

## General Information

### Mission Information

Project name	201206_A_5060380_nad2011_FINAL
Processing date	2020-12-07 19:49:54
Mission date	2020-12-06 13:58:03
Mission duration	05:12:53.000
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
201206a.250	POS Data
201206a.251	POS Data
201206a.252	POS Data
201206a.253	POS Data
201206a.254	POS Data
201206a.255	POS Data
201206a.256	POS Data
201206a.257	POS Data
201206a.258	POS Data
201206a.259	POS Data
201206a.260	POS Data
201206a.261	POS Data
201206a.262	POS Data
201206a.263	POS Data
201206a.264	POS Data
201206a.265	POS Data
201206a.266	POS Data
201206a.267	POS Data
201206a.268	POS Data
201206a.269	POS Data
201206a.270	POS Data
201206a.271	POS Data
201206a.272	POS Data
201206a.273	POS Data
201206a.274	POS Data
201206a.275	POS Data
201206a.276	POS Data
201206a.277	POS Data
201206a.278	POS Data

### Input Files

File Name	File Type
Ephm3410.20g	GLONASS Broadcast Ephemeris
Ephm3410.20n	GPS Broadcast Ephemeris

### Output Files

Filename	File type
sbet_201206_A_5060380_nad2011_FINAL.out	SBET Trajectory File

## Rover Data Summary

First raw data file	201206a.250		
Last raw data file	201206a.278		
Start GPS week	2135		
Start time	23.238 (12/6/2020 12:00:23 AM)		
End time	69056.445 (12/6/2020 7:10:56 PM)		
Start of fine alignment	50616.015 (12/6/2020 2:03:36 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

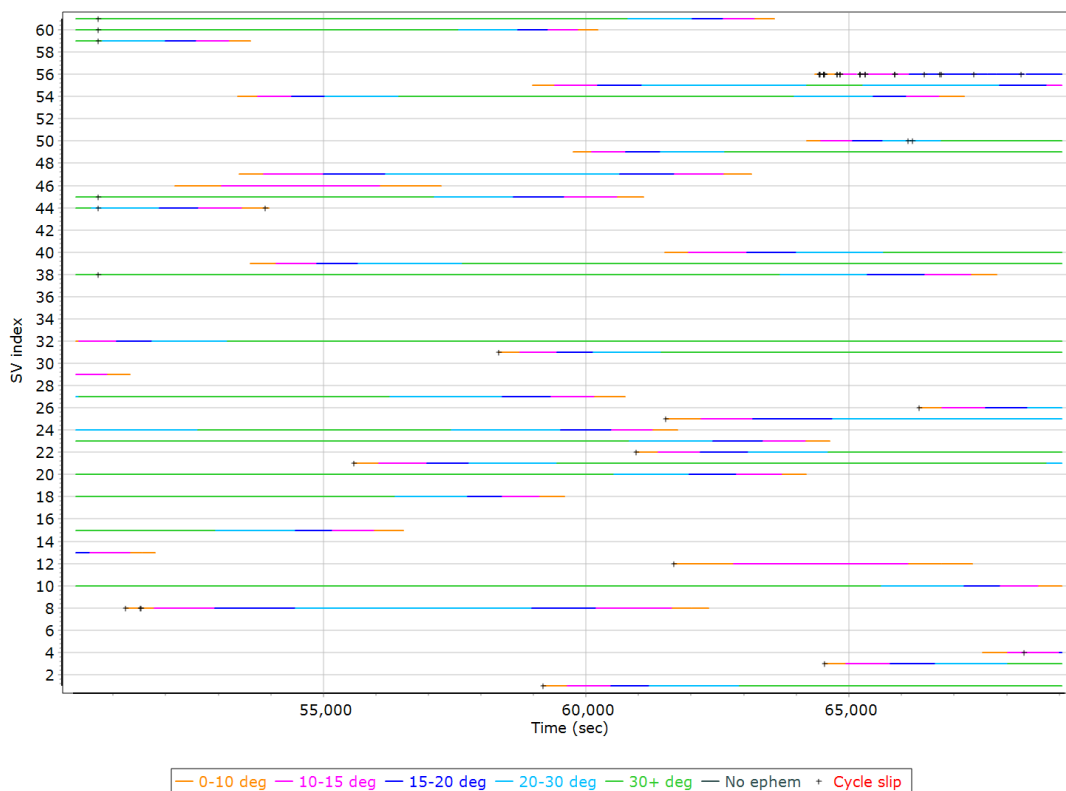
## Rover Data QC

### Raw IMU Import QC Summary

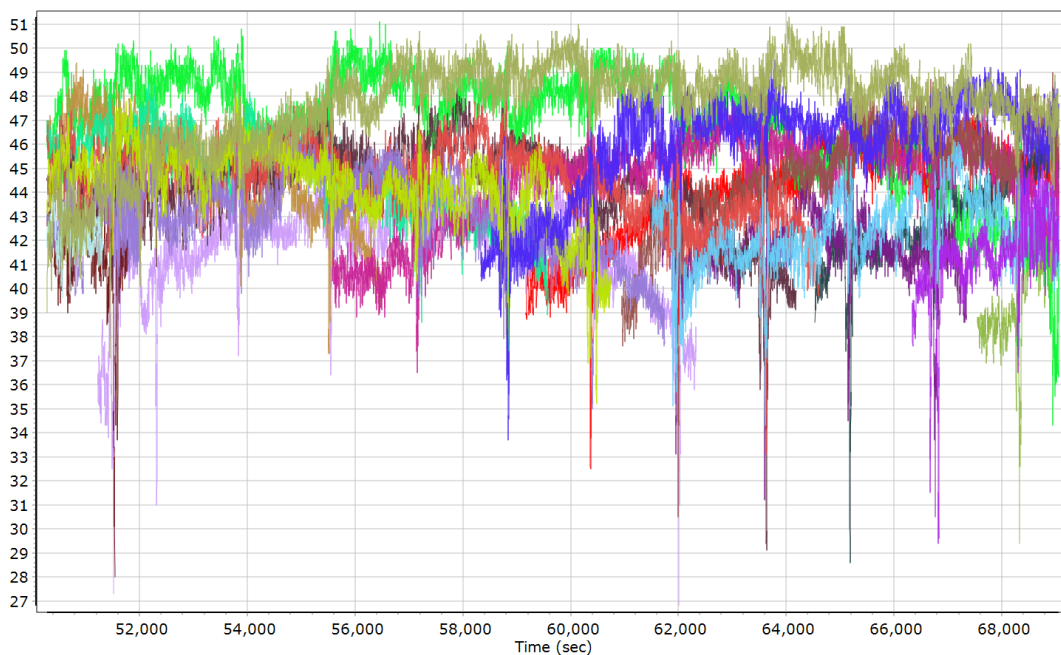
IMU data input file	imu_201206_A_5060380_nad2011_FINAL.dat
IMU data check log file	imudt_201206_A_5060380_nad2011_FINAL.log
IMU Records Processed	3754388
Termination Status	Warnings
IMU Anomalies	1
<b>IMU Failure Messages</b>	
50290.947 : WARNING : Gap of 50266.9544 seconds in CHECKDT input data	

## Primary Observables & Satellite Data

### GPS/GLONASS L1 Satellite Lock/Elevation

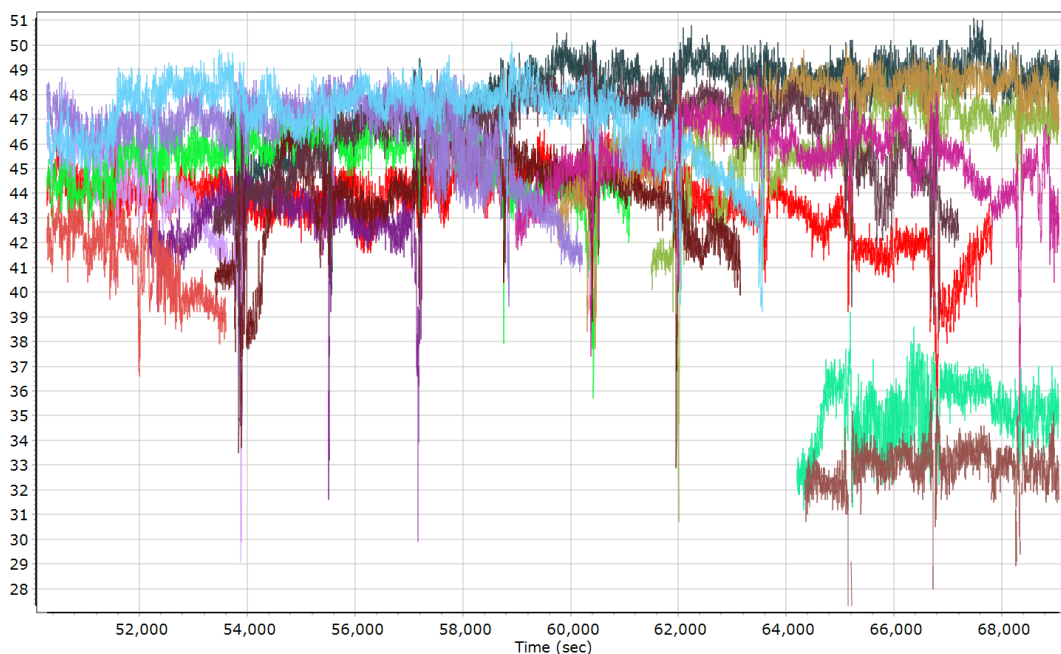


### GPS L1 SNR



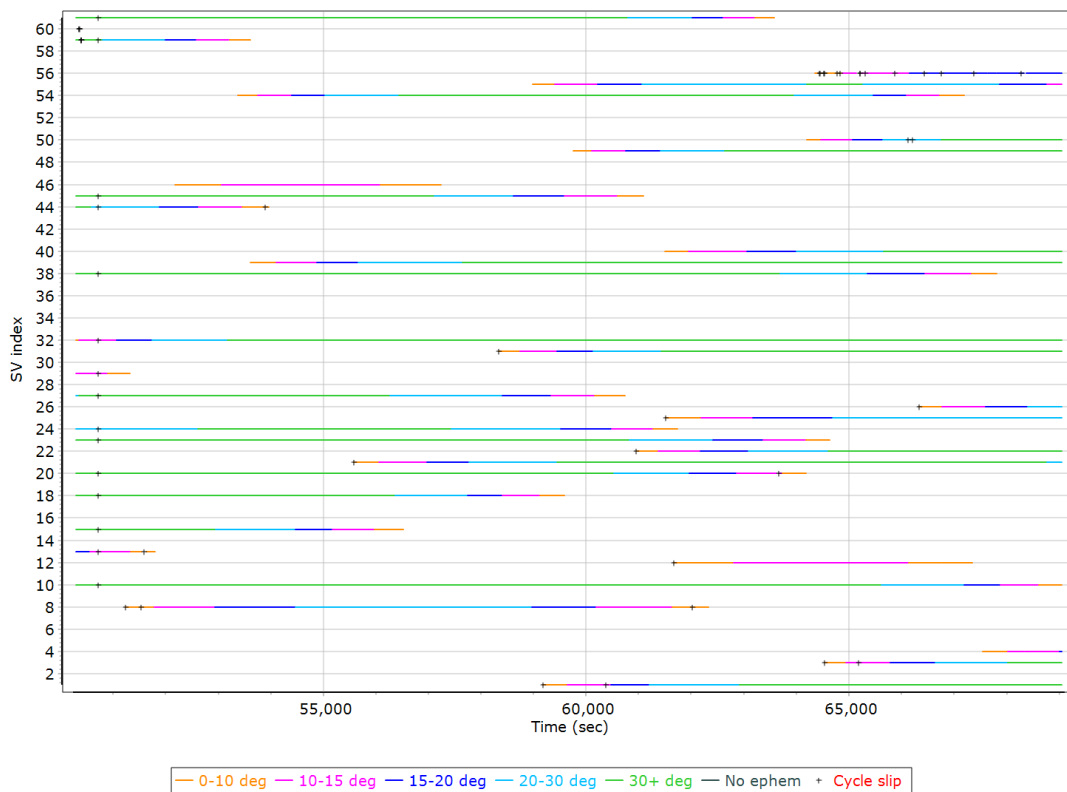
- |                           |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|---------------------------|
| GPS PRN 01 L1 SNR (dB/Hz) | GPS PRN 03 L1 SNR (dB/Hz) | GPS PRN 04 L1 SNR (dB/Hz) | GPS PRN 08 L1 SNR (dB/Hz) |
| GPS PRN 10 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 18 L1 SNR (dB/Hz) | GPS PRN 20 L1 SNR (dB/Hz) | GPS PRN 21 L1 SNR (dB/Hz) | GPS PRN 22 L1 SNR (dB/Hz) |
| GPS PRN 23 L1 SNR (dB/Hz) | GPS PRN 24 L1 SNR (dB/Hz) | GPS PRN 25 L1 SNR (dB/Hz) | GPS PRN 26 L1 SNR (dB/Hz) |
| GPS PRN 27 L1 SNR (dB/Hz) | GPS PRN 29 L1 SNR (dB/Hz) | GPS PRN 31 L1 SNR (dB/Hz) | GPS PRN 32 L1 SNR (dB/Hz) |

### GLONASS L1 SNR

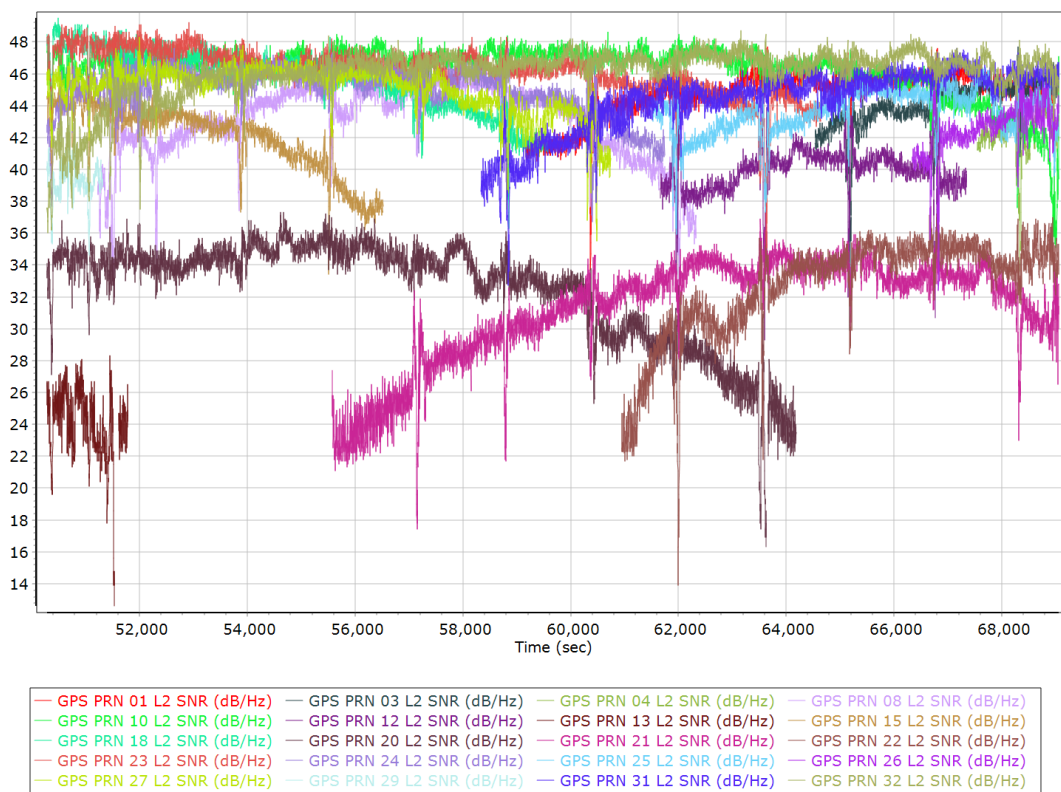


- |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| GLONASS 01 L1 SNR (dB/Hz) | GLONASS 02 L1 SNR (dB/Hz) | GLONASS 03 L1 SNR (dB/Hz) |
| GLONASS 07 L1 SNR (dB/Hz) | GLONASS 08 L1 SNR (dB/Hz) | GLONASS 09 L1 SNR (dB/Hz) |
| GLONASS 10 L1 SNR (dB/Hz) | GLONASS 12 L1 SNR (dB/Hz) | GLONASS 13 L1 SNR (dB/Hz) |
| GLONASS 17 L1 SNR (dB/Hz) | GLONASS 18 L1 SNR (dB/Hz) | GLONASS 19 L1 SNR (dB/Hz) |
| GLONASS 22 L1 SNR (dB/Hz) | GLONASS 23 L1 SNR (dB/Hz) | GLONASS 24 L1 SNR (dB/Hz) |

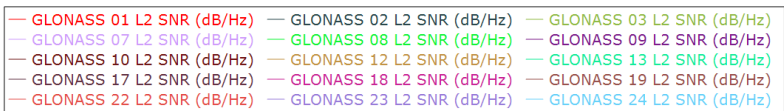
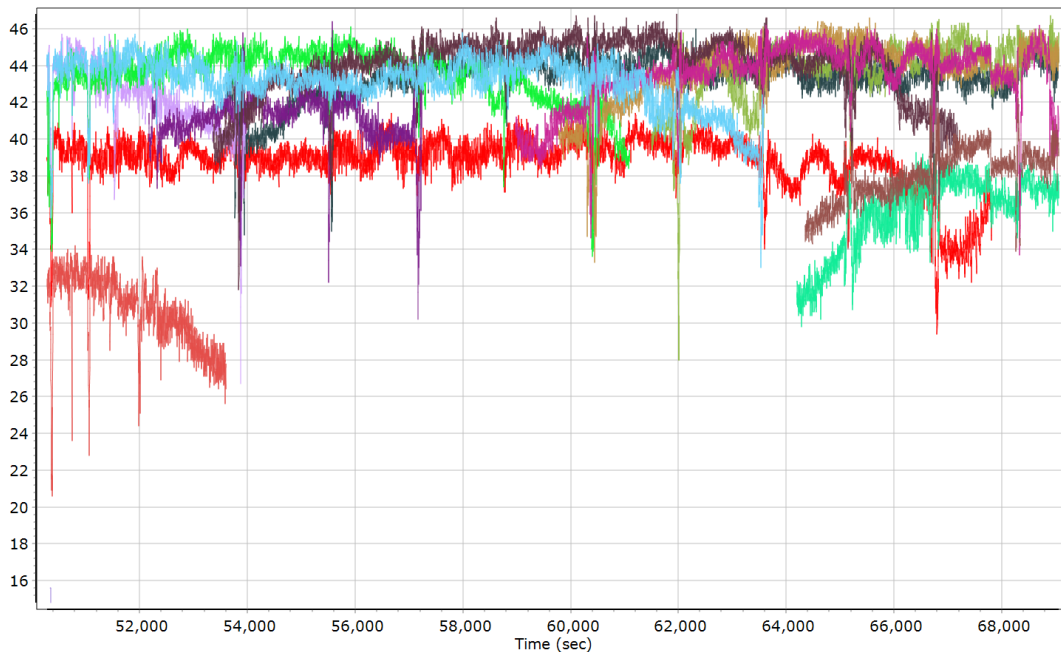
### GPS/GLONASS L2 Satellite Lock/Elevation



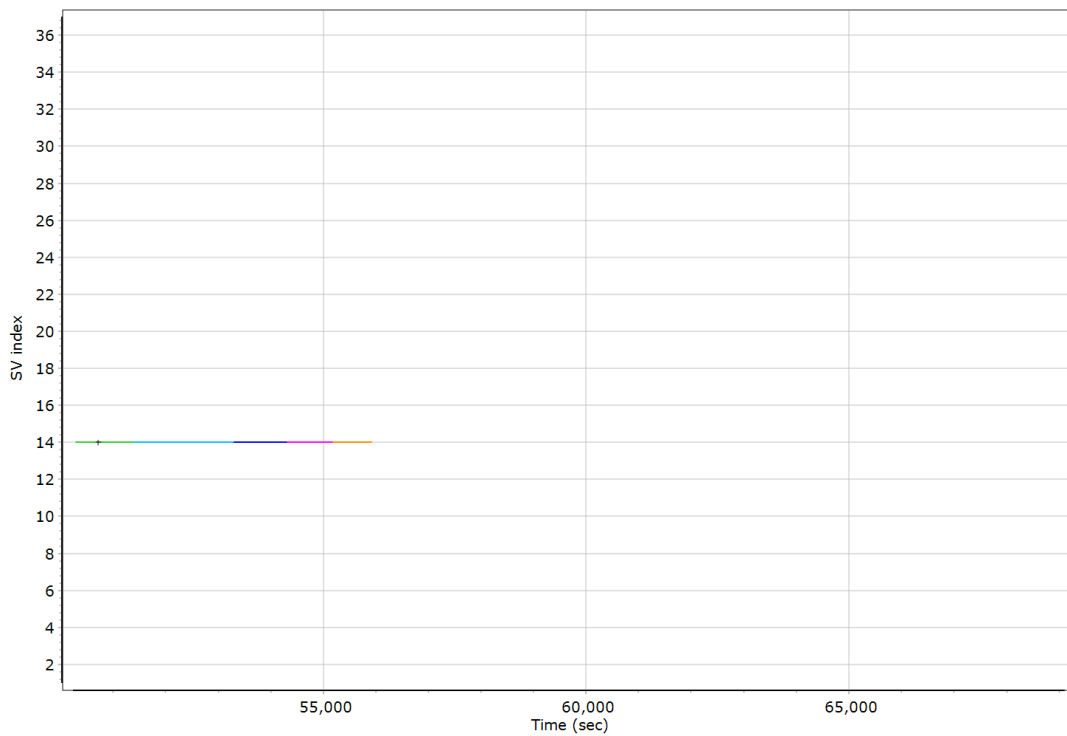
### GPS L2 SNR



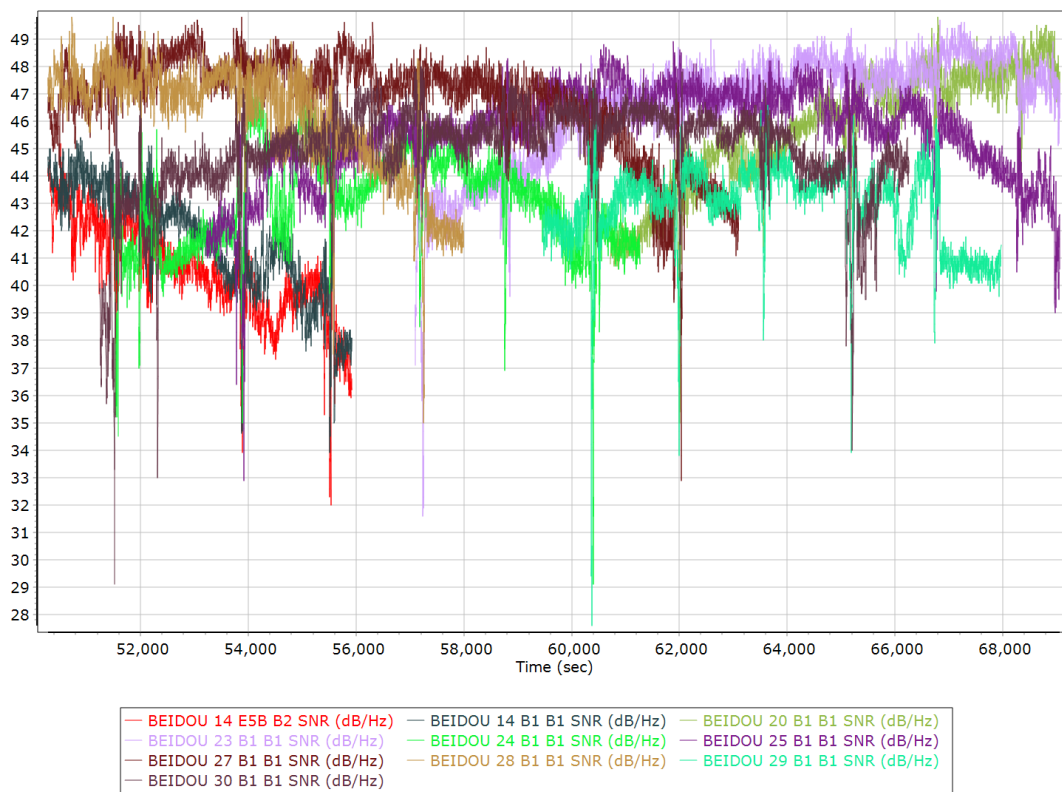
### GLONASS L2 SNR



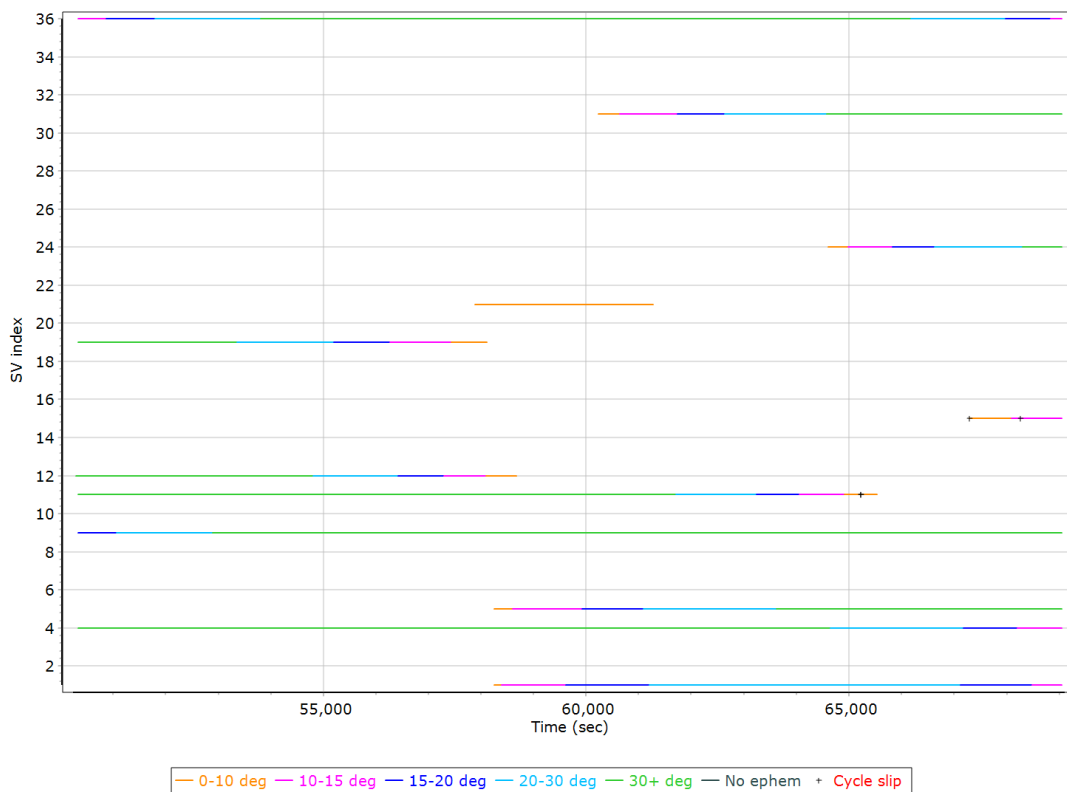
### BEIDOU Satellite Lock/Elevation



### BEIDOU SNR

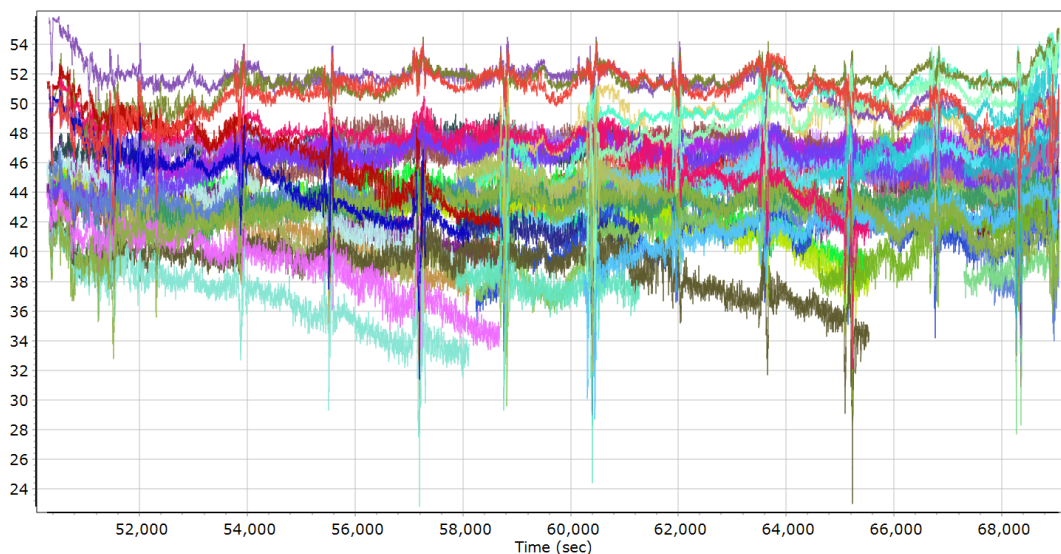


### GALILEO Satellite Lock/Elevation





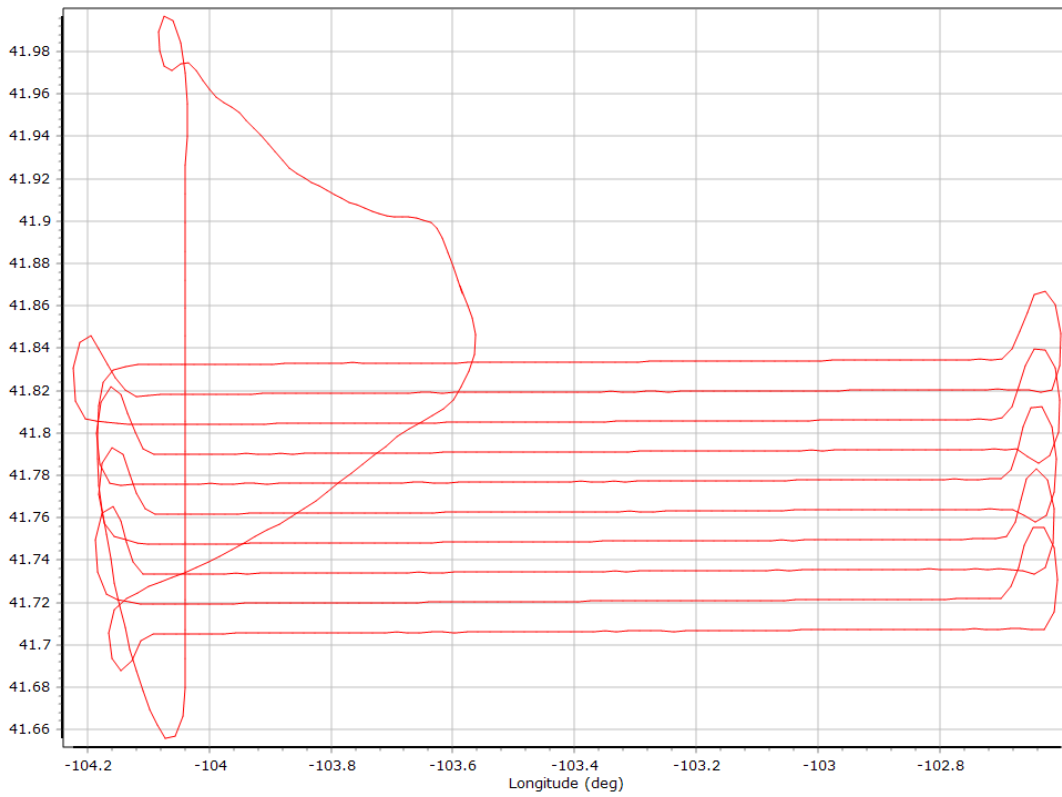
## GALILEO SNR



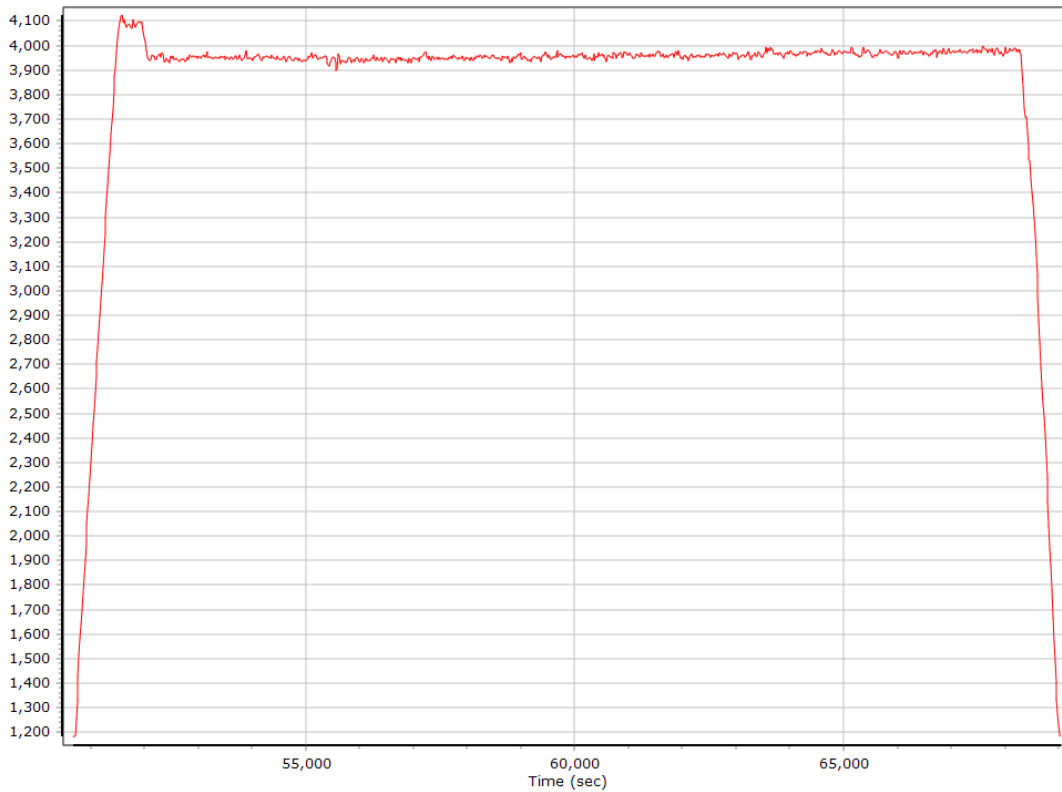
- |   |   |
|---|---|
| — GALILEO 01 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 04 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 05 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 09 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 15 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 19 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 21 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 24 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 31 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 36 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 01 L5E5A BPSK10_PD SNR (dB/Hz)    | — GALILEO 04 L5E5A BPSK10_PD SNR (dB/Hz)    |
| — GALILEO 05 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 15 L5E5A BPSK10_PD SNR (dB/Hz)    | — GALILEO 19 L5E5A BPSK10_PD SNR (dB/Hz)    |

## Smoothed Trajectory Information

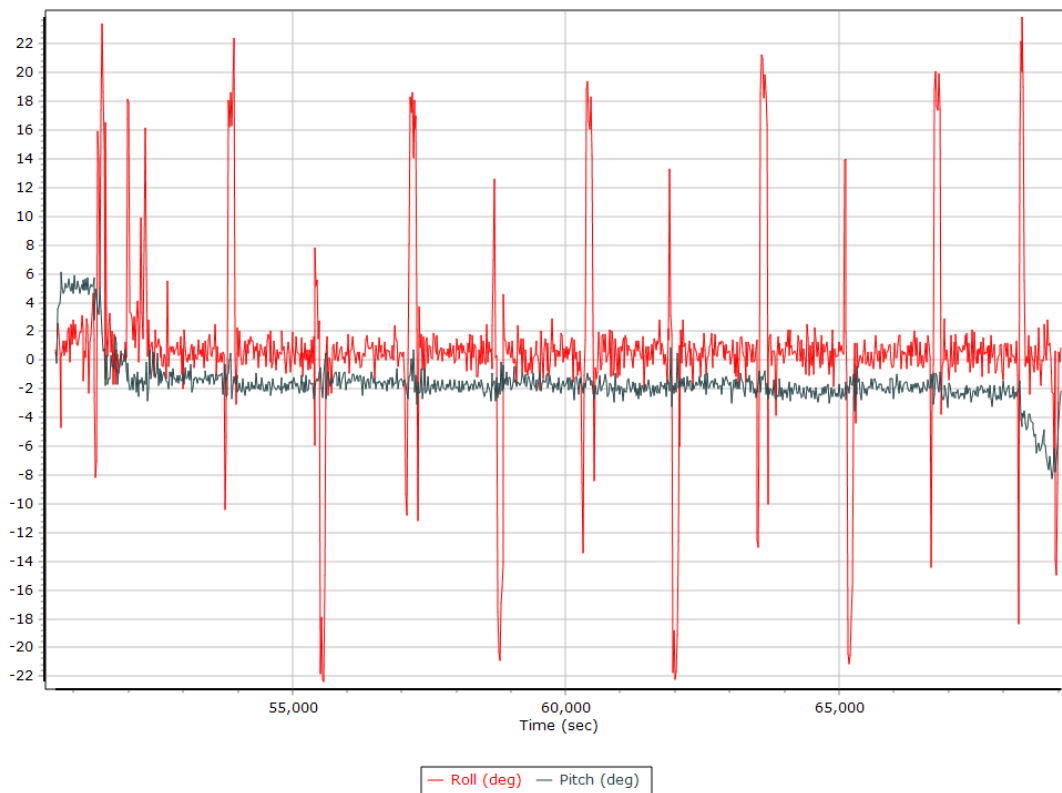
### Top View



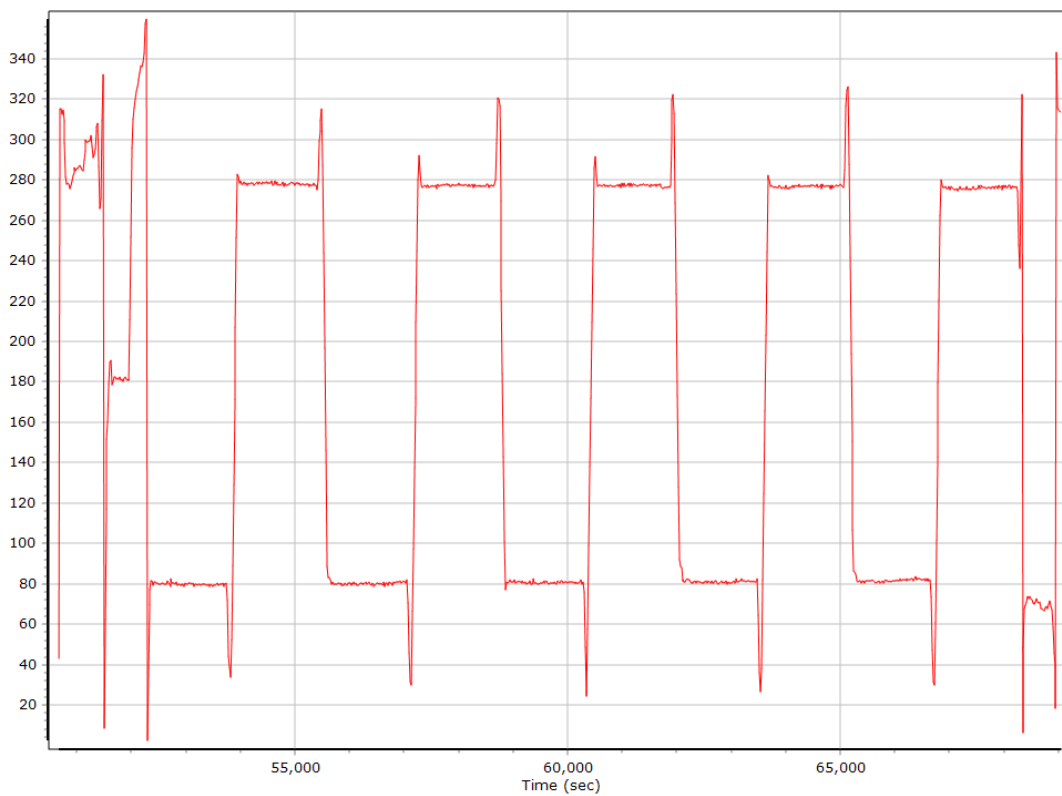
### Altitude



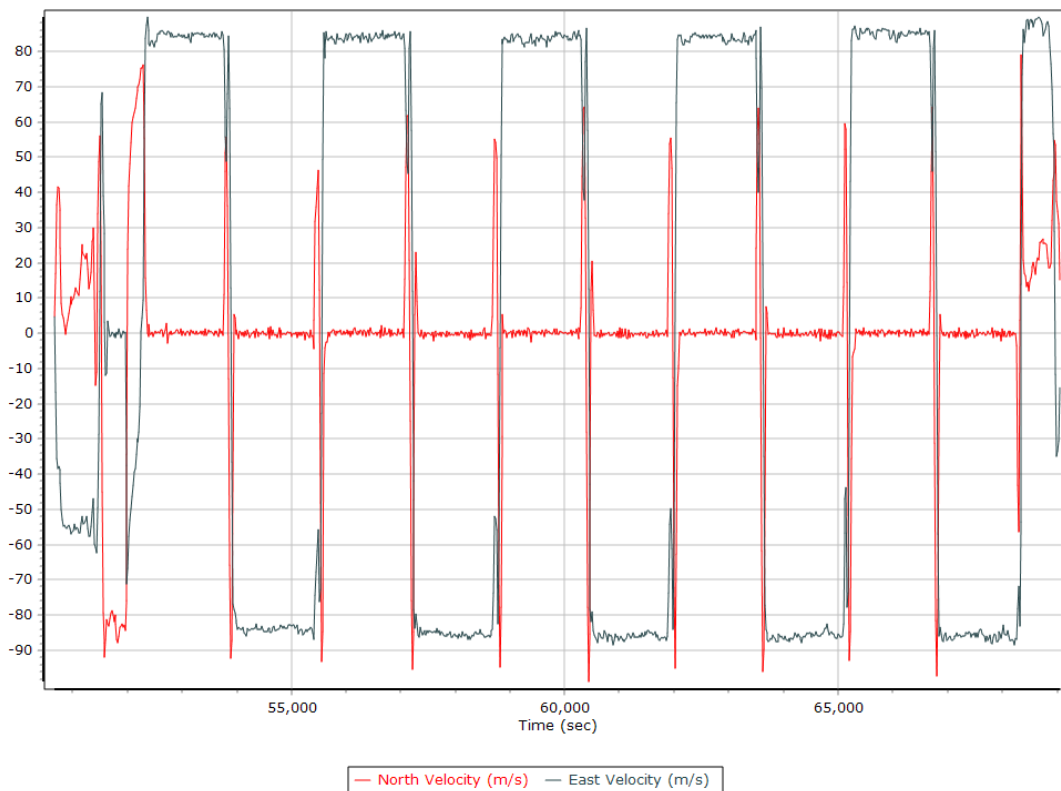
## Roll/Pitch



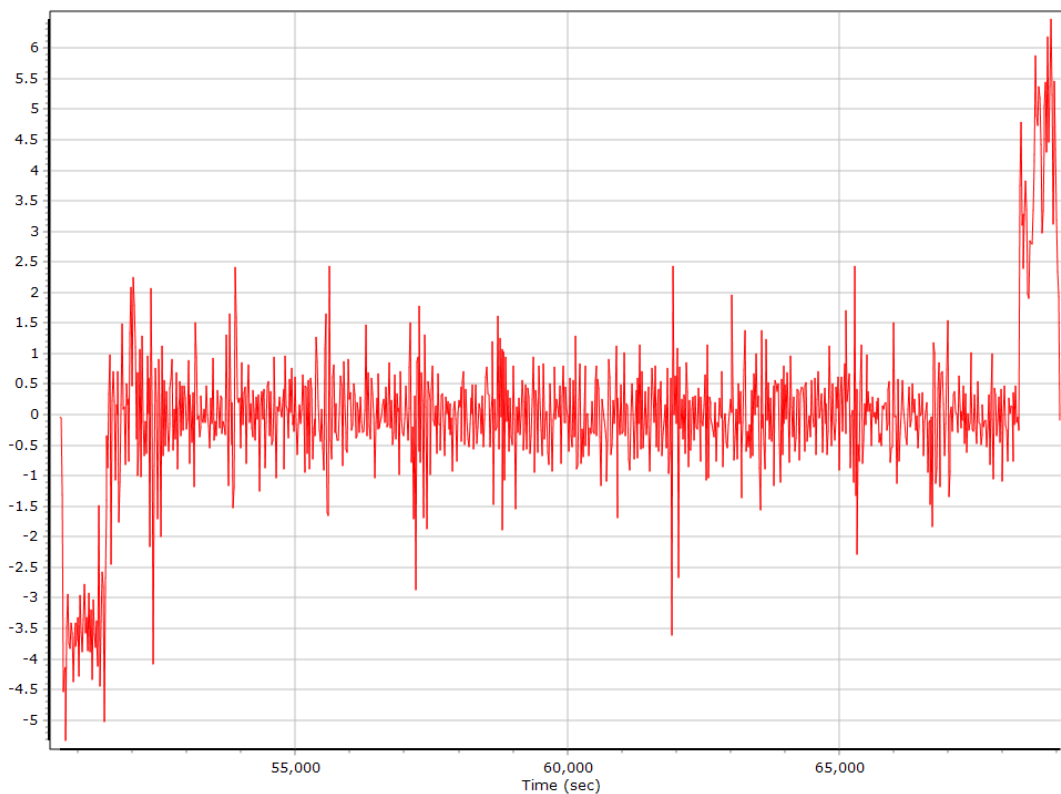
## Heading



### North/East Velocity



### Down Velocity



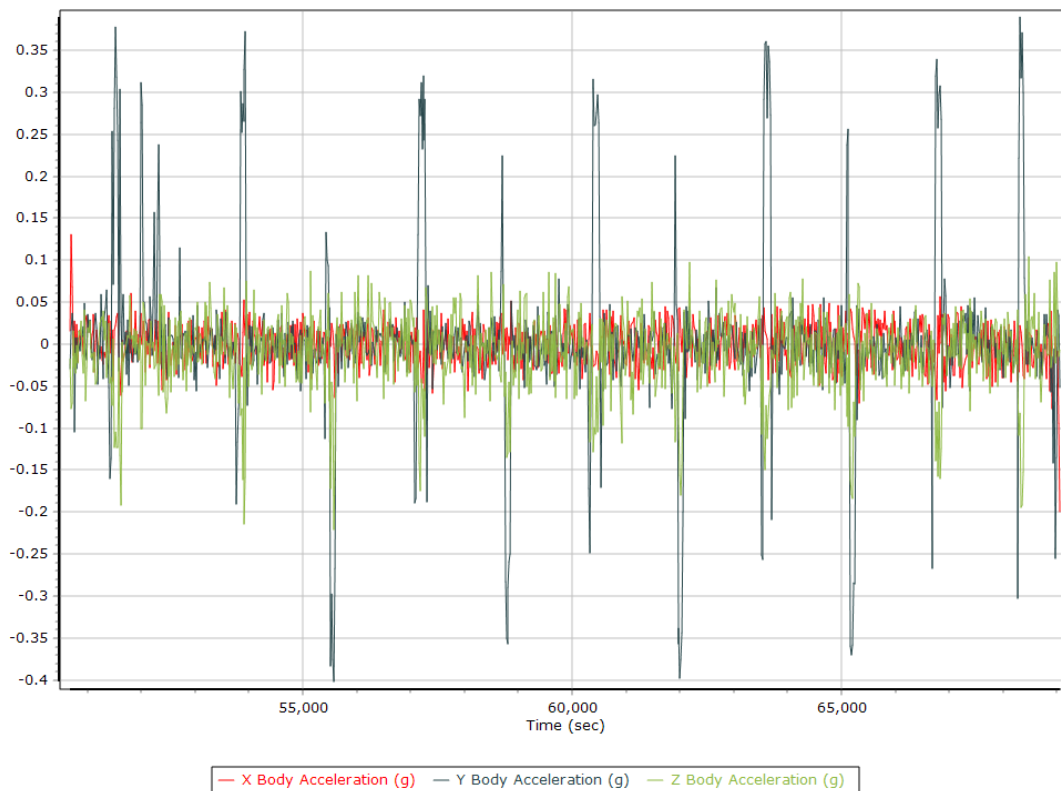
### Total Speed



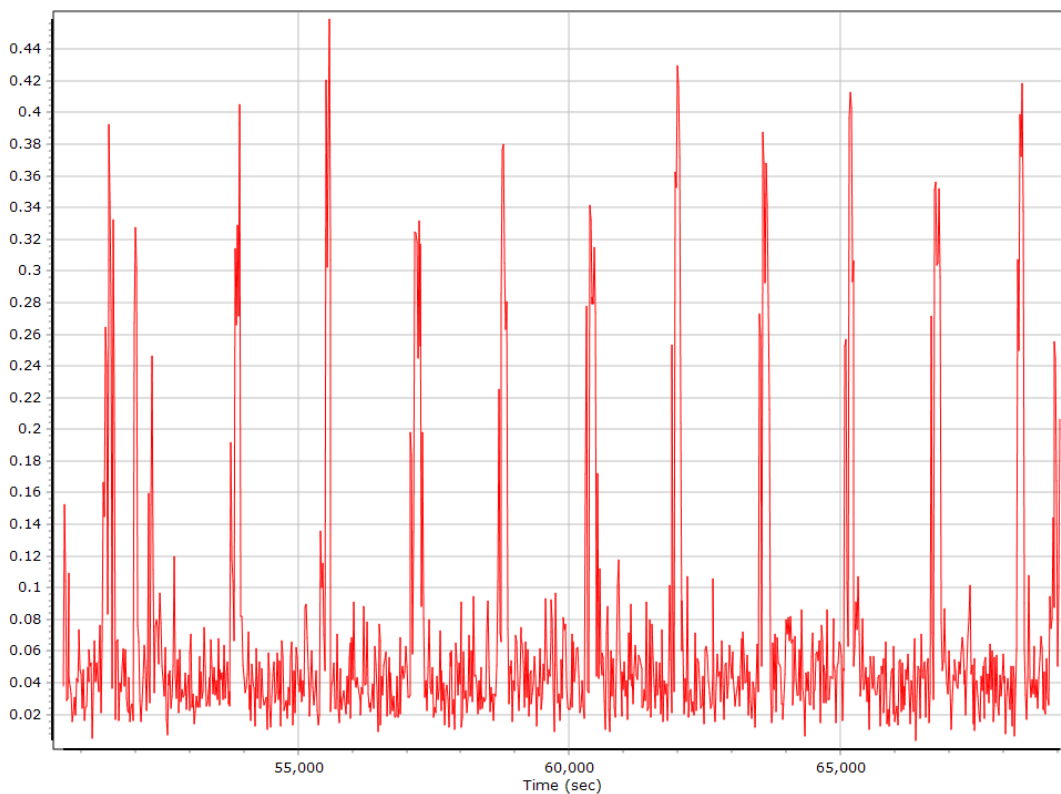
### Ground Speed



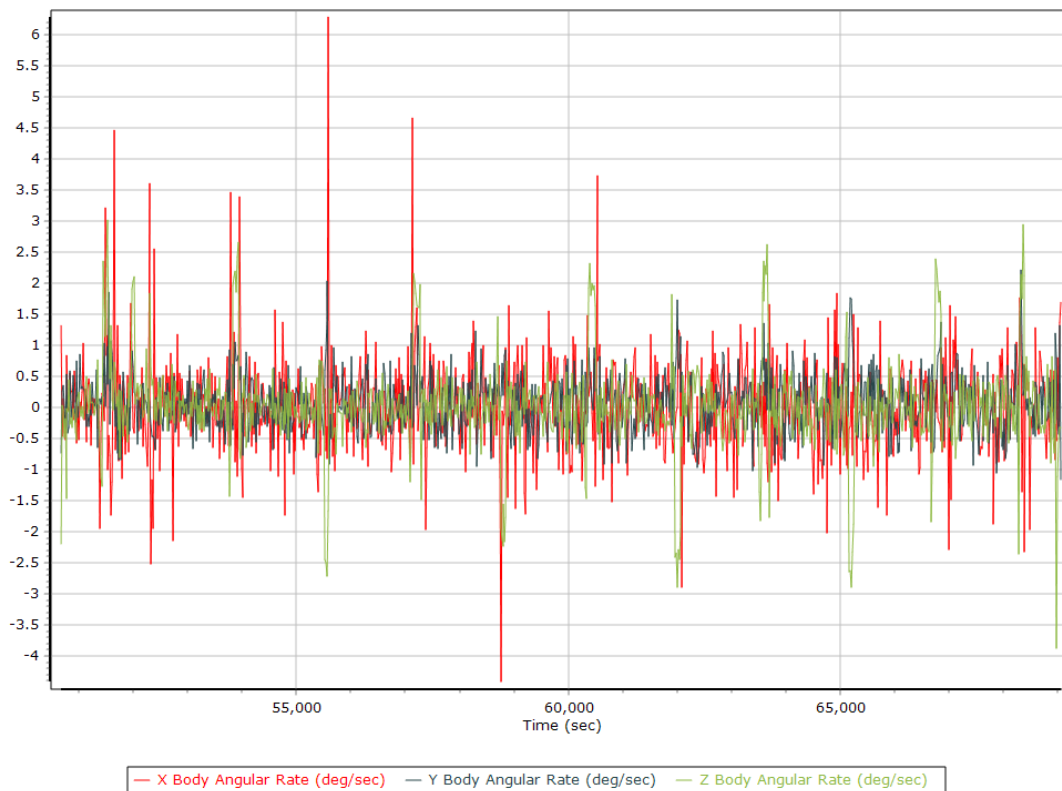
## Body Acceleration



## Total Body Acceleration

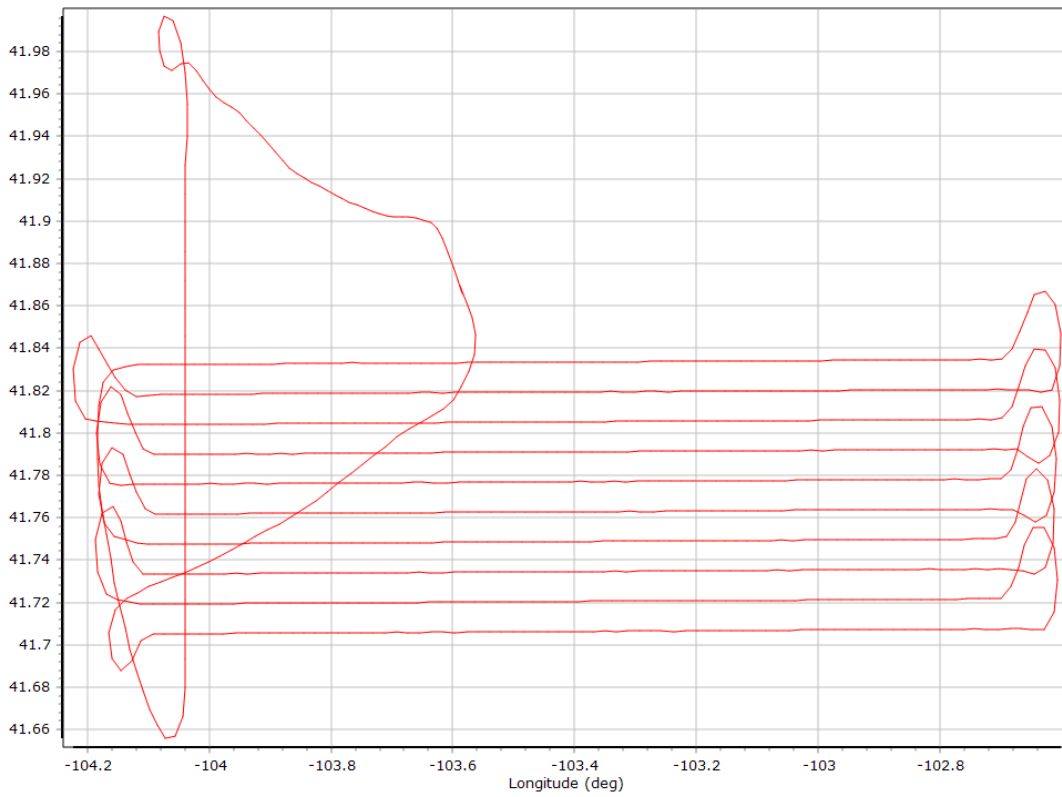


## Body Angular Rate

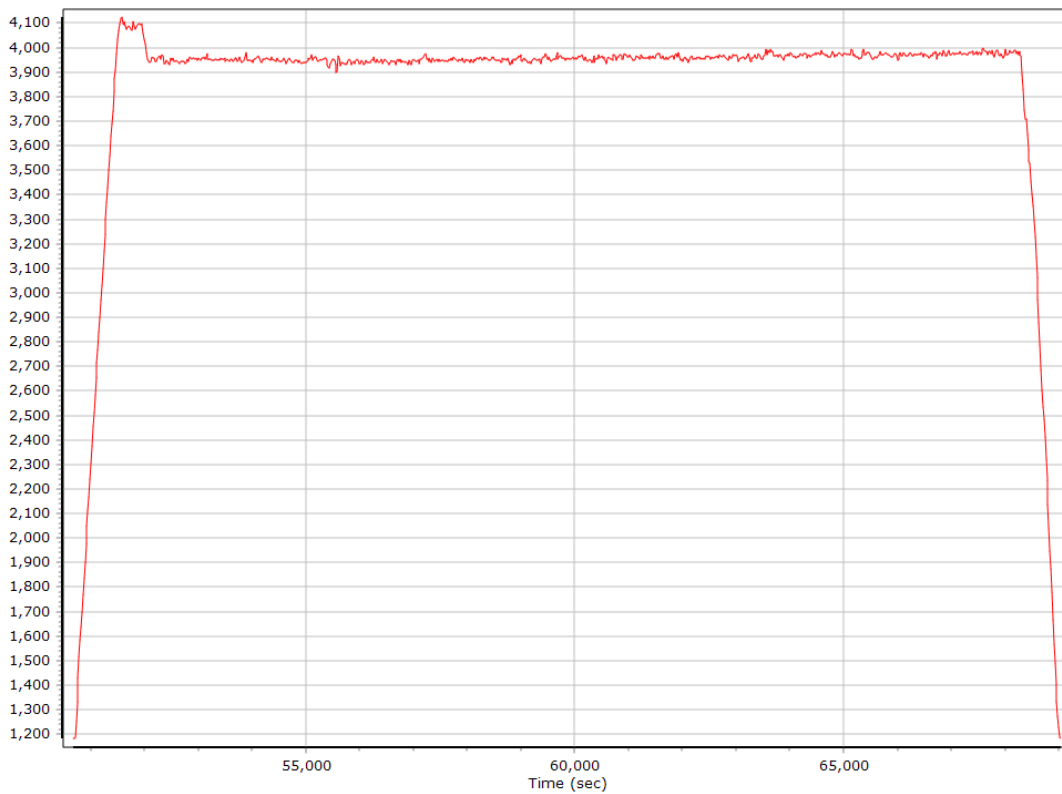


## Forward Processed Trajectory Information

### Top View

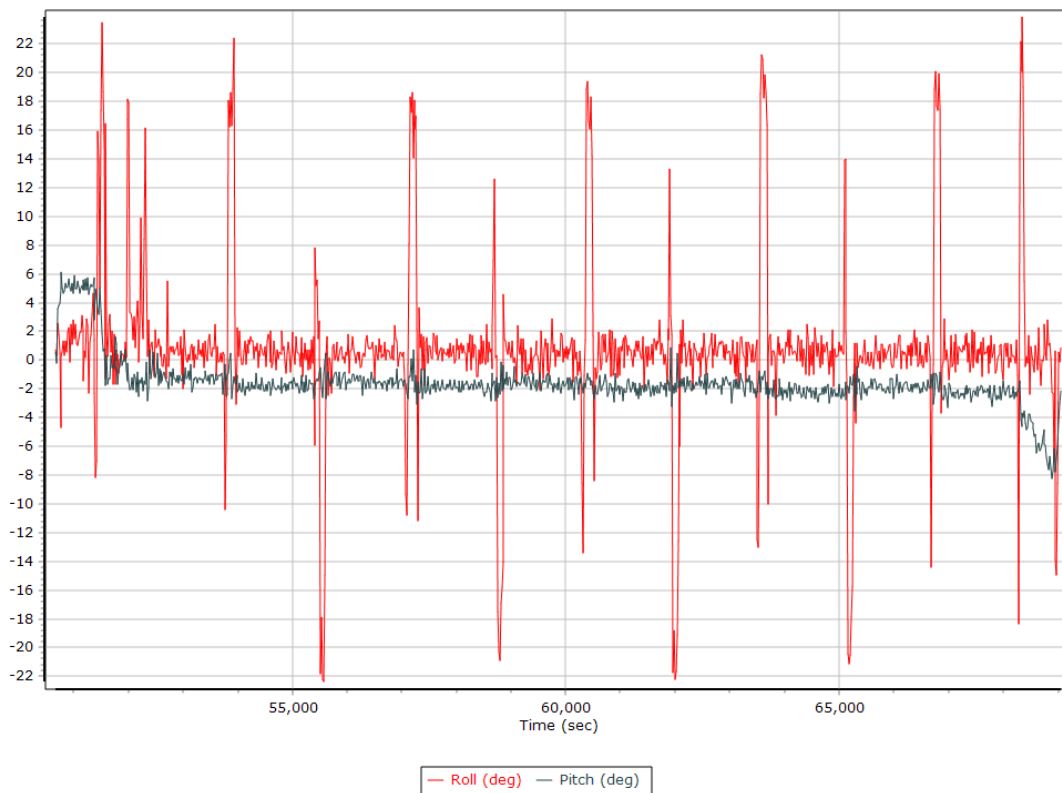


### Altitude

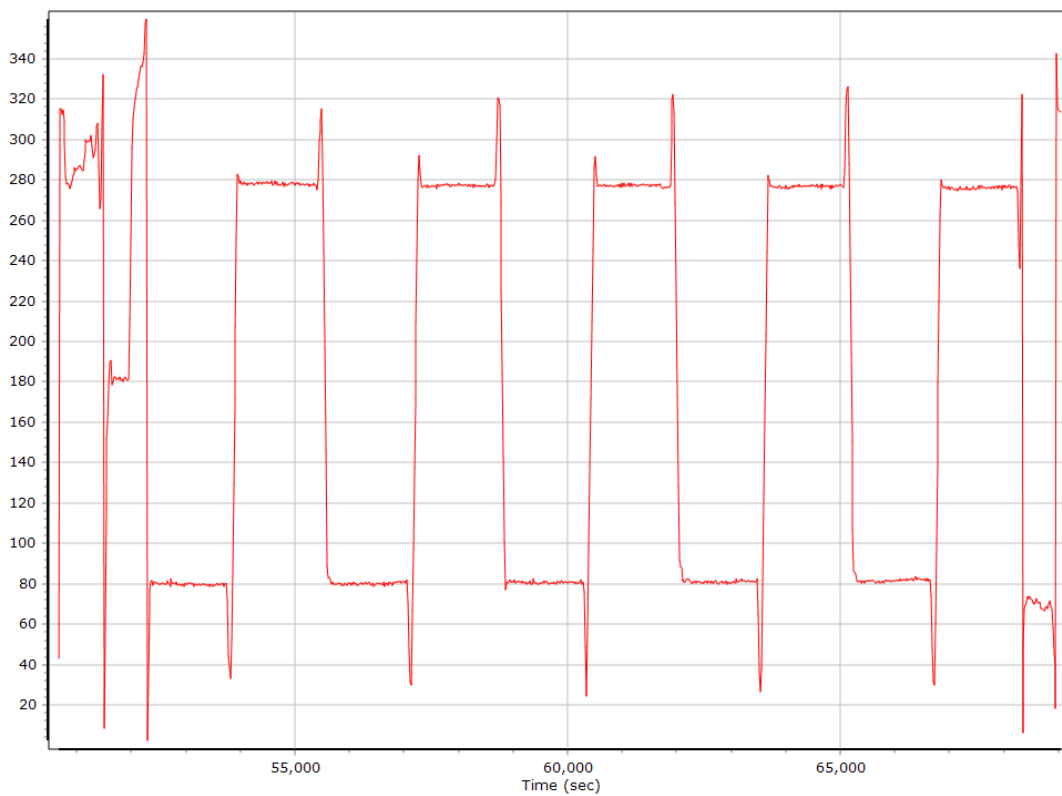




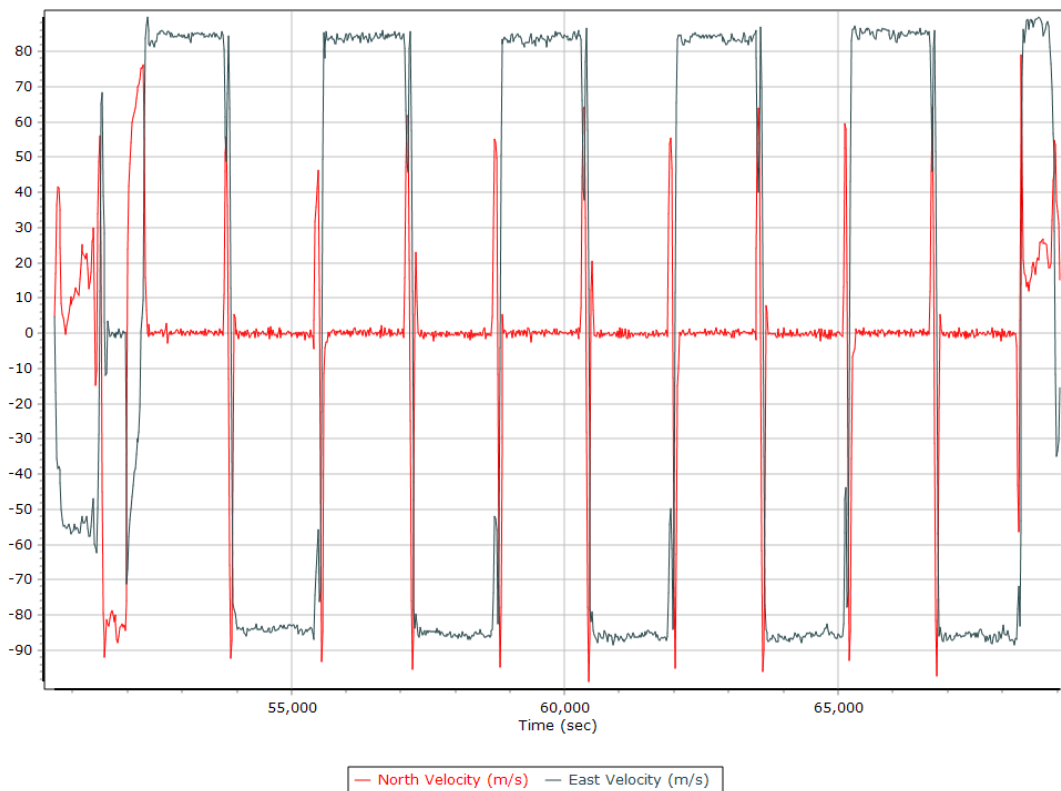
## Roll/Pitch



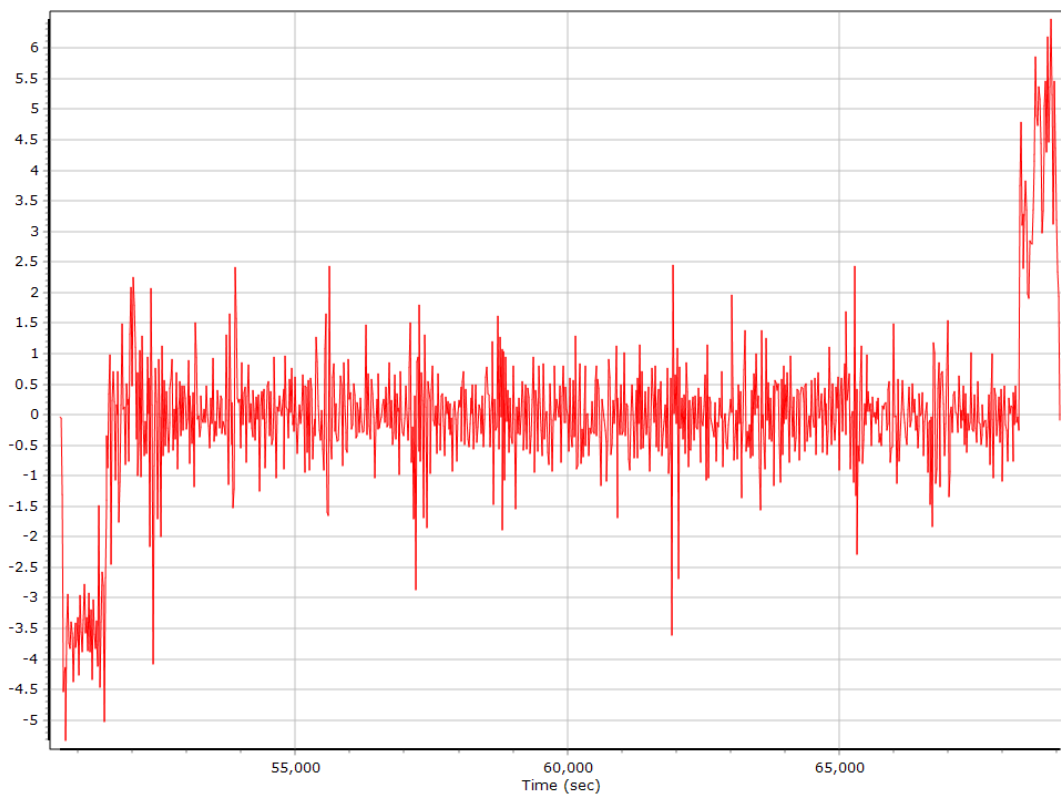
## Heading



### North/East Velocity



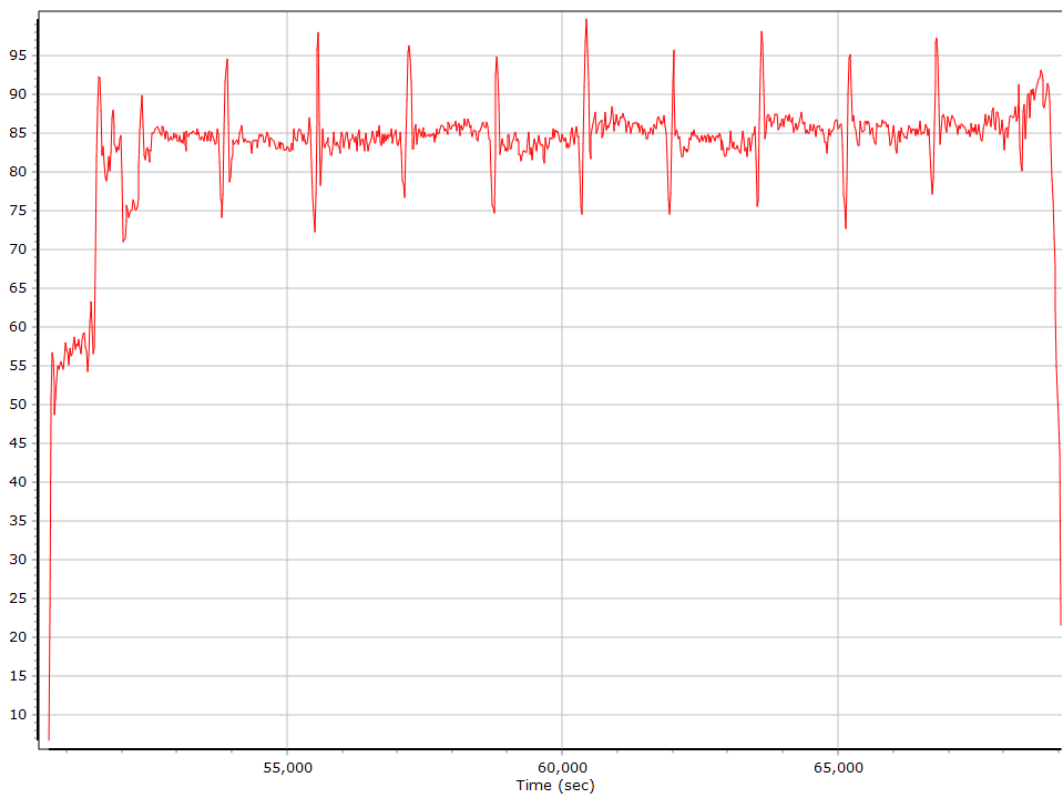
### Down Velocity



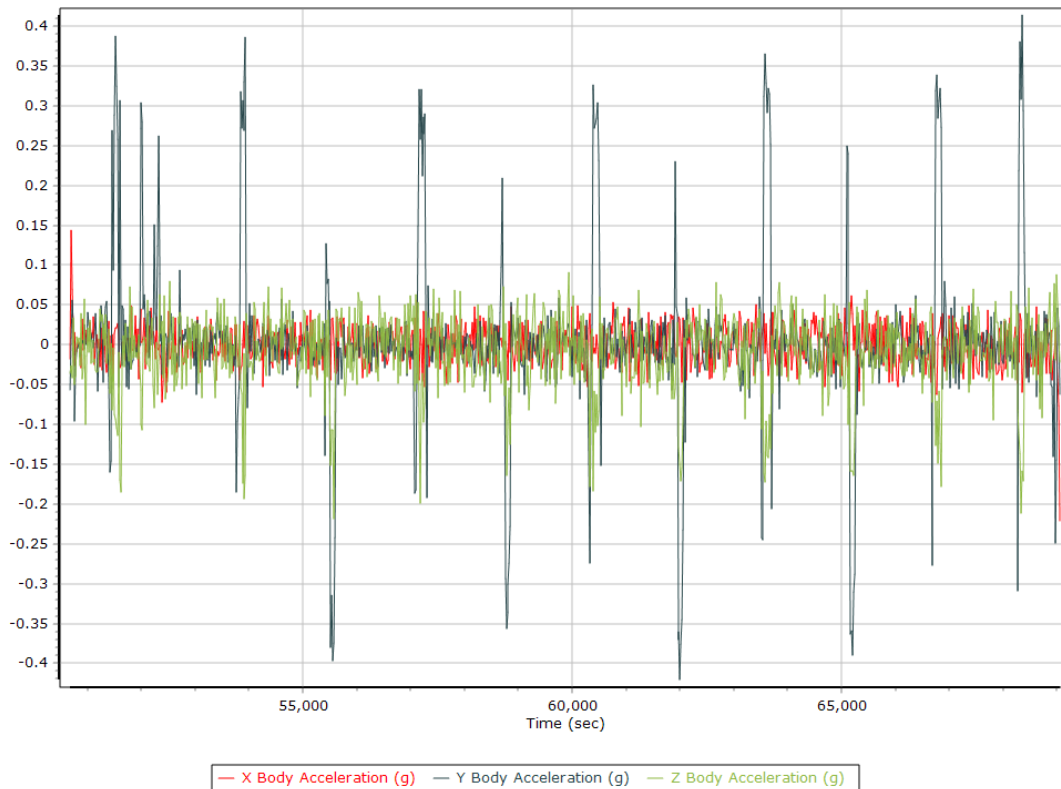
### Total Speed



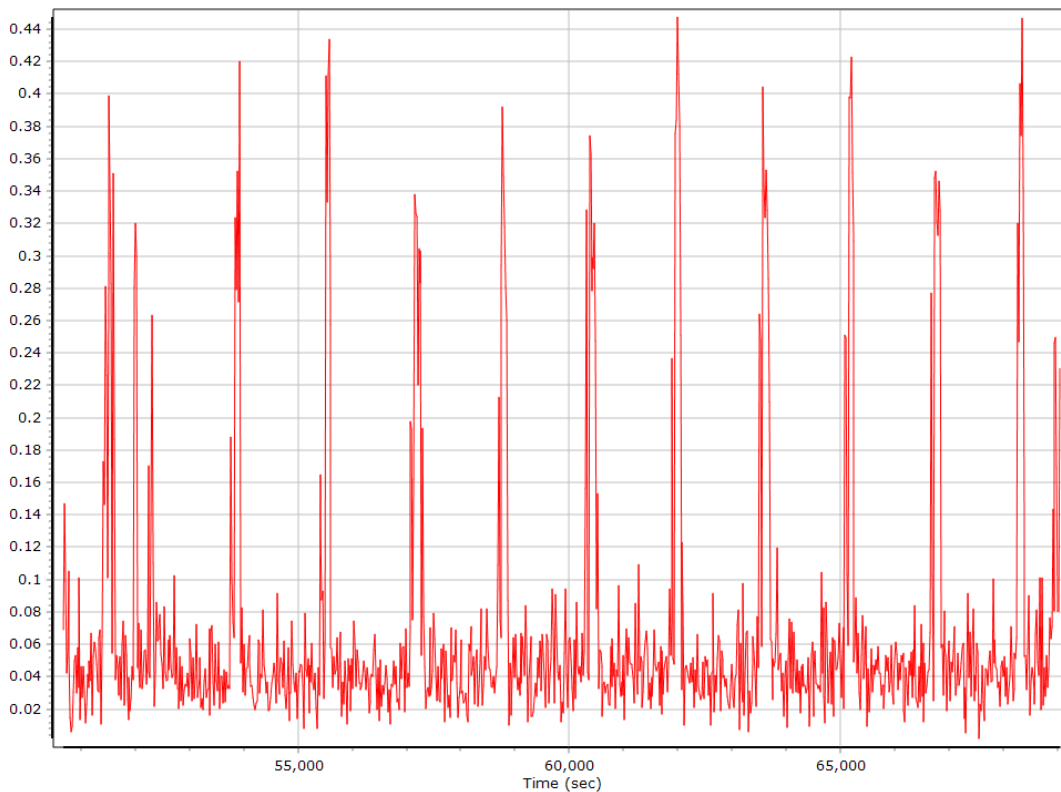
### Ground Speed



### Body Acceleration



### Total Body Acceleration



## Body Angular Rate

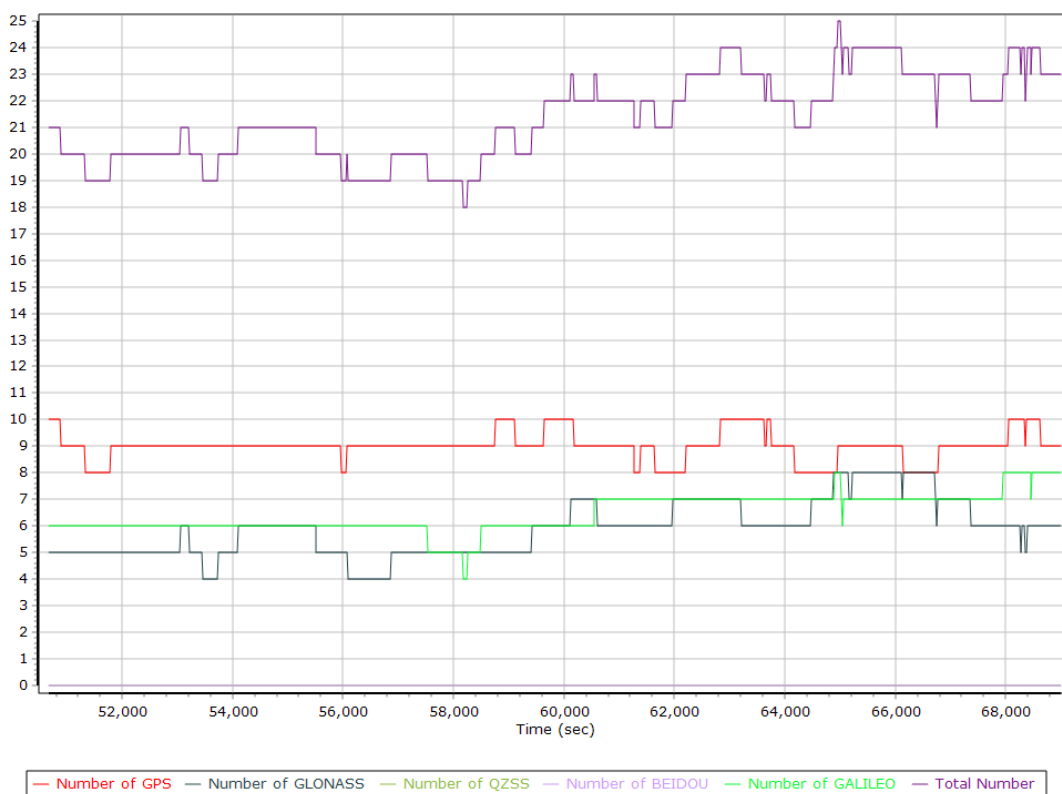


## GNSS QC

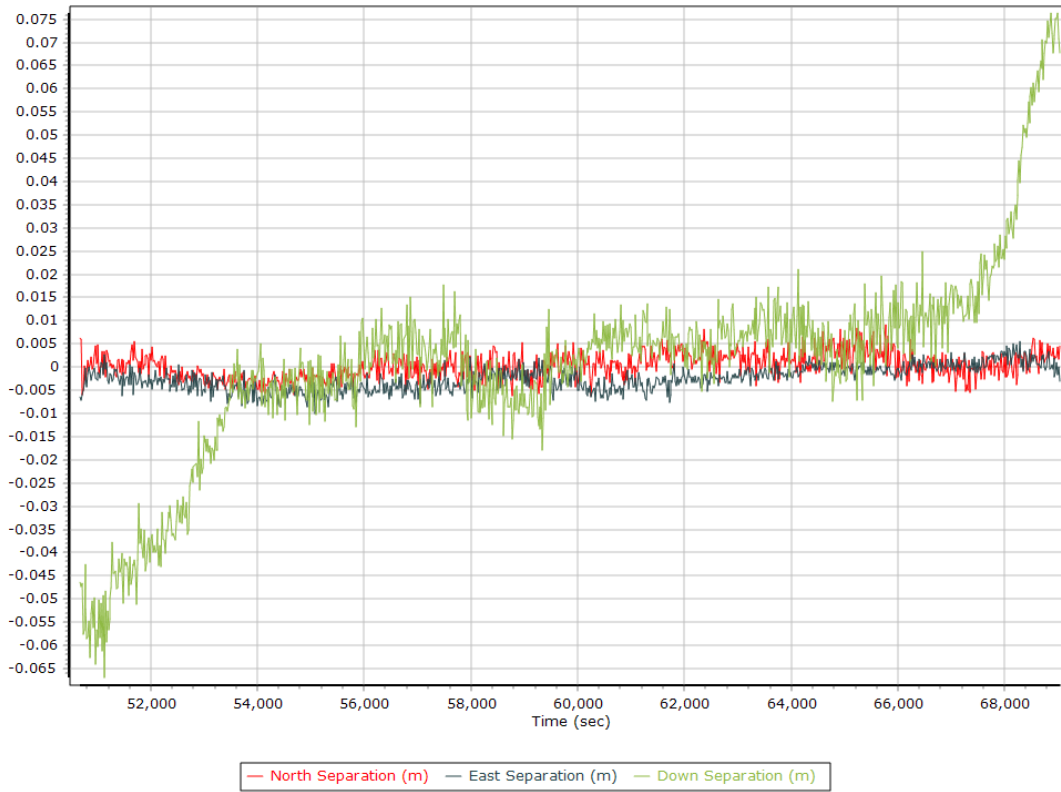
### GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	8	10	9
Number of GLONASS SV	0	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	0	8	6
Total number of SV	14	25	21
PDOP	0.99	1.44	1.13
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	18711.00	0.00	1.00
Percentage	99.99	0.00	0.01

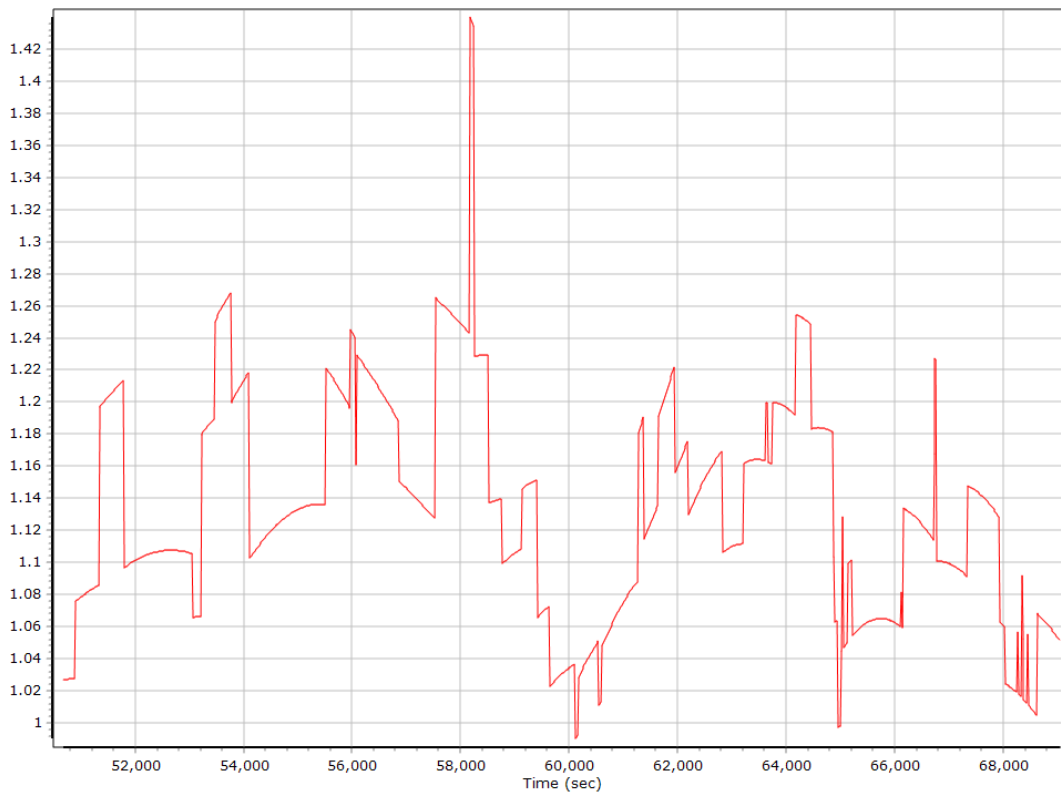
### Num SVs in solution



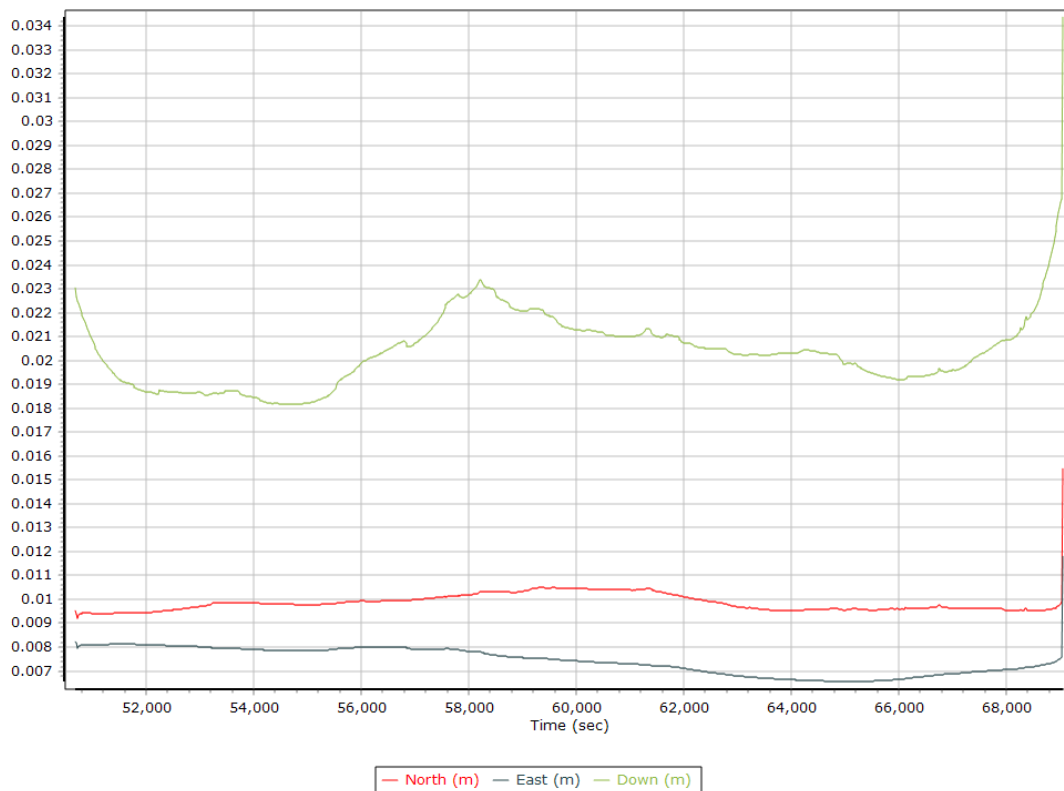
## Forward/Reverse Separation



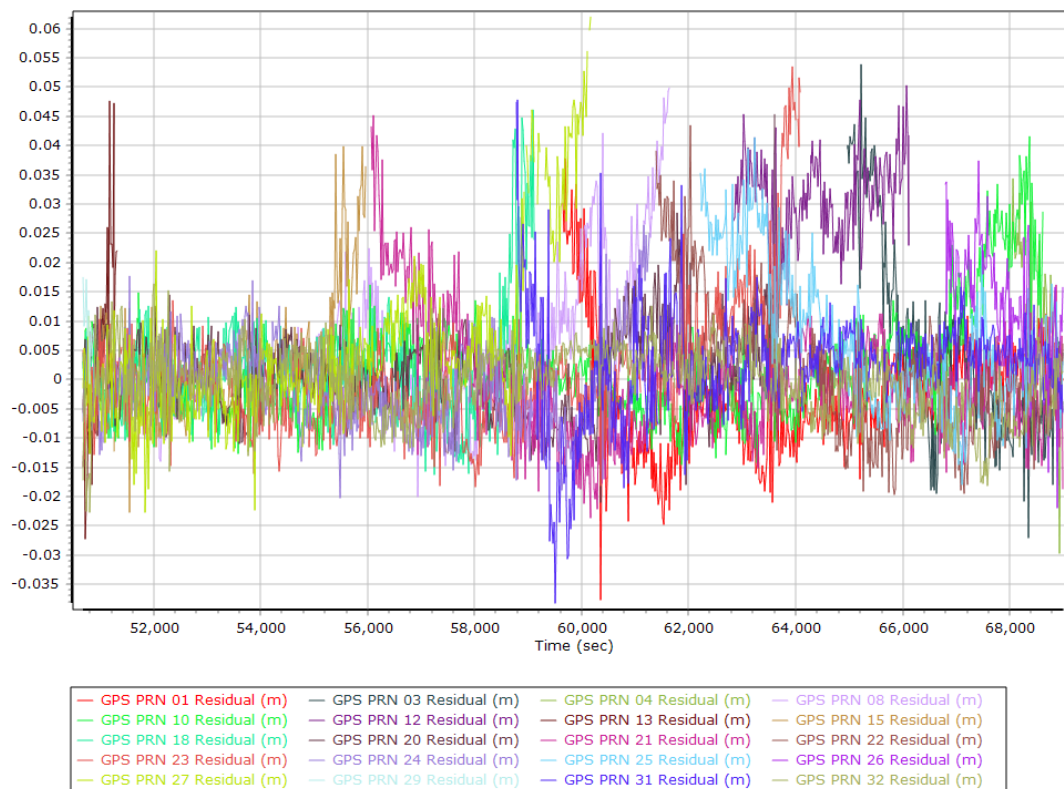
## PDOP



## Estimated Position Accuracy

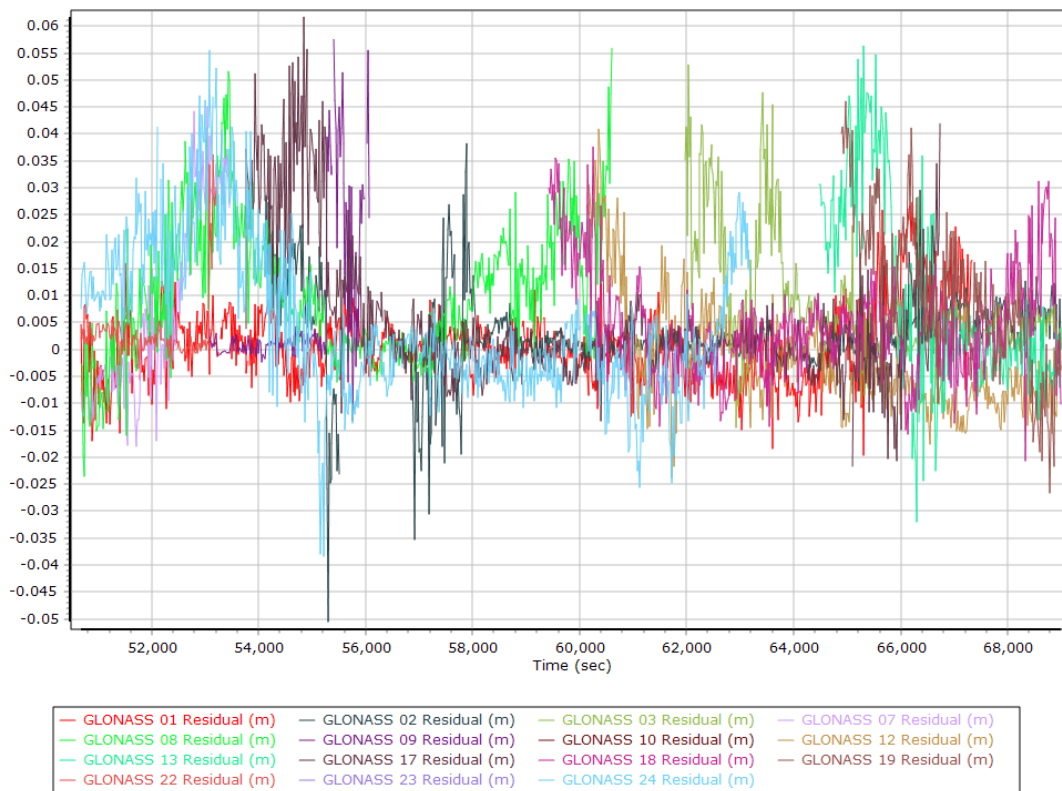


## GPS Residuals

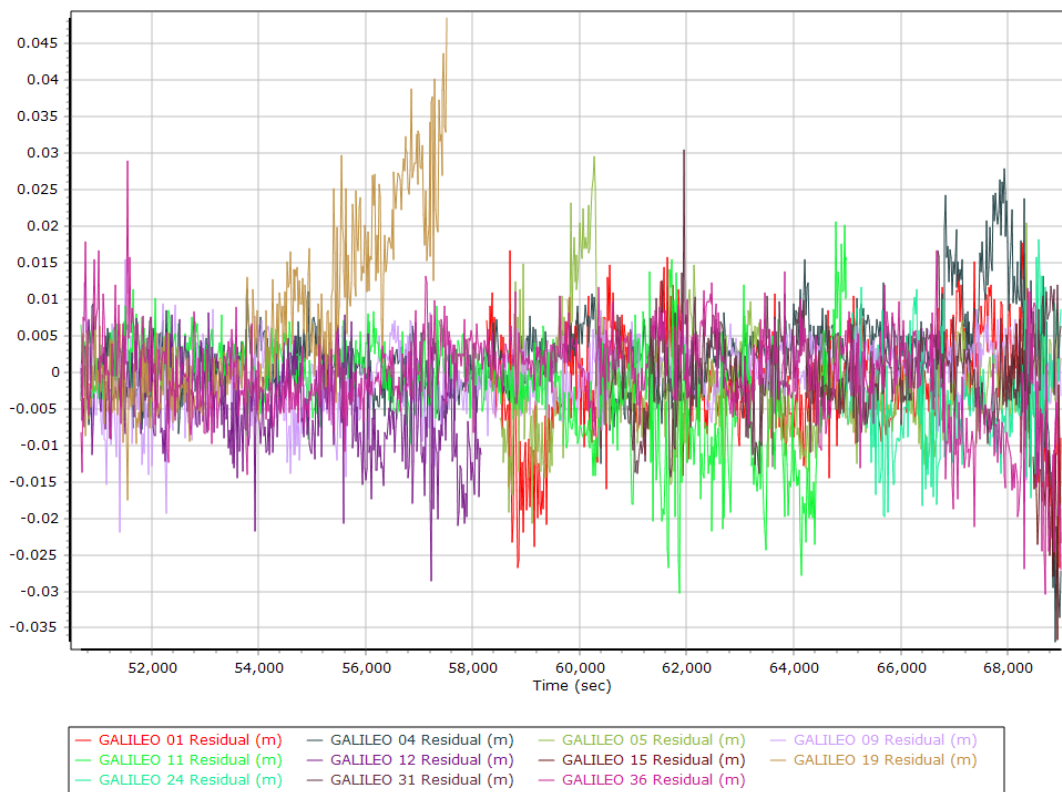




## GLONASS Residuals



## GALILEO Residuals



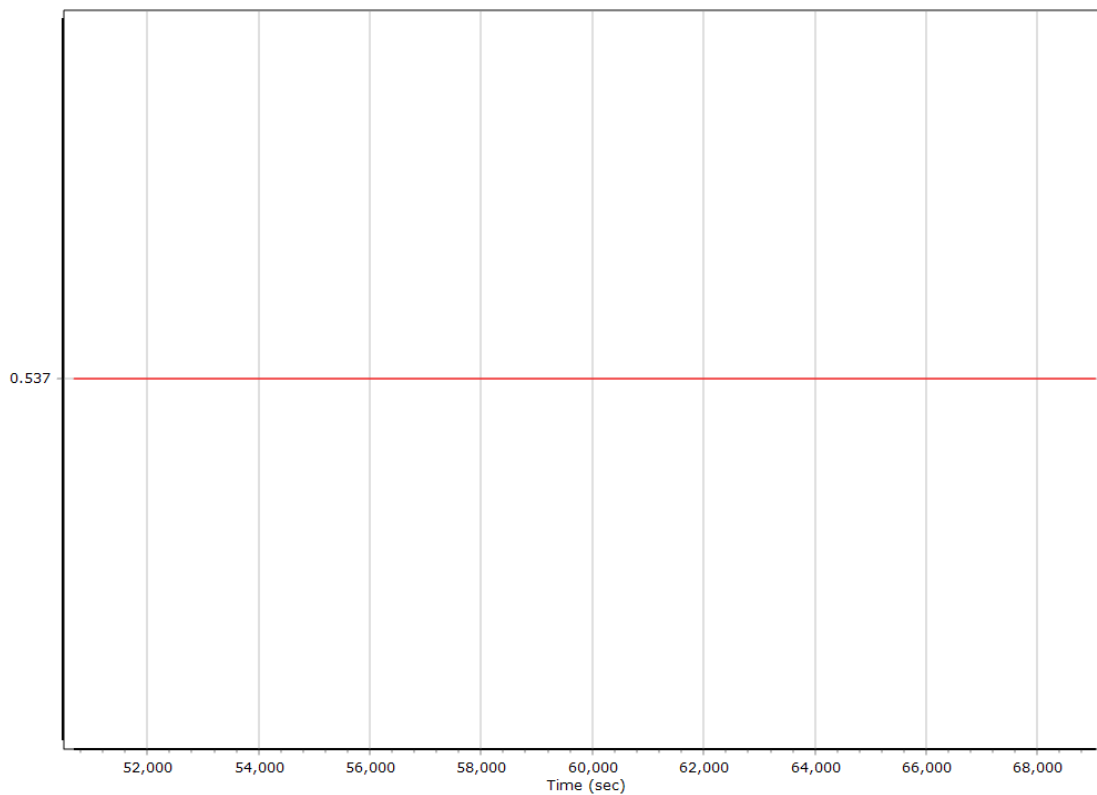
## GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	50283.000 (12/6/2020 1:58:03 PM)		
Processing end time	69056.000 (12/6/2020 7:10:56 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)	0.537	-0.442	-0.978
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

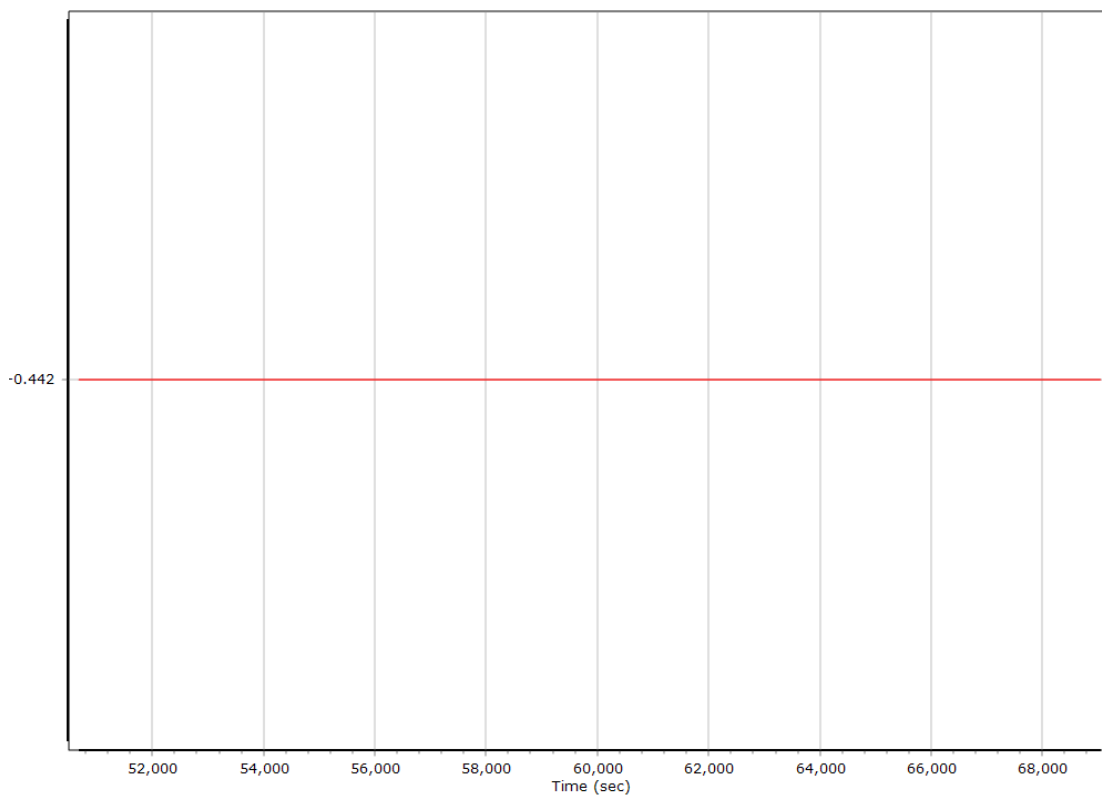
## Calibrated Installation Parameters

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

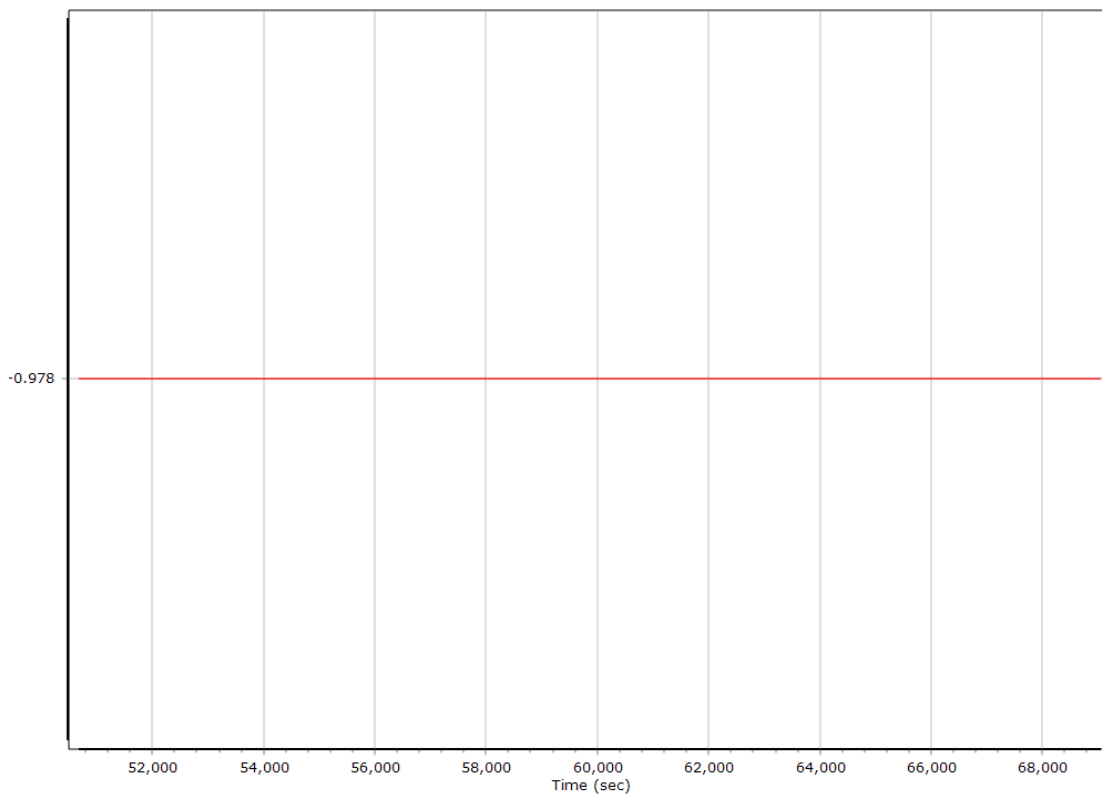
#### X Reference-Primary GNSS Lever Arm (m)



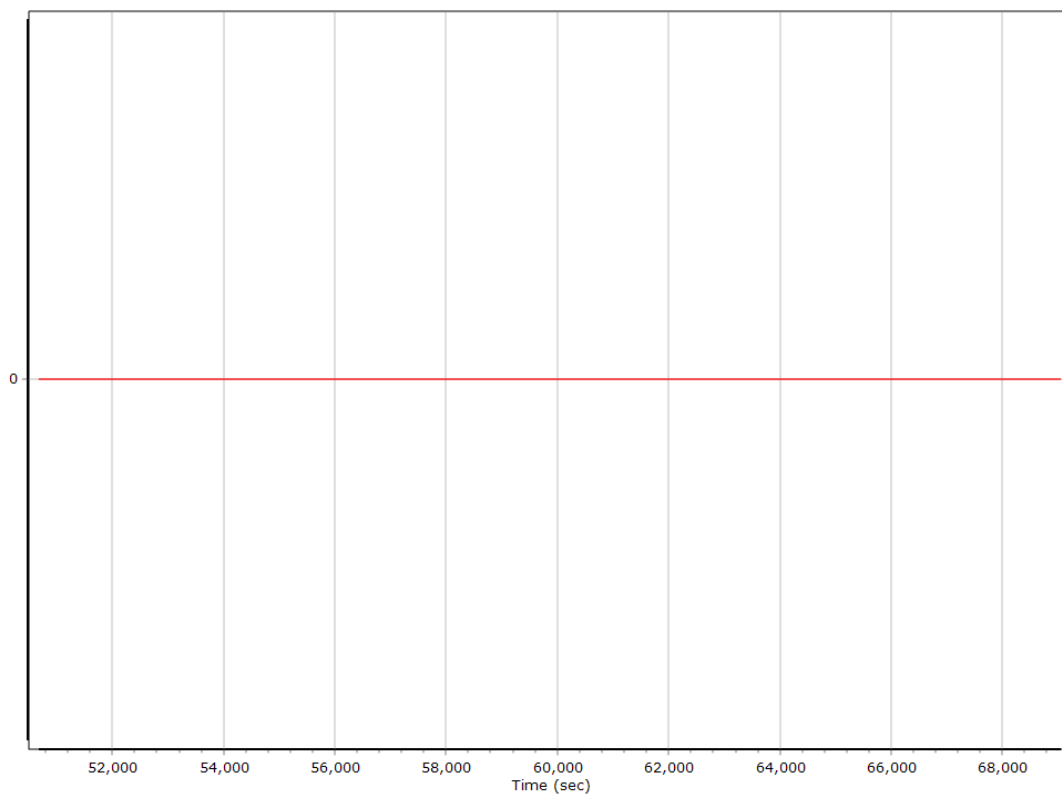
#### Y Reference-Primary GNSS Lever Arm (m)



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



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

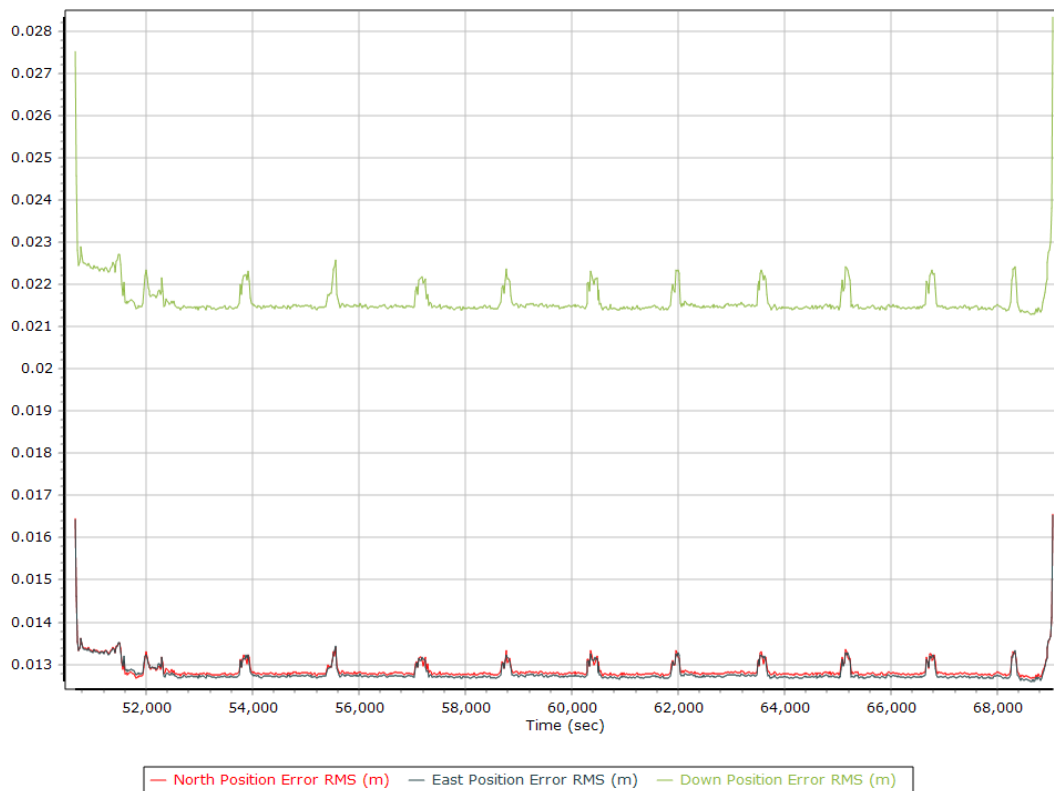


## IN-Fusion QC

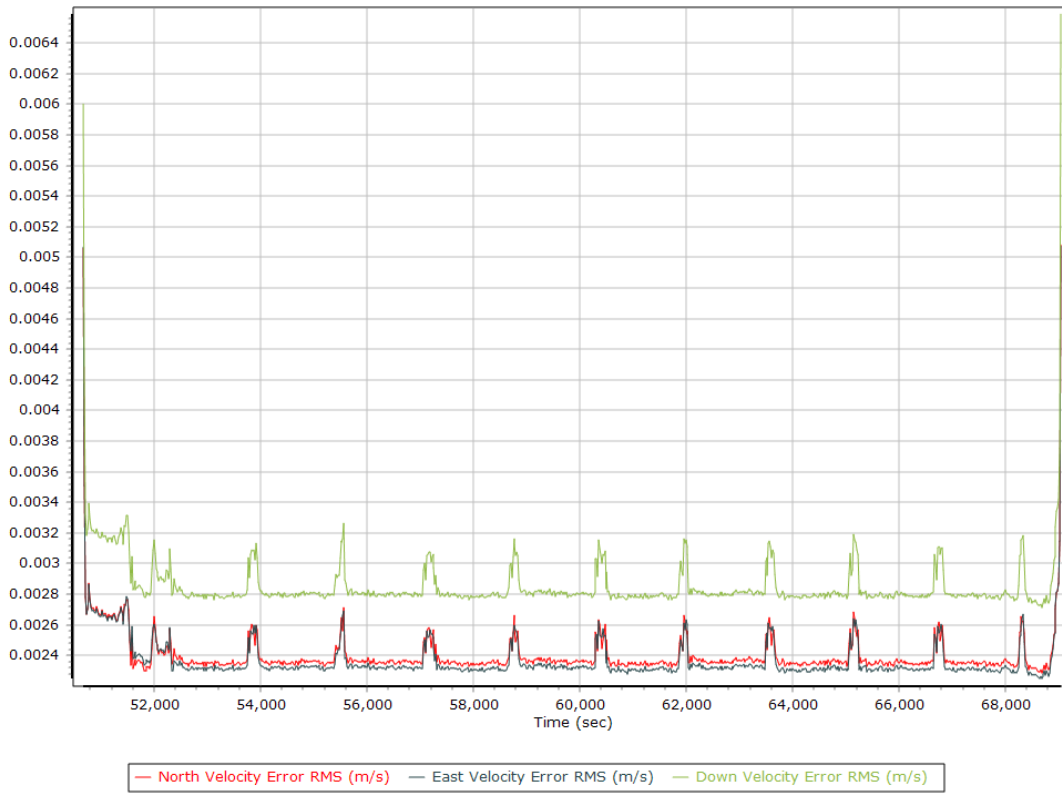
### Forward Processed Estimated Errors, Reference Frame

### Smoothed Performance Metrics

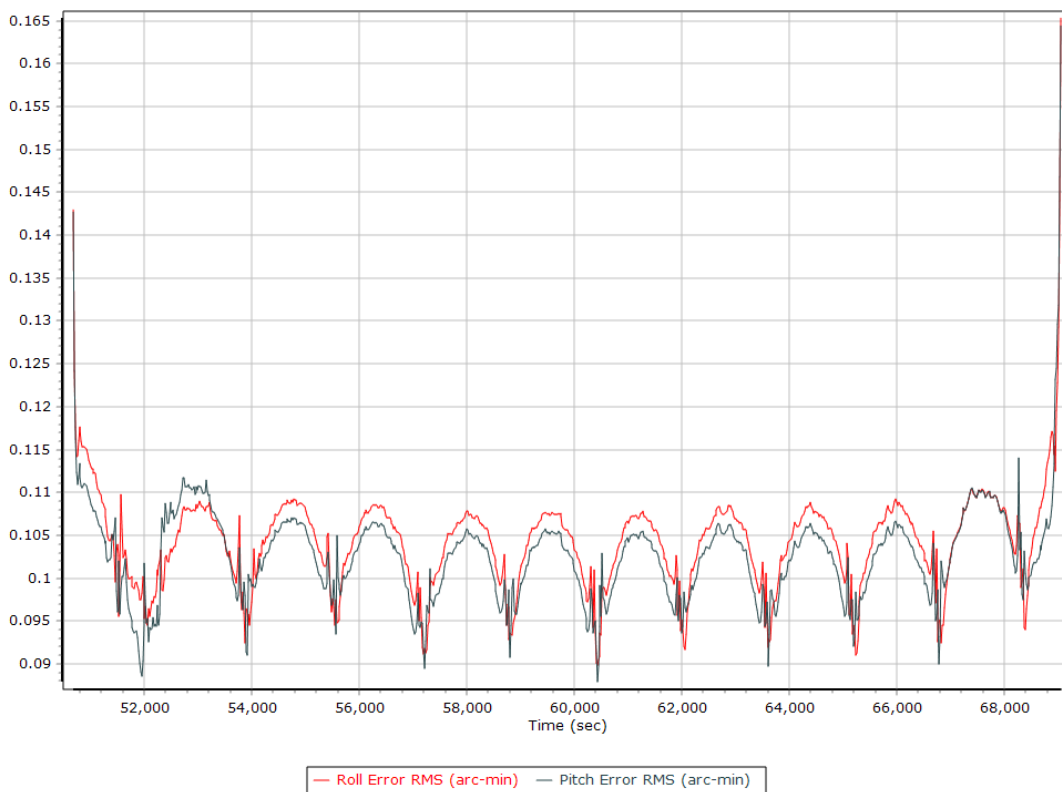
#### Position Error RMS (m)



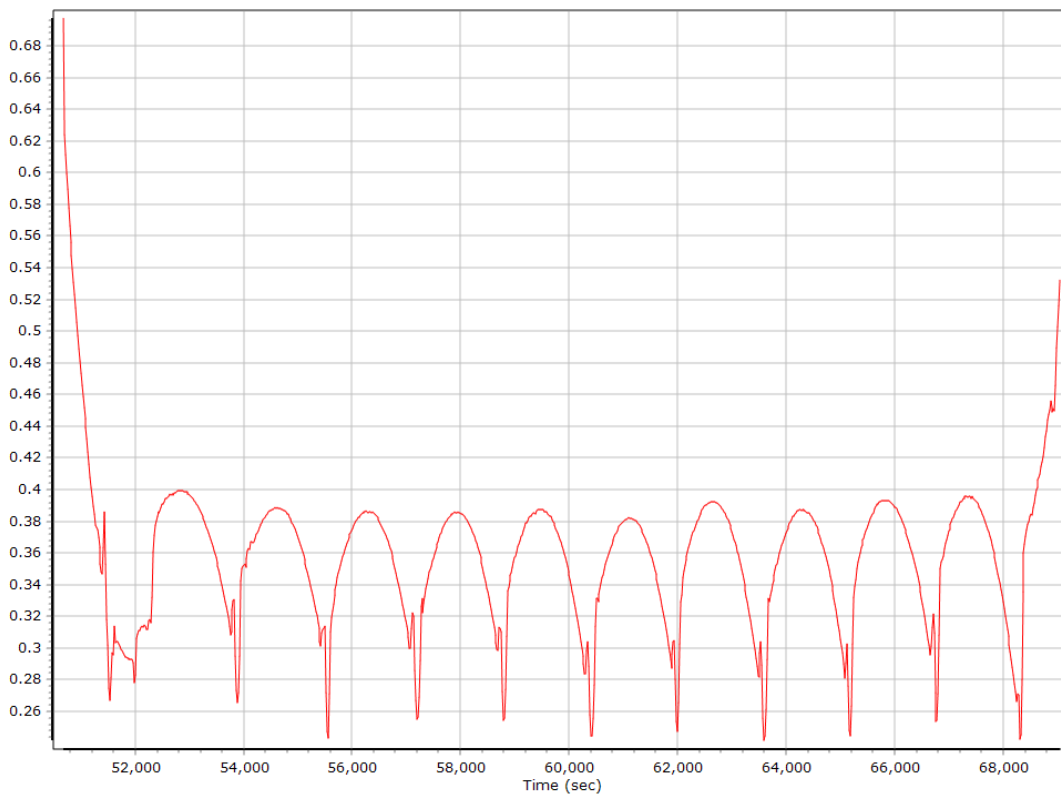
### Velocity Error RMS (m/s)



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

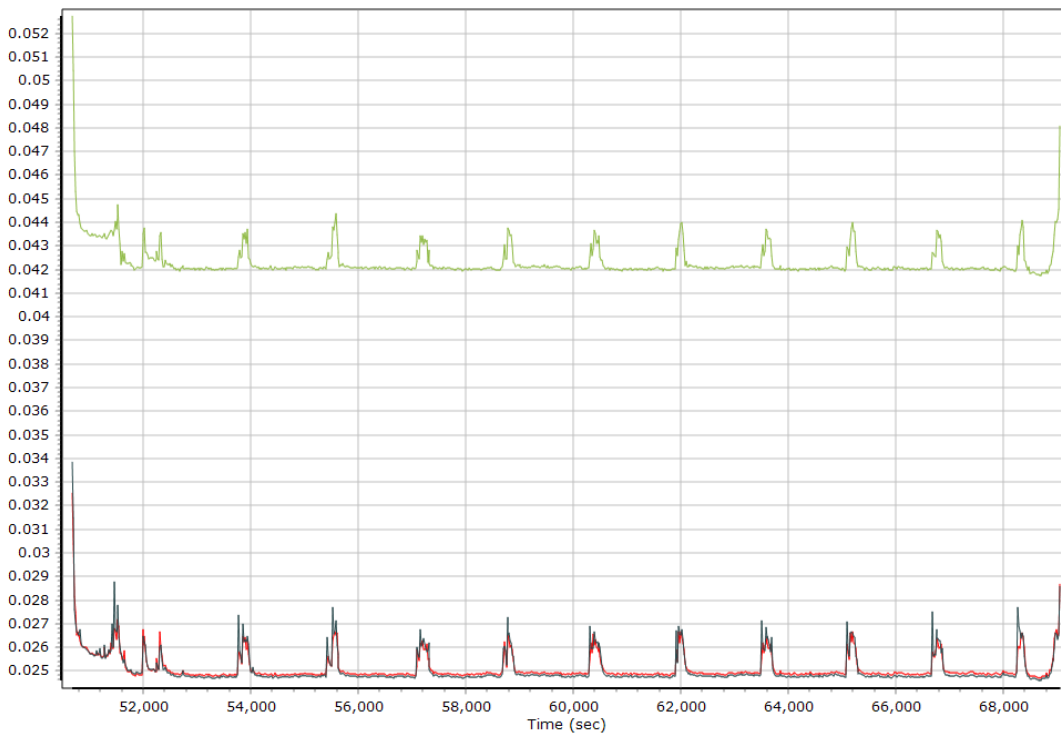


### Heading Error RMS (arc-min)

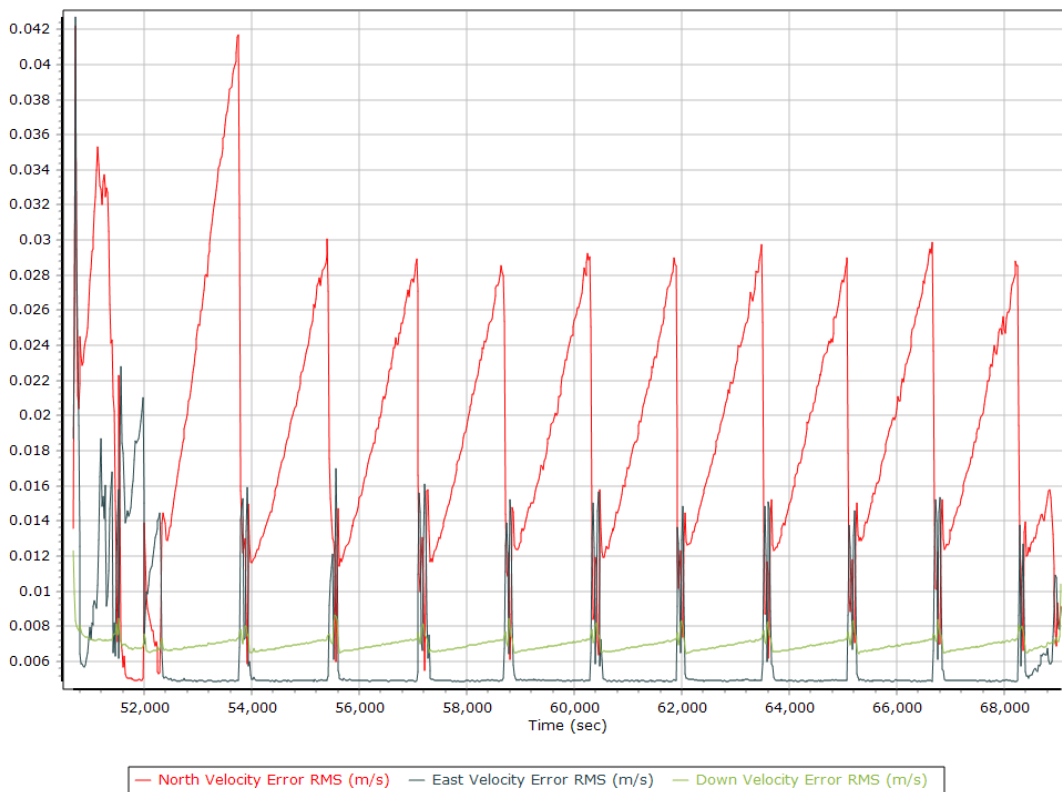


### Forward Processed Performance Metrics

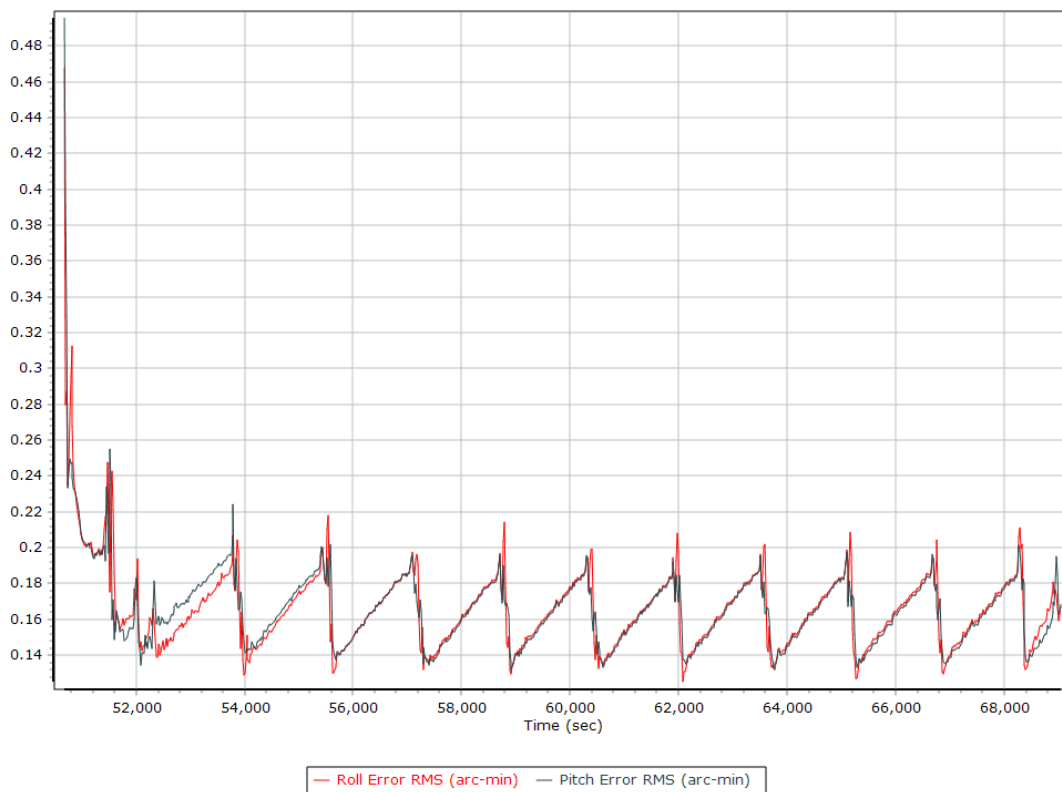
#### Position Error RMS (m)



### Velocity Error RMS (m/s)

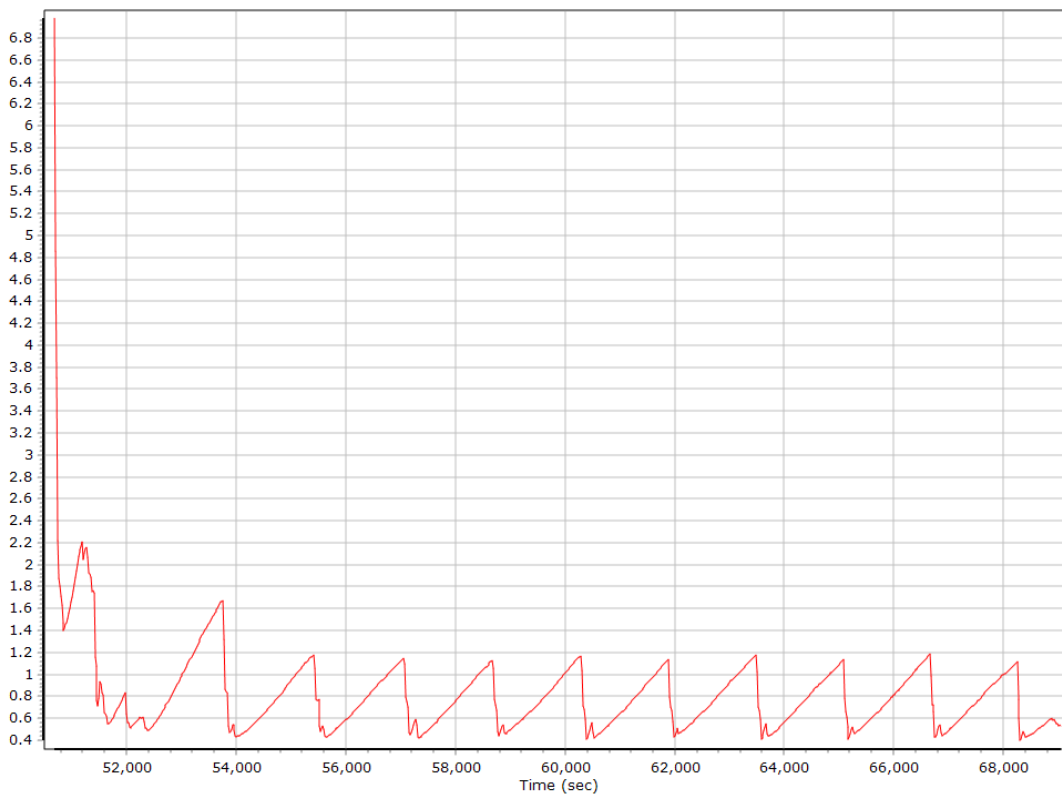


### Roll/Pitch Error RMS (arc-min)



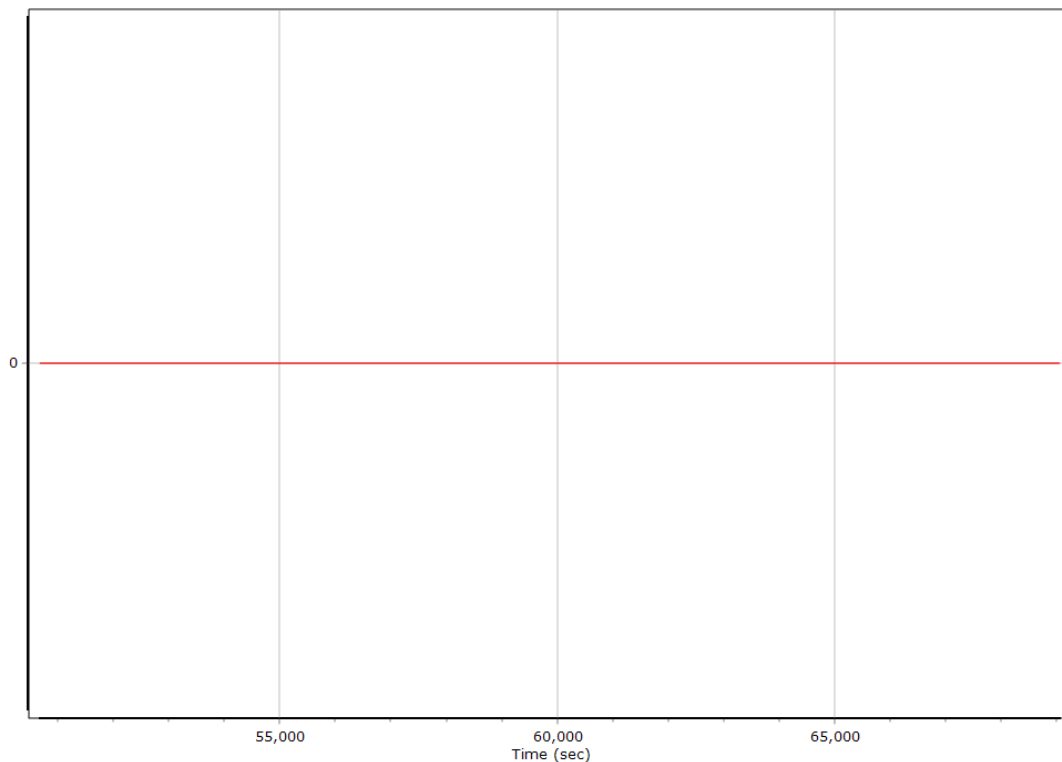


### Heading Error RMS (arc-min)



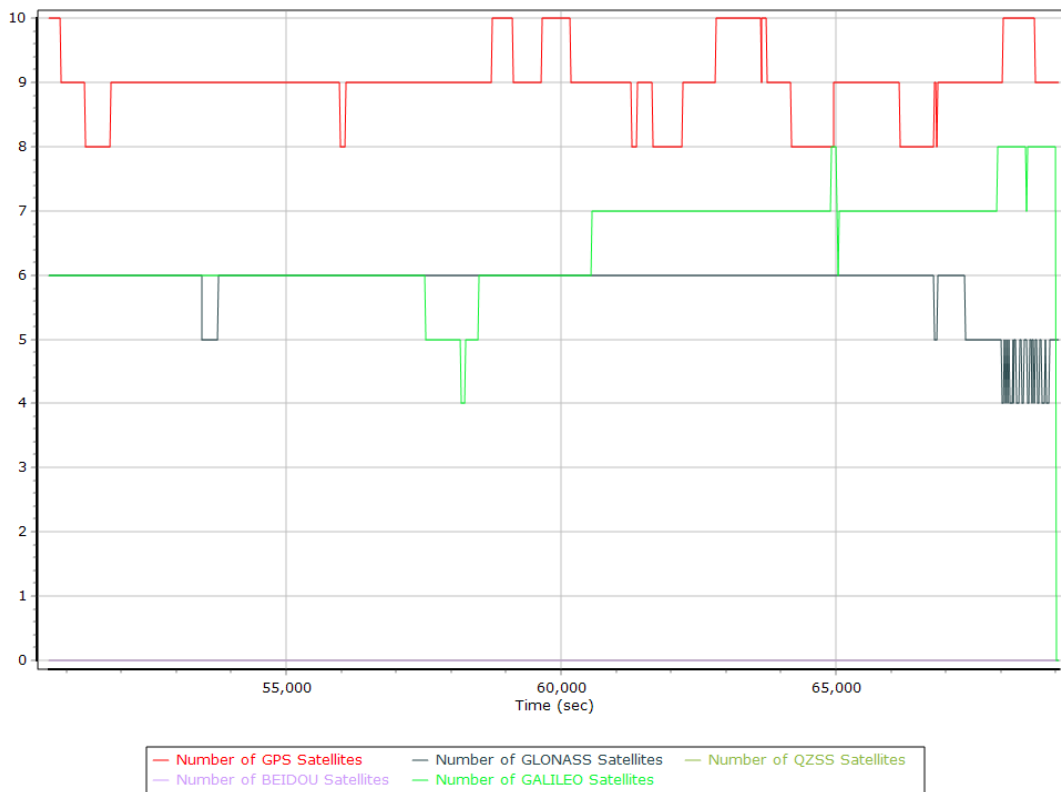
### Forward Processed Solution Status

#### 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

