

## General Information

### Mission Information

Project name	201121_A_5060380_nad2011_FINAL
Processing date	2020-11-23 17:12:20
Mission date	2020-11-21 14:04:21
Mission duration	02:36:38.000
Processing mode	IN-Fusion PP-RTX

### Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N7769
IMU type	57
Receiver type	BD982
Antenna type	AV39

## Project File List

### Rover Data Files

File name	File type
201121a.000	POS Data
201121a.001	POS Data
201121a.002	POS Data
201121a.003	POS Data
201121a.004	POS Data
201121a.005	POS Data
201121a.006	POS Data
201121a.007	POS Data
201121a.008	POS Data
201121a.009	POS Data
201121a.010	POS Data
201121a.011	POS Data
201121a.012	POS Data
201121a.013	POS Data
201121a.014	POS Data

### Input Files

File Name	File Type
Ephm3260.20g	GLONASS Broadcast Ephemeris
Ephm3260.20n	GPS Broadcast Ephemeris

### Output Files

Filename	File type
sbet_201121_A_5060380_nad2011_FINAL.out	SBET Trajectory File

## Rover Data Summary

First raw data file	201121a.000		
Last raw data file	201121a.014		
Start GPS week	2132		
Start time	23.238 (11/15/2020 12:00:23 AM)		
End time	578460.086 (11/21/2020 4:41:00 PM)		
Start of fine alignment	569366.008 (11/21/2020 2:09:26 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	180.000
Reference to Primary GNSS lever arm (m)	0.548	-0.432	-0.960
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

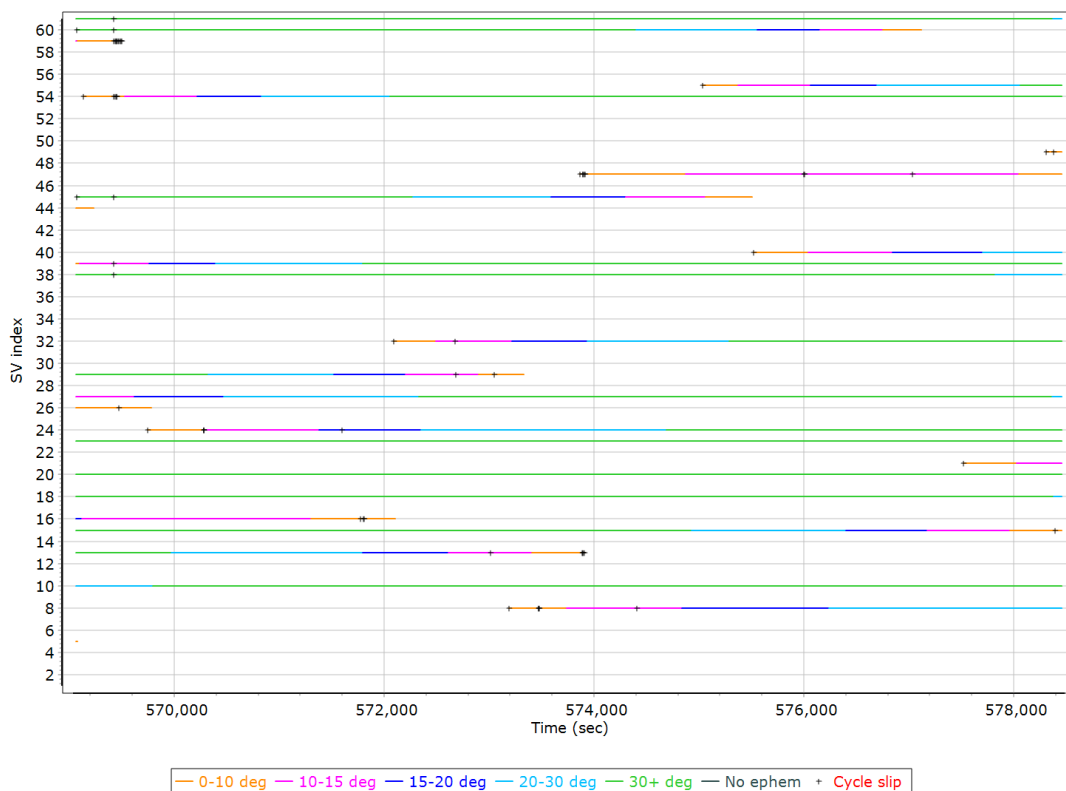
## Rover Data QC

### Raw IMU Import QC Summary

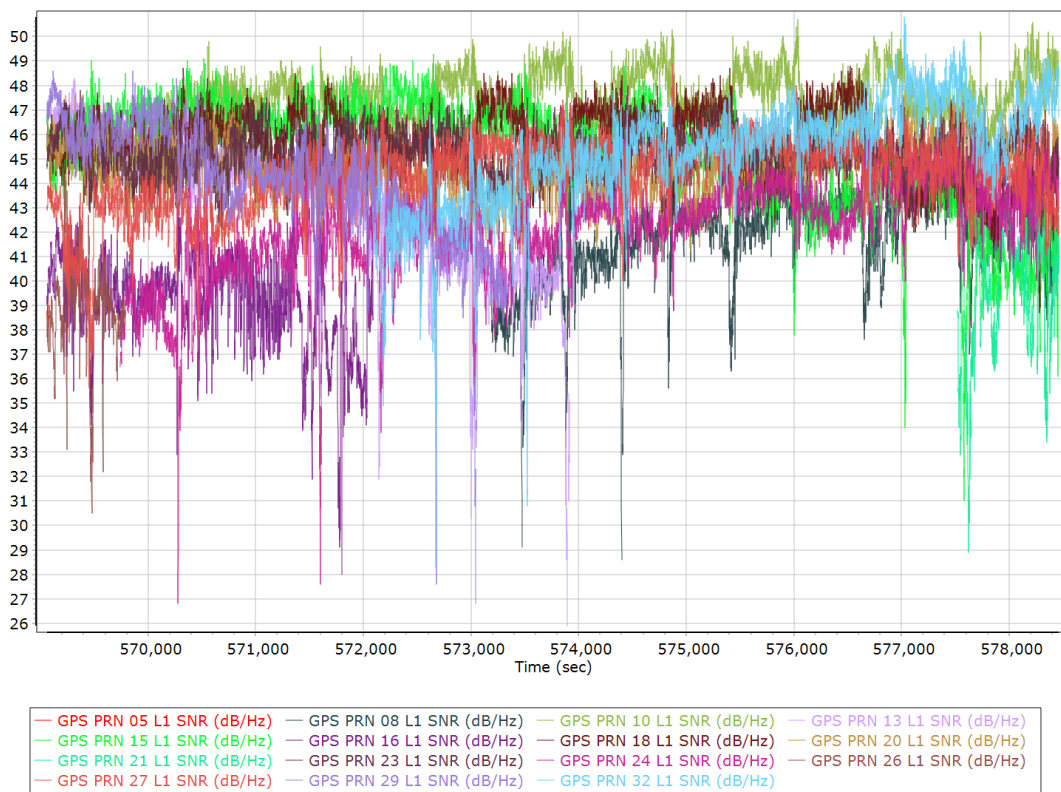
IMU data input file	imu_201121_A_5060380_nad2011_FINAL.dat
IMU data check log file	imudt_201121_A_5060380_nad2011_FINAL.log
IMU Records Processed	1879553
Termination Status	Warnings
IMU Anomalies	1
<b>IMU Failure Messages</b>	
569070.946 : WARNING : Gap of 569046.9527 seconds in CHECKDT input data	

## Primary Observables & Satellite Data

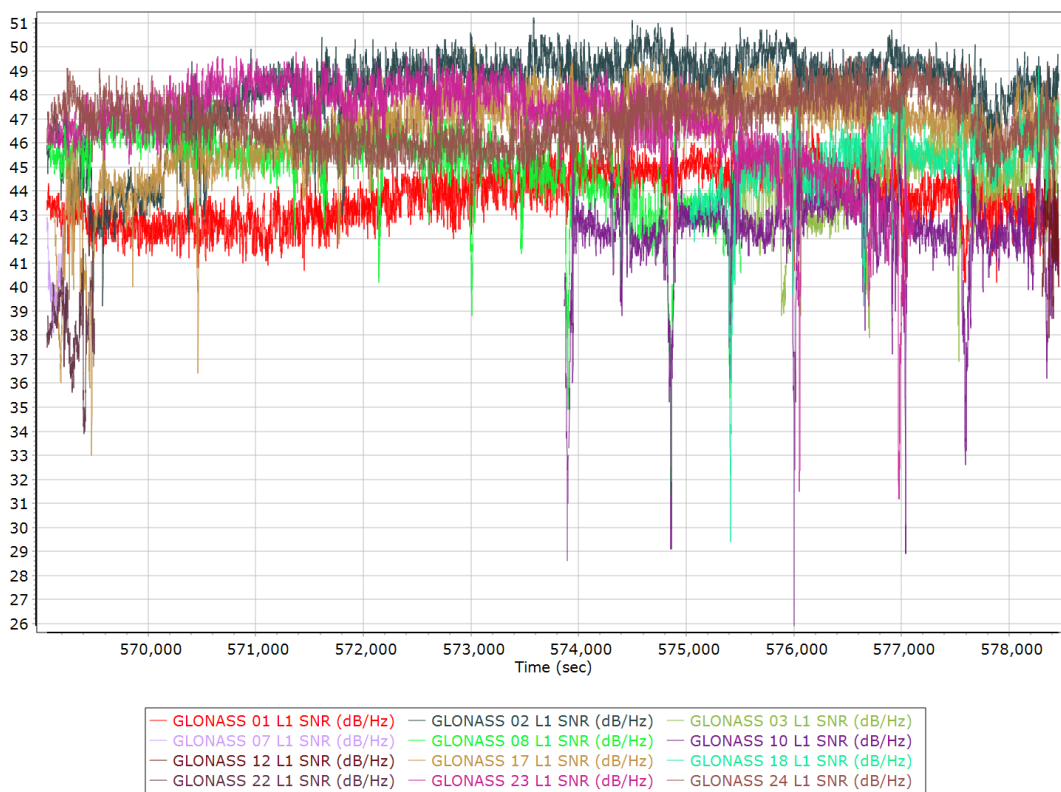
### GPS/GLONASS L1 Satellite Lock/Elevation



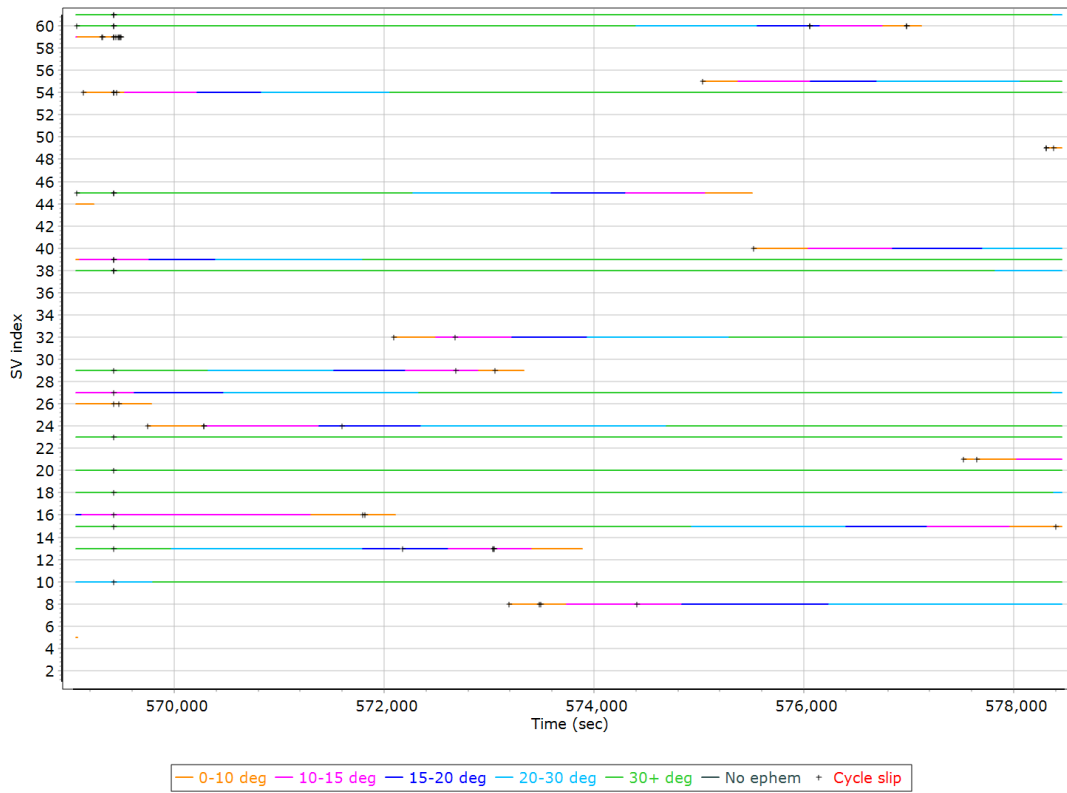
### GPS L1 SNR



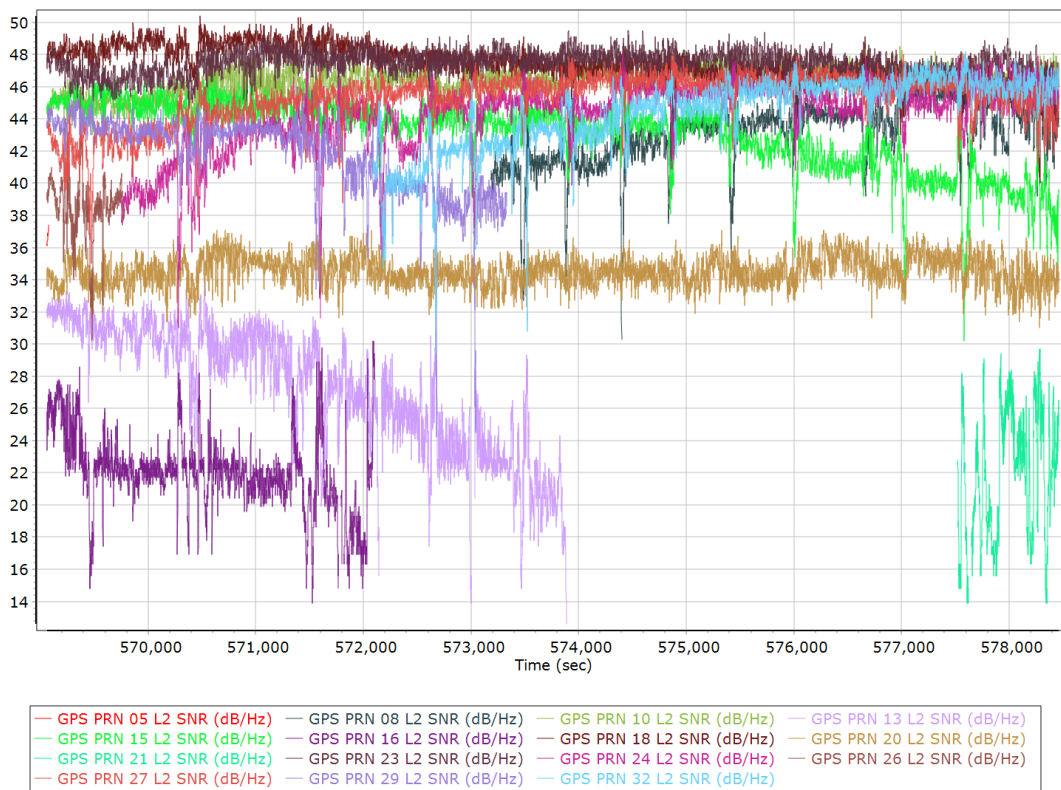
### GLONASS L1 SNR



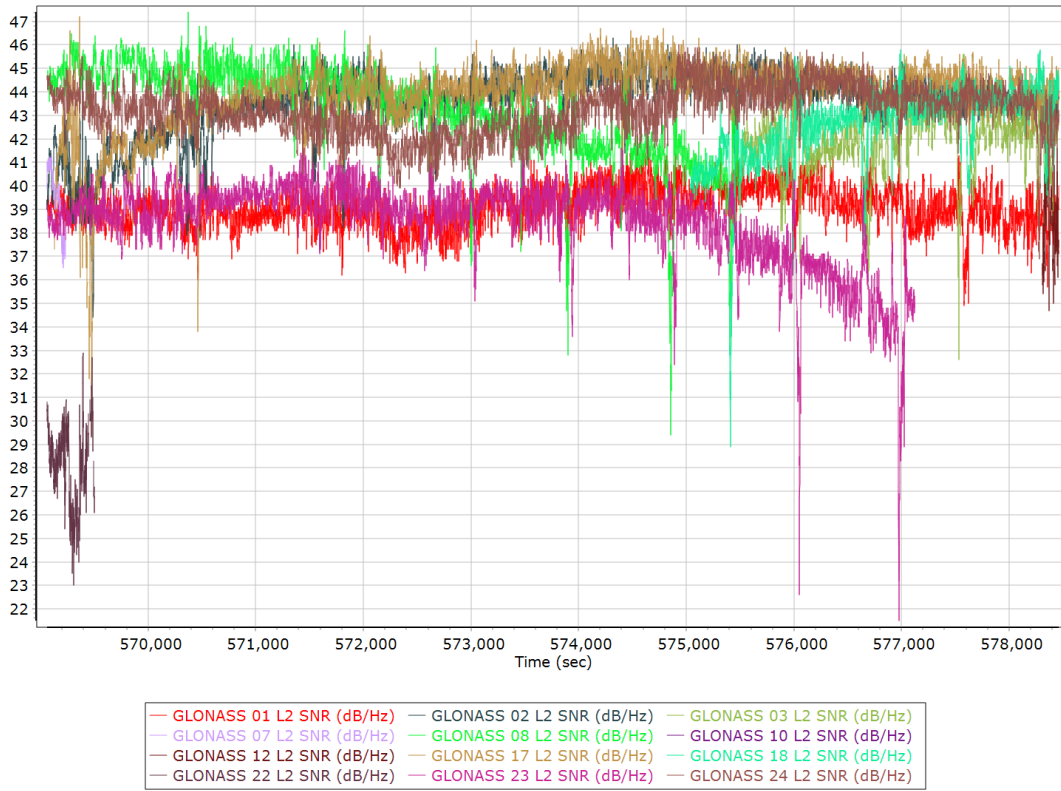
### GPS/GLONASS L2 Satellite Lock/Elevation



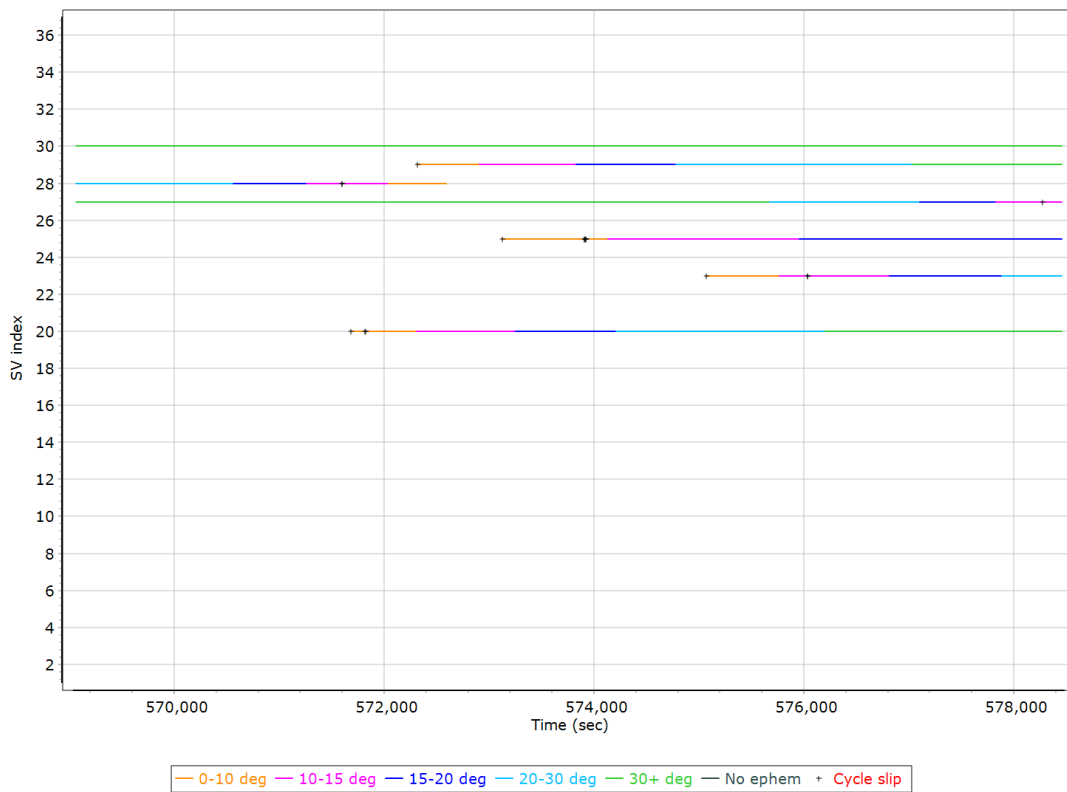
### GPS L2 SNR



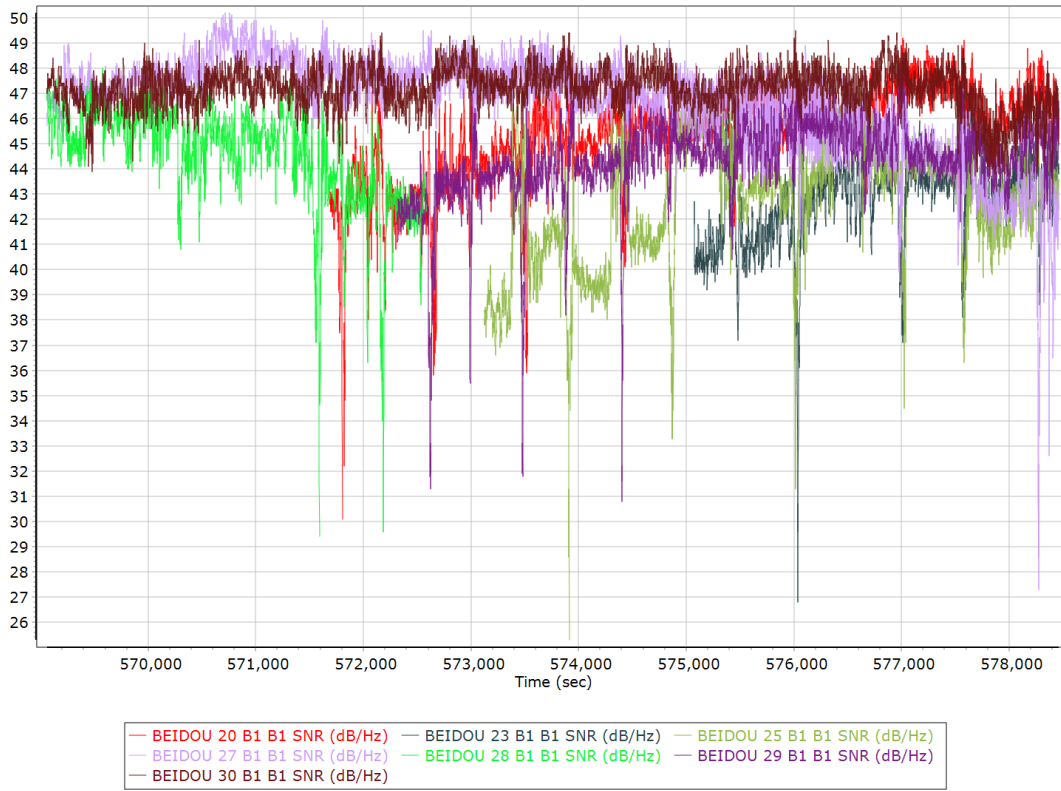
### GLONASS L2 SNR



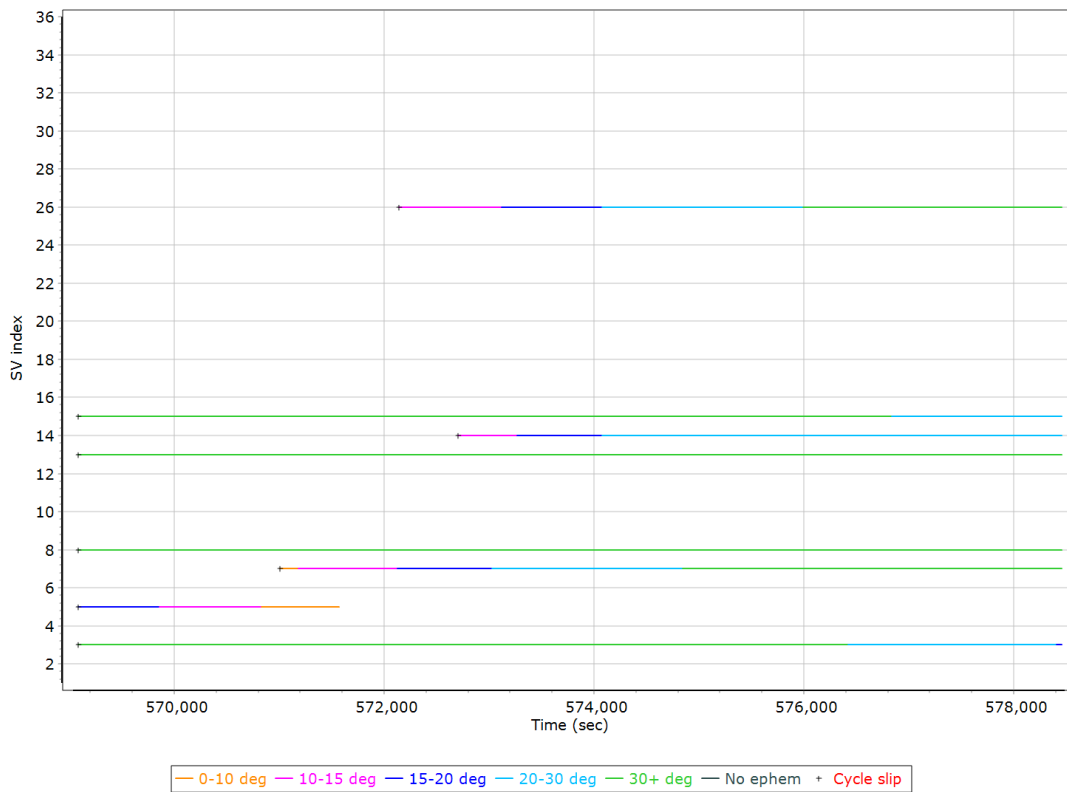
### BEIDOU Satellite Lock/Elevation



### BEIDOU SNR

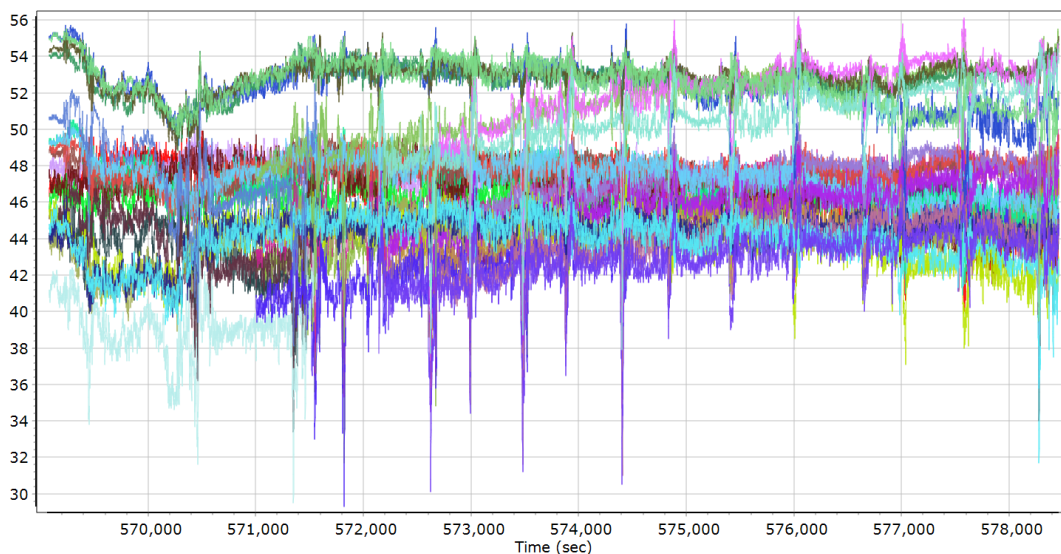


### GALILEO Satellite Lock/Elevation





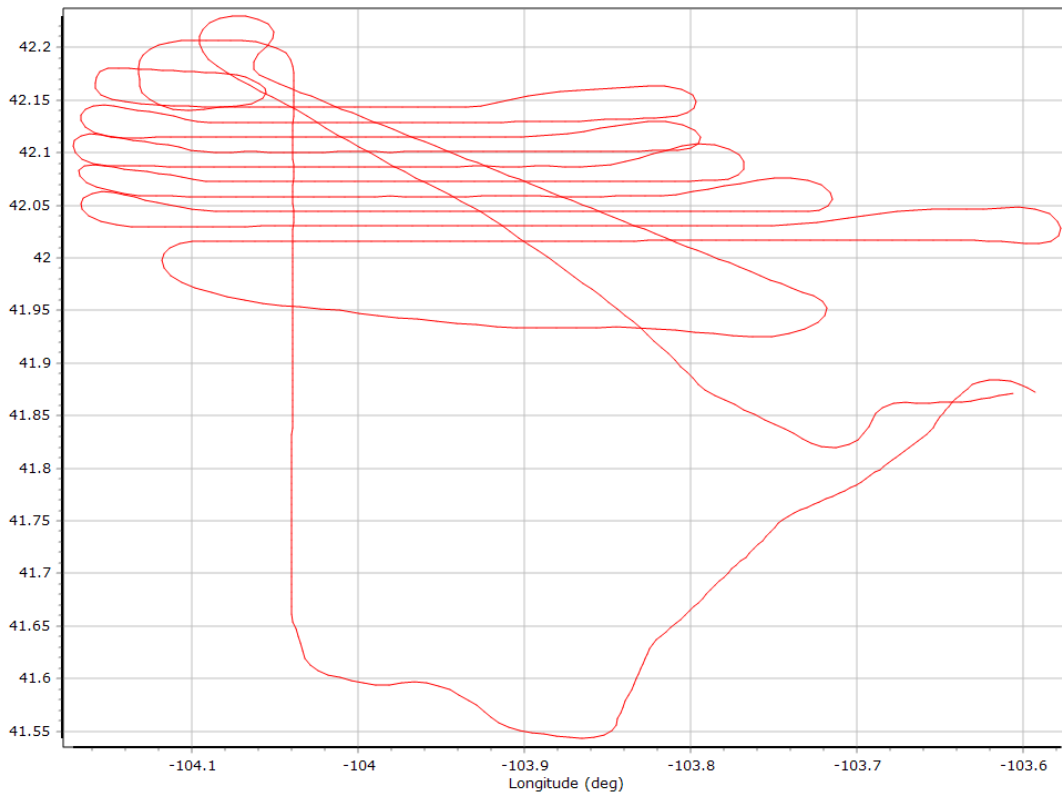
## GALILEO SNR



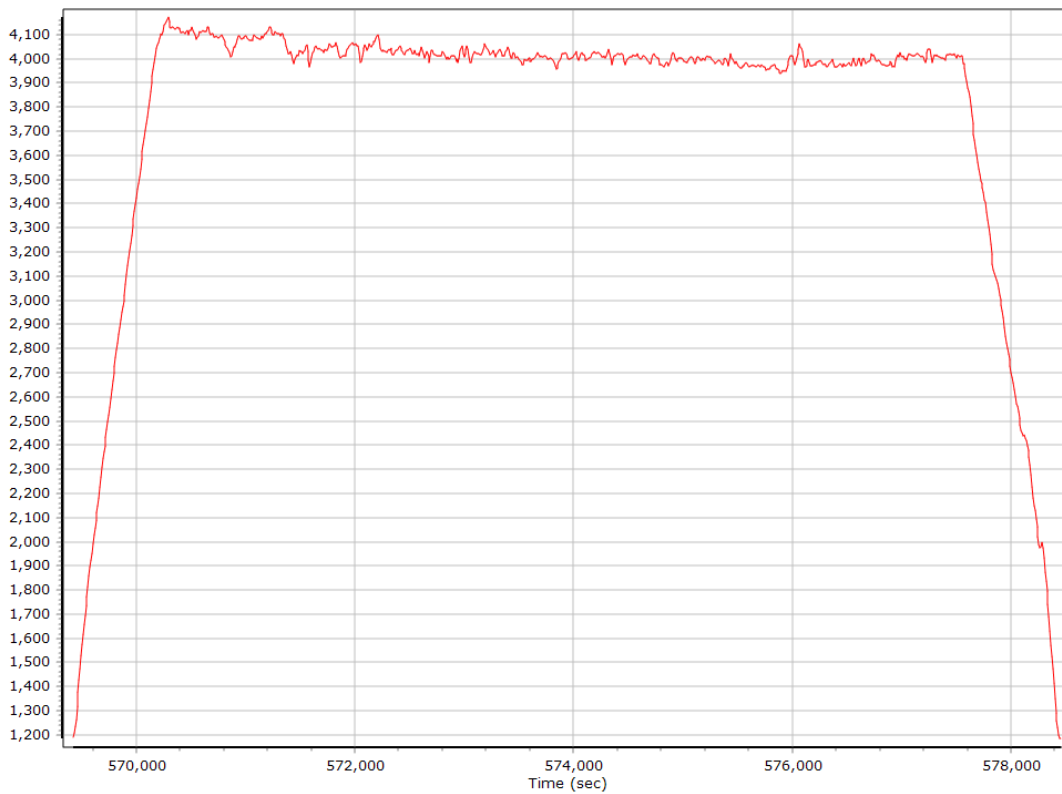
— GALILEO 03 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 05 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 07 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 08 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 13 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 14 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 15 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 26 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 03 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 05 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 07 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 08 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 13 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 14 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 15 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 26 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 03 E5B BPSK10_PD SNR (dB/Hz)	— GALILEO 05 E5B BPSK10_PD SNR (dB/Hz)
— GALILEO 07 E5B BPSK10_PD SNR (dB/Hz)	— GALILEO 08 E5B BPSK10_PD SNR (dB/Hz)

## Smoothed Trajectory Information

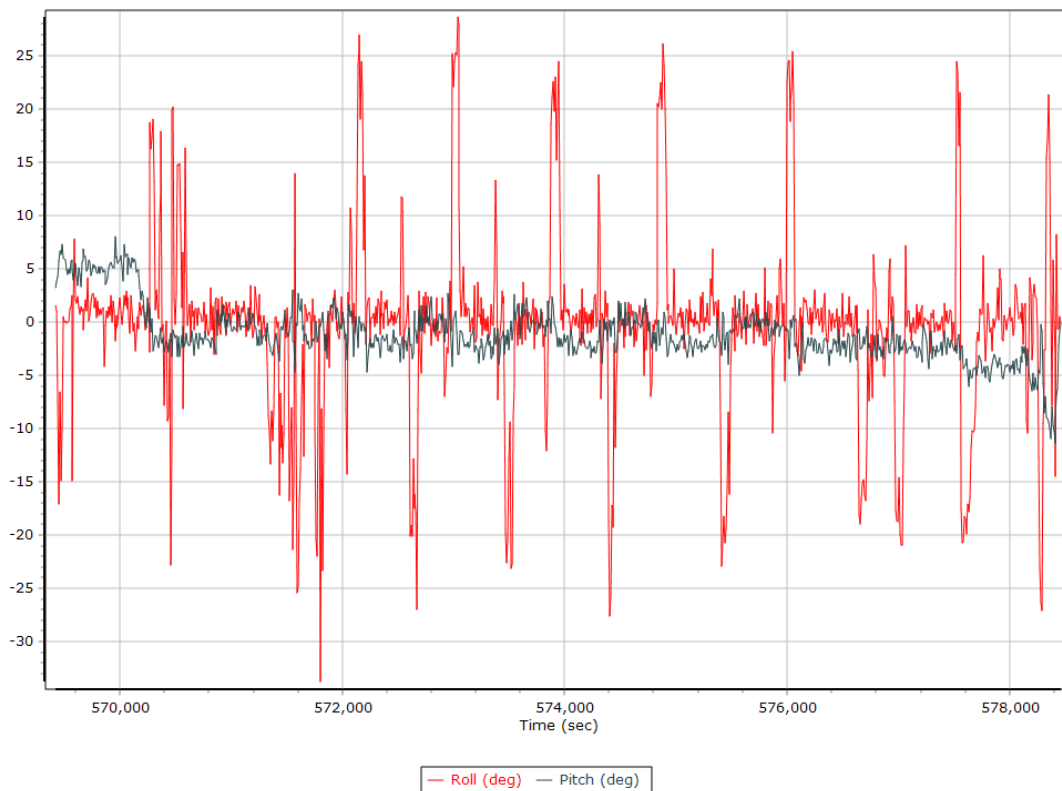
### Top View



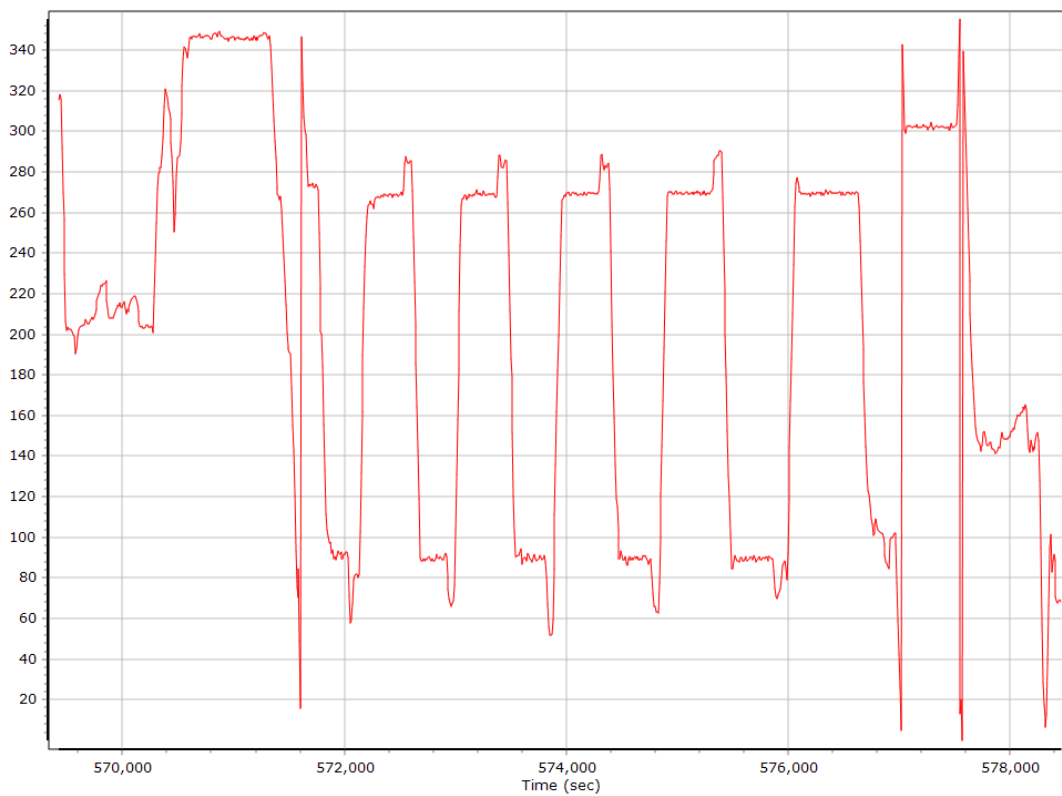
### Altitude



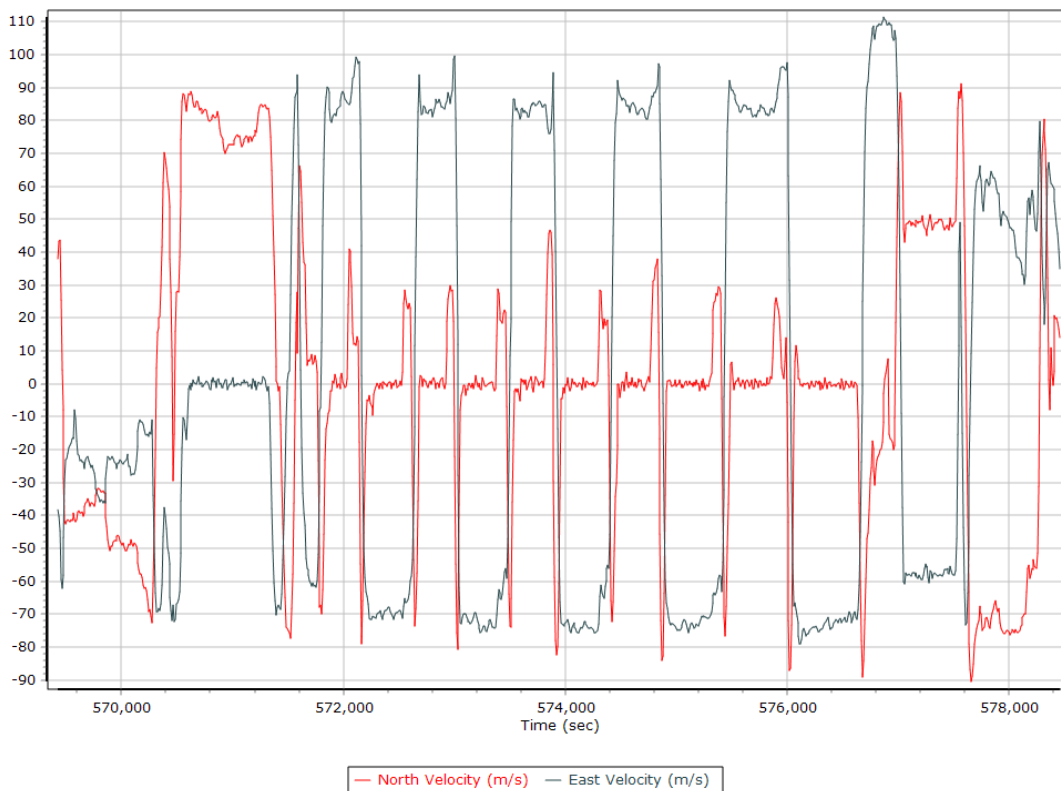
## Roll/Pitch



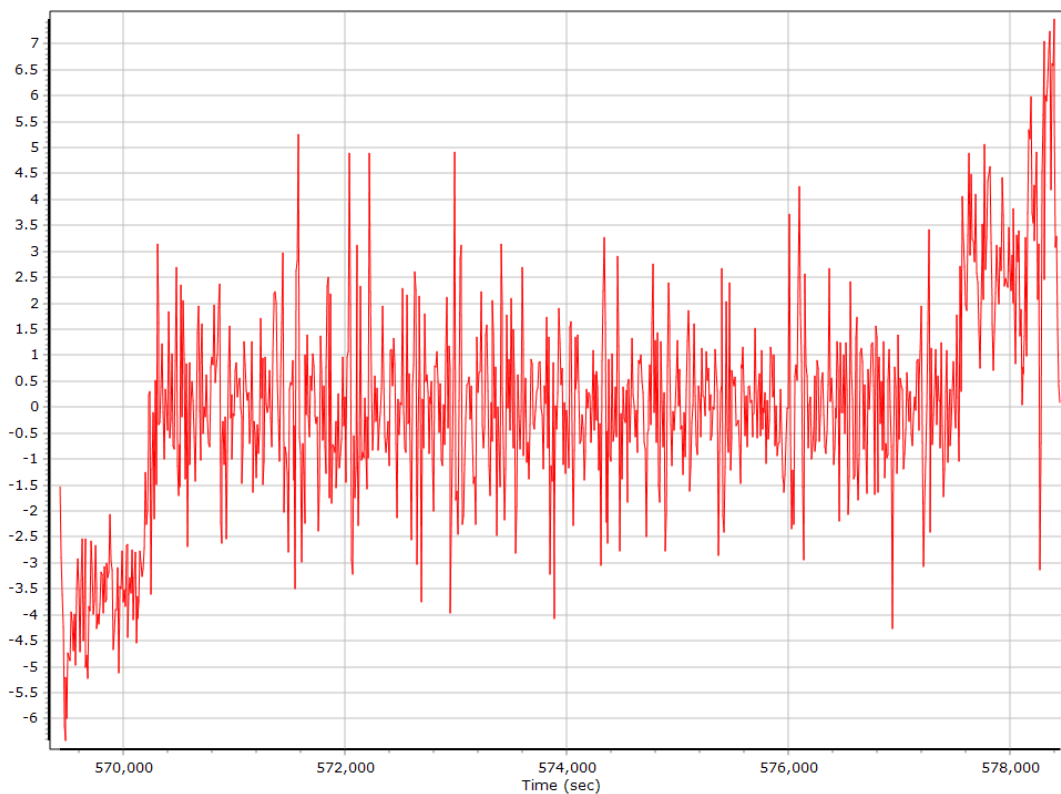
## Heading



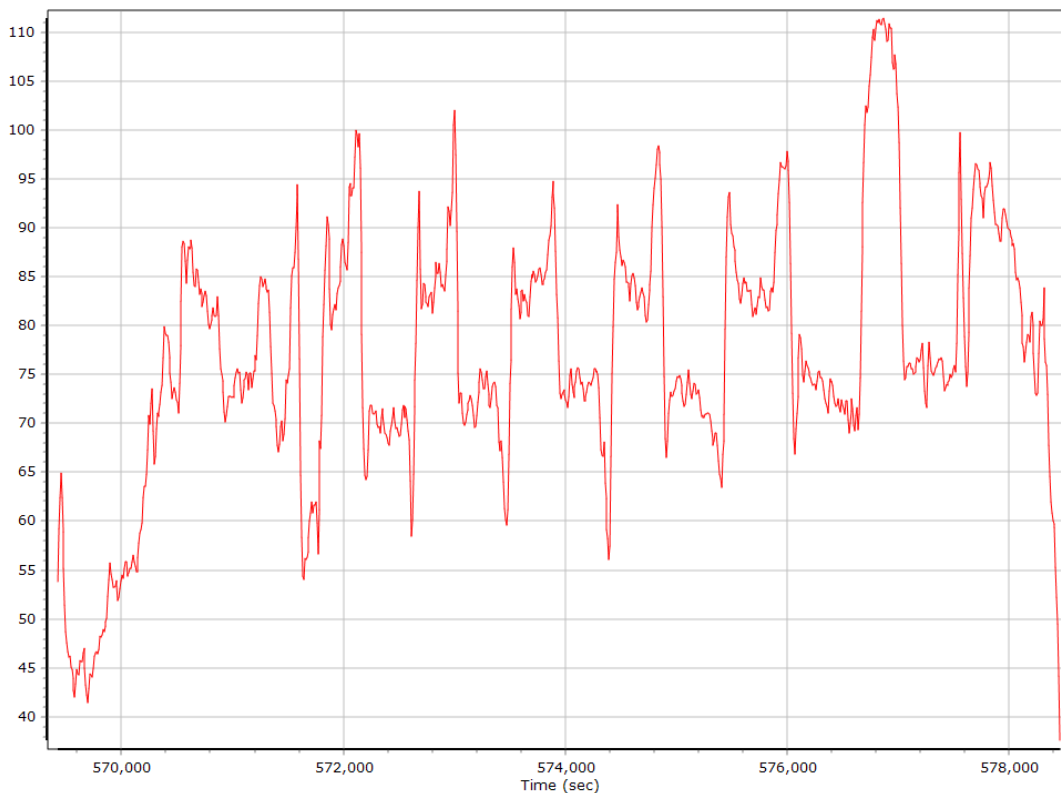
### North/East Velocity



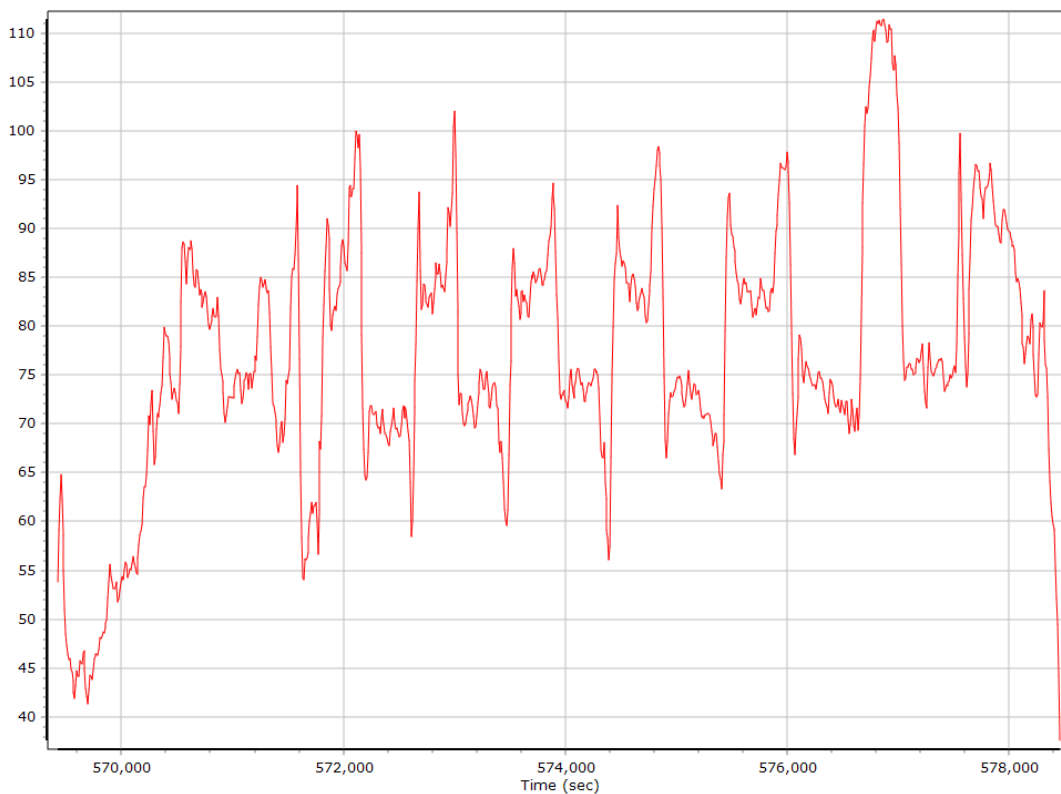
### Down Velocity



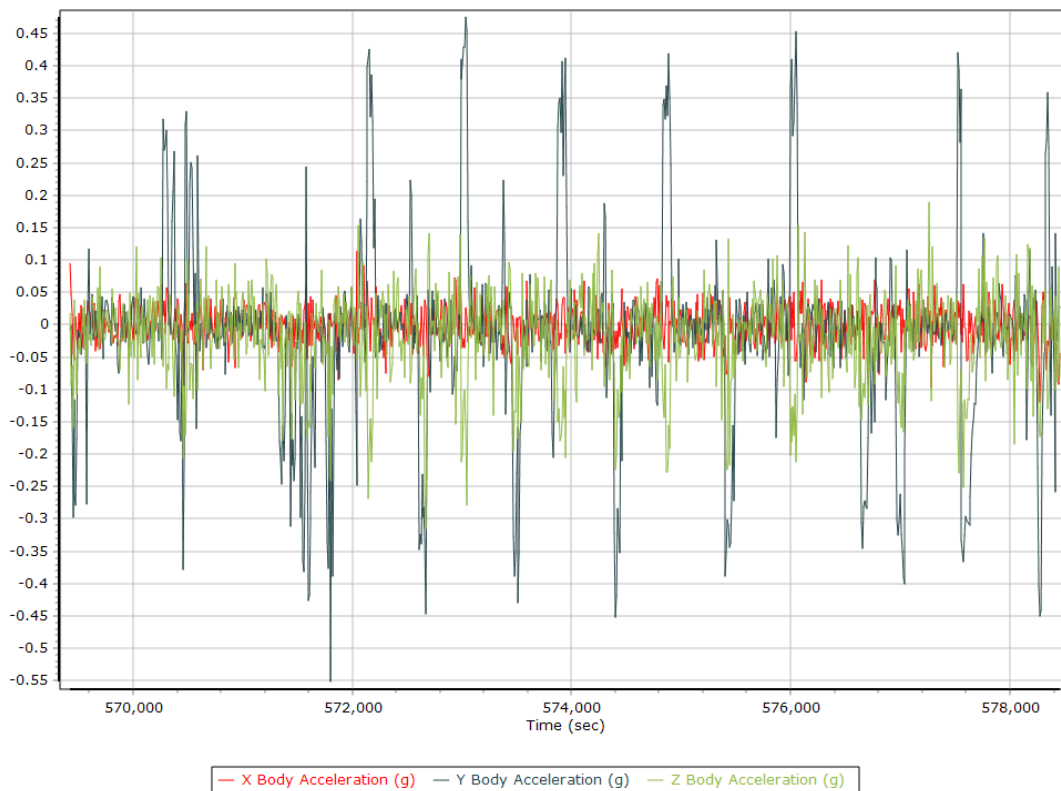
### Total Speed



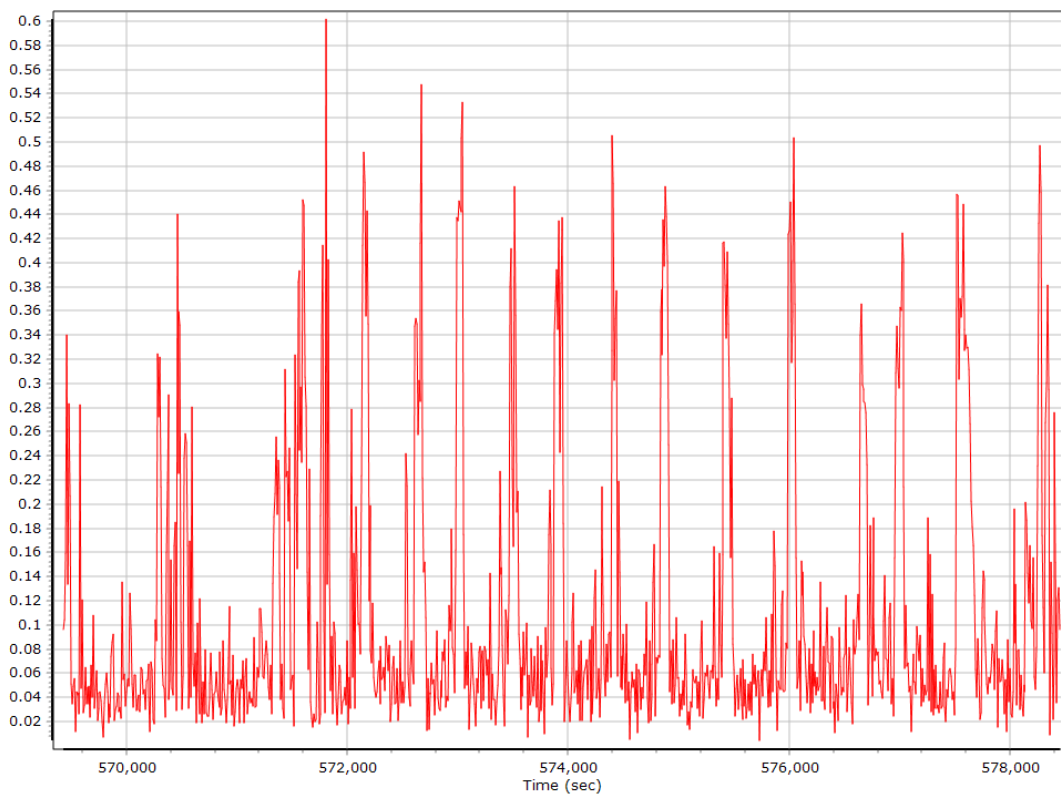
### Ground Speed



## Body Acceleration



## Total Body Acceleration

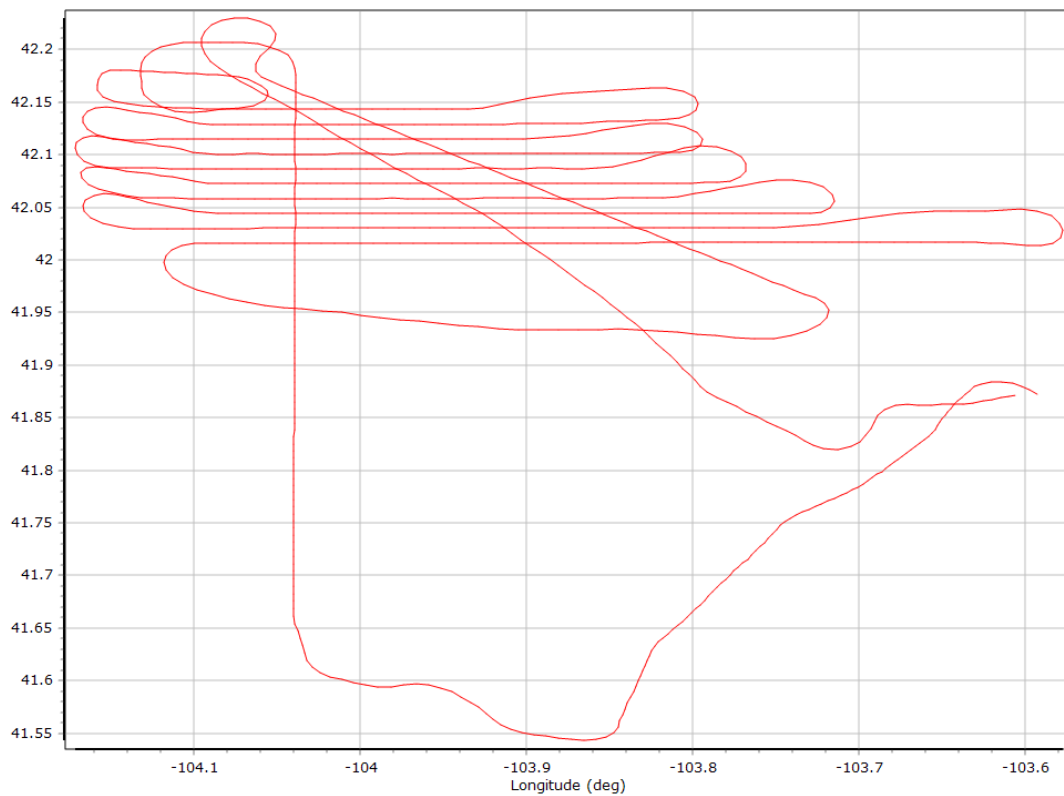


## Body Angular Rate

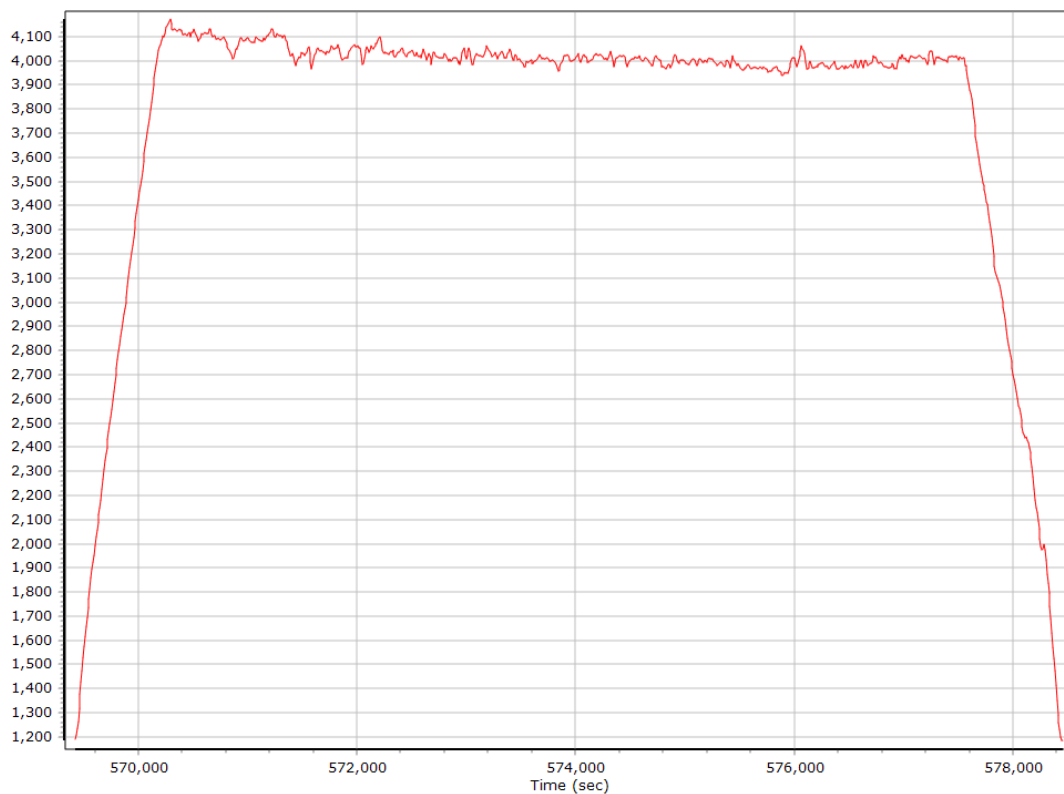


## Forward Processed Trajectory Information

### Top View

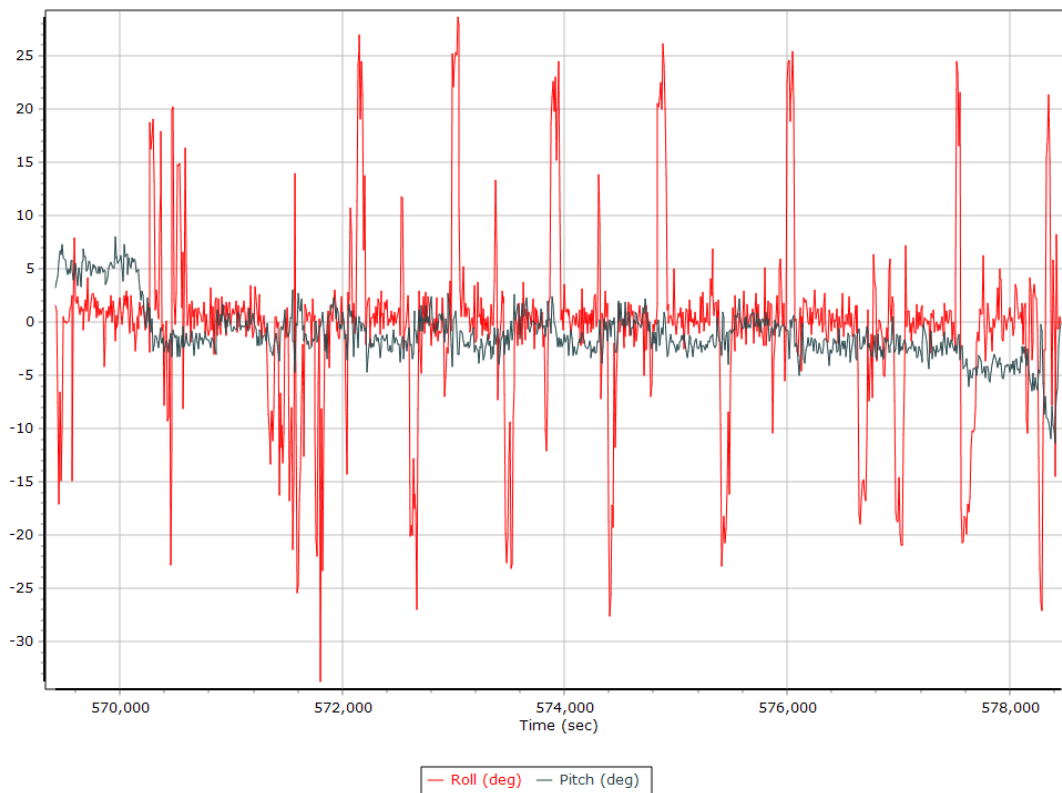


### Altitude

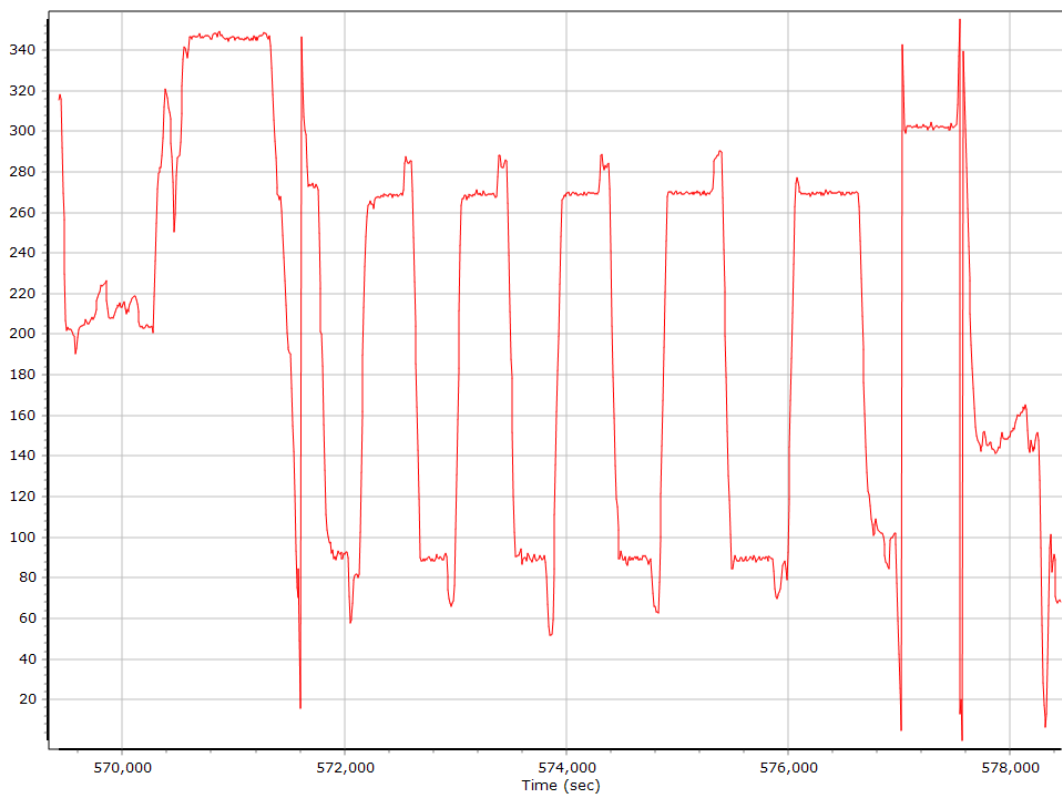




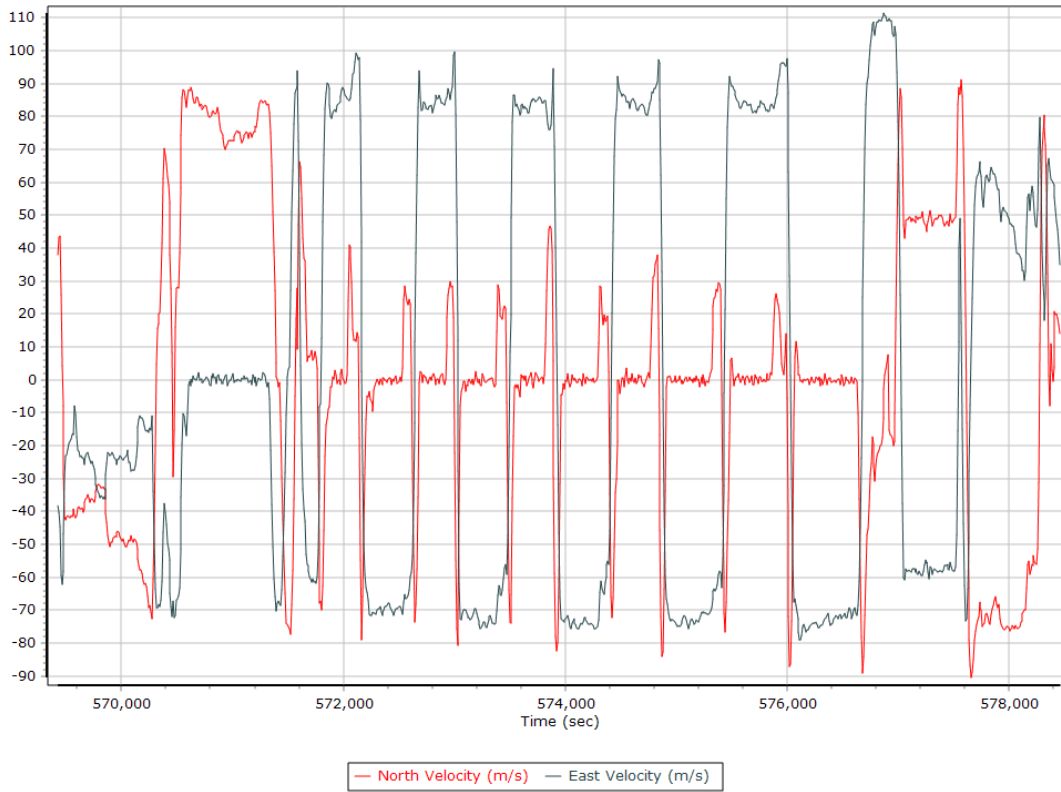
## Roll/Pitch



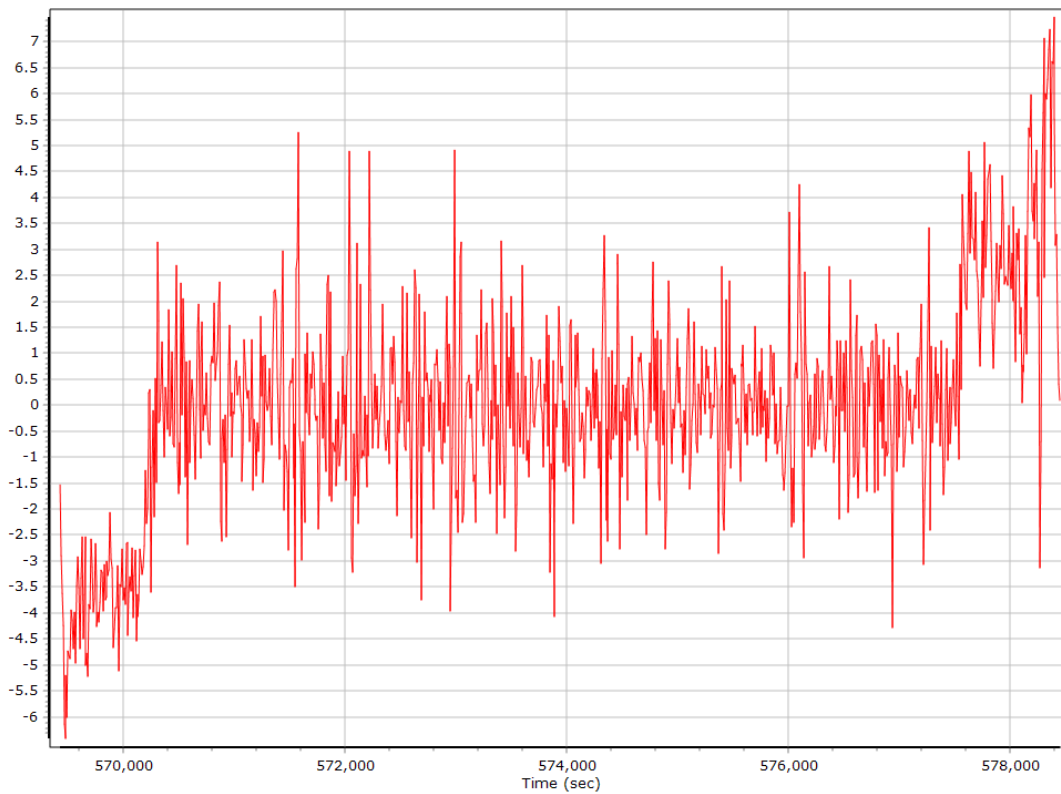
## Heading



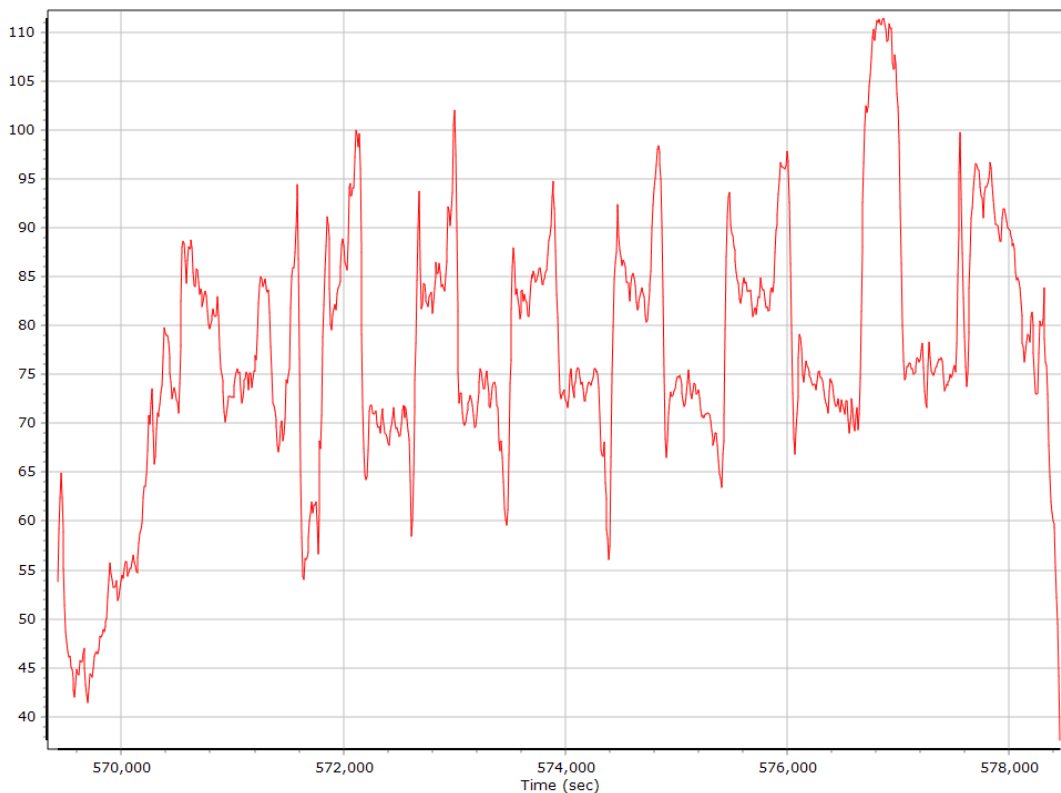
## North/East Velocity



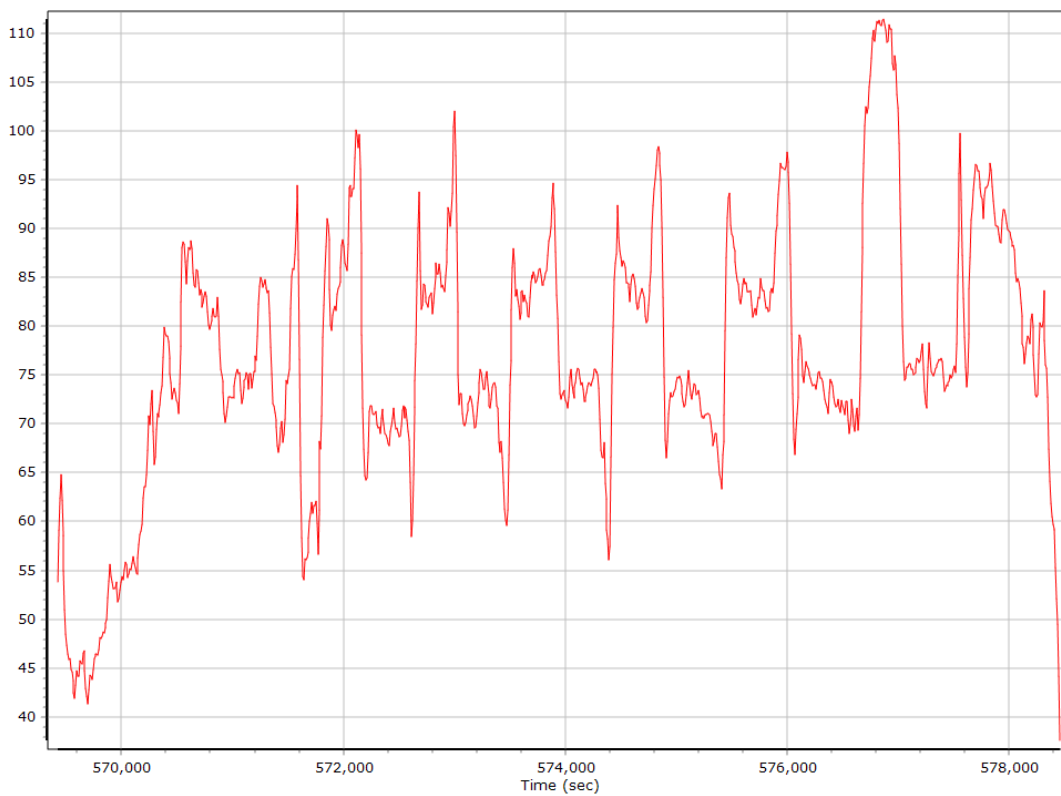
## Down Velocity



### Total Speed



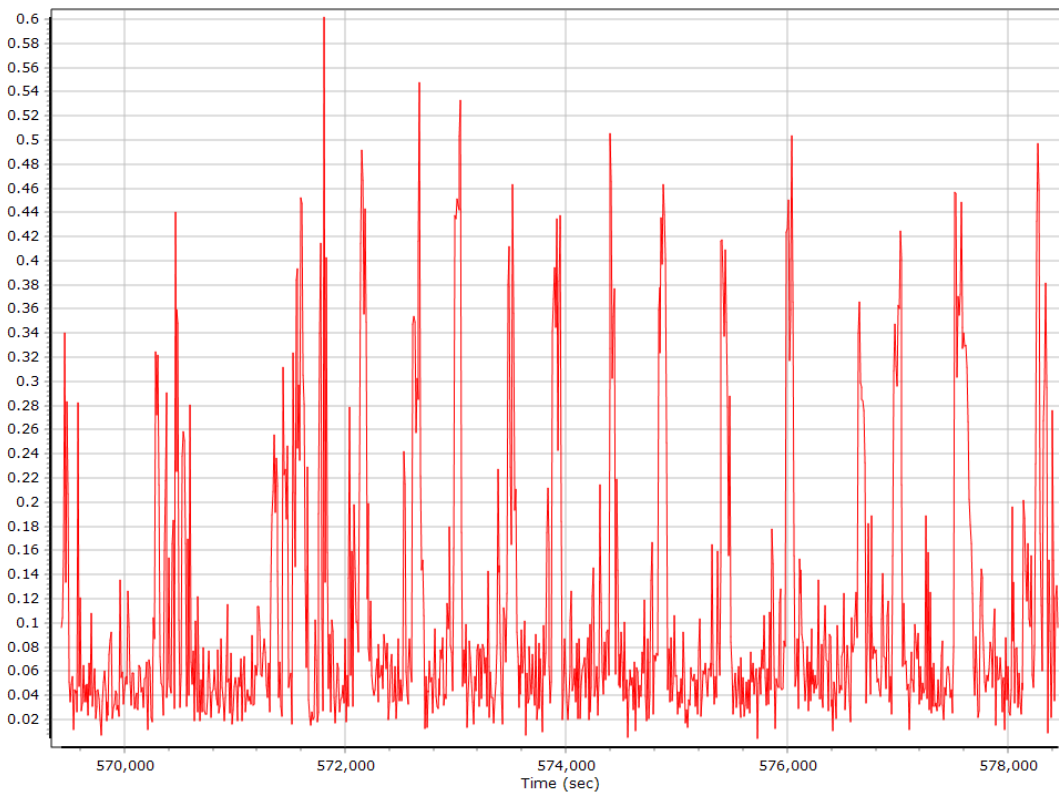
### Ground Speed



## Body Acceleration



## Total Body Acceleration



## Body Angular Rate

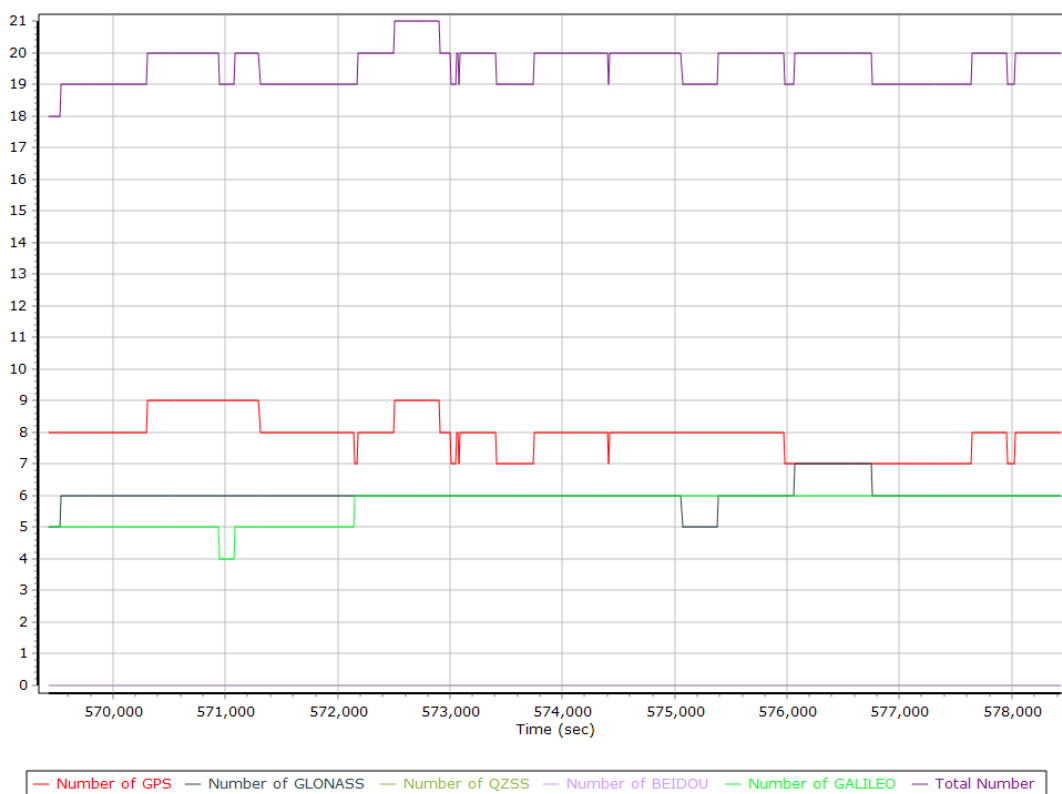


## GNSS QC

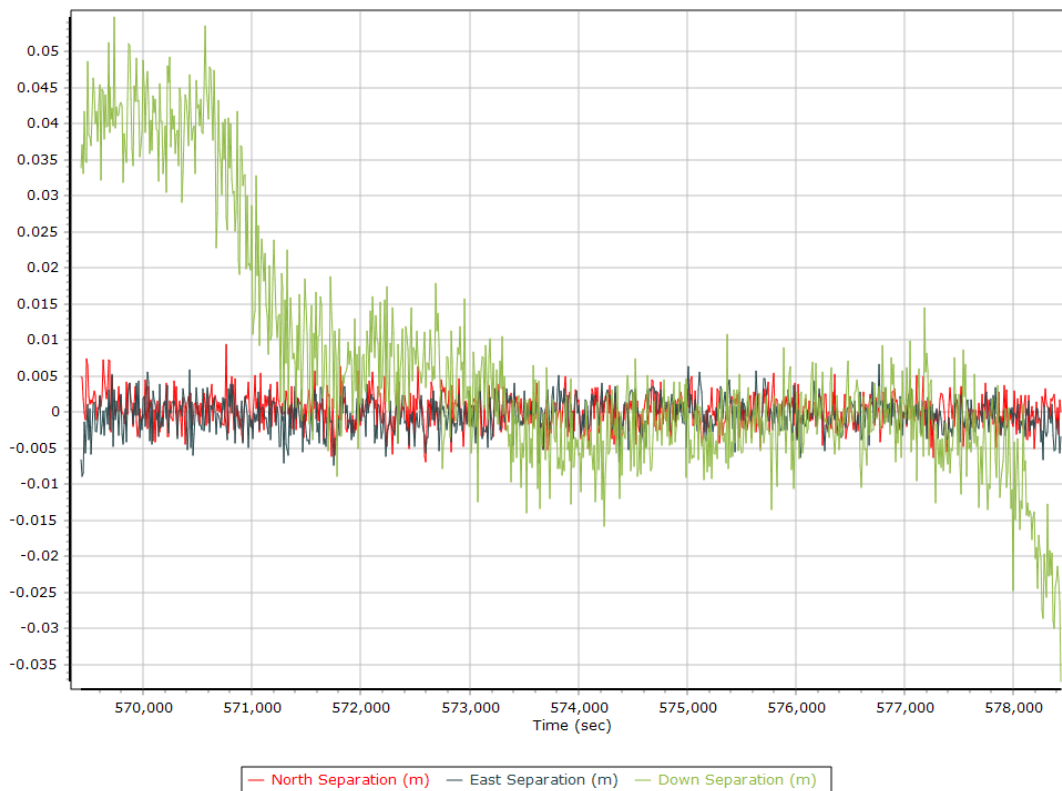
### GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	7	9	8
Number of GLONASS SV	0	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	0	6	6
Total number of SV	11	21	20
PDOP	1.04	1.97	1.17
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	9381.00	0.00	0.00
Percentage	100.00	0.00	0.00

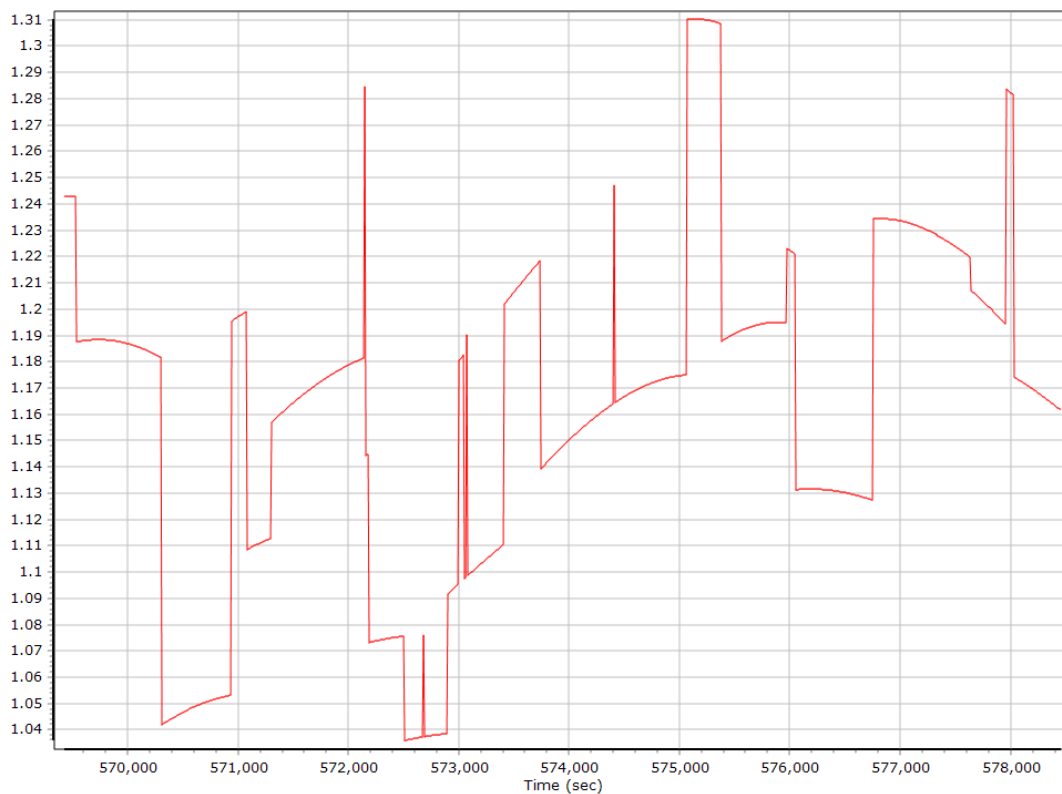
### Num SVs in solution



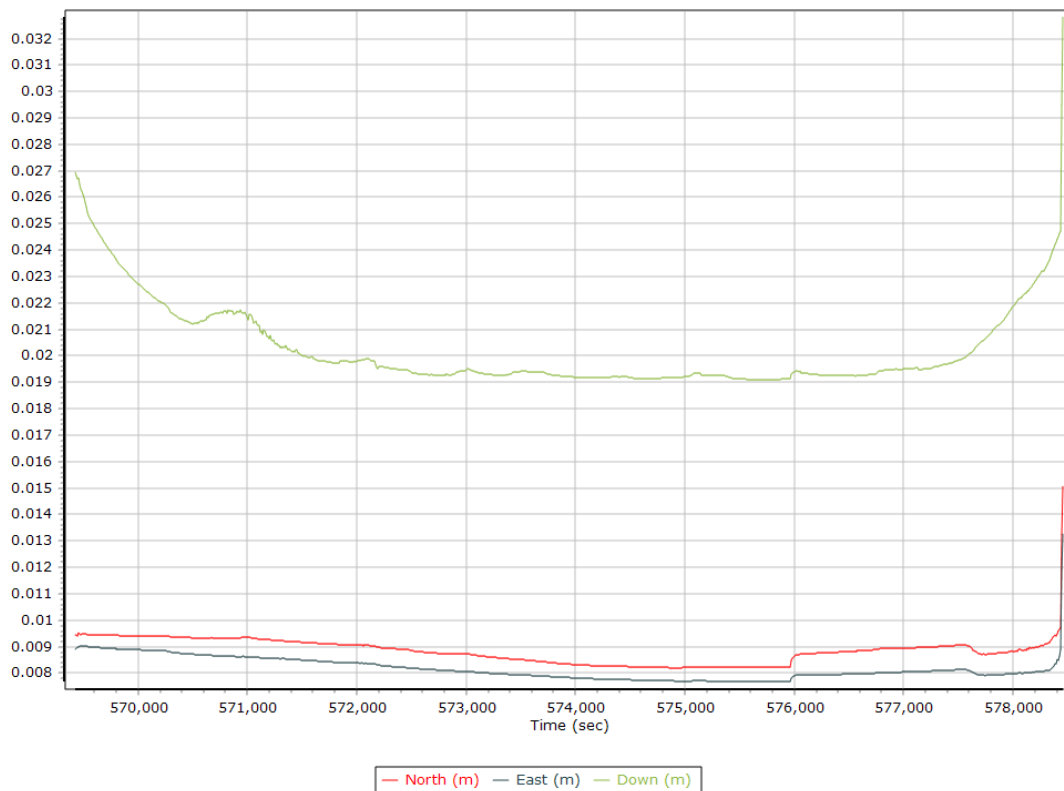
### Forward/Reverse Separation



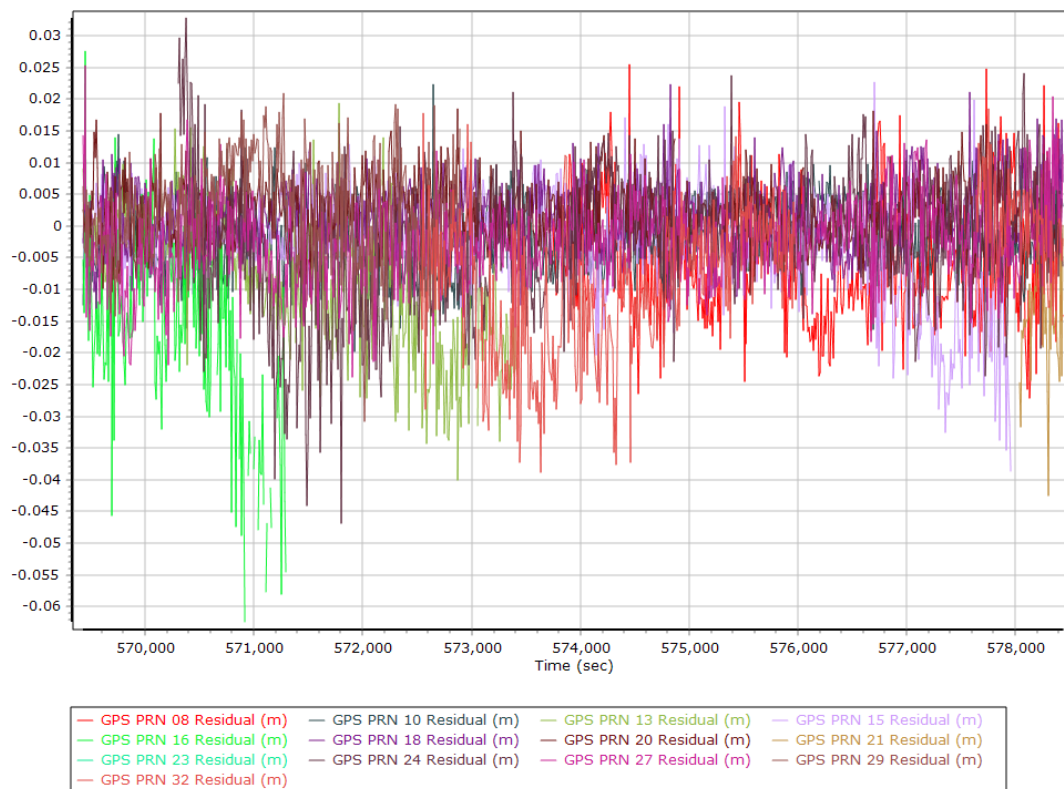
### PDOP



## Estimated Position Accuracy

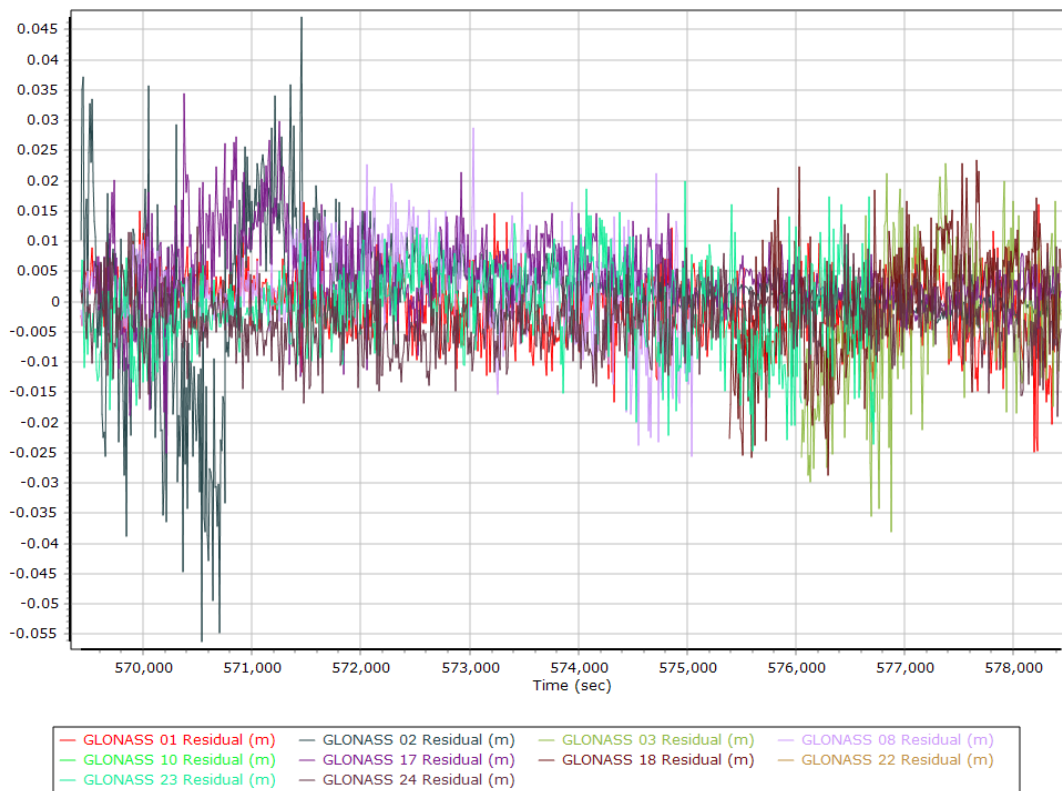


## GPS Residuals

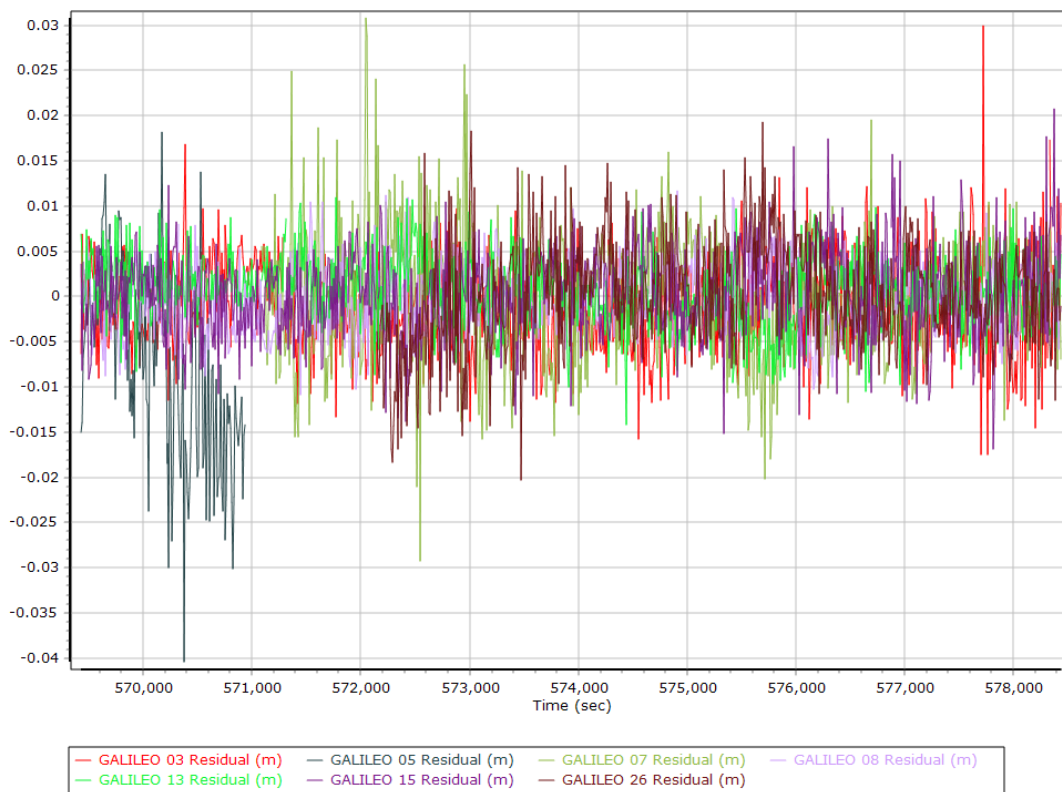




## GLONASS Residuals



## GALILEO Residuals



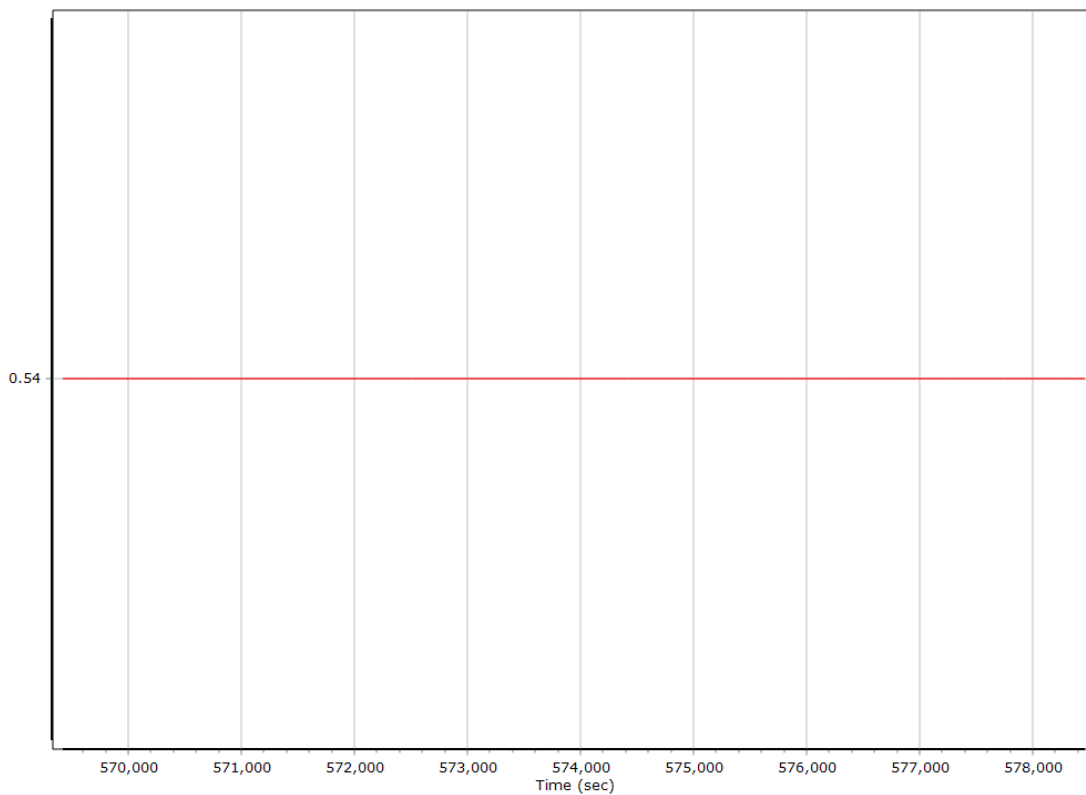
## GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	569061.000 (11/21/2020 2:04:21 PM)		
Processing end time	578459.000 (11/21/2020 4:40:59 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	180.000
Reference to Primary GNSS lever arm (m)	0.540	-0.446	-0.969
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

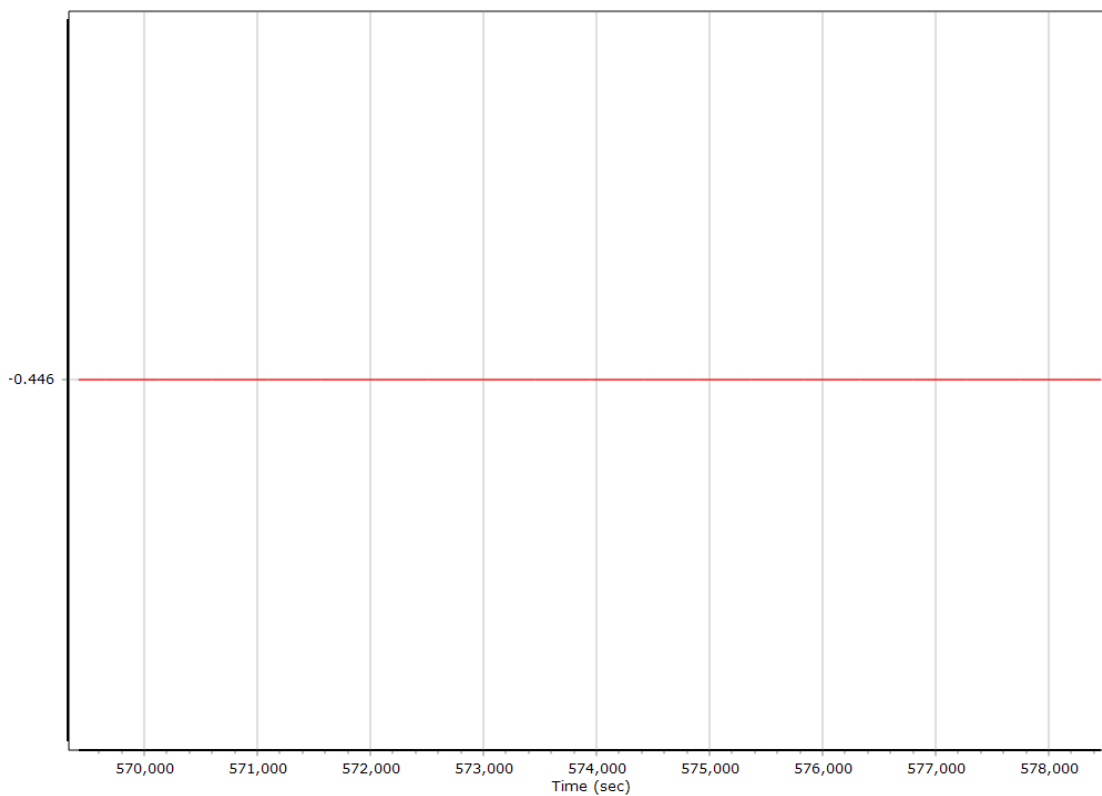
## Calibrated Installation Parameters

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

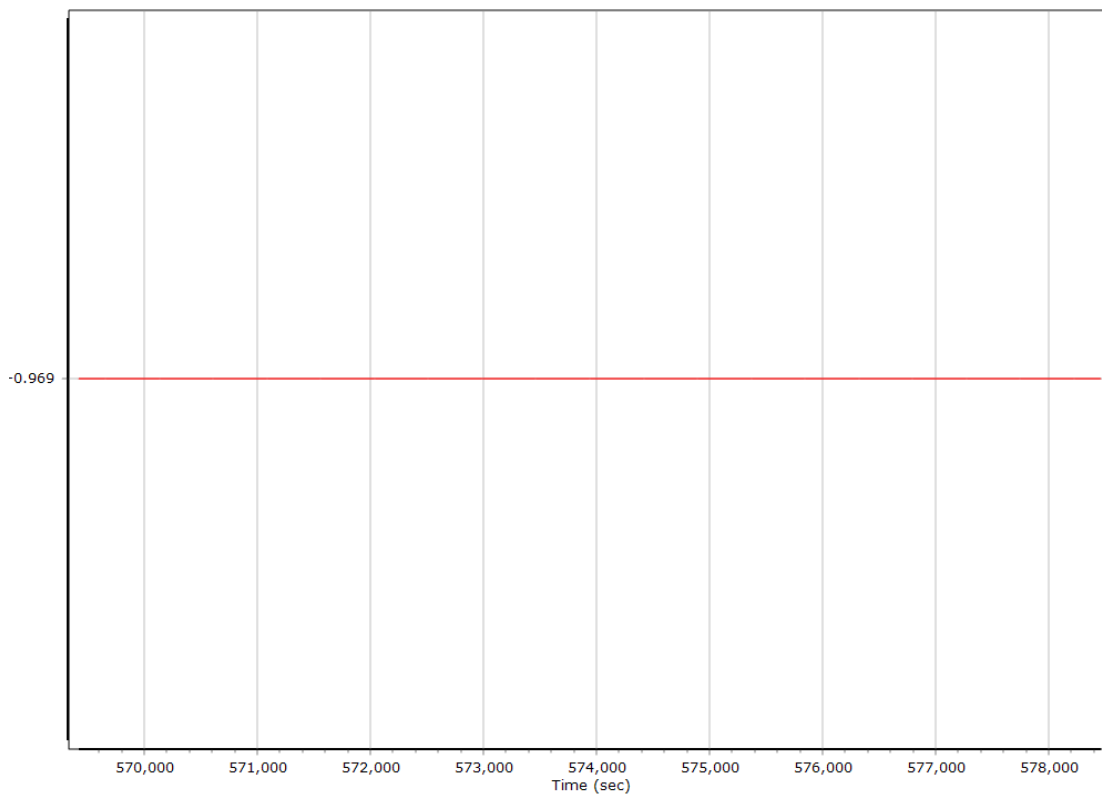
#### X Reference-Primary GNSS Lever Arm (m)



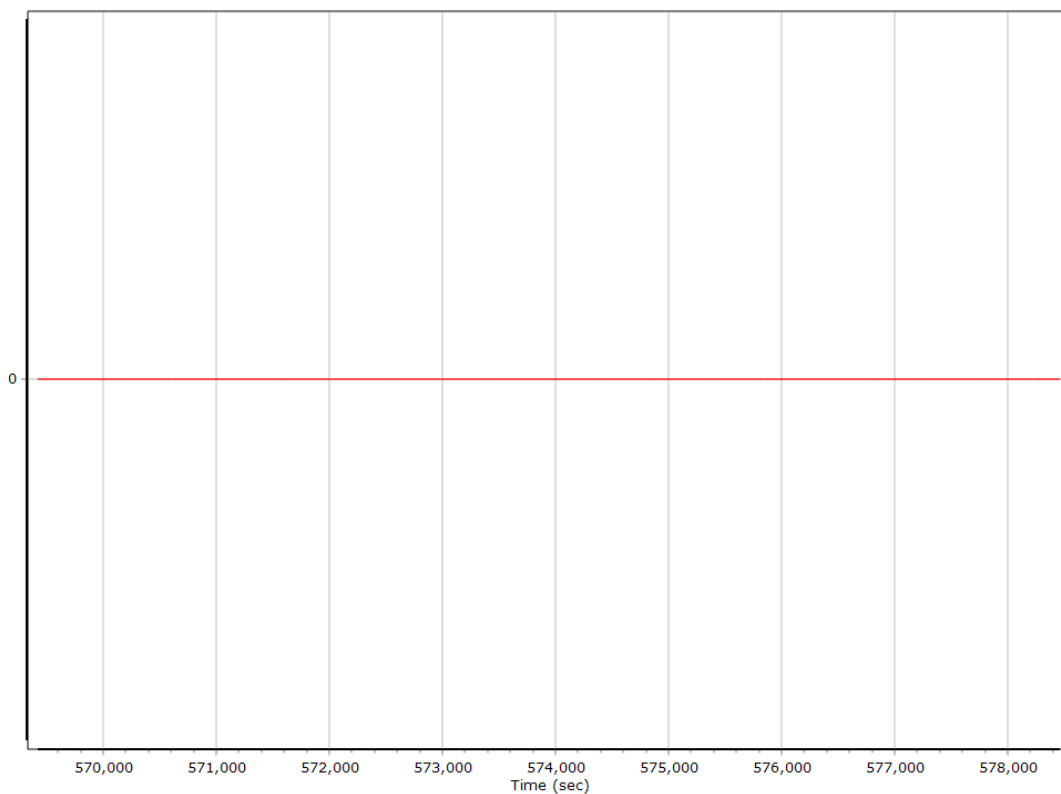
#### Y Reference-Primary GNSS Lever Arm (m)



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



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

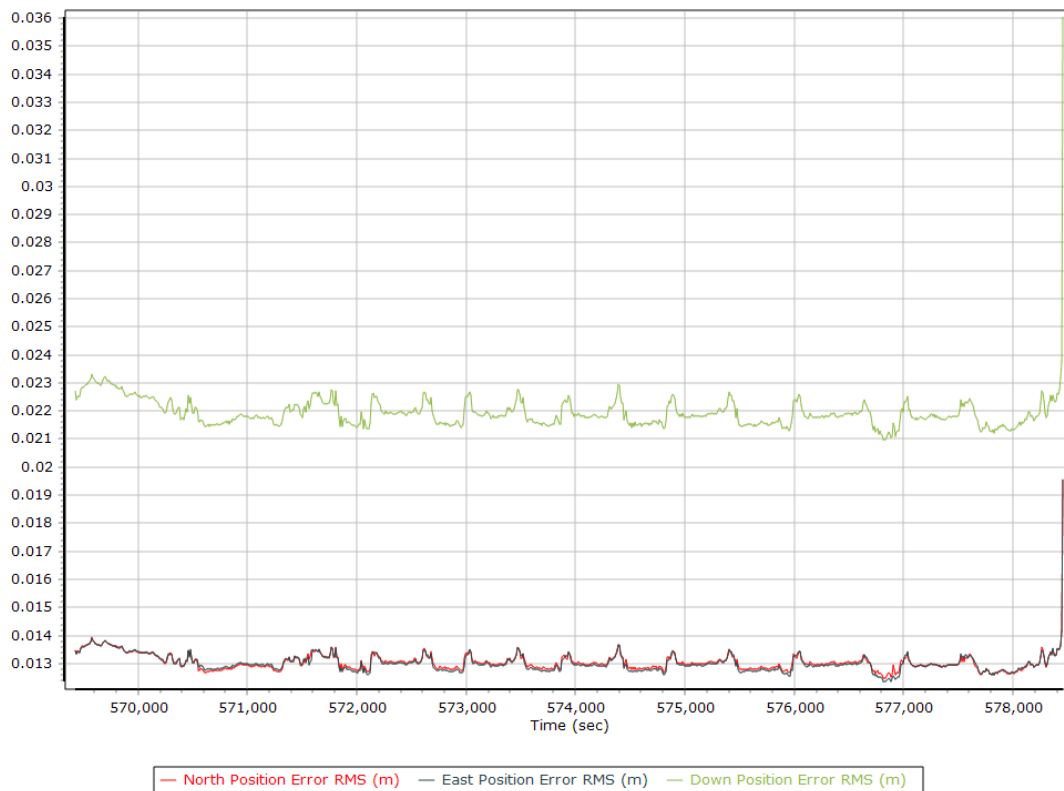


## IN-Fusion QC

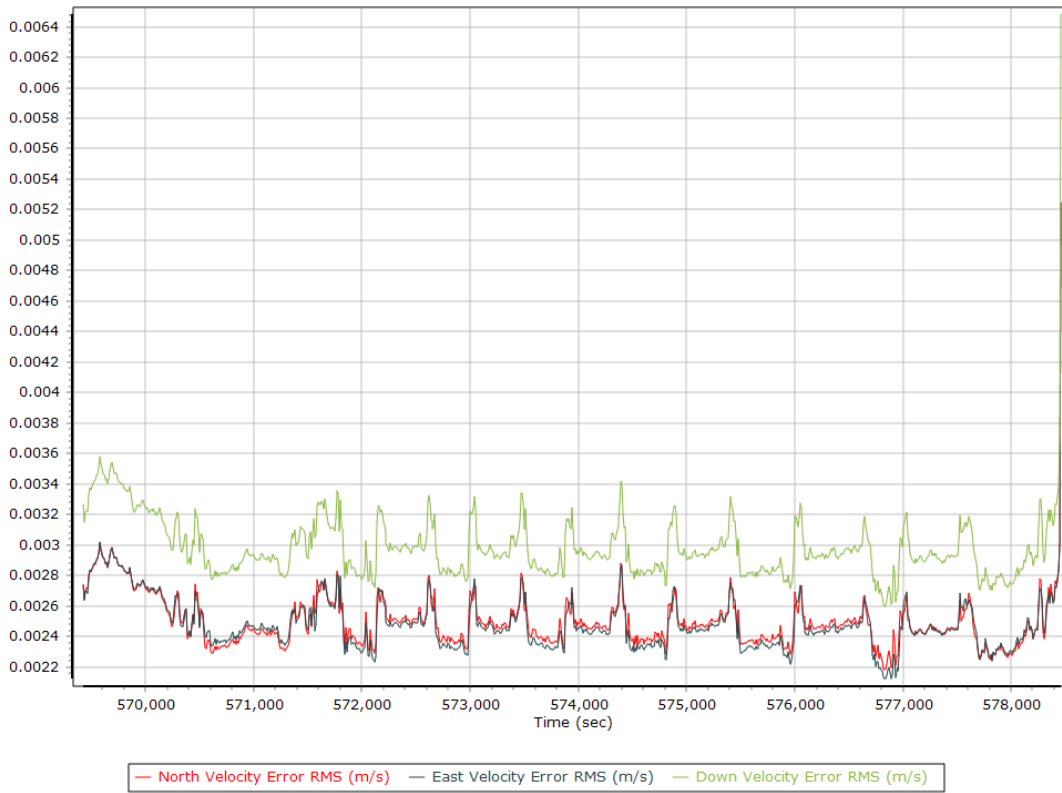
### Forward Processed Estimated Errors, Reference Frame

### Smoothed Performance Metrics

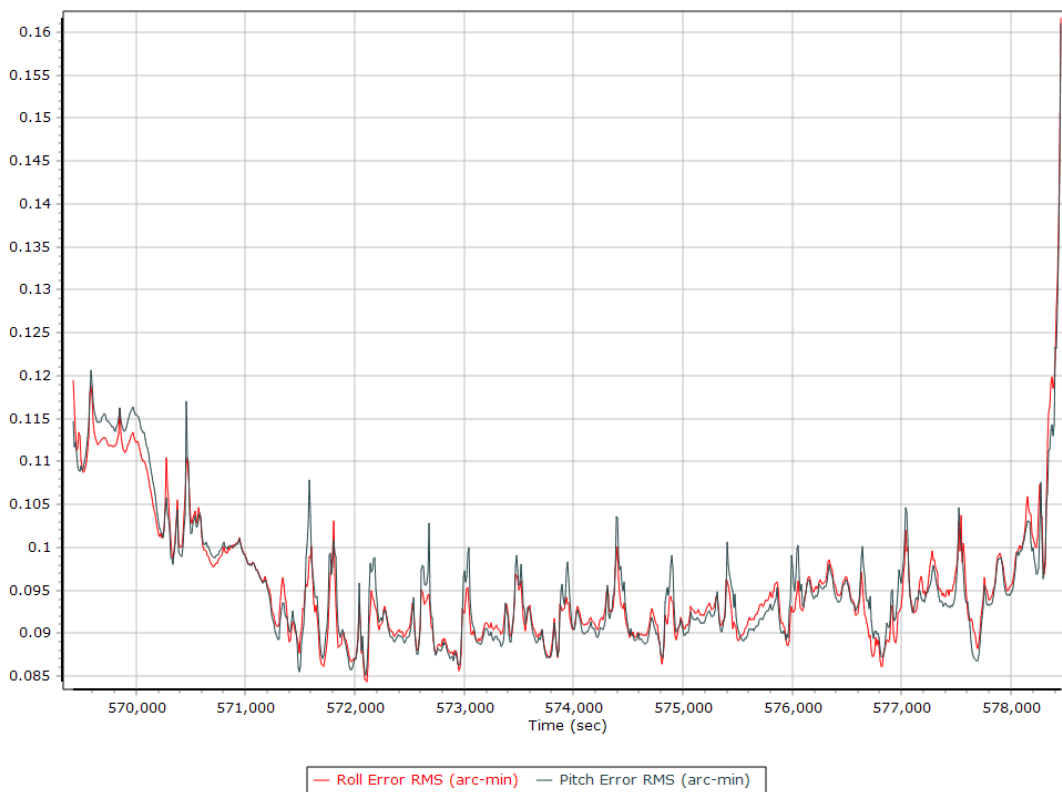
#### Position Error RMS (m)



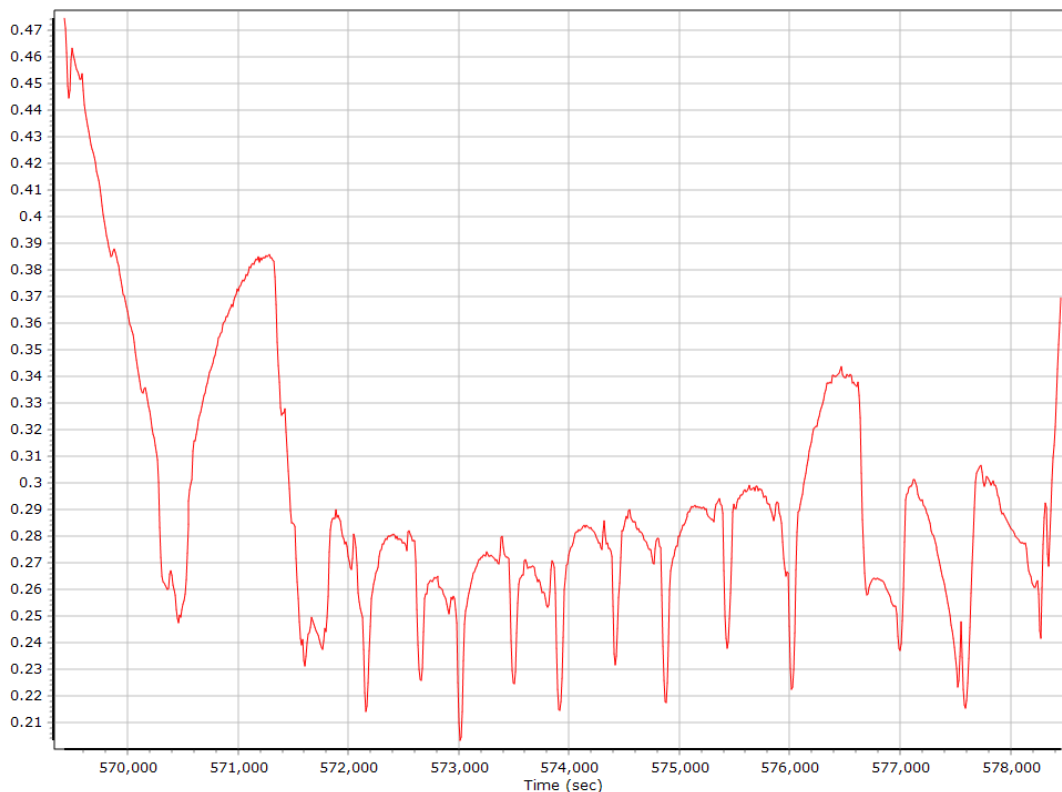
### Velocity Error RMS (m/s)



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

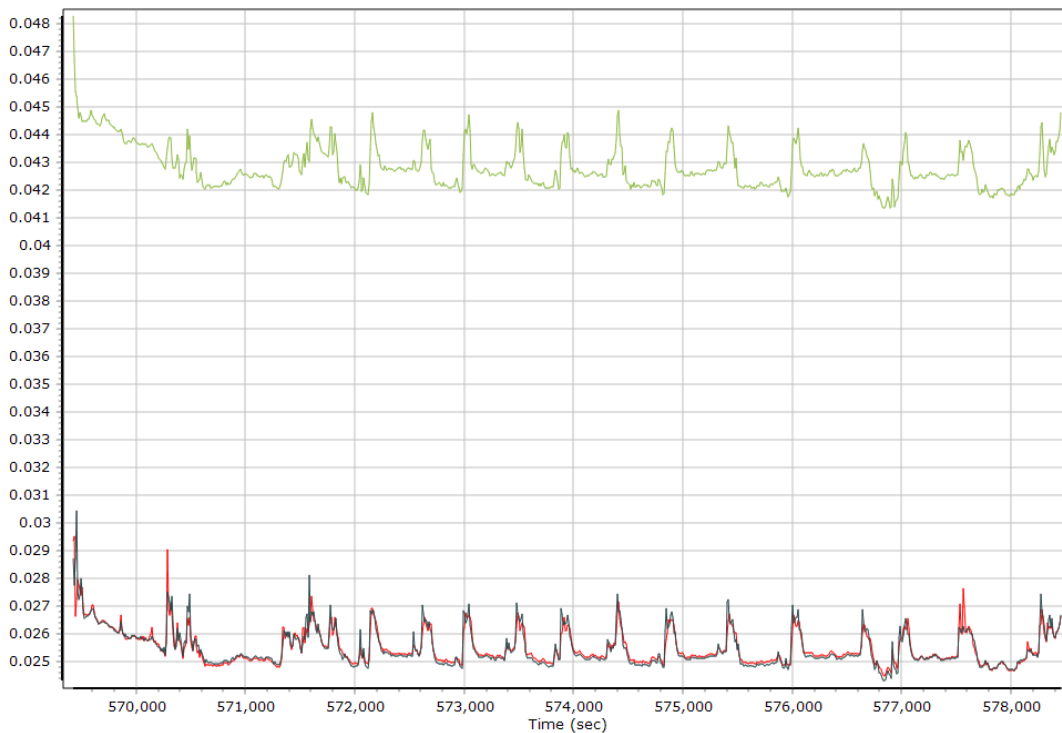


### Heading Error RMS (arc-min)



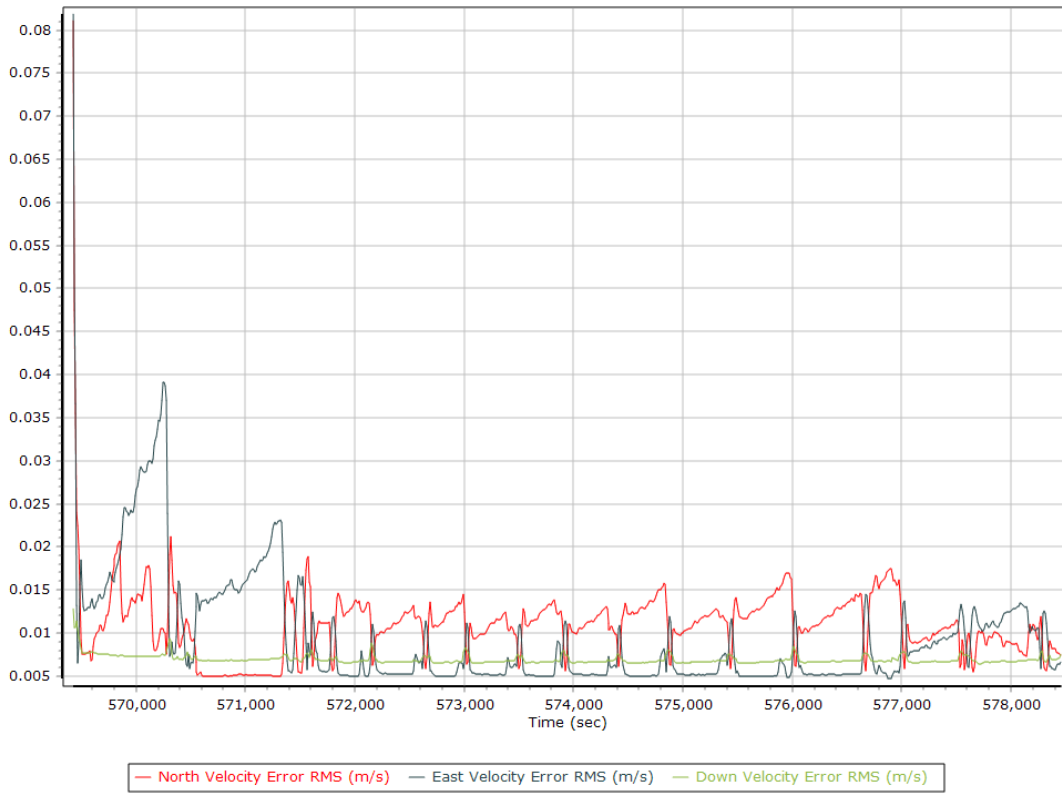
### Forward Processed Performance Metrics

#### Position Error RMS (m)

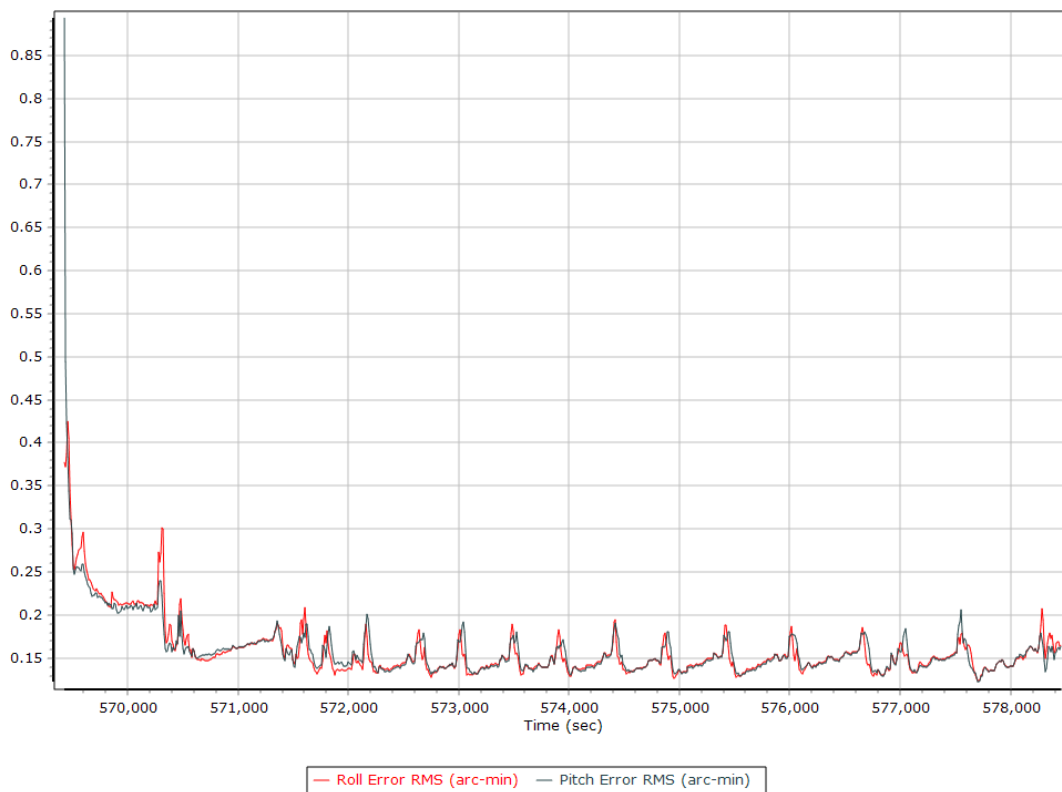


— North Position Error RMS (m) — East Position Error RMS (m) — Down Position Error RMS (m)

### Velocity Error RMS (m/s)

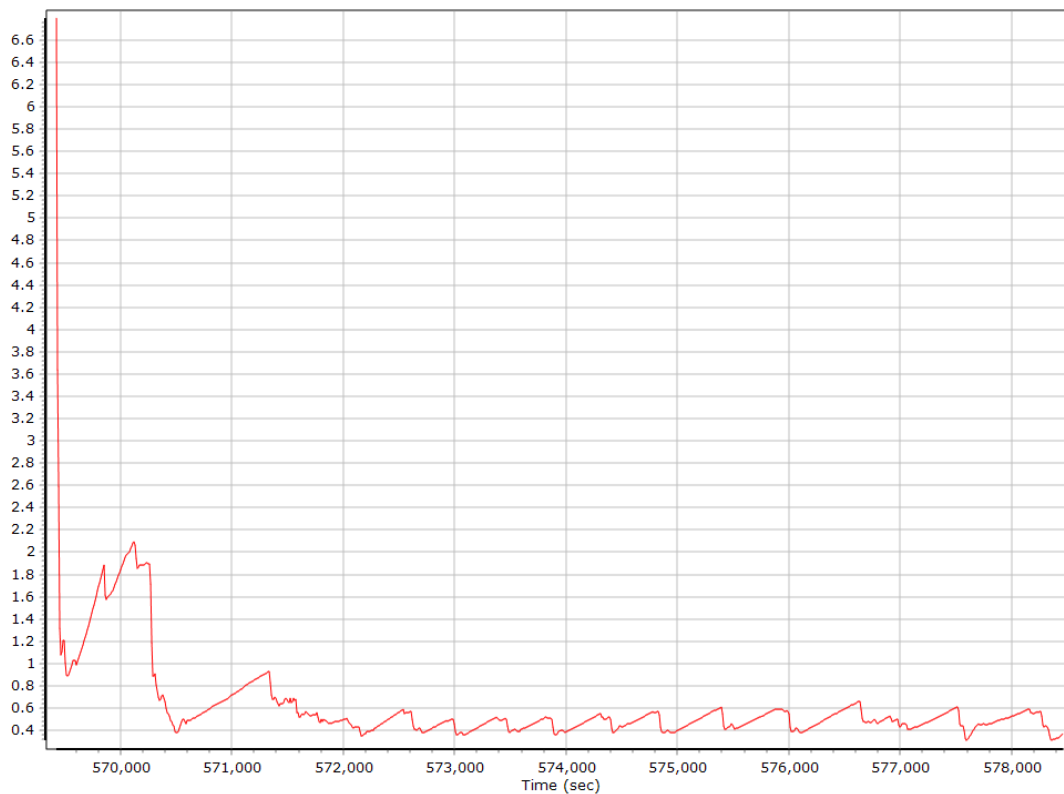


### Roll/Pitch Error RMS (arc-min)



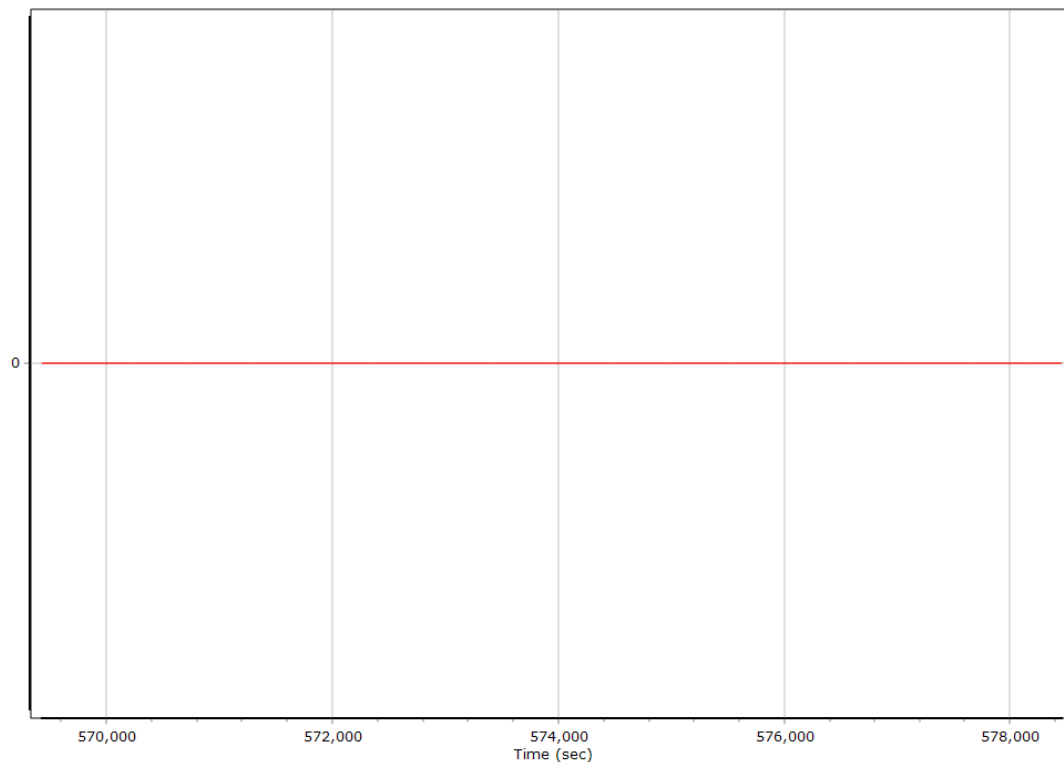


### Heading Error RMS (arc-min)



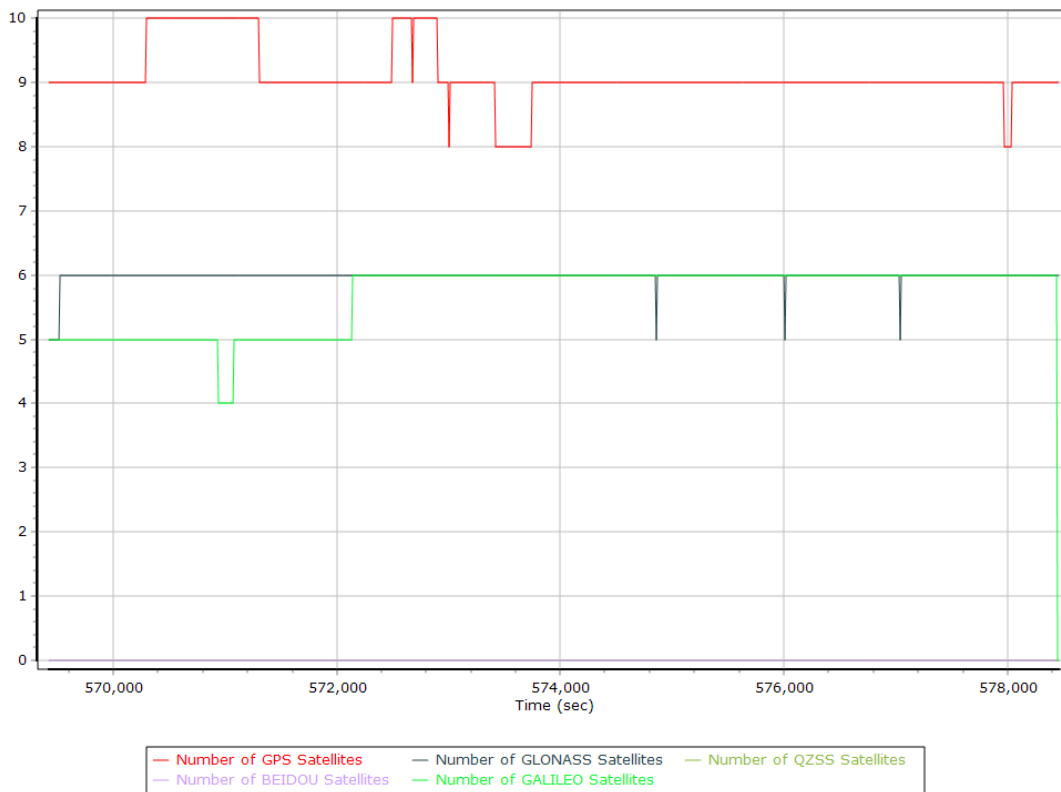
### Forward Processed Solution Status

#### Processing Mode



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



### Baseline Length

