SNR (dB/Hz) |
| GPS PRN 29 L2 SNR (dB/Hz) | GPS PRN 31 L2 SNR (dB/Hz) | GPS PRN 32 L2 SNR (dB/Hz) | |

GLONASS L1 SNR

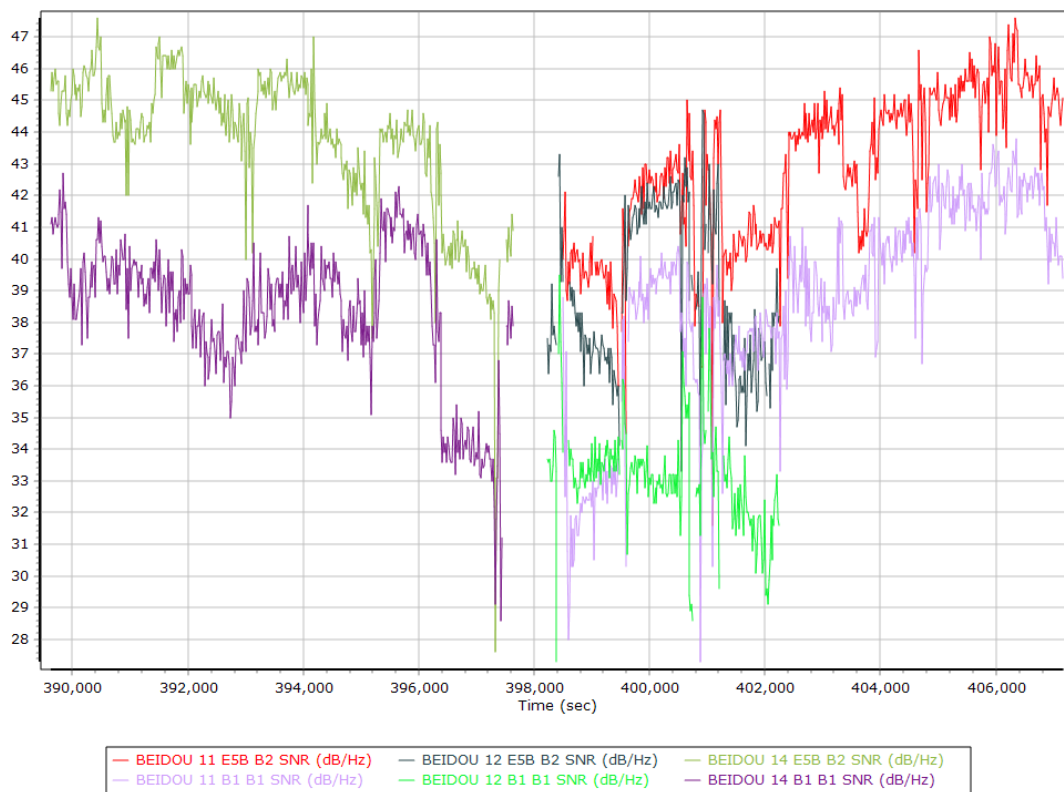


- | | | |
|---------------------------|---------------------------|---------------------------|
| GLONASS 03 L1 SNR (dB/Hz) | GLONASS 04 L1 SNR (dB/Hz) | GLONASS 05 L1 SNR (dB/Hz) |
| GLONASS 06 L1 SNR (dB/Hz) | GLONASS 07 L1 SNR (dB/Hz) | GLONASS 09 L1 SNR (dB/Hz) |
| GLONASS 13 L1 SNR (dB/Hz) | GLONASS 14 L1 SNR (dB/Hz) | GLONASS 15 L1 SNR (dB/Hz) |
| GLONASS 16 L1 SNR (dB/Hz) | GLONASS 17 L1 SNR (dB/Hz) | GLONASS 18 L1 SNR (dB/Hz) |
| GLONASS 19 L1 SNR (dB/Hz) | | |

GLONASS L2 SNR

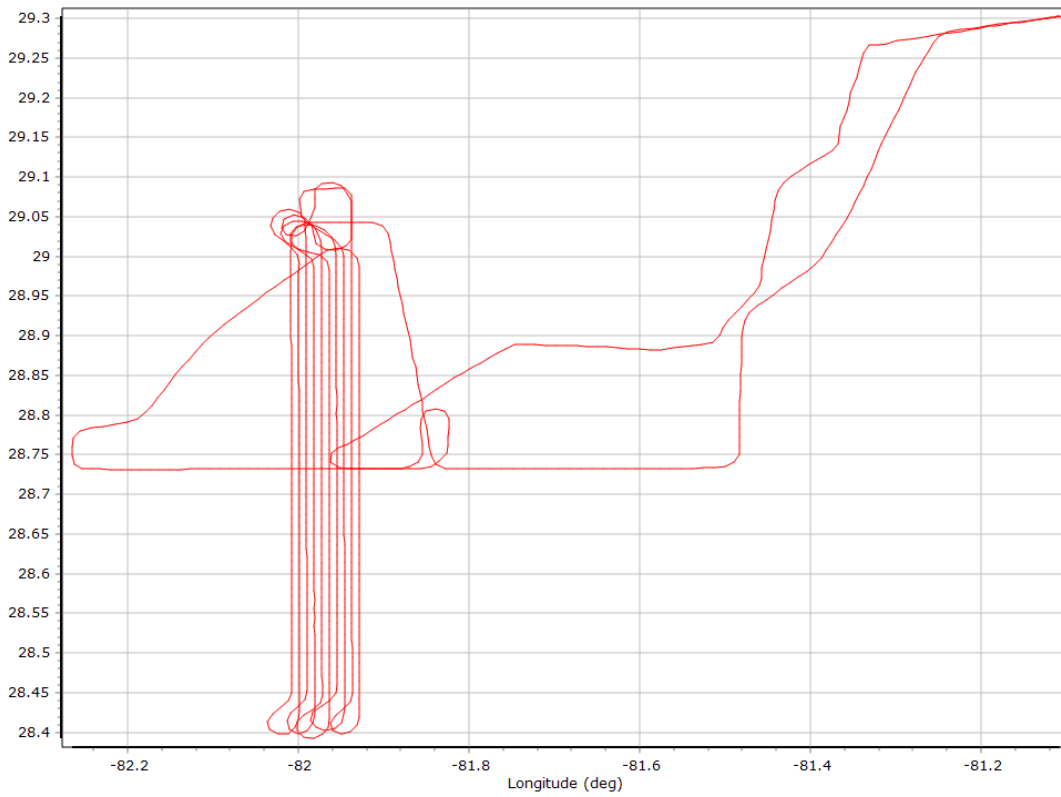


BEIDOU SNR

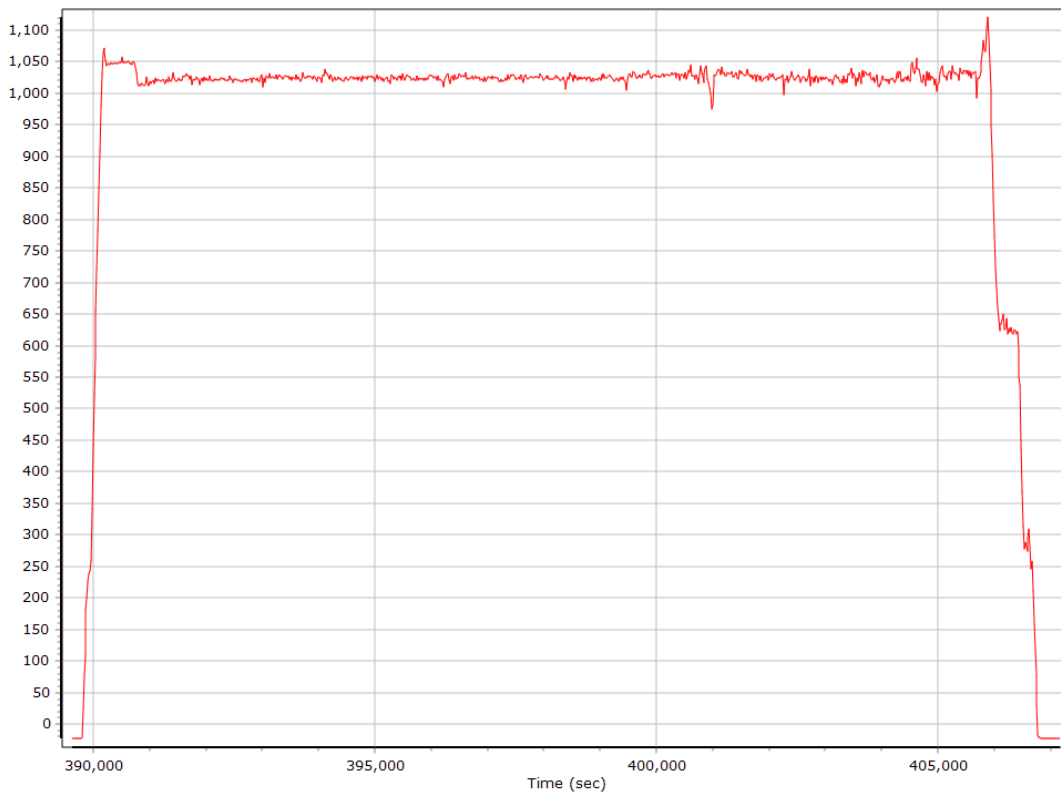


Trajectory Information

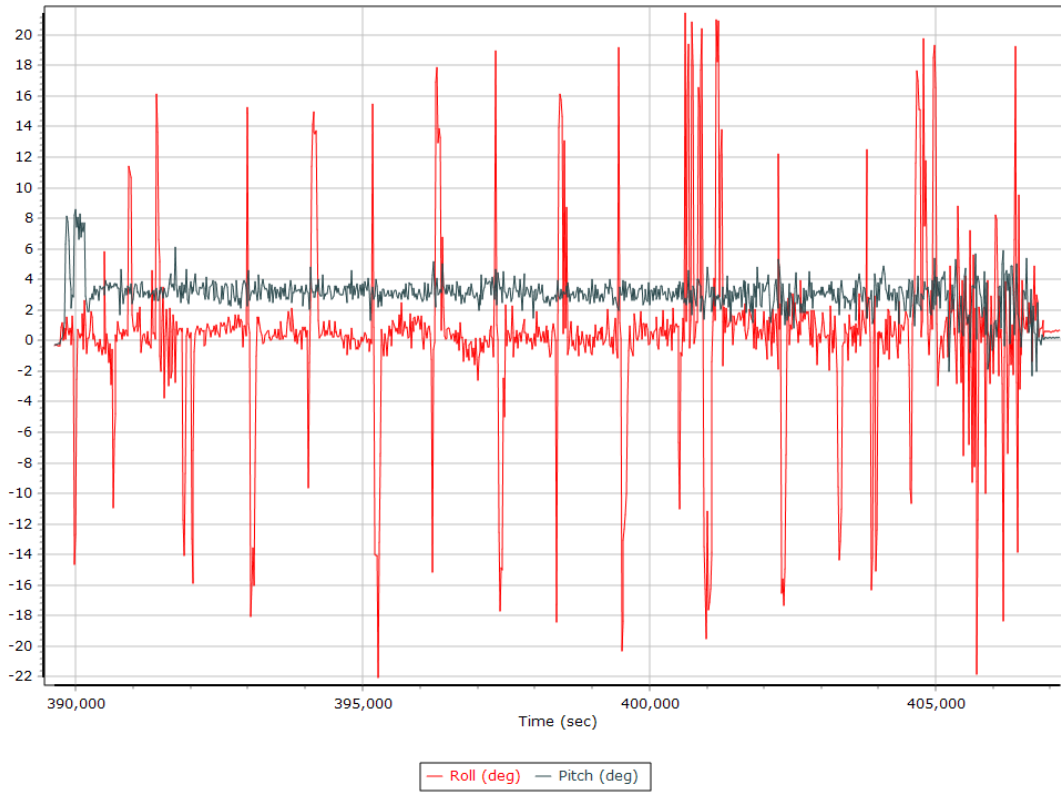
Top View



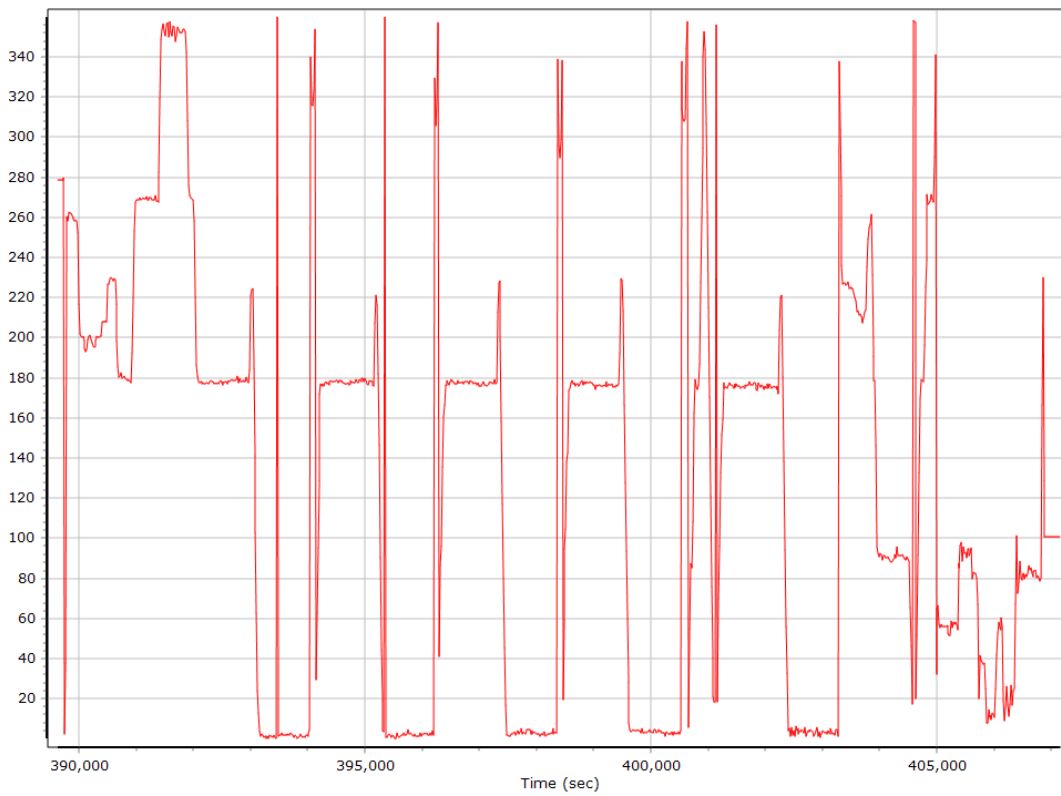
Altitude



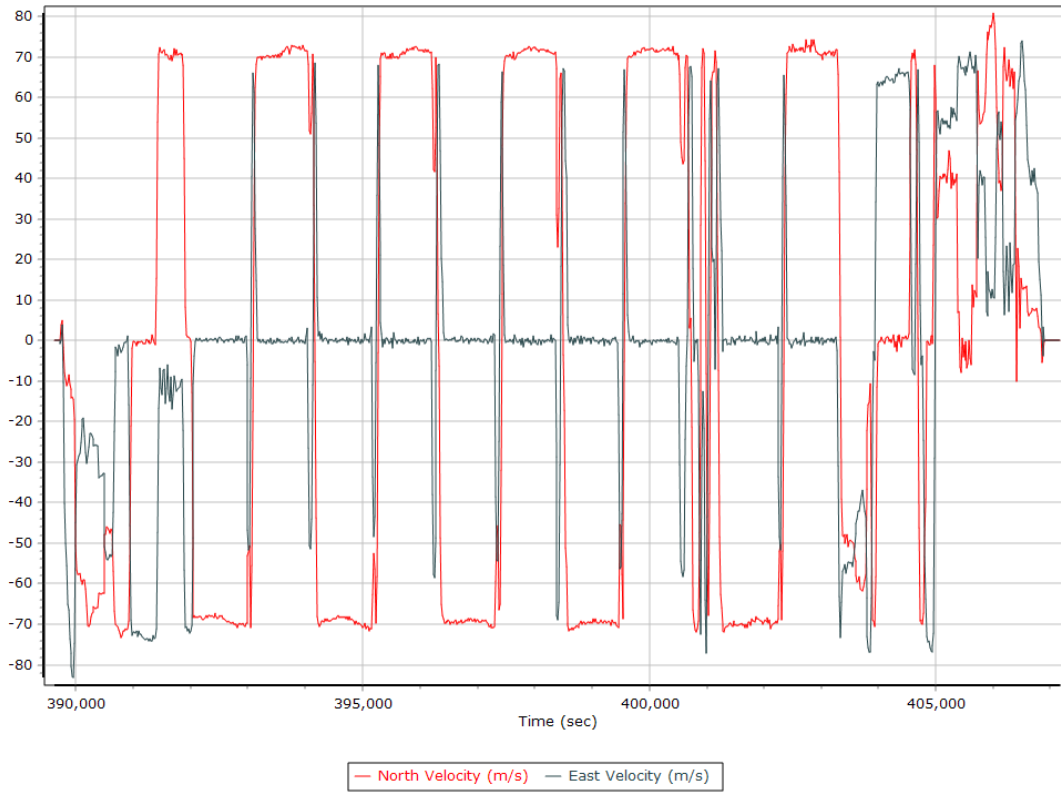
Roll/Pitch



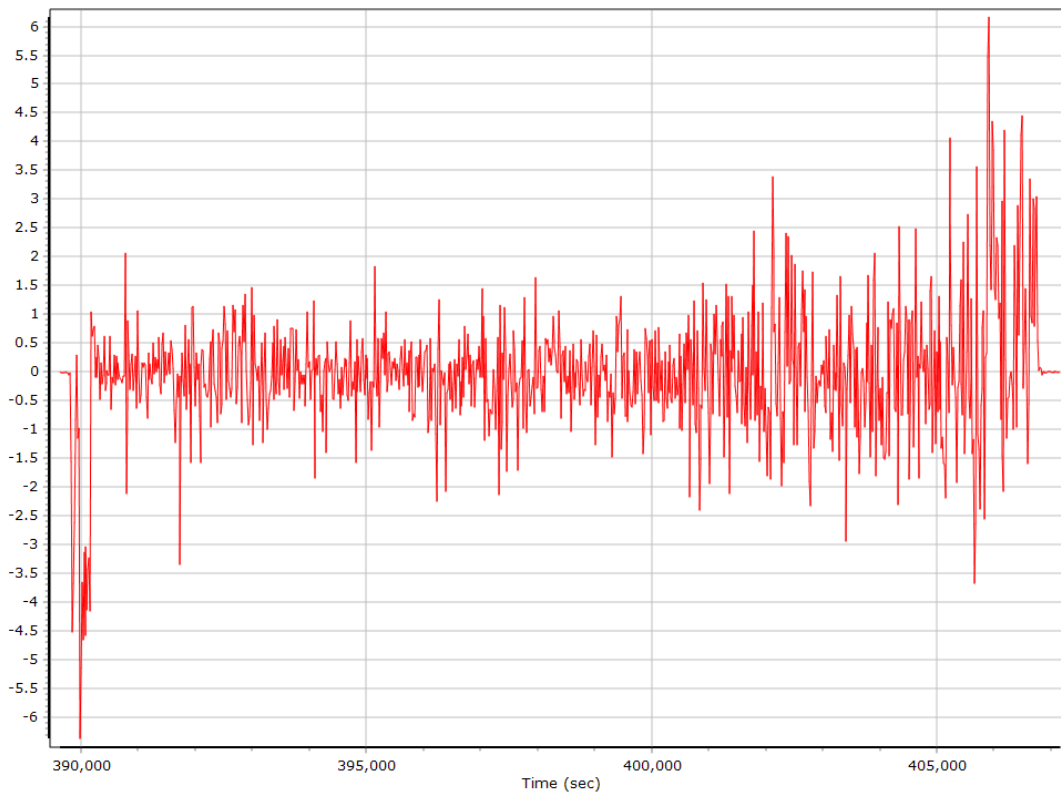
Heading



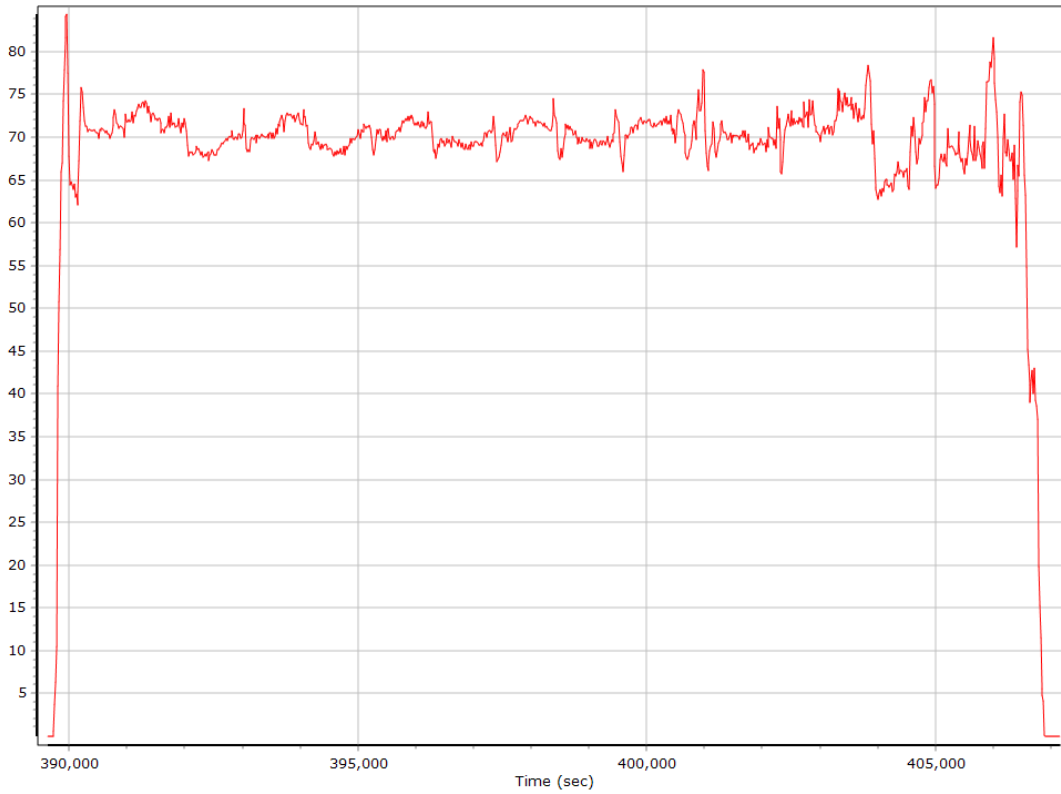
North/East Velocity



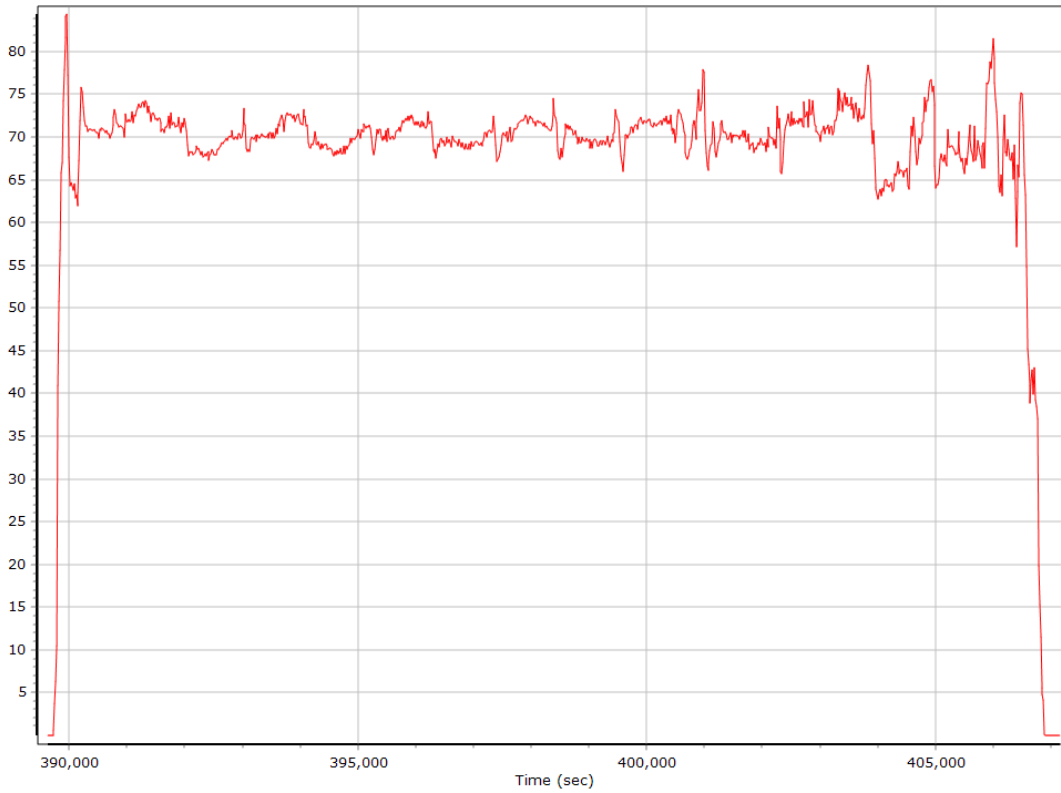
Down Velocity



Total Speed



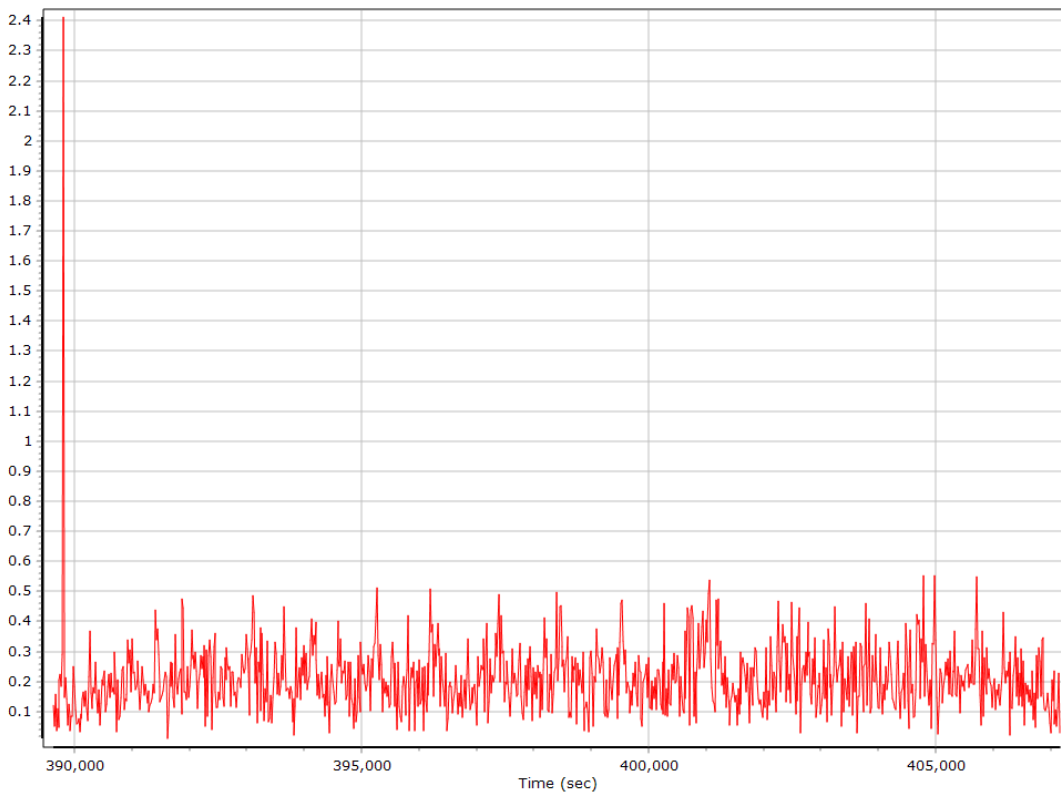
Ground Speed



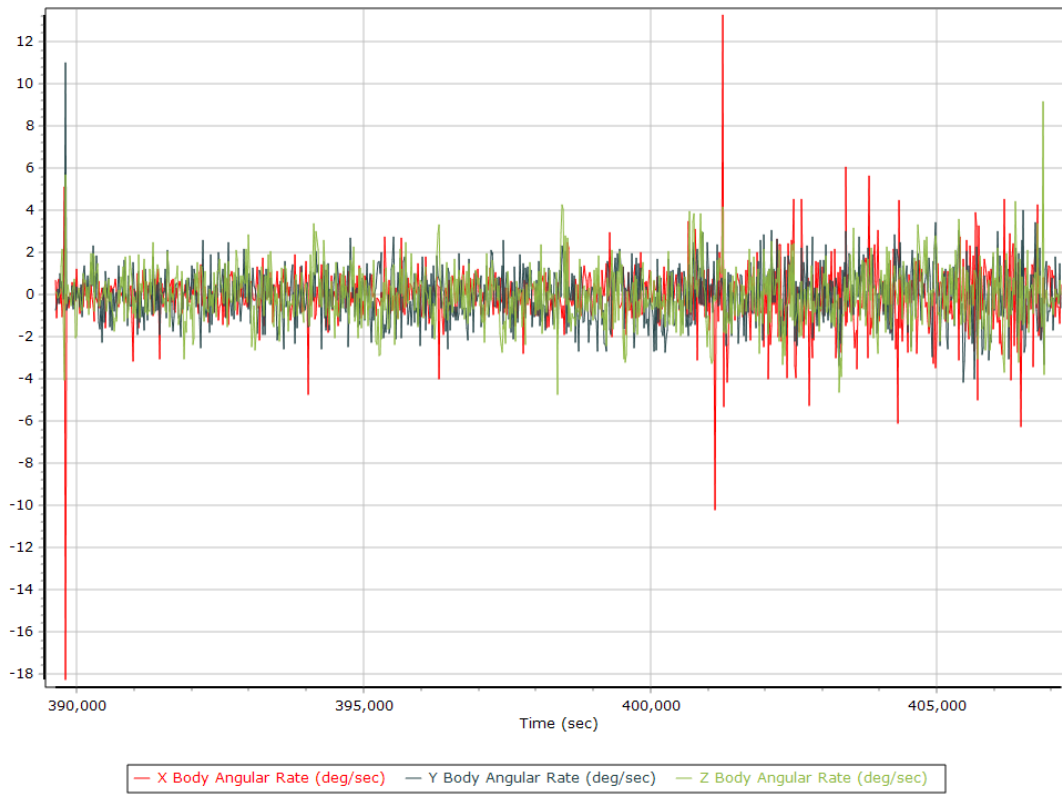
Body Acceleration



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]	0.29	88.90	
Number of GPS SV	6	11	9
Number of GLONASS SV	0	6	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Total number of SV	9	17	14
PDOP	1.18	3.96	1.53
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (s)	17747.00	0.00	1.00
Percentage	99.99	0.00	0.01

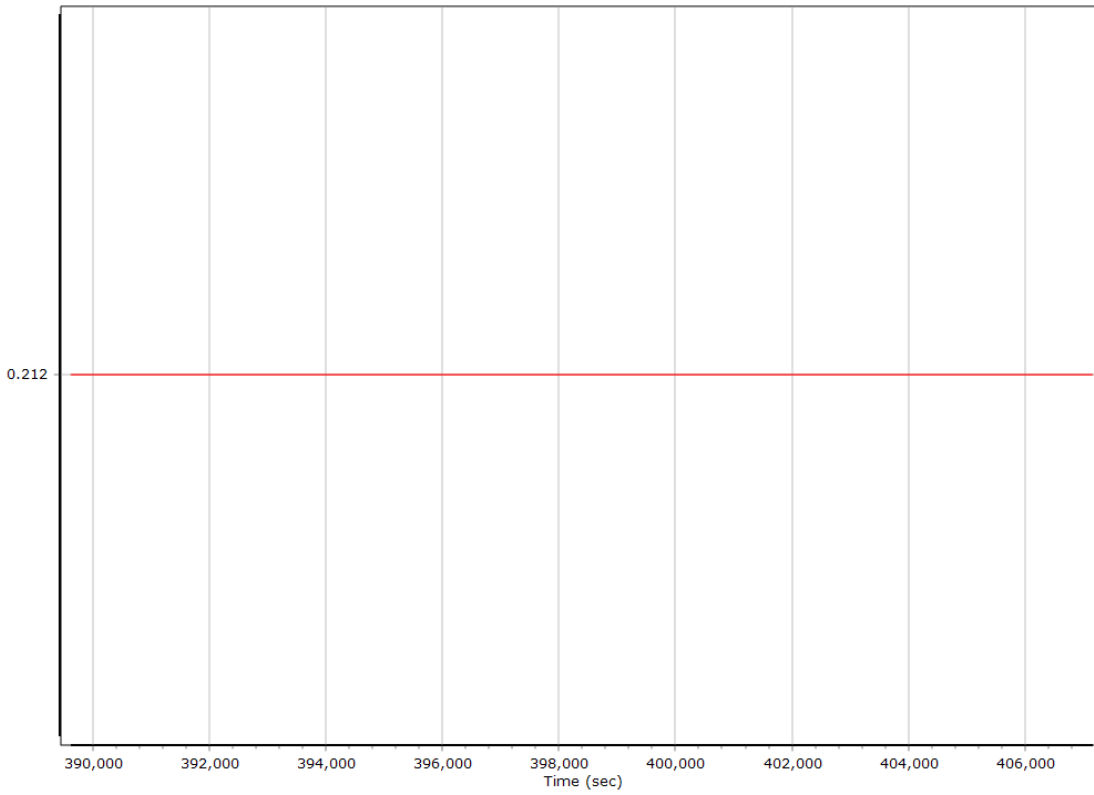
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion SmartBase		
Stabilized mount	False		
Base station	ASB		
Processing start time	389407.000 (4/4/2019 12:09:49 PM)		
Processing end time	407166.000 (4/4/2019 5:05:48 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

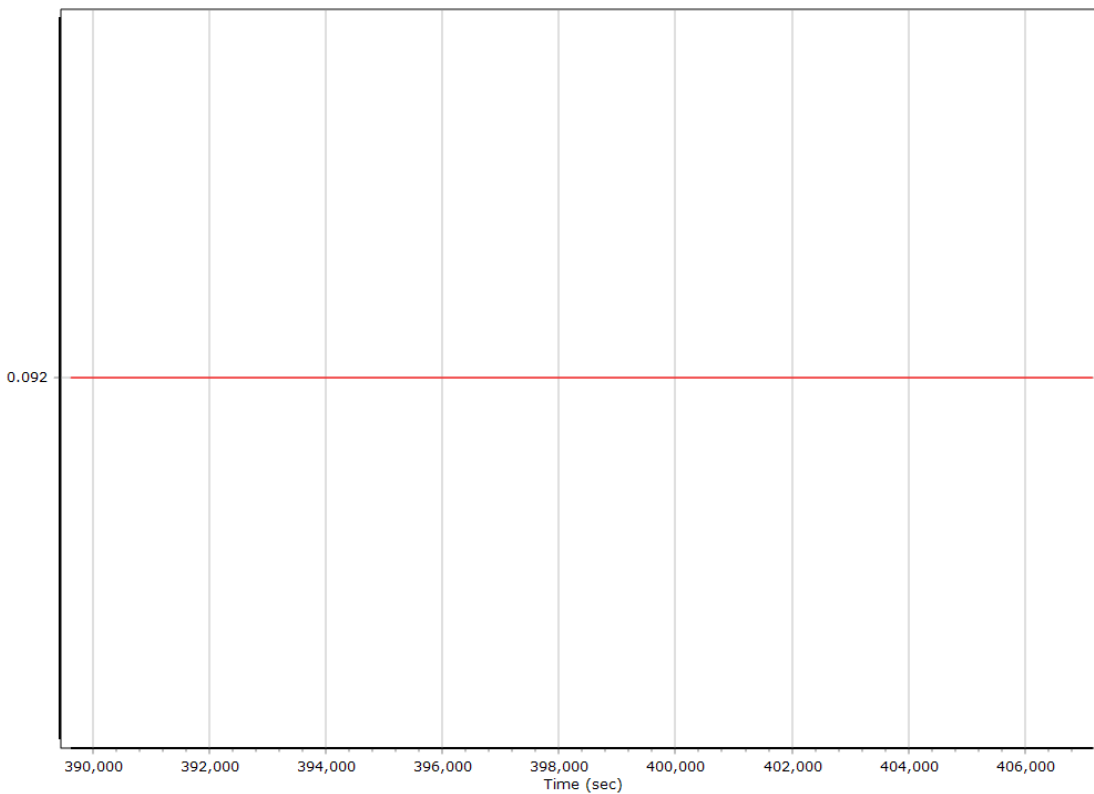
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm

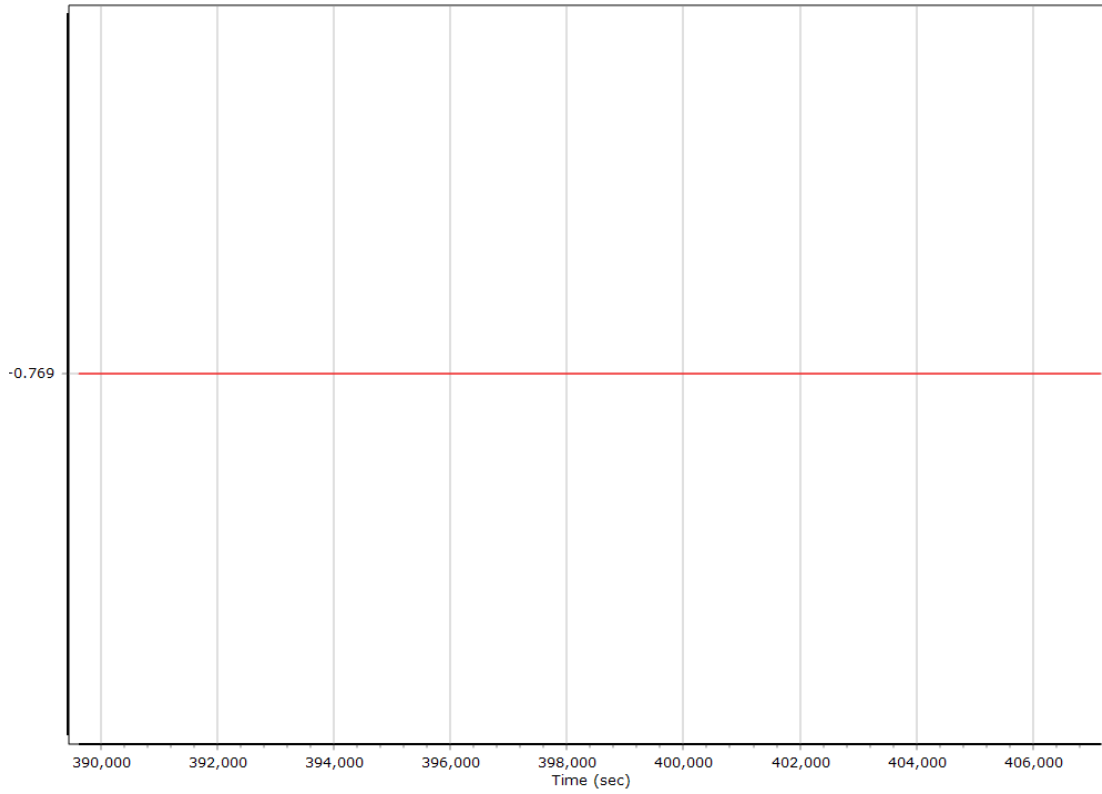
X Reference-Primary GNSS Lever Arm (m)



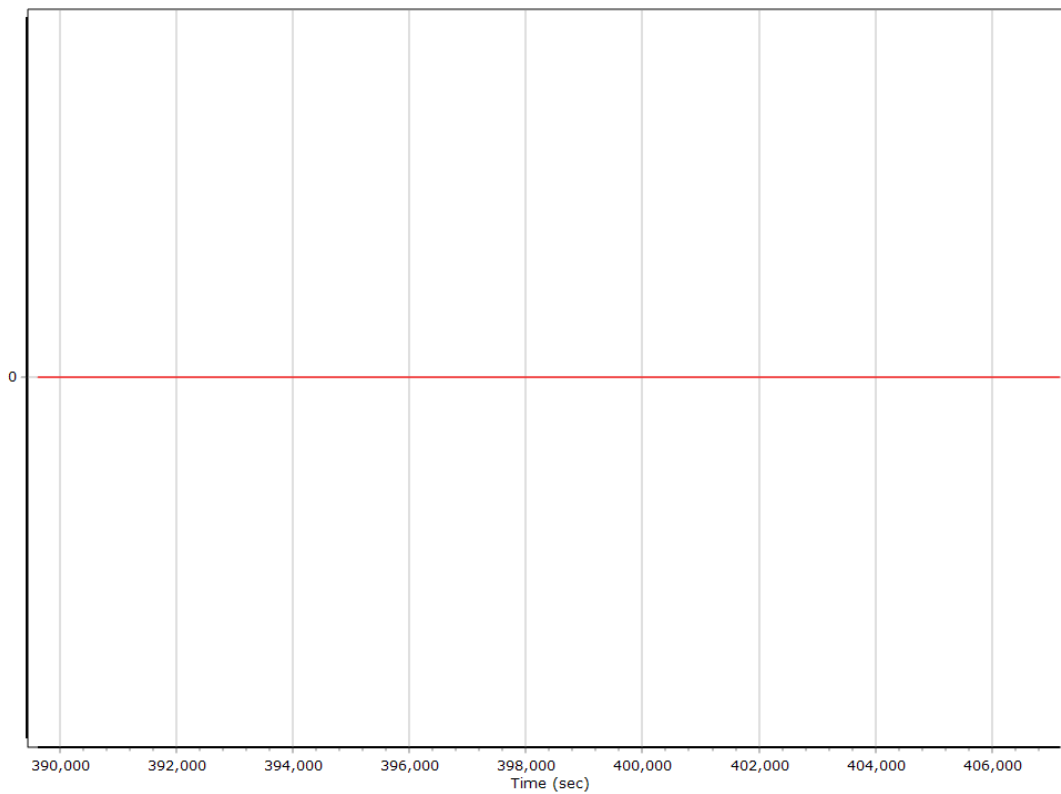
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



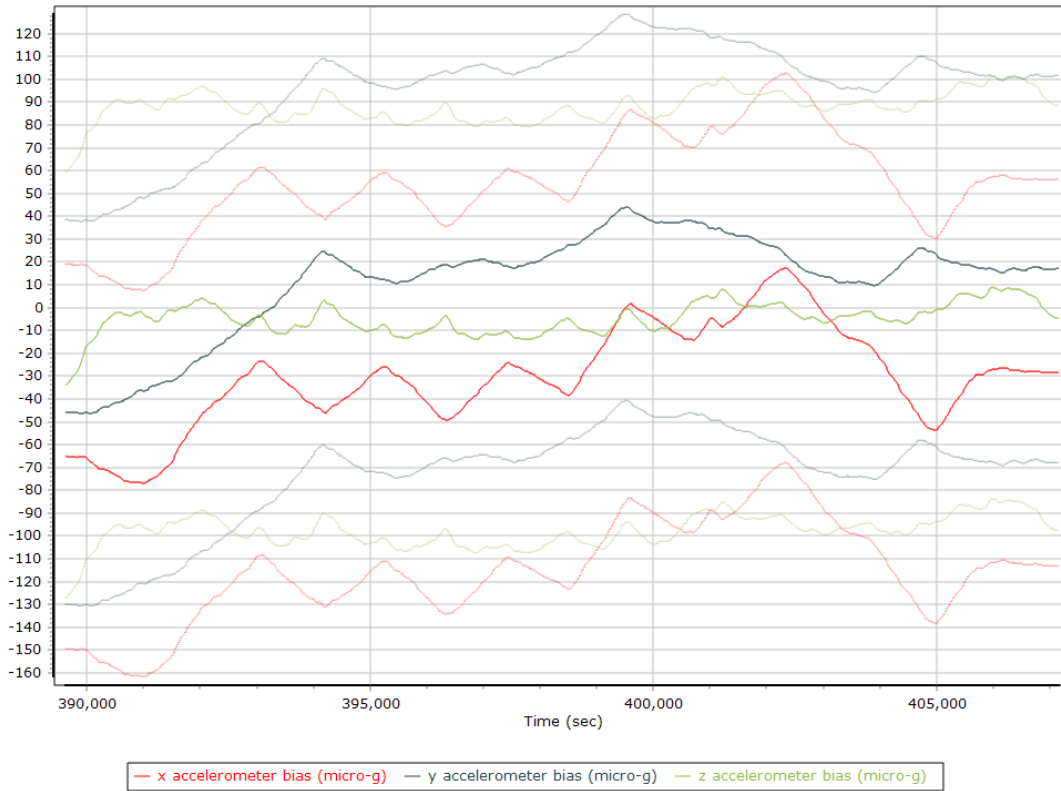
Reference-Primary GNSS Lever Arm Figure of Merit



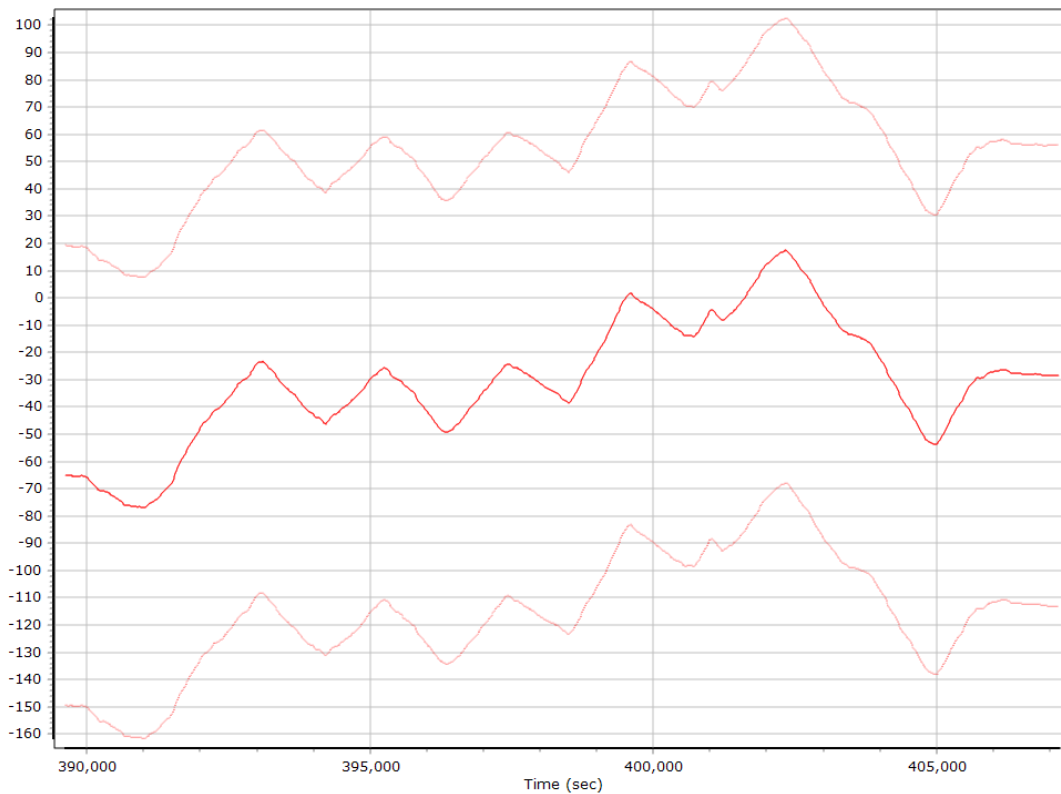
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

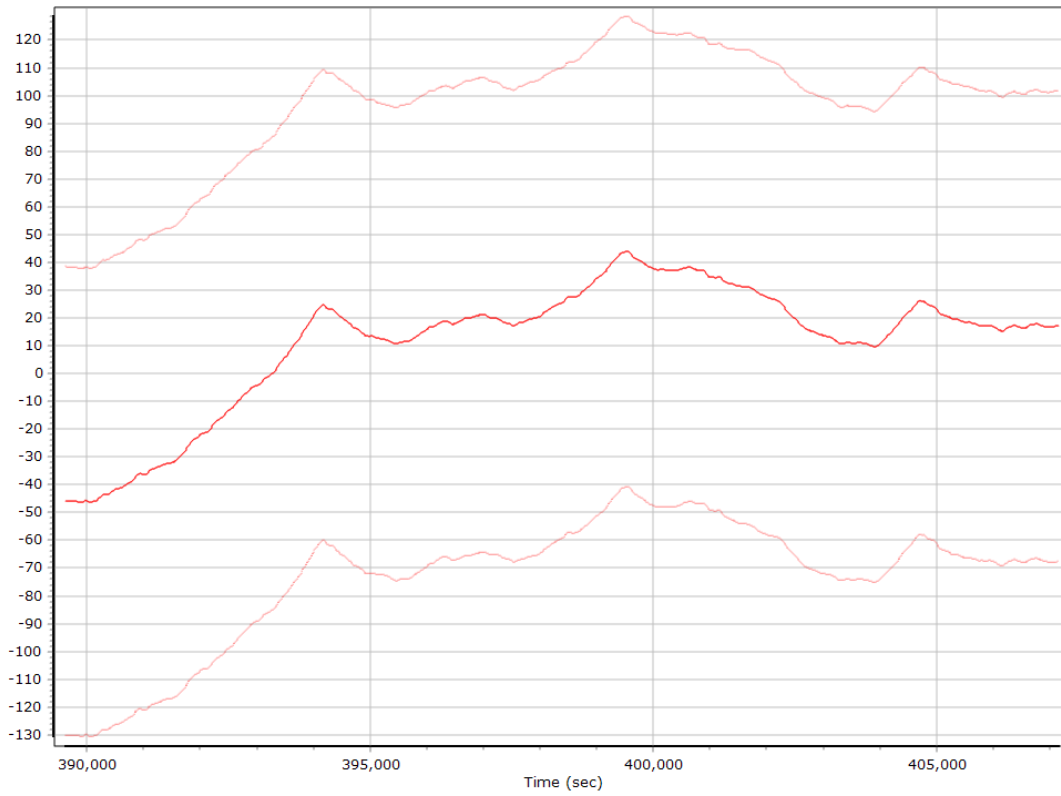
Accelerometer Bias (micro-g)



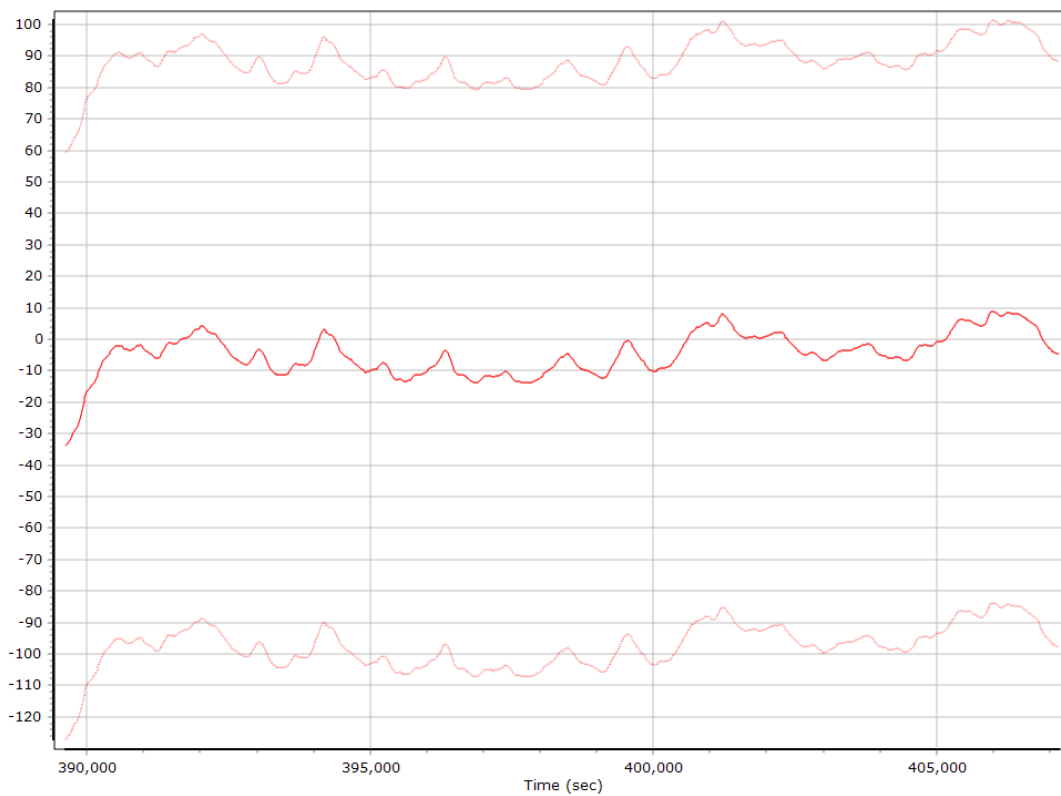
X Accelerometer Bias (micro-g)



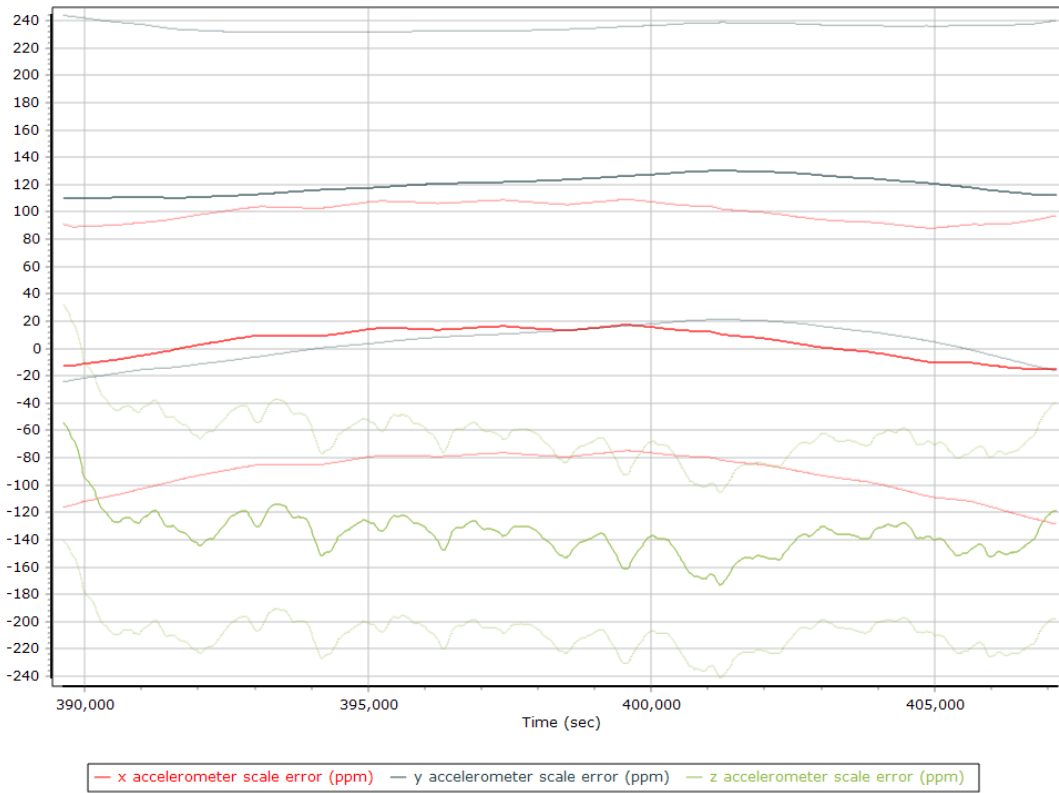
Y Accelerometer Bias (micro-g)



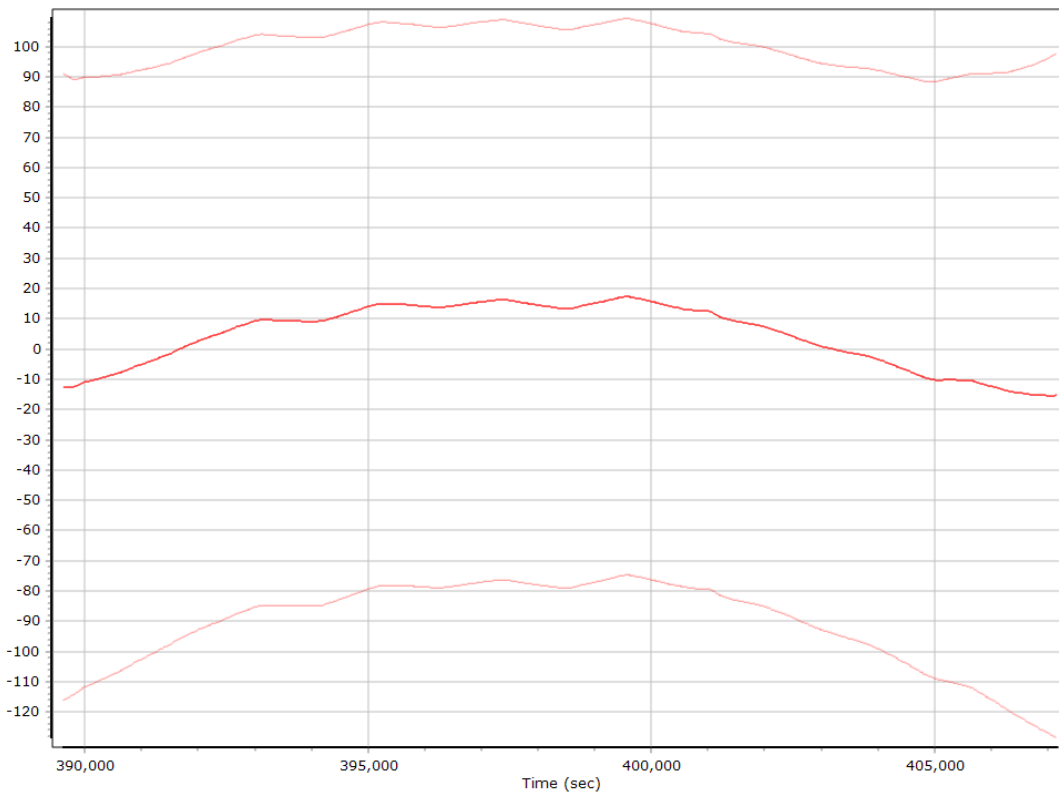
Z Accelerometer Bias (micro-g)



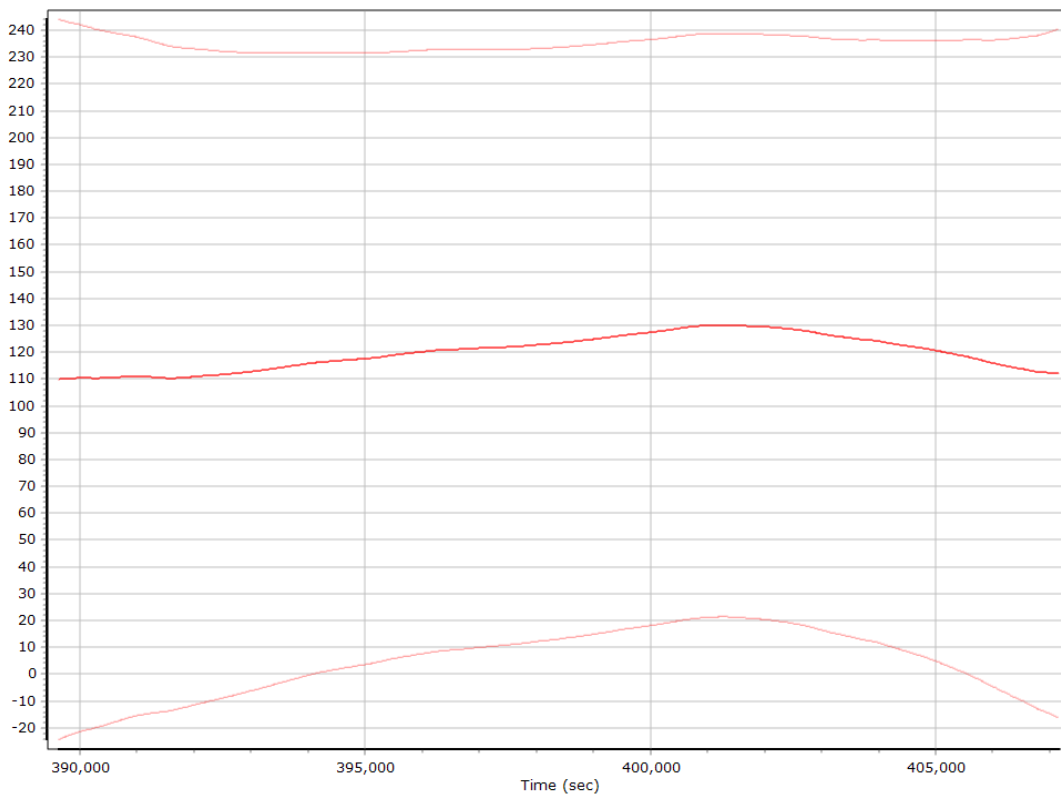
Accelerometer Scale Error (ppm)



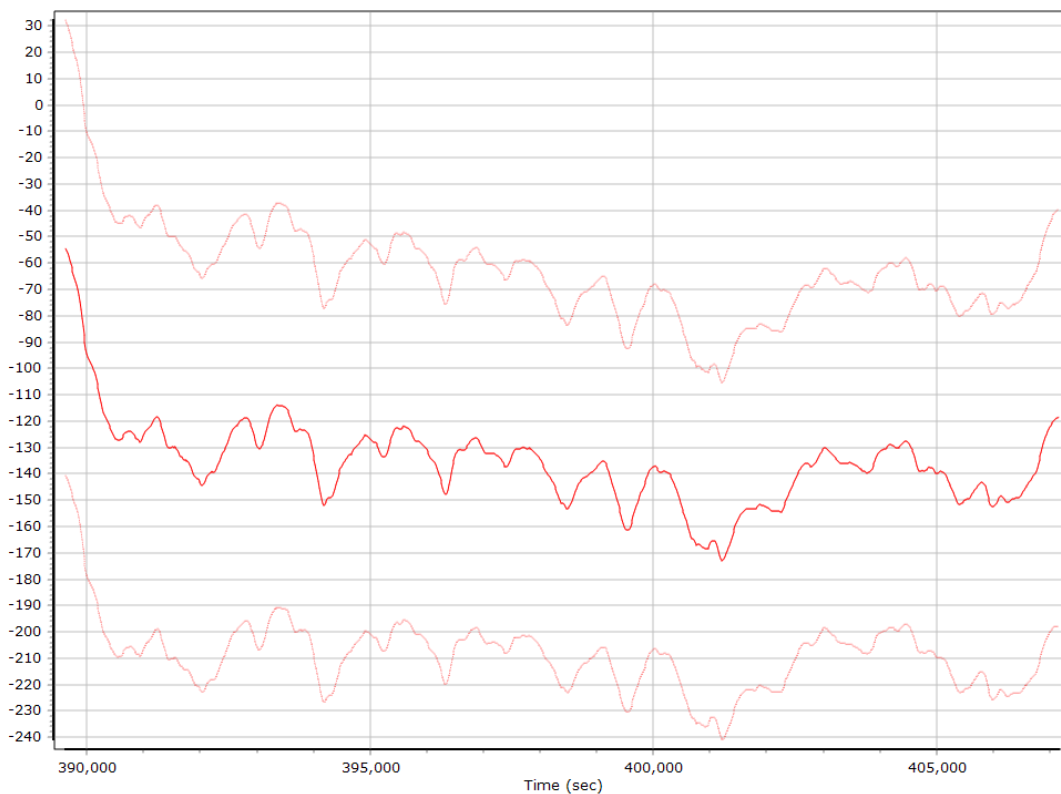
X Accelerometer Scale Error (ppm)



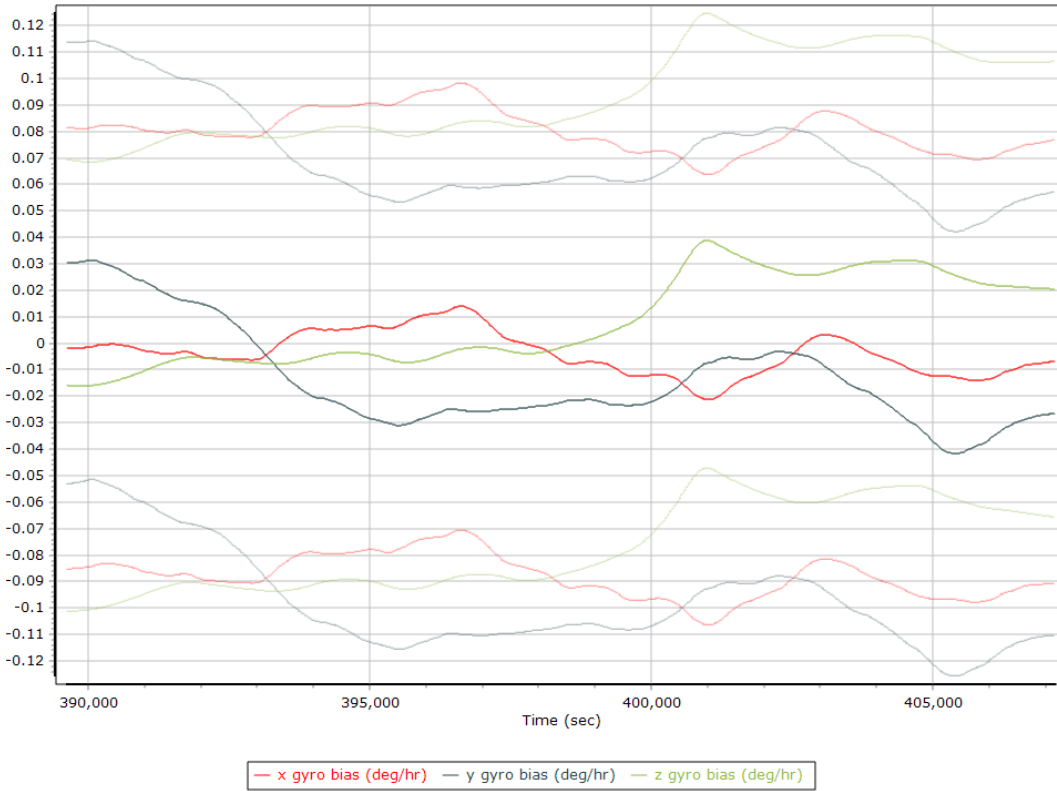
Y Accelerometer Scale Error (ppm)



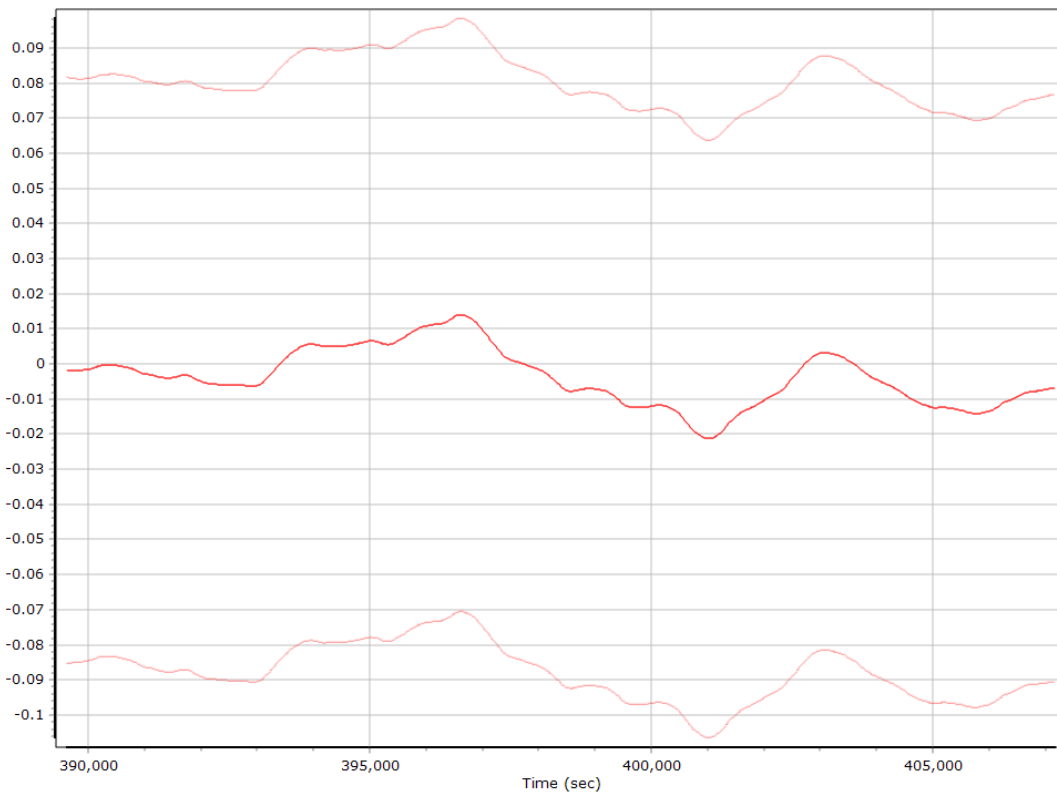
Z Accelerometer Scale Error (ppm)



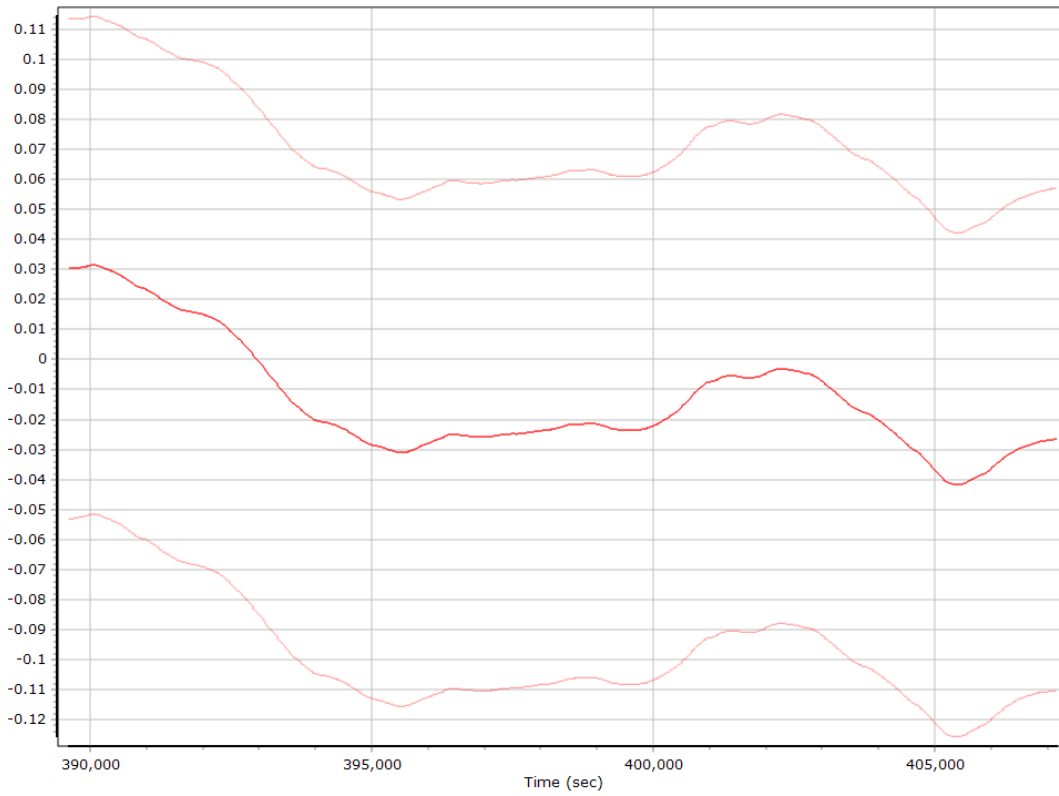
Gyro Bias (deg/h)



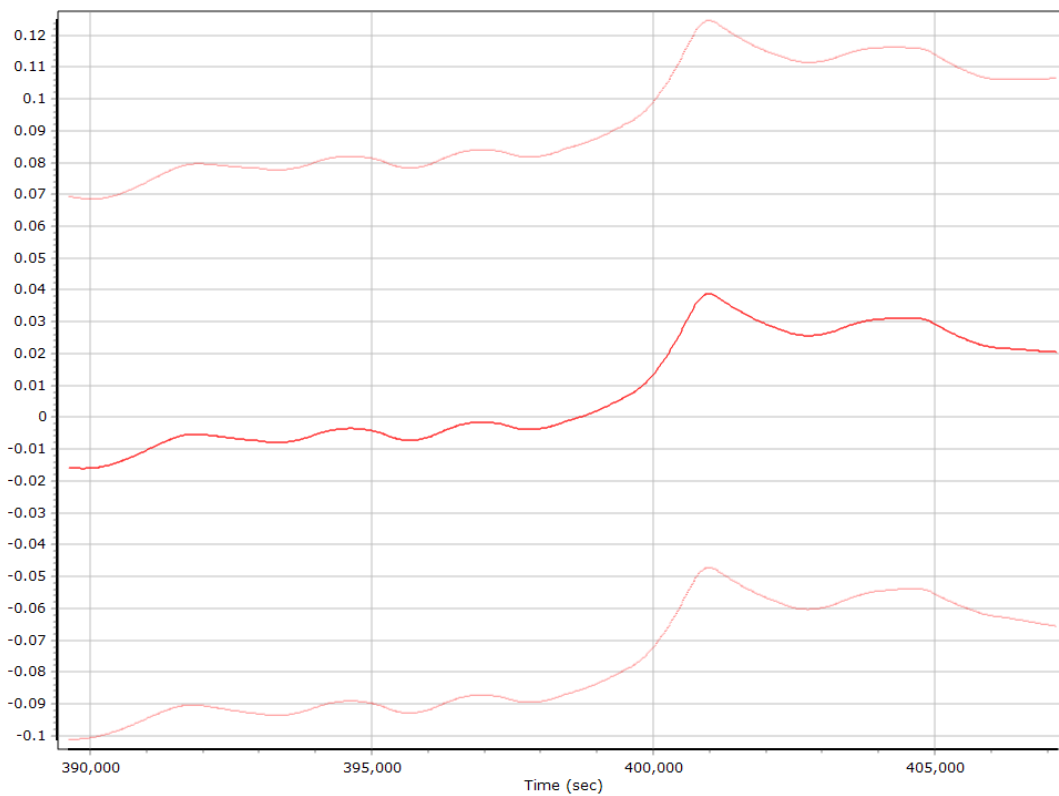
X Gyro Bias (deg/h)



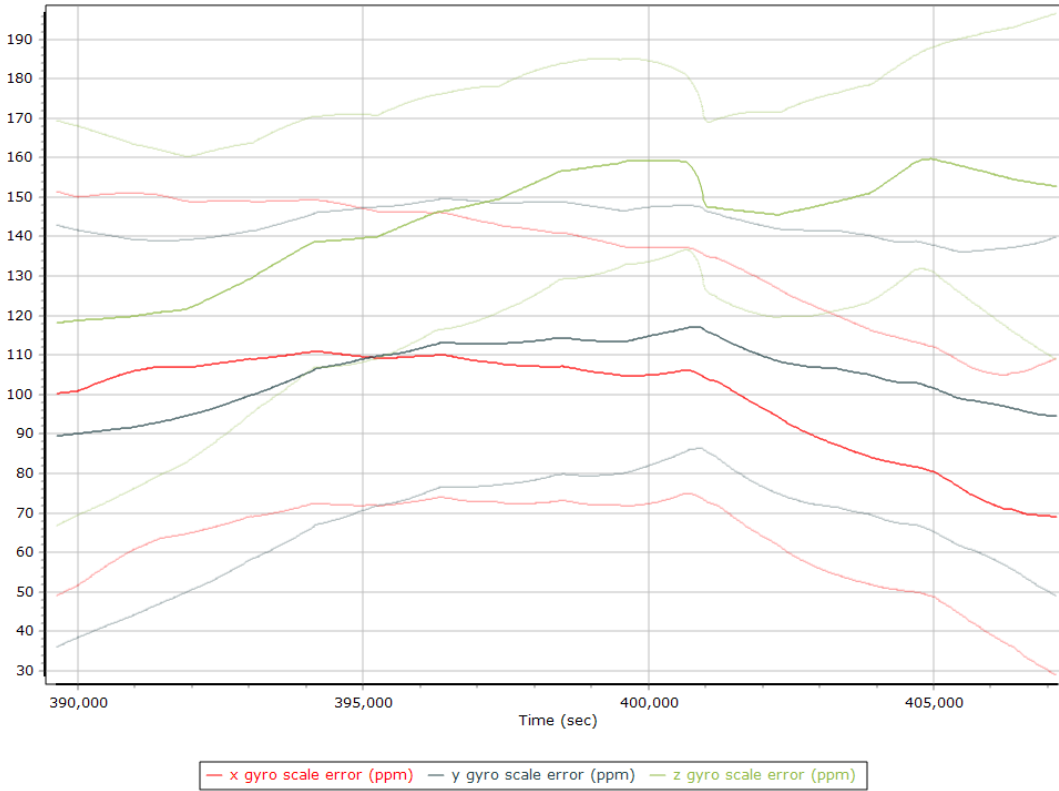
Y Gyro Bias (deg/h)



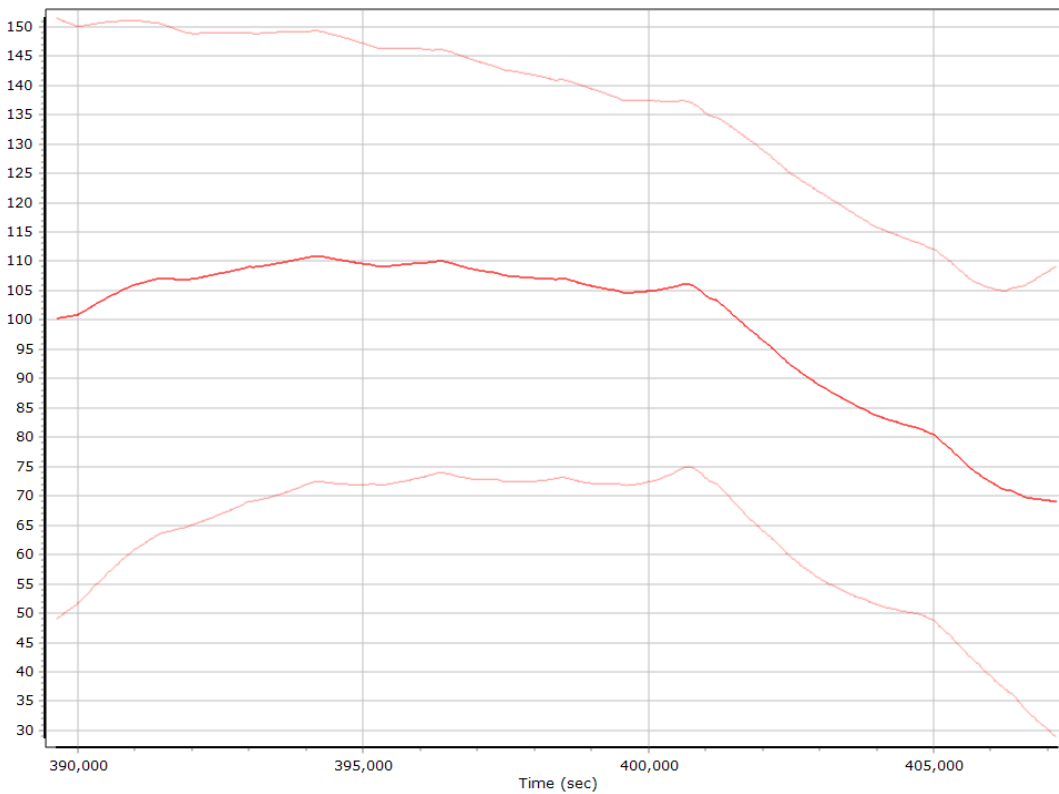
Z Gyro Bias (deg/h)



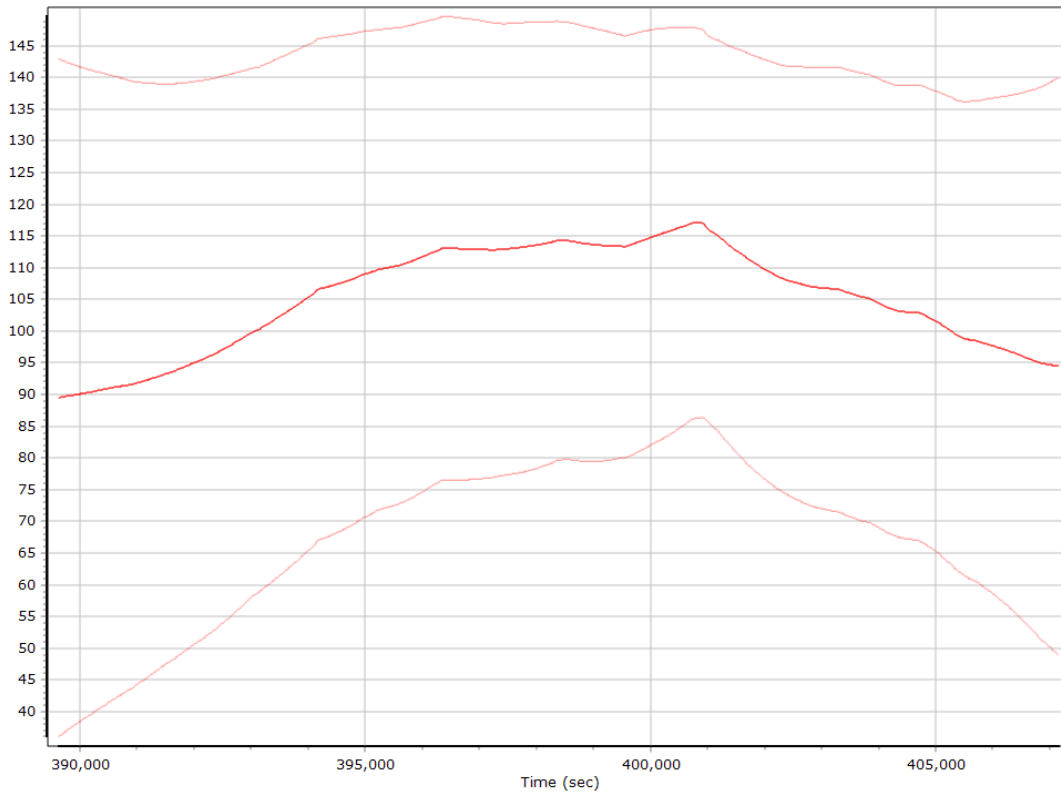
Gyro Scale Error (ppm)



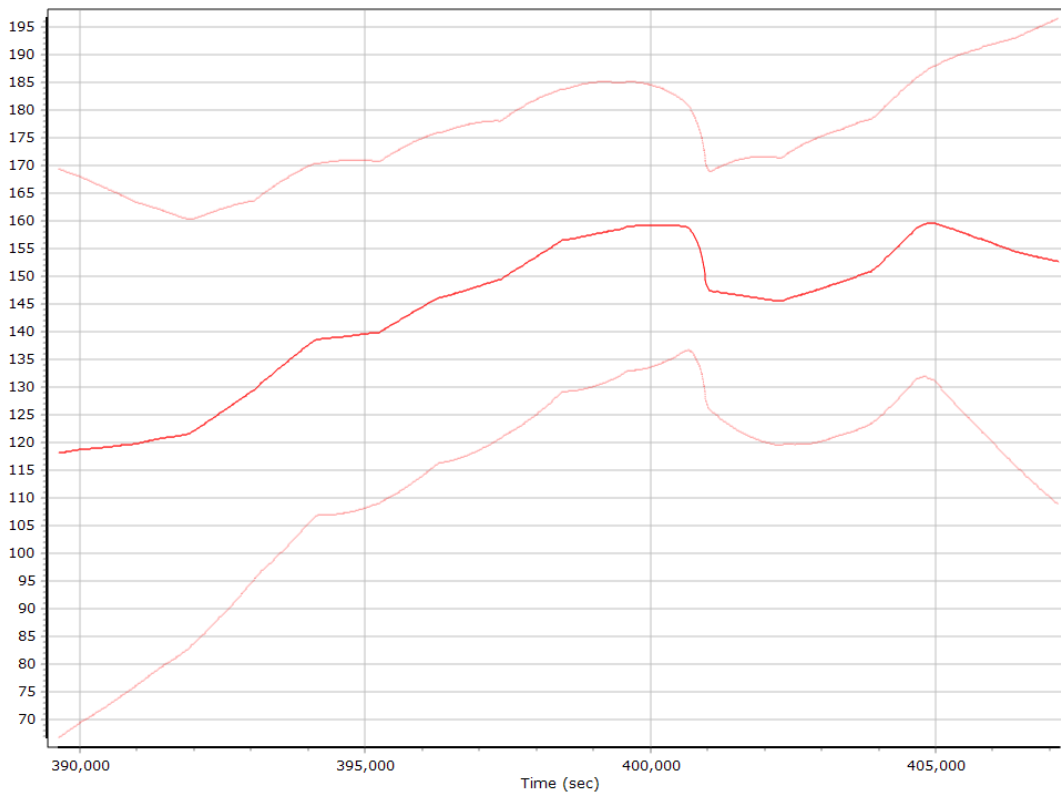
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

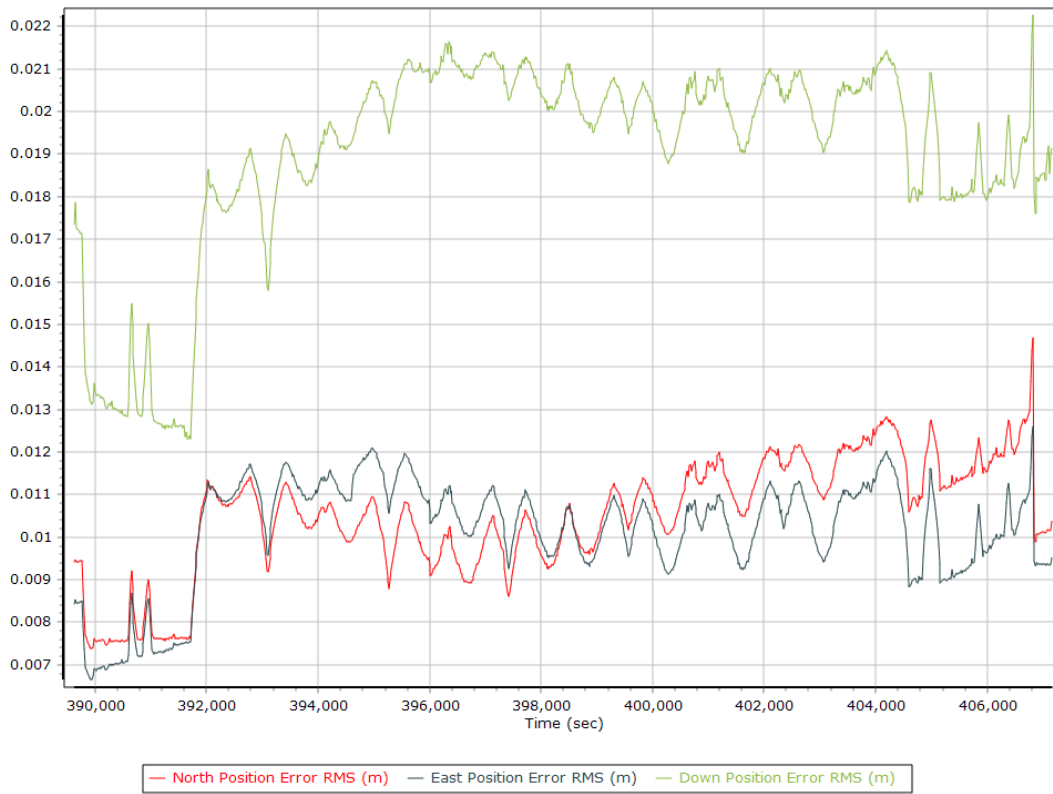


Z Gyro Scale Error (ppm)

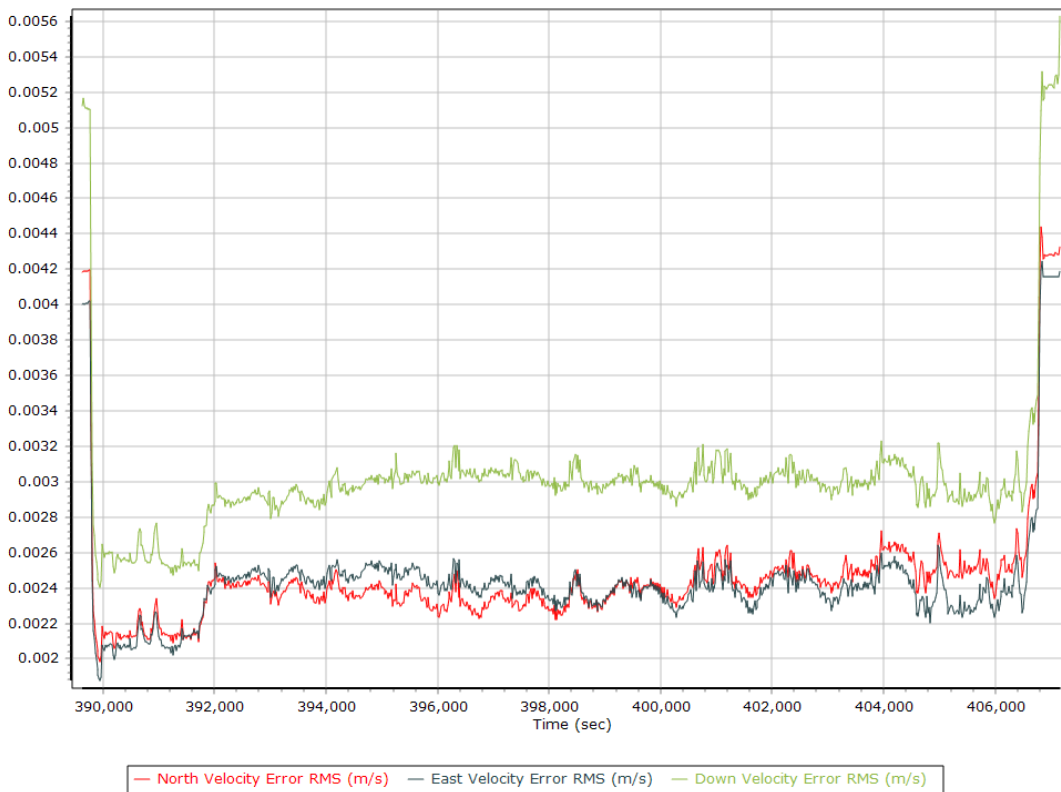


Smoothed Performance Metrics

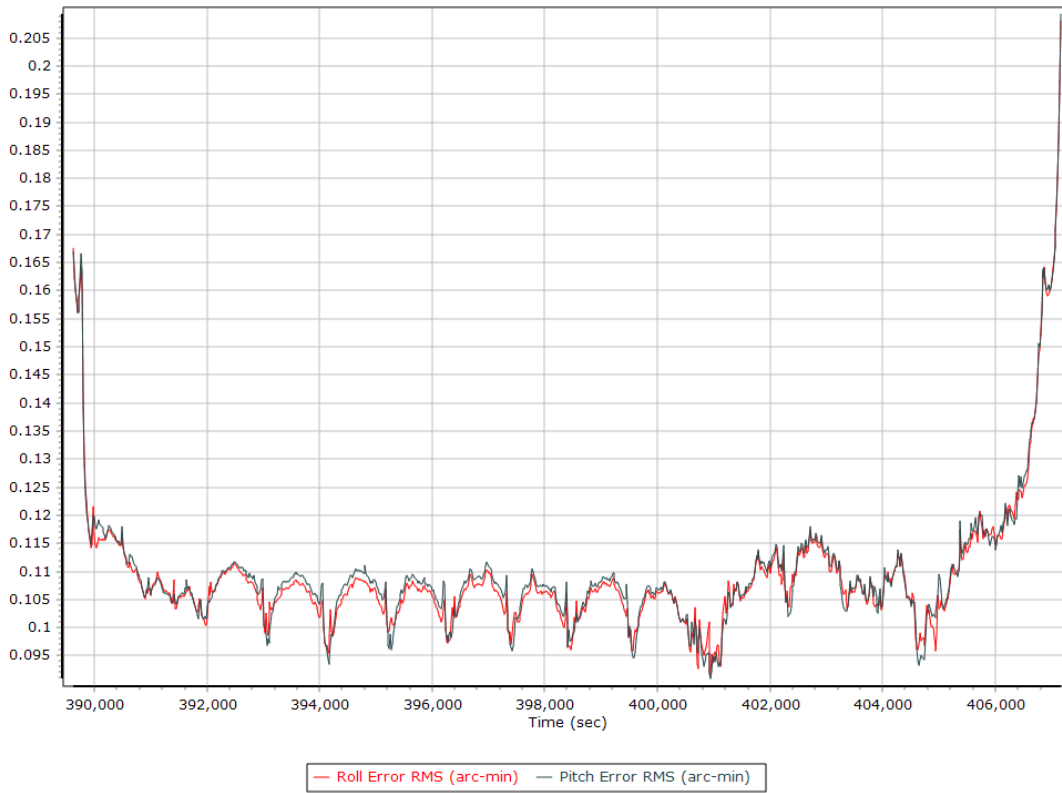
Position Error RMS (m)



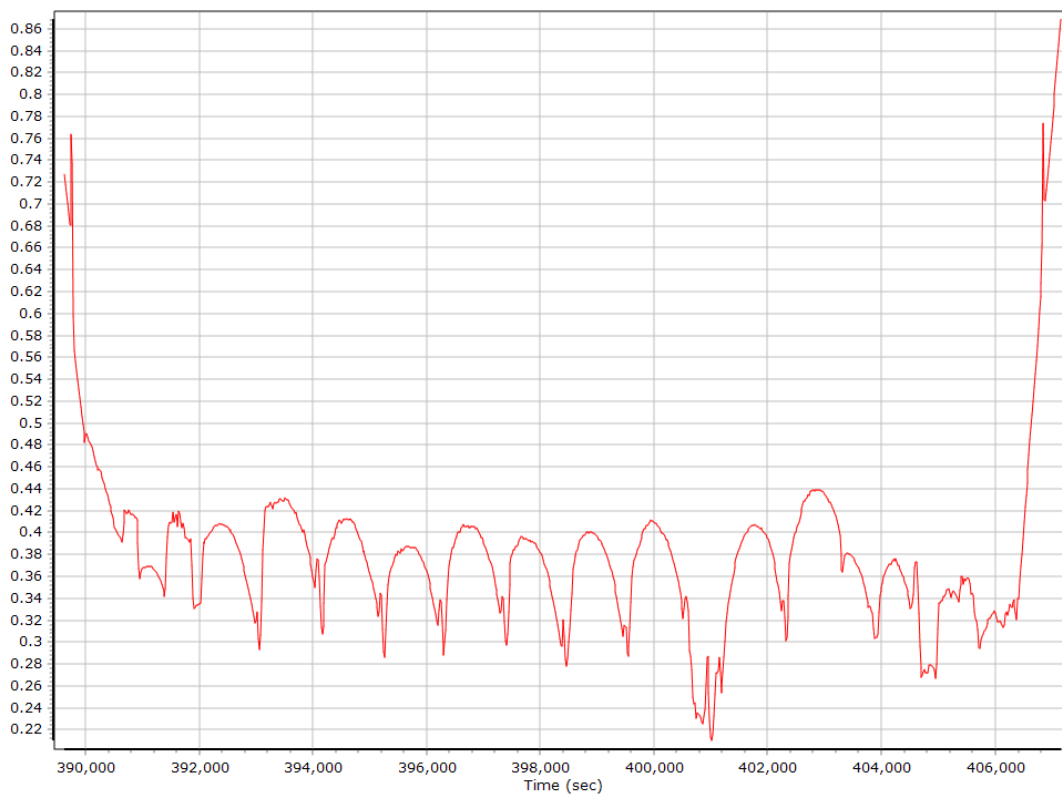
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

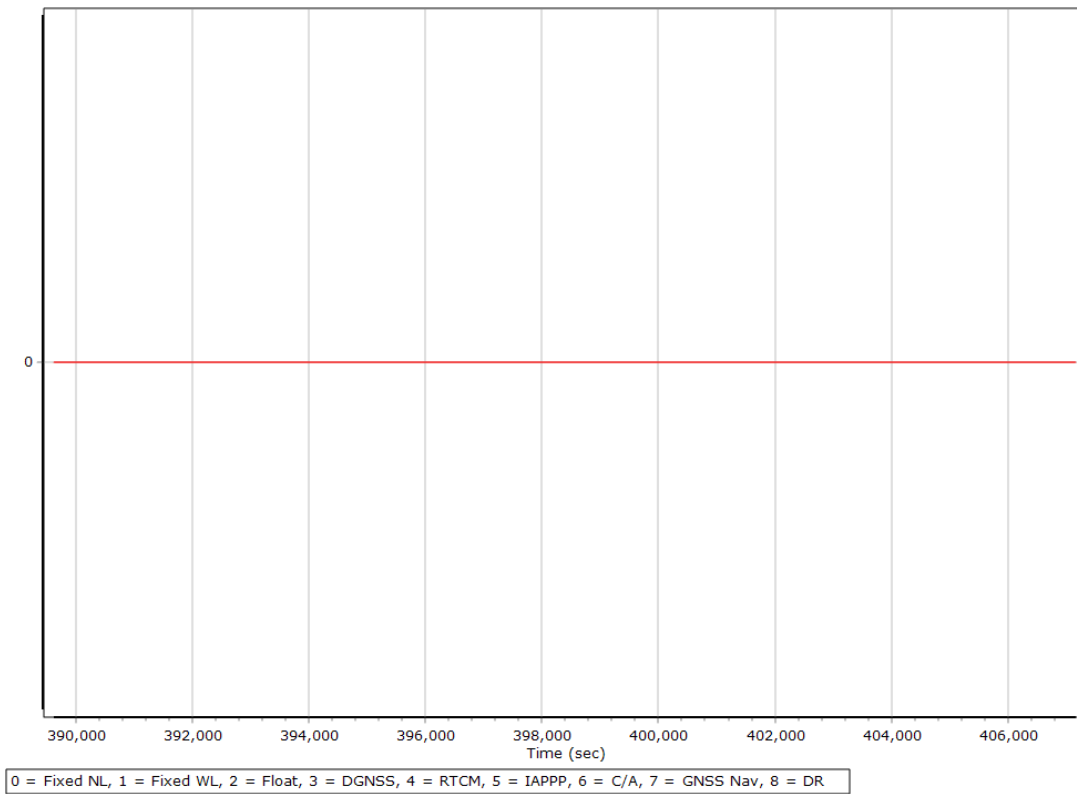


Heading Error RMS (arc-min)

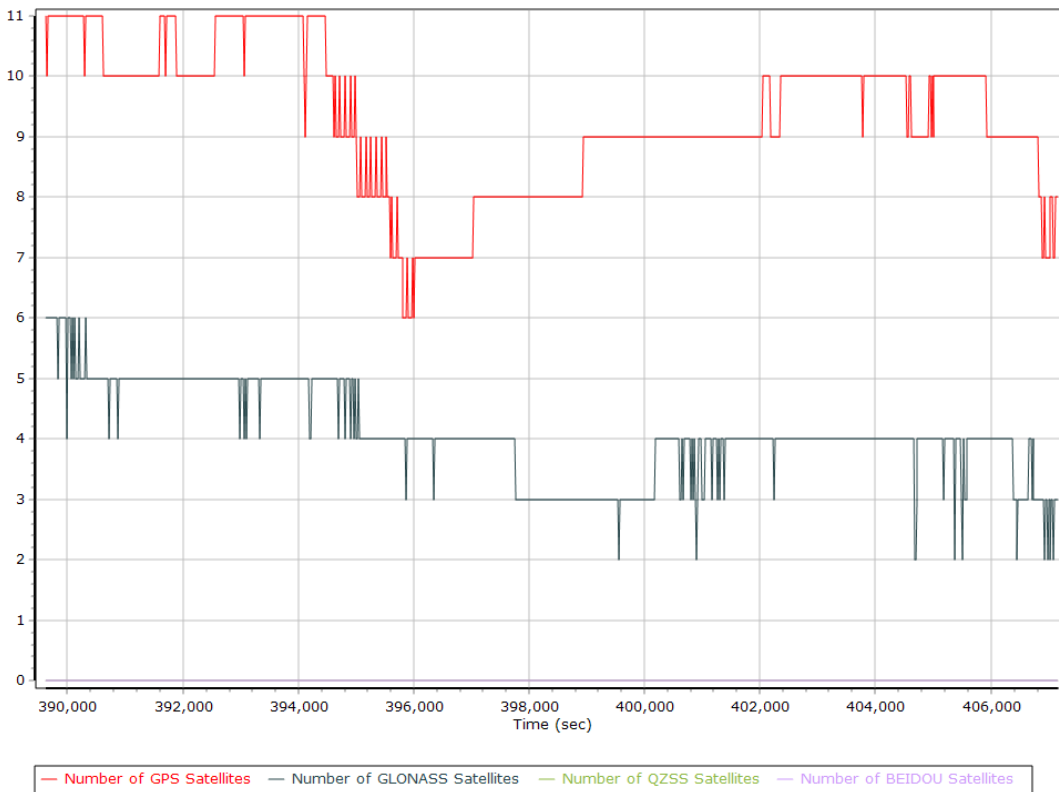


Smoothed Solution Status

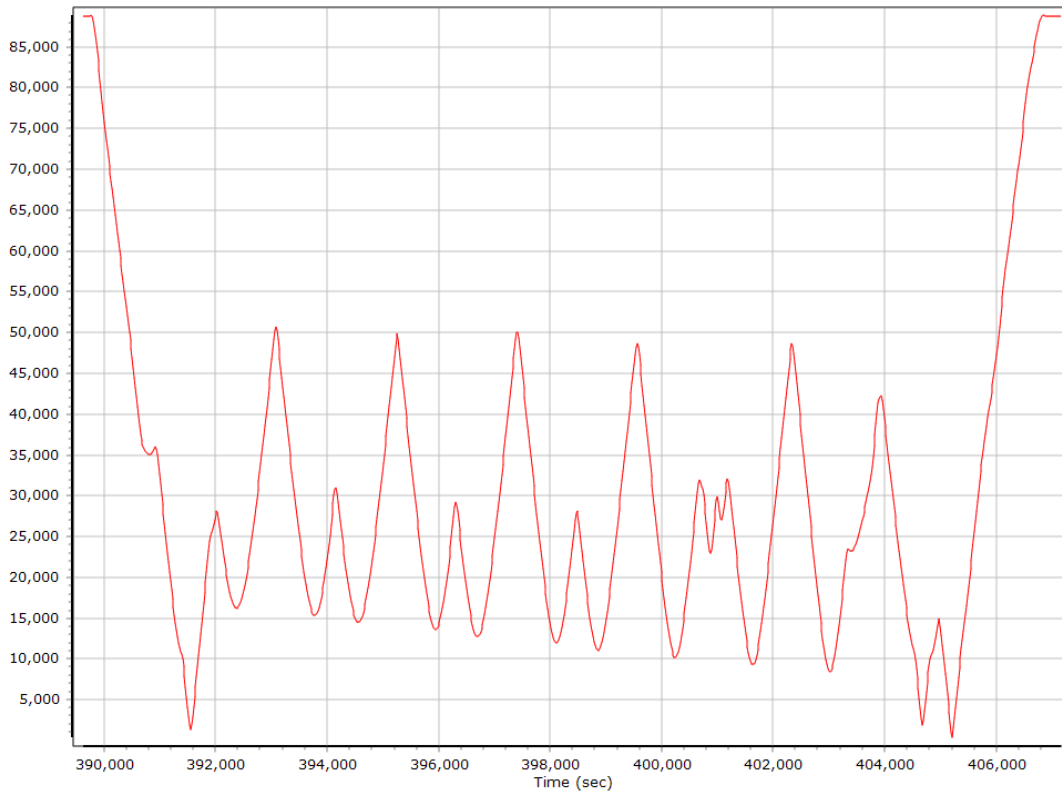
Processing Mode



Number of Satellites



Baseline Length



SBET IAkar Separation

