General Information

Mission Information

Project name	2SU20306A_186
Processing date	2020-11-02 14:59:36
Mission date	2020-11-01 15:59:27
Mission duration	04:31:32.537
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N9642
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
2SU20306A.047	POS Data
2SU20306A.048	POS Data
2SU20306A.049	POS Data
2SU20306A.050	POS Data
2SU20306A.051	POS Data
2SU20306A.052	POS Data
2SU20306A.053	POS Data
2SU20306A.054	POS Data
2SU20306A.055	POS Data
2SU20306A.056	POS Data
2SU20306A.057	POS Data
2SU20306A.058	POS Data
2SU20306A.059	POS Data
2SU20306A.060	POS Data
2SU20306A.061	POS Data
2SU20306A.062	POS Data
2SU20306A.063	POS Data
2SU20306A.064	POS Data
2SU20306A.065	POS Data
2SU20306A.066	POS Data
2SU20306A.067	POS Data
2SU20306A.068	POS Data
2SU20306A.069	POS Data
2SU20306A.070	POS Data
2SU20306A.071	POS Data
2SU20306A.072	POS Data
2SU20306A.073	POS Data
2SU20306A.074	POS Data
2SU20306A.075	POS Data
2SU20306A.076	POS Data
2SU20306A.077	POS Data
2SU20306A.078	POS Data
2SU20306A.079	POS Data
2SU20306A.080	POS Data
2SU20306A.081	POS Data
2SU20306A.082	POS Data
2SU20306A.083	POS Data
2SU20306A.084	POS Data
2SU20306A.085	POS Data
2SU20306A.086	POS Data
2SU20306A.087	POS Data
2SU20306A.088	POS Data
2SU20306A.089	POS Data
2SU20306A.090	POS Data
2SU20306A.091	POS Data
2SU20306A.092	POS Data

Input Files

File Name	File Type
Ephm3060.20g	GLONASS Broadcast Ephemeris
Ephm3060.20n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_2SU20306A_186.out	SBET Trajectory File
export_2SU20306A_186.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	2SU20306A.047		
Last raw data file	2SU20306A.092		
Start GPS week	2130		
Start time	57548.481 (11/01/2020 15:59:08)		
End time	75721.901 (11/01/2020 21:02:01)		
Start of fine alignment	58054.012 (11/01/2020 16:07:34)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	None		
Correction data	None		
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)	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

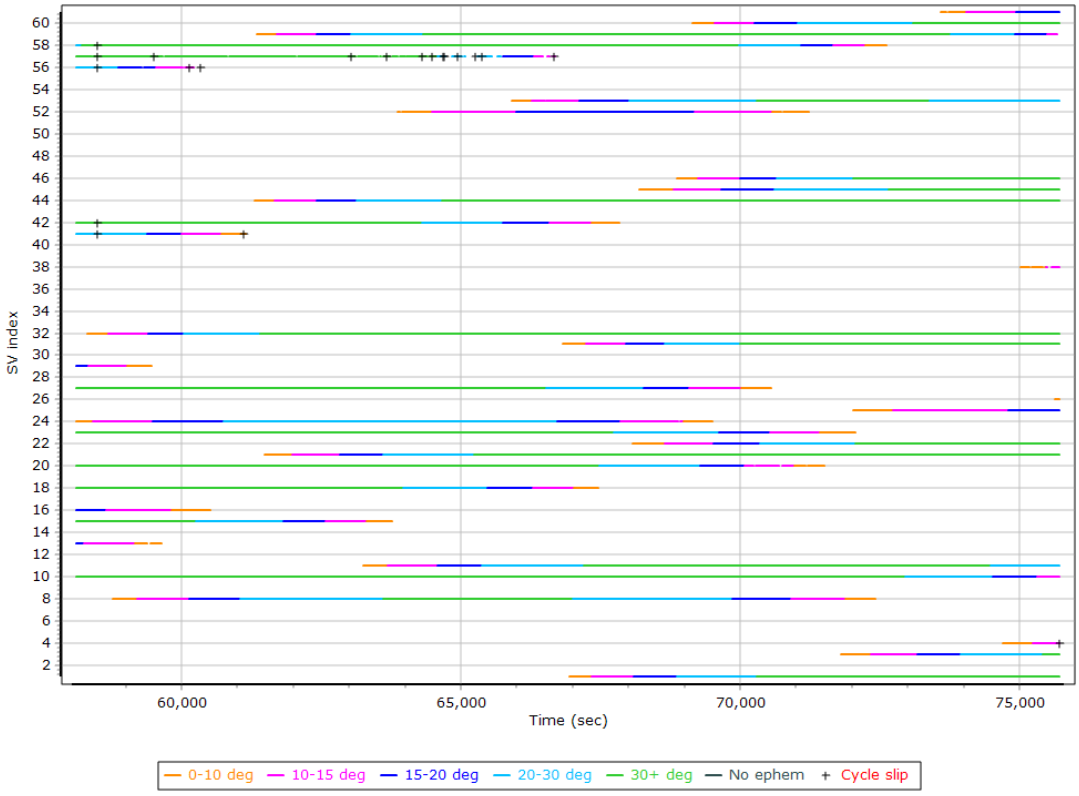
Raw Data QC

Raw IMU Import QC Summary

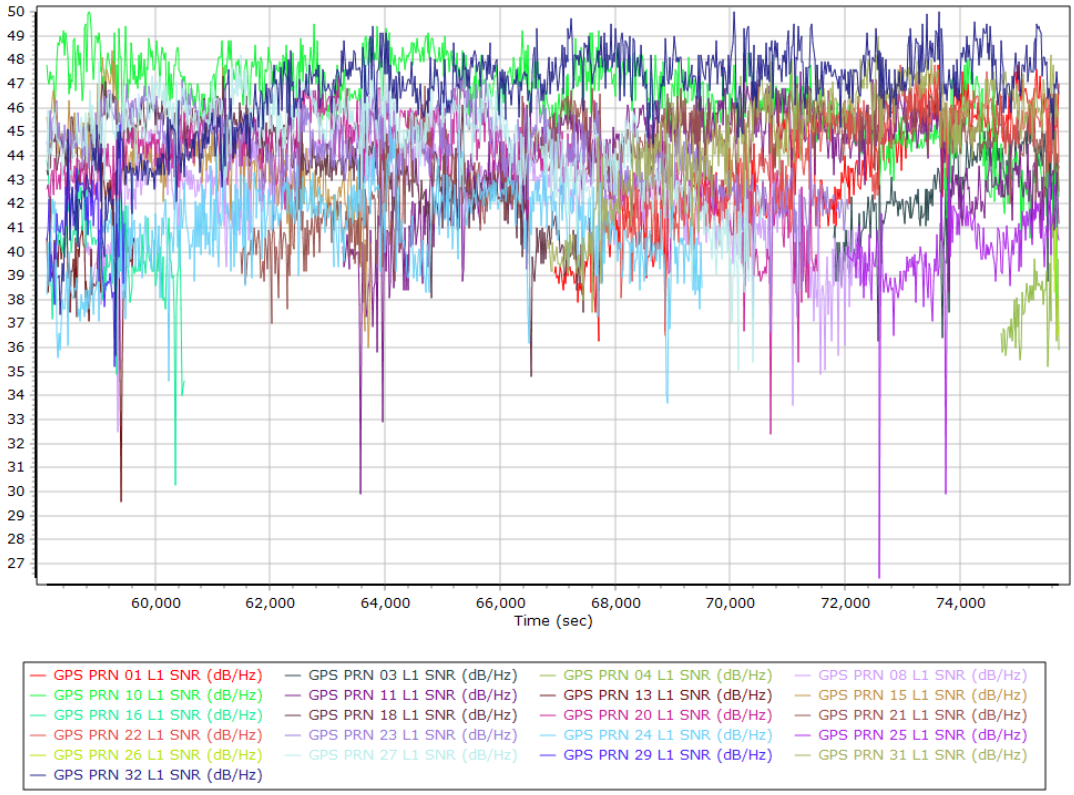
IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_2SU20306A_186.log
IMU Records Processed	3635950
Termination Status	Normal
IMU Anomalies	0

L1 Satellite Lock/Elevation

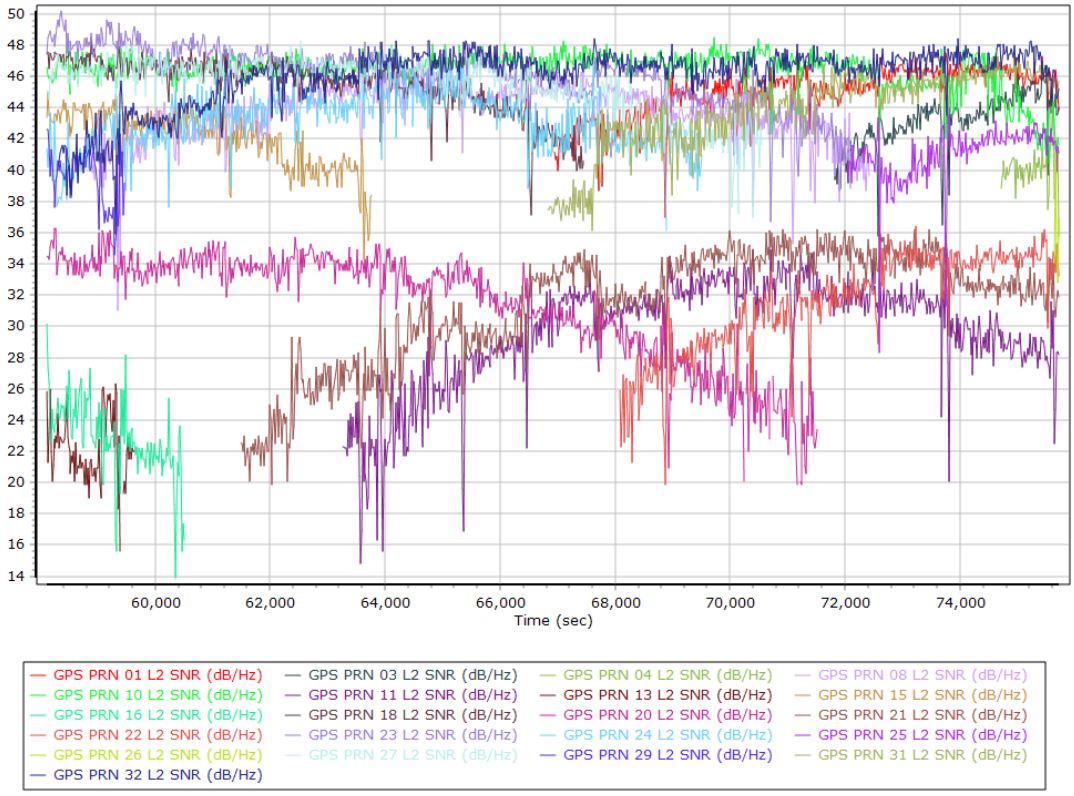
L2 Satellite Lock/Elevation



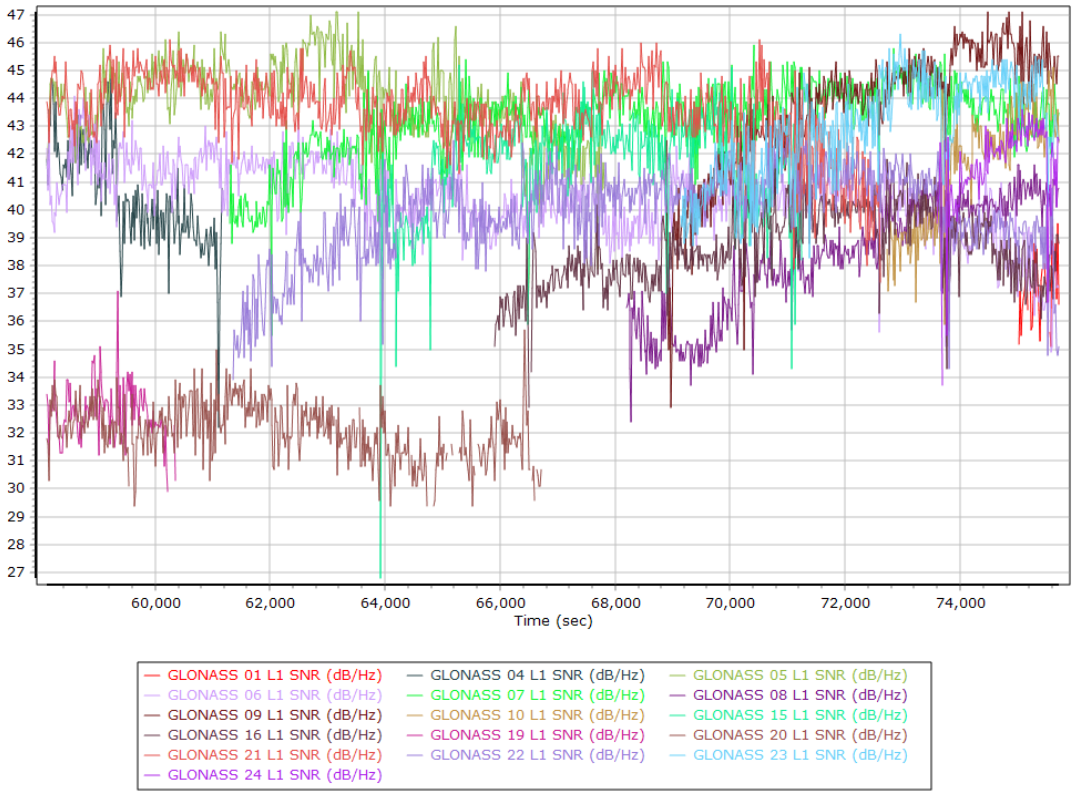
GPS L1 SNR



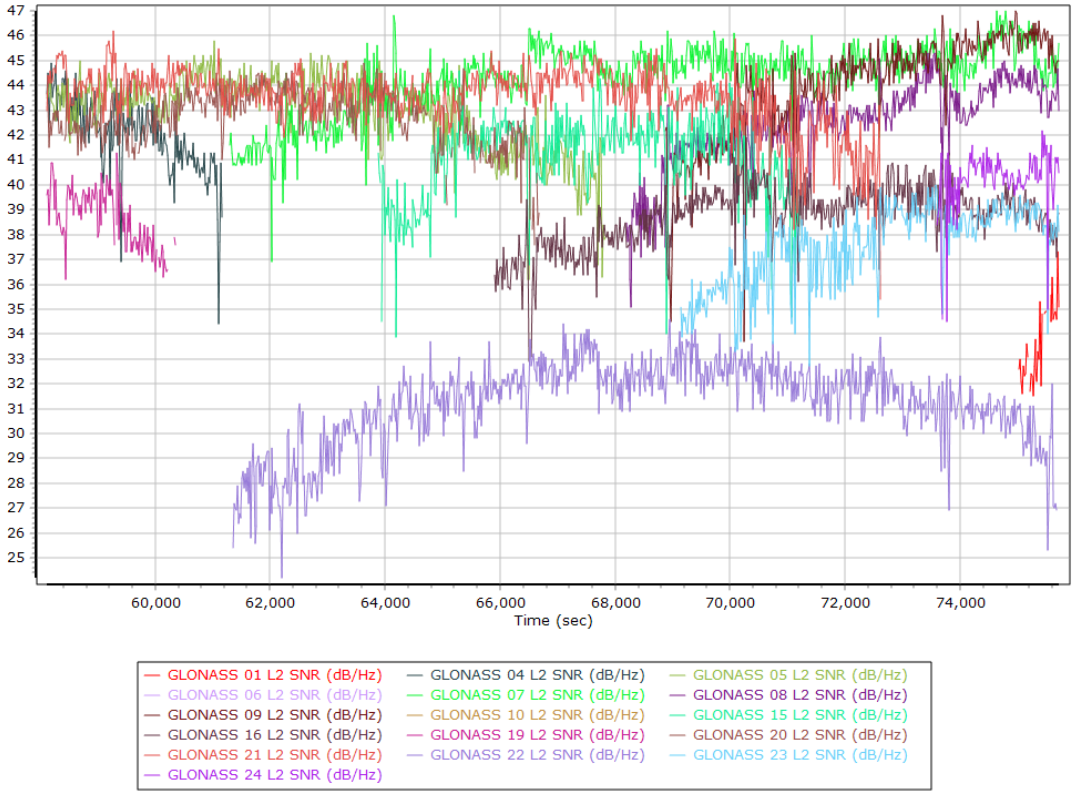
GPS L2 SNR



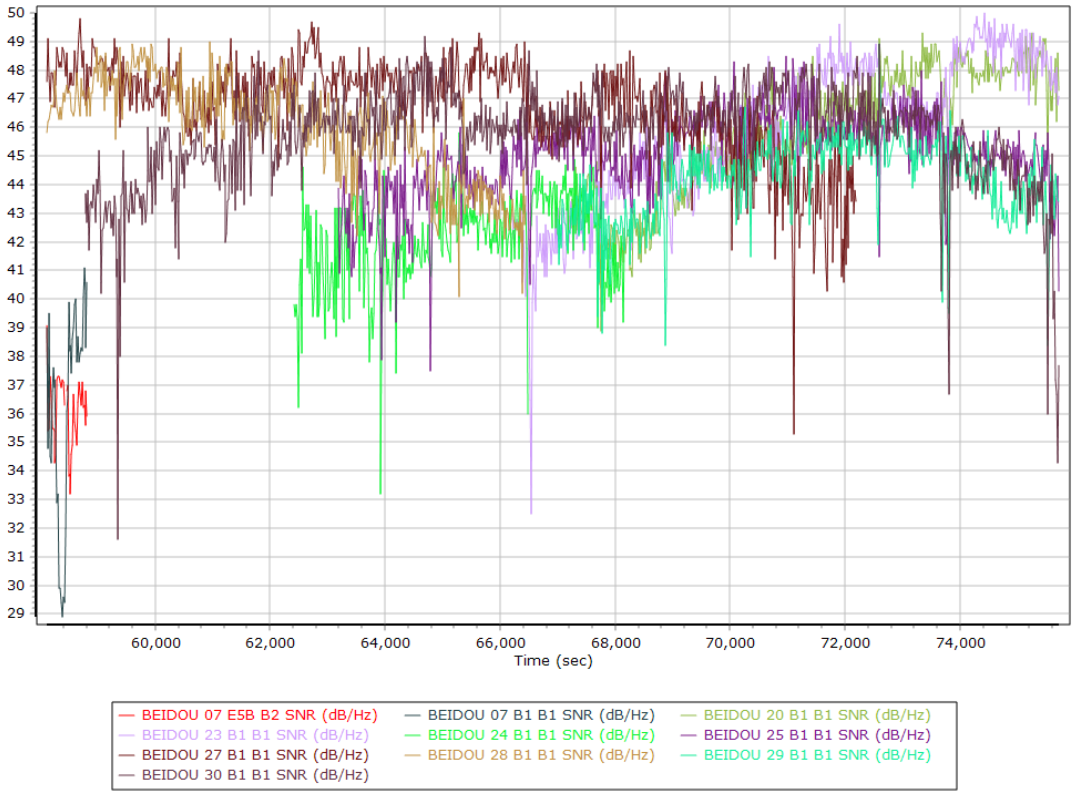
GLONASS L1 SNR



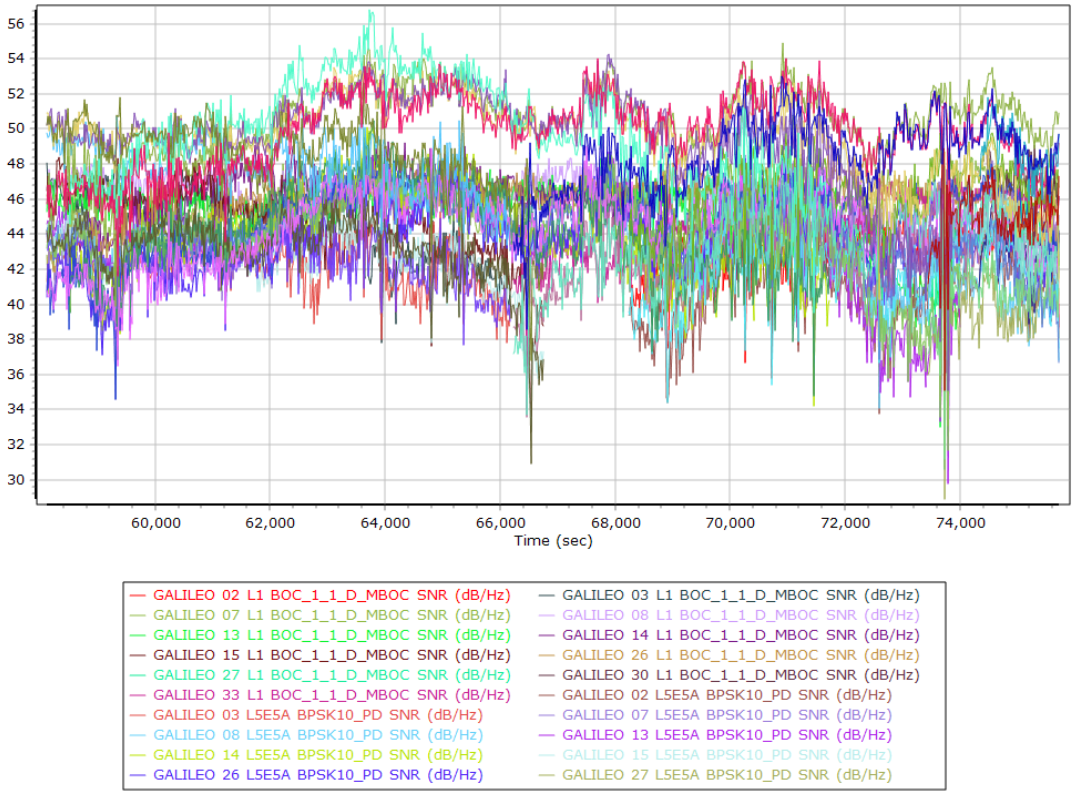
GLONASS L2 SNR



BEIDOU SNR

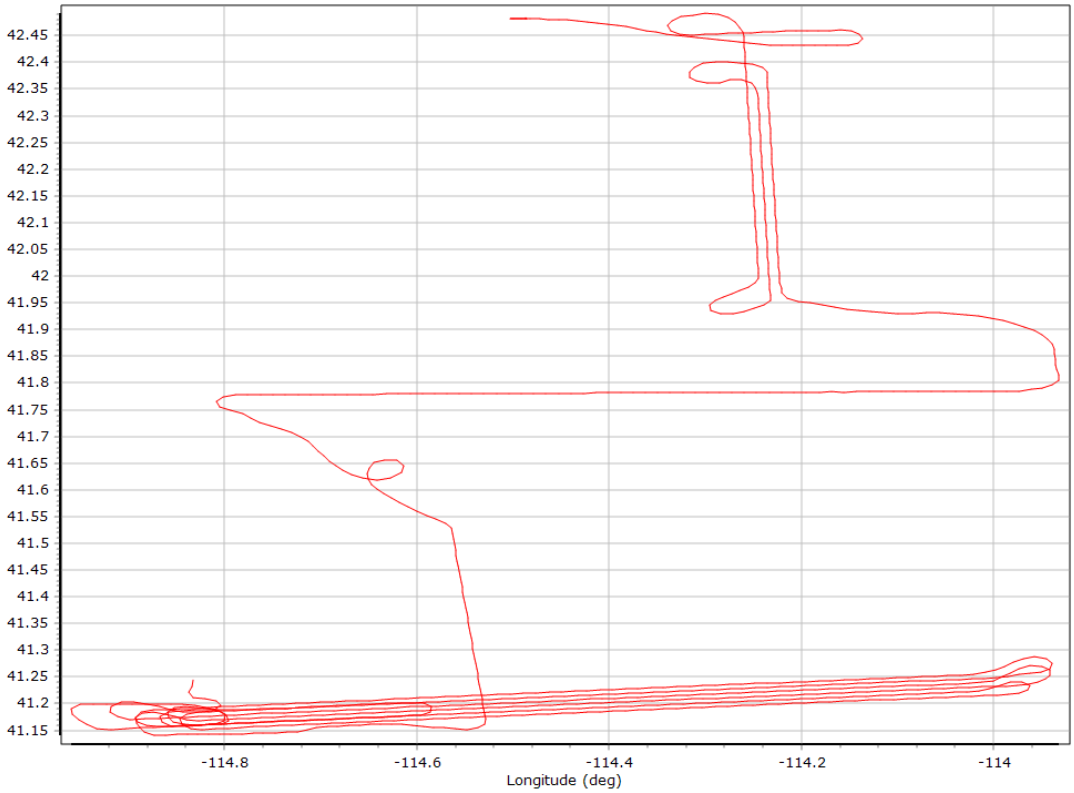


GALILEO SNR

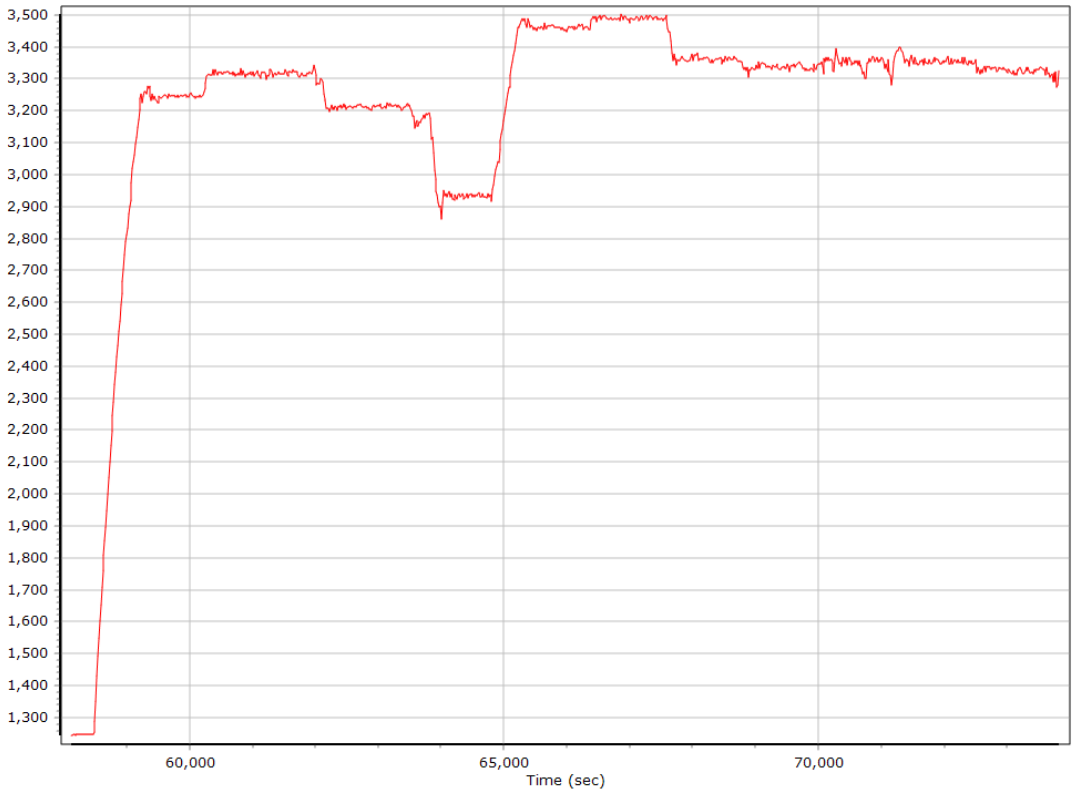

56
54
52
50
48
46
44
42
40
38
36
34
32
30
60,000
62,000
64,000
66,000
68,000
70,000
72,000
74,000
Time (sec)
GALILEO 02 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 03 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 08 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 13 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 14 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 15 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 26 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 33 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 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 27 L5E5A BPSK10_PD SNR (dB/Hz)

Trajectory Information

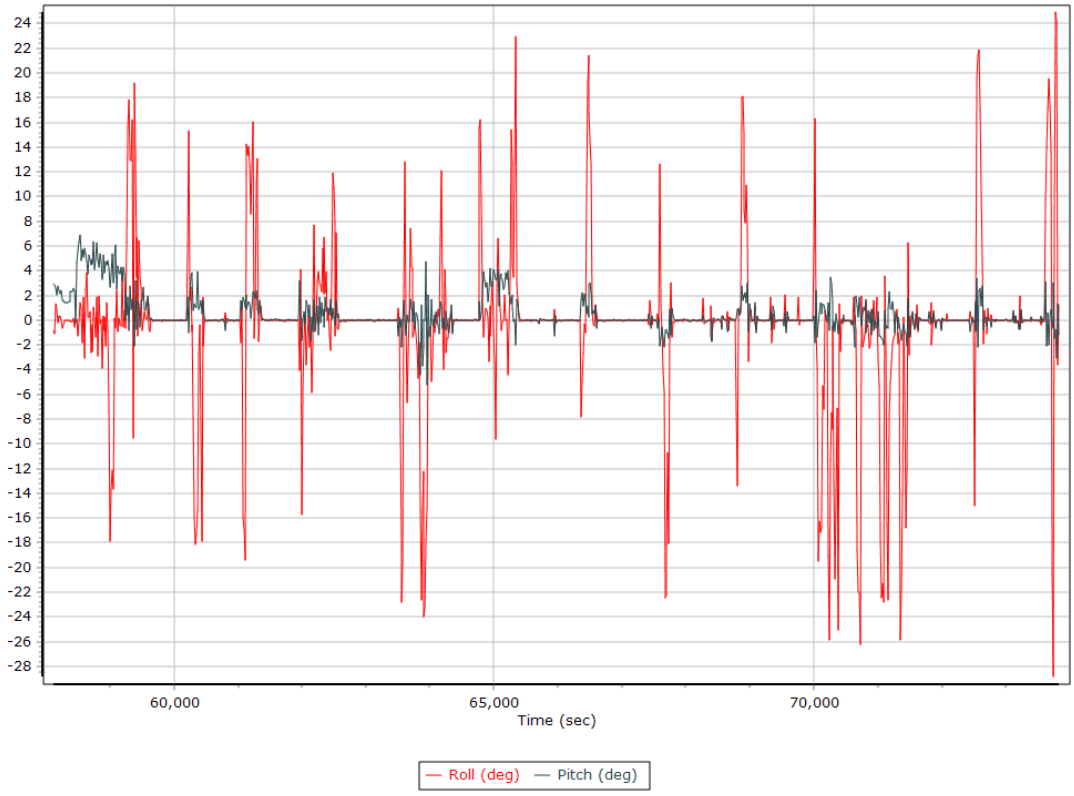
Top View



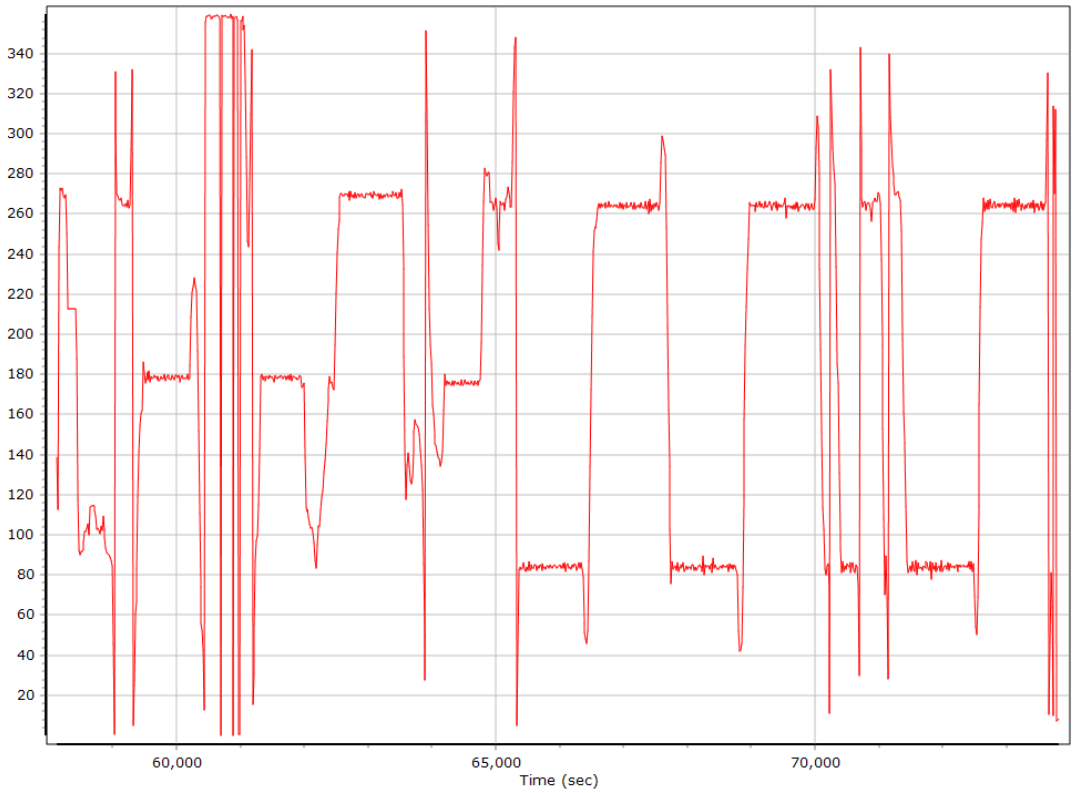
Altitude



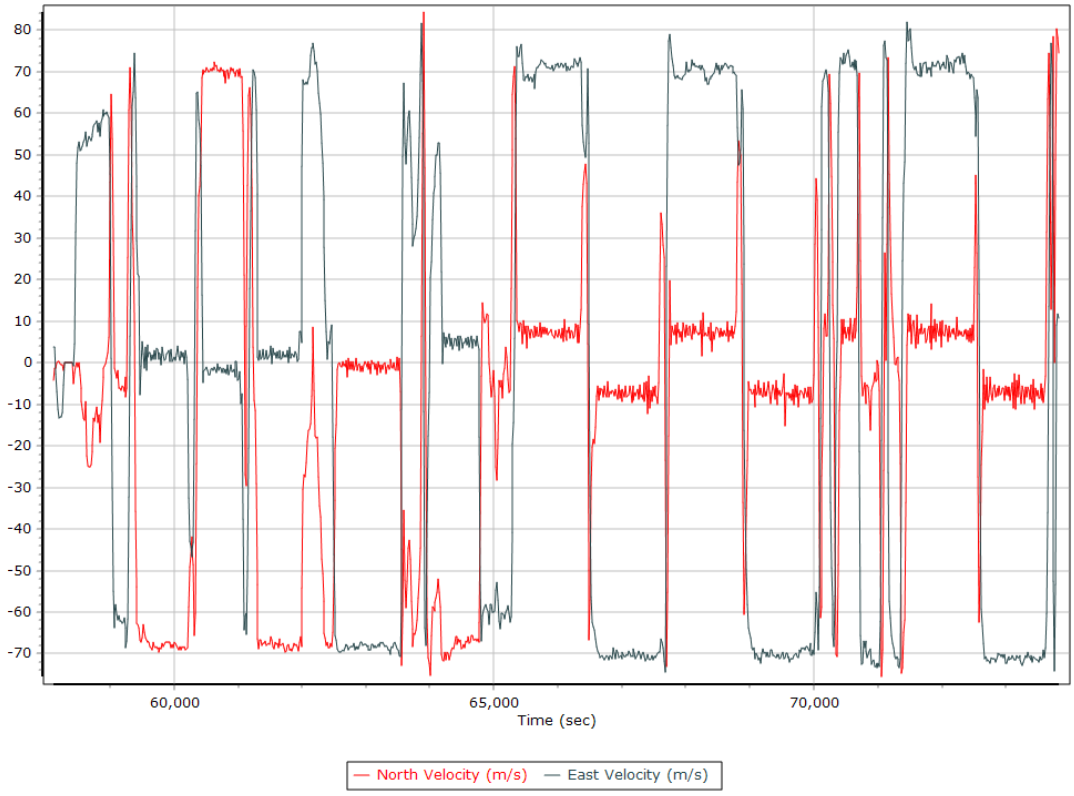
Roll/Pitch



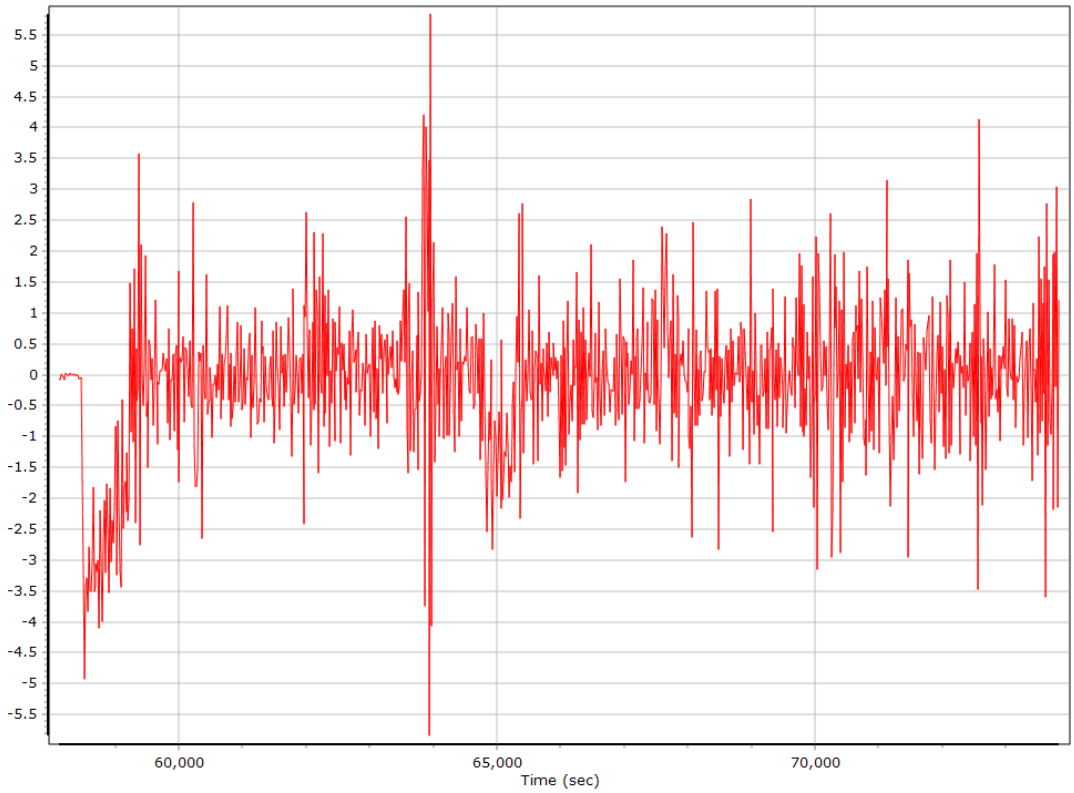
Heading



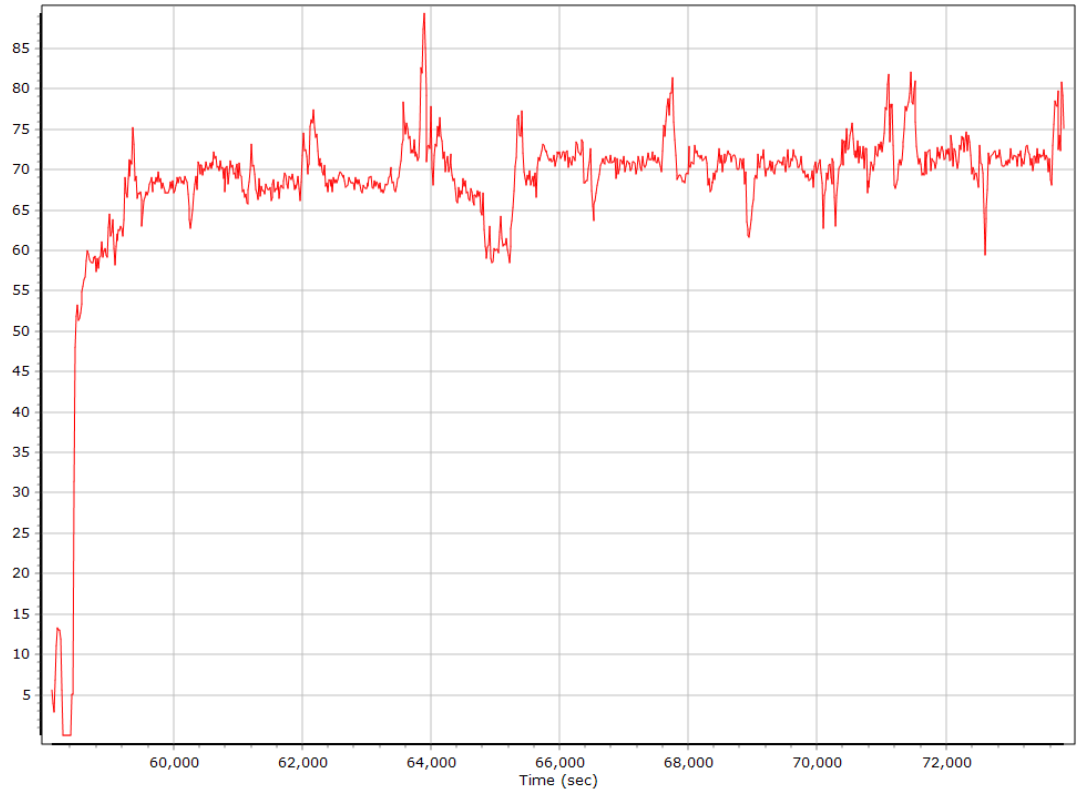
North/East Velocity



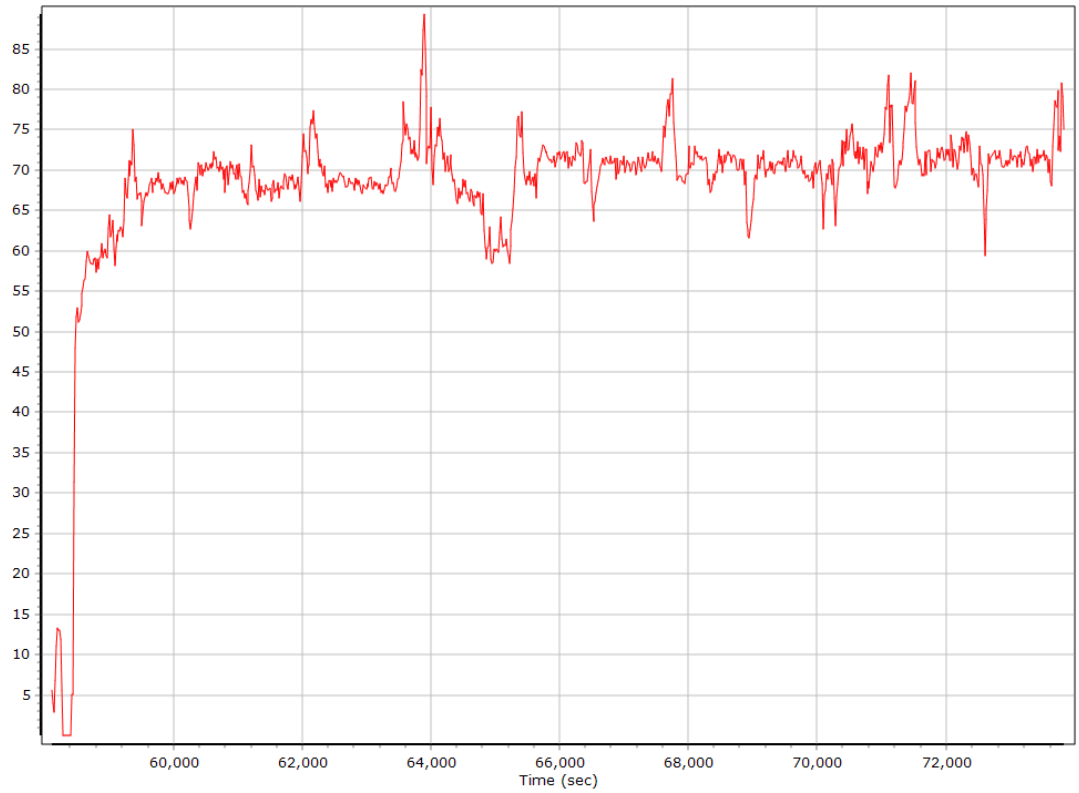
Down Velocity



Total Speed

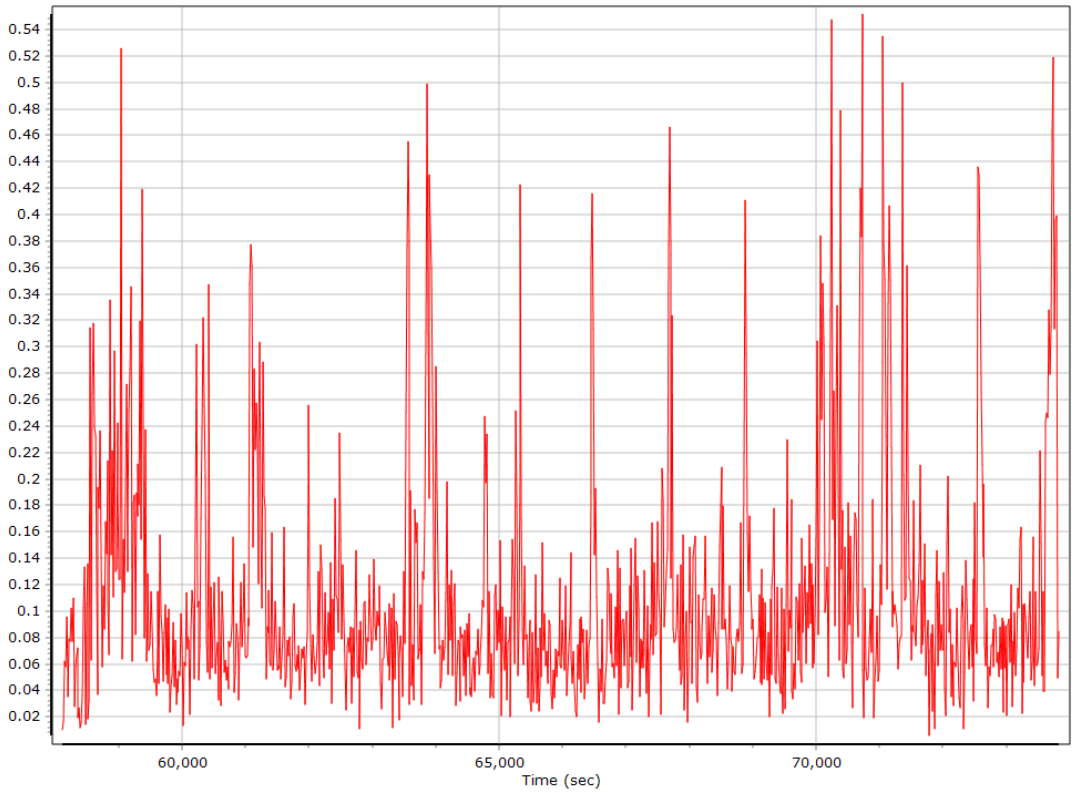


Ground Speed



Body Acceleration

Total Body Acceleration



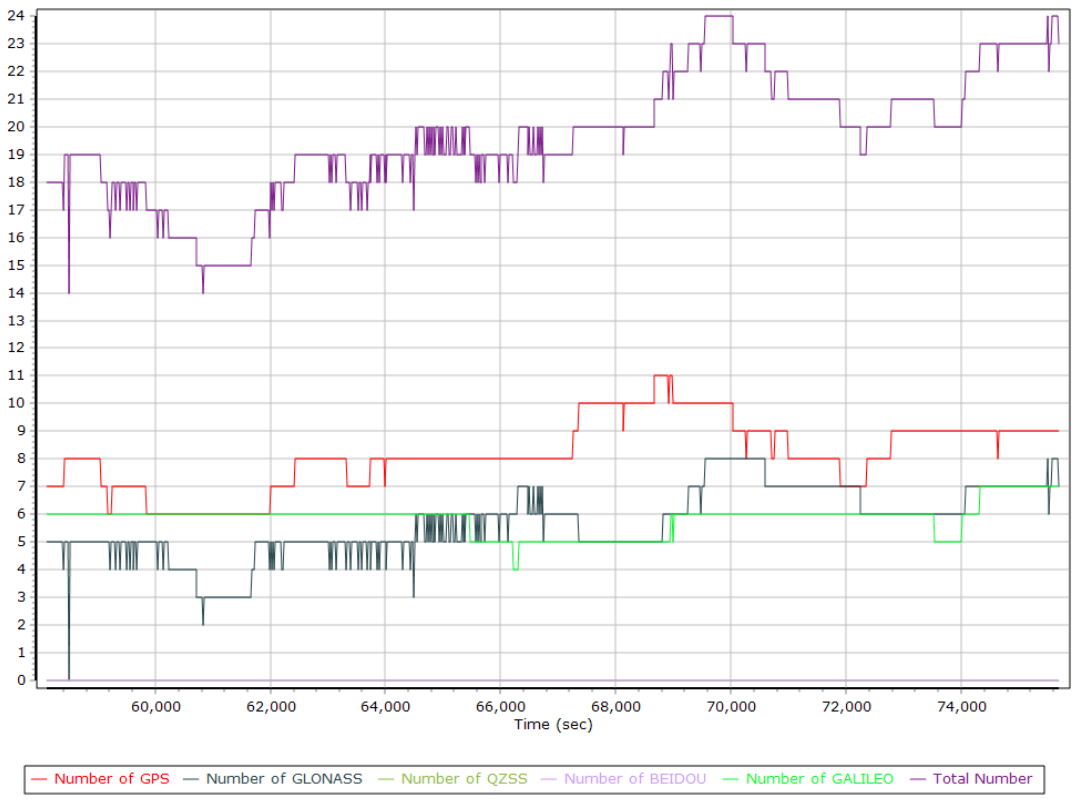
Body Angular Rate

GNSS QC

GNSS QC Statistics

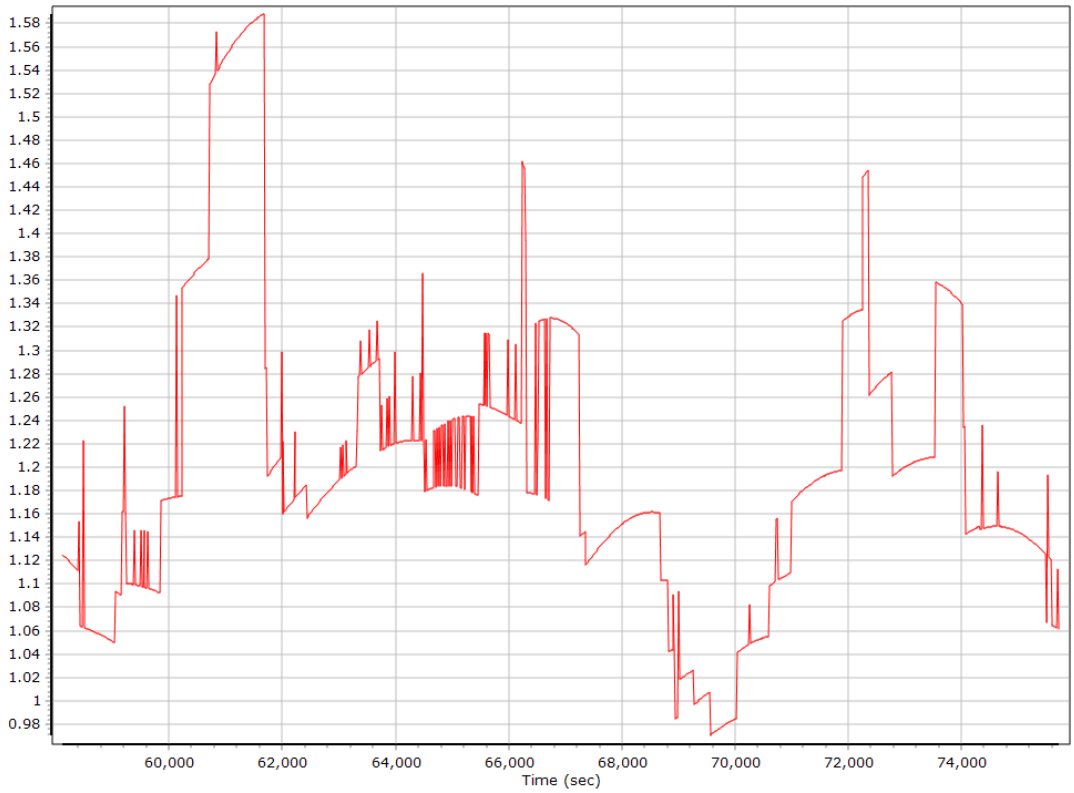
Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	11	8
Number of GLONASS SV	0	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	4	7	6
Total number of SV	14	24	20
PDOP	0.97	1.59	1.20
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	18142.00	0.00	2.00
Percentage	99.99	0.00	0.01

Num SVs in solution

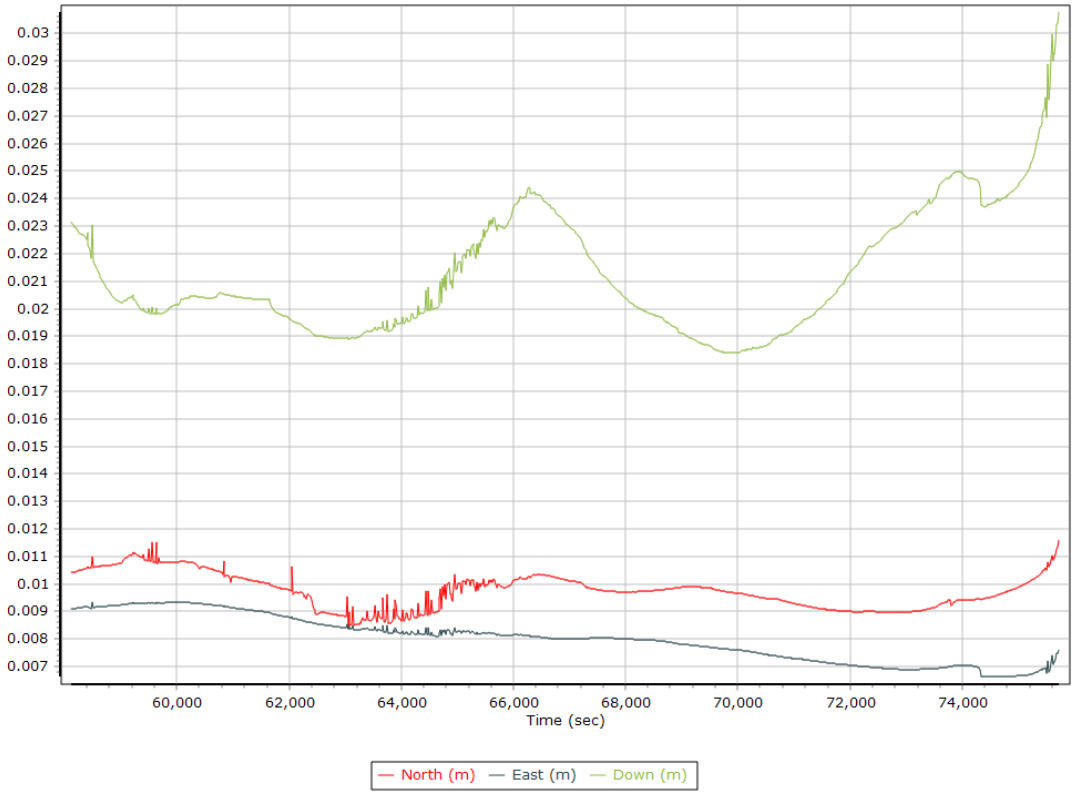


Forward/Reverse Separation

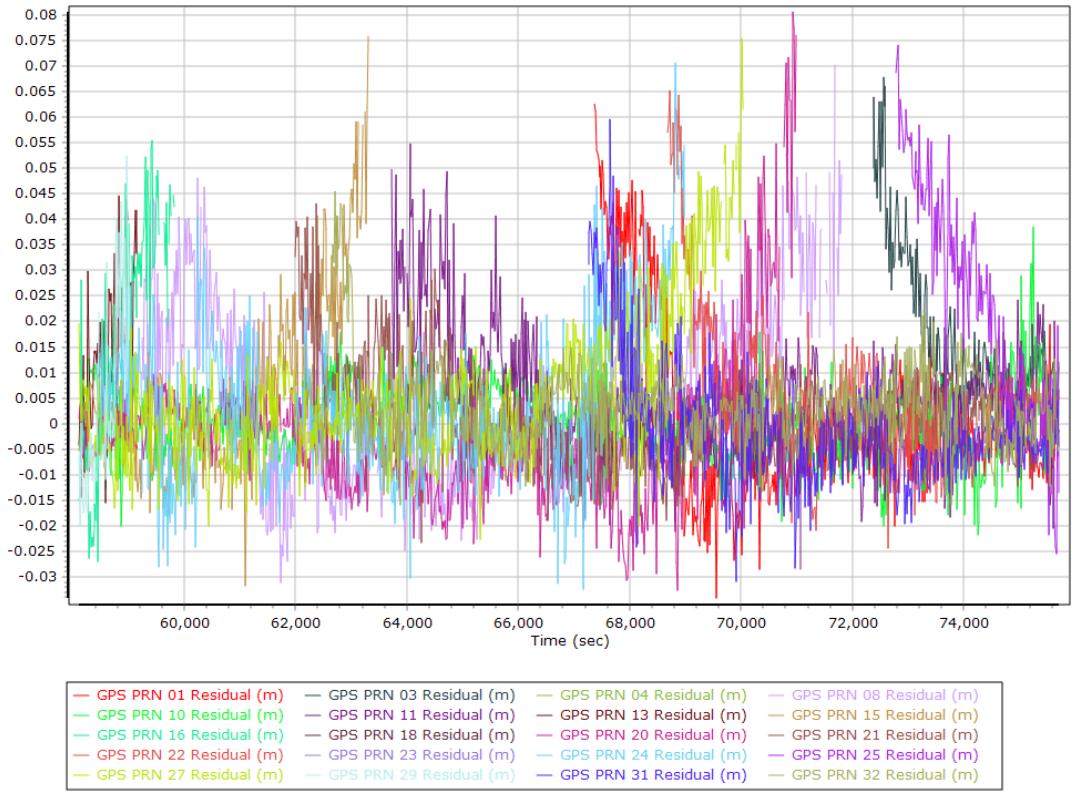
PDOP



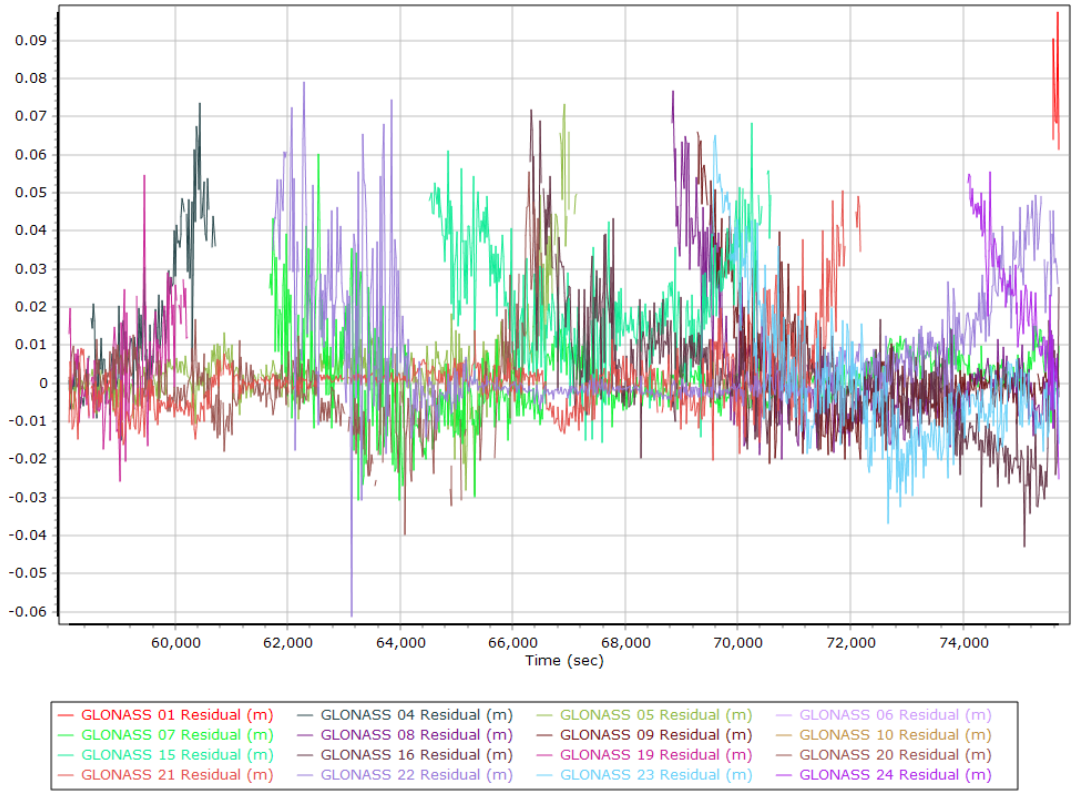
Estimated Position Accuracy



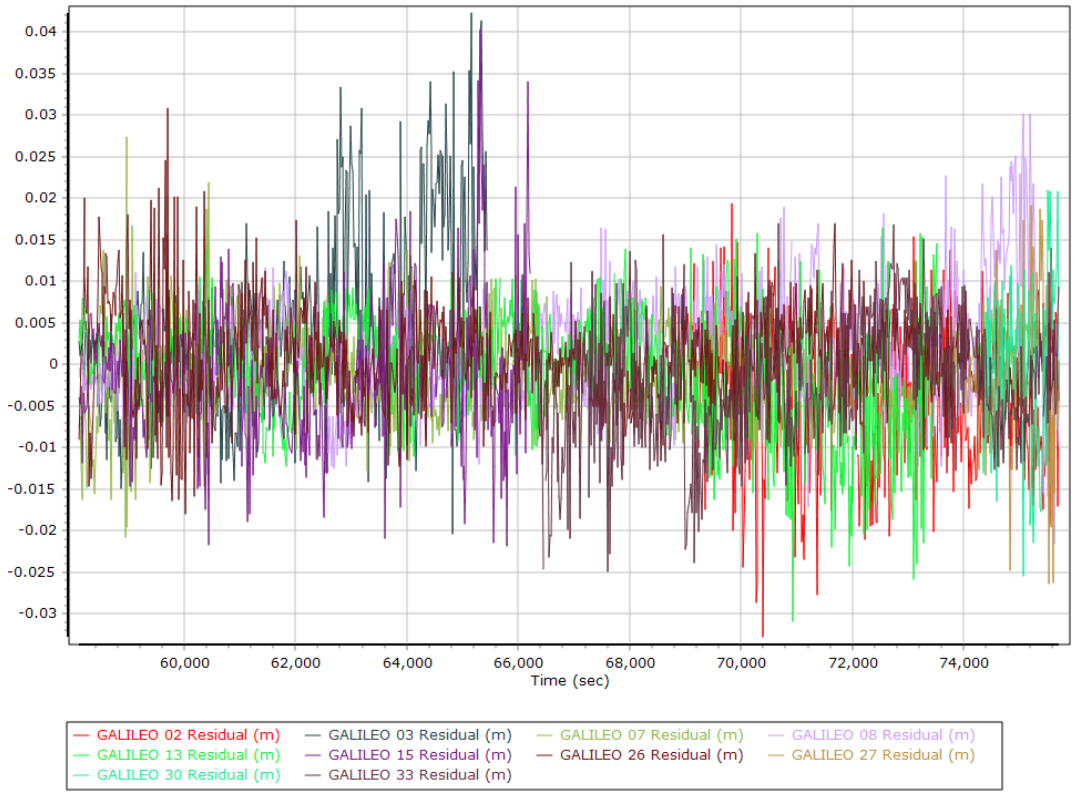
GPS Residuals



GLONASS Residuals



GALILEO Residuals



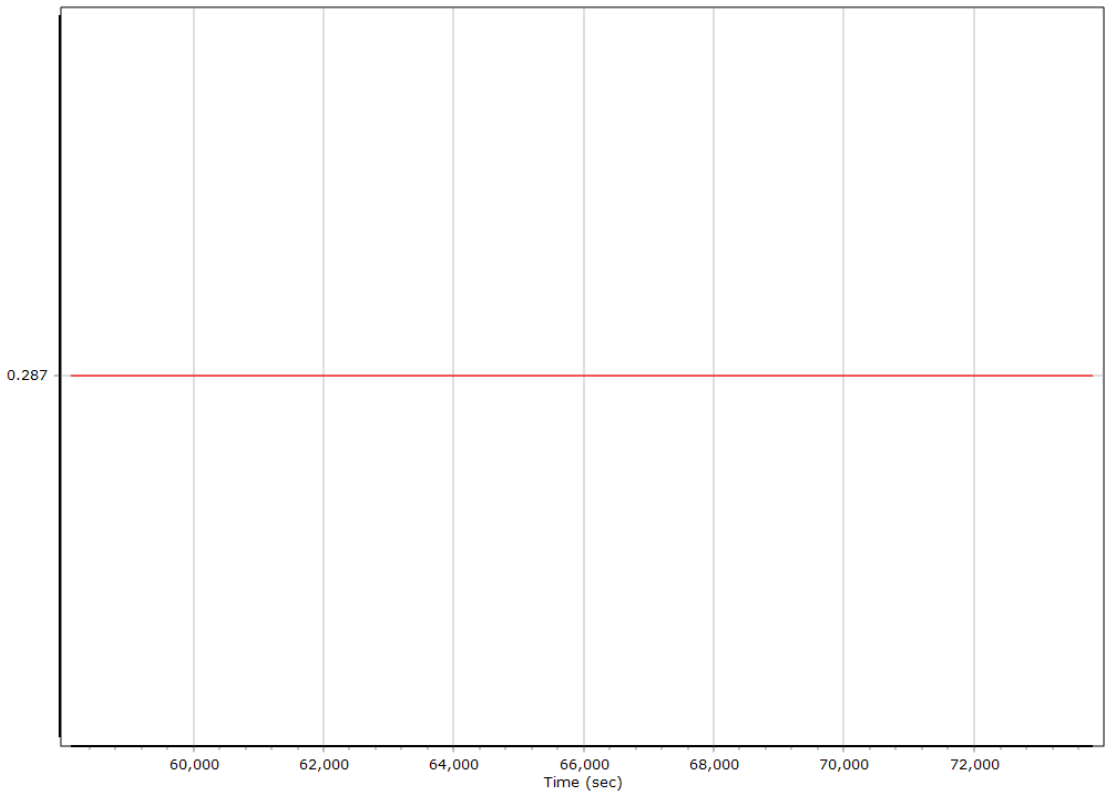
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	True		
Processing start time	57549.000 (11/01/2020 15:59:09)		
Processing end time	73841.537 (11/01/2020 20:30:41)		
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)	0.287	0.144	-1.269
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

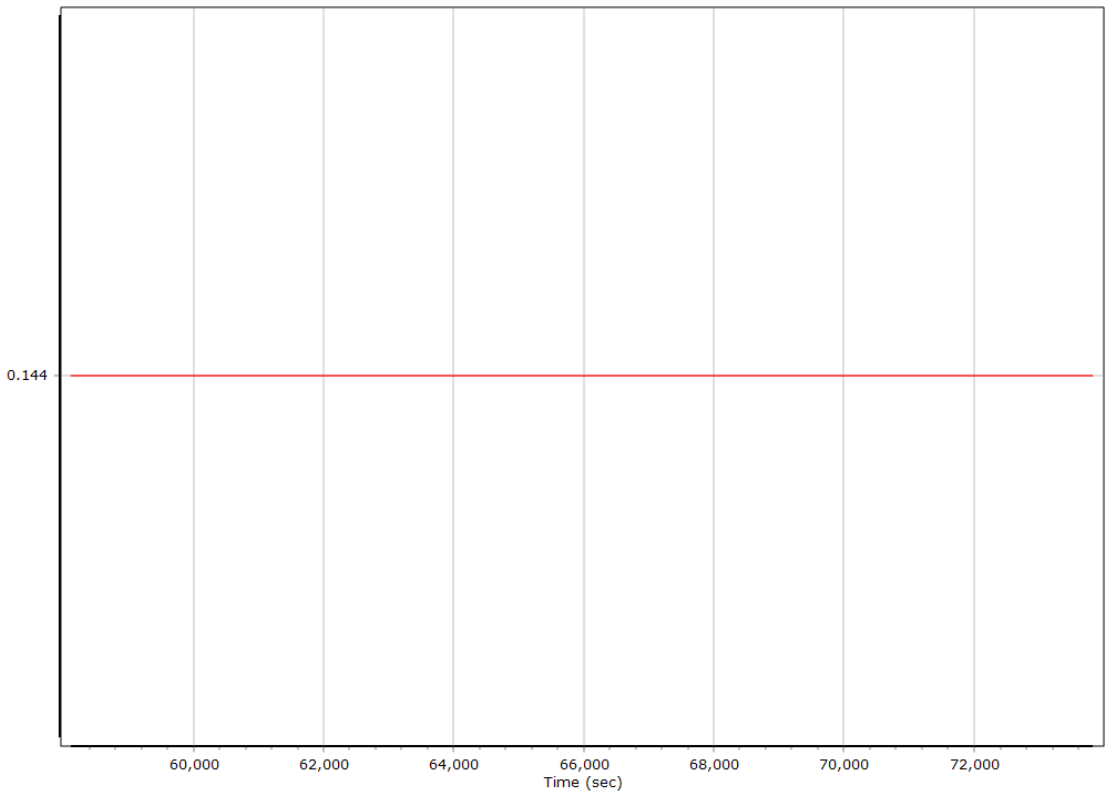
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

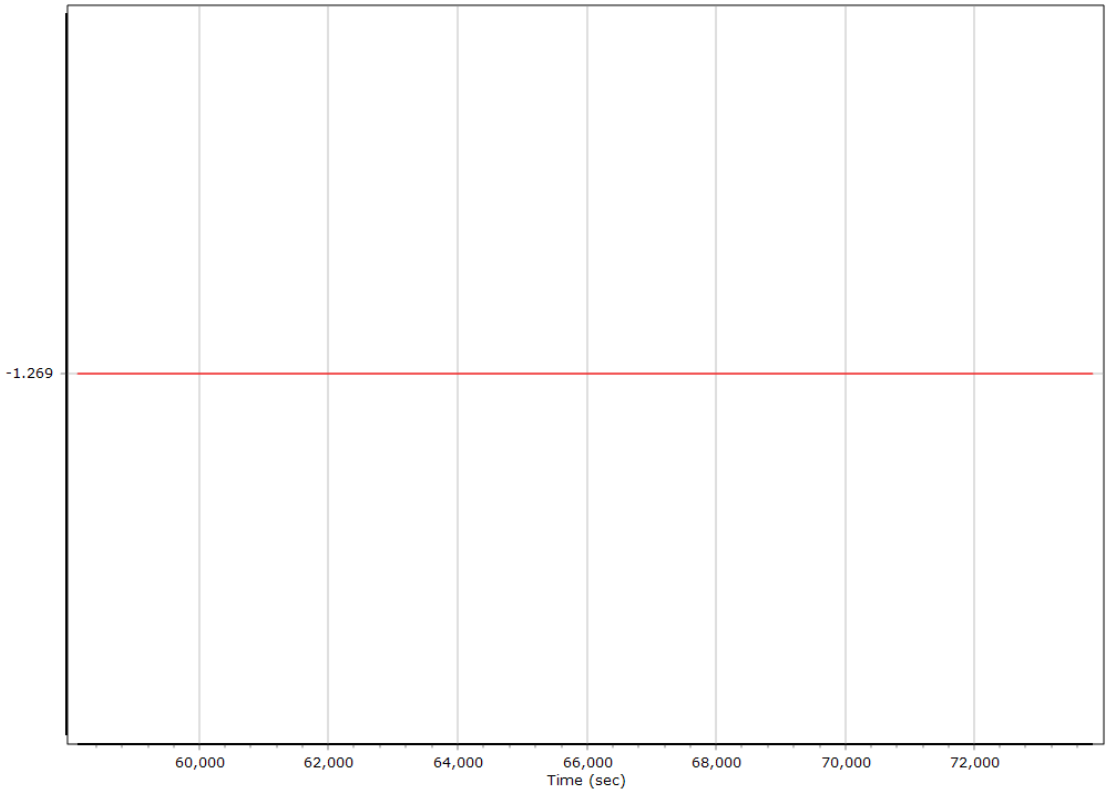
X Reference-Primary GNSS Lever Arm (m)



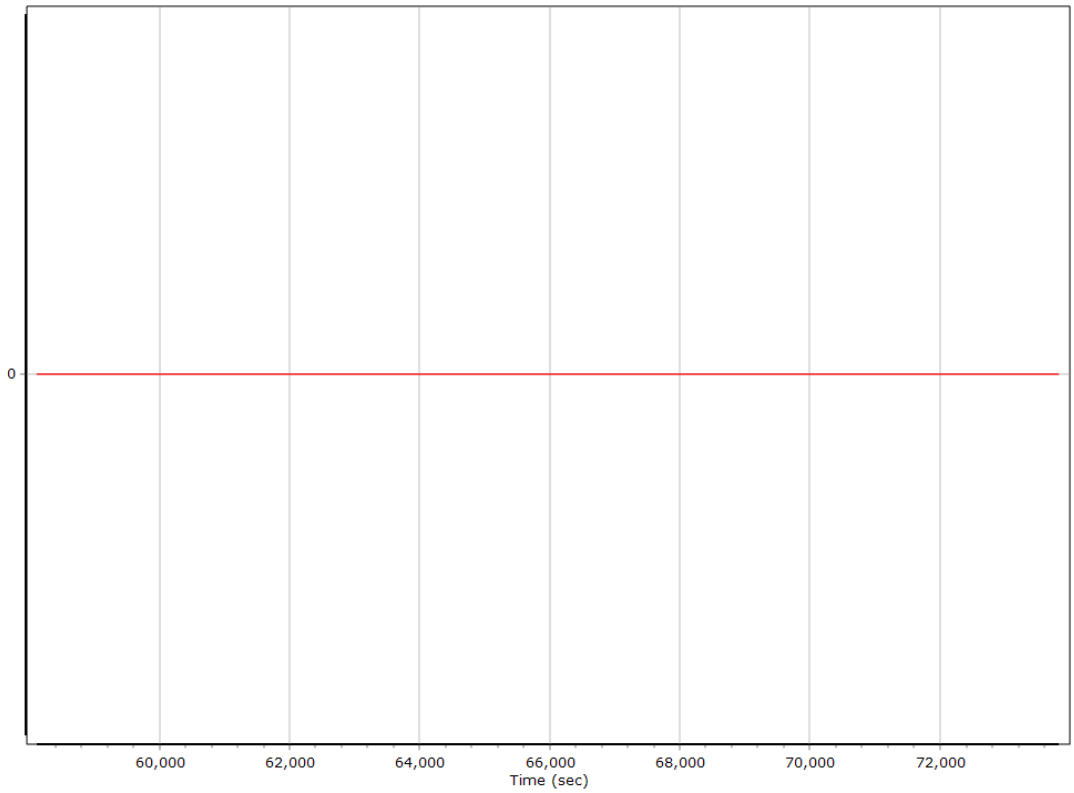
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



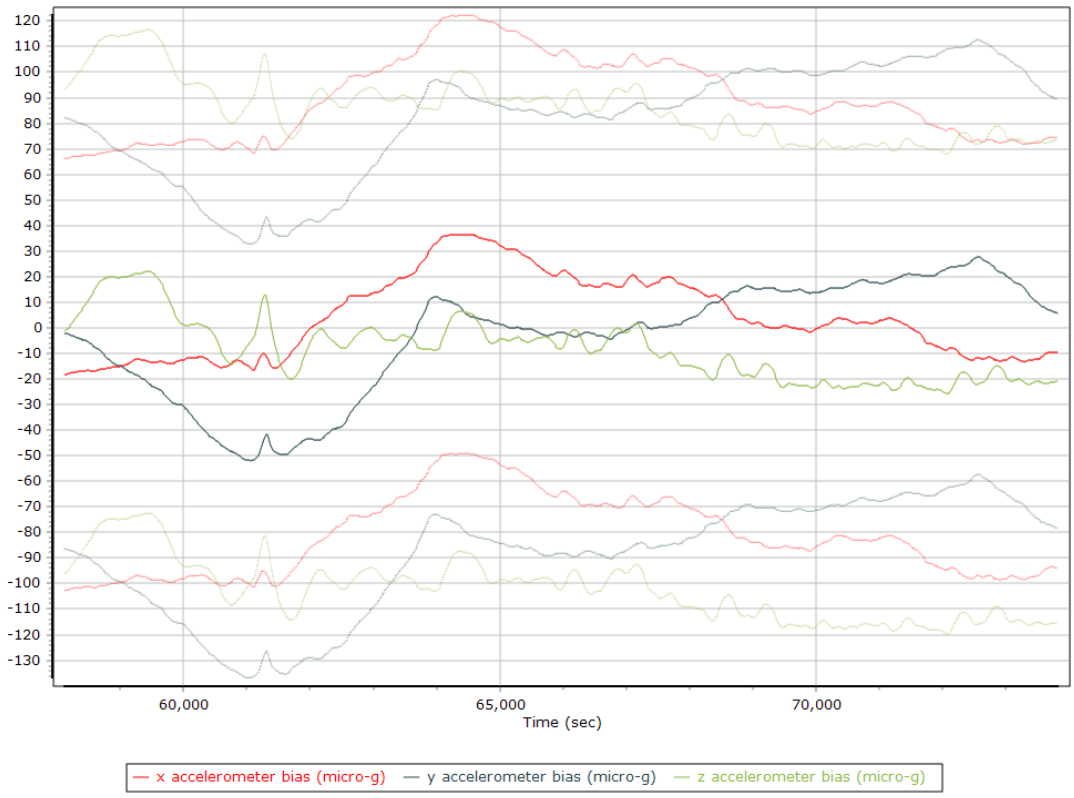
Reference-Primary GNSS Lever Arm Figure of Merit



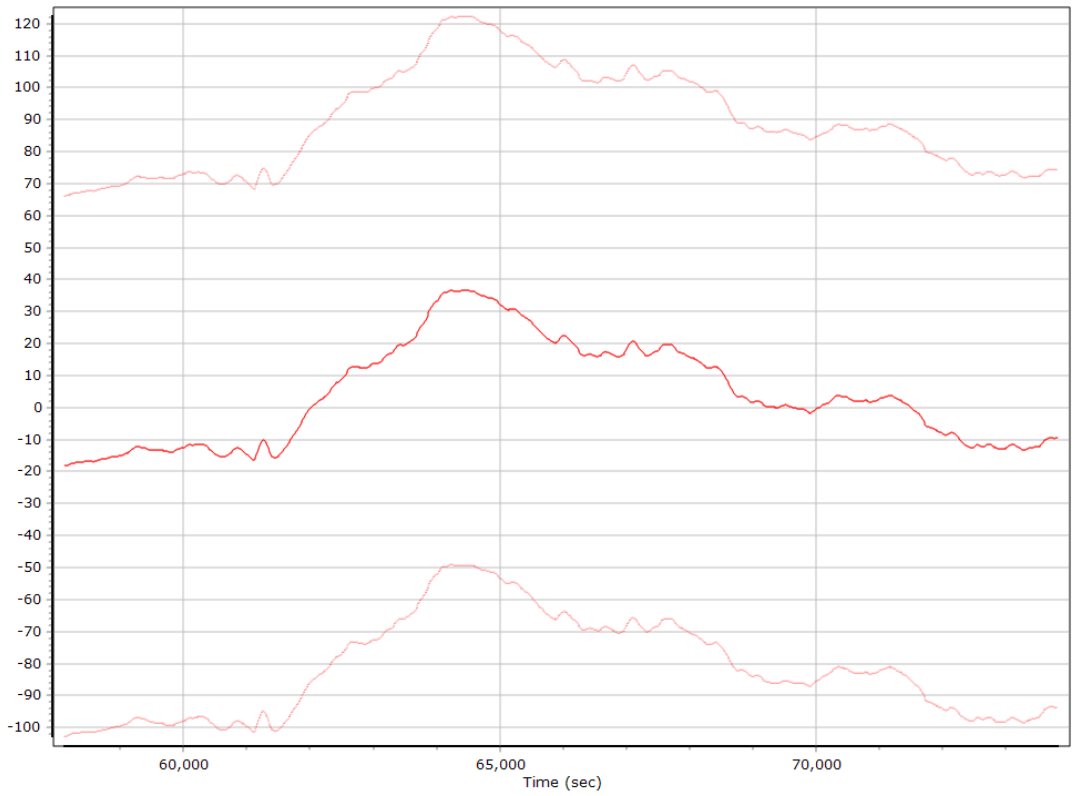
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

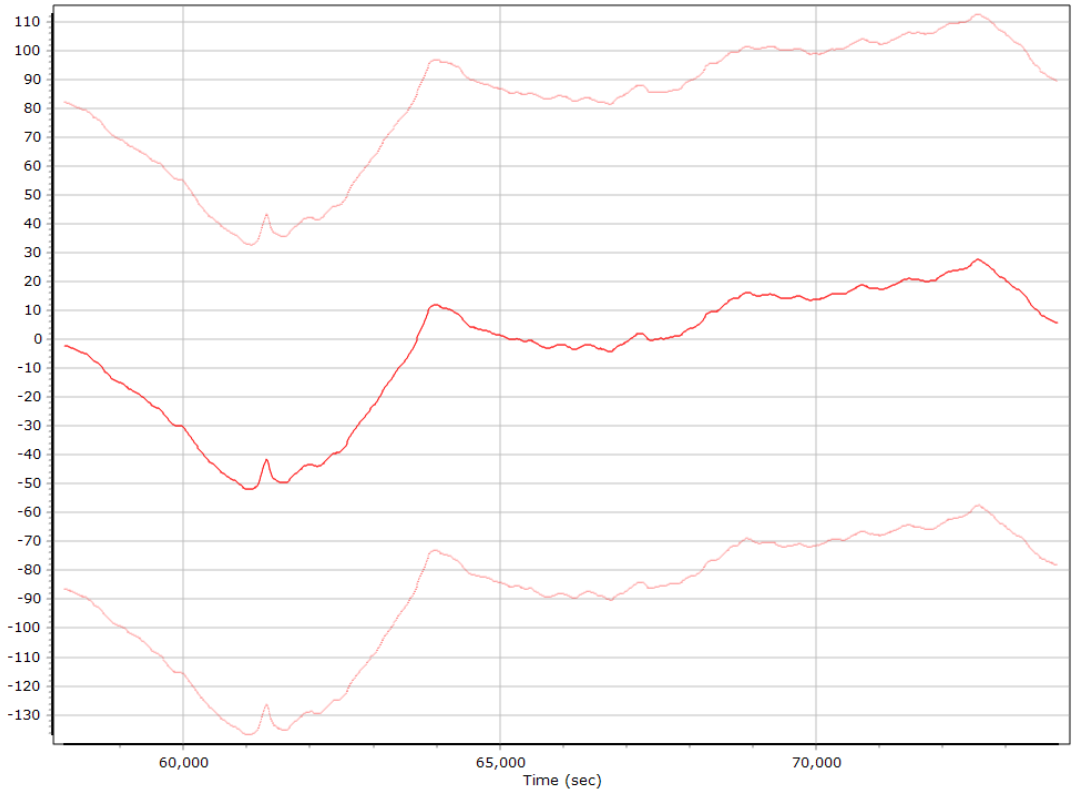
Accelerometer Bias (micro-g)



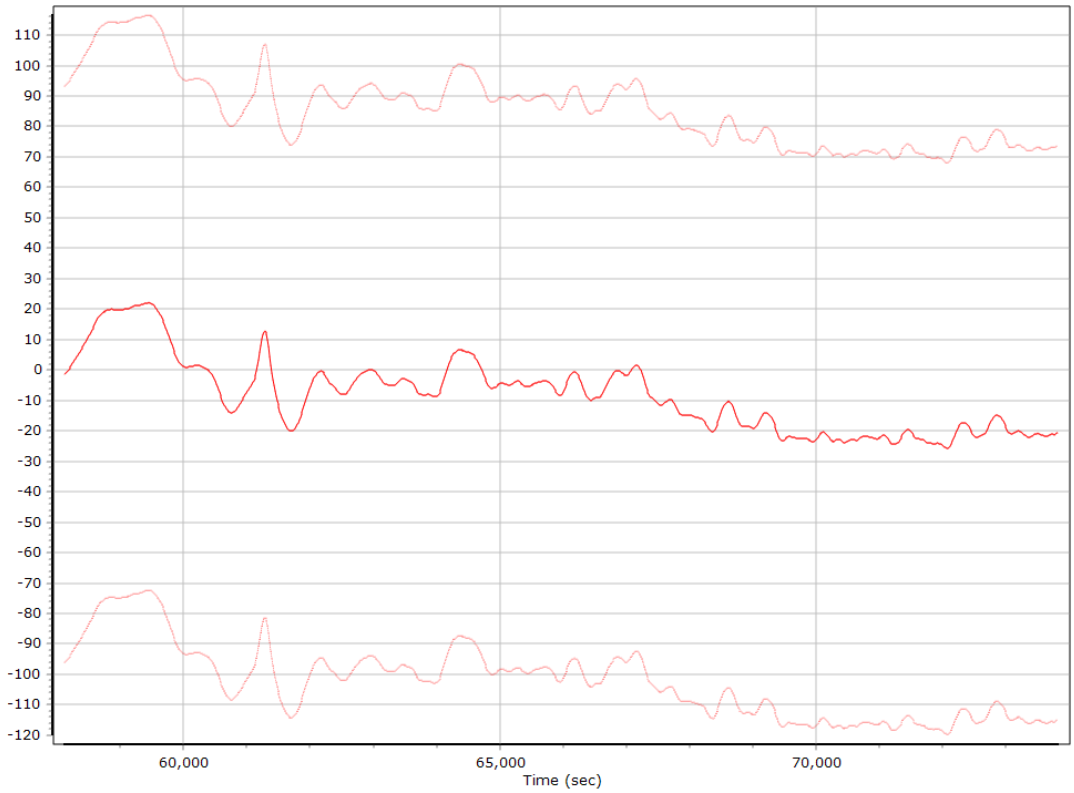
X Accelerometer Bias (micro-g)



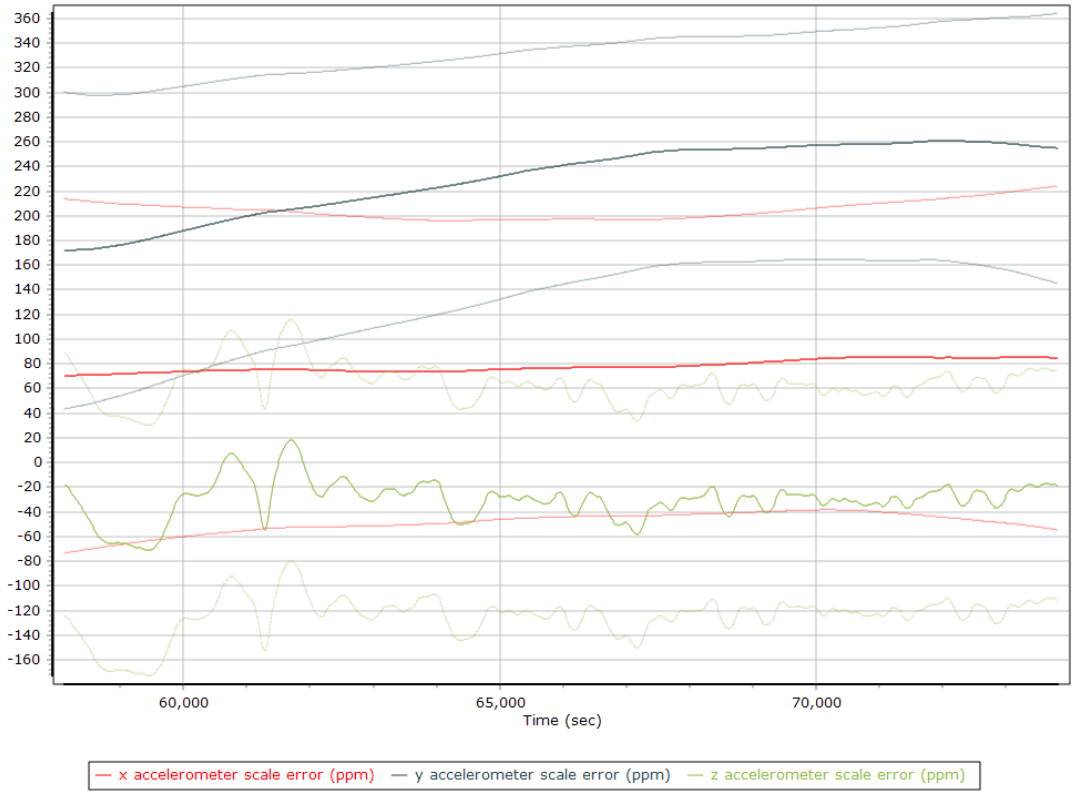
Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



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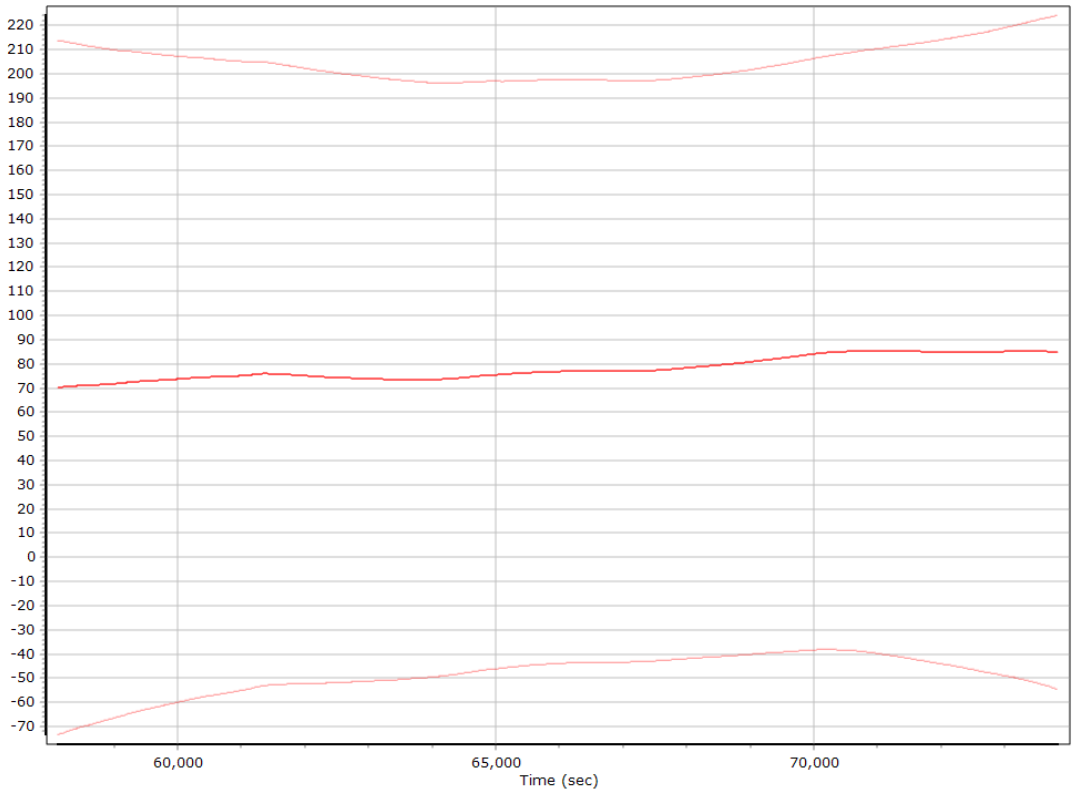
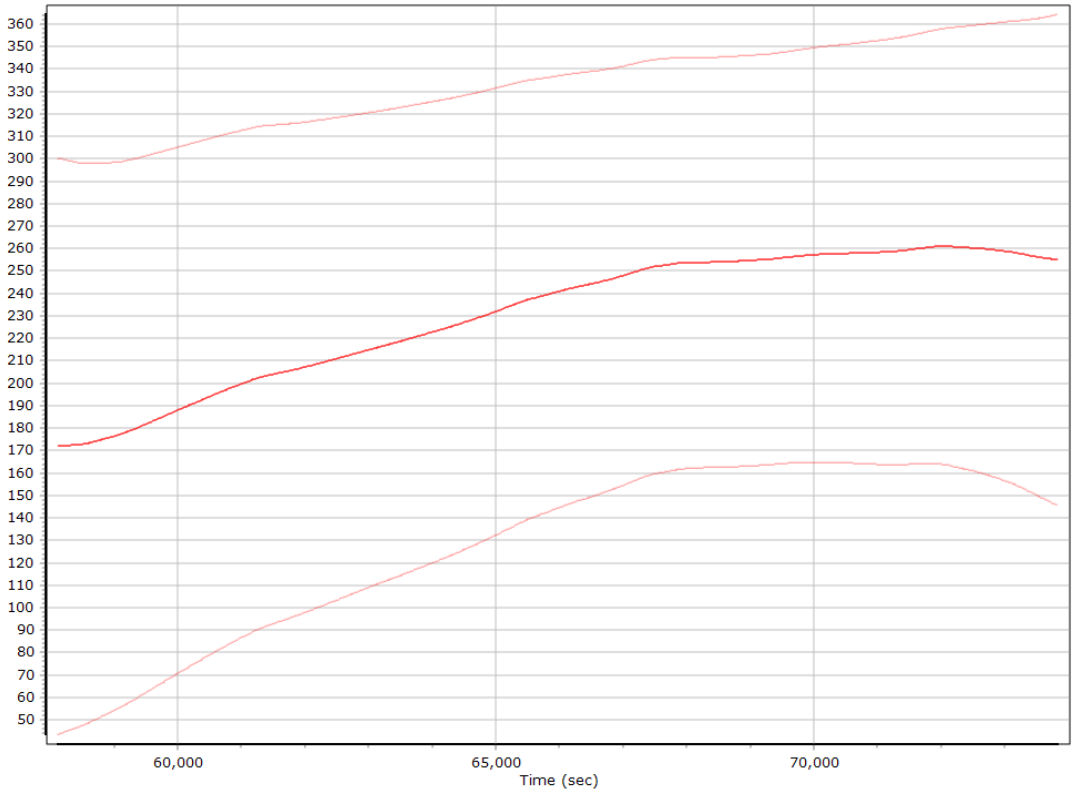
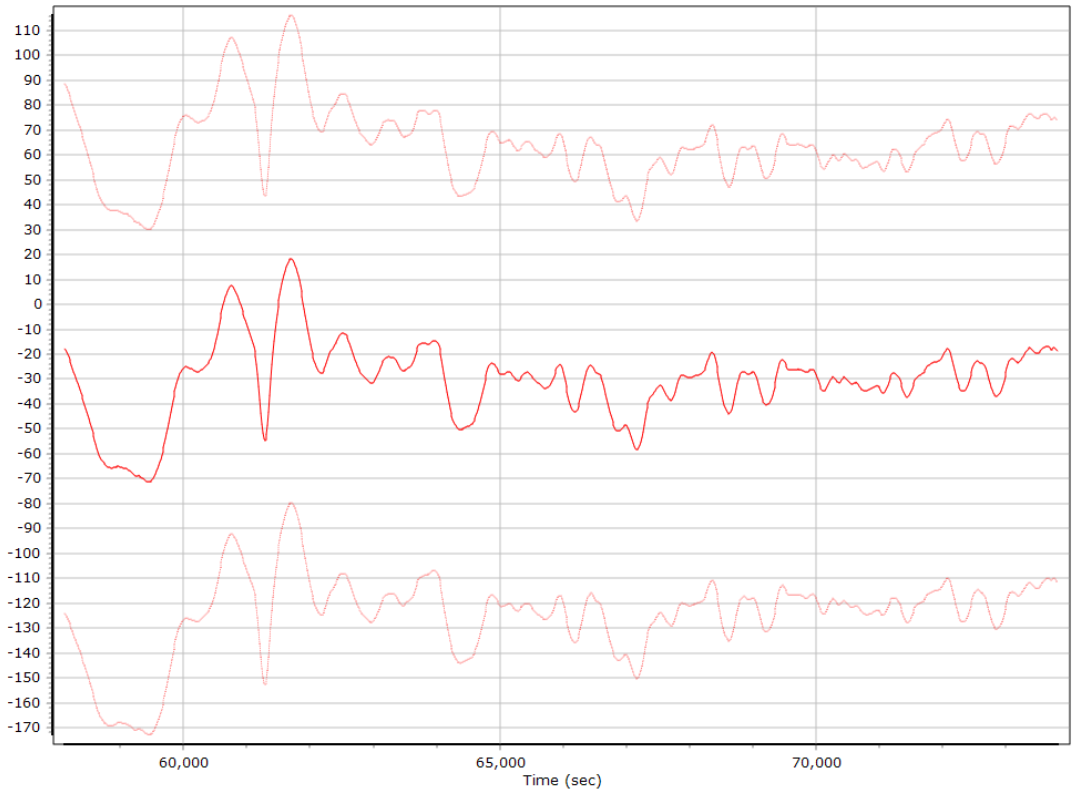


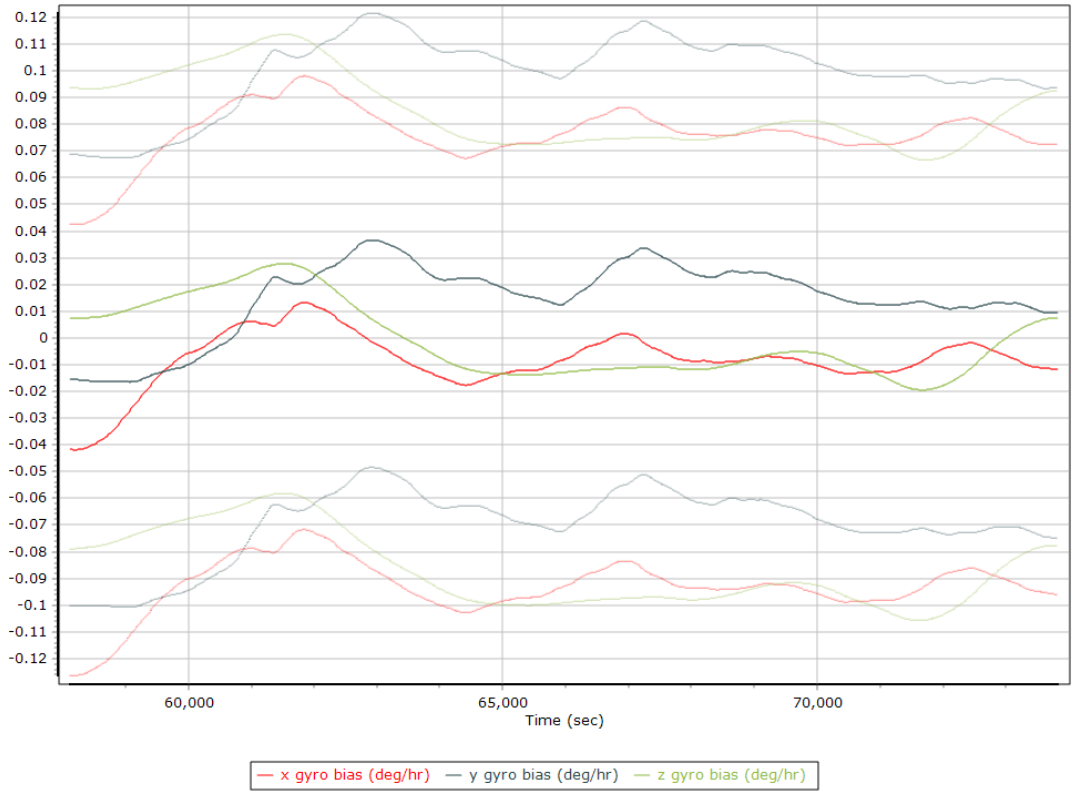
Y Accelerometer Scale Error (ppm)



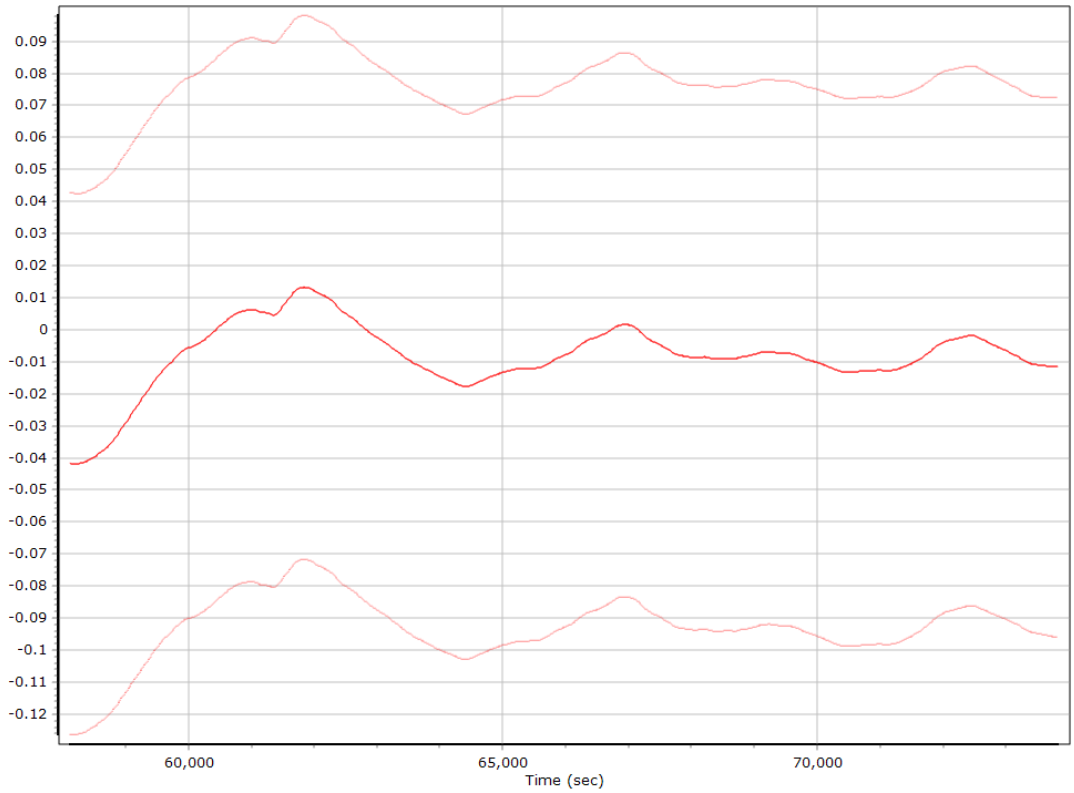
Z Accelerometer Scale Error (ppm)



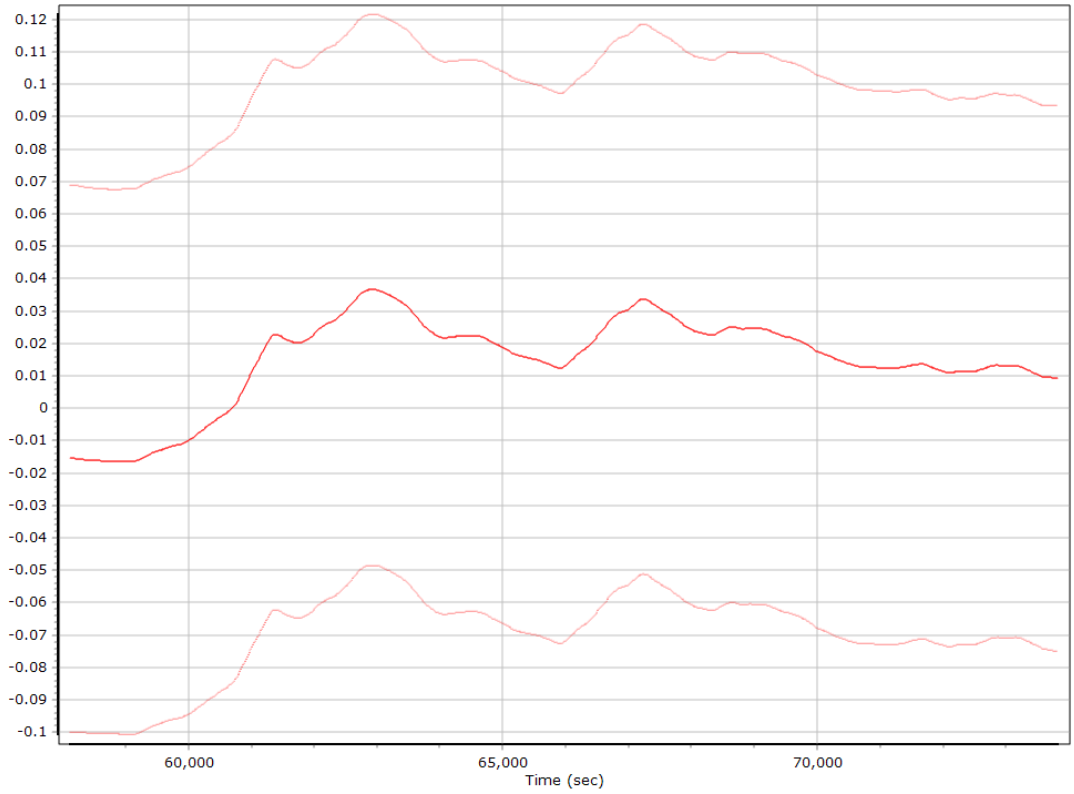
Gyro Bias (deg/h)



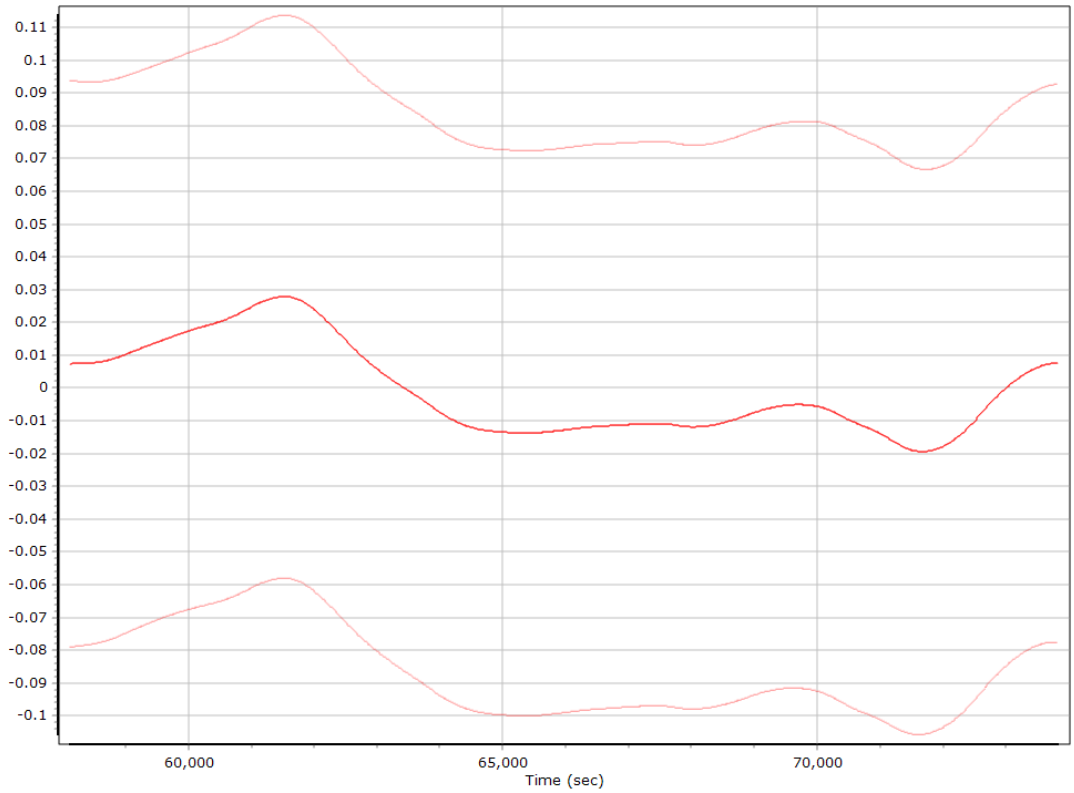
X Gyro Bias (deg/h)



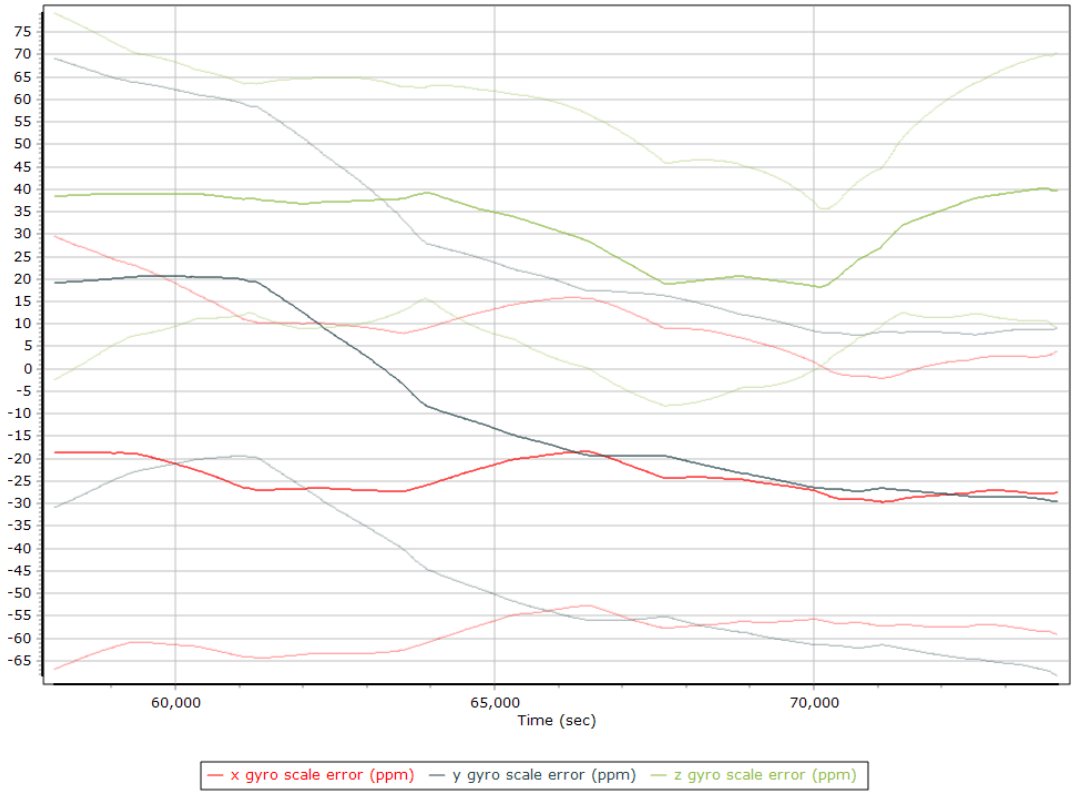
Y Gyro Bias (deg/h)



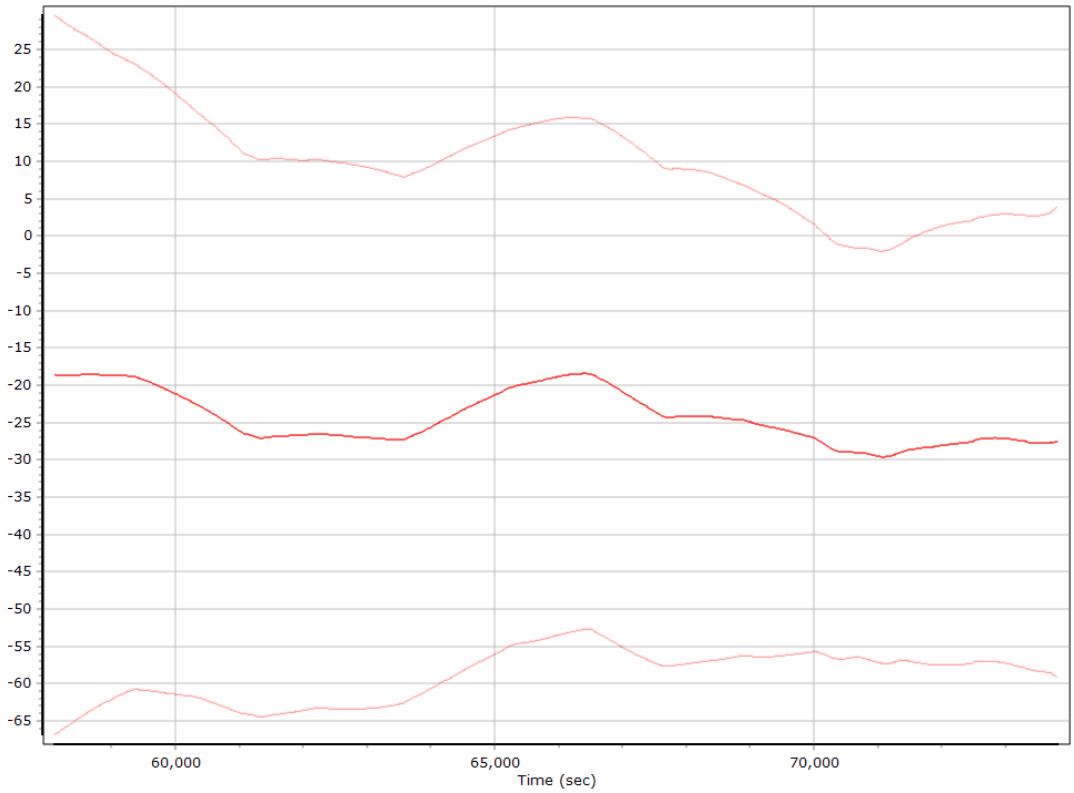
Z Gyro Bias (deg/h)



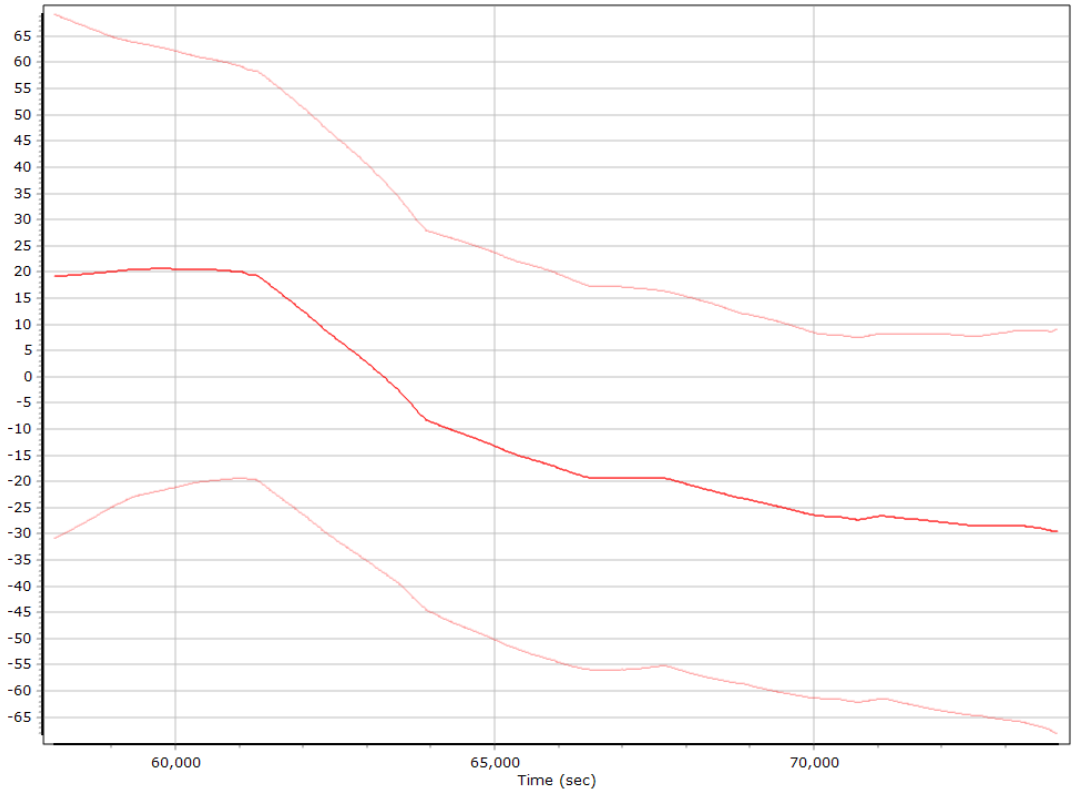
Gyro Scale Error (ppm)



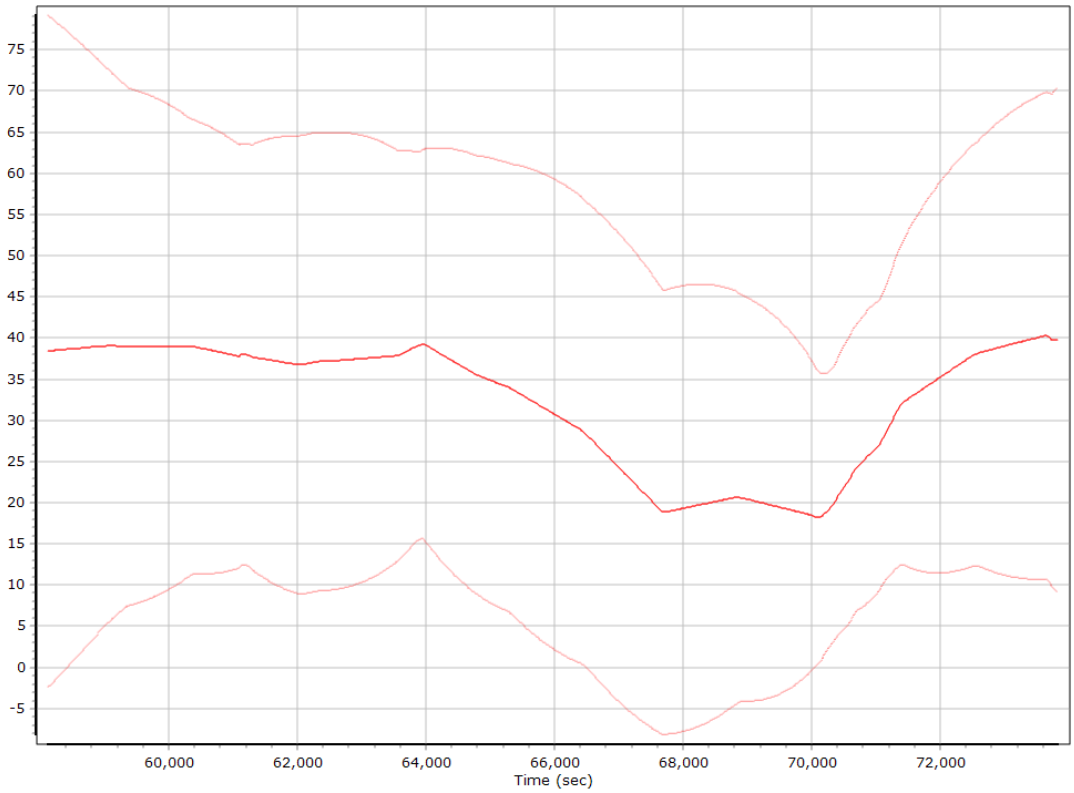
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

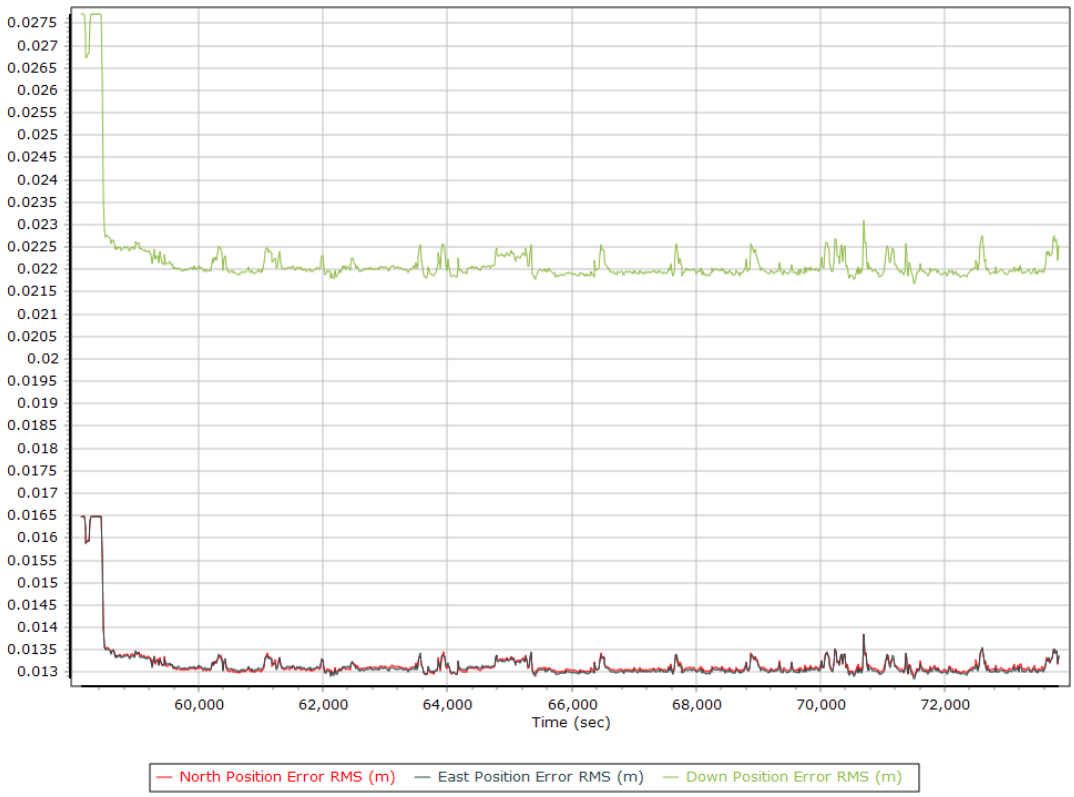


Z Gyro Scale Error (ppm)

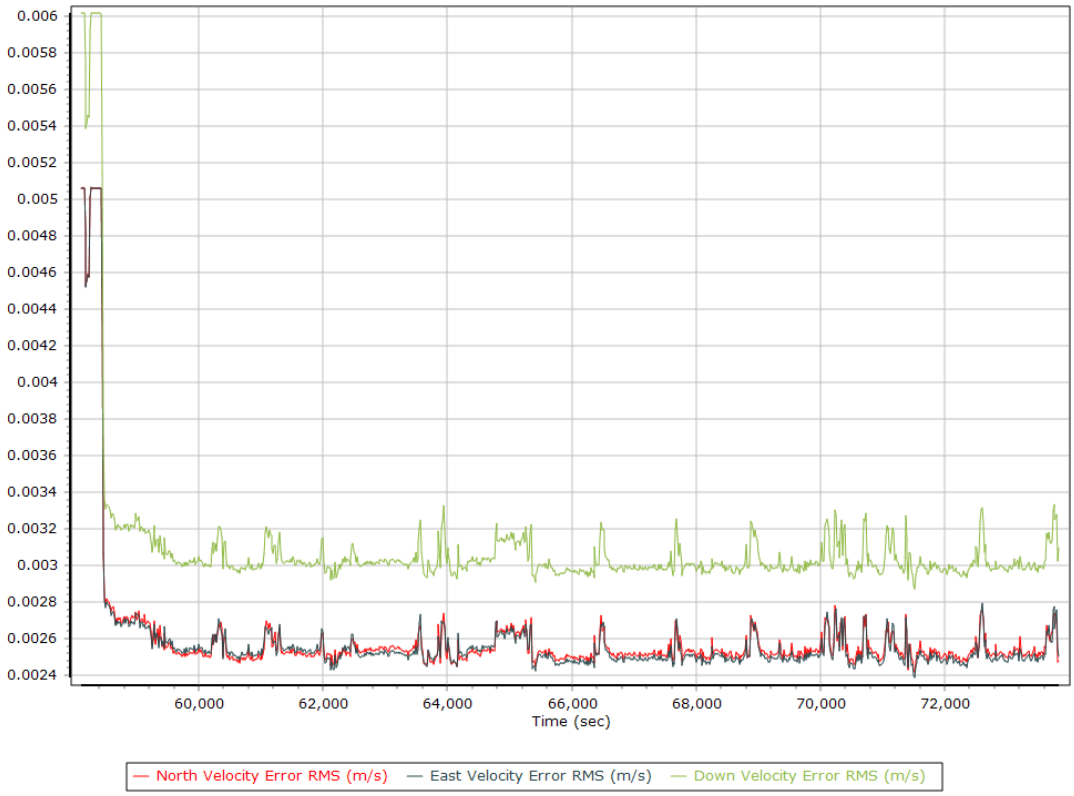


Smoothed Performance Metrics

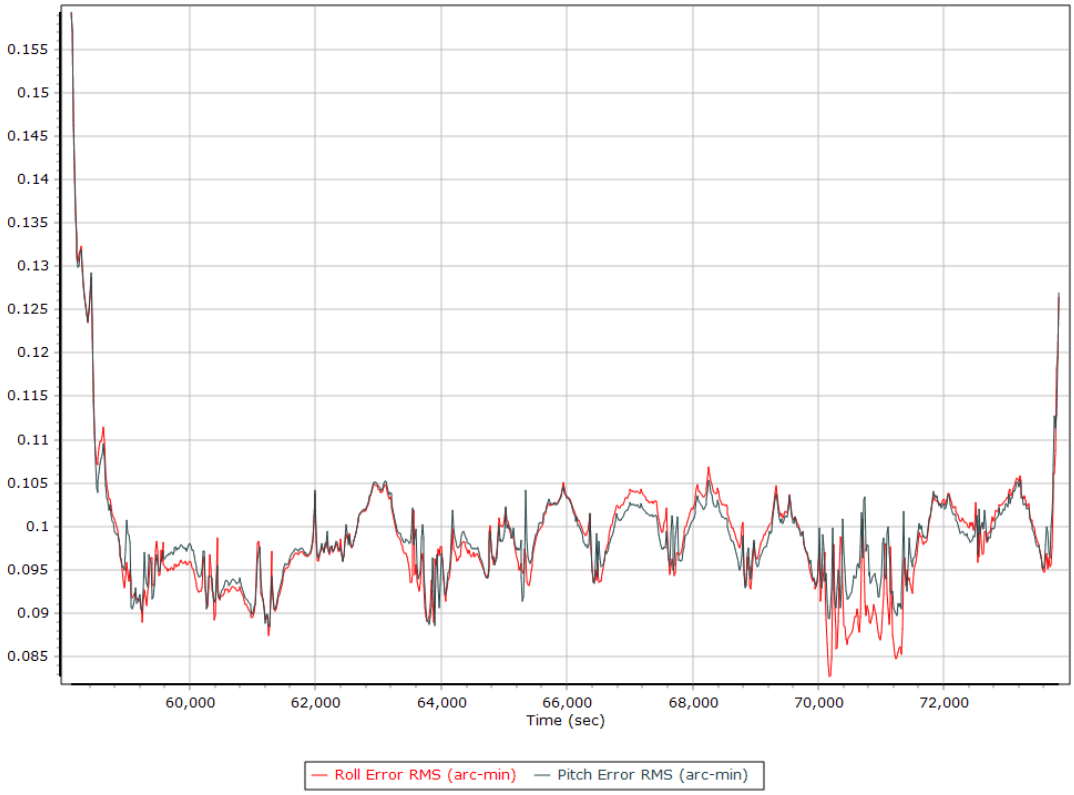
Position Error RMS (m)



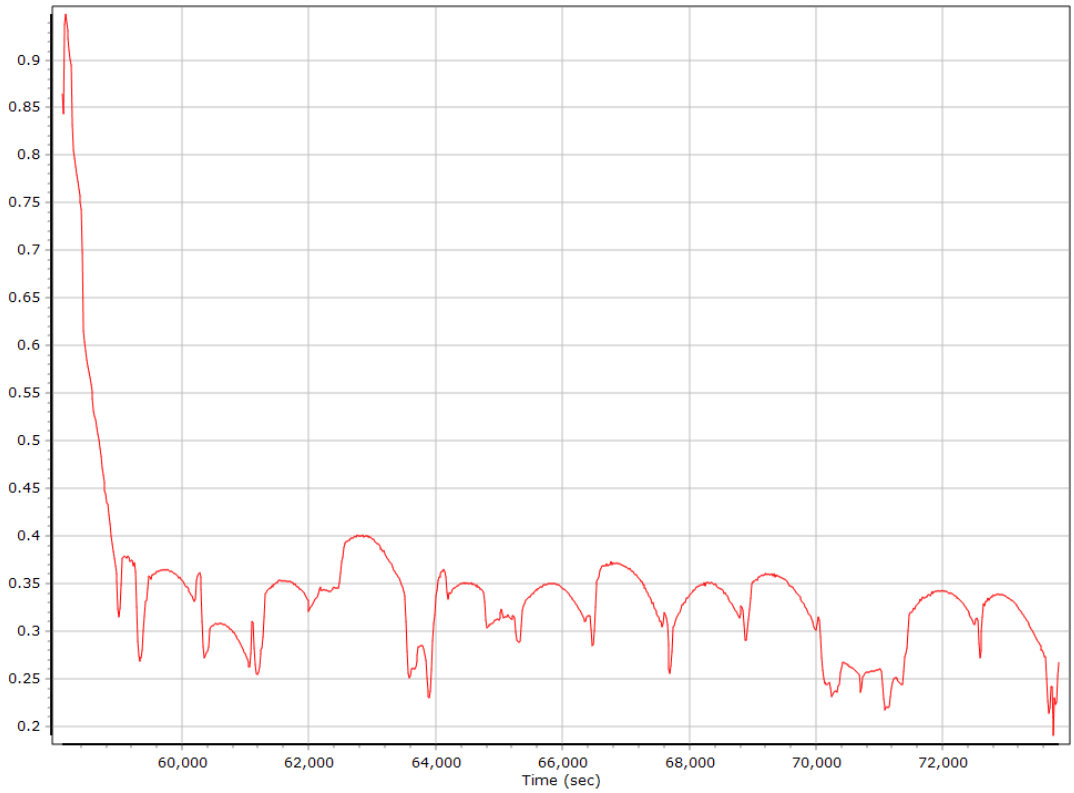
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)



Export Summary

Export file	export_2SU20306A_186.out		
Export format	Custom Smoothed BET		
Solution in use	Post-processed		
Output rate	All Records		
Reference to Output lever arm (m)	0.000	0.000	0.000
Reference mounting angles (deg)	0.000	0.000	0.000
Output units (Coordinate / Lat & Lon)	Meter	Deg Decimal	
Export start time	58055.003 (11/01/2020 16:07:35)		
Export end time	73841.542 (11/01/2020 20:30:41)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 11 (120W to 114W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2010		