

## General Information

### Mission Information

Project name	201022_A_5060420_nad2011_FINAL
Processing date	2020-10-27 18:13:41
Mission date	2020-10-22 05:21:00
Mission duration	03:35:11.000
Processing mode	IN-Fusion PP-RTX

### Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N9825
IMU type	57
Receiver type	BD982
Antenna type	AV39

## Project File List

### Rover Data Files

File name	File type
survey1.pos	POS Data

### Input Files

File Name	File Type
Ephm2960.20g	GLONASS Broadcast Ephemeris
Ephm2960.20n	GPS Broadcast Ephemeris

### Output Files

Filename	File type
sbet_201022_A_5060420_nad2011_FINAL.out	SBET Trajectory File

## Rover Data Summary

First raw data file	survey1.pos		
Last raw data file	survey1.pos		
Start GPS week	2128		
Start time	364859.720 (10/22/2020 5:20:59 AM)		
End time	377771.800 (10/22/2020 8:56:11 AM)		
Start of fine alignment	365241.781 (10/22/2020 5:27:21 AM)		
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	-90.000
Reference to Primary GNSS lever arm (m)	0.527	0.205	-1.192
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

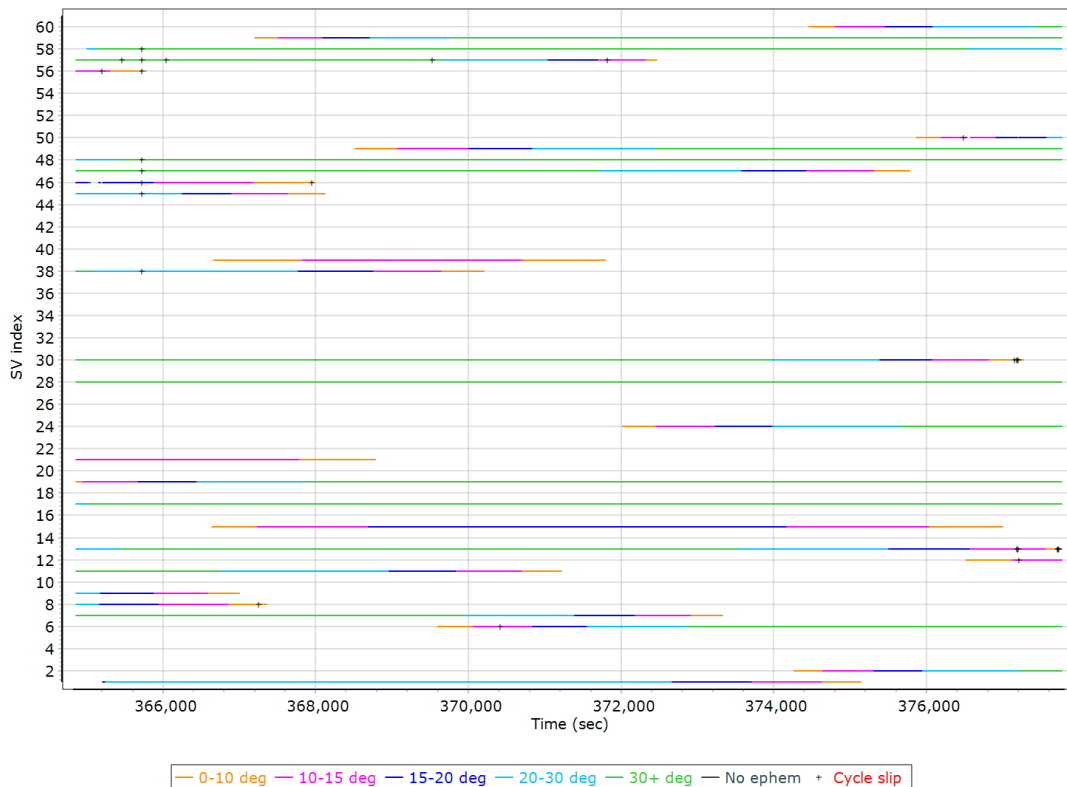
## Rover Data QC

### Raw IMU Import QC Summary

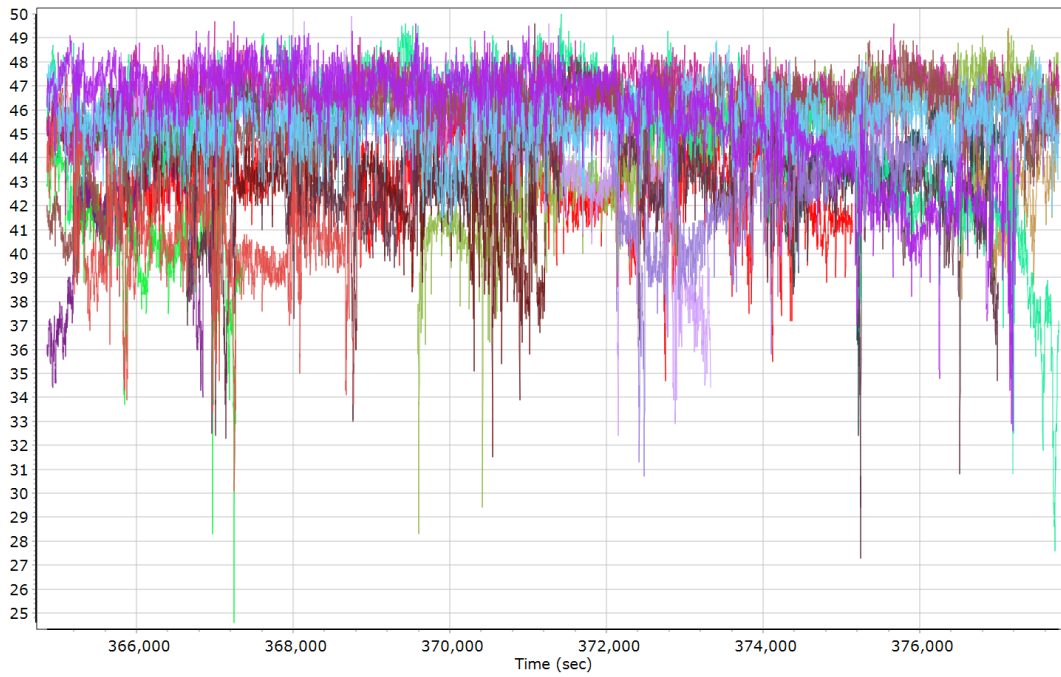
IMU data input file	imu_201022_A_5060420_nad2011_FINAL.dat
IMU data check log file	imudt_201022_A_5060420_nad2011_FINAL.log
IMU Records Processed	2581955
Termination Status	Normal
IMU Anomalies	0

## Primary Observables & Satellite Data

### GPS/GLONASS L1 Satellite Lock/Elevation

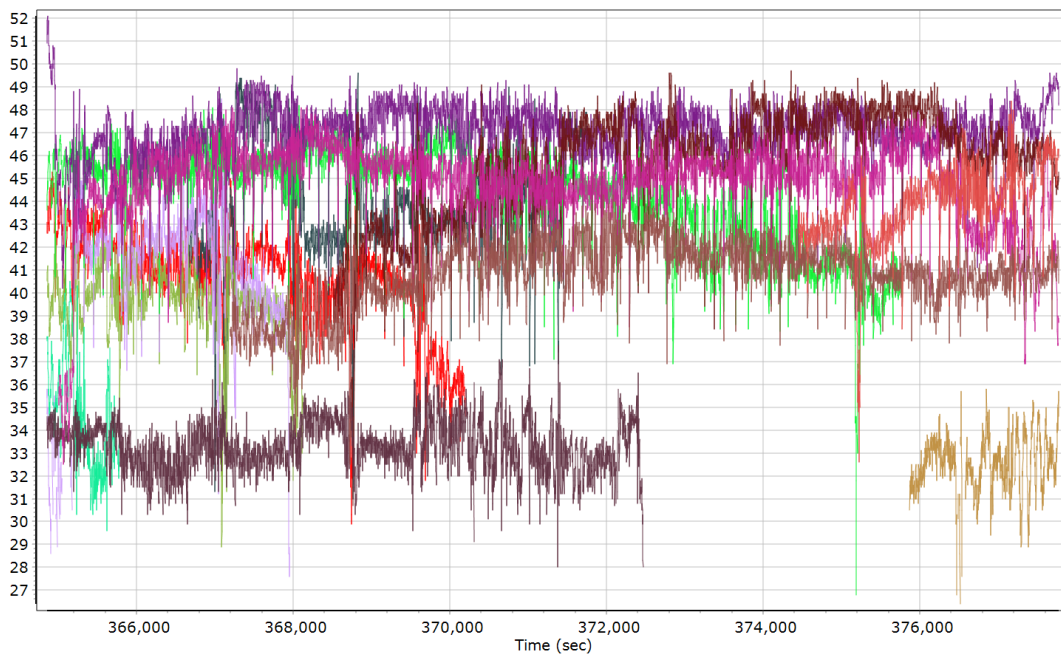


### GPS L1 SNR



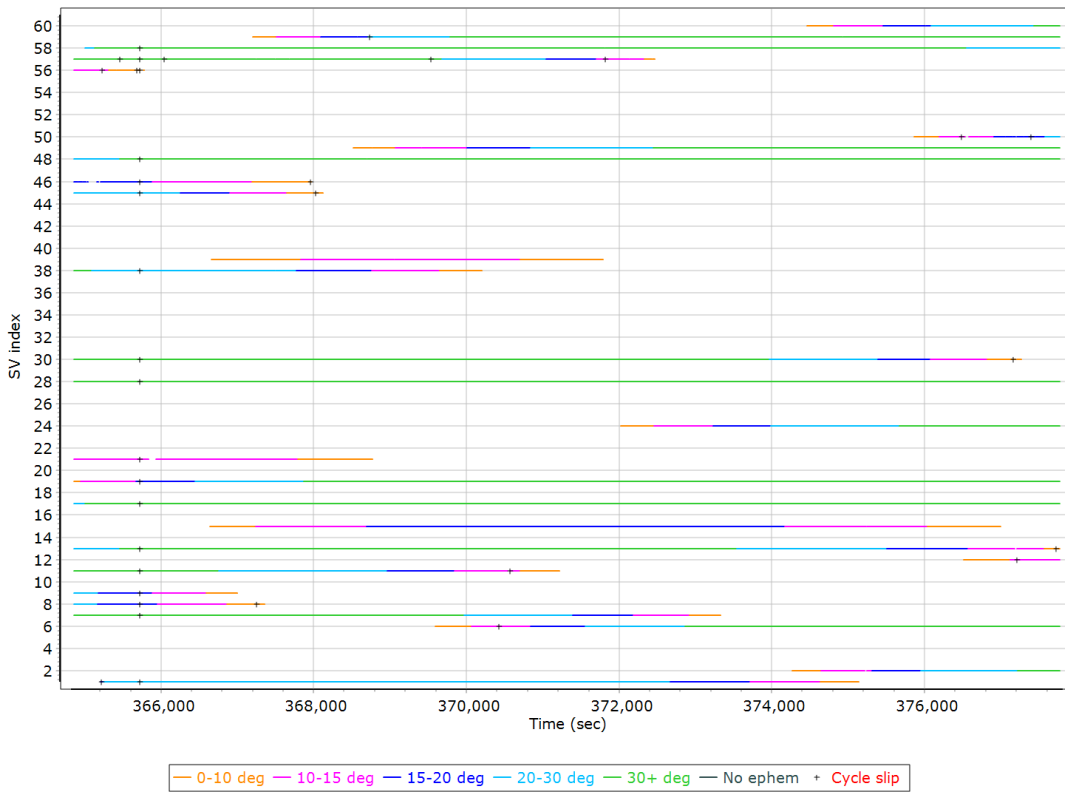
- GPS PRN 01 L1 SNR (dB/Hz)
- GPS PRN 02 L1 SNR (dB/Hz)
- GPS PRN 06 L1 SNR (dB/Hz)
- GPS PRN 07 L1 SNR (dB/Hz)
- GPS PRN 08 L1 SNR (dB/Hz)
- GPS PRN 09 L1 SNR (dB/Hz)
- GPS PRN 11 L1 SNR (dB/Hz)
- GPS PRN 12 L1 SNR (dB/Hz)
- GPS PRN 13 L1 SNR (dB/Hz)
- GPS PRN 15 L1 SNR (dB/Hz)
- GPS PRN 17 L1 SNR (dB/Hz)
- GPS PRN 19 L1 SNR (dB/Hz)
- GPS PRN 21 L1 SNR (dB/Hz)
- GPS PRN 24 L1 SNR (dB/Hz)
- GPS PRN 28 L1 SNR (dB/Hz)
- GPS PRN 30 L1 SNR (dB/Hz)

### GLONASS L1 SNR

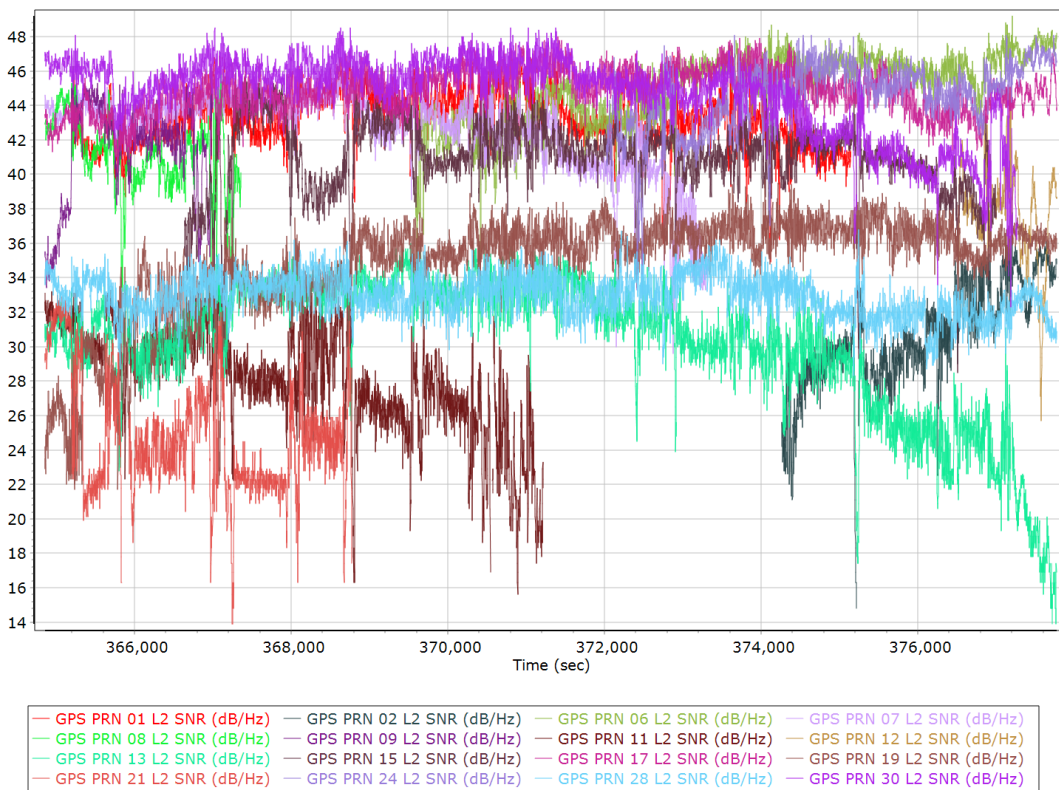


- GLONASS 01 L1 SNR (dB/Hz)
- GLONASS 02 L1 SNR (dB/Hz)
- GLONASS 08 L1 SNR (dB/Hz)
- GLONASS 09 L1 SNR (dB/Hz)
- GLONASS 10 L1 SNR (dB/Hz)
- GLONASS 11 L1 SNR (dB/Hz)
- GLONASS 12 L1 SNR (dB/Hz)
- GLONASS 13 L1 SNR (dB/Hz)
- GLONASS 19 L1 SNR (dB/Hz)
- GLONASS 20 L1 SNR (dB/Hz)
- GLONASS 21 L1 SNR (dB/Hz)
- GLONASS 22 L1 SNR (dB/Hz)
- GLONASS 23 L1 SNR (dB/Hz)

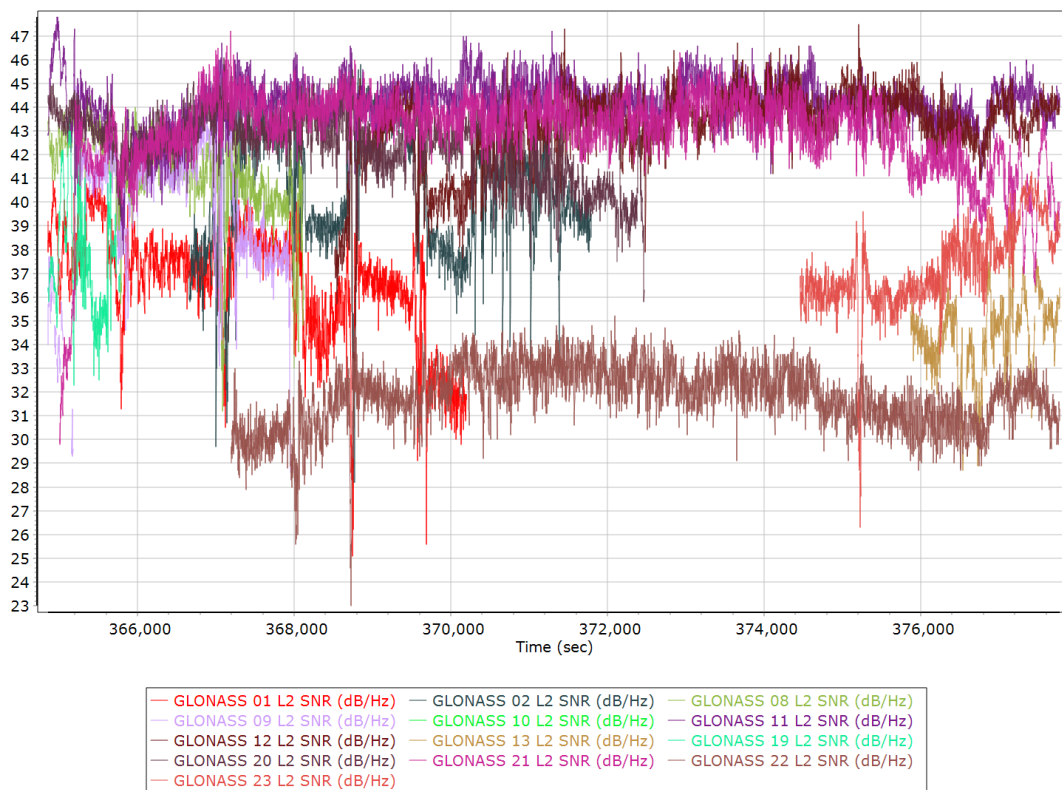
### GPS/GLONASS L2 Satellite Lock/Elevation



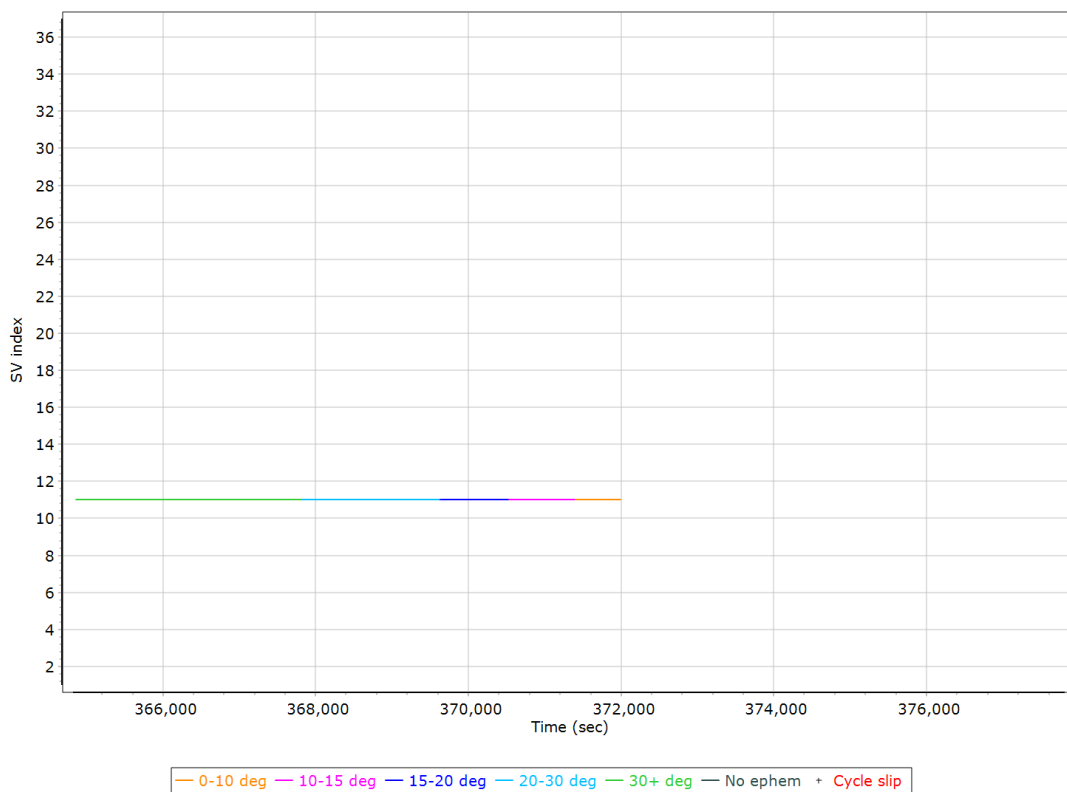
### GPS L2 SNR



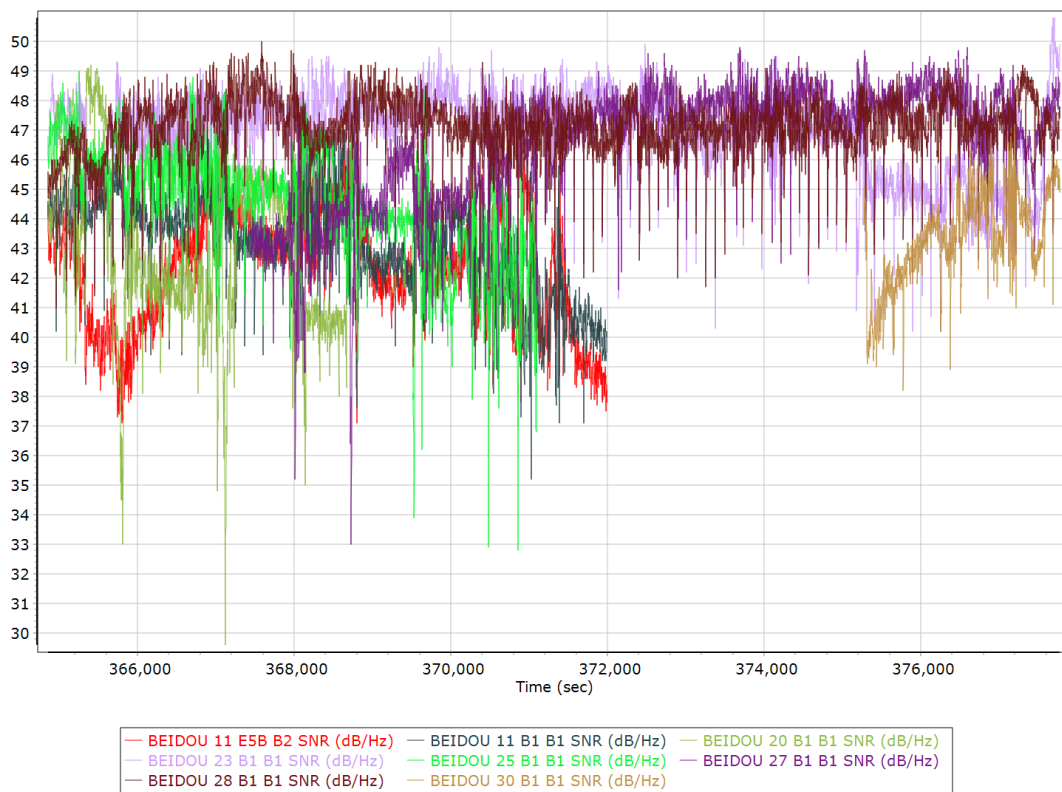
### GLONASS L2 SNR



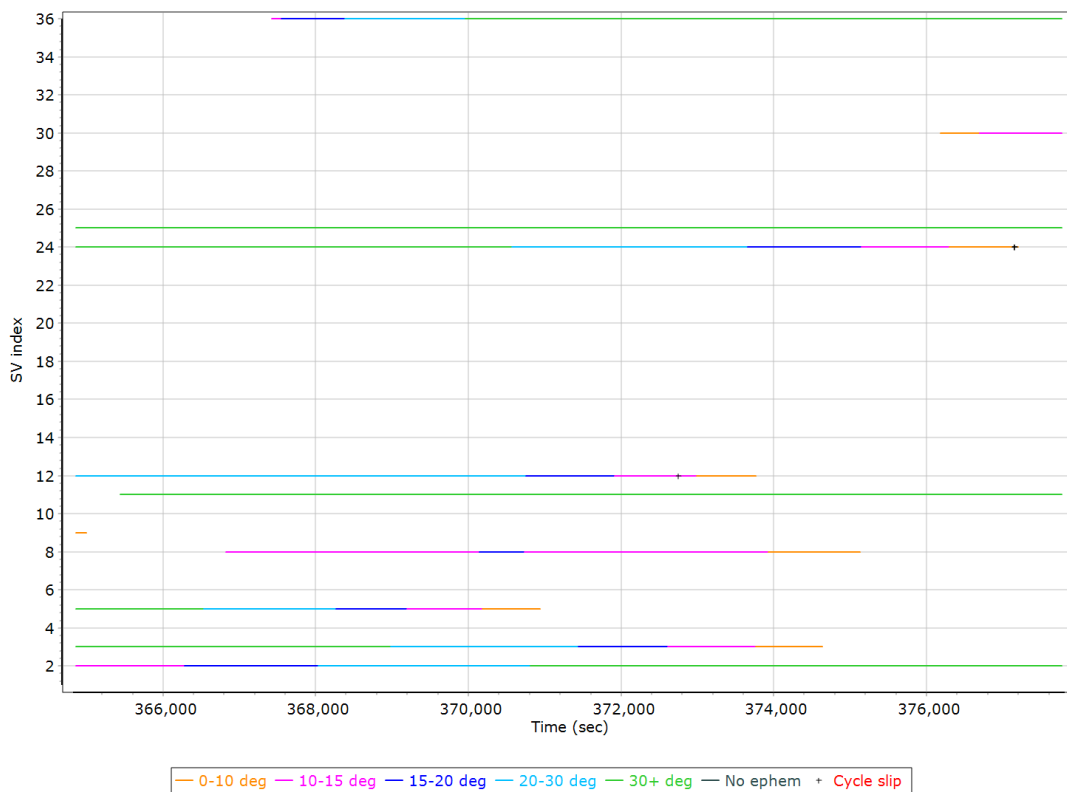
### BEIDOU Satellite Lock/Elevation



### BEIDOU SNR

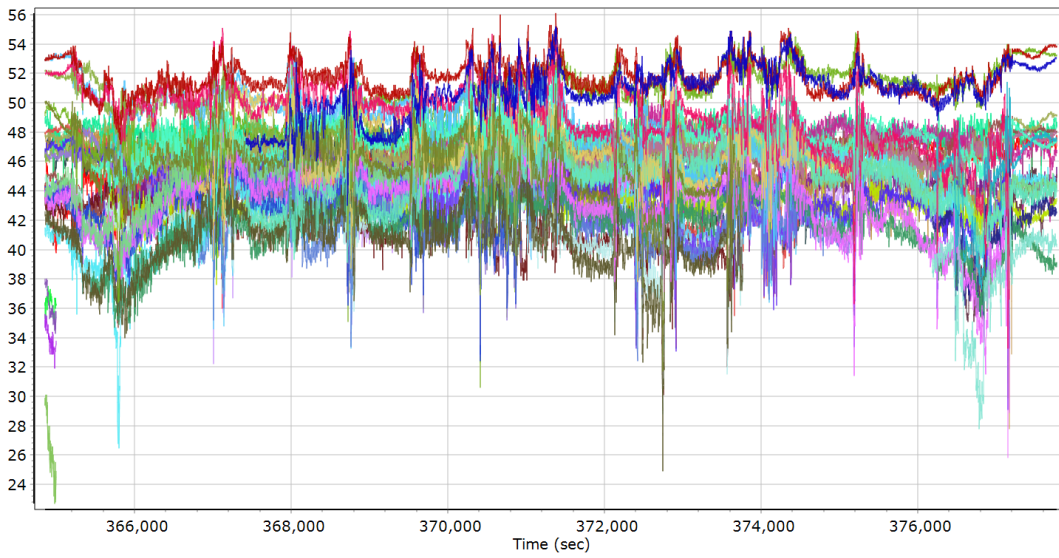


### GALILEO Satellite Lock/Elevation





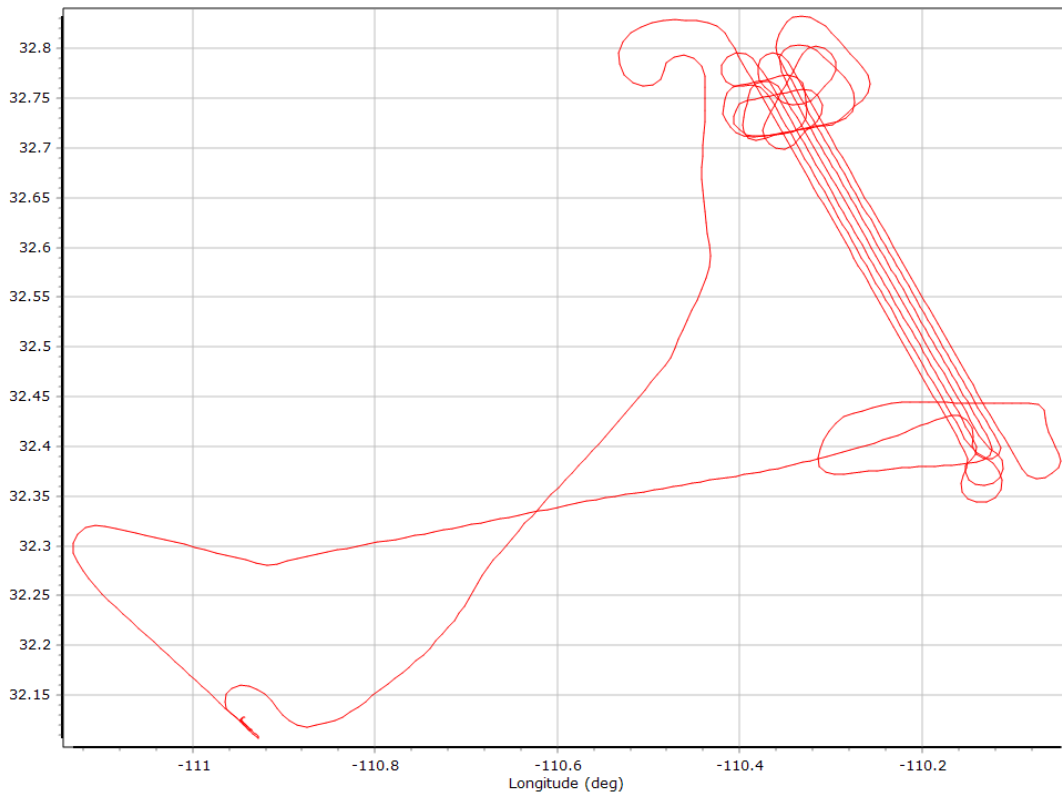
## GALILEO SNR



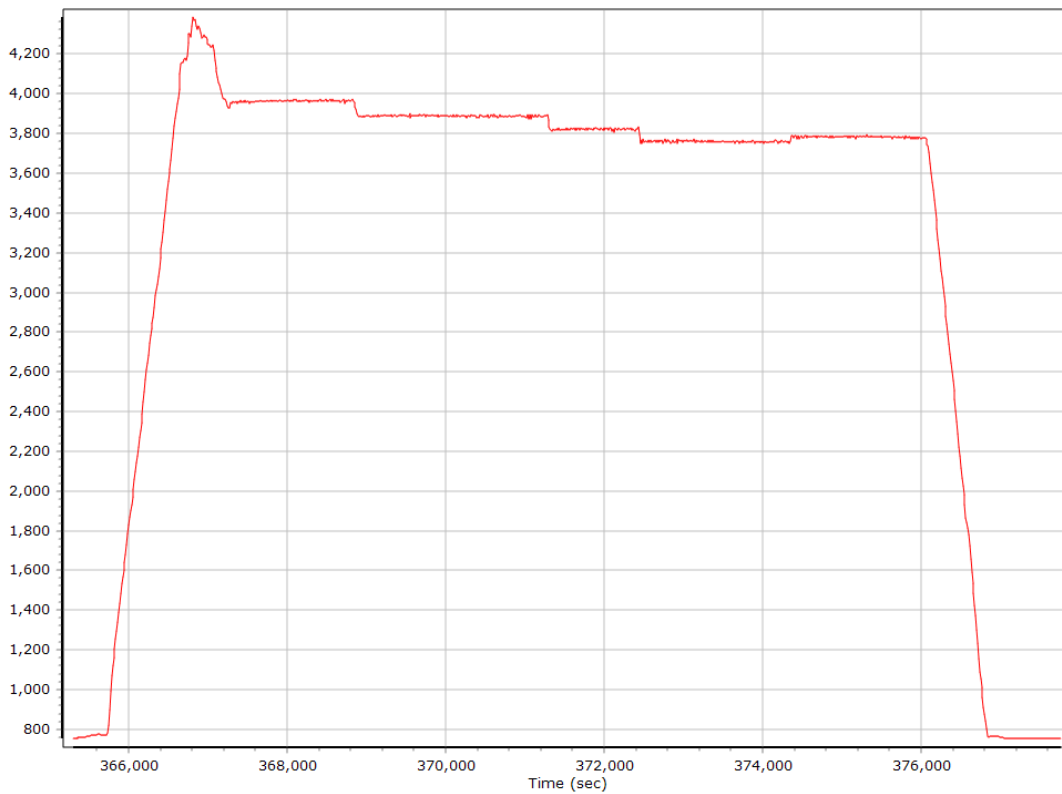
- |   |   |
|---|---|
| — GALILEO 02 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 03 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 05 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 08 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 09 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 24 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 25 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 30 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 36 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 02 L5E5A BPSK10_PD SNR (dB/Hz)    |
| — GALILEO 03 L5E5A BPSK10_PD SNR (dB/Hz)    | — GALILEO 05 L5E5A BPSK10_PD SNR (dB/Hz)    |
| — GALILEO 08 L5E5A BPSK10_PD SNR (dB/Hz)    | — GALILEO 09 L5E5A BPSK10_PD SNR (dB/Hz)    |
| — GALILEO 11 L5E5A BPSK10_PD SNR (dB/Hz)    | — GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz)    |
| — GALILEO 24 L5E5A BPSK10_PD SNR (dB/Hz)    | — GALILEO 25 L5E5A BPSK10_PD SNR (dB/Hz)    |

## Smoothed Trajectory Information

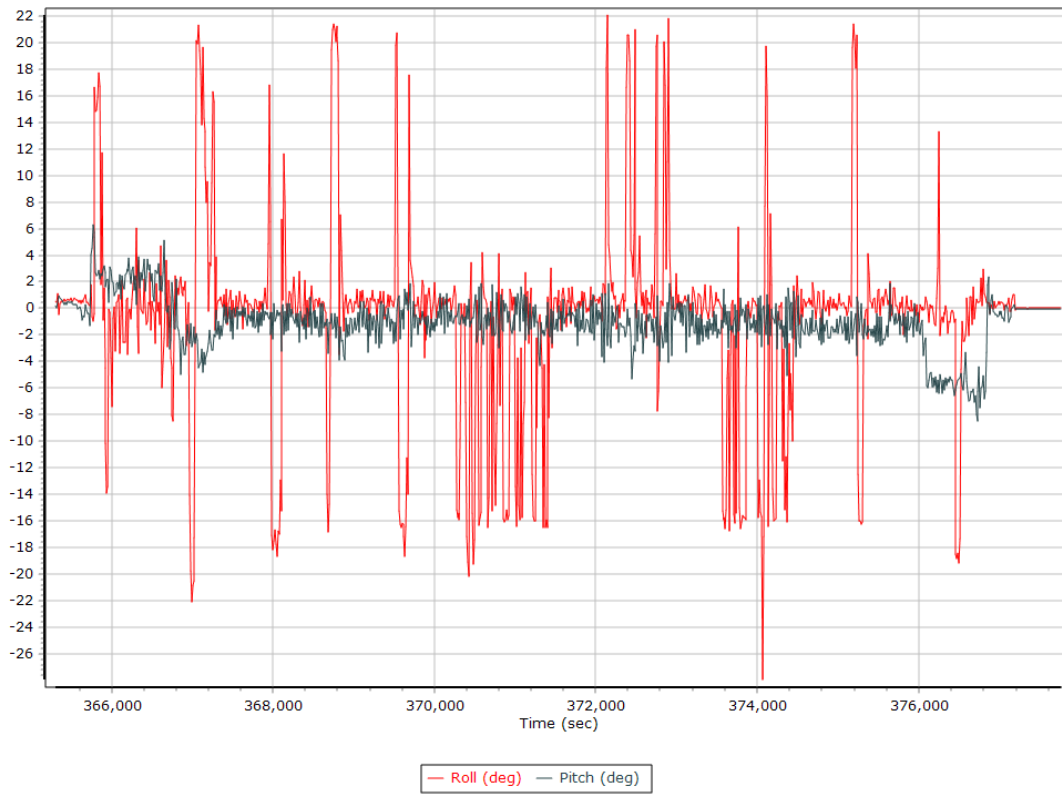
### Top View



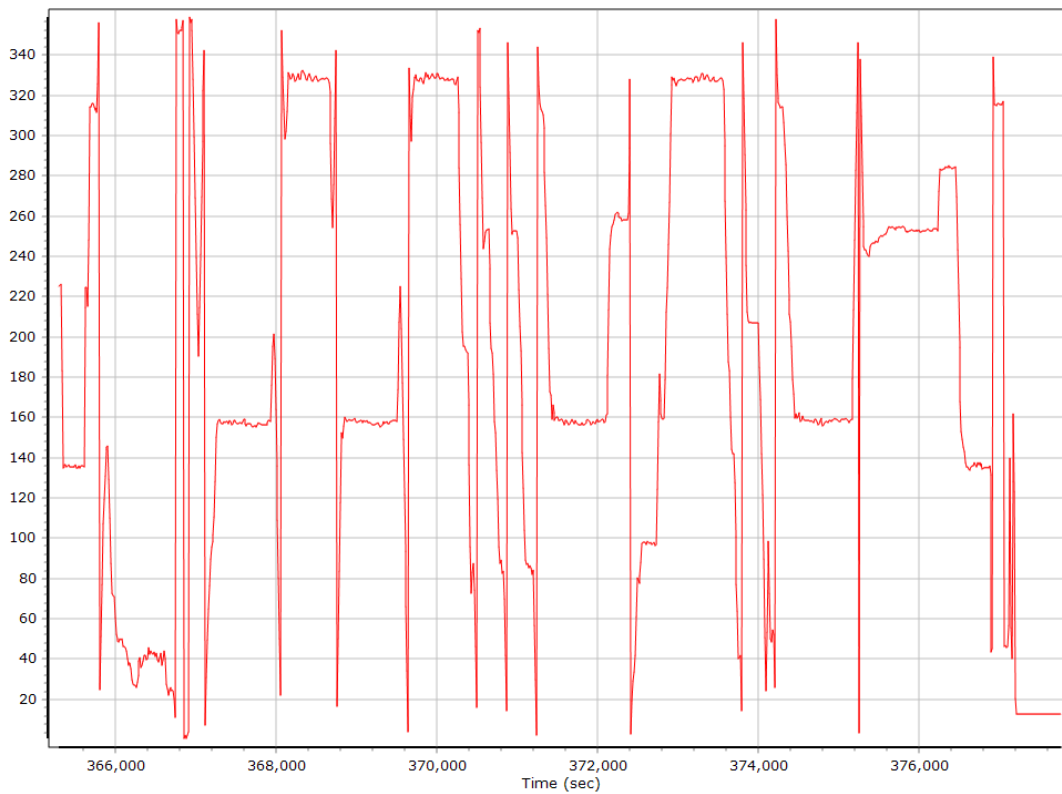
### Altitude



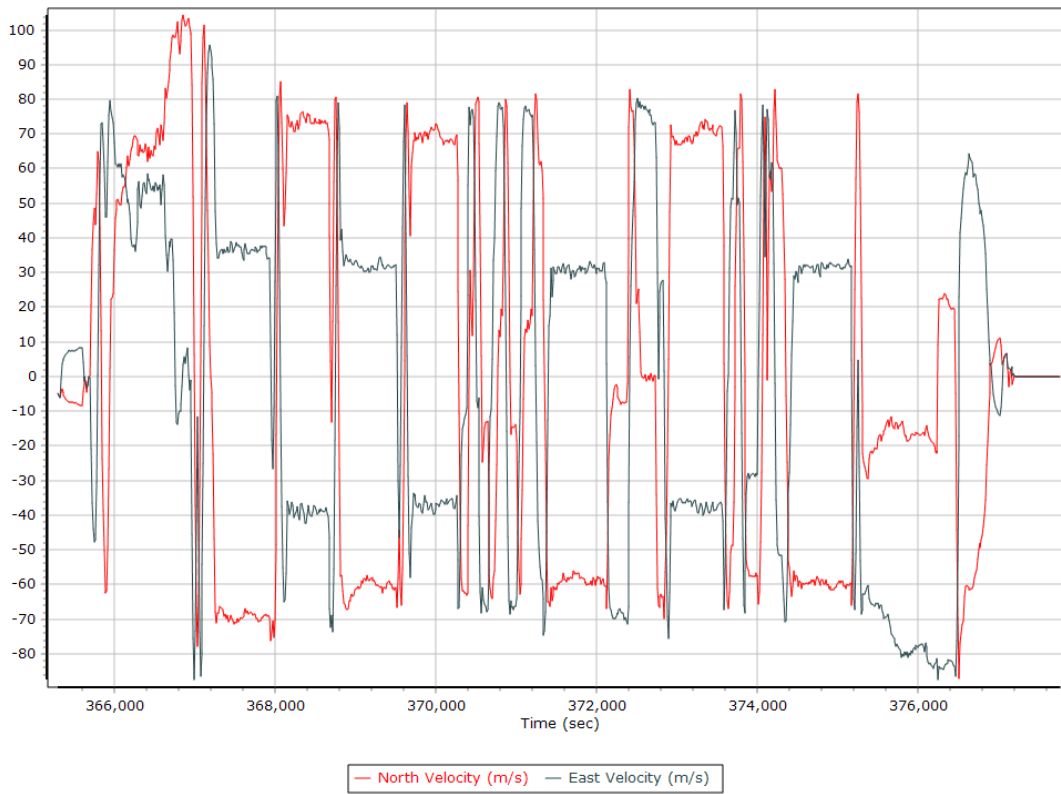
## Roll/Pitch



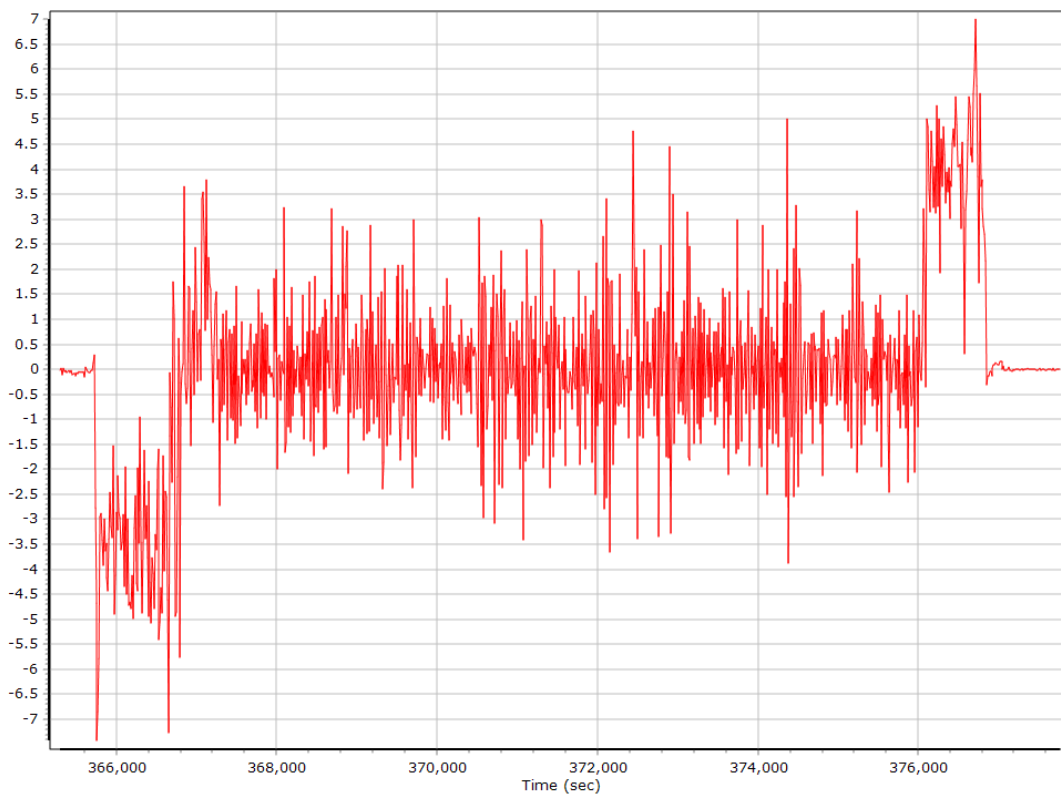
## Heading



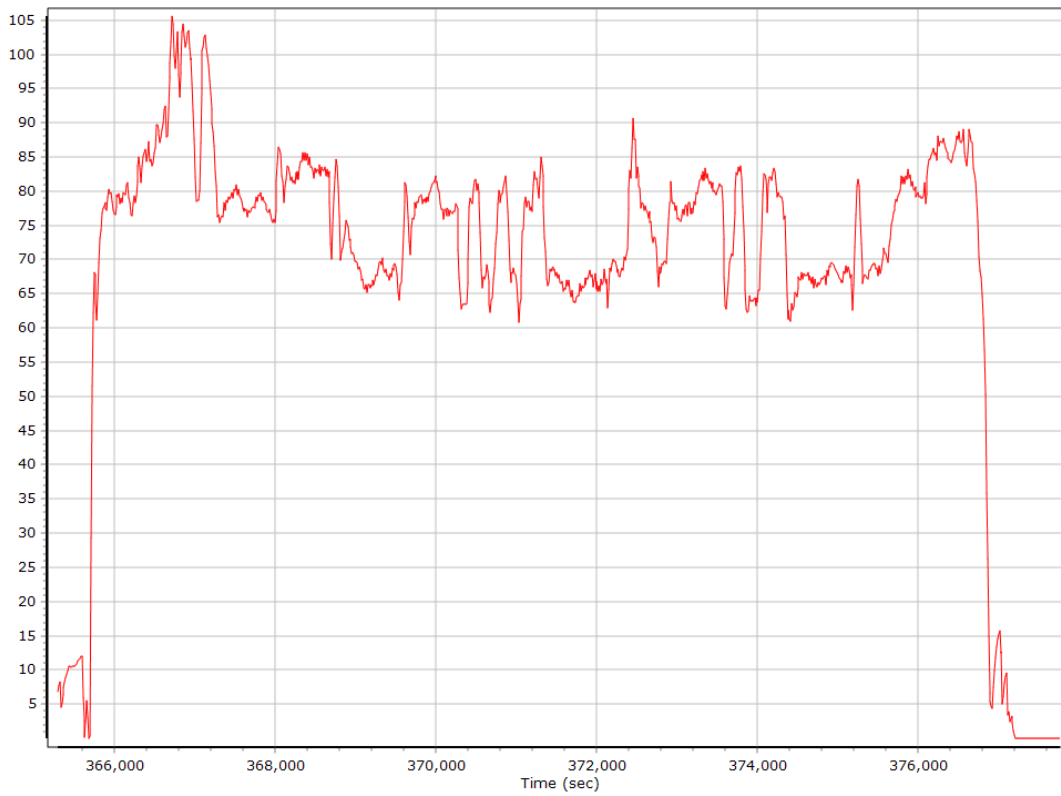
## North/East Velocity



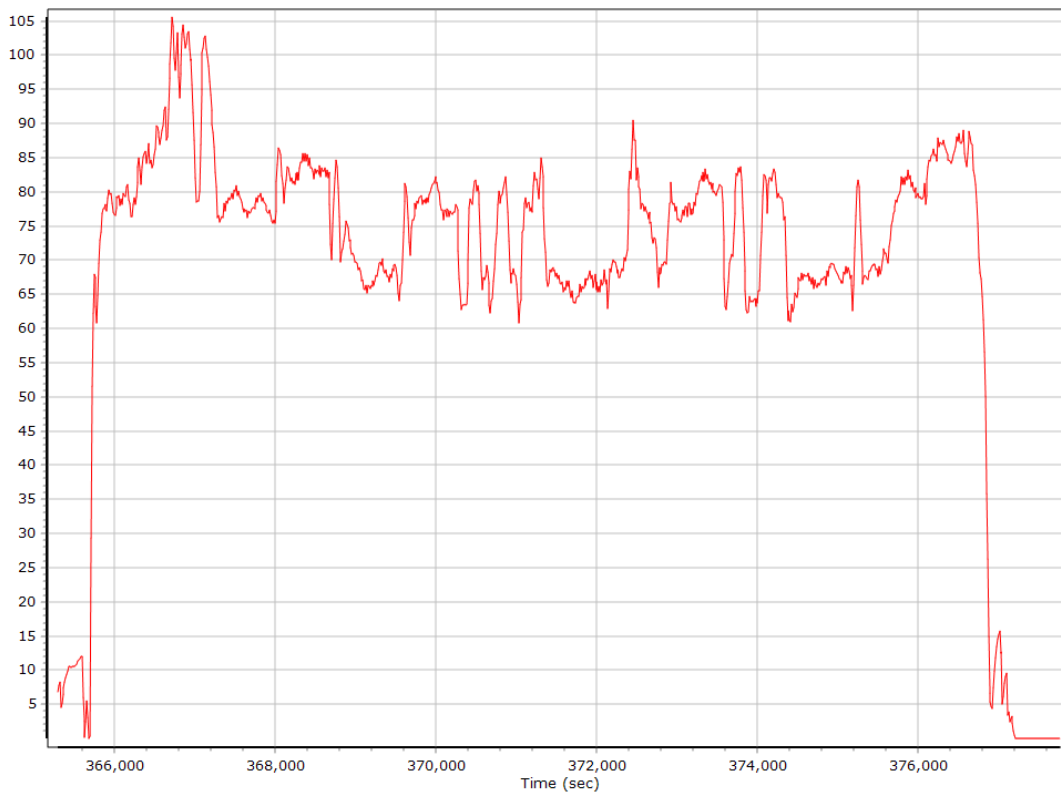
## Down Velocity



## Total Speed



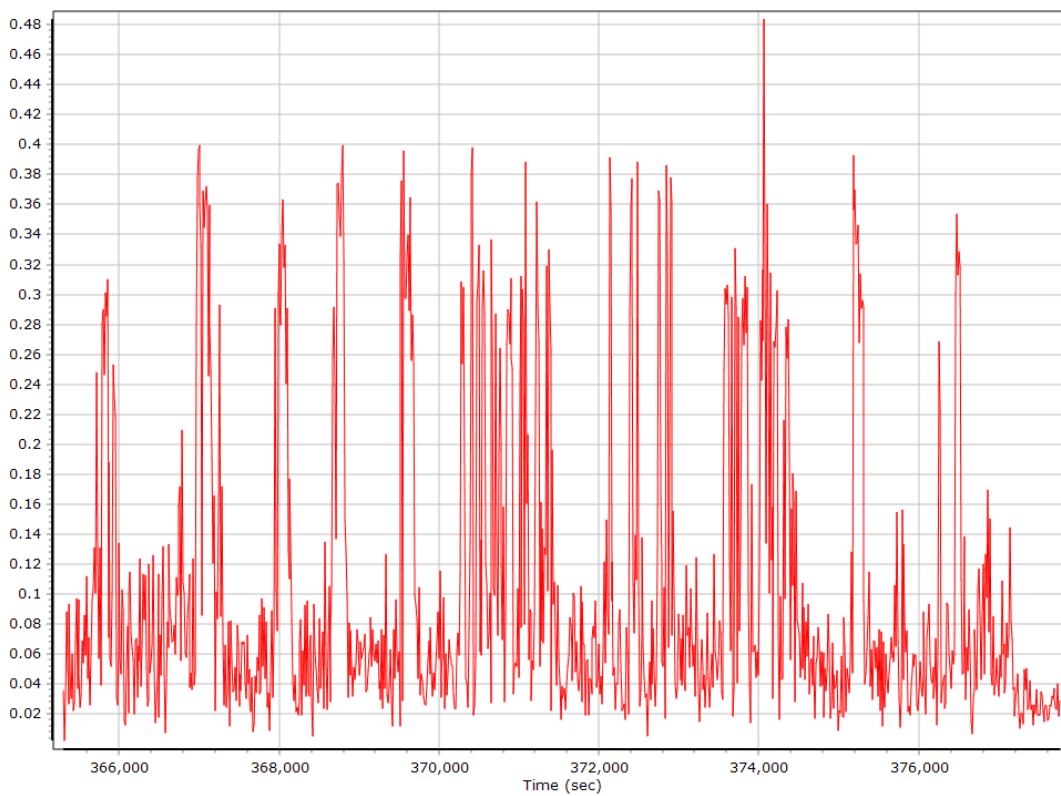
## Ground Speed



## Body Acceleration



## Total Body Acceleration

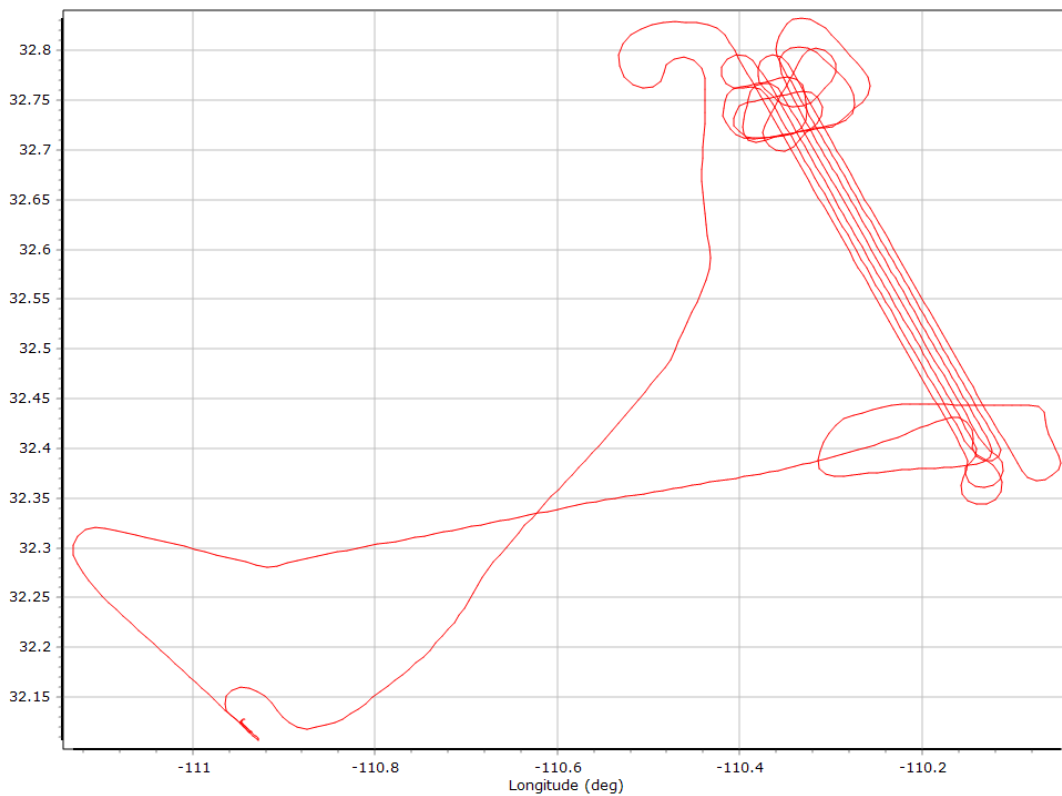


## Body Angular Rate

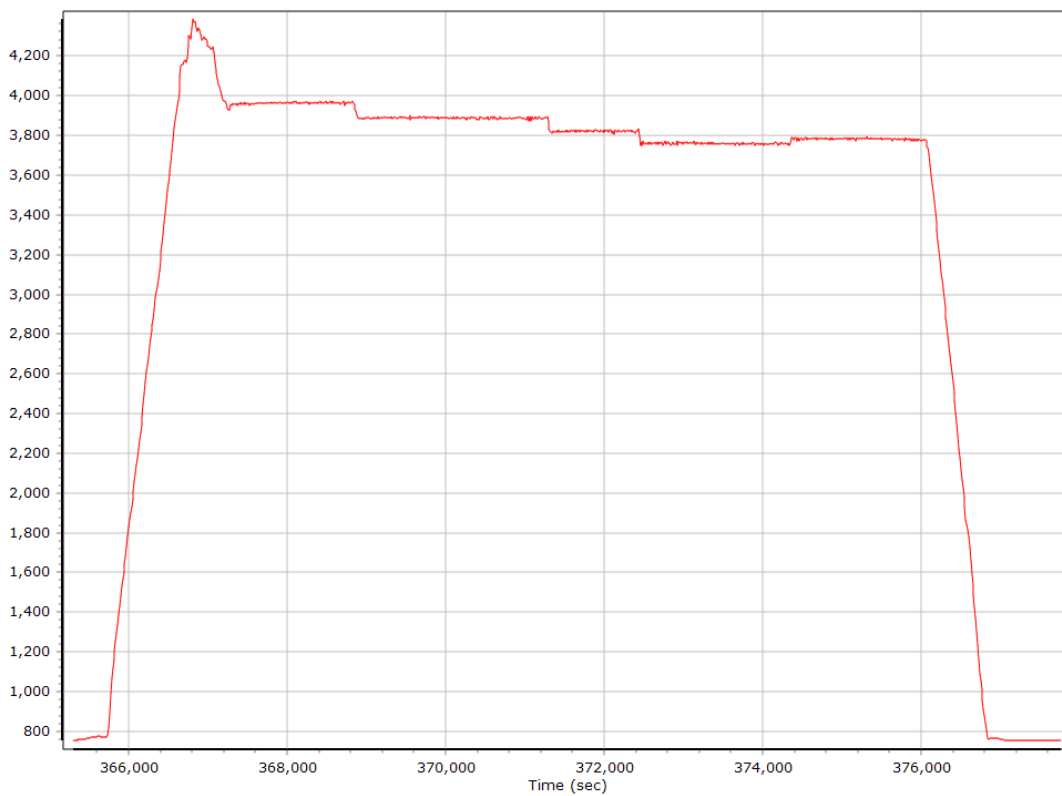


## Forward Processed Trajectory Information

### Top View

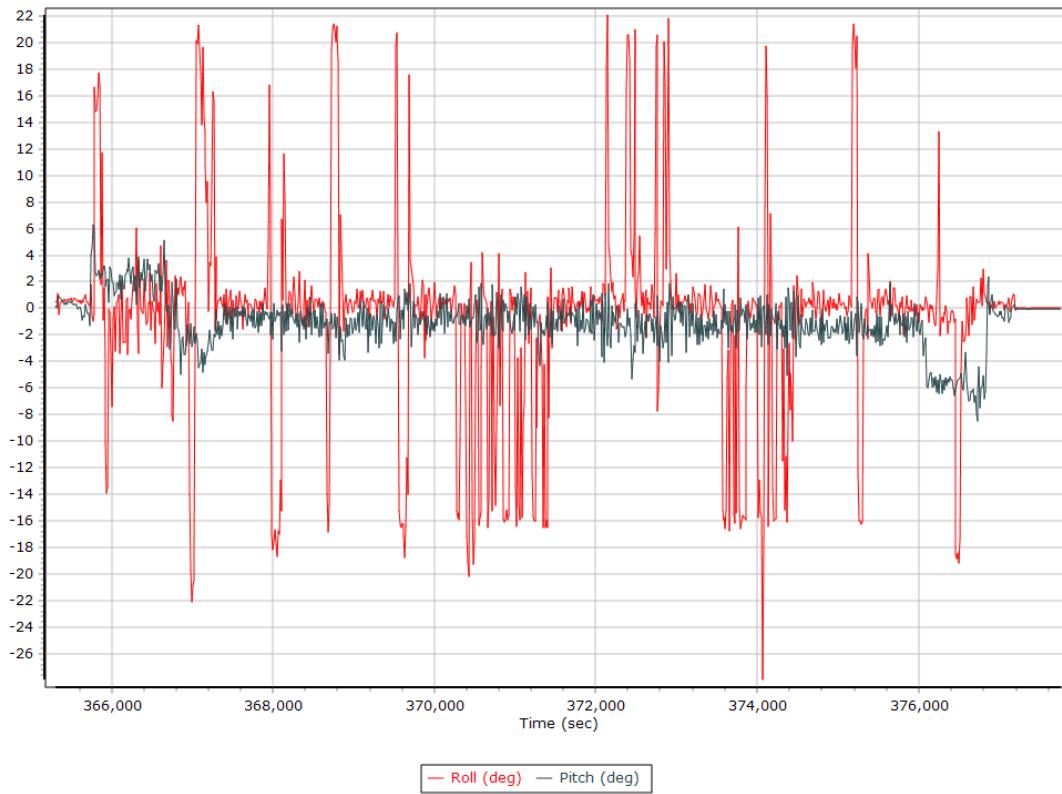


### Altitude

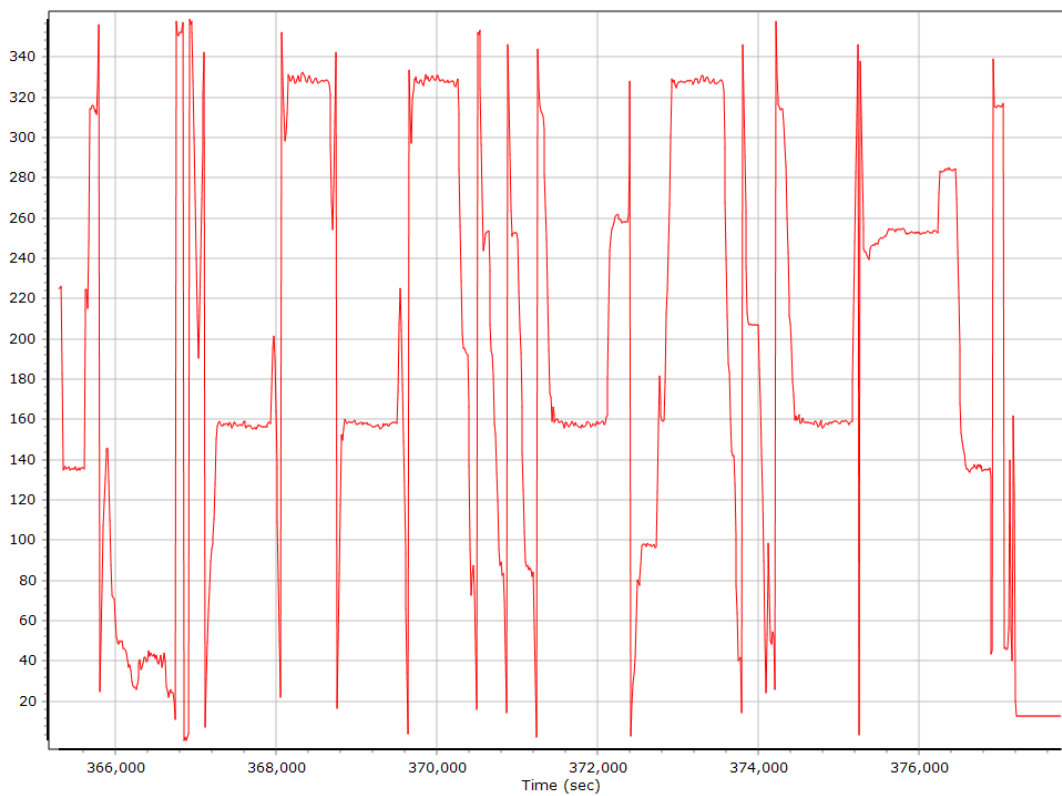




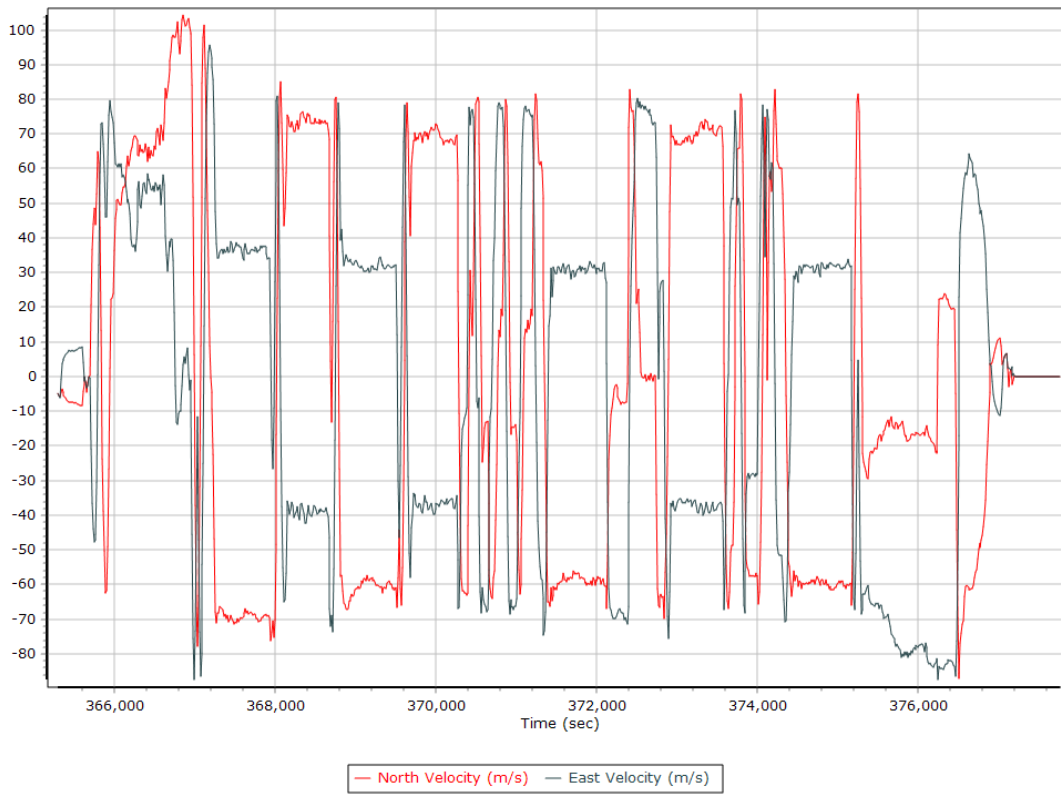
## Roll/Pitch



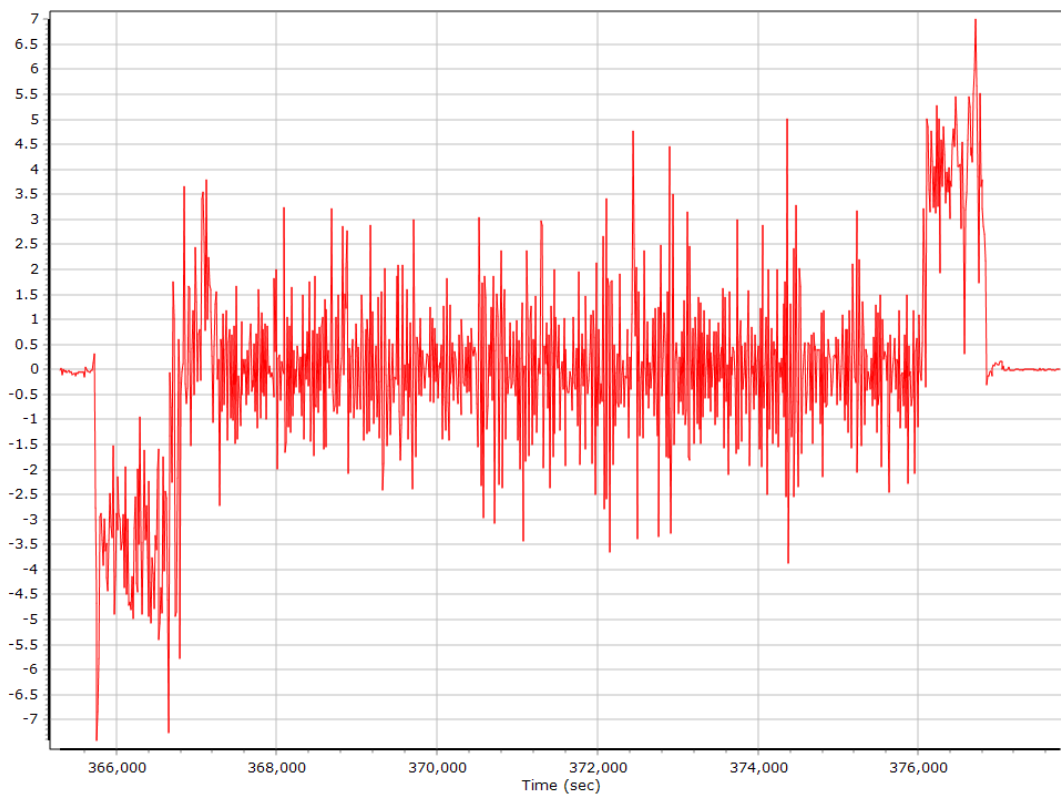
## Heading



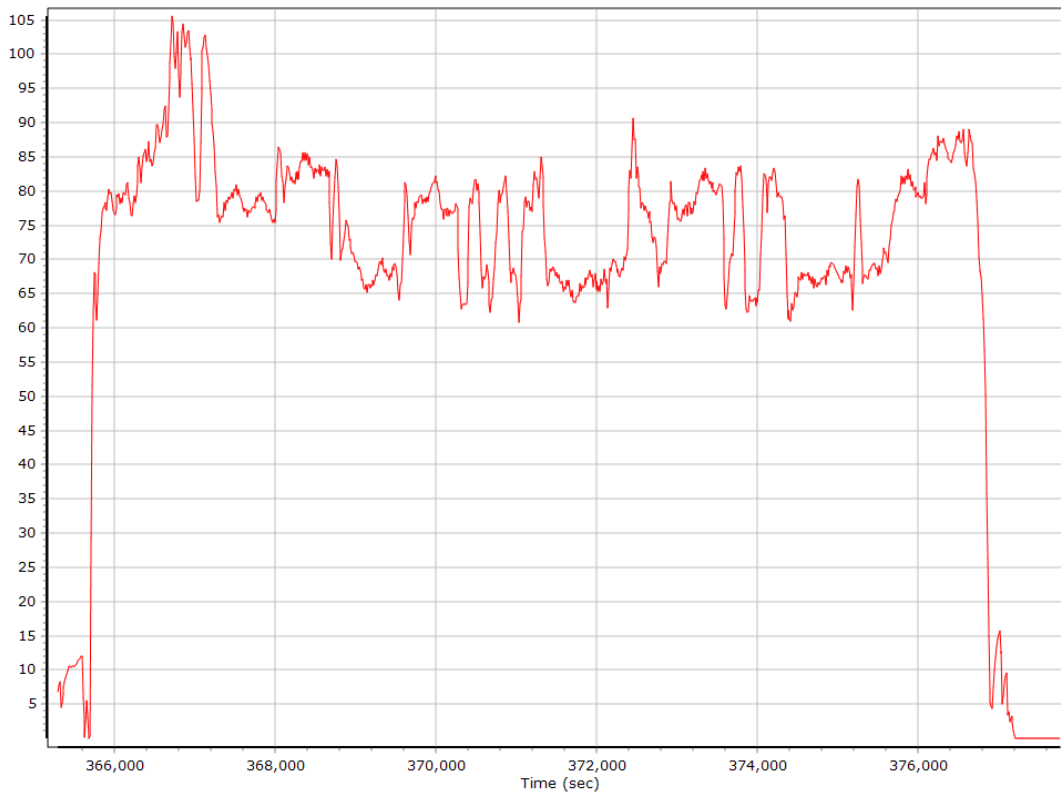
## North/East Velocity



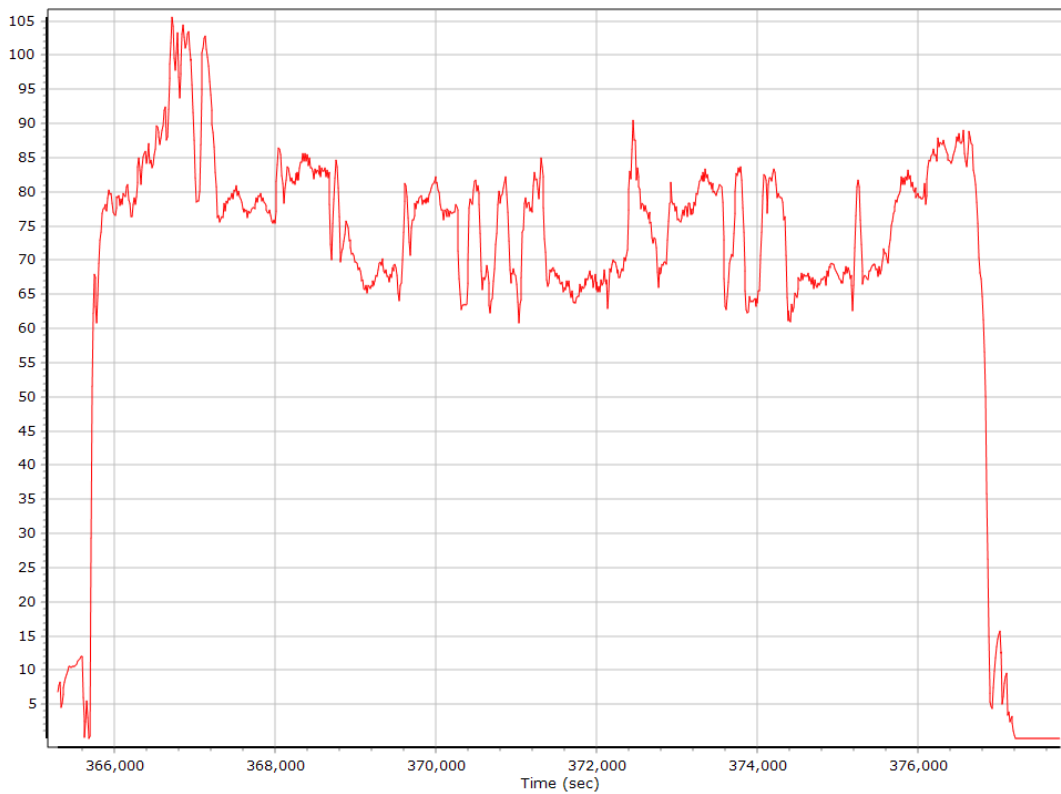
## Down Velocity



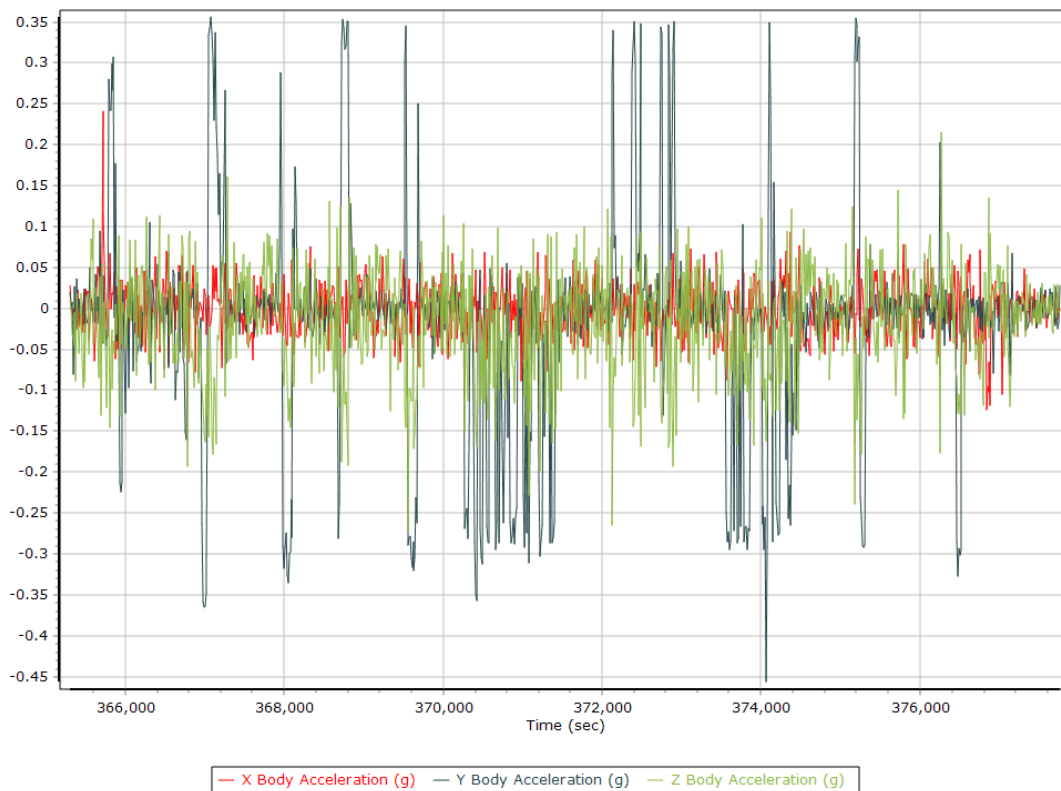
## Total Speed



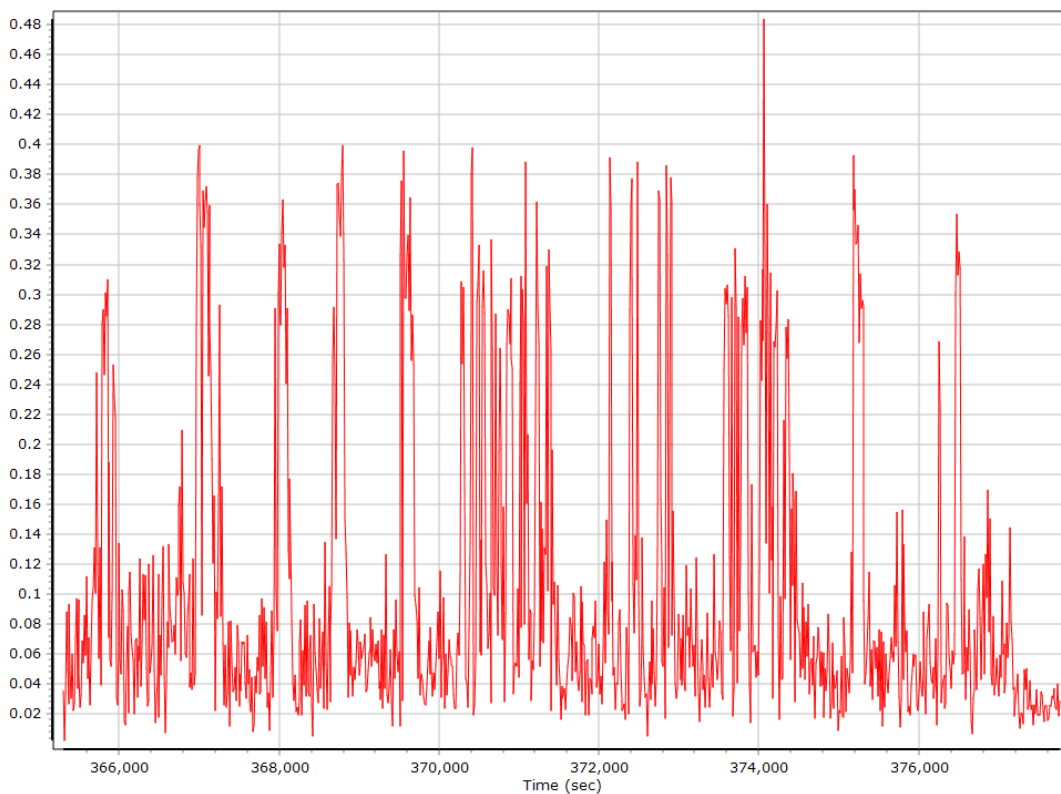
## Ground Speed



## Body Acceleration



## Total Body Acceleration



## Body Angular Rate

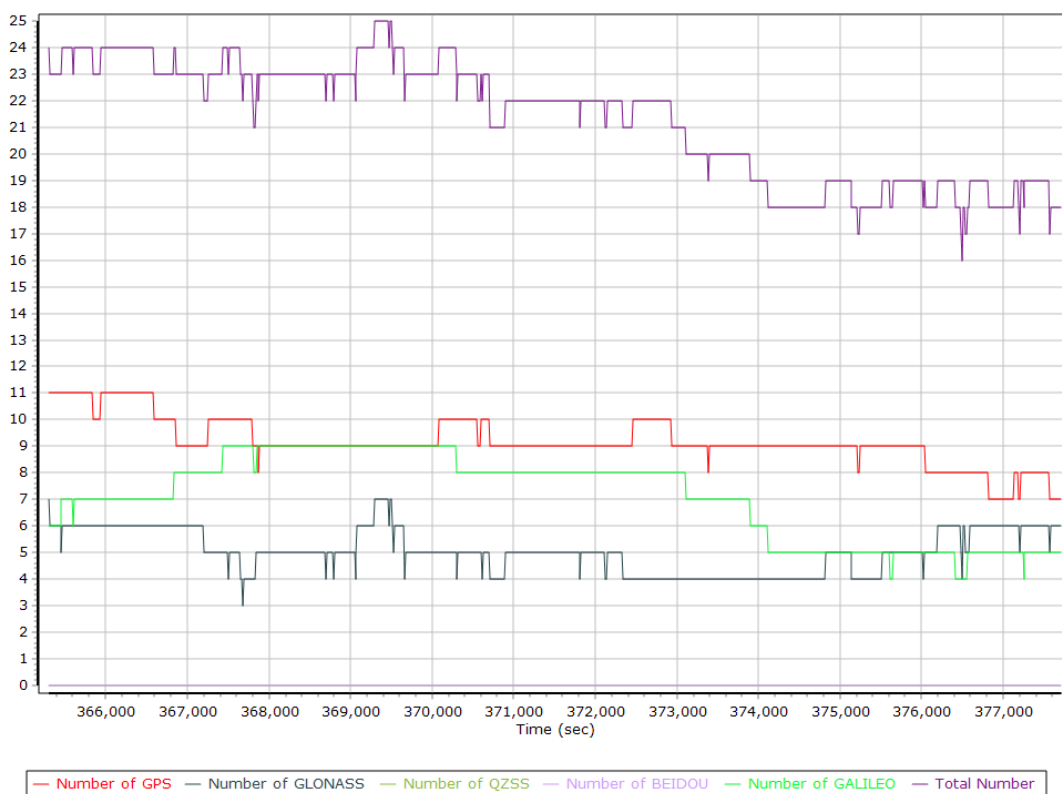


## GNSS QC

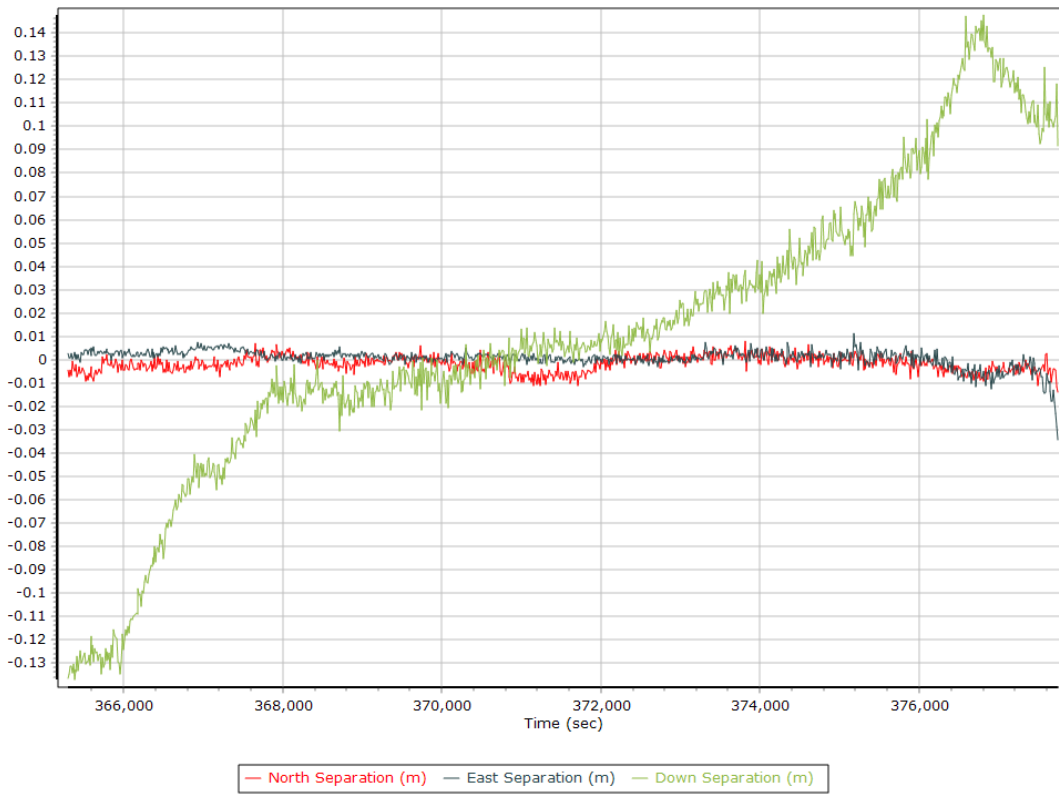
### GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	11	9
Number of GLONASS SV	0	7	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	4	9	7
Total number of SV	16	25	21
PDOP	0.98	1.55	1.16
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	12851.00	0.00	2.00
Percentage	99.98	0.00	0.02

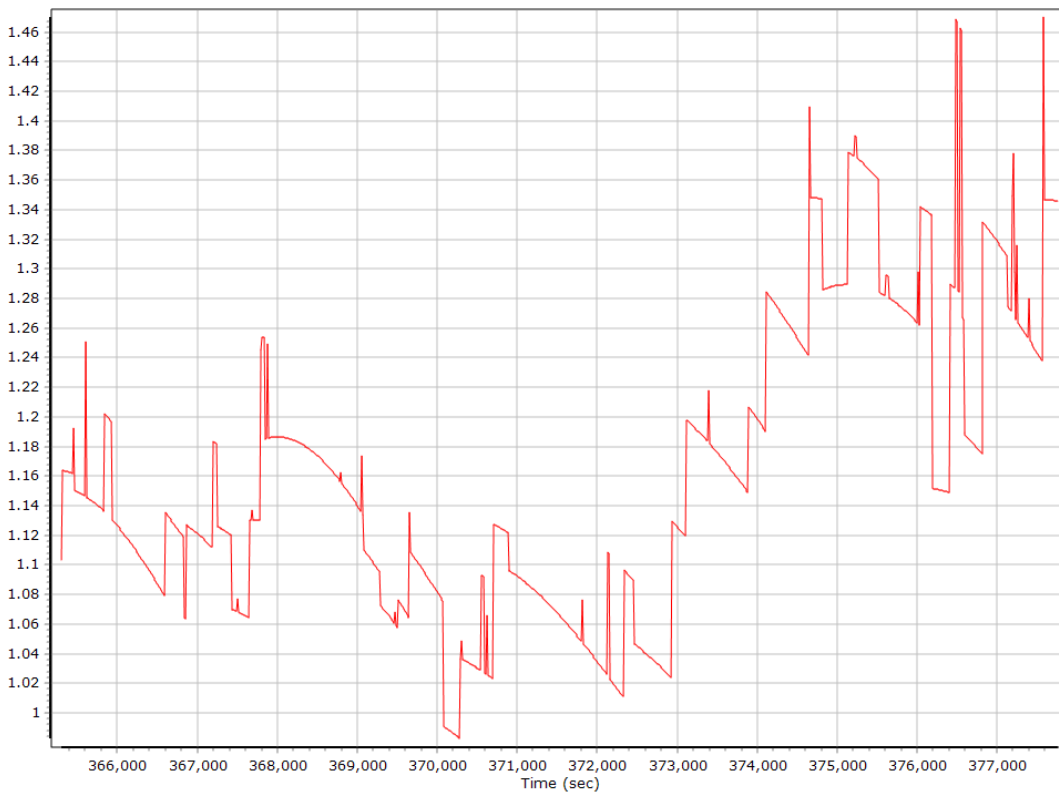
### Num SVs in solution



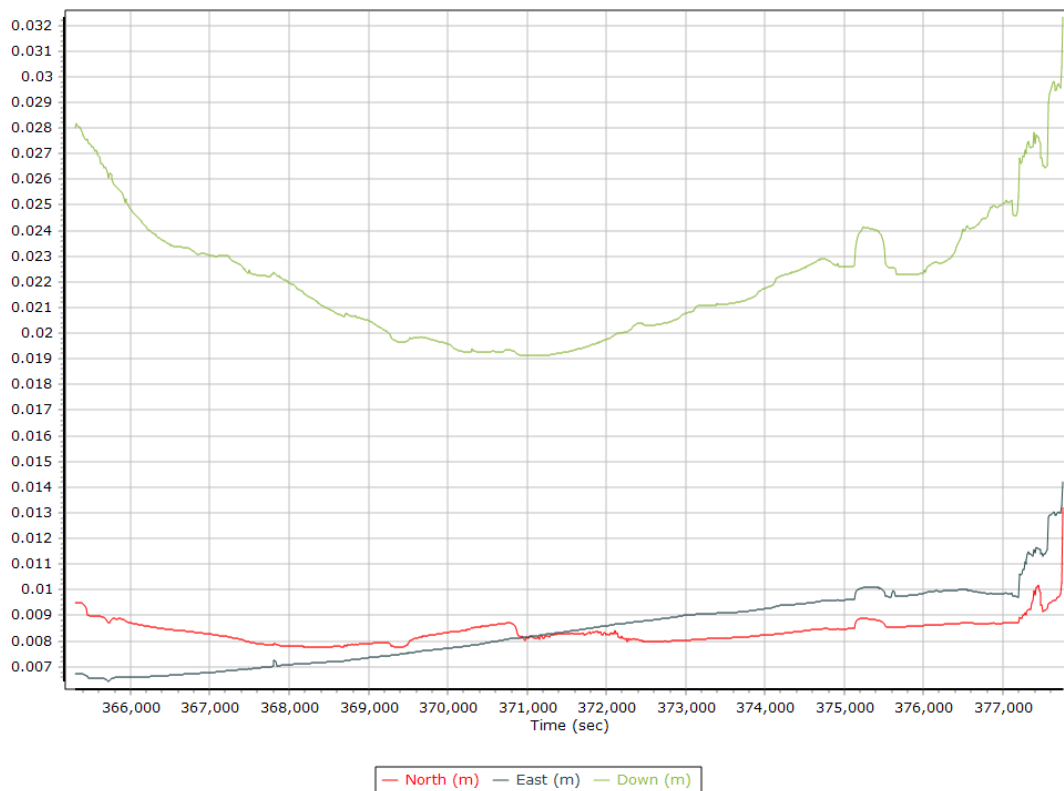
### Forward/Reverse Separation



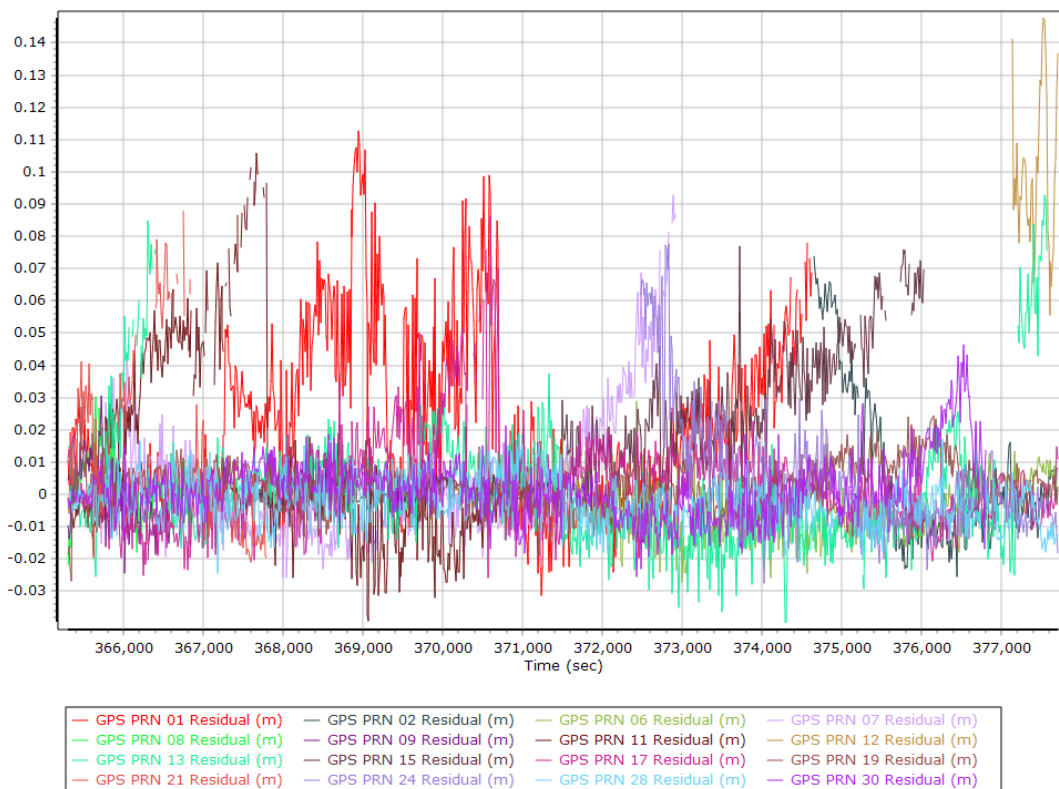
### PDOP



### Estimated Position Accuracy

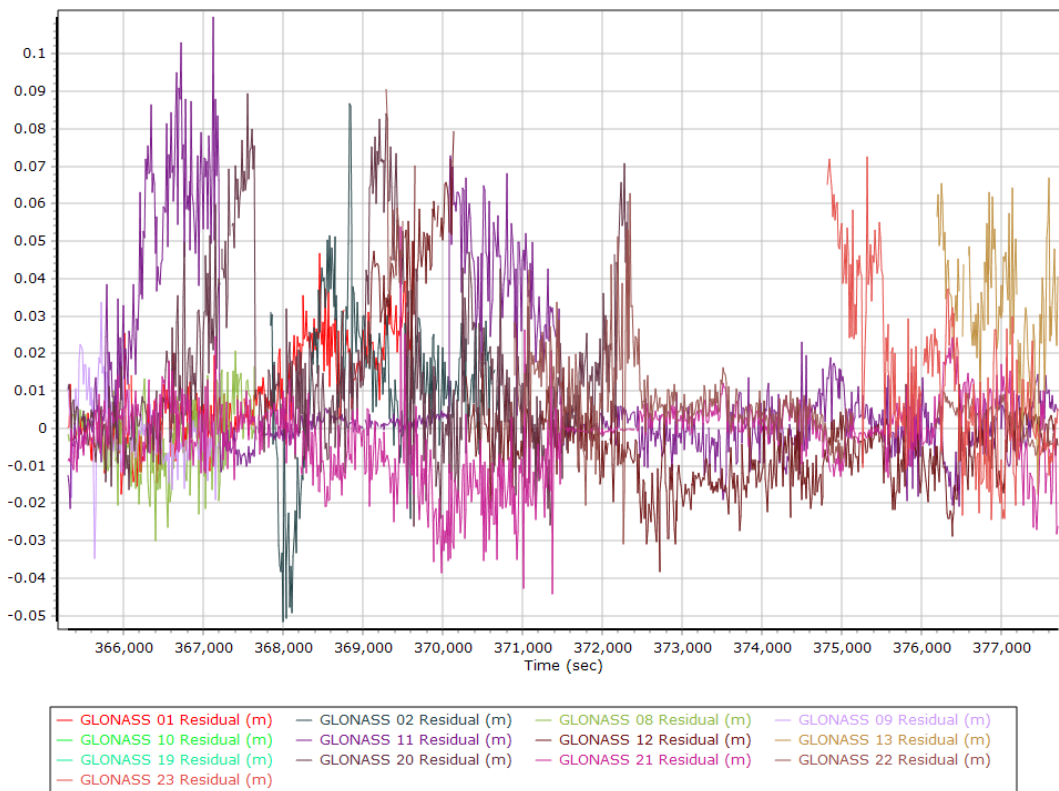


### GPS Residuals

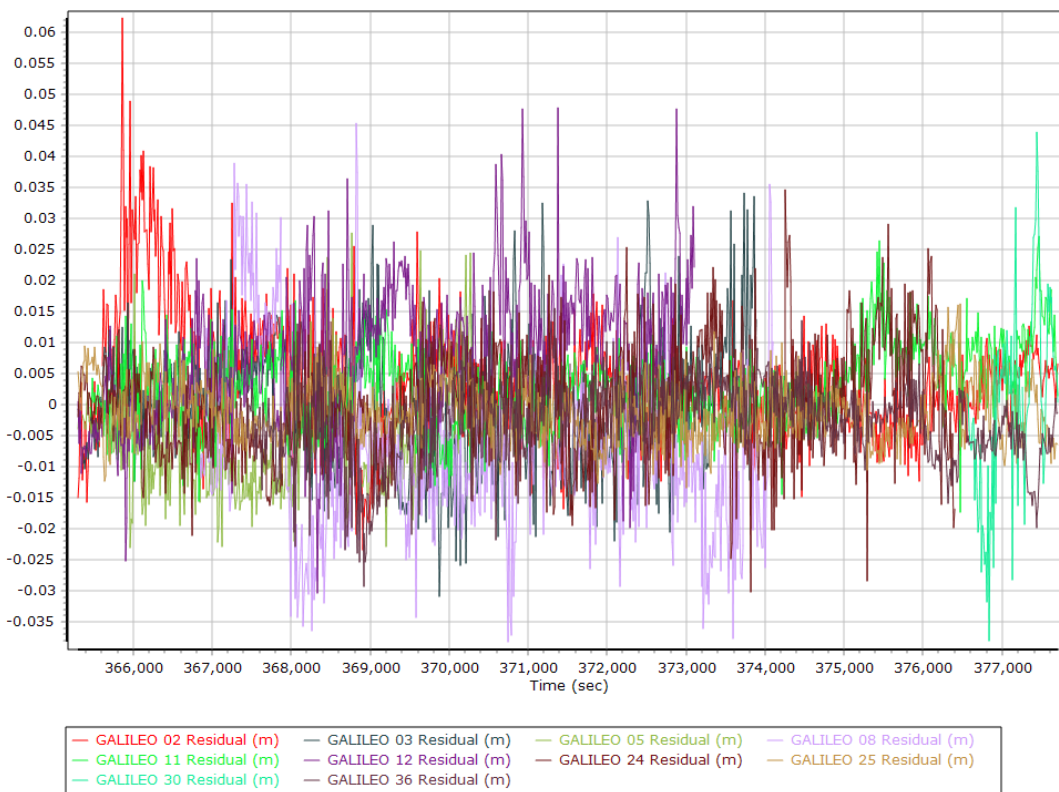




## GLONASS Residuals



## GALILEO Residuals



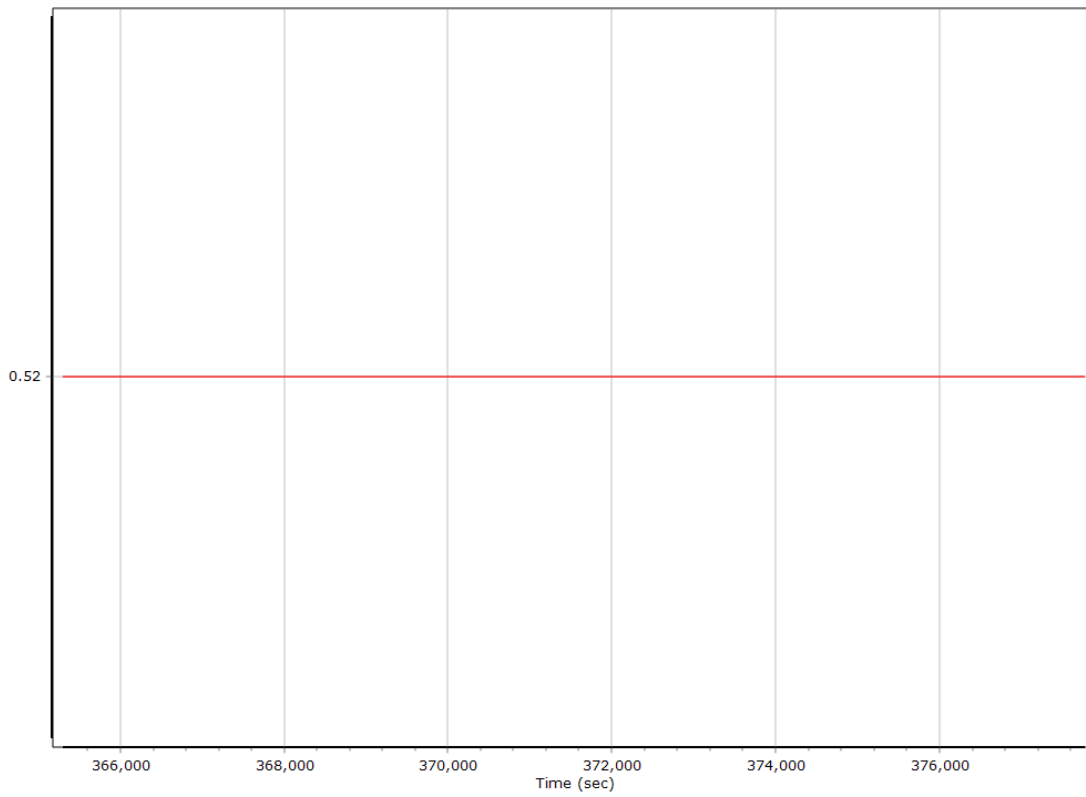
## GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	364860.000 (10/22/2020 5:21:00 AM)		
Processing end time	377771.000 (10/22/2020 8:56:11 AM)		
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	-90.000
Reference to Primary GNSS lever arm (m)	0.520	0.207	-1.191
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

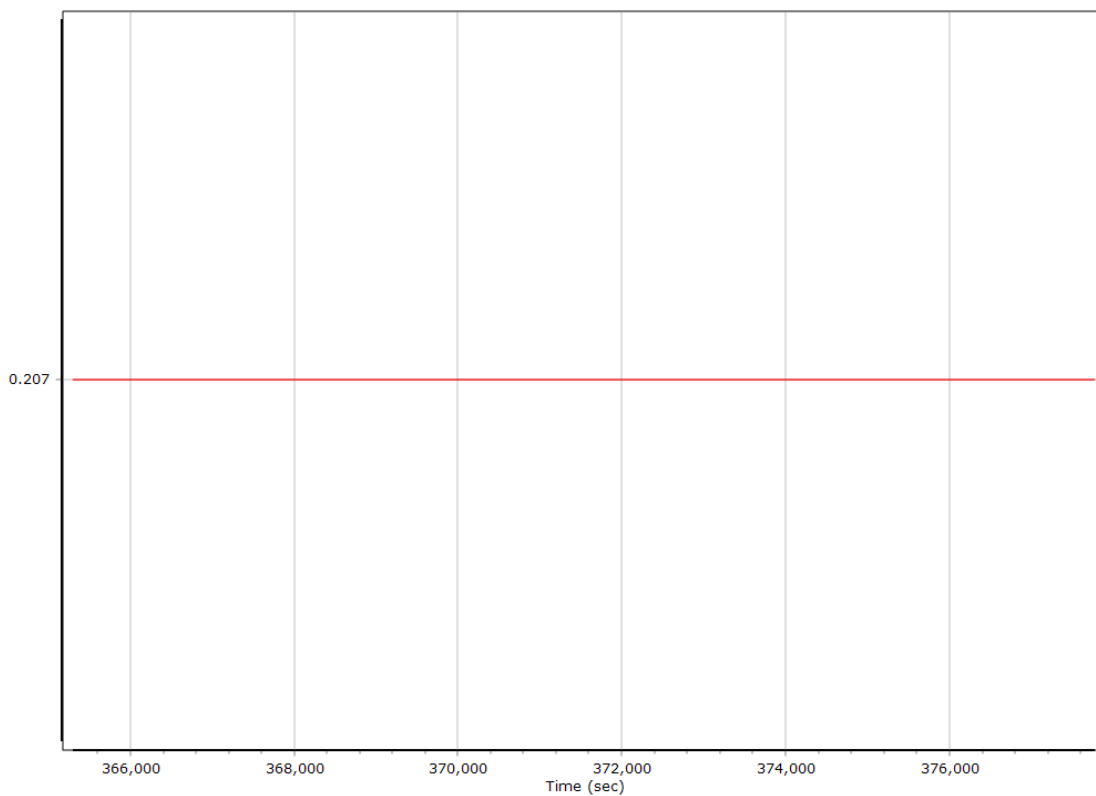
## Calibrated Installation Parameters

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

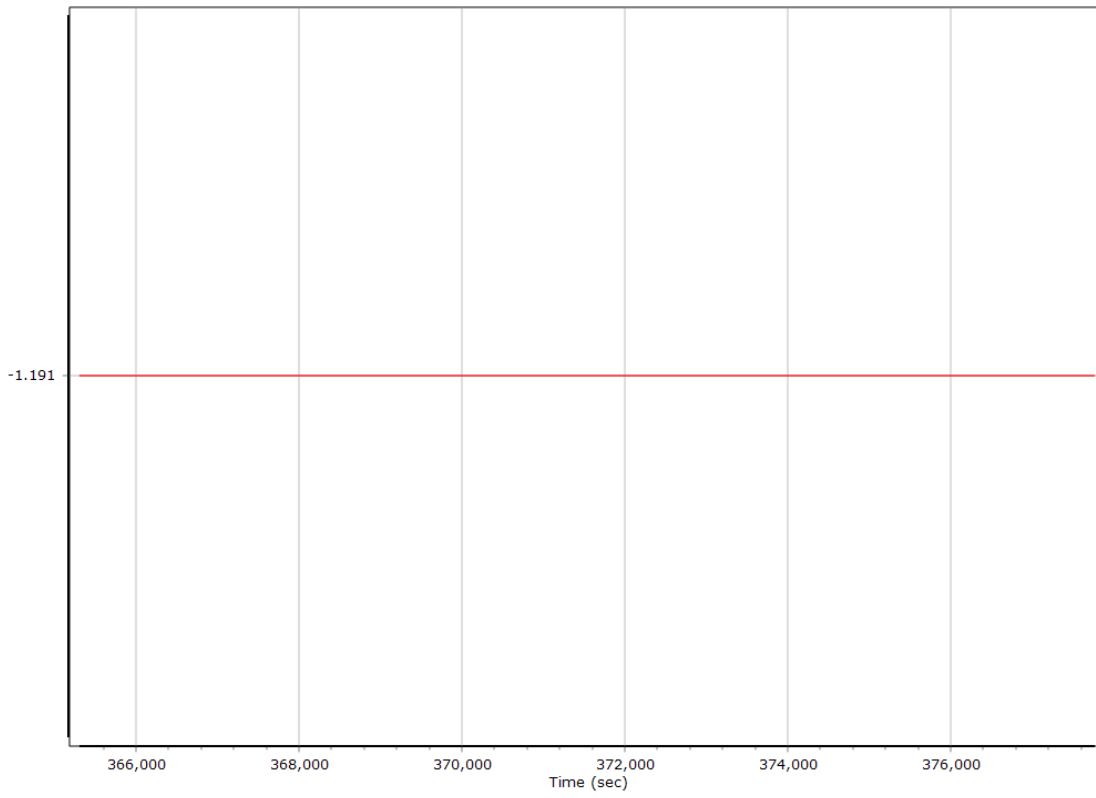
#### X Reference-Primary GNSS Lever Arm (m)



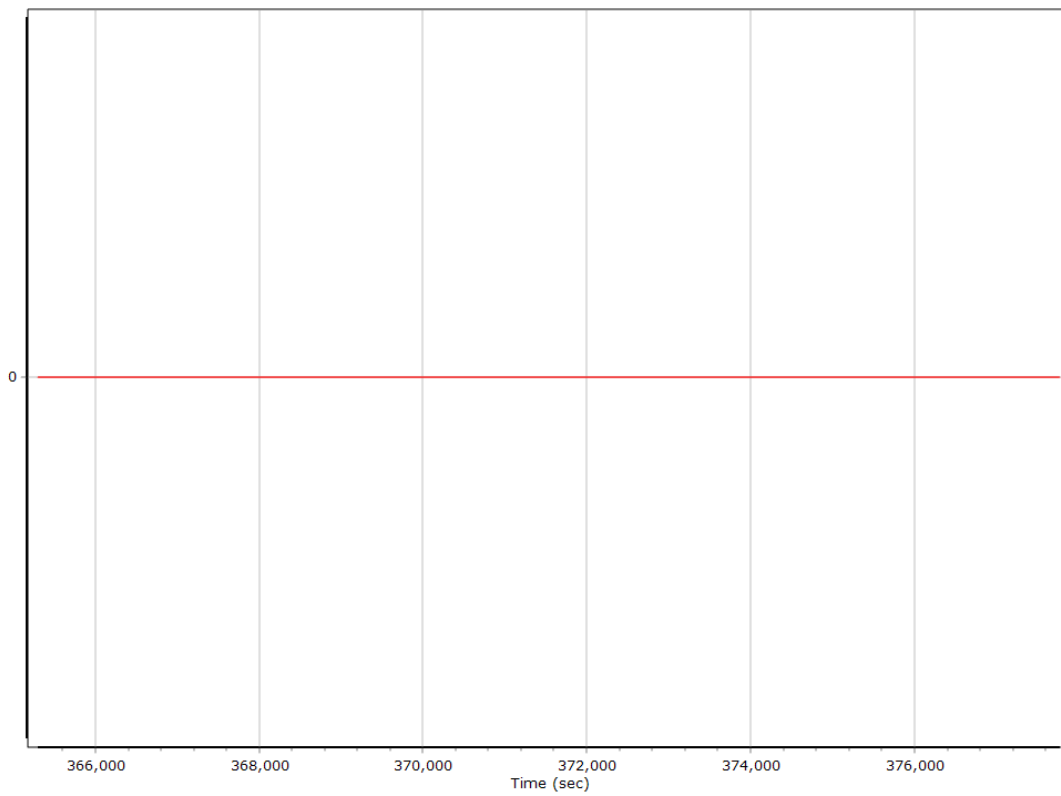
#### Y Reference-Primary GNSS Lever Arm (m)



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



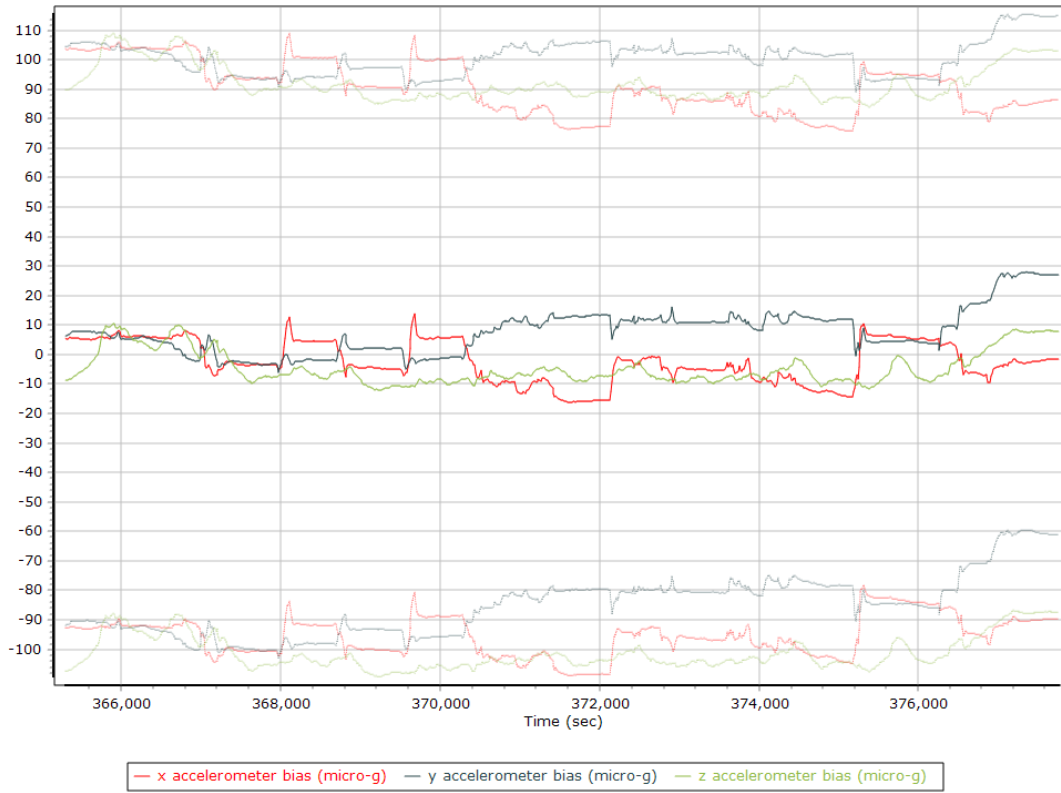
### Reference-Primary GNSS Lever Arm Figure of Merit



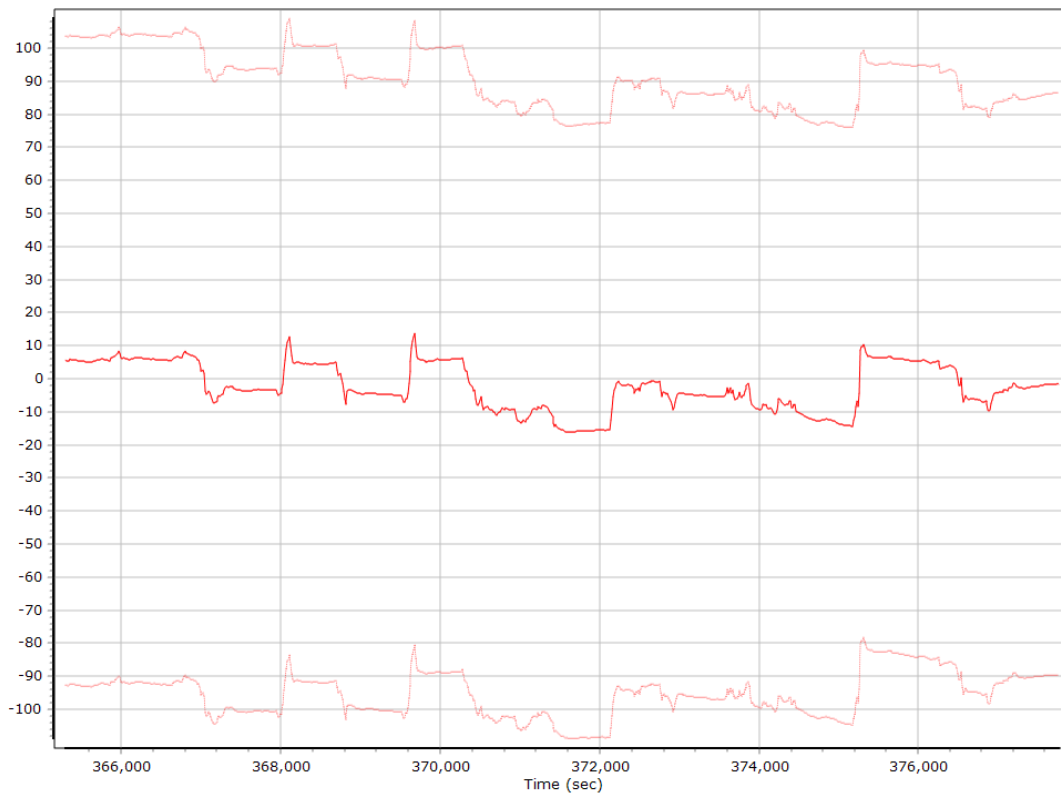
## IN-Fusion QC

### Forward Processed Estimated Errors, Reference Frame

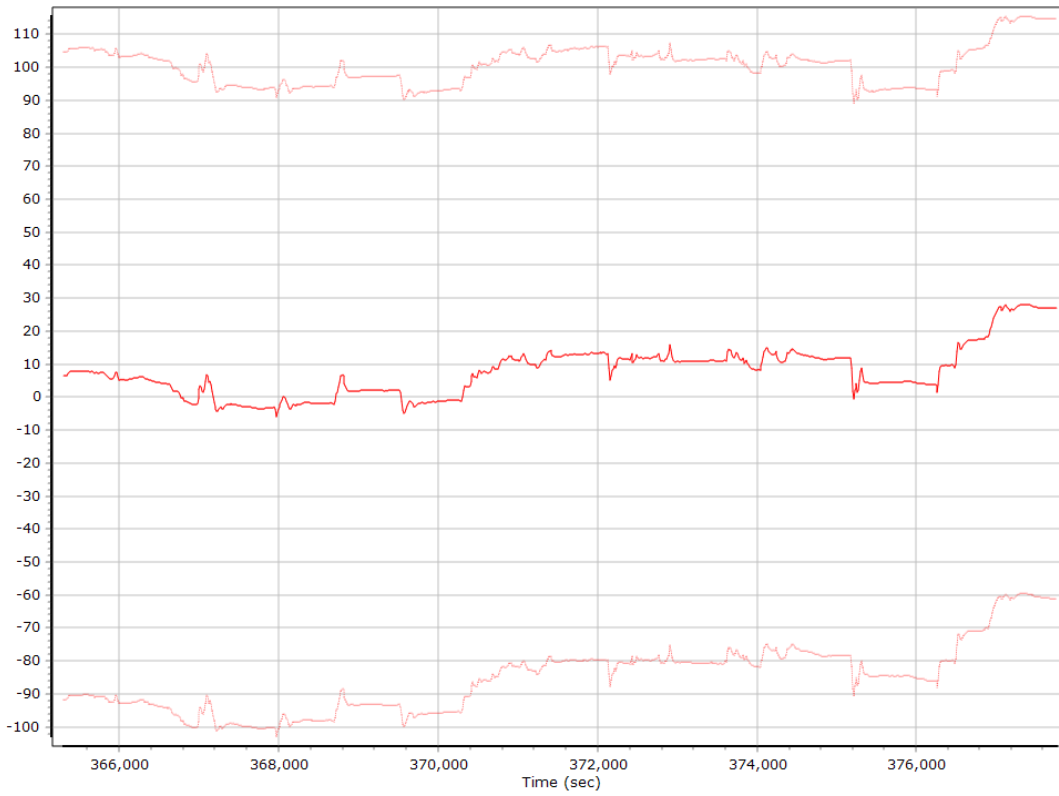
#### Accelerometer Bias (micro-g)



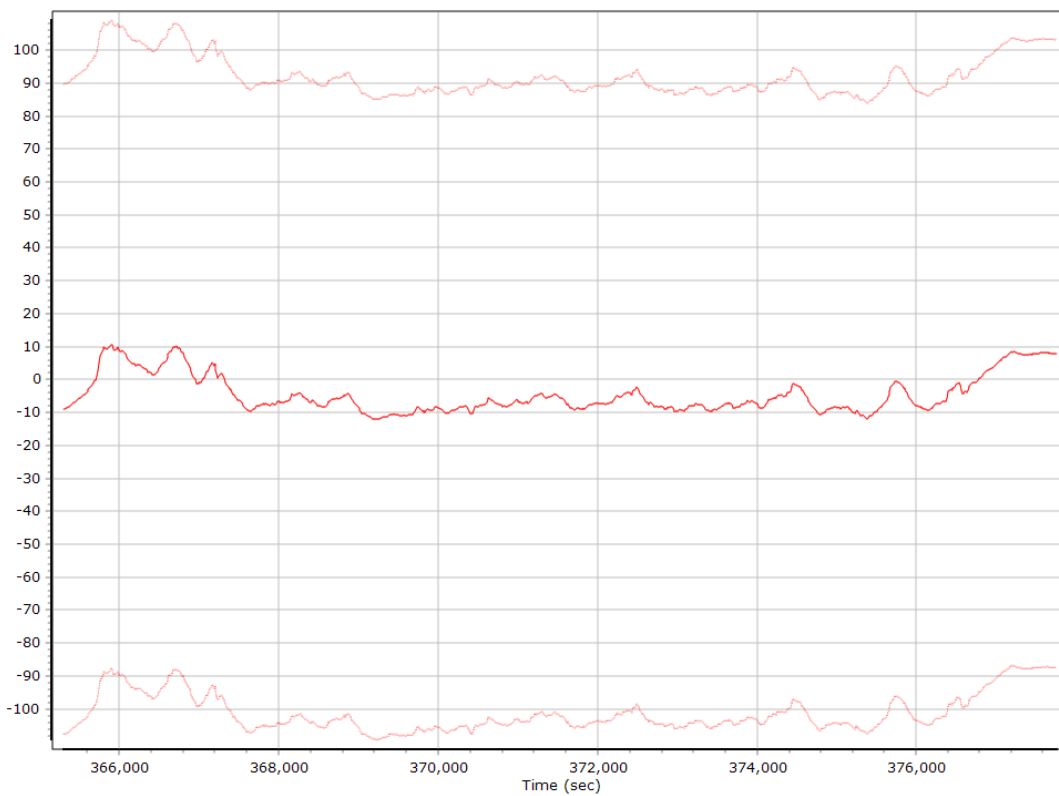
#### X Accelerometer Bias (micro-g)



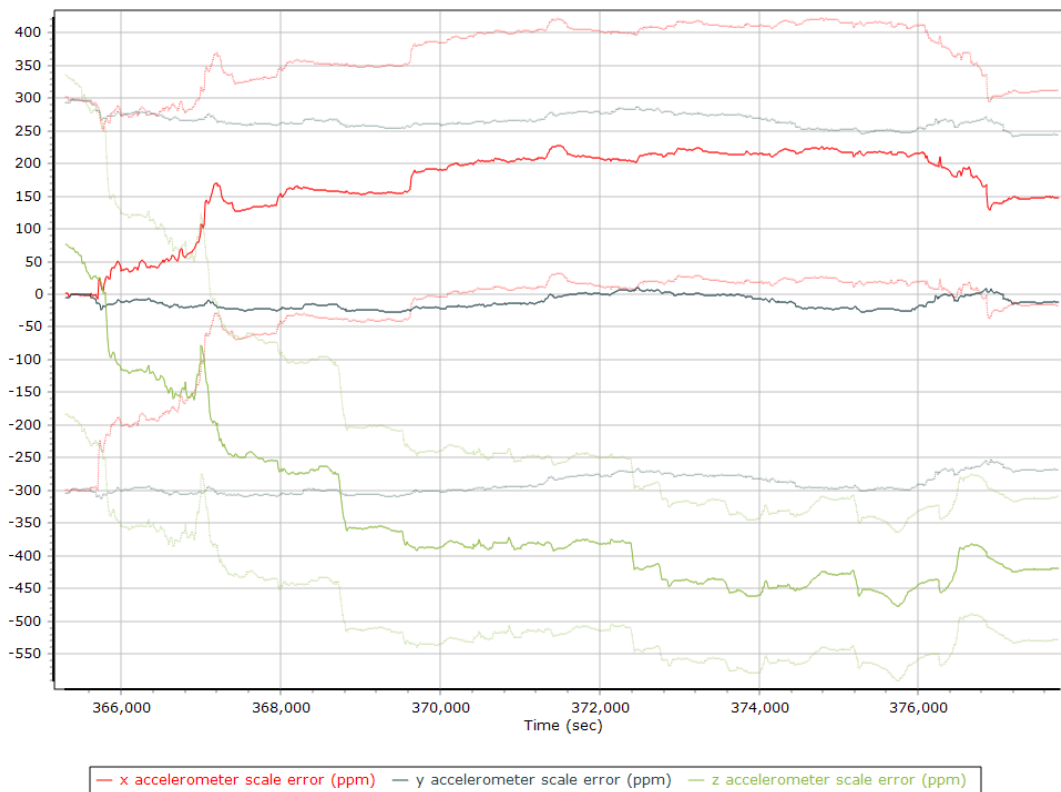
### Y Accelerometer Bias (micro-g)



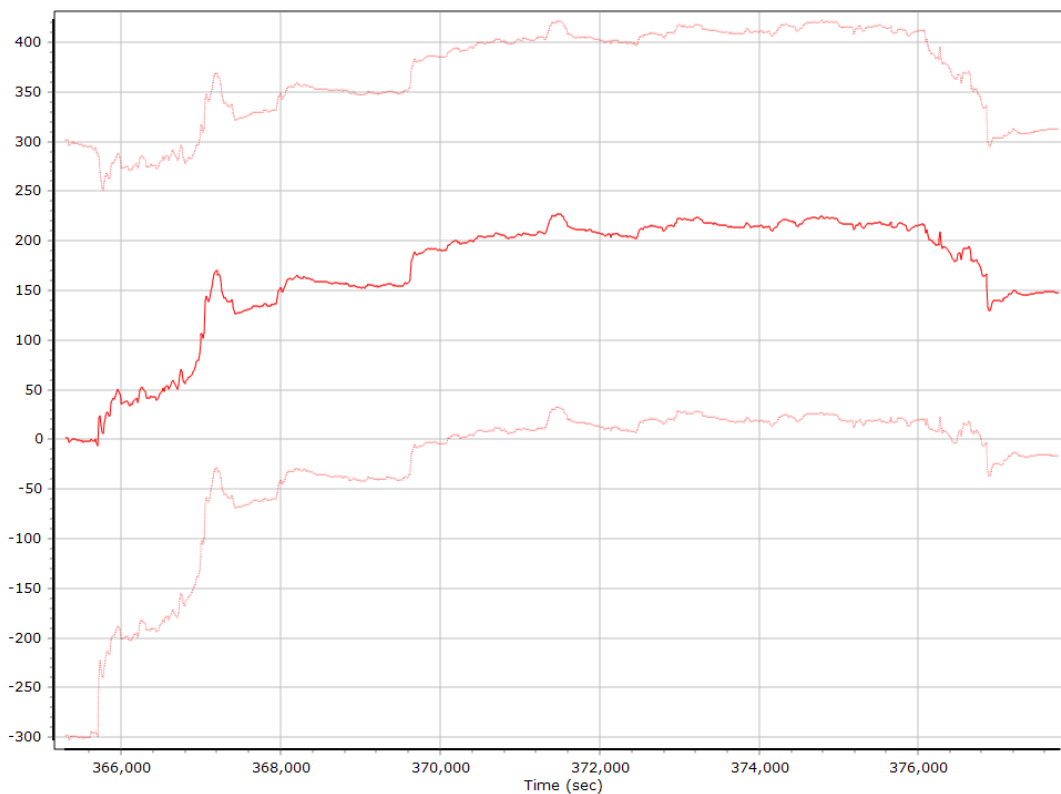
### Z Accelerometer Bias (micro-g)



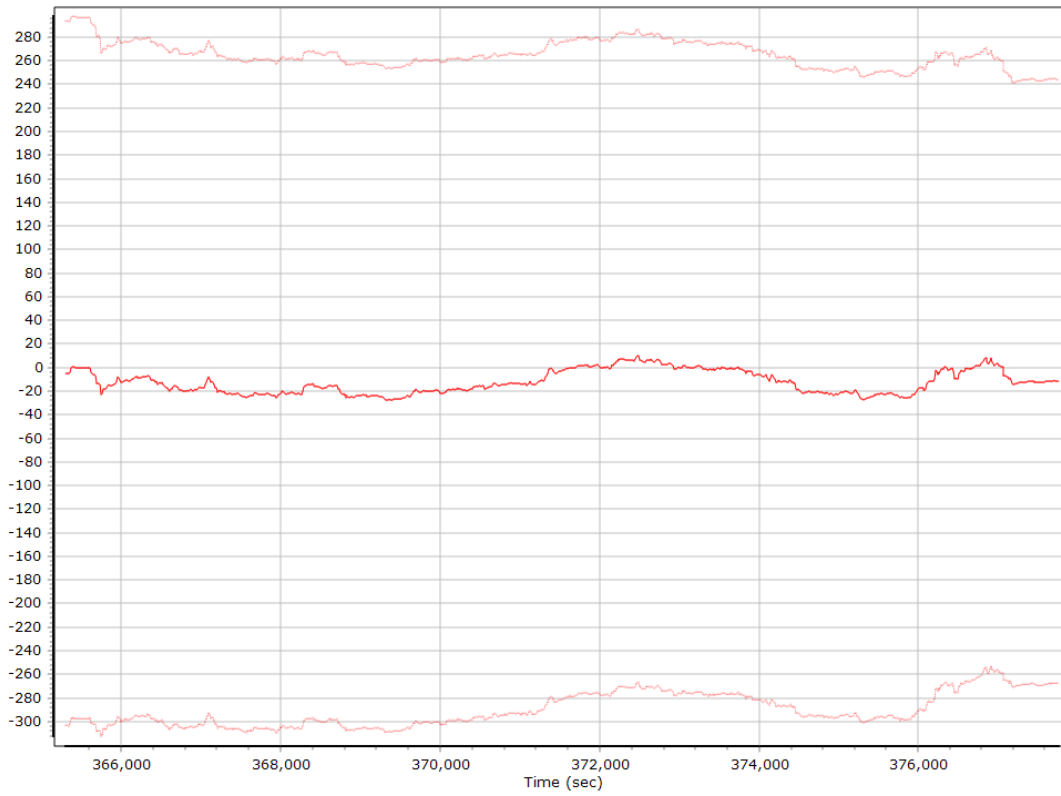
### Accelerometer Scale Error (ppm)



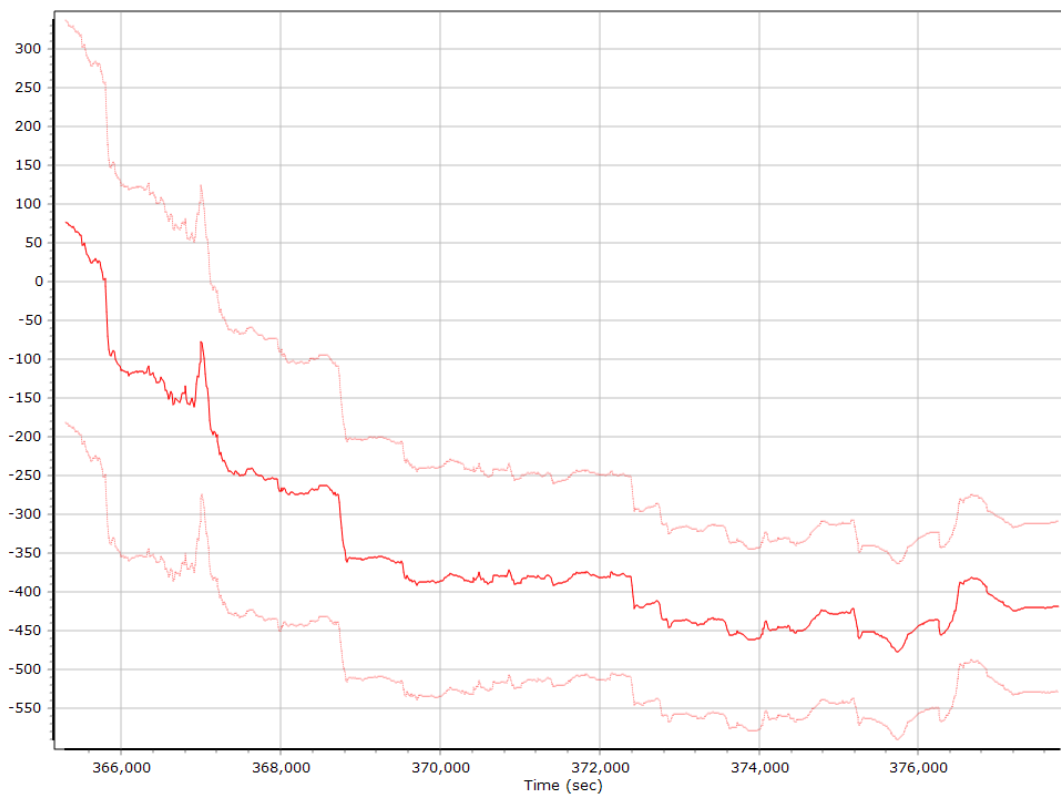
### X Accelerometer Scale Error (ppm)



### Y Accelerometer Scale Error (ppm)

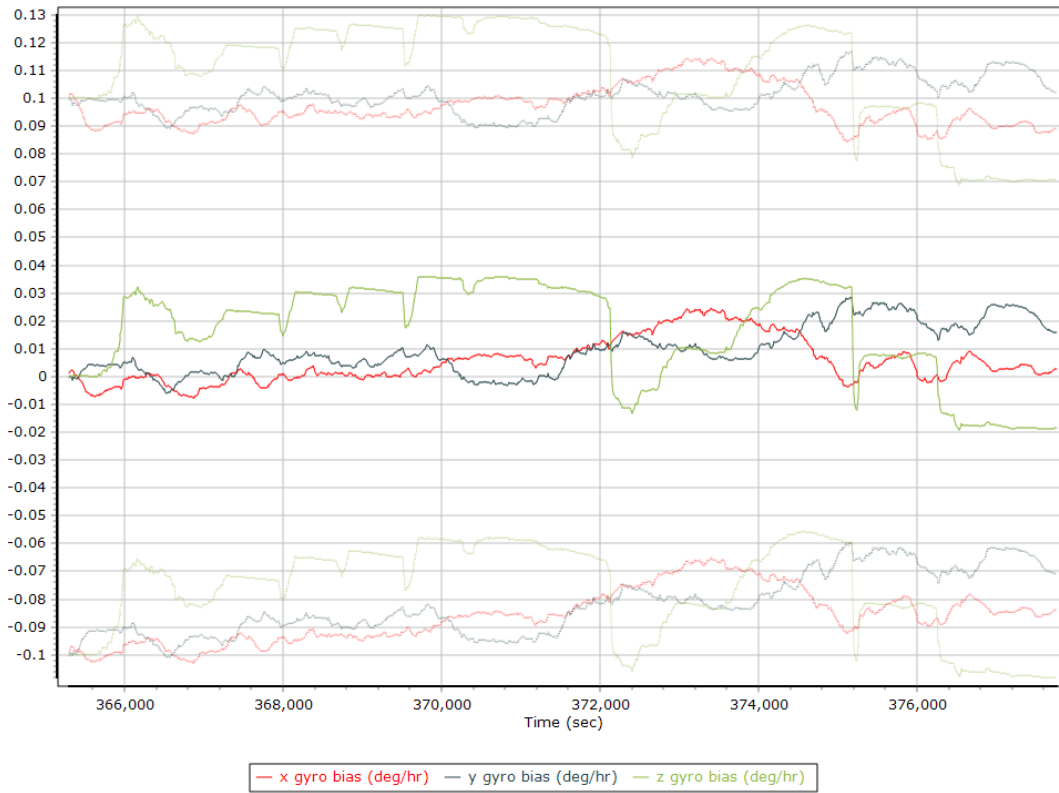


### Z Accelerometer Scale Error (ppm)

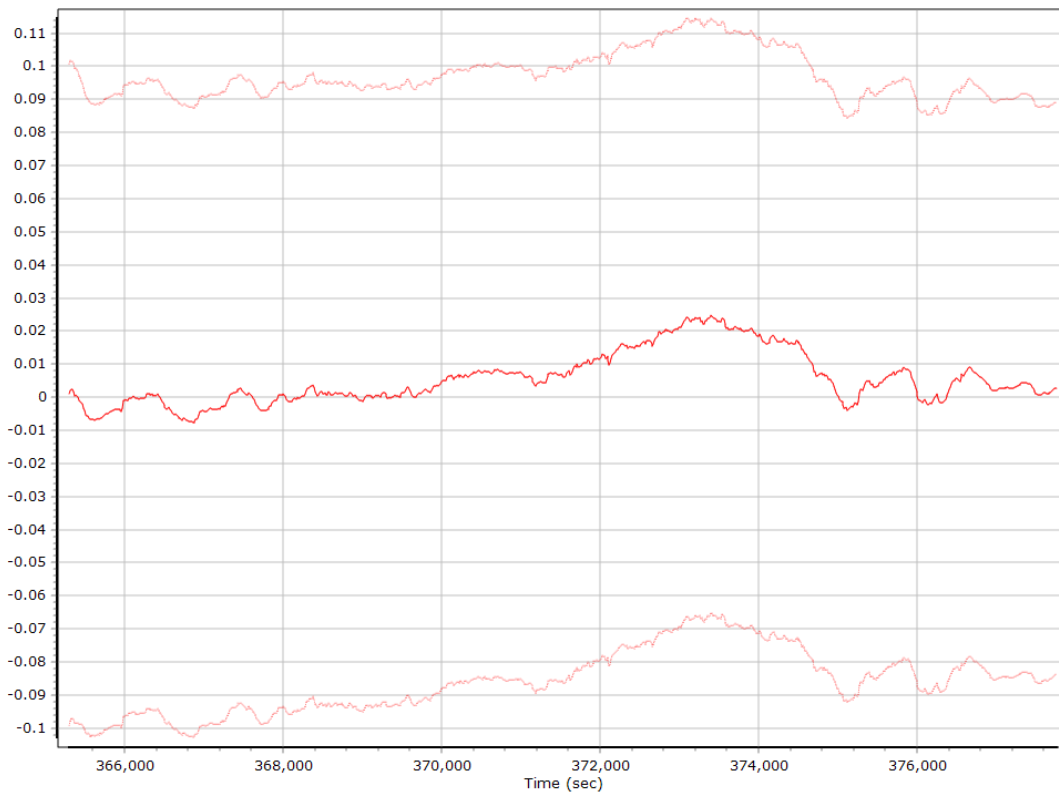




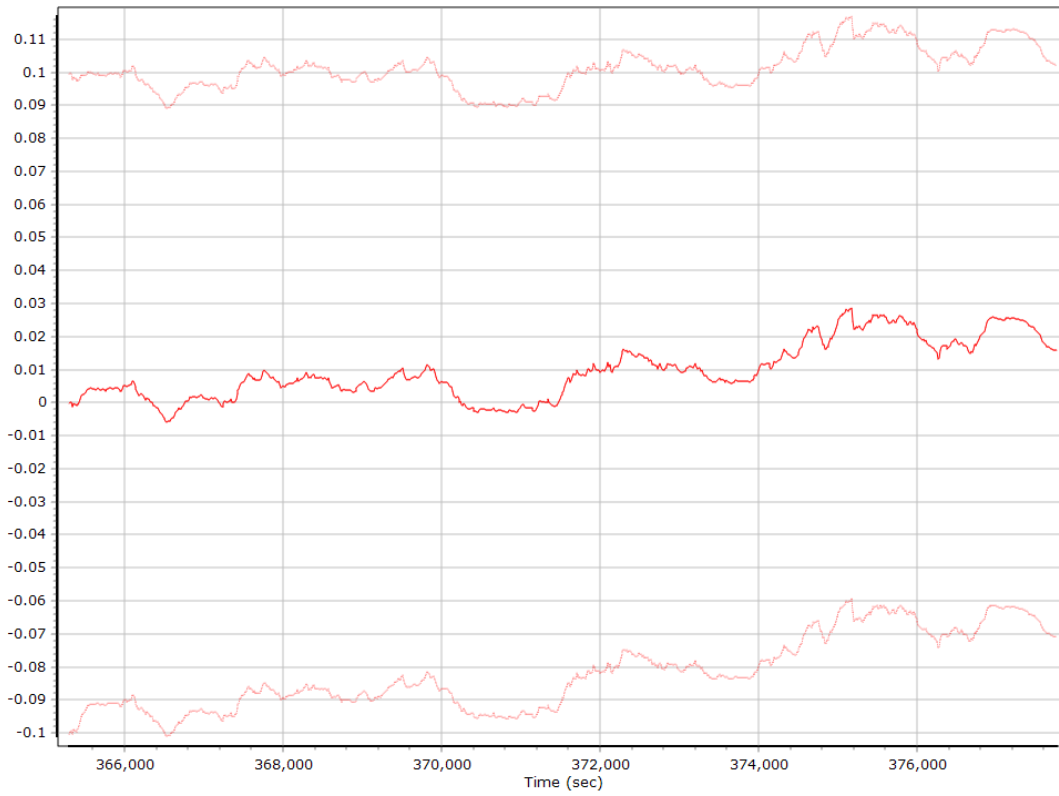
### Gyro Bias (deg/h)



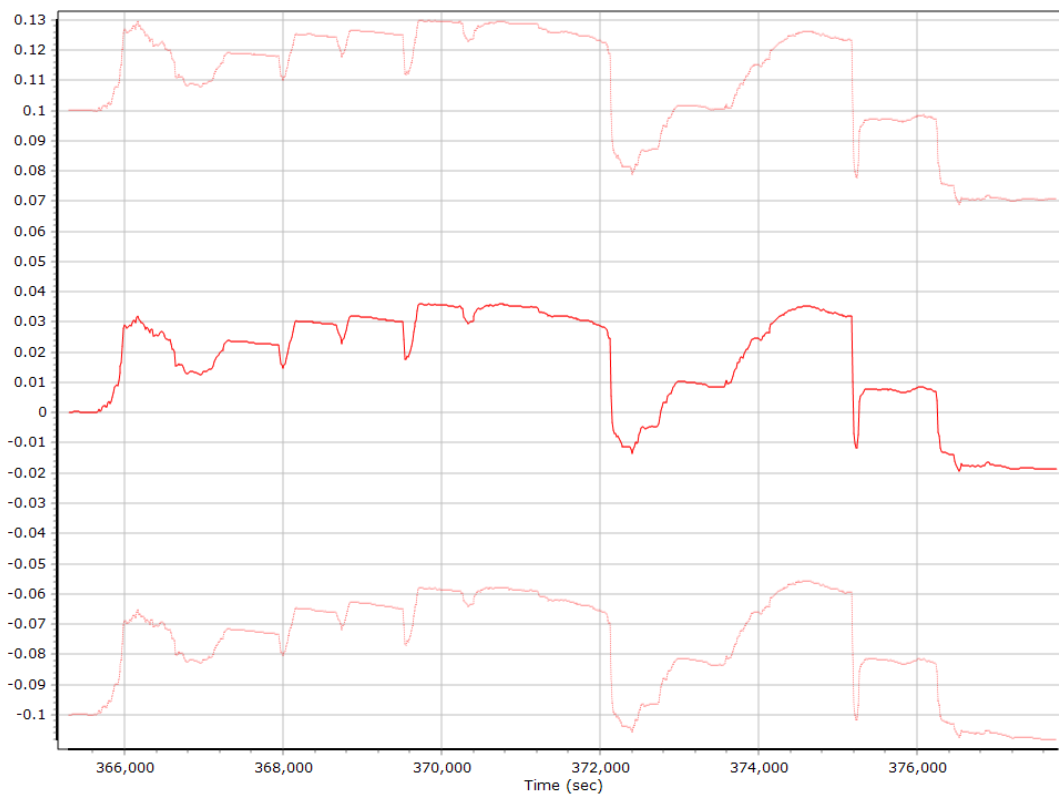
### X Gyro Bias (deg/h)



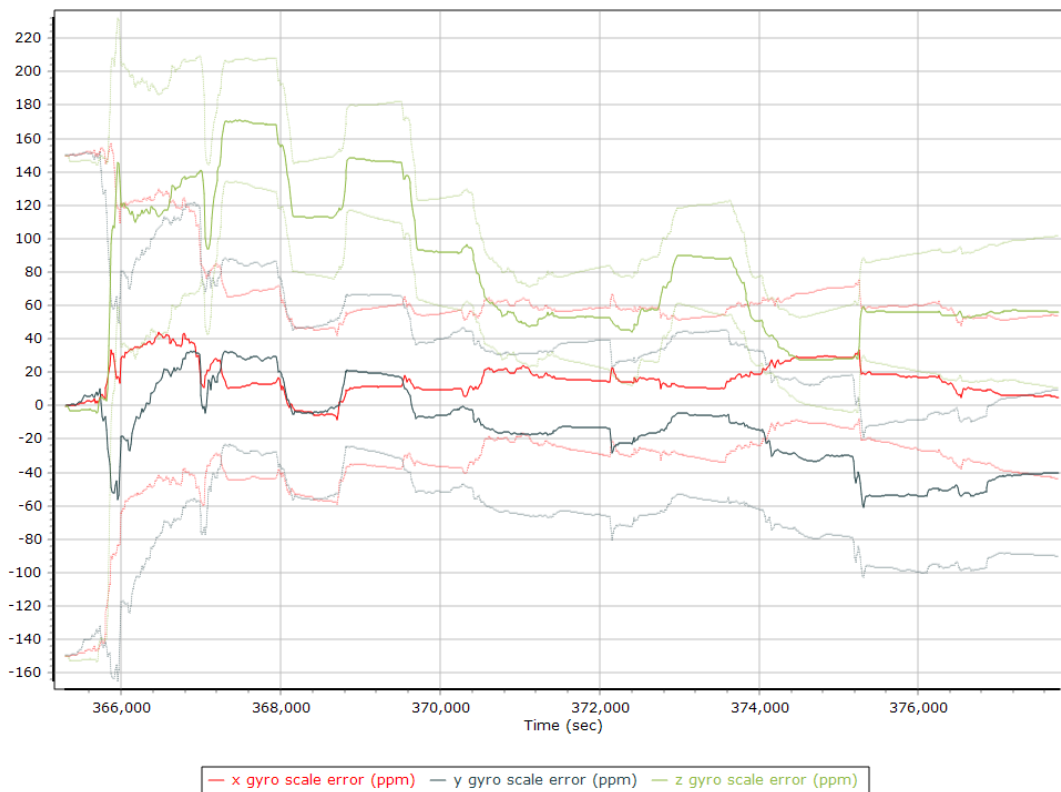
### Y Gyro Bias (deg/h)



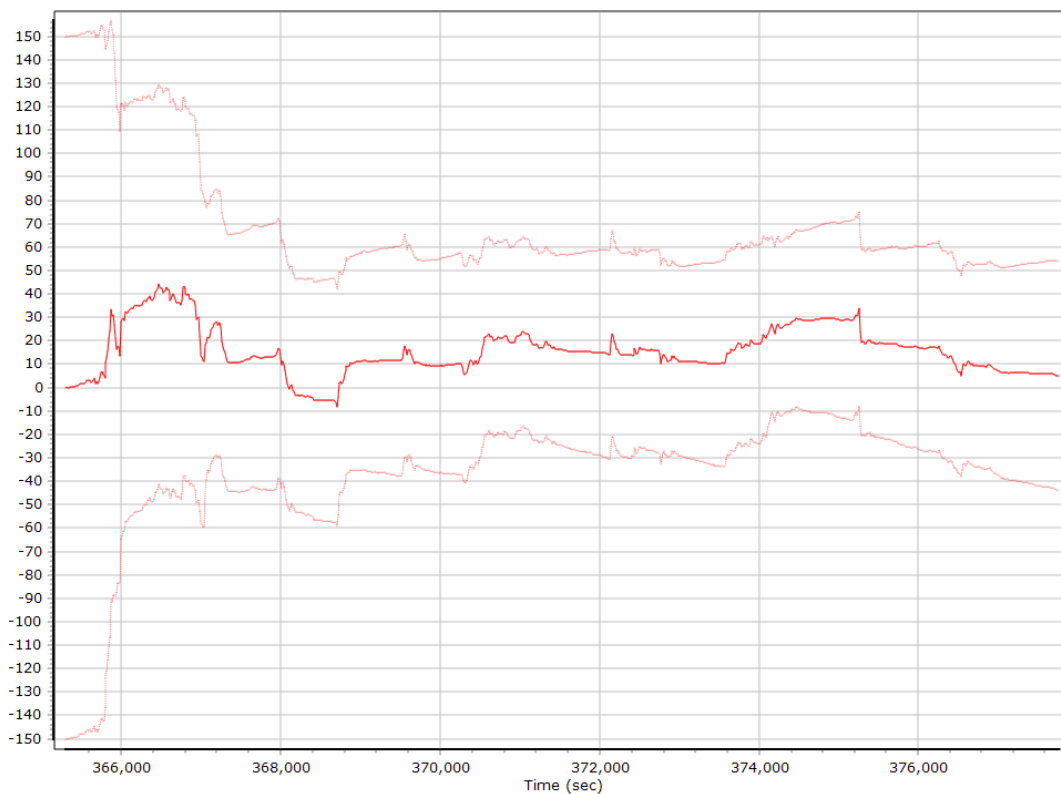
### Z Gyro Bias (deg/h)



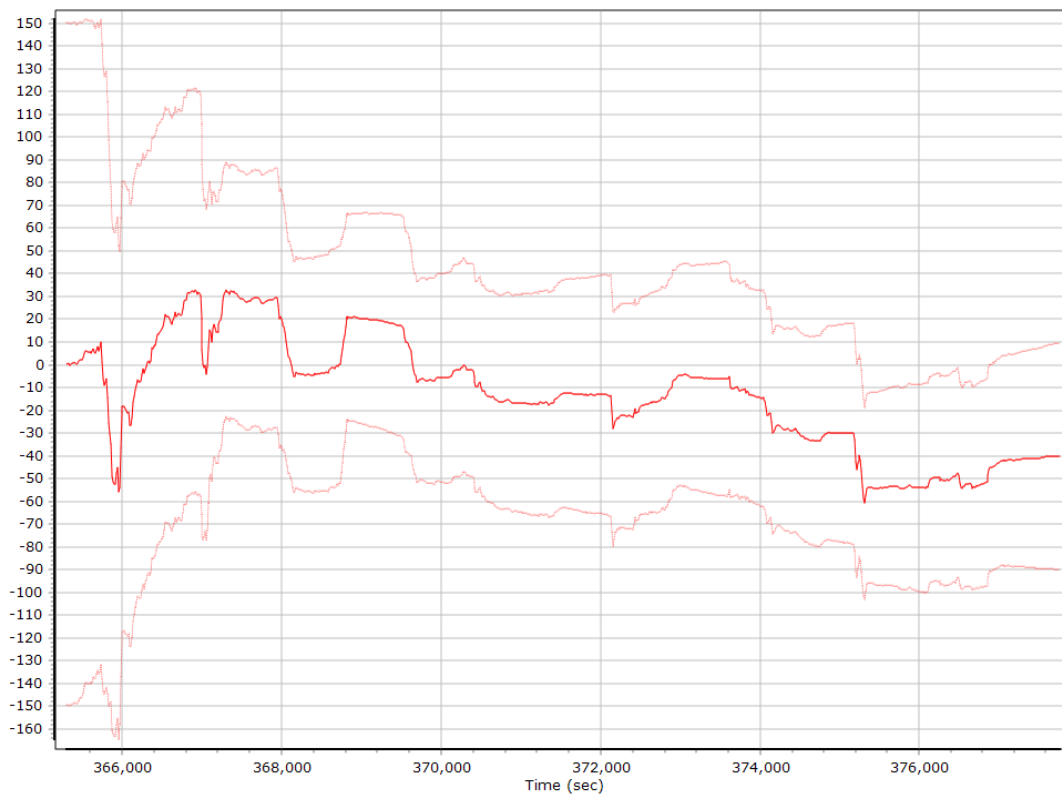
### Gyro Scale Error (ppm)



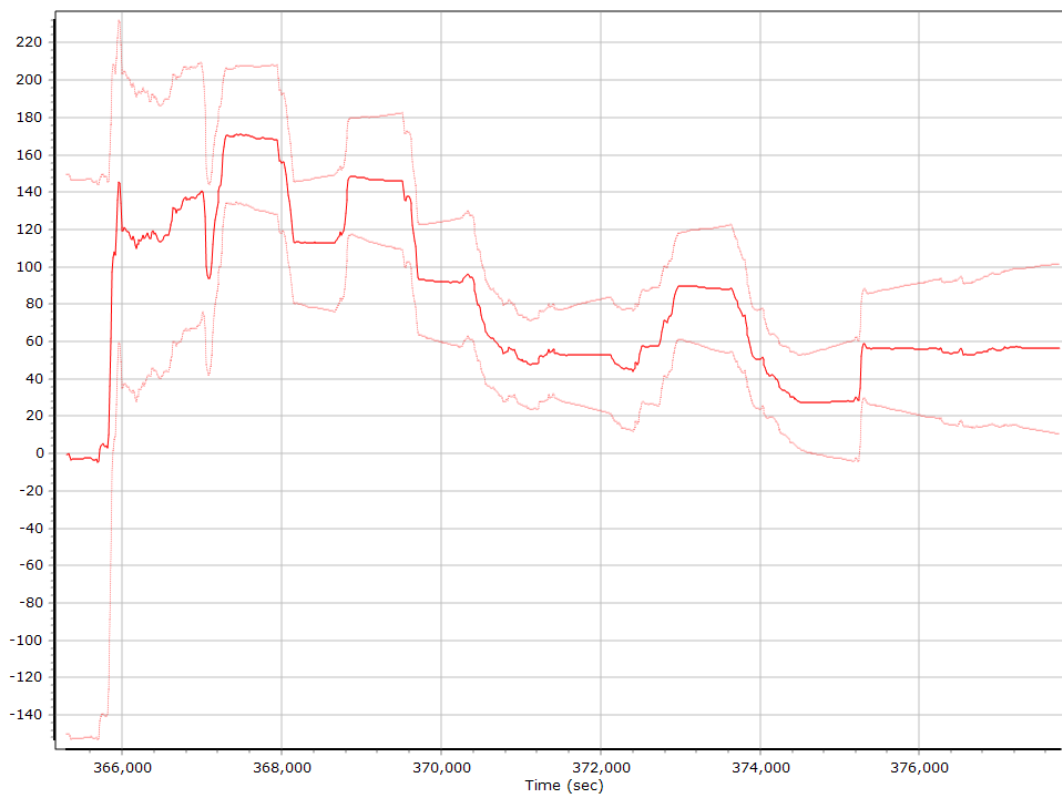
### X Gyro Scale Error (ppm)



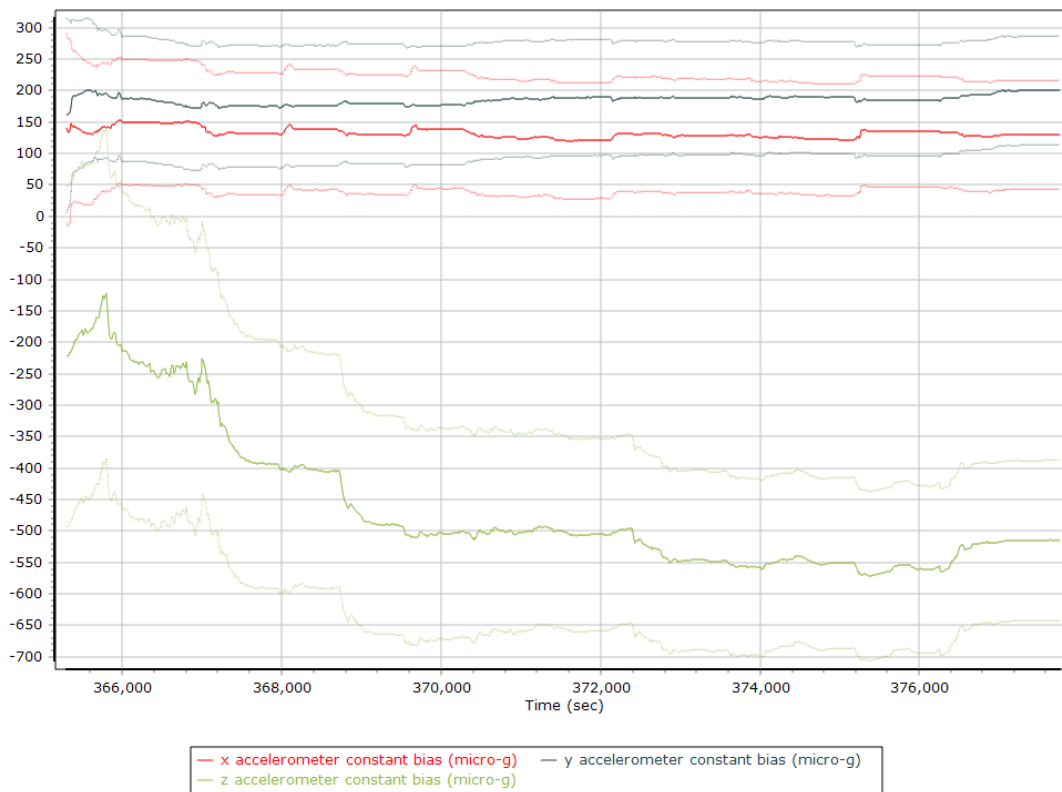
### Y Gyro Scale Error (ppm)



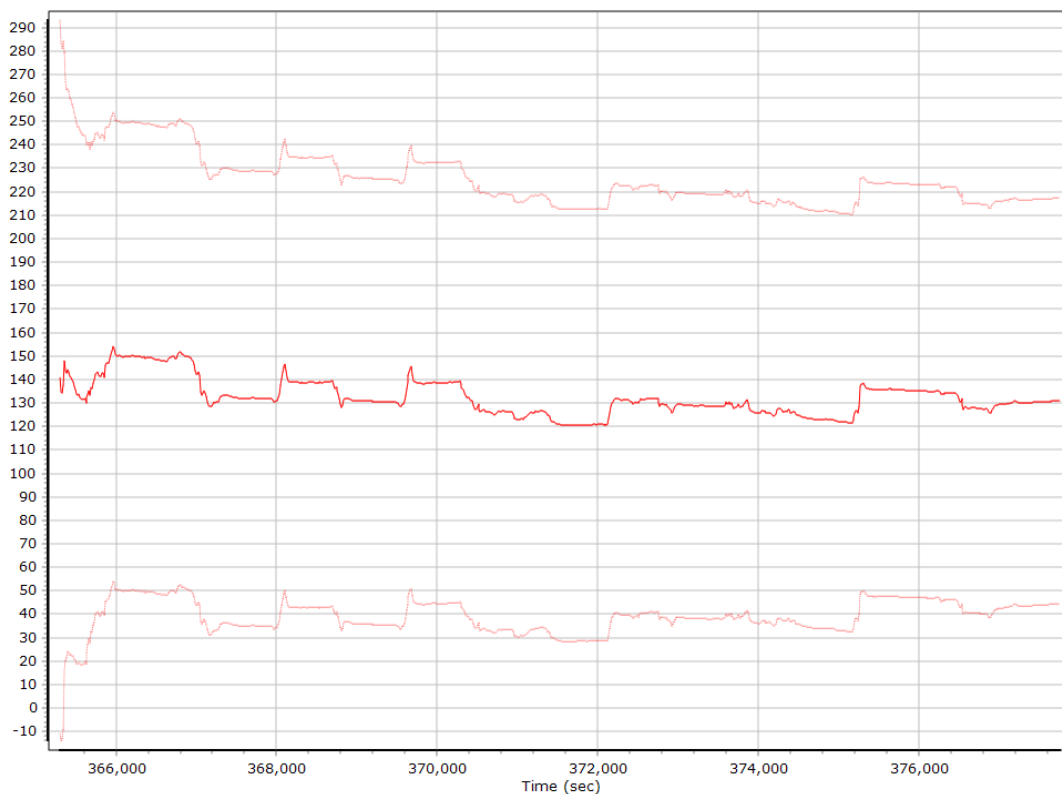
### Z Gyro Scale Error (ppm)



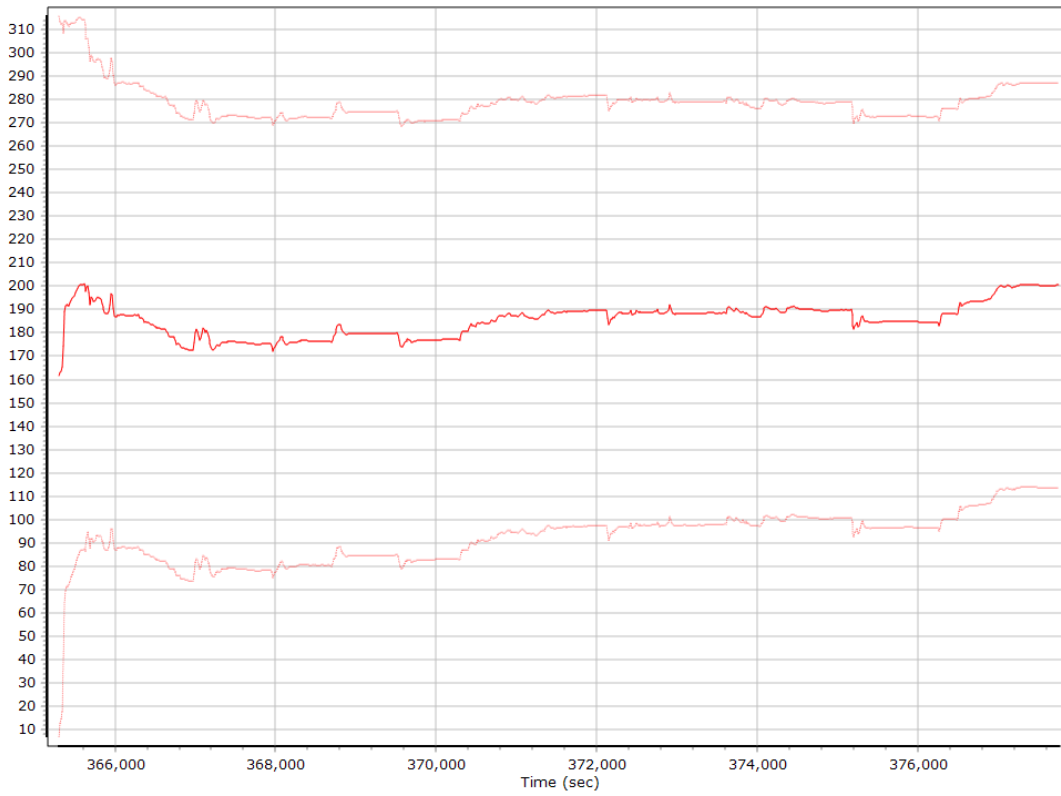
## Forward Processed Estimated Constant Errors, Reference Frame Accelerometer Bias (micro-g)



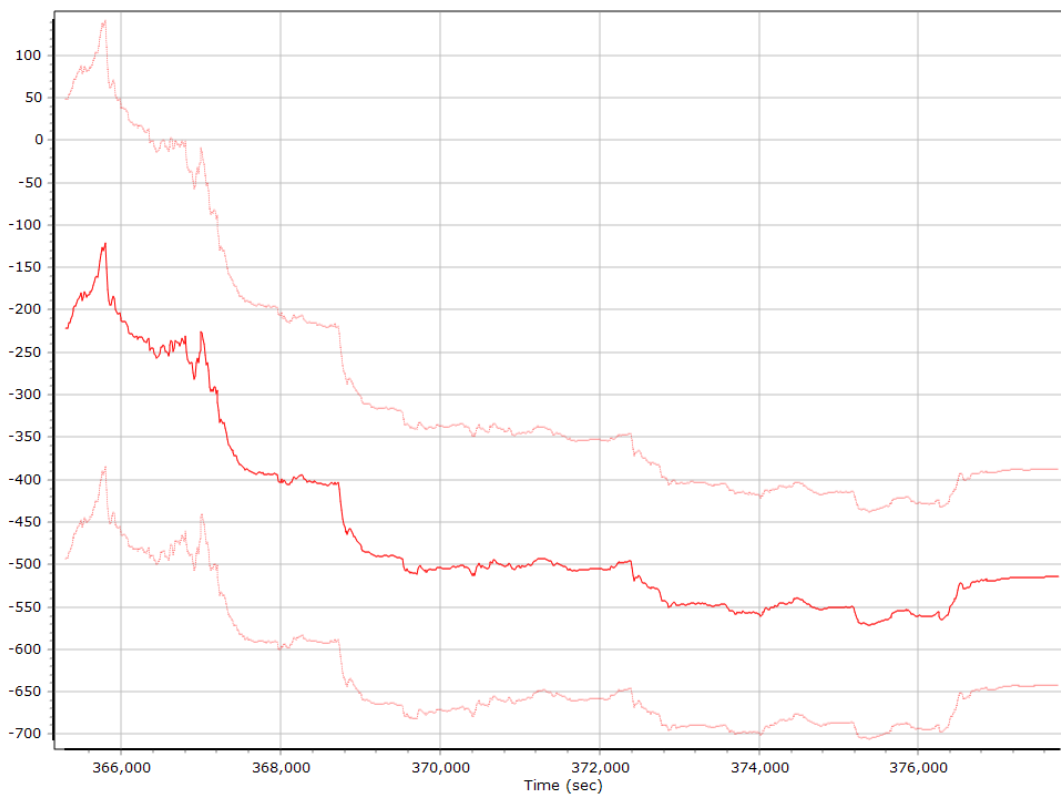
## X Accelerometer Bias (micro-g)



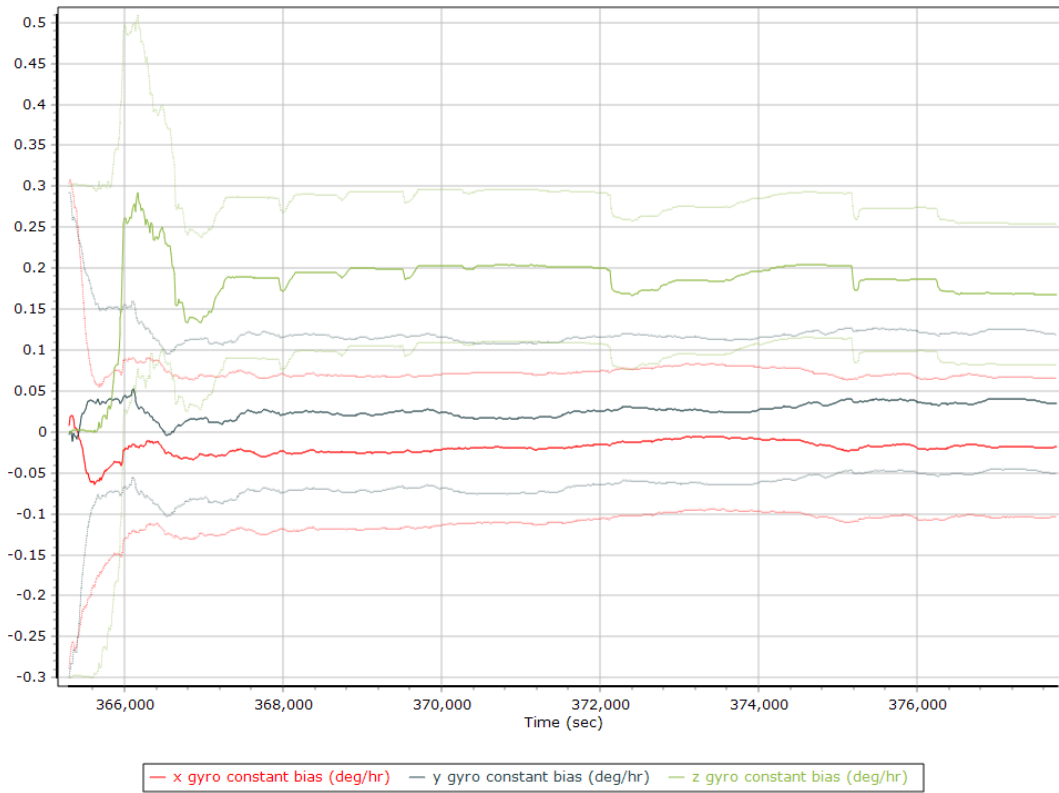
### Y Accelerometer Bias (micro-g)



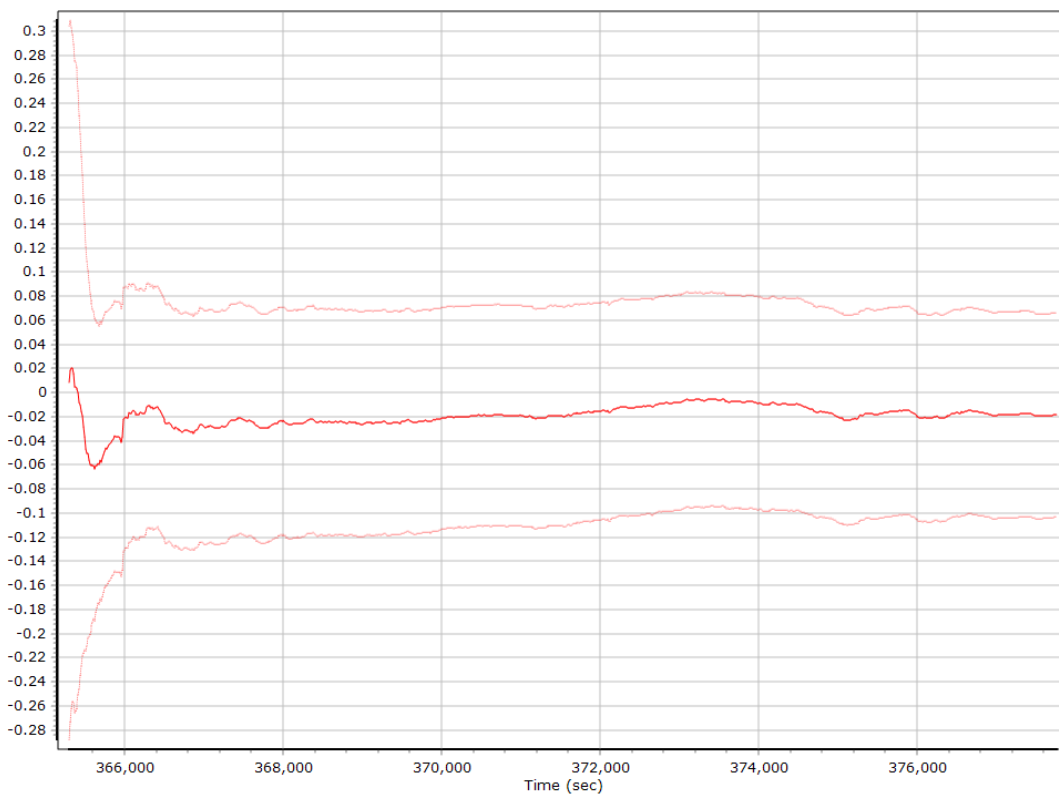
### Z Accelerometer Bias (micro-g)



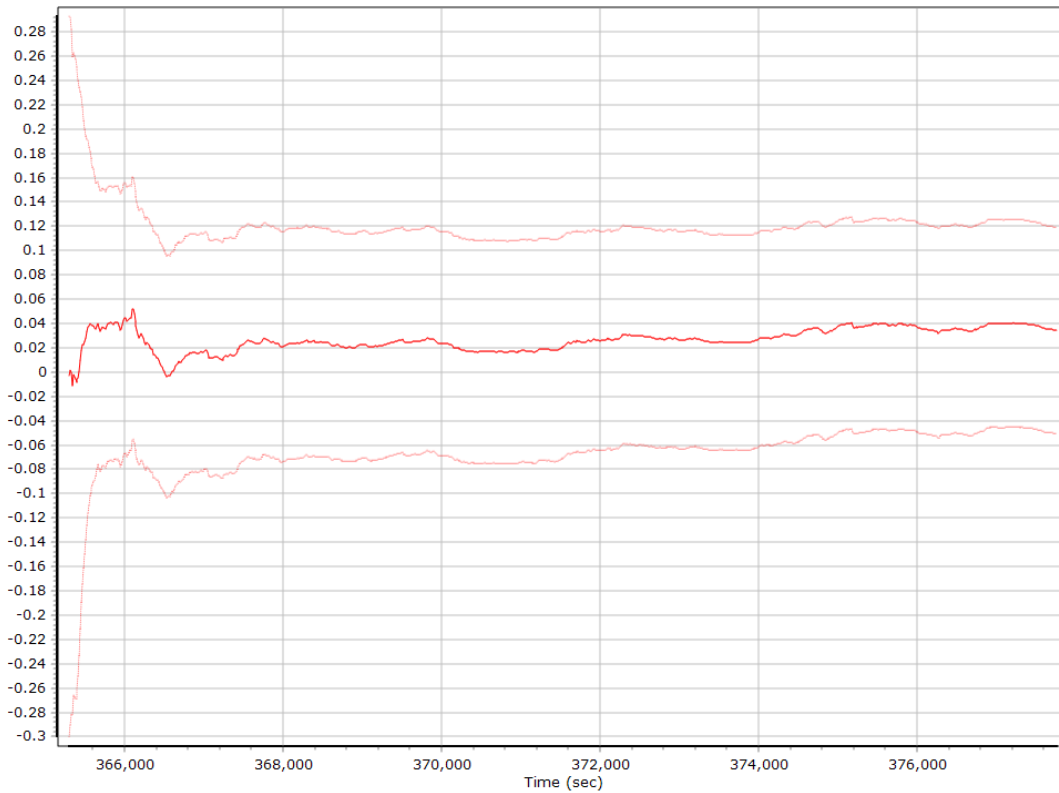
### Gyro Bias (deg/h)



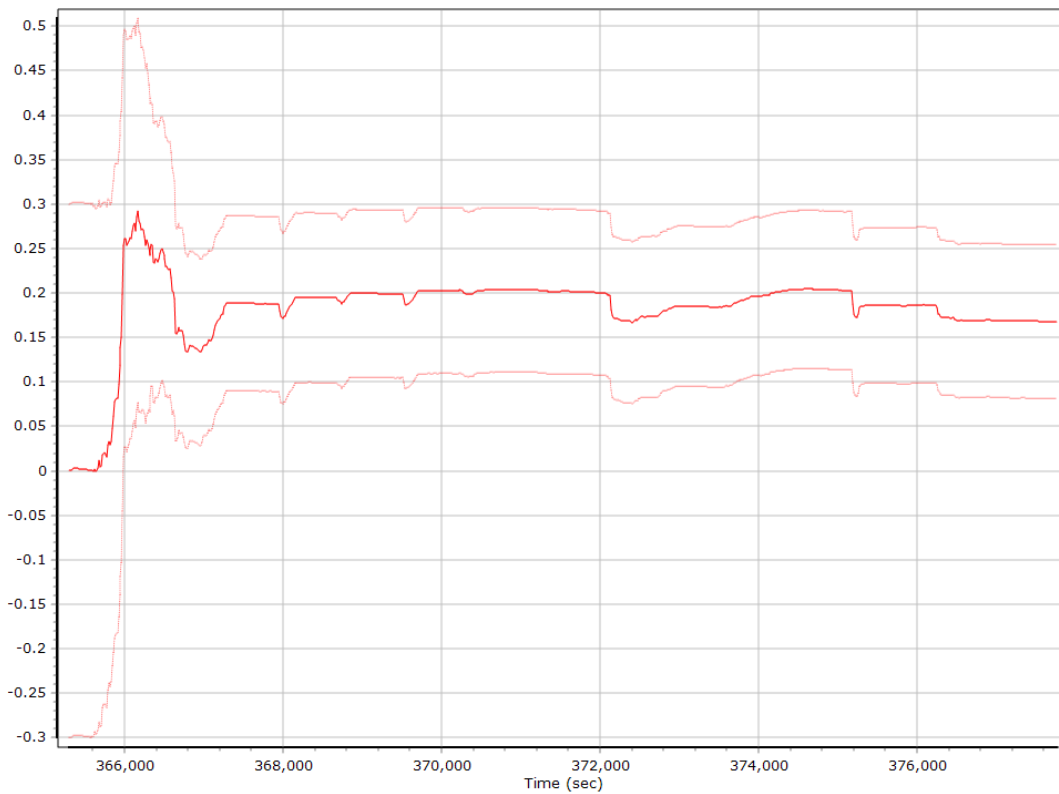
### X Gyro Bias (deg/h)



### Y Gyro Bias (deg/h)



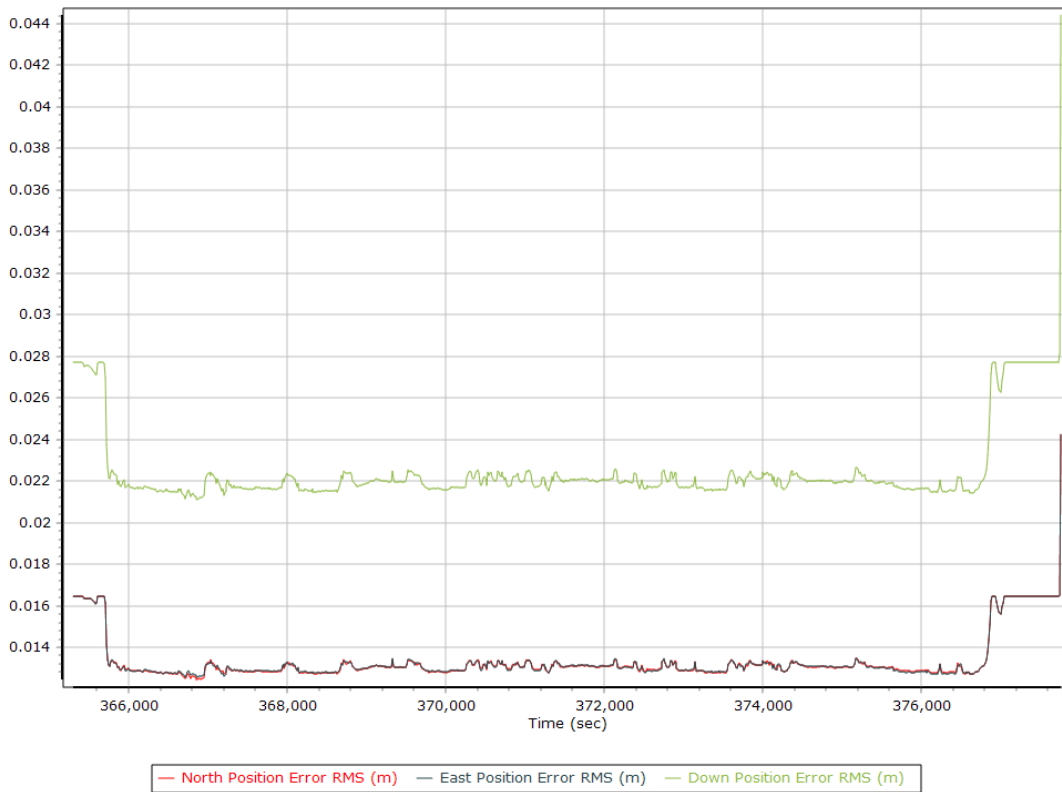
### Z Gyro Bias (deg/h)



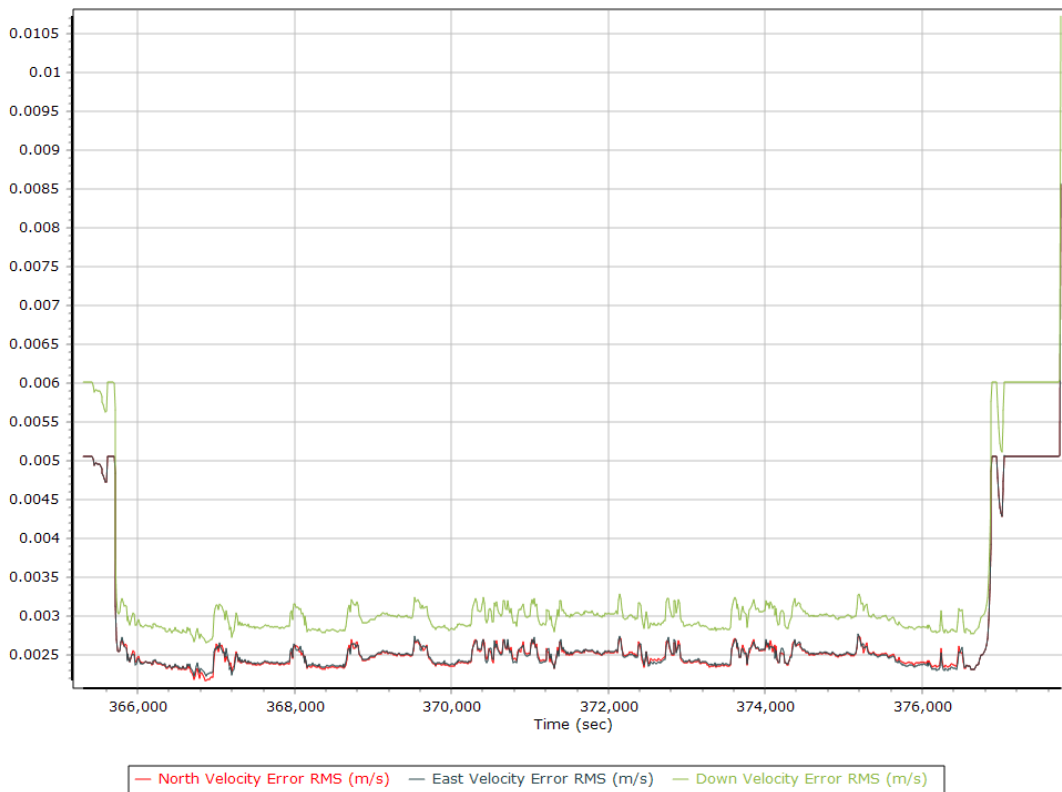


## Smoothed Performance Metrics

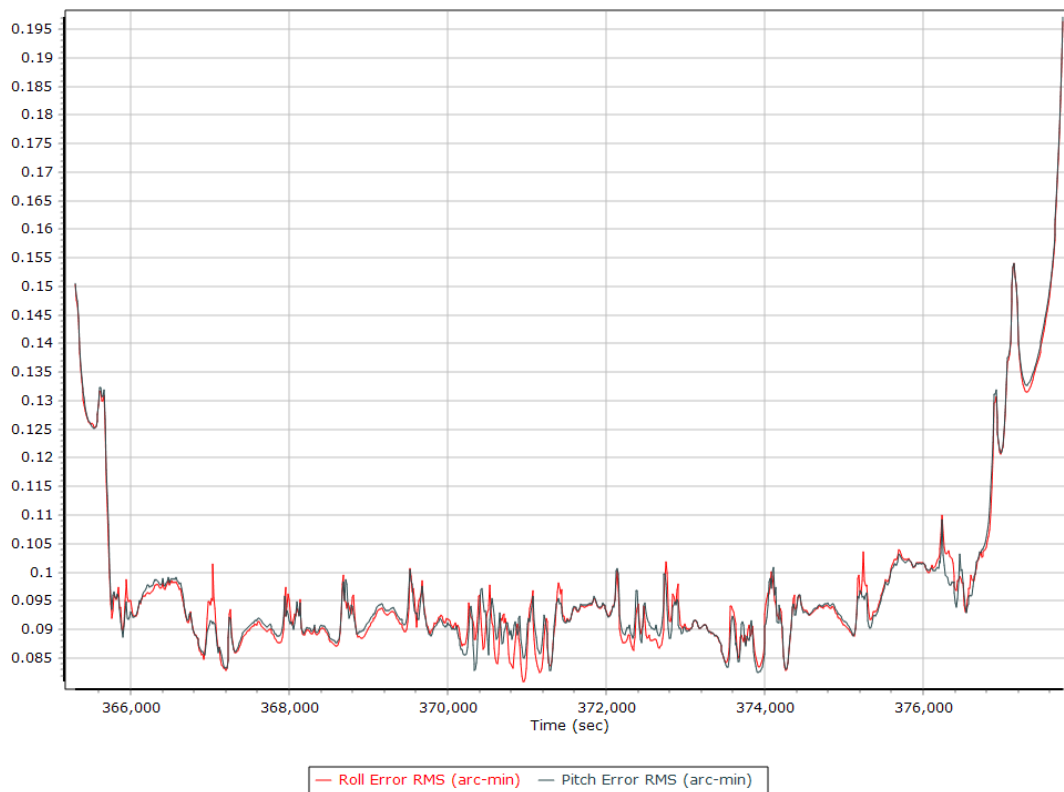
### Position Error RMS (m)



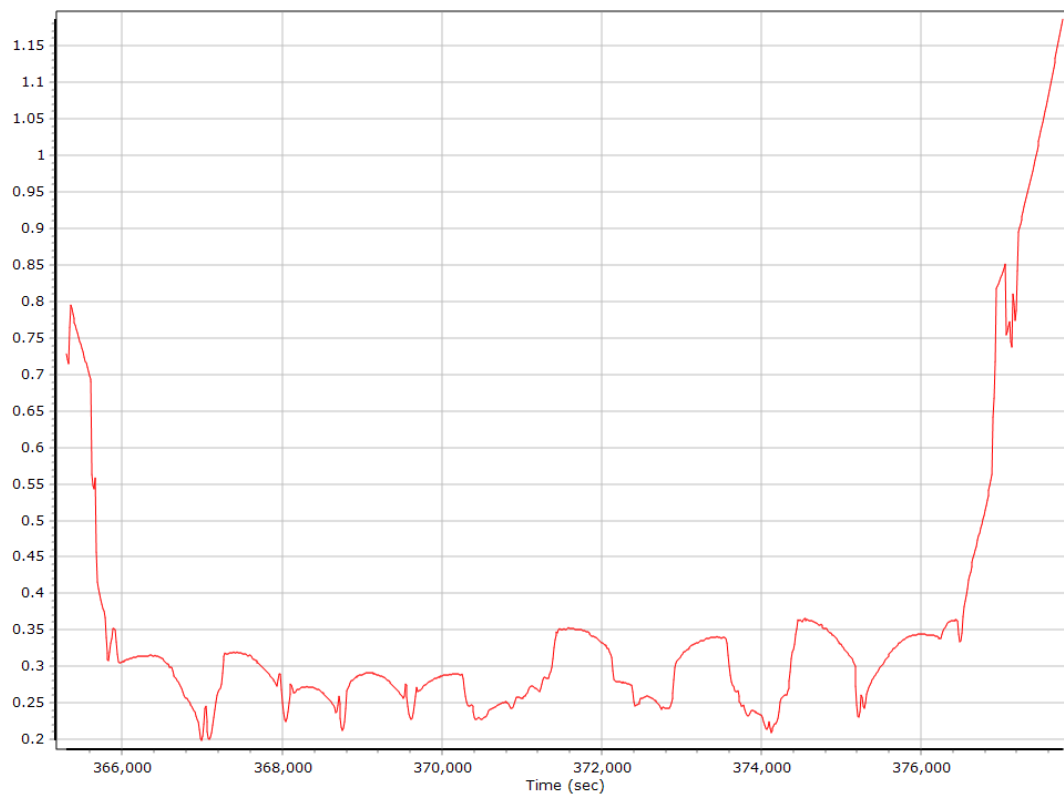
### Velocity Error RMS (m/s)



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

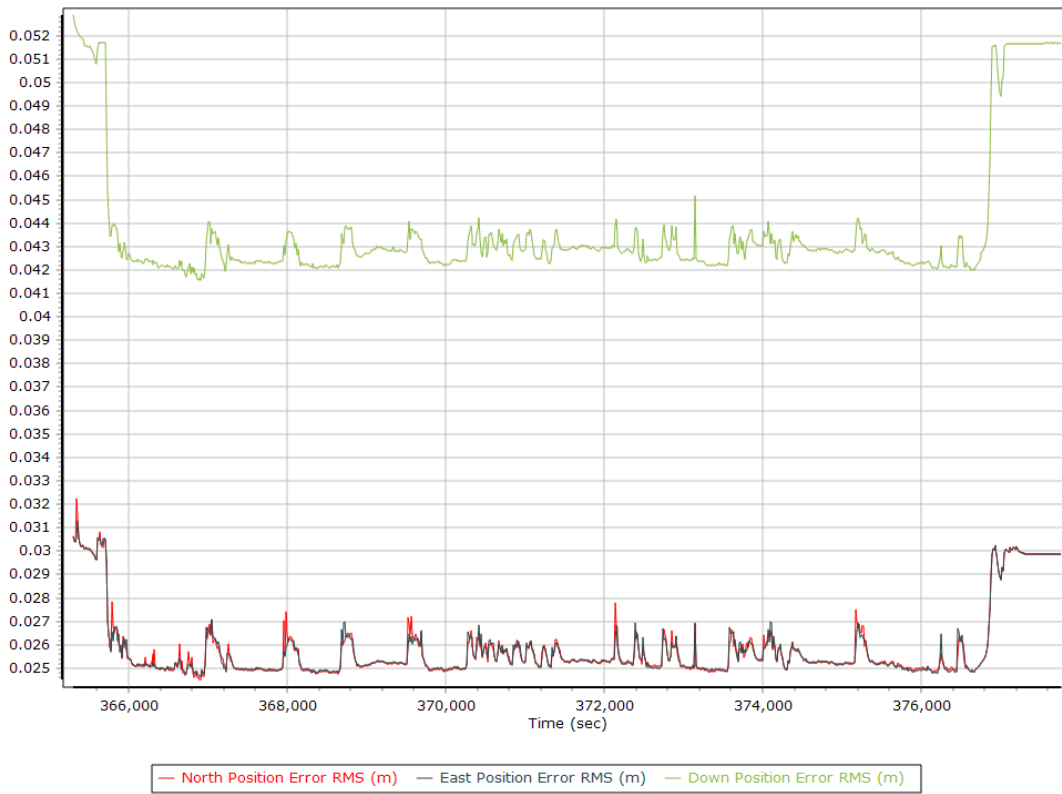


### Heading Error RMS (arc-min)

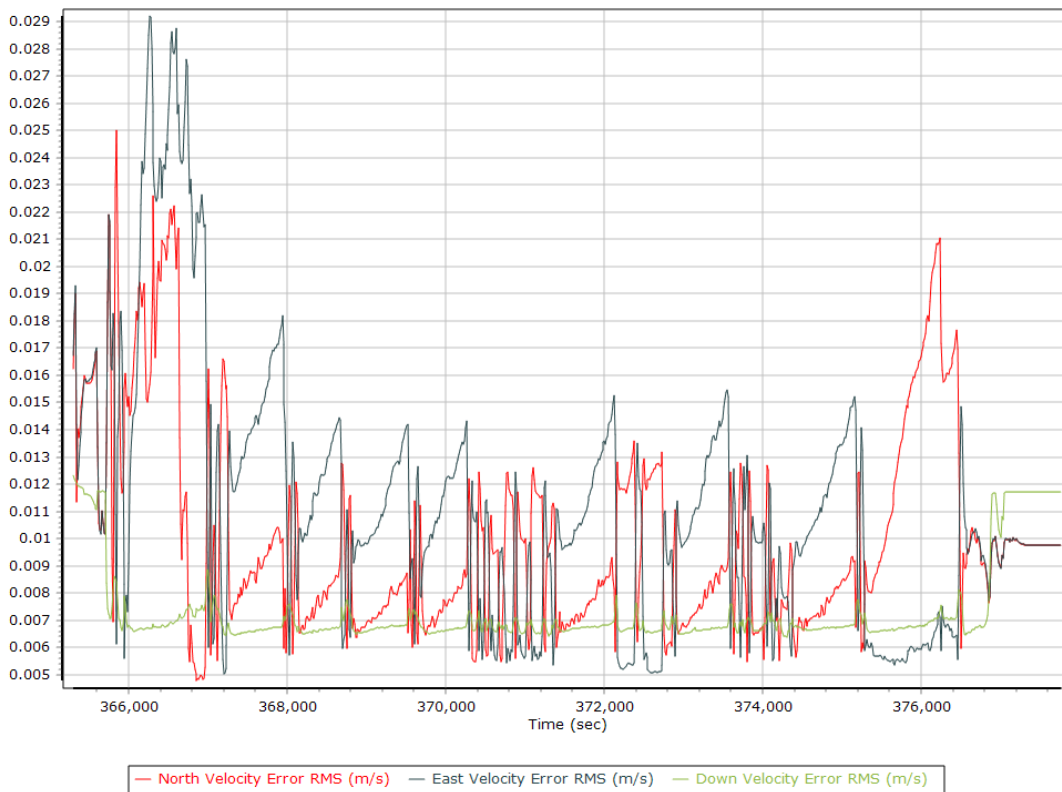


## Forward Processed Performance Metrics

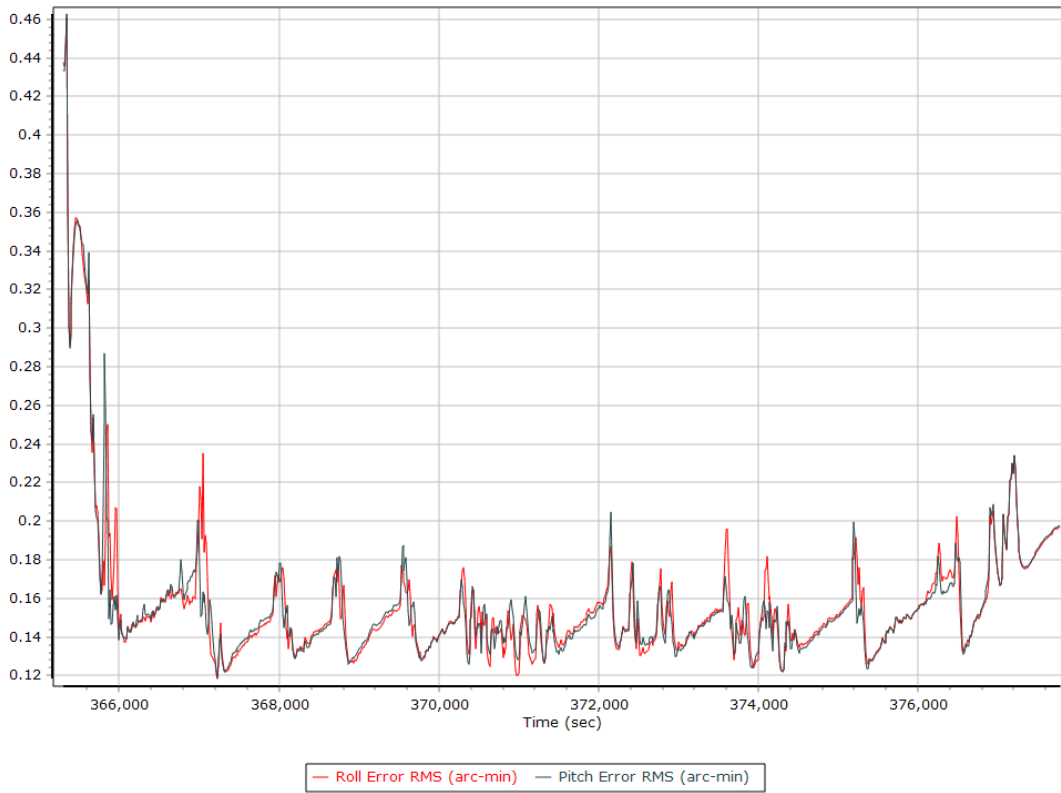
### Position Error RMS (m)



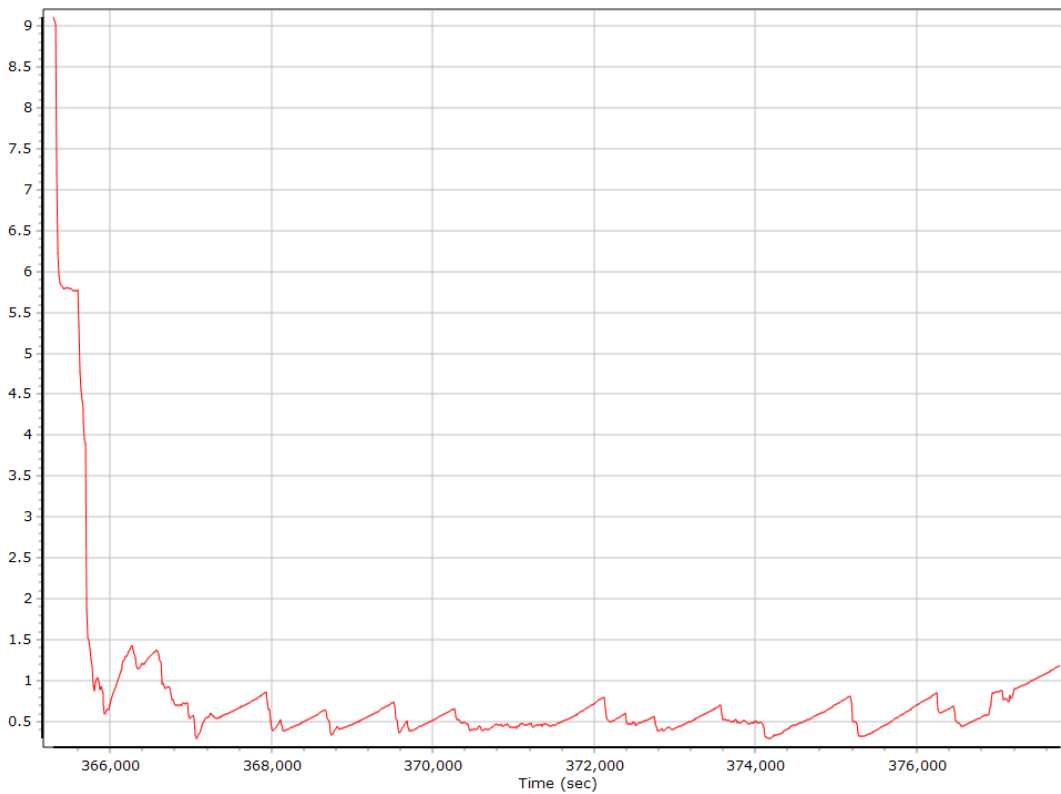
### Velocity Error RMS (m/s)



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

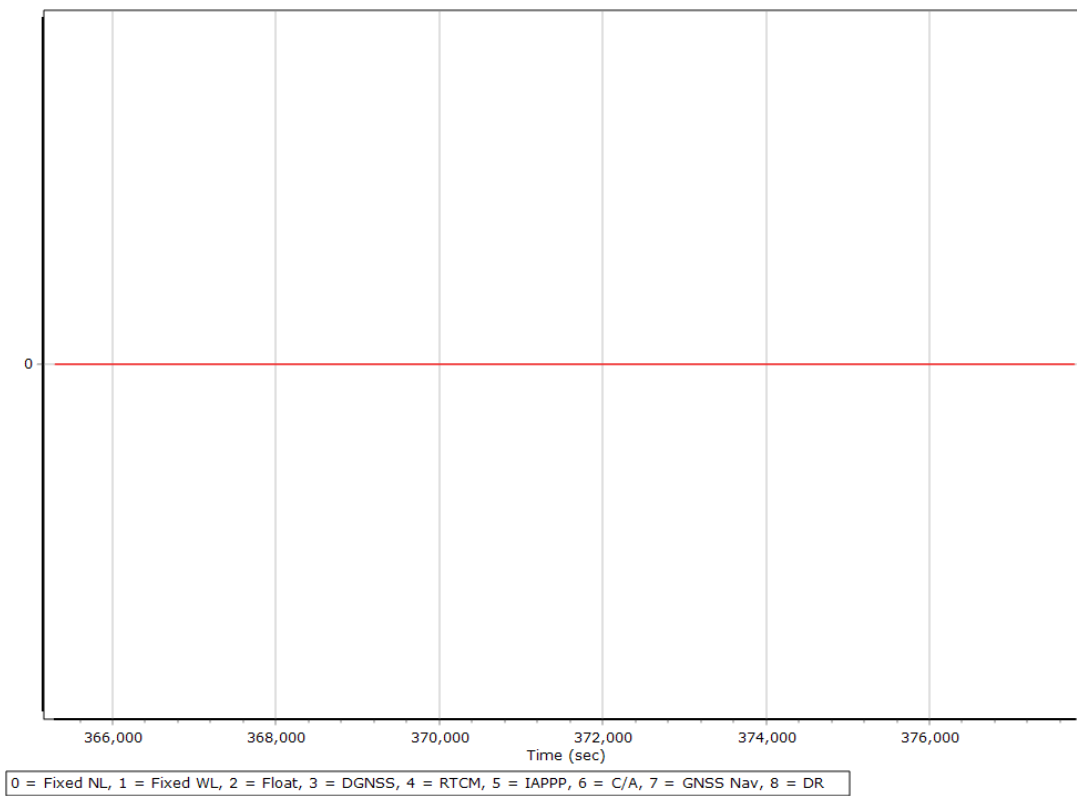


### Heading Error RMS (arc-min)



## Forward Processed Solution Status

### Processing Mode



### Number of Satellites



## Baseline Length

