

## General Information

### Mission Information

Project name	13284-1806_20190324
Processing date	2019-04-10 14:10:43
Mission date	2019-03-24 11:44:43
Mission duration	05:43:04.701
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
190324_114442_INS-GPS_1.raw	POS Data

### Input Files

File Name	File type
Ephm0830.19g	GLONASS Broadcast Ephemeris
Ephm0830.19n	GPS Broadcast Ephemeris
igl20456.sp3	GLONASS Precise Ephemeris
igs20456.sp3	GPS Precise Ephemeris
avon083k00.19o.gps+glo.rnx2	GNSS SingleBase
bkv1083k00.19o.gps+glo.rnx2	GNSS SingleBase
brtw083k00.19o.gps+glo.rnx2	GNSS SingleBase
flcc083k00.19o.gps+glo.rnx2	GNSS SingleBase
fld7083k00.19o.gps+glo.rnx2	GNSS SingleBase
fldc083k00.19o.gps+glo.rnx2	GNSS SingleBase
fleu083k00.19o.gps+glo.rnx2	GNSS SingleBase
flgr083k00.19o.gps+glo.rnx2	GNSS SingleBase
flks083k00.19o.gps+glo.rnx2	GNSS SingleBase
flwd083k00.19o.gps+glo.rnx2	GNSS SingleBase
orl1083k00.19o.gps+glo.rnx2	GNSS SingleBase
polk083k00.19o.gps+glo.rnx2	GNSS SingleBase
wach083k00.19o.gps+glo.rnx2	GNSS SingleBase
zefr083k00.19o.gps+glo.rnx2	GNSS SingleBase
igr20460.sp3	GPS Precise Ephemeris
igr20461.sp3	GPS Precise Ephemeris
igr20456.sp3	GPS Precise Ephemeris

### Output Files

Filename	File type
sbt_Mission 1.out	SBET Trajectory File

## Rover Data Summary

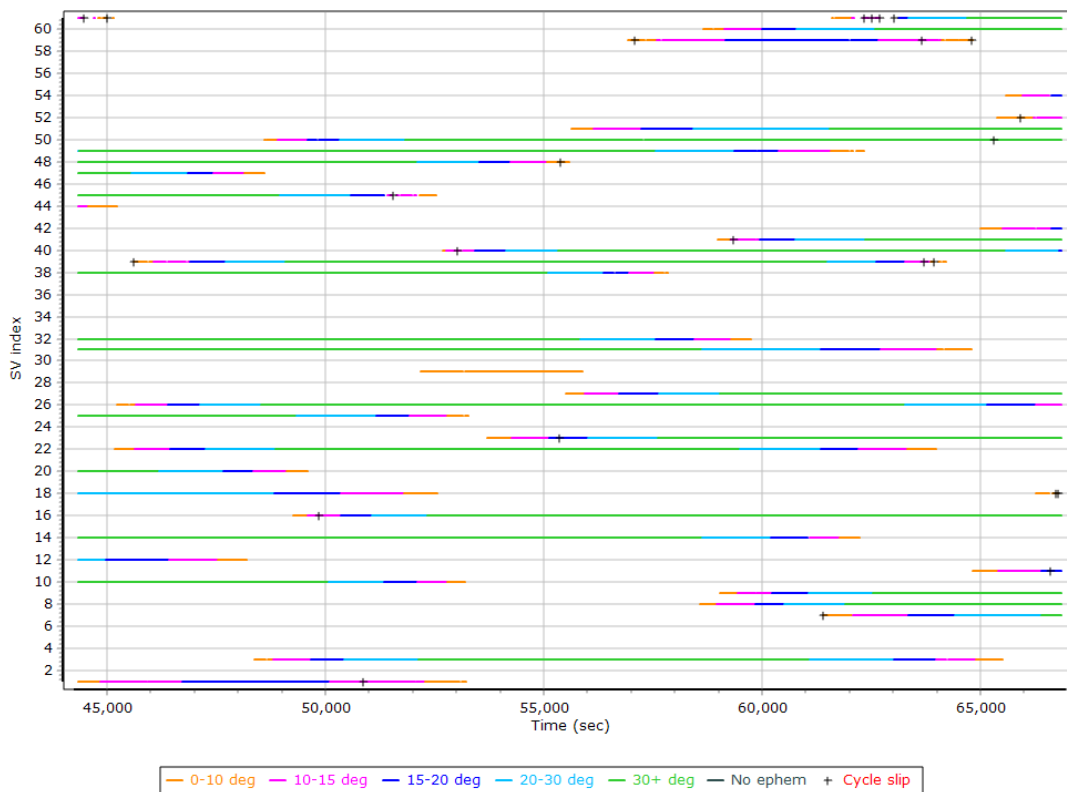
First raw data file	190324_114442_INS-GPS_1.raw		
Last raw data file	190324_114442_INS-GPS_1.raw		
Start GPS week	2046		
Start time	42282.292 (3/24/2019 11:44:24 AM)		
End time	66867.894 (3/24/2019 6:34:09 PM)		
Start of fine alignment	44272.941 (3/24/2019 12:17:34 PM)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	None		
Correction data	None		
<b>IMU Installation Lever Arms &amp; Mounting Angles</b>			
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

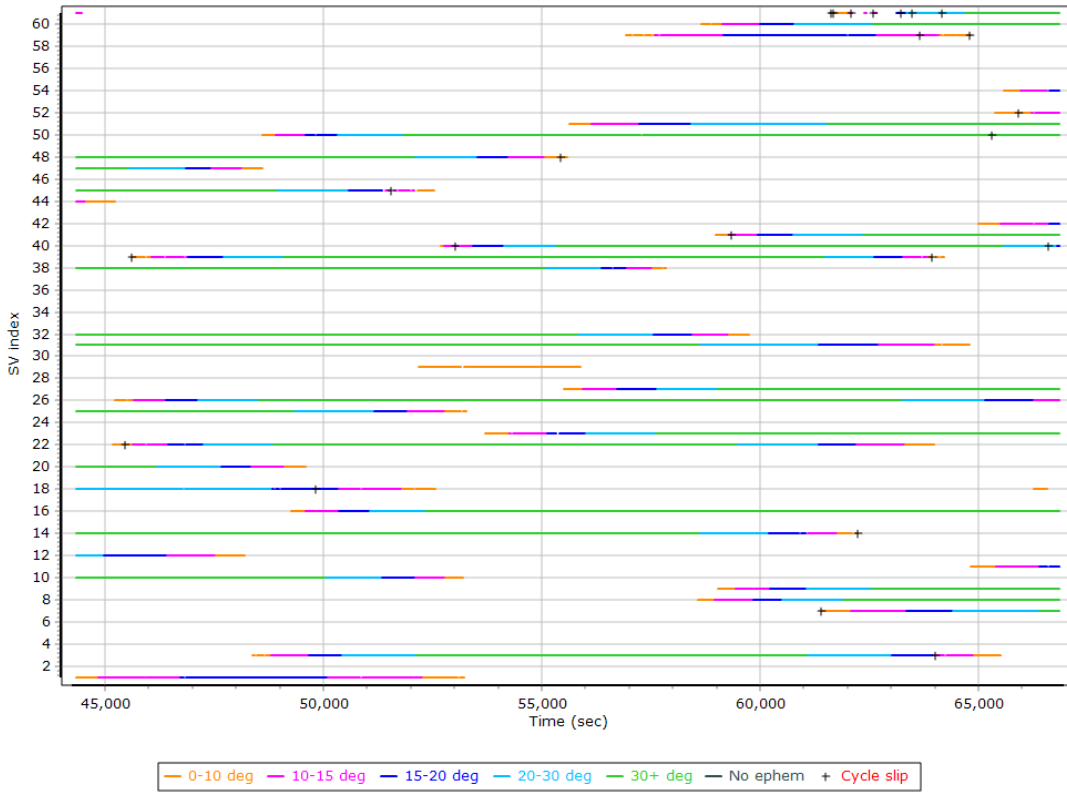
## Raw IMU Import QC Summary

IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_Mission 1.log
IMU Records Processed	4916220
Termination Status	Normal
IMU Anomalies	0

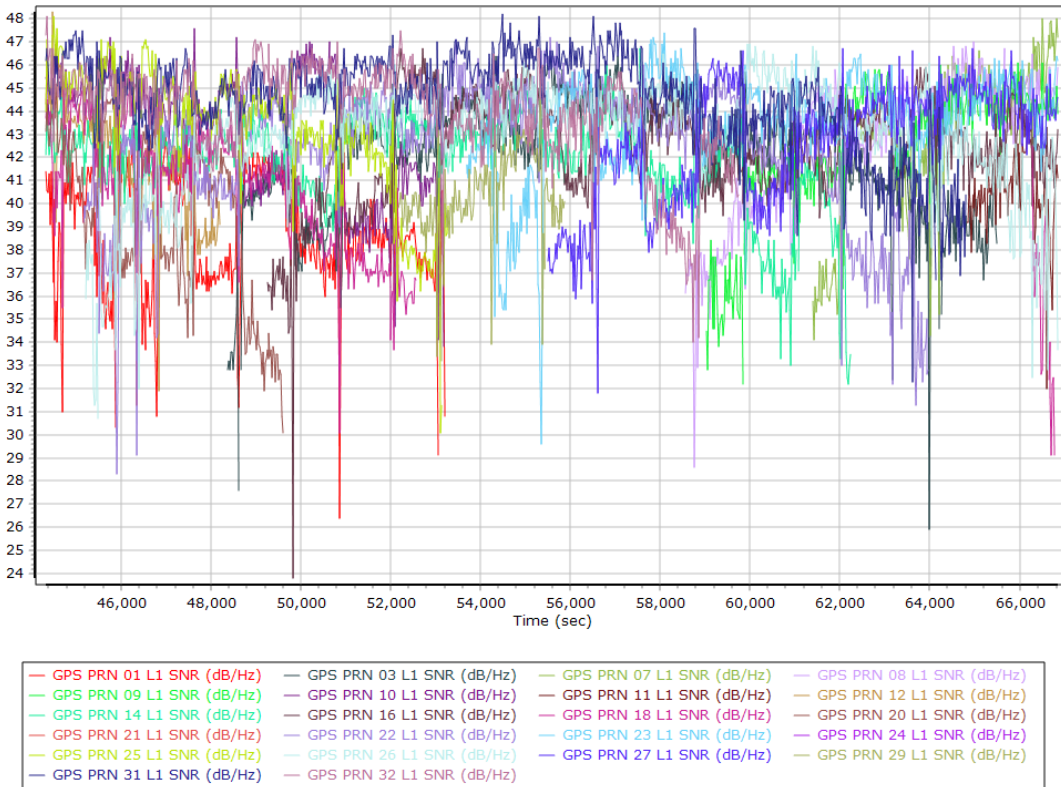
### L1 Satellite Lock/Elevation



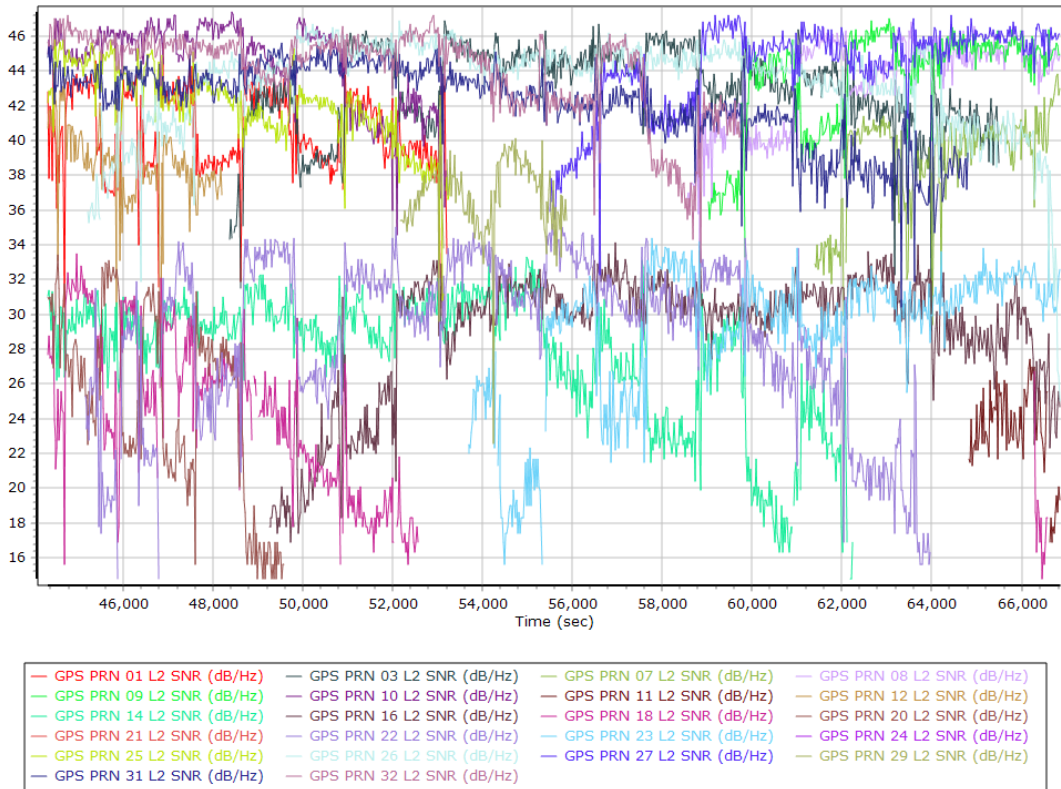
## L2 Satellite Lock/Elevation



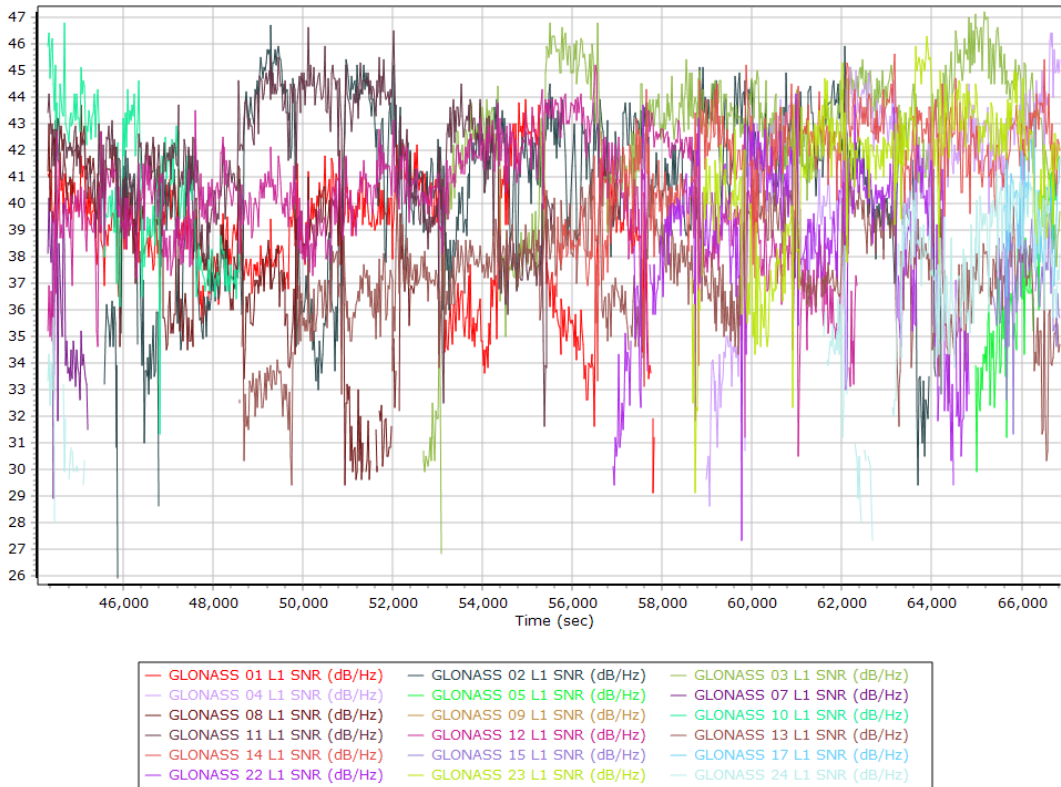
## GPS L1 SNR



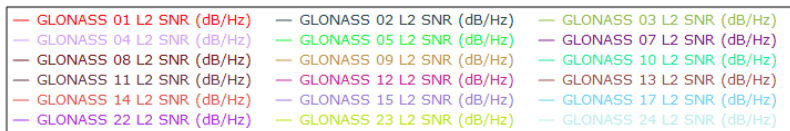
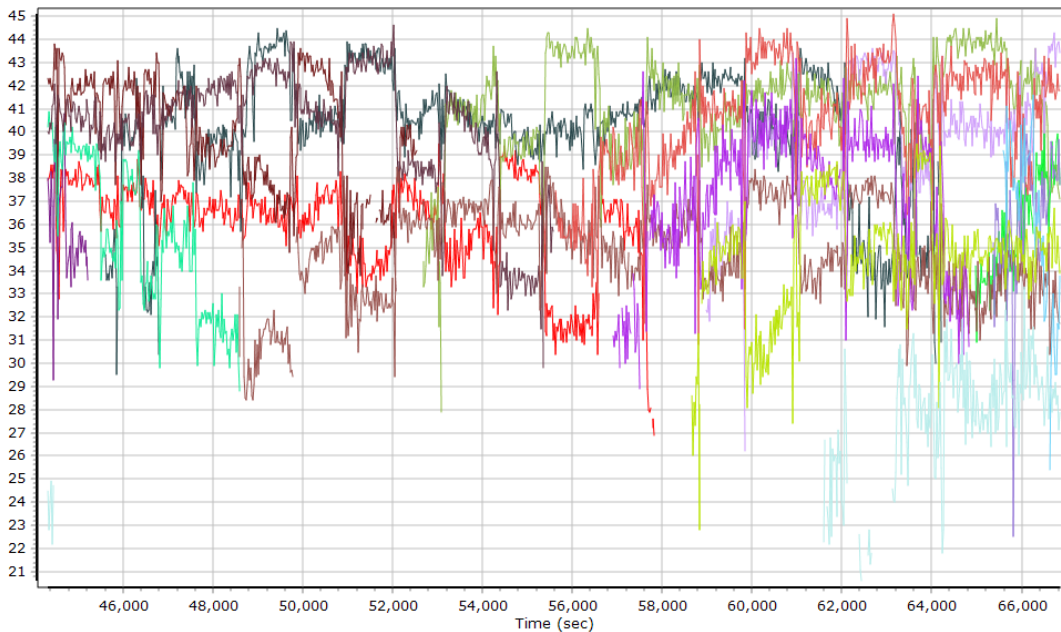
## GPS L2 SNR



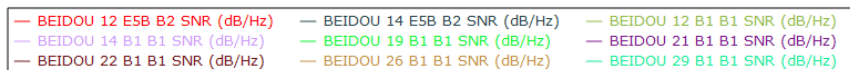
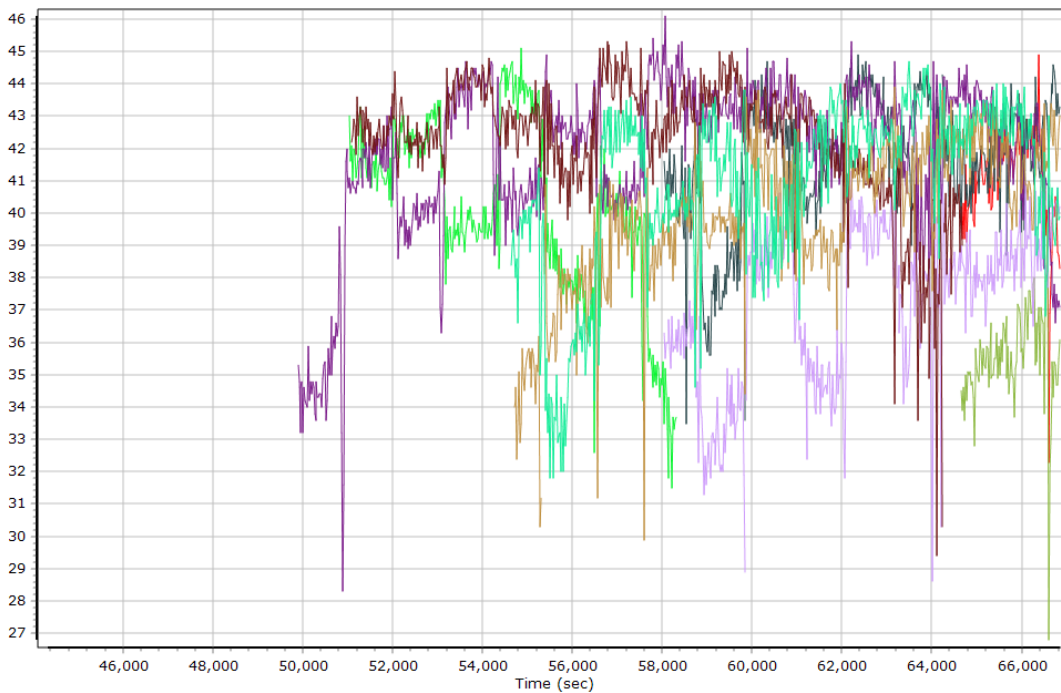
## GLONASS L1 SNR



## GLONASS L2 SNR

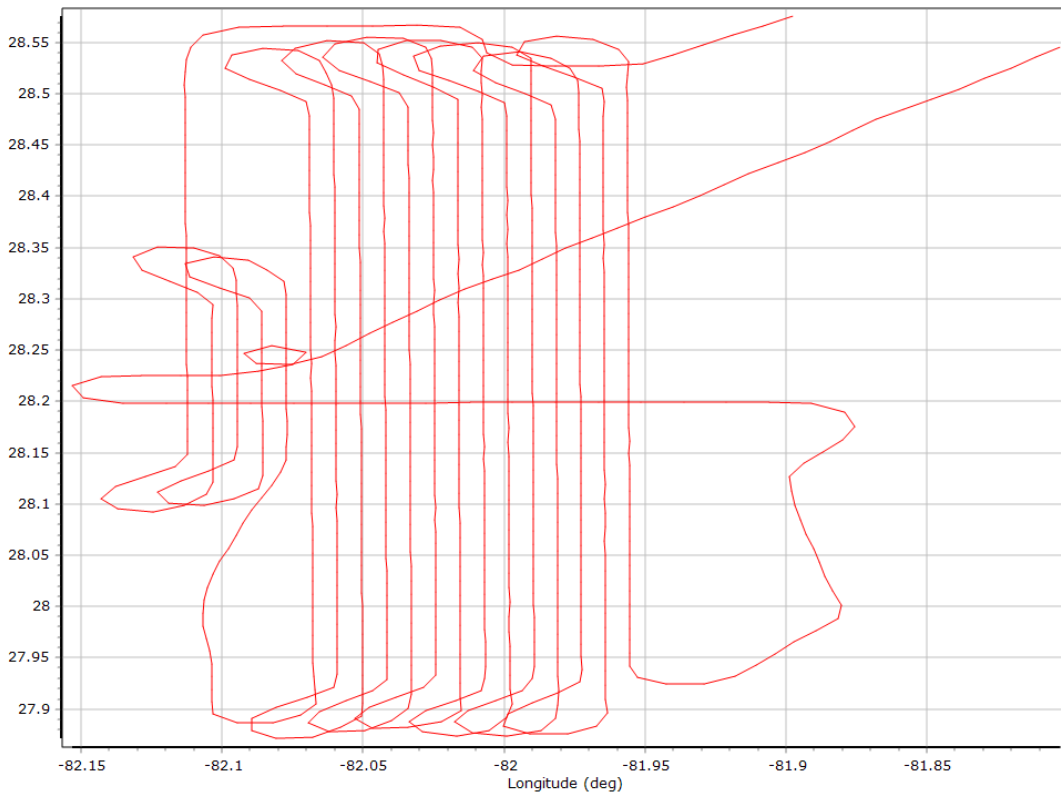


## BEIDOU SNR

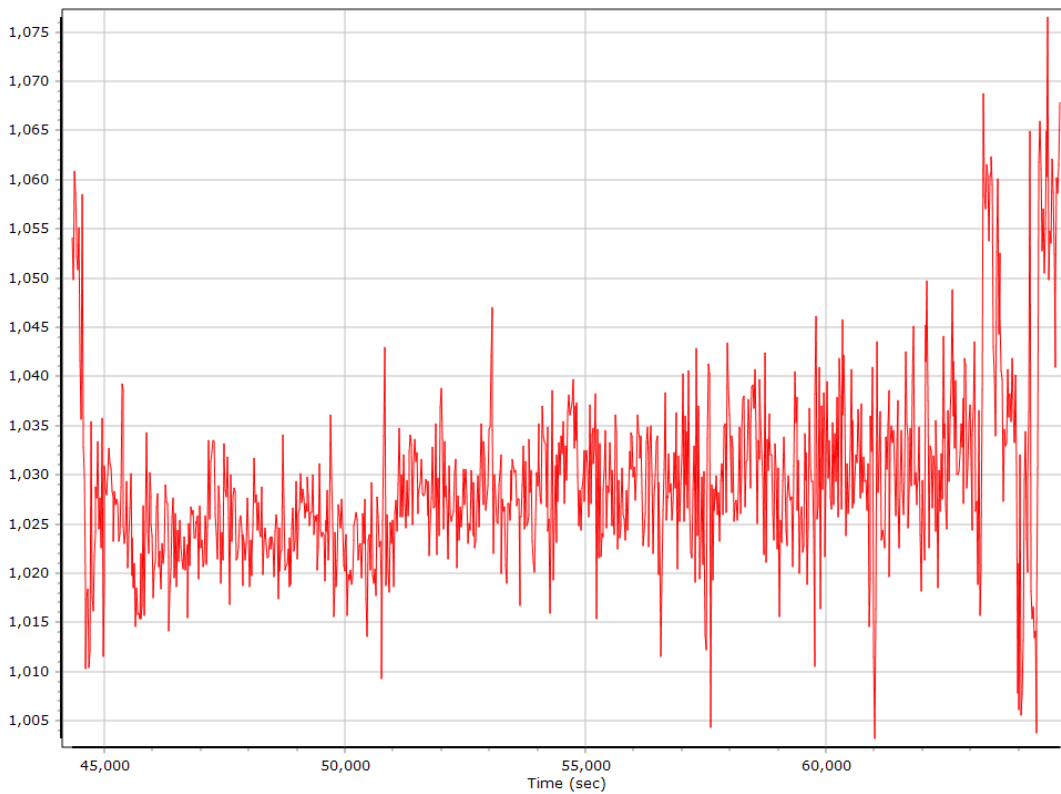


## Trajectory Information

### Top View

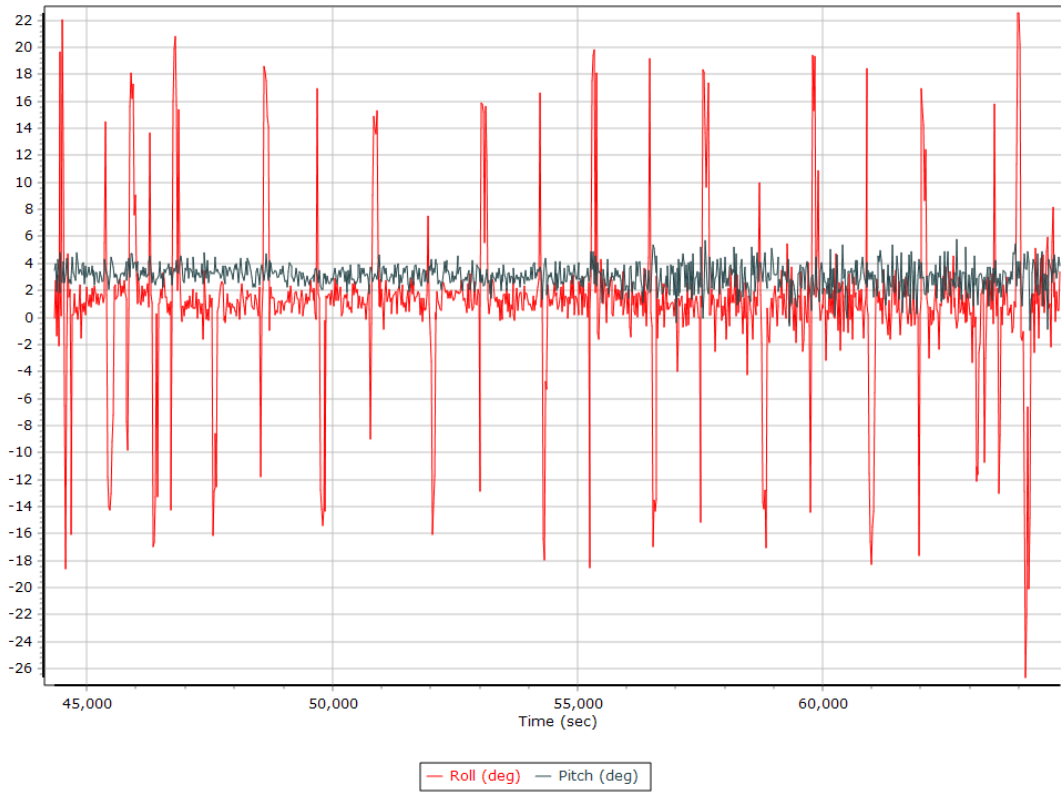


### Altitude

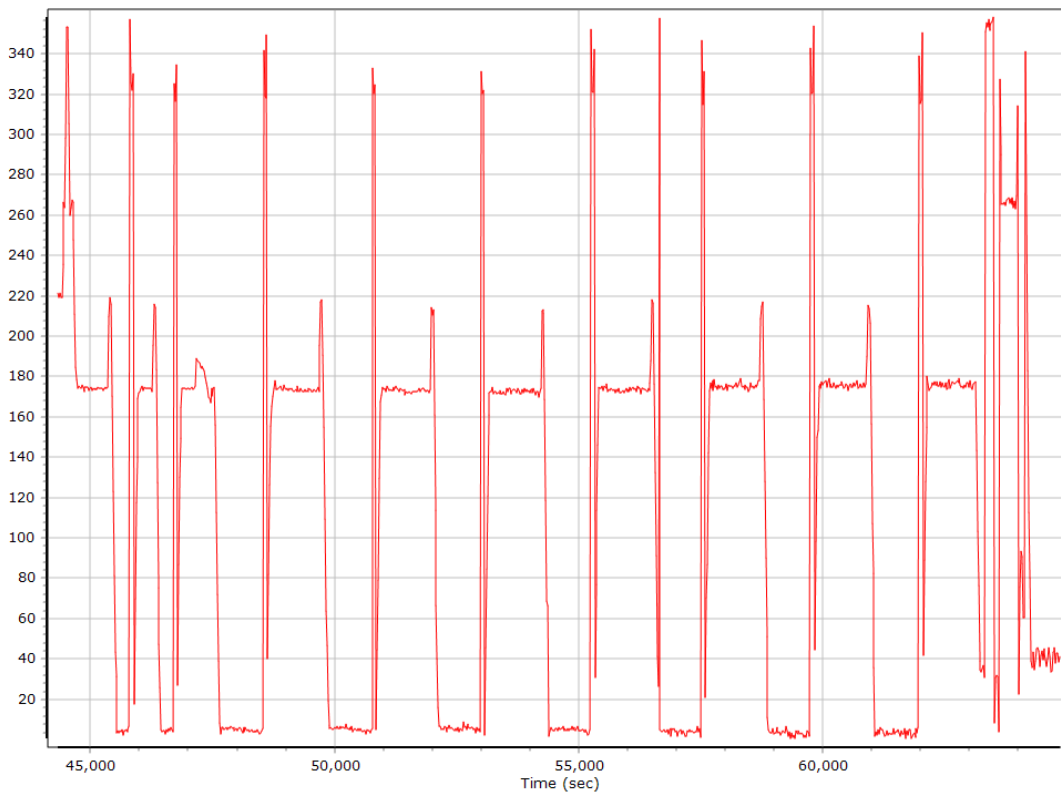




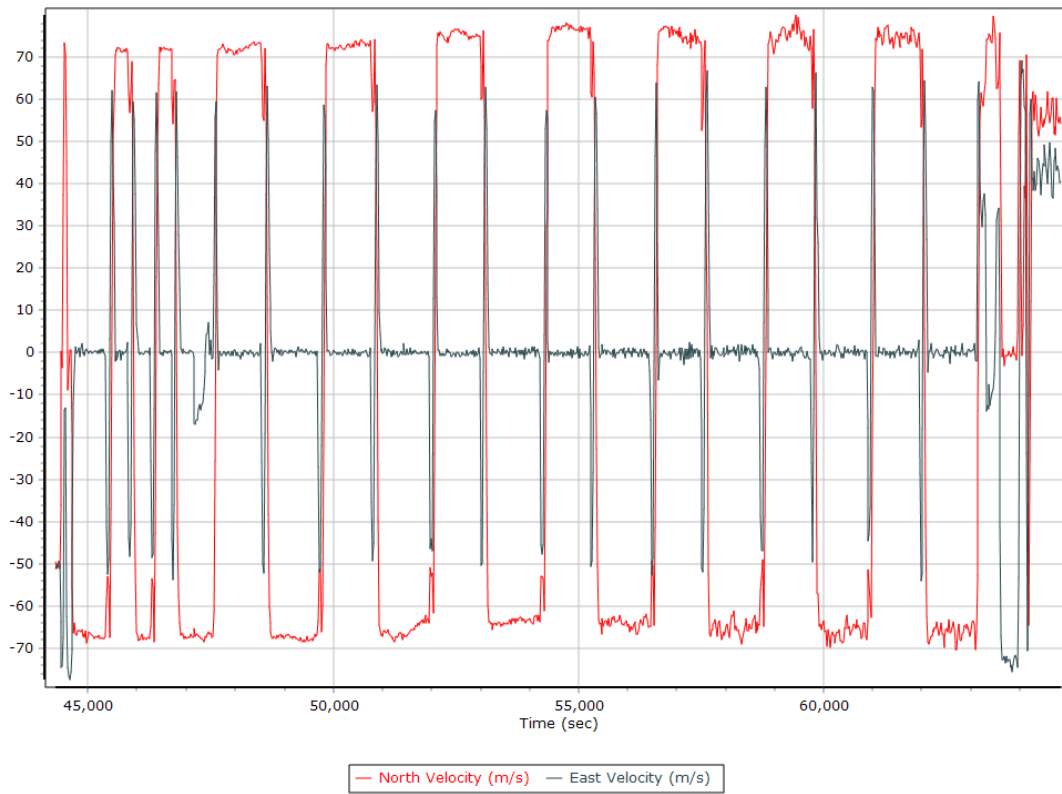
## Roll/Pitch



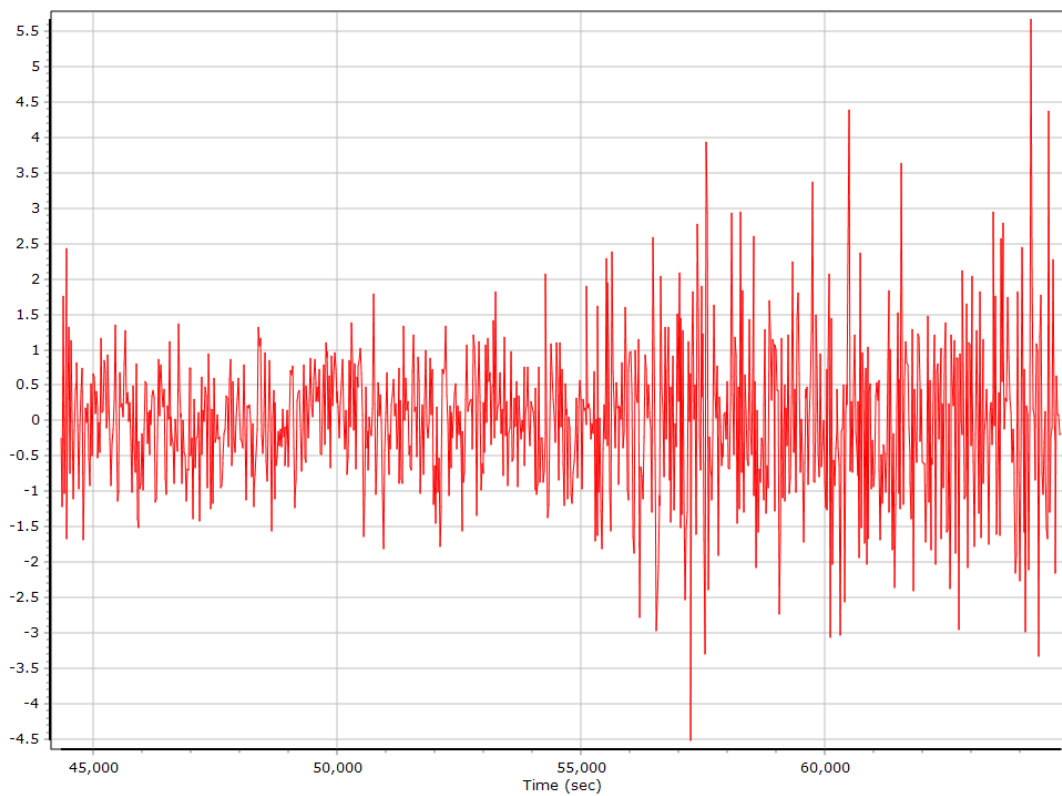
## Heading



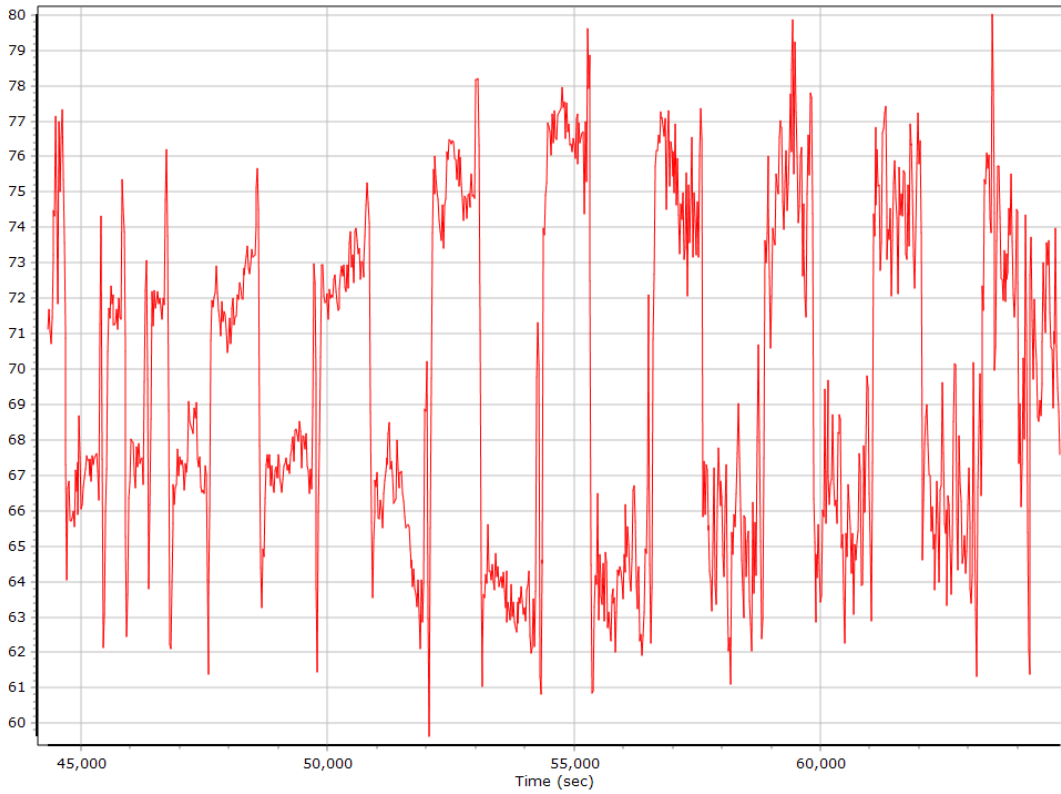
## North/East Velocity



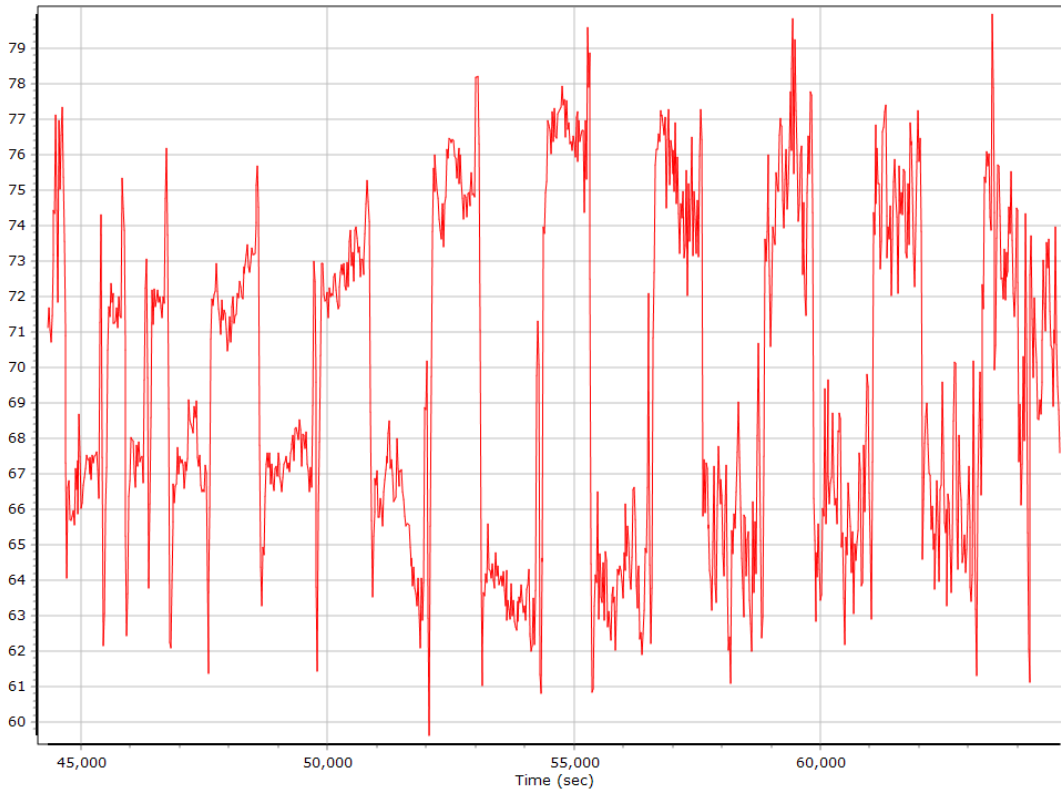
## Down Velocity



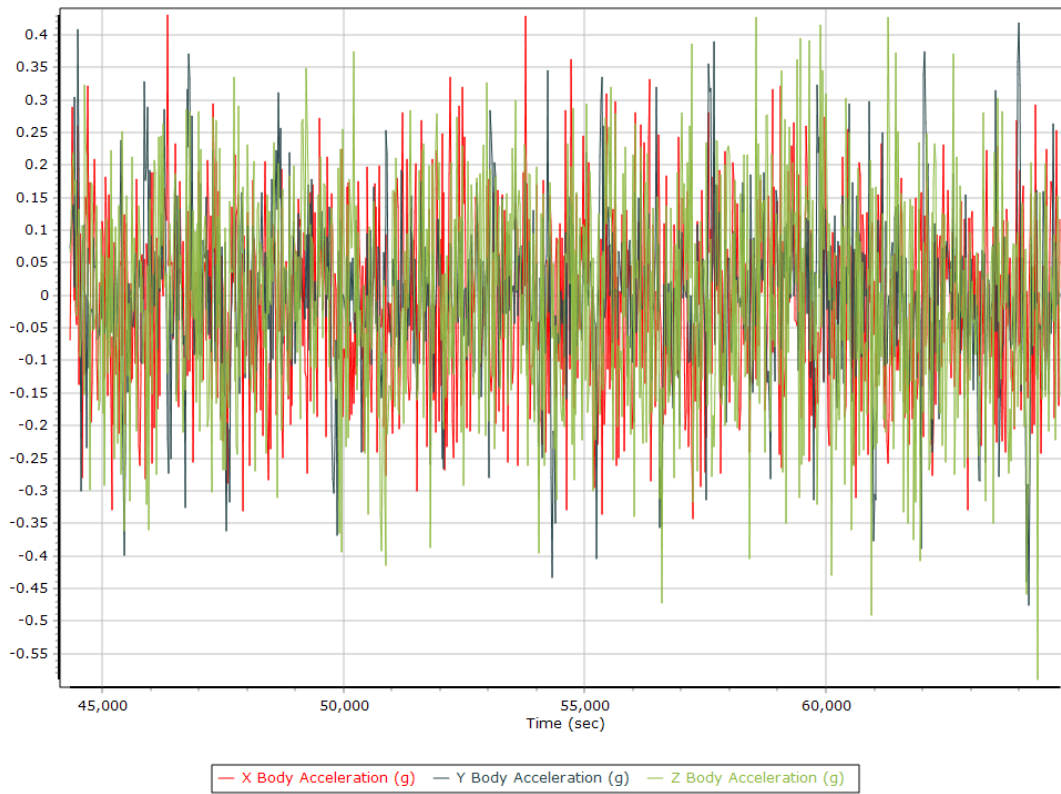
## Total Speed



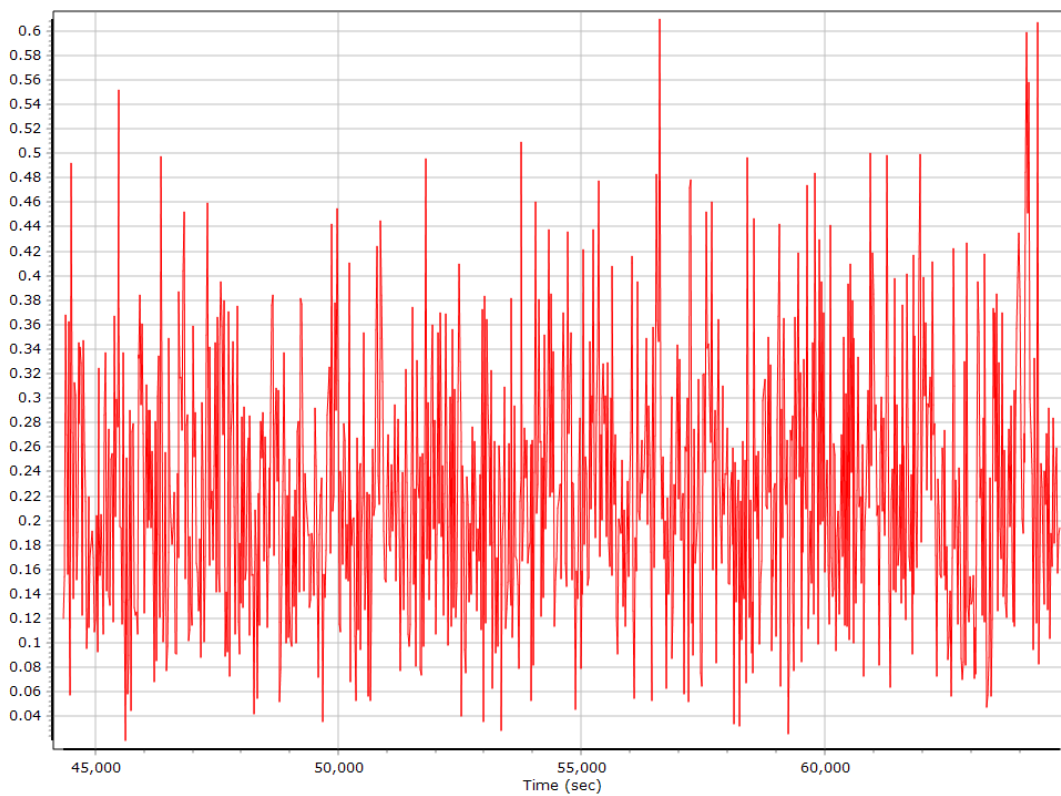
## Ground Speed



## 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]	0.28	149.22	
Number of GPS SV	6	11	9
Number of GLONASS SV	0	9	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Total number of SV	9	18	14
PDOP	1.16	3.00	1.55
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (s)	24574.00	0.00	1.00
Percentage	100.00	0.00	0.00



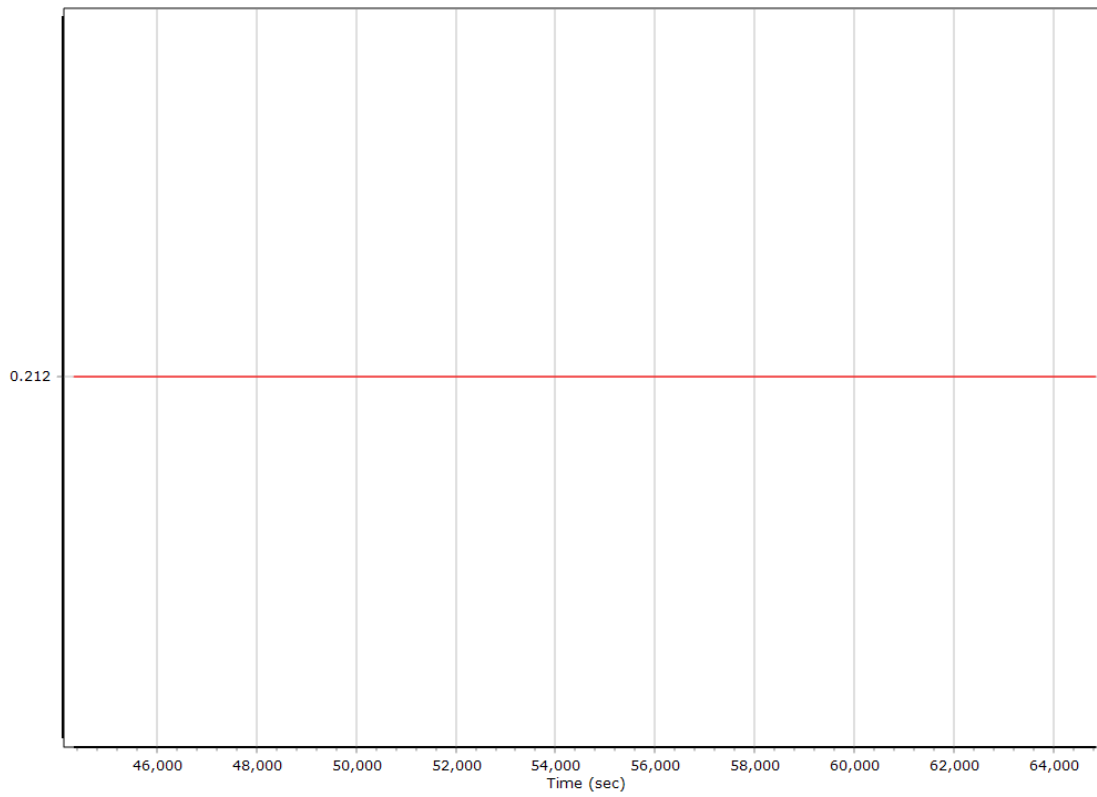
## GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion SmartBase		
Stabilized mount	False		
Base station	ASB		
Processing start time	44272.731 (3/24/2019 12:17:34 PM)		
Processing end time	64857.432 (3/24/2019 6:00:39 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

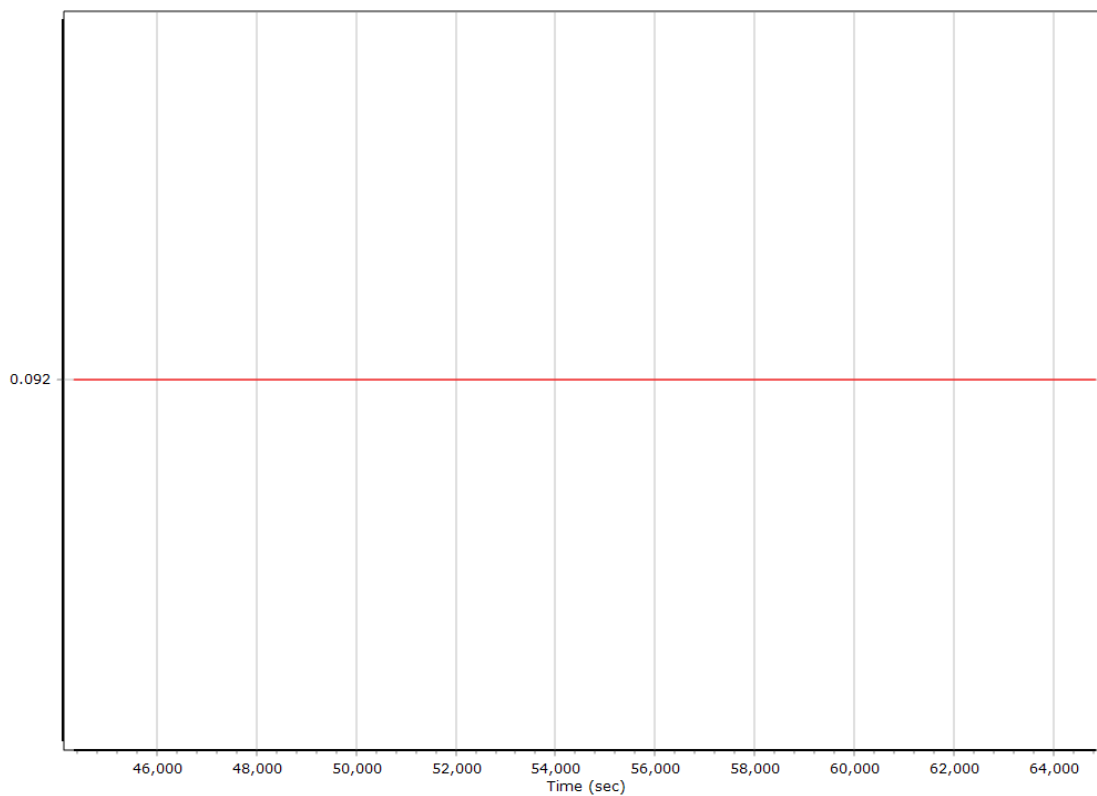
## Calibrated Installation Parameters

### Reference-Primary GNSS Lever Arm

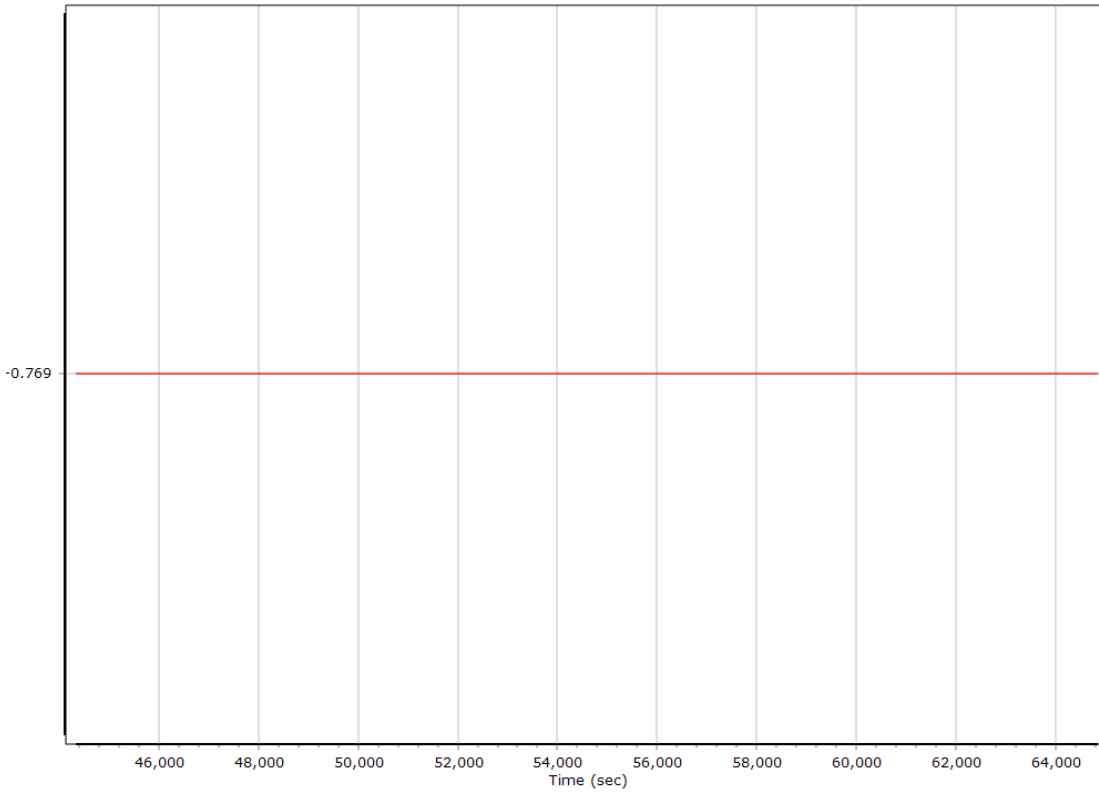
#### X Reference-Primary GNSS Lever Arm (m)



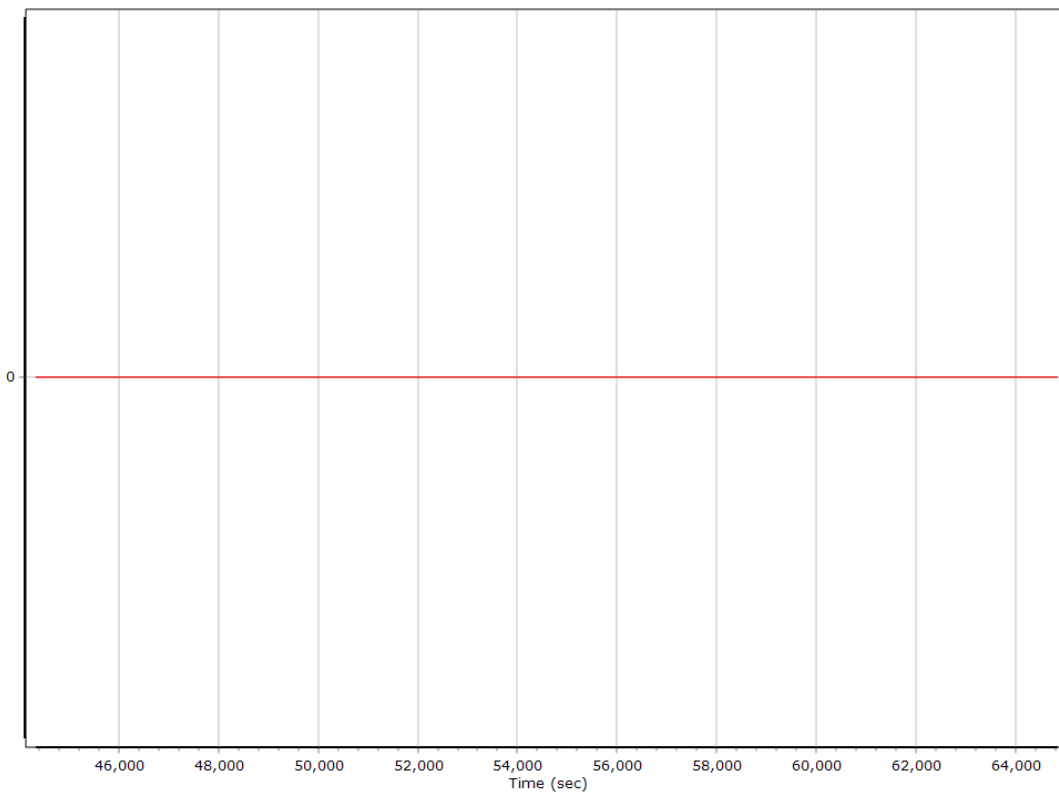
#### Y Reference-Primary GNSS Lever Arm (m)



### Z Reference-Primary GNSS Lever Arm (m)



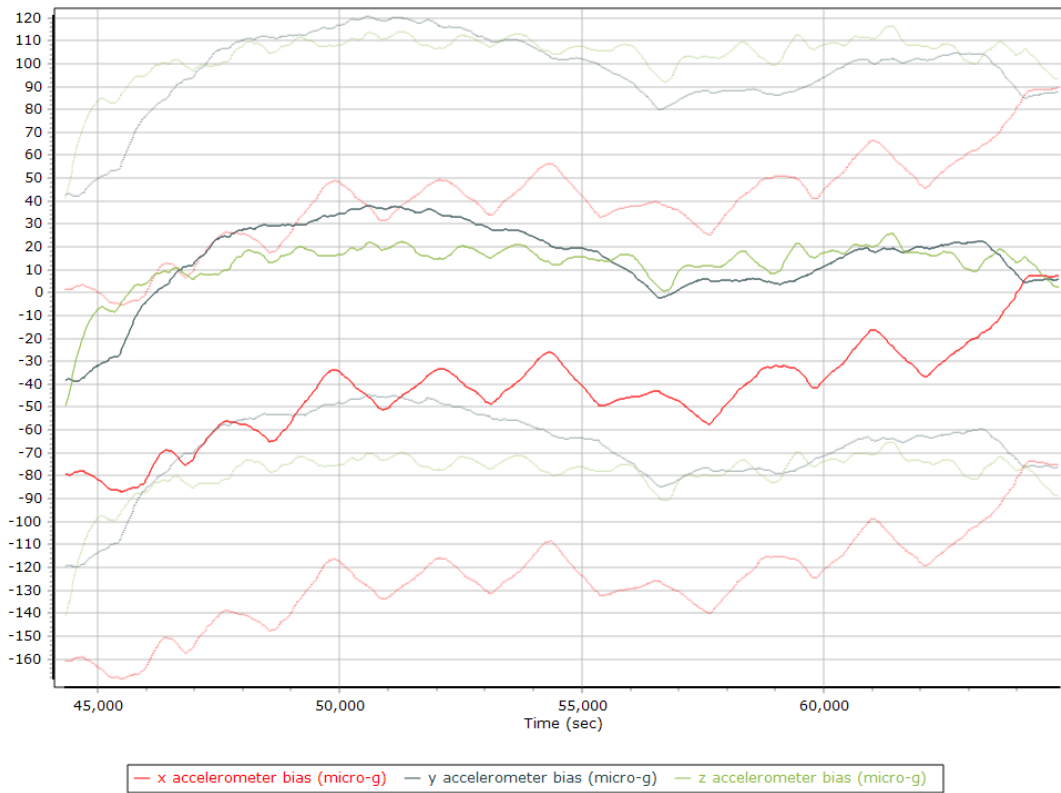
### Reference-Primary GNSS Lever Arm Figure of Merit



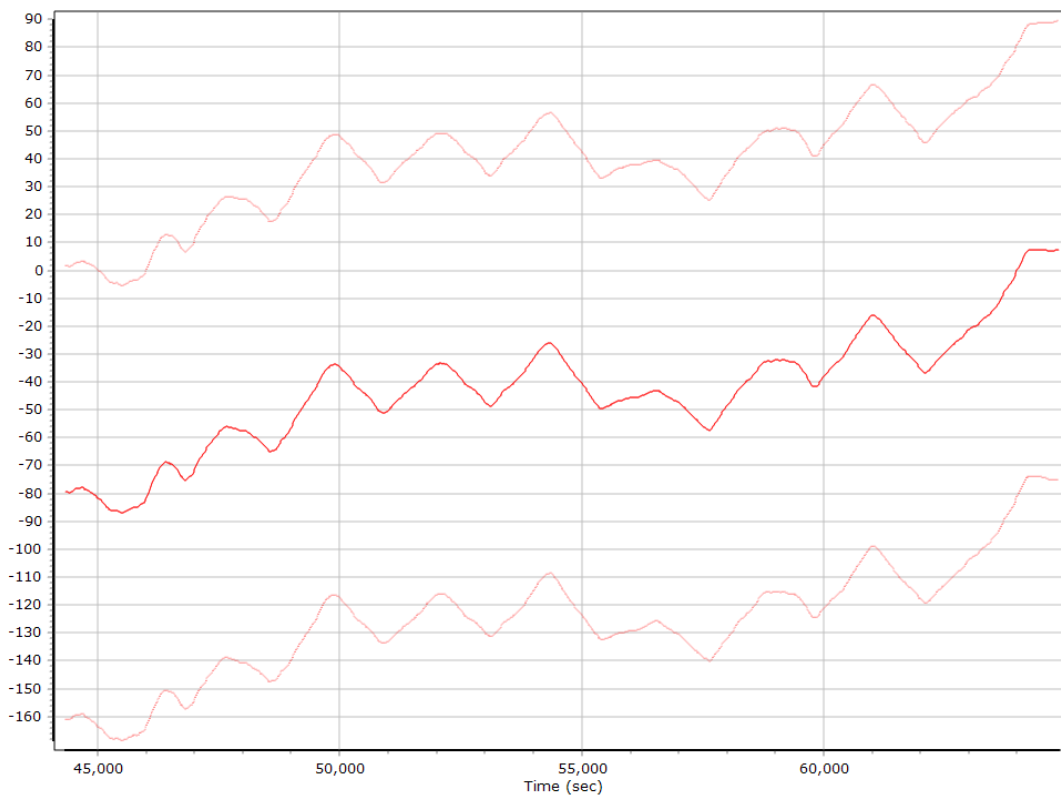
## Smoothed IN-Fusion QC

### Smoothed Estimated Errors, Reference Frame

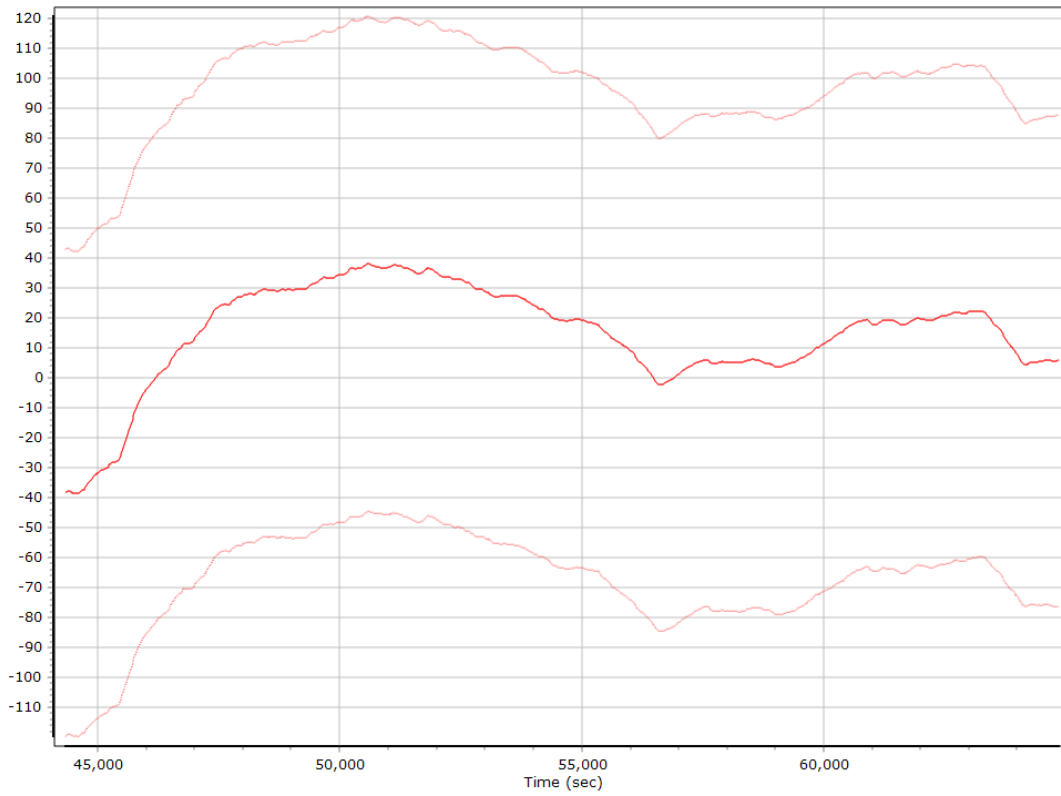
#### Accelerometer Bias (micro-g)



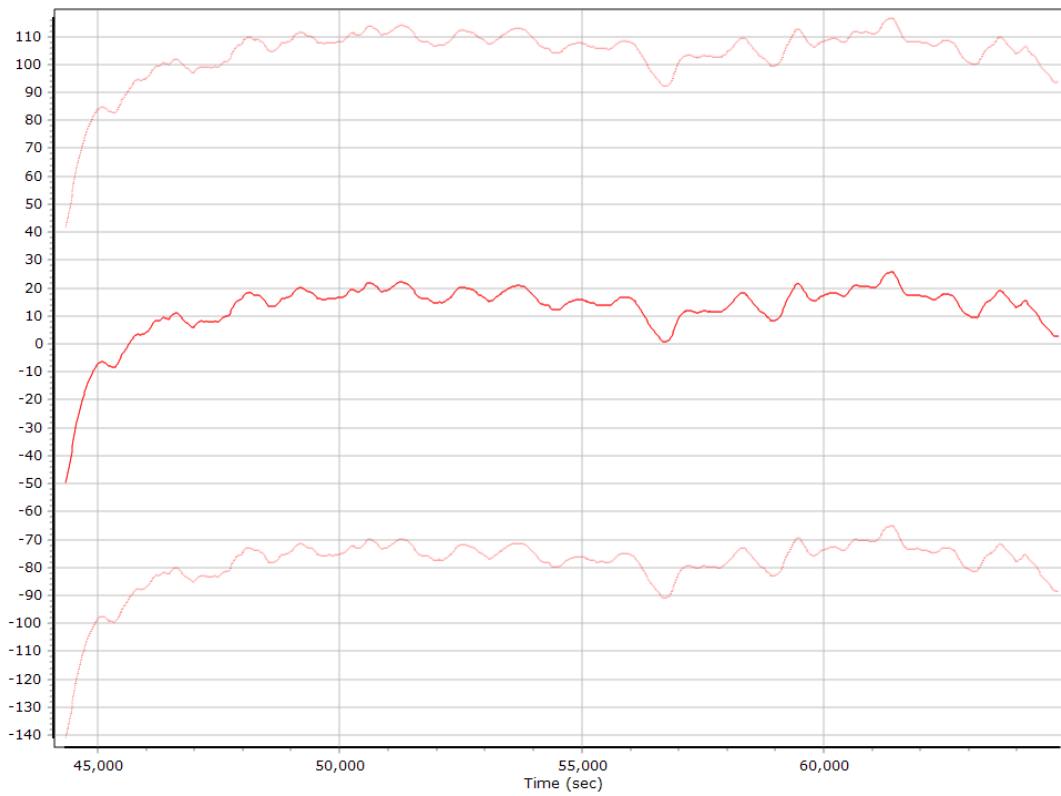
#### X Accelerometer Bias (micro-g)



### Y Accelerometer Bias (micro-g)



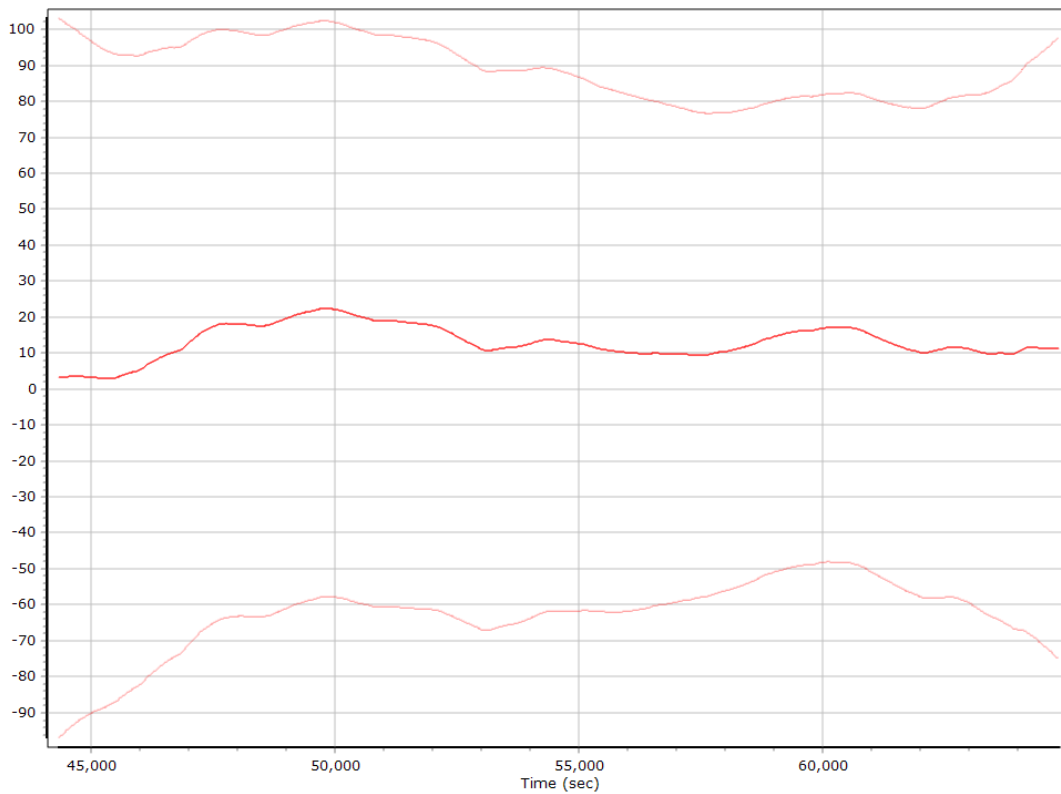
### Z Accelerometer Bias (micro-g)



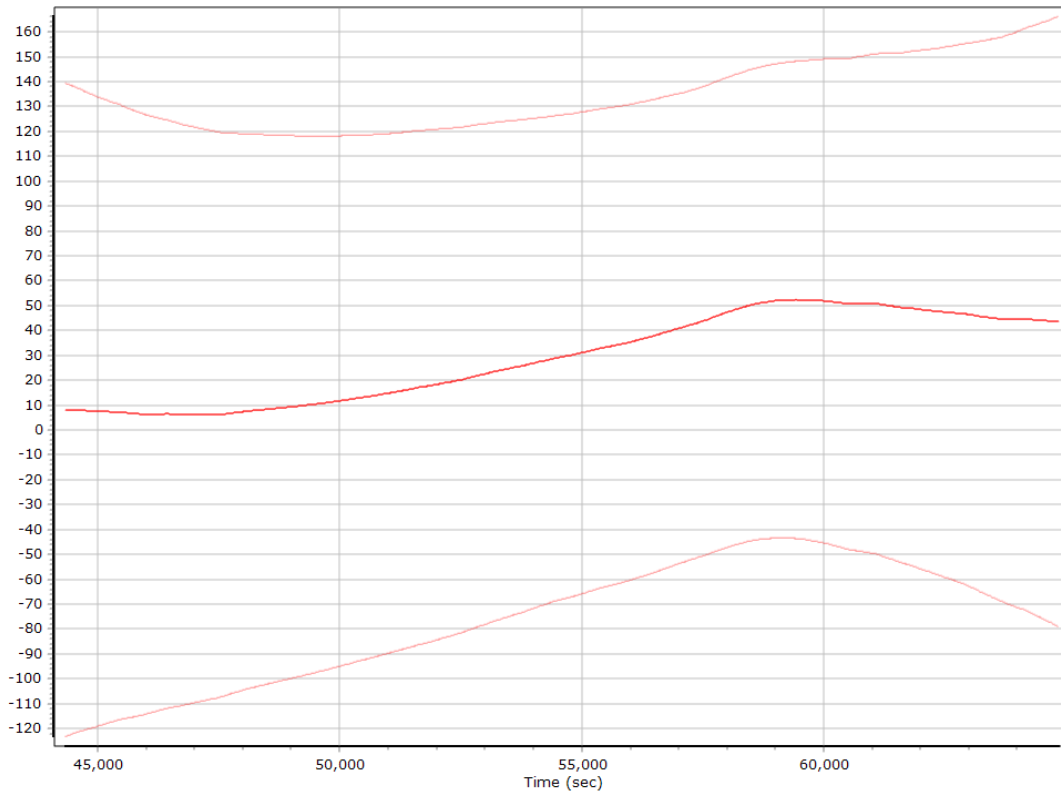
### Accelerometer Scale Error (ppm)



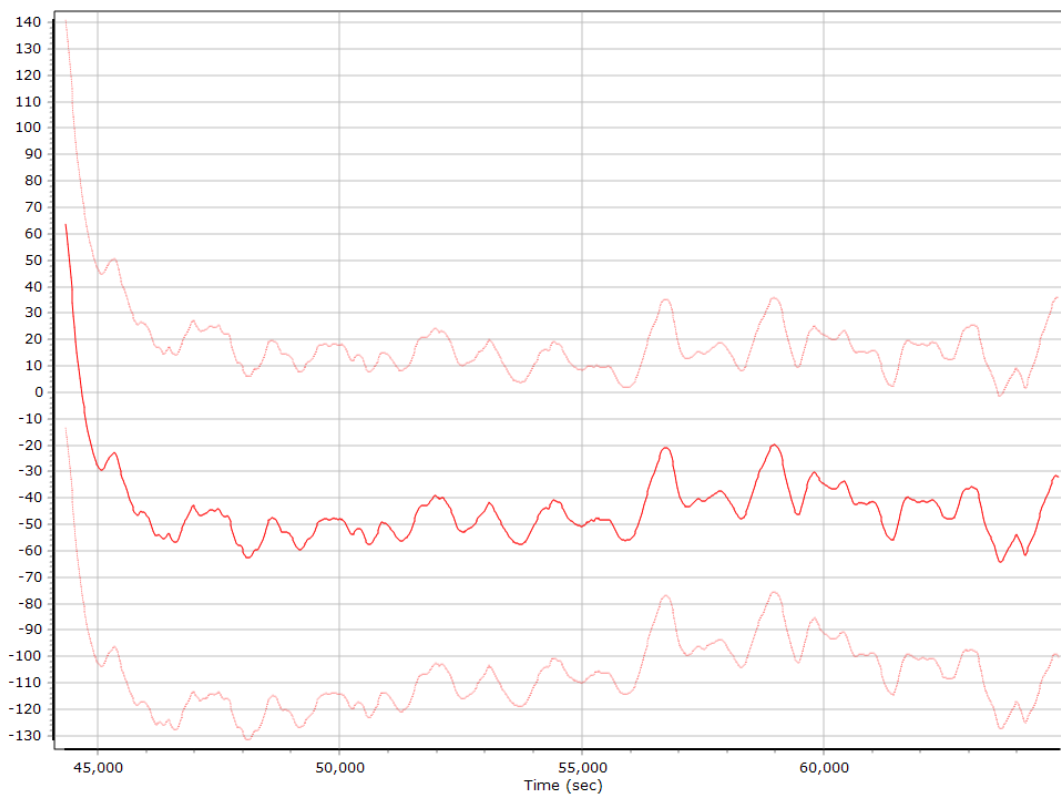
### X Accelerometer Scale Error (ppm)



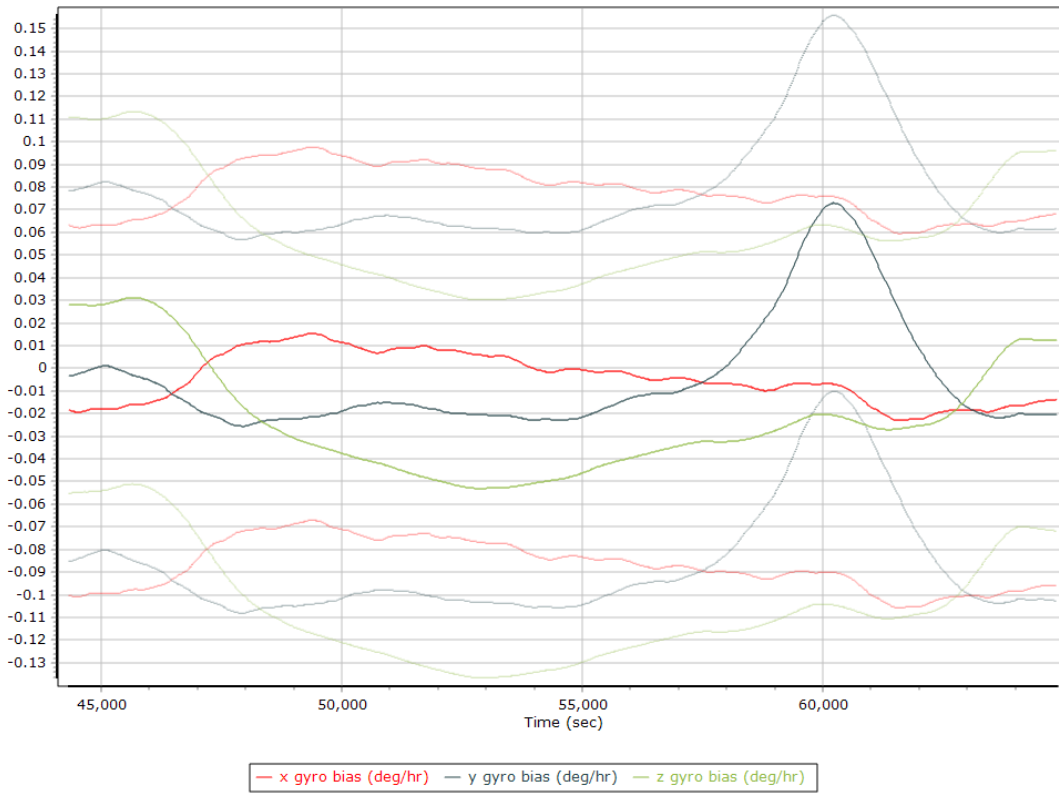
### Y Accelerometer Scale Error (ppm)



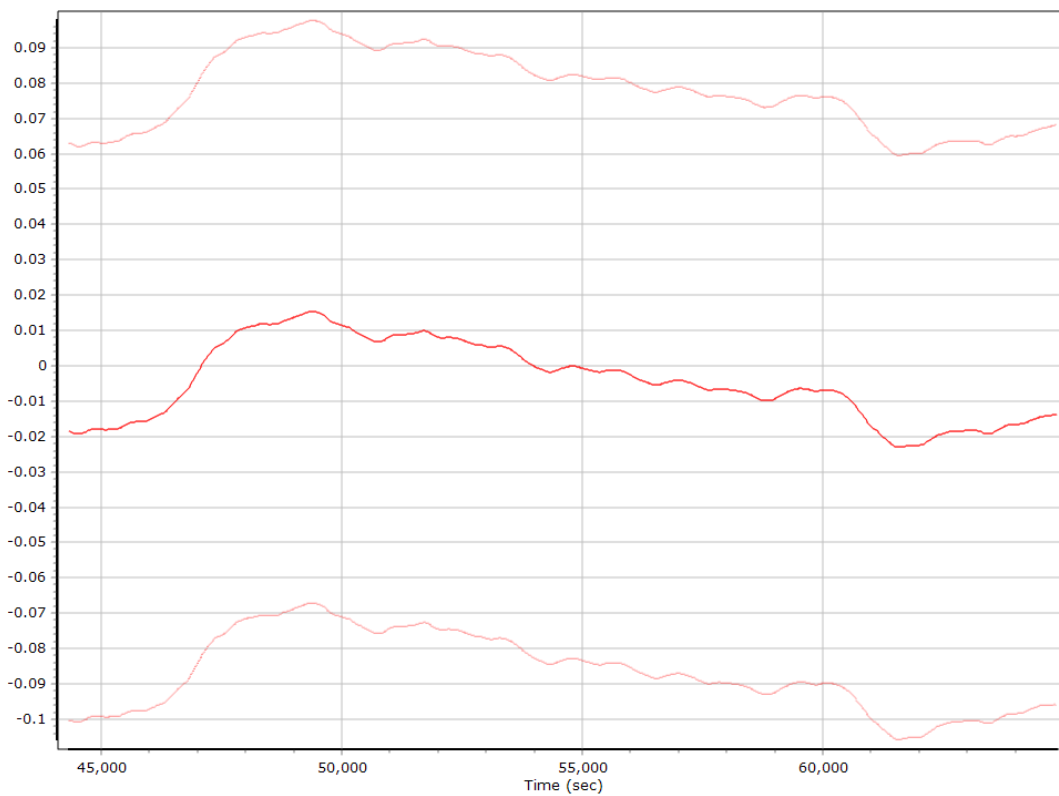
### Z Accelerometer Scale Error (ppm)



### Gyro Bias (deg/h)

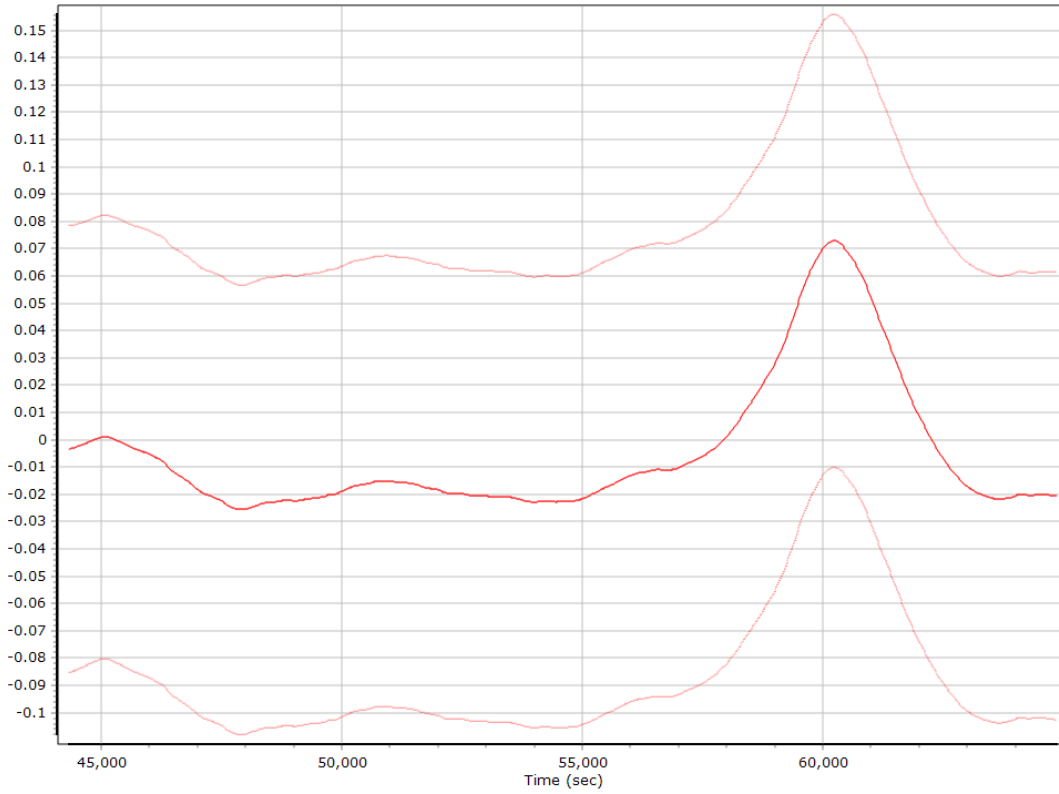


### X Gyro Bias (deg/h)

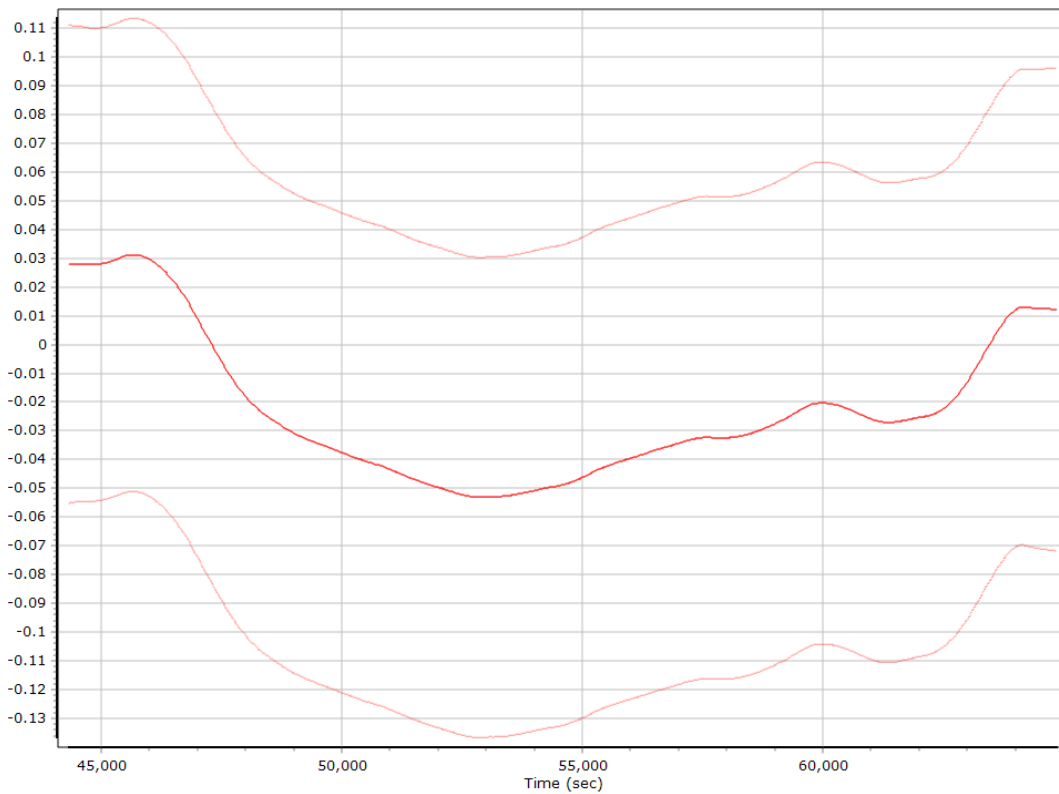




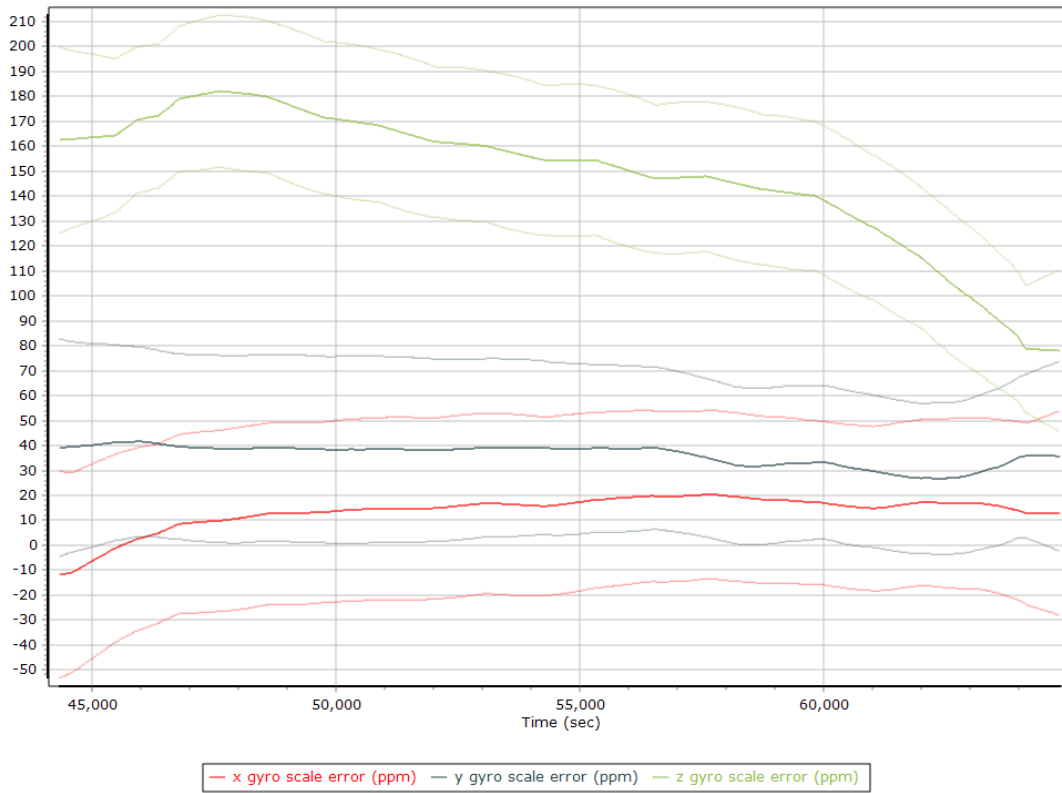
### Y Gyro Bias (deg/h)



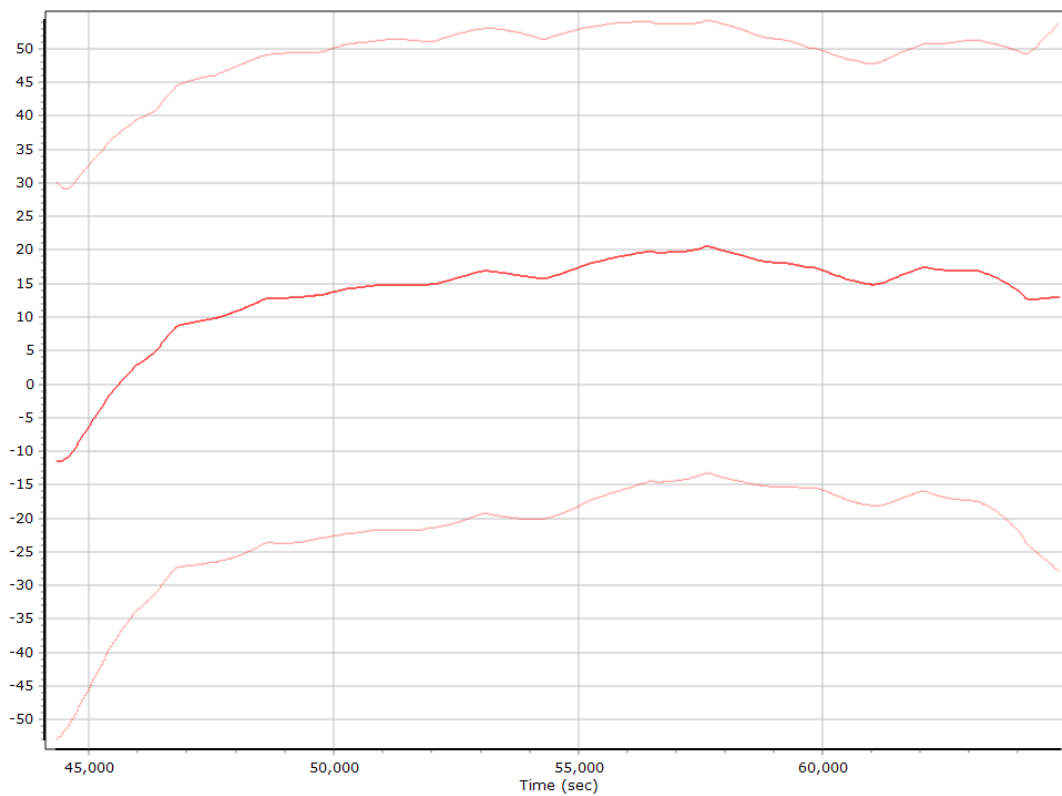
### Z Gyro Bias (deg/h)



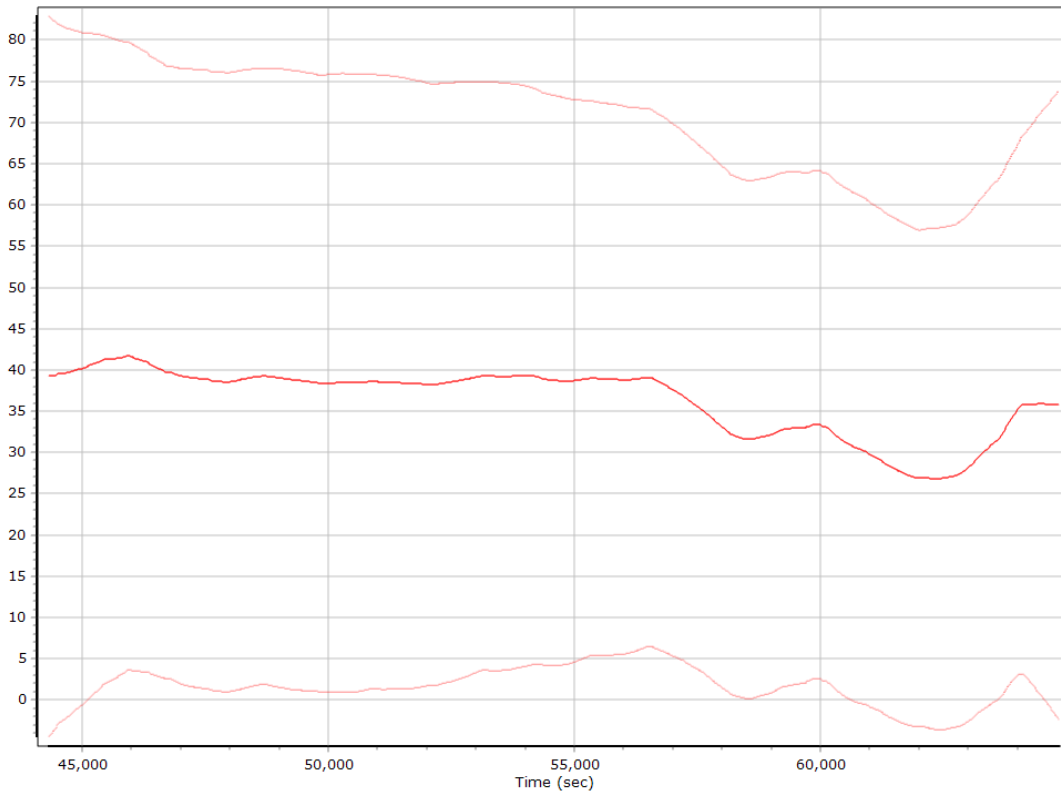
### Gyro Scale Error (ppm)



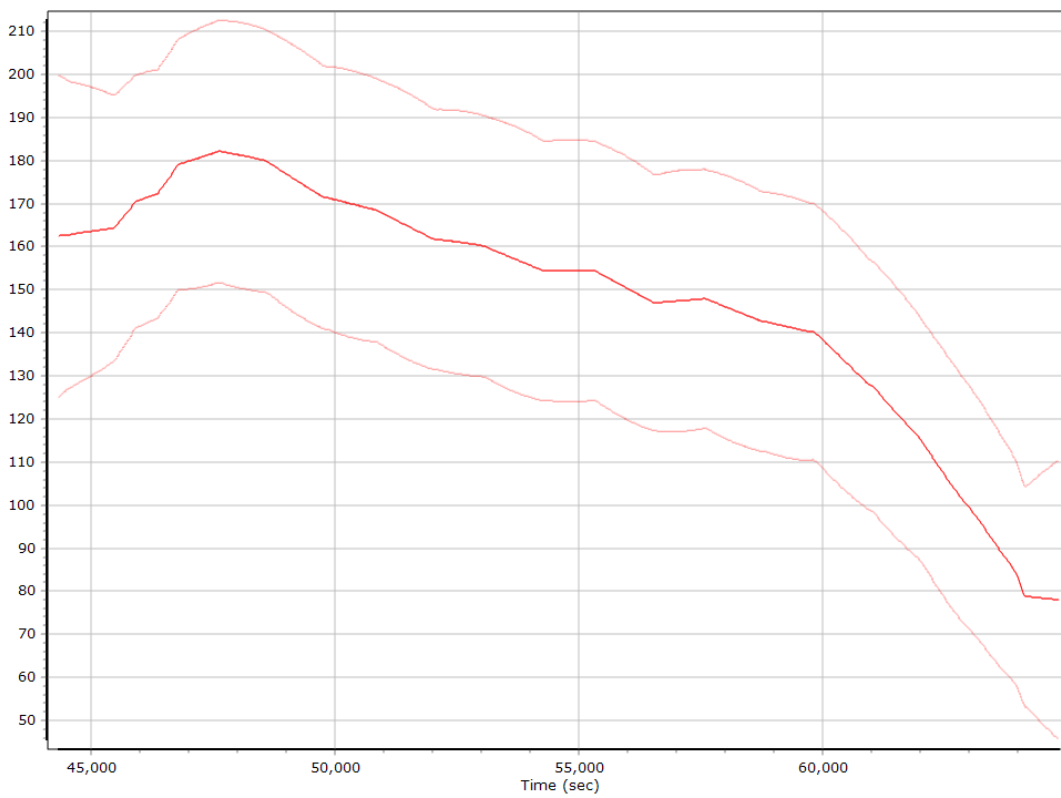
### X Gyro Scale Error (ppm)



### Y Gyro Scale Error (ppm)

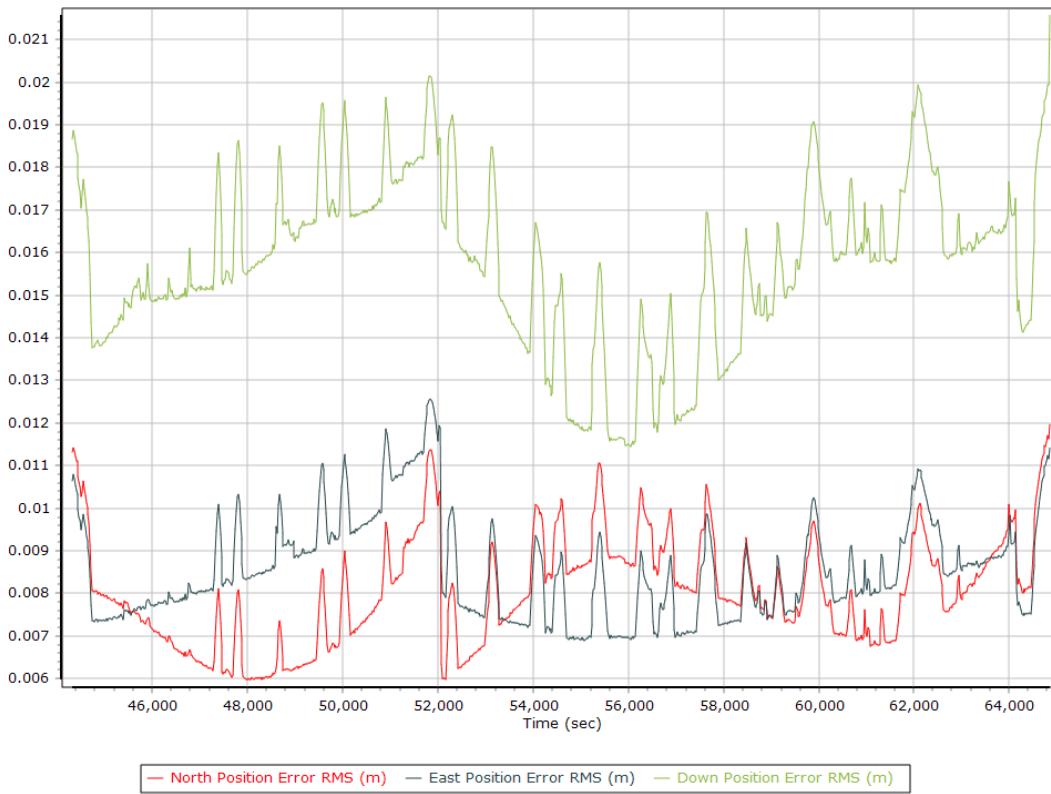


### Z Gyro Scale Error (ppm)

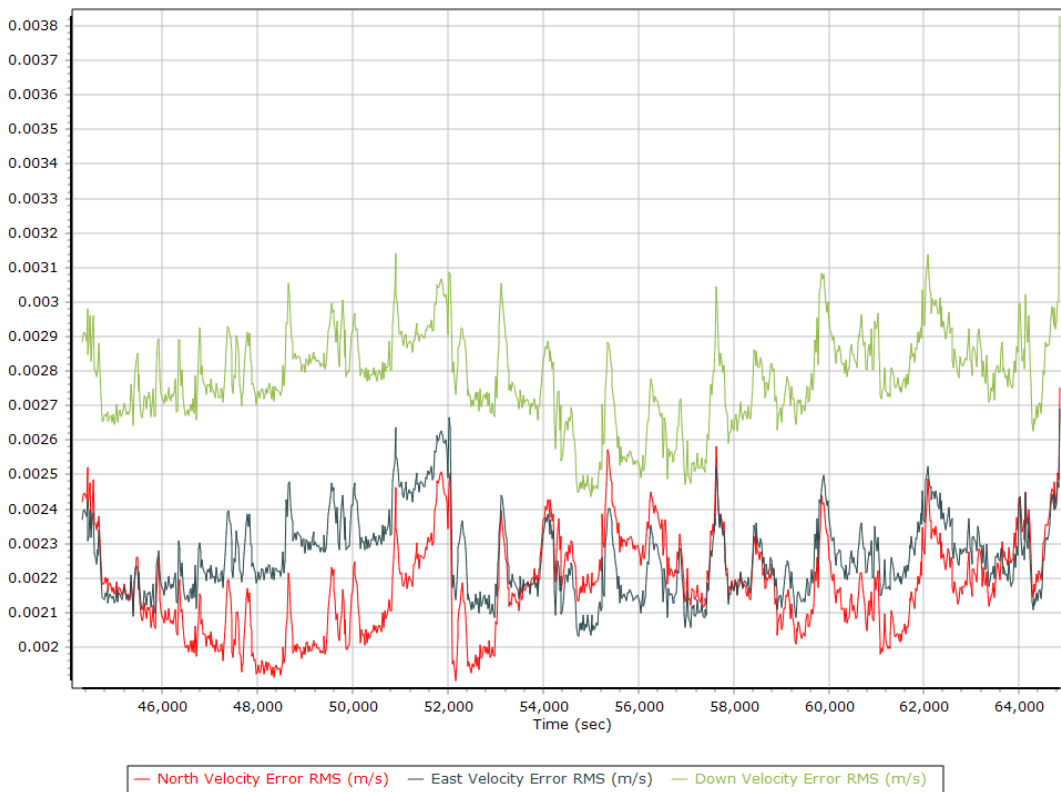


## Smoothed Performance Metrics

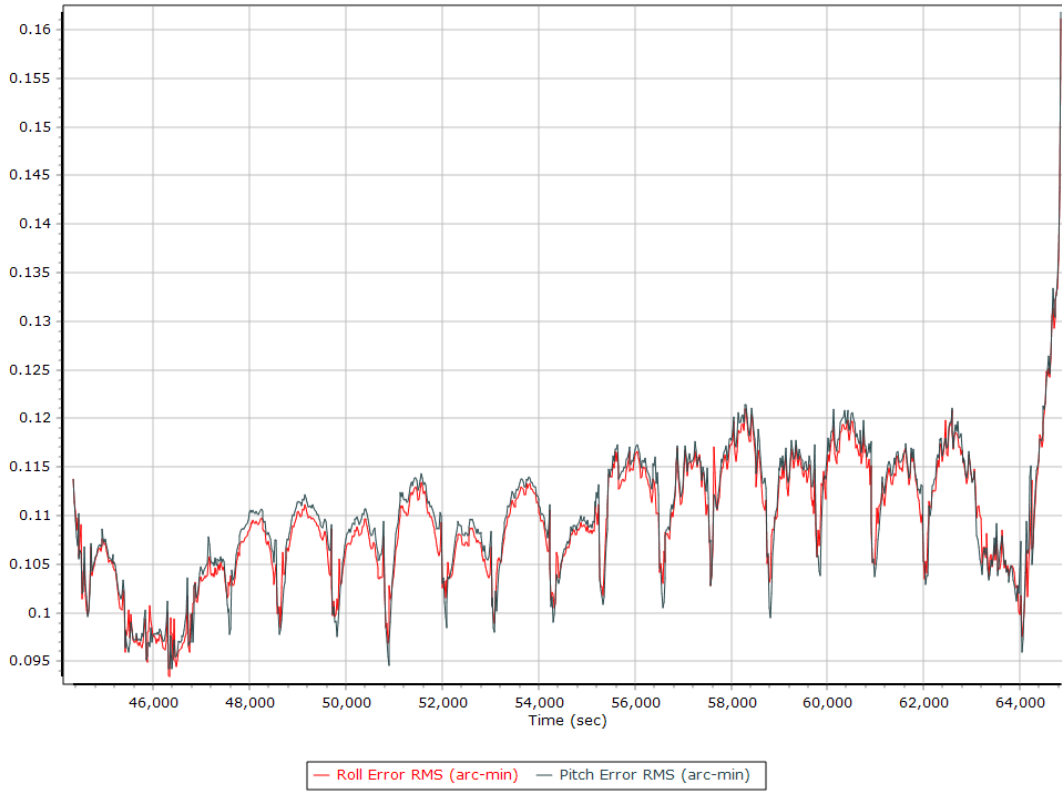
### Position Error RMS (m)



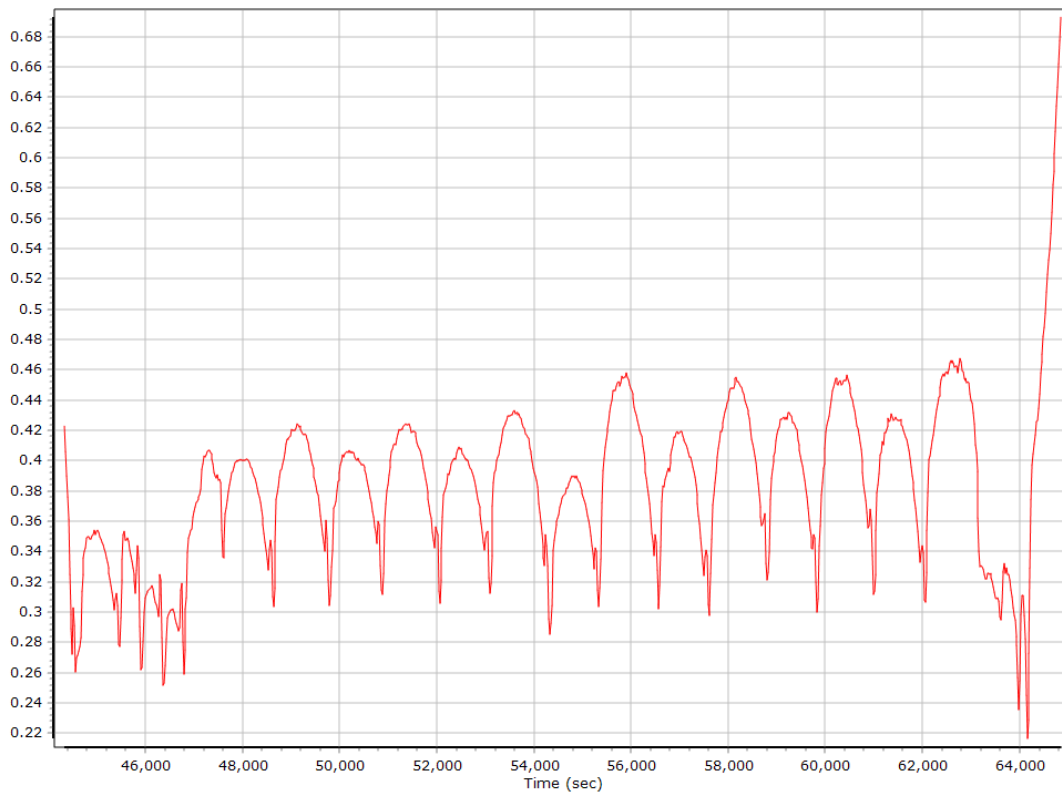
### Velocity Error RMS (m/s)



### Roll/Pitch Error RMS (arc-min)

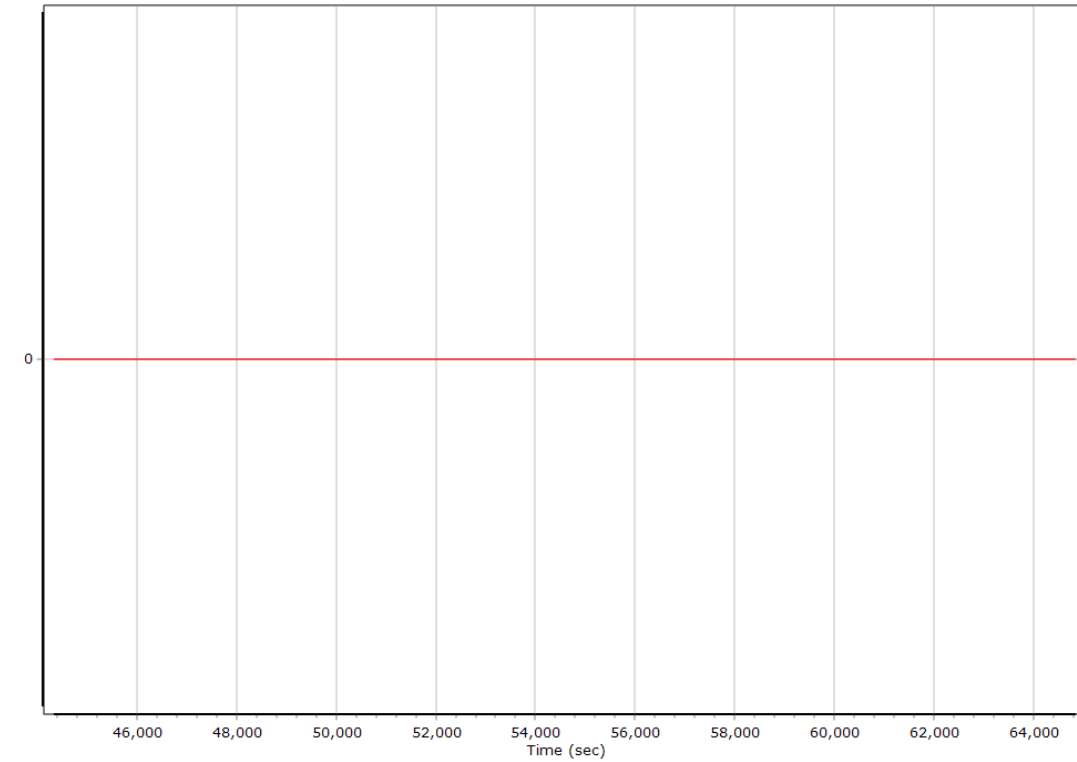


### Heading Error RMS (arc-min)



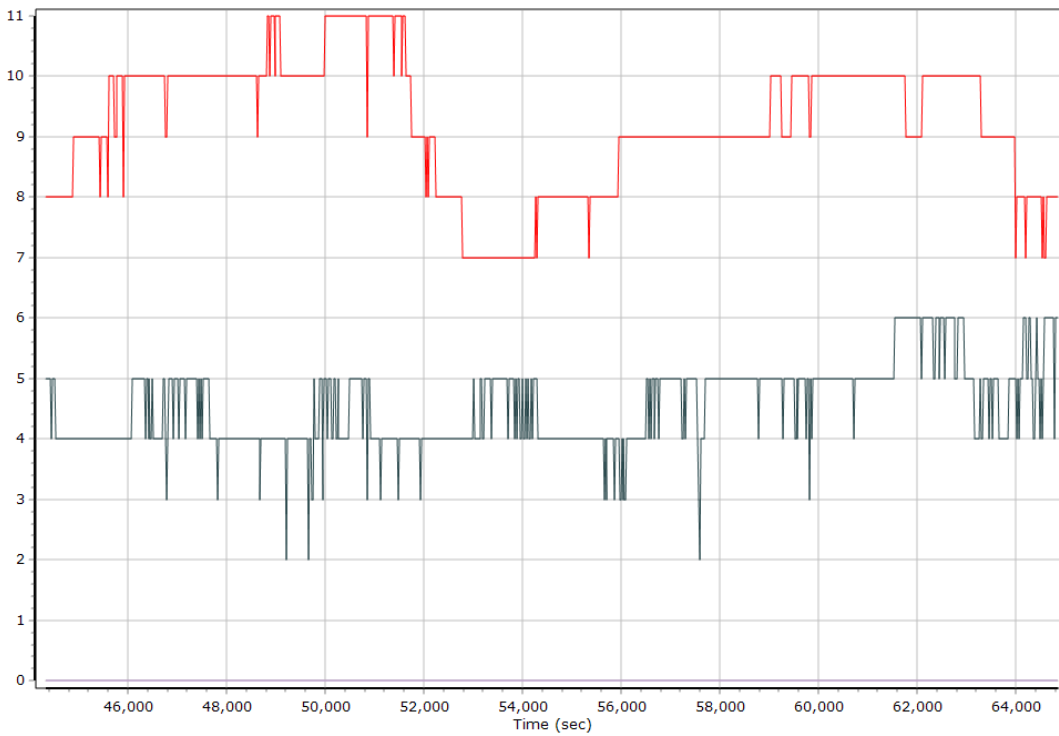
## Smoothed Solution Status

### Processing Mode



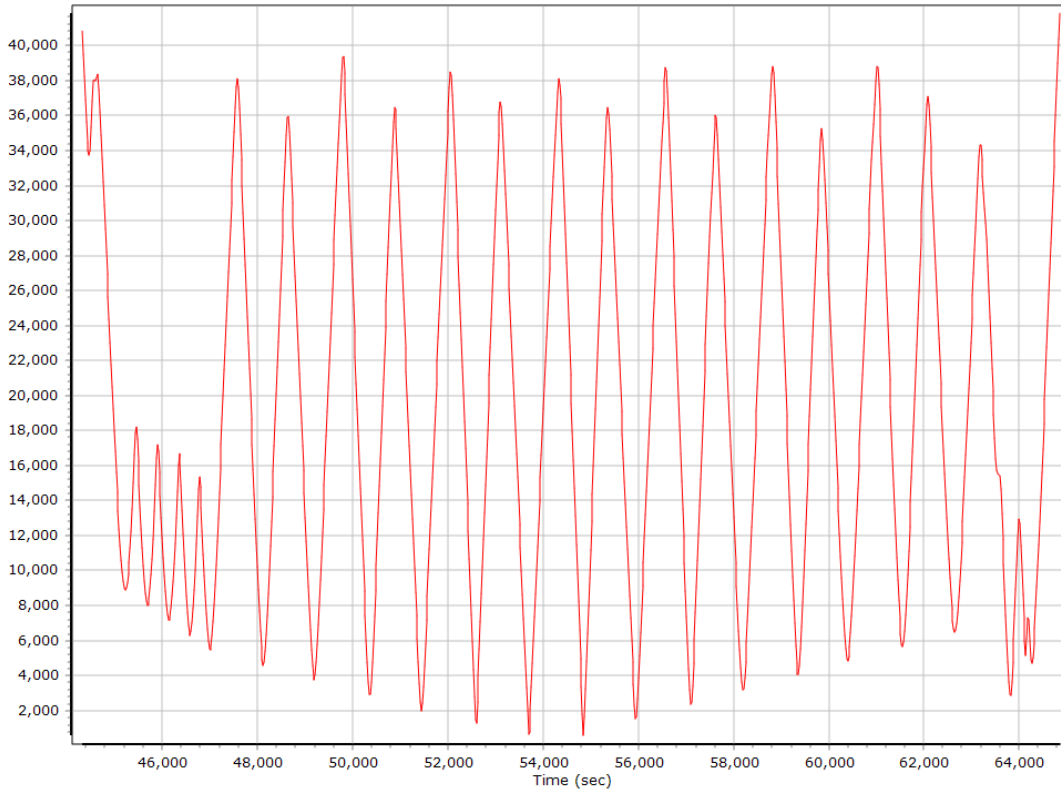
0 = Fixed NL, 1 = Fixed WL, 2 = Float, 3 = DGNSS, 4 = RTCM, 5 = IAPPP, 6 = C/A, 7 = GNSS Nav, 8 = DR

### Number of Satellites



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

### Baseline Length



### SBET IAkar Separation

