

General Information

Mission Information

Project name	211010_A_5060420_nad2011_FINAL
Processing date	2021-10-15 14:15:36
Mission date	2021-10-10 14:40:10
Mission duration	04:05:48.000
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
20211010.329	POS Data
20211010.330	POS Data
20211010.331	POS Data
20211010.332	POS Data
20211010.333	POS Data
20211010.334	POS Data
20211010.335	POS Data
20211010.336	POS Data
20211010.337	POS Data
20211010.338	POS Data
20211010.339	POS Data
20211010.340	POS Data
20211010.341	POS Data
20211010.342	POS Data
20211010.343	POS Data
20211010.344	POS Data
20211010.345	POS Data
20211010.346	POS Data
20211010.347	POS Data
20211010.348	POS Data
20211010.349	POS Data
20211010.350	POS Data
20211010.351	POS Data
20211010.352	POS Data
20211010.353	POS Data
20211010.354	POS Data
20211010.355	POS Data
20211010.356	POS Data
20211010.357	POS Data
20211010.358	POS Data
20211010.359	POS Data

Input Files

File Name	File Type
Ephm2830.21g	GLONASS Broadcast Ephemeris
Ephm2830.21n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_211010_A_5060420_nad2011_FINAL.out	SBET Trajectory File

Rover Data Summary

First raw data file	20211010.329		
Last raw data file	20211010.359		
Start GPS week	2179		
Start time	52809.130 (10/10/2021 2:40:09 PM)		
End time	67557.652 (10/10/2021 6:45:57 PM)		
Start of fine alignment	53101.493 (10/10/2021 2:45:01 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	90.000
Reference to Primary GNSS lever arm (m)	-0.497	-0.045	-1.199
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

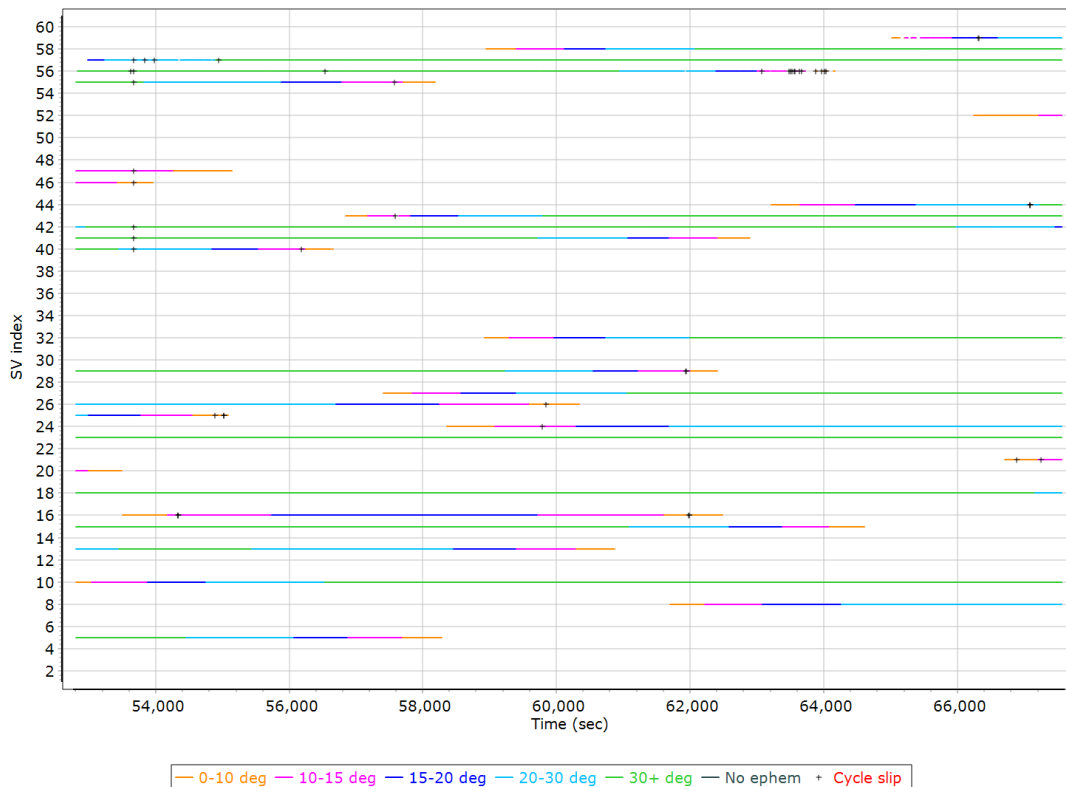
Rover Data QC

Raw IMU Import QC Summary

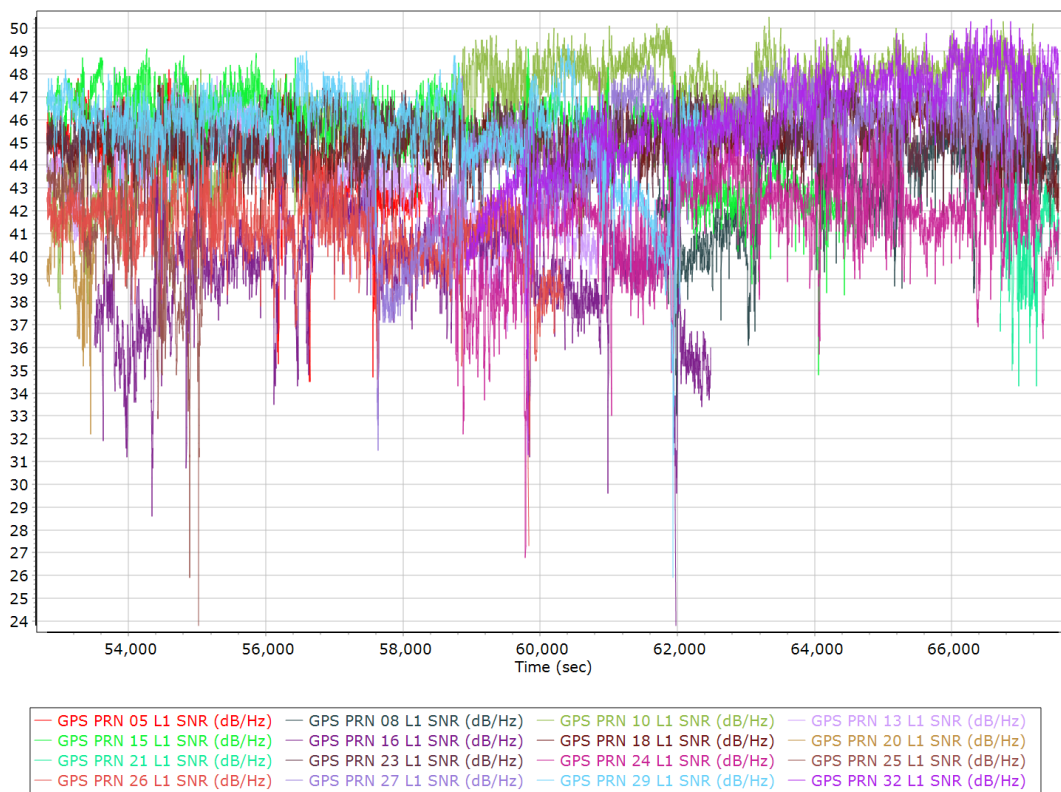
IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_211010_A_5060420_nad2011_FINAL.log
IMU Records Processed	2949181
Termination Status	Normal
IMU Anomalies	0

Primary Observables & Satellite Data

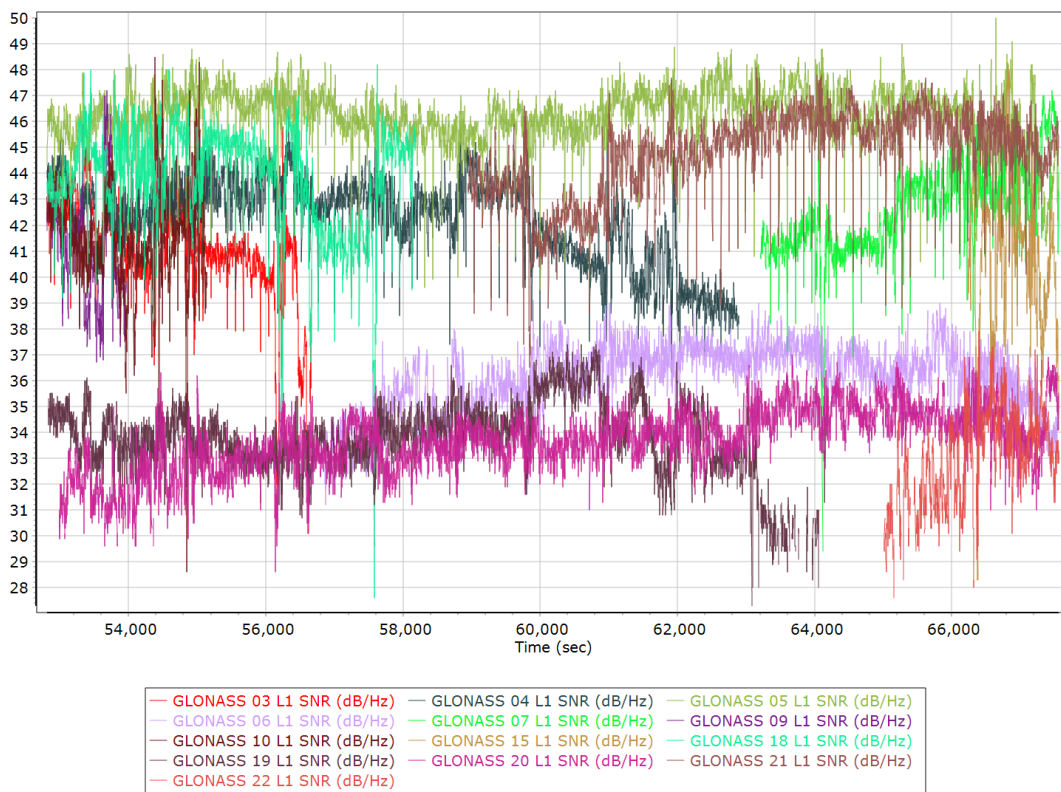
GPS/GLONASS L1 Satellite Lock/Elevation



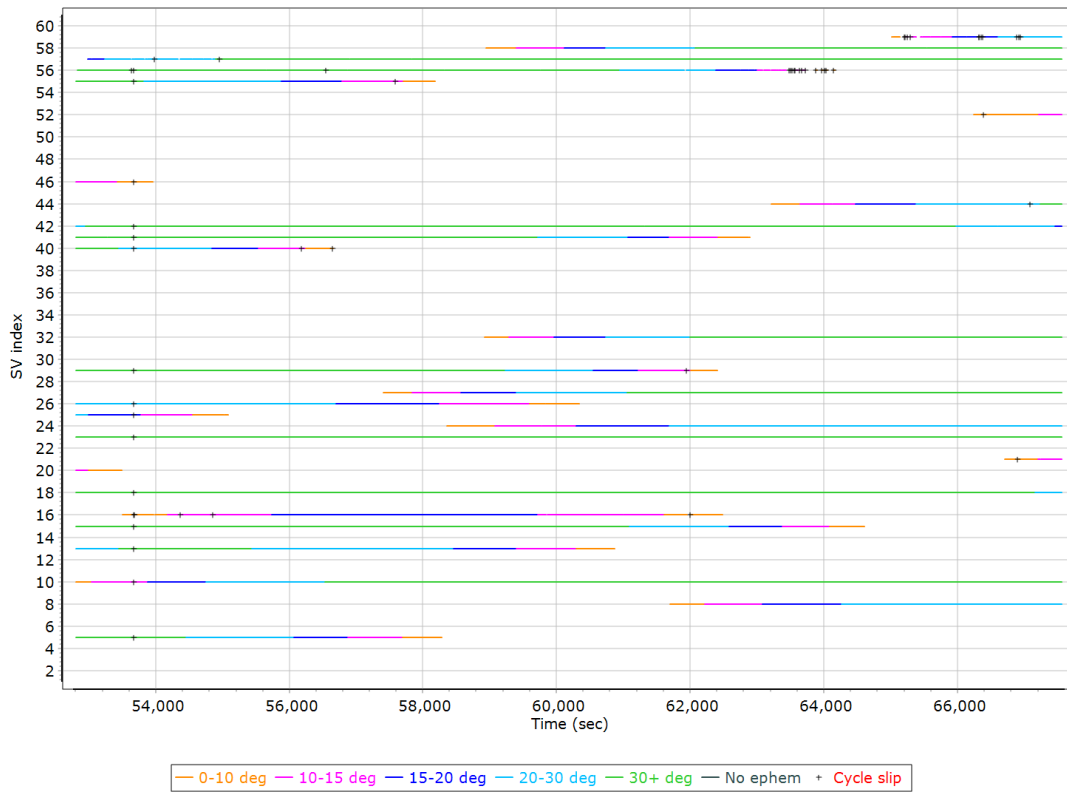
GPS L1 SNR



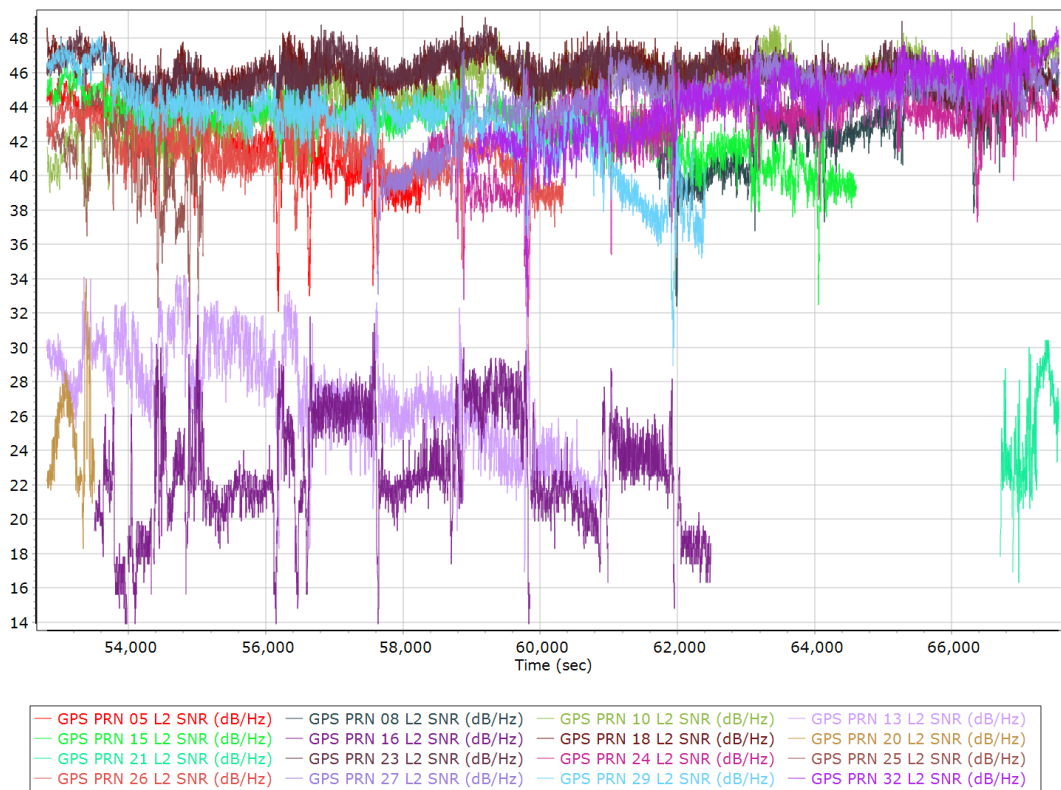
GLONASS L1 SNR



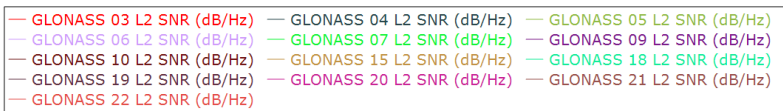
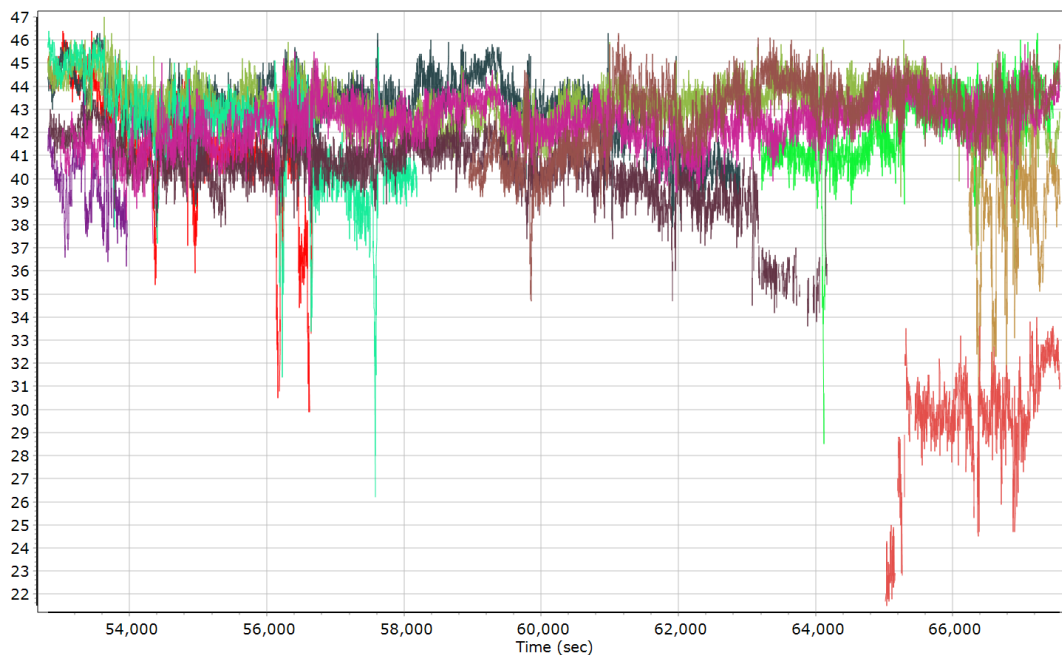
GPS/GLONASS L2 Satellite Lock/Elevation



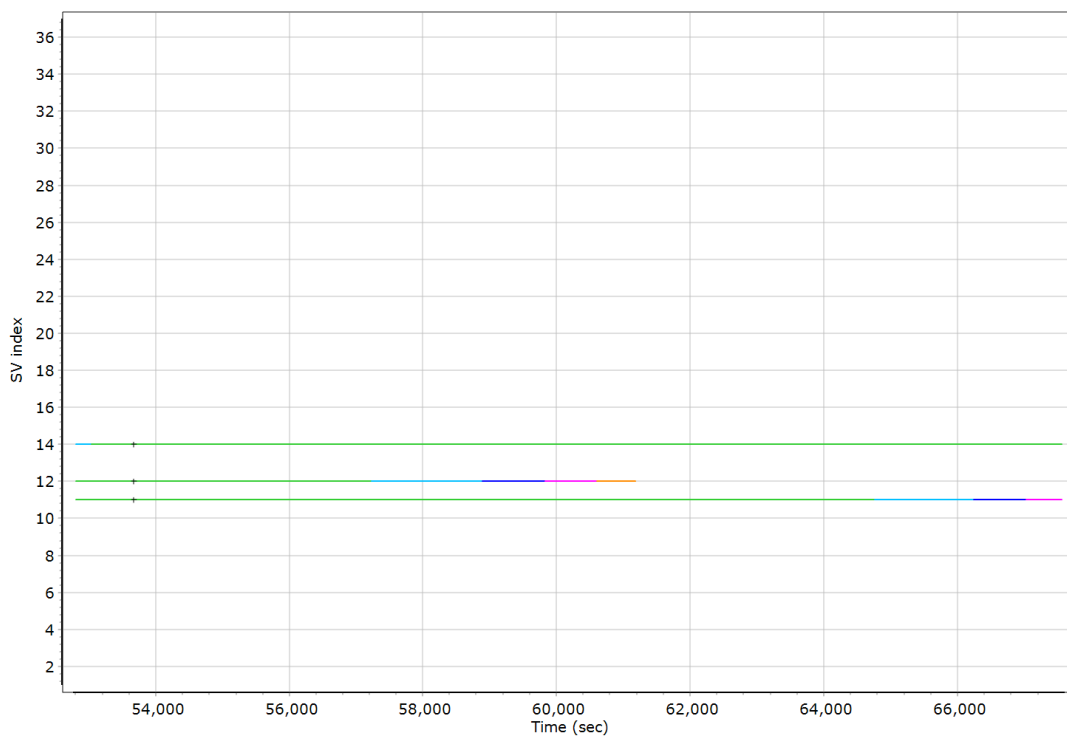
GPS L2 SNR



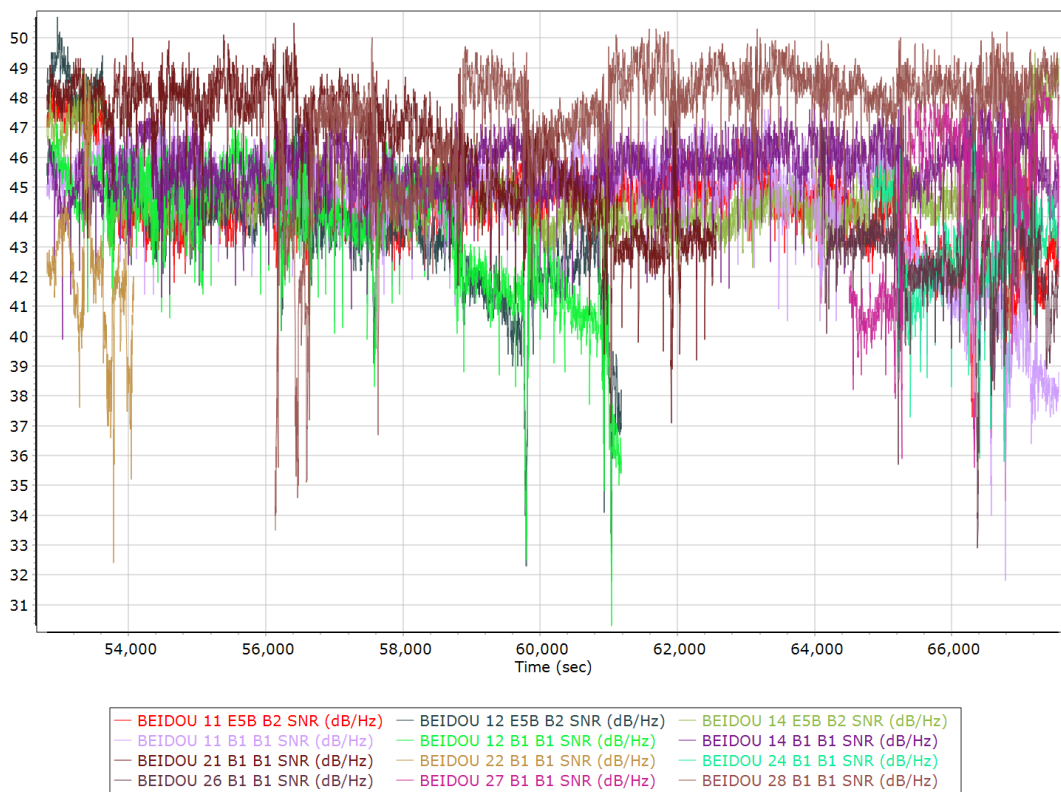
GLONASS L2 SNR



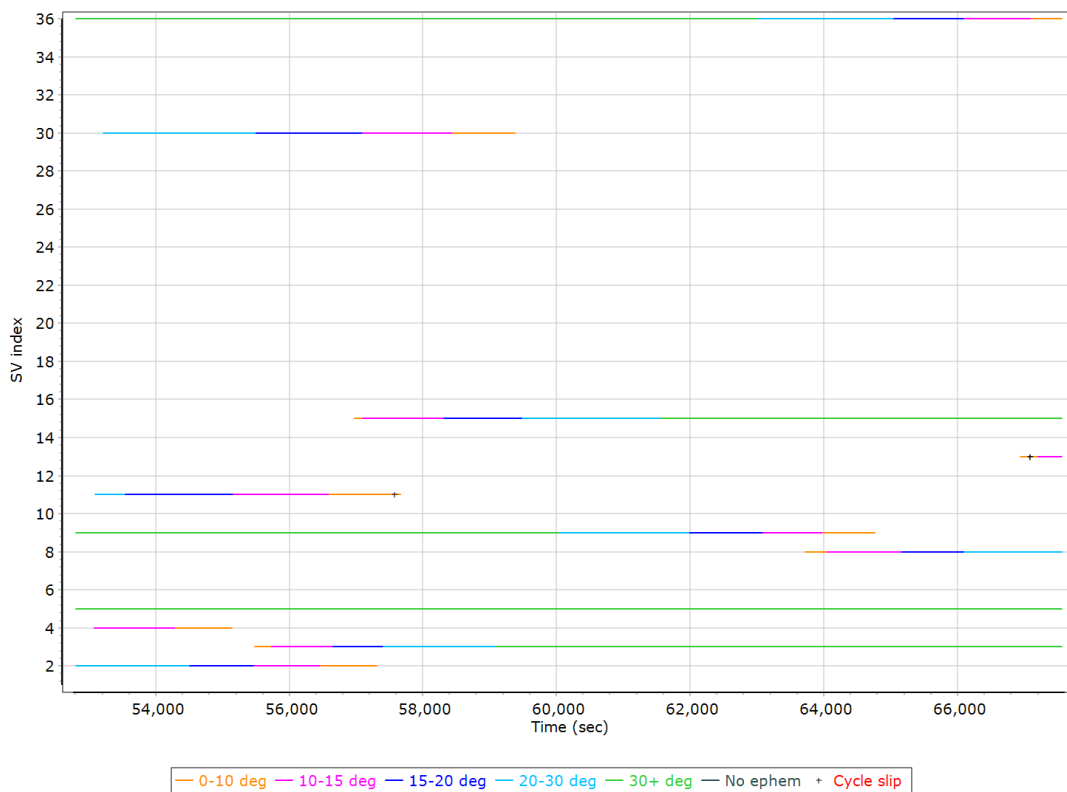
BEIDOU Satellite Lock/Elevation



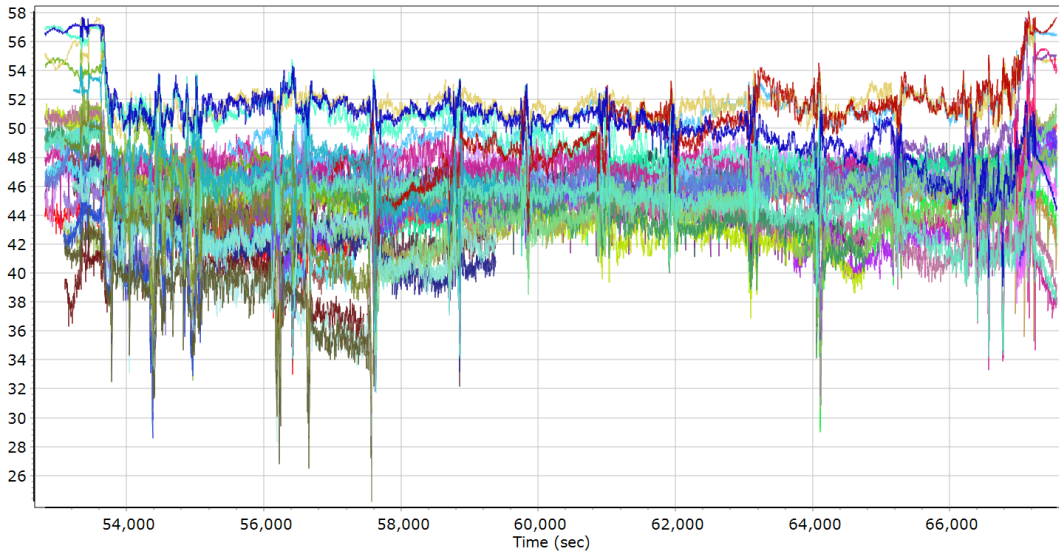
BEIDOU SNR



GALILEO Satellite Lock/Elevation



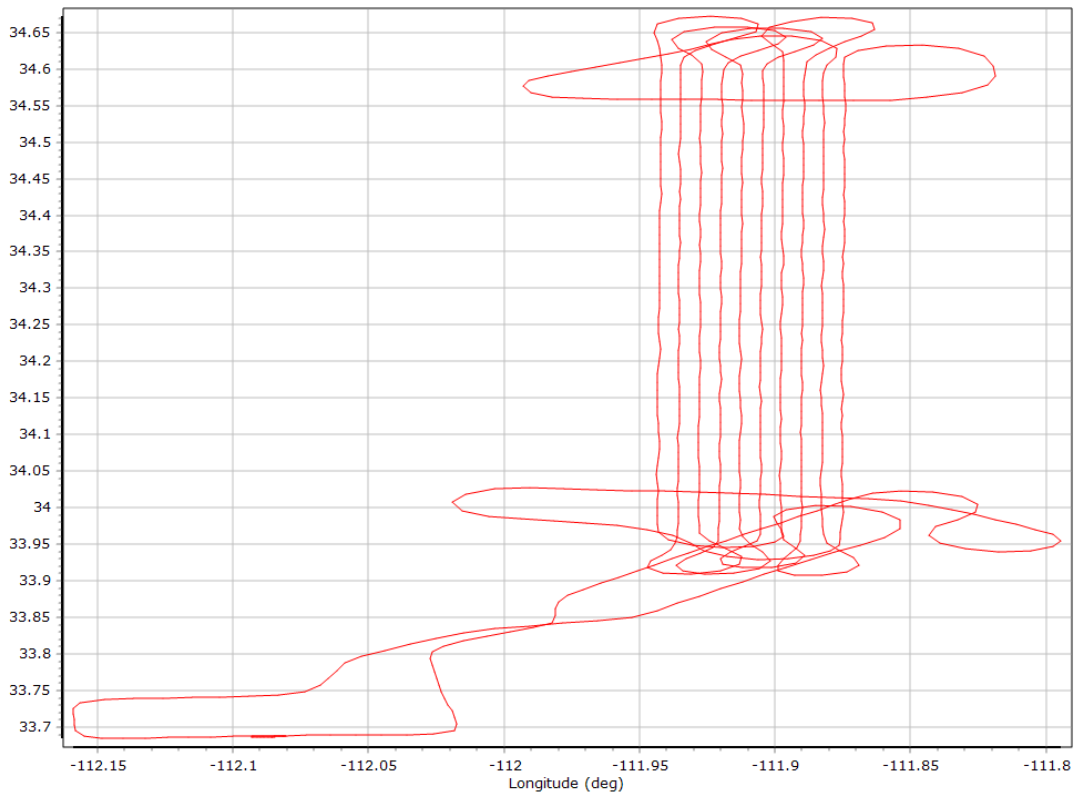
GALILEO SNR



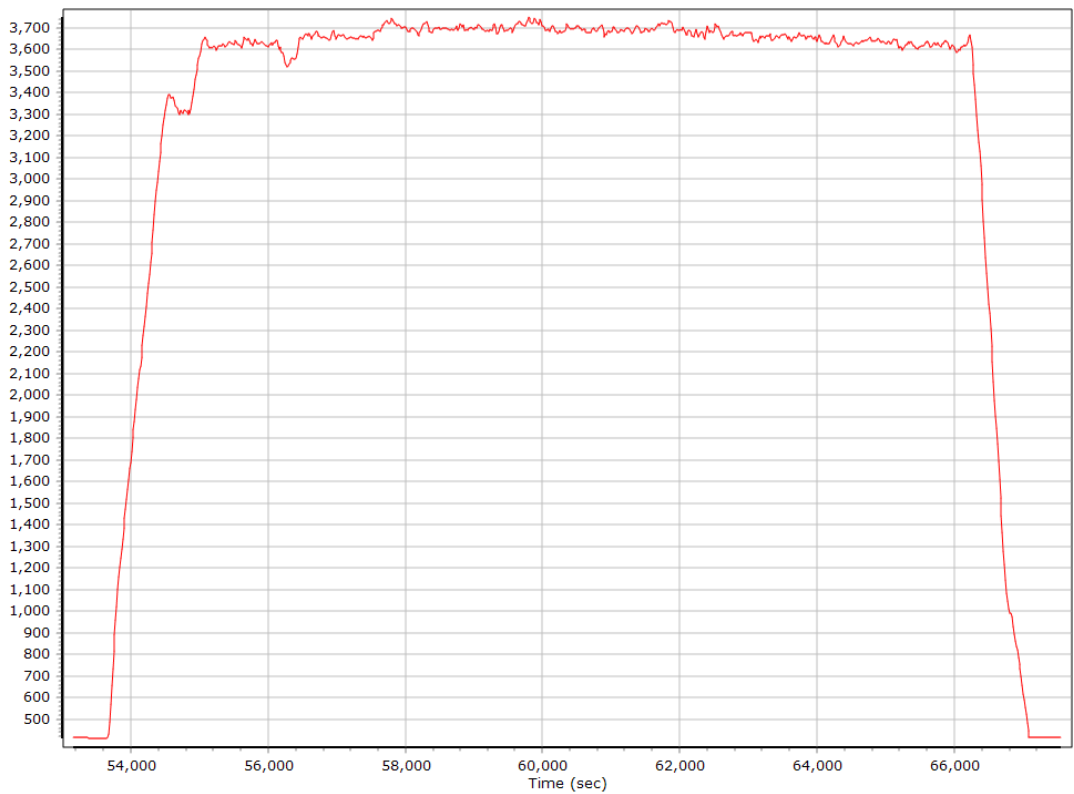
— GALILEO 02 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 03 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 04 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 05 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 08 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 09 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 13 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 15 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 04 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 13 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 15 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

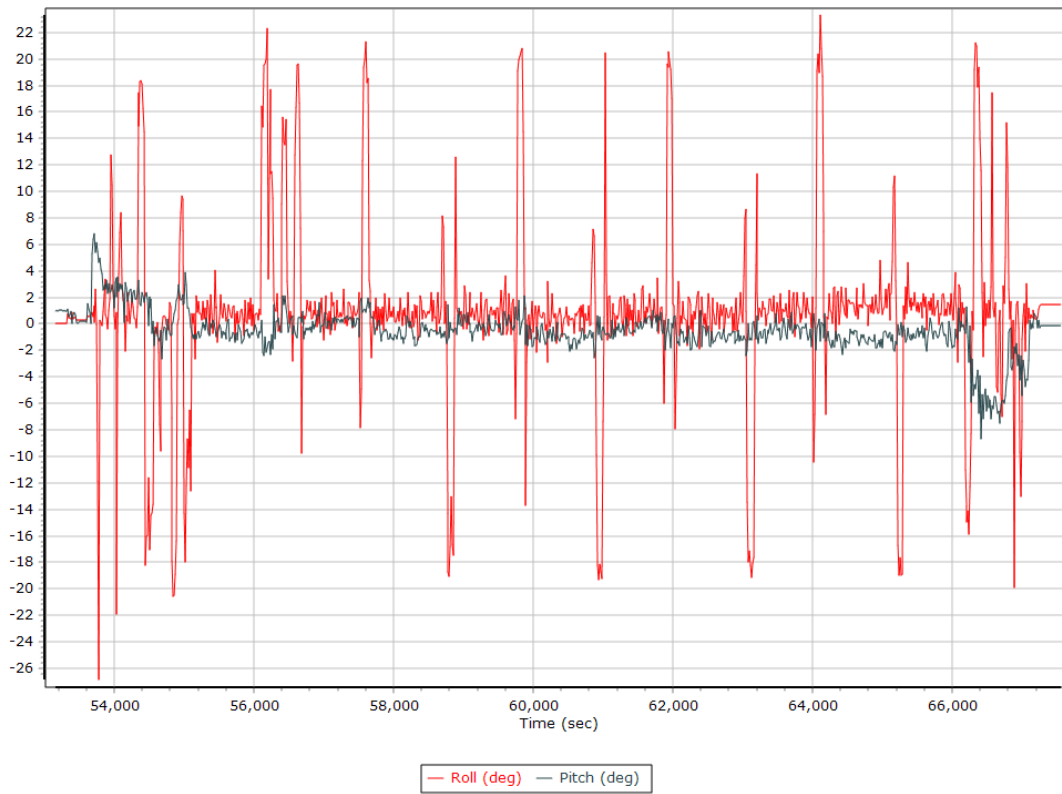
Top View



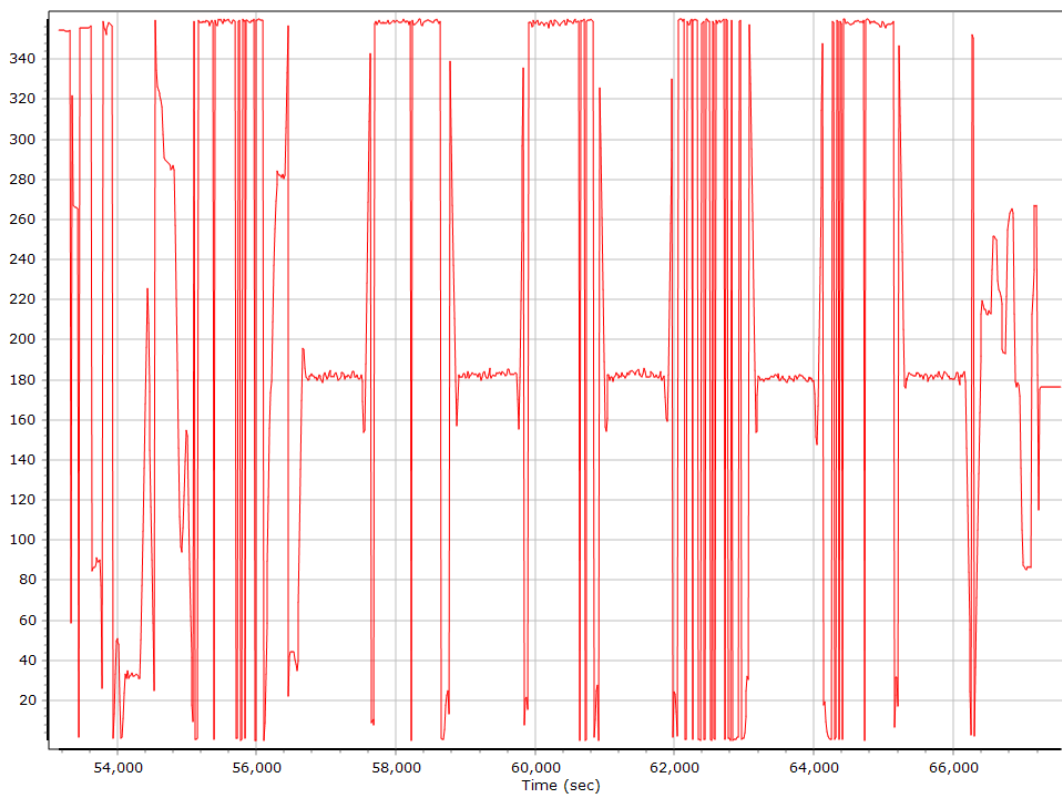
Altitude



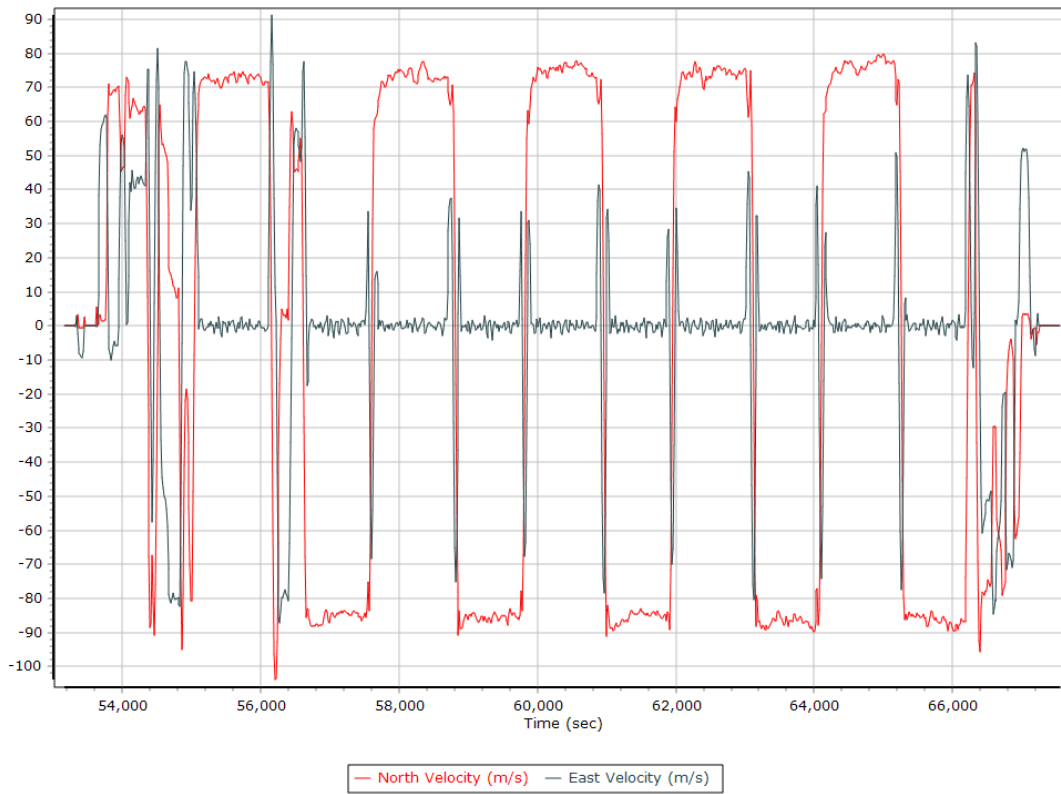
Roll/Pitch



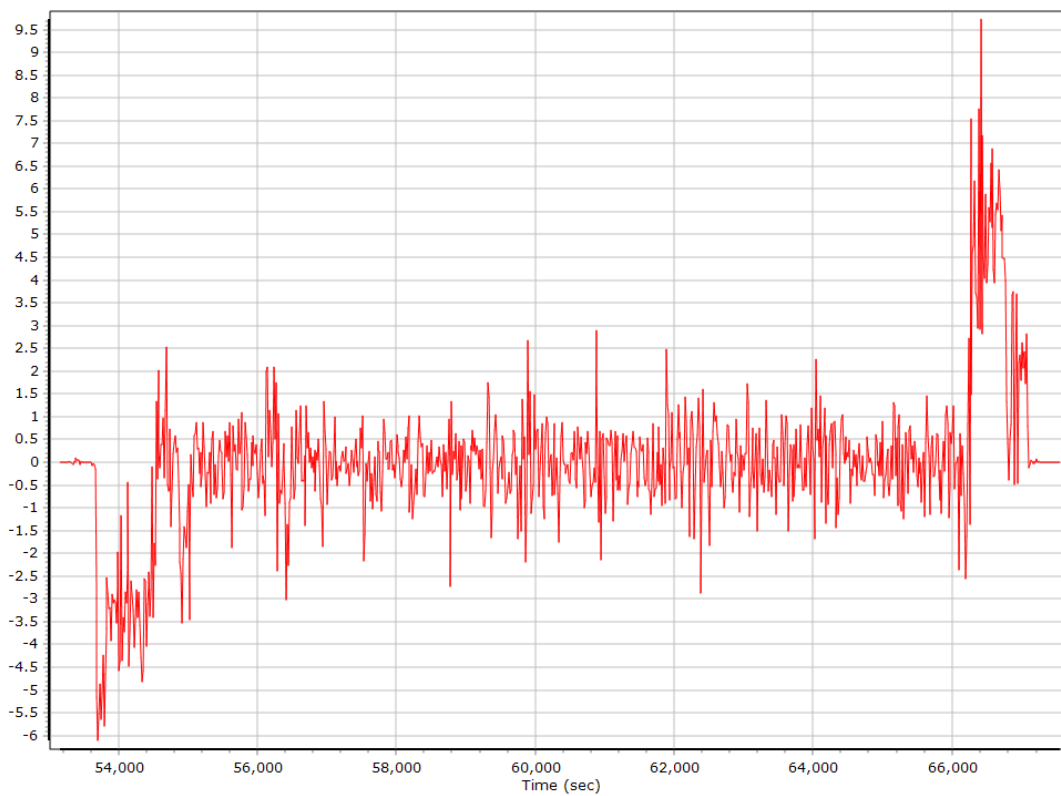
Heading



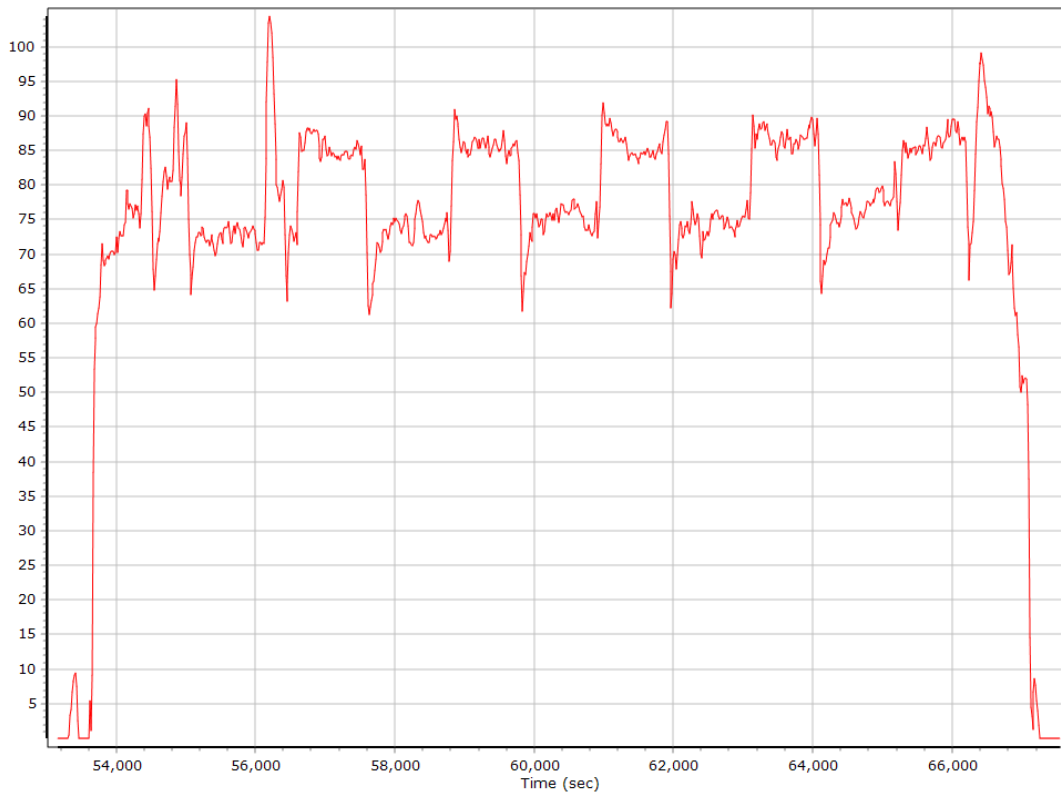
North/East Velocity



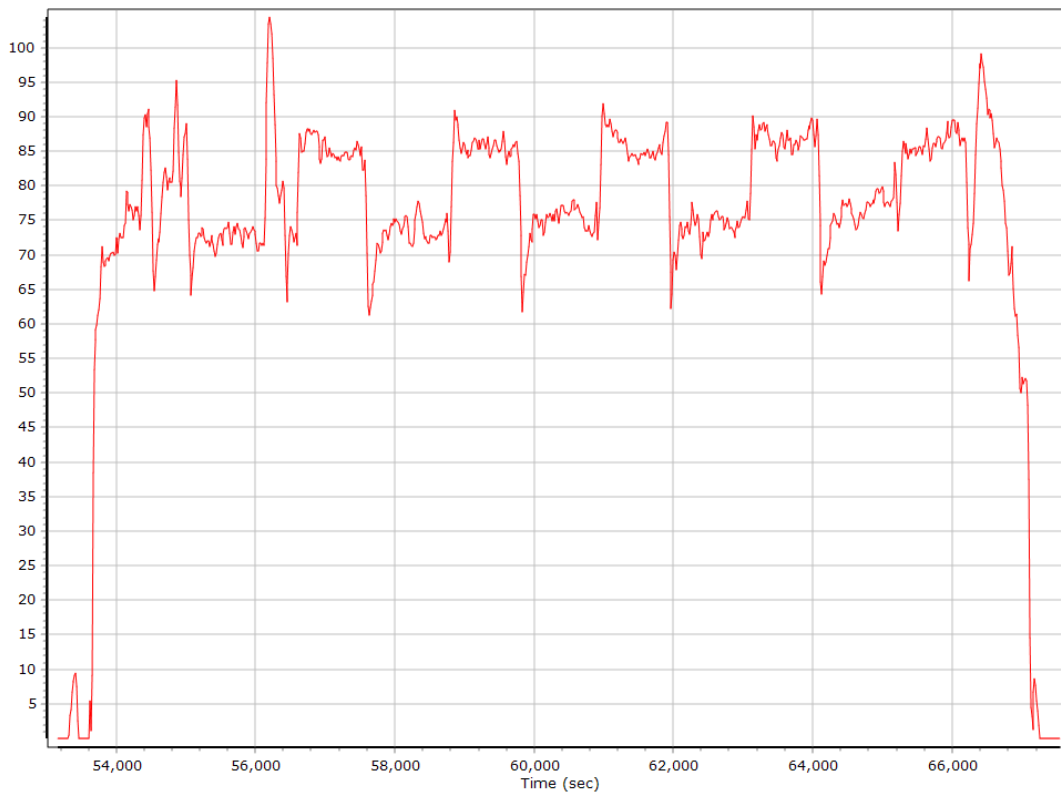
Down Velocity



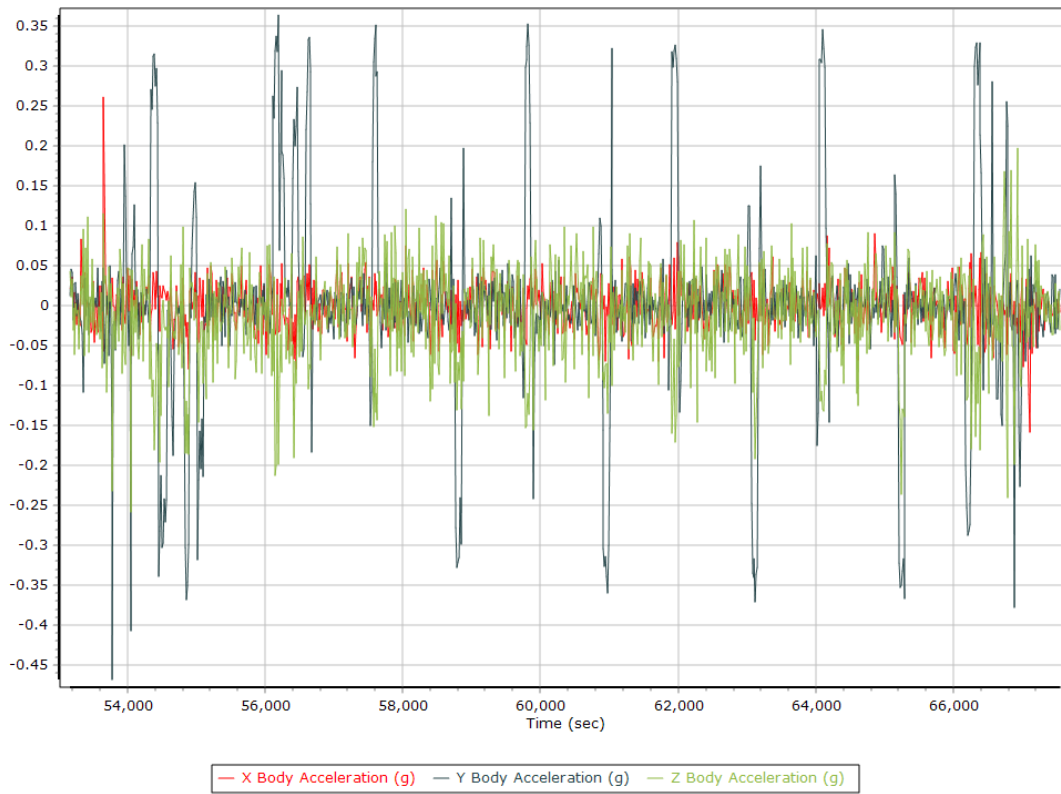
Total Speed



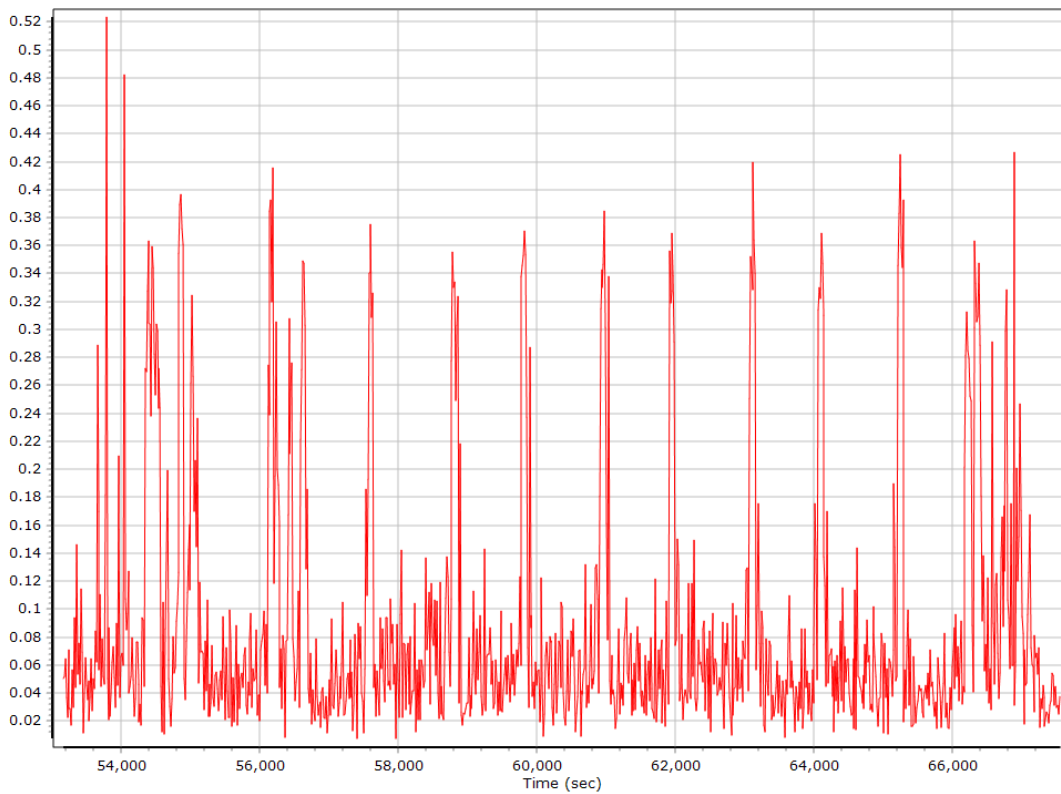
Ground Speed



Body Acceleration



Total Body Acceleration

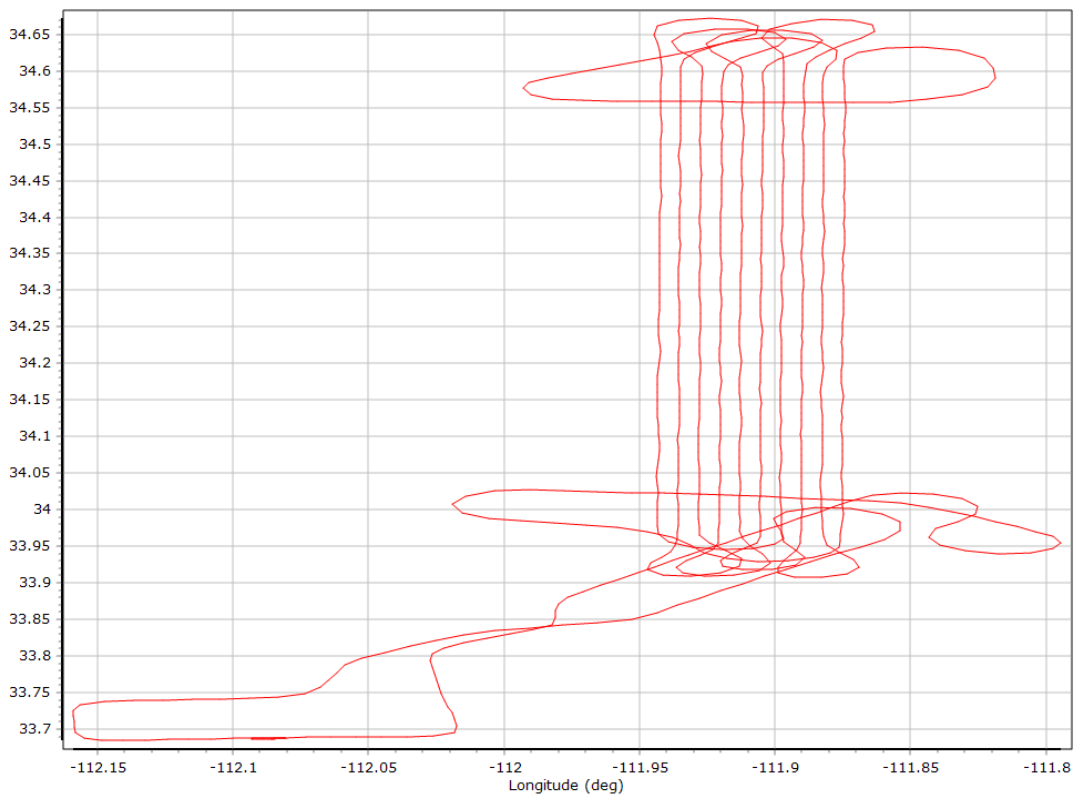


Body Angular Rate

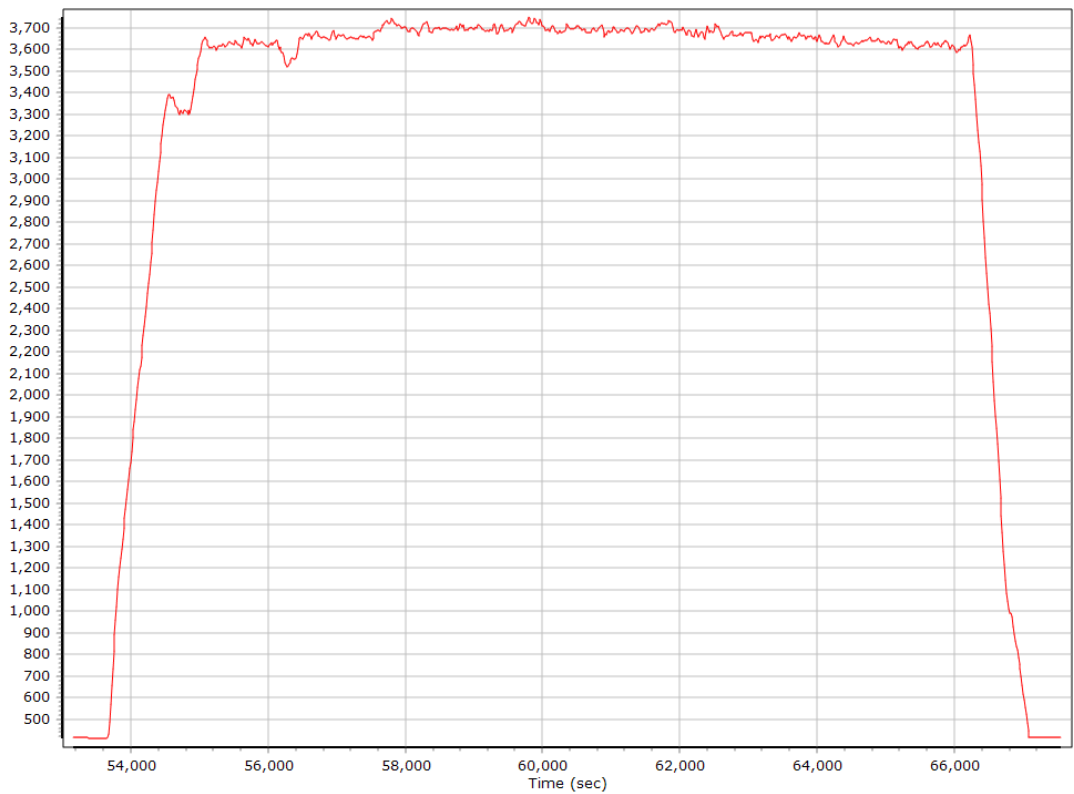


Forward Processed Trajectory Information

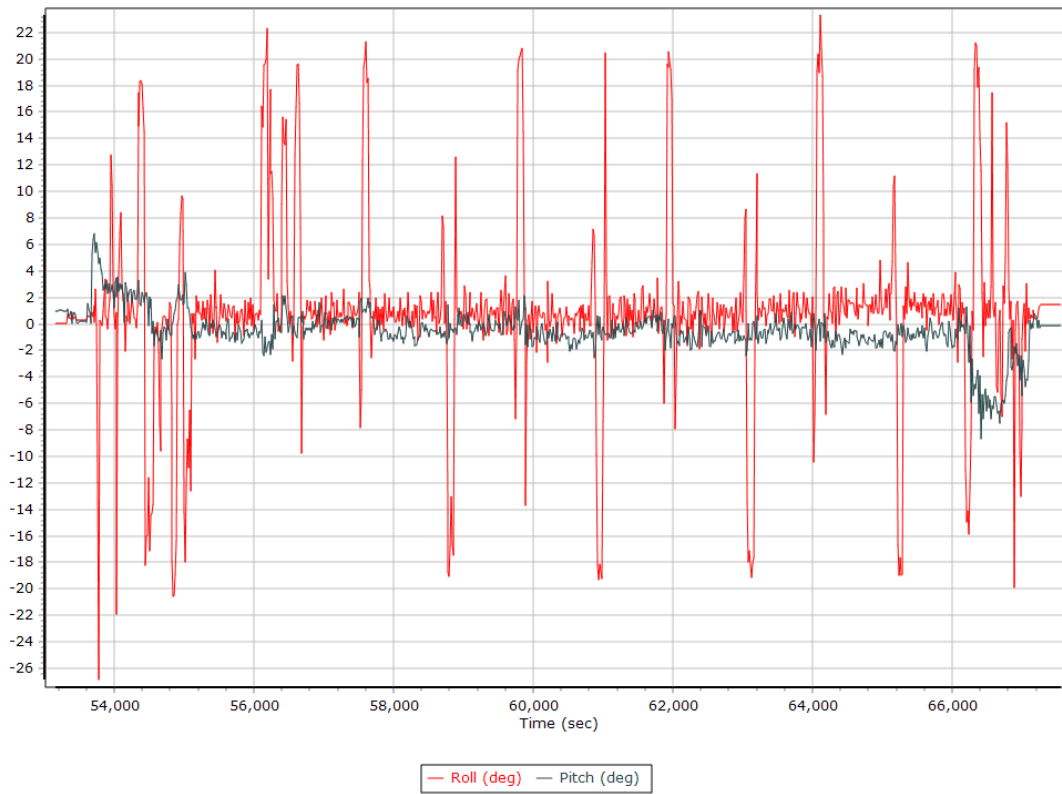
Top View



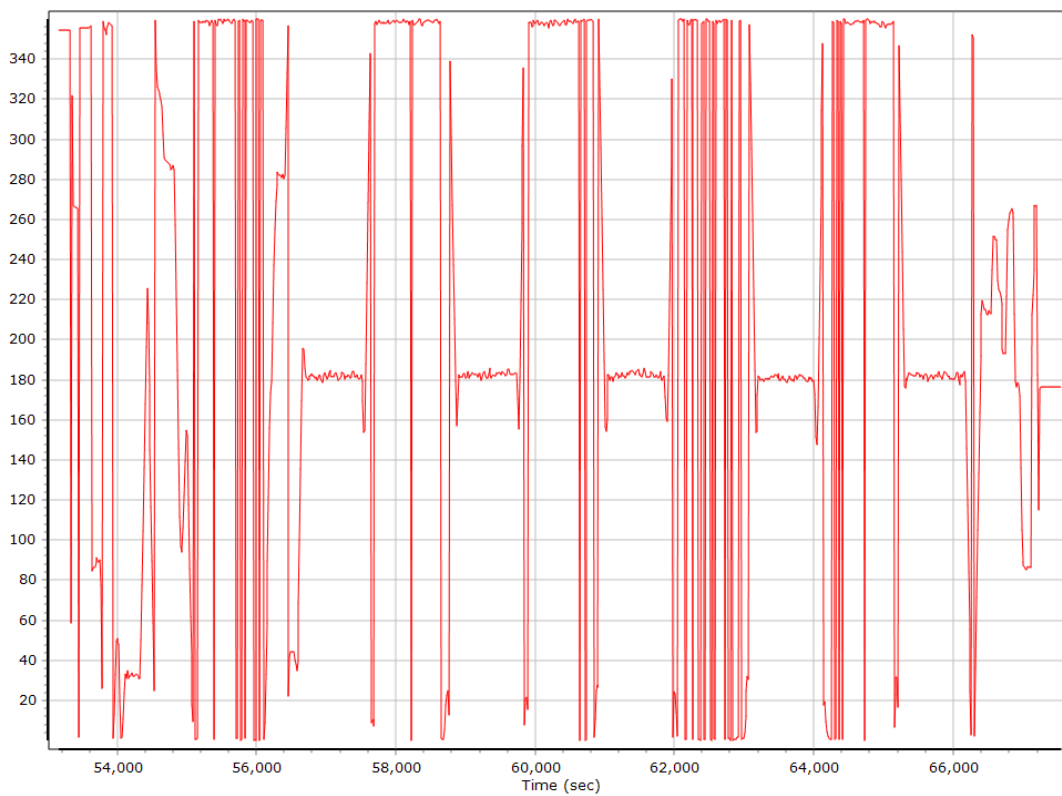
Altitude



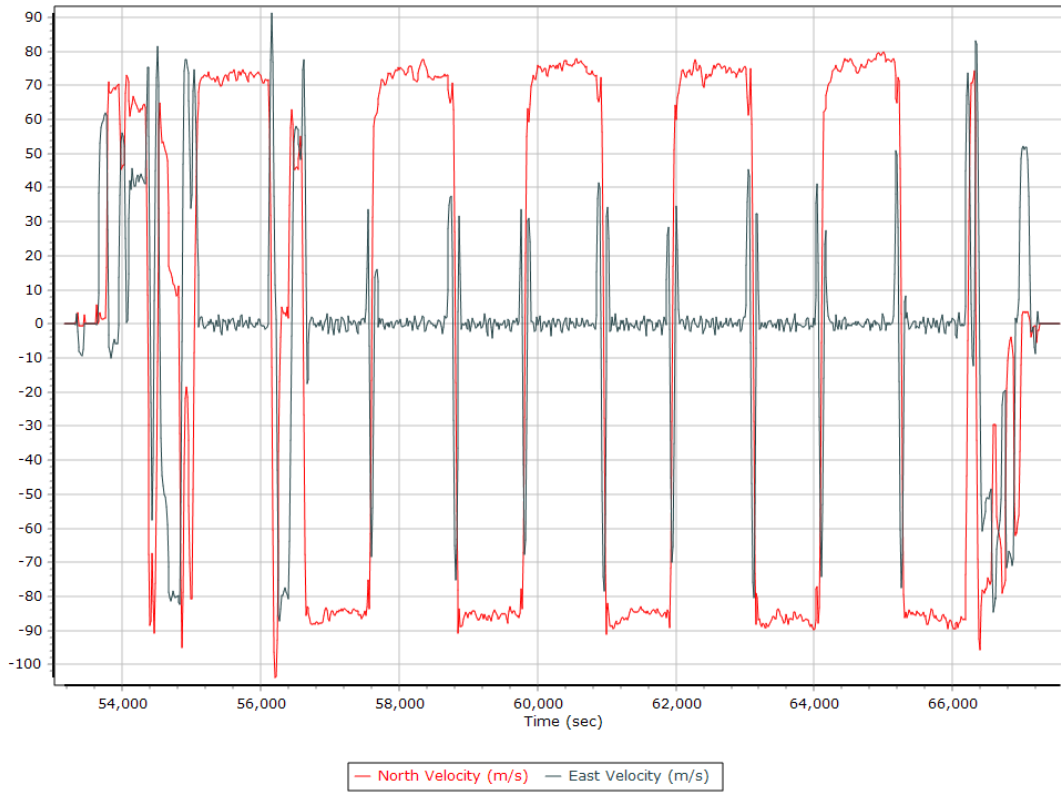
Roll/Pitch



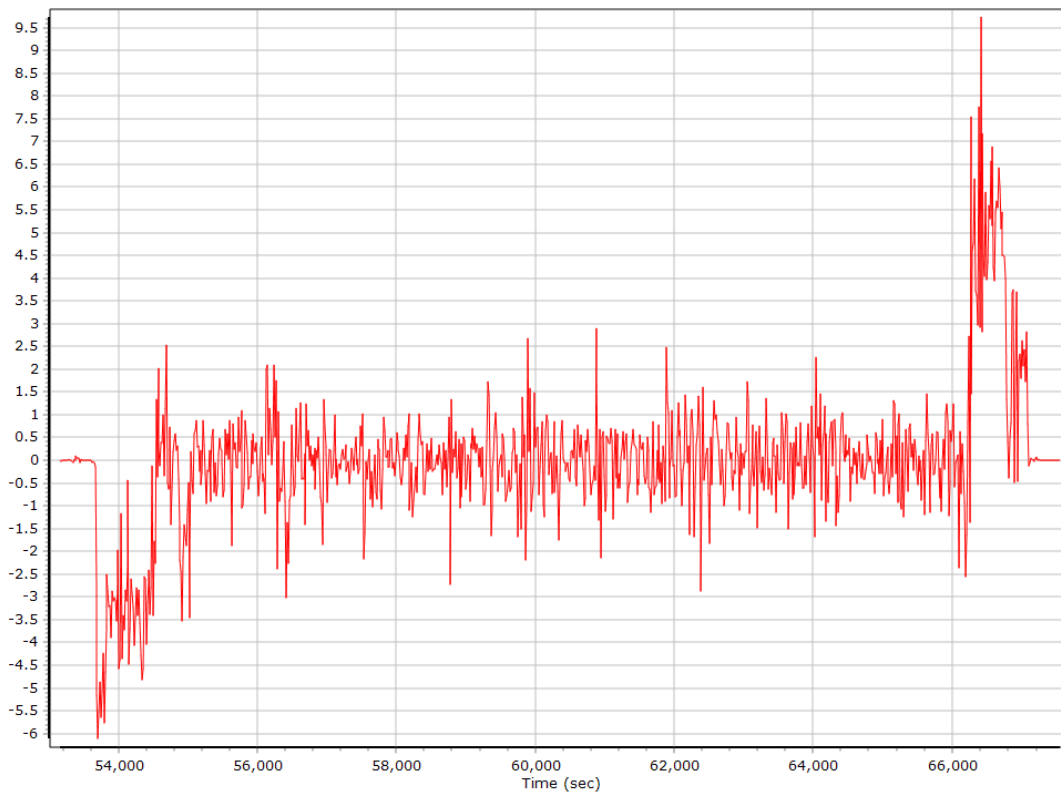
Heading



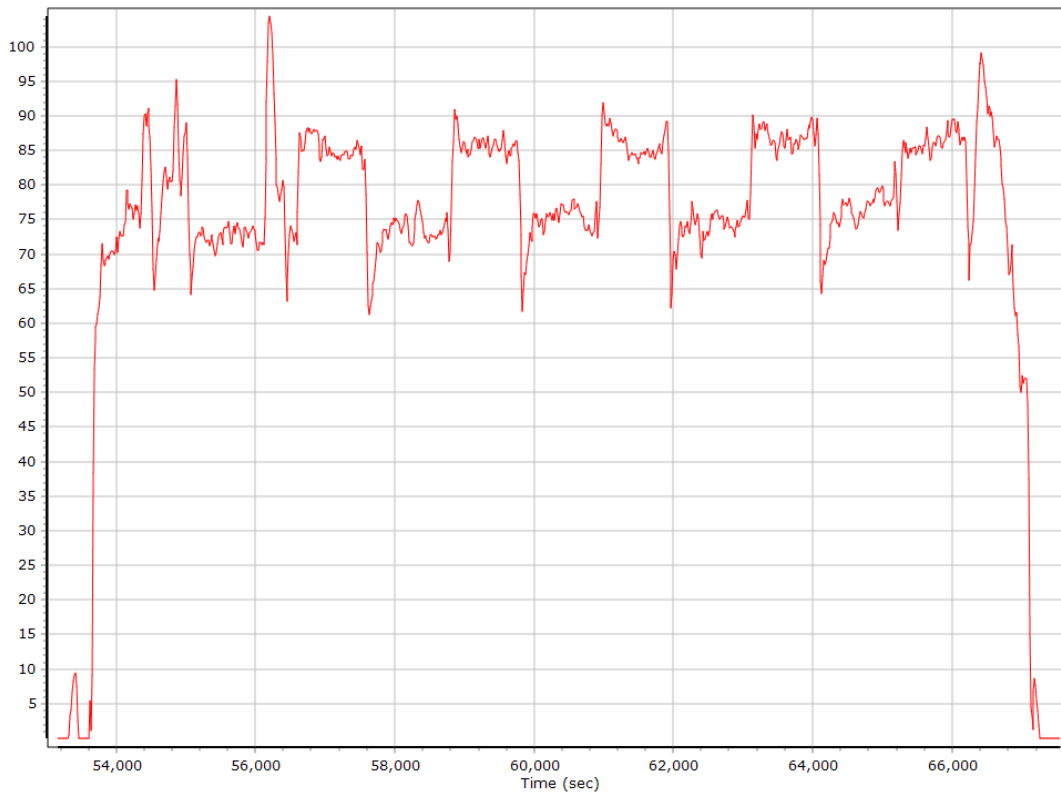
North/East Velocity



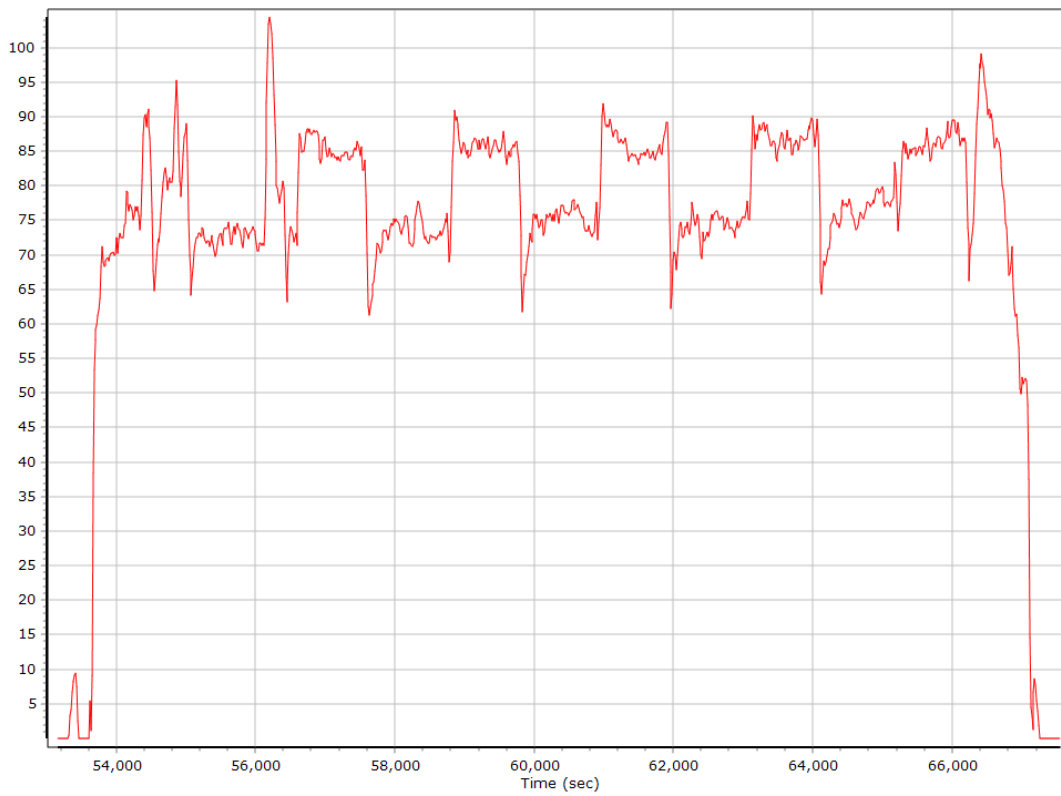
Down Velocity



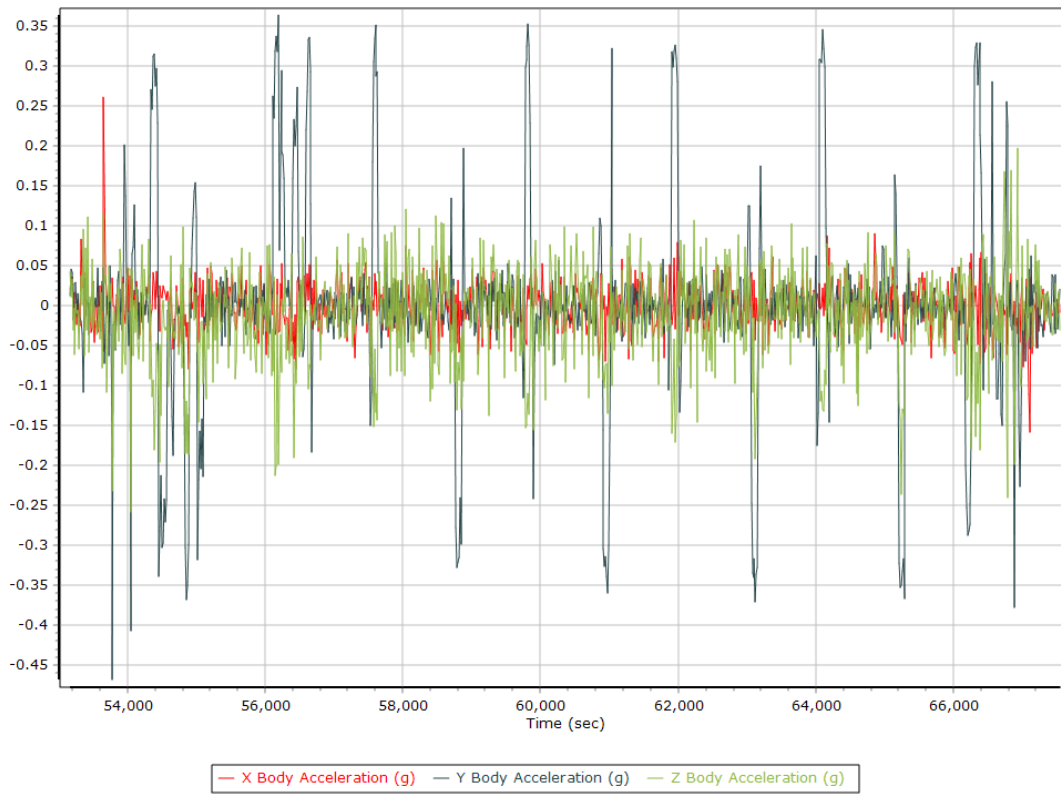
Total Speed



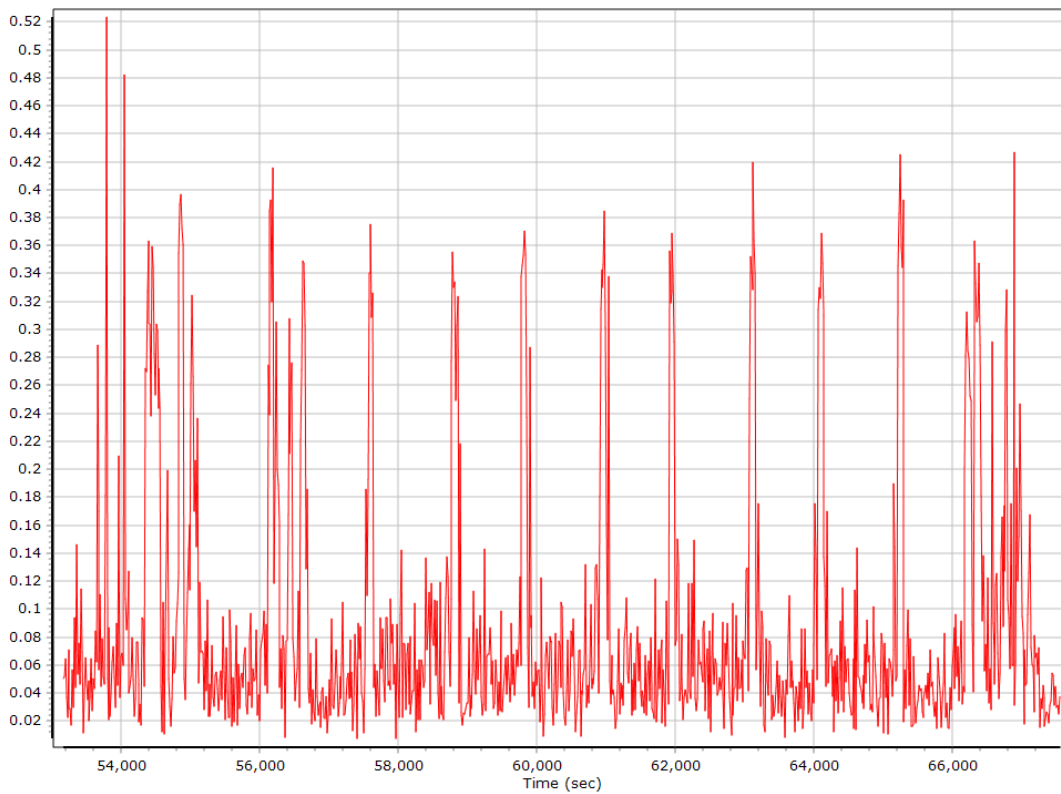
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

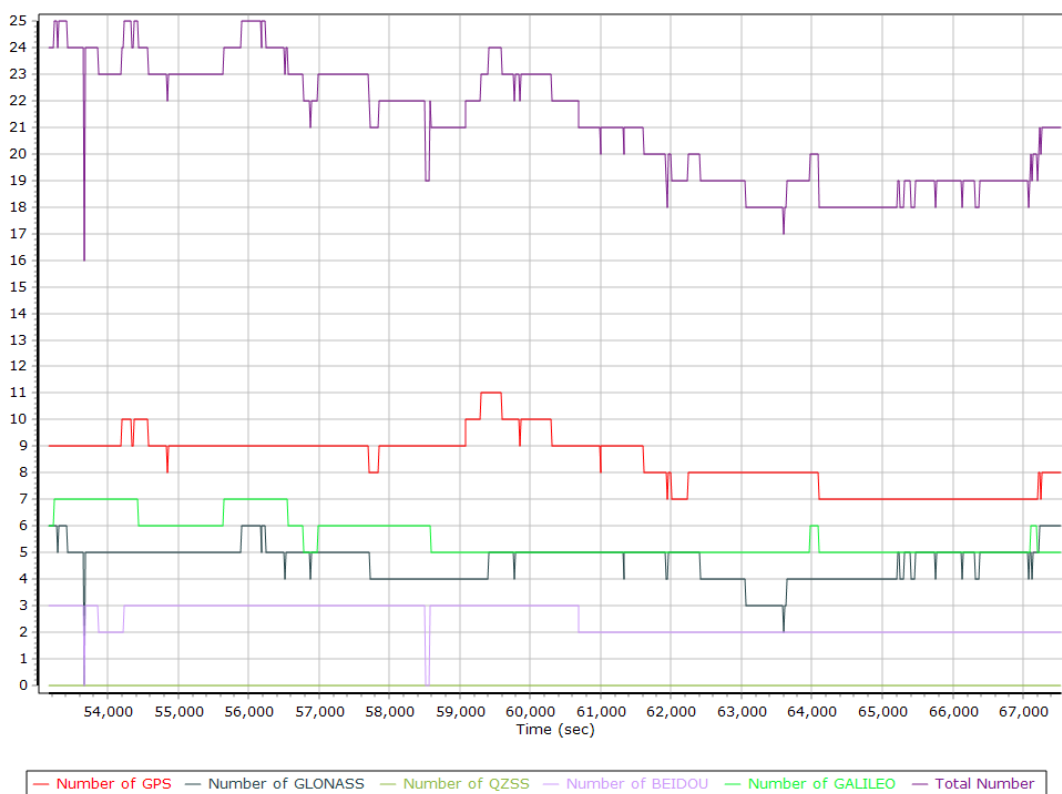


GNSS QC

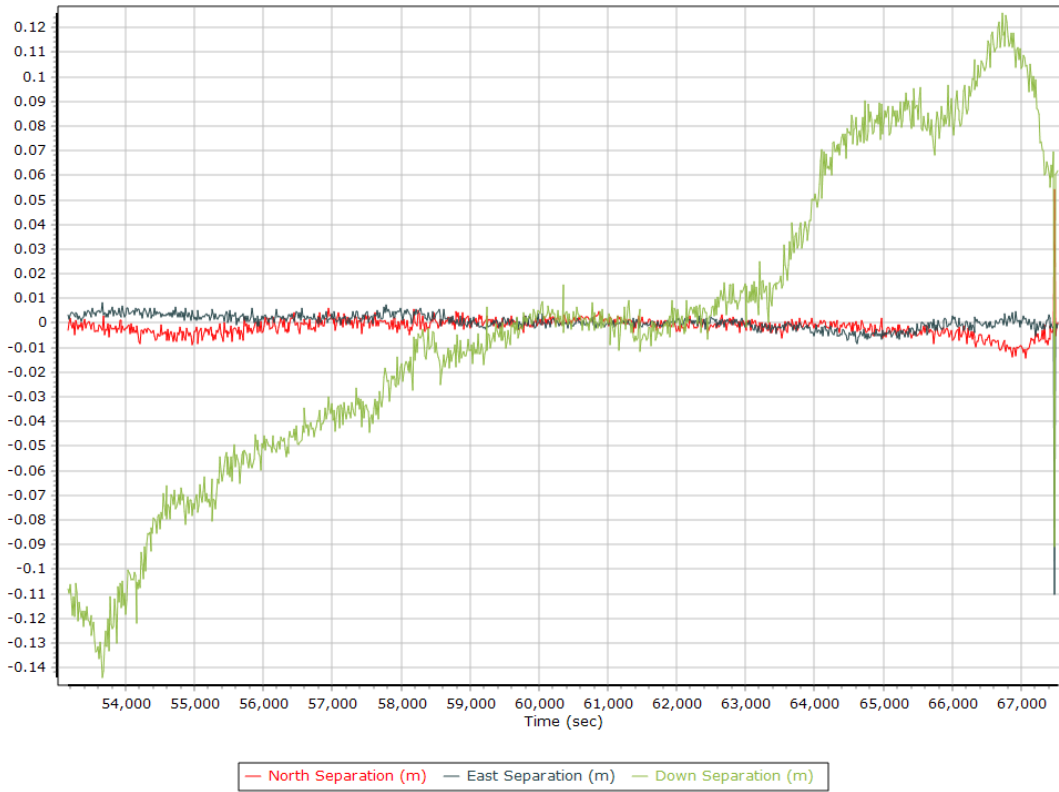
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	7	11	8
Number of GLONASS SV	0	6	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	3	2
Number of GALILEO SV	4	7	5
Total number of SV	16	25	21
PDOP	0.95	1.51	1.17
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	14729.00	0.00	2.00
Percentage	99.99	0.00	0.01

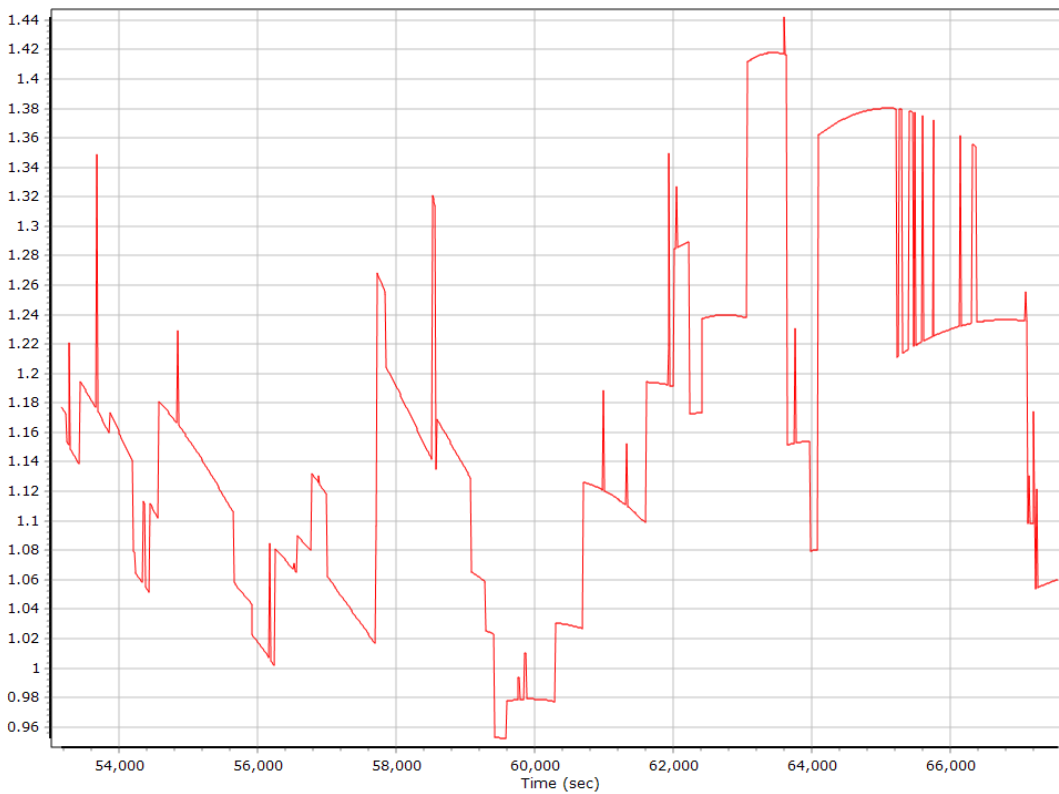
Num SVs in solution



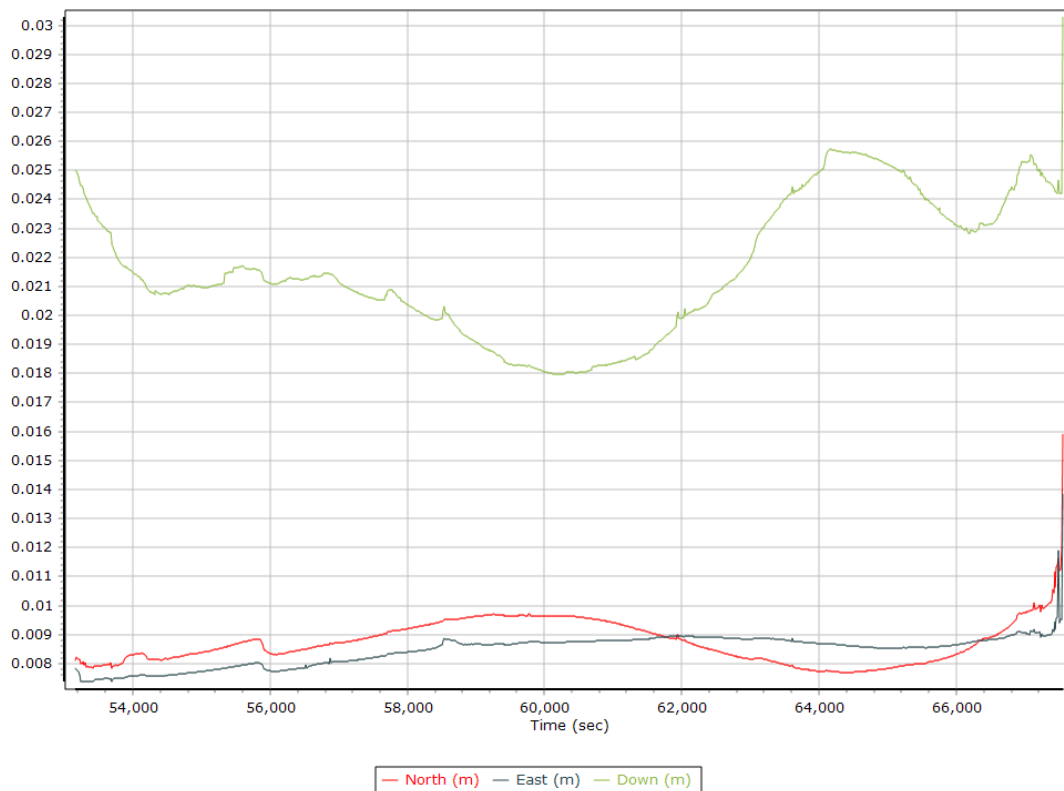
Forward/Reverse Separation



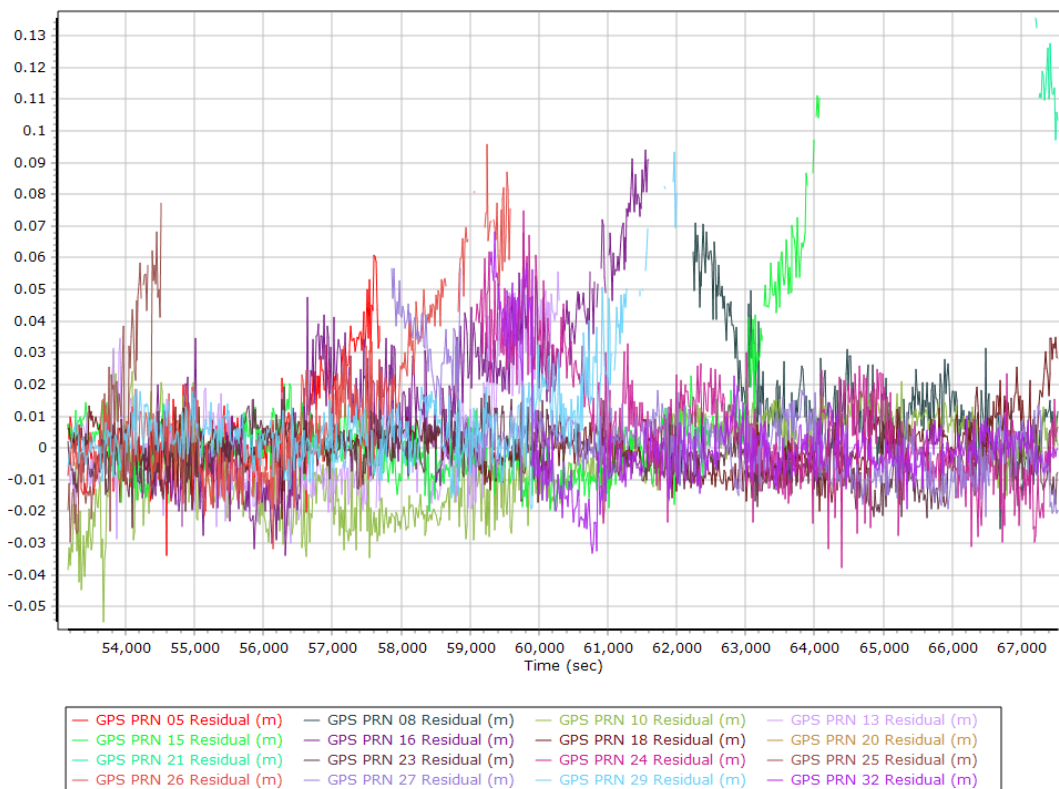
PDOP



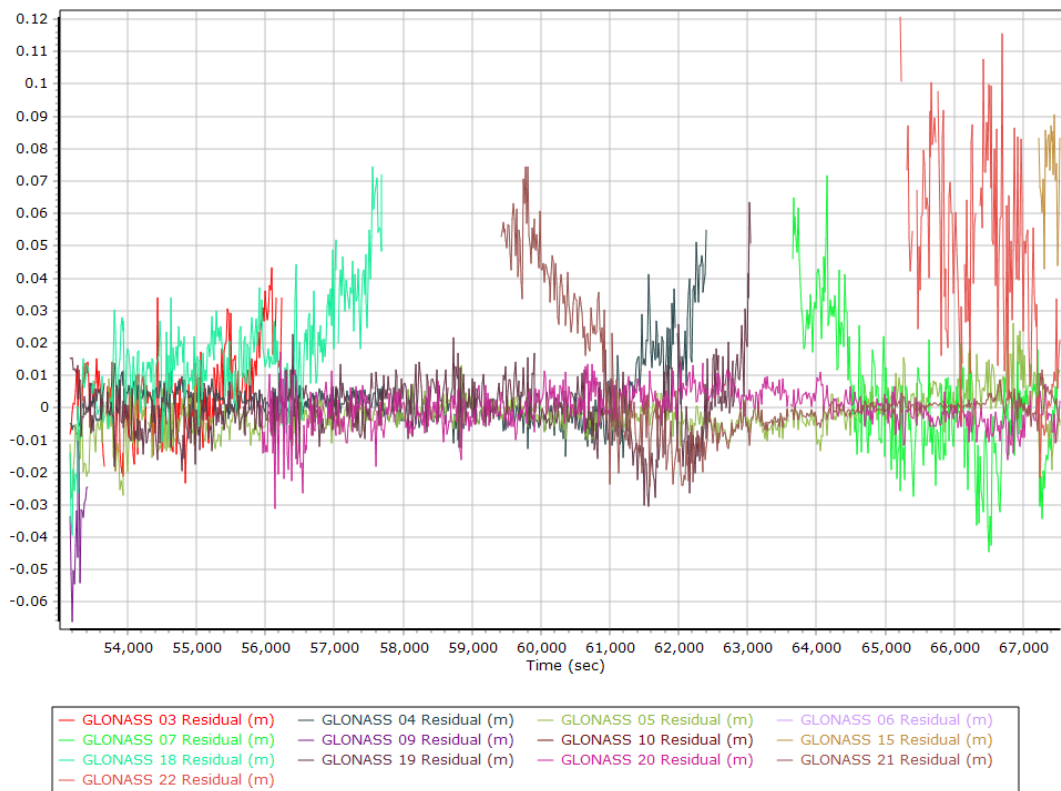
Estimated Position Accuracy



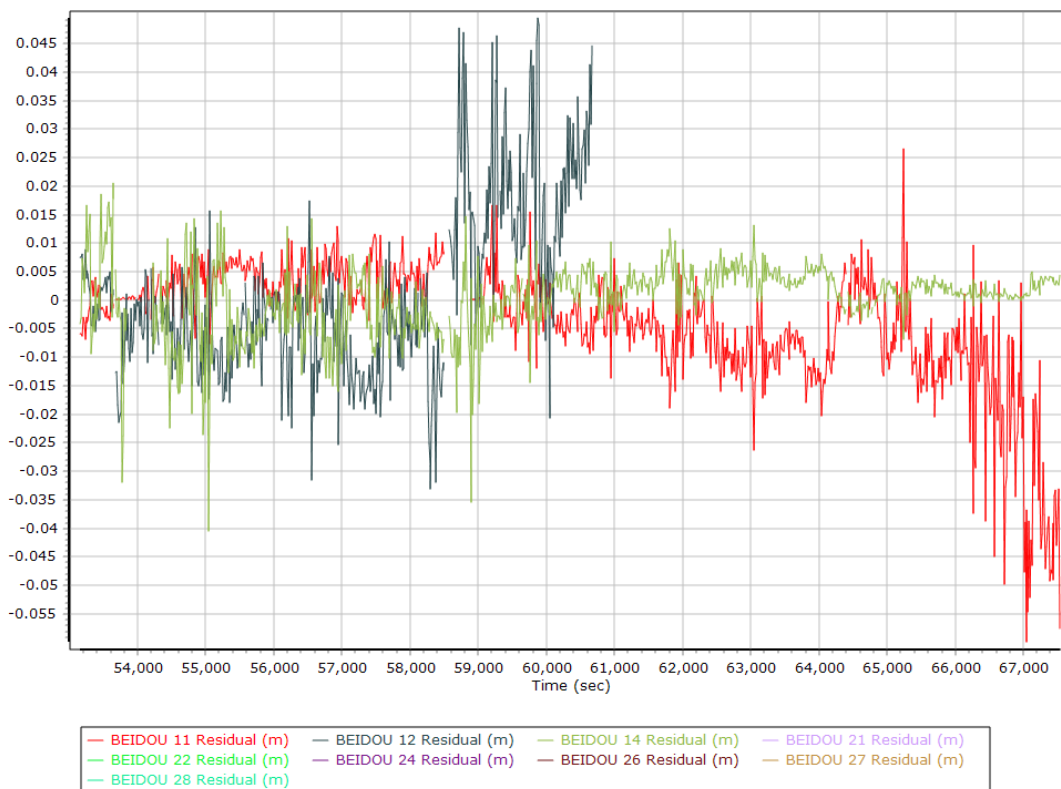
GPS Residuals



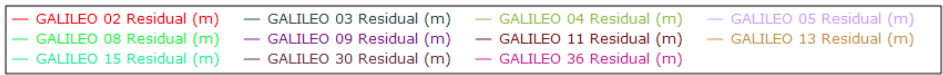
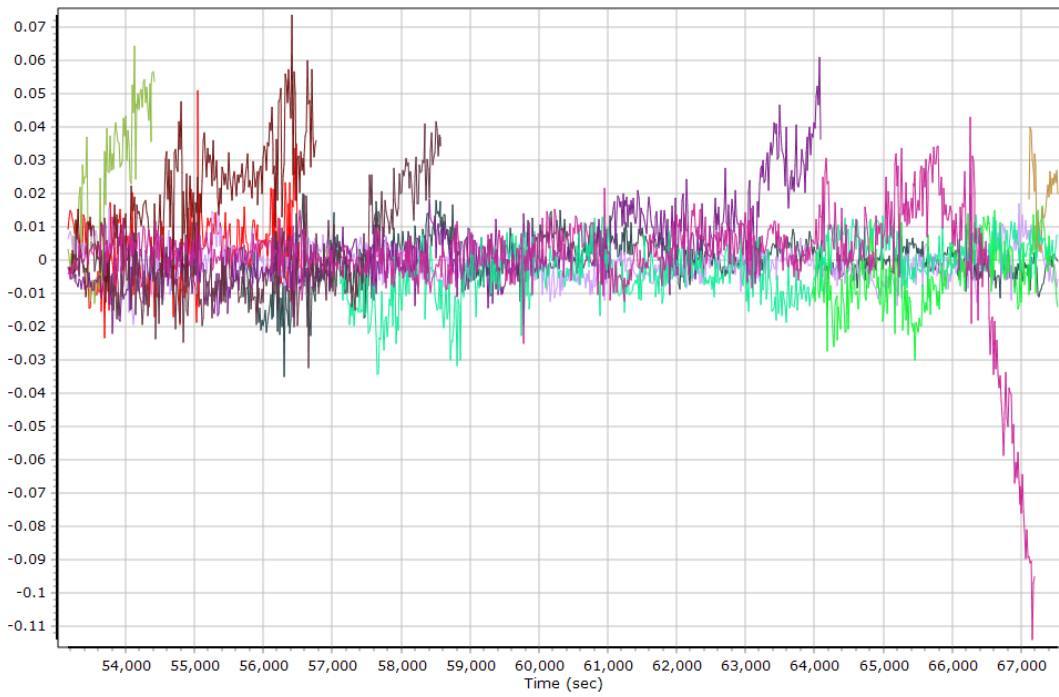
GLONASS Residuals



BEIDOU Residuals



GALILEO Residuals



GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	52810.000 (10/10/2021 2:40:10 PM)		
Processing end time	67558.000 (10/10/2021 6:45:58 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	90.000
Reference to Primary GNSS lever arm (m)	-0.520	-0.062	-1.214
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

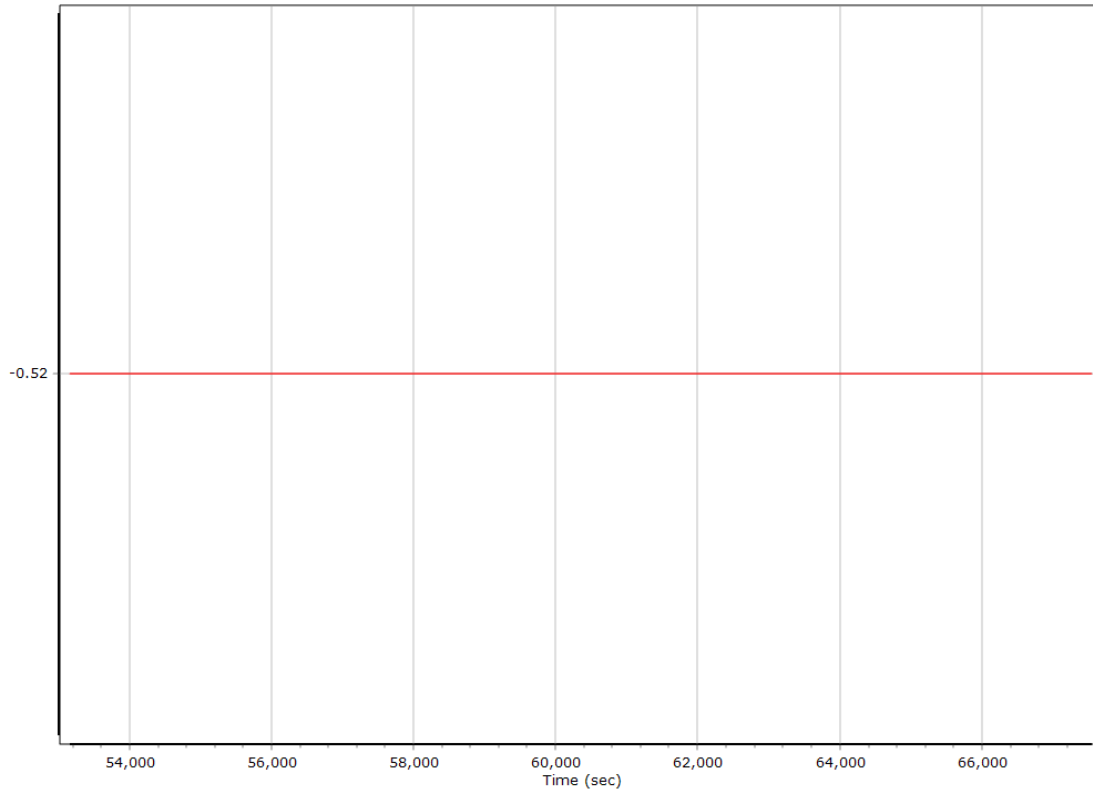
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

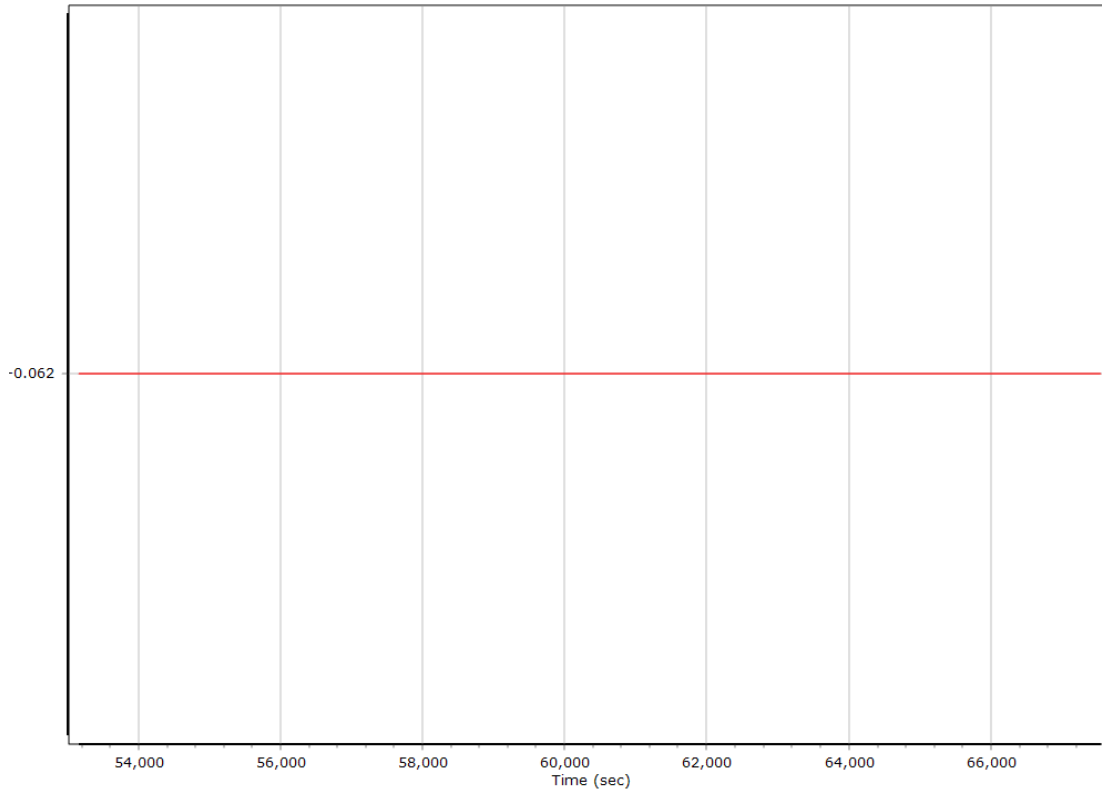
Reference-Primary GNSS Lever Arm Automatic Calibration Results

Original Reference to Primary GNSS lever arm (m)	-0.497	-0.045	-1.199
Iteration 1 Reference to Primary GNSS lever arm (m)	-0.519	-0.062	-1.214
Iteration 2 Reference to Primary GNSS lever arm (m)	-0.520	-0.062	-1.214
Primary GNSS Lever Arm In use	Iteration 2		

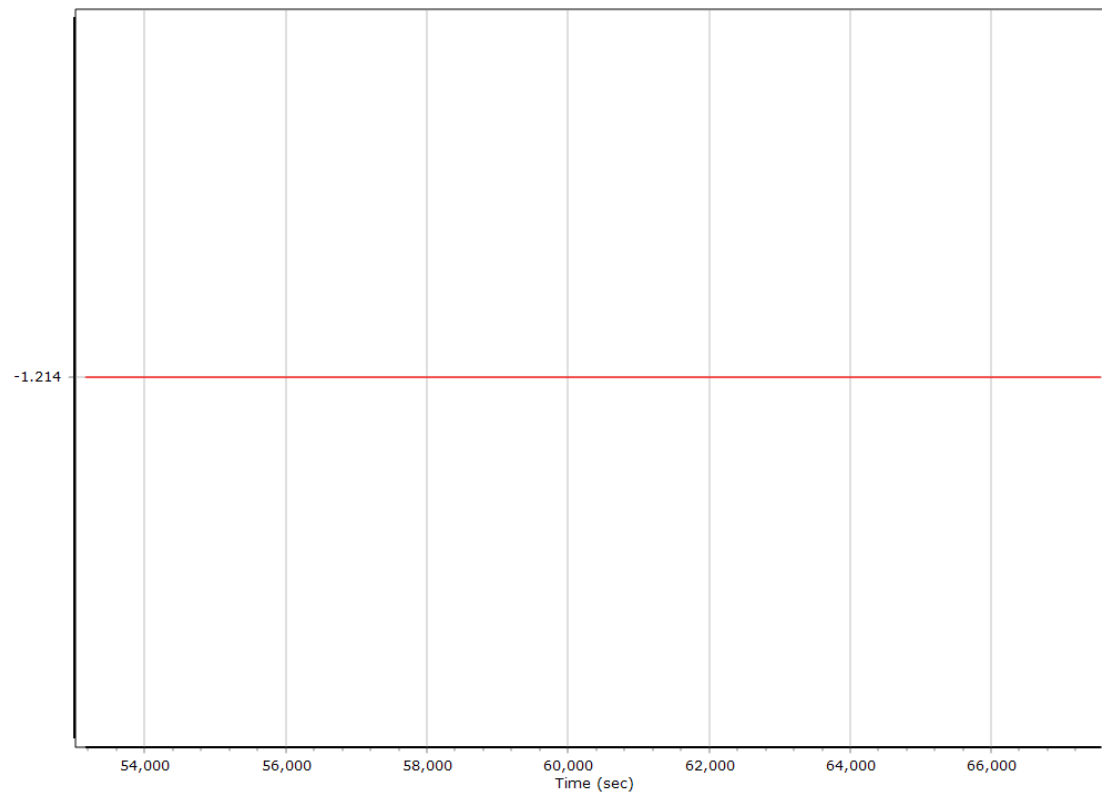
X Reference-Primary GNSS Lever Arm (m)



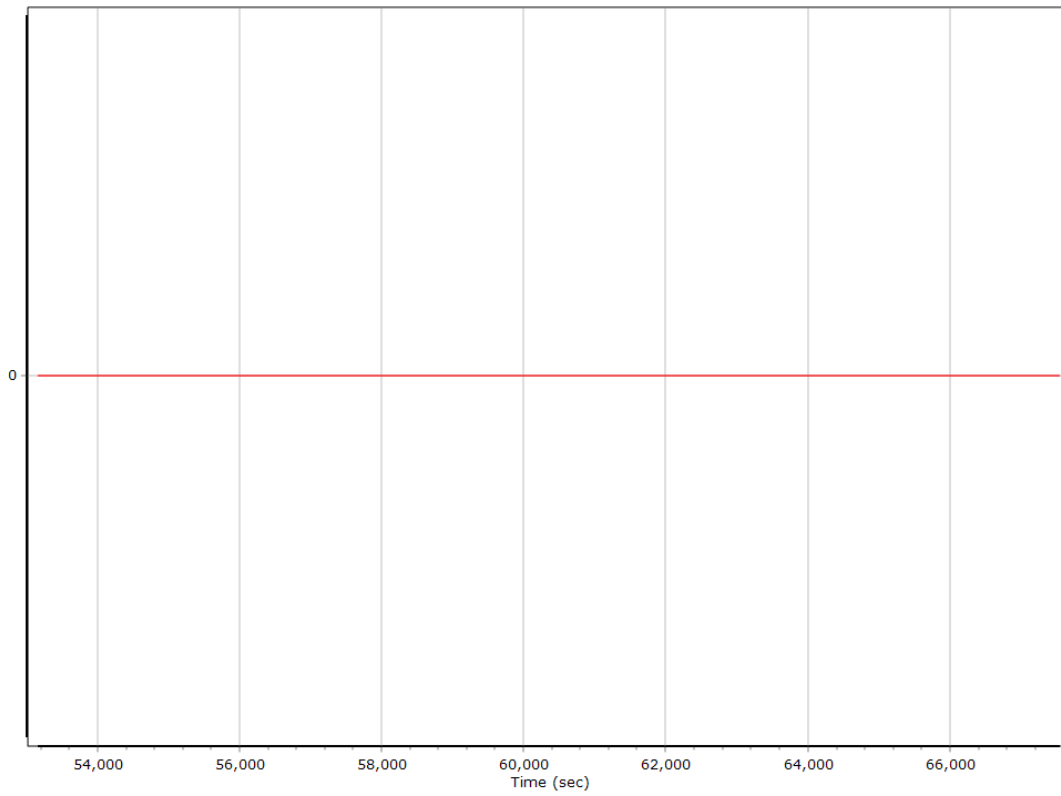
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



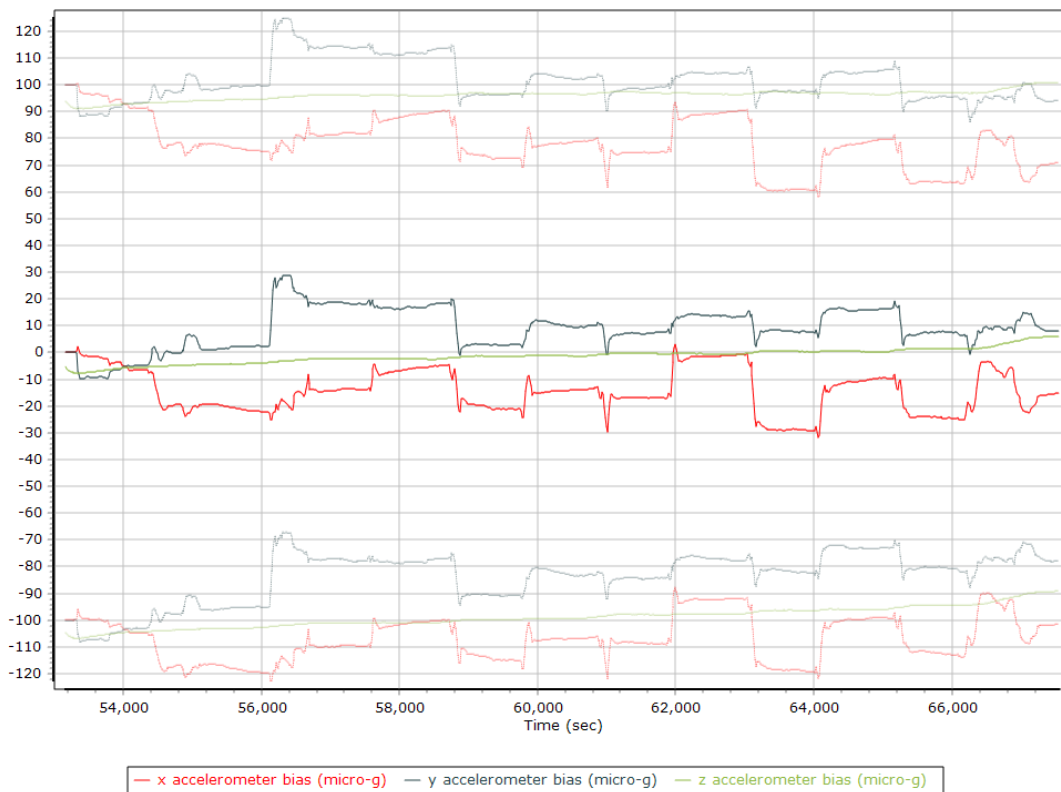
Reference-Primary GNSS Lever Arm Figure of Merit



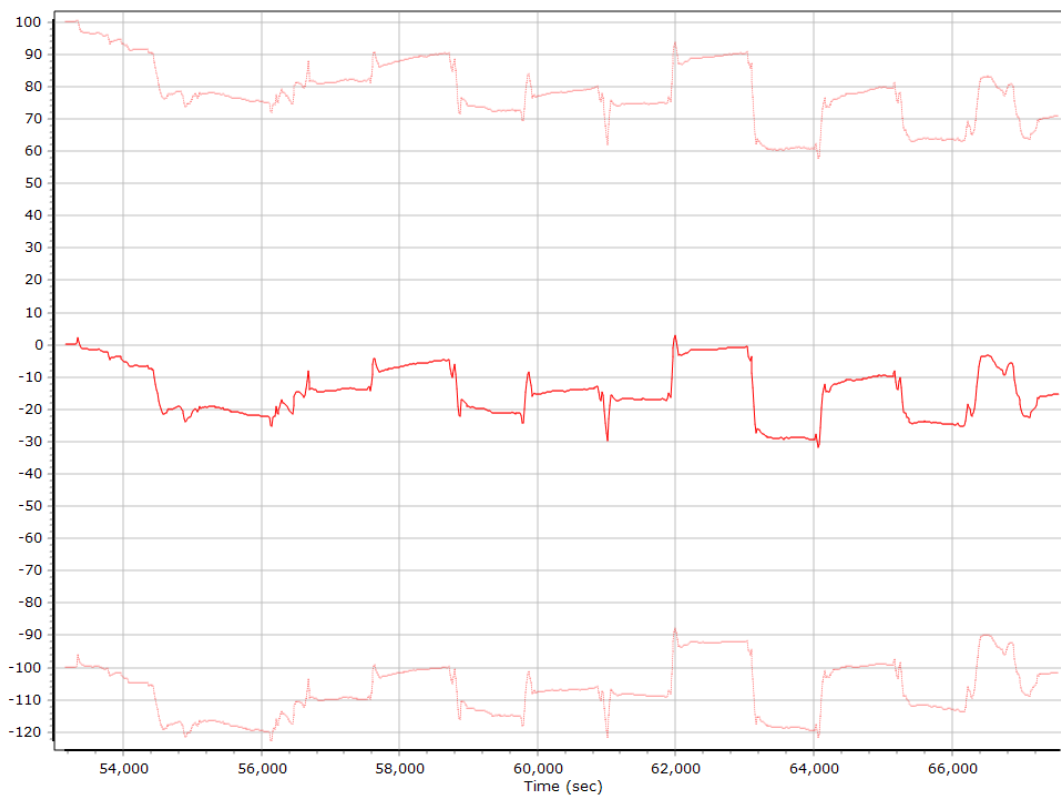
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

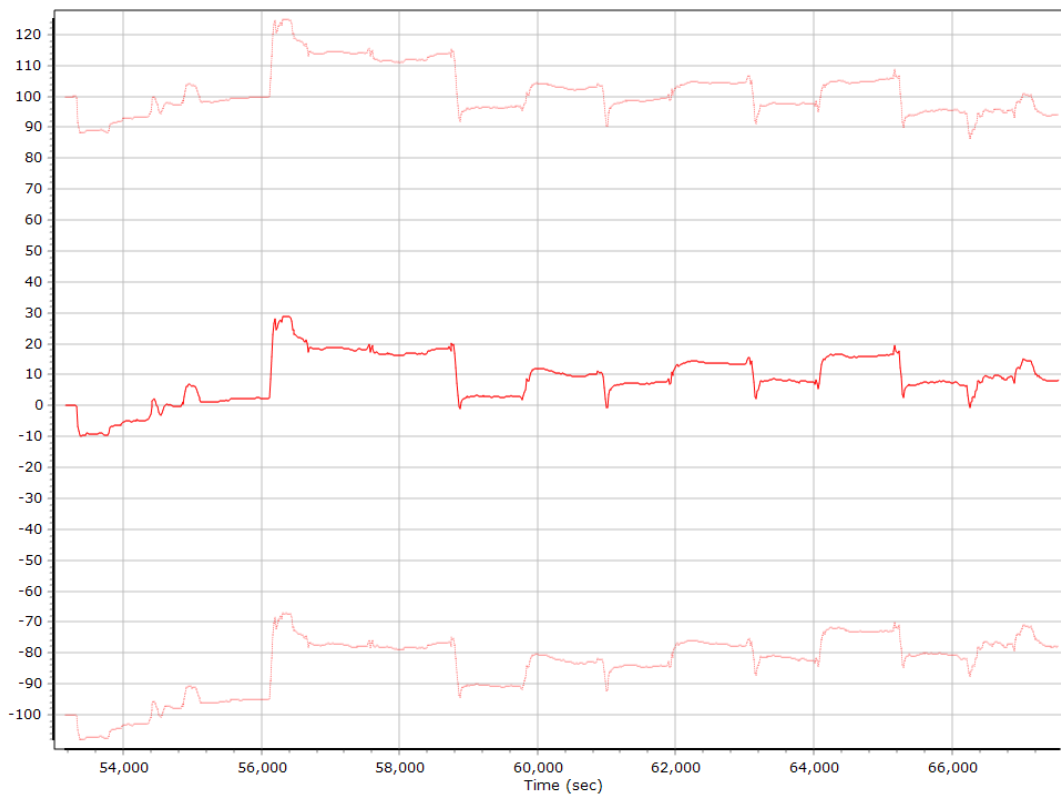
Accelerometer Bias (micro-g)



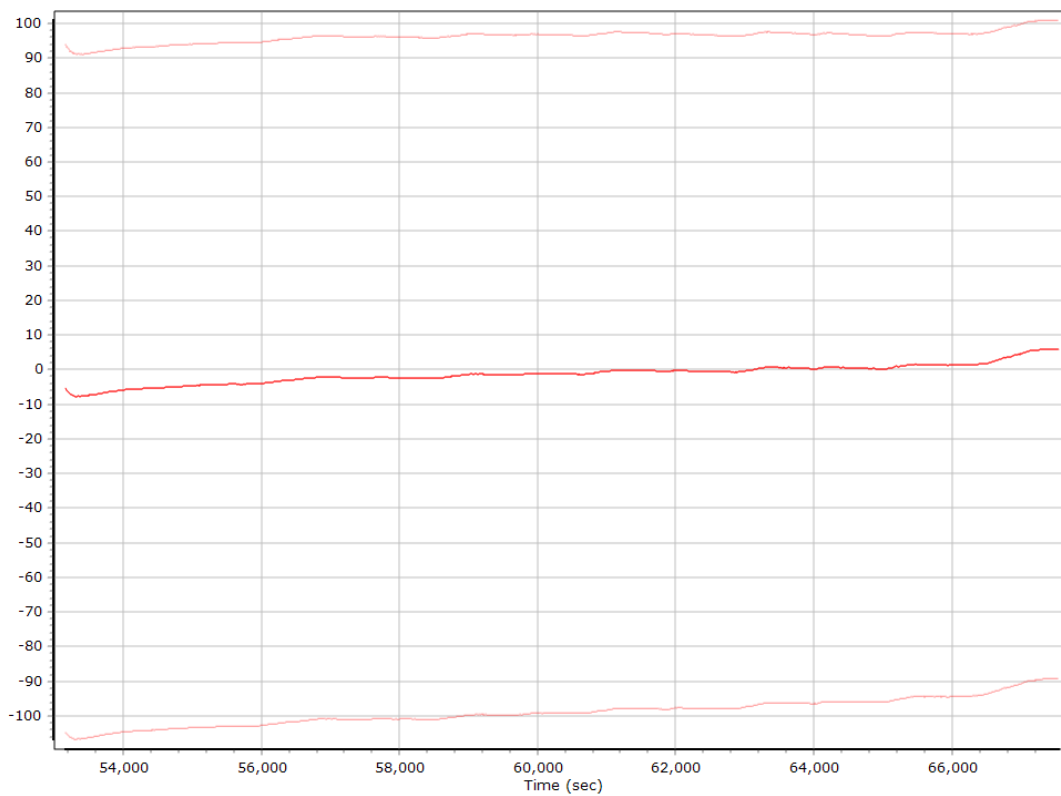
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



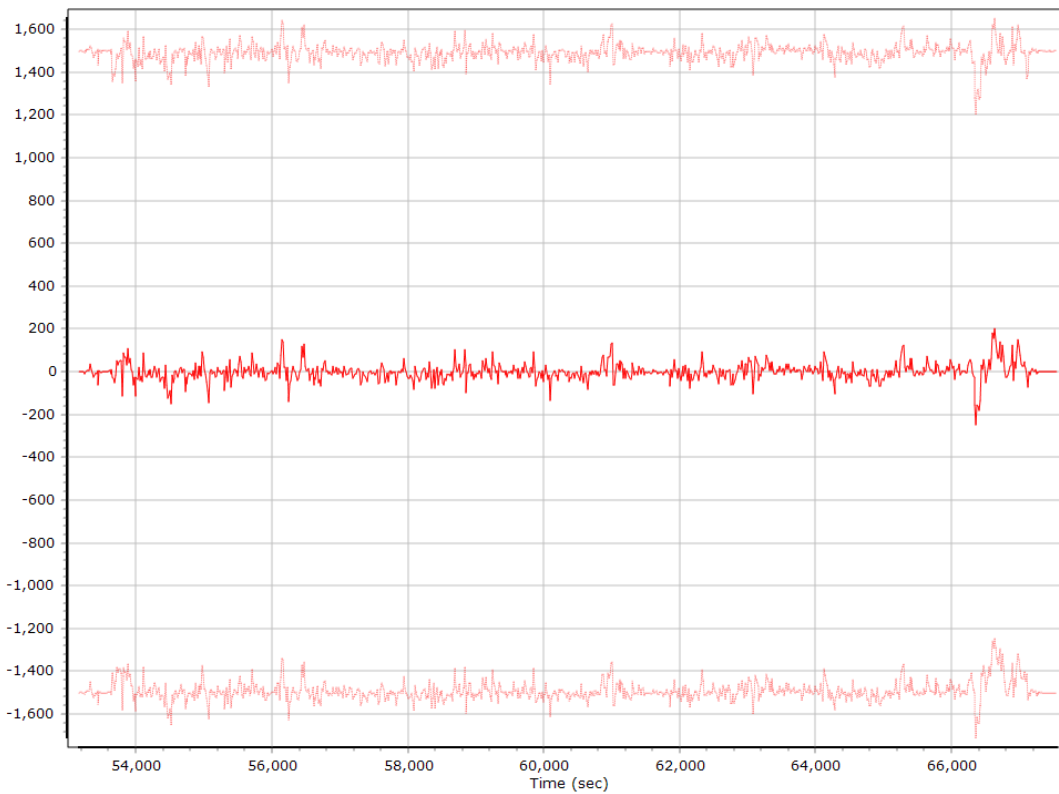
Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



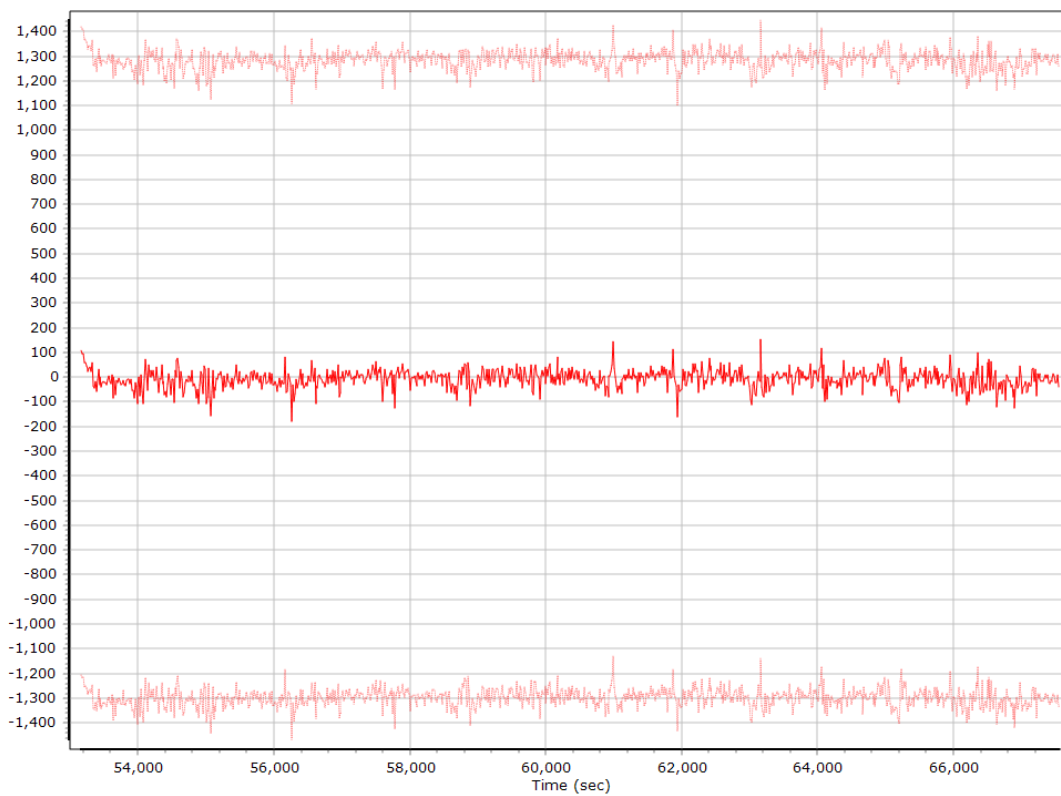
X Accelerometer Scale Error (ppm)



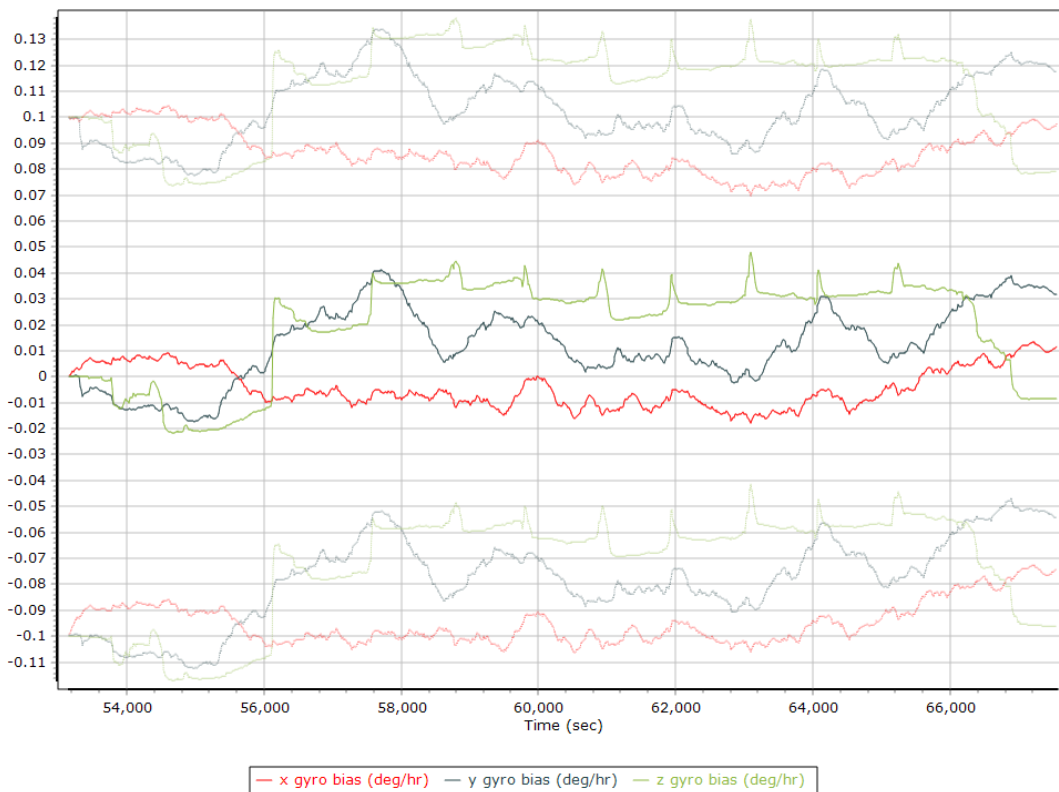
Y Accelerometer Scale Error (ppm)



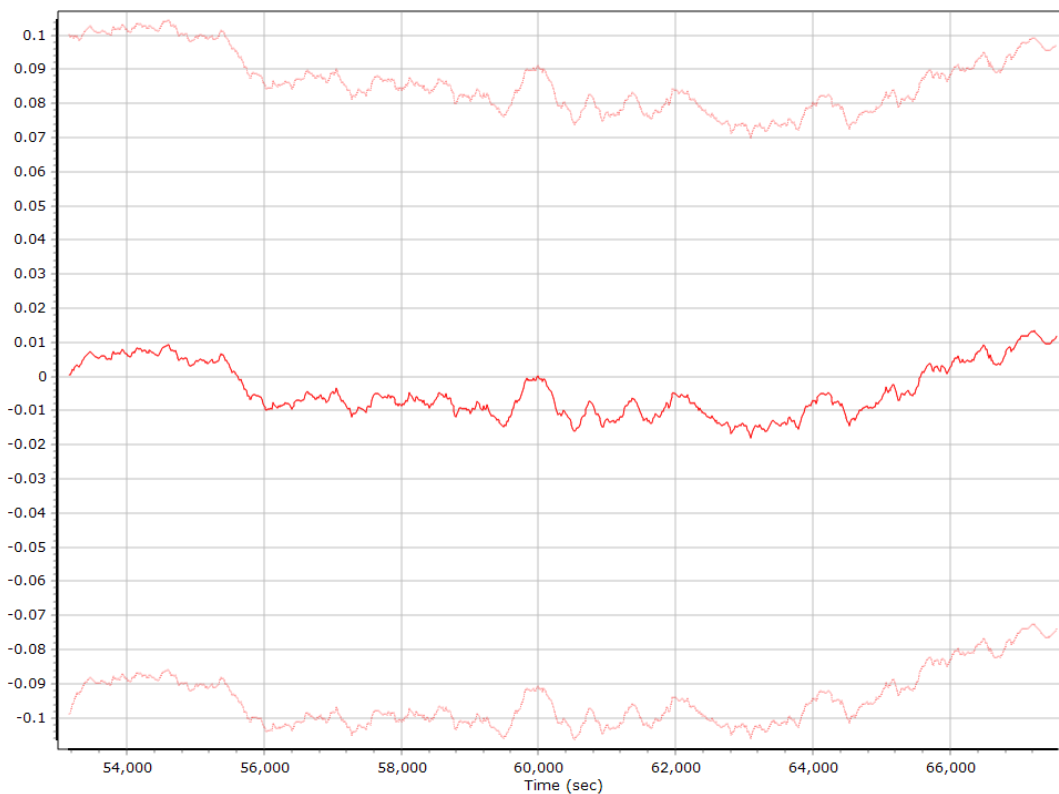
Z Accelerometer Scale Error (ppm)



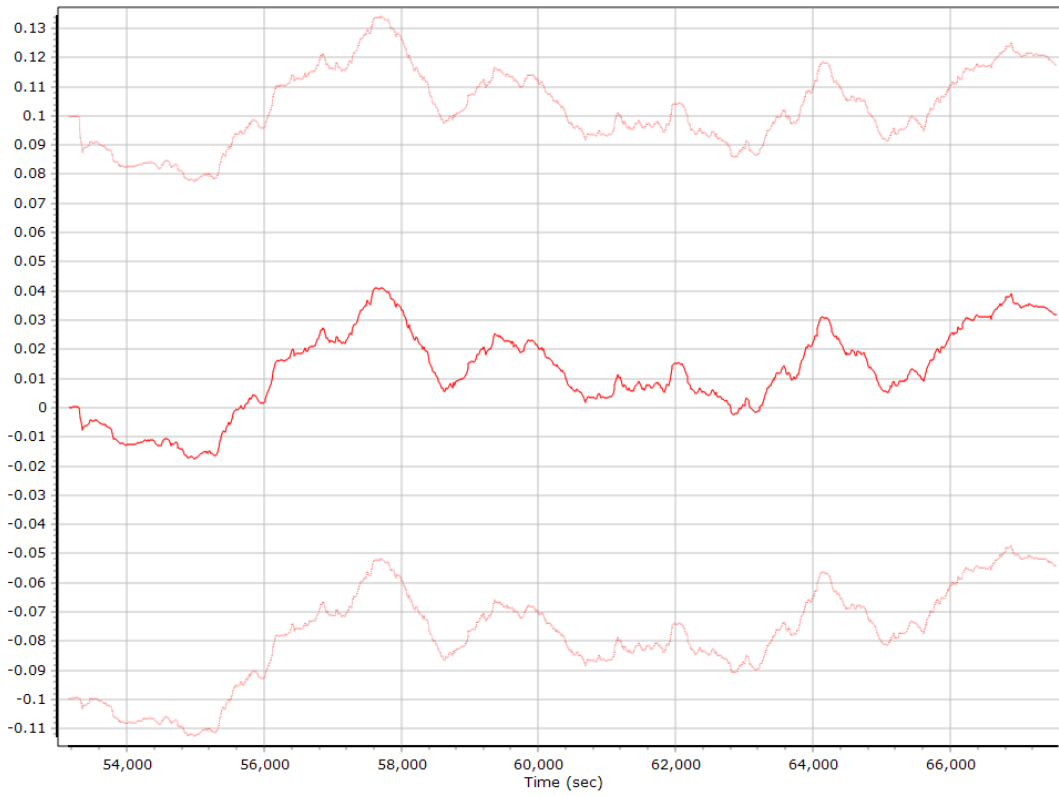
Gyro Bias (deg/h)



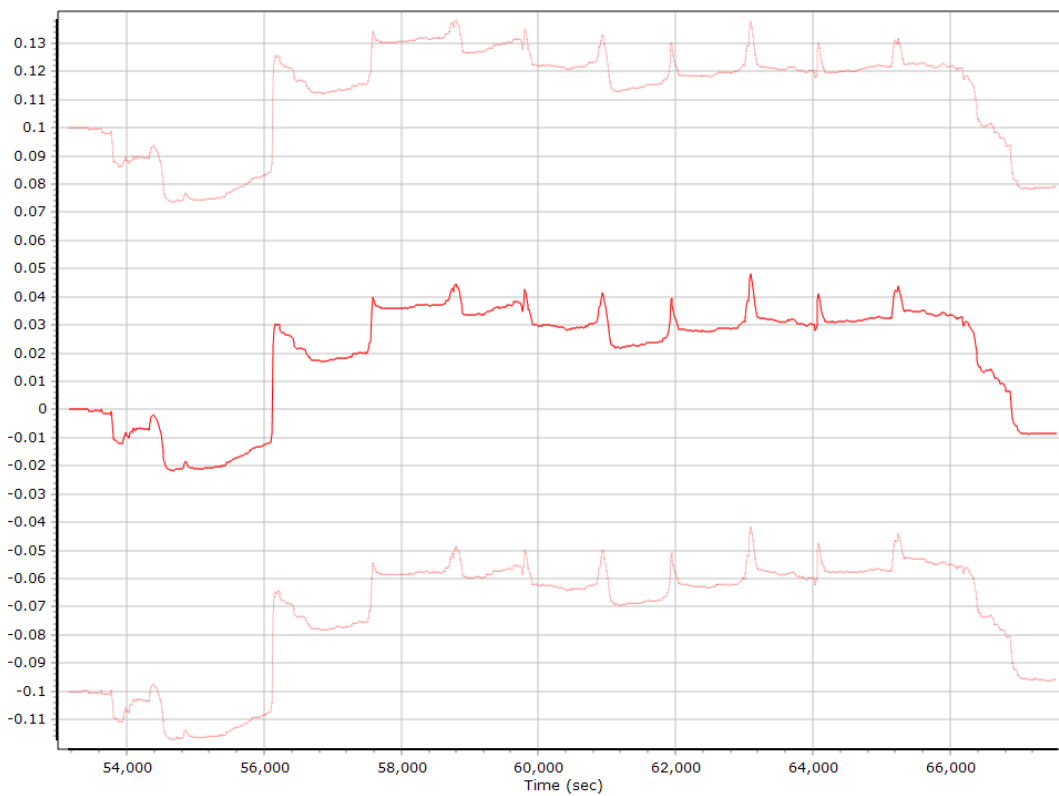
X Gyro Bias (deg/h)



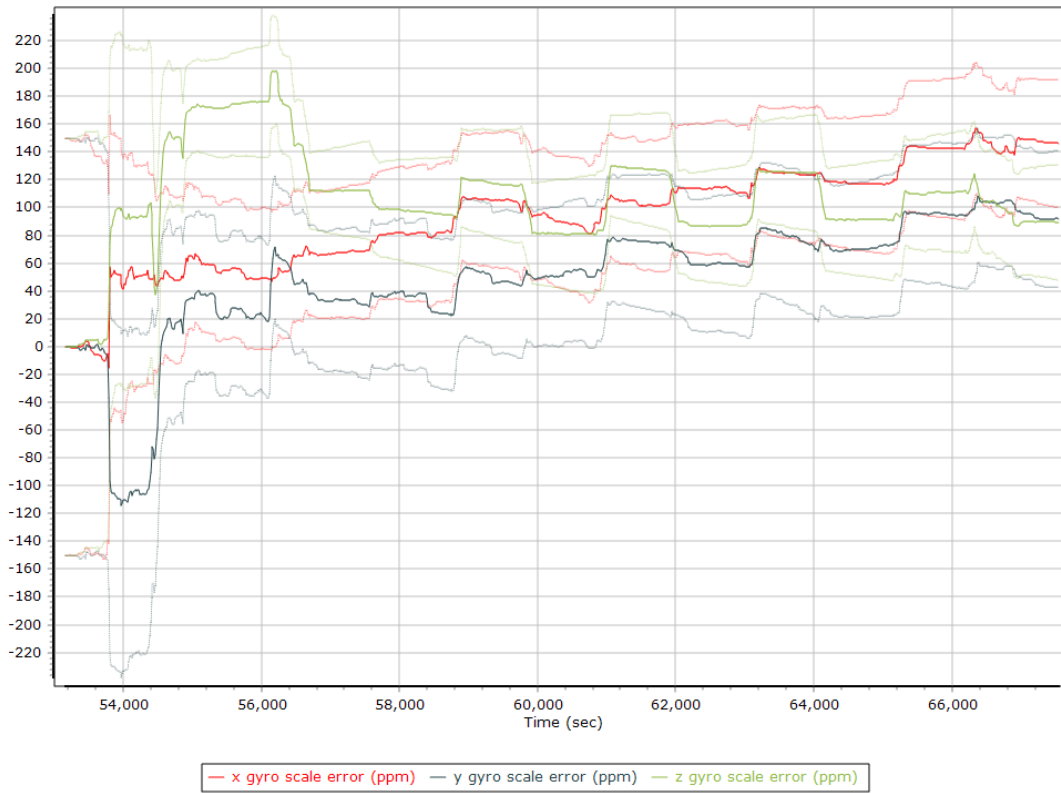
Y Gyro Bias (deg/h)



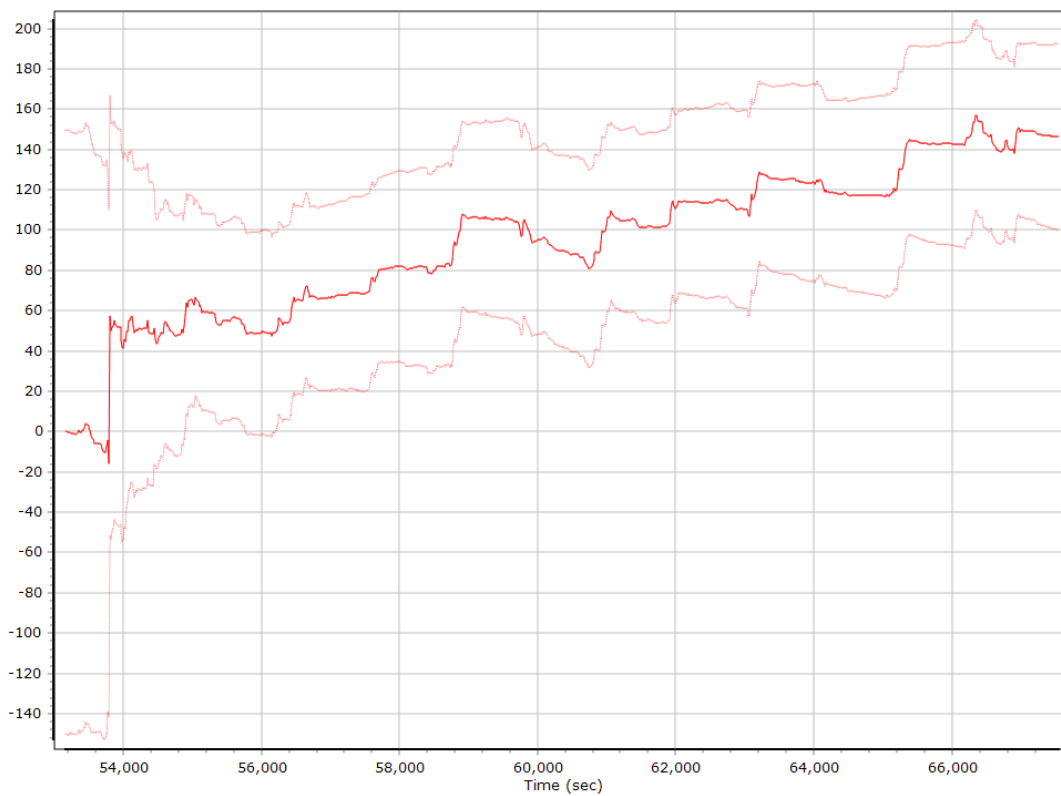
Z Gyro Bias (deg/h)



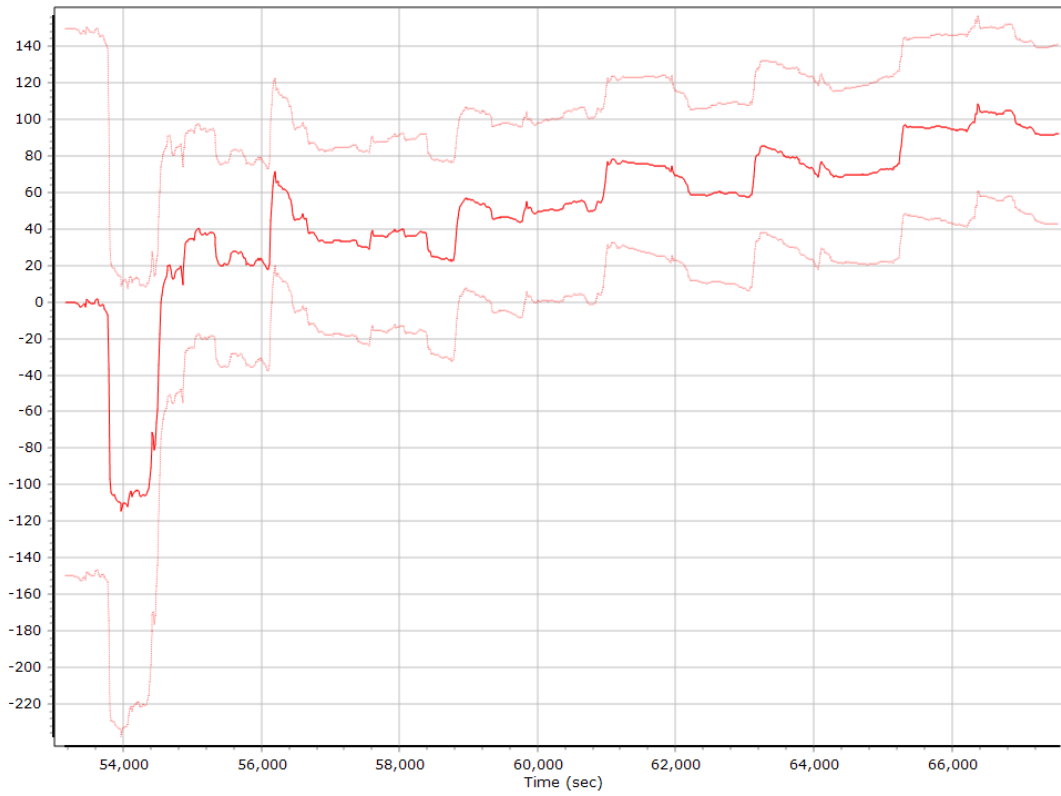
Gyro Scale Error (ppm)



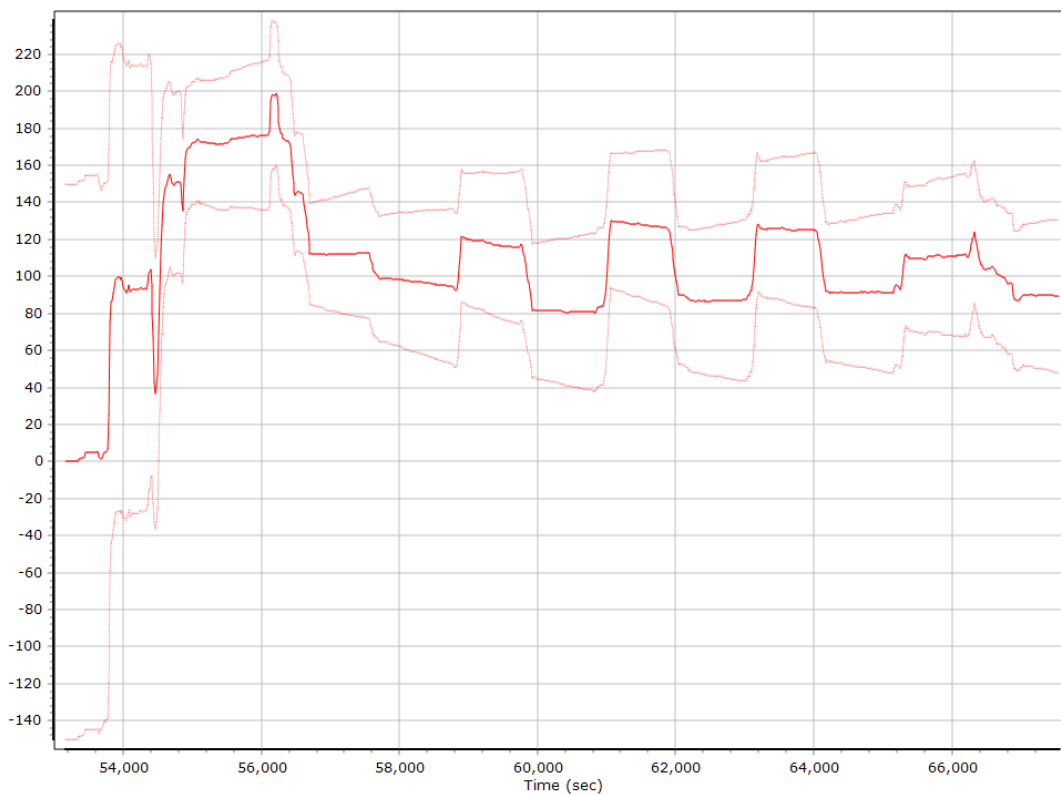
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

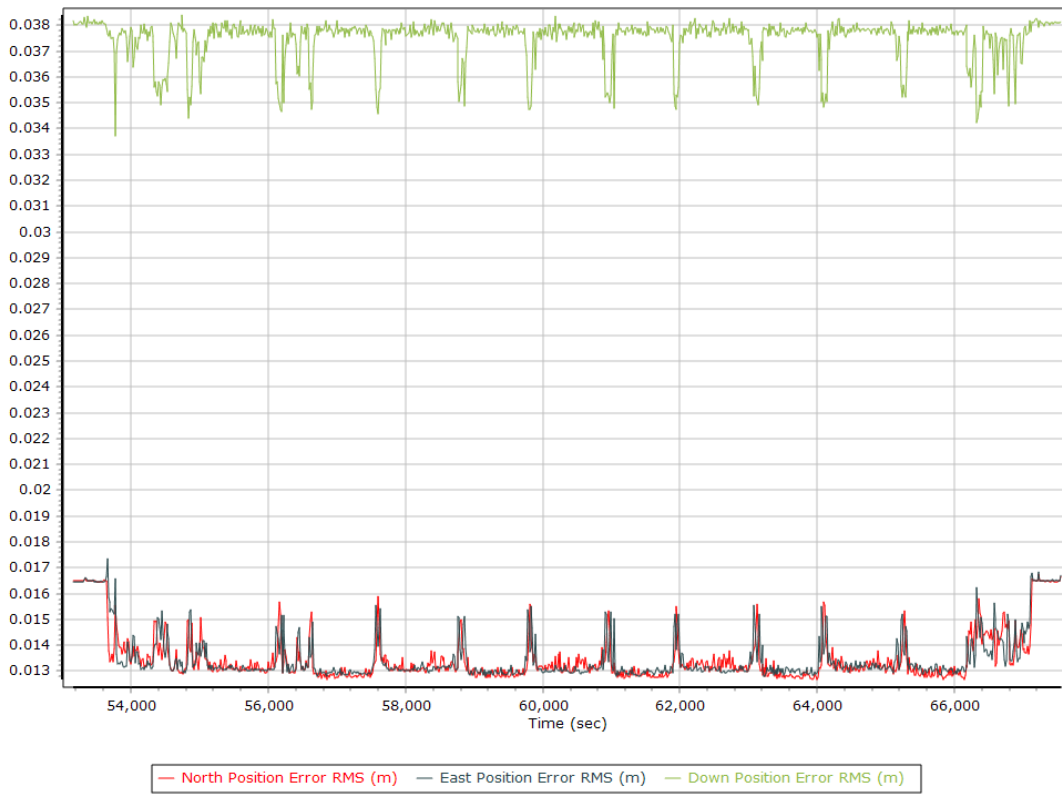


Z Gyro Scale Error (ppm)

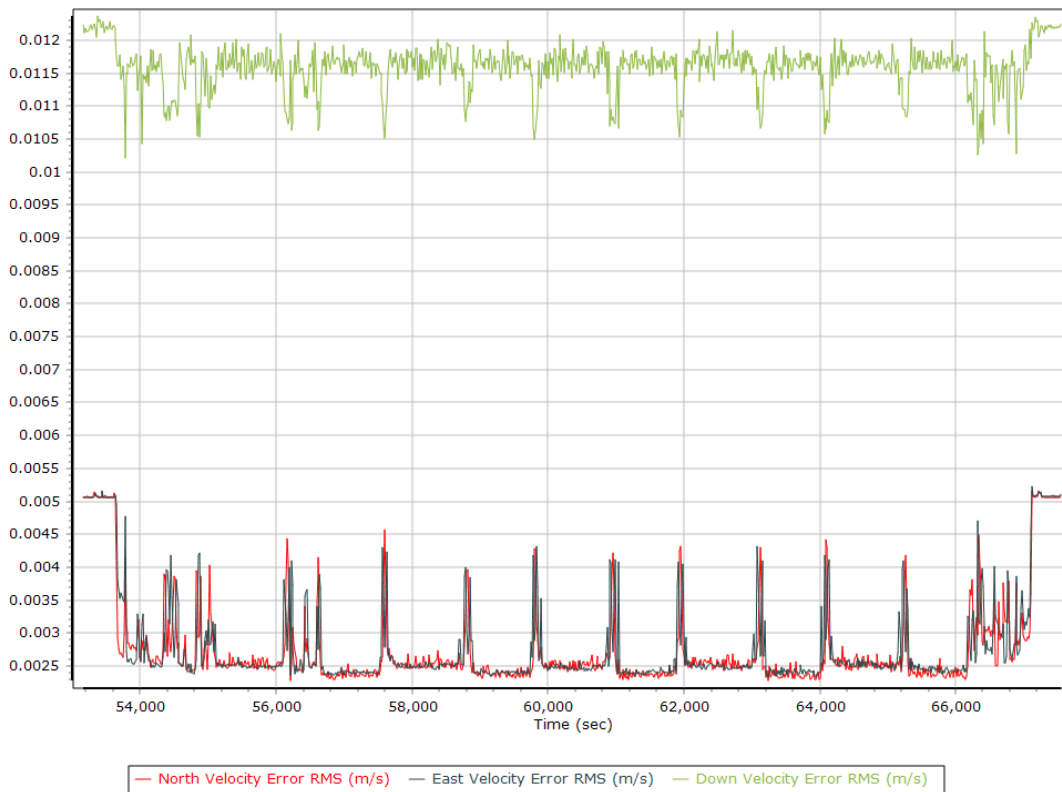


Smoothed Performance Metrics

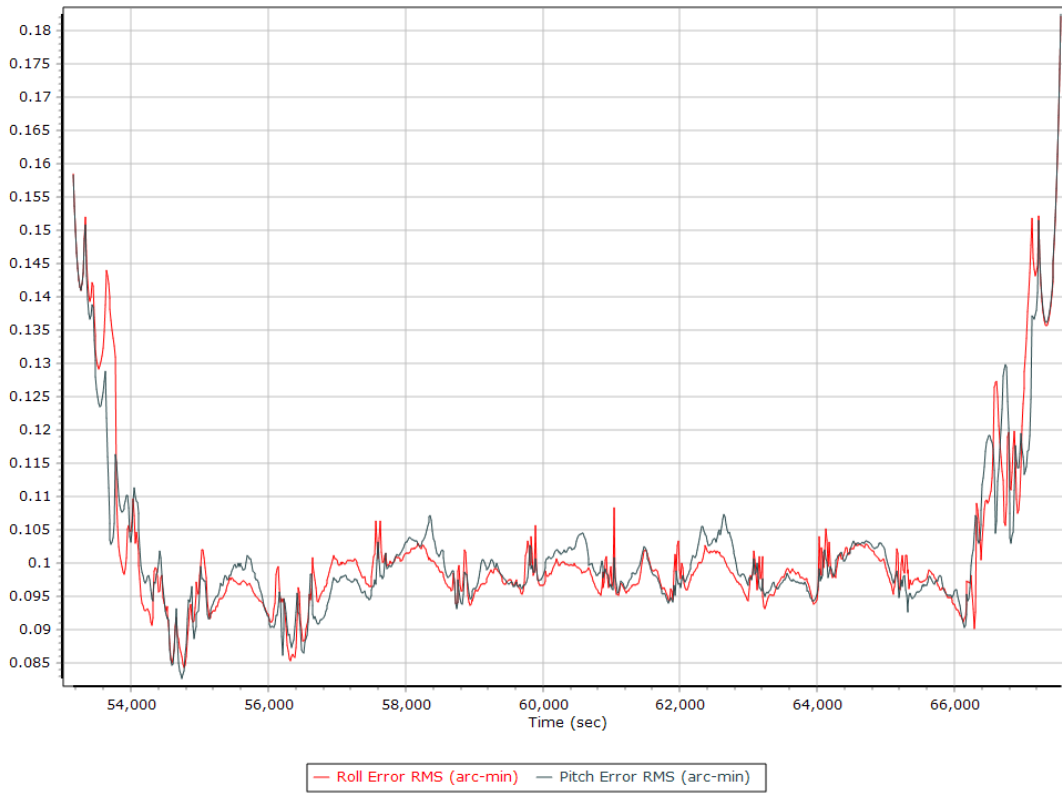
Position Error RMS (m)



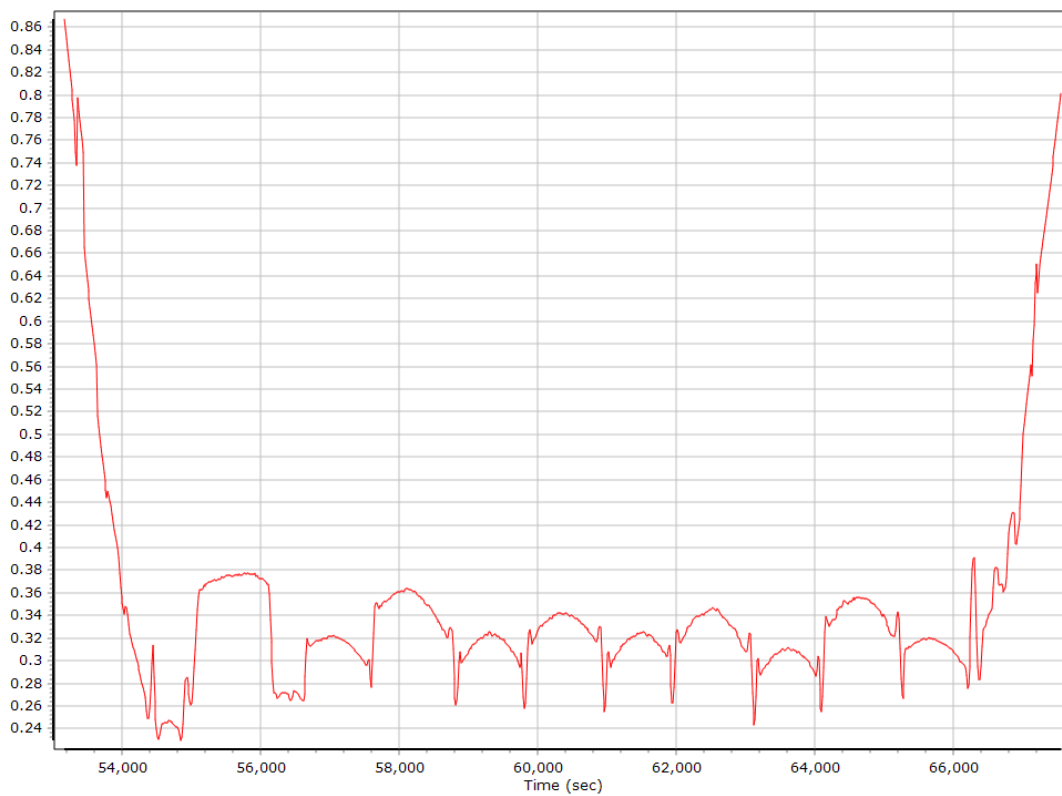
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

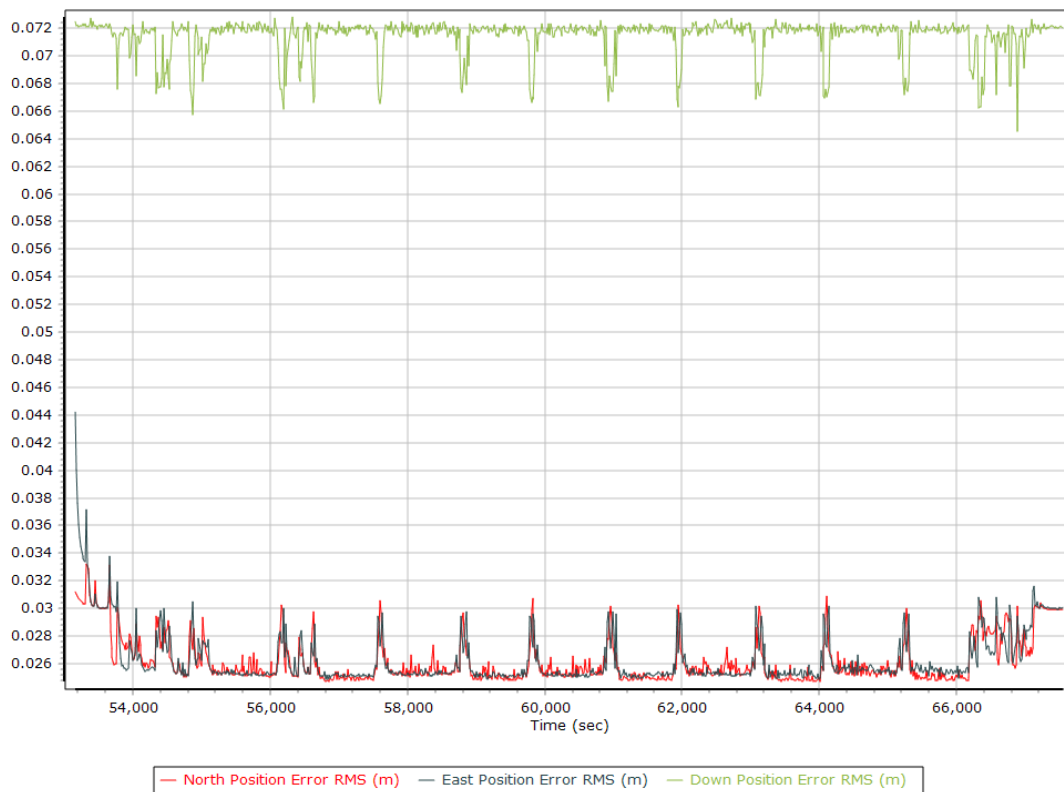


Heading Error RMS (arc-min)

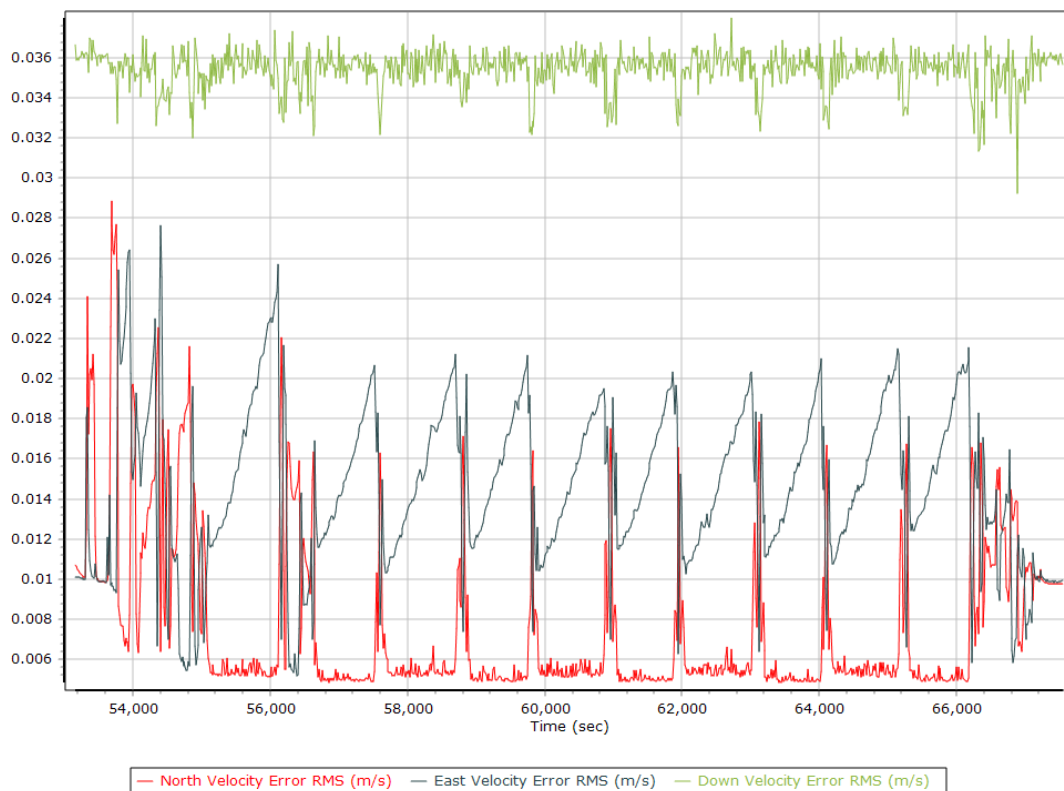


Forward Processed Performance Metrics

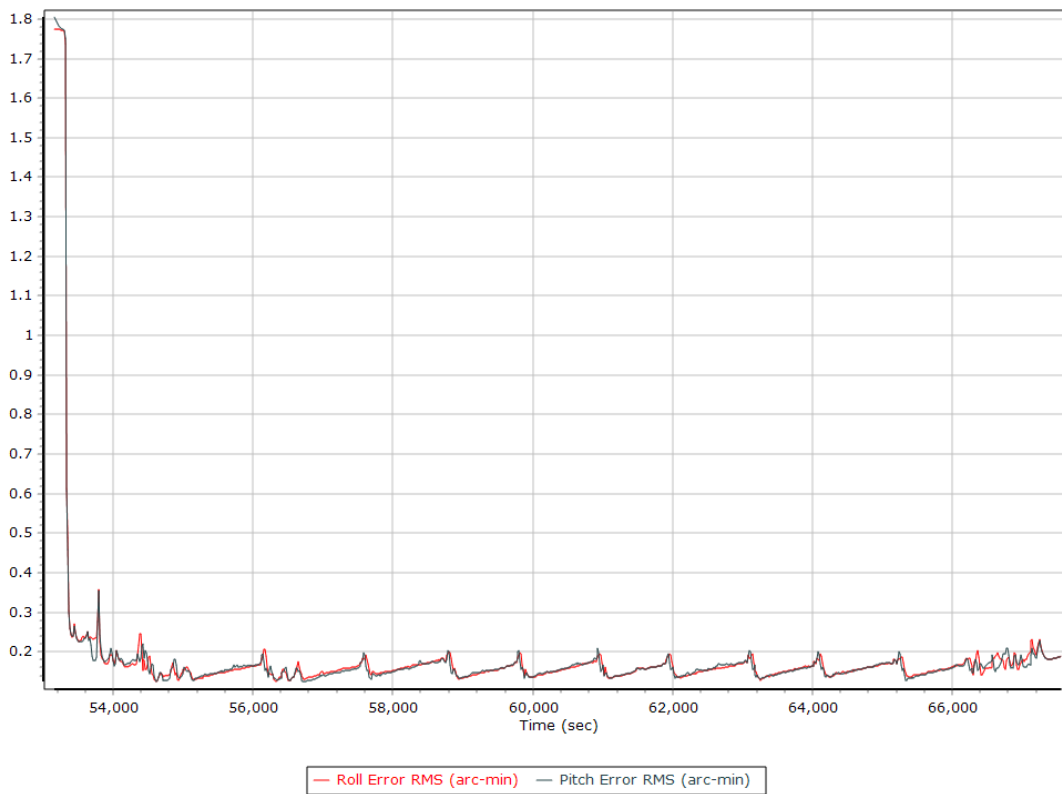
Position Error RMS (m)



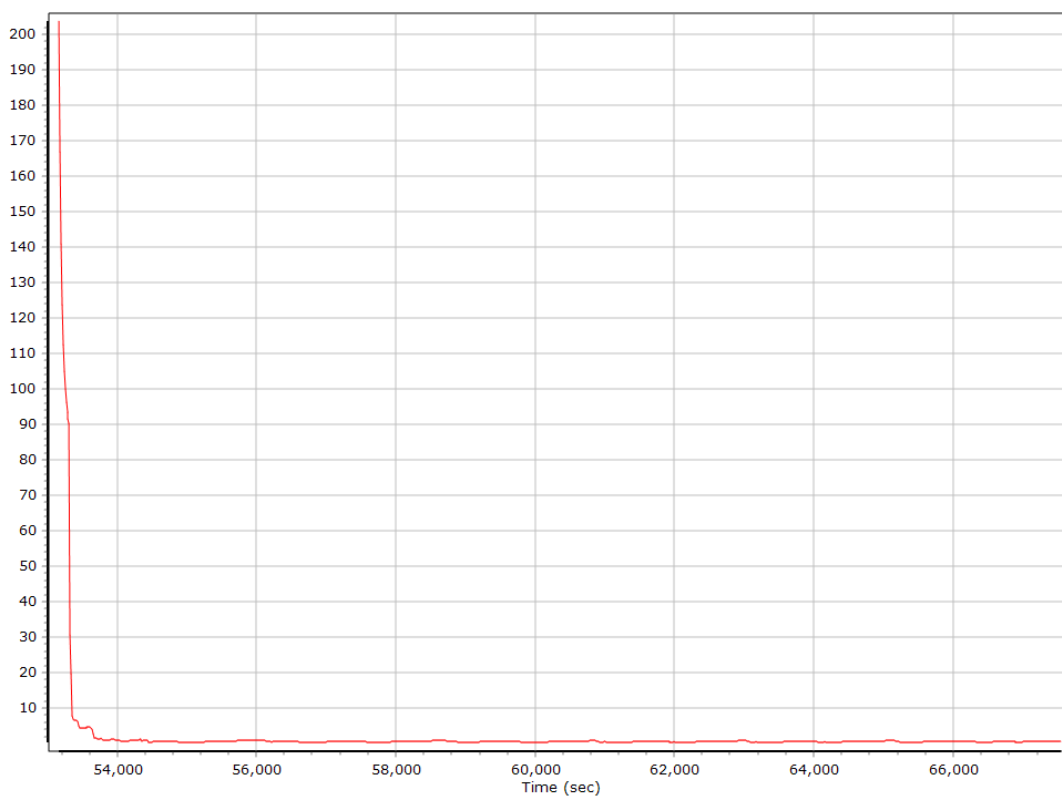
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

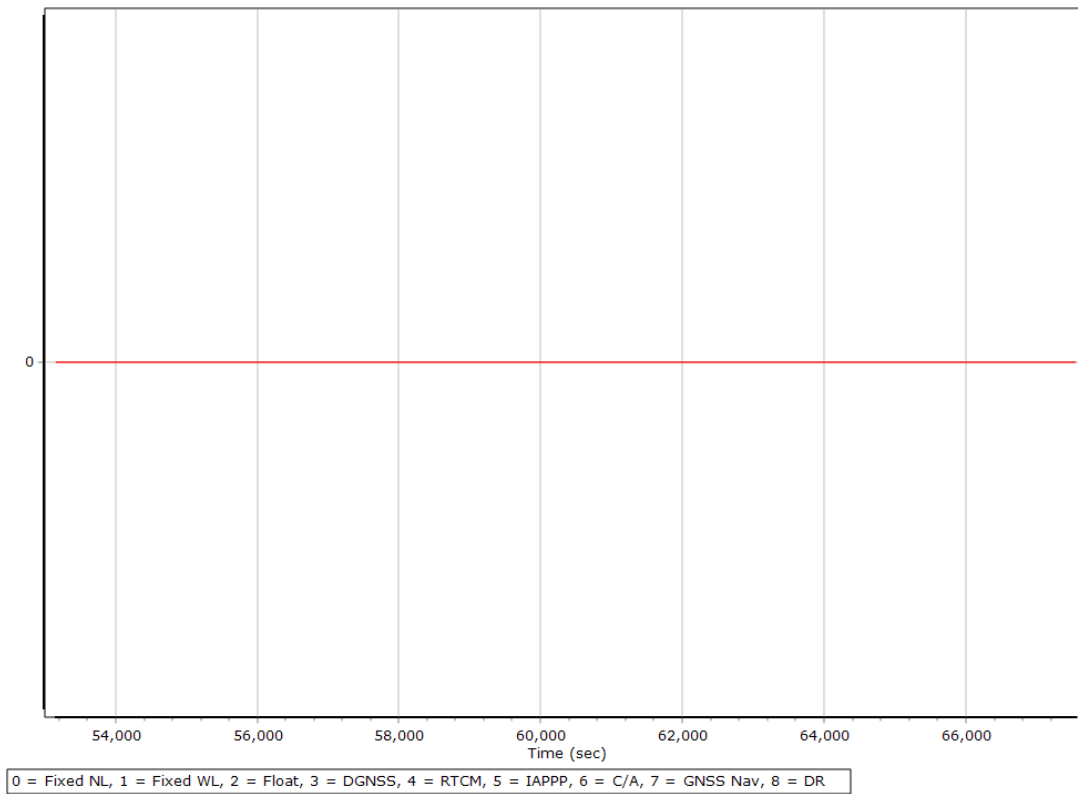


Heading Error RMS (arc-min)

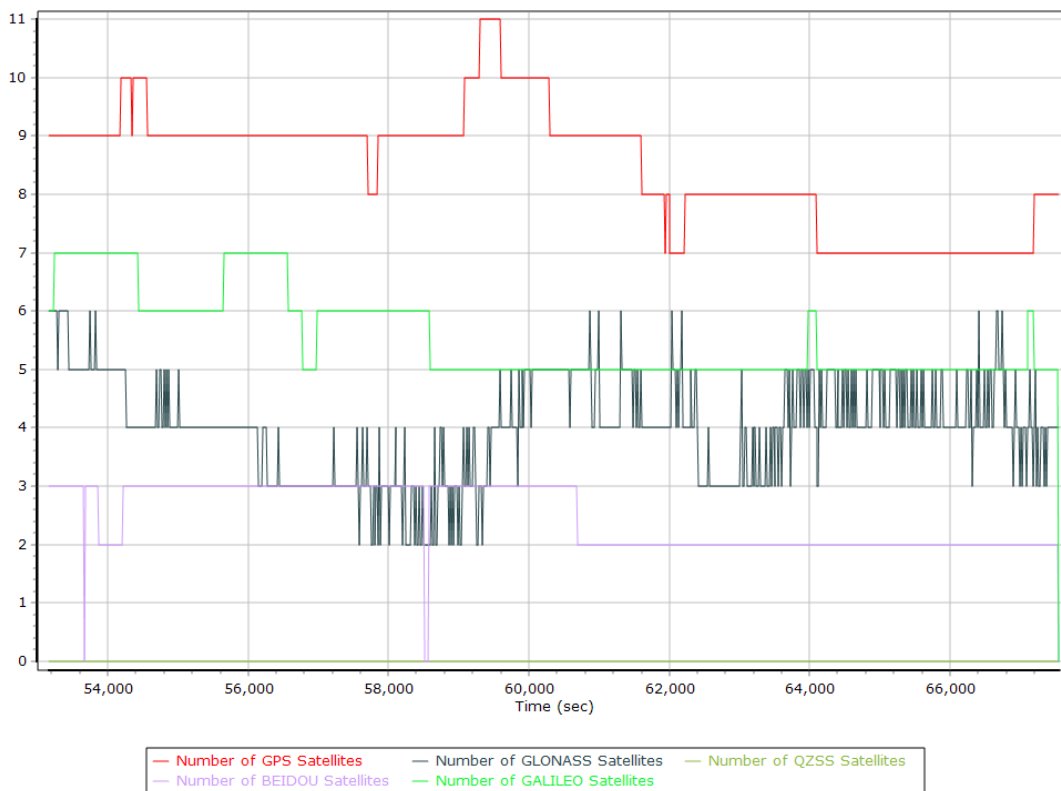


Forward Processed Solution Status

Processing Mode



Number of Satellites



Baseline Length

