General Information

Mission Information

Project name	19-058_053120
Processing date	2020-07-02 19:00:27
Mission date	2020-05-31 14:36:37
Mission duration	05:55:41.000
Processing mode	IN-Fusion Trimble RTX Nav

Rover Hardware Information

Product	POS AV 610 VER6 HW2.4-12
Serial number	S/N6310
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
ALS.388	POS Data
ALS.389	POS Data
ALS.390	POS Data
ALS.391	POS Data
ALS.392	POS Data
ALS.393	POS Data
ALS.394	POS Data
ALS.395	POS Data
ALS.396	POS Data
ALS.397	POS Data
ALS.398	POS Data
ALS.399	POS Data
ALS.400	POS Data
ALS.401	POS Data
ALS.402	POS Data
ALS.403	POS Data
ALS.404	POS Data
ALS.405	POS Data
ALS.406	POS Data
ALS.407	POS Data
ALS.408	POS Data
ALS.409	POS Data
ALS.410	POS Data
ALS.411	POS Data
ALS.412	POS Data
ALS.413	POS Data
ALS.414	POS Data
ALS.415	POS Data
ALS.416	POS Data
ALS.417	POS Data
ALS.418	POS Data
ALS.419	POS Data
ALS.420	POS Data
ALS.421	POS Data
ALS.422	POS Data
ALS.423	POS Data
ALS.424	POS Data
ALS.425	POS Data
ALS.426	POS Data
ALS.427	POS Data
ALS.428	POS Data
ALS.429	POS Data
ALS.430	POS Data
ALS.431	POS Data
ALS.432	POS Data
ALS.433	POS Data
ALS.434	POS Data
ALS.435	POS Data

Input Files

File Name	File Type
Ephm1520.20g	GLONASS Broadcast Ephemeris
Ephm1520.20n	GPS Broadcast Ephemeris
igl21076.sp3	GLONASS Precise Ephemeris
igl21080.sp3	GLONASS Precise Ephemeris
igl21081.sp3	GLONASS Precise Ephemeris
igs21076.sp3	GPS Precise Ephemeris
igs21080.sp3	GPS Precise Ephemeris
igs21081.sp3	GPS Precise Ephemeris

Output Files

Filename	File type
sbet_19-058_053120.out	SBET Trajectory File

Rover Data Summary

First raw data file	ALS.388		
Last raw data file	ALS.435		
Start GPS week	2108		
Start time	52608.113 (05/31/2020 14:36:30)		
End time	73933.238 (05/31/2020 20:31:55)		
Start of fine alignment	52930.998 (05/31/2020 14:41:52)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	Event 1 Input		
Correction data	Trimble RTX		
IMU Installation Lever Arms & Mounting Angles			
Gimbal to IMU lever arm (m)	0.000	0.000	0.000
Gimbal to IMU mounting angles (deg)	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm (m)	-0.011	0.039	-1.317
Gimbal to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

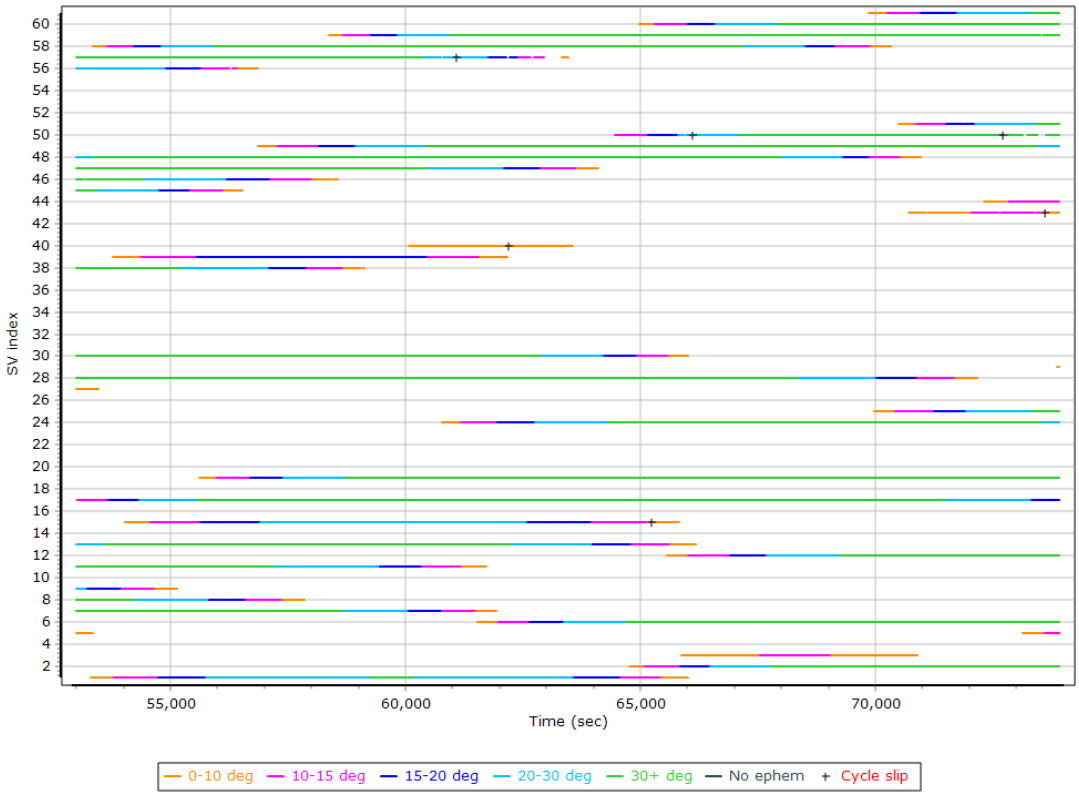
Rover Data QC

Raw IMU Import QC Summary

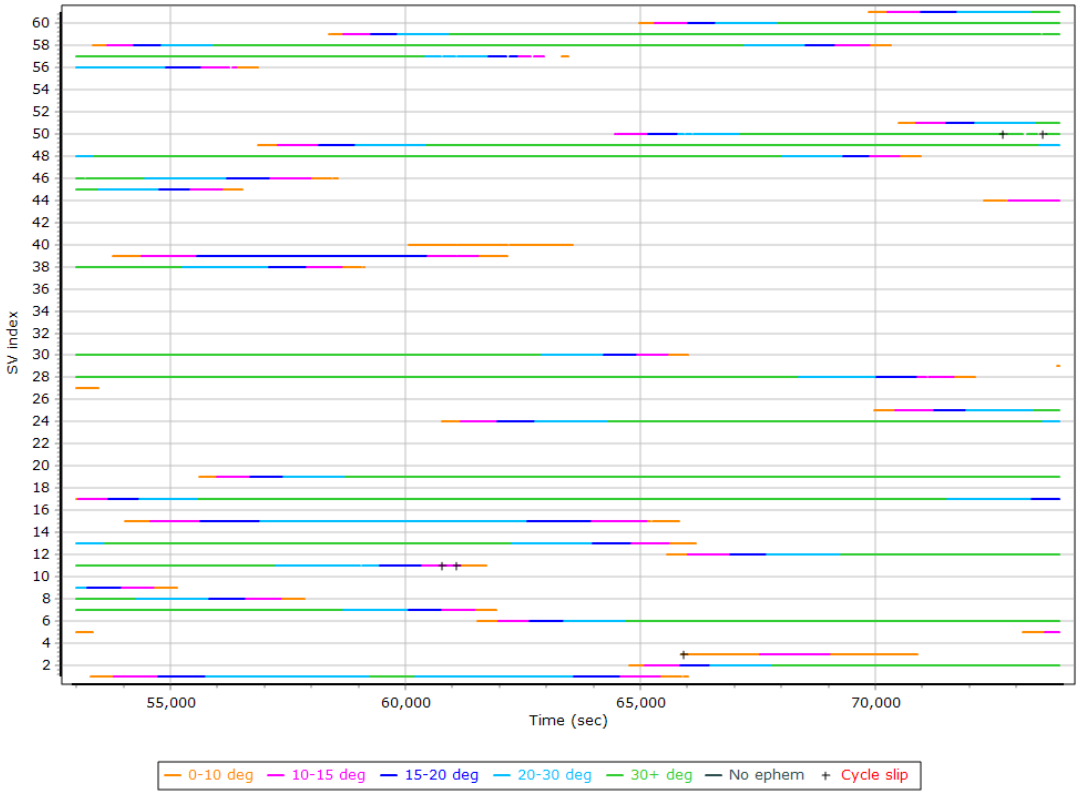
IMU data input file	imu_19-058_053120.dat
IMU data check log file	imudt_19-058_053120.log
IMU Records Processed	4267604
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
52607.878 : WARNING : Gap of 52595.9215 seconds in CHECKDT input data	

Primary Observables & Satellite Data

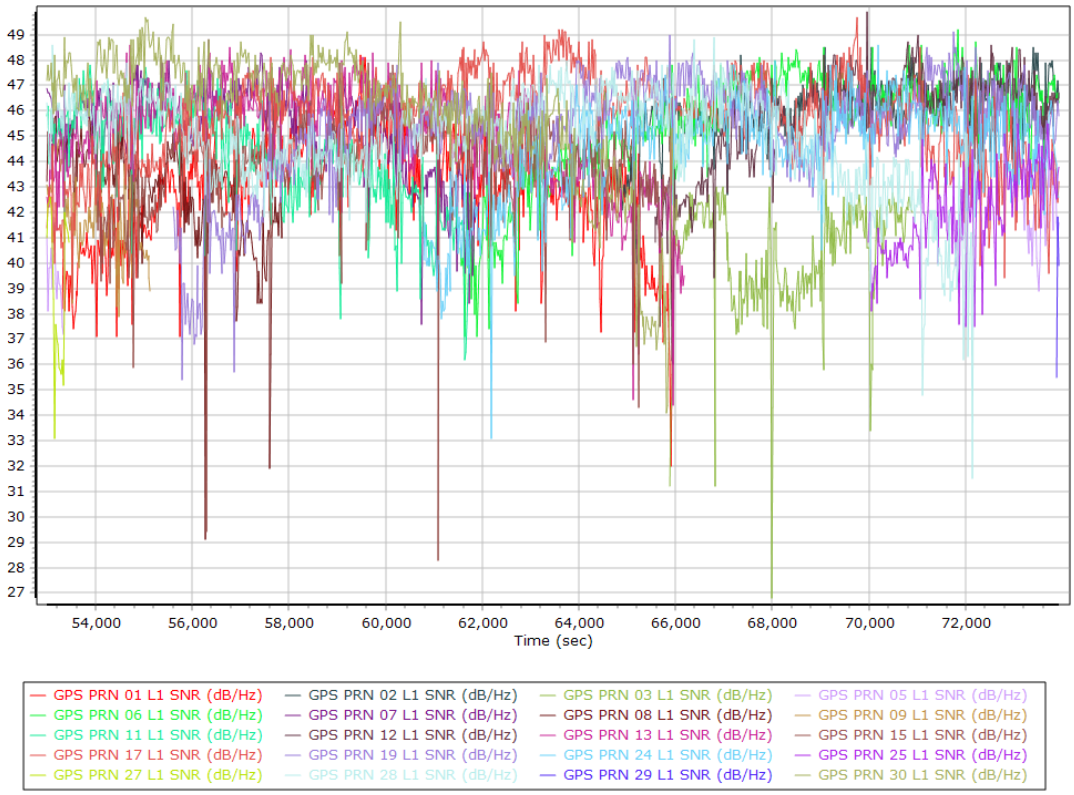
L1 Satellite Lock/Elevation



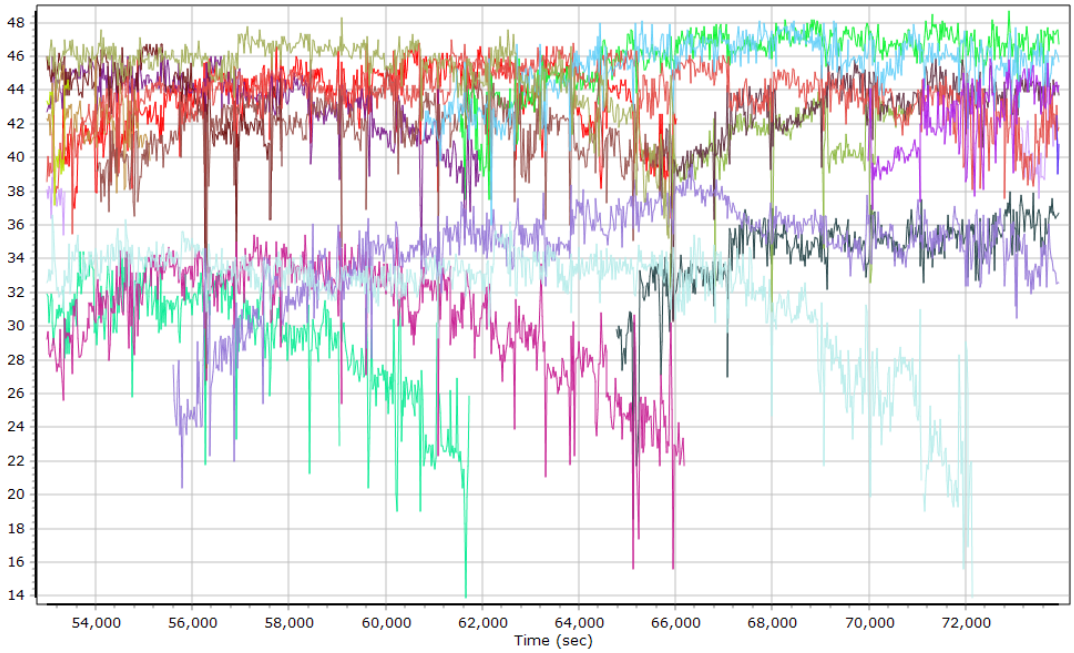
L2 Satellite Lock/Elevation



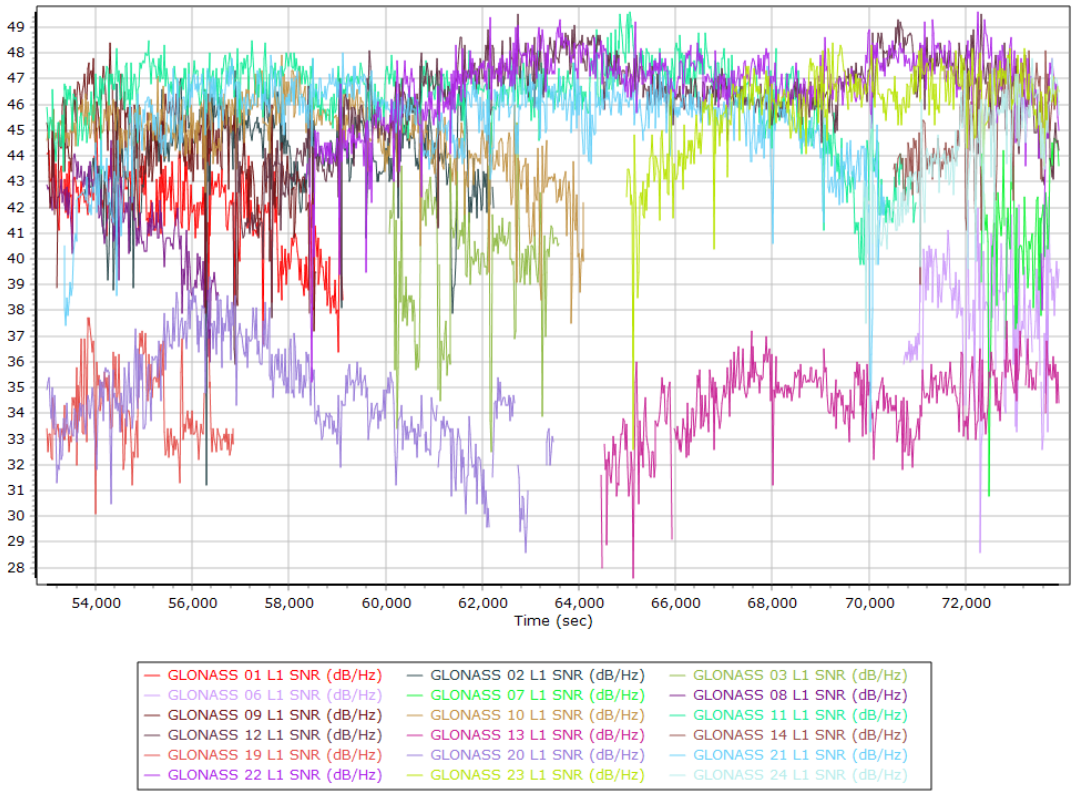
GPS L1 SNR



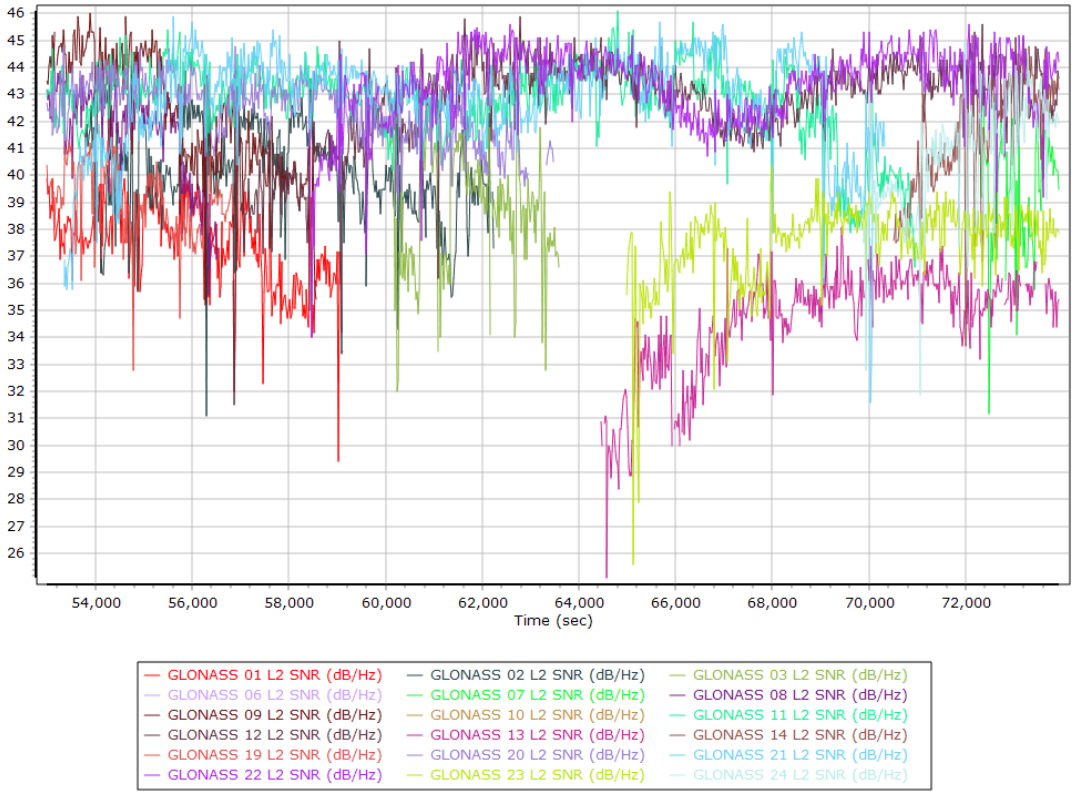
GPS L2 SNR



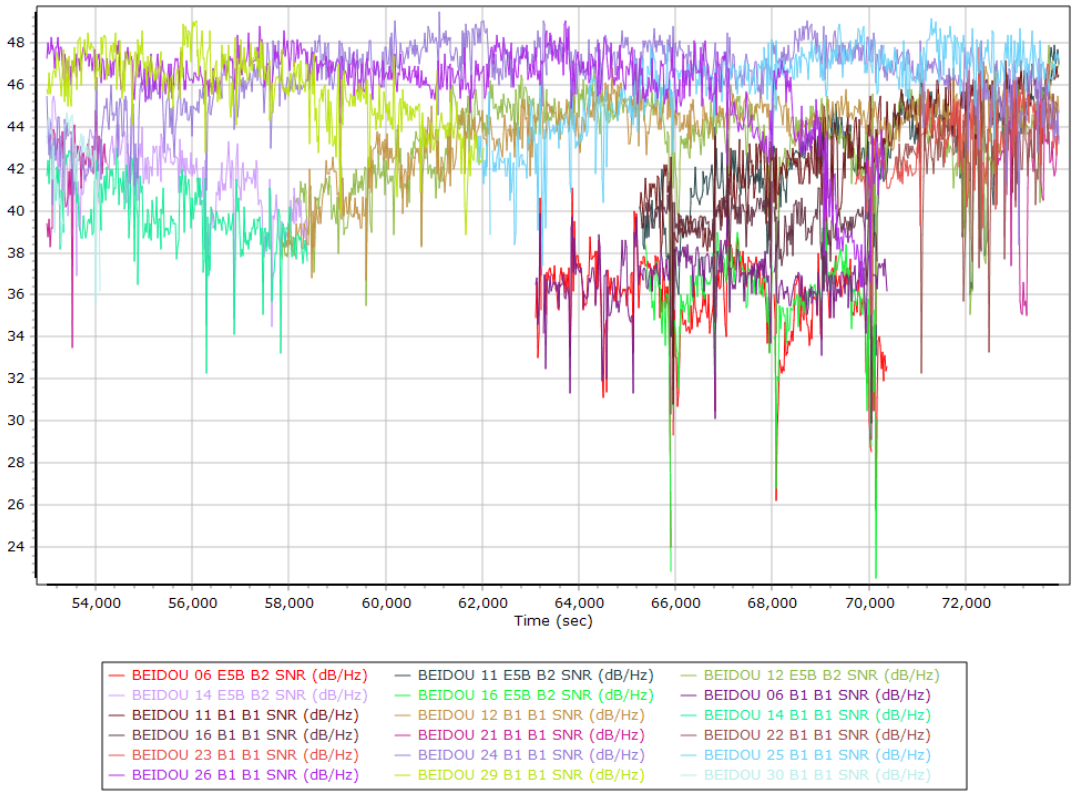
GLONASS L1 SNR



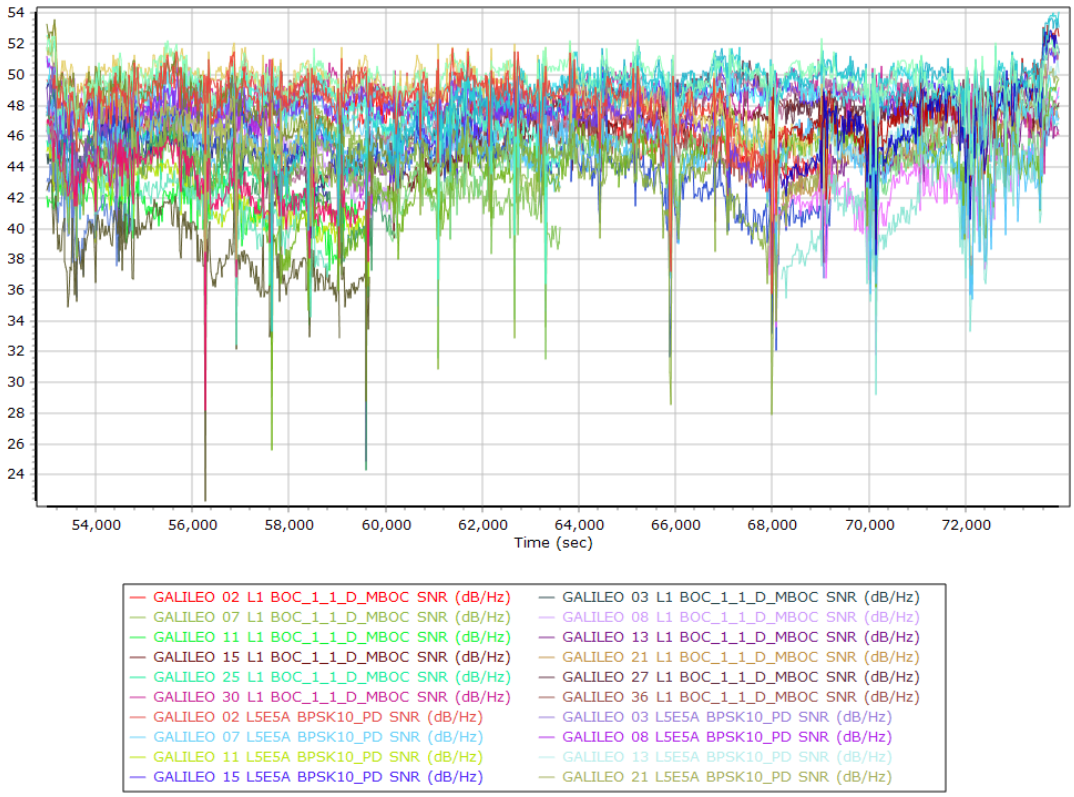
GLONASS L2 SNR



BEIDOU SNR

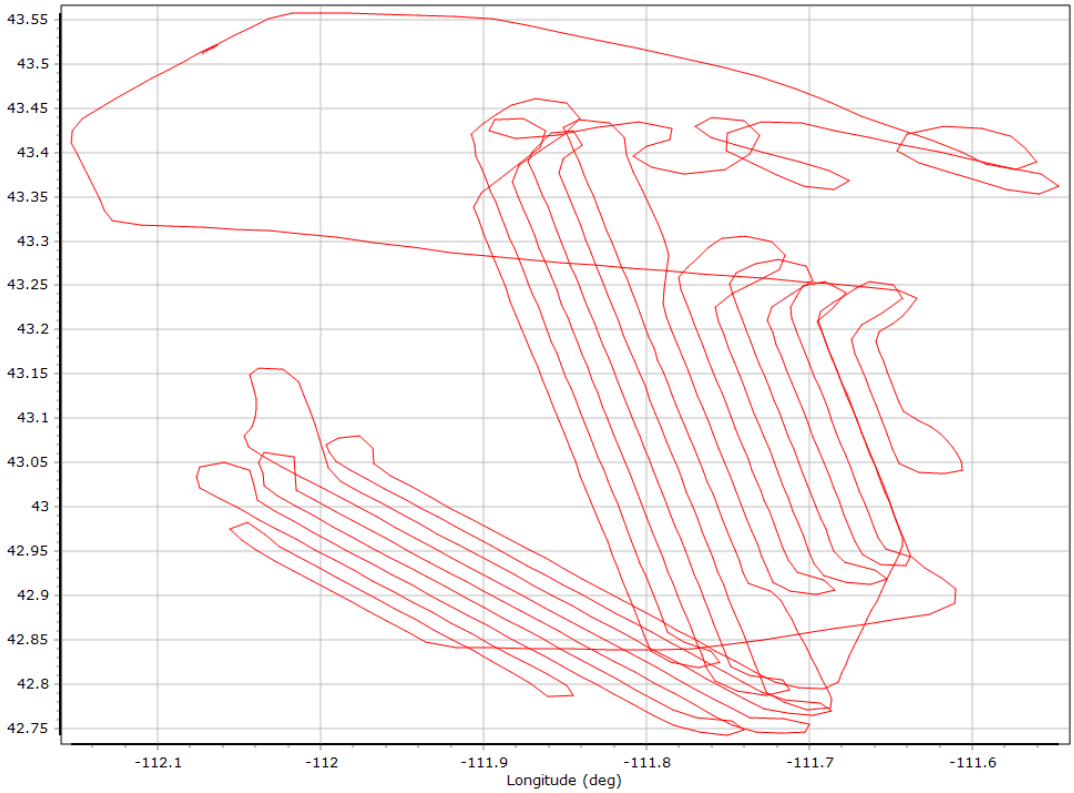


GALILEO SNR

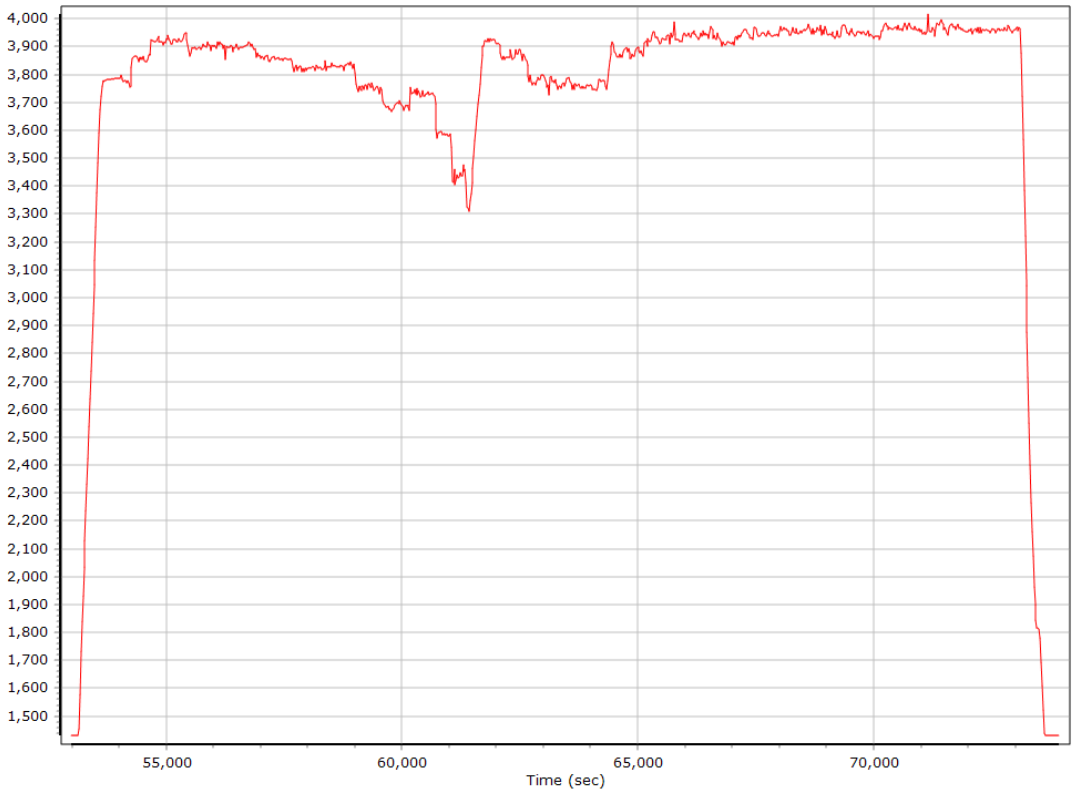

54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
54,000
56,000
58,000
60,000
62,000
64,000
66,000
68,000
70,000
72,000
Time (sec)
GALILEO 02 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 03 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 08 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 11 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 13 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 15 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 21 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 25 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 27 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 30 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 36 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 02 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 03 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 07 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 08 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)
GALILEO 21 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

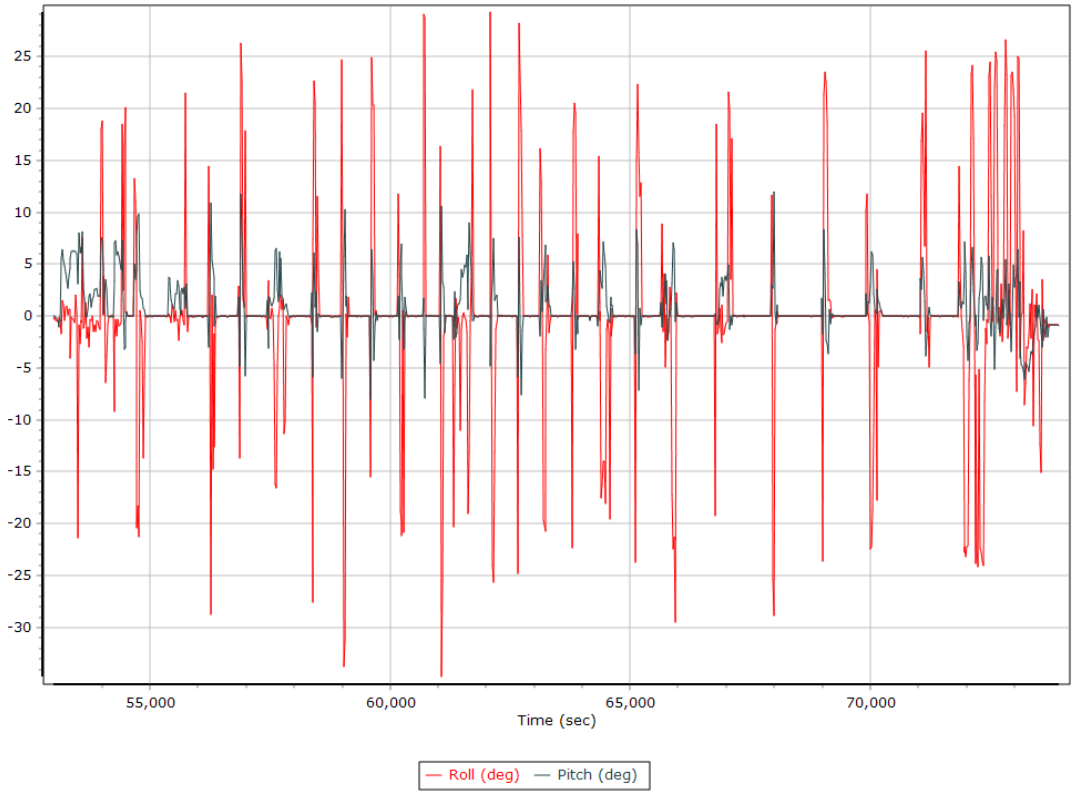
Top View



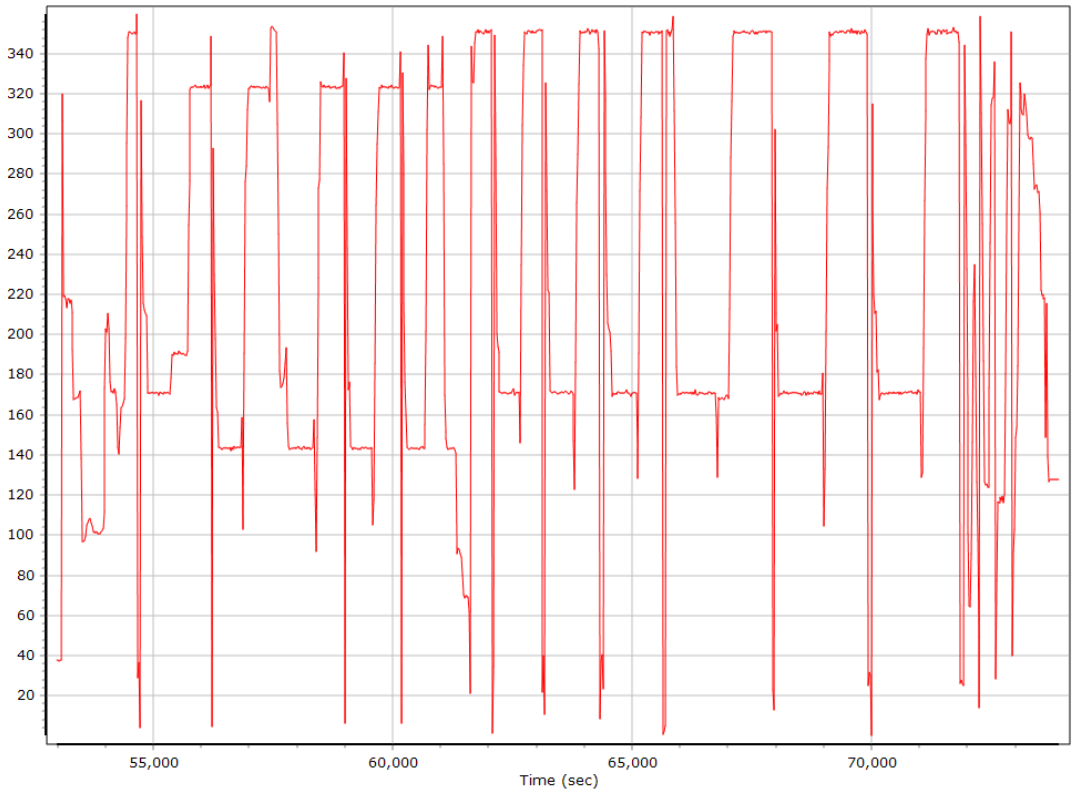
Altitude



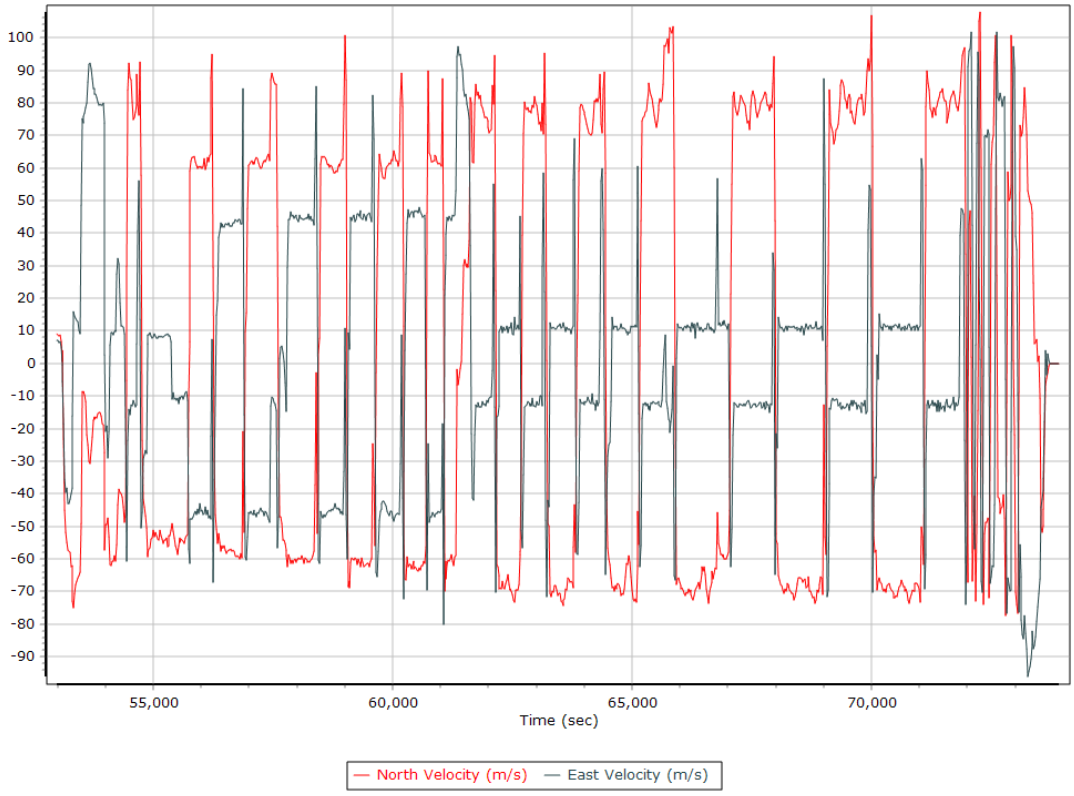
Roll/Pitch



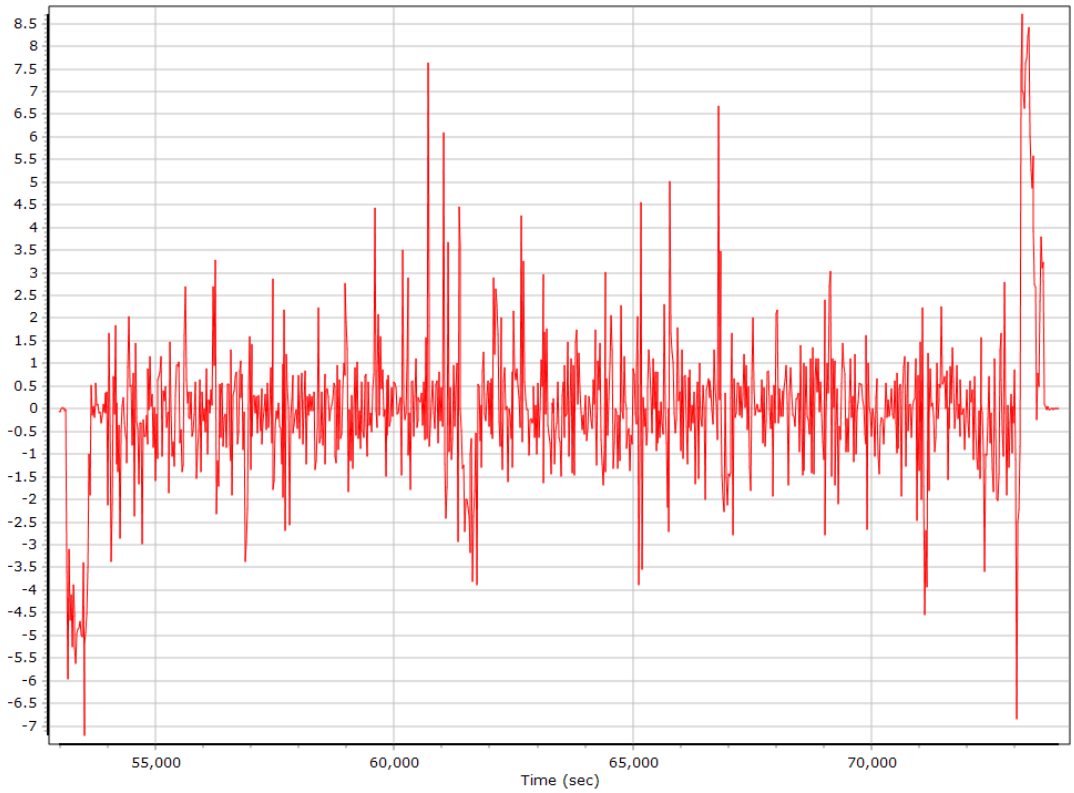
Heading



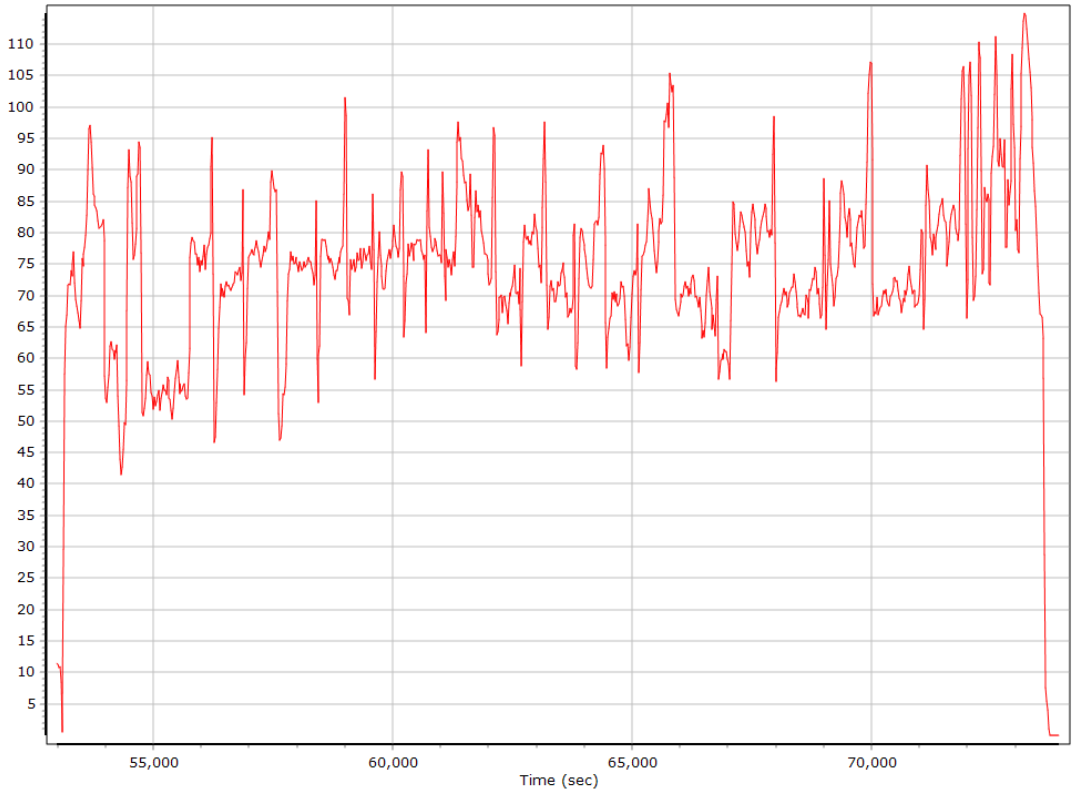
North/East Velocity



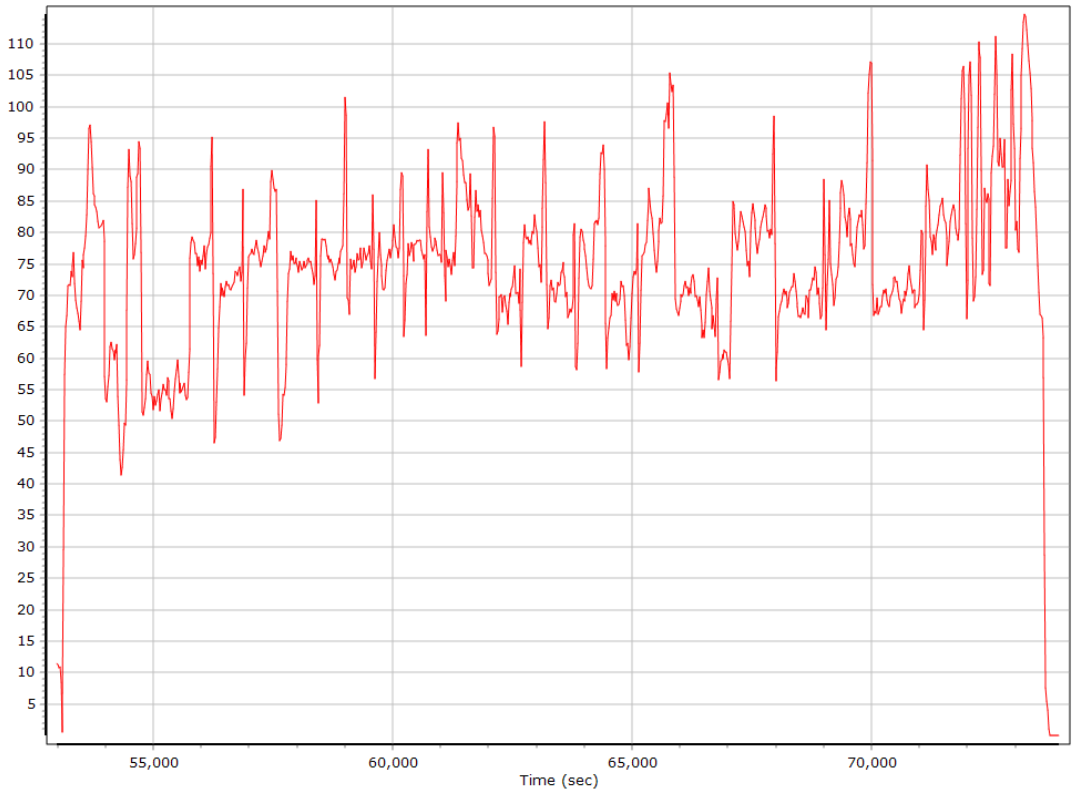
Down Velocity



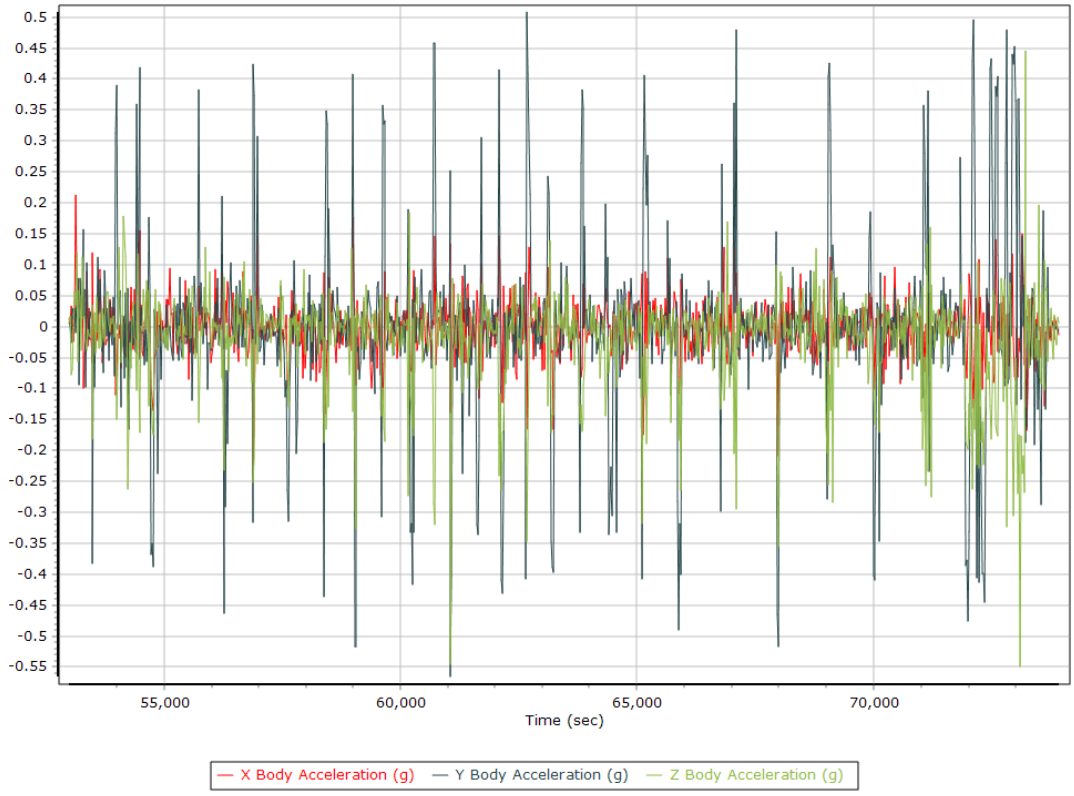
Total Speed



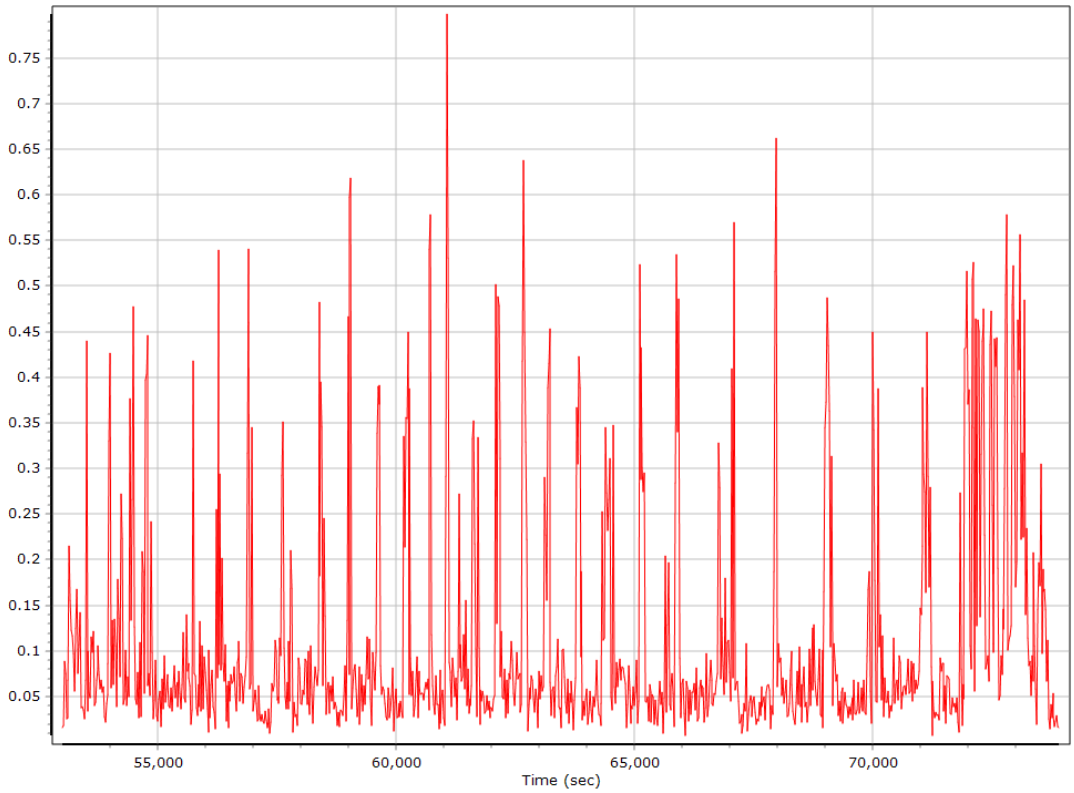
Ground Speed



Body Acceleration



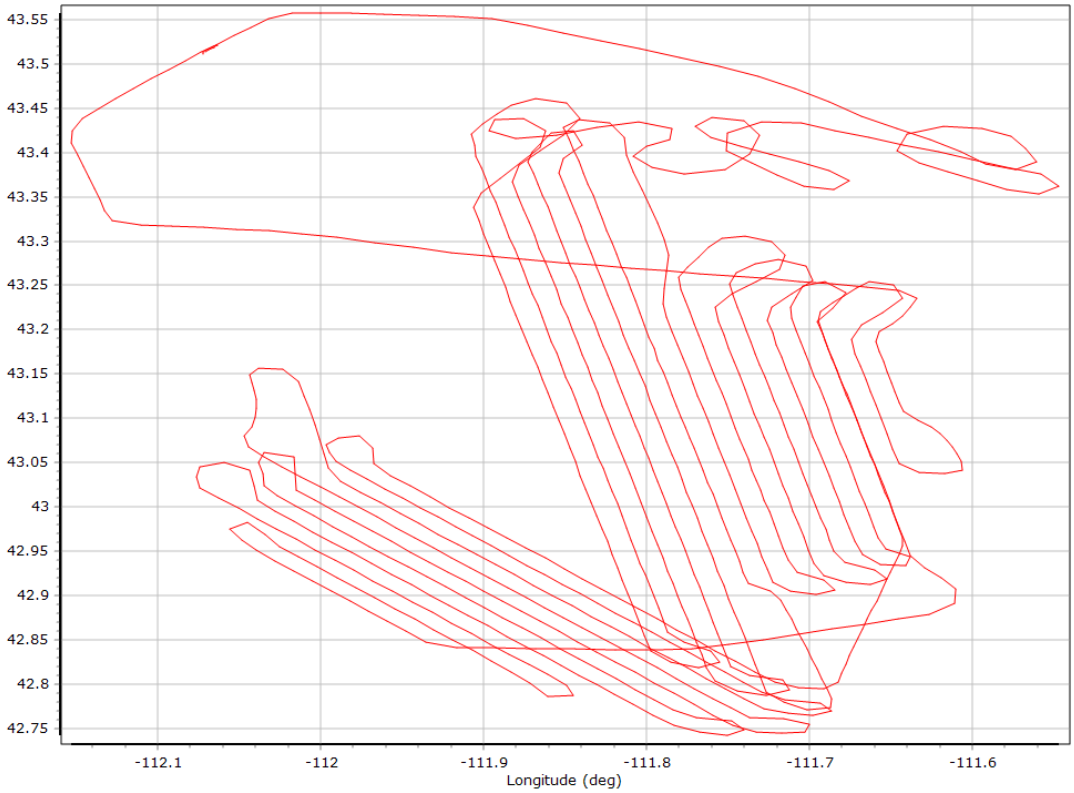
Total Body Acceleration



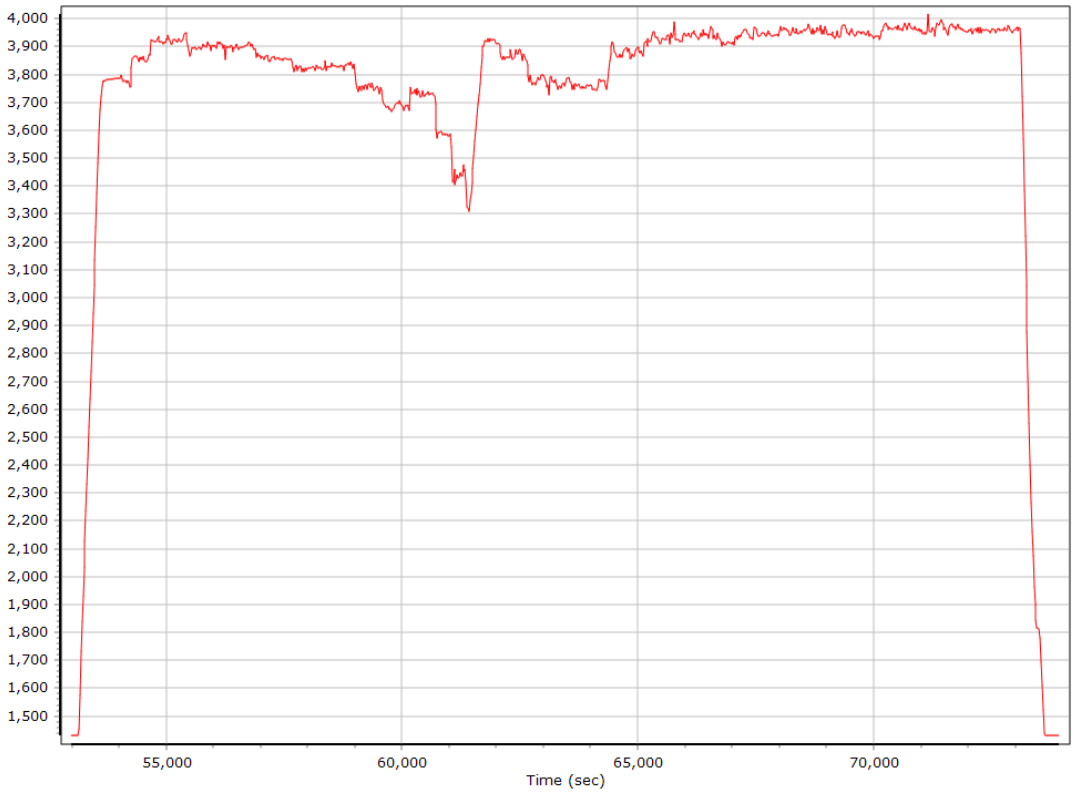
Body Angular Rate

Forward Processed Trajectory Information

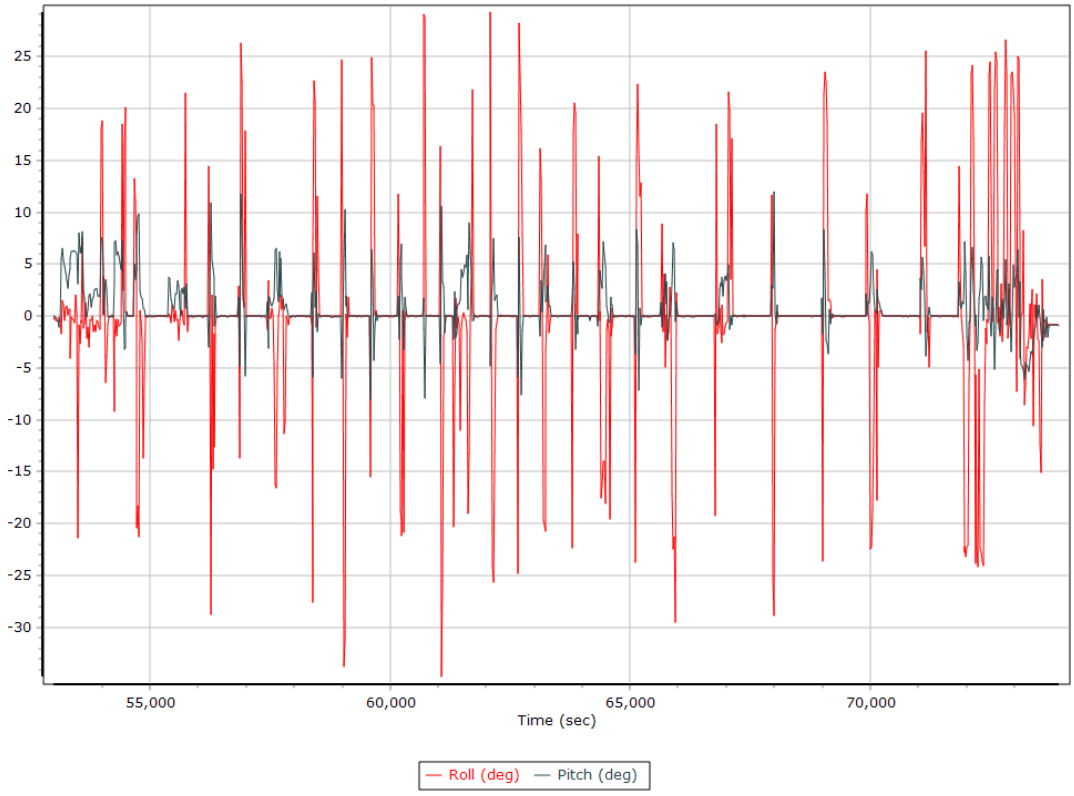
Top View



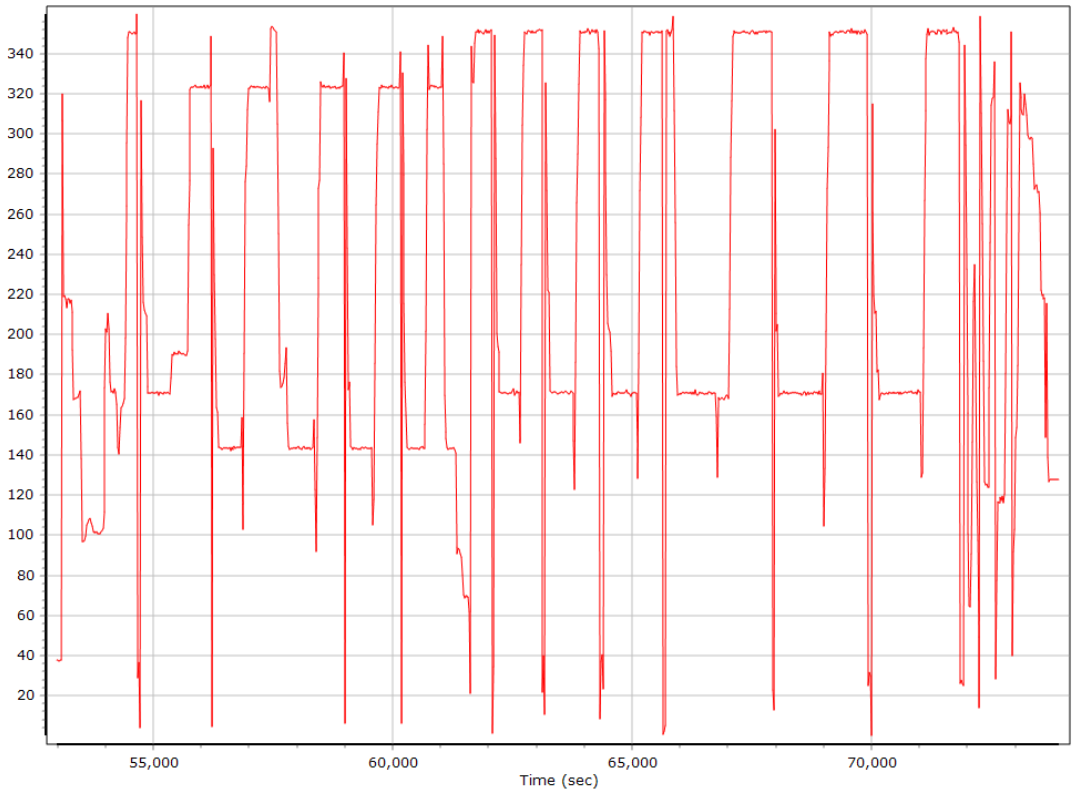
Altitude



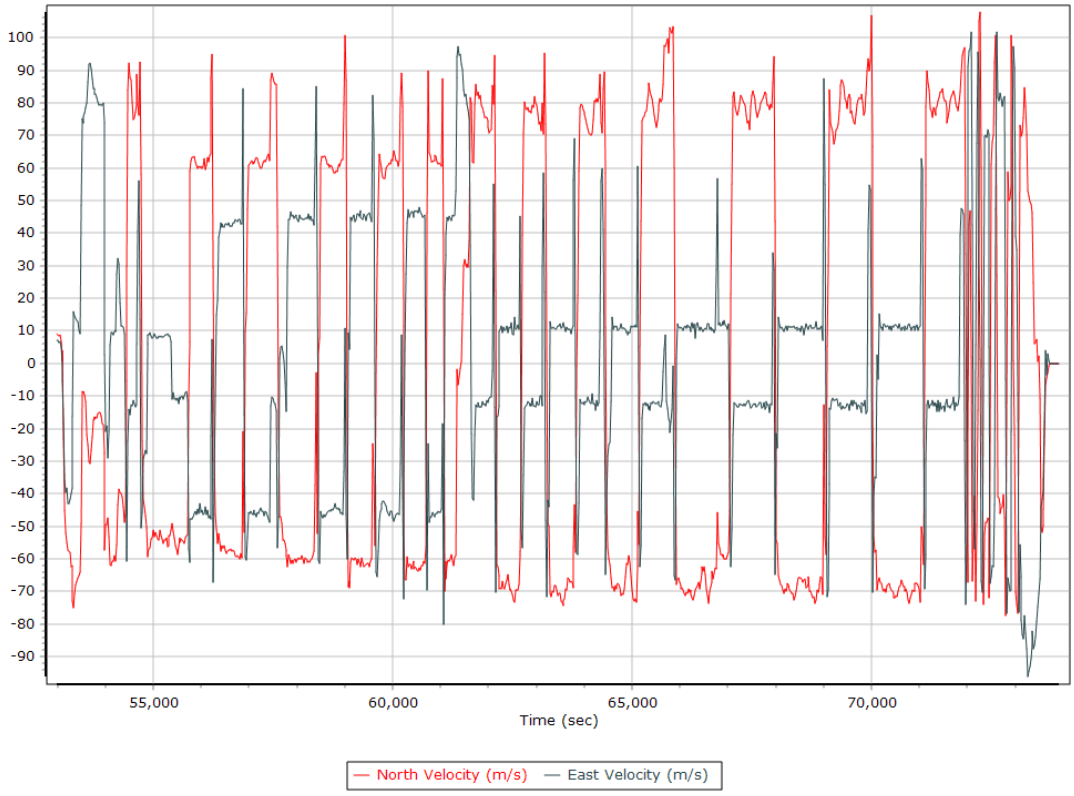
Roll/Pitch



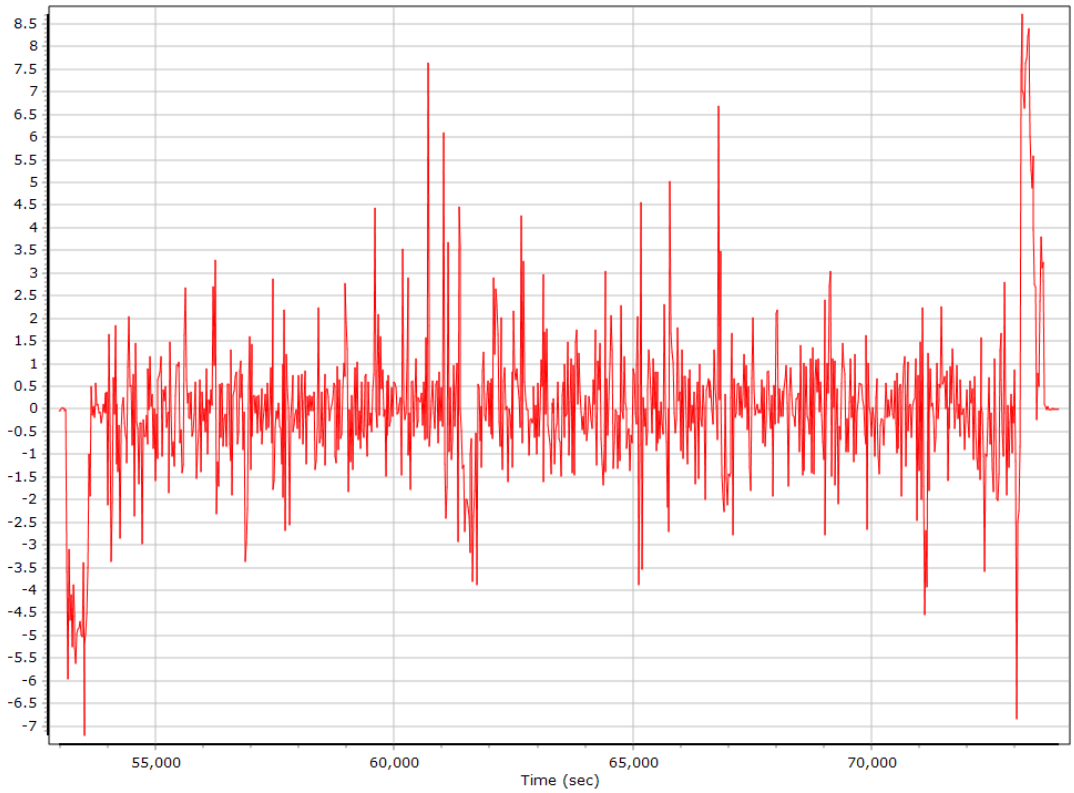
Heading



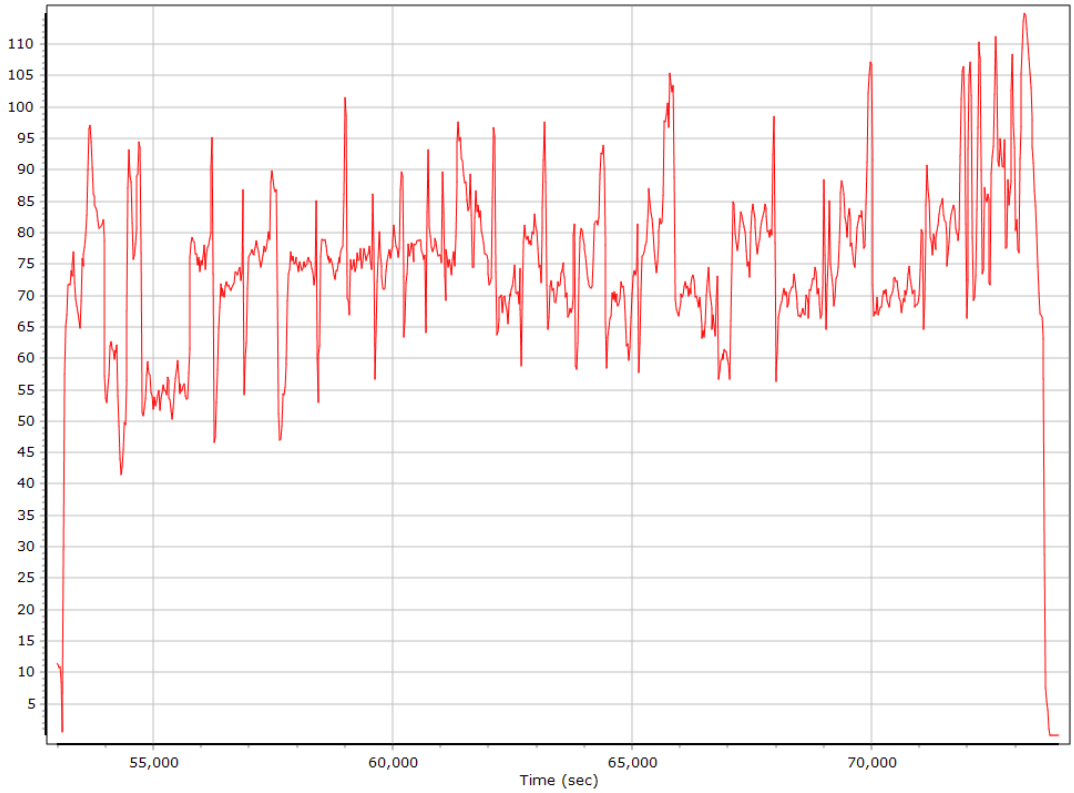
North/East Velocity



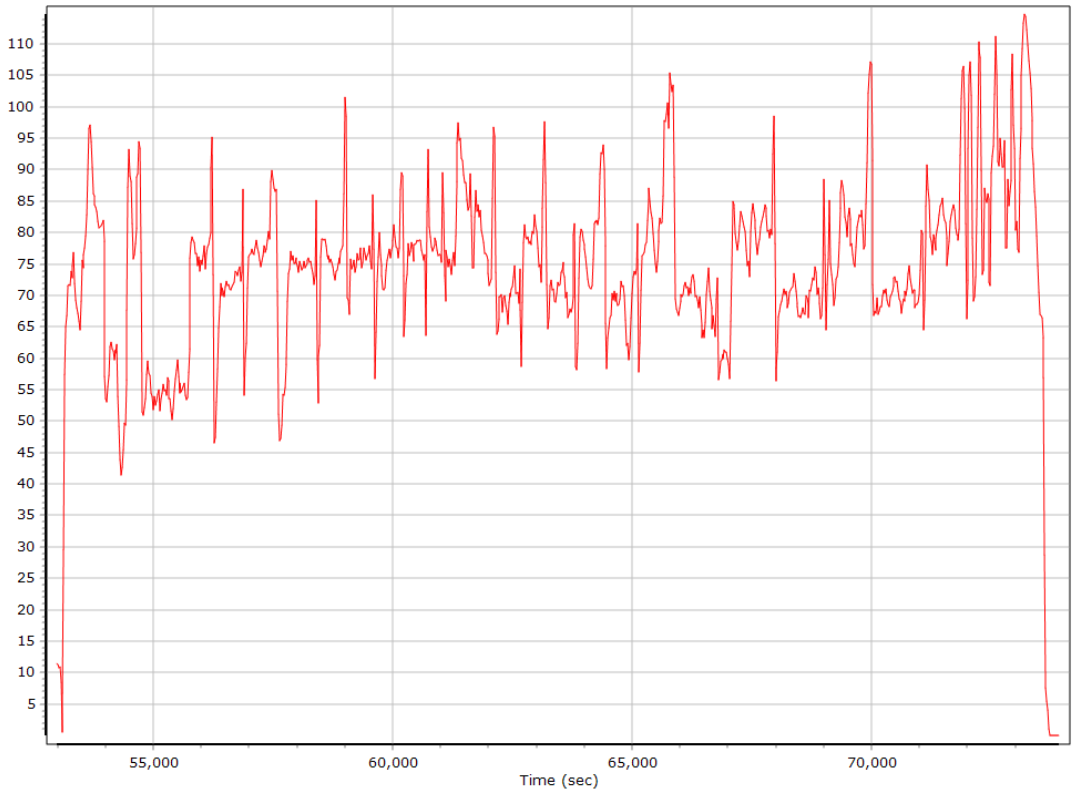
Down Velocity



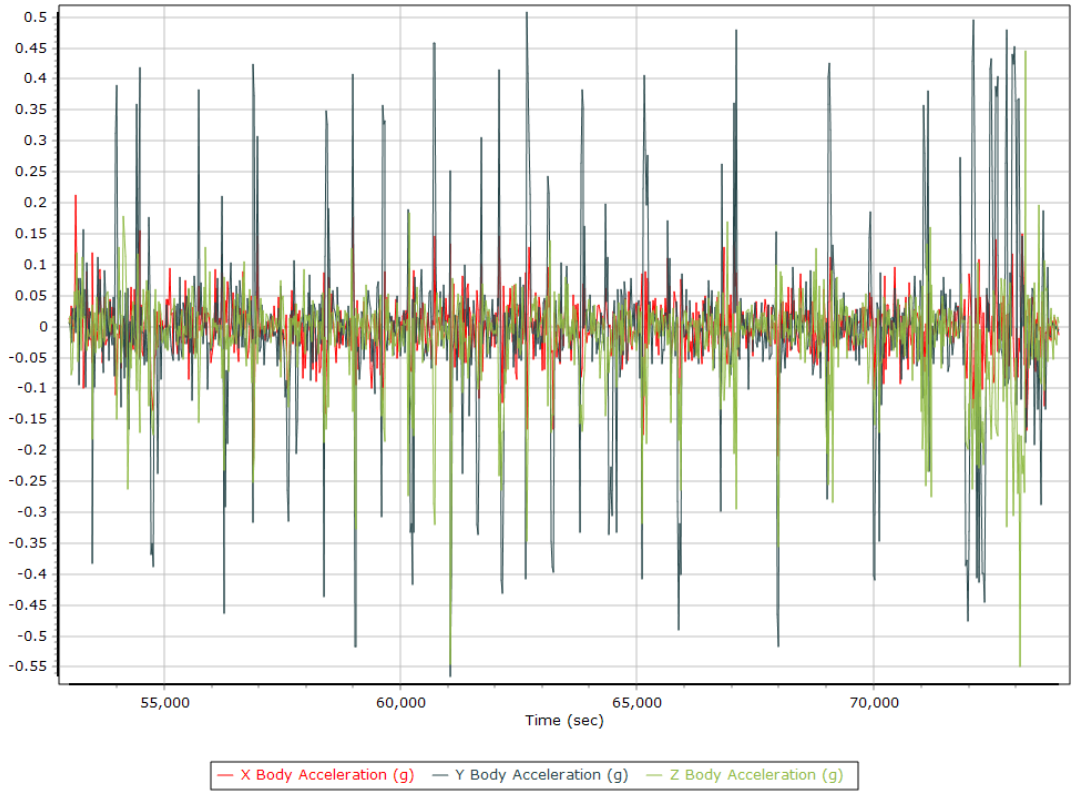
Total Speed



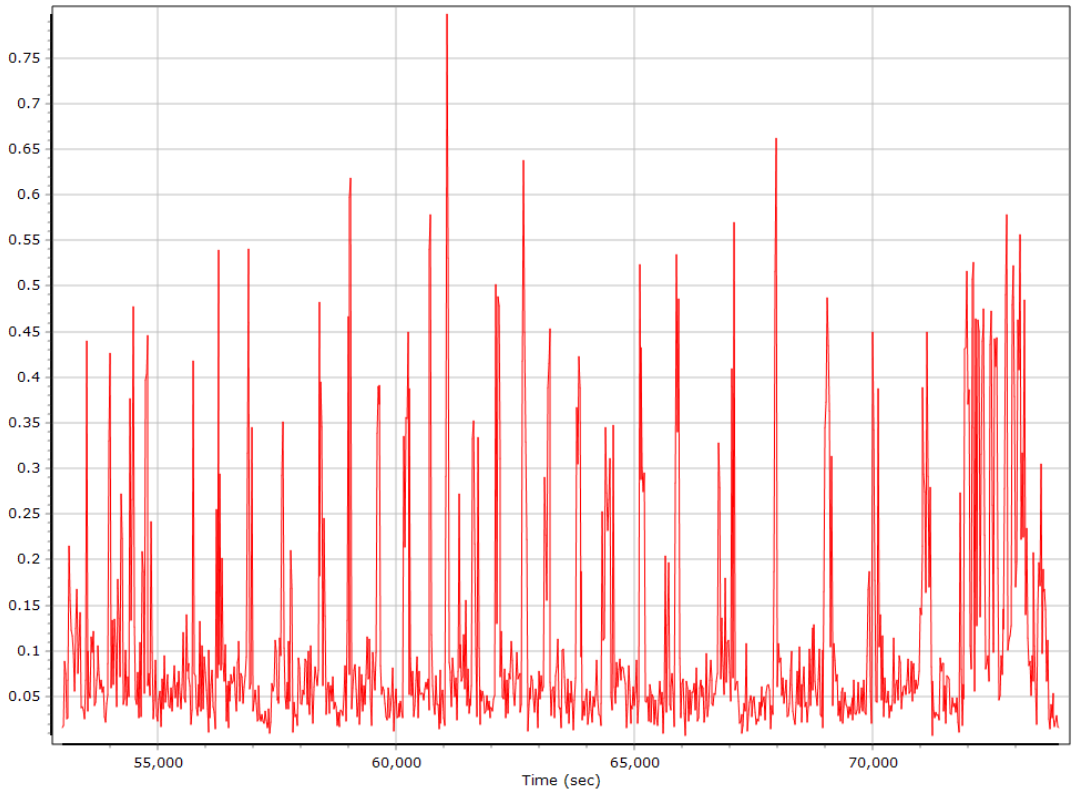
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

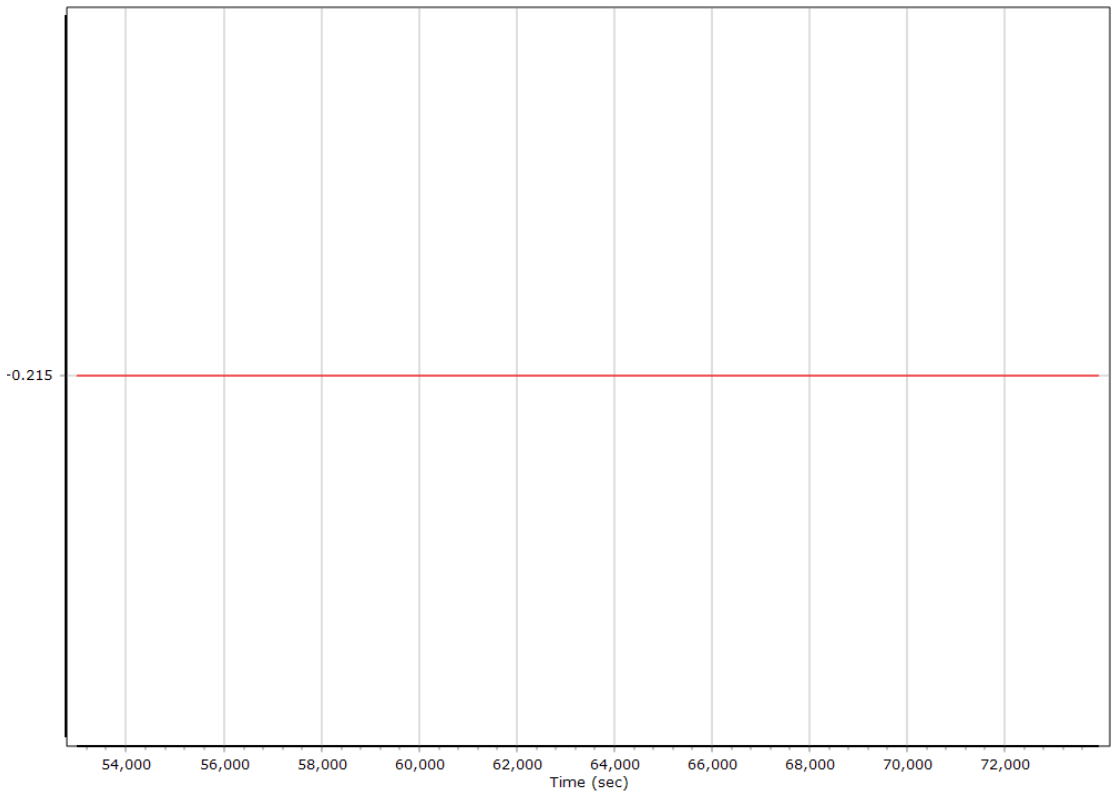
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Trimble RTX Nav		
Stabilized mount	True		
Processing start time	52597.000 (05/31/2020 14:36:19)		
Processing end time	73938.000 (05/31/2020 20:32:00)		
Initial attitude source	Real-Time VNAV/RNAV Attitude		
IMU Sensor Context	Processing with Onboard IMU		
Gimbal to IMU lever arm (m)	0.000	0.000	0.000
Gimbal to IMU mounting angles (deg)	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm (m)	-0.215	-0.027	-0.964
Gimbal 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

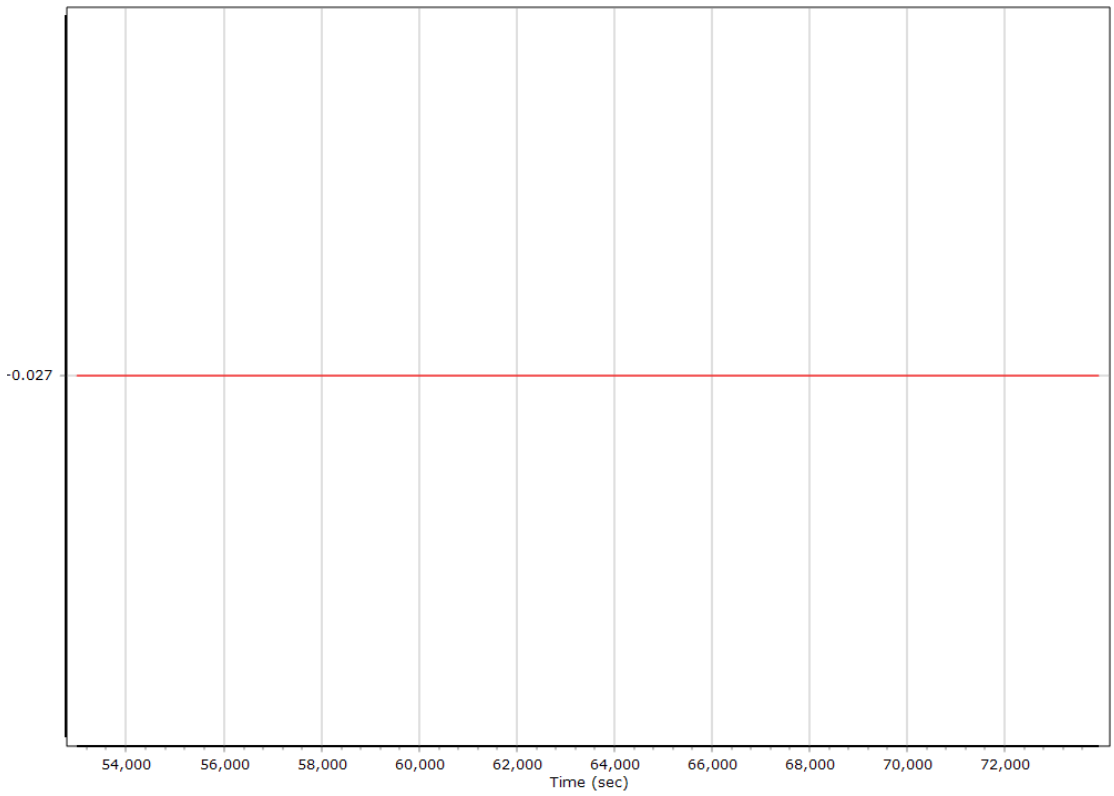
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

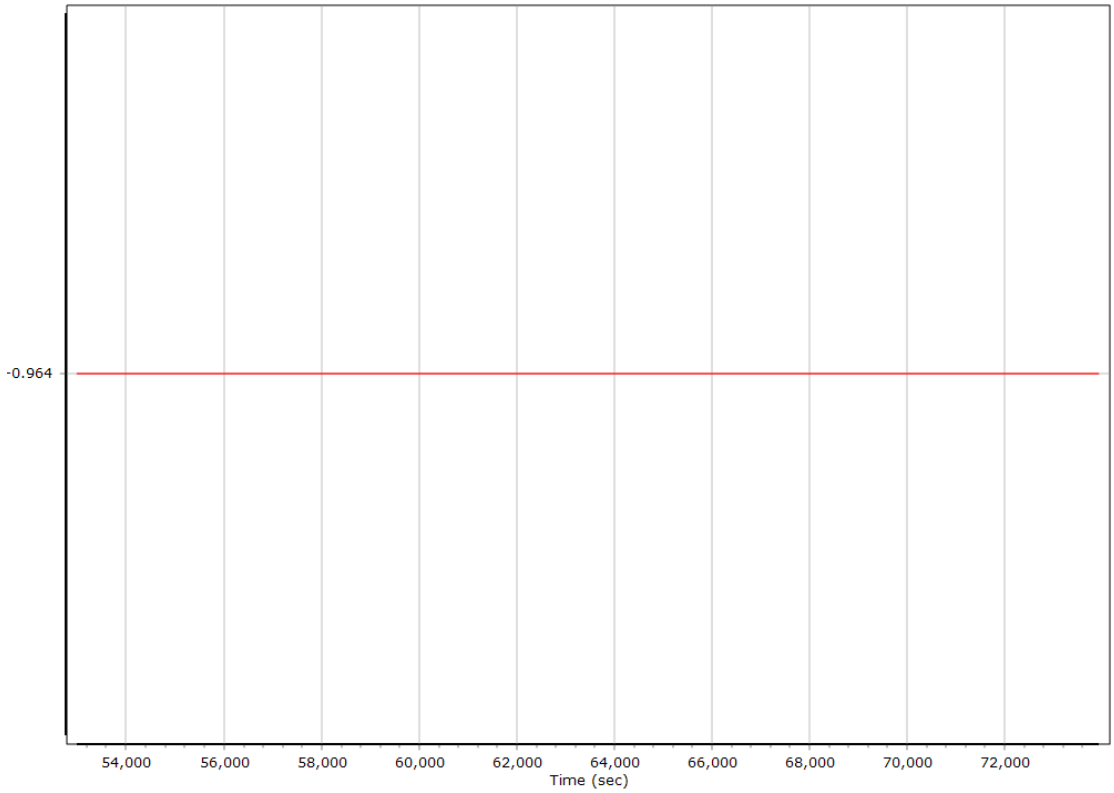
X Reference-Primary GNSS Lever Arm (m)



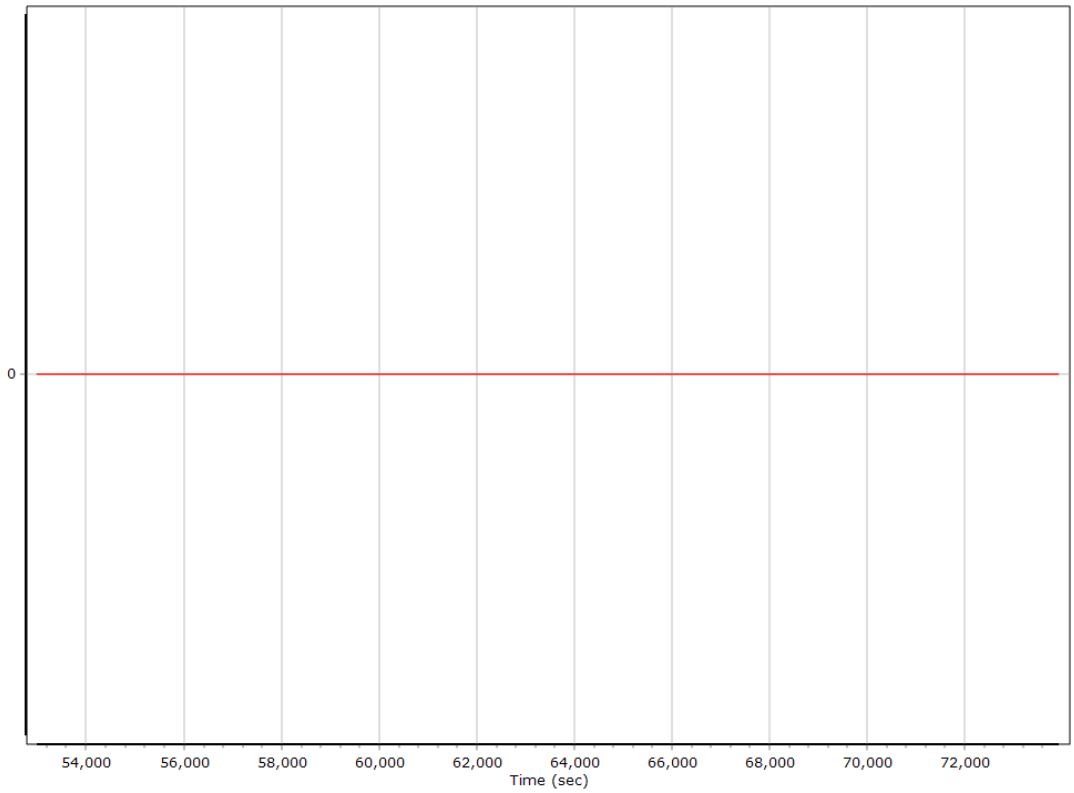
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



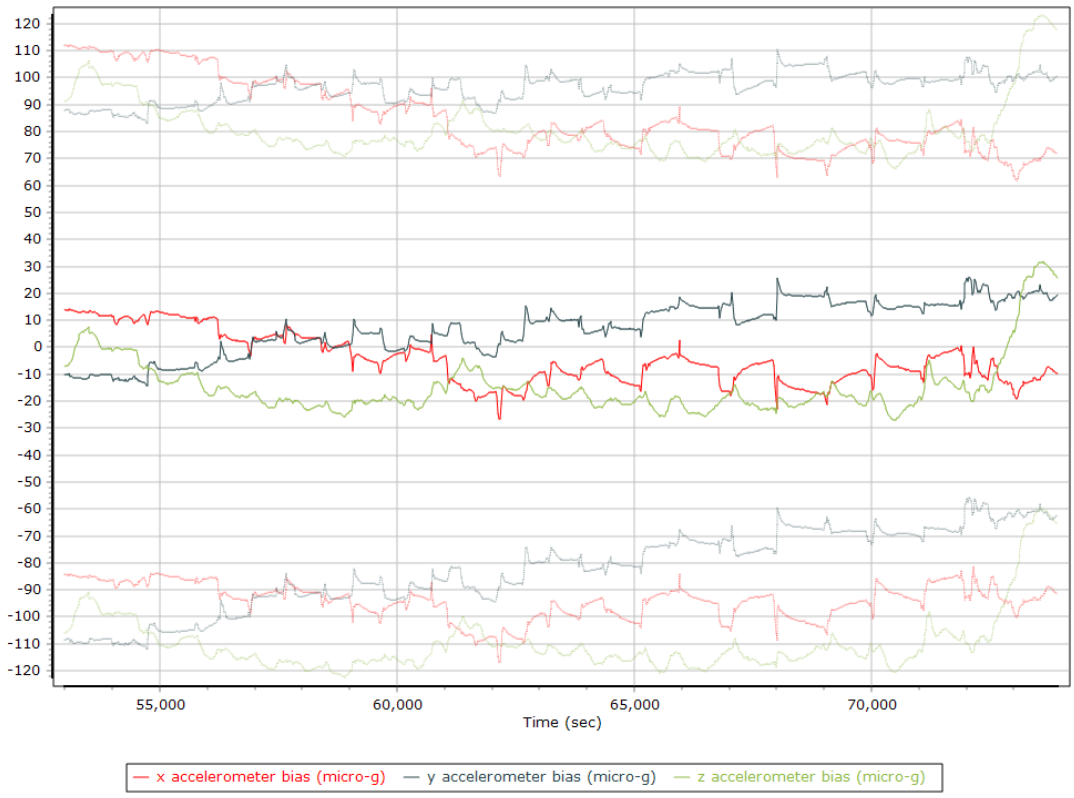
Reference-Primary GNSS Lever Arm Figure of Merit



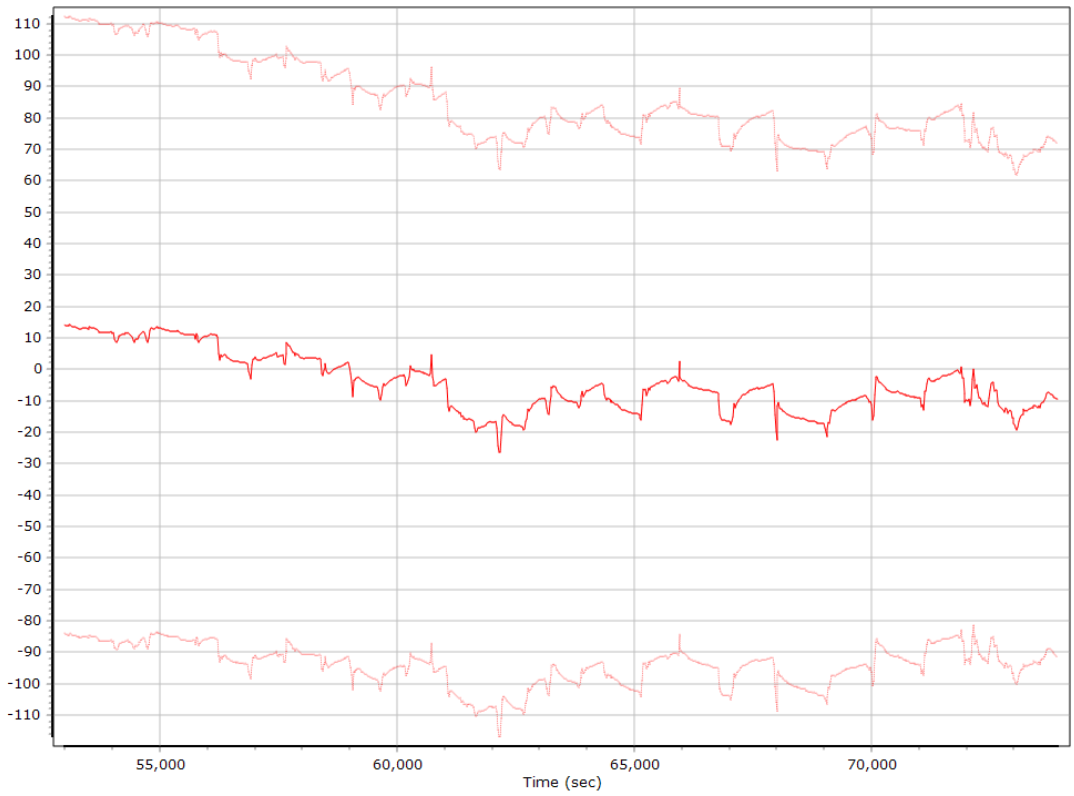
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

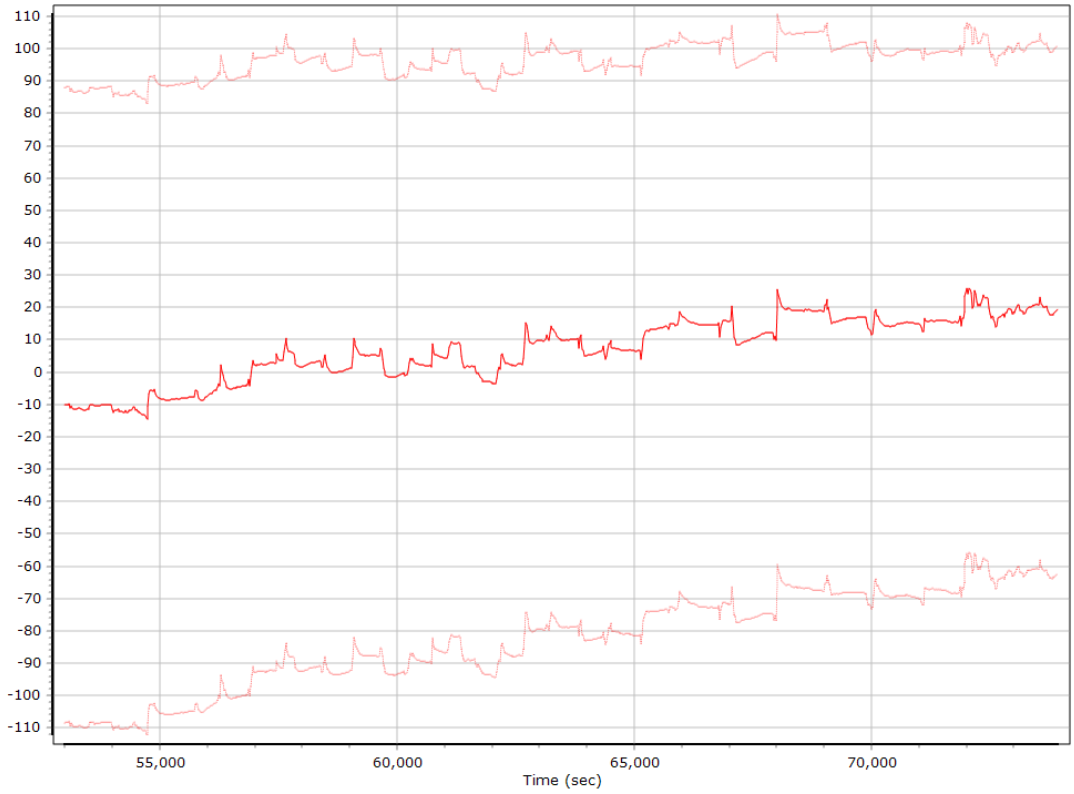
Accelerometer Bias (micro-g)



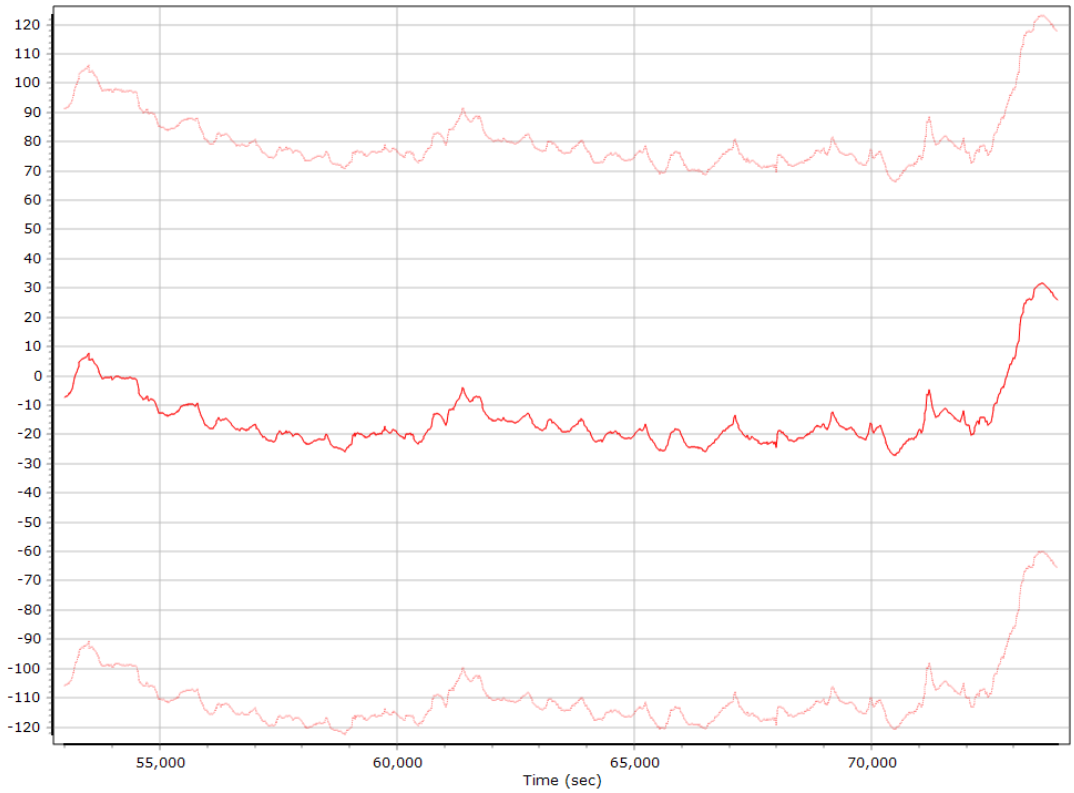
X Accelerometer Bias (micro-g)



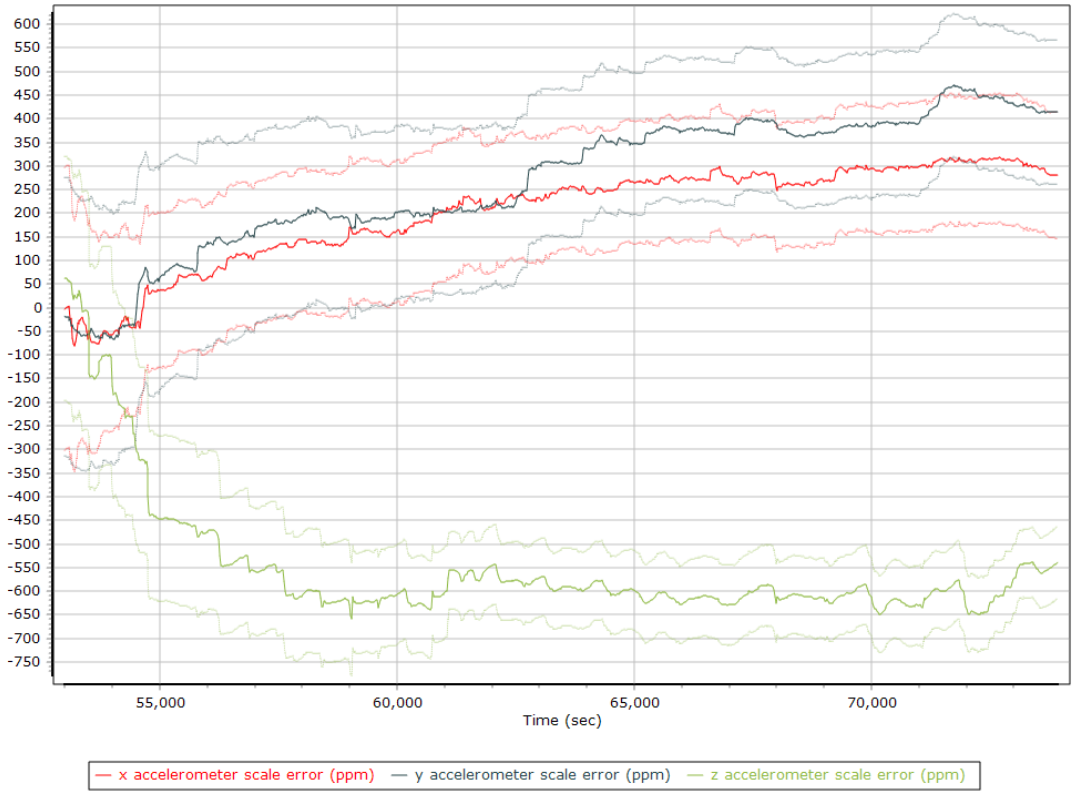
Y Accelerometer Bias (micro-g)



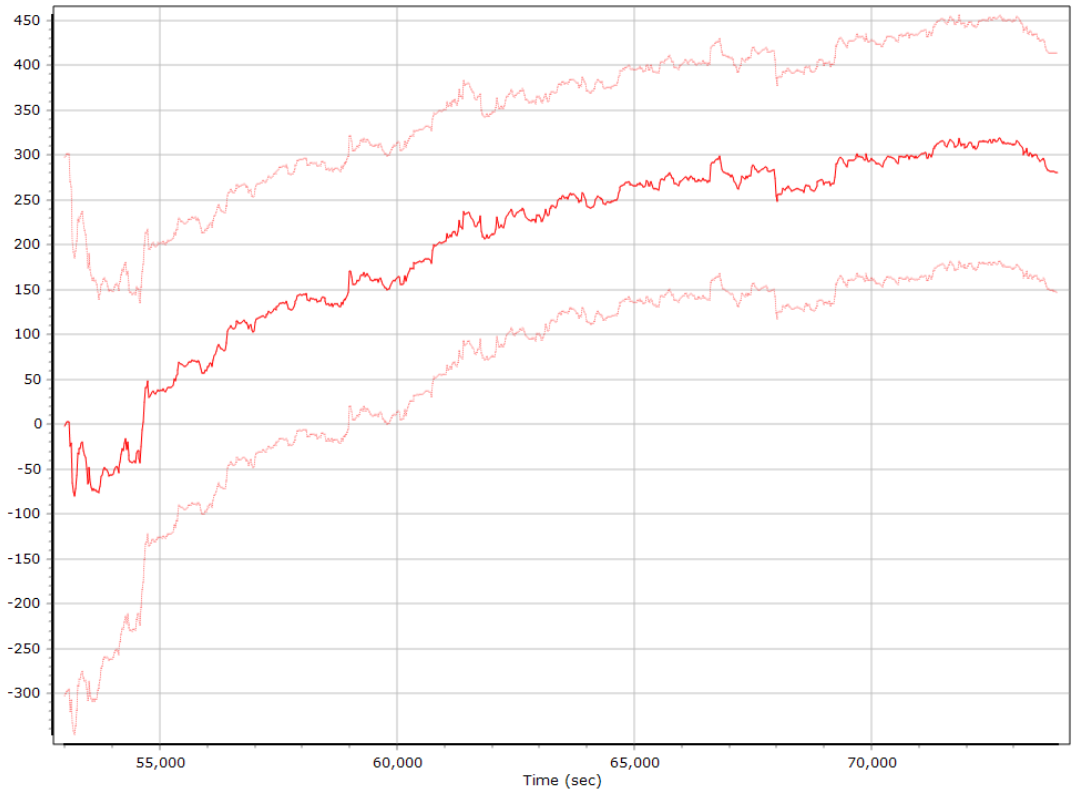
Z Accelerometer Bias (micro-g)



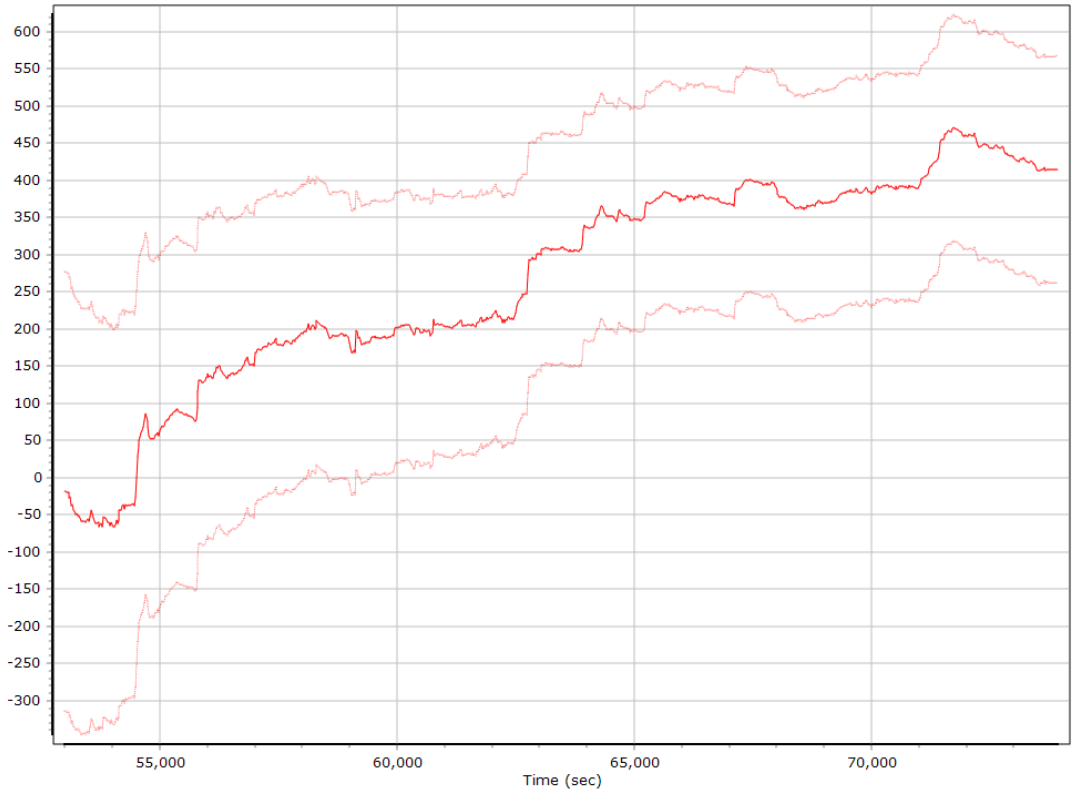
Accelerometer Scale Error (ppm)



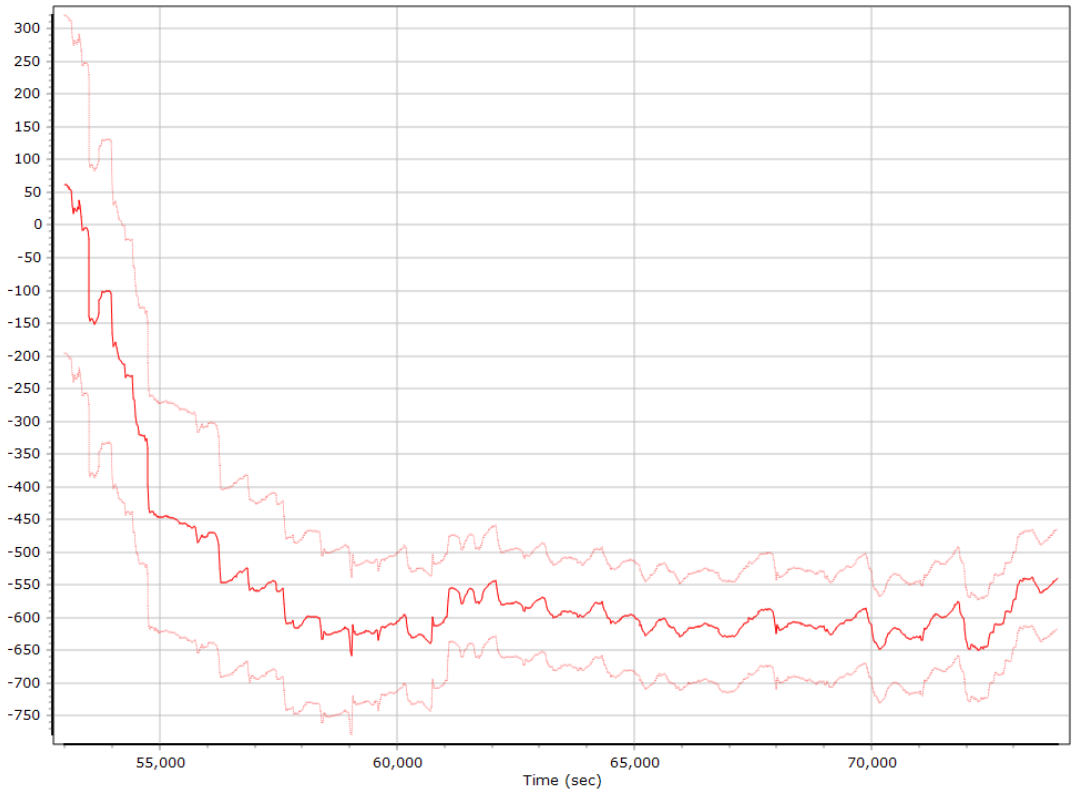
X Accelerometer Scale Error (ppm)



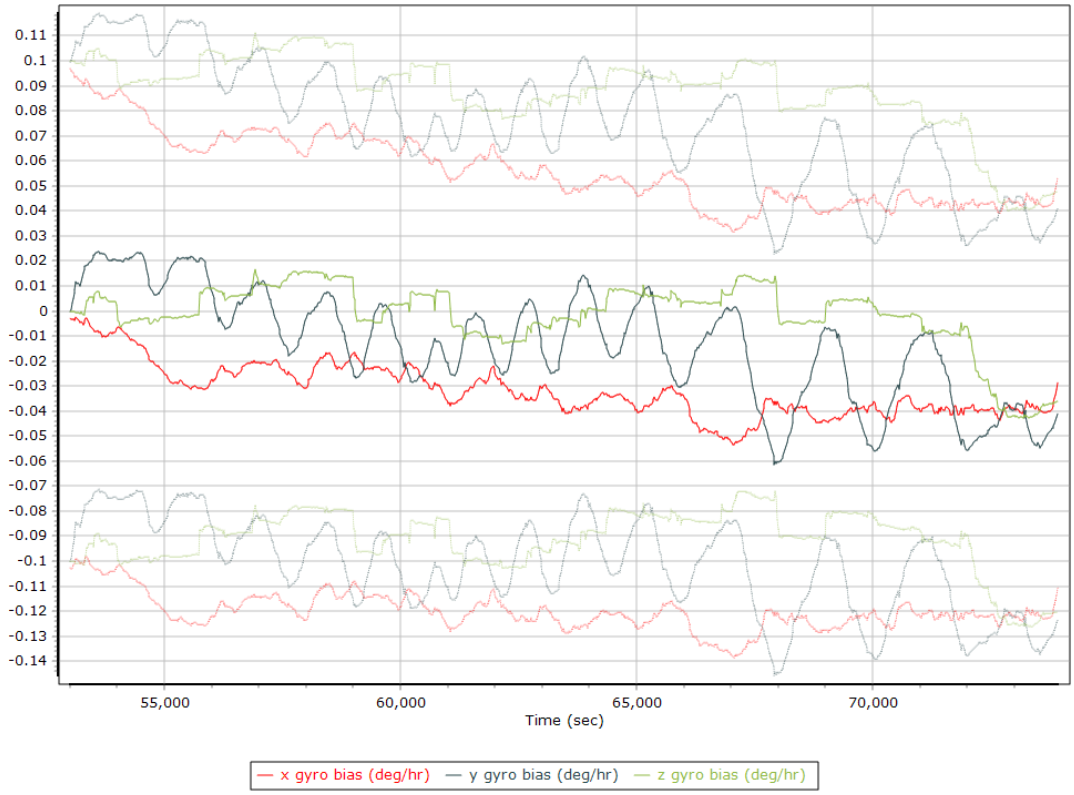
Y Accelerometer Scale Error (ppm)



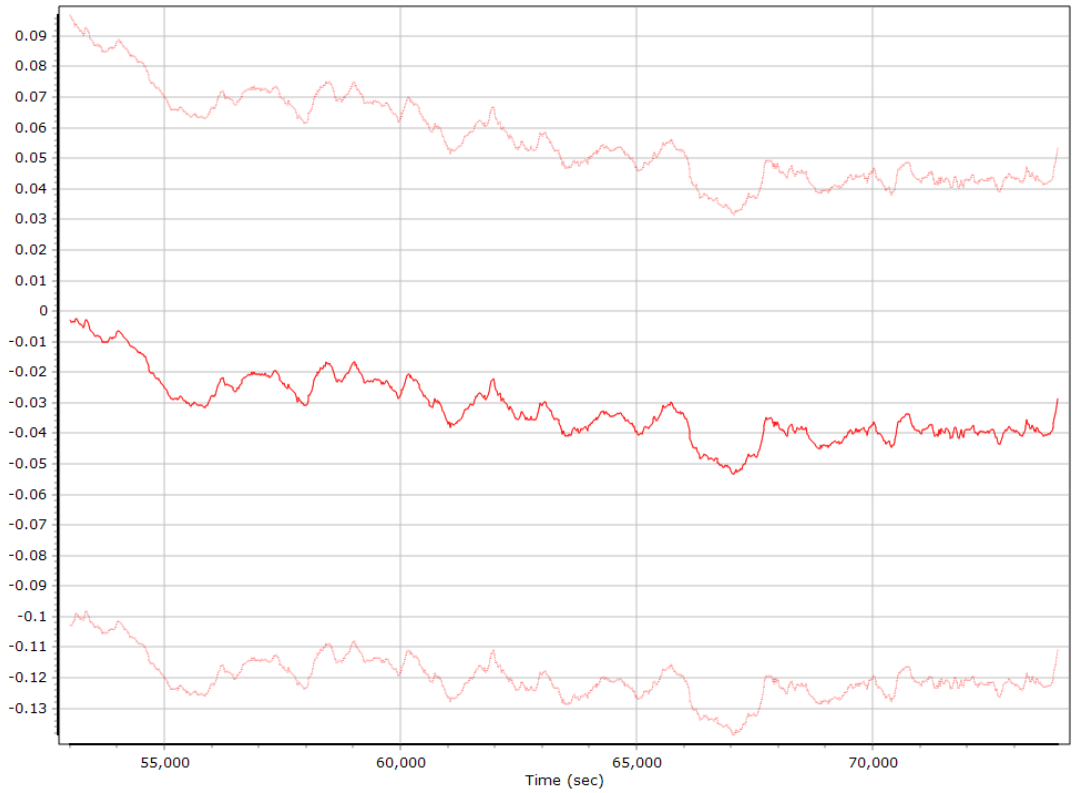
Z Accelerometer Scale Error (ppm)



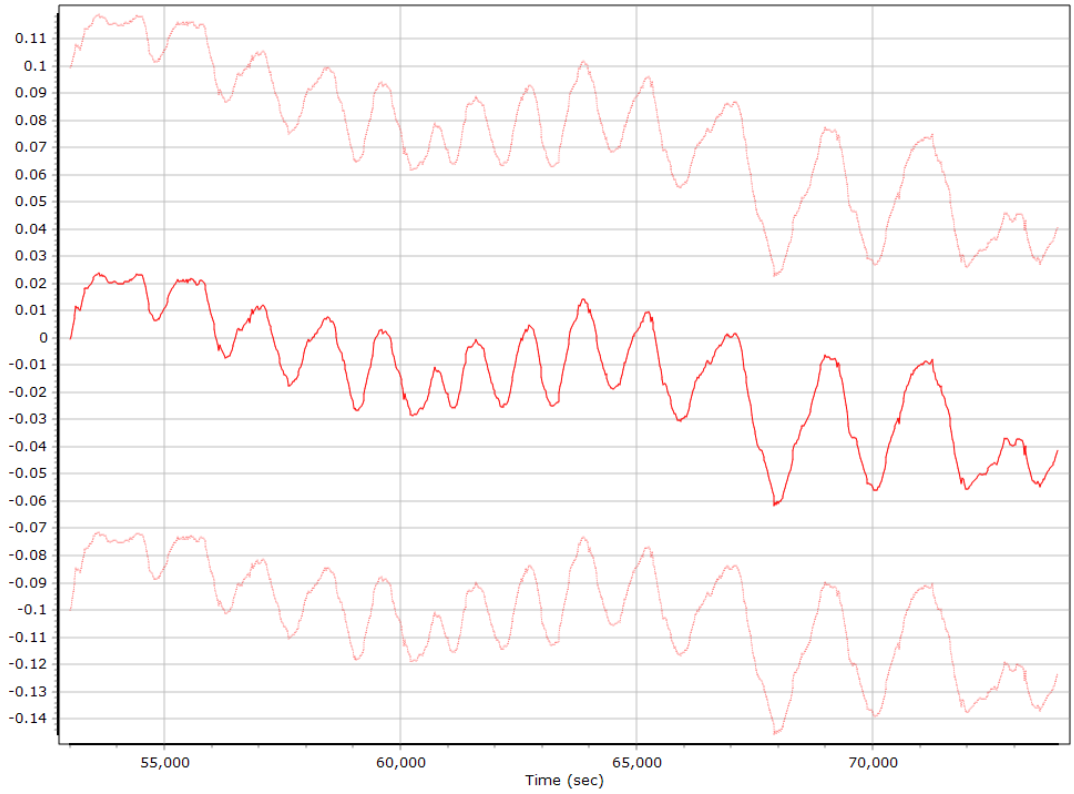
Gyro Bias (deg/h)



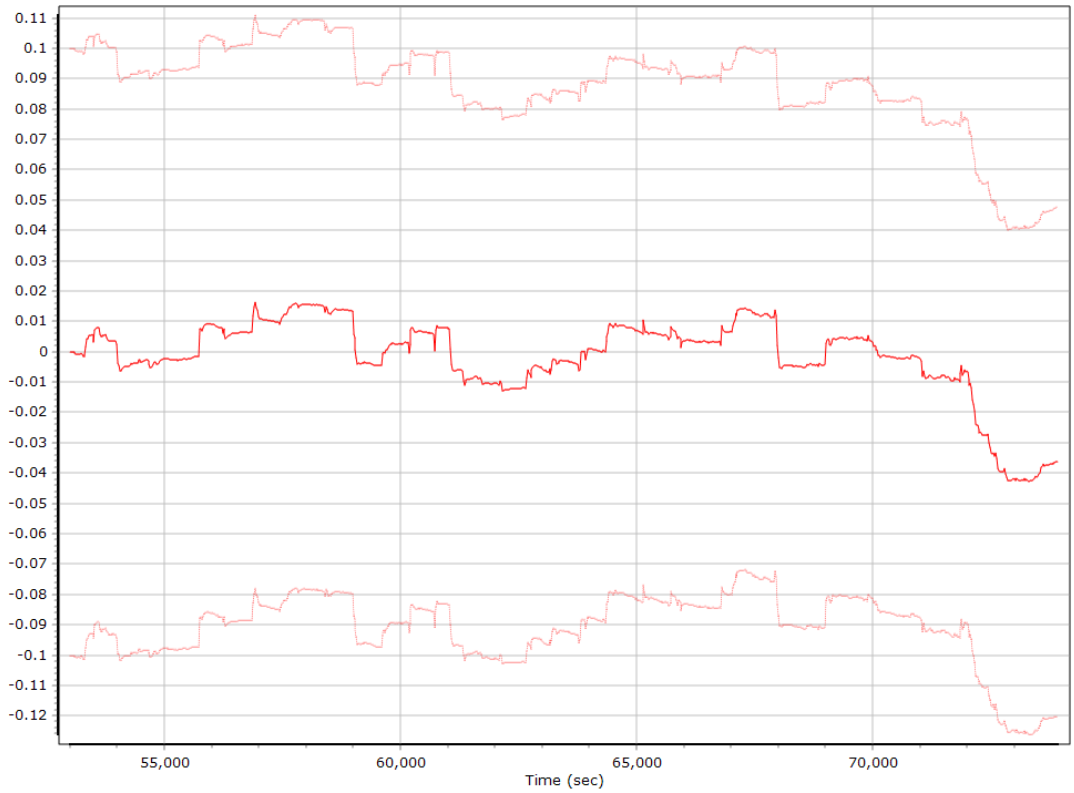
X Gyro Bias (deg/h)



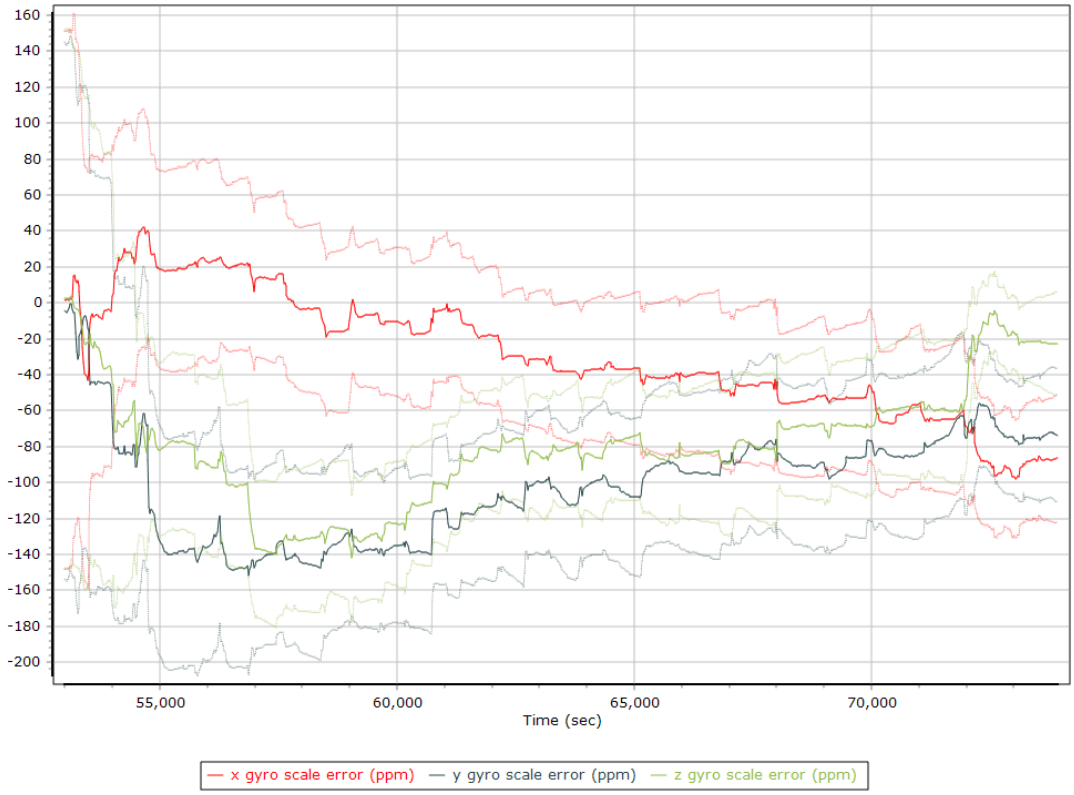
Y Gyro Bias (deg/h)



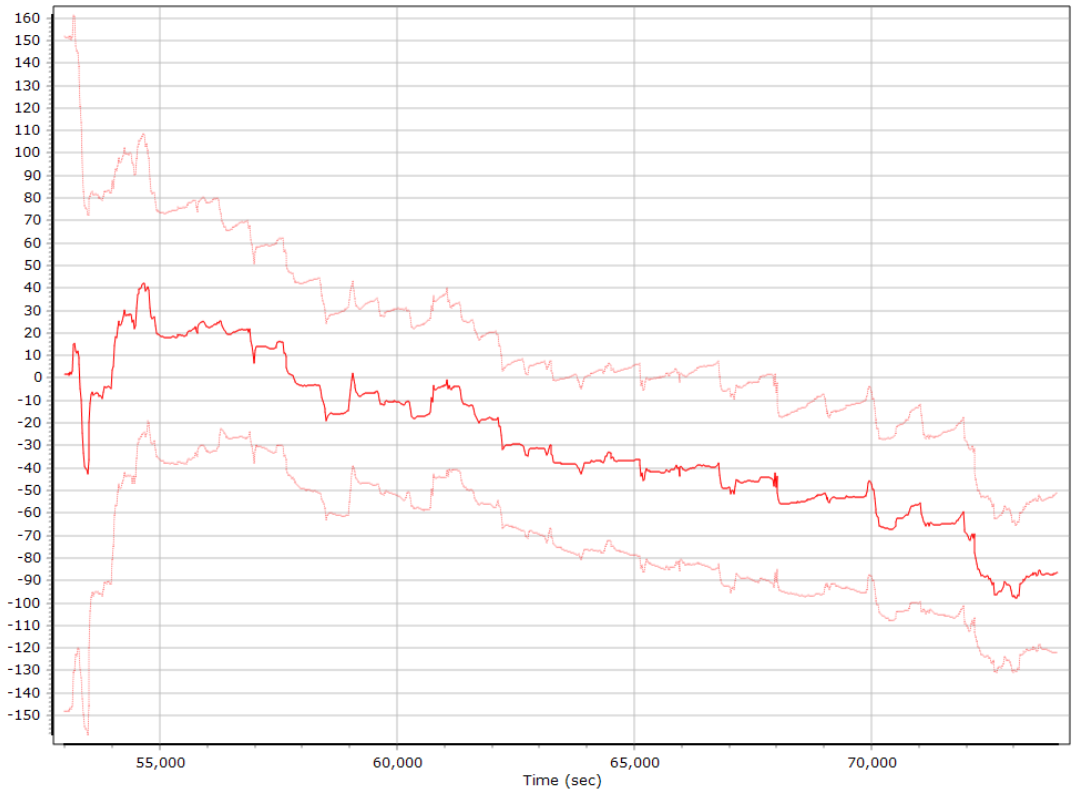
Z Gyro Bias (deg/h)



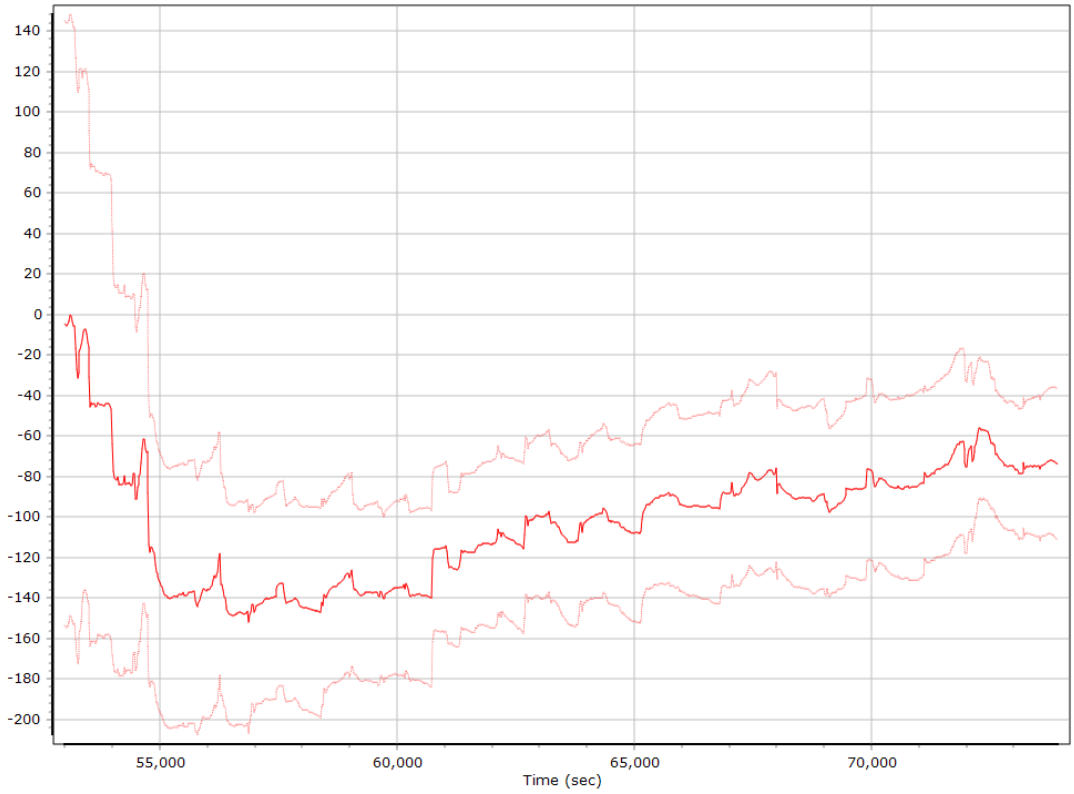
Gyro Scale Error (ppm)



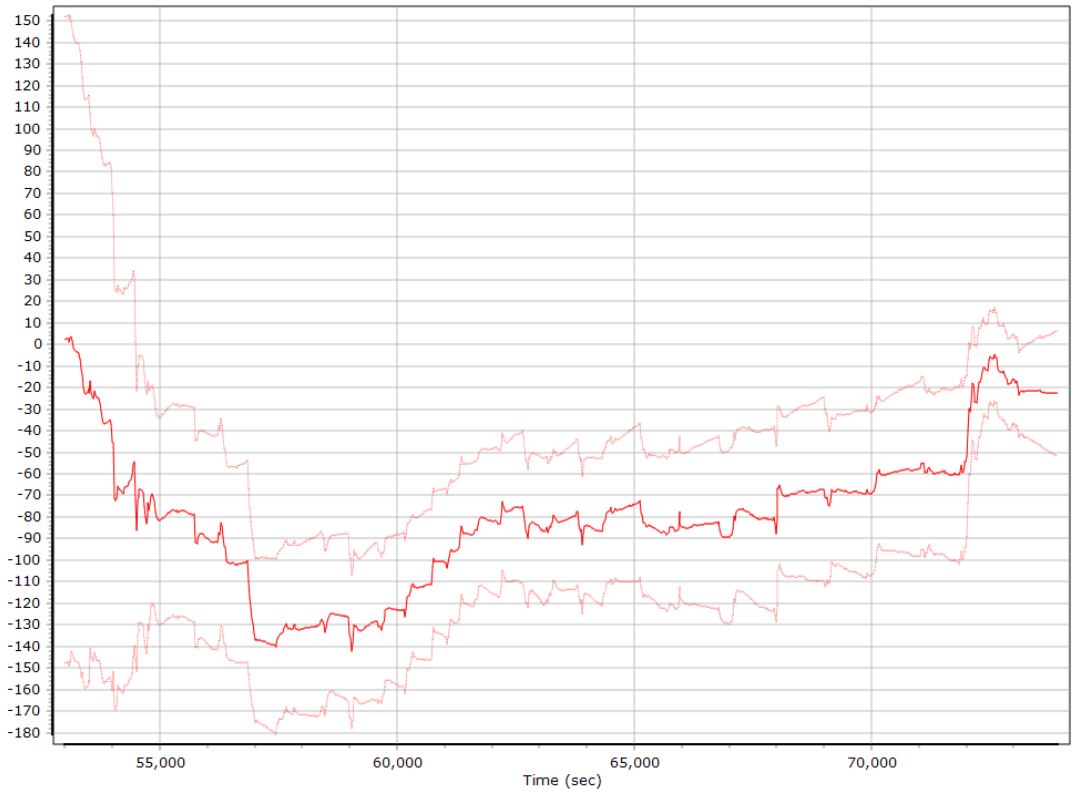
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

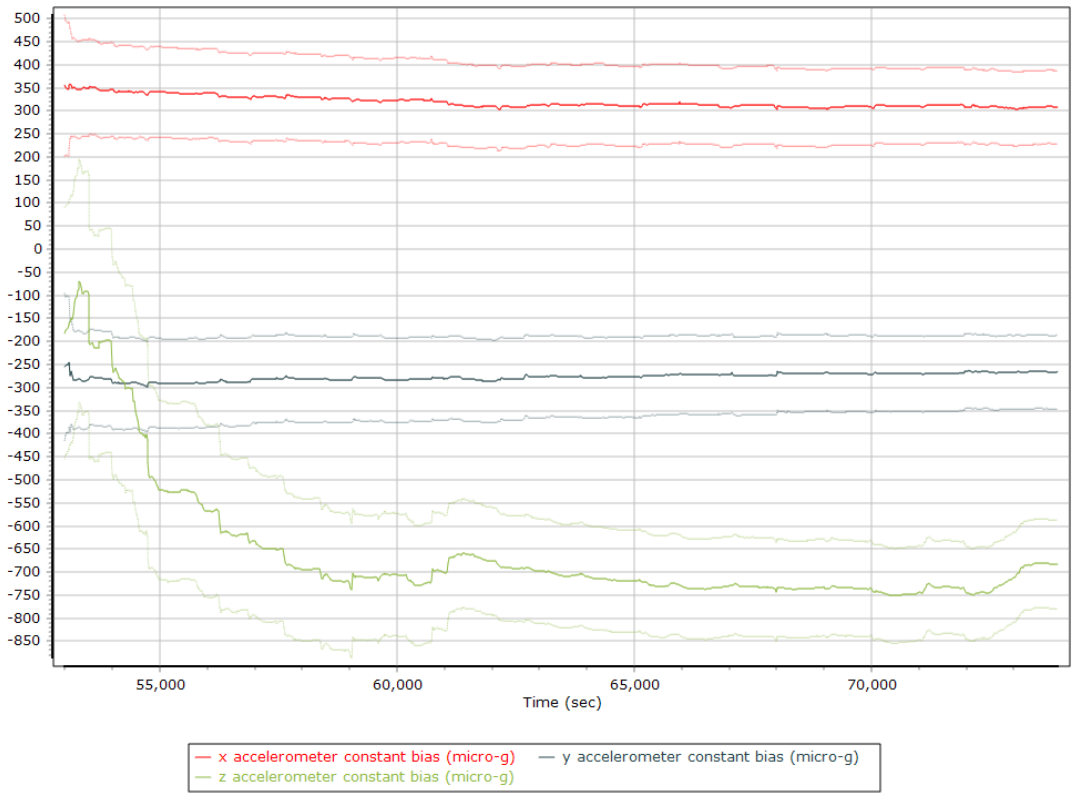


Z Gyro Scale Error (ppm)

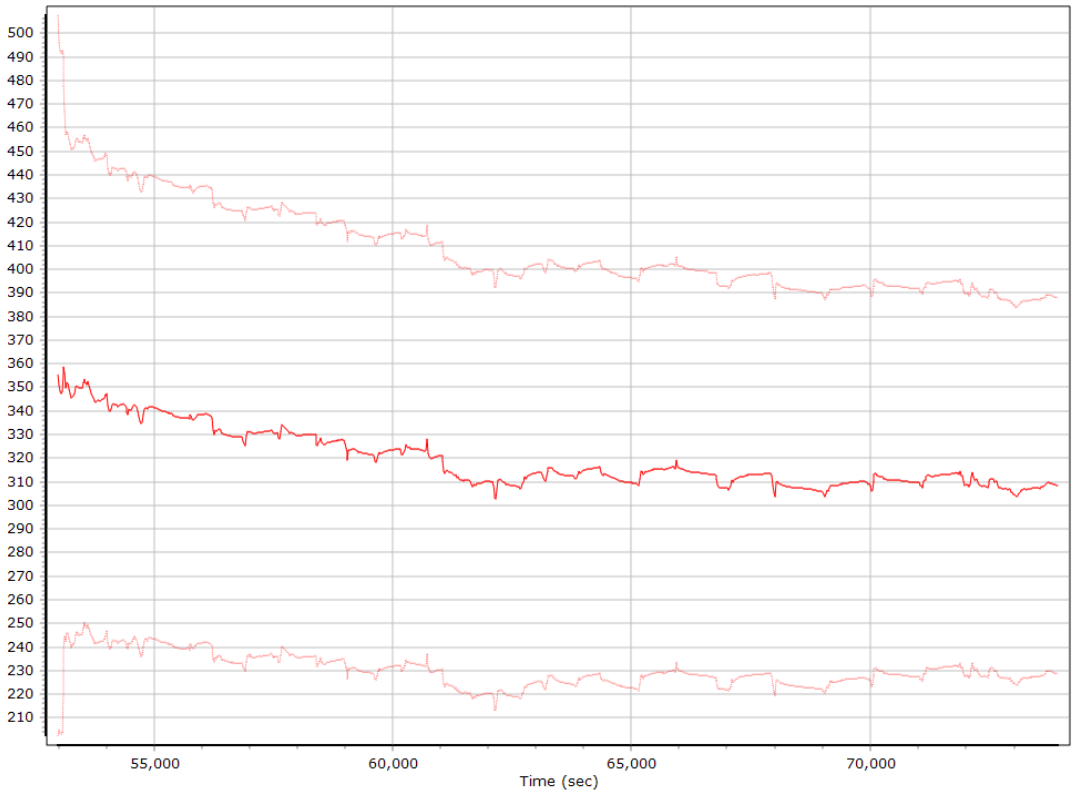


Forward Processed Estimated Constant Errors, Reference Frame

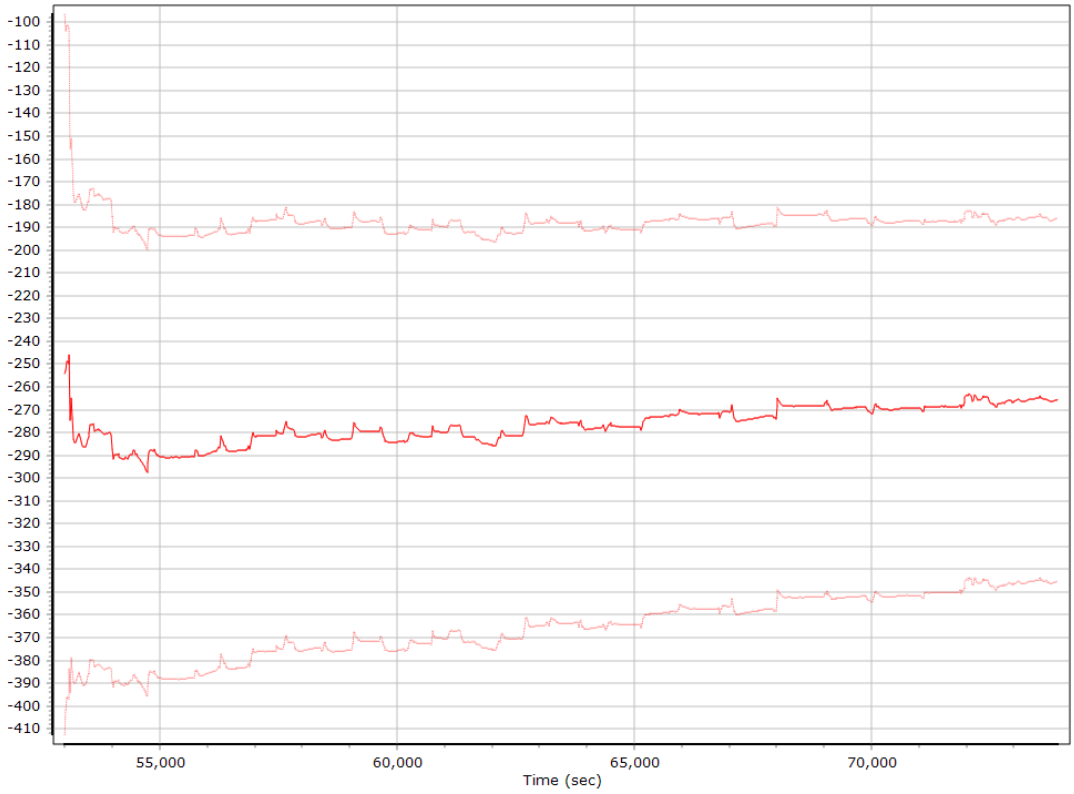
Accelerometer Bias (micro-g)



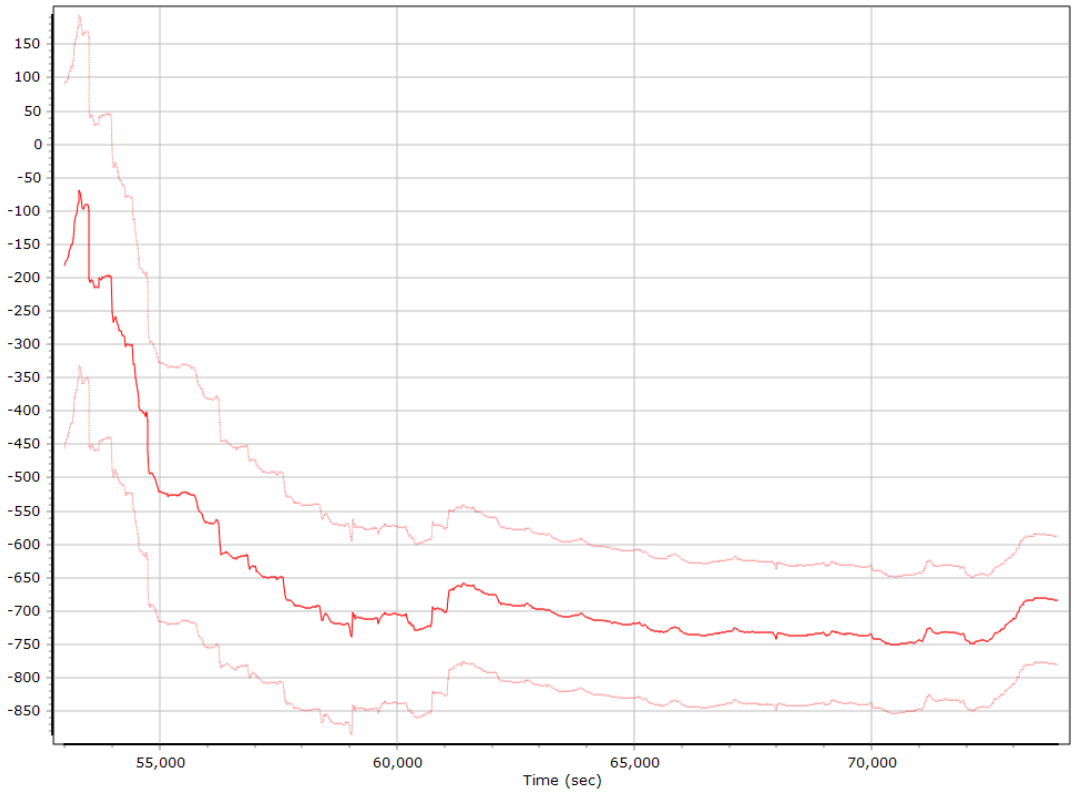
X Accelerometer Bias (micro-g)



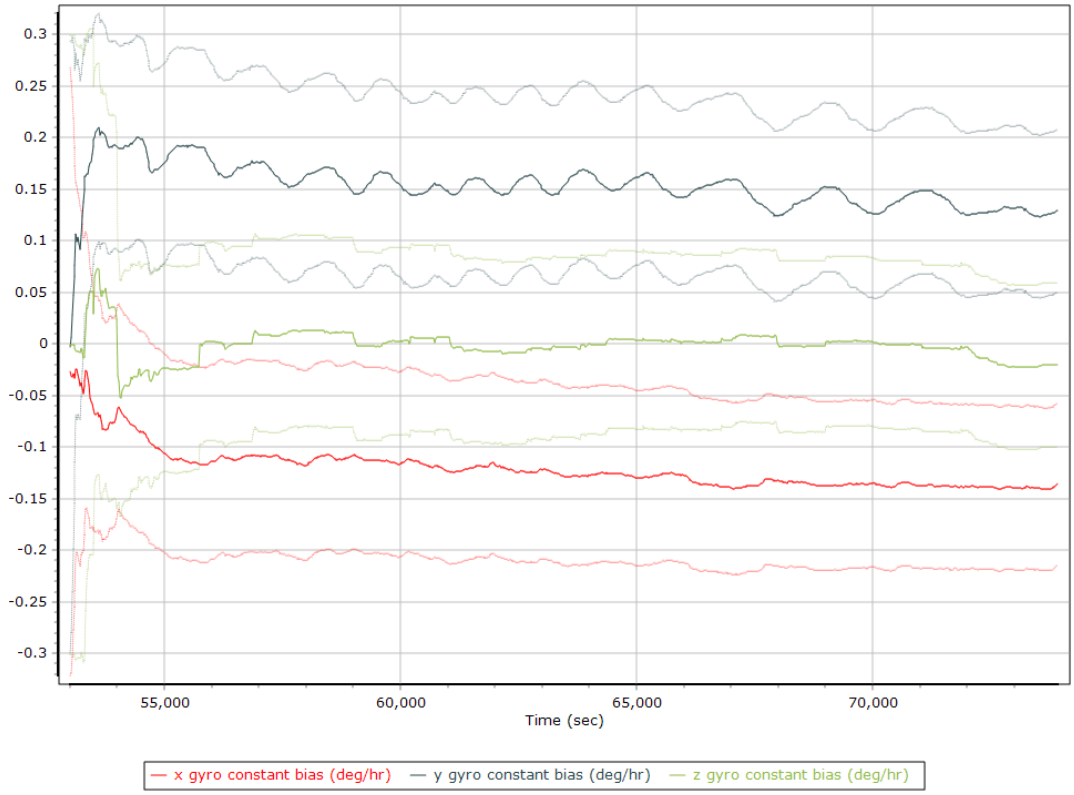
Y Accelerometer Bias (micro-g)



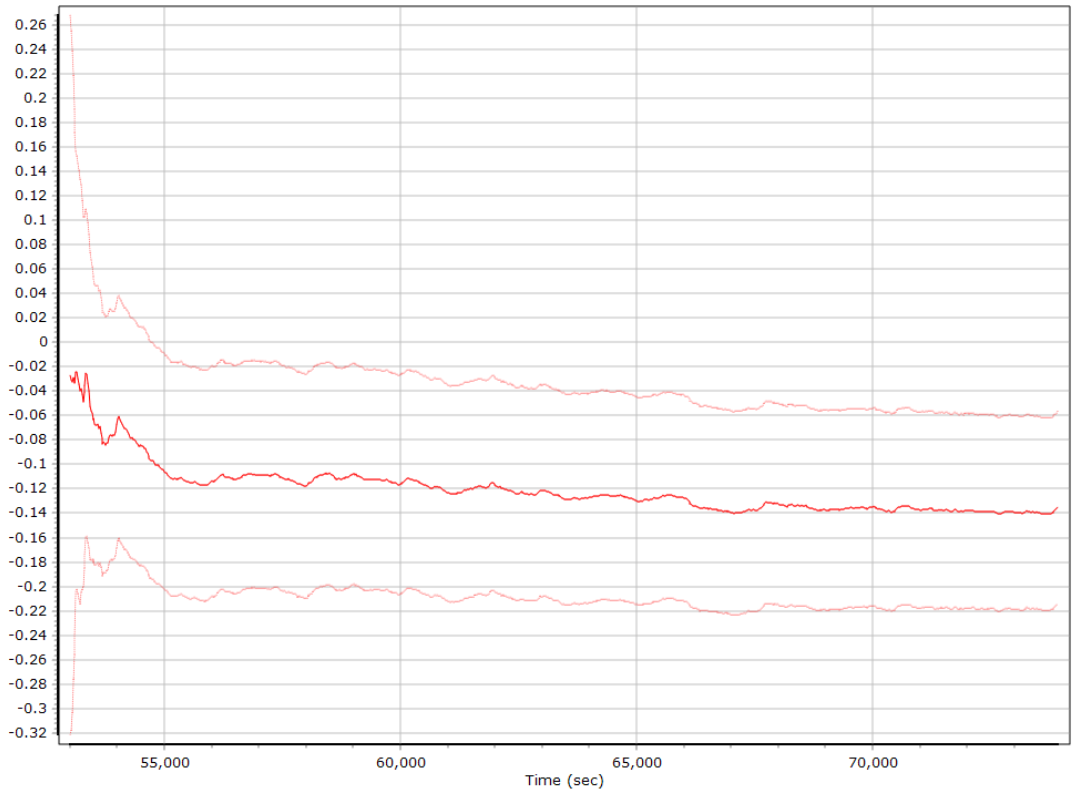
Z Accelerometer Bias (micro-g)



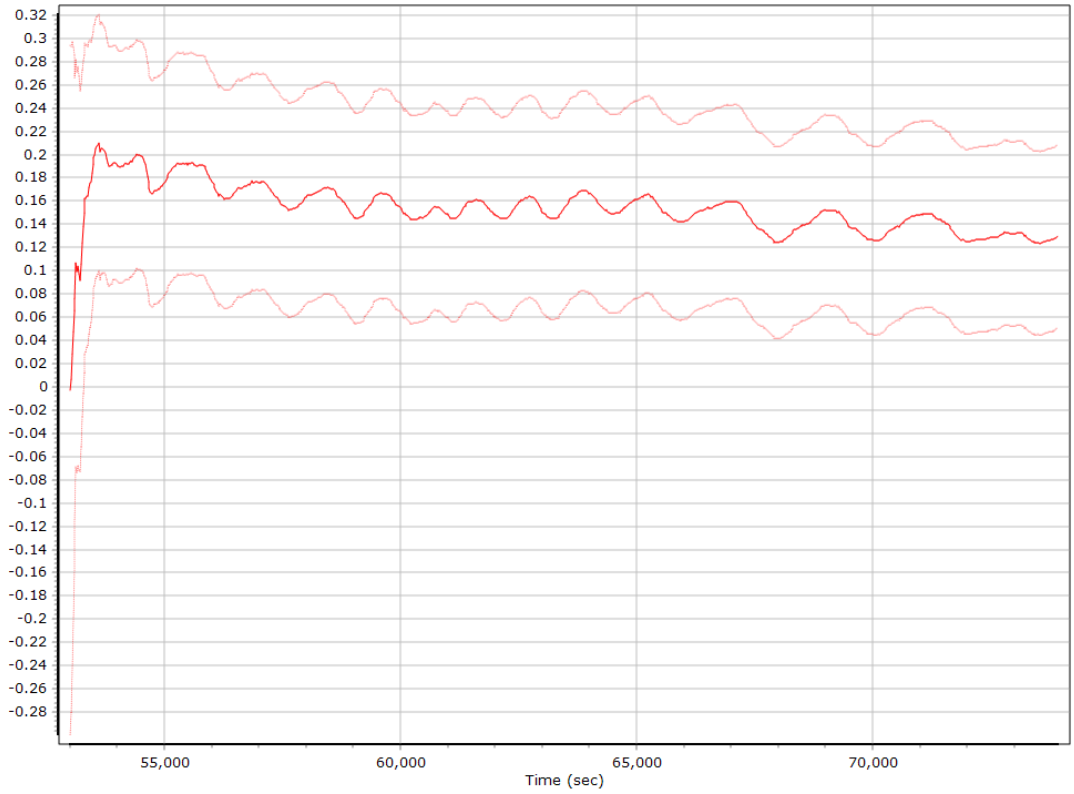
Gyro Bias (deg/h)



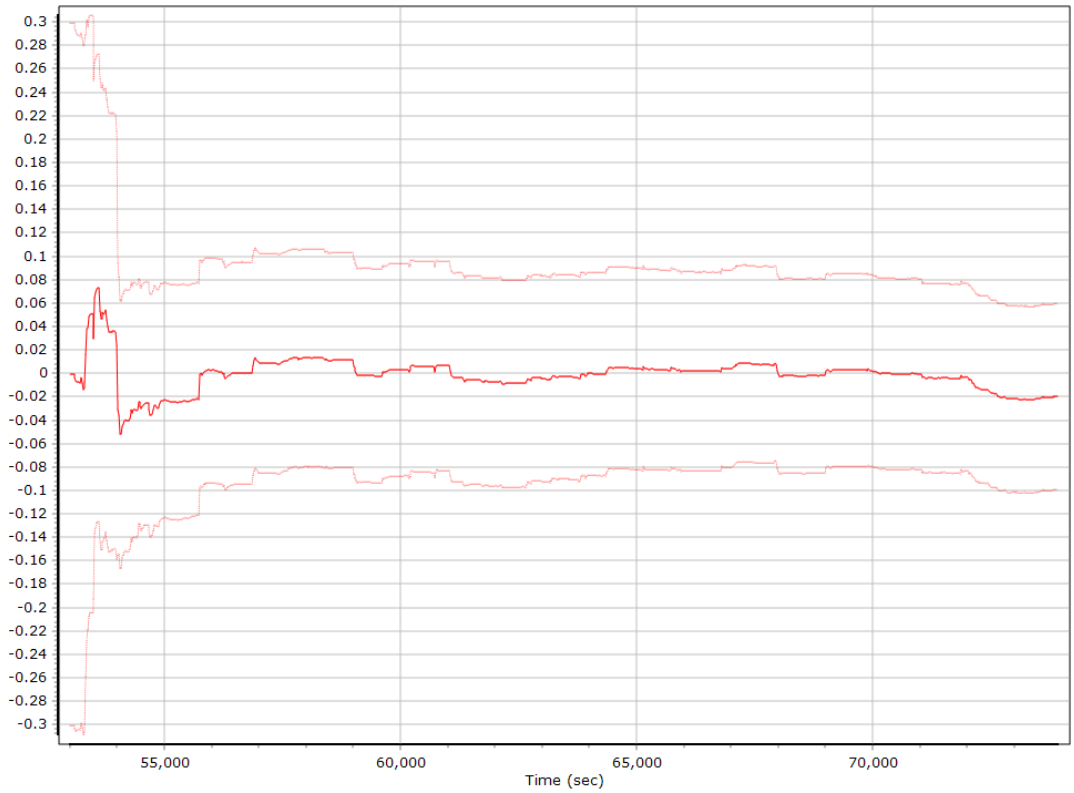
X Gyro Bias (deg/h)



Y Gyro Bias (deg/h)

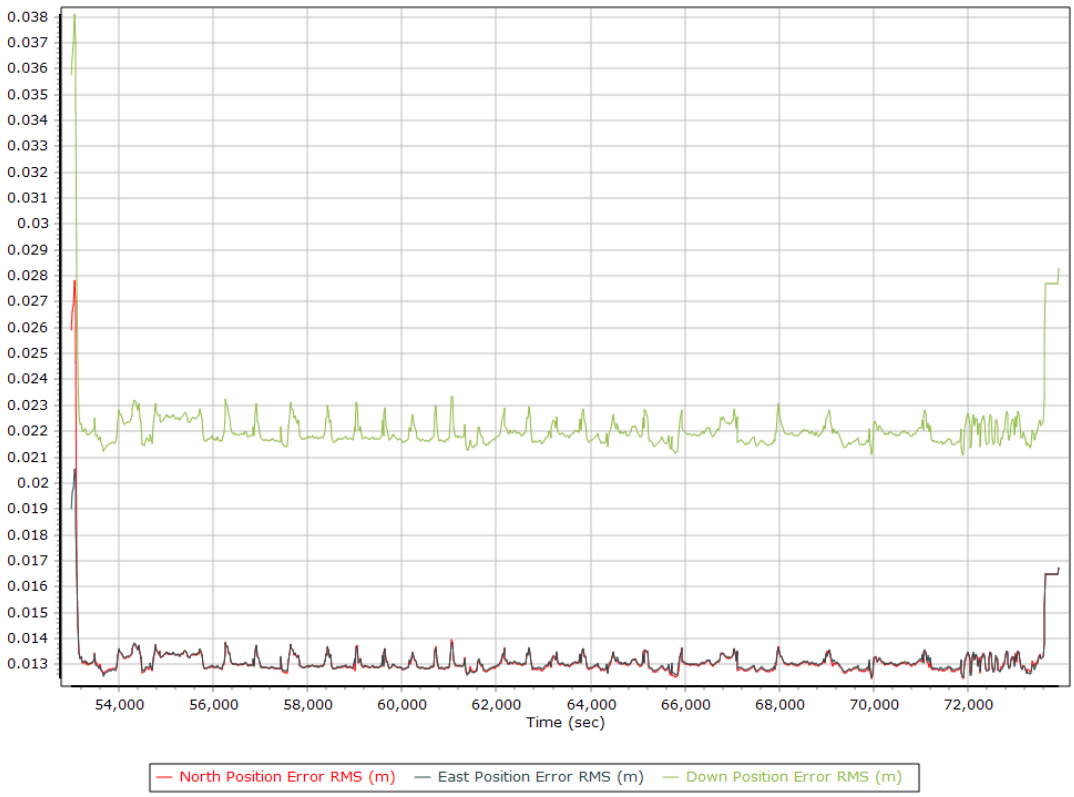


Z Gyro Bias (deg/h)

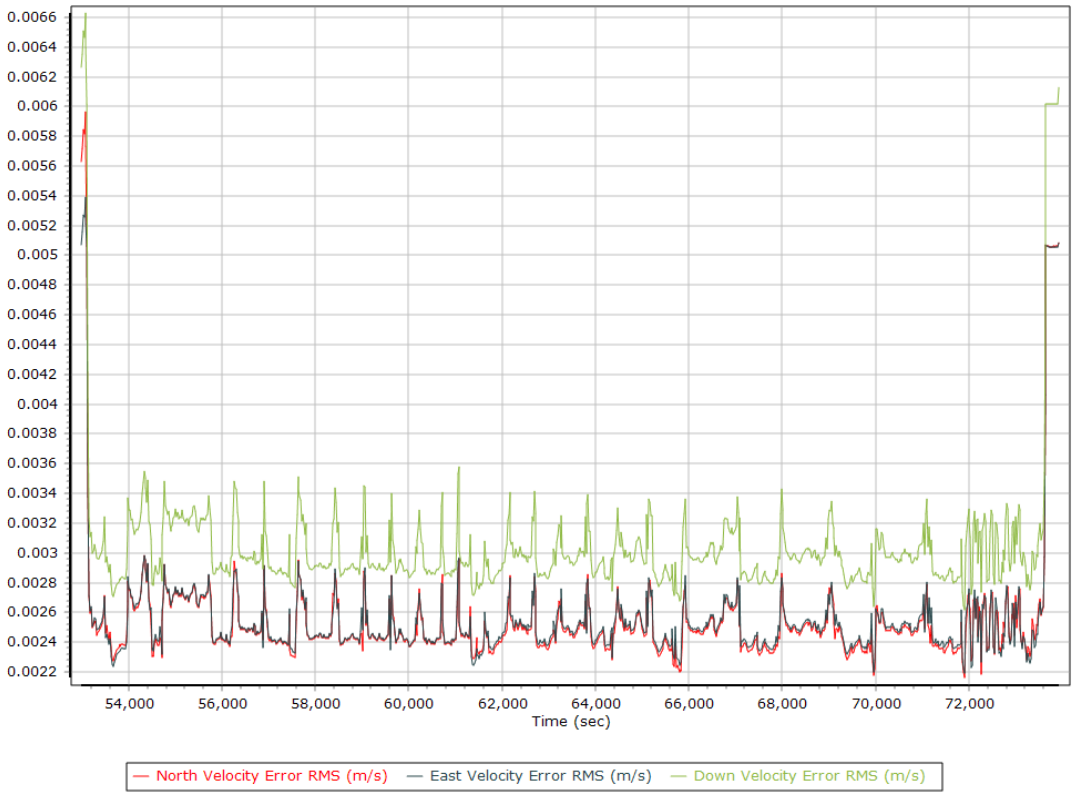


Smoothed Performance Metrics

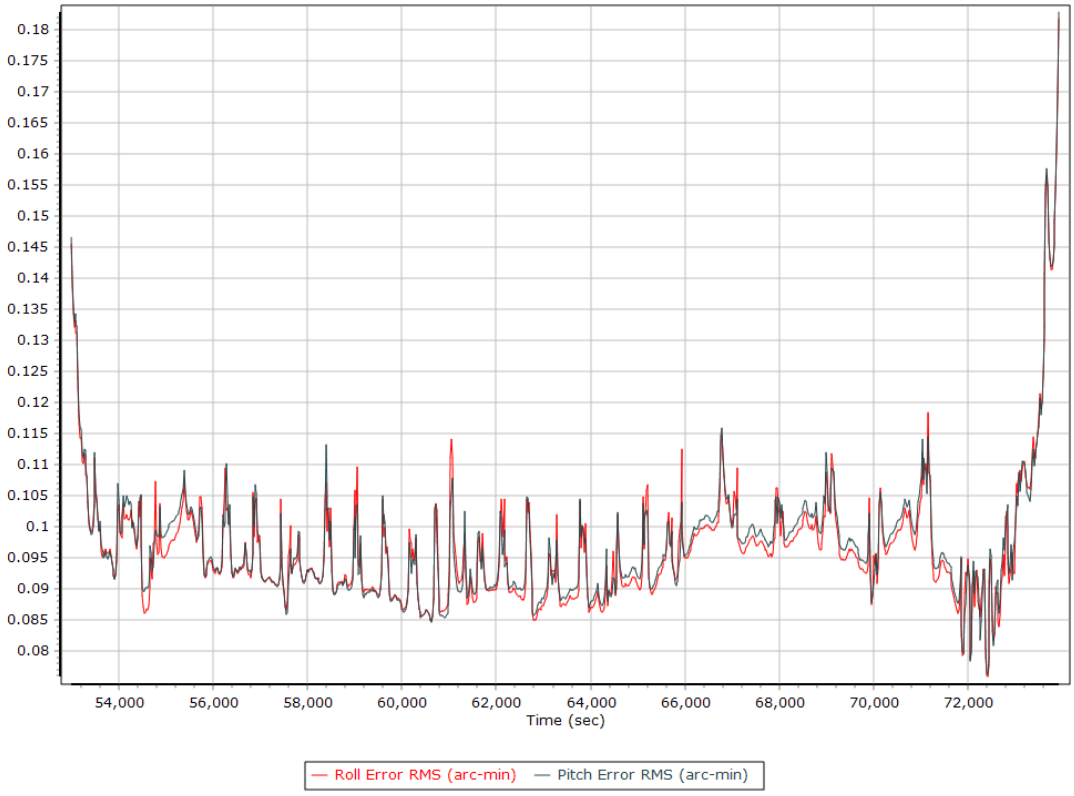
Position Error RMS (m)



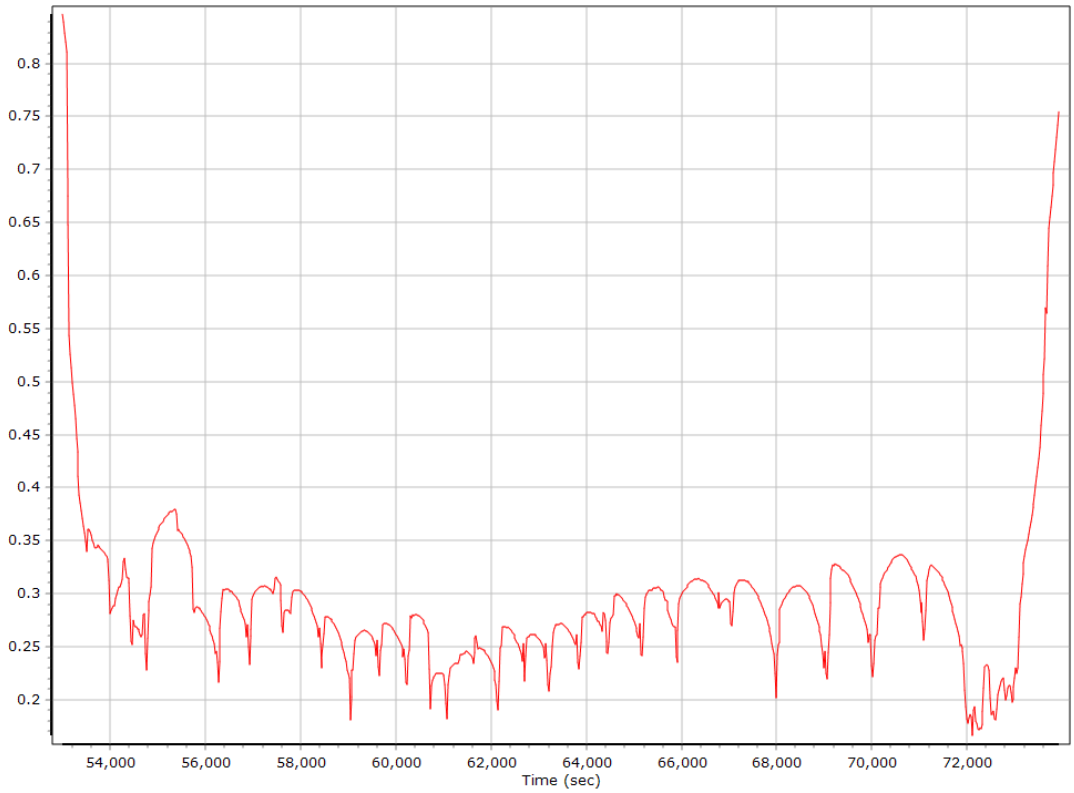
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

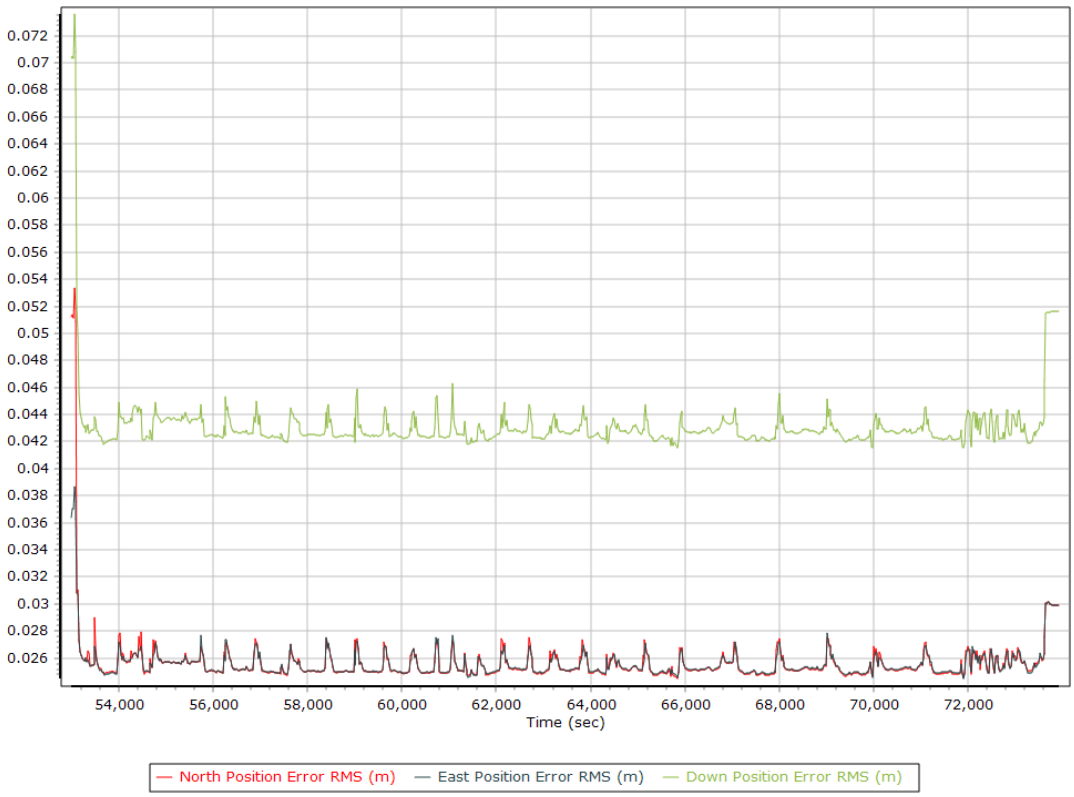


Heading Error RMS (arc-min)

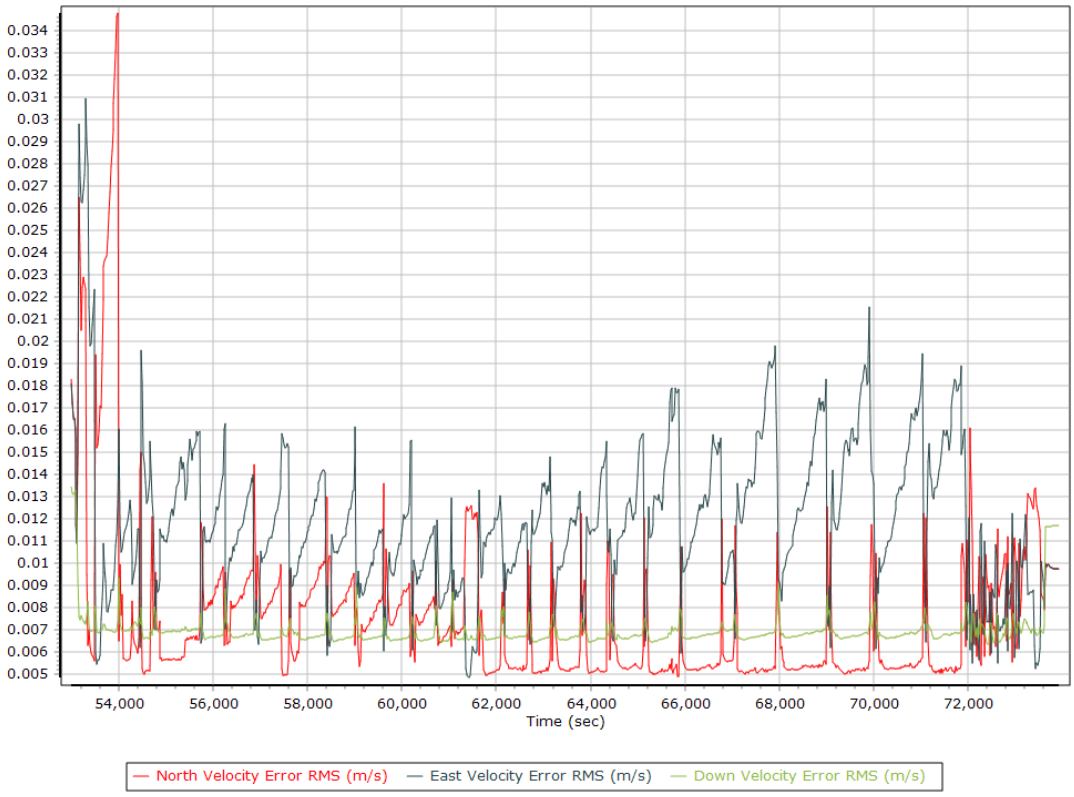


Forward Processed Performance Metrics

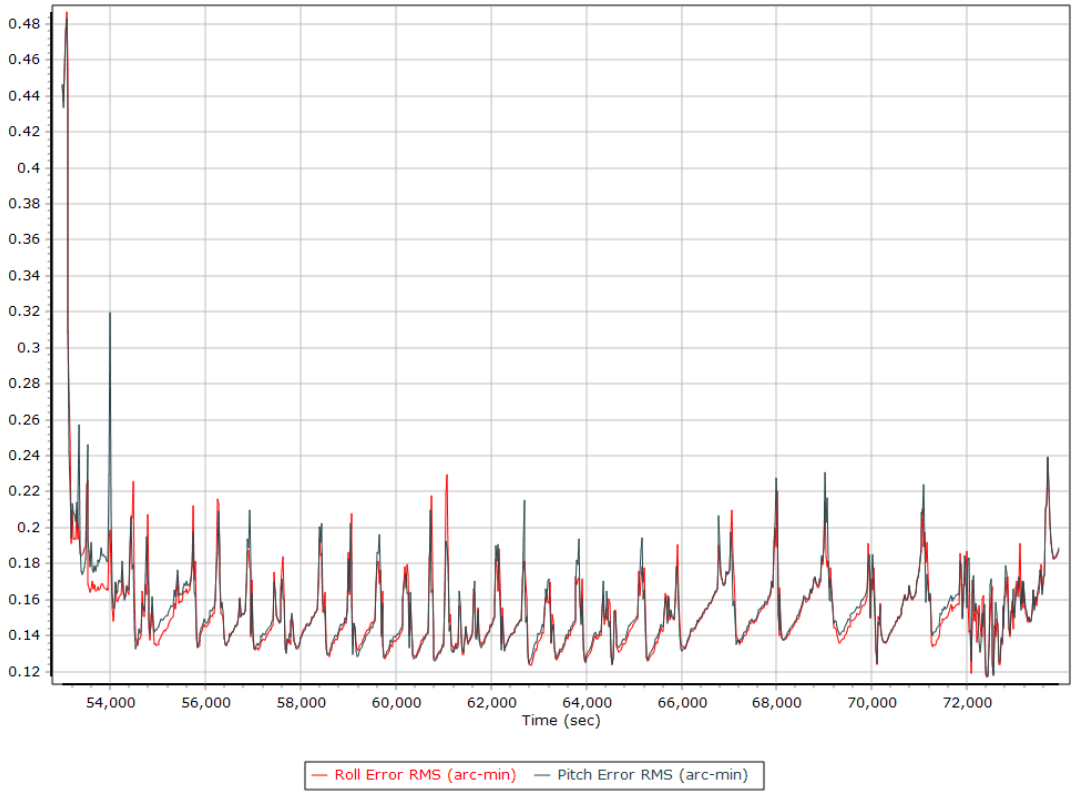
Position Error RMS (m)



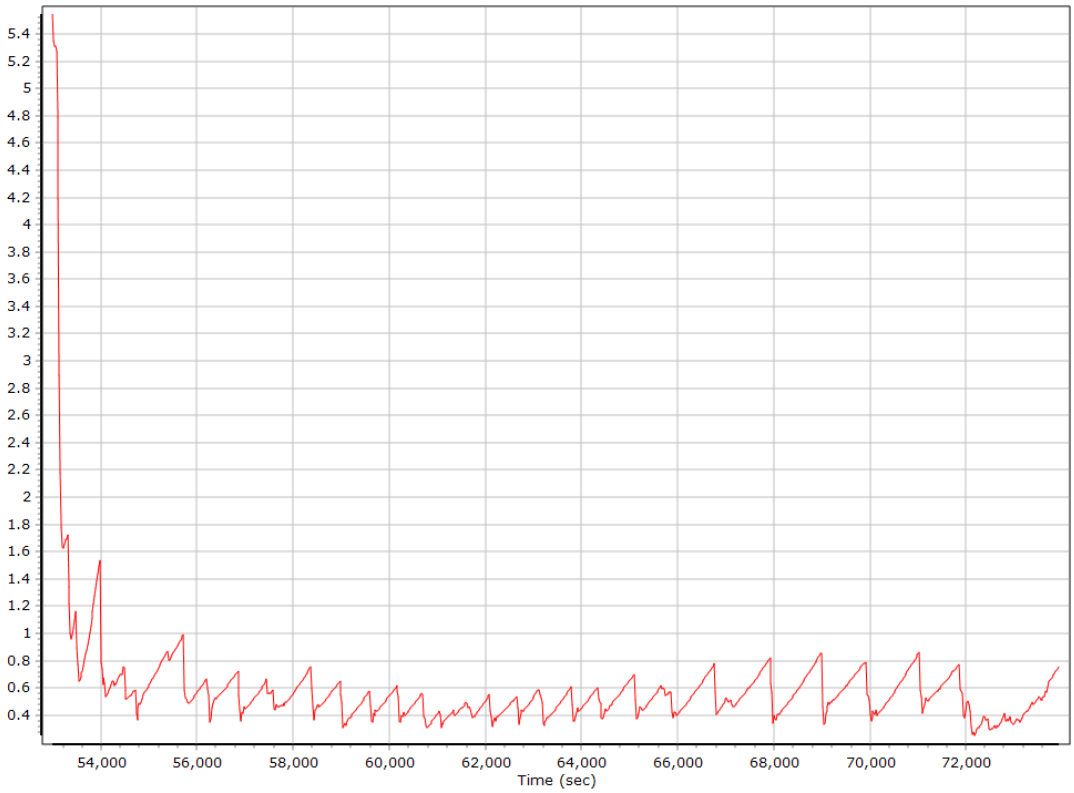
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

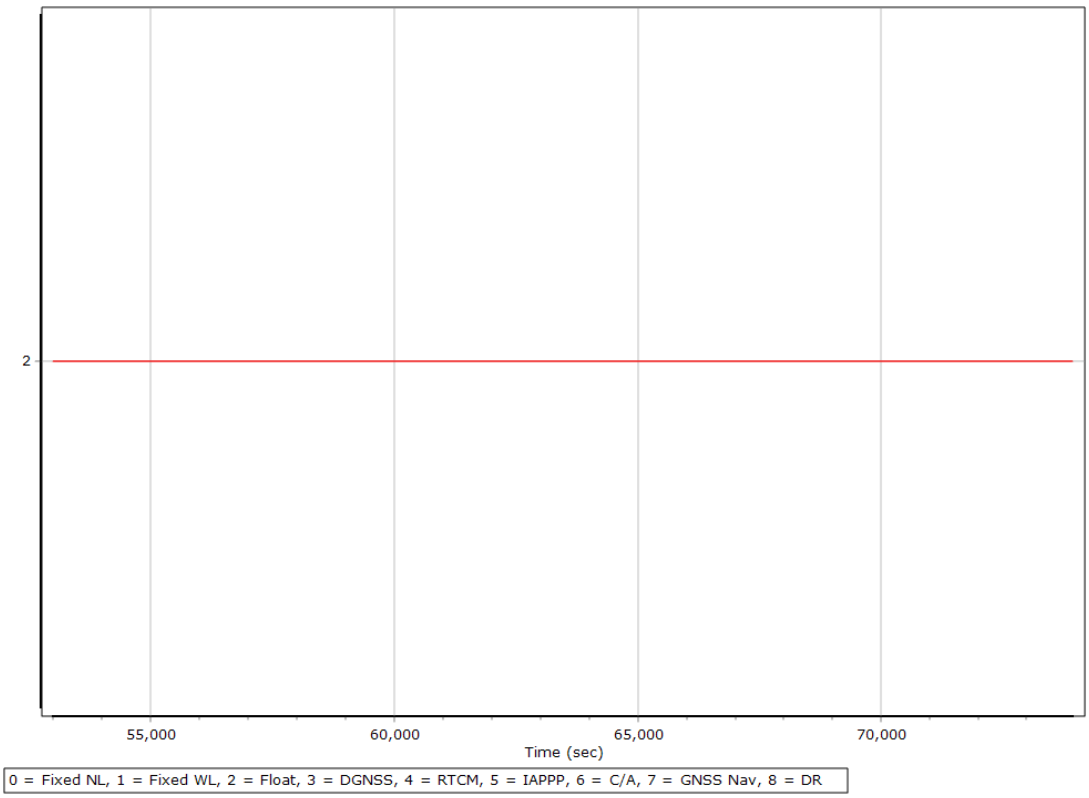


Heading Error RMS (arc-min)

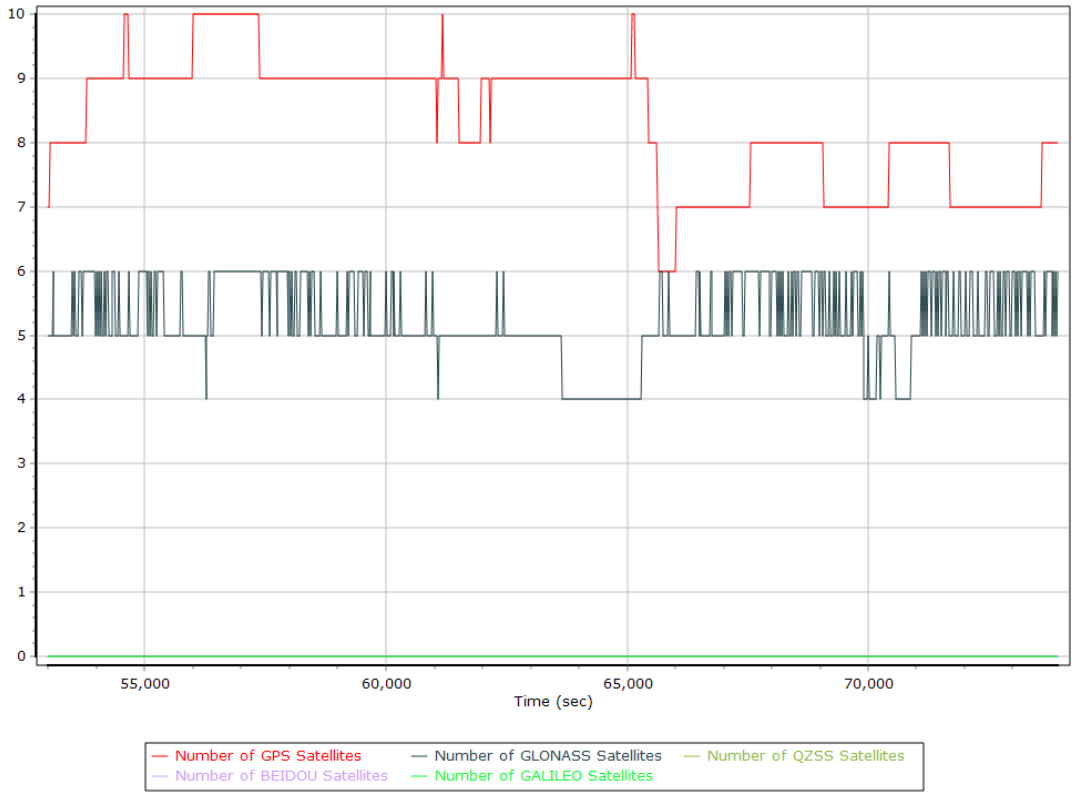
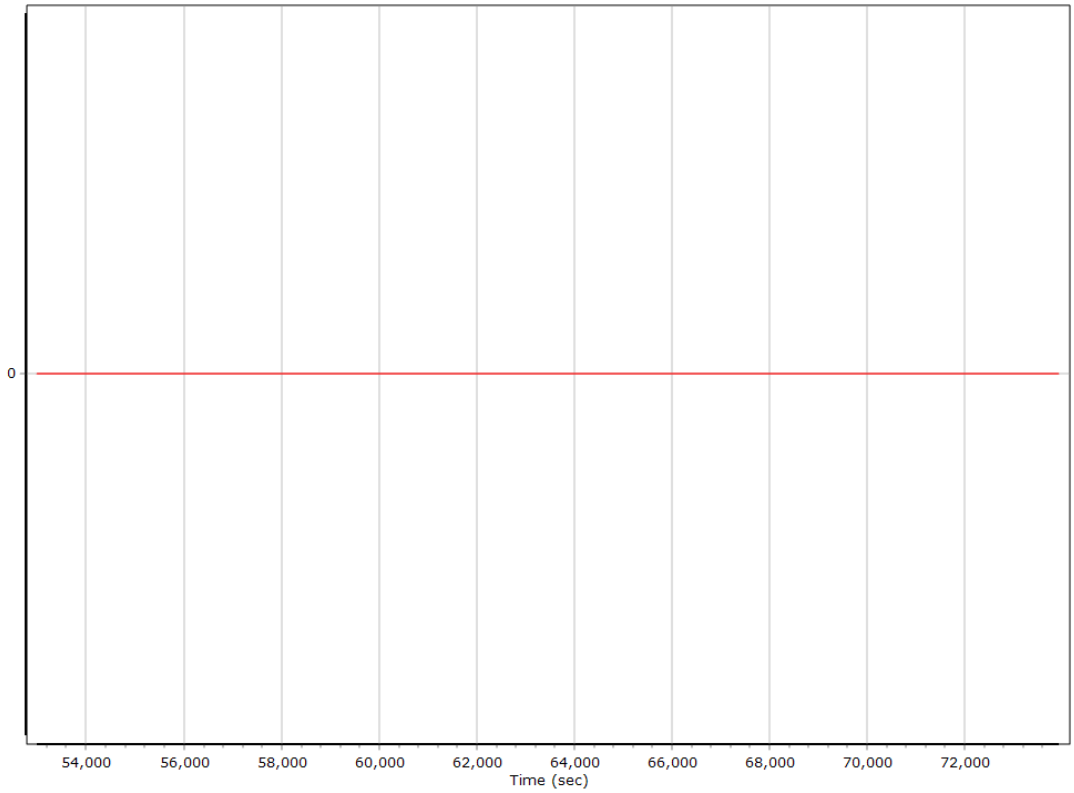


Forward Processed Solution Status

Processing Mode



Number of Satellites



Baseline Length