General Information

Mission Information

Project name	2SU20302A_186
Processing date	2020-10-29 12:45:12
Mission date	2020-10-28 15:53:40
Mission duration	05:59:38.000
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
2SU20302A.309	POS Data
2SU20302A.310	POS Data
2SU20302A.311	POS Data
2SU20302A.312	POS Data
2SU20302A.313	POS Data
2SU20302A.314	POS Data
2SU20302A.315	POS Data
2SU20302A.316	POS Data
2SU20302A.317	POS Data
2SU20302A.318	POS Data
2SU20302A.319	POS Data
2SU20302A.320	POS Data
2SU20302A.321	POS Data
2SU20302A.322	POS Data
2SU20302A.323	POS Data
2SU20302A.324	POS Data
2SU20302A.325	POS Data
2SU20302A.326	POS Data
2SU20302A.327	POS Data
2SU20302A.328	POS Data
2SU20302A.329	POS Data
2SU20302A.330	POS Data
2SU20302A.331	POS Data
2SU20302A.332	POS Data
2SU20302A.333	POS Data
2SU20302A.334	POS Data
2SU20302A.335	POS Data
2SU20302A.336	POS Data
2SU20302A.337	POS Data
2SU20302A.338	POS Data
2SU20302A.339	POS Data
2SU20302A.340	POS Data
2SU20302A.341	POS Data
2SU20302A.342	POS Data
2SU20302A.343	POS Data
2SU20302A.344	POS Data
2SU20302A.345	POS Data
2SU20302A.346	POS Data
2SU20302A.347	POS Data
2SU20302A.348	POS Data
2SU20302A.349	POS Data
2SU20302A.350	POS Data
2SU20302A.351	POS Data
2SU20302A.352	POS Data
2SU20302A.353	POS Data
2SU20302A.354	POS Data
2SU20302A.355	POS Data
2SU20302A.356	POS Data
2SU20302A.357	POS Data
2SU20302A.358	POS Data
2SU20302A.359	POS Data
2SU20302A.360	POS Data
2SU20302A.361	POS Data
2SU20302A.362	POS Data

Input Files

File Name	File Type
Ephm3020.20g	GLONASS Broadcast Ephemeris
Ephm3020.20n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_2SU20302A_186.out	SBET Trajectory File

Rover Data Summary

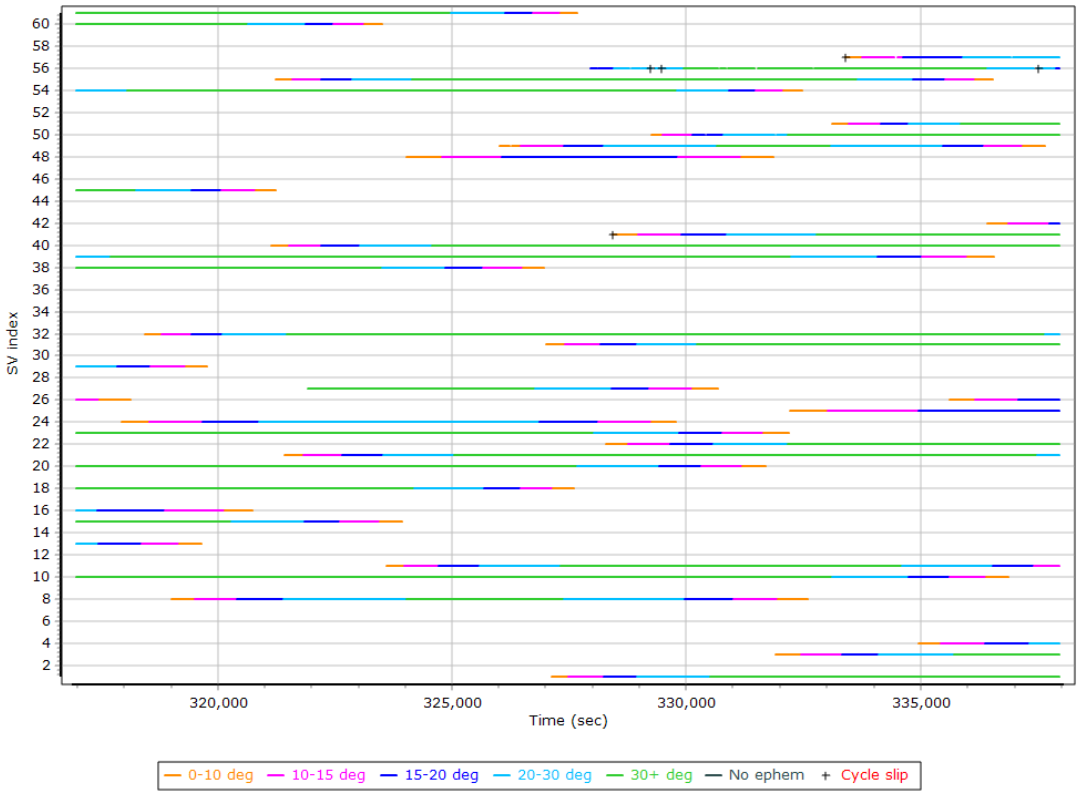
First raw data file	2SU20302A.309		
Last raw data file	2SU20302A.362		
Start GPS week	2129		
Start time	316401.212 (10/28/2020 15:53:21)		
End time	337975.305 (10/28/2020 21:52:55)		
Start of fine alignment	316915.801 (10/28/2020 16:01:55)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event 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

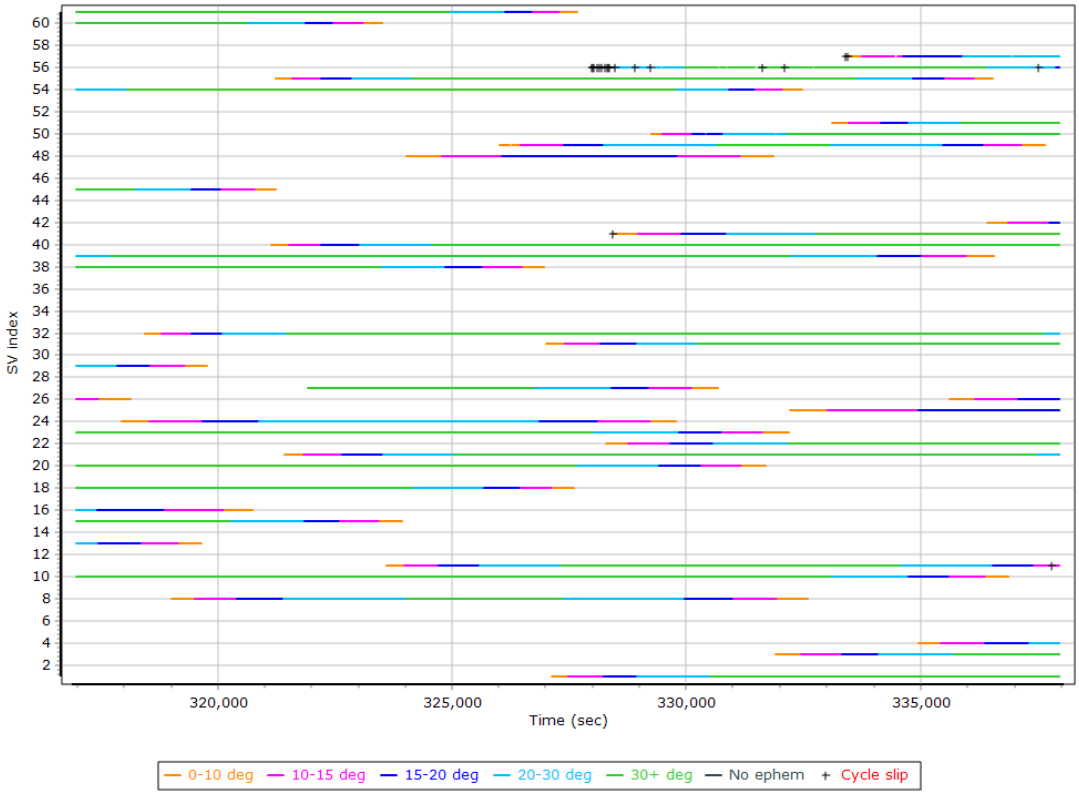
Raw IMU Import QC Summary

IMU data input file	imu_2SU20302A_186.dat
IMU data check log file	imudt_2SU20302A_186.log
IMU Records Processed	4315280
Termination Status	Normal
IMU Anomalies	0

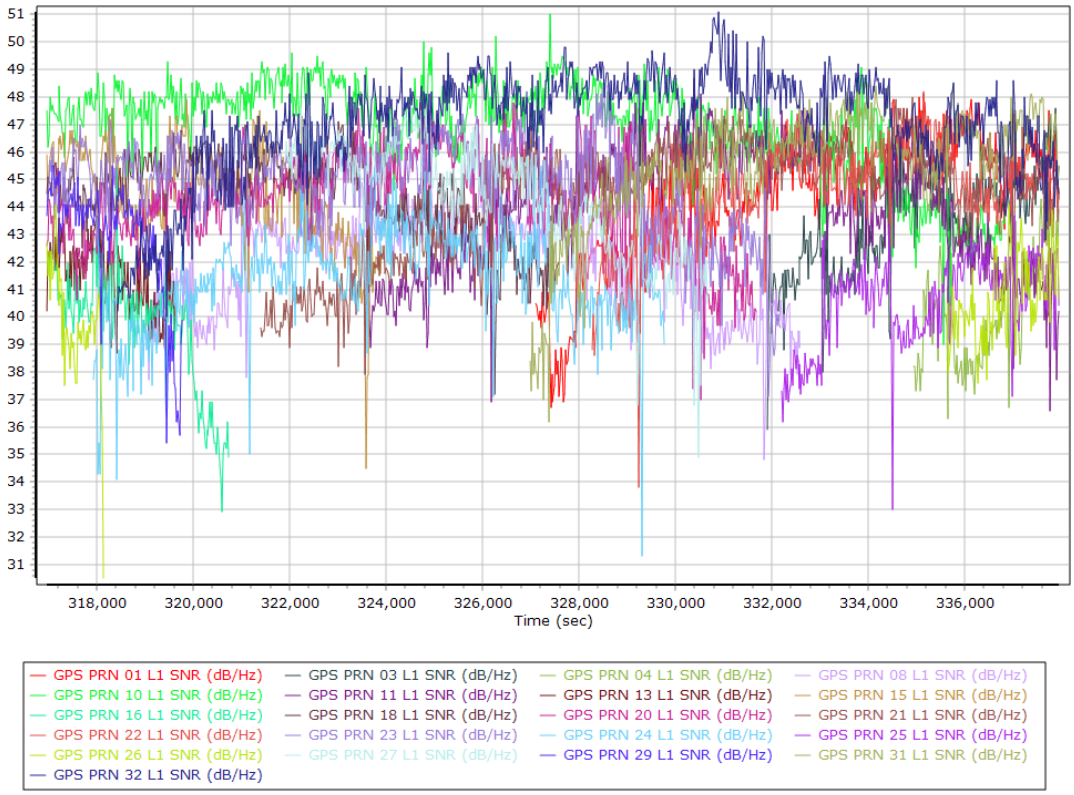
L1 Satellite Lock/Elevation



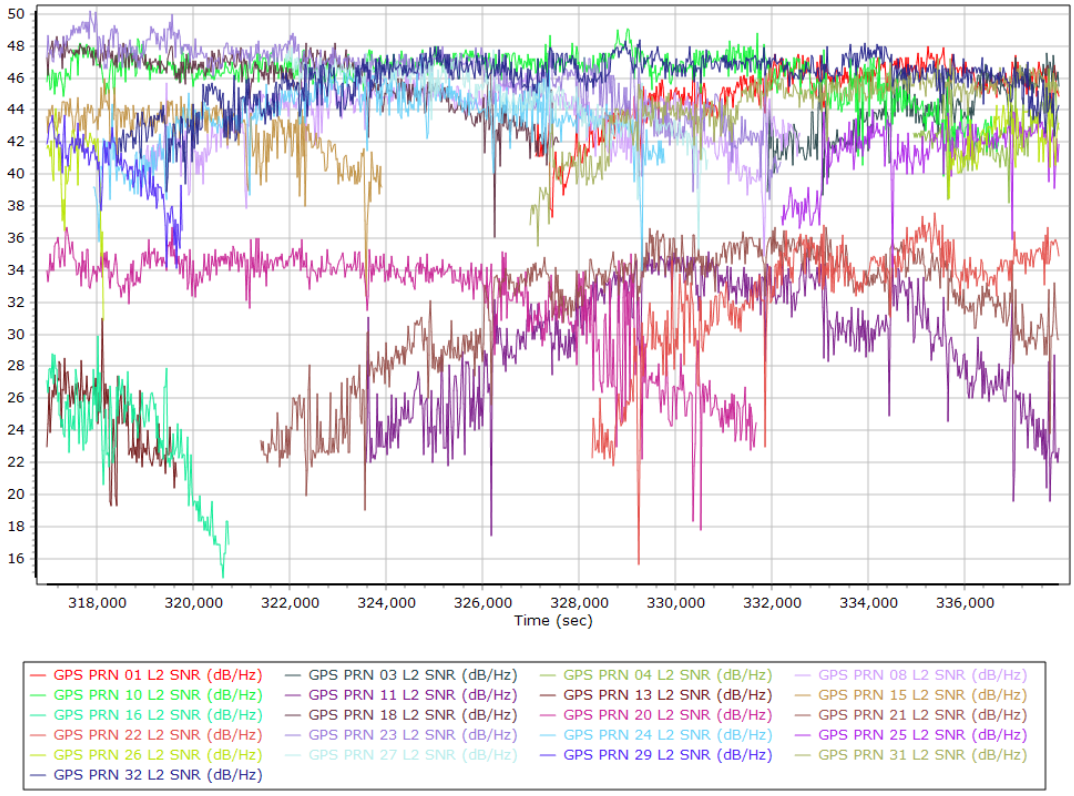
L2 Satellite Lock/Elevation



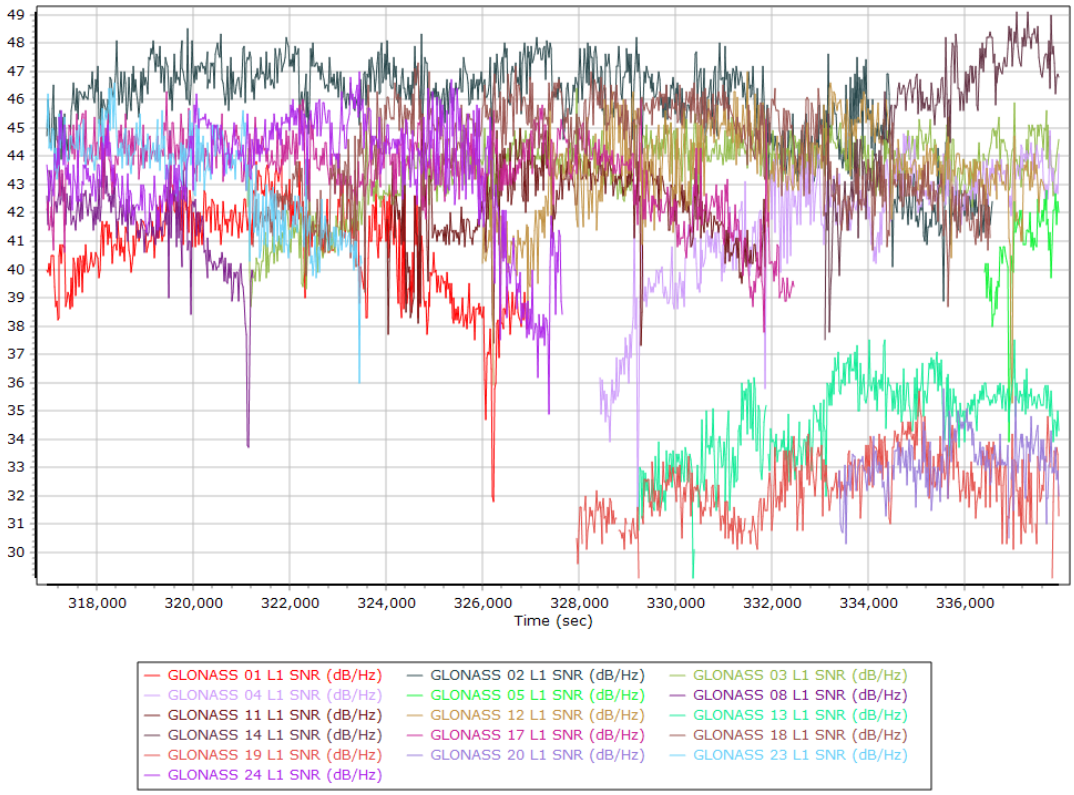
GPS L1 SNR



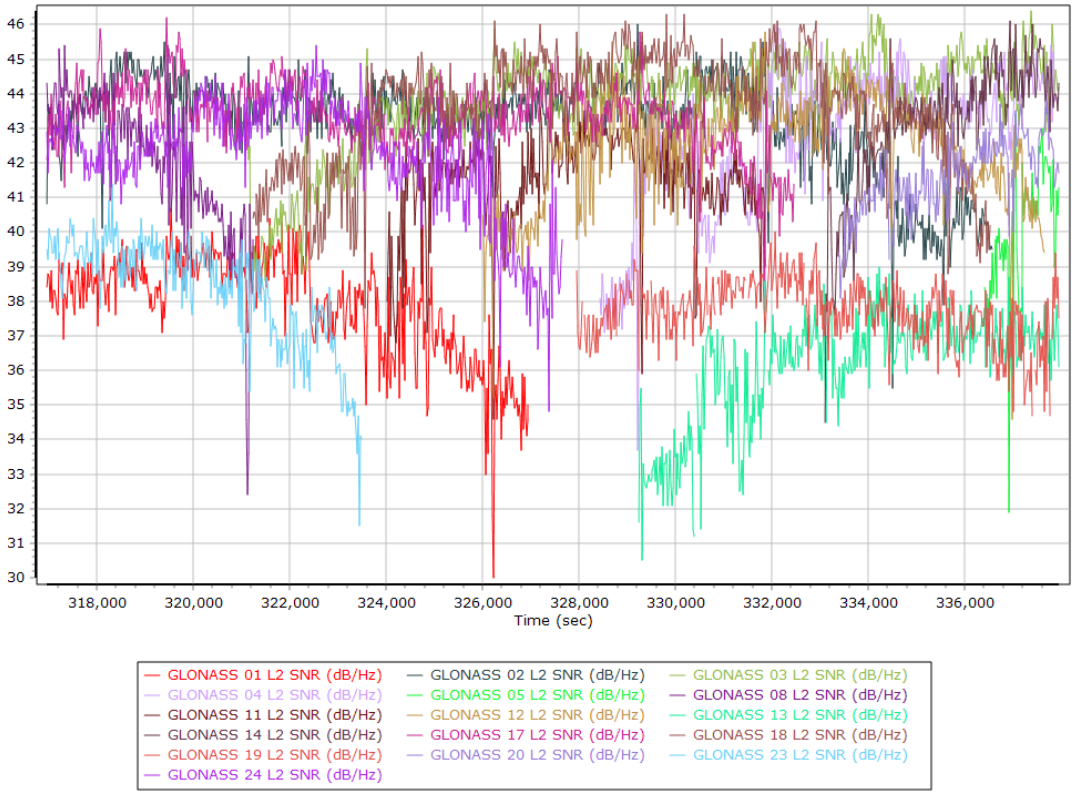
GPS L2 SNR



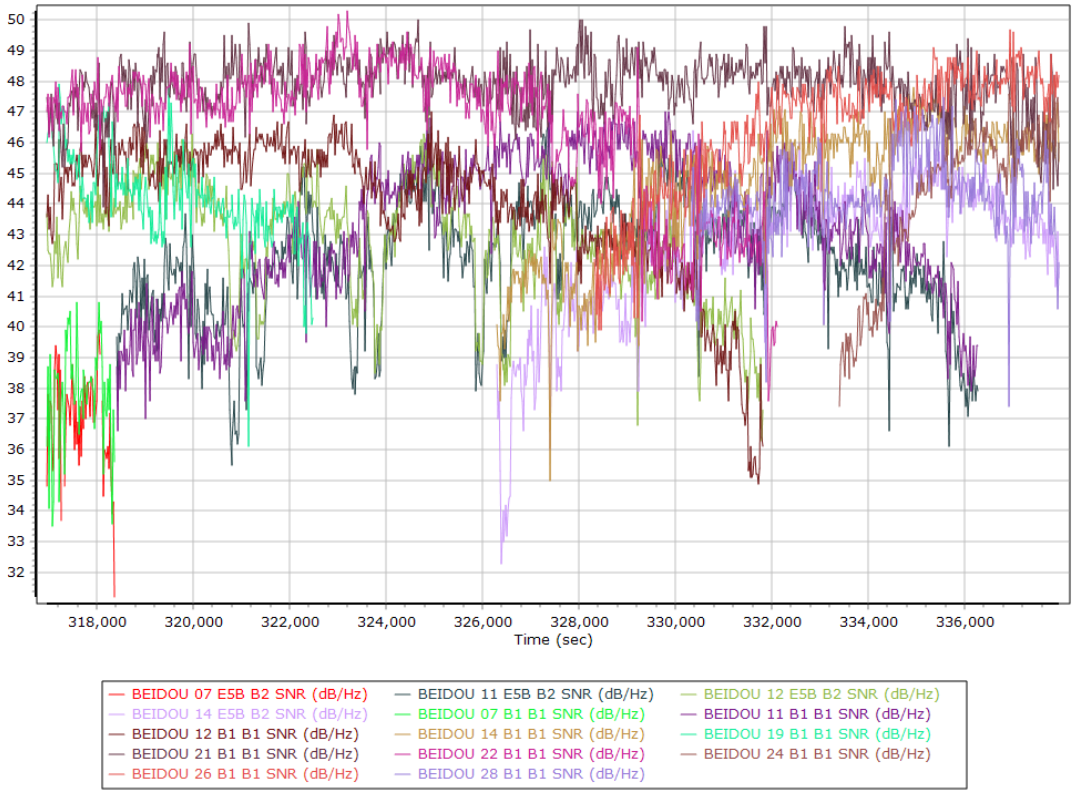
GLONASS L1 SNR



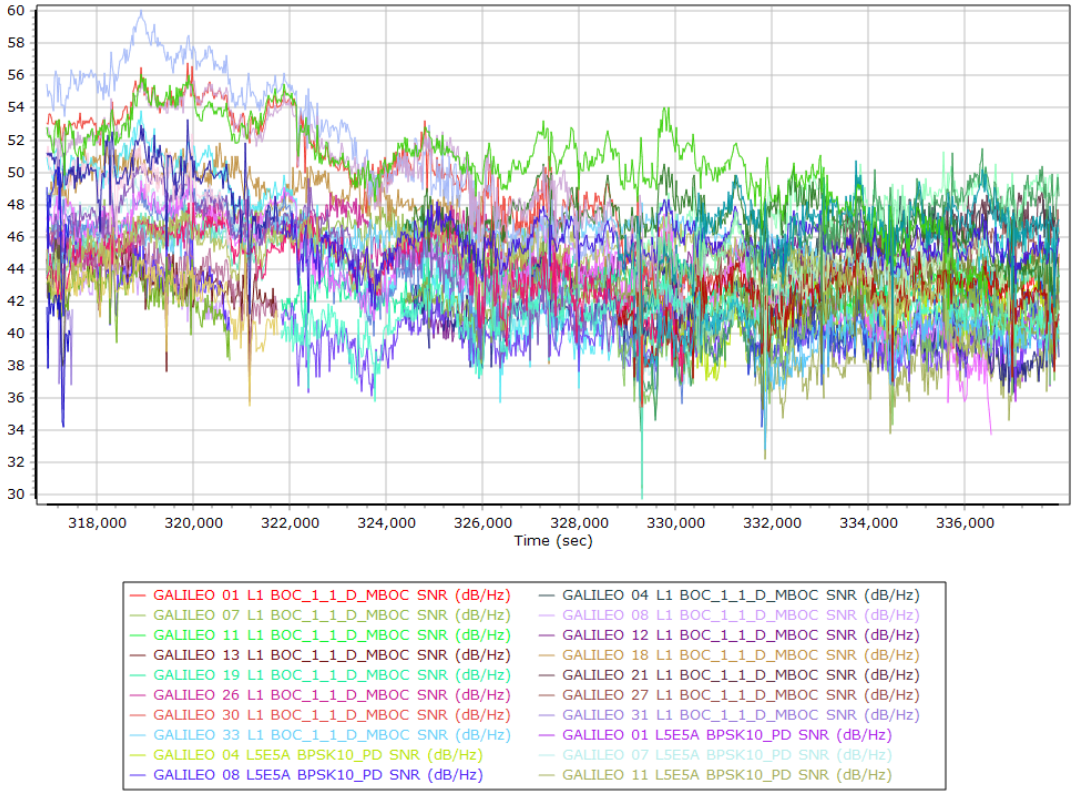
GLONASS L2 SNR



BEIDOU SNR



GALILEO SNR


60
58
56
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52
50
48
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44
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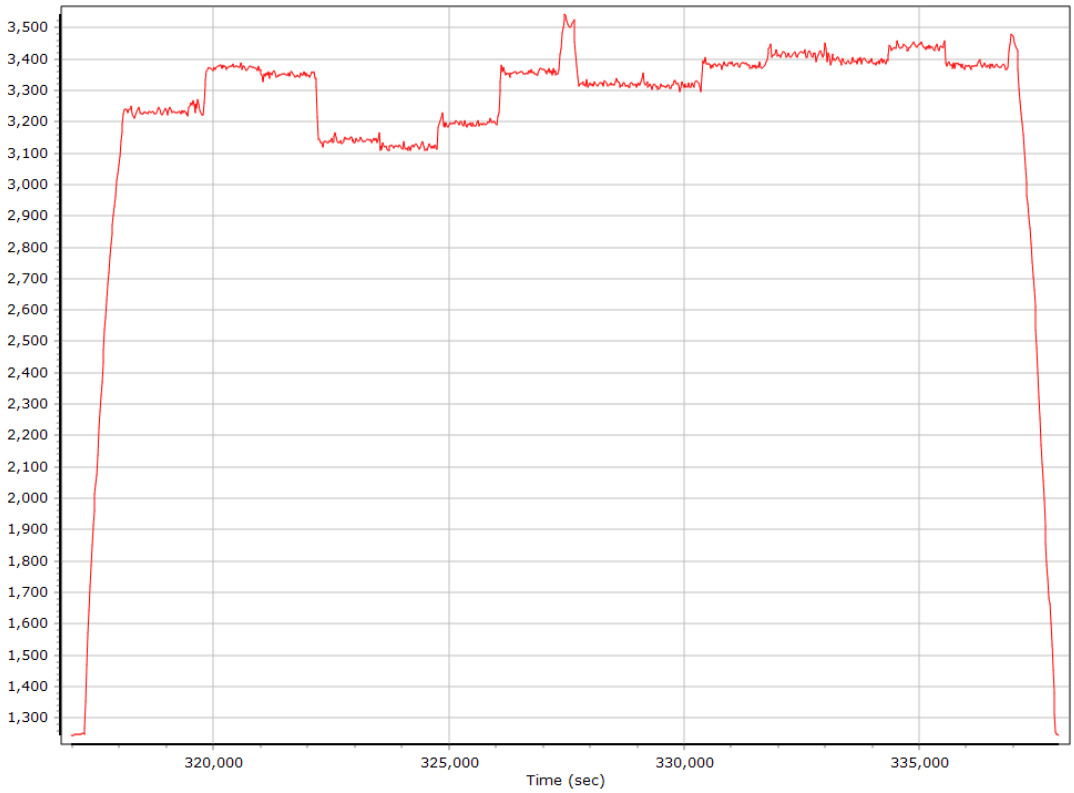
40
38
36
34
32
30
318,000
320,000
322,000
324,000
326,000
328,000
330,000
332,000
334,000
336,000
Time (sec)
GALILEO 01 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 04 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 08 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 11 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 12 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 13 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 18 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 19 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 21 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 31 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 33 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 01 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 04 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)

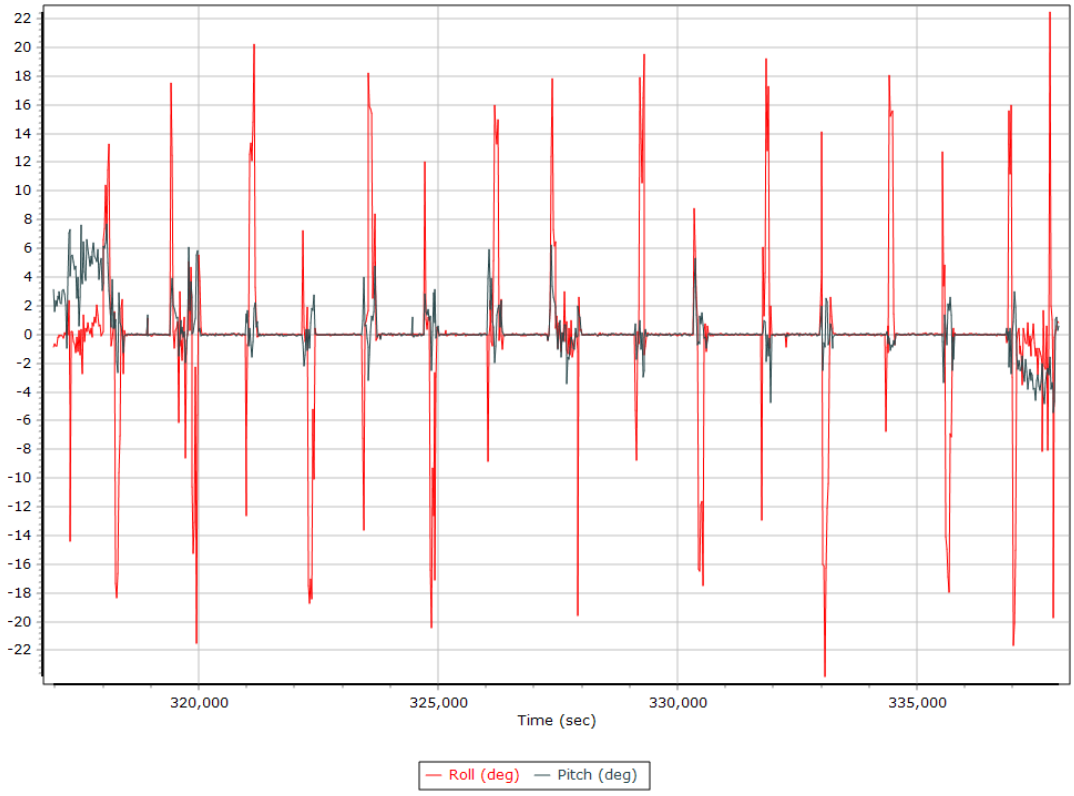
Trajectory Information

Top View

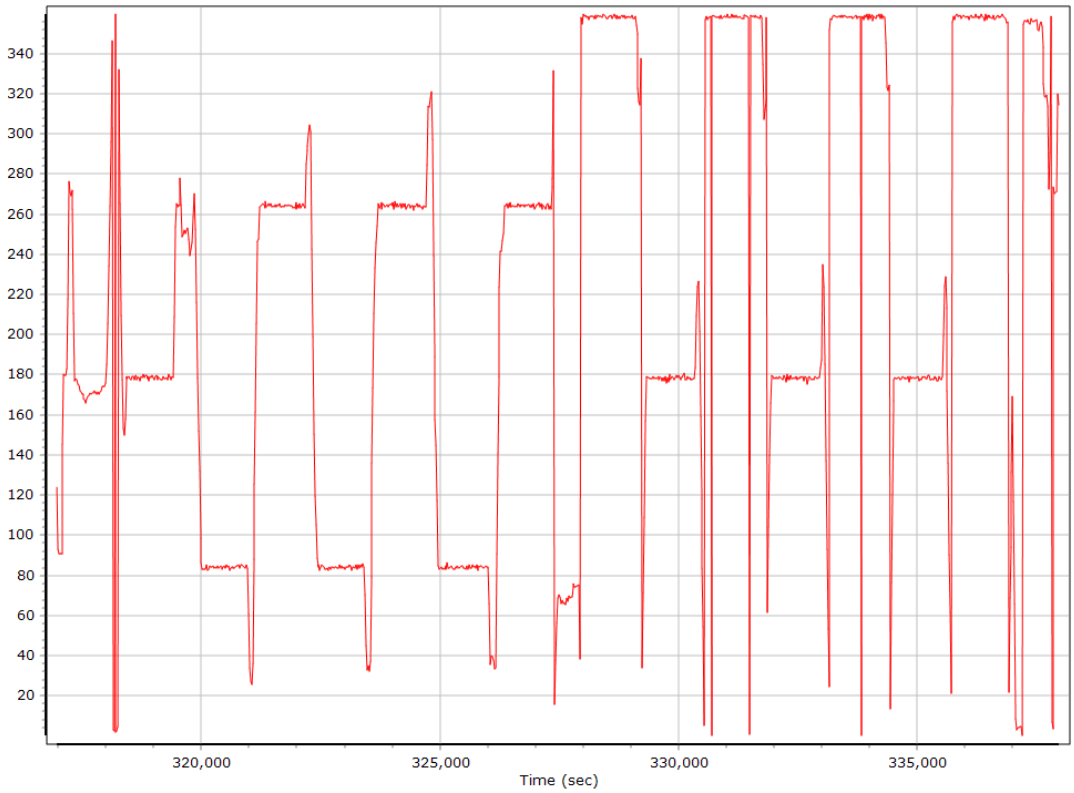
Altitude



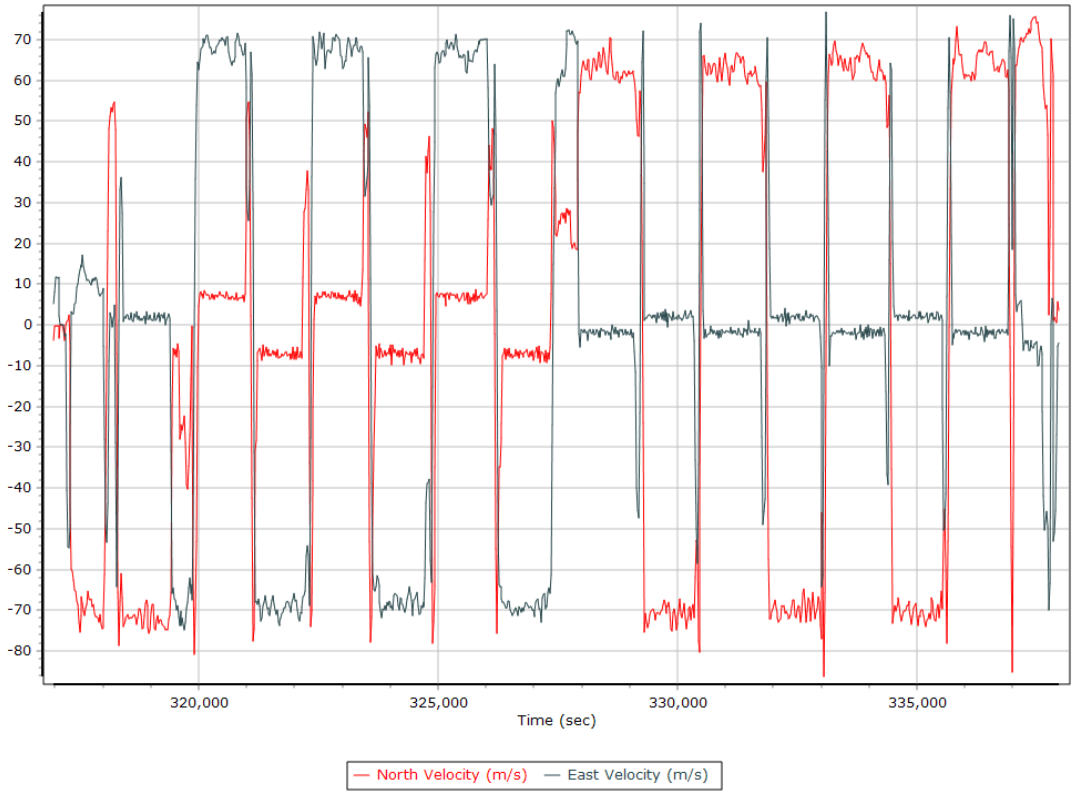
Roll/Pitch



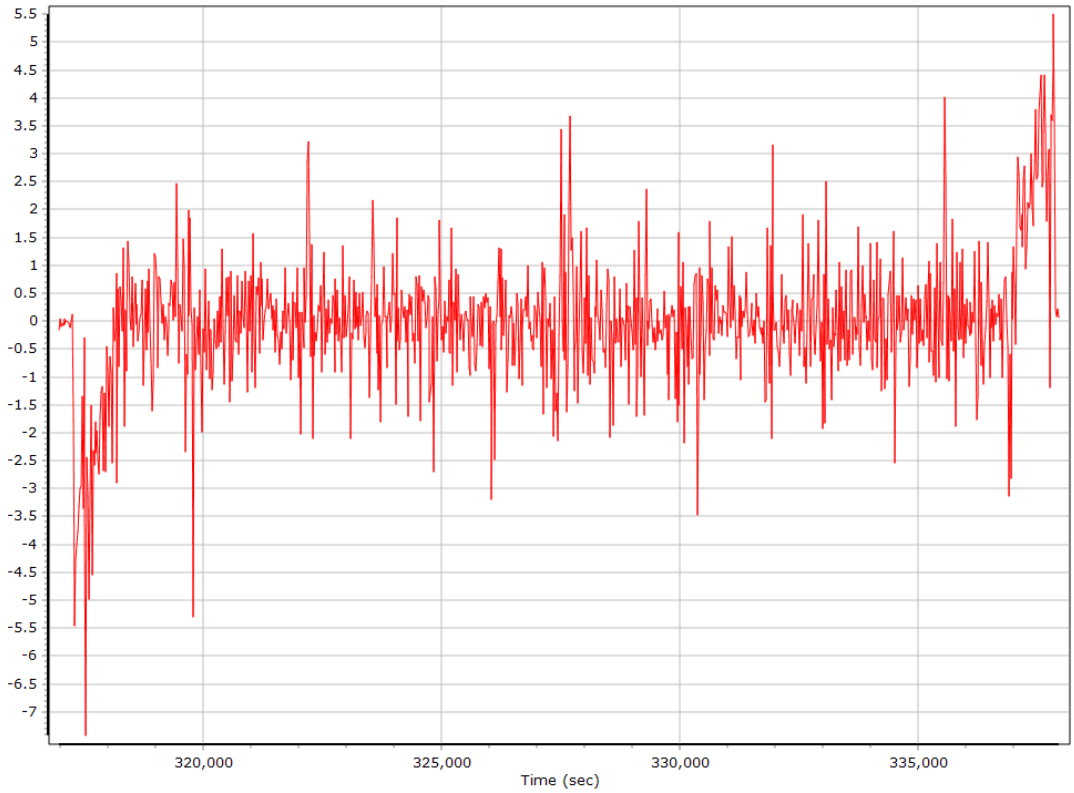
Heading



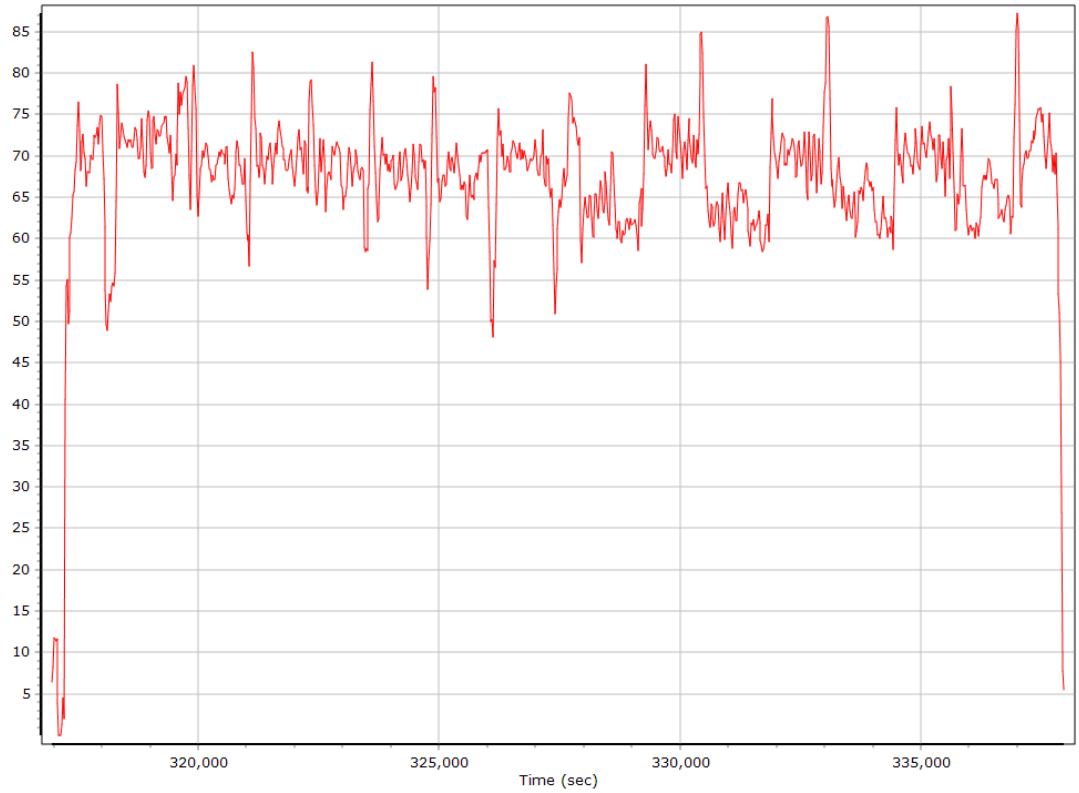
North/East Velocity



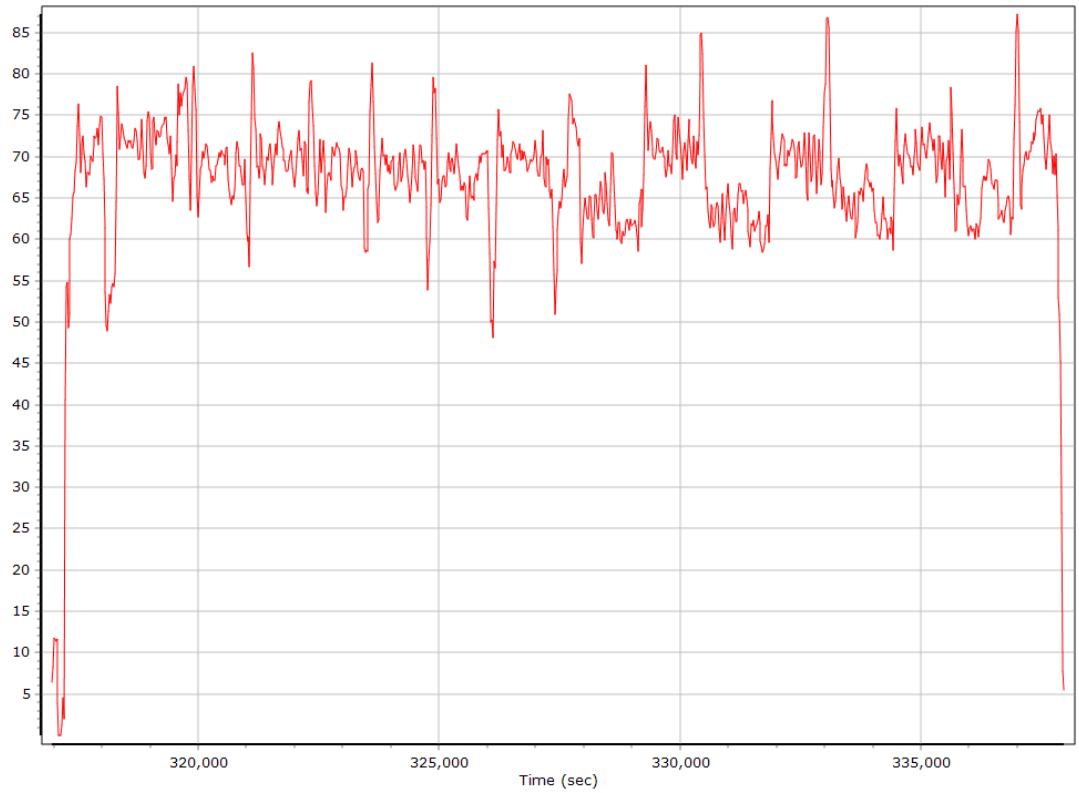
Down Velocity



Total Speed

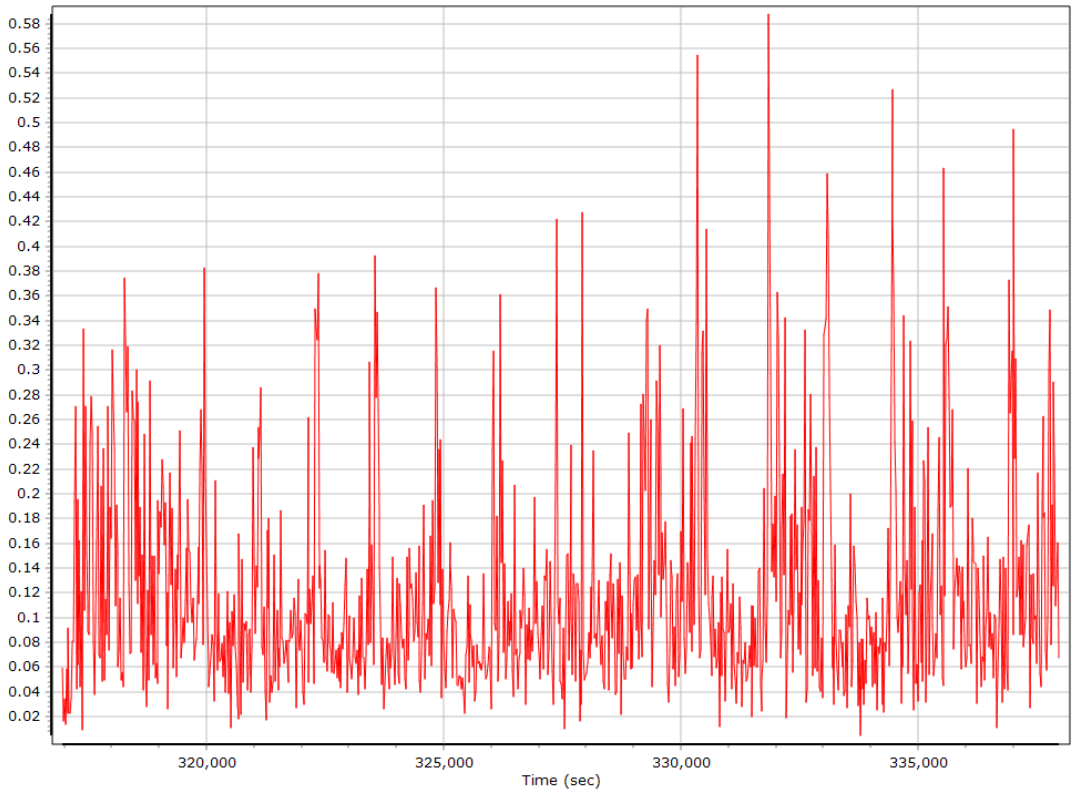


Ground Speed



Body Acceleration

Total Body Acceleration



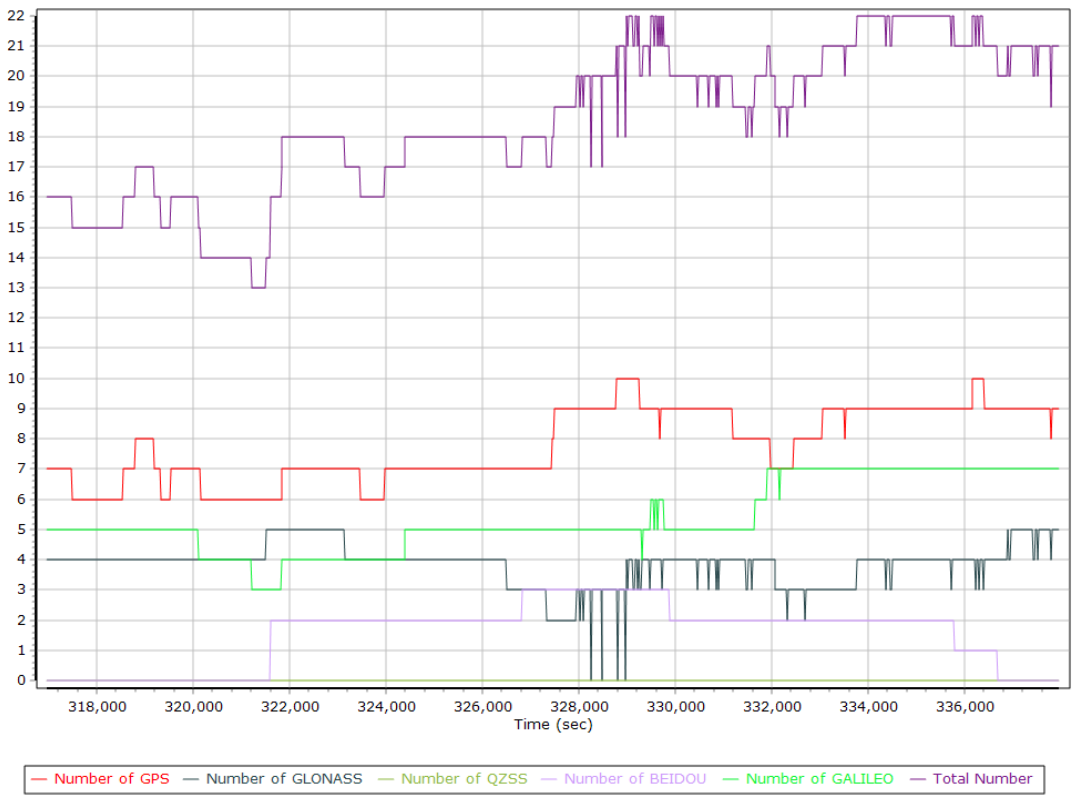
Body Angular Rate

GNSS QC

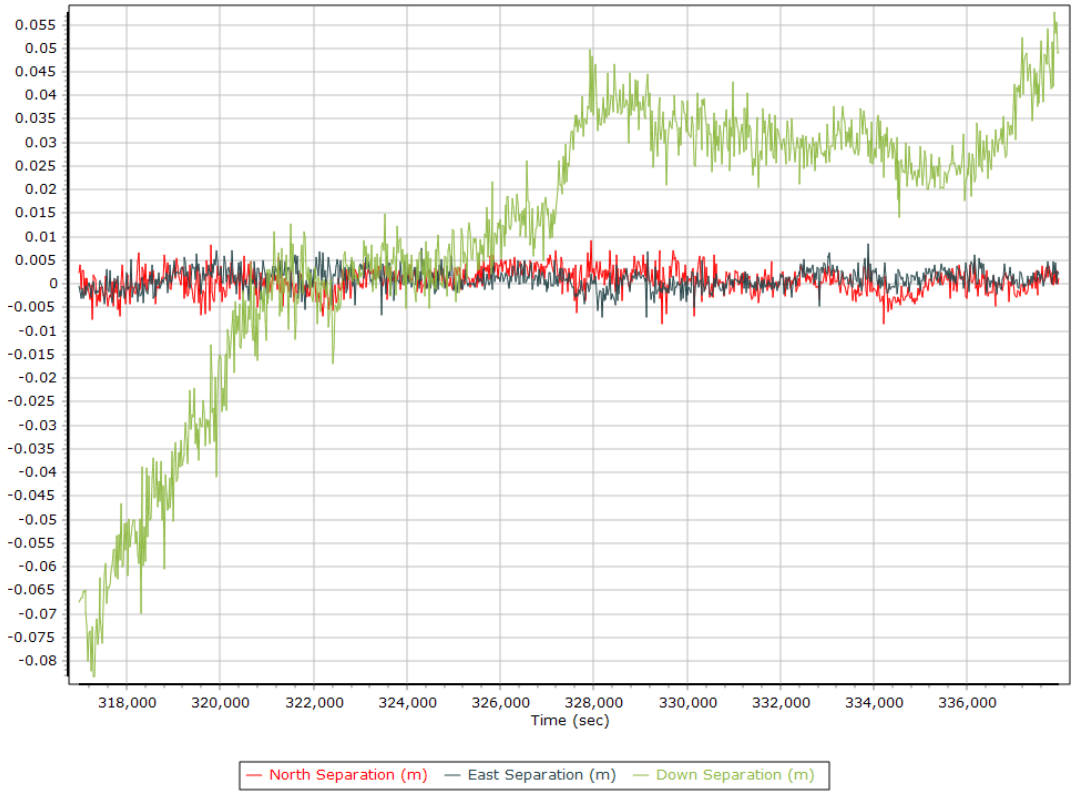
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	3	10	8
Number of GLONASS SV	0	5	4
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	3	1
Number of GALILEO SV	3	8	5
Total number of SV	11	22	18
PDOP	1.04	2.74	1.31
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	21555.00	0.00	0.00
Percentage	100.00	0.00	0.00

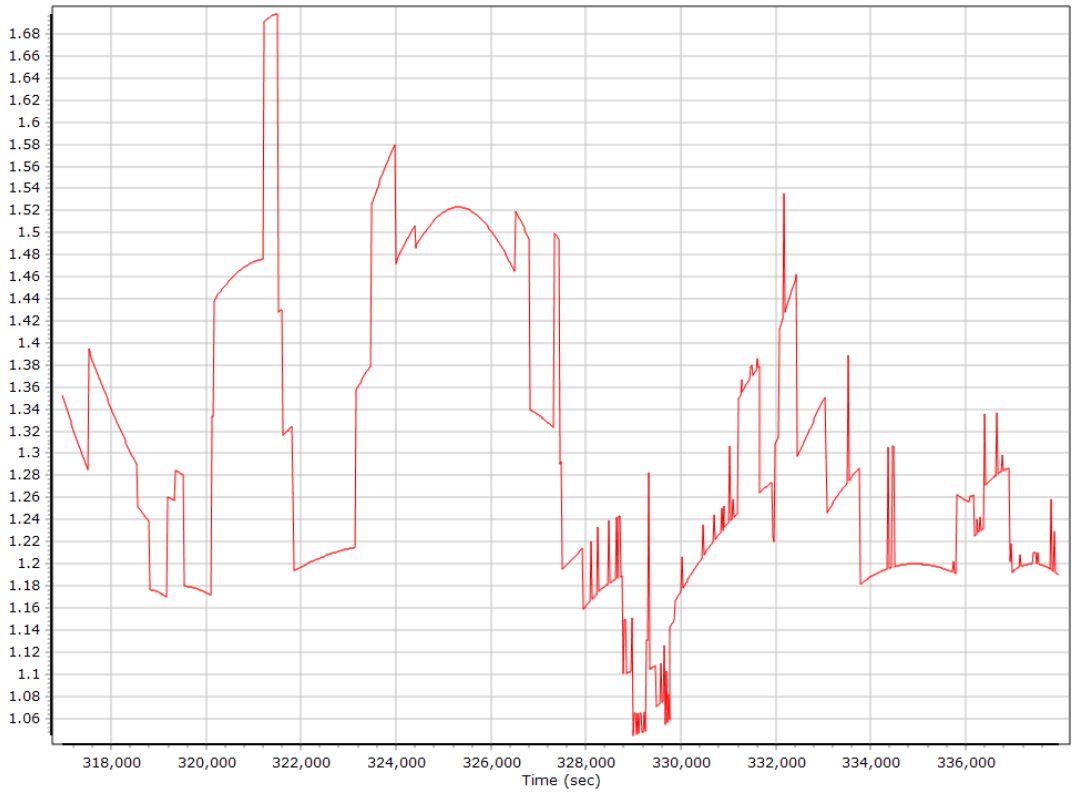
Num SVs in solution



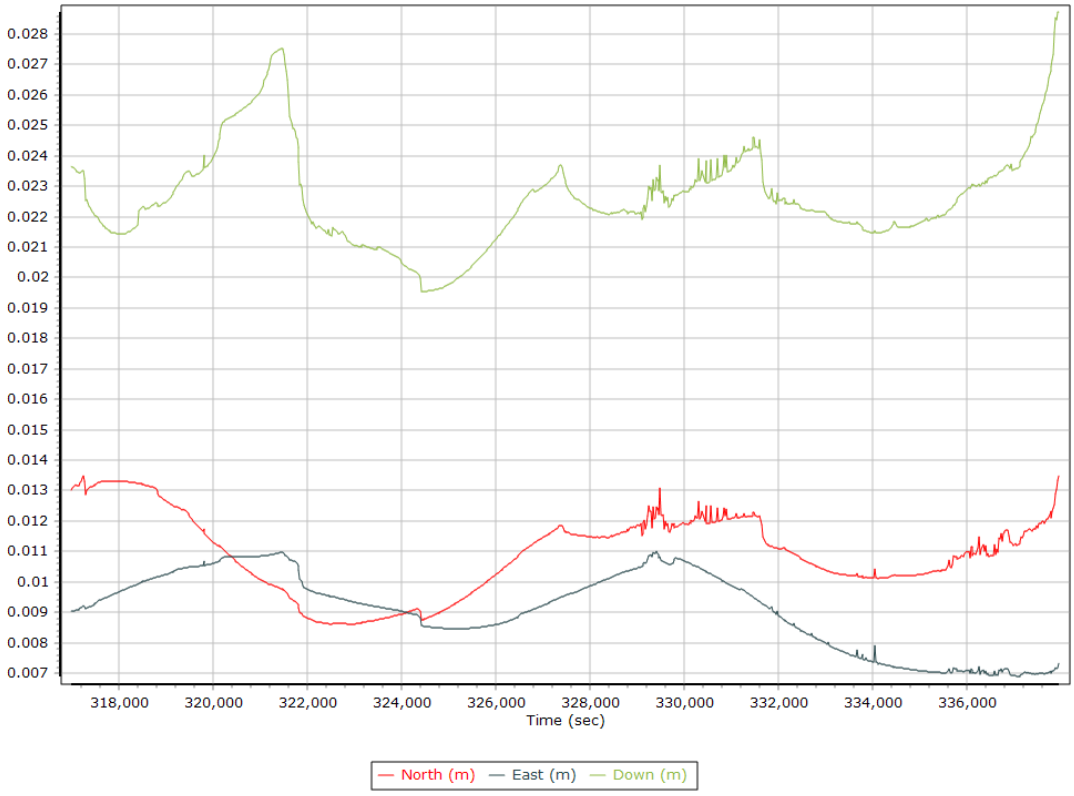
Forward/Reverse Separation



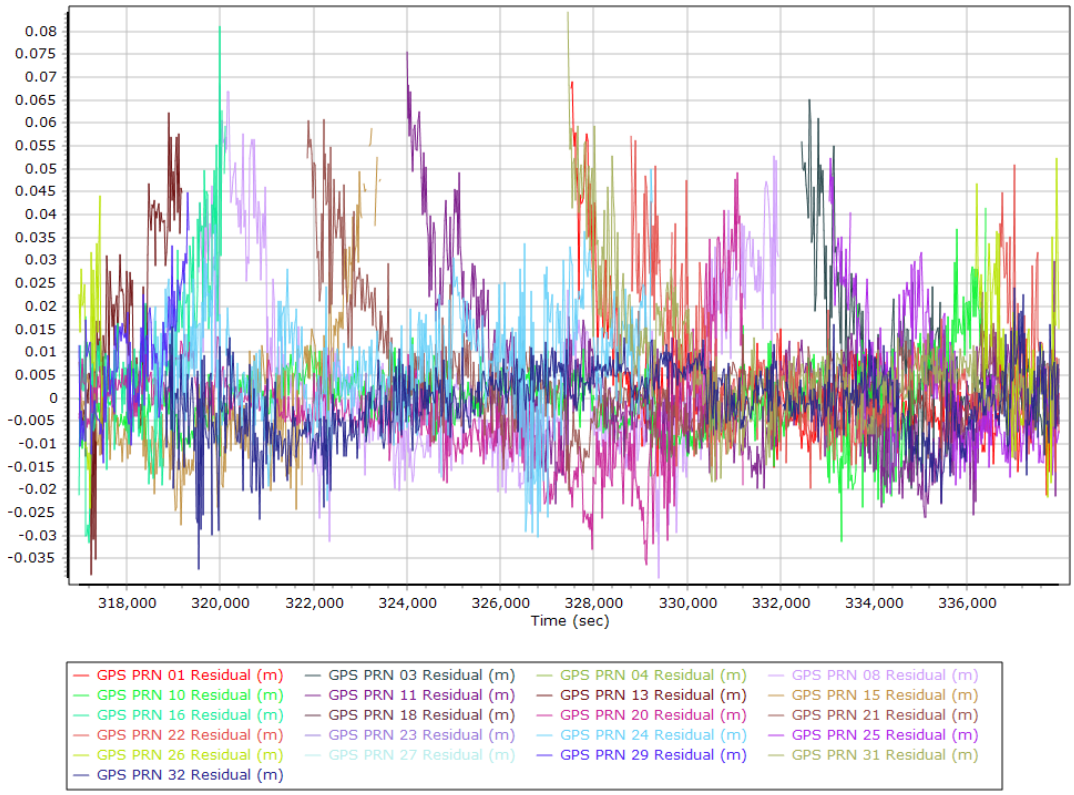
PDOP



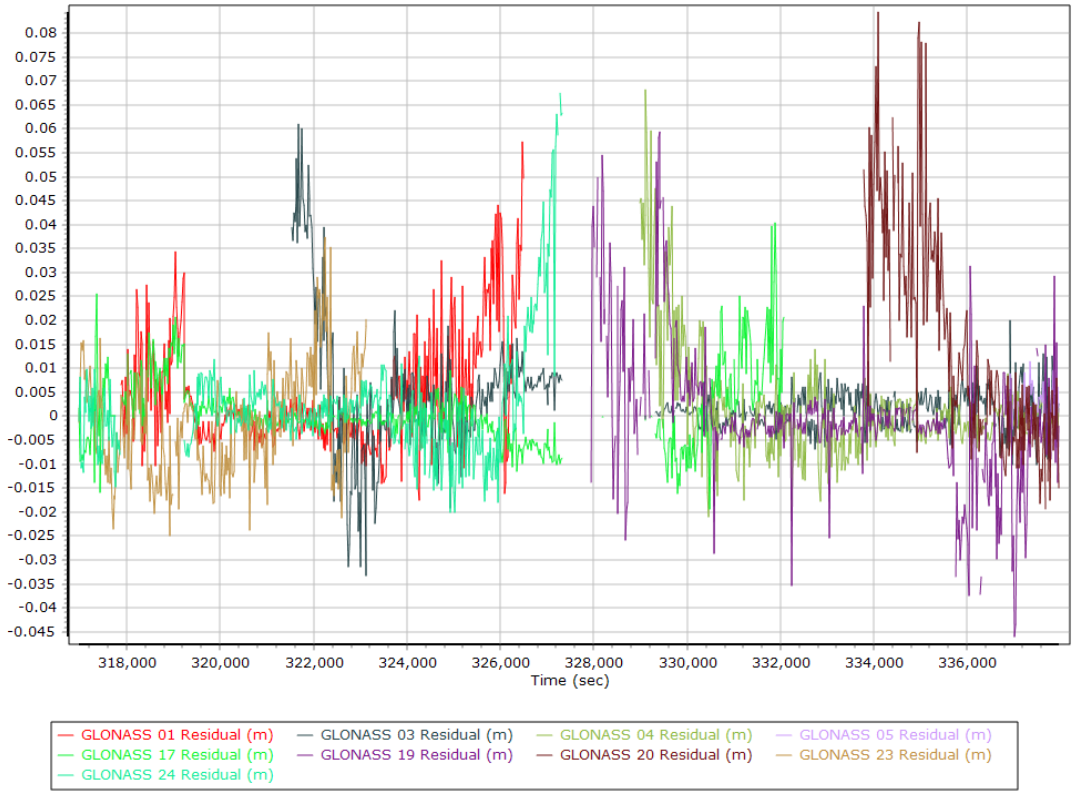
Estimated Position Accuracy



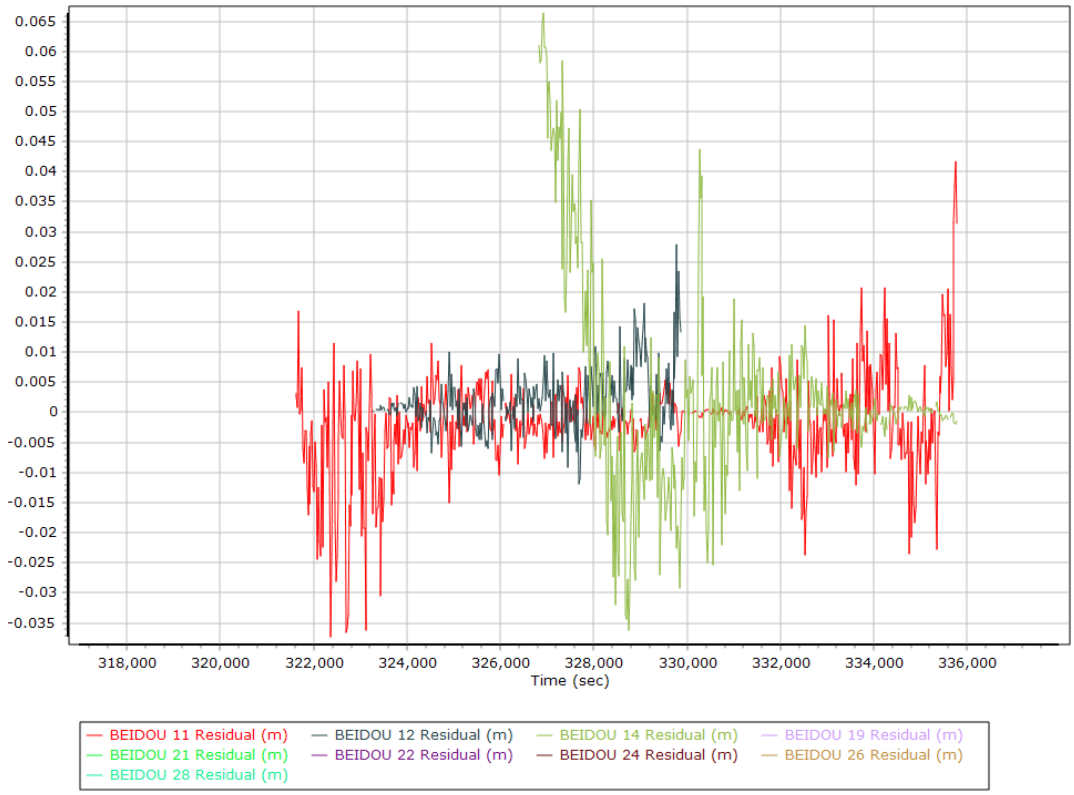
GPS Residuals



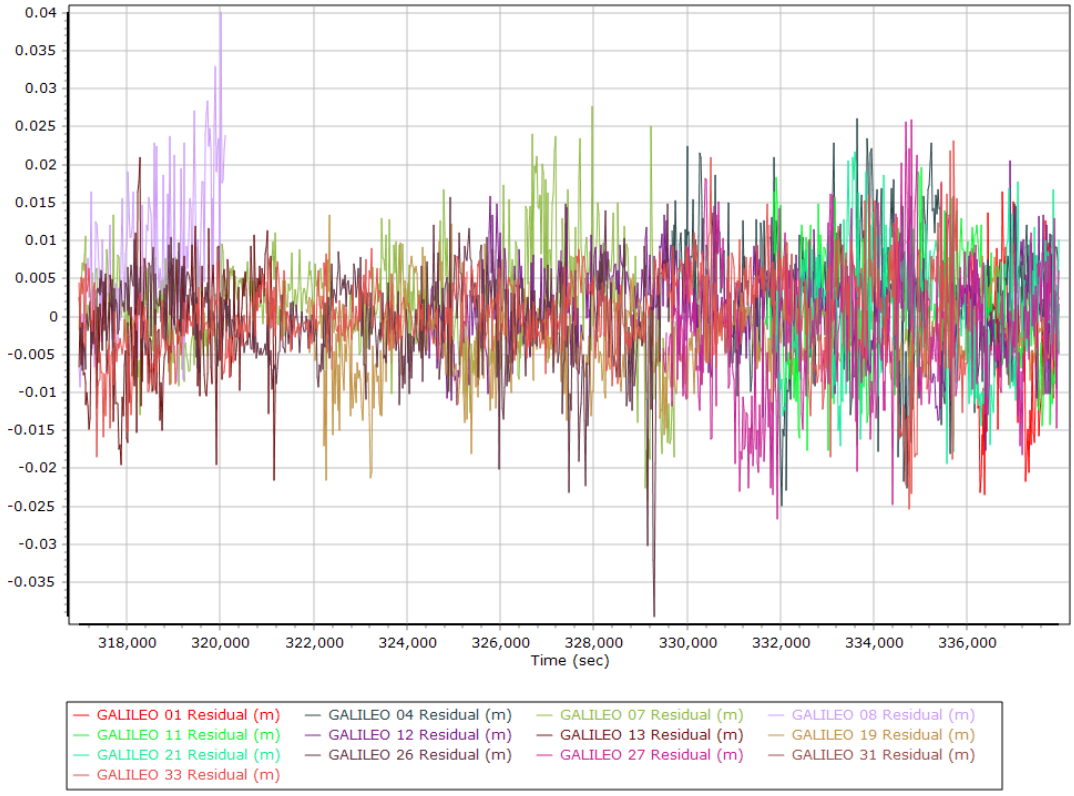
GLONASS Residuals



BEIDOU Residuals



GALILEO Residuals



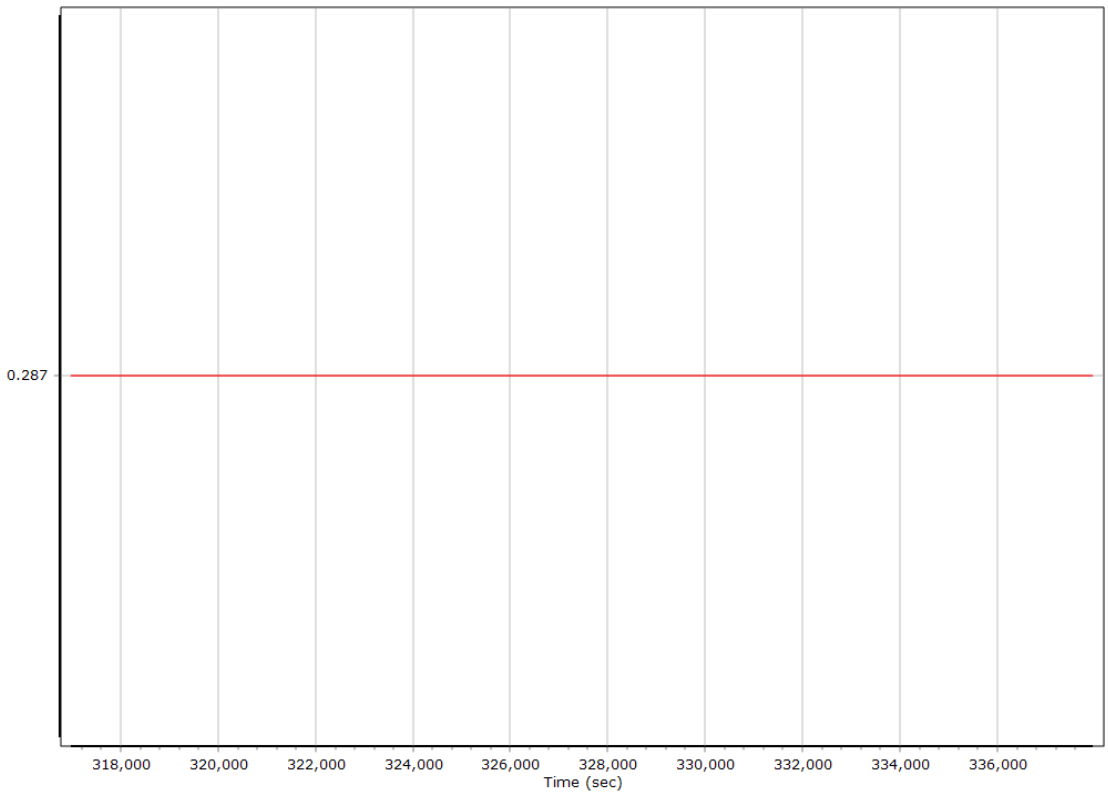
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	True		
Processing start time	316402.000 (10/28/2020 15:53:22)		
Processing end time	337980.000 (10/28/2020 21:53:00)		
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)	0.287	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

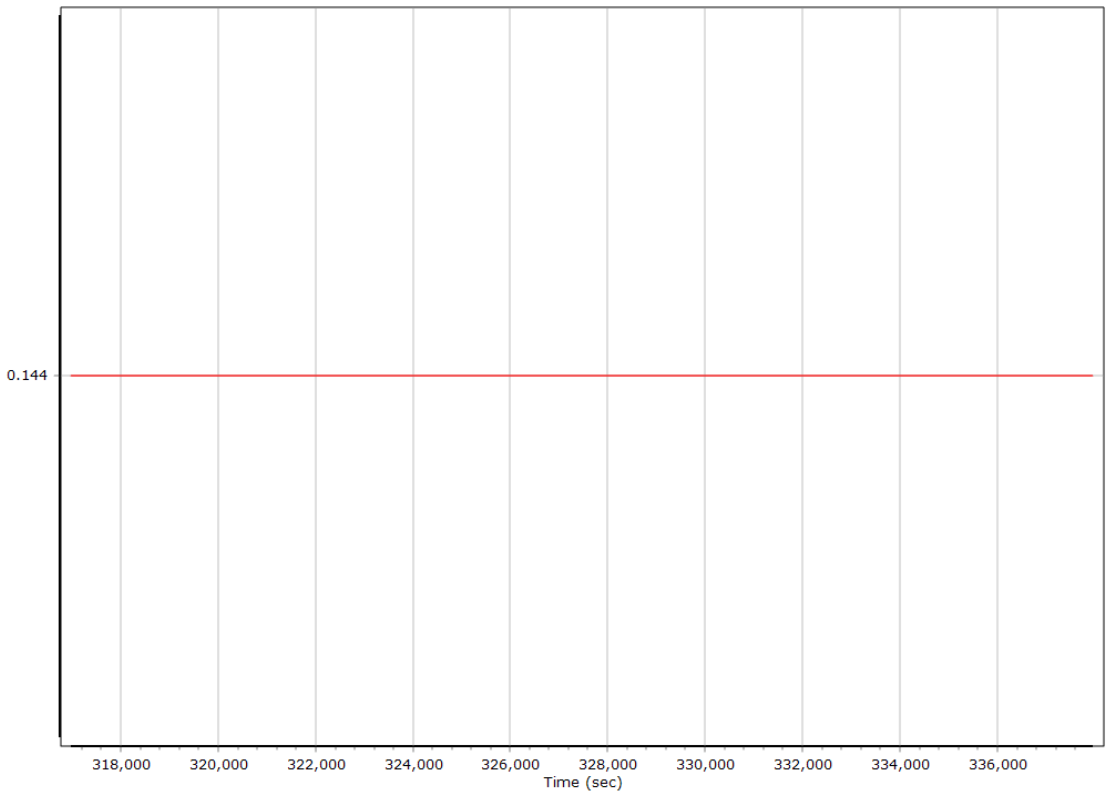
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

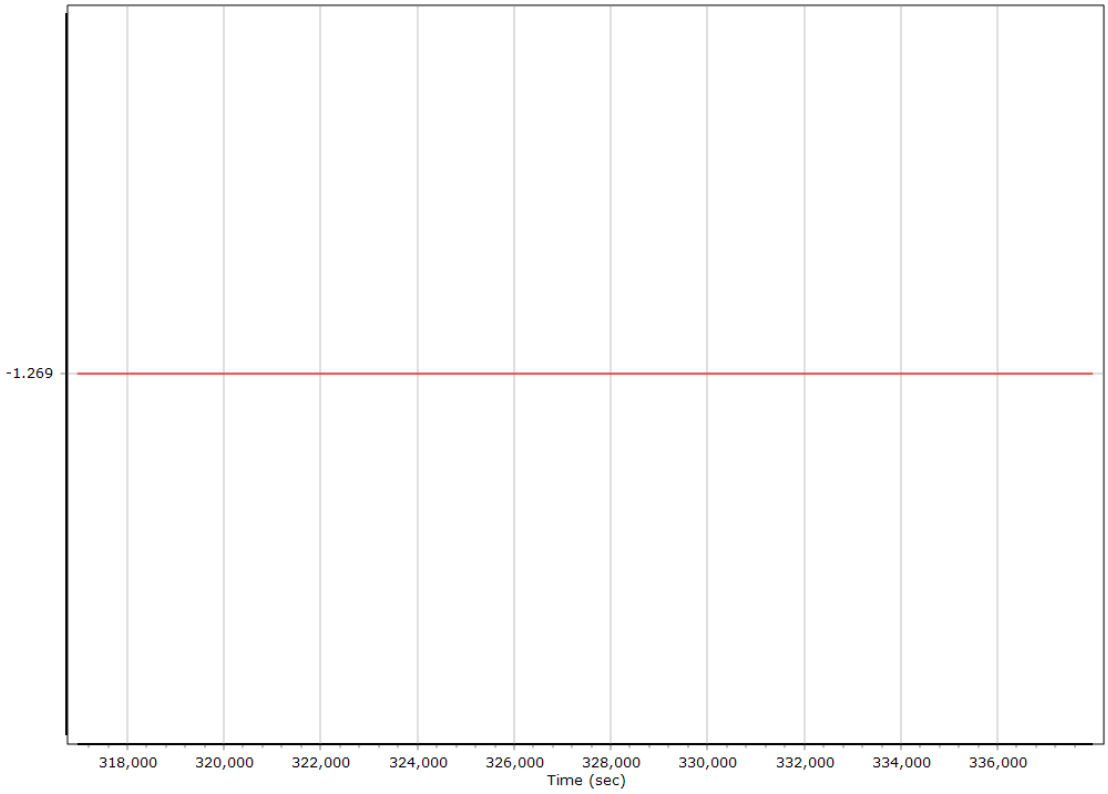
X Reference-Primary GNSS Lever Arm (m)



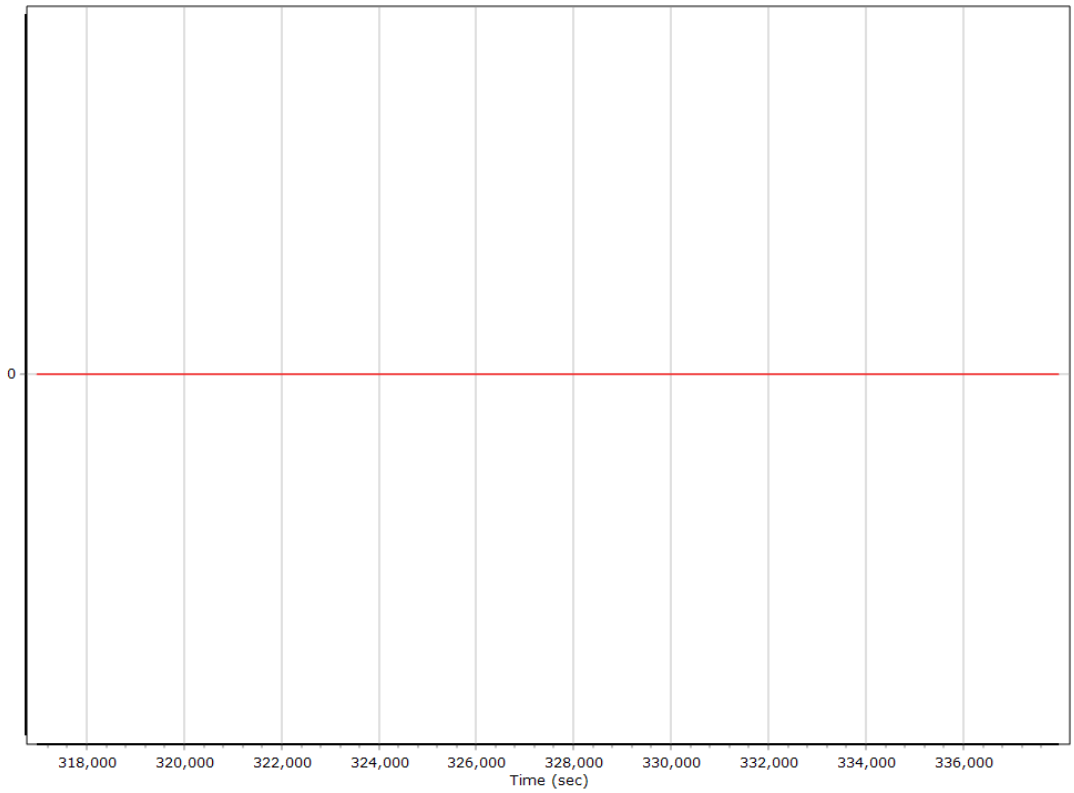
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



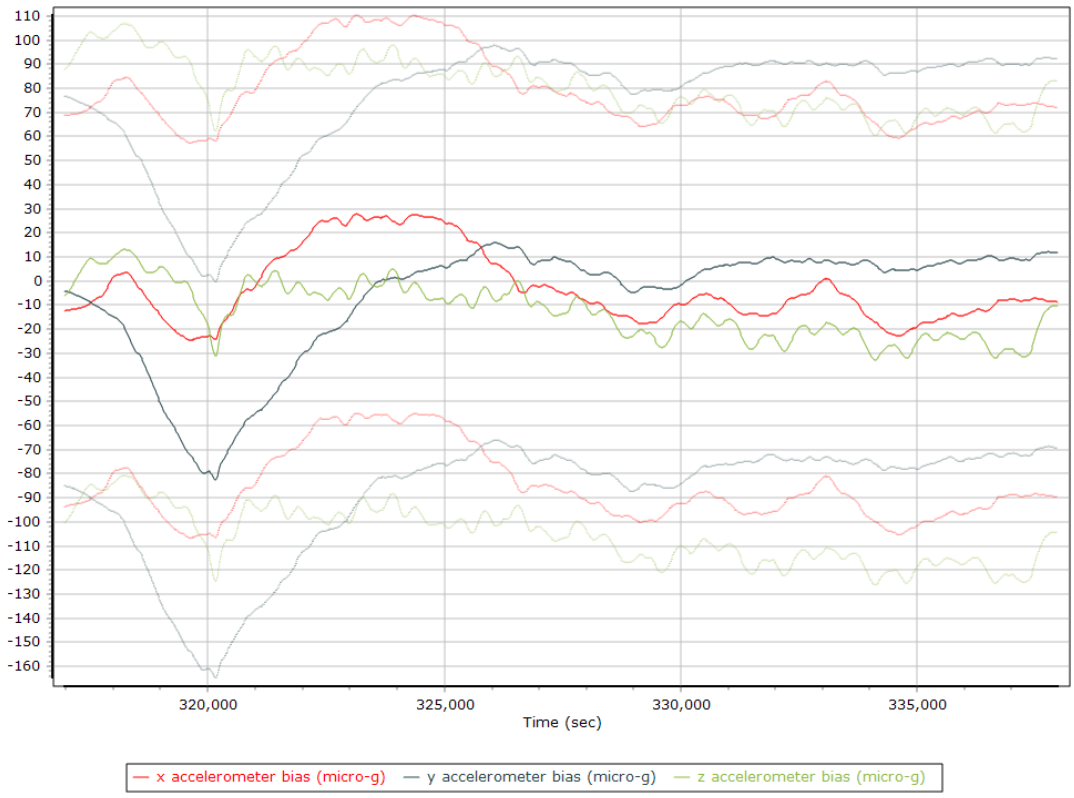
Reference-Primary GNSS Lever Arm Figure of Merit



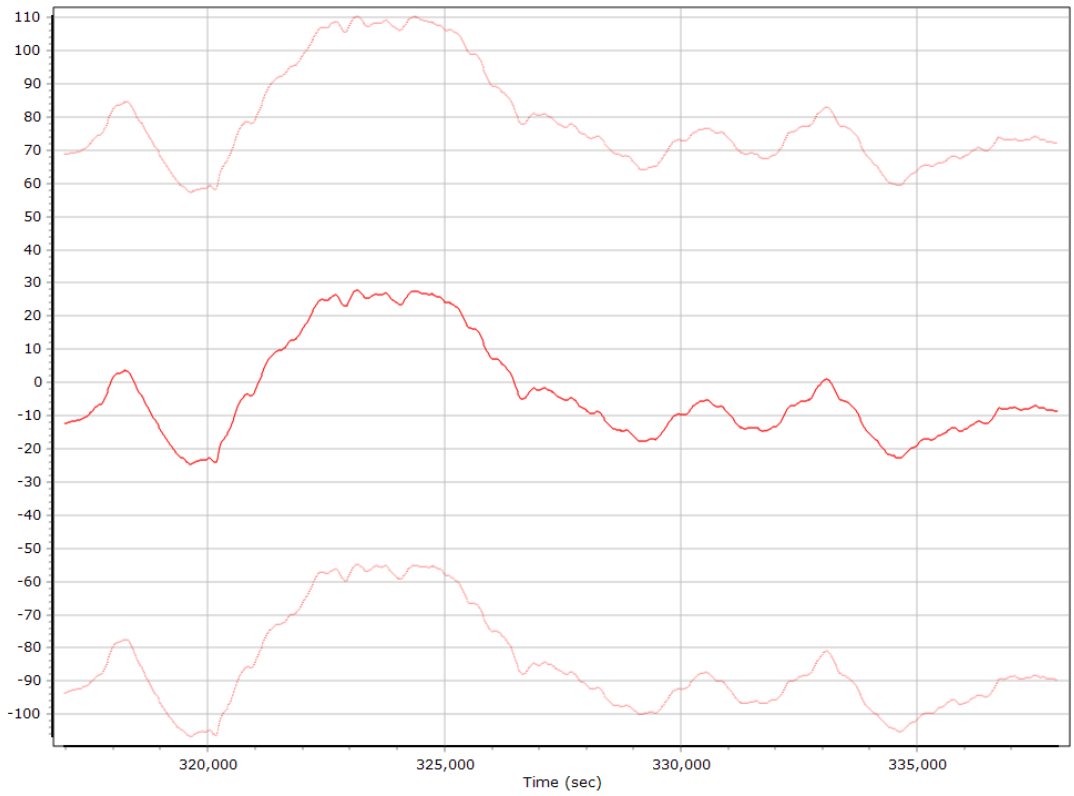
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

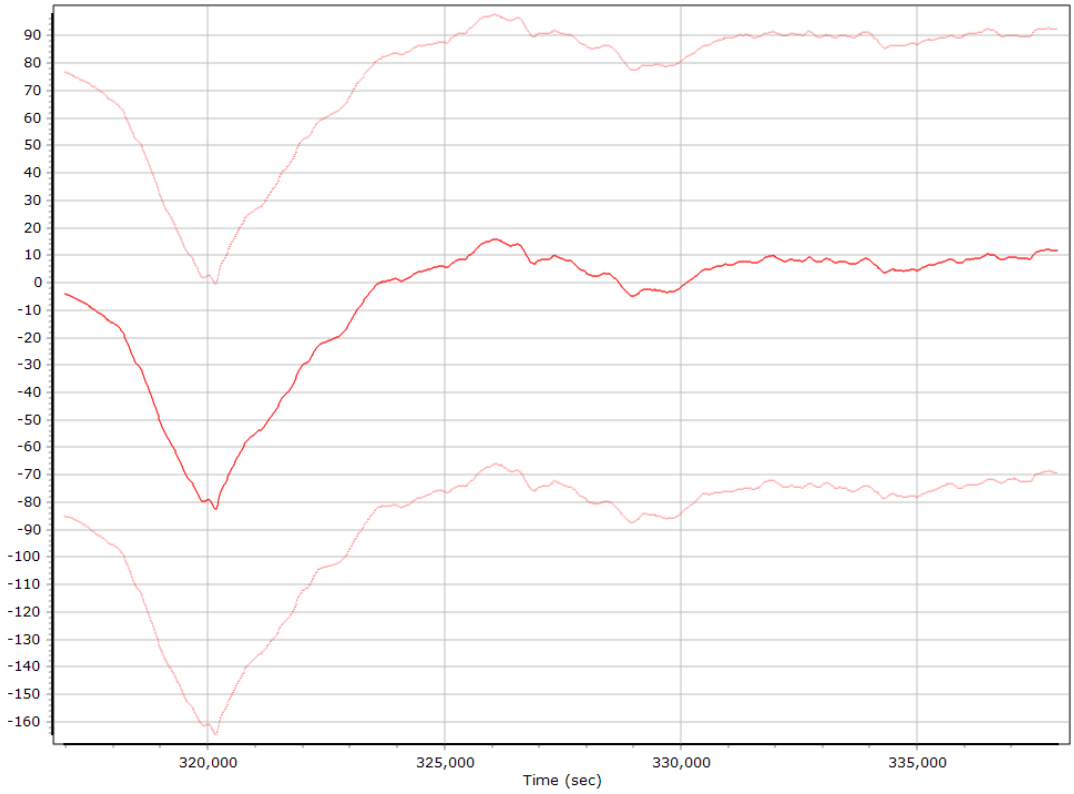
Accelerometer Bias (micro-g)



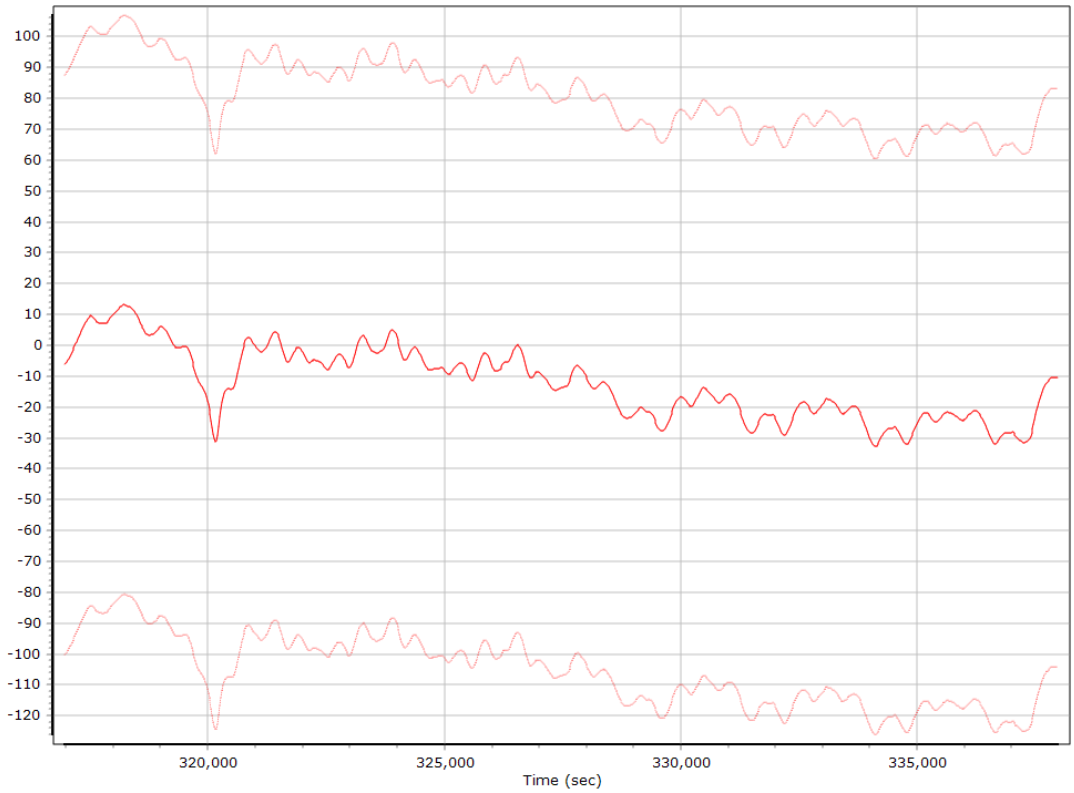
X Accelerometer Bias (micro-g)



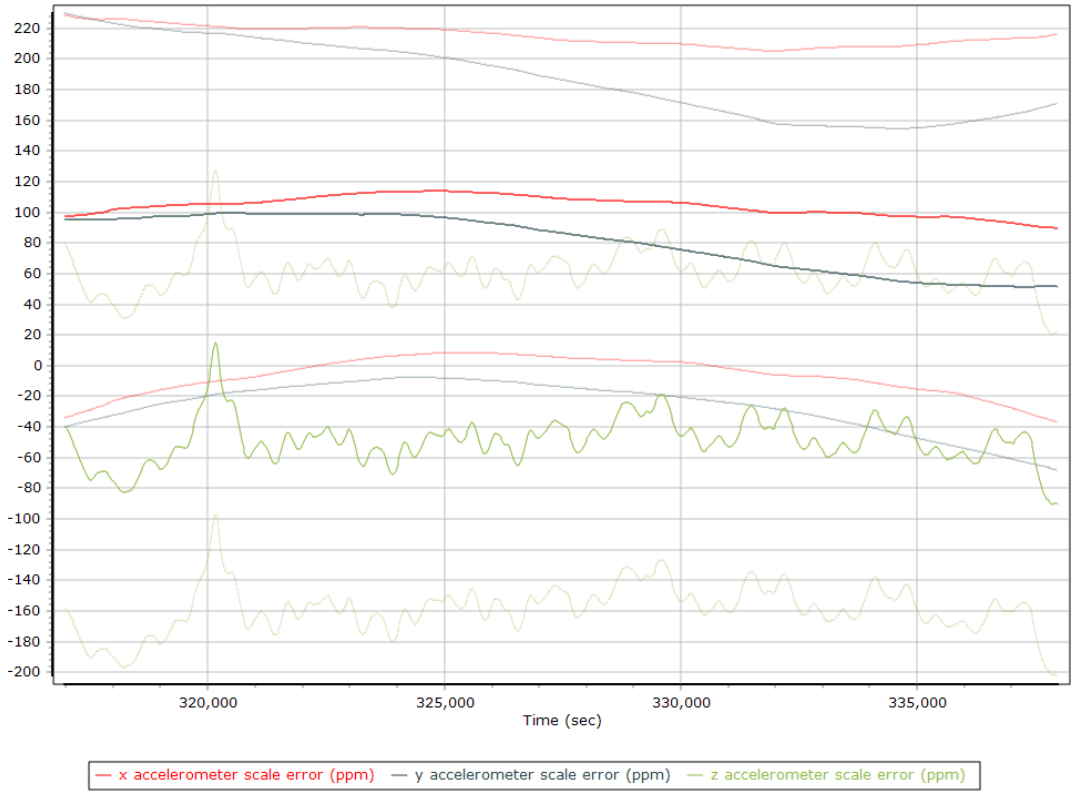
Y Accelerometer Bias (micro-g)



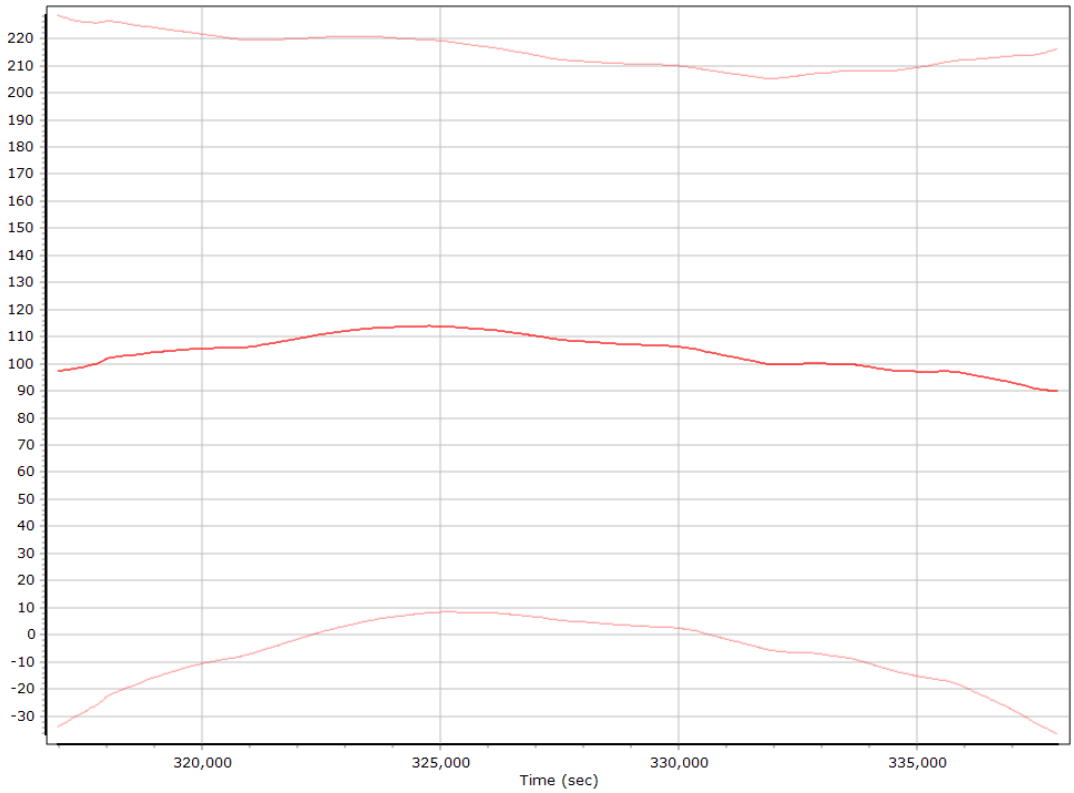
Z Accelerometer Bias (micro-g)



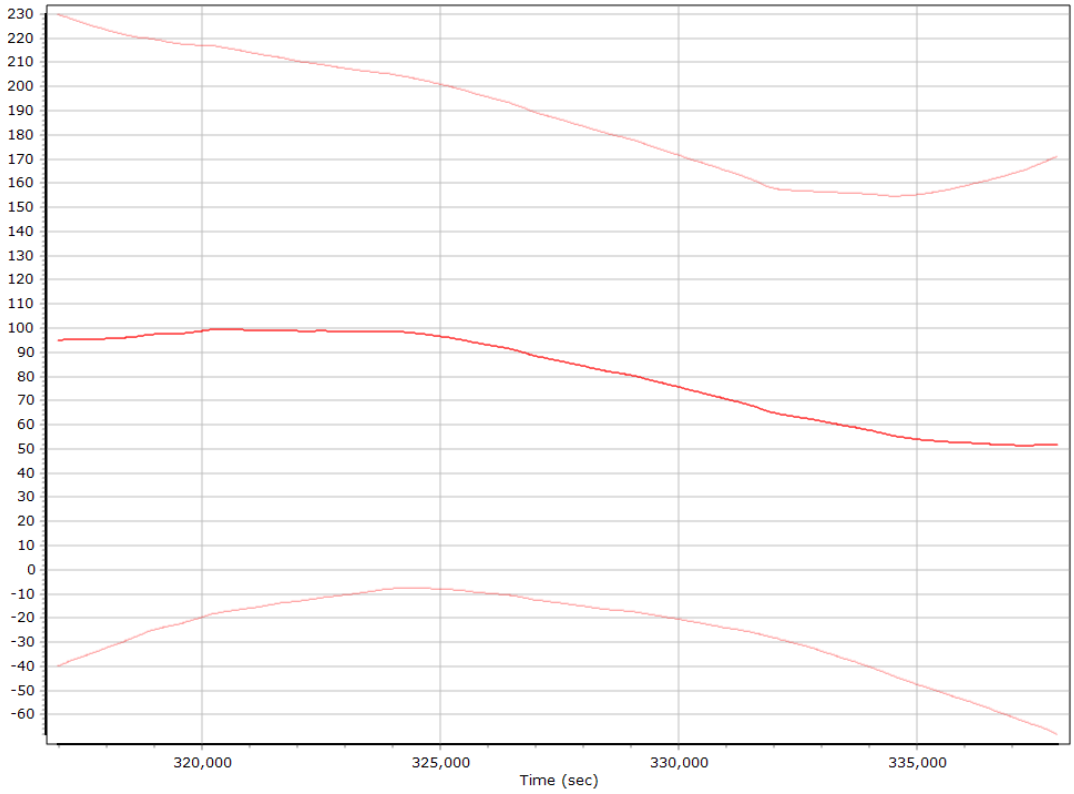
Accelerometer Scale Error (ppm)



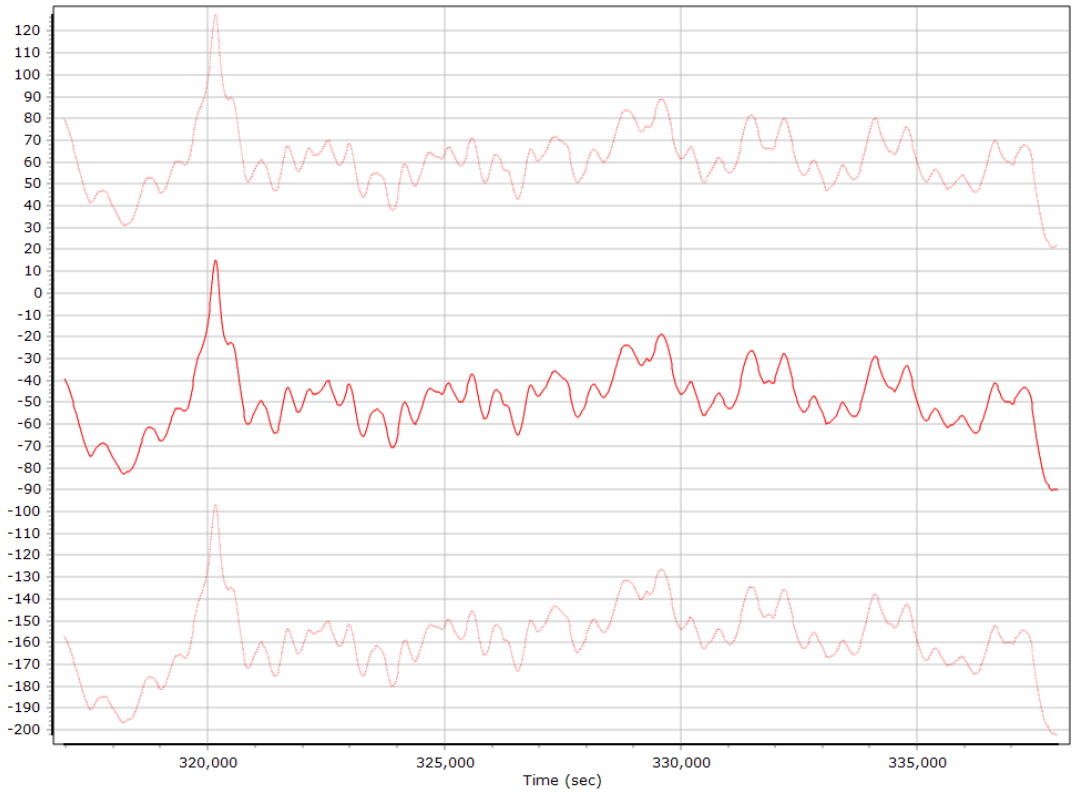
X Accelerometer Scale Error (ppm)



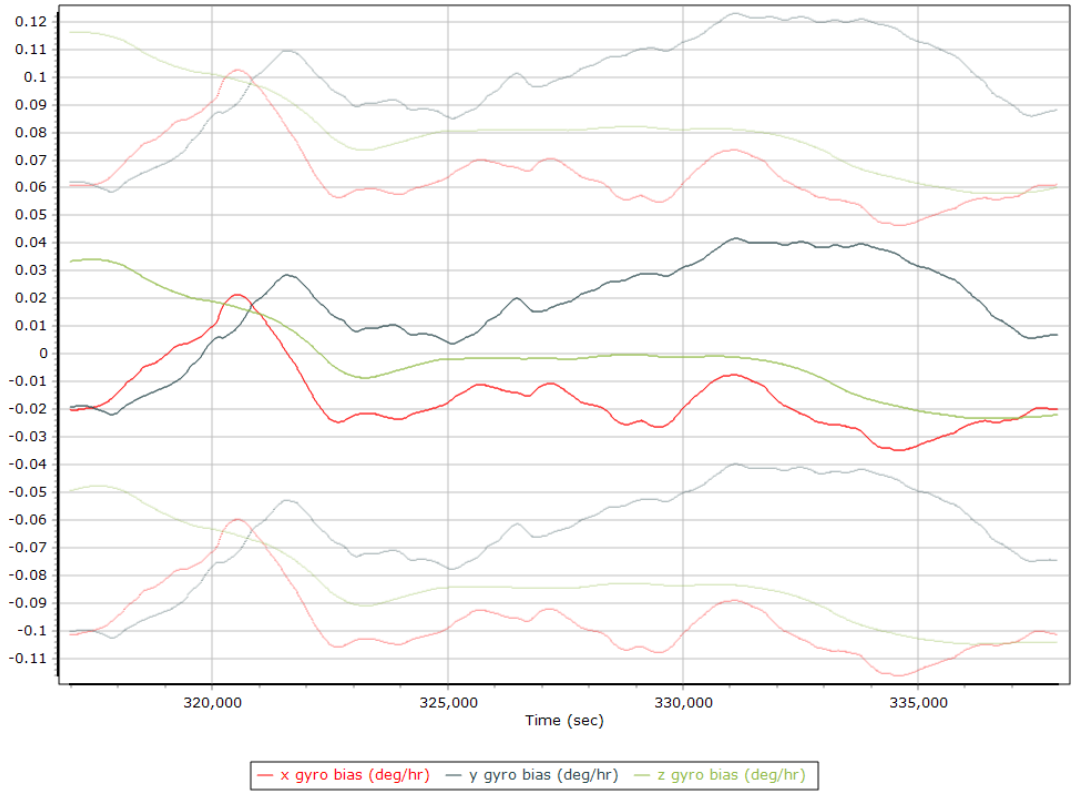
Y Accelerometer Scale Error (ppm)



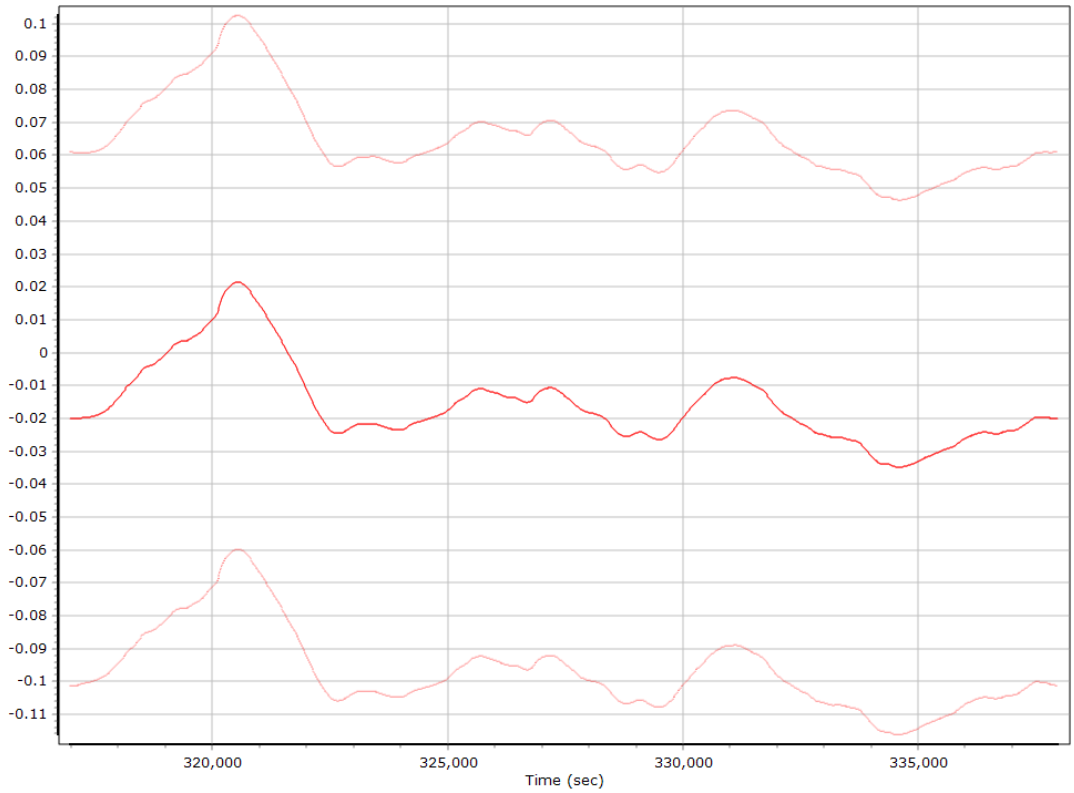
Z Accelerometer Scale Error (ppm)



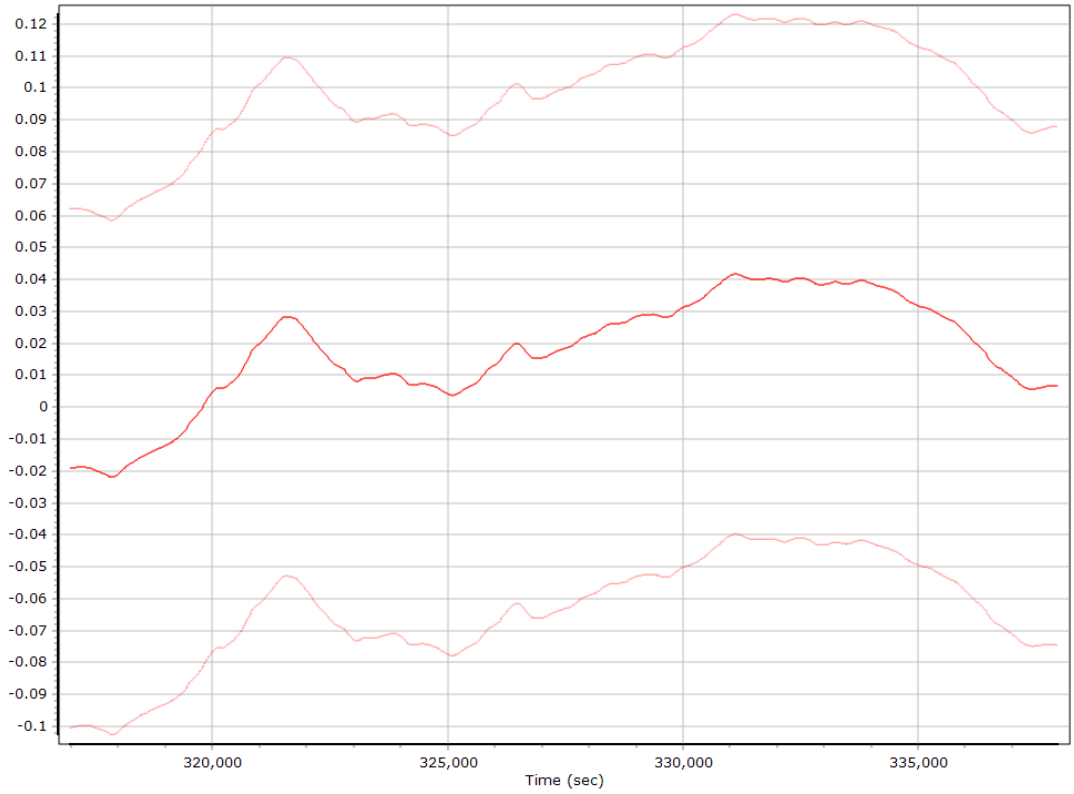
Gyro Bias (deg/h)



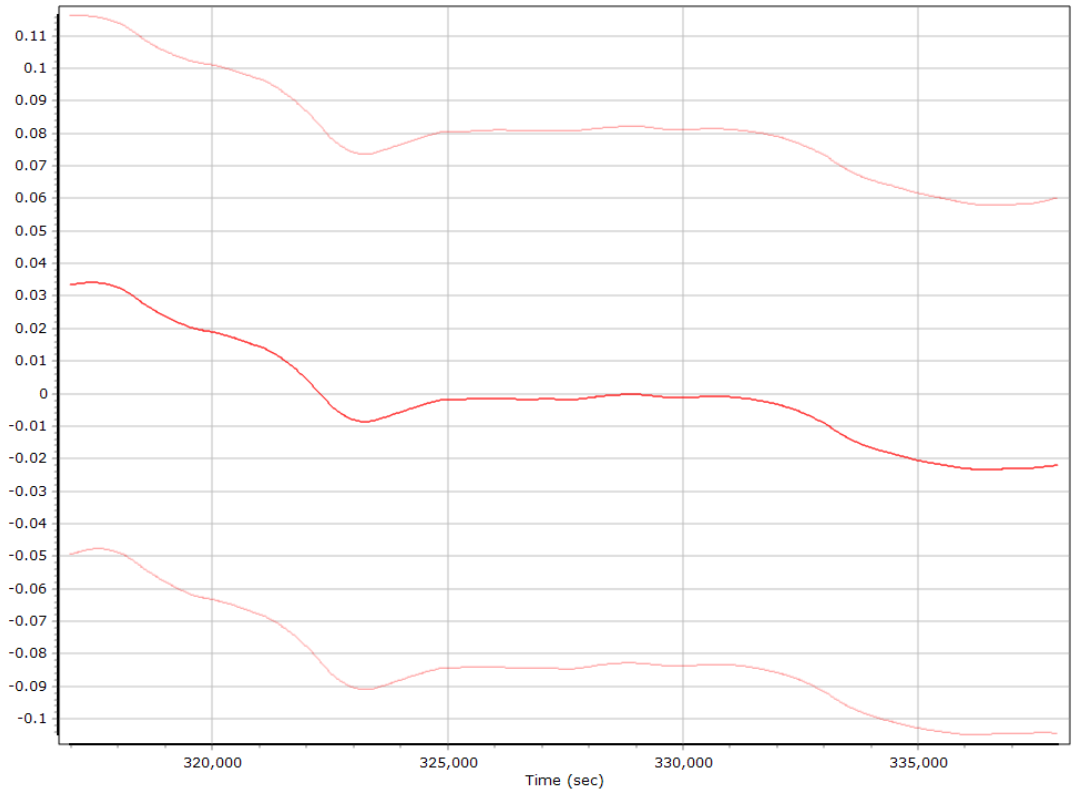
X Gyro Bias (deg/h)



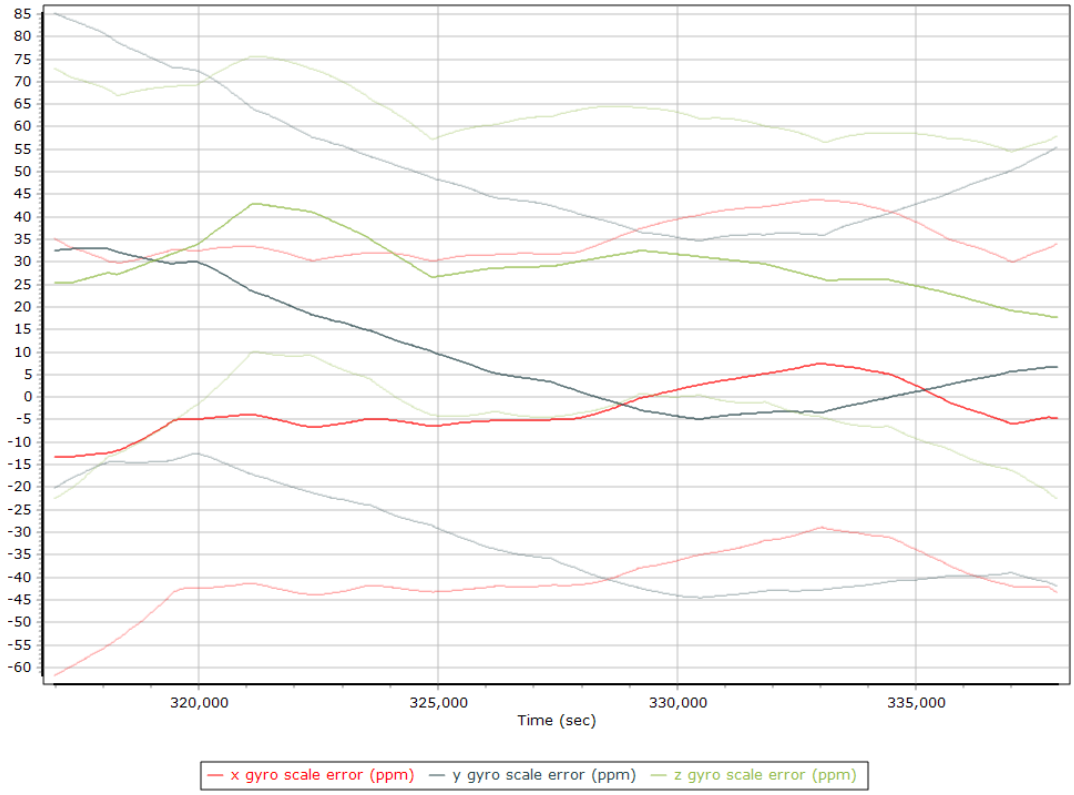
Y Gyro Bias (deg/h)



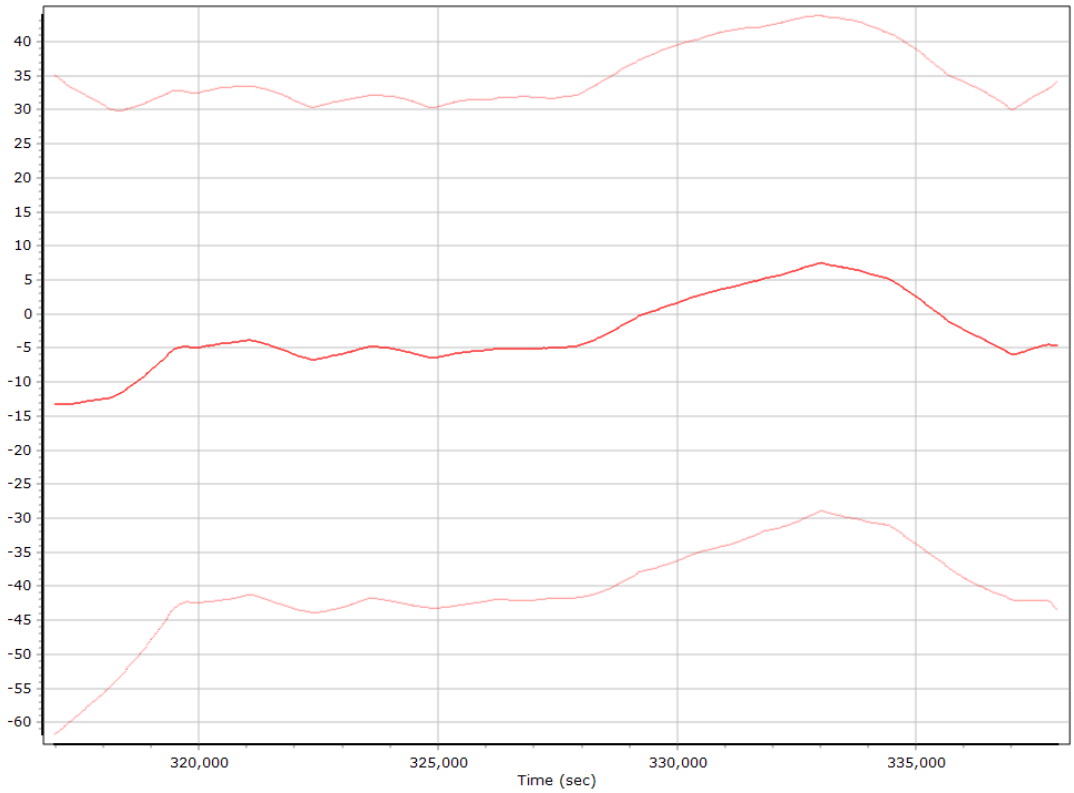
Z Gyro Bias (deg/h)



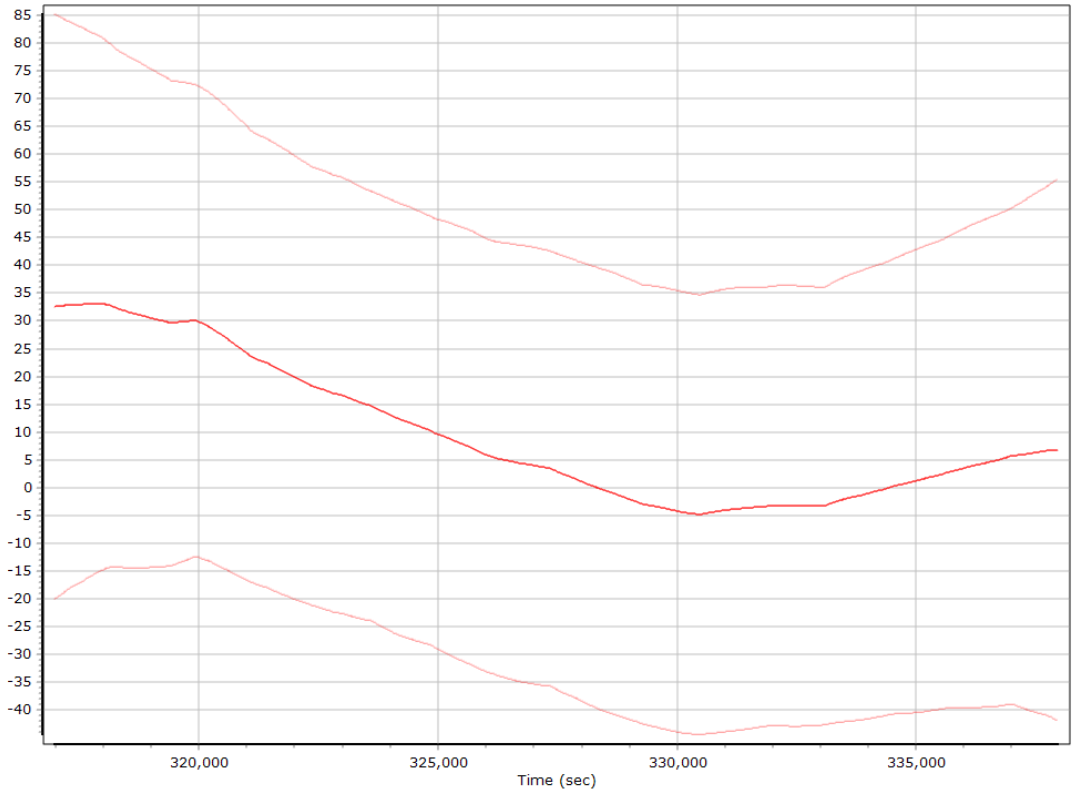
Gyro Scale Error (ppm)



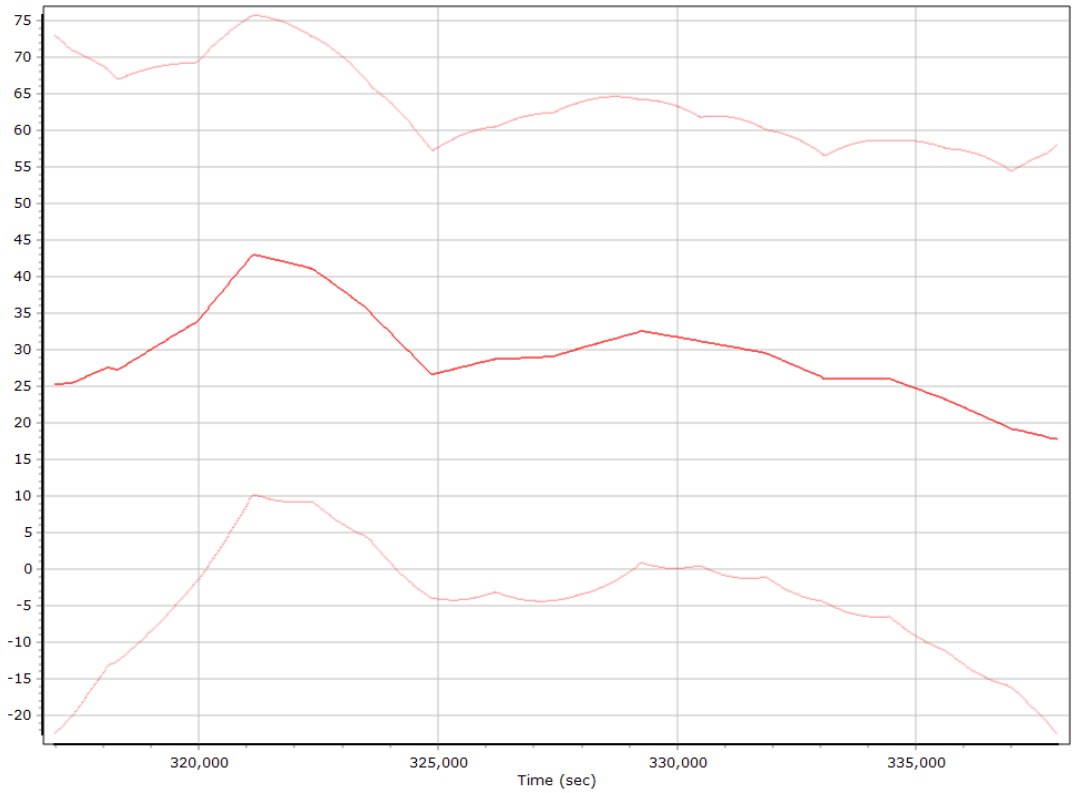
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

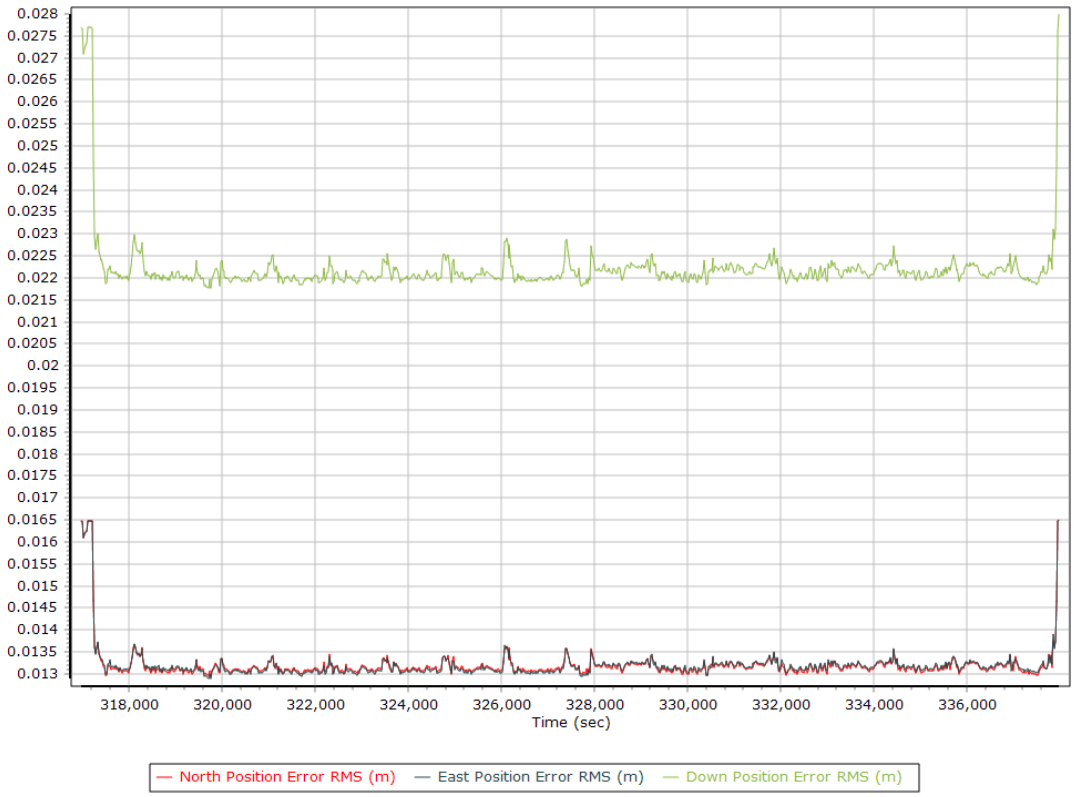


Z Gyro Scale Error (ppm)

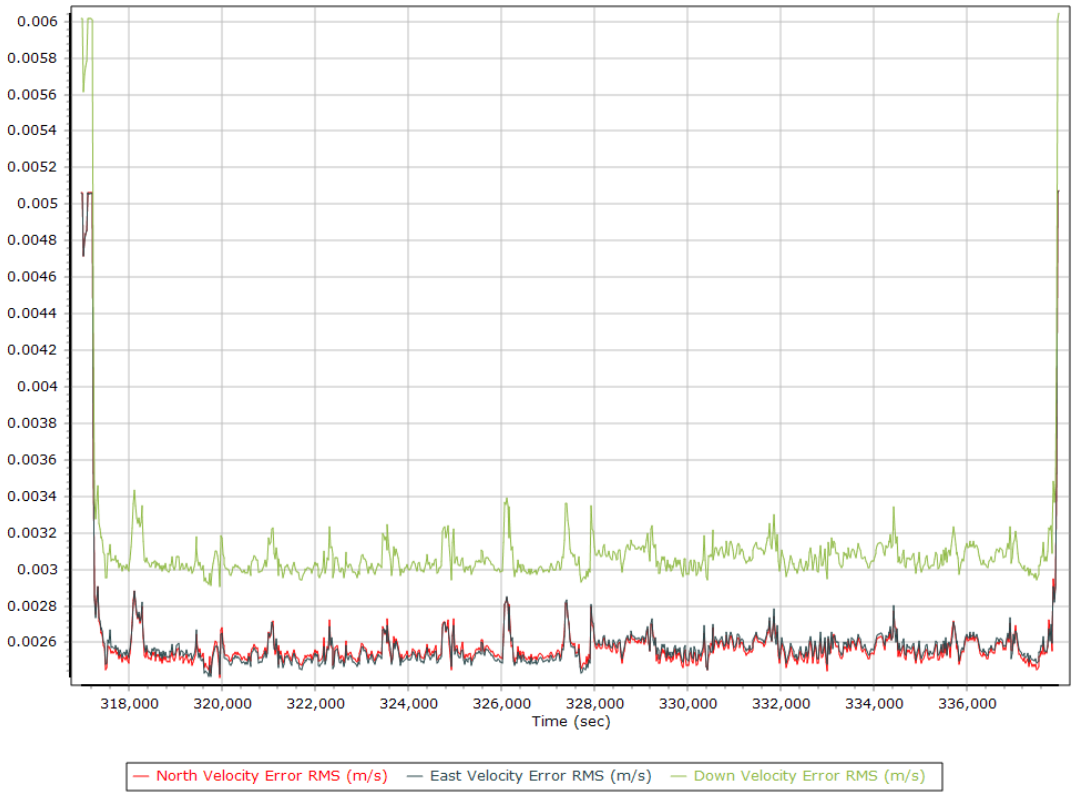


Smoothed Performance Metrics

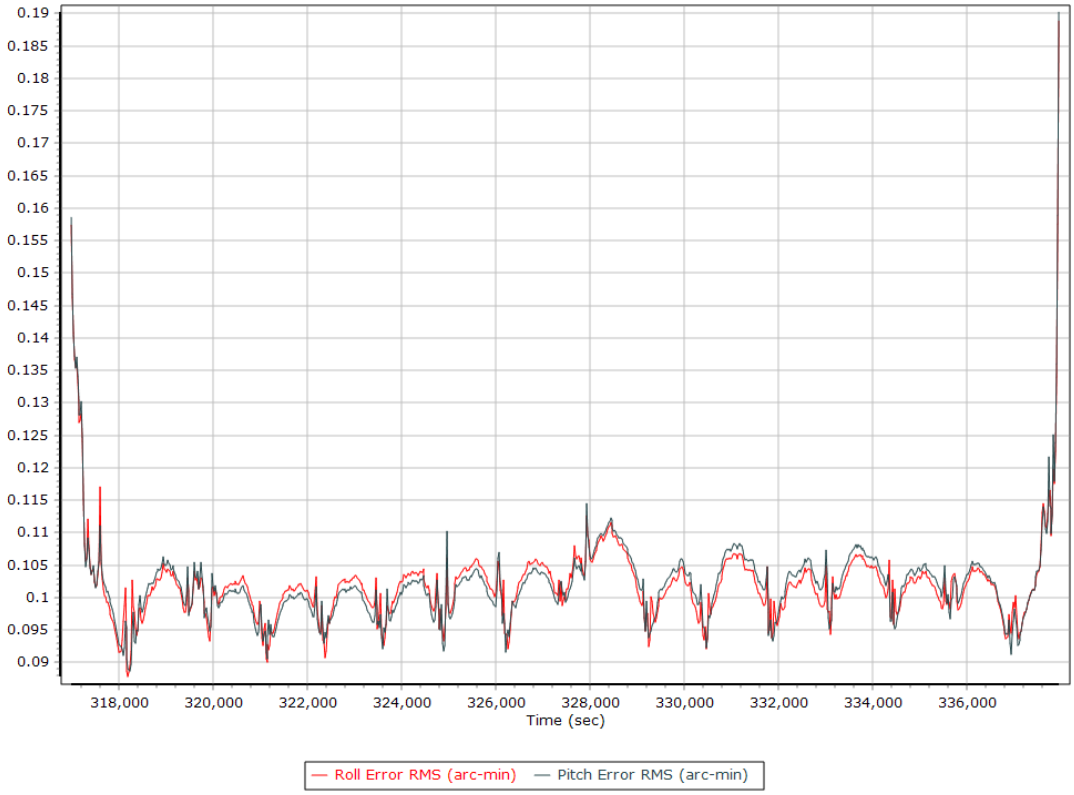
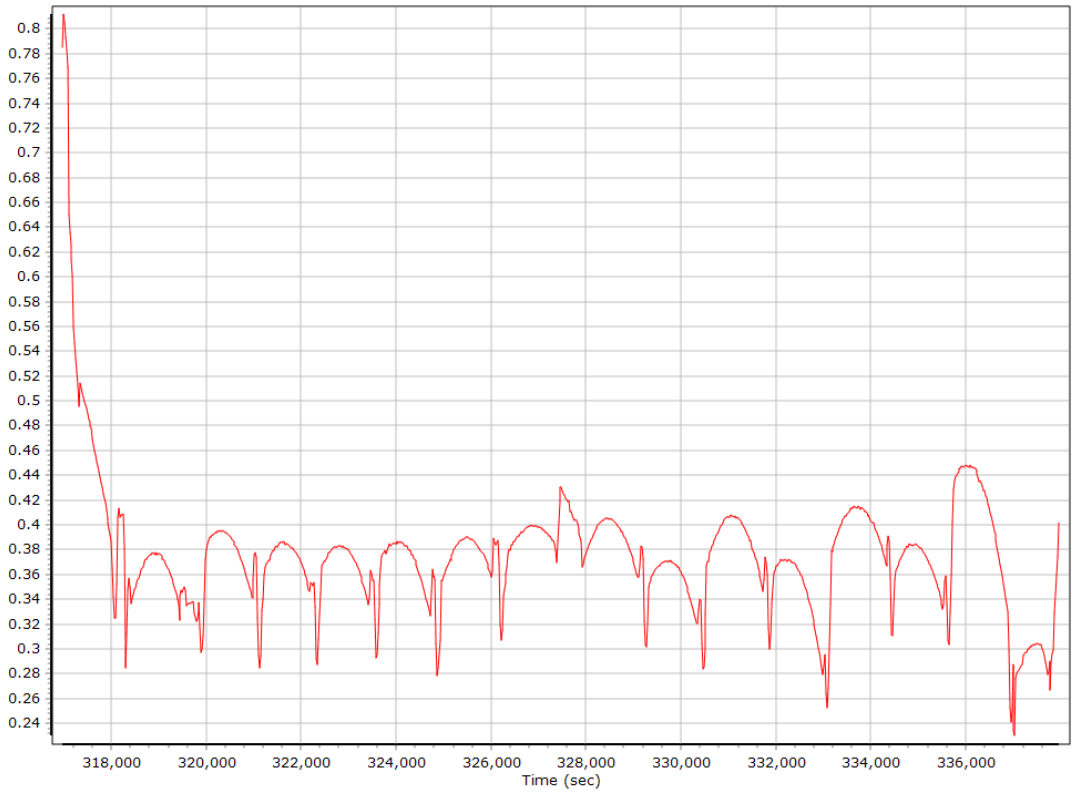
Position Error RMS (m)



Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)