

General Information

Mission Information

Project name	13284-1806_20181207_re-reprocessed
Processing date	2019-06-05 18:02:04
Mission date	2018-12-07 12:28:10
Mission duration	06:41:05.574
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
181207_122809_INS-GPS_1.raw	POS Data

Input Files

File Name	File type
Ephm3410.18g	GLONASS Broadcast Ephemeris
Ephm3410.18n	GPS Broadcast Ephemeris
igl20304.sp3	GLONASS Precise Ephemeris
igl20305.sp3	GLONASS Precise Ephemeris
igl20306.sp3	GLONASS Precise Ephemeris
igs20304.sp3	GPS Precise Ephemeris
igs20305.sp3	GPS Precise Ephemeris
igs20306.sp3	GPS Precise Ephemeris
avon341f00.18g	GLONASS Broadcast Ephemeris
hulk341f00.18n	GPS Broadcast Ephemeris
hulk341f00.18o	GNSS SingleBase
orl1341f00.18g	GLONASS Broadcast Ephemeris
orl1341f00.18n	GPS Broadcast Ephemeris
orl1341f00.18o	GNSS SingleBase
polk341f00.18g	GLONASS Broadcast Ephemeris
polk341f00.18n	GPS Broadcast Ephemeris
polk341f00.18o	GNSS SingleBase
snfd341f00.18n	GPS Broadcast Ephemeris
snfd341f00.18o	GNSS SingleBase
ttvl341f00.18g	GLONASS Broadcast Ephemeris
ttvl341f00.18n	GPS Broadcast Ephemeris
ttvl341f00.18o	GNSS SingleBase
zefr341f00.18g	GLONASS Broadcast Ephemeris
snfd341f00.18g	GLONASS Broadcast Ephemeris
hulk341f00.18g	GLONASS Broadcast Ephemeris
flvr341f00.18o	GNSS SingleBase
flvr341f00.18n	GPS Broadcast Ephemeris
avon341f00.18n	GPS Broadcast Ephemeris
avon341f00.18o	GNSS SingleBase
flcc341f00.18g	GLONASS Broadcast Ephemeris
flcc341f00.18n	GPS Broadcast Ephemeris
flcc341f00.18o	GNSS SingleBase
fleu341f00.18g	GLONASS Broadcast Ephemeris
fleu341f00.18n	GPS Broadcast Ephemeris
fleu341f00.18o	GNSS SingleBase
flfd341f00.18g	GLONASS Broadcast Ephemeris
flfd341f00.18n	GPS Broadcast Ephemeris
flfd341f00.18o	GNSS SingleBase
flgr341f00.18g	GLONASS Broadcast Ephemeris
flgr341f00.18n	GPS Broadcast Ephemeris
flgr341f00.18o	GNSS SingleBase
flvr341f00.18g	GLONASS Broadcast Ephemeris
zefr341f00.18n	GPS Broadcast Ephemeris
zefr341f00.18o	GNSS SingleBase
flai341f00.18g	GLONASS Broadcast Ephemeris
wach341f00.18g	GLONASS Broadcast Ephemeris
stpt341f00.18o	GNSS SingleBase
stpt341f00.18n	GPS Broadcast Ephemeris
stpt341f00.18g	GLONASS Broadcast Ephemeris
rcda341f00.18o	GNSS SingleBase
rcda341f00.18n	GPS Broadcast Ephemeris
rcda341f00.18g	GLONASS Broadcast Ephemeris
gsps341f00.18o	GNSS SingleBase
gsps341f00.18n	GPS Broadcast Ephemeris
gsps341f00.18g	GLONASS Broadcast Ephemeris

File Name	File type
fld7341f00.18o	GNSS SingleBase
fld7341f00.18n	GPS Broadcast Ephemeris
fld7341f00.18g	GLONASS Broadcast Ephemeris
flai341f00.18o	GNSS SingleBase
flai341f00.18n	GPS Broadcast Ephemeris
wach341f00.18n	GPS Broadcast Ephemeris
wach341f00.18o	GNSS SingleBase
dlnd341f00.18g	GLONASS Broadcast Ephemeris
pltk341f00.18o	GNSS SingleBase
pltk341f00.18n	GPS Broadcast Ephemeris
pltk341f00.18g	GLONASS Broadcast Ephemeris
ormd341f00.18o	GNSS SingleBase
ormd341f00.18n	GPS Broadcast Ephemeris
ormd341f00.18g	GLONASS Broadcast Ephemeris
ocla341f00.18o	GNSS SingleBase
ocla341f00.18n	GPS Broadcast Ephemeris
ocla341f00.18g	GLONASS Broadcast Ephemeris
flwd341f00.18o	GNSS SingleBase
flwd341f00.18n	GPS Broadcast Ephemeris
flwd341f00.18g	GLONASS Broadcast Ephemeris
flbn341f00.18o	GNSS SingleBase
flbn341f00.18n	GPS Broadcast Ephemeris
flbn341f00.18g	GLONASS Broadcast Ephemeris
dlnd341f00.18o	GNSS SingleBase
dlnd341f00.18n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_Mission 1.out	SBET Trajectory File

Rover Data Summary

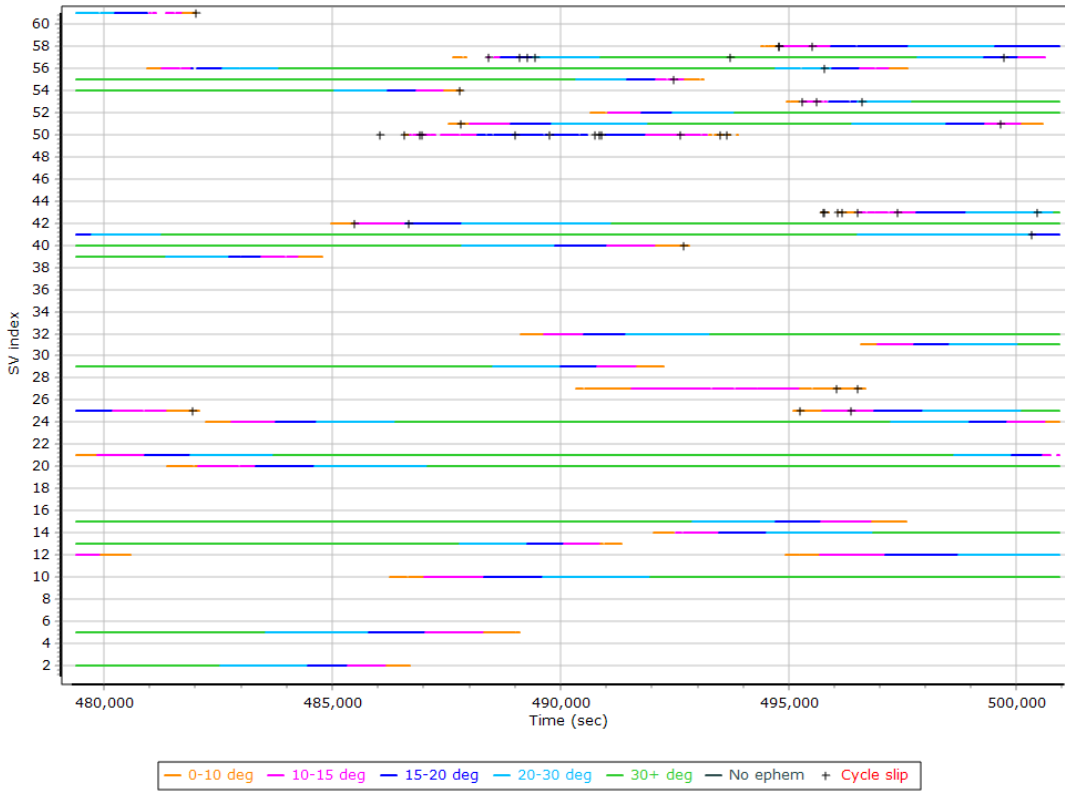
First raw data file	181207_122809_INS-GPS_1.raw		
Last raw data file	181207_122809_INS-GPS_1.raw		
Start GPS week	2030		
Start time	476889.634 (12/7/2018 12:27:51 PM)		
End time	500955.208 (12/7/2018 7:08:57 PM)		
Start of fine alignment	479320.179 (12/7/2018 1:08:22 PM)		
Available subsystems	Primary 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

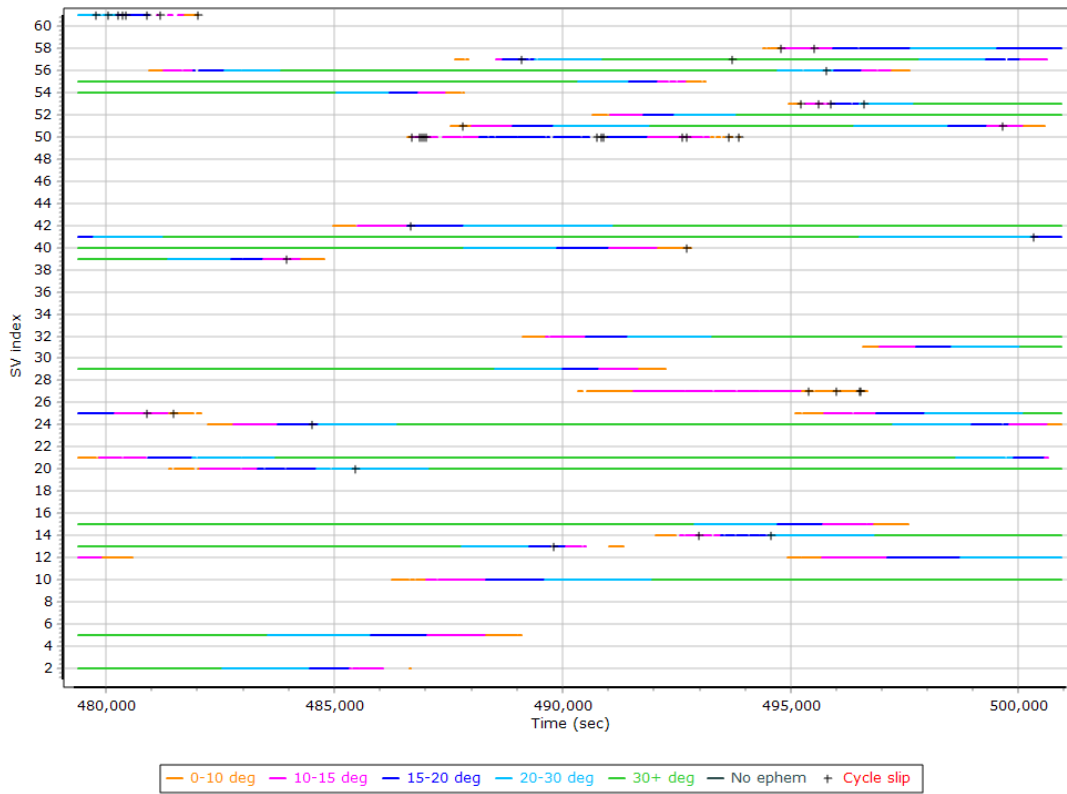
Raw IMU Import QC Summary

IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_Mission 1.log
IMU Records Processed	4813915
Termination Status	Normal
IMU Anomalies	0

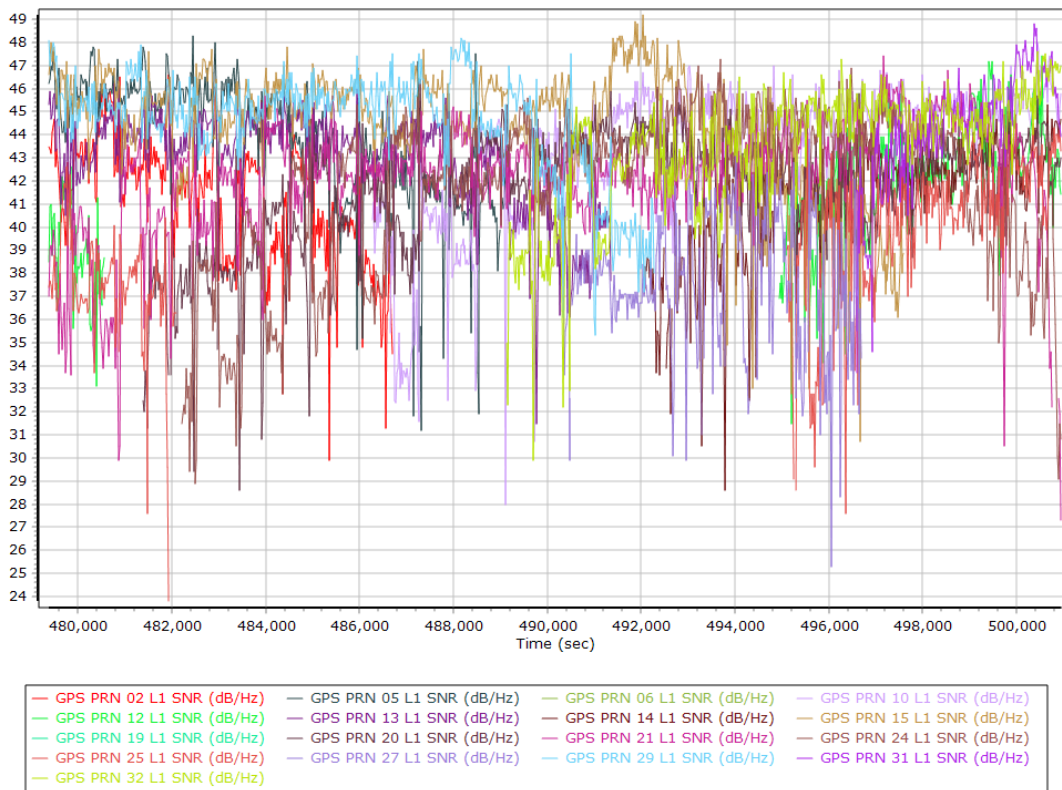
L1 Satellite Lock/Elevation



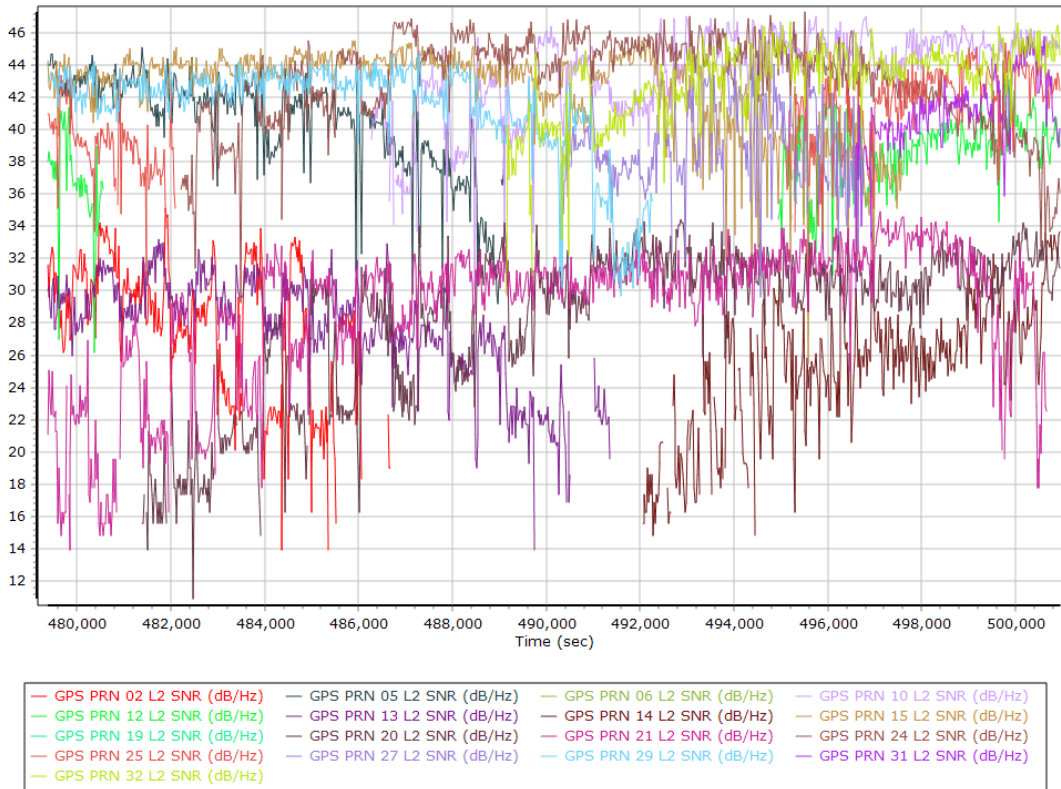
L2 Satellite Lock/Elevation



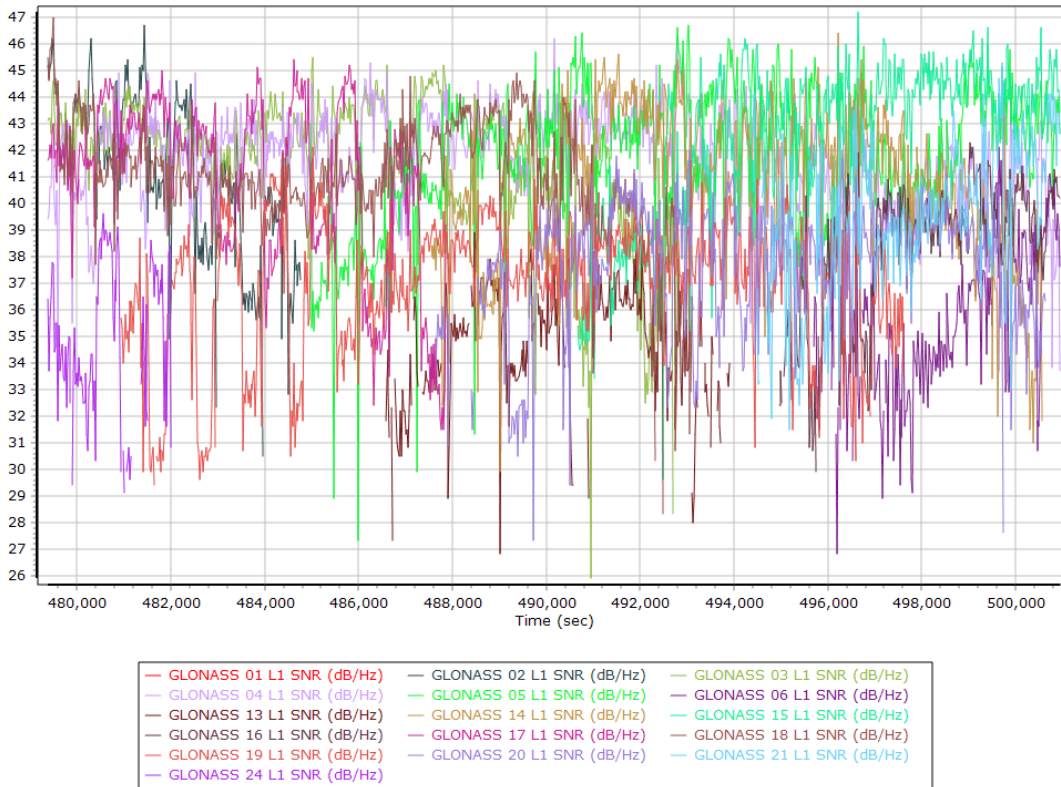
GPS L1 SNR



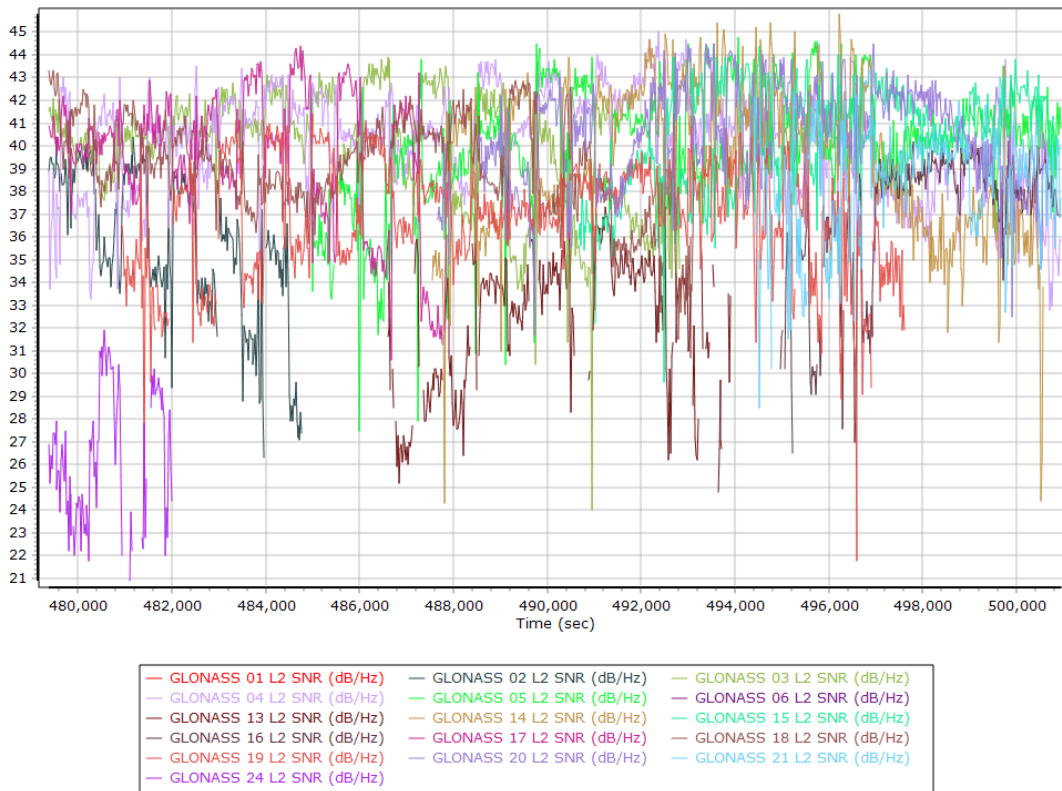
GPS L2 SNR



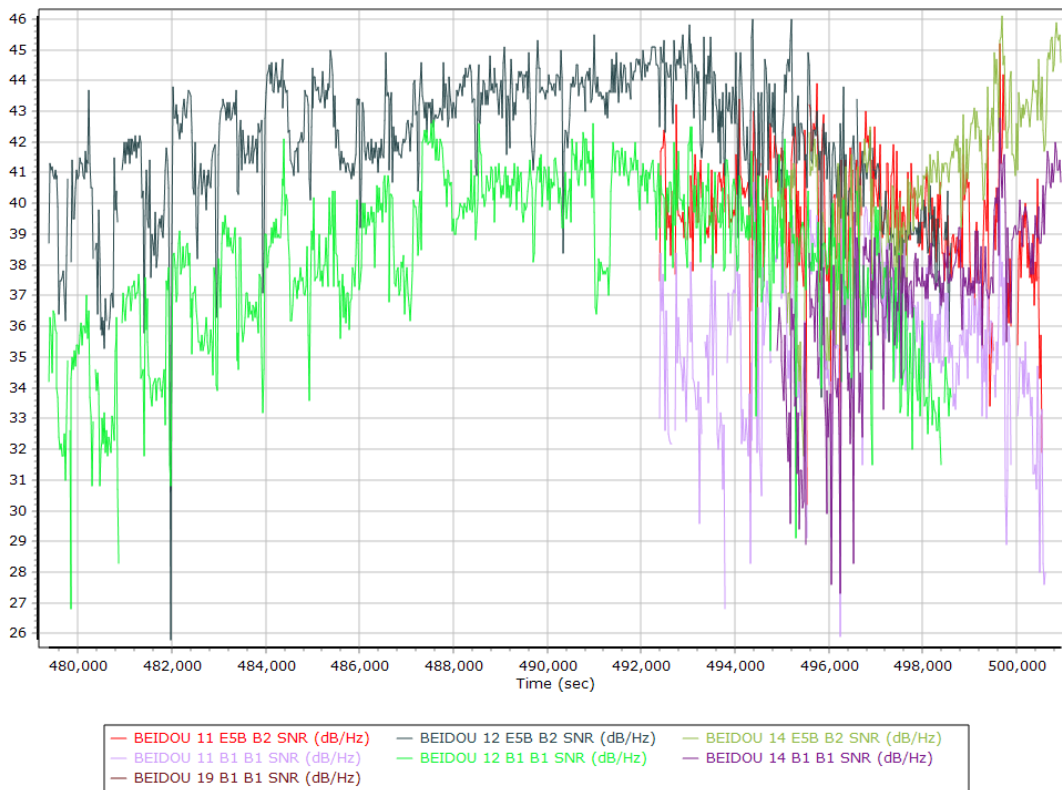
GLONASS L1 SNR



GLONASS L2 SNR

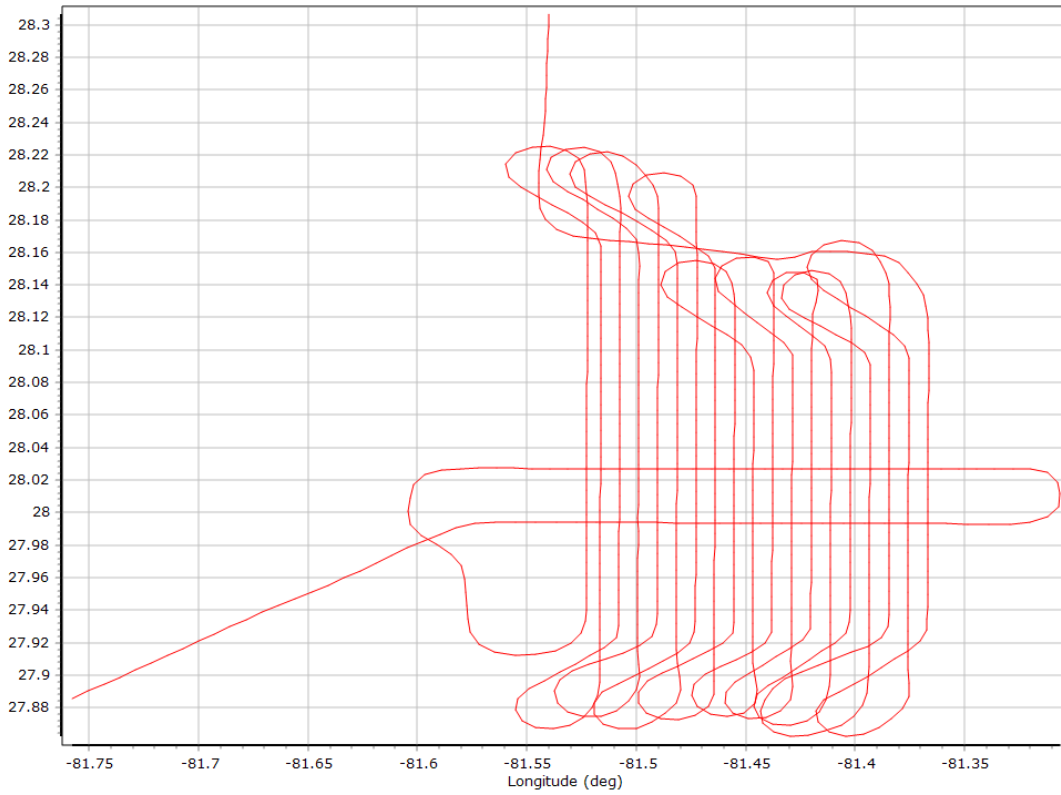


BEIDOU SNR

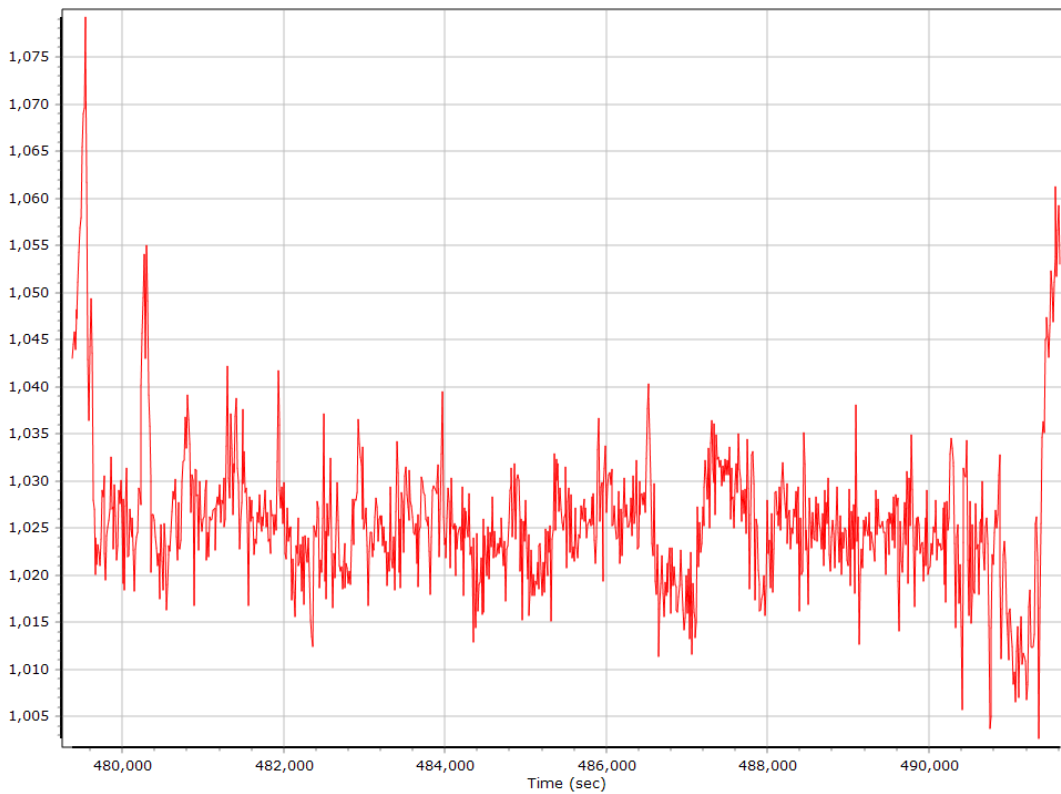


Trajectory Information

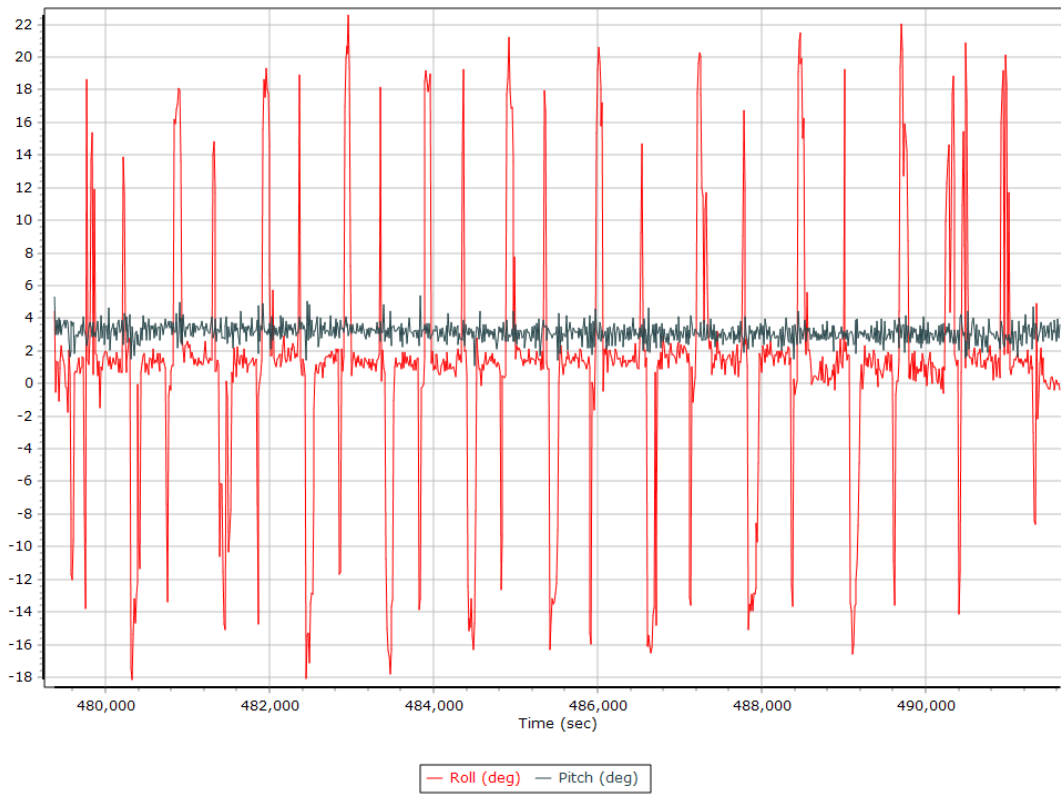
Top View



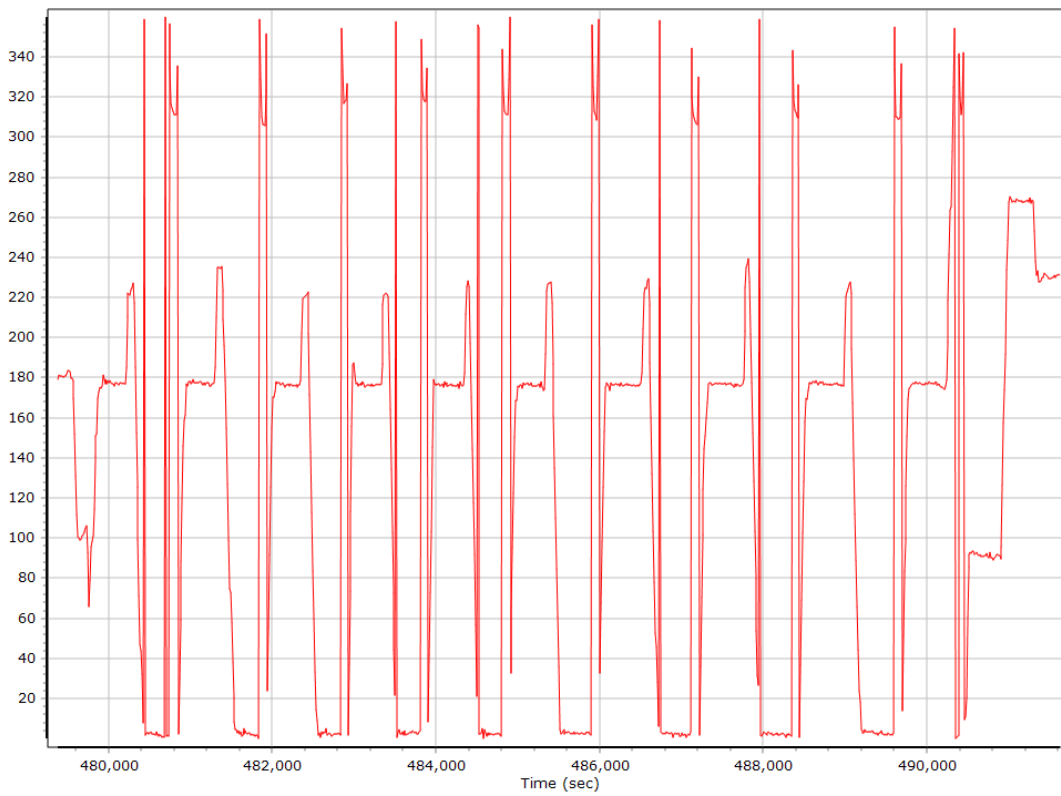
Altitude



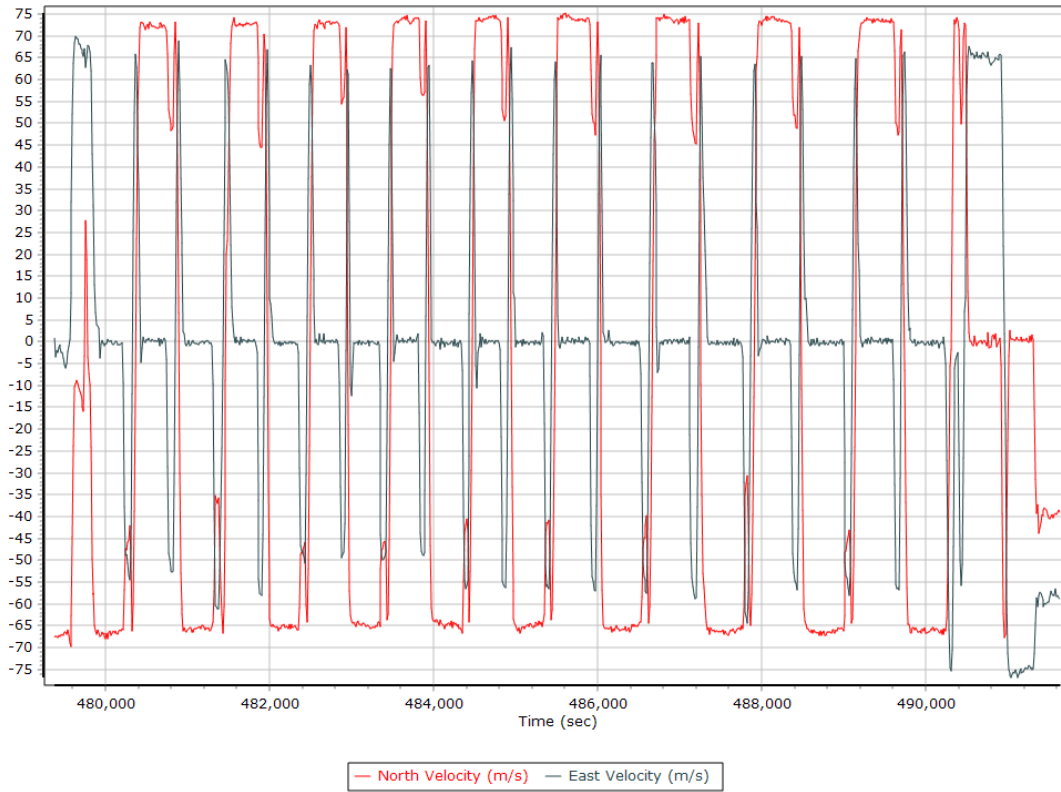
Roll/Pitch



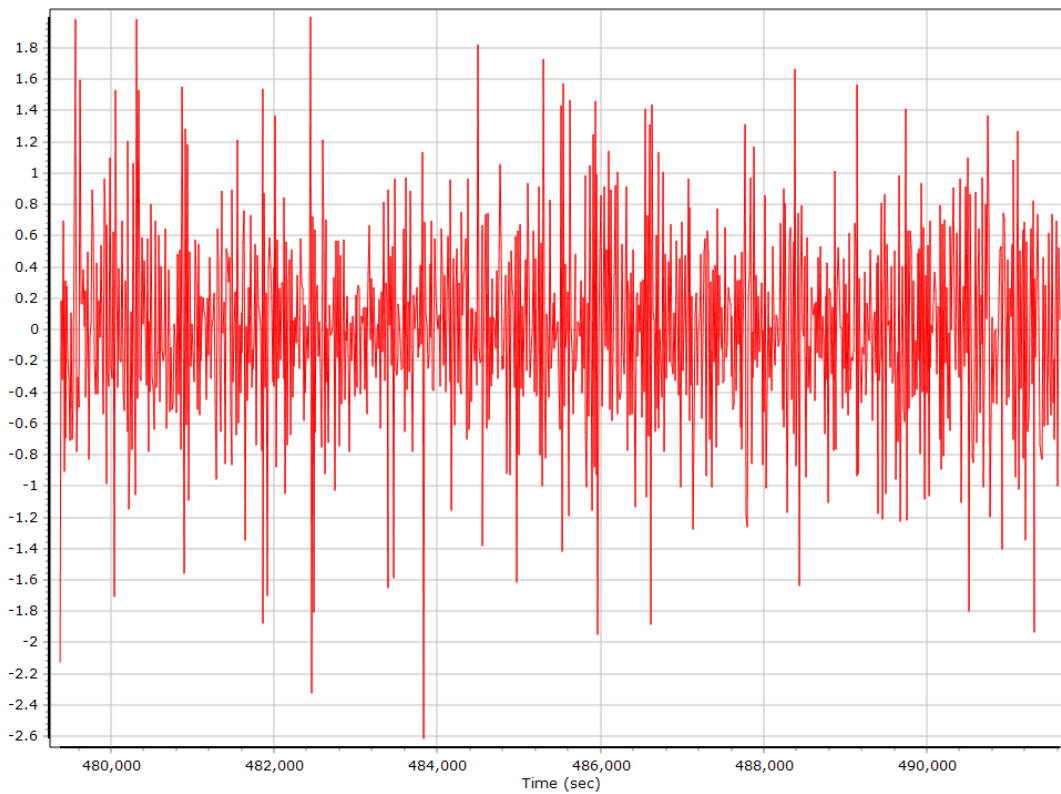
Heading



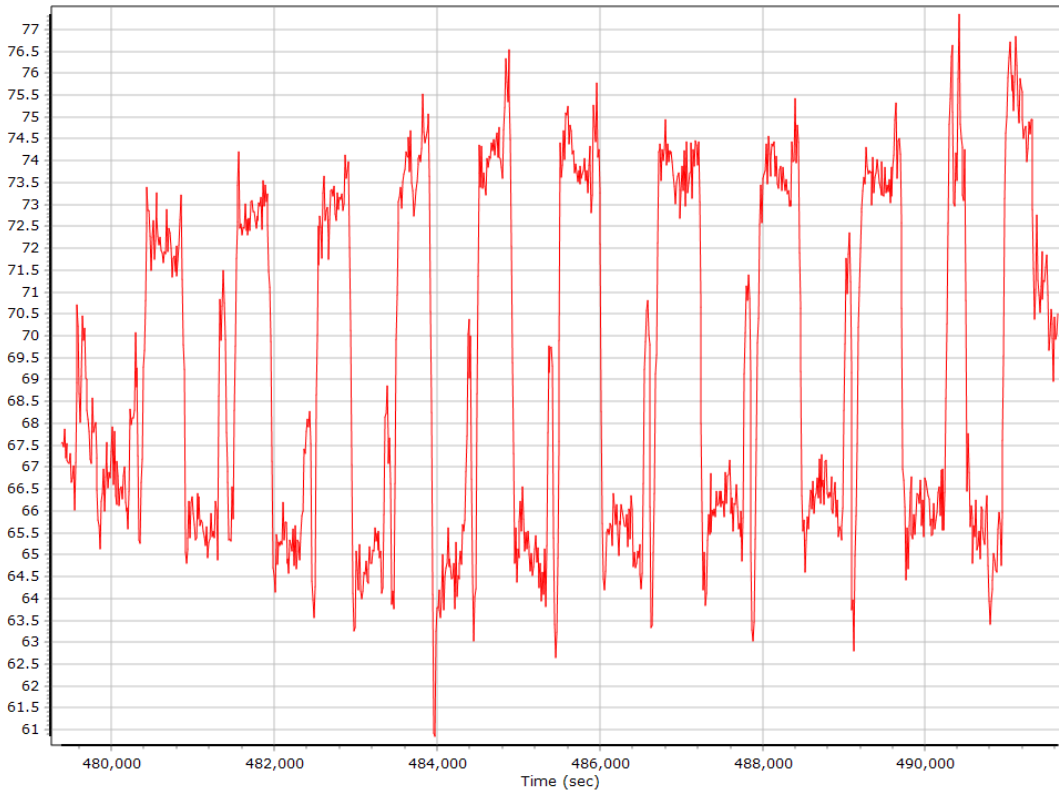
North/East Velocity



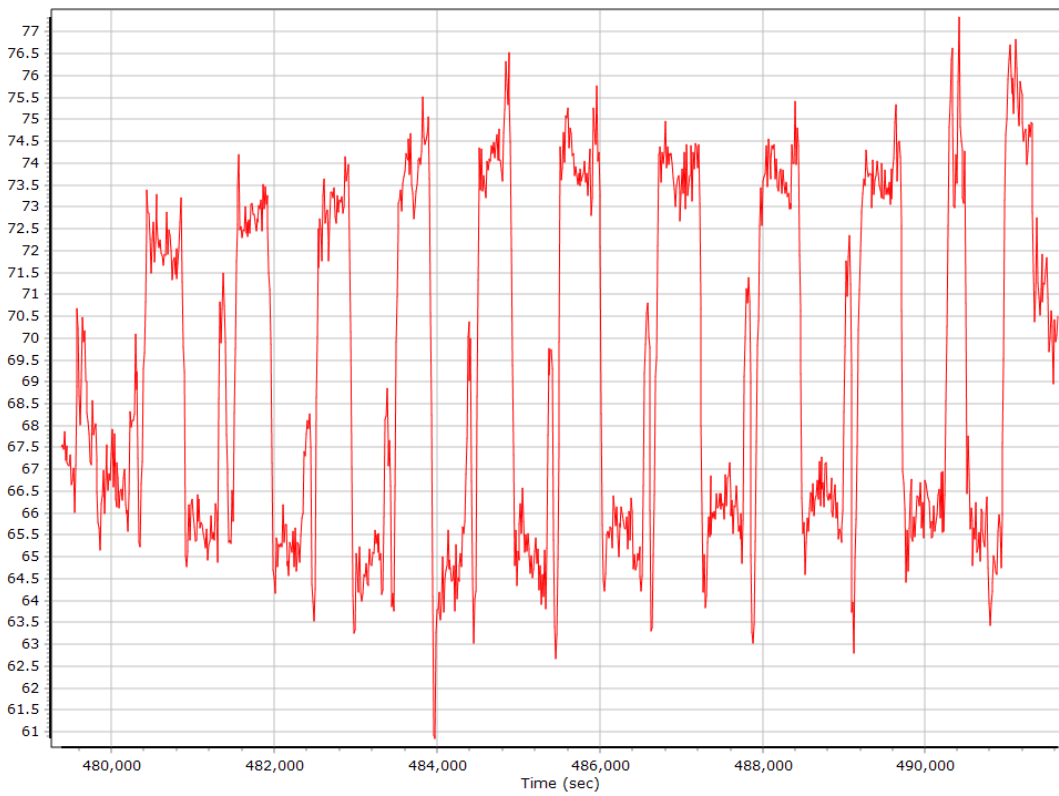
Down Velocity



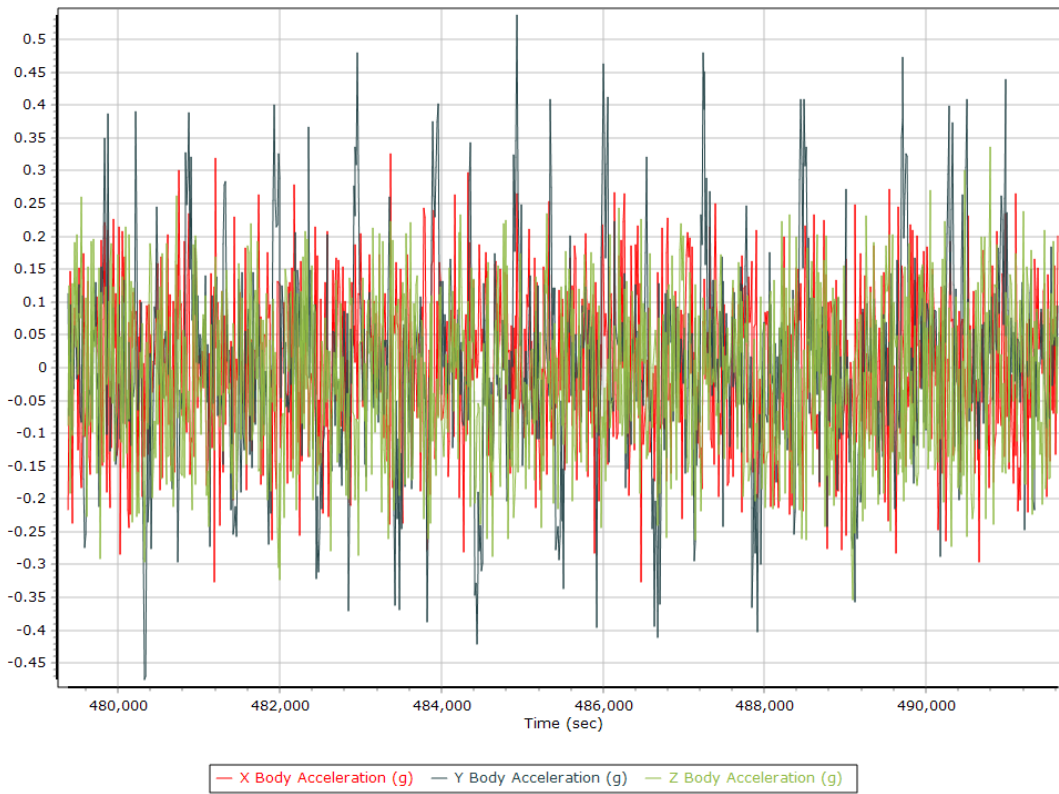
Total Speed



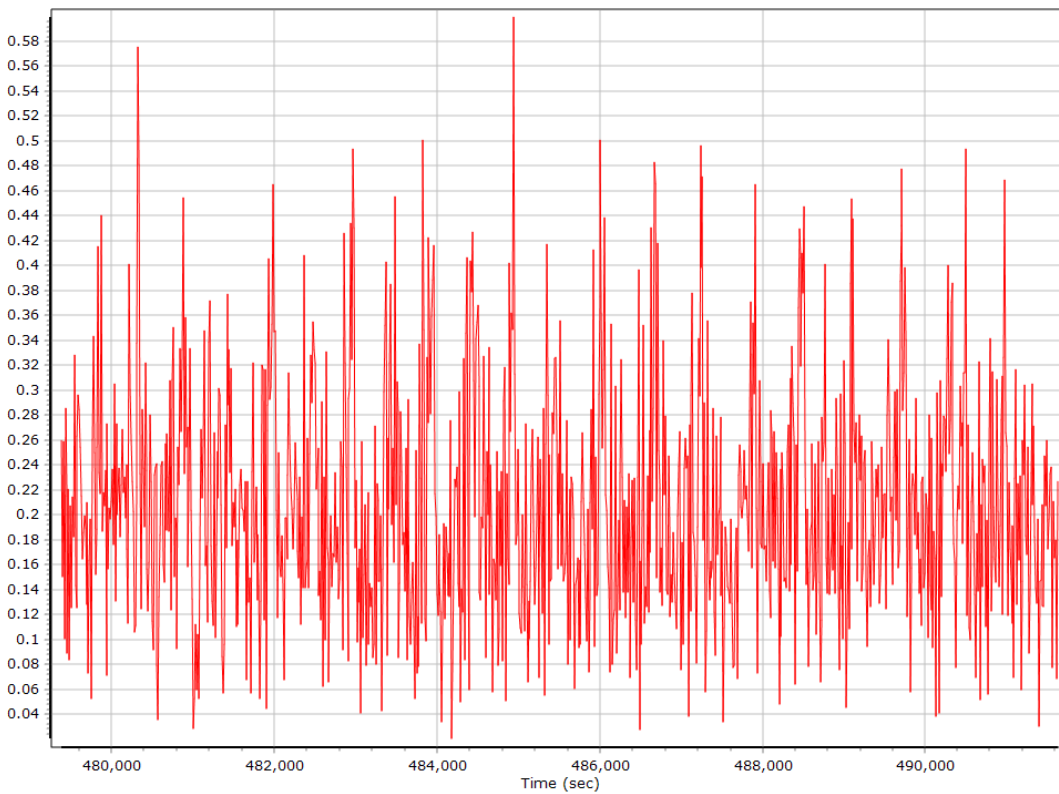
Ground Speed



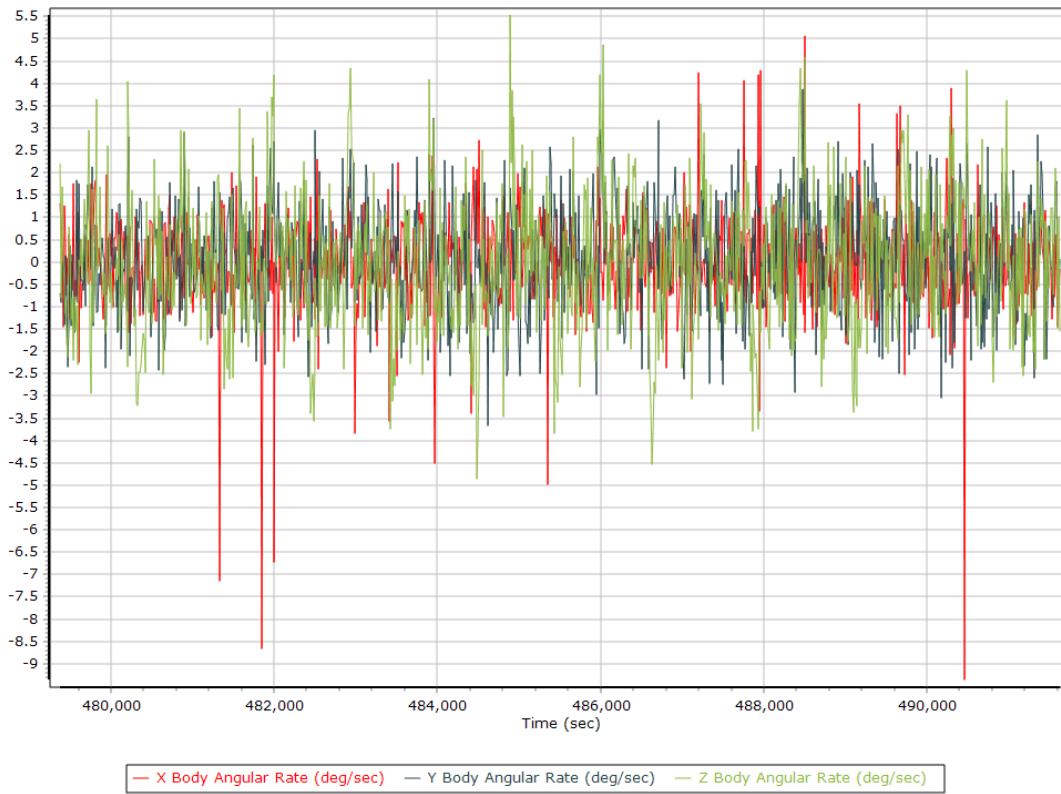
Body Acceleration



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]	0.01	147.55	
Number of GPS SV	5	9	8
Number of GLONASS SV	0	9	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Total number of SV	8	16	14
PDOP	1.25	2.37	1.52
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (s)	24062.00	0.00	1.00
Percentage	100.00	0.00	0.00

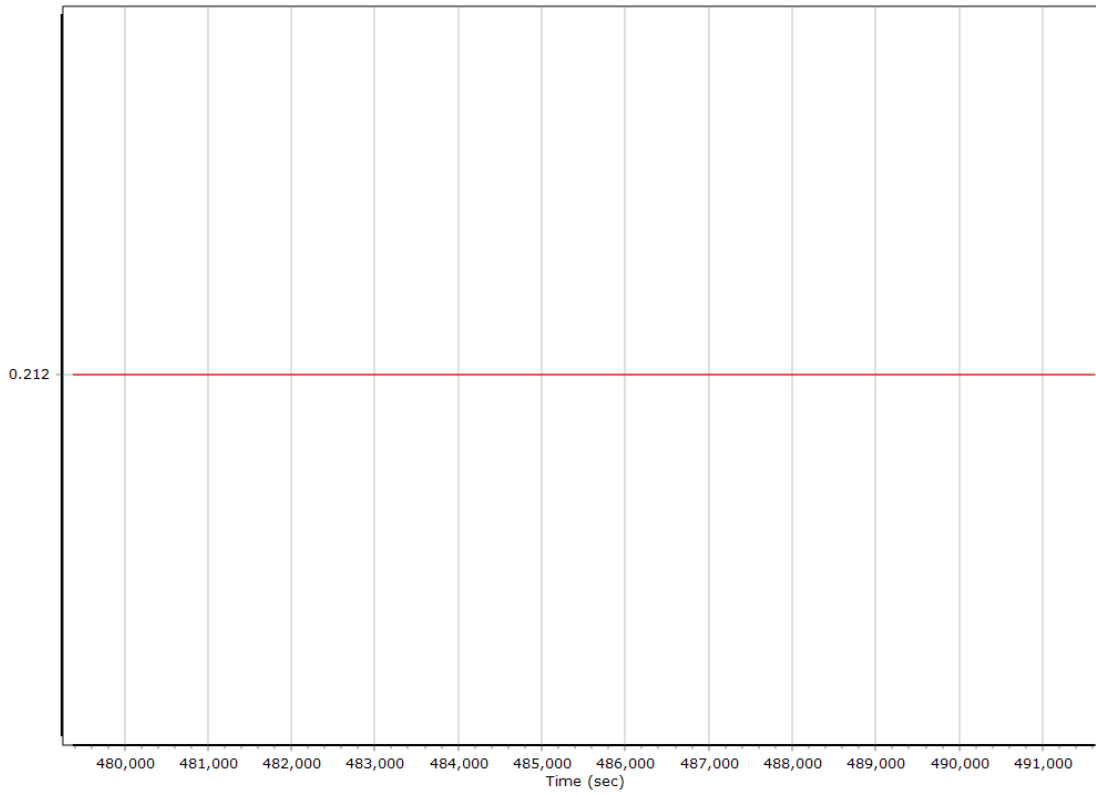
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion SmartBase		
Stabilized mount	False		
Base station	ASB		
Processing start time	479320.169 (12/7/2018 1:08:22 PM)		
Processing end time	491633.020 (12/7/2018 4:33:35 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

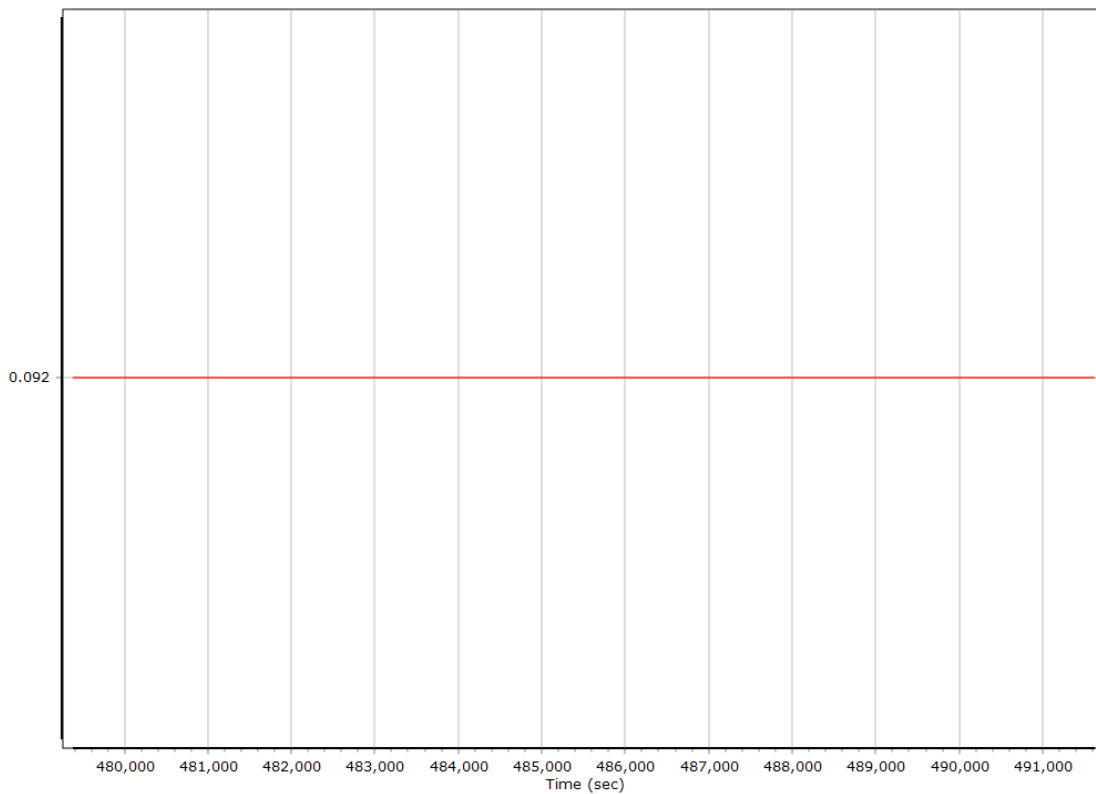
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm

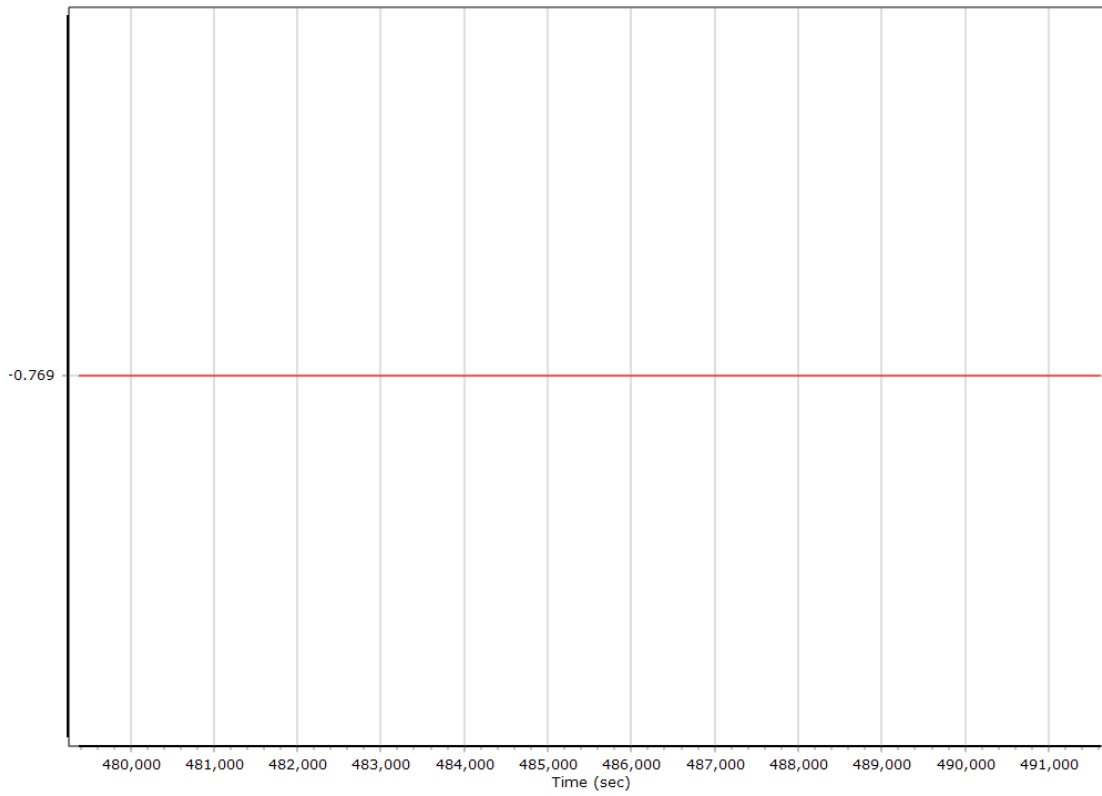
X Reference-Primary GNSS Lever Arm (m)



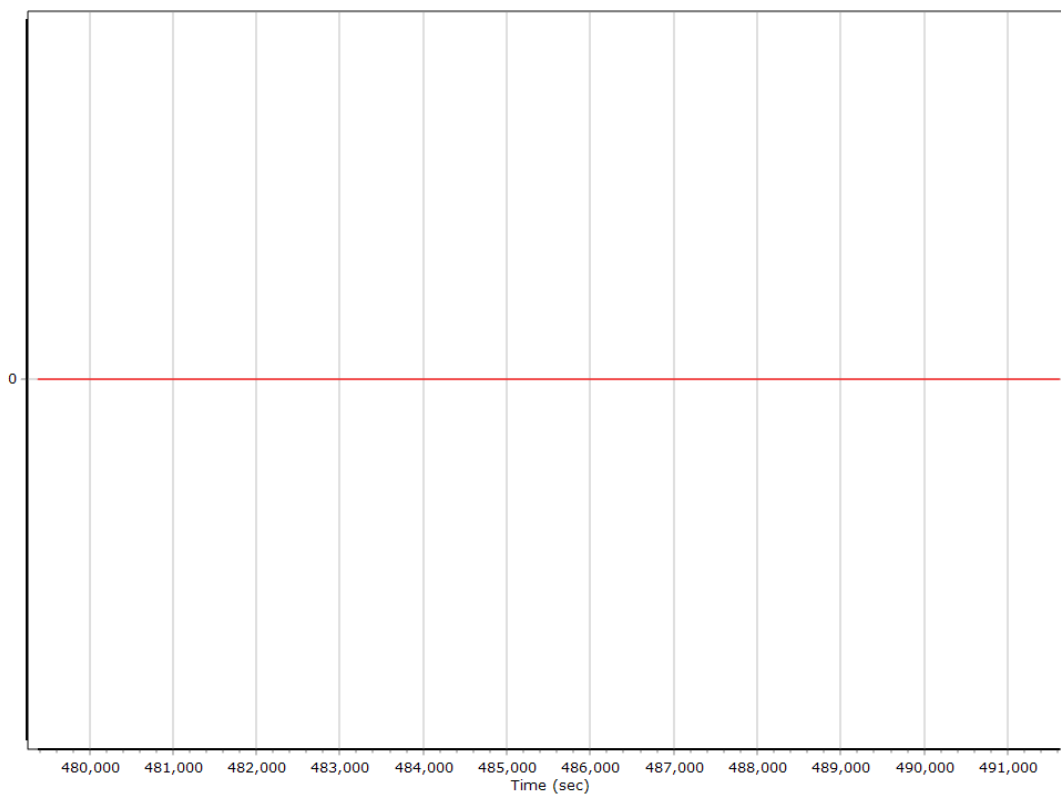
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



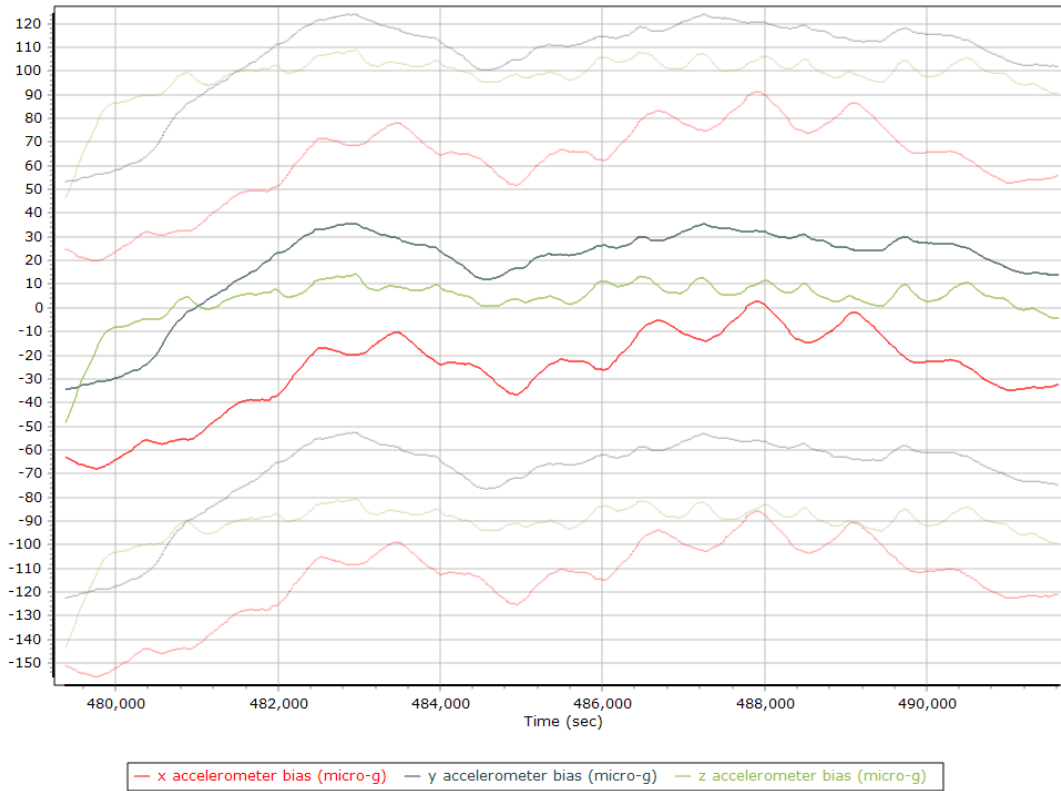
Reference-Primary GNSS Lever Arm Figure of Merit



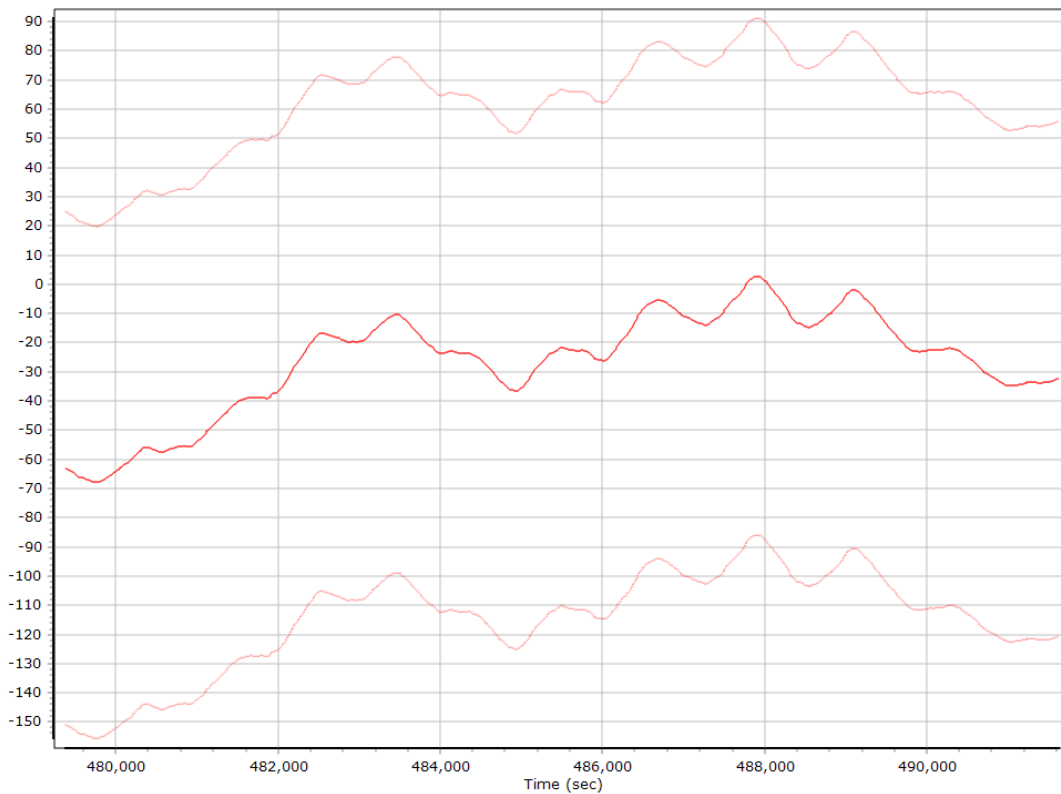
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

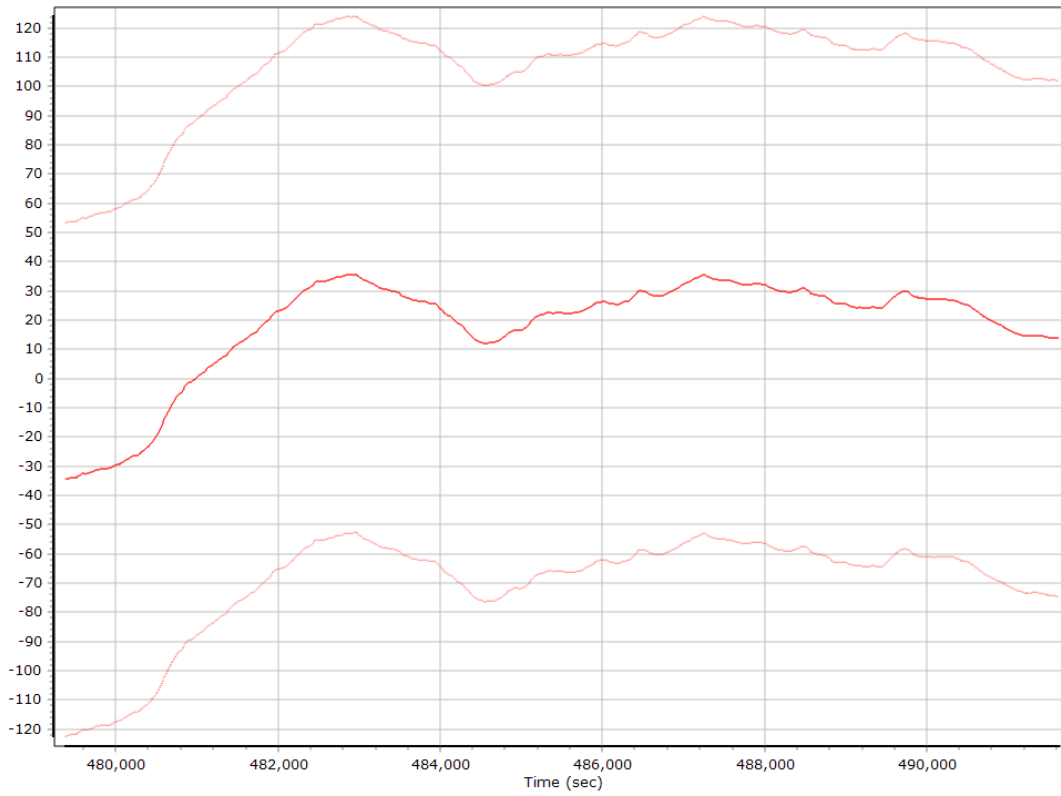
Accelerometer Bias (micro-g)



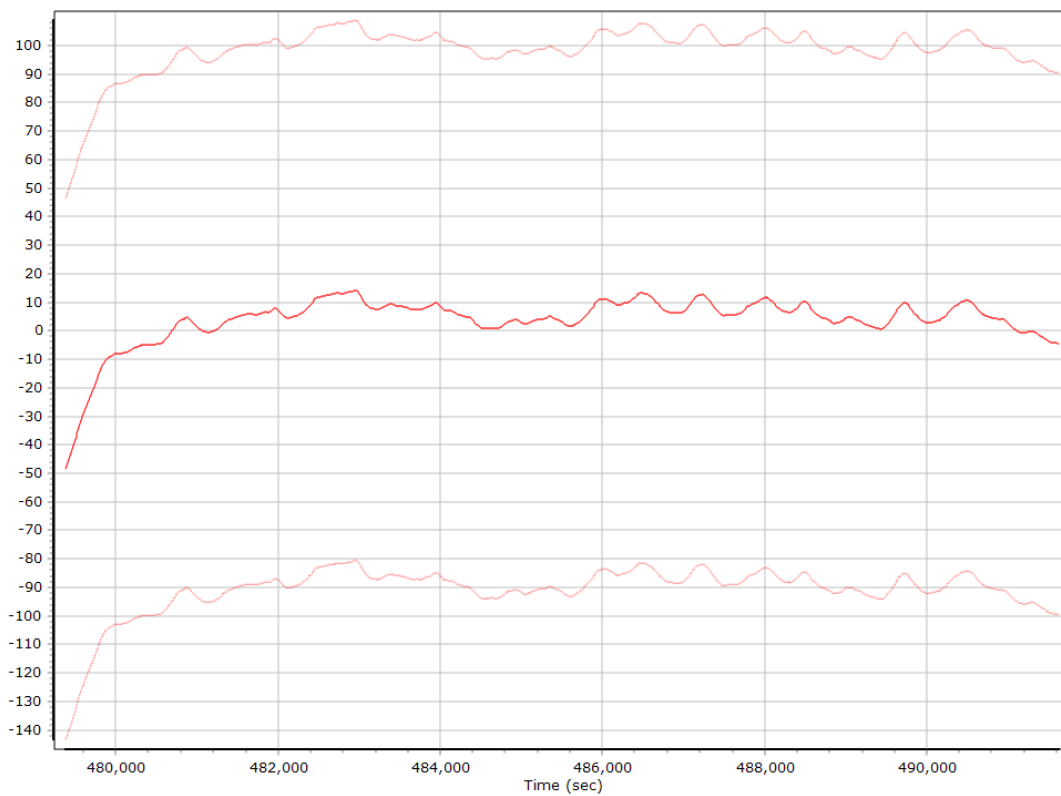
X Accelerometer Bias (micro-g)



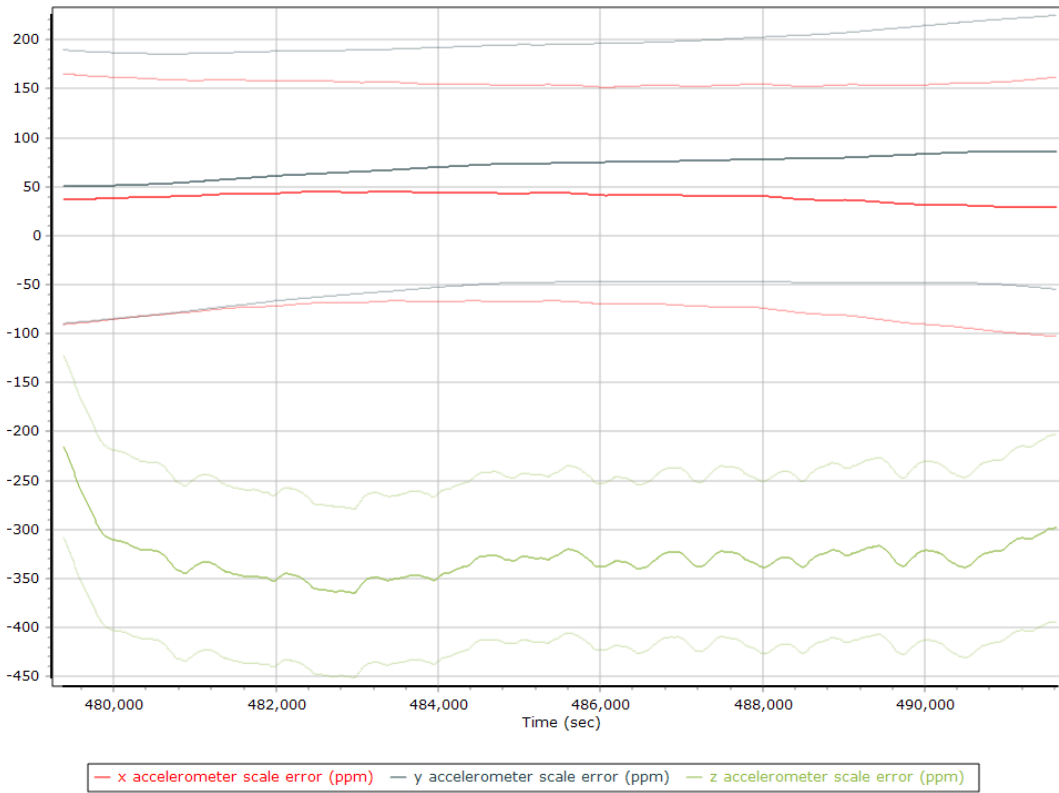
Y Accelerometer Bias (micro-g)



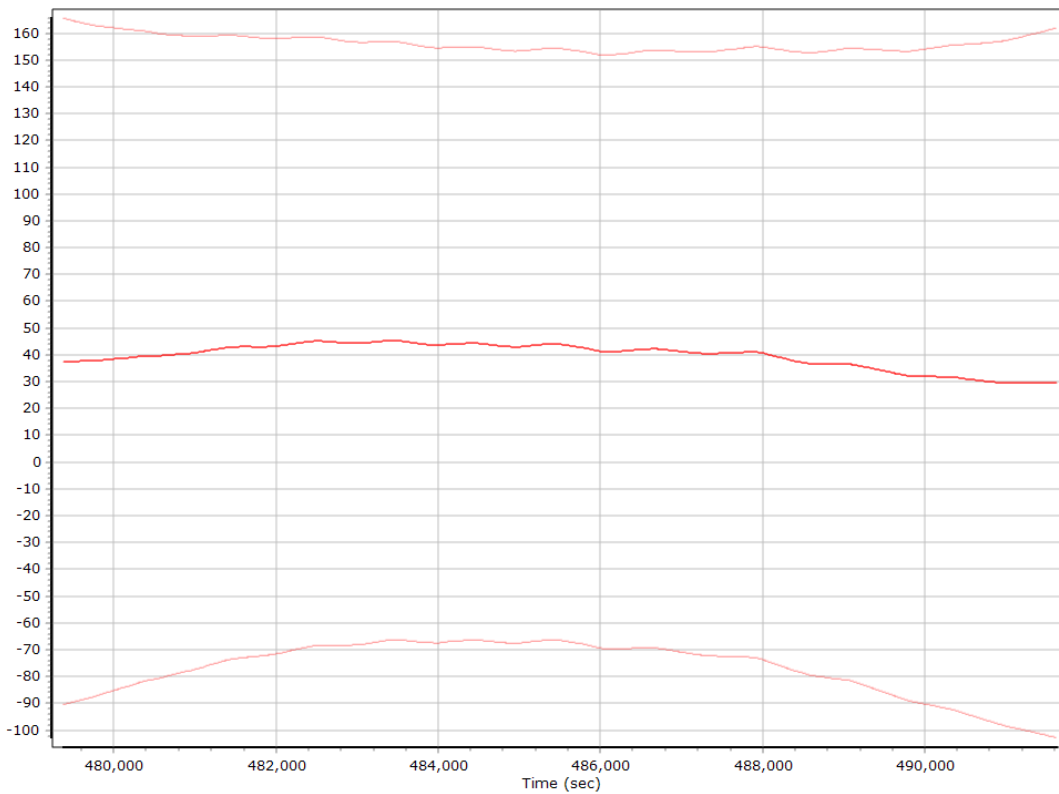
Z Accelerometer Bias (micro-g)



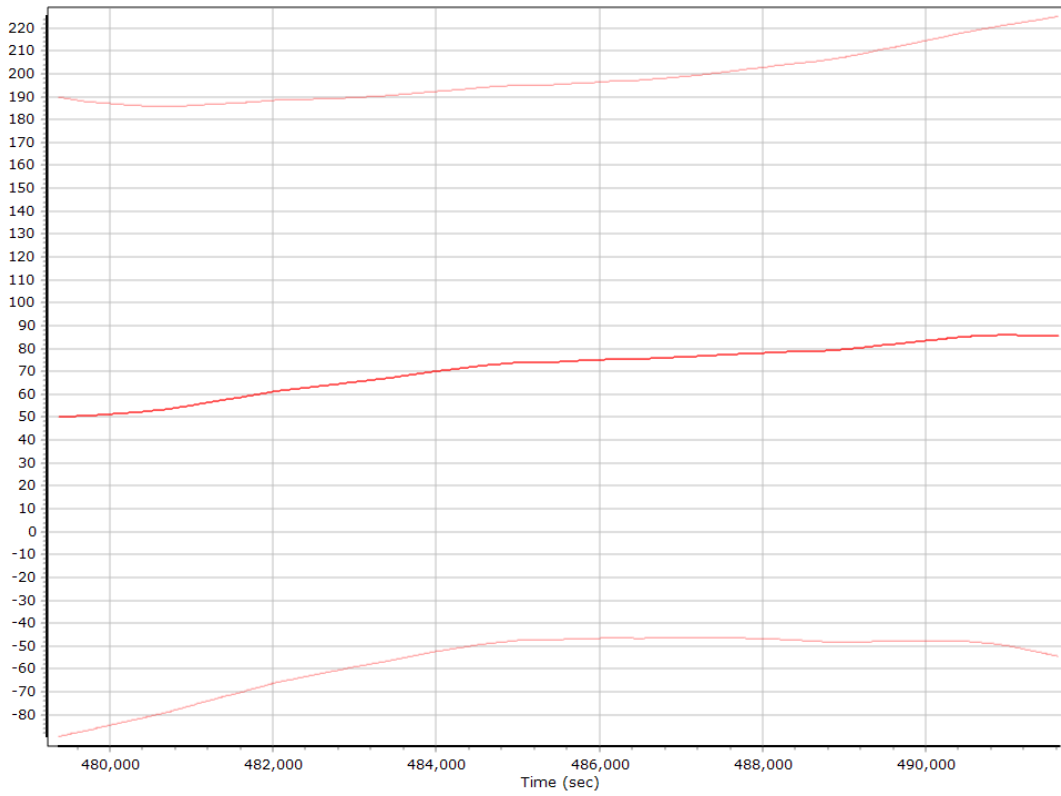
Accelerometer Scale Error (ppm)



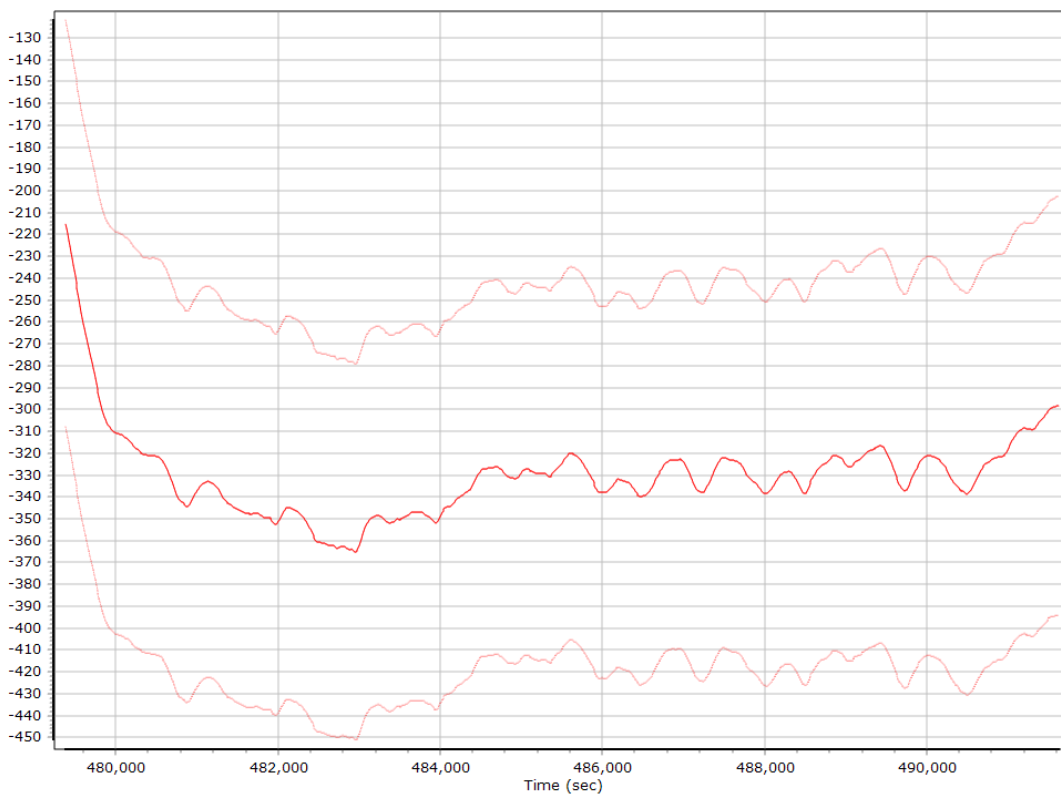
X Accelerometer Scale Error (ppm)



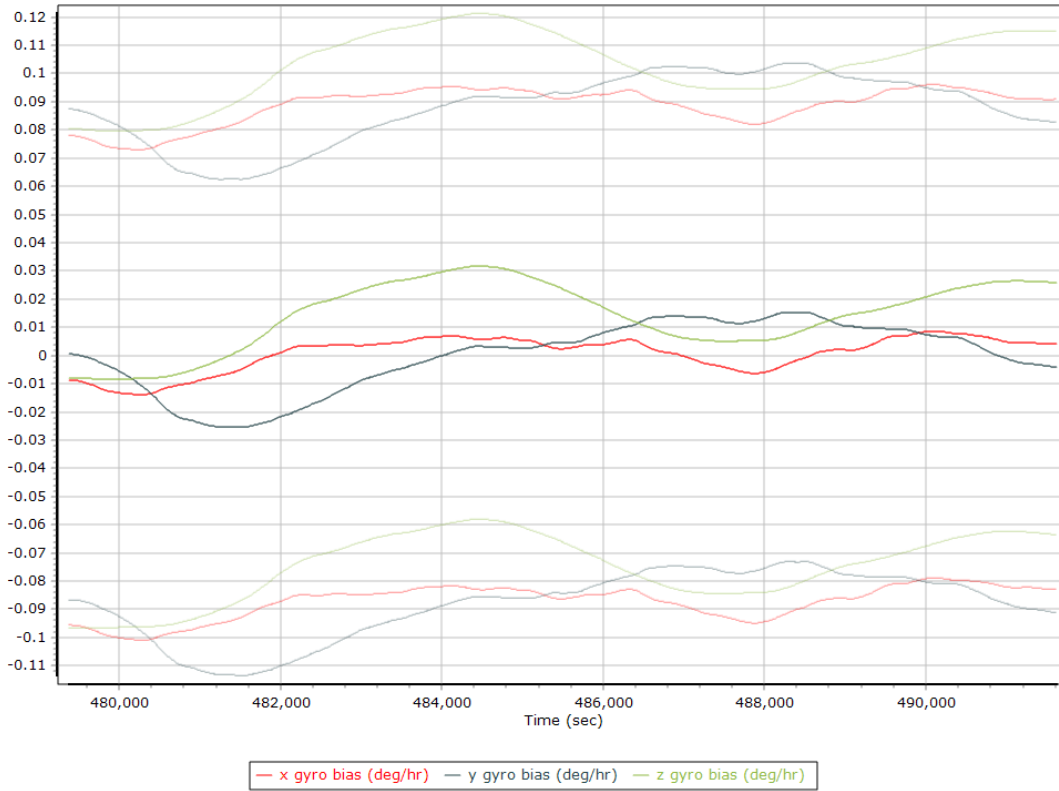
Y Accelerometer Scale Error (ppm)



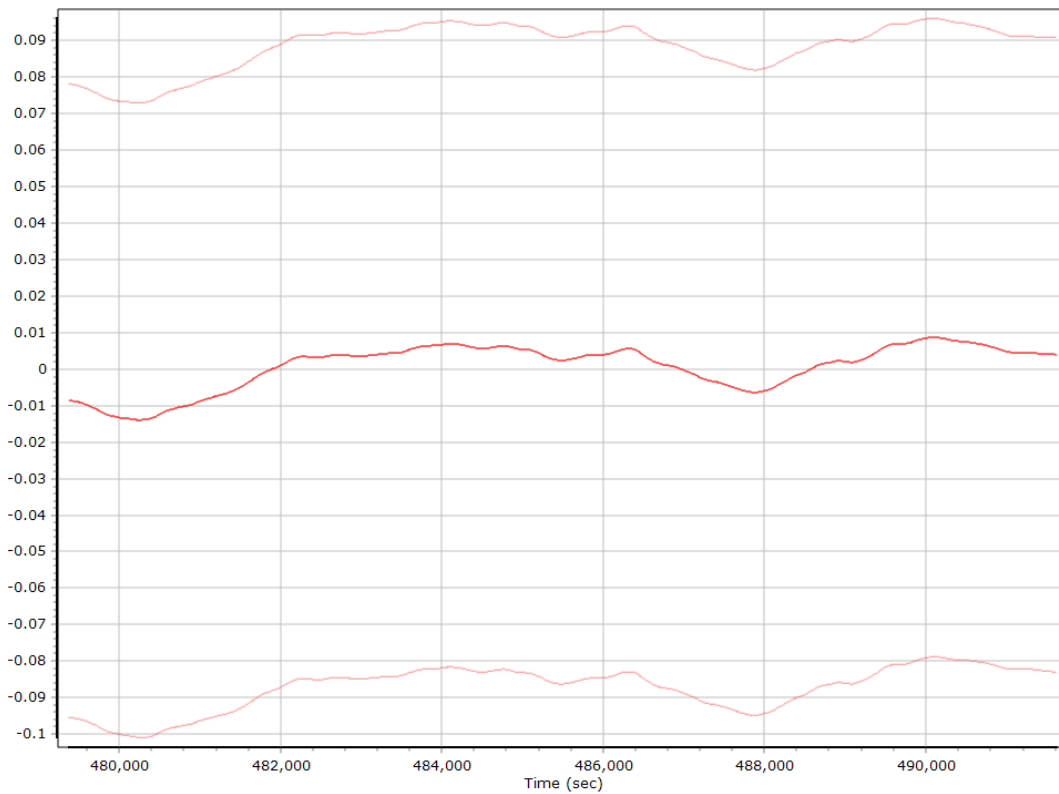
Z Accelerometer Scale Error (ppm)



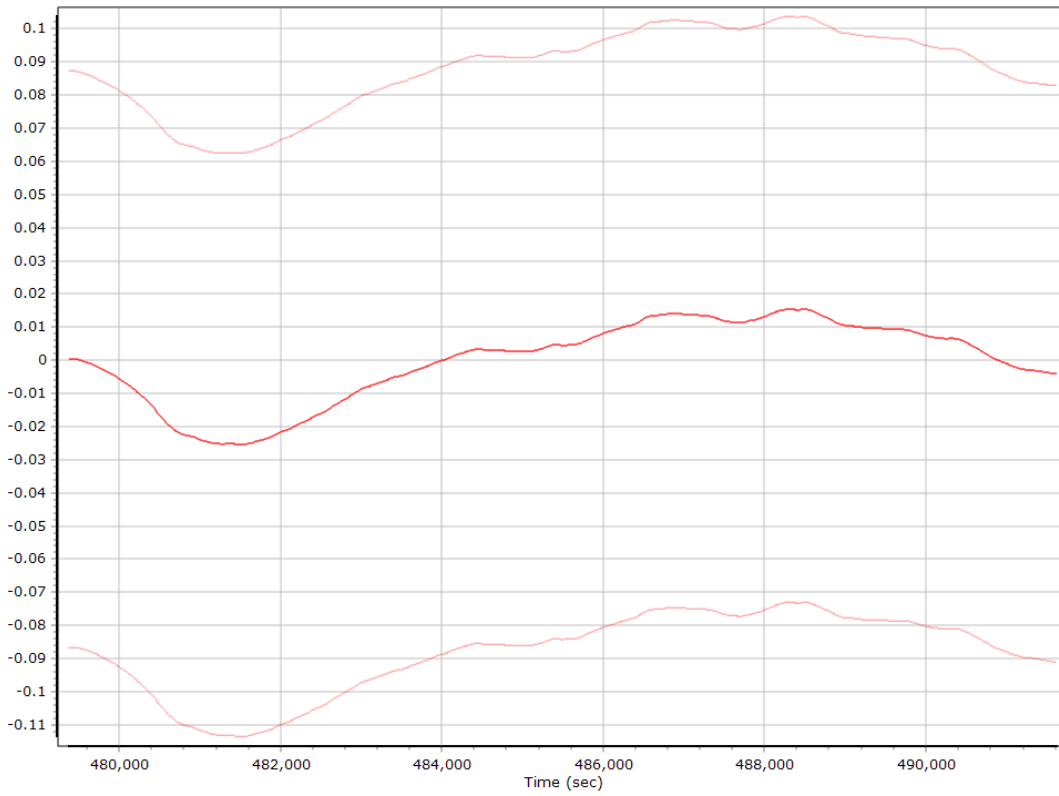
Gyro Bias (deg/h)



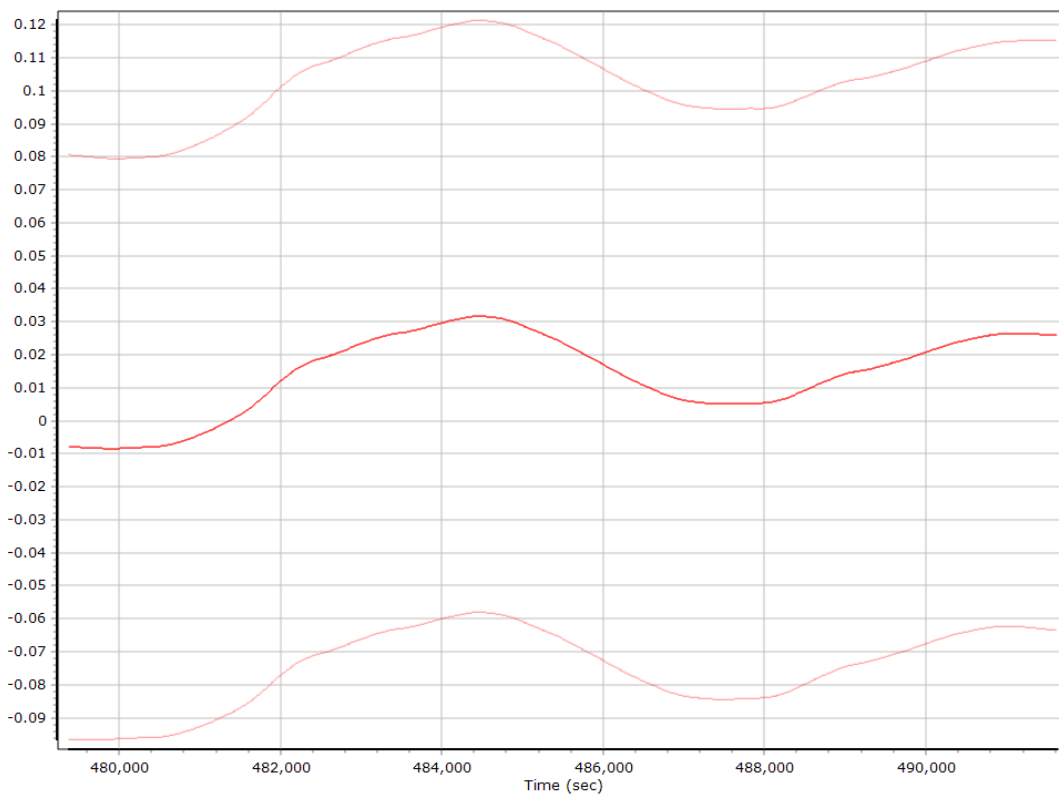
X Gyro Bias (deg/h)



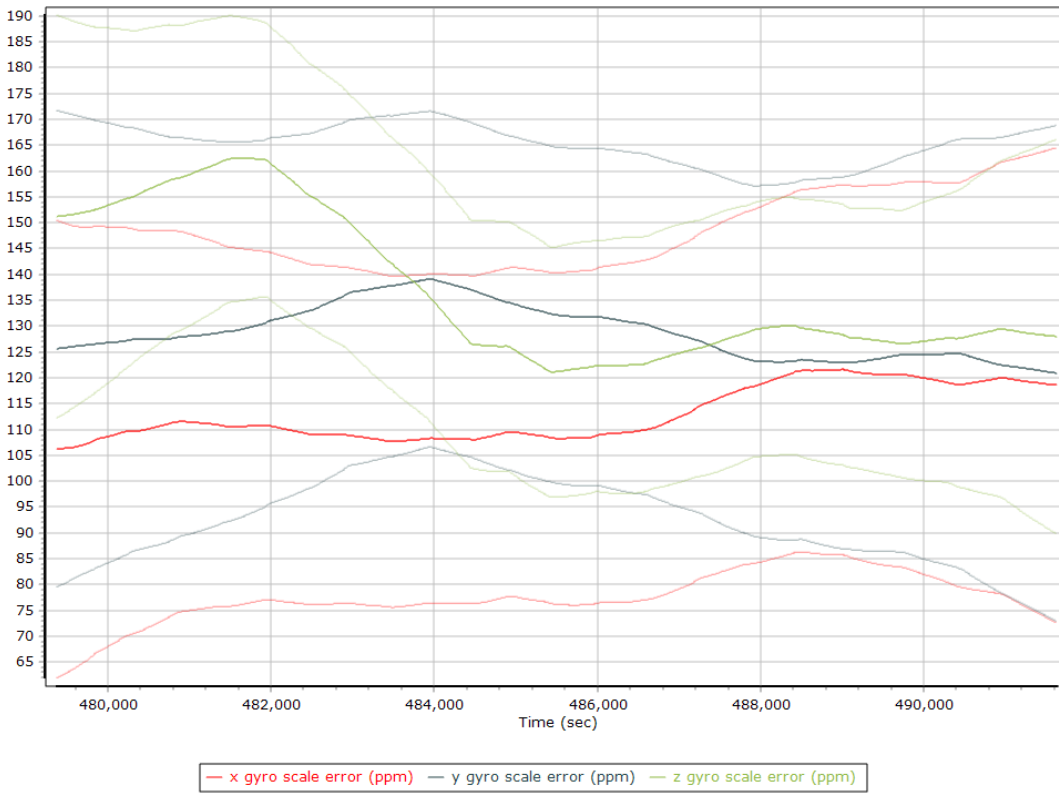
Y Gyro Bias (deg/h)



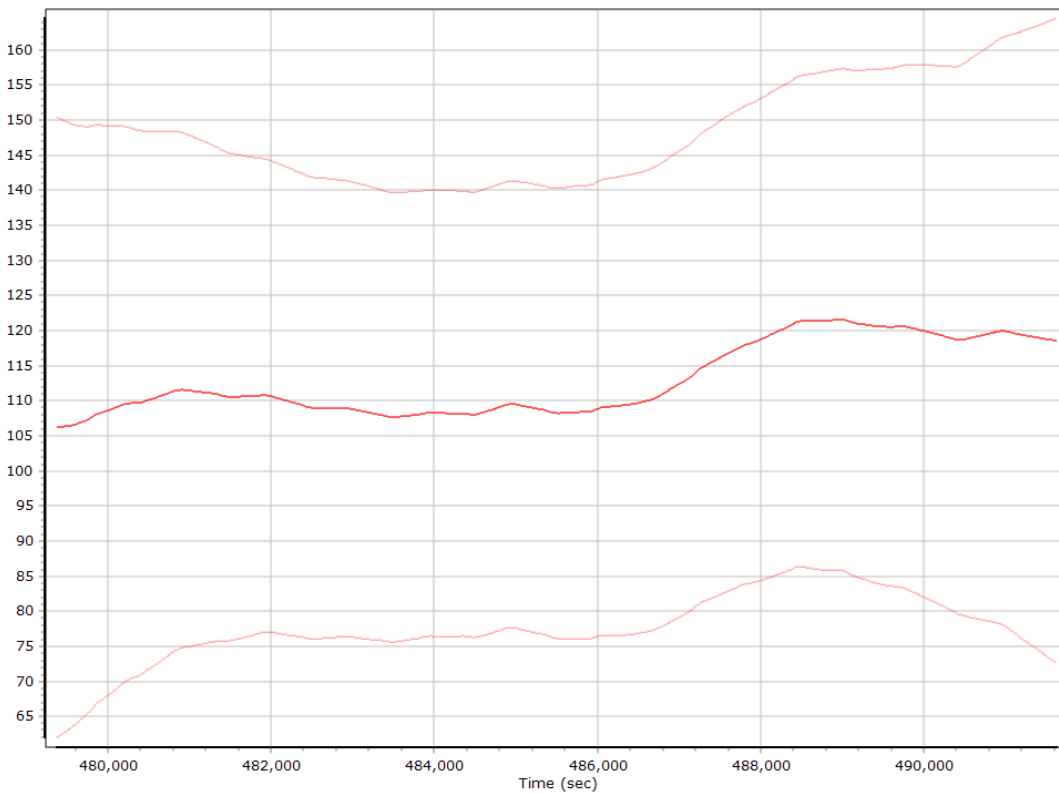
Z Gyro Bias (deg/h)



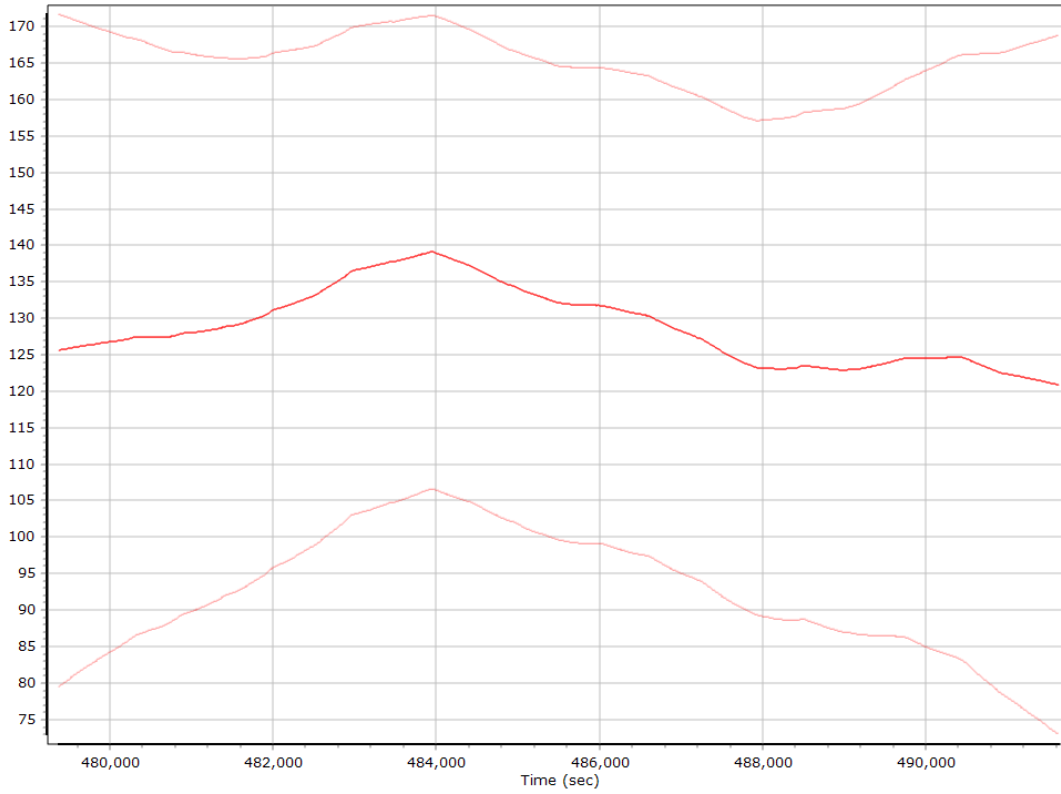
Gyro Scale Error (ppm)



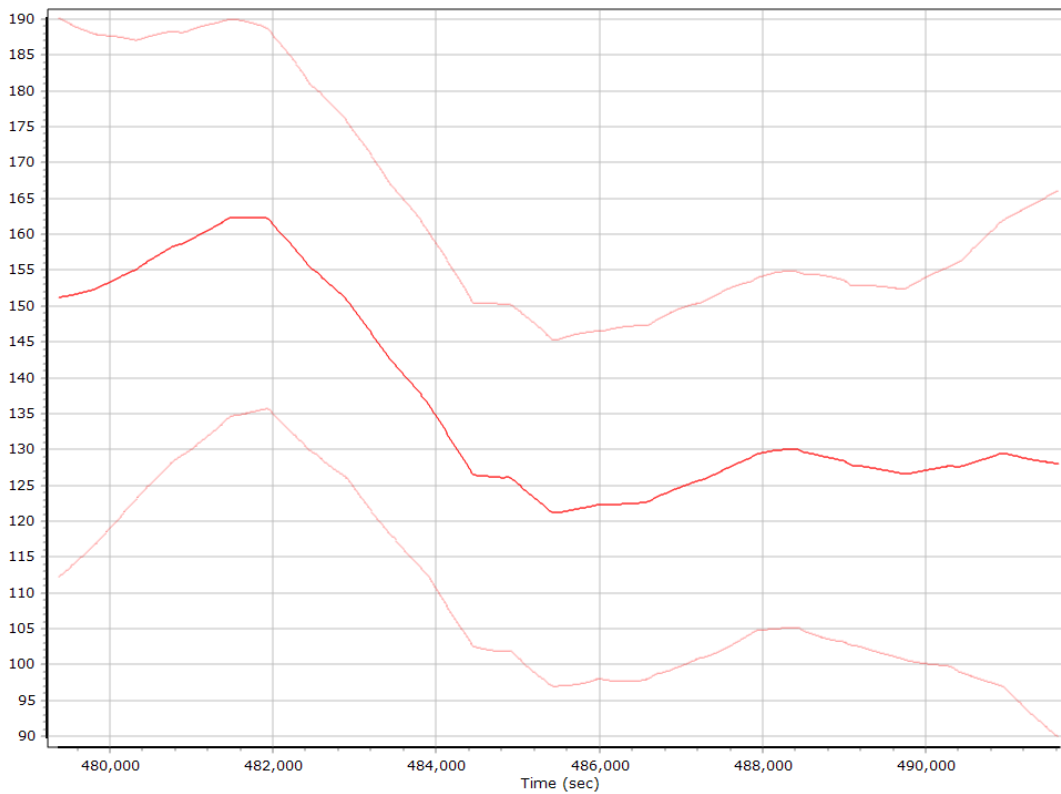
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

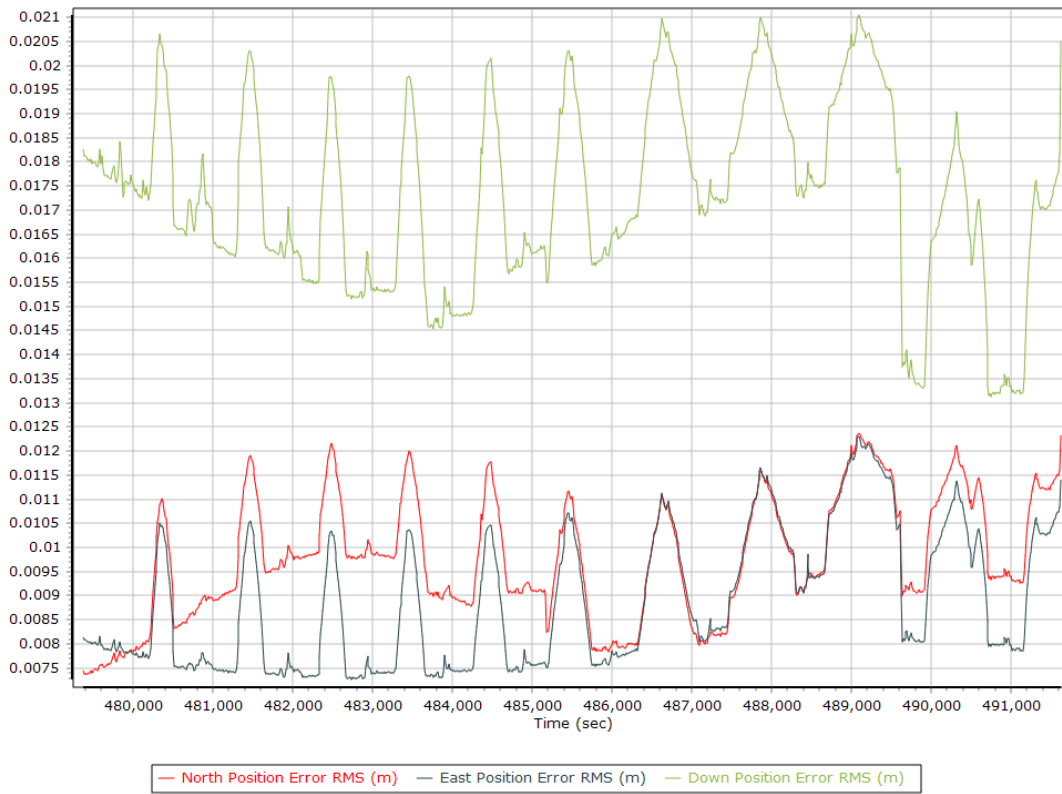


Z Gyro Scale Error (ppm)

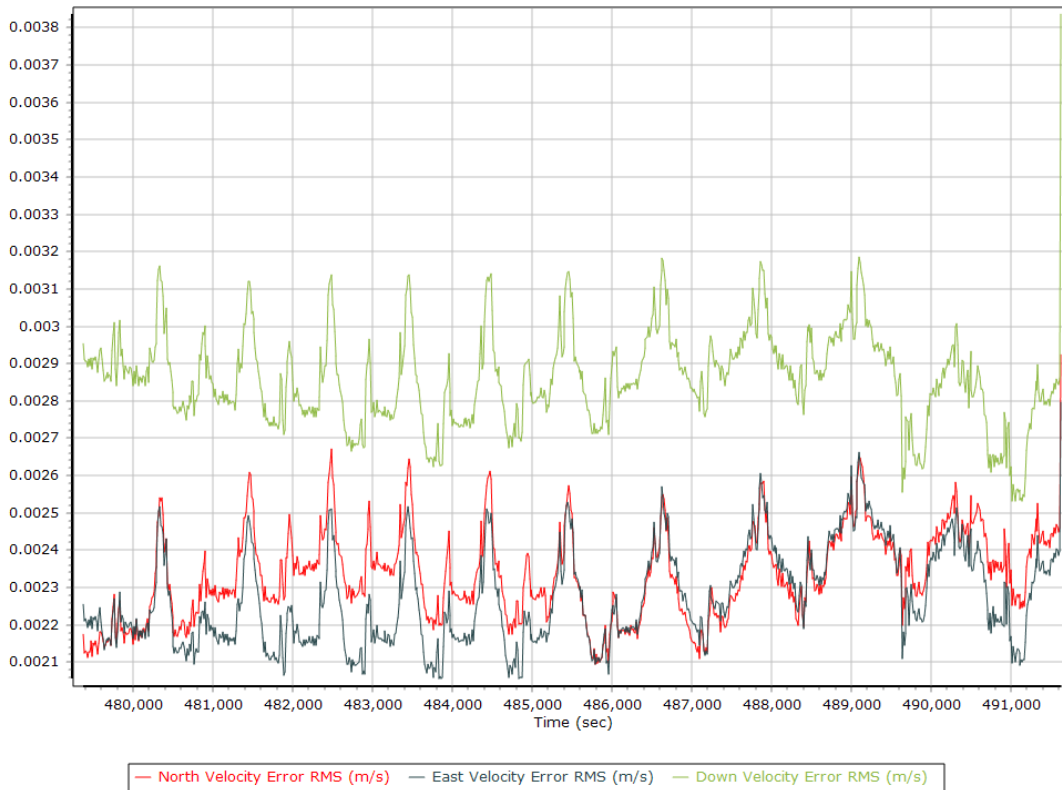


Smoothed Performance Metrics

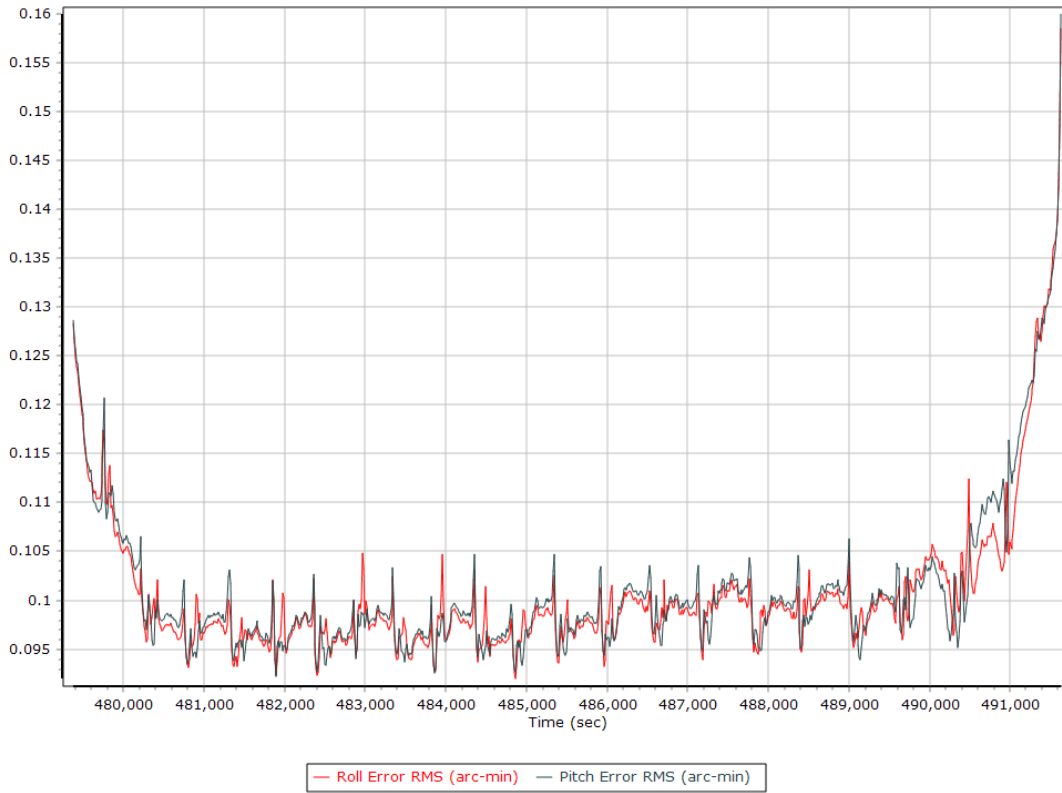
Position Error RMS (m)



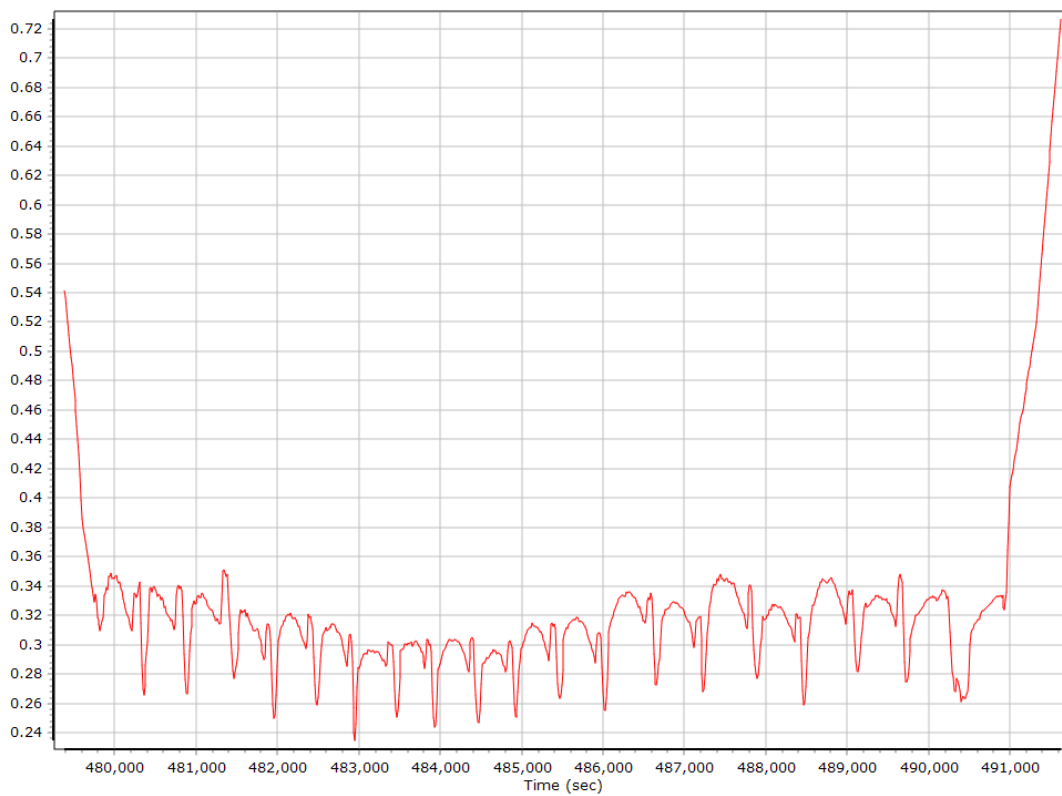
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

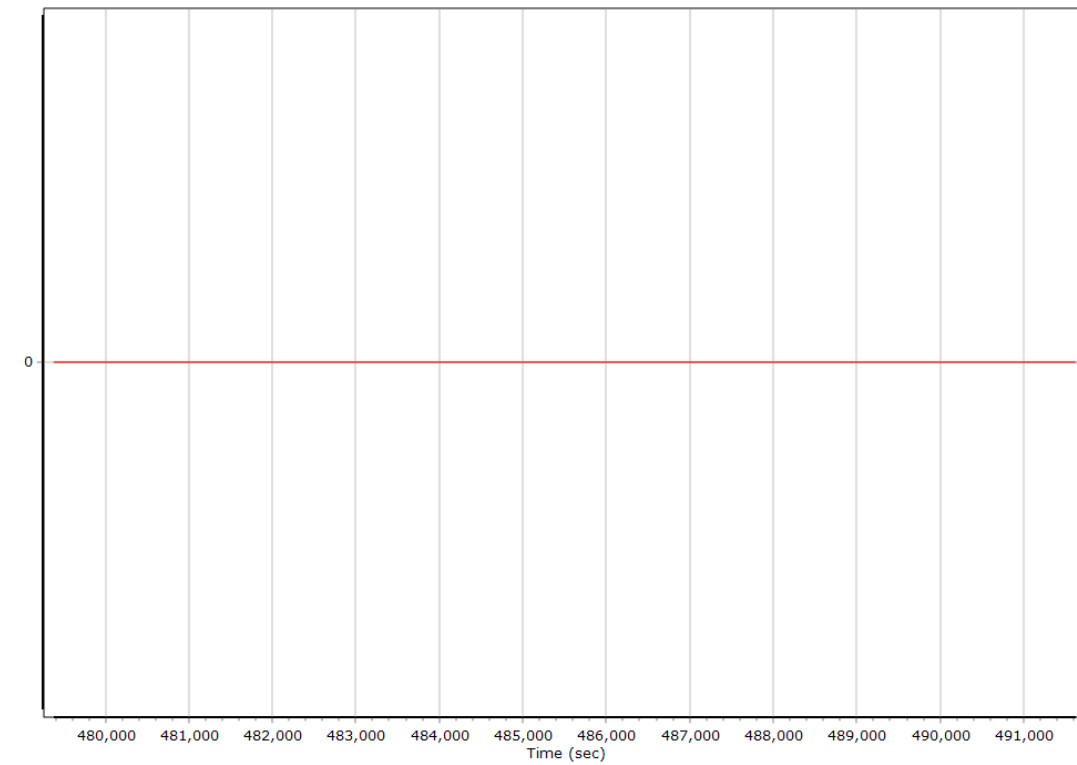


Heading Error RMS (arc-min)



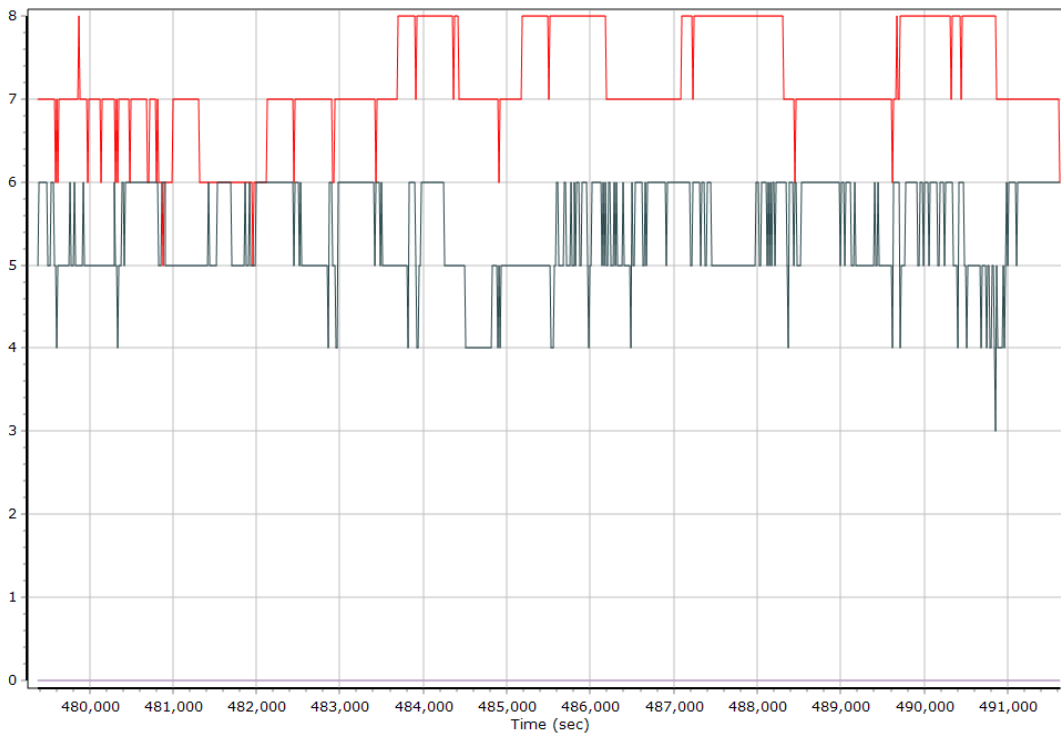
Smoothed Solution Status

Processing Mode



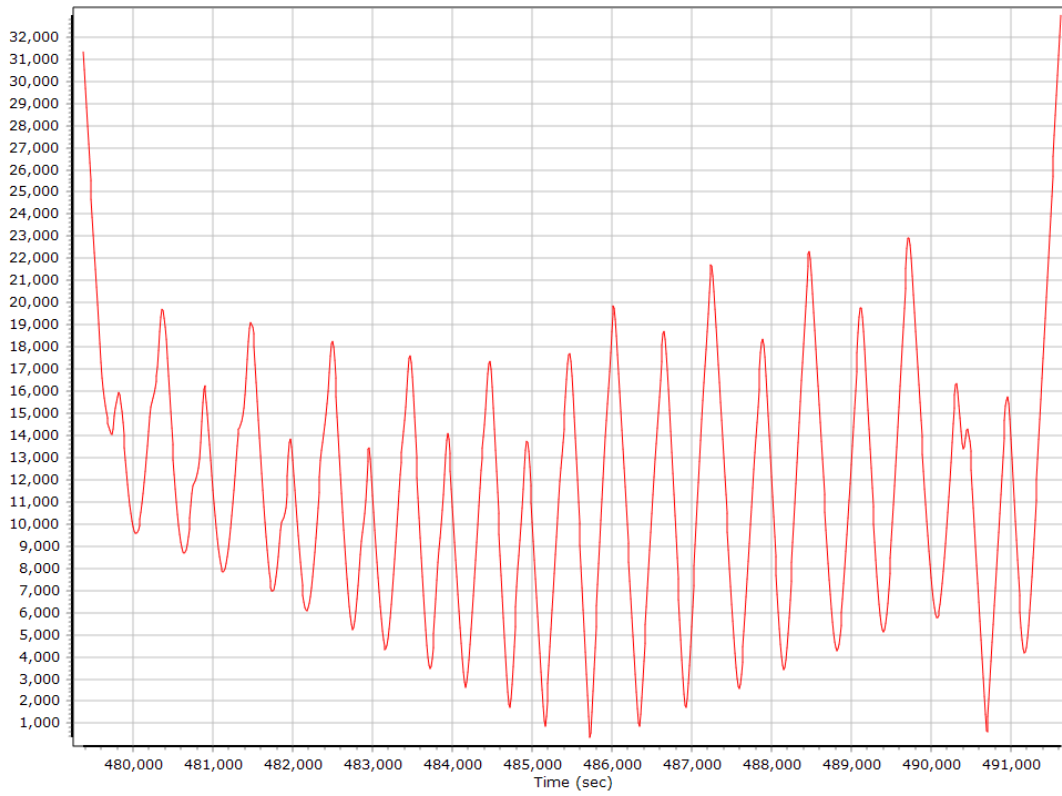
0 = Fixed NL, 1 = Fixed WL, 2 = Float, 3 = DGNSS, 4 = RTCM, 5 = IAPPP, 6 = C/A, 7 = GNSS Nav, 8 = DR

Number of Satellites



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

Baseline Length



SBET IAkar Separation

