

General Information

Mission Information

Project name	20230404_F3_4894
Processing date	2023-04-06 17:02:10
Mission date	2023-04-04 19:39:13
Mission duration	02:51:07.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.085	POS Data
VQ1560.086	POS Data
VQ1560.087	POS Data
VQ1560.088	POS Data
VQ1560.089	POS Data
VQ1560.090	POS Data
VQ1560.091	POS Data
VQ1560.092	POS Data
VQ1560.093	POS Data
VQ1560.094	POS Data
VQ1560.095	POS Data
VQ1560.096	POS Data
VQ1560.097	POS Data
VQ1560.098	POS Data
VQ1560.099	POS Data
VQ1560.100	POS Data
VQ1560.101	POS Data
VQ1560.102	POS Data
VQ1560.103	POS Data
VQ1560.104	POS Data
VQ1560.105	POS Data
VQ1560.106	POS Data
VQ1560.107	POS Data
VQ1560.108	POS Data
VQ1560.109	POS Data

Input Files

File Name	File Type
Ephm0940.23g	GLONASS Broadcast Ephemeris
Ephm0940.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20220404_F3_4894.out	SBET Trajectory File
export_20220404_F3_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.085		
Last raw data file	VQ1560.109		
Start GPS week	2256		
Start time	243546.709 (04/04/2023 19:39:06)		
End time	253803.233 (04/04/2023 22:30:03)		
Start of fine alignment	243982.664 (04/04/2023 19:46:22)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

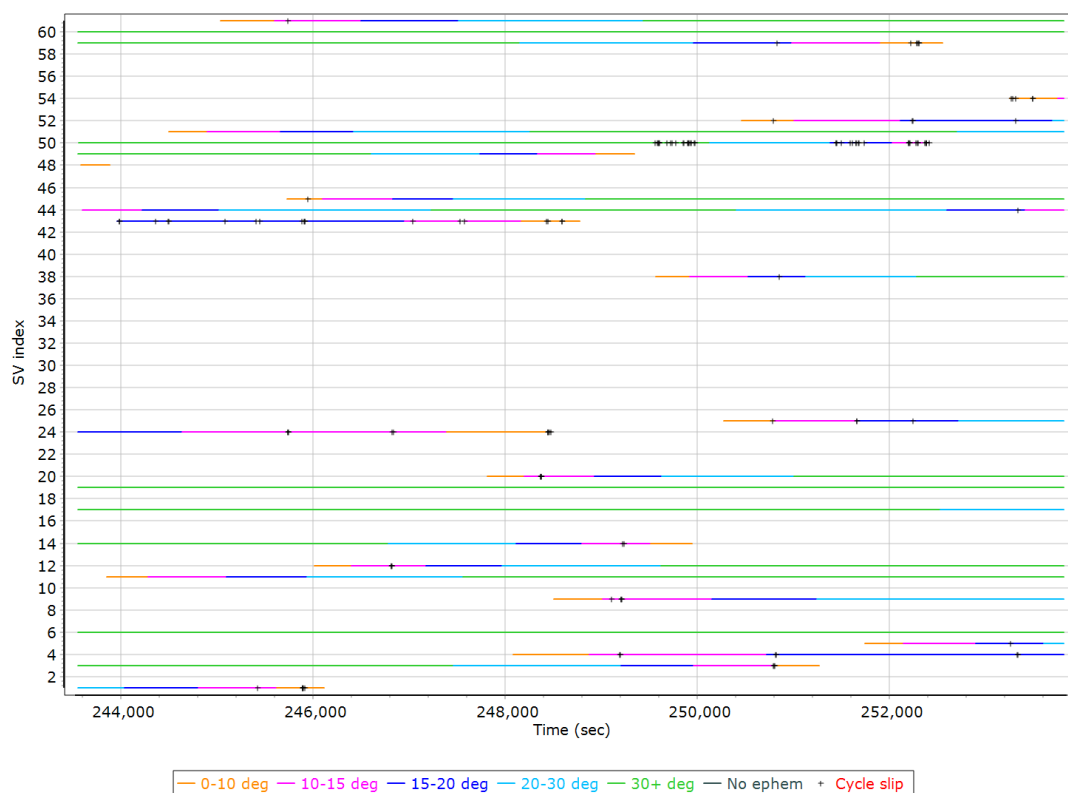
Rover Data QC

Raw IMU Import QC Summary

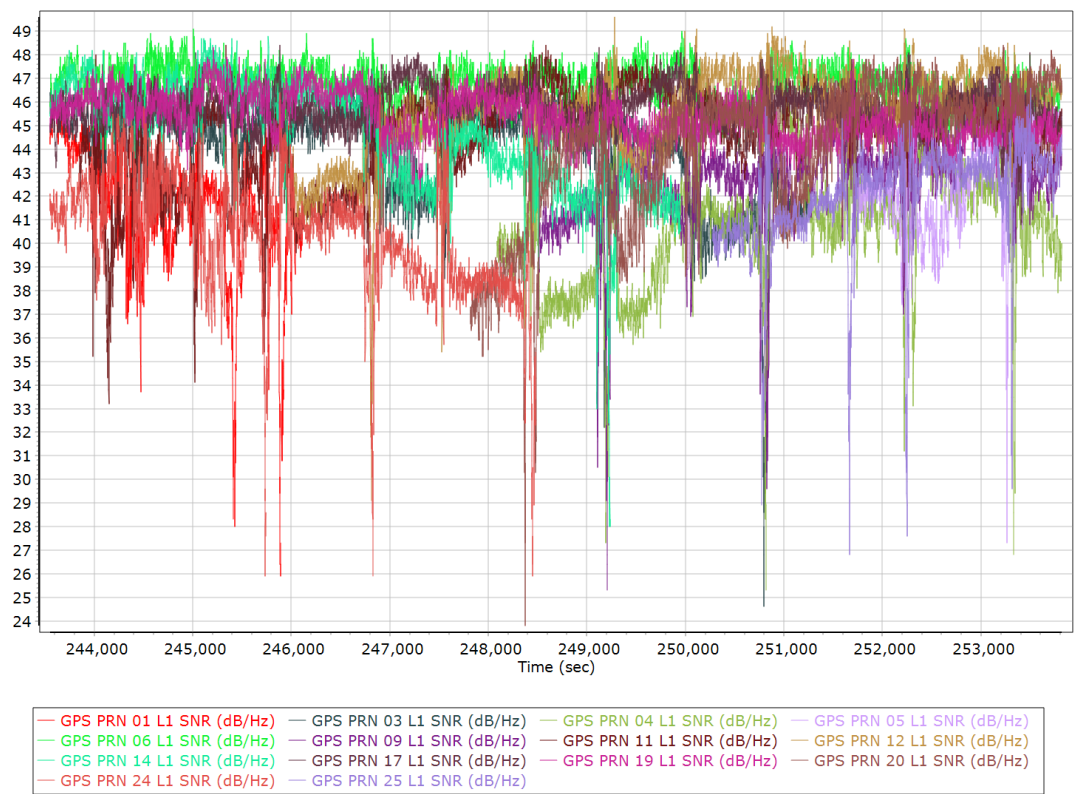
IMU data input file	imu_20220404_F3_4894.dat
IMU data check log file	imudt_20220404_F3_4894.log
IMU Records Processed	2053184
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
243546.509 : WARNING : Gap of 243534.5575 seconds in CHECKDT input data	

Primary Observables & Satellite Data

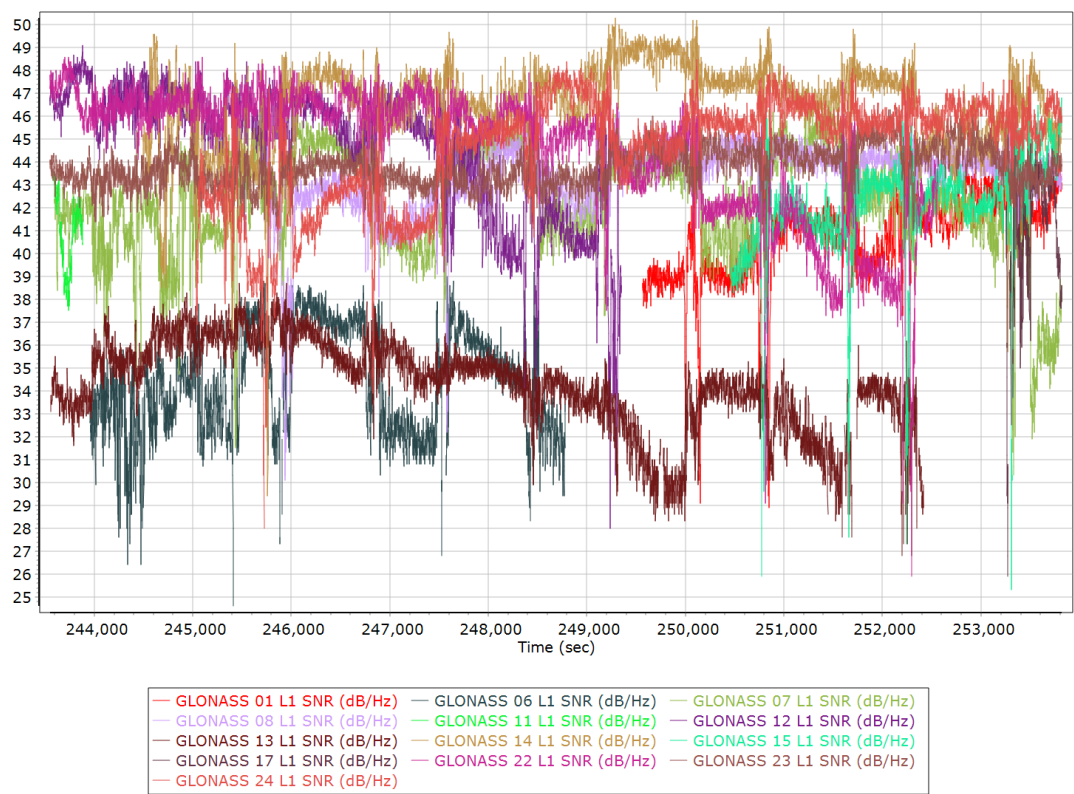
GPS/GLONASS L1 Satellite Lock/Elevation



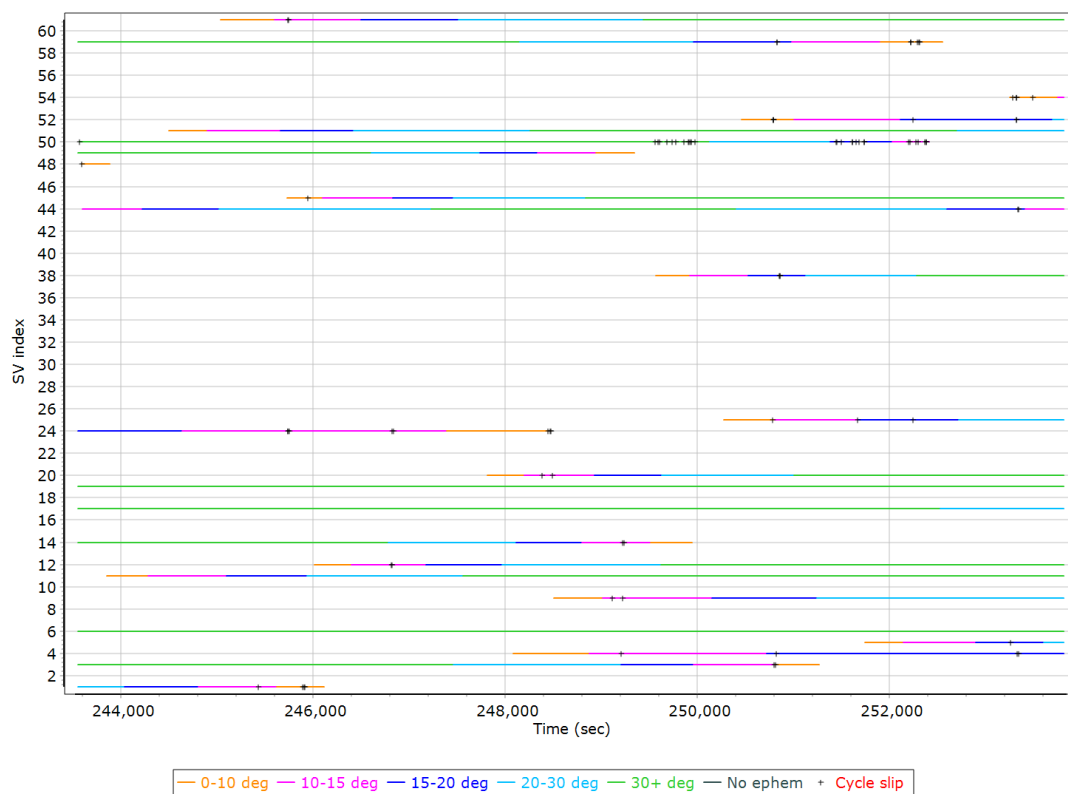
GPS L1 SNR



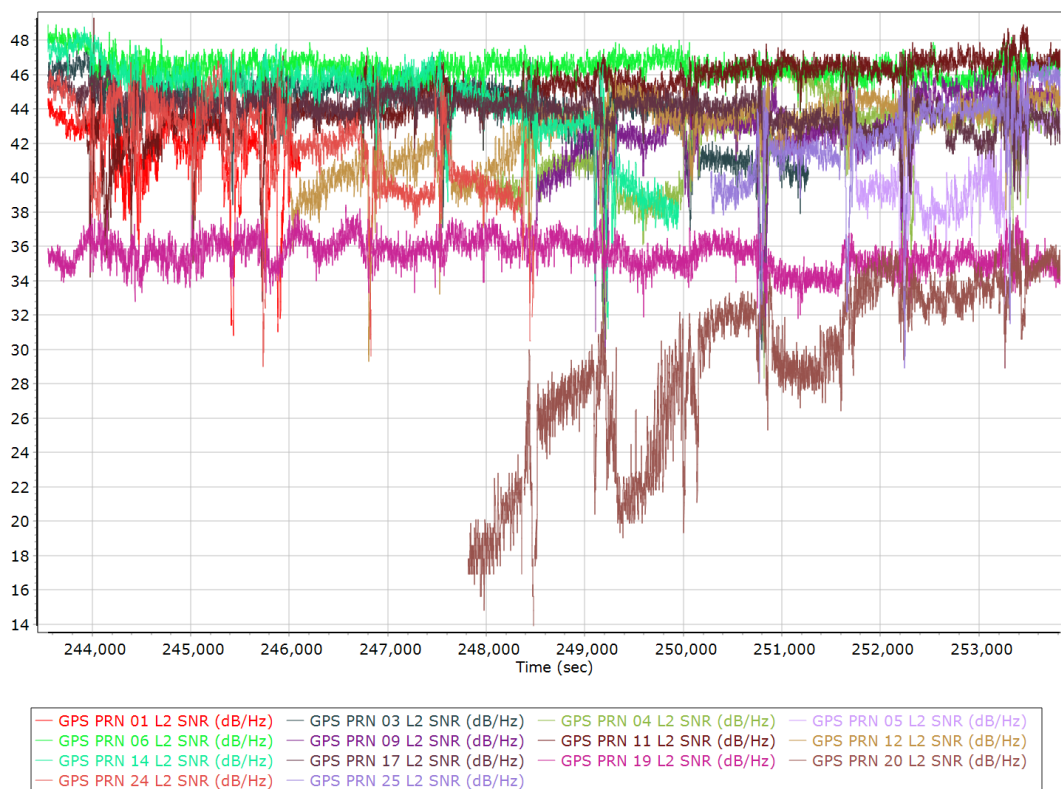
GLONASS L1 SNR



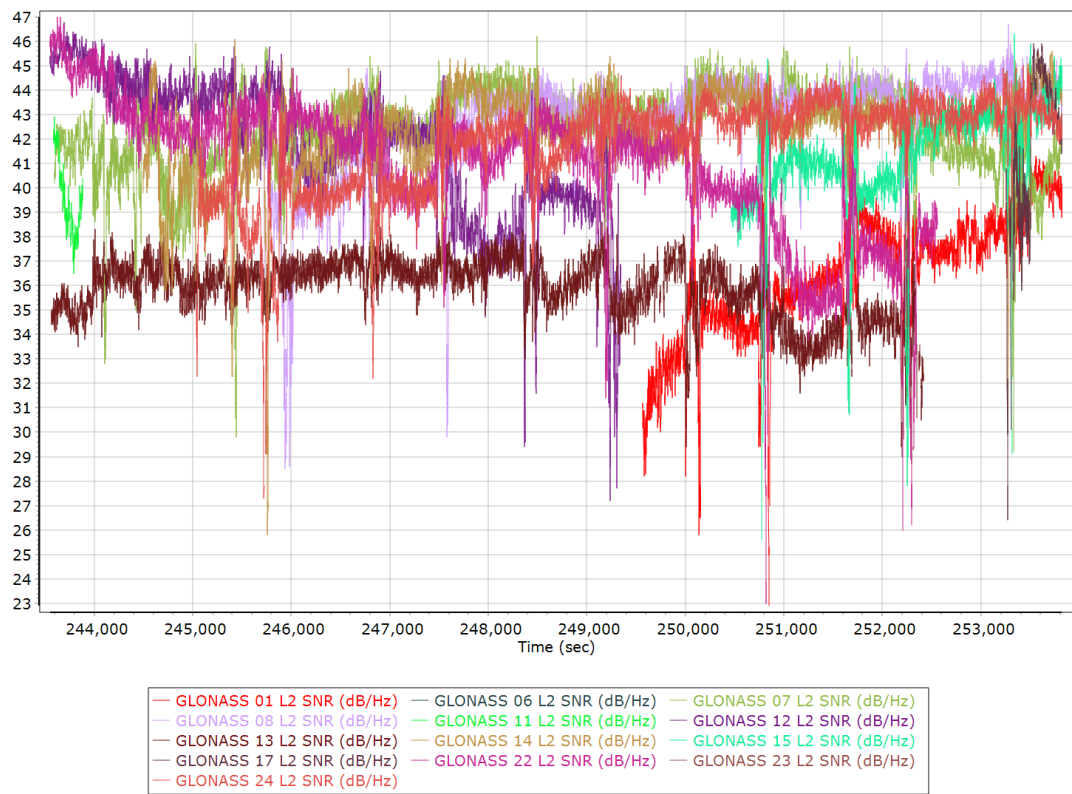
GPS/GLONASS L2 Satellite Lock/Elevation



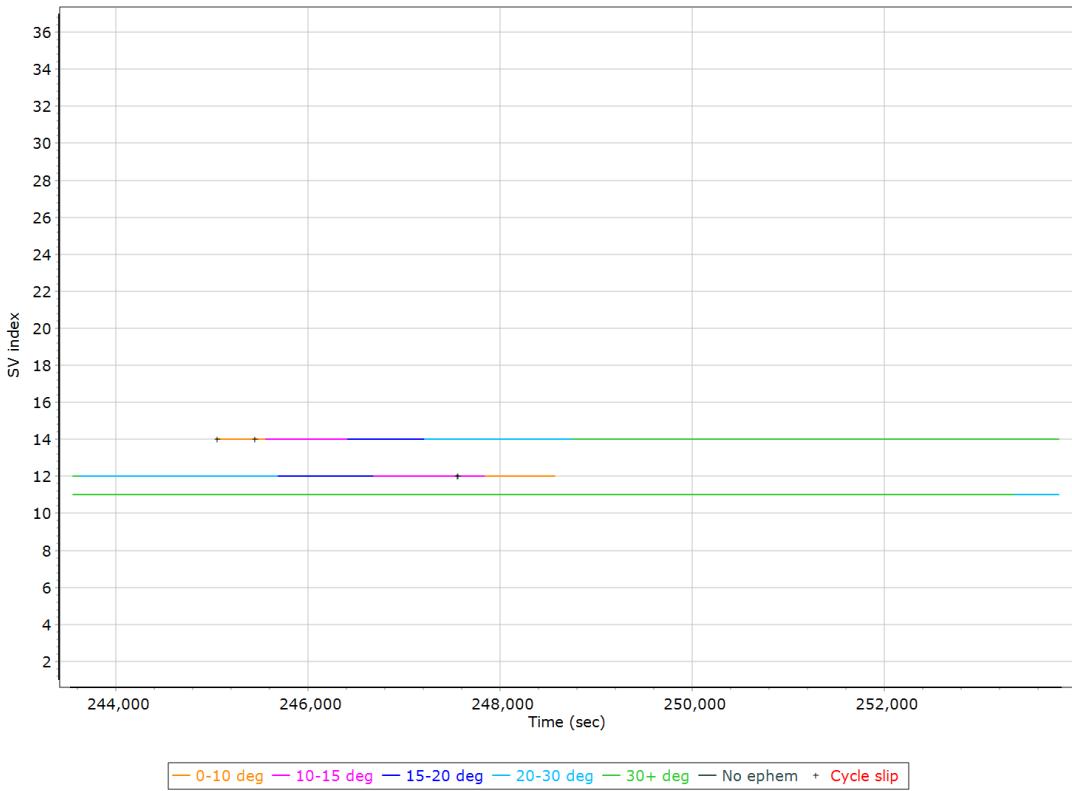
GPS L2 SNR



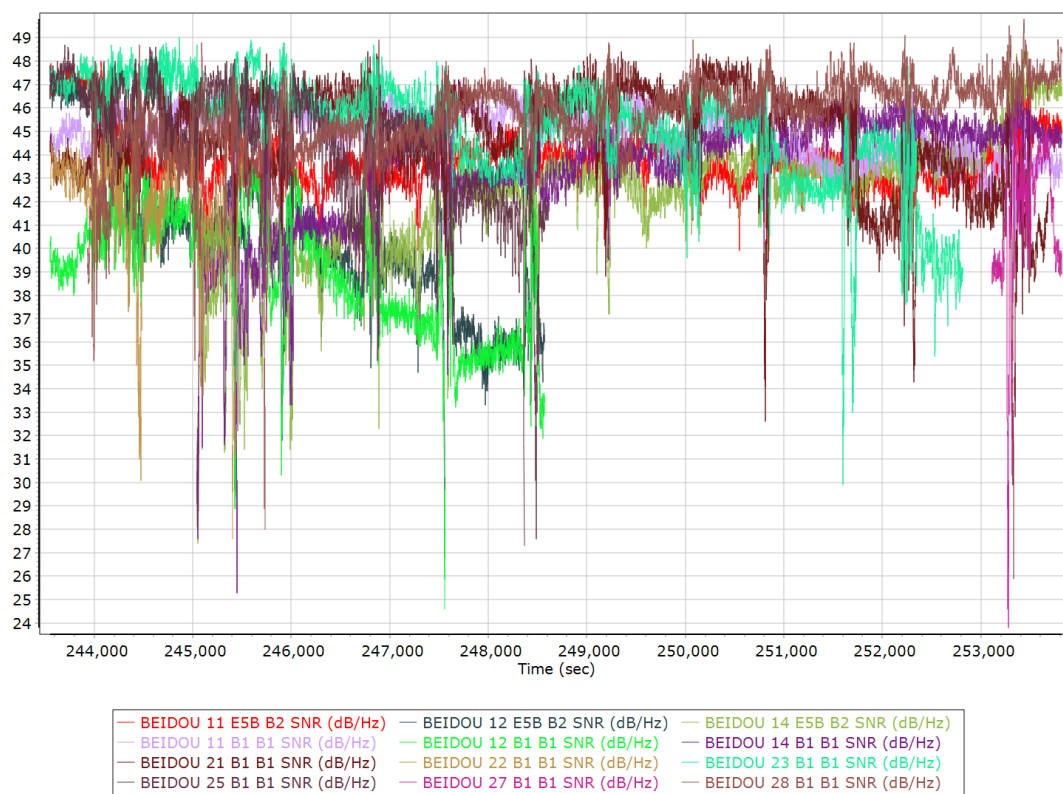
GLONASS L2 SNR



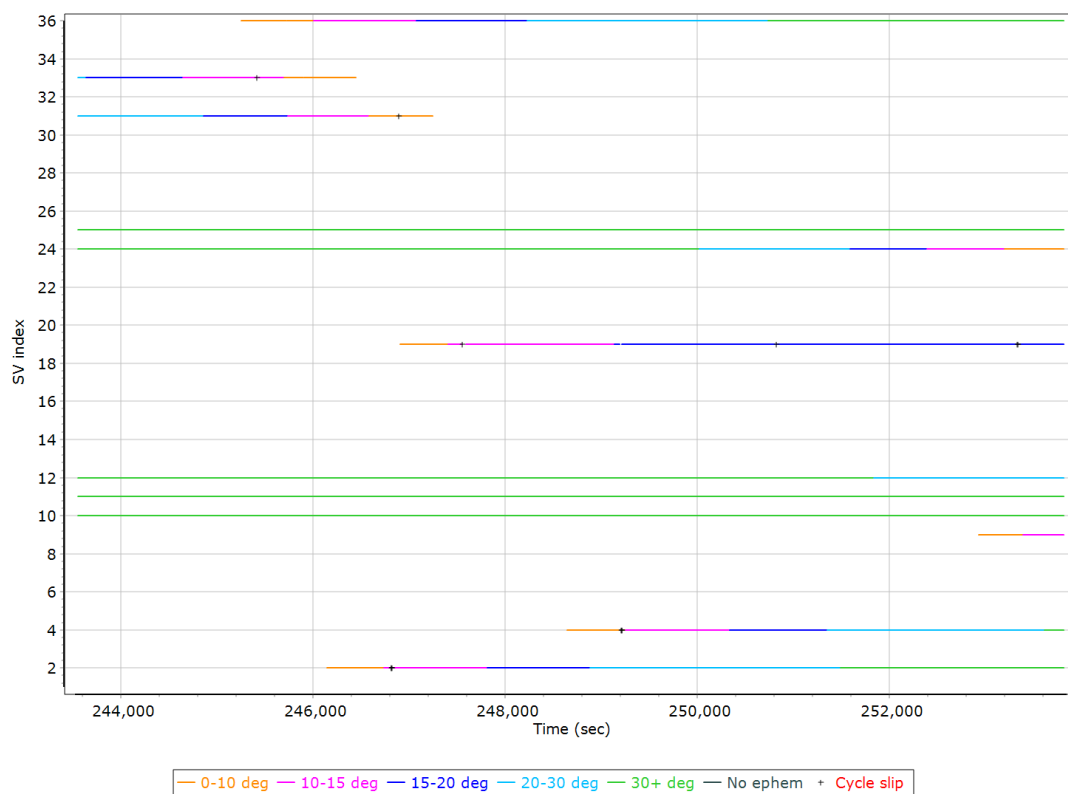
BEIDOU Satellite Lock/Elevation



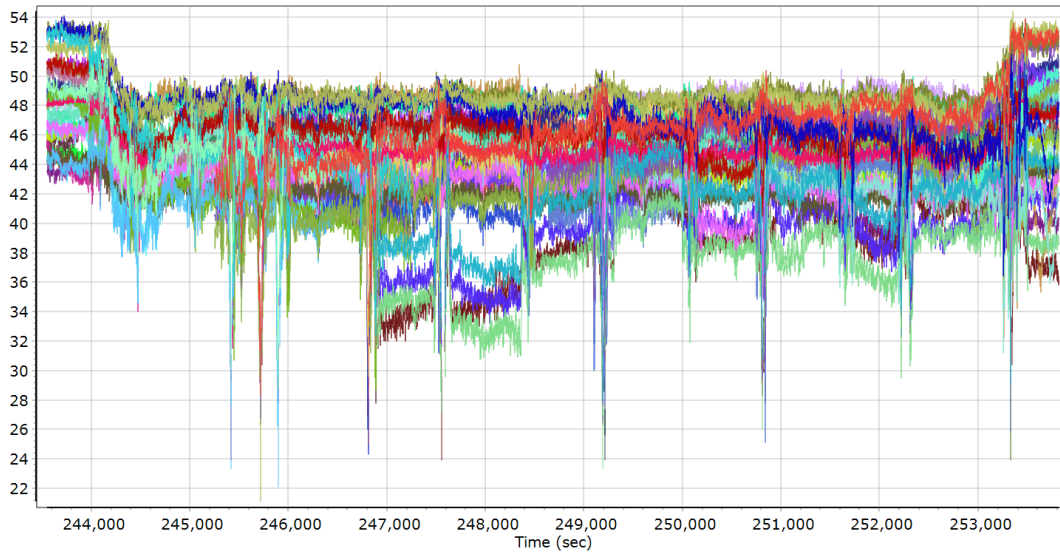
BEIDOU SNR



GALILEO Satellite Lock/Elevation



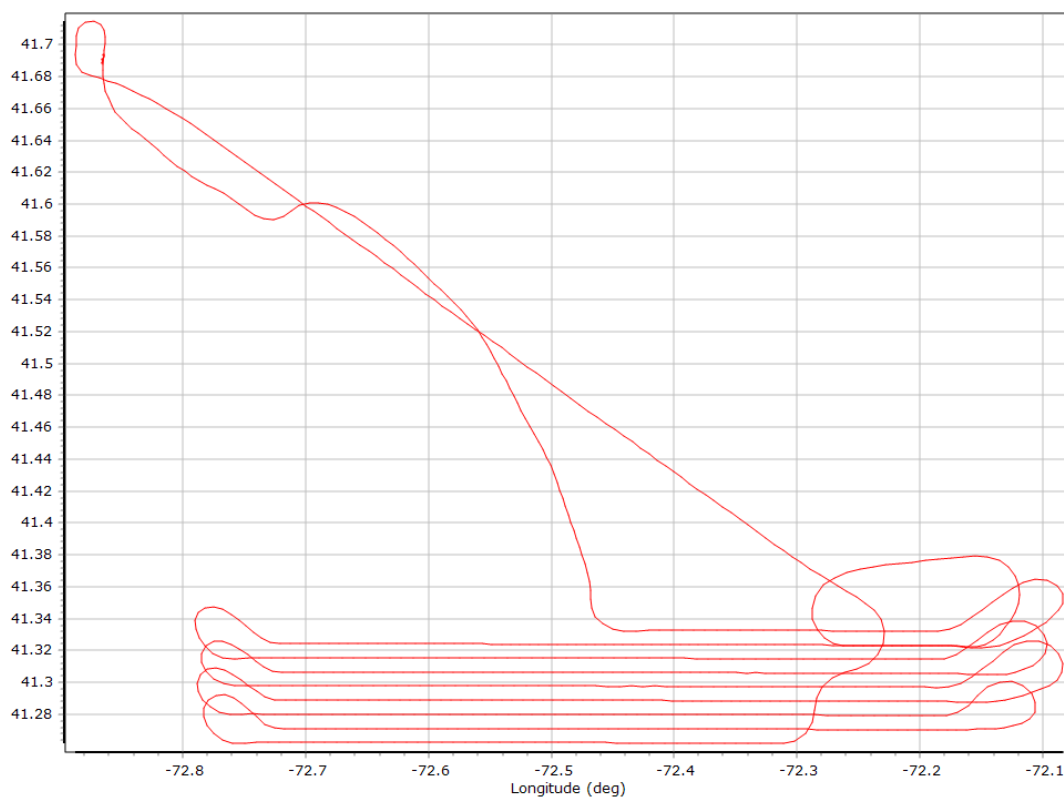
GALILEO SNR



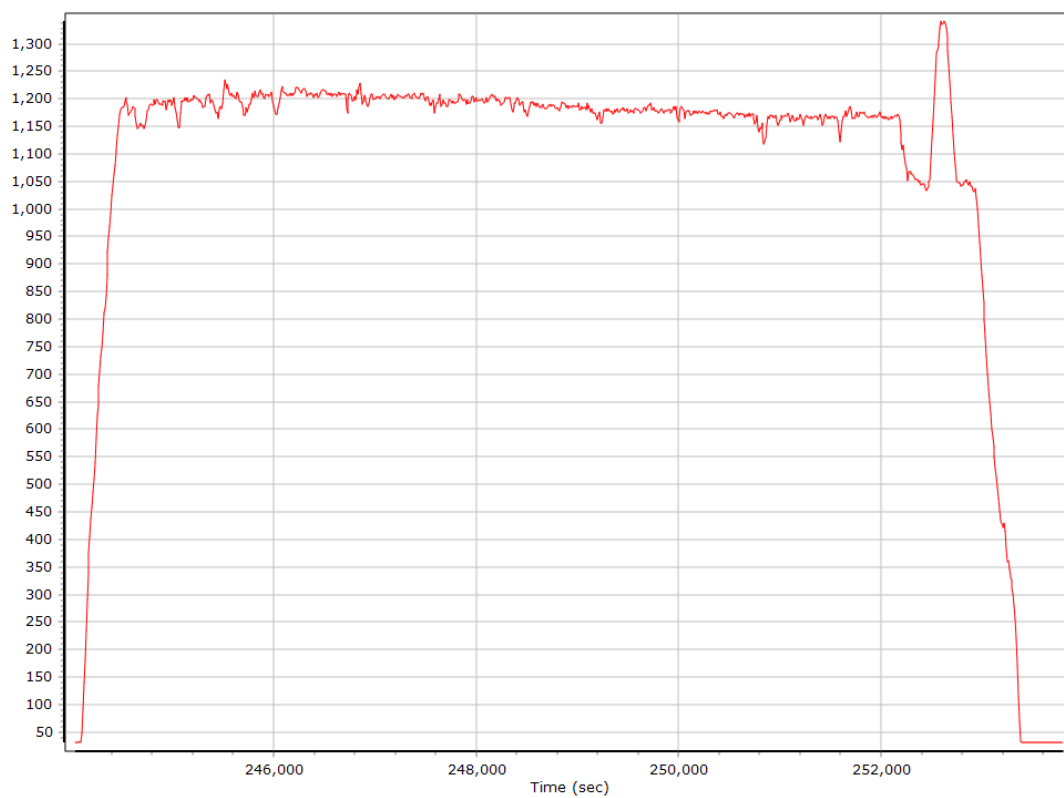
— GALILEO 02 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 04 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 09 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 10 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 19 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 24 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 25 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 31 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 33 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 04 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 09 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 10 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 11 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 19 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 24 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

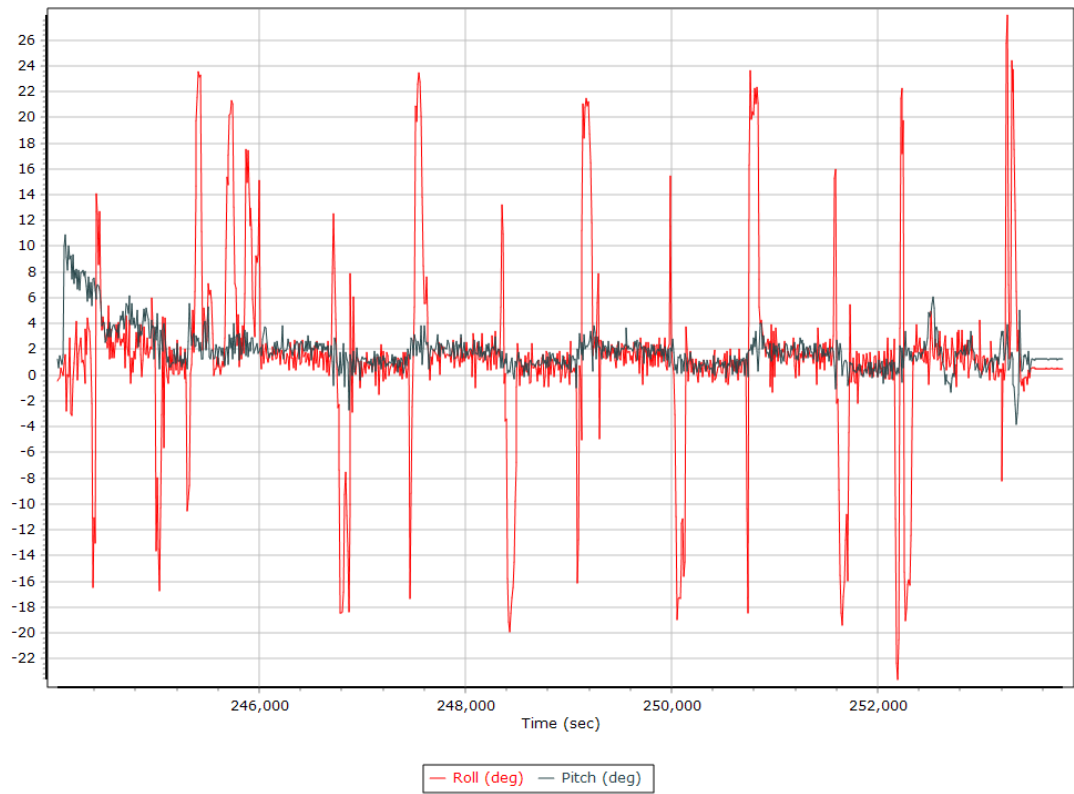
Top View



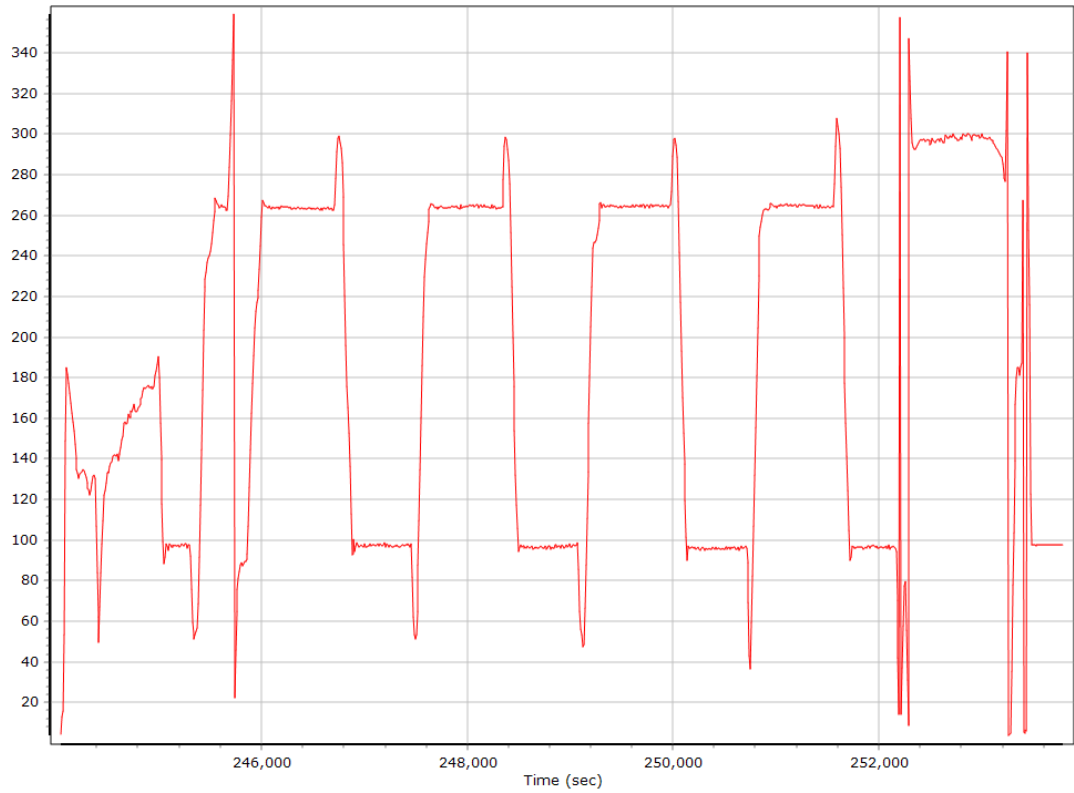
Altitude



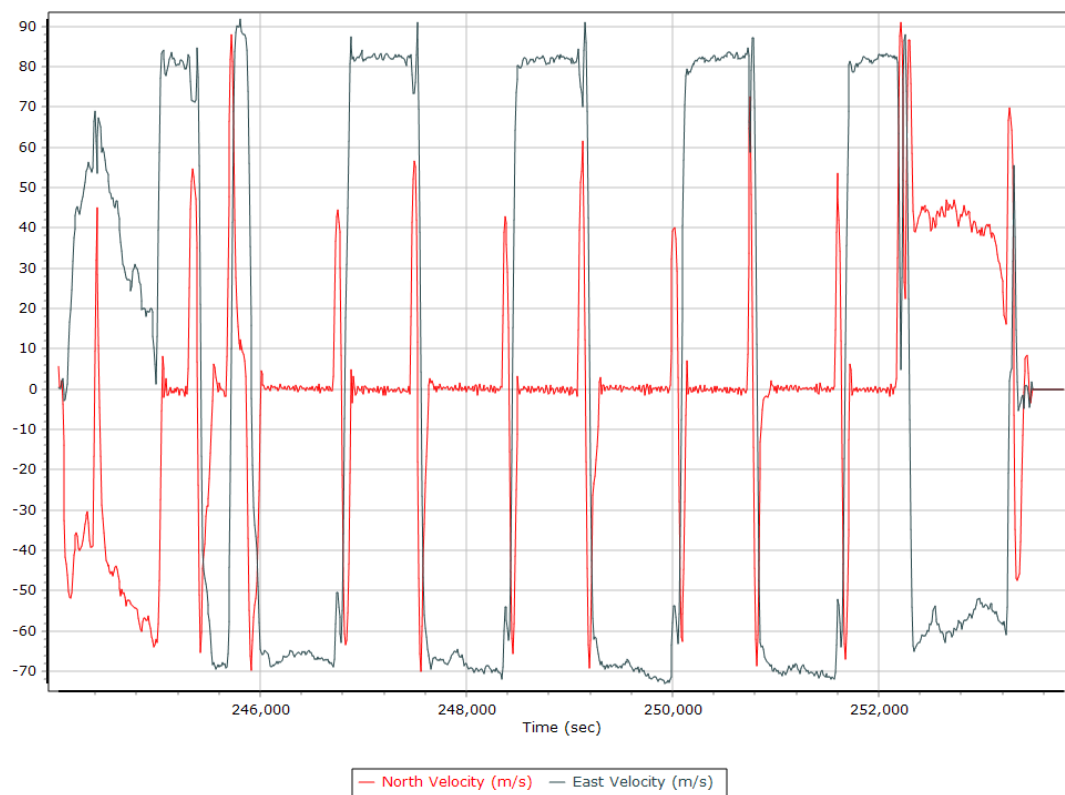
Roll/Pitch



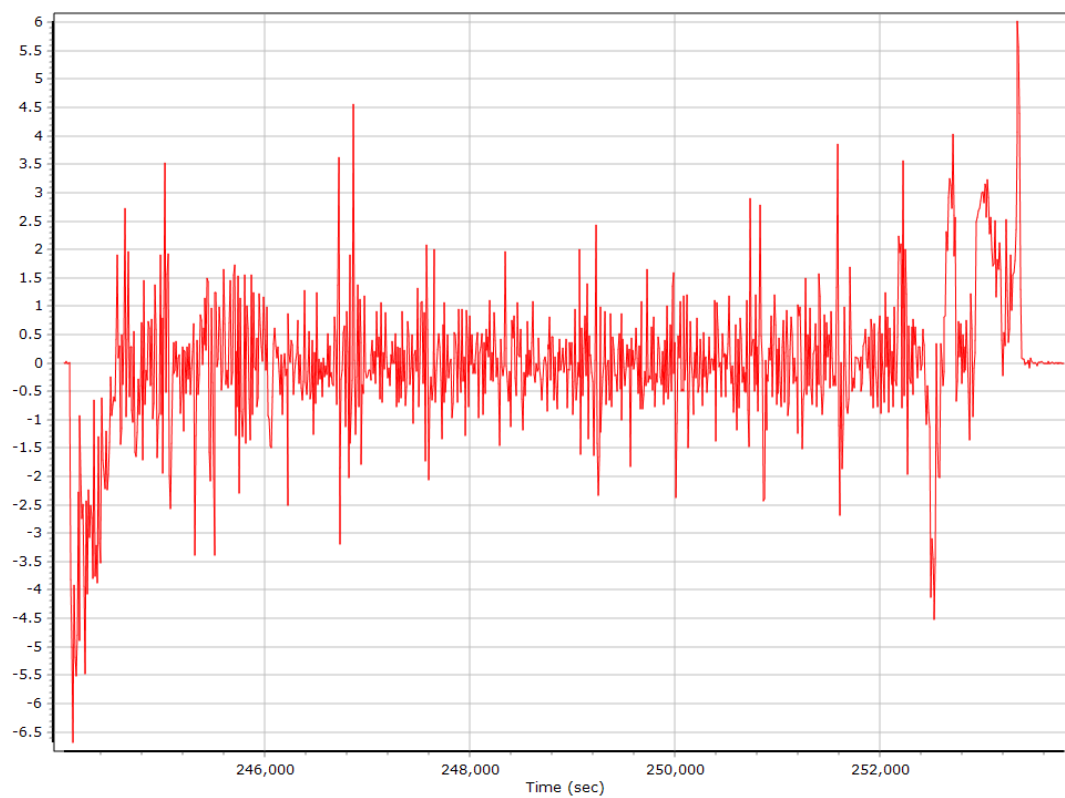
Heading



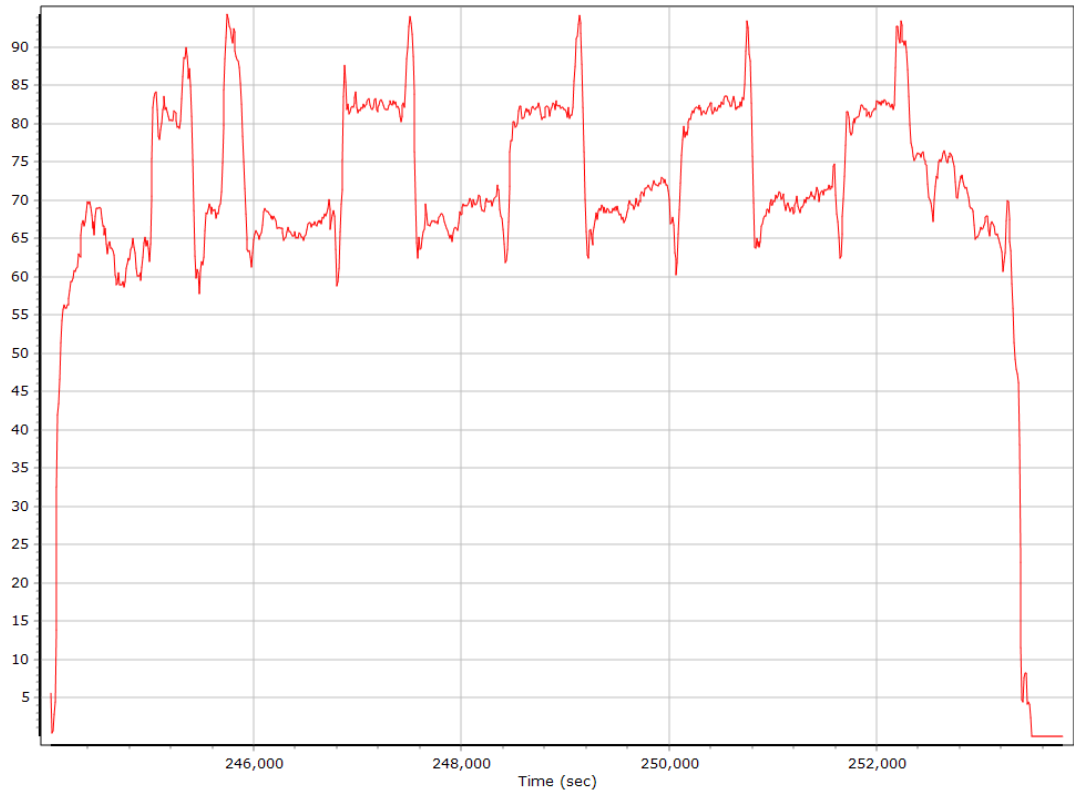
North/East Velocity



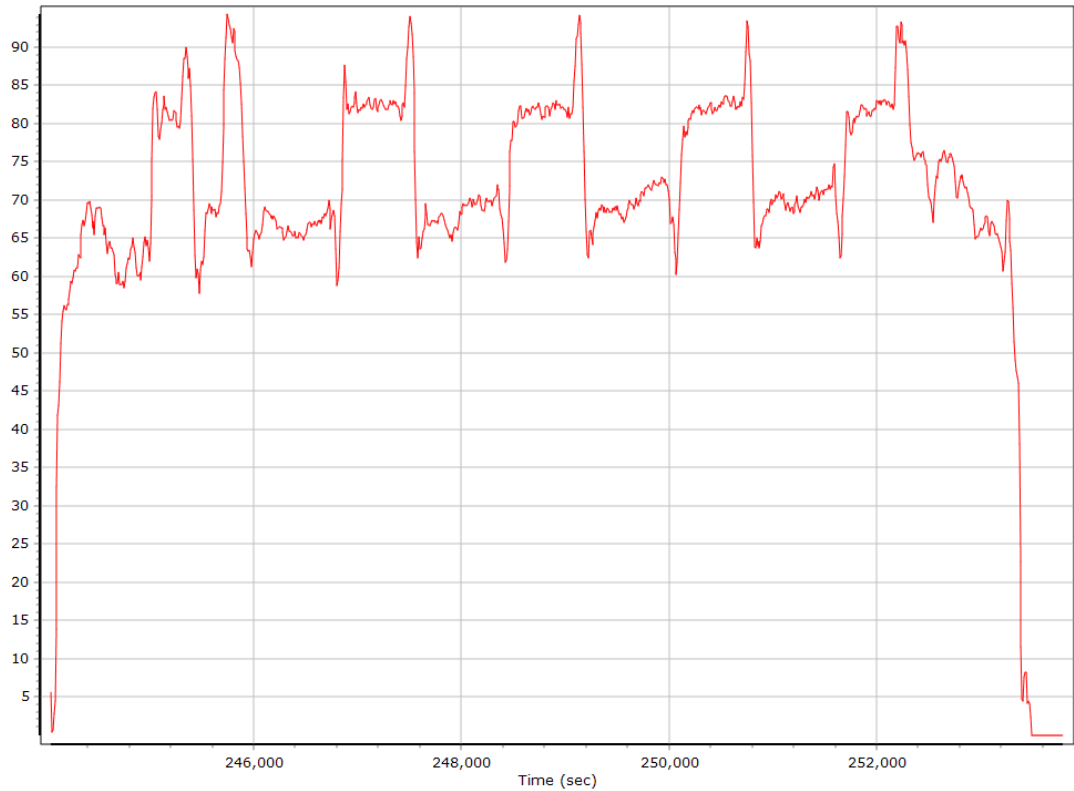
Down Velocity



Total Speed



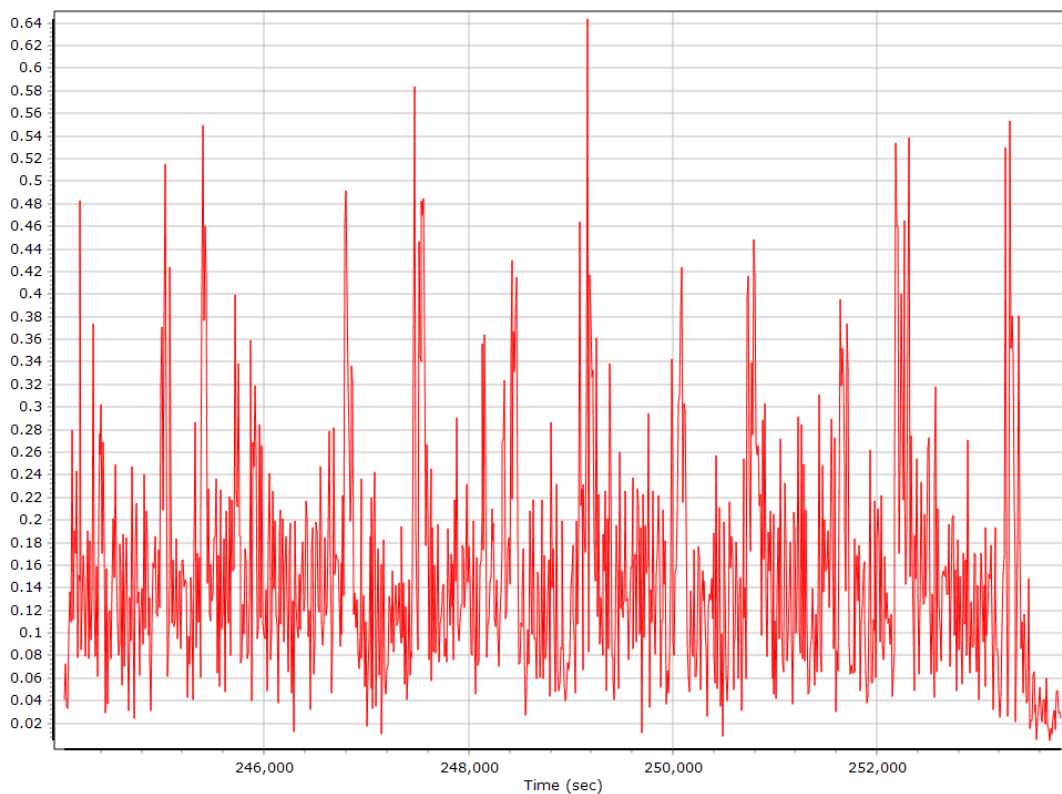
Ground Speed



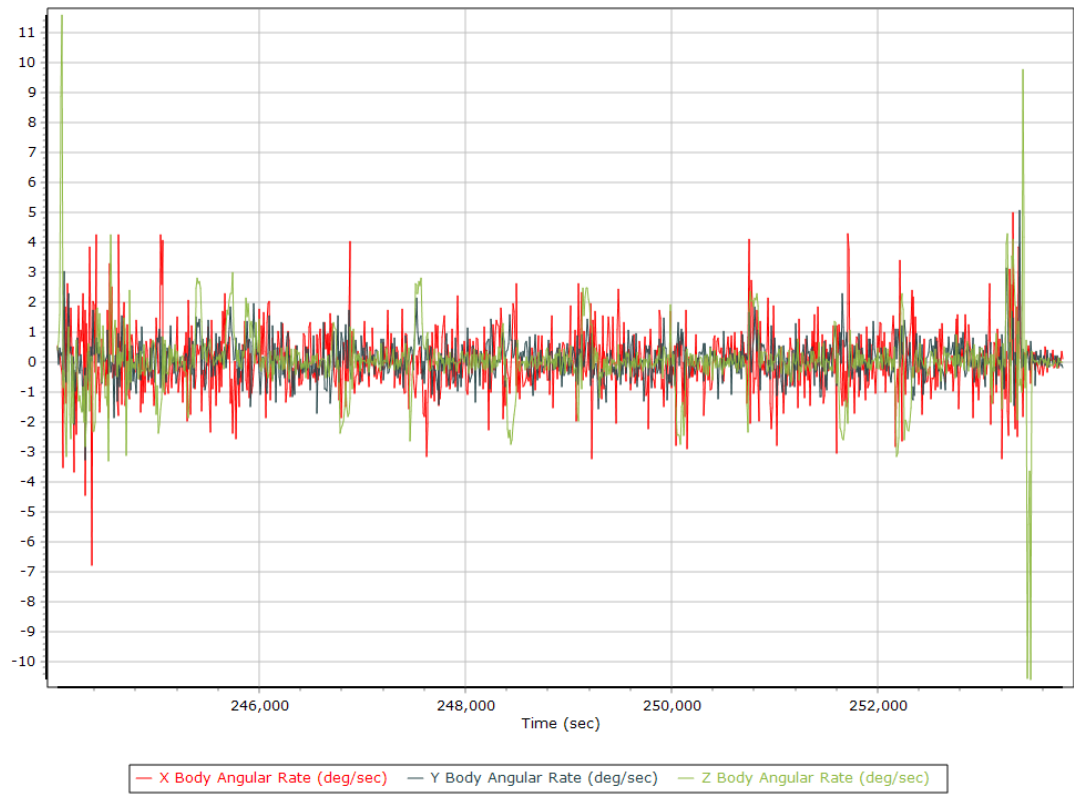
Body Acceleration



Total Body Acceleration

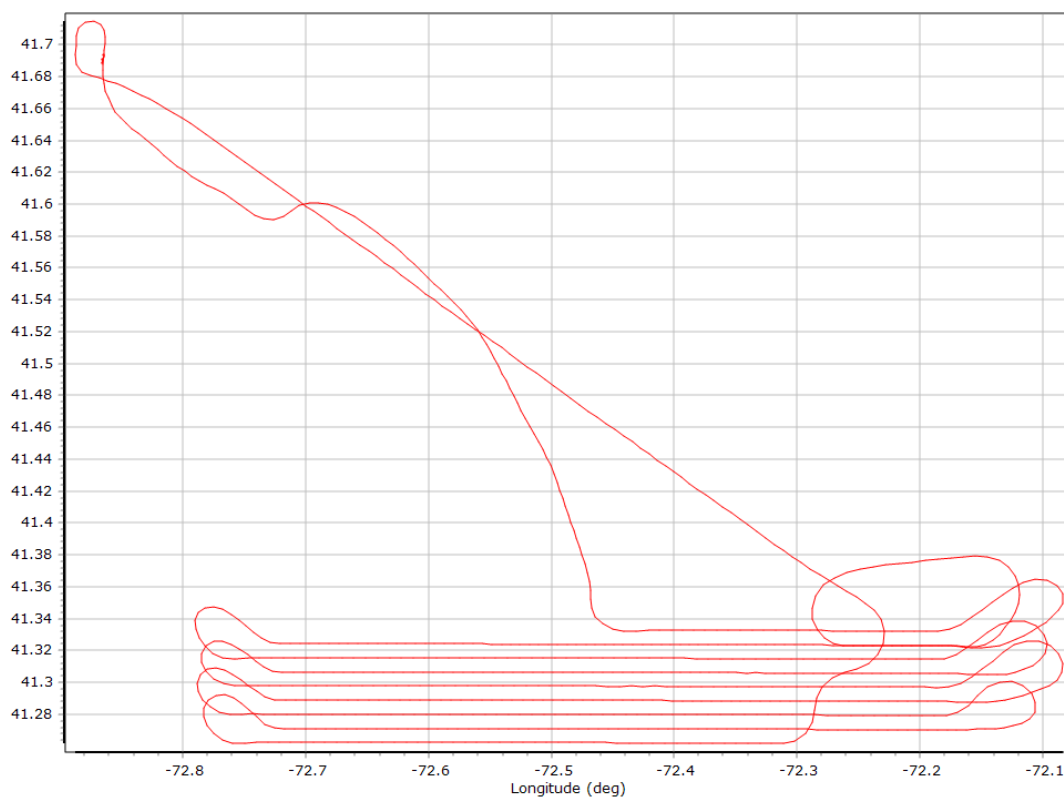


Body Angular Rate

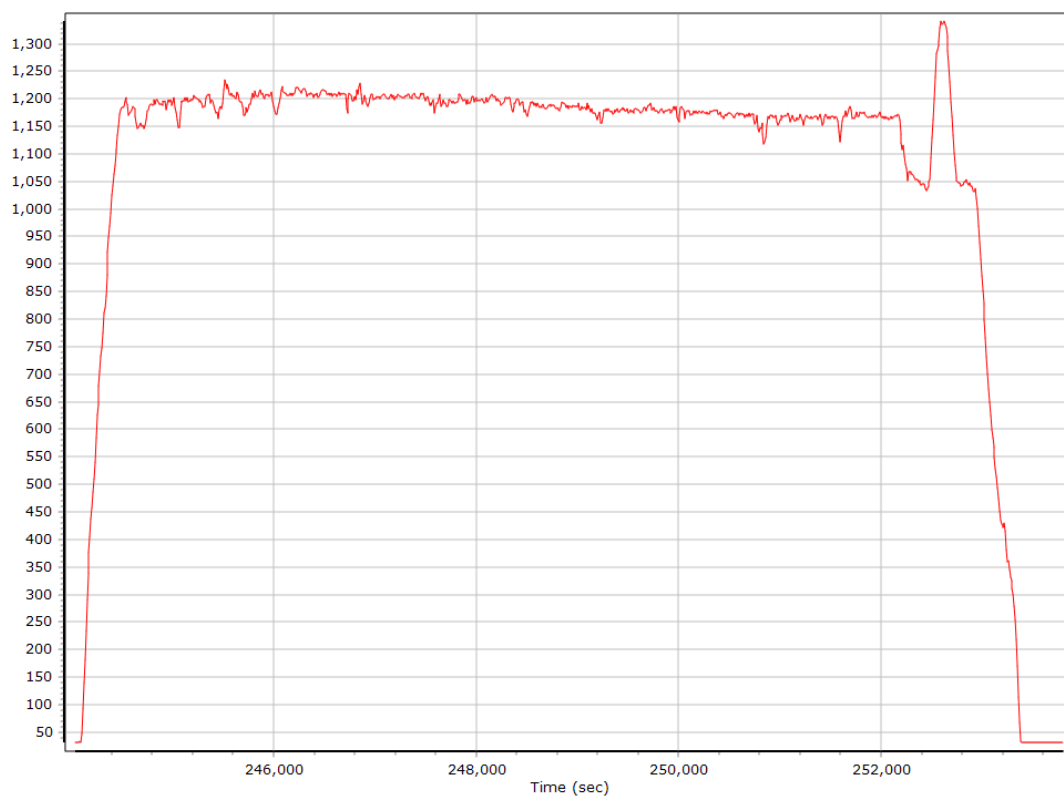


Forward Processed Trajectory Information

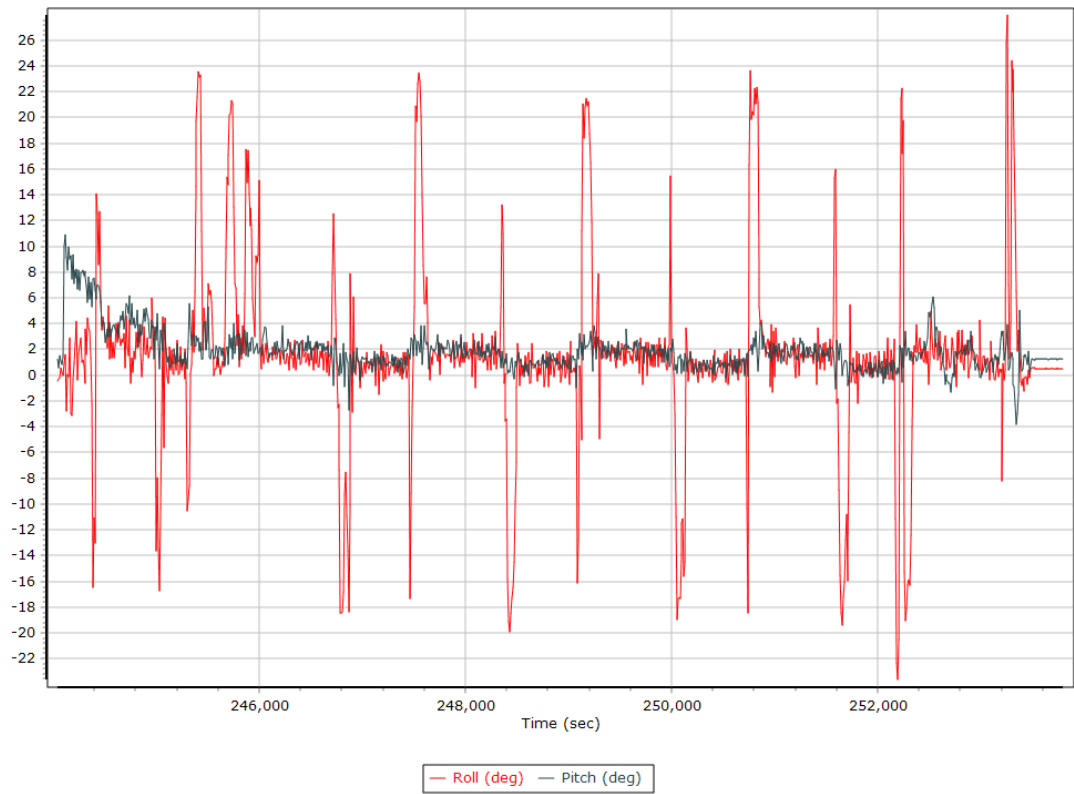
Top View



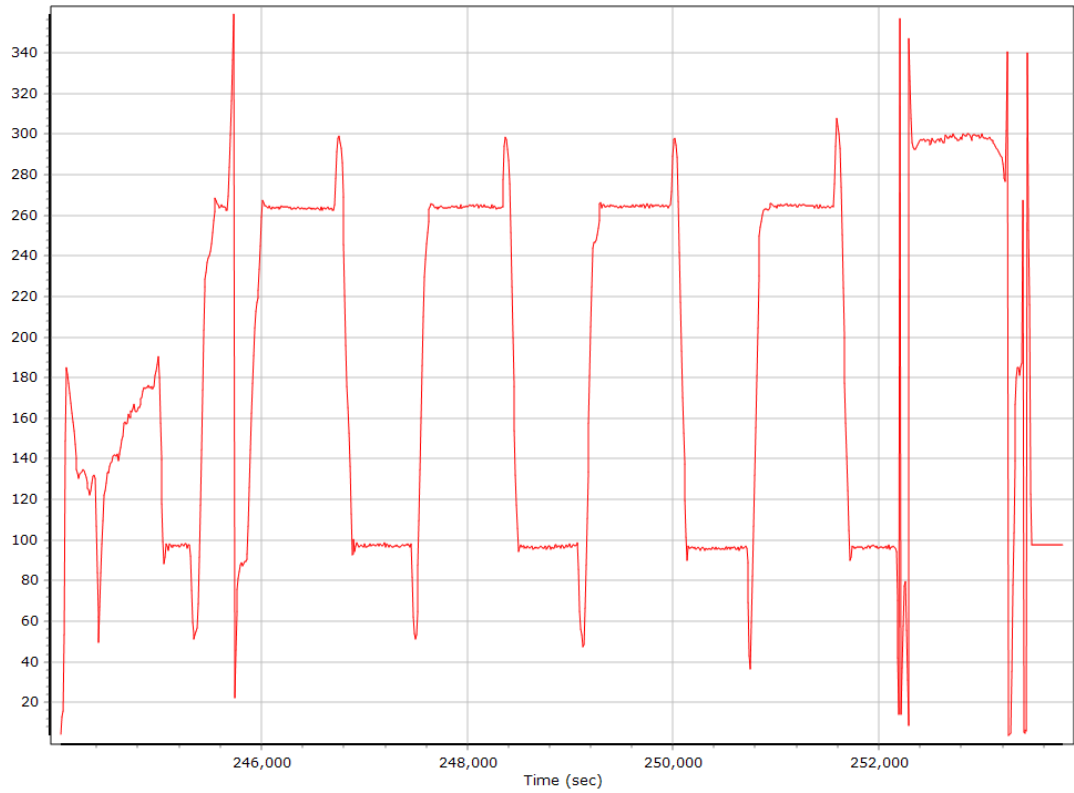
Altitude



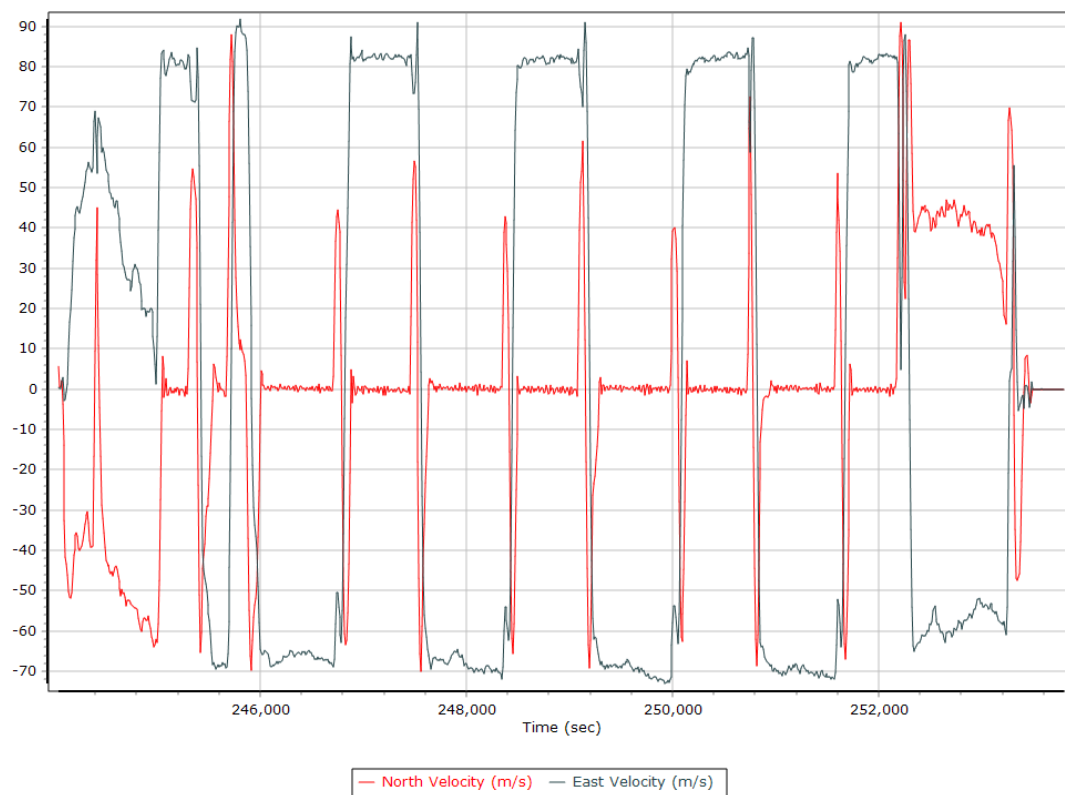
Roll/Pitch



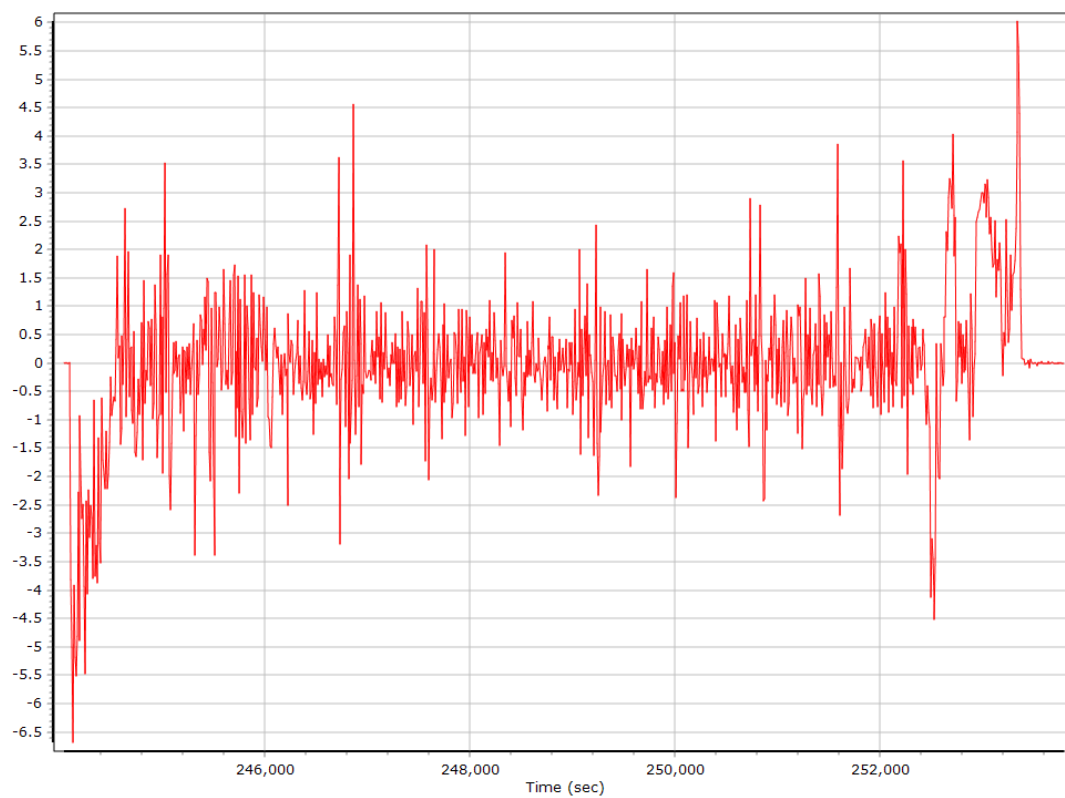
Heading



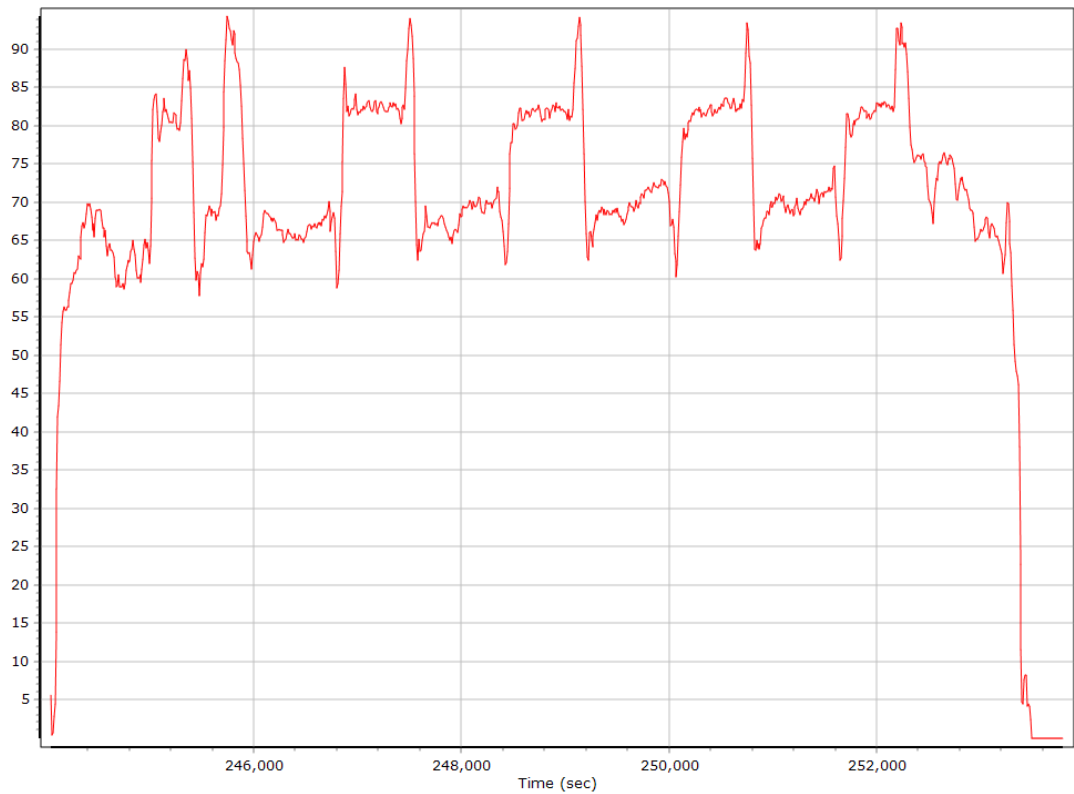
North/East Velocity



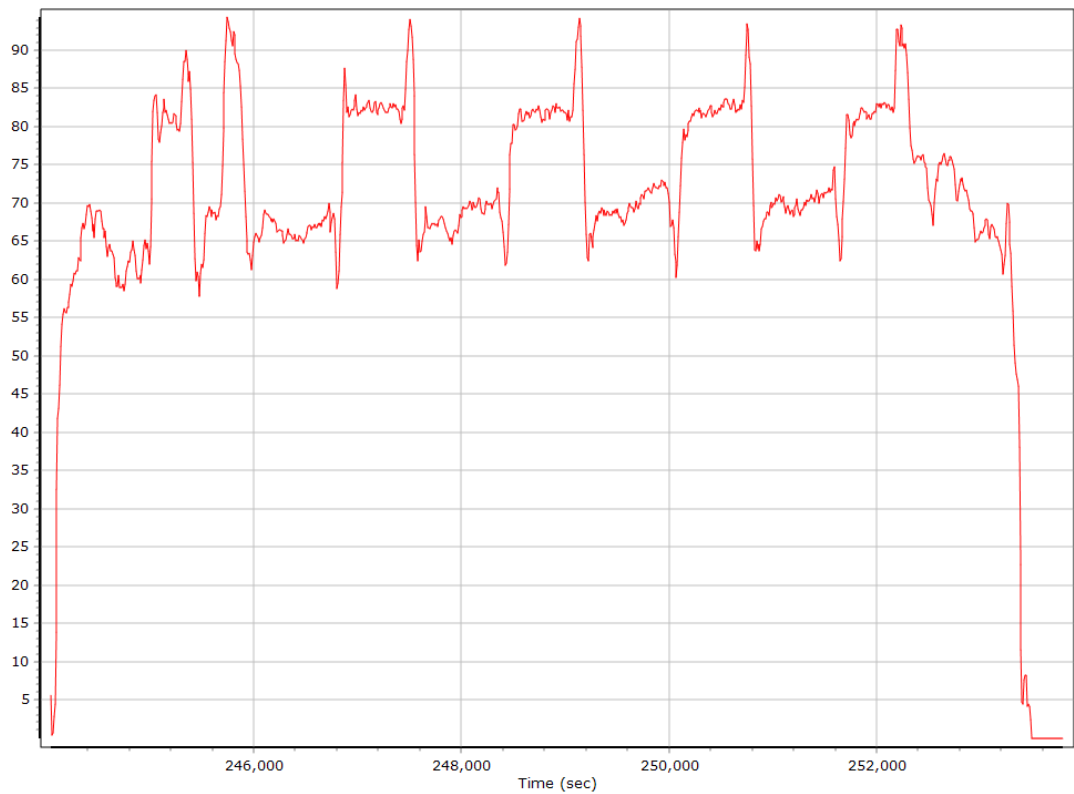
Down Velocity



Total Speed



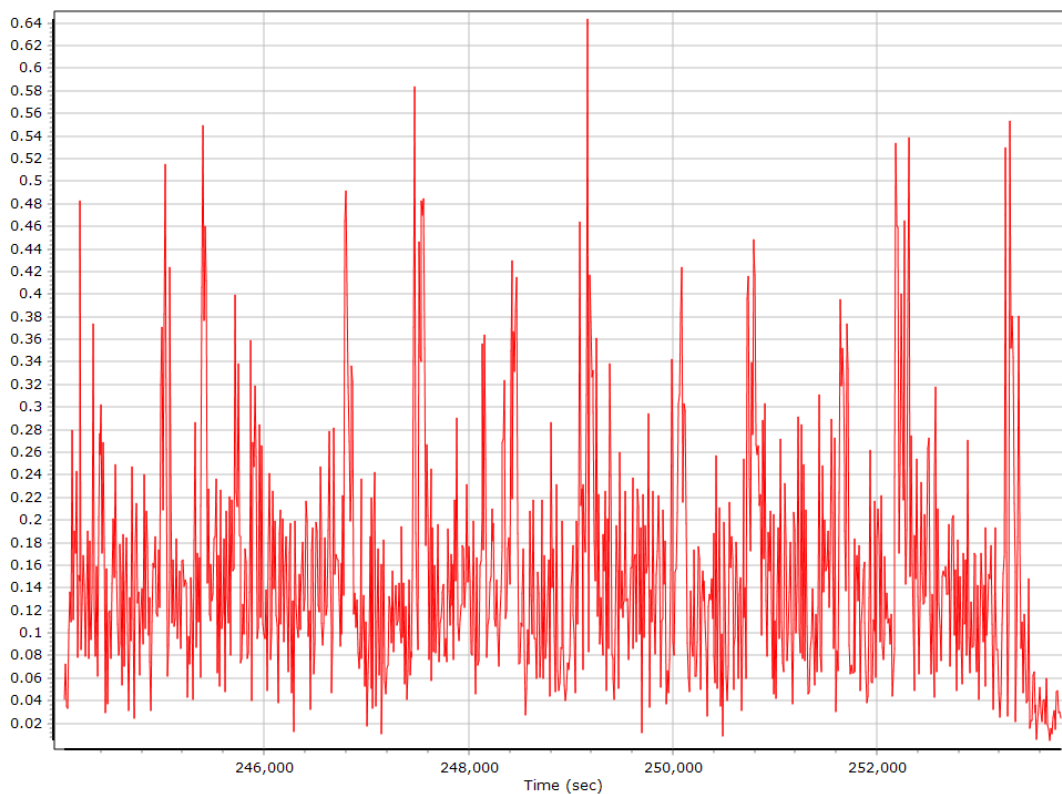
Ground Speed



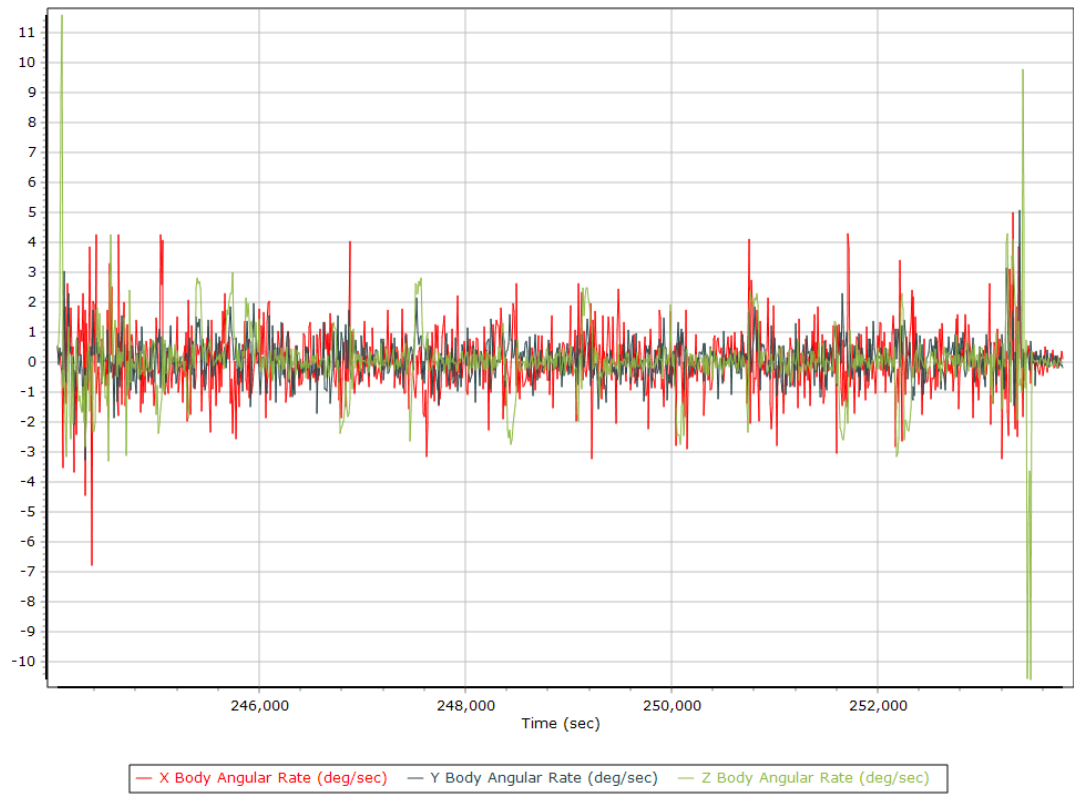
Body Acceleration



Total Body Acceleration



Body Angular Rate

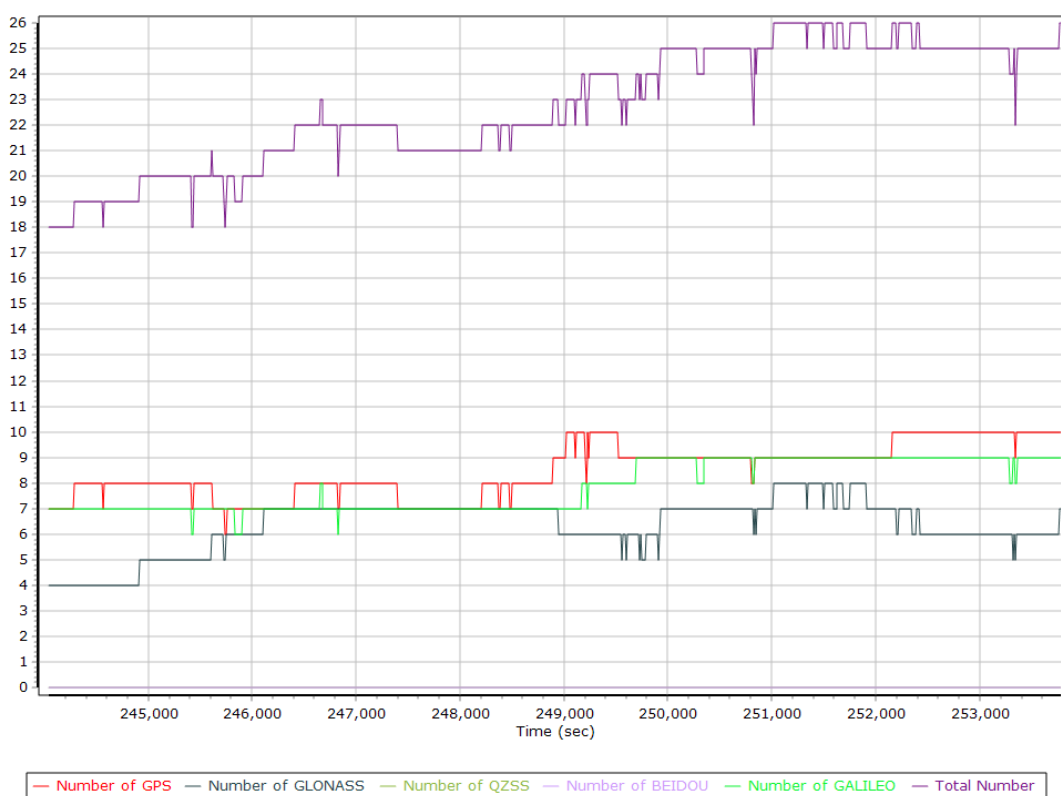


GNSS QC

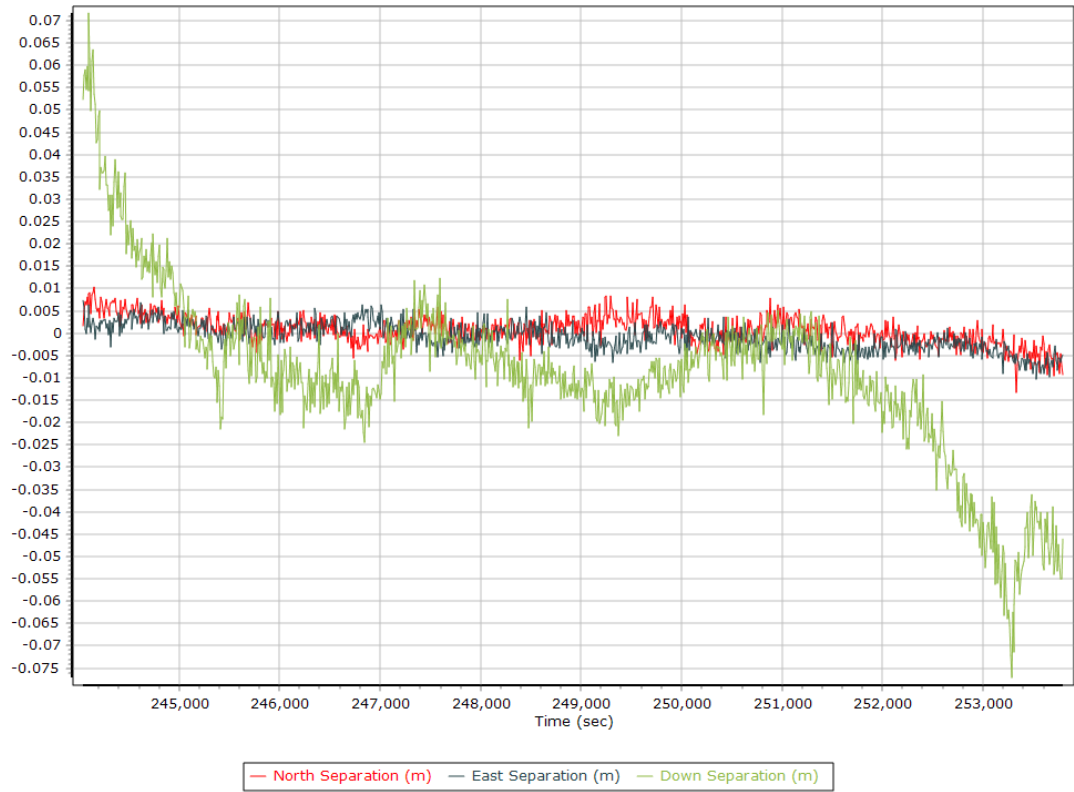
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	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	6	9	8
Total number of SV	14	26	23
PDOP	0.97	1.45	1.12
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	10235.00	0.00	0.00
Percentage	100.00	0.00	0.00

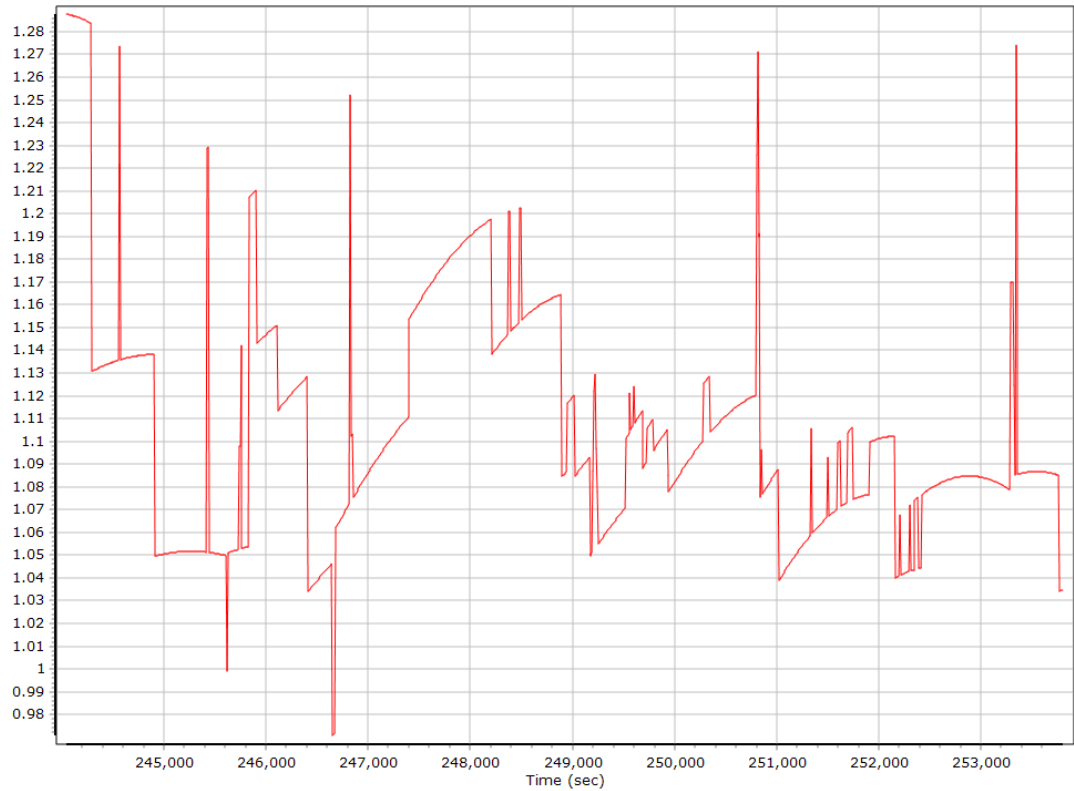
Num SVs in solution



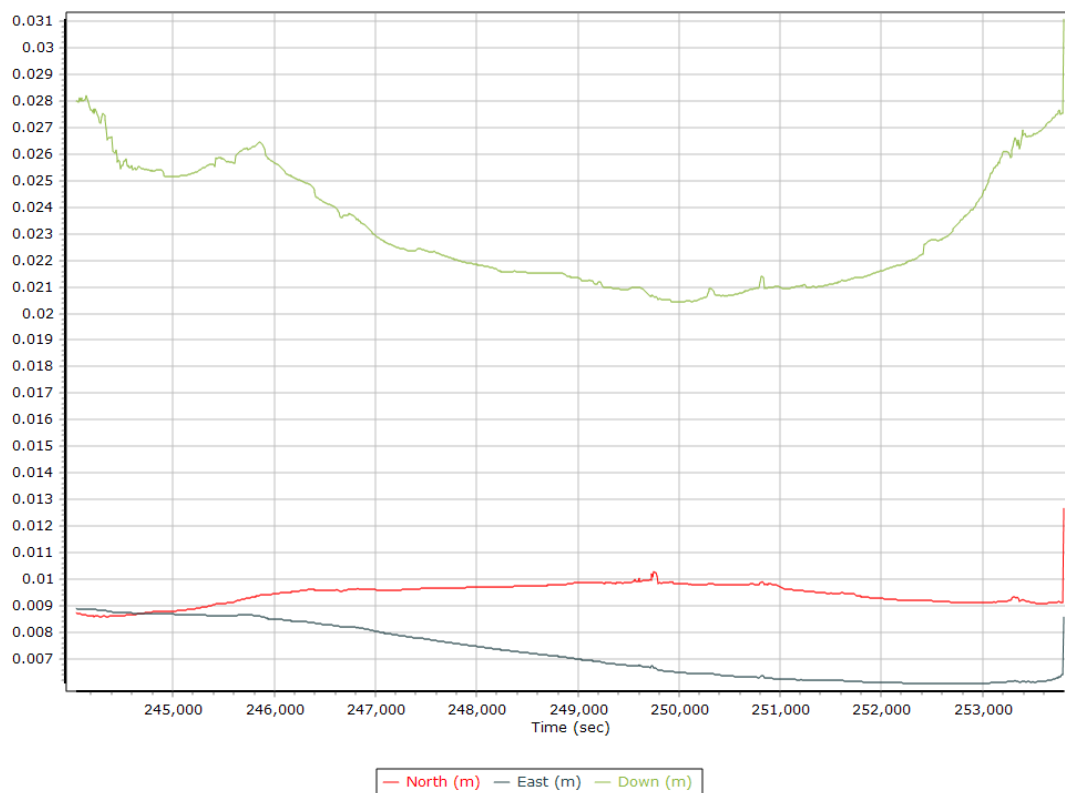
Forward/Reverse Separation



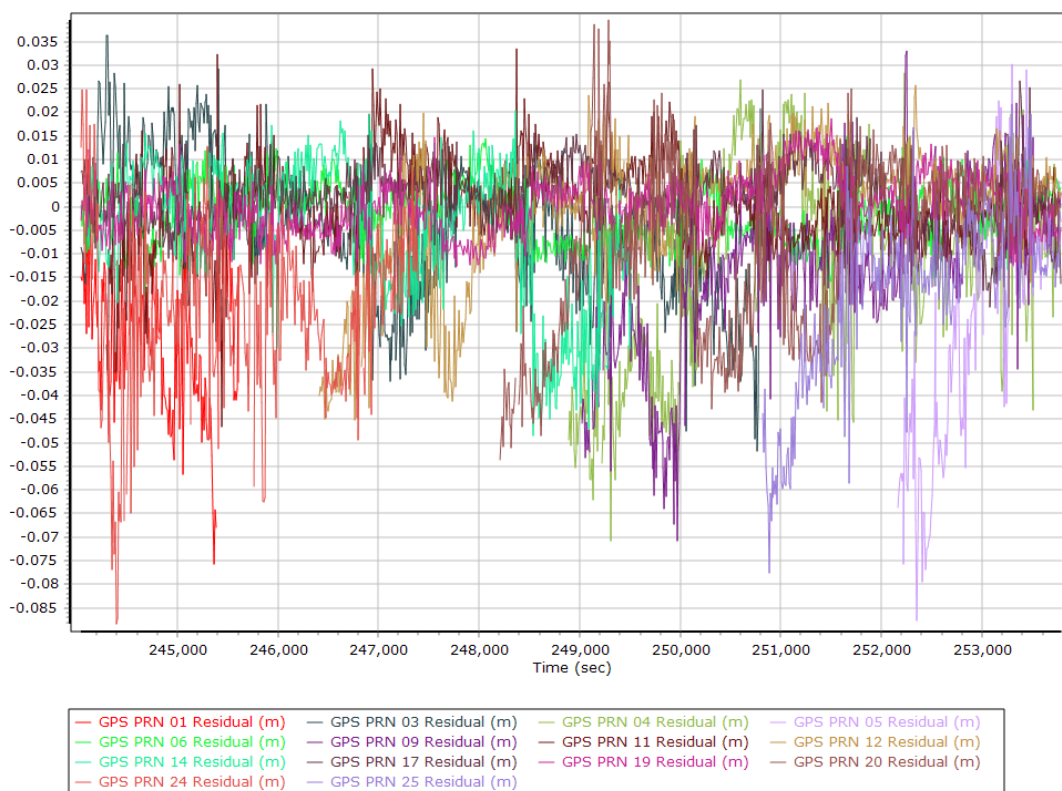
PDOP



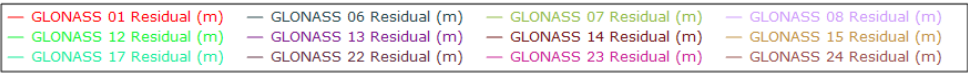
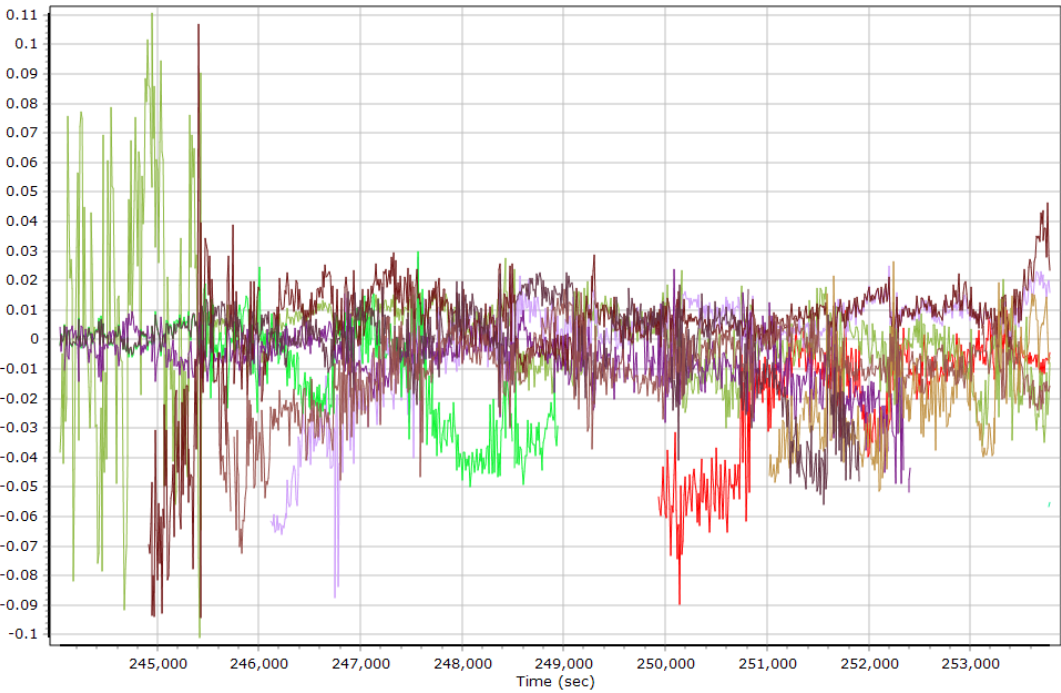
Estimated Position Accuracy



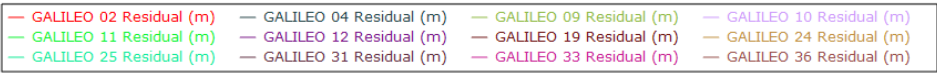
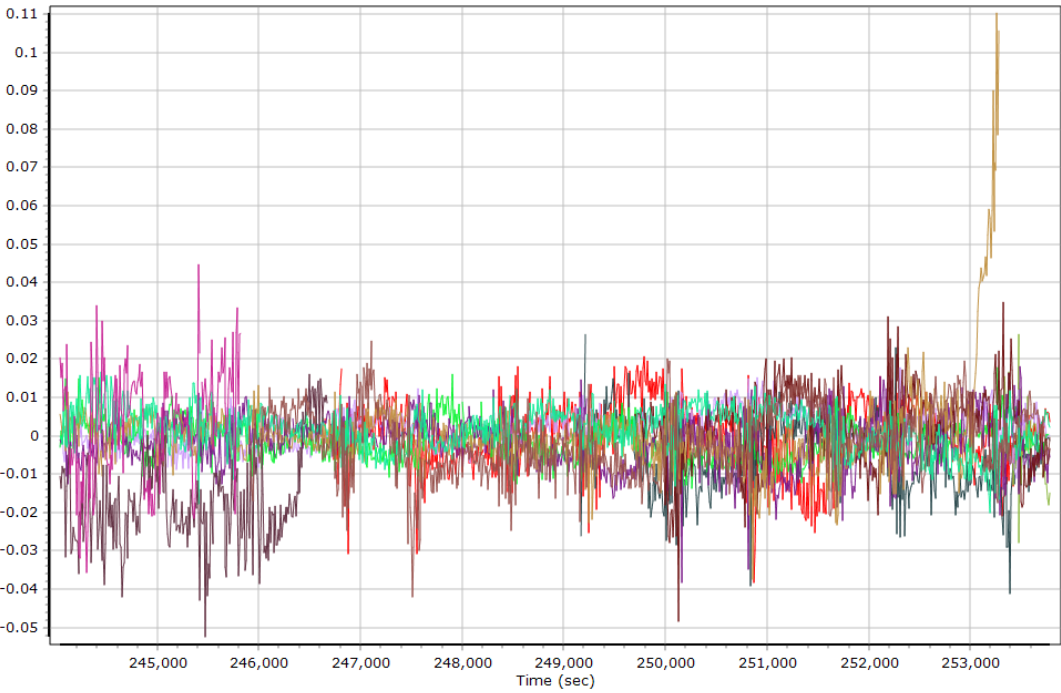
GPS Residuals



GLONASS Residuals



GALILEO Residuals



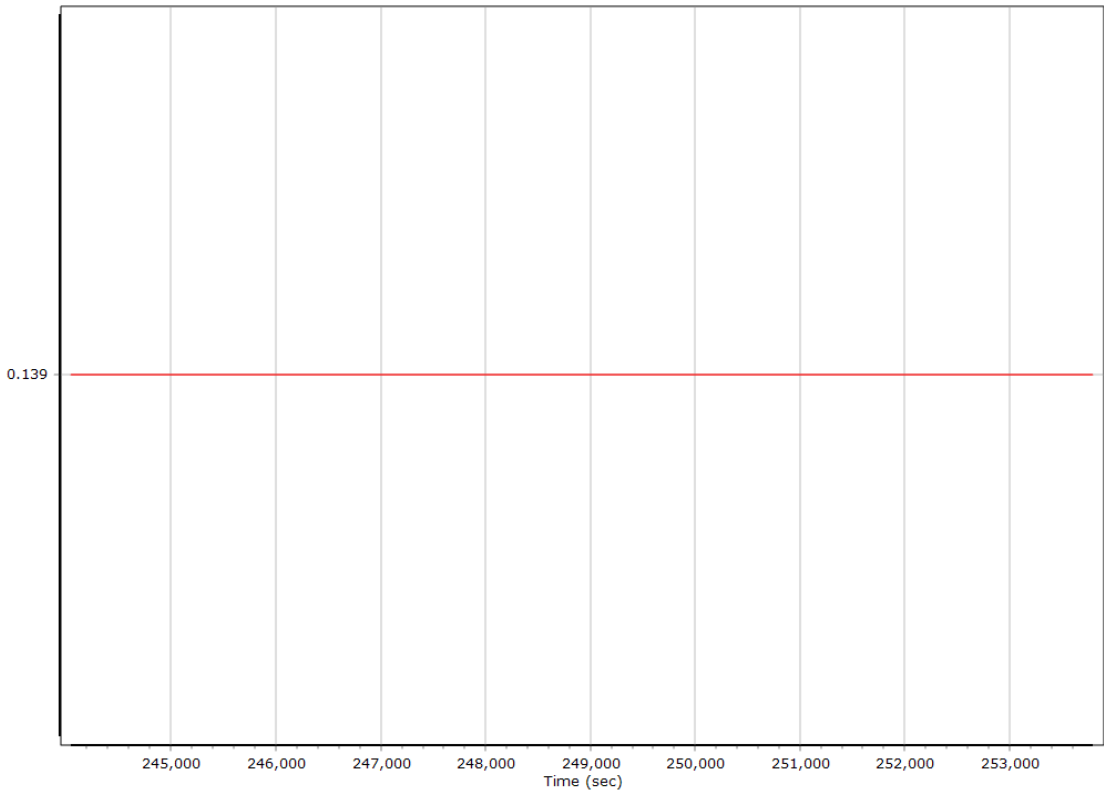
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	243535.000 (04/04/2023 19:38:55)		
Processing end time	253802.000 (04/04/2023 22:30:02)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

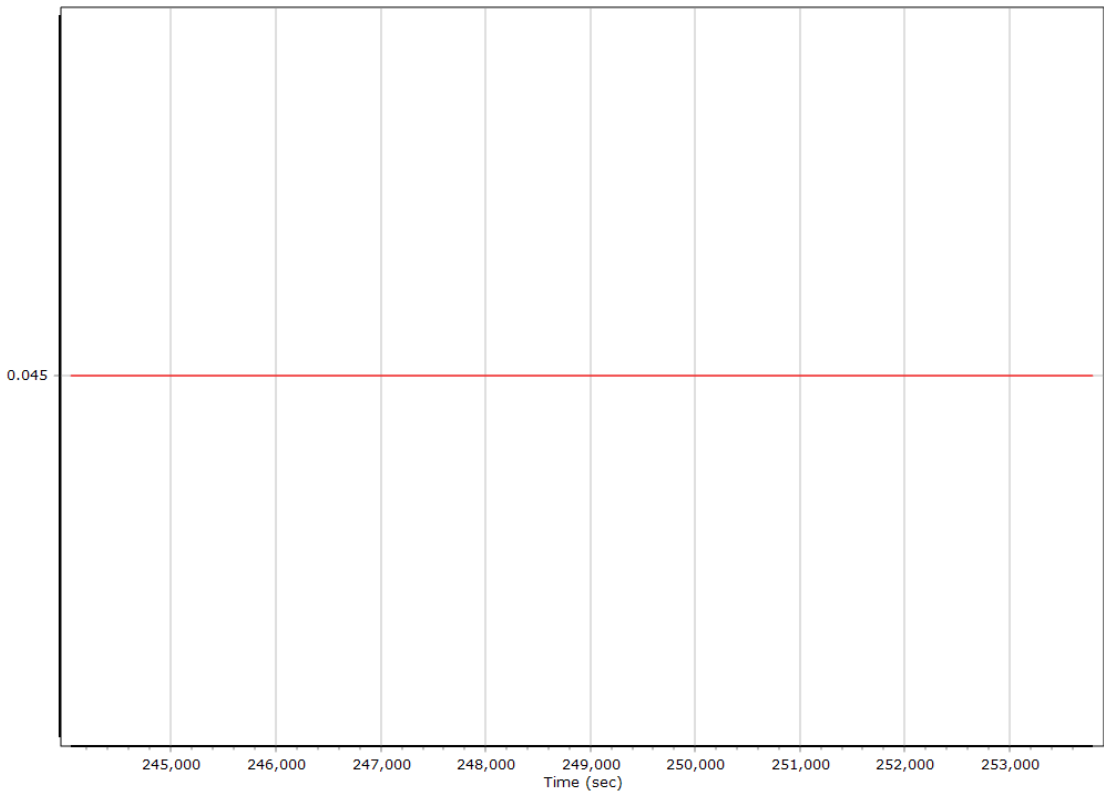
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

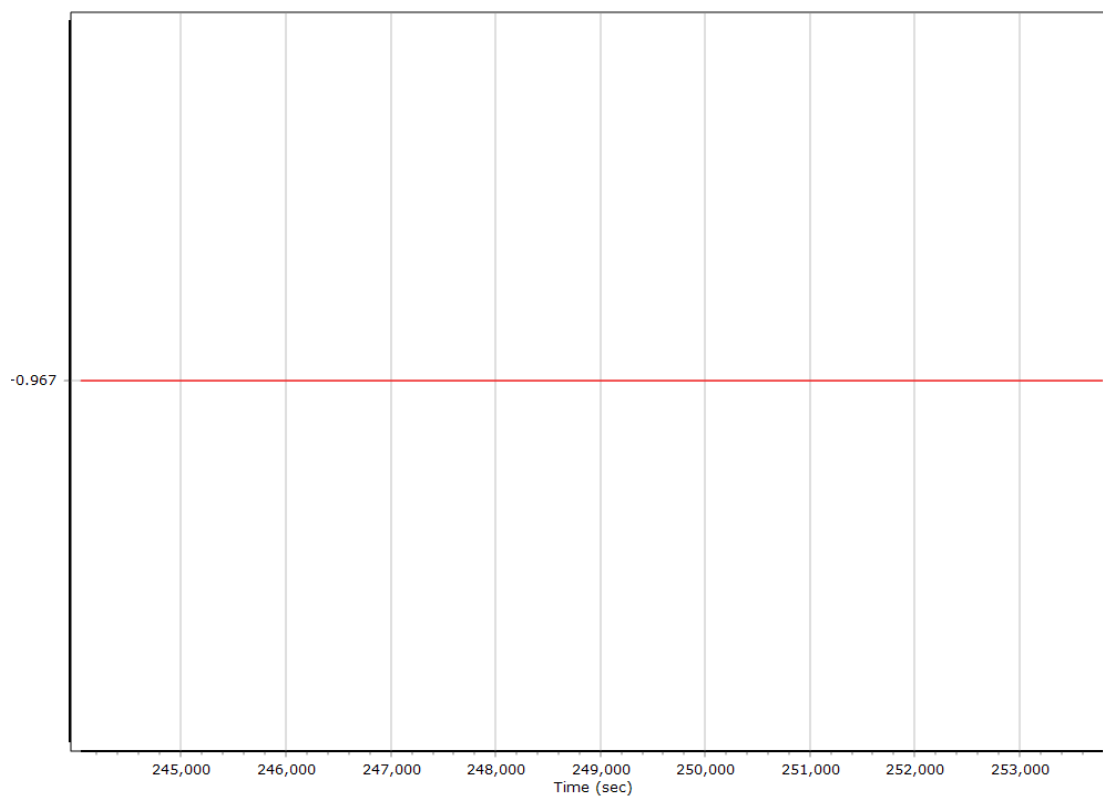
X Reference-Primary GNSS Lever Arm (m)



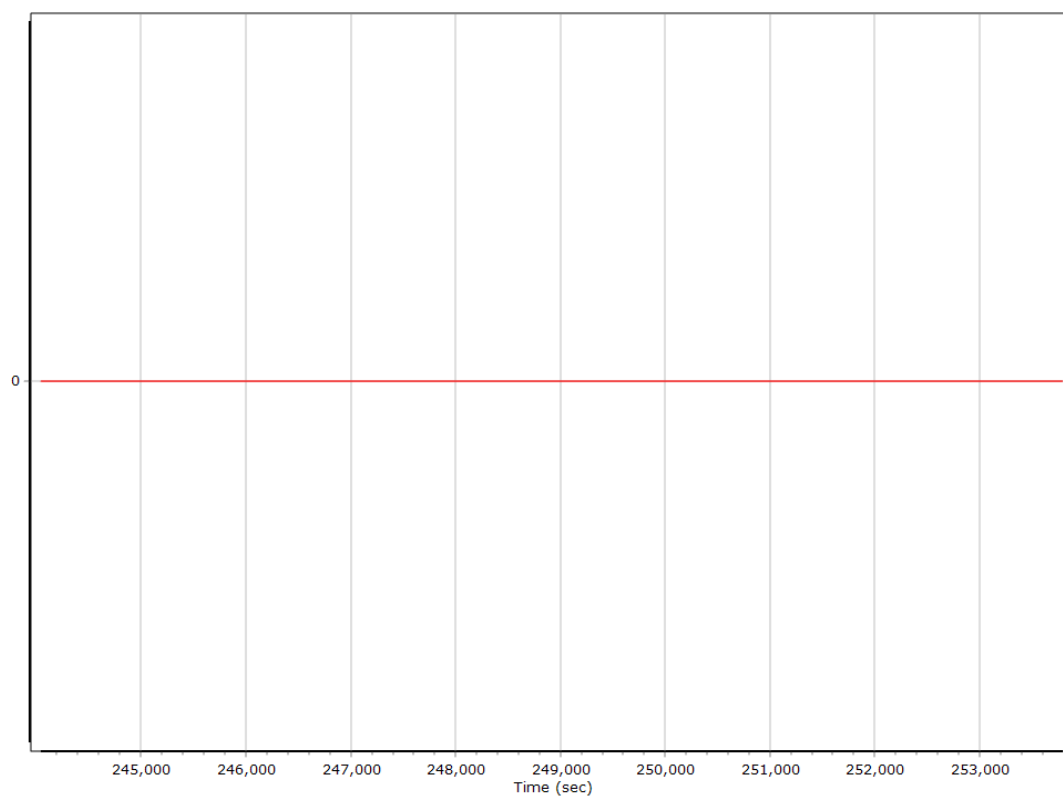
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



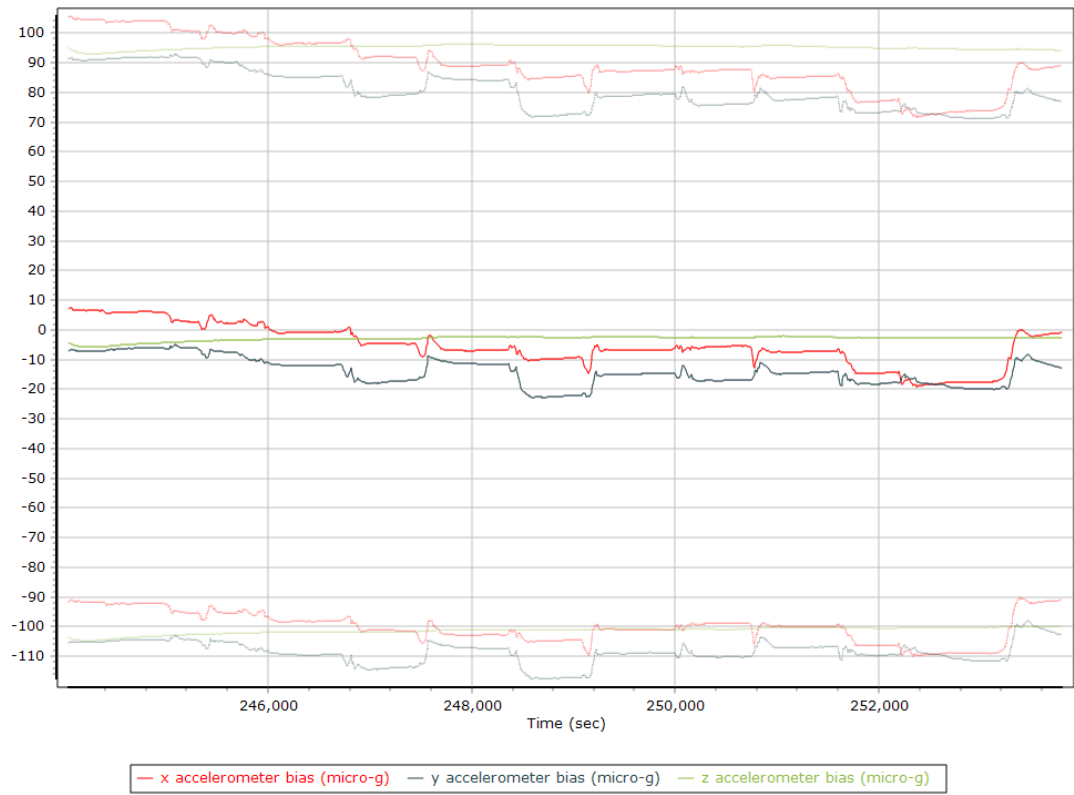
Reference-Primary GNSS Lever Arm Figure of Merit



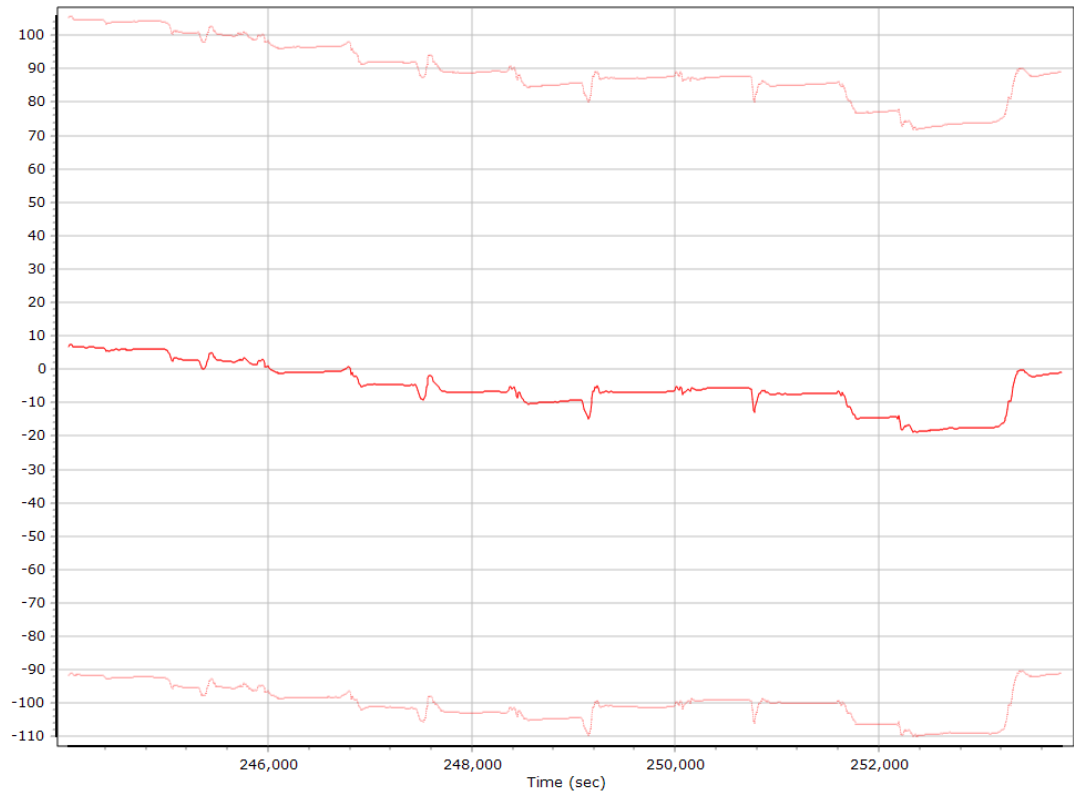
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

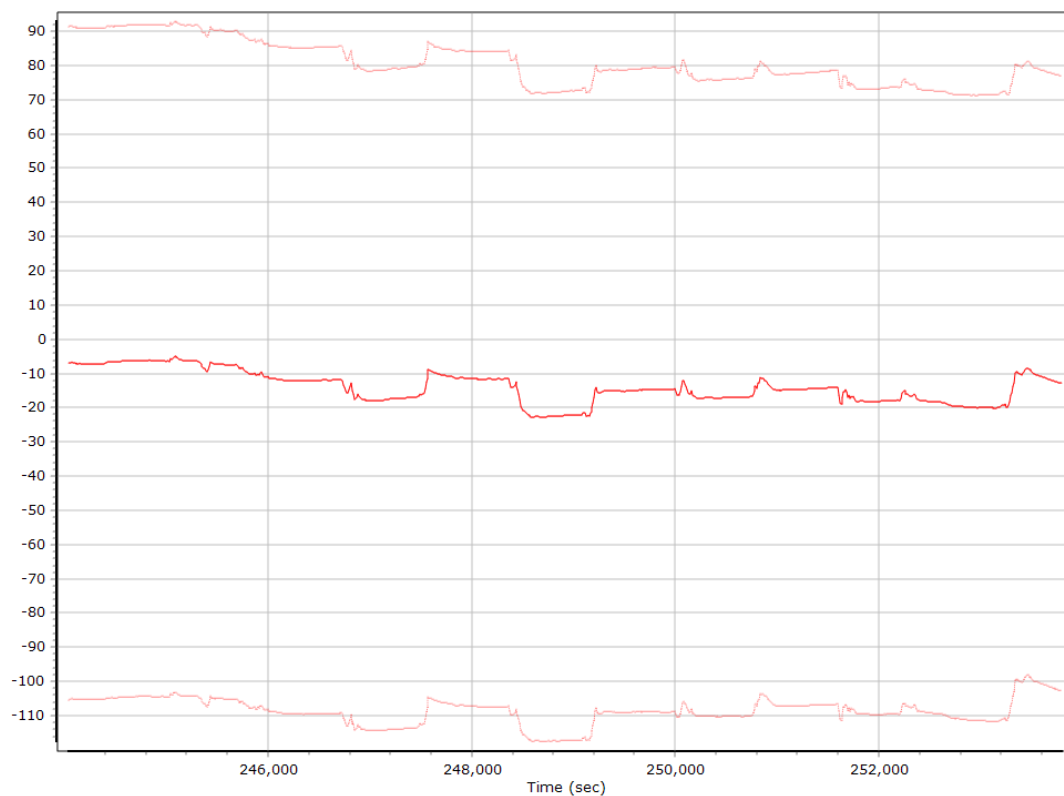
Accelerometer Bias (micro-g)



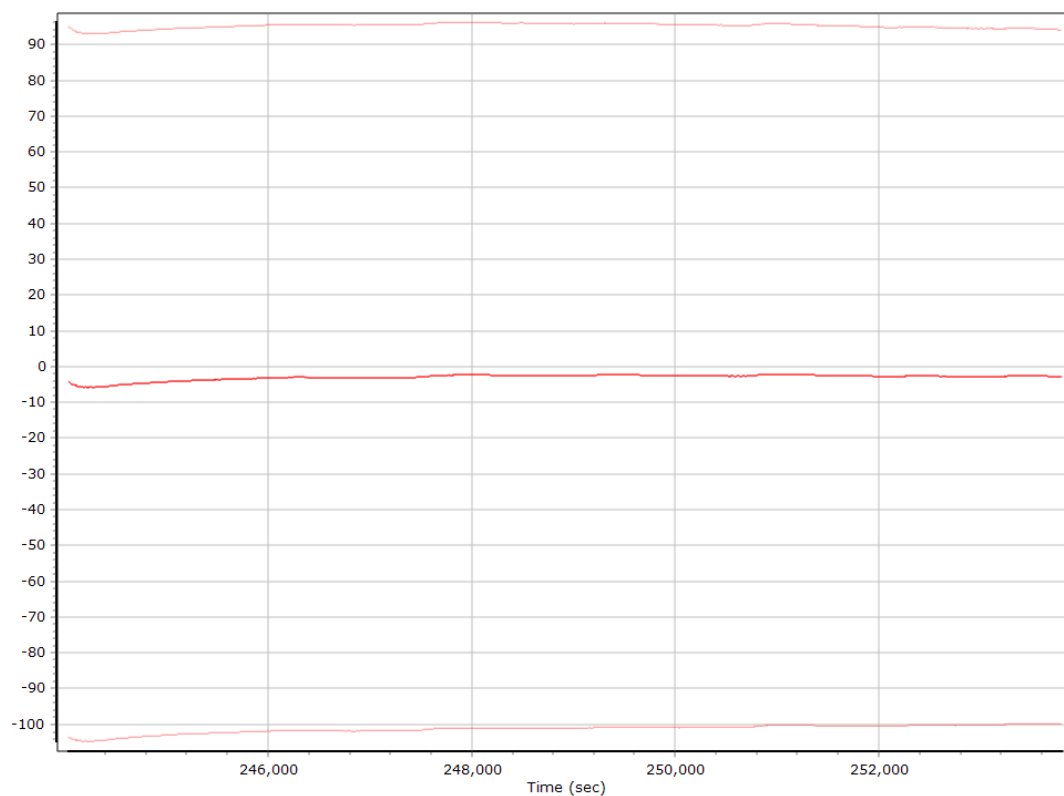
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



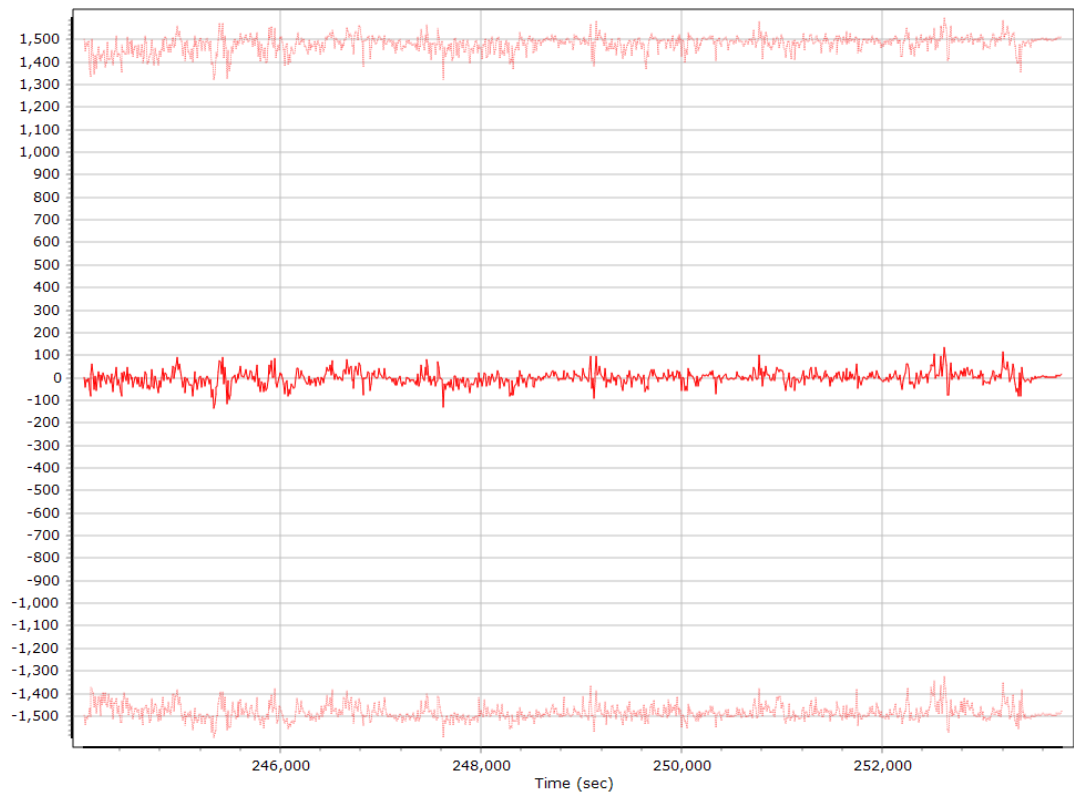
Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



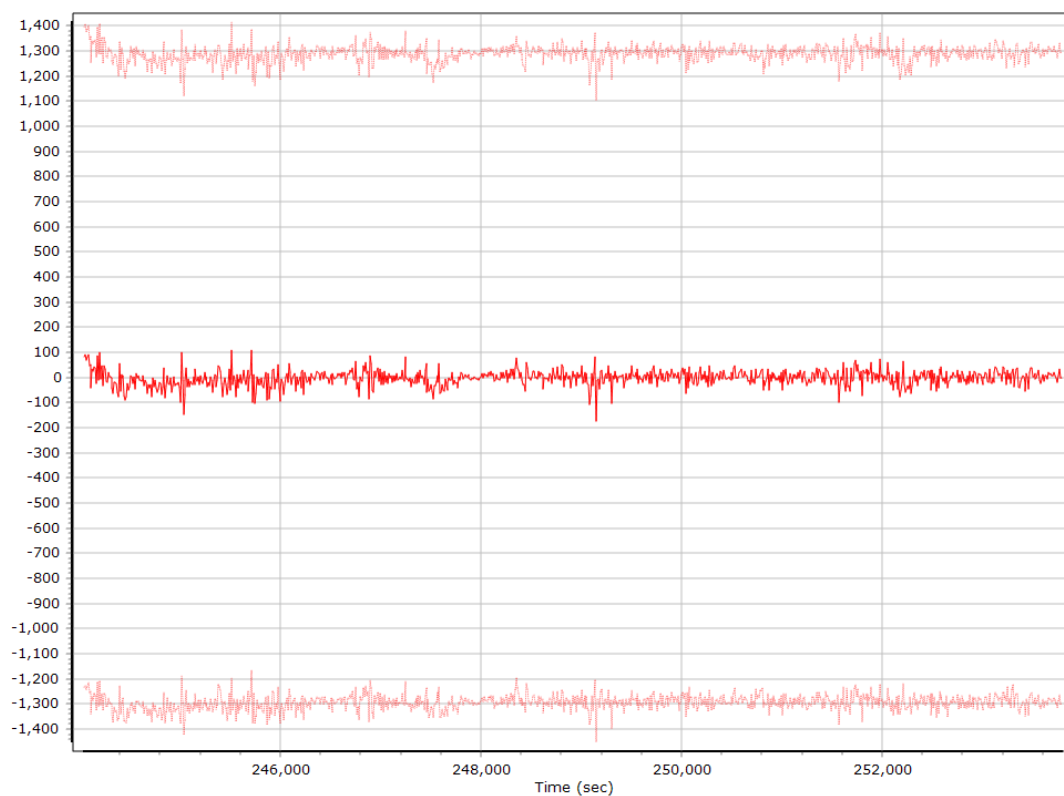
X Accelerometer Scale Error (ppm)



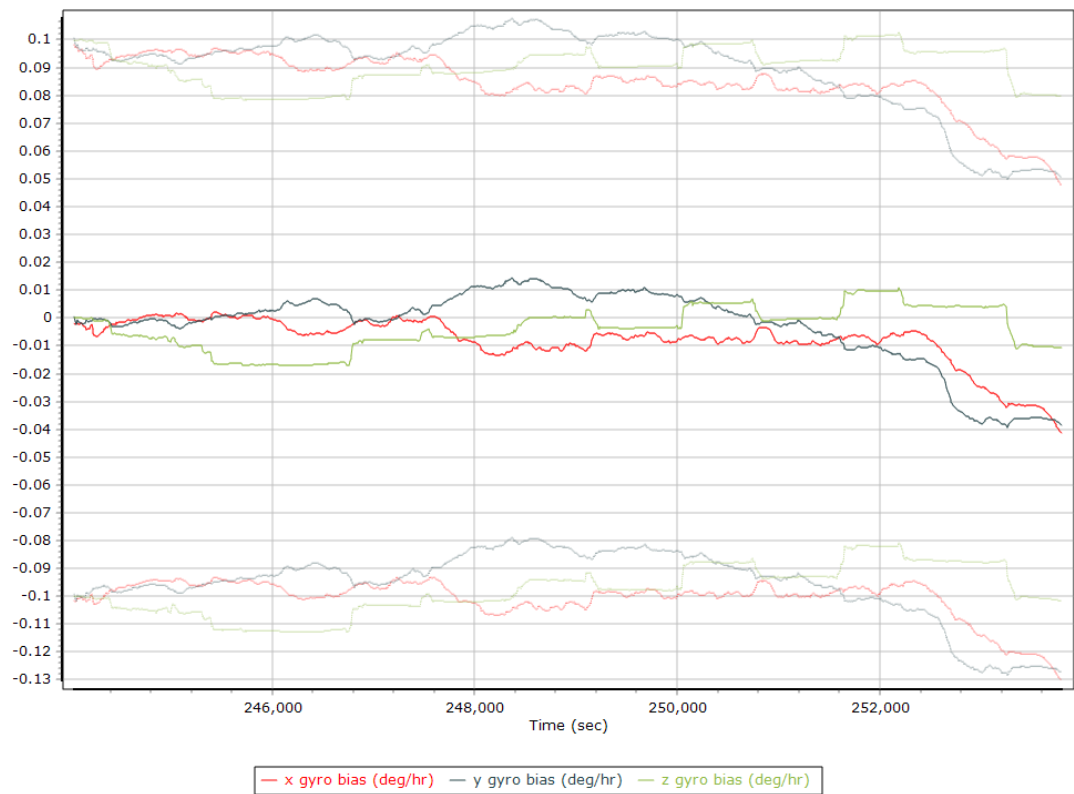
Y Accelerometer Scale Error (ppm)



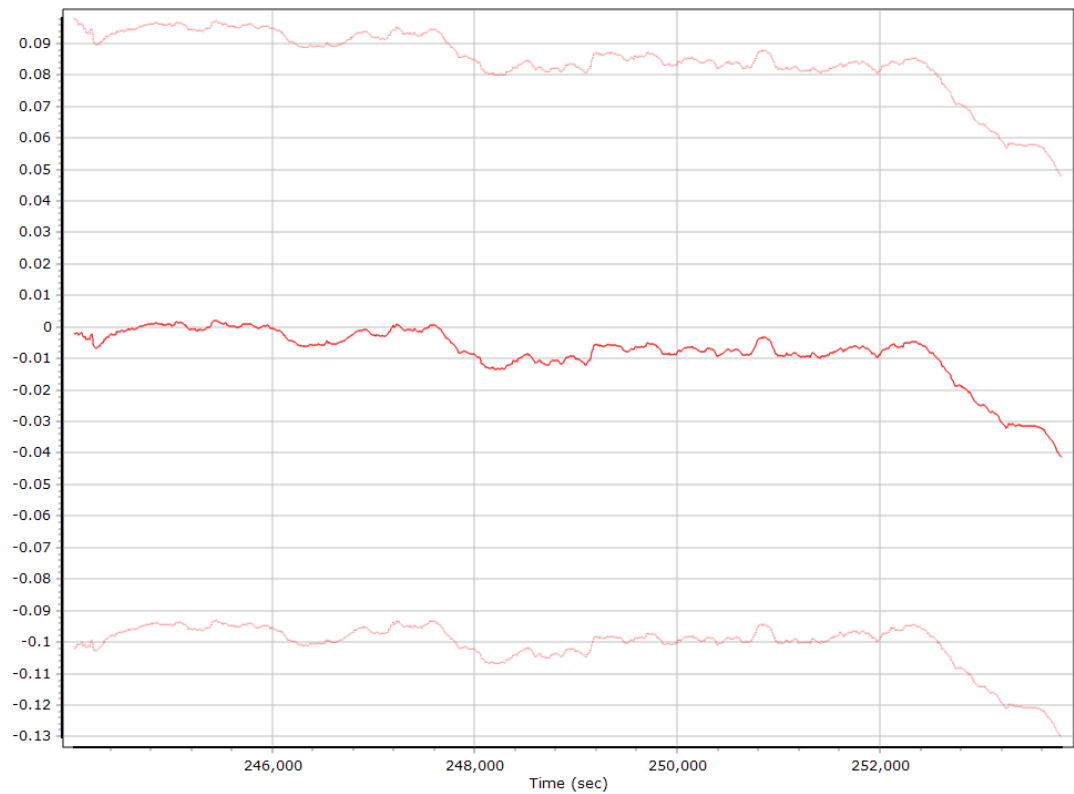
Z Accelerometer Scale Error (ppm)



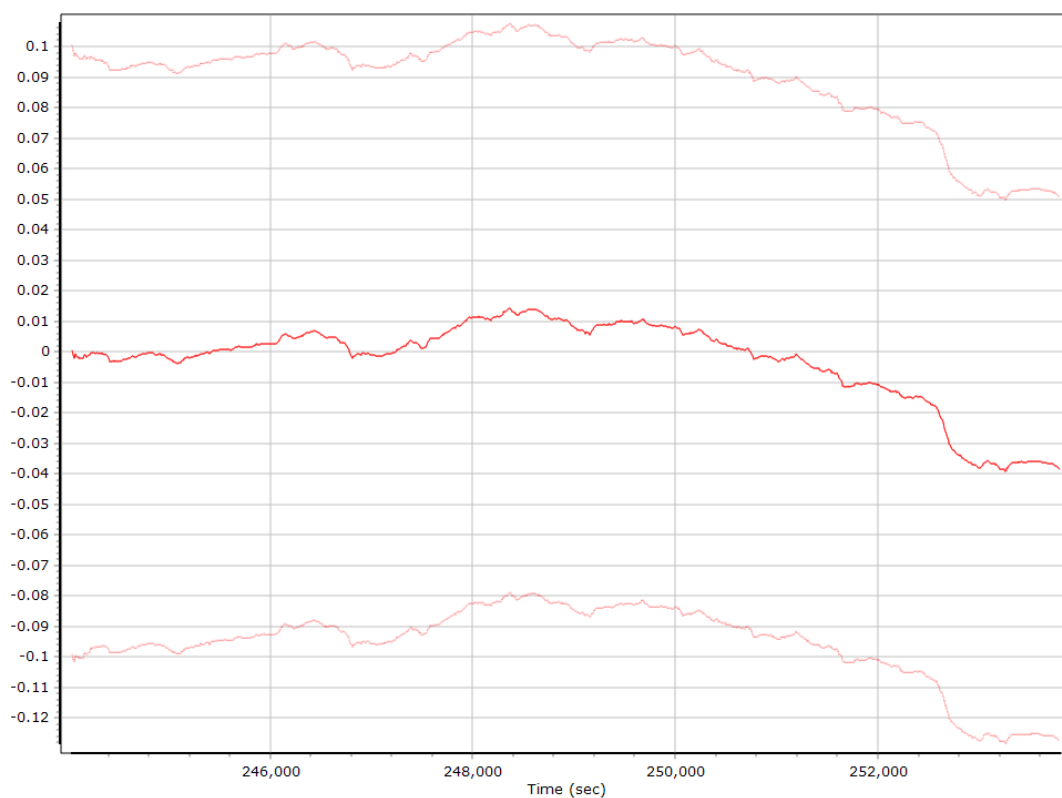
Gyro Bias (deg/h)



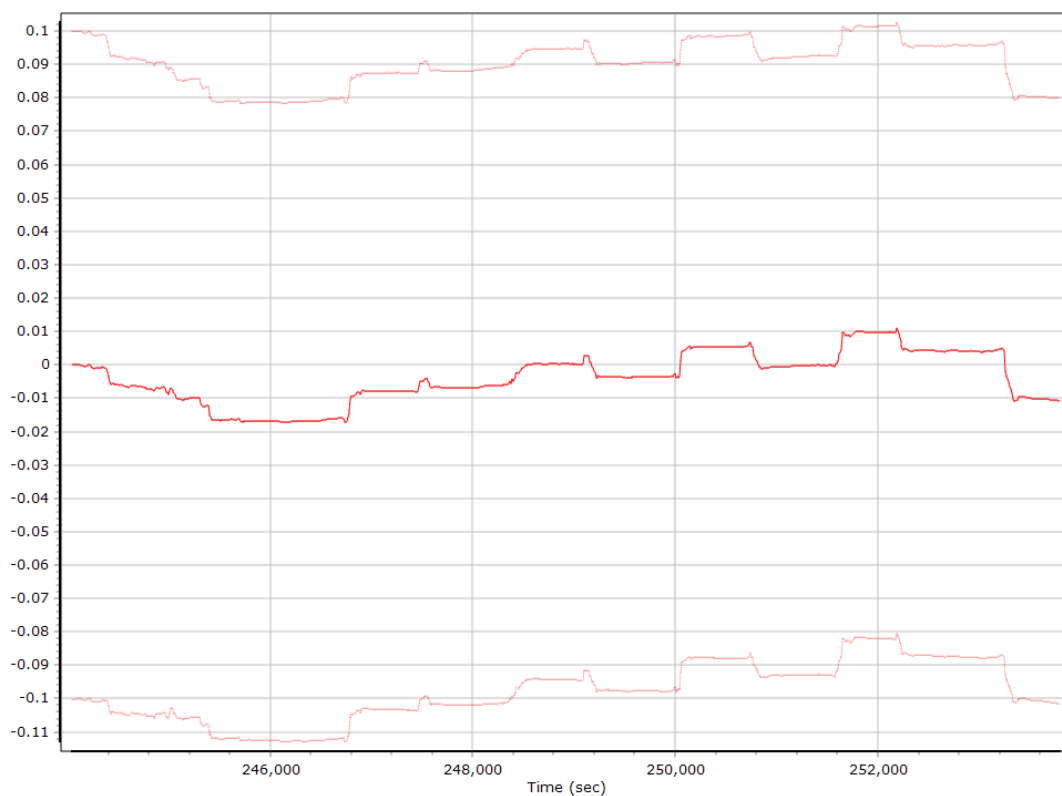
X Gyro Bias (deg/h)



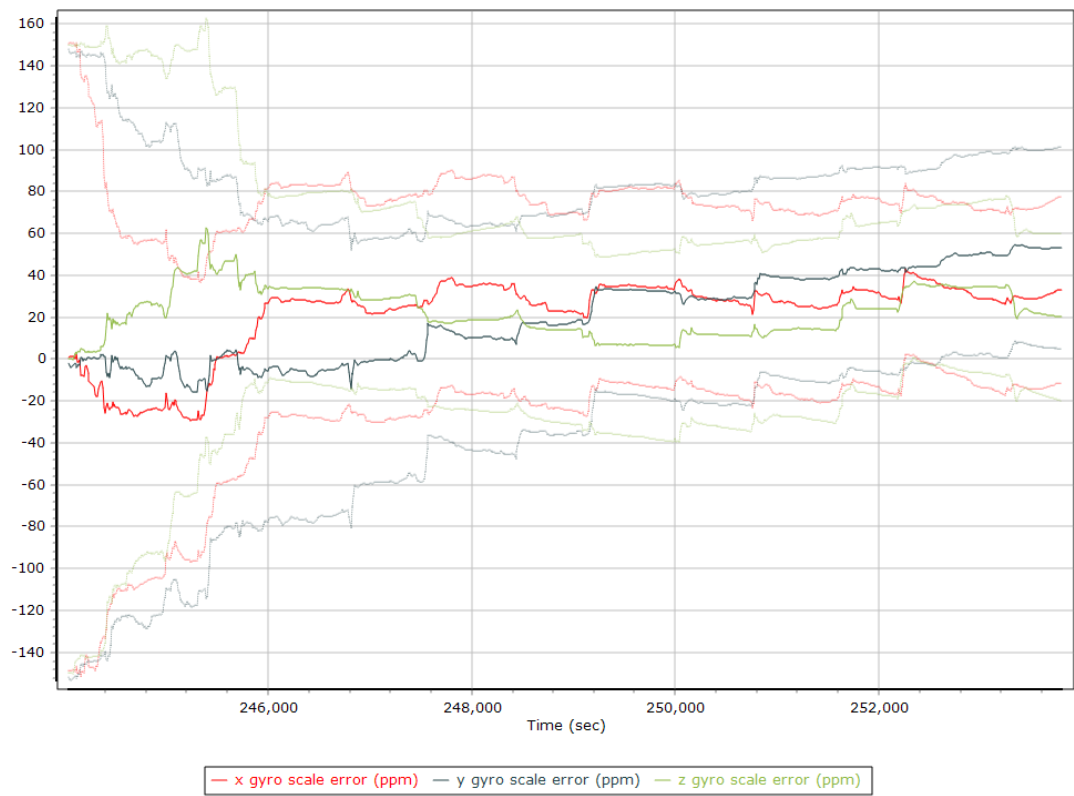
Y Gyro Bias (deg/h)



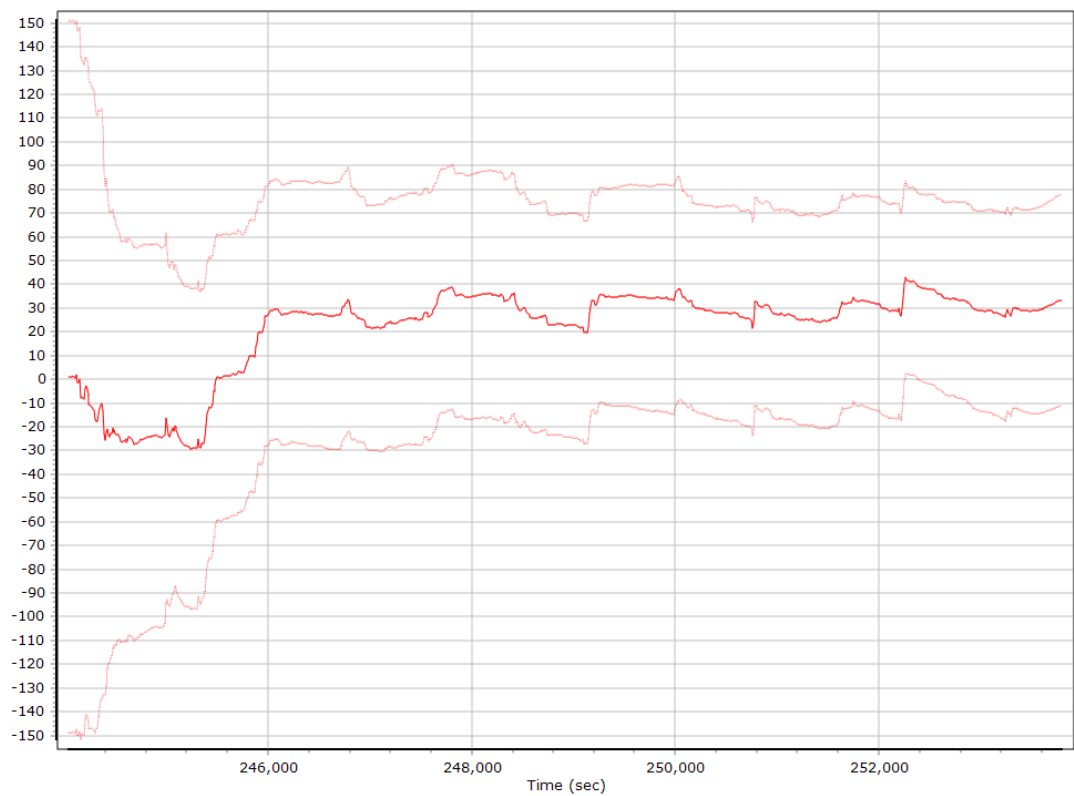
Z Gyro Bias (deg/h)



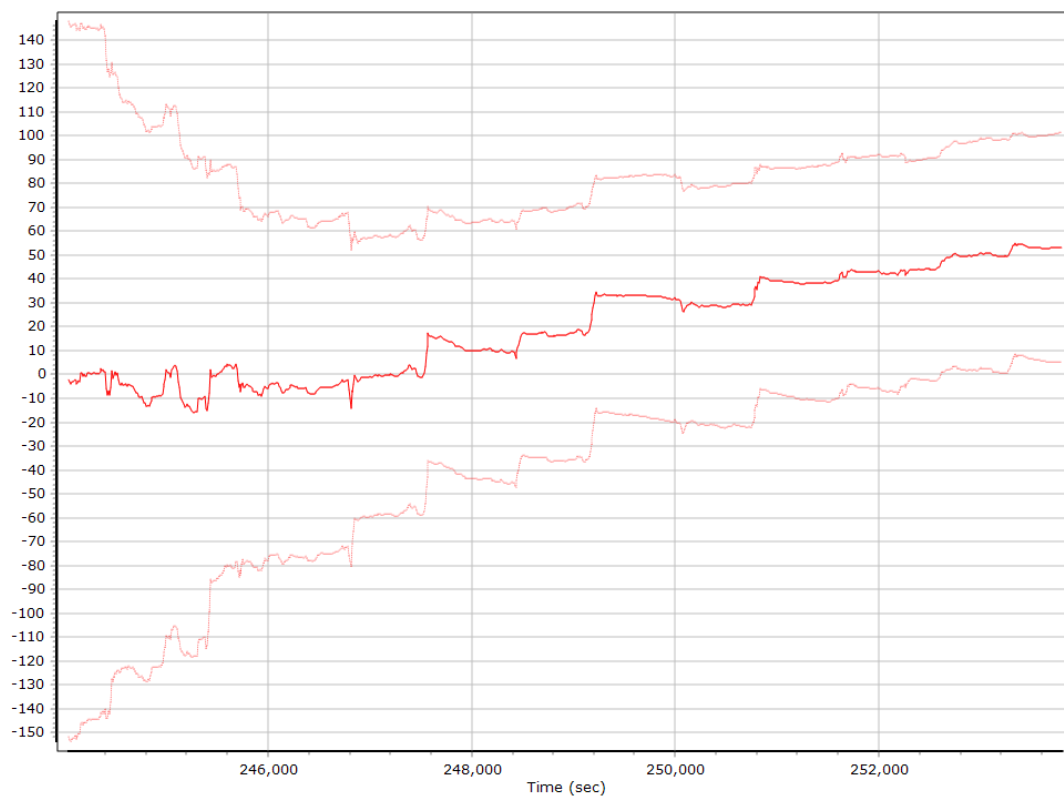
Gyro Scale Error (ppm)



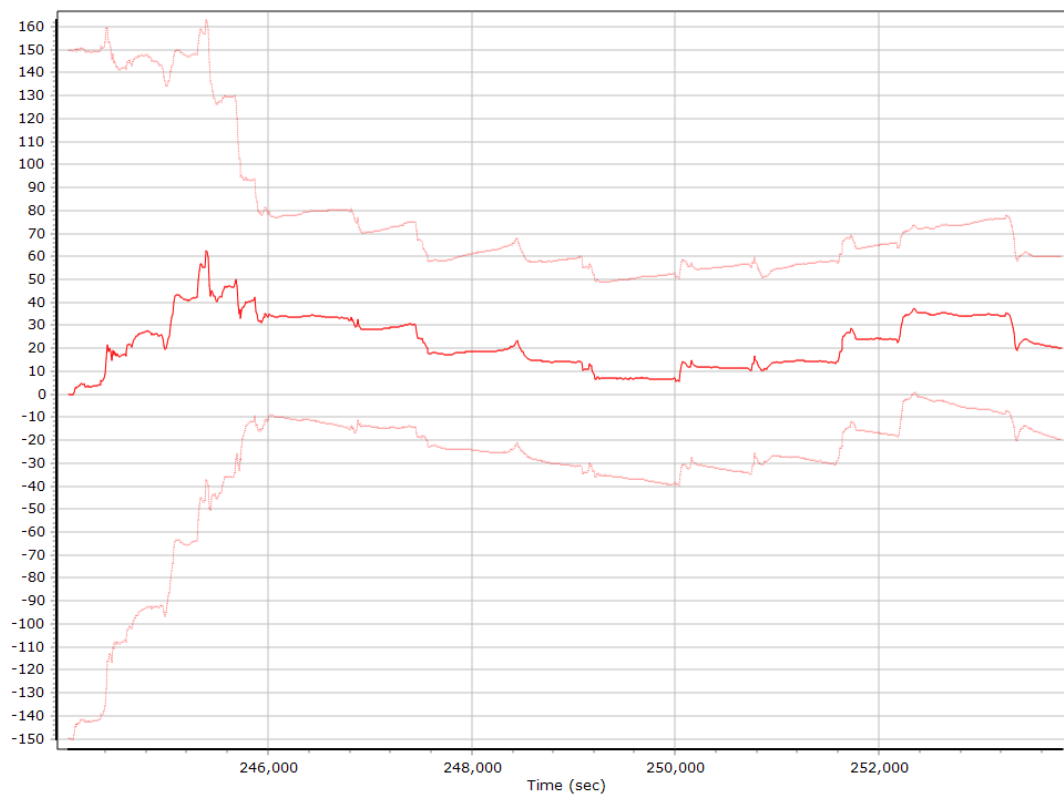
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

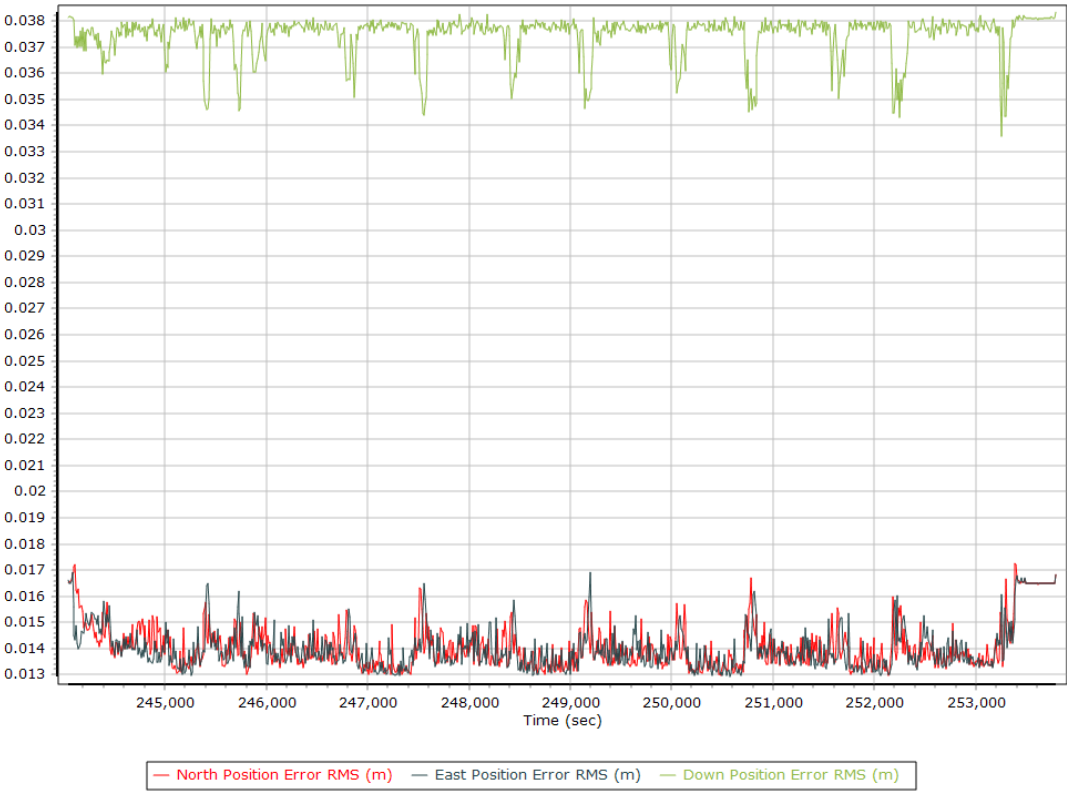


Z Gyro Scale Error (ppm)

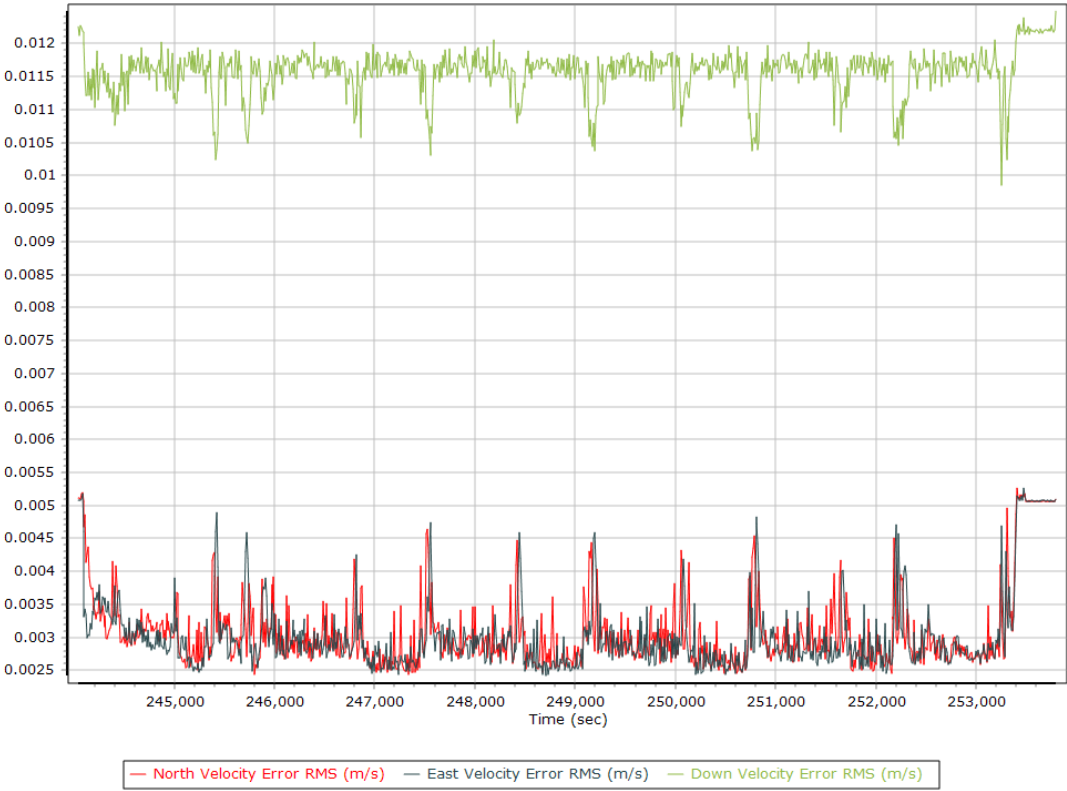


Smoothed Performance Metrics

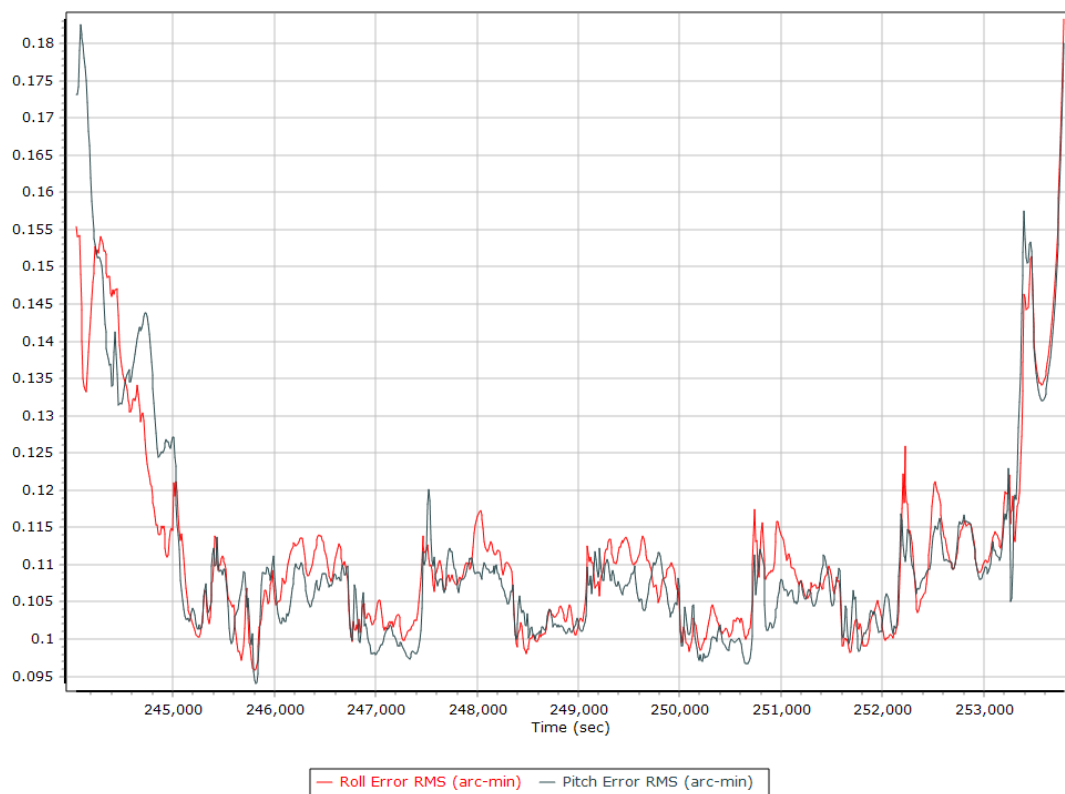
Position Error RMS (m)



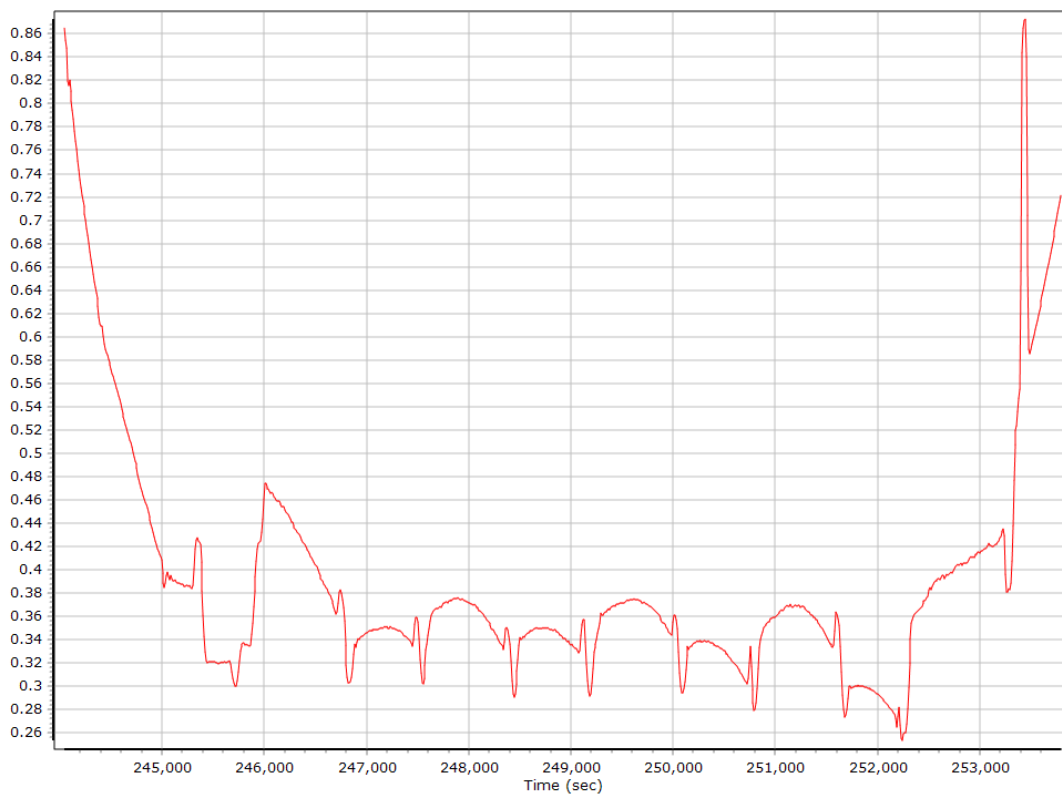
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

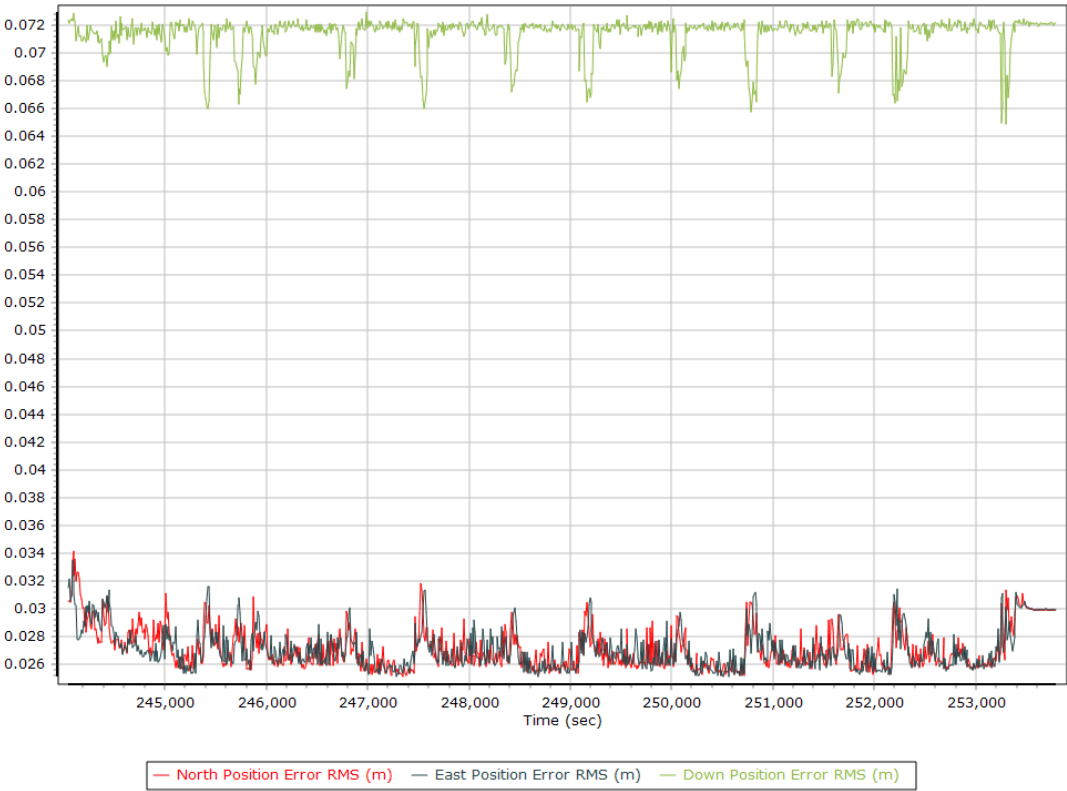


Heading Error RMS (arc-min)

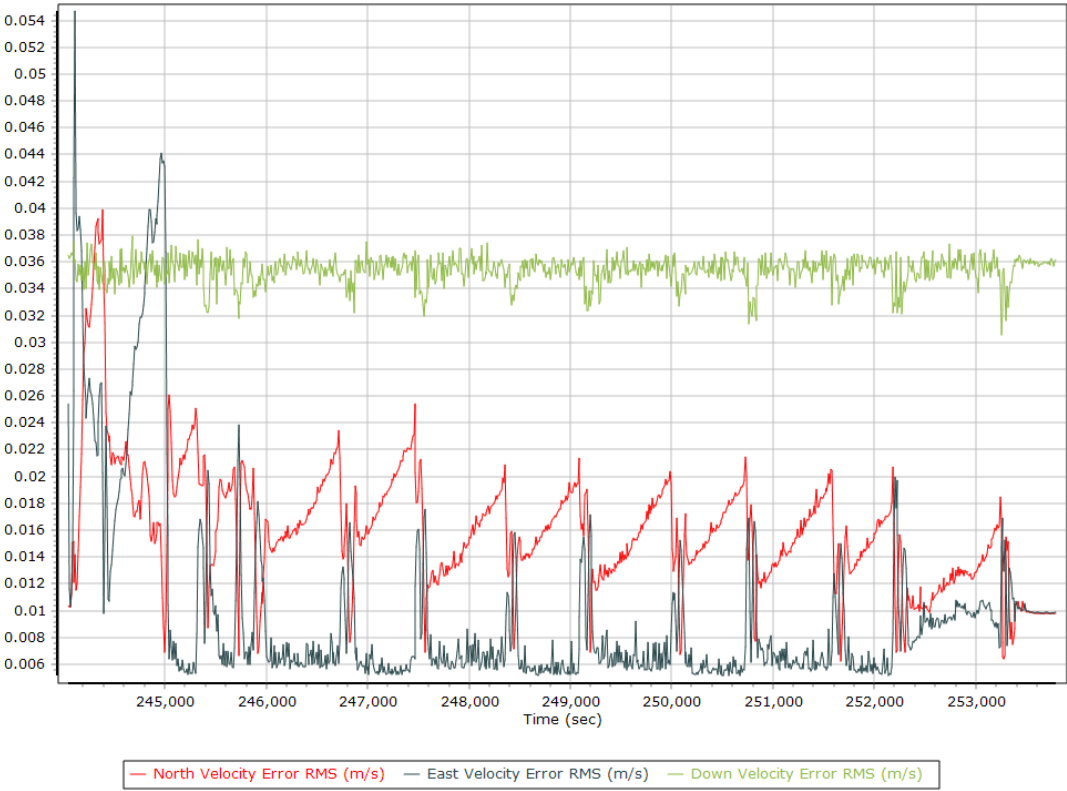


Forward Processed Performance Metrics

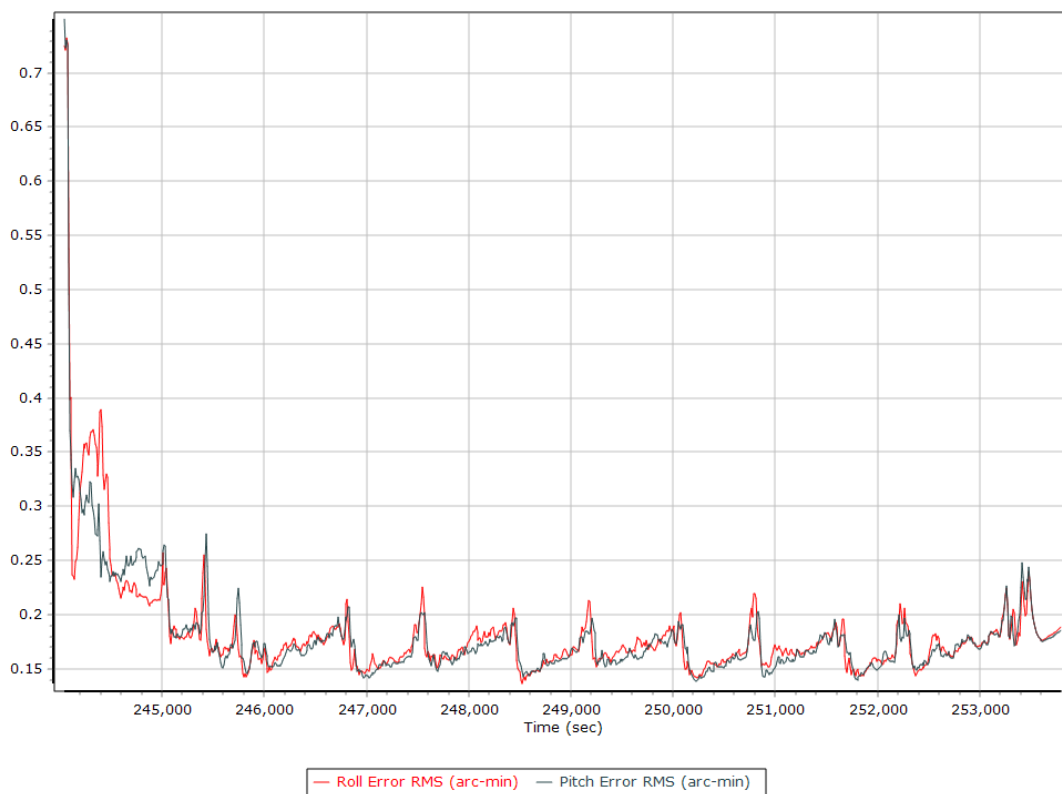
Position Error RMS (m)



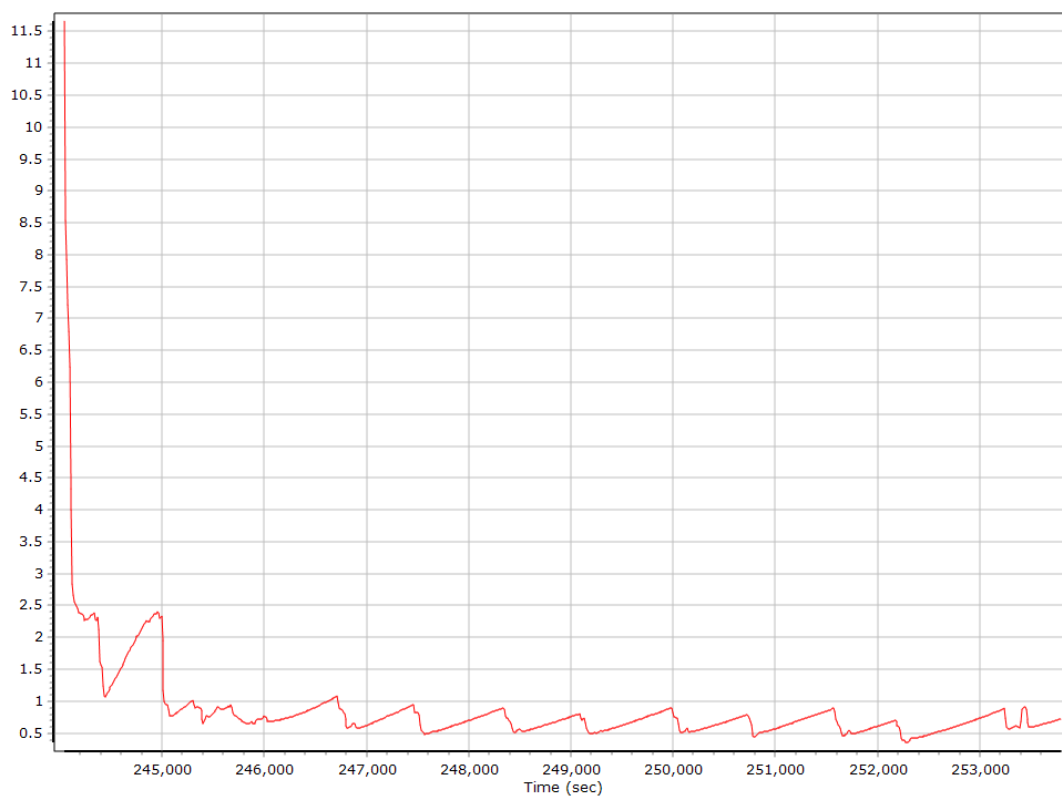
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

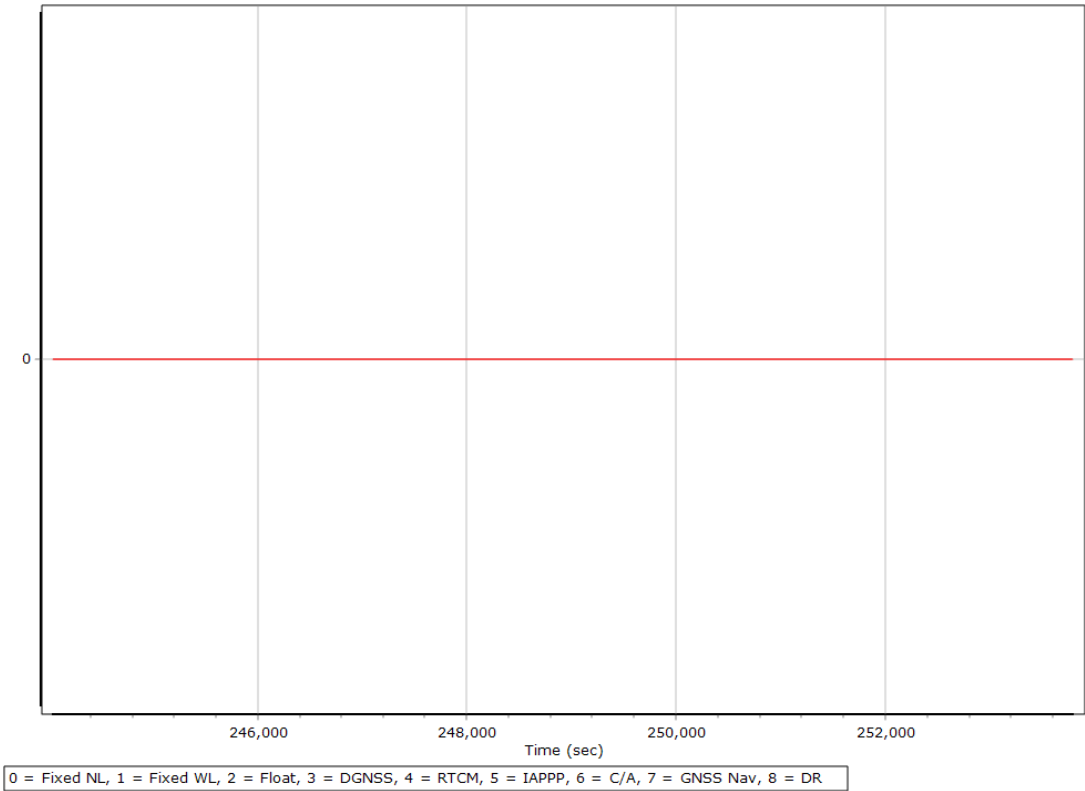


Heading Error RMS (arc-min)

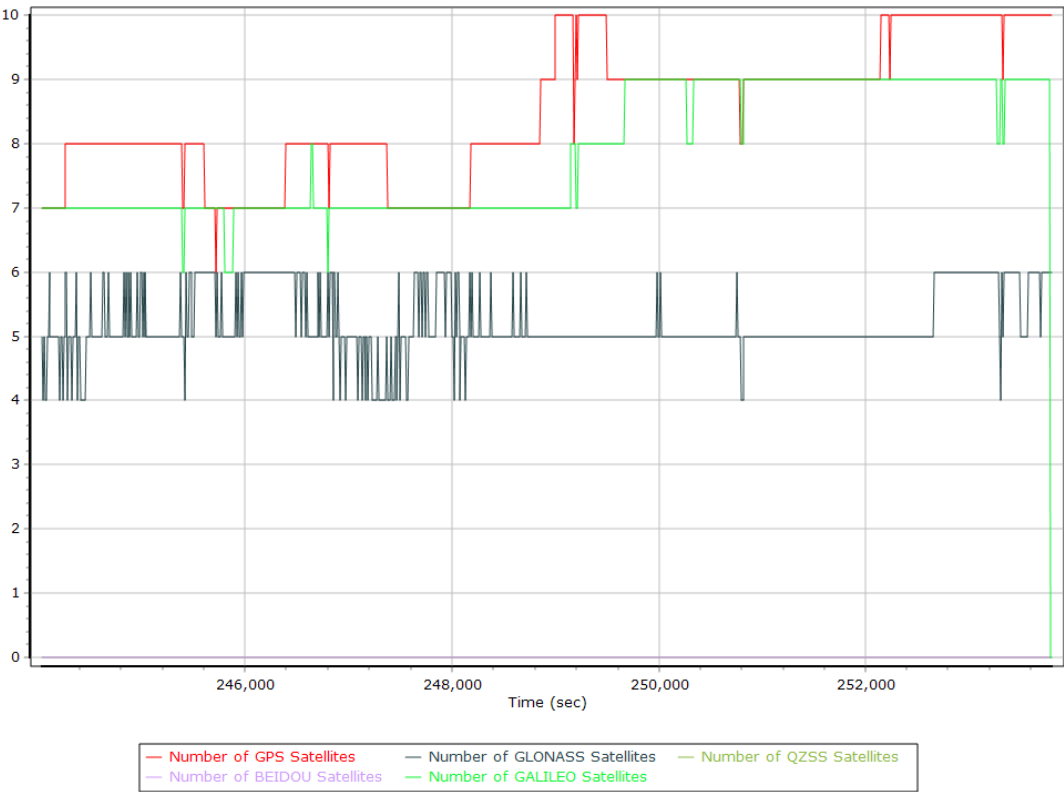


Forward Processed Solution Status

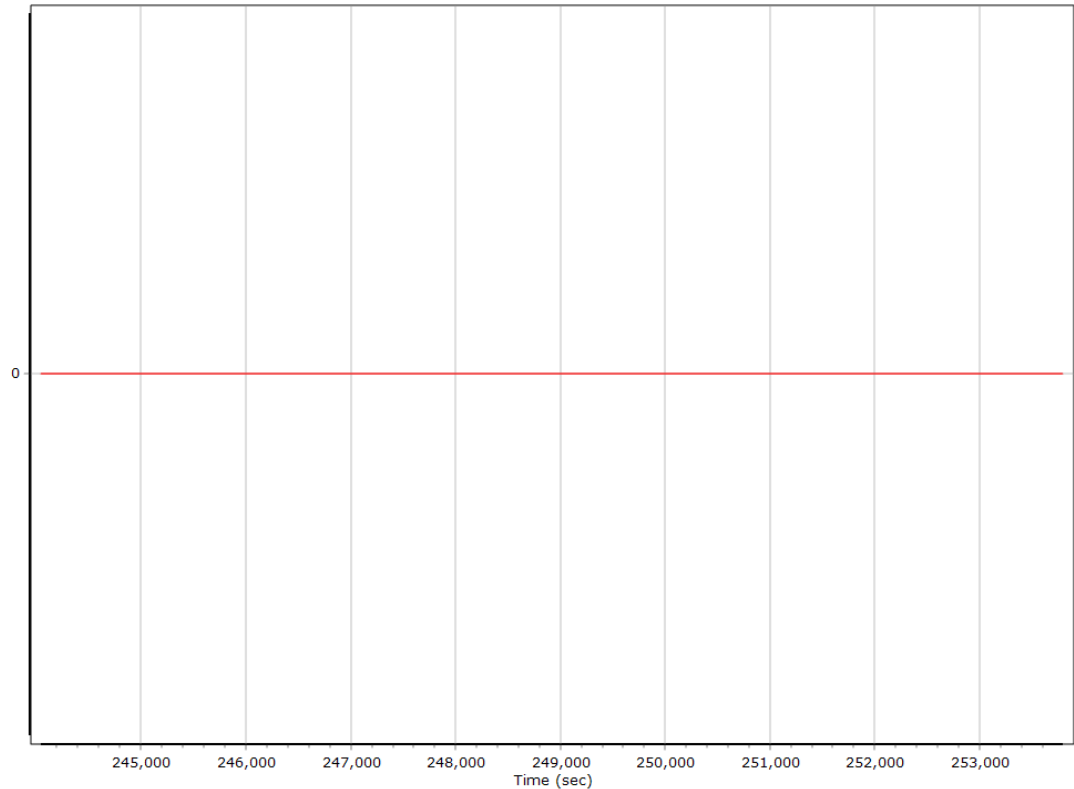
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20220404_F3_4894_NAD832011.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	243984.005 (04/04/2023 19:46:24)		
Export end time	253802.003 (04/04/2023 22:30:02)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.254795		

General Information

Mission Information

Project name	20230406_F1_4894
Processing date	2023-04-10 14:32:08
Mission date	2023-04-06 21:31:03
Mission duration	01:19:13.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.110	POS Data
VQ1560.111	POS Data
VQ1560.112	POS Data
VQ1560.113	POS Data
VQ1560.114	POS Data
VQ1560.115	POS Data
VQ1560.116	POS Data
VQ1560.117	POS Data
VQ1560.118	POS Data
VQ1560.119	POS Data
VQ1560.120	POS Data
VQ1560.121	POS Data

Input Files

File Name	File Type
Ephm0960.23g	GLONASS Broadcast Ephemeris
Ephm0960.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230406_F1_4894.out	SBET Trajectory File
export_20230406_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.110		
Last raw data file	VQ1560.121		
Start GPS week	2256		
Start time	423057.238 (04/06/2023 21:30:57)		
End time	427798.370 (04/06/2023 22:49:58)		
Start of fine alignment	423487.187 (04/06/2023 21:38:07)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

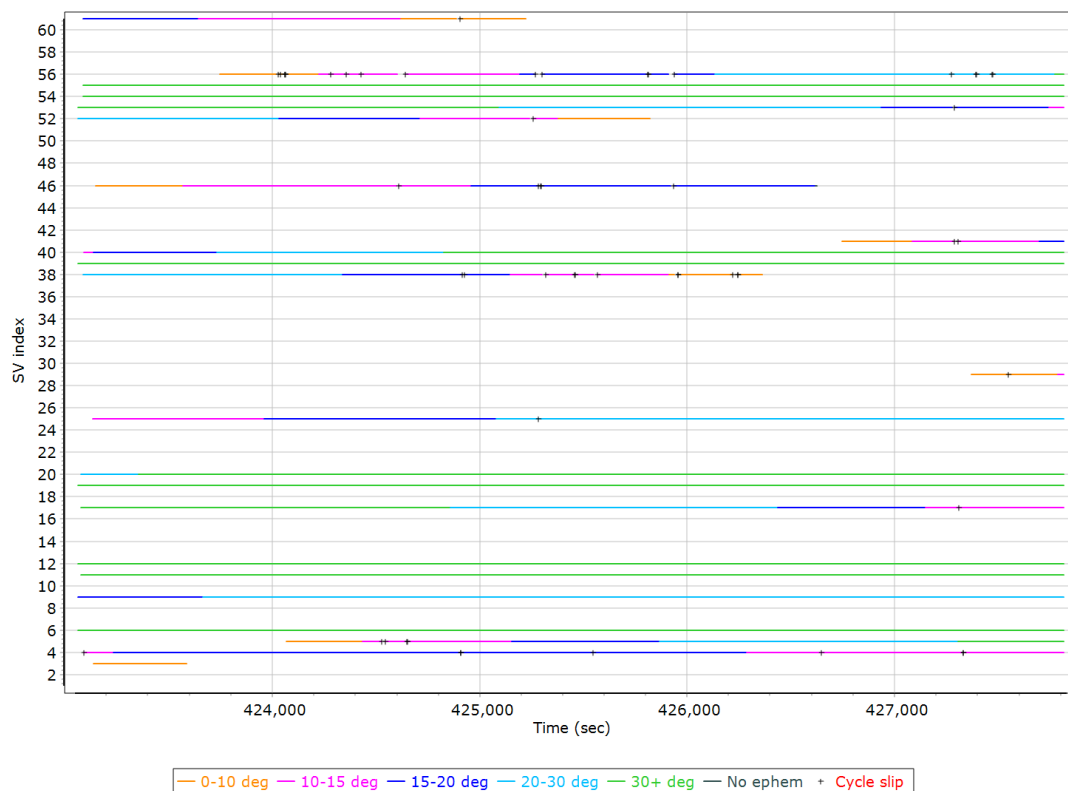
Rover Data QC

Raw IMU Import QC Summary

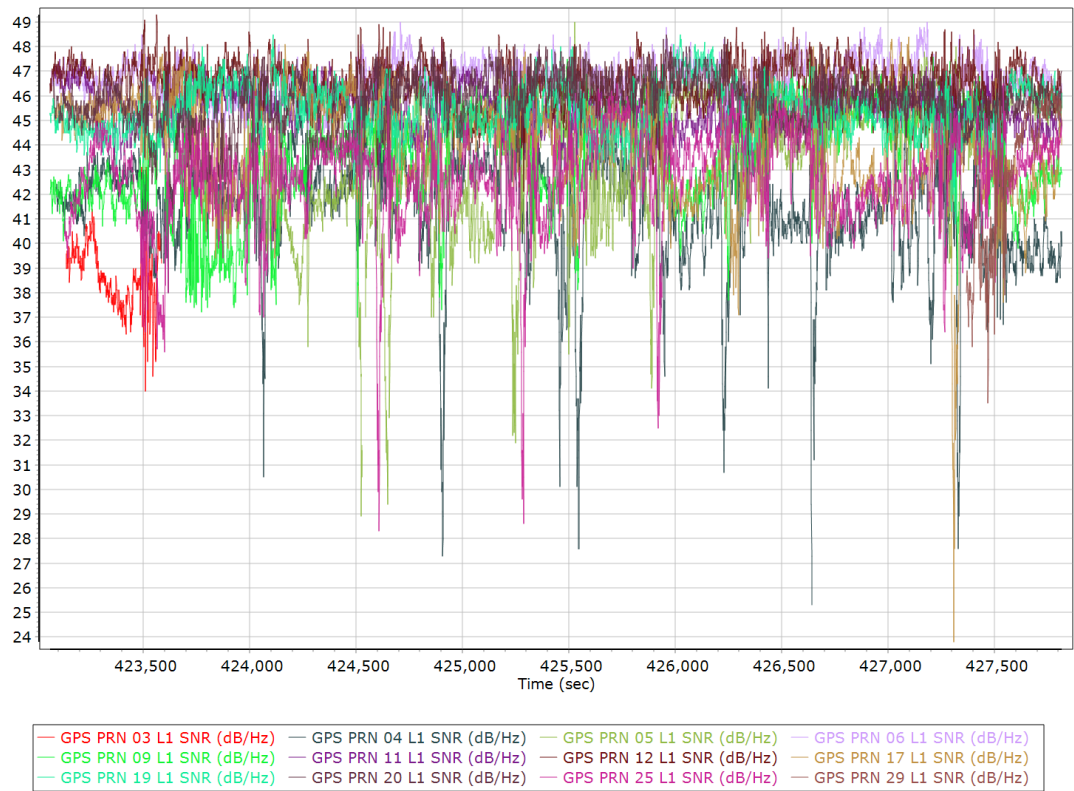
IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_20230406_F1_4894.log
IMU Records Processed	950719
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
423056.038 : WARNING : Gap of 423044.0860 seconds in CHECKDT input data	

Primary Observables & Satellite Data

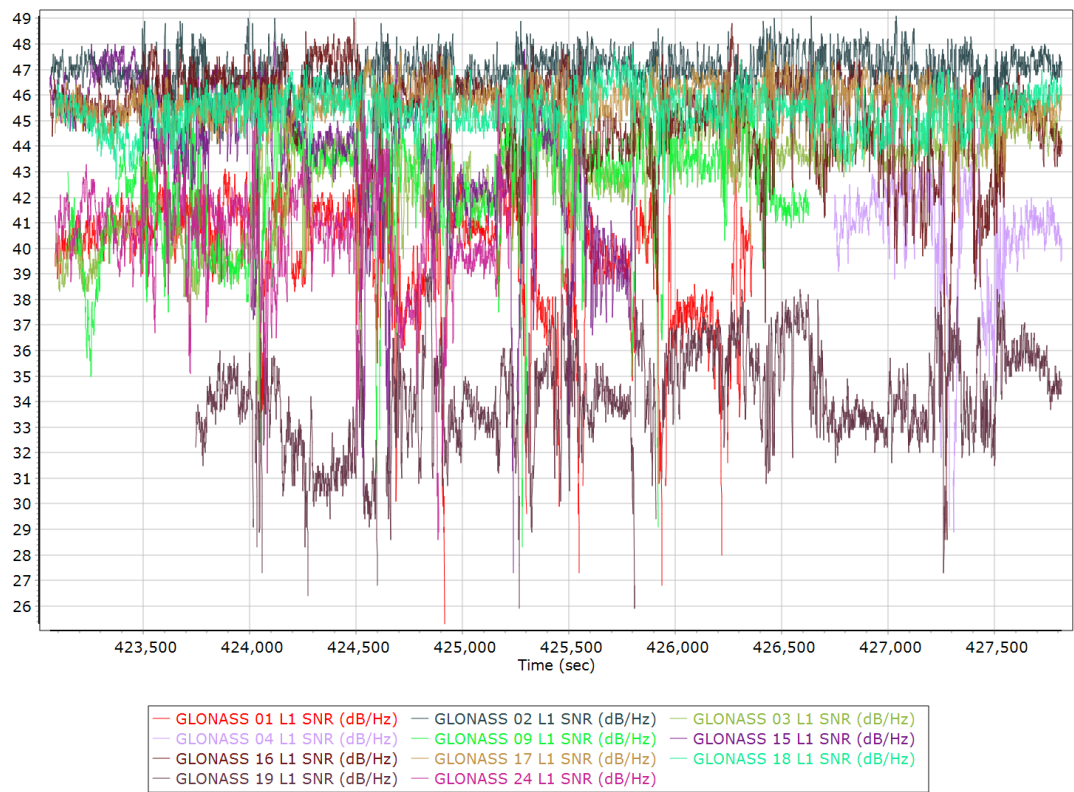
GPS/GLONASS L1 Satellite Lock/Elevation



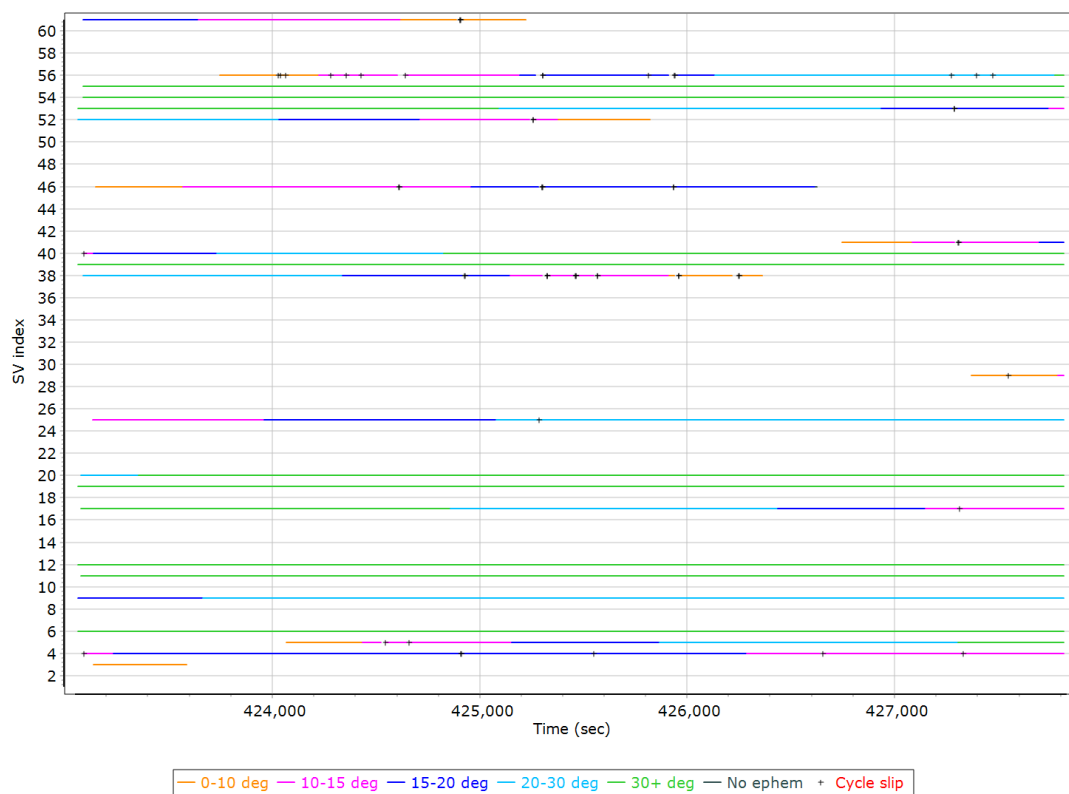
GPS L1 SNR



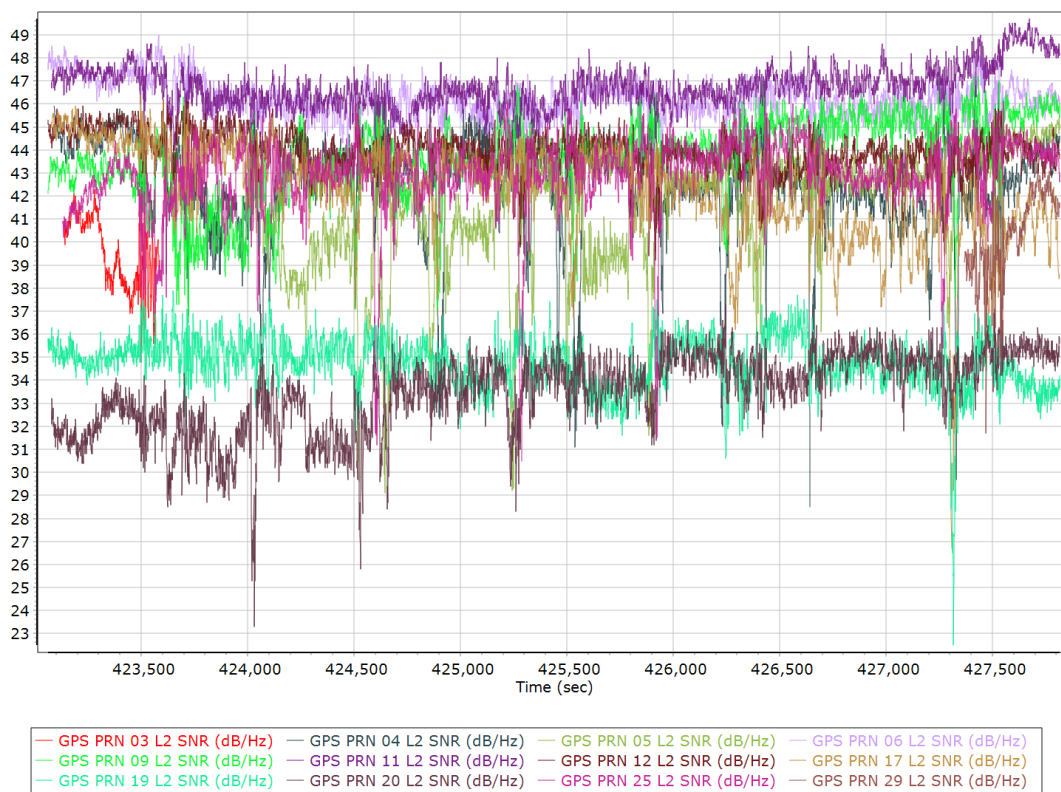
GLONASS L1 SNR



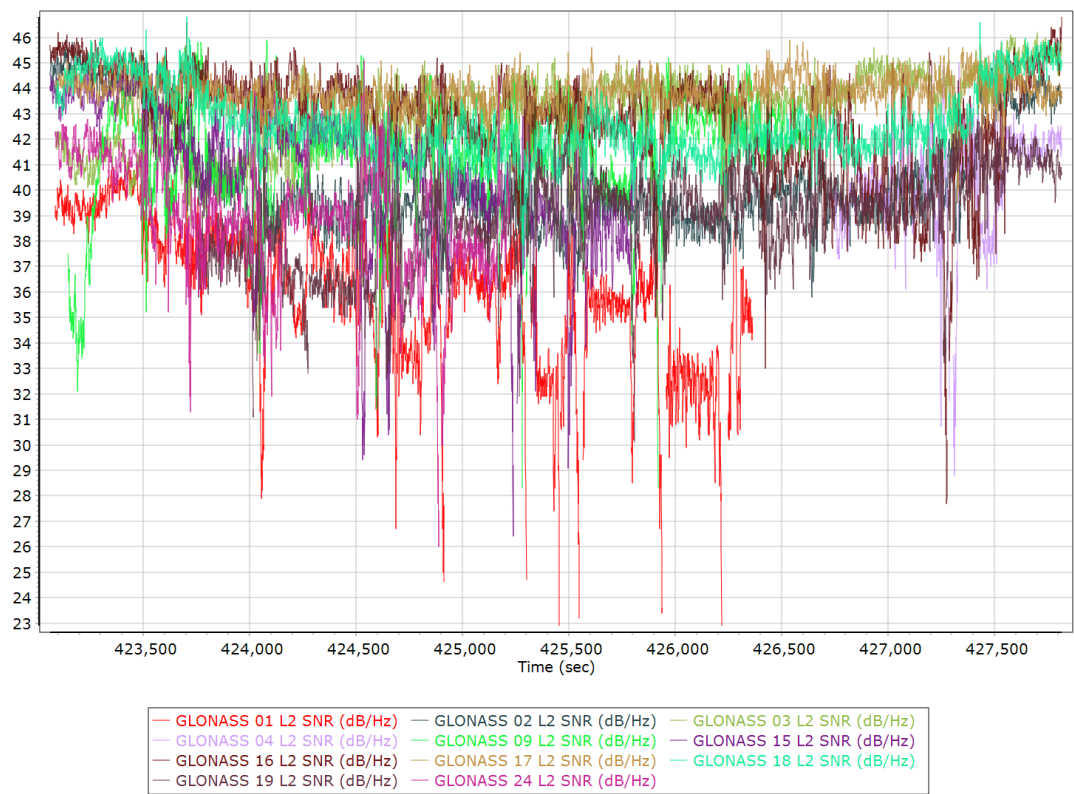
GPS/GLONASS L2 Satellite Lock/Elevation



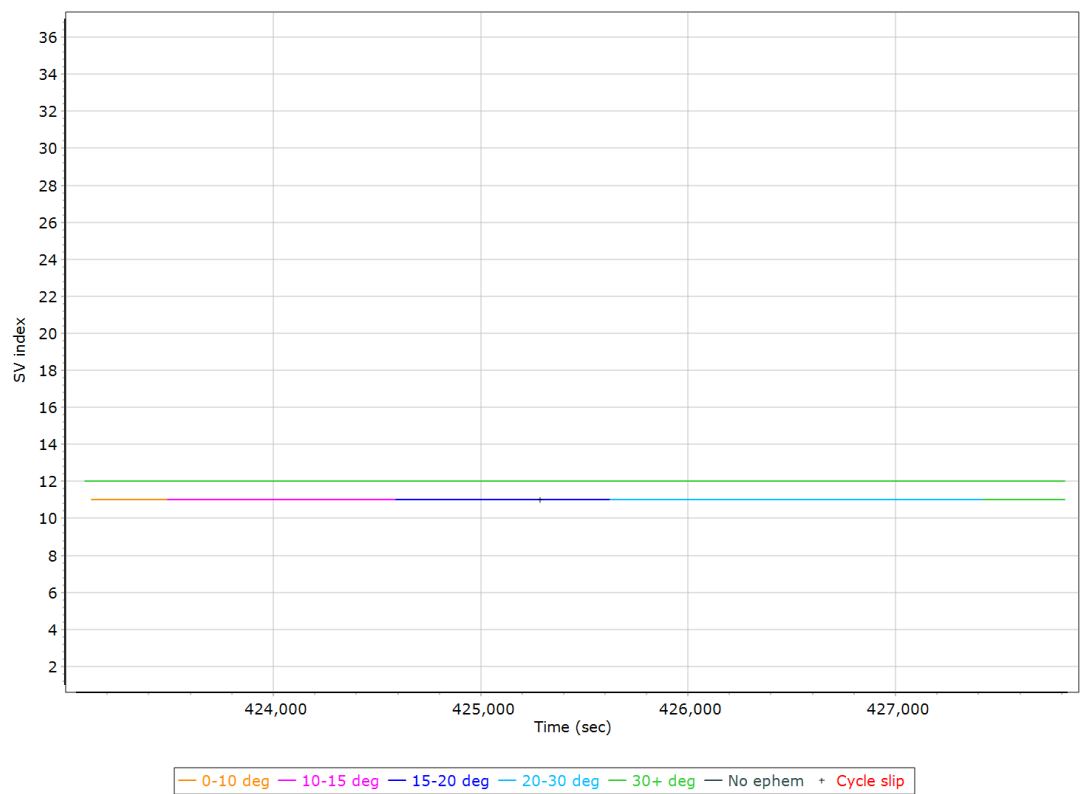
GPS L2 SNR



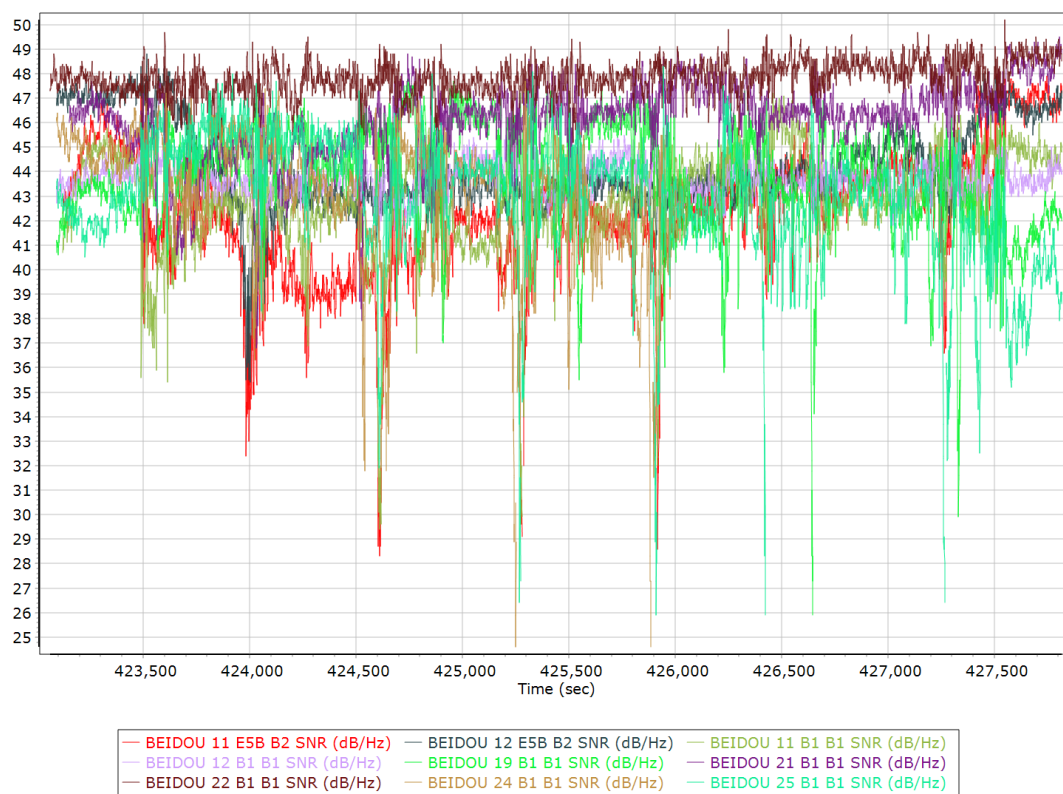
GLONASS L2 SNR



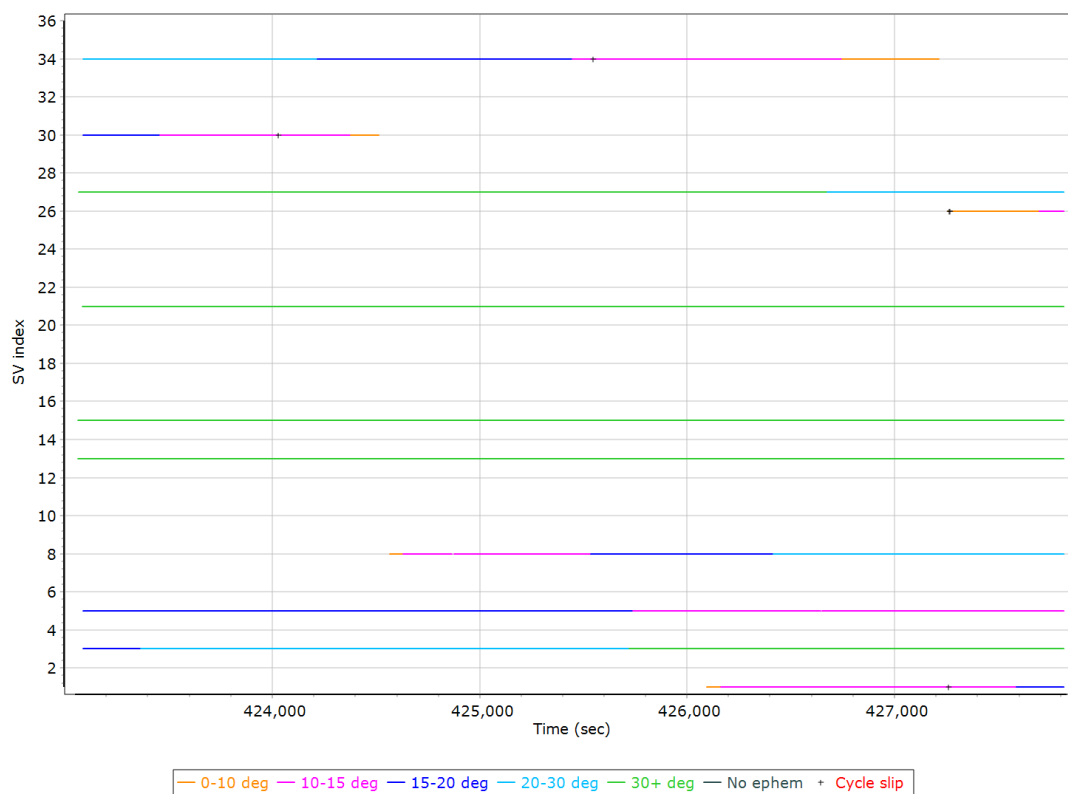
BEIDOU Satellite Lock/Elevation



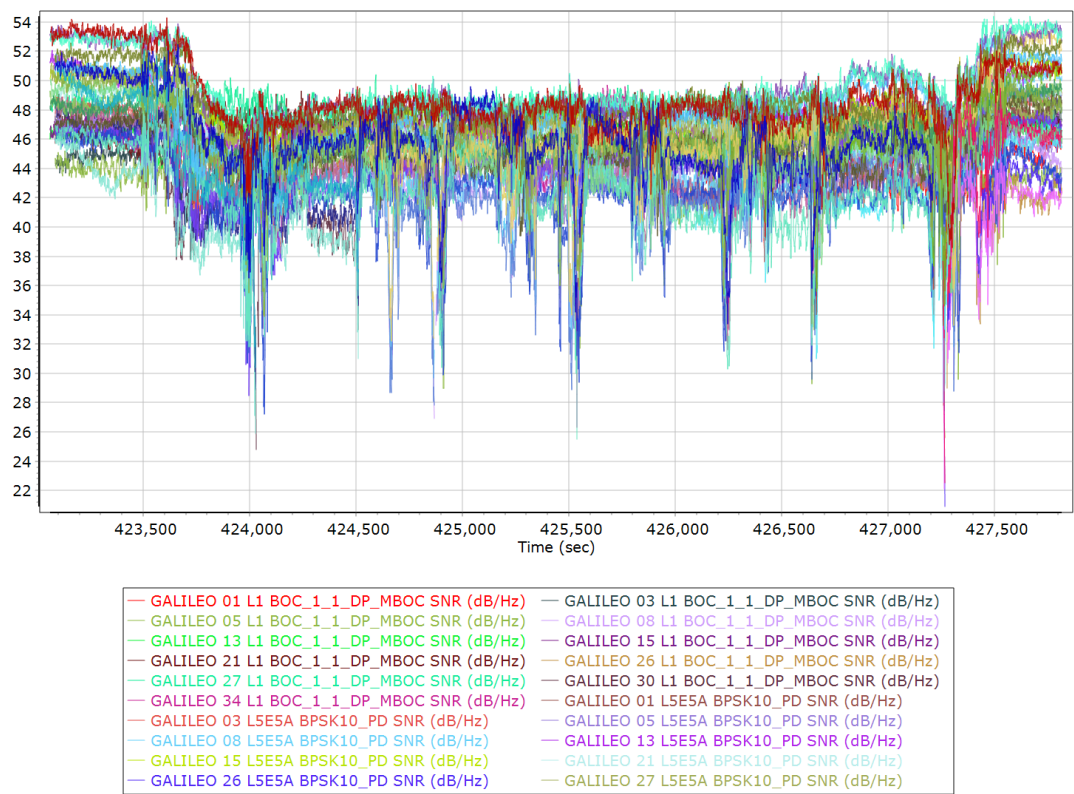
BEIDOU SNR



GALILEO Satellite Lock/Elevation

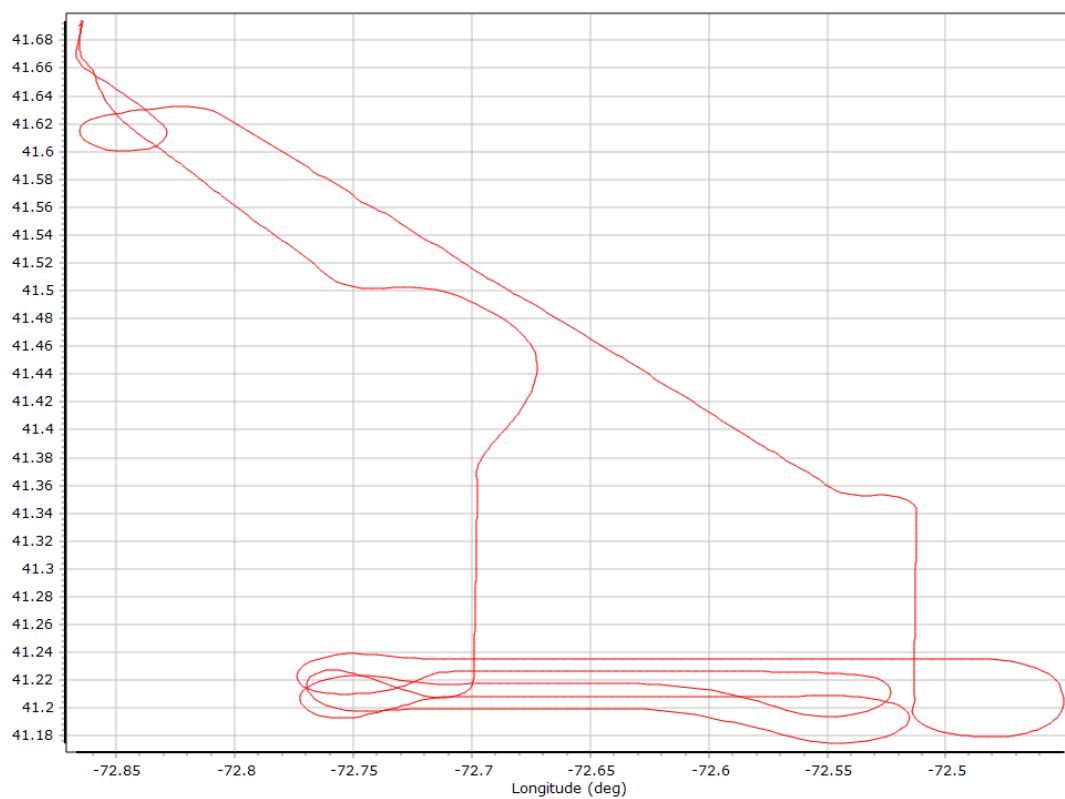


GALILEO SNR

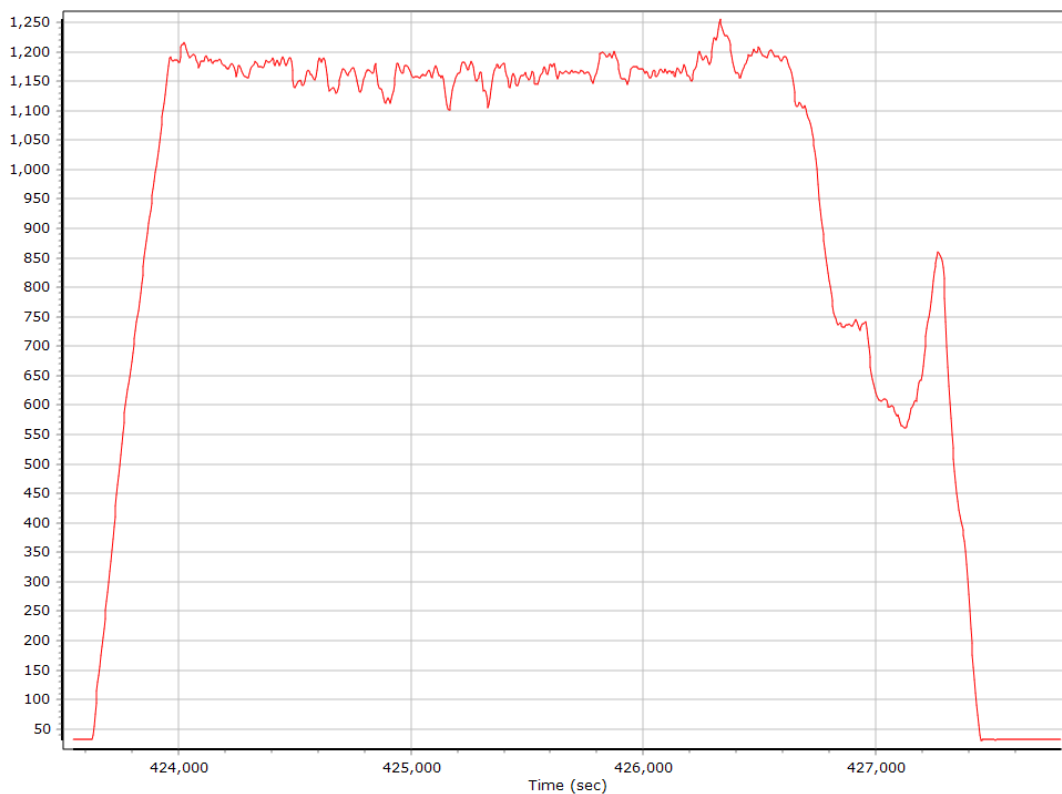


Smoothed Trajectory Information

Top View



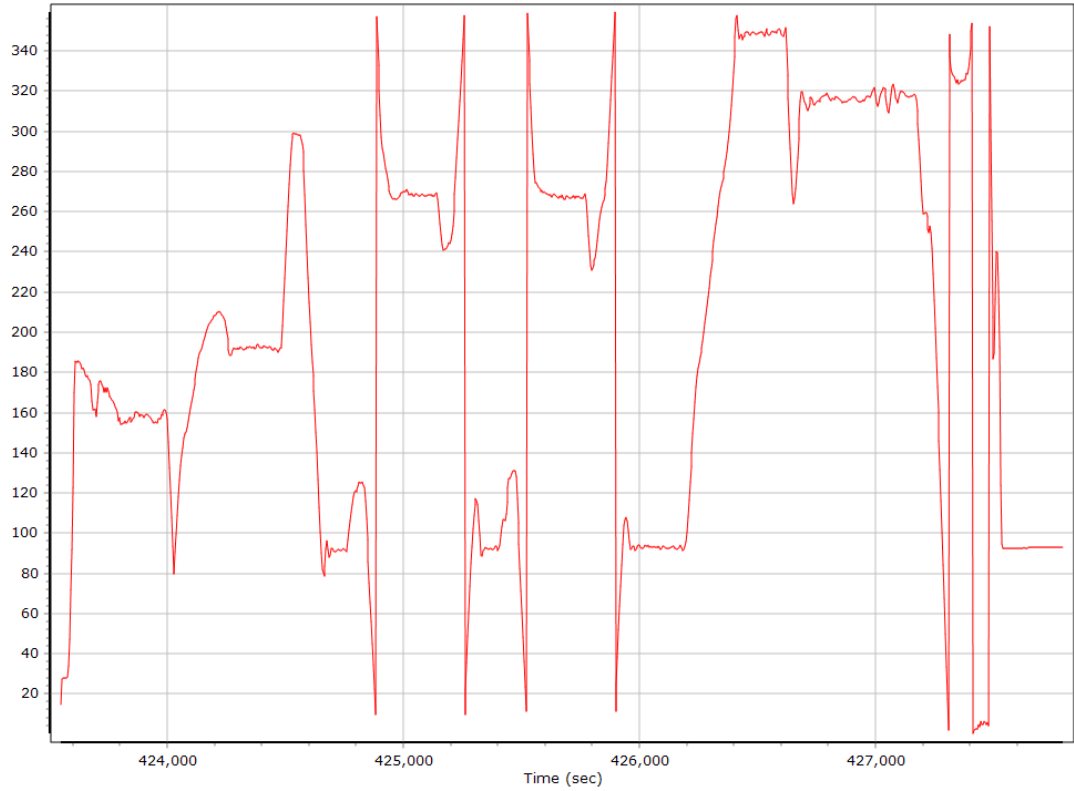
Altitude



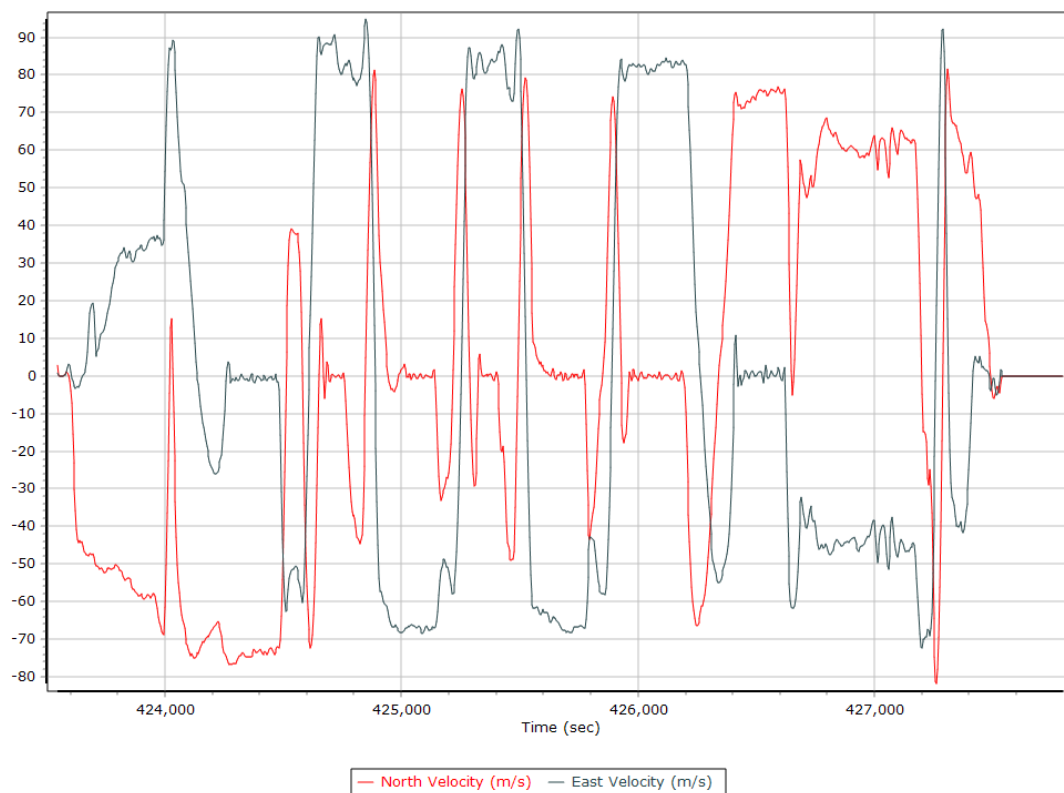
Roll/Pitch



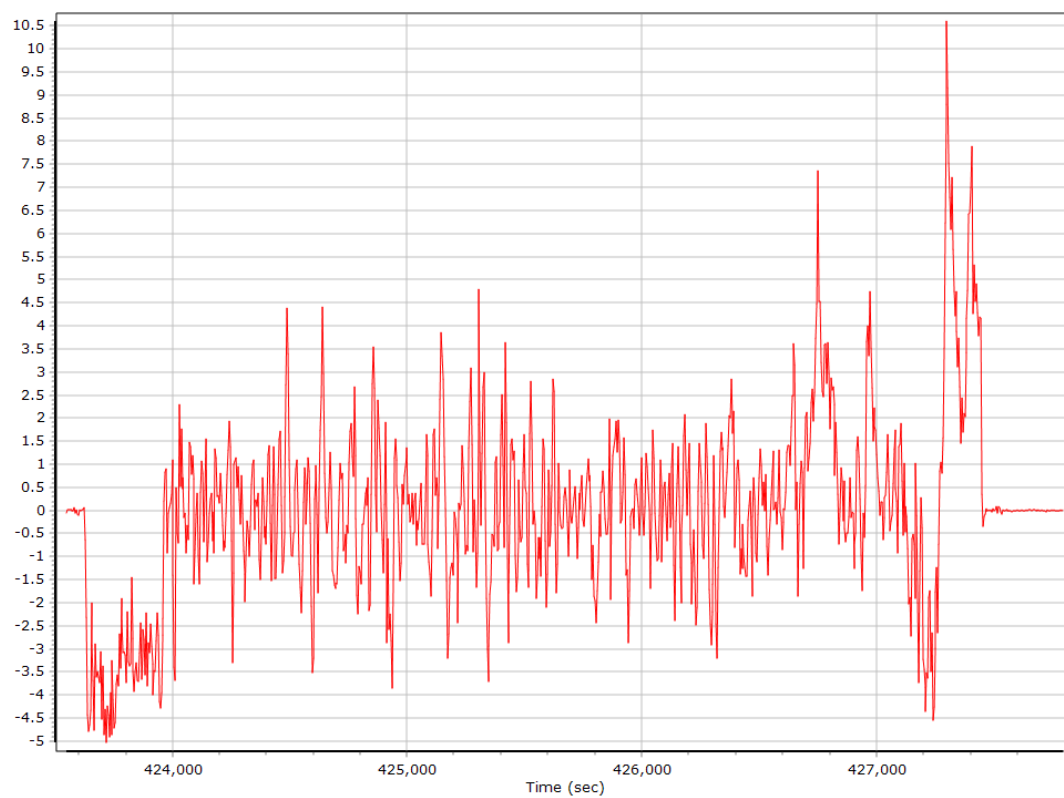
Heading



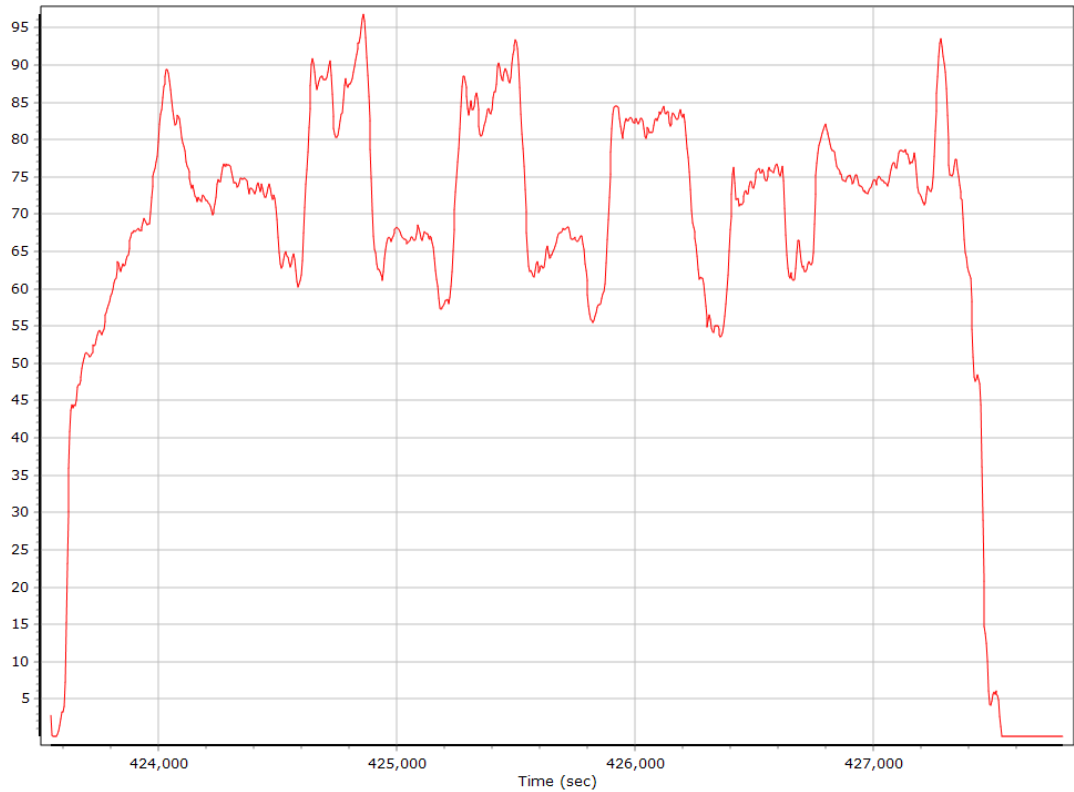
North/East Velocity



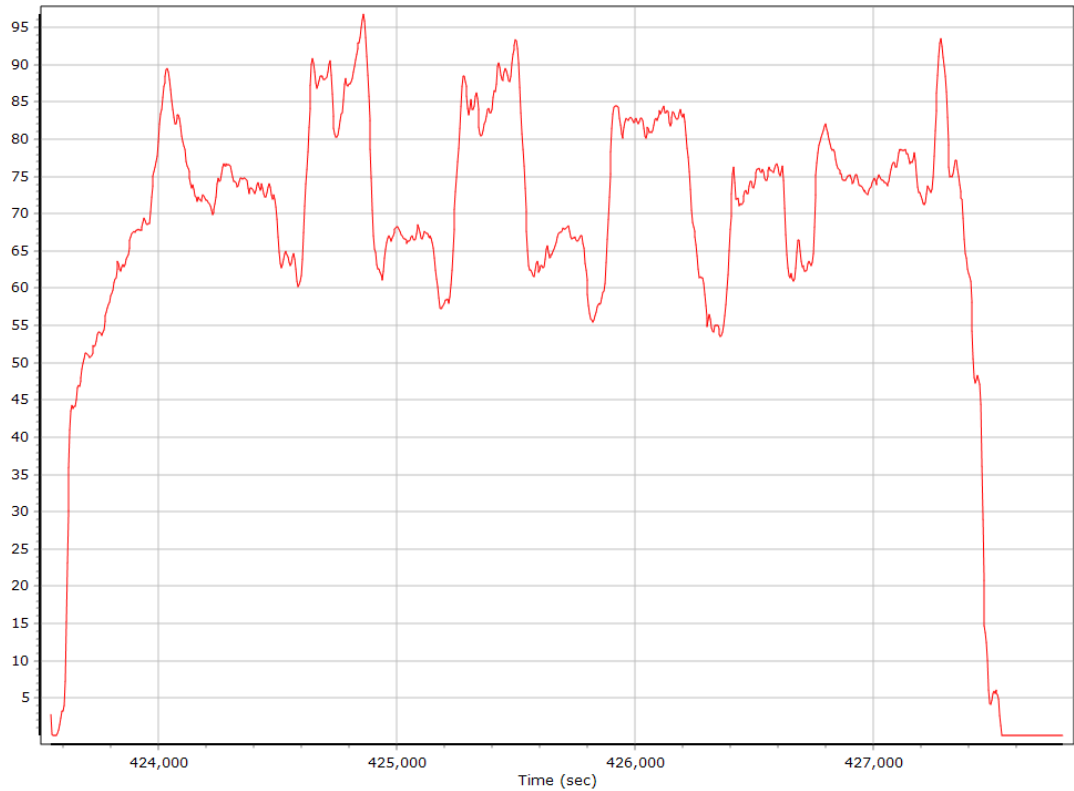
Down Velocity



Total Speed



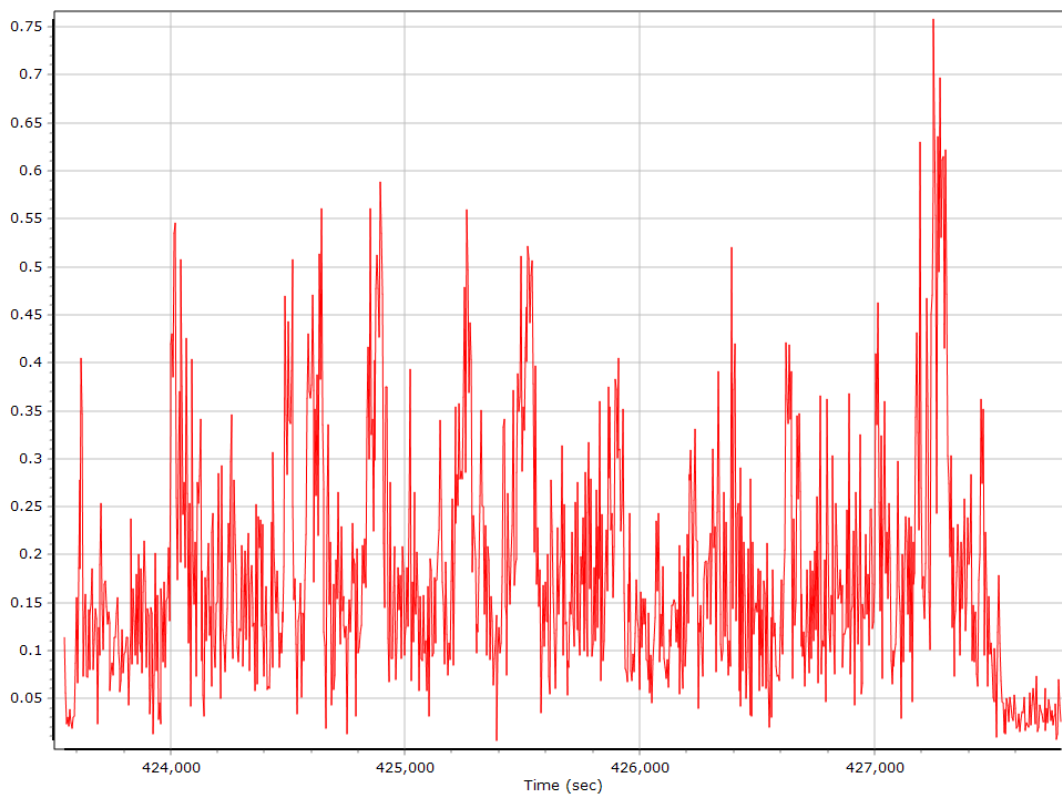
Ground Speed



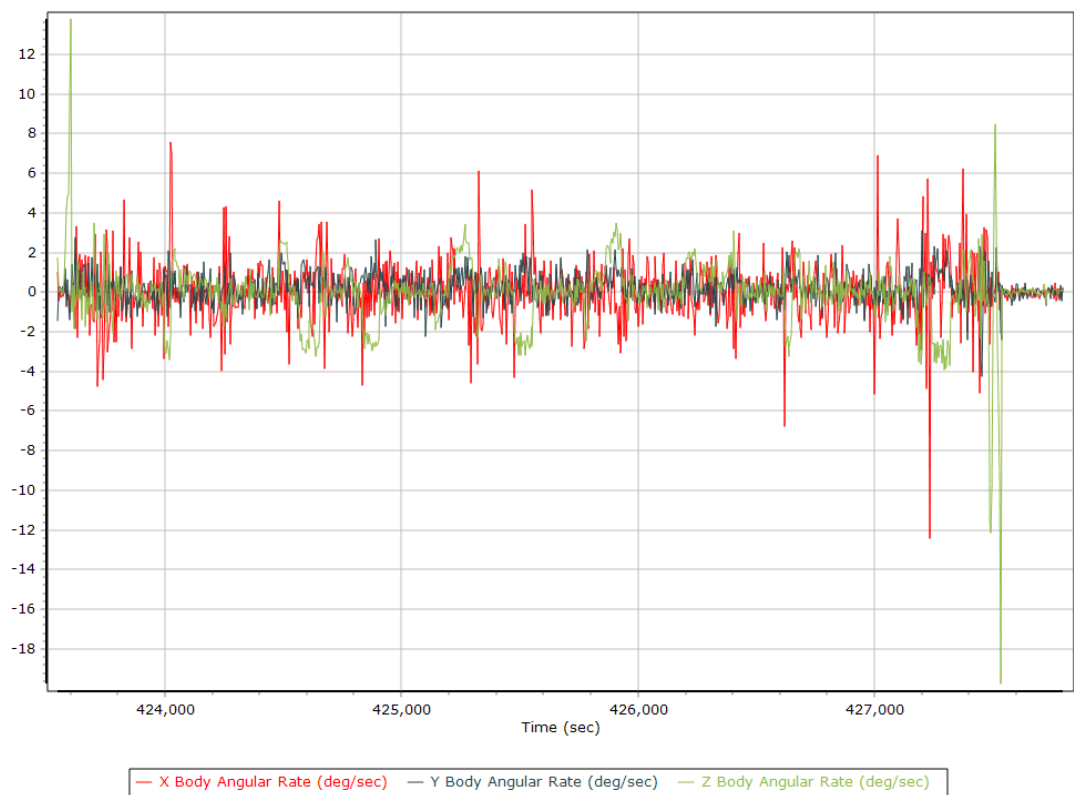
Body Acceleration



Total Body Acceleration

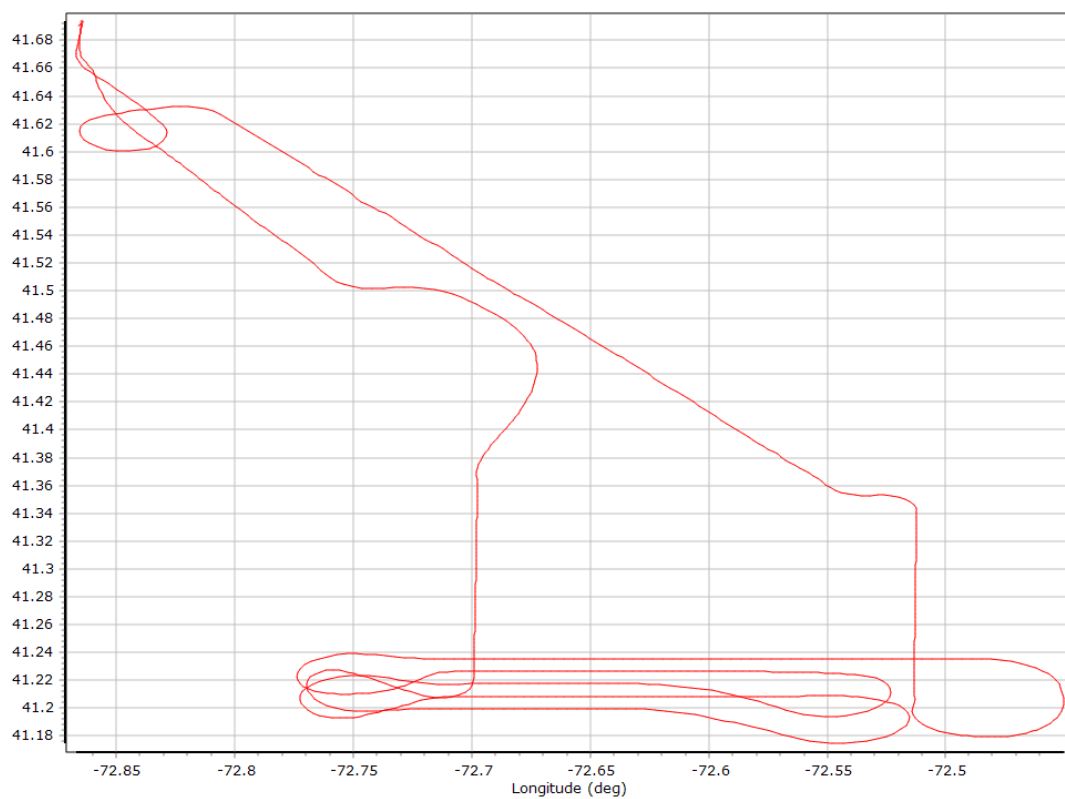


Body Angular Rate

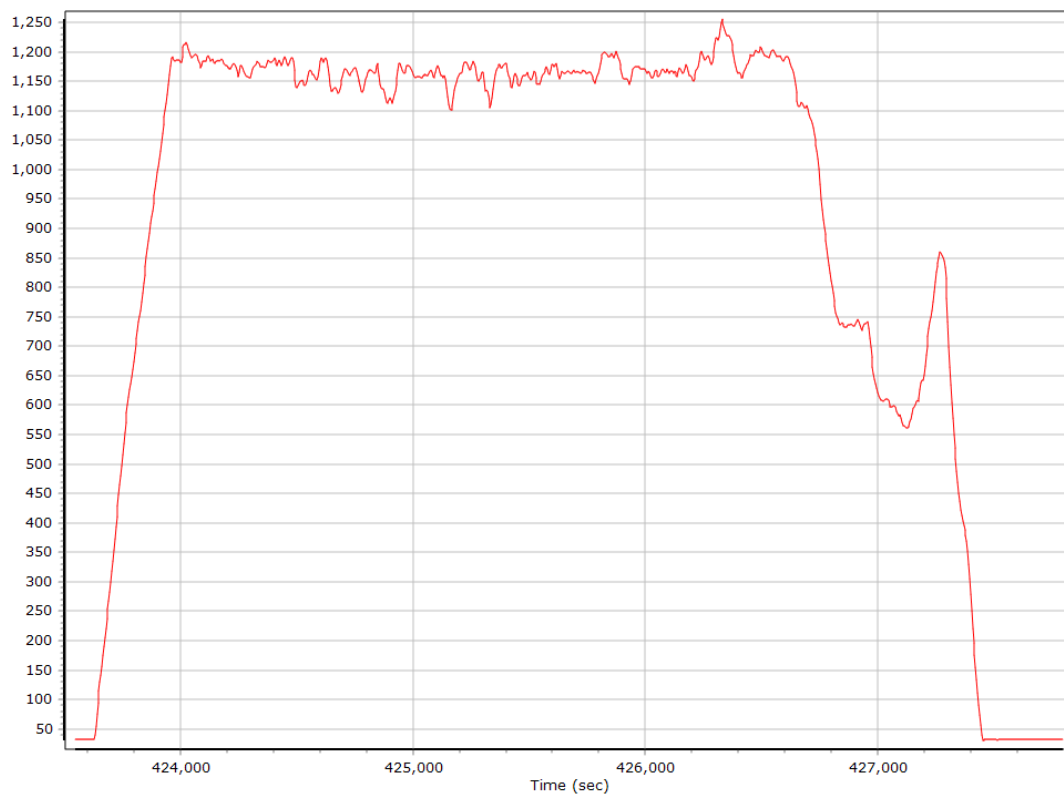


Forward Processed Trajectory Information

Top View



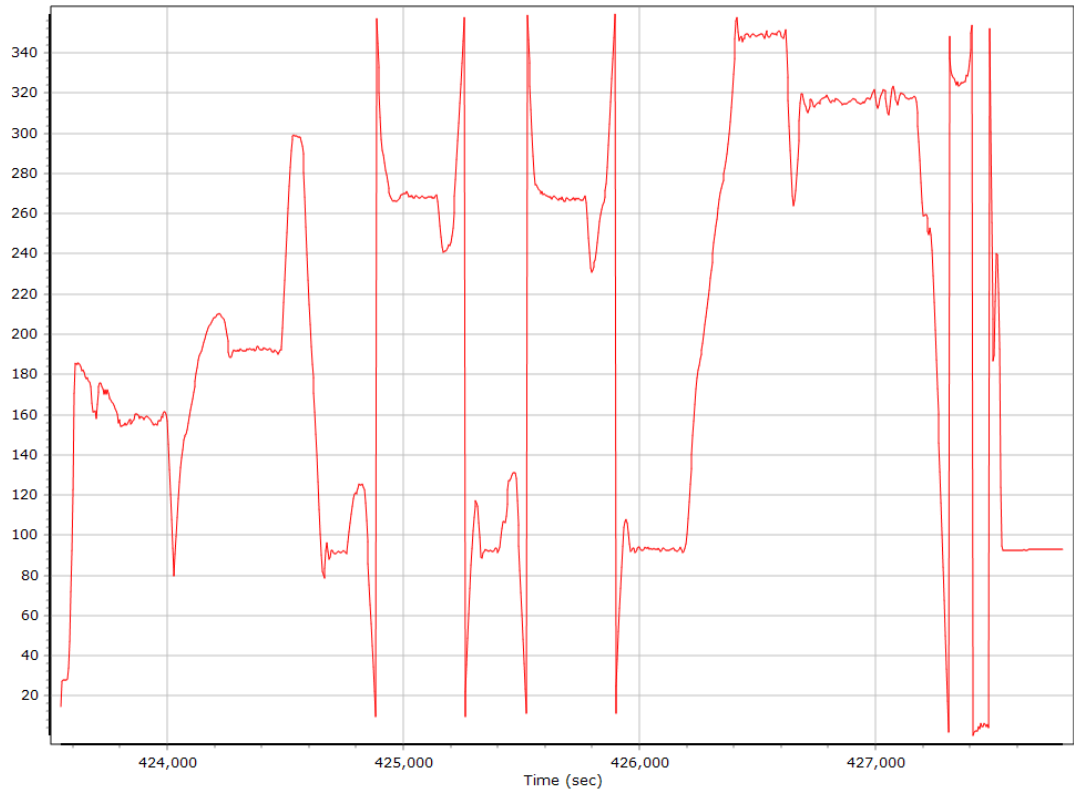
Altitude



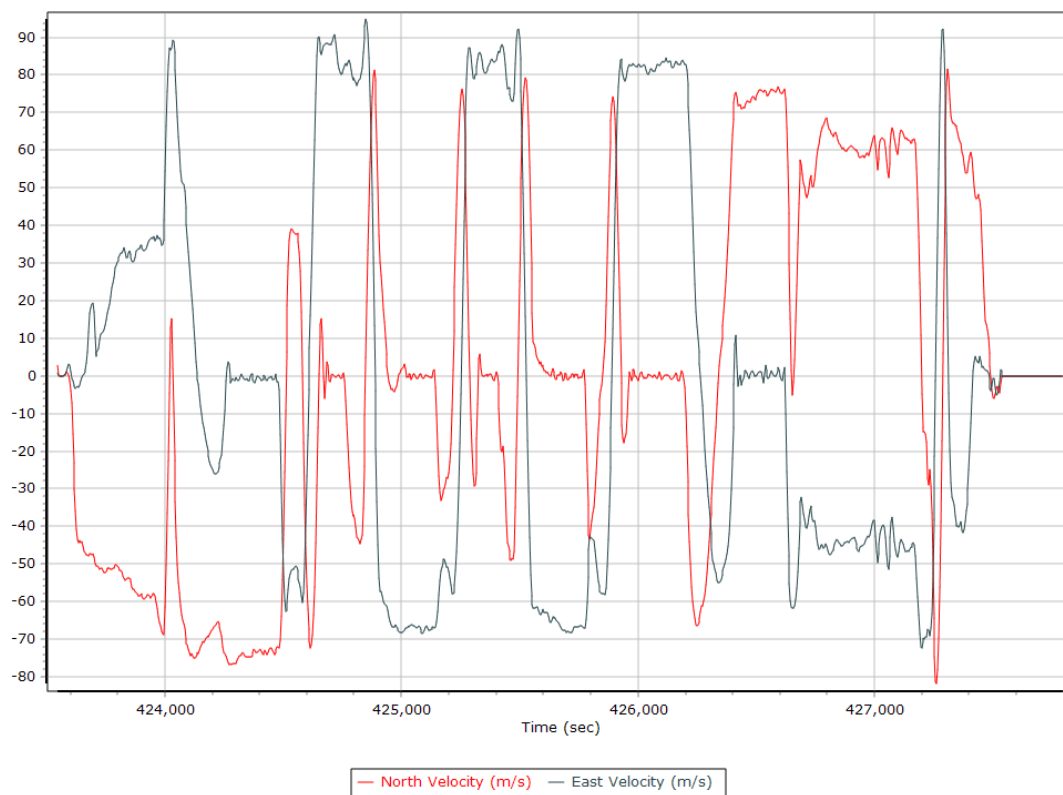
Roll/Pitch



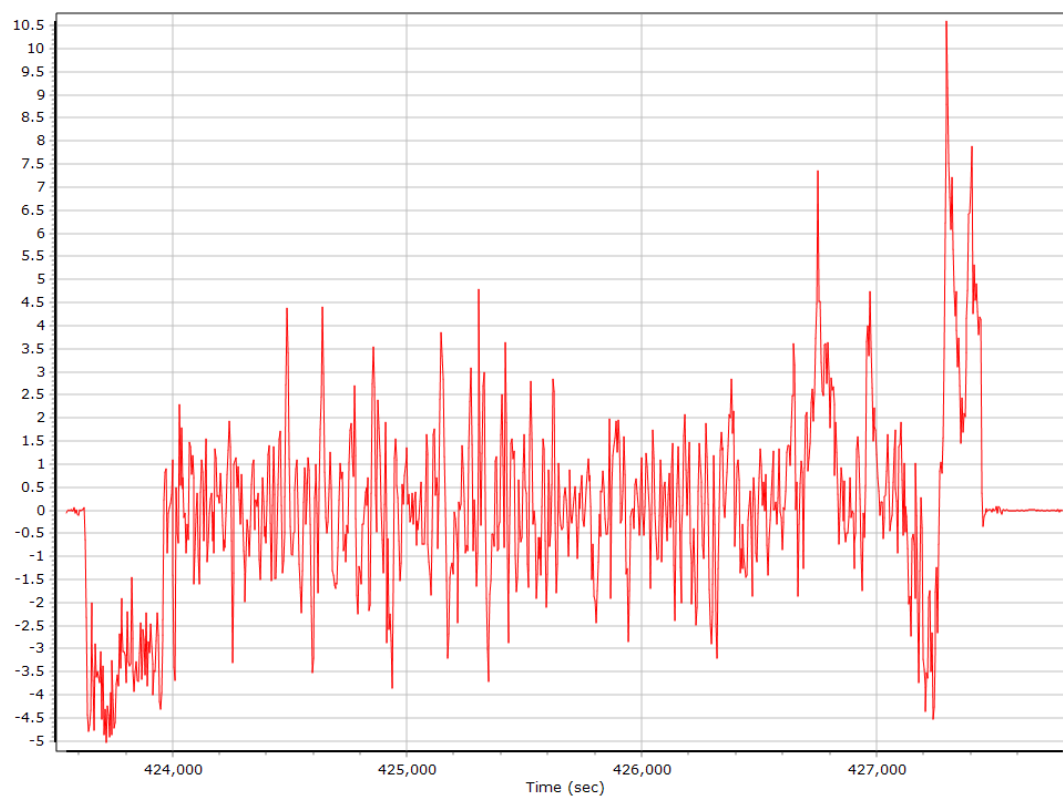
Heading



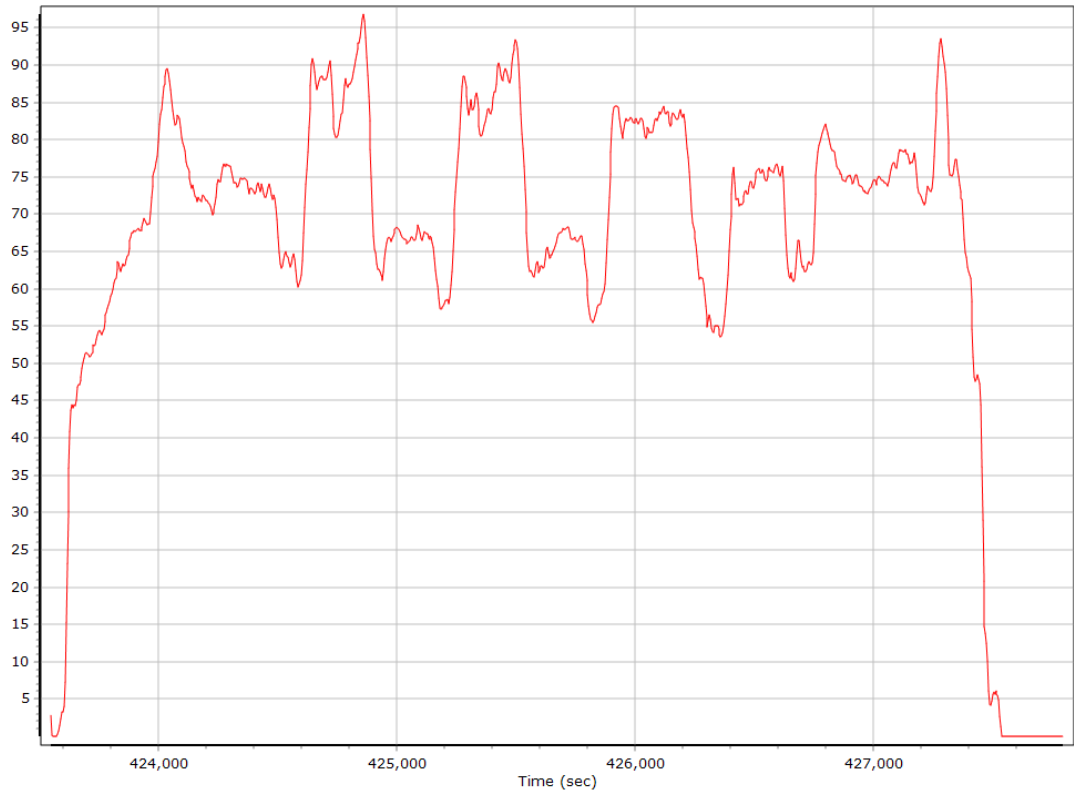
North/East Velocity



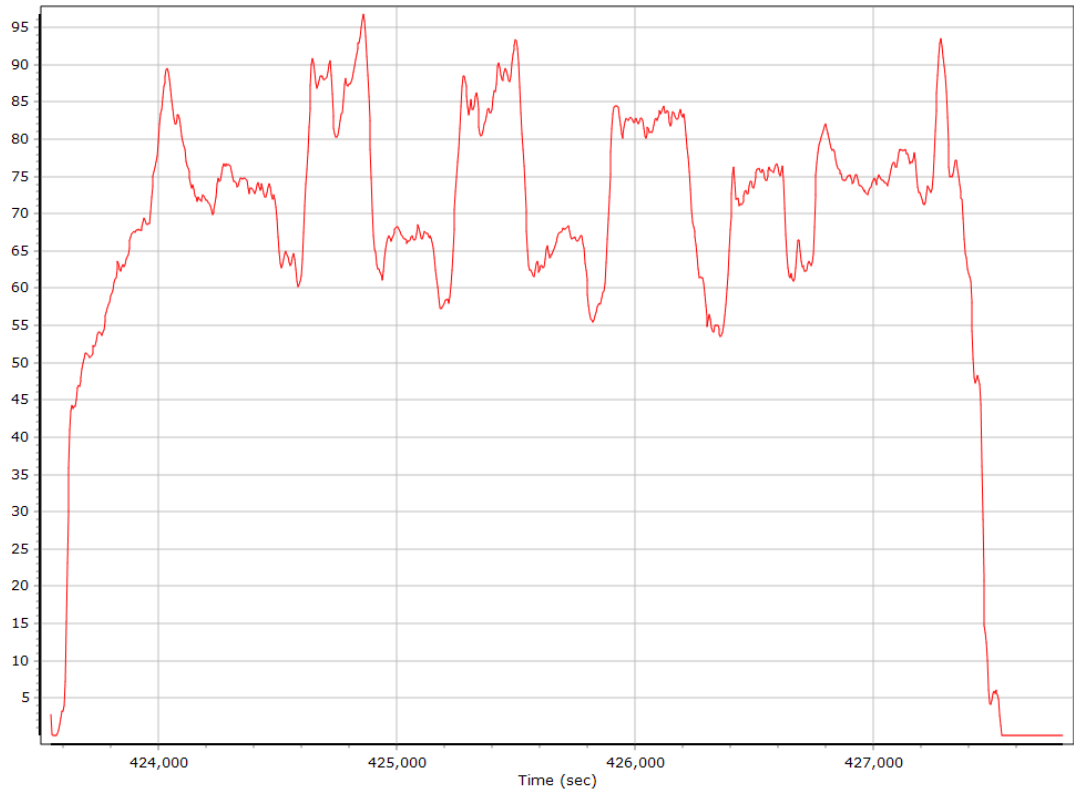
Down Velocity



Total Speed



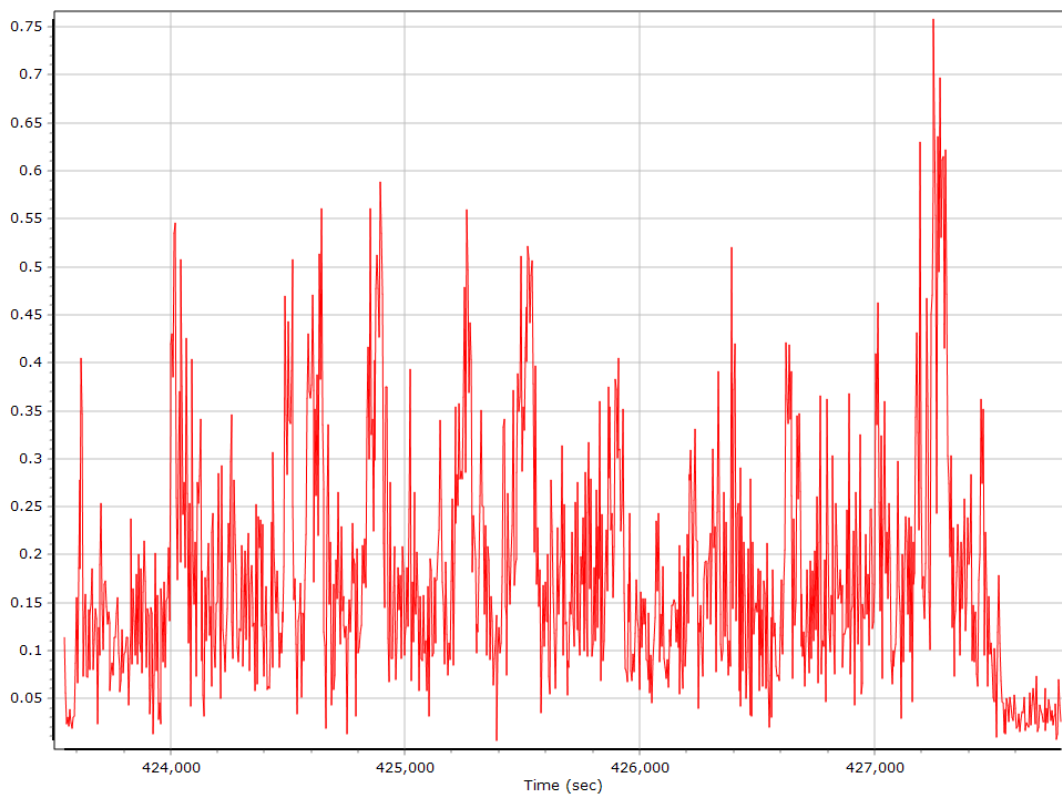
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

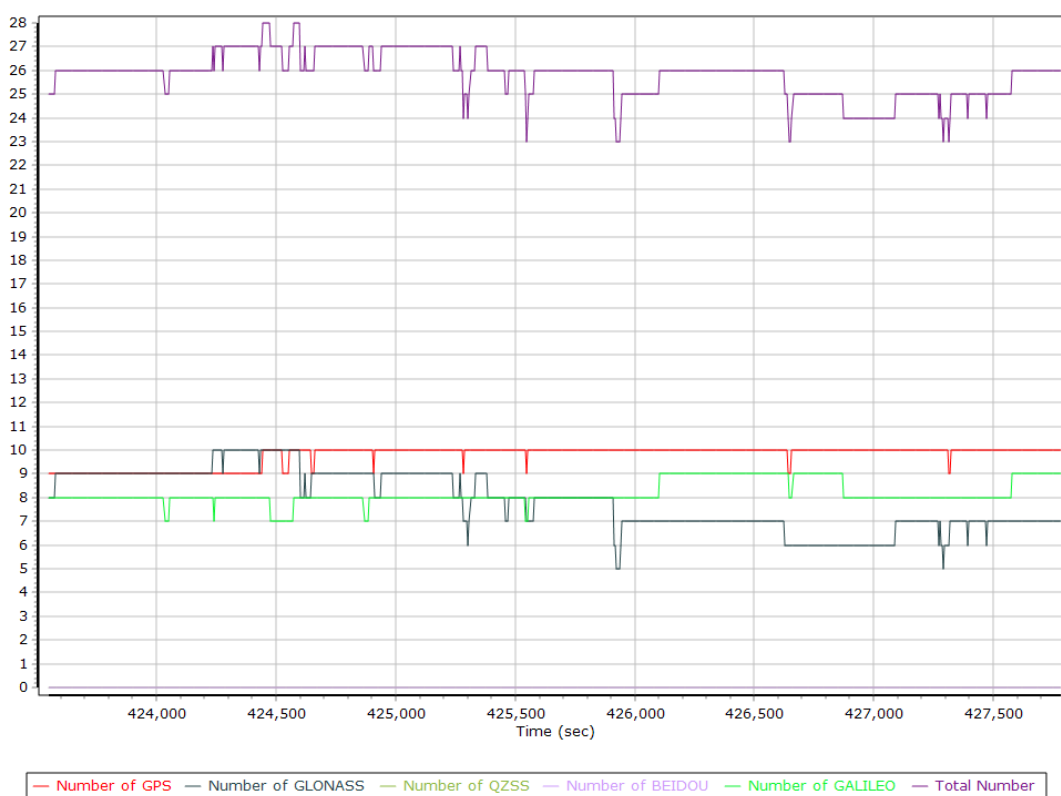


GNSS QC

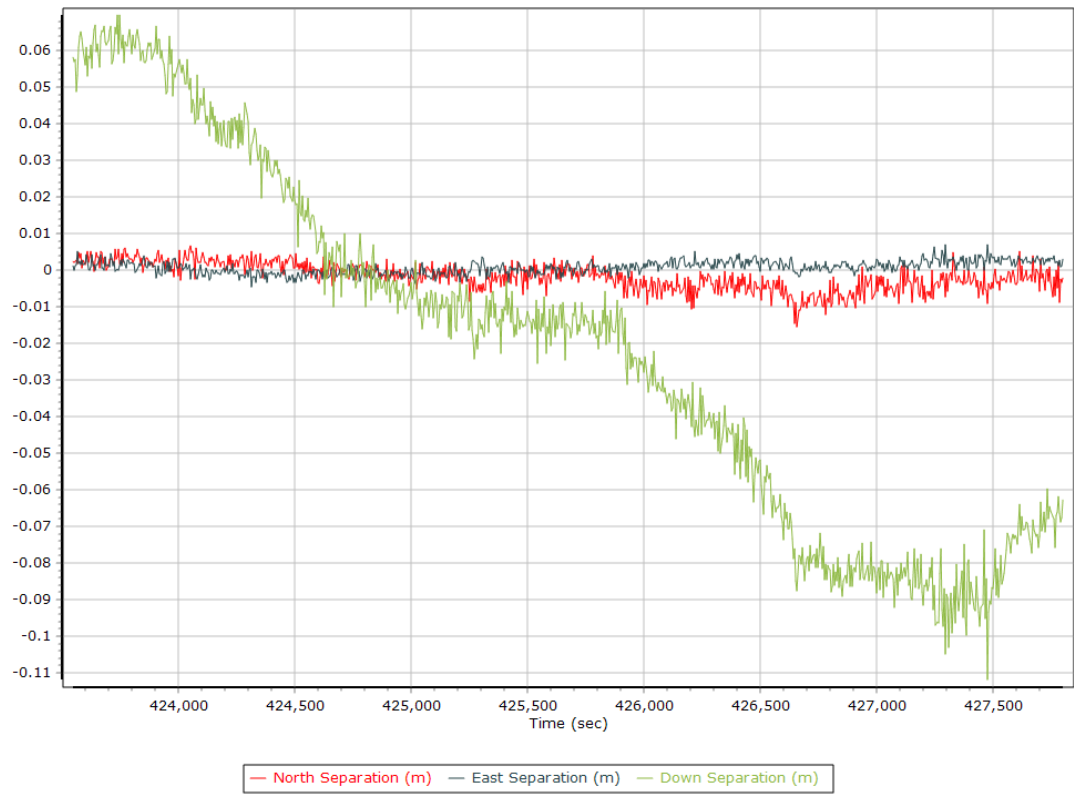
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	4	10	10
Number of GLONASS SV	3	10	8
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	2	9	8
Total number of SV	9	28	26
PDOP	0.94	2.58	1.04
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	4716.00	0.00	0.00
Percentage	100.00	0.00	0.00

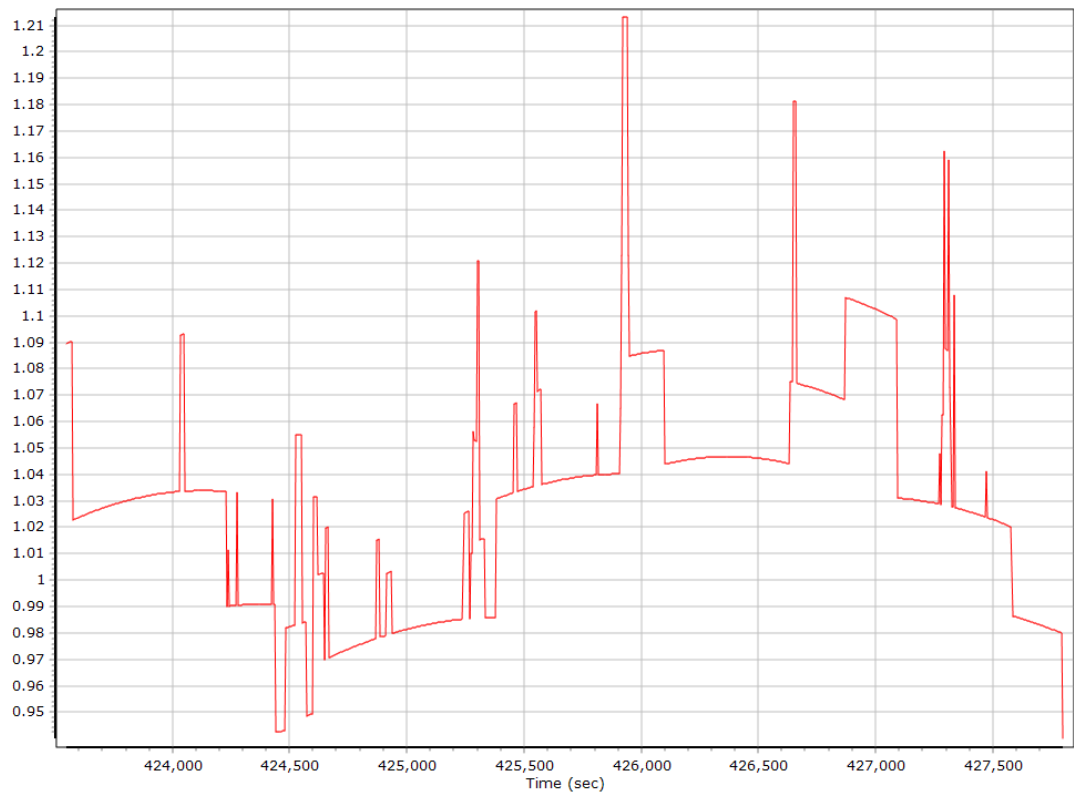
Num SVs in solution



Forward/Reverse Separation



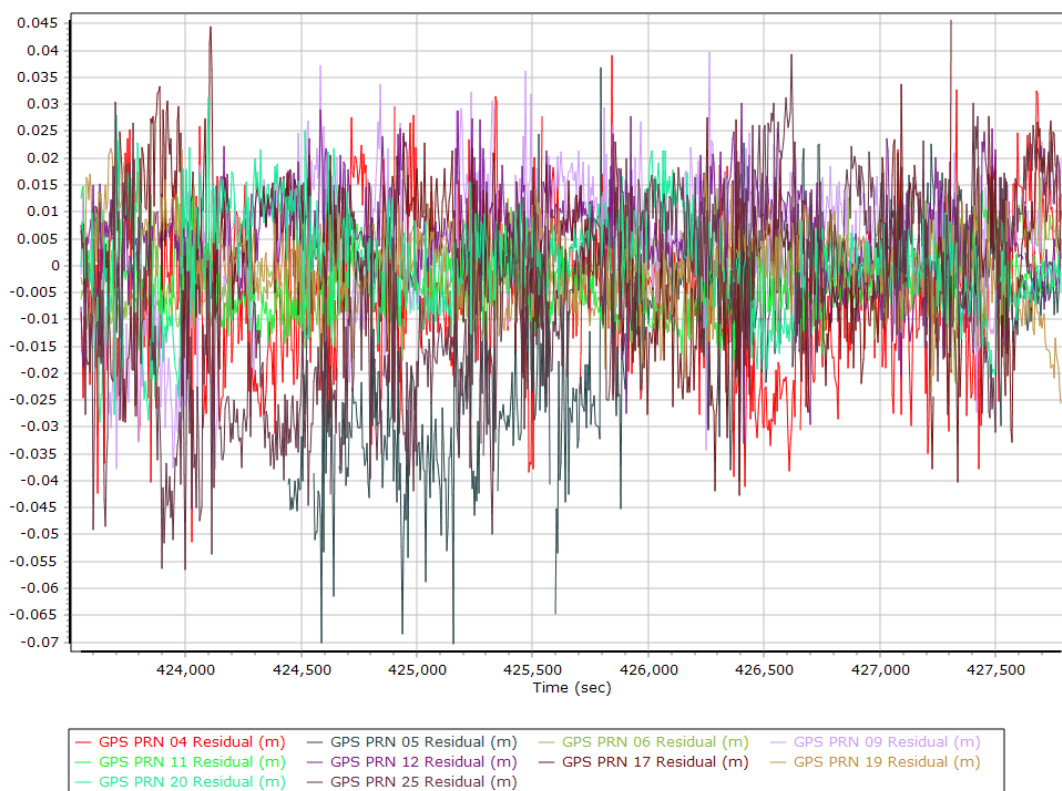
PDOP



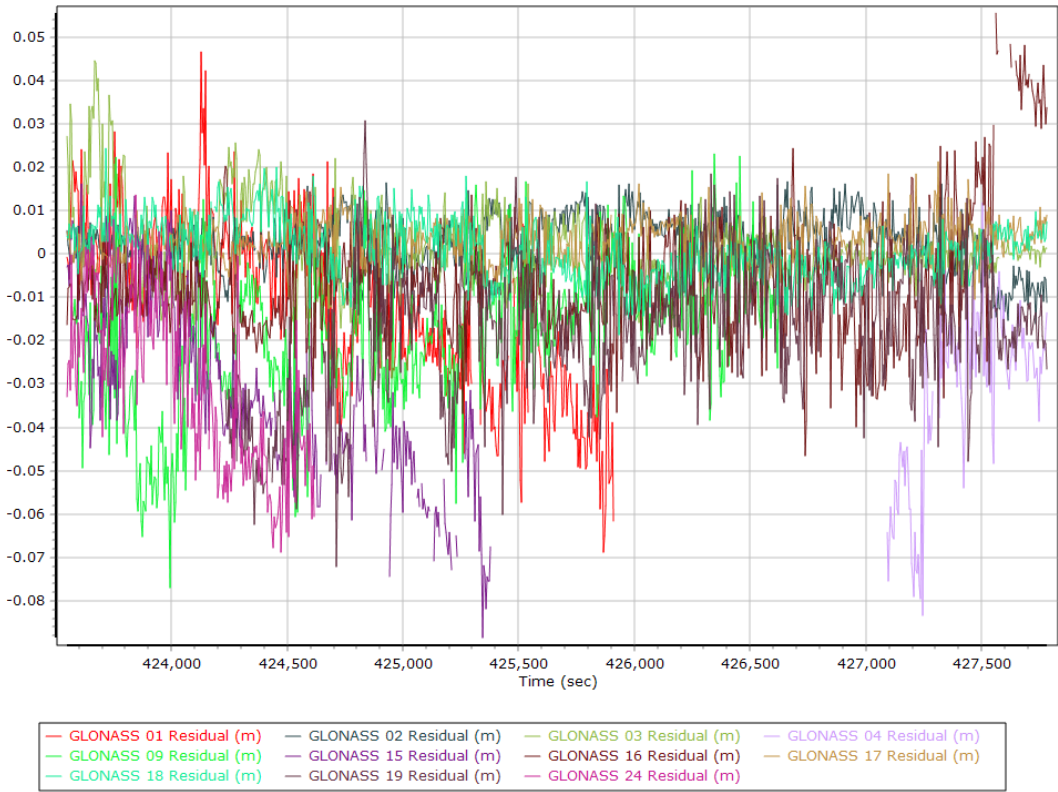
Estimated Position Accuracy



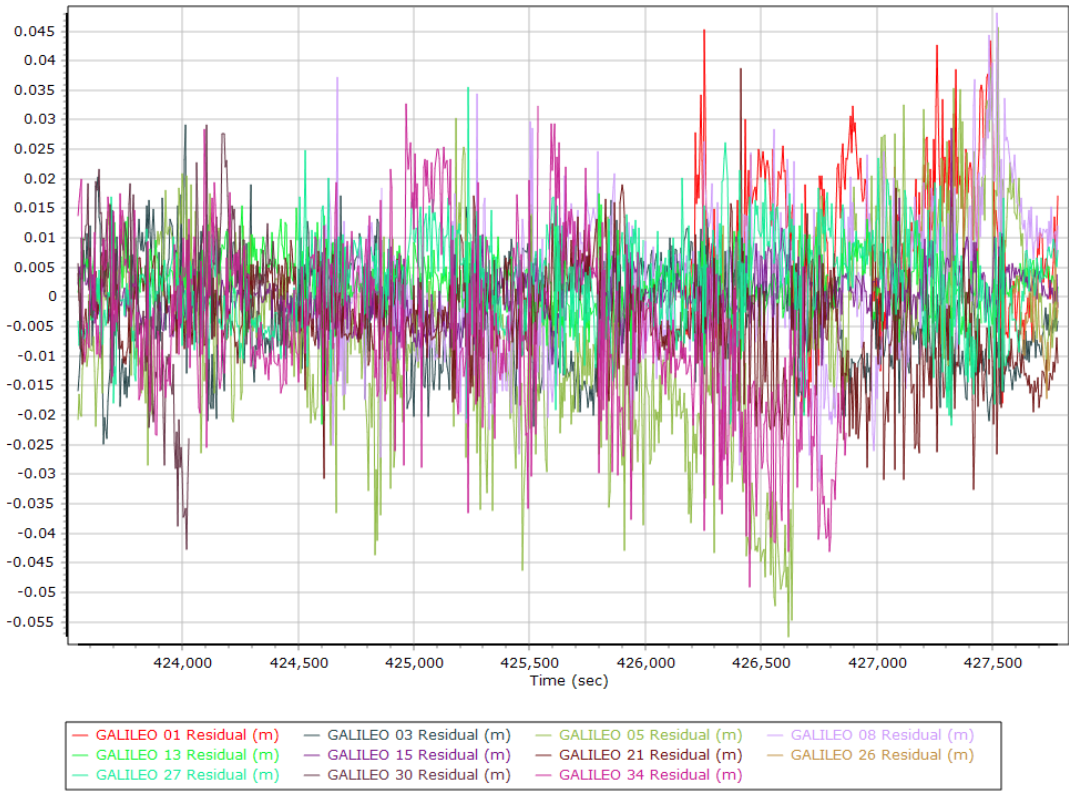
GPS Residuals



GLONASS Residuals



GALILEO Residuals



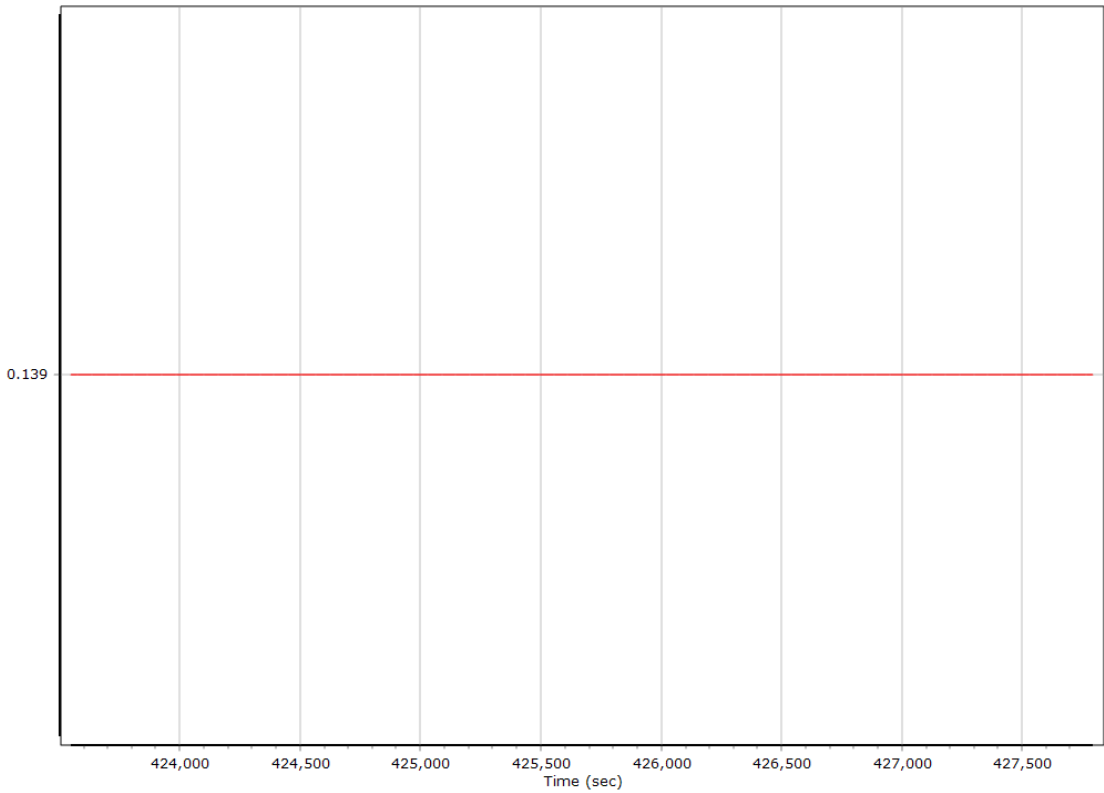
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	423045.000 (04/06/2023 21:30:45)		
Processing end time	427798.000 (04/06/2023 22:49:58)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

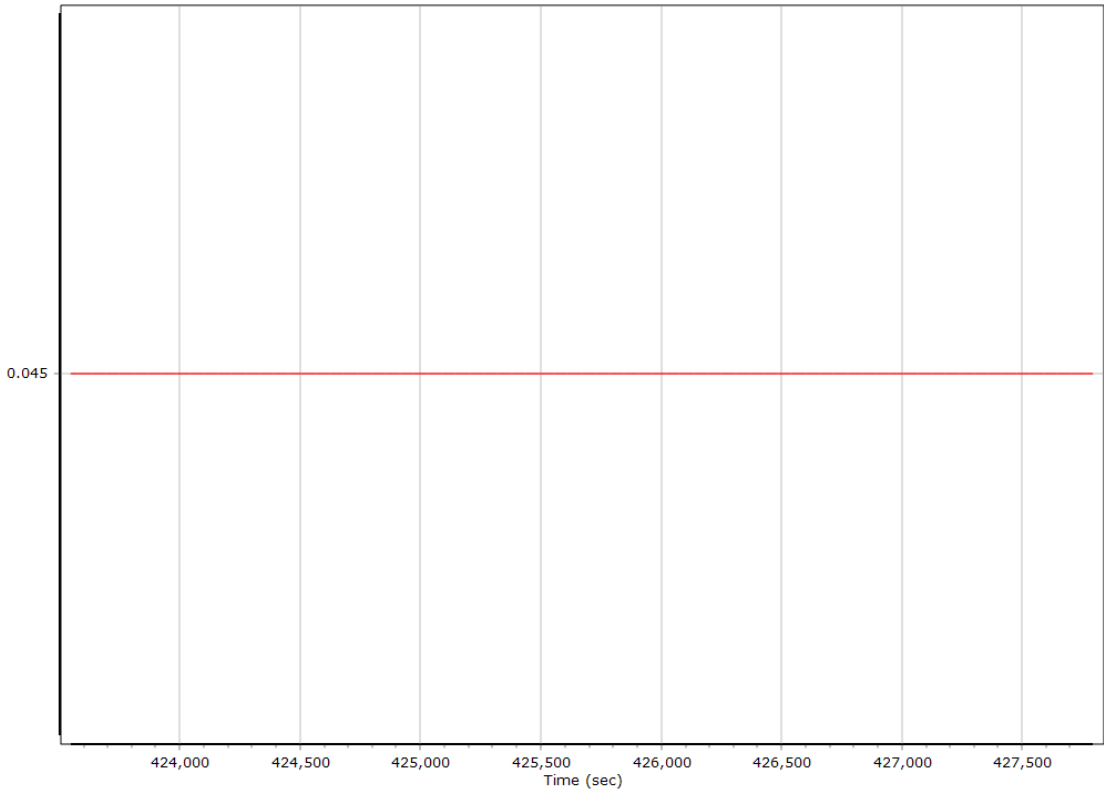
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

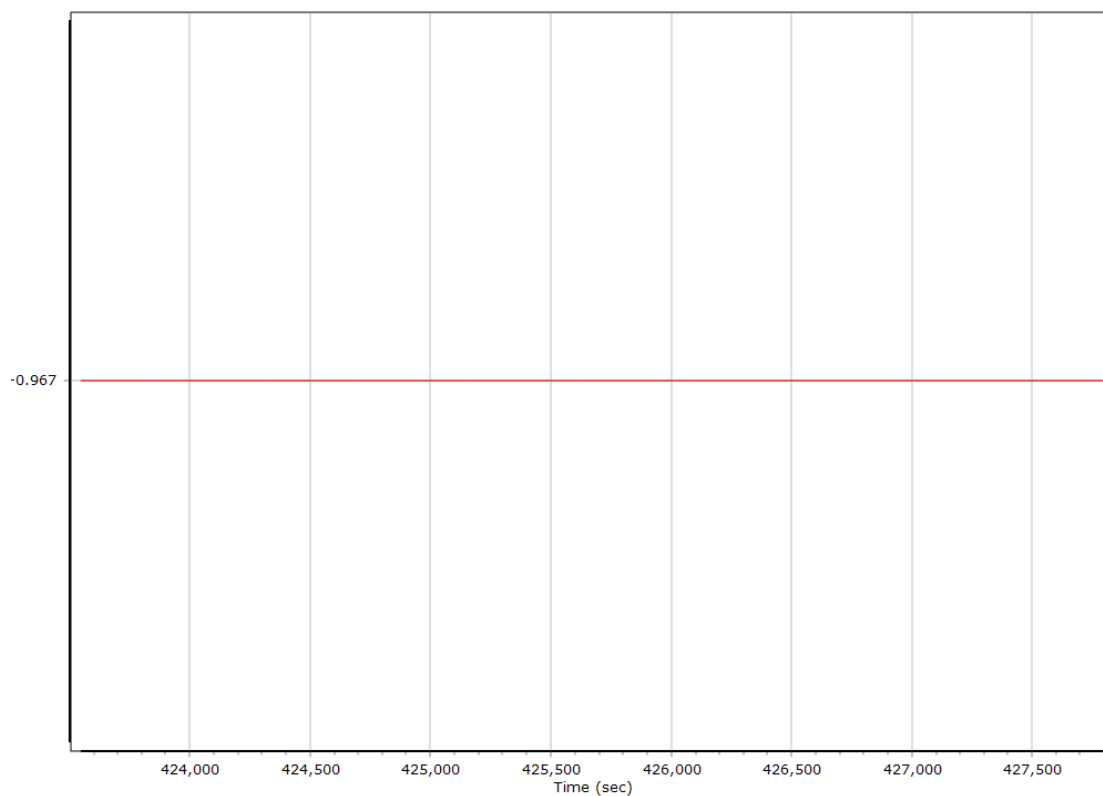
X Reference-Primary GNSS Lever Arm (m)



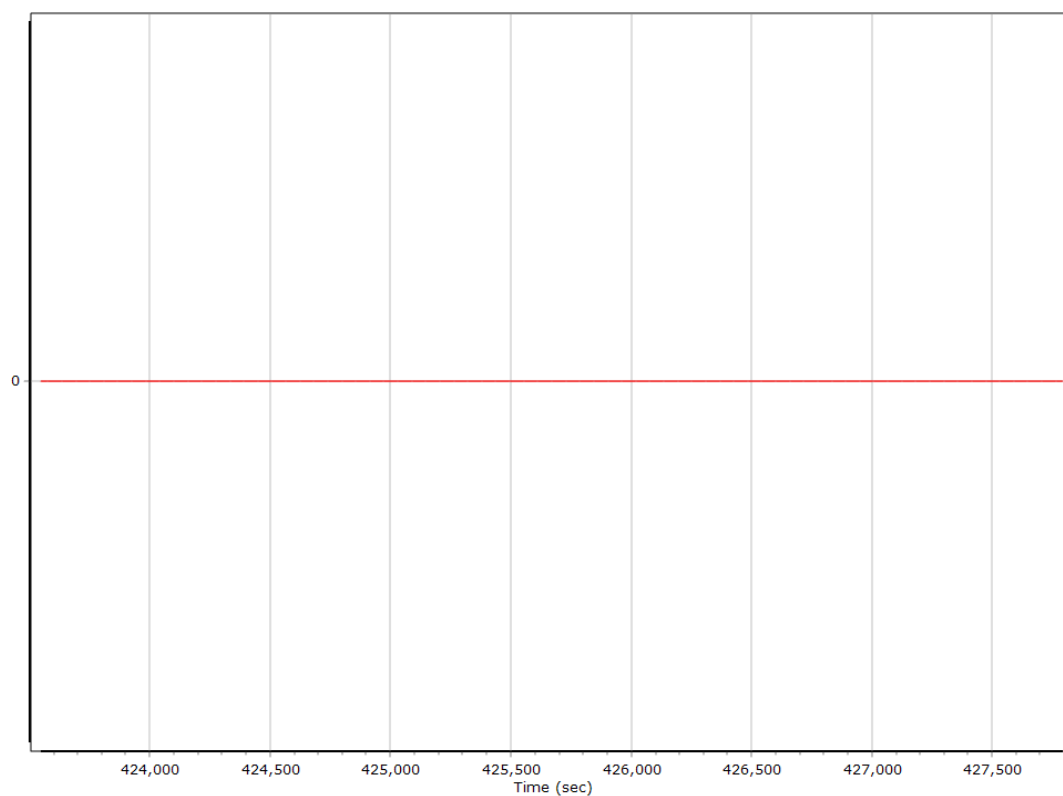
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



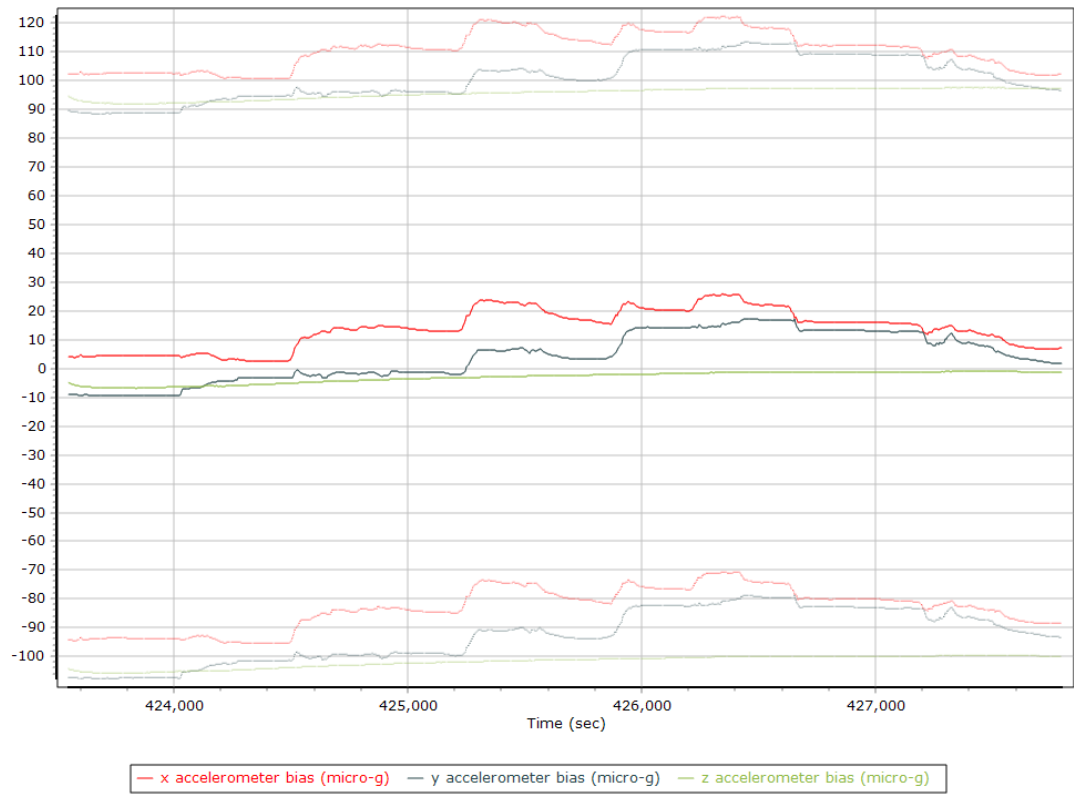
Reference-Primary GNSS Lever Arm Figure of Merit



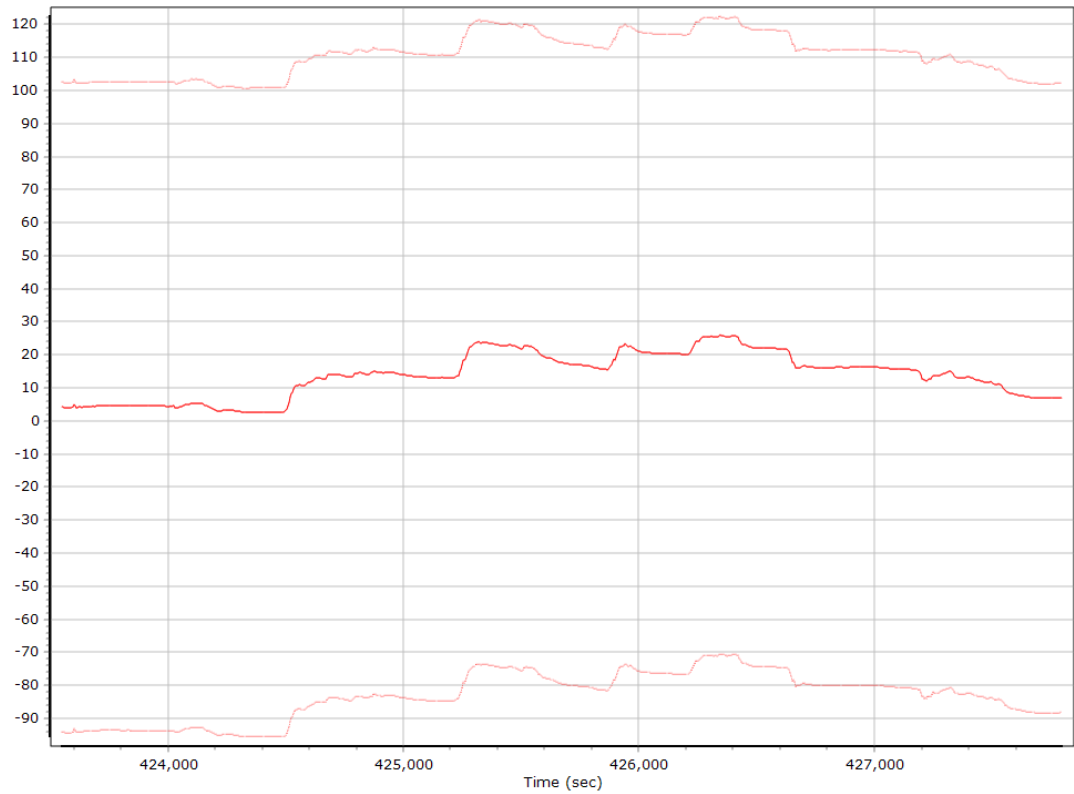
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

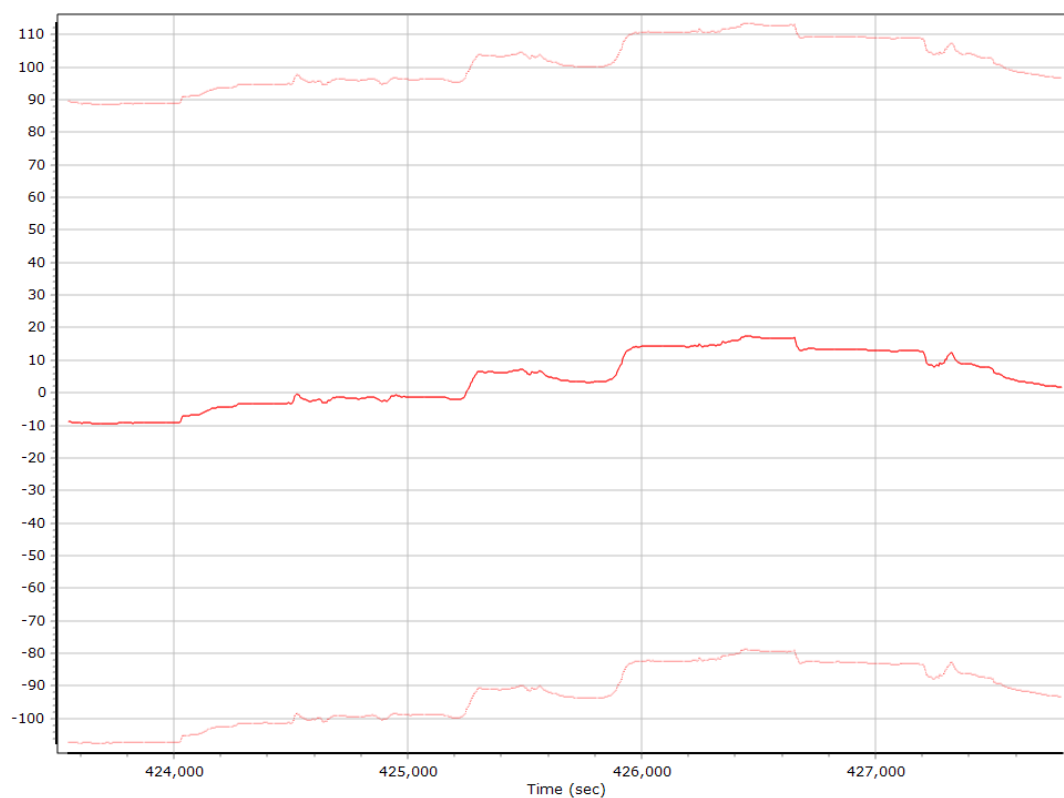
Accelerometer Bias (micro-g)



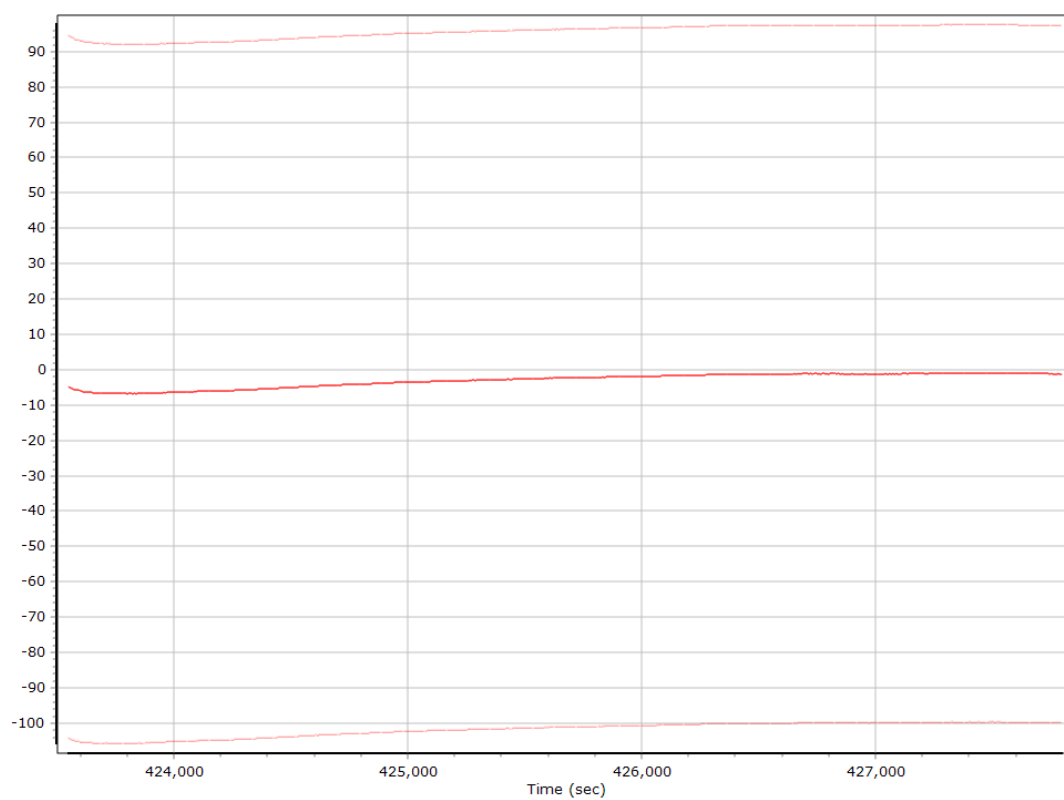
X Accelerometer Bias (micro-g)



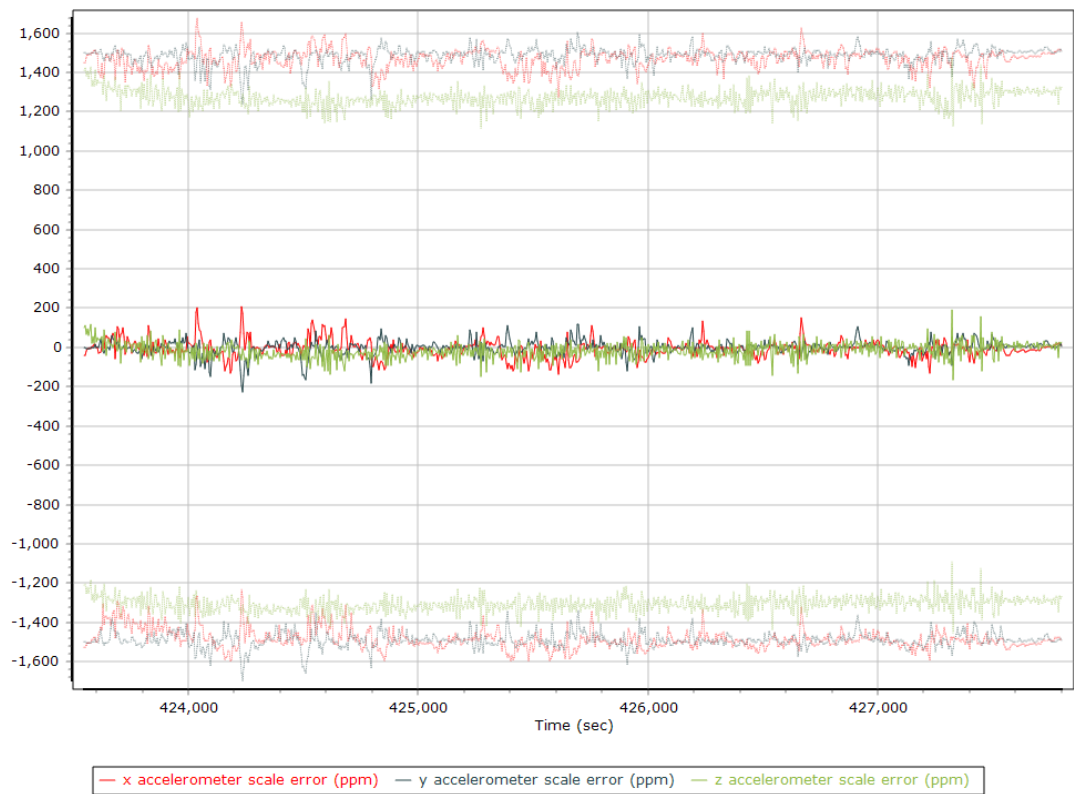
Y Accelerometer Bias (micro-g)



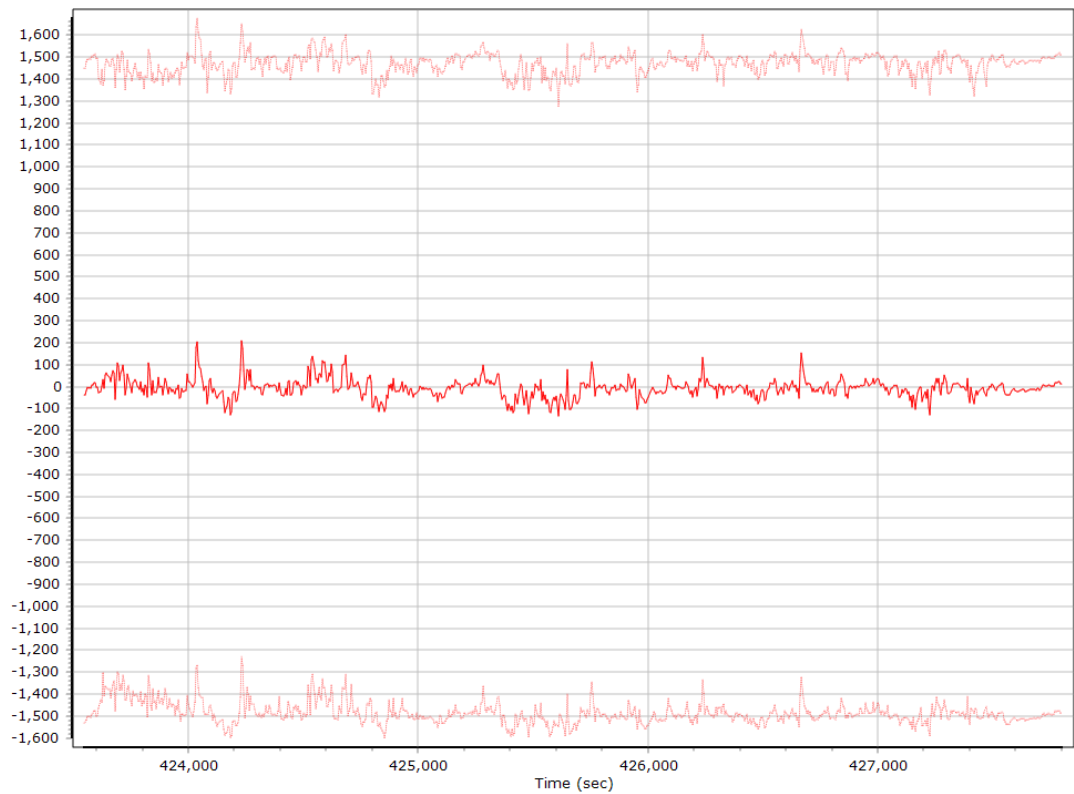
Z Accelerometer Bias (micro-g)



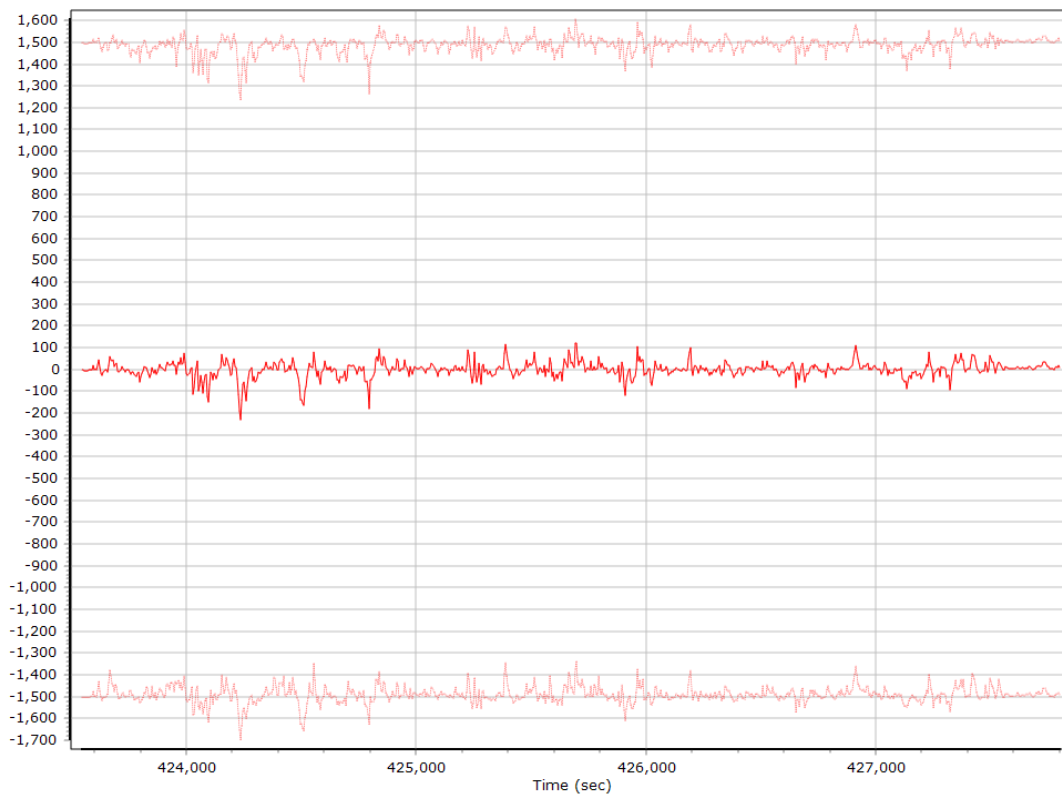
Accelerometer Scale Error (ppm)



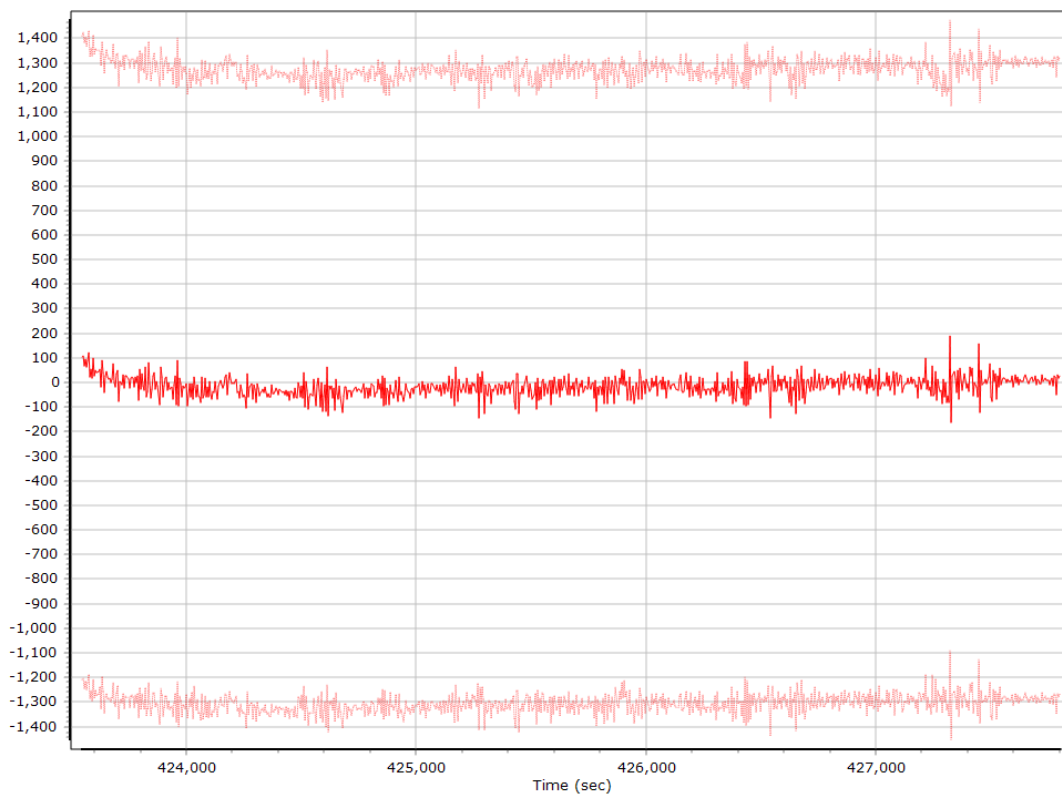
X Accelerometer Scale Error (ppm)



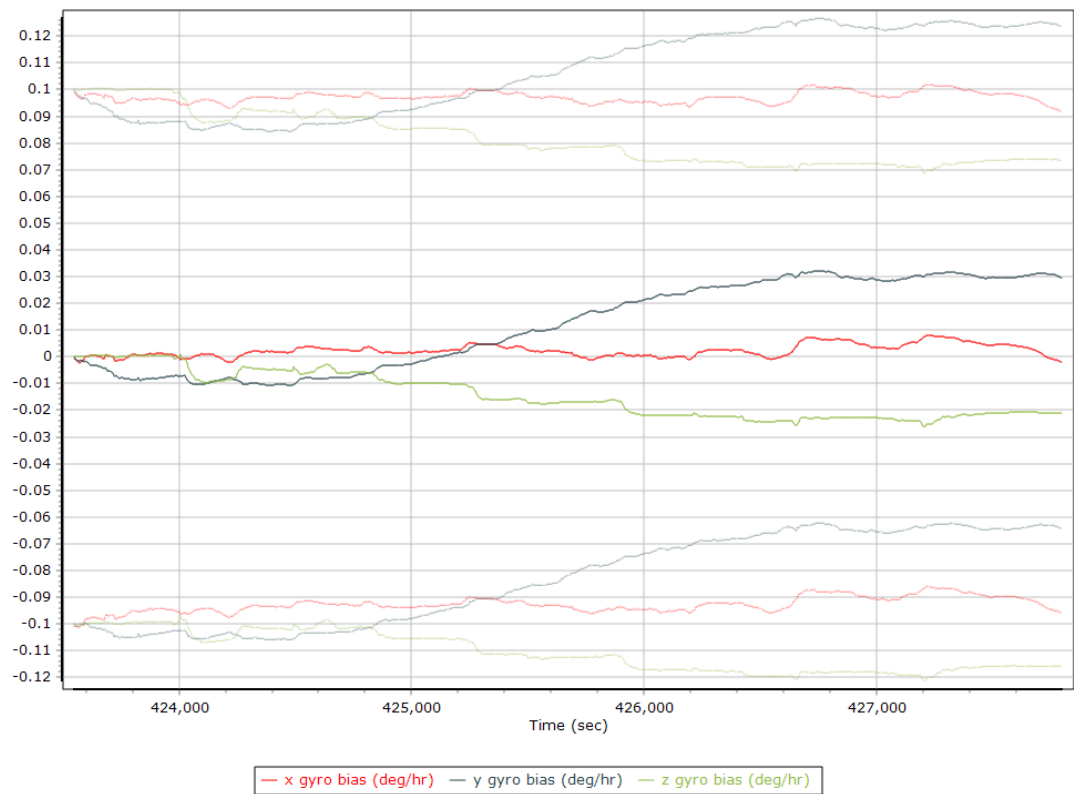
Y Accelerometer Scale Error (ppm)



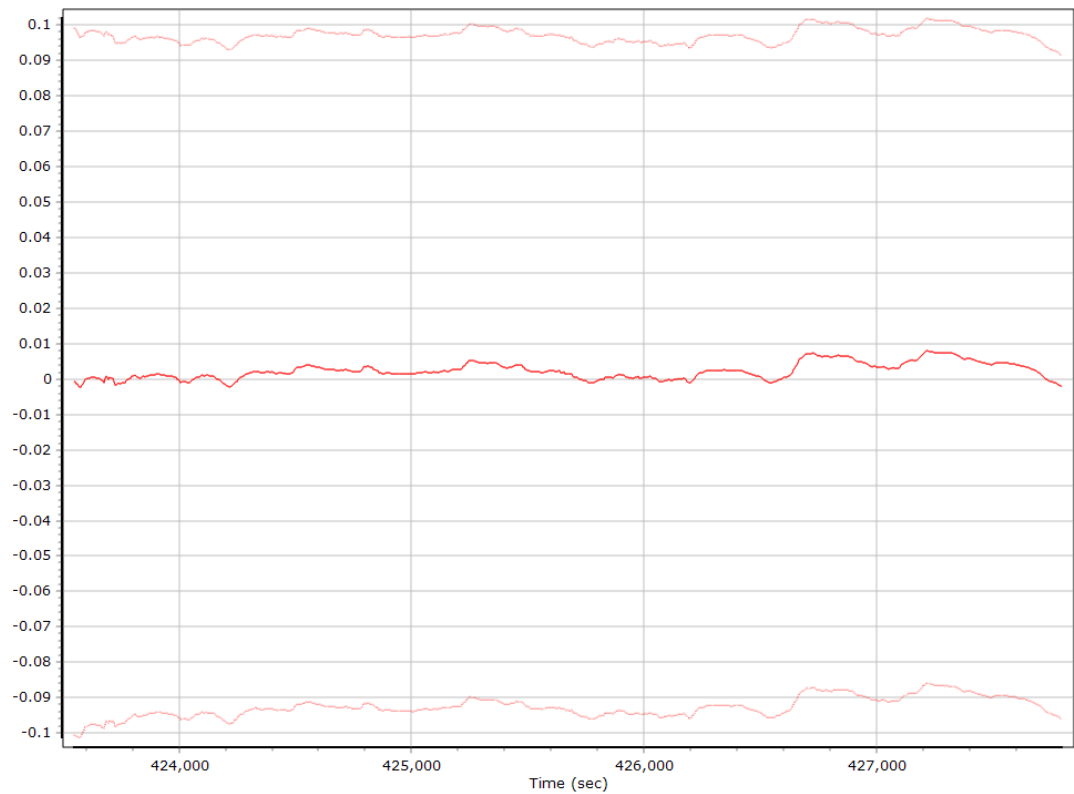
Z Accelerometer Scale Error (ppm)



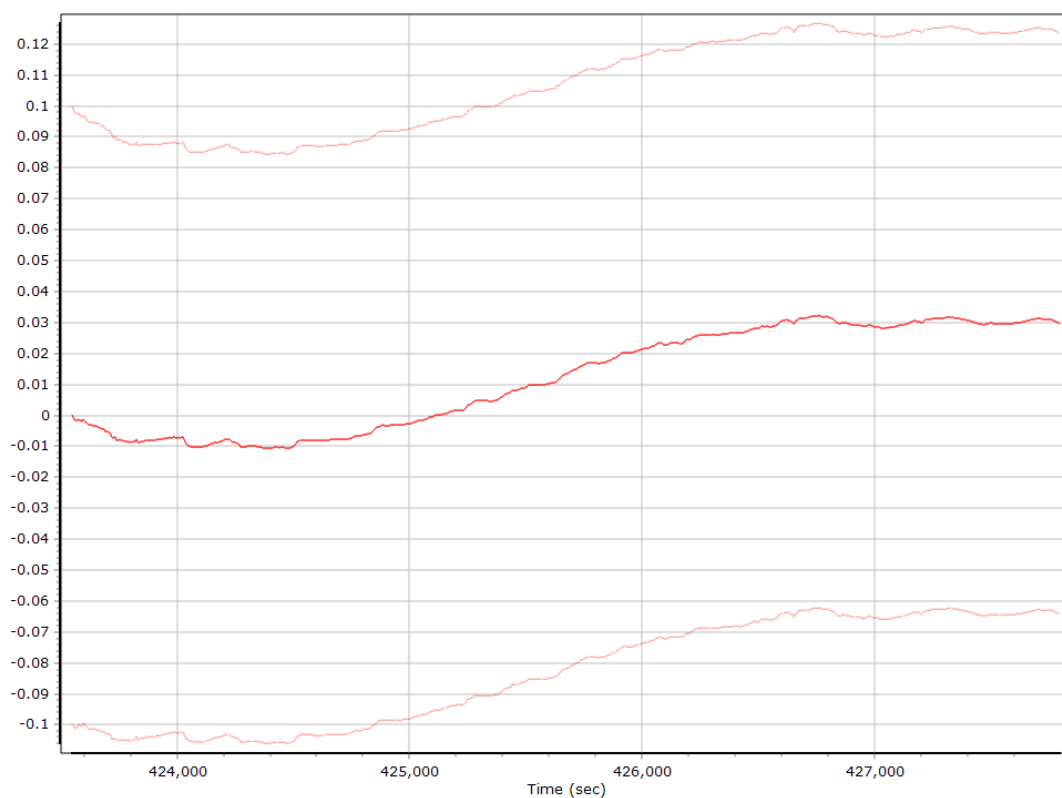
Gyro Bias (deg/h)



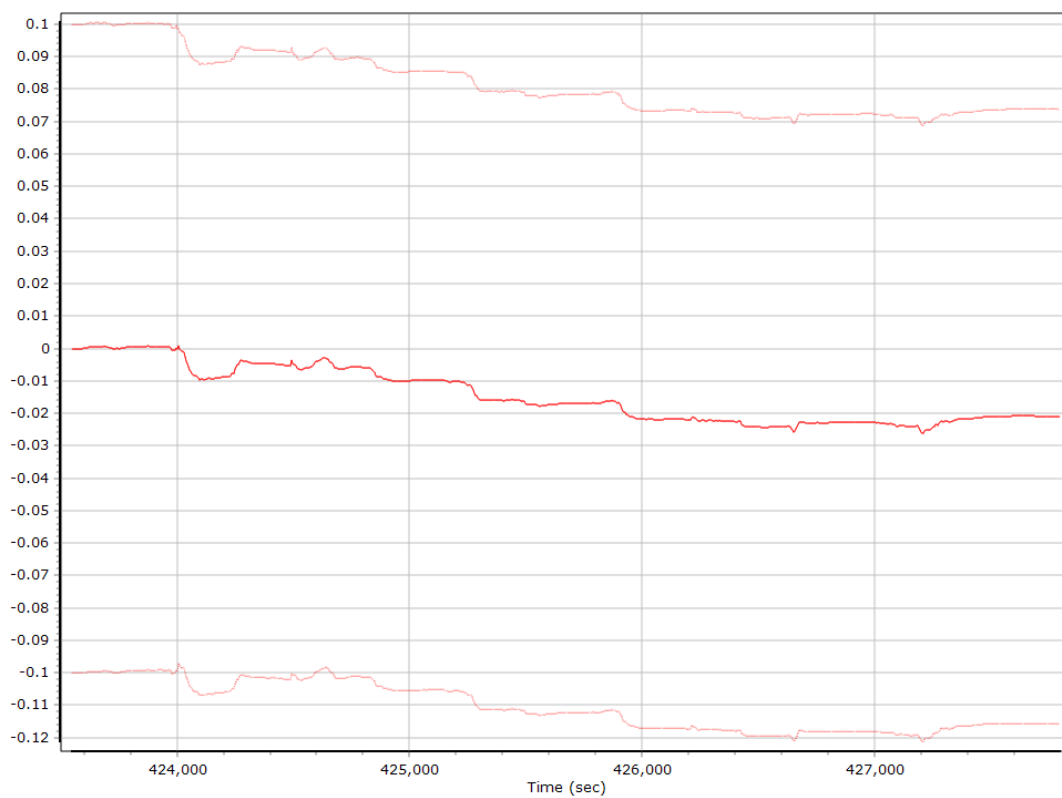
X Gyro Bias (deg/h)



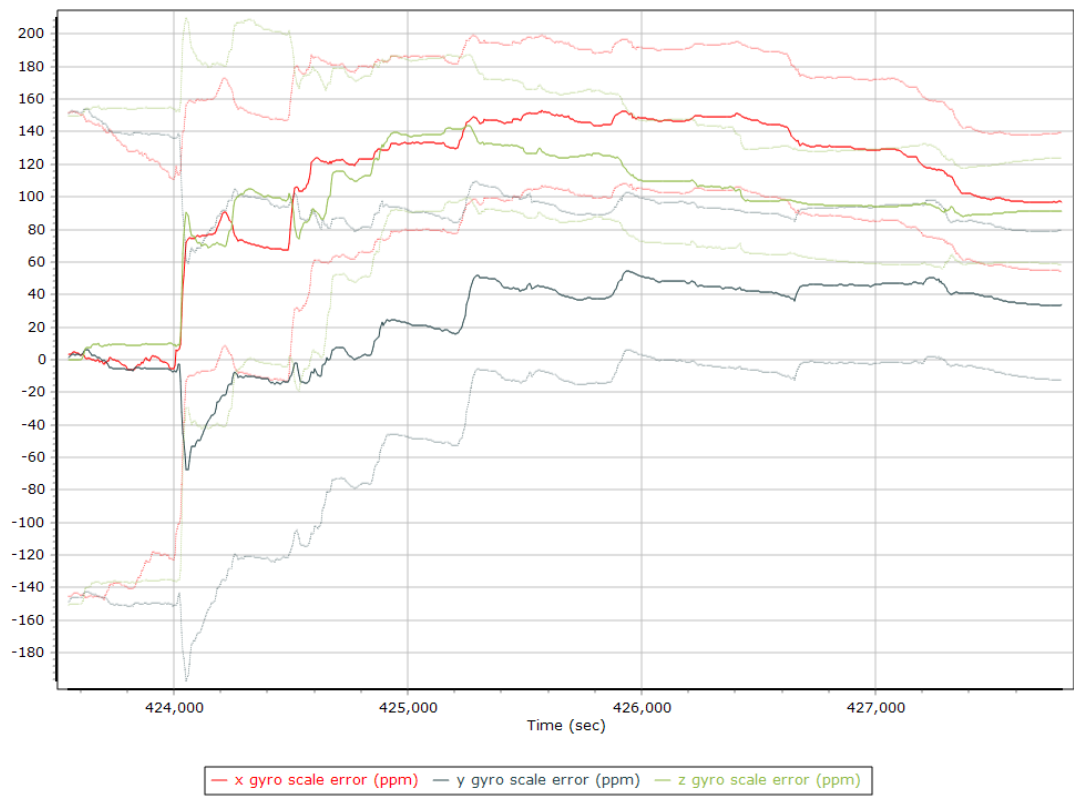
Y Gyro Bias (deg/h)



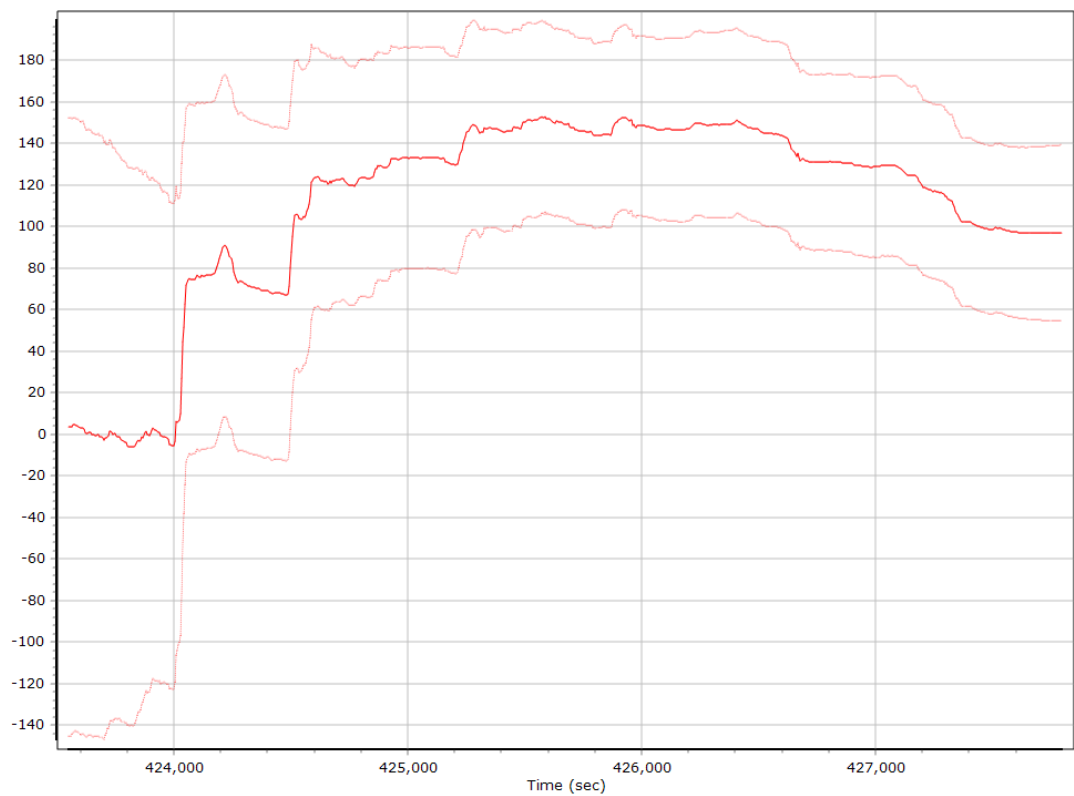
Z Gyro Bias (deg/h)



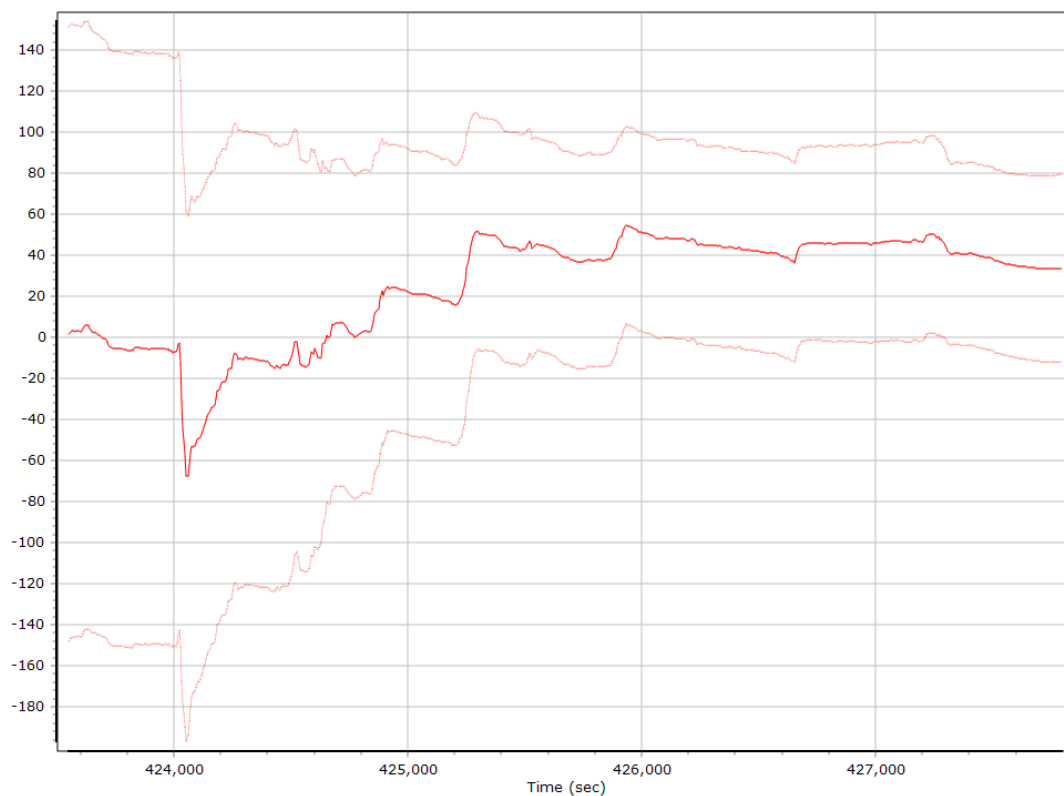
Gyro Scale Error (ppm)



X Gyro Scale Error (ppm)

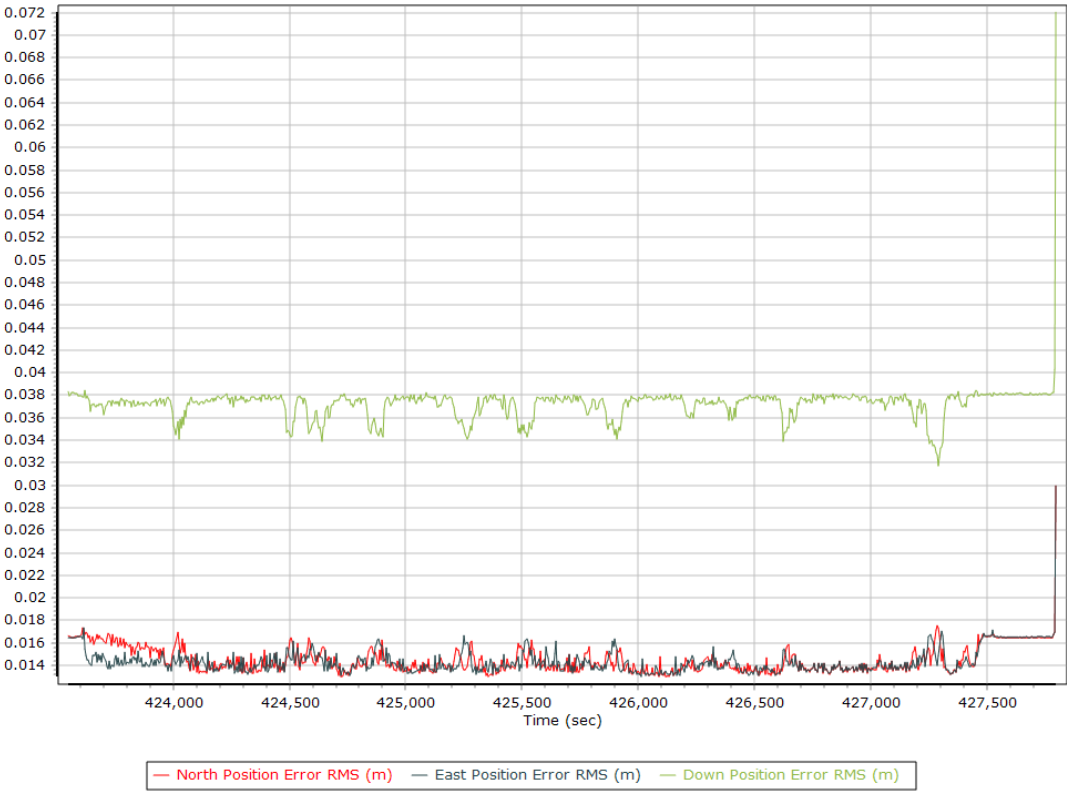


Y Gyro Scale Error (ppm)

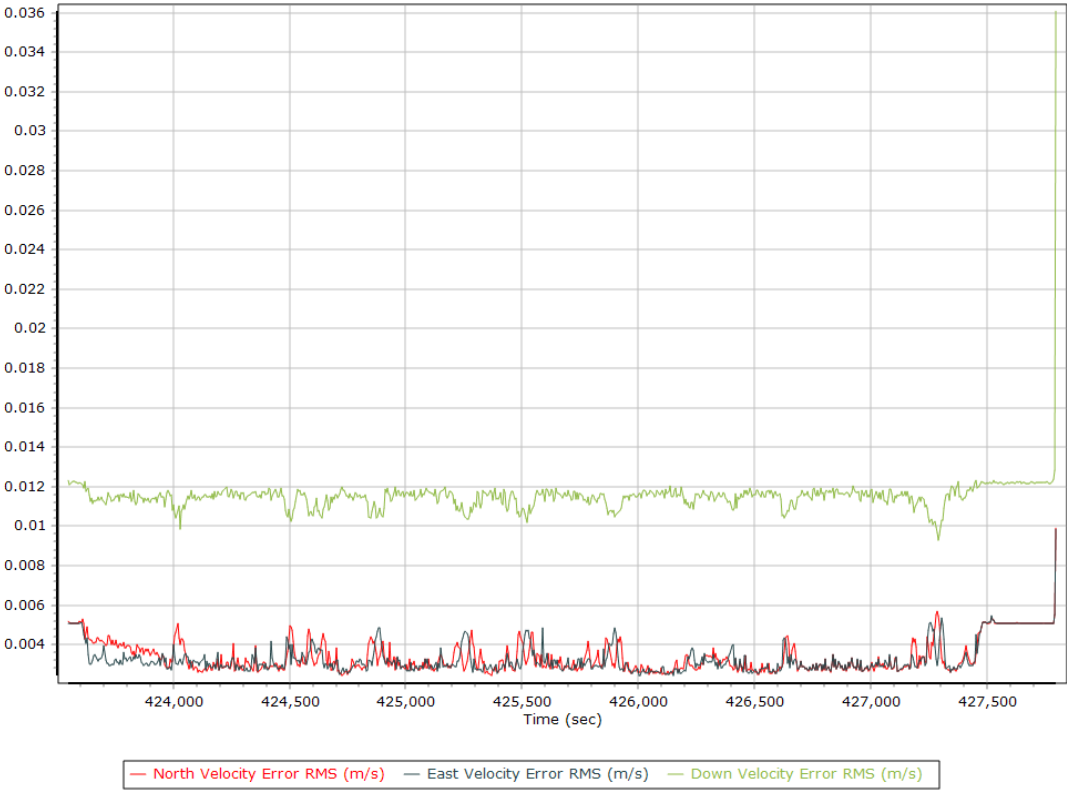


Smoothed Performance Metrics

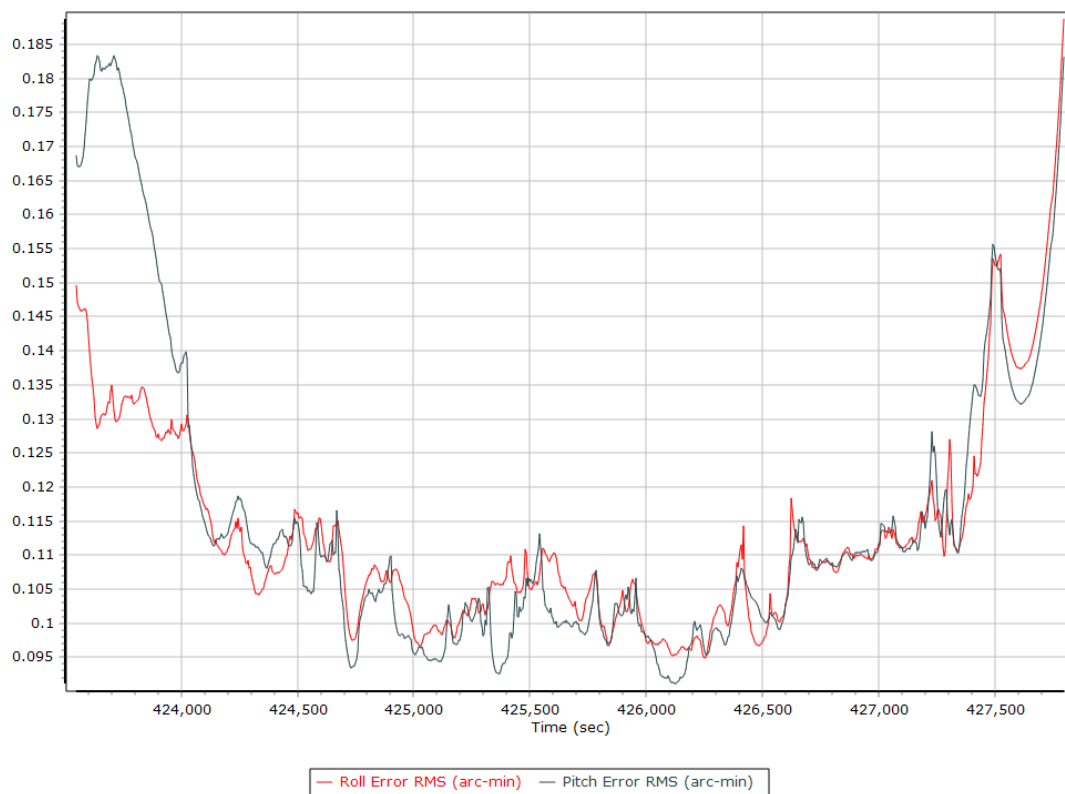
Position Error RMS (m)



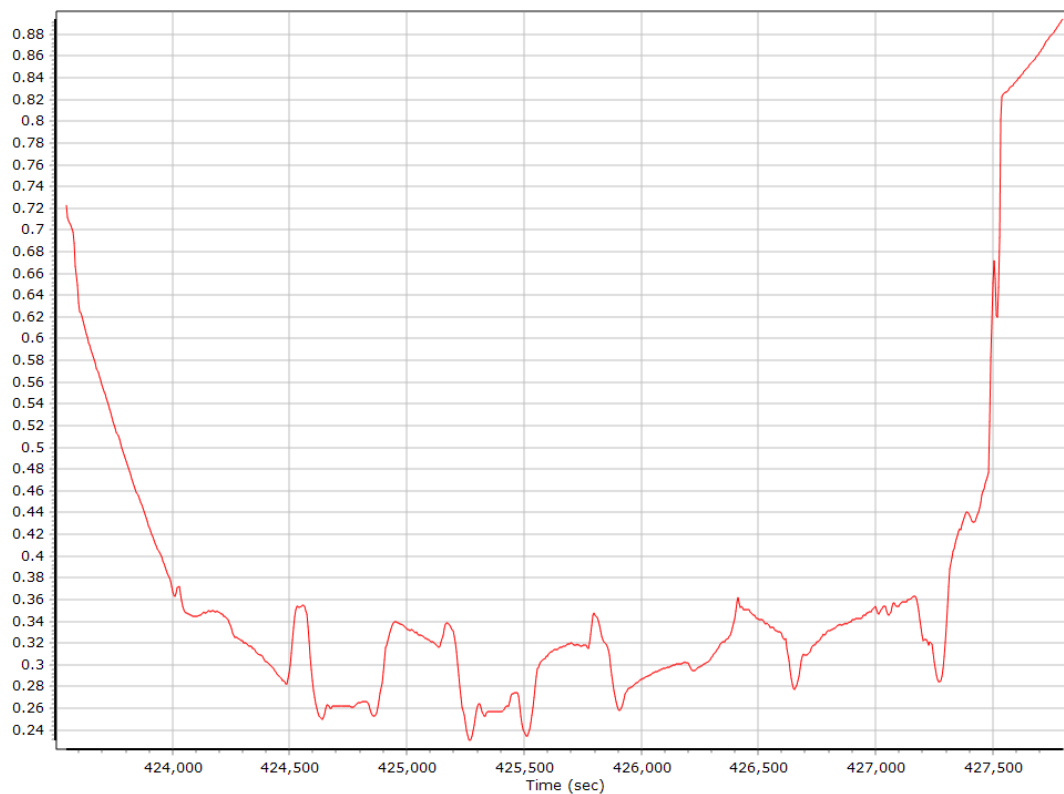
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

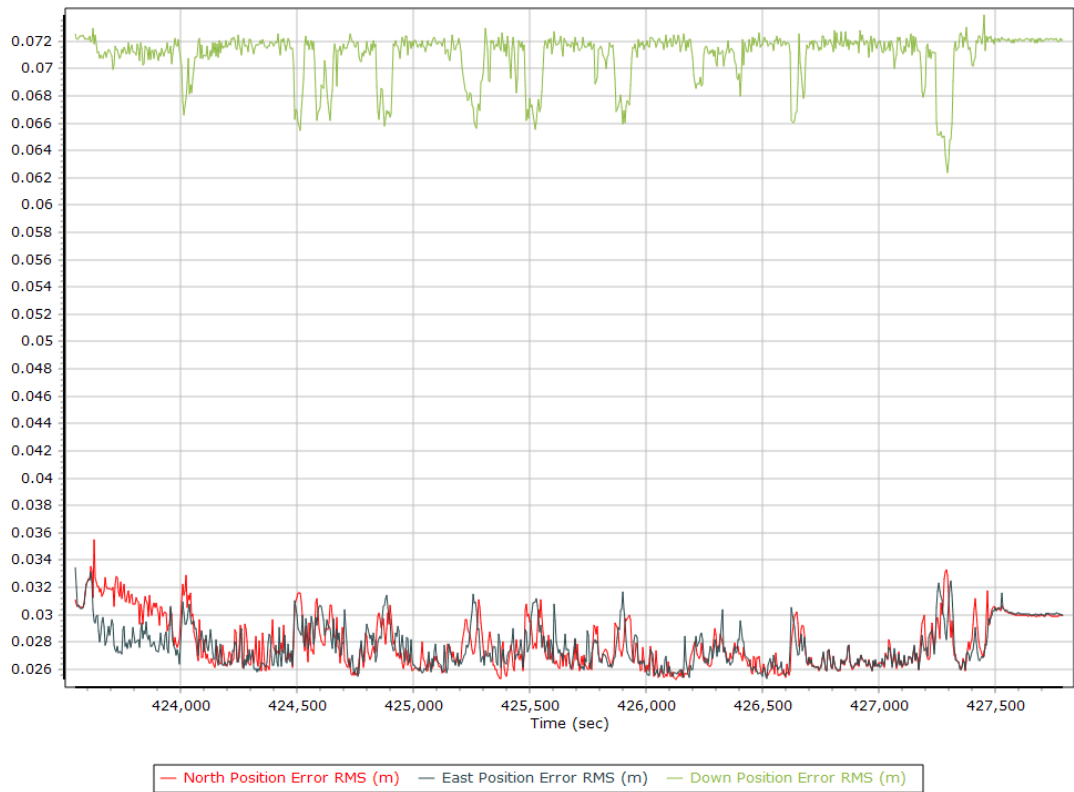


Heading Error RMS (arc-min)

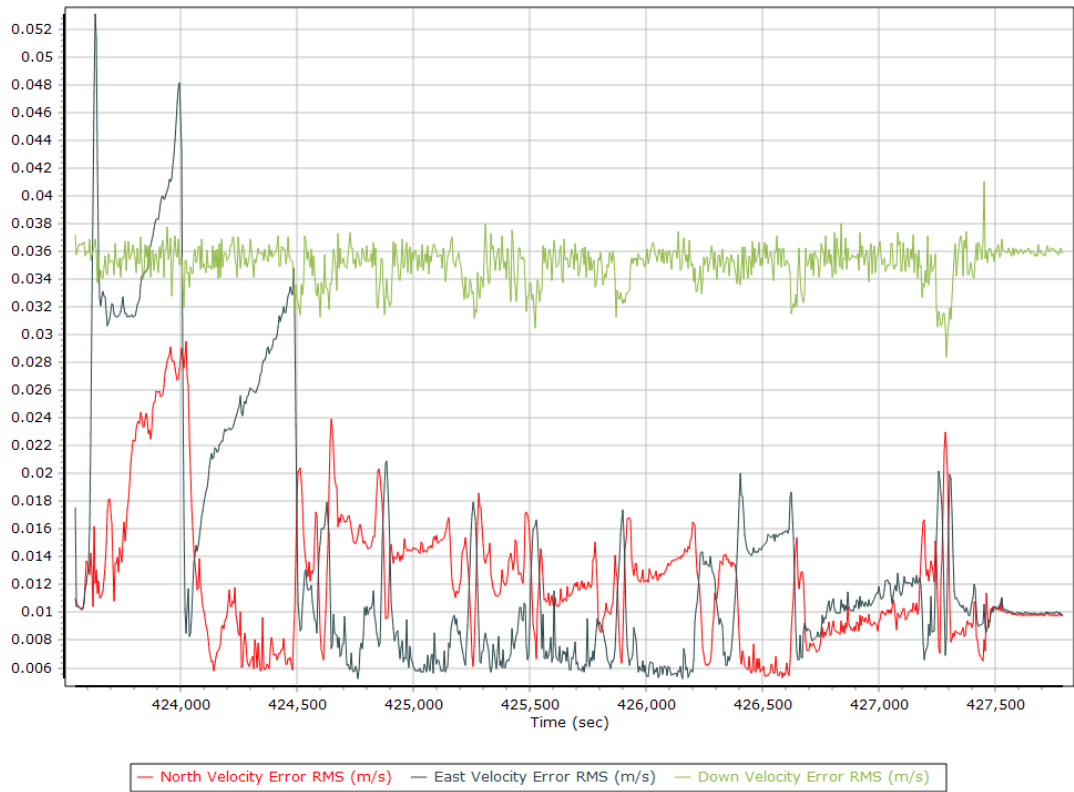


Forward Processed Performance Metrics

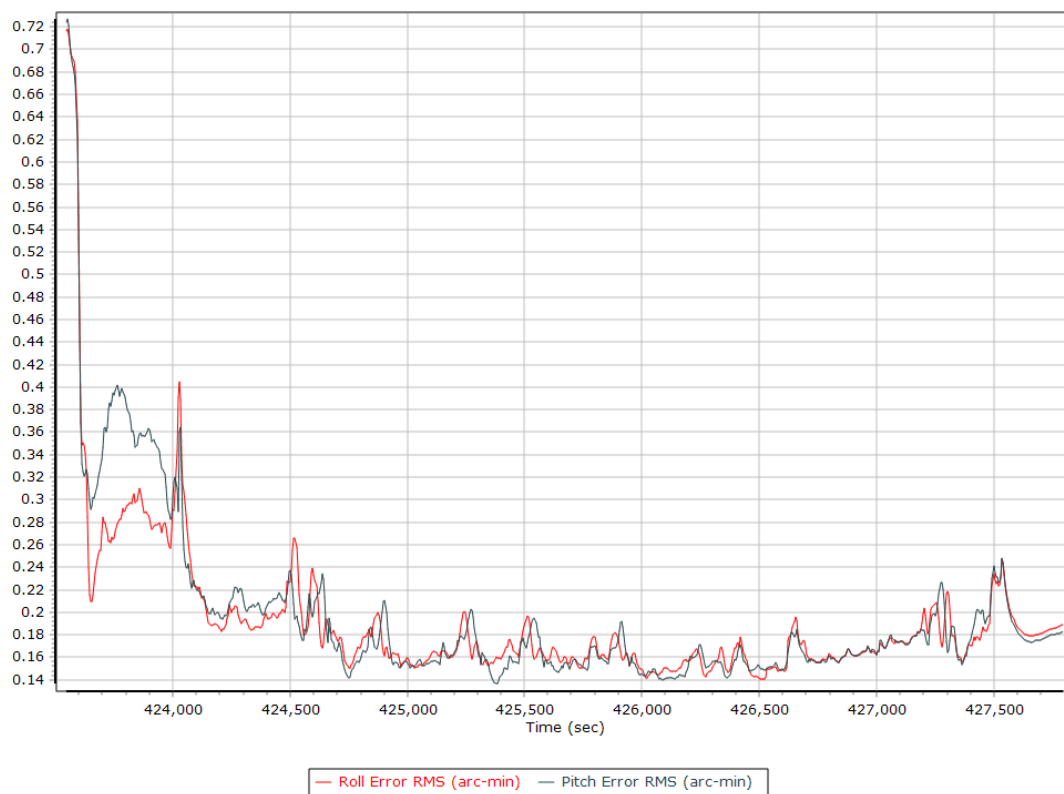
Position Error RMS (m)



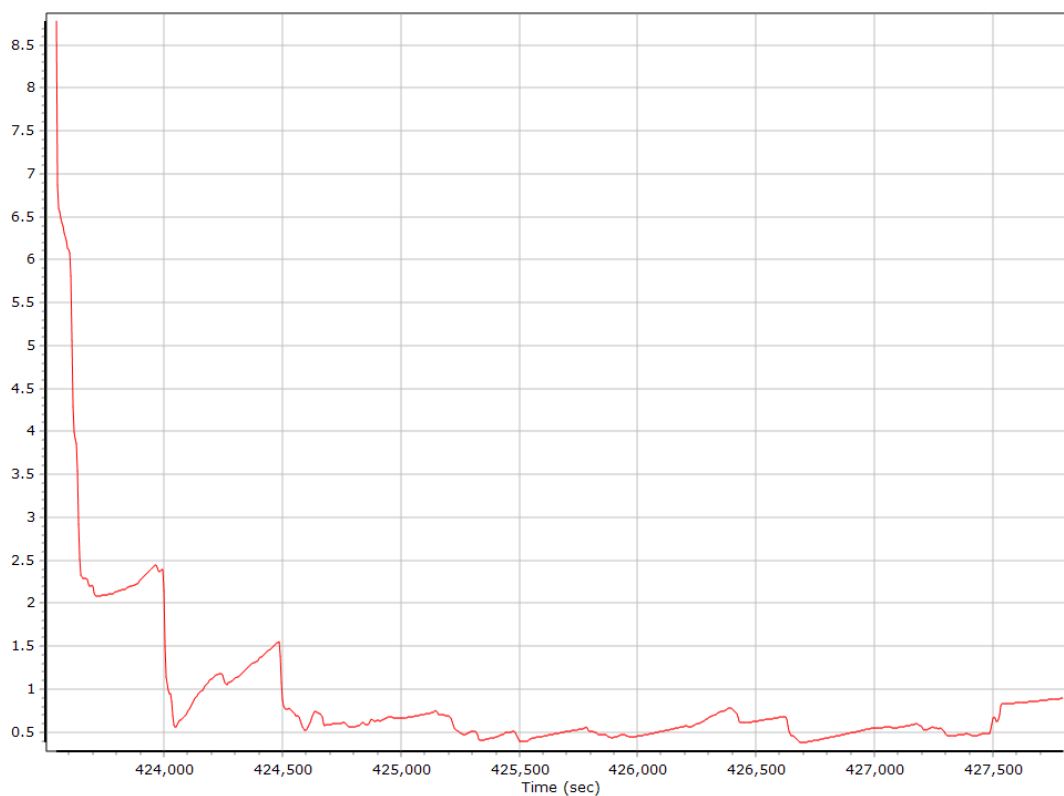
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

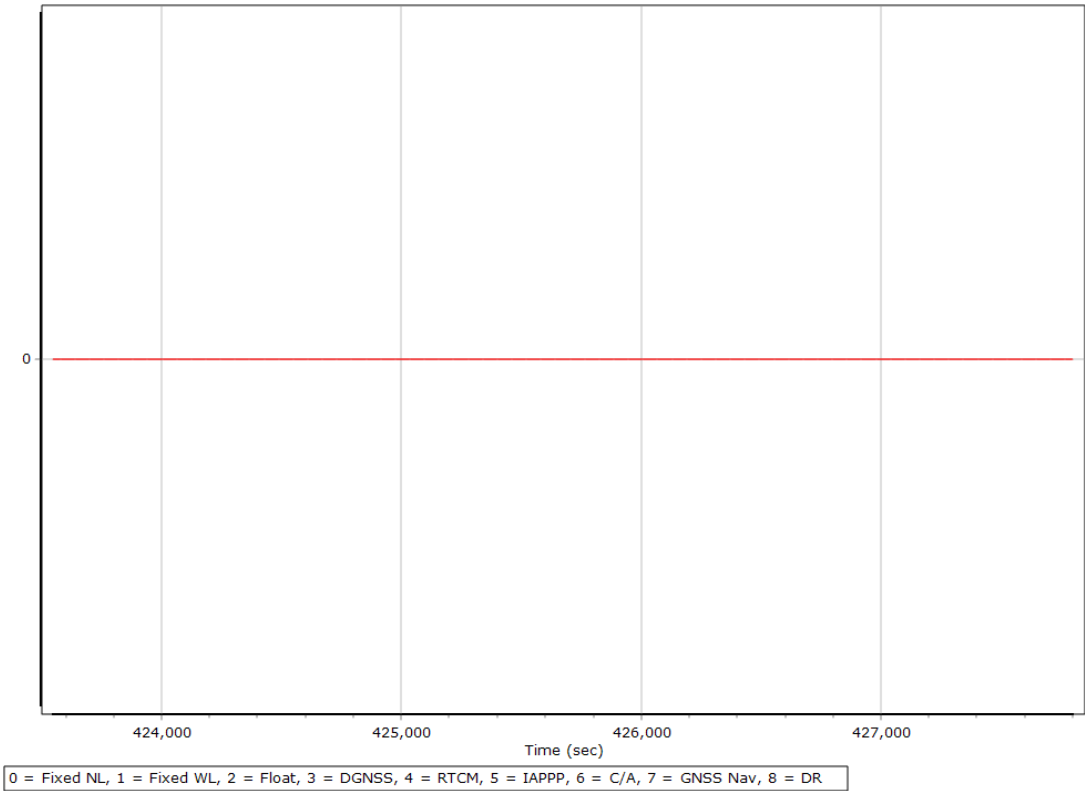


Heading Error RMS (arc-min)

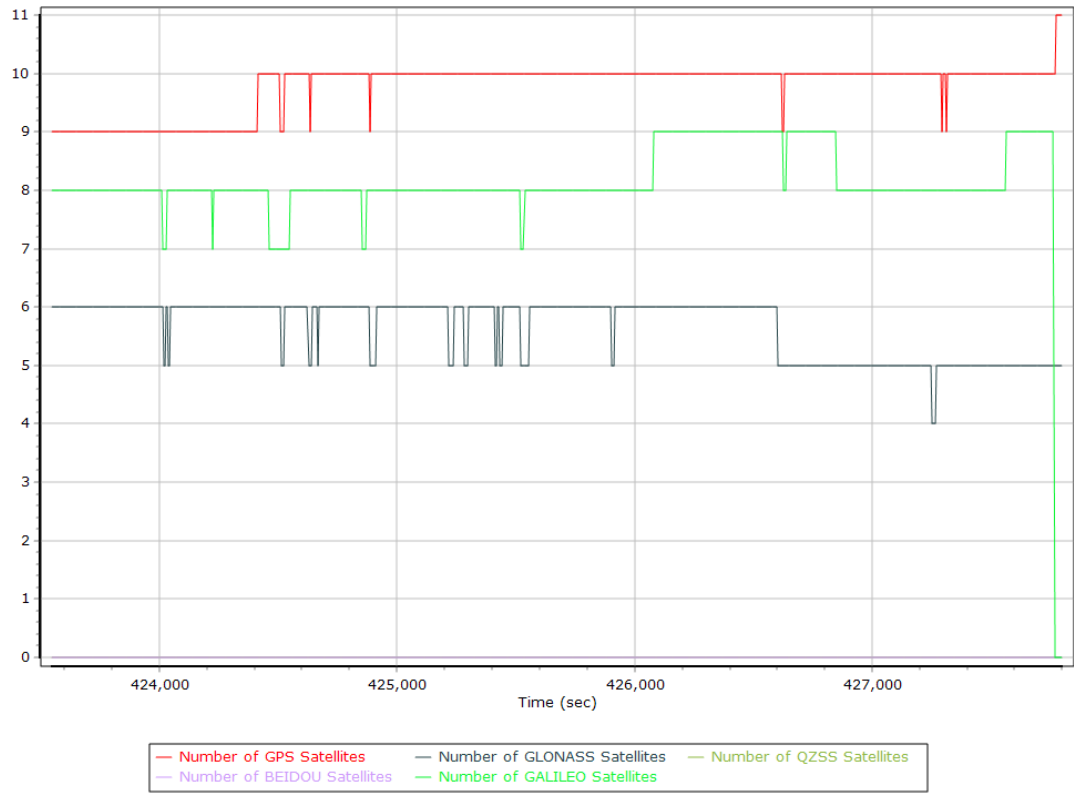


Forward Processed Solution Status

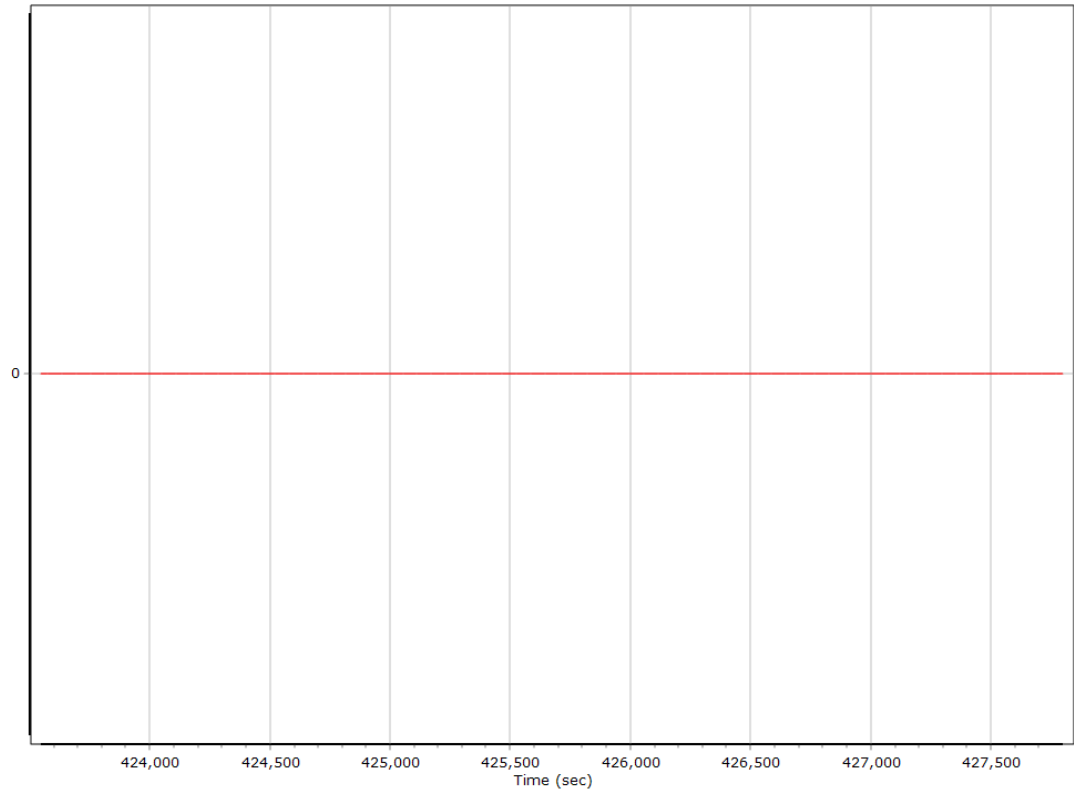
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230406_F1_4894_NAD832011.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	423489.003 (04/06/2023 21:38:09)		
Export end time	427798.000 (04/06/2023 22:49:58)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.260274		

General Information

Mission Information

Project name	20230408_F1_4894
Processing date	2023-04-12 19:26:38
Mission date	2023-04-08 15:34:29
Mission duration	02:09:21.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.122	POS Data
VQ1560.123	POS Data
VQ1560.124	POS Data
VQ1560.125	POS Data
VQ1560.126	POS Data
VQ1560.127	POS Data
VQ1560.128	POS Data
VQ1560.129	POS Data
VQ1560.130	POS Data
VQ1560.131	POS Data
VQ1560.132	POS Data
VQ1560.133	POS Data
VQ1560.134	POS Data
VQ1560.135	POS Data
VQ1560.136	POS Data
VQ1560.137	POS Data
VQ1560.138	POS Data
VQ1560.139	POS Data

Input Files

File Name	File Type
Ephm0980.23g	GLONASS Broadcast Ephemeris
Ephm0980.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230408_F1_4894.out	SBET Trajectory File
export_20230408_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.122		
Last raw data file	VQ1560.139		
Start GPS week	2256		
Start time	574462.418 (04/08/2023 15:34:22)		
End time	582212.237 (04/08/2023 17:43:32)		
Start of fine alignment	574905.368 (04/08/2023 15:41:45)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

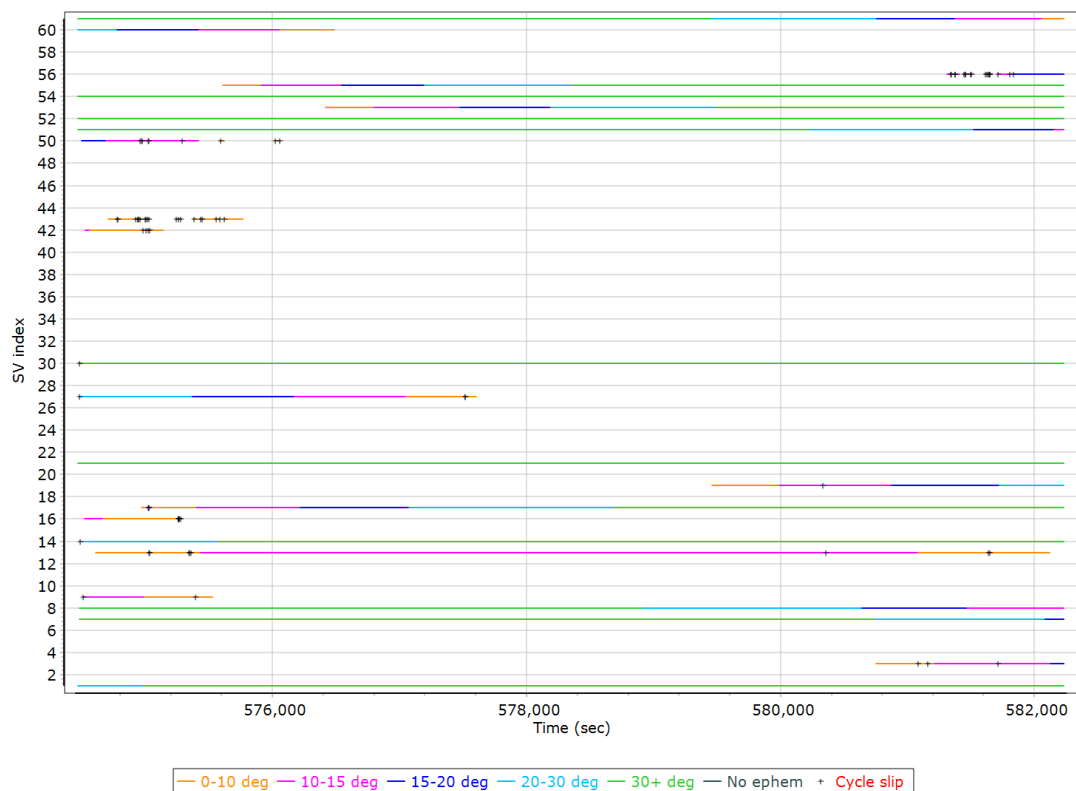
Rover Data QC

Raw IMU Import QC Summary

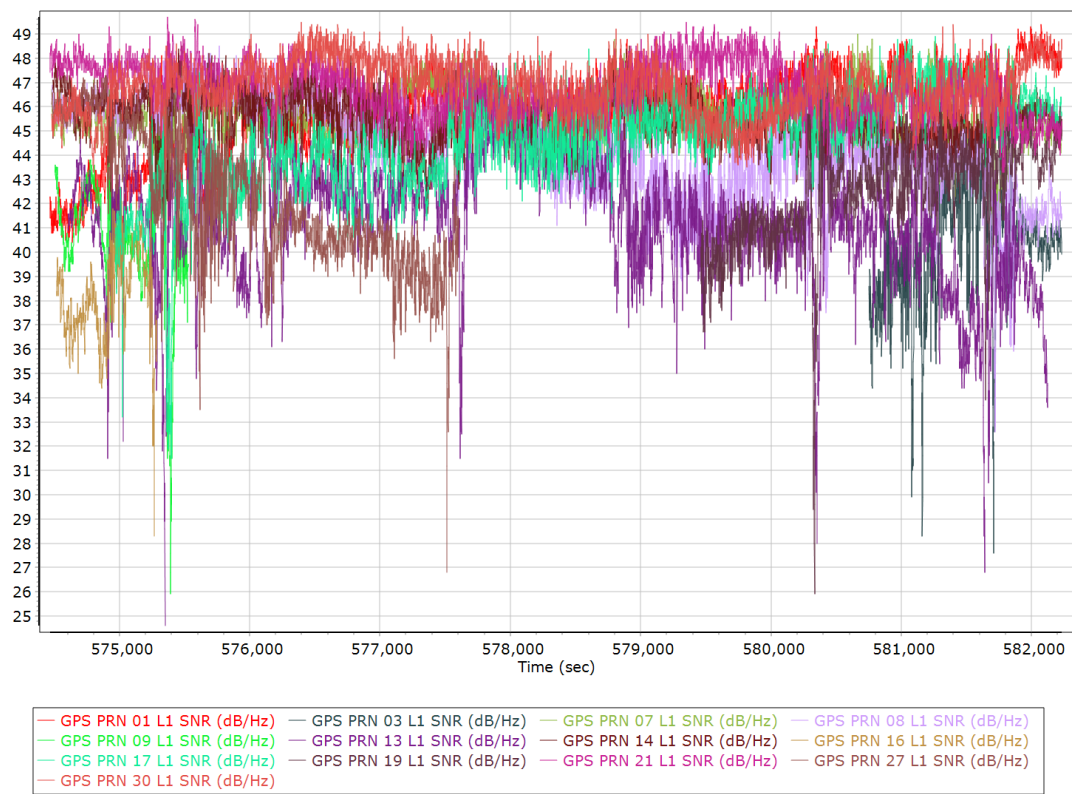
IMU data input file	imu_20230408_F1_4894.dat
IMU data check log file	imudt_20230408_F1_4894.log
IMU Records Processed	1551999
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
574462.218 : WARNING : Gap of 574450.2663 seconds in CHECKDT input data	

Primary Observables & Satellite Data

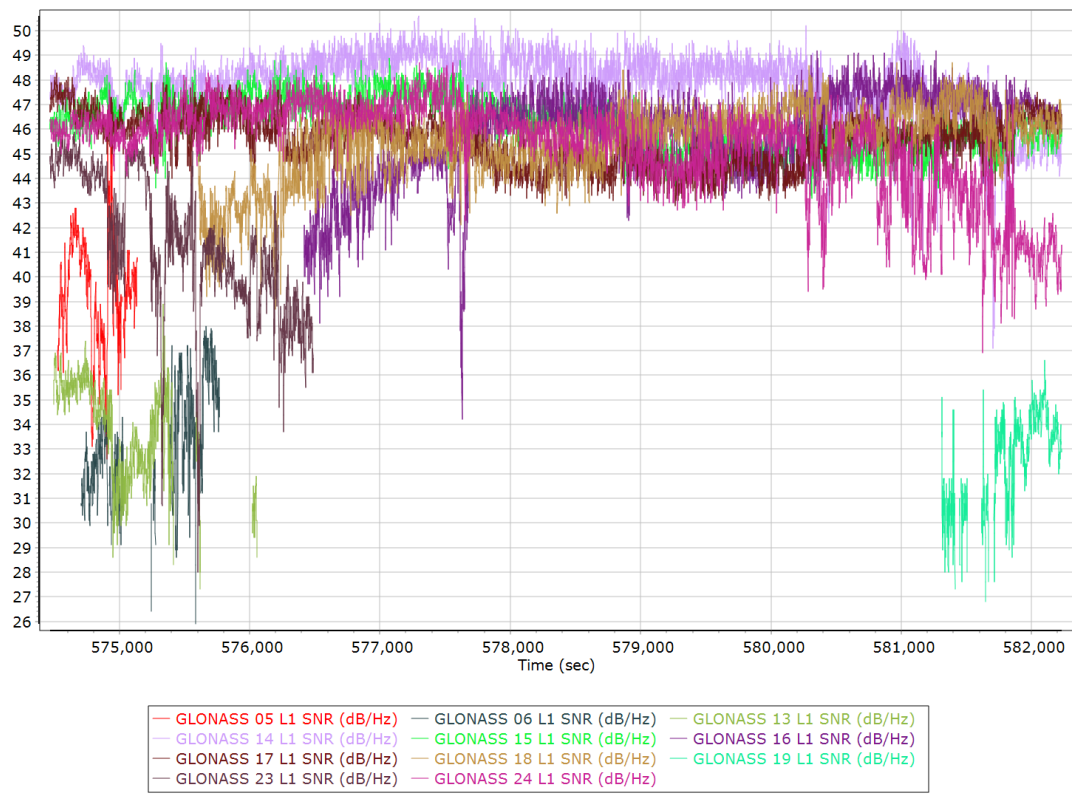
GPS/GLONASS L1 Satellite Lock/Elevation



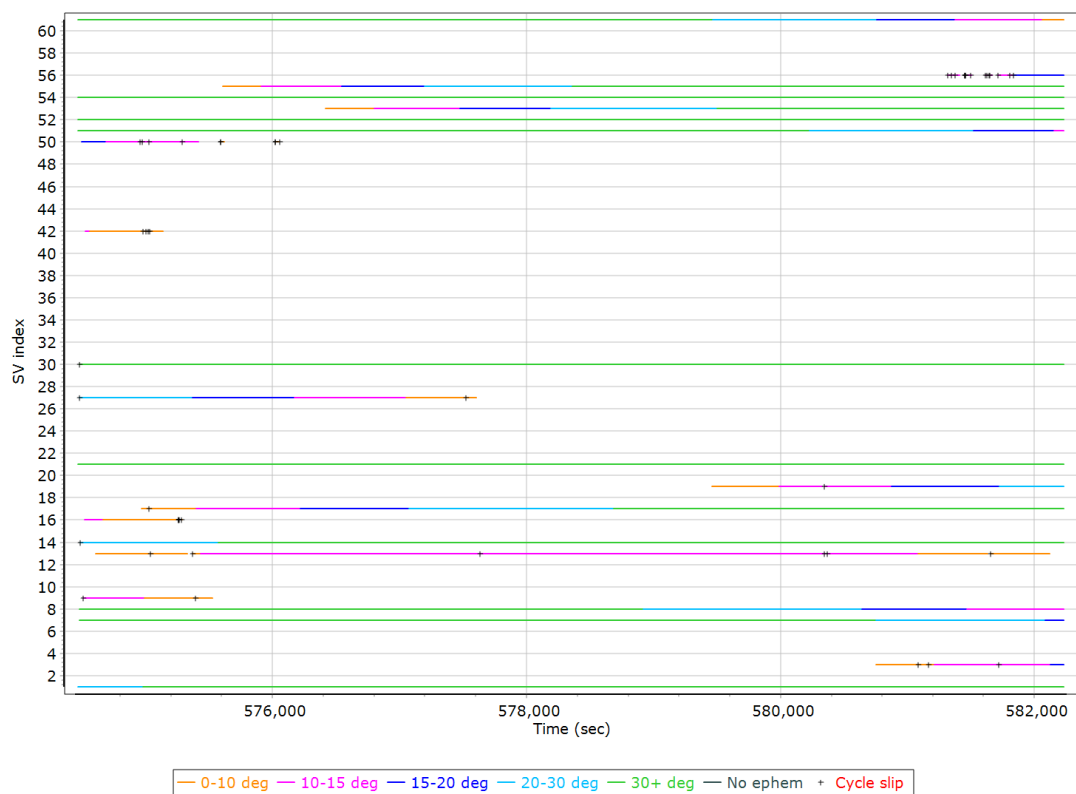
GPS L1 SNR



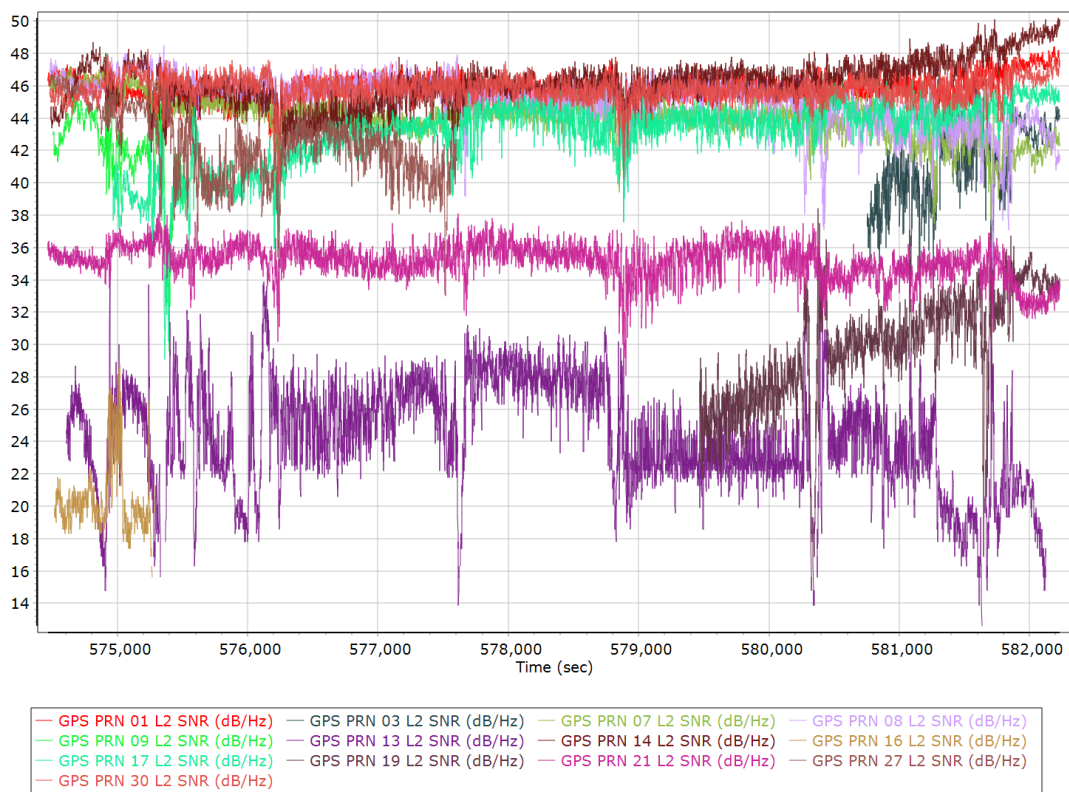
GLONASS L1 SNR



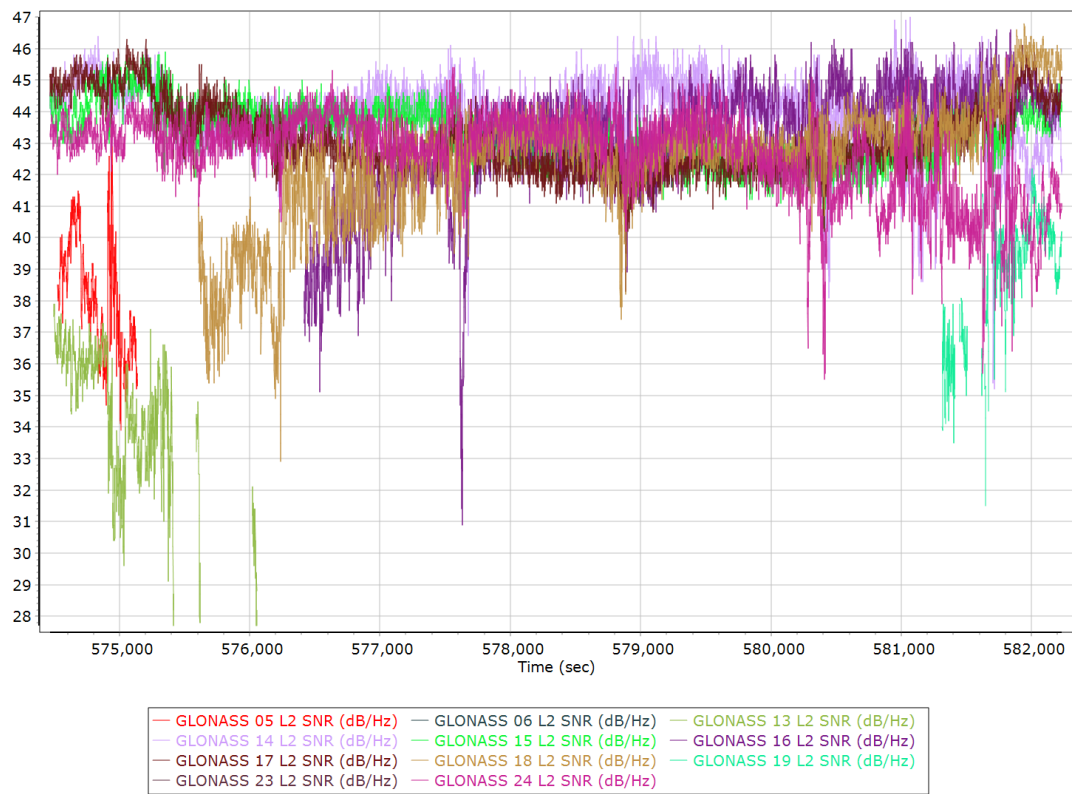
GPS/GLONASS L2 Satellite Lock/Elevation



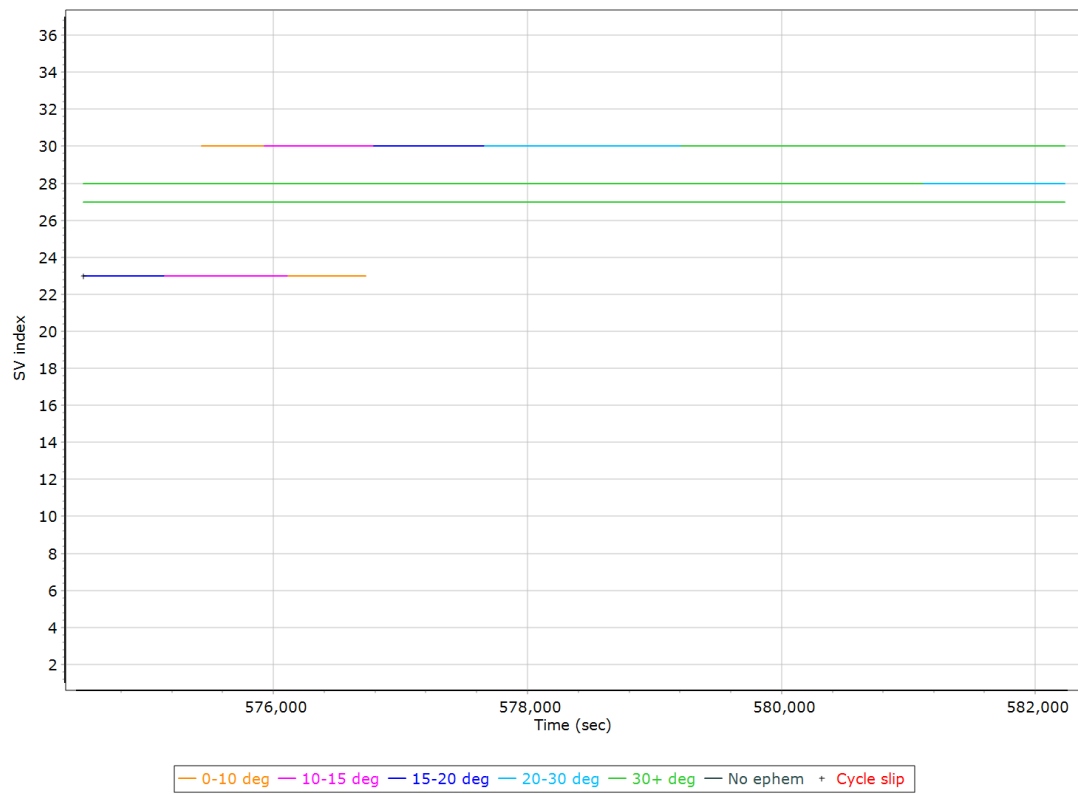
GPS L2 SNR



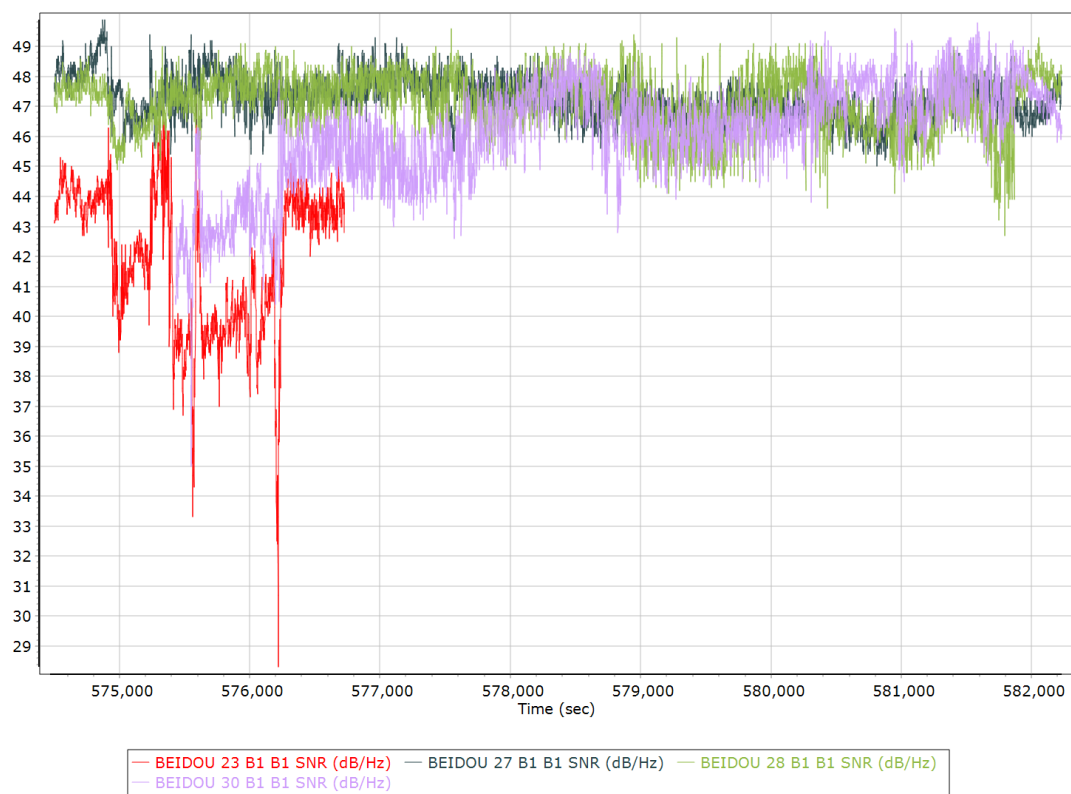
GLONASS L2 SNR



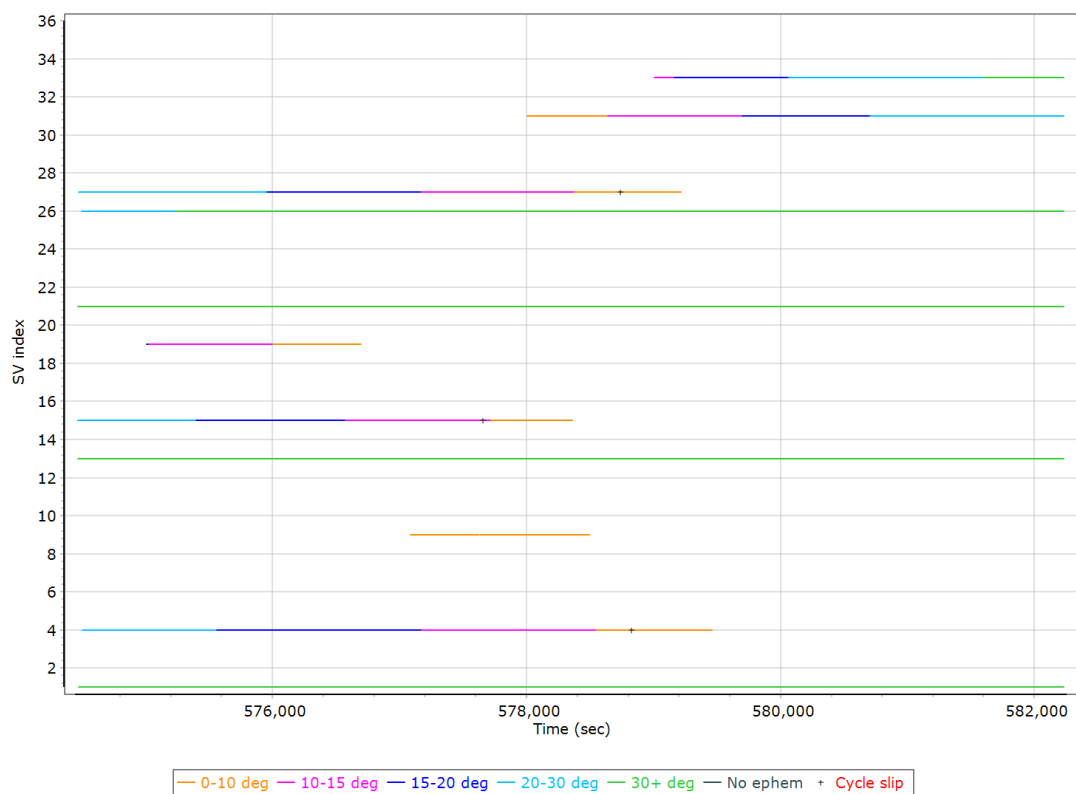
BEIDOU Satellite Lock/Elevation



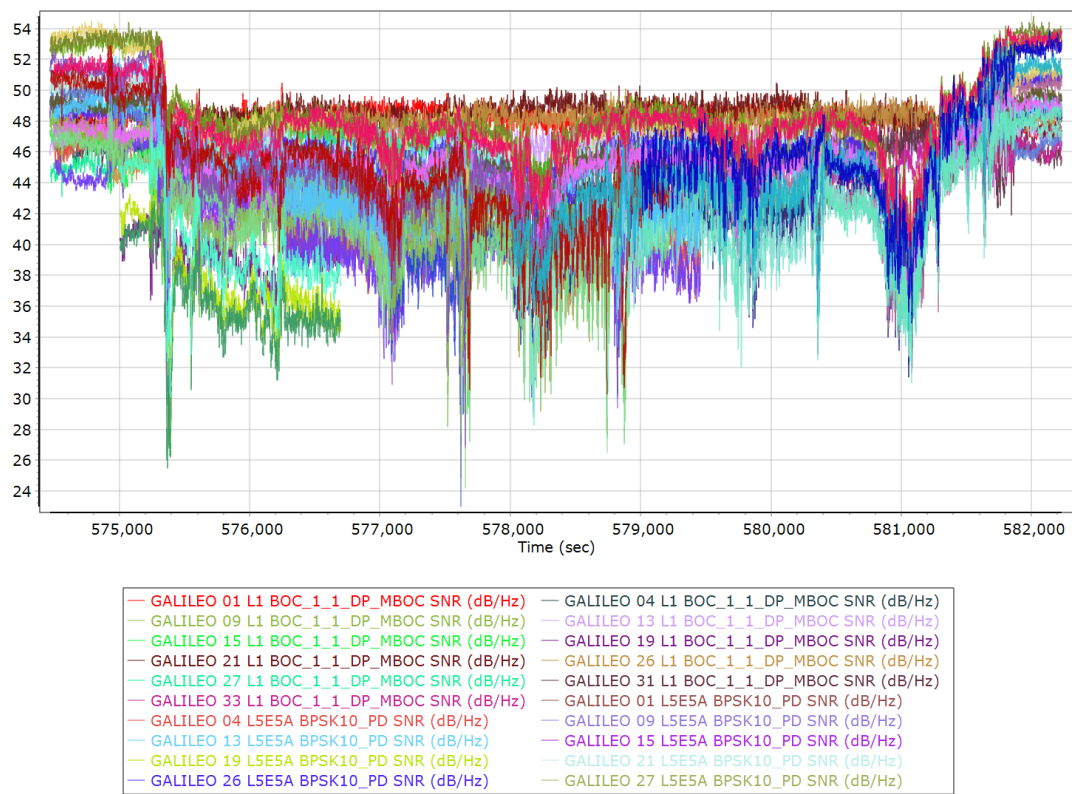
BEIDOU SNR



GALILEO Satellite Lock/Elevation

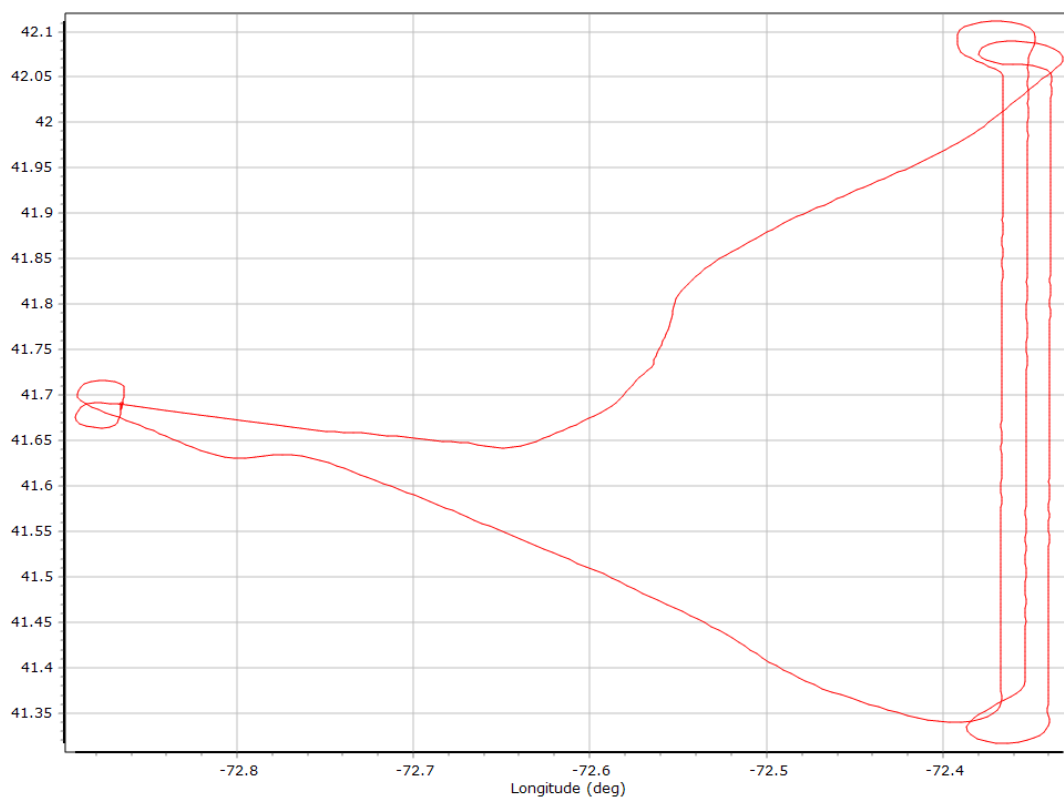


GALILEO SNR

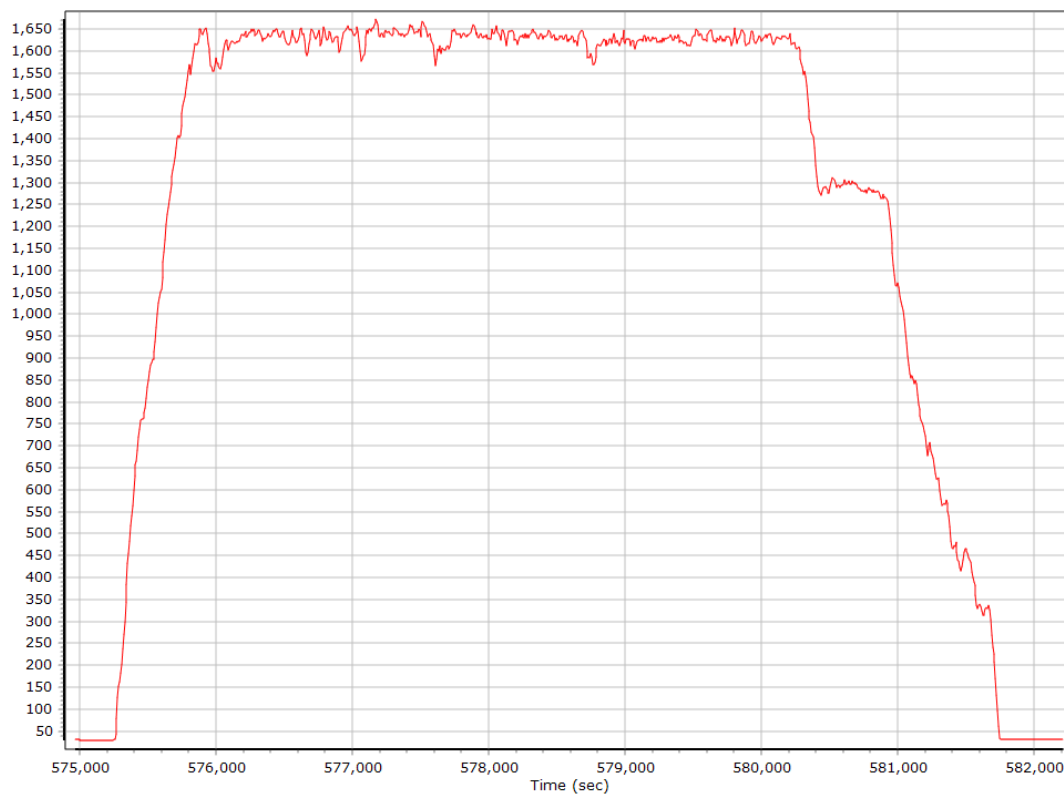


Smoothed Trajectory Information

Top View



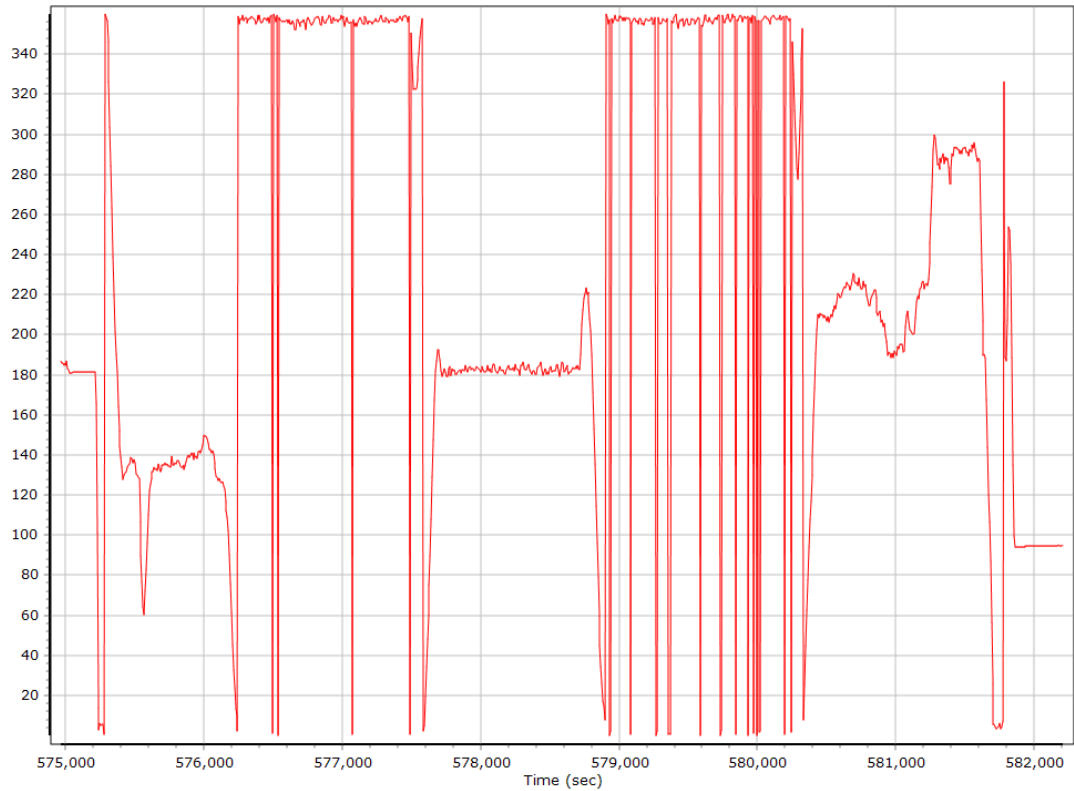
Altitude



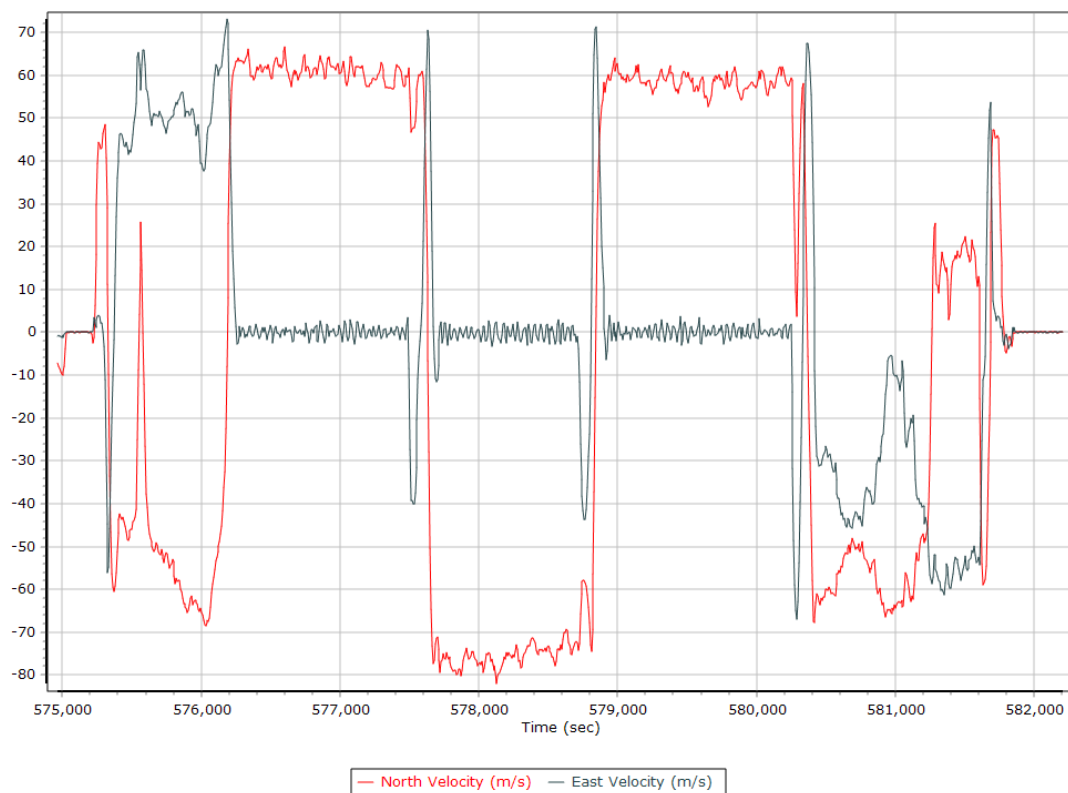
Roll/Pitch



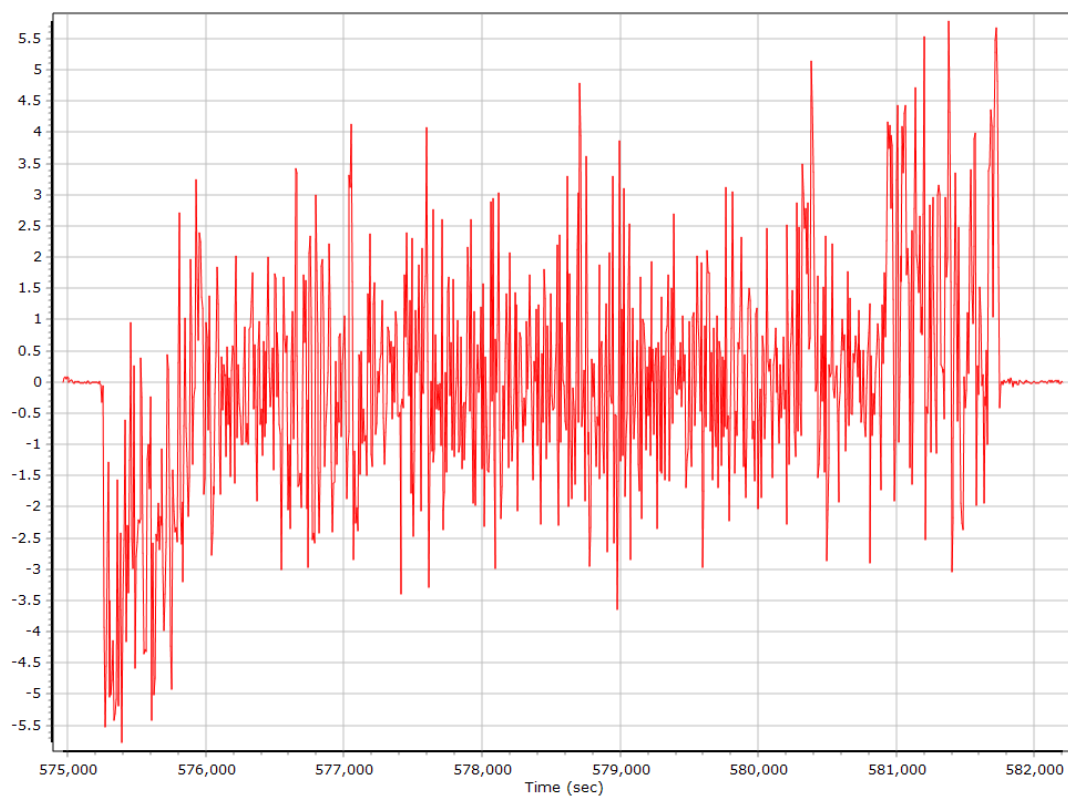
Heading



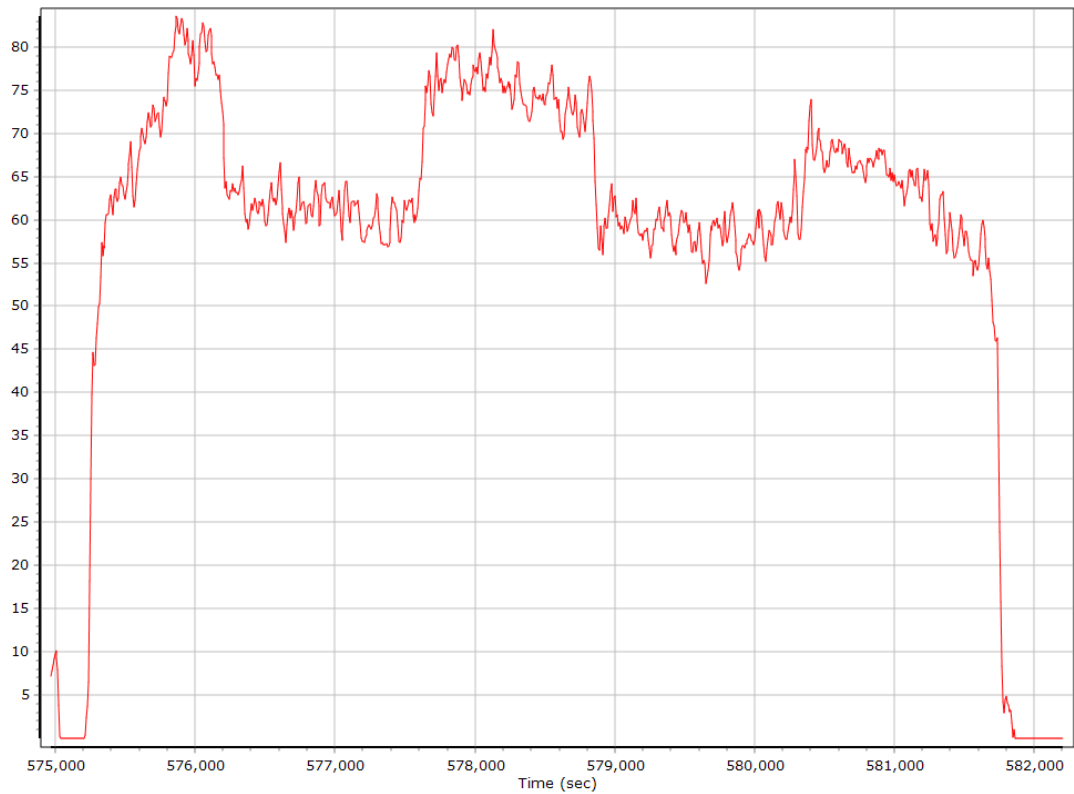
North/East Velocity



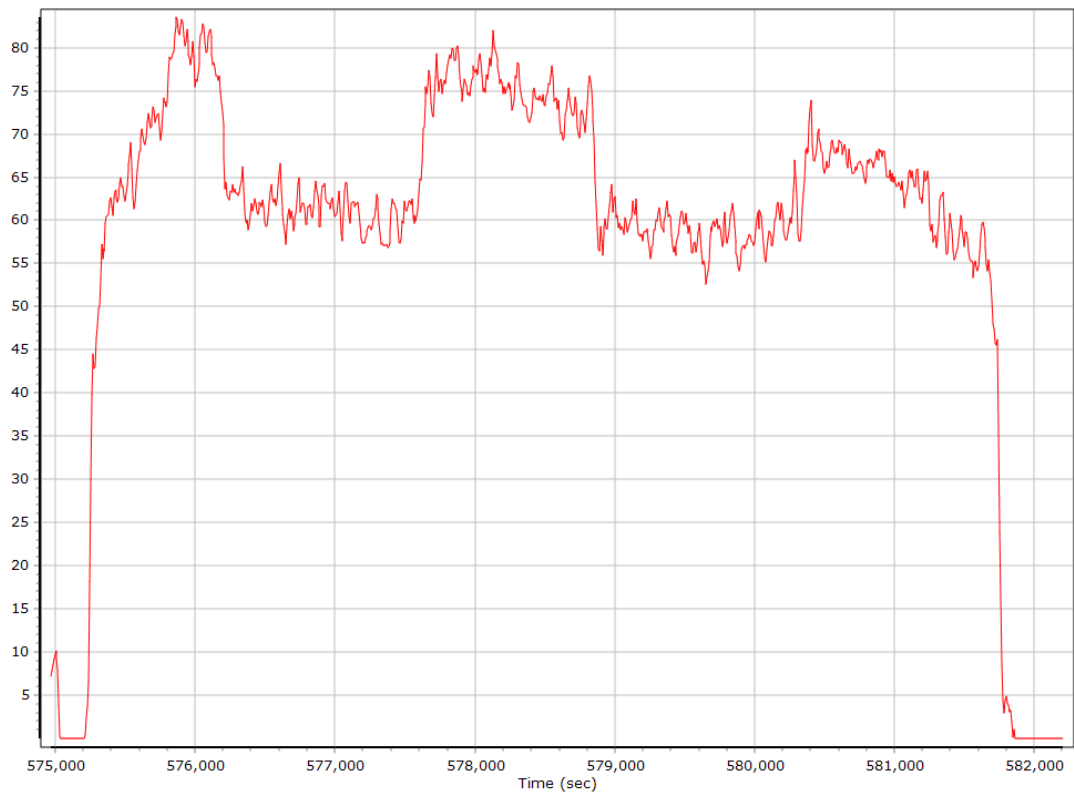
Down Velocity



Total Speed



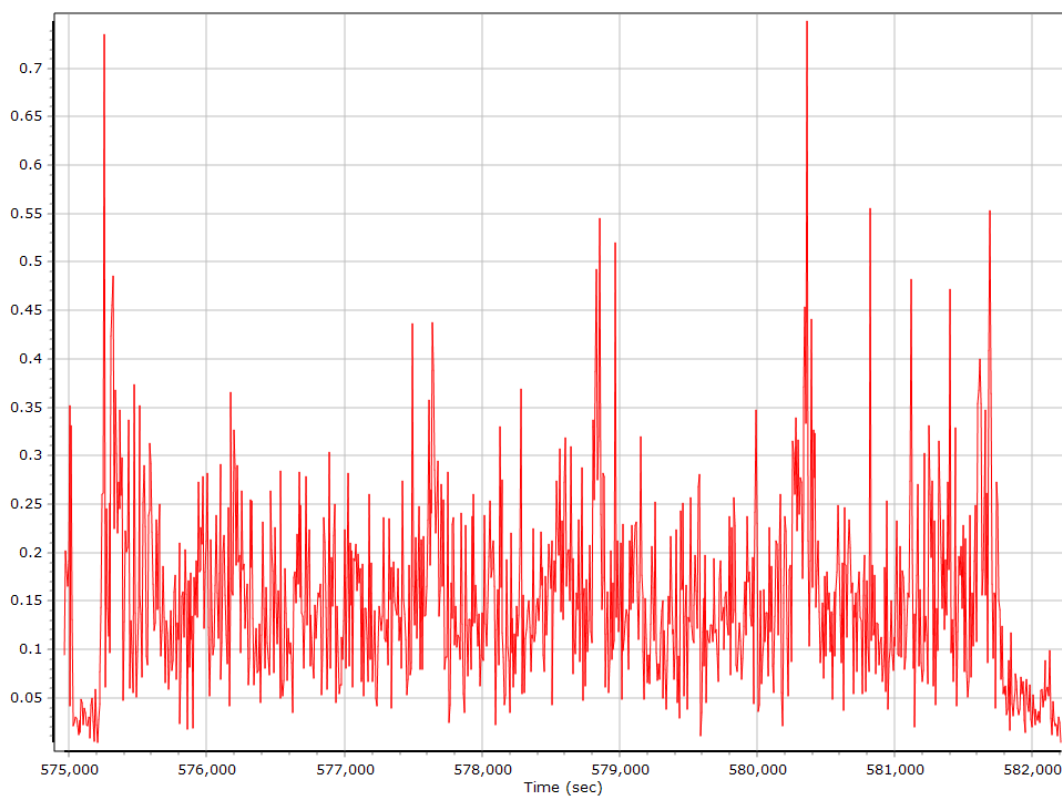
Ground Speed



Body Acceleration



Total Body Acceleration

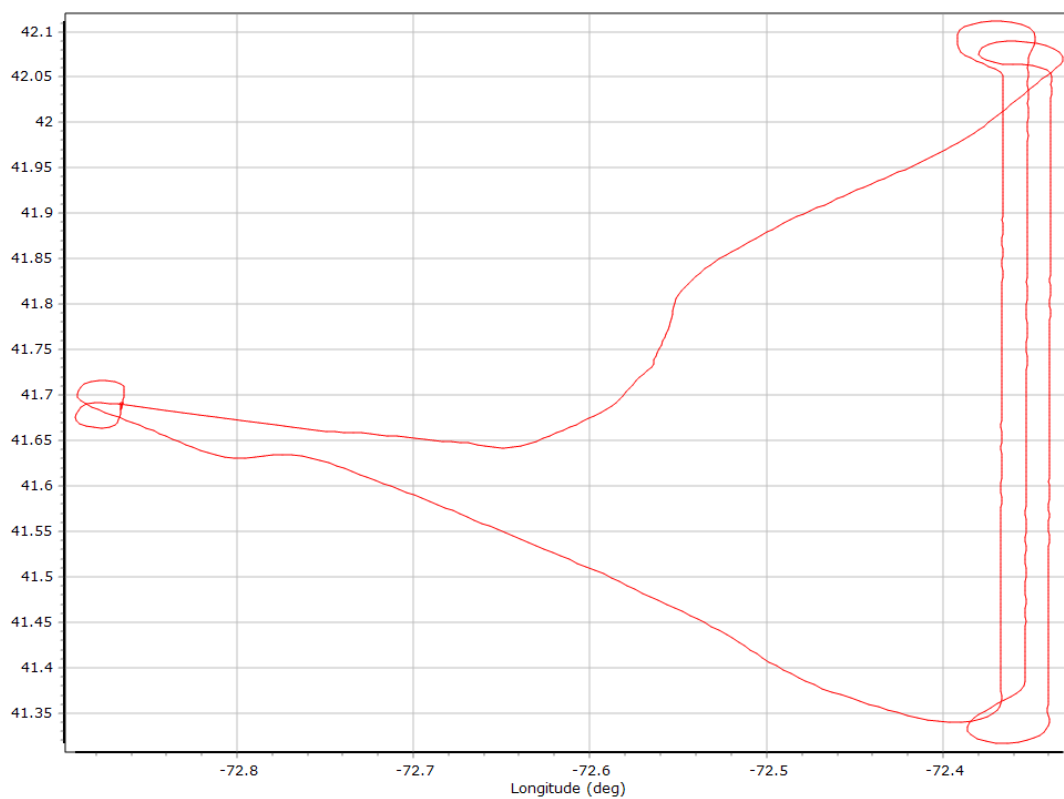


Body Angular Rate

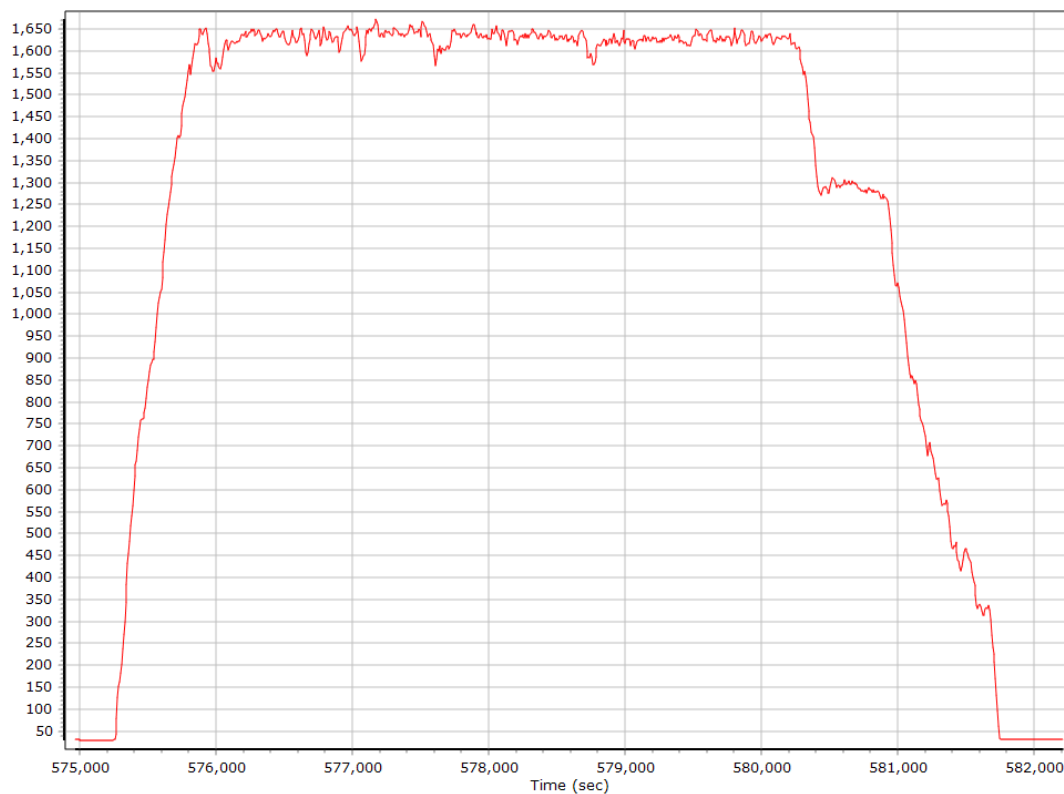


Forward Processed Trajectory Information

Top View



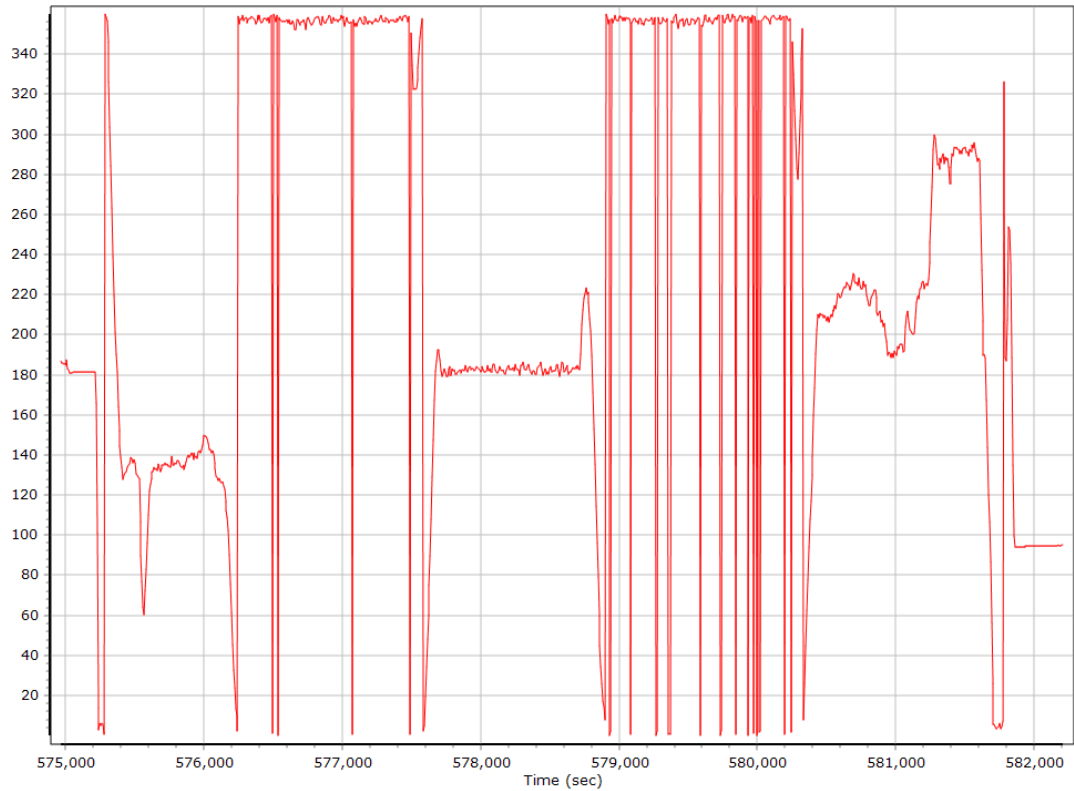
Altitude



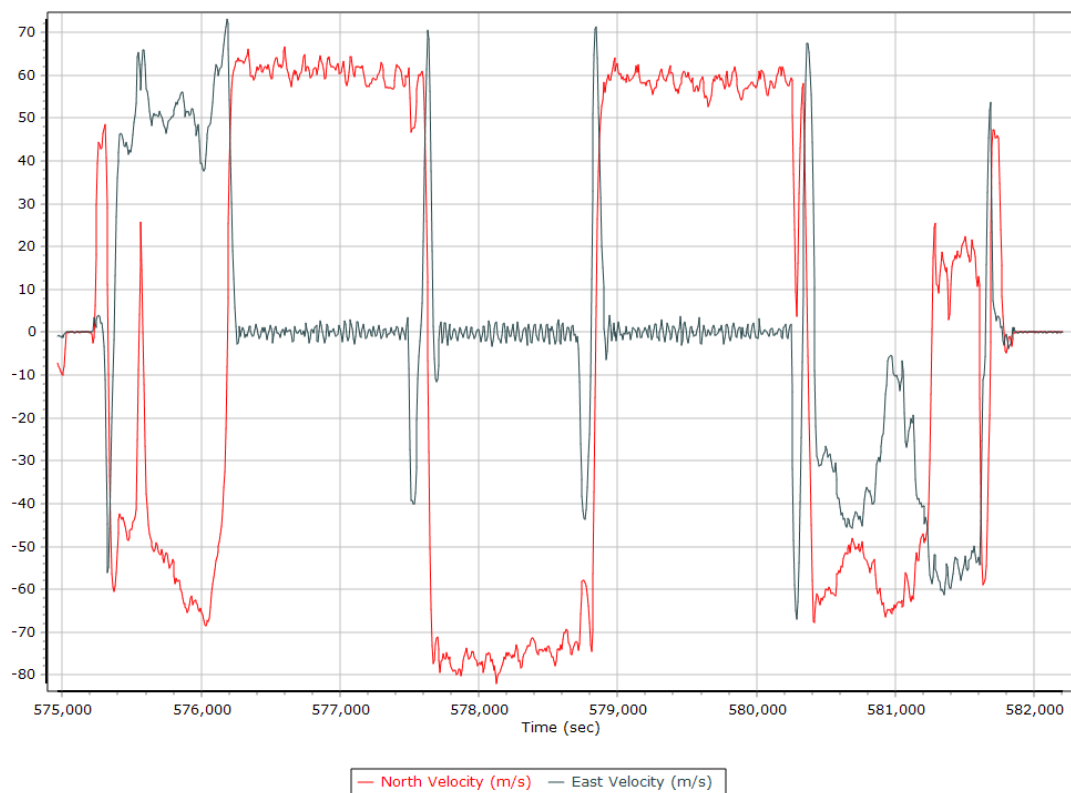
Roll/Pitch



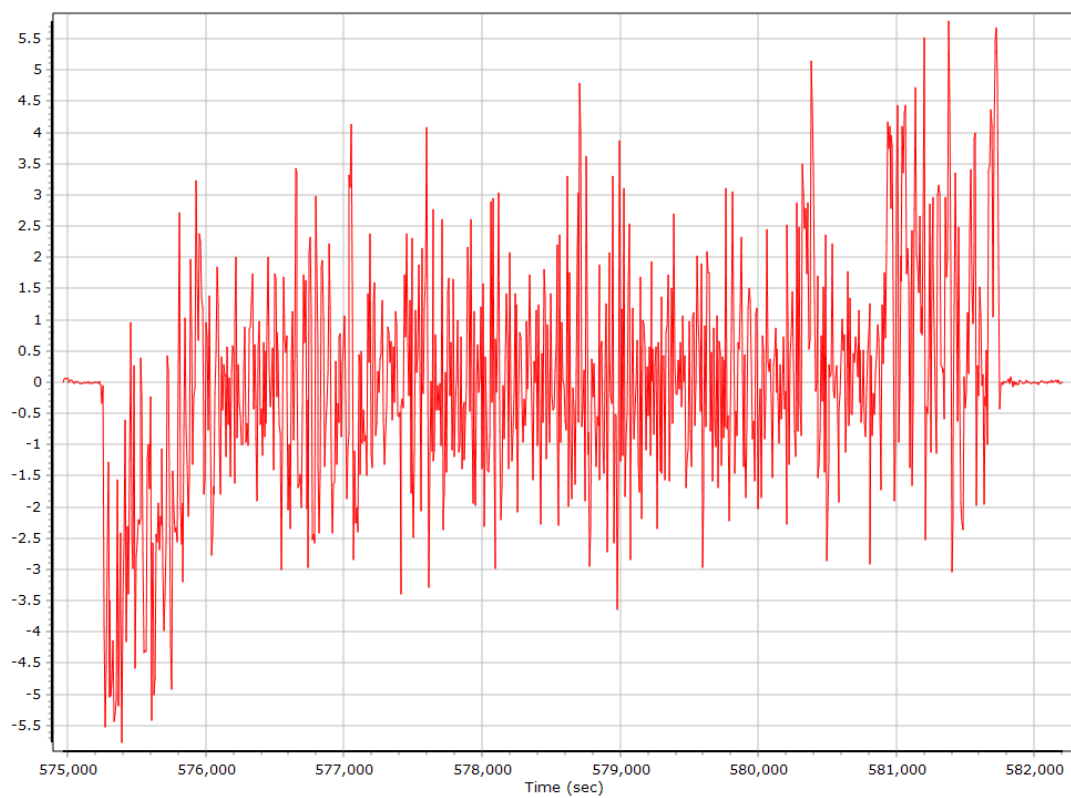
Heading



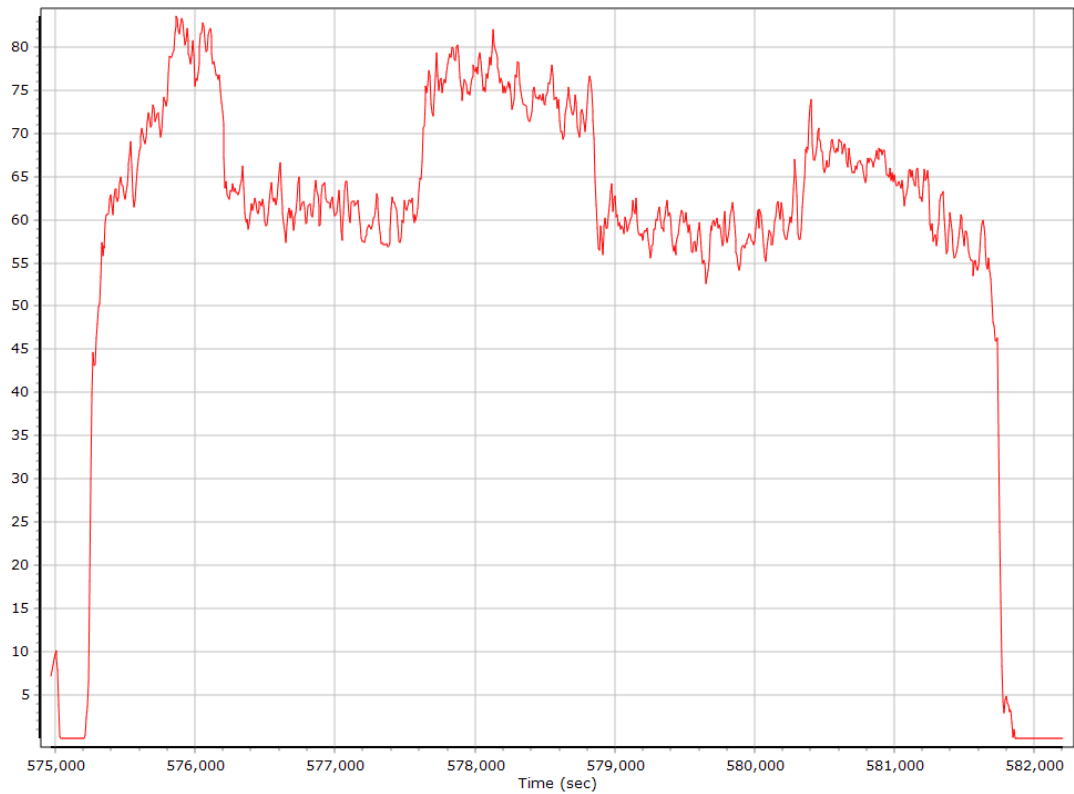
North/East Velocity



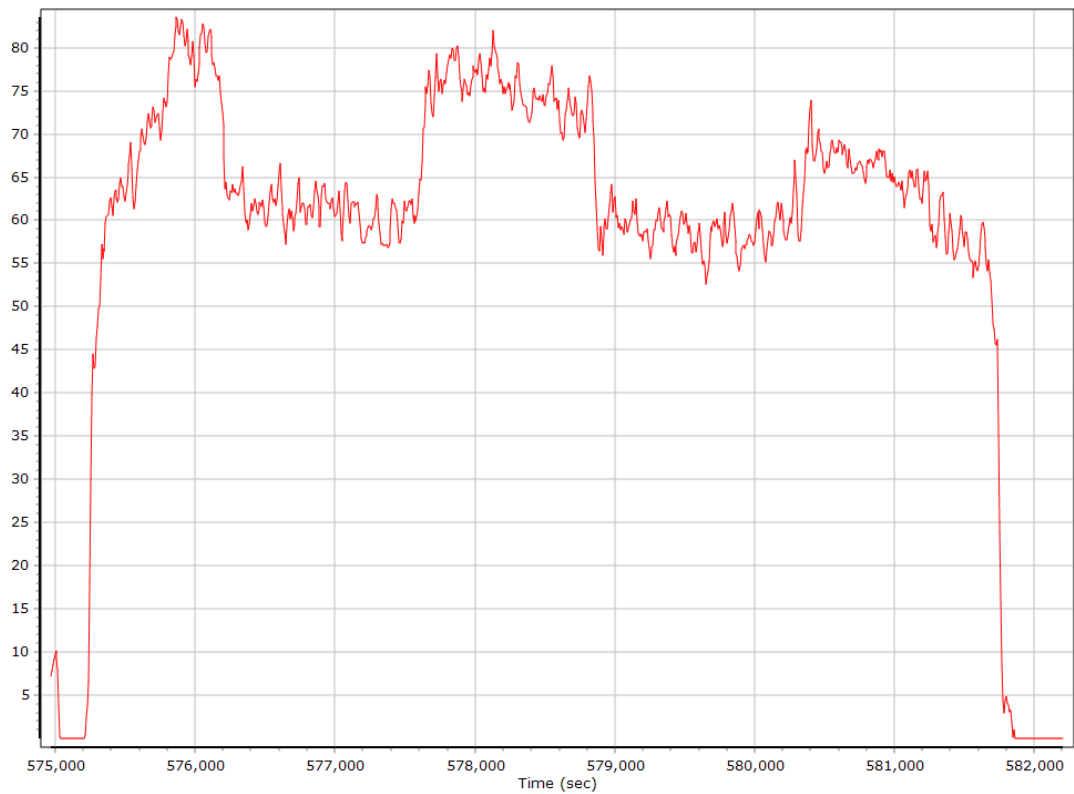
Down Velocity



Total Speed



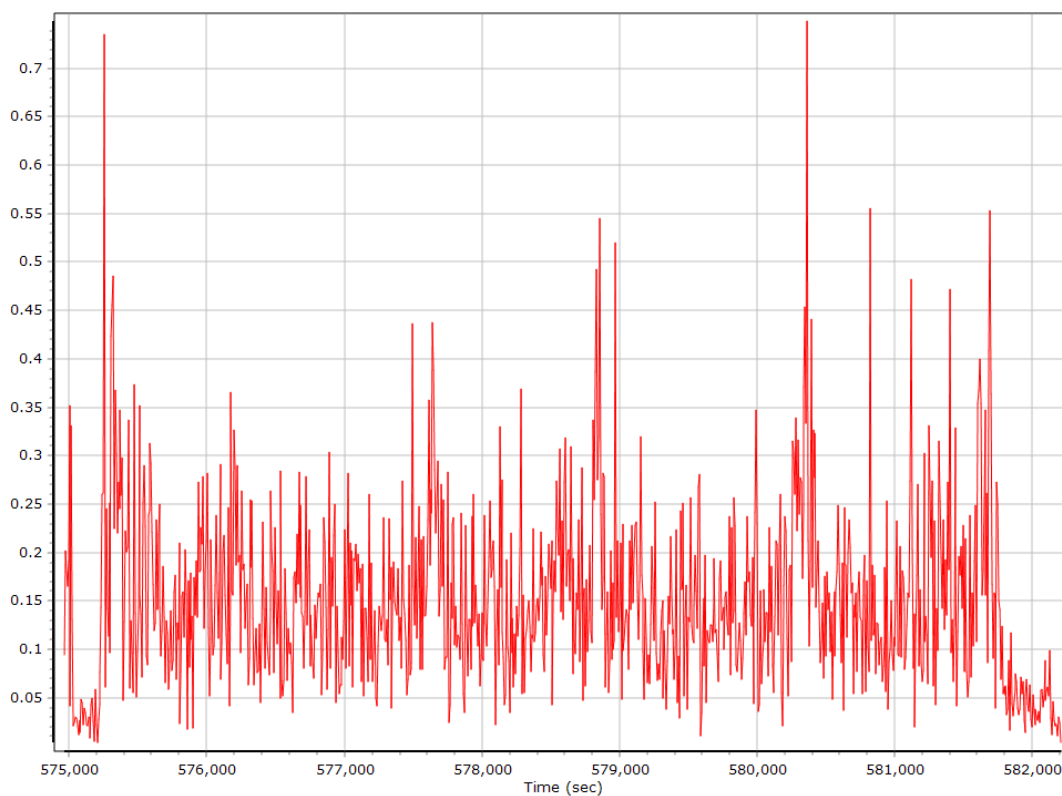
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

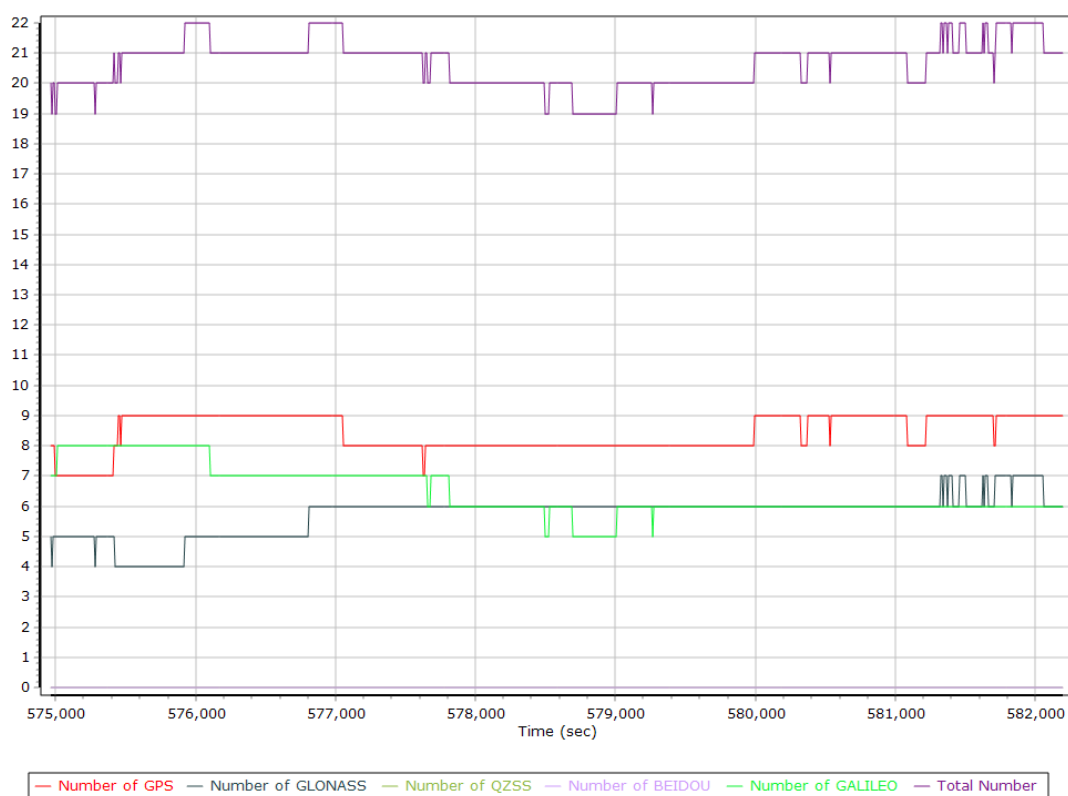


GNSS QC

GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	2	9	8
Number of GLONASS SV	4	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	3	8	7
Total number of SV	9	22	21
PDOP	1.01	2.58	1.15
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	7731.00	0.00	0.00
Percentage	100.00	0.00	0.00

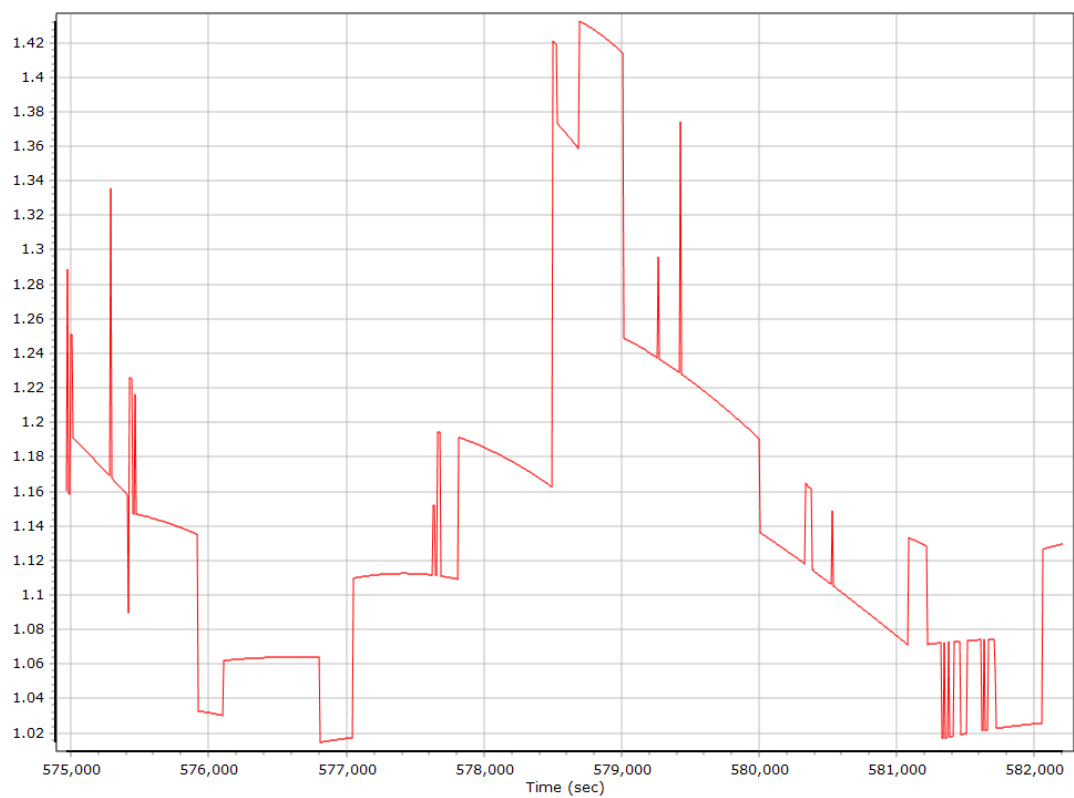
Num SVs in solution



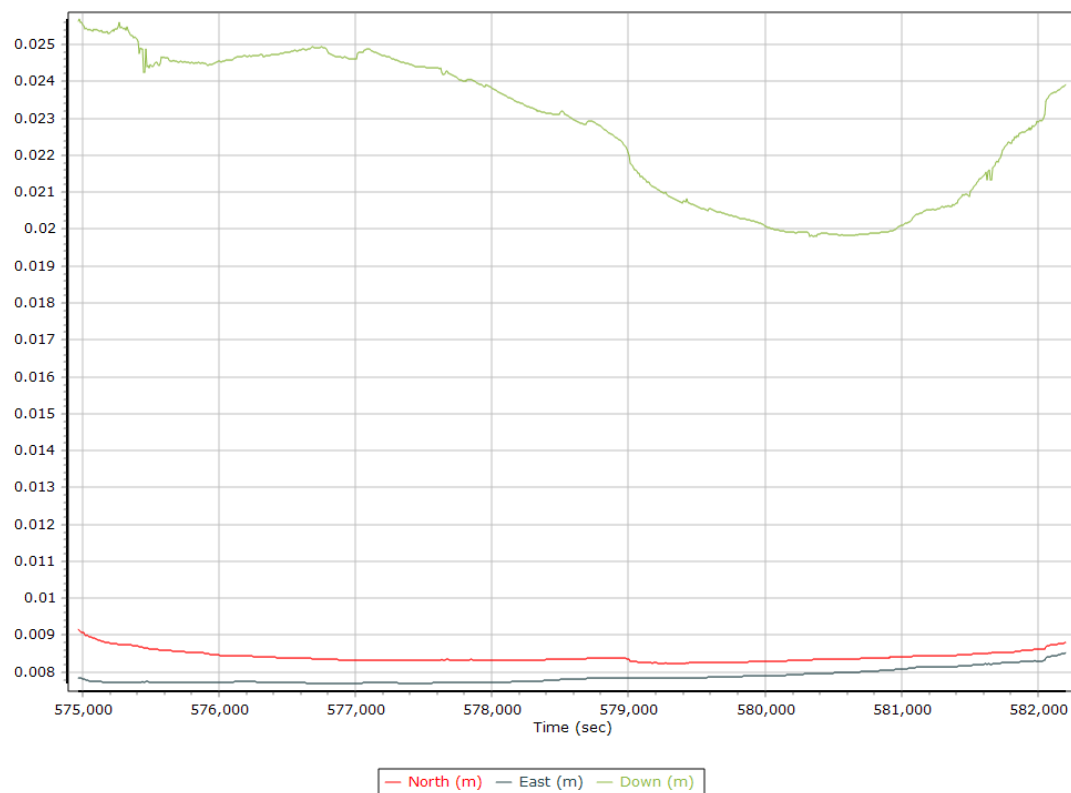
Forward/Reverse Separation



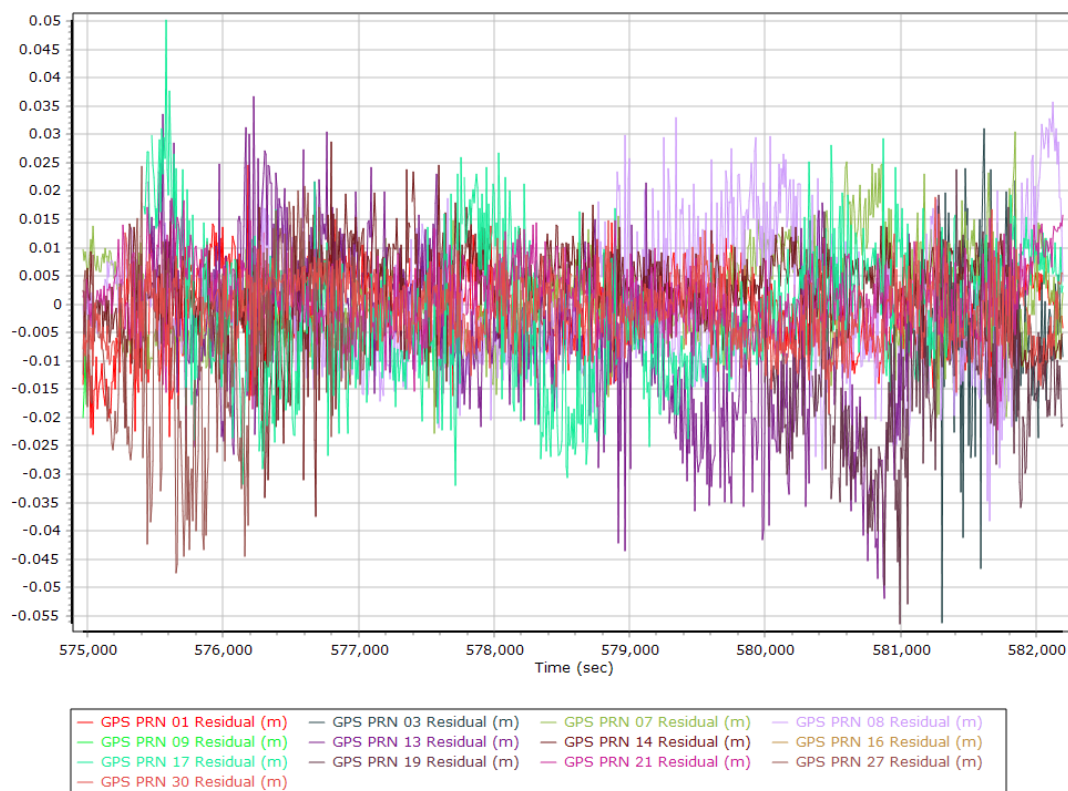
PDOP



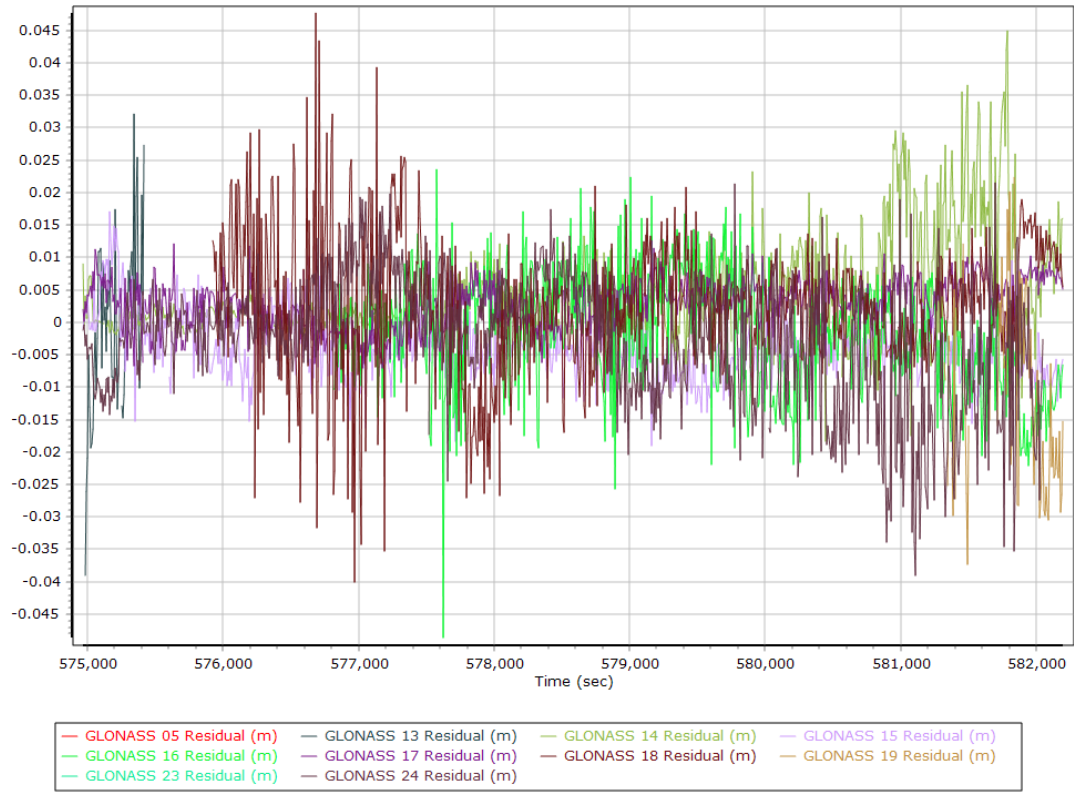
Estimated Position Accuracy



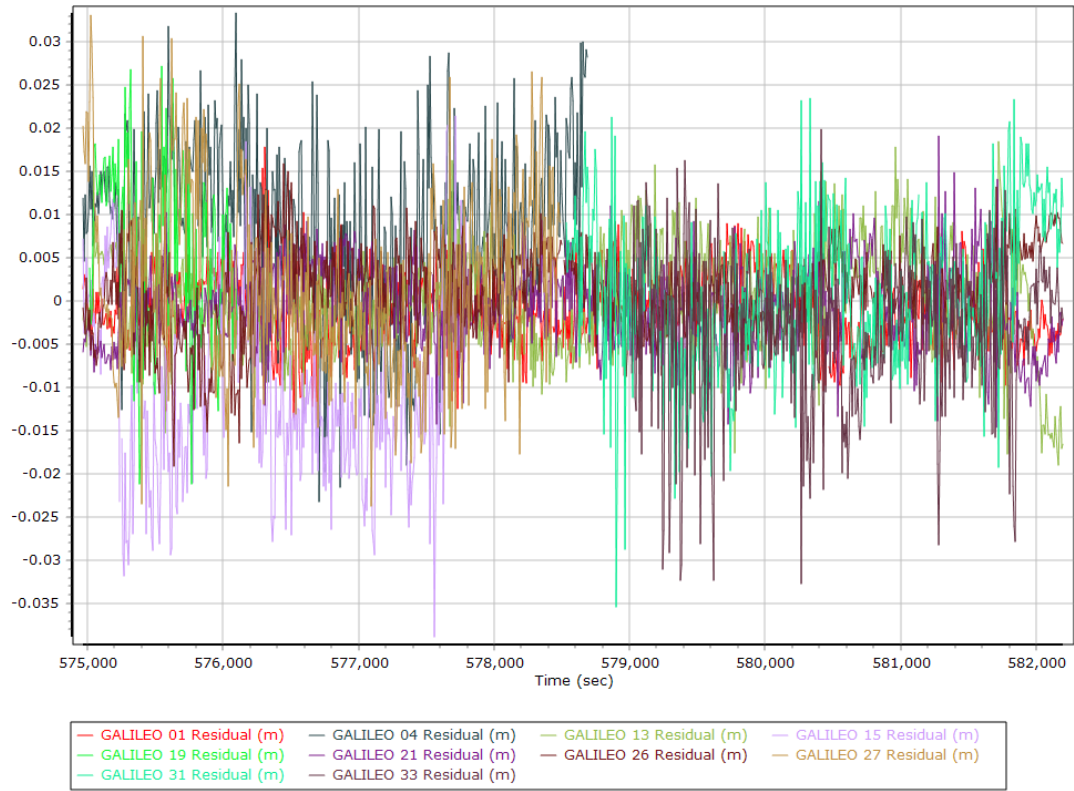
GPS Residuals



GLONASS Residuals



GALILEO Residuals



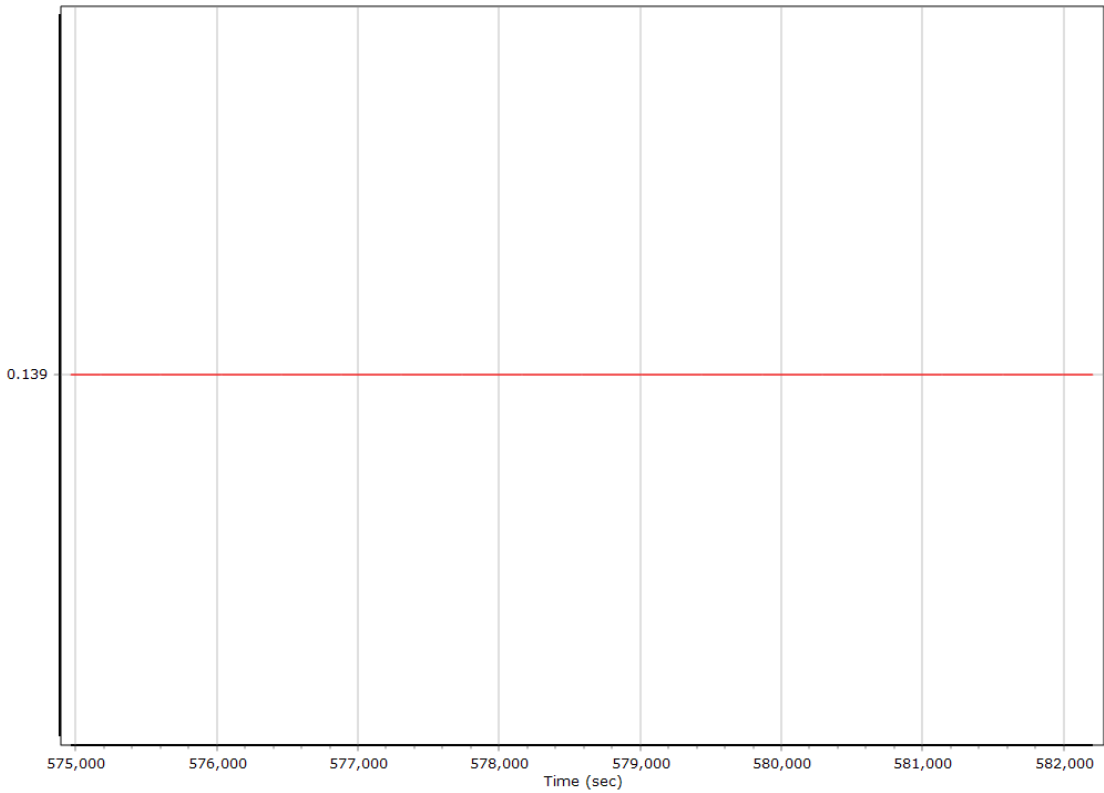
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	574451.000 (04/08/2023 15:34:11)		
Processing end time	582212.000 (04/08/2023 17:43:32)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

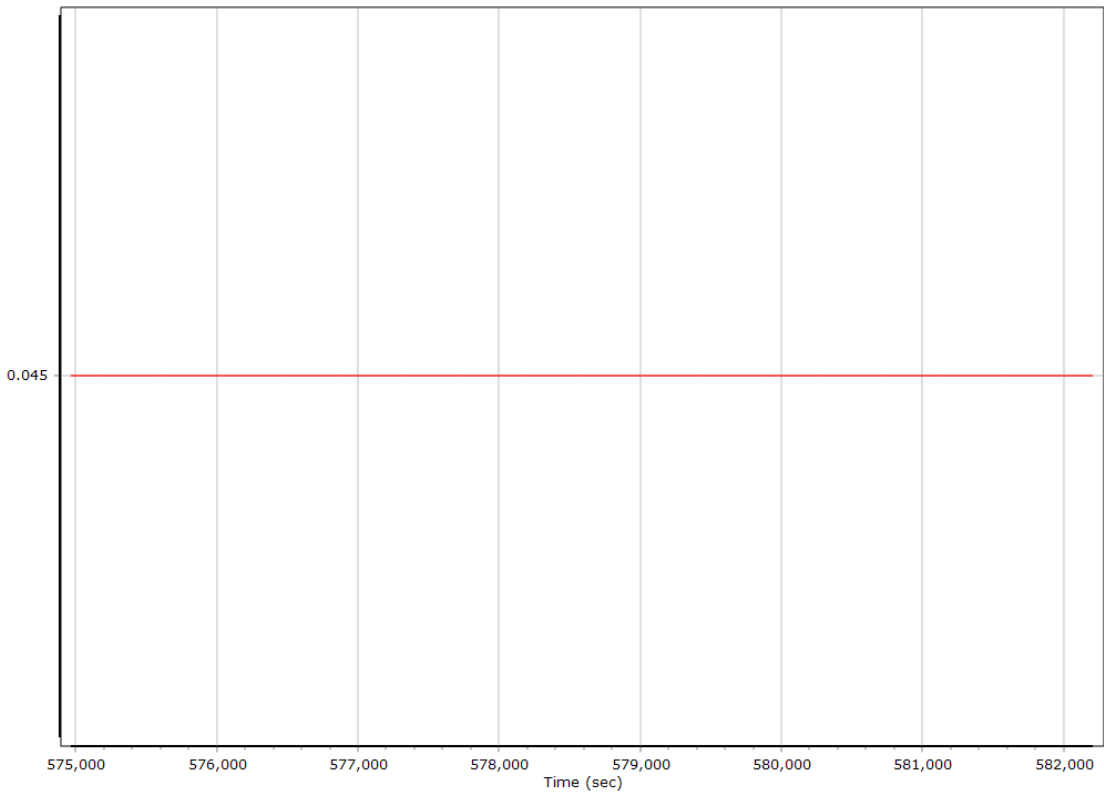
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

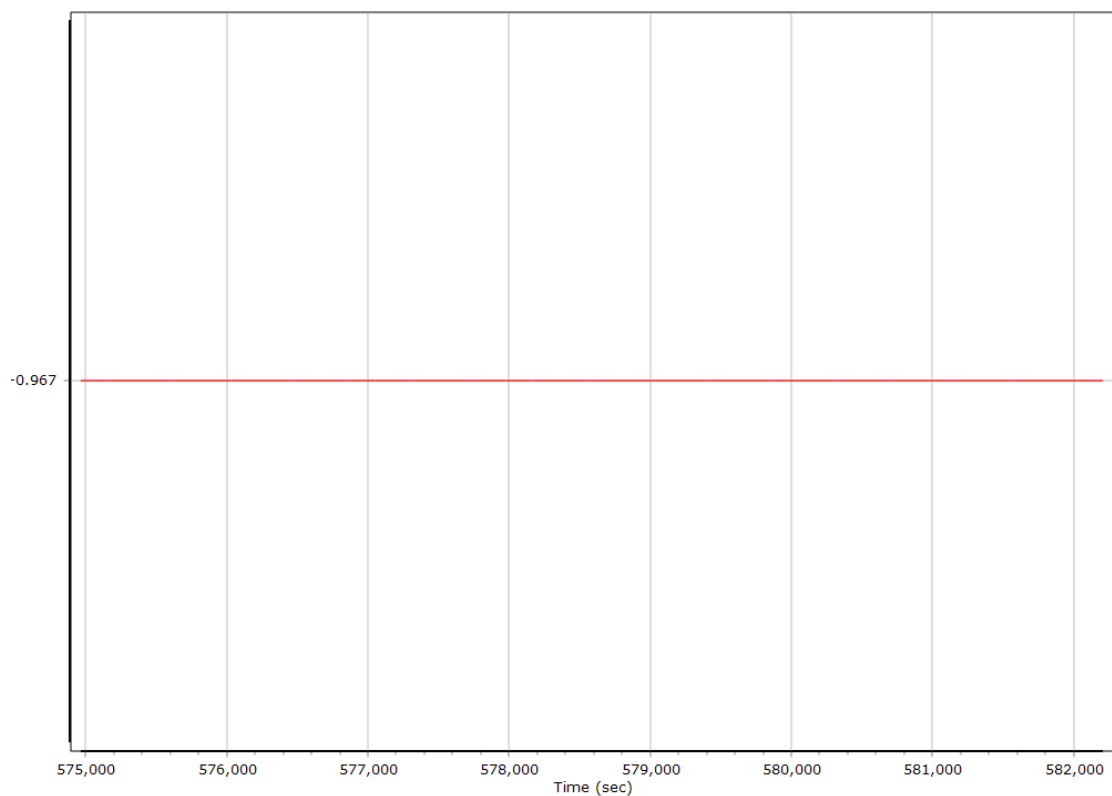
X Reference-Primary GNSS Lever Arm (m)



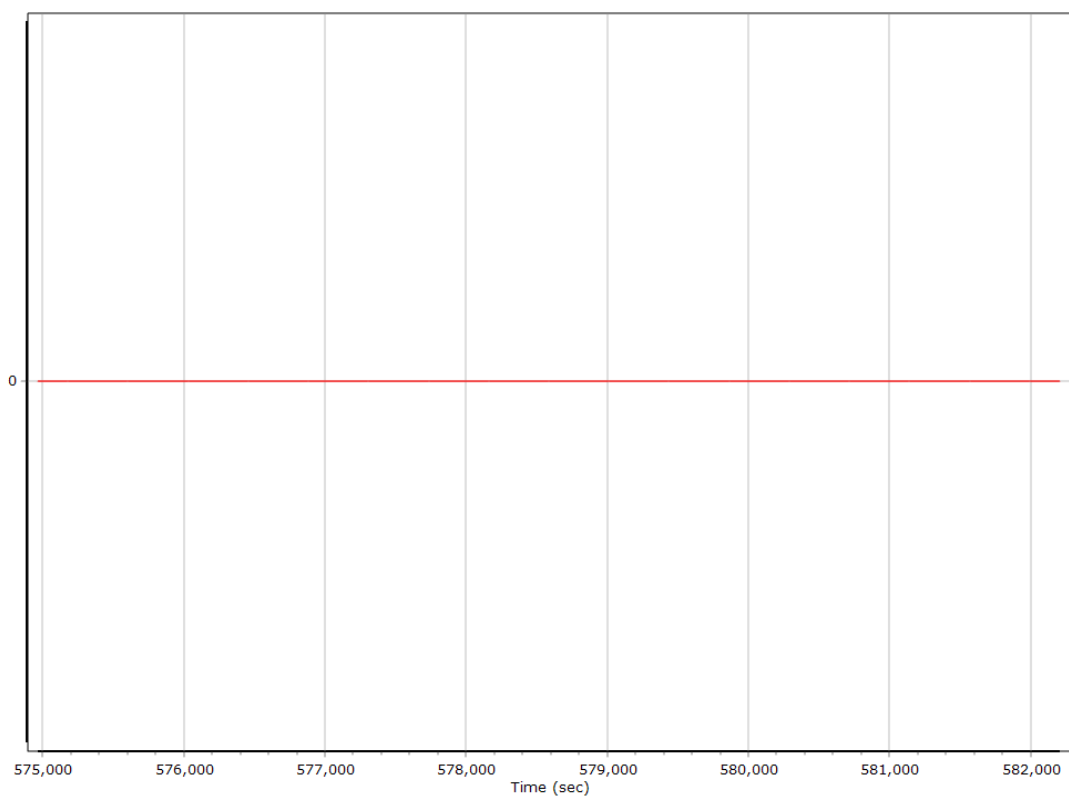
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



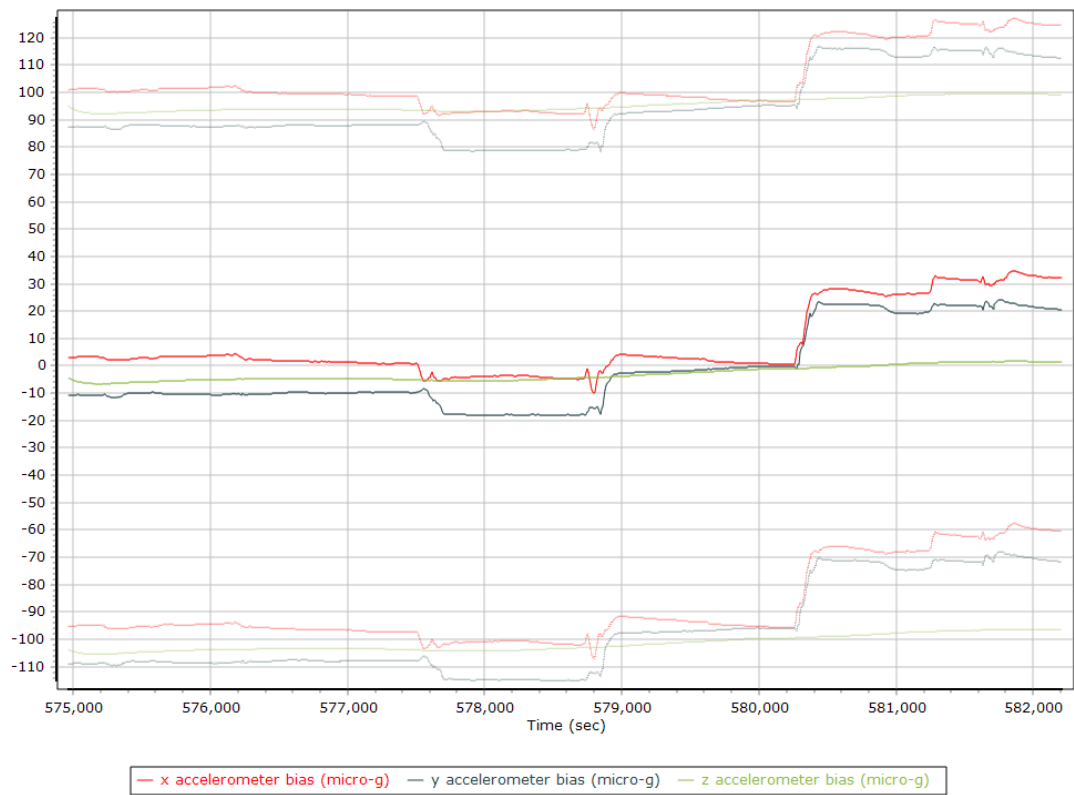
Reference-Primary GNSS Lever Arm Figure of Merit



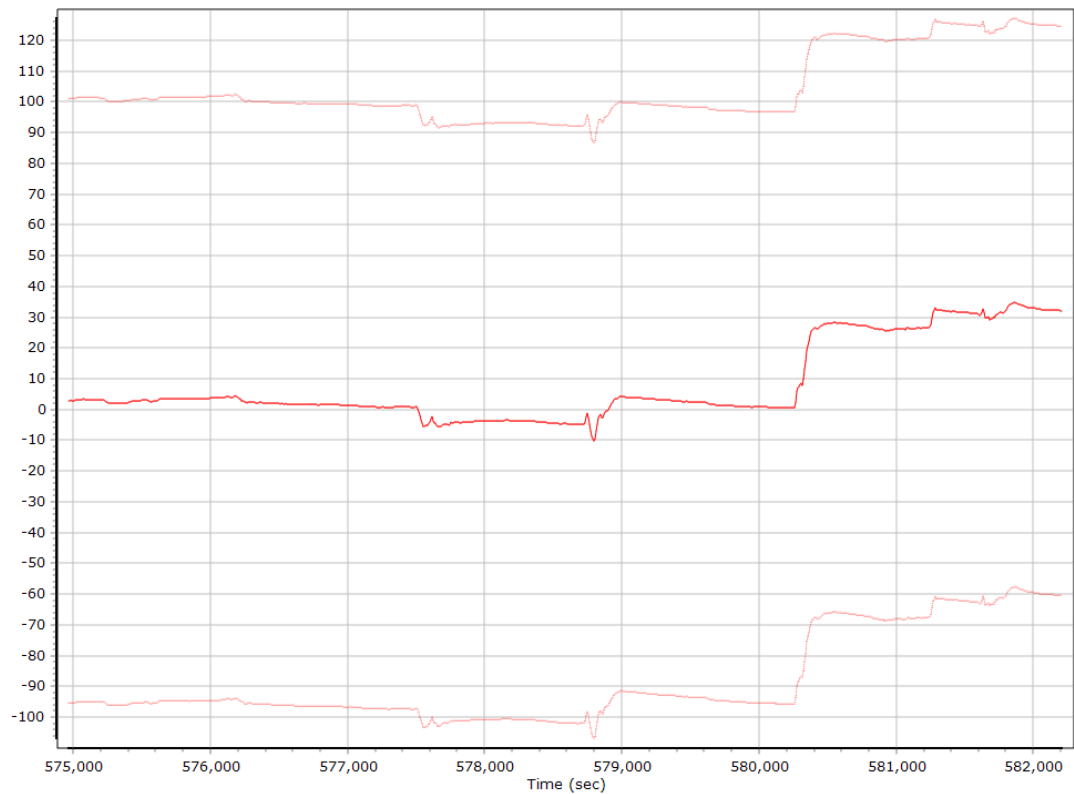
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

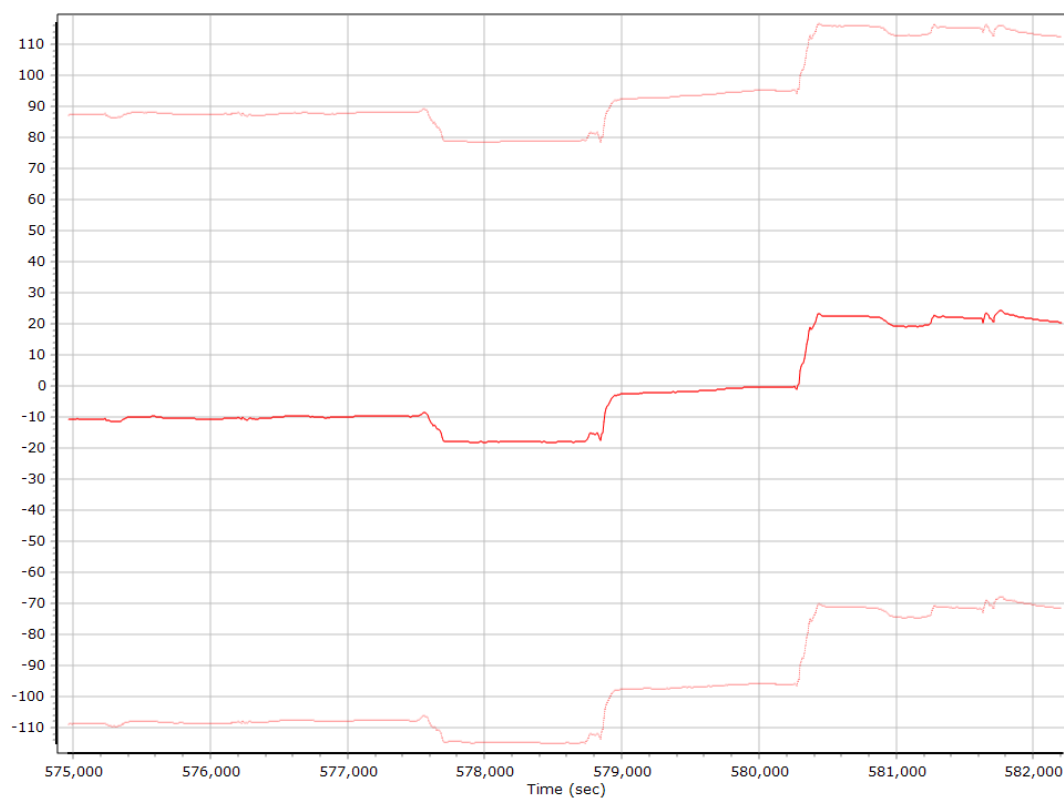
Accelerometer Bias (micro-g)



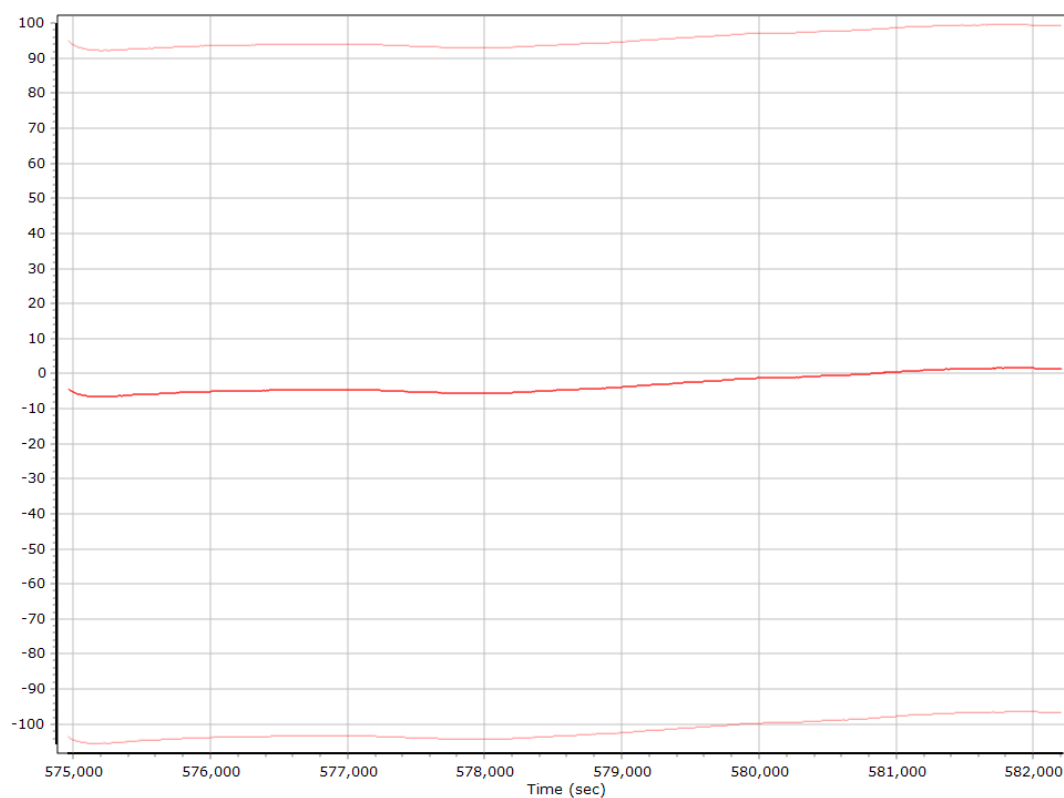
X Accelerometer Bias (micro-g)



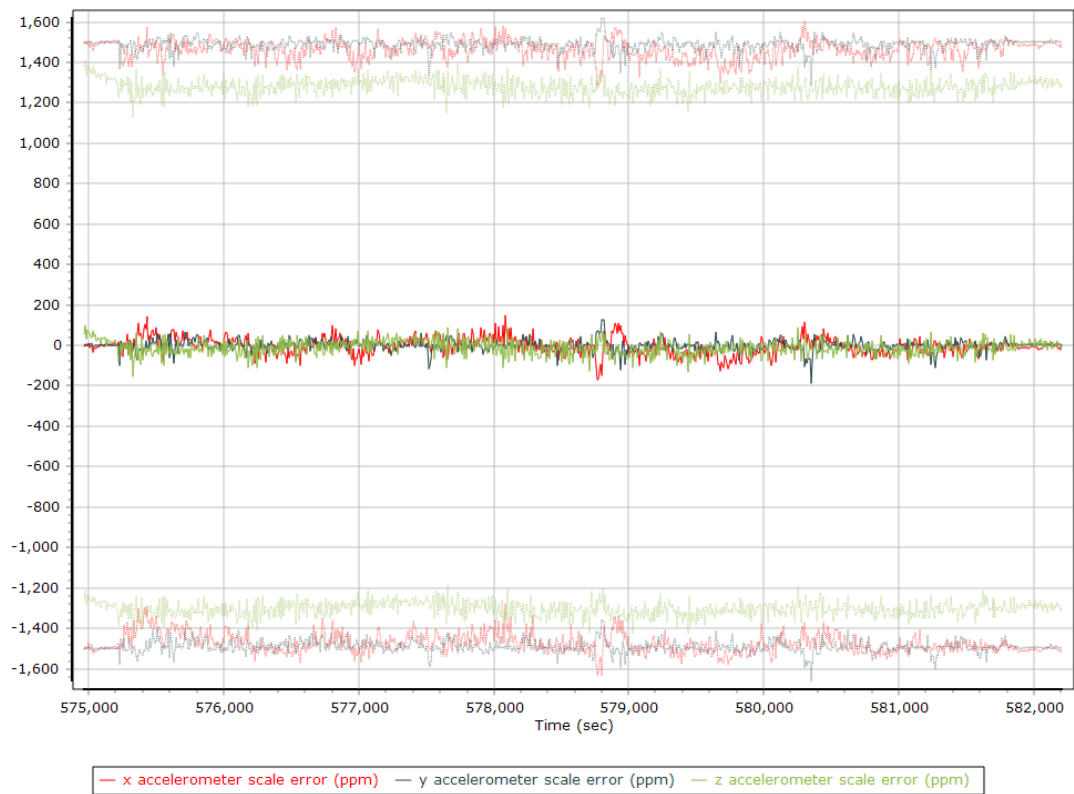
Y Accelerometer Bias (micro-g)



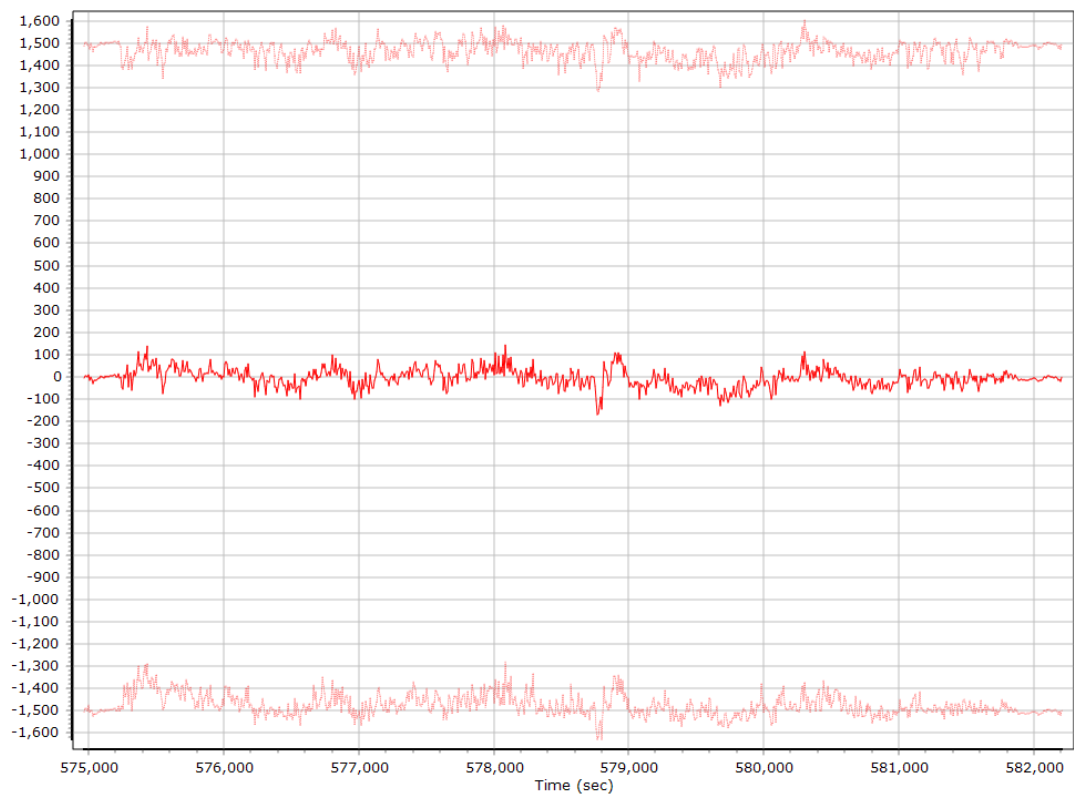
Z Accelerometer Bias (micro-g)



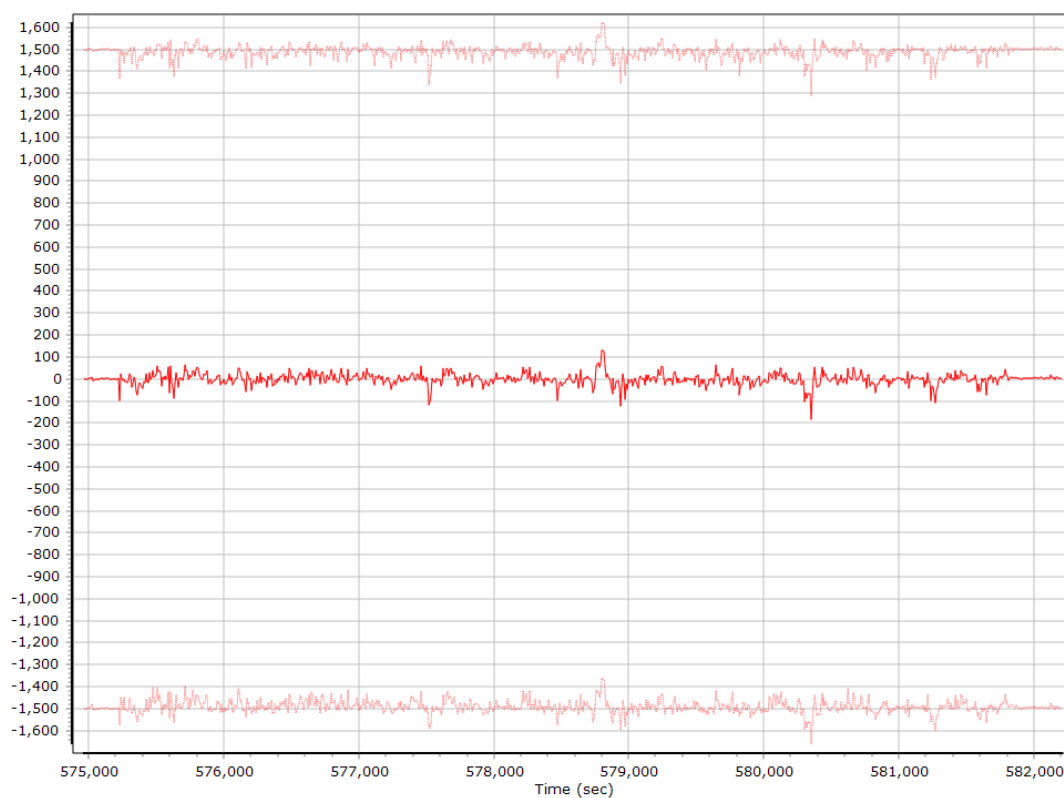
Accelerometer Scale Error (ppm)



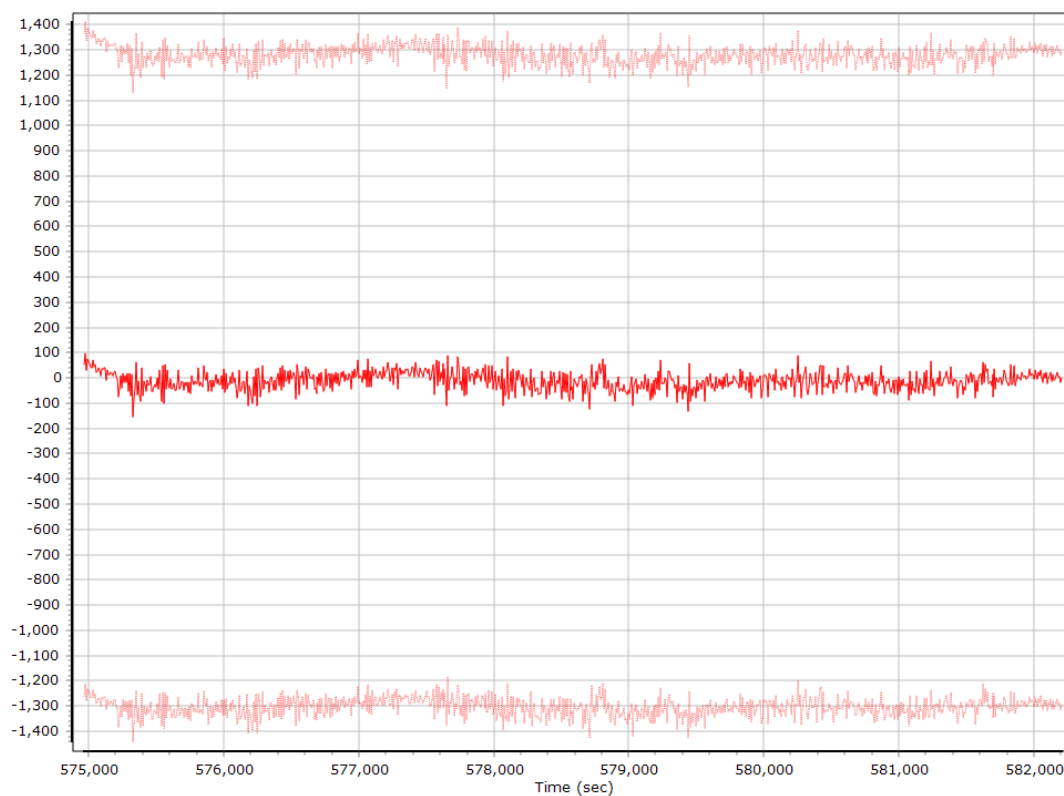
X Accelerometer Scale Error (ppm)



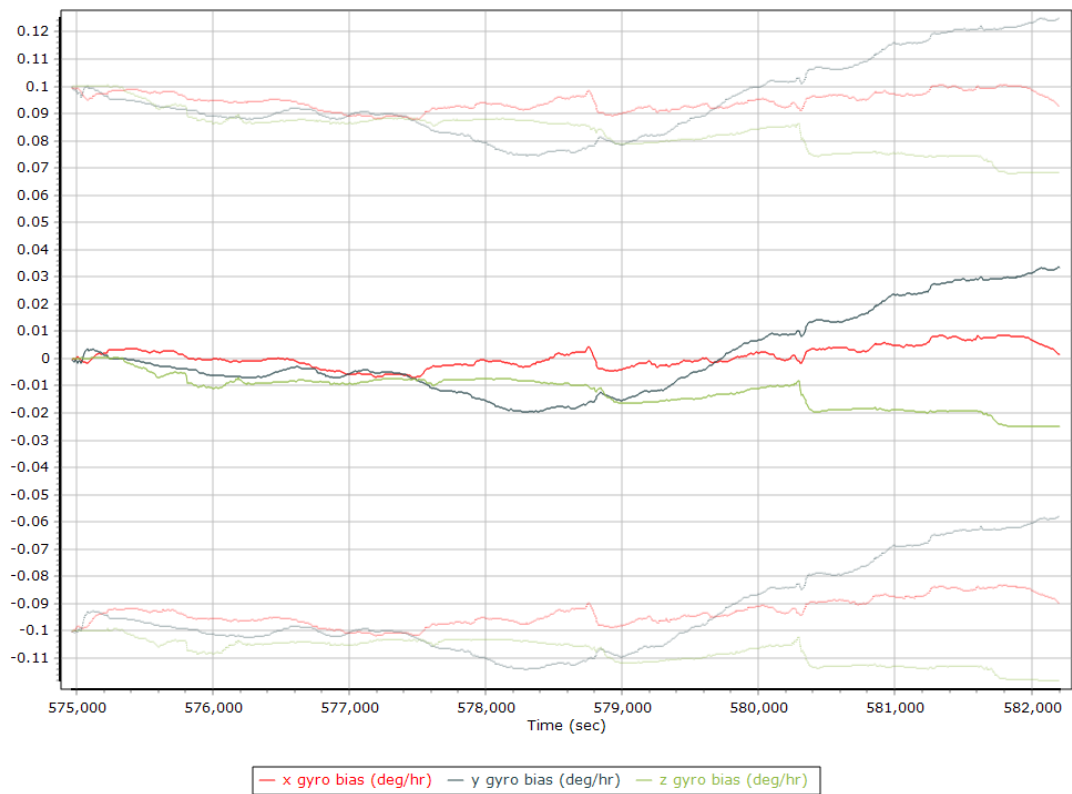
Y Accelerometer Scale Error (ppm)



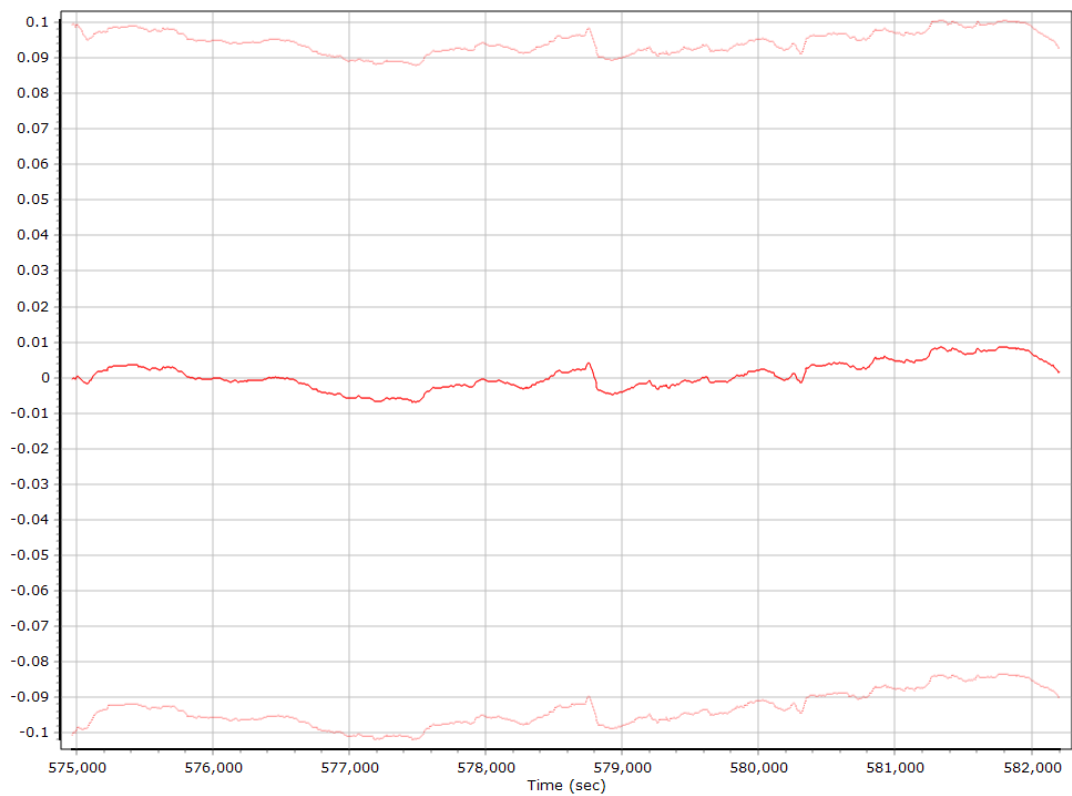
Z Accelerometer Scale Error (ppm)



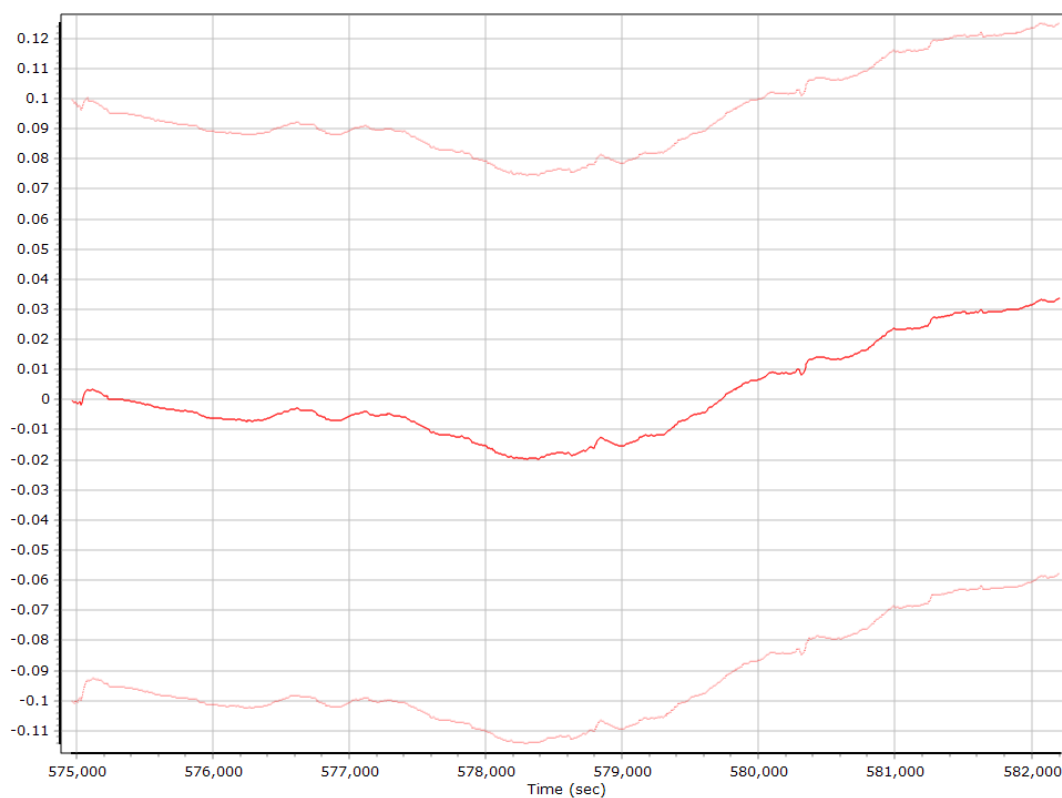
Gyro Bias (deg/h)



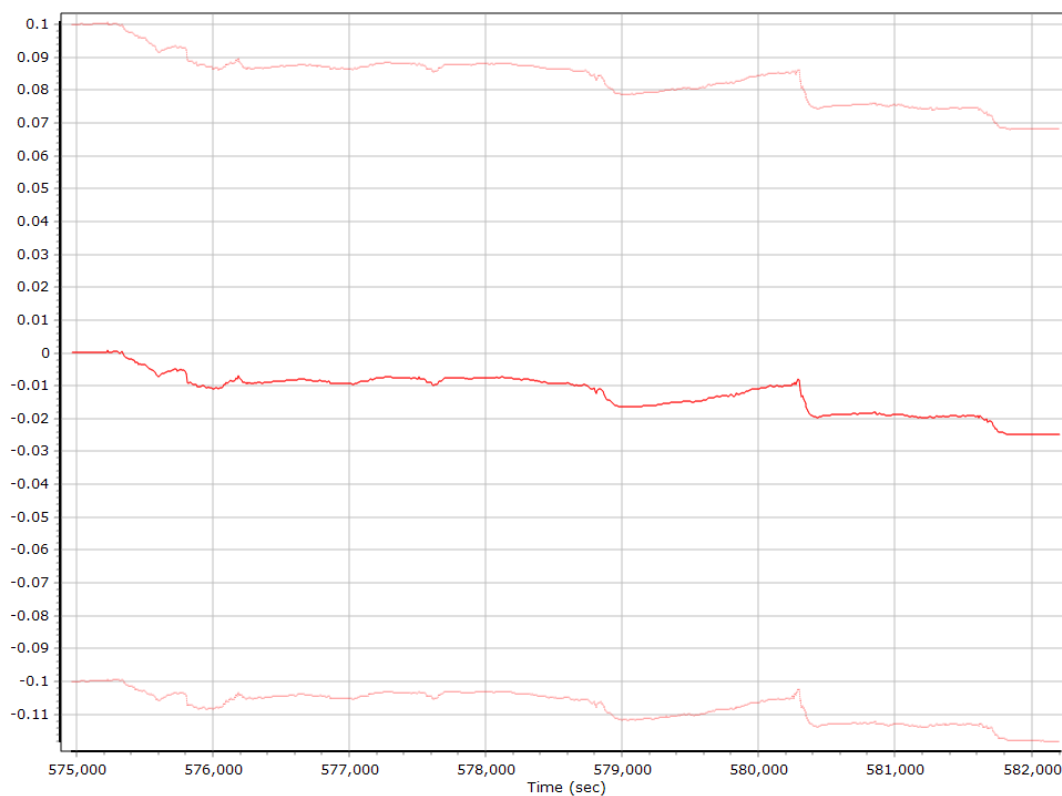
X Gyro Bias (deg/h)



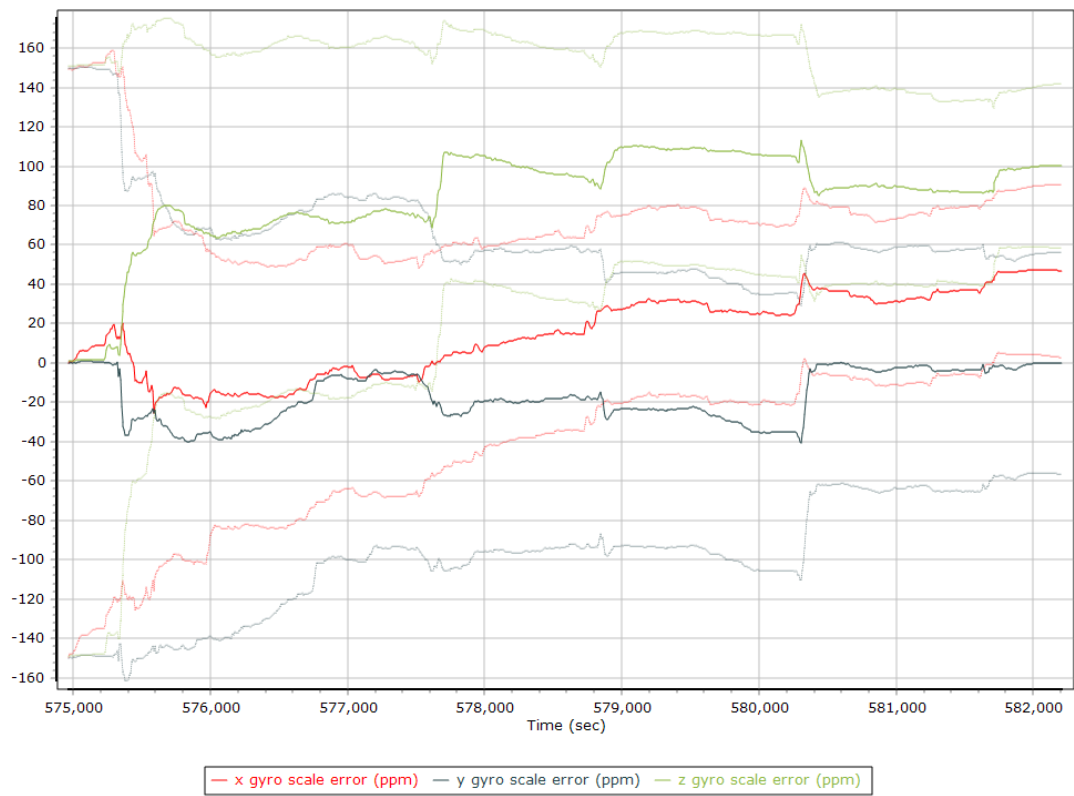
Y Gyro Bias (deg/h)



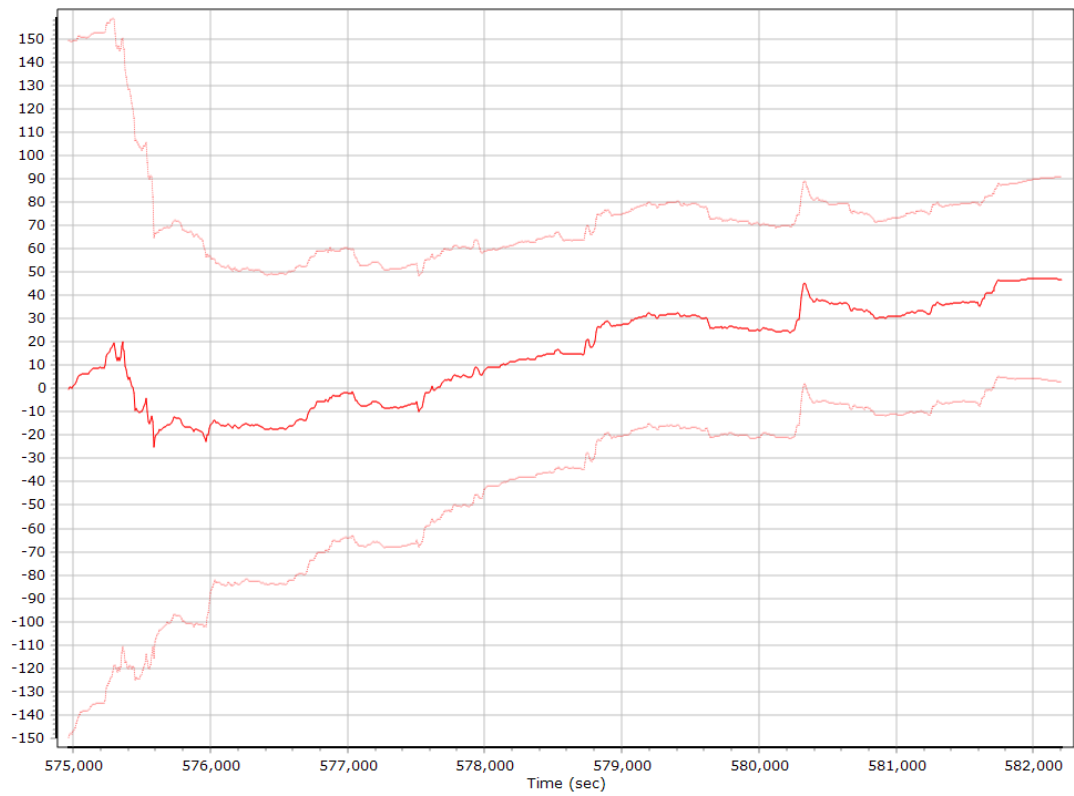
Z Gyro Bias (deg/h)



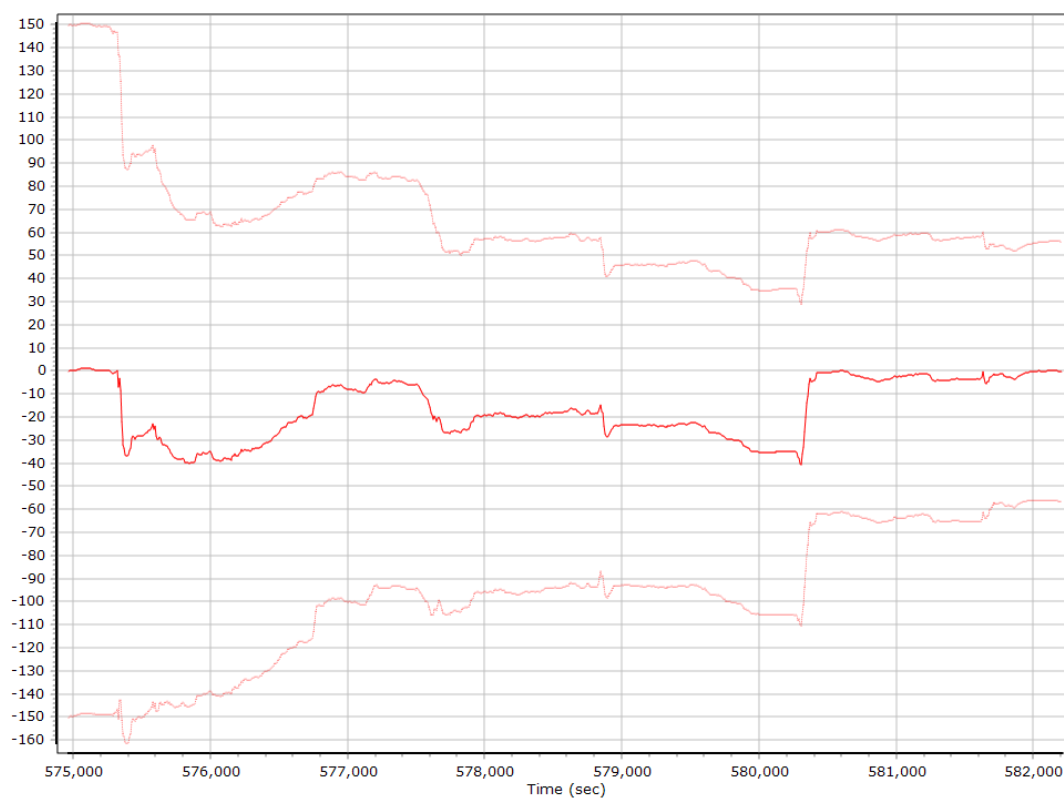
Gyro Scale Error (ppm)



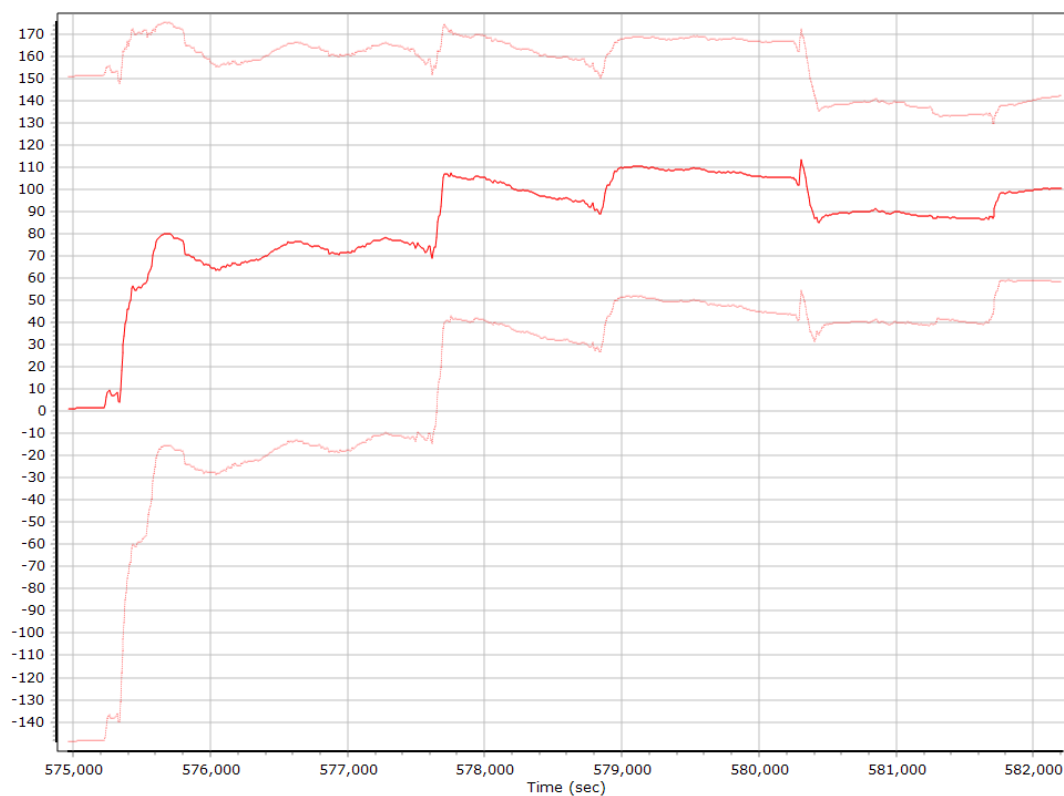
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

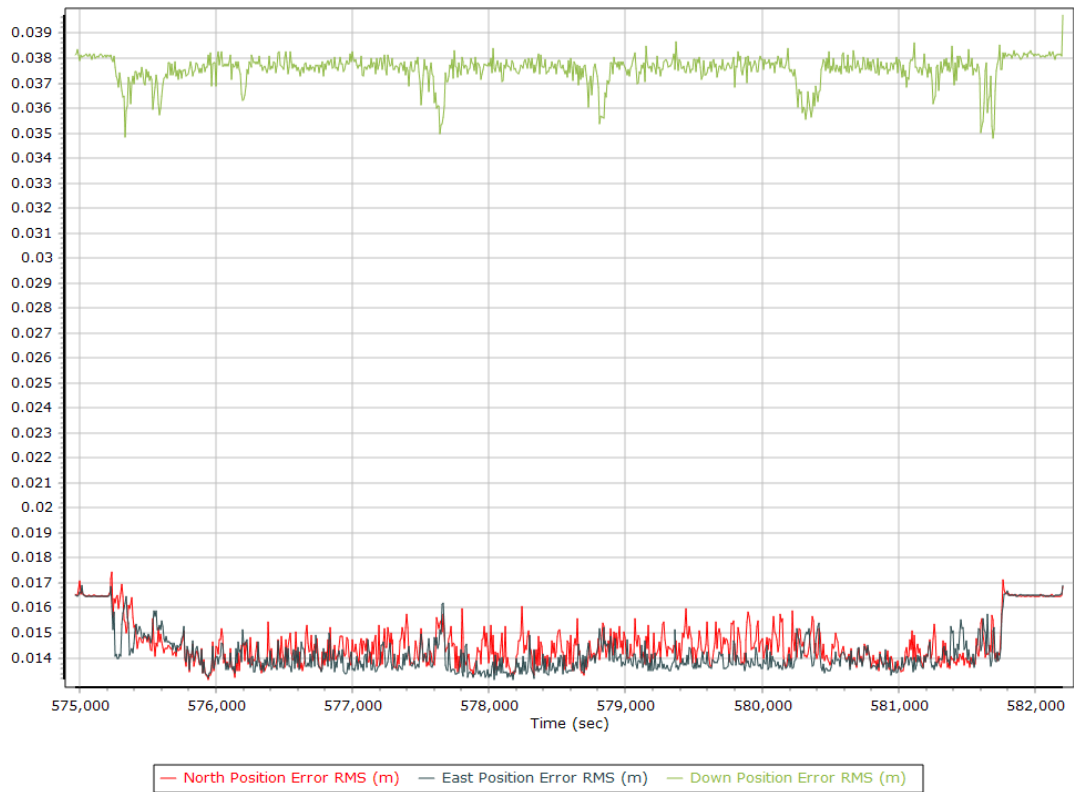


Z Gyro Scale Error (ppm)

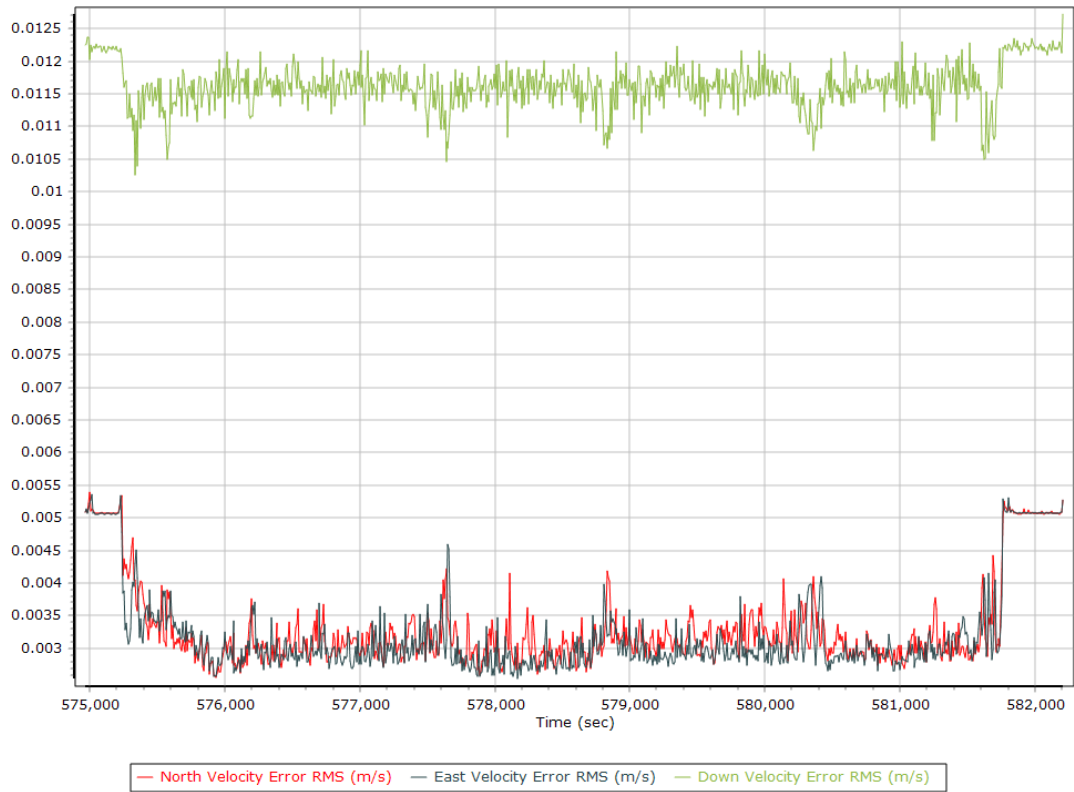


Smoothed Performance Metrics

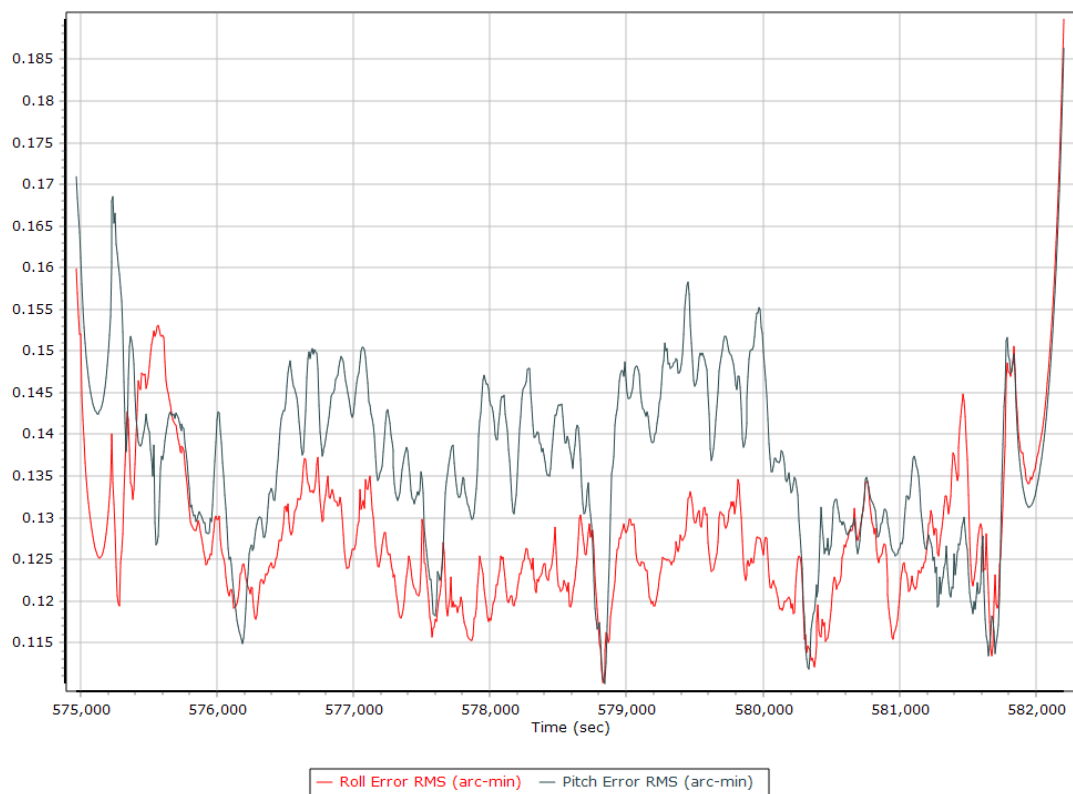
Position Error RMS (m)



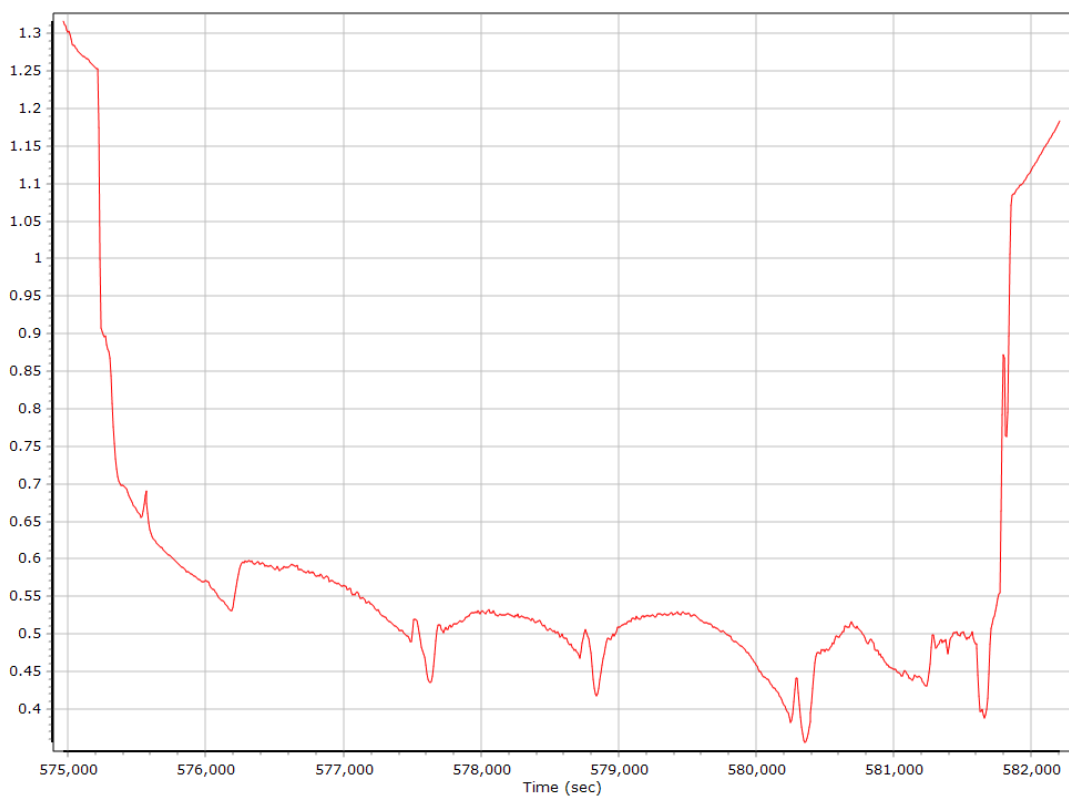
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

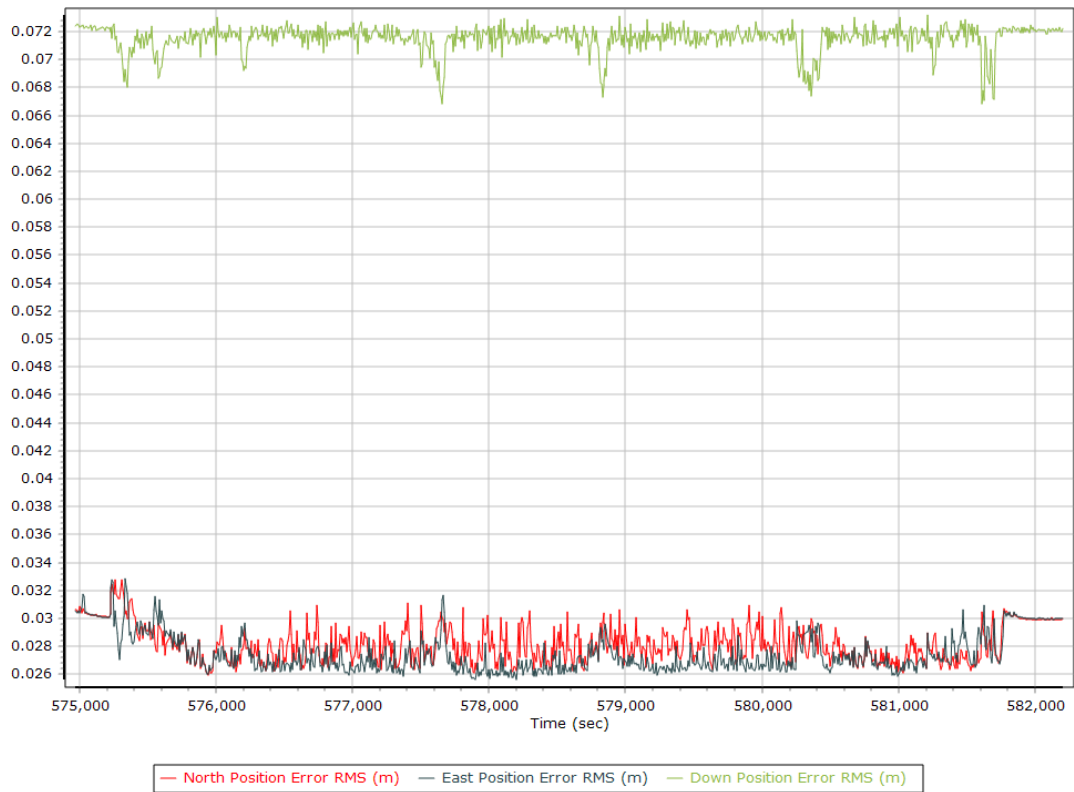


Heading Error RMS (arc-min)

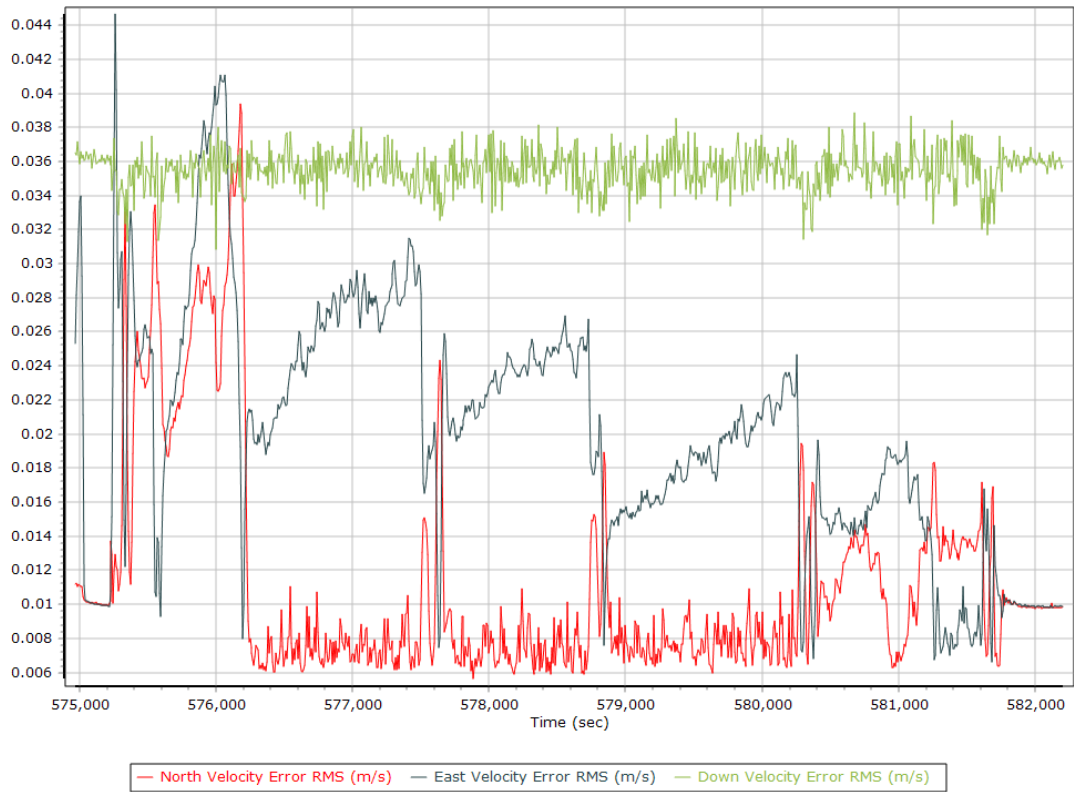


Forward Processed Performance Metrics

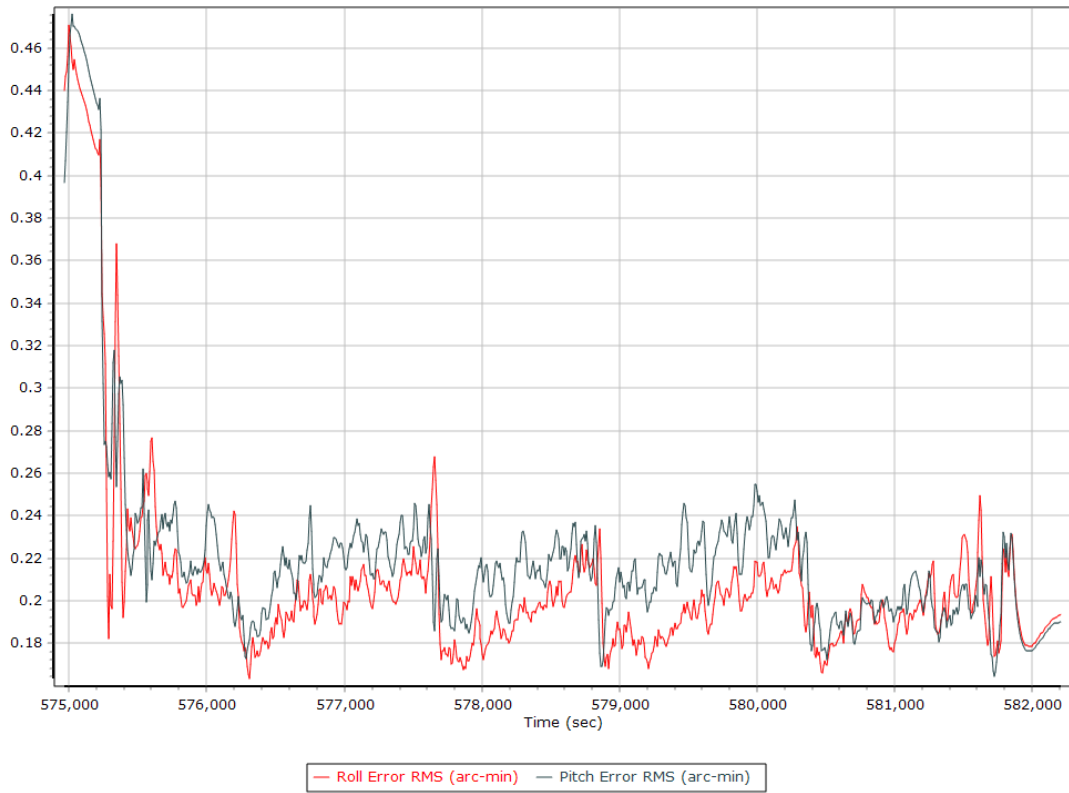
Position Error RMS (m)



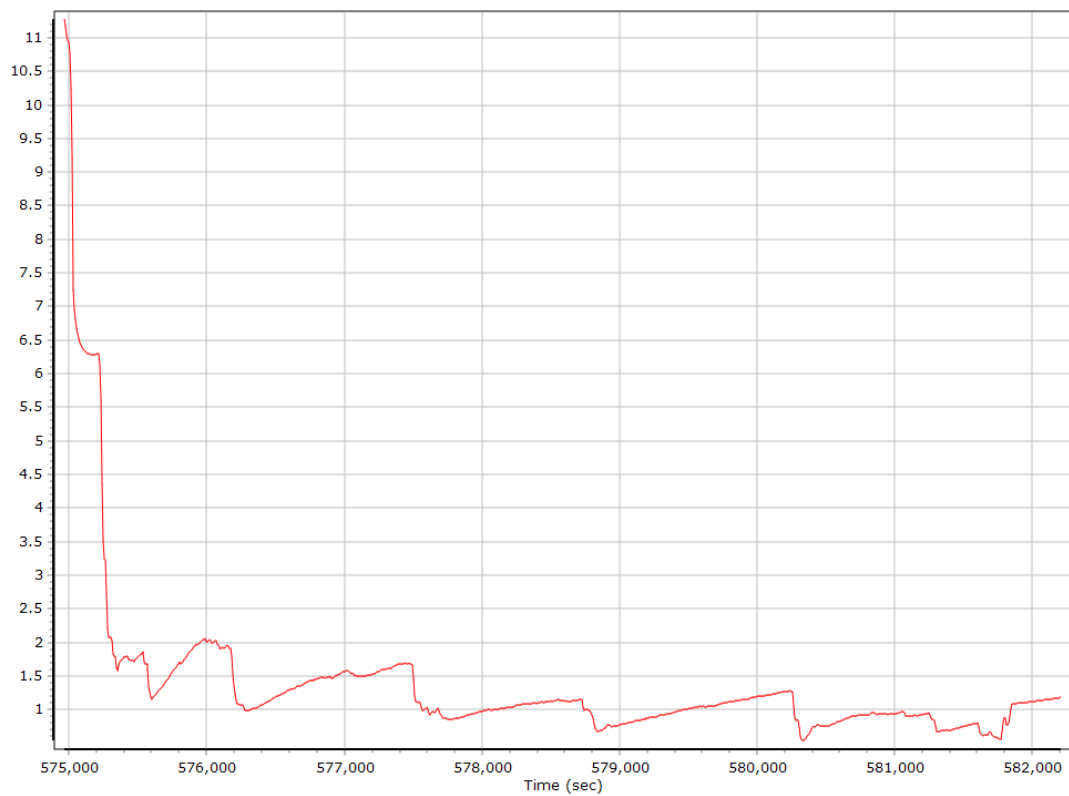
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

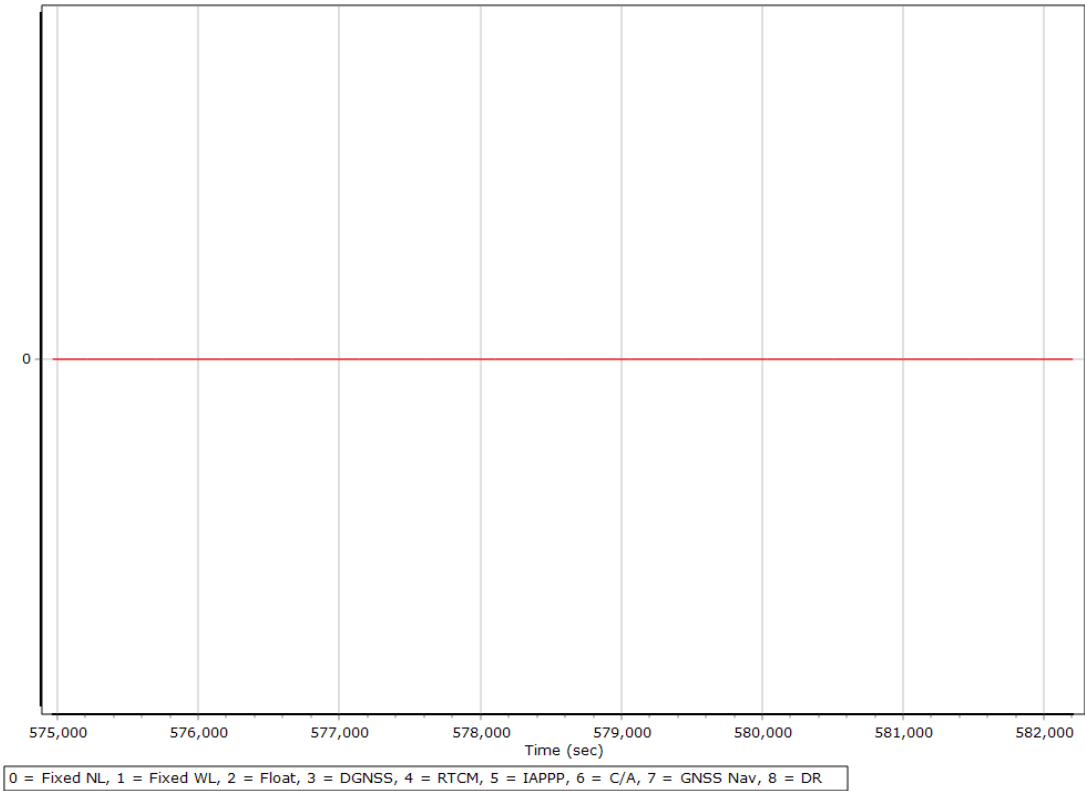


Heading Error RMS (arc-min)

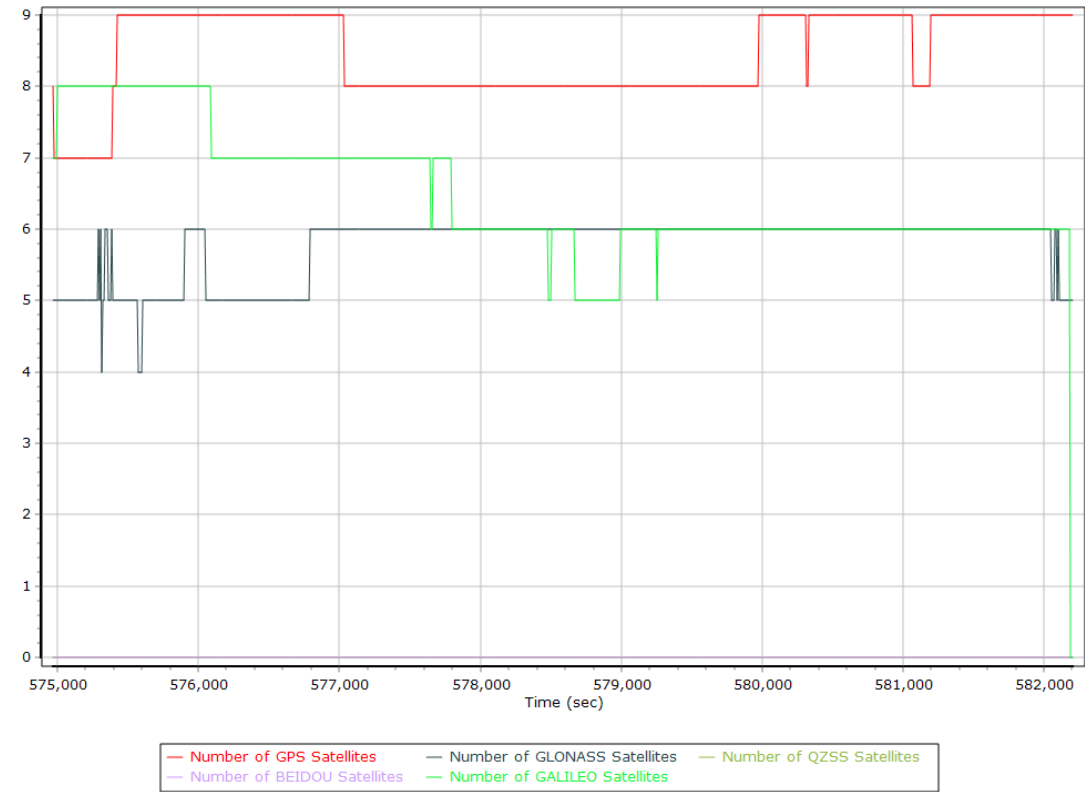


Forward Processed Solution Status

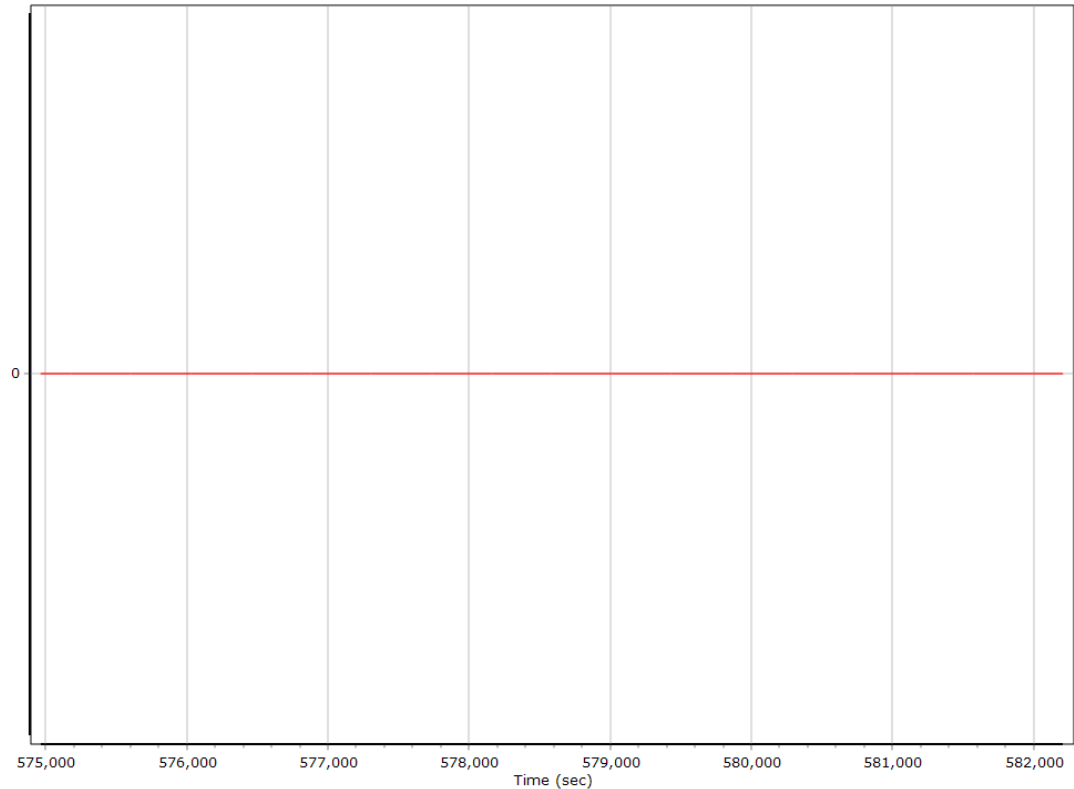
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230408_F1_4894_NAD832011.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	574907.003 (04/08/2023 15:41:47)		
Export end time	582212.002 (04/08/2023 17:43:32)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.265753		

General Information

Mission Information

Project name	20230409_F1_4894
Processing date	2023-04-12 20:32:57
Mission date	2023-04-09 12:34:44
Mission duration	03:48:18.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.140	POS Data
VQ1560.141	POS Data
VQ1560.142	POS Data
VQ1560.143	POS Data
VQ1560.144	POS Data
VQ1560.145	POS Data
VQ1560.146	POS Data
VQ1560.147	POS Data
VQ1560.148	POS Data
VQ1560.149	POS Data
VQ1560.150	POS Data
VQ1560.151	POS Data
VQ1560.152	POS Data
VQ1560.153	POS Data
VQ1560.154	POS Data
VQ1560.155	POS Data
VQ1560.156	POS Data
VQ1560.157	POS Data
VQ1560.158	POS Data
VQ1560.159	POS Data
VQ1560.160	POS Data
VQ1560.161	POS Data
VQ1560.162	POS Data
VQ1560.163	POS Data
VQ1560.164	POS Data
VQ1560.165	POS Data
VQ1560.166	POS Data
VQ1560.167	POS Data
VQ1560.168	POS Data
VQ1560.169	POS Data
VQ1560.170	POS Data
VQ1560.171	POS Data

Input Files

File Name	File Type
Ephm0990.23g	GLONASS Broadcast Ephemeris
Ephm0990.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230409_F1_4894.out	SBET Trajectory File
export_20230409_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.140		
Last raw data file	VQ1560.171		
Start GPS week	2257		
Start time	45283.868 (04/09/2023 12:34:43)		
End time	58965.101 (04/09/2023 16:22:45)		
Start of fine alignment	45694.809 (04/09/2023 12:41:34)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

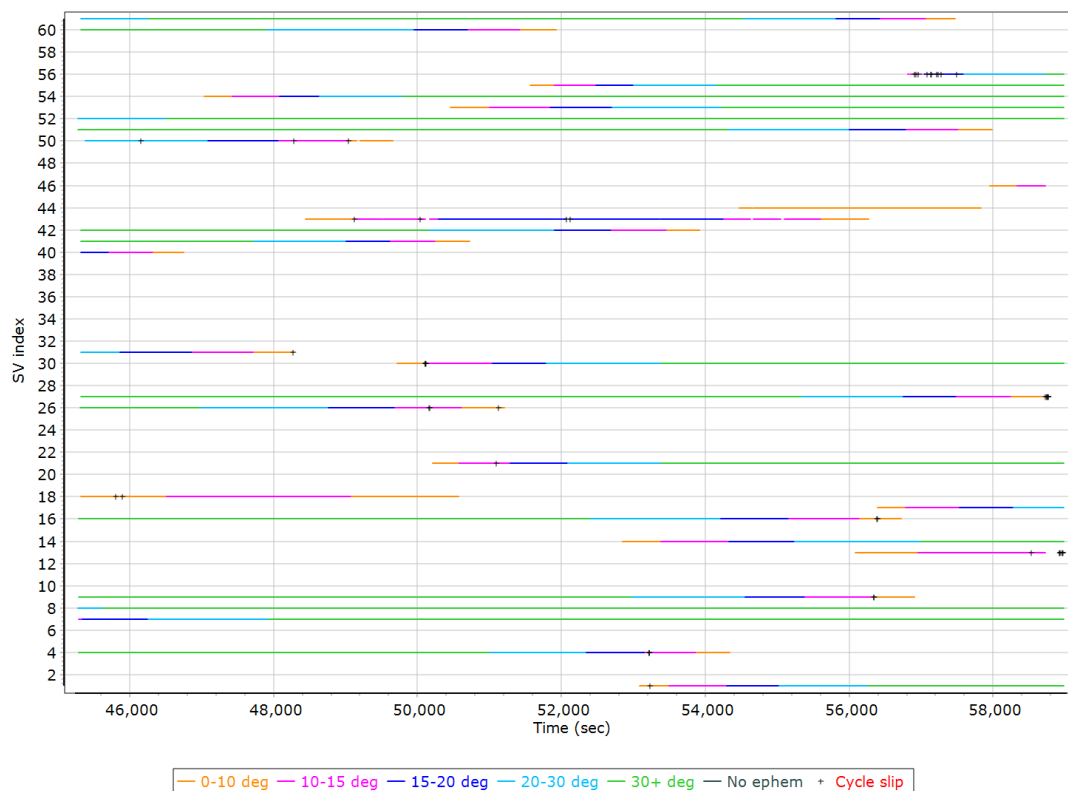
Rover Data QC

Raw IMU Import QC Summary

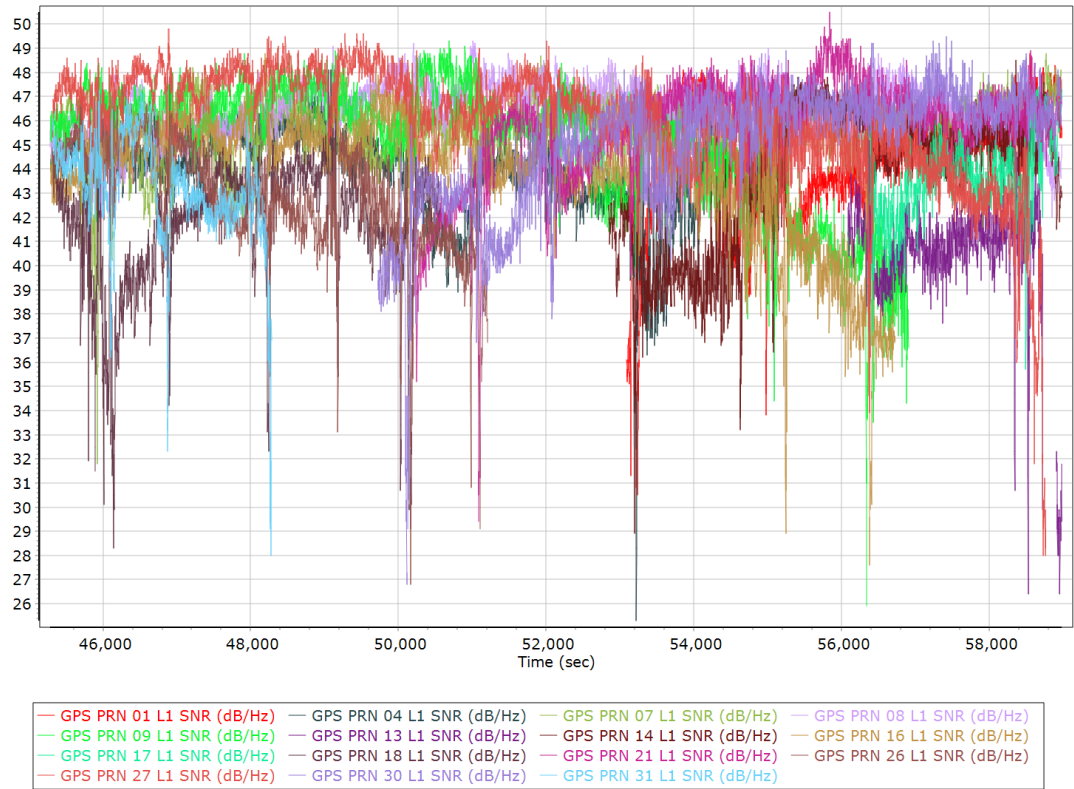
IMU data input file	imu_20230409_F1_4894.dat
IMU data check log file	imudt_20230409_F1_4894.log
IMU Records Processed	2739215
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
45283.668 : WARNING : Gap of 45265.7148 seconds in CHECKDT input data	

Primary Observables & Satellite Data

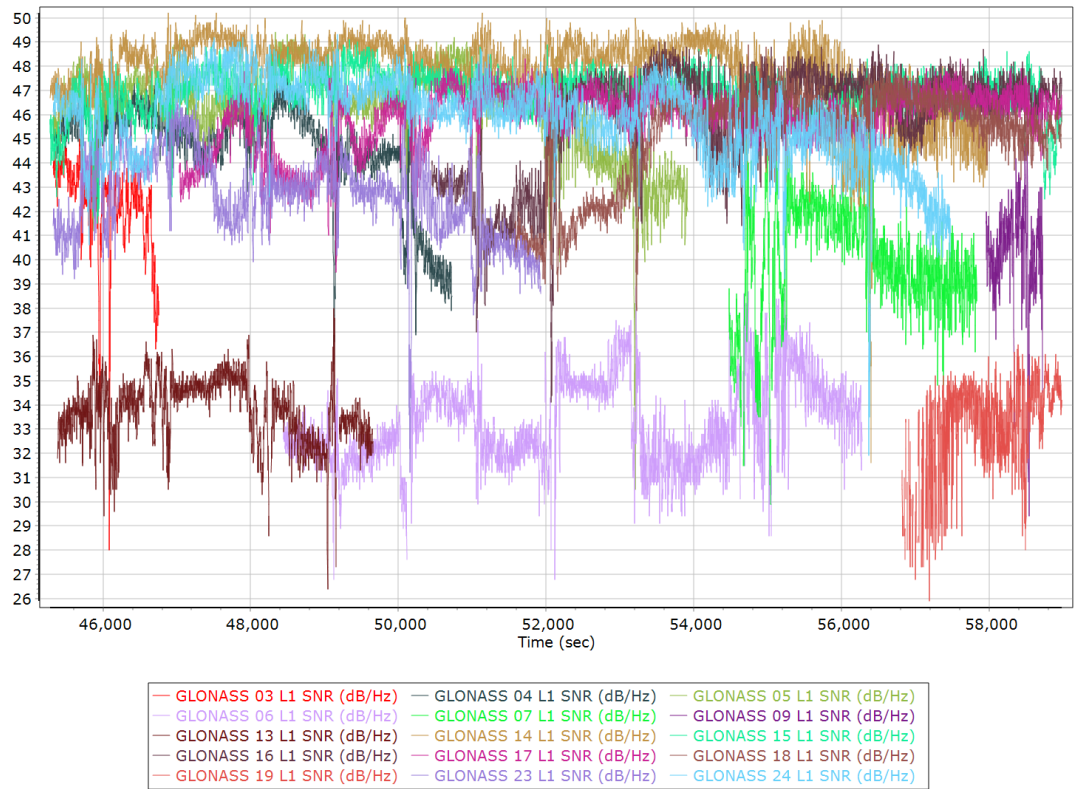
GPS/GLONASS L1 Satellite Lock/Elevation



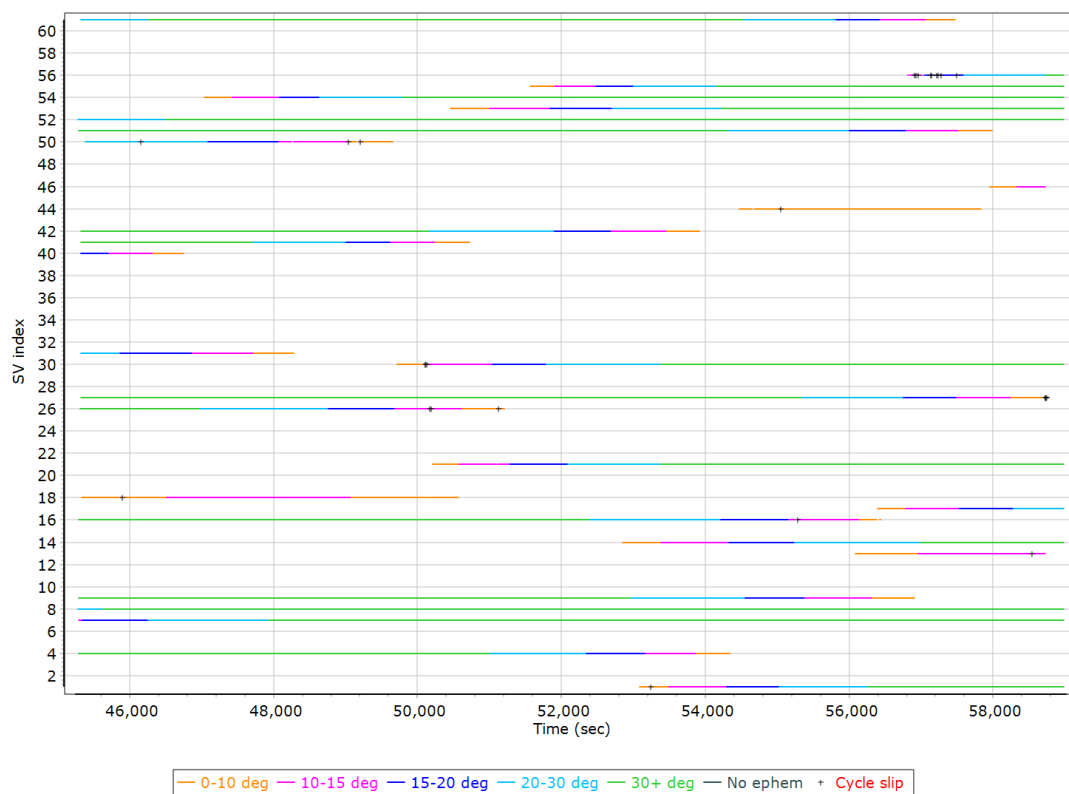
GPS L1 SNR



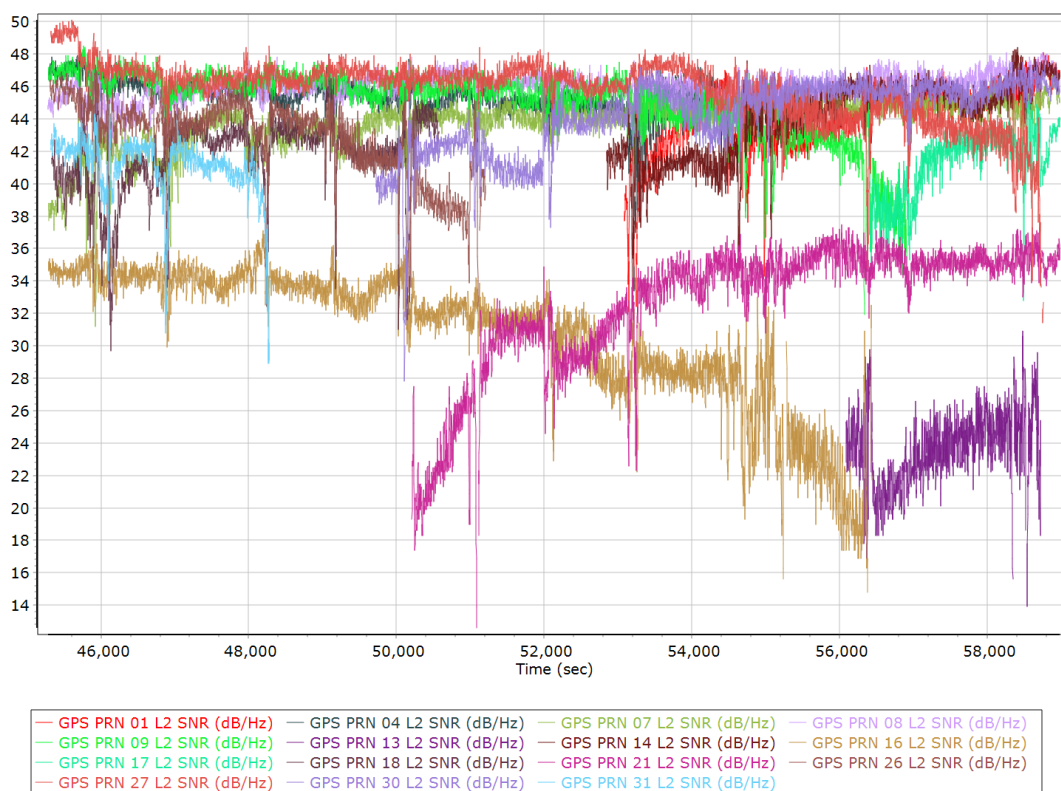
GLONASS L1 SNR



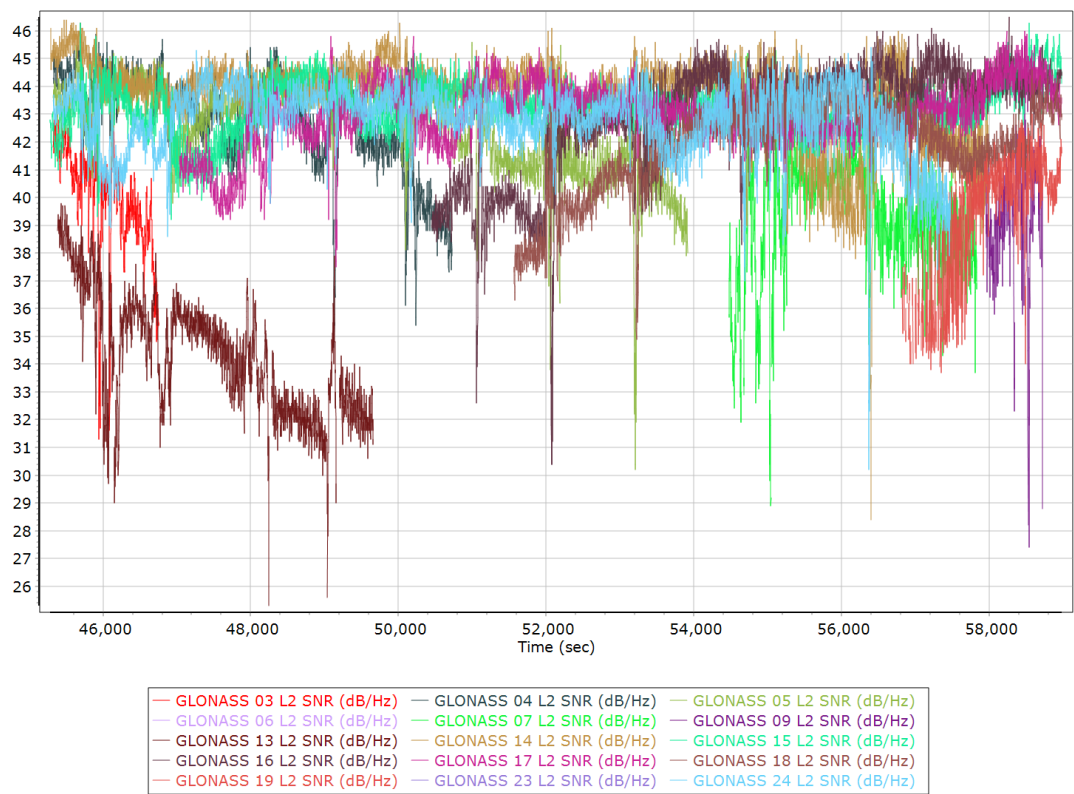
GPS/GLONASS L2 Satellite Lock/Elevation



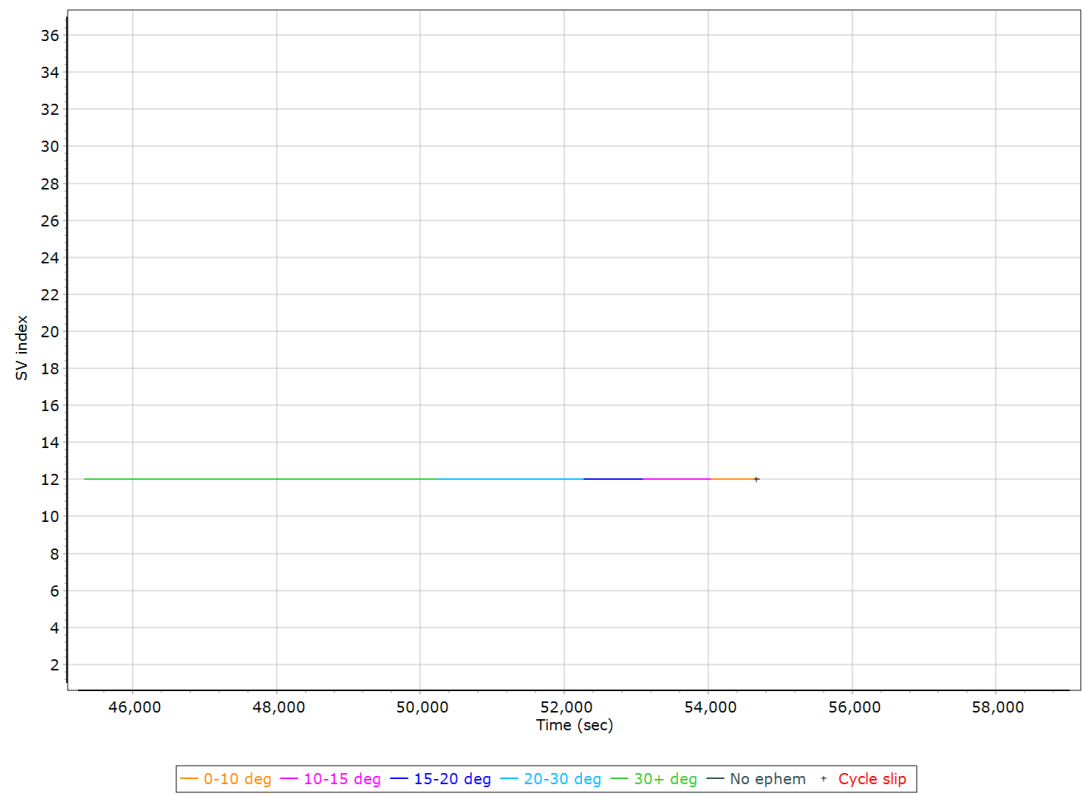
GPS L2 SNR



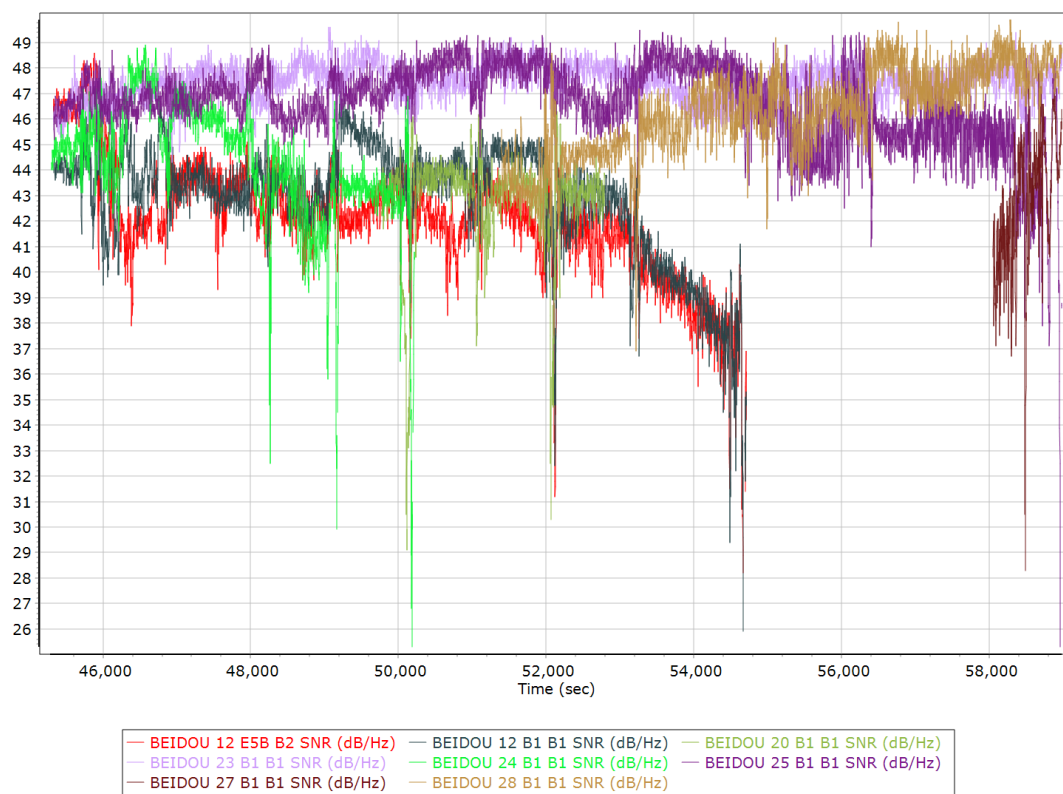
GLONASS L2 SNR



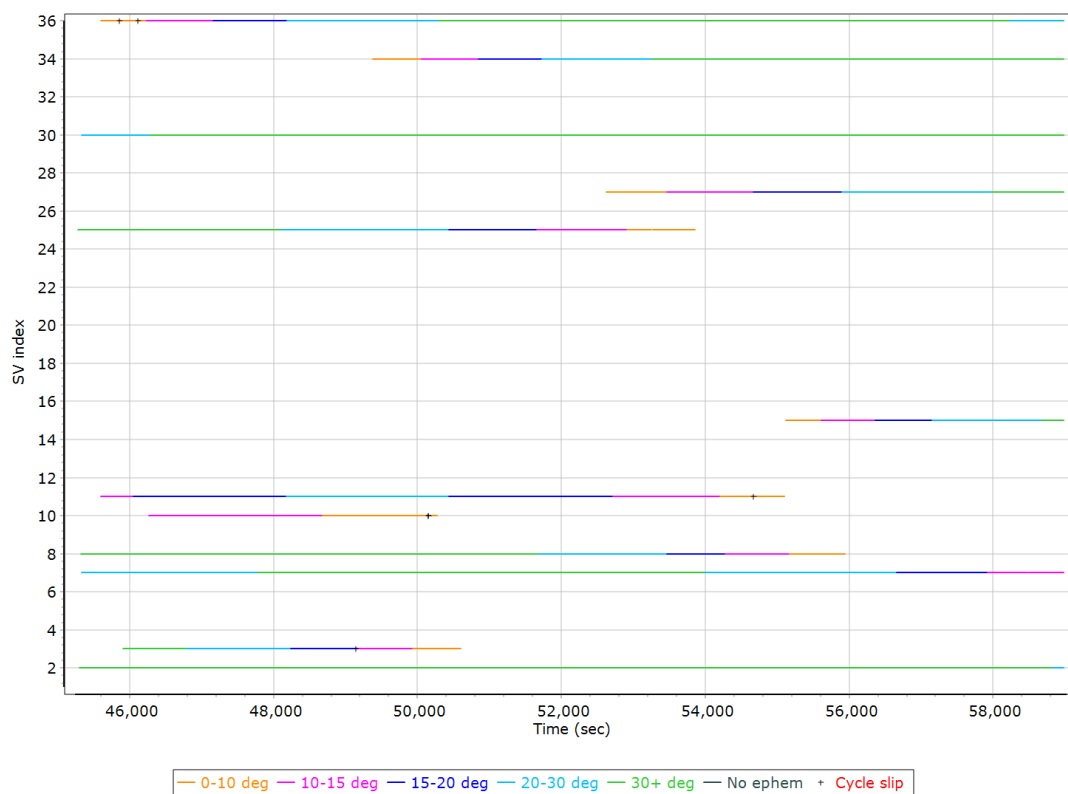
BEIDOU Satellite Lock/Elevation



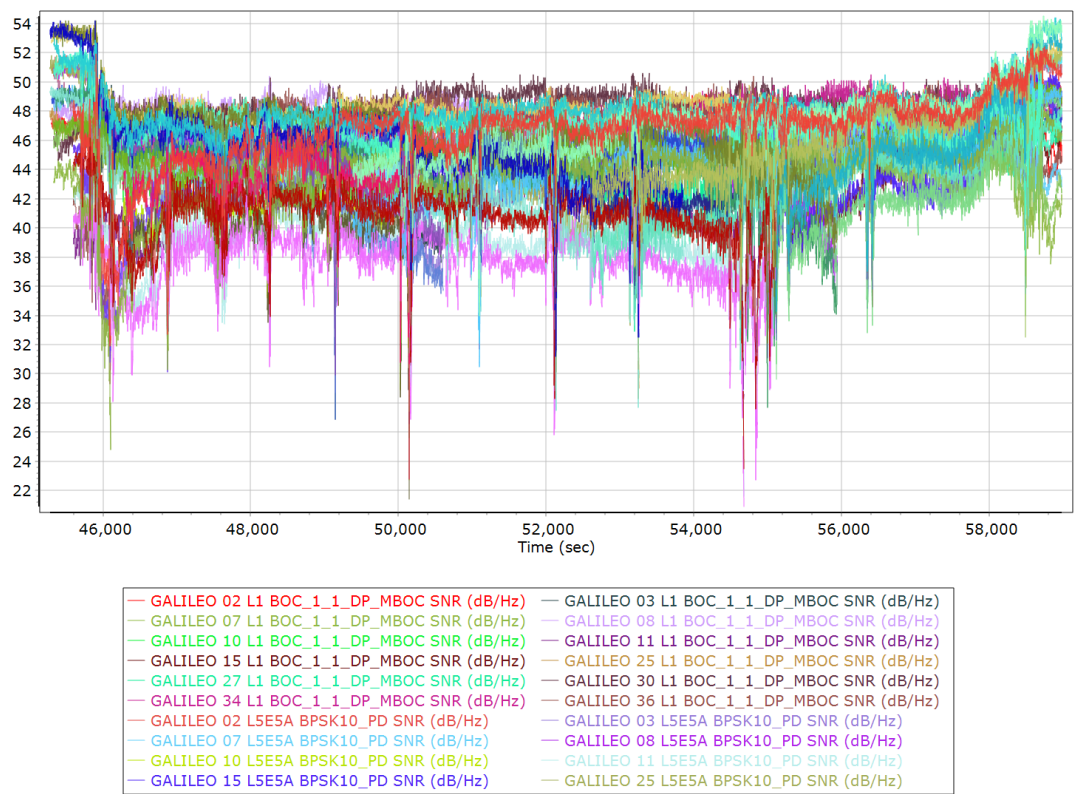
BEIDOU SNR



GALILEO Satellite Lock/Elevation

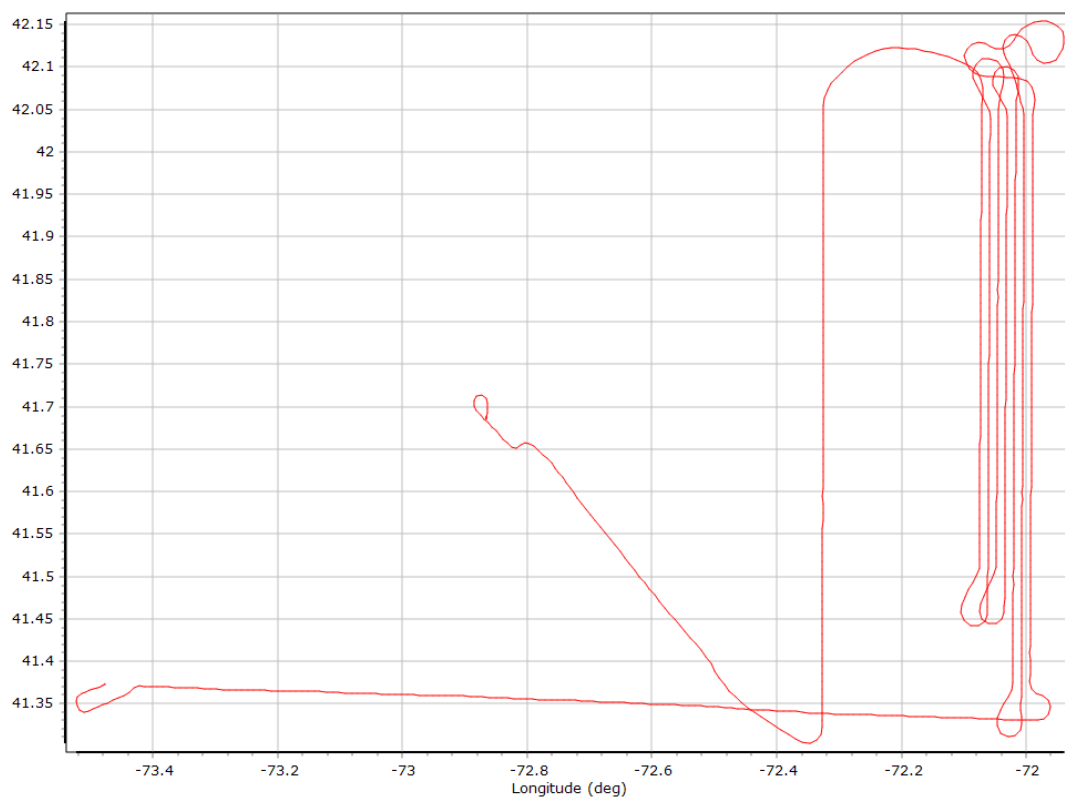


GALILEO SNR

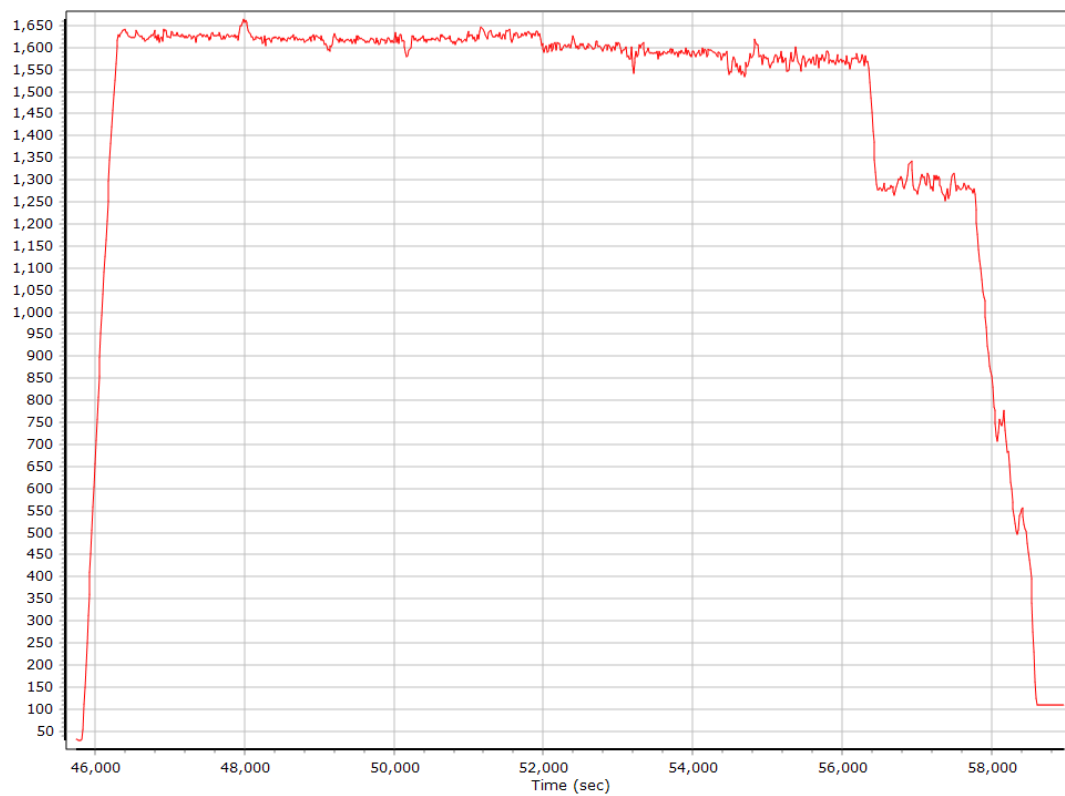


Smoothed Trajectory Information

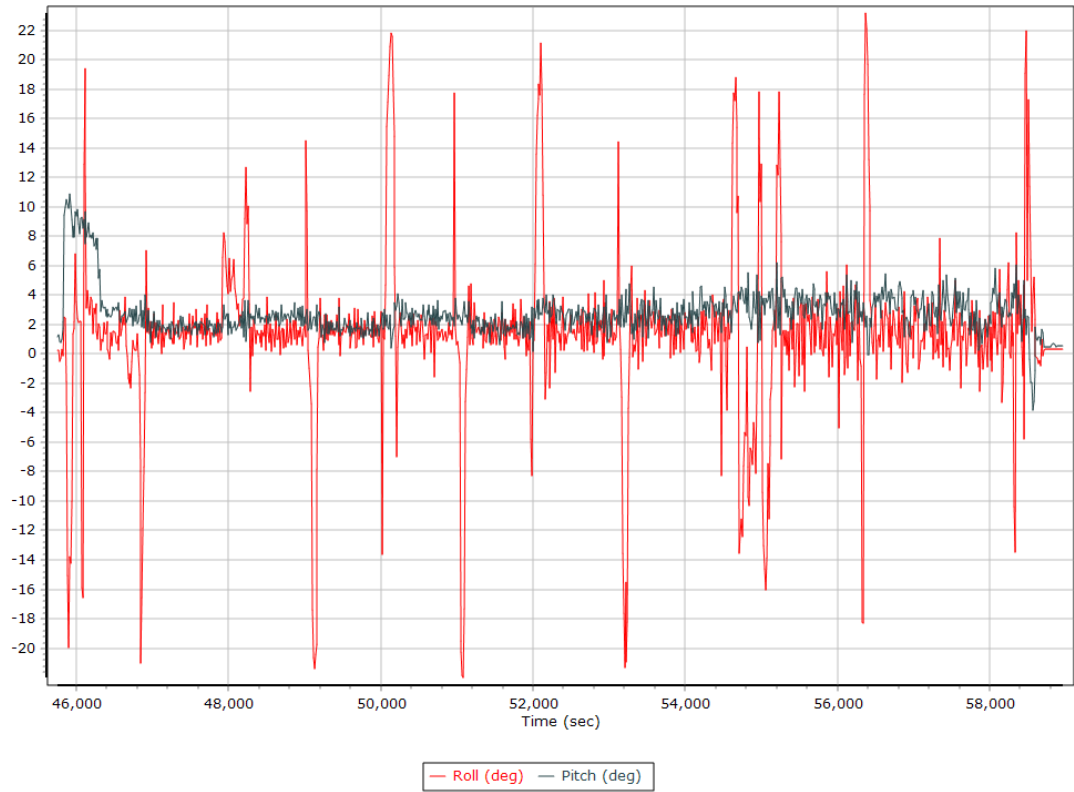
Top View



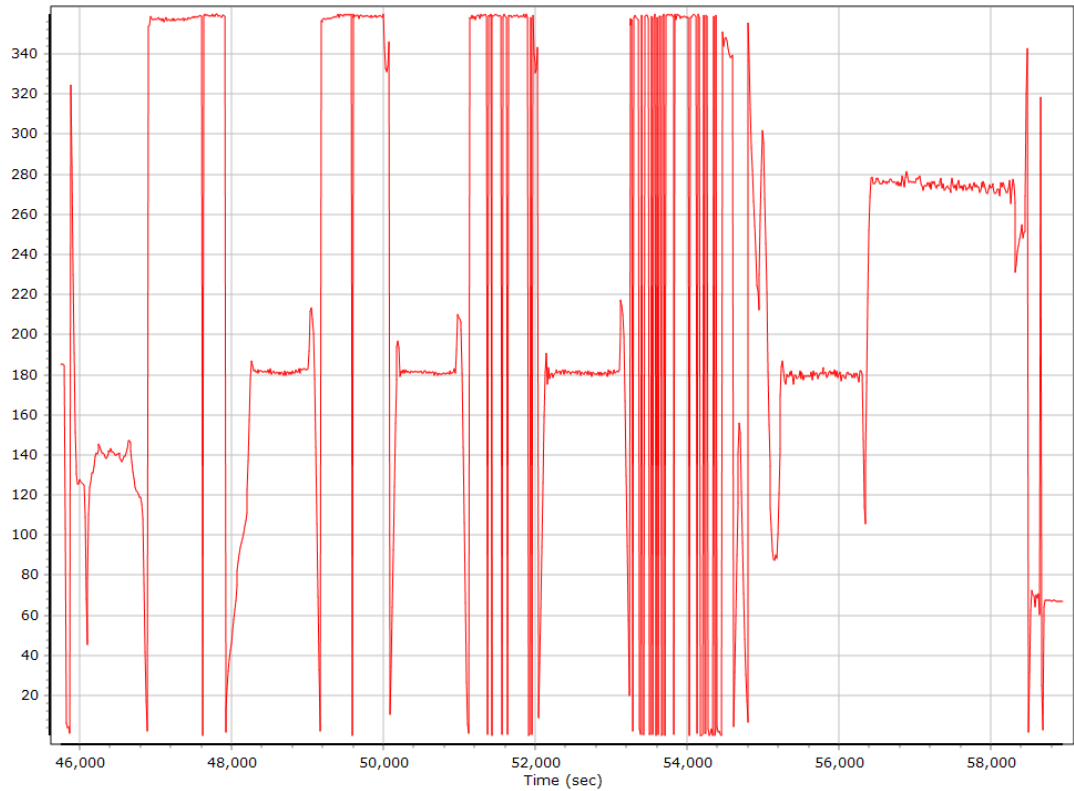
Altitude



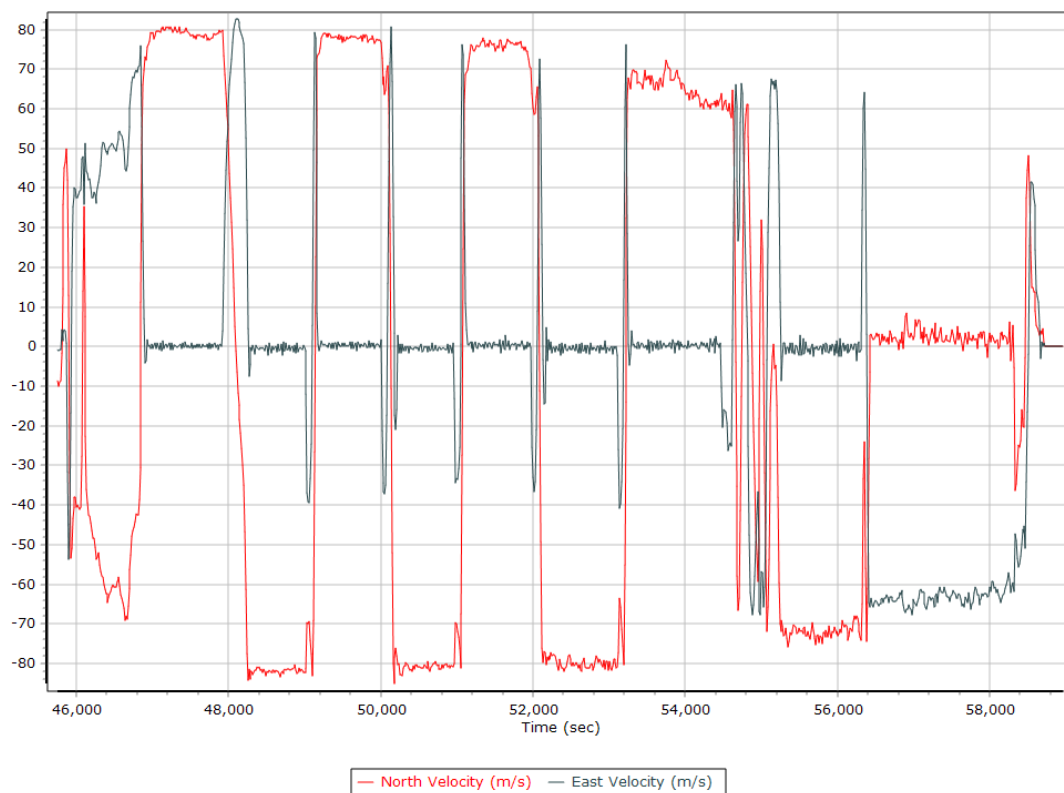
Roll/Pitch



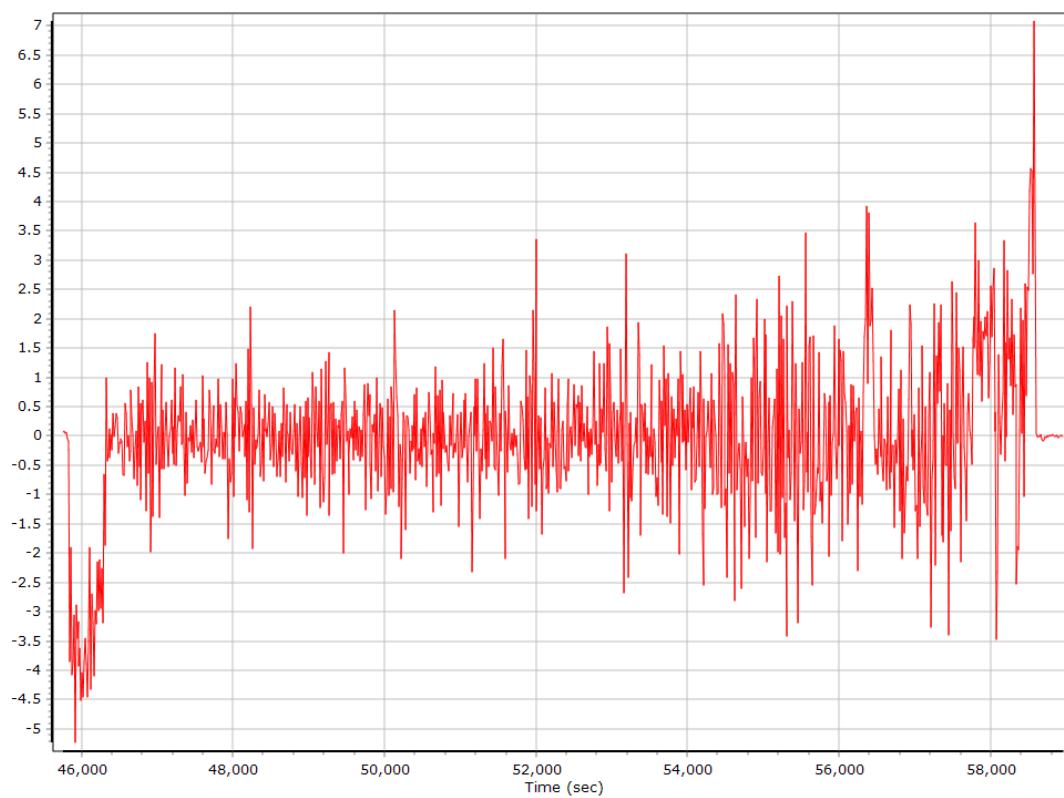
Heading



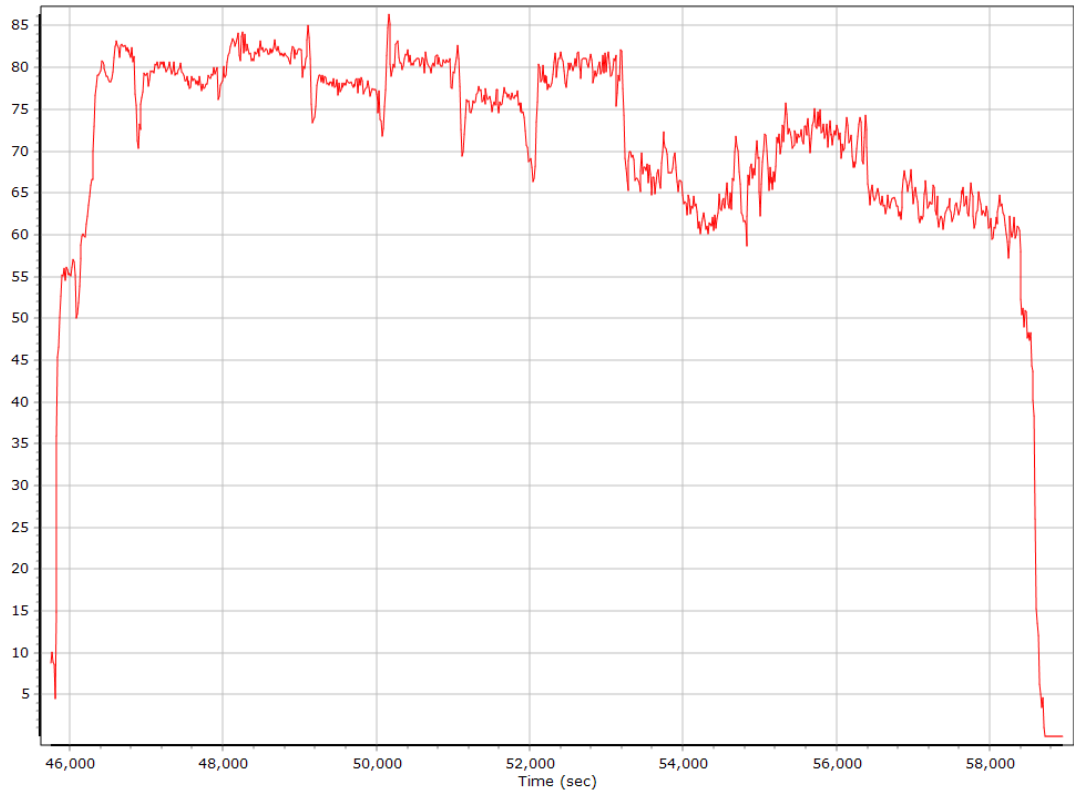
North/East Velocity



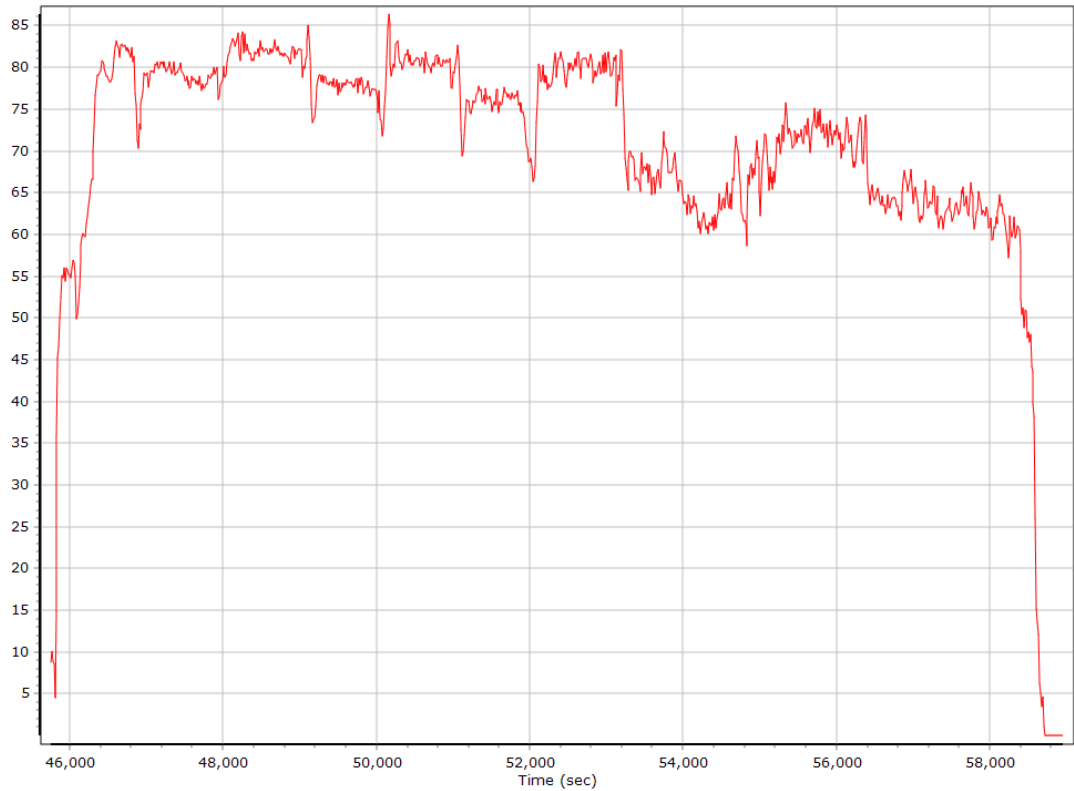
Down Velocity



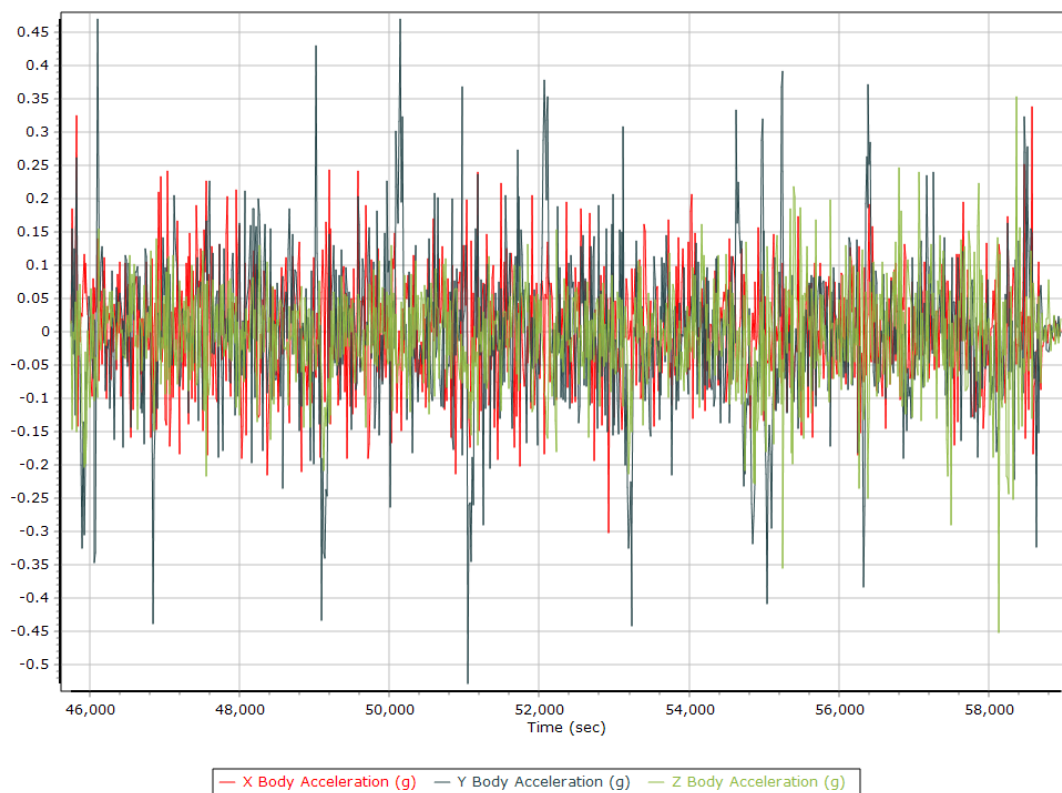
Total Speed



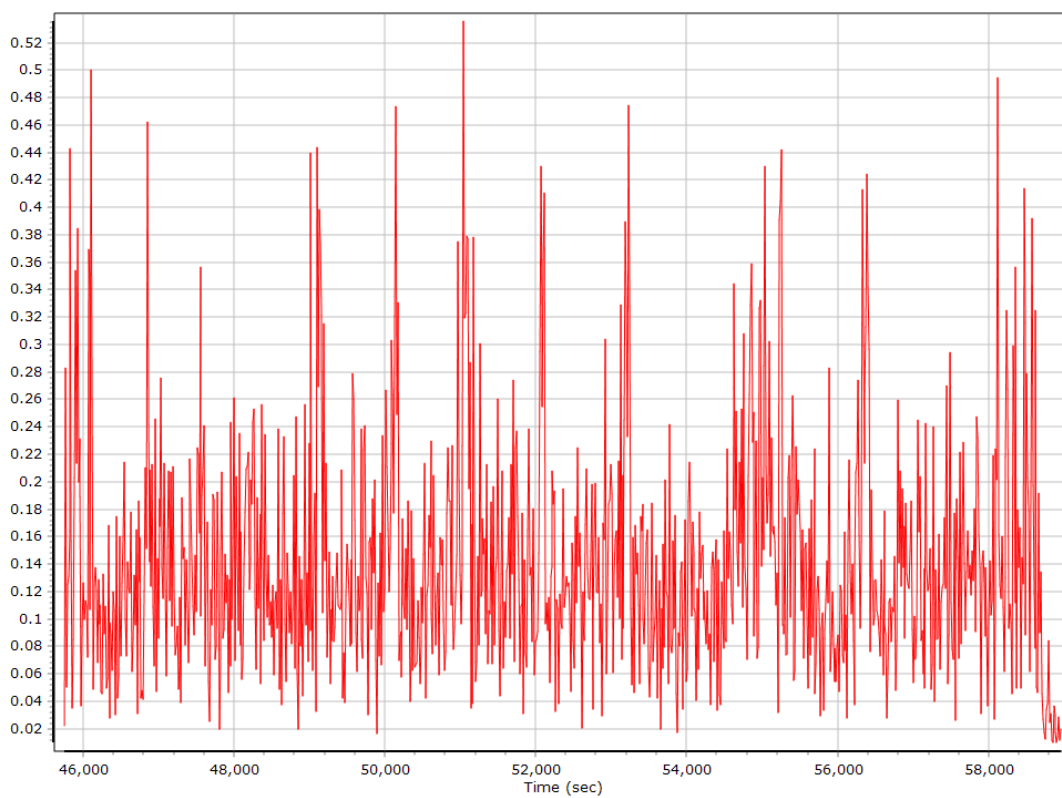
Ground Speed



Body Acceleration



Total Body Acceleration

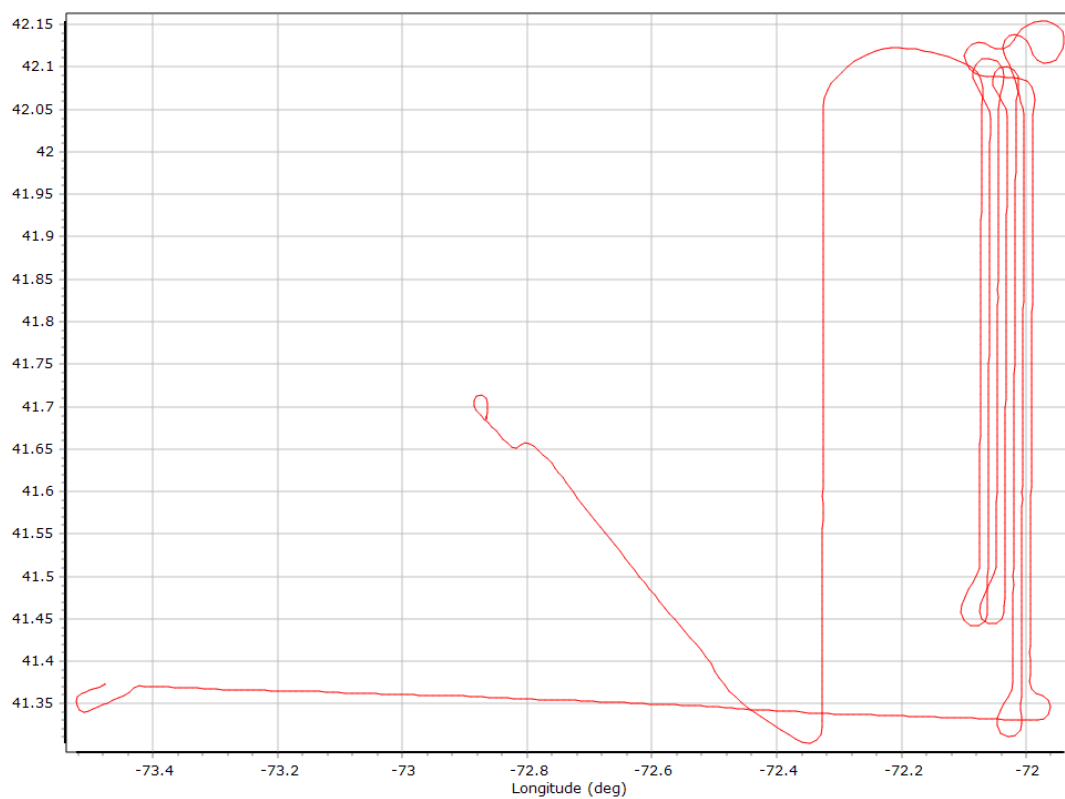


Body Angular Rate

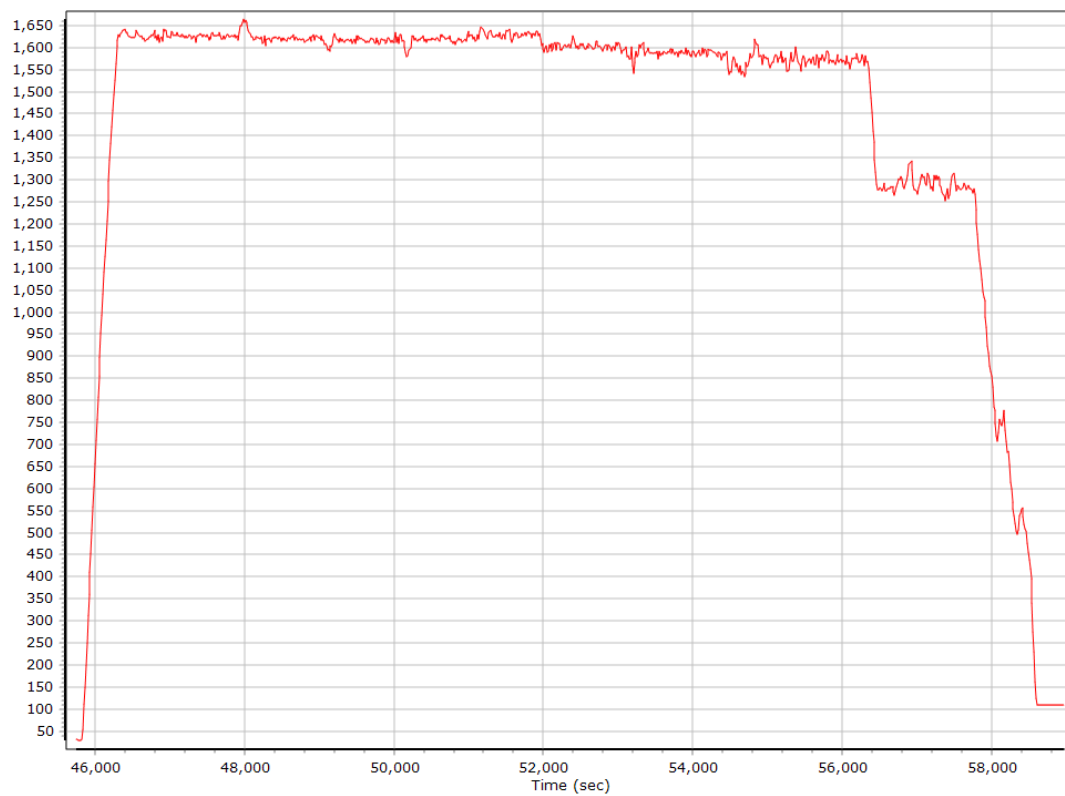


Forward Processed Trajectory Information

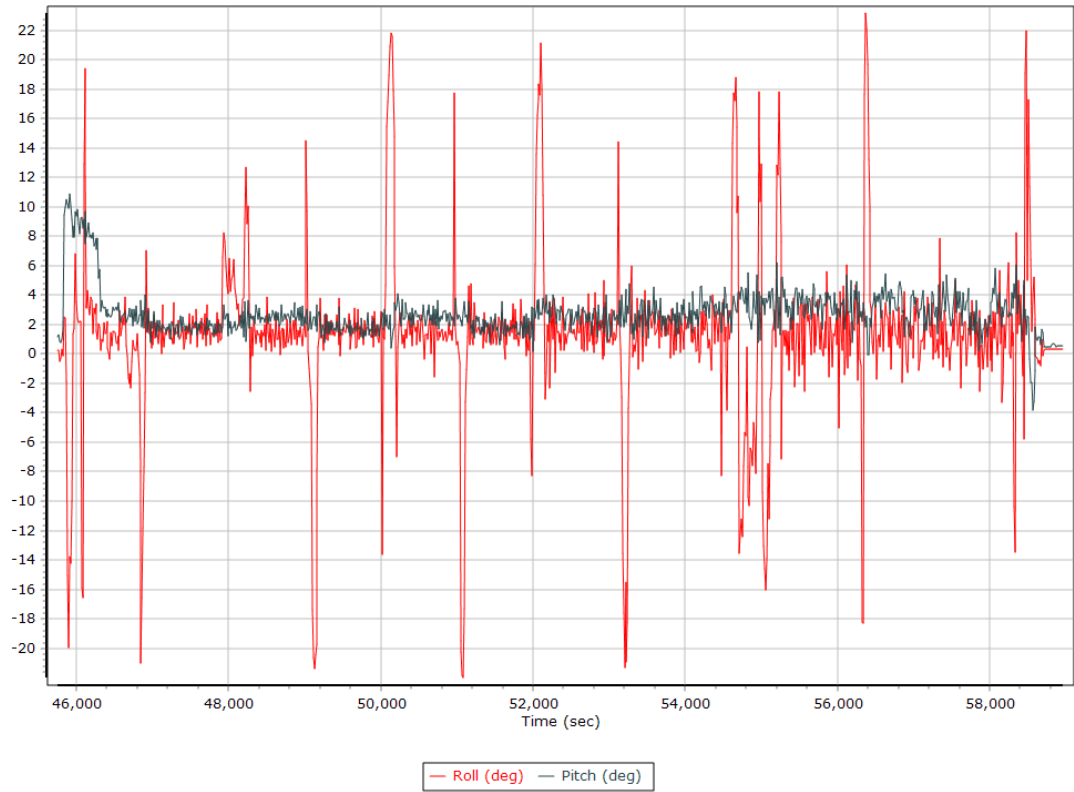
Top View



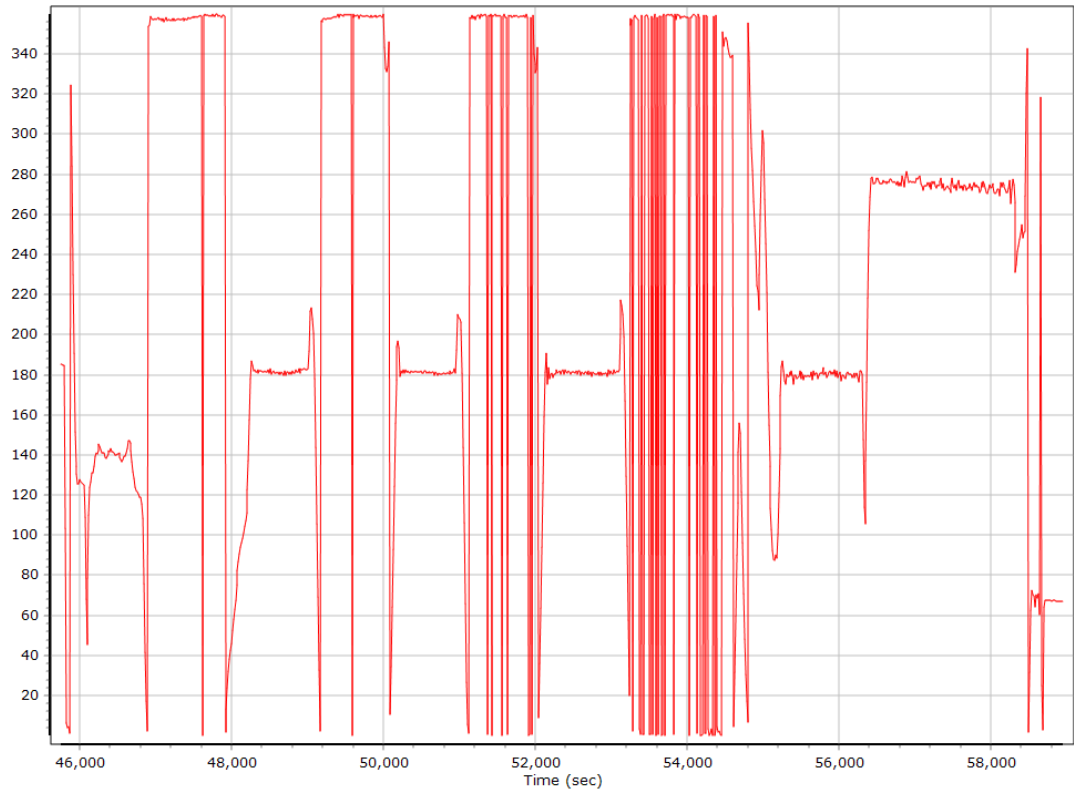
Altitude



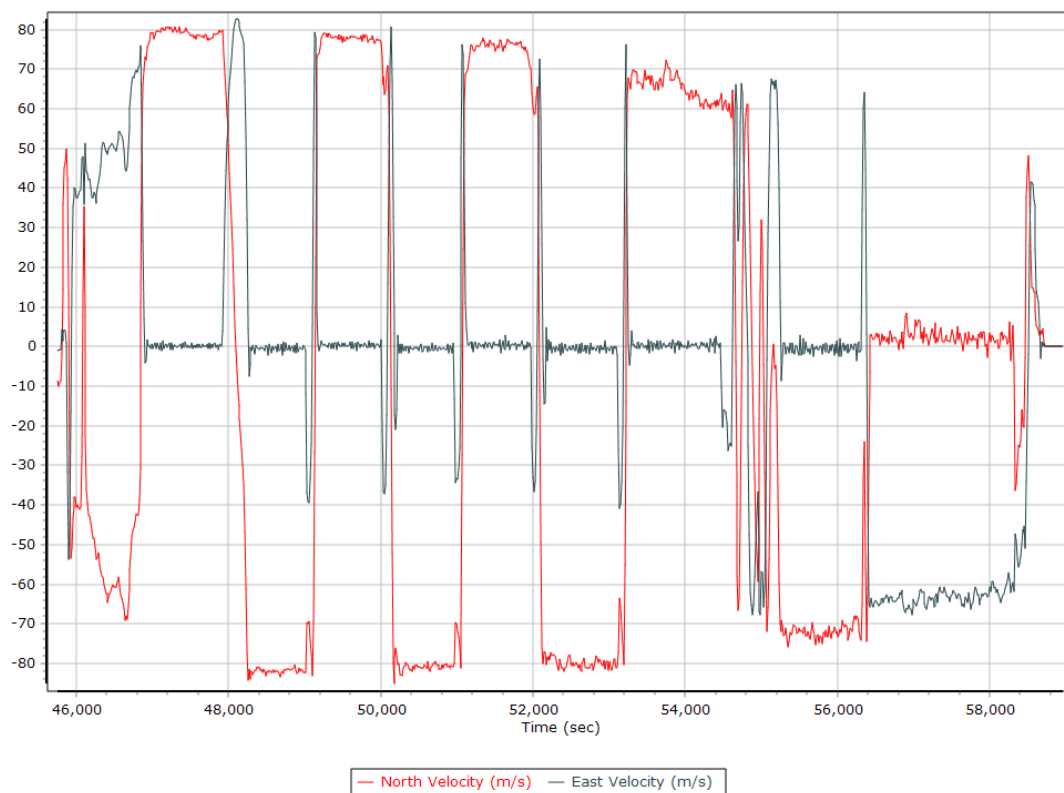
Roll/Pitch



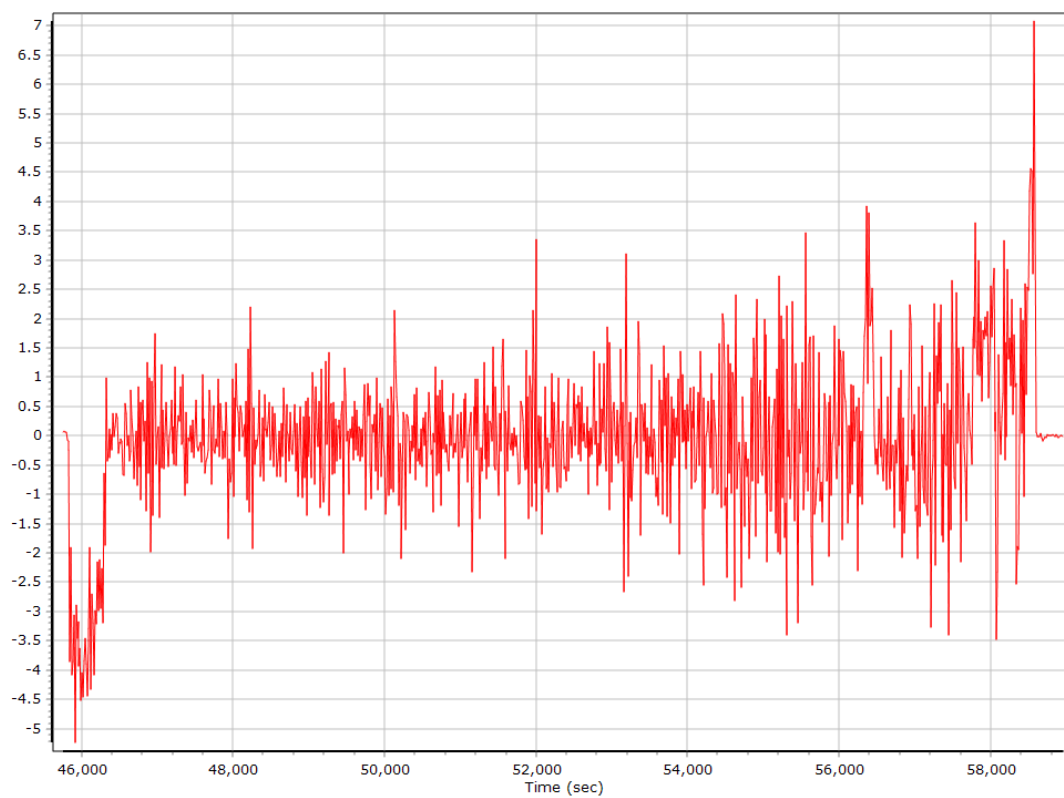
Heading



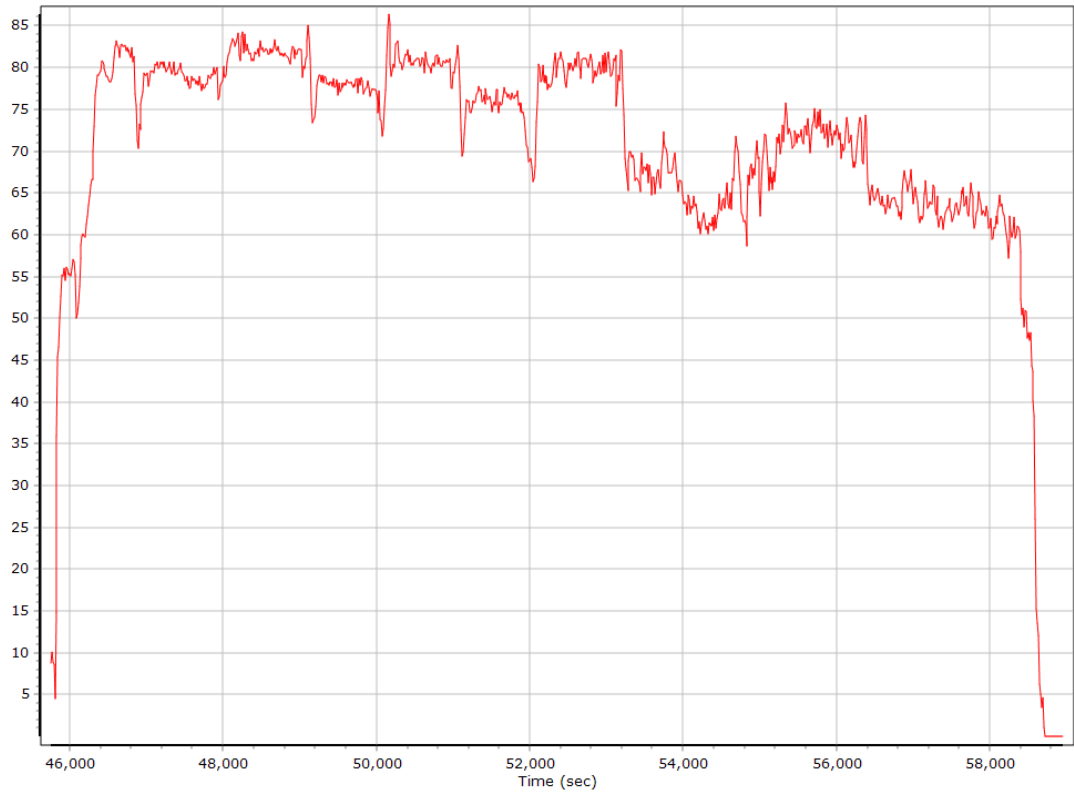
North/East Velocity



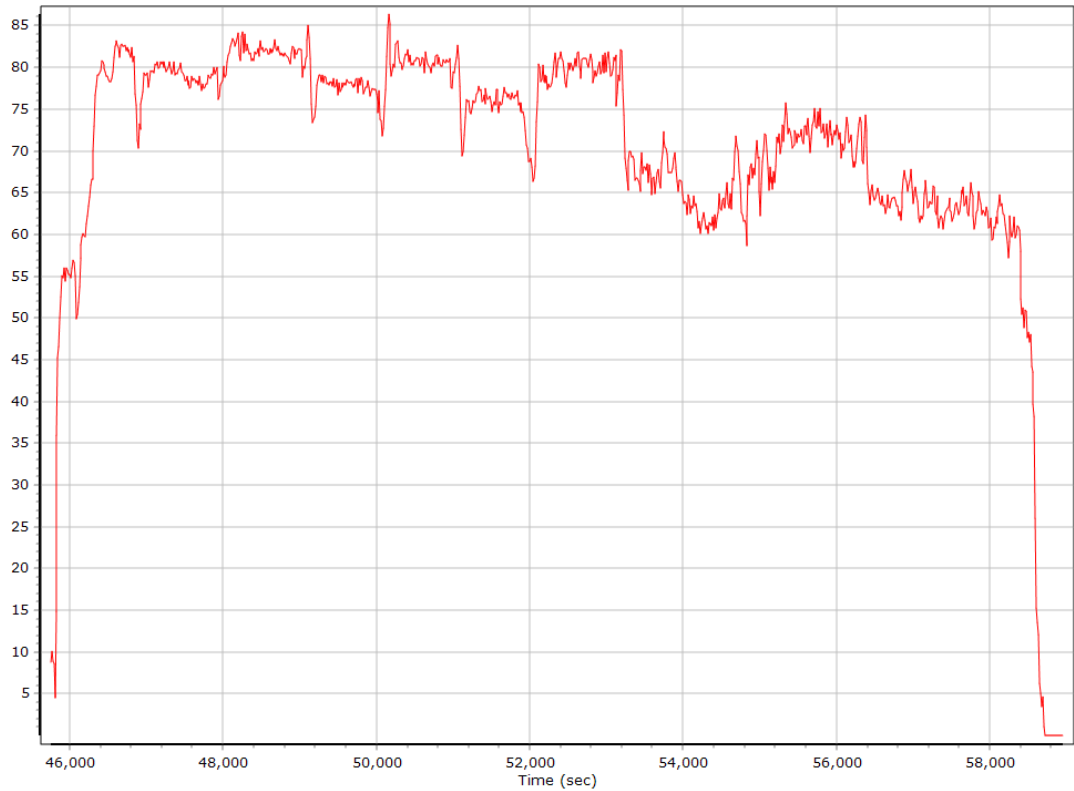
Down Velocity



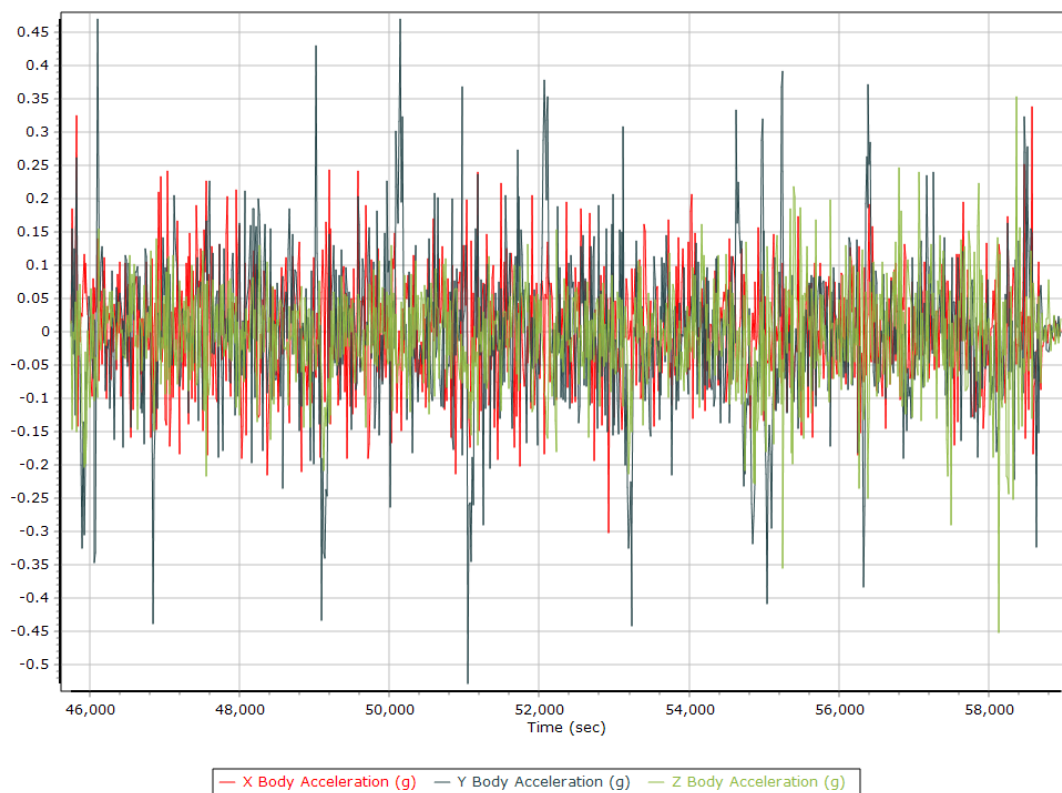
Total Speed



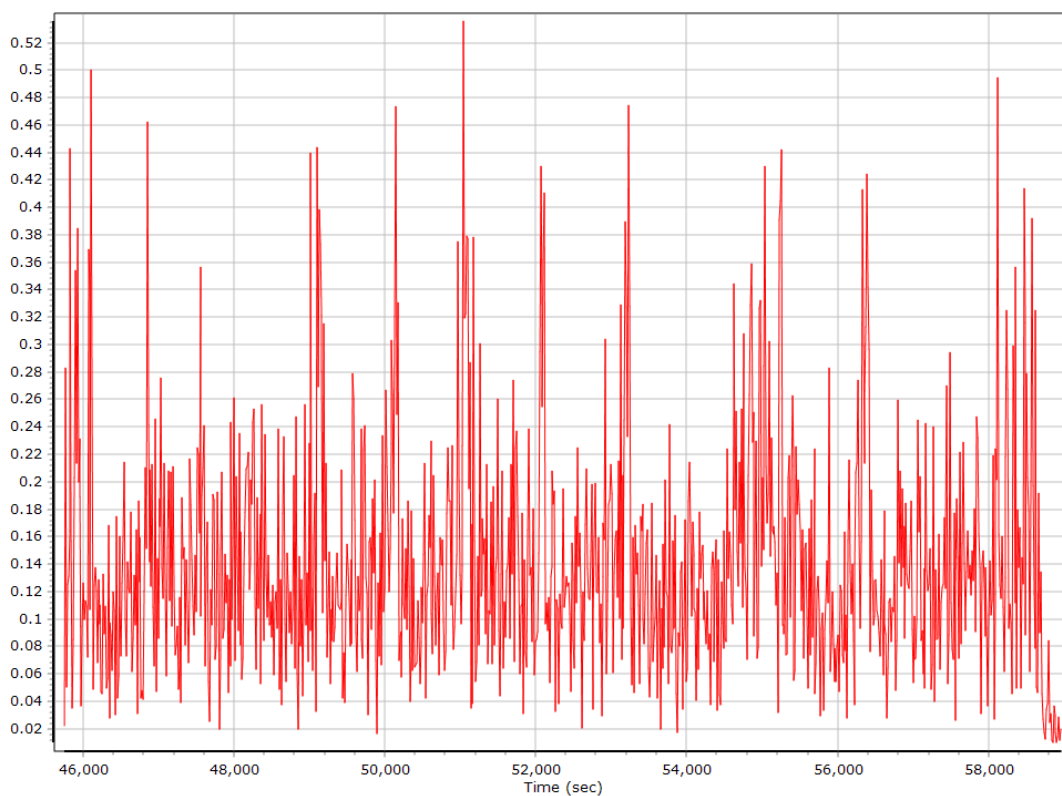
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

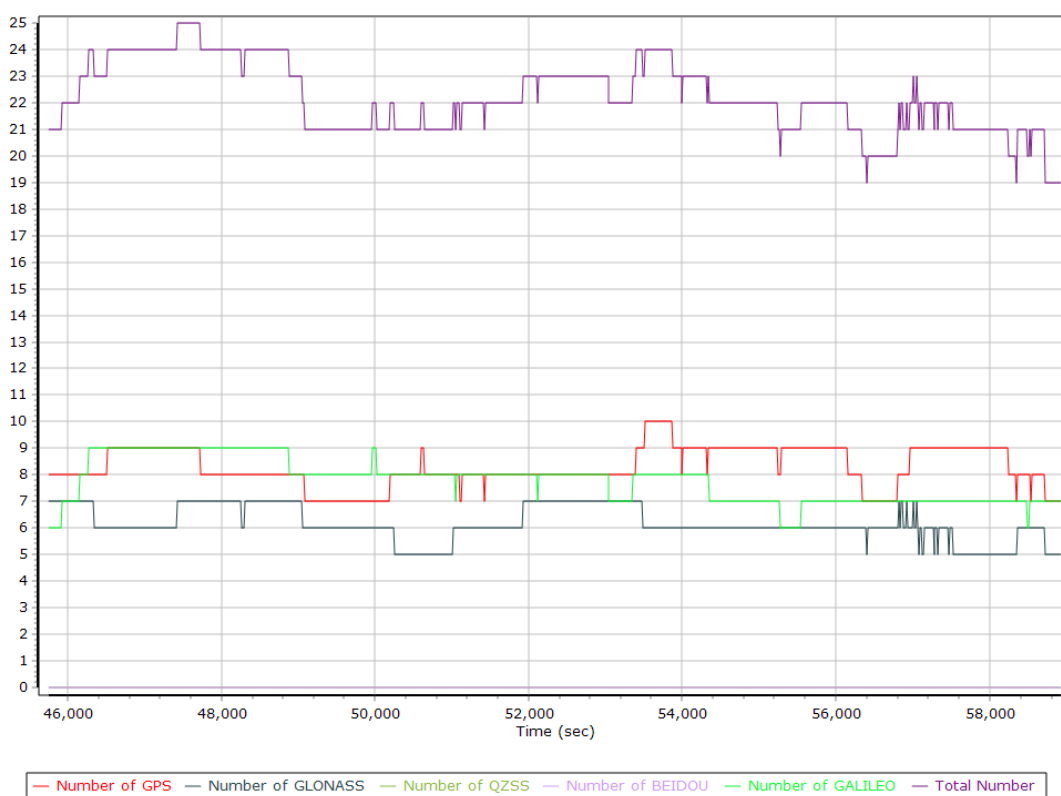


GNSS QC

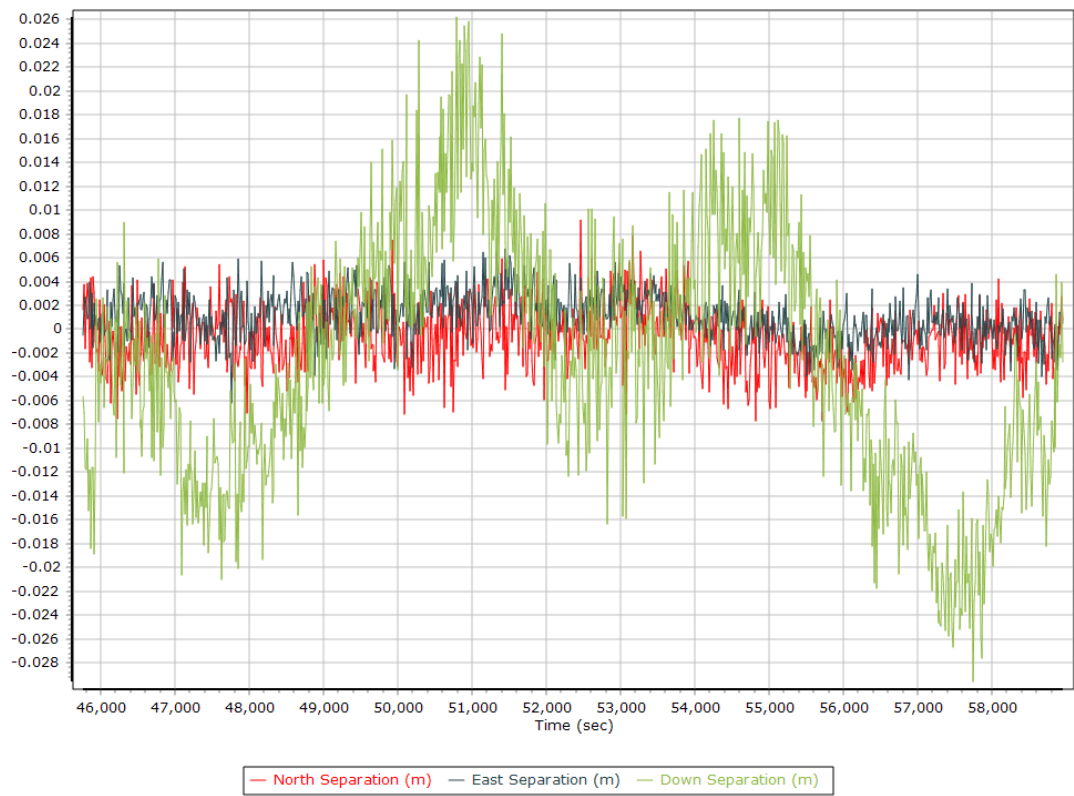
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	5	10	8
Number of GLONASS SV	0	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	0	9	8
Total number of SV	5	25	22
PDOP	0.97	3.67	1.16
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	13648.00	0.00	0.00
Percentage	100.00	0.00	0.00

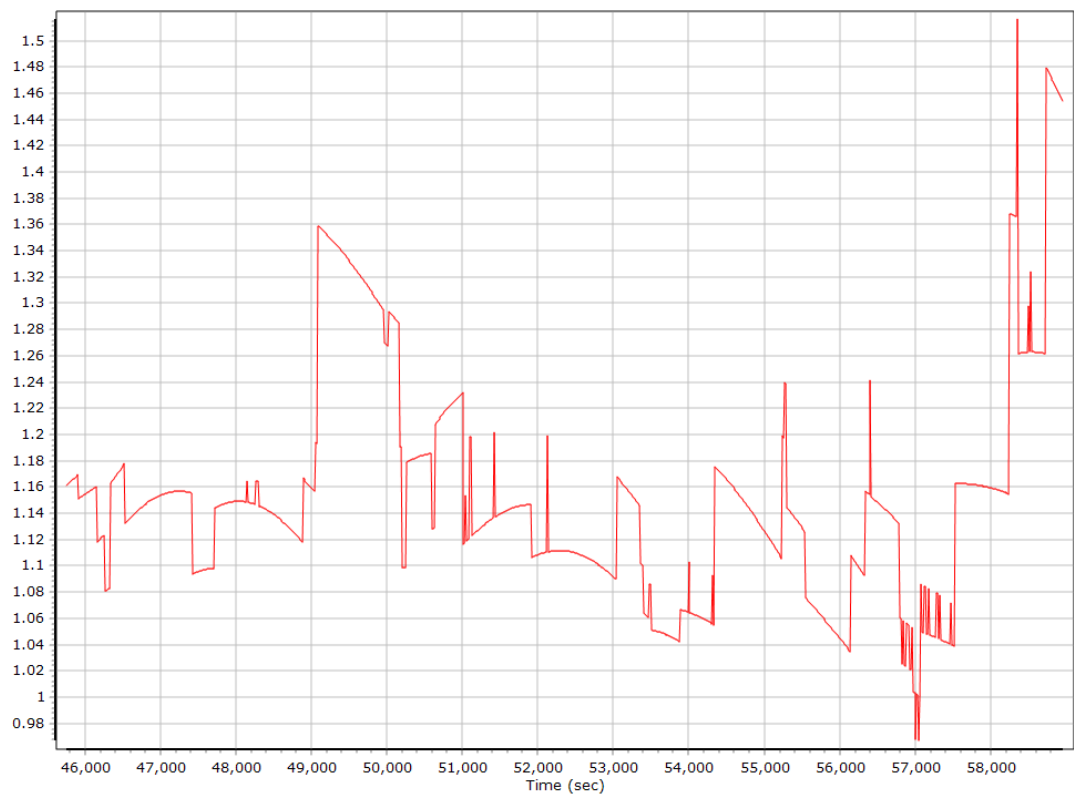
Num SVs in solution



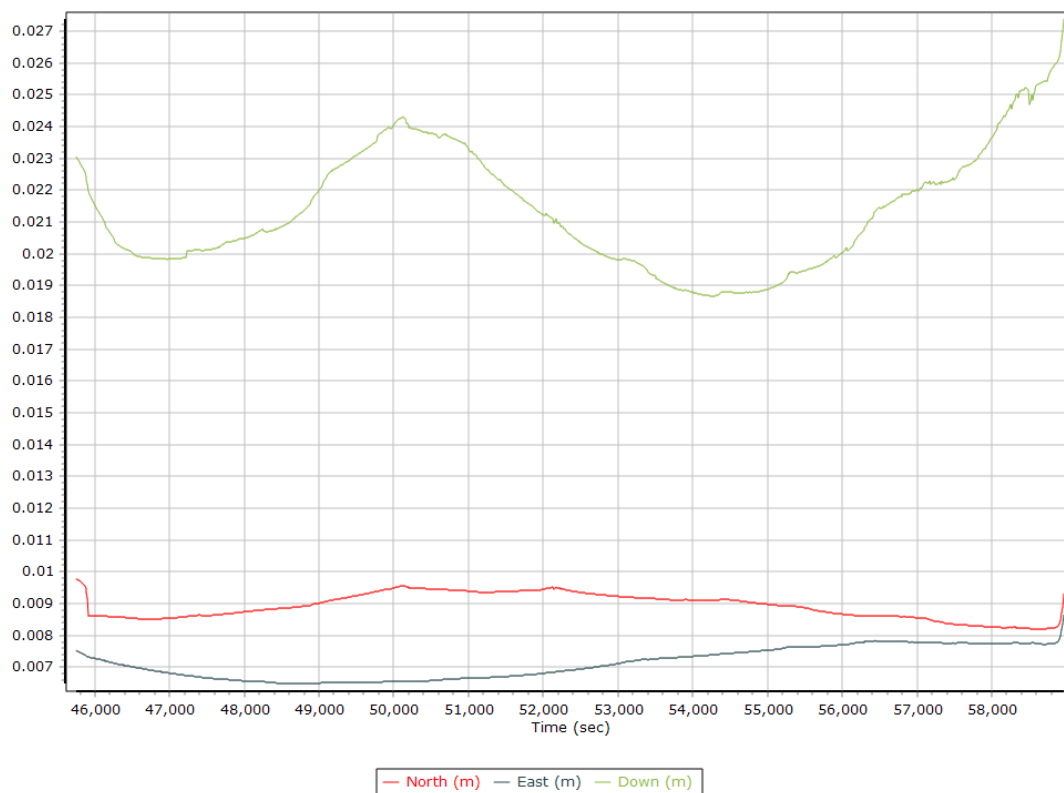
Forward/Reverse Separation



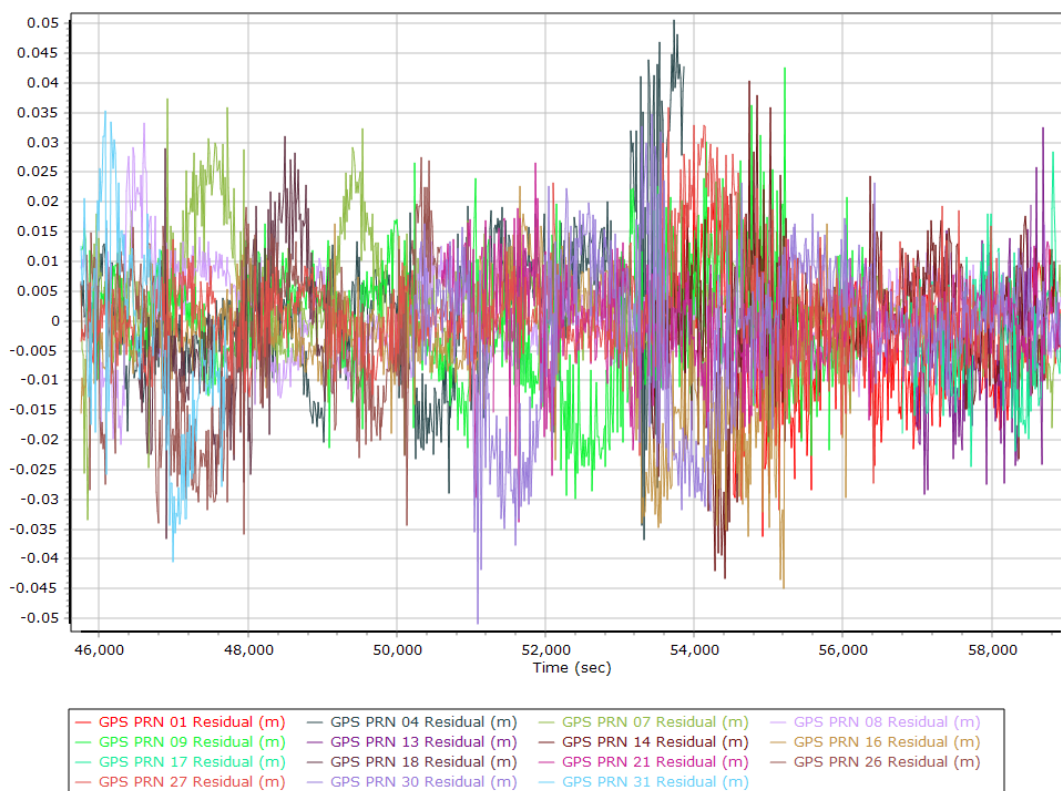
PDOP



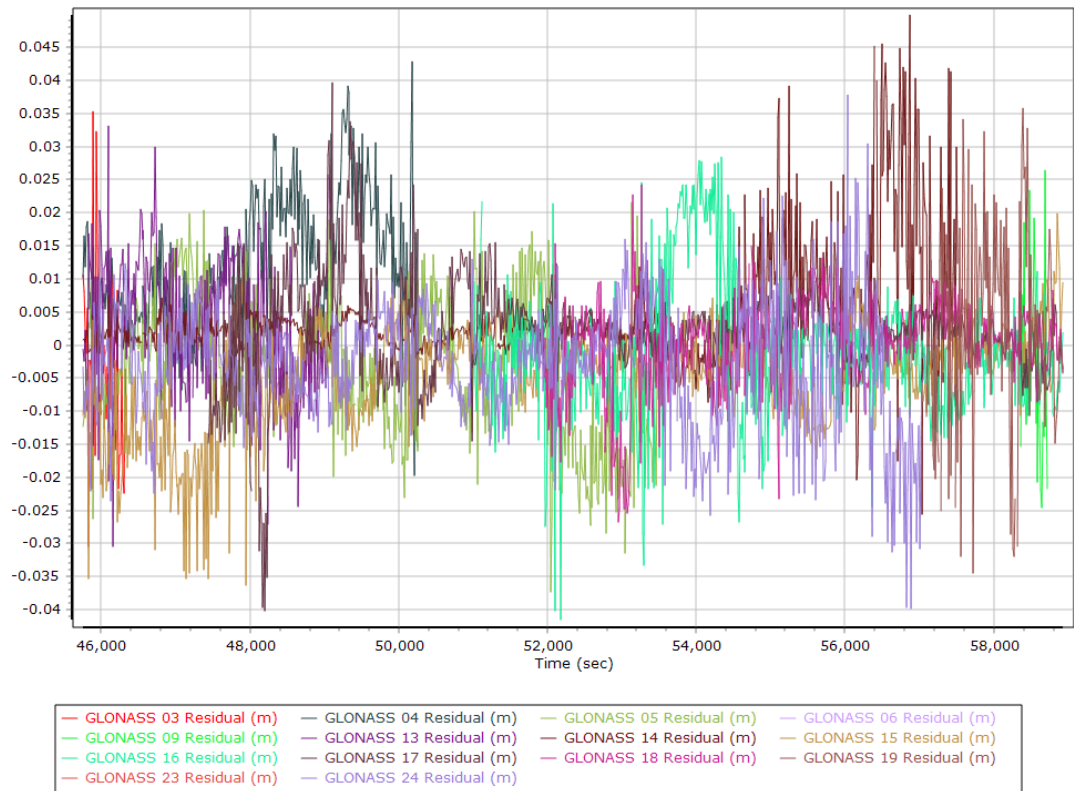
Estimated Position Accuracy



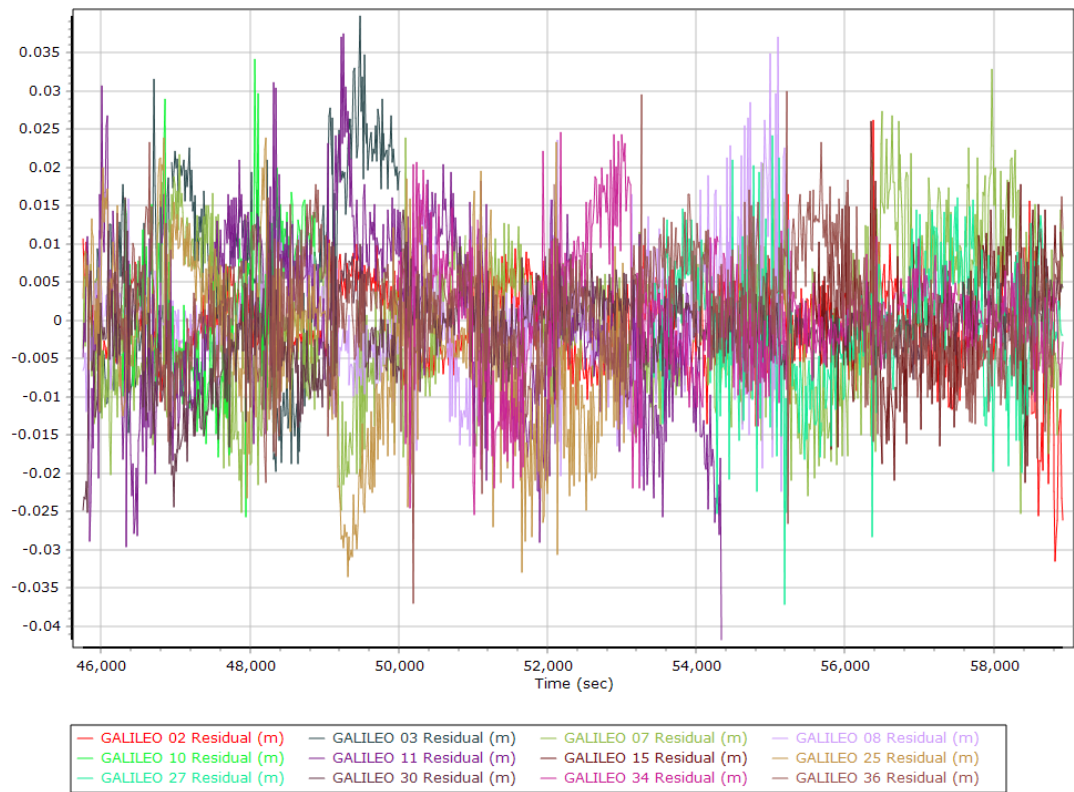
GPS Residuals



GLONASS Residuals



GALILEO Residuals



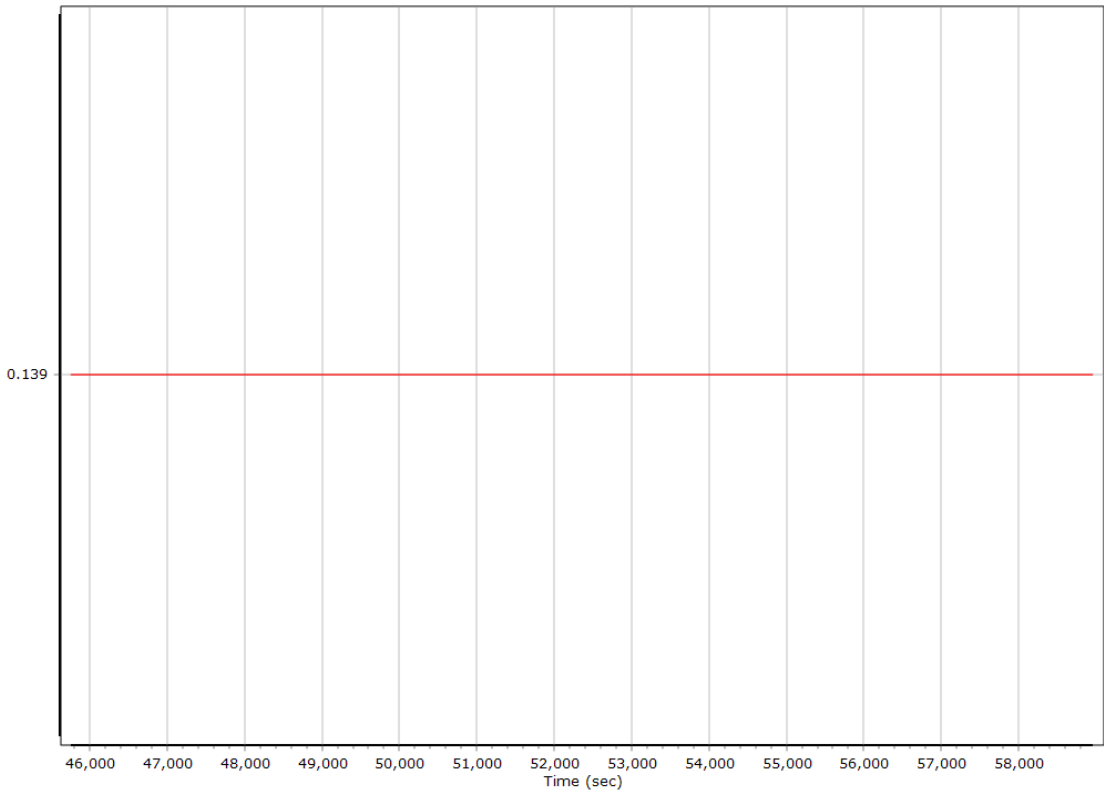
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	45266.000 (04/09/2023 12:34:26)		
Processing end time	58964.000 (04/09/2023 16:22:44)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

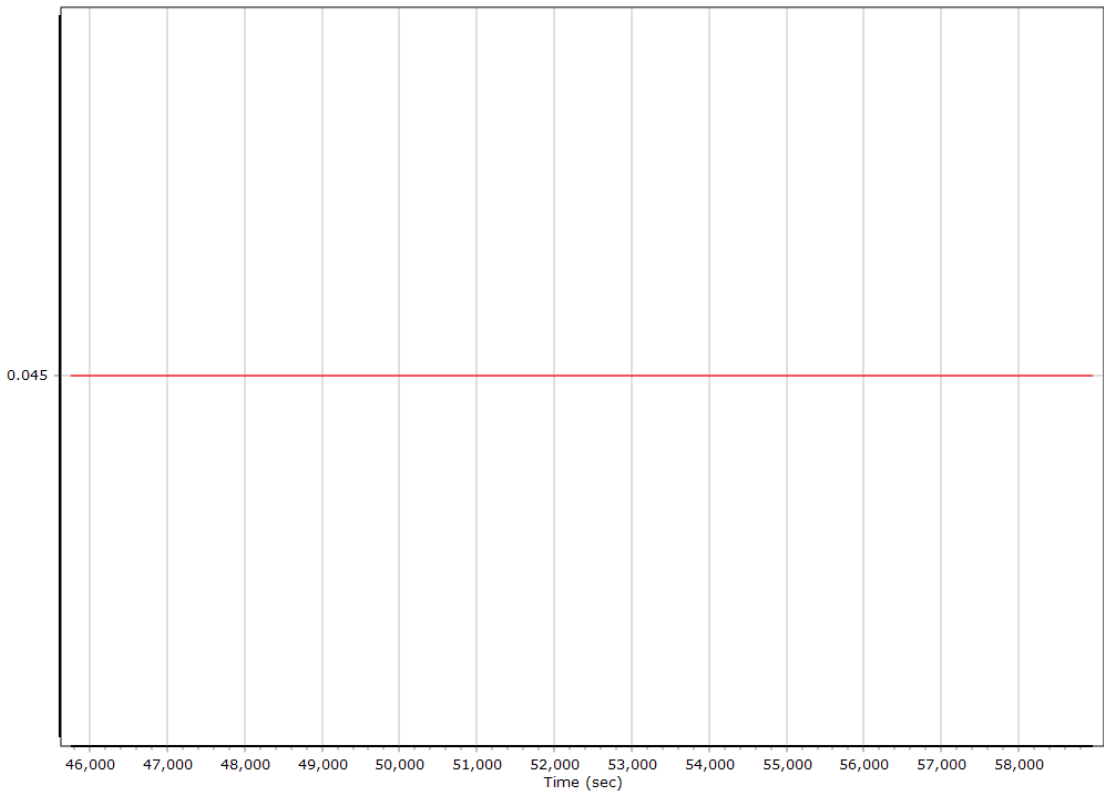
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

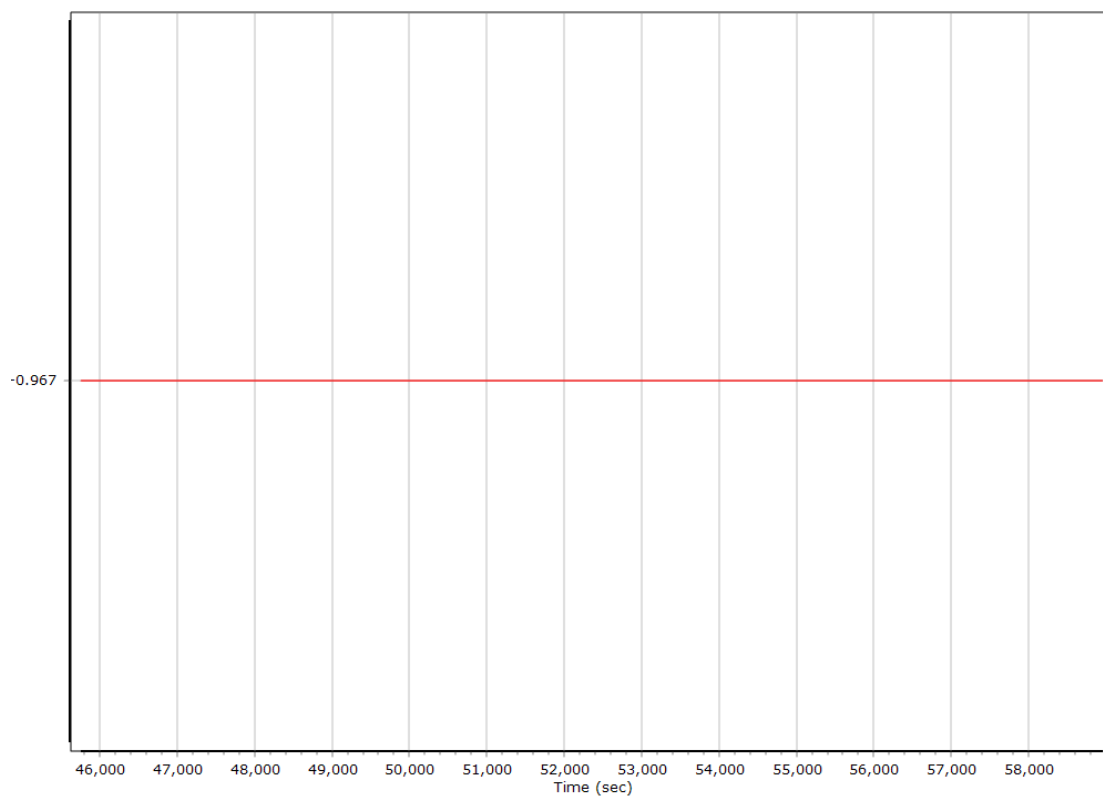
X Reference-Primary GNSS Lever Arm (m)



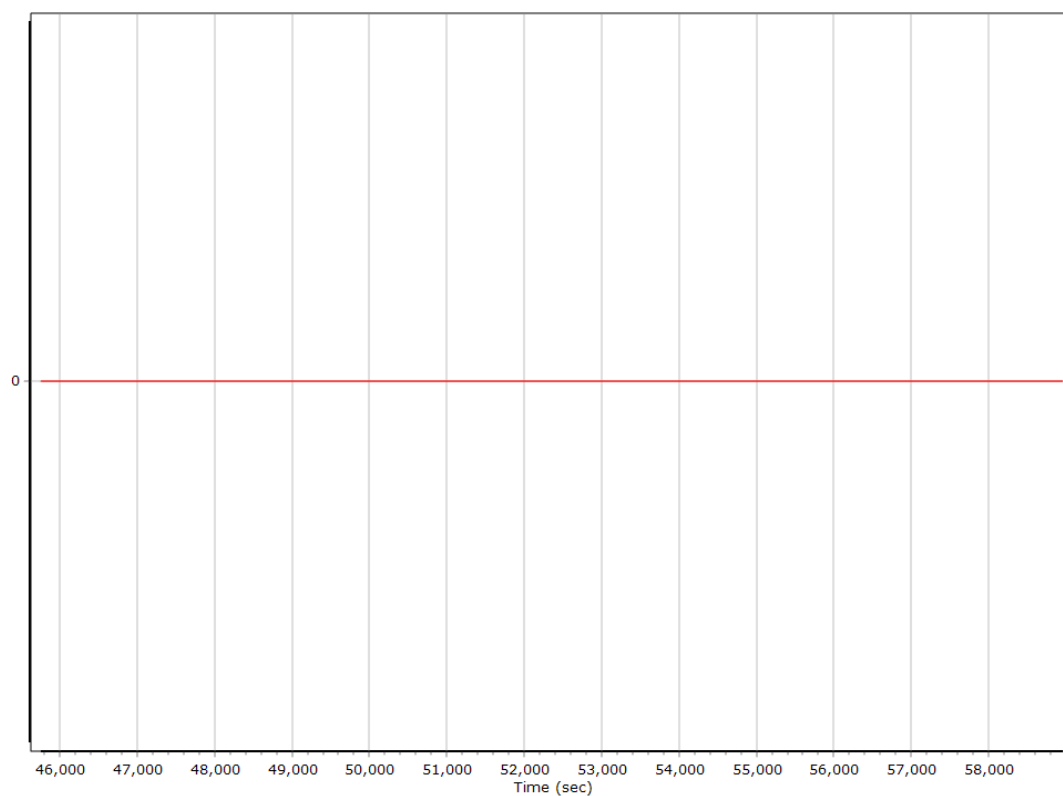
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



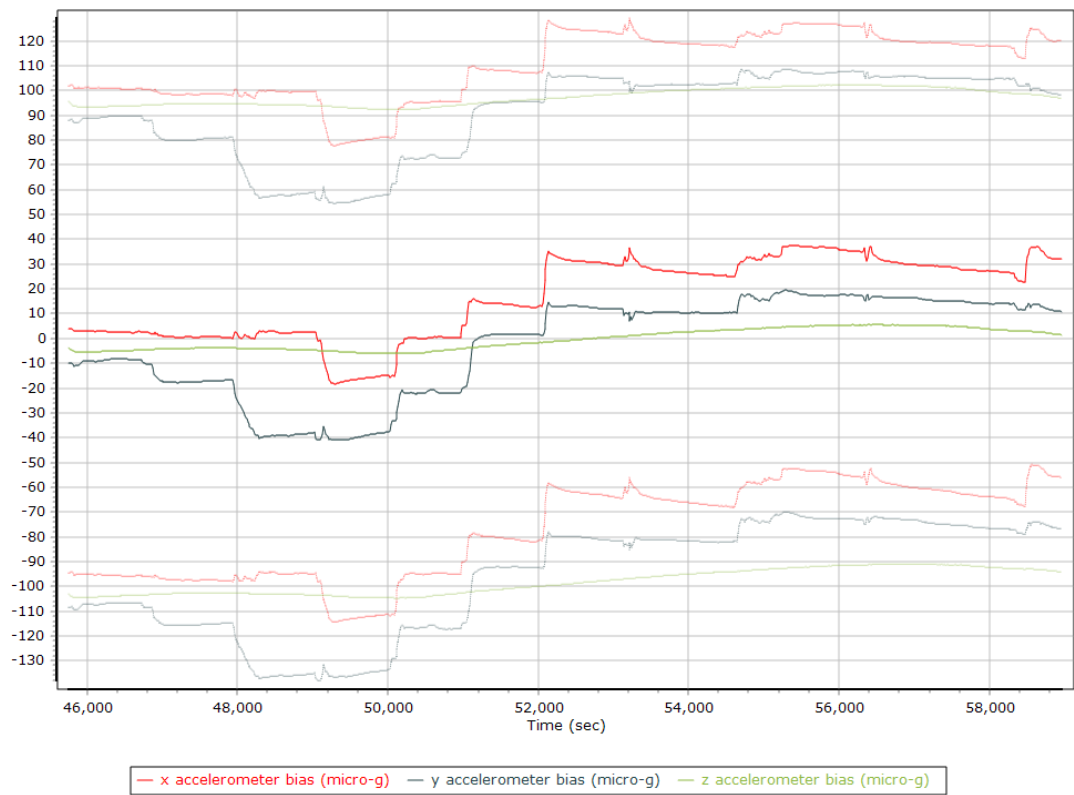
Reference-Primary GNSS Lever Arm Figure of Merit



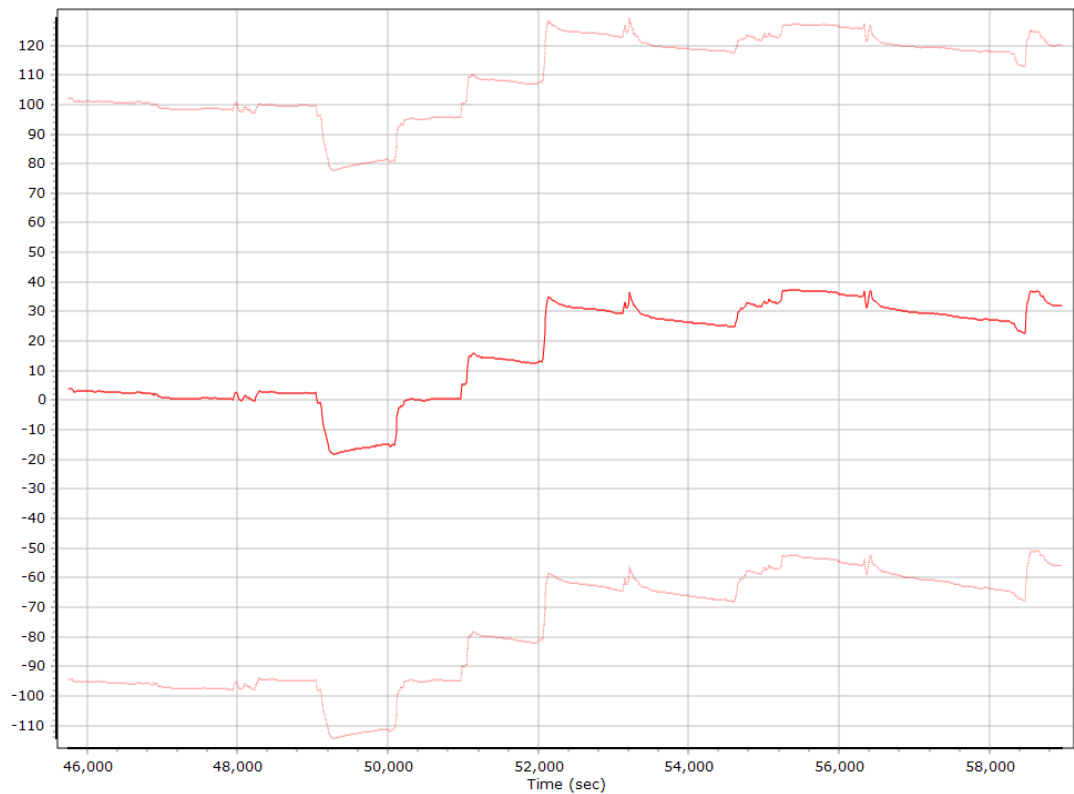
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

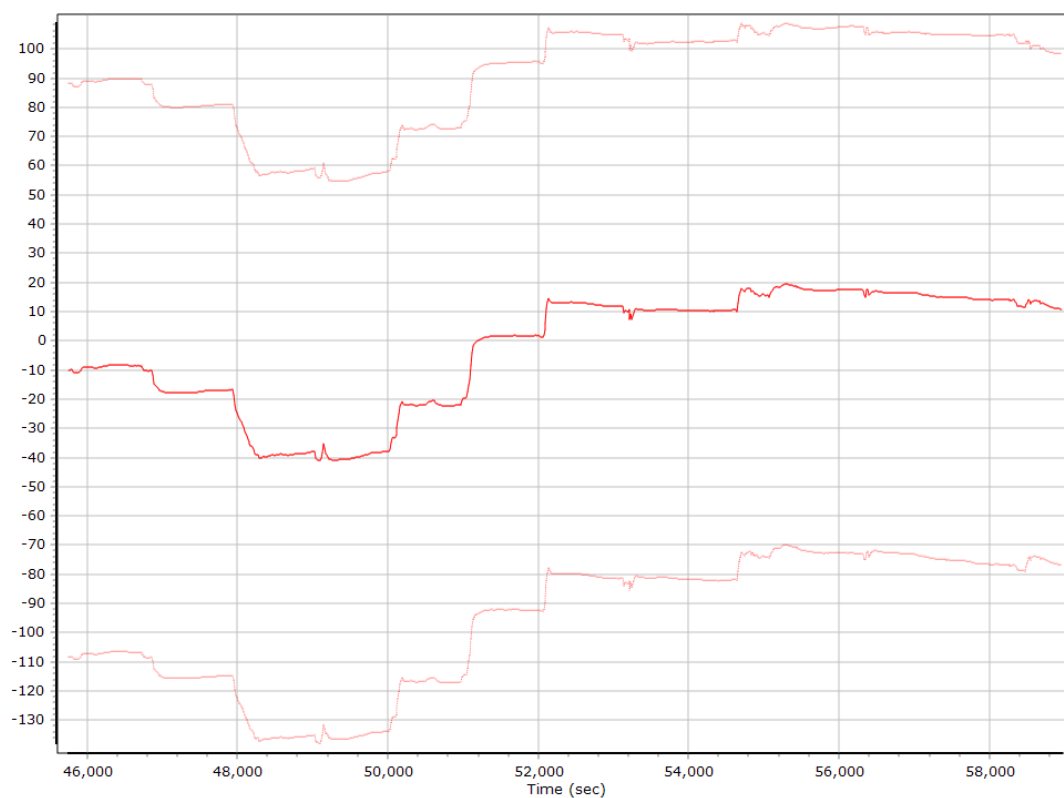
Accelerometer Bias (micro-g)



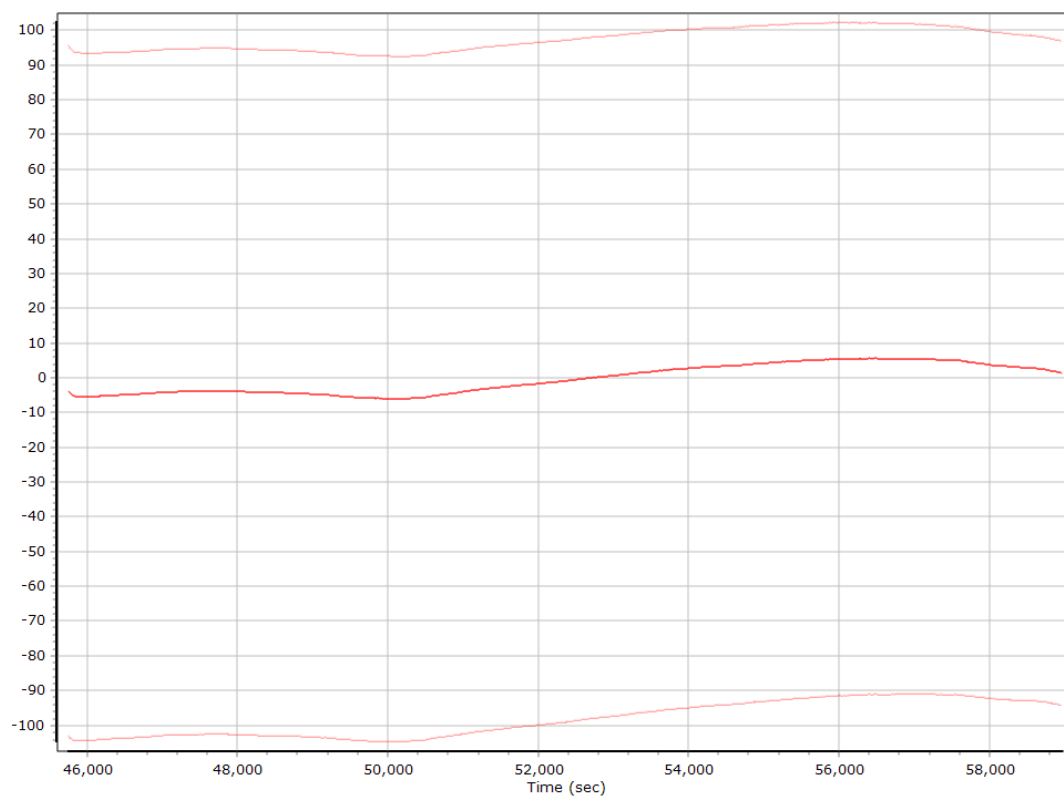
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



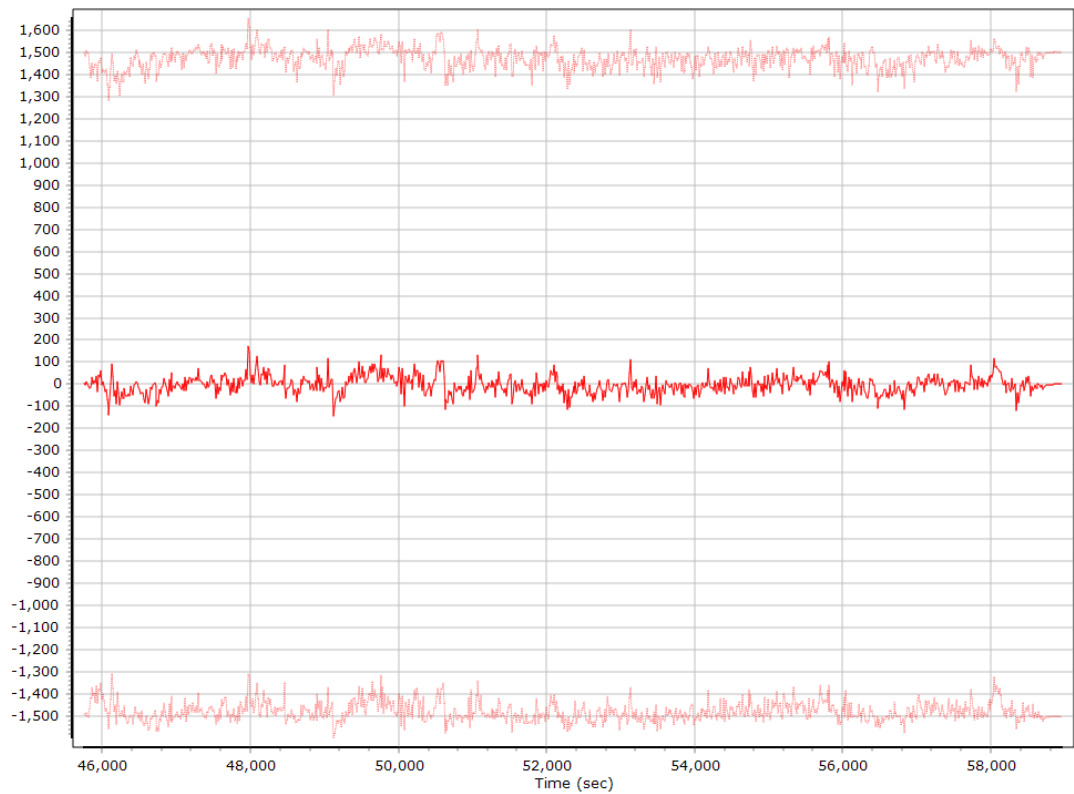
Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



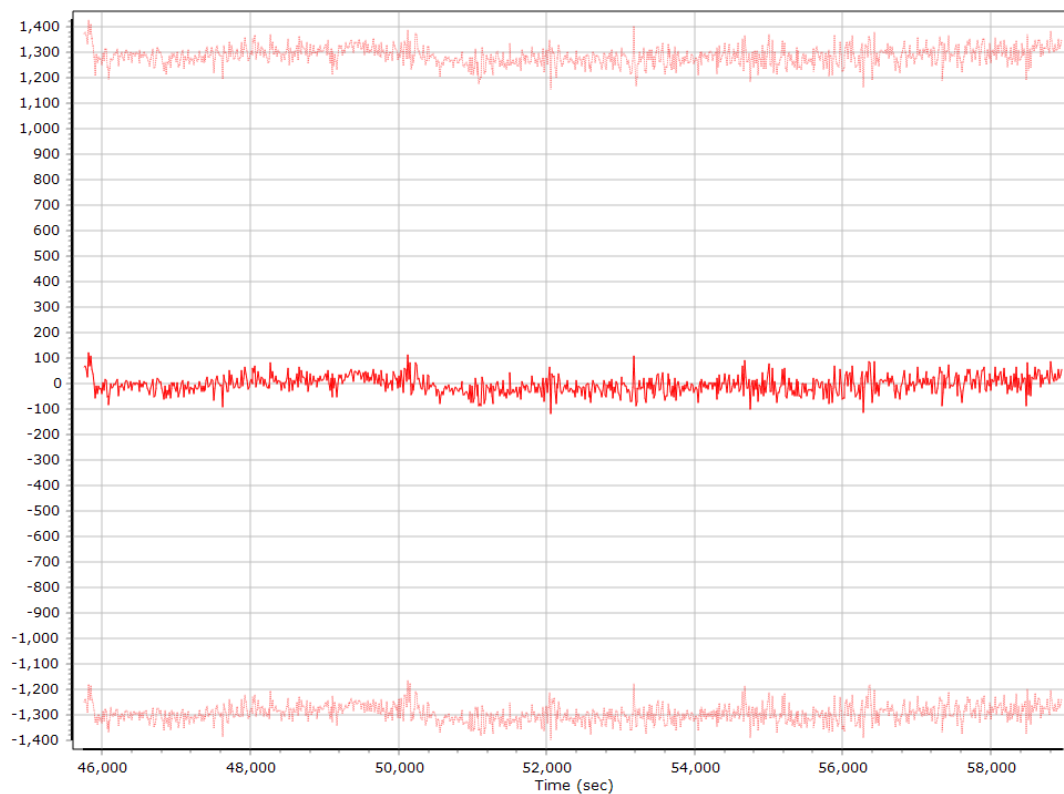
X Accelerometer Scale Error (ppm)



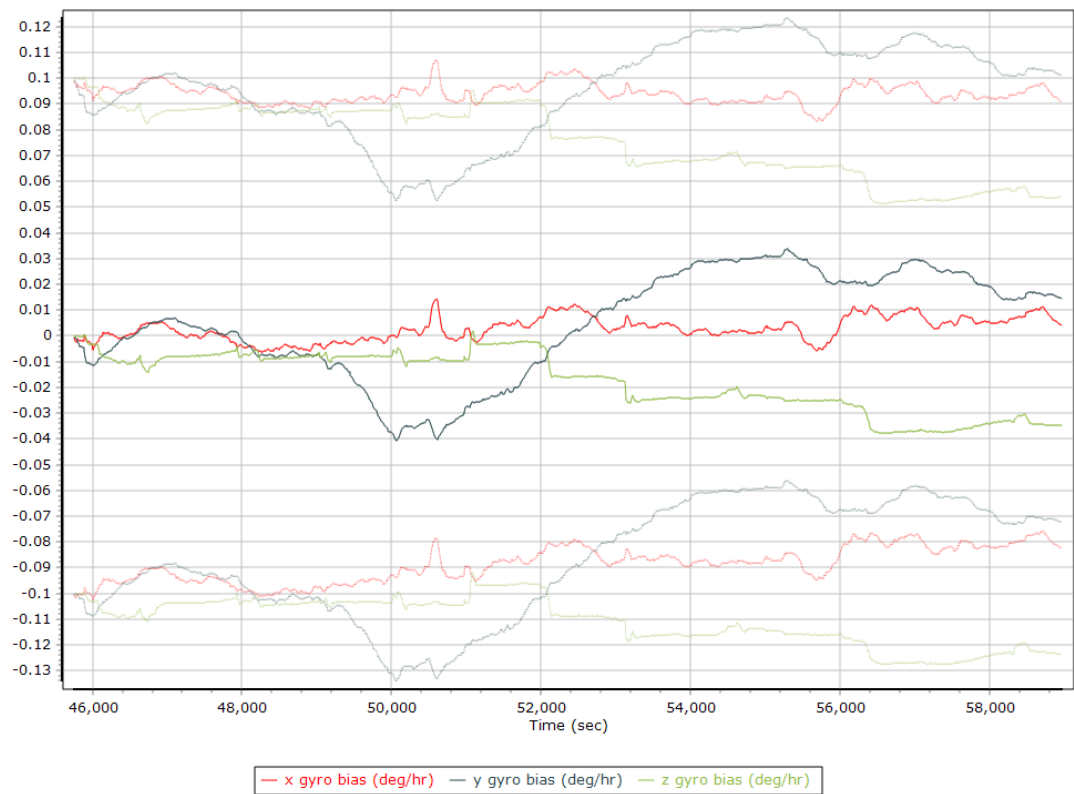
Y Accelerometer Scale Error (ppm)



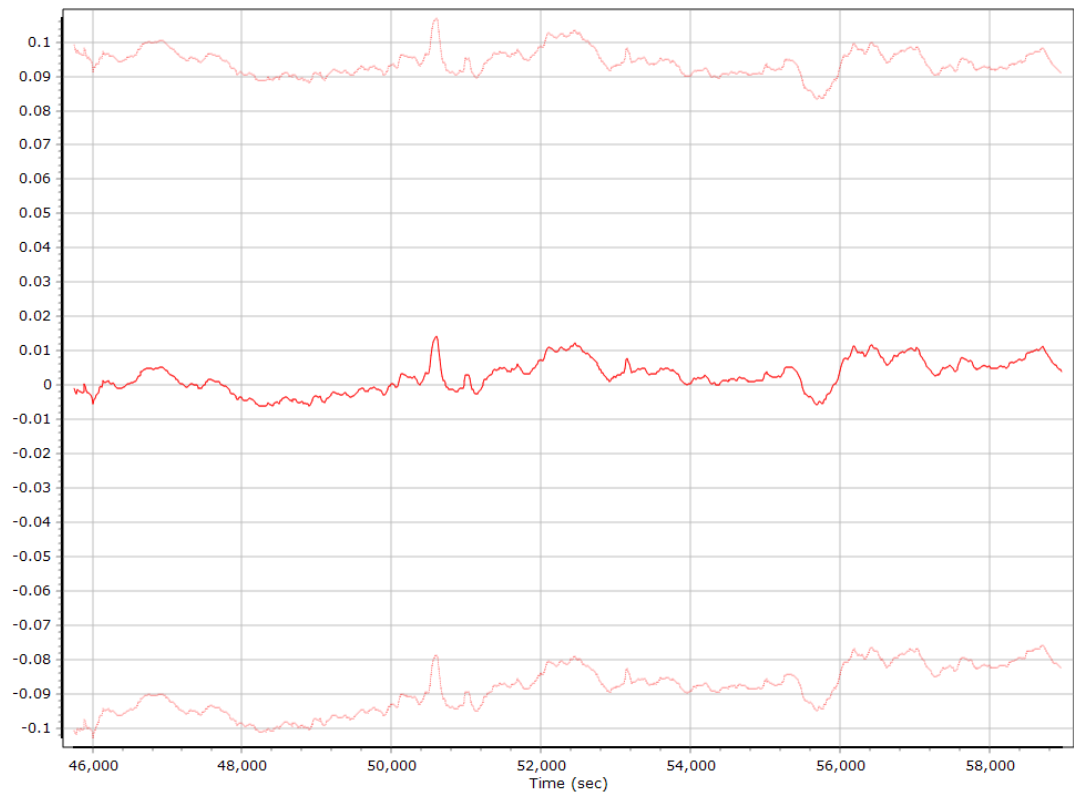
Z Accelerometer Scale Error (ppm)



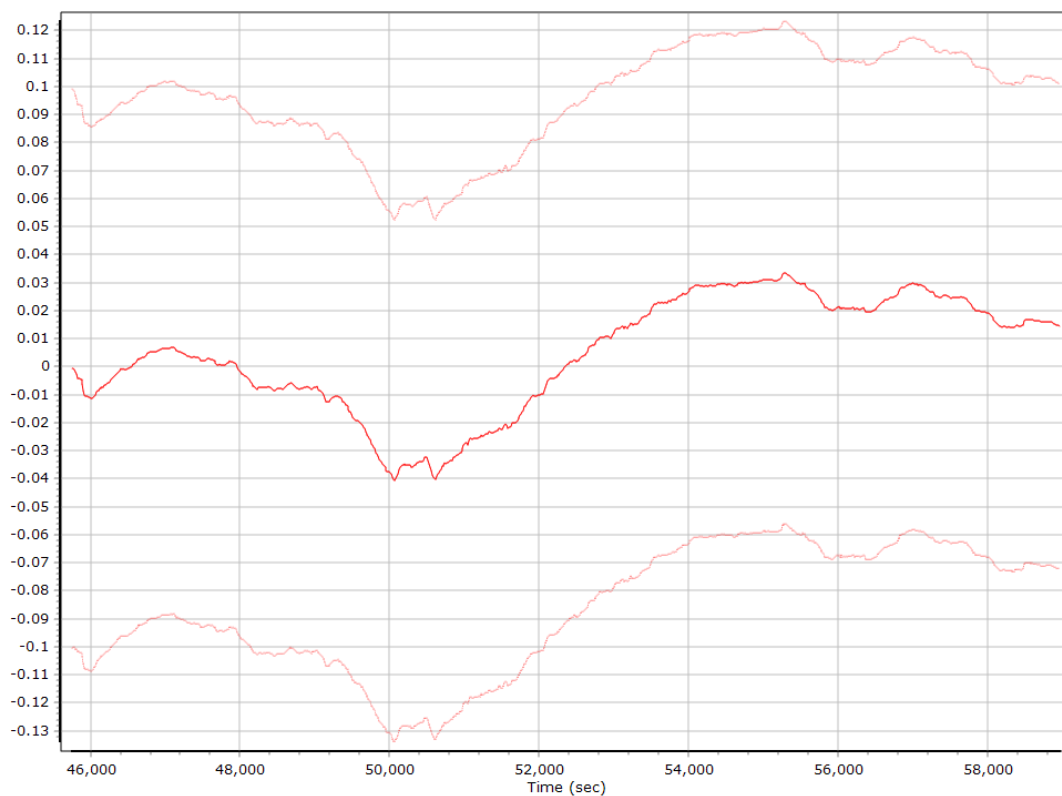
Gyro Bias (deg/h)



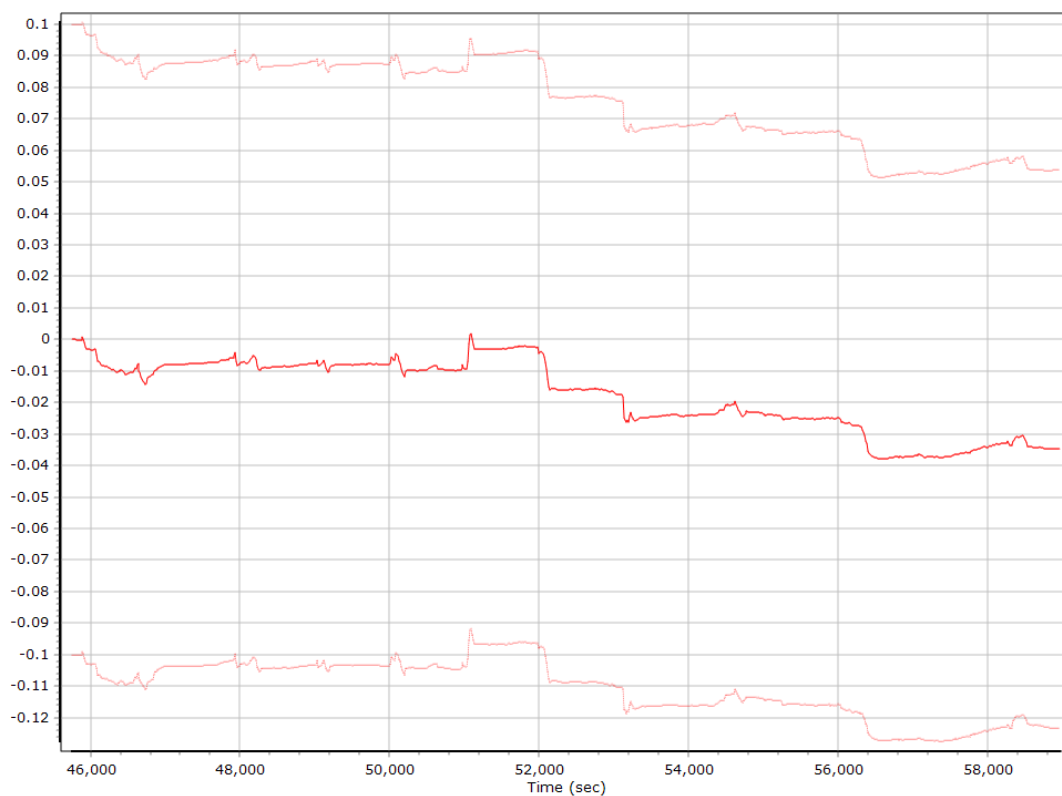
X Gyro Bias (deg/h)



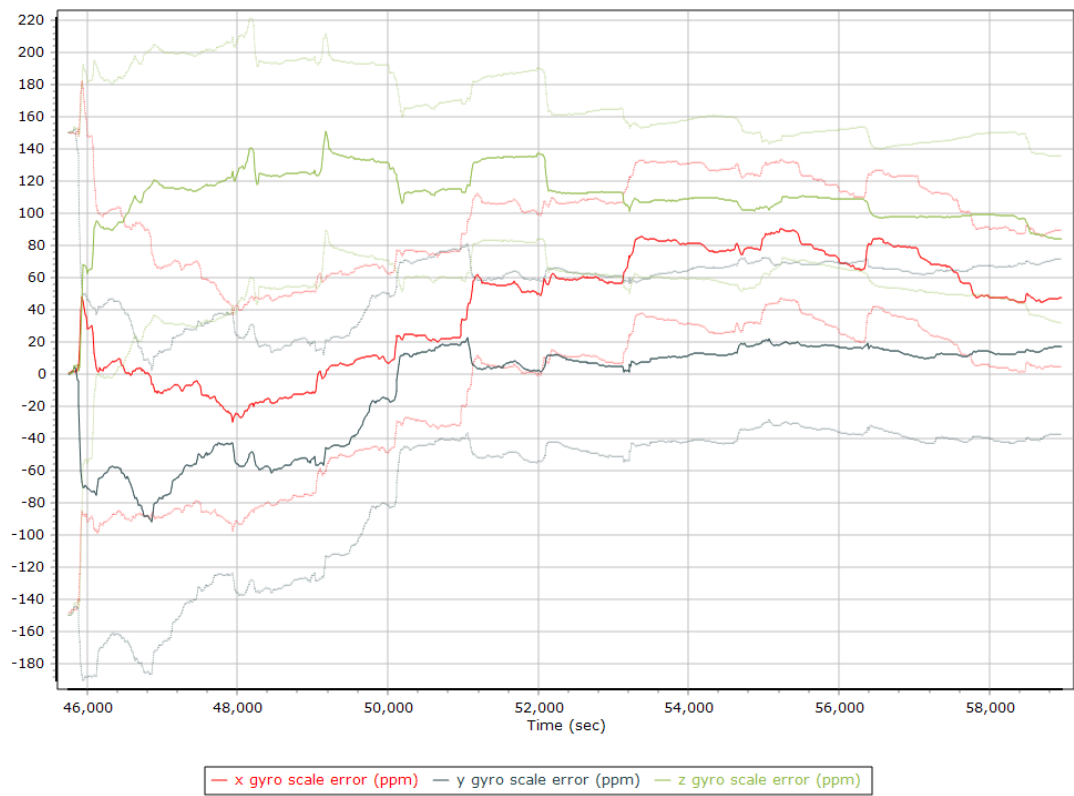
Y Gyro Bias (deg/h)



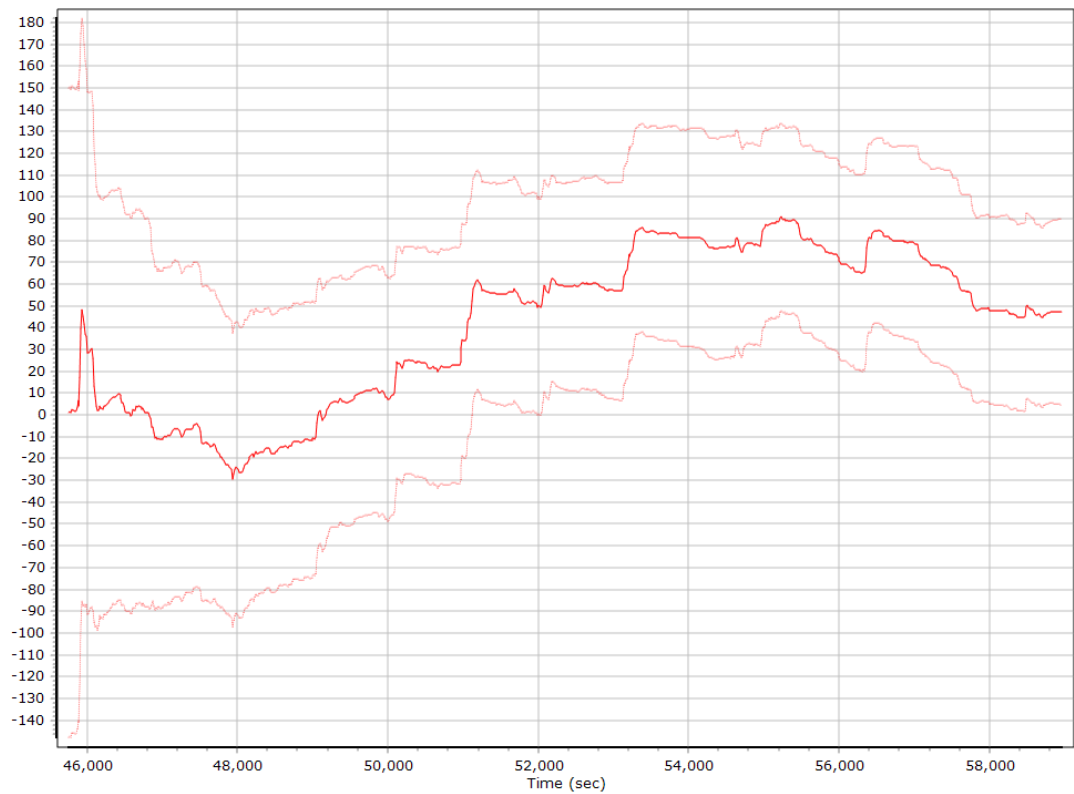
Z Gyro Bias (deg/h)



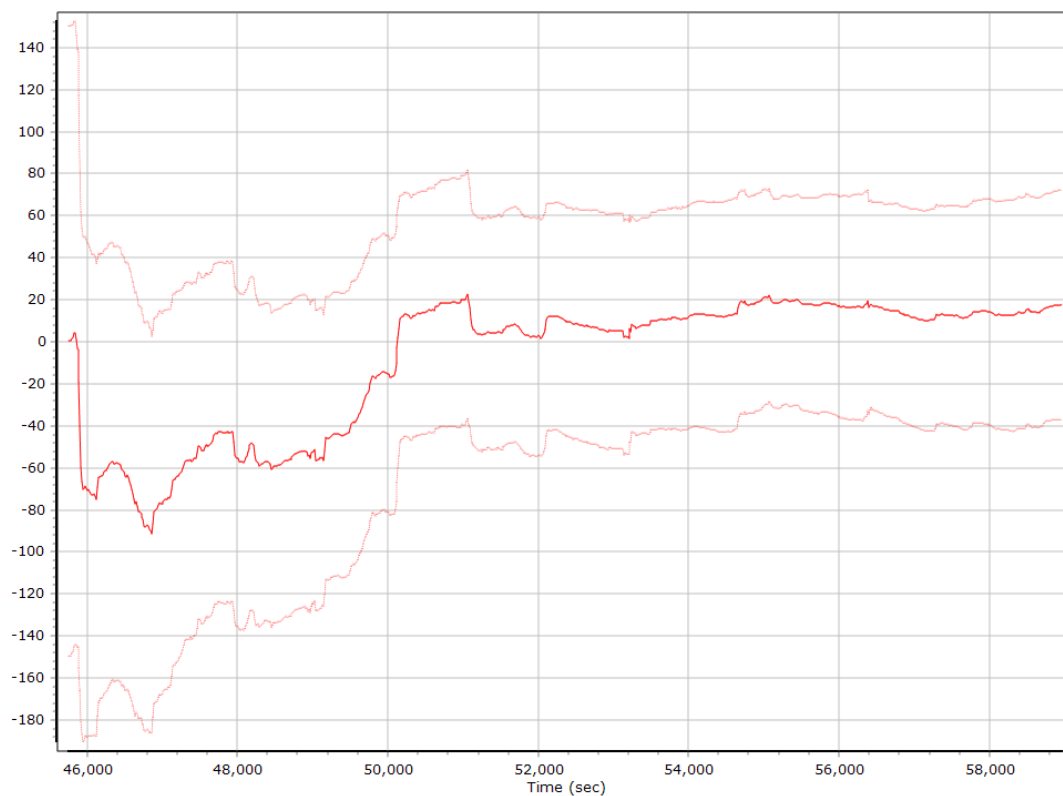
Gyro Scale Error (ppm)



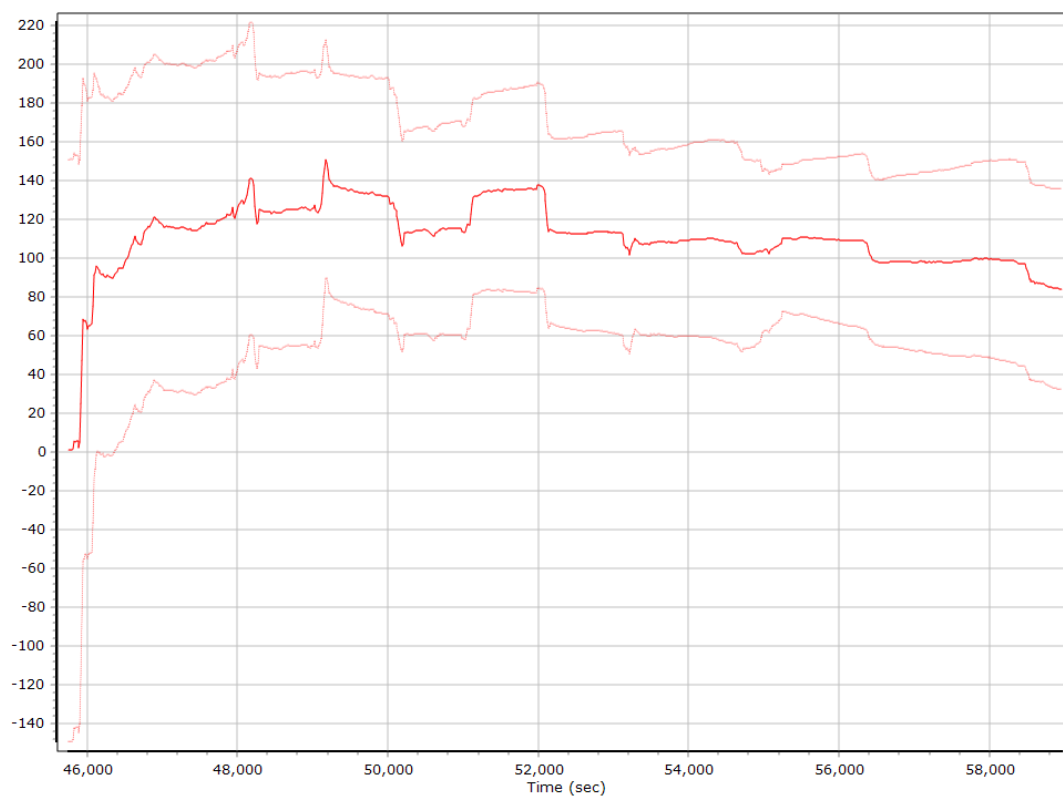
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

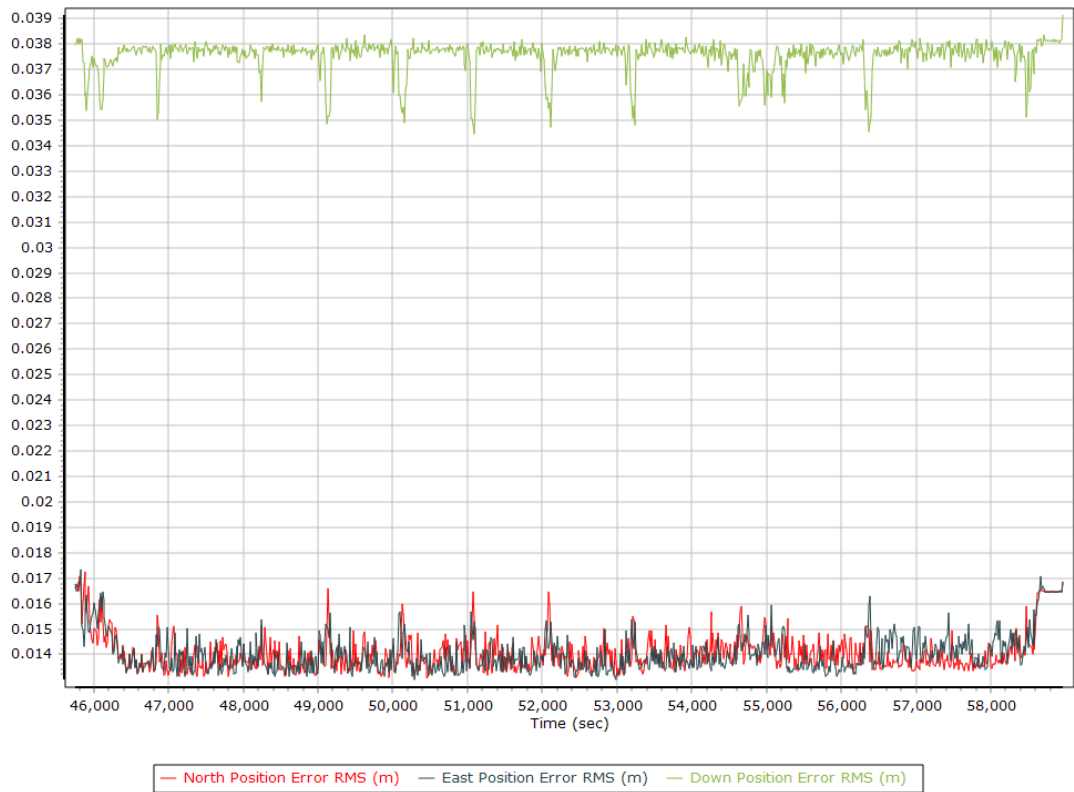


Z Gyro Scale Error (ppm)

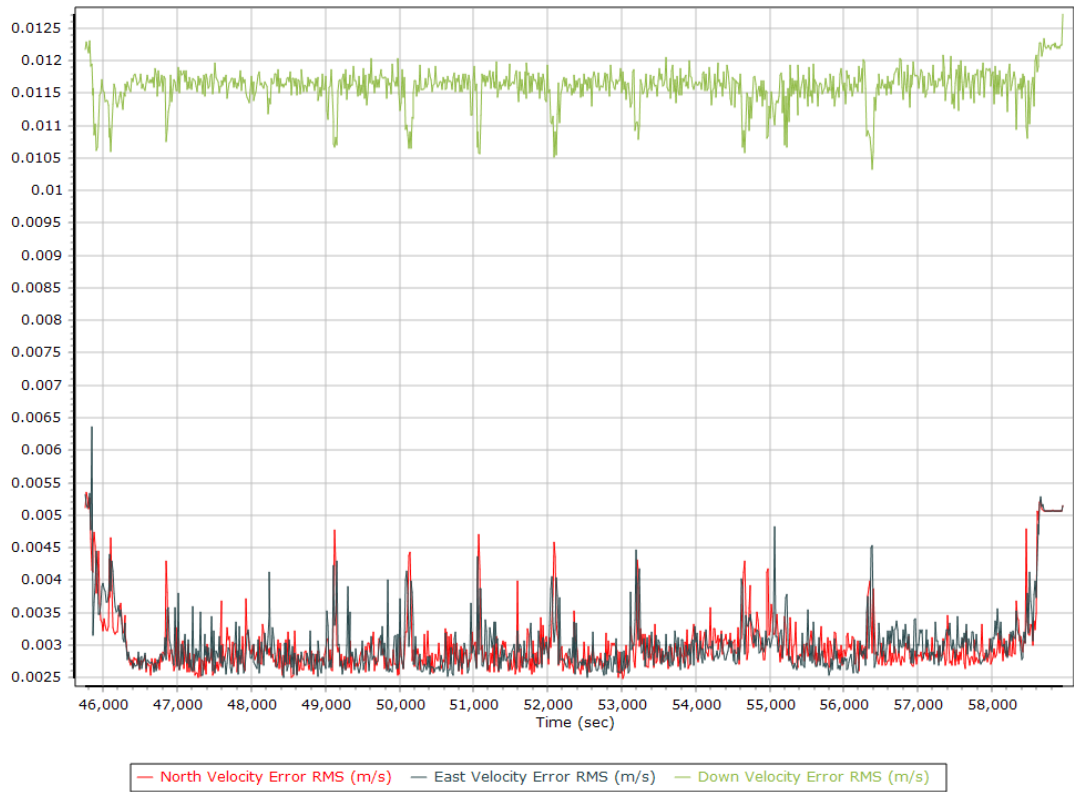


Smoothed Performance Metrics

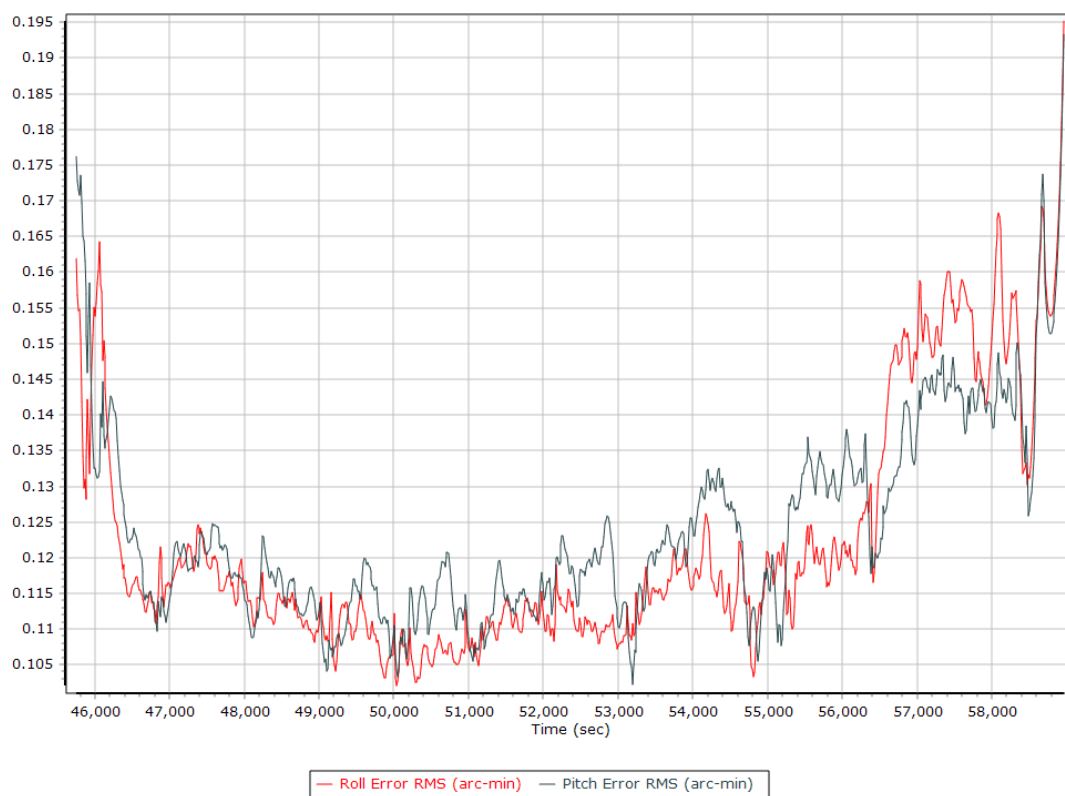
Position Error RMS (m)



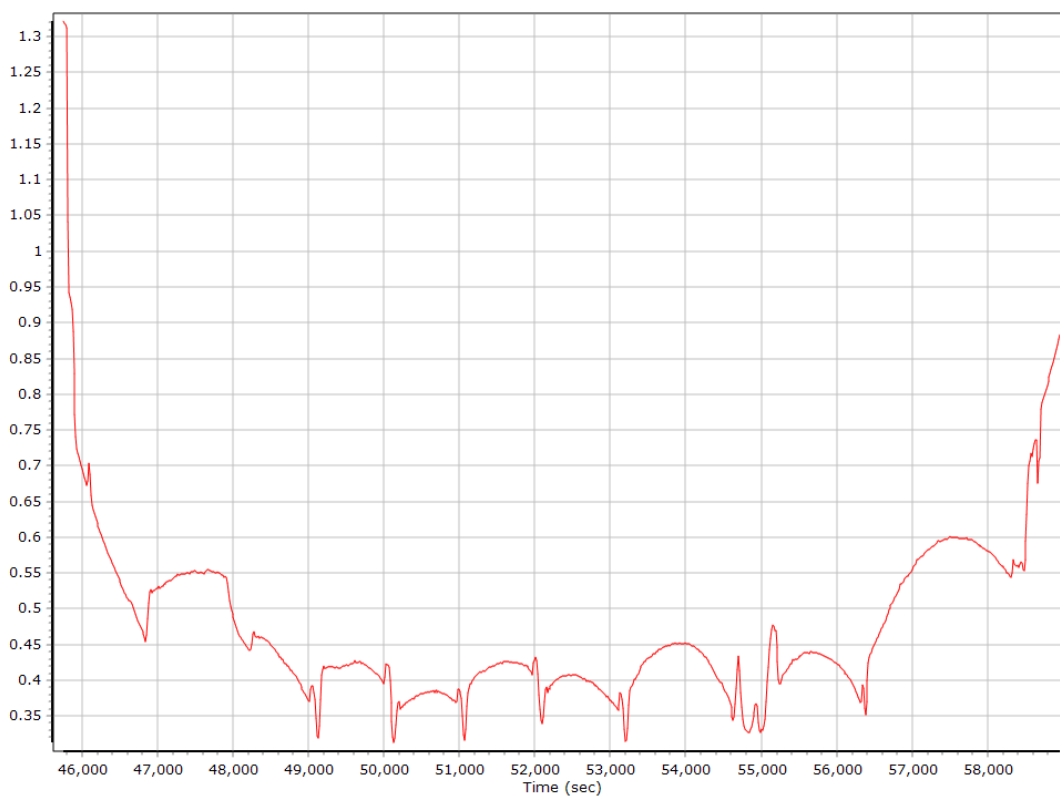
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

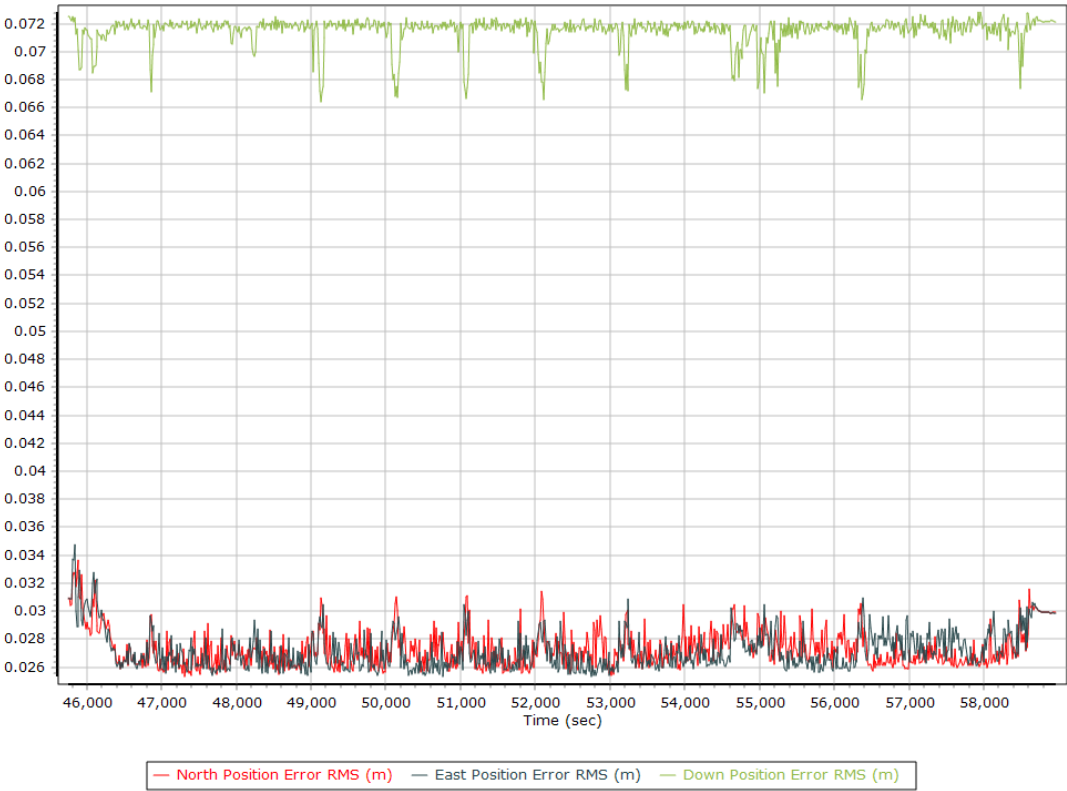


Heading Error RMS (arc-min)

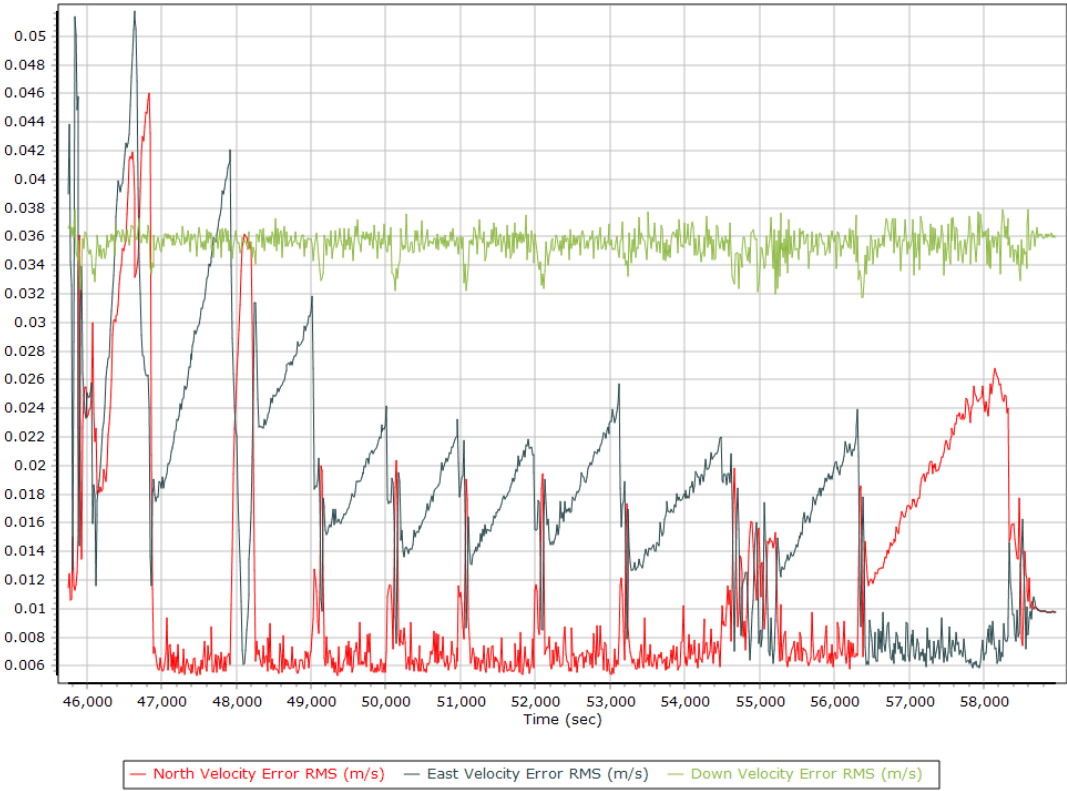


Forward Processed Performance Metrics

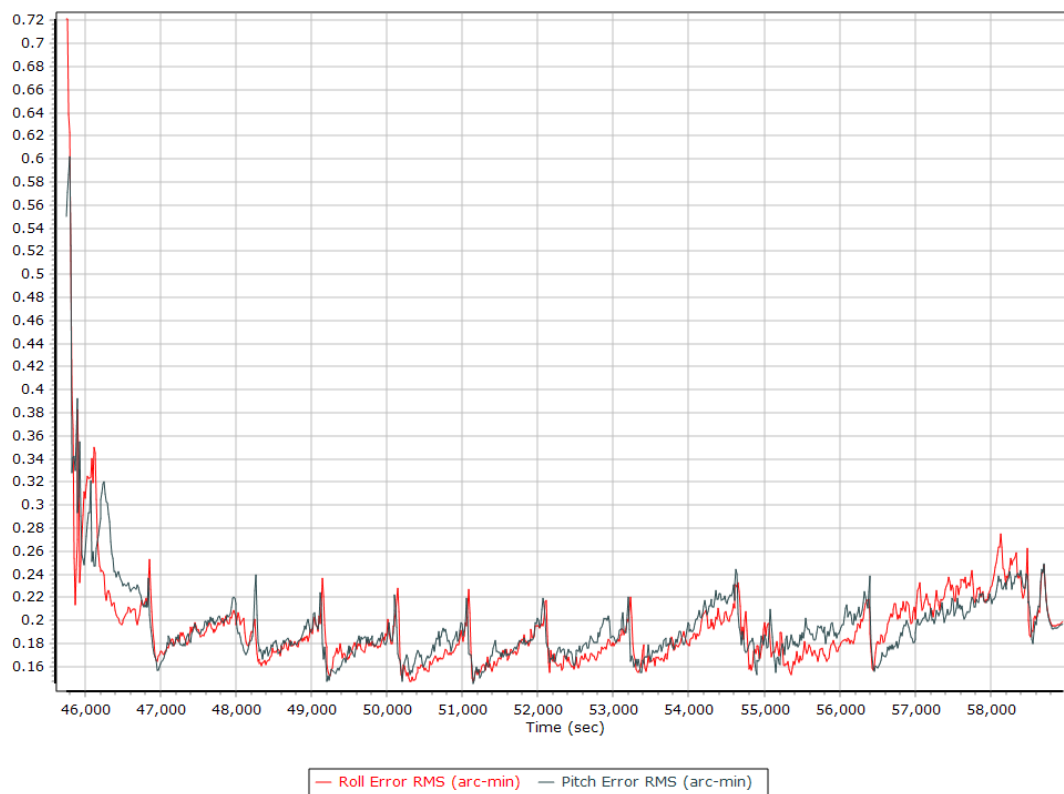
Position Error RMS (m)



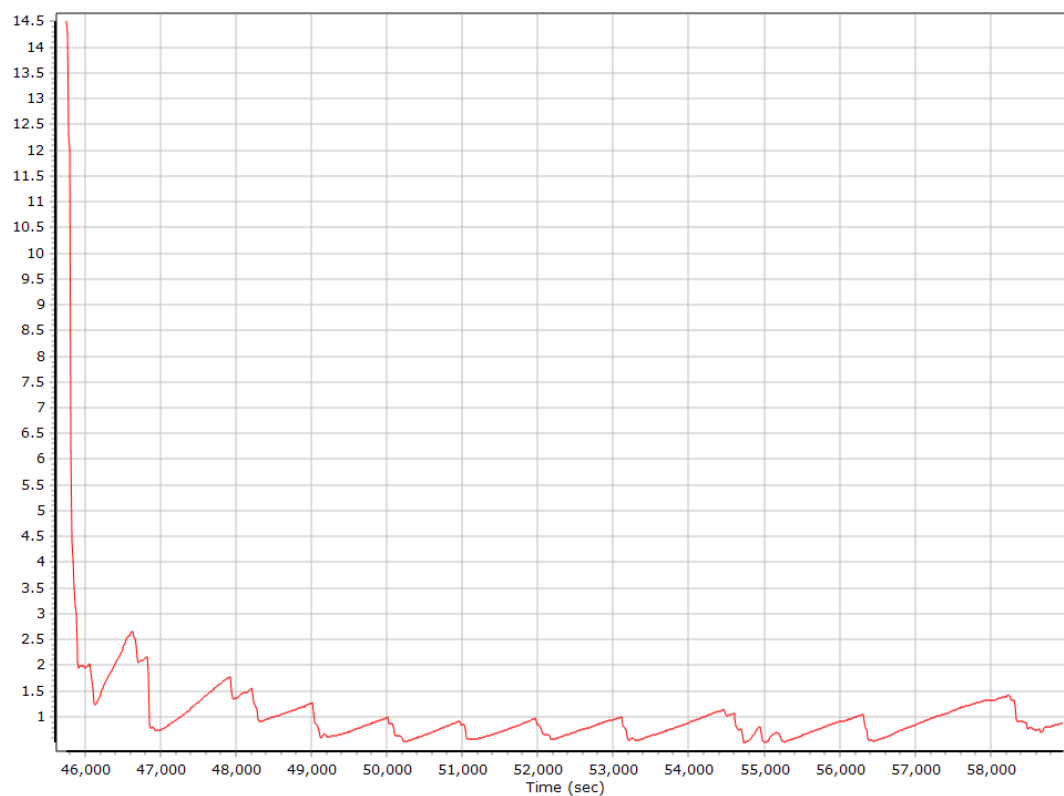
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

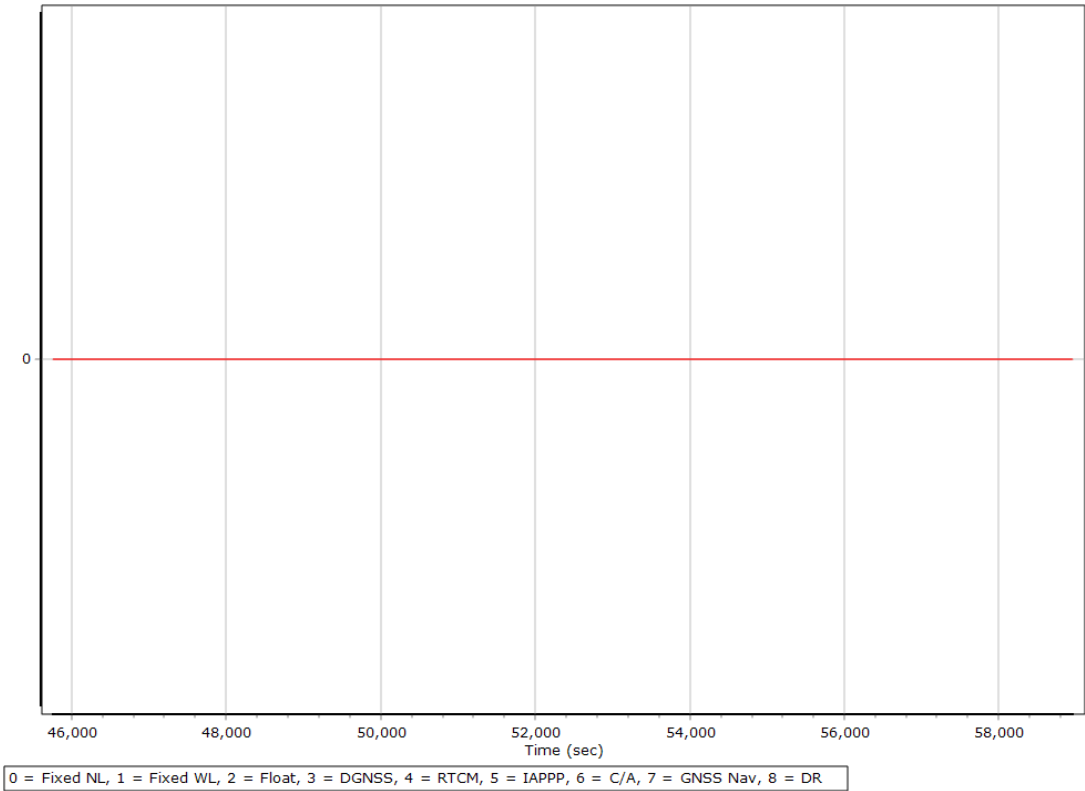


Heading Error RMS (arc-min)

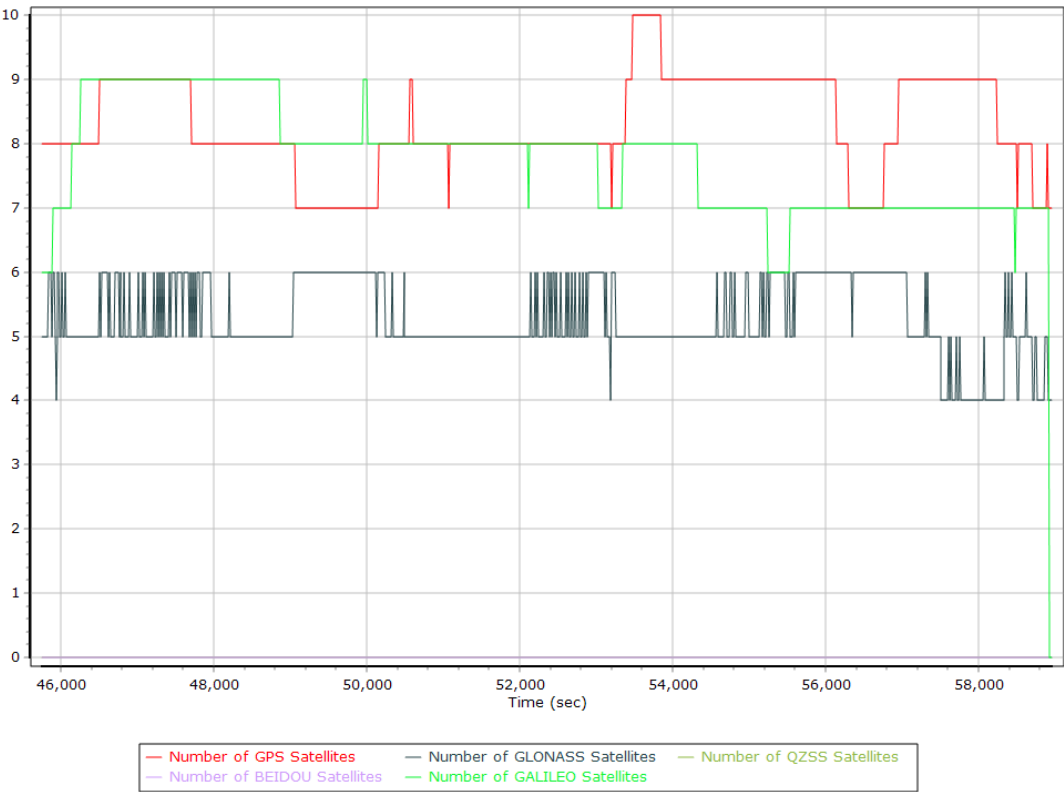


Forward Processed Solution Status

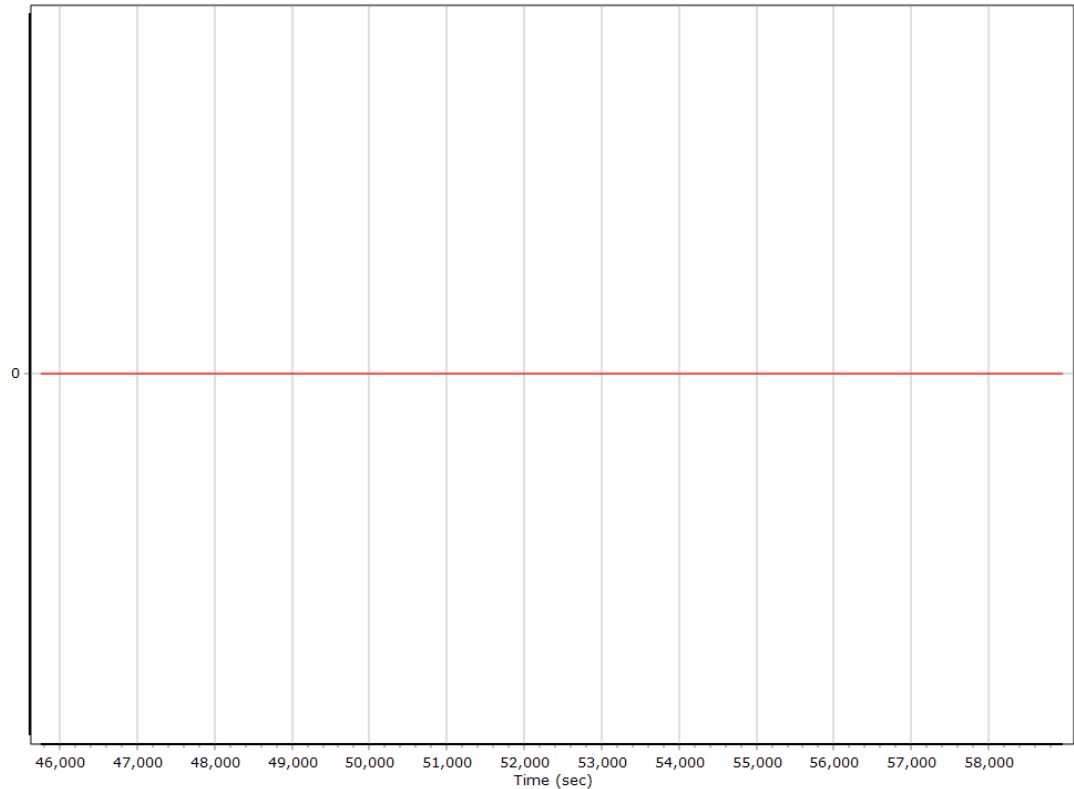
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230409_F1_4894_NAD832011.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	45696.004 (04/09/2023 12:41:36)		
Export end time	58964.001 (04/09/2023 16:22:44)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.268493		

General Information

Mission Information

Project name	20230409_F2_4894
Processing date	2023-04-12 22:04:05
Mission date	2023-04-09 17:08:48
Mission duration	04:37:02.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.173	POS Data
VQ1560.174	POS Data
VQ1560.175	POS Data
VQ1560.176	POS Data
VQ1560.177	POS Data
VQ1560.178	POS Data
VQ1560.179	POS Data
VQ1560.180	POS Data
VQ1560.181	POS Data
VQ1560.182	POS Data
VQ1560.183	POS Data
VQ1560.184	POS Data
VQ1560.185	POS Data
VQ1560.186	POS Data
VQ1560.187	POS Data
VQ1560.188	POS Data
VQ1560.189	POS Data
VQ1560.190	POS Data
VQ1560.191	POS Data
VQ1560.192	POS Data
VQ1560.193	POS Data
VQ1560.194	POS Data
VQ1560.195	POS Data
VQ1560.196	POS Data
VQ1560.197	POS Data
VQ1560.198	POS Data
VQ1560.199	POS Data
VQ1560.200	POS Data
VQ1560.201	POS Data
VQ1560.202	POS Data
VQ1560.203	POS Data
VQ1560.204	POS Data
VQ1560.205	POS Data
VQ1560.206	POS Data
VQ1560.207	POS Data
VQ1560.208	POS Data
VQ1560.209	POS Data
VQ1560.210	POS Data

Input Files

File Name	File Type
Ephm0990.23g	GLONASS Broadcast Ephemeris
Ephm0990.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230409_F2_4894.out	SBET Trajectory File
export_20230409_F2_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.173		
Last raw data file	VQ1560.210		
Start GPS week	2257		
Start time	61721.906 (04/09/2023 17:08:41)		
End time	78331.931 (04/09/2023 21:45:31)		
Start of fine alignment	62139.850 (04/09/2023 17:15:39)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

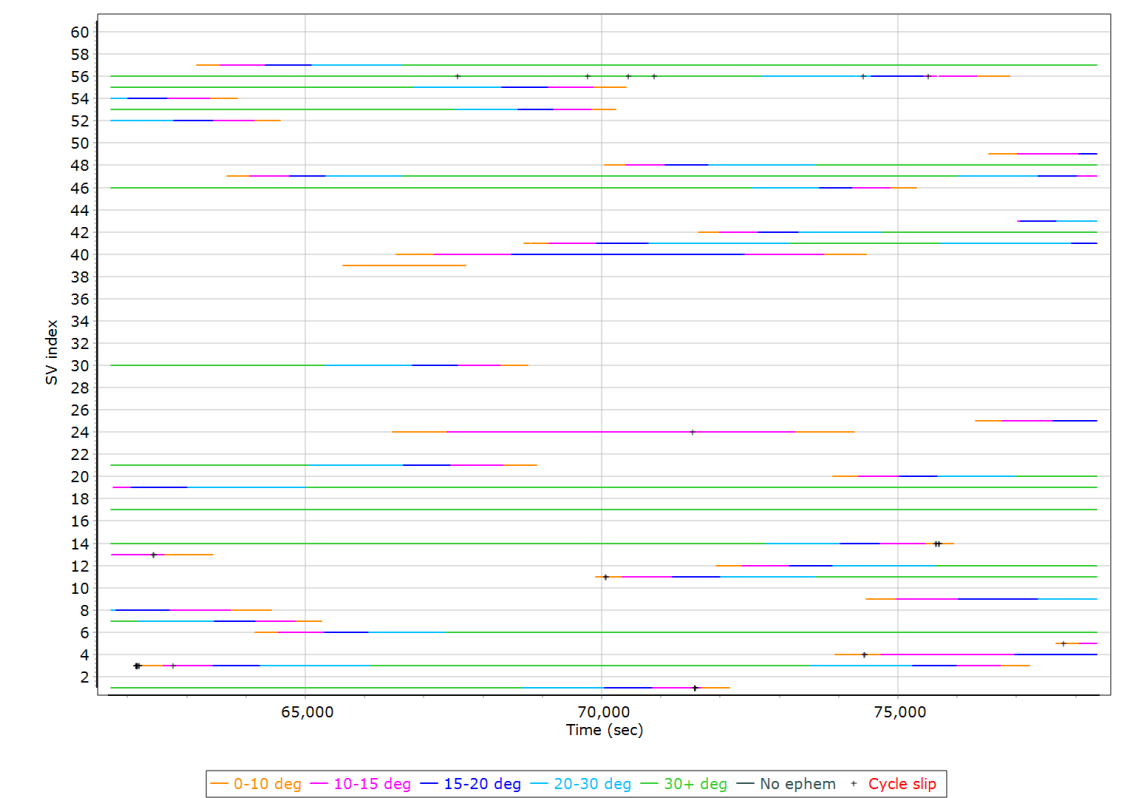
Rover Data QC

Raw IMU Import QC Summary

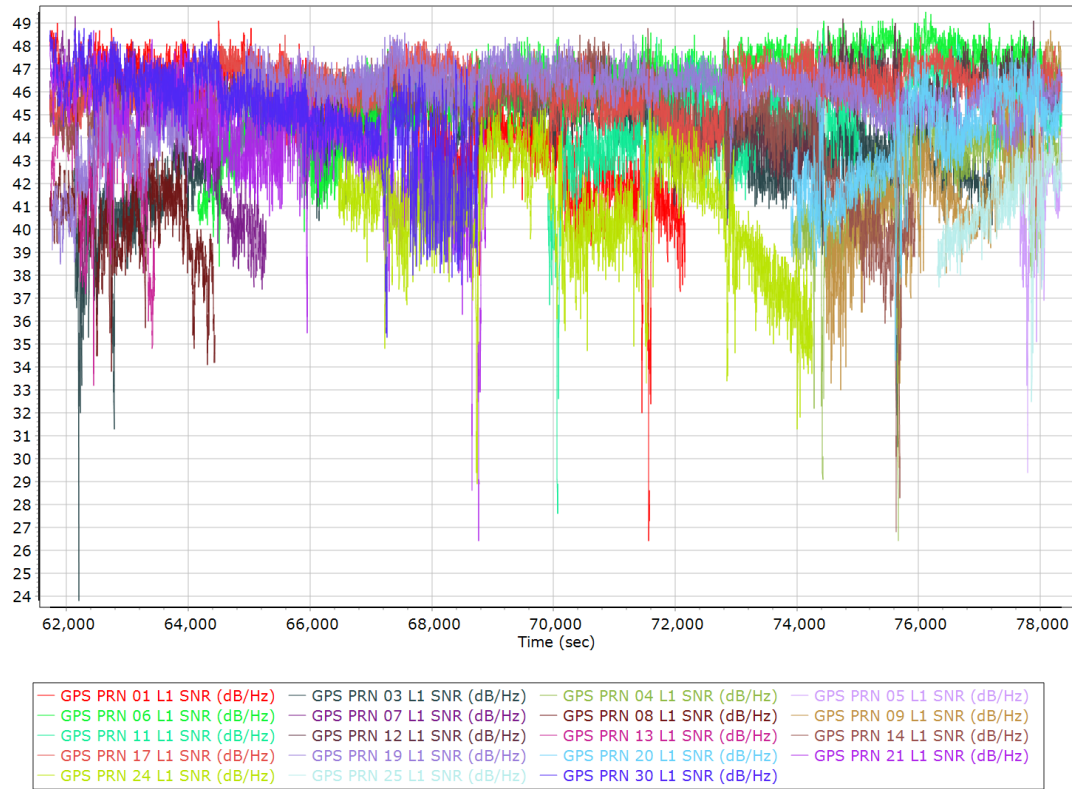
IMU data input file	imu_20230409_F2_4894.dat
IMU data check log file	imudt_20230409_F2_4894.log
IMU Records Processed	3323740
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
61721.706 : WARNING : Gap of 61709.7490 seconds in CHECKDT input data	

Primary Observables & Satellite Data

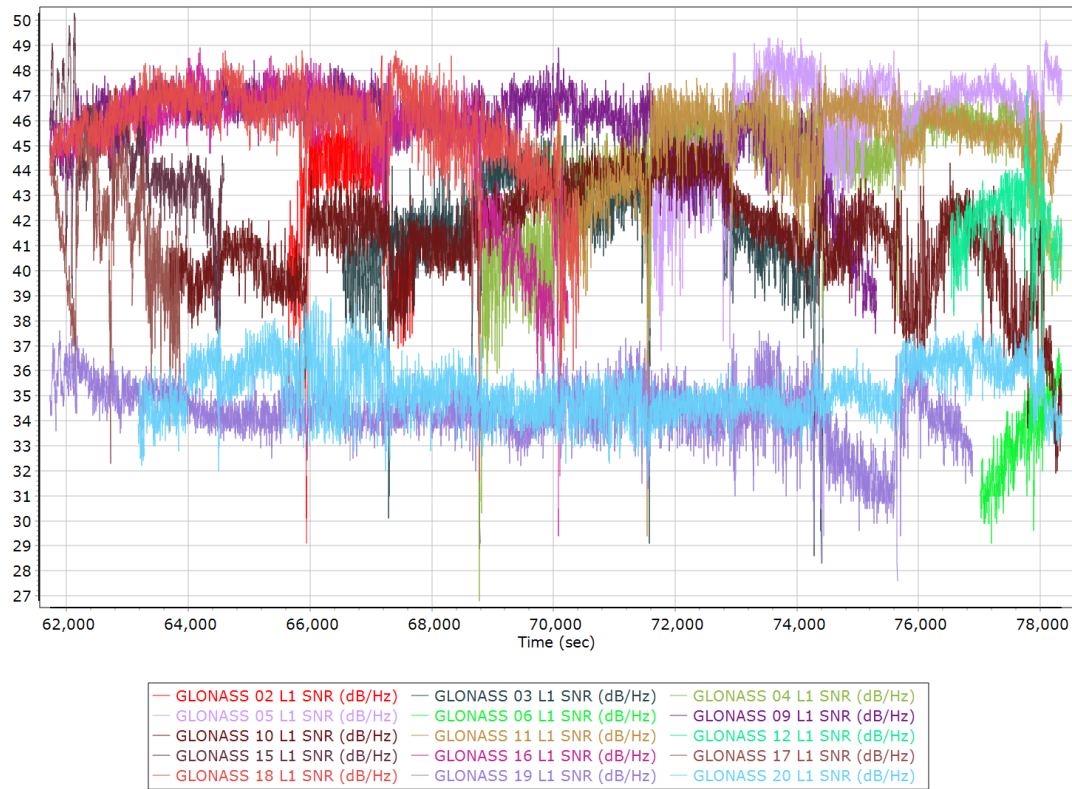
GPS/GLONASS L1 Satellite Lock/Elevation



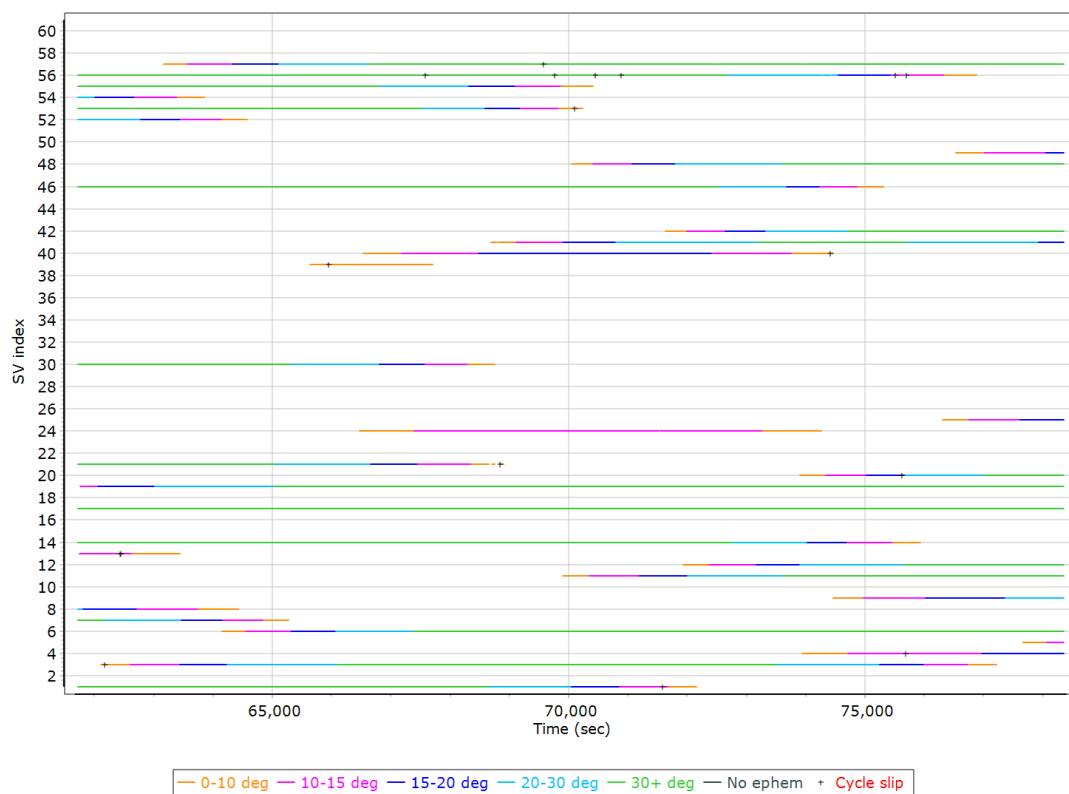
GPS L1 SNR



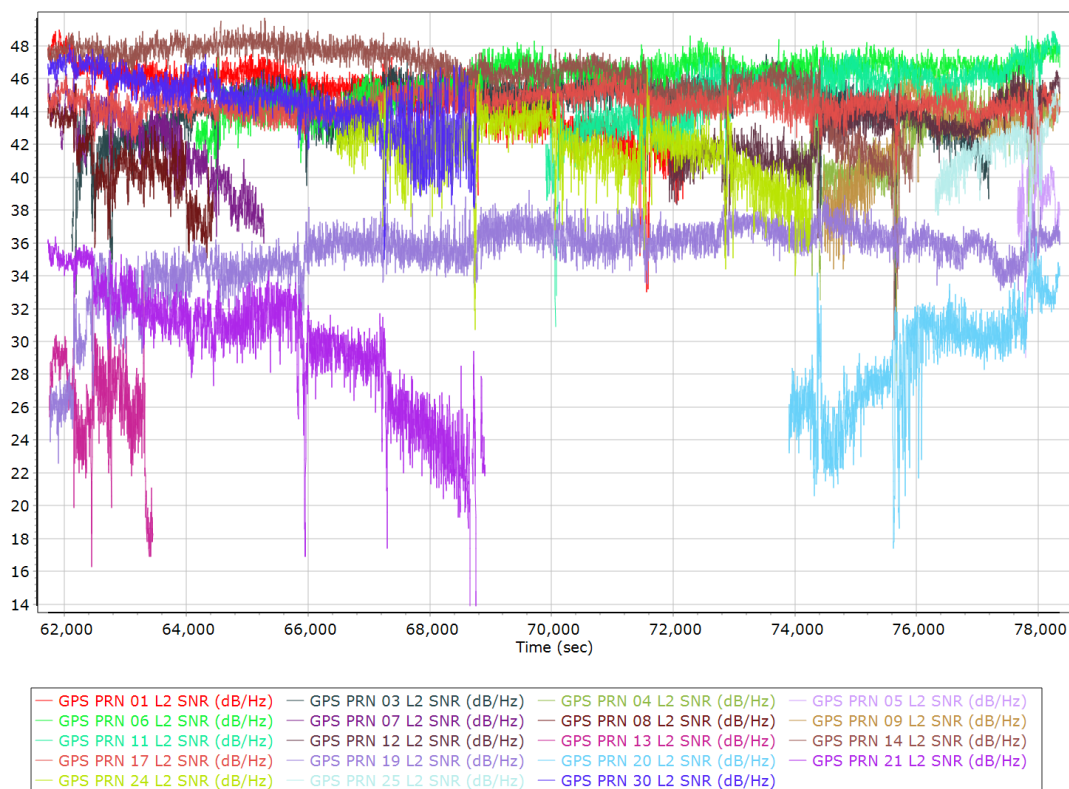
GLONASS L1 SNR



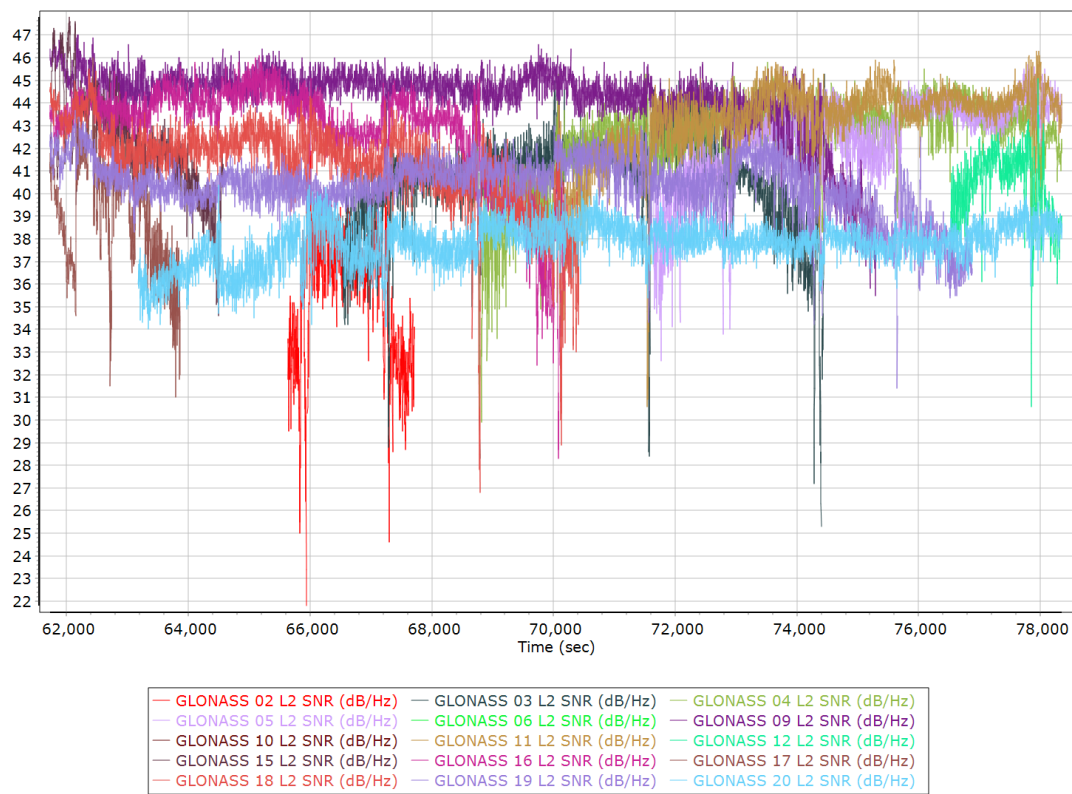
GPS/GLONASS L2 Satellite Lock/Elevation



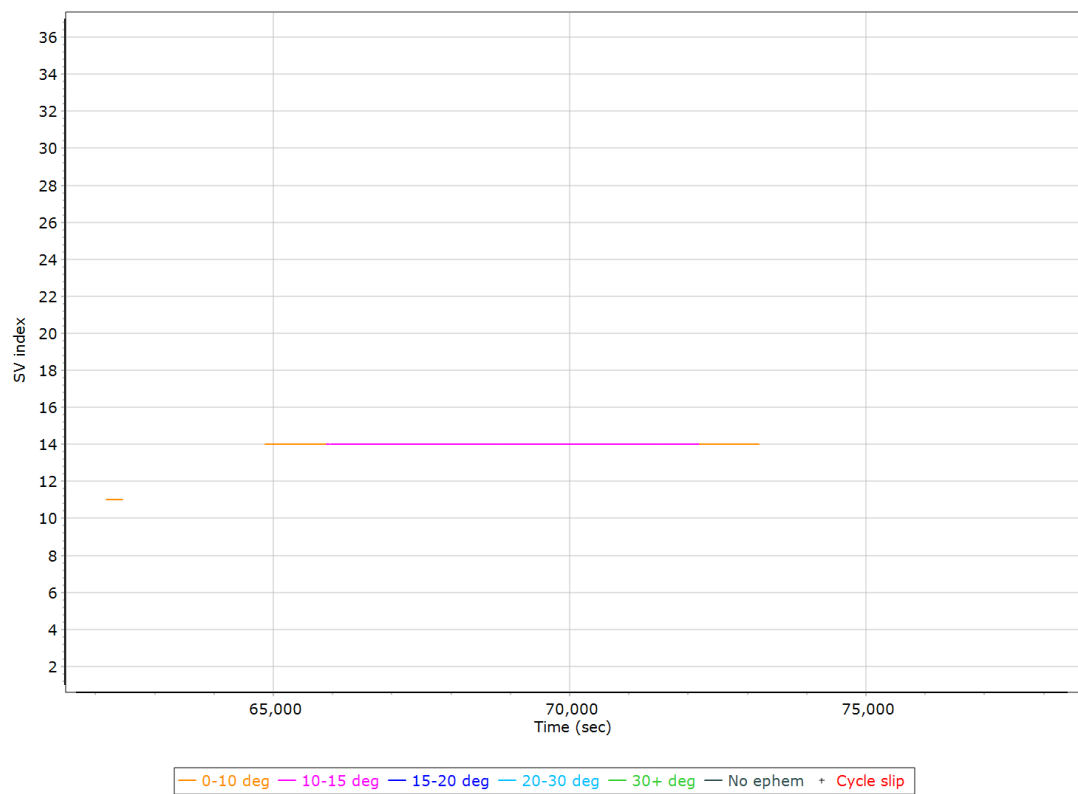
GPS L2 SNR



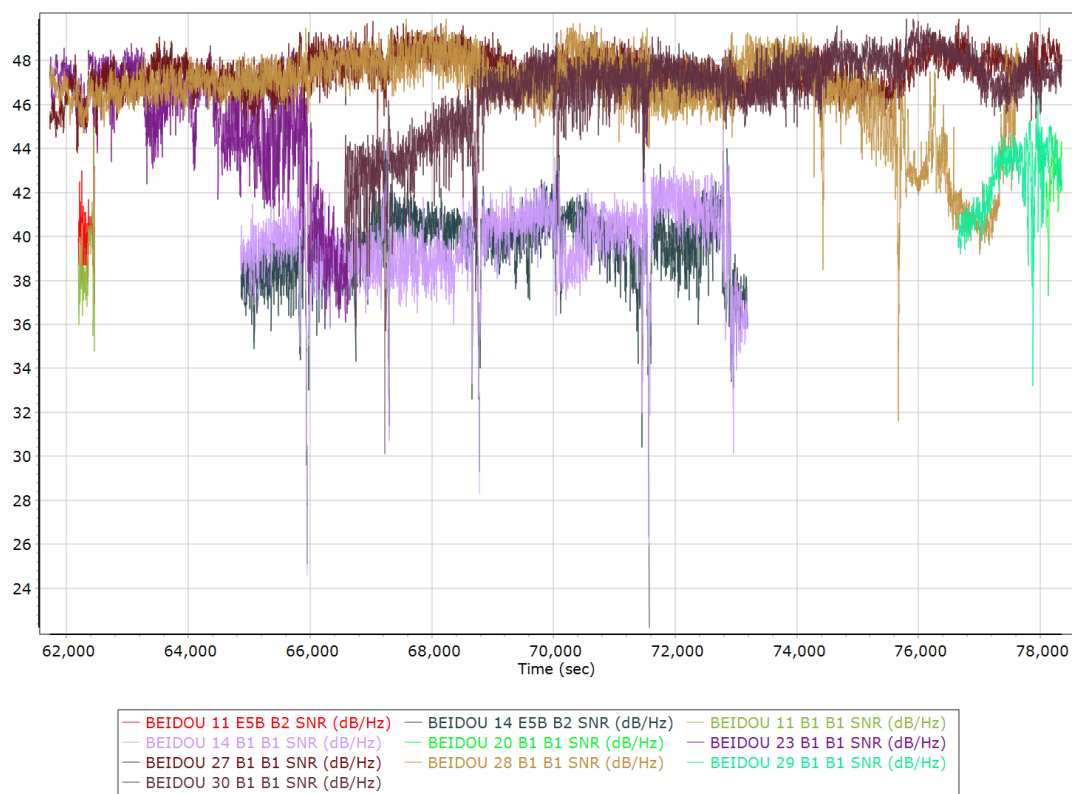
GLONASS L2 SNR



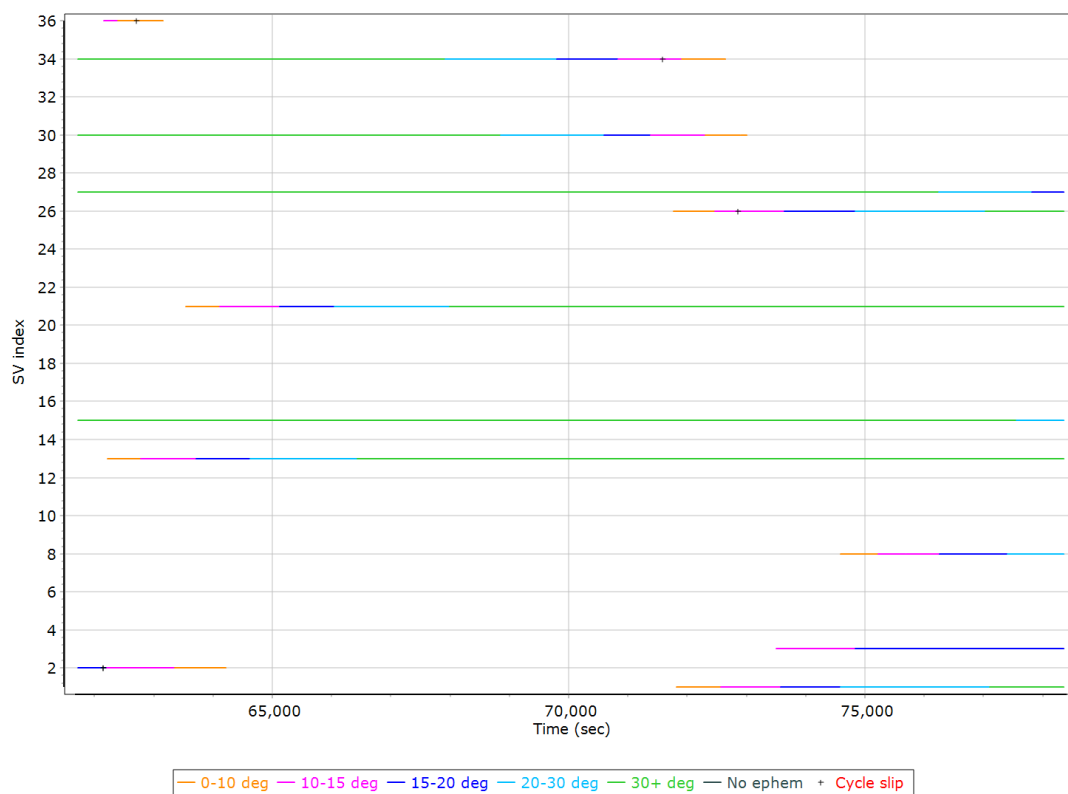
BEIDOU Satellite Lock/Elevation



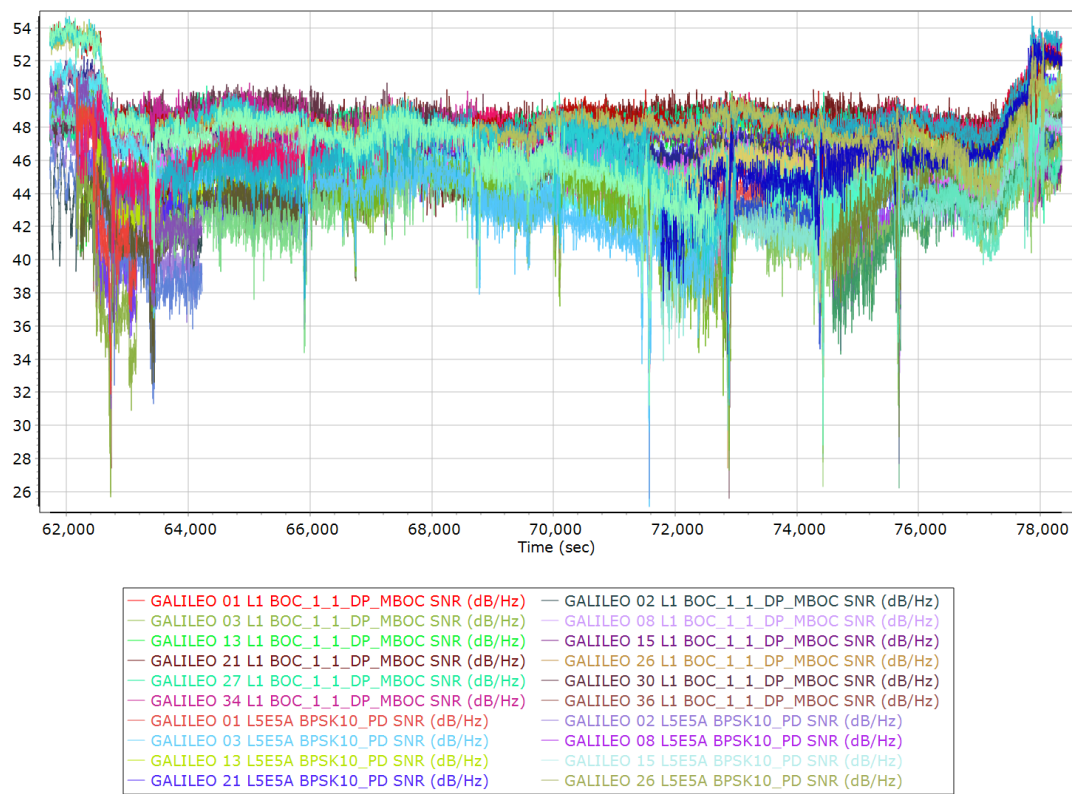
BEIDOU SNR



GALILEO Satellite Lock/Elevation

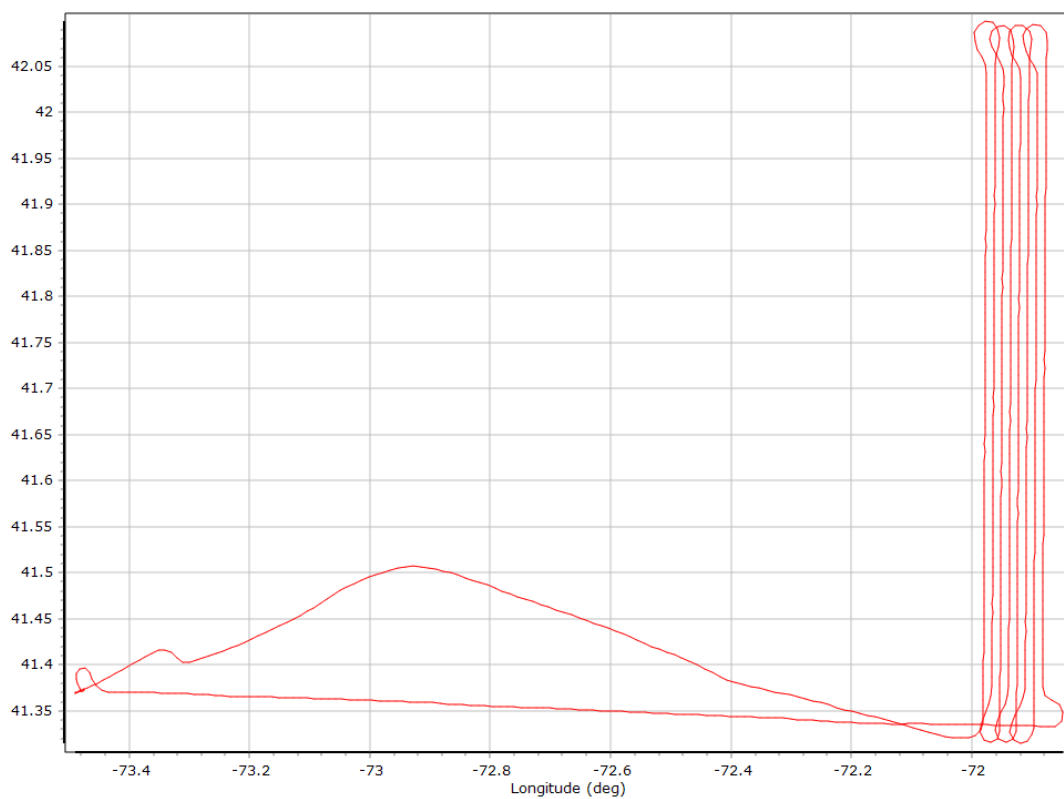


GALILEO SNR

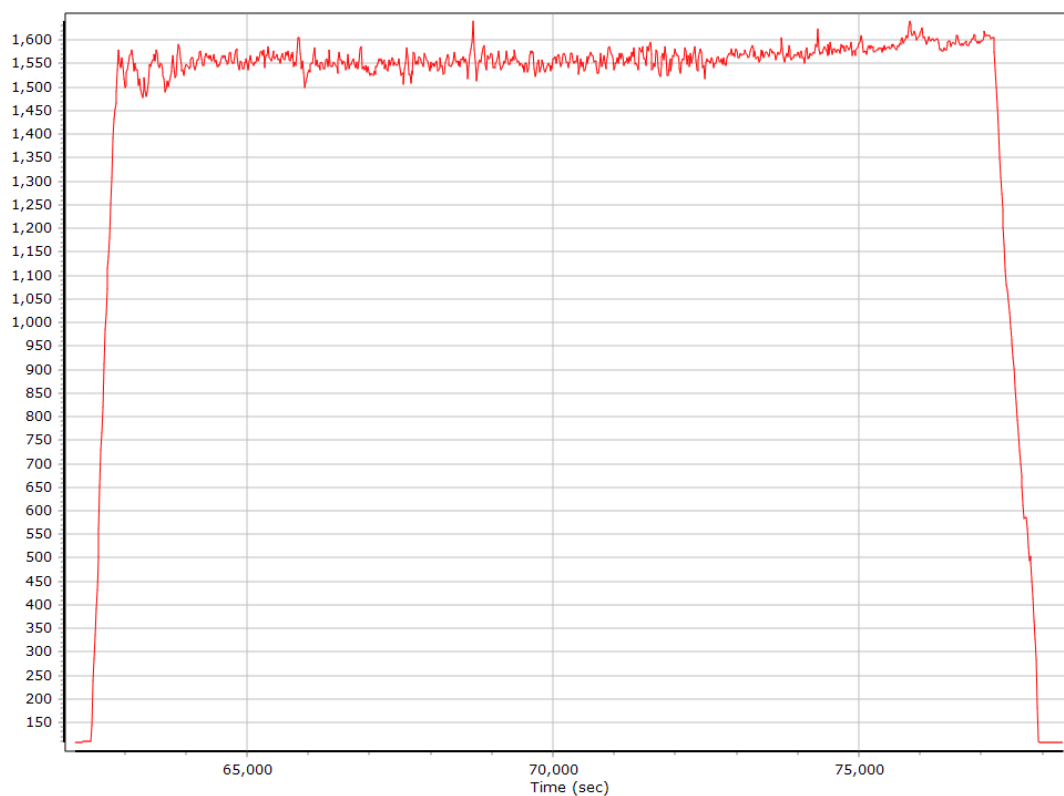


Smoothed Trajectory Information

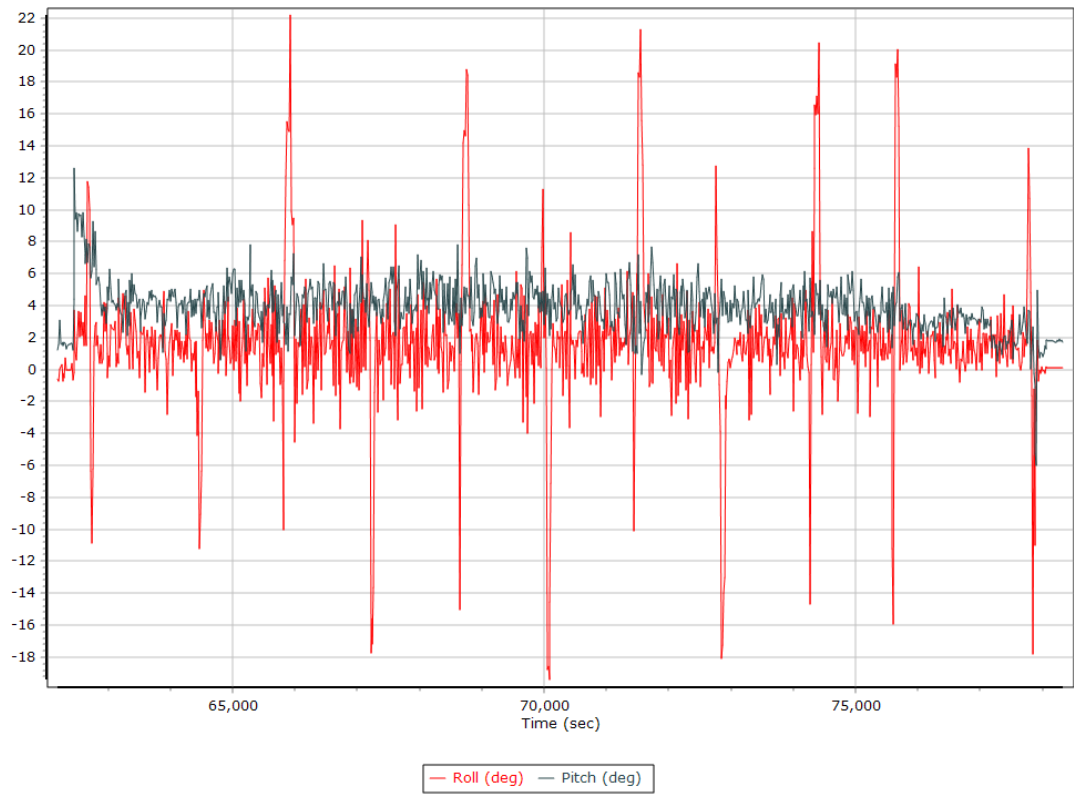
Top View



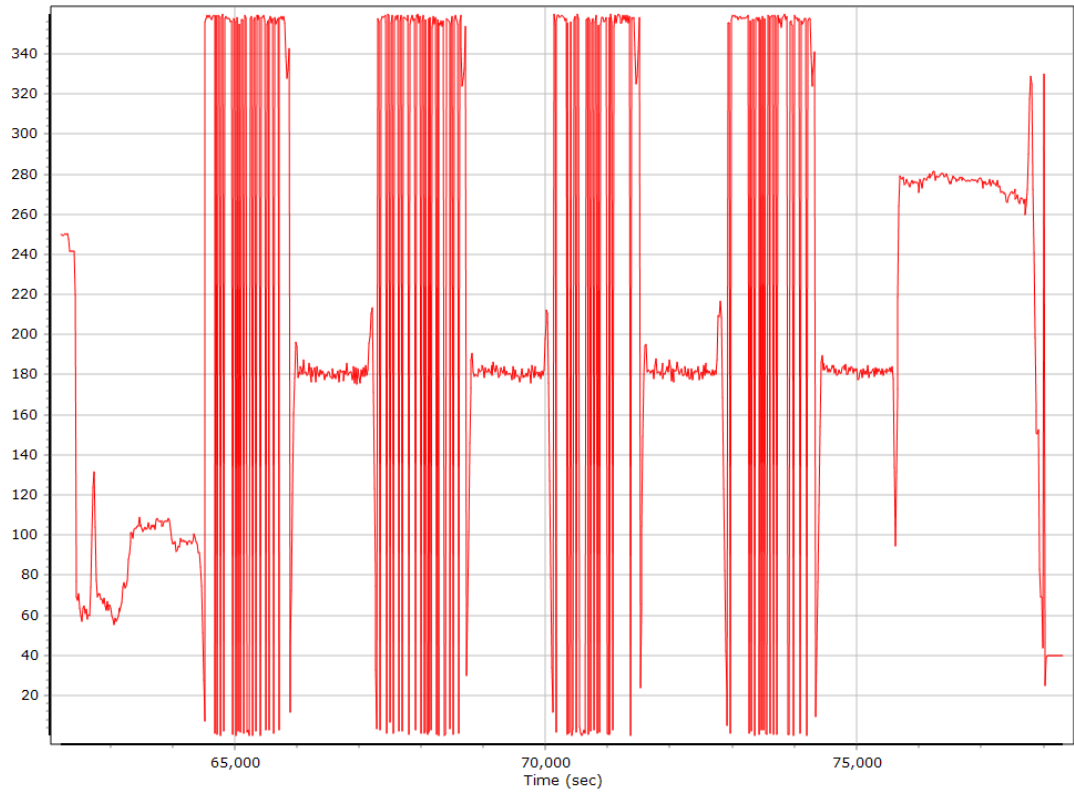
Altitude



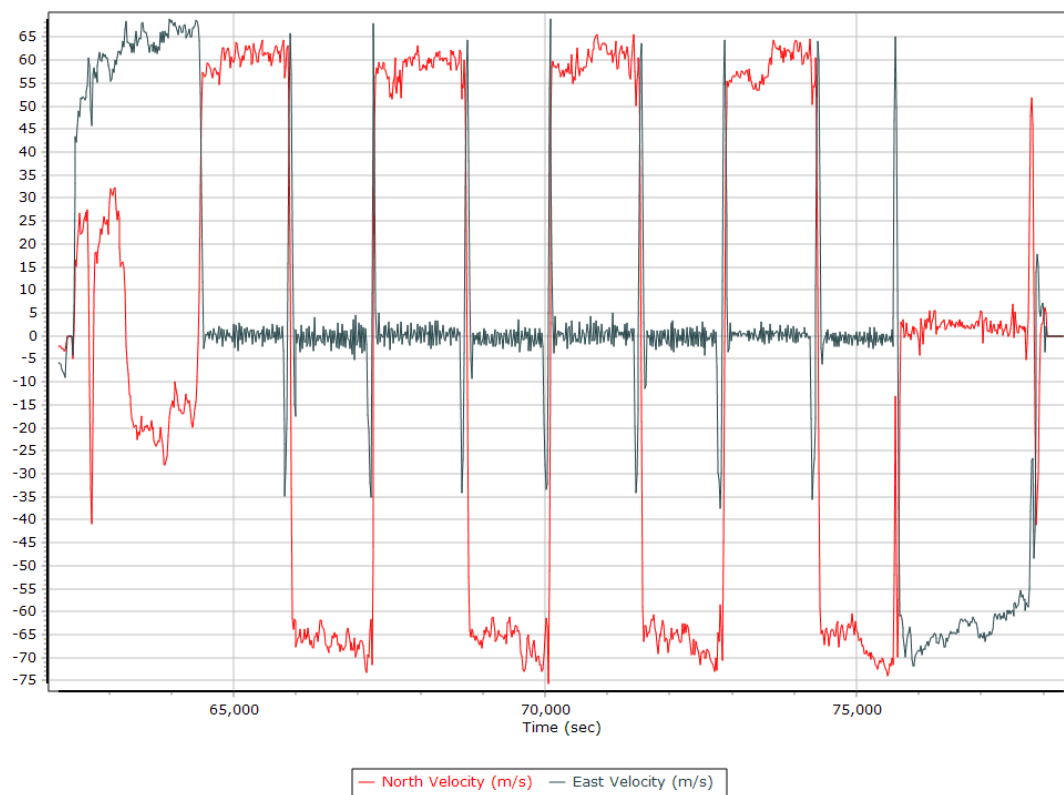
Roll/Pitch



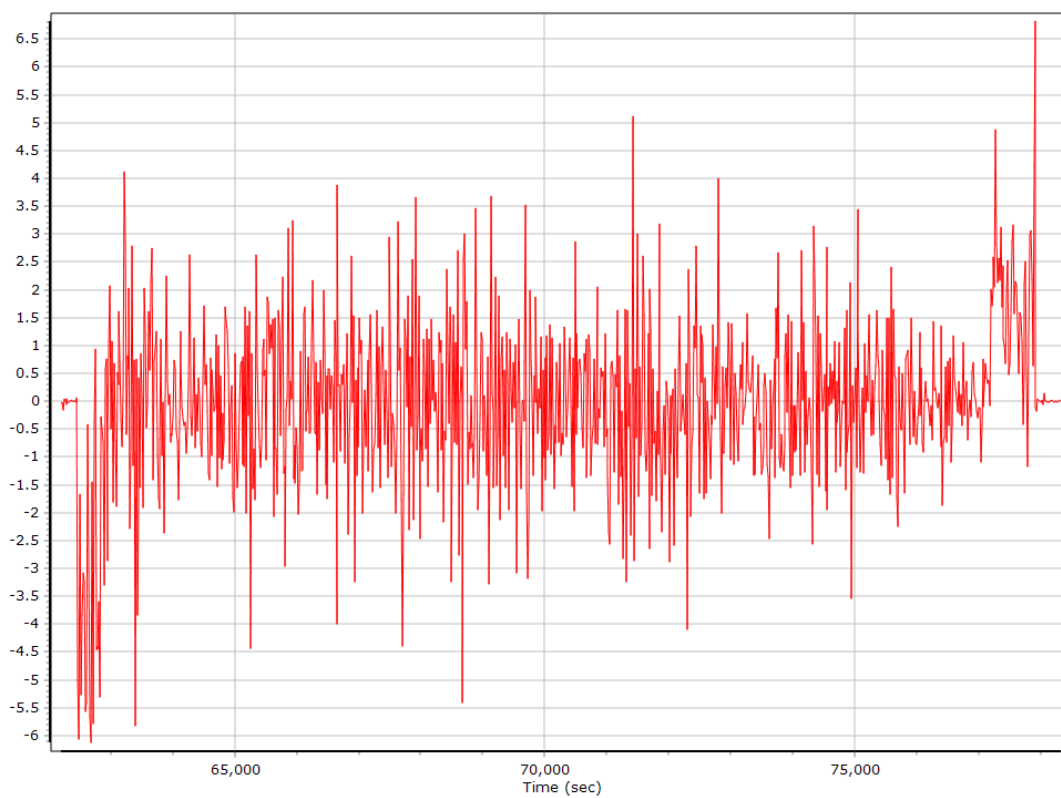
Heading



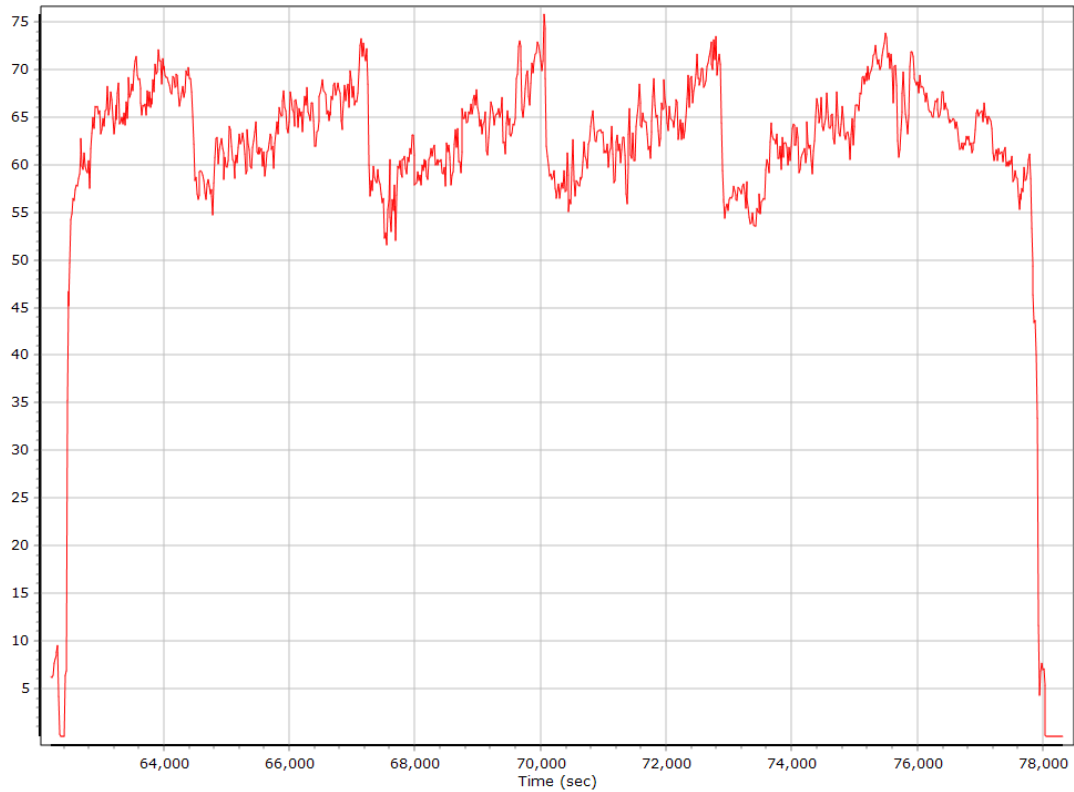
North/East Velocity



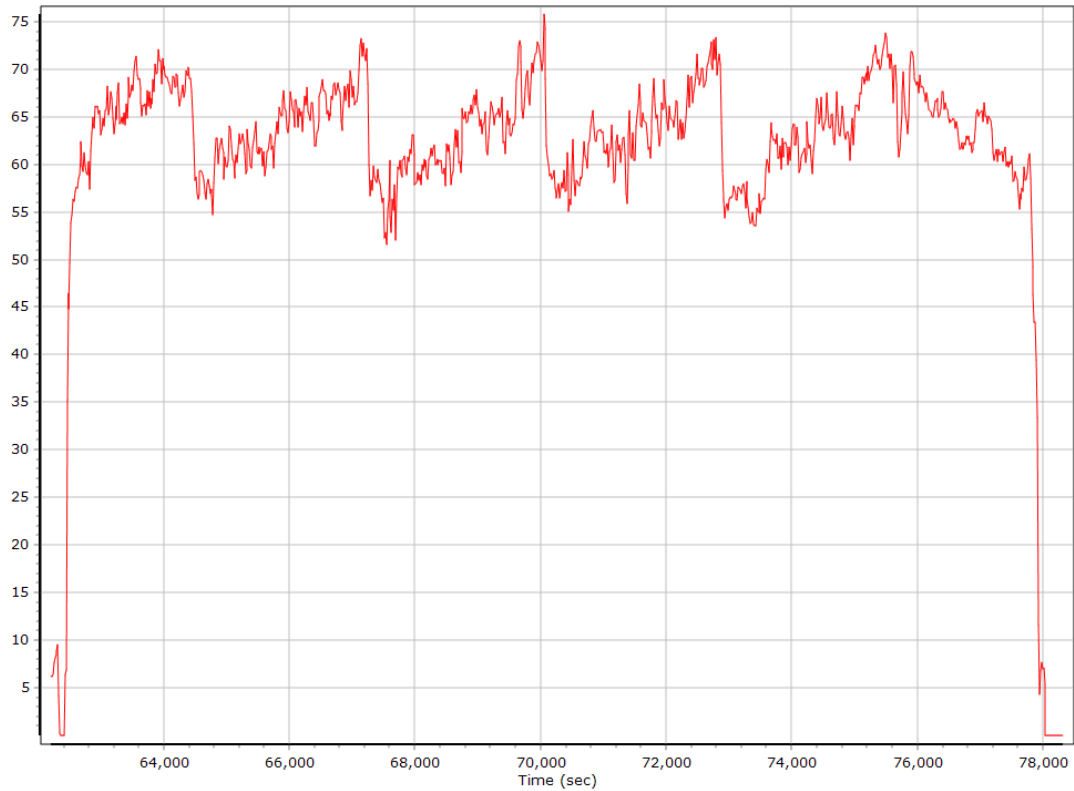
Down Velocity



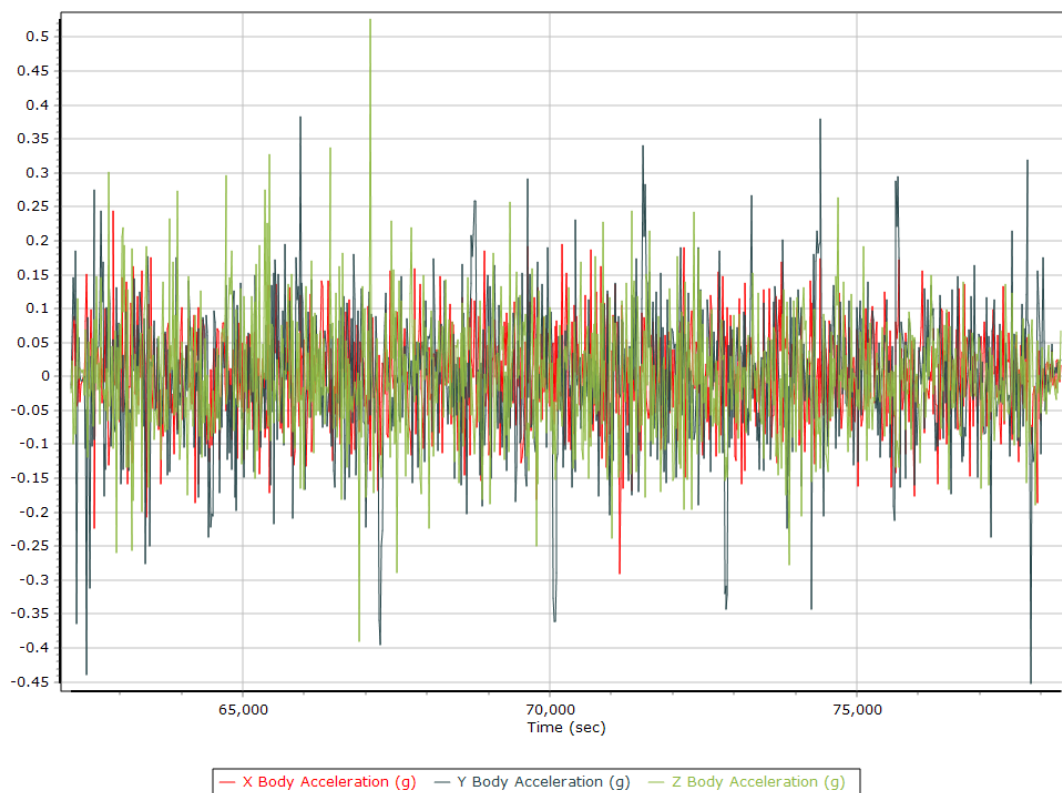
Total Speed



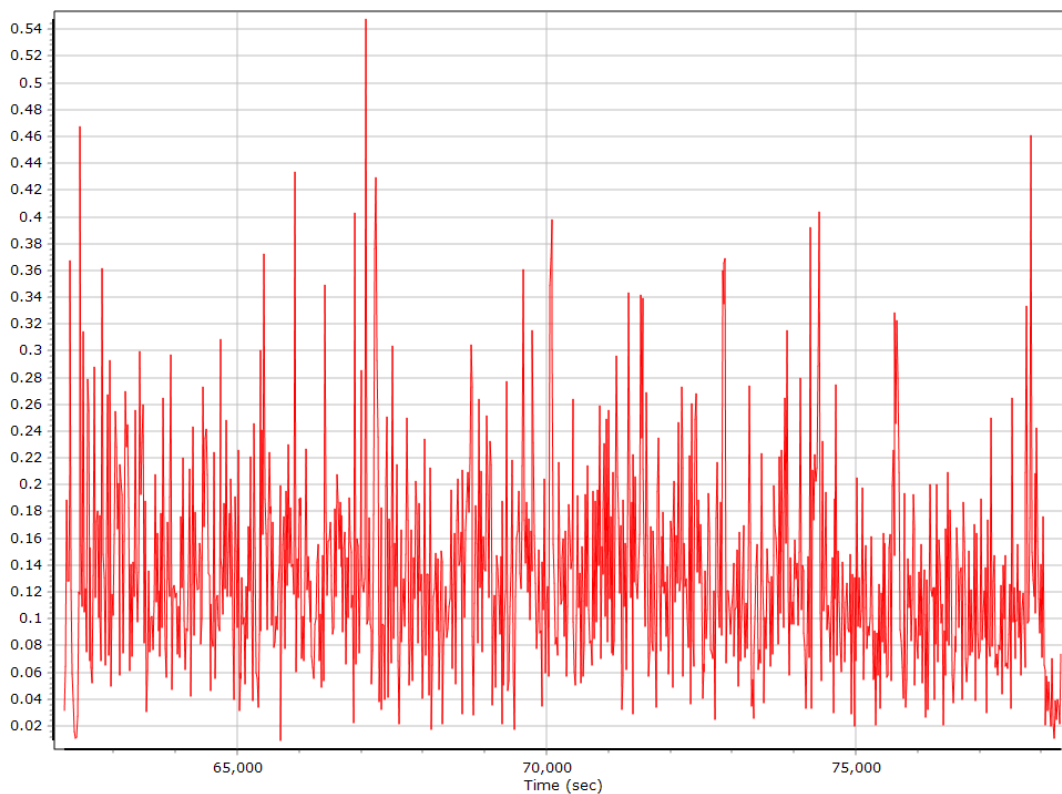
Ground Speed



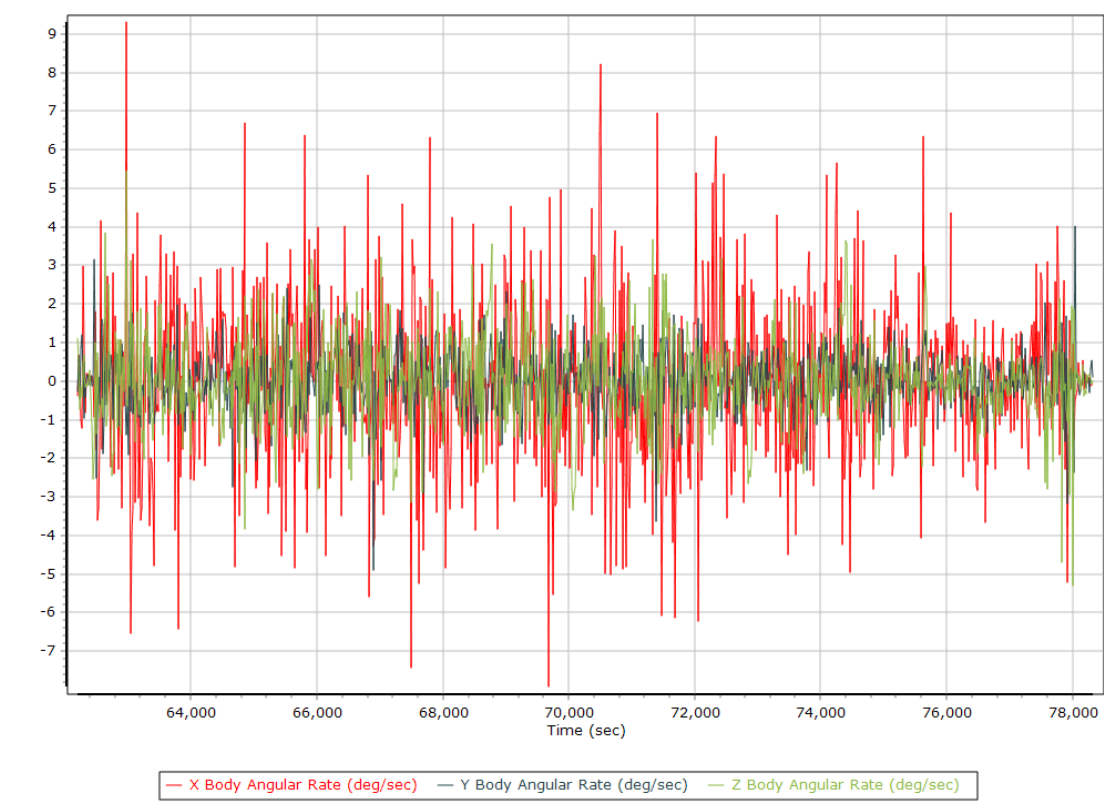
Body Acceleration



Total Body Acceleration

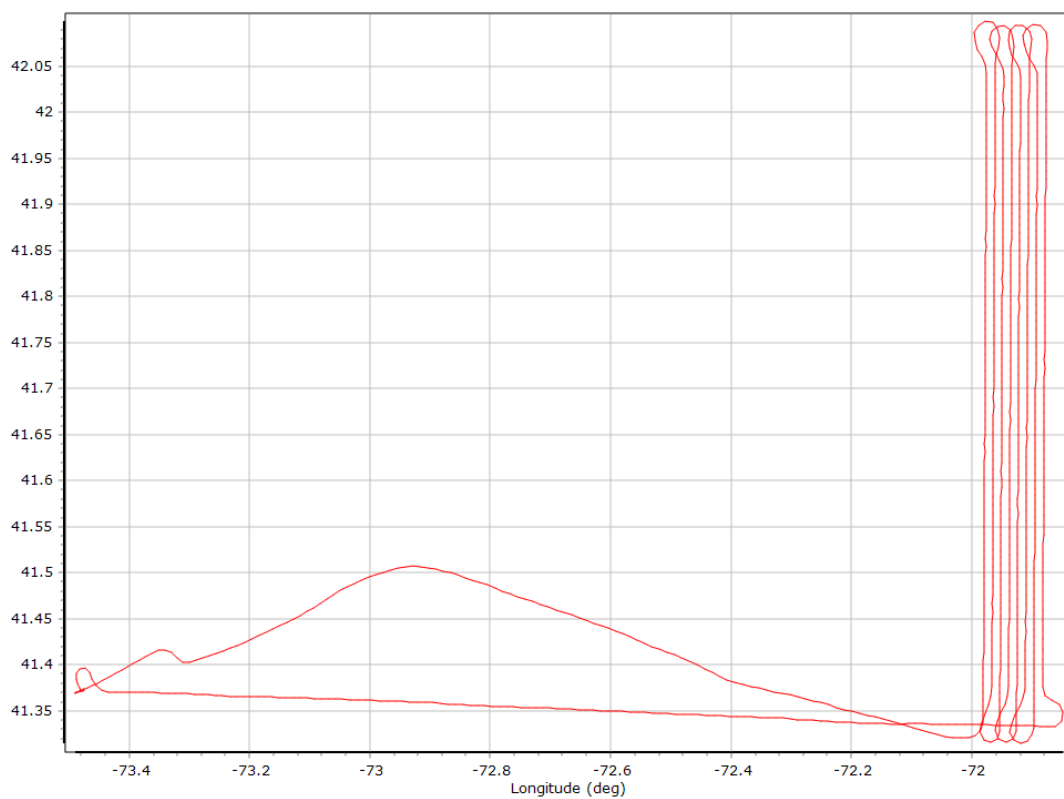


Body Angular Rate

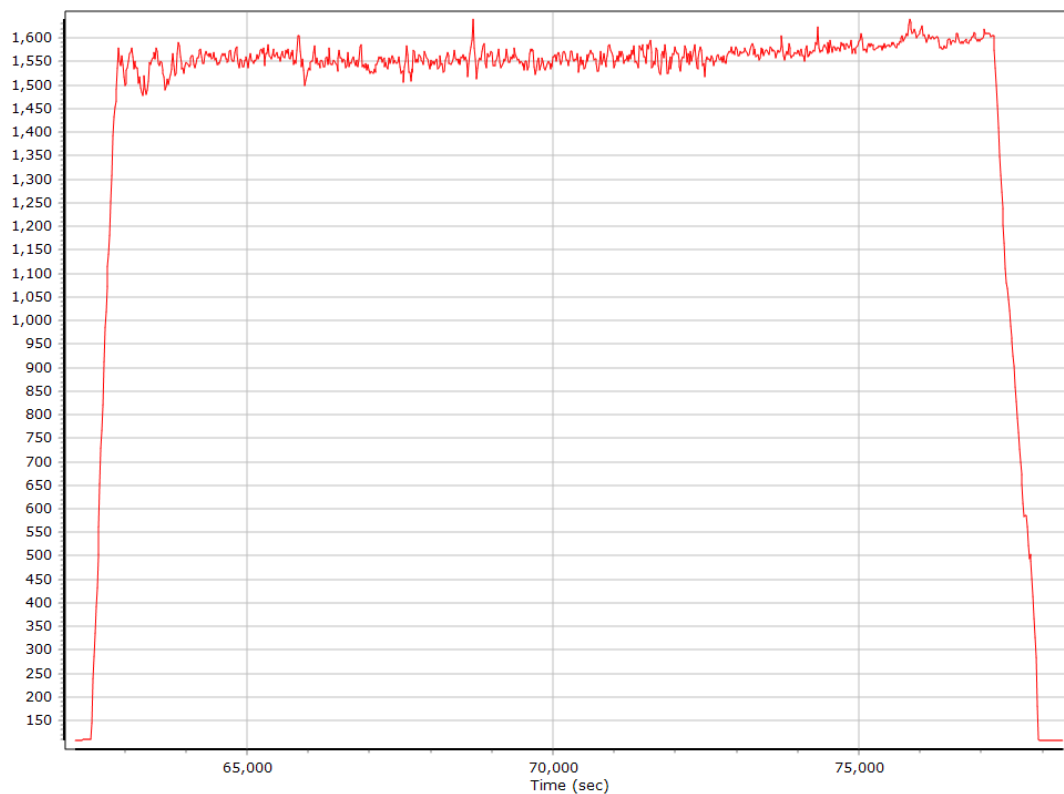


Forward Processed Trajectory Information

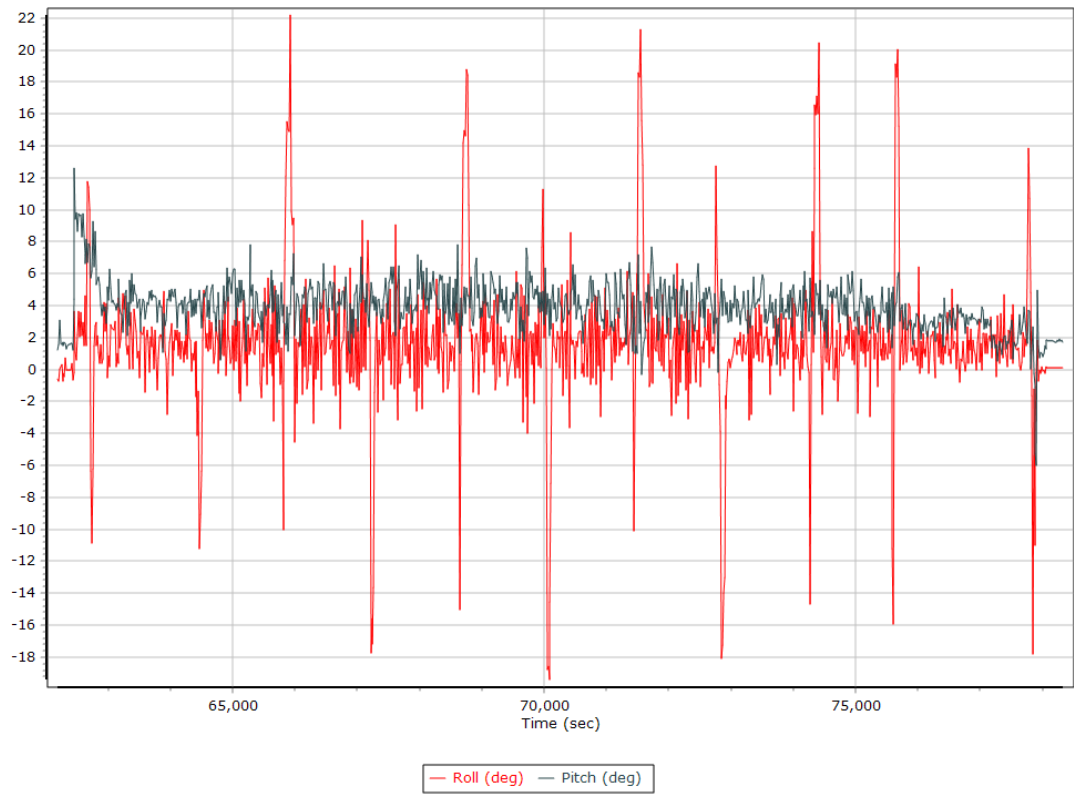
Top View



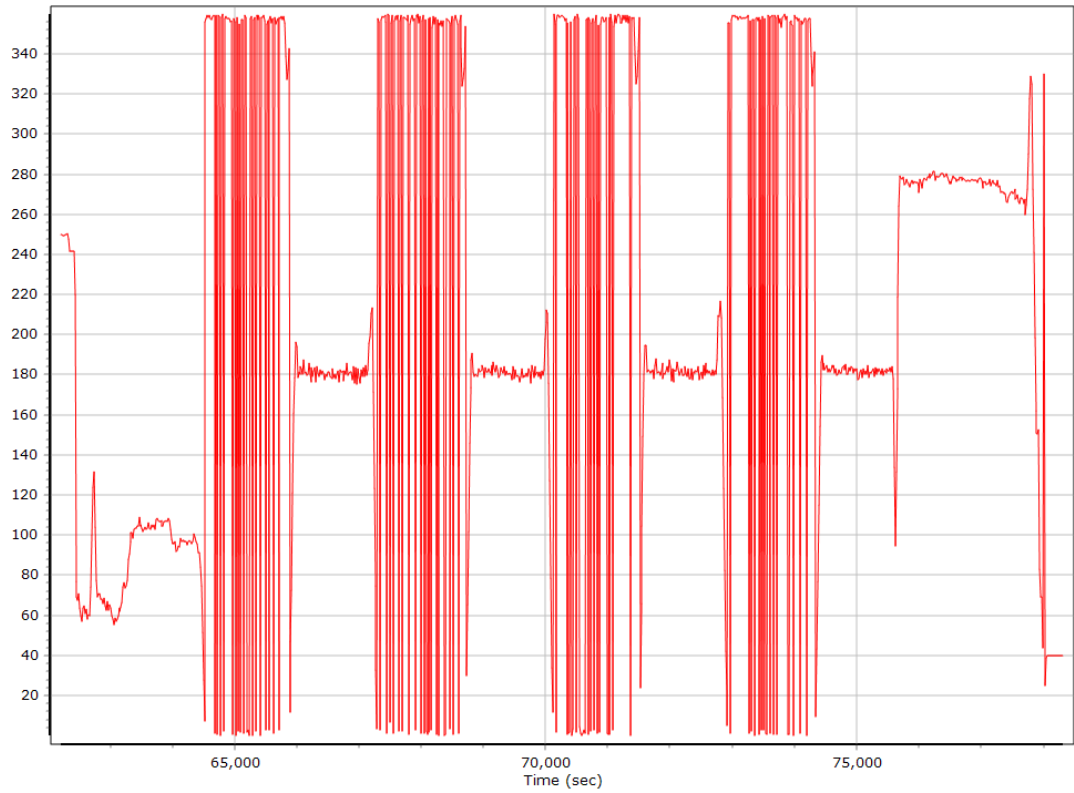
Altitude



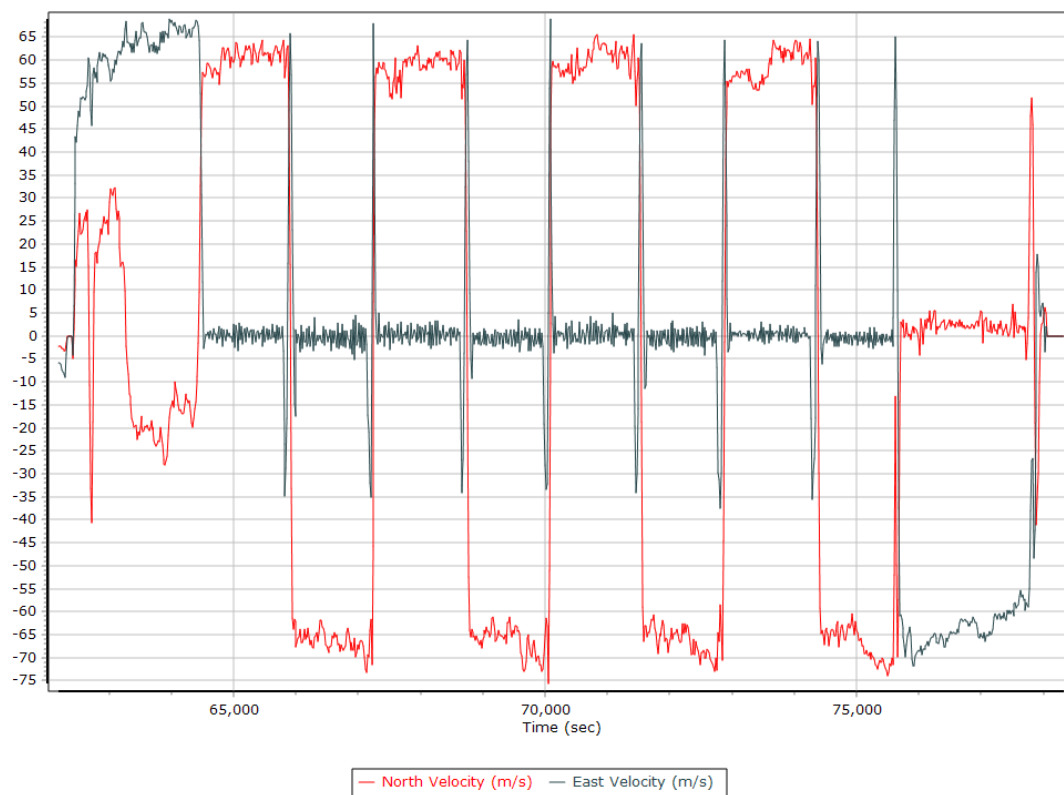
Roll/Pitch



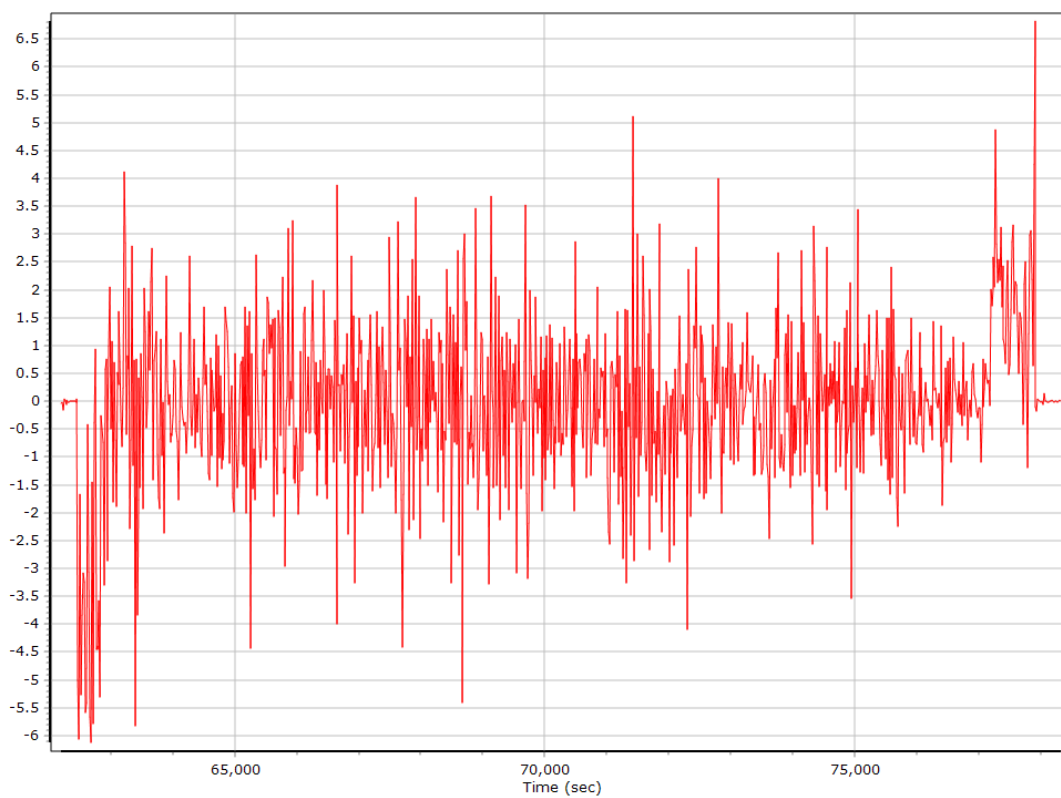
Heading



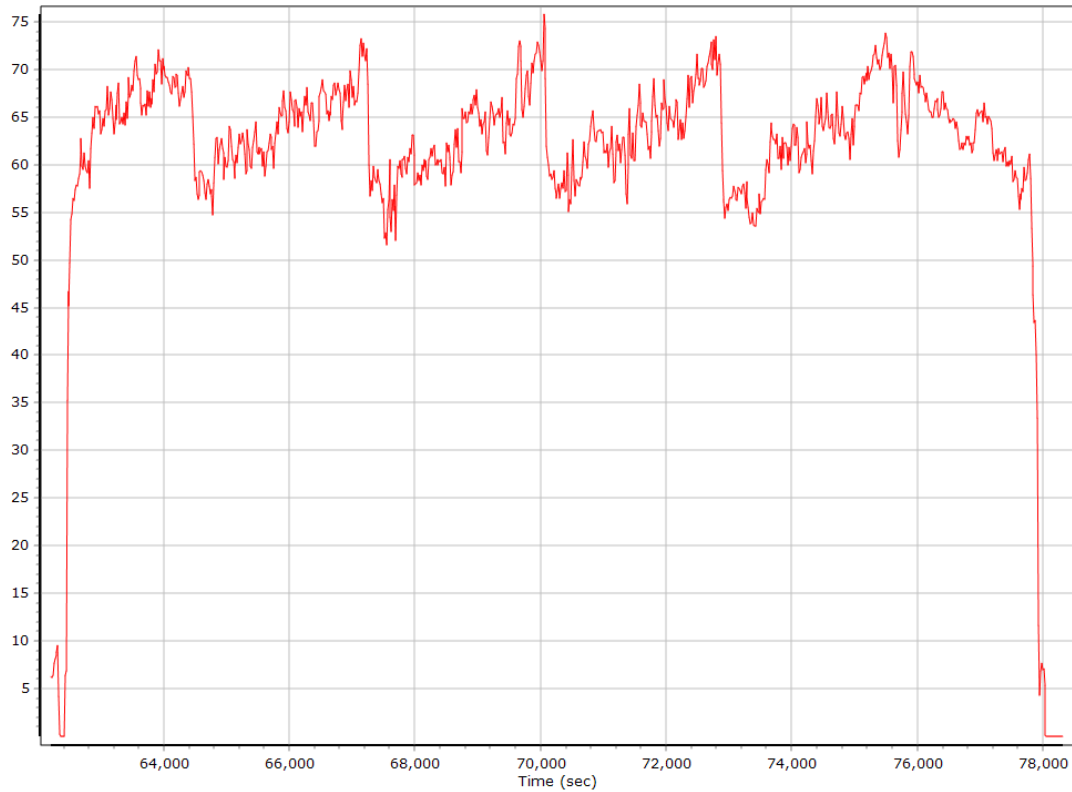
North/East Velocity



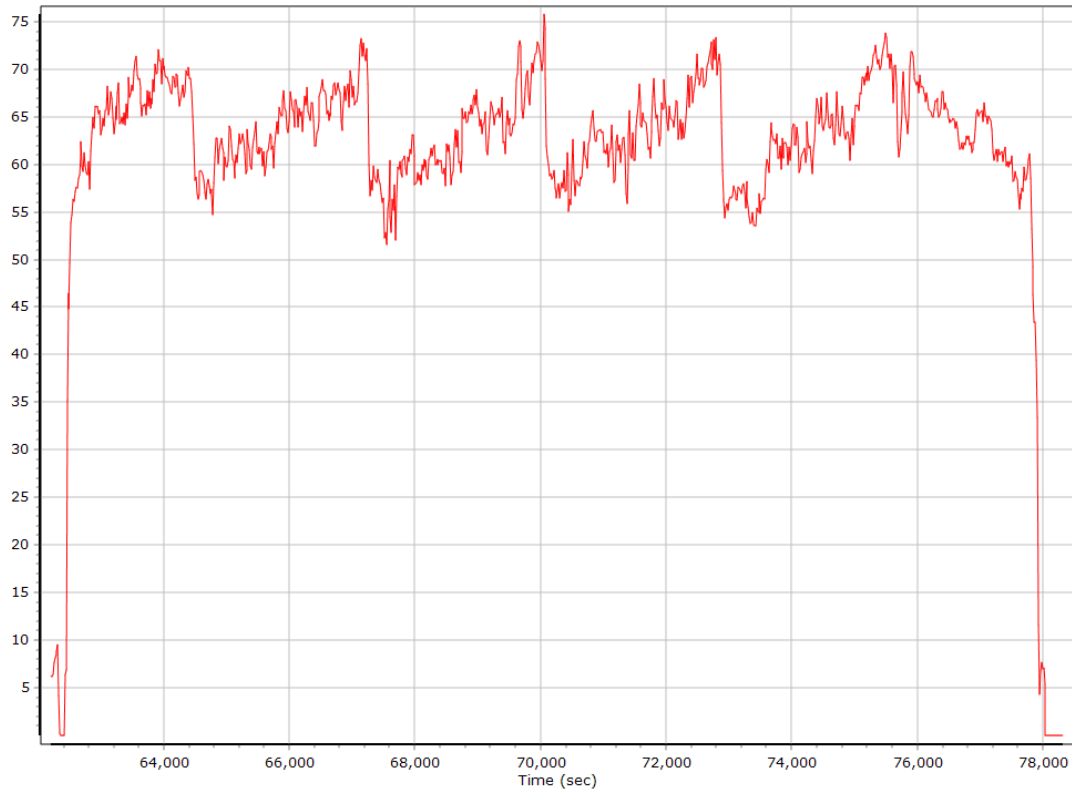
Down Velocity



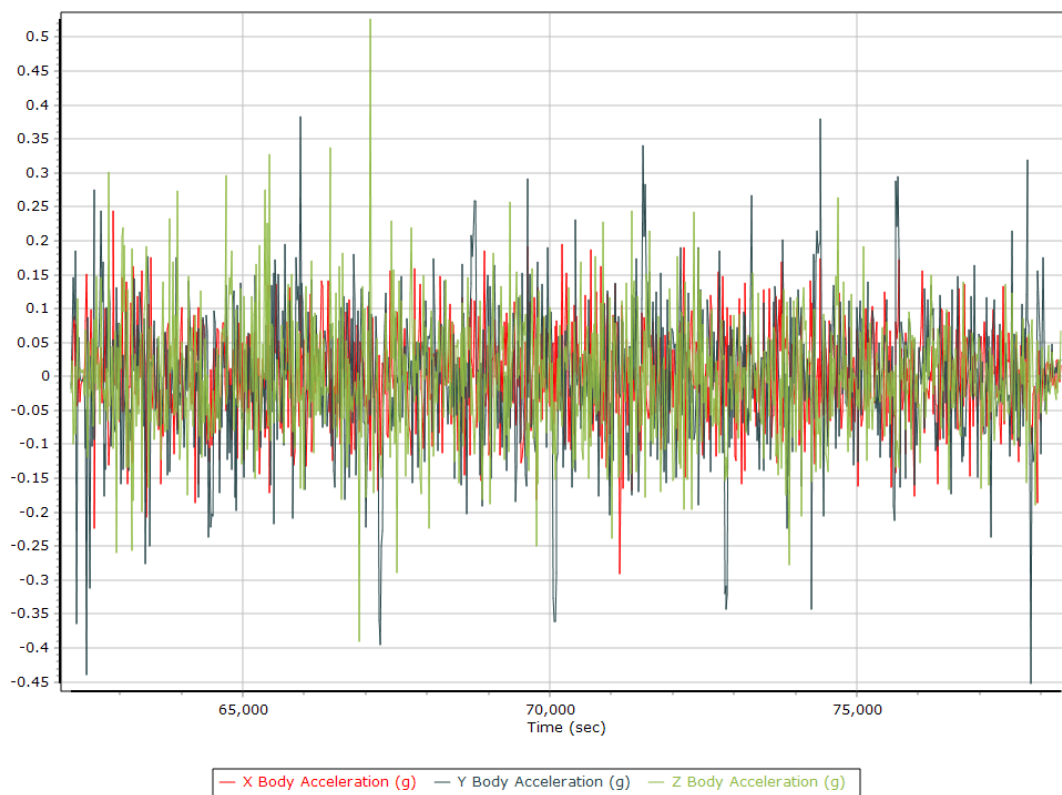
Total Speed



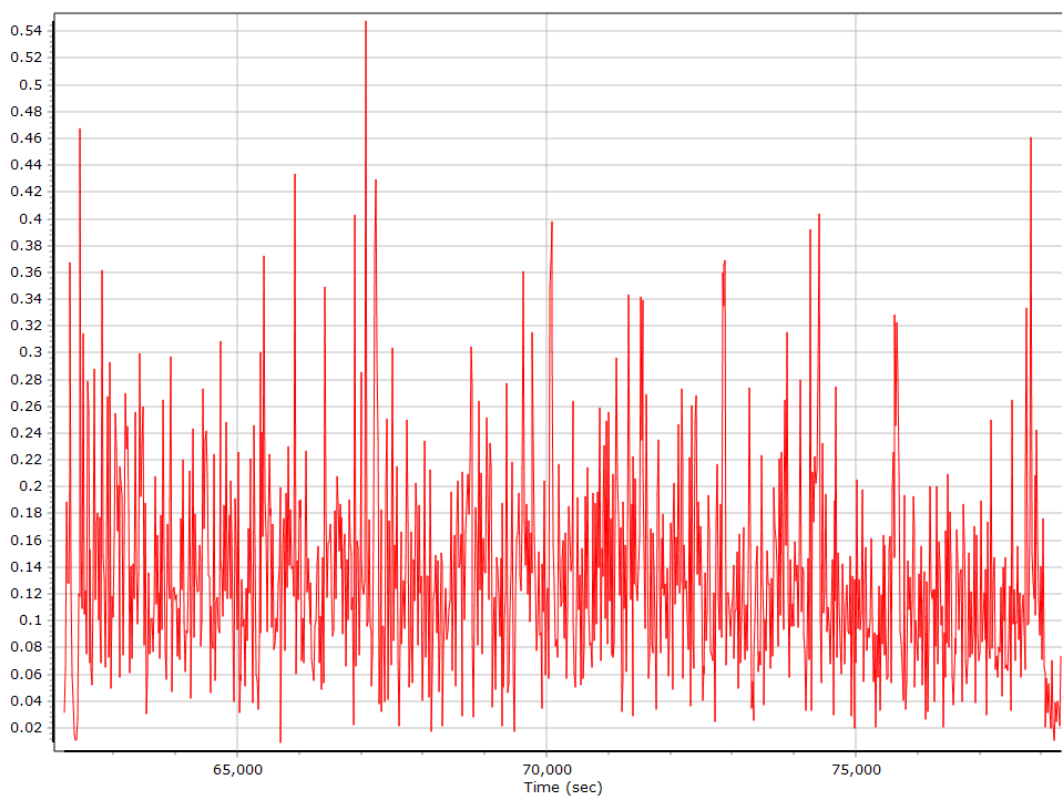
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

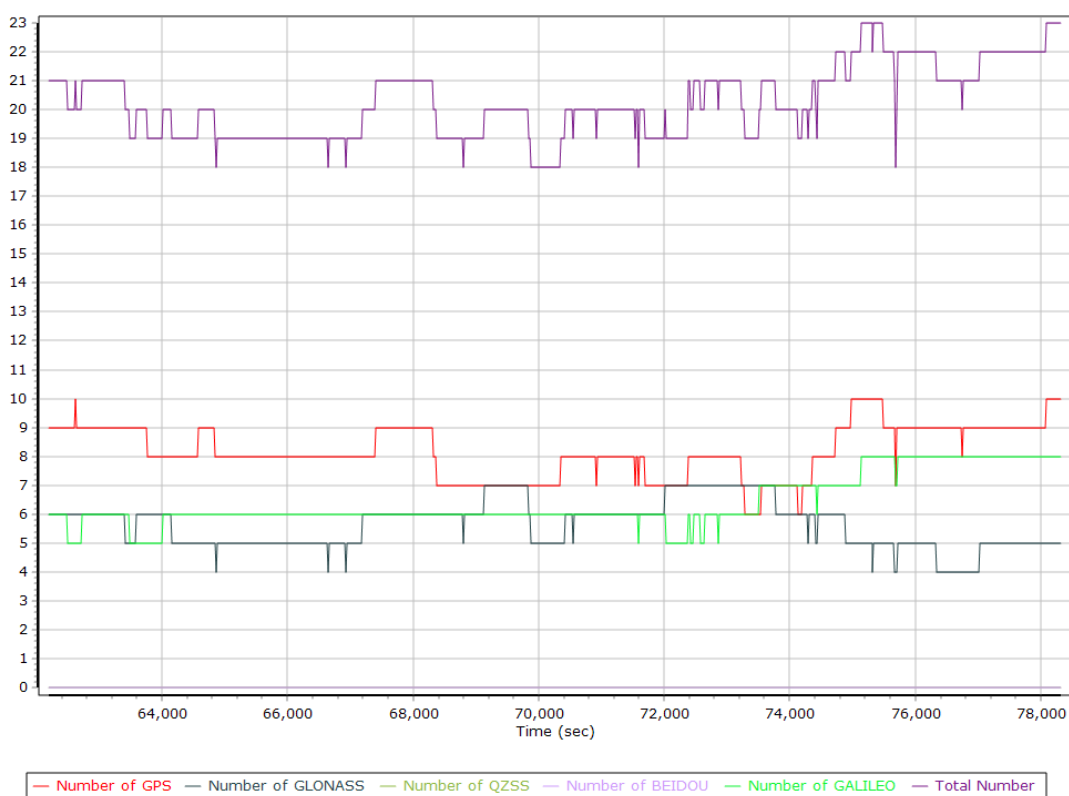


GNSS QC

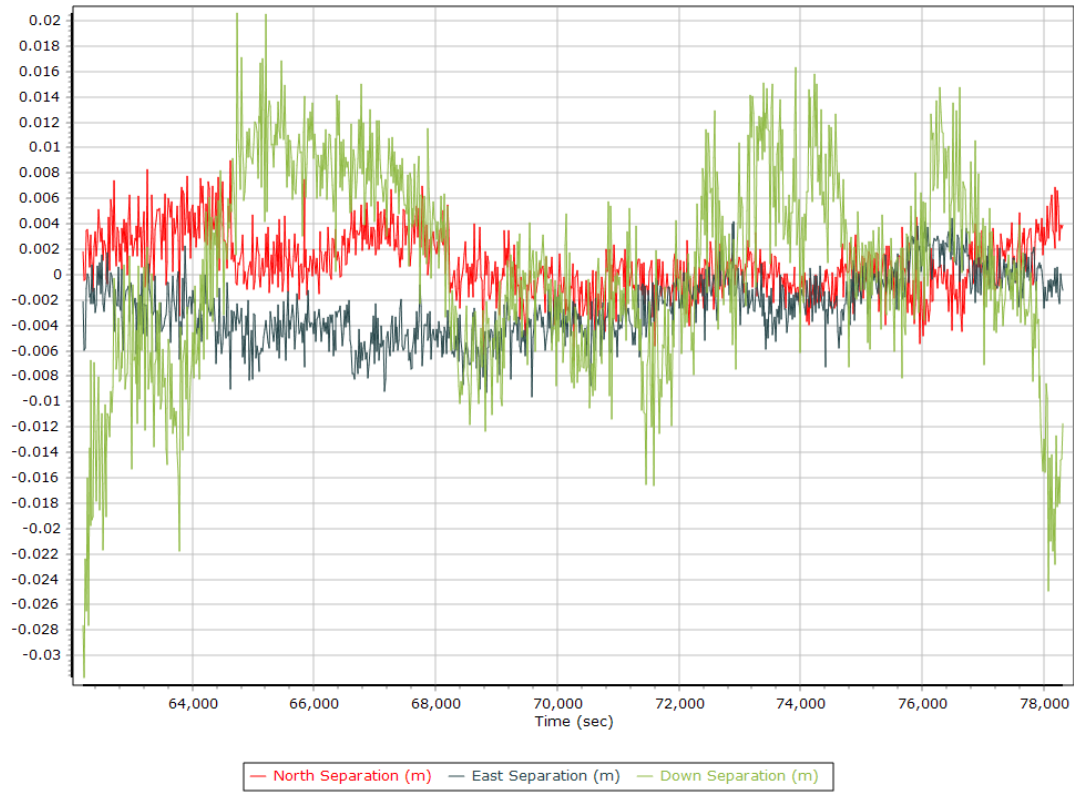
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	8
Number of GLONASS SV	4	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	4	8	6
Total number of SV	18	23	20
PDOP	1.02	1.48	1.16
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	16606.00	0.00	0.00
Percentage	100.00	0.00	0.00

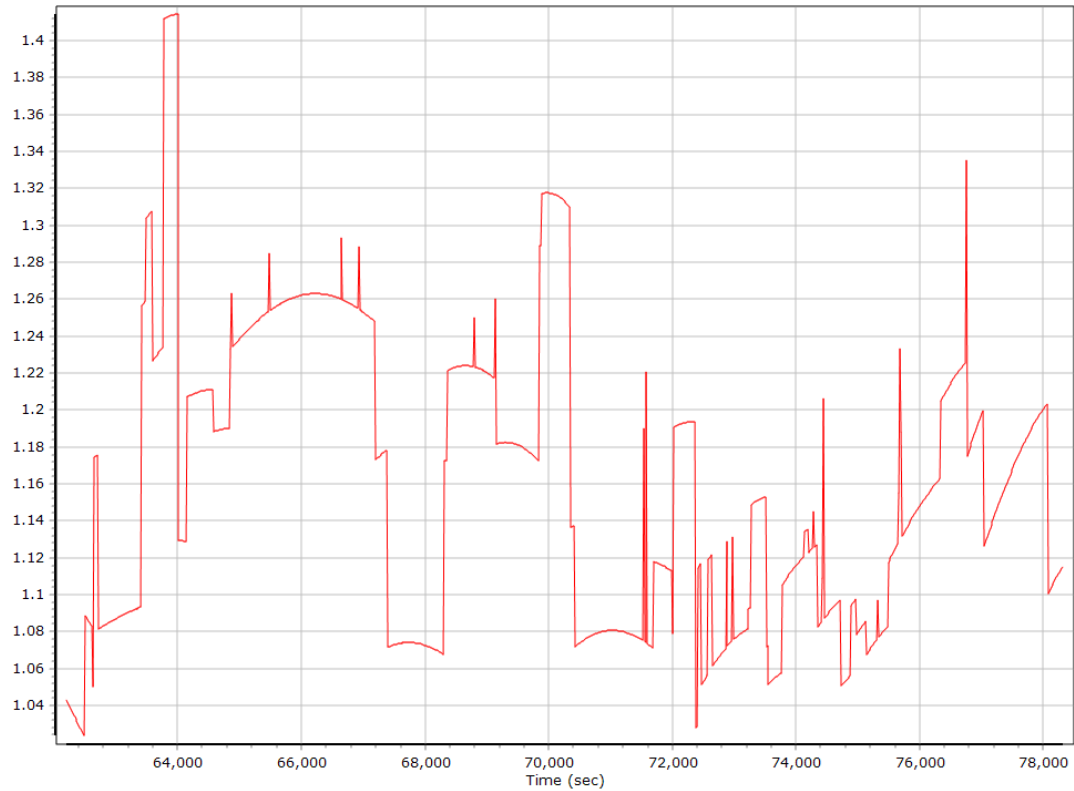
Num SVs in solution



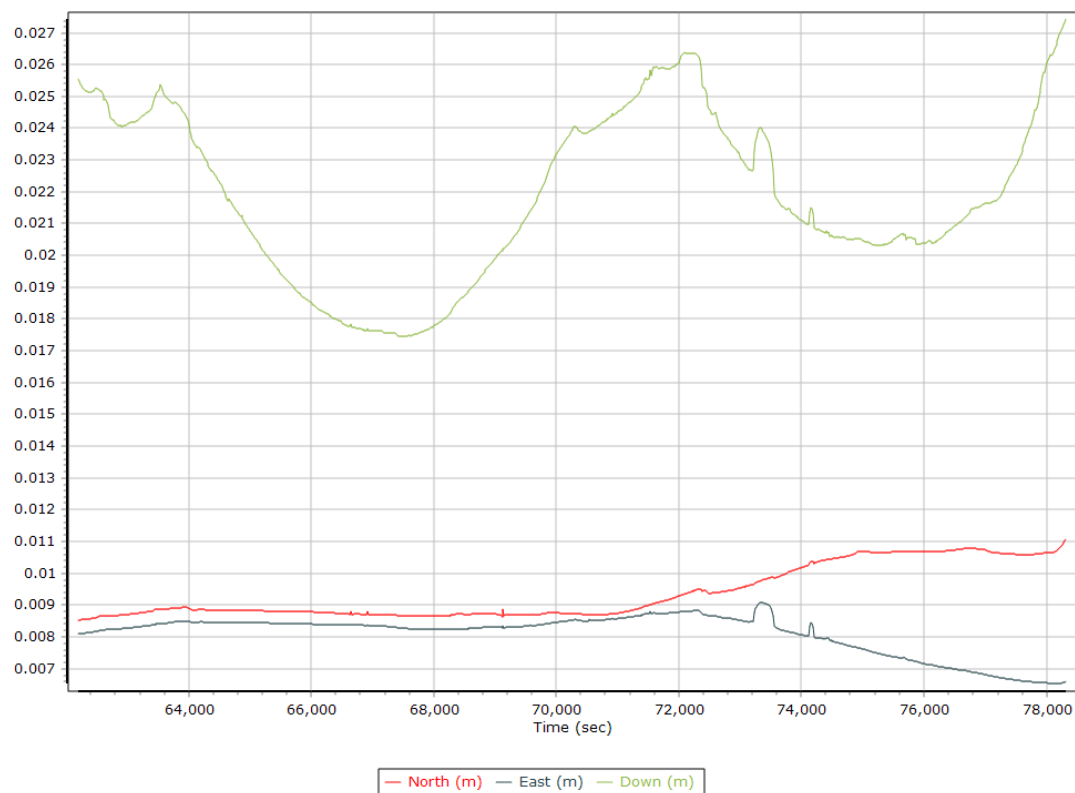
Forward/Reverse Separation



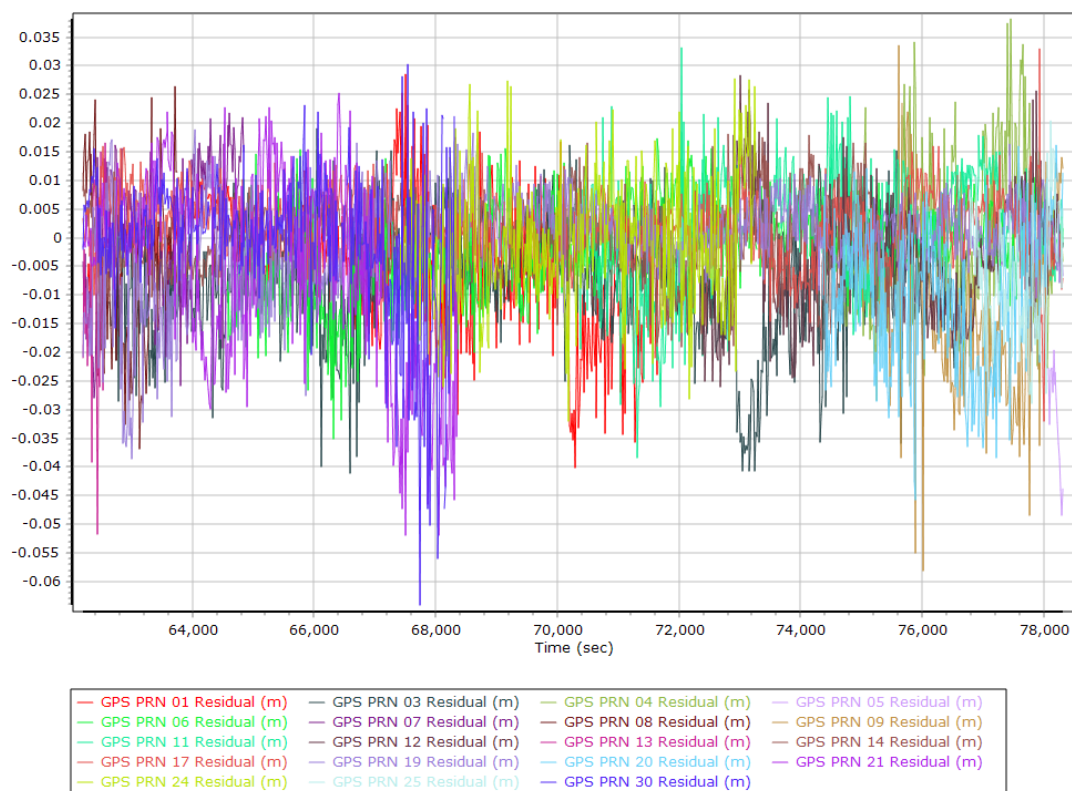
PDOP



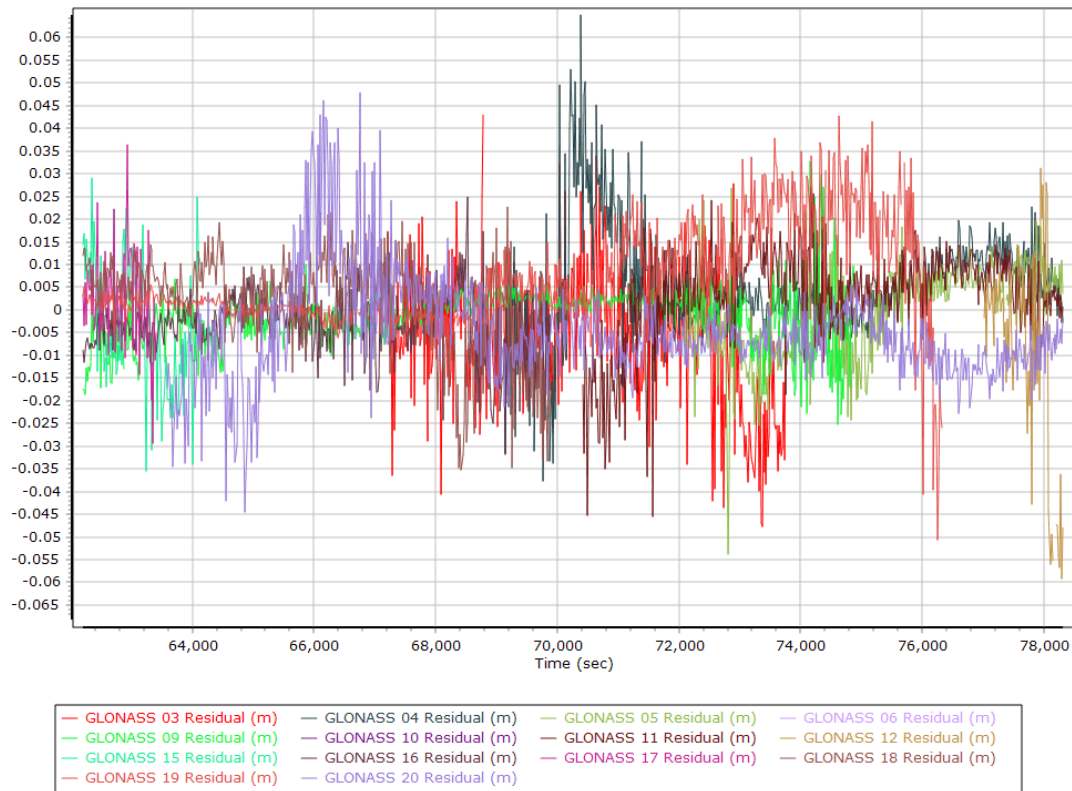
Estimated Position Accuracy



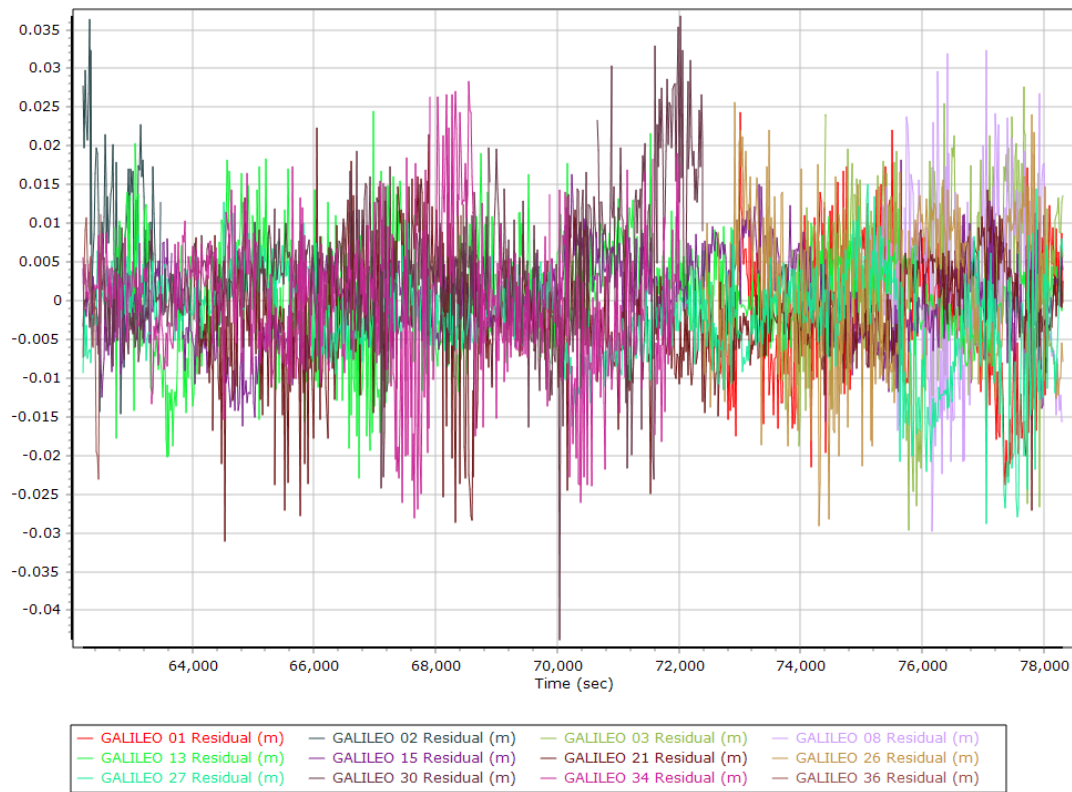
GPS Residuals



GLONASS Residuals



GALILEO Residuals



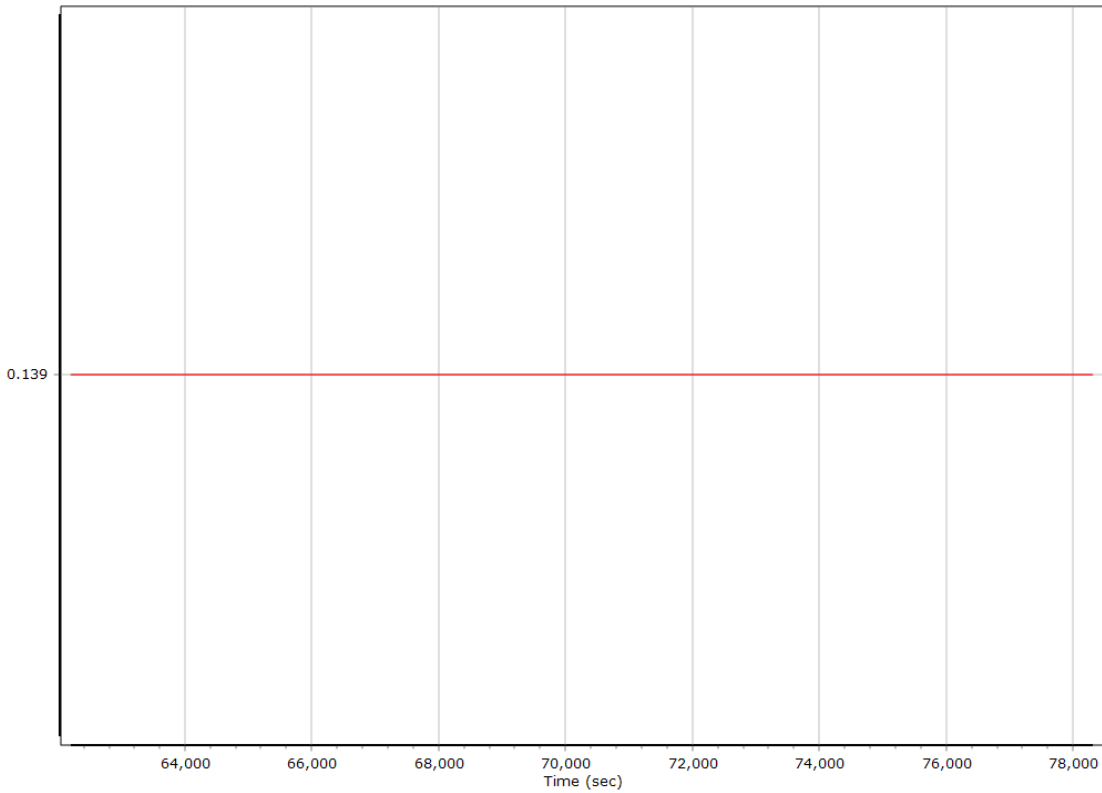
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	61710.000 (04/09/2023 17:08:30)		
Processing end time	78332.000 (04/09/2023 21:45:32)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

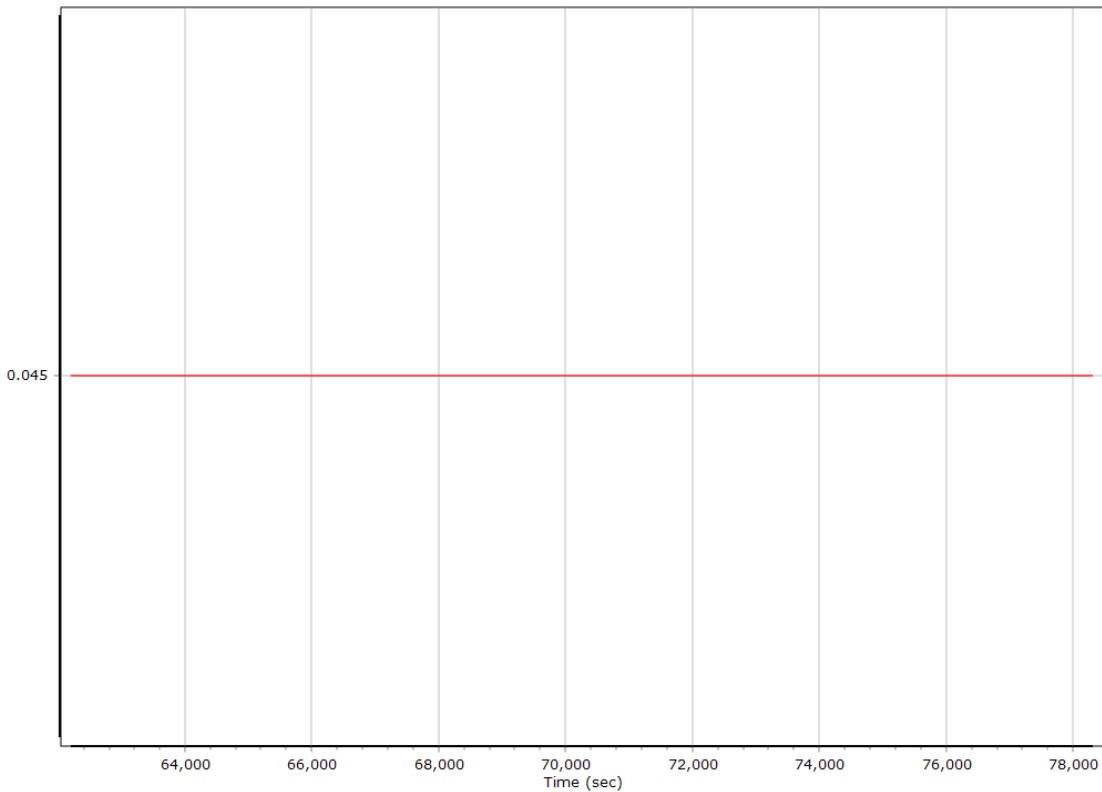
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

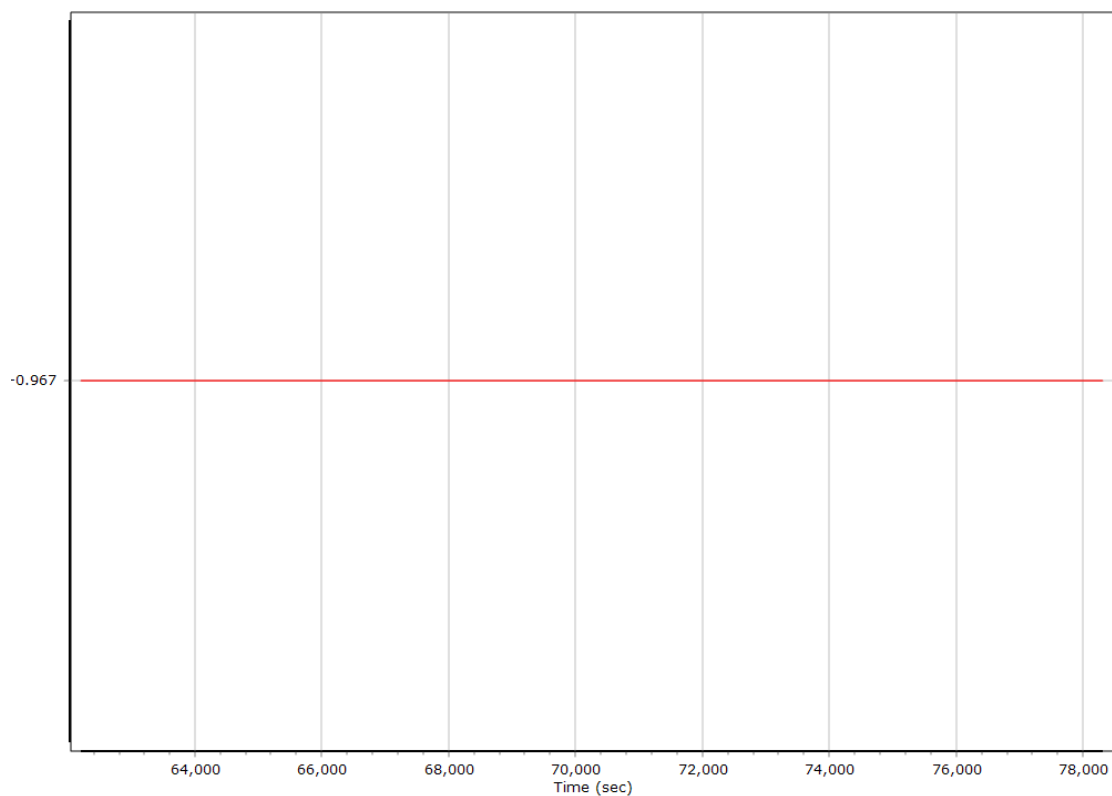
X Reference-Primary GNSS Lever Arm (m)



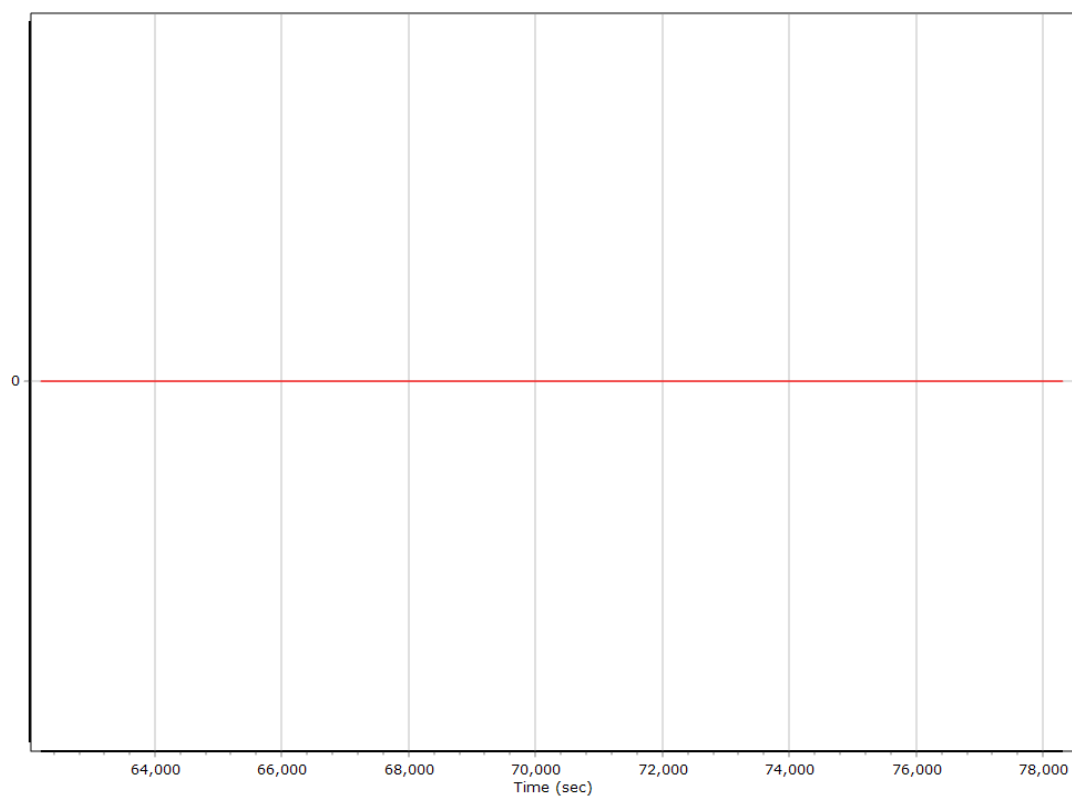
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



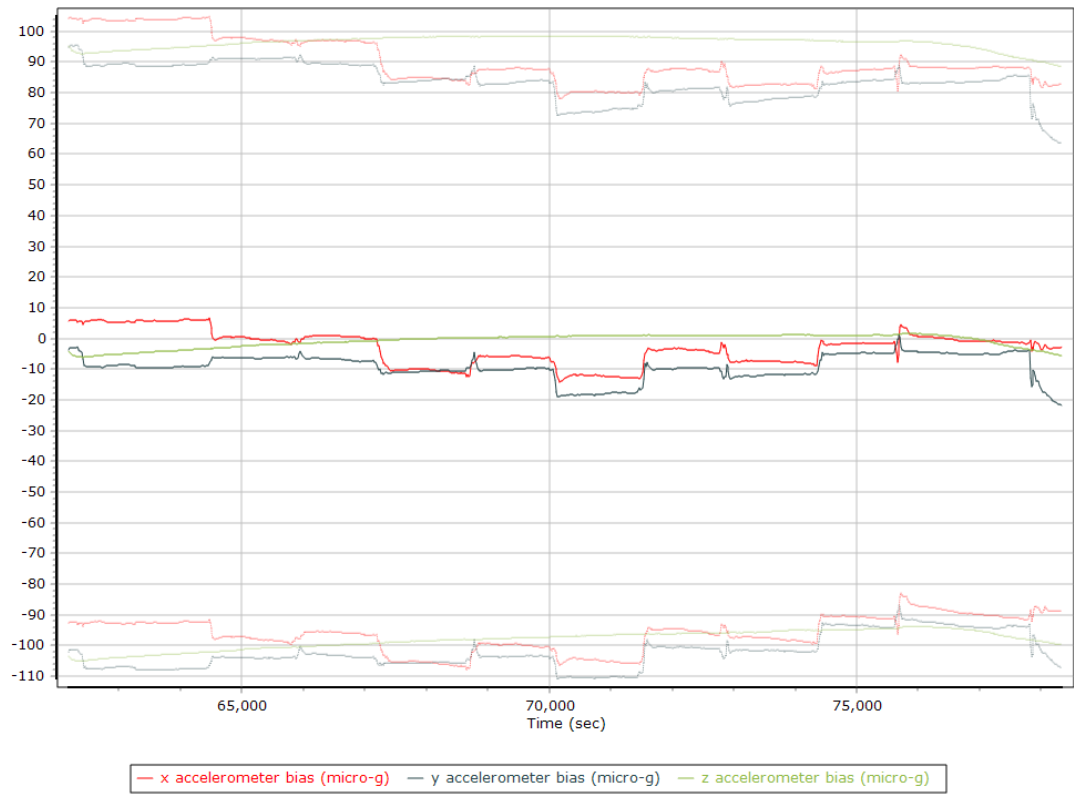
Reference-Primary GNSS Lever Arm Figure of Merit



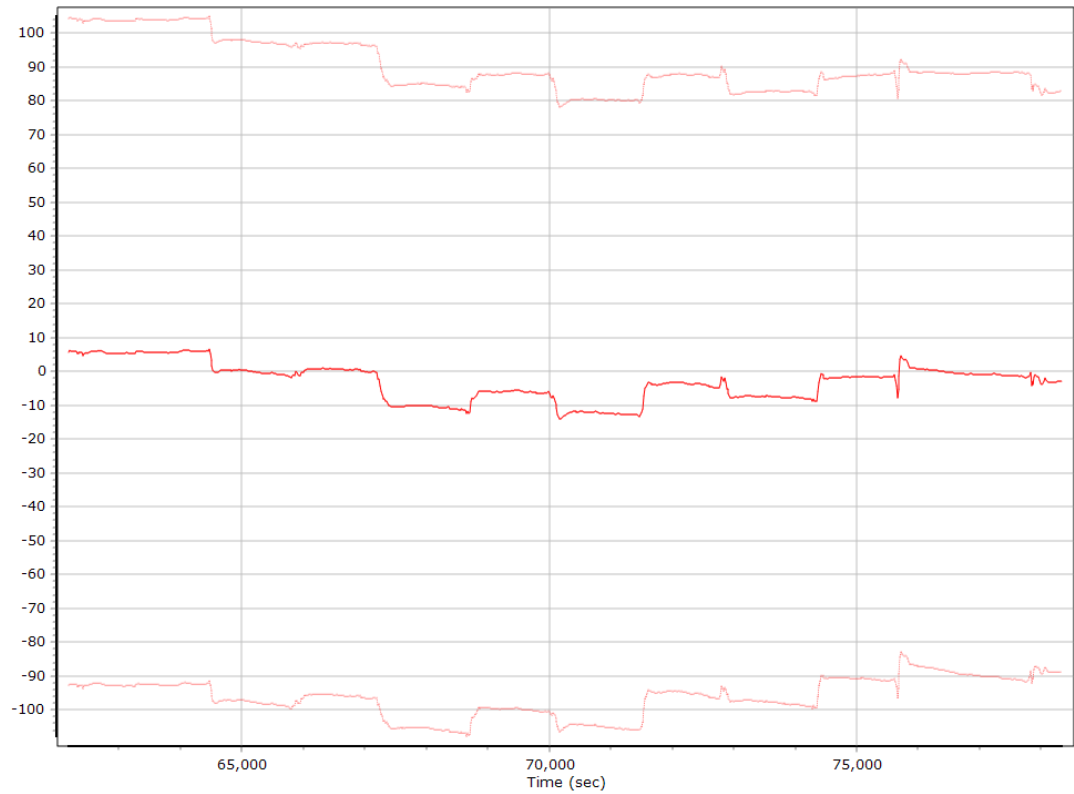
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

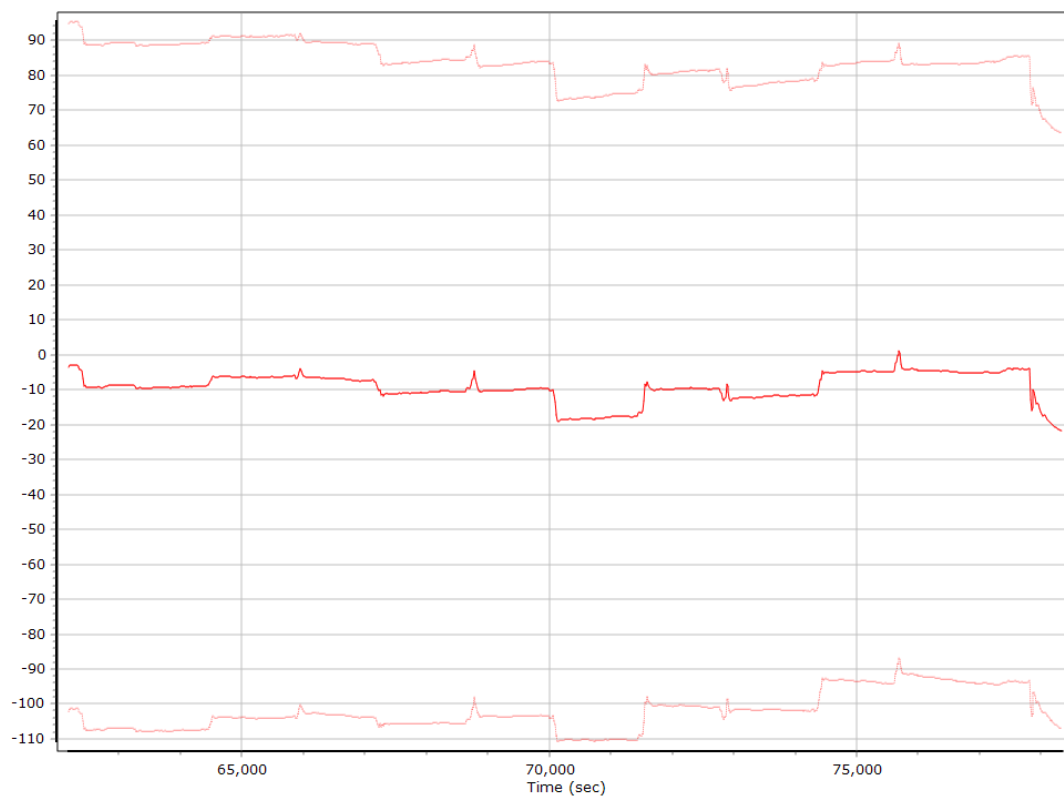
Accelerometer Bias (micro-g)



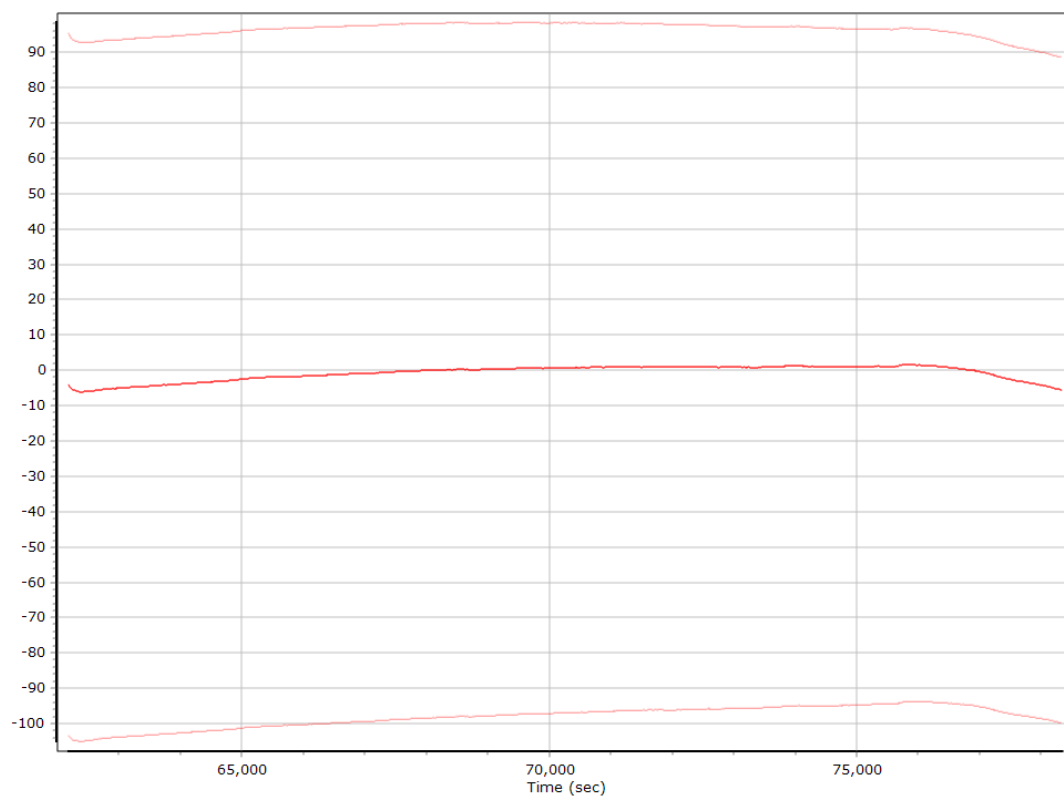
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



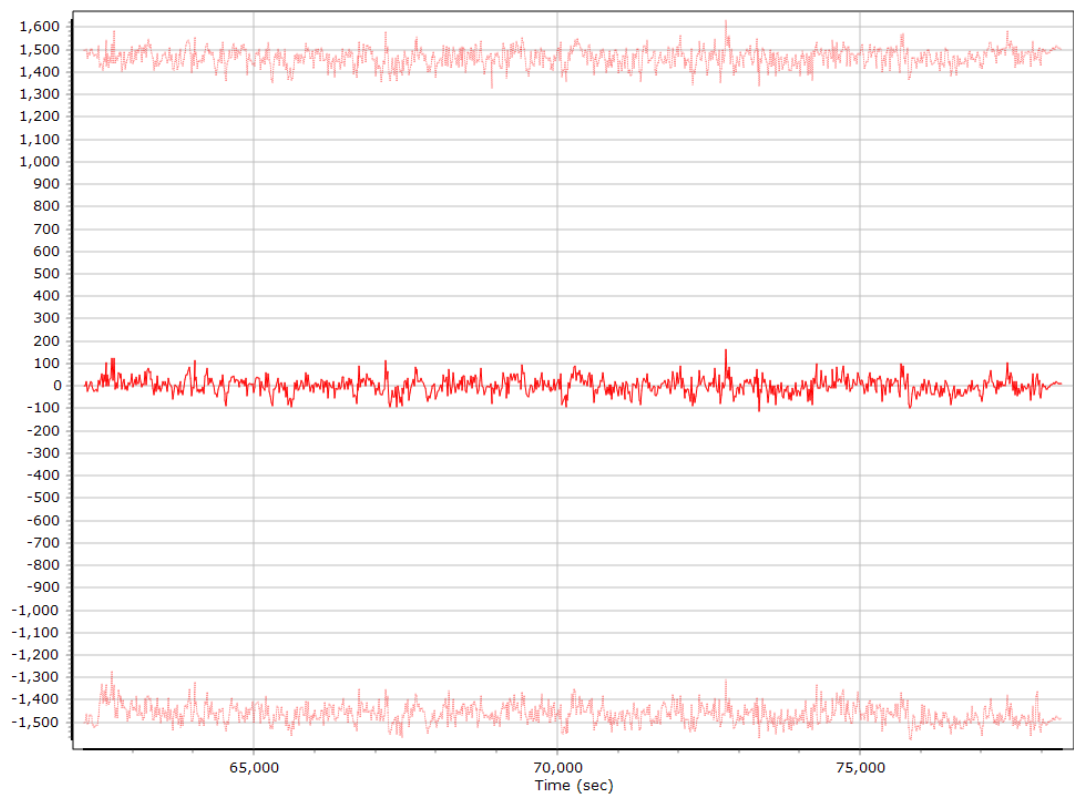
Z Accelerometer Bias (micro-g)



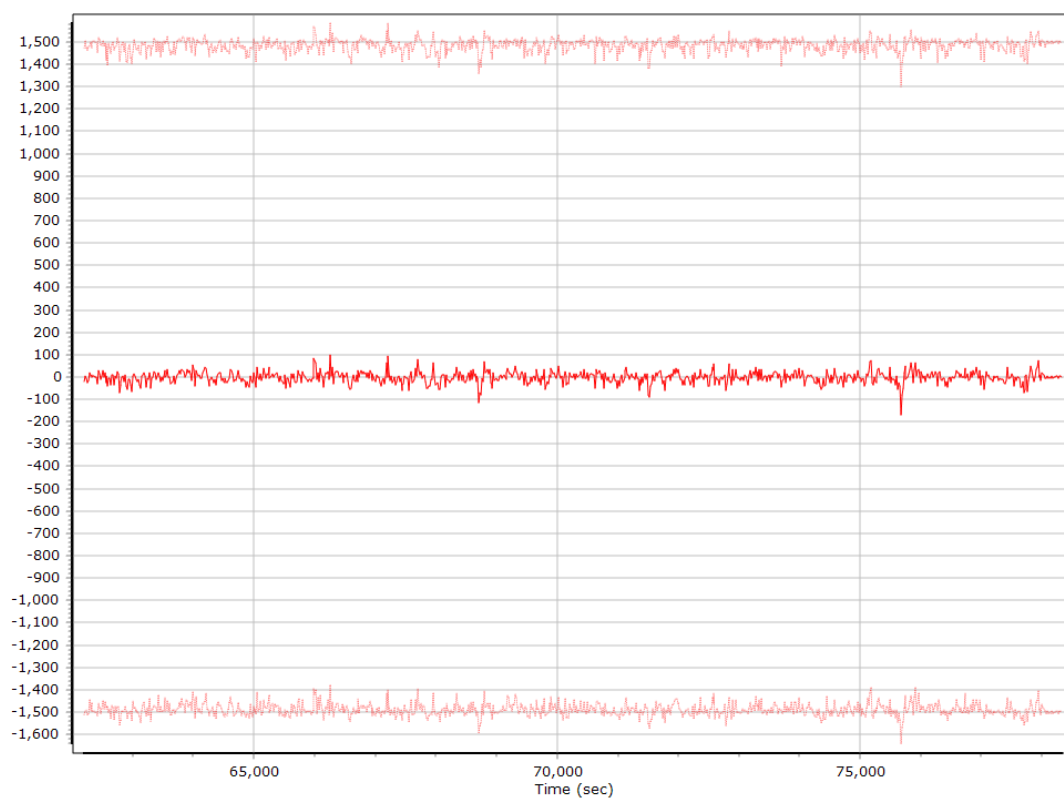
Accelerometer Scale Error (ppm)



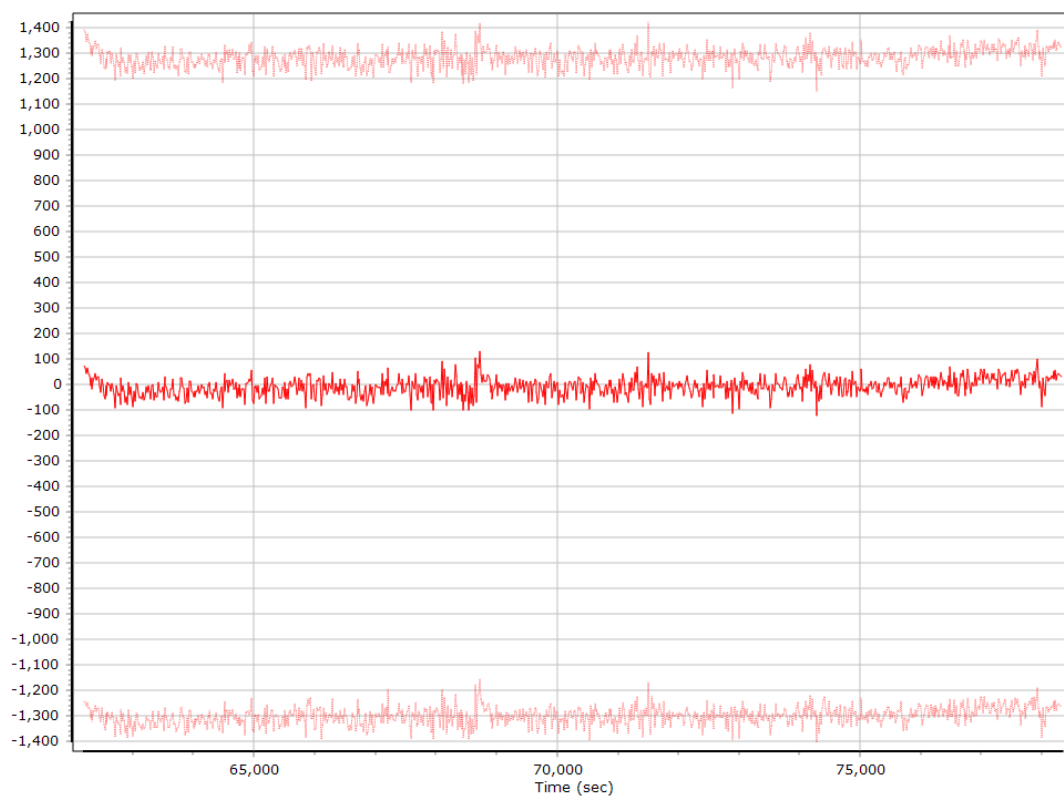
X Accelerometer Scale Error (ppm)



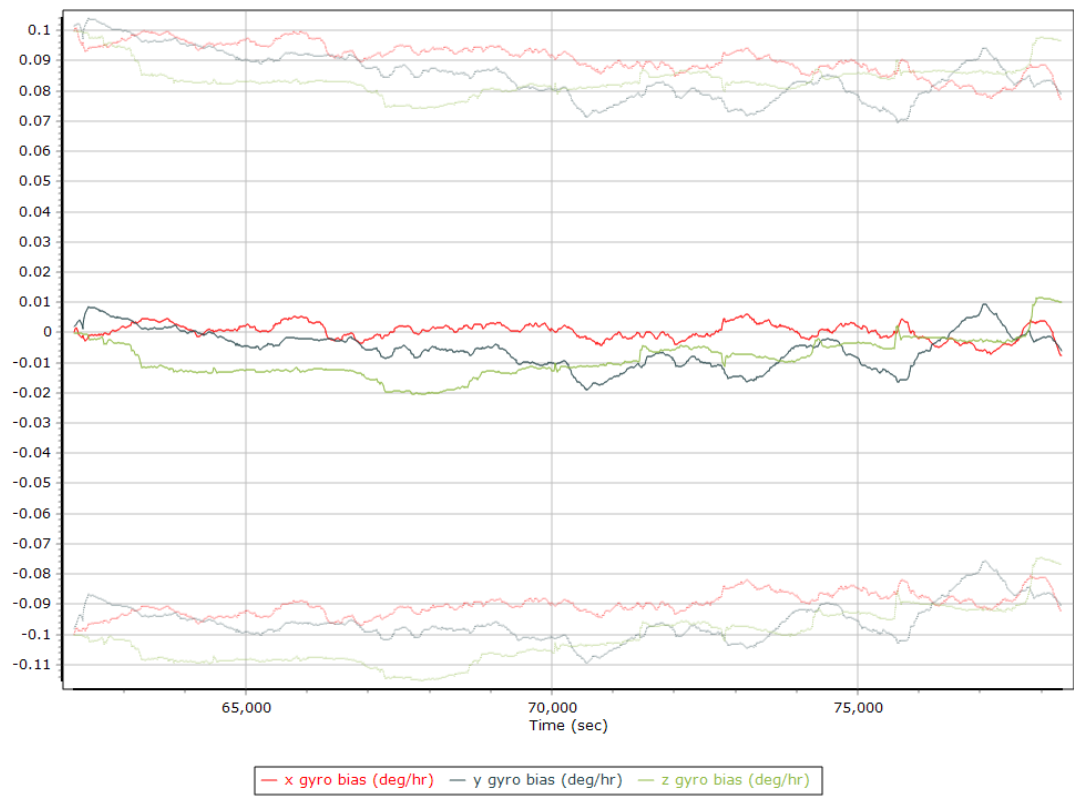
Y Accelerometer Scale Error (ppm)



Z Accelerometer Scale Error (ppm)



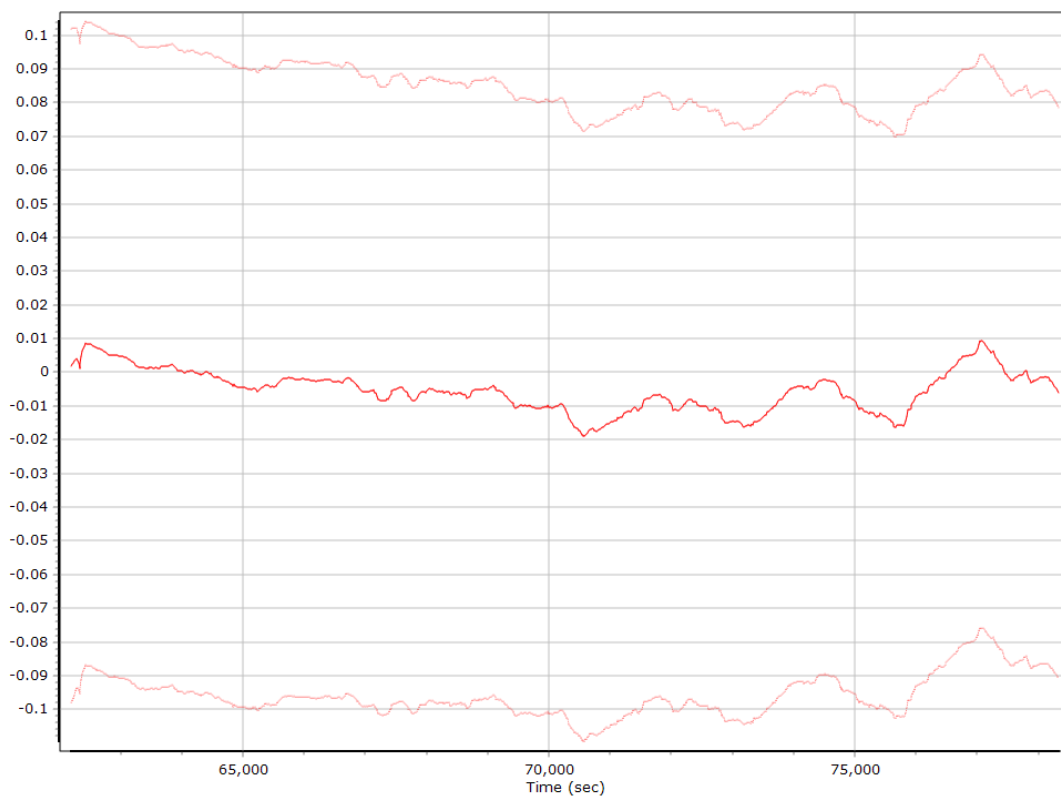
Gyro Bias (deg/h)



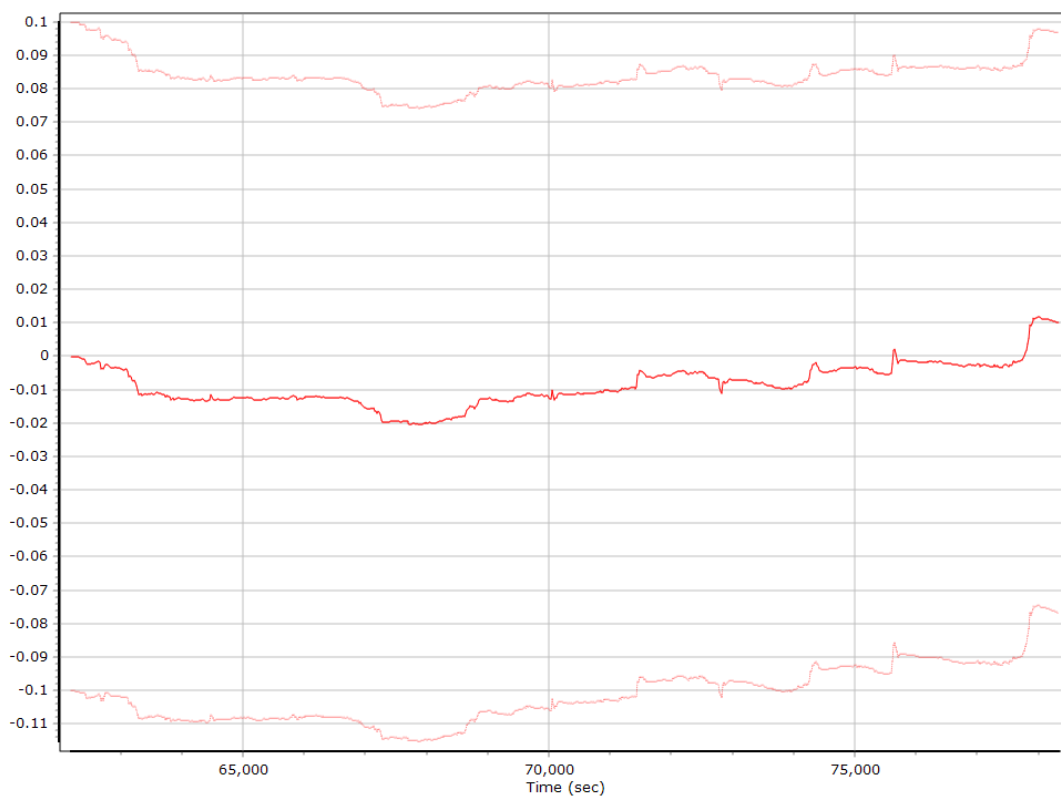
X Gyro Bias (deg/h)



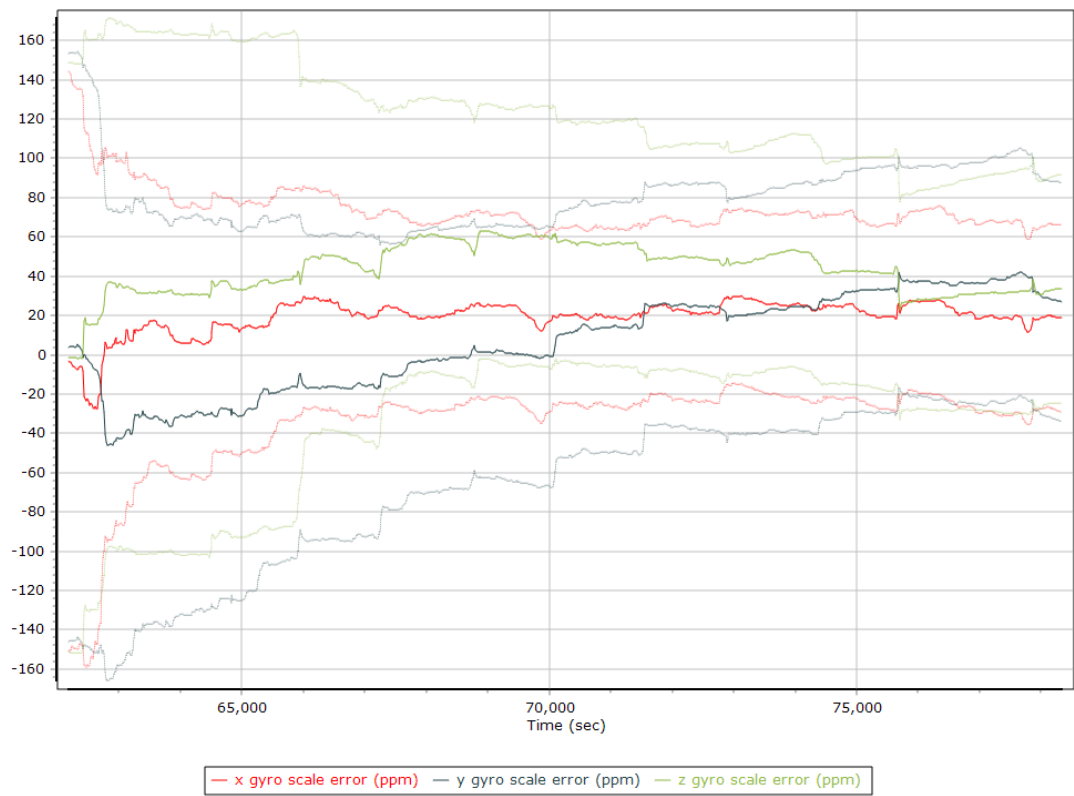
Y Gyro Bias (deg/h)



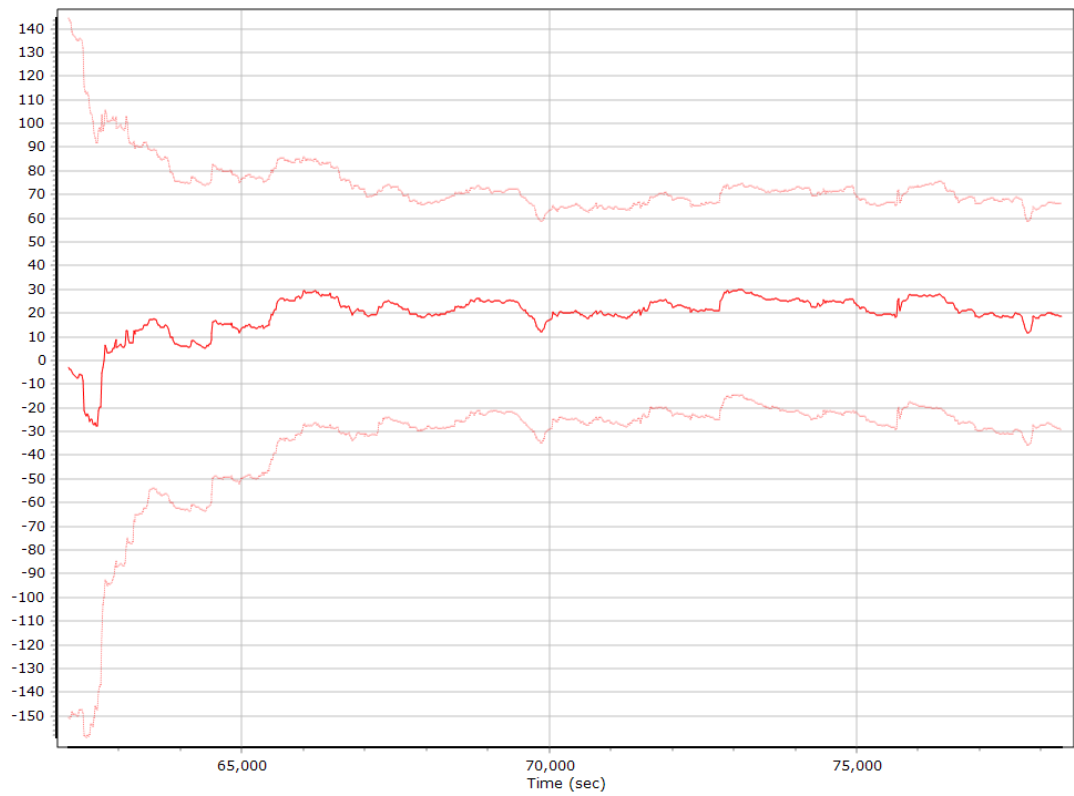
Z Gyro Bias (deg/h)



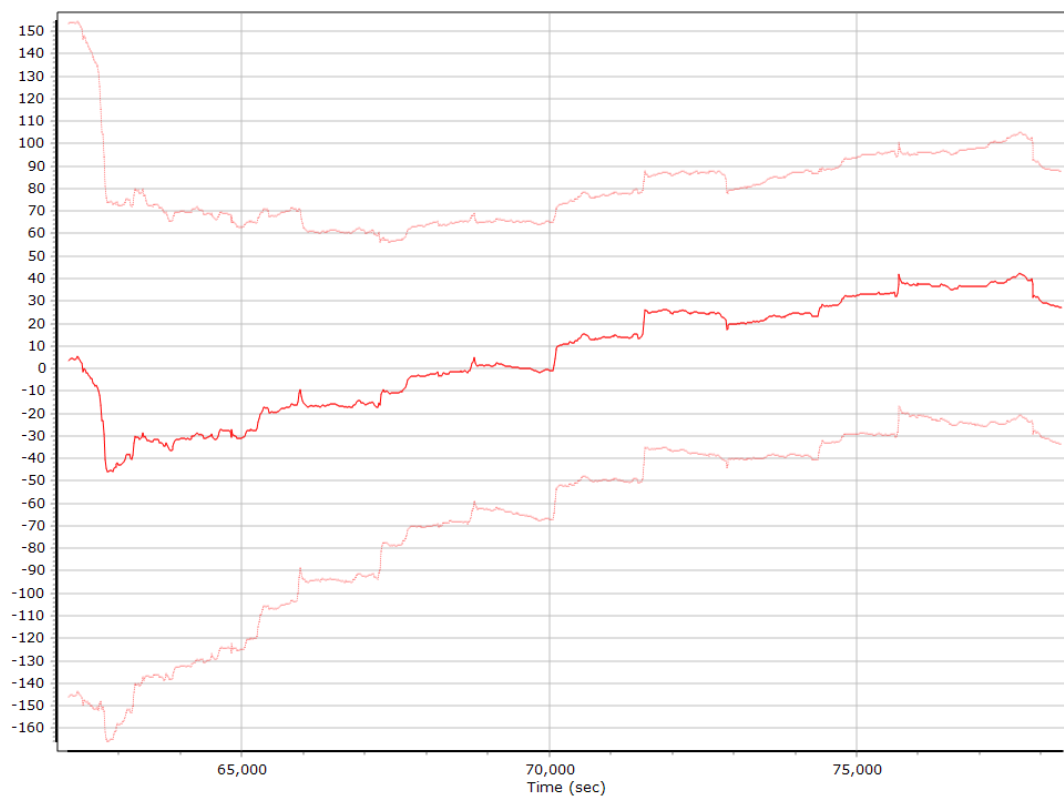
Gyro Scale Error (ppm)



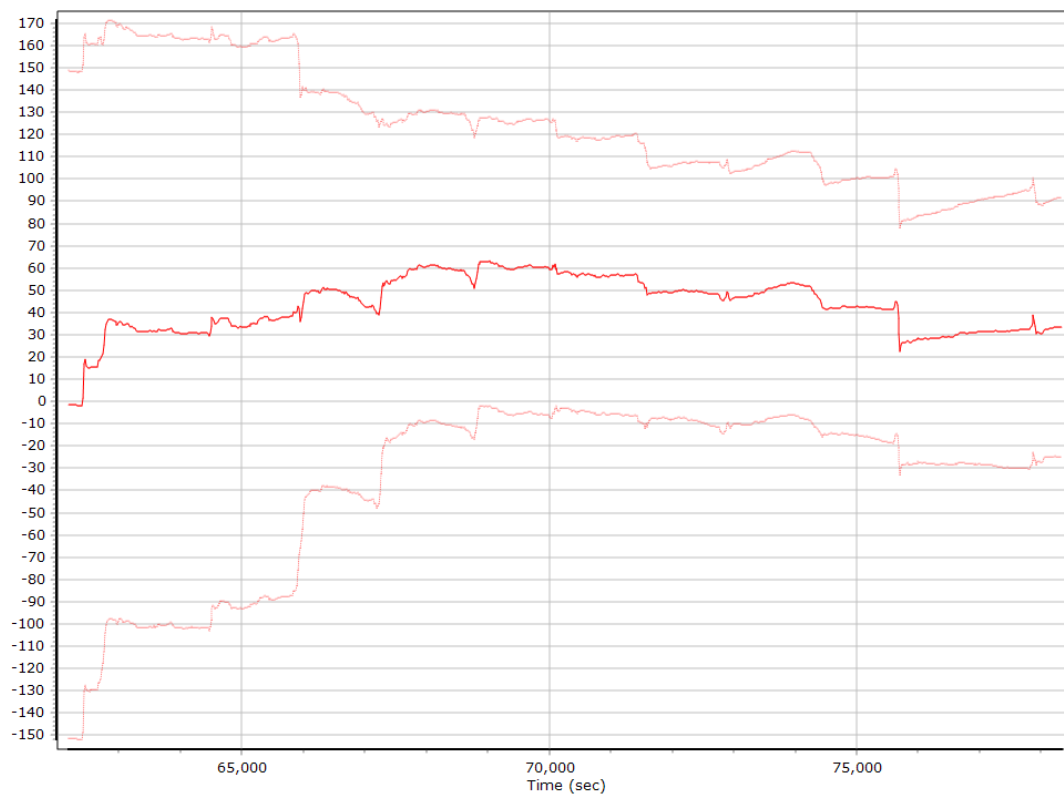
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

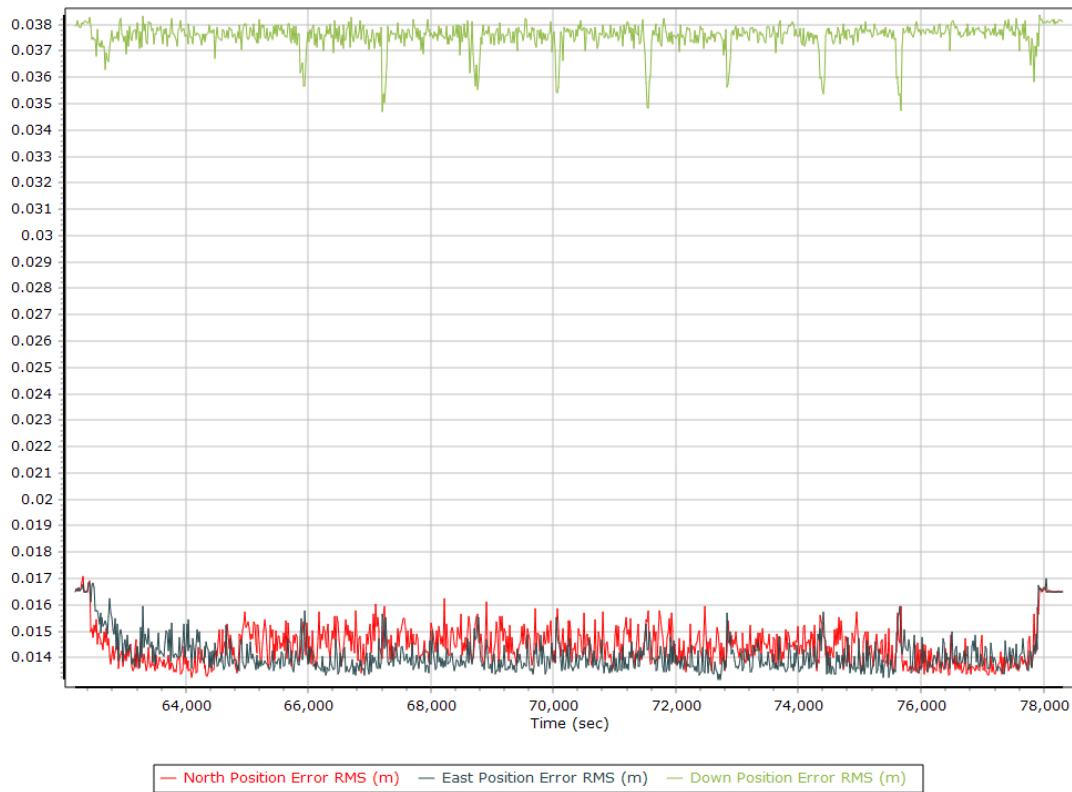


Z Gyro Scale Error (ppm)

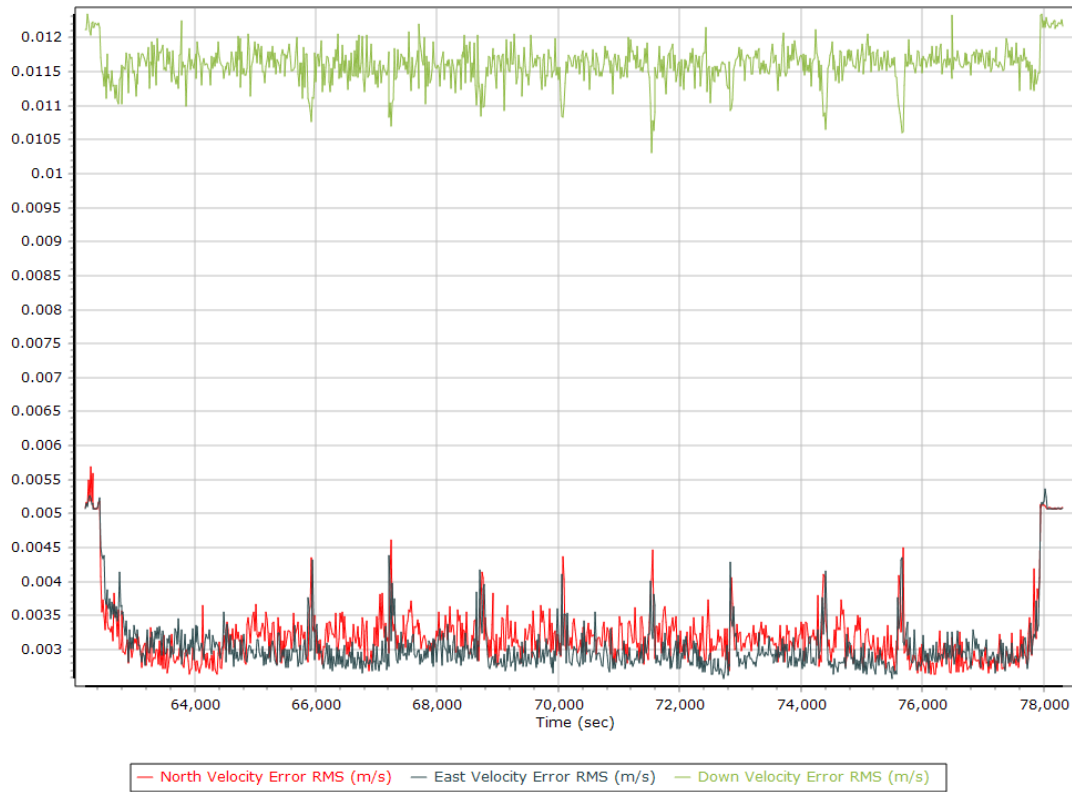


Smoothed Performance Metrics

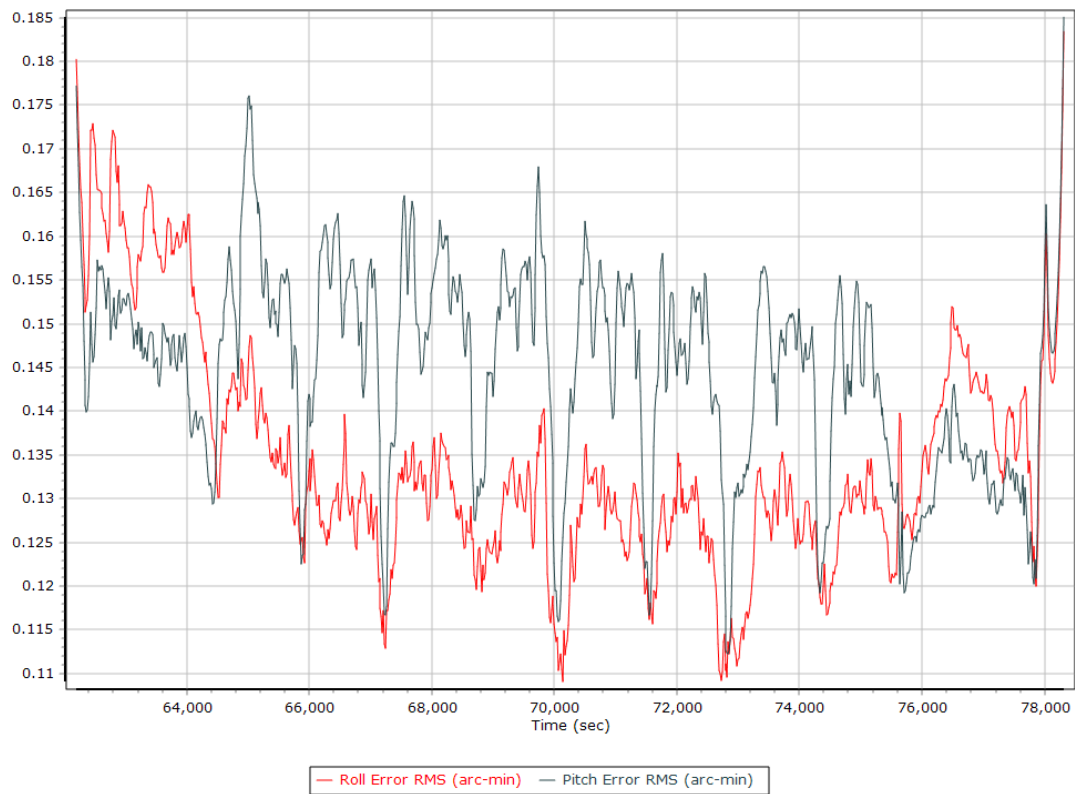
Position Error RMS (m)



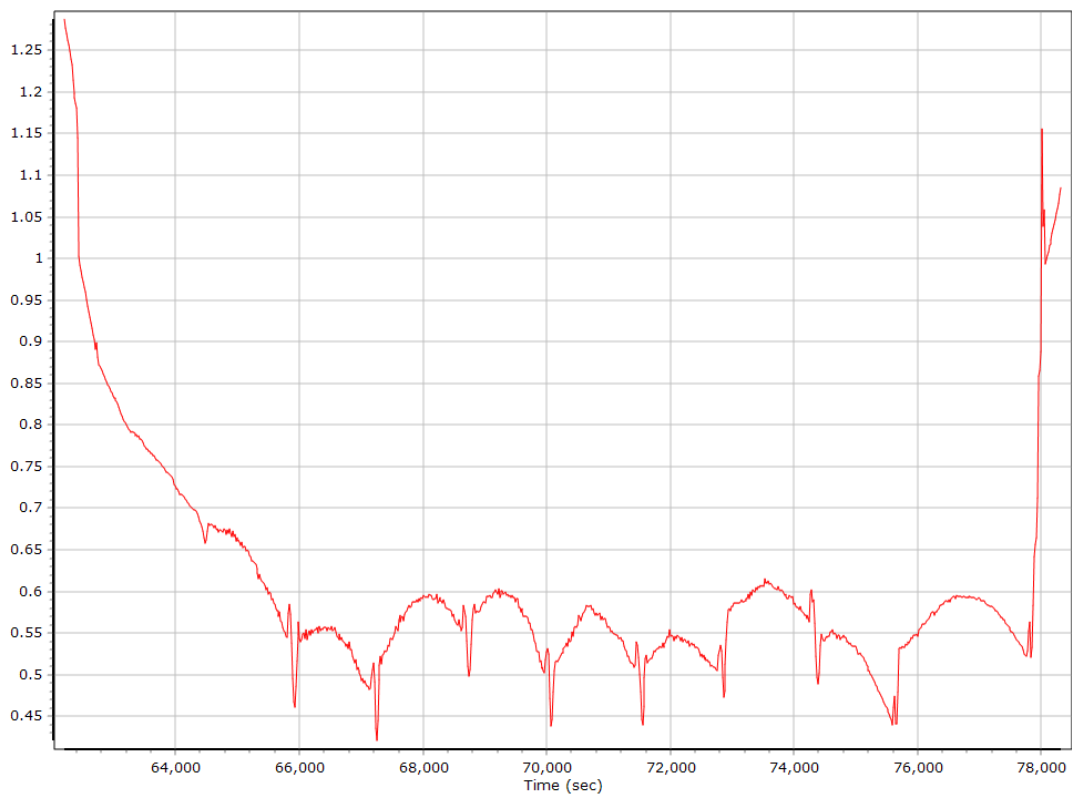
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

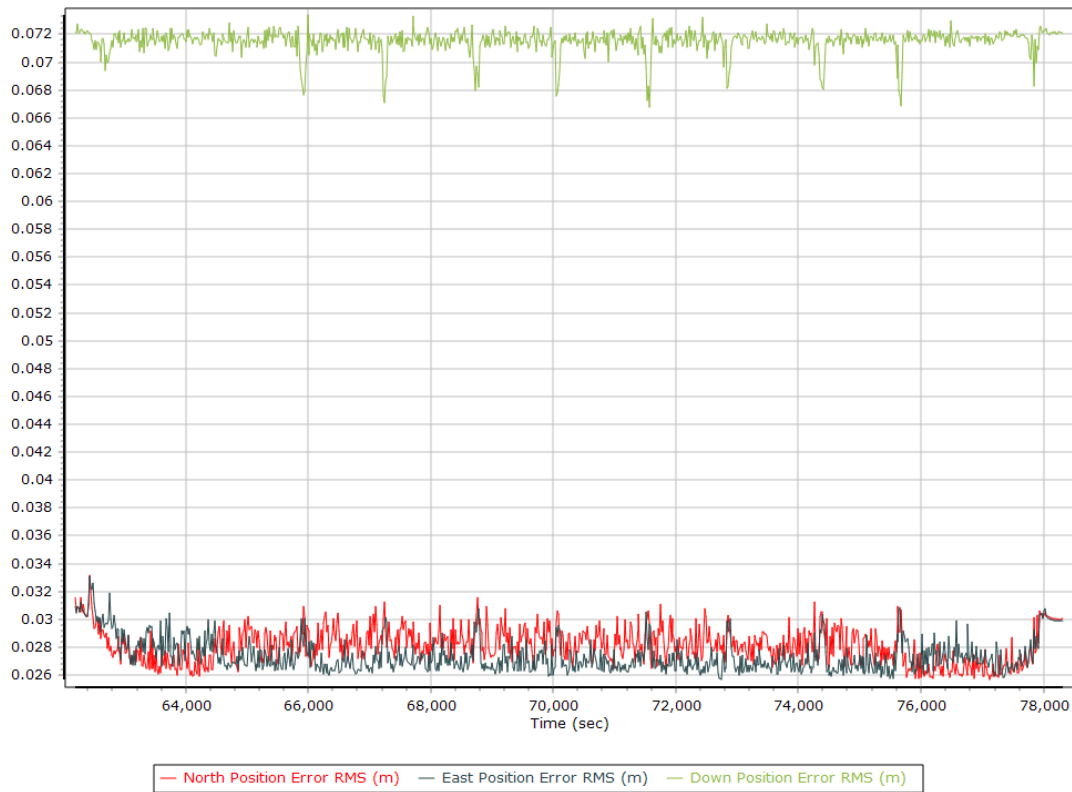


Heading Error RMS (arc-min)

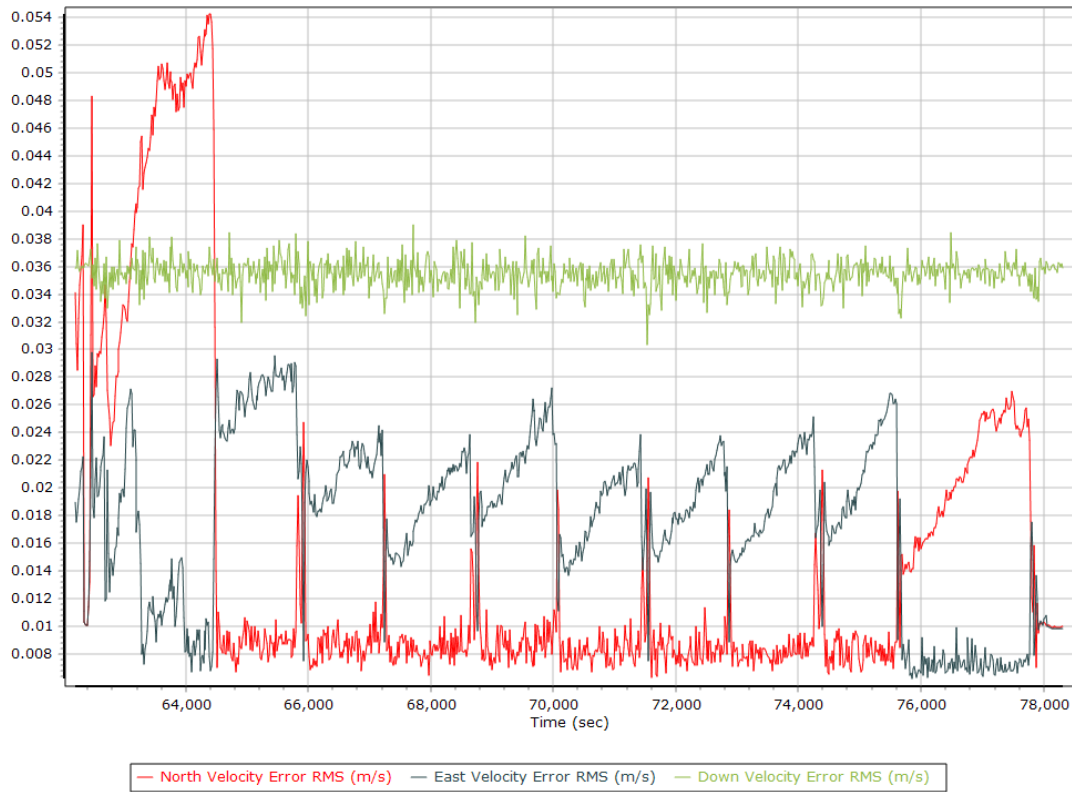


Forward Processed Performance Metrics

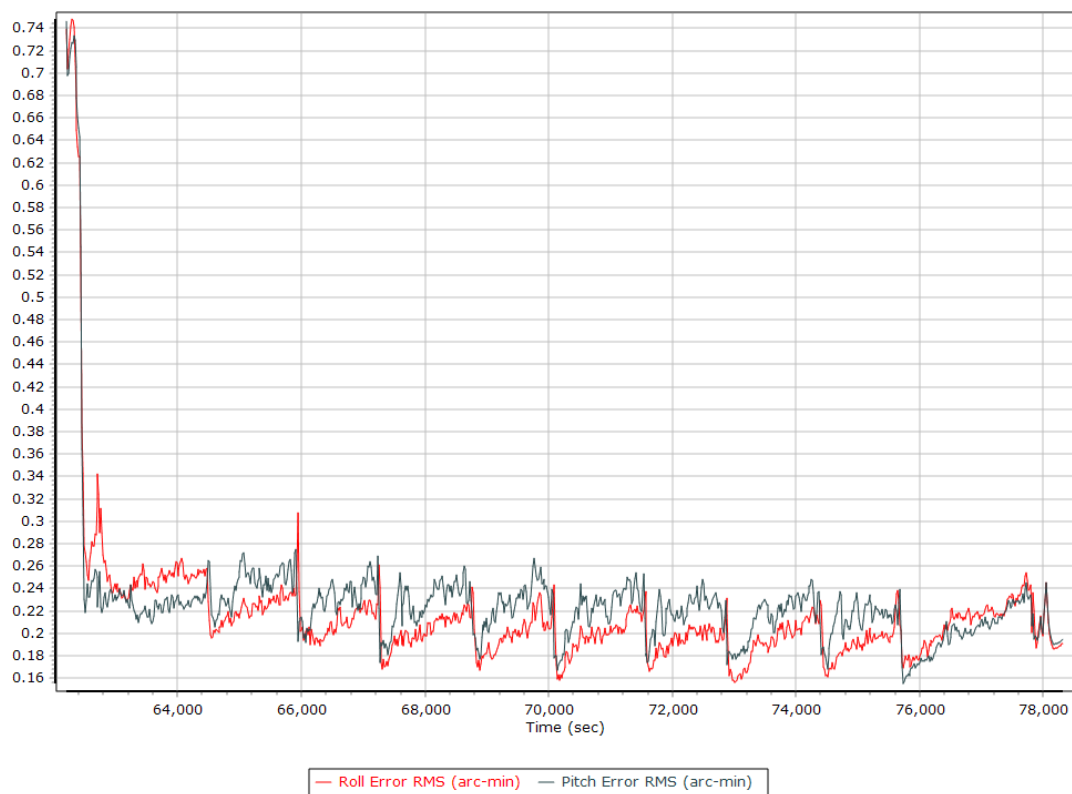
Position Error RMS (m)



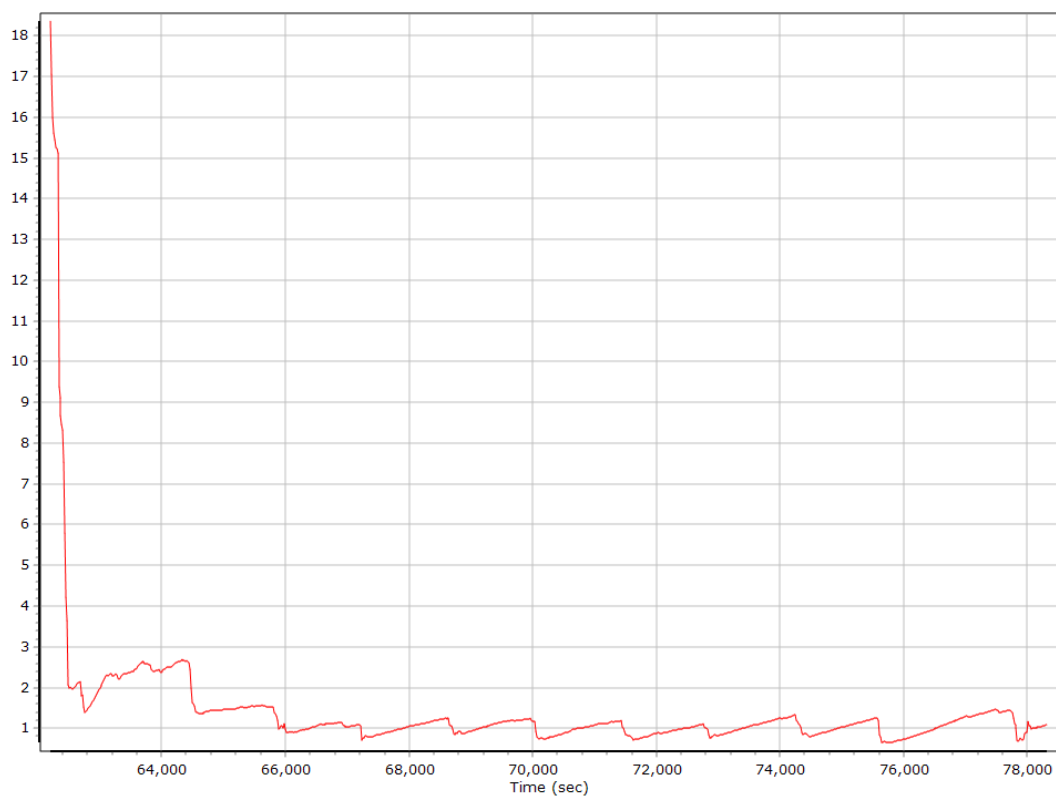
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

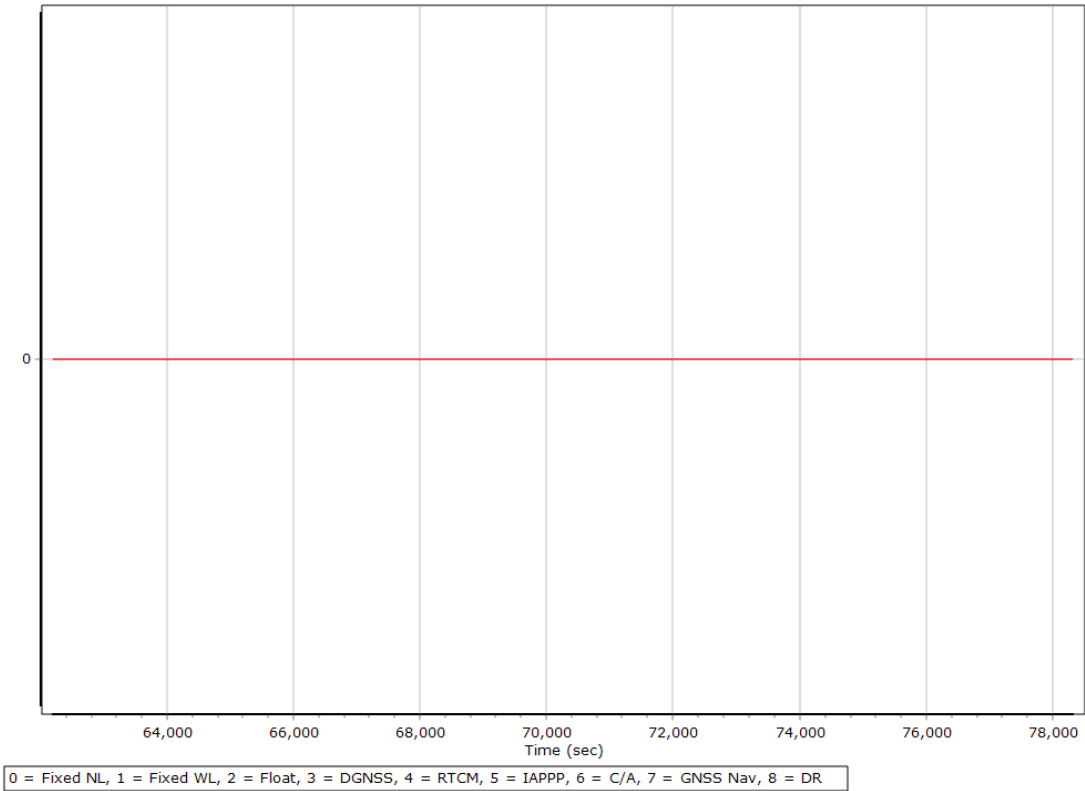


Heading Error RMS (arc-min)

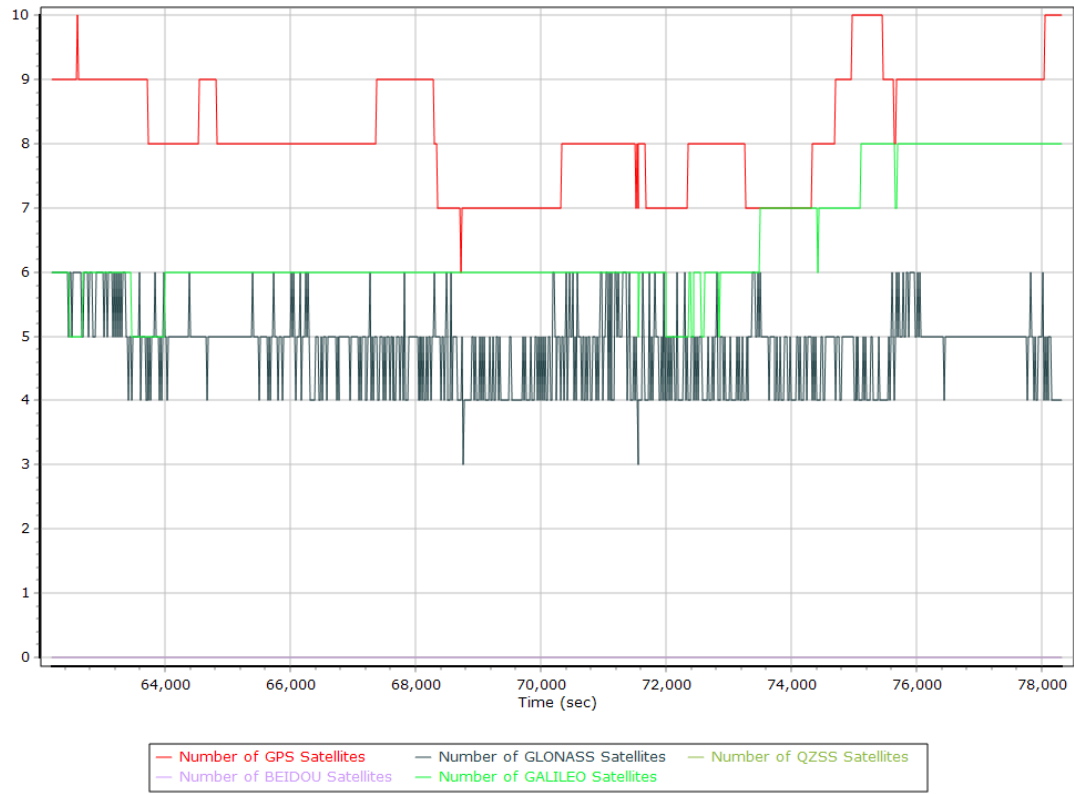


Forward Processed Solution Status

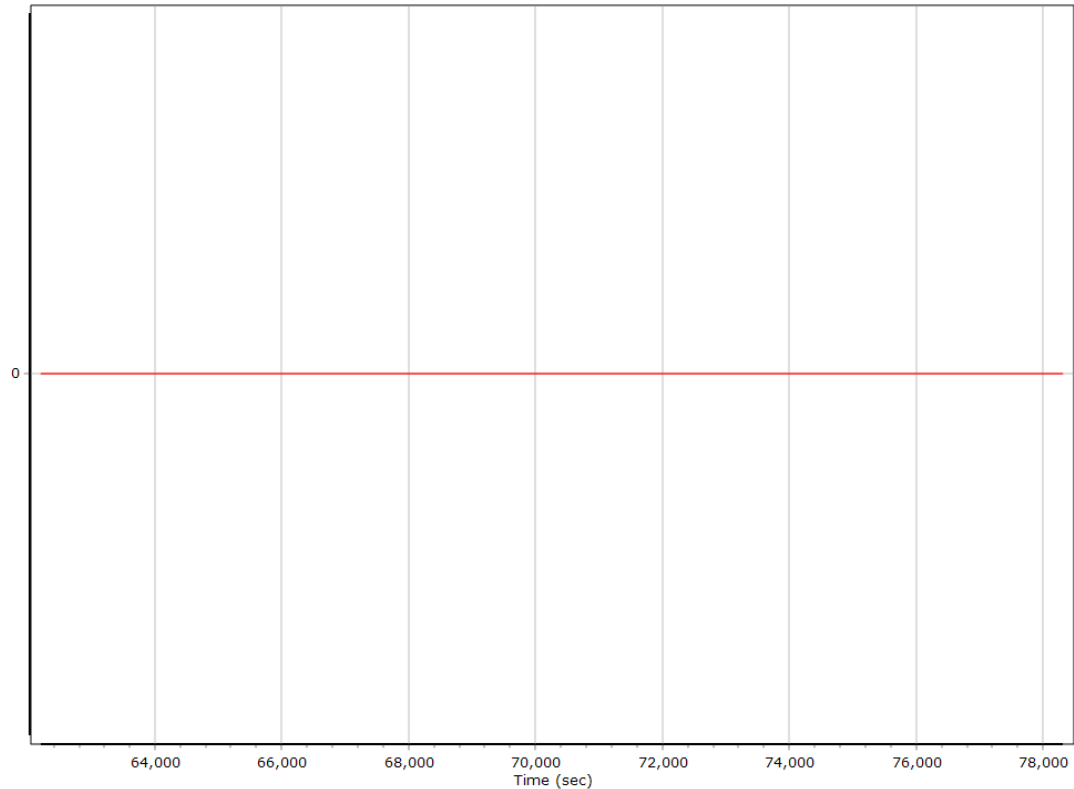
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230409_F2_4894_NAD832011.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	62141.005 (04/09/2023 17:15:41)		
Export end time	78332.001 (04/09/2023 21:45:32)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.268493		

General Information

Mission Information

Project name	20230410_F1_4894
Processing date	2023-04-12 23:27:17
Mission date	2023-04-10 12:38:37
Mission duration	03:32:02.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.211	POS Data
VQ1560.212	POS Data
VQ1560.213	POS Data
VQ1560.214	POS Data
VQ1560.215	POS Data
VQ1560.216	POS Data
VQ1560.217	POS Data
VQ1560.218	POS Data
VQ1560.219	POS Data
VQ1560.220	POS Data
VQ1560.221	POS Data
VQ1560.222	POS Data
VQ1560.223	POS Data
VQ1560.224	POS Data
VQ1560.225	POS Data
VQ1560.226	POS Data
VQ1560.227	POS Data
VQ1560.228	POS Data
VQ1560.229	POS Data
VQ1560.230	POS Data
VQ1560.231	POS Data
VQ1560.232	POS Data
VQ1560.233	POS Data
VQ1560.234	POS Data
VQ1560.235	POS Data
VQ1560.236	POS Data
VQ1560.237	POS Data
VQ1560.238	POS Data
VQ1560.239	POS Data
VQ1560.240	POS Data
VQ1560.241	POS Data

Input Files

File Name	File Type
Ephm1000.23g	GLONASS Broadcast Ephemeris
Ephm1000.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230410_F1_4894.out	SBET Trajectory File
export_20230410_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.211		
Last raw data file	VQ1560.241		
Start GPS week	2257		
Start time	131910.277 (04/10/2023 12:38:30)		
End time	144621.297 (04/10/2023 16:10:21)		
Start of fine alignment	132495.253 (04/10/2023 12:48:15)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

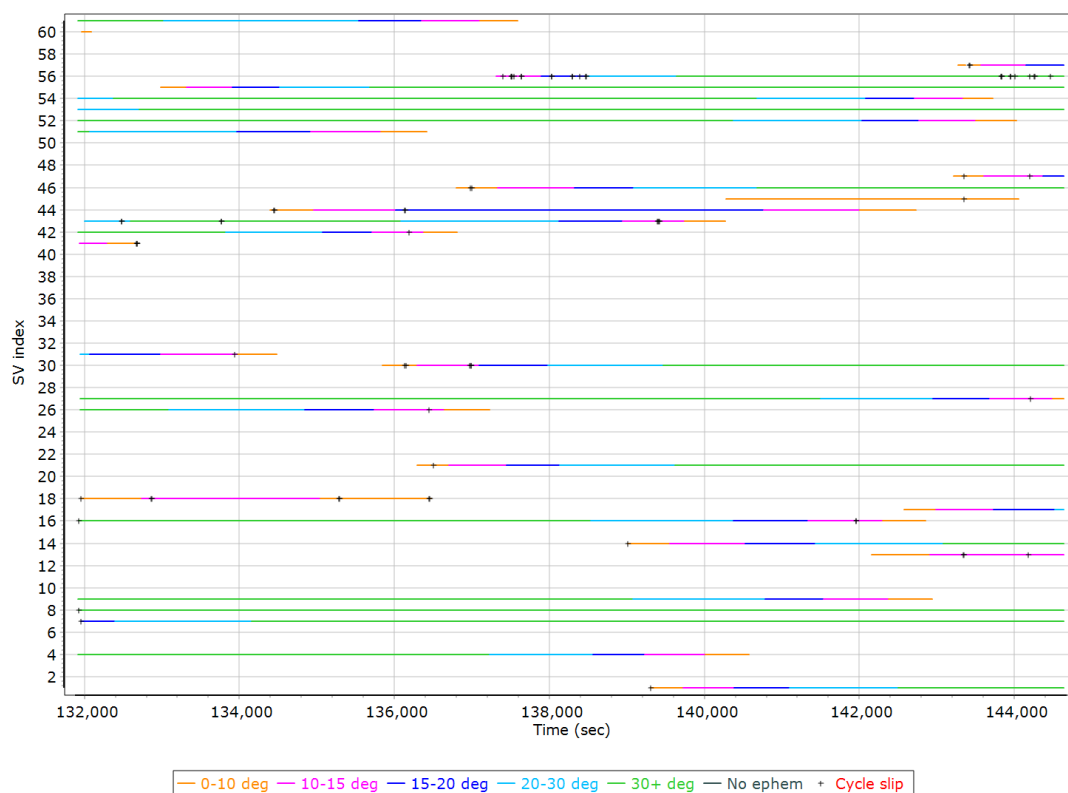
Rover Data QC

Raw IMU Import QC Summary

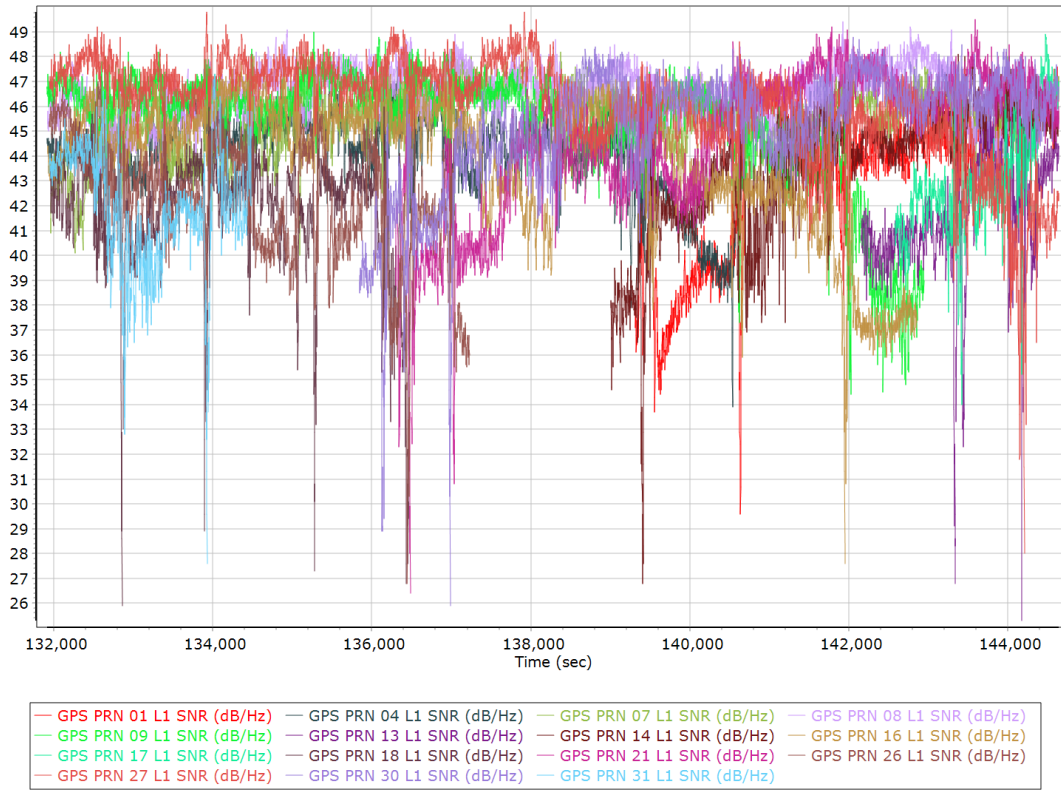
IMU data input file	imu_20230410_F1_4894.dat
IMU data check log file	imudt_20230410_F1_4894.log
IMU Records Processed	2544008
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
131910.077 : WARNING : Gap of 131898.1205 seconds in CHECKDT input data	

Primary Observables & Satellite Data

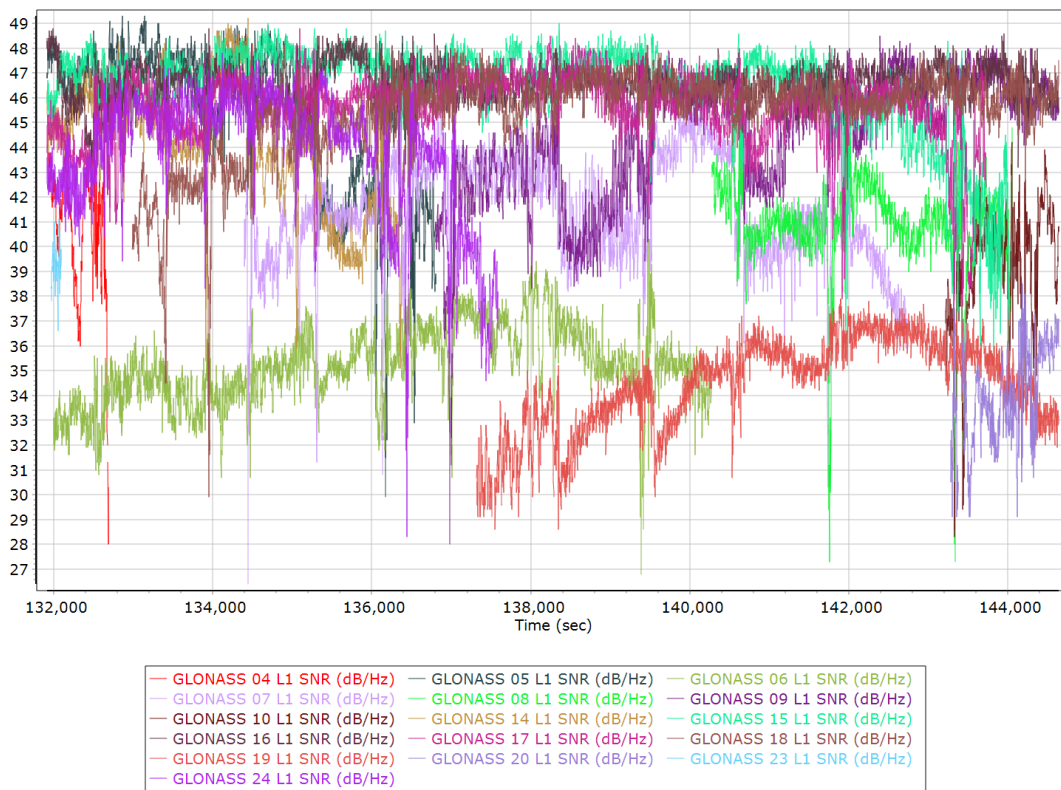
GPS/GLONASS L1 Satellite Lock/Elevation



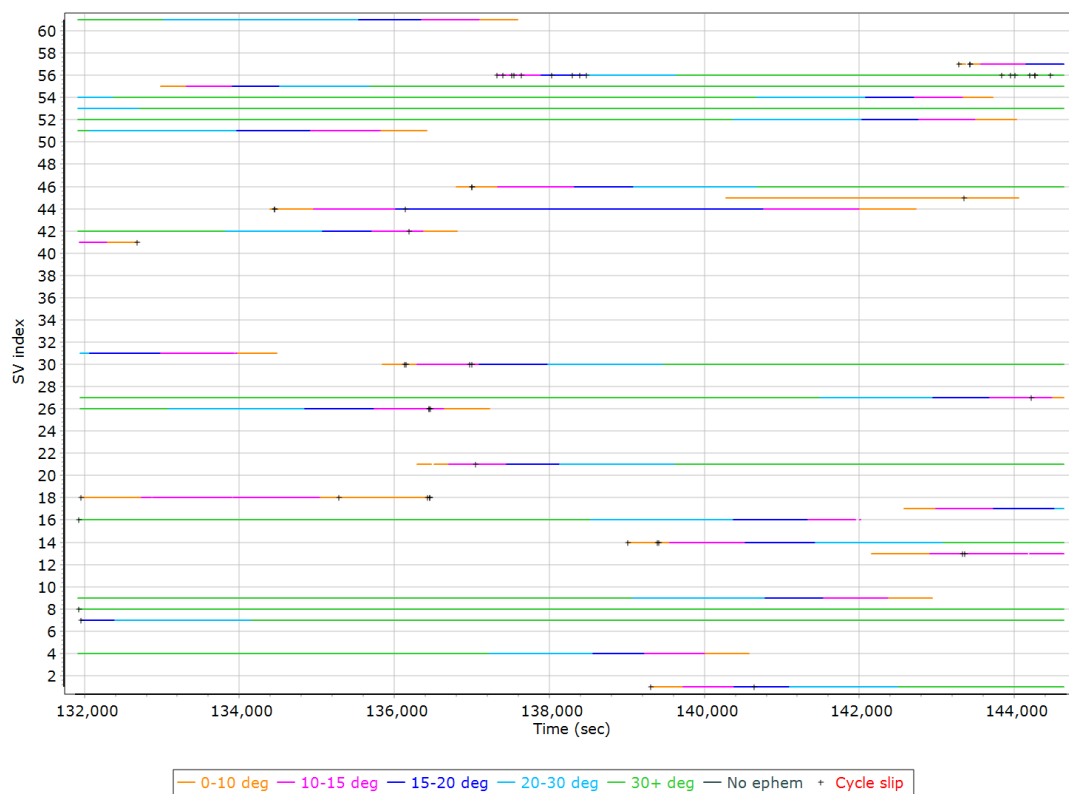
GPS L1 SNR



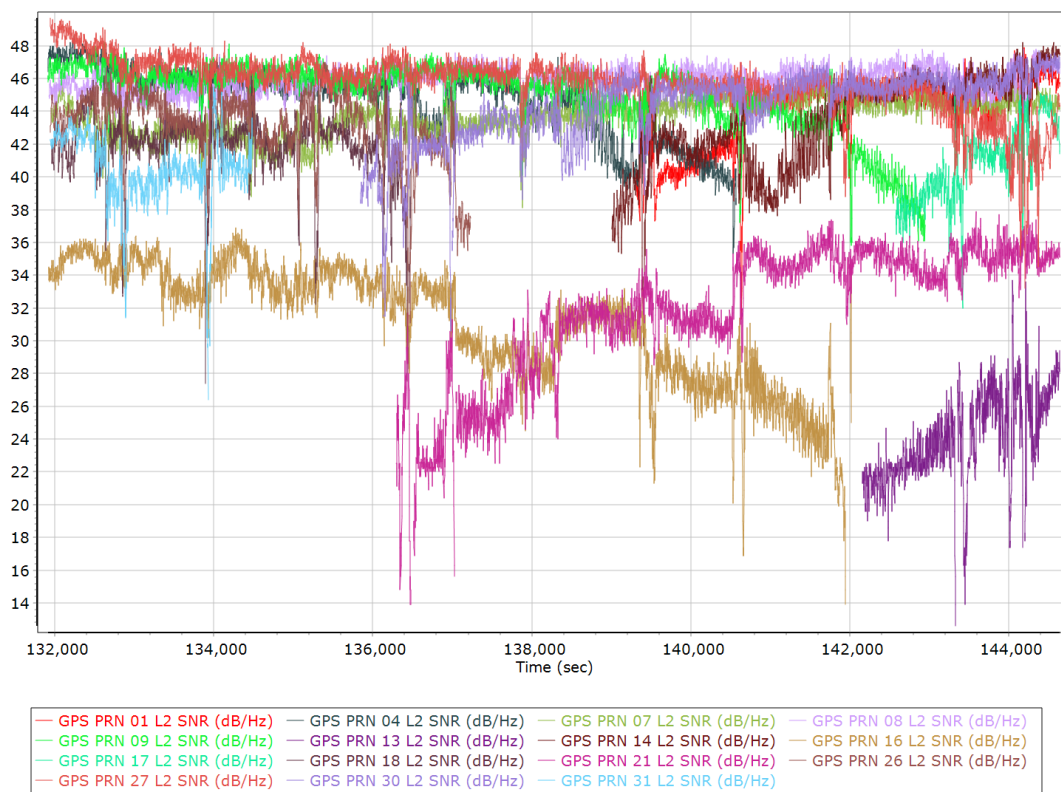
GLONASS L1 SNR



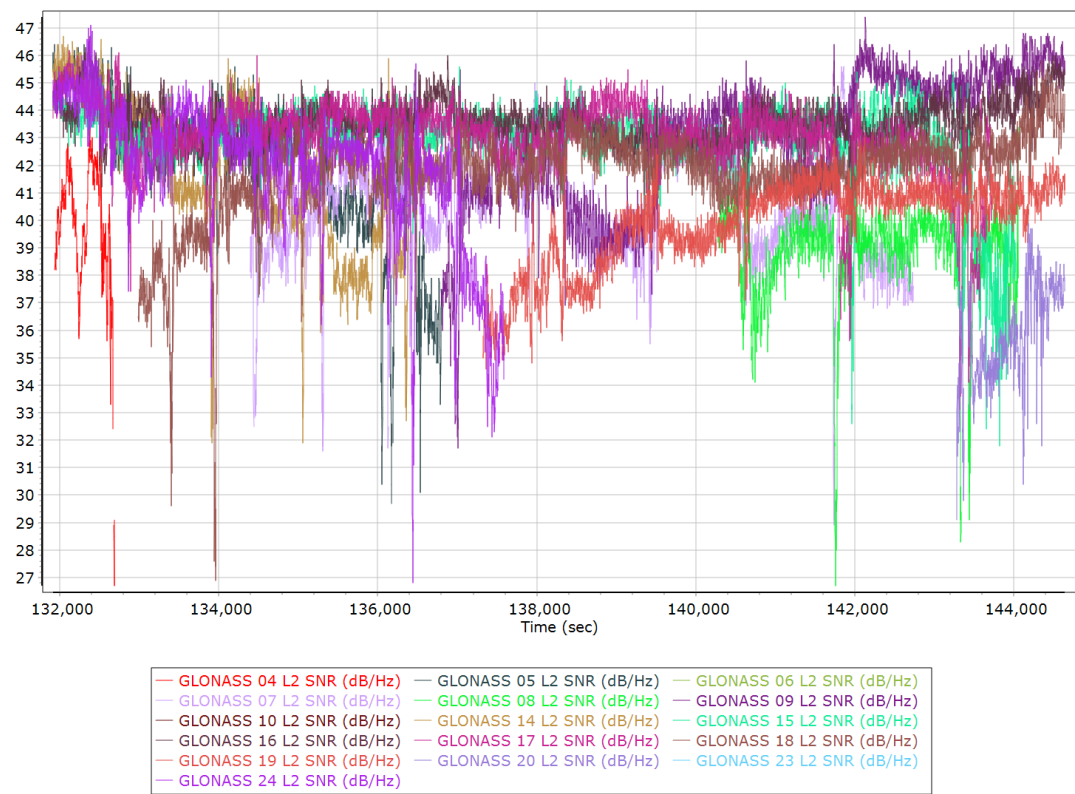
GPS/GLONASS L2 Satellite Lock/Elevation



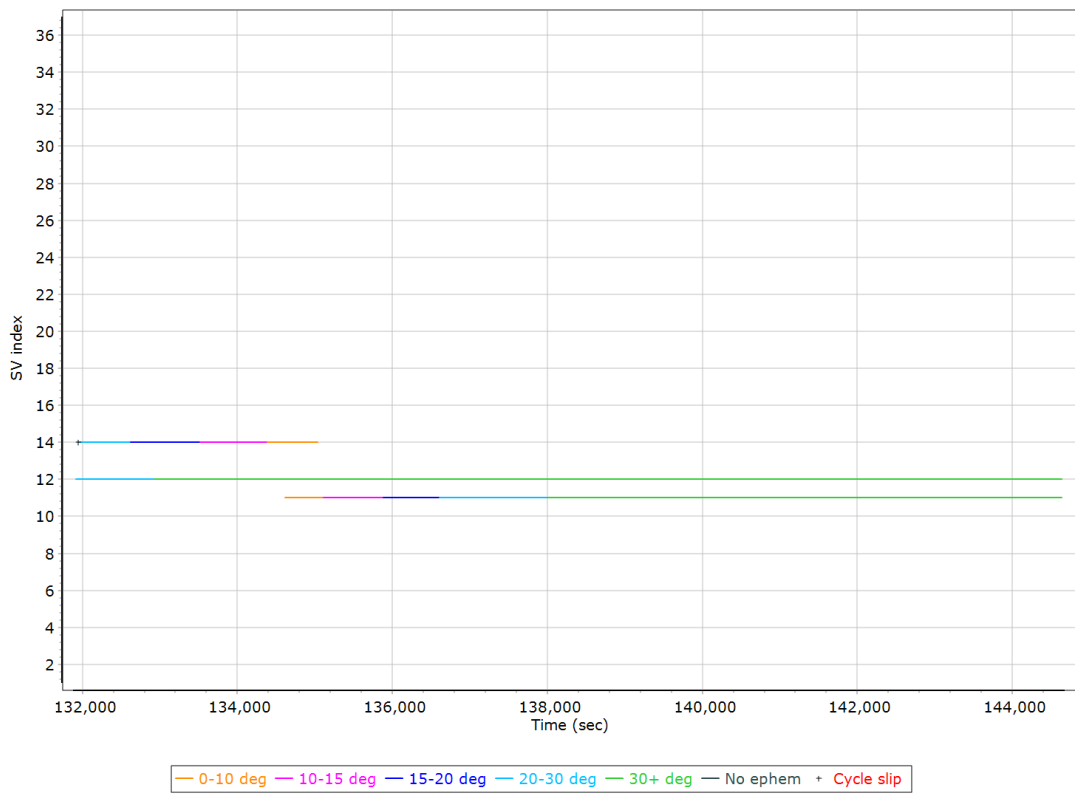
GPS L2 SNR



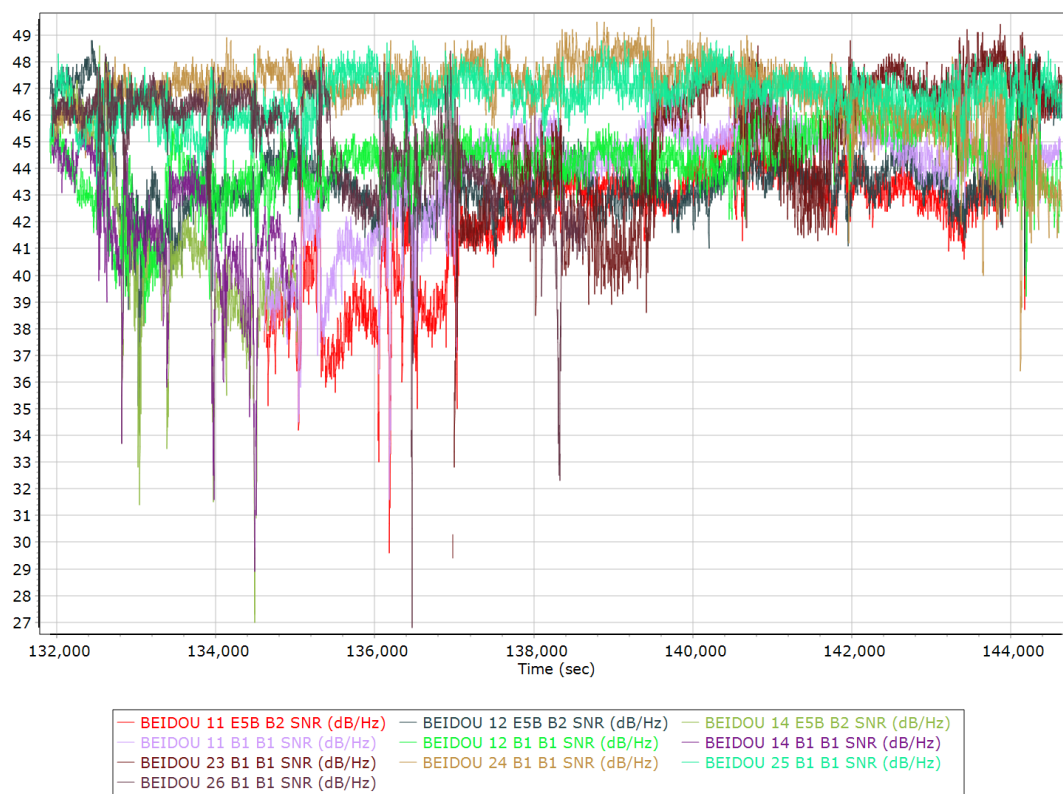
GLONASS L2 SNR



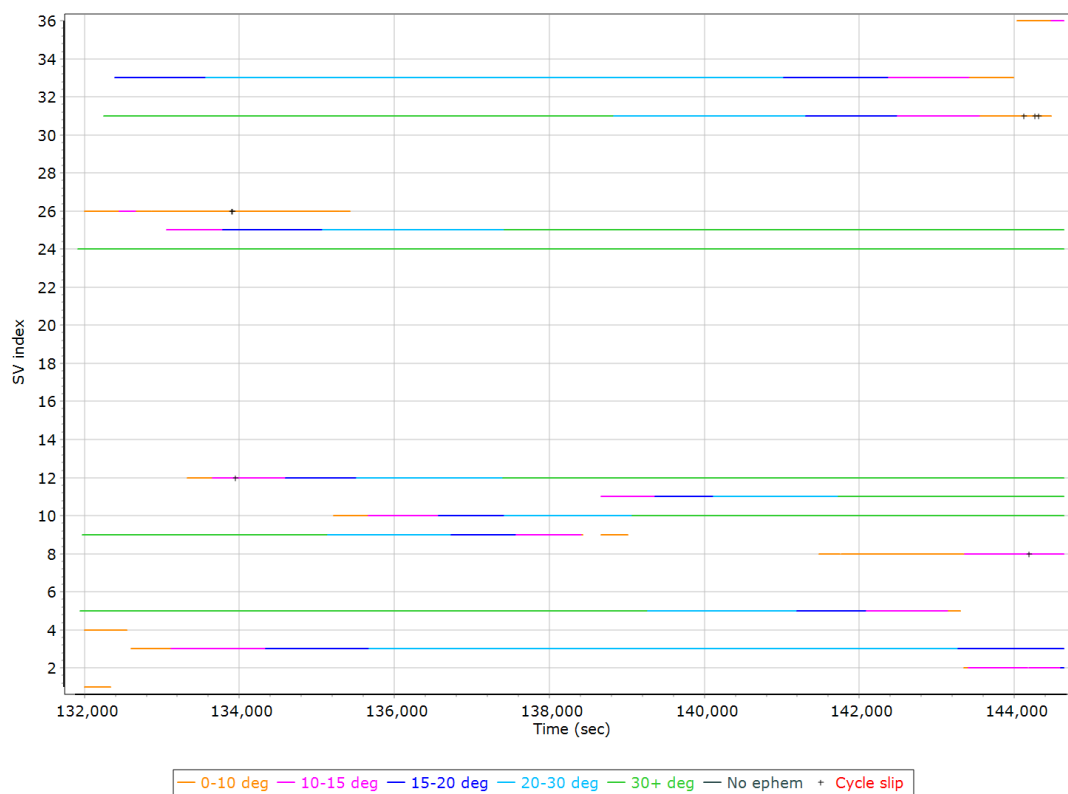
BEIDOU Satellite Lock/Elevation



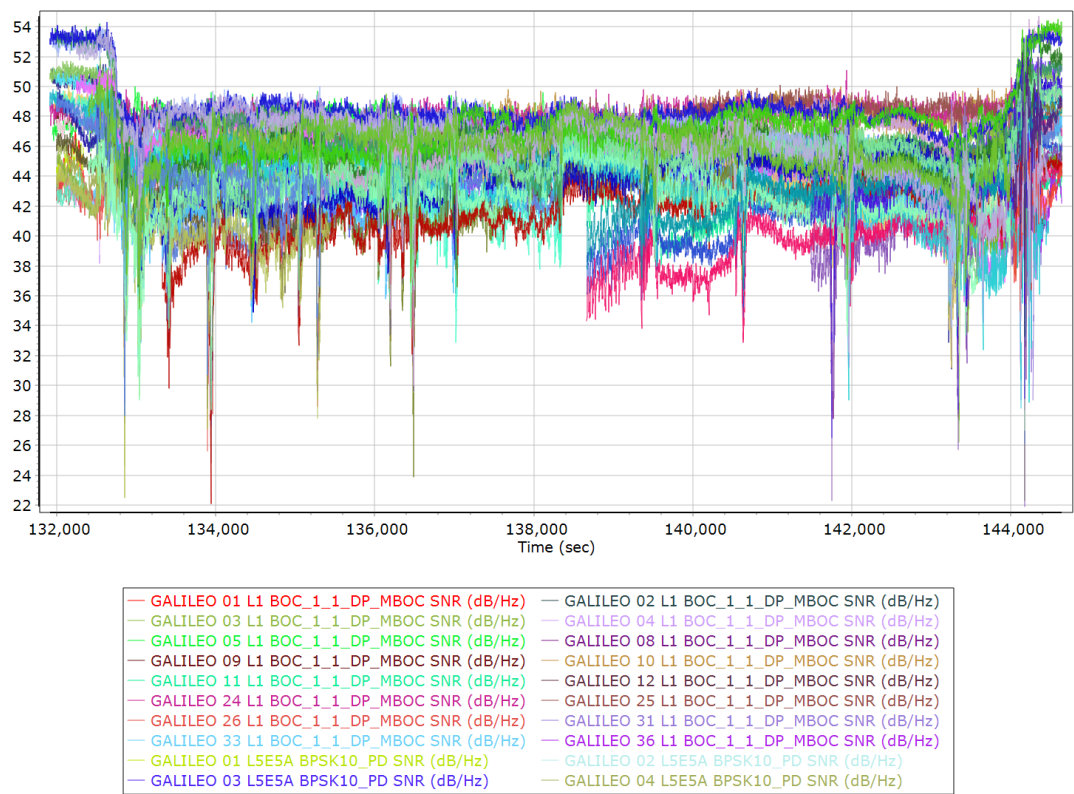
BEIDOU SNR



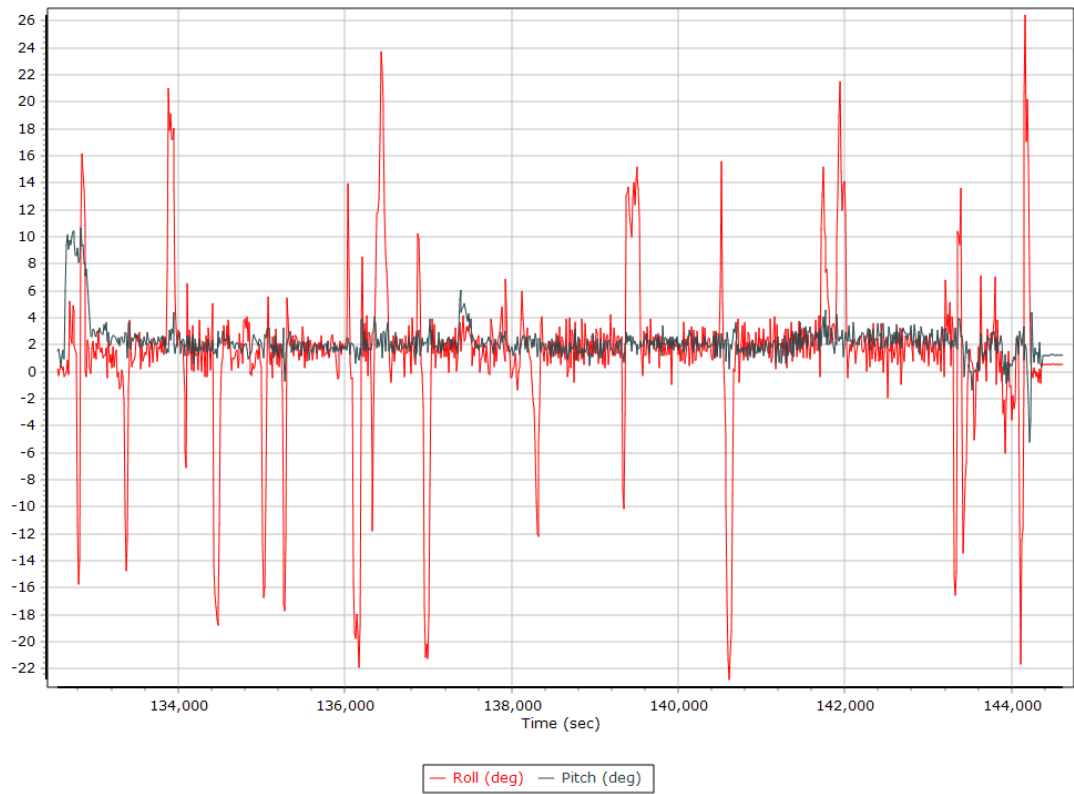
GALILEO Satellite Lock/Elevation



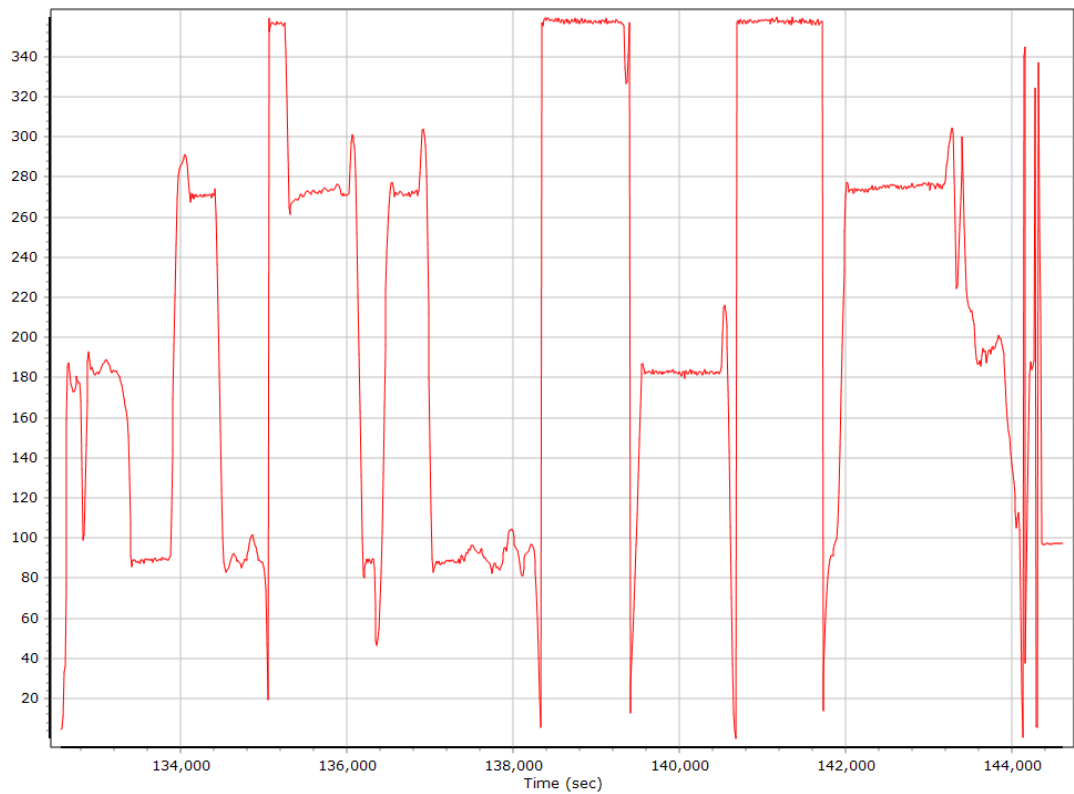
GALILEO SNR



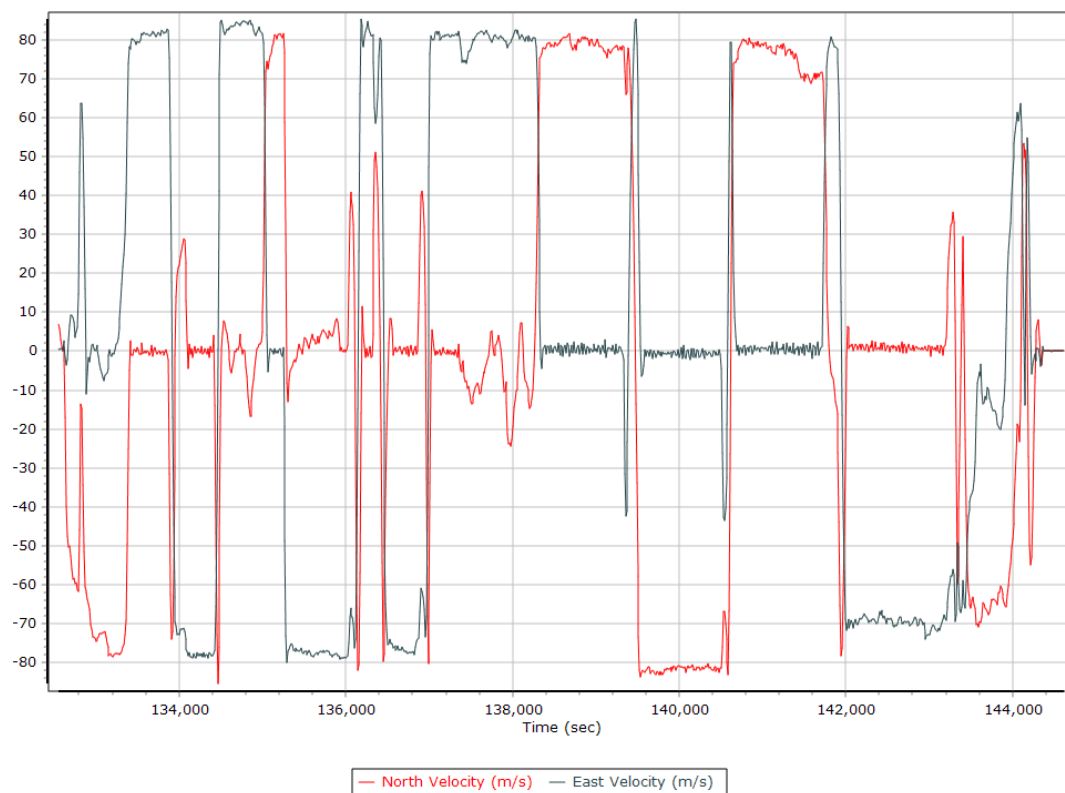
Roll/Pitch



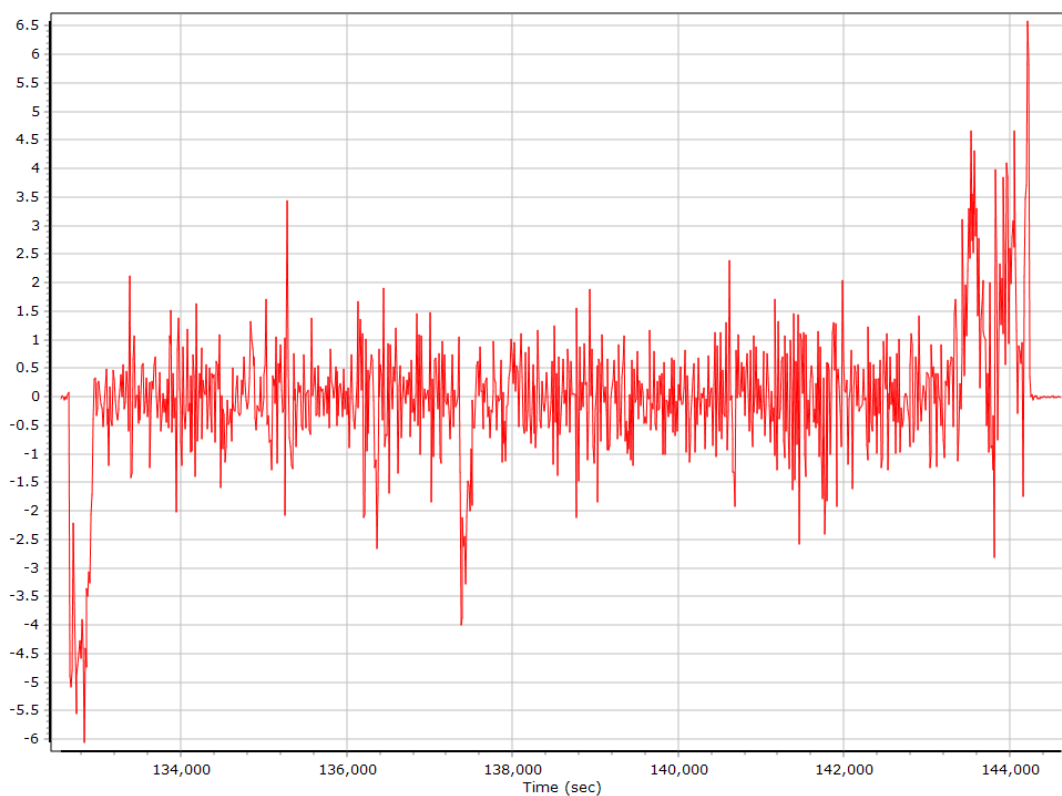
Heading



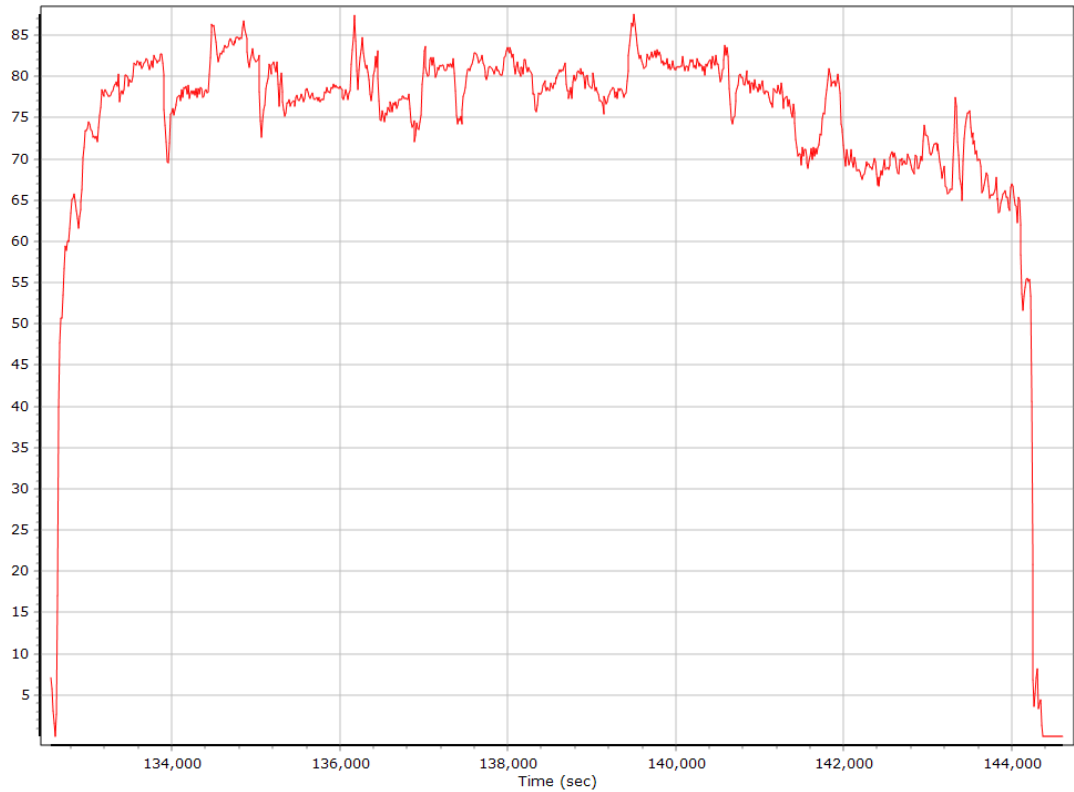
North/East Velocity



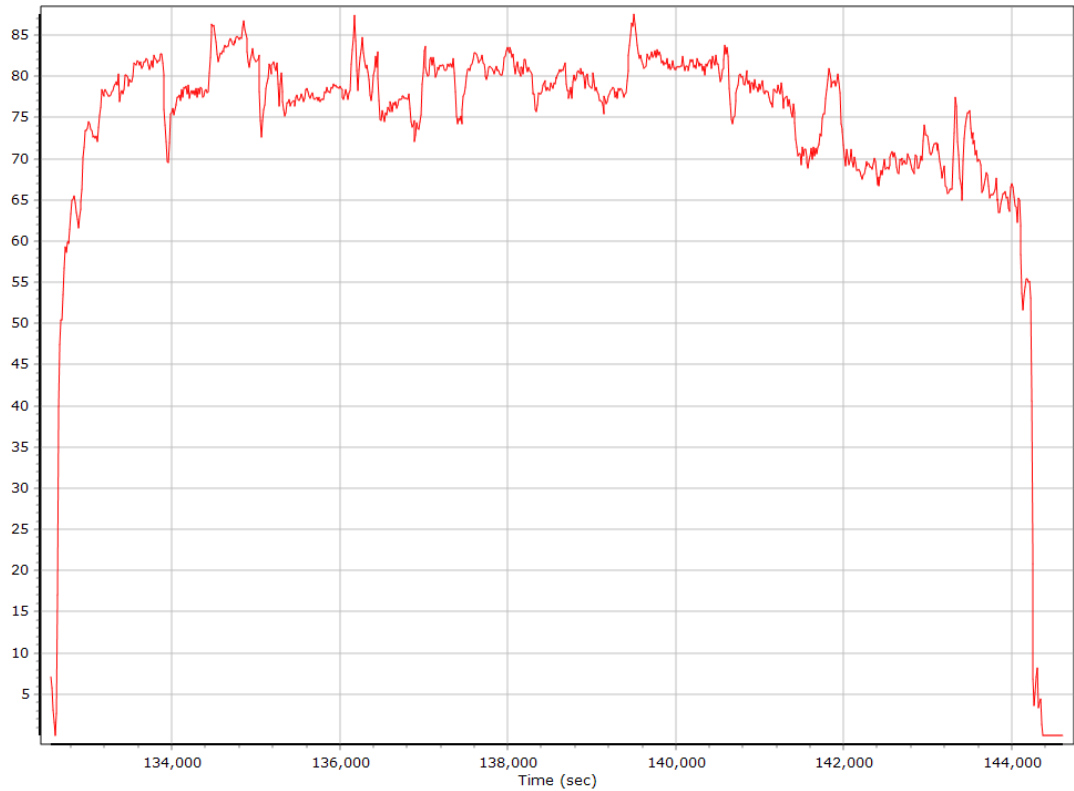
Down Velocity



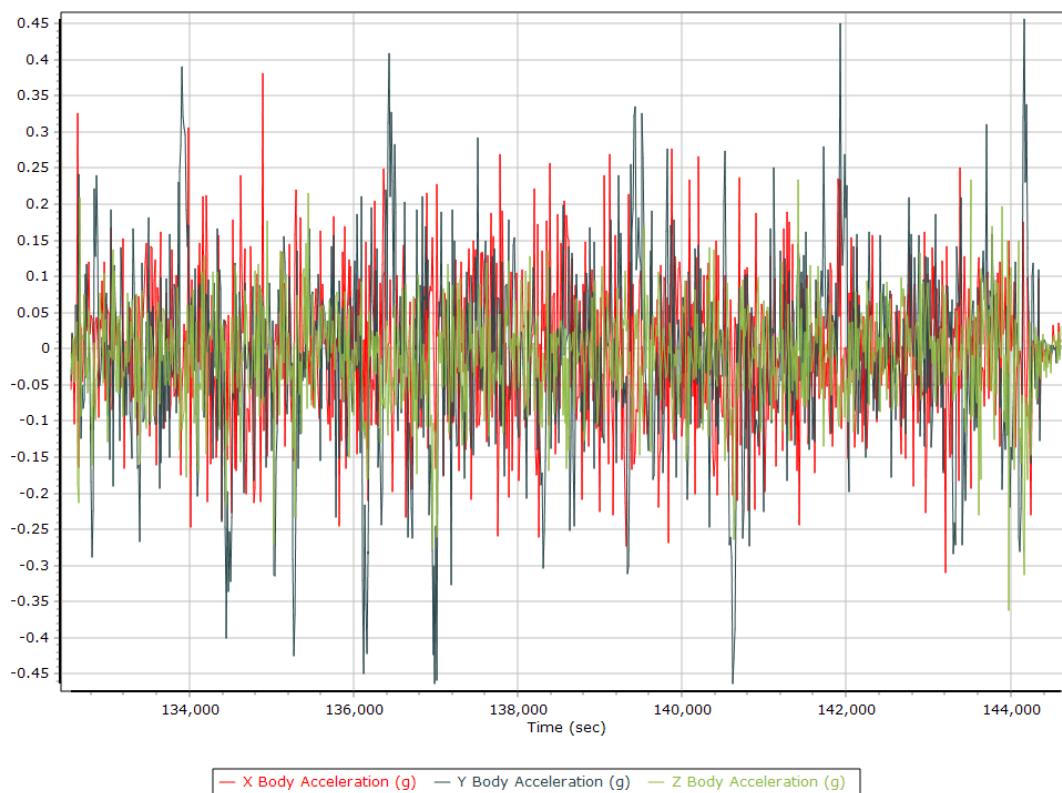
Total Speed



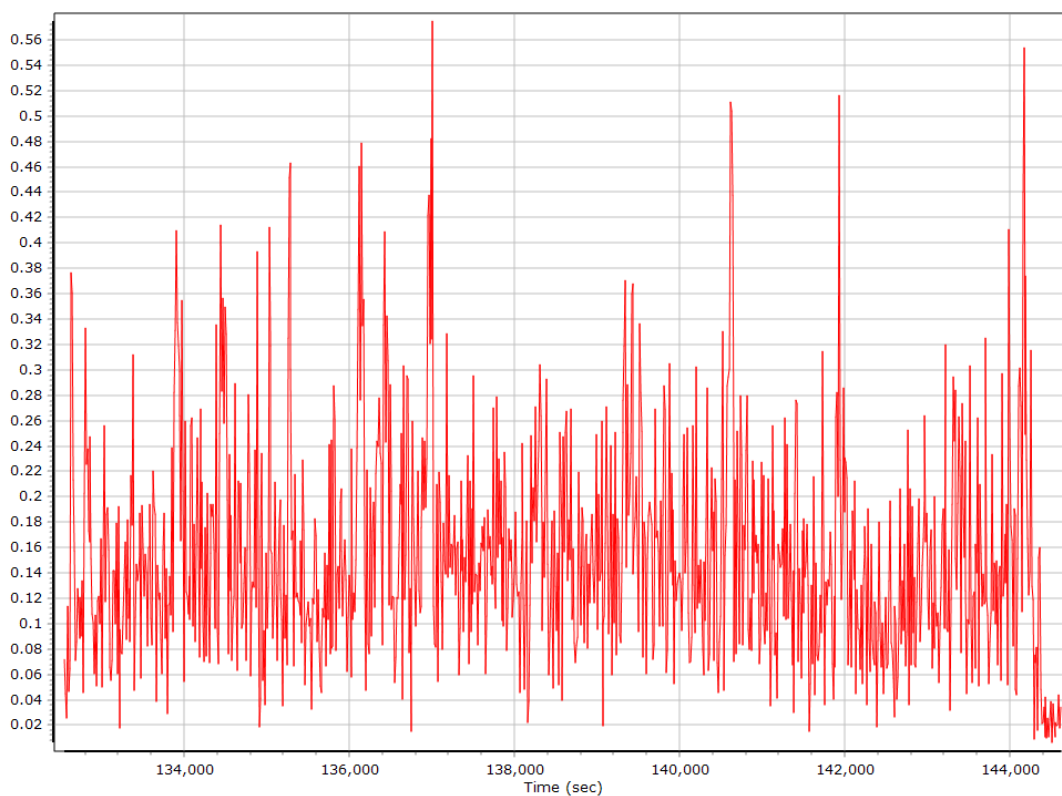
Ground Speed



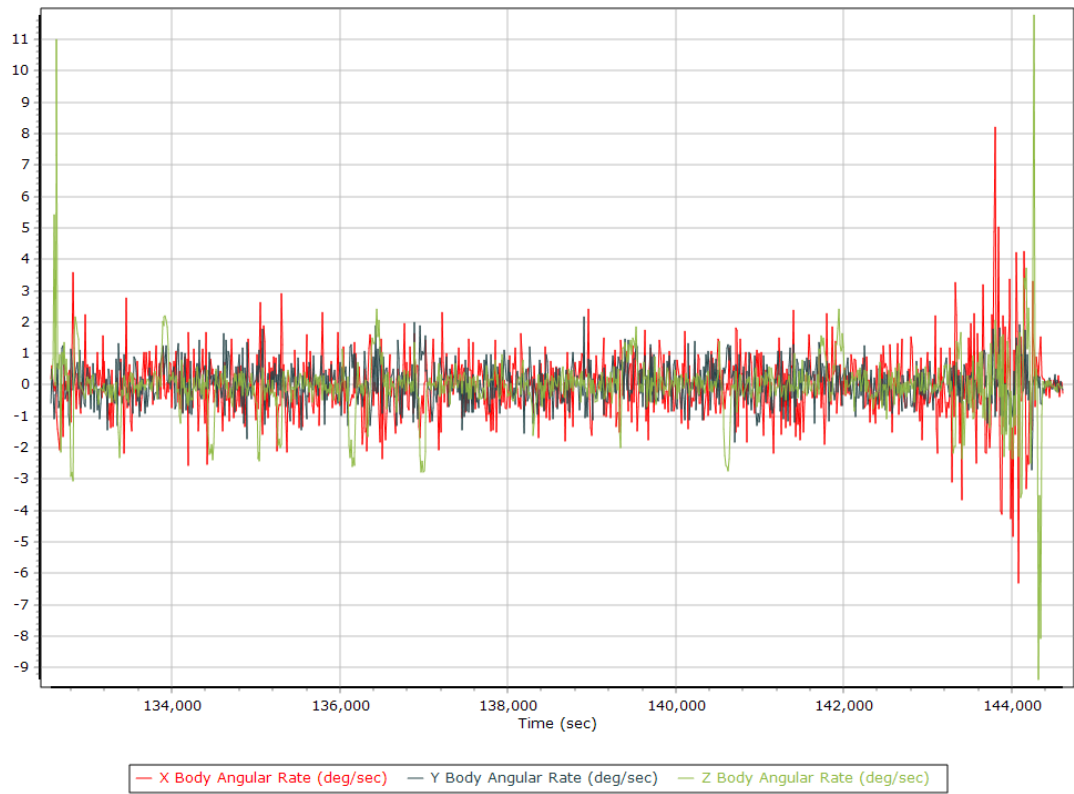
Body Acceleration



Total Body Acceleration

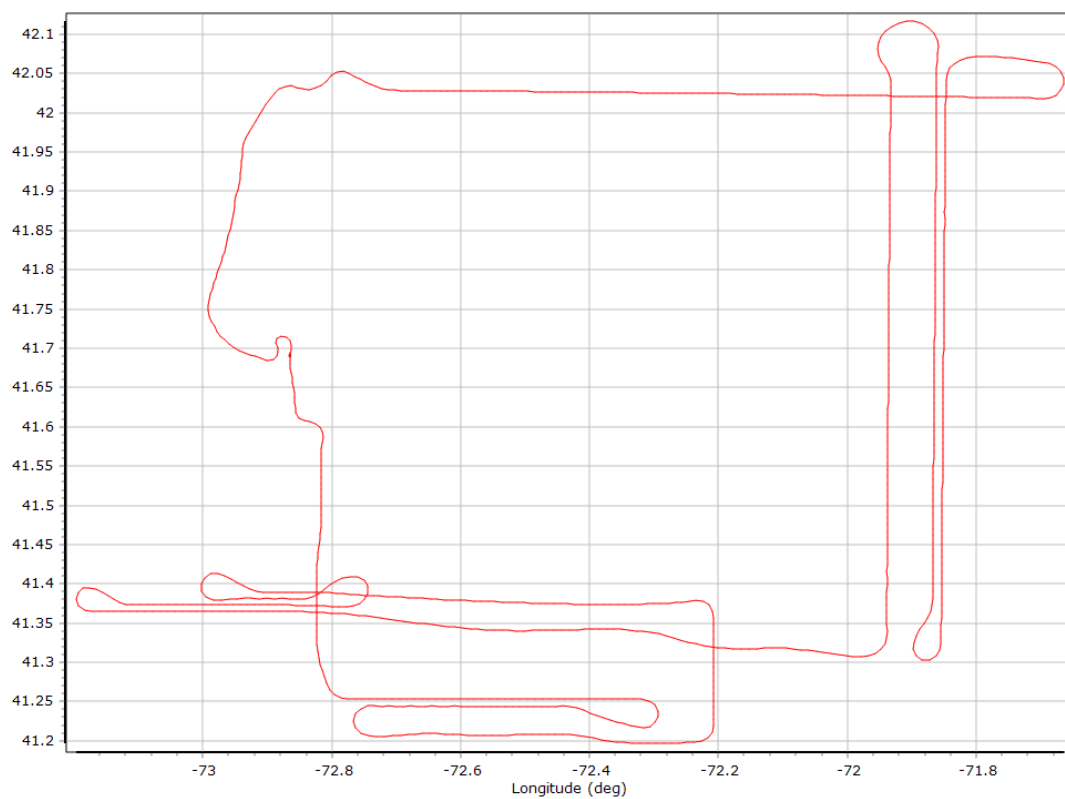


Body Angular Rate

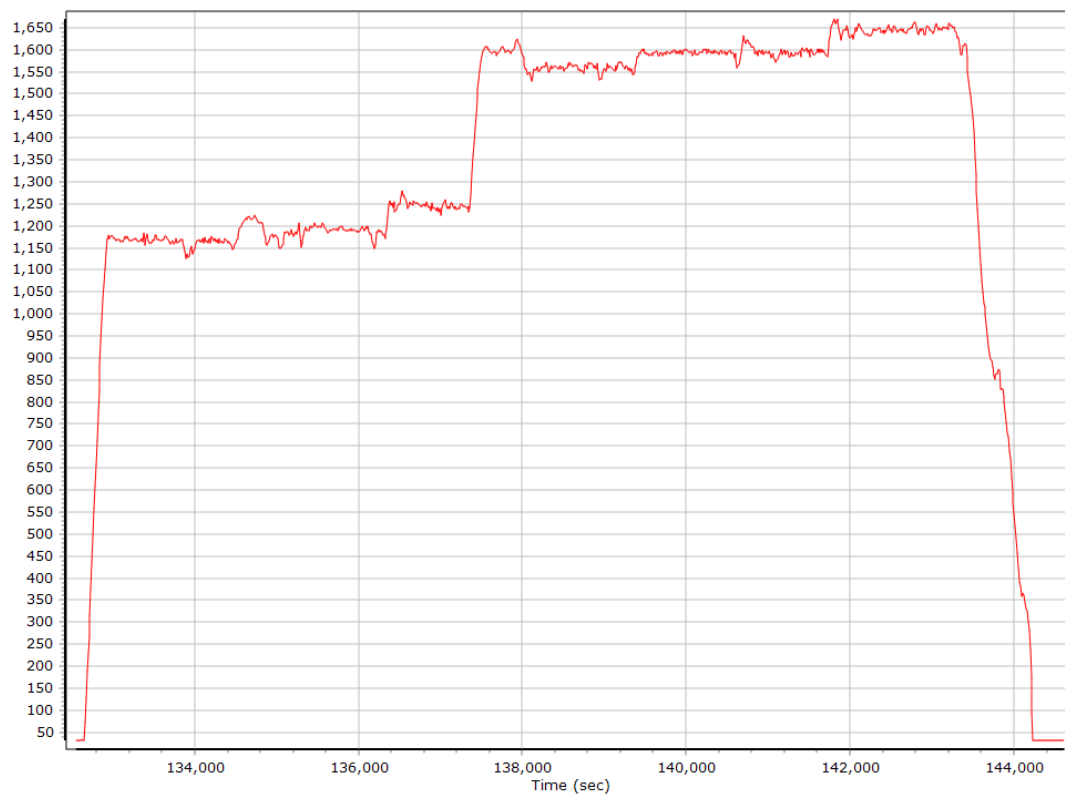


Forward Processed Trajectory Information

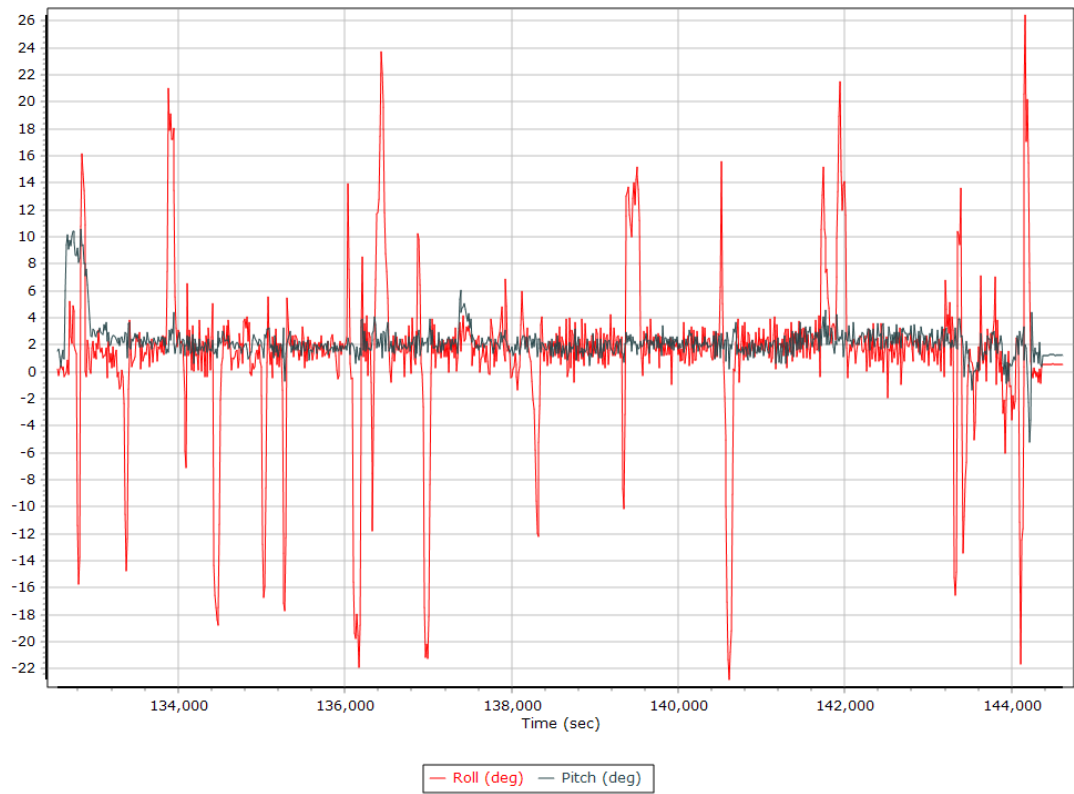
Top View



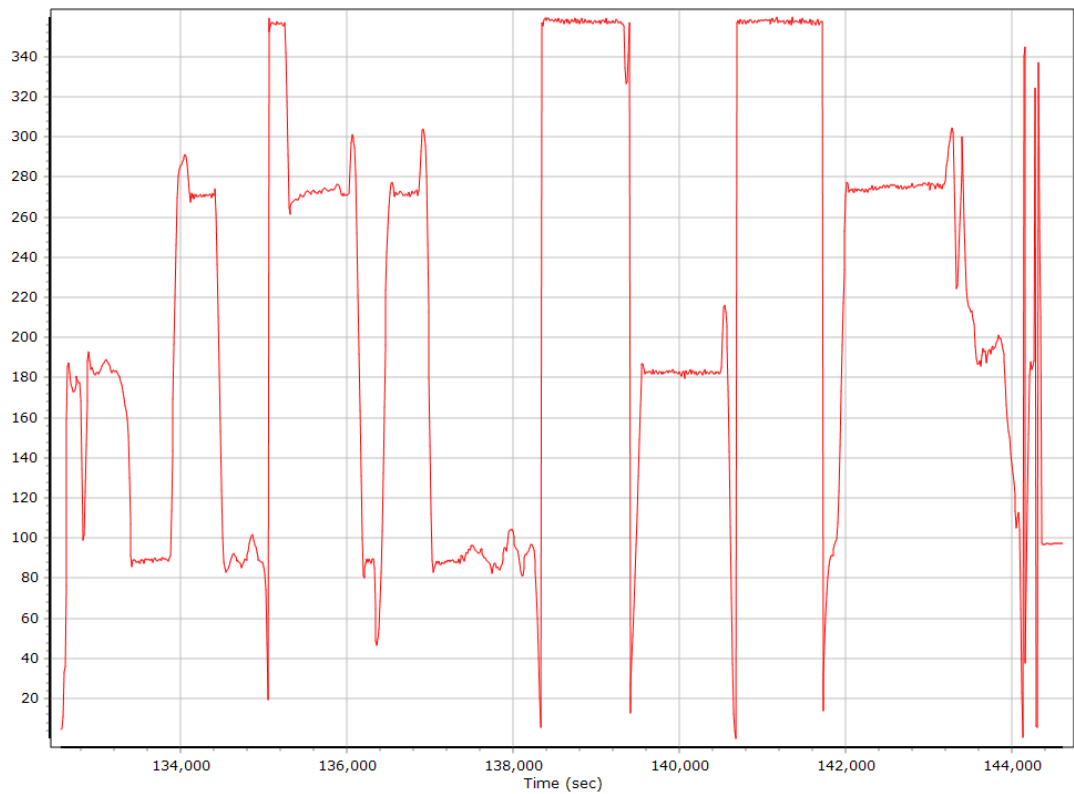
Altitude



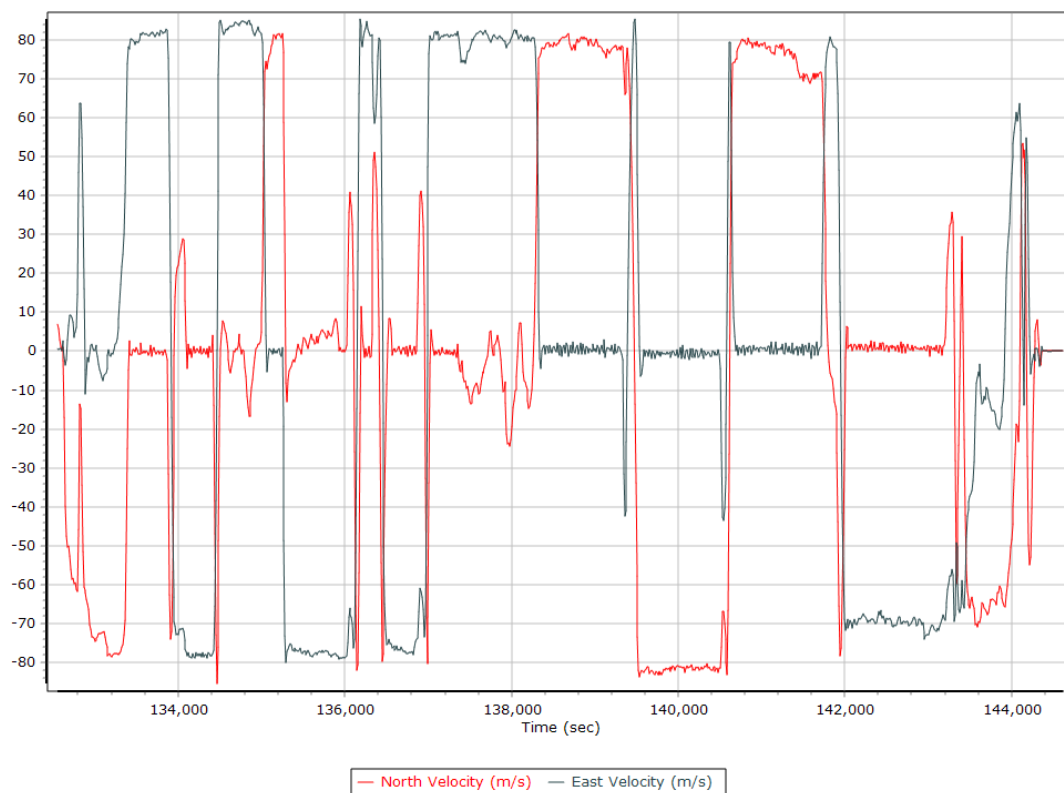
Roll/Pitch



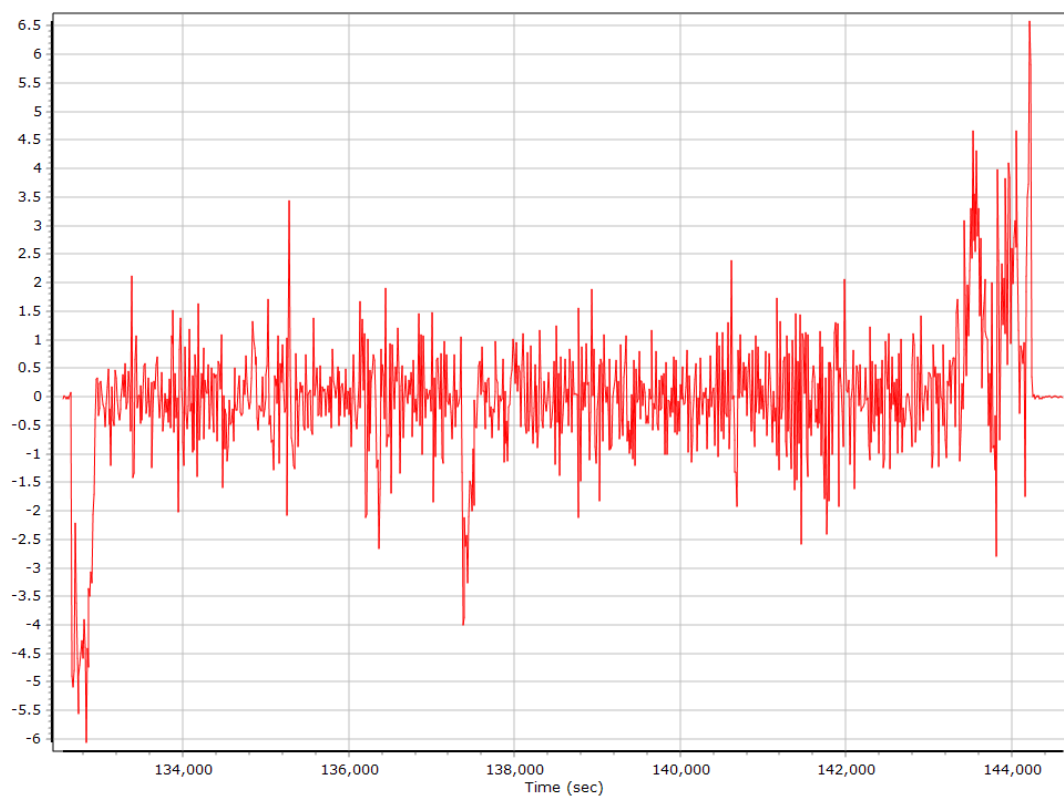
Heading



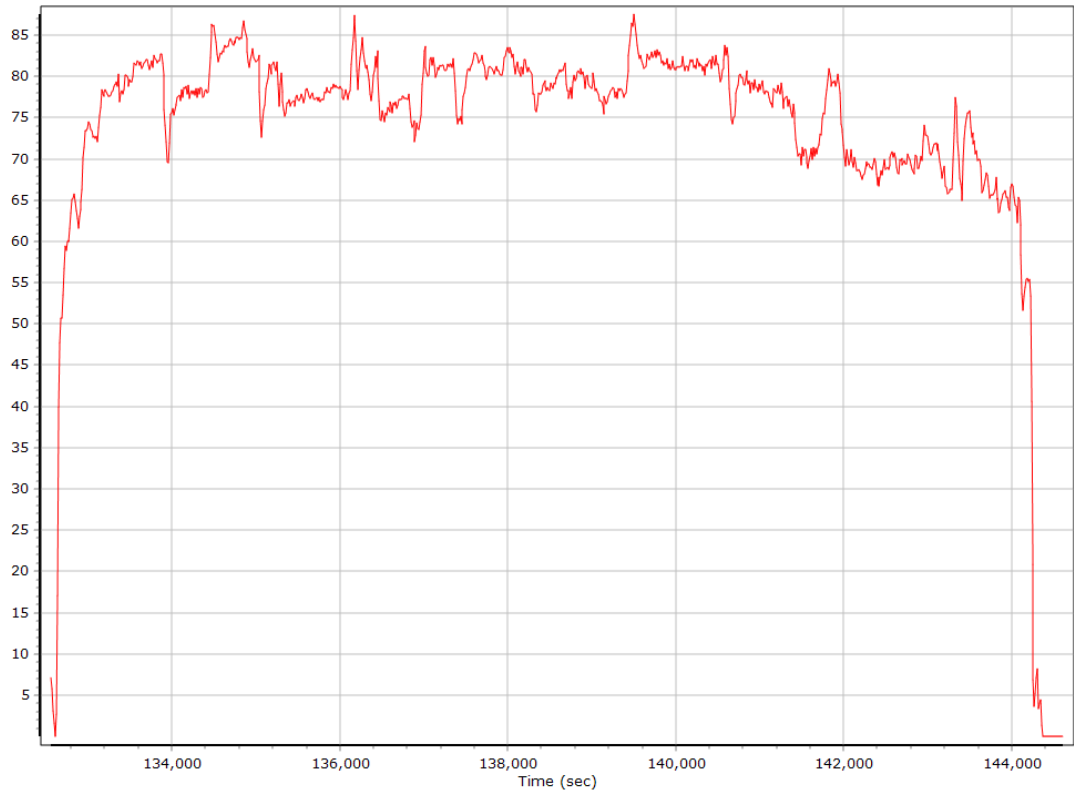
North/East Velocity



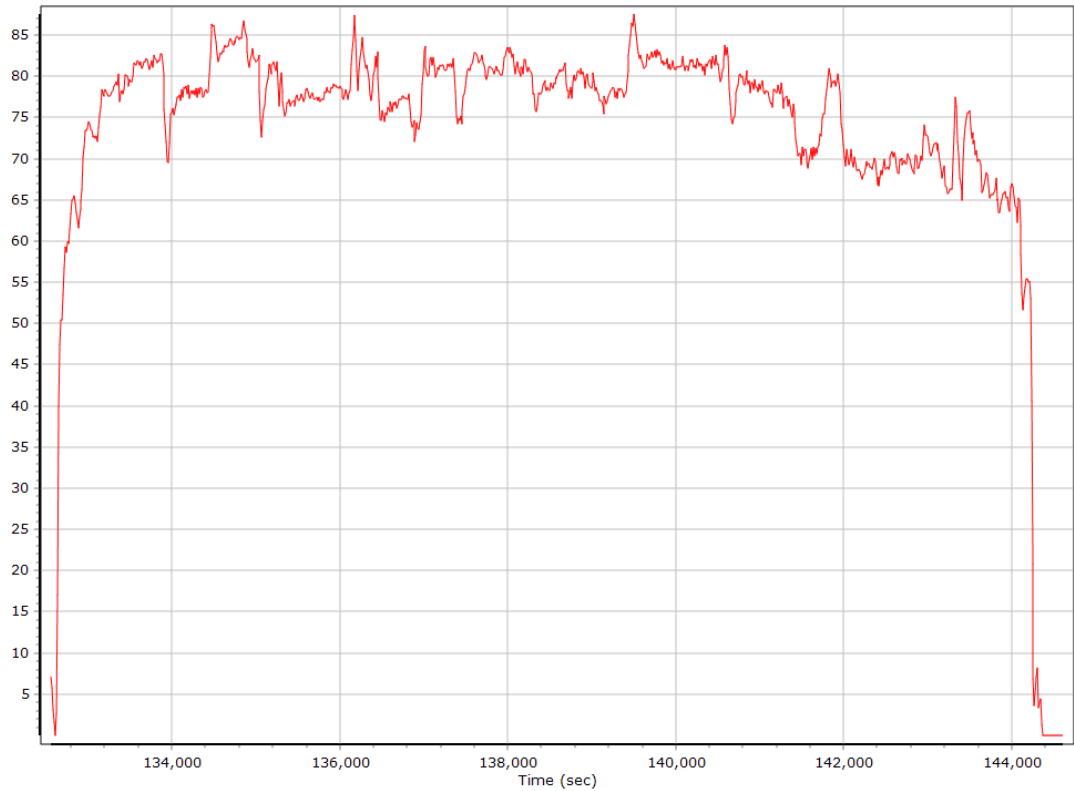
Down Velocity



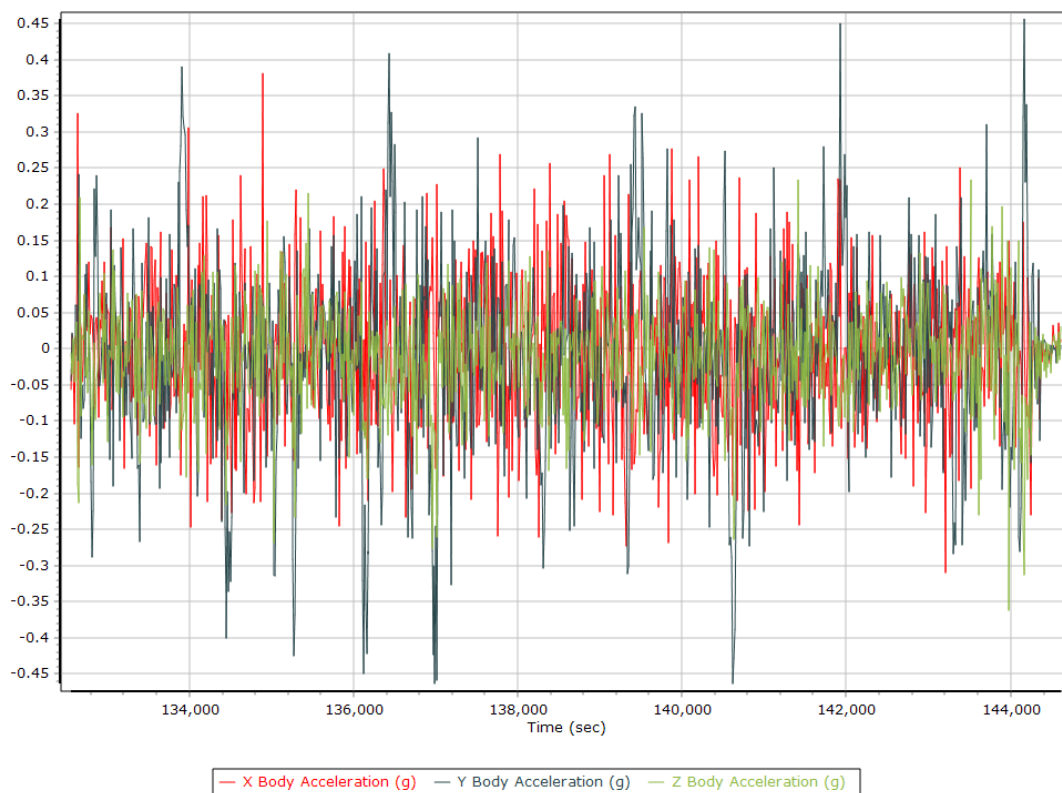
Total Speed



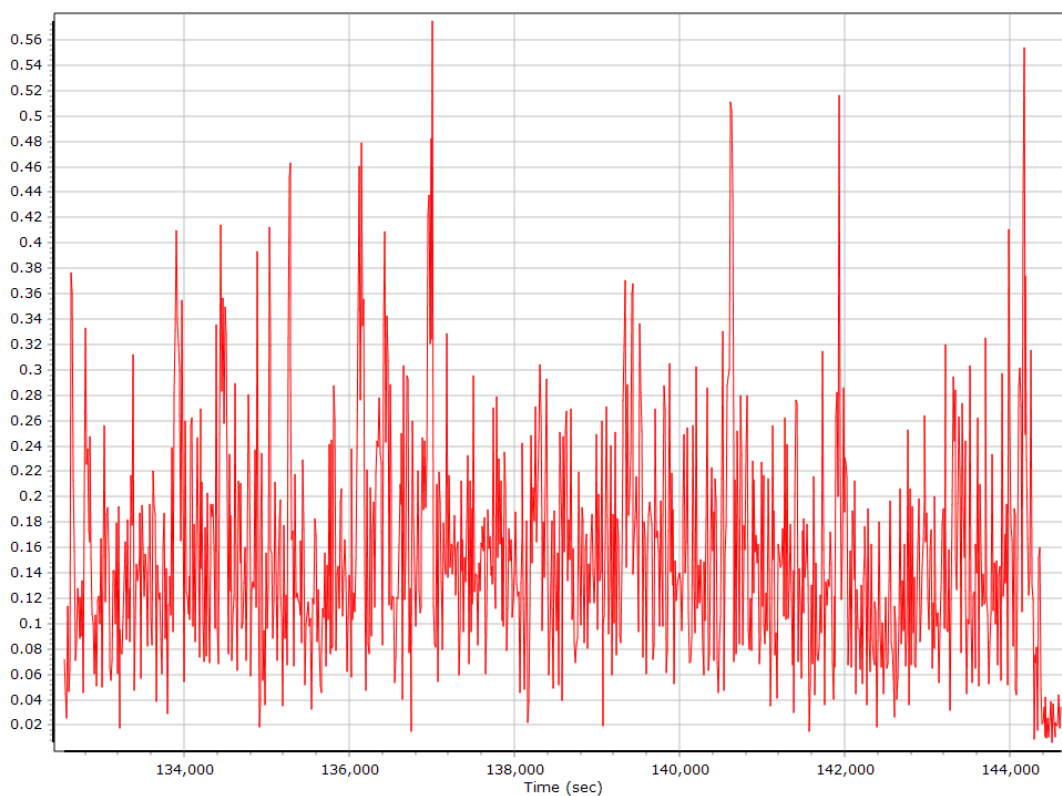
Ground Speed



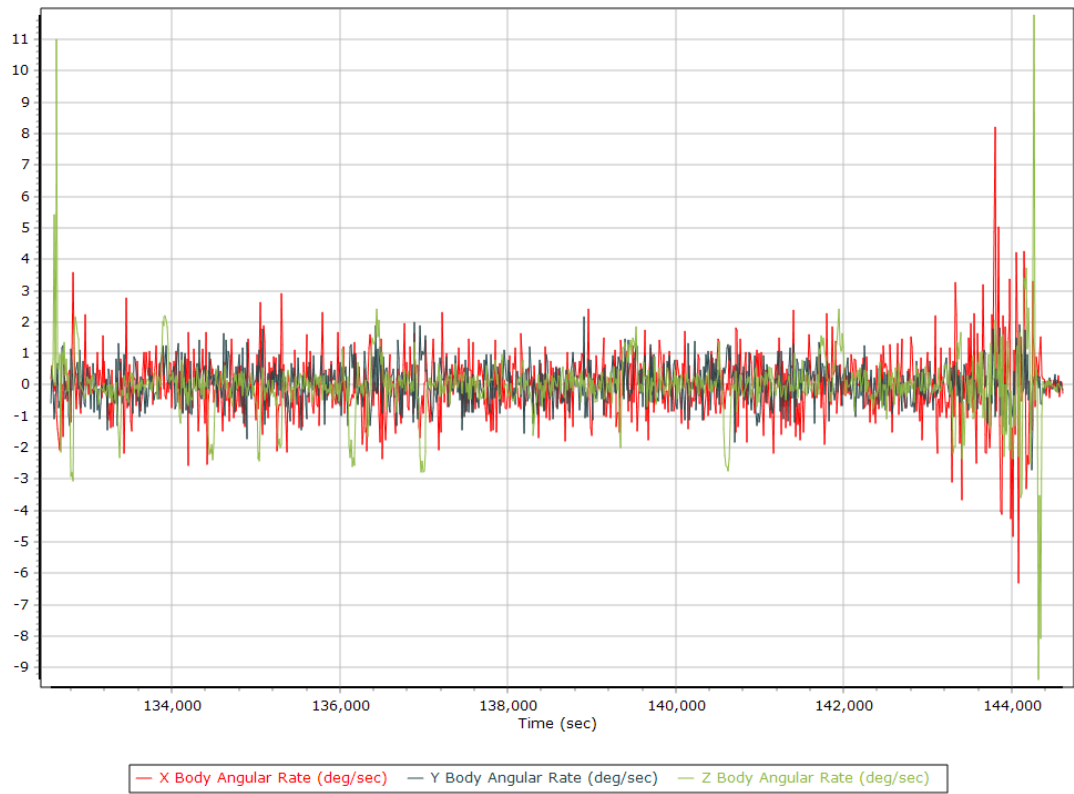
Body Acceleration



Total Body Acceleration



Body Angular Rate

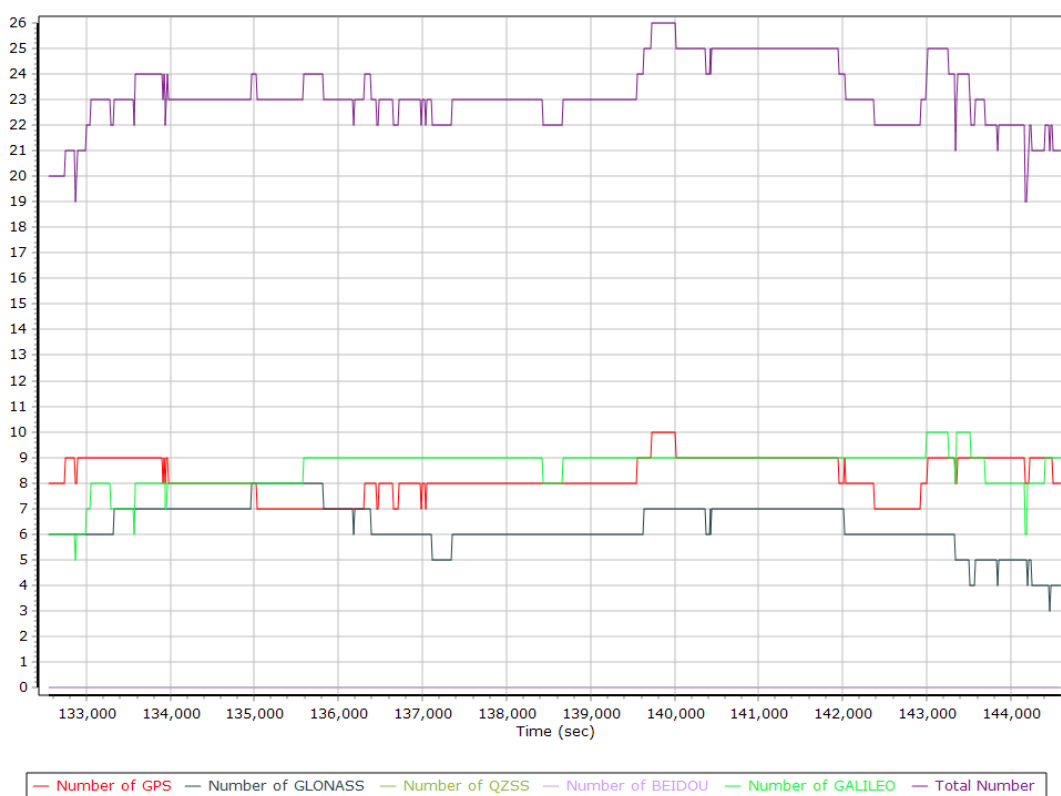


GNSS QC

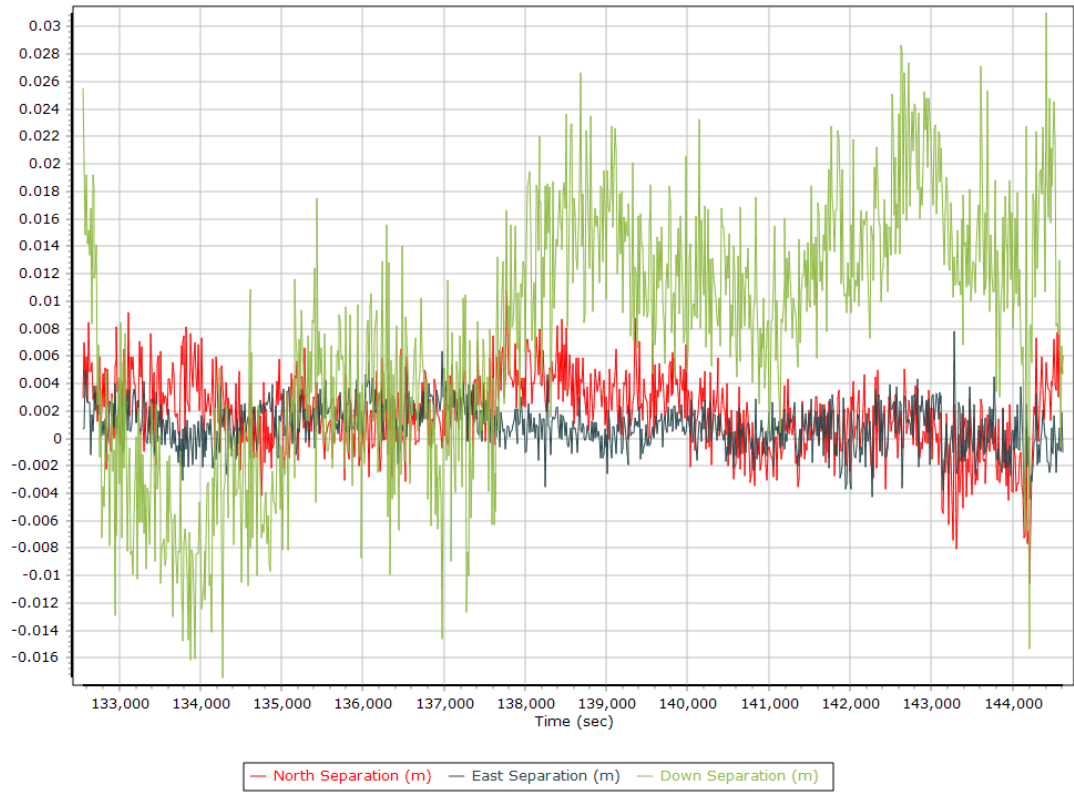
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	4	10	8
Number of GLONASS SV	3	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	0	10	8
Total number of SV	10	26	23
PDOP	0.89	2.75	1.12
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	12681.00	0.00	0.00
Percentage	100.00	0.00	0.00

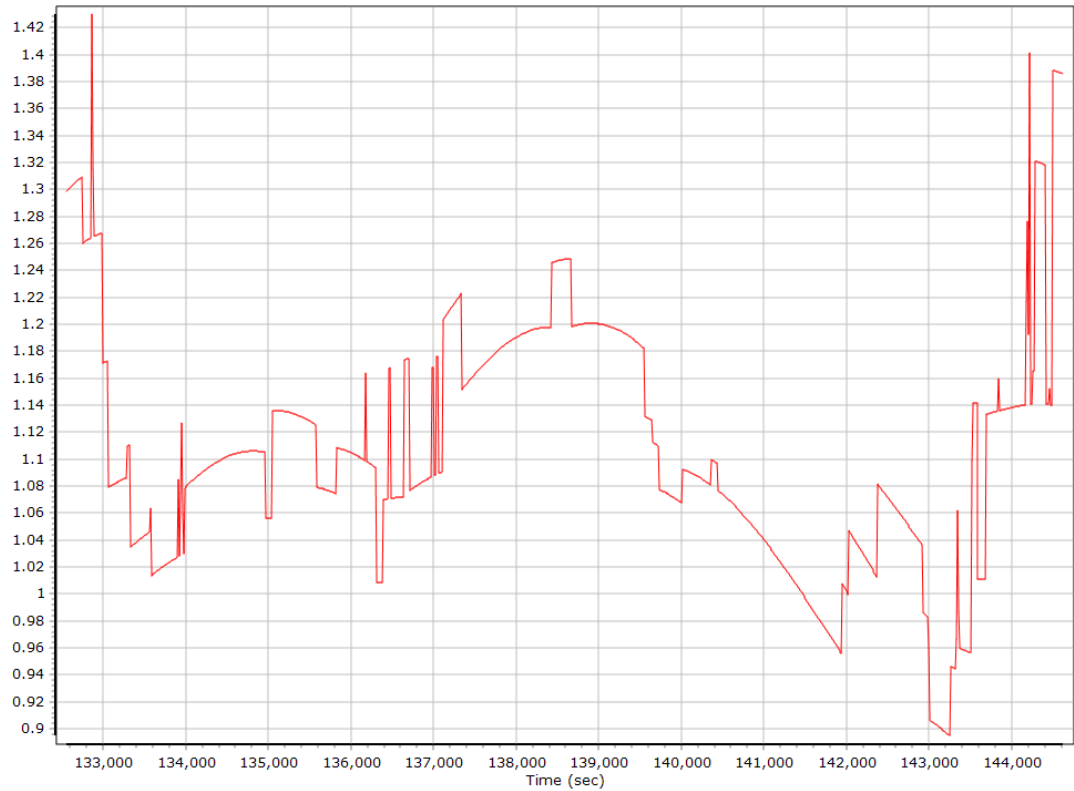
Num SVs in solution



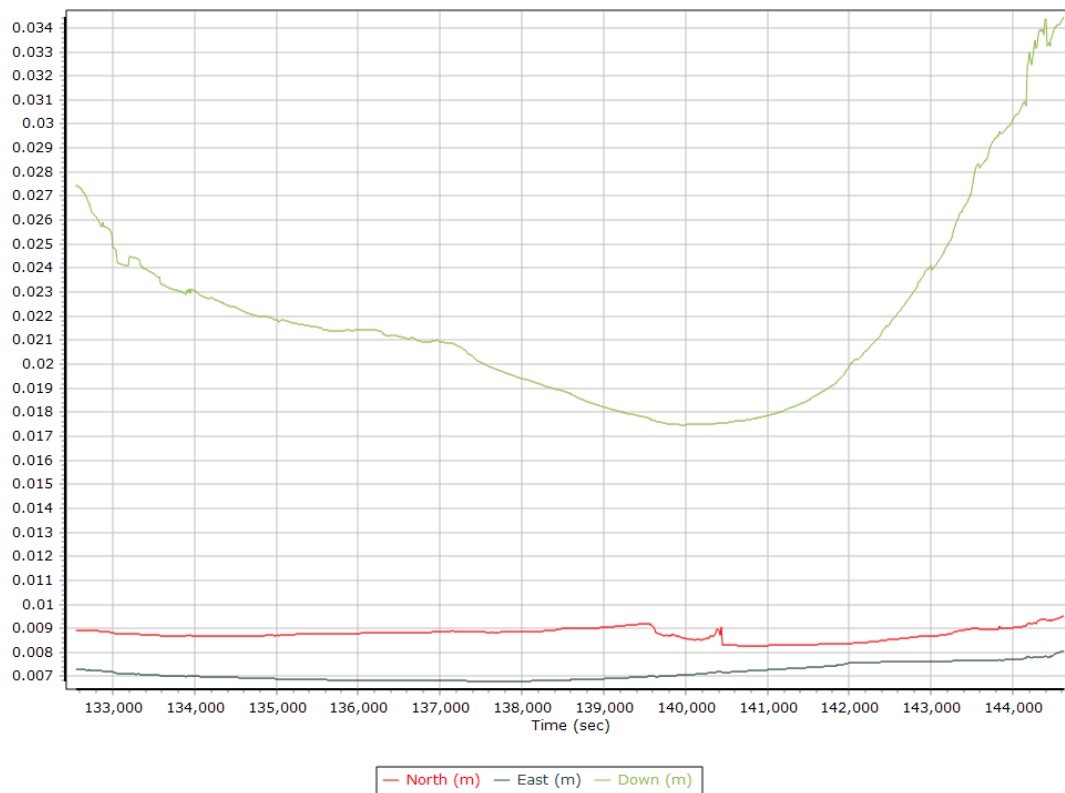
Forward/Reverse Separation



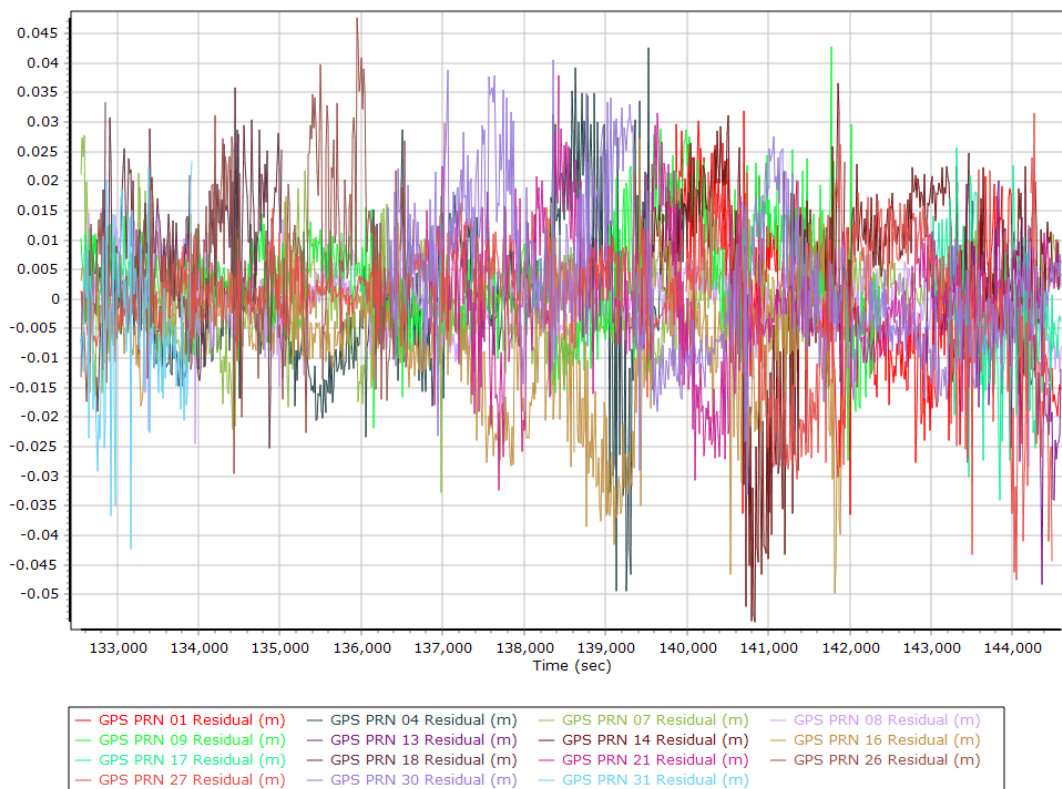
PDOP



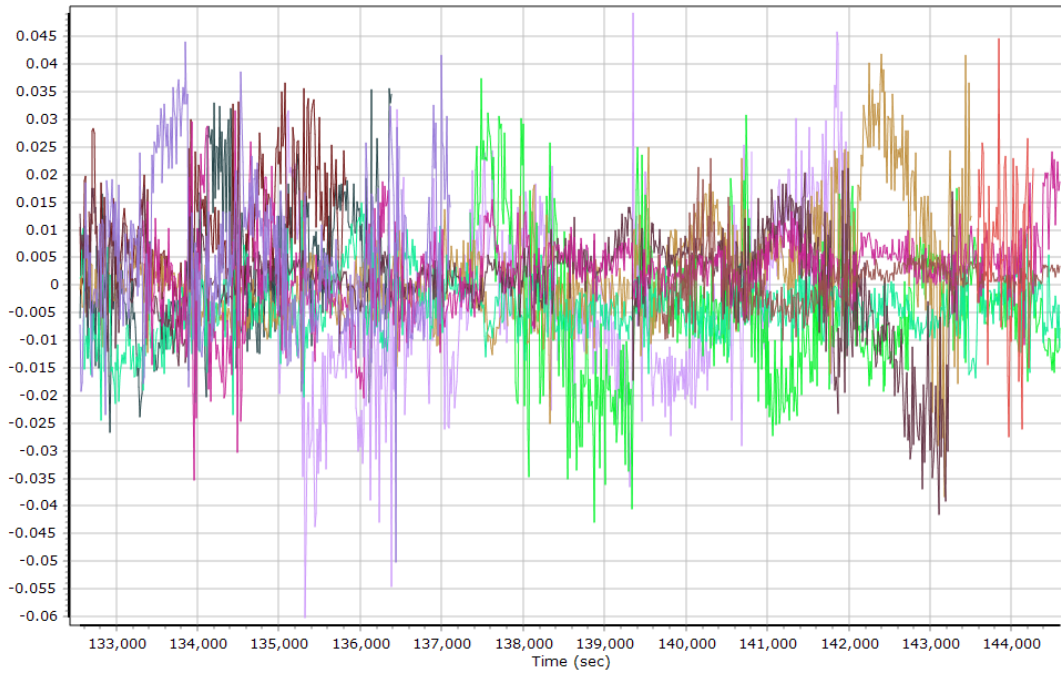
Estimated Position Accuracy



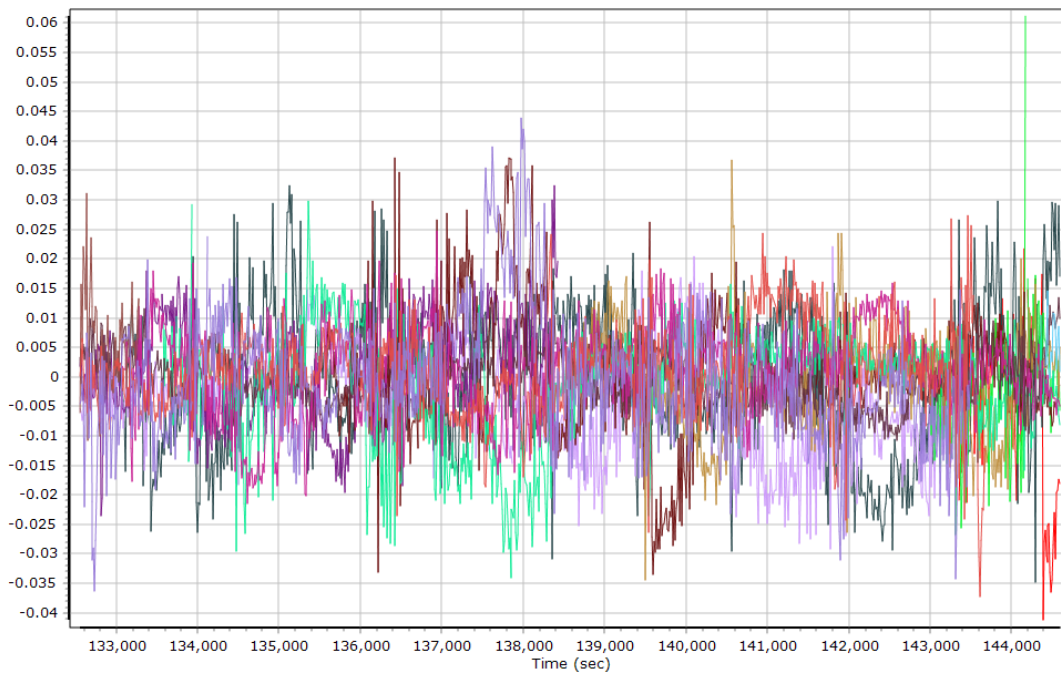
GPS Residuals



GLONASS Residuals



GALILEO Residuals



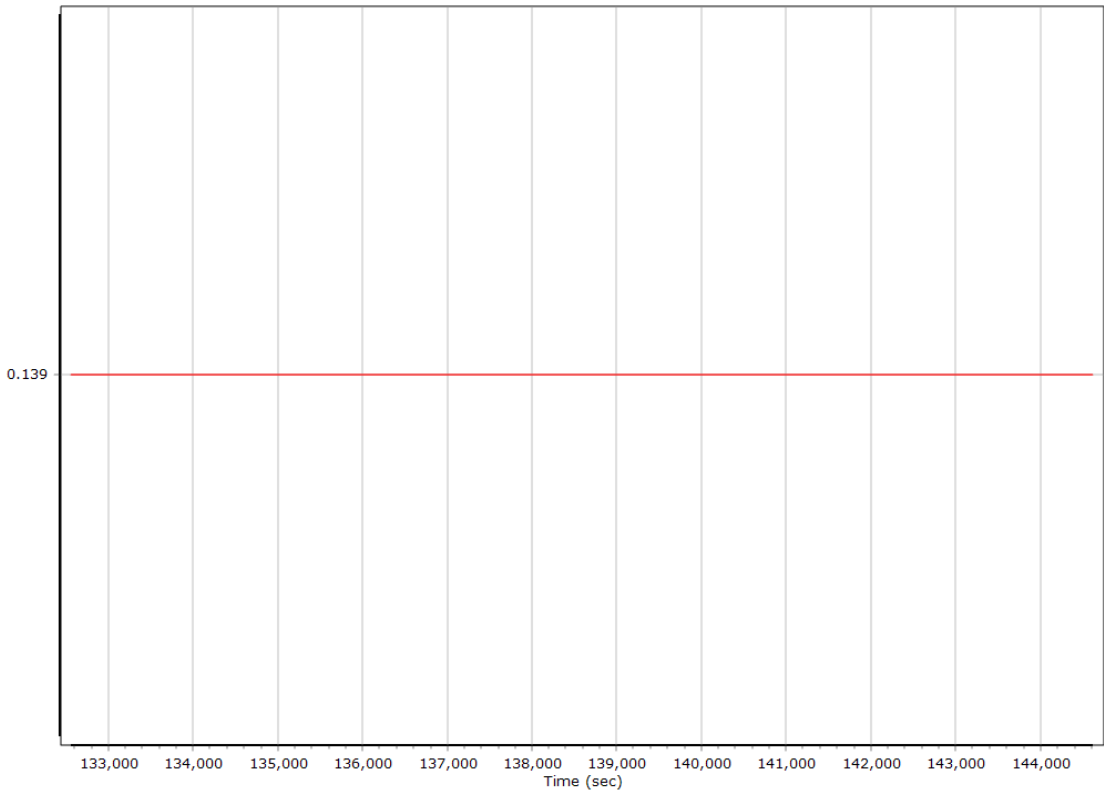
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	131899.000 (04/10/2023 12:38:19)		
Processing end time	144621.000 (04/10/2023 16:10:21)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

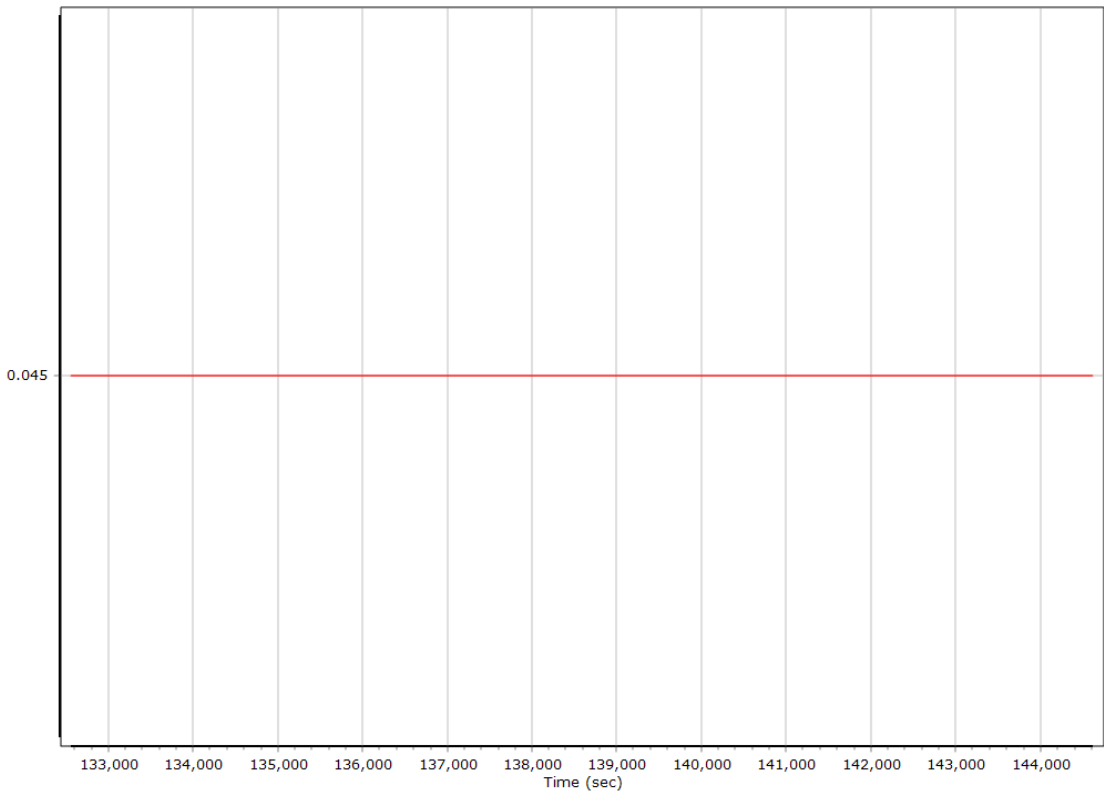
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

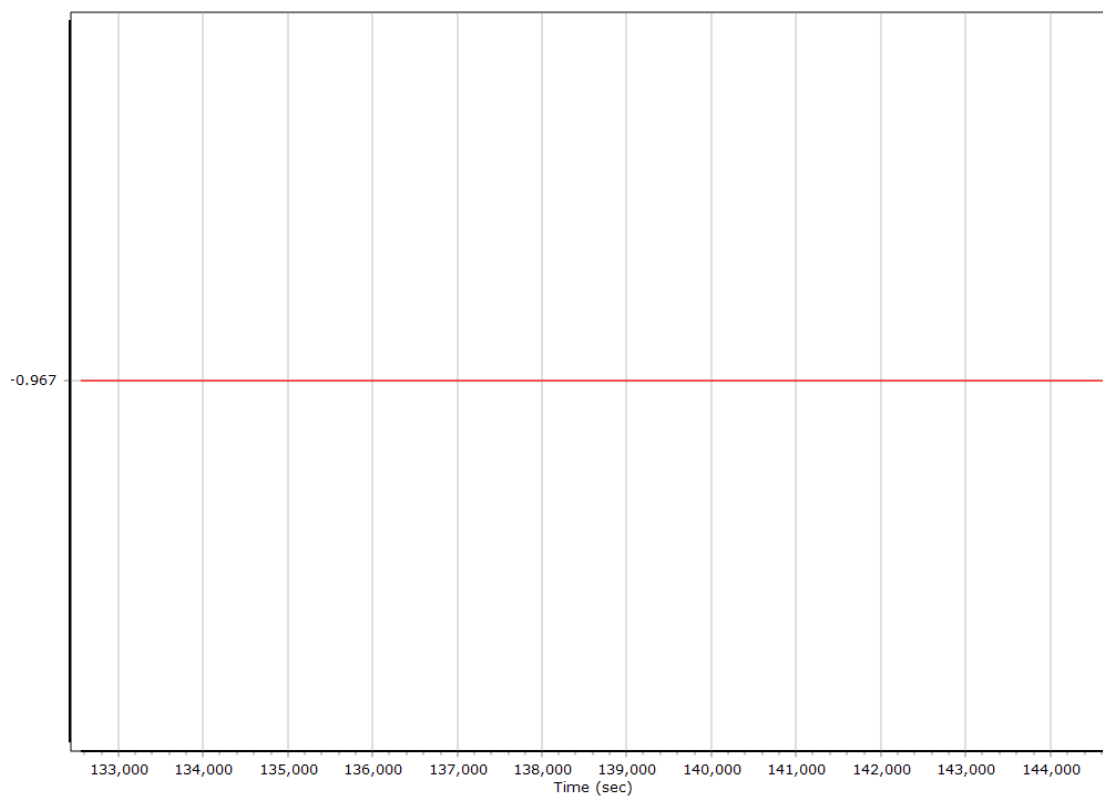
X Reference-Primary GNSS Lever Arm (m)



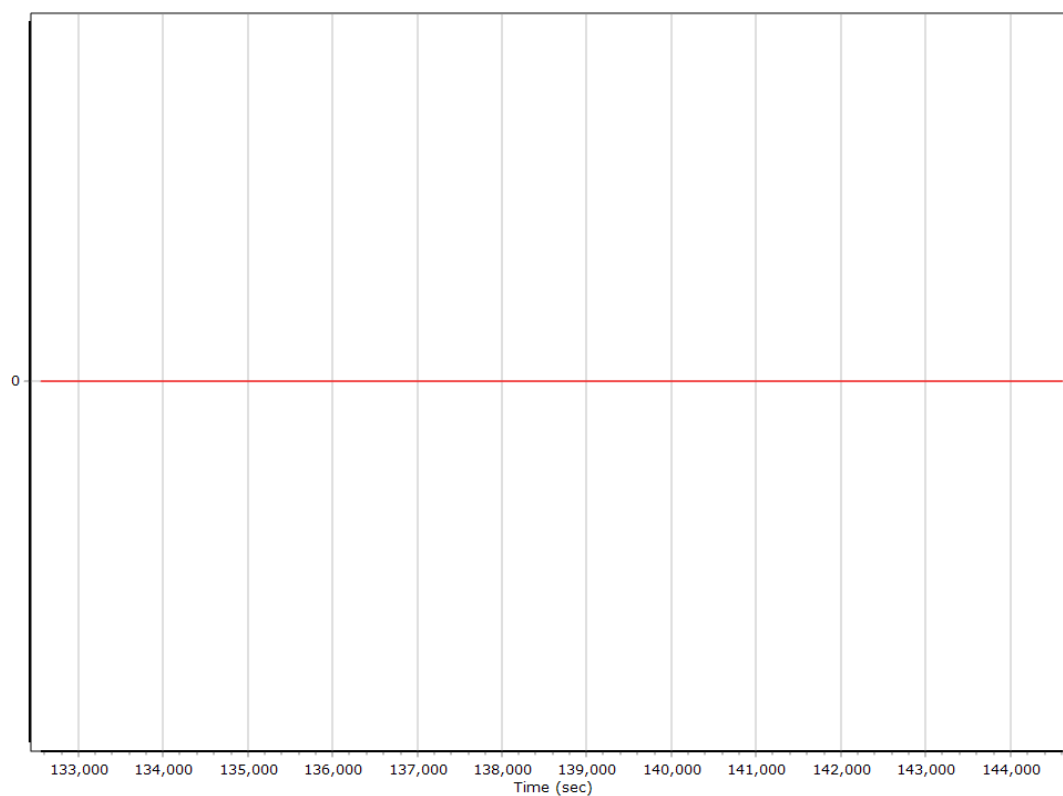
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



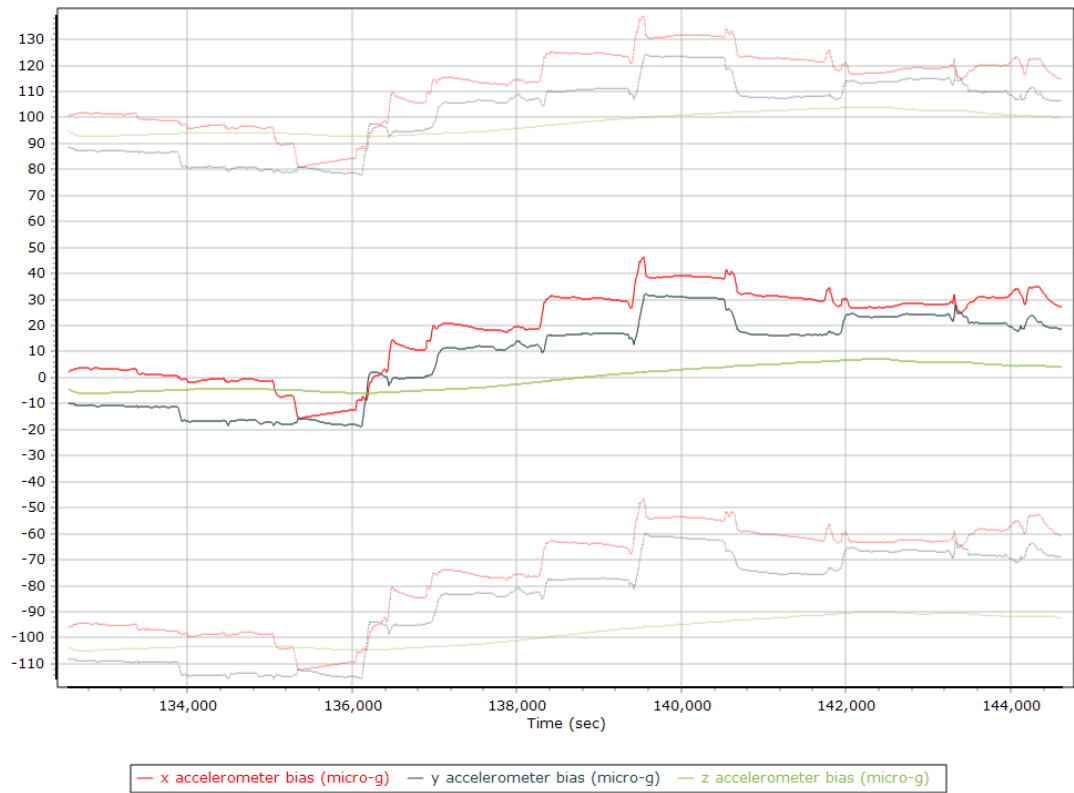
Reference-Primary GNSS Lever Arm Figure of Merit



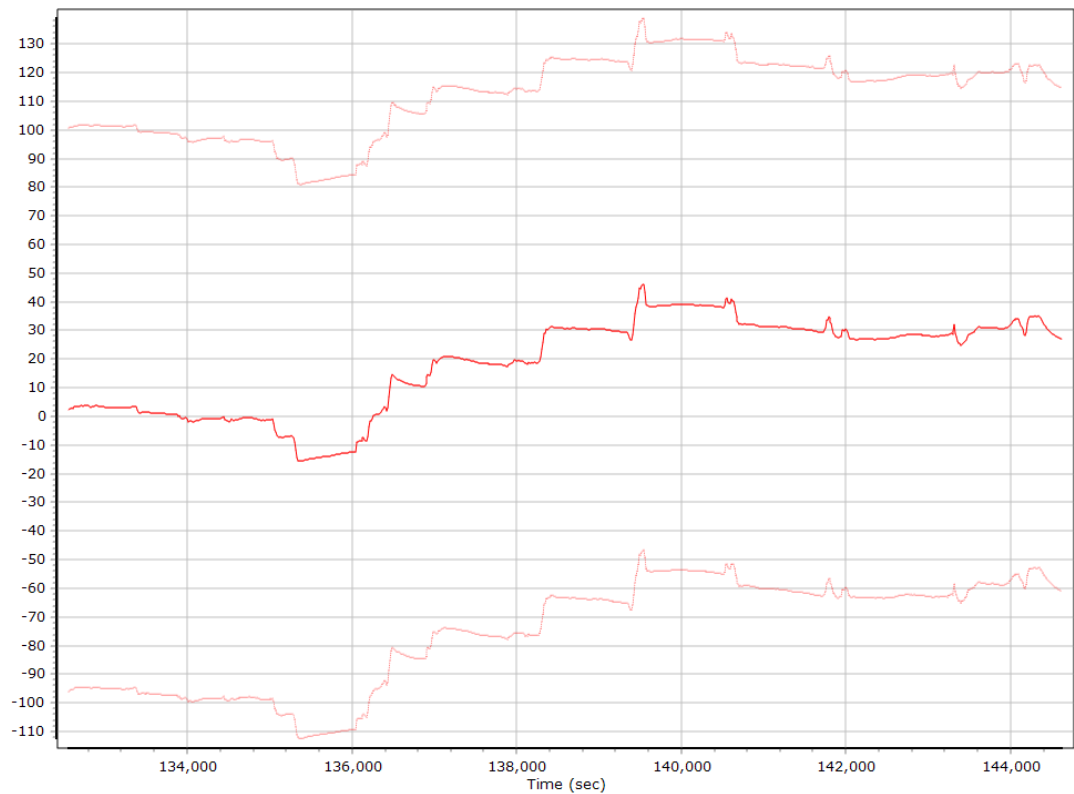
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

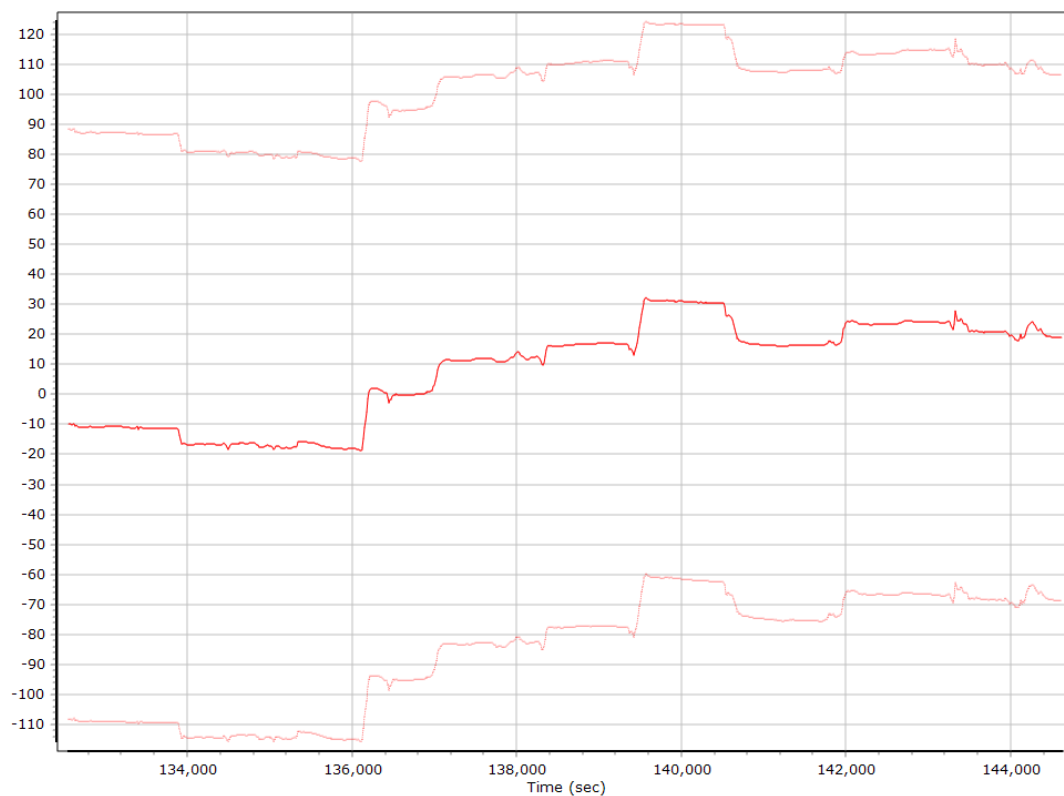
Accelerometer Bias (micro-g)



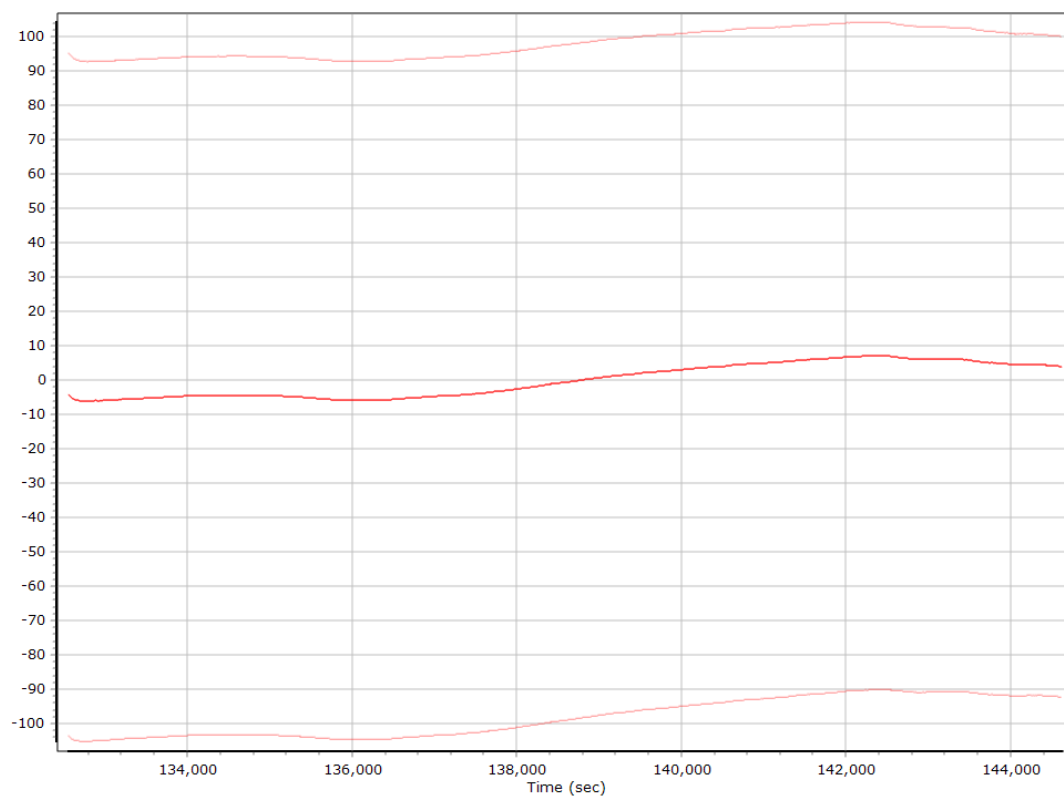
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



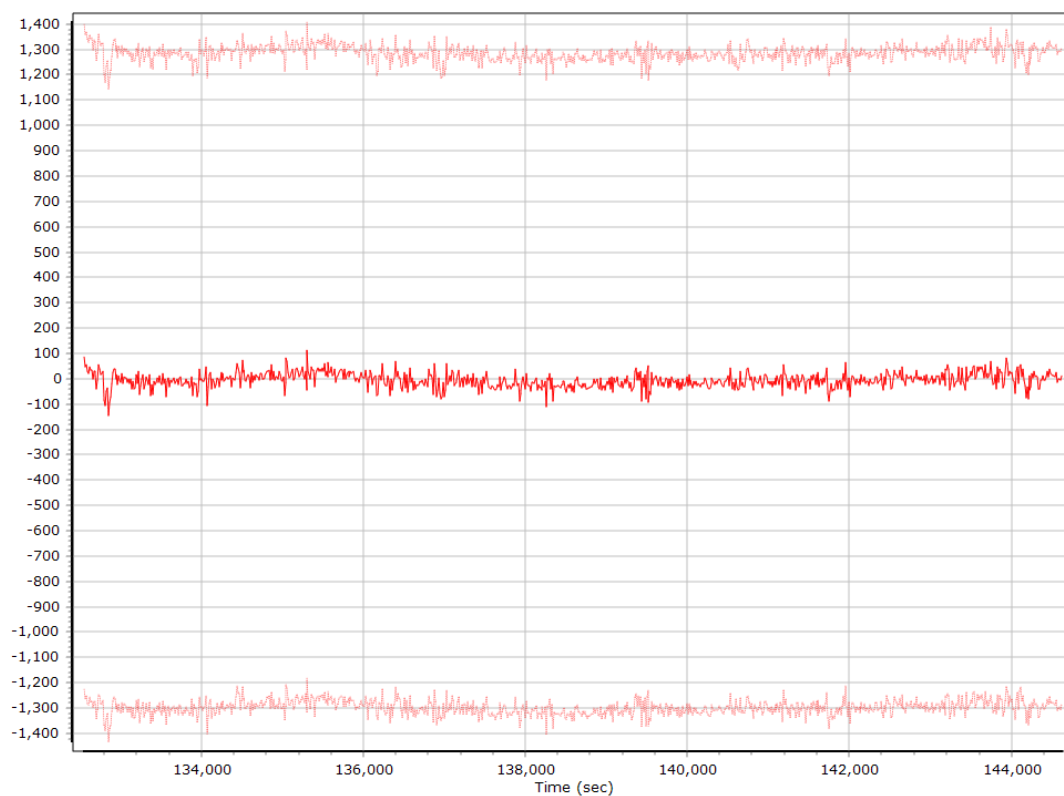
X Accelerometer Scale Error (ppm)



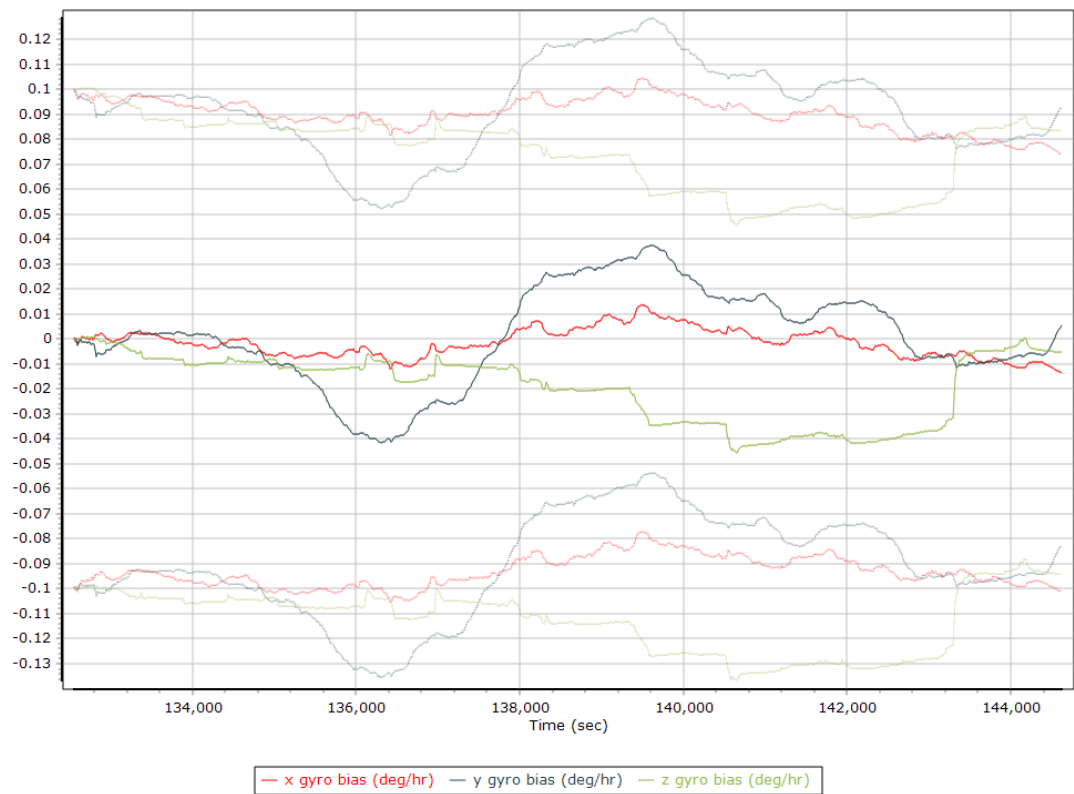
Y Accelerometer Scale Error (ppm)



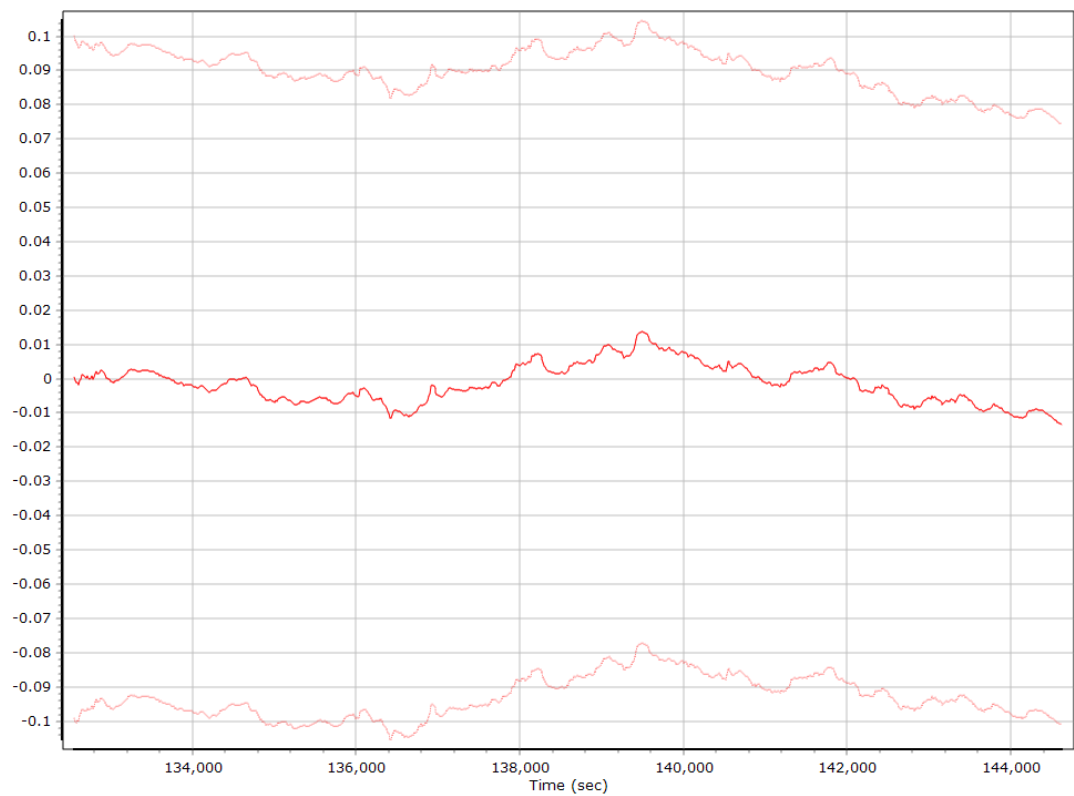
Z Accelerometer Scale Error (ppm)



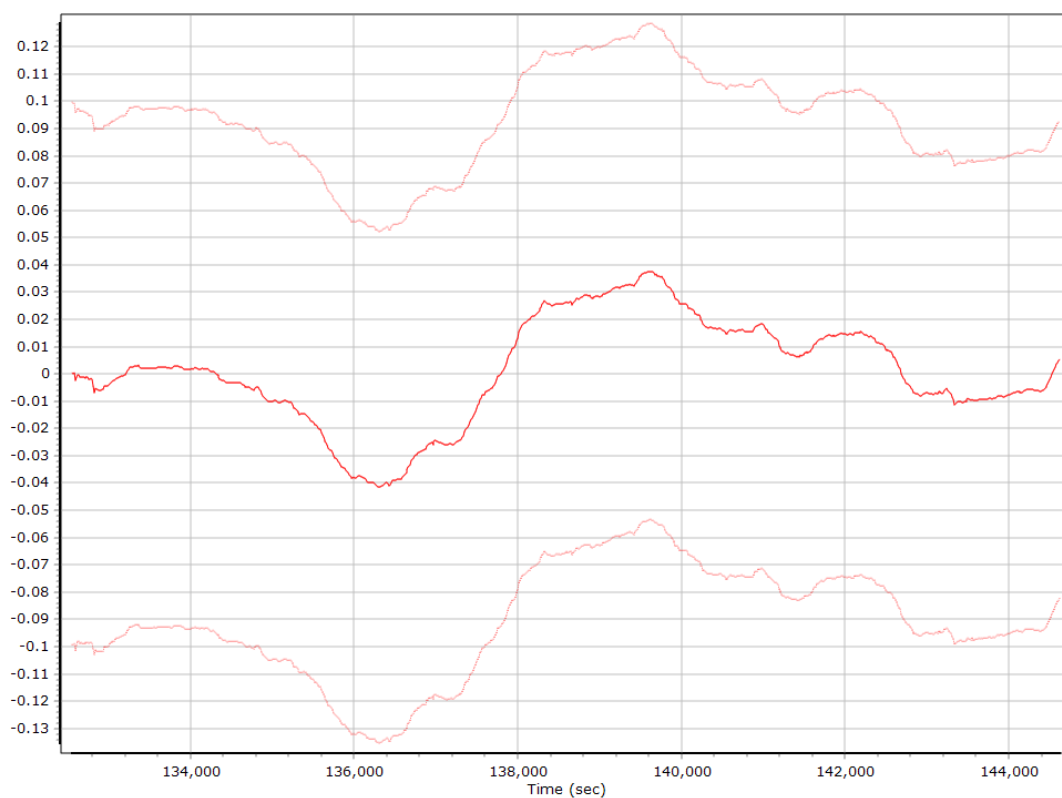
Gyro Bias (deg/h)



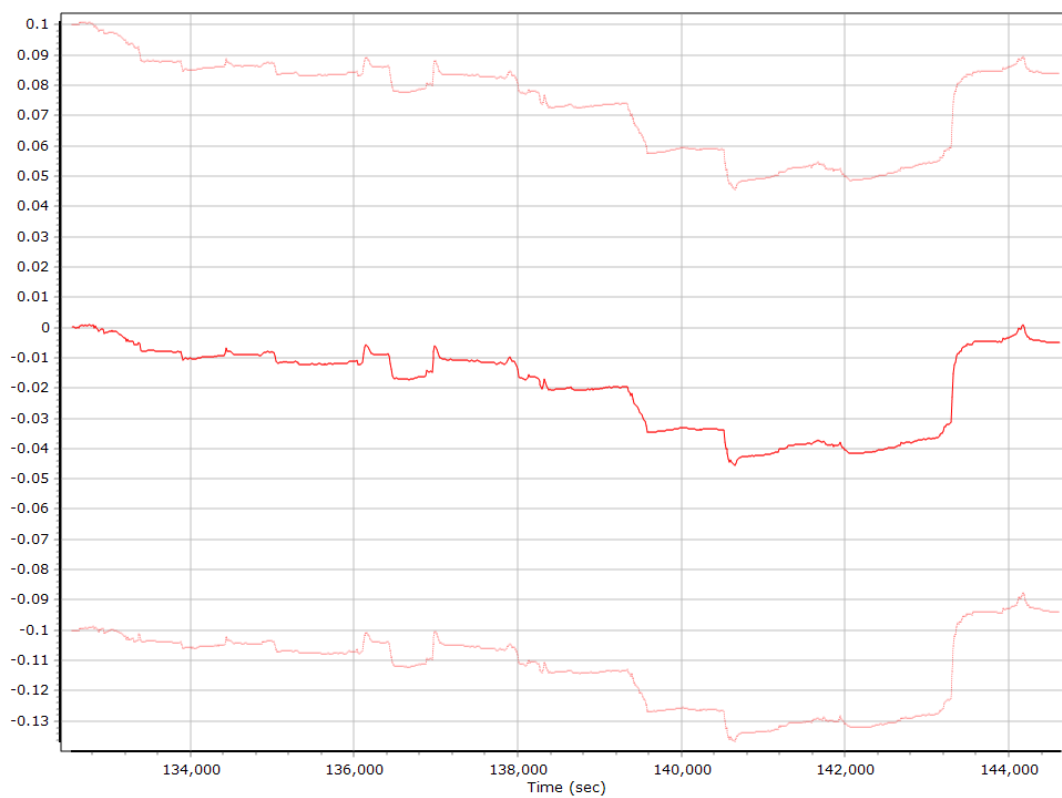
X Gyro Bias (deg/h)



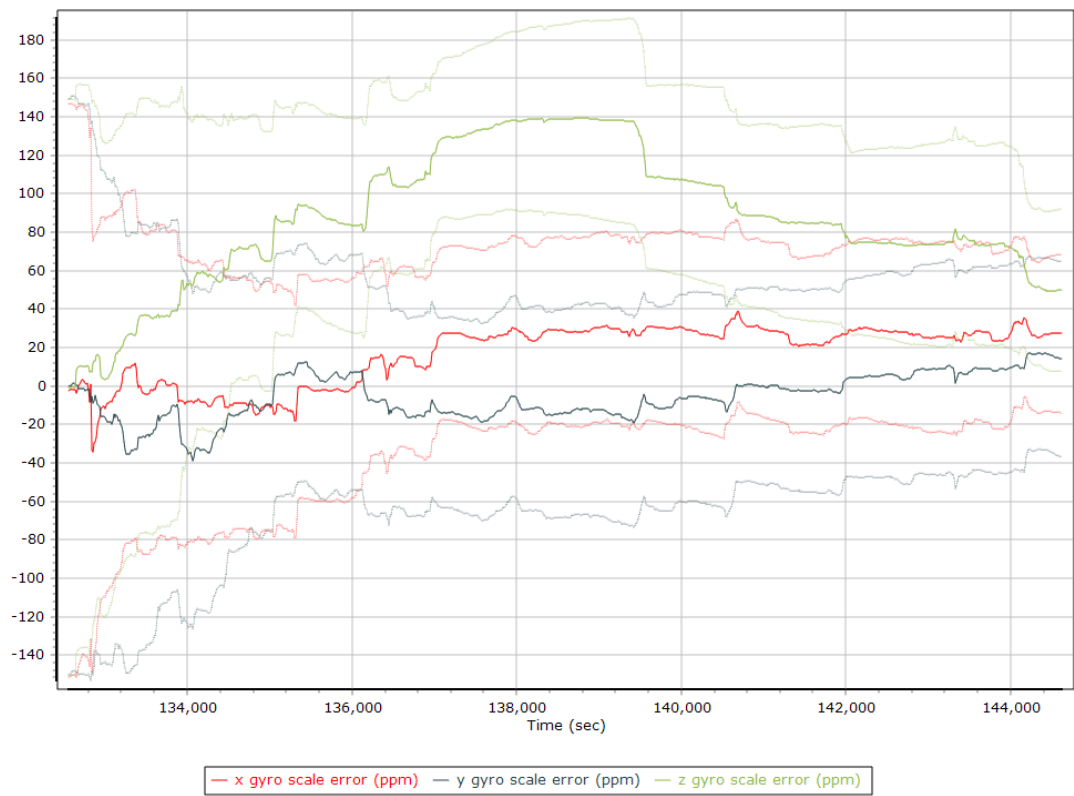
Y Gyro Bias (deg/h)



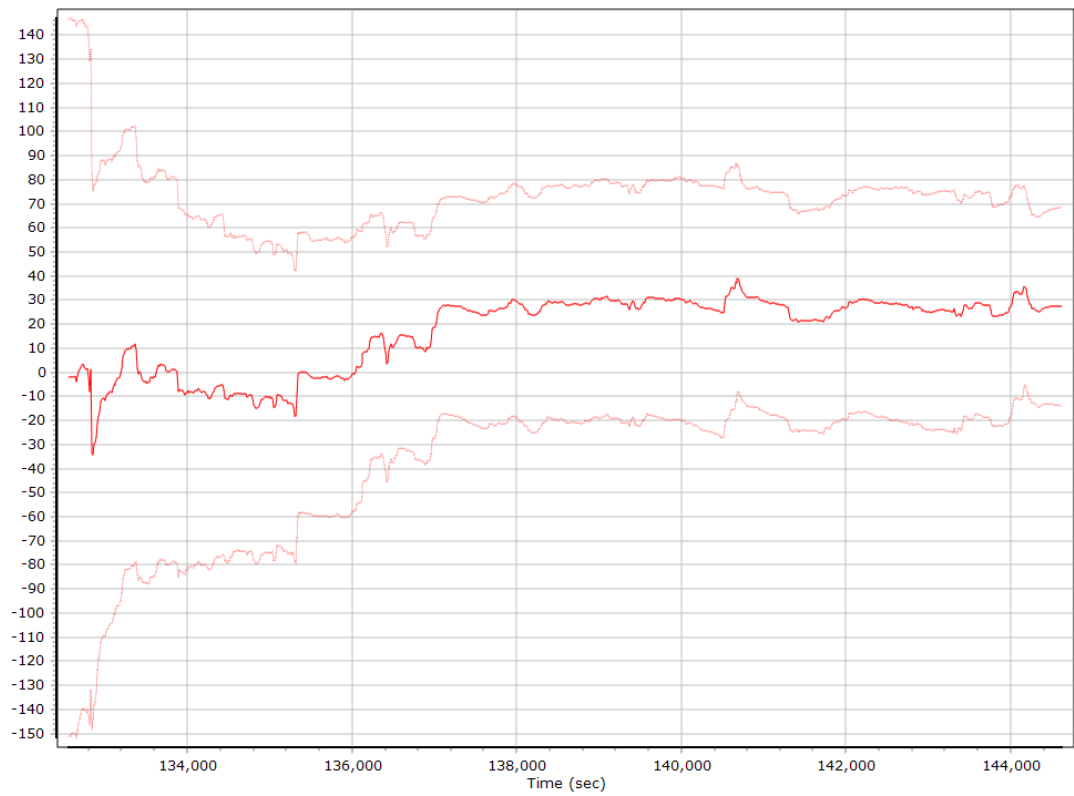
Z Gyro Bias (deg/h)



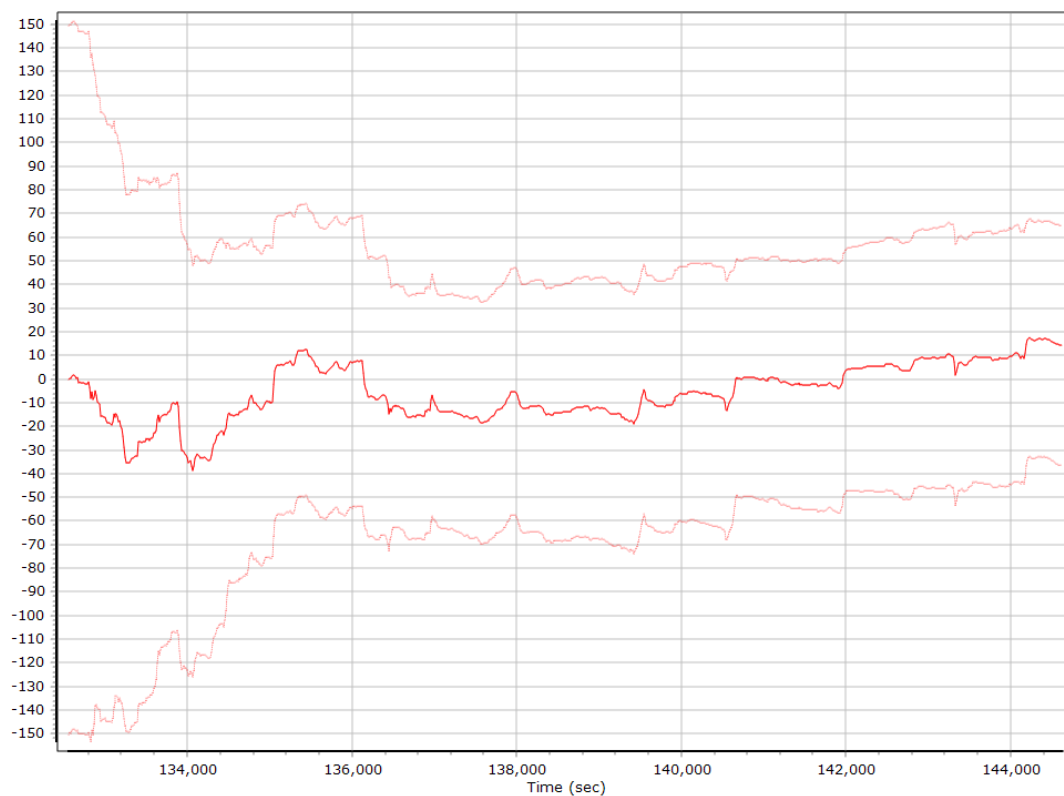
Gyro Scale Error (ppm)



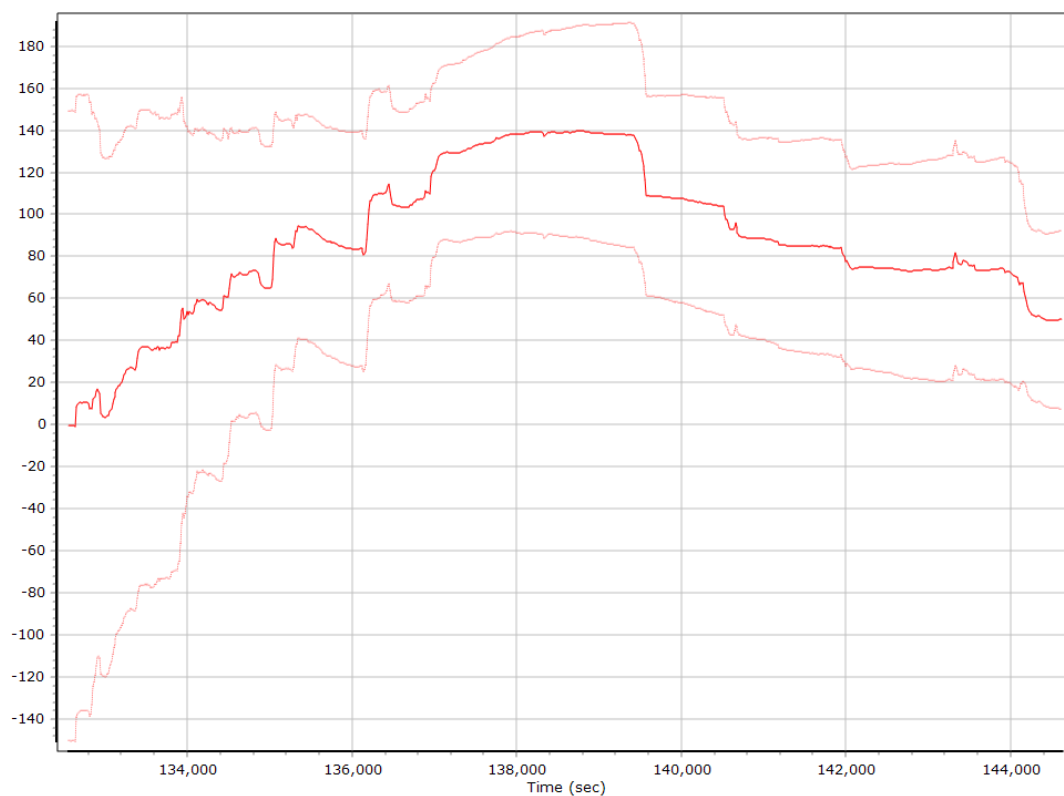
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

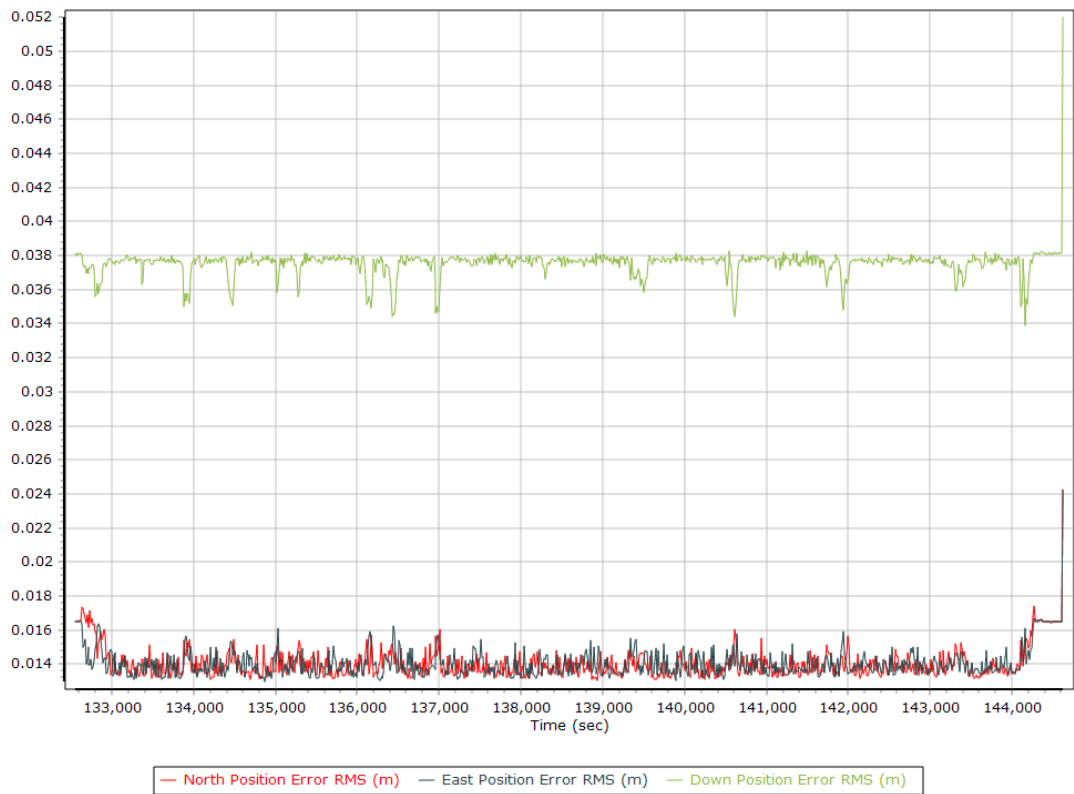


Z Gyro Scale Error (ppm)

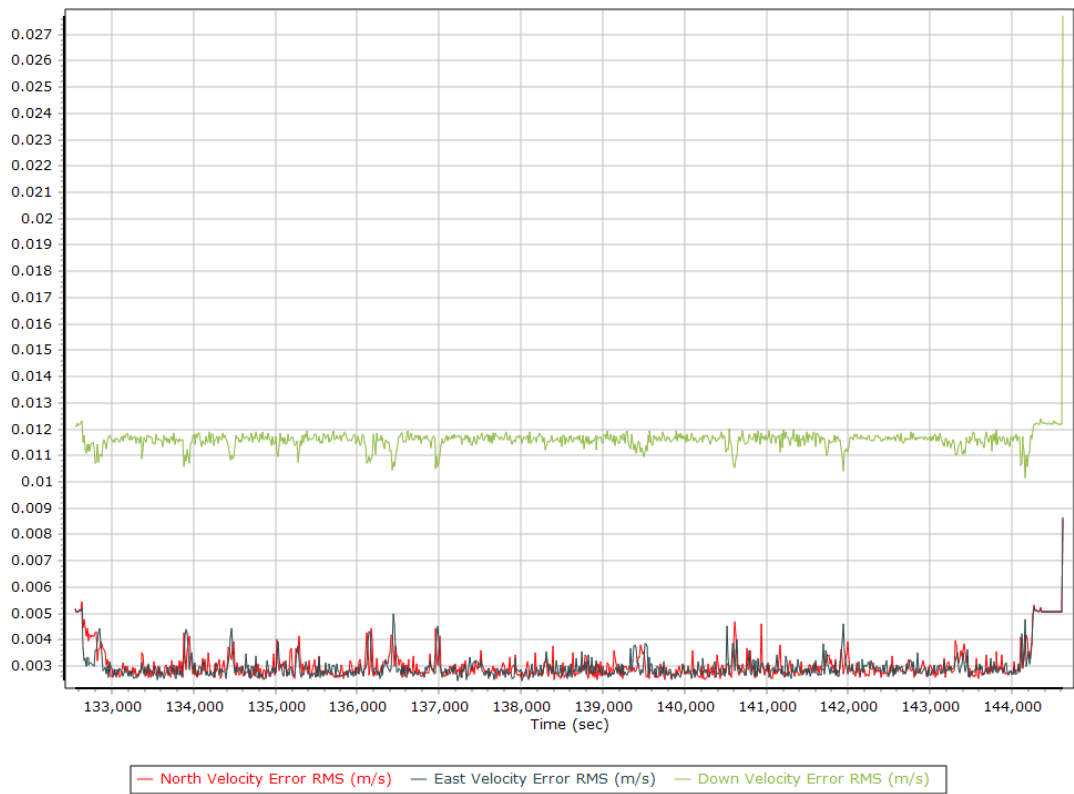


Smoothed Performance Metrics

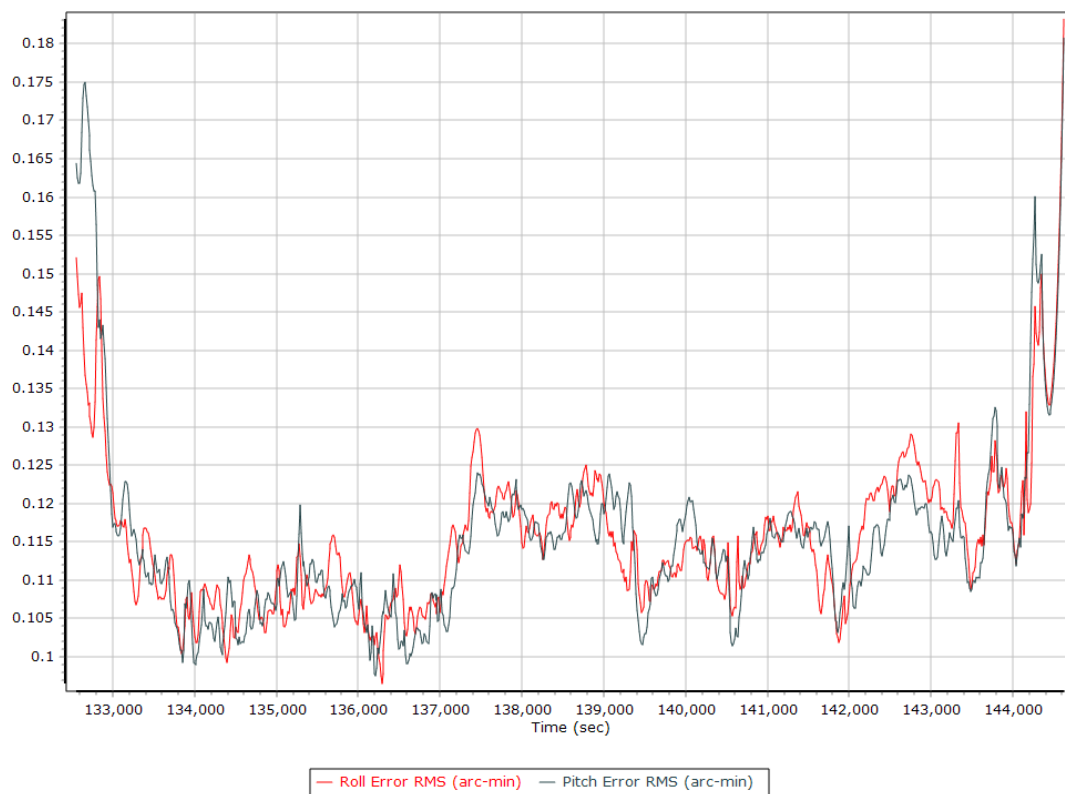
Position Error RMS (m)



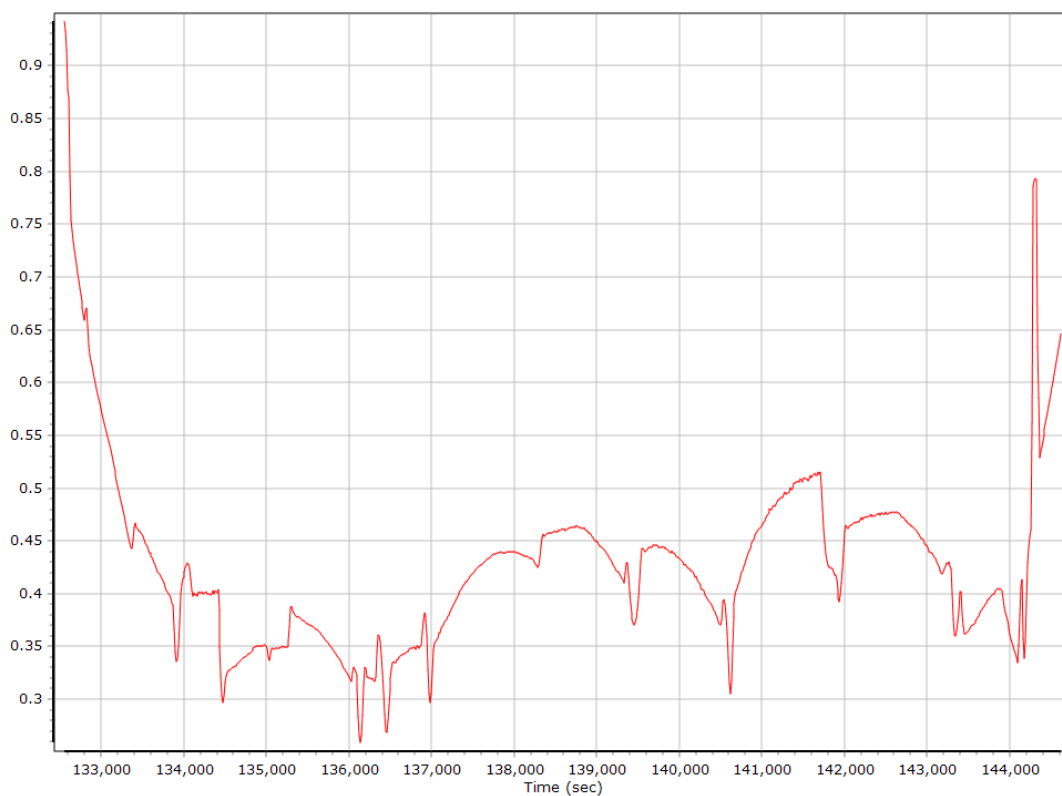
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

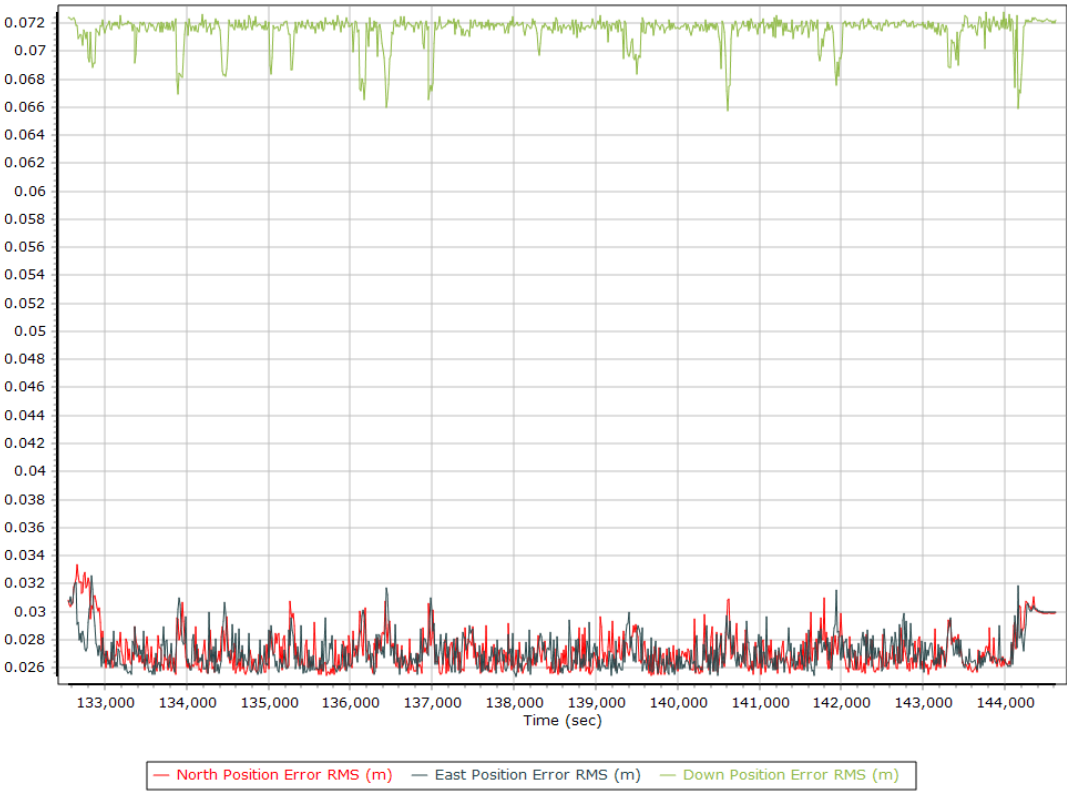


Heading Error RMS (arc-min)

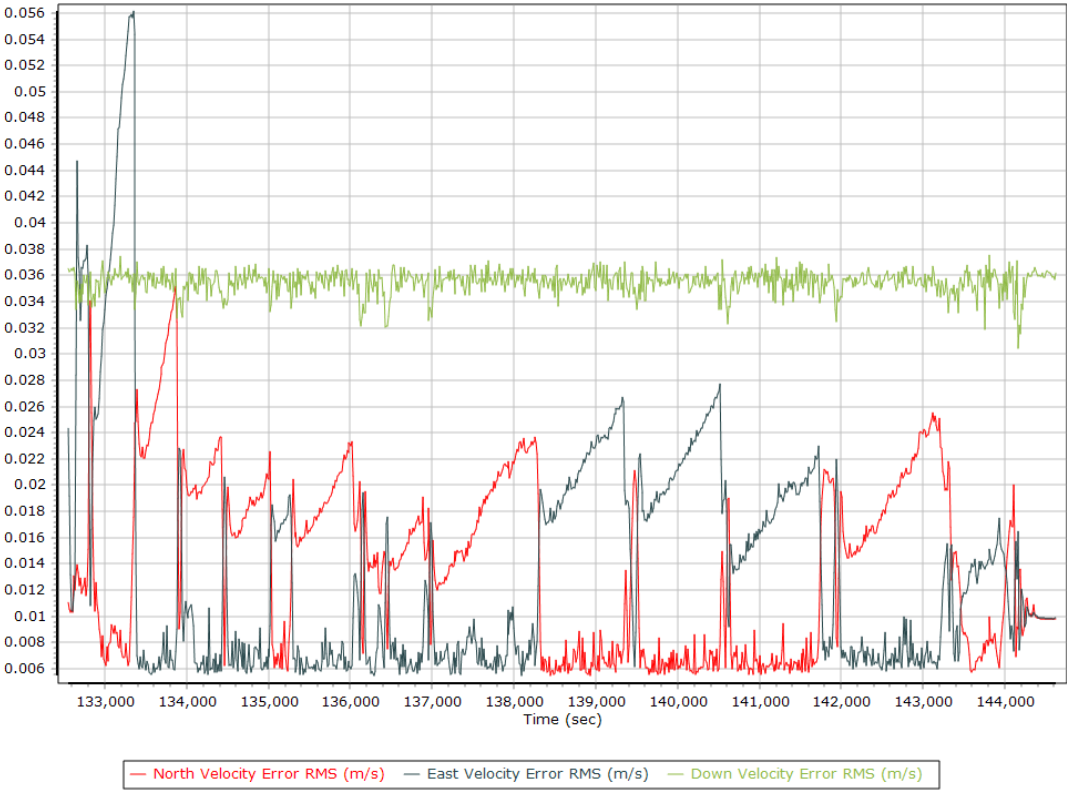


Forward Processed Performance Metrics

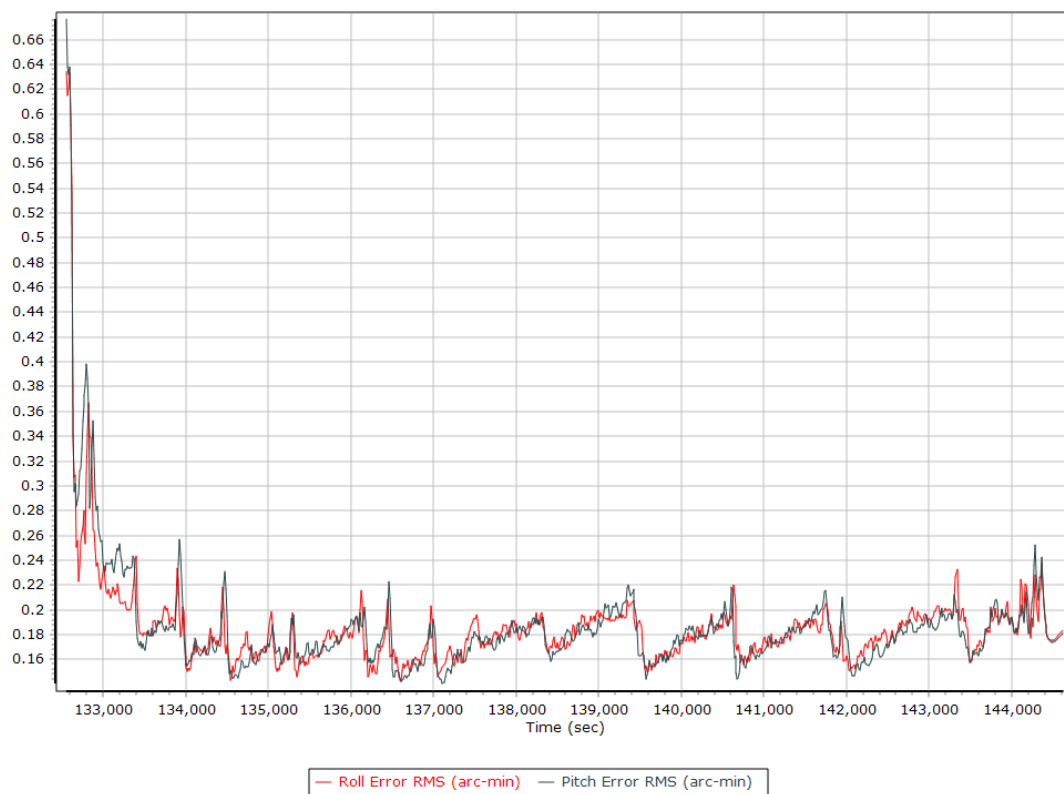
Position Error RMS (m)



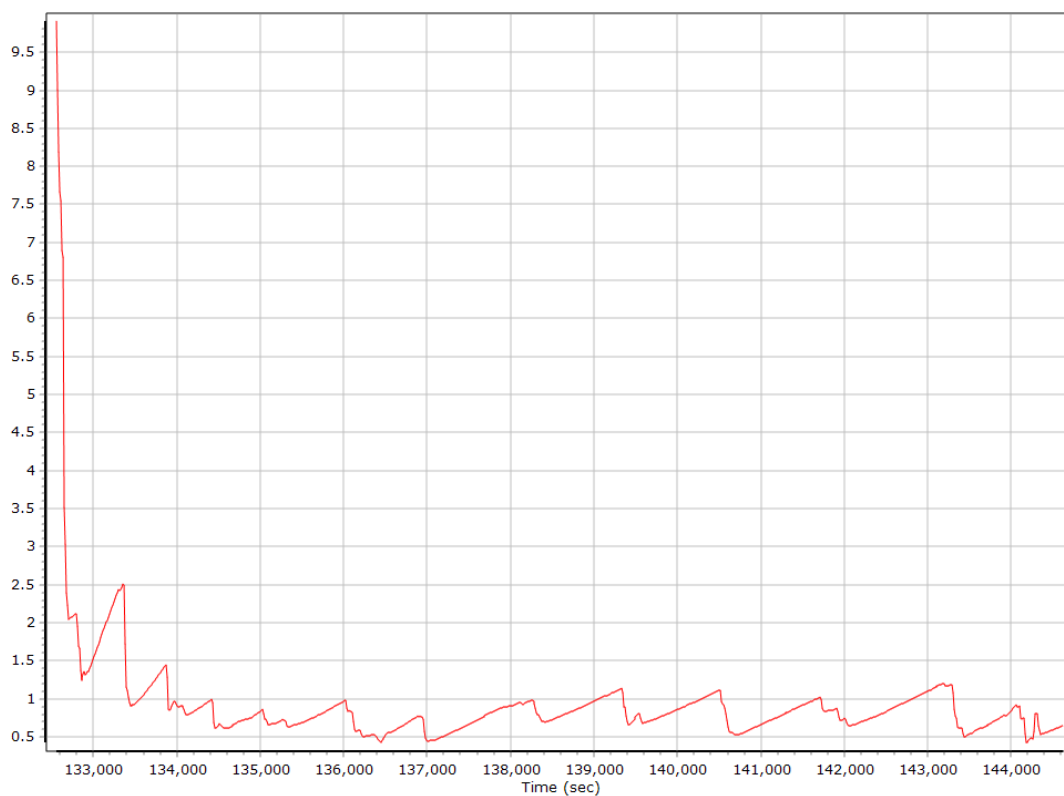
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

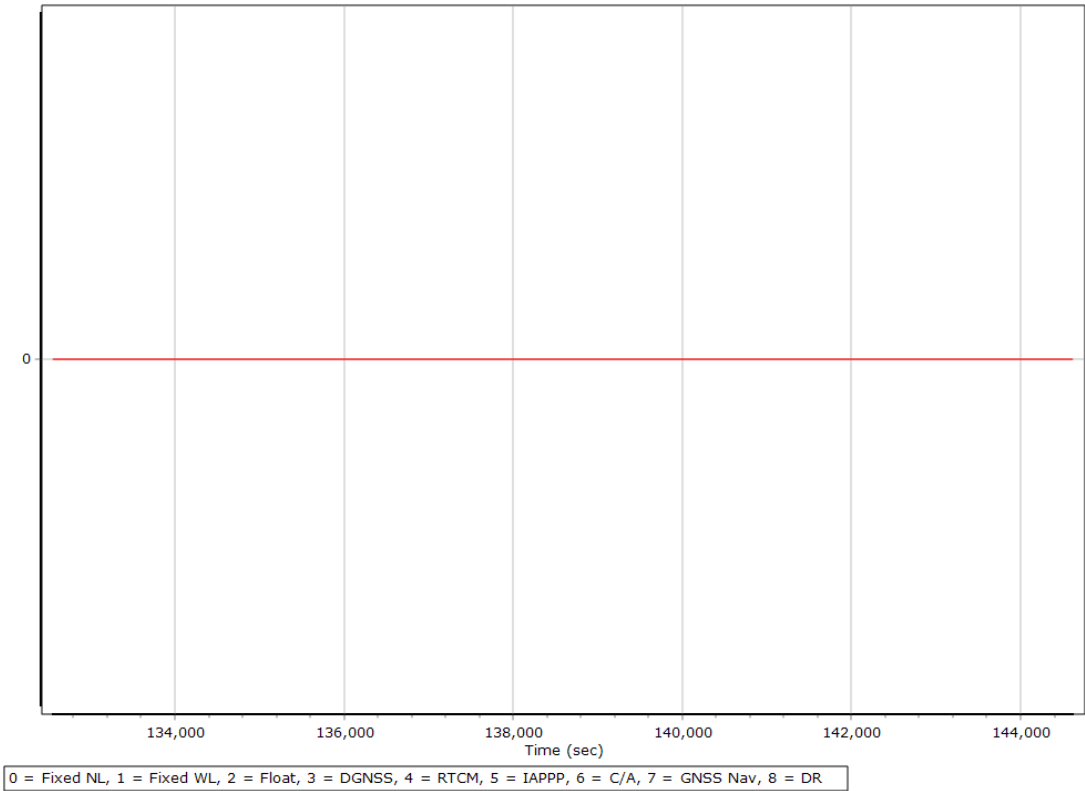


Heading Error RMS (arc-min)

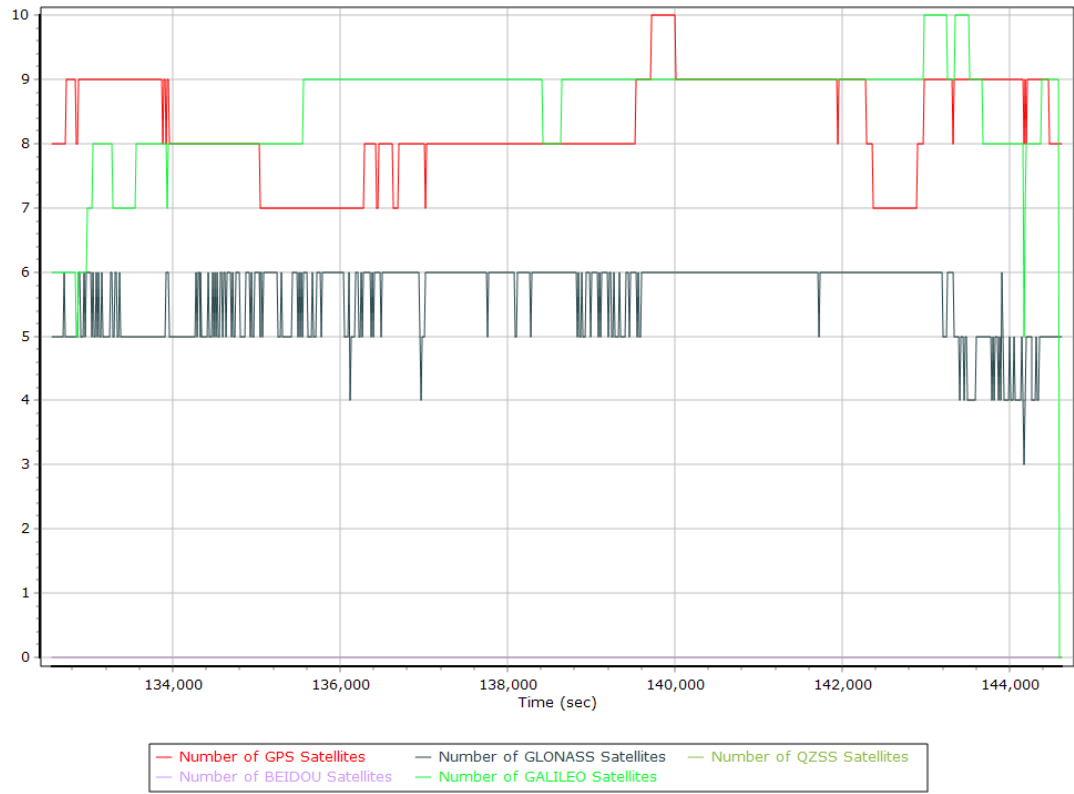


Forward Processed Solution Status

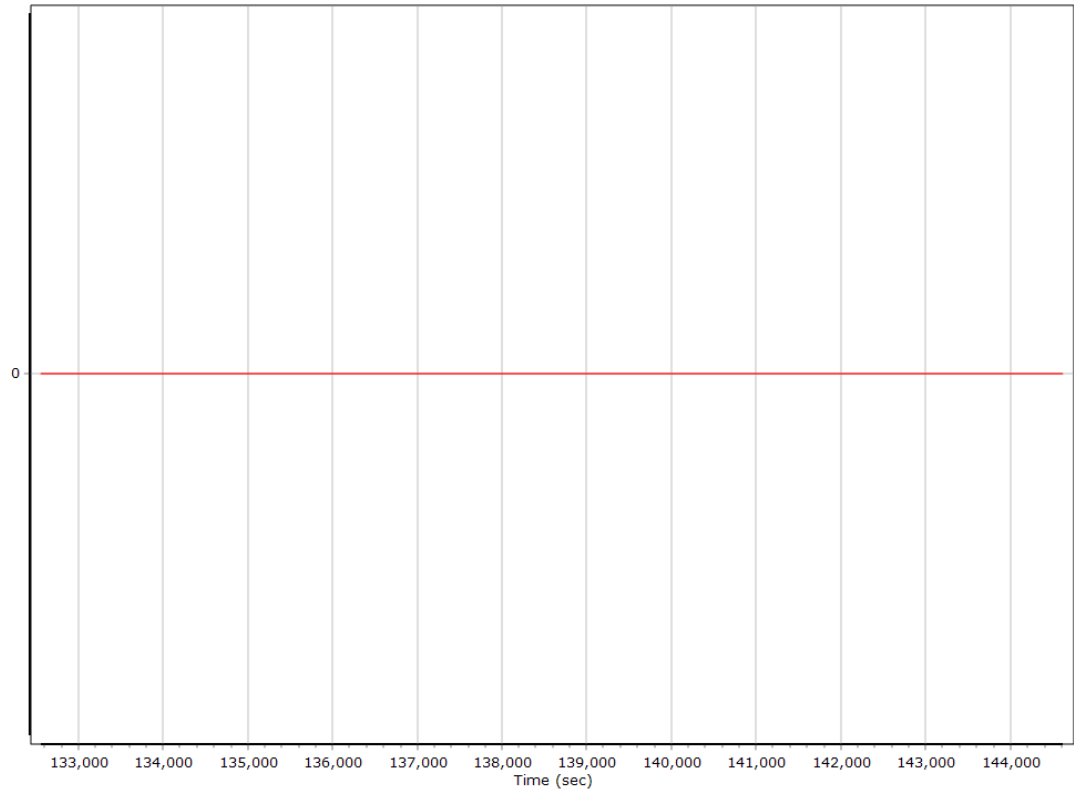
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230410_F1_4894_NAD832011.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	132497.003 (04/10/2023 12:48:17)		
Export end time	144621.002 (04/10/2023 16:10:21)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.271233		

General Information

Mission Information

Project name	20230410_F2_4894
Processing date	2023-04-12 23:40:45
Mission date	2023-04-10 17:19:26
Mission duration	05:00:11.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.242	POS Data
VQ1560.243	POS Data
VQ1560.244	POS Data
VQ1560.245	POS Data
VQ1560.246	POS Data
VQ1560.247	POS Data
VQ1560.248	POS Data
VQ1560.249	POS Data
VQ1560.250	POS Data
VQ1560.251	POS Data
VQ1560.252	POS Data
VQ1560.253	POS Data
VQ1560.254	POS Data
VQ1560.255	POS Data
VQ1560.256	POS Data
VQ1560.257	POS Data
VQ1560.258	POS Data
VQ1560.259	POS Data
VQ1560.260	POS Data
VQ1560.261	POS Data
VQ1560.262	POS Data
VQ1560.263	POS Data
VQ1560.264	POS Data
VQ1560.265	POS Data
VQ1560.266	POS Data
VQ1560.267	POS Data
VQ1560.268	POS Data
VQ1560.269	POS Data
VQ1560.270	POS Data
VQ1560.271	POS Data
VQ1560.272	POS Data
VQ1560.273	POS Data
VQ1560.274	POS Data
VQ1560.275	POS Data
VQ1560.276	POS Data
VQ1560.277	POS Data
VQ1560.278	POS Data
VQ1560.279	POS Data
VQ1560.280	POS Data
VQ1560.281	POS Data
VQ1560.282	POS Data
VQ1560.283	POS Data

Input Files

File Name	File Type
Ephm1000.23g	GLONASS Broadcast Ephemeris
Ephm1000.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbt_20230410_F2_4894.out	SBET Trajectory File
export_20230410_F2_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.242		
Last raw data file	VQ1560.283		
Start GPS week	2257		
Start time	13.162 (04/09/2023 00:00:13)		
End time	166759.437 (04/10/2023 22:19:19)		
Start of fine alignment	149197.099 (04/10/2023 17:26:37)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

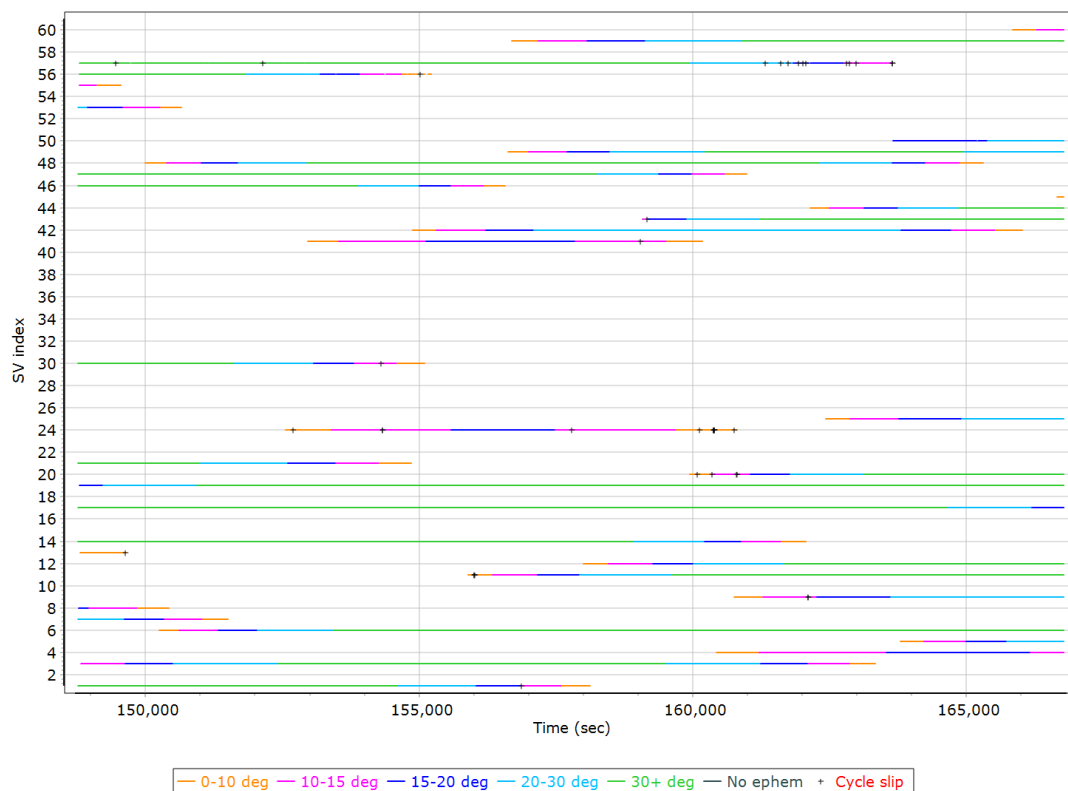
Rover Data QC

Raw IMU Import QC Summary

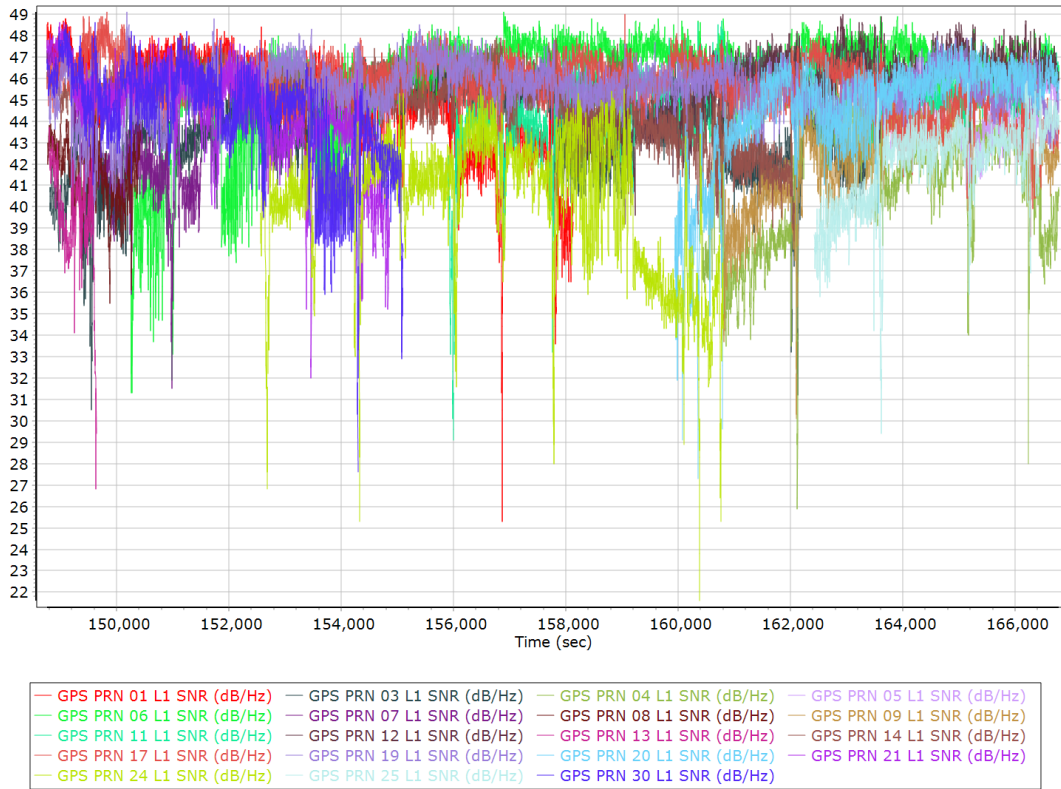
IMU data input file	imu_20230410_F2_4894.dat
IMU data check log file	imudt_20230410_F2_4894.log
IMU Records Processed	3601660
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
148760.951 : WARNING : Gap of 148746.9935 seconds in CHECKDT input data	

Primary Observables & Satellite Data

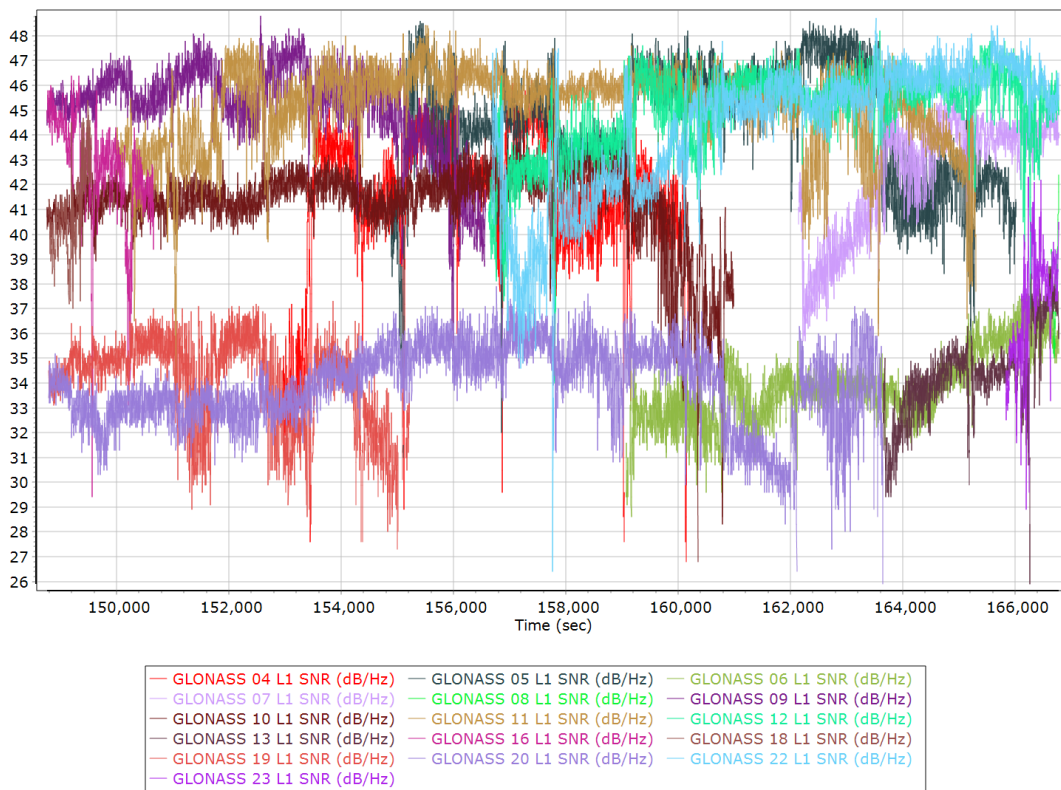
GPS/GLONASS L1 Satellite Lock/Elevation



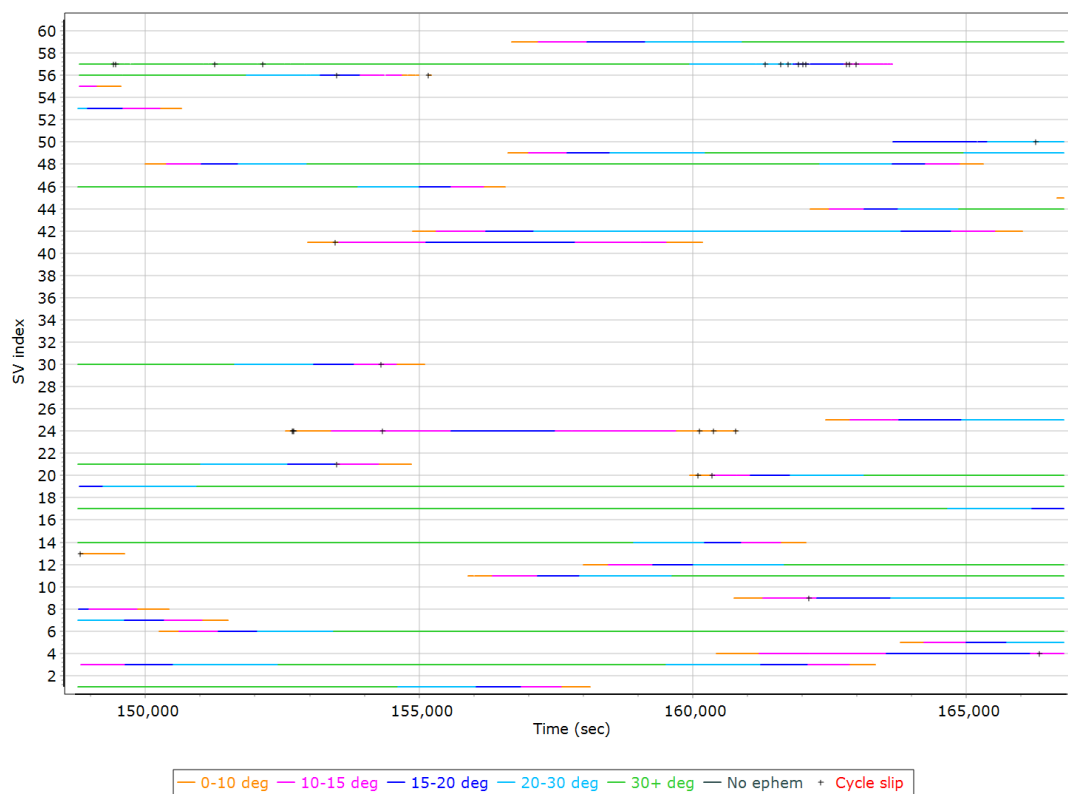
GPS L1 SNR



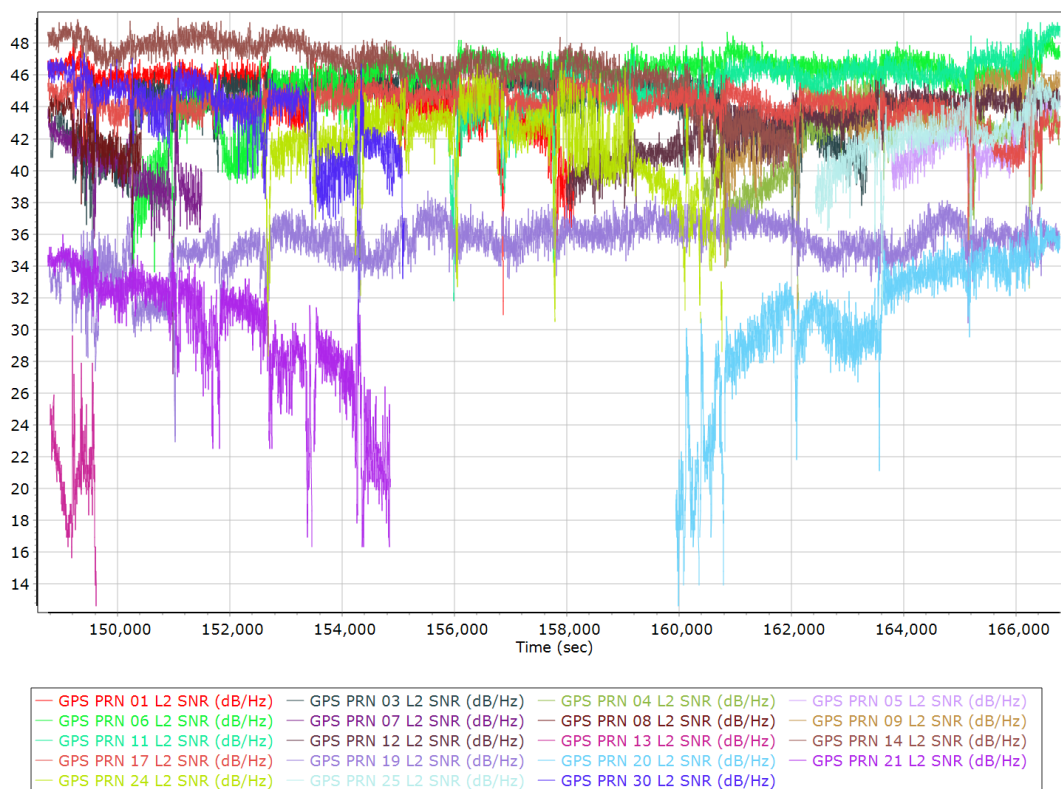
GLONASS L1 SNR



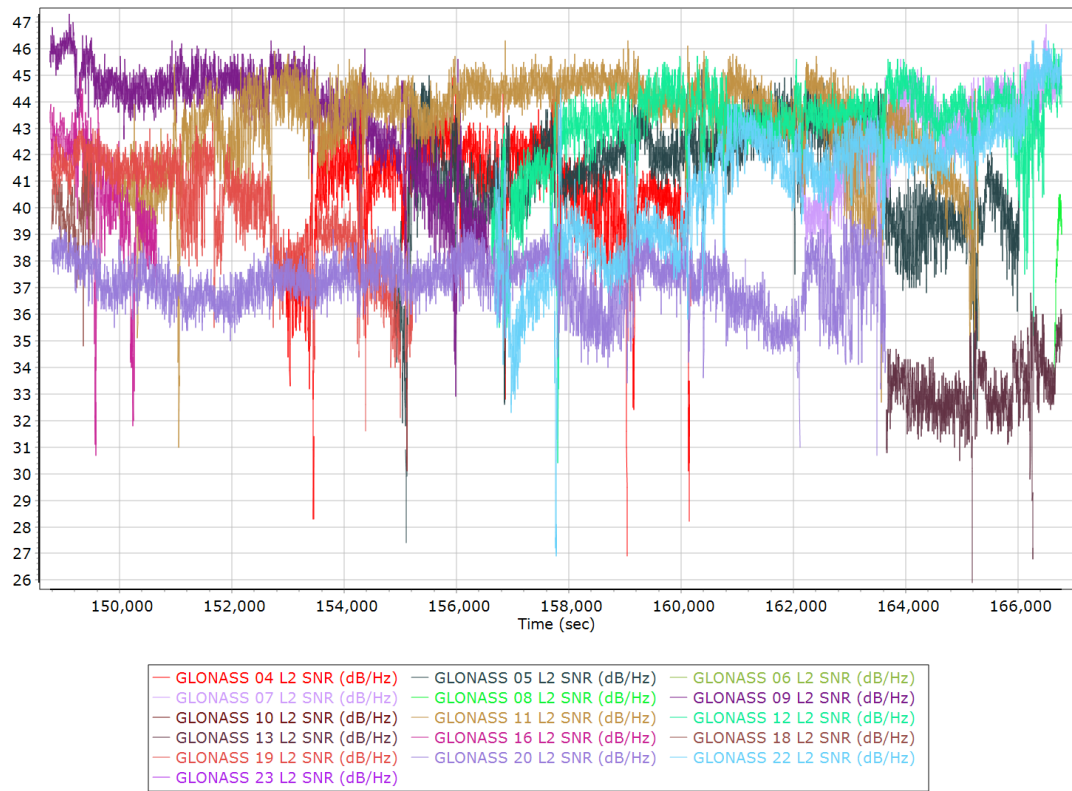
GPS/GLONASS L2 Satellite Lock/Elevation



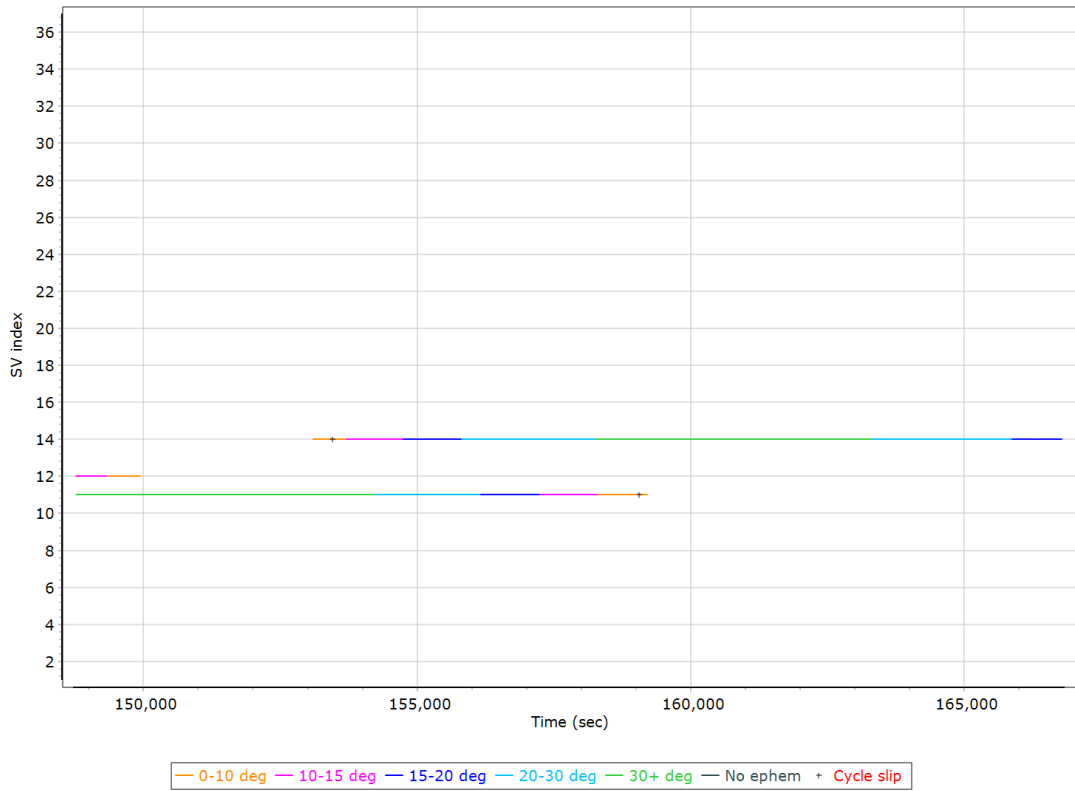
GPS L2 SNR



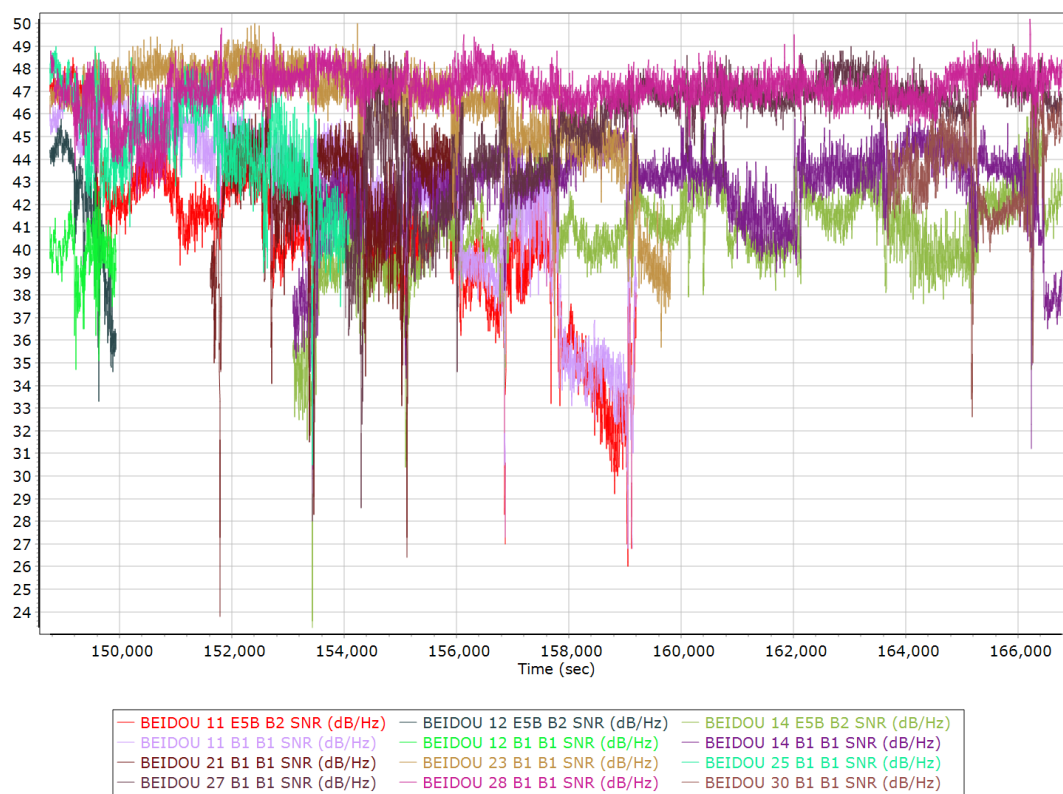
GLONASS L2 SNR



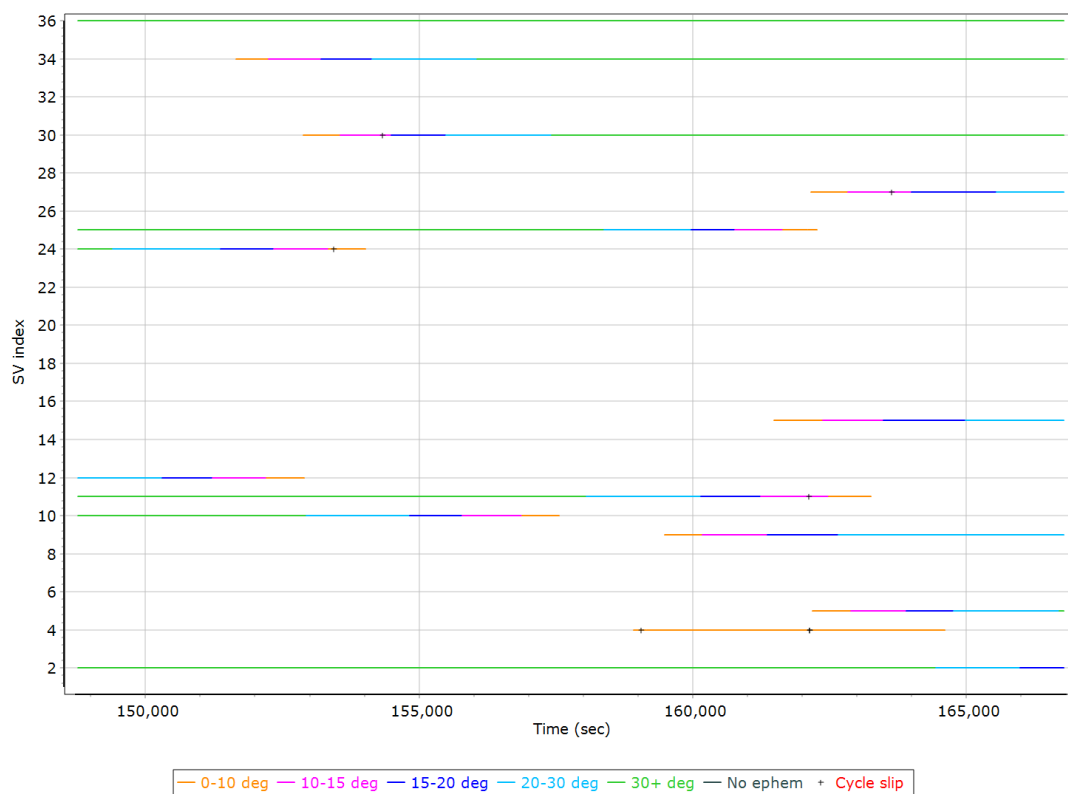
BEIDOU Satellite Lock/Elevation



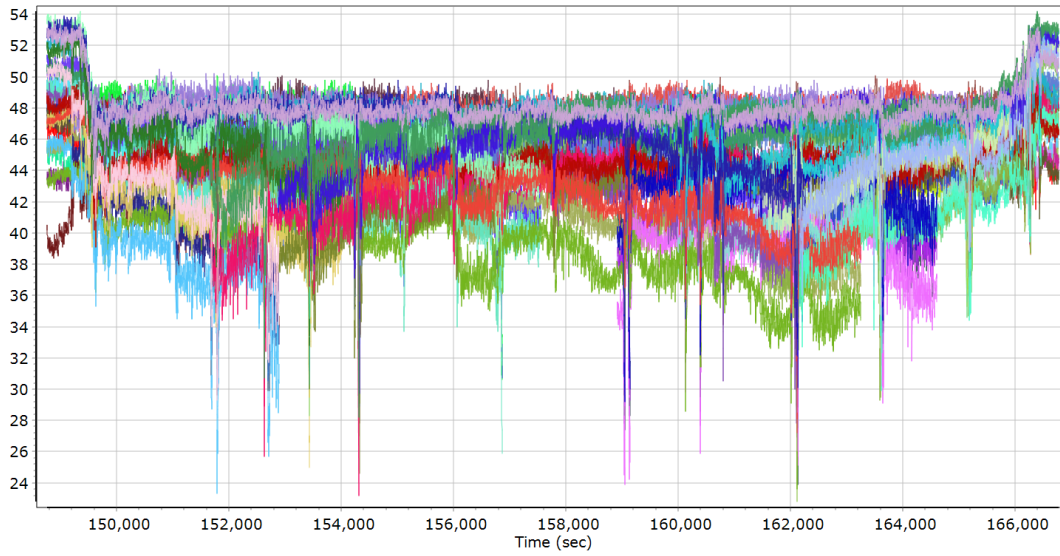
BEIDOU SNR



GALILEO Satellite Lock/Elevation



GALILEO SNR



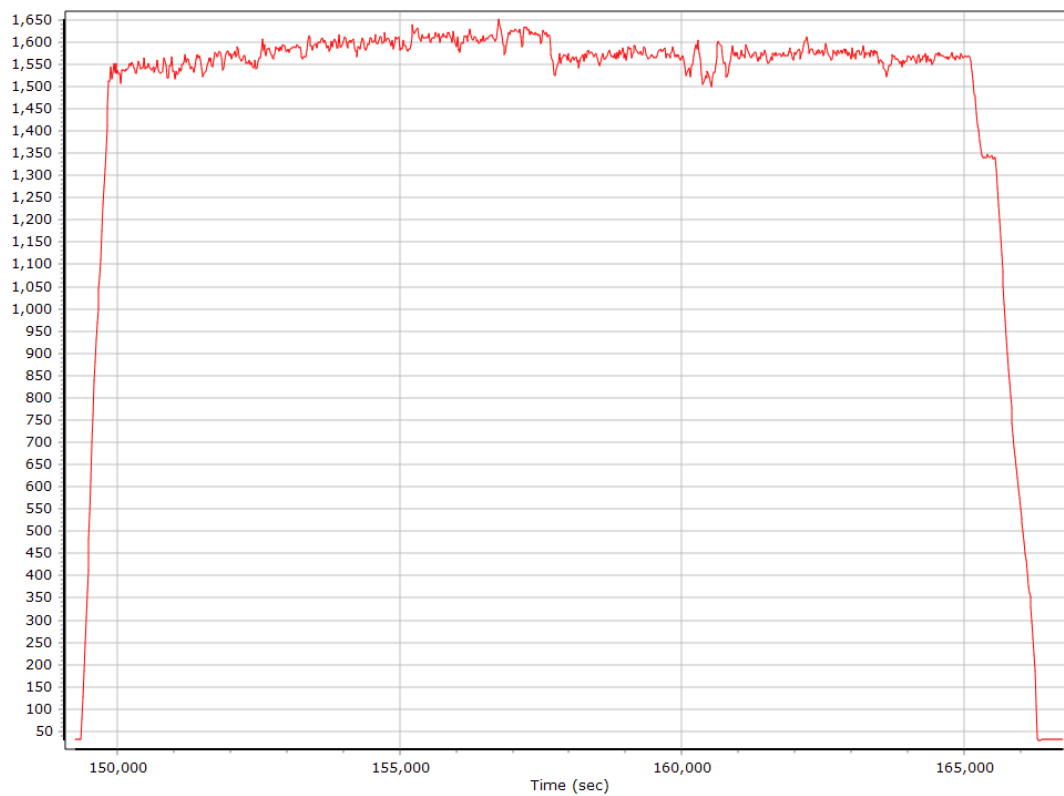
— GALILEO 02 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 04 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 05 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 09 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 10 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 15 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 24 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 25 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 27 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 30 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 34 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 04 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 05 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 09 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 10 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 11 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

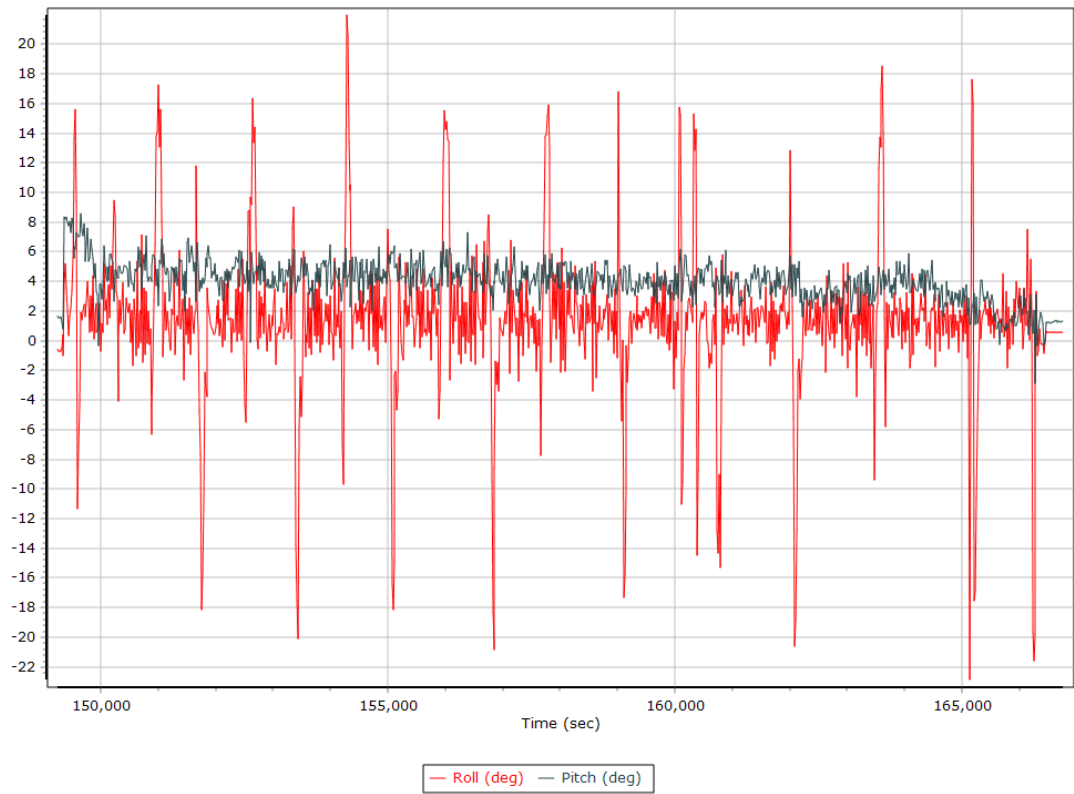
Top View



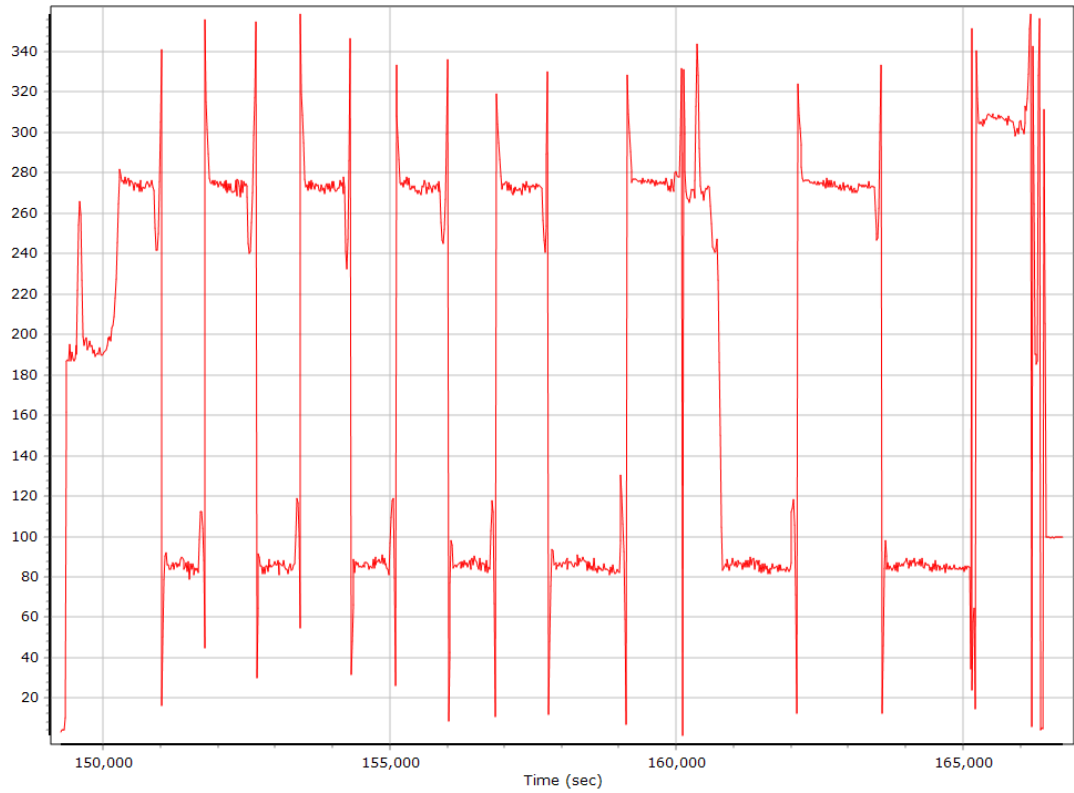
Altitude



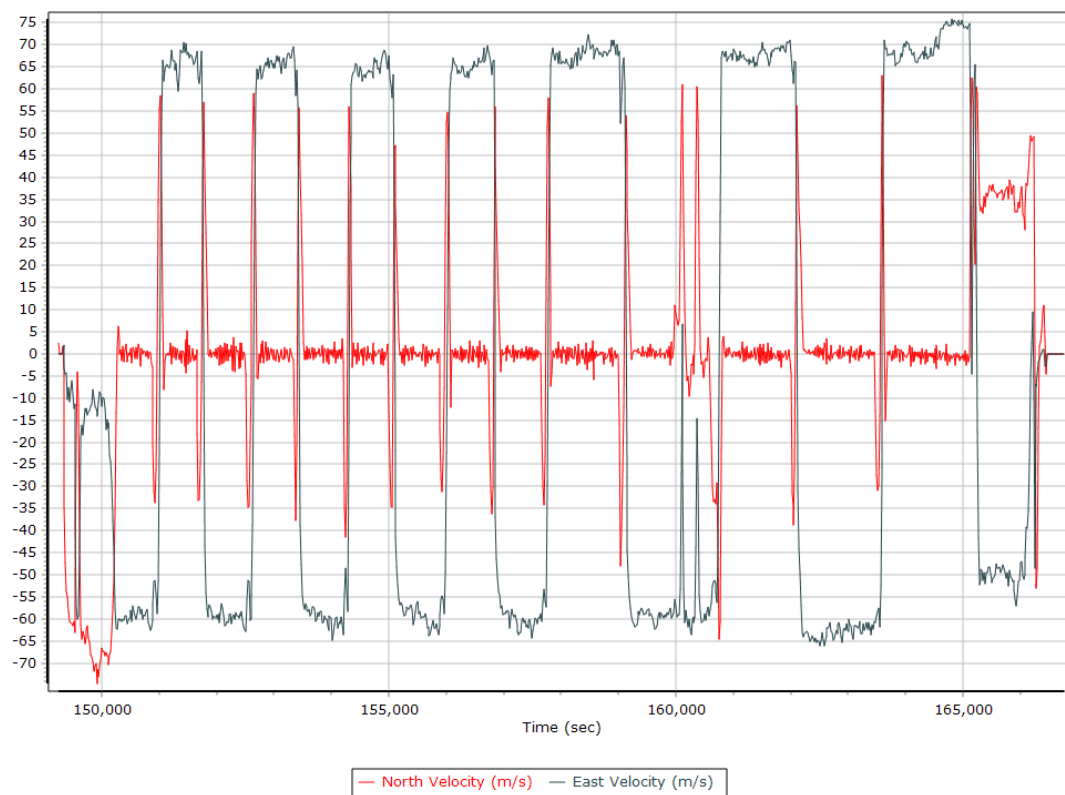
Roll/Pitch



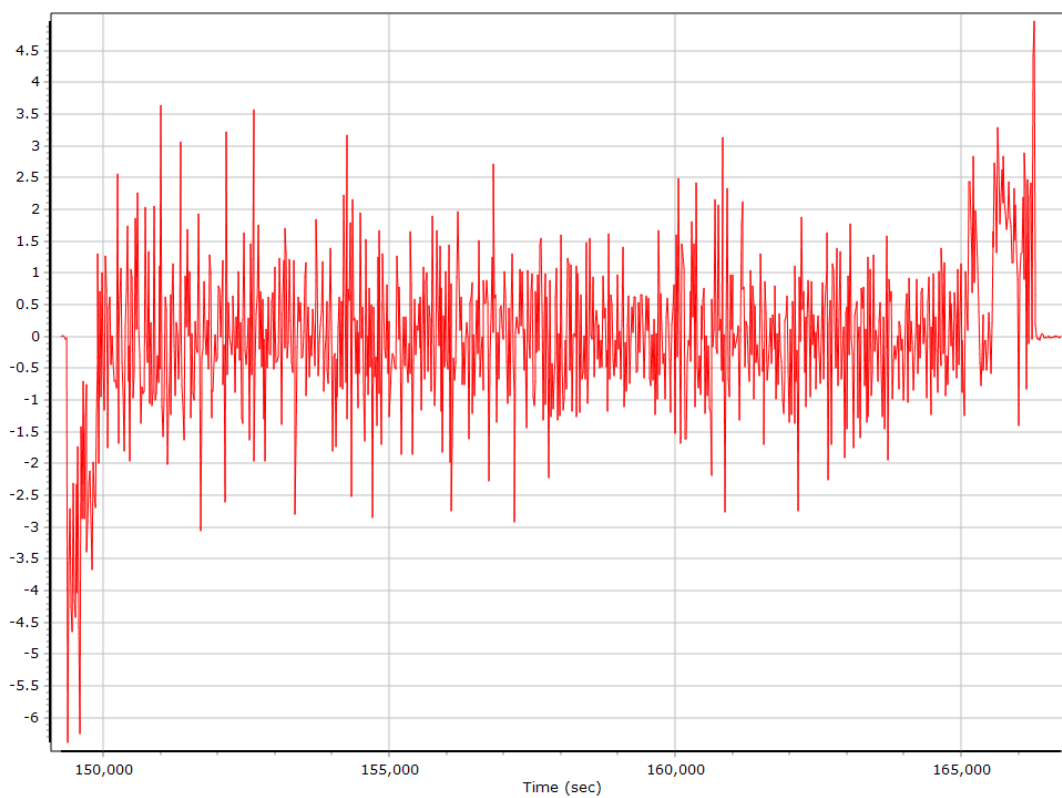
Heading



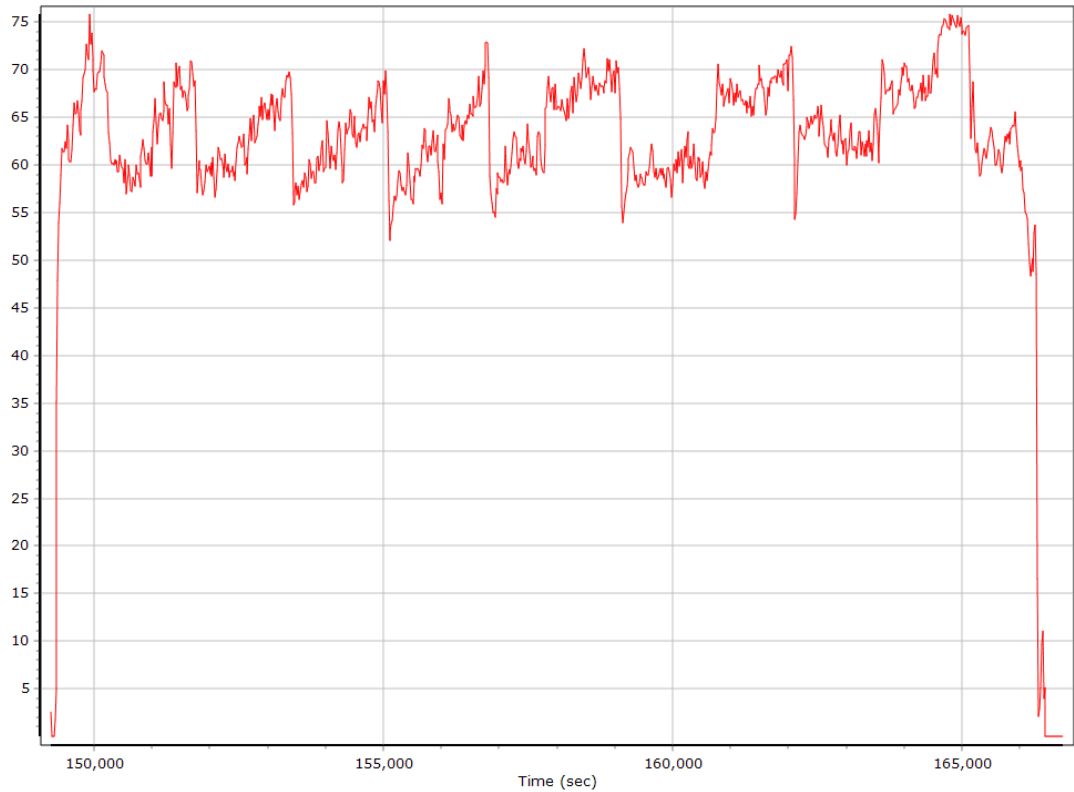
North/East Velocity



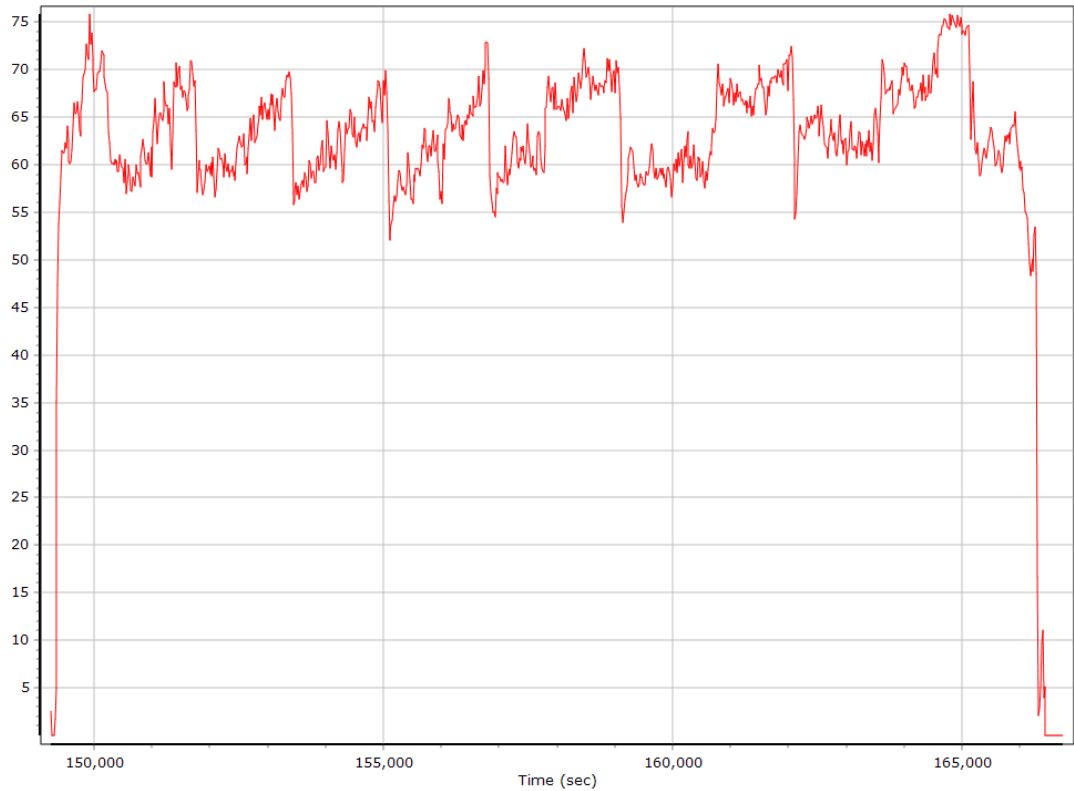
Down Velocity



Total Speed



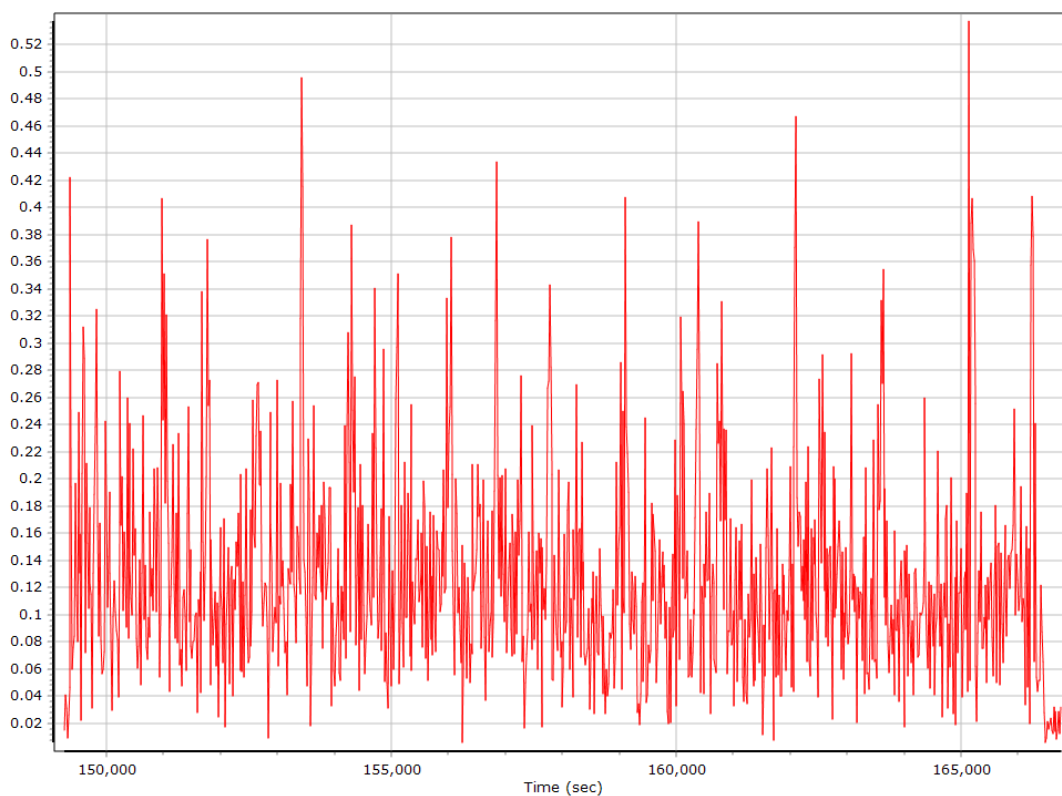
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

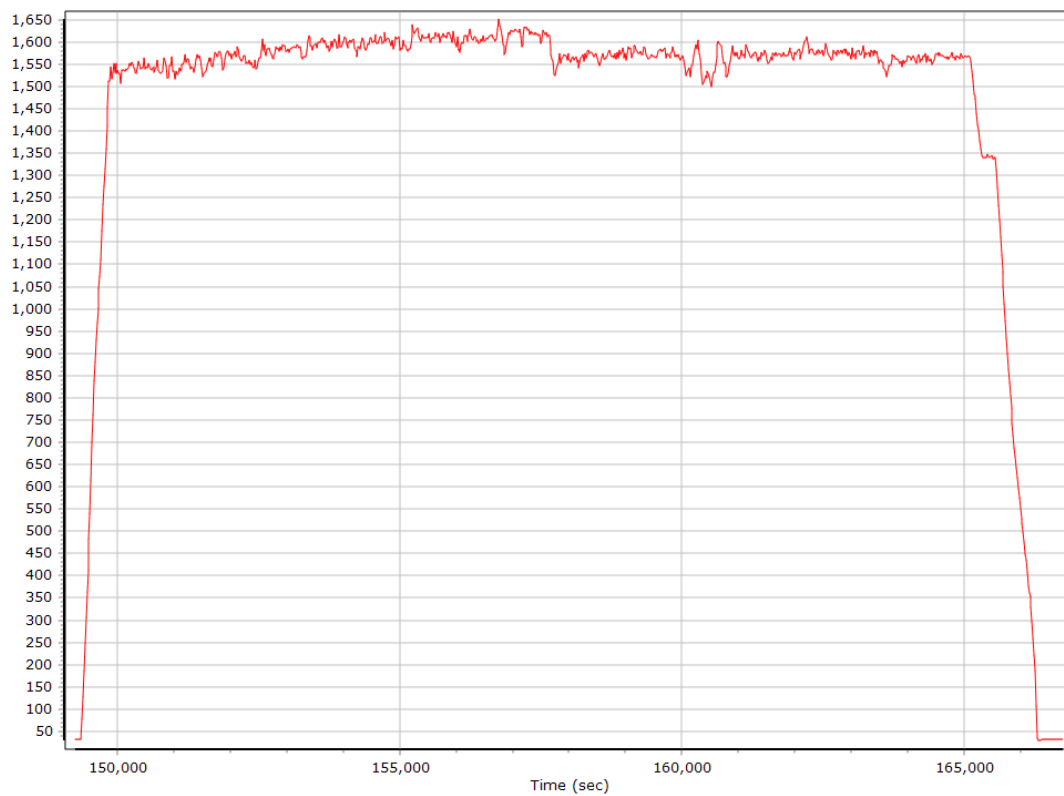


Forward Processed Trajectory Information

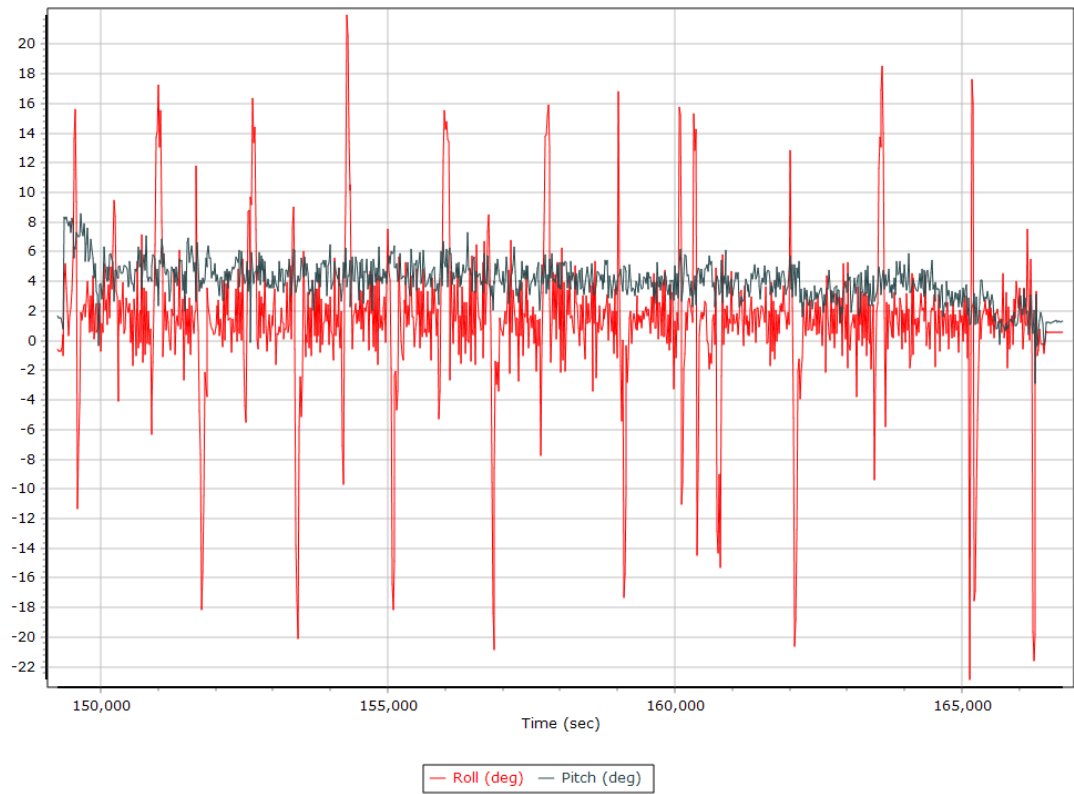
Top View



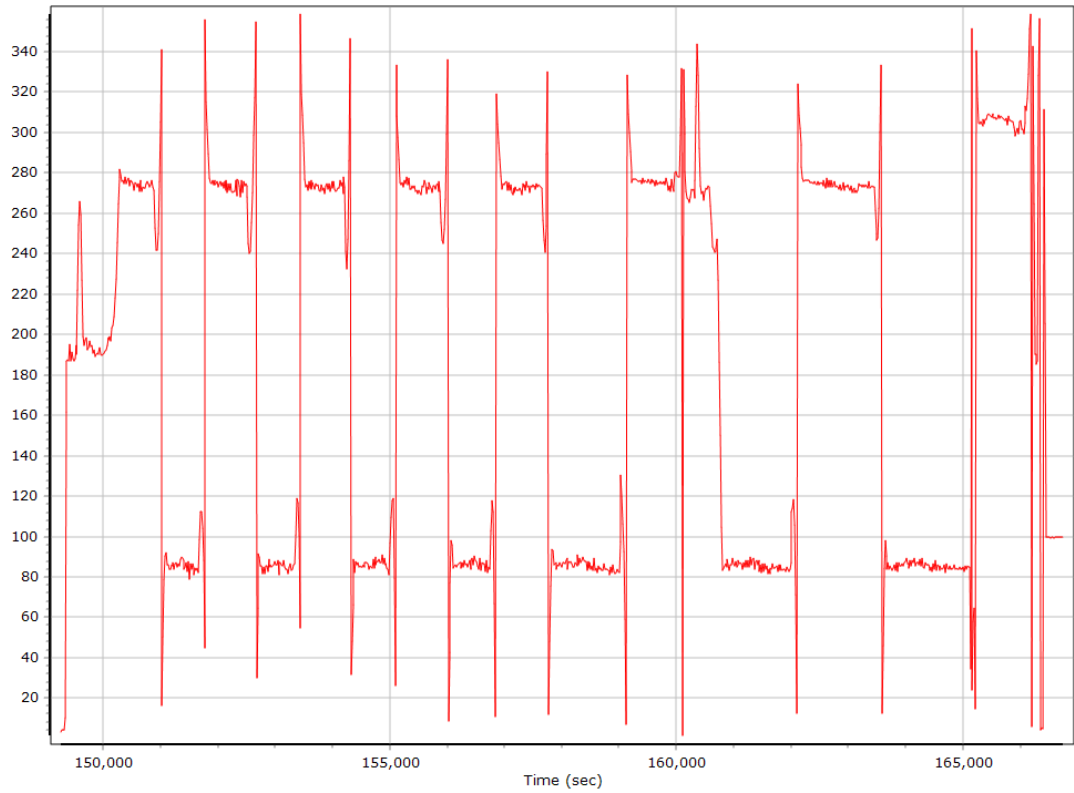
Altitude



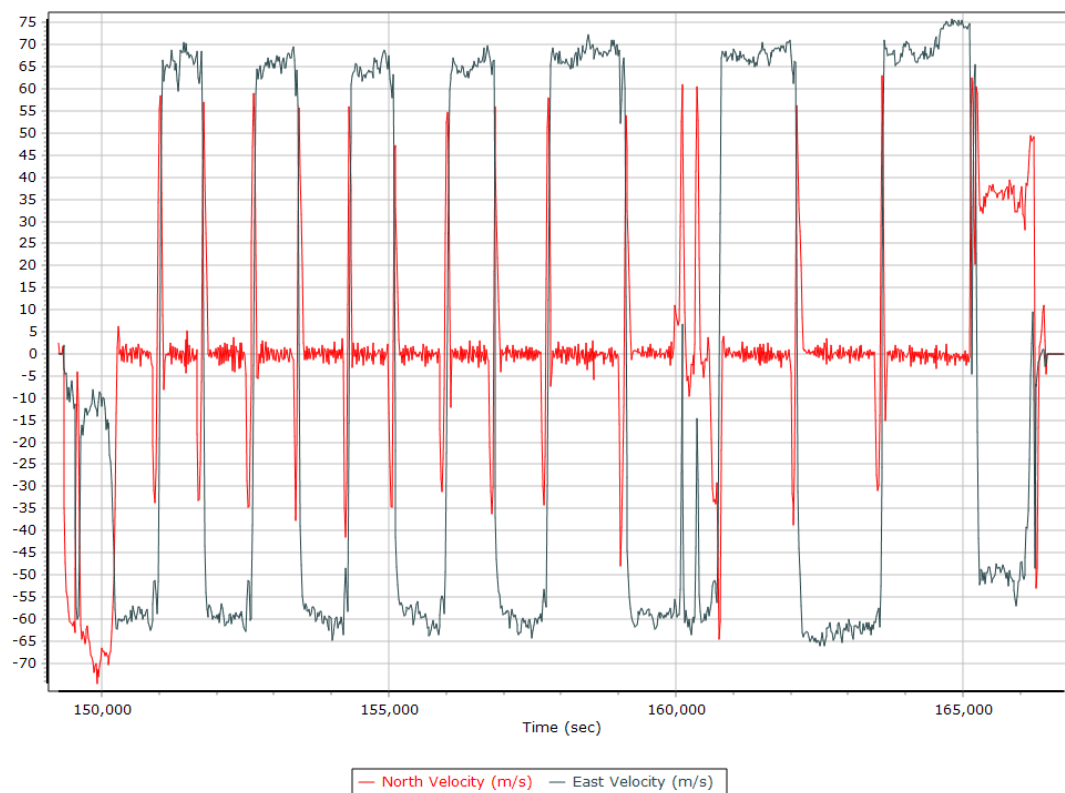
Roll/Pitch



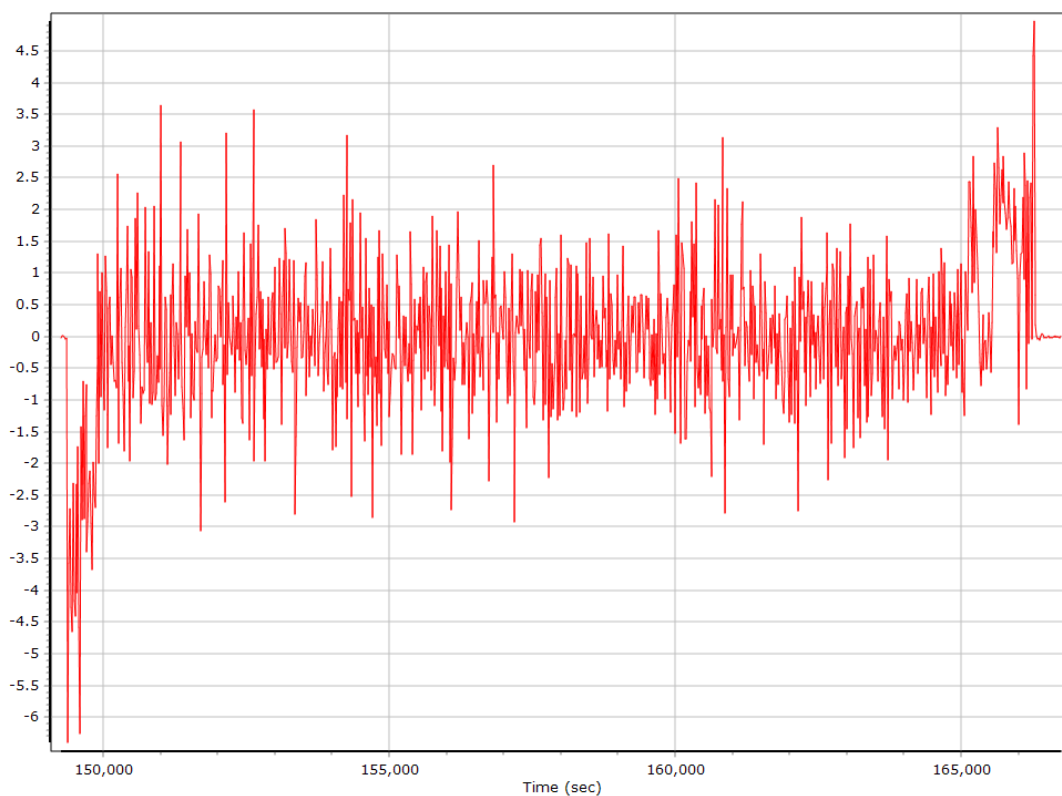
Heading



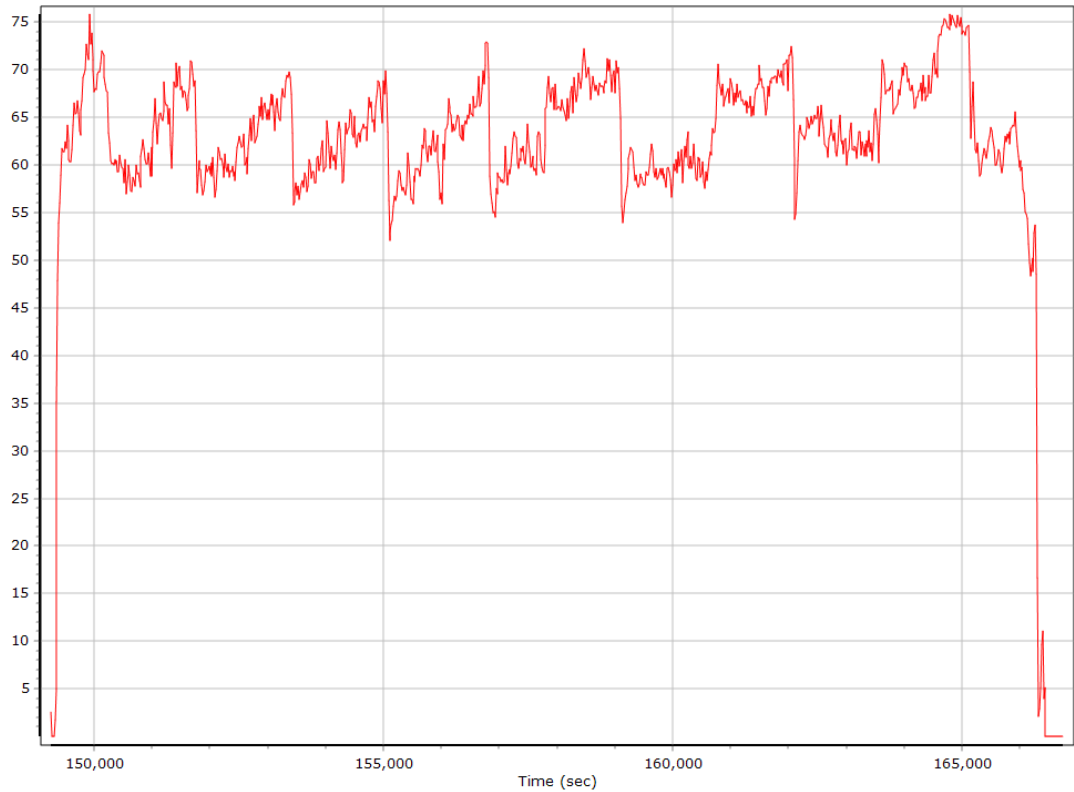
North/East Velocity



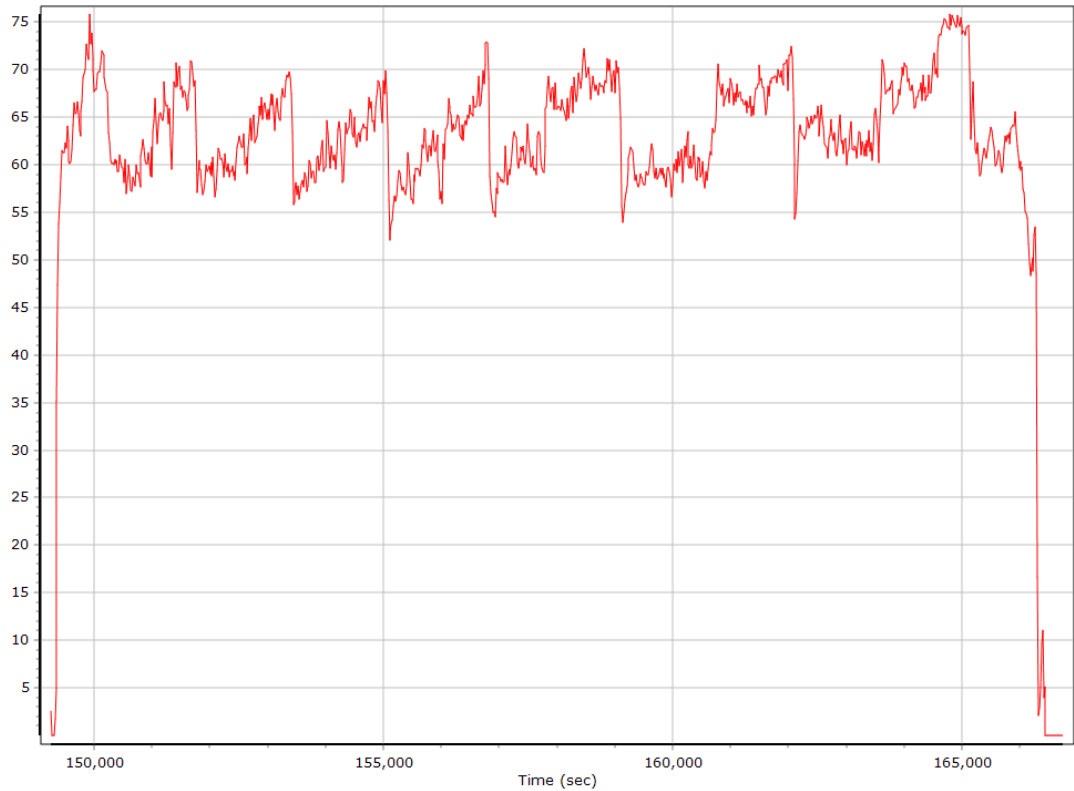
Down Velocity



Total Speed



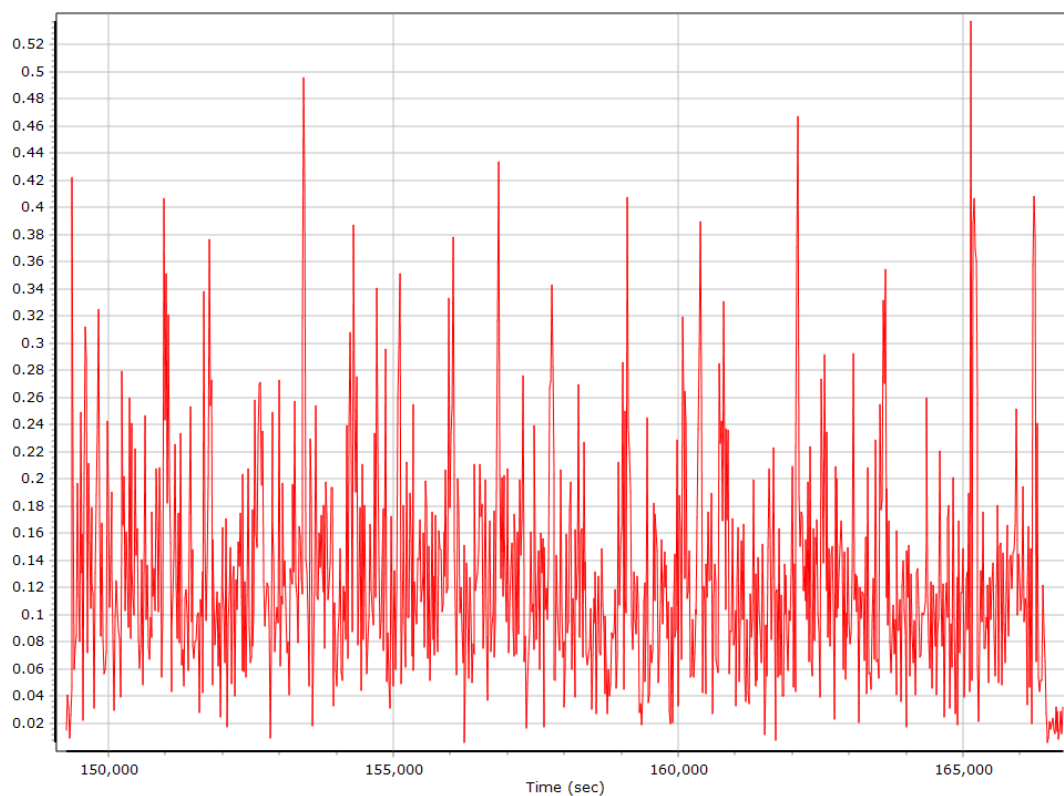
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

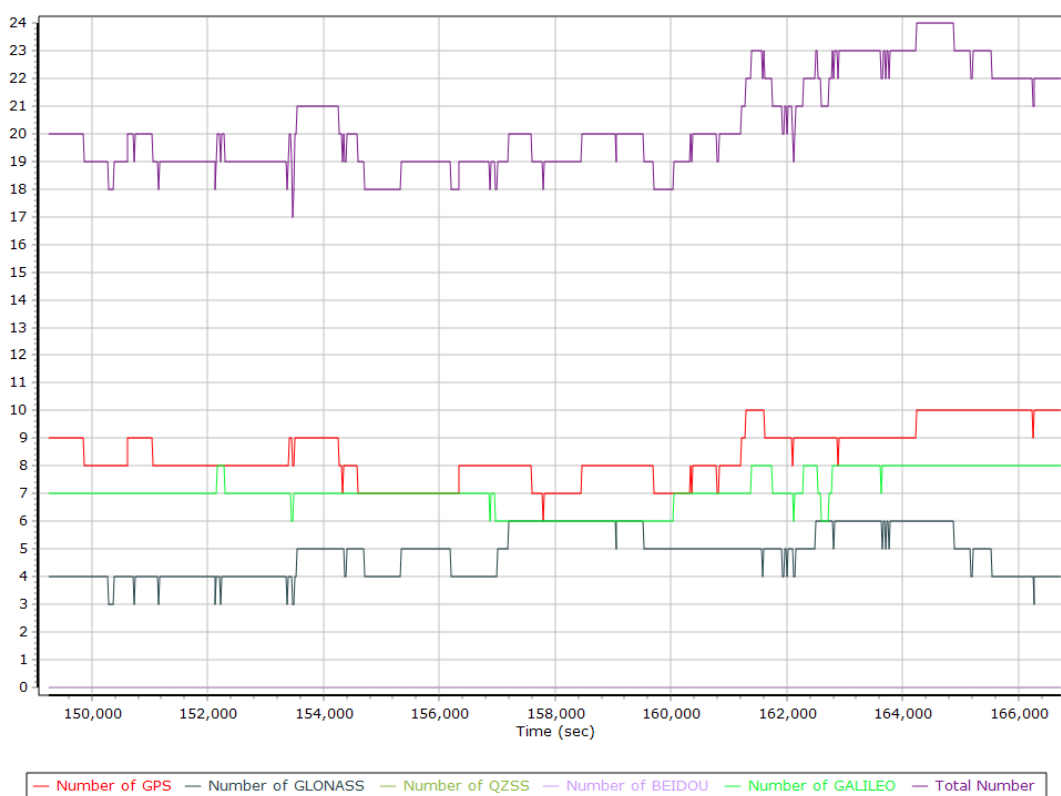


GNSS QC

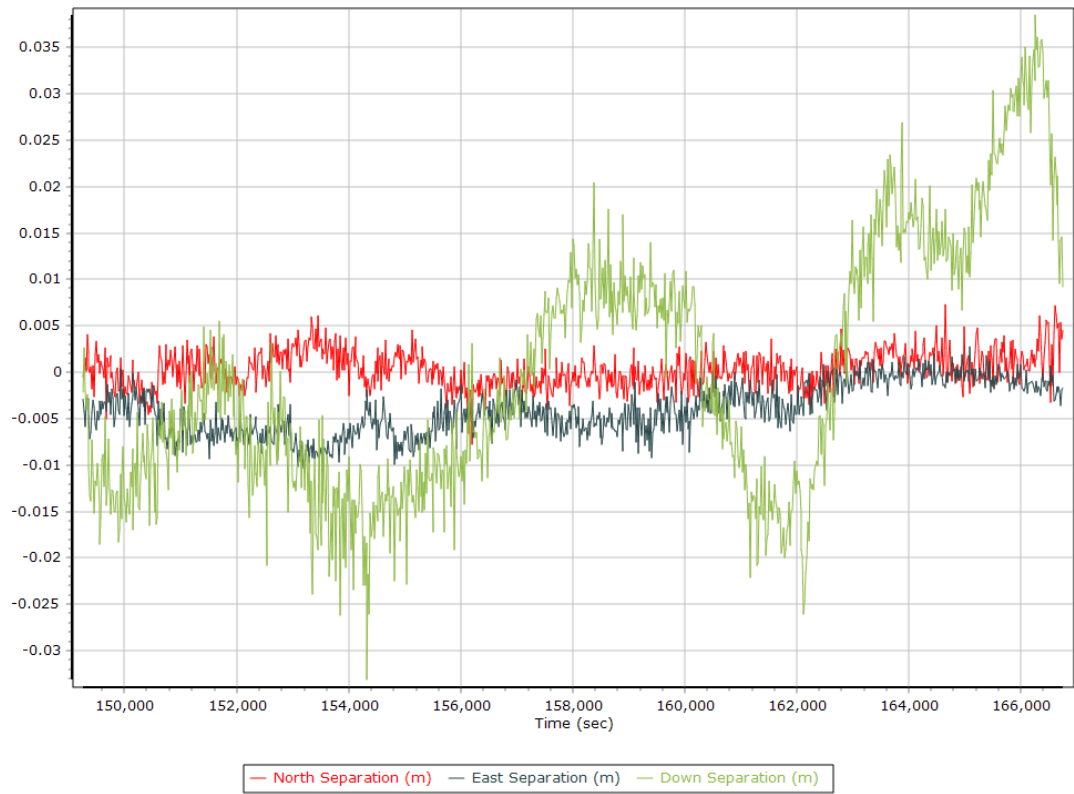
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	8
Number of GLONASS SV	0	6	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	6	8	7
Total number of SV	13	24	20
PDOP	1.00	1.85	1.16
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	17971.00	0.00	0.00
Percentage	100.00	0.00	0.00

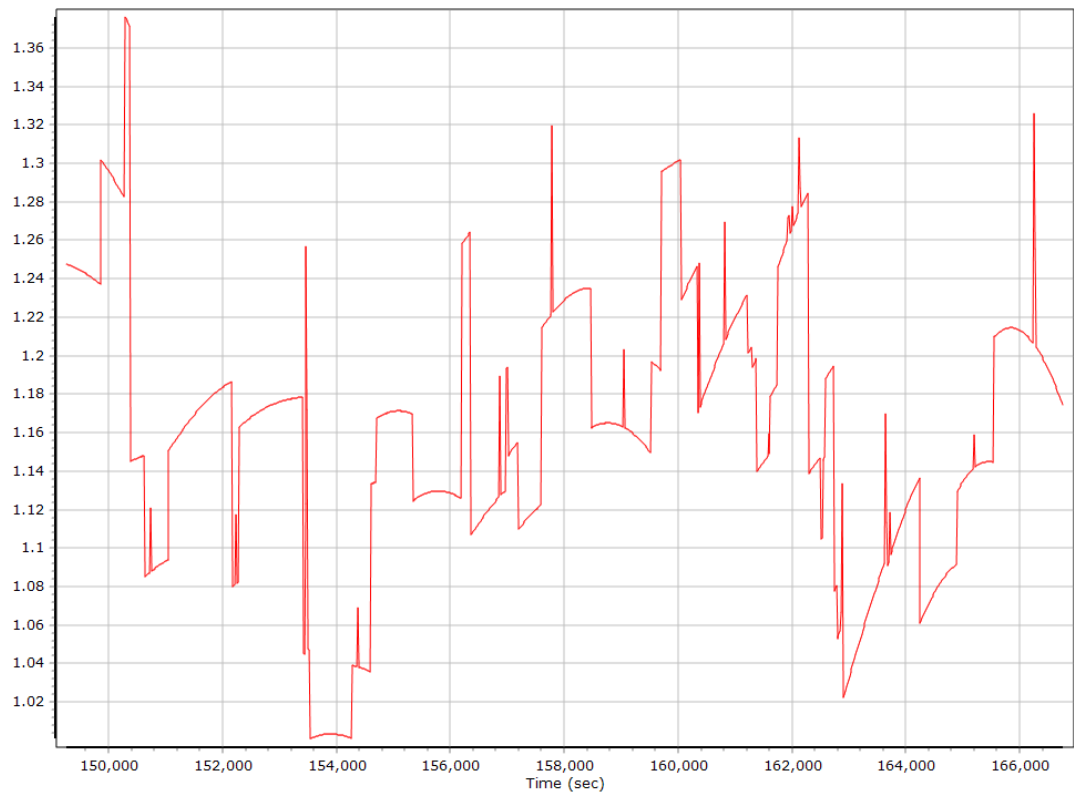
Num SVs in solution



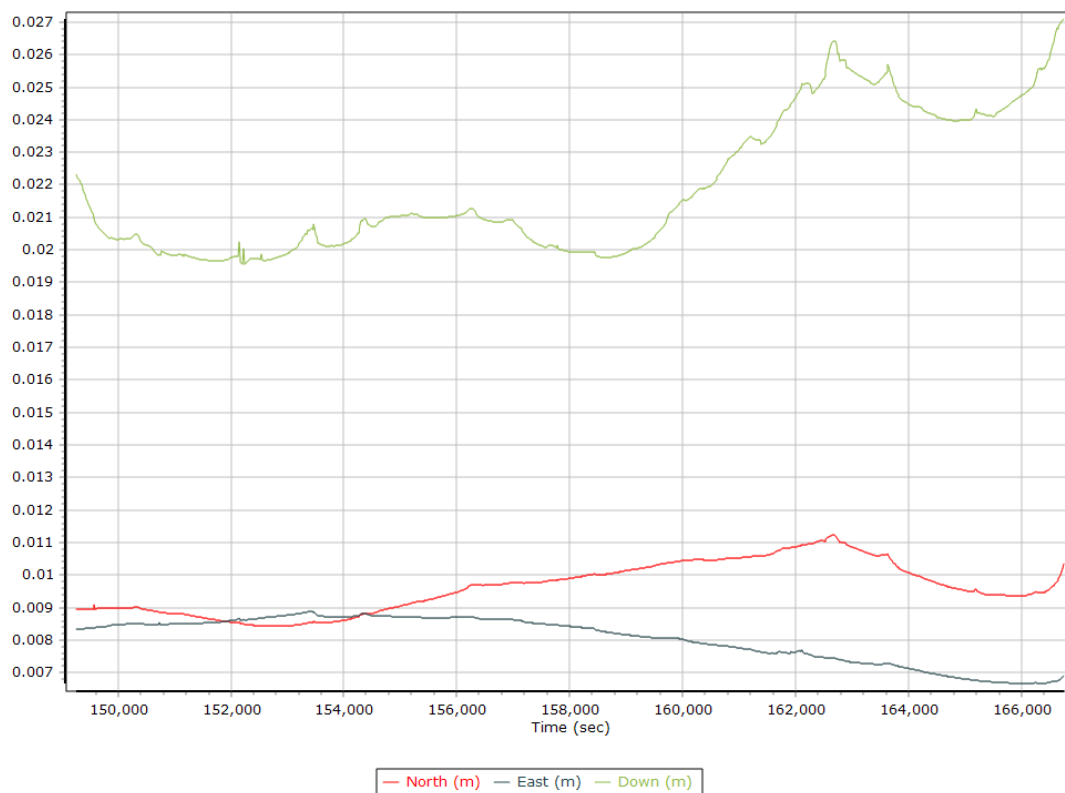
Forward/Reverse Separation



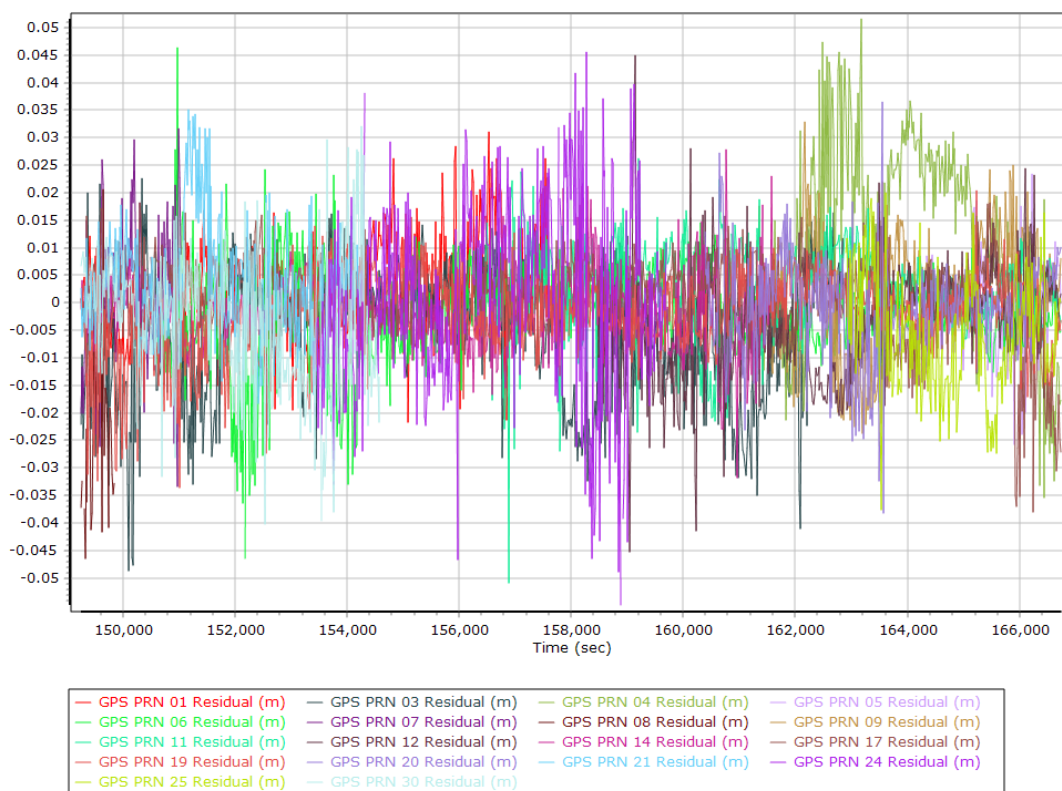
PDOP



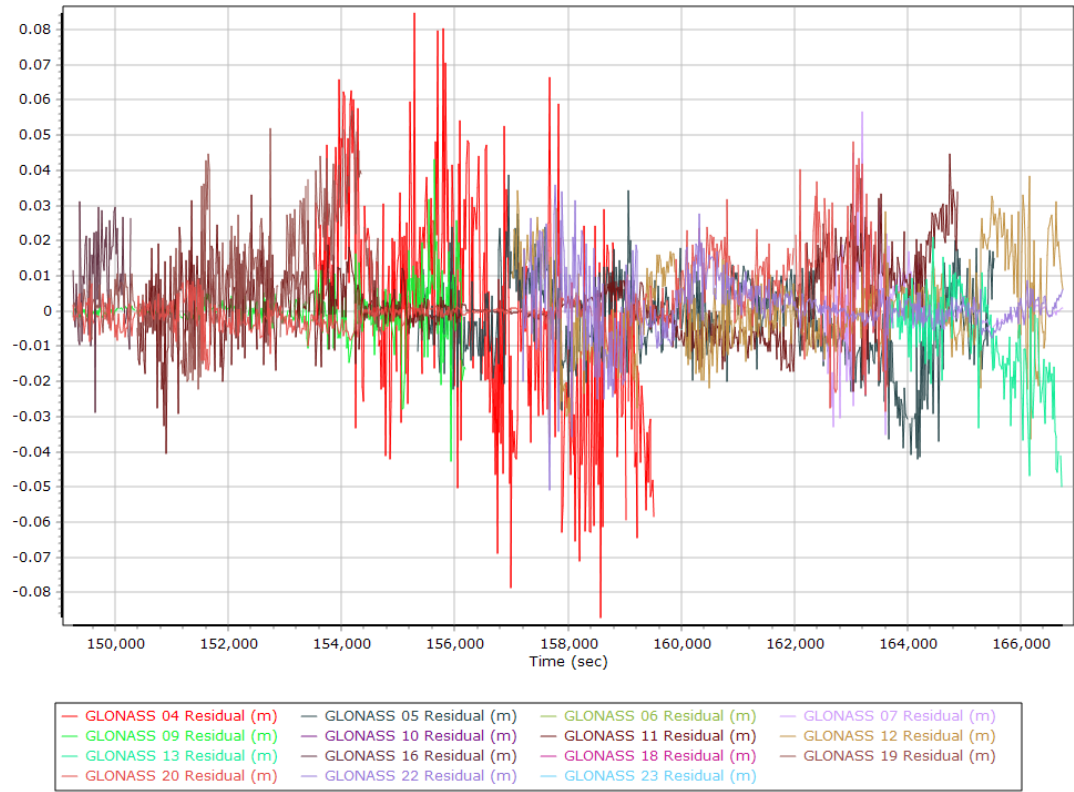
Estimated Position Accuracy



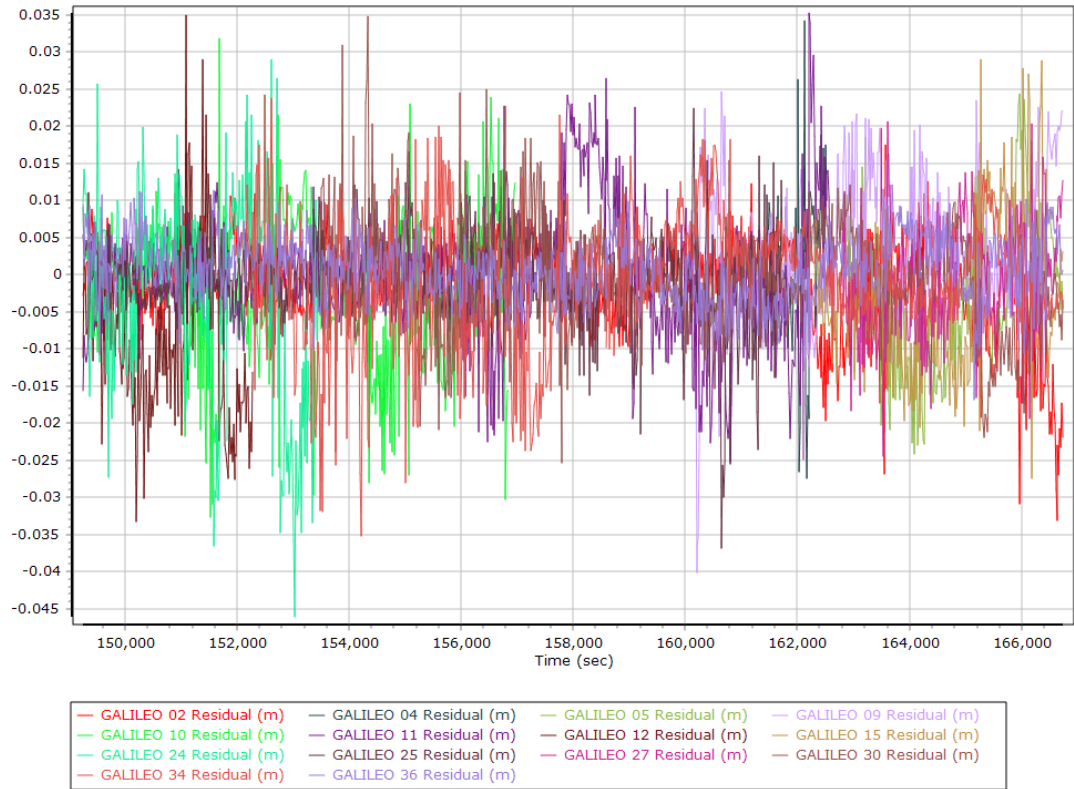
GPS Residuals



GLONASS Residuals



GALILEO Residuals



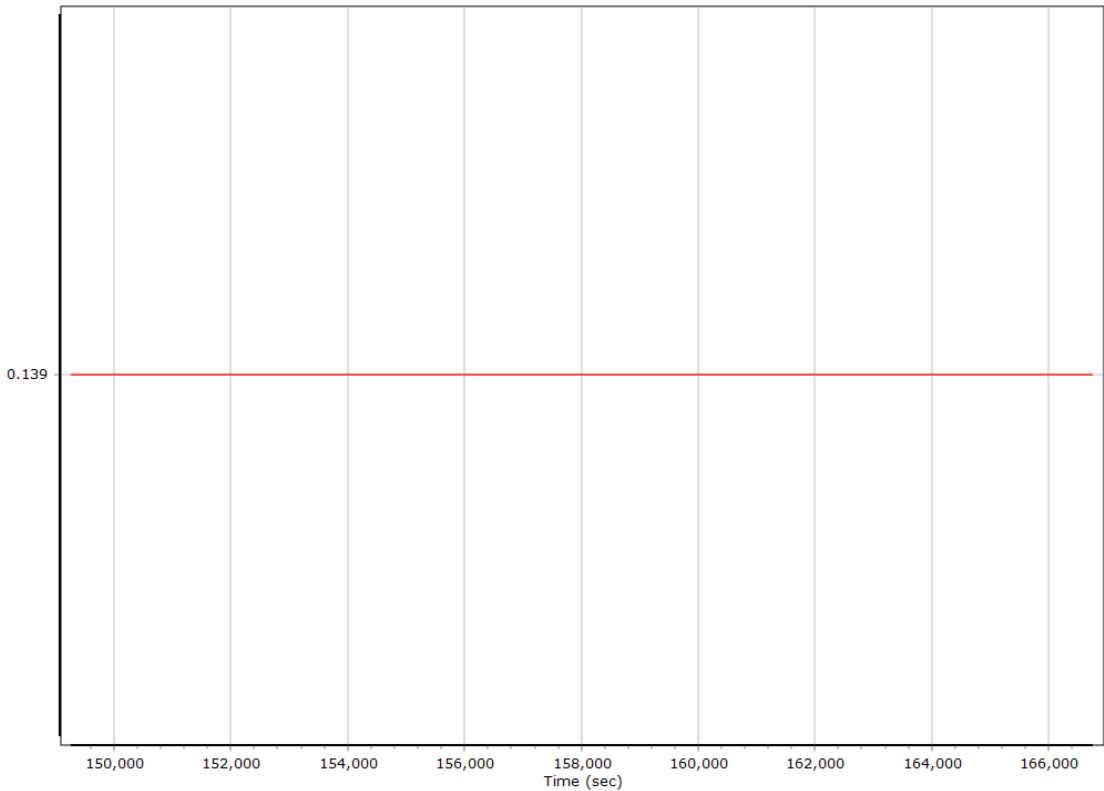
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	148748.000 (04/10/2023 17:19:08)		
Processing end time	166759.000 (04/10/2023 22:19:19)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

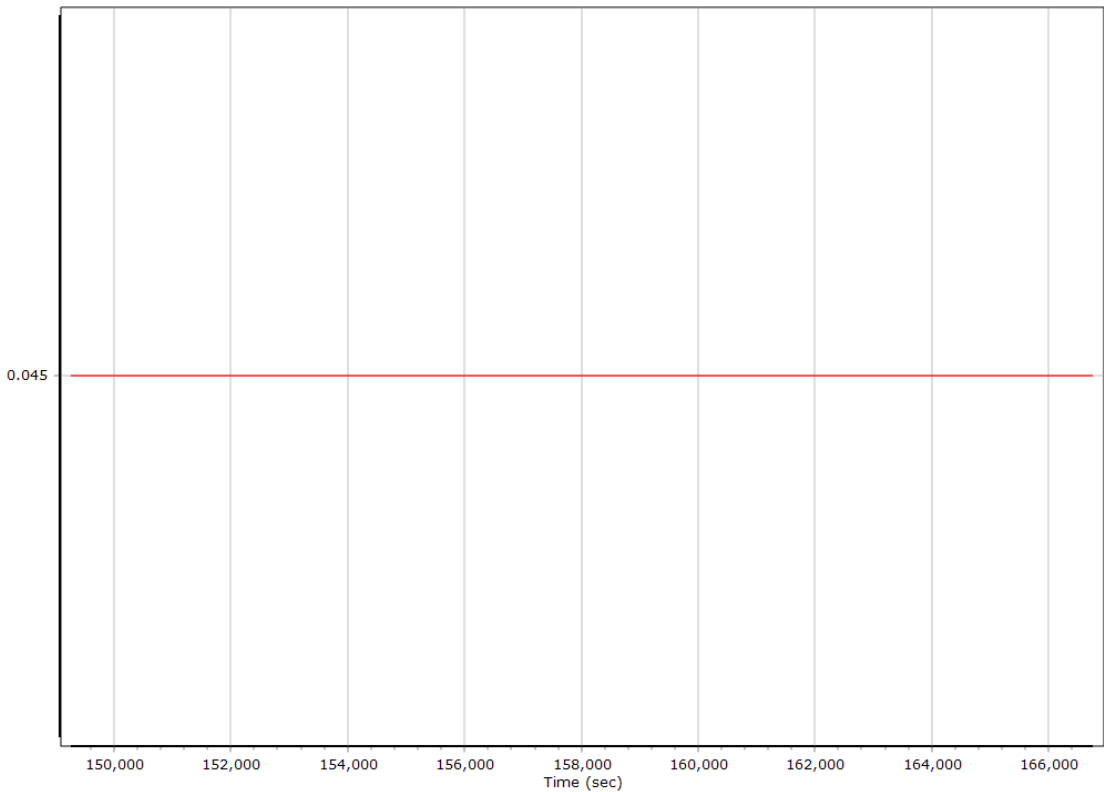
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

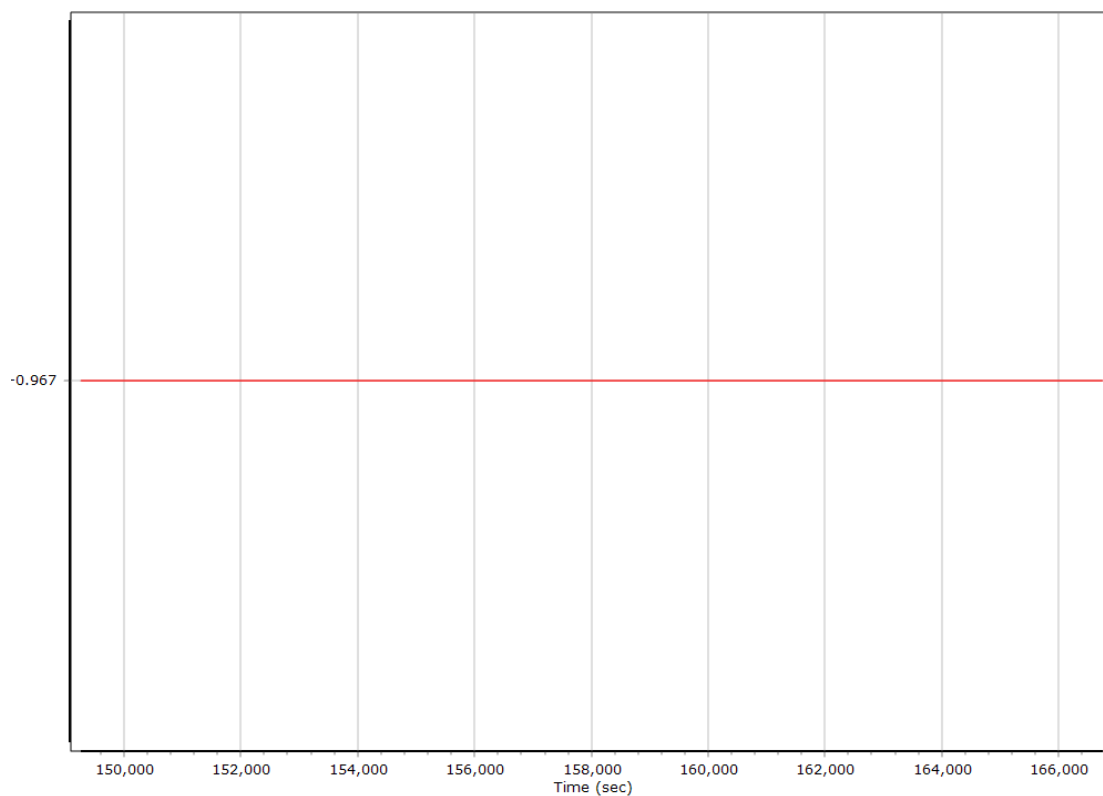
X Reference-Primary GNSS Lever Arm (m)



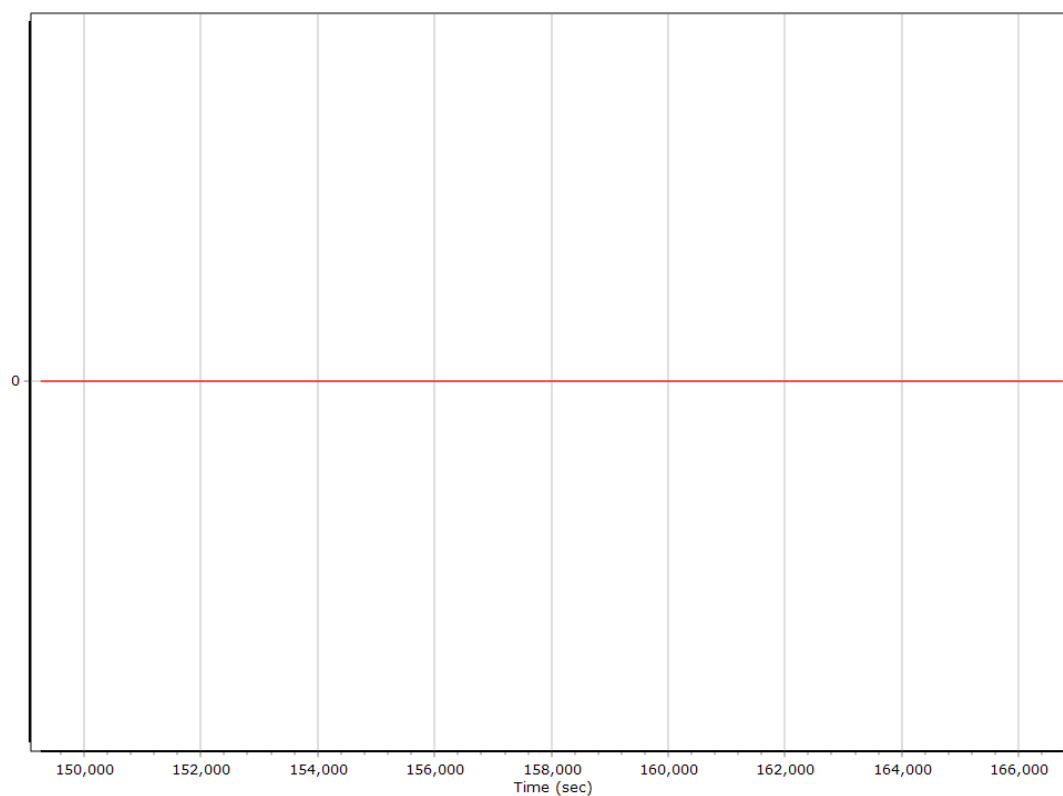
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



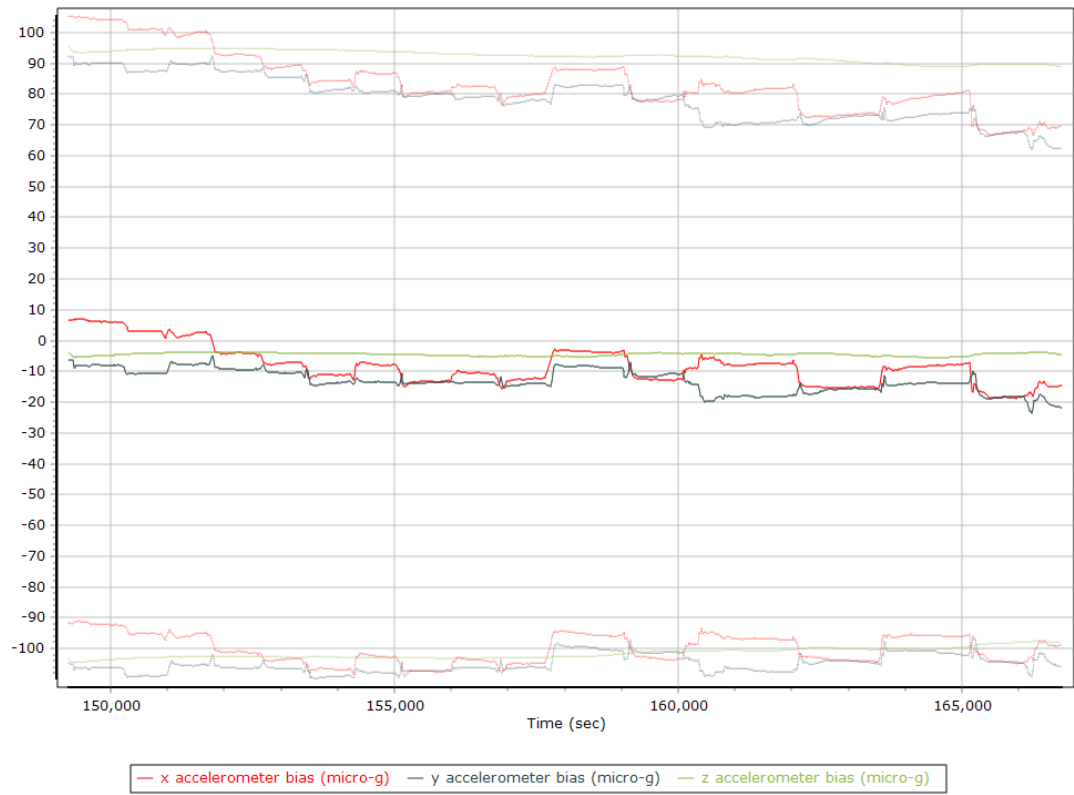
Reference-Primary GNSS Lever Arm Figure of Merit



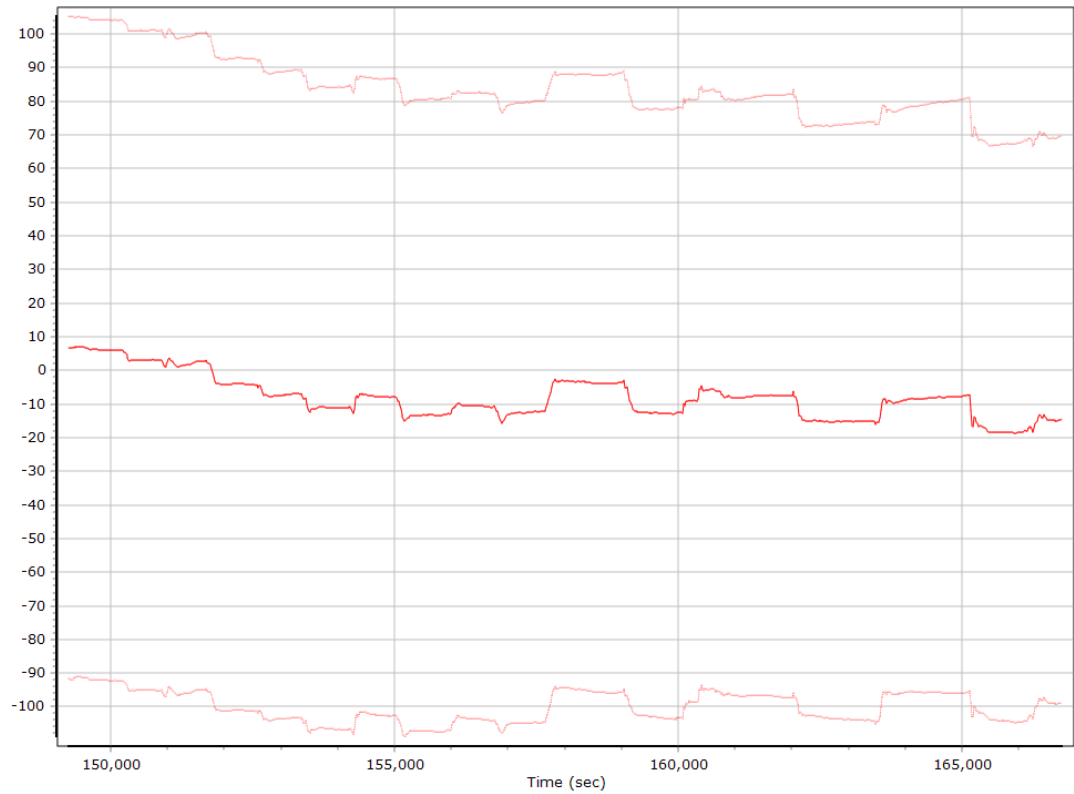
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

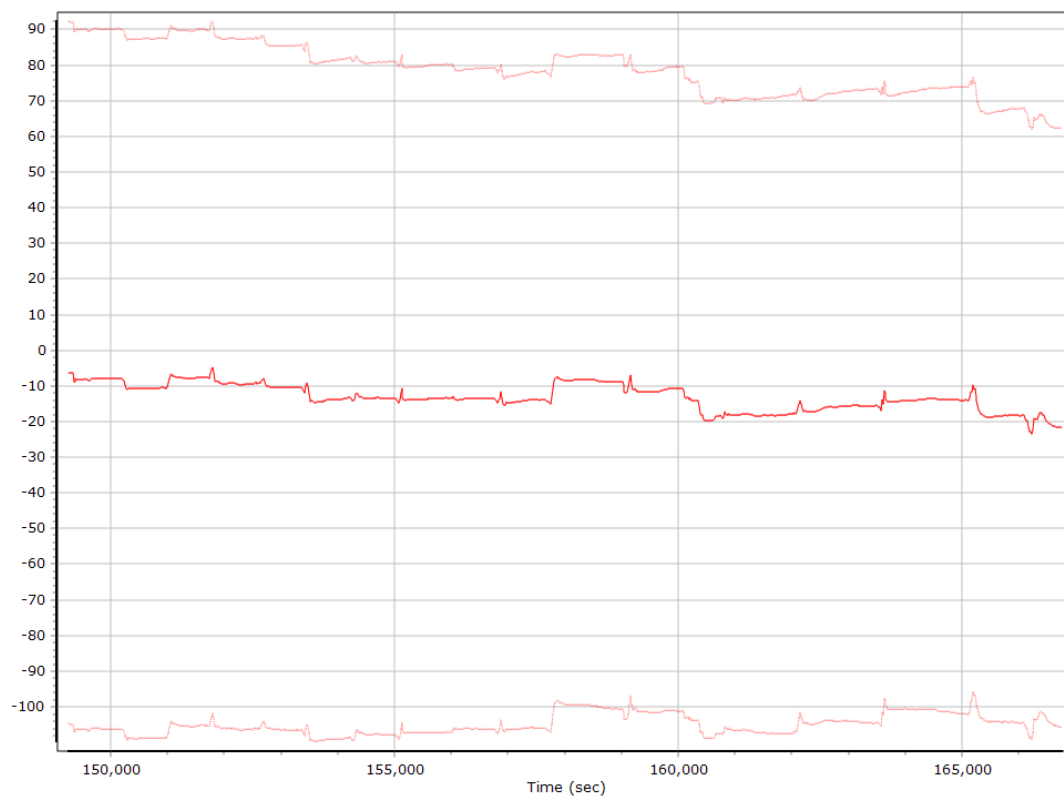
Accelerometer Bias (micro-g)



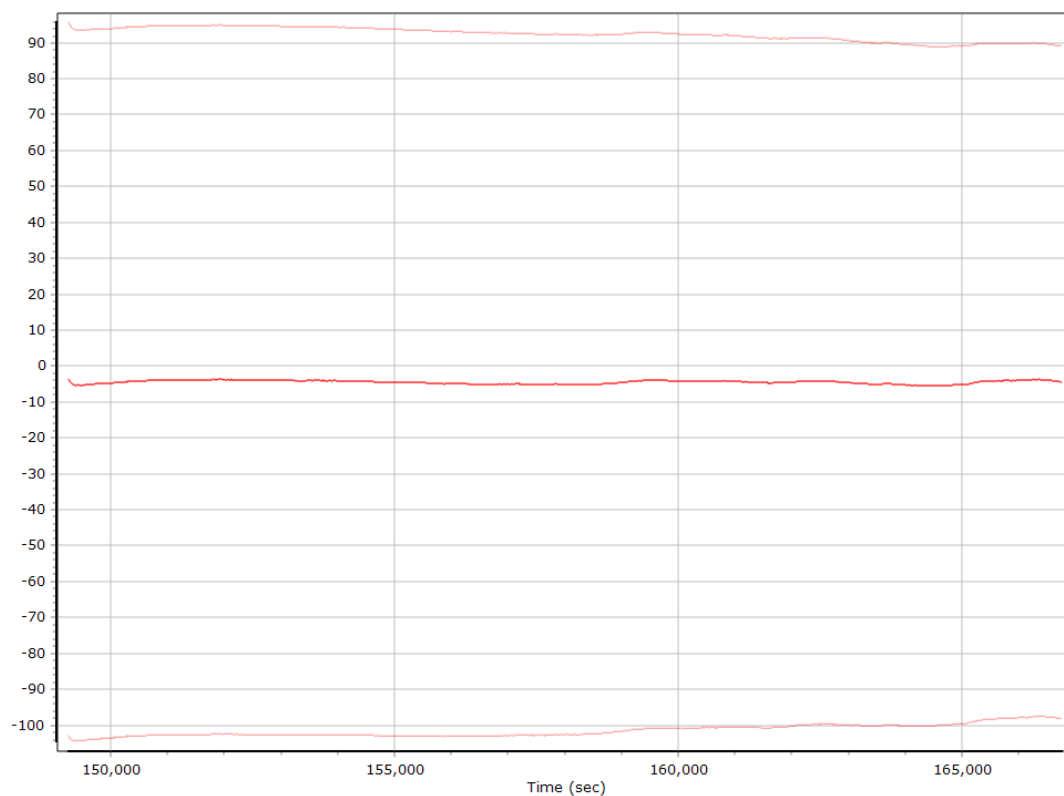
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



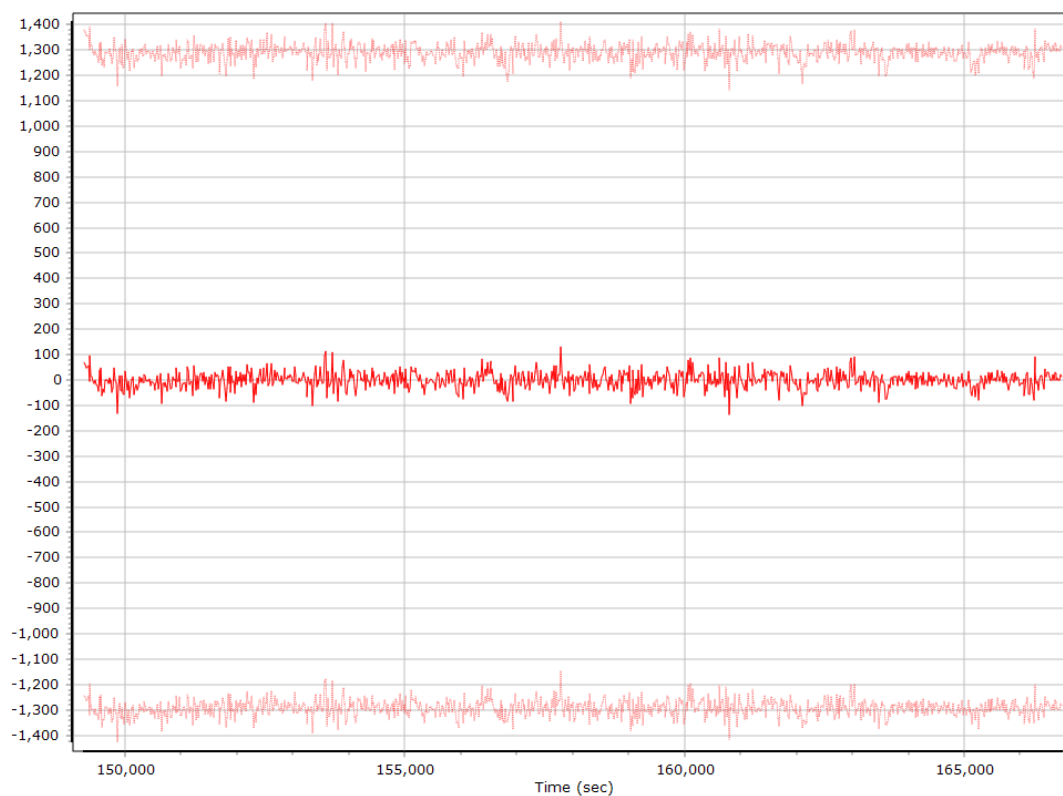
X Accelerometer Scale Error (ppm)



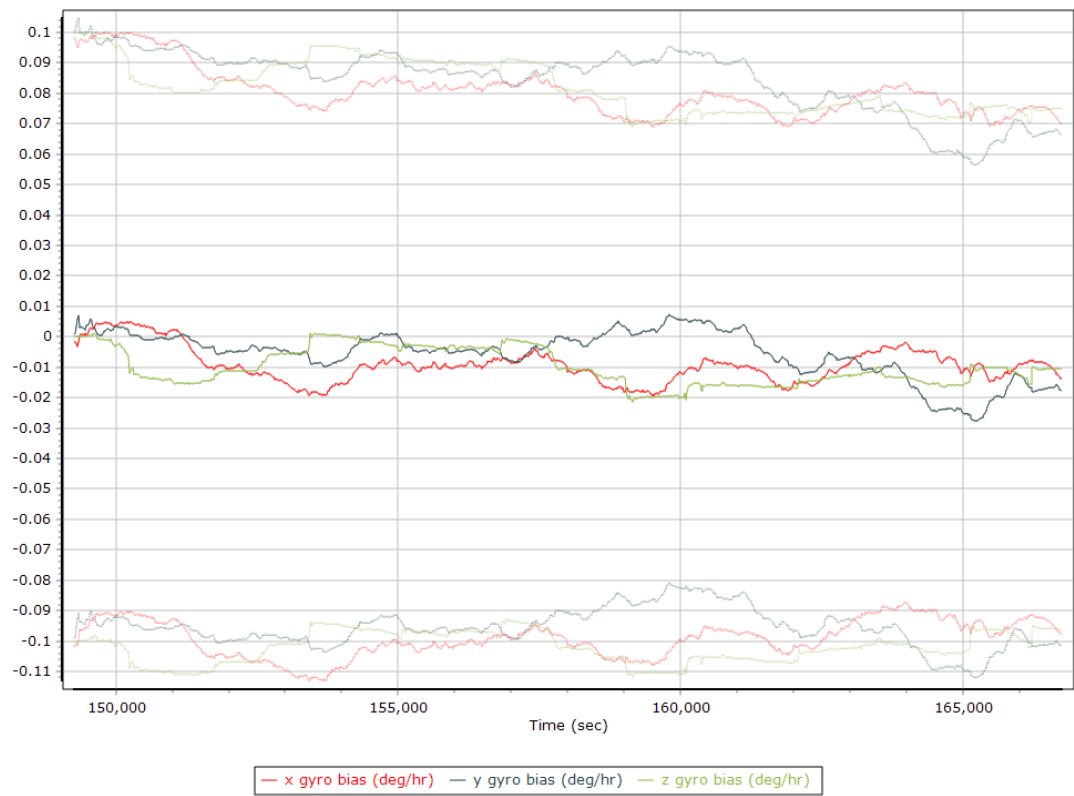
Y Accelerometer Scale Error (ppm)



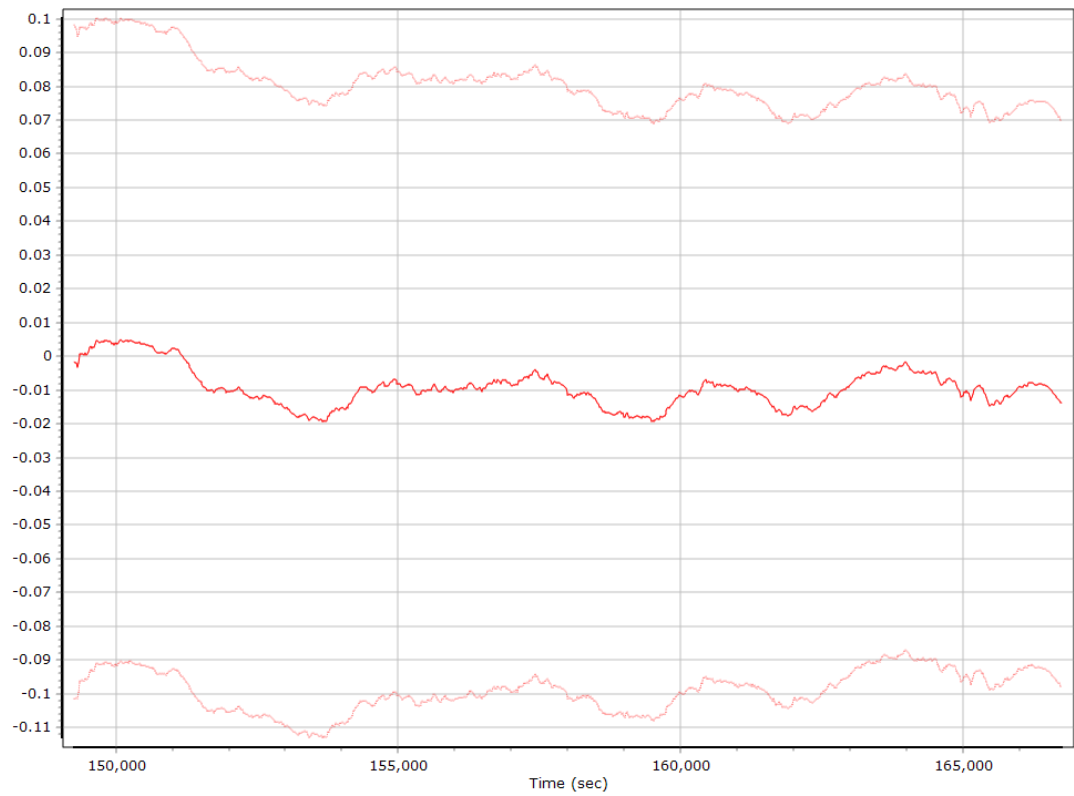
Z Accelerometer Scale Error (ppm)



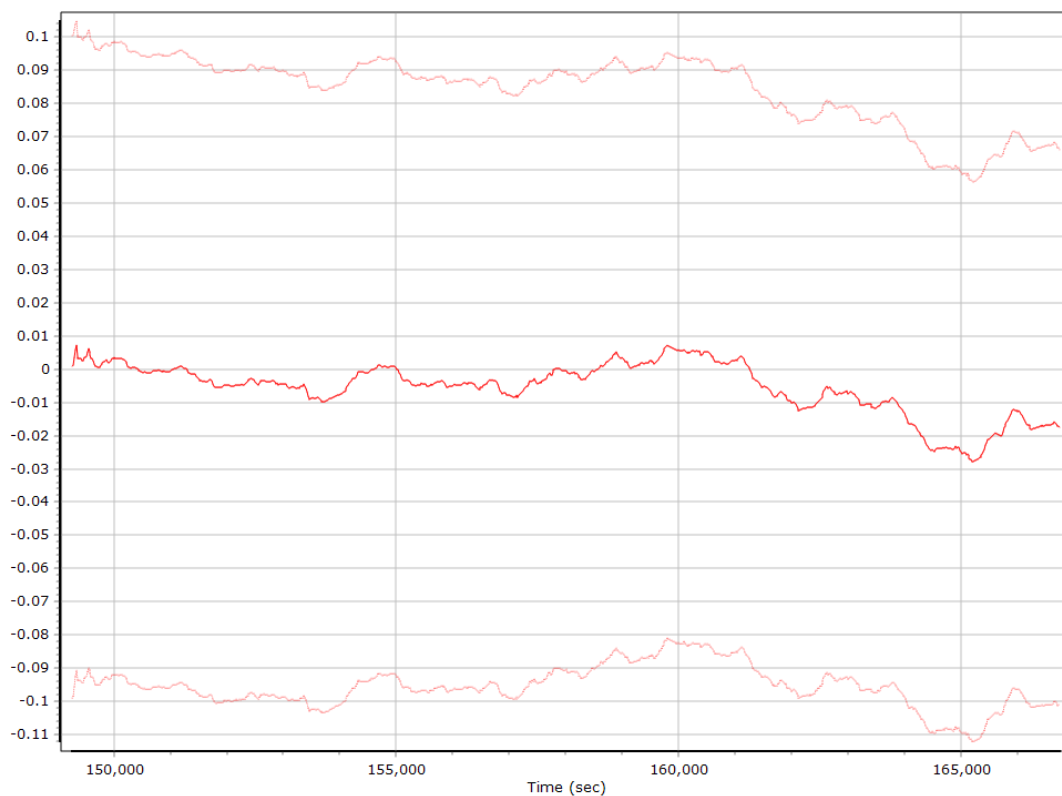
Gyro Bias (deg/h)



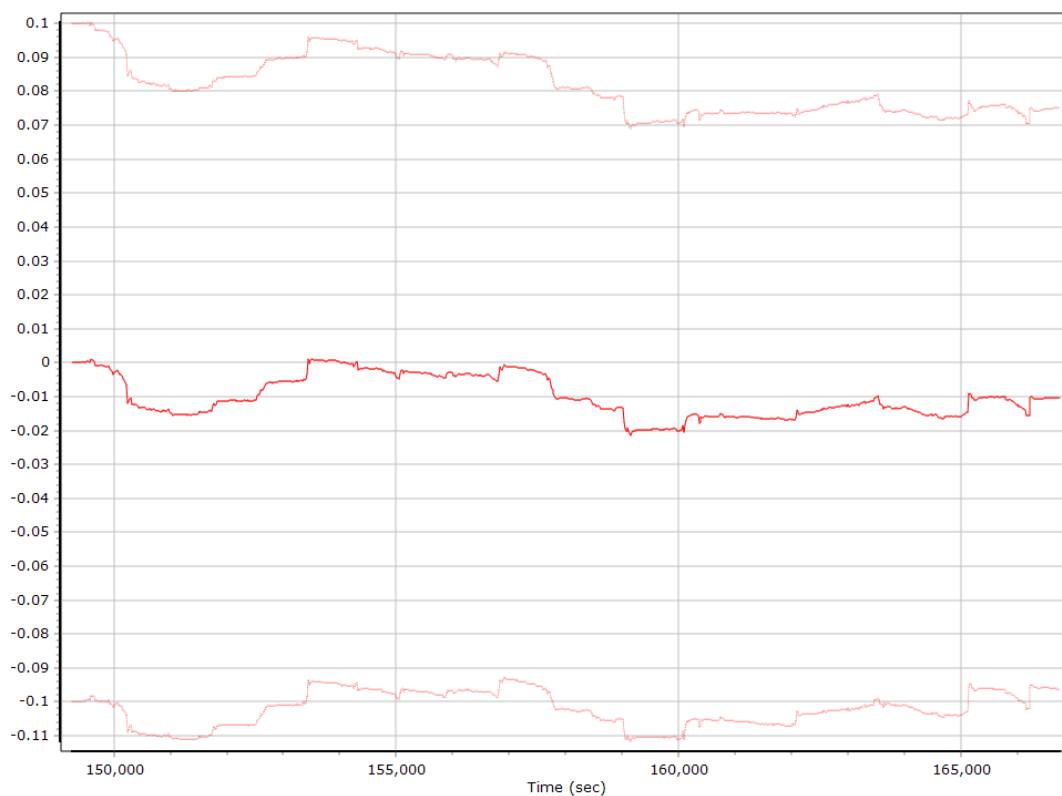
X Gyro Bias (deg/h)



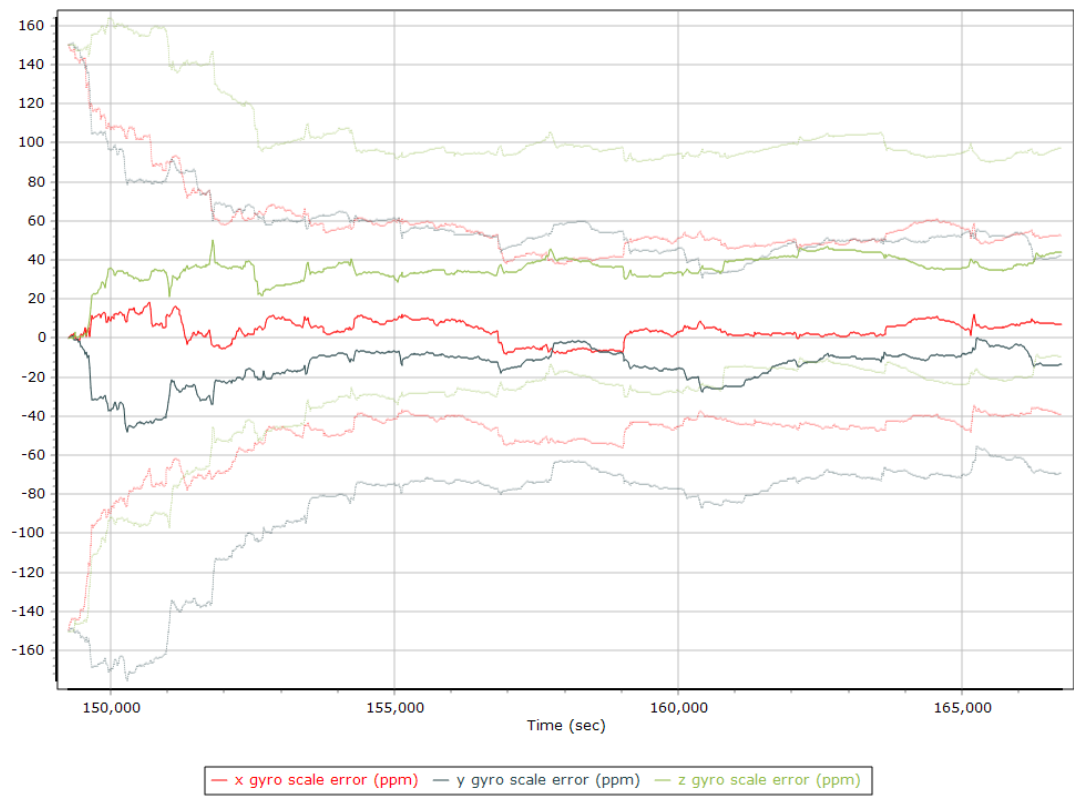
Y Gyro Bias (deg/h)



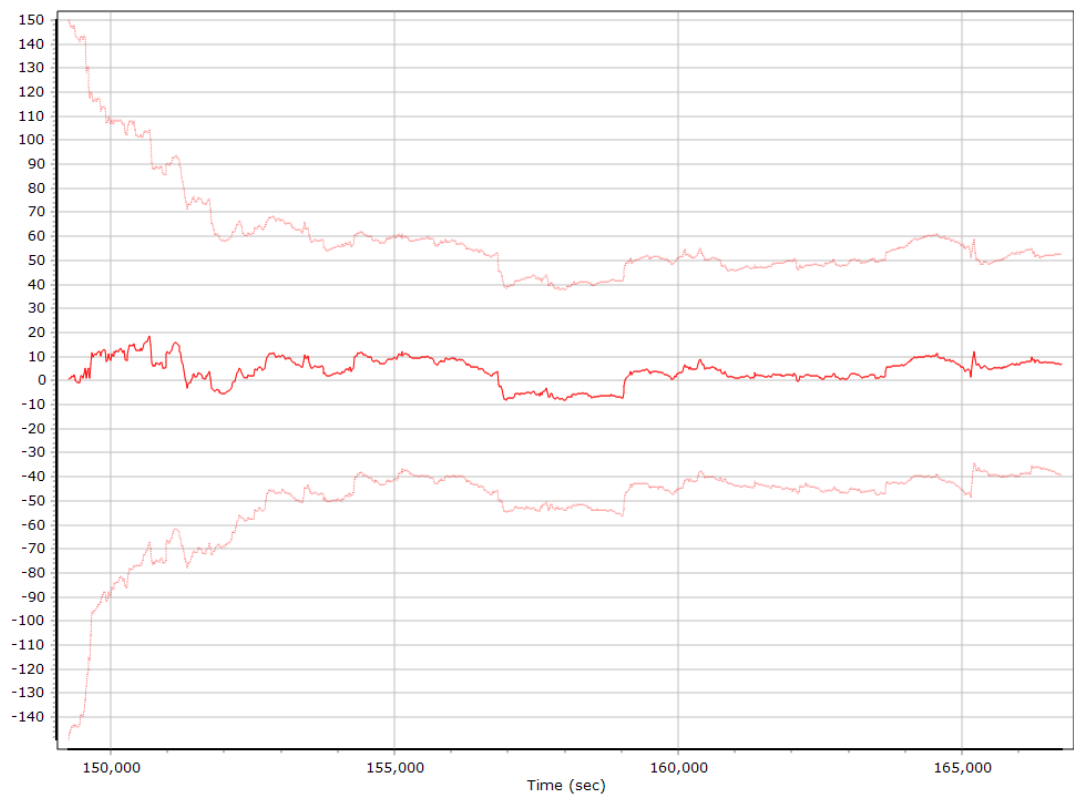
Z Gyro Bias (deg/h)



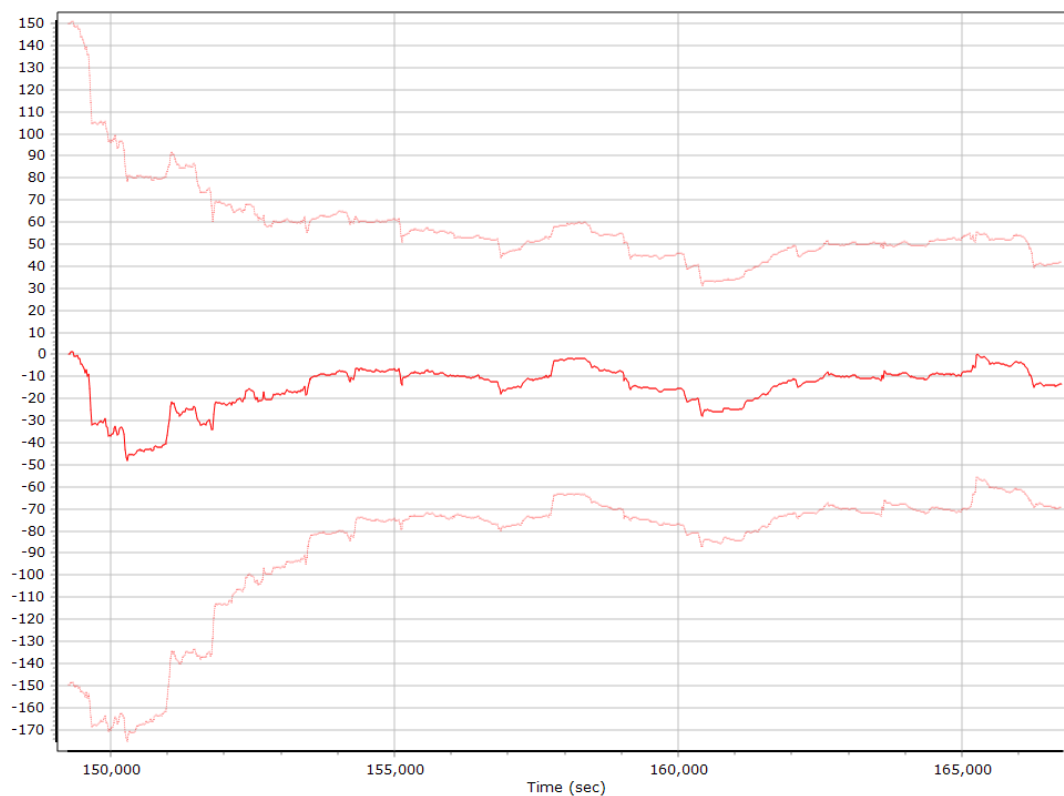
Gyro Scale Error (ppm)



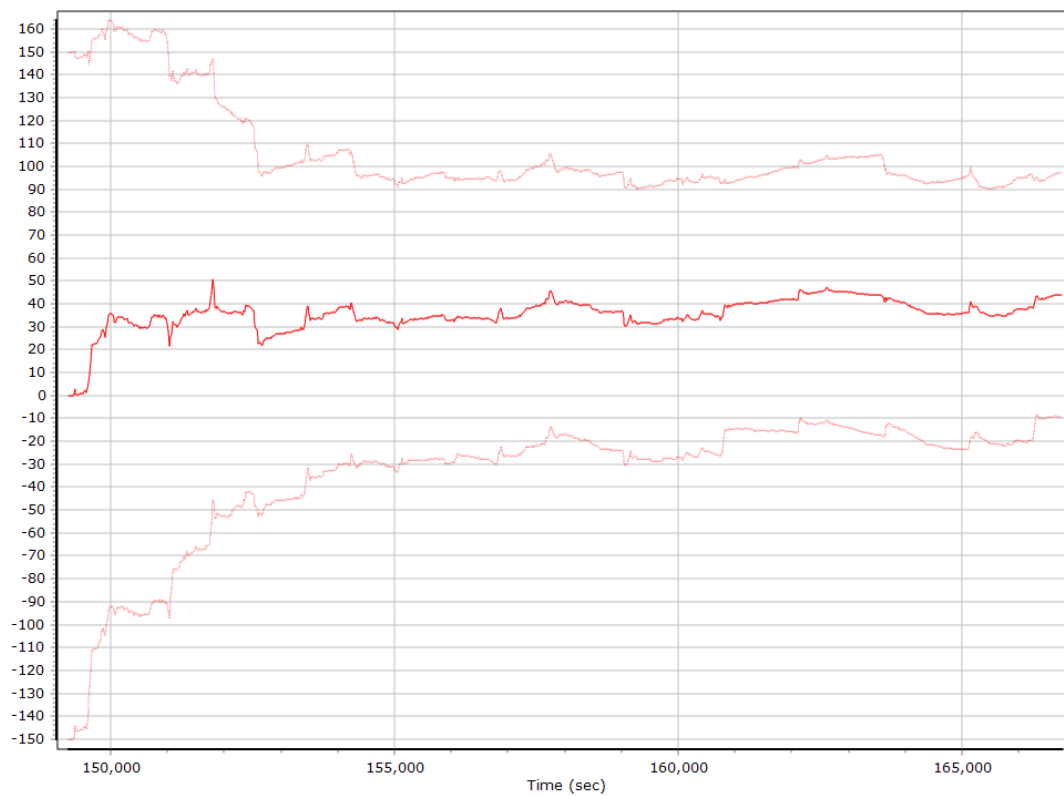
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

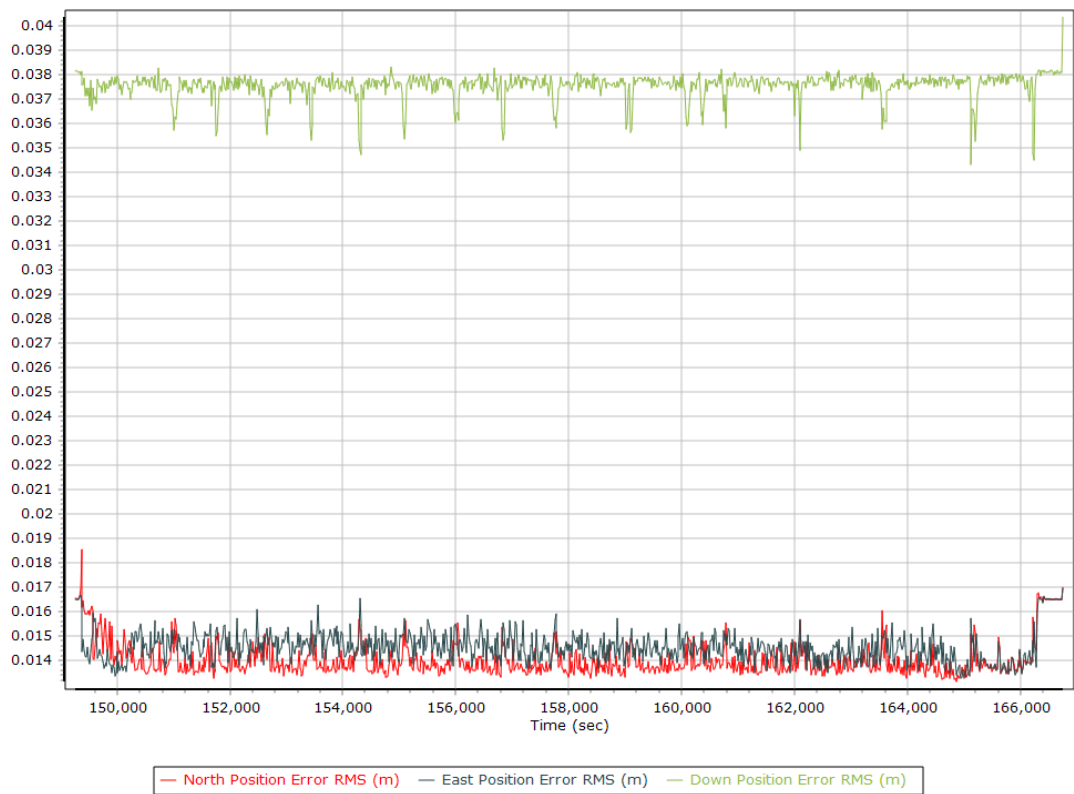


Z Gyro Scale Error (ppm)

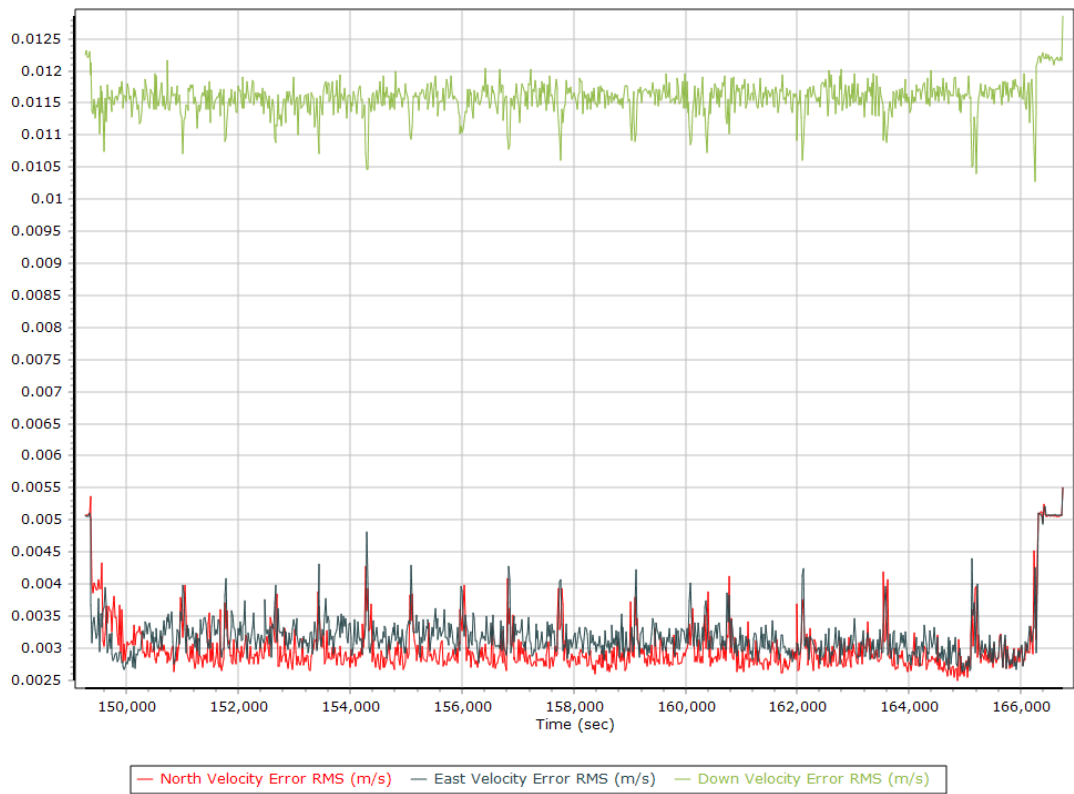


Smoothed Performance Metrics

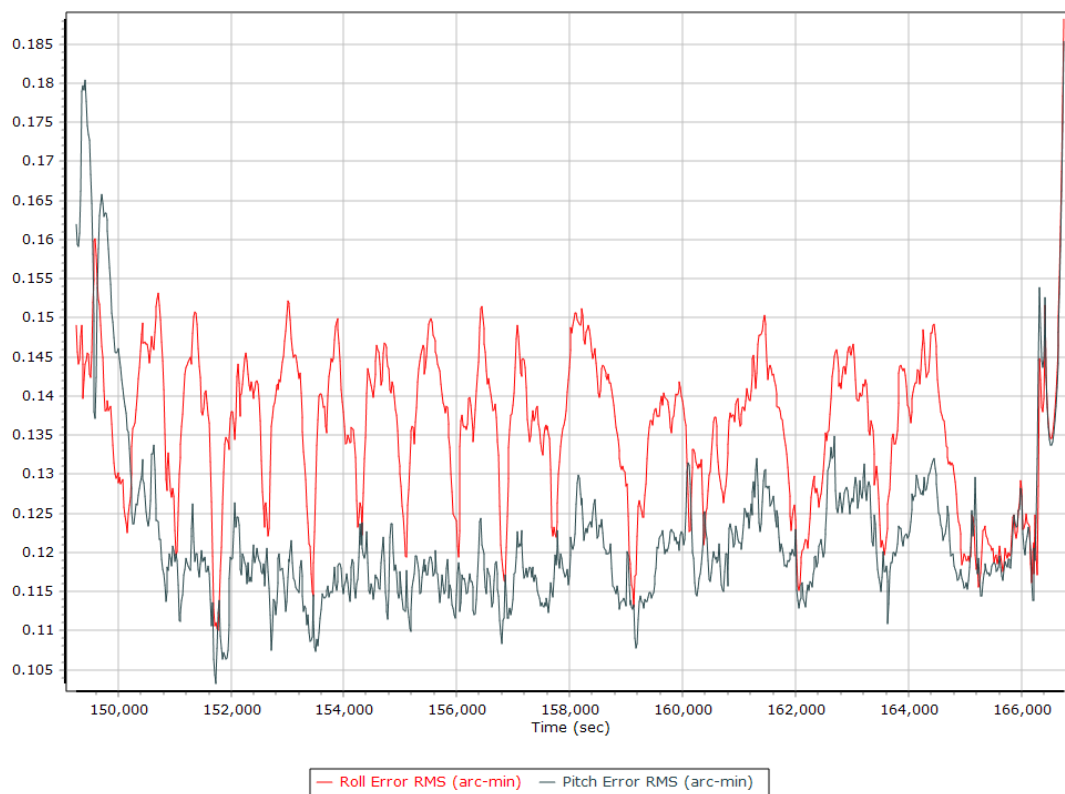
Position Error RMS (m)



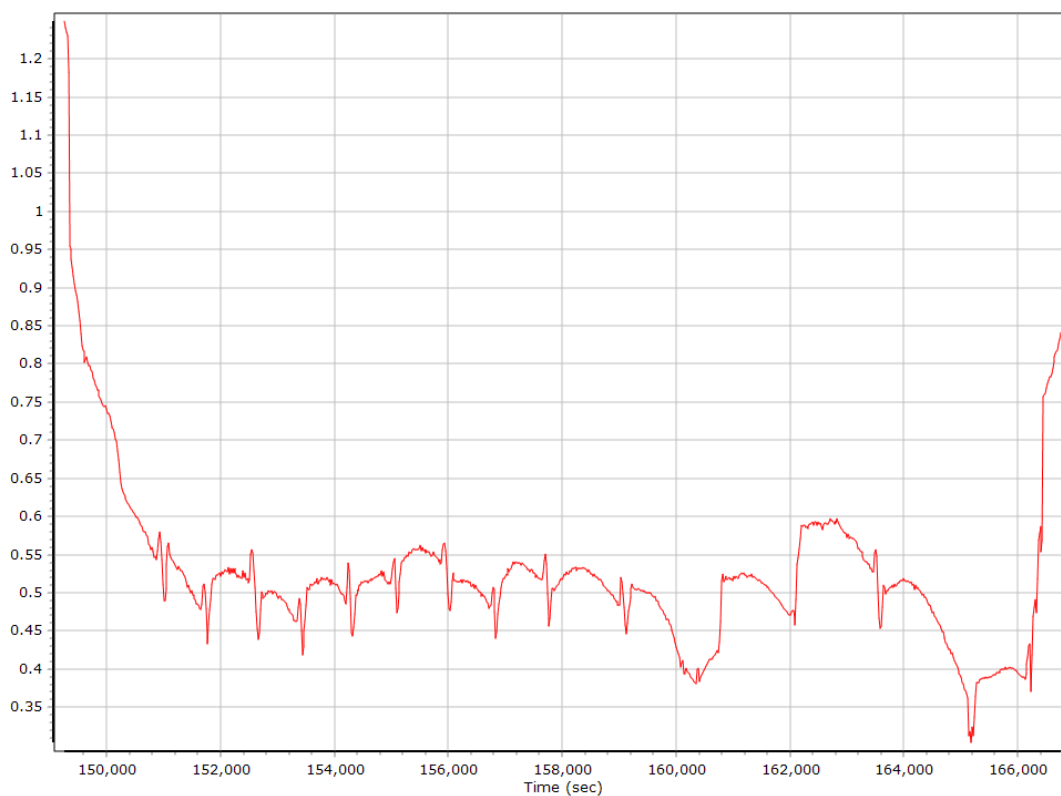
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

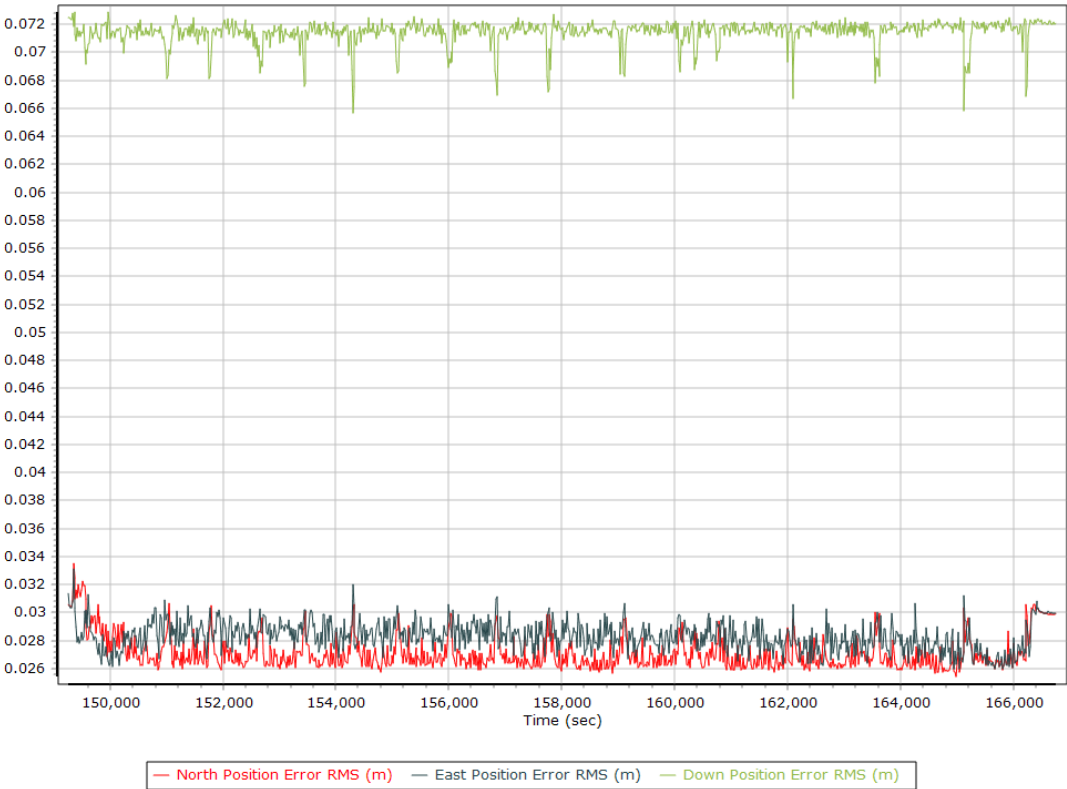


Heading Error RMS (arc-min)

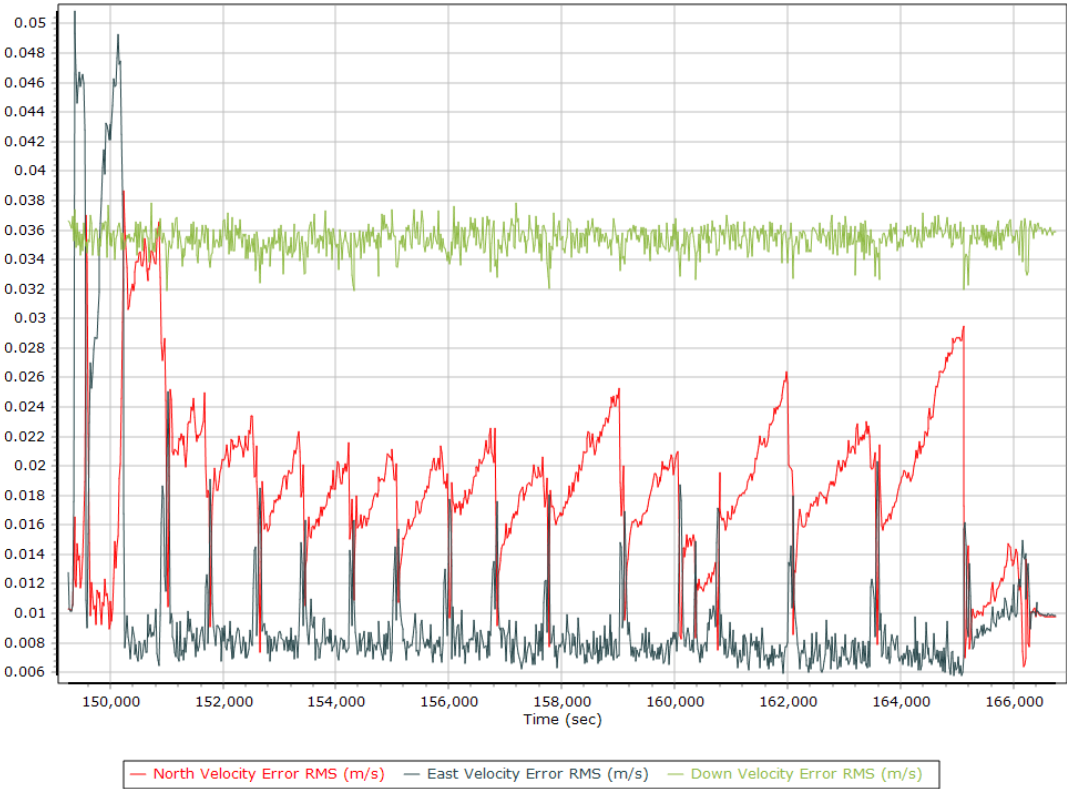


Forward Processed Performance Metrics

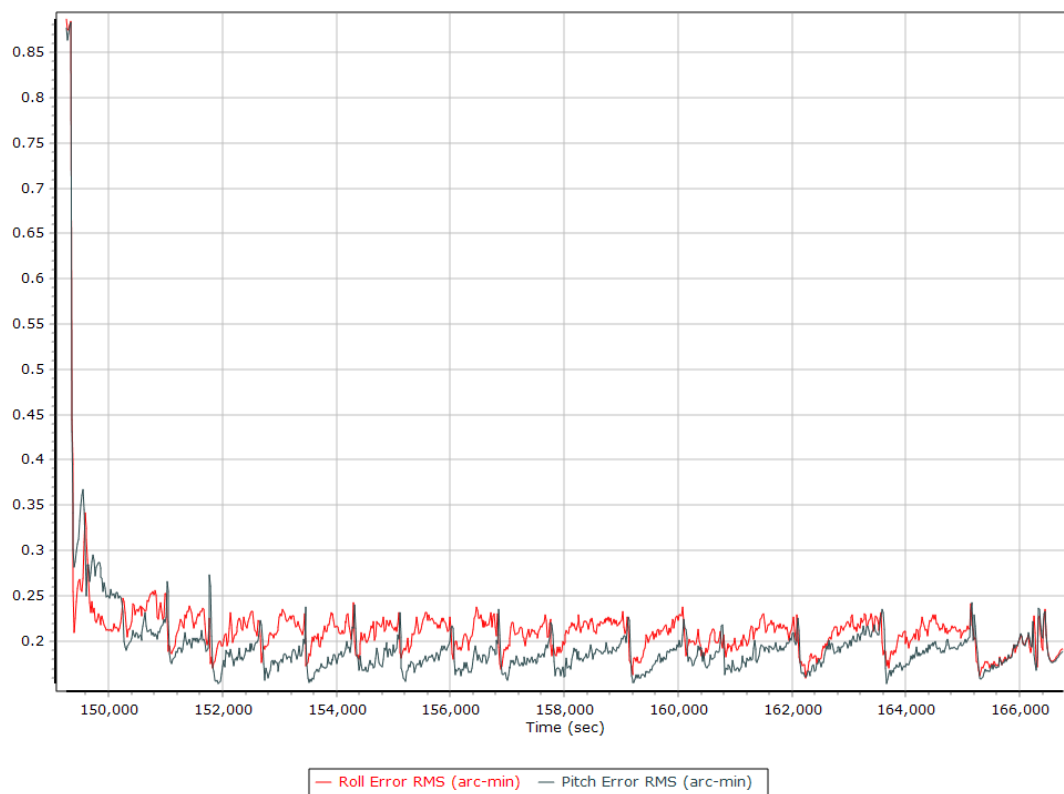
Position Error RMS (m)



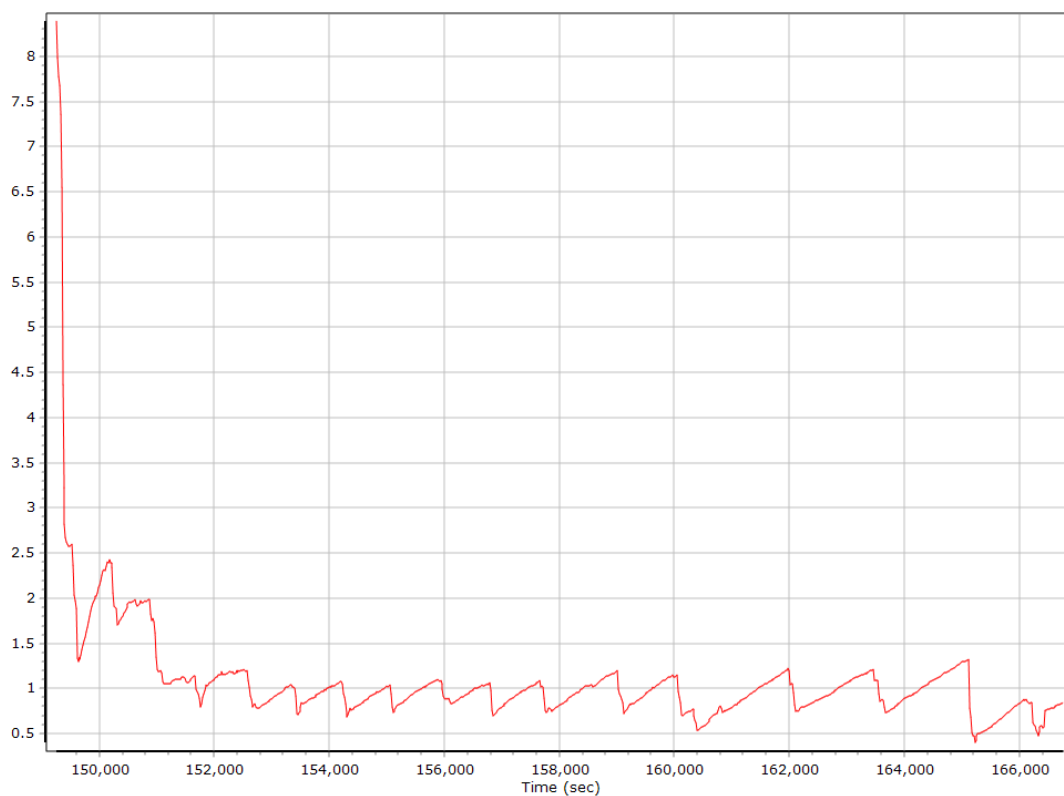
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

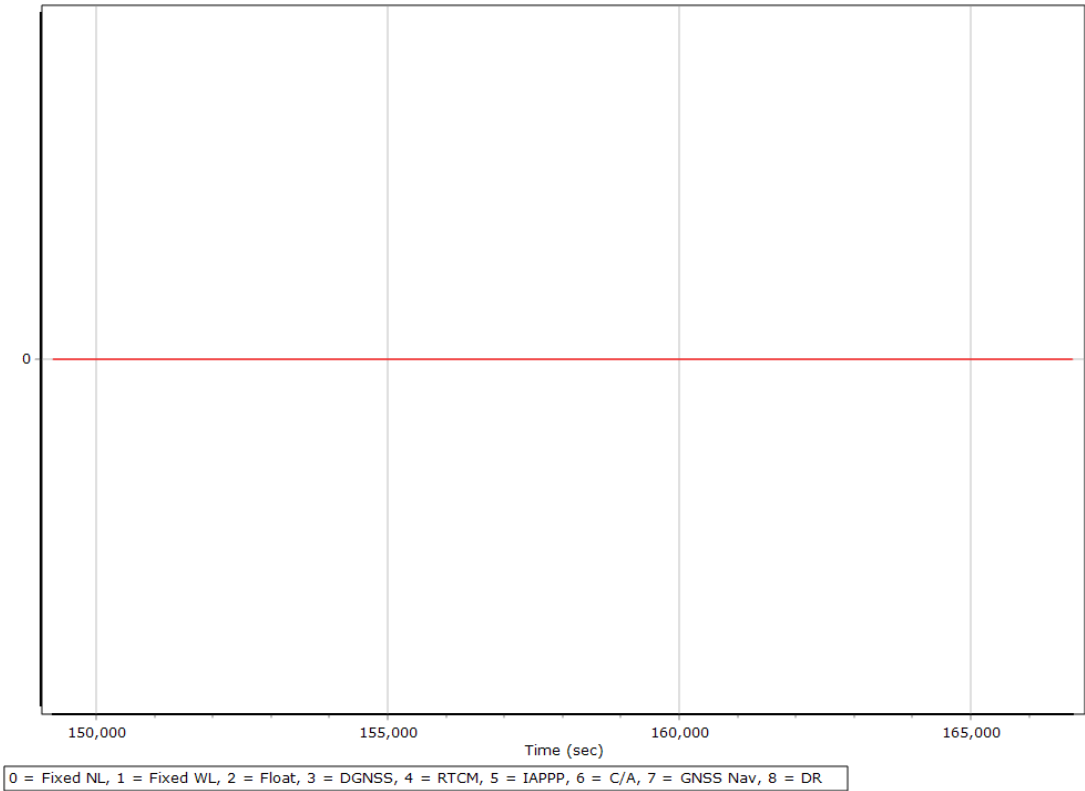


Heading Error RMS (arc-min)

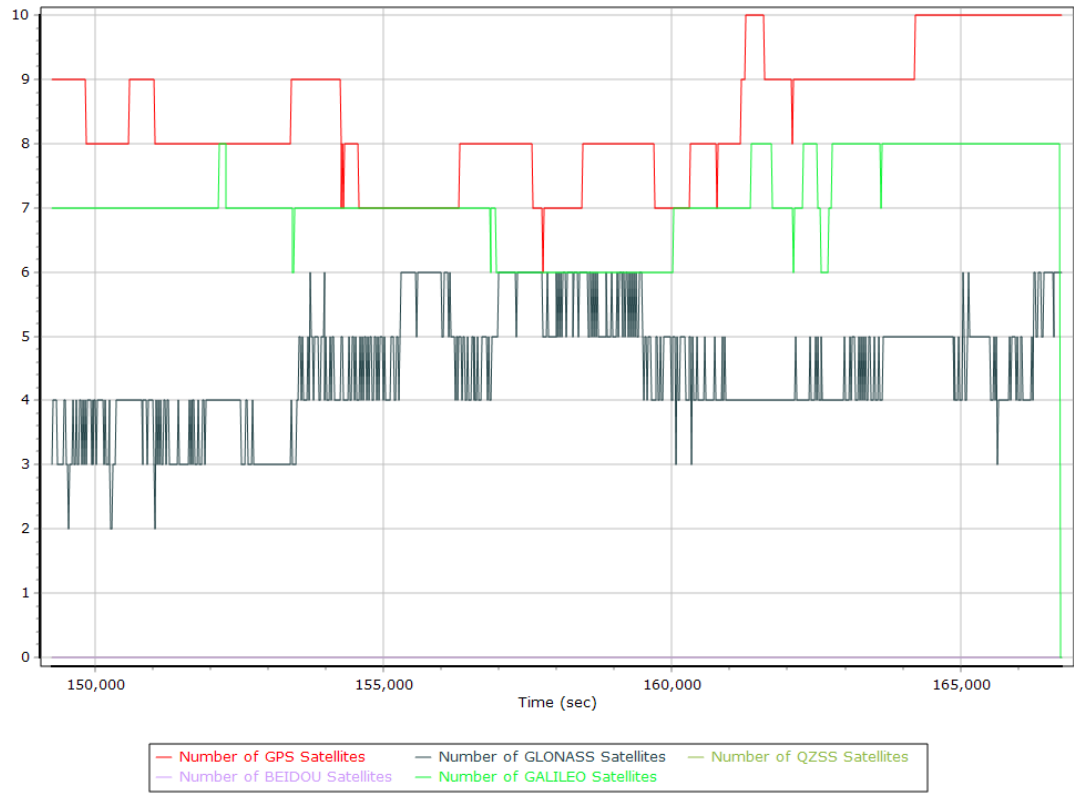


Forward Processed Solution Status

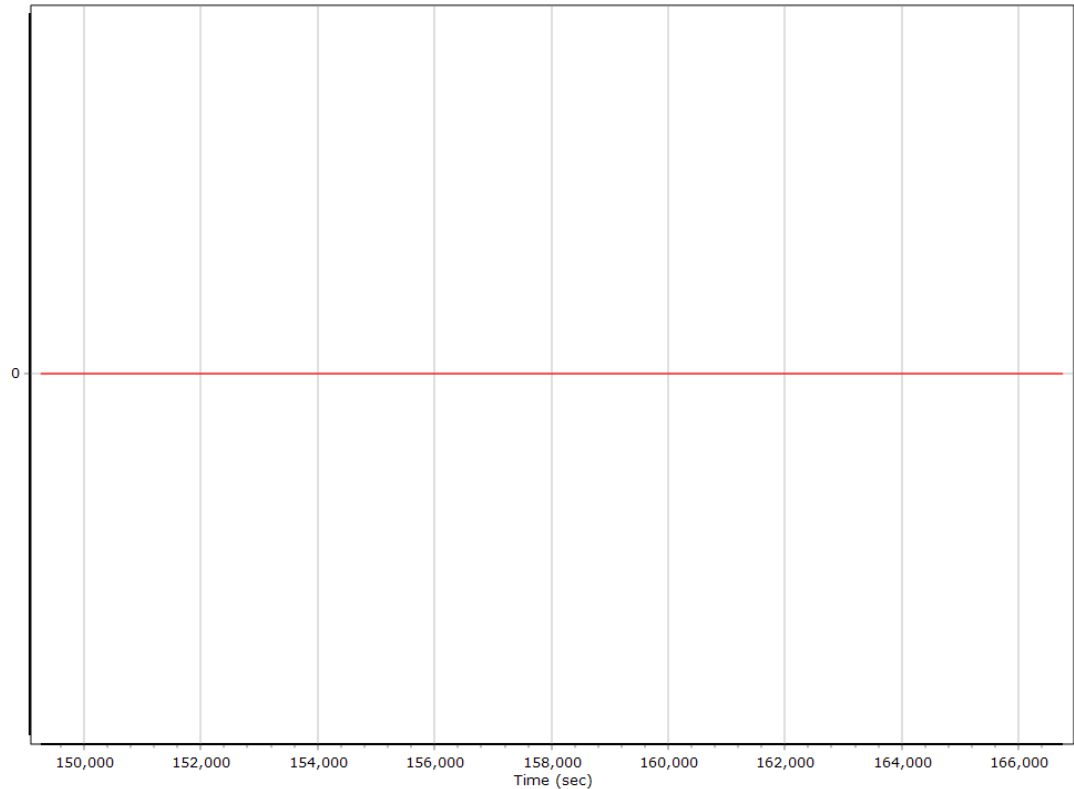
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230410_F2_4894_NAD832011.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	149199.005 (04/10/2023 17:26:39)		
Export end time	166759.002 (04/10/2023 22:19:19)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.271233		

General Information

Mission Information

Project name	20230411_F1_4894
Processing date	2023-04-13 21:34:41
Mission date	2023-04-11 12:47:57
Mission duration	04:47:41.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.284	POS Data
VQ1560.285	POS Data
VQ1560.286	POS Data
VQ1560.287	POS Data
VQ1560.288	POS Data
VQ1560.289	POS Data
VQ1560.290	POS Data
VQ1560.291	POS Data
VQ1560.292	POS Data
VQ1560.293	POS Data
VQ1560.294	POS Data
VQ1560.295	POS Data
VQ1560.296	POS Data
VQ1560.297	POS Data
VQ1560.298	POS Data
VQ1560.299	POS Data
VQ1560.300	POS Data
VQ1560.301	POS Data
VQ1560.302	POS Data
VQ1560.303	POS Data
VQ1560.304	POS Data
VQ1560.305	POS Data
VQ1560.306	POS Data
VQ1560.307	POS Data
VQ1560.308	POS Data
VQ1560.309	POS Data
VQ1560.310	POS Data
VQ1560.311	POS Data
VQ1560.312	POS Data
VQ1560.313	POS Data
VQ1560.314	POS Data
VQ1560.315	POS Data
VQ1560.316	POS Data
VQ1560.317	POS Data
VQ1560.318	POS Data
VQ1560.319	POS Data
VQ1560.320	POS Data
VQ1560.321	POS Data
VQ1560.322	POS Data
VQ1560.323	POS Data

Input Files

File Name	File Type
Ephm1010.23g	GLONASS Broadcast Ephemeris
Ephm1010.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230411_F1_4894.out	SBET Trajectory File
export_20230411_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.284		
Last raw data file	VQ1560.323		
Start GPS week	2257		
Start time	218878.141 (04/11/2023 12:47:58)		
End time	236121.308 (04/11/2023 17:35:21)		
Start of fine alignment	219379.099 (04/11/2023 12:56:19)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

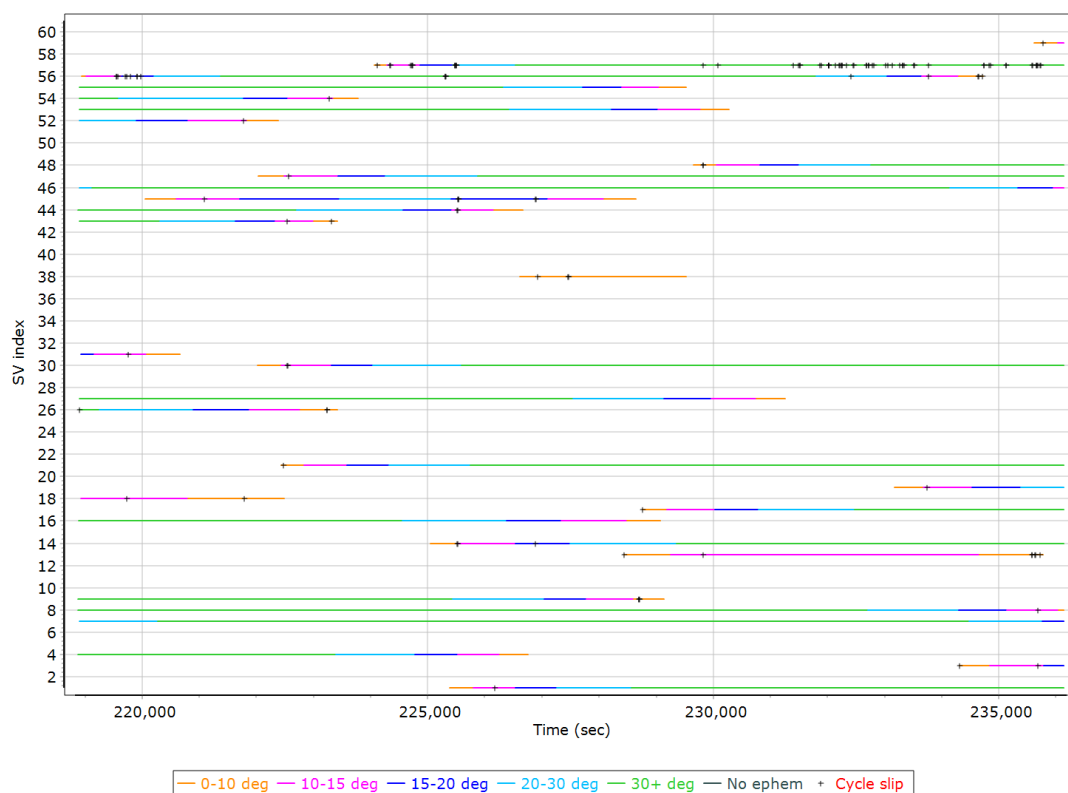
Rover Data QC

Raw IMU Import QC Summary

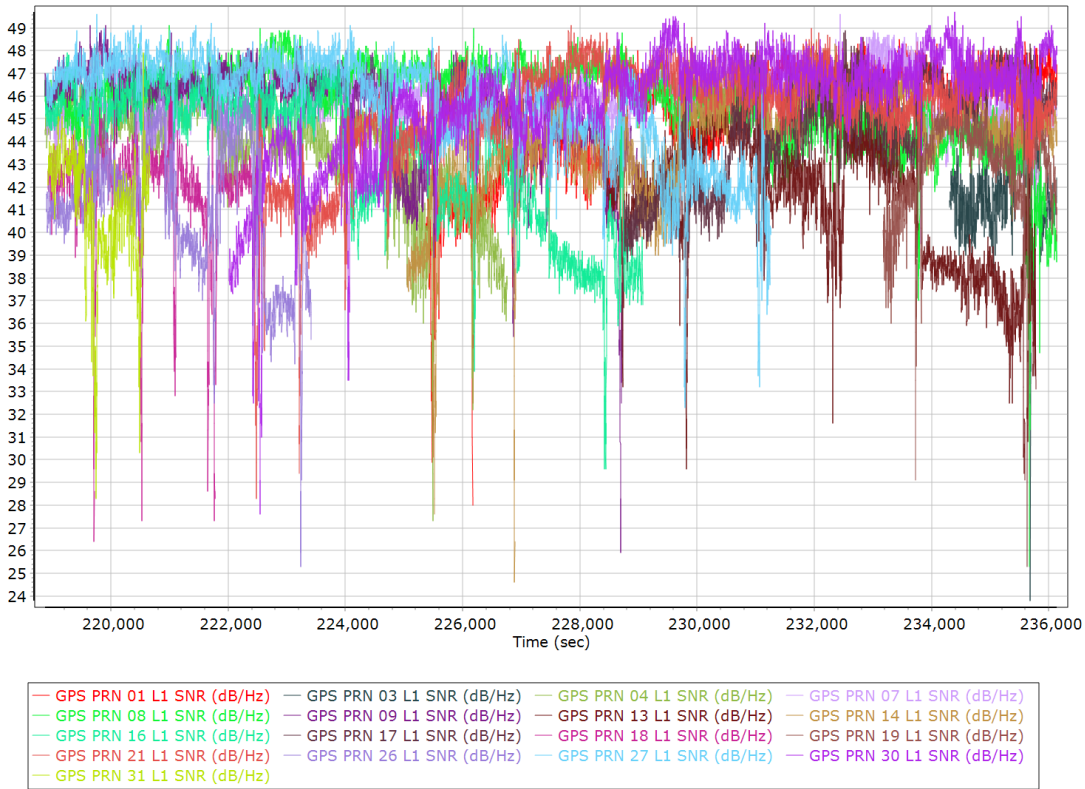
IMU data input file	imu_20230411_F1_4894.dat
IMU data check log file	imudt_20230411_F1_4894.log
IMU Records Processed	3451813
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
218877.941 : WARNING : Gap of 218857.9830 seconds in CHECKDT input data	

Primary Observables & Satellite Data

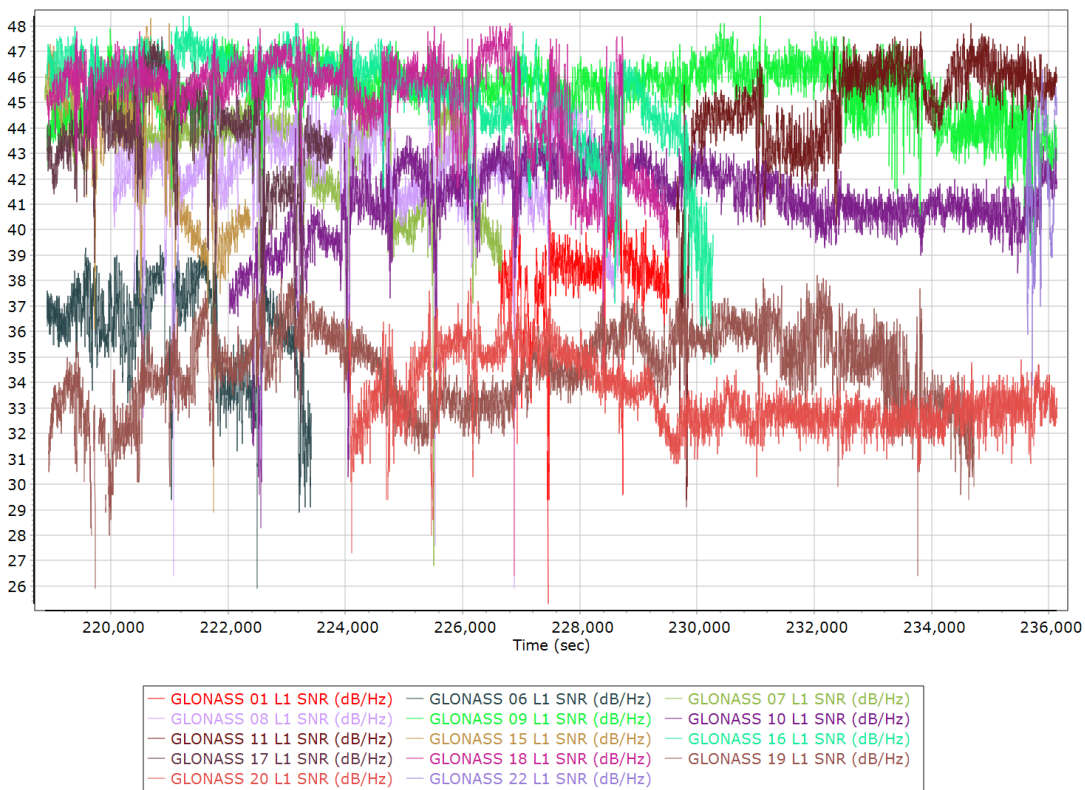
GPS/GLONASS L1 Satellite Lock/Elevation



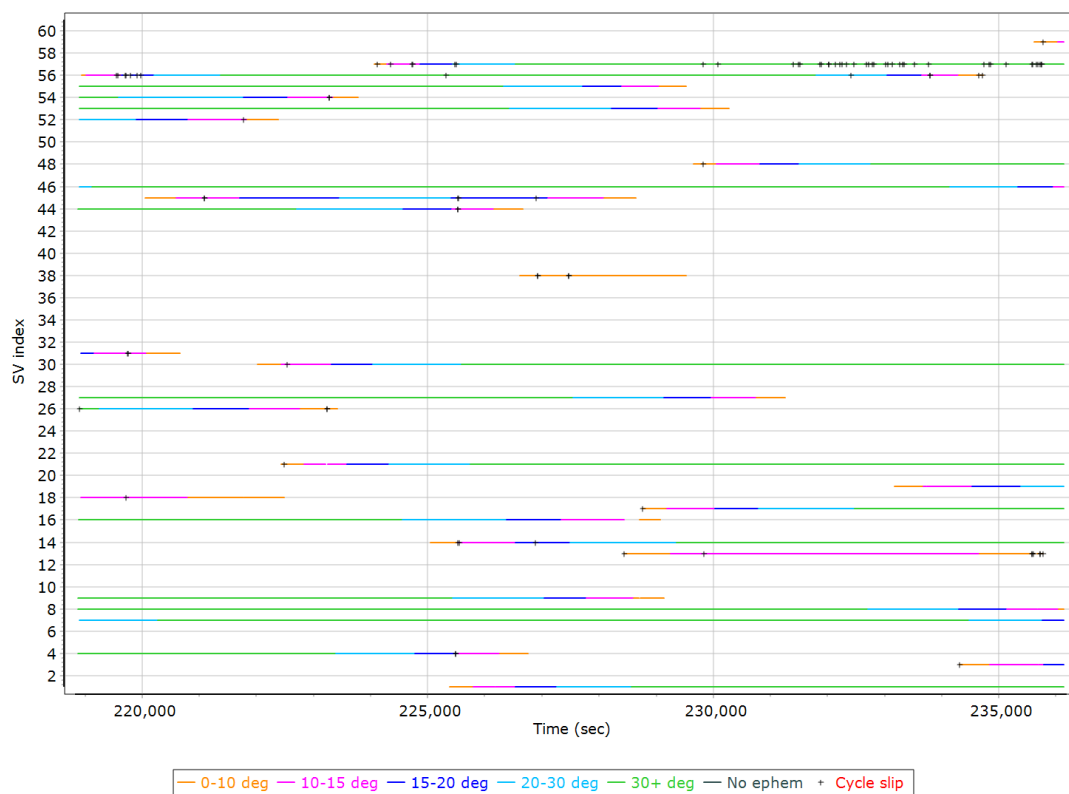
GPS L1 SNR



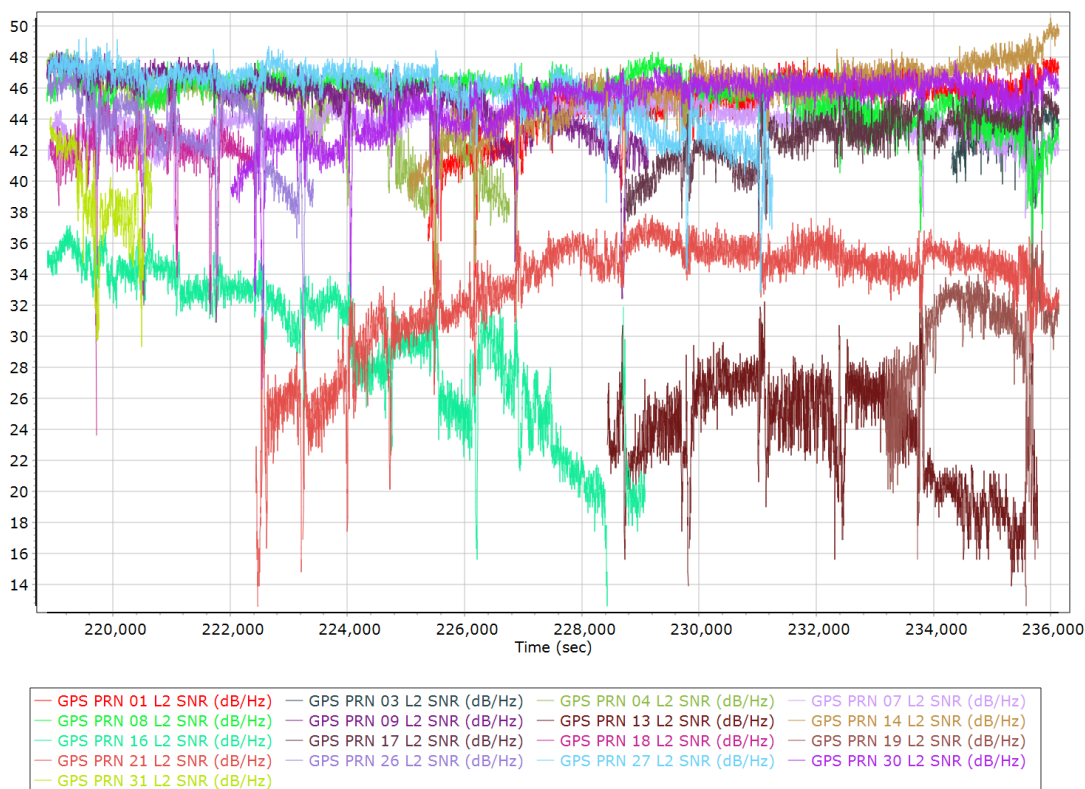
GLONASS L1 SNR



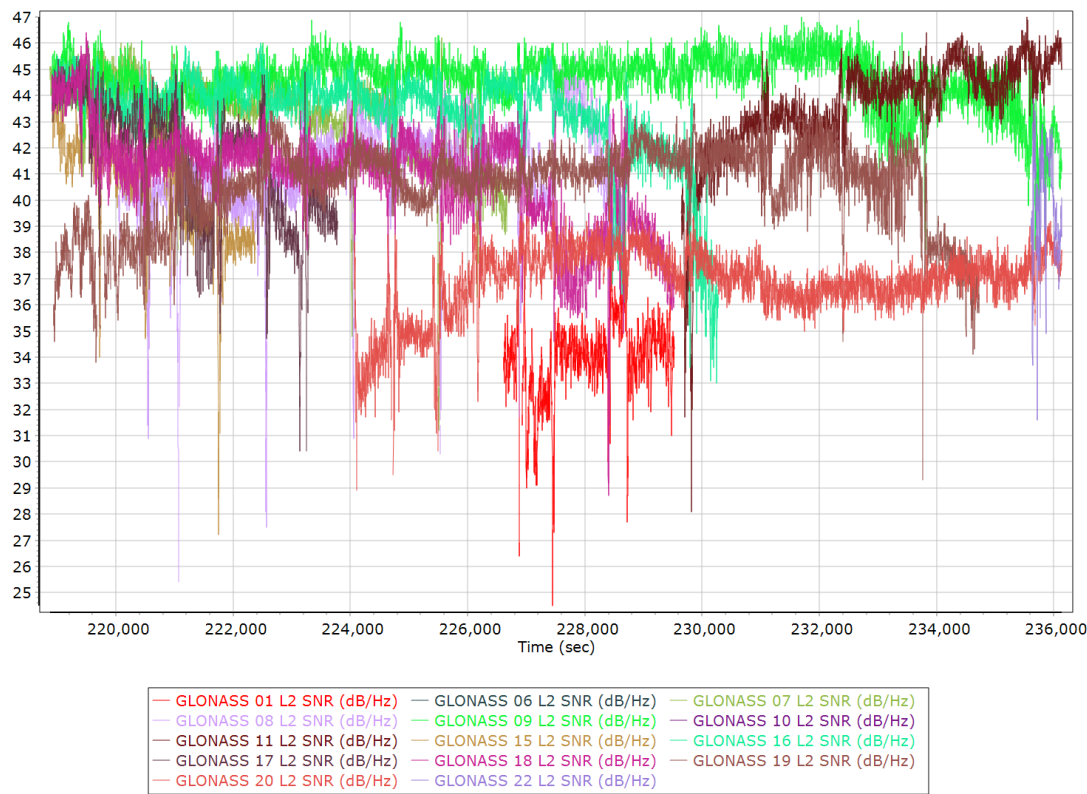
GPS/GLONASS L2 Satellite Lock/Elevation



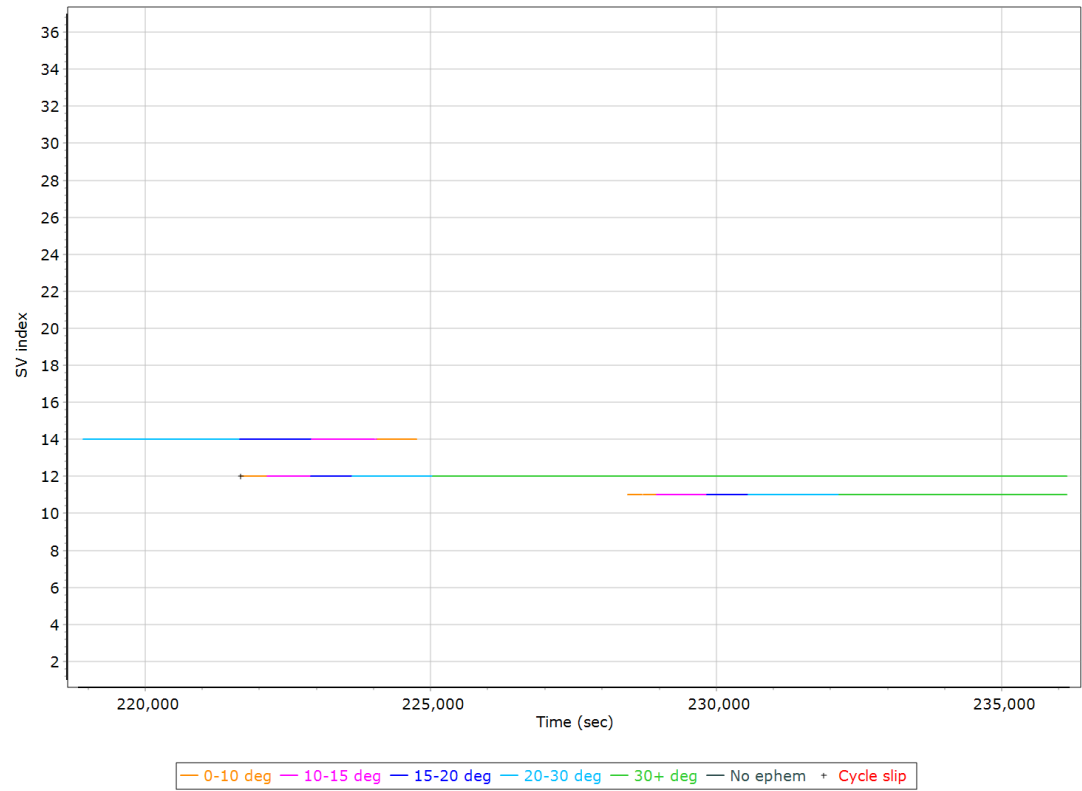
GPS L2 SNR



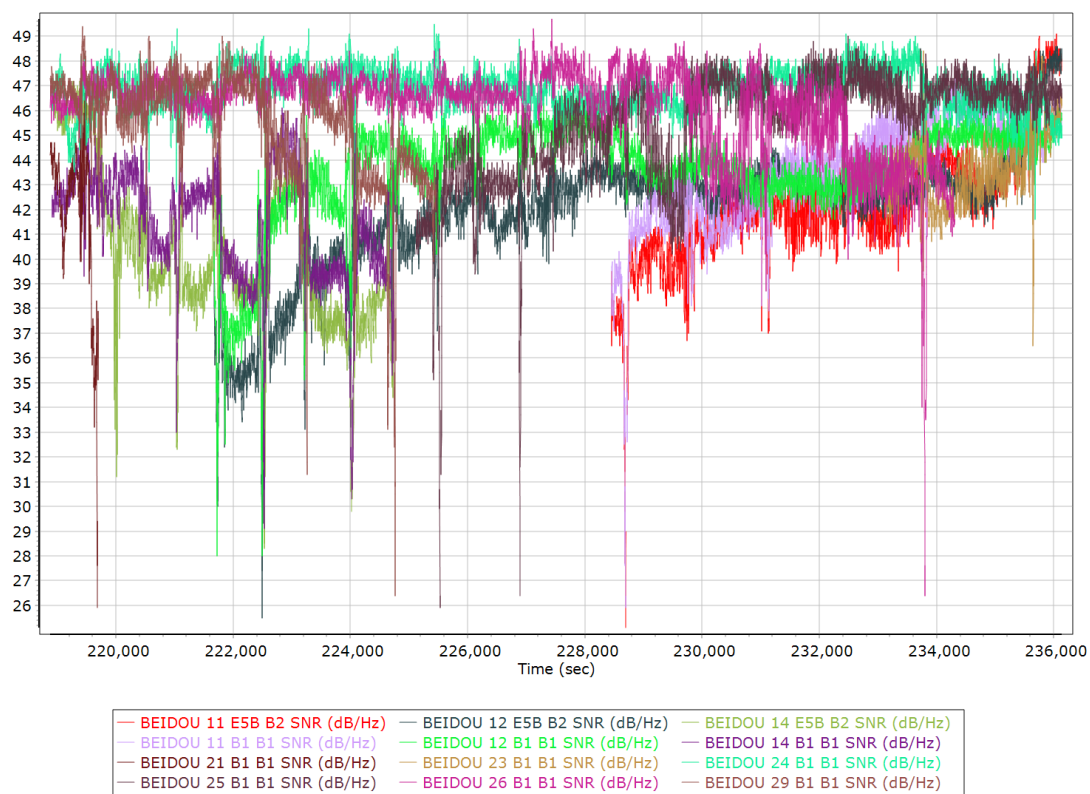
GLONASS L2 SNR



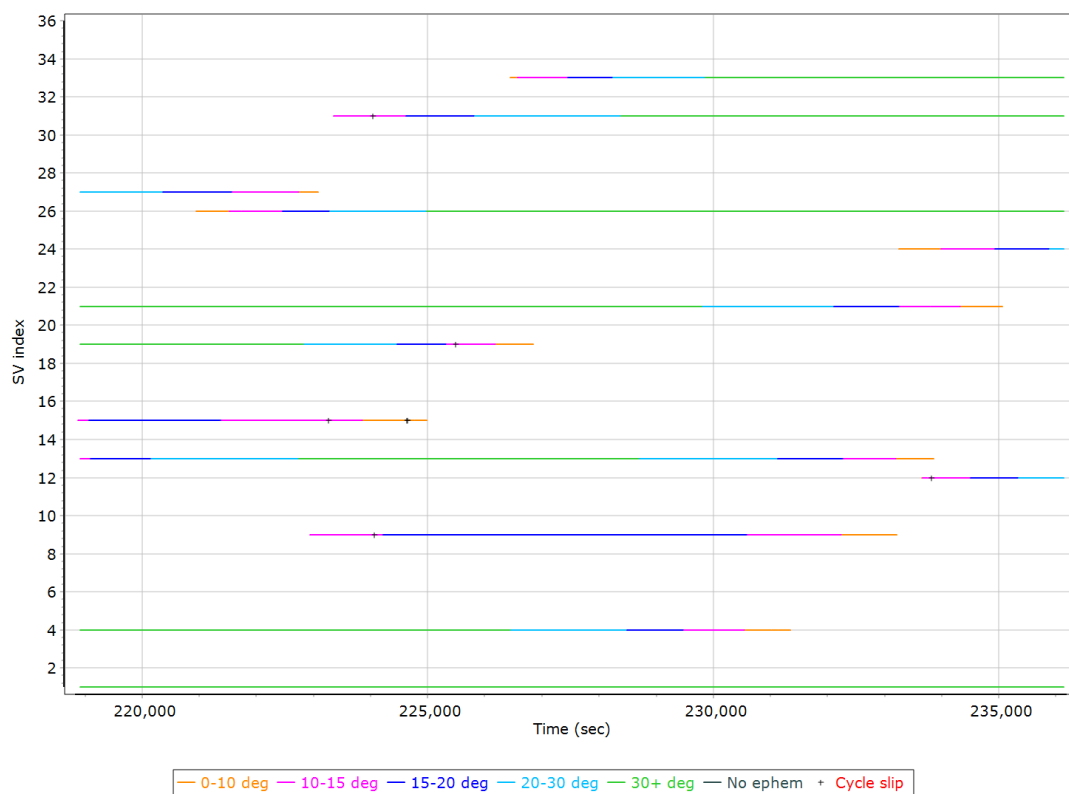
BEIDOU Satellite Lock/Elevation



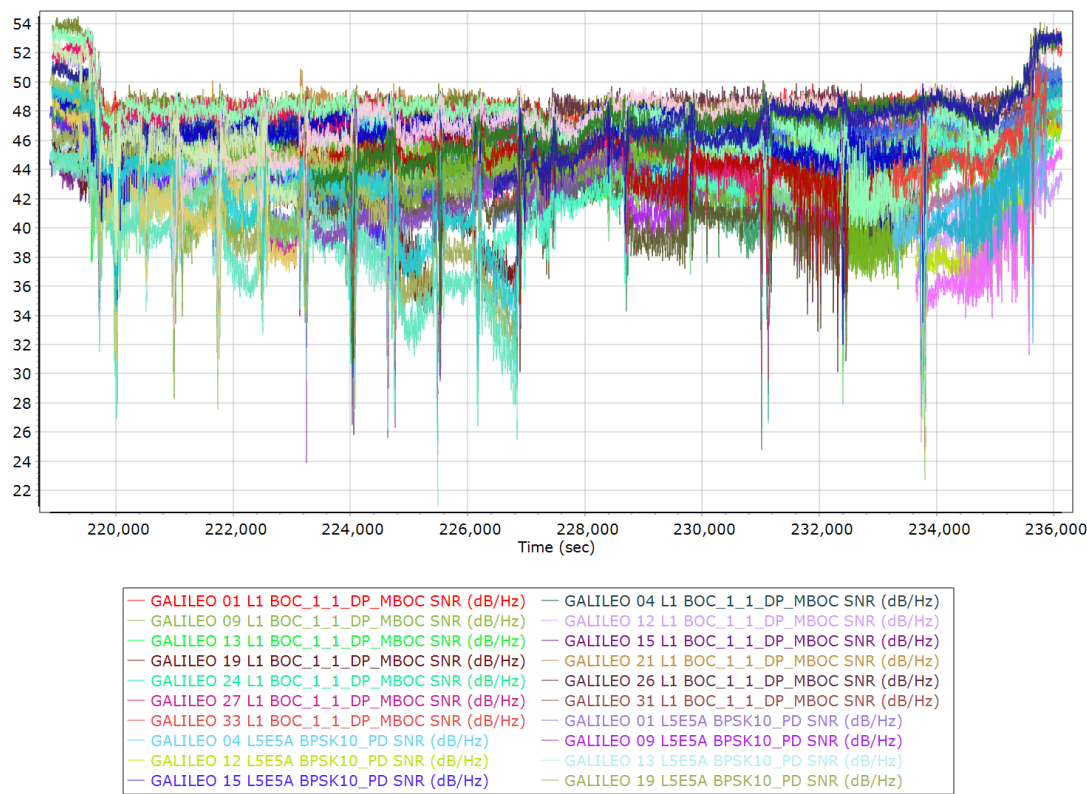
BEIDOU SNR



GALILEO Satellite Lock/Elevation

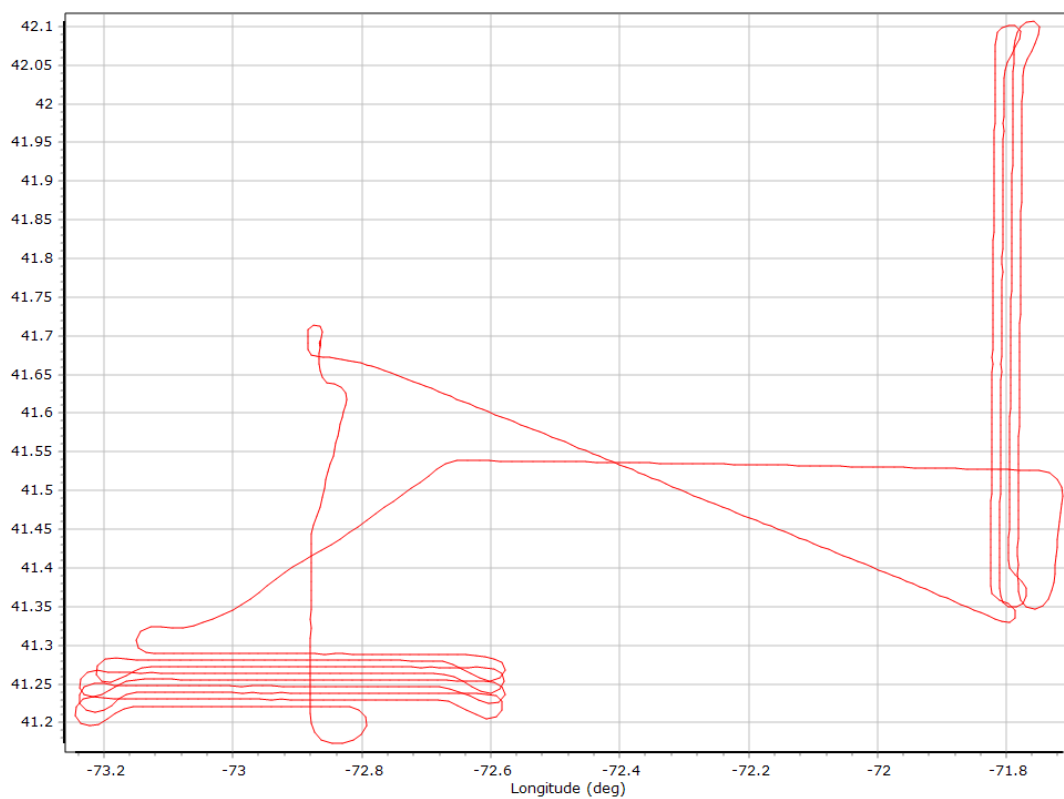


GALILEO SNR

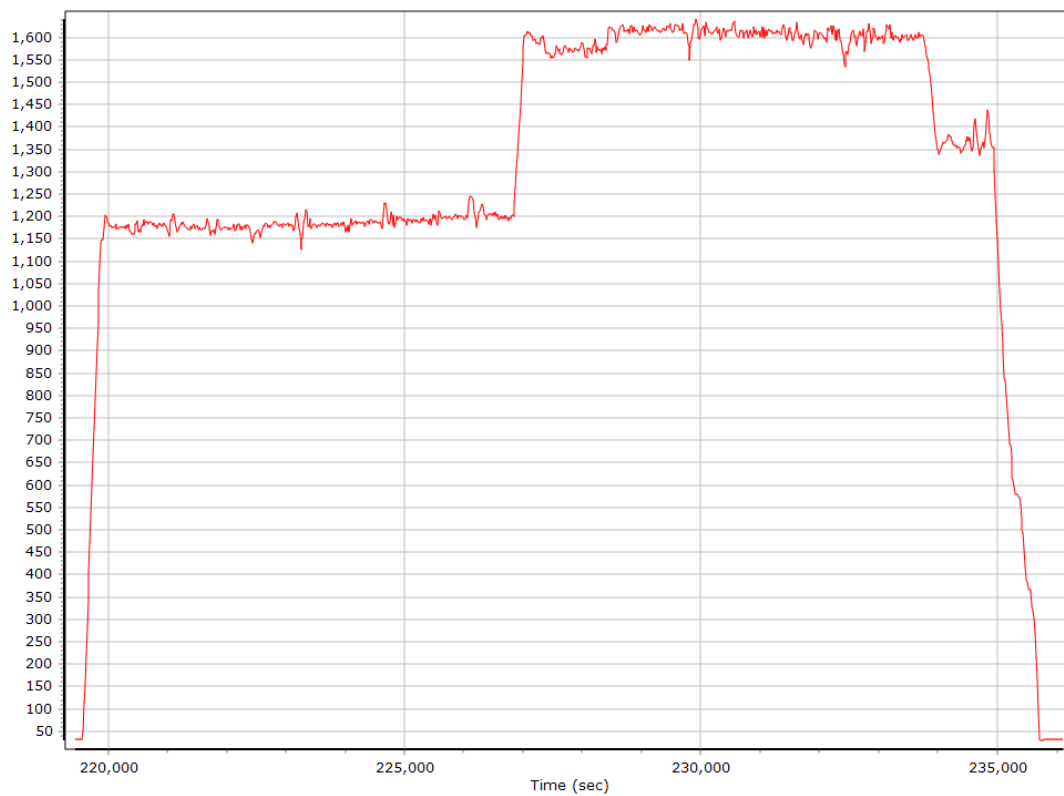


Smoothed Trajectory Information

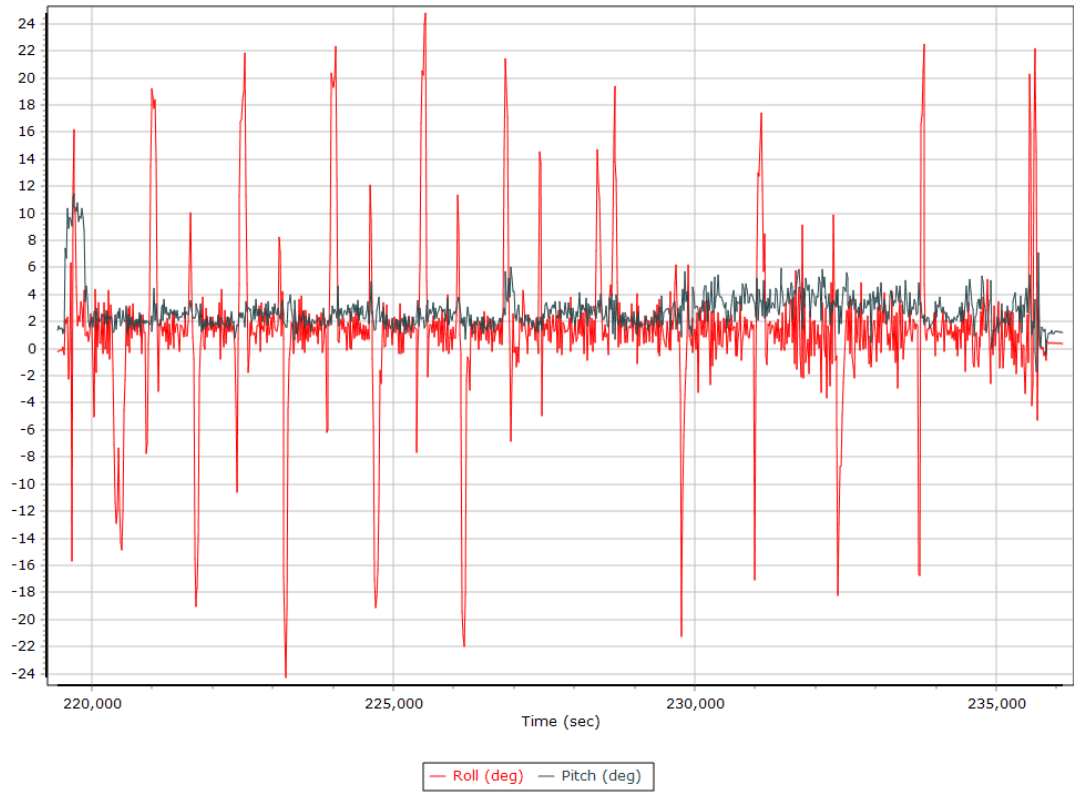
Top View



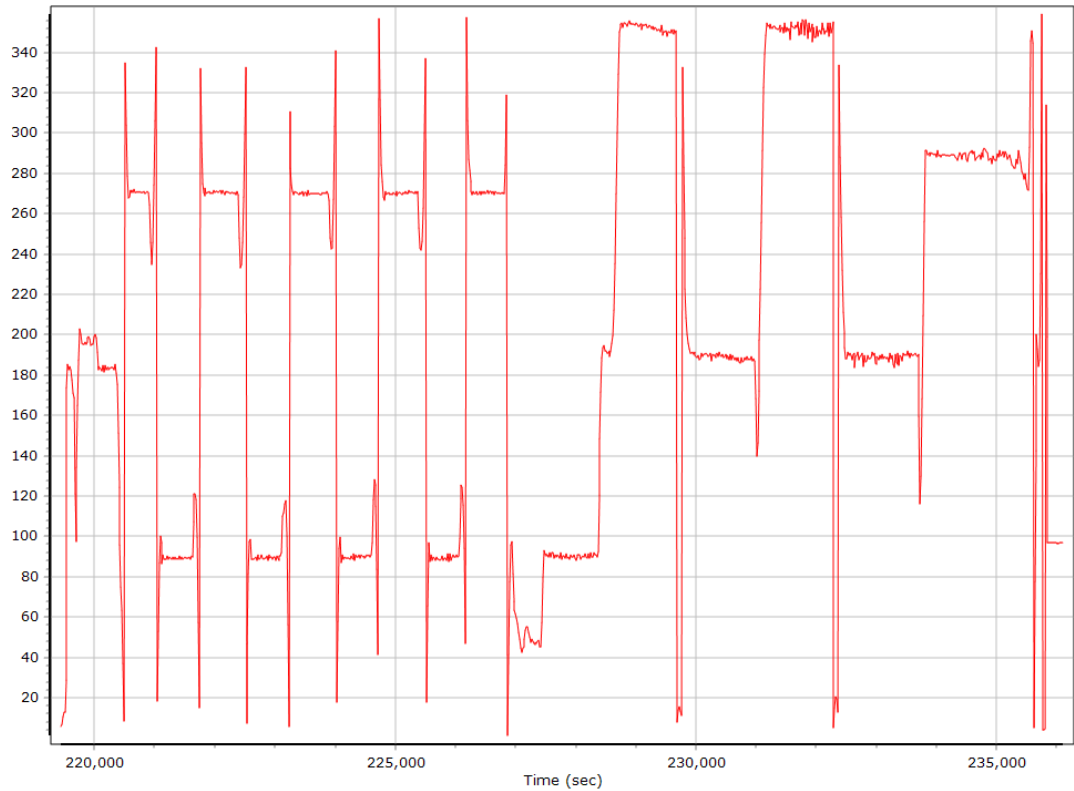
Altitude



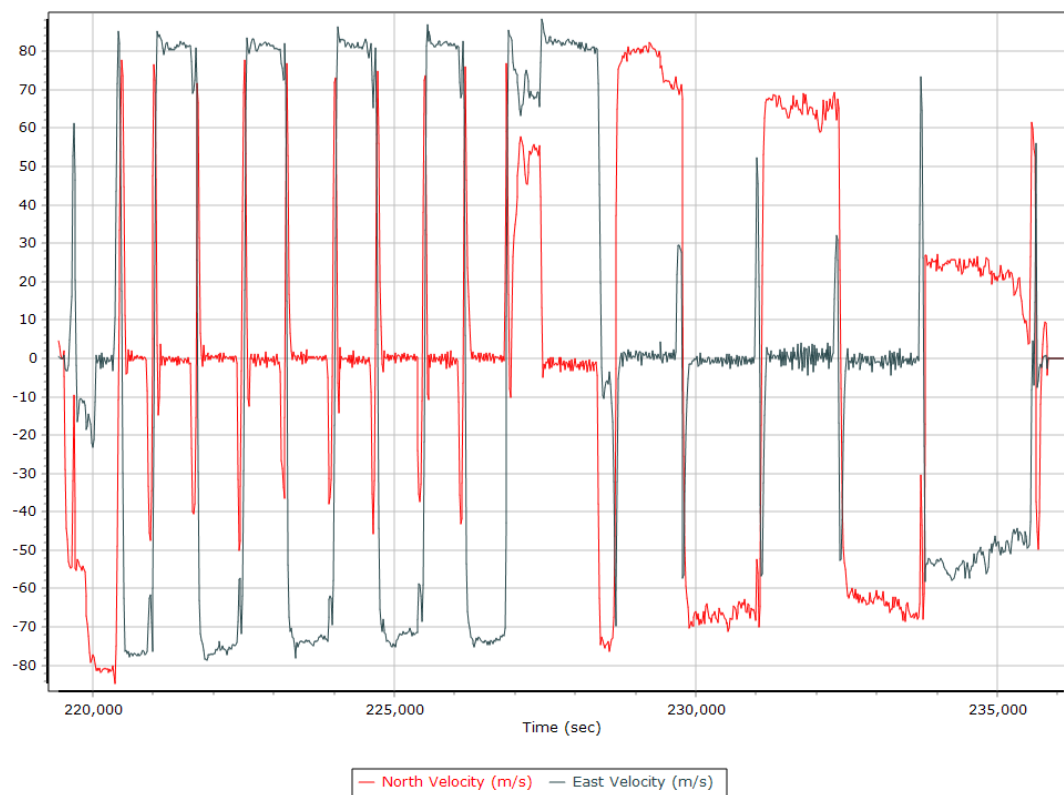
Roll/Pitch



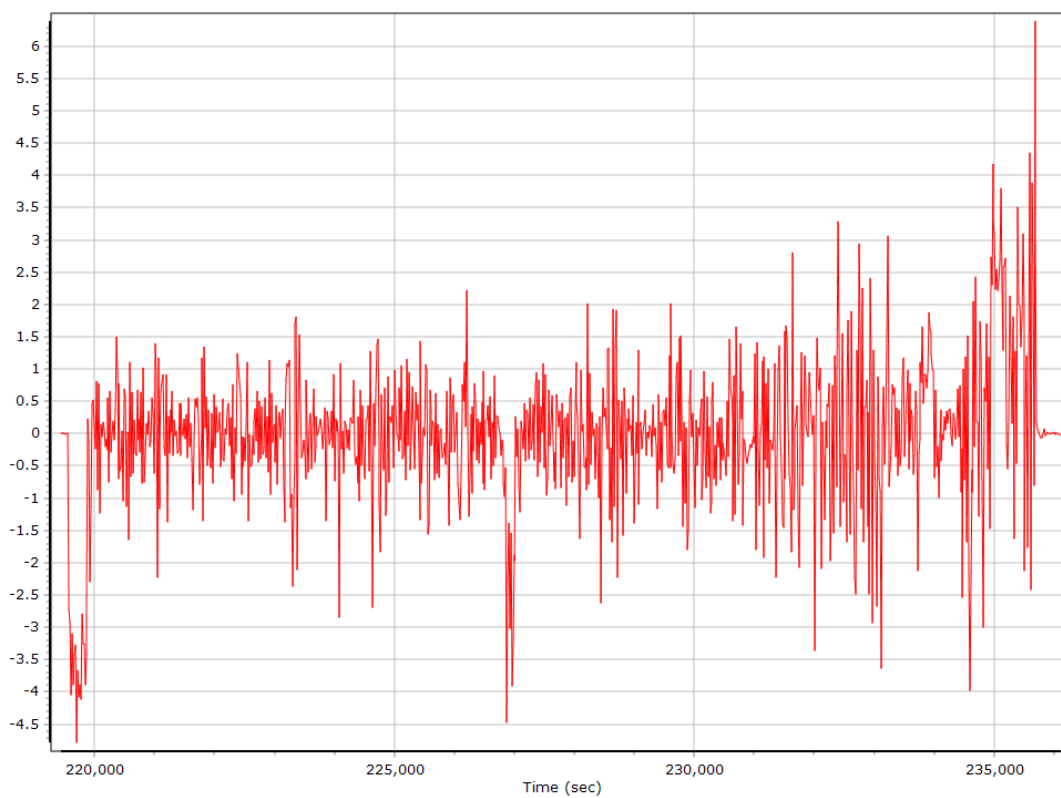
Heading



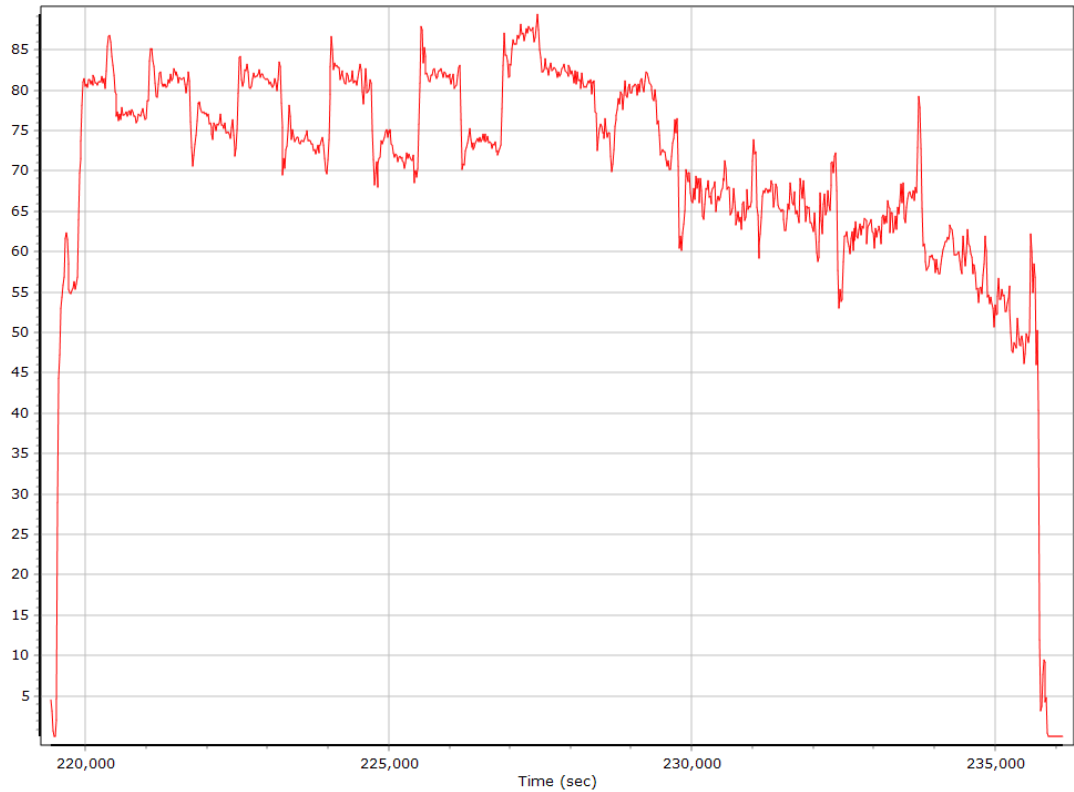
North/East Velocity



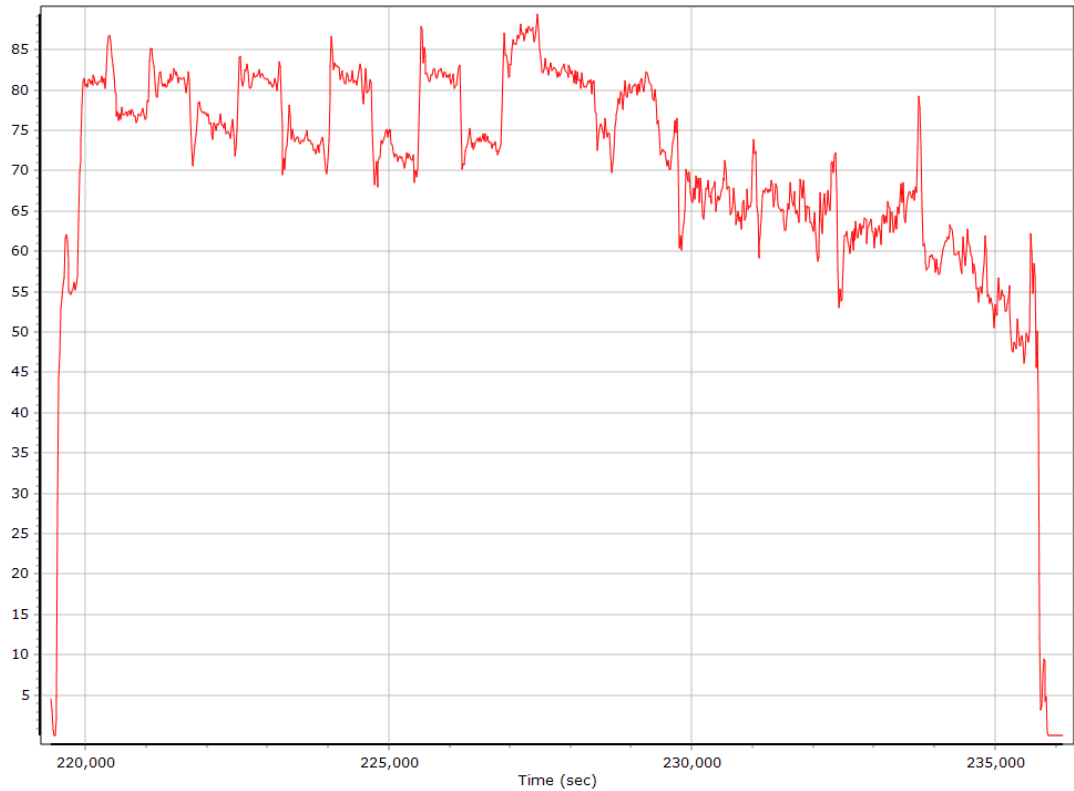
Down Velocity



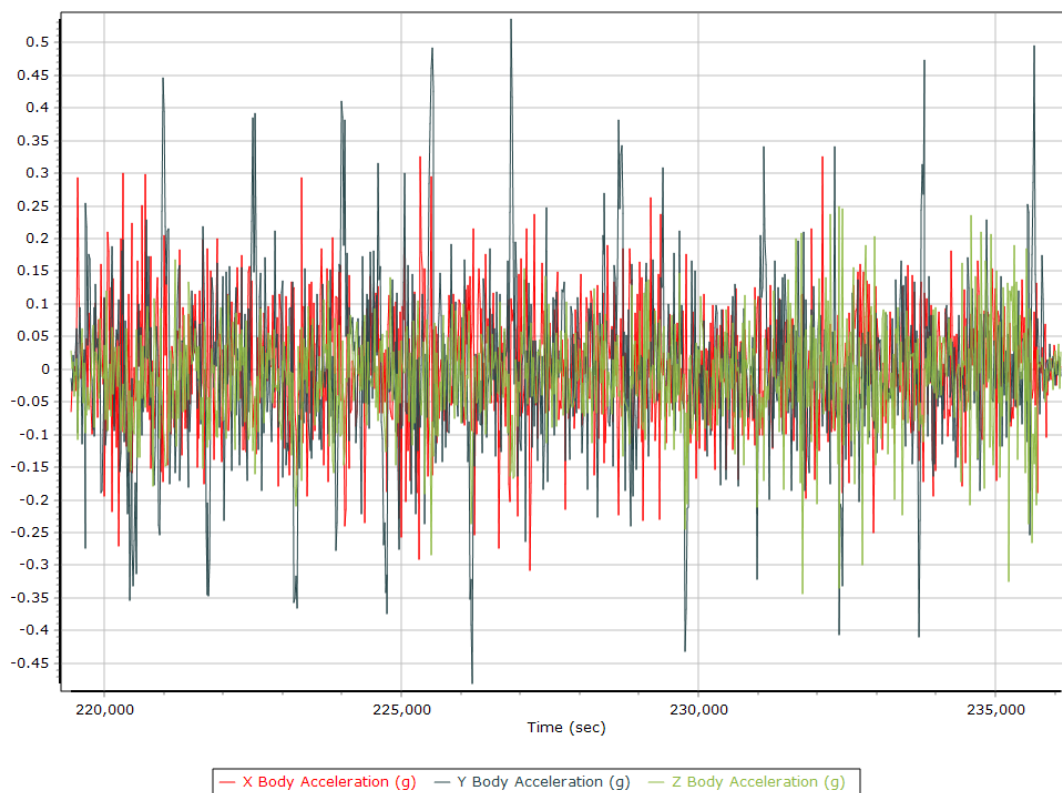
Total Speed



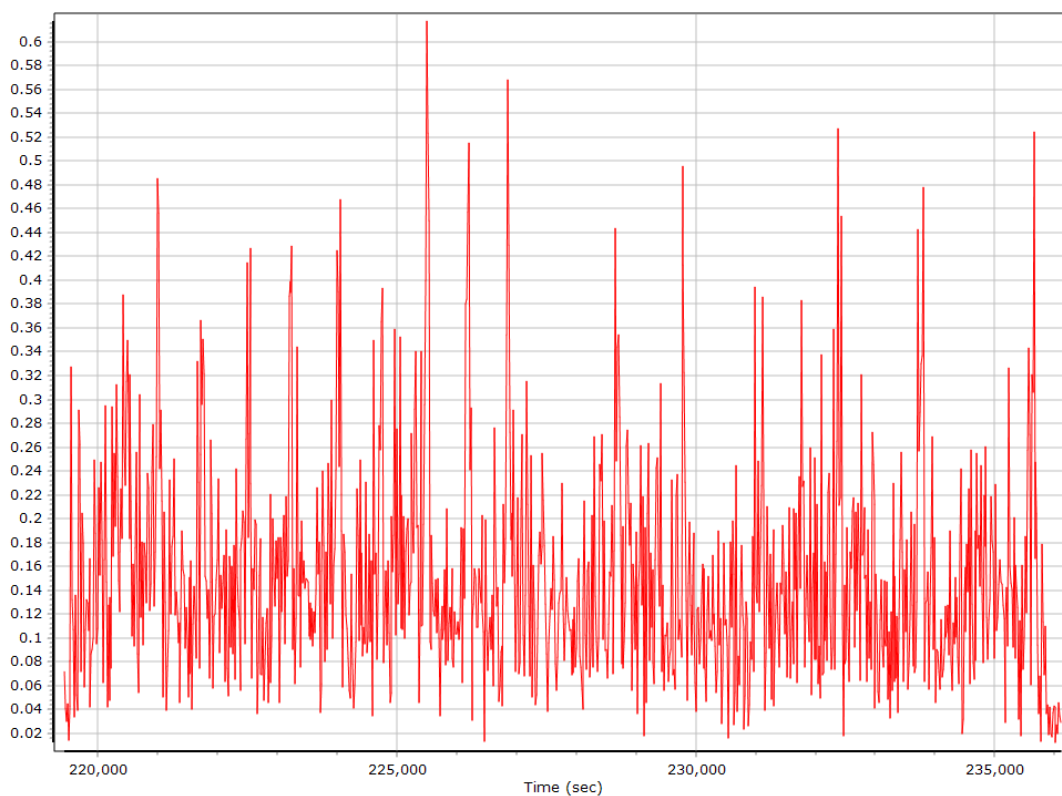
Ground Speed



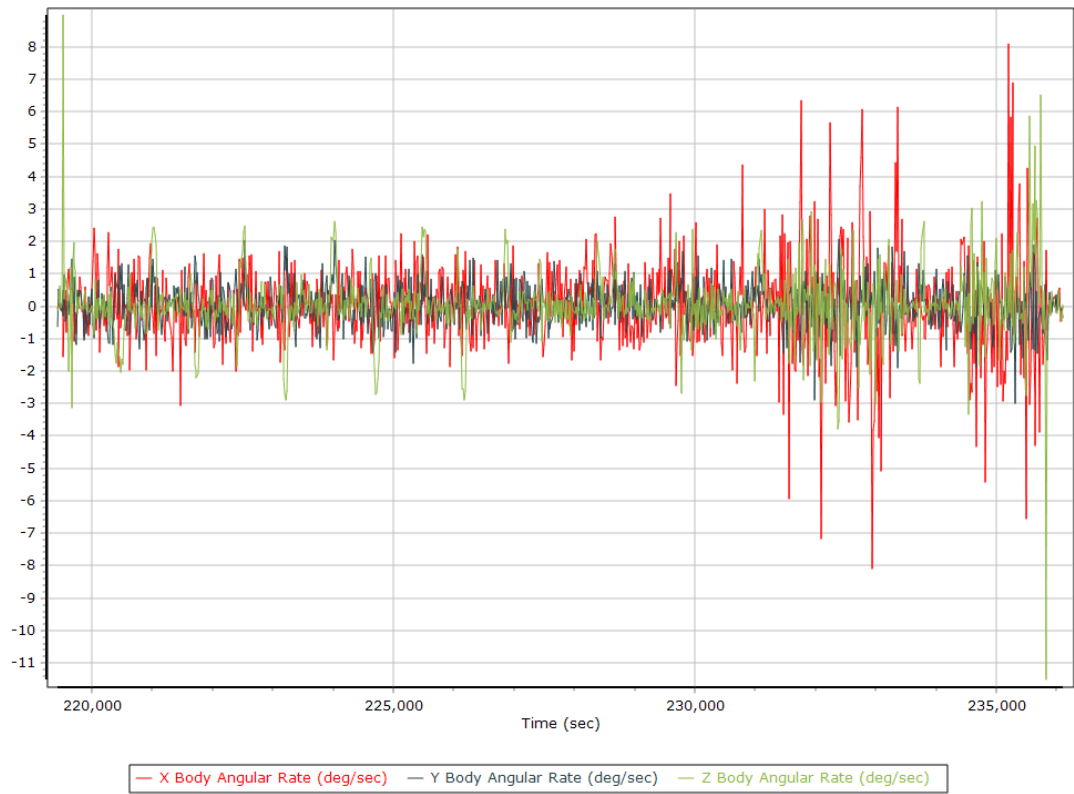
Body Acceleration



Total Body Acceleration

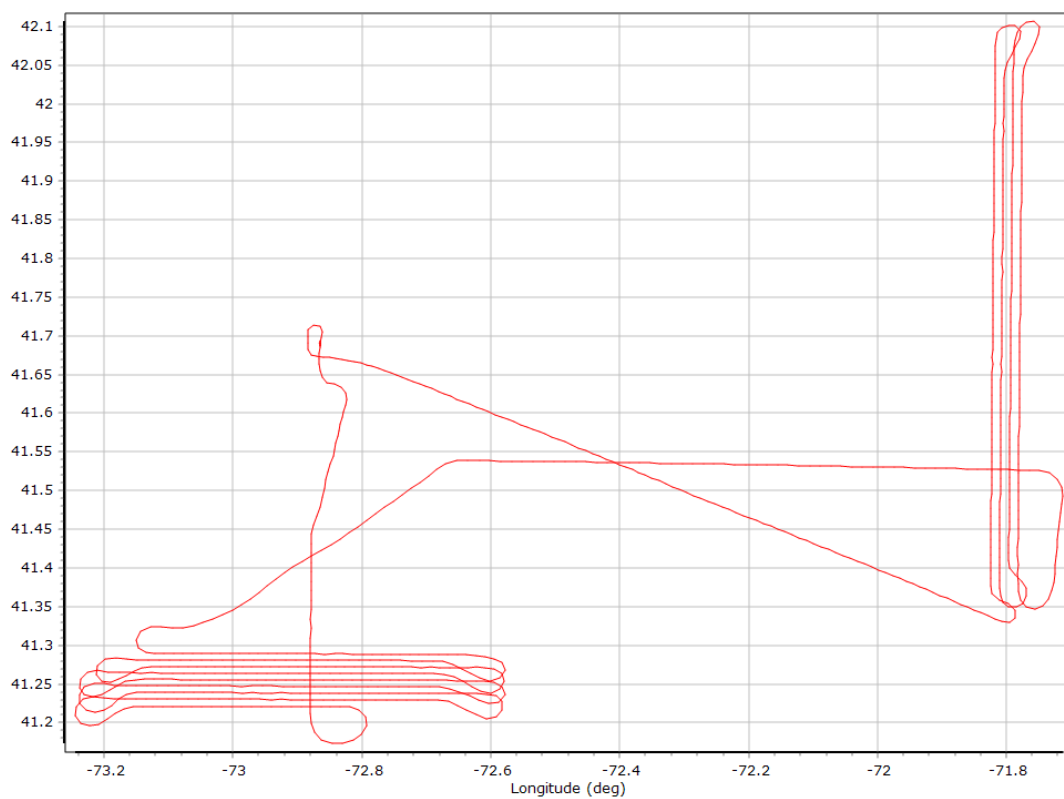


Body Angular Rate

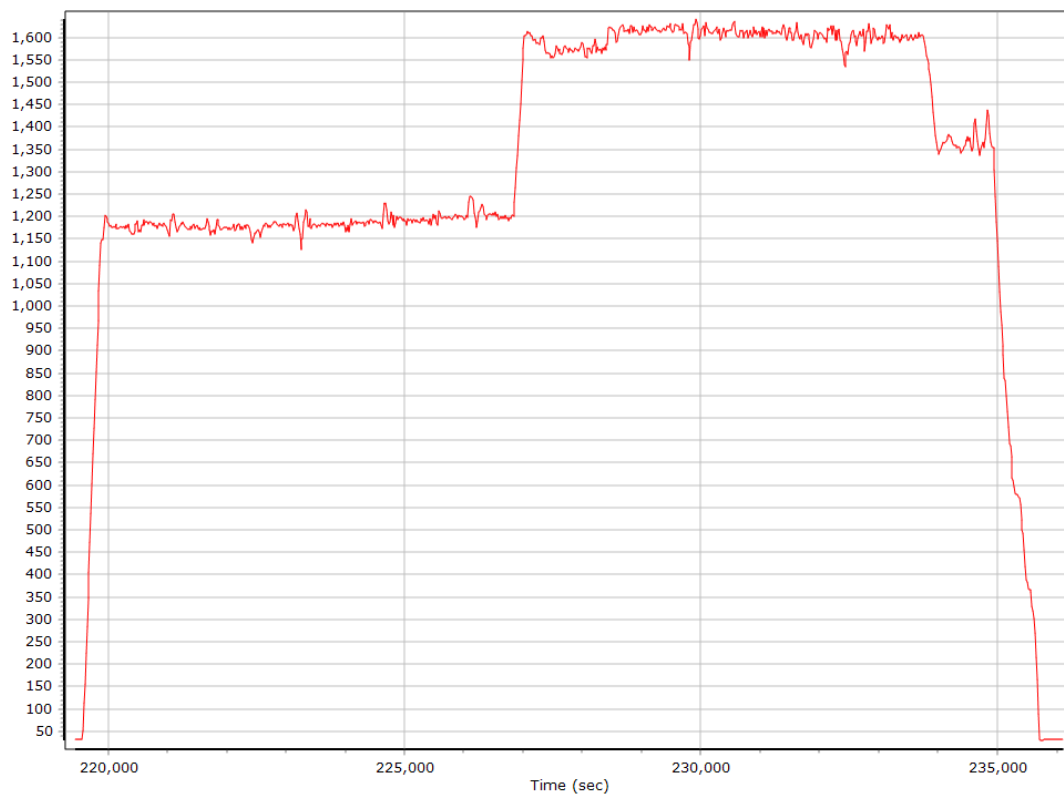


Forward Processed Trajectory Information

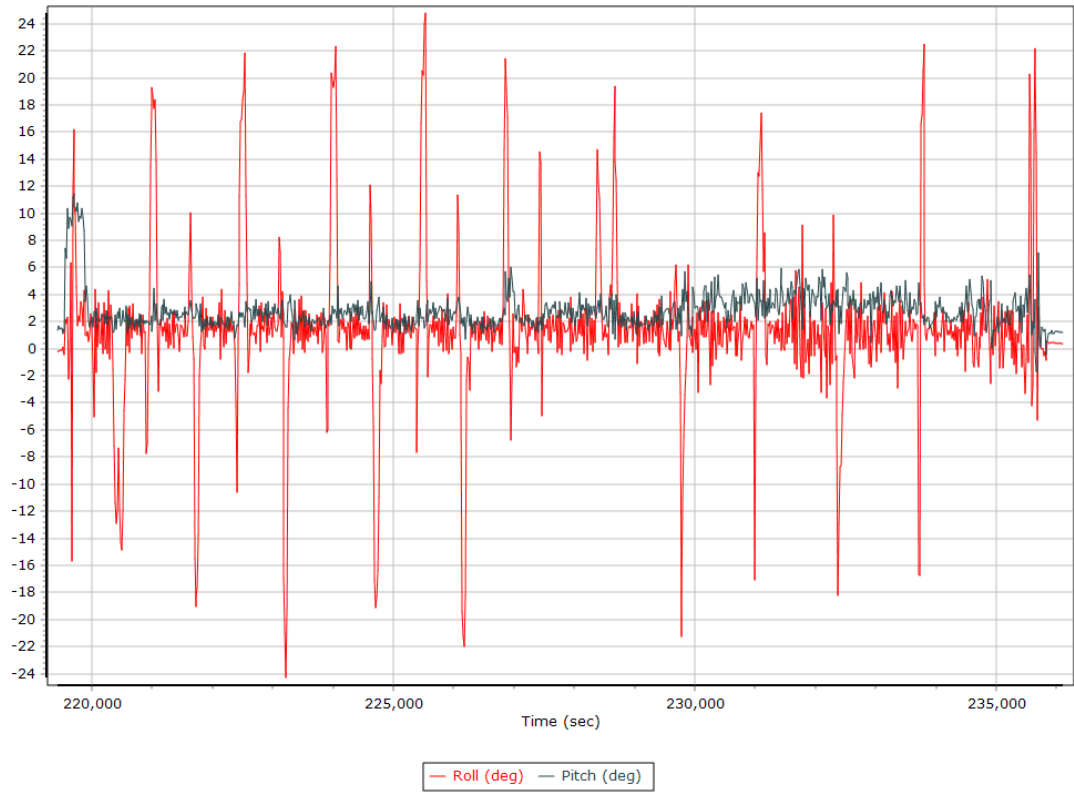
Top View



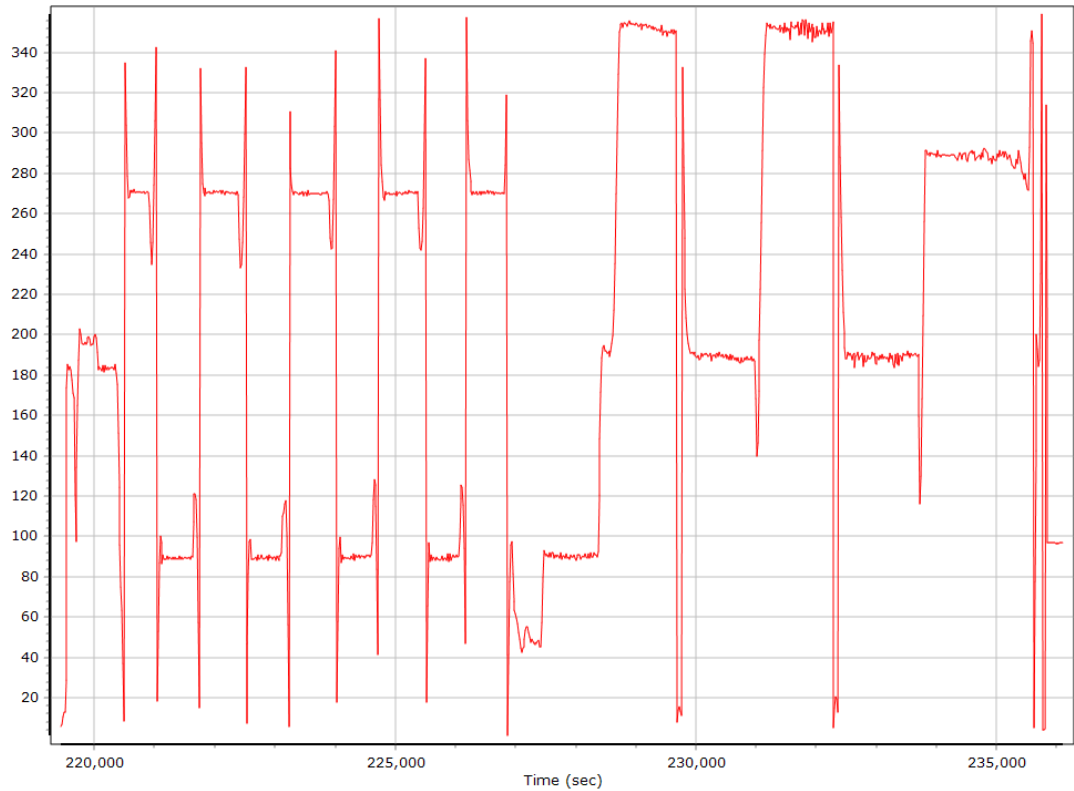
Altitude



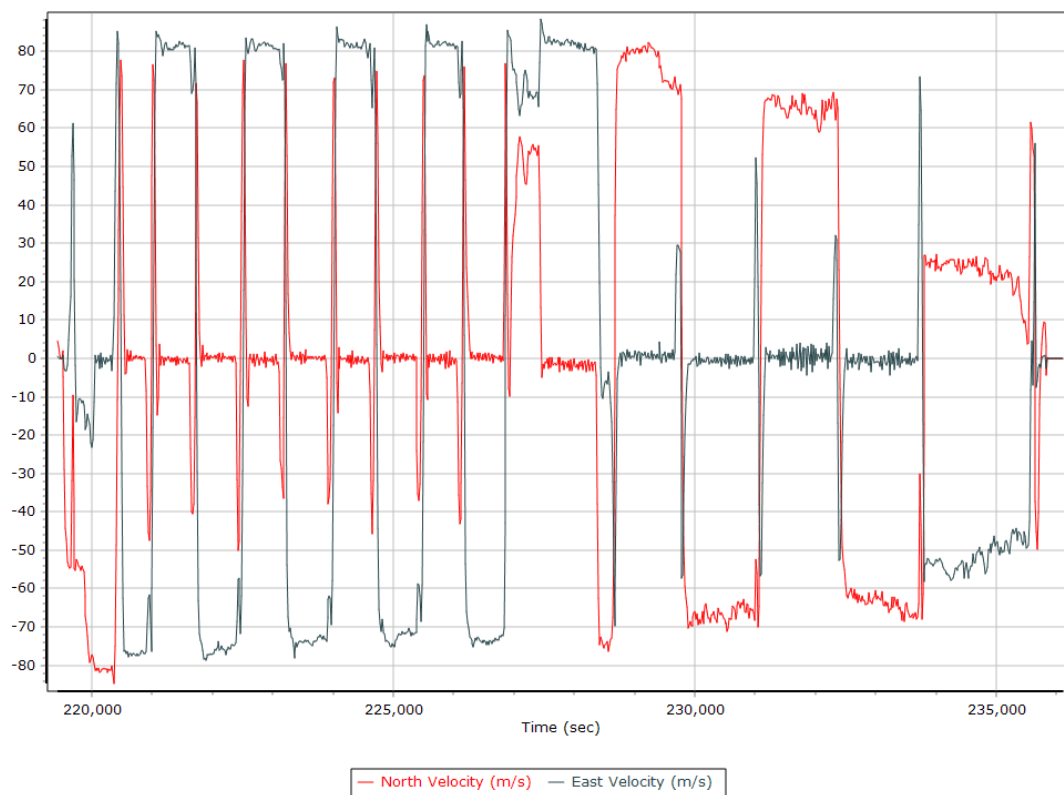
Roll/Pitch



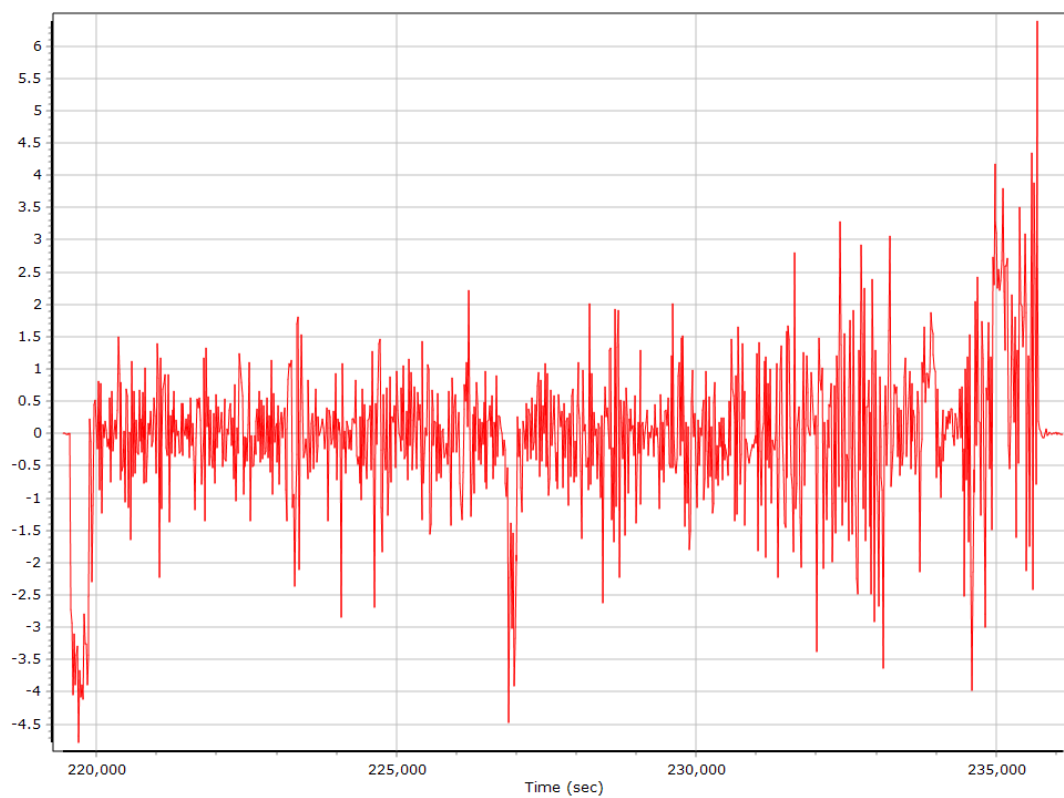
Heading



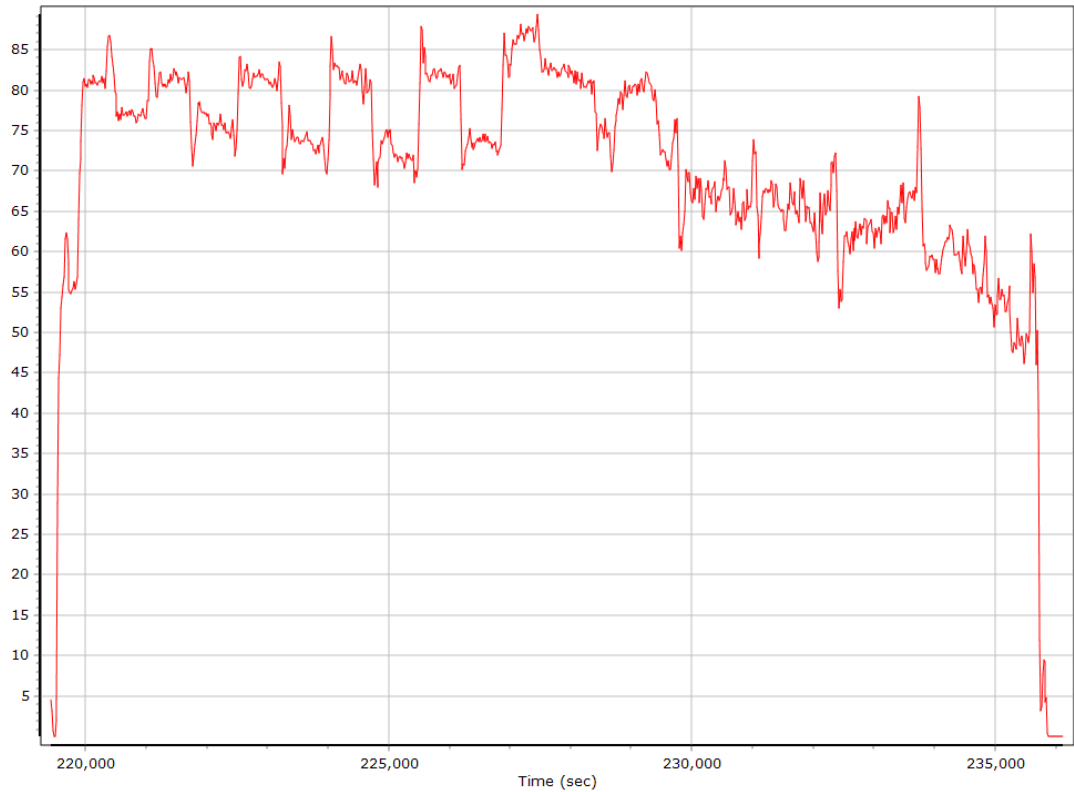
North/East Velocity



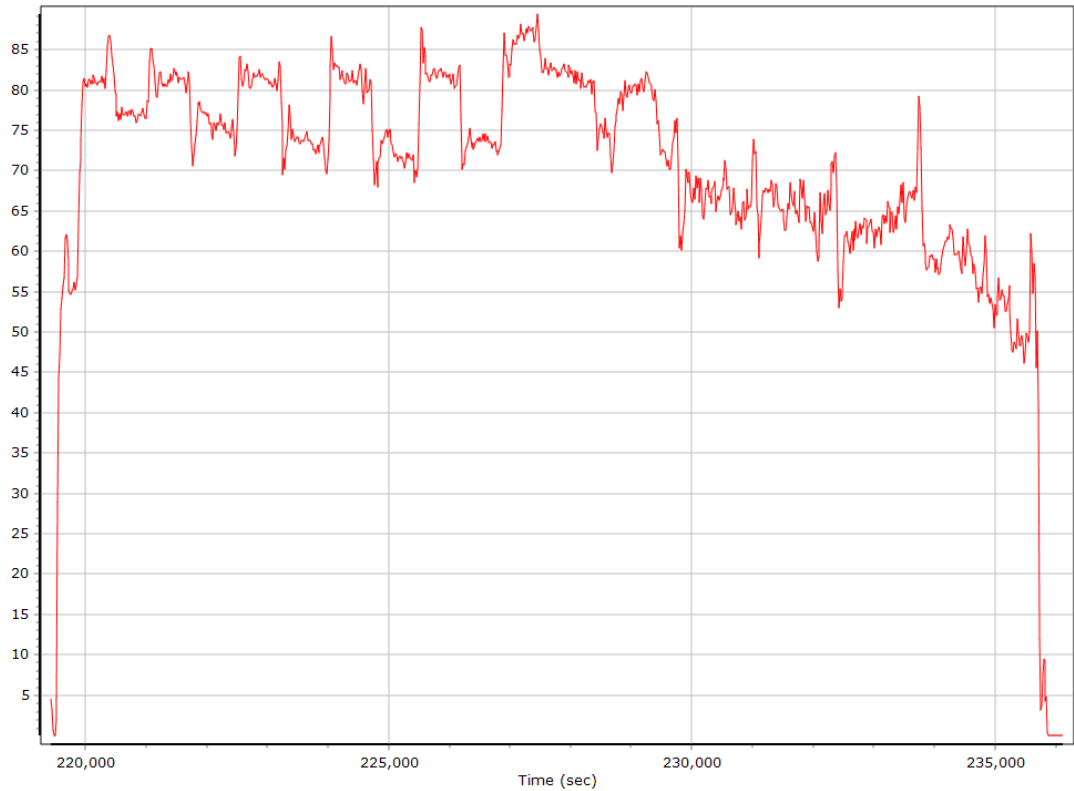
Down Velocity



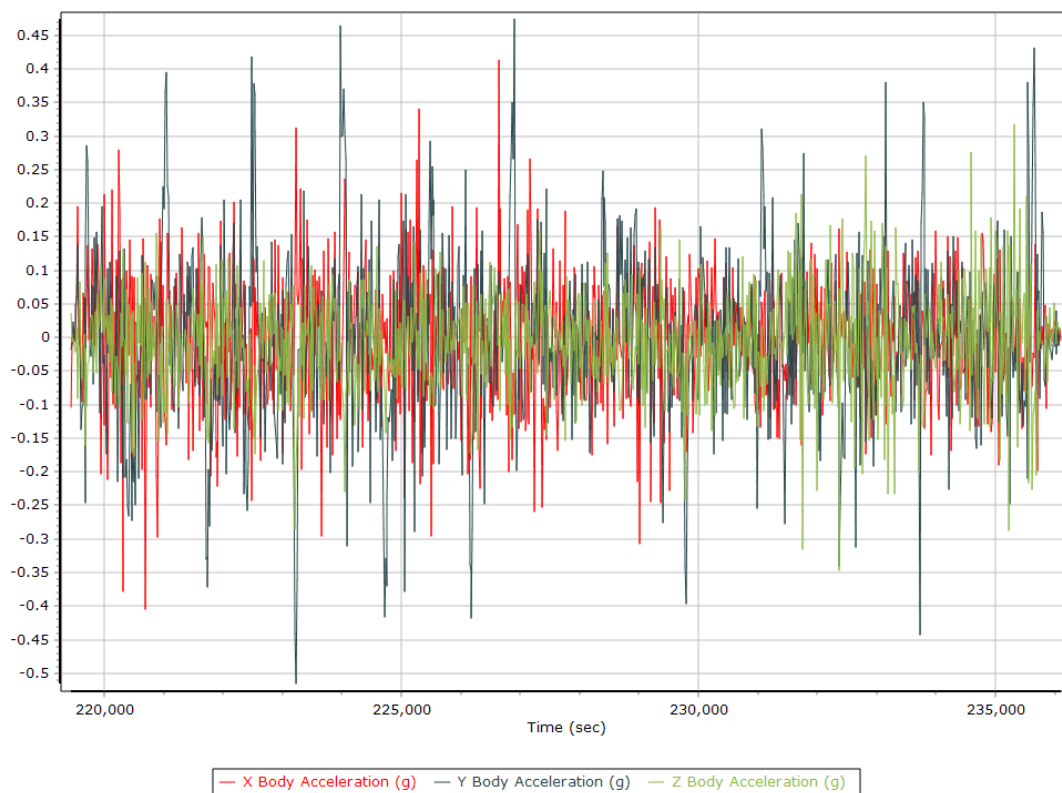
Total Speed



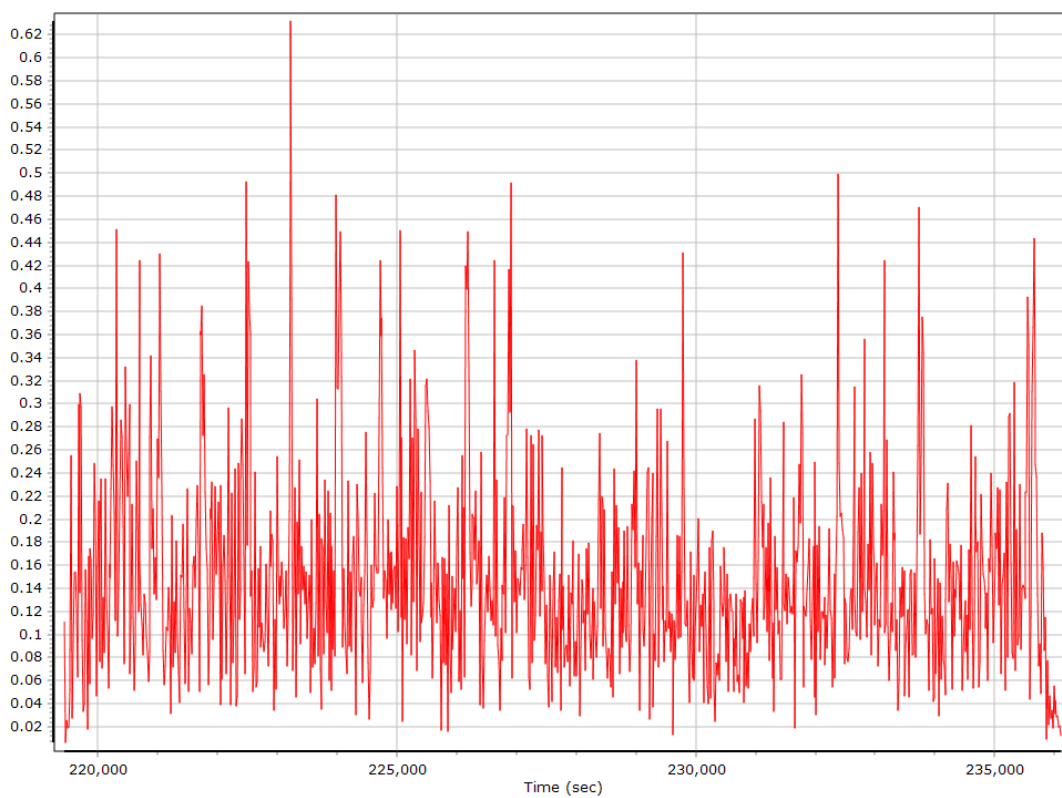
Ground Speed



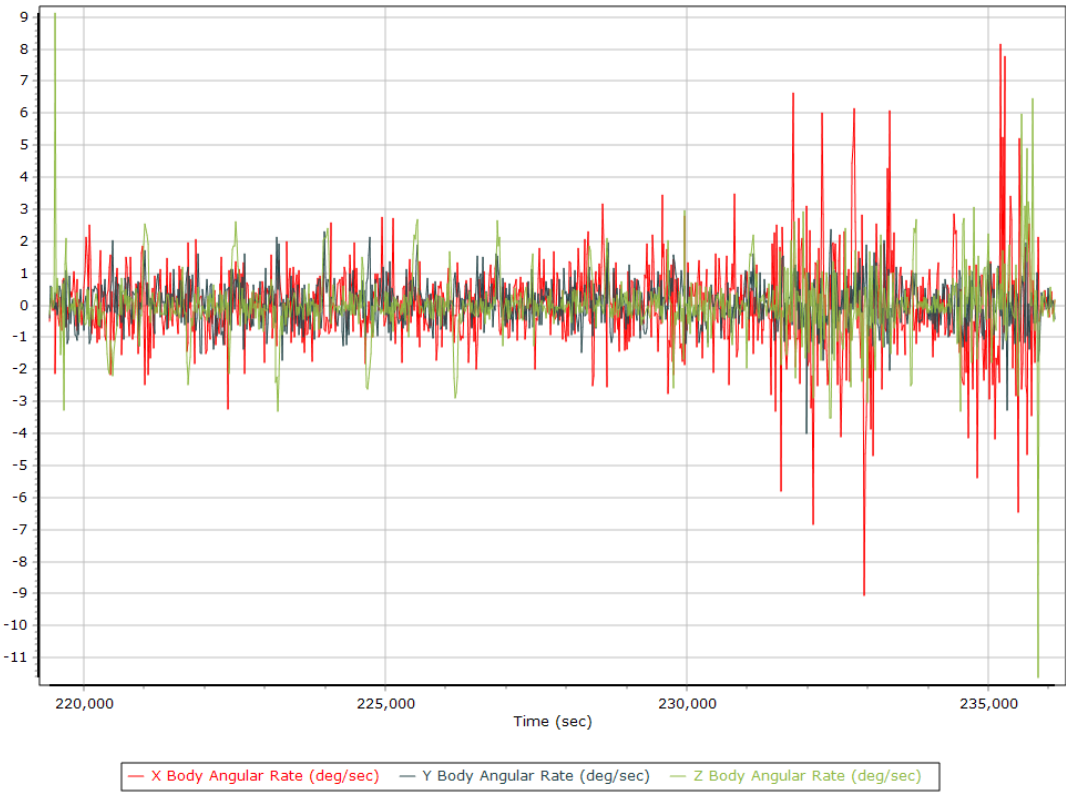
Body Acceleration



Total Body Acceleration



Body Angular Rate

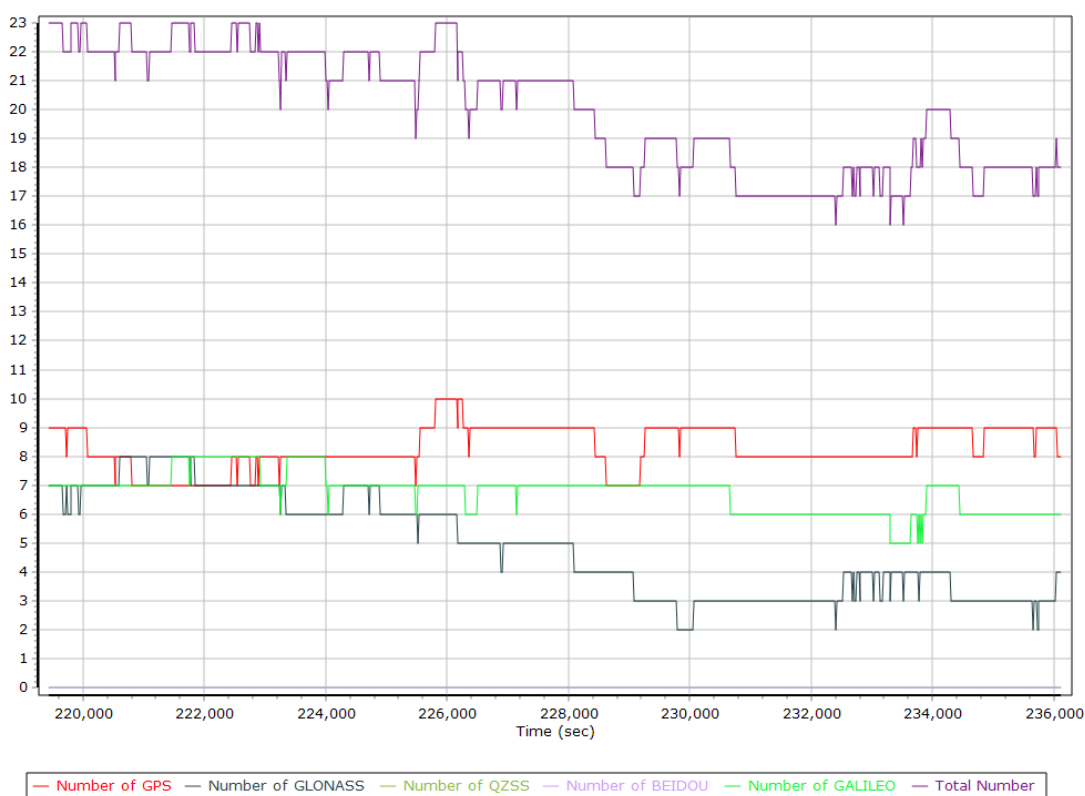


GNSS QC

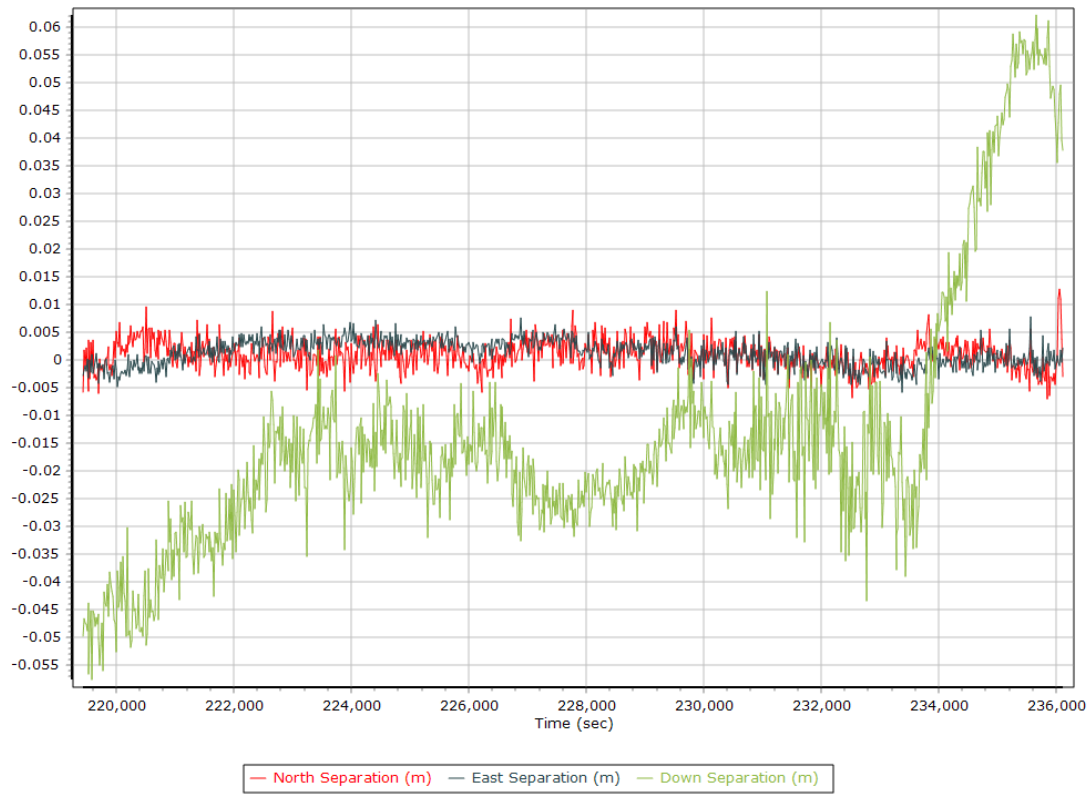
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	4	10	8
Number of GLONASS SV	0	8	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	0	8	7
Total number of SV	7	23	20
PDOP	1.01	6.14	1.24
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	17228.00	0.00	0.00
Percentage	100.00	0.00	0.00

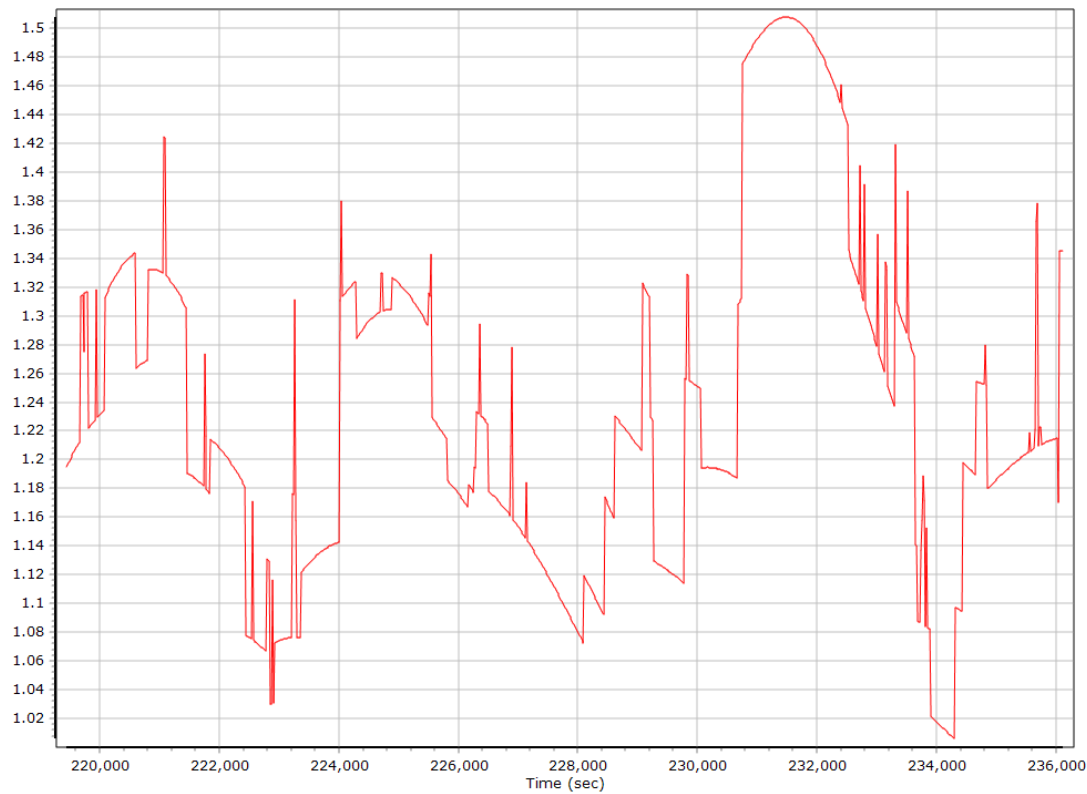
Num SVs in solution



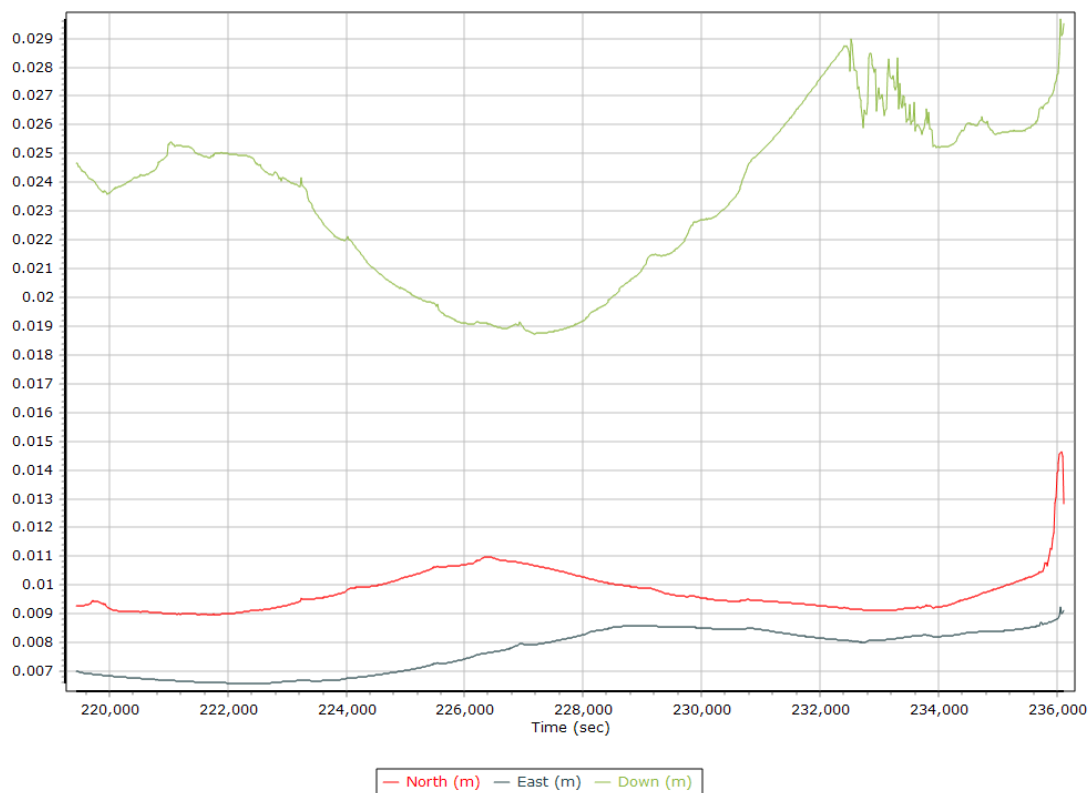
Forward/Reverse Separation



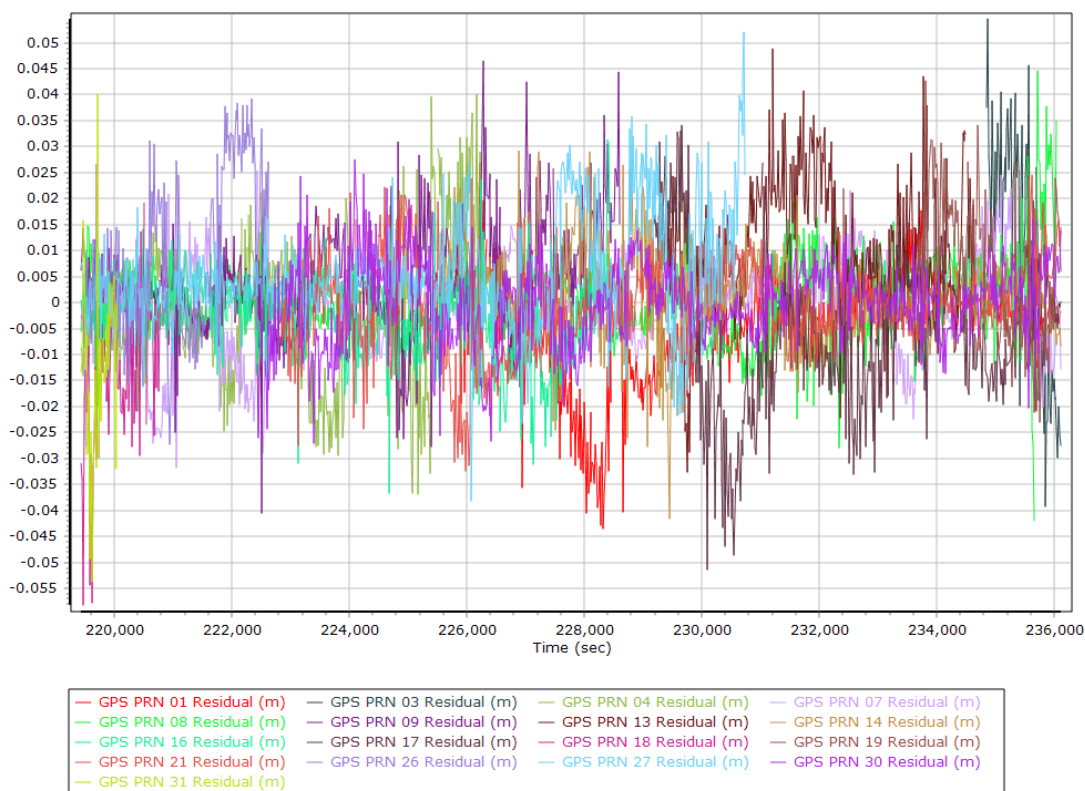
PDOP



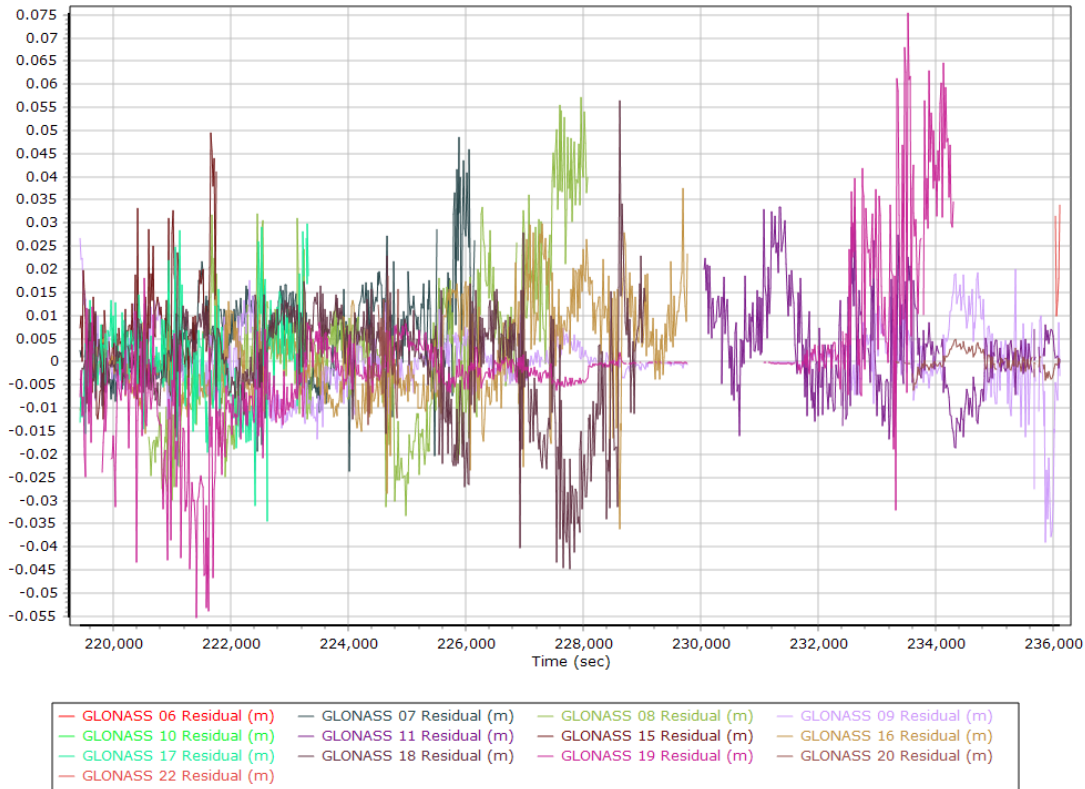
Estimated Position Accuracy



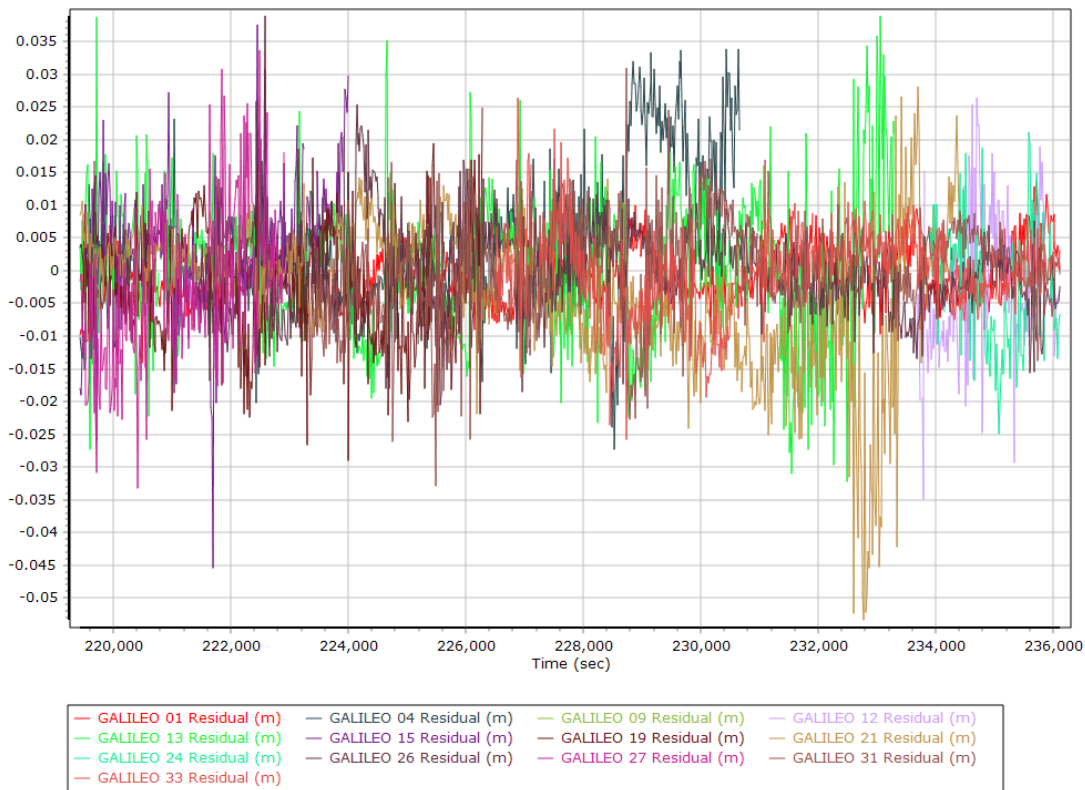
GPS Residuals



GLONASS Residuals



GALILEO Residuals



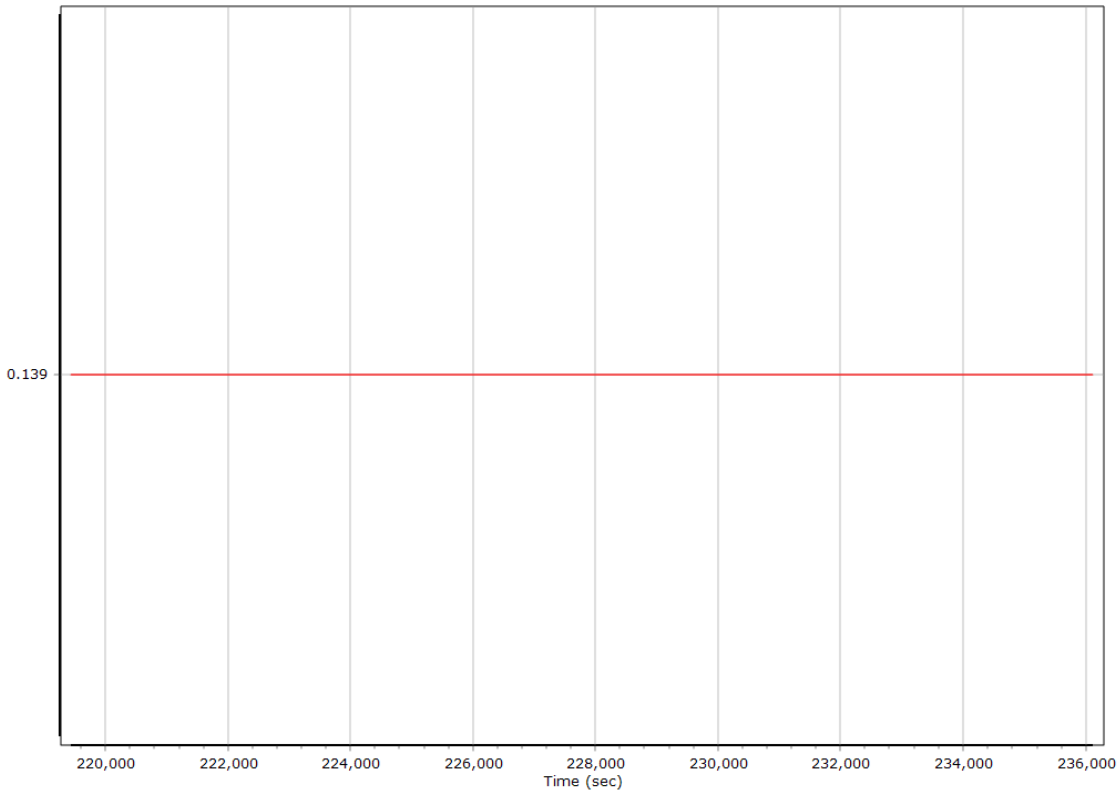
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	218859.000 (04/11/2023 12:47:39)		
Processing end time	236120.000 (04/11/2023 17:35:20)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

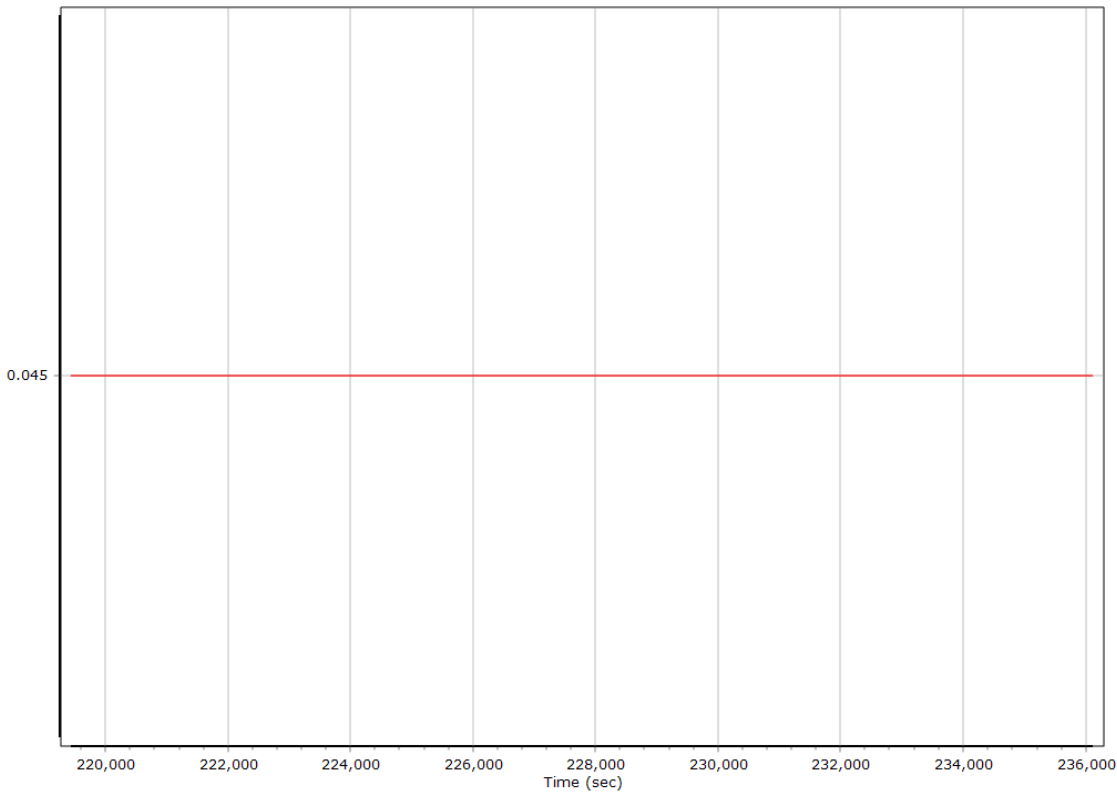
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

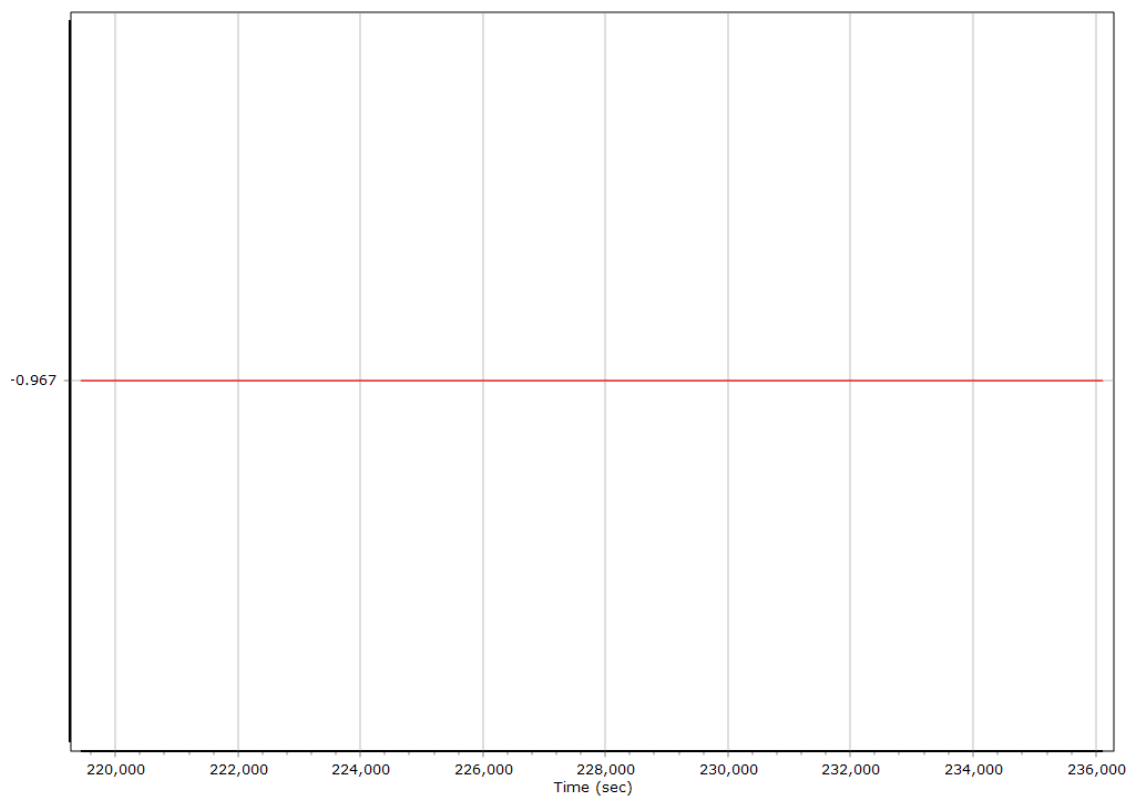
X Reference-Primary GNSS Lever Arm (m)



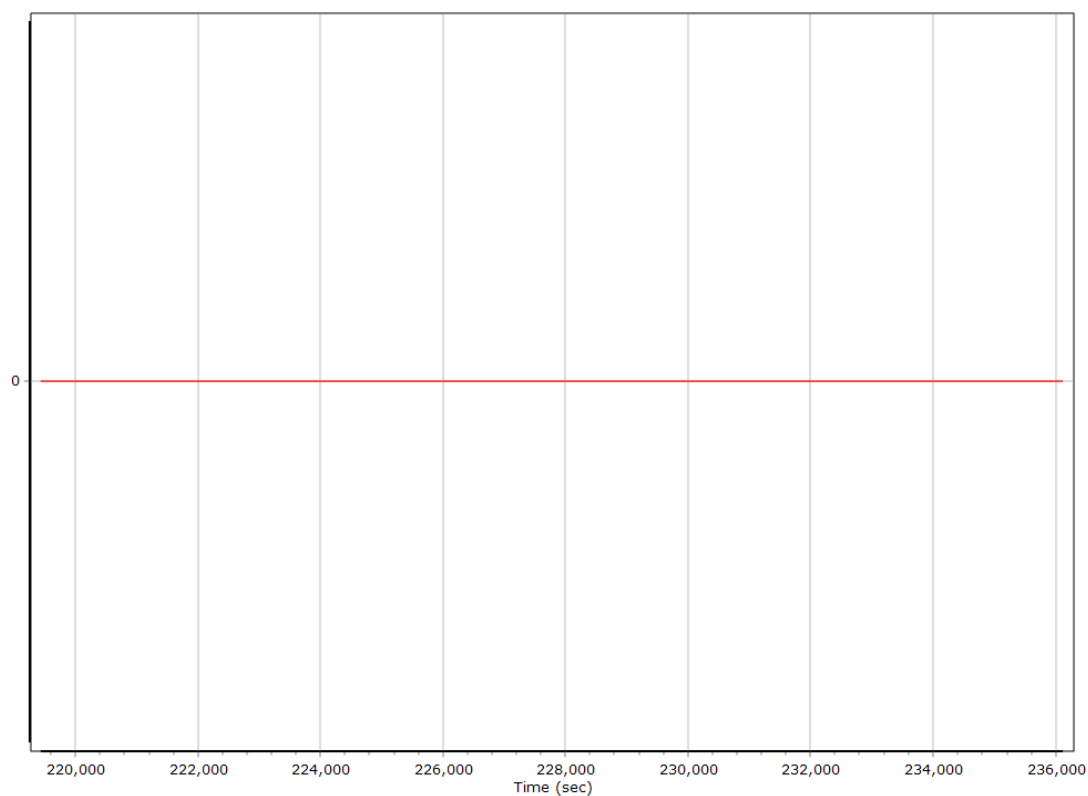
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



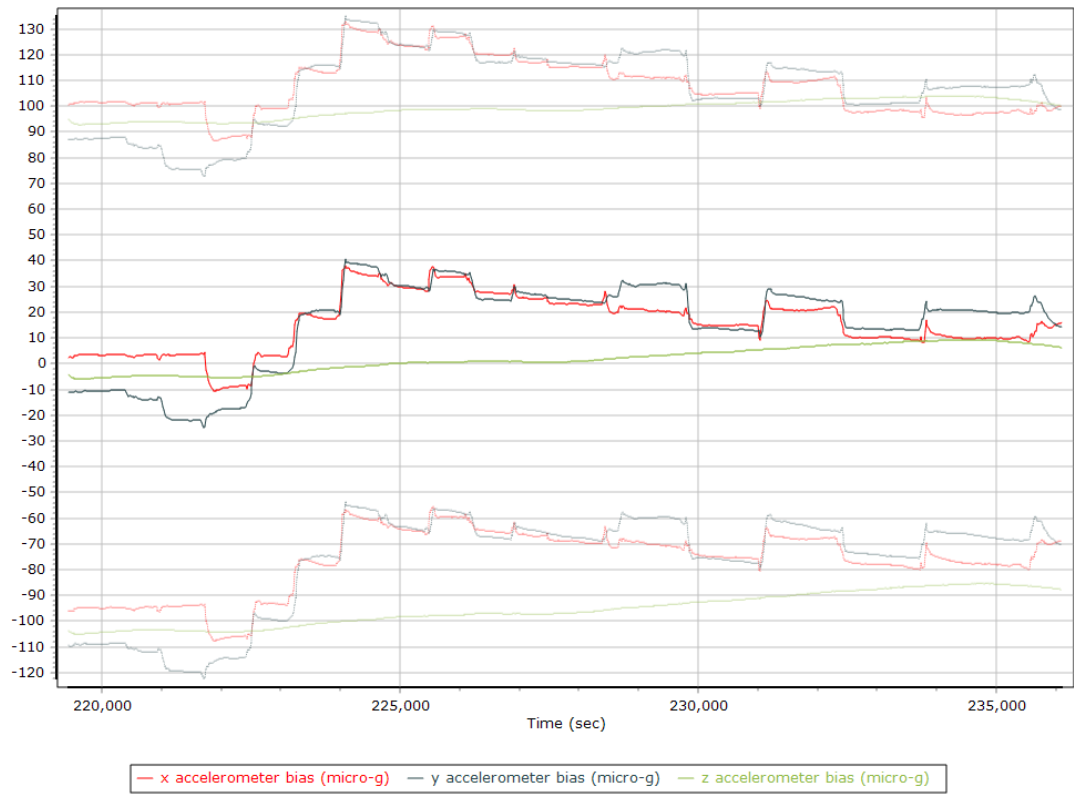
Reference-Primary GNSS Lever Arm Figure of Merit



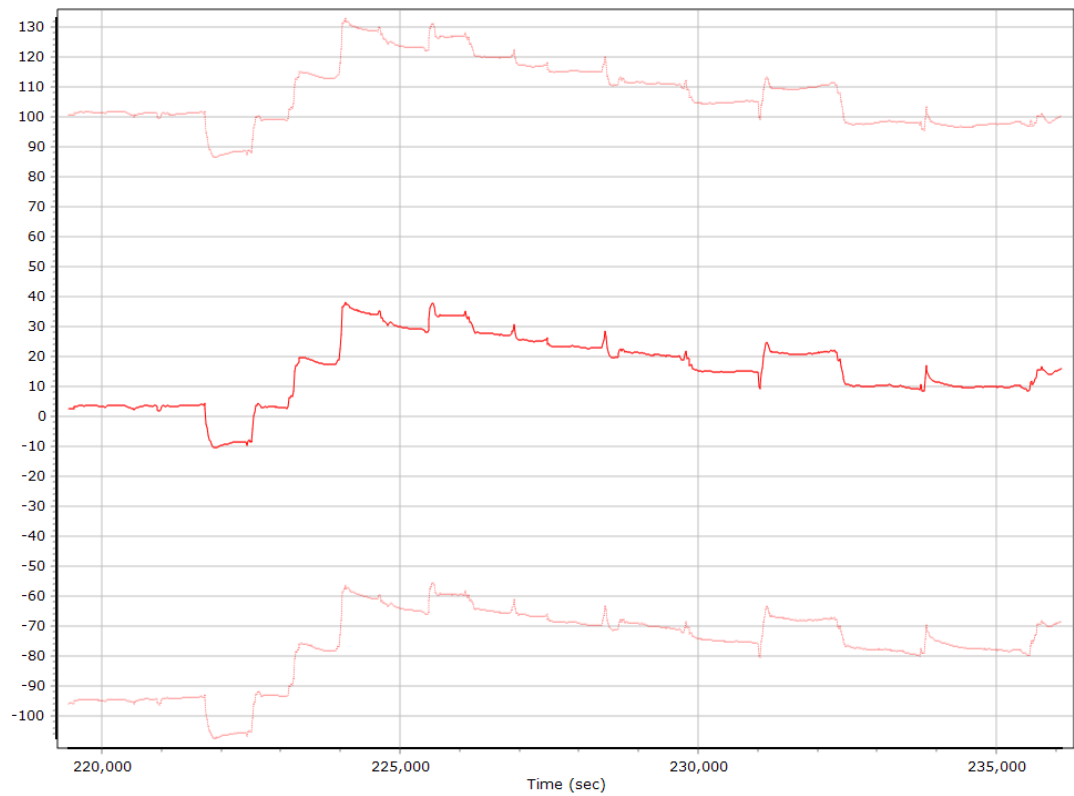
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

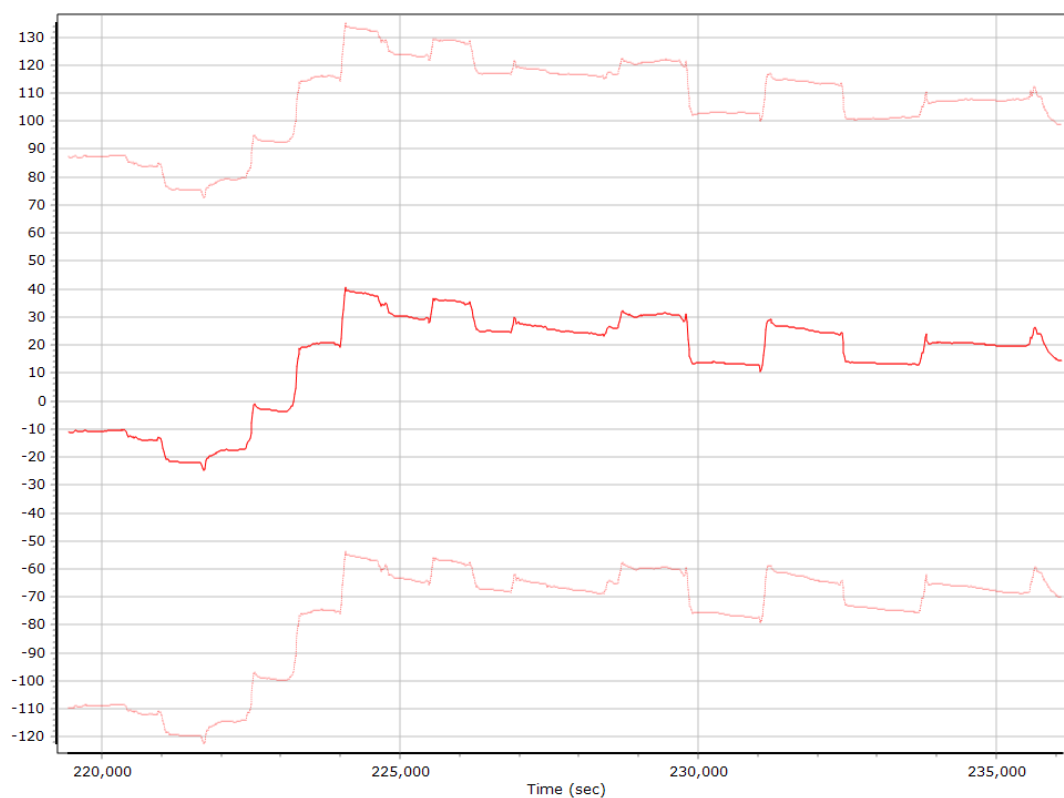
Accelerometer Bias (micro-g)



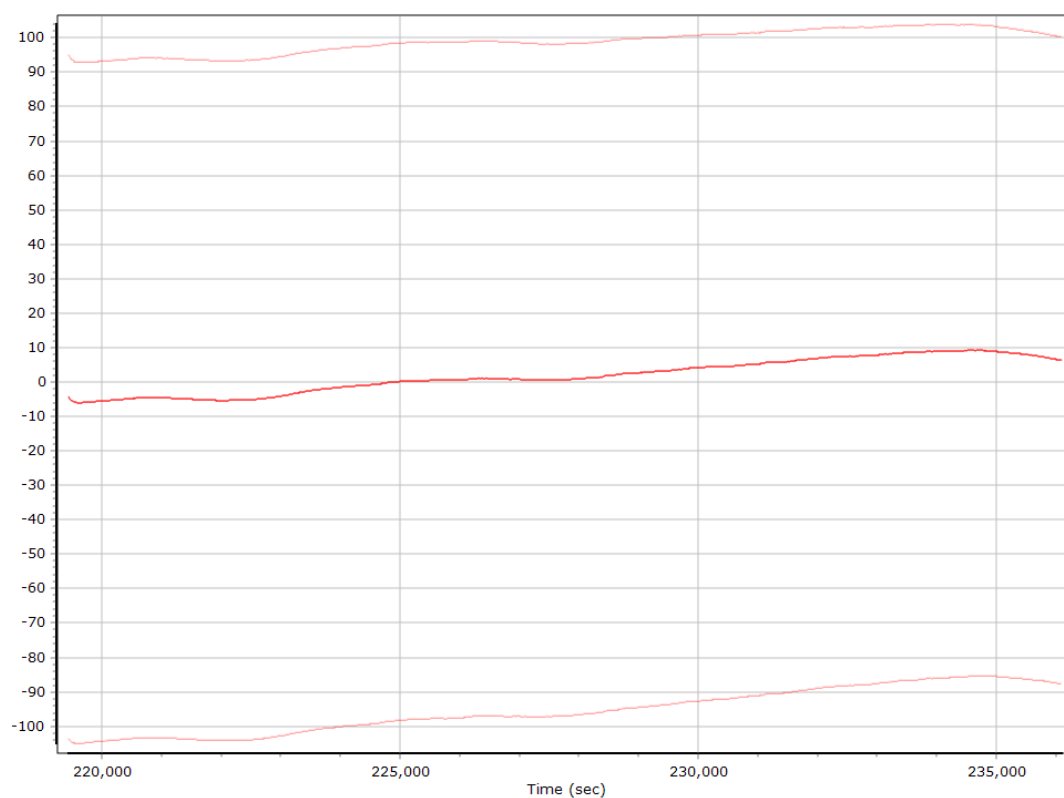
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



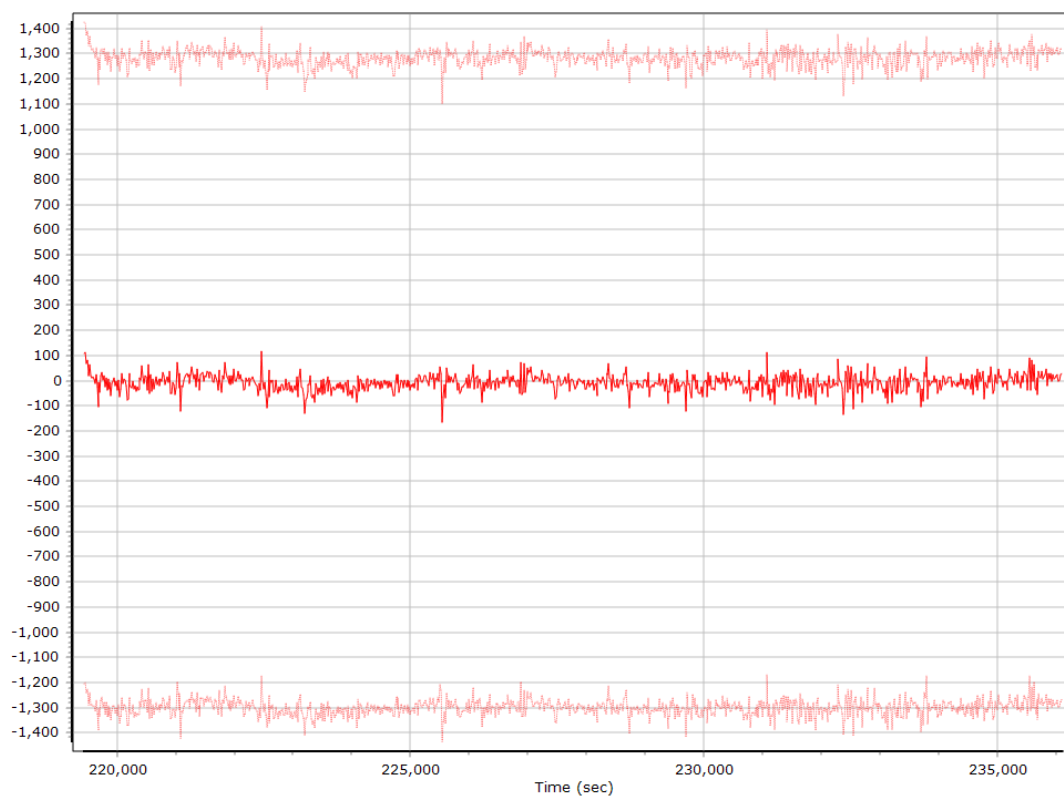
X Accelerometer Scale Error (ppm)



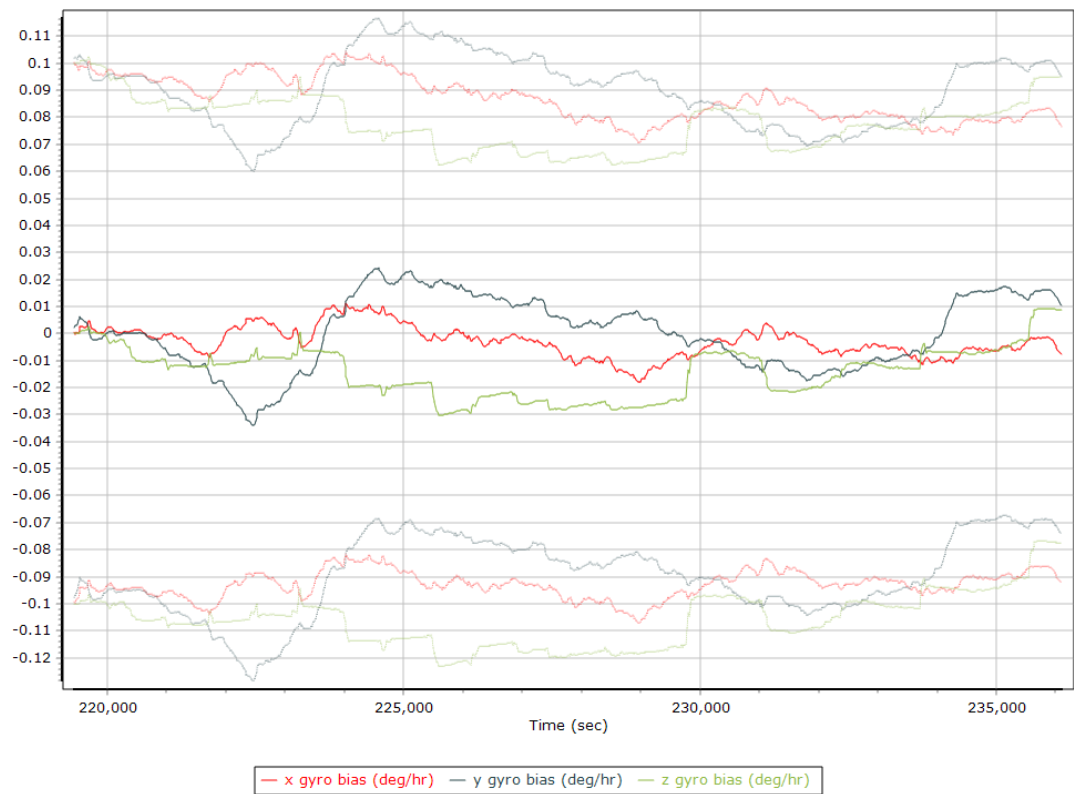
Y Accelerometer Scale Error (ppm)



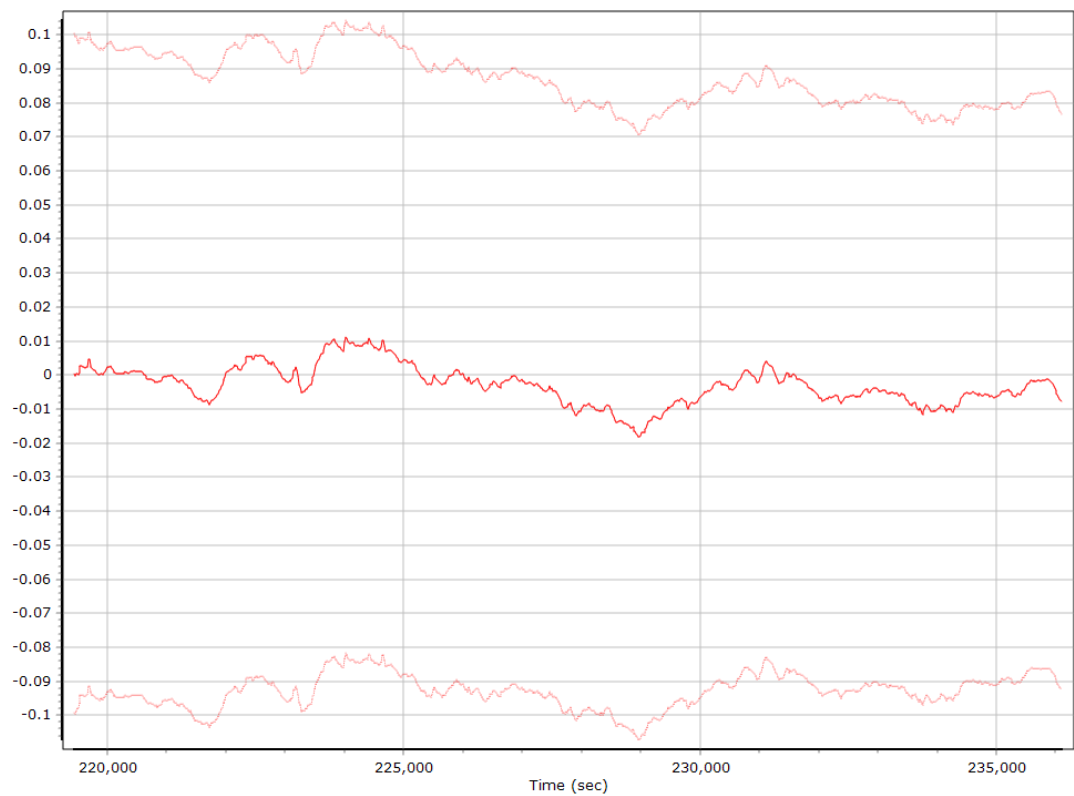
Z Accelerometer Scale Error (ppm)



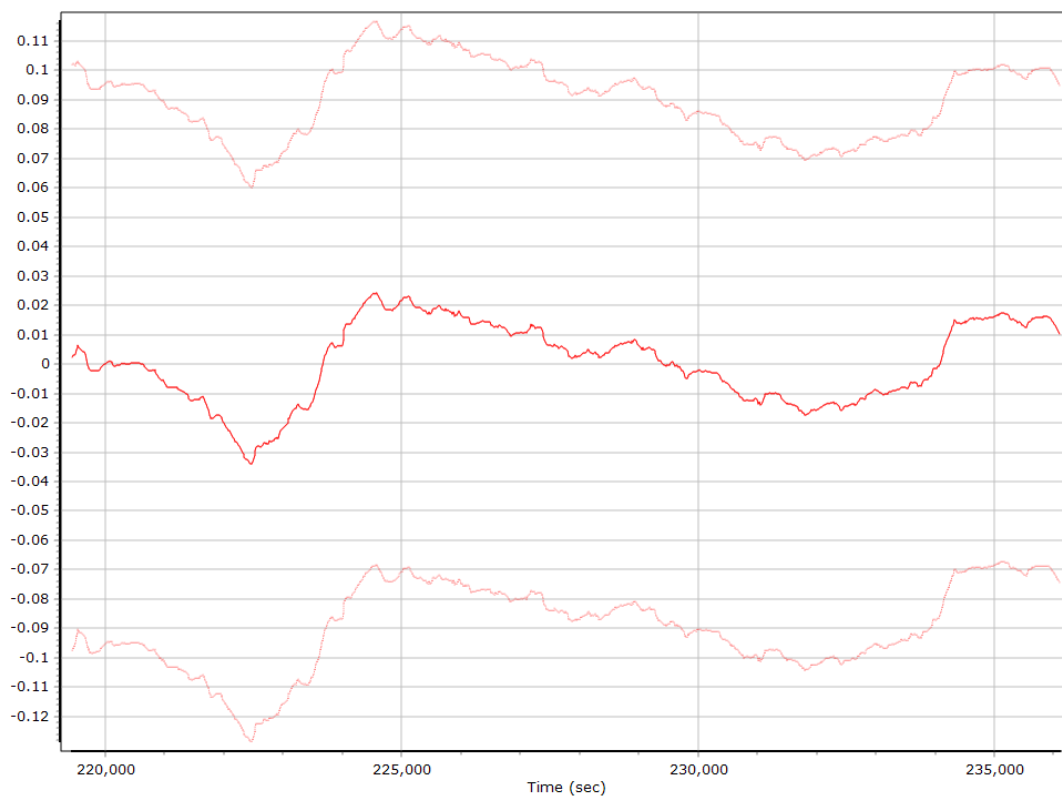
Gyro Bias (deg/h)



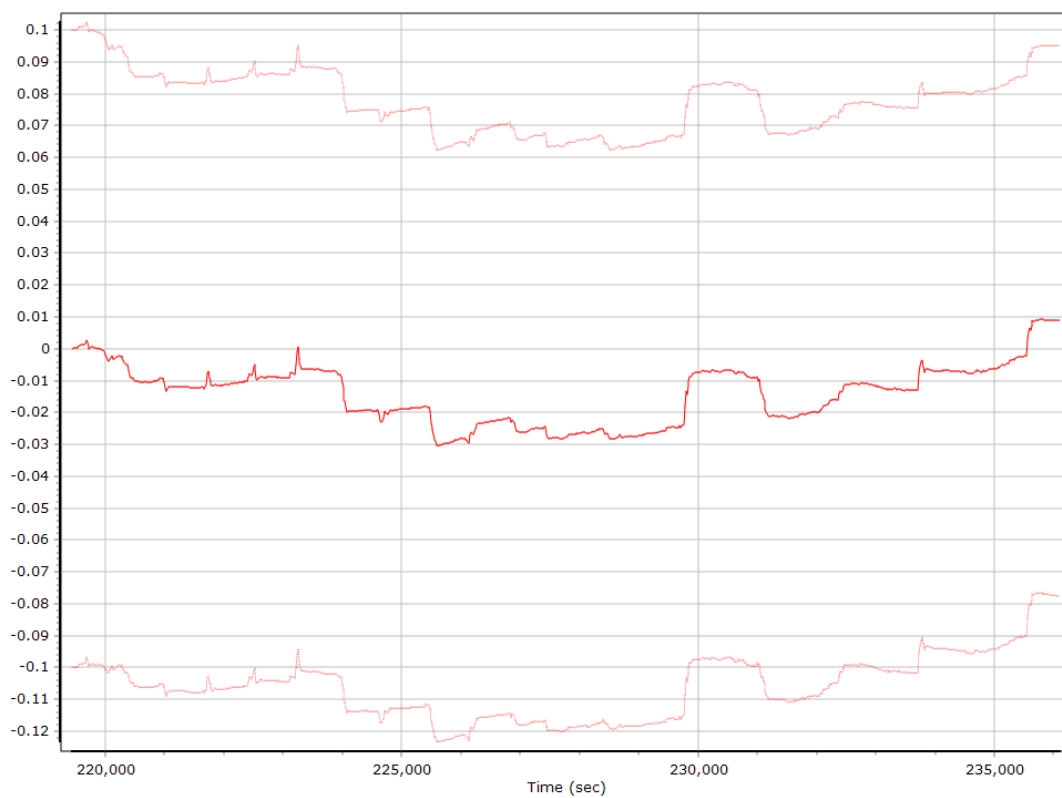
X Gyro Bias (deg/h)



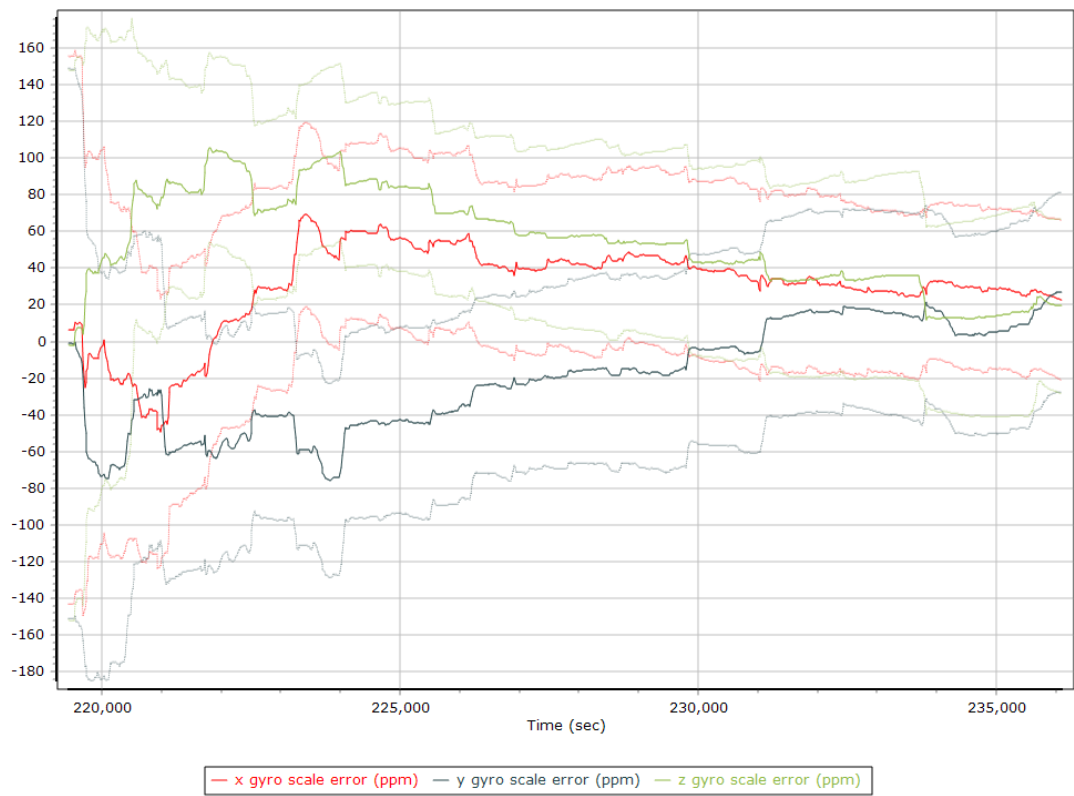
Y Gyro Bias (deg/h)



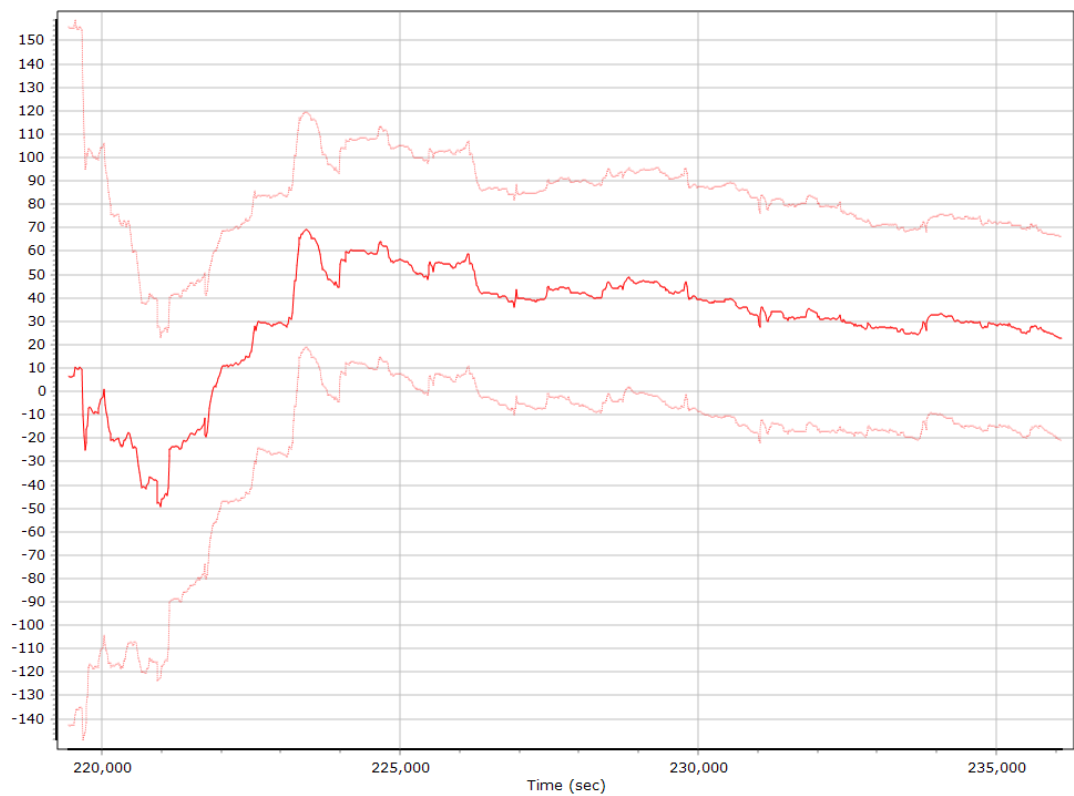
Z Gyro Bias (deg/h)



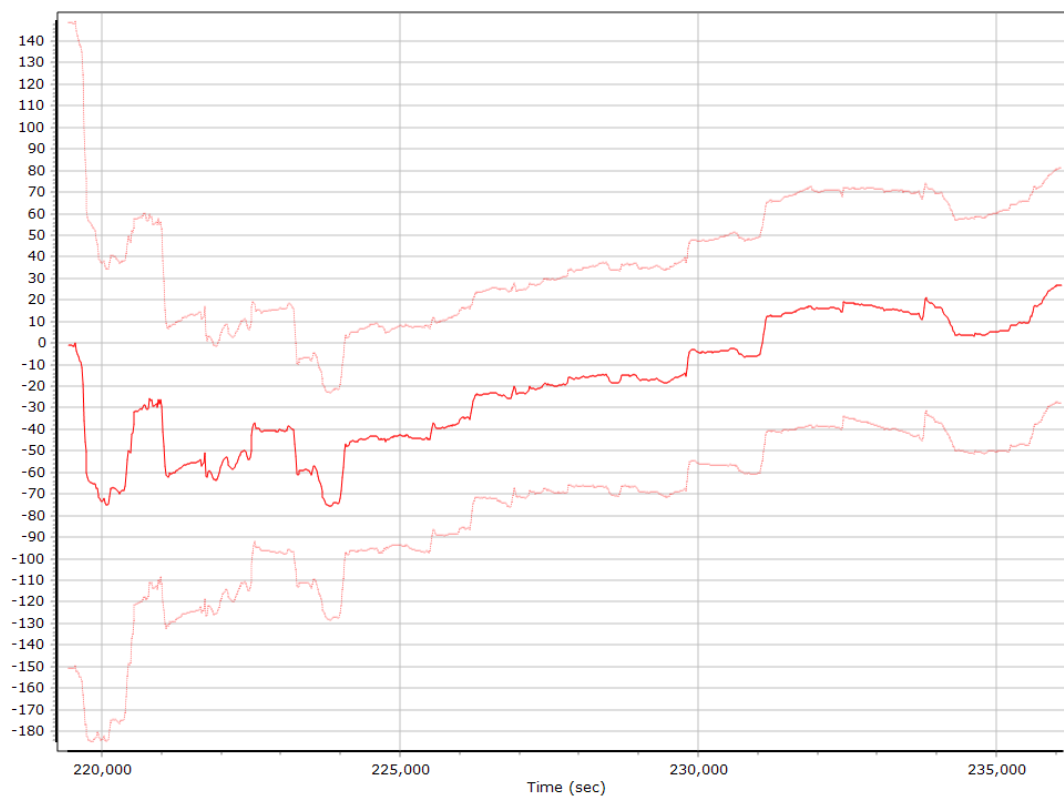
Gyro Scale Error (ppm)



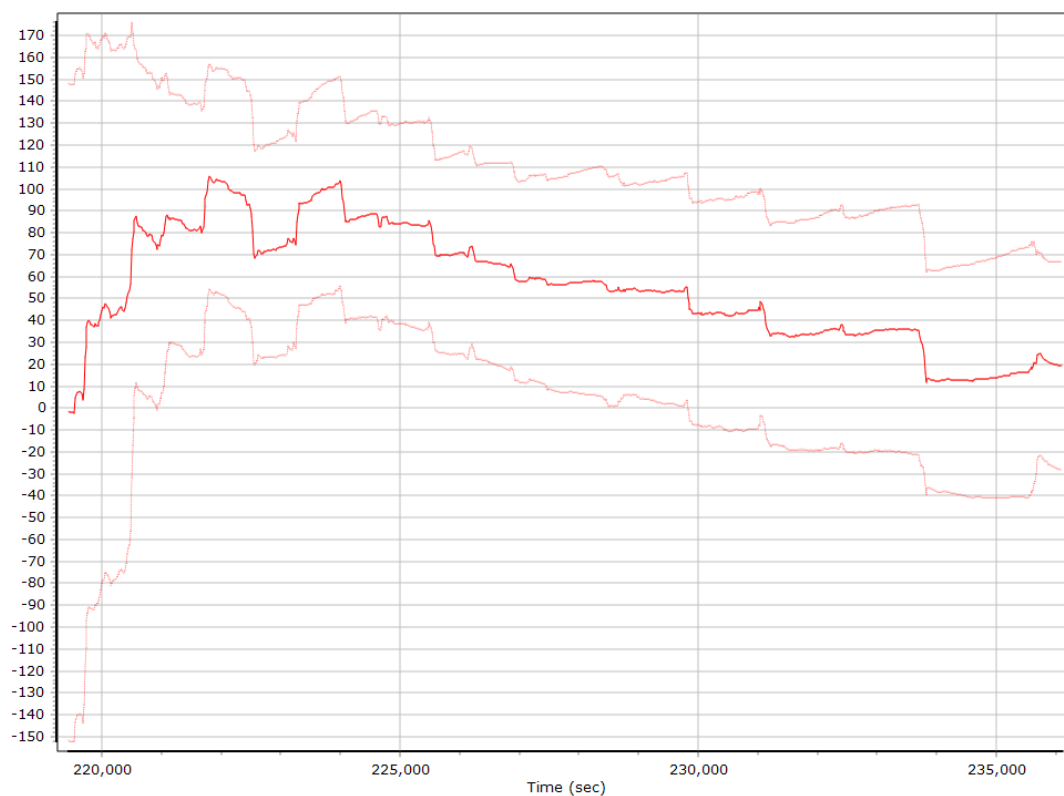
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

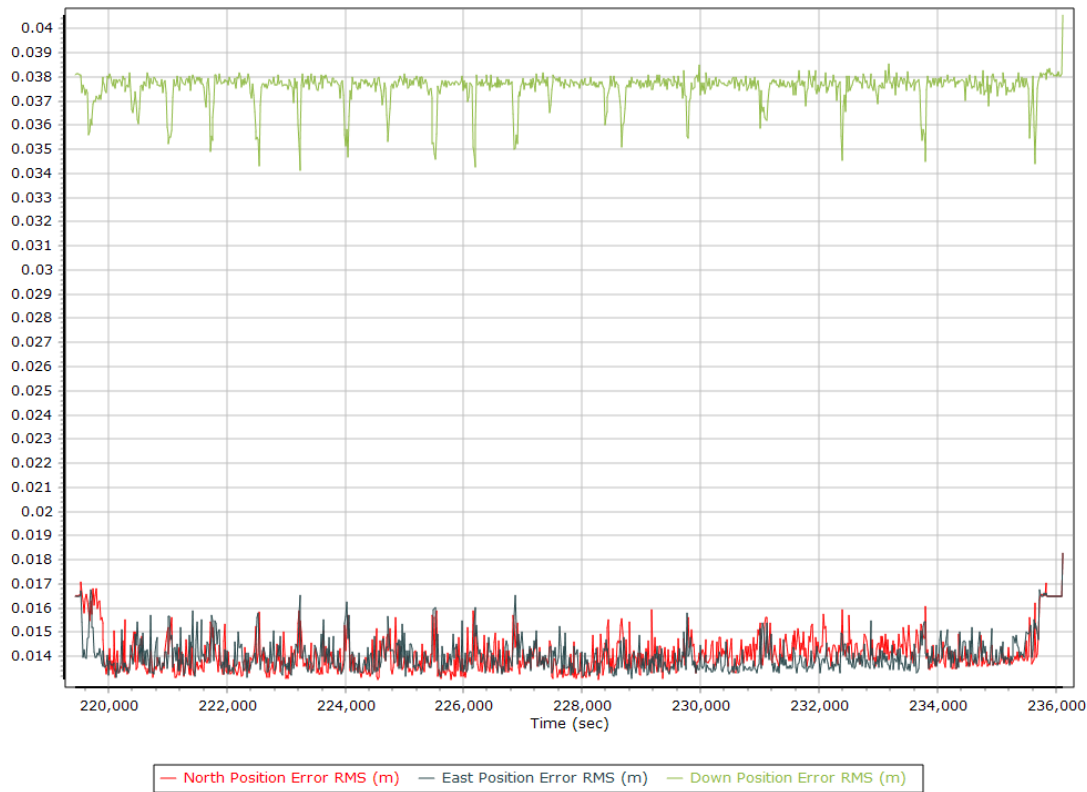


Z Gyro Scale Error (ppm)

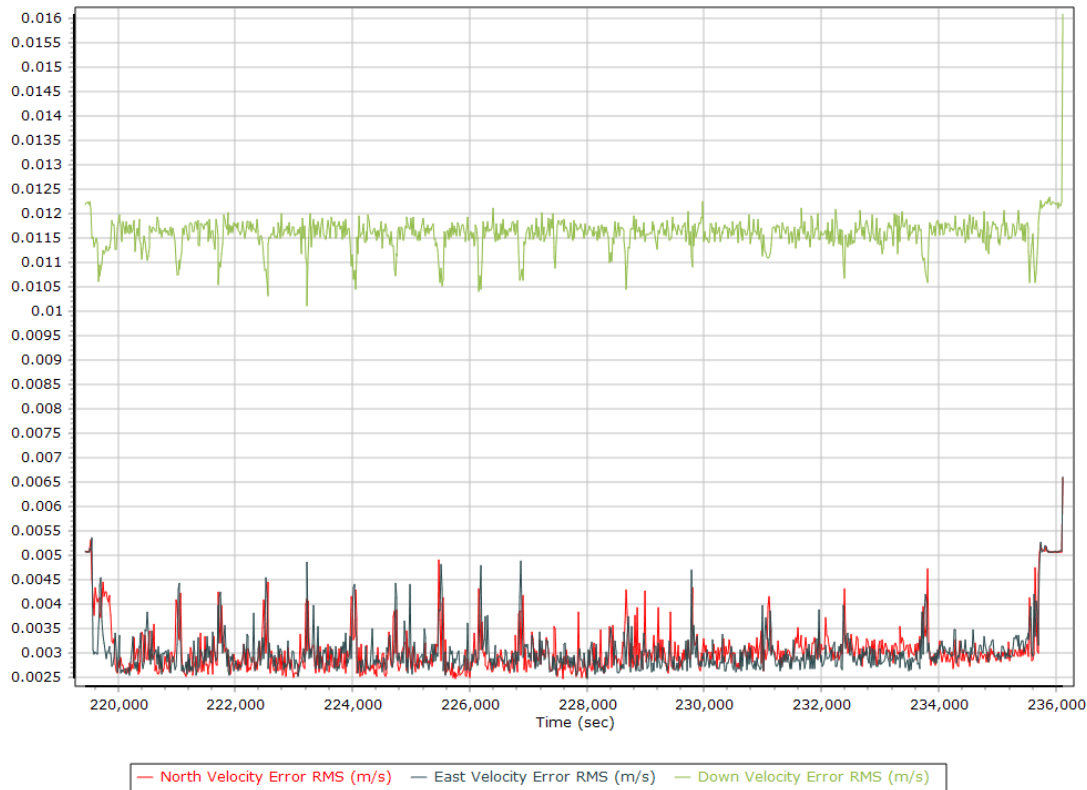


Smoothed Performance Metrics

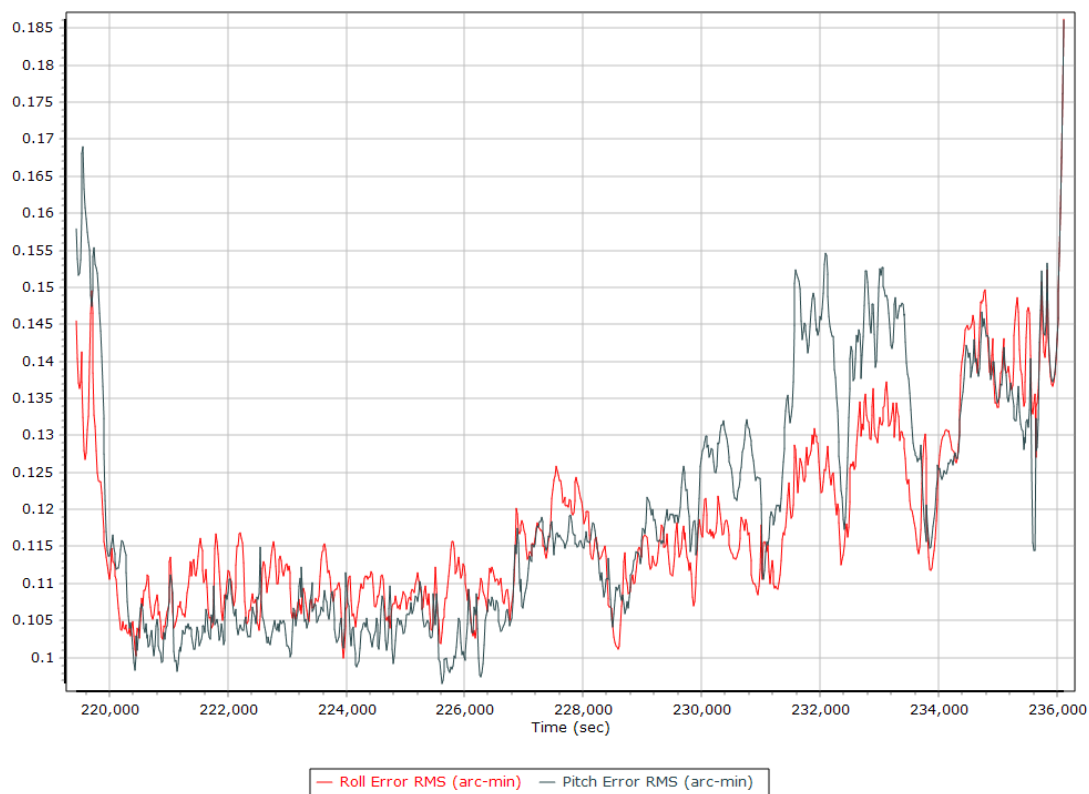
Position Error RMS (m)



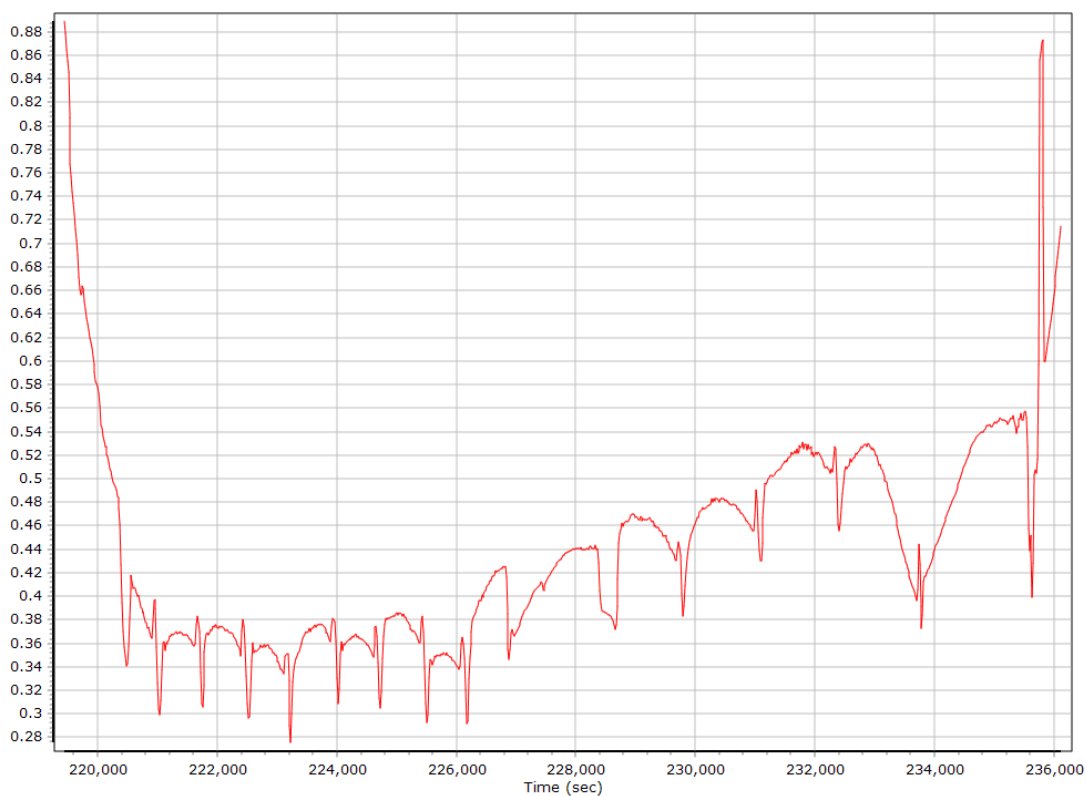
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

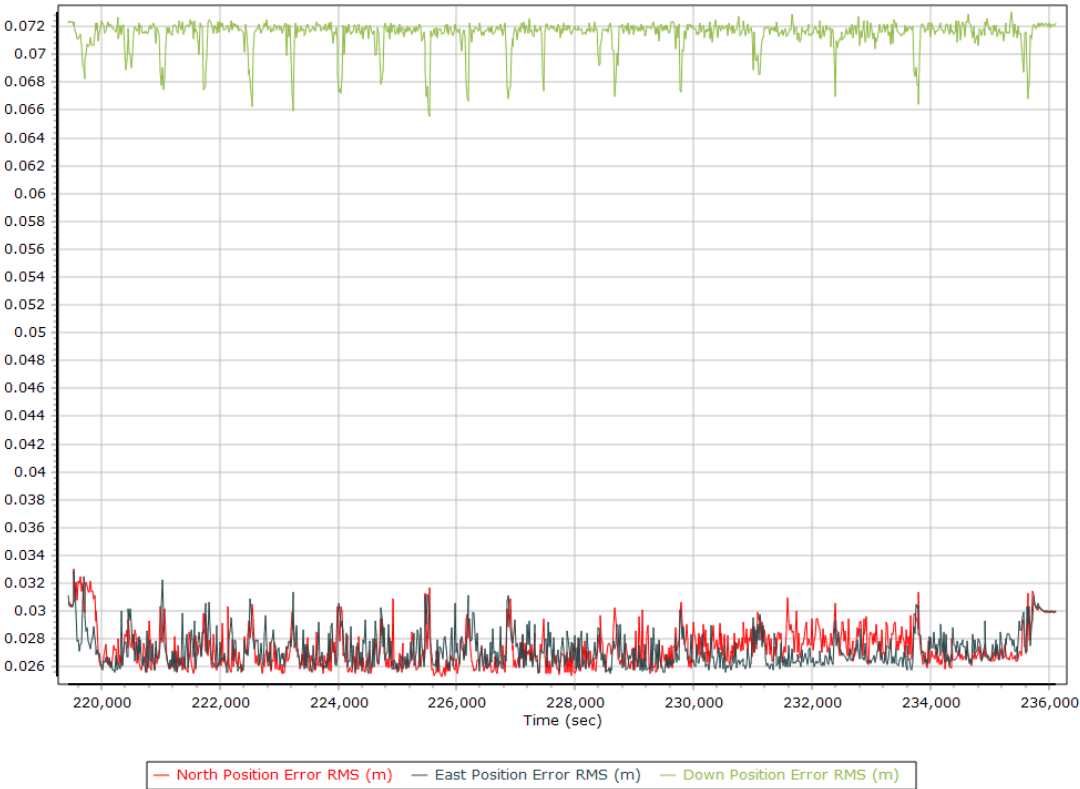


Heading Error RMS (arc-min)



Forward Processed Performance Metrics

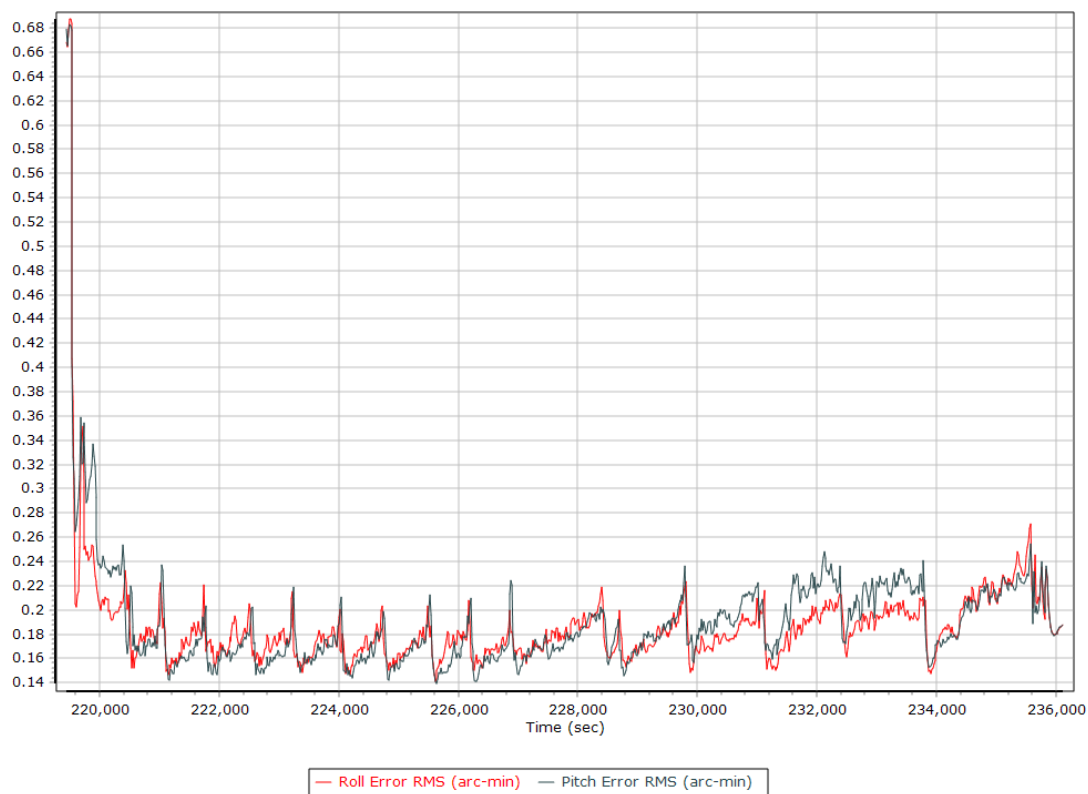
Position Error RMS (m)



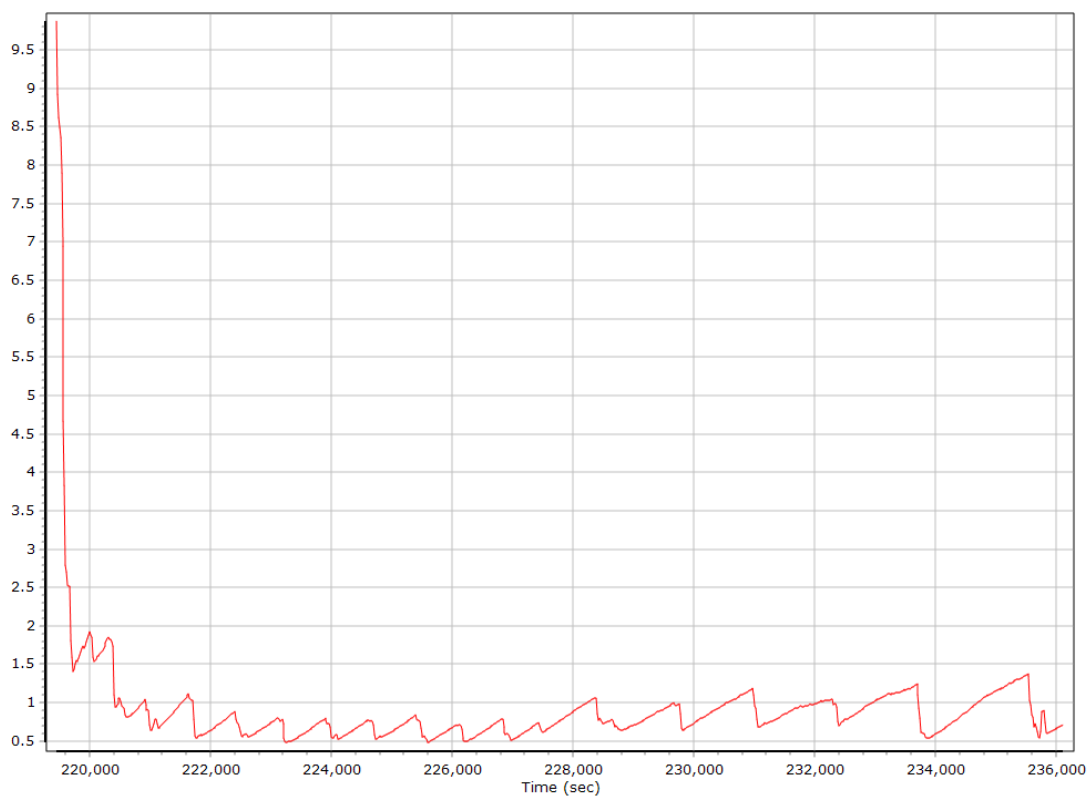
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

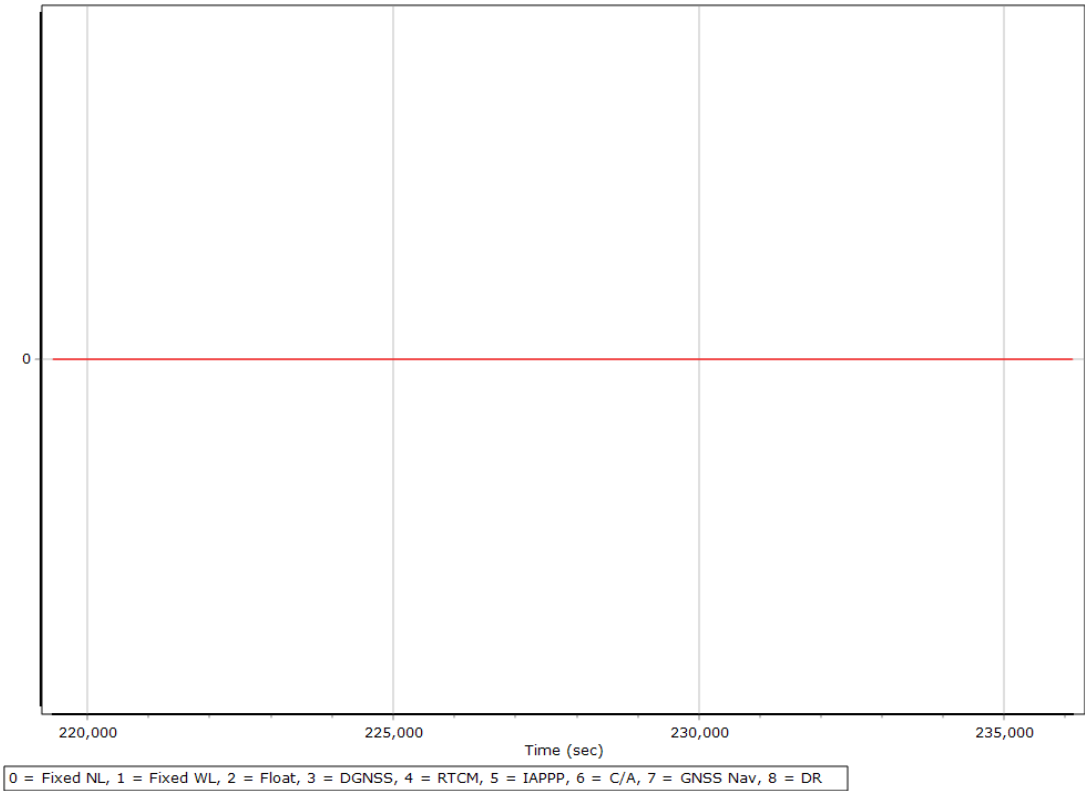


Heading Error RMS (arc-min)

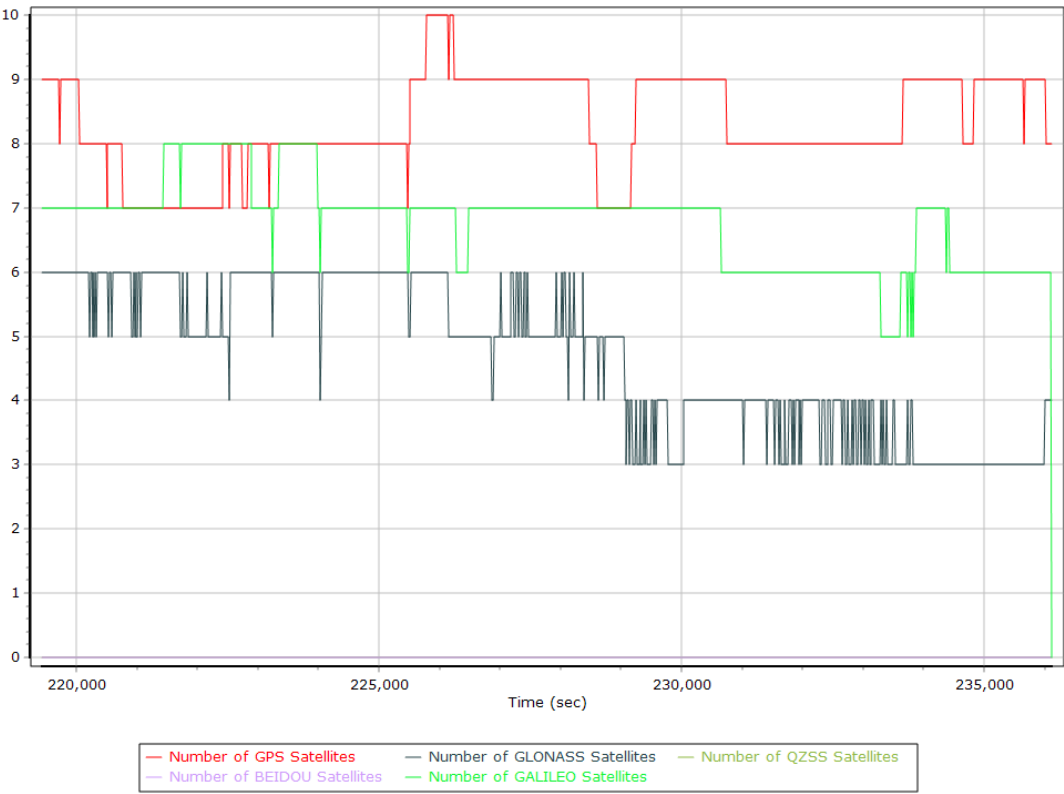


Forward Processed Solution Status

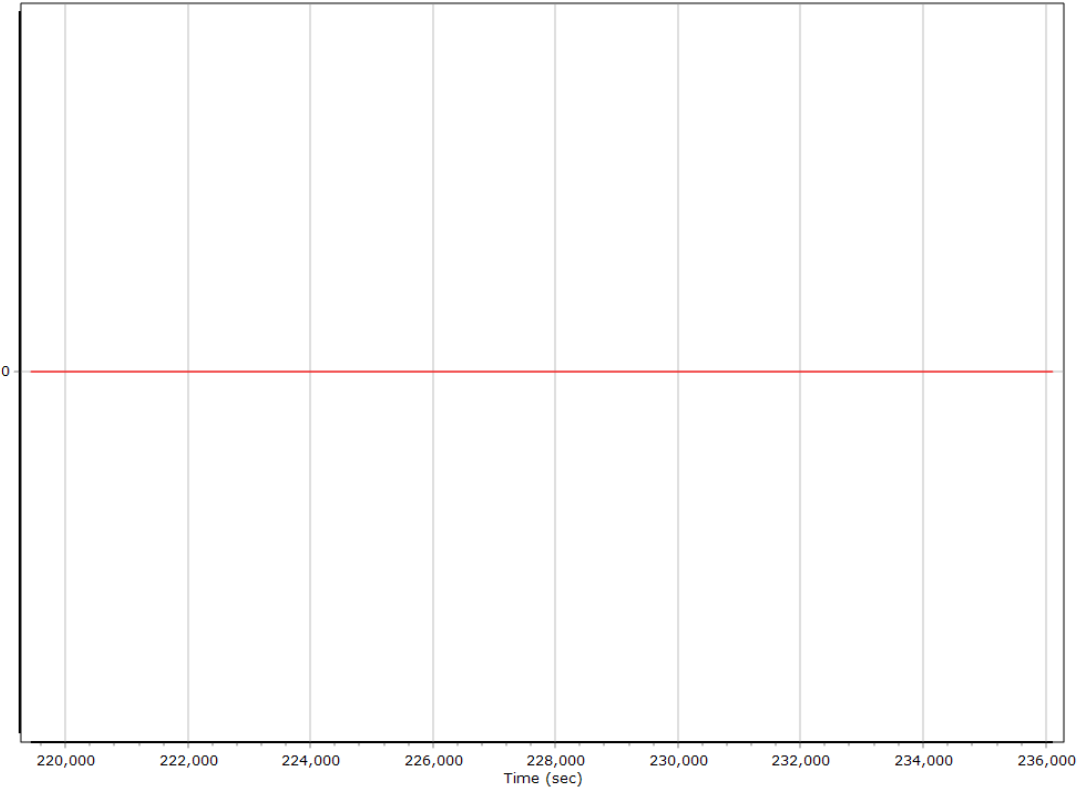
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230411_F1_4894_NAD832011.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	219381.005 (04/11/2023 12:56:21)		
Export end time	236120.003 (04/11/2023 17:35:20)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.273973		

General Information

Mission Information

Project name	20230411_F2_4894
Processing date	2023-04-13 22:14:33
Mission date	2023-04-11 18:35:03
Mission duration	03:35:04.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.325	POS Data
VQ1560.326	POS Data
VQ1560.327	POS Data
VQ1560.328	POS Data
VQ1560.329	POS Data
VQ1560.330	POS Data
VQ1560.331	POS Data
VQ1560.332	POS Data
VQ1560.333	POS Data
VQ1560.334	POS Data
VQ1560.335	POS Data
VQ1560.336	POS Data
VQ1560.337	POS Data
VQ1560.338	POS Data
VQ1560.339	POS Data
VQ1560.340	POS Data
VQ1560.341	POS Data
VQ1560.342	POS Data
VQ1560.343	POS Data
VQ1560.344	POS Data
VQ1560.345	POS Data
VQ1560.346	POS Data
VQ1560.347	POS Data
VQ1560.348	POS Data
VQ1560.349	POS Data
VQ1560.350	POS Data
VQ1560.351	POS Data
VQ1560.352	POS Data
VQ1560.353	POS Data
VQ1560.354	POS Data
VQ1560.355	POS Data

Input Files

File Name	File Type
Ephm1010.23g	GLONASS Broadcast Ephemeris
Ephm1010.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230411_F2.out	SBET Trajectory File
export_20230411_F2_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.325		
Last raw data file	VQ1560.355		
Start GPS week	2257		
Start time	239696.538 (04/11/2023 18:34:56)		
End time	252588.706 (04/11/2023 22:09:48)		
Start of fine alignment	240094.484 (04/11/2023 18:41:34)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

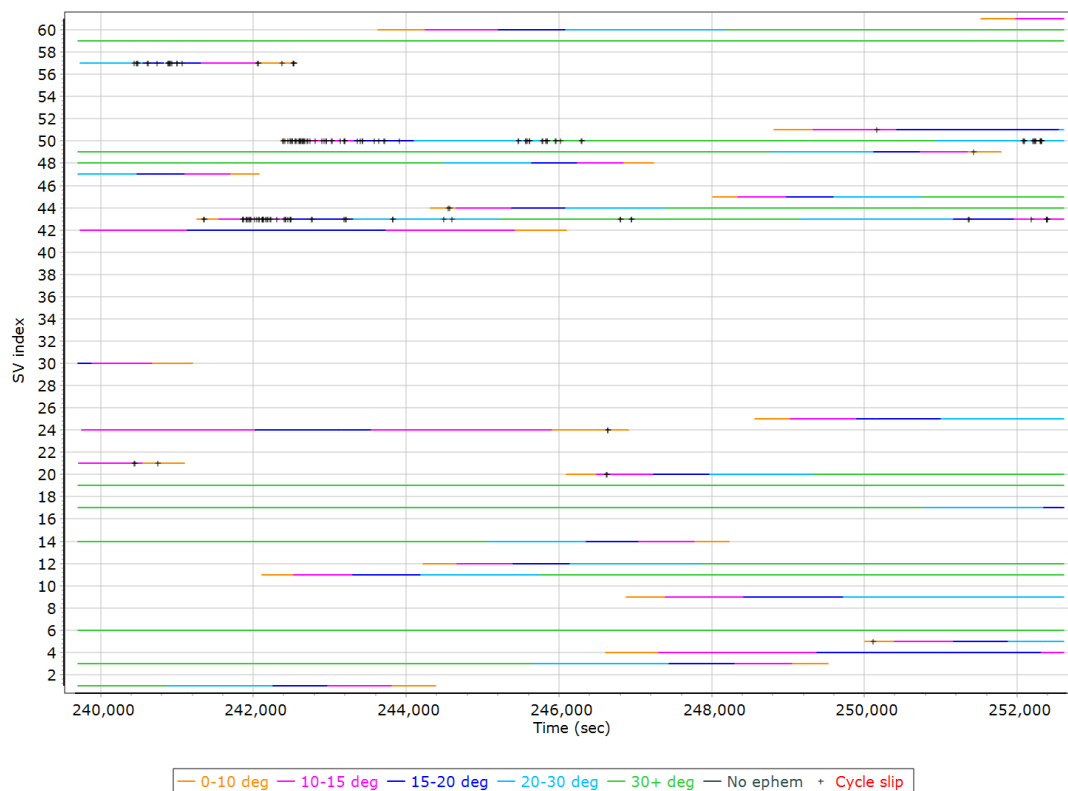
Rover Data QC

Raw IMU Import QC Summary

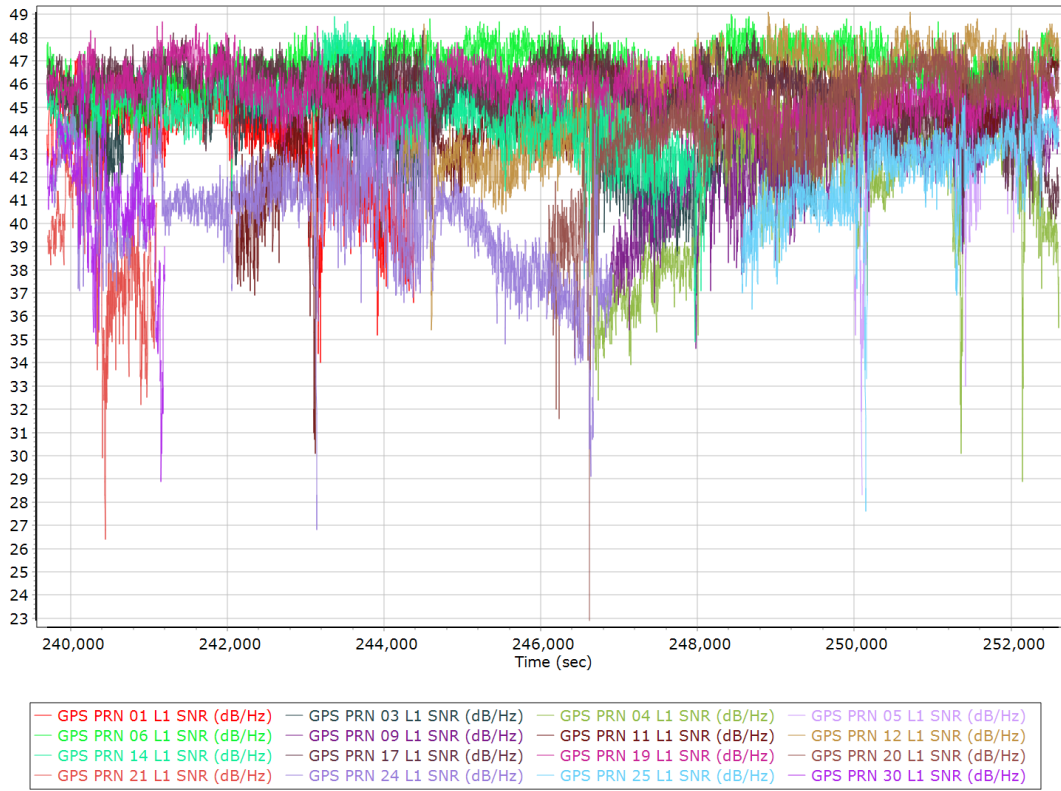
IMU data input file	imu_20230411_F2.dat
IMU data check log file	imudt_20230411_F2.log
IMU Records Processed	2580295
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
239696.338 : WARNING : Gap of 239684.3862 seconds in CHECKDT input data	

Primary Observables & Satellite Data

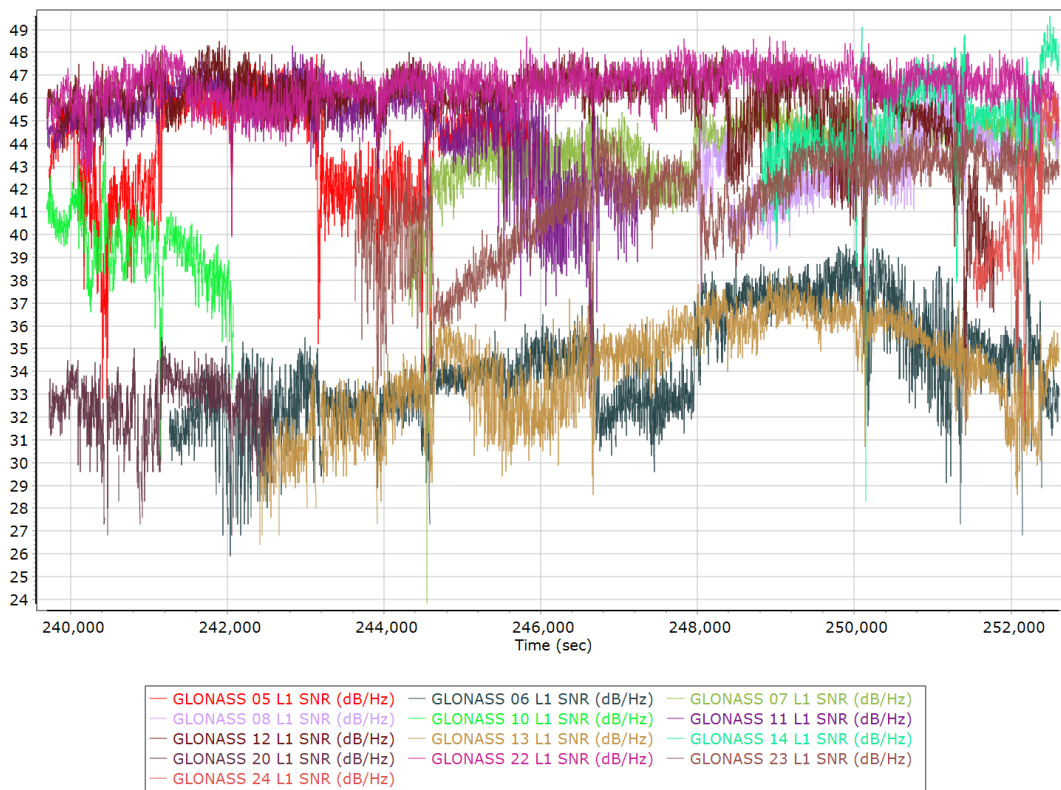
GPS/GLONASS L1 Satellite Lock/Elevation



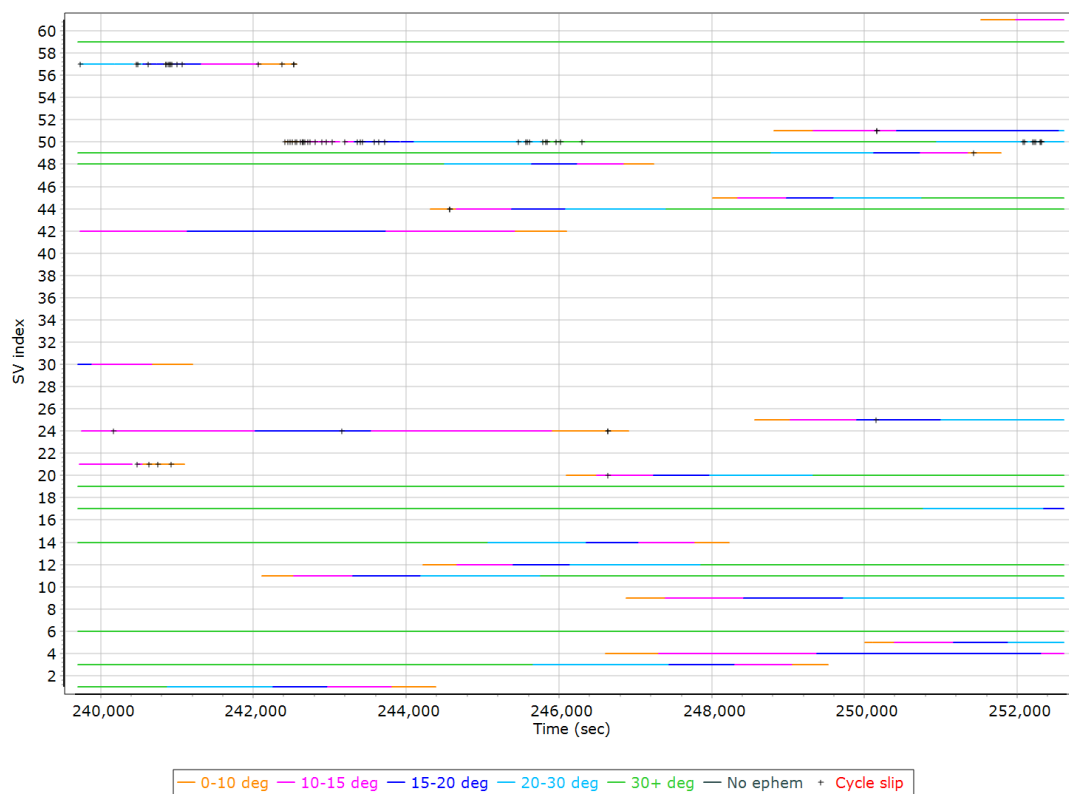
GPS L1 SNR



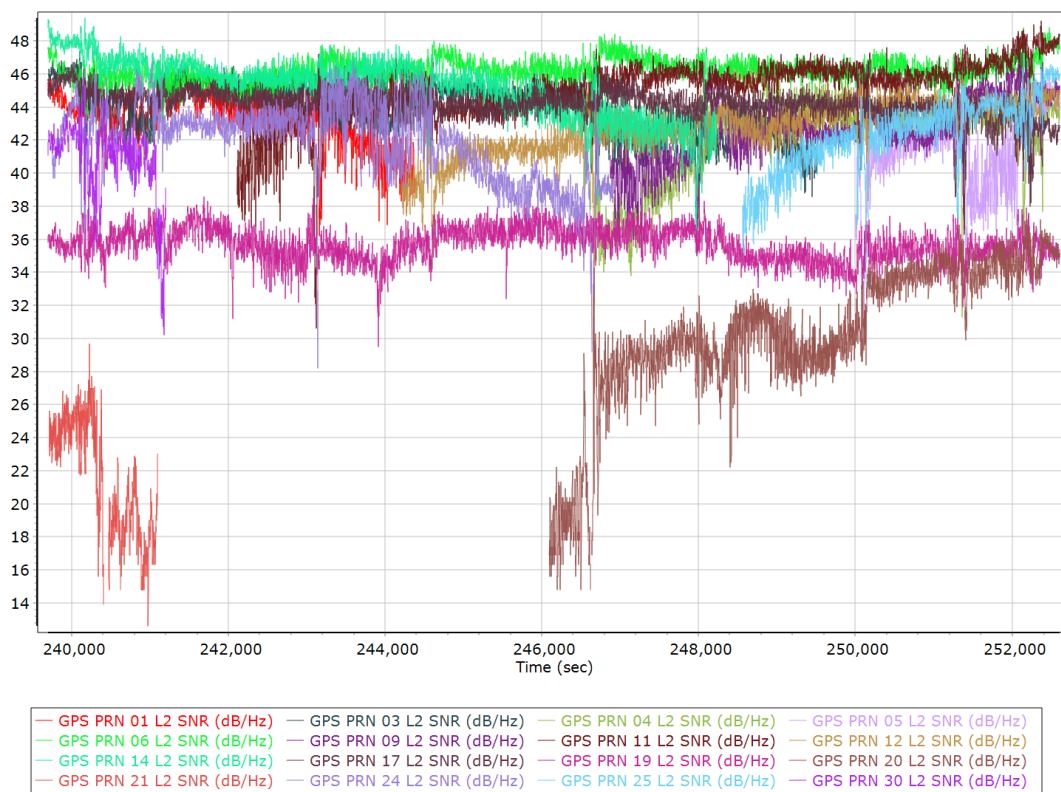
GLONASS L1 SNR



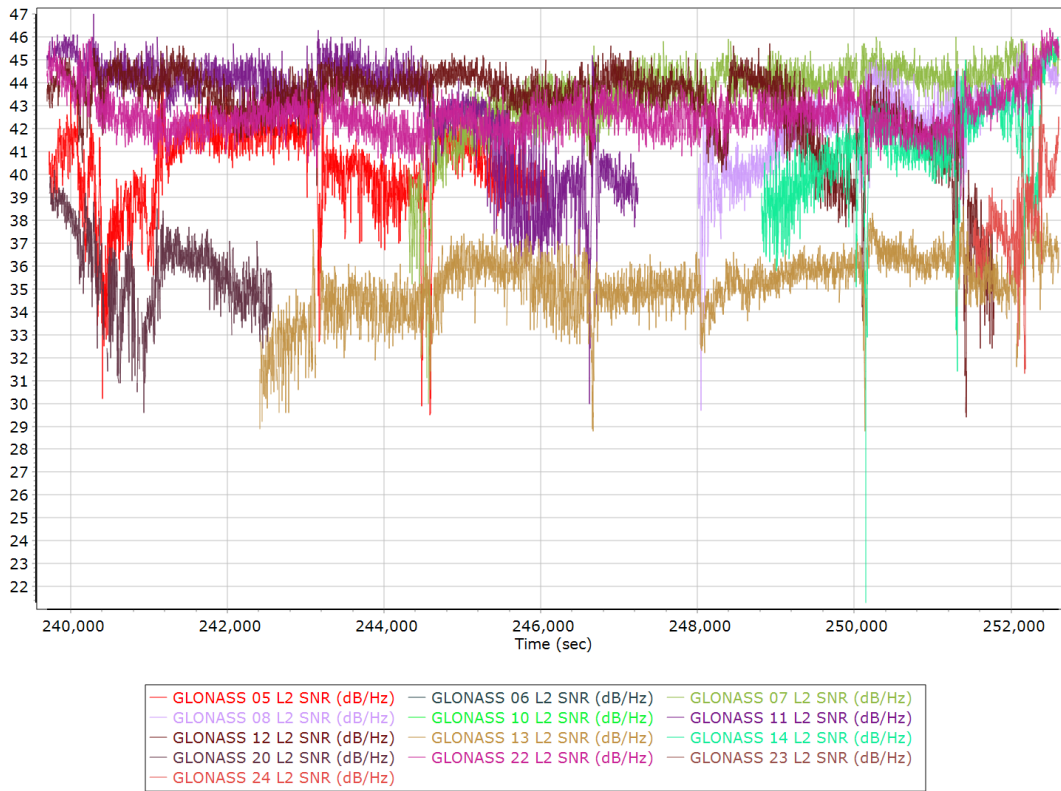
GPS/GLONASS L2 Satellite Lock/Elevation



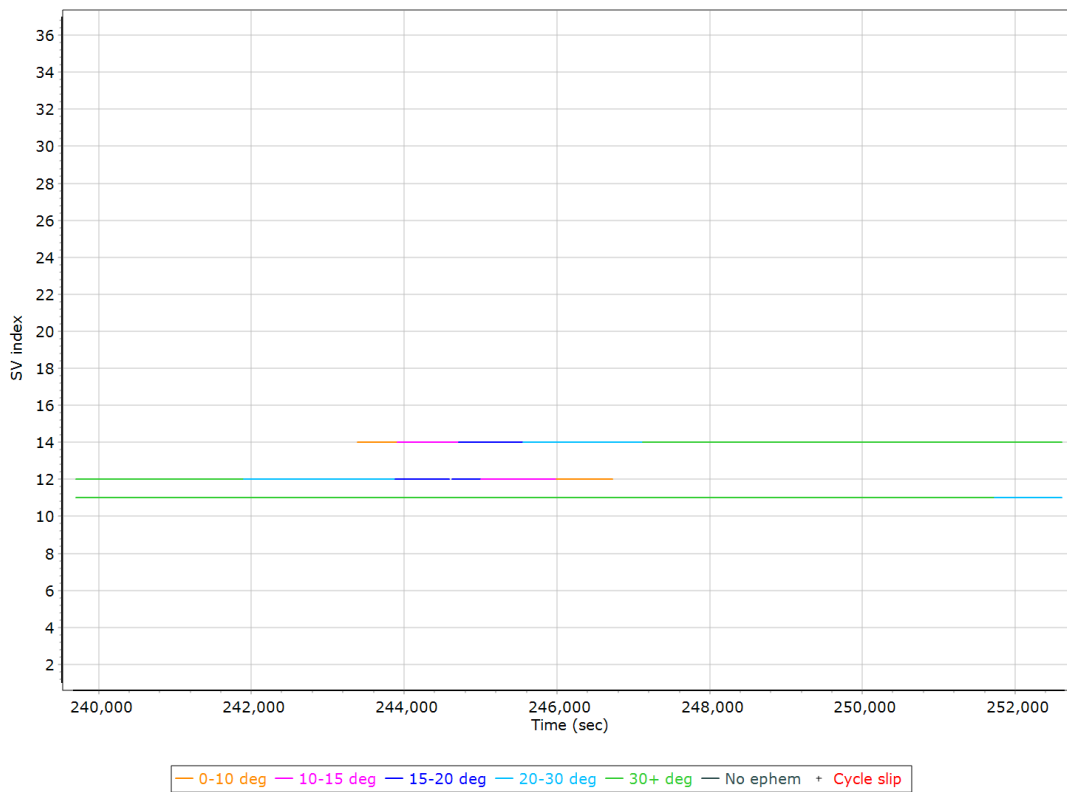
GPS L2 SNR



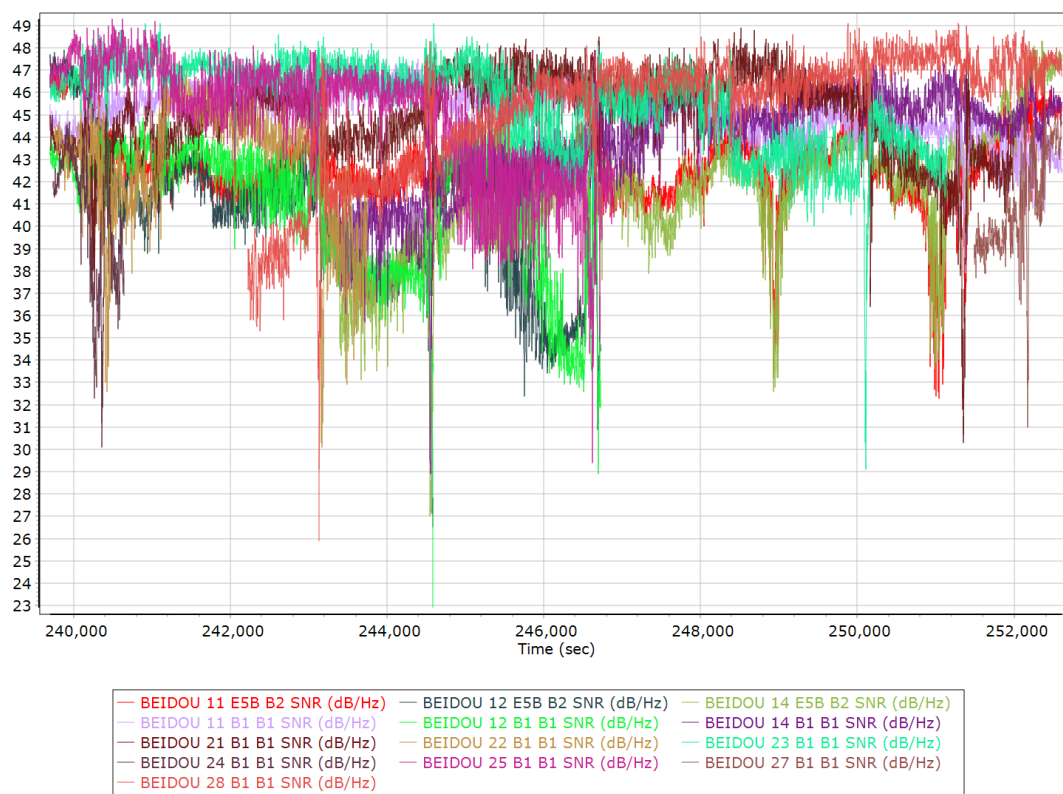
GLONASS L2 SNR



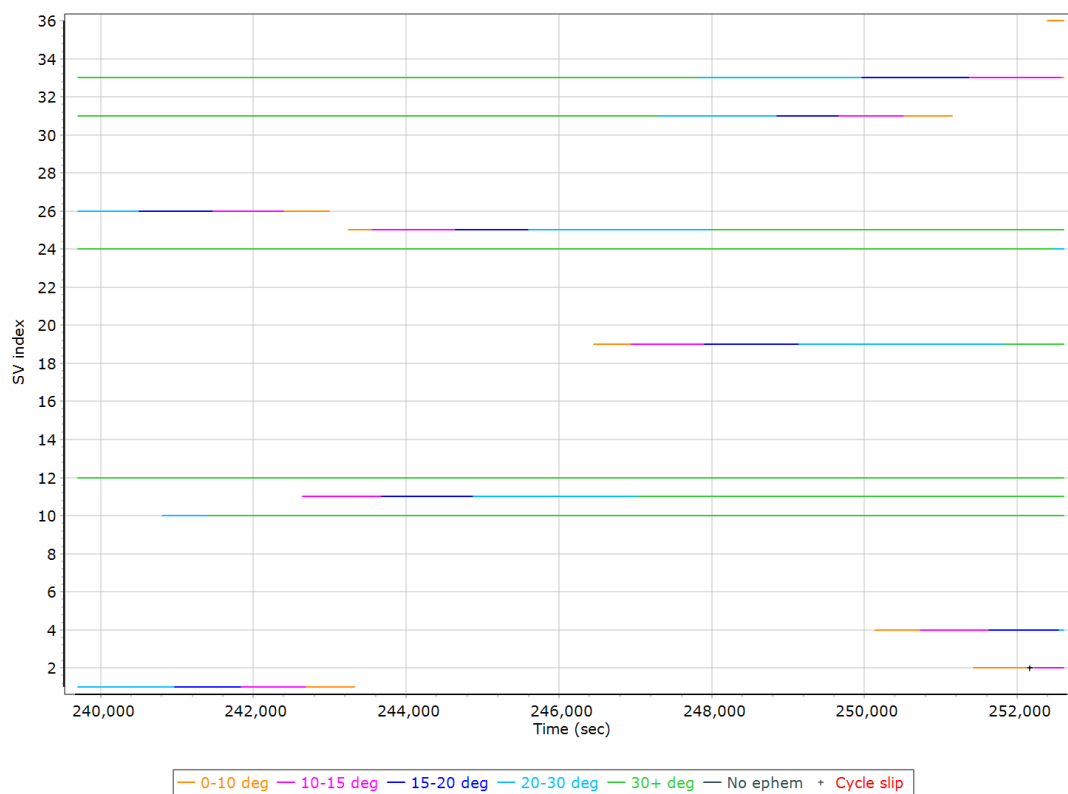
BEIDOU Satellite Lock/Elevation



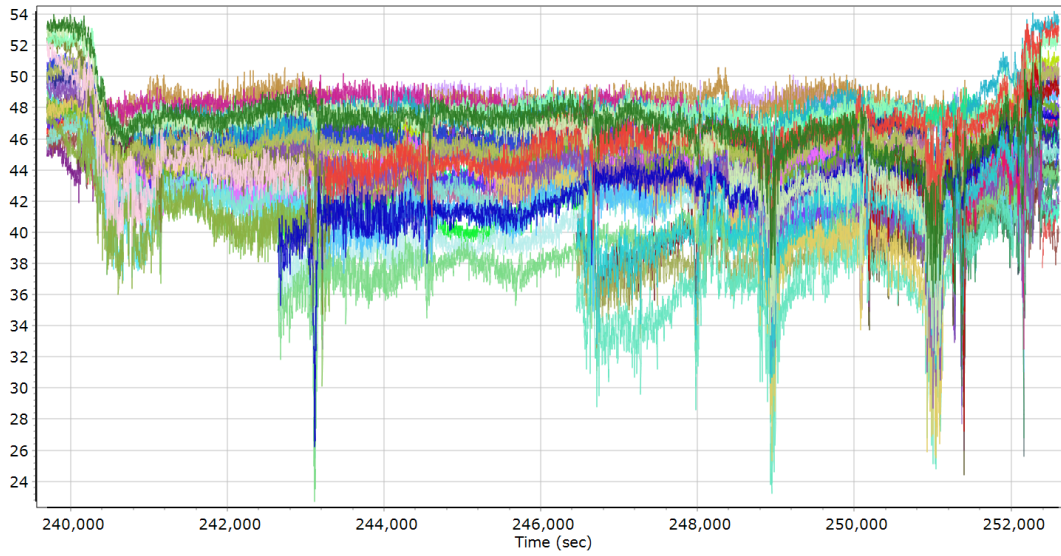
BEIDOU SNR



GALILEO Satellite Lock/Elevation



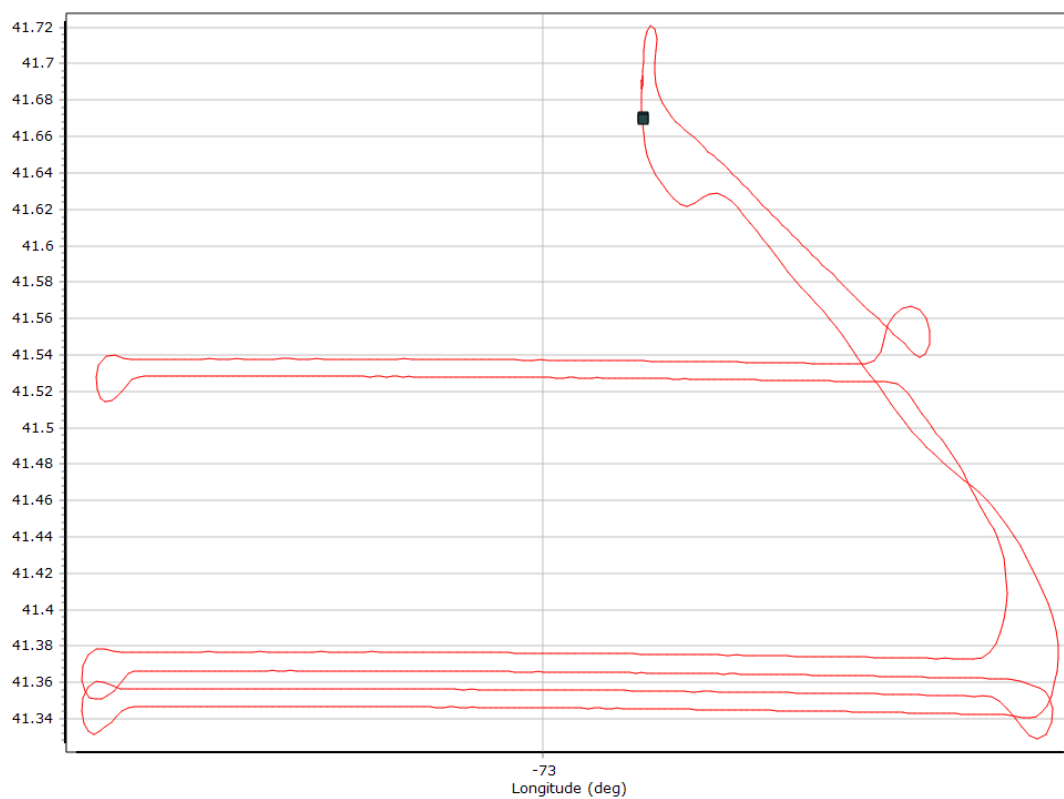
GALILEO SNR



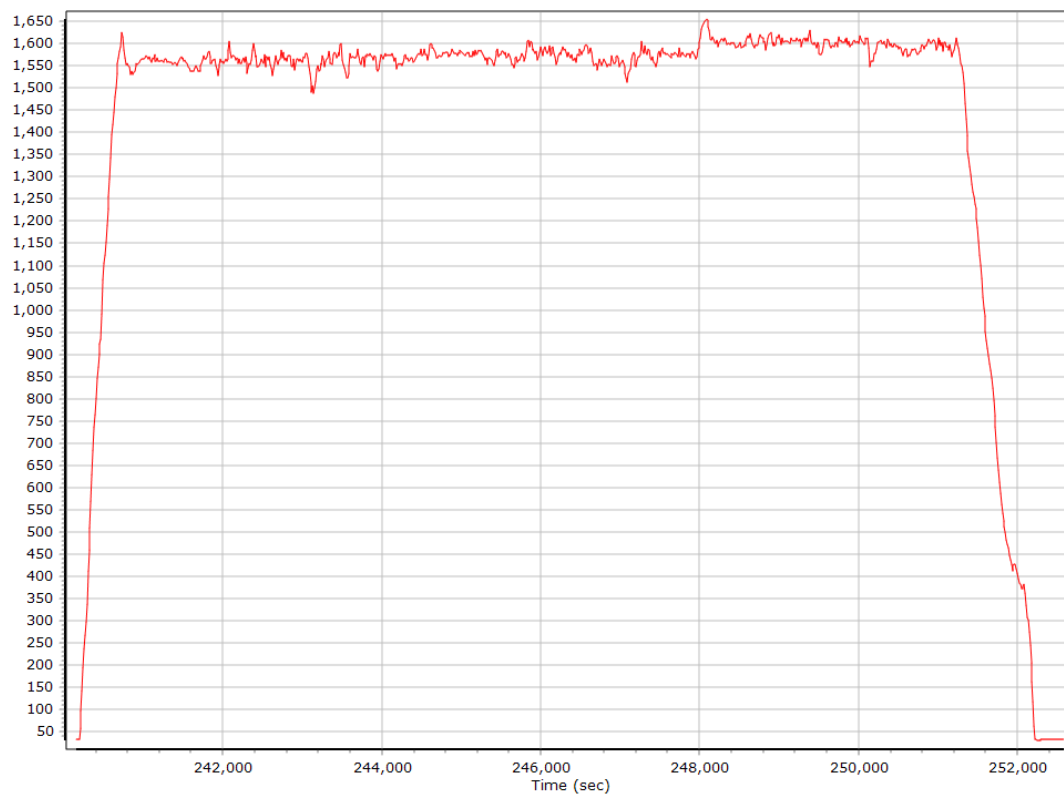
— GALILEO 01 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 02 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 04 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 10 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 19 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 24 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 25 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 26 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 31 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 33 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 02 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 04 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 10 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 11 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 19 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

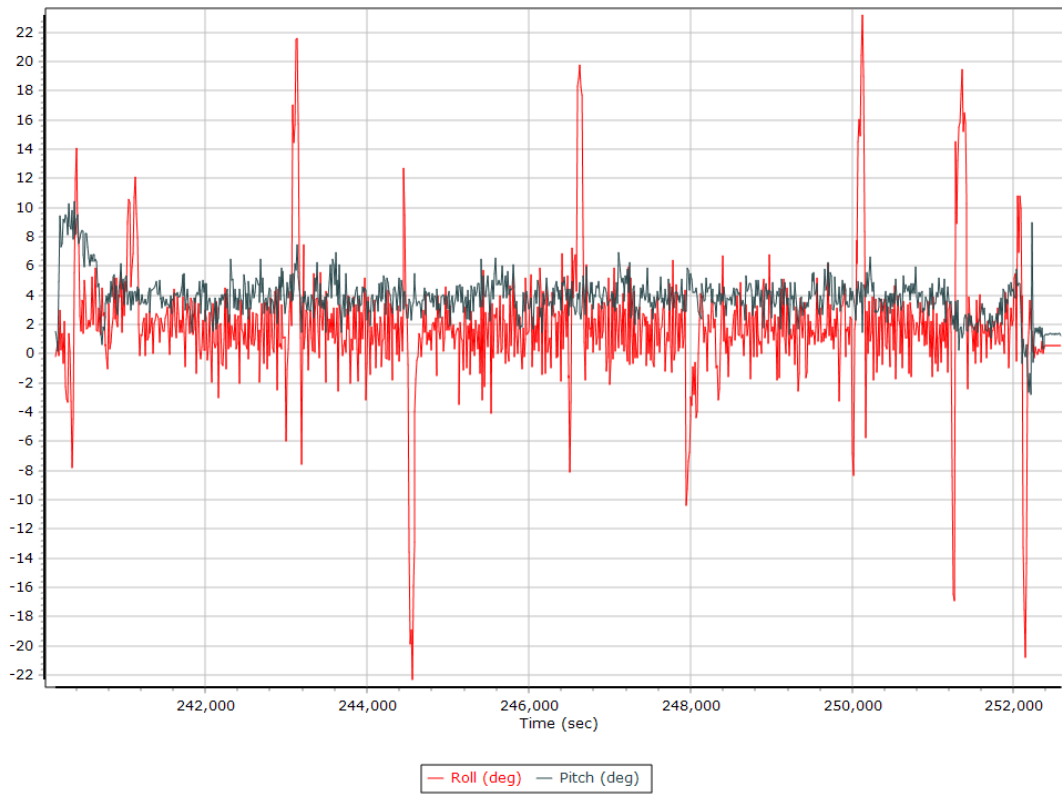
Top View



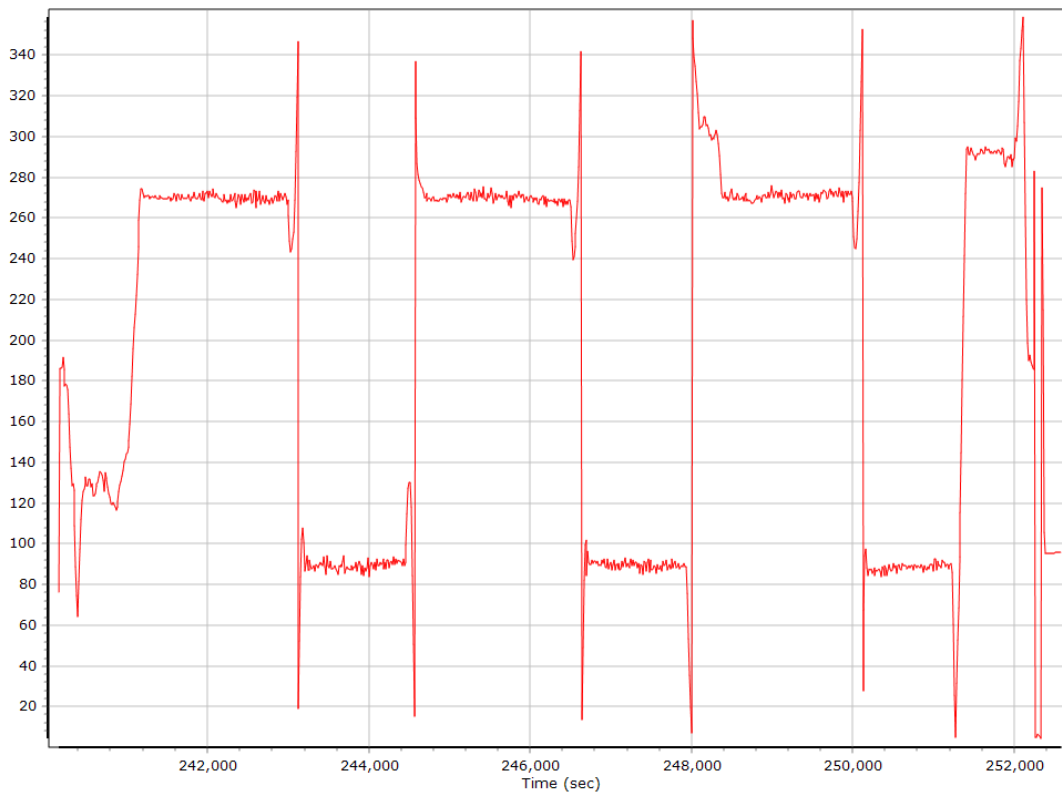
Altitude



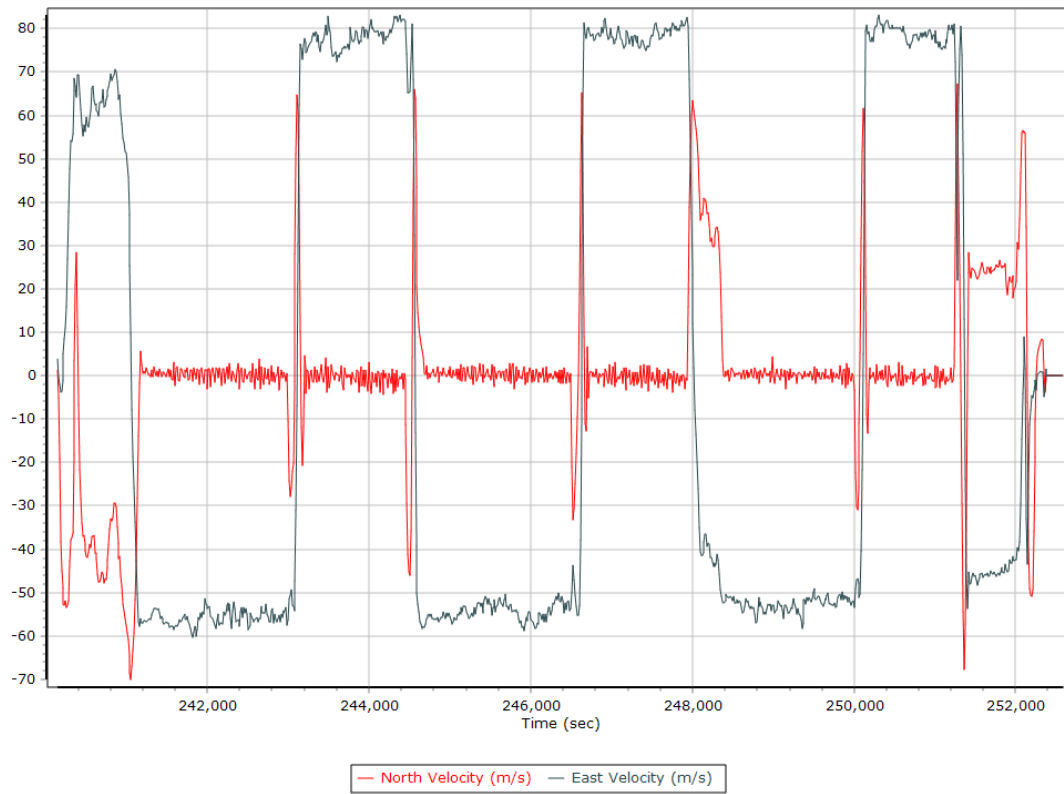
Roll/Pitch



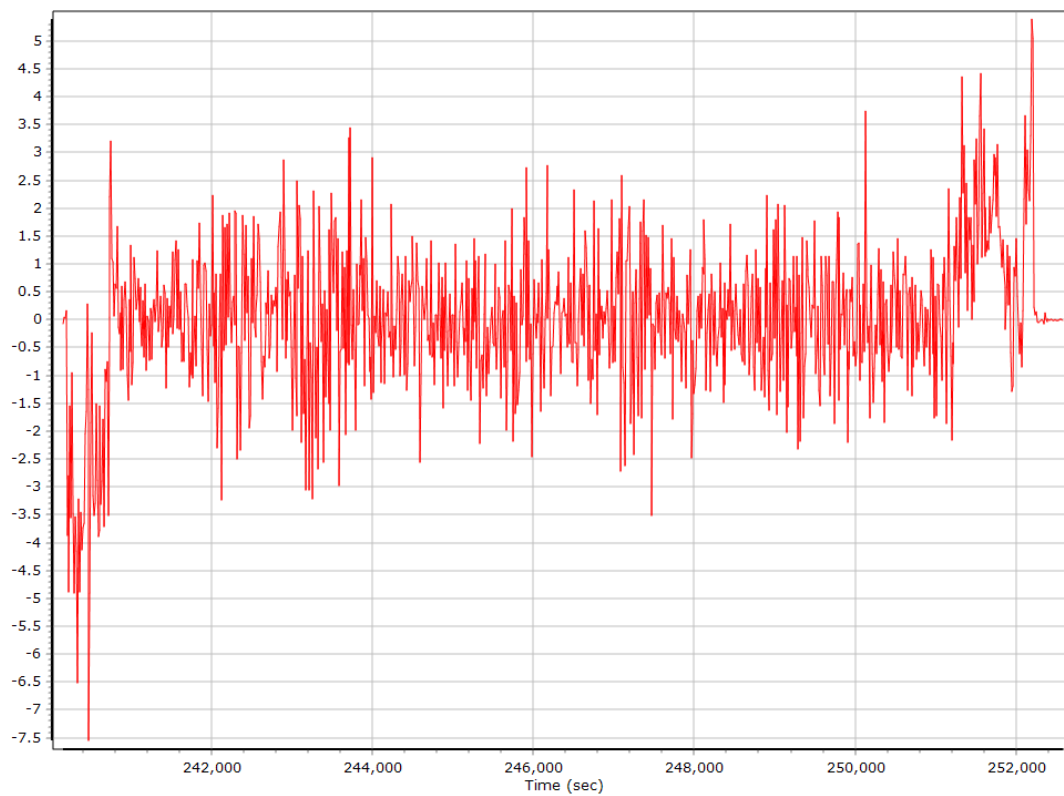
Heading



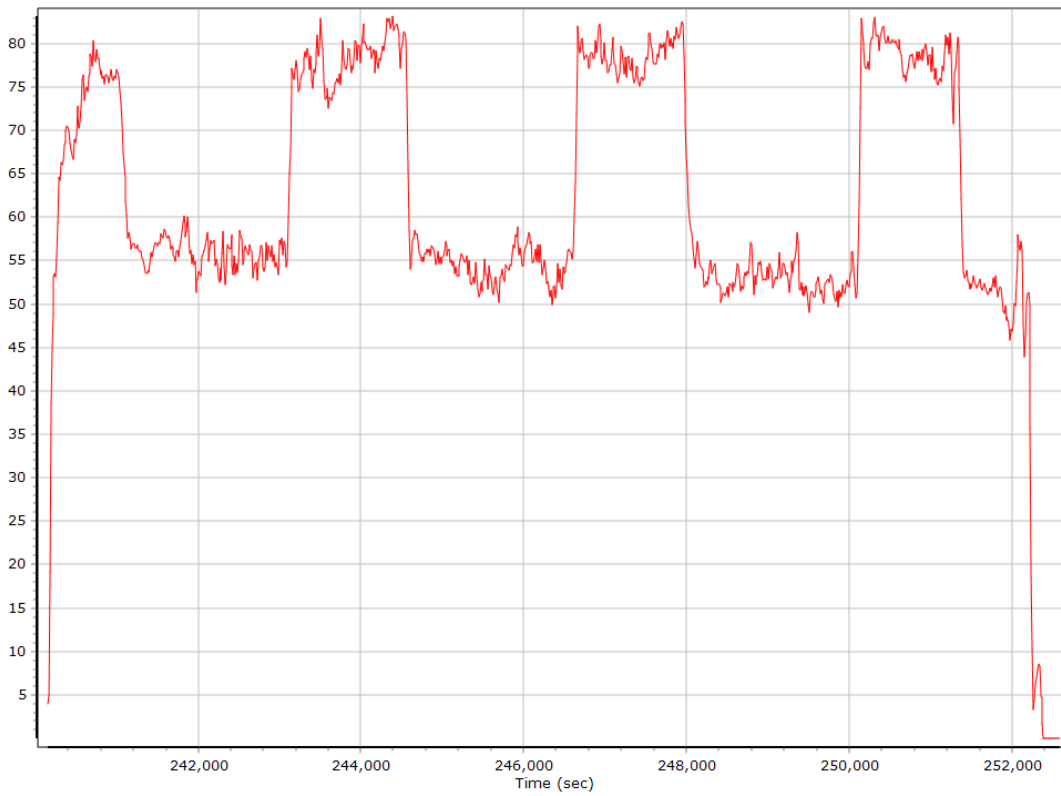
North/East Velocity



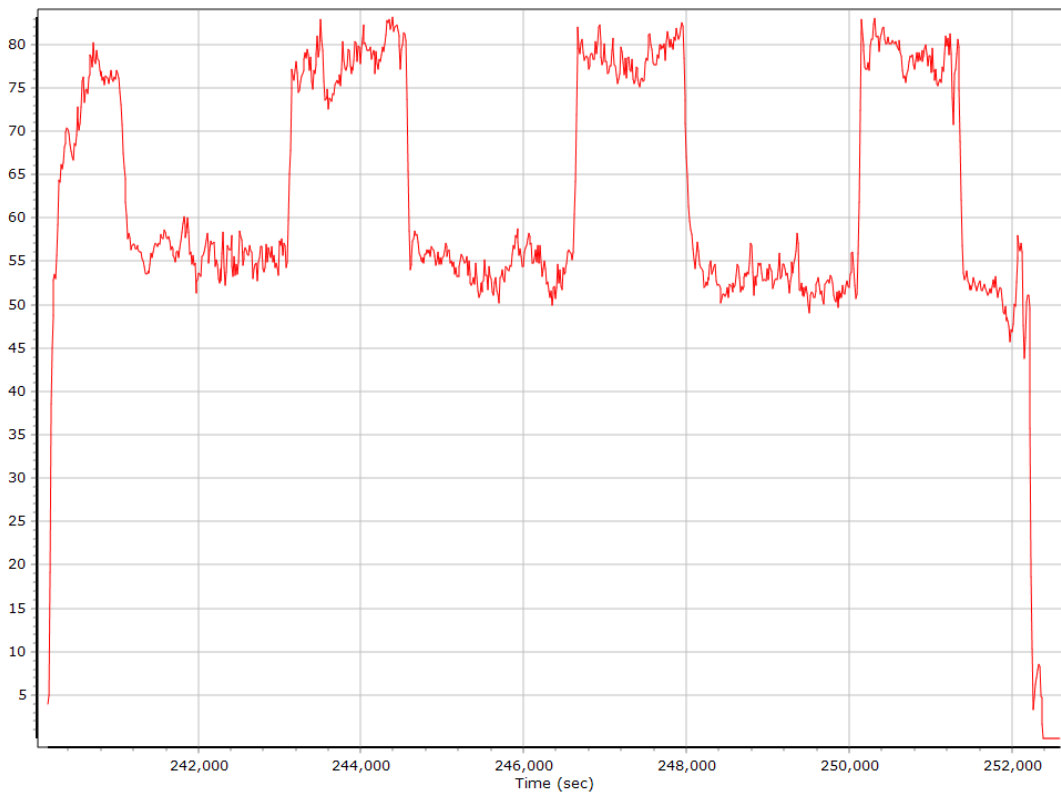
Down Velocity



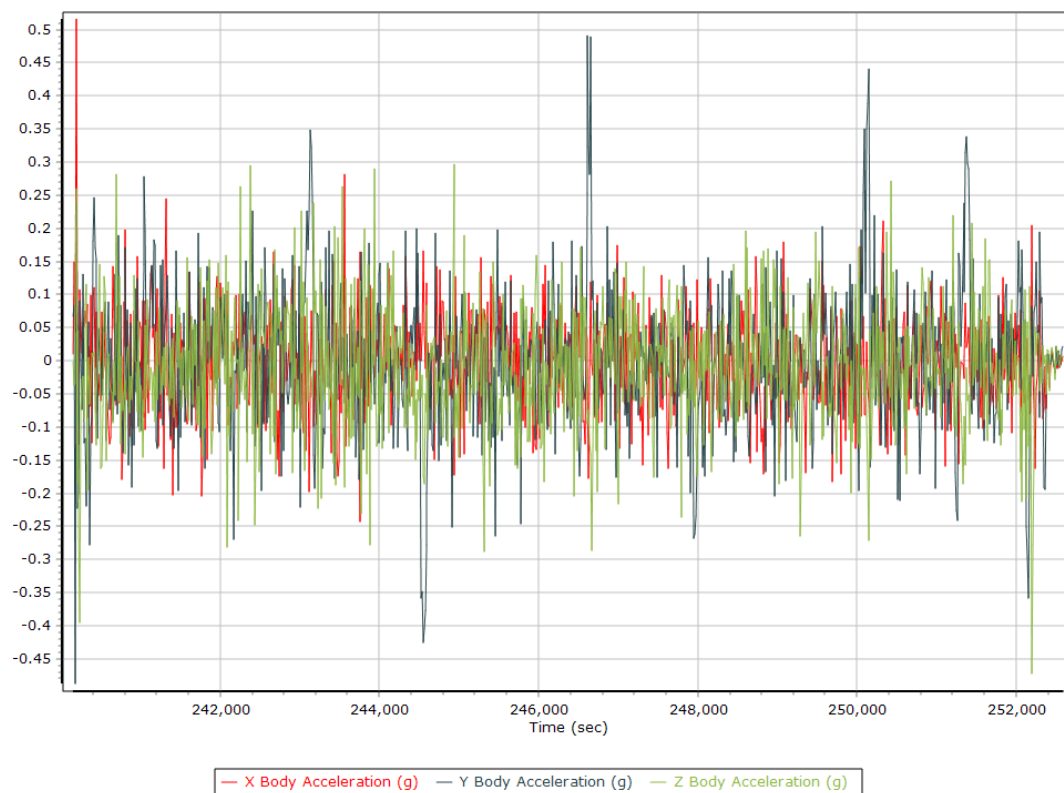
Total Speed



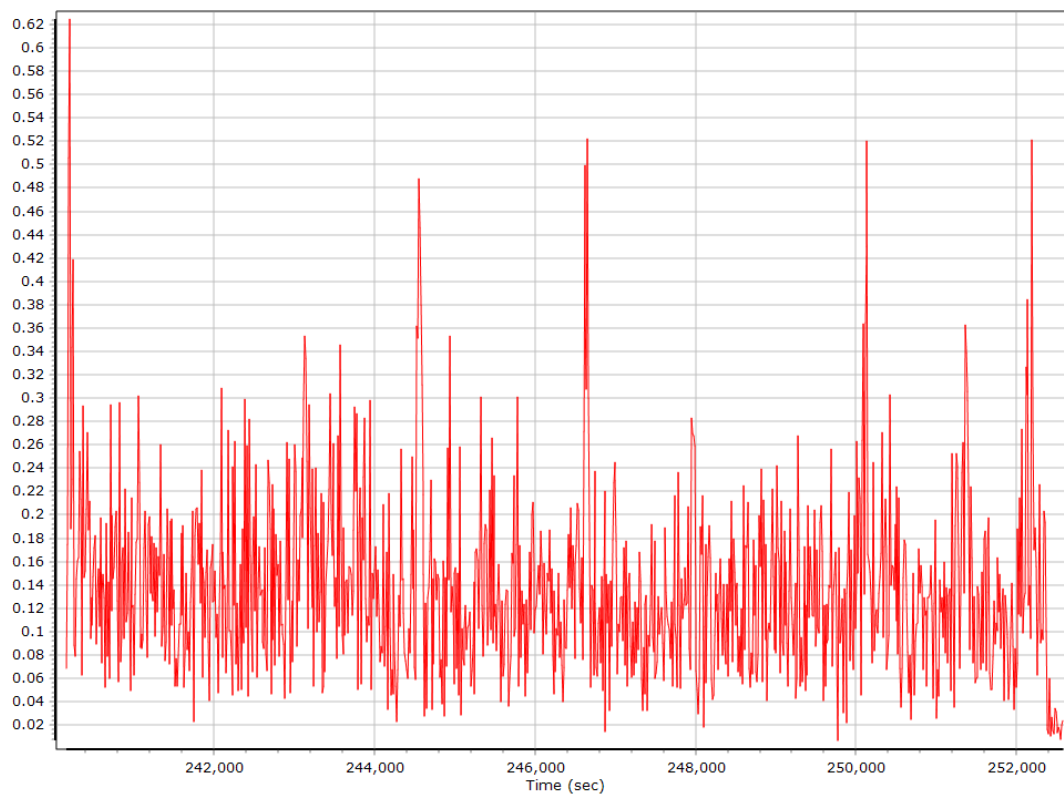
Ground Speed



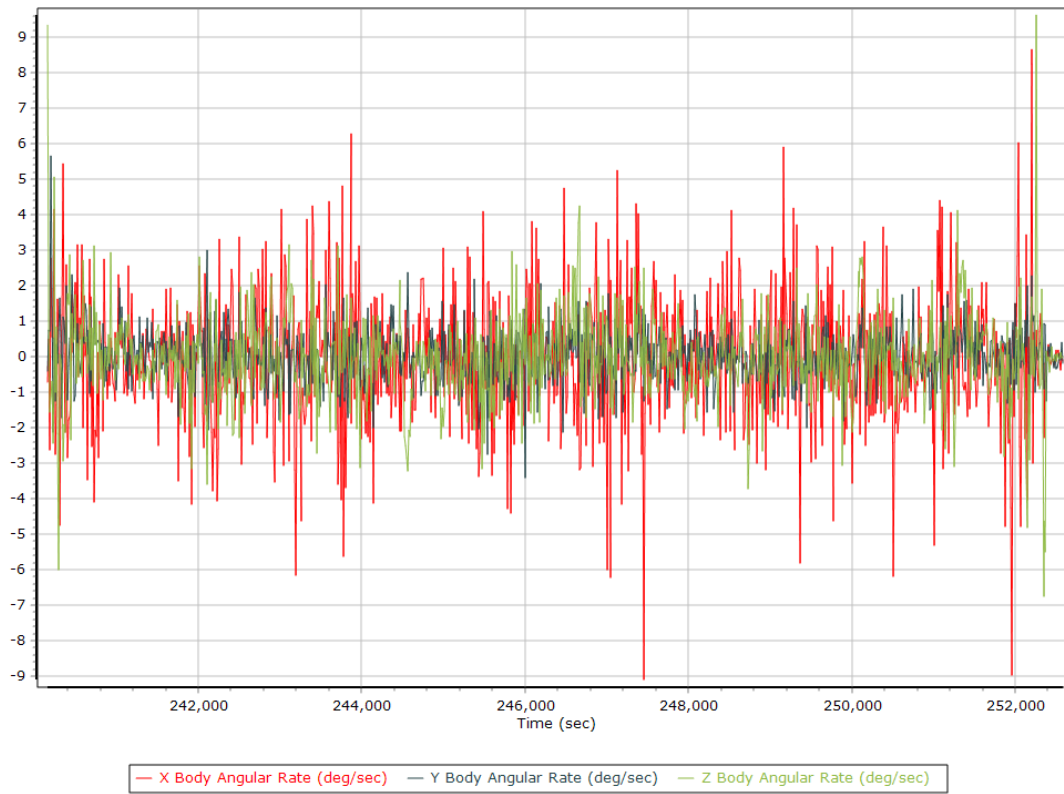
Body Acceleration



Total Body Acceleration

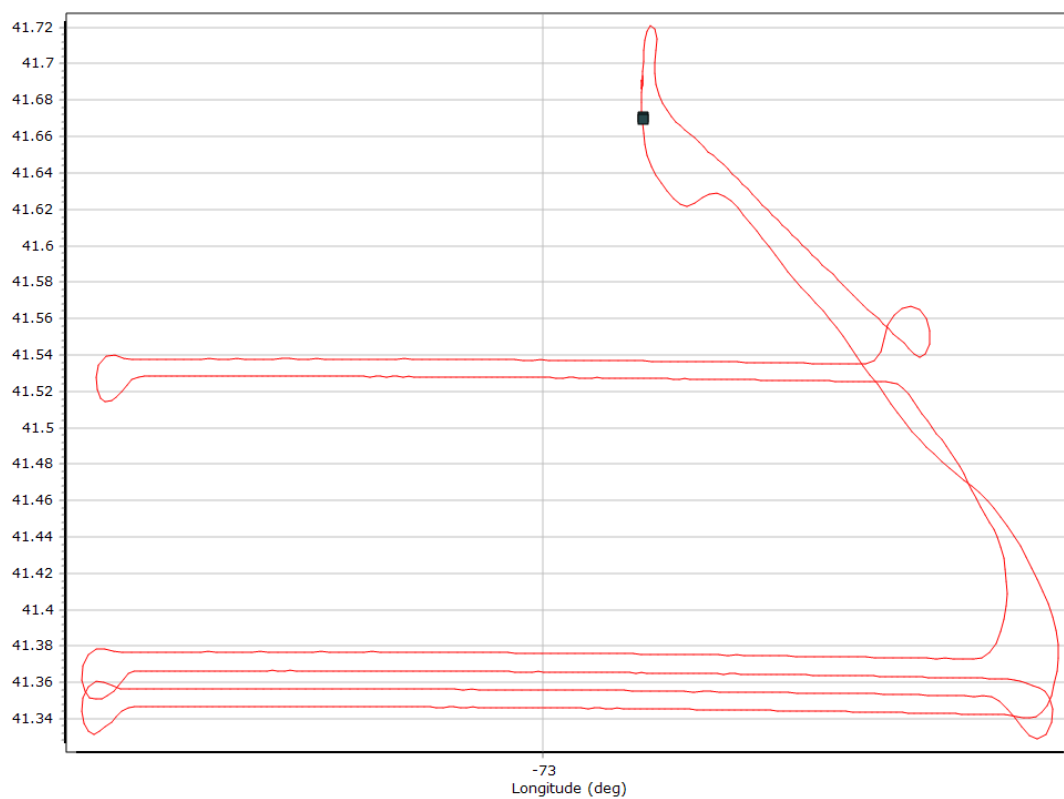


Body Angular Rate

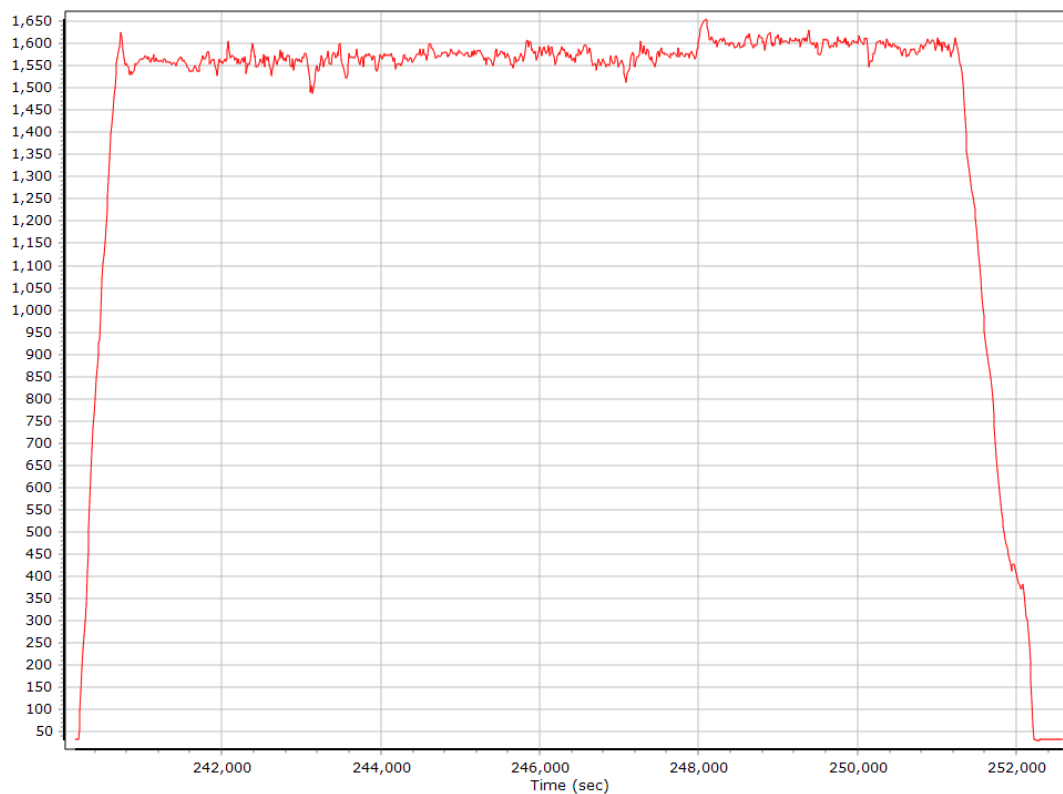


Forward Processed Trajectory Information

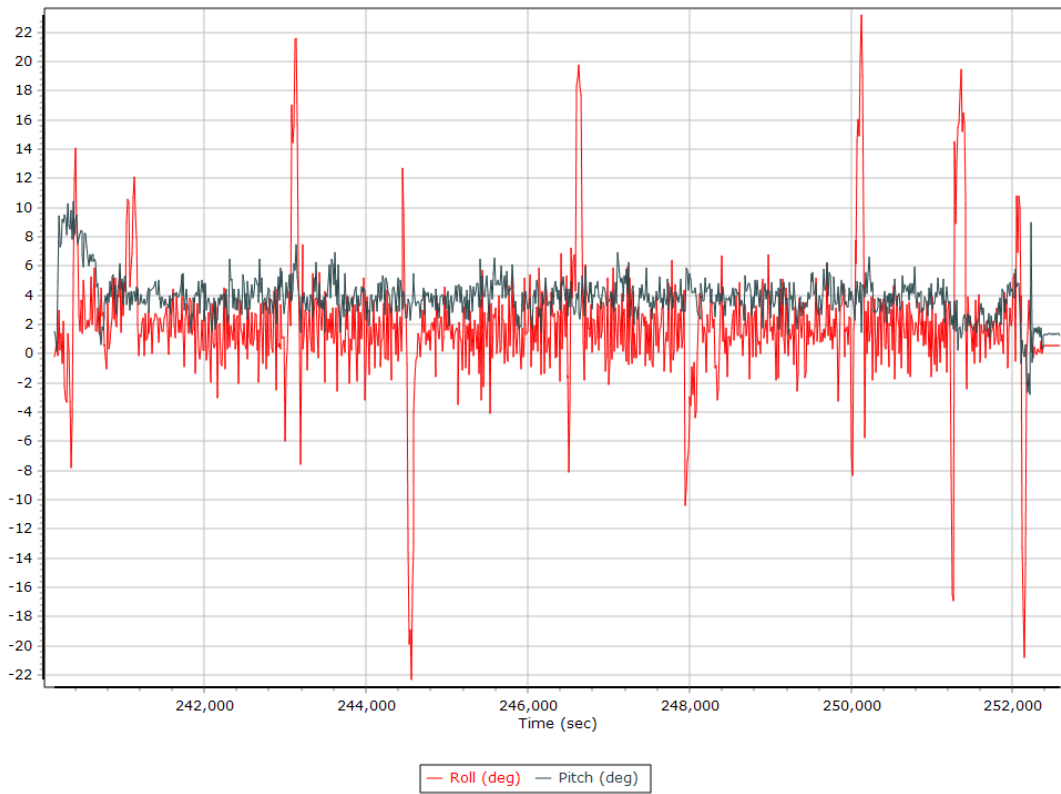
Top View



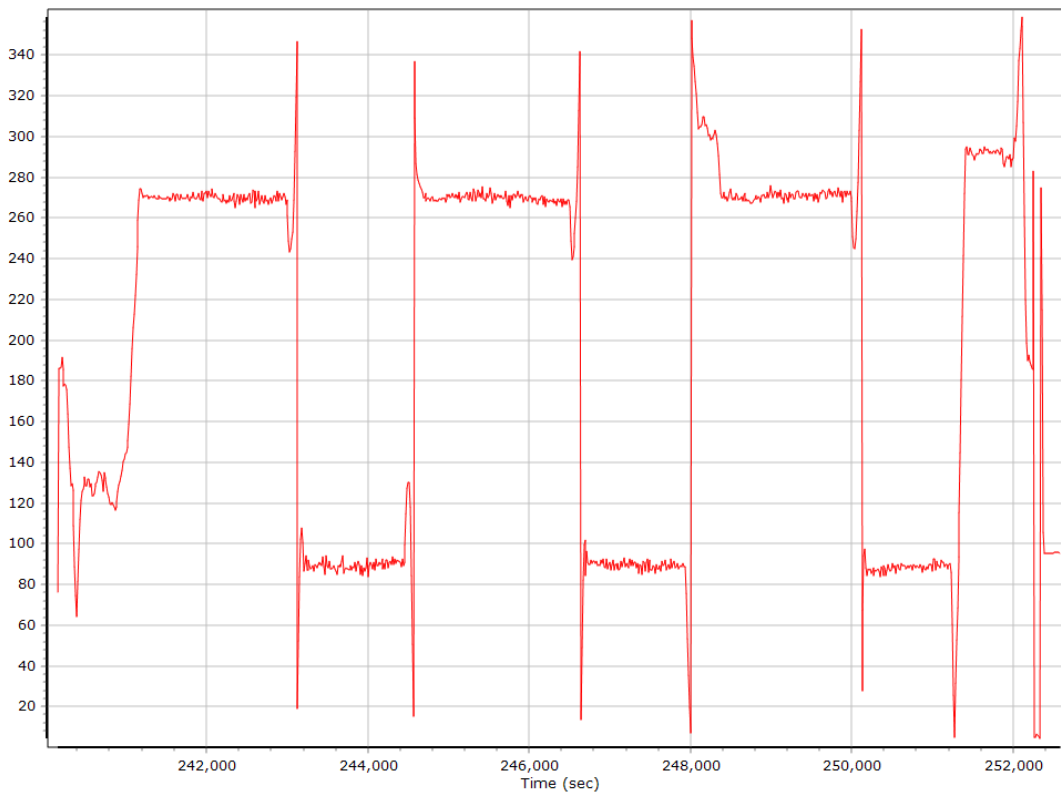
Altitude



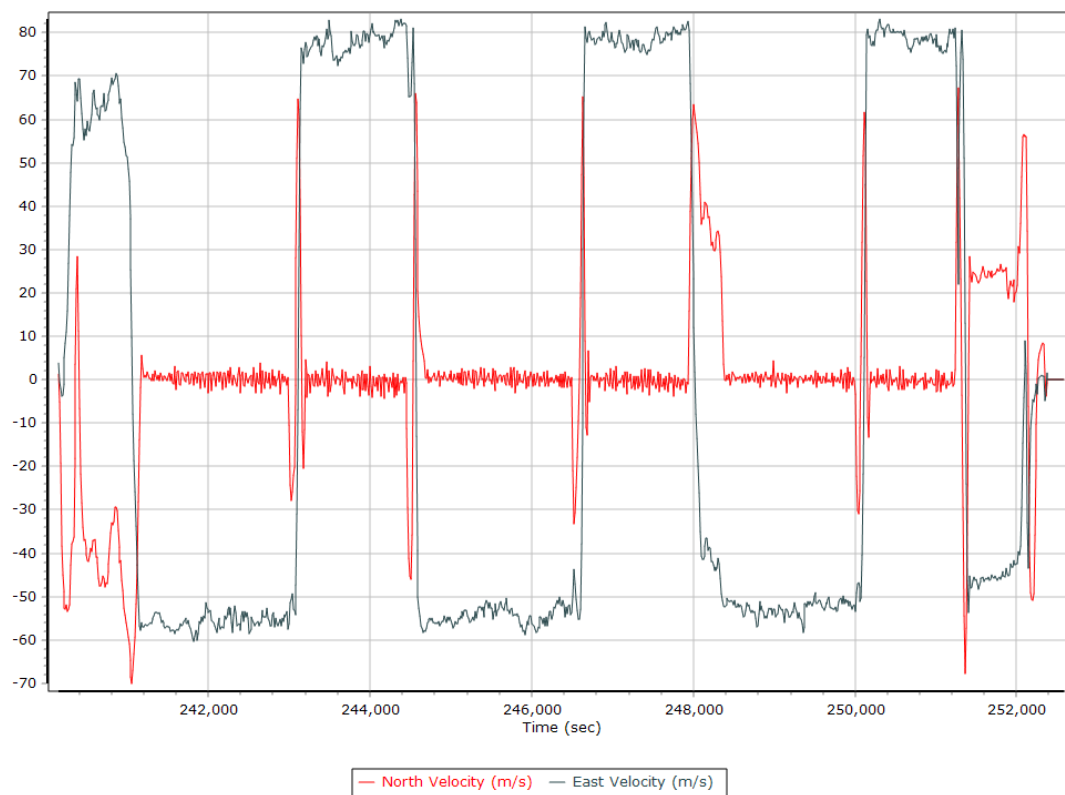
Roll/Pitch



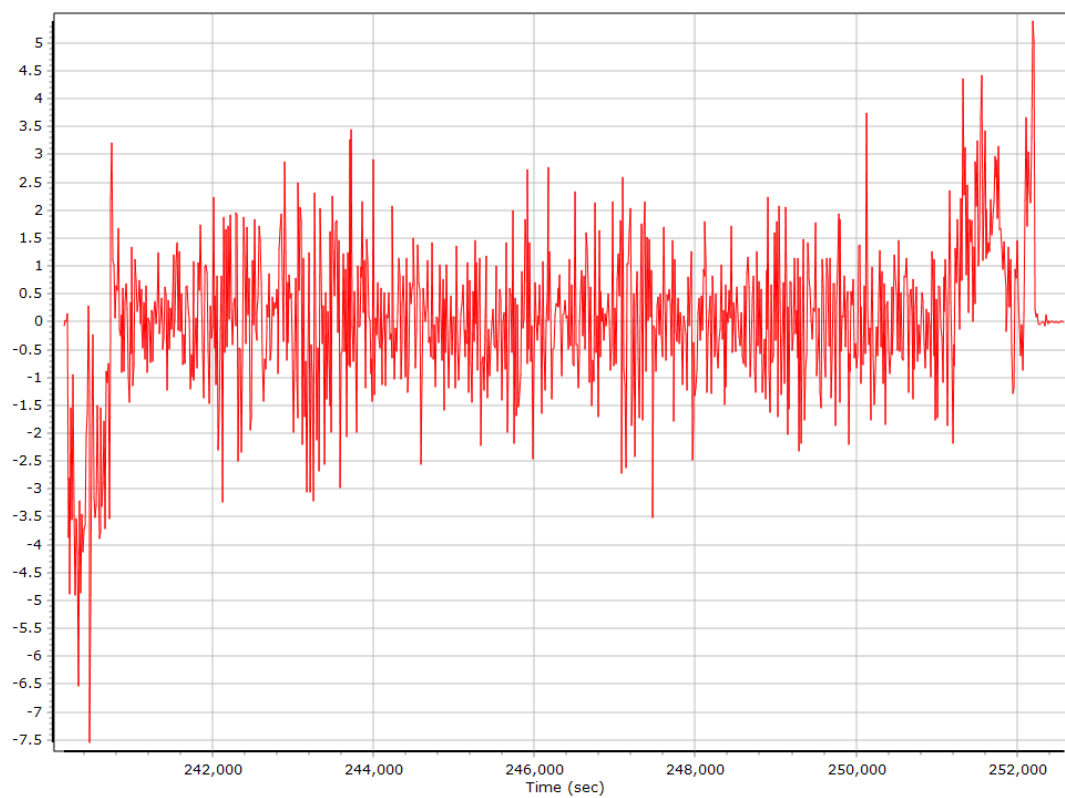
Heading



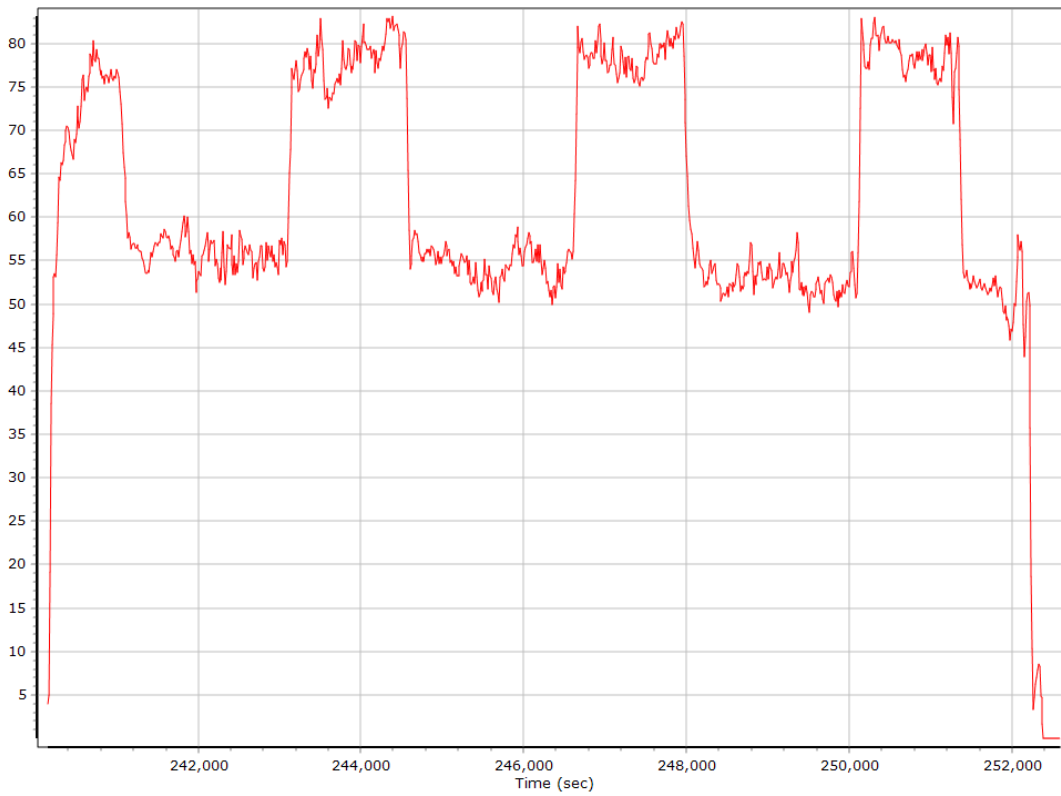
North/East Velocity



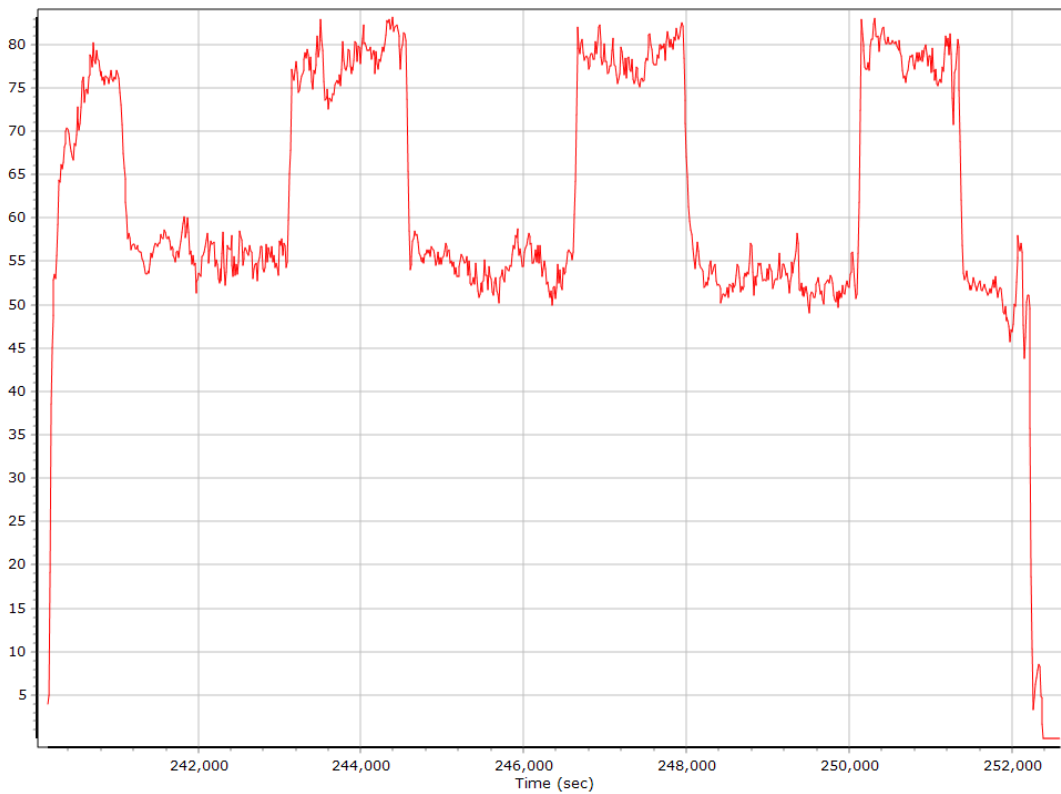
Down Velocity



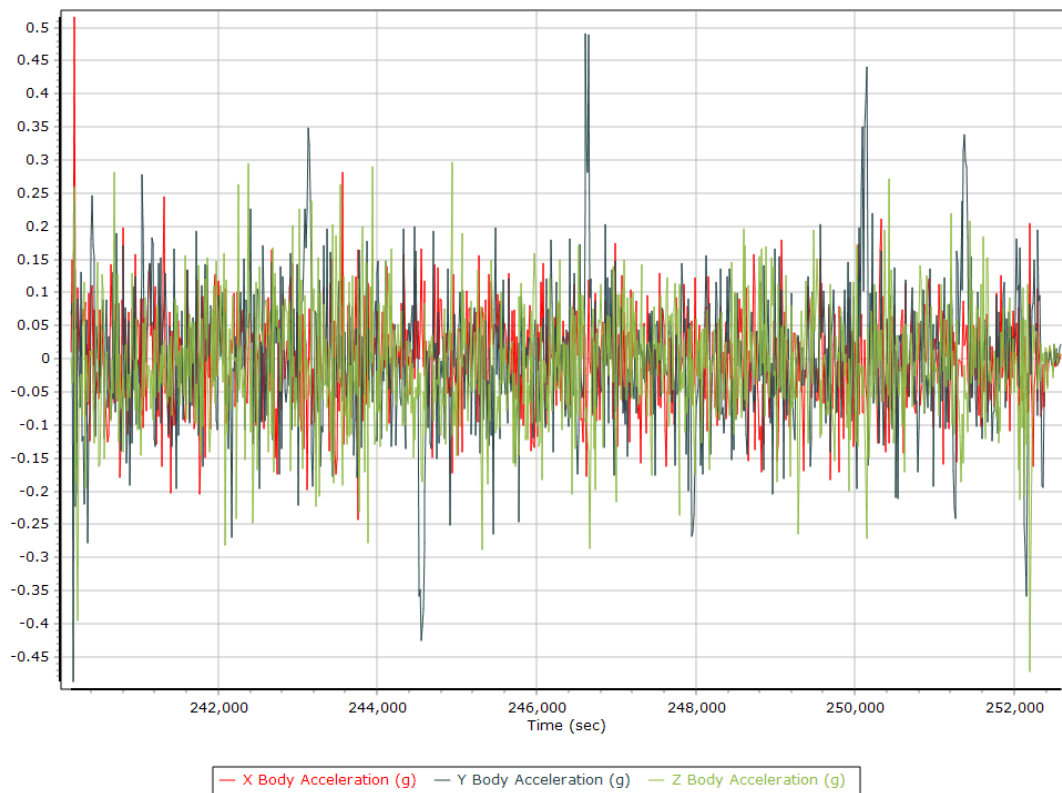
Total Speed



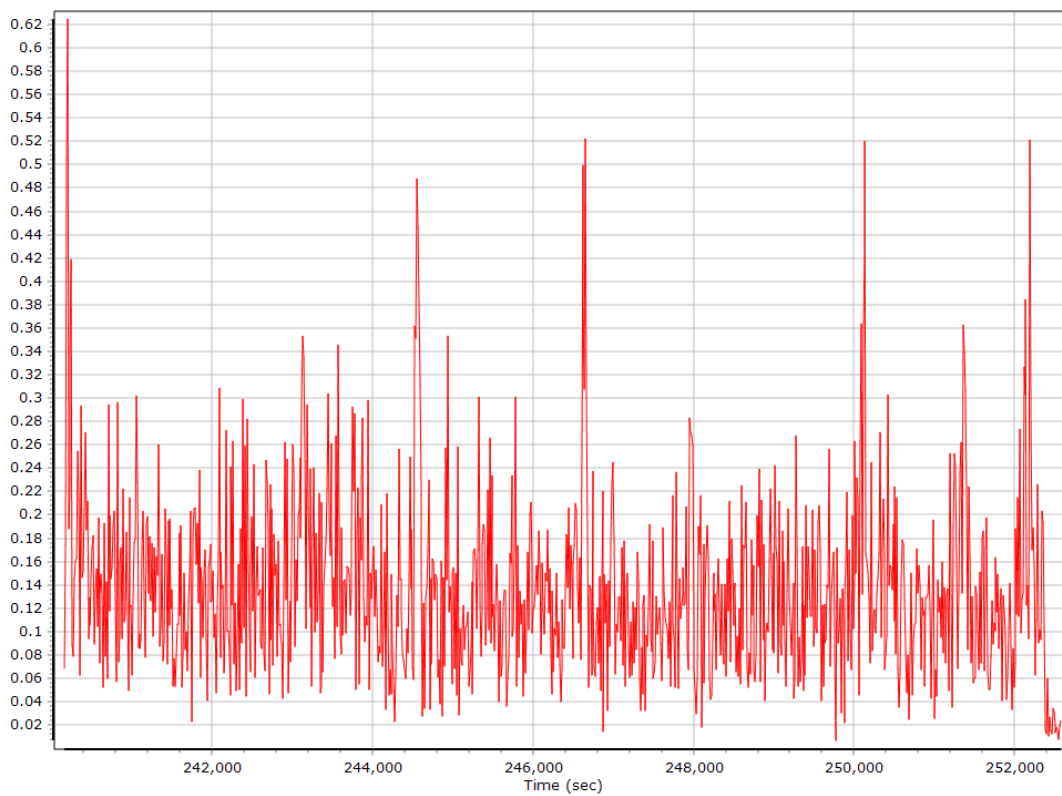
Ground Speed



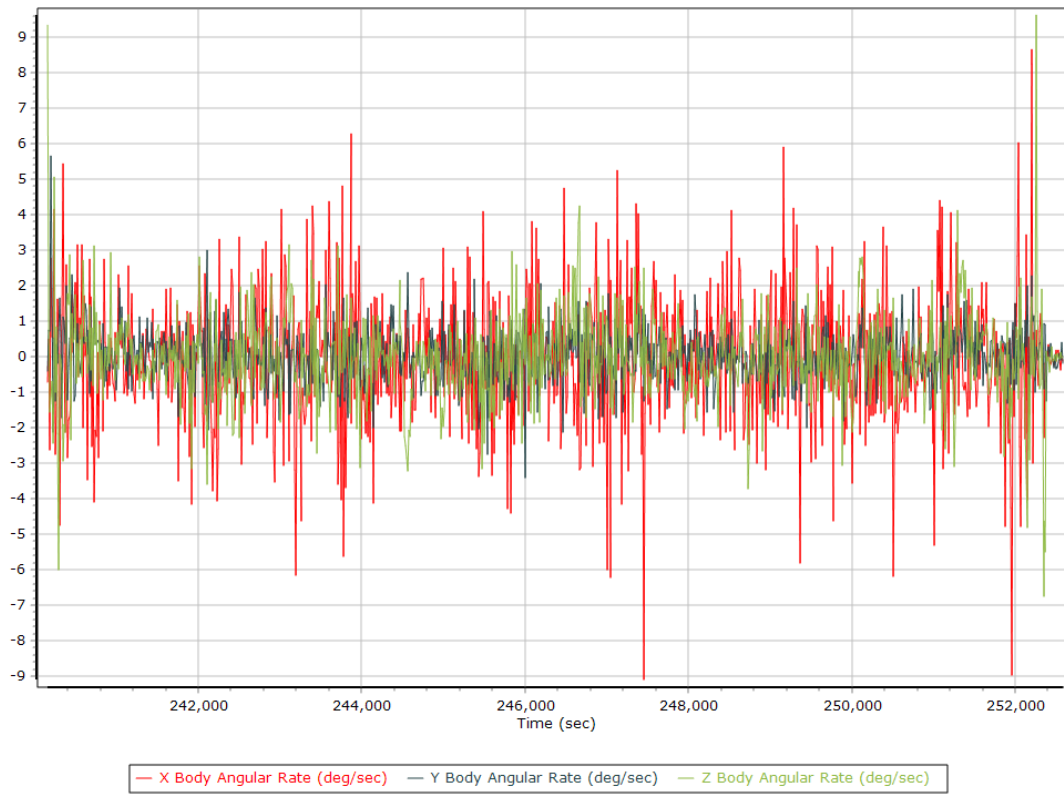
Body Acceleration



Total Body Acceleration



Body Angular Rate

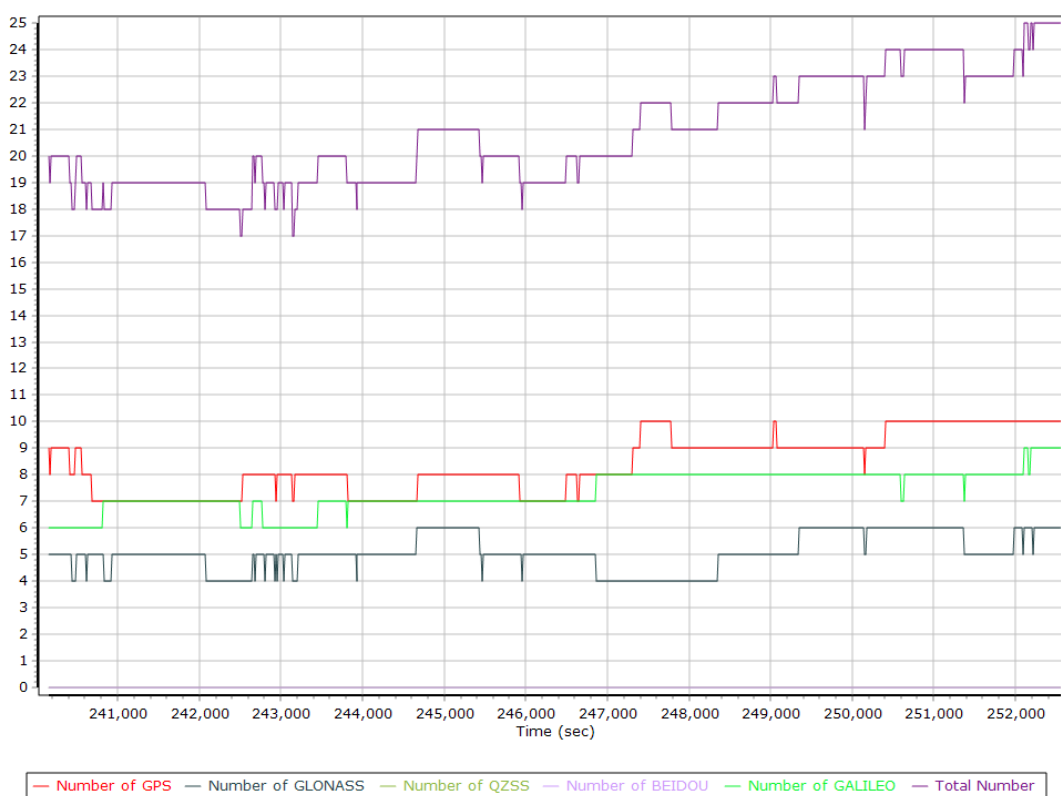


GNSS QC

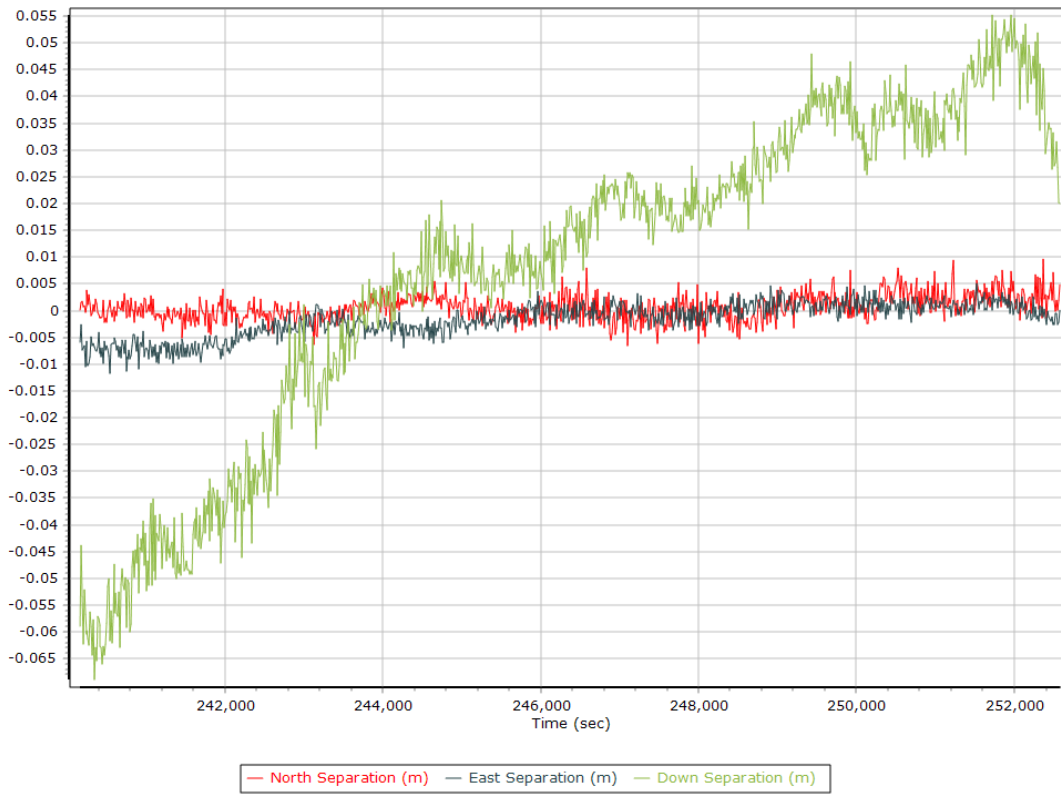
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	7	10	8
Number of GLONASS SV	3	6	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	6	9	7
Total number of SV	16	25	21
PDOP	1.01	1.41	1.15
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	12851.00	0.00	0.00
Percentage	100.00	0.00	0.00

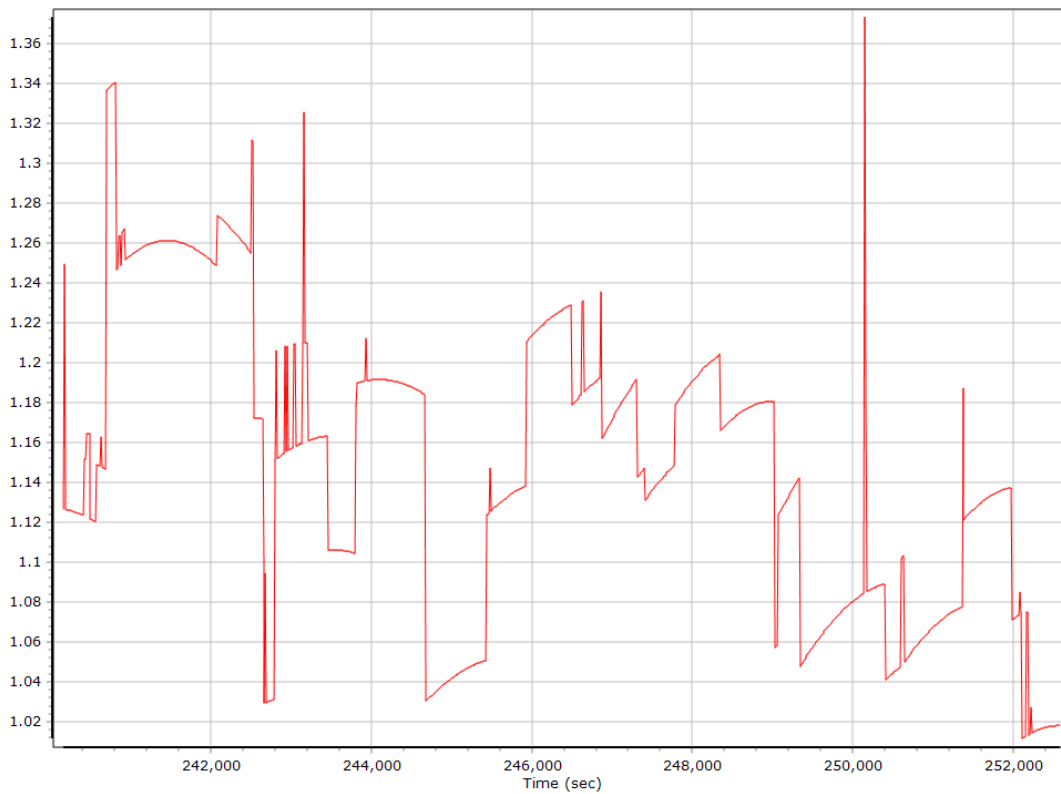
Num SVs in solution



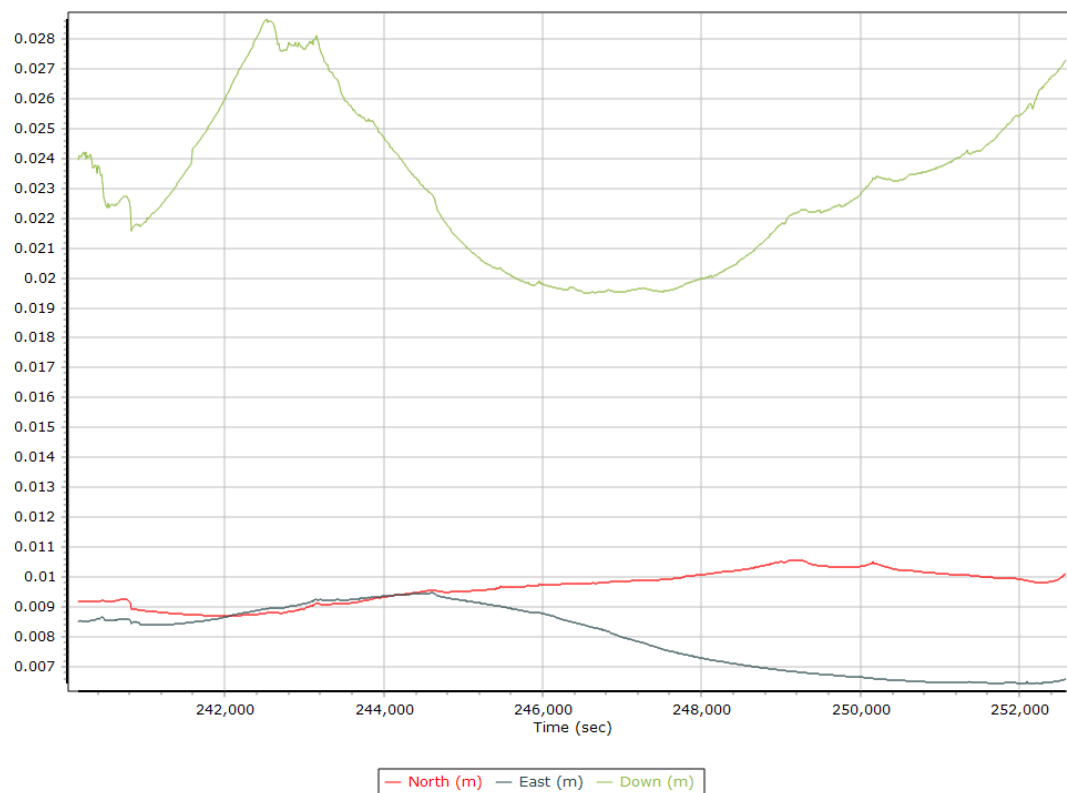
Forward/Reverse Separation



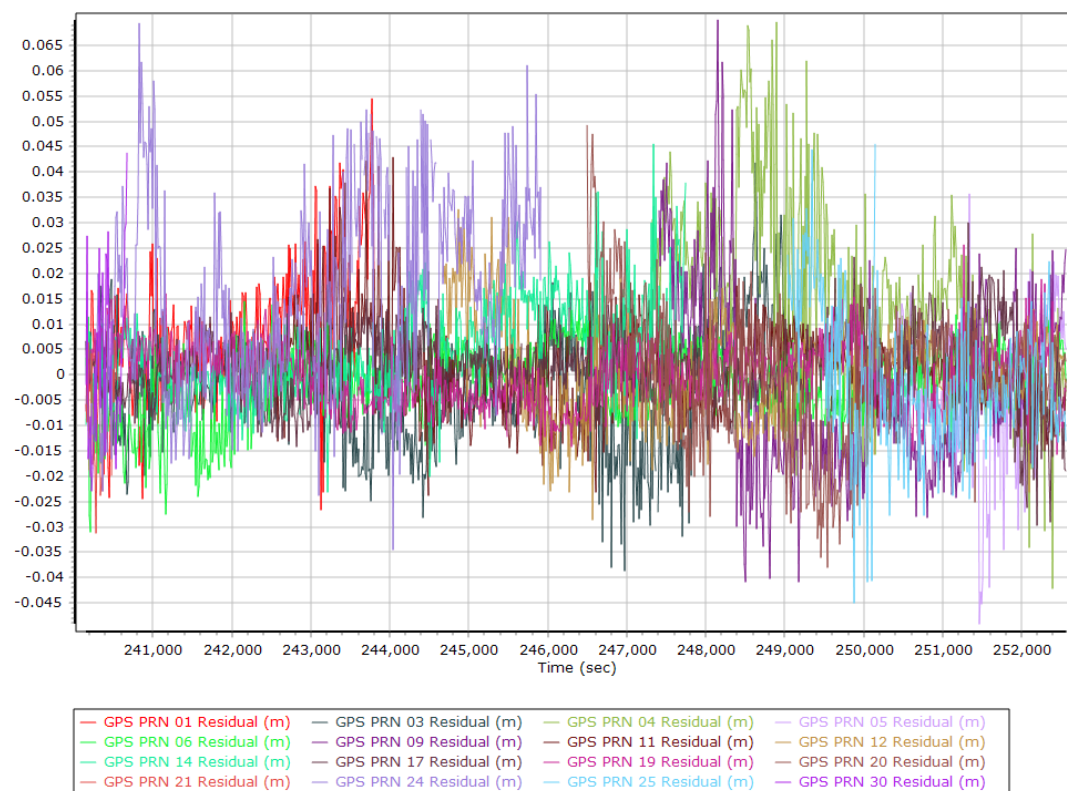
PDOP



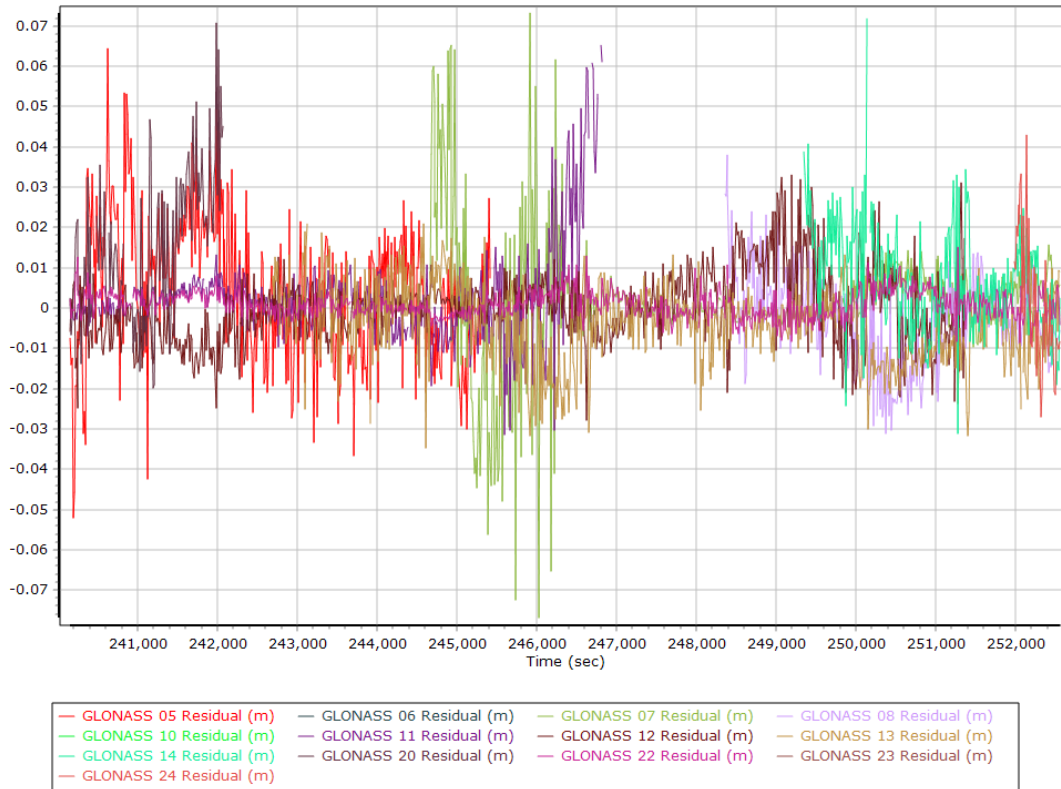
Estimated Position Accuracy



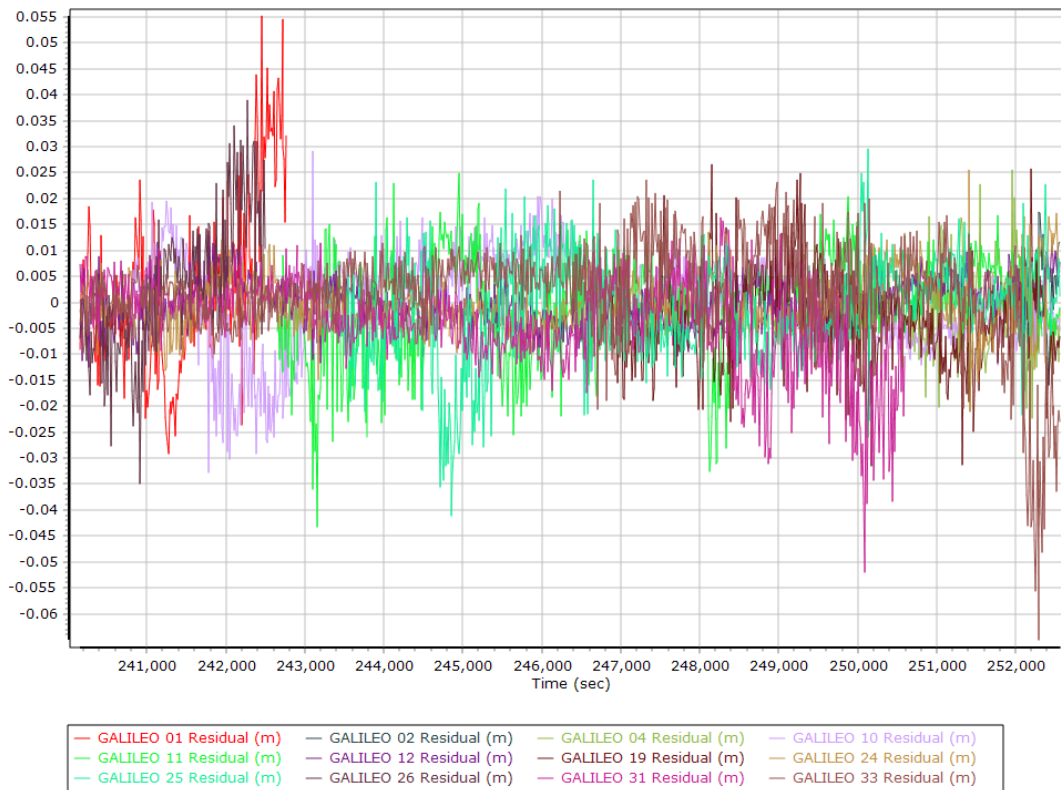
GPS Residuals



GLONASS Residuals



GALILEO Residuals



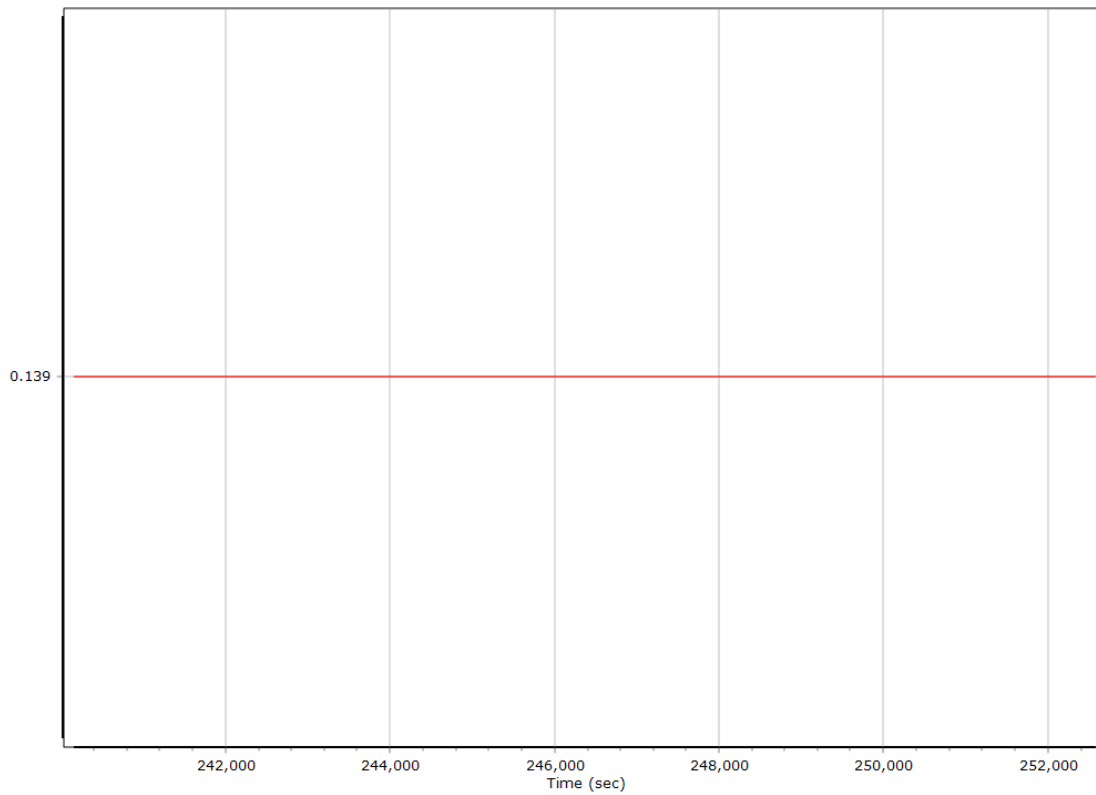
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	239685.000 (04/11/2023 18:34:45)		
Processing end time	252589.000 (04/11/2023 22:09:49)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

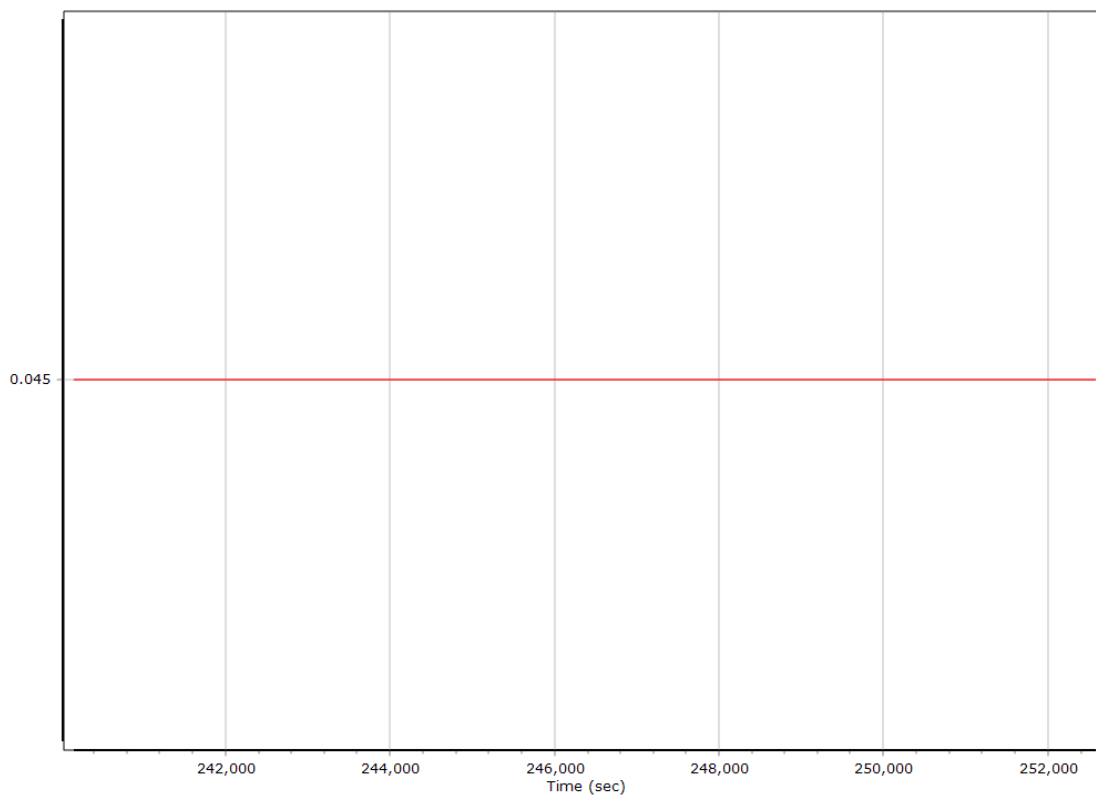
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

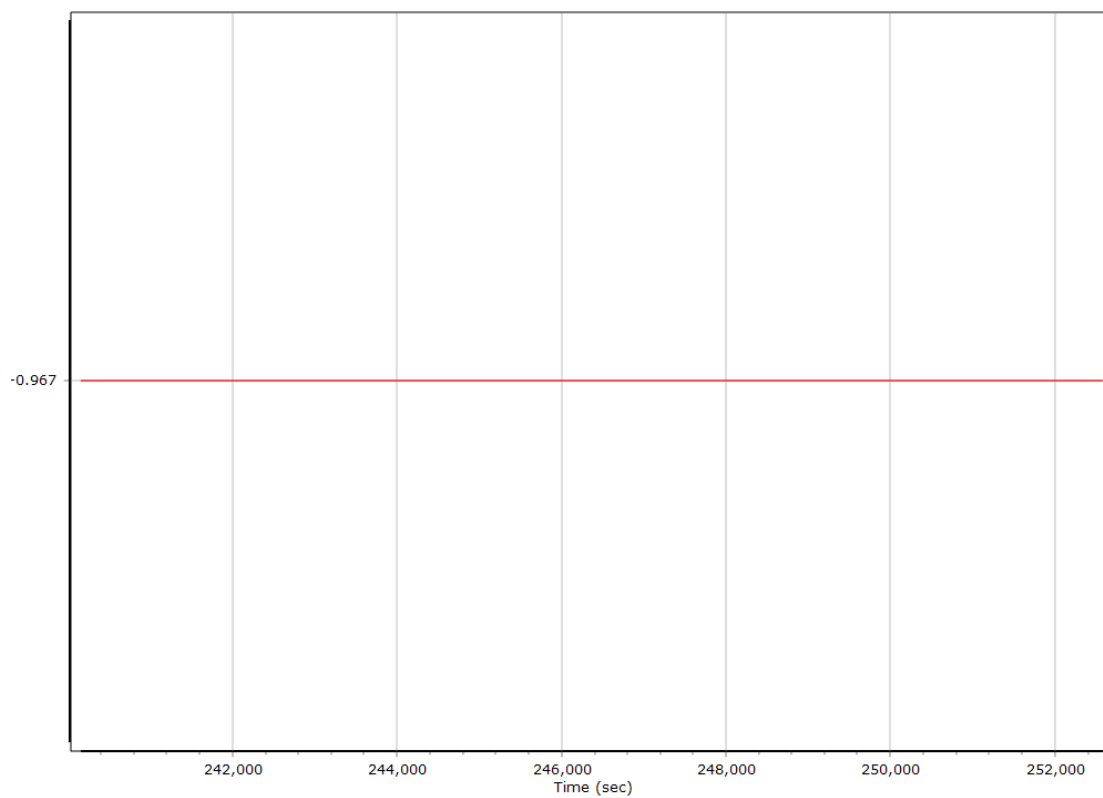
X Reference-Primary GNSS Lever Arm (m)



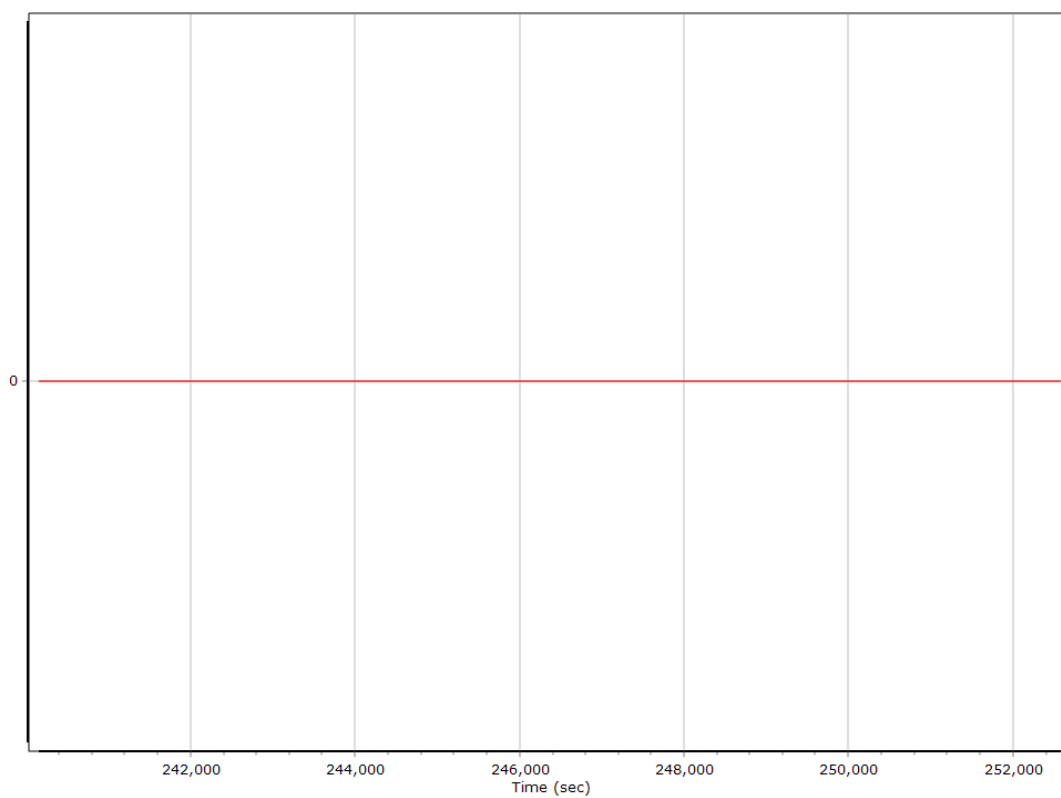
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



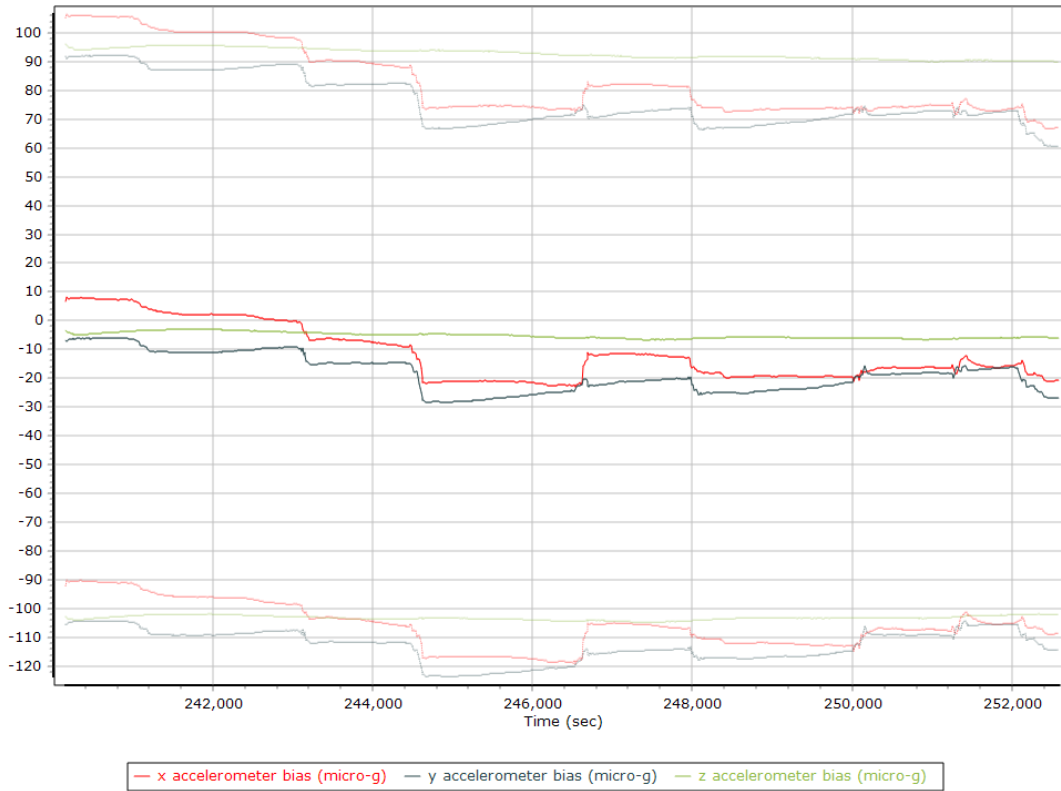
Reference-Primary GNSS Lever Arm Figure of Merit



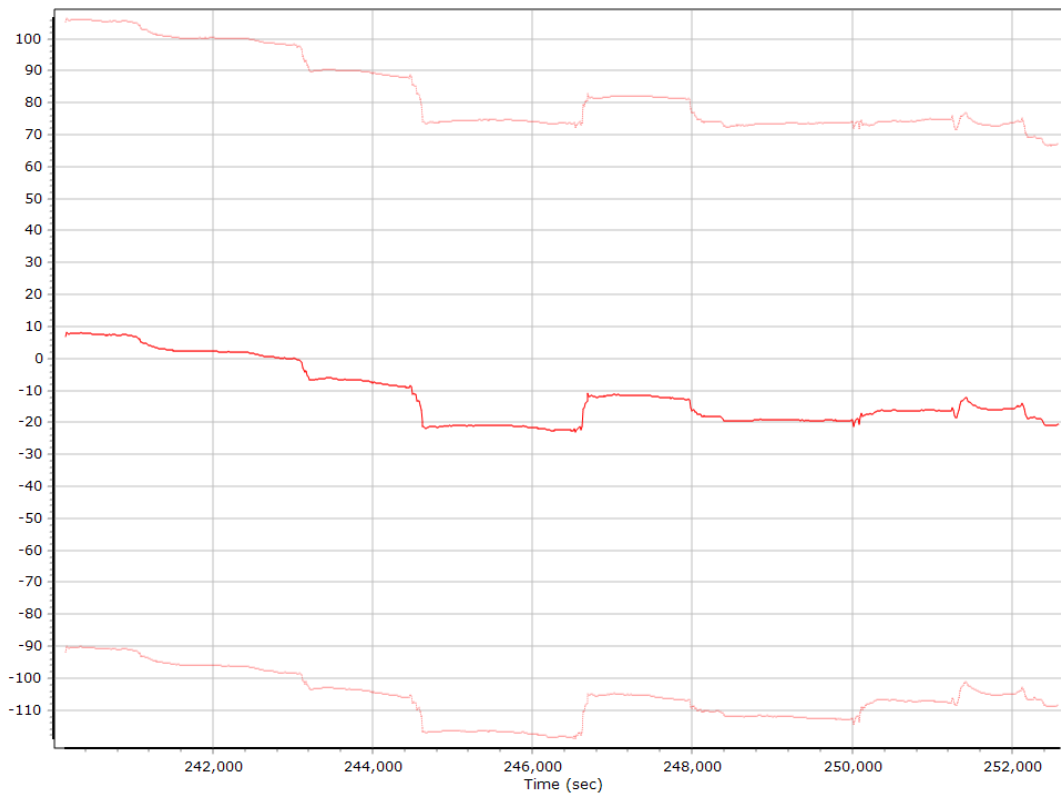
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

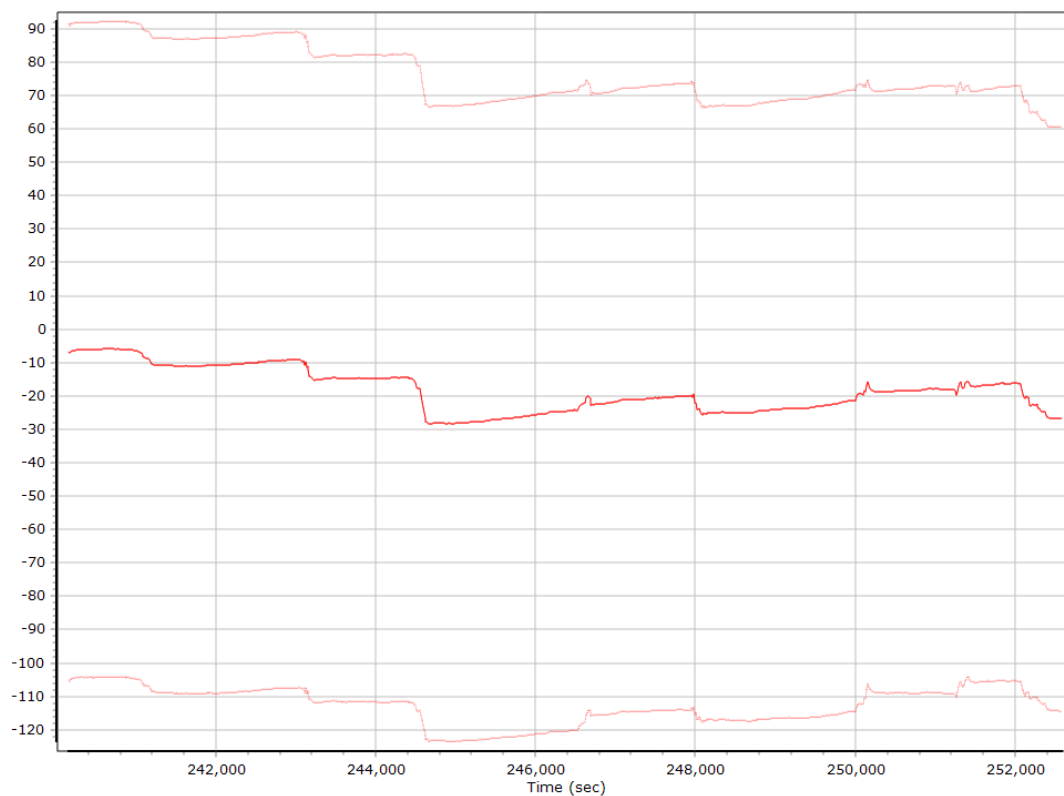
Accelerometer Bias (micro-g)



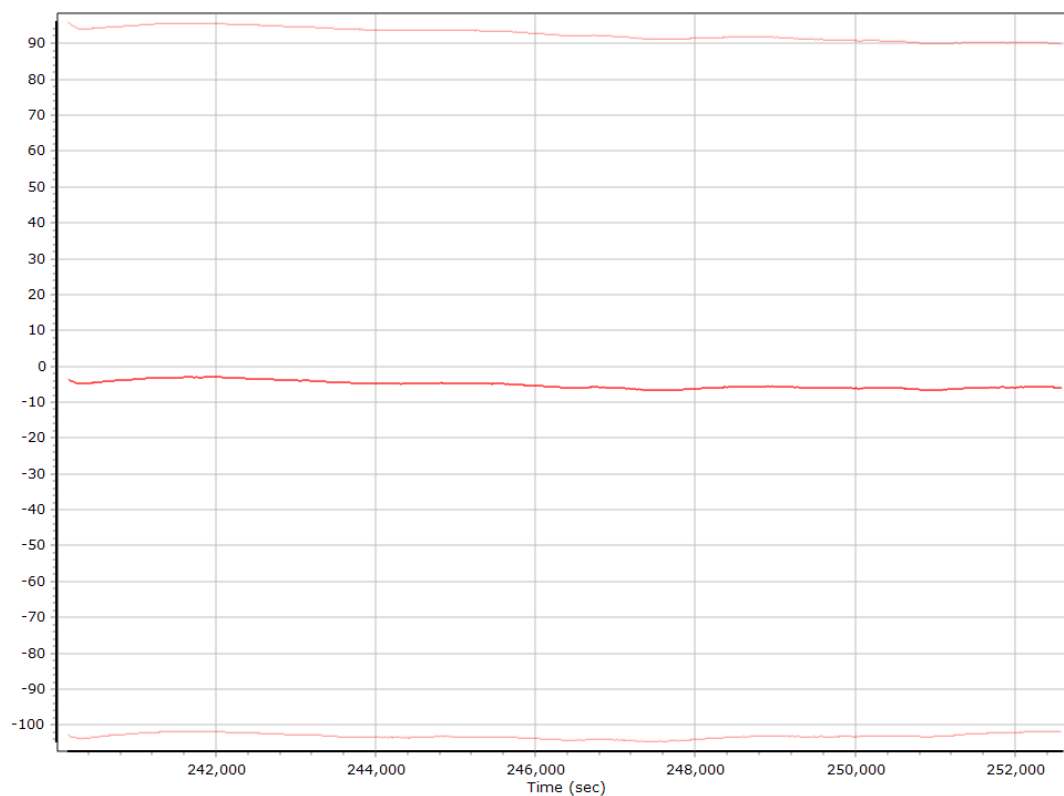
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



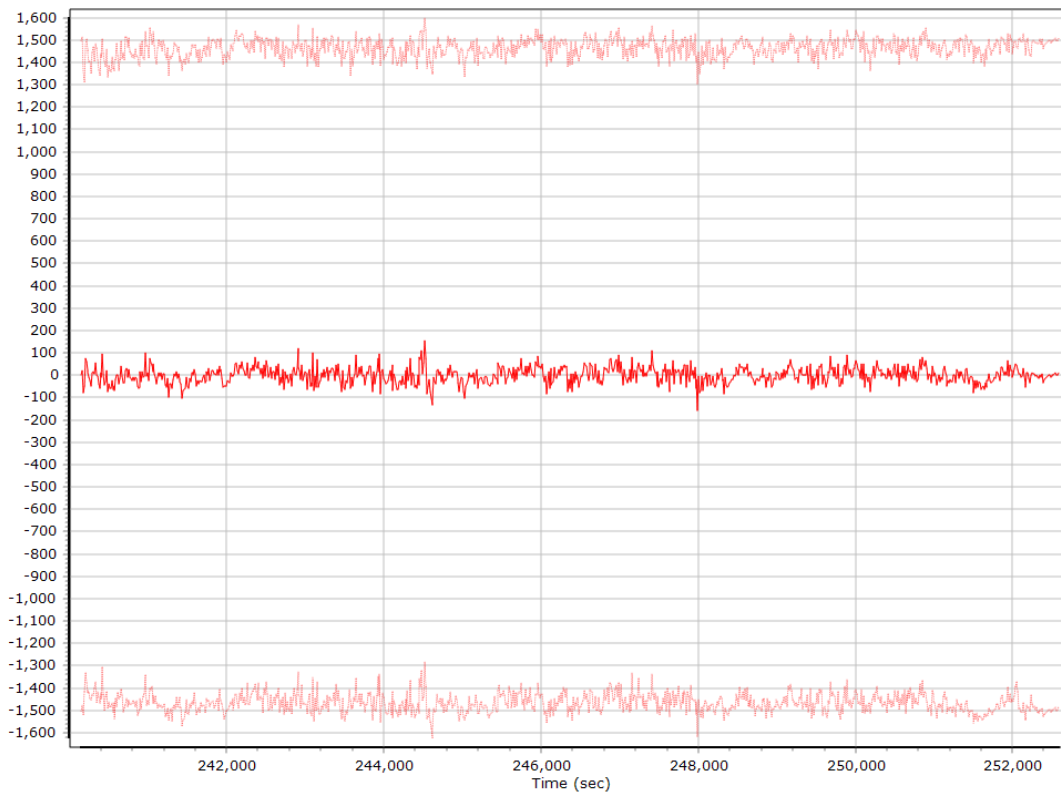
Z Accelerometer Bias (micro-g)



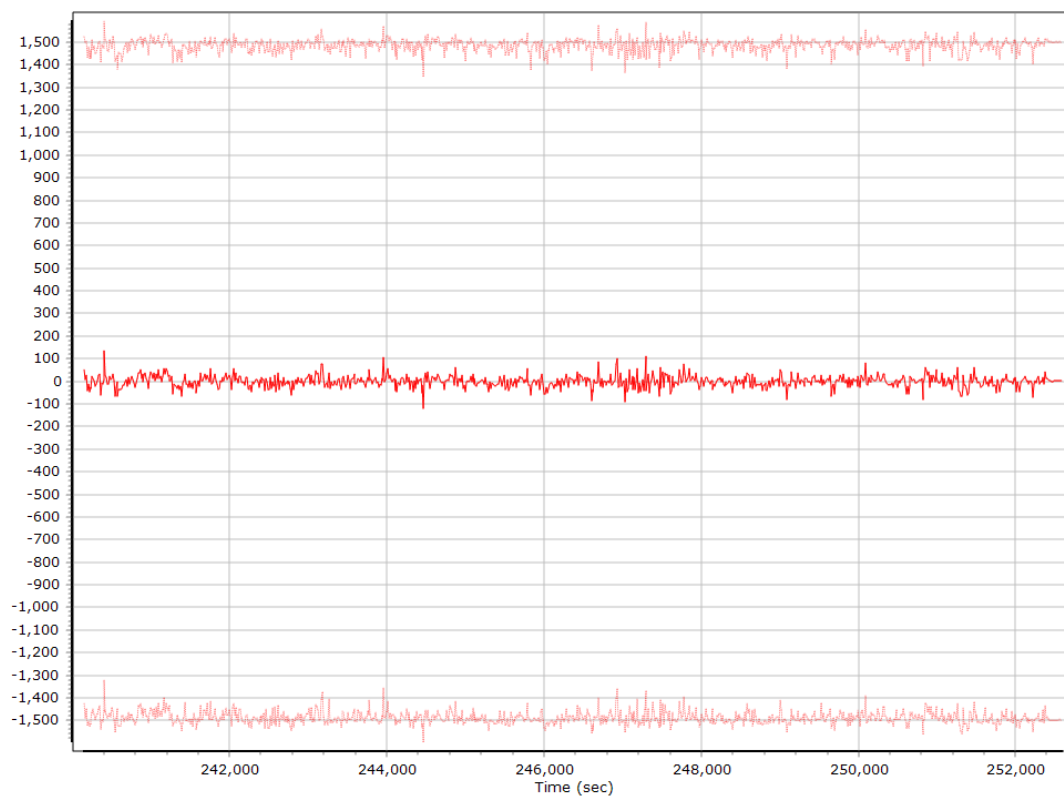
Accelerometer Scale Error (ppm)



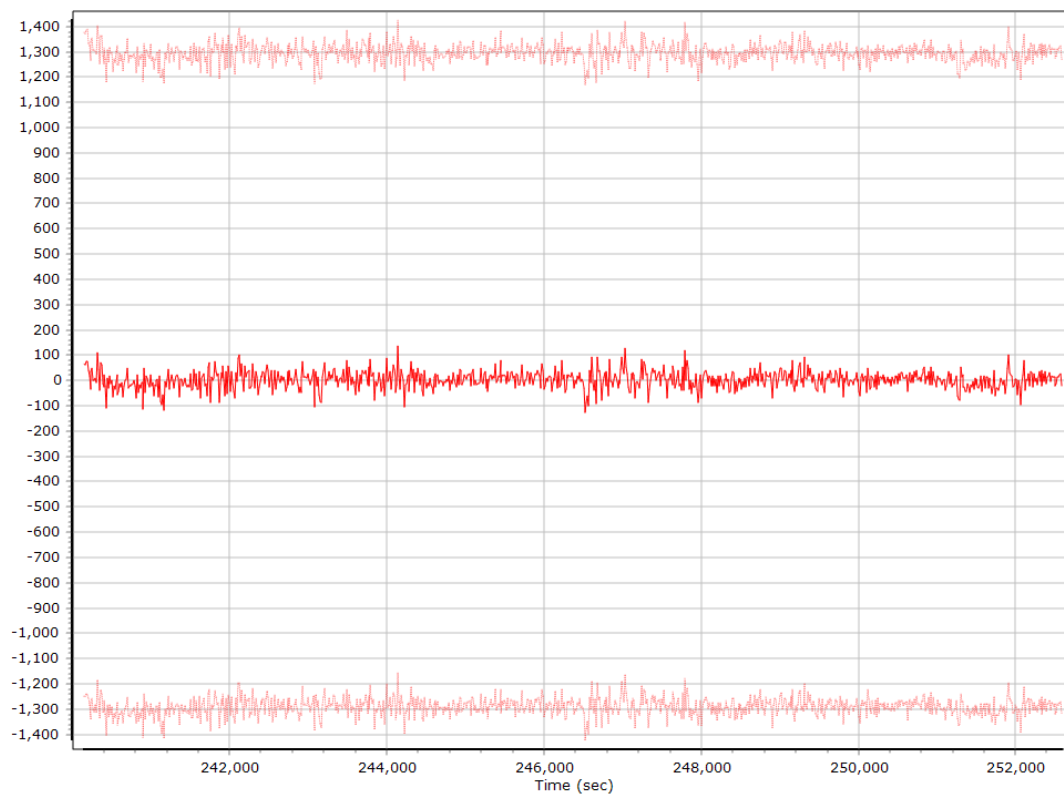
X Accelerometer Scale Error (ppm)



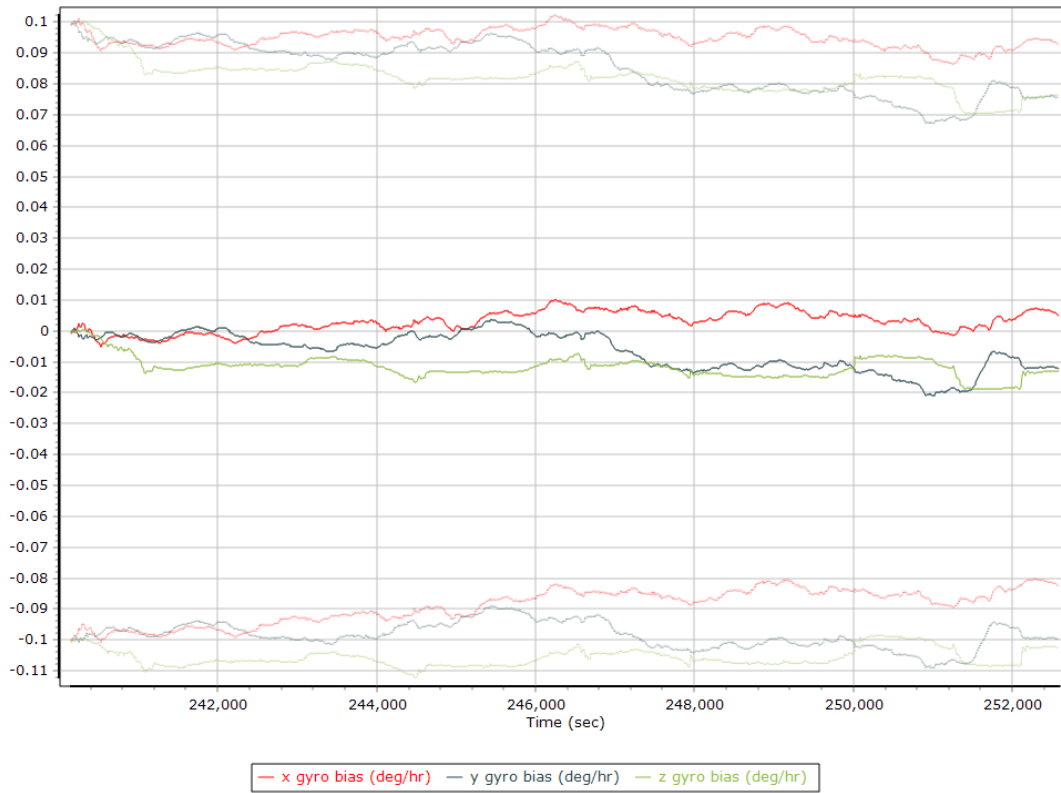
Y Accelerometer Scale Error (ppm)



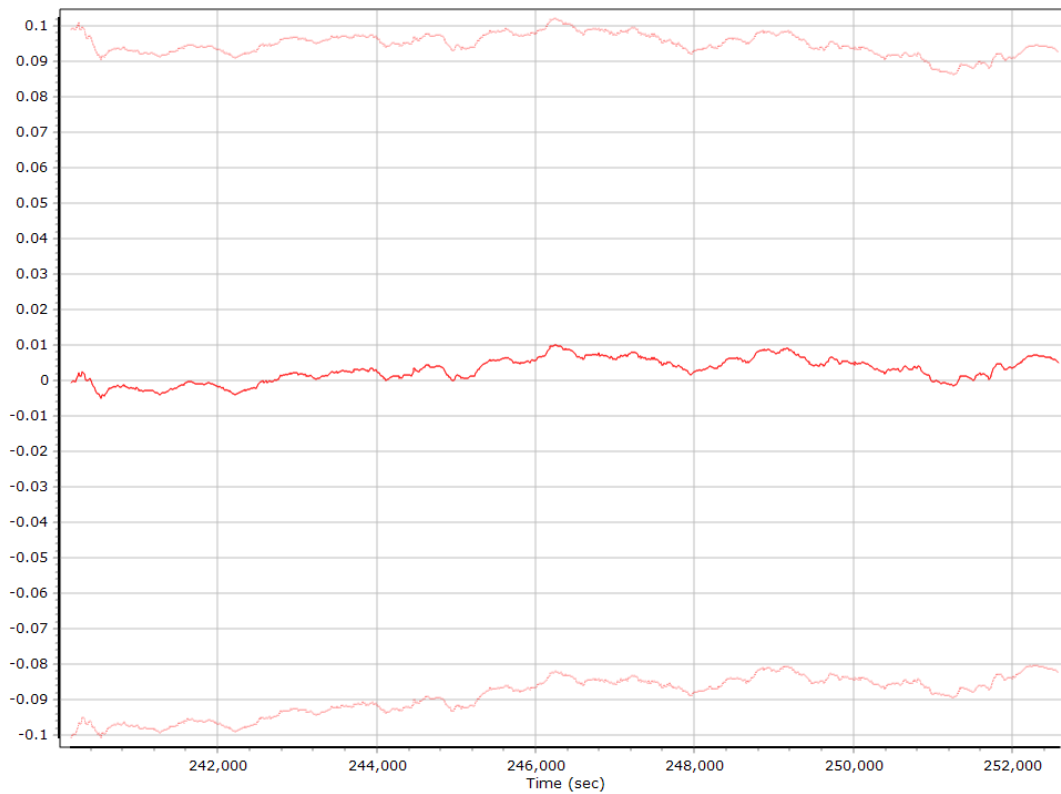
Z Accelerometer Scale Error (ppm)



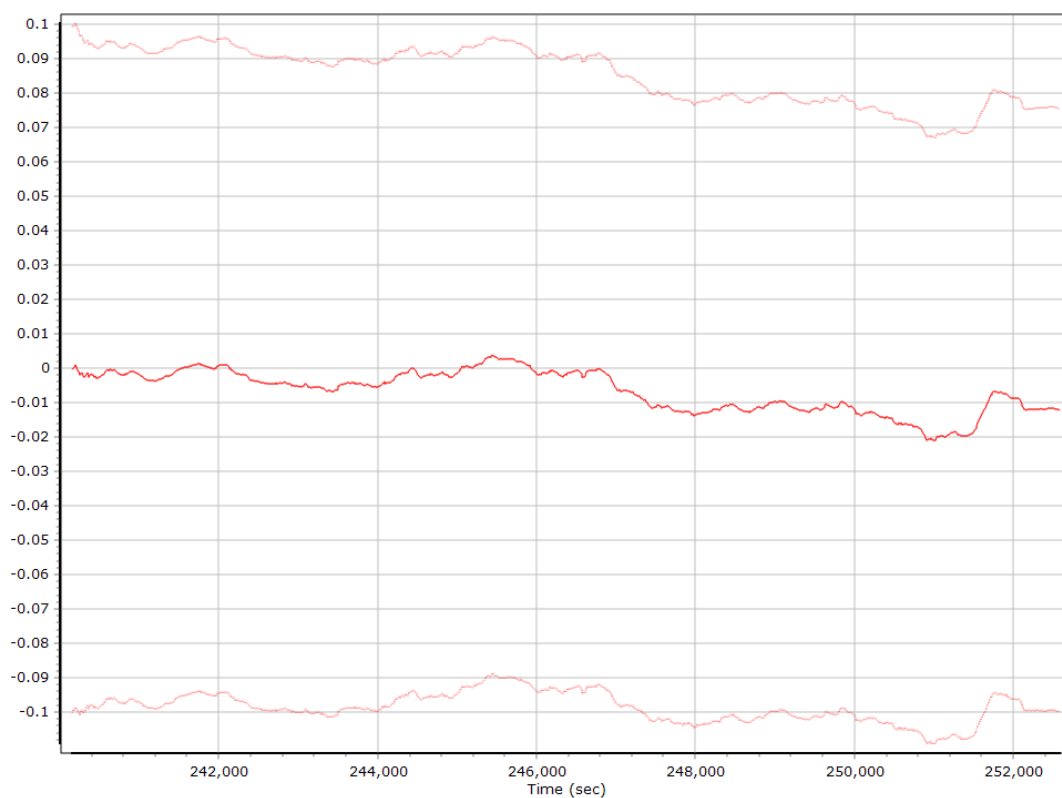
Gyro Bias (deg/h)



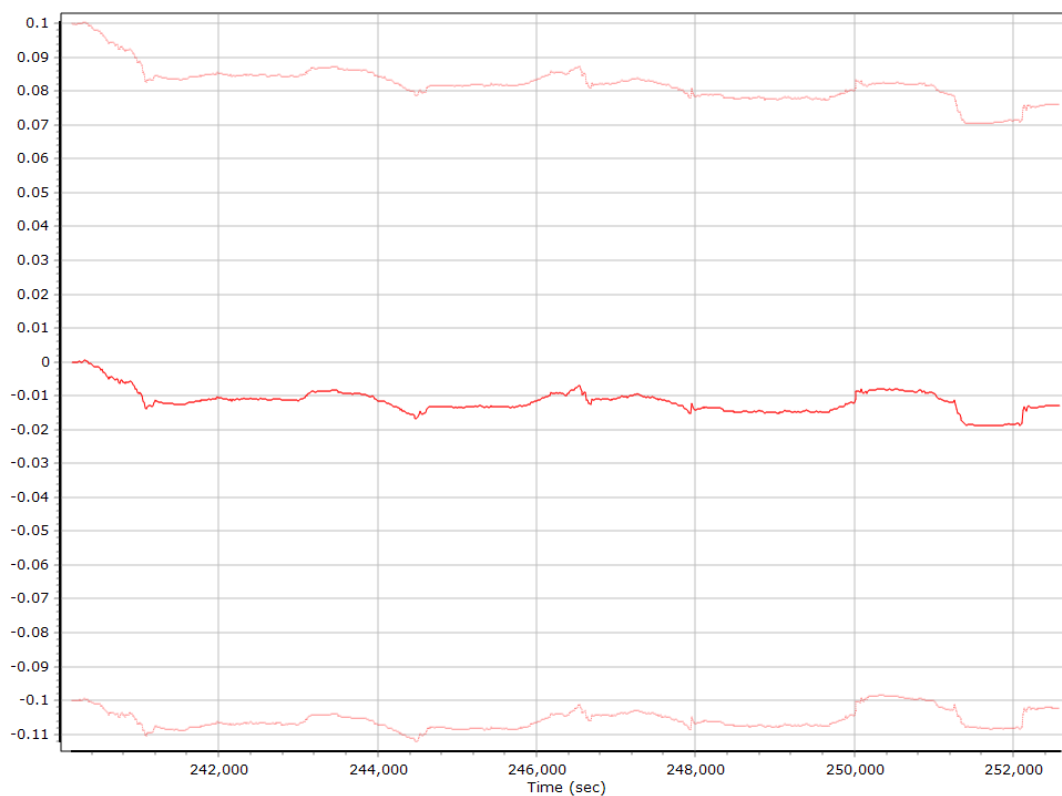
X Gyro Bias (deg/h)



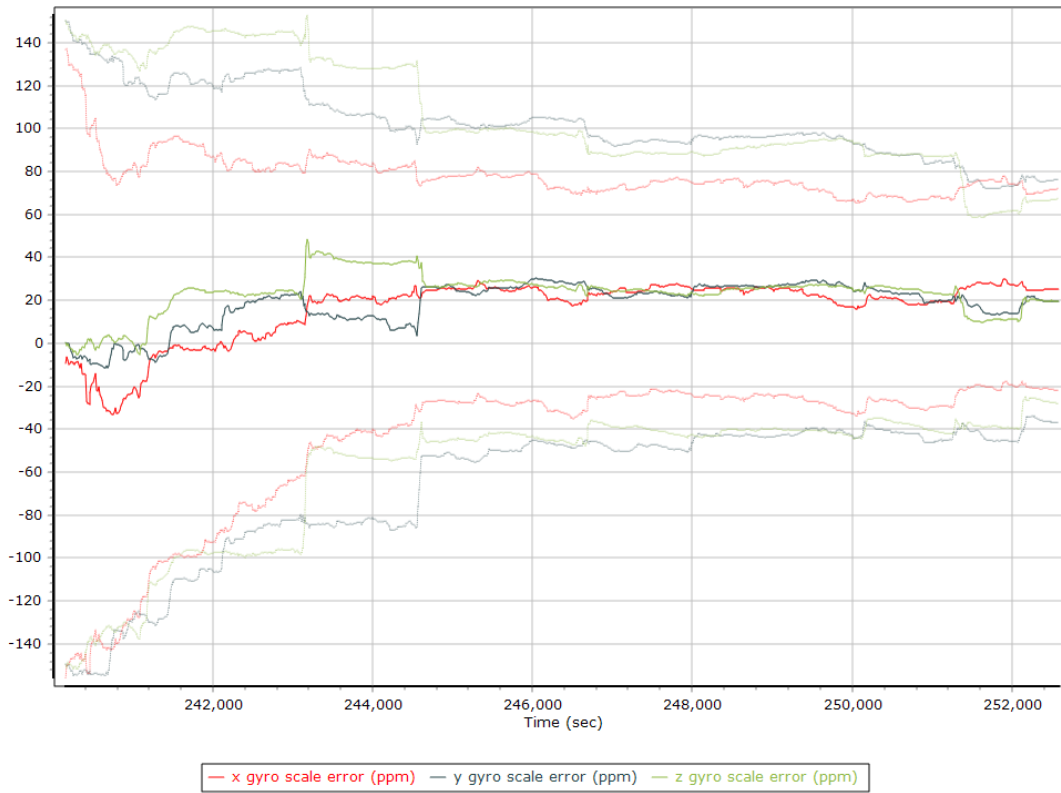
Y Gyro Bias (deg/h)



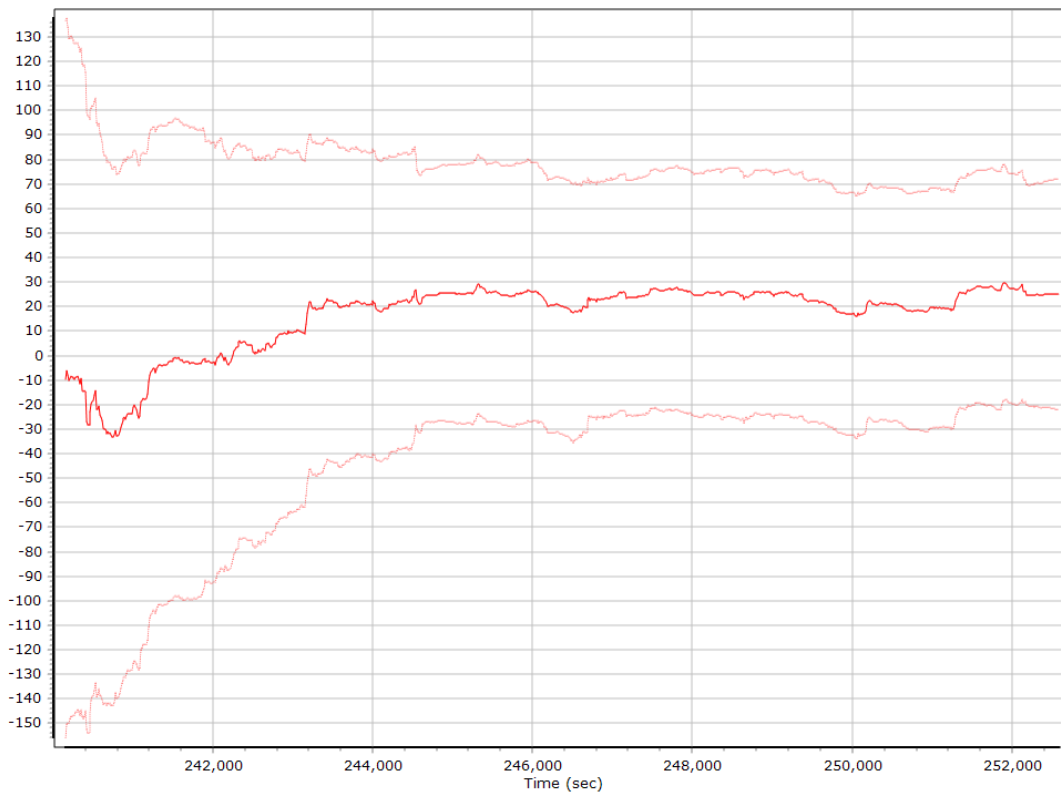
Z Gyro Bias (deg/h)



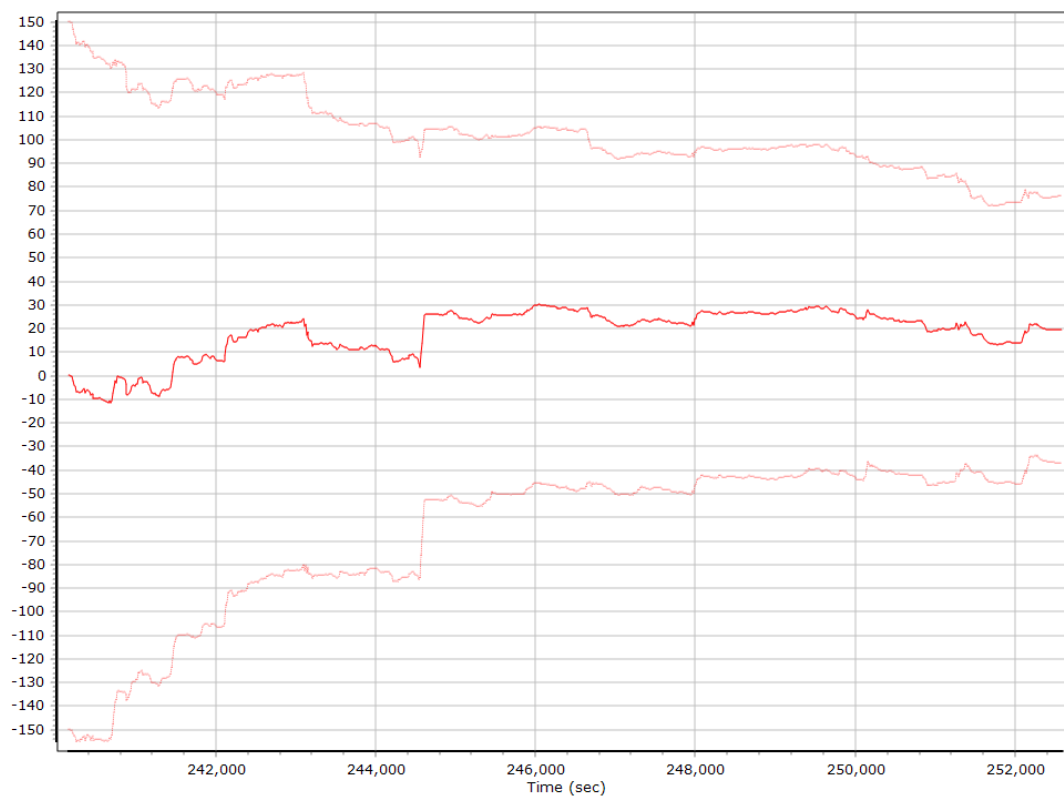
Gyro Scale Error (ppm)



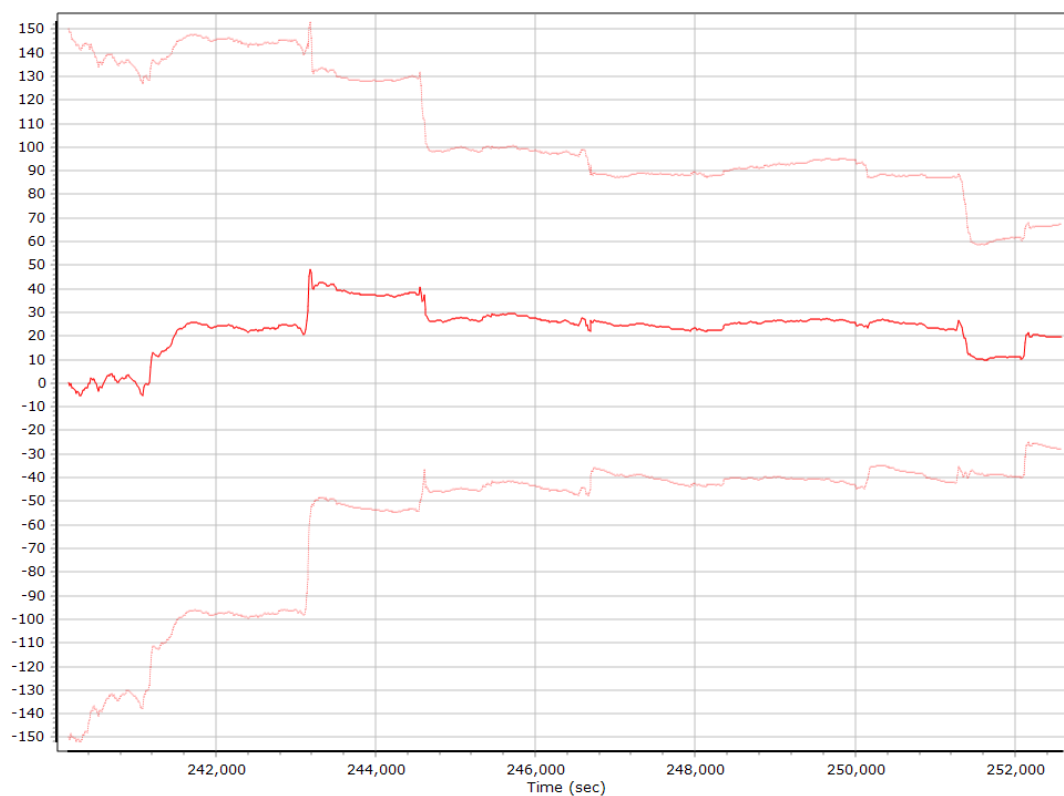
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

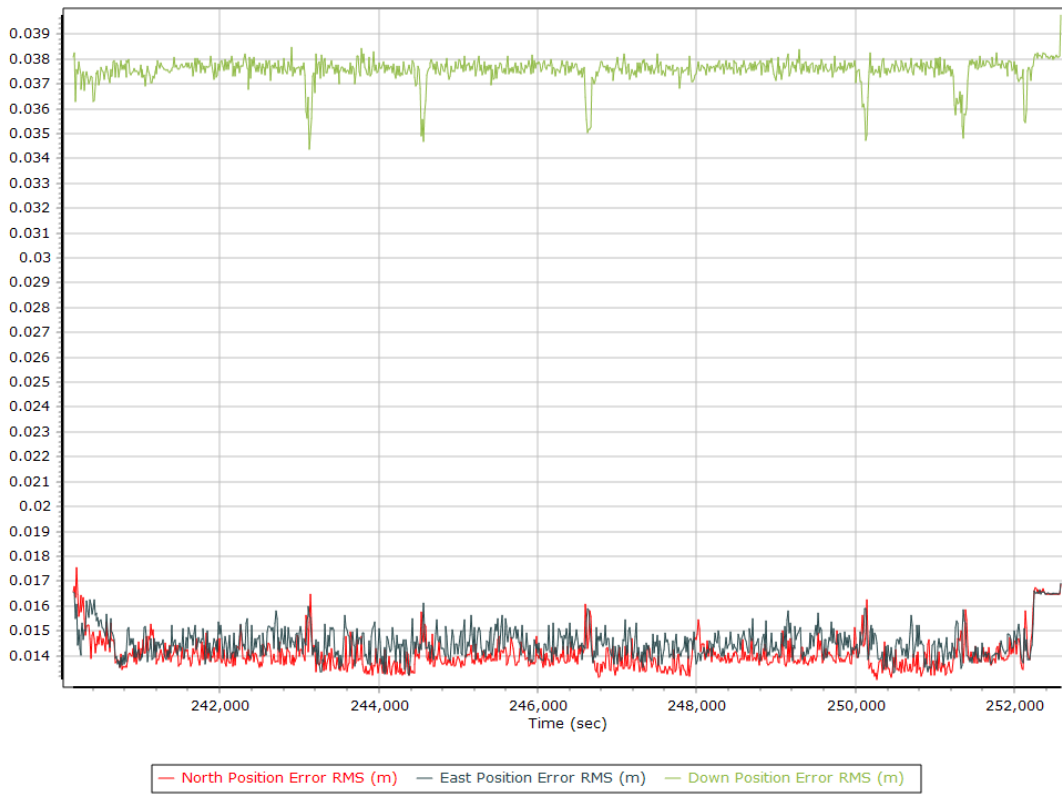


Z Gyro Scale Error (ppm)

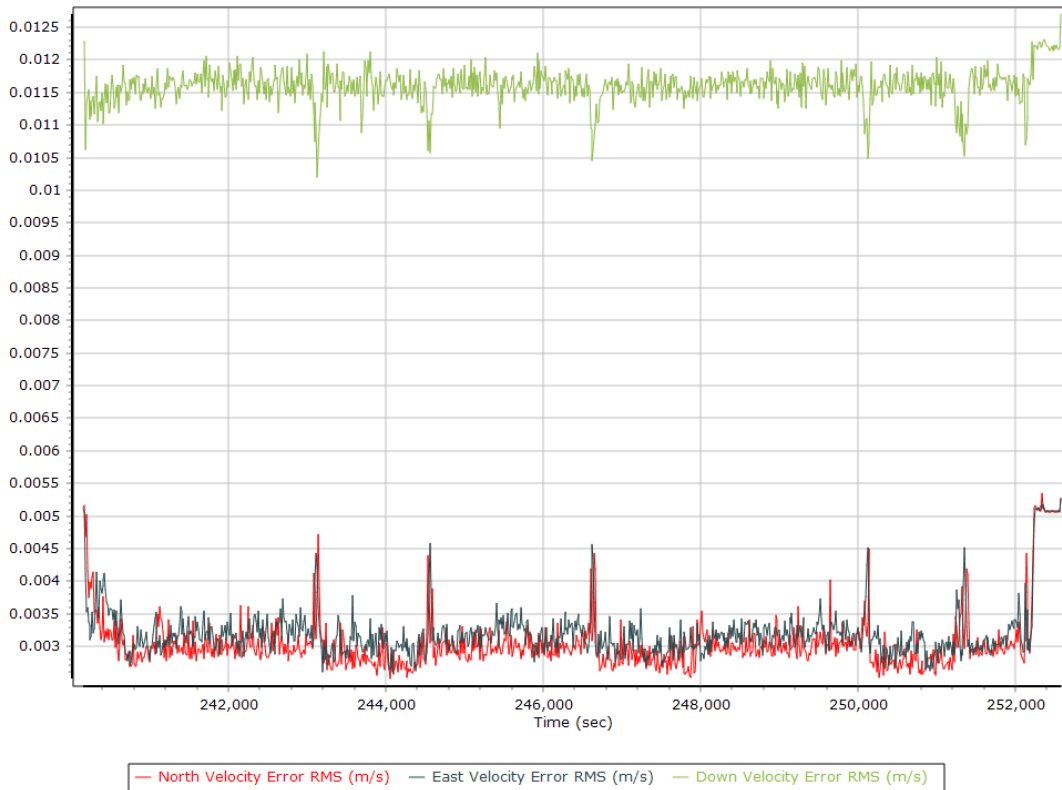


Smoothed Performance Metrics

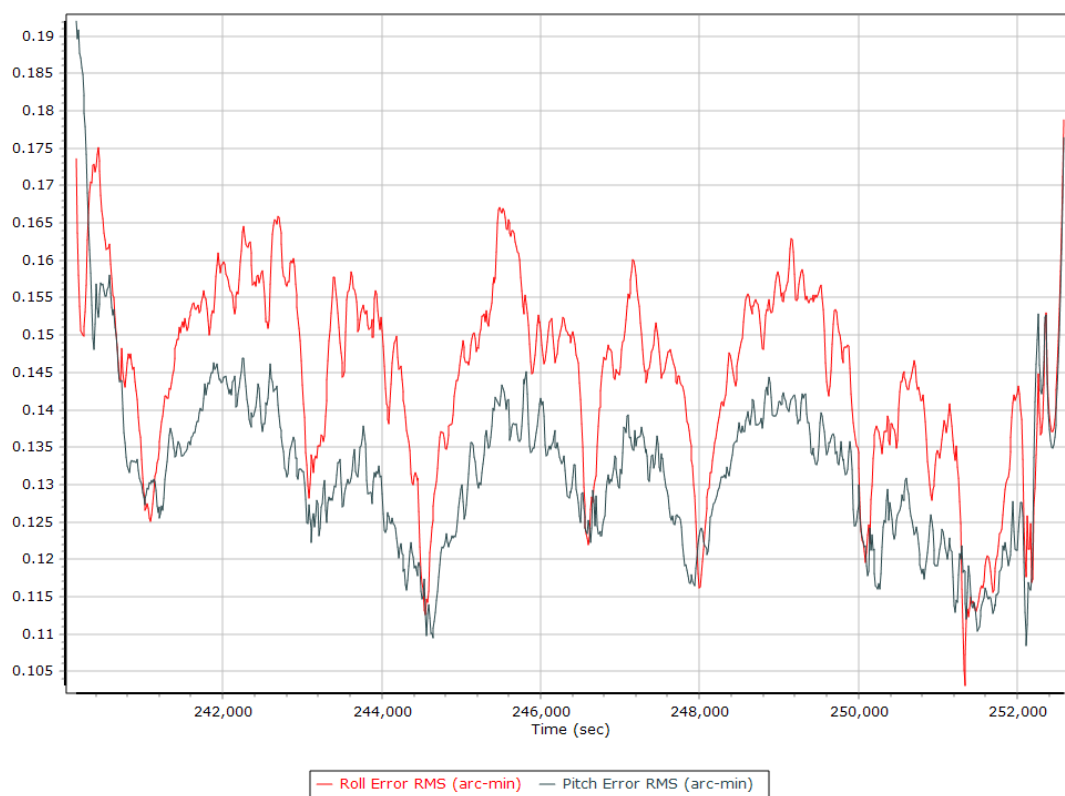
Position Error RMS (m)



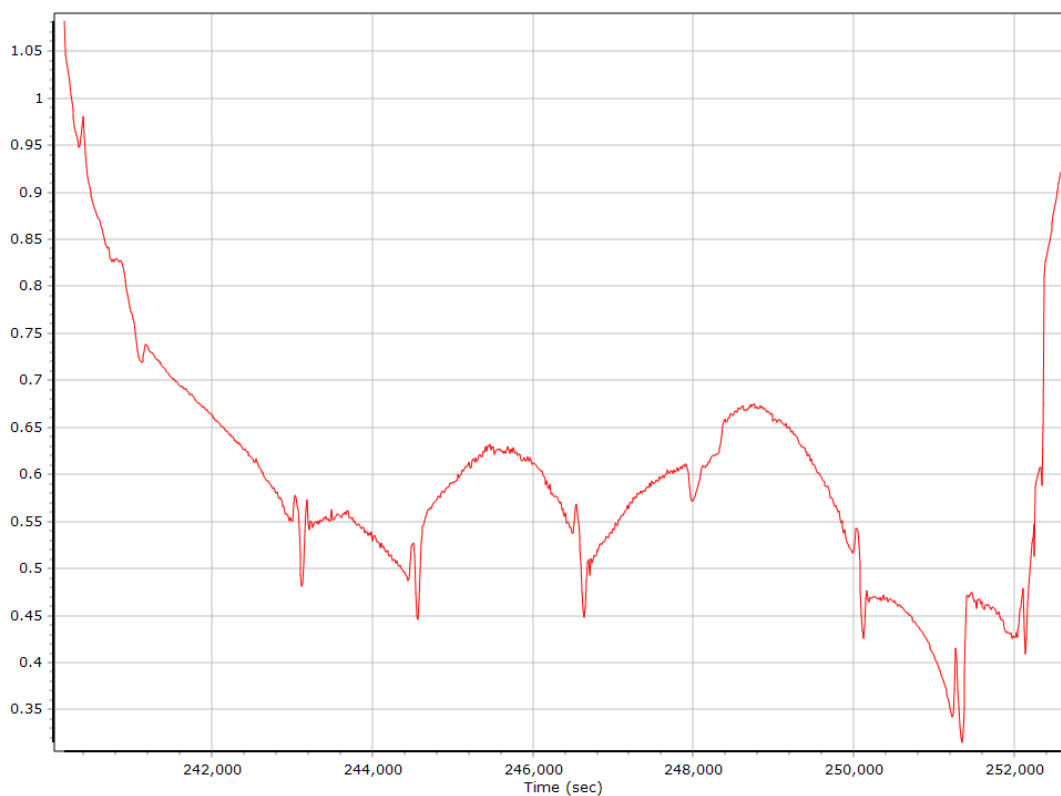
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

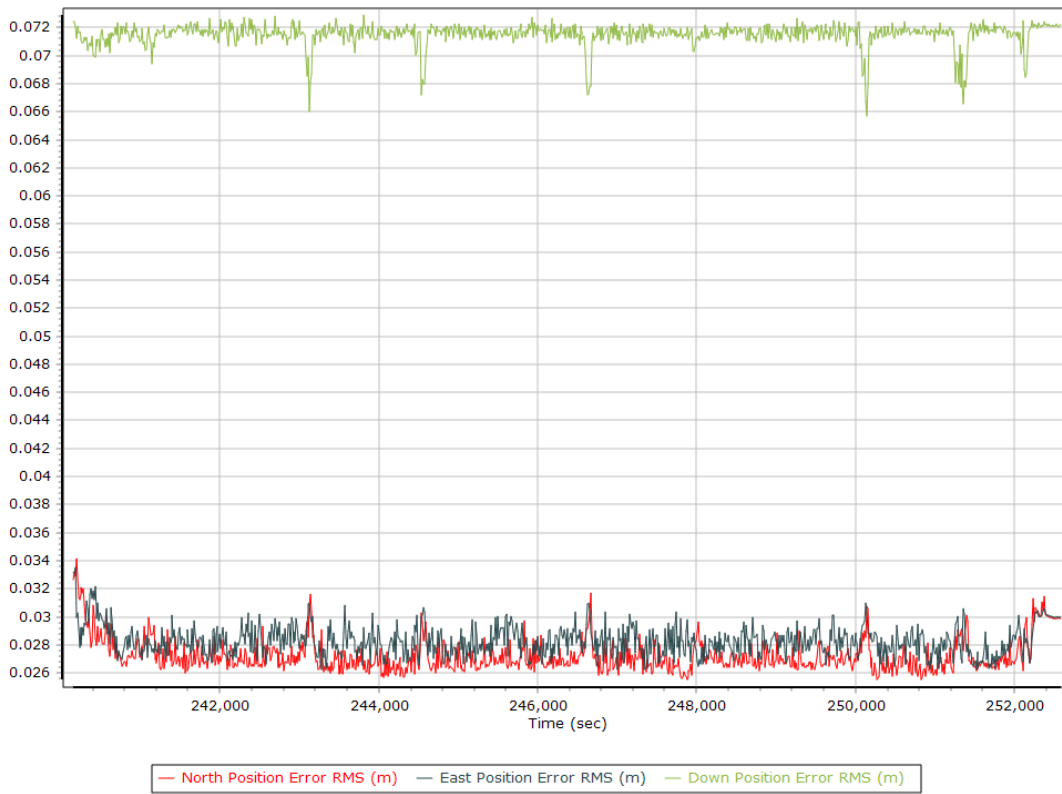


Heading Error RMS (arc-min)

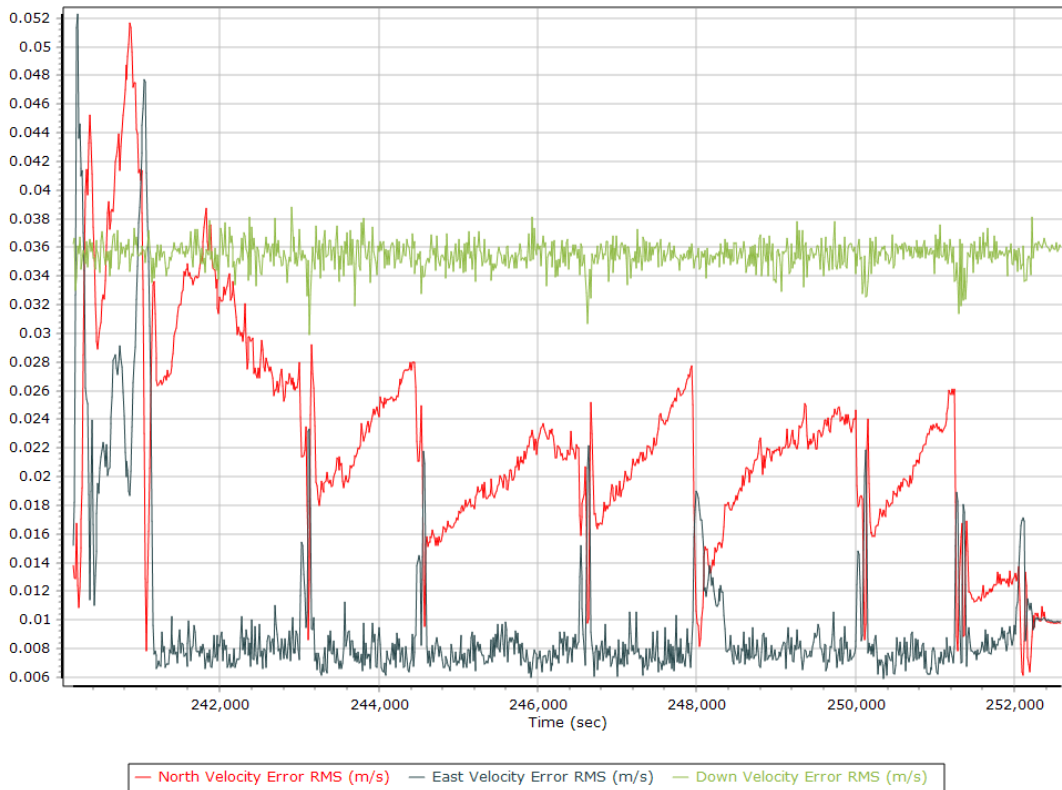


Forward Processed Performance Metrics

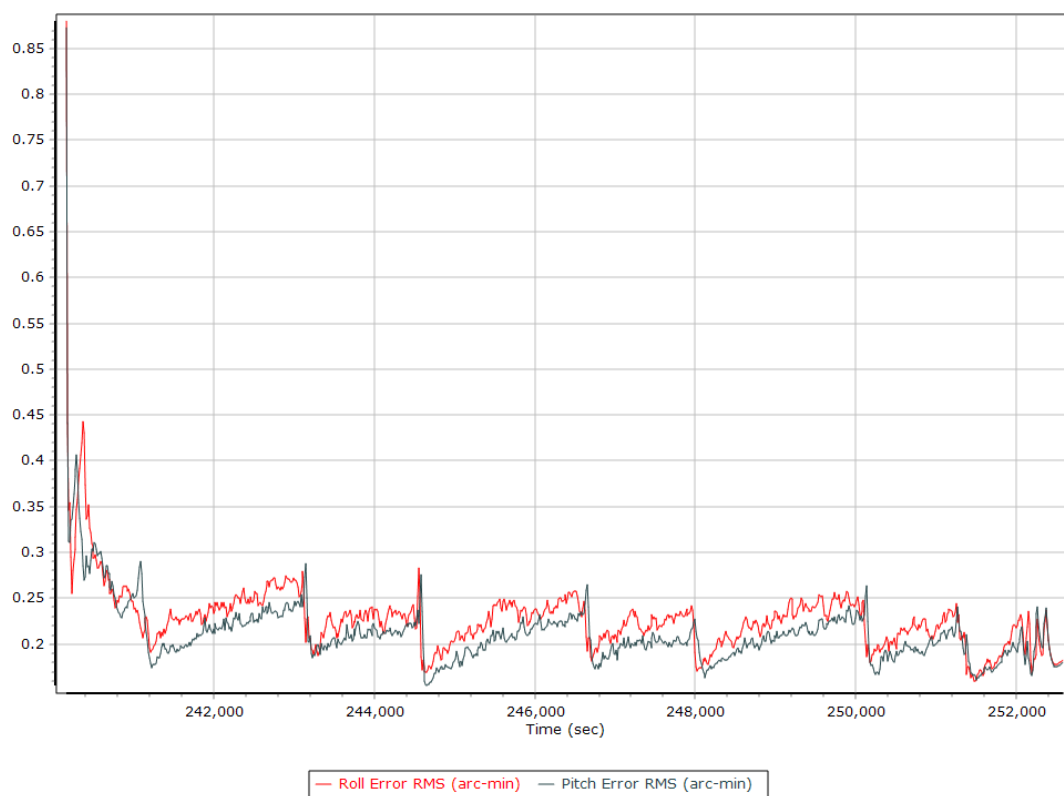
Position Error RMS (m)



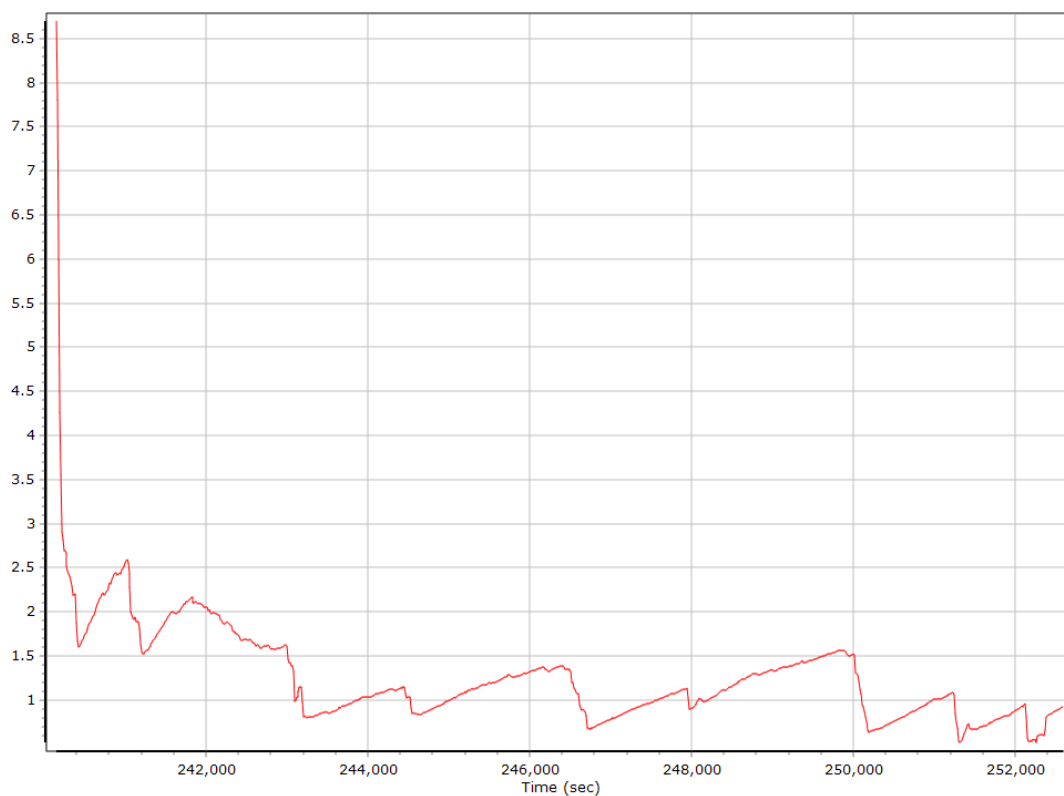
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

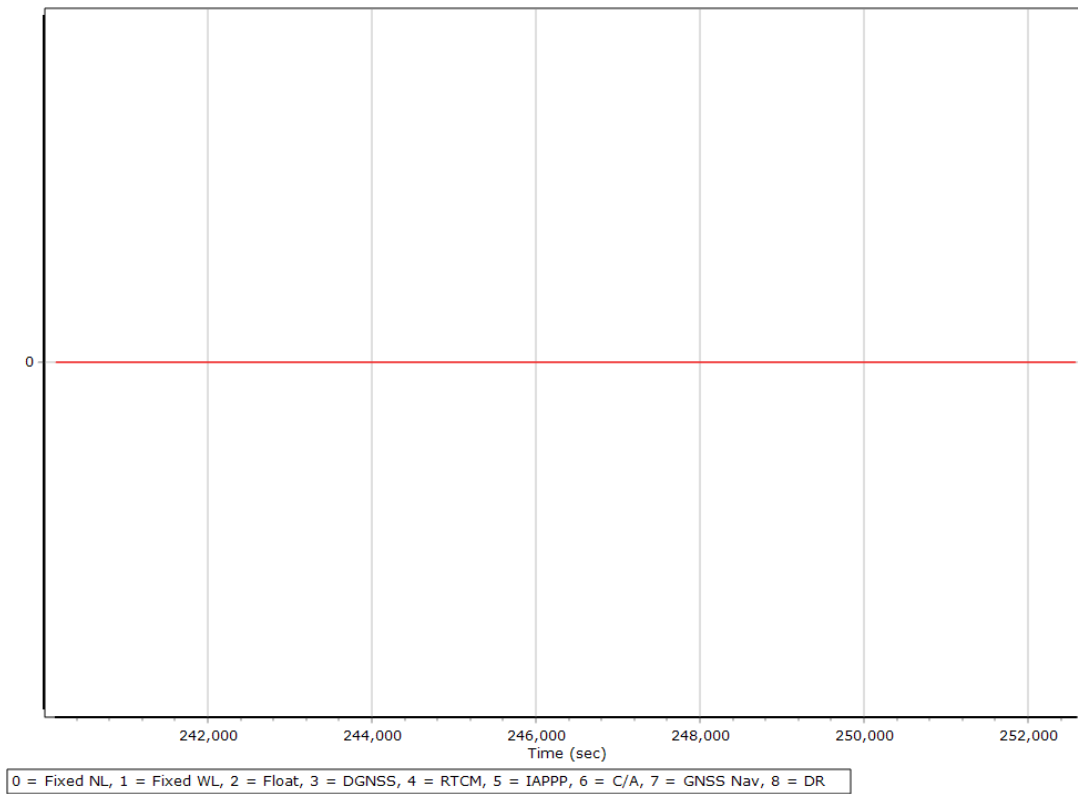


Heading Error RMS (arc-min)

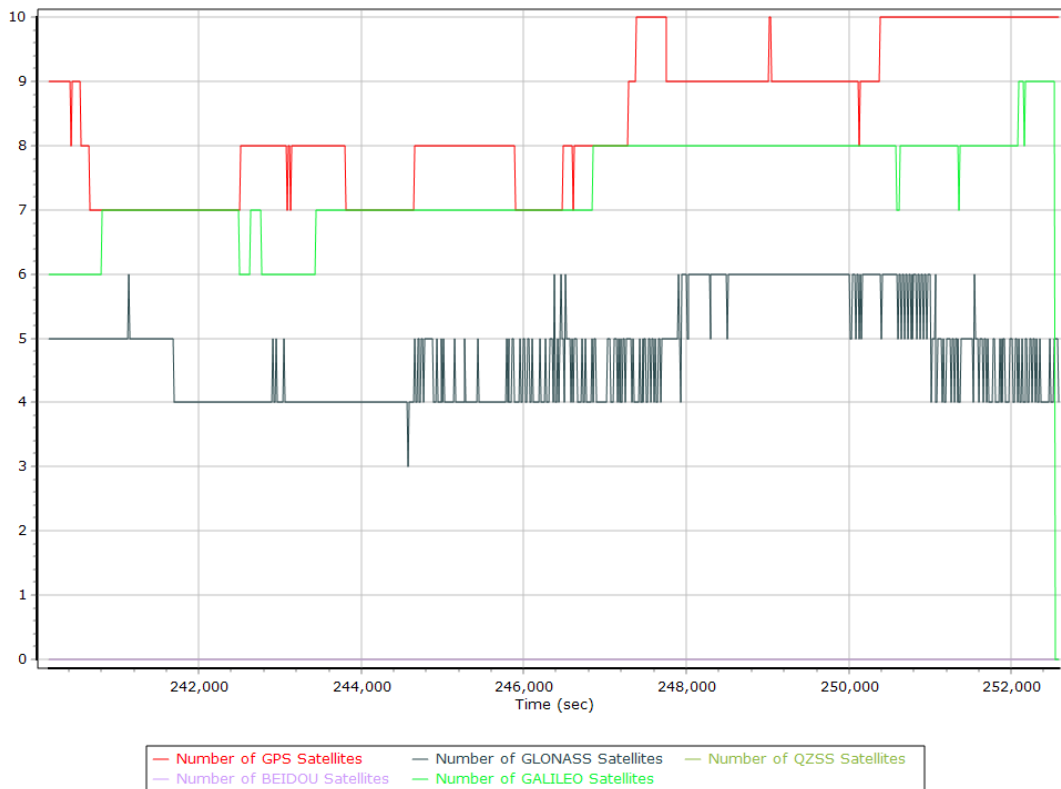


Forward Processed Solution Status

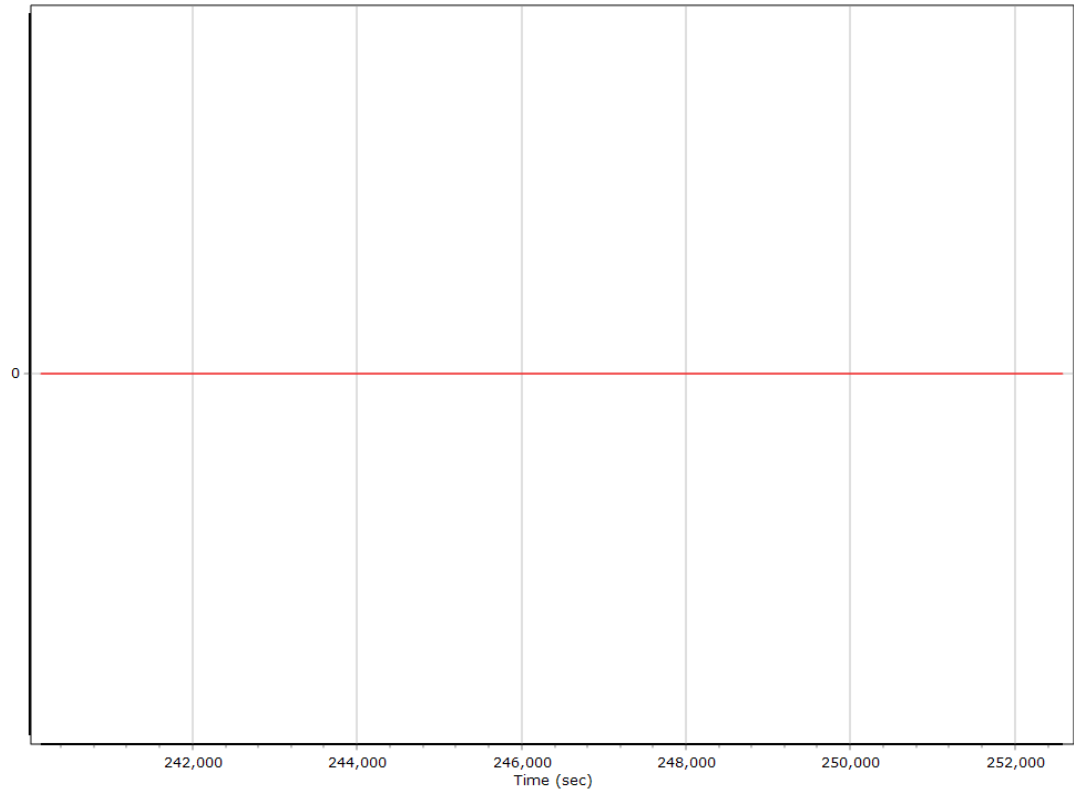
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230411_F2_NAD832011.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	240096.004 (04/11/2023 18:41:36)		
Export end time	252589.001 (04/11/2023 22:09:49)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.273973		

General Information

Mission Information

Project name	20230412_F1_4894
Processing date	2023-04-13 22:41:58
Mission date	2023-04-12 12:36:29
Mission duration	01:52:30.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.356	POS Data
VQ1560.357	POS Data
VQ1560.358	POS Data
VQ1560.359	POS Data
VQ1560.360	POS Data
VQ1560.361	POS Data
VQ1560.362	POS Data
VQ1560.363	POS Data
VQ1560.364	POS Data
VQ1560.365	POS Data
VQ1560.366	POS Data
VQ1560.367	POS Data
VQ1560.368	POS Data
VQ1560.369	POS Data
VQ1560.370	POS Data
VQ1560.371	POS Data

Input Files

File Name	File Type
Ephm1020.23g	GLONASS Broadcast Ephemeris
Ephm1020.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230412_F1_4894.out	SBET Trajectory File
export_20230412_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.356		
Last raw data file	VQ1560.371		
Start GPS week	2257		
Start time	304582.489 (04/12/2023 12:36:22)		
End time	311321.110 (04/12/2023 14:28:41)		
Start of fine alignment	304974.431 (04/12/2023 12:42:54)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

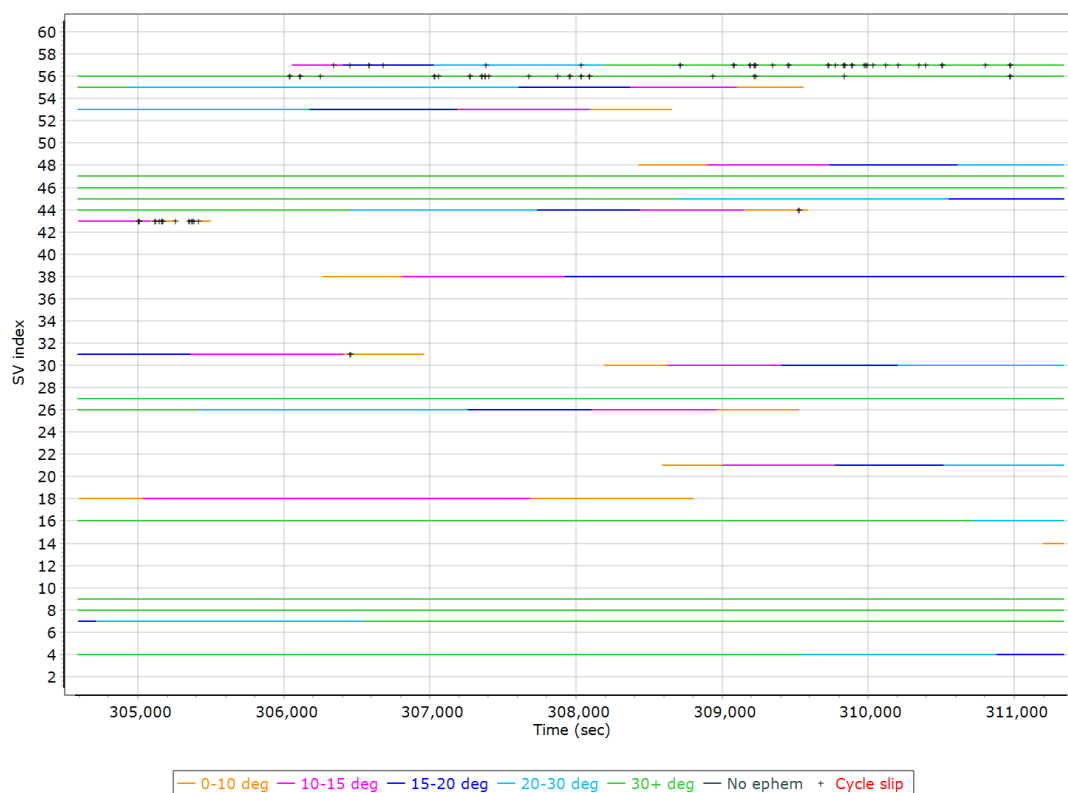
Rover Data QC

Raw IMU Import QC Summary

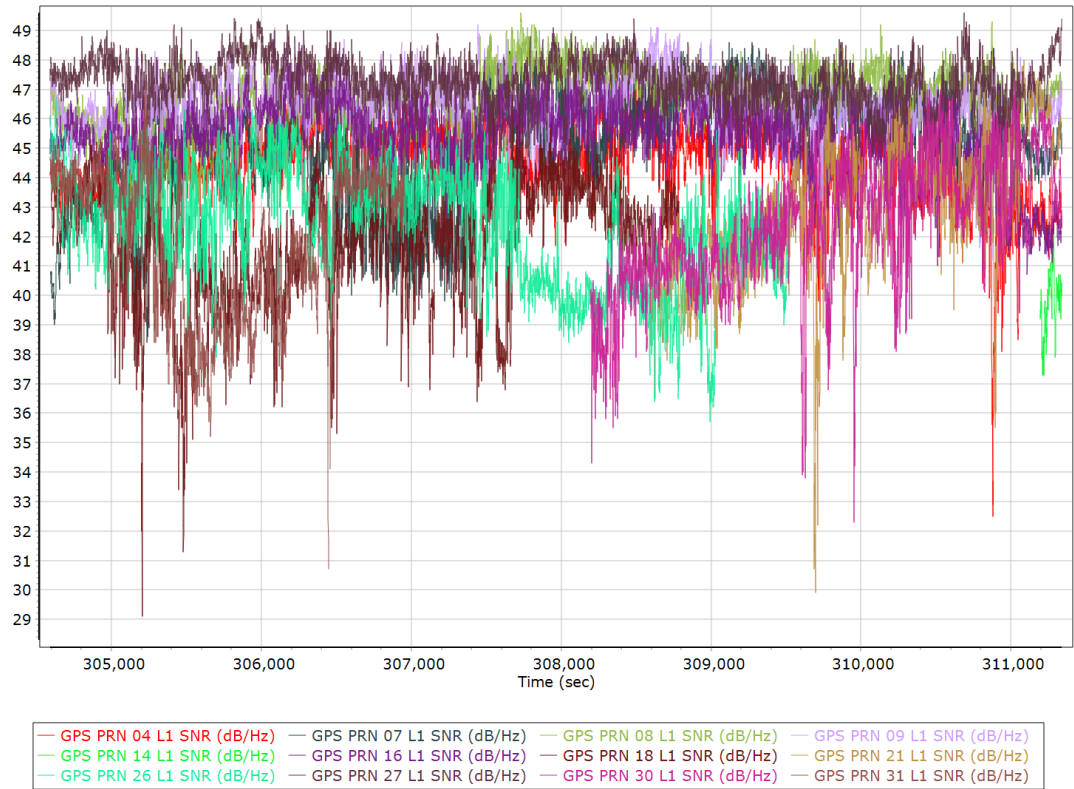
IMU data input file	imu_20230412_F1_4894.dat
IMU data check log file	imudt_20230412_F1_4894.log
IMU Records Processed	1349940
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
304582.289 : WARNING : Gap of 304570.3374 seconds in CHECKDT input data	

Primary Observables & Satellite Data

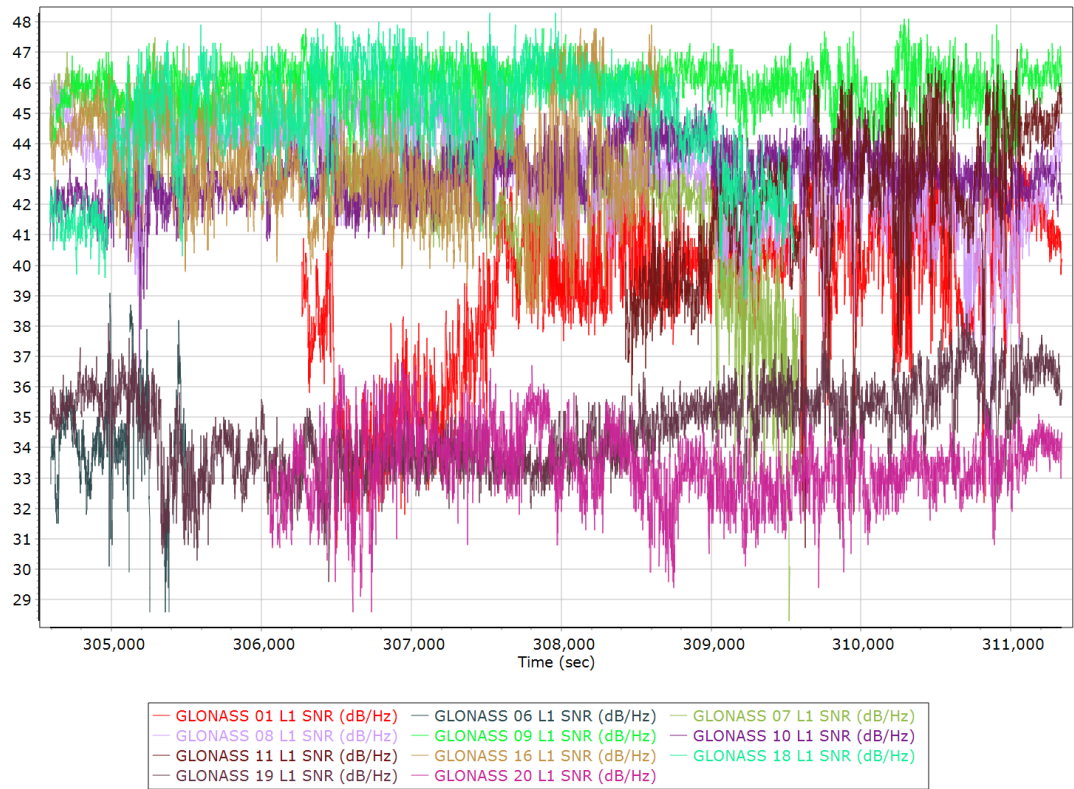
GPS/GLONASS L1 Satellite Lock/Elevation



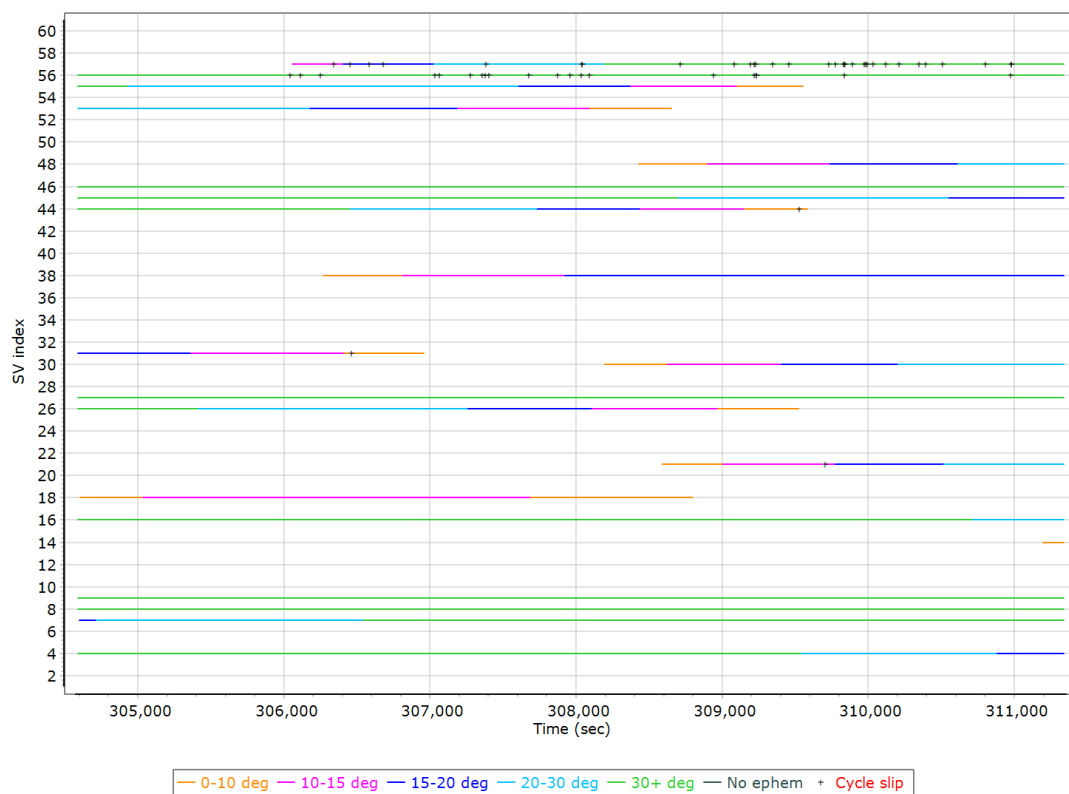
GPS L1 SNR



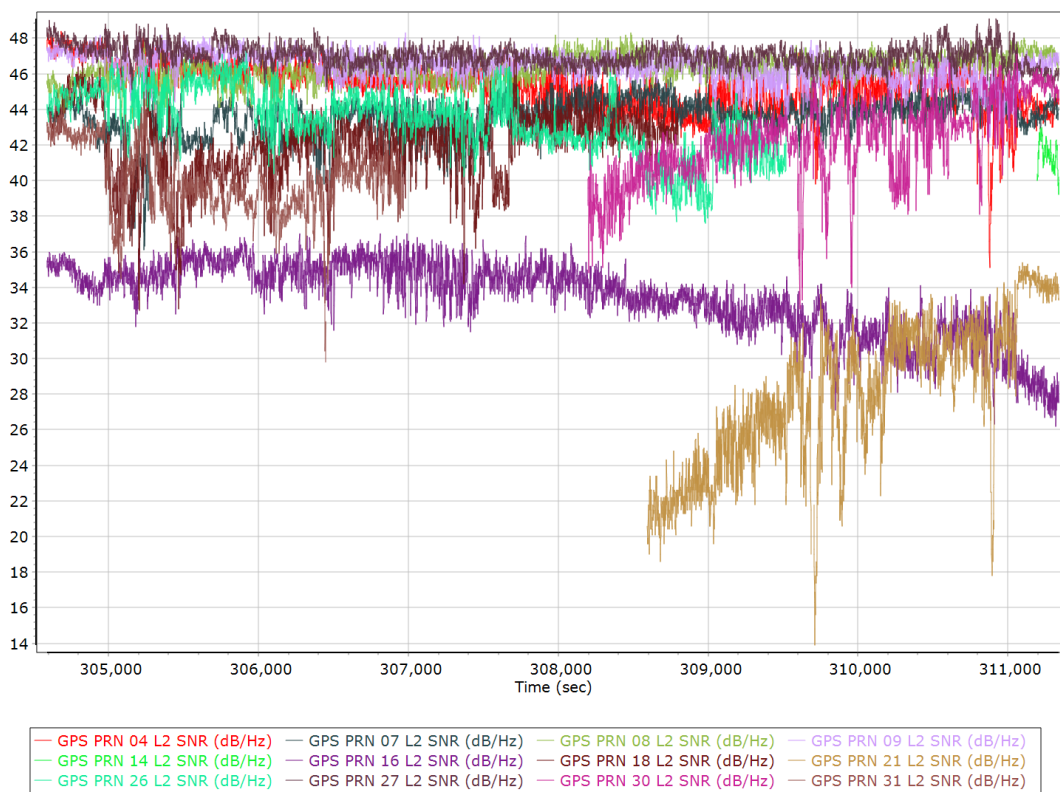
GLONASS L1 SNR



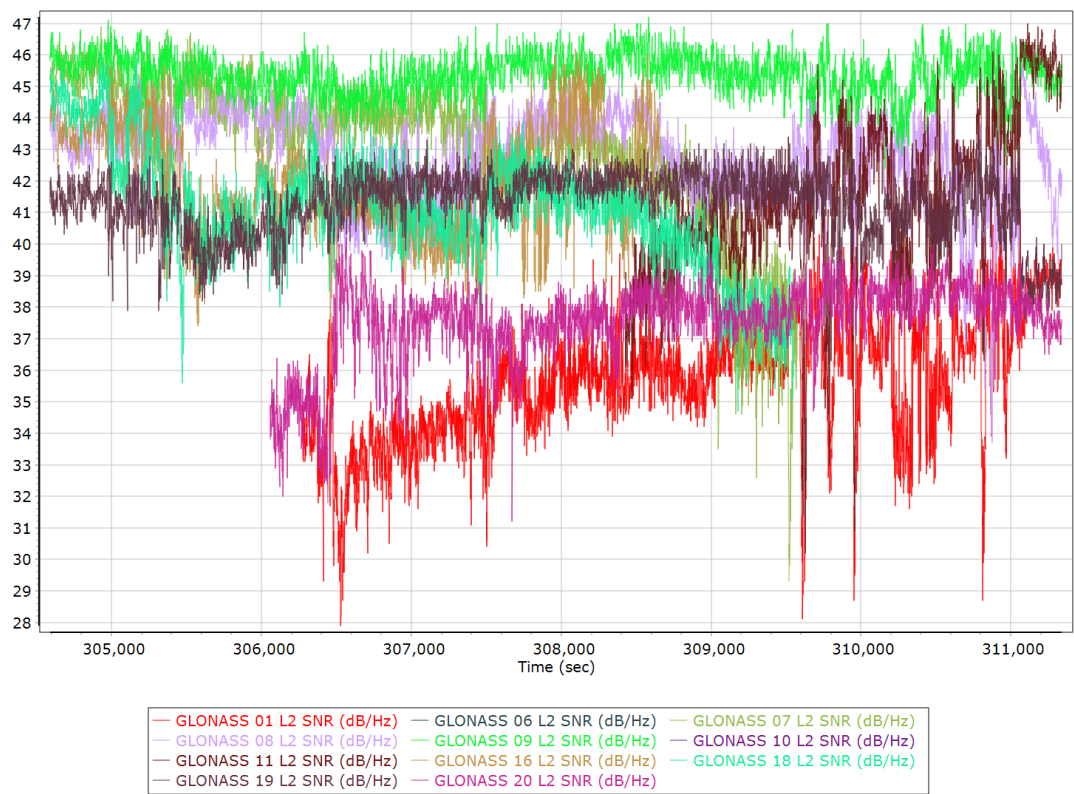
GPS/GLONASS L2 Satellite Lock/Elevation



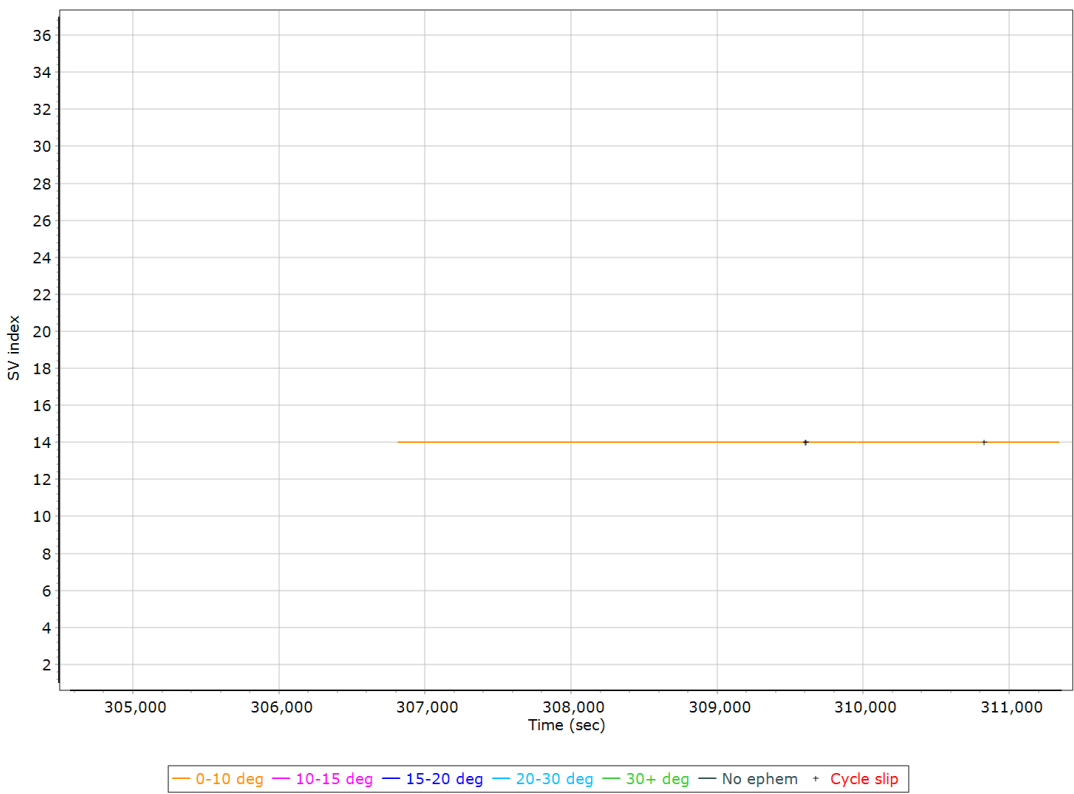
GPS L2 SNR



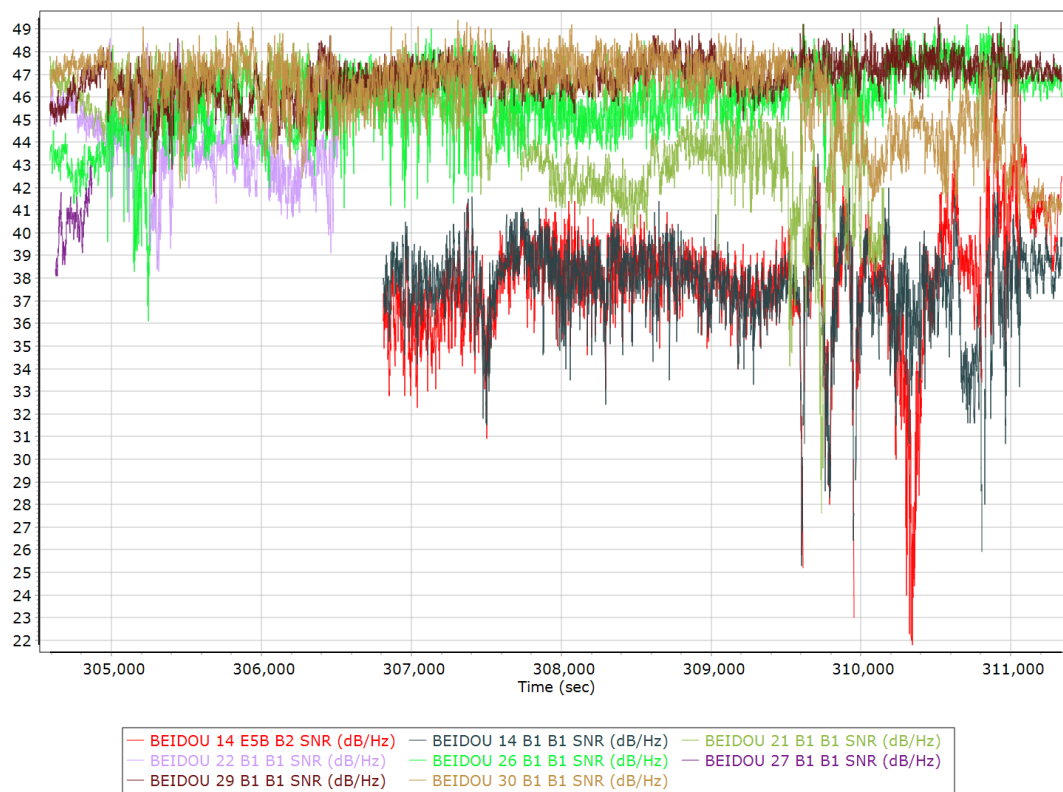
GLONASS L2 SNR



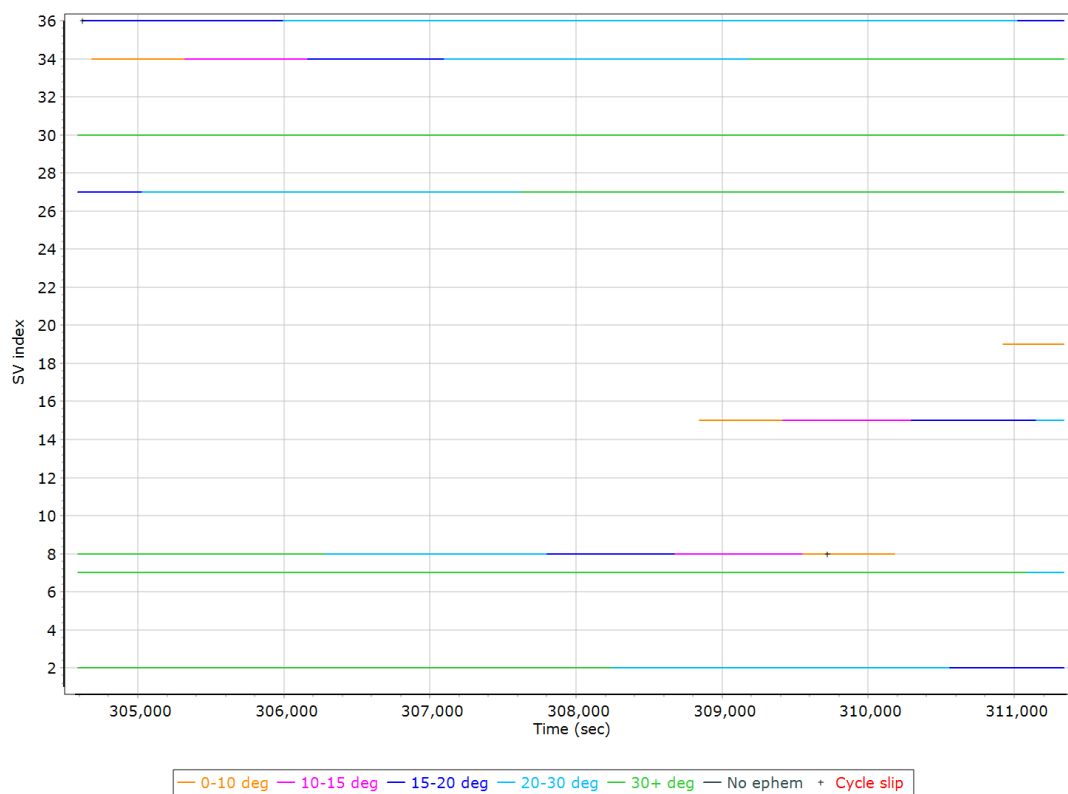
BEIDOU Satellite Lock/Elevation



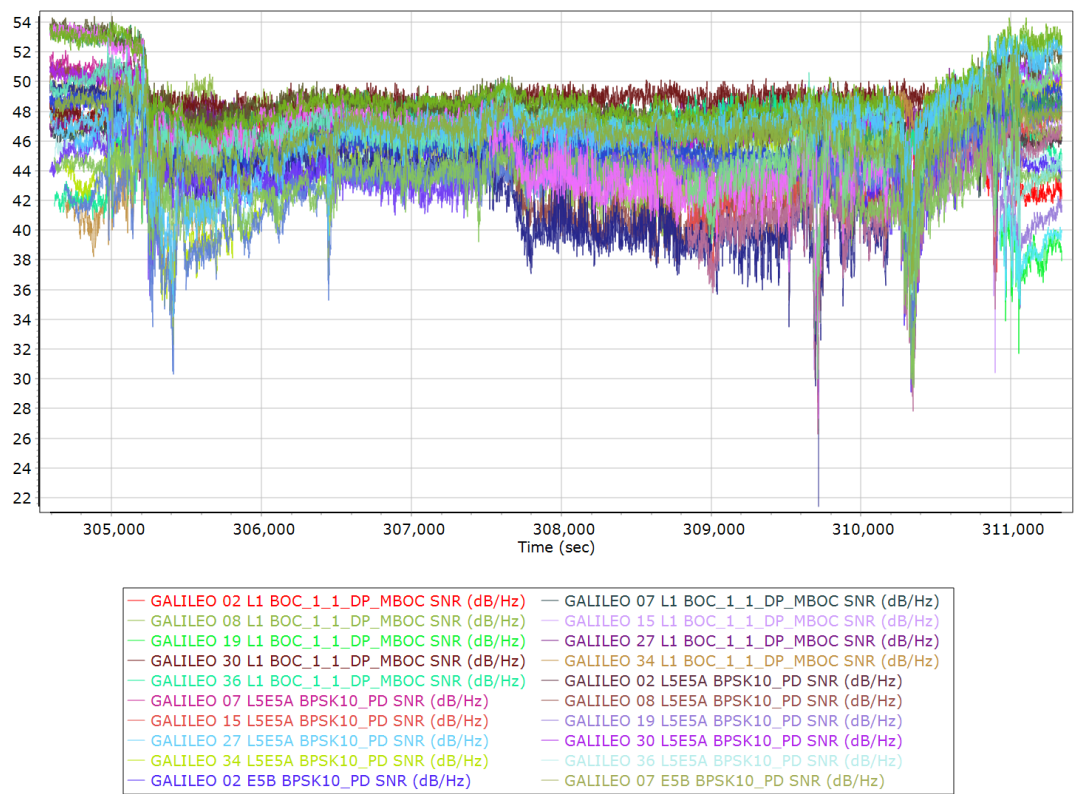
BEIDOU SNR



GALILEO Satellite Lock/Elevation

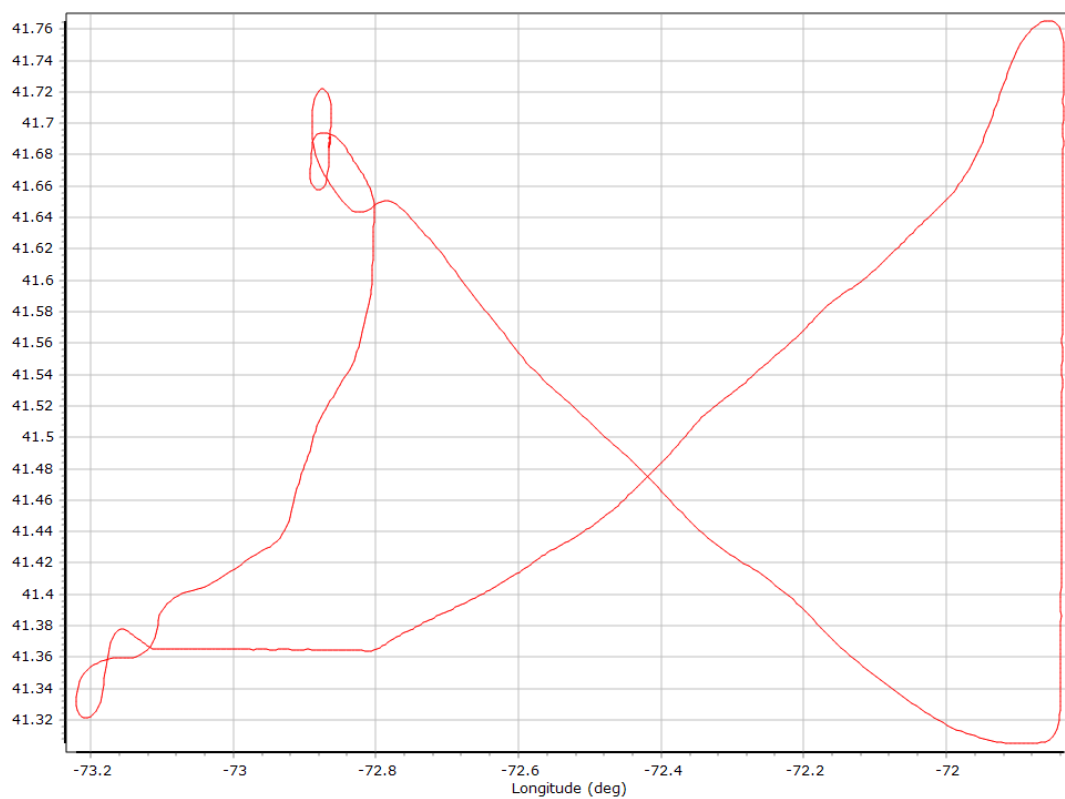


GALILEO SNR

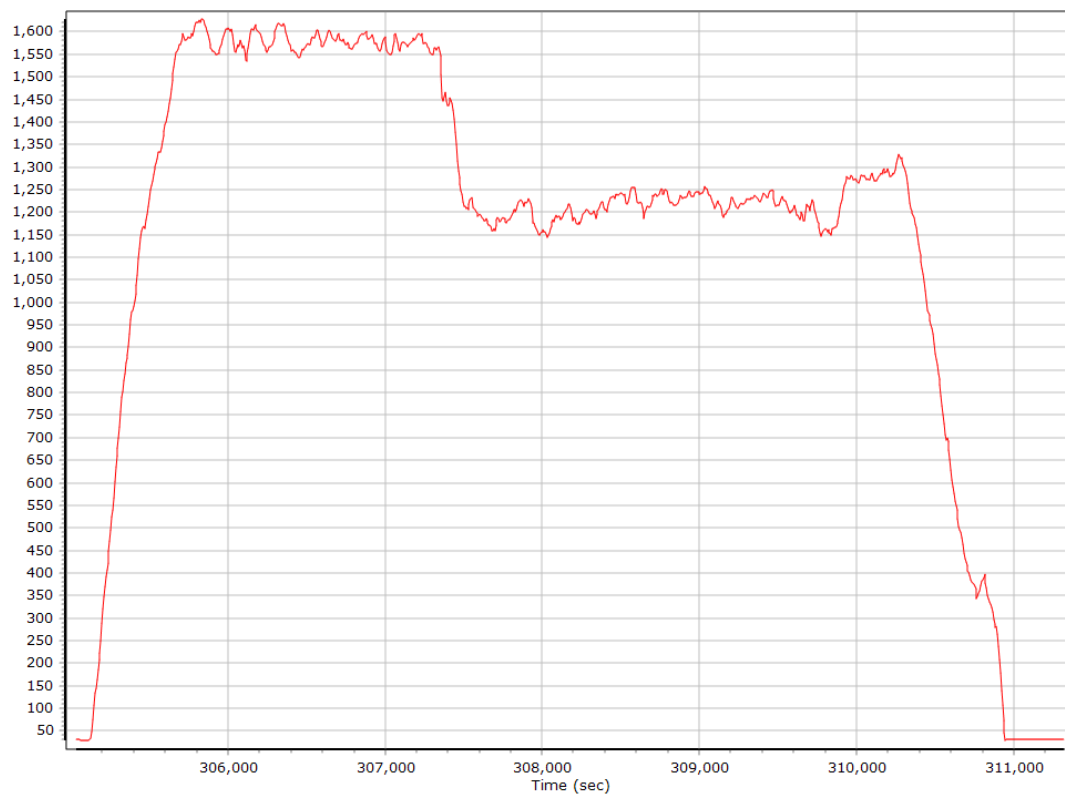


Smoothed Trajectory Information

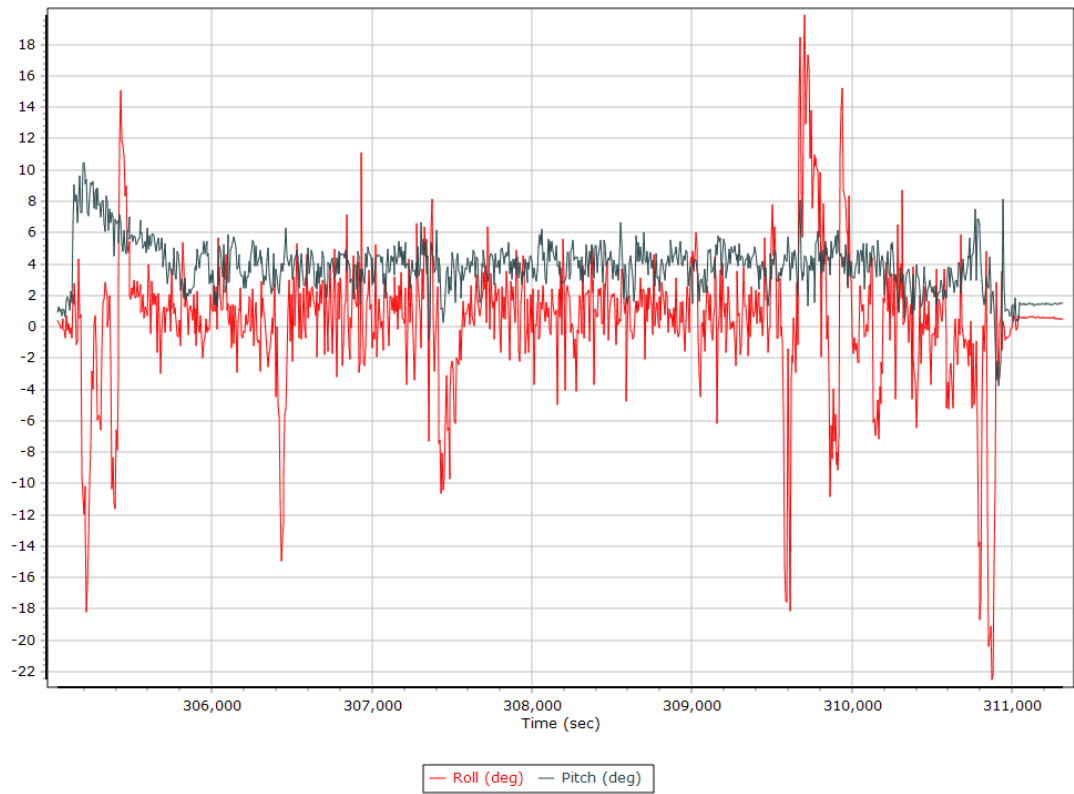
Top View



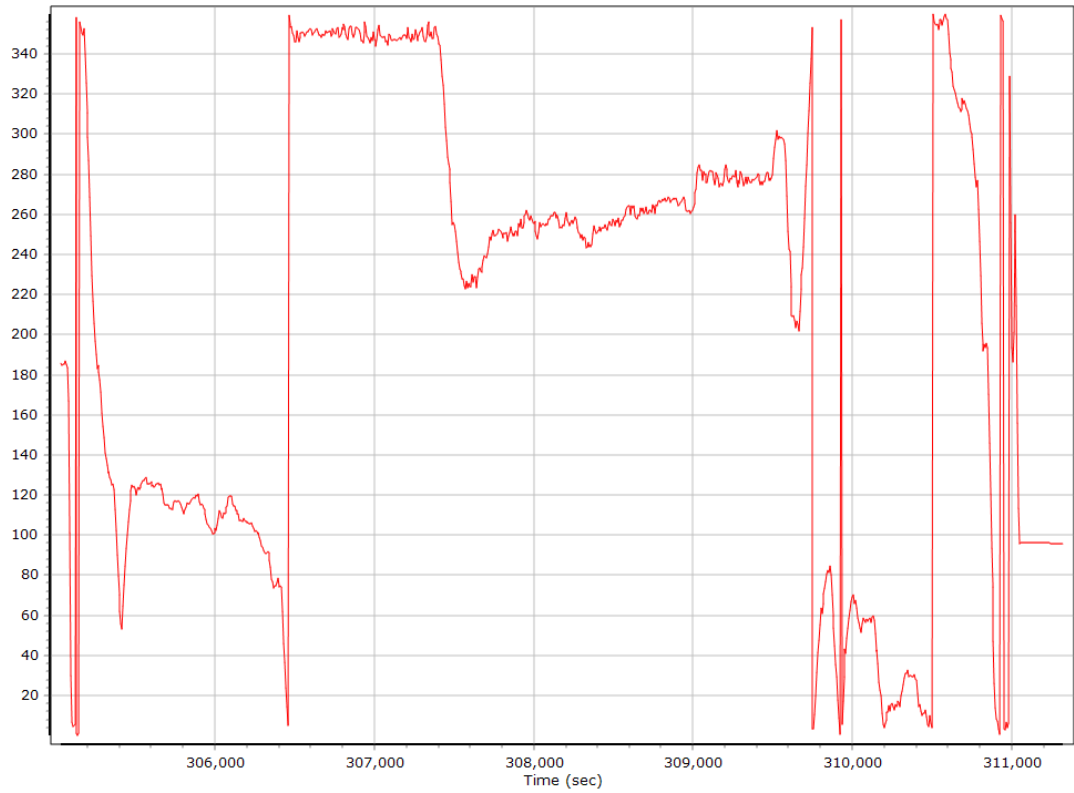
Altitude



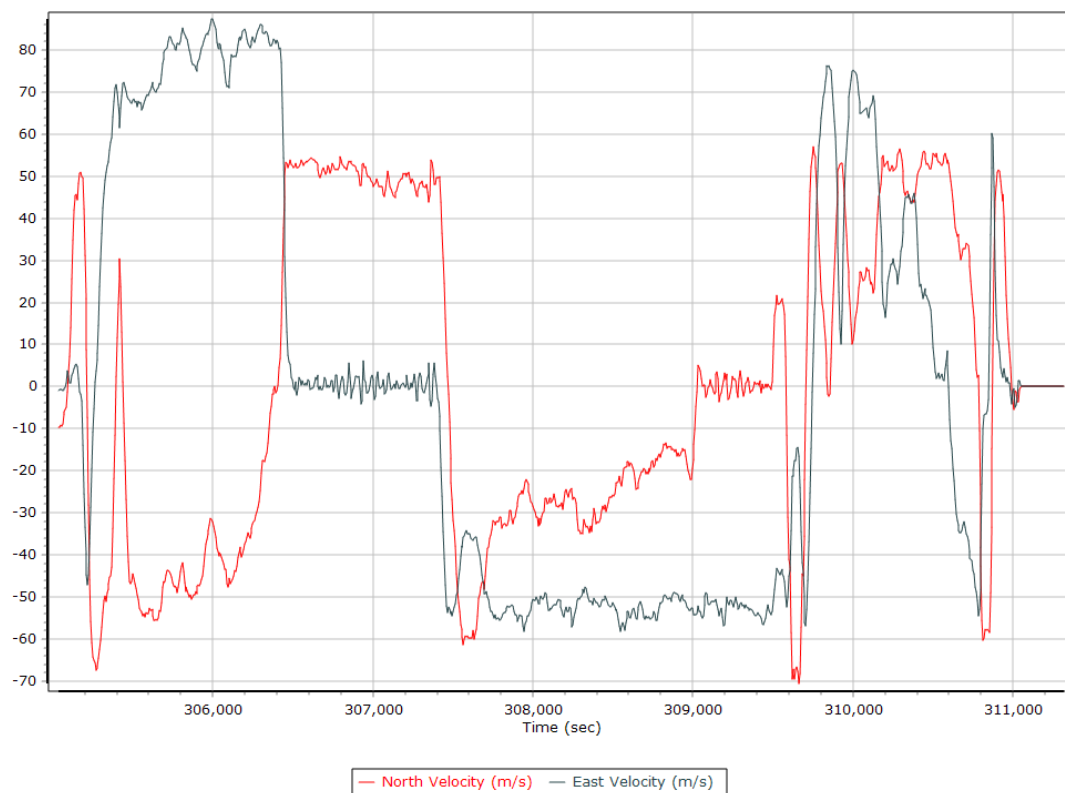
Roll/Pitch



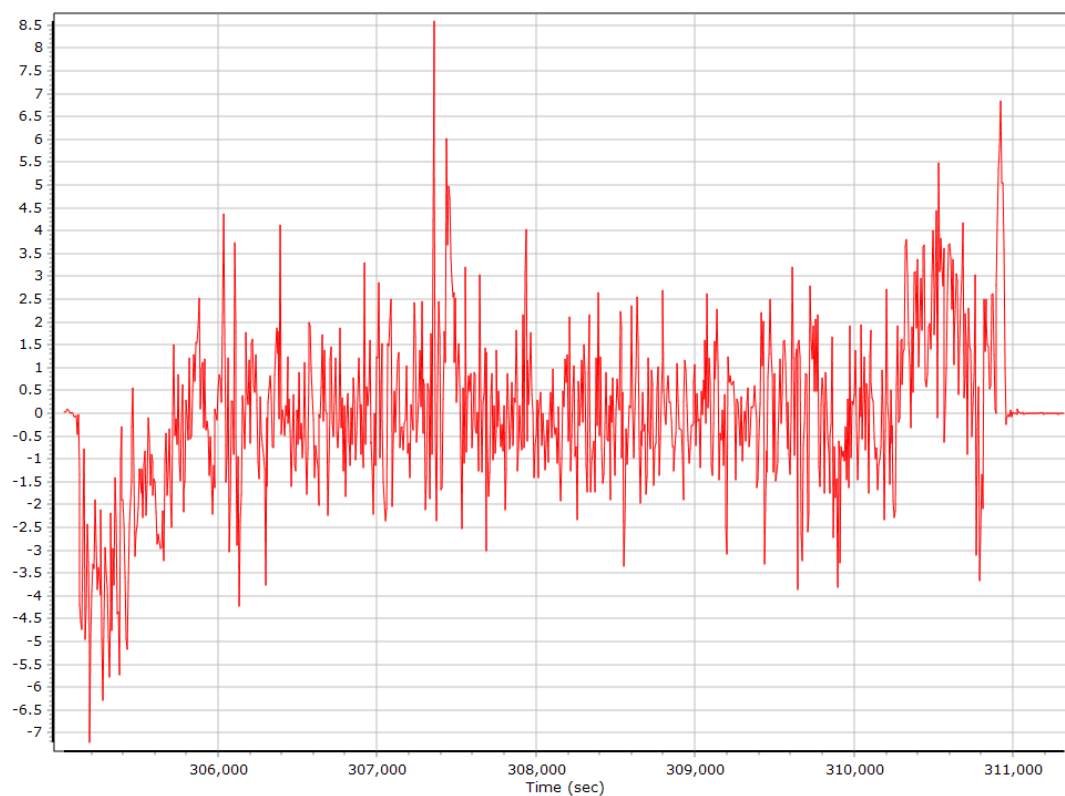
Heading



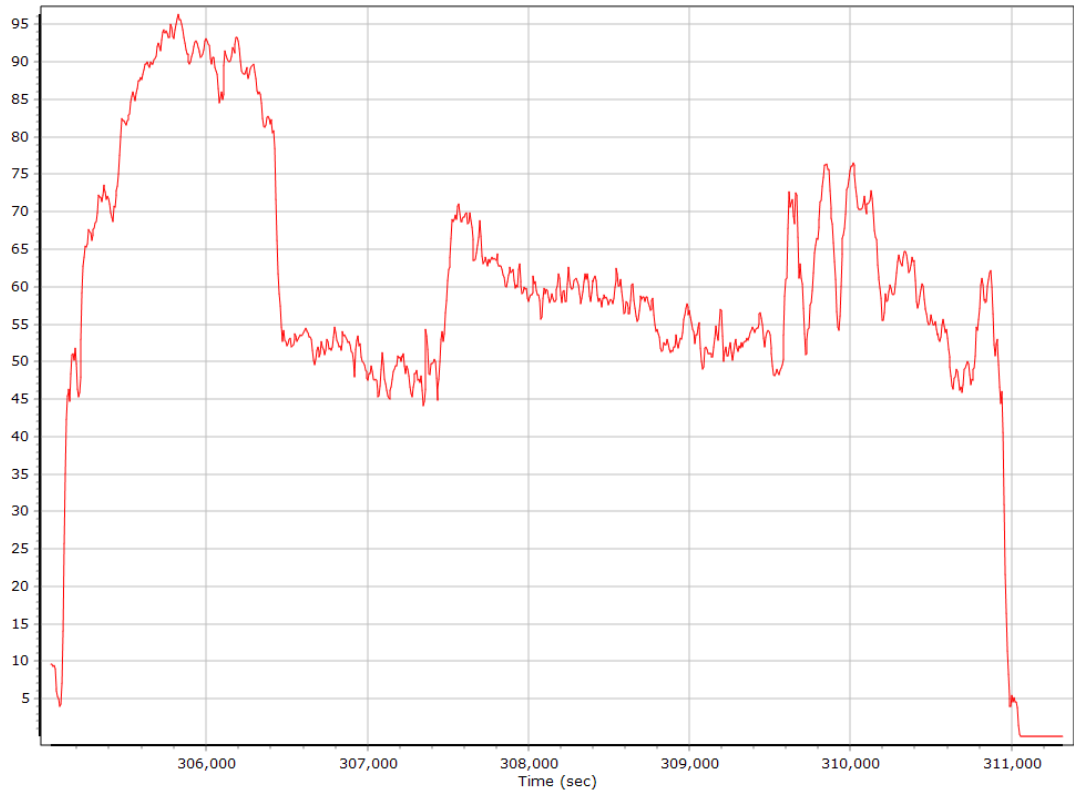
North/East Velocity



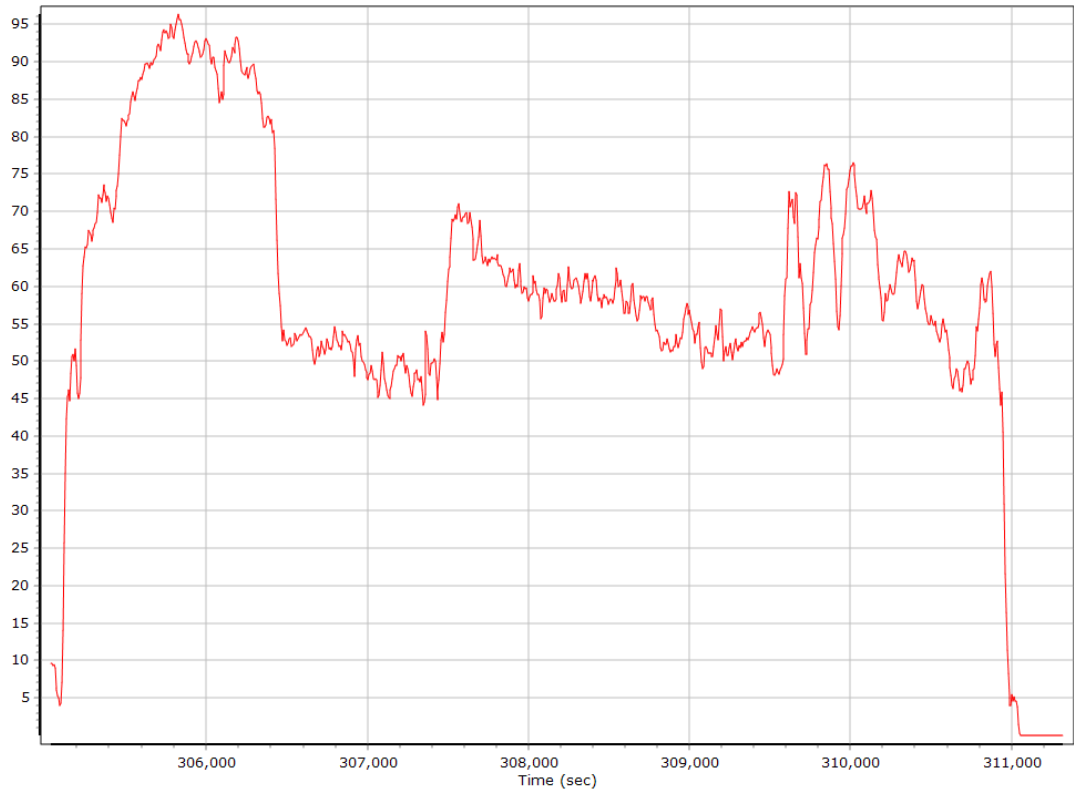
Down Velocity



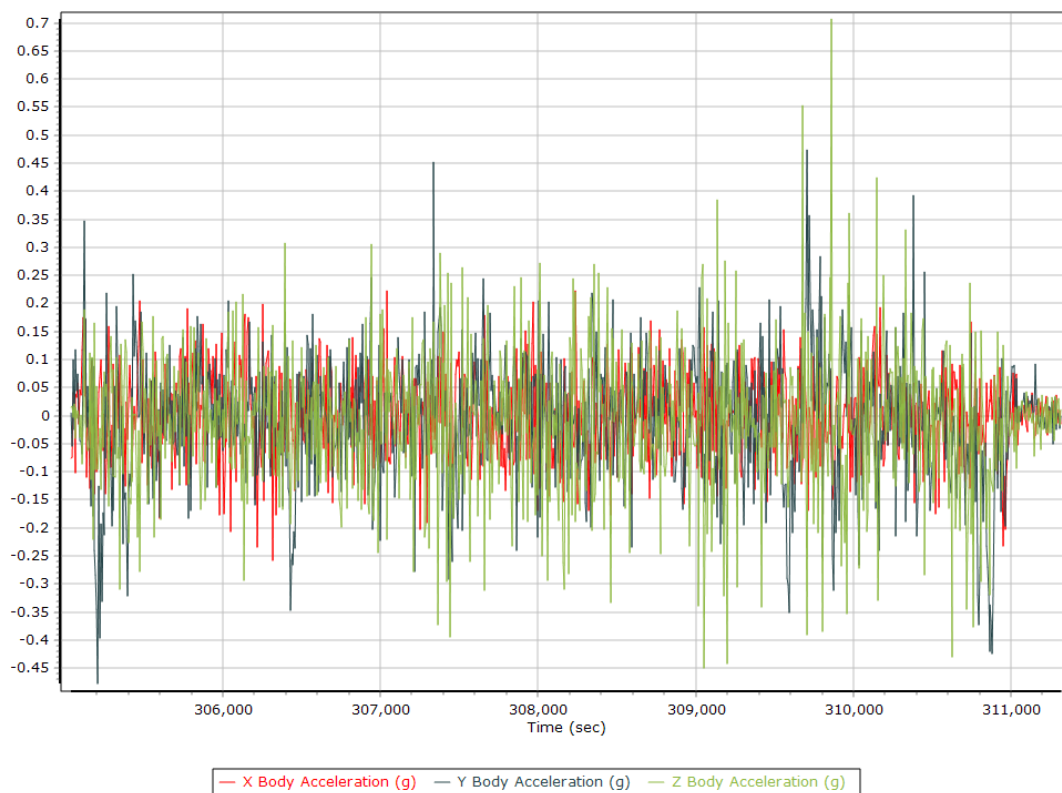
Total Speed



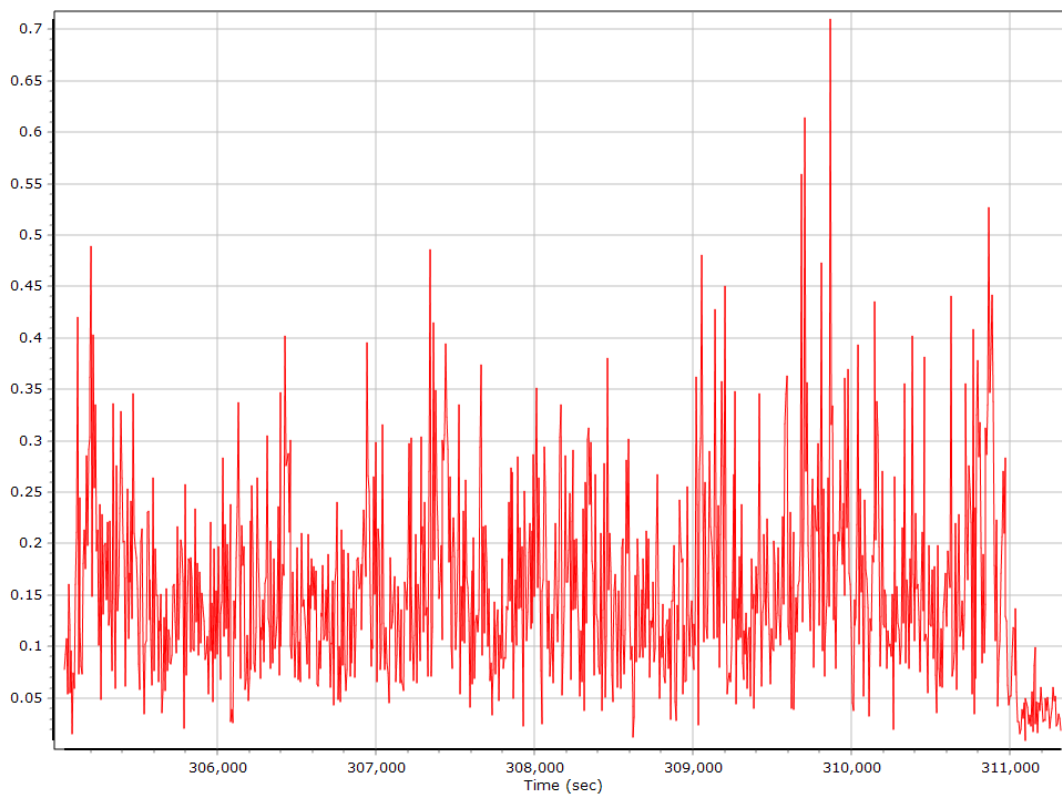
Ground Speed



Body Acceleration



Total Body Acceleration

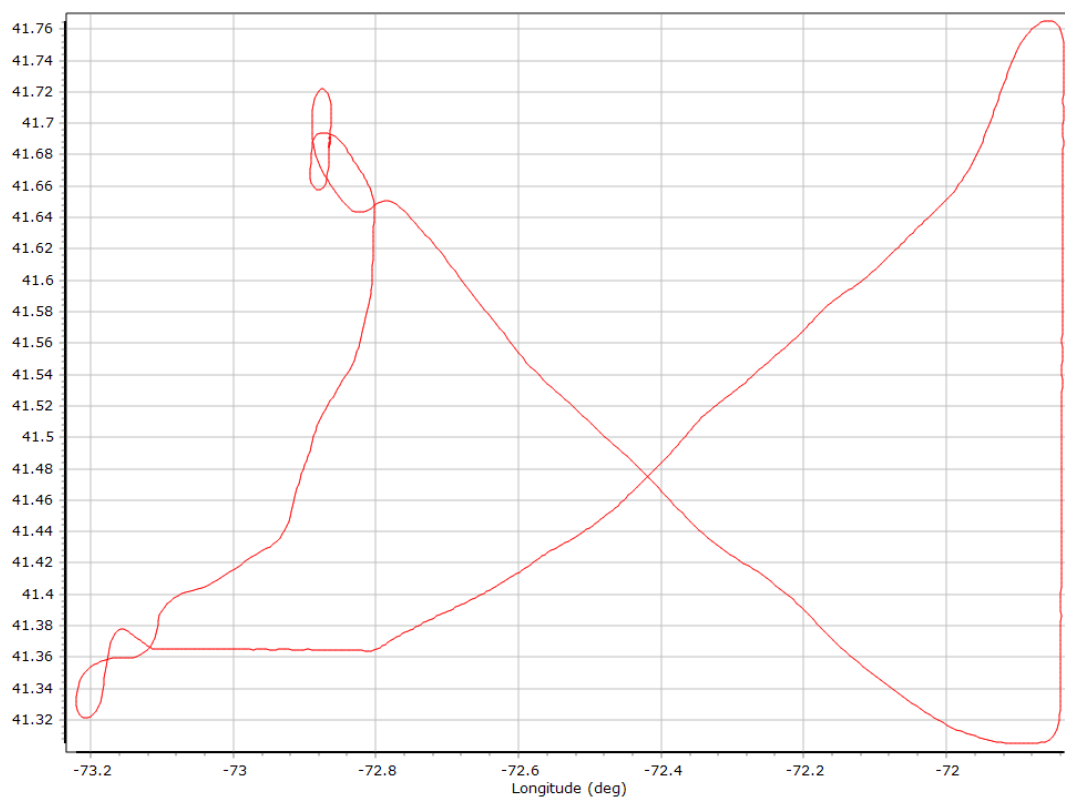


Body Angular Rate

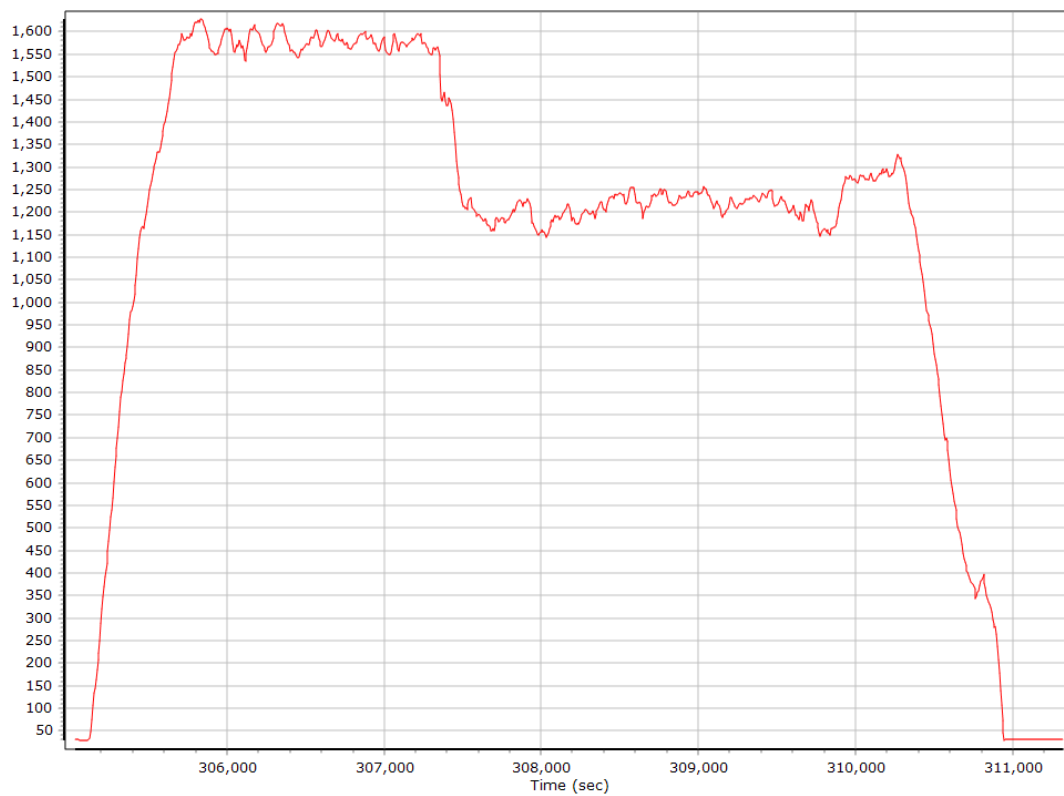


Forward Processed Trajectory Information

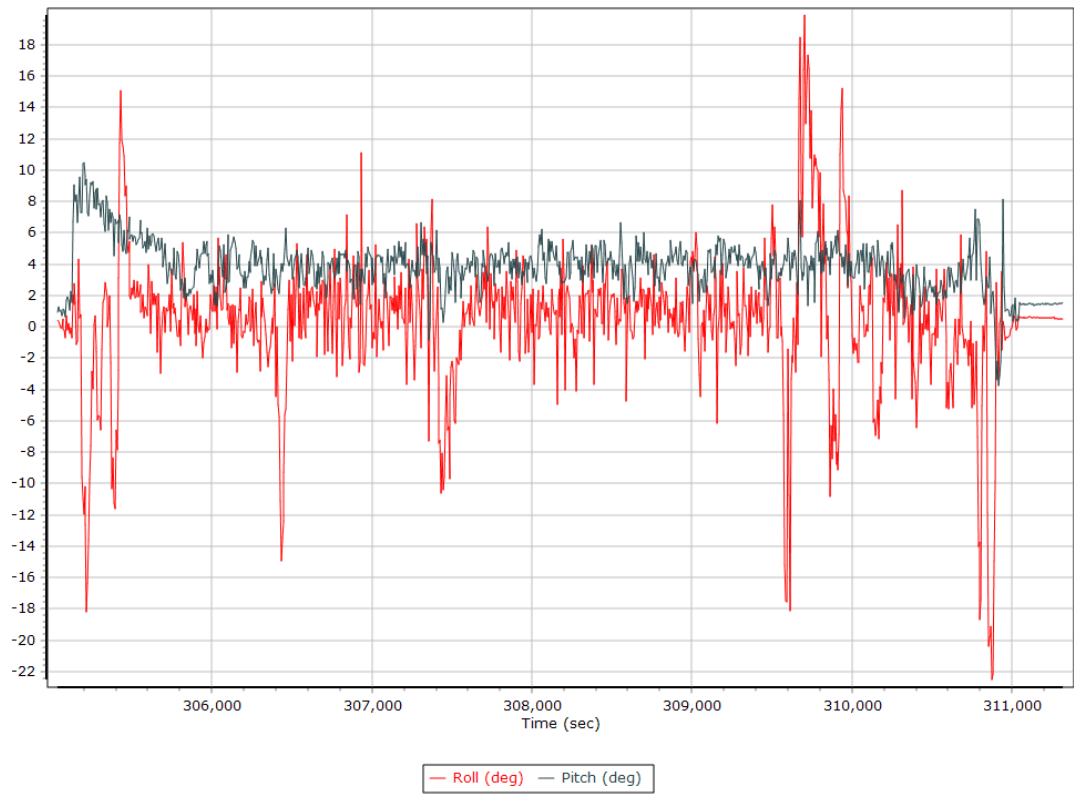
Top View



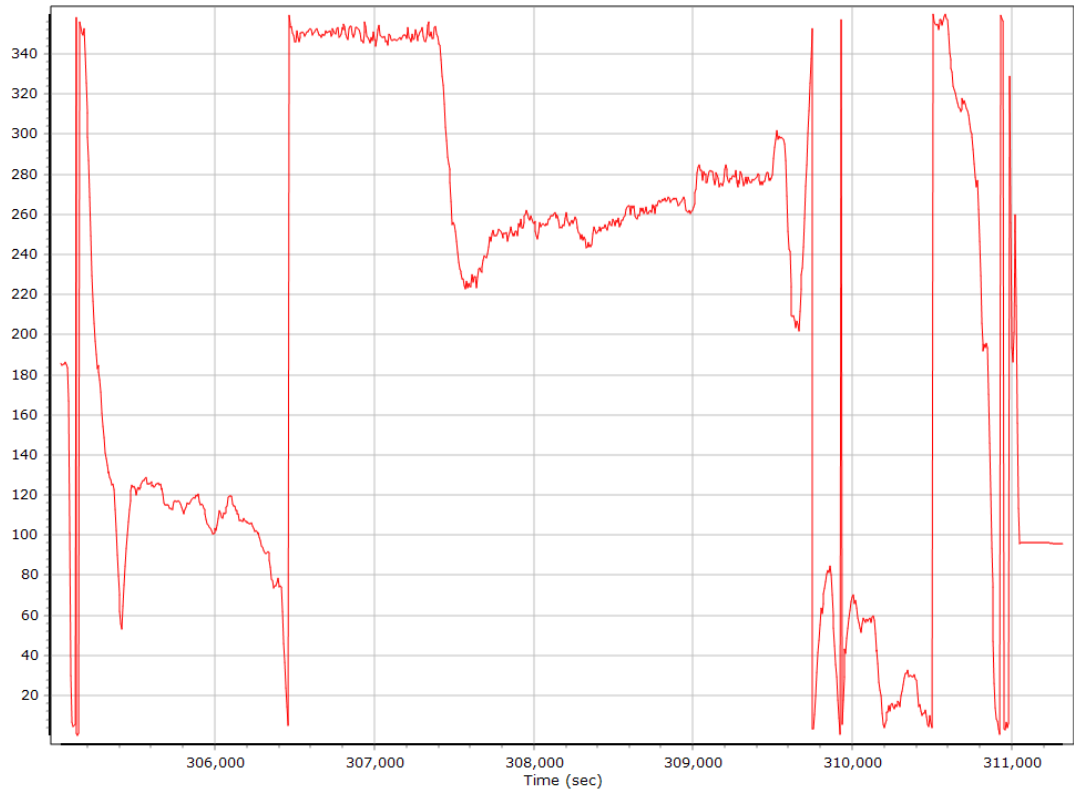
Altitude



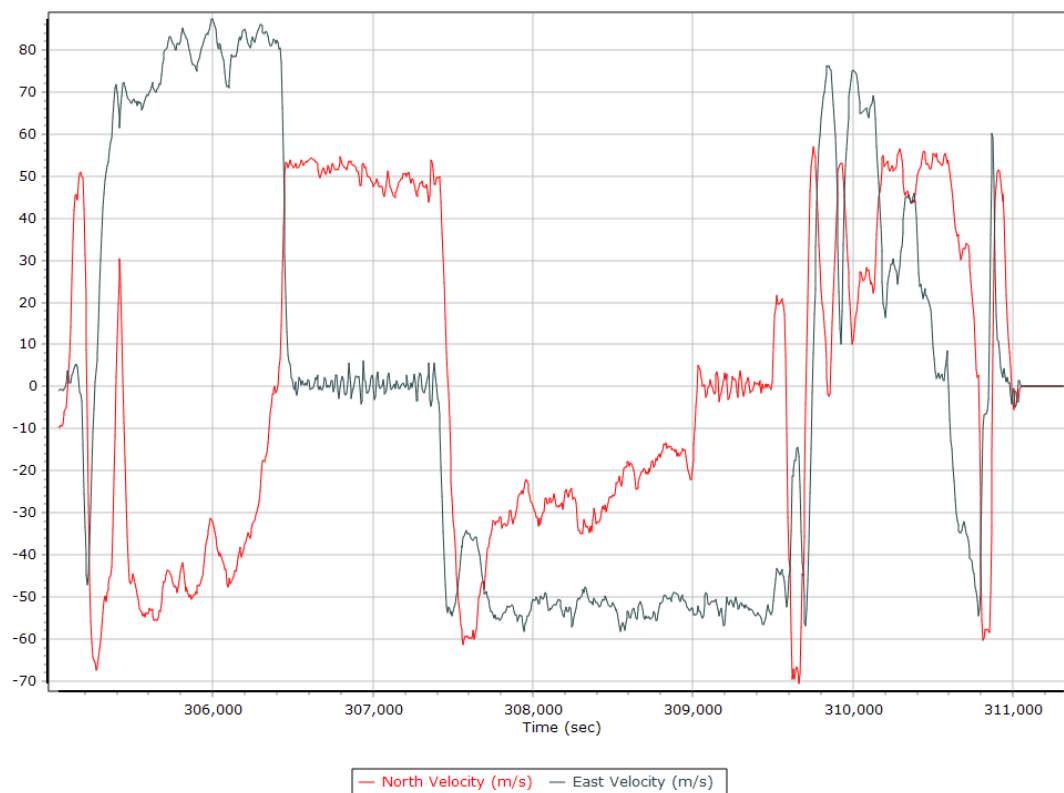
Roll/Pitch



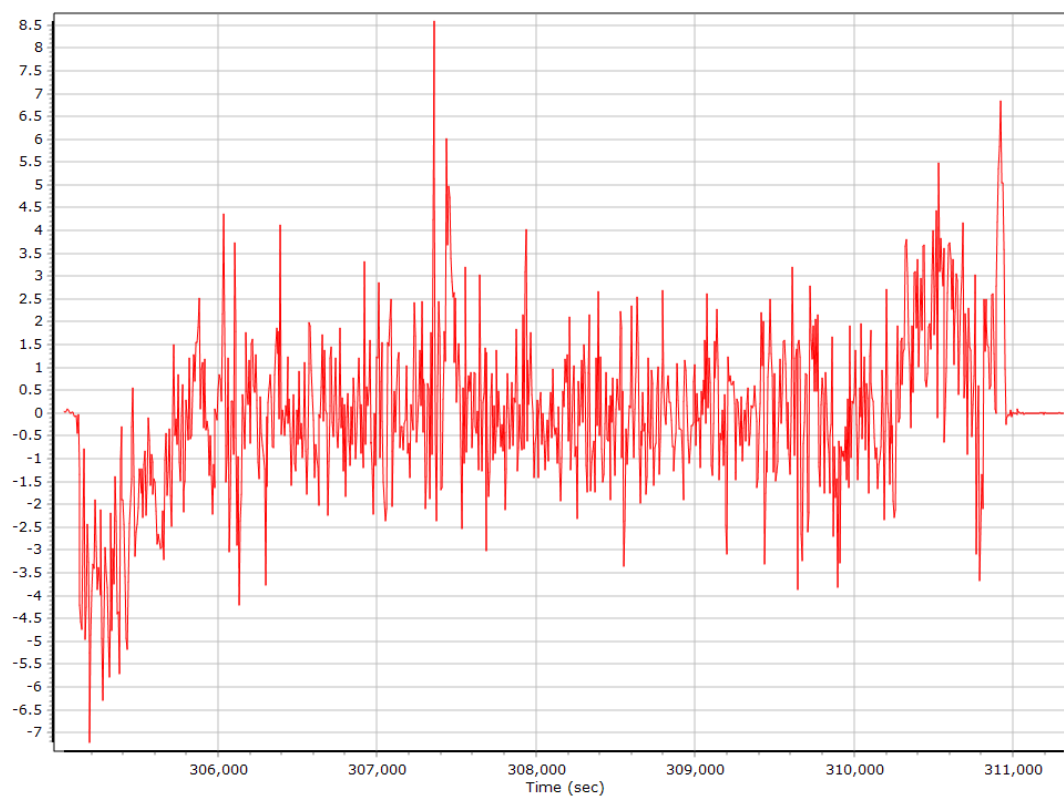
Heading



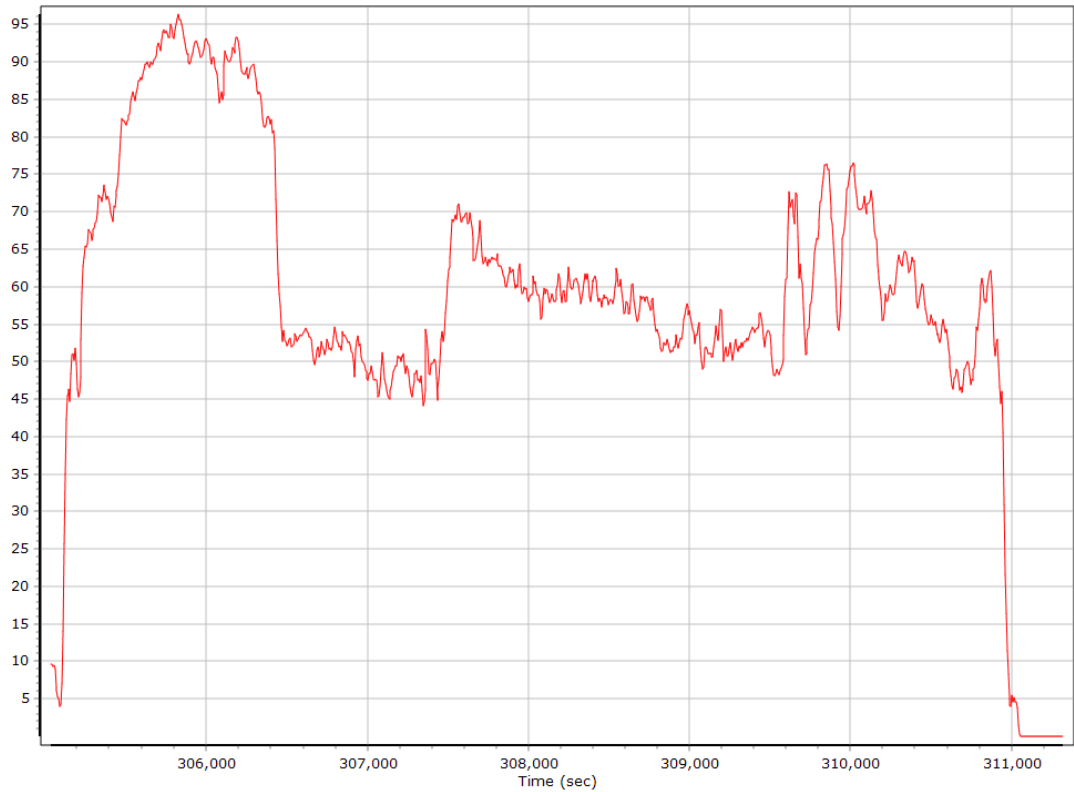
North/East Velocity



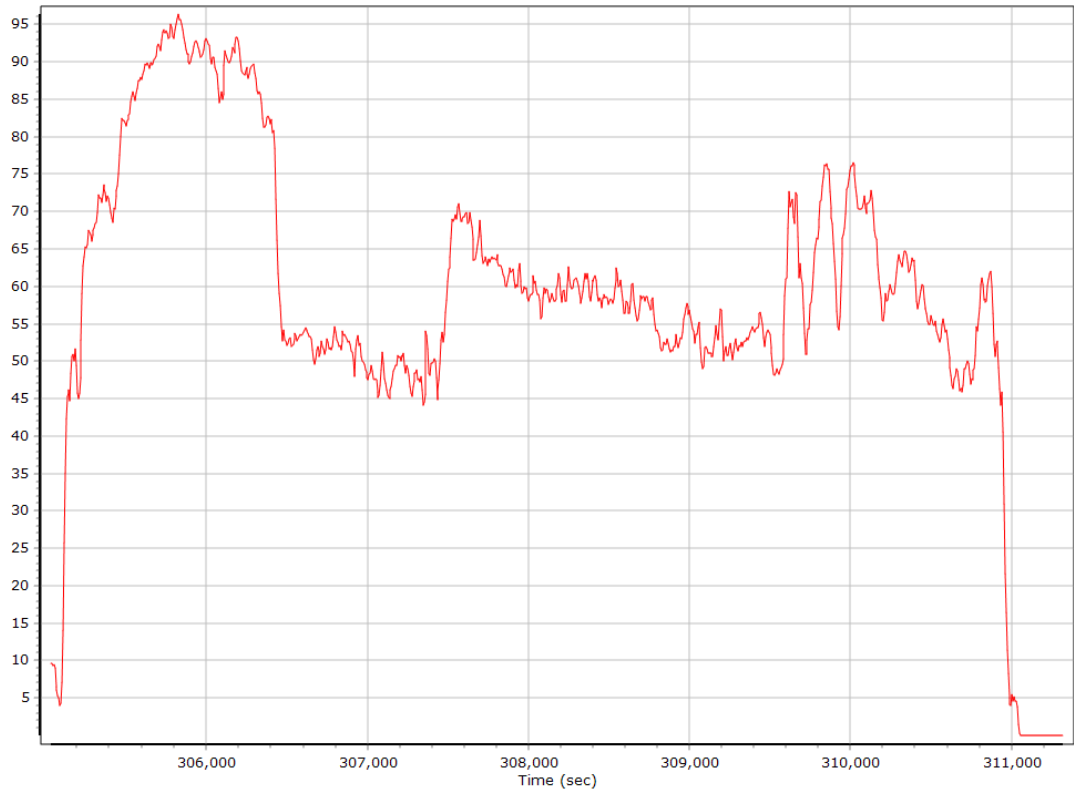
Down Velocity



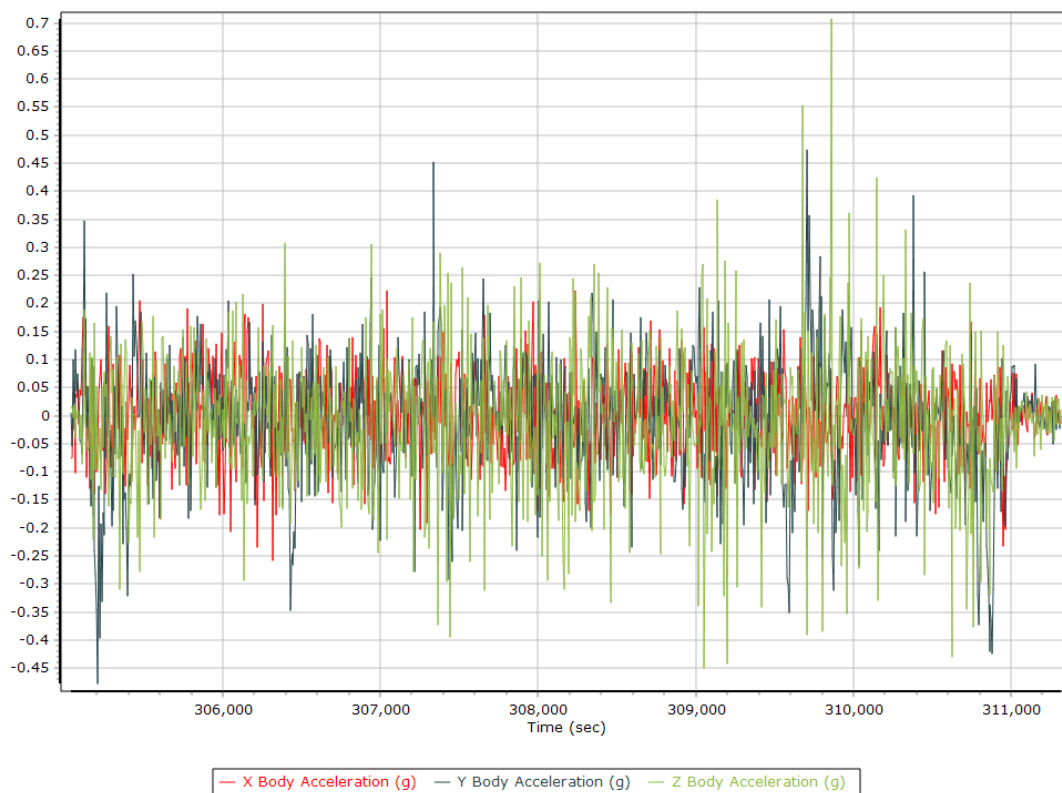
Total Speed



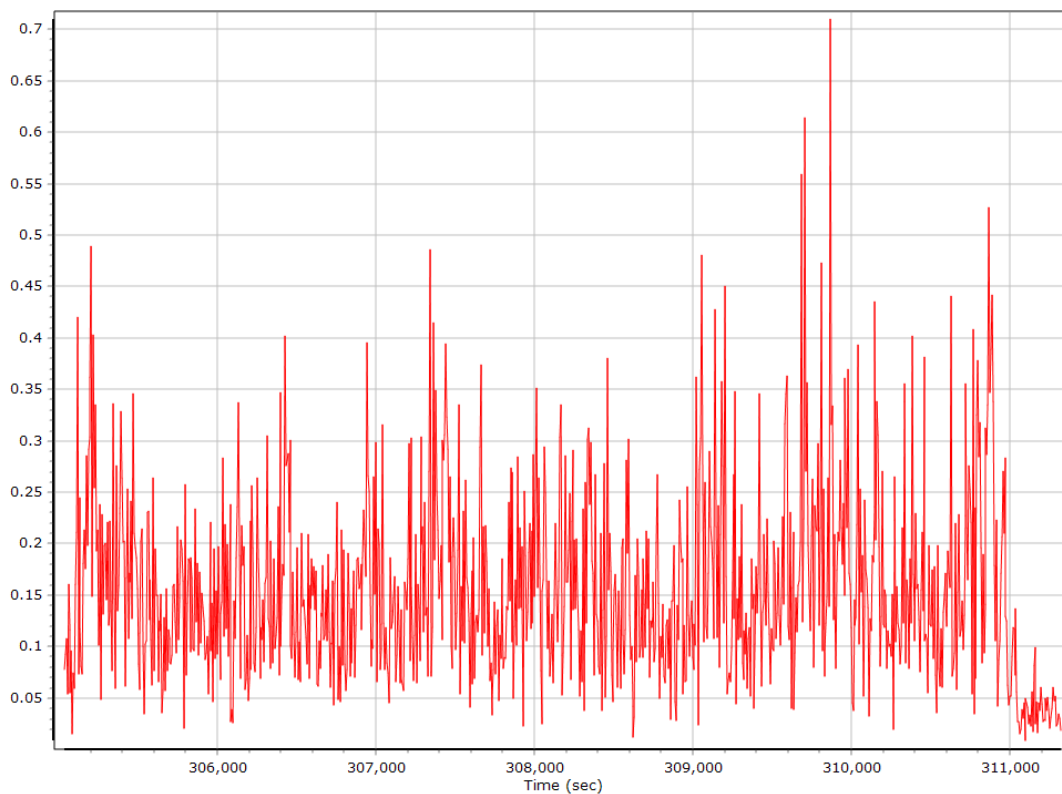
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

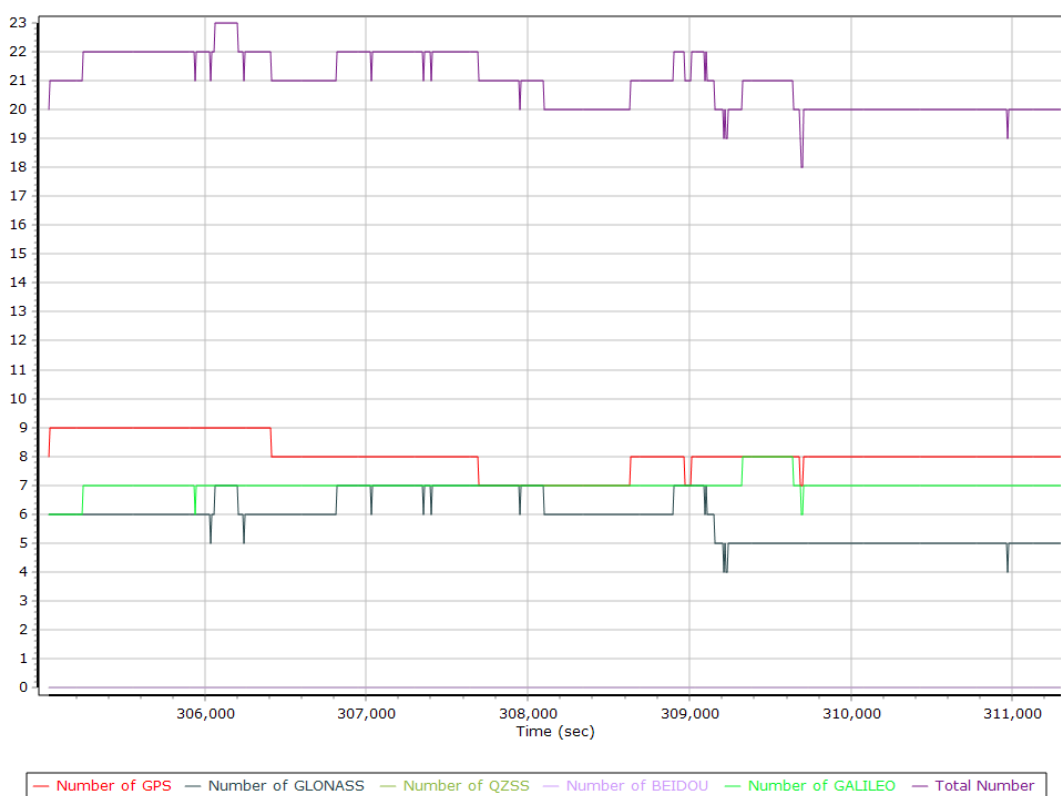


GNSS QC

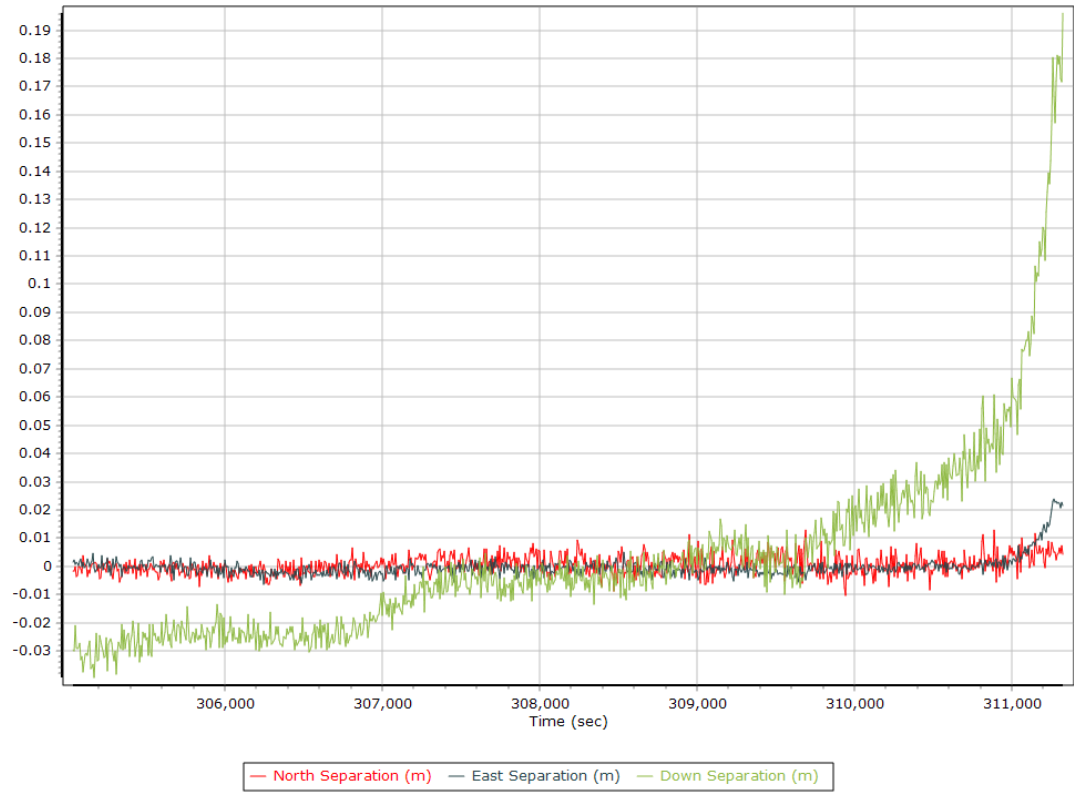
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	7	9	8
Number of GLONASS SV	4	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	5	8	7
Total number of SV	18	23	21
PDOP	1.07	1.55	1.23
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	6707.00	0.00	0.00
Percentage	100.00	0.00	0.00

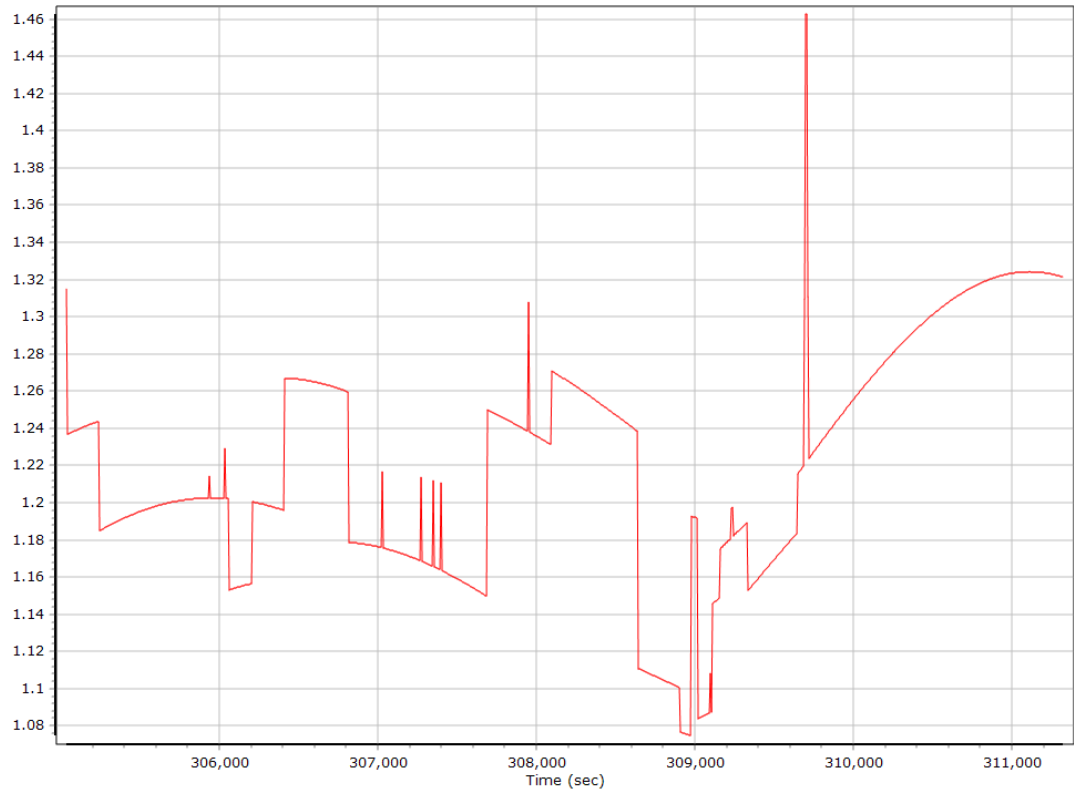
Num SVs in solution



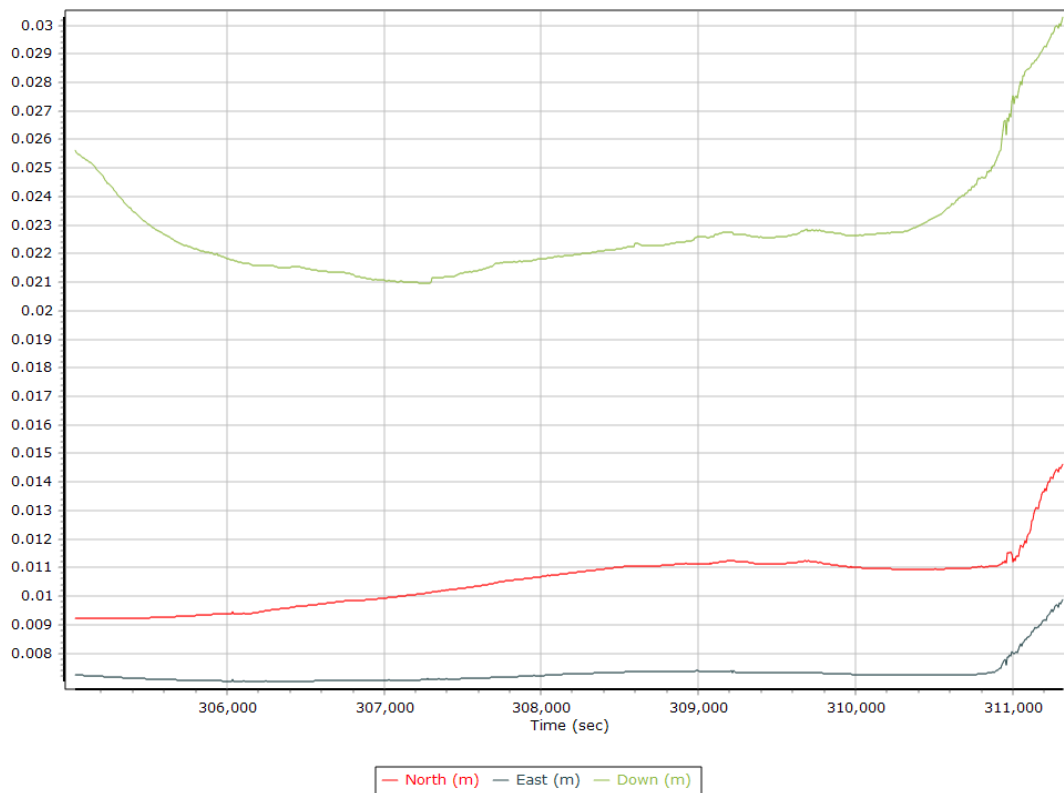
Forward/Reverse Separation



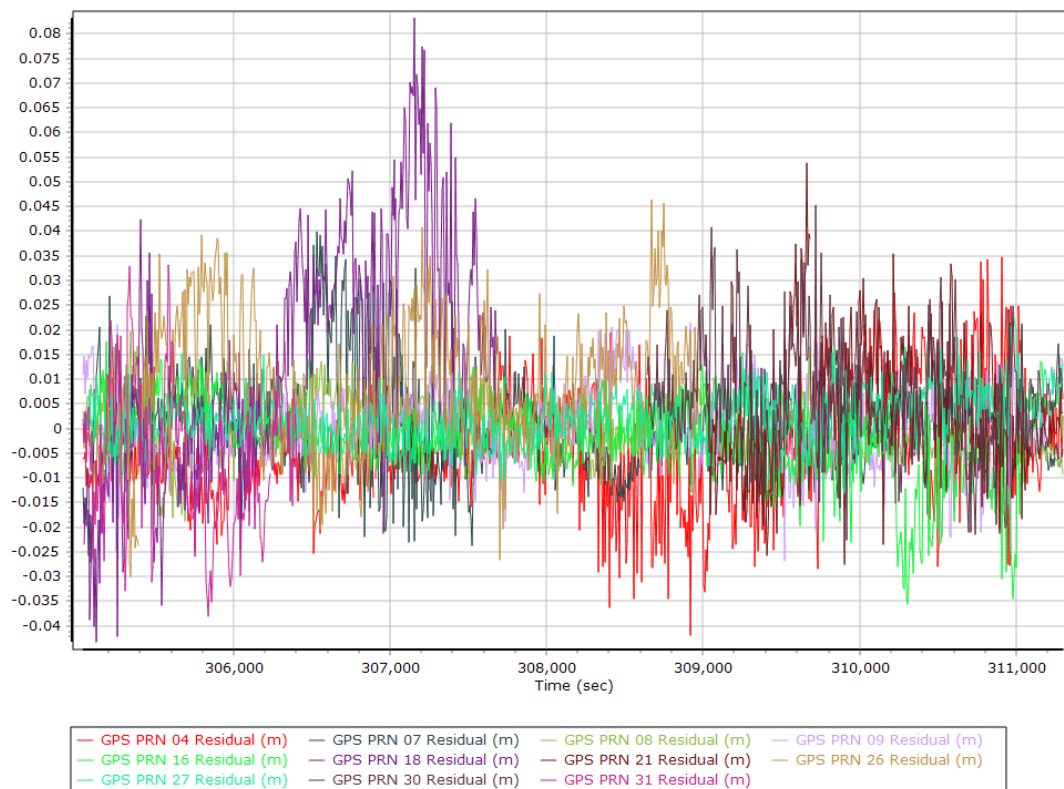
PDOP



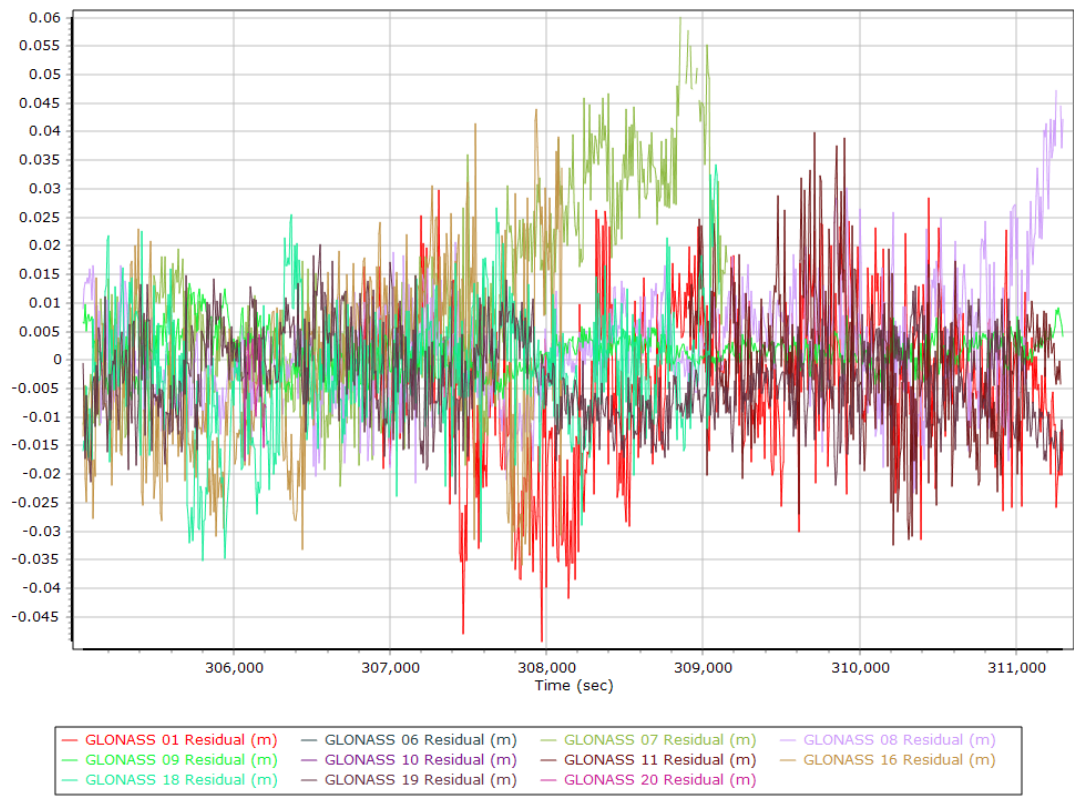
Estimated Position Accuracy



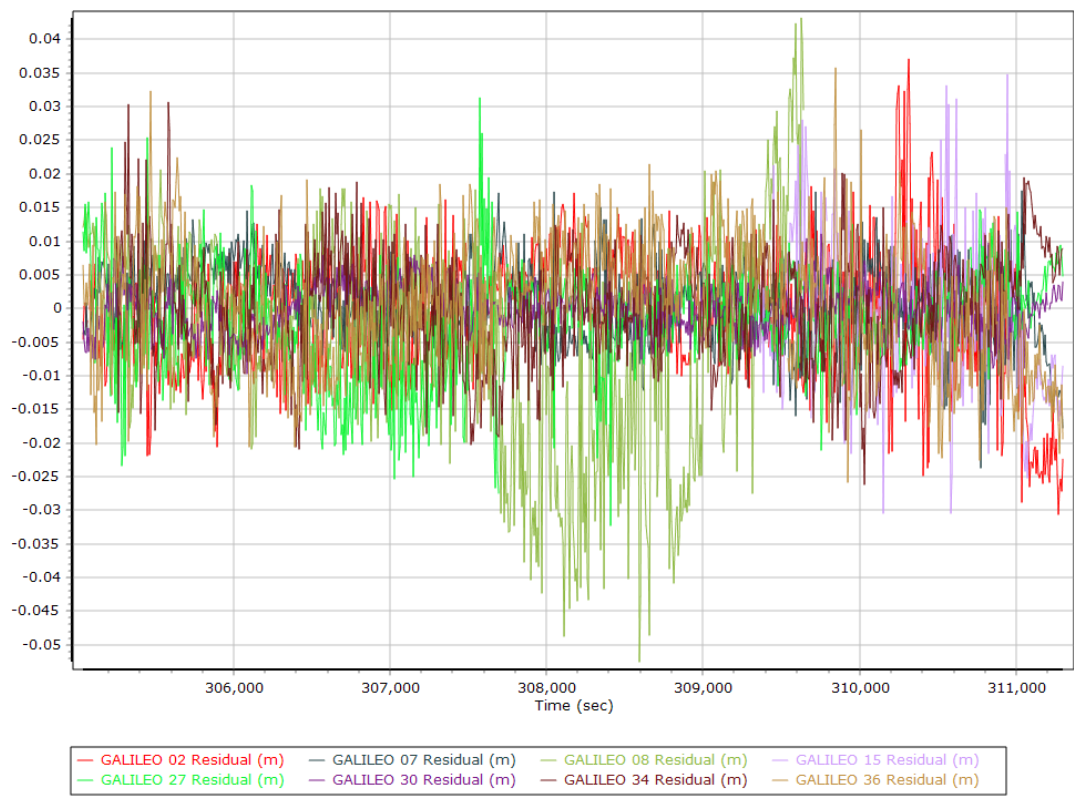
GPS Residuals



GLONASS Residuals



GALILEO Residuals



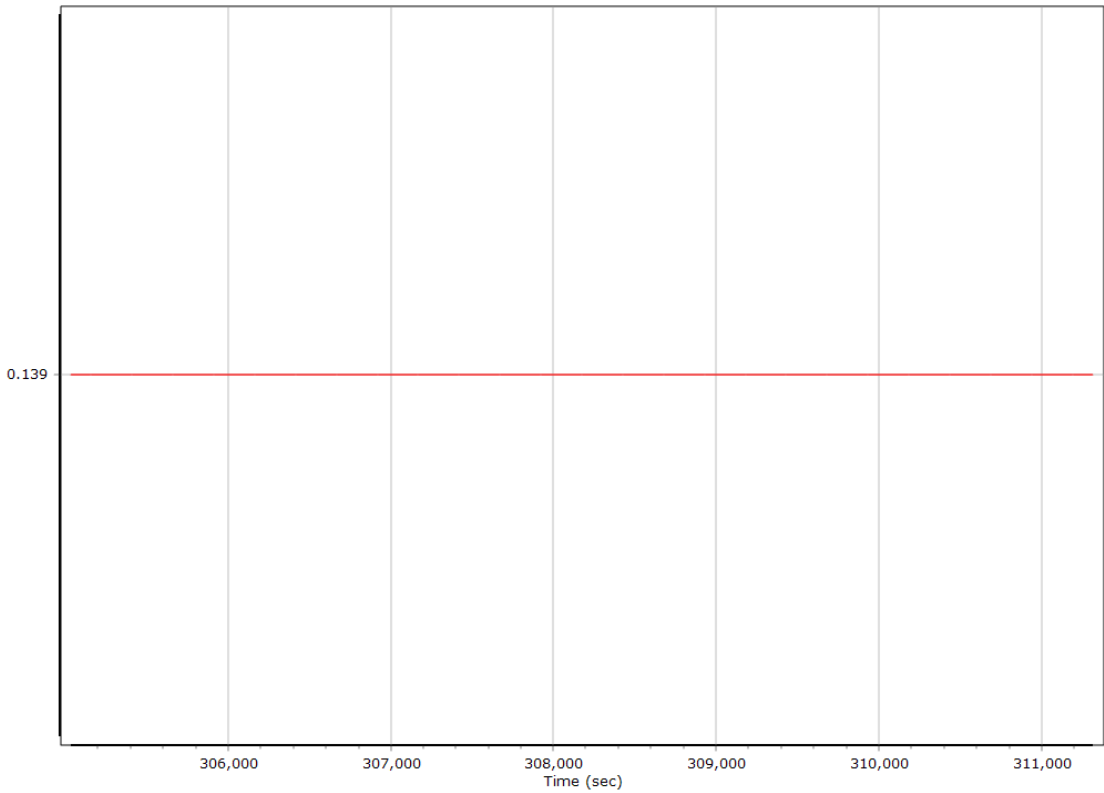
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	304571.000 (04/12/2023 12:36:11)		
Processing end time	311321.000 (04/12/2023 14:28:41)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

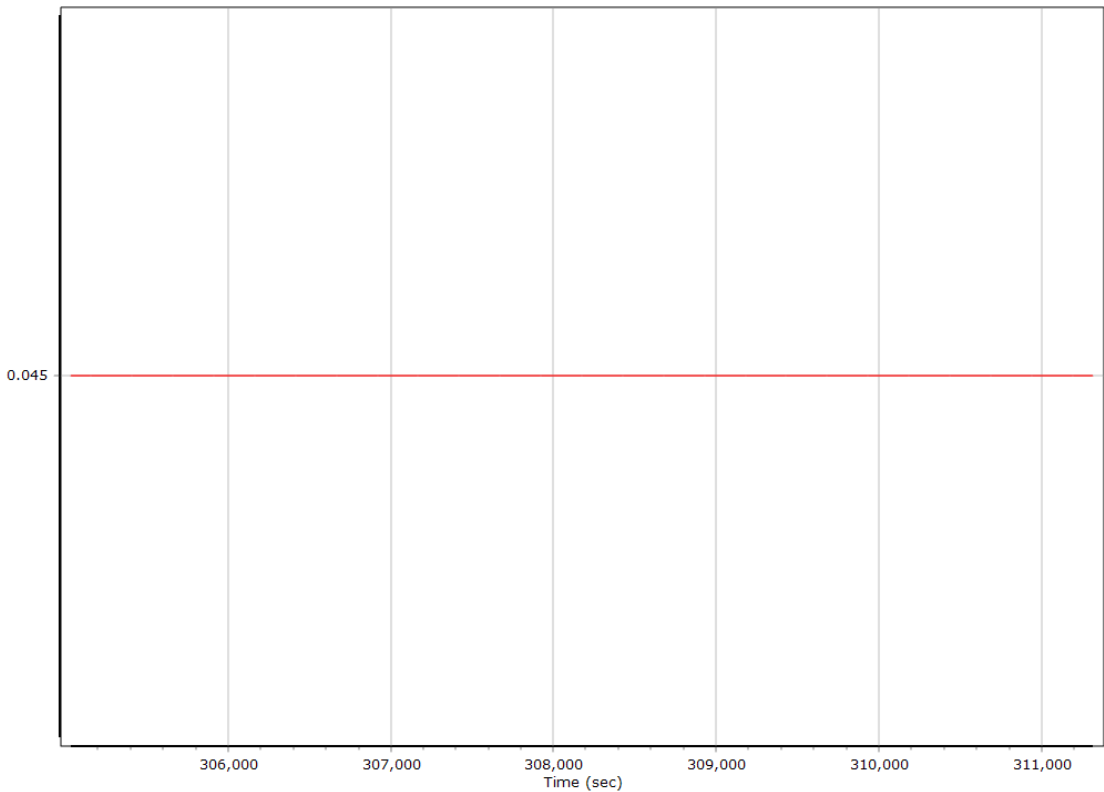
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

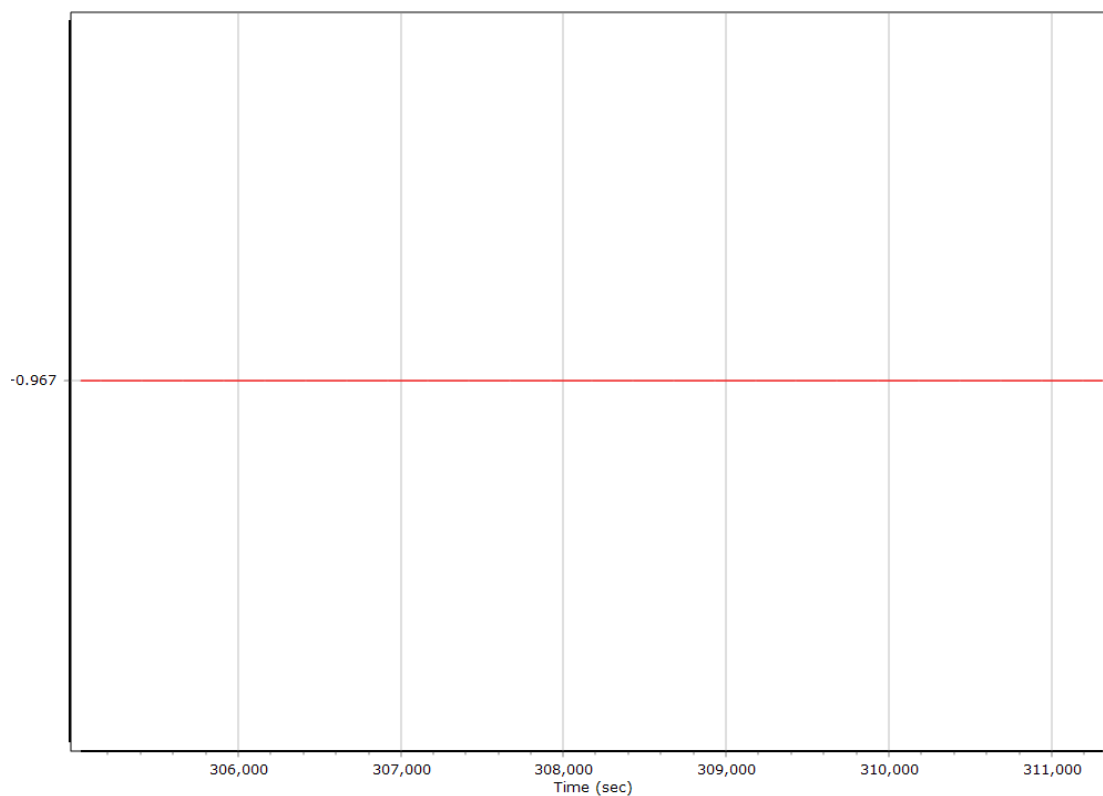
X Reference-Primary GNSS Lever Arm (m)



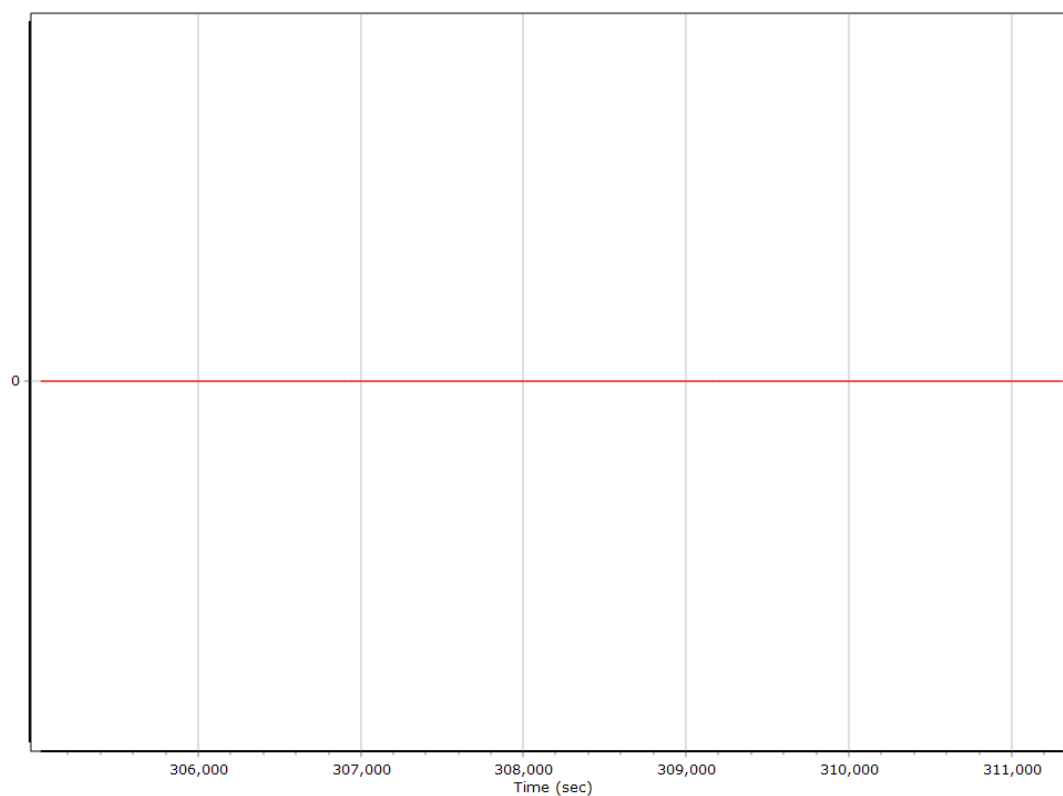
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



Reference-Primary GNSS Lever Arm Figure of Merit



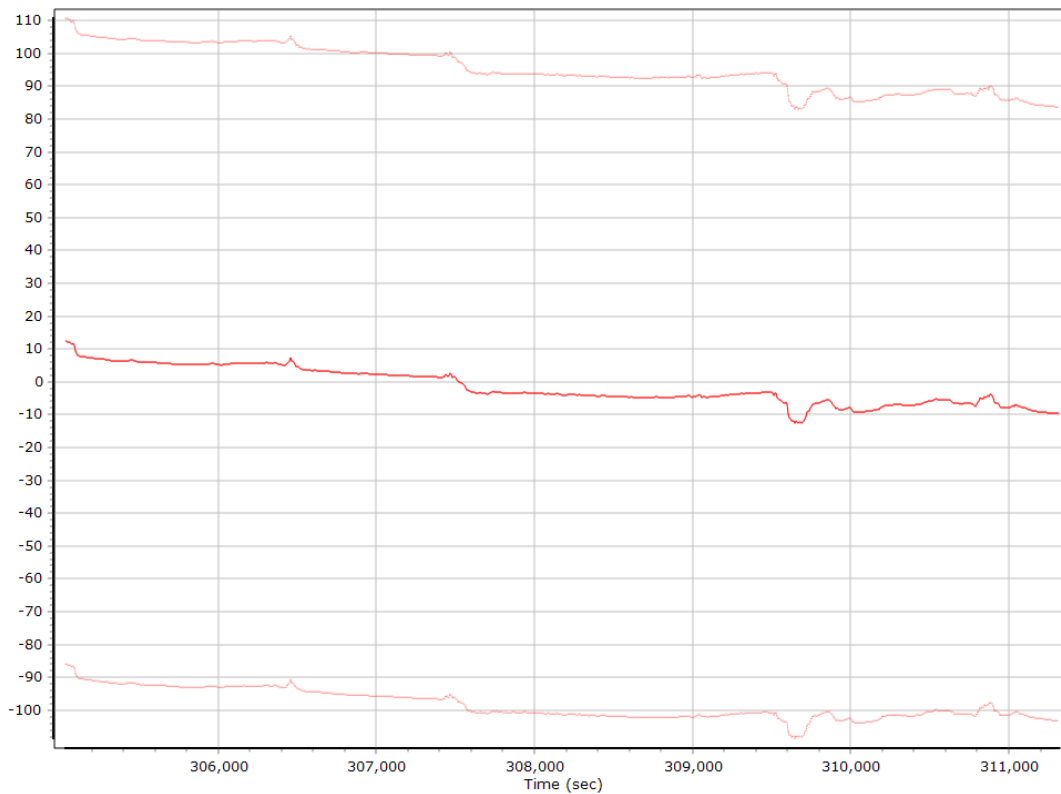
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

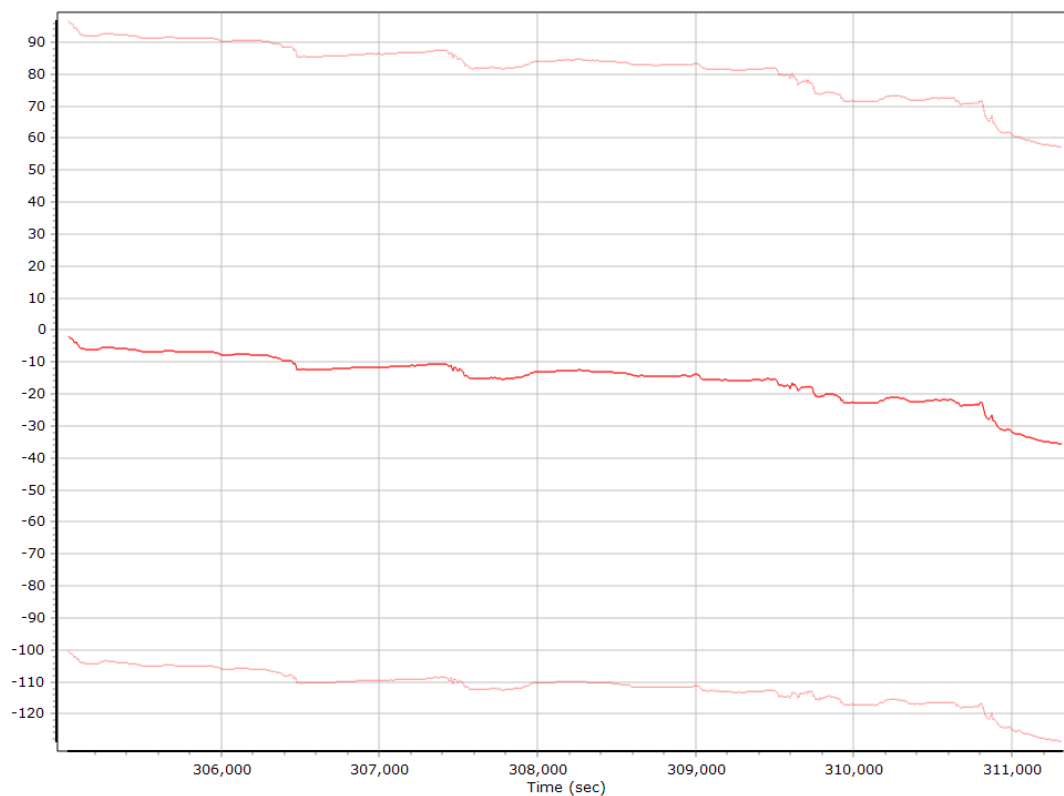
Accelerometer Bias (micro-g)



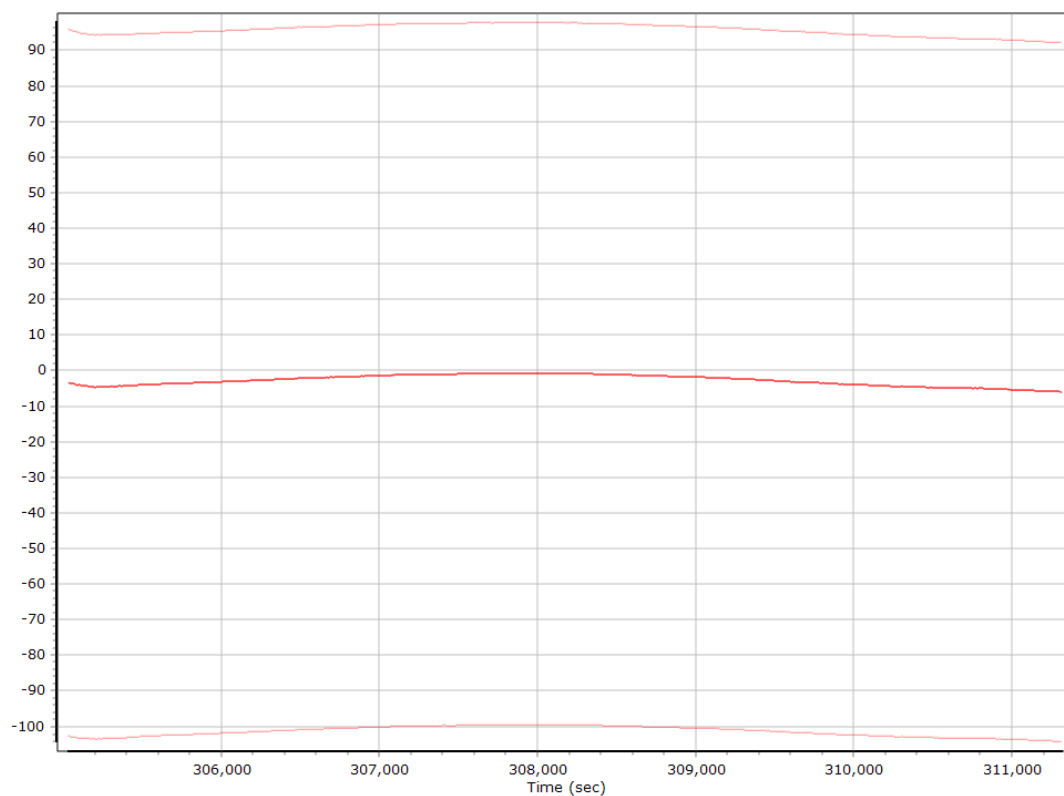
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



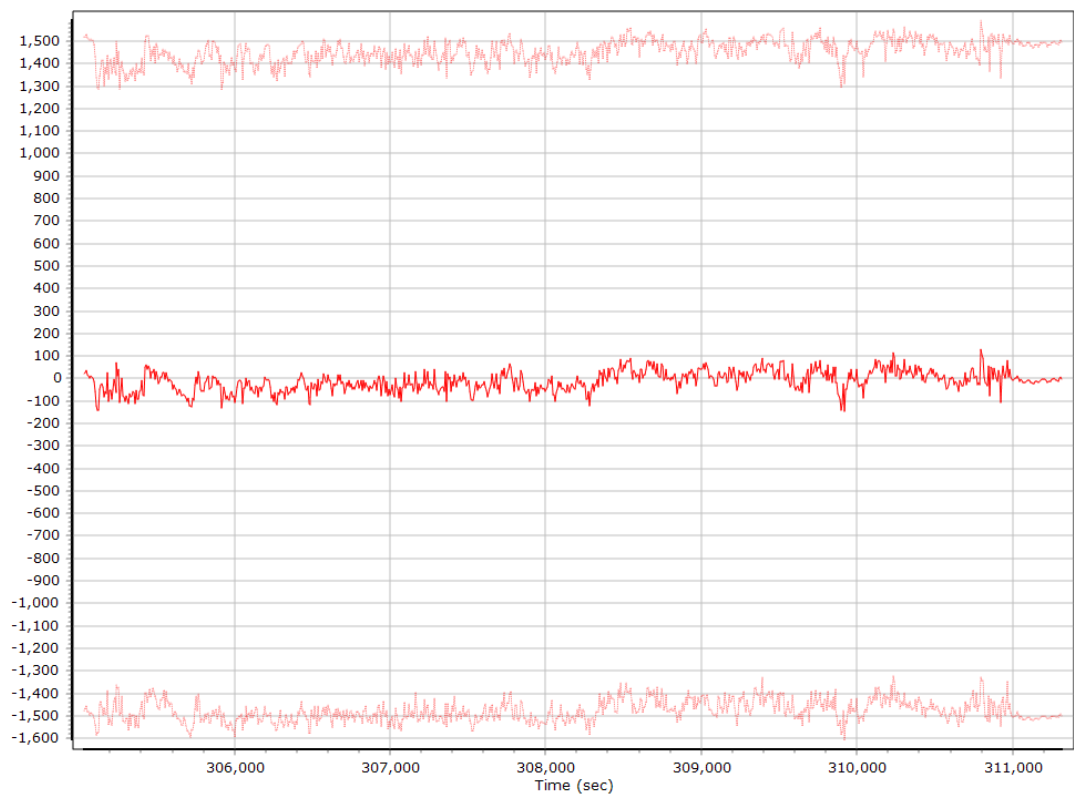
Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



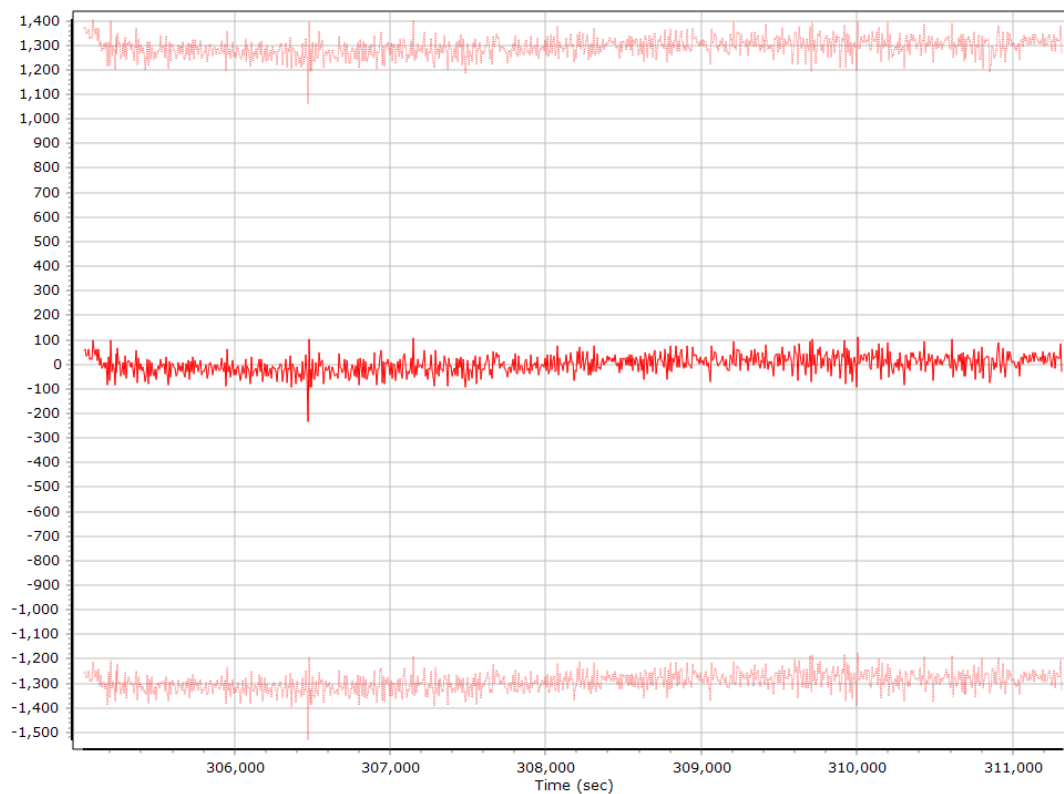
X Accelerometer Scale Error (ppm)



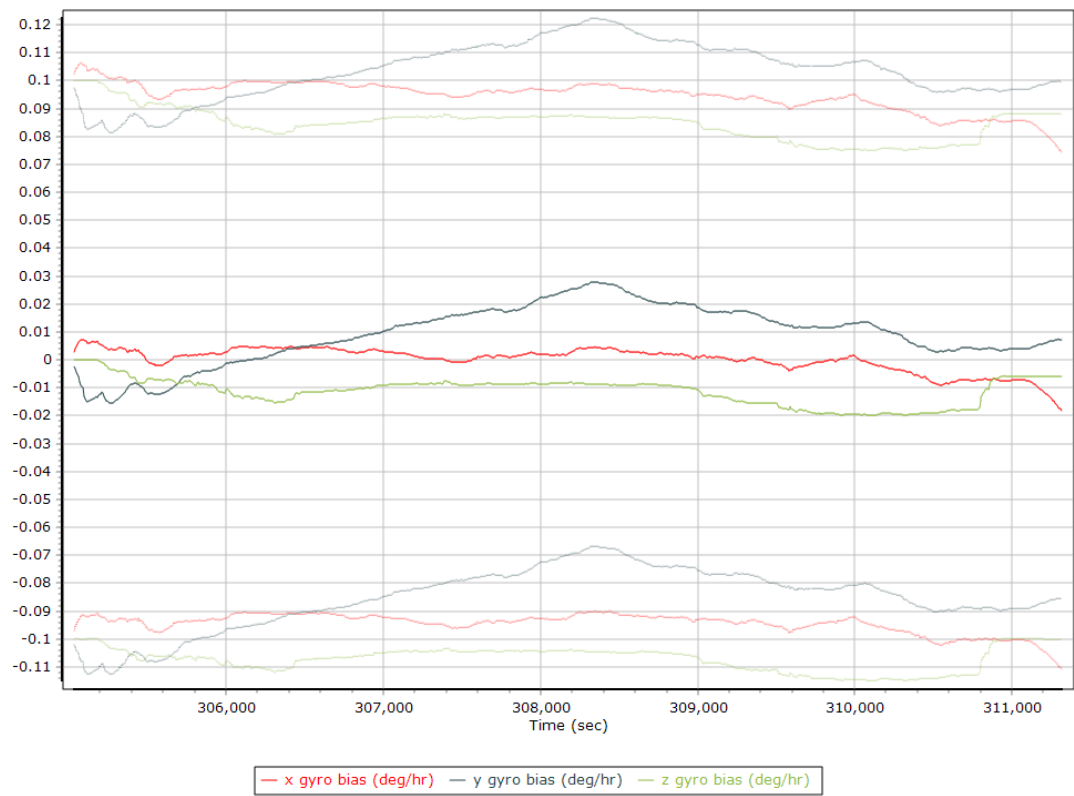
Y Accelerometer Scale Error (ppm)



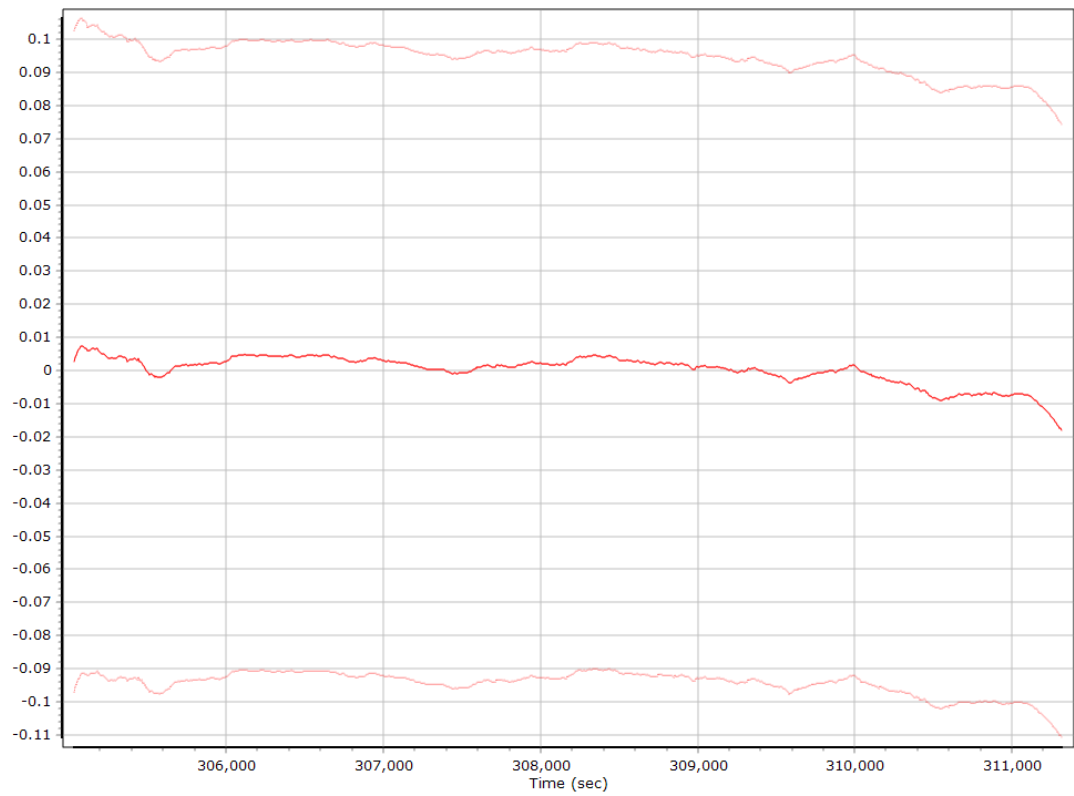
Z Accelerometer Scale Error (ppm)



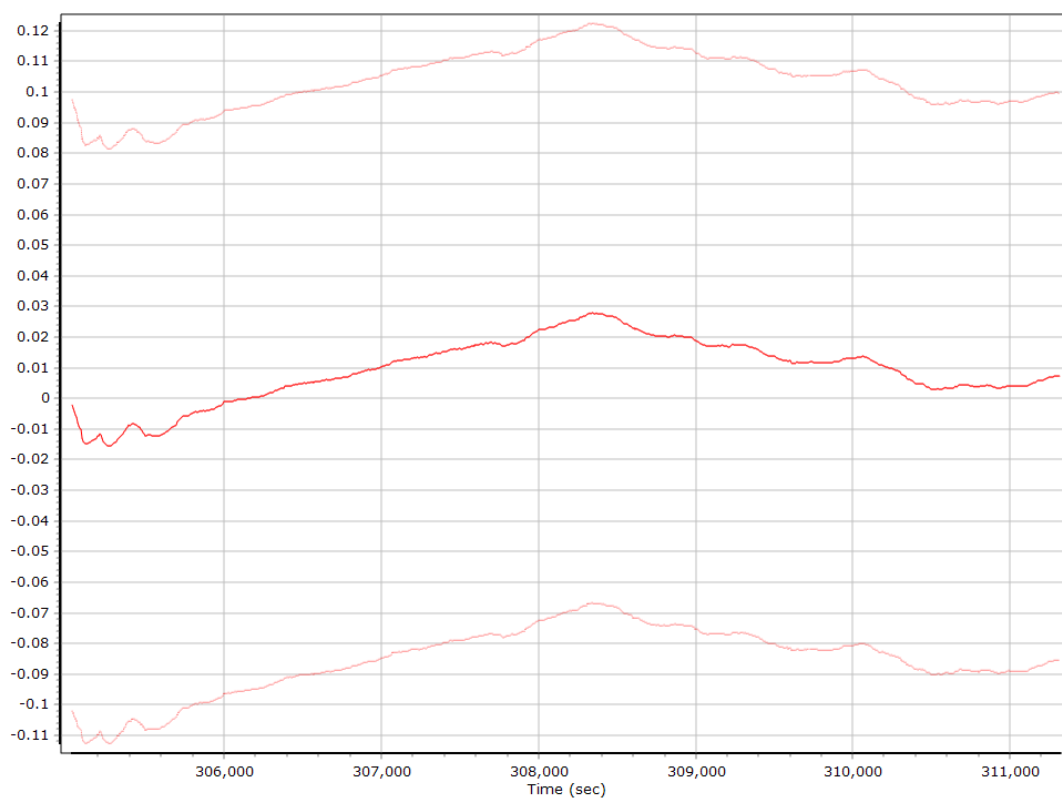
Gyro Bias (deg/h)



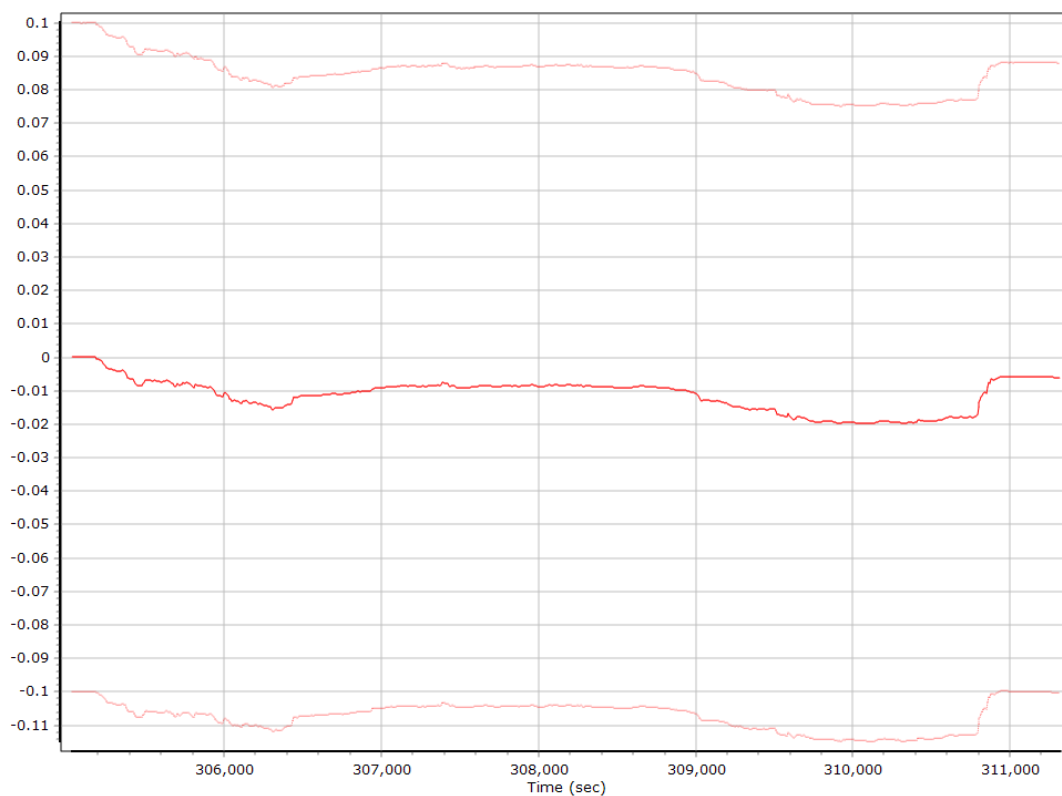
X Gyro Bias (deg/h)



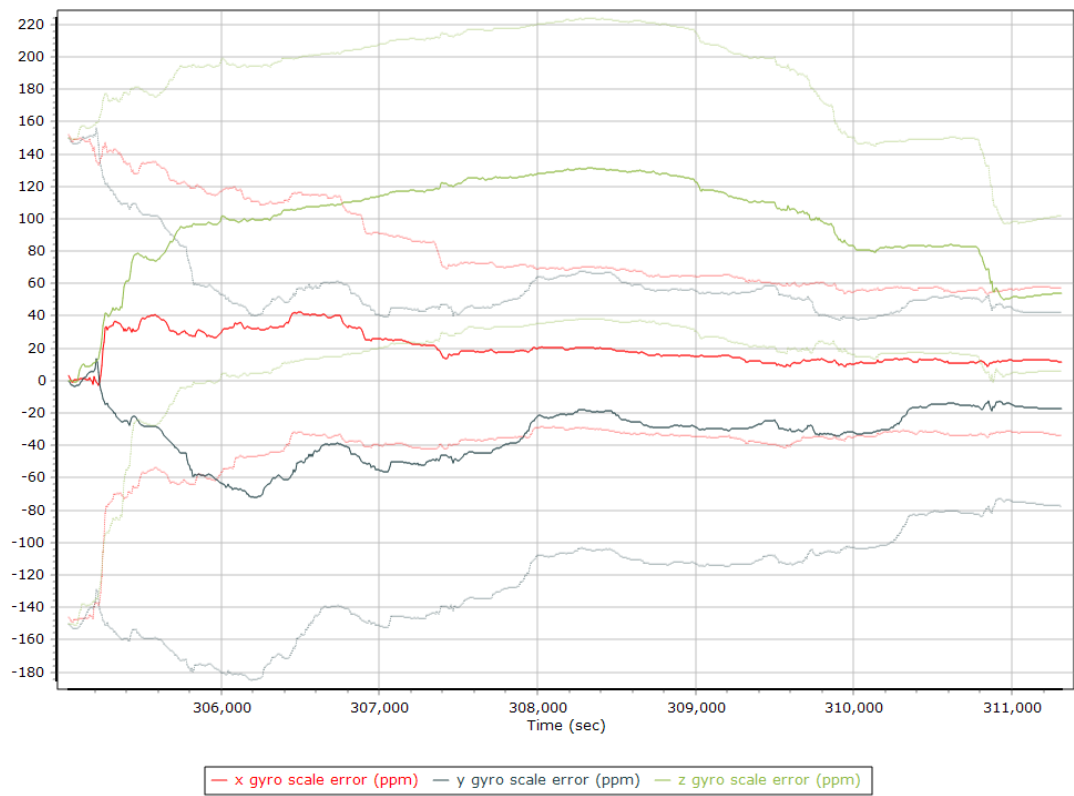
Y Gyro Bias (deg/h)



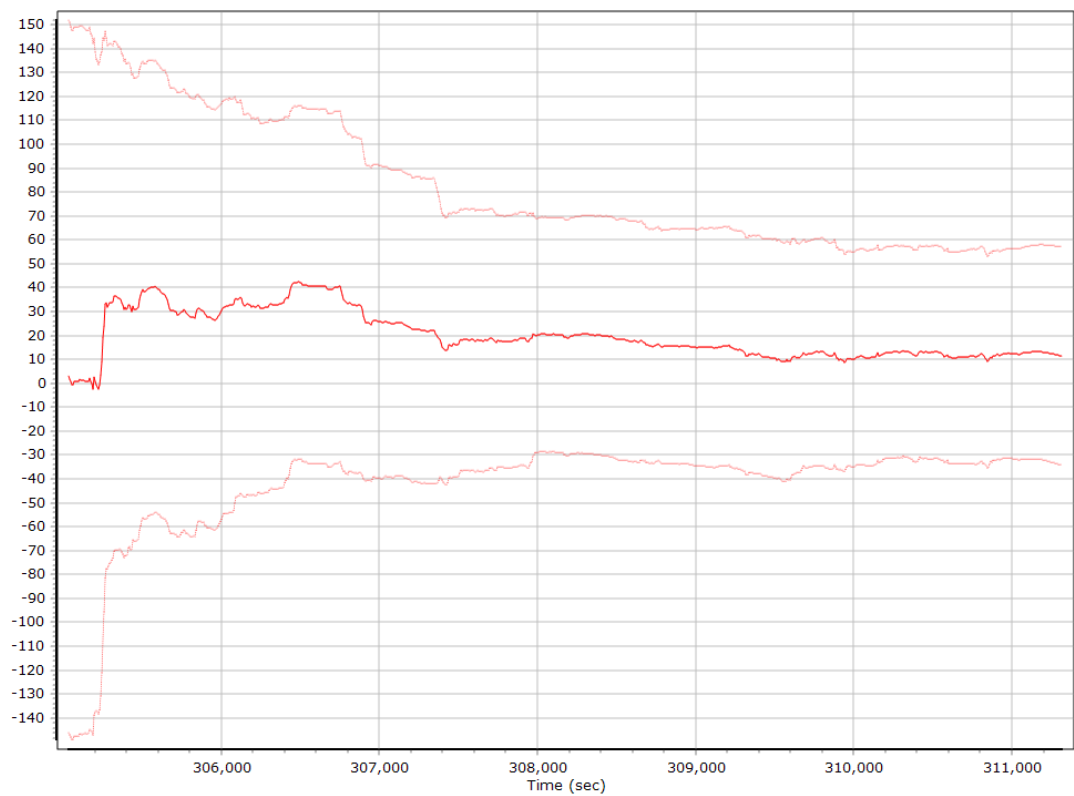
Z Gyro Bias (deg/h)



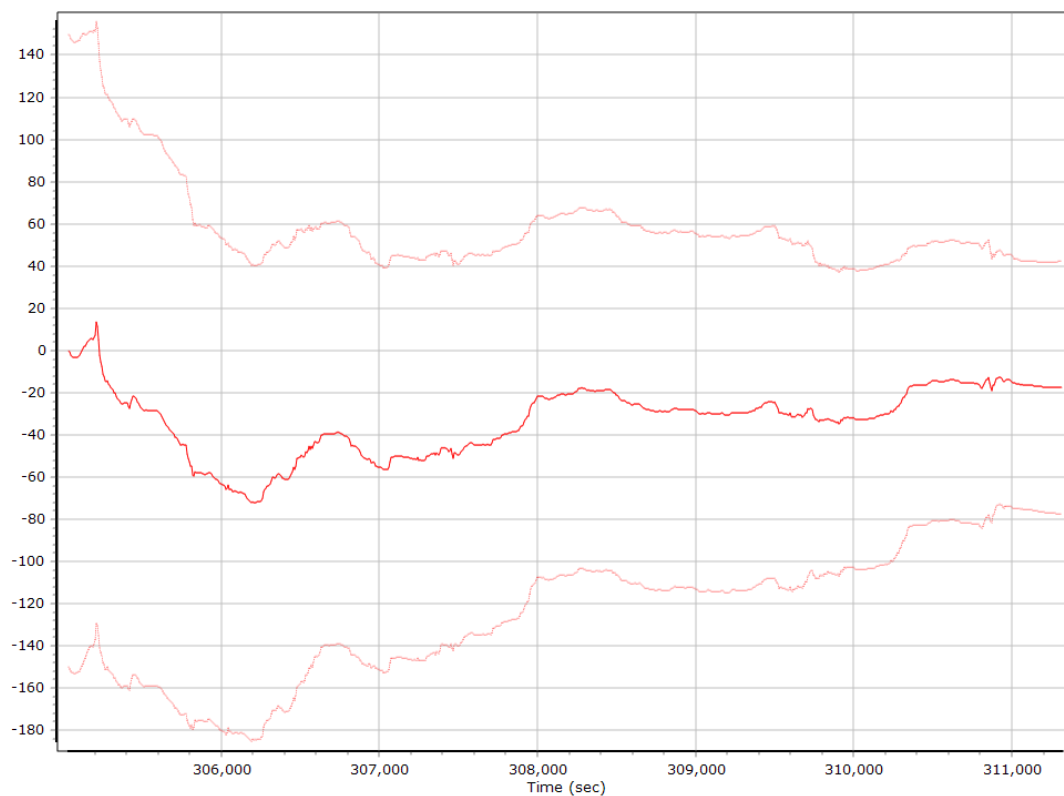
Gyro Scale Error (ppm)



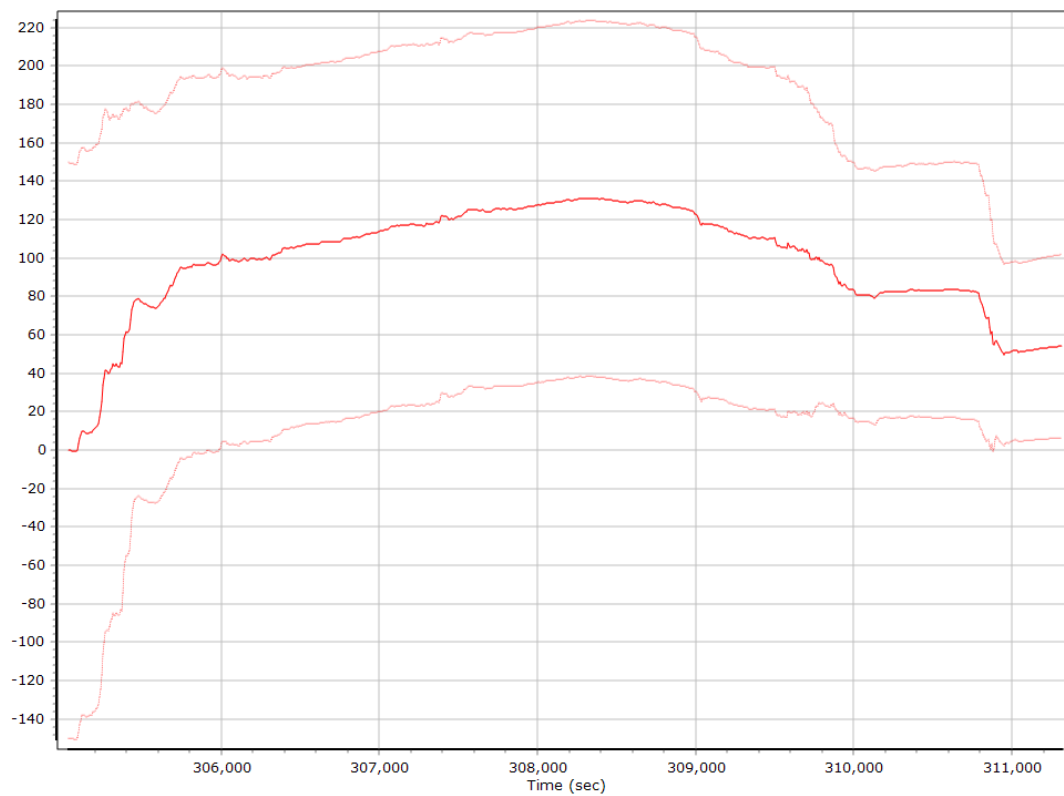
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

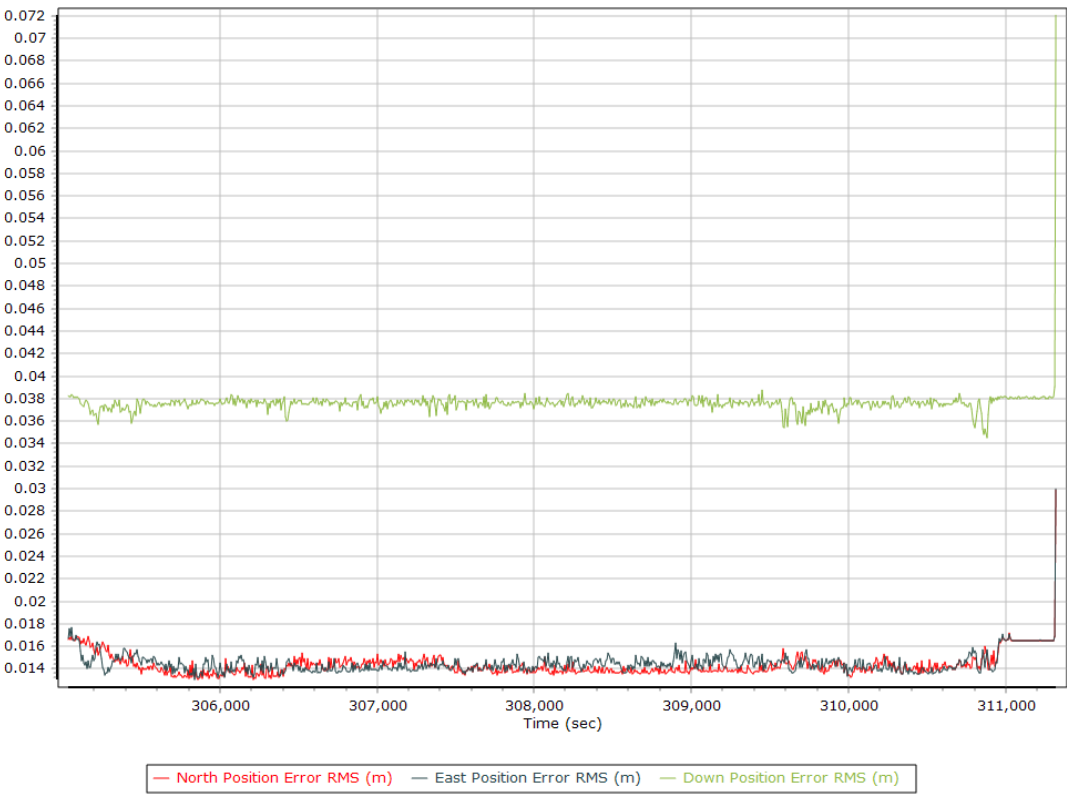


Z Gyro Scale Error (ppm)

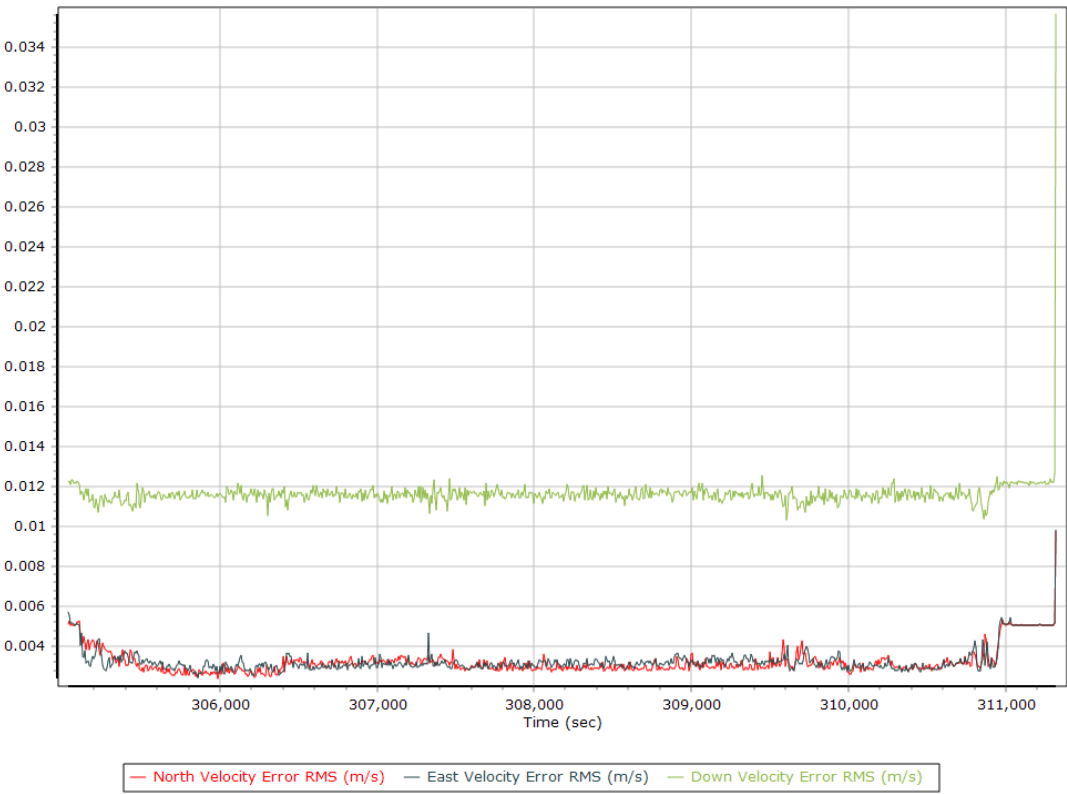


Smoothed Performance Metrics

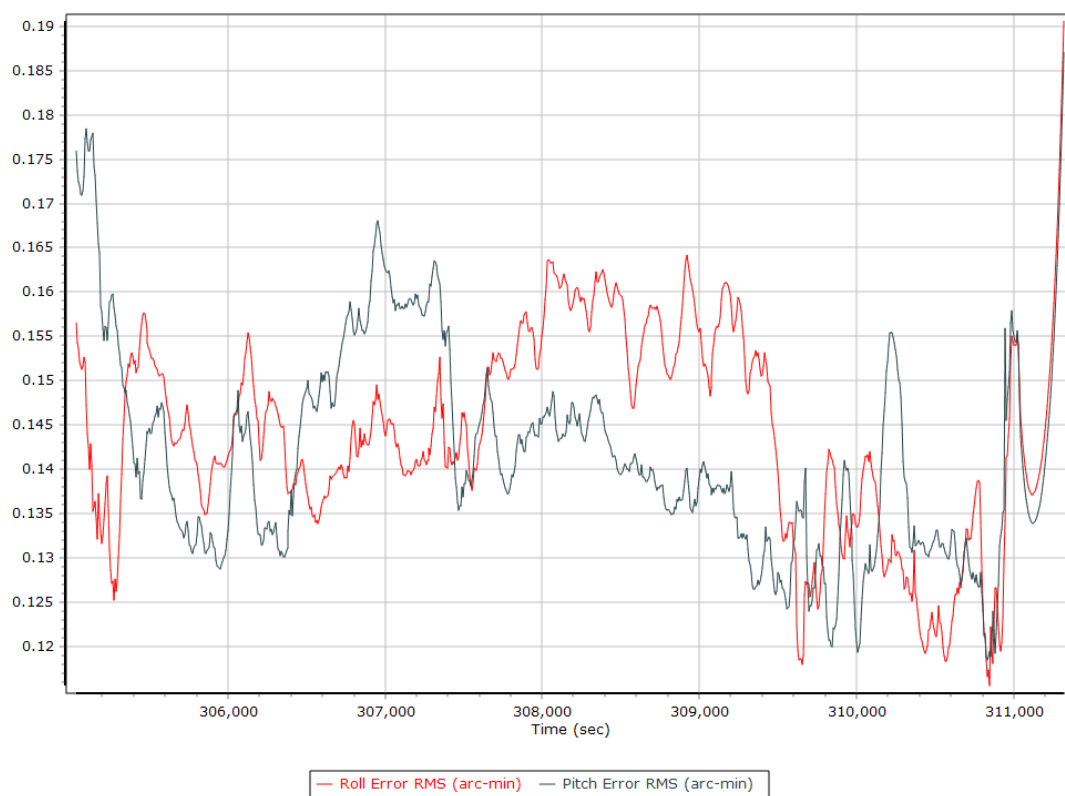
Position Error RMS (m)



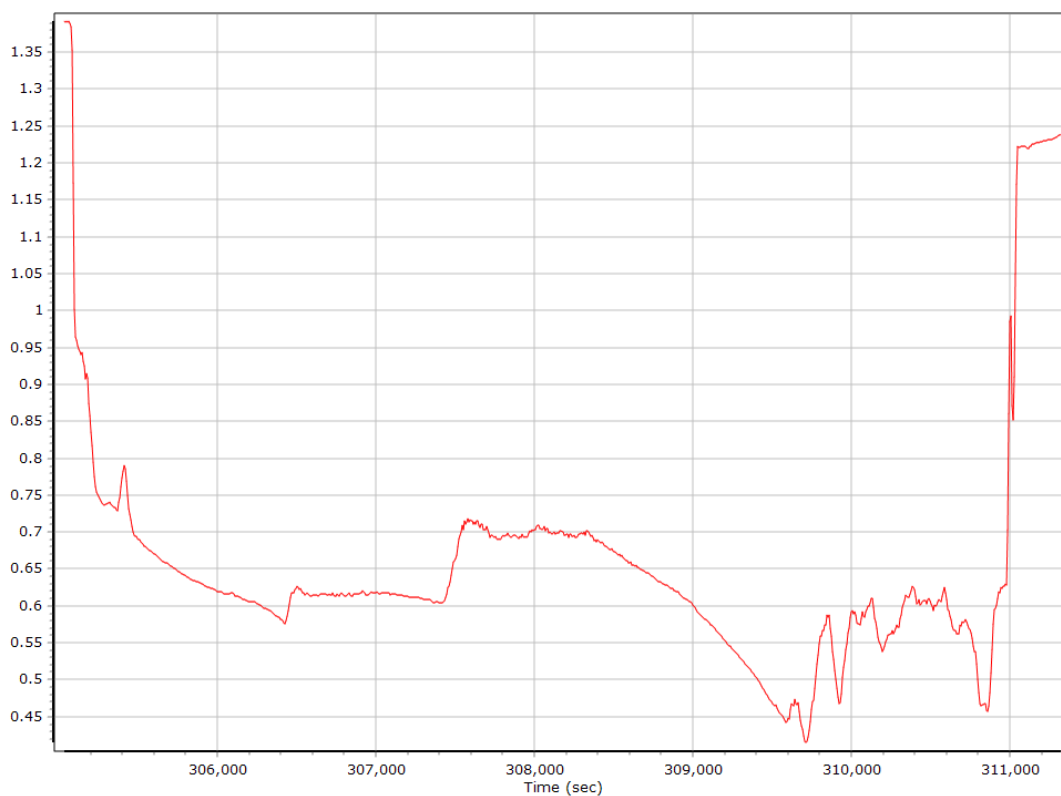
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

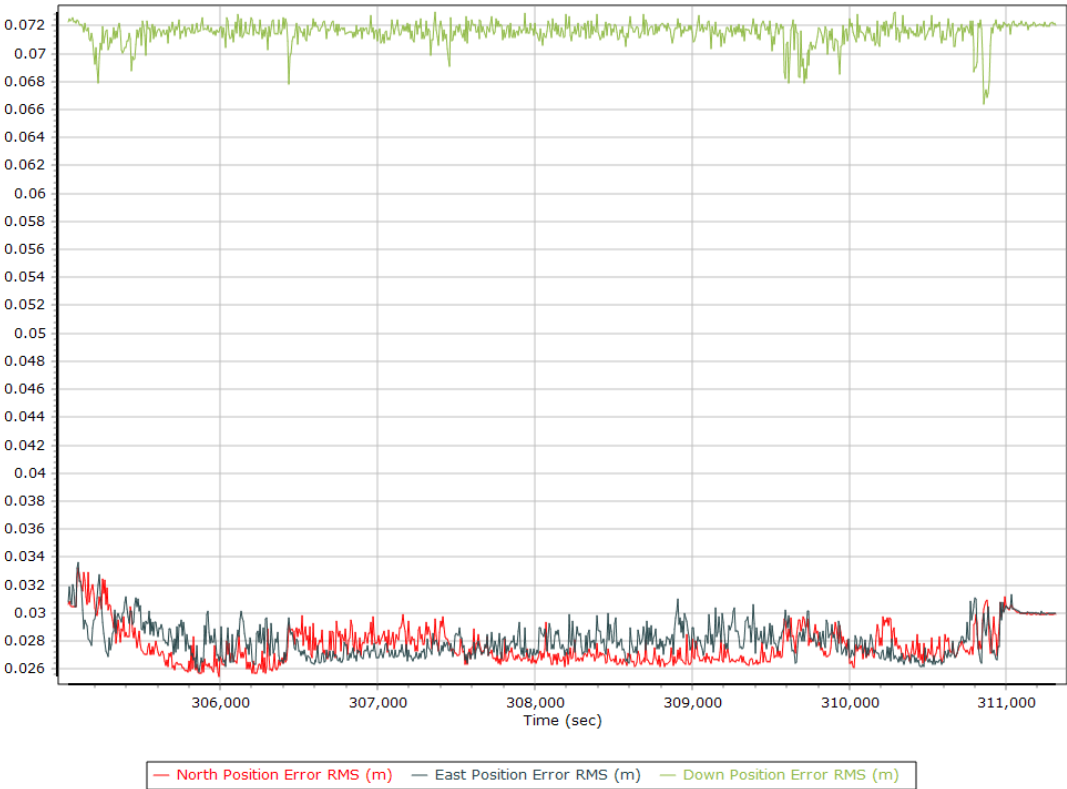


Heading Error RMS (arc-min)



Forward Processed Performance Metrics

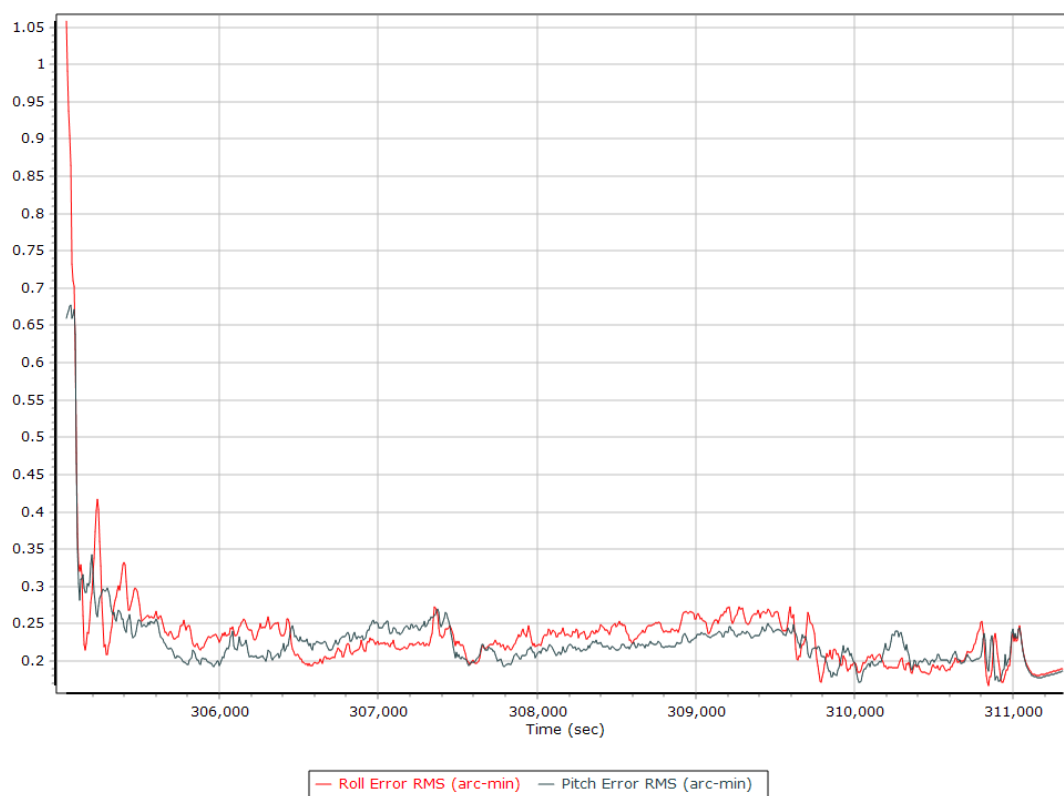
Position Error RMS (m)



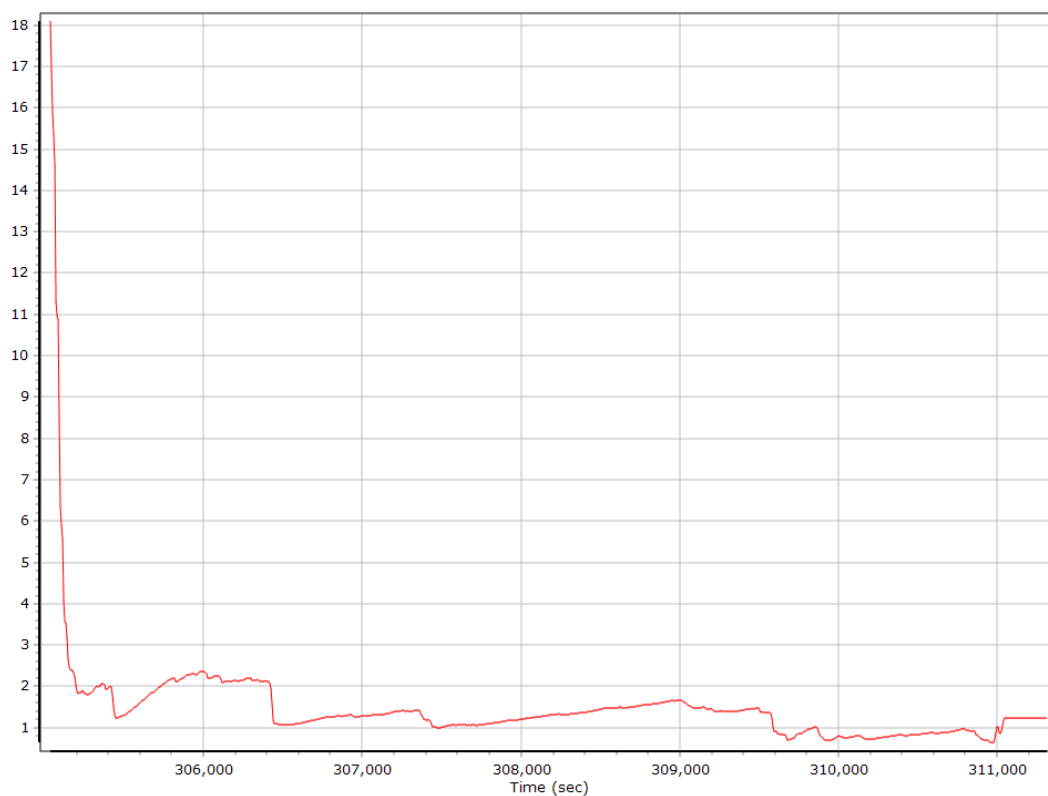
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

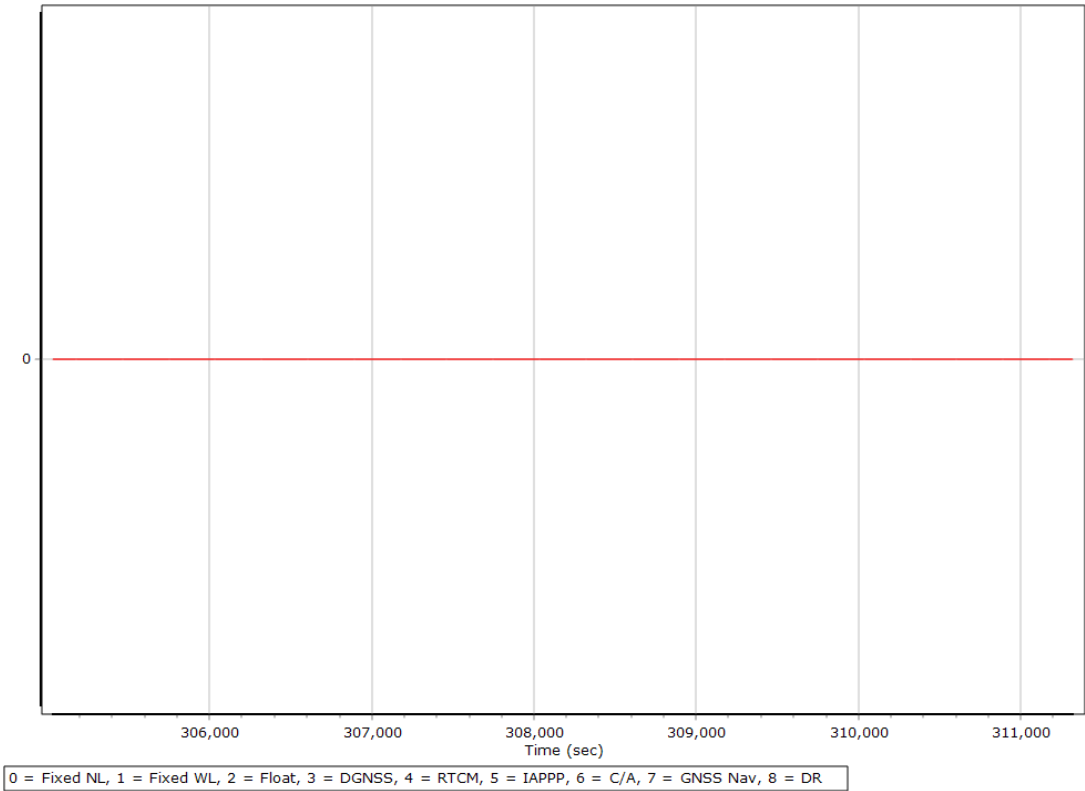


Heading Error RMS (arc-min)

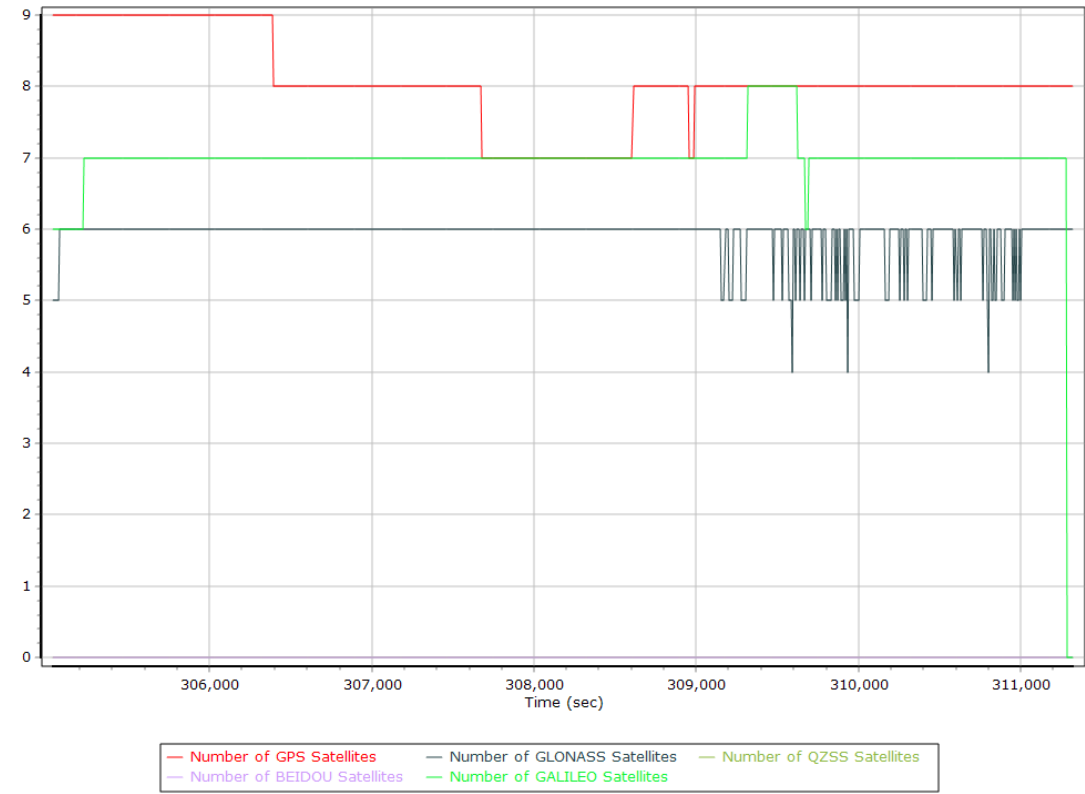


Forward Processed Solution Status

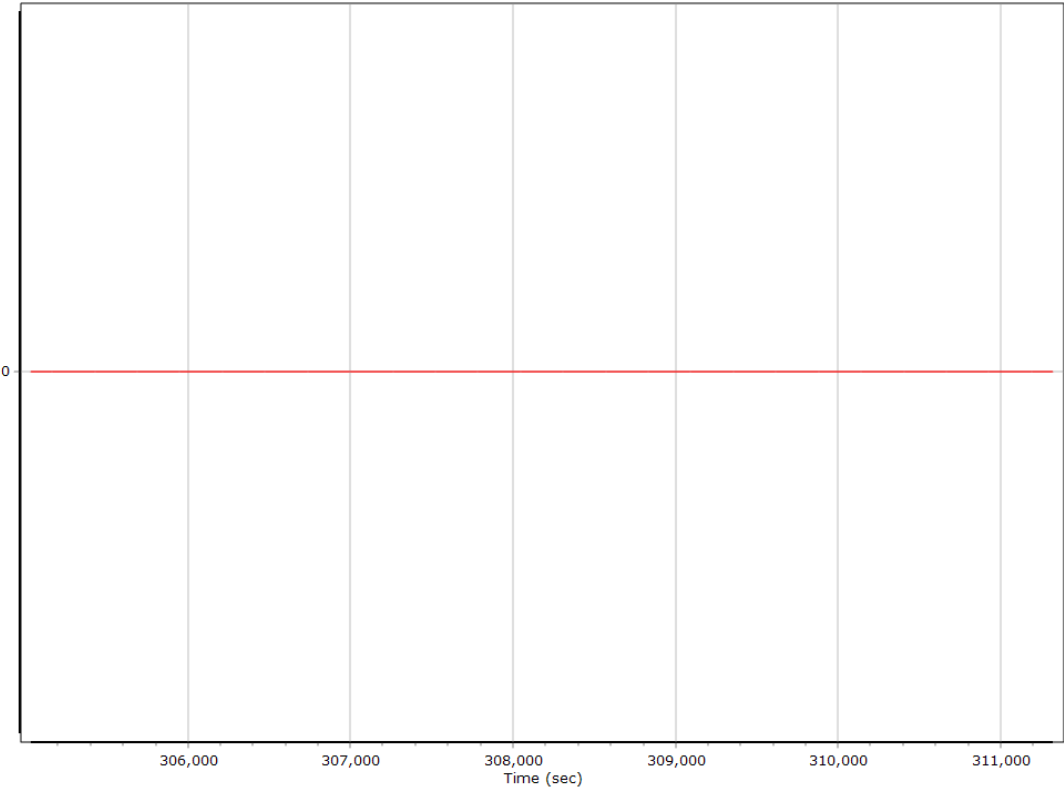
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230412_F1_4894_NAD832011.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	304976.002 (04/12/2023 12:42:56)		
Export end time	311321.005 (04/12/2023 14:28:41)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.276712		

General Information

Mission Information

Project name	20230413_F1_4894
Processing date	2023-04-17 15:23:10
Mission date	2023-04-13 12:41:06
Mission duration	04:30:04.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.372	POS Data
VQ1560.373	POS Data
VQ1560.374	POS Data
VQ1560.375	POS Data
VQ1560.376	POS Data
VQ1560.377	POS Data
VQ1560.378	POS Data
VQ1560.379	POS Data
VQ1560.380	POS Data
VQ1560.381	POS Data
VQ1560.382	POS Data
VQ1560.383	POS Data
VQ1560.384	POS Data
VQ1560.385	POS Data
VQ1560.386	POS Data
VQ1560.387	POS Data
VQ1560.388	POS Data
VQ1560.389	POS Data
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VQ1560.394	POS Data
VQ1560.395	POS Data
VQ1560.396	POS Data
VQ1560.397	POS Data
VQ1560.398	POS Data
VQ1560.399	POS Data
VQ1560.400	POS Data
VQ1560.401	POS Data
VQ1560.402	POS Data
VQ1560.403	POS Data
VQ1560.404	POS Data
VQ1560.405	POS Data
VQ1560.406	POS Data
VQ1560.407	POS Data
VQ1560.408	POS Data
VQ1560.409	POS Data

Input Files

File Name	File Type
Ephm1030.23g	GLONASS Broadcast Ephemeris
Ephm1030.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230413_F1_4894.out	SBET Trajectory File
export_20230413_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.372		
Last raw data file	VQ1560.409		
Start GPS week	2257		
Start time	13.157 (04/09/2023 00:00:13)		
End time	407452.499 (04/13/2023 17:10:52)		
Start of fine alignment	392104.195 (04/13/2023 12:55:04)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

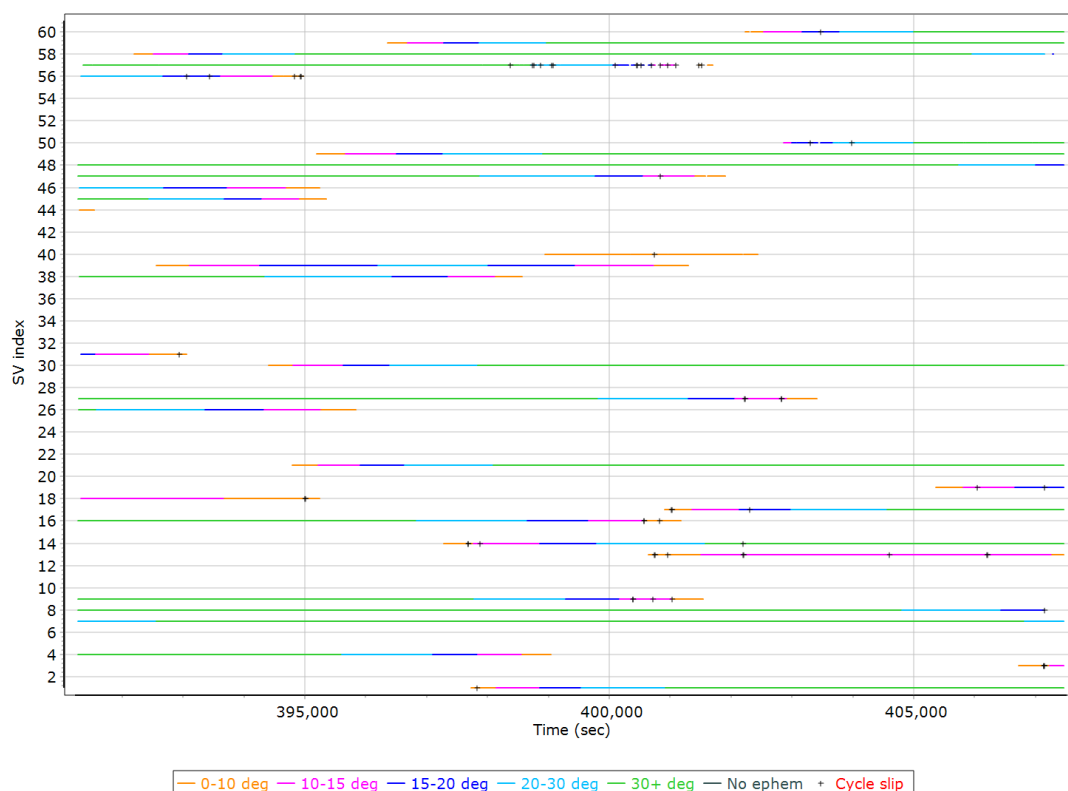
Rover Data QC

Raw IMU Import QC Summary

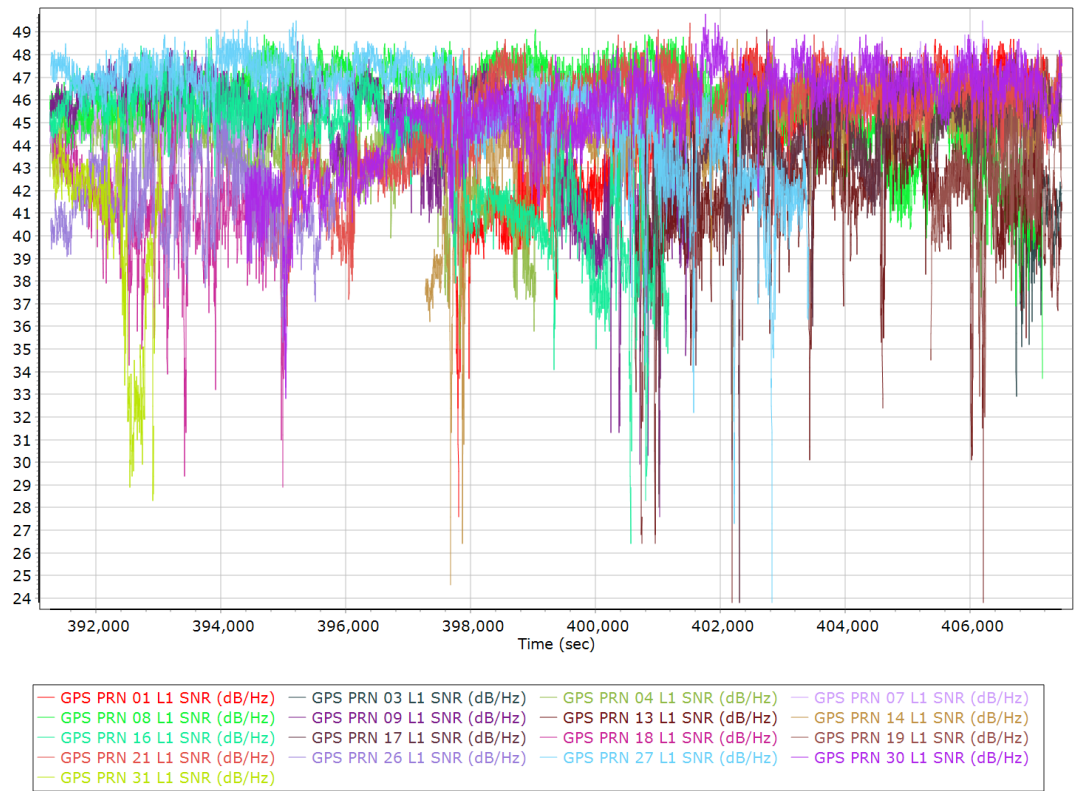
IMU data input file	imu_20230413_F1_4894.dat
IMU data check log file	imudt_20230413_F1_4894.log
IMU Records Processed	3240340
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
391260.951 : WARNING : Gap of 391246.9987 seconds in CHECKDT input data	

Primary Observables & Satellite Data

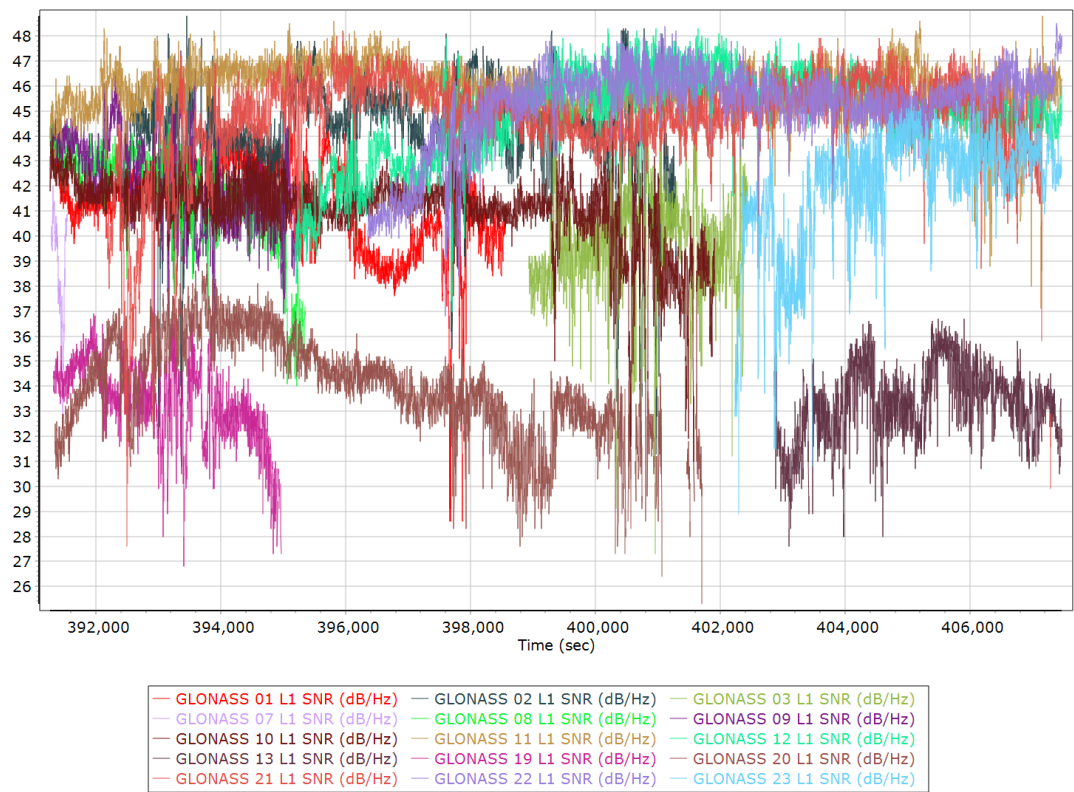
GPS/GLONASS L1 Satellite Lock/Elevation



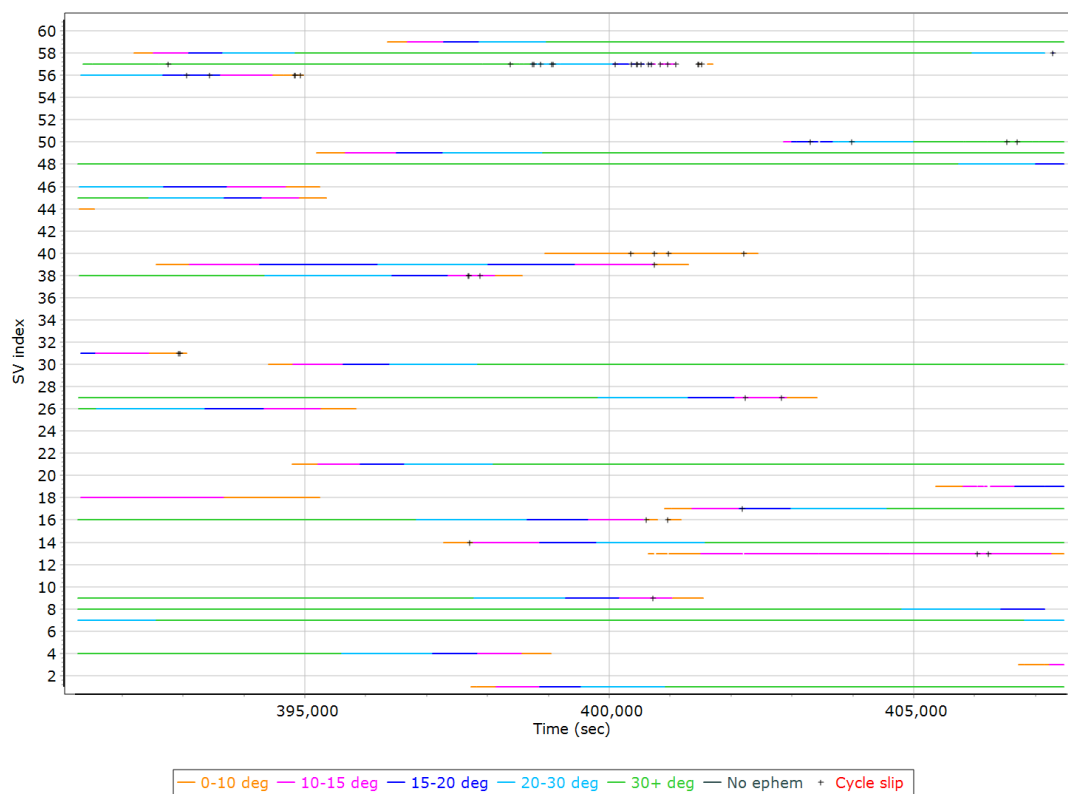
GPS L1 SNR



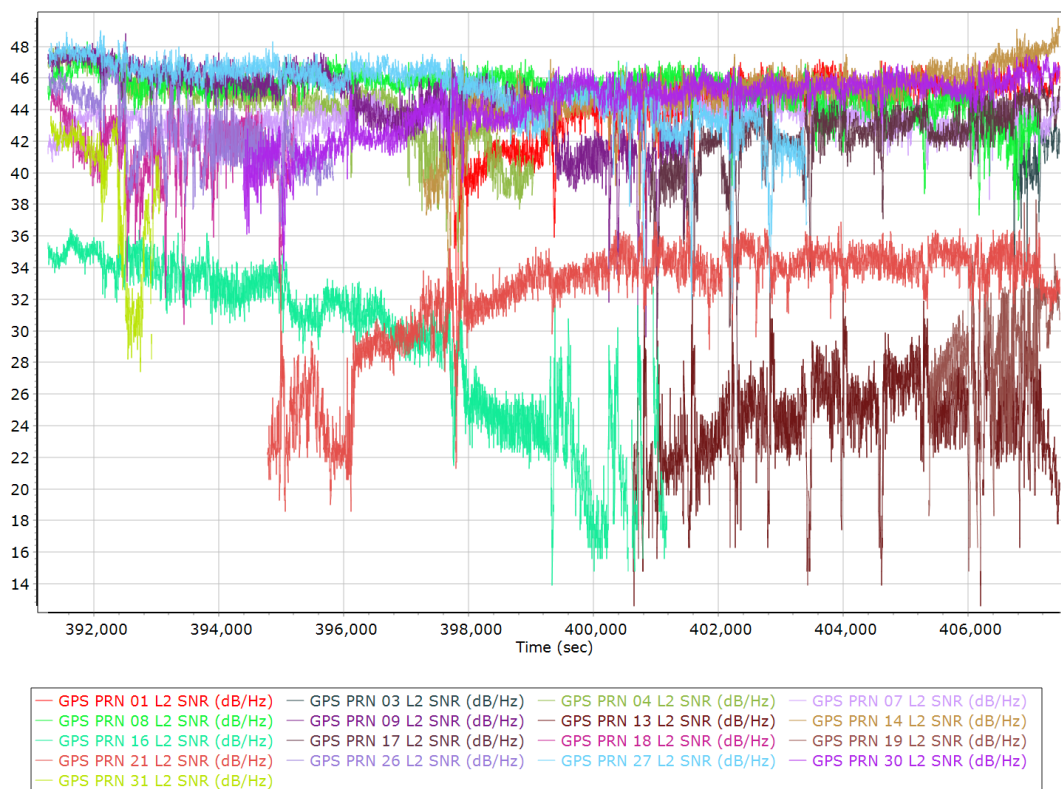
GLONASS L1 SNR



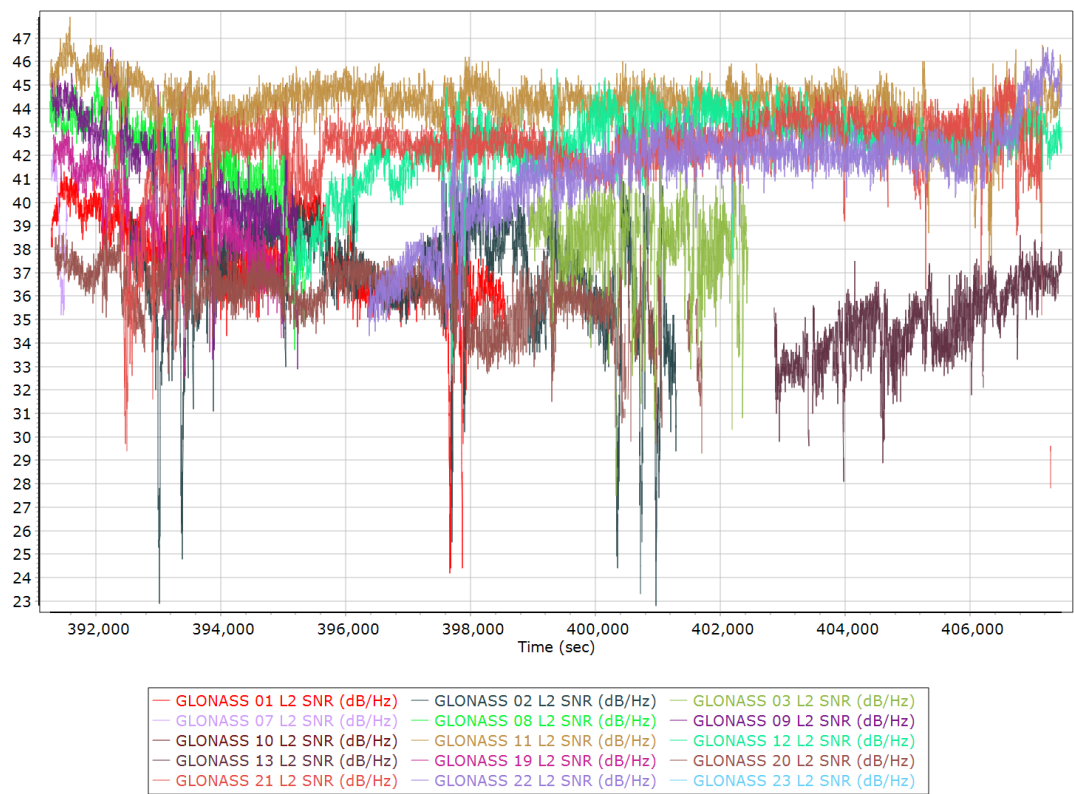
GPS/GLONASS L2 Satellite Lock/Elevation



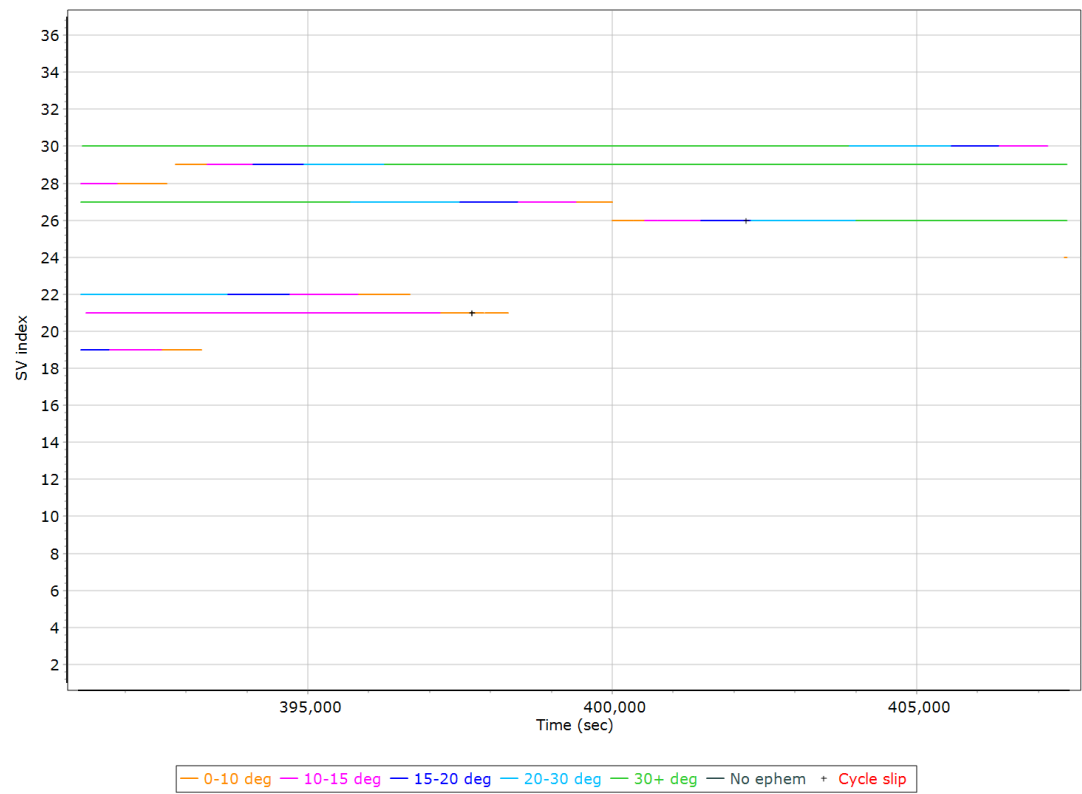
GPS L2 SNR



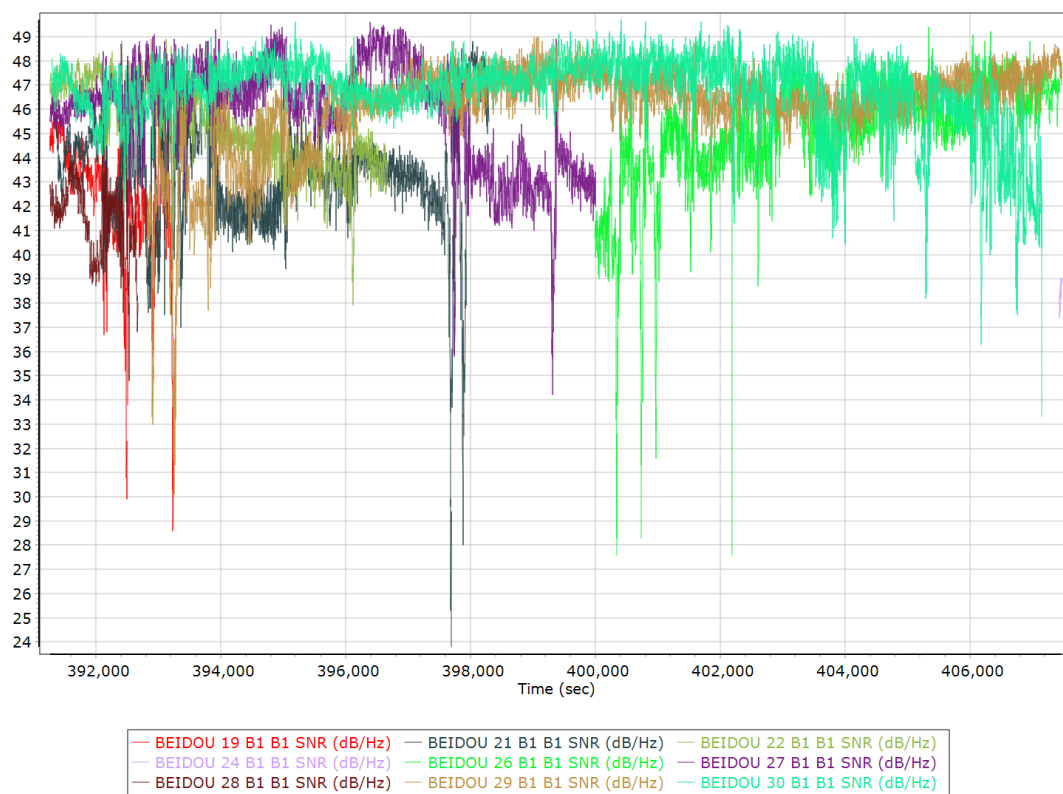
GLONASS L2 SNR



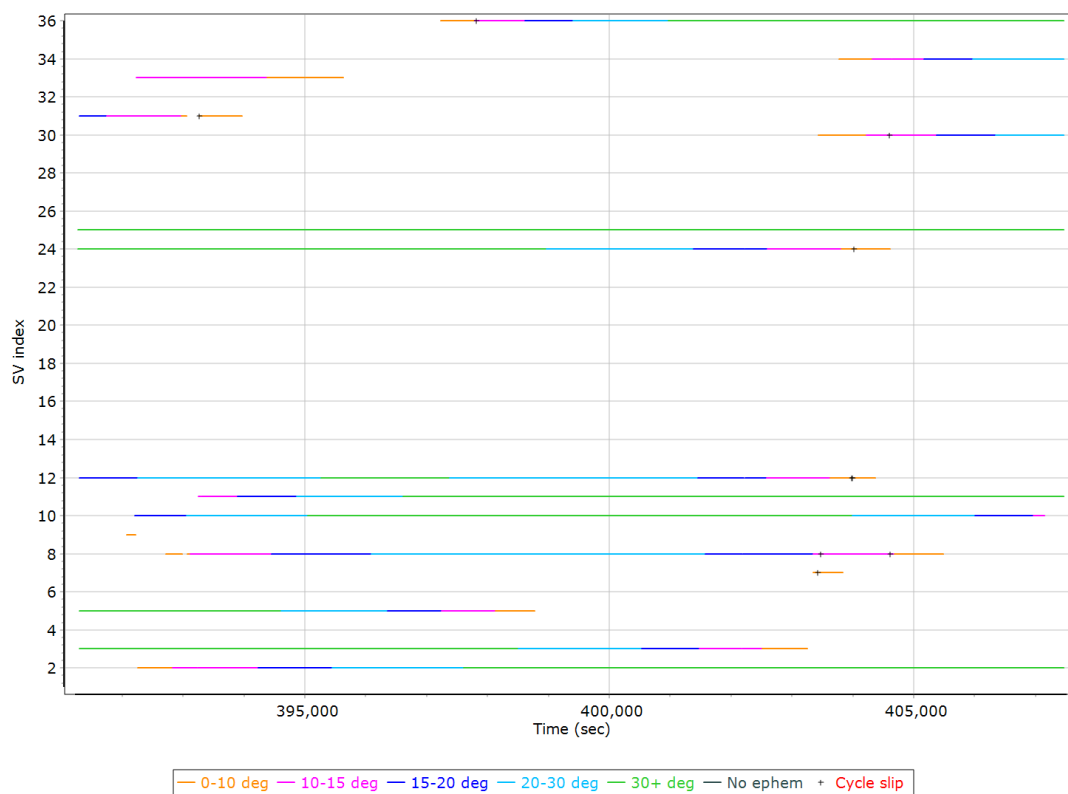
BEIDOU Satellite Lock/Elevation



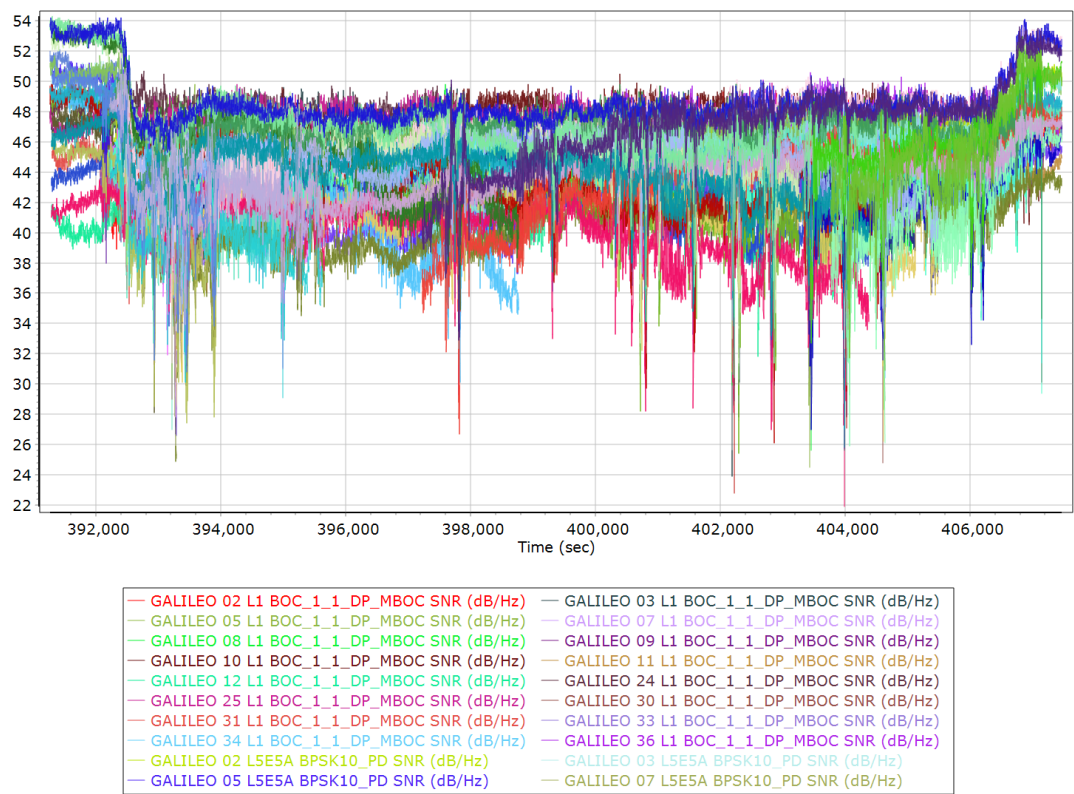
BEIDOU SNR



GALILEO Satellite Lock/Elevation

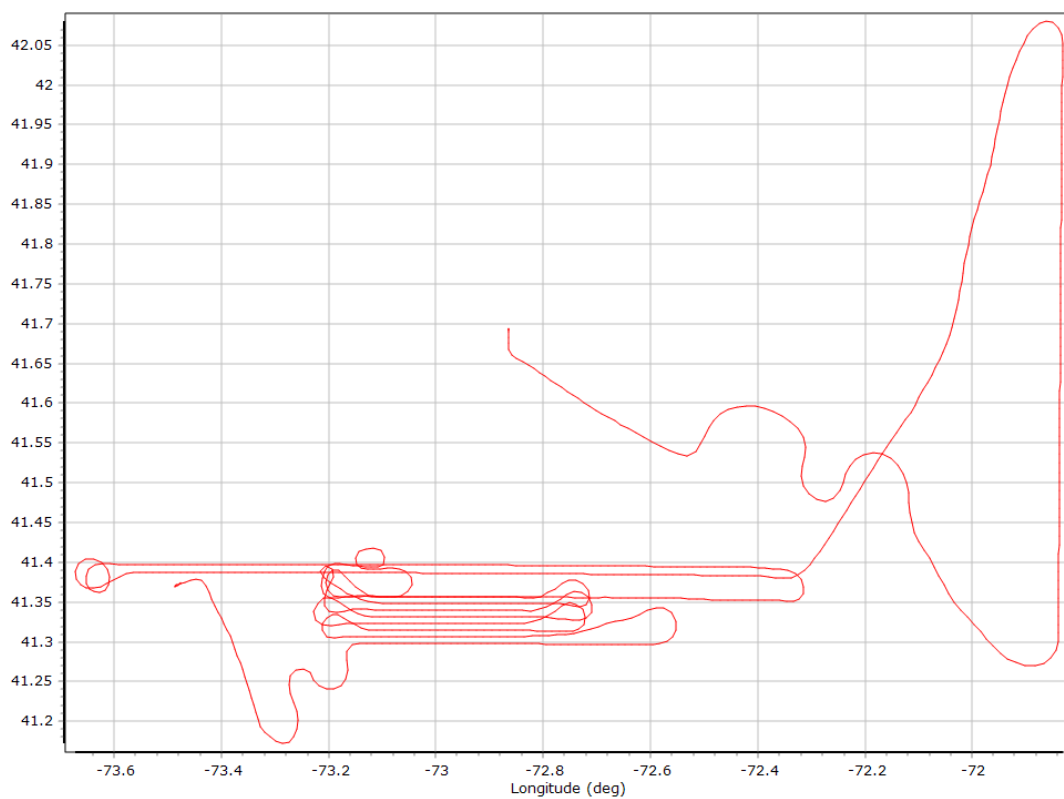


GALILEO SNR

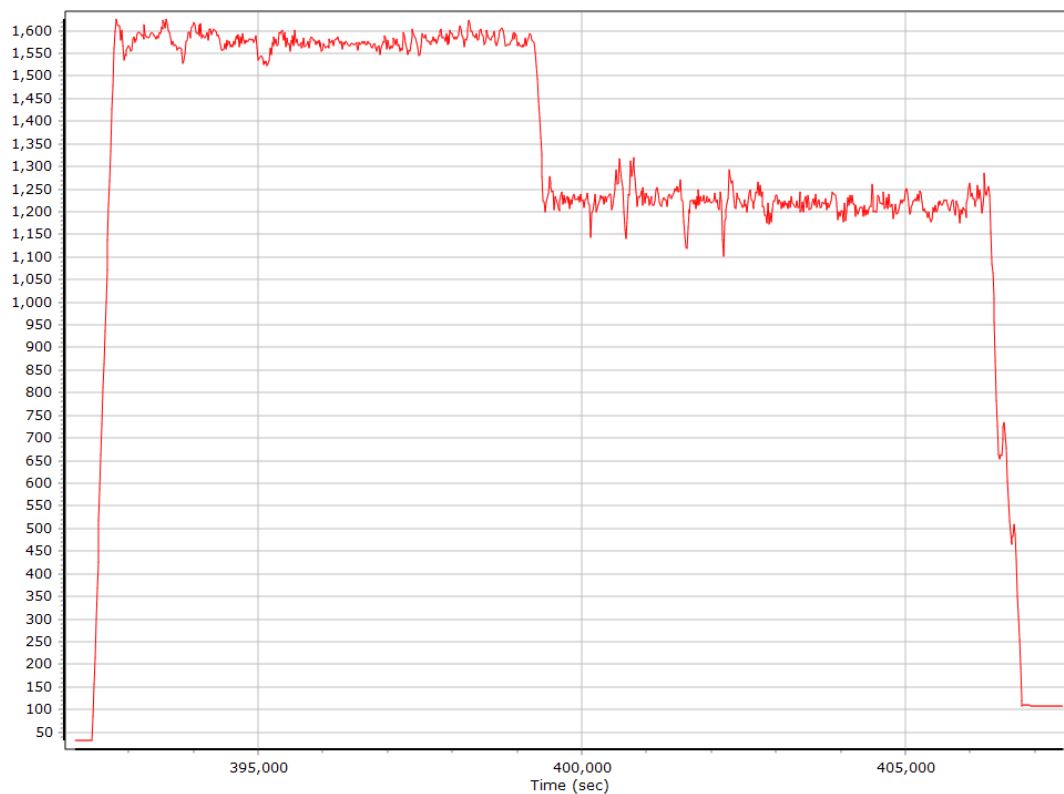


Smoothed Trajectory Information

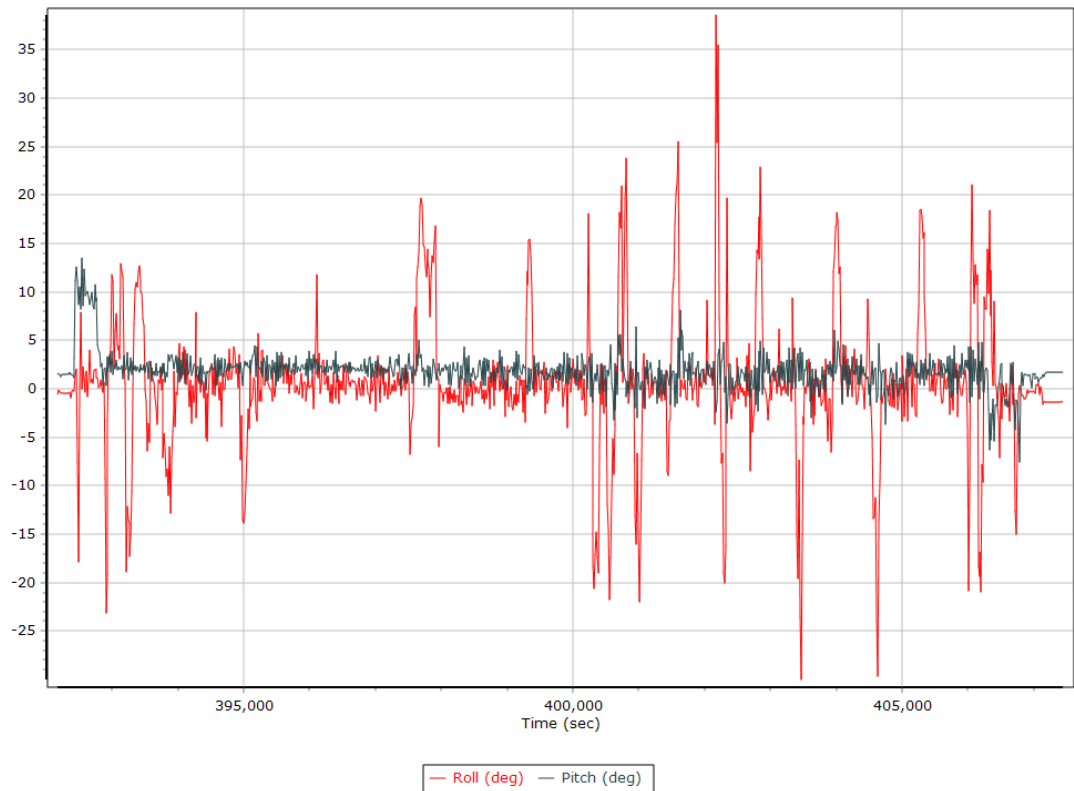
Top View



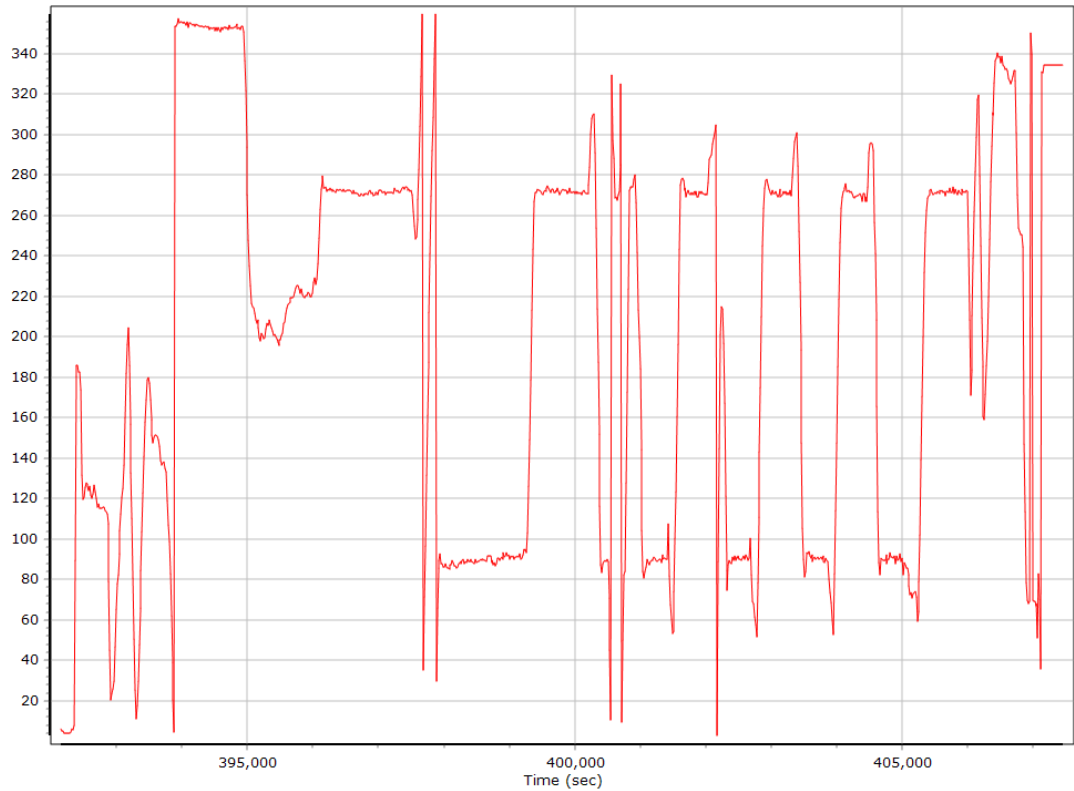
Altitude



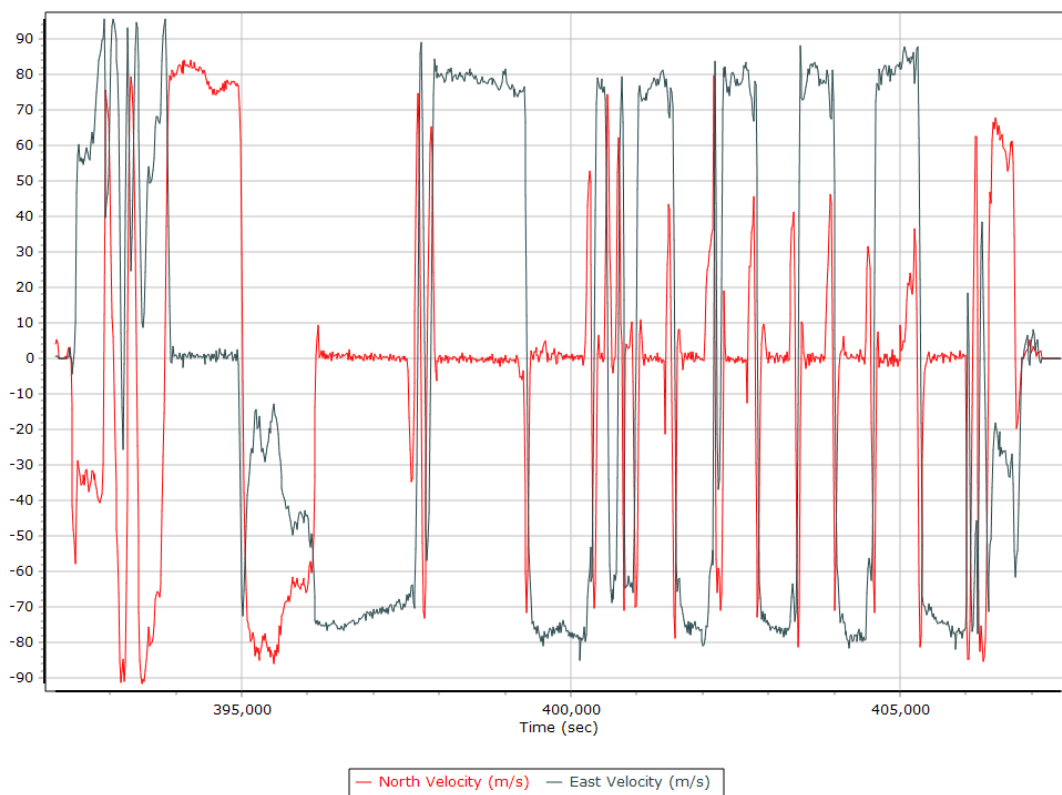
Roll/Pitch



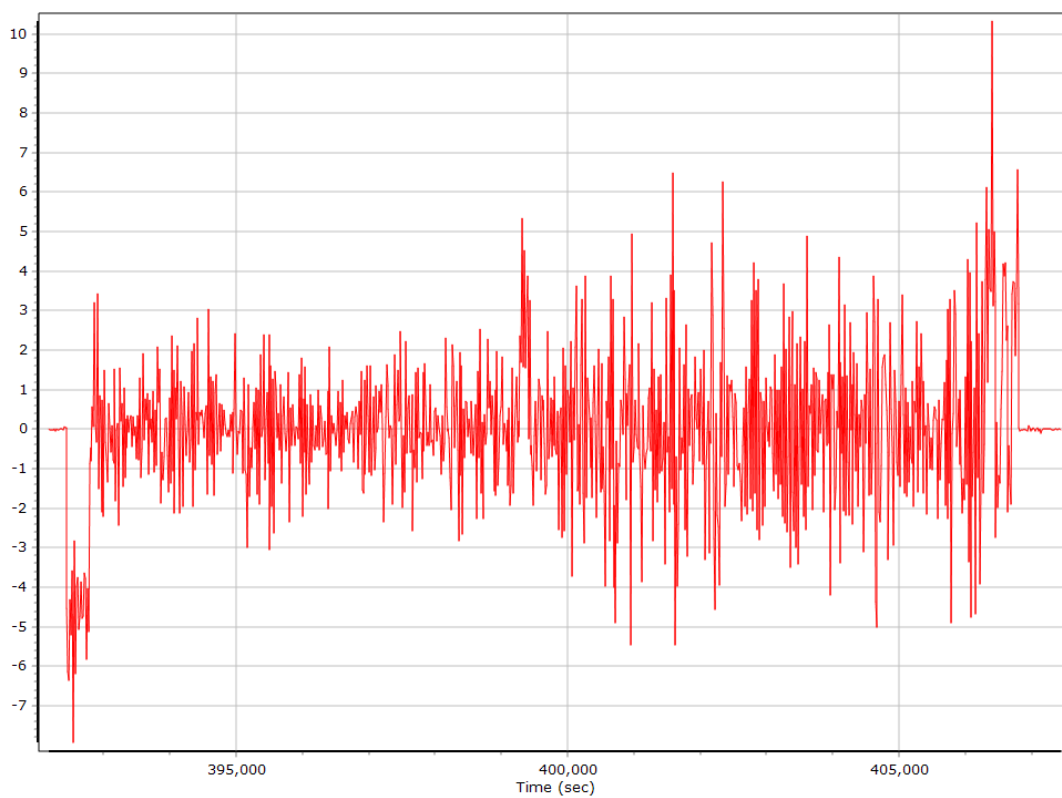
Heading



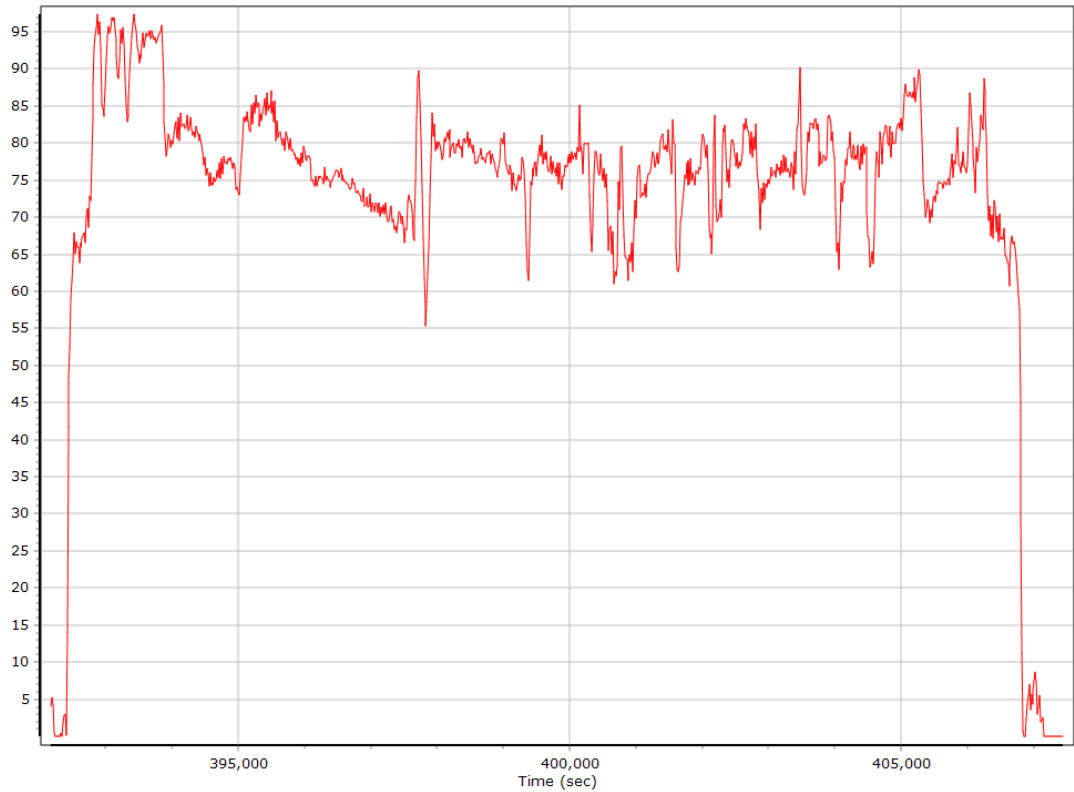
North/East Velocity



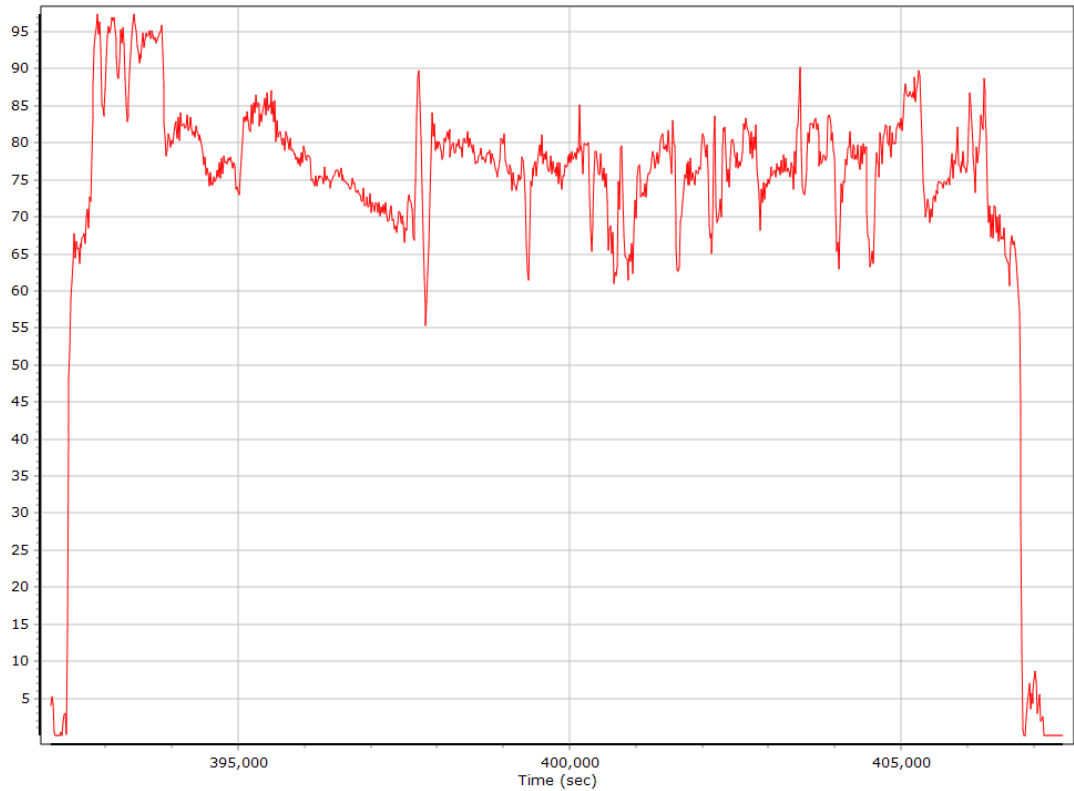
Down Velocity



Total Speed



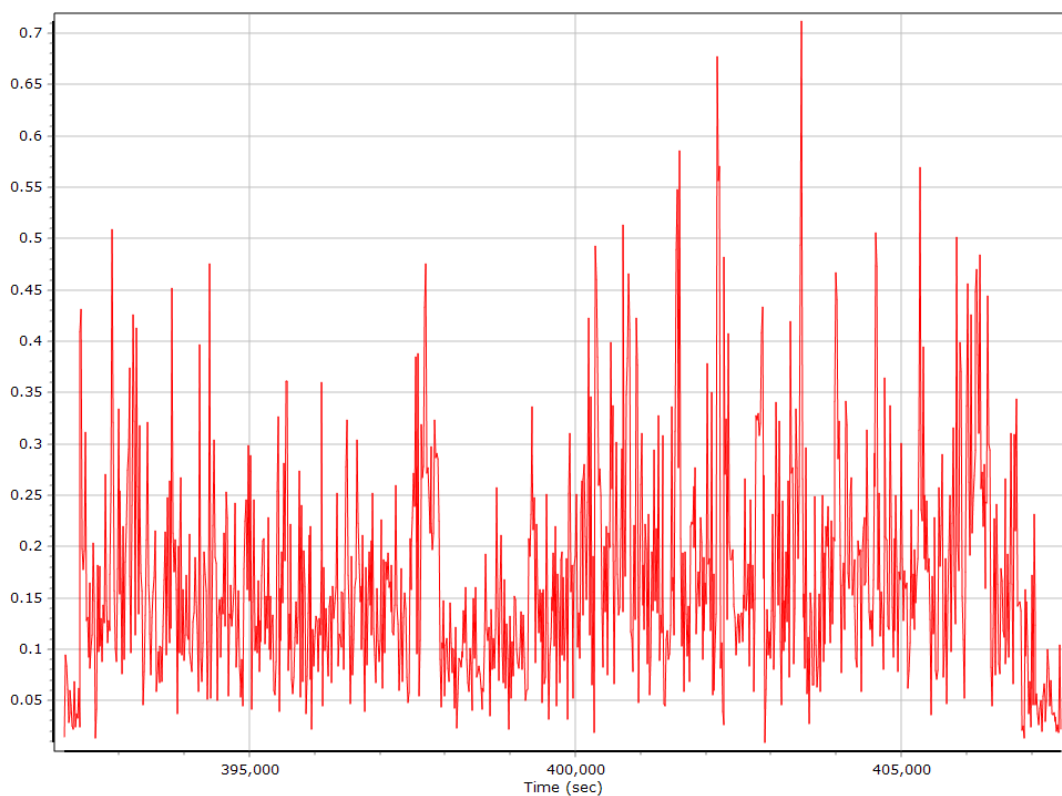
Ground Speed



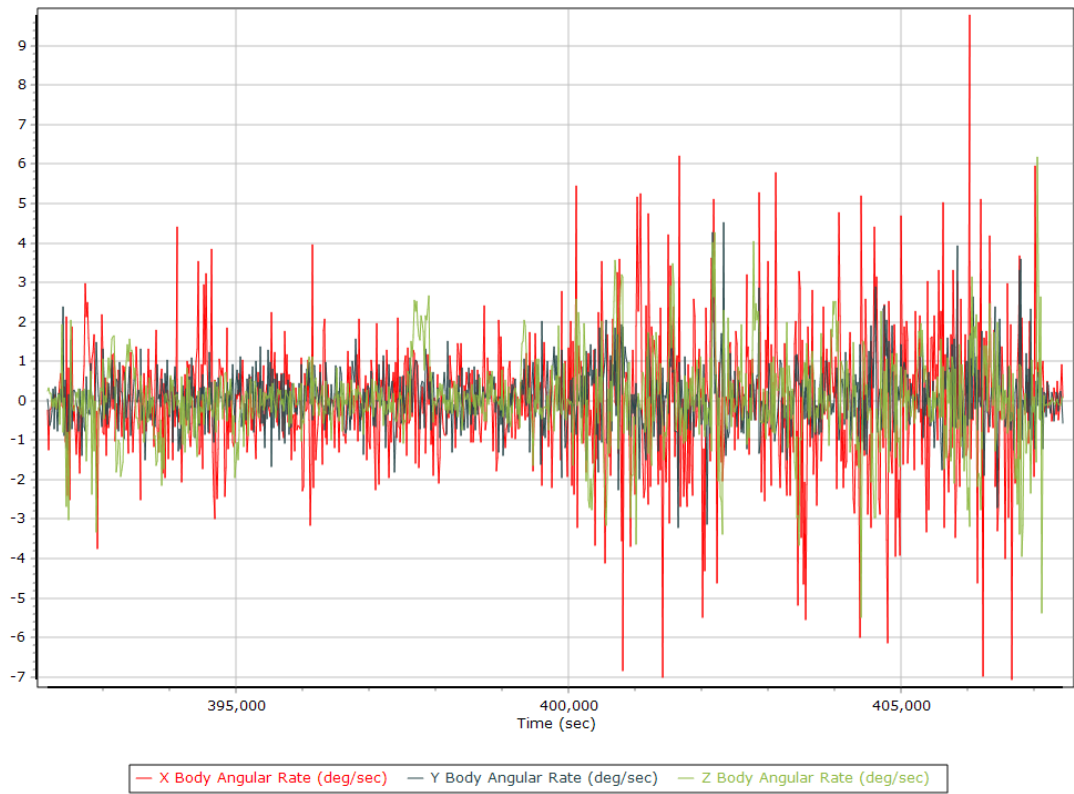
Body Acceleration



Total Body Acceleration

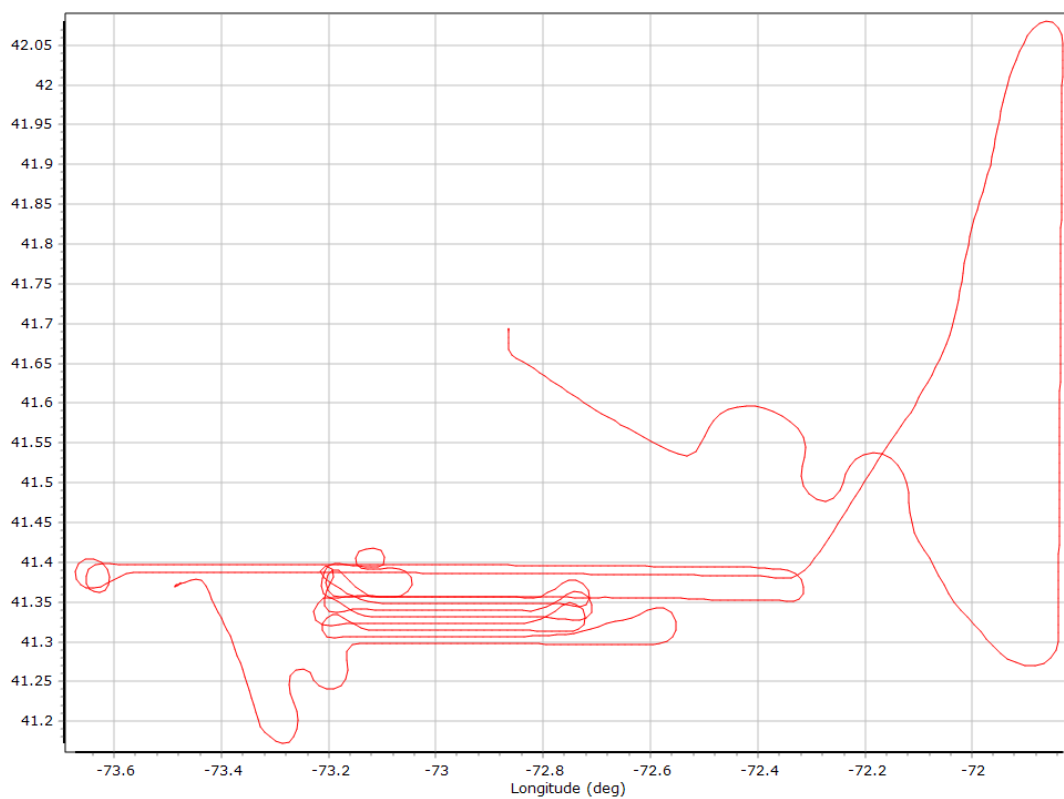


Body Angular Rate

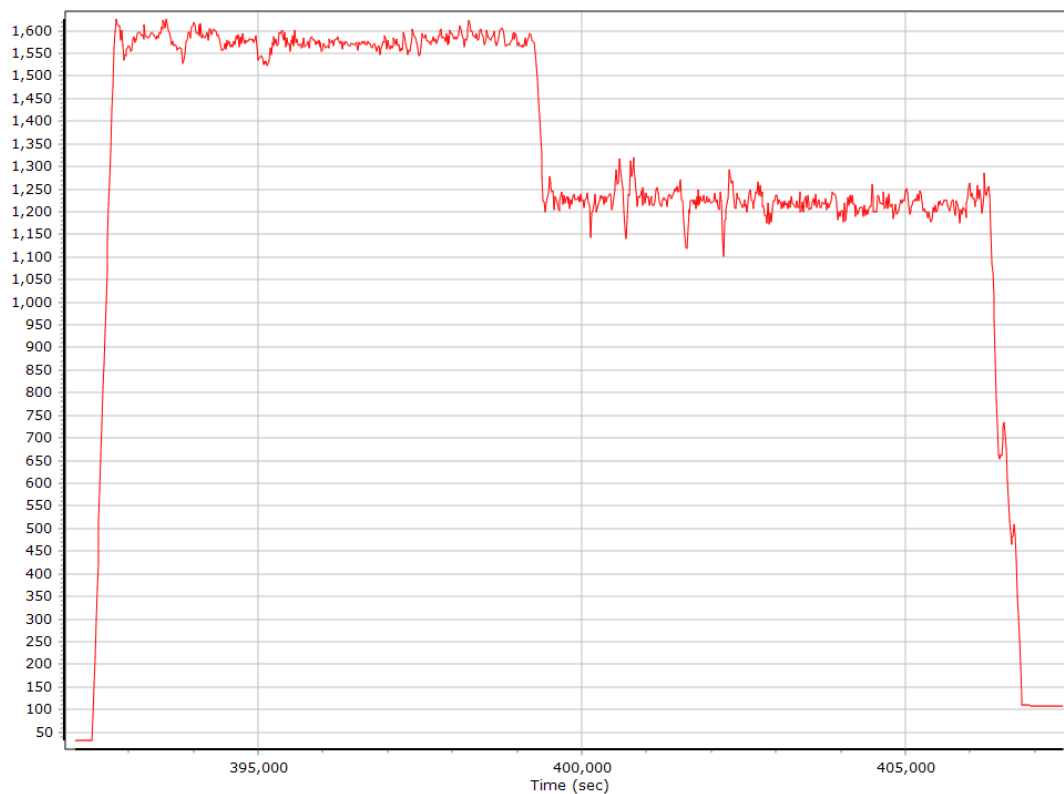


Forward Processed Trajectory Information

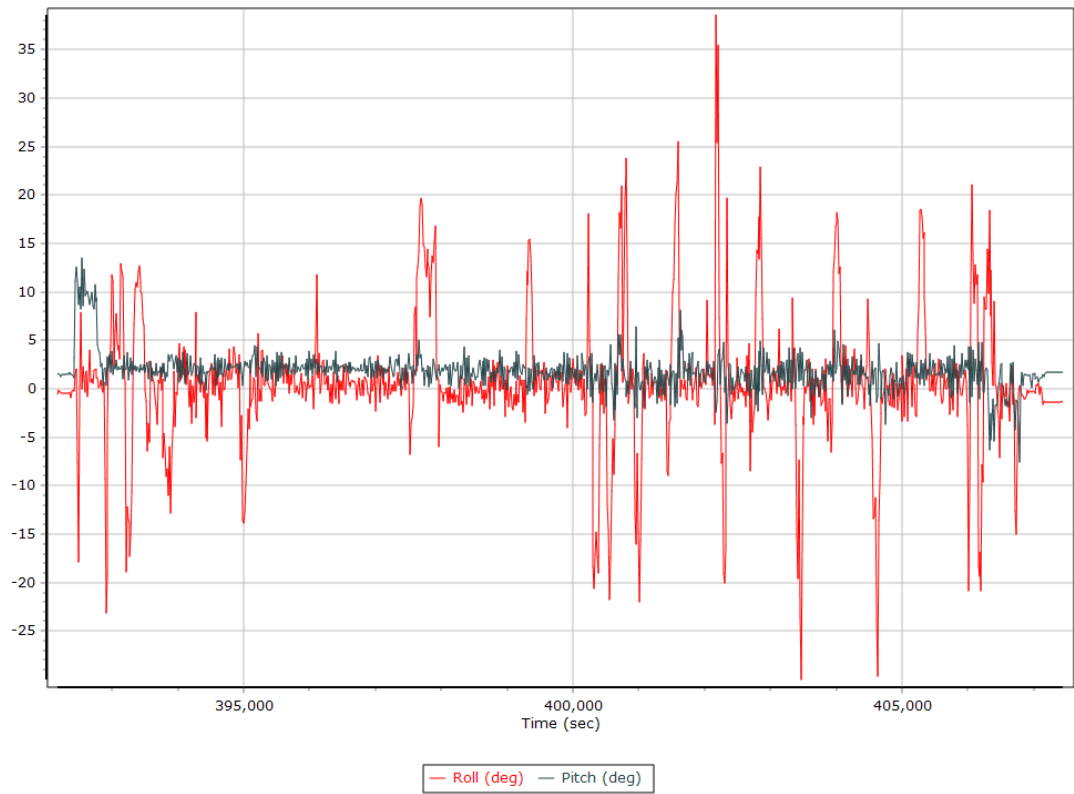
Top View



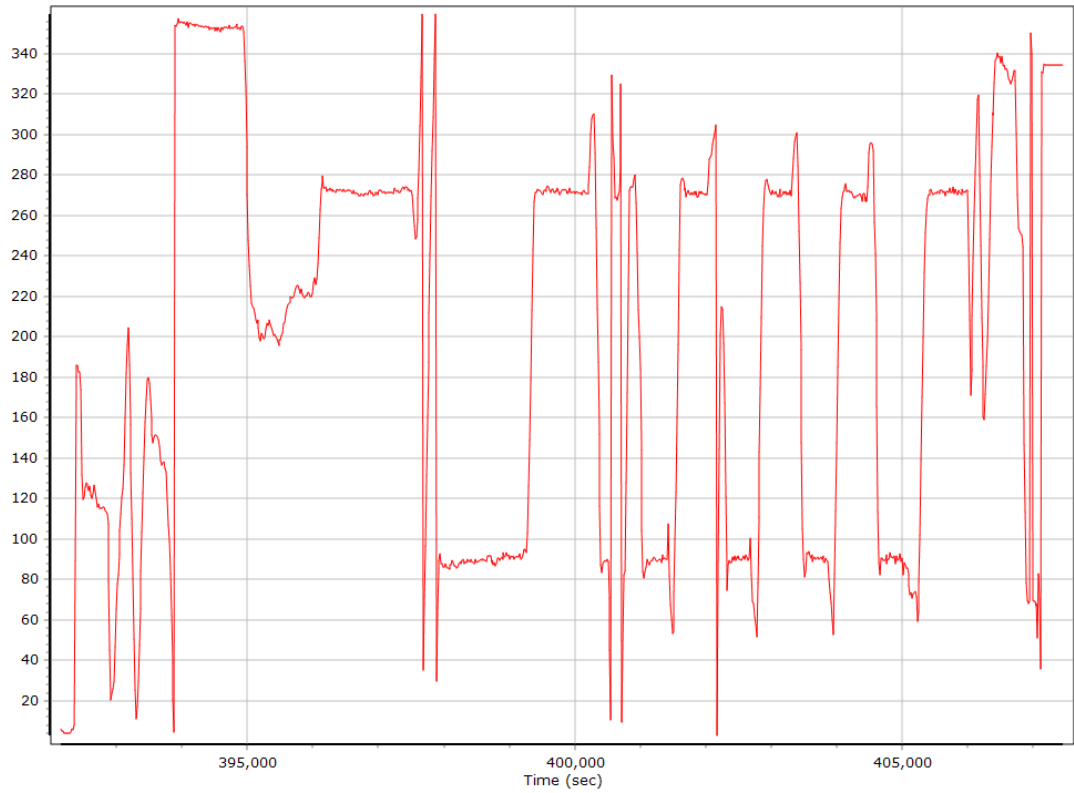
Altitude



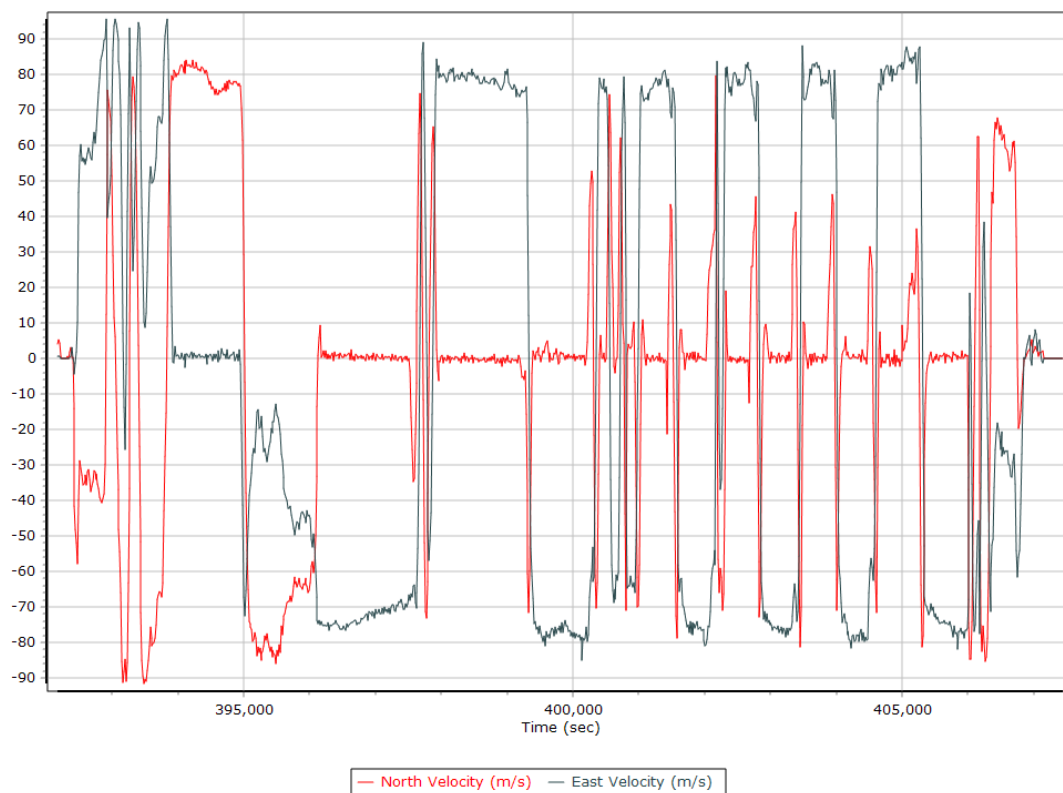
Roll/Pitch



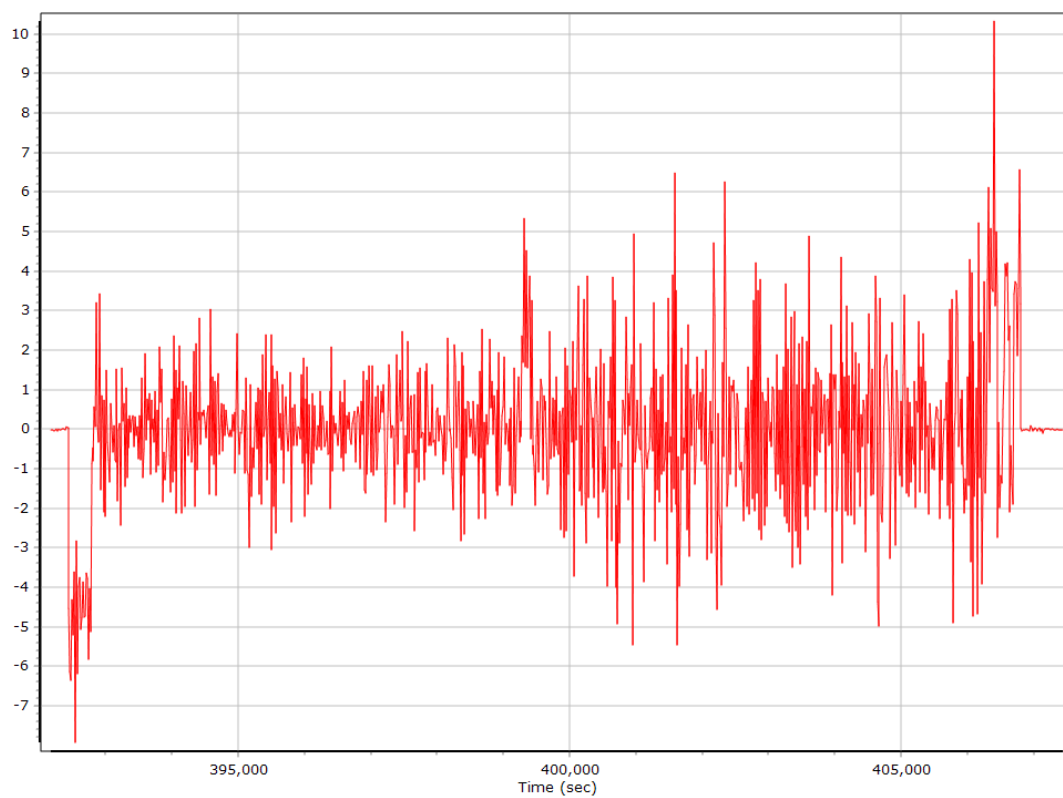
Heading



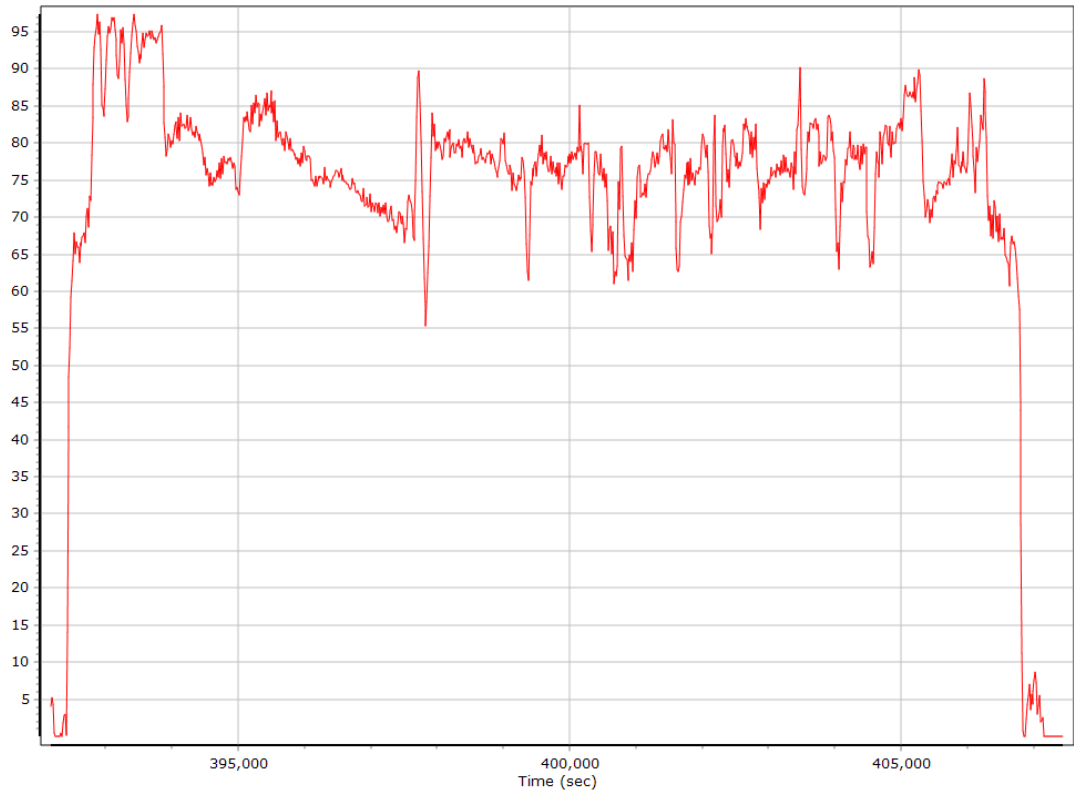
North/East Velocity



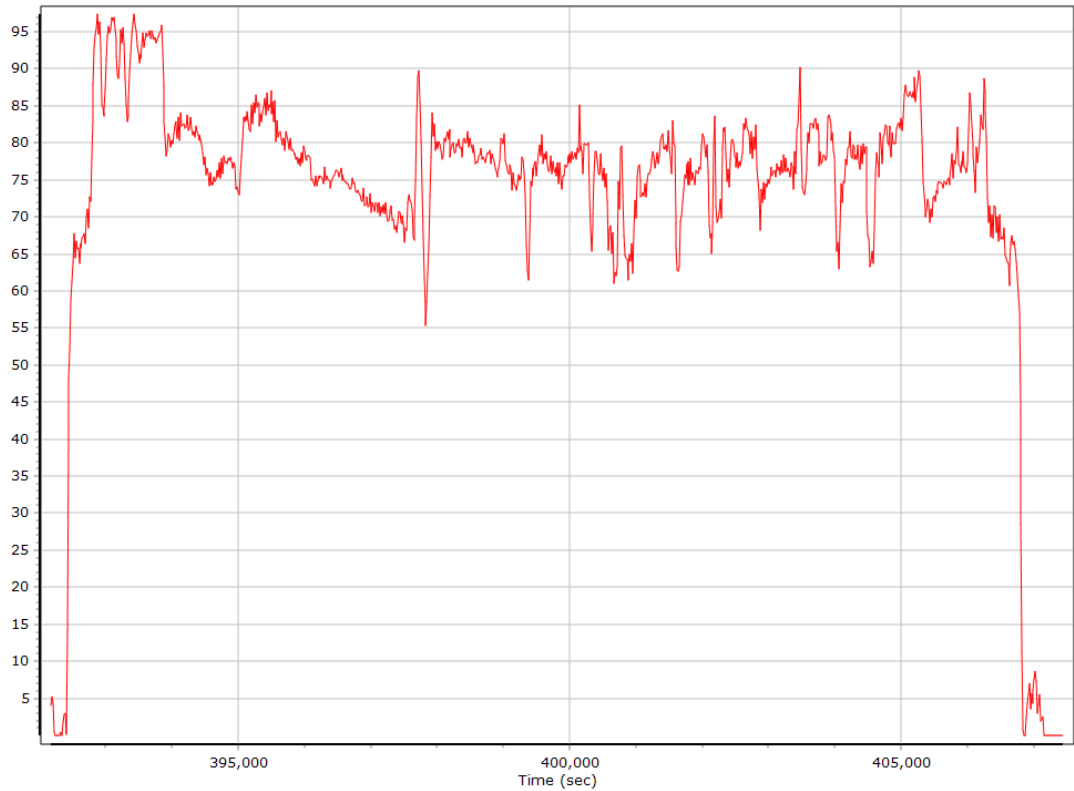
Down Velocity



Total Speed



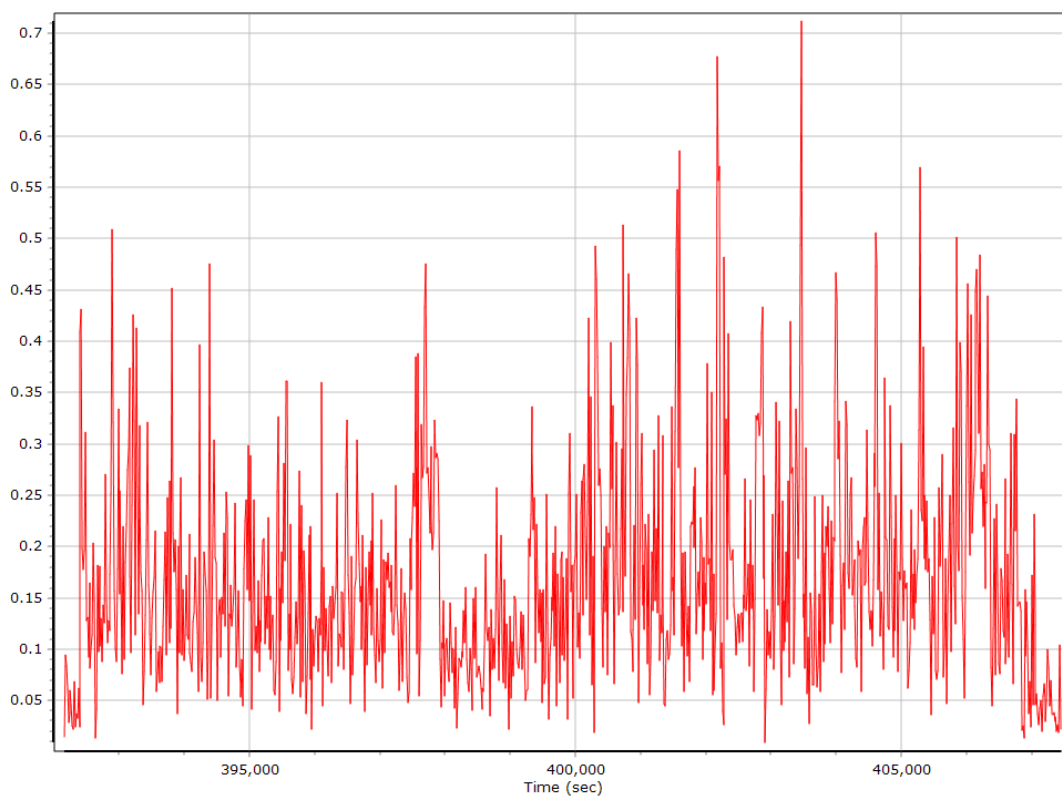
Ground Speed



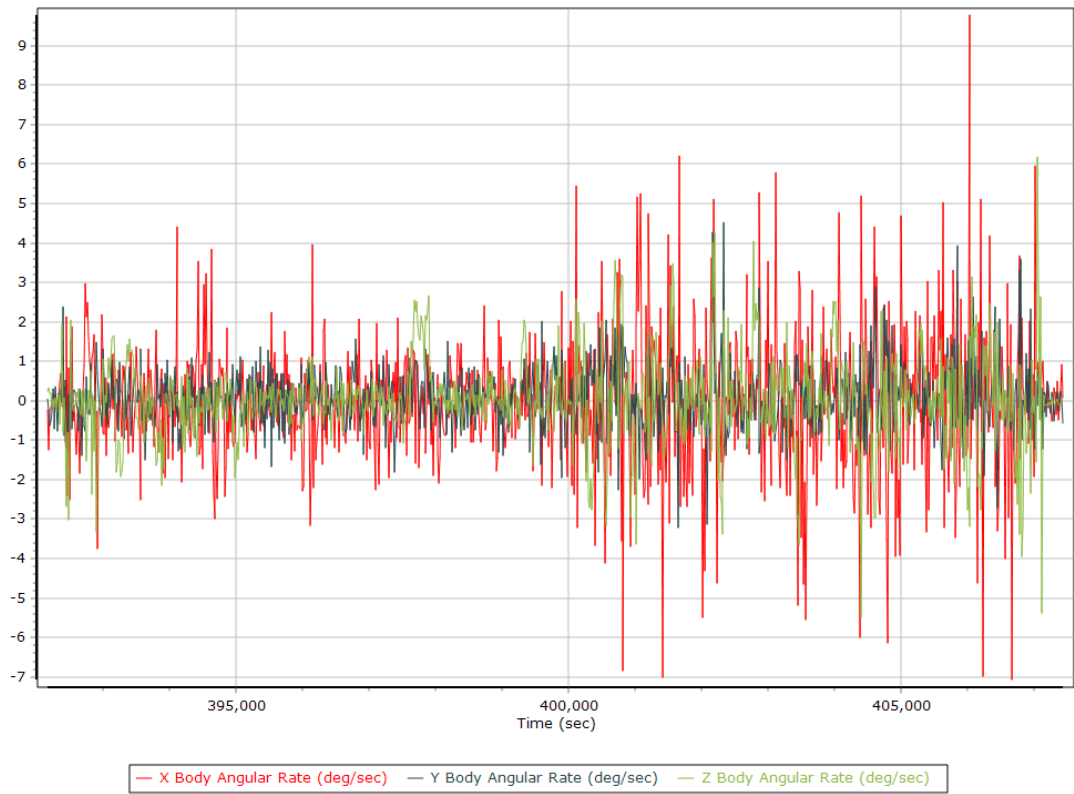
Body Acceleration



Total Body Acceleration



Body Angular Rate

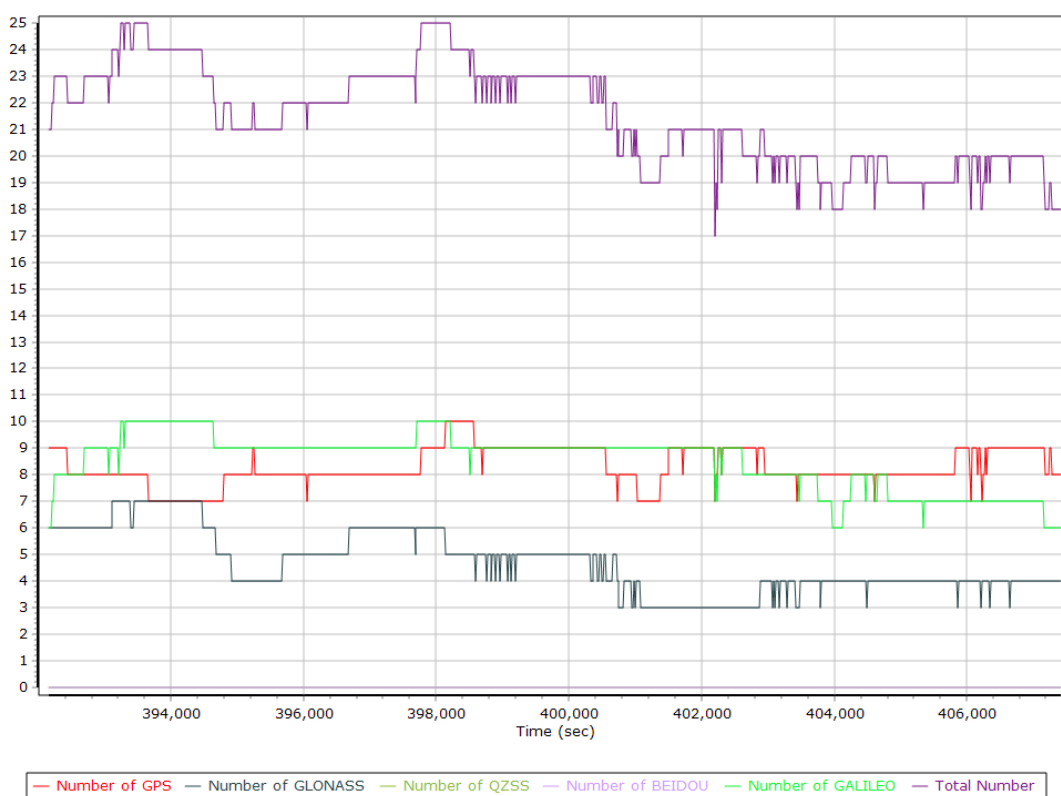


GNSS QC

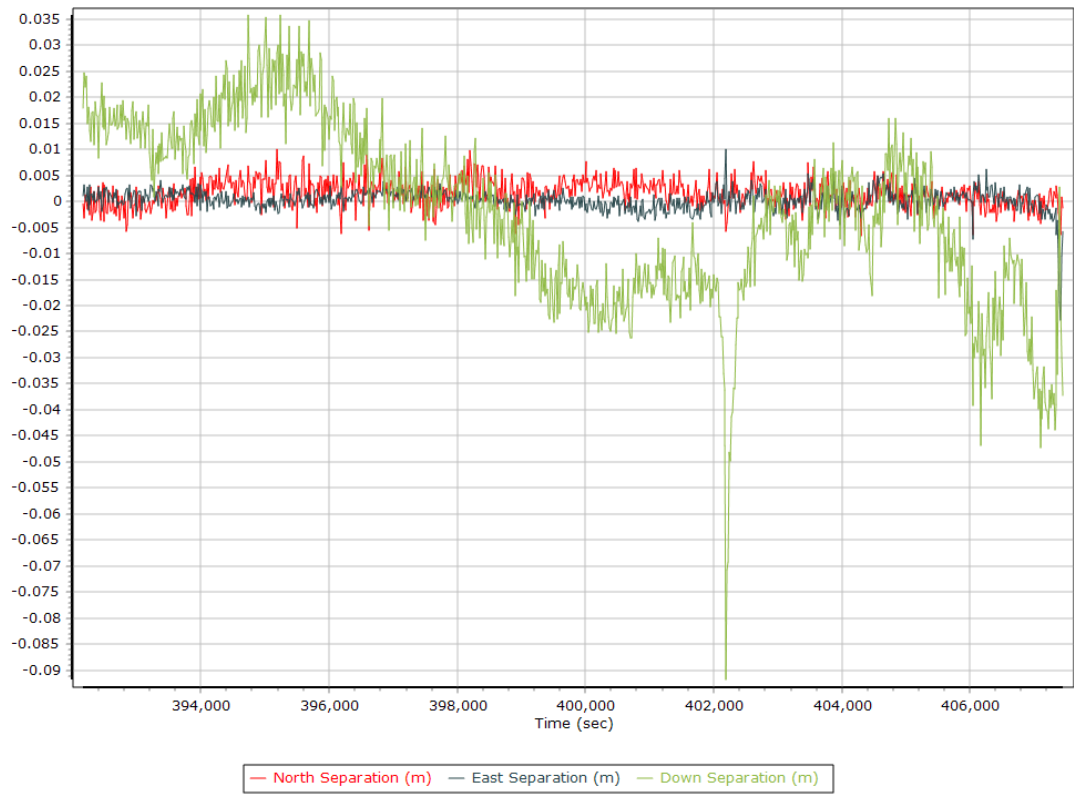
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	3	10	8
Number of GLONASS SV	0	7	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	2	10	8
Total number of SV	7	25	21
PDOP	1.03	4.05	1.21
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	16151.00	0.00	0.00
Percentage	100.00	0.00	0.00

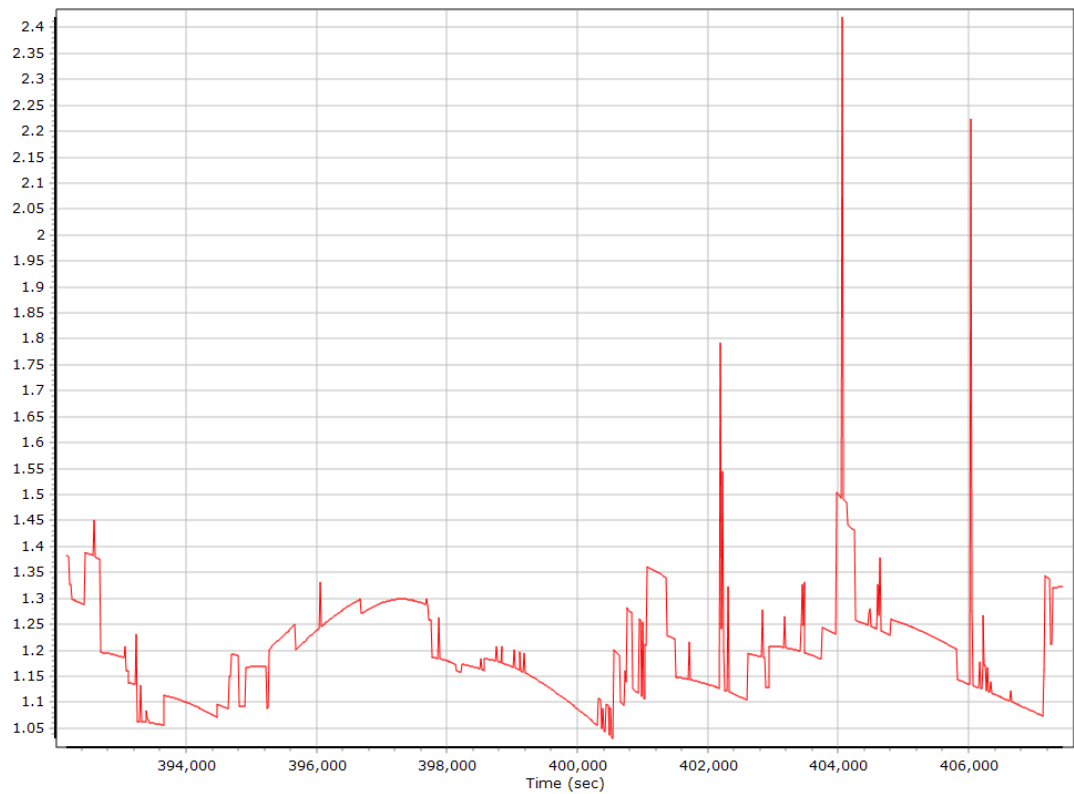
Num SVs in solution



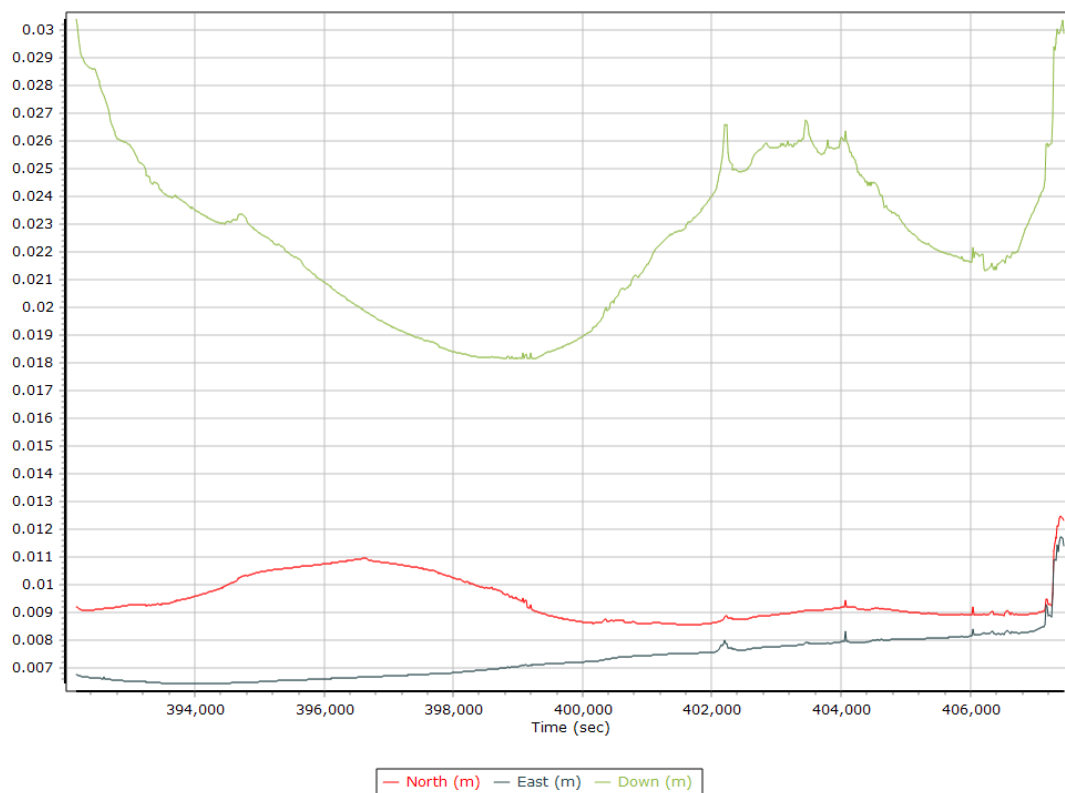
Forward/Reverse Separation



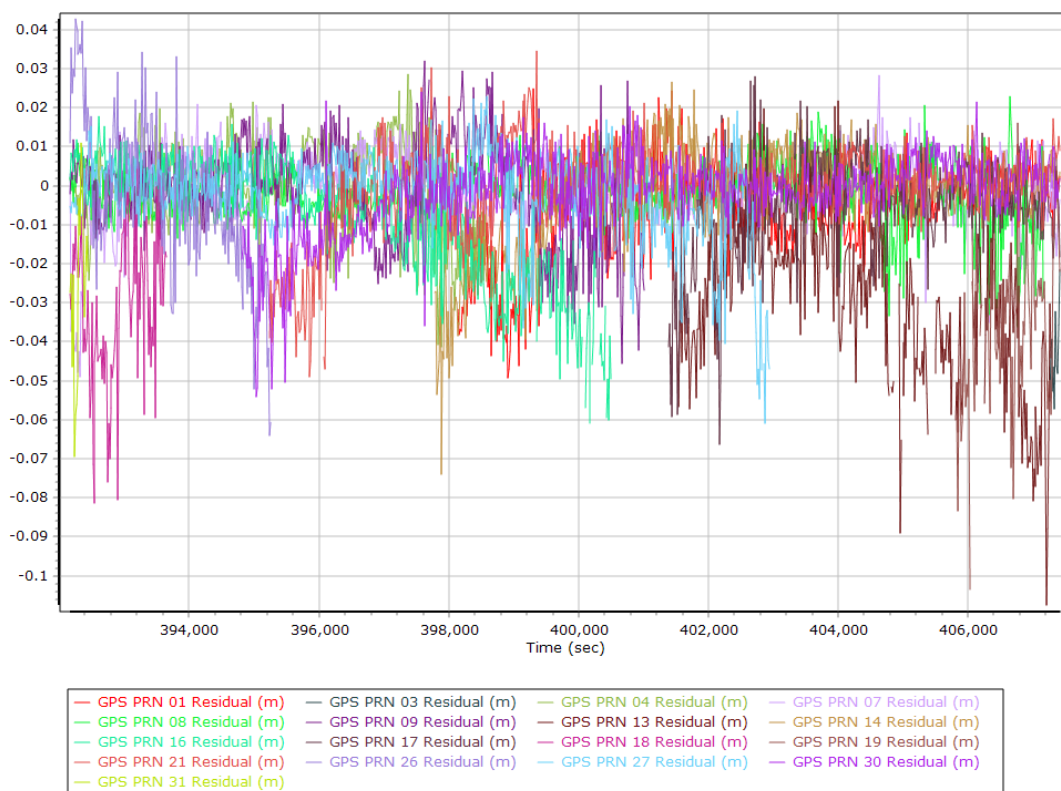
PDOP



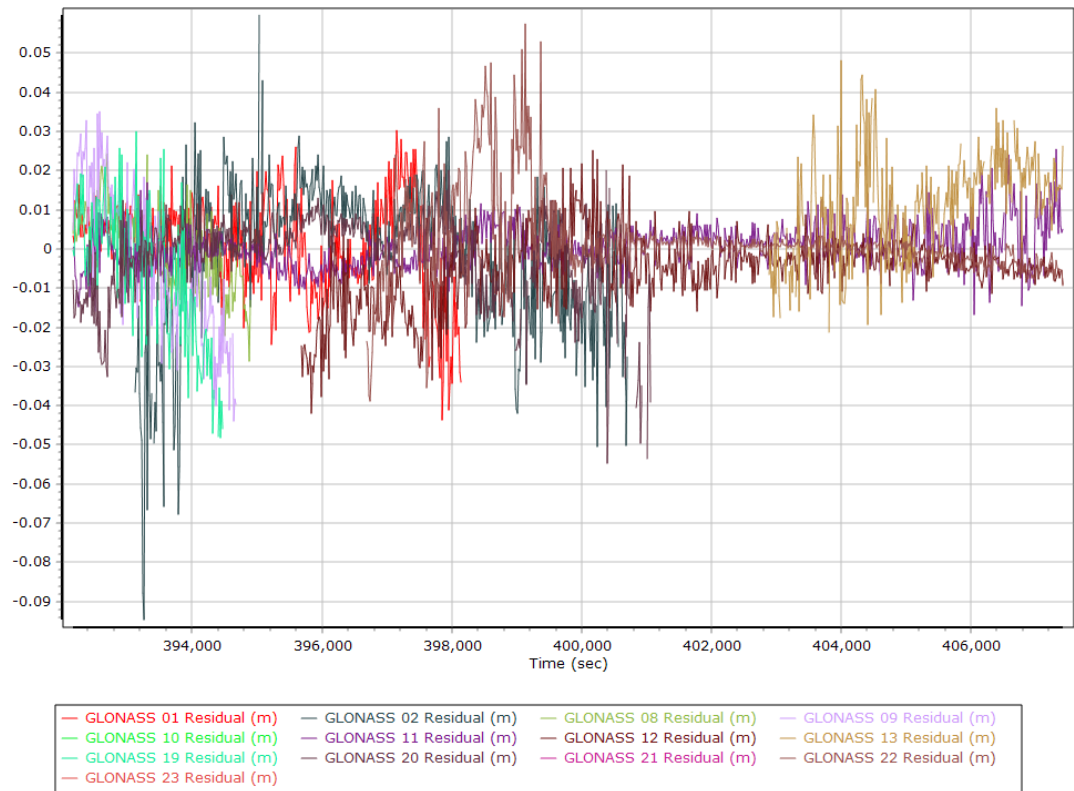
Estimated Position Accuracy



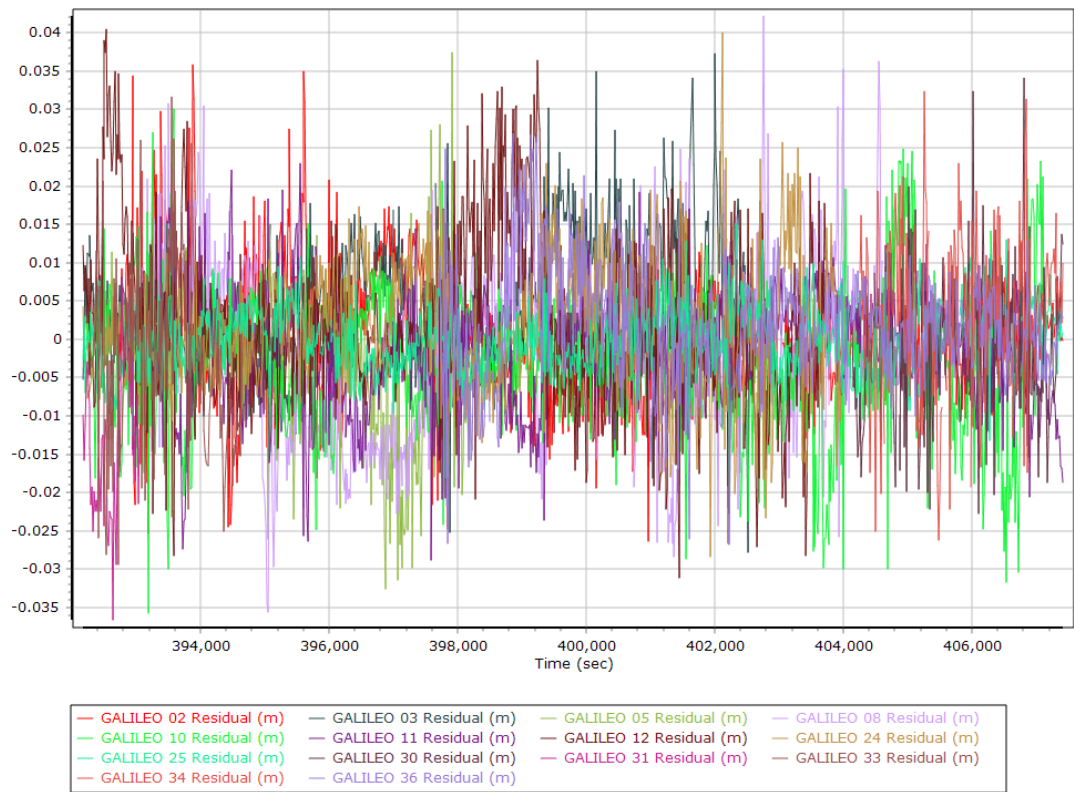
GPS Residuals



GLONASS Residuals



GALILEO Residuals



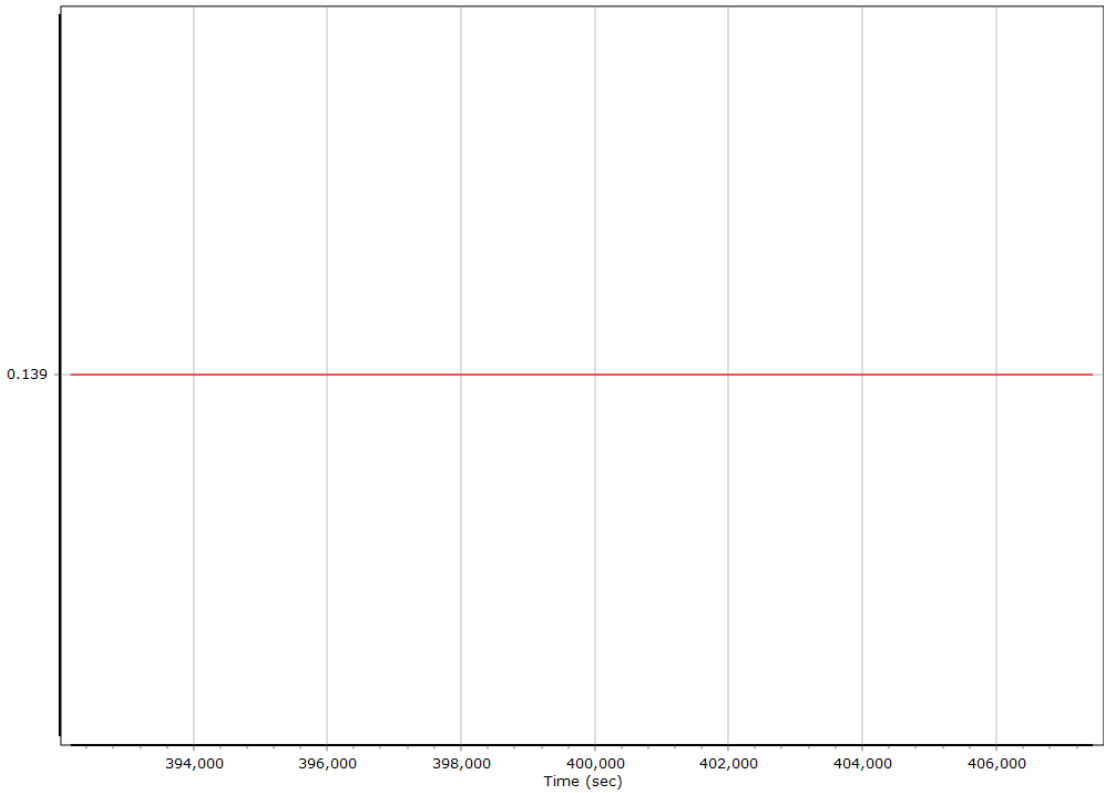
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	391248.000 (04/13/2023 12:40:48)		
Processing end time	407452.000 (04/13/2023 17:10:52)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

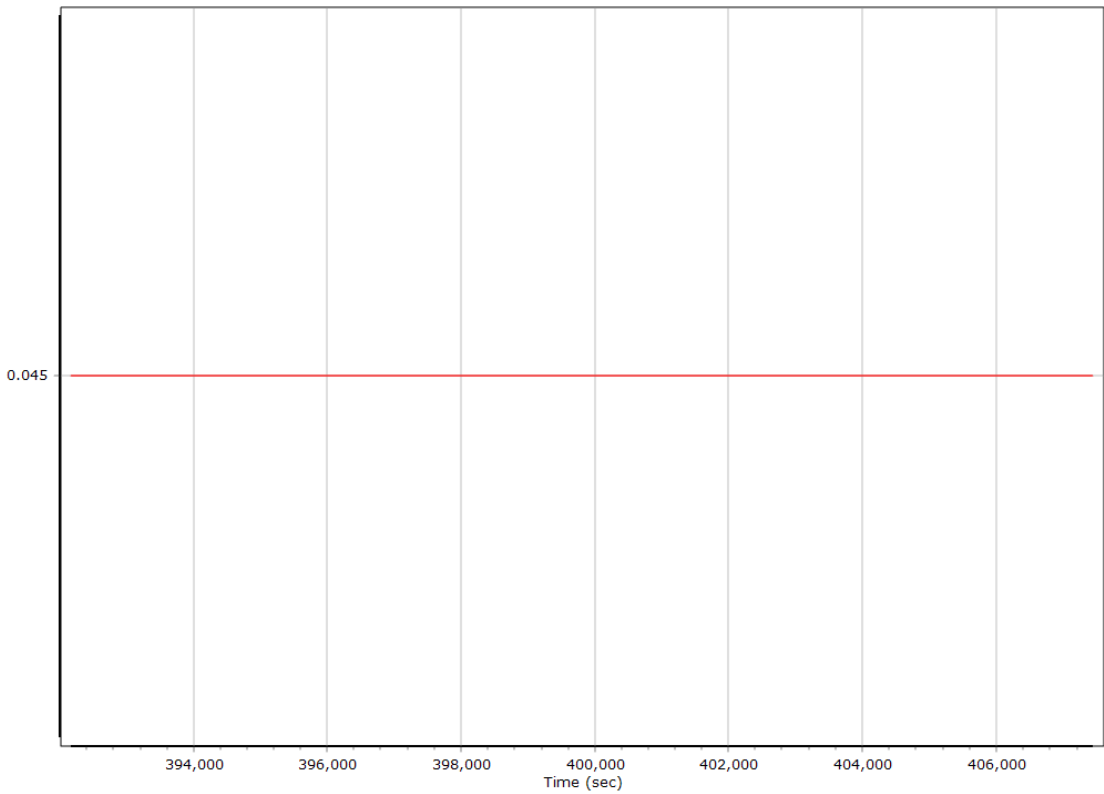
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

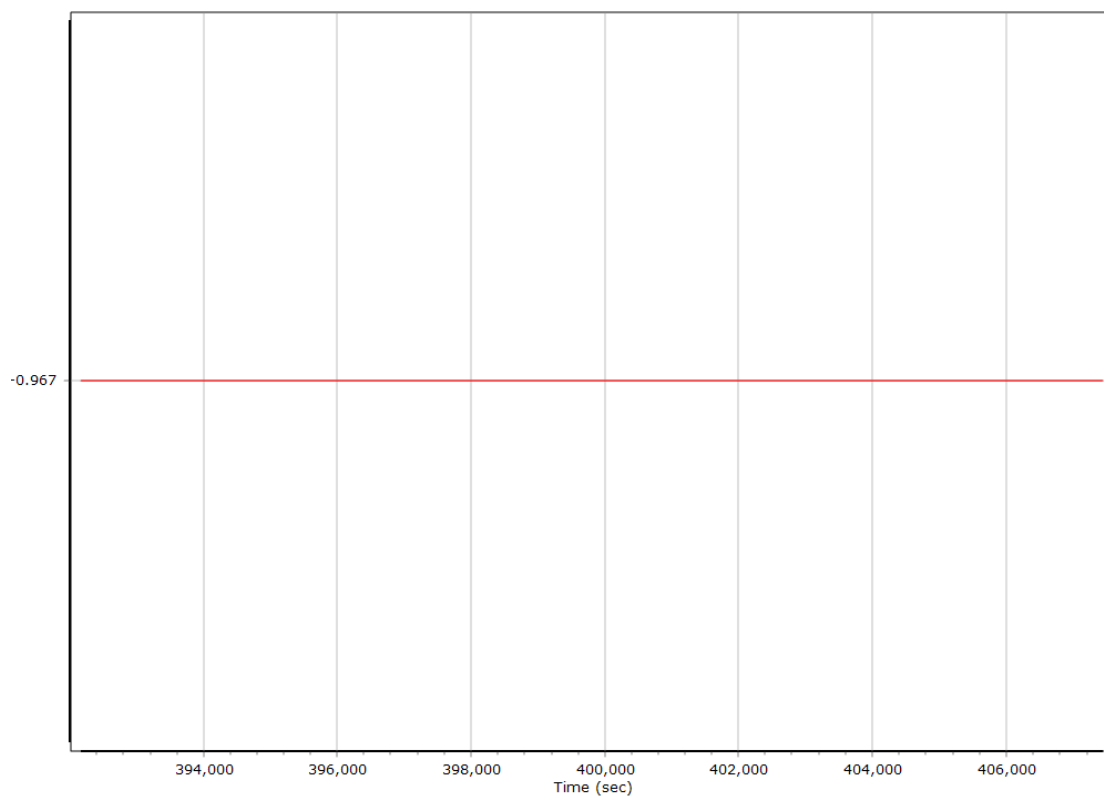
X Reference-Primary GNSS Lever Arm (m)



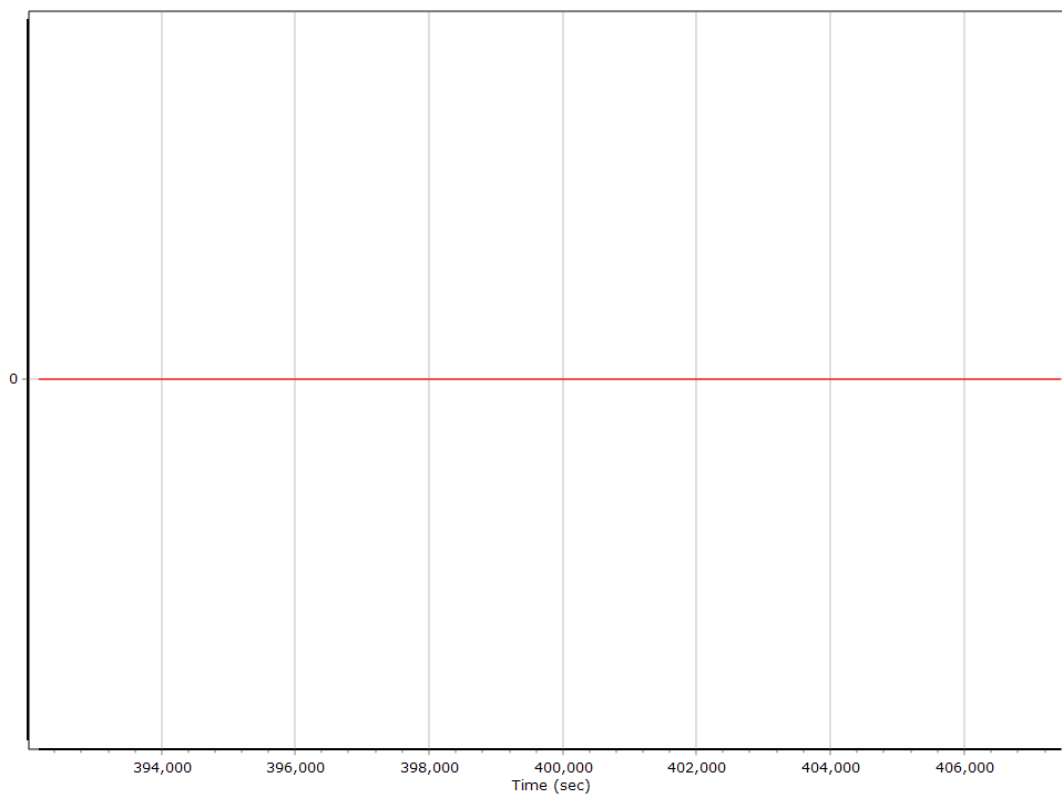
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



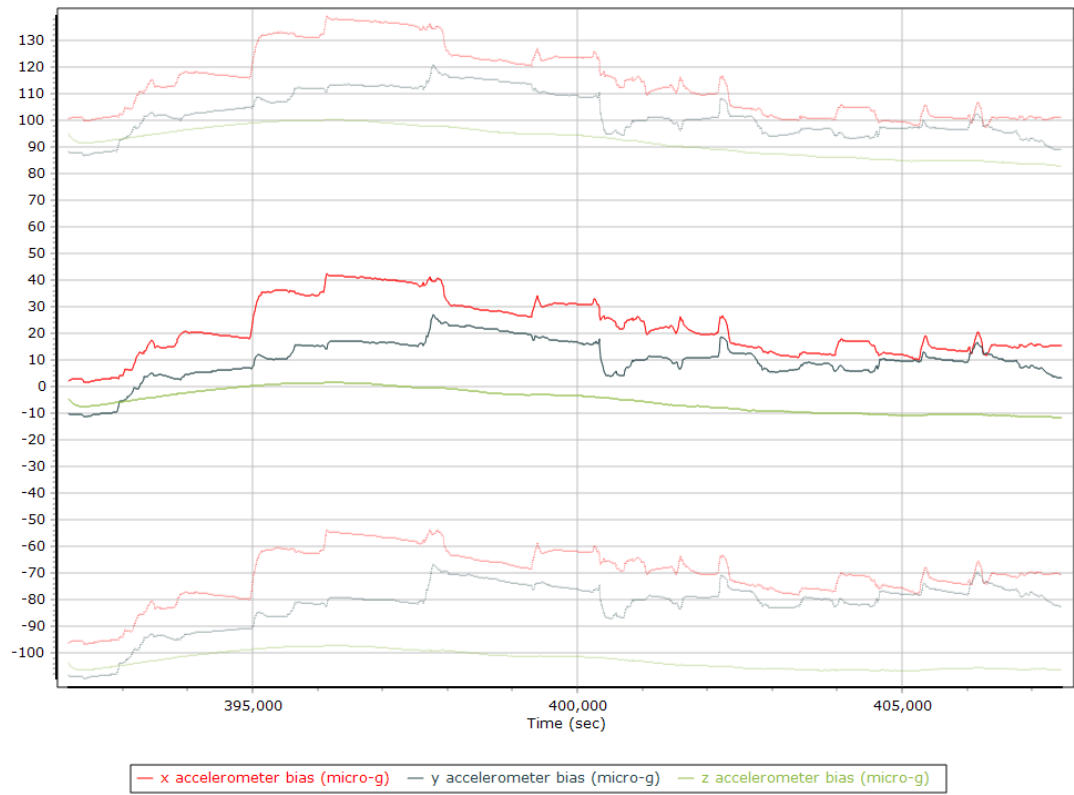
Reference-Primary GNSS Lever Arm Figure of Merit



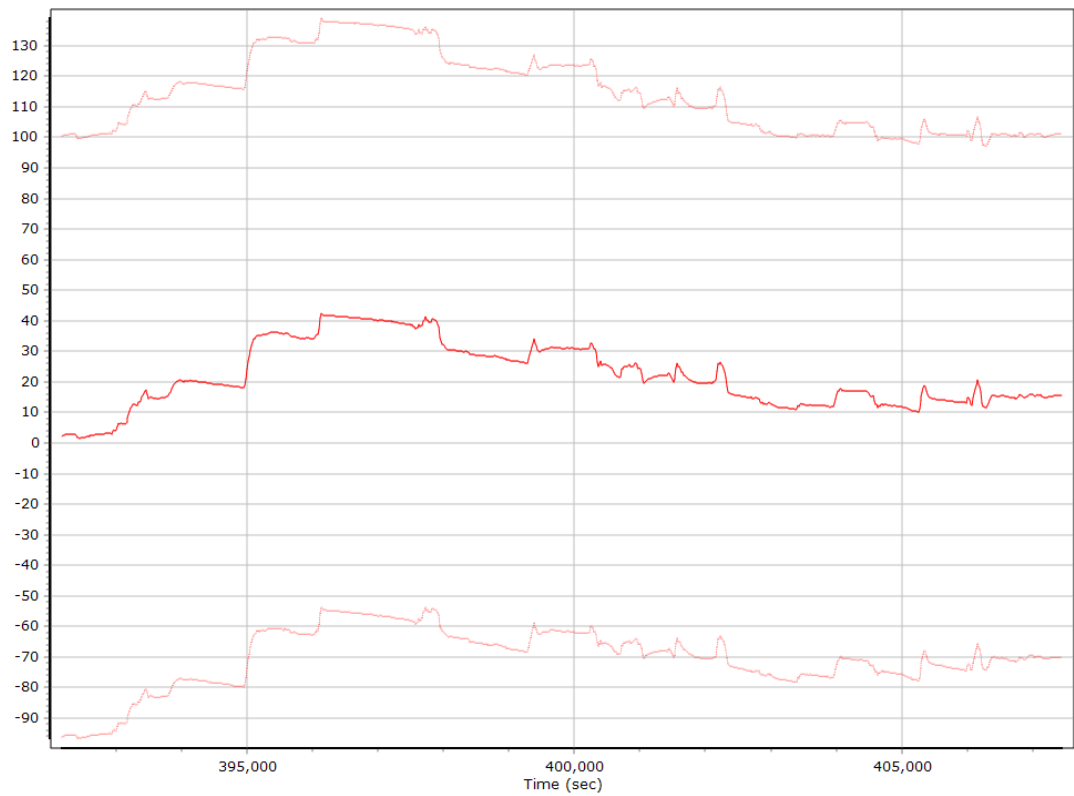
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

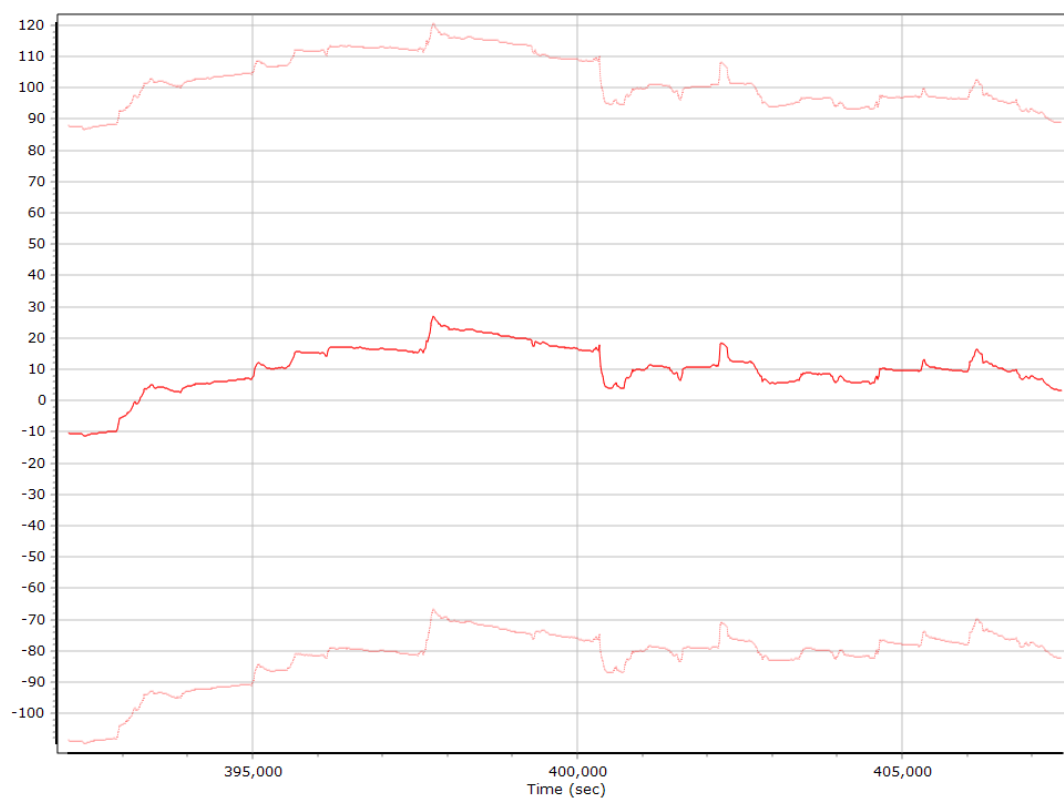
Accelerometer Bias (micro-g)



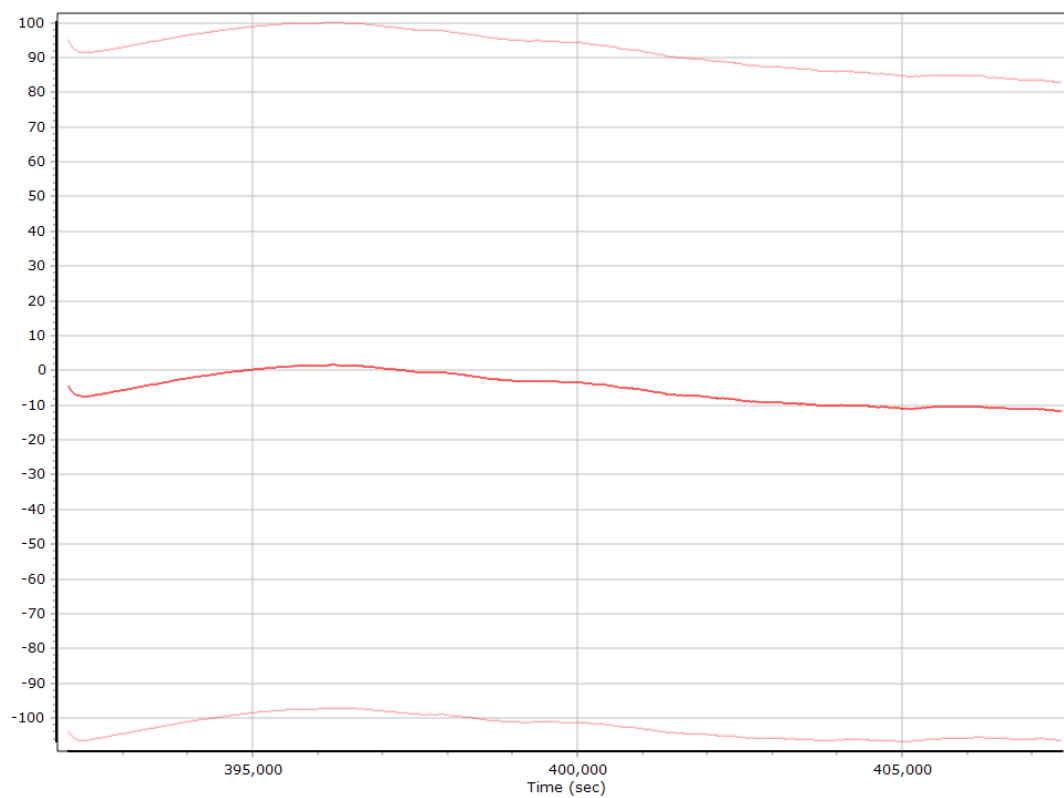
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



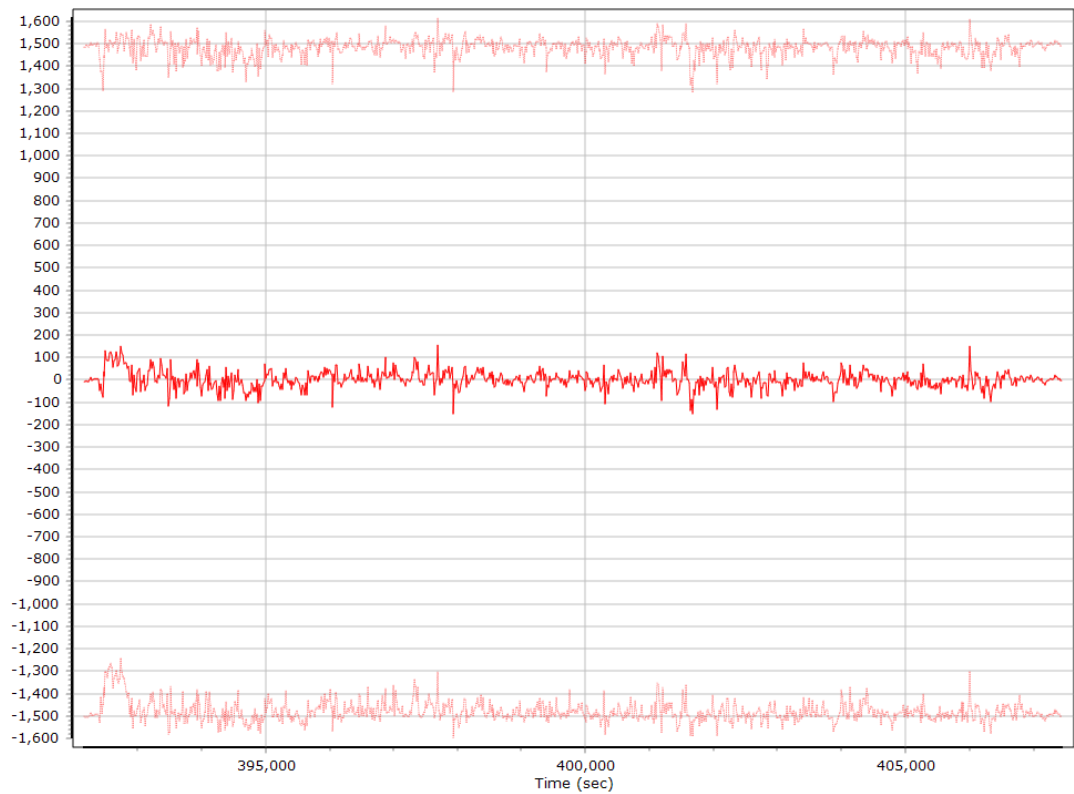
Z Accelerometer Bias (micro-g)



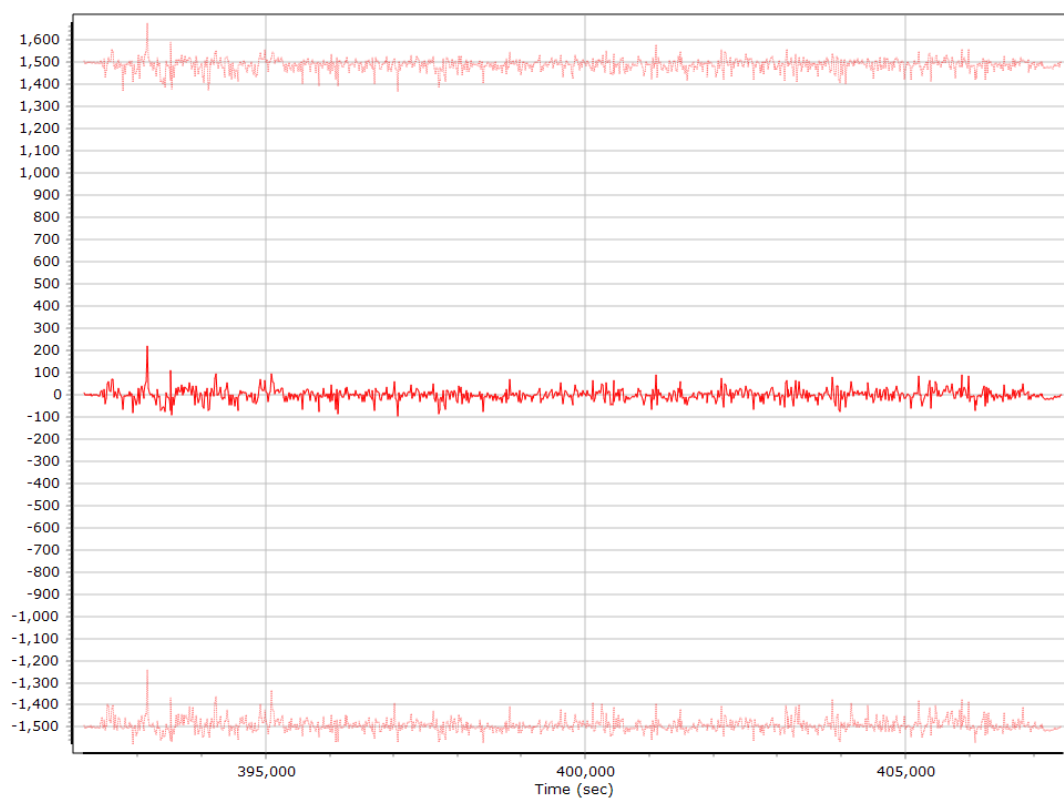
Accelerometer Scale Error (ppm)



X Accelerometer Scale Error (ppm)



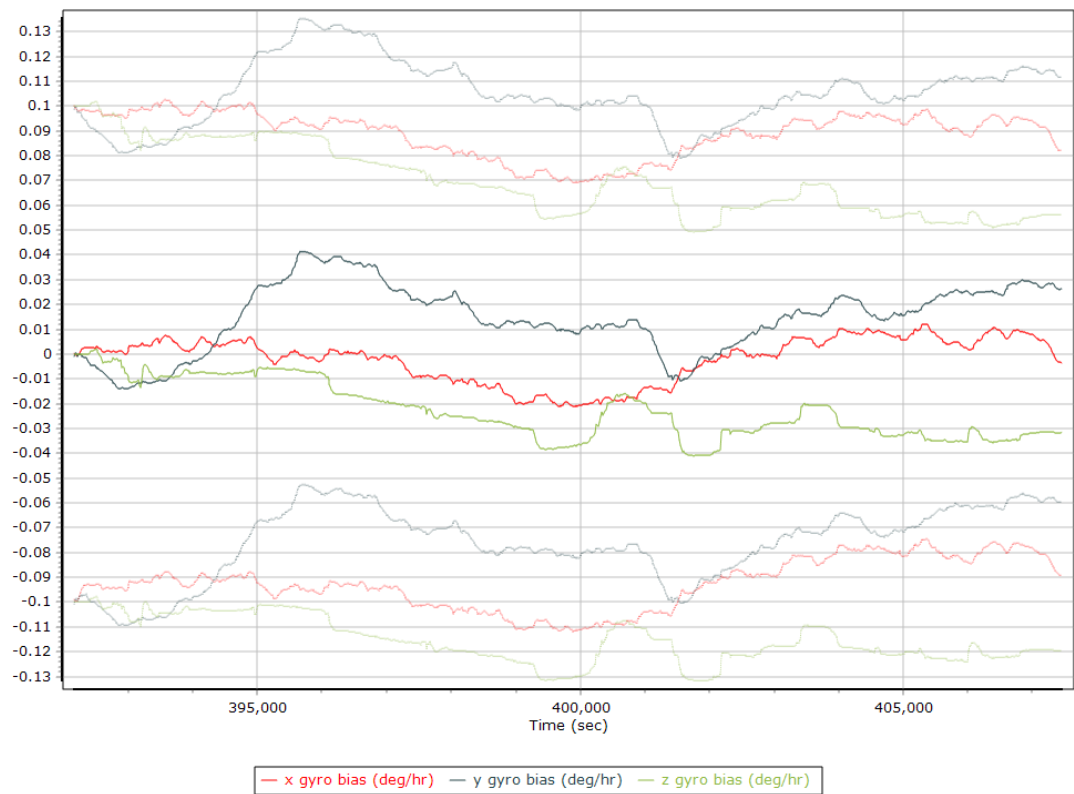
Y Accelerometer Scale Error (ppm)



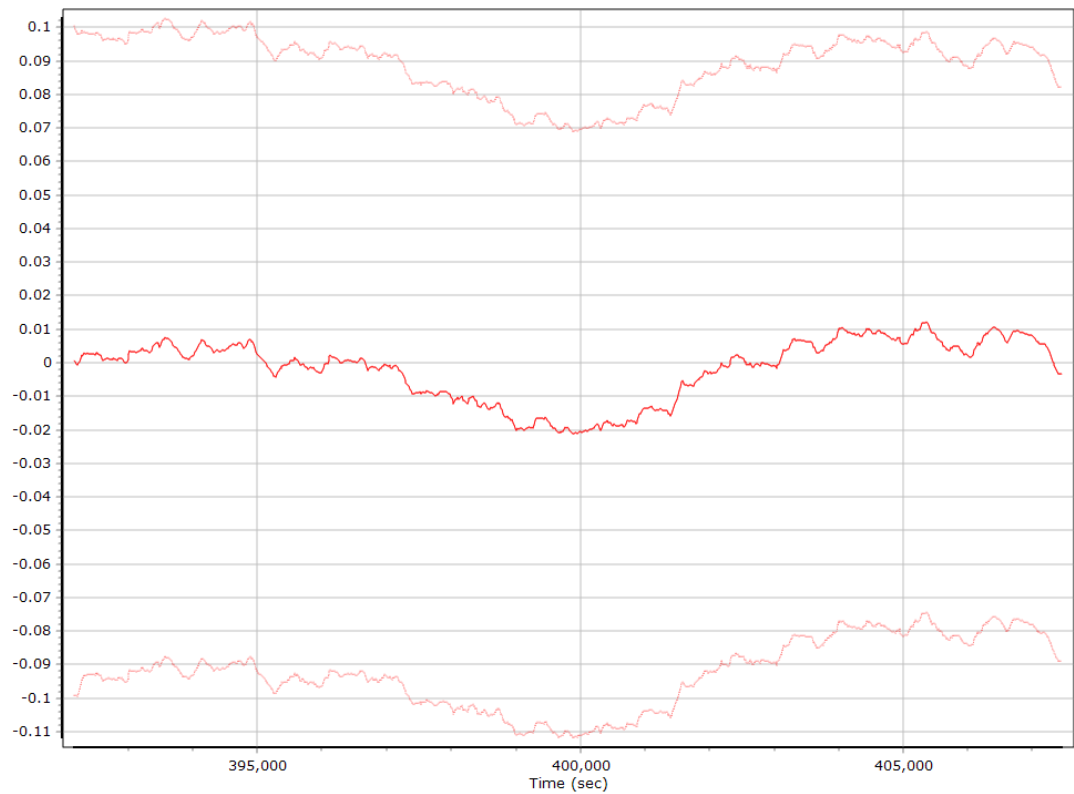
Z Accelerometer Scale Error (ppm)



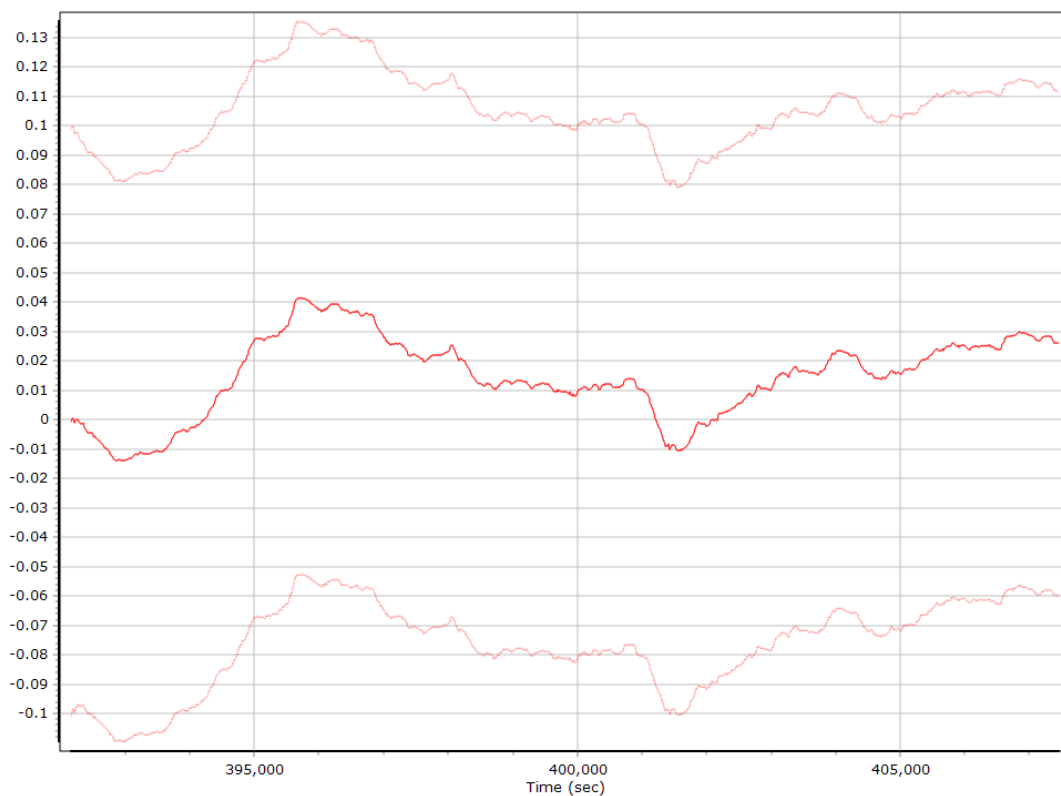
Gyro Bias (deg/h)



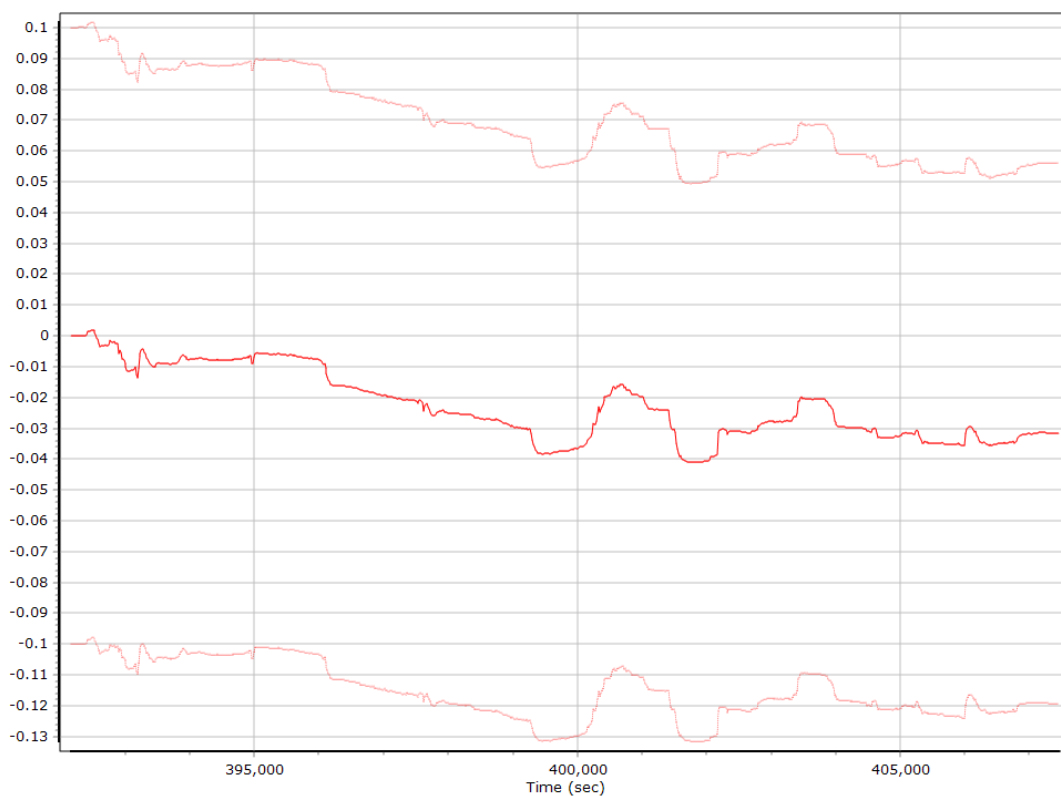
X Gyro Bias (deg/h)



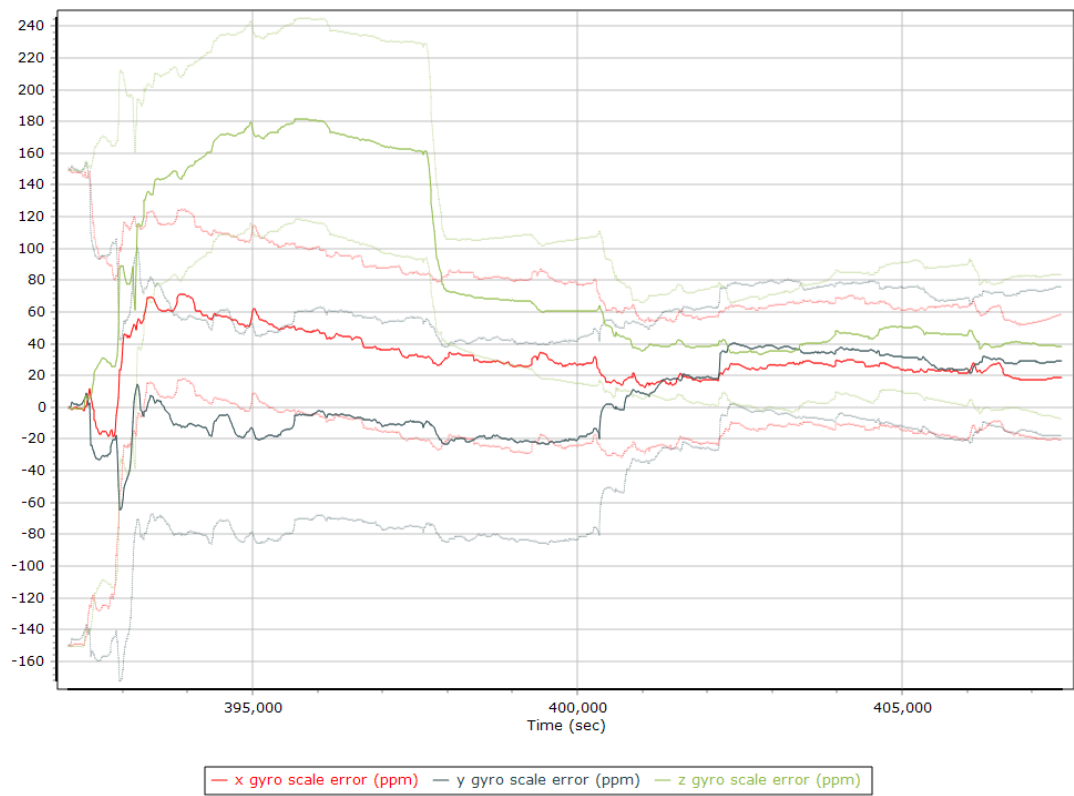
Y Gyro Bias (deg/h)



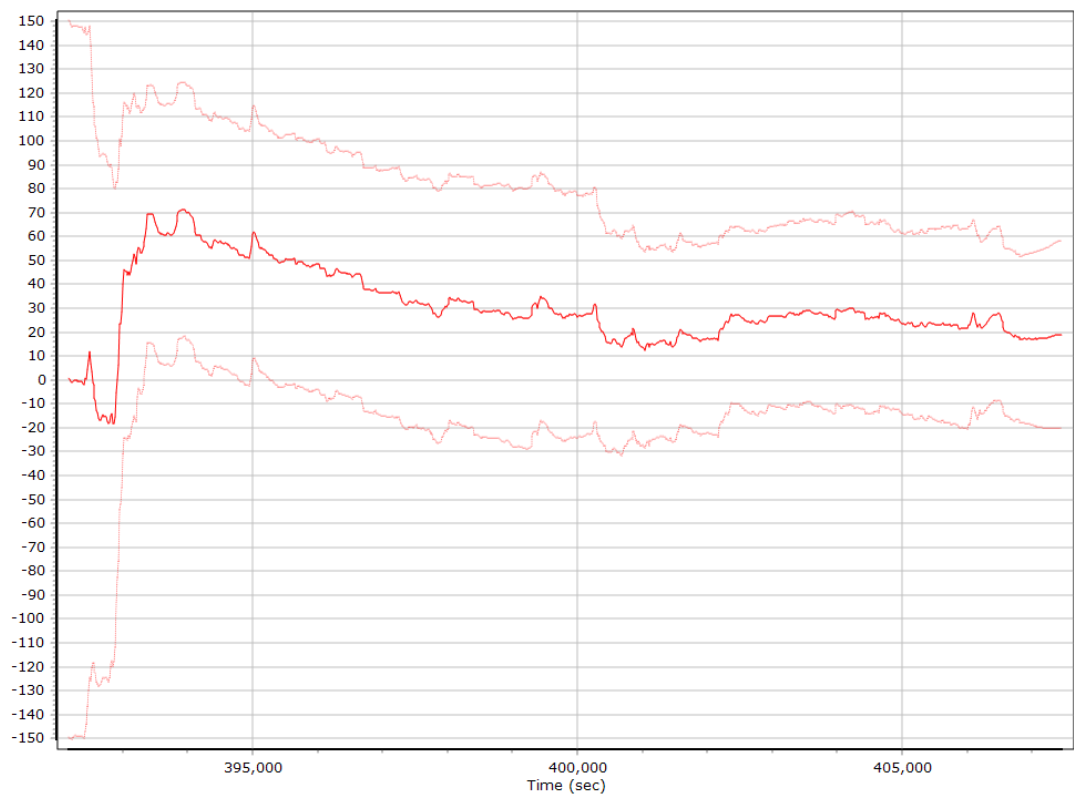
Z Gyro Bias (deg/h)



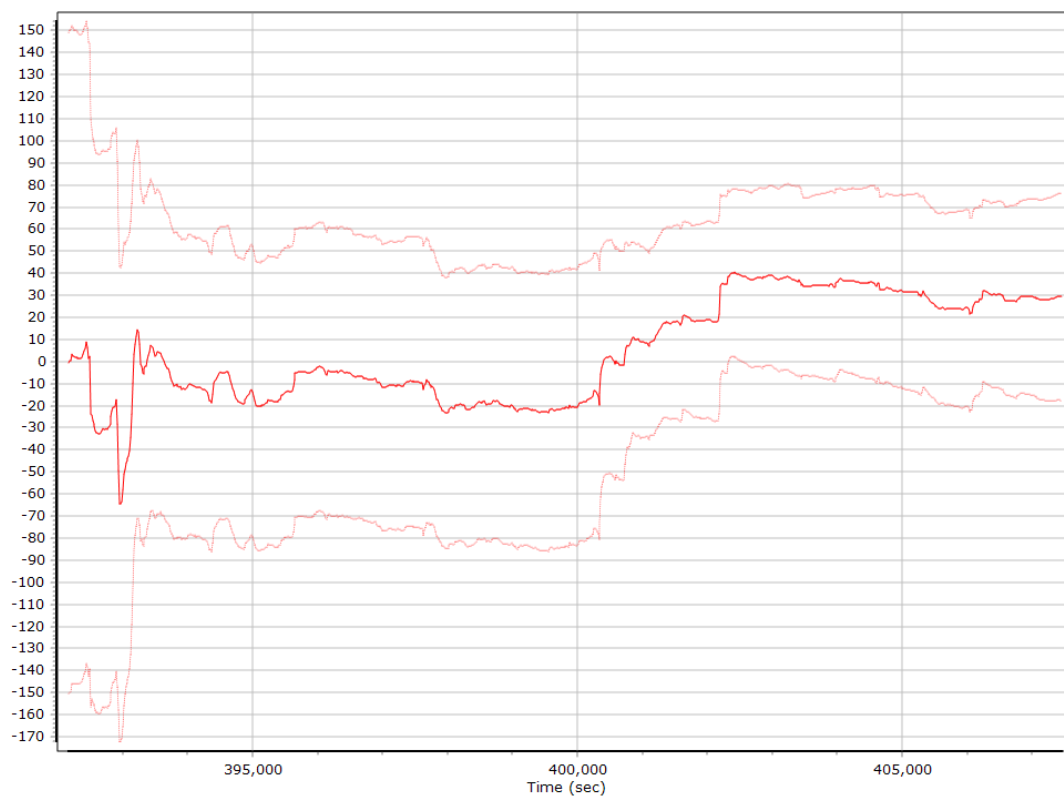
Gyro Scale Error (ppm)



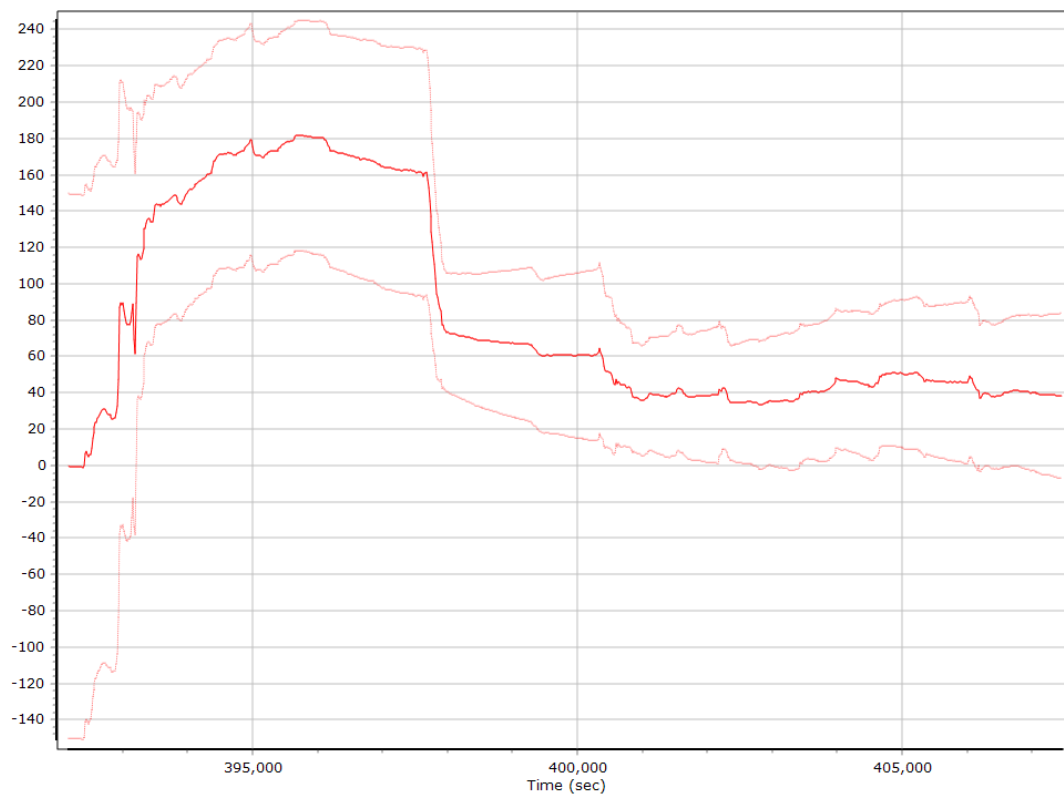
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

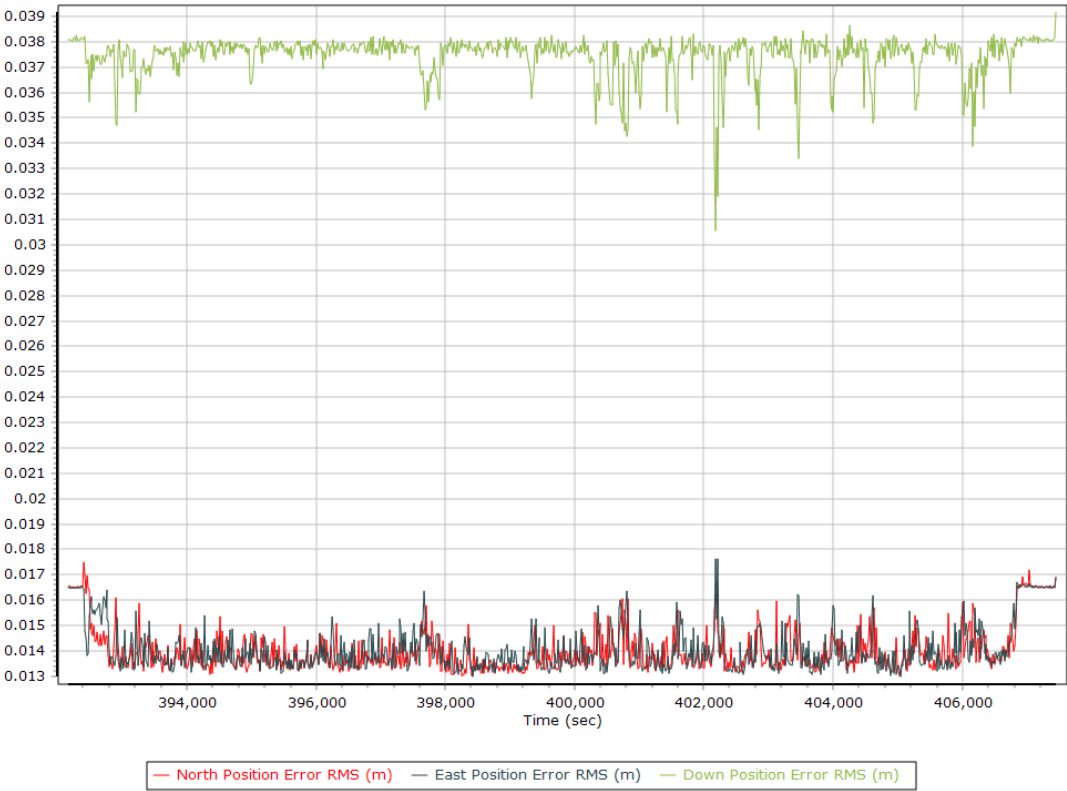


Z Gyro Scale Error (ppm)

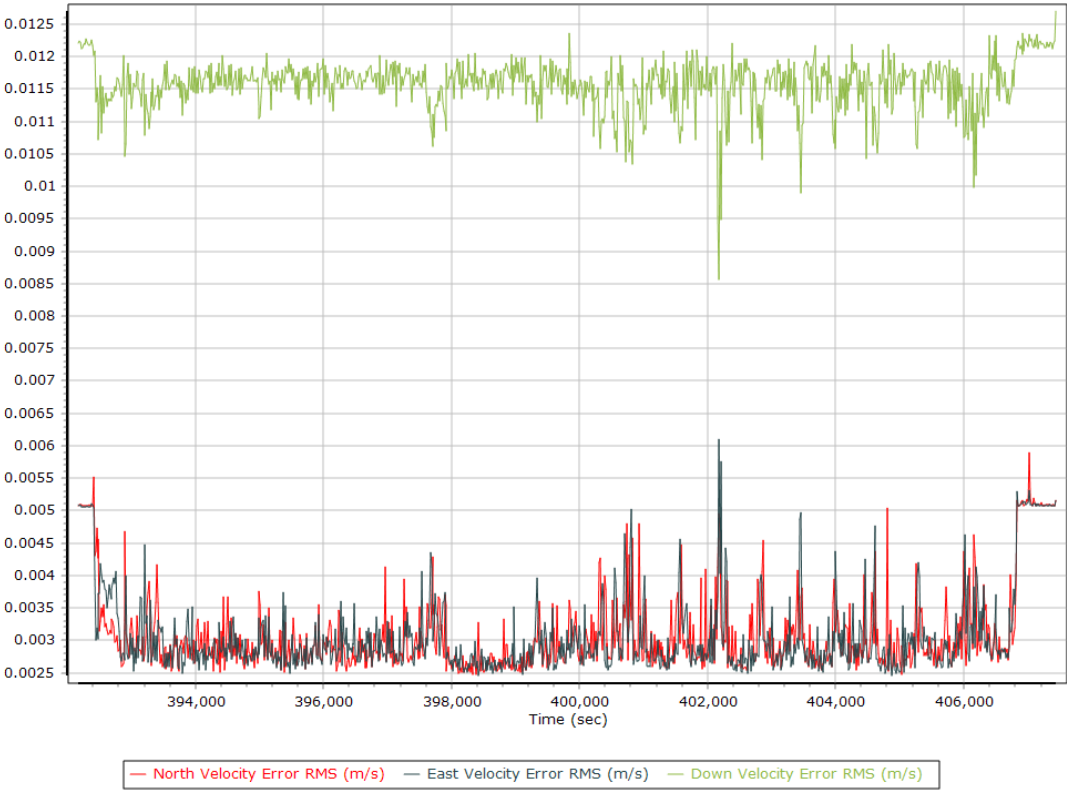


Smoothed Performance Metrics

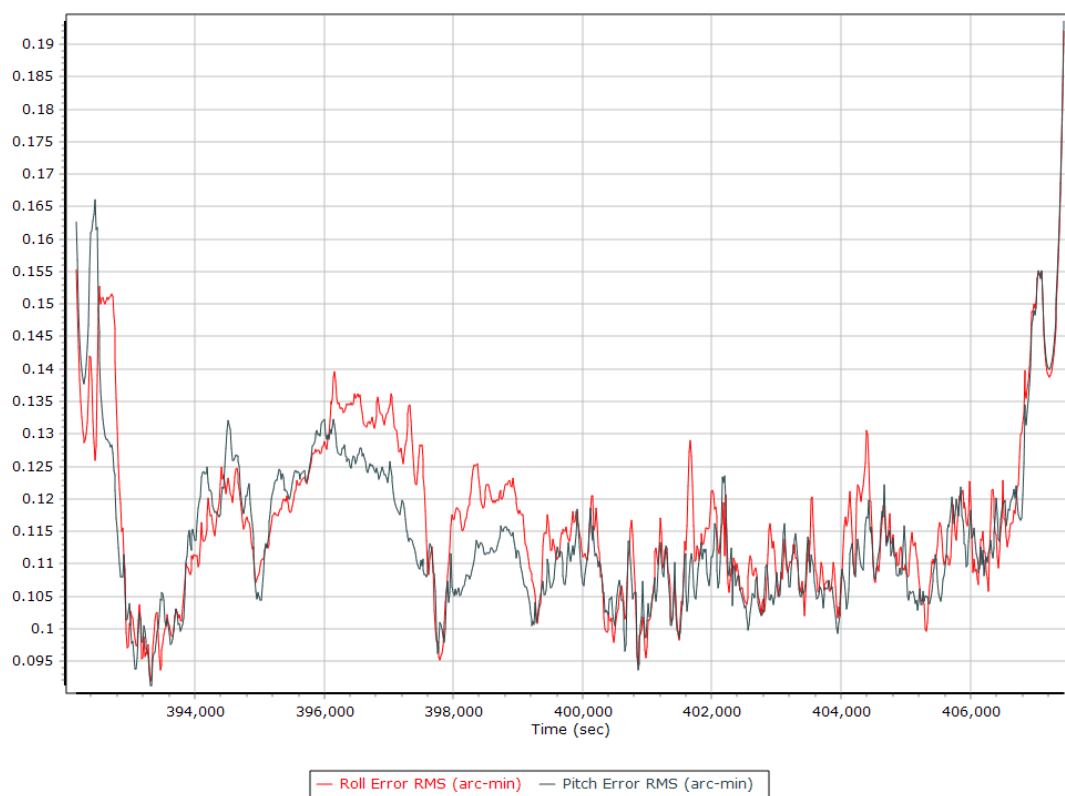
Position Error RMS (m)



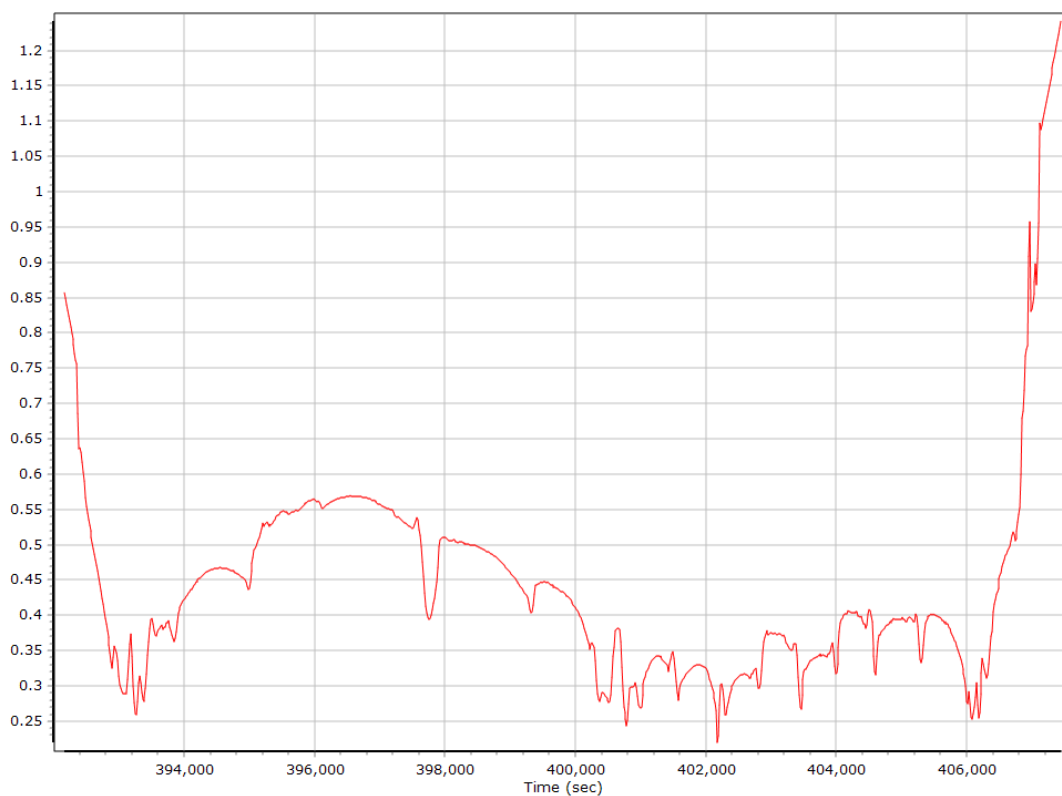
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

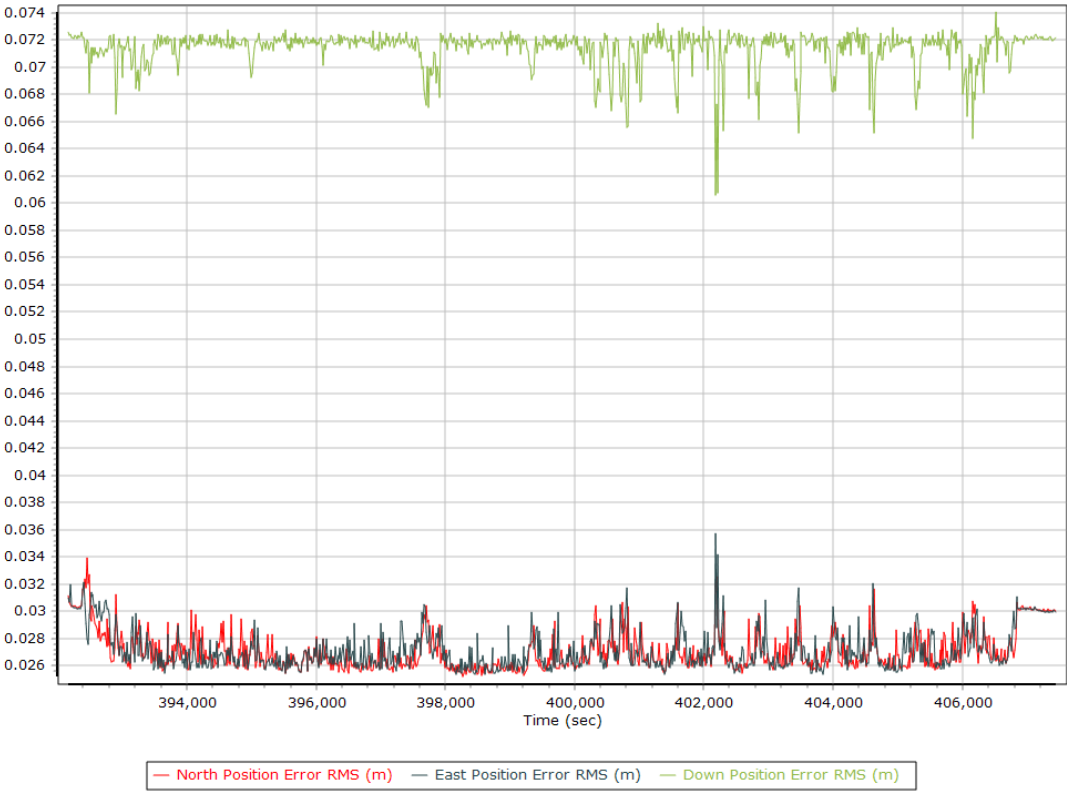


Heading Error RMS (arc-min)

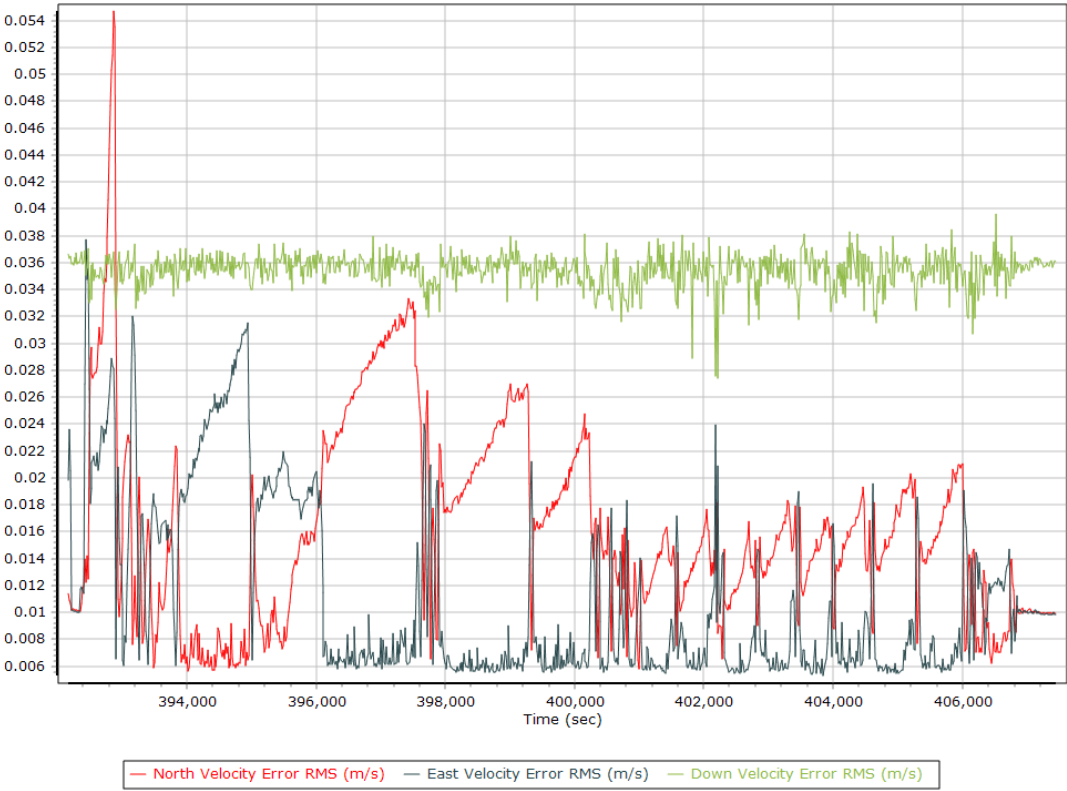


Forward Processed Performance Metrics

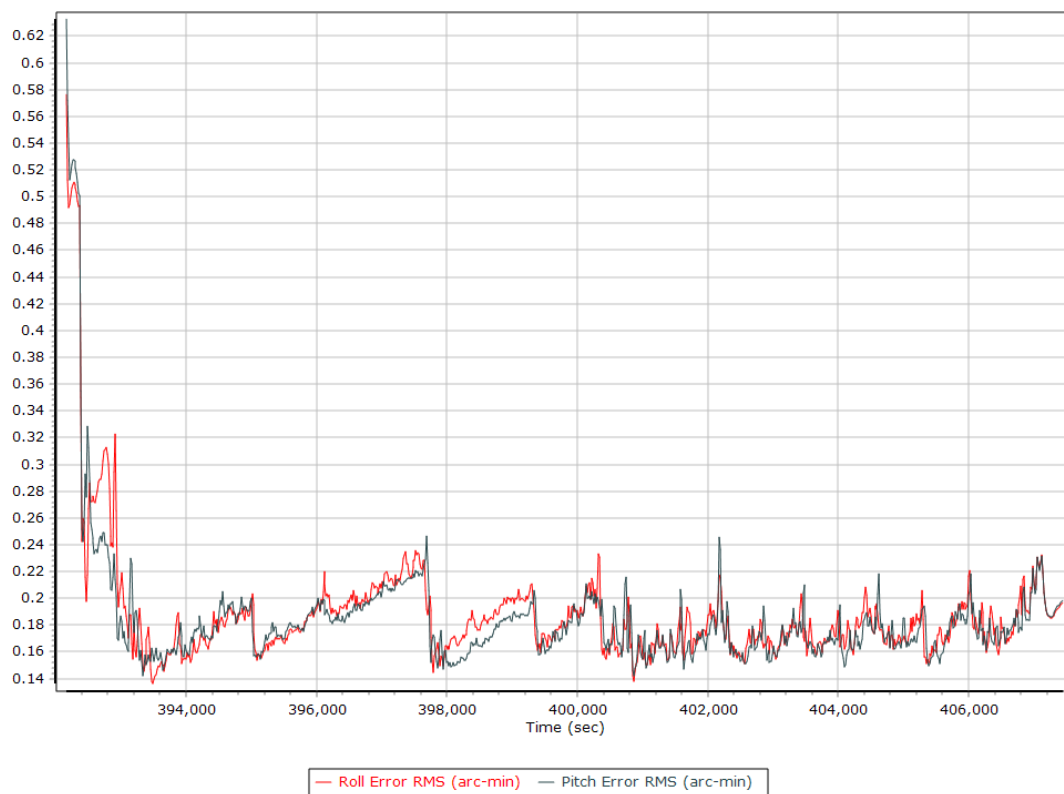
Position Error RMS (m)



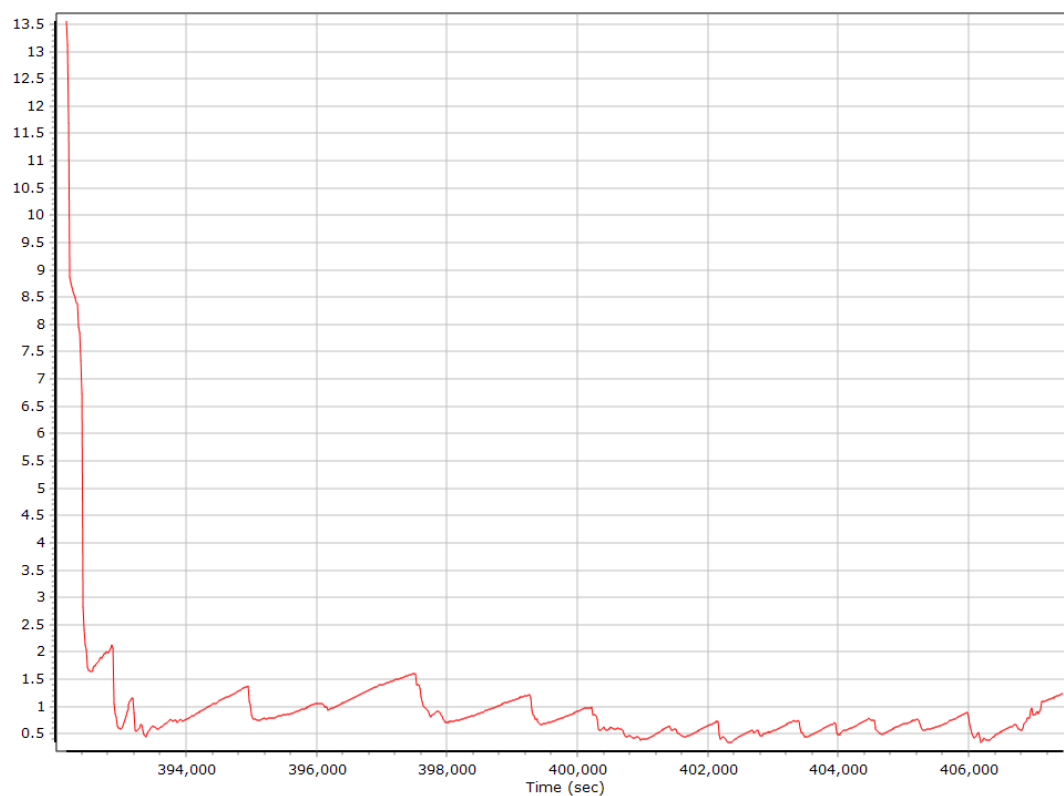
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

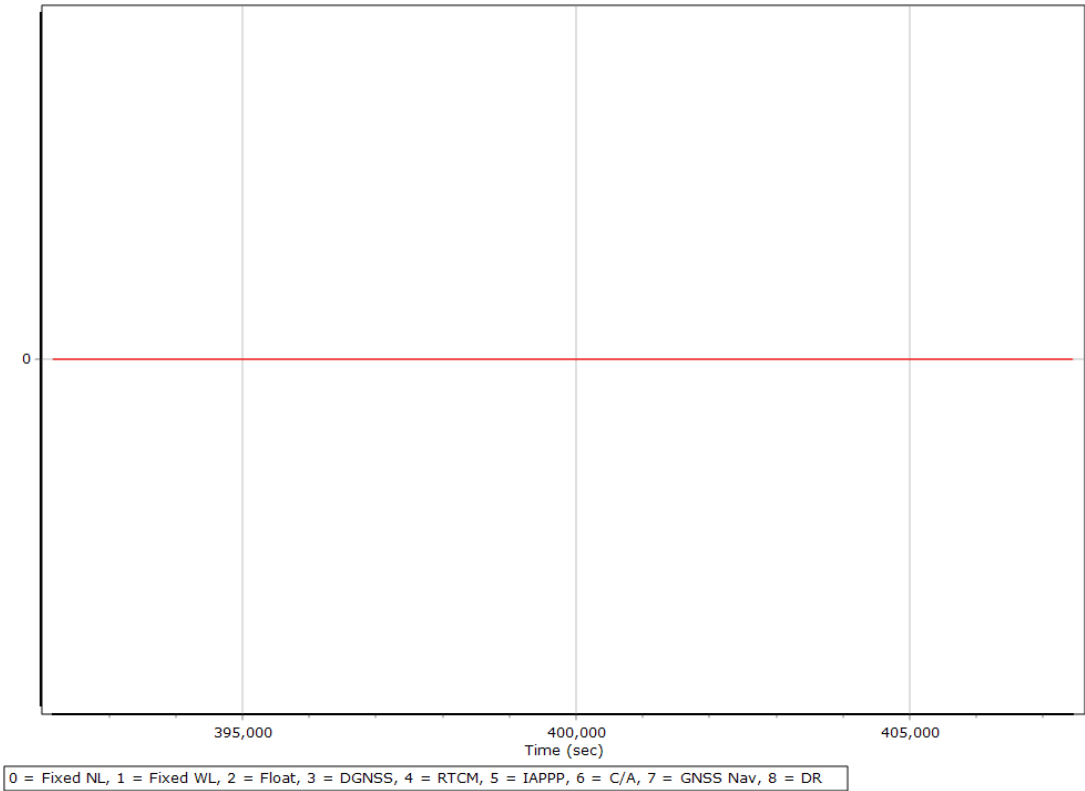


Heading Error RMS (arc-min)

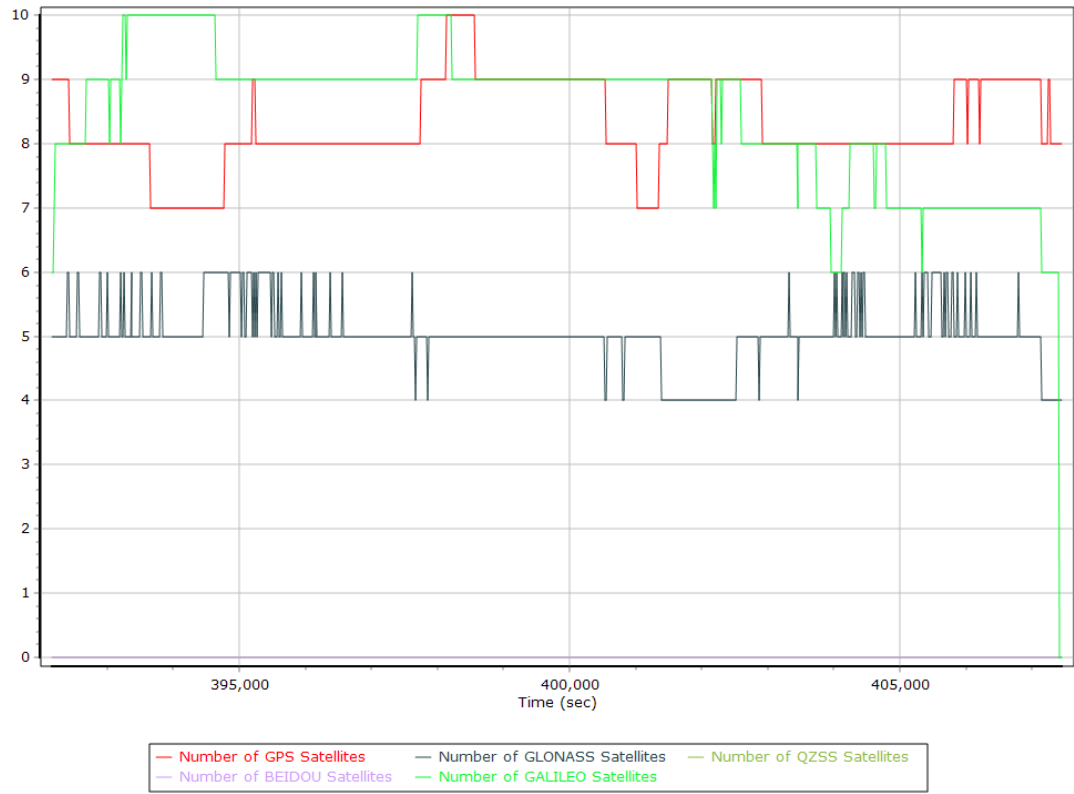


Forward Processed Solution Status

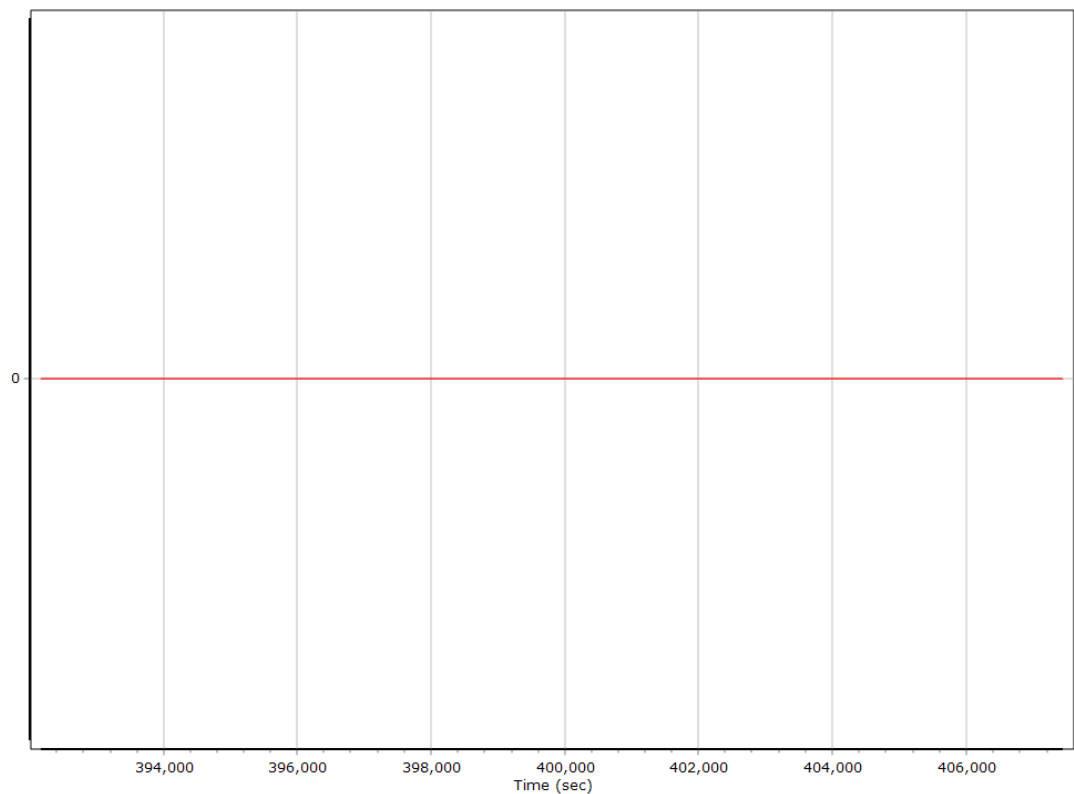
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230413_F1_4894_NAD832011.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	392106.001 (04/13/2023 12:55:06)		
Export end time	407452.003 (04/13/2023 17:10:52)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.279452		

General Information

Mission Information

Project name	20230413_F2_4894
Processing date	2023-04-17 16:03:53
Mission date	2023-04-13 18:11:59
Mission duration	03:06:52.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.410	POS Data
VQ1560.411	POS Data
VQ1560.412	POS Data
VQ1560.413	POS Data
VQ1560.414	POS Data
VQ1560.415	POS Data
VQ1560.416	POS Data
VQ1560.417	POS Data
VQ1560.418	POS Data
VQ1560.419	POS Data
VQ1560.420	POS Data
VQ1560.421	POS Data
VQ1560.422	POS Data
VQ1560.423	POS Data
VQ1560.424	POS Data
VQ1560.425	POS Data
VQ1560.426	POS Data
VQ1560.427	POS Data
VQ1560.428	POS Data
VQ1560.429	POS Data
VQ1560.430	POS Data
VQ1560.431	POS Data
VQ1560.432	POS Data
VQ1560.433	POS Data
VQ1560.434	POS Data
VQ1560.435	POS Data
VQ1560.436	POS Data

Input Files

File Name	File Type
Ephm1030.23g	GLONASS Broadcast Ephemeris
Ephm1030.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230413_F2_4894.out	SBET Trajectory File
export_20230413_F2_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.410		
Last raw data file	VQ1560.436		
Start GPS week	2257		
Start time	411112.030 (04/13/2023 18:11:52)		
End time	422313.823 (04/13/2023 21:18:33)		
Start of fine alignment	411598.999 (04/13/2023 18:19:58)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.123	0.041	-1.023
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

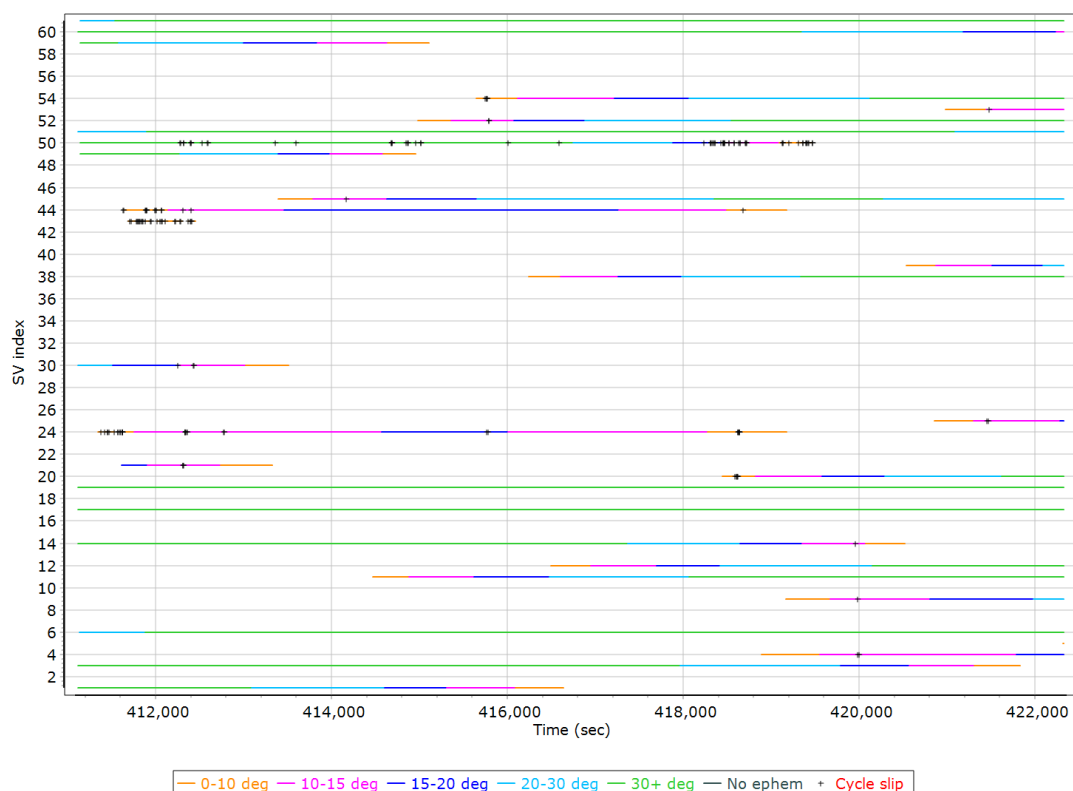
Rover Data QC

Raw IMU Import QC Summary

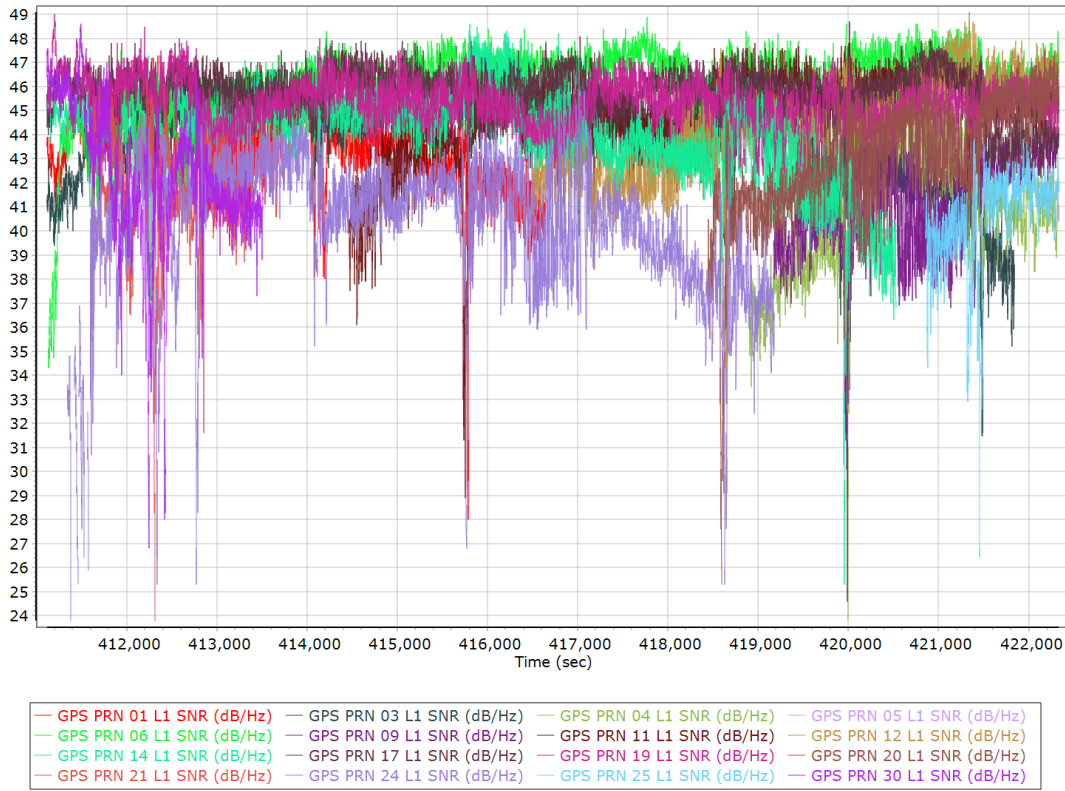
IMU data input file	imu_20230413_F2_4894.dat
IMU data check log file	imudt_20230413_F2_4894.log
IMU Records Processed	2242219
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
411111.835 : WARNING : Gap of 411099.8787 seconds in CHECKDT input data	

Primary Observables & Satellite Data

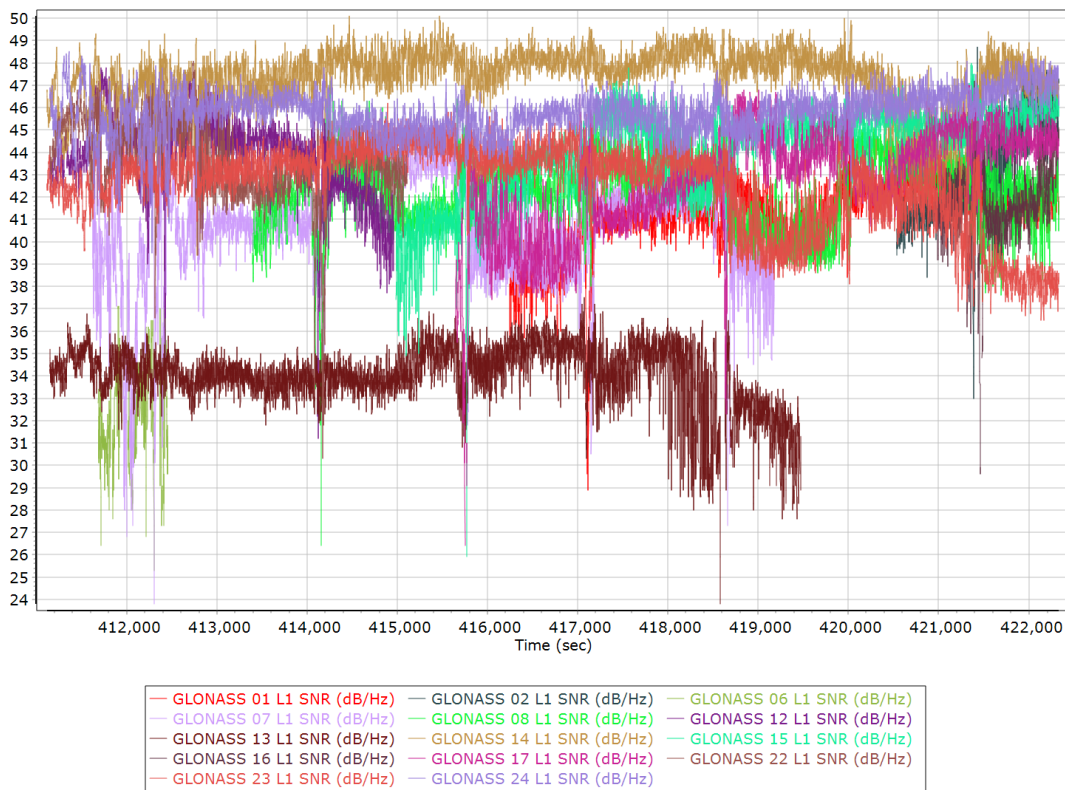
GPS/GLONASS L1 Satellite Lock/Elevation



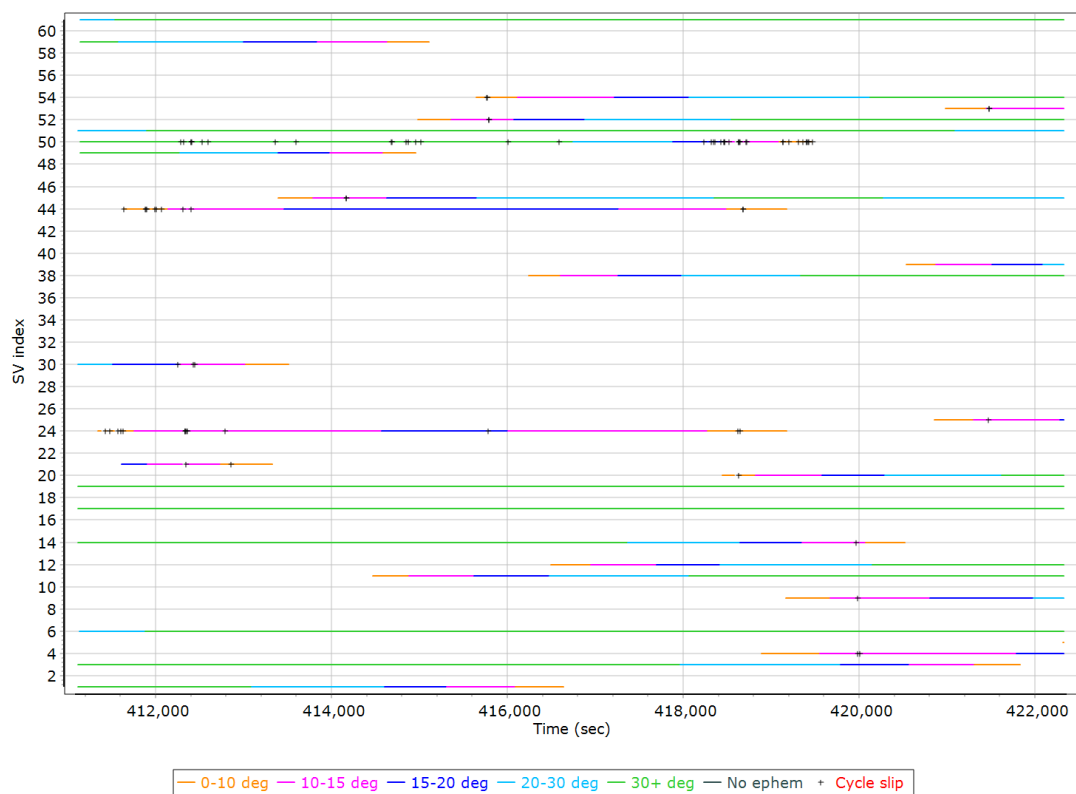
GPS L1 SNR



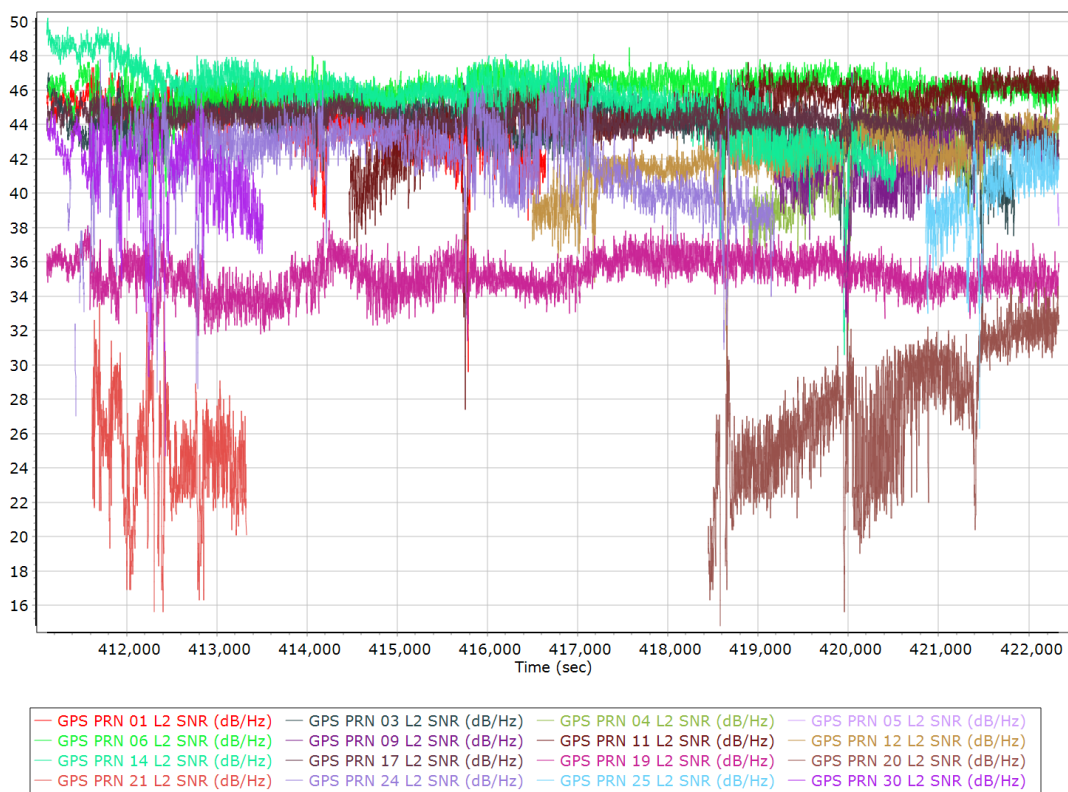
GLONASS L1 SNR



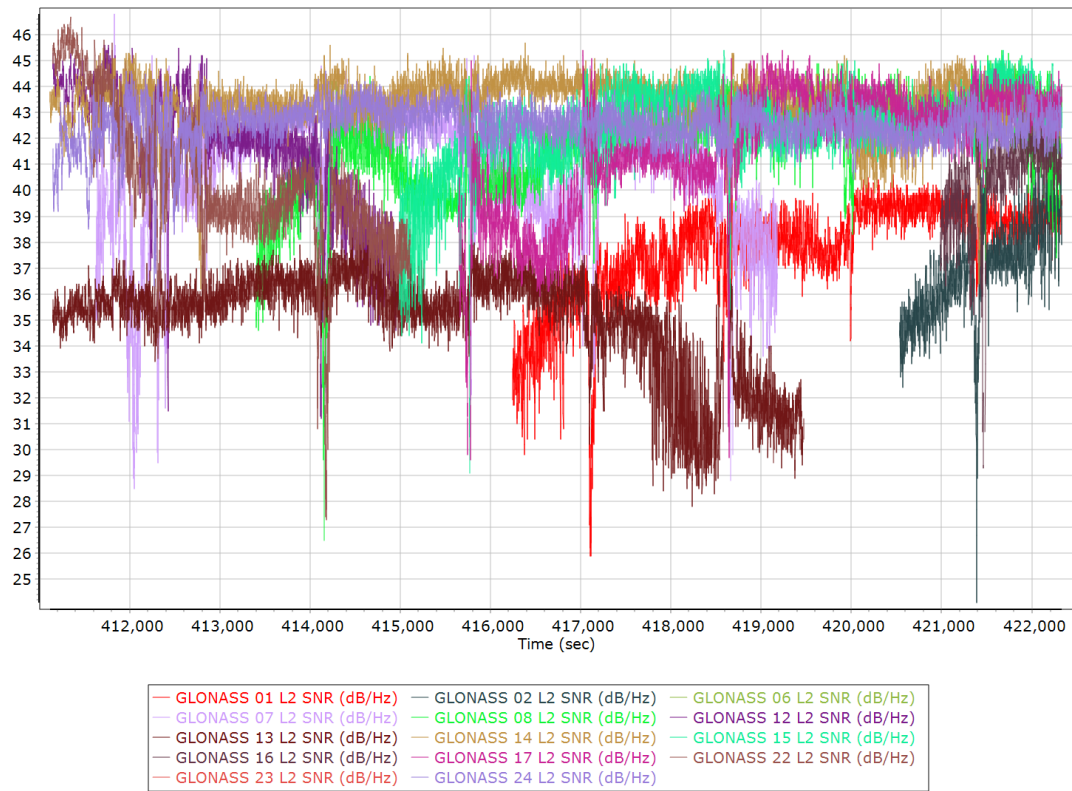
GPS/GLONASS L2 Satellite Lock/Elevation



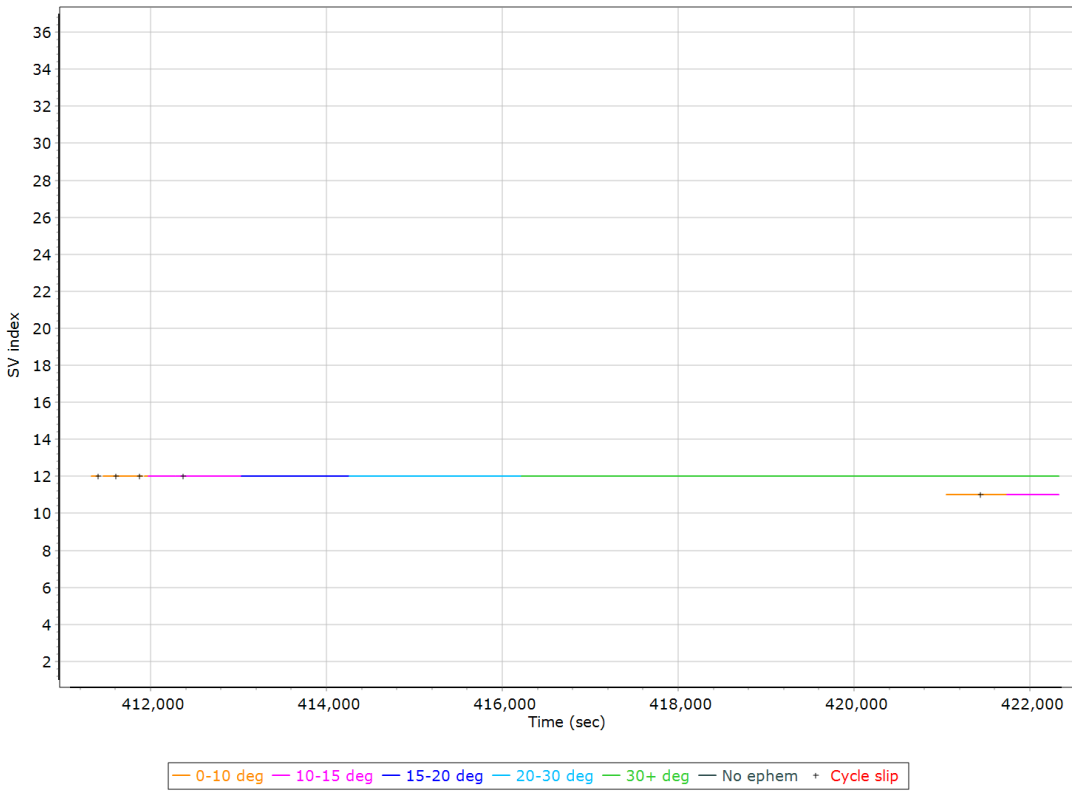
GPS L2 SNR



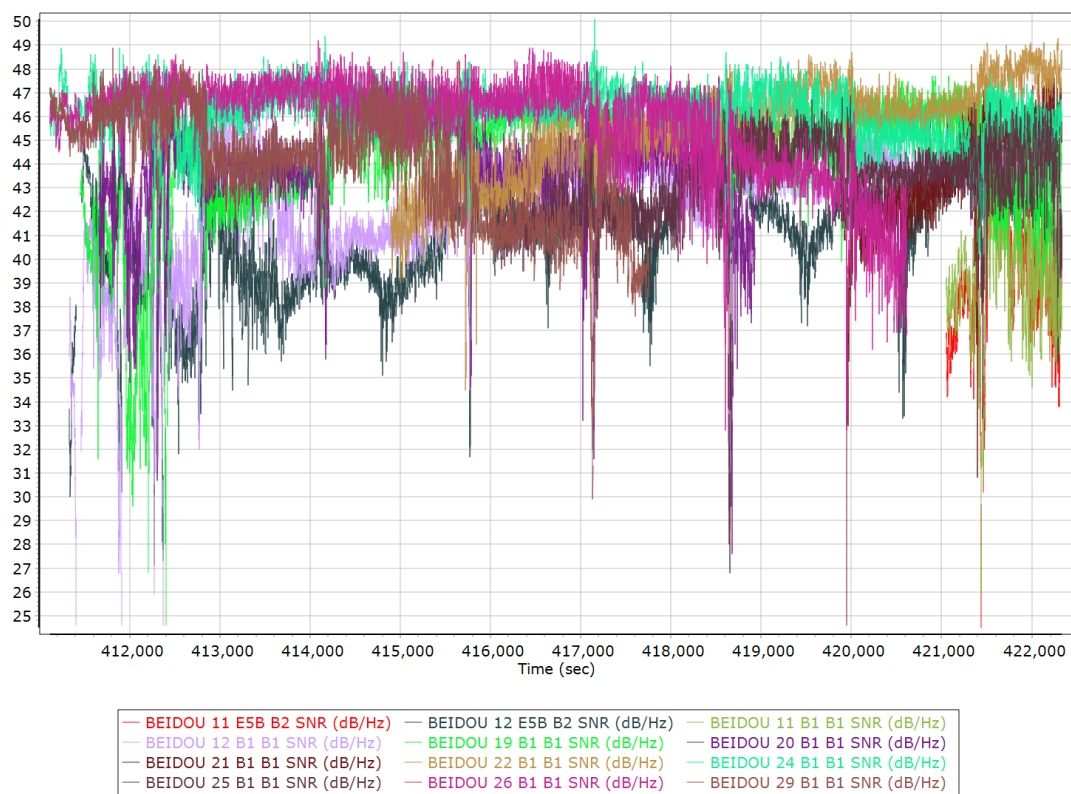
GLONASS L2 SNR



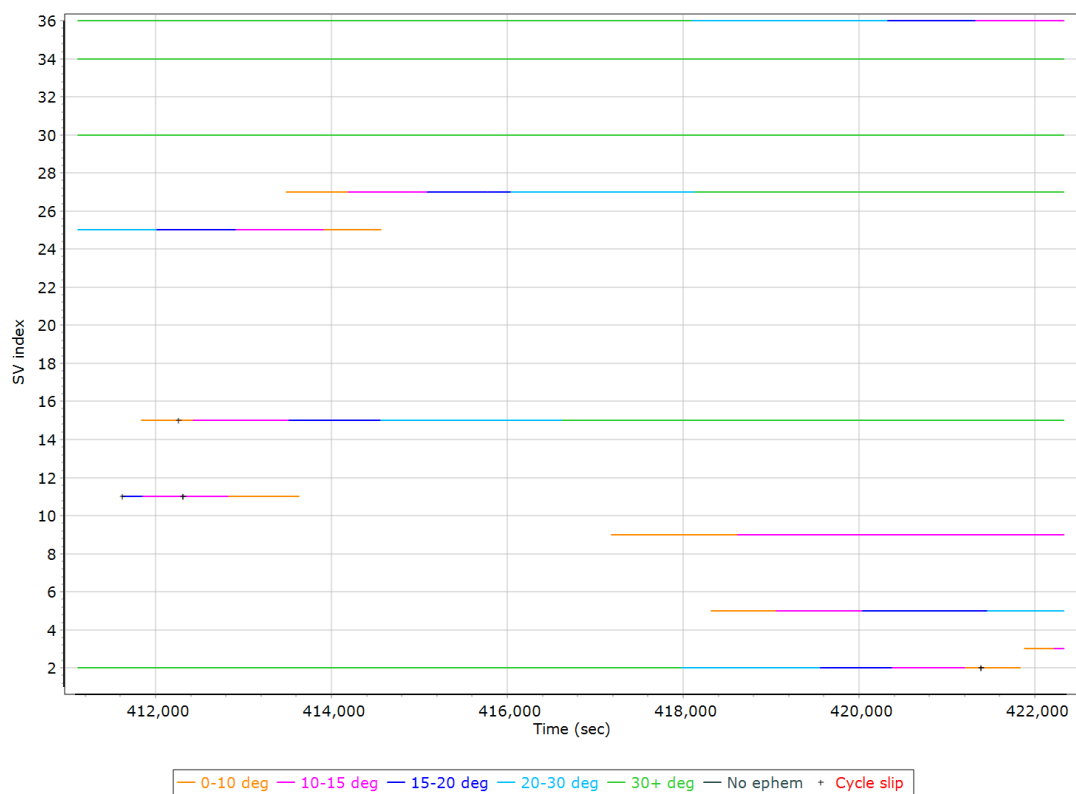
BEIDOU Satellite Lock/Elevation



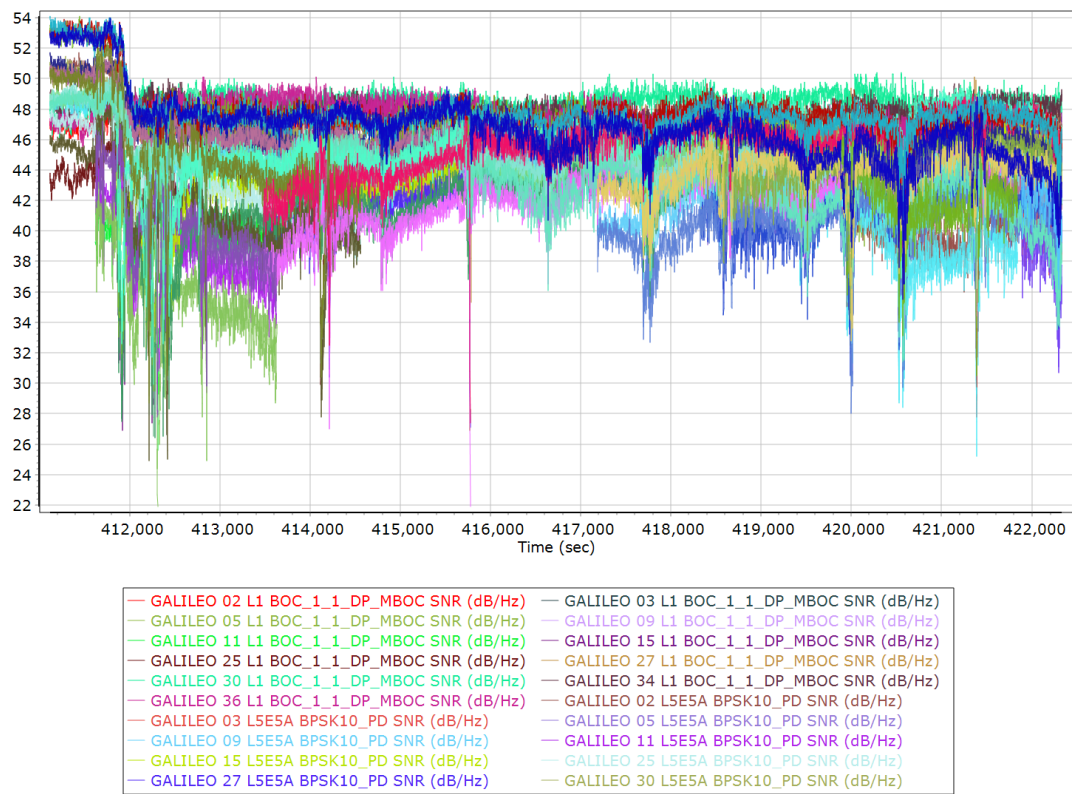
BEIDOU SNR



GALILEO Satellite Lock/Elevation

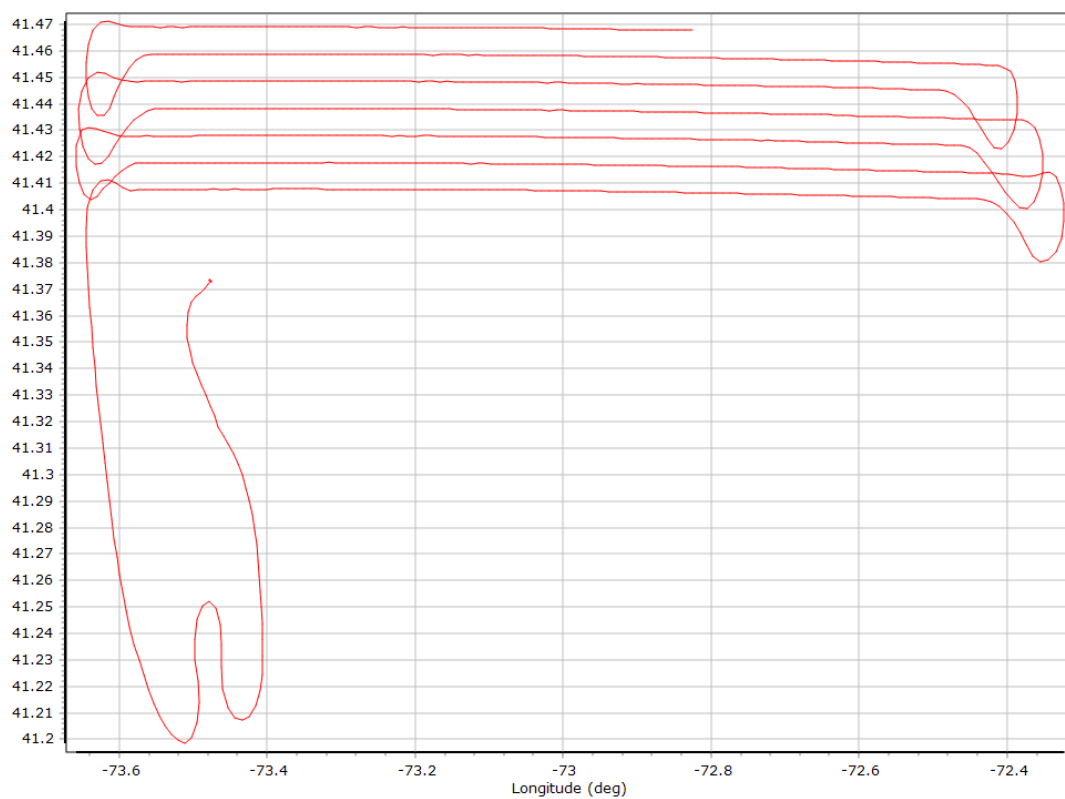


GALILEO SNR

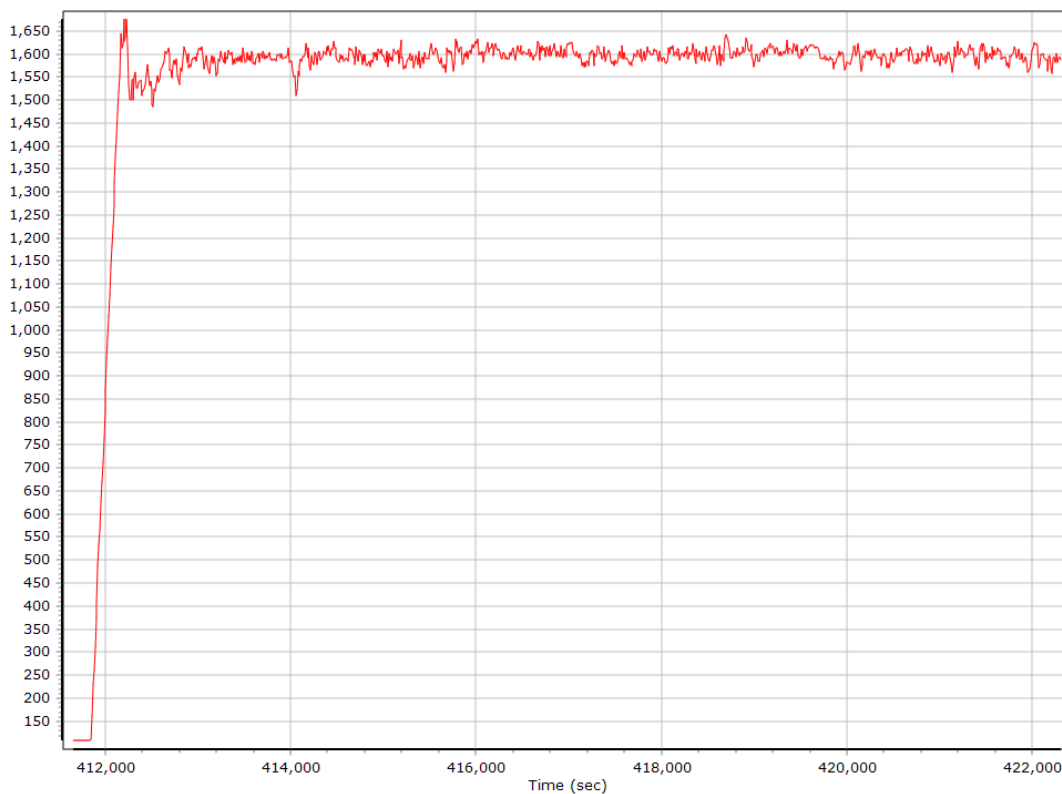


Smoothed Trajectory Information

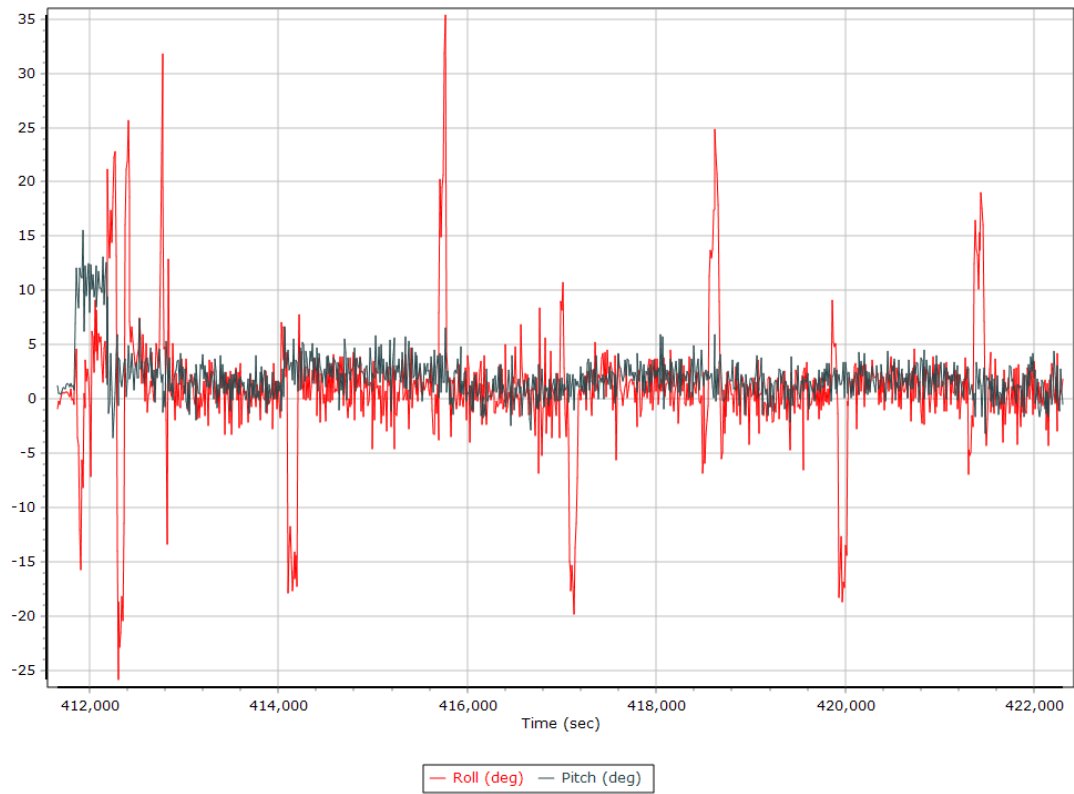
Top View



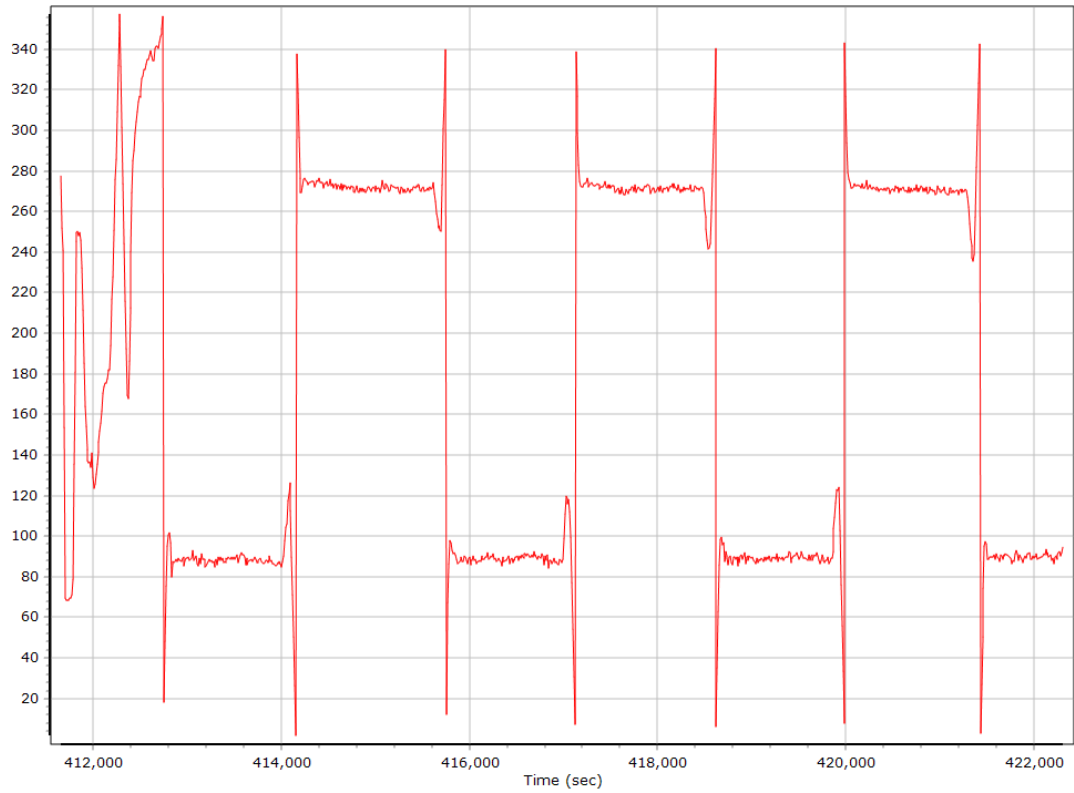
Altitude



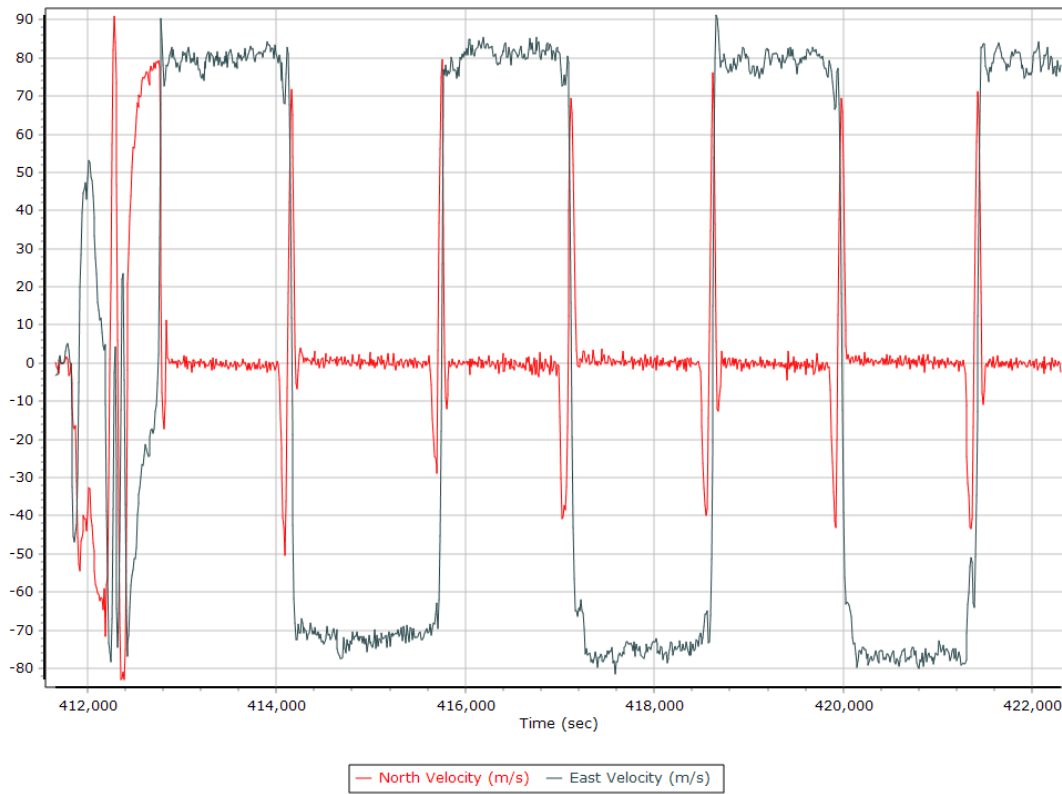
Roll/Pitch



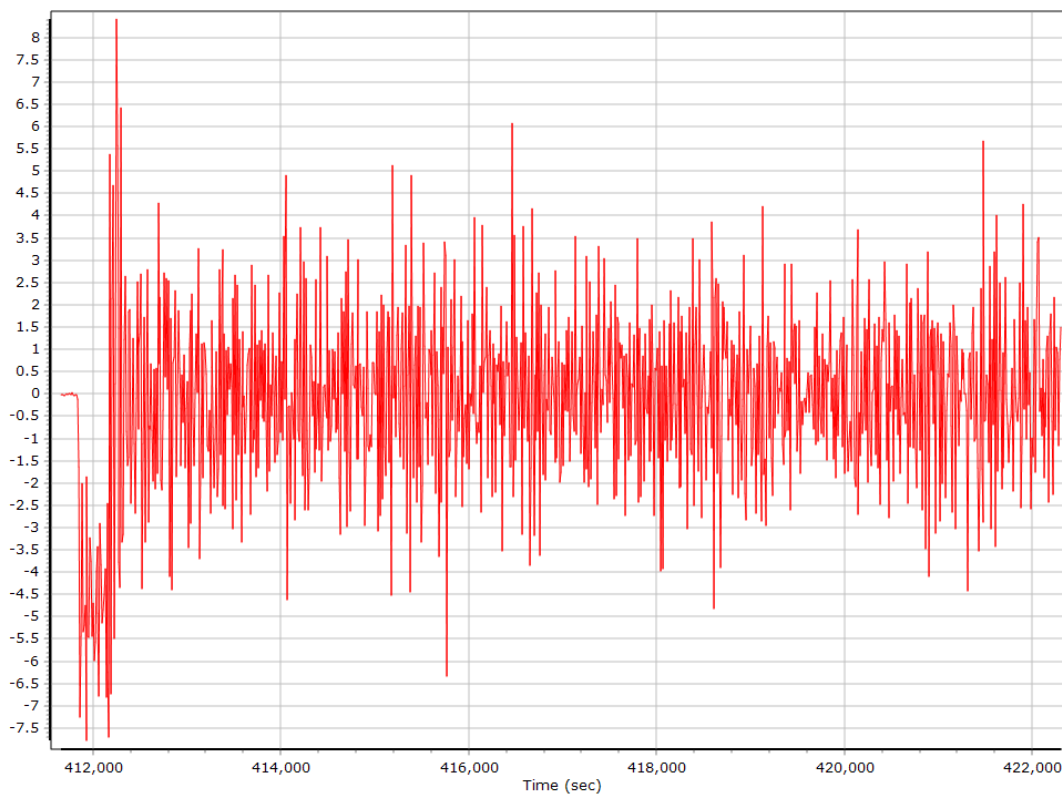
Heading



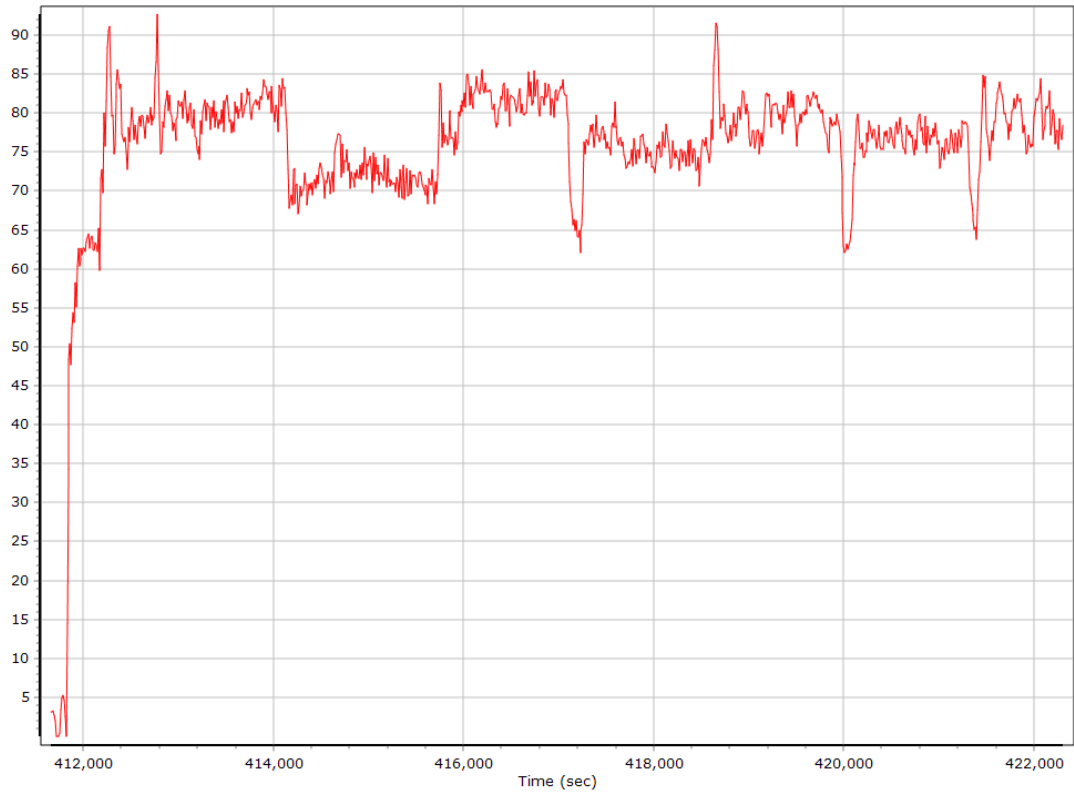
North/East Velocity



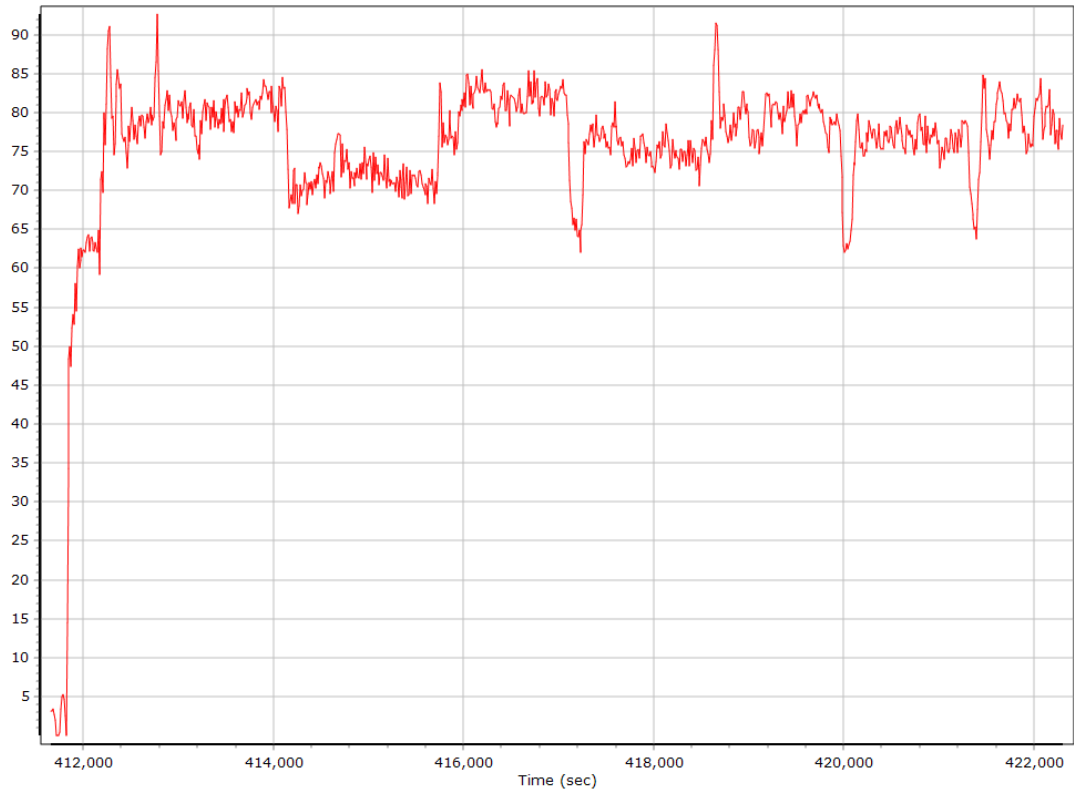
Down Velocity



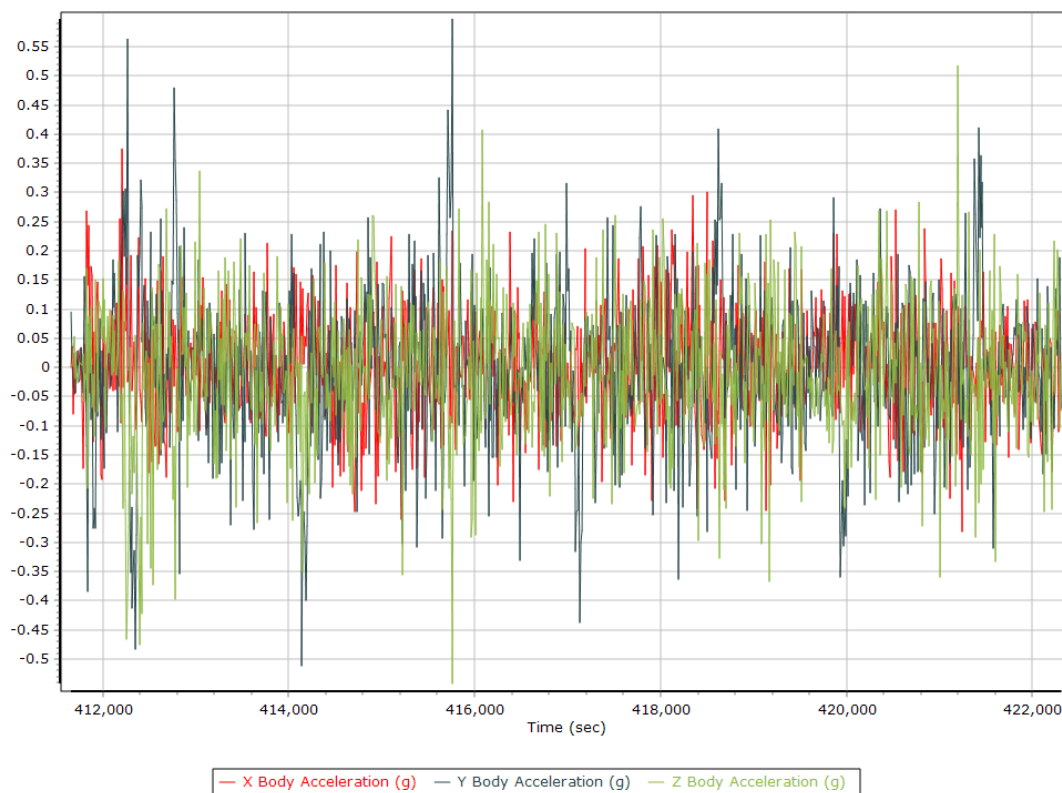
Total Speed



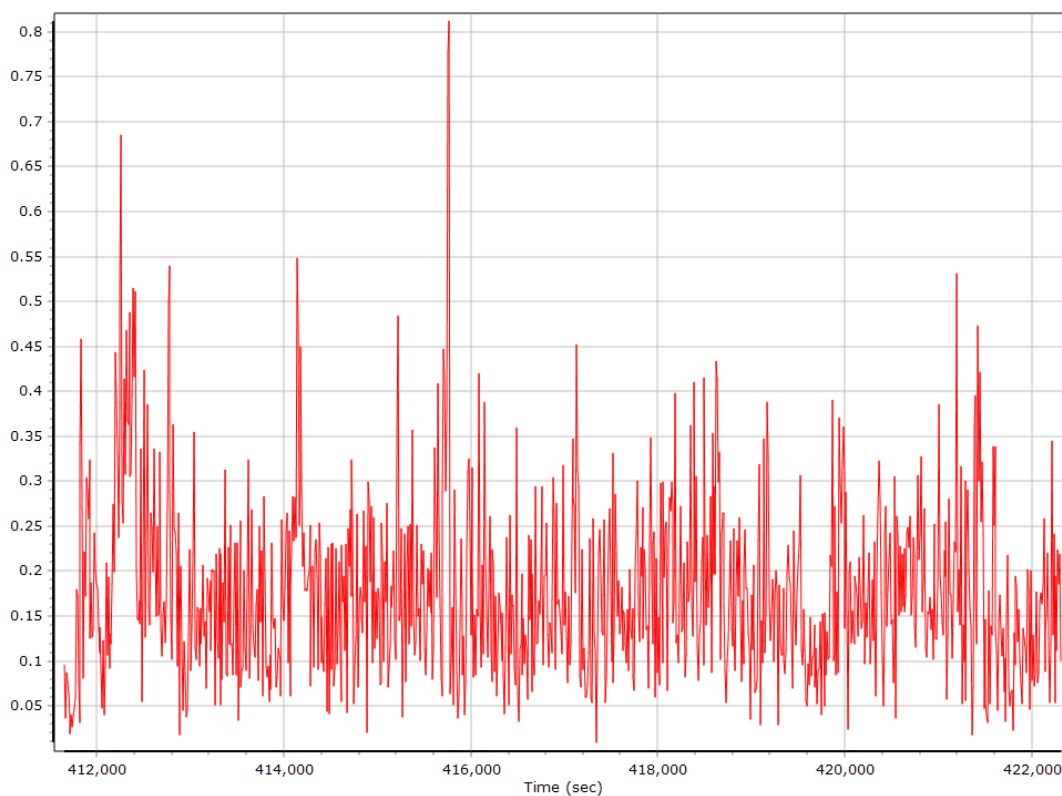
Ground Speed



Body Acceleration



Total Body Acceleration

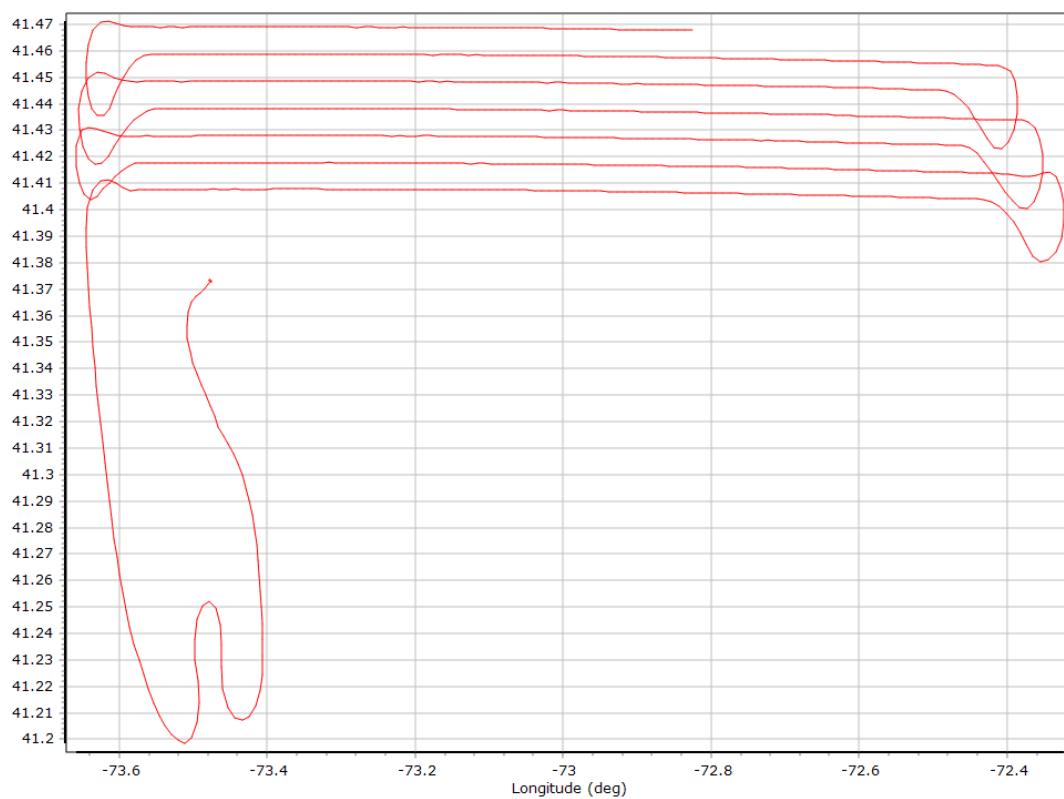


Body Angular Rate

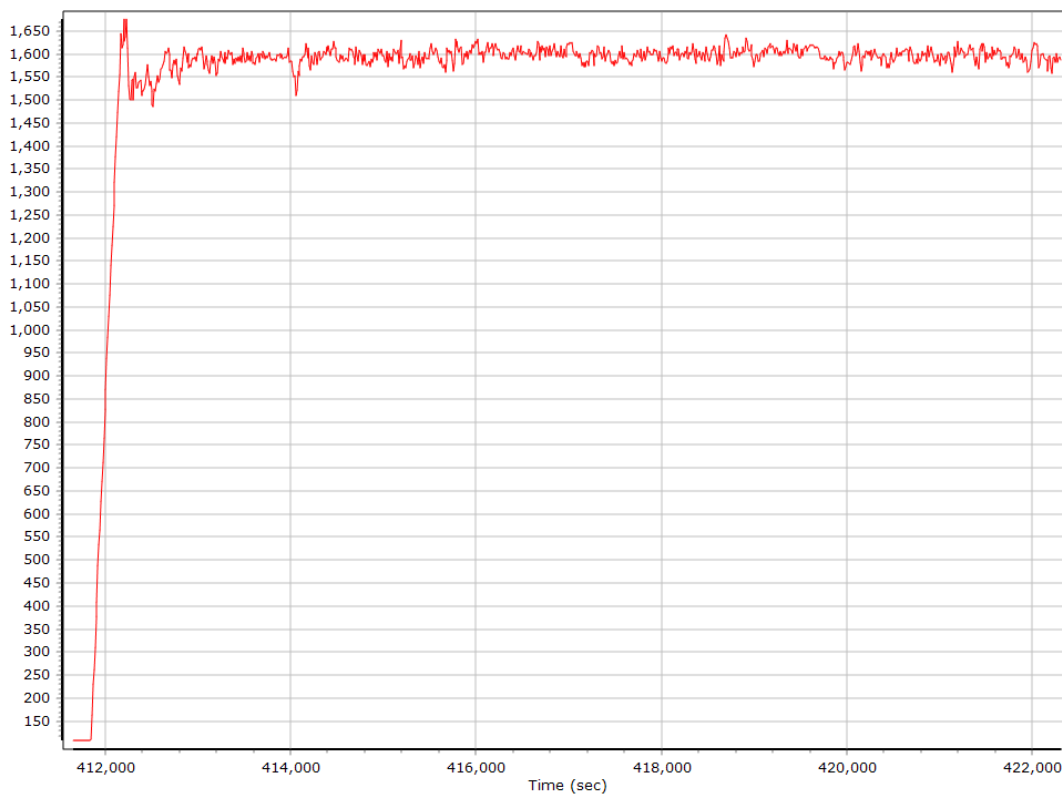


Forward Processed Trajectory Information

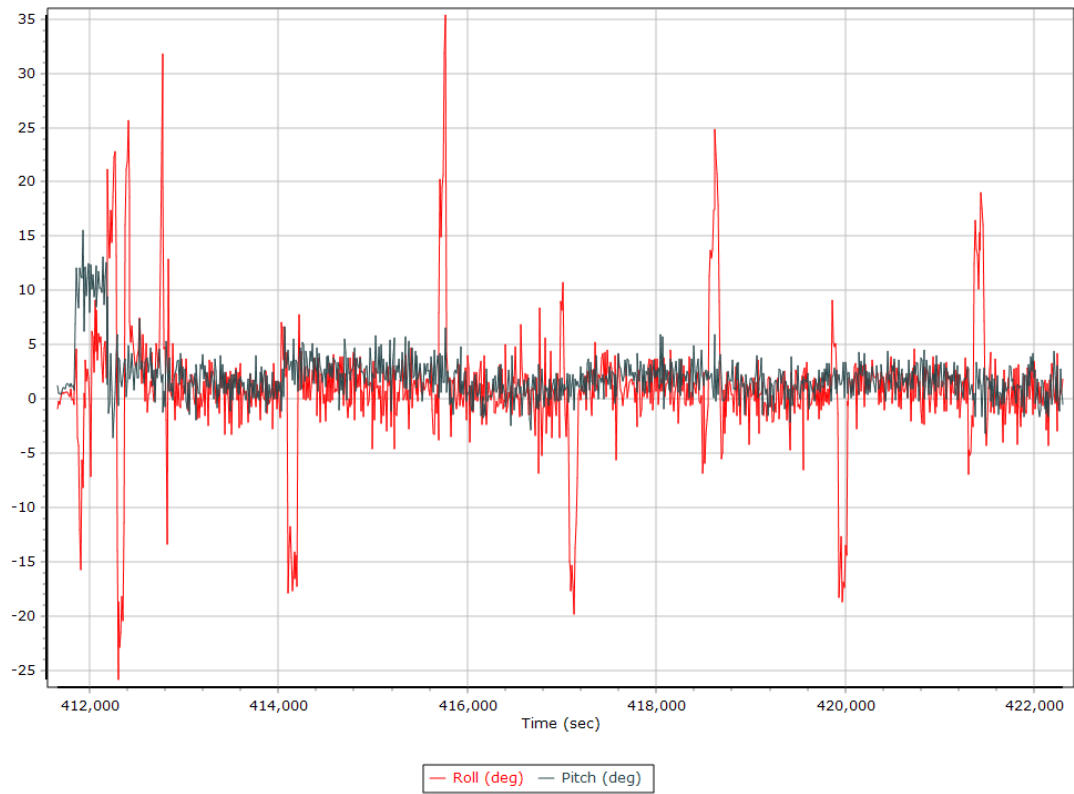
Top View



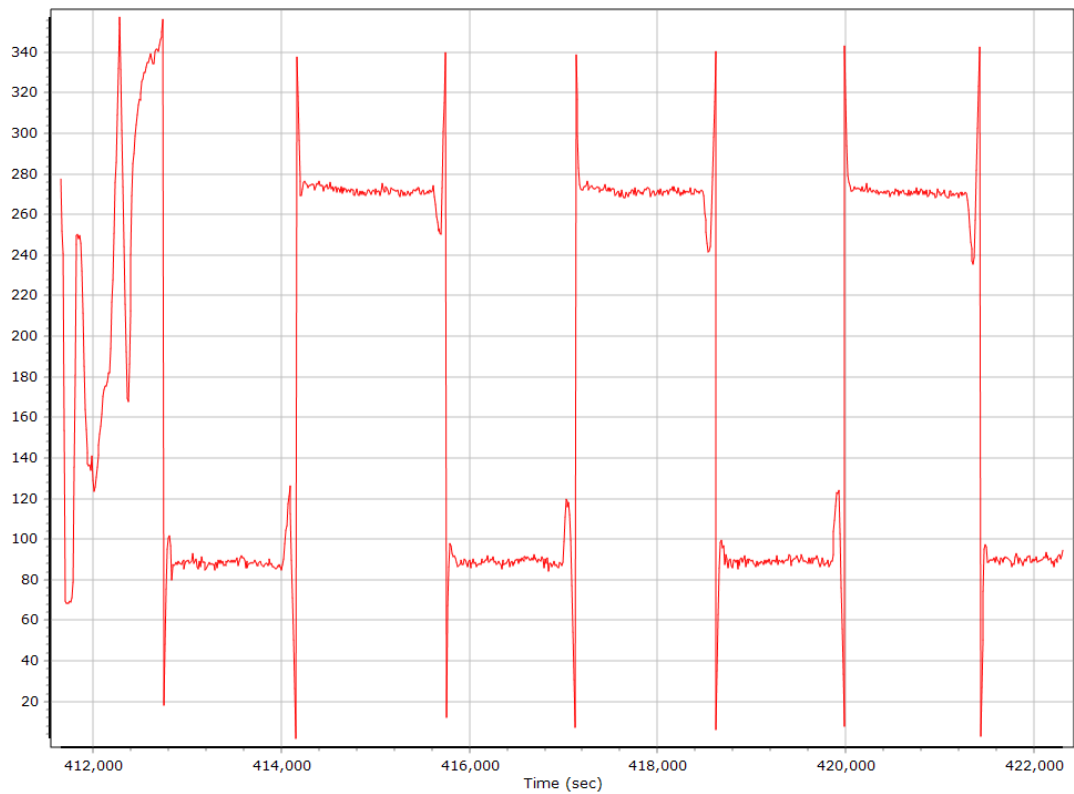
Altitude



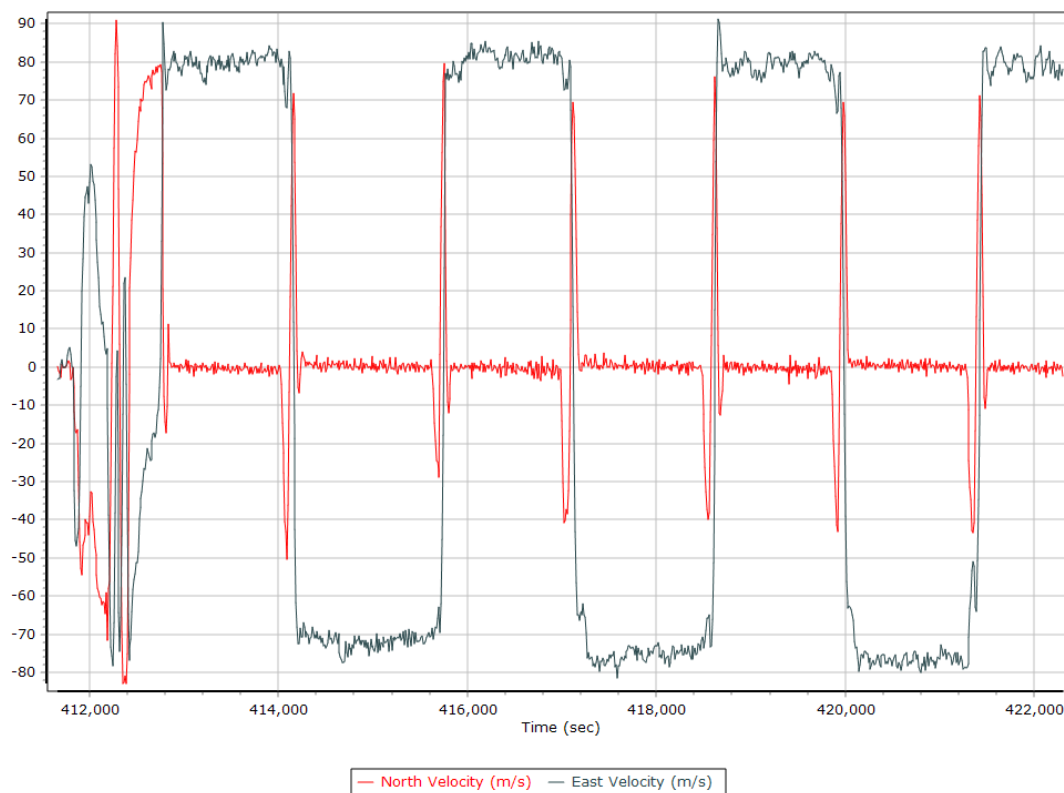
Roll/Pitch



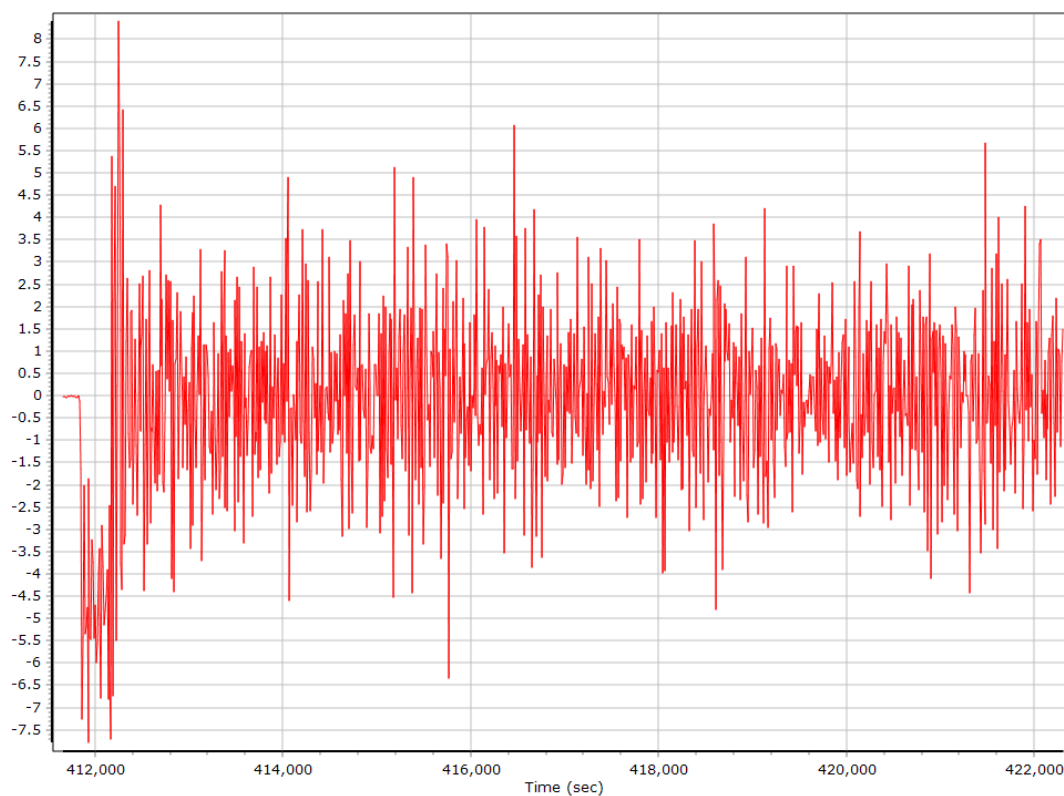
Heading



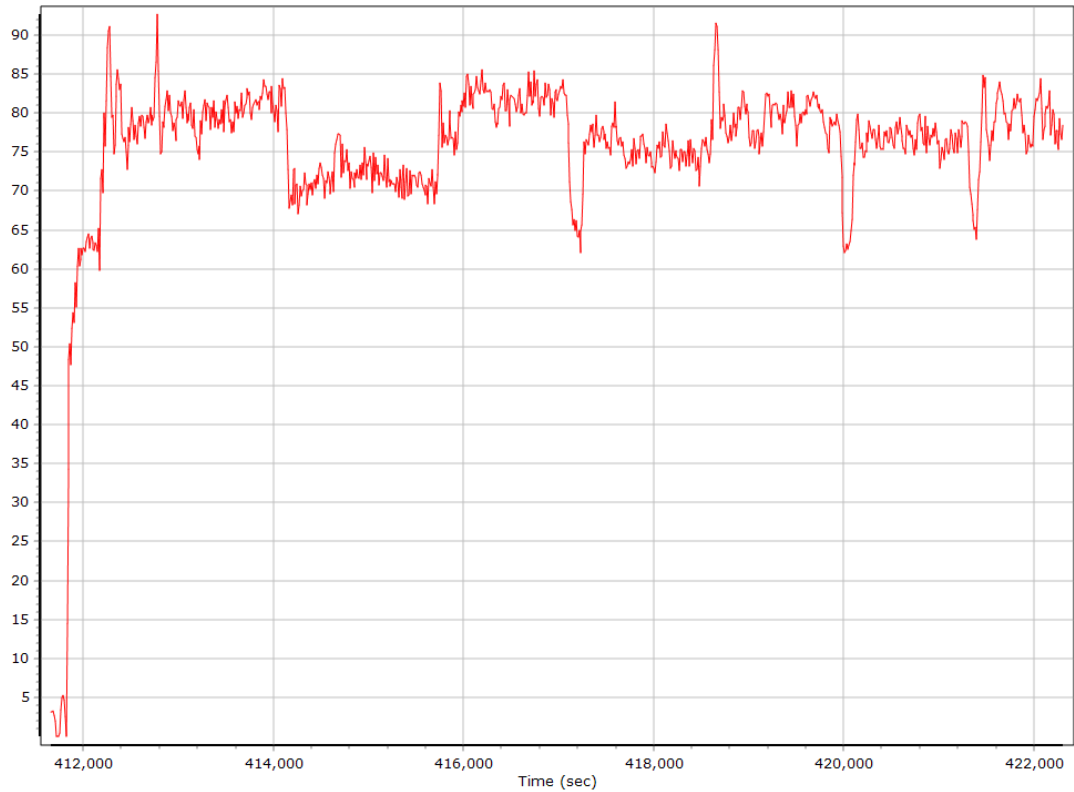
North/East Velocity



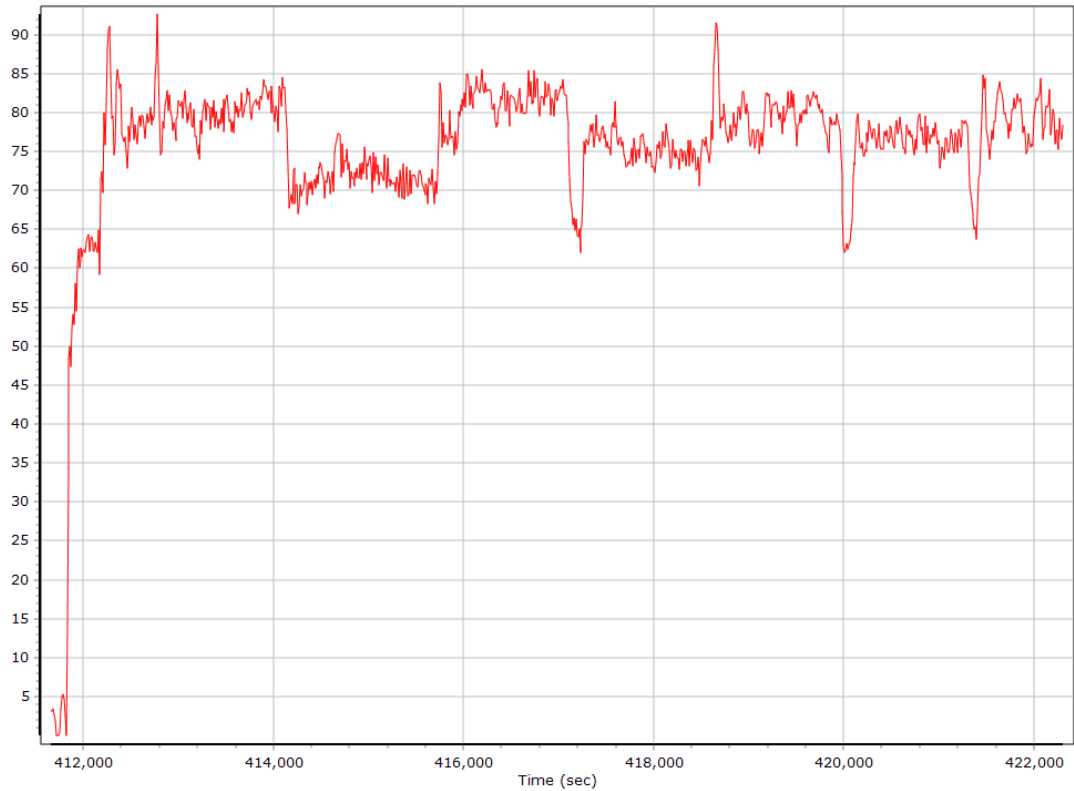
Down Velocity



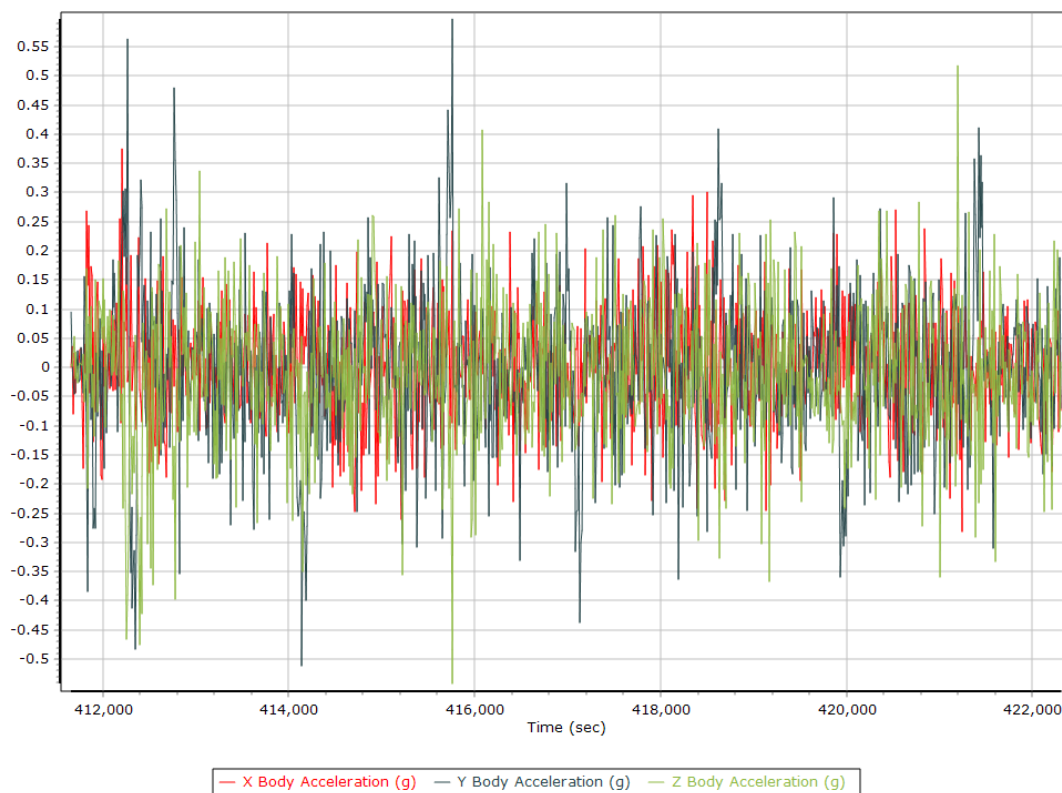
Total Speed



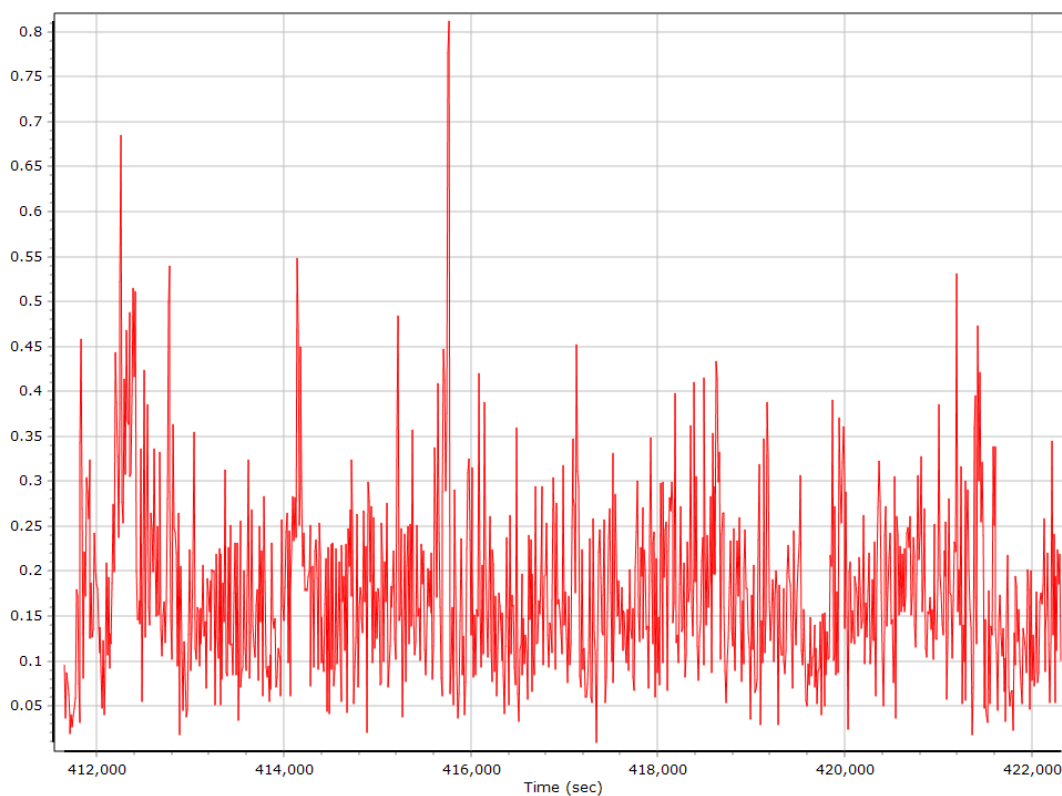
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

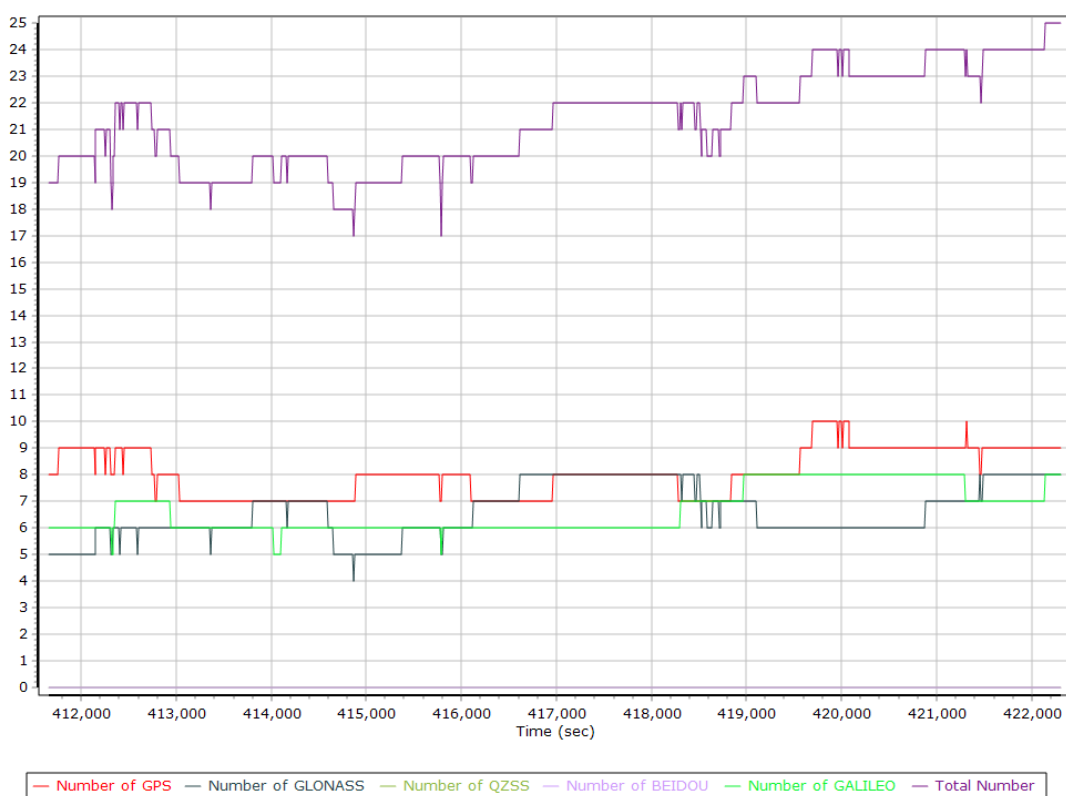


GNSS QC

GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	8
Number of GLONASS SV	0	8	7
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	5	8	7
Total number of SV	11	25	21
PDOP	0.98	2.07	1.12
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	11202.00	0.00	0.00
Percentage	100.00	0.00	0.00

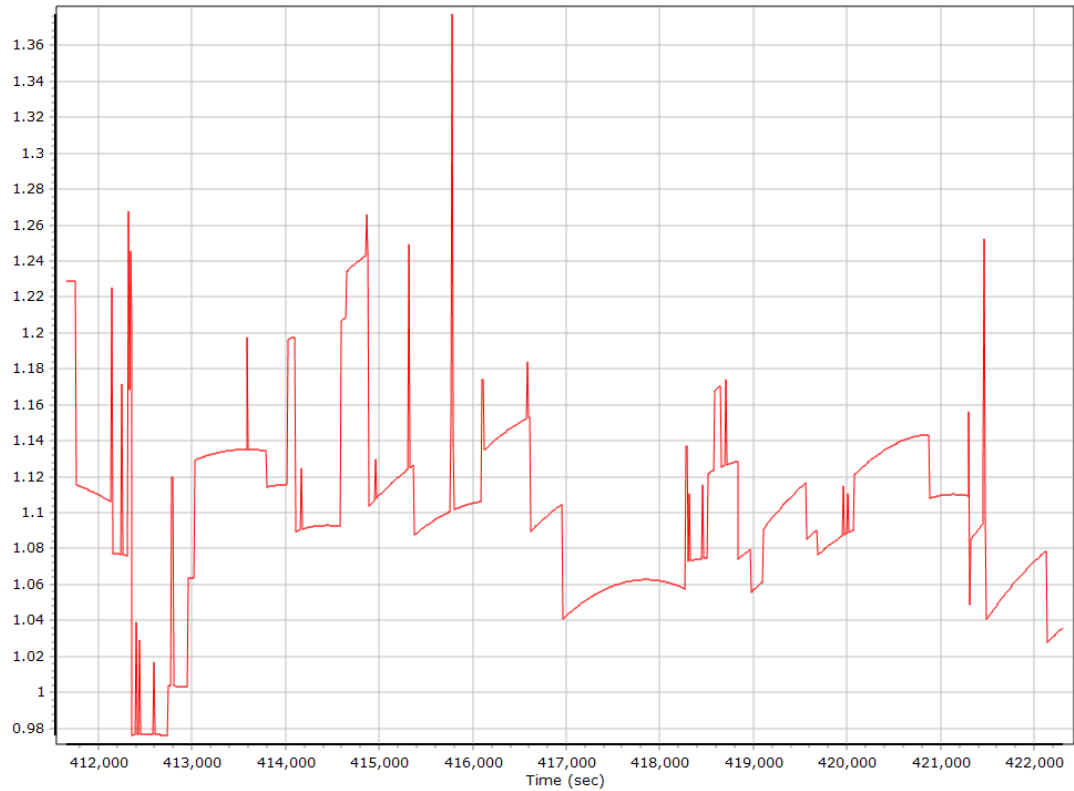
Num SVs in solution



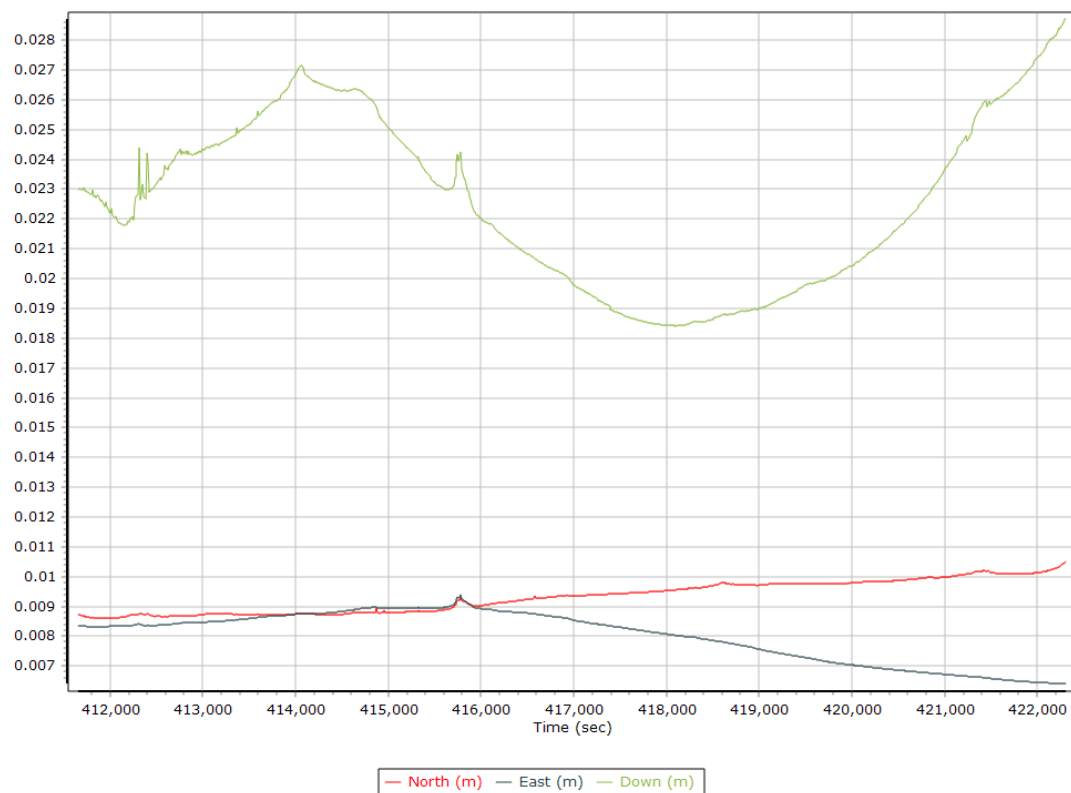
Forward/Reverse Separation



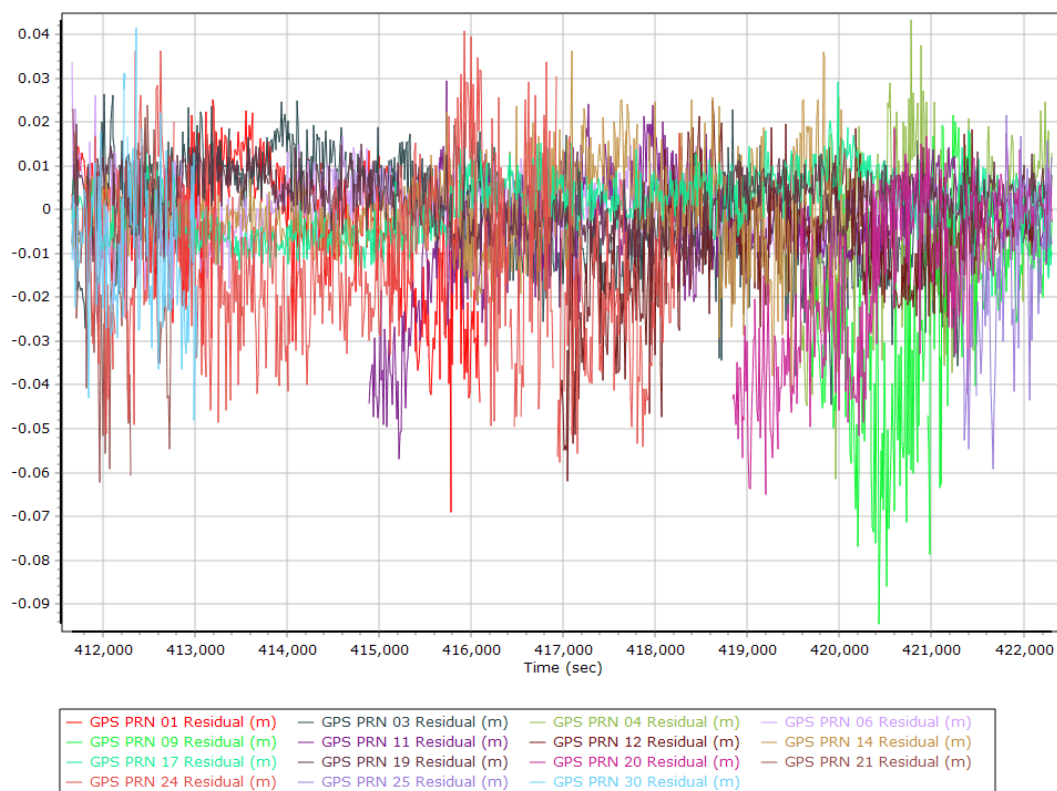
PDOP



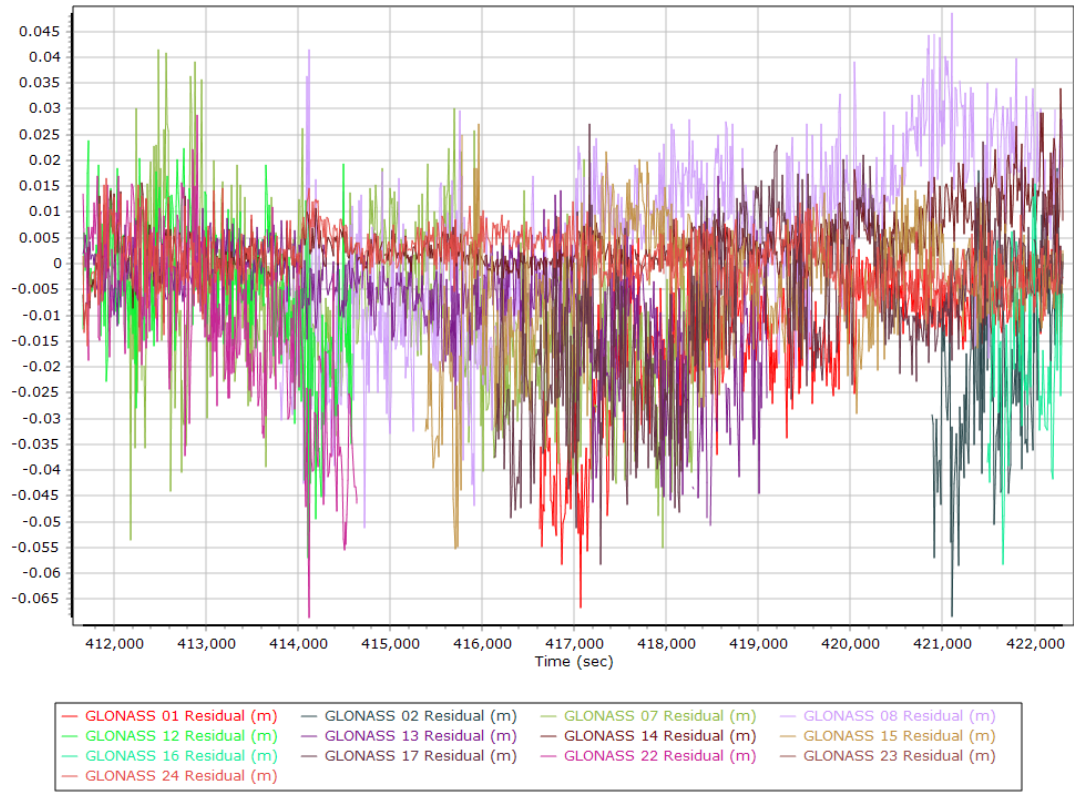
Estimated Position Accuracy



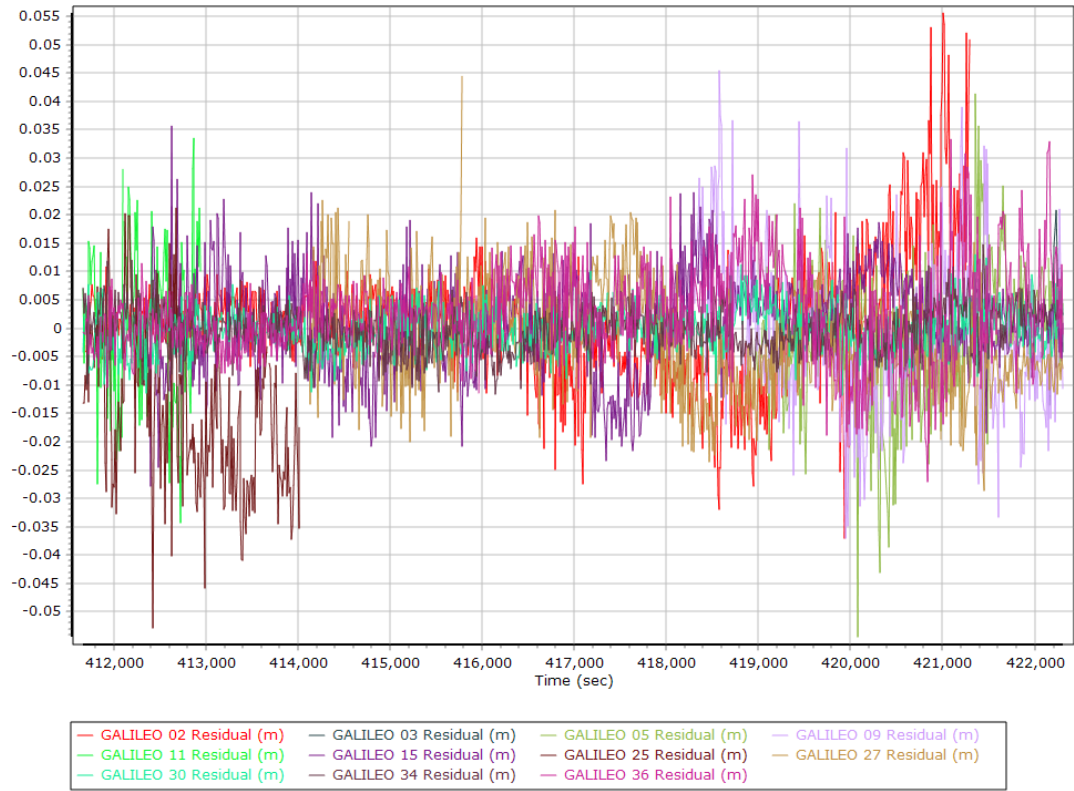
GPS Residuals



GLONASS Residuals



GALILEO Residuals



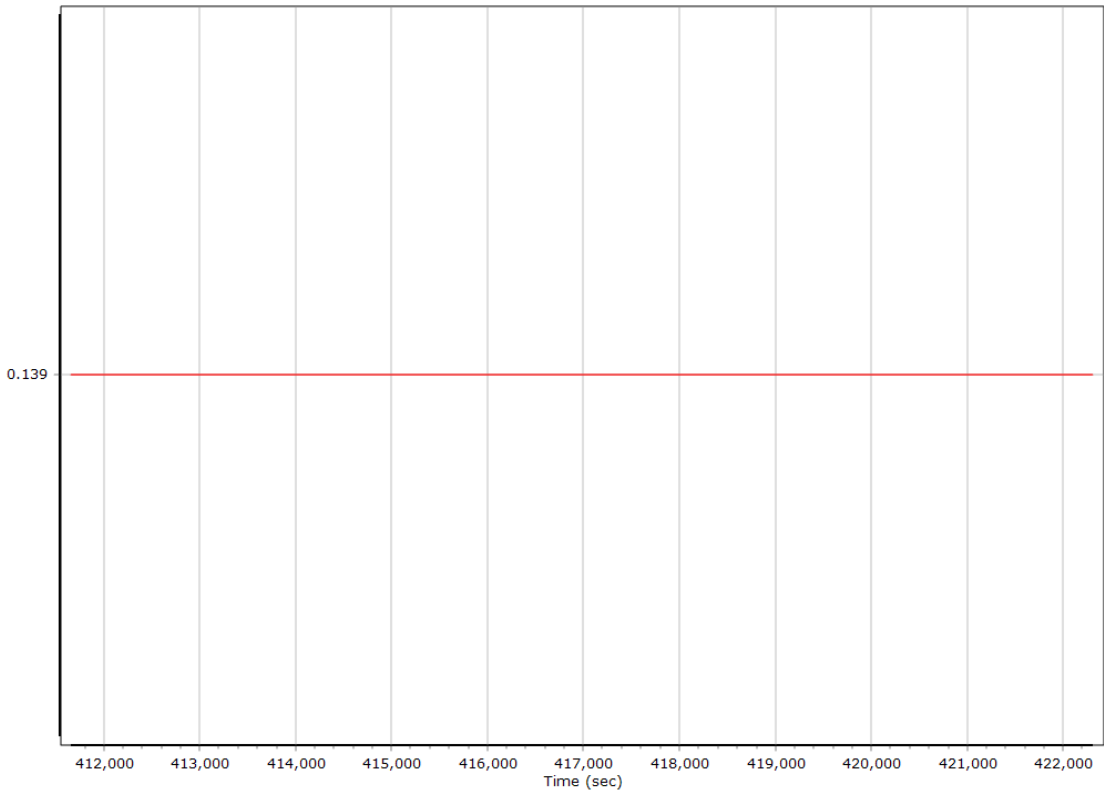
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	411101.000 (04/13/2023 18:11:41)		
Processing end time	422313.000 (04/13/2023 21:18:33)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

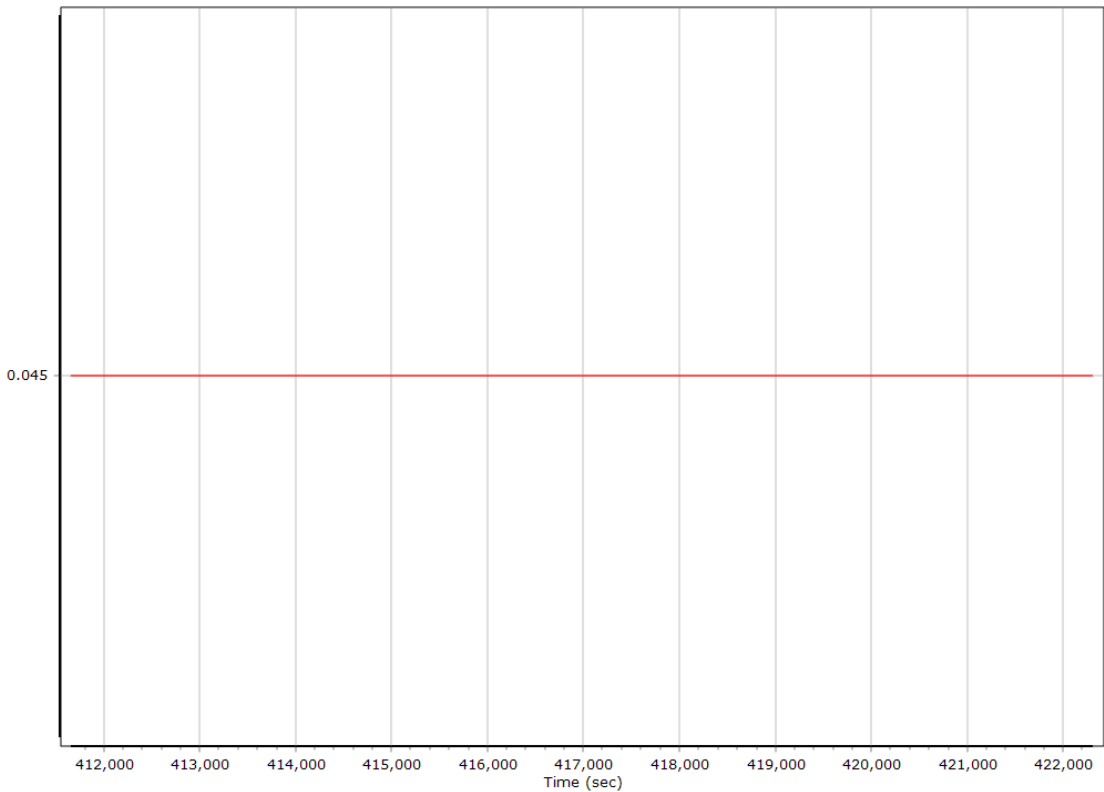
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

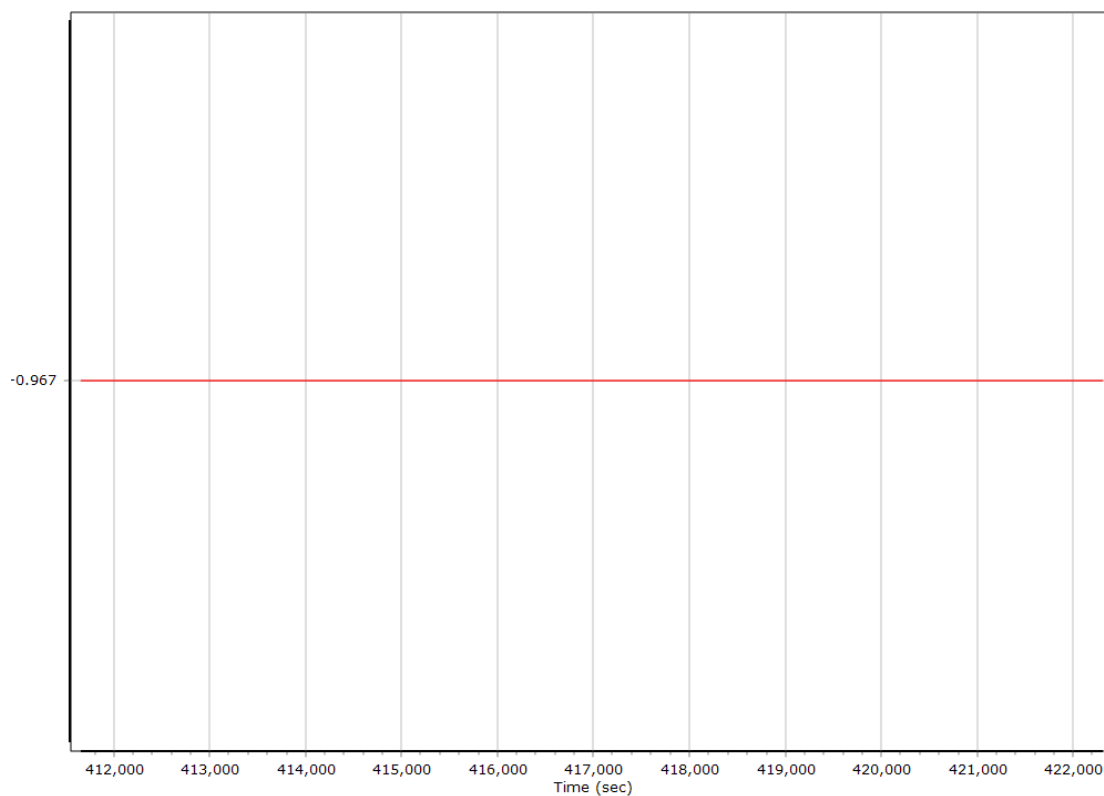
X Reference-Primary GNSS Lever Arm (m)



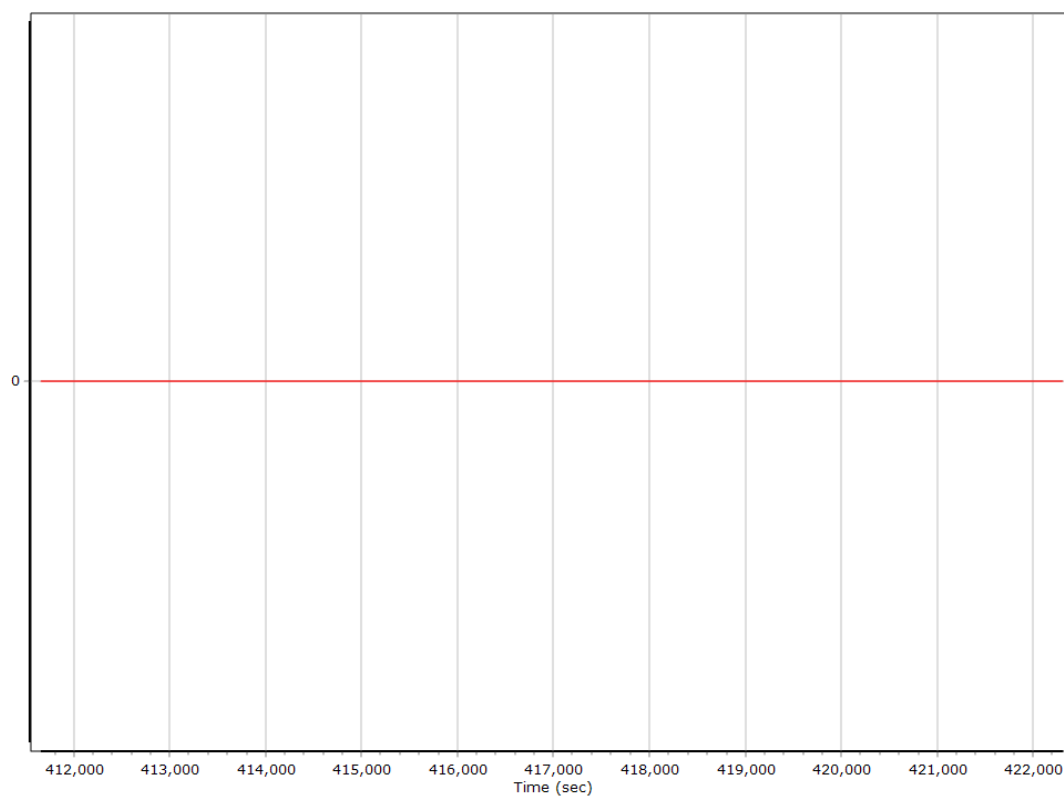
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



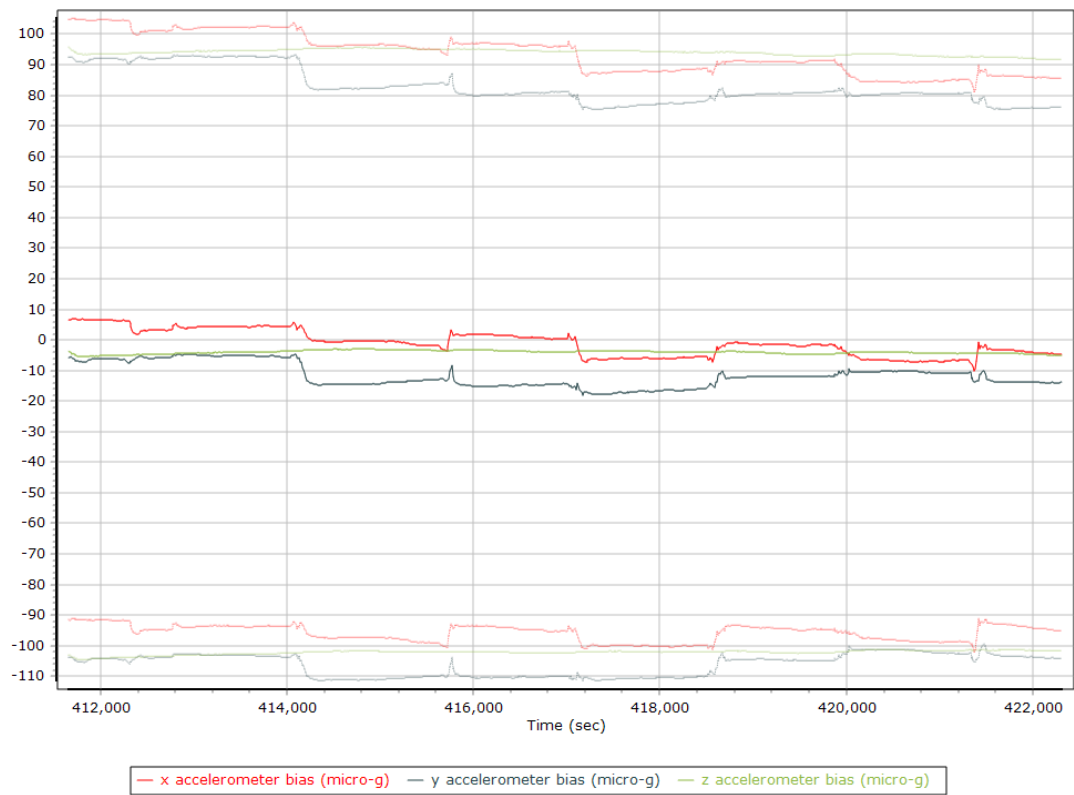
Reference-Primary GNSS Lever Arm Figure of Merit



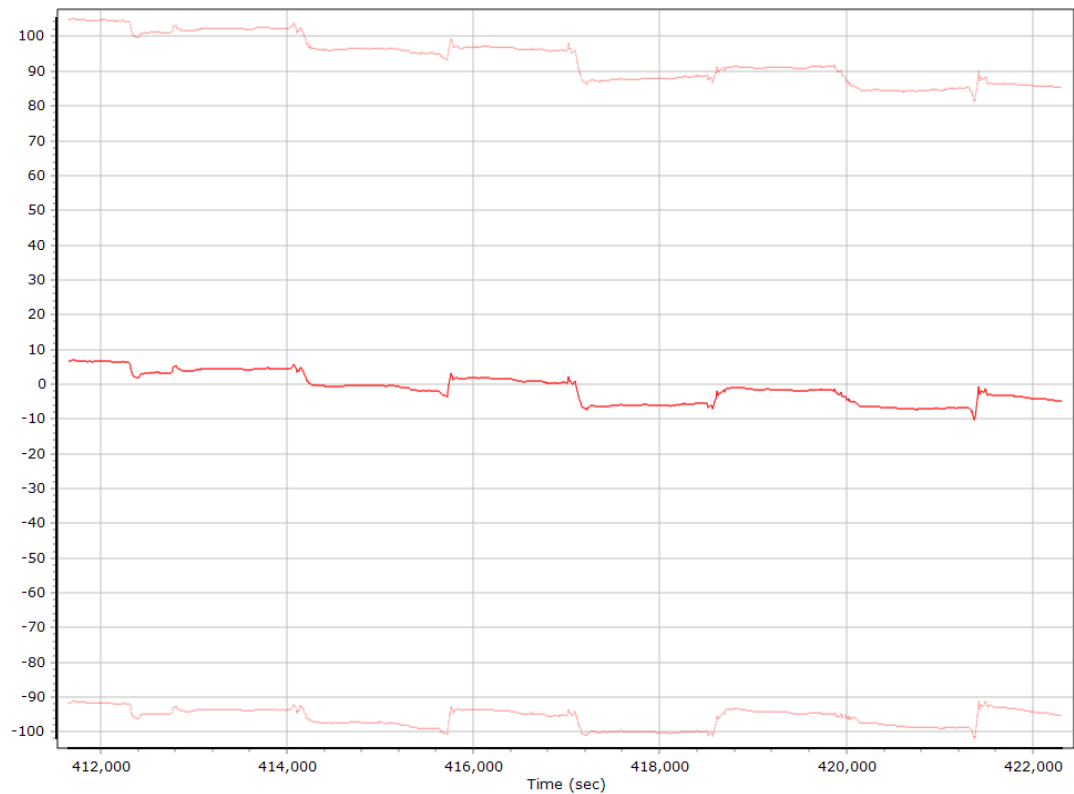
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

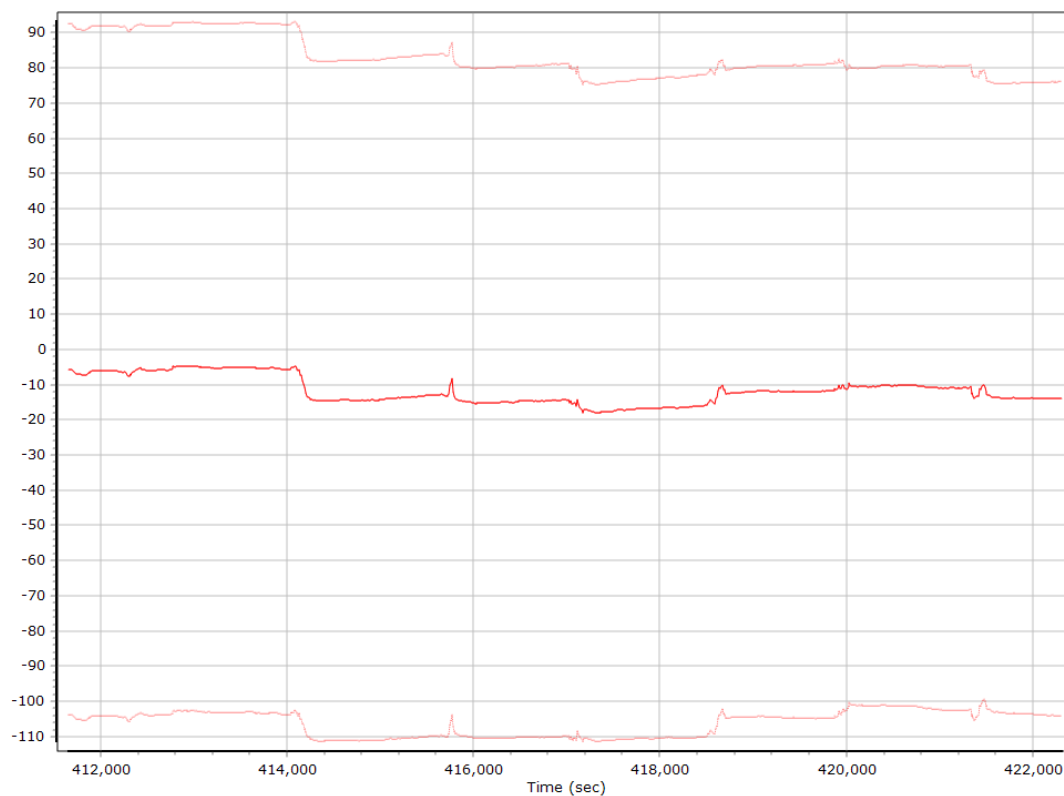
Accelerometer Bias (micro-g)



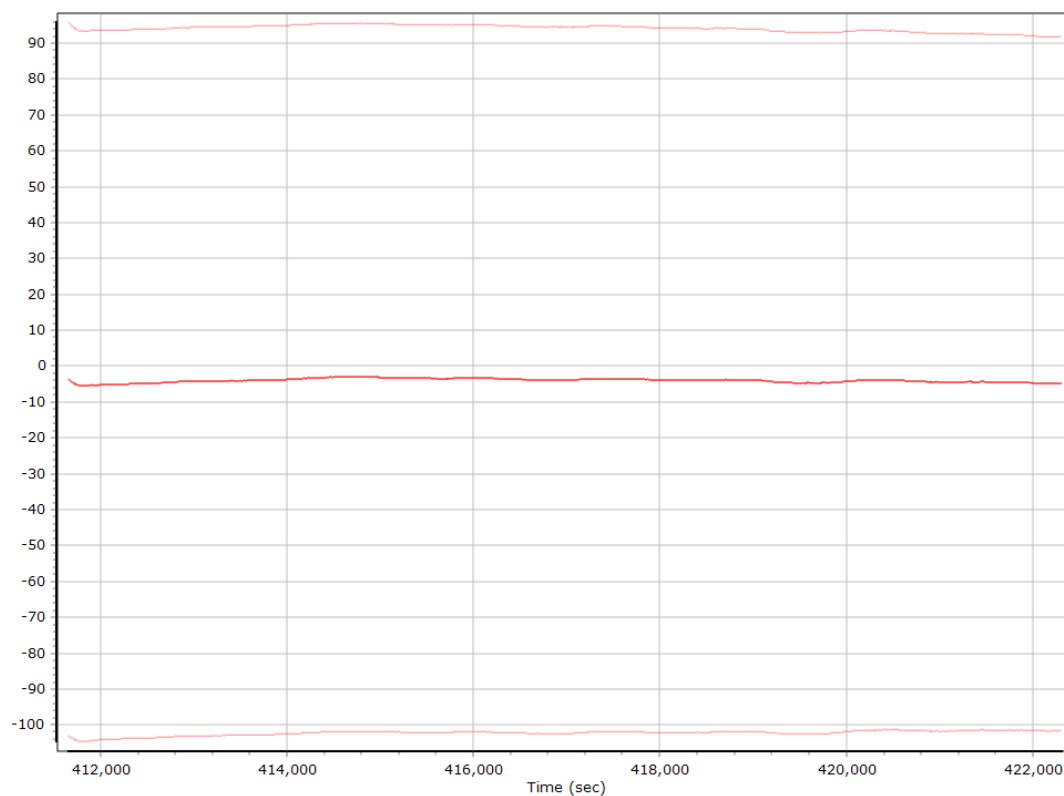
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



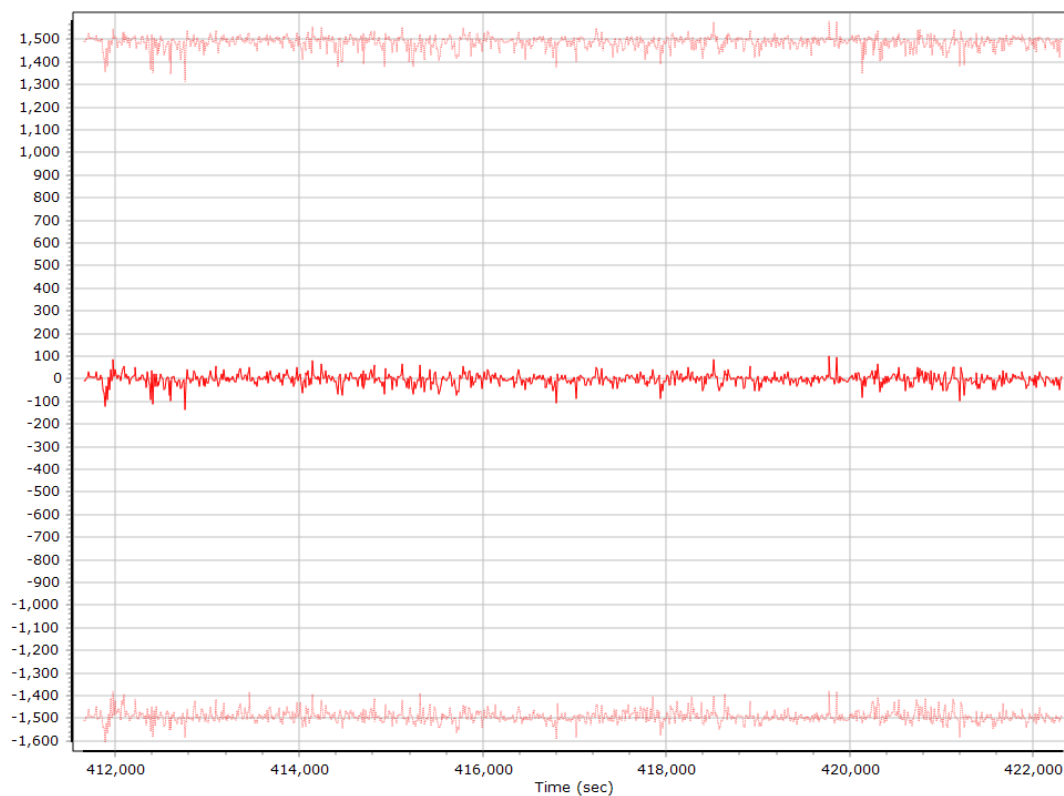
Accelerometer Scale Error (ppm)



X Accelerometer Scale Error (ppm)



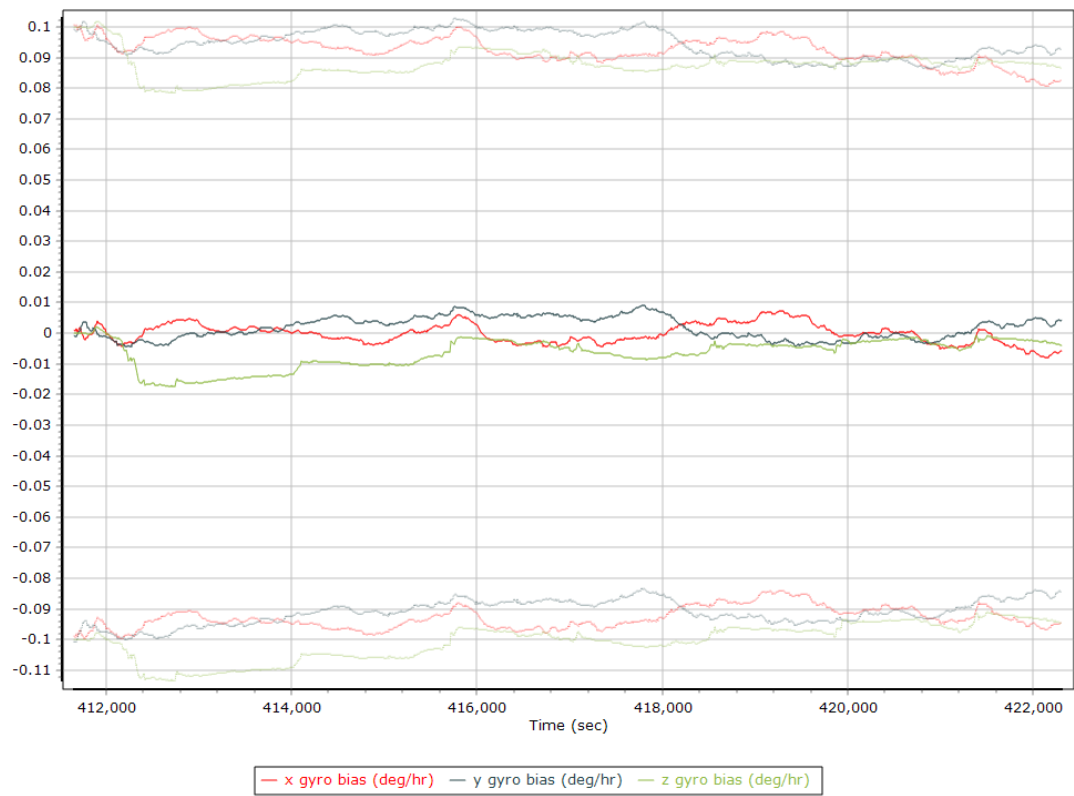
Y Accelerometer Scale Error (ppm)



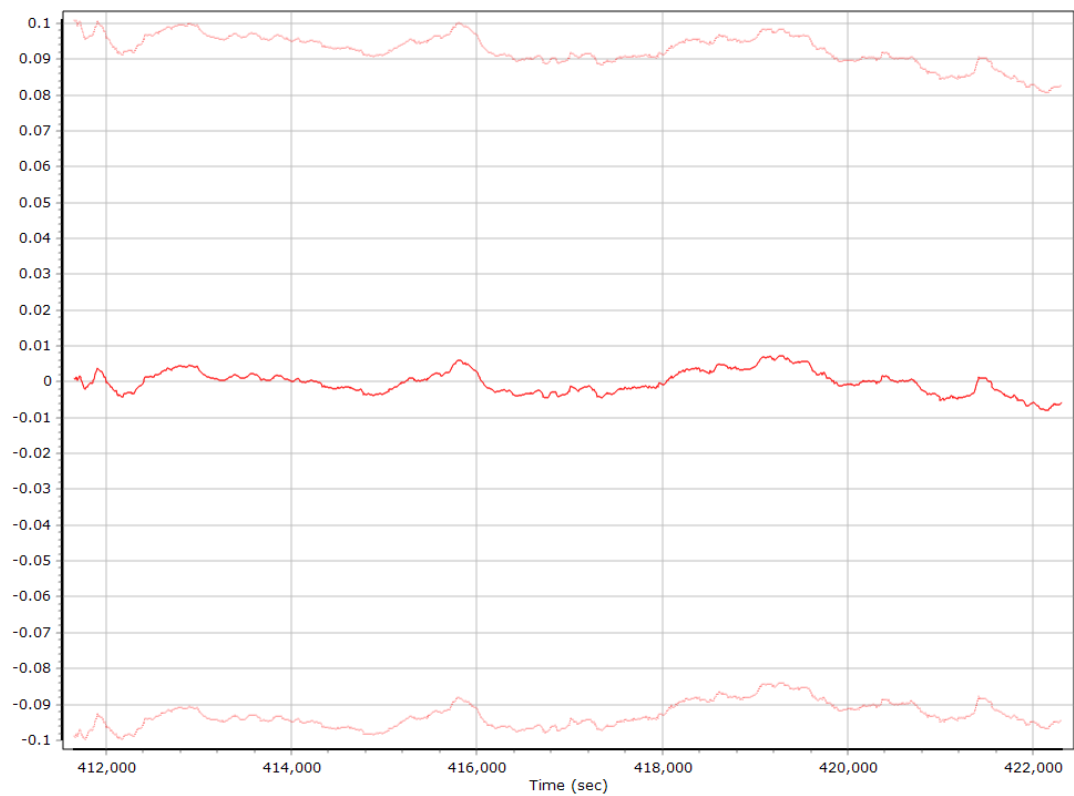
Z Accelerometer Scale Error (ppm)



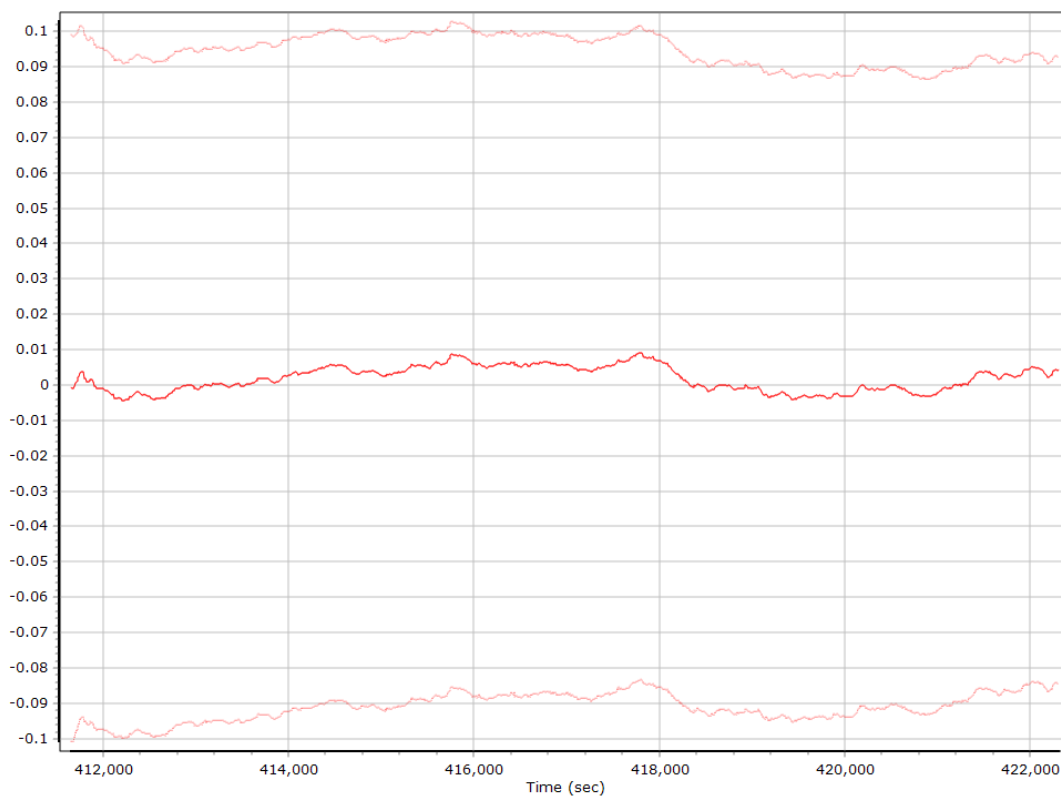
Gyro Bias (deg/h)



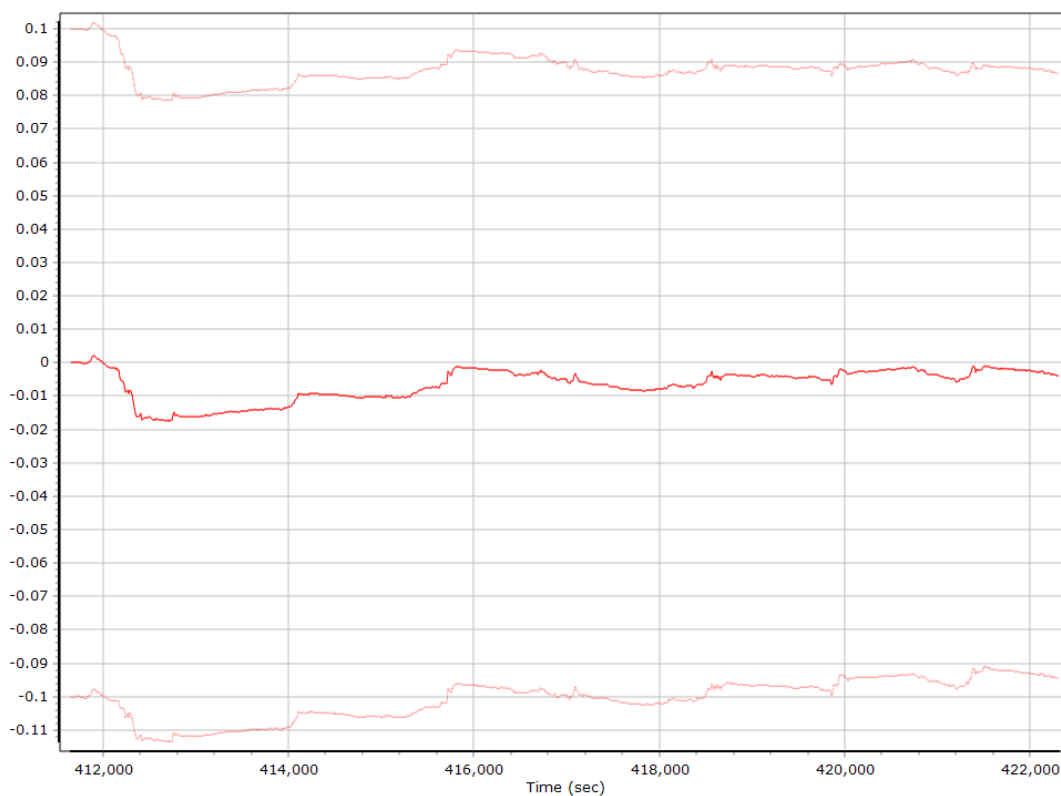
X Gyro Bias (deg/h)



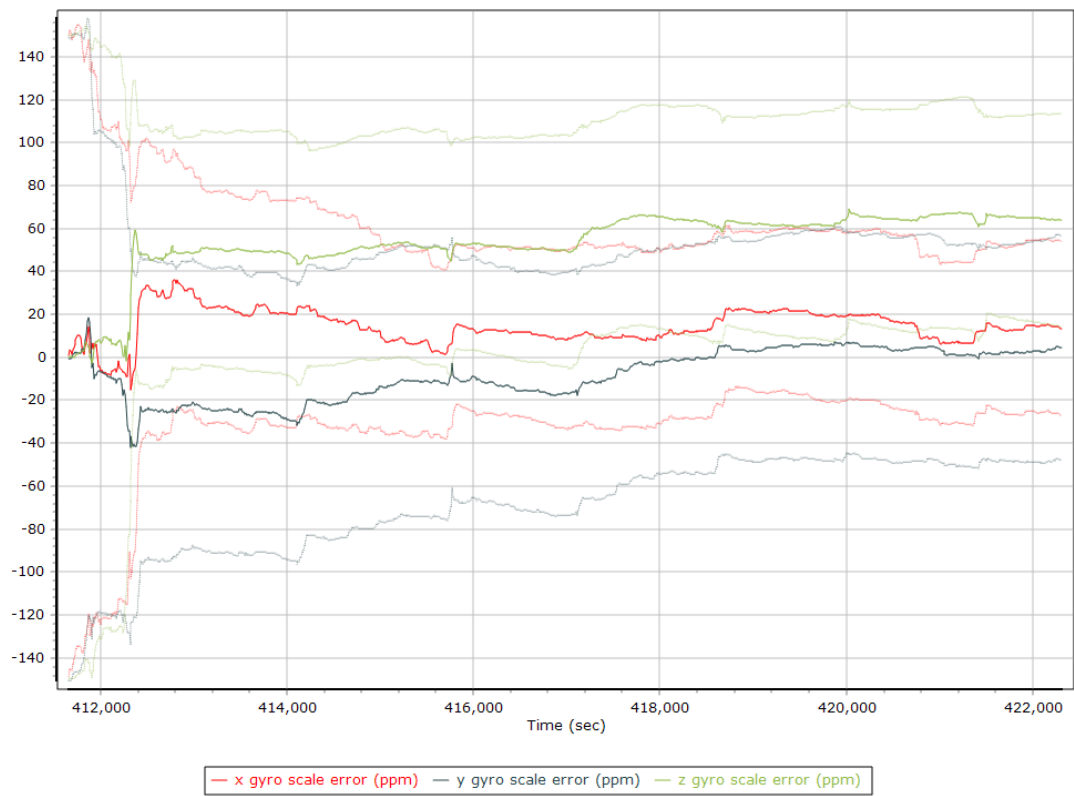
Y Gyro Bias (deg/h)



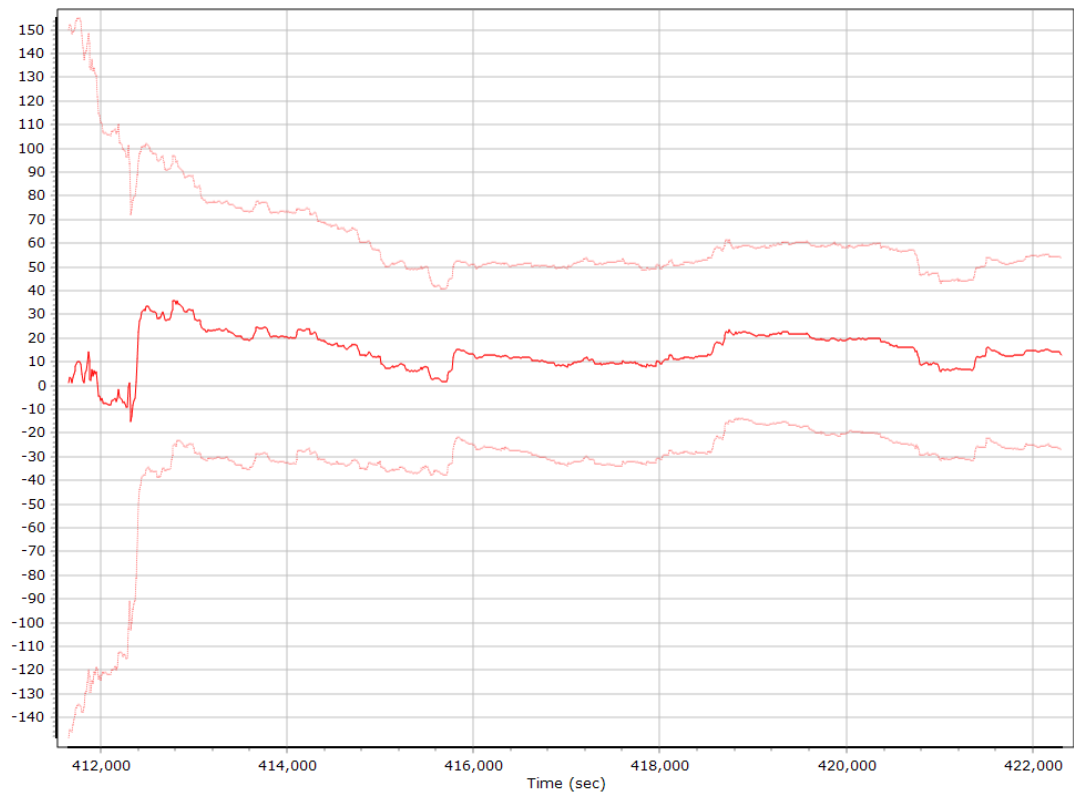
Z Gyro Bias (deg/h)



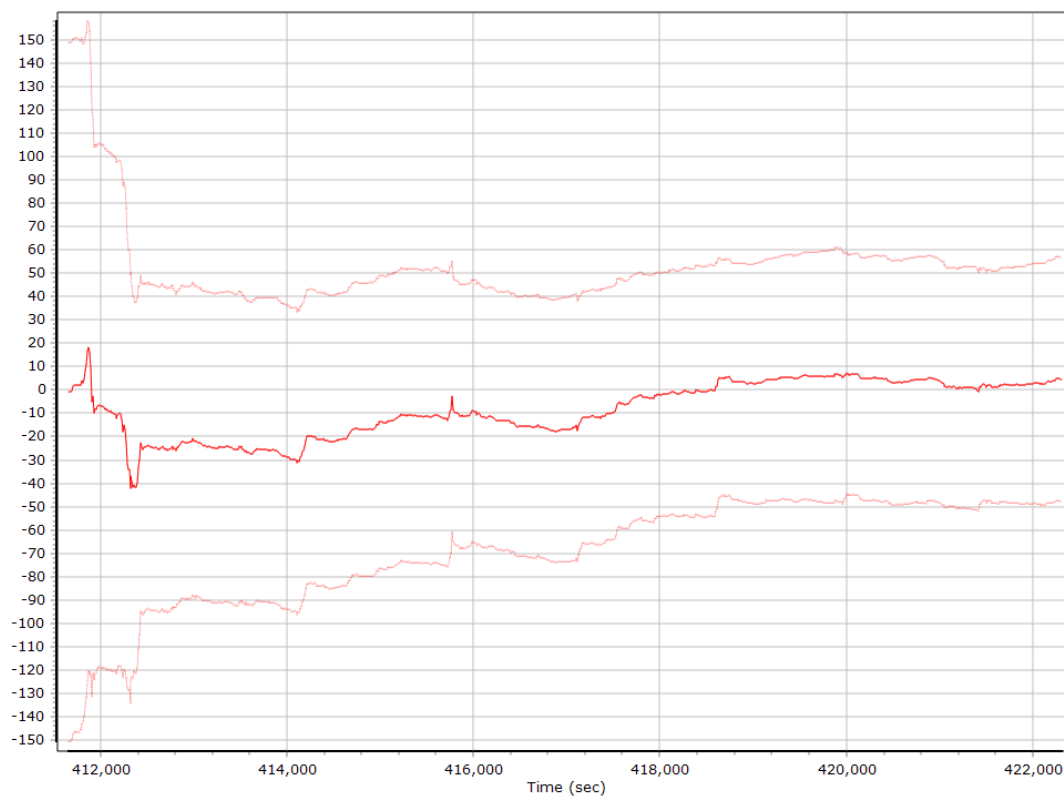
Gyro Scale Error (ppm)



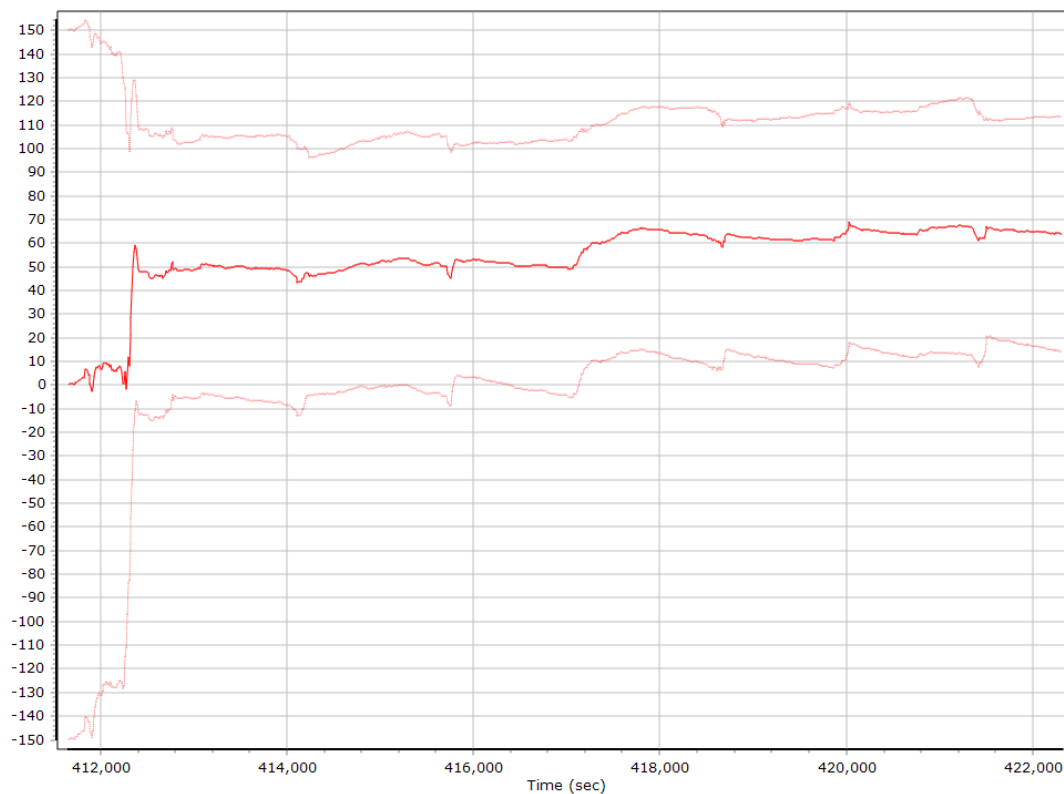
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

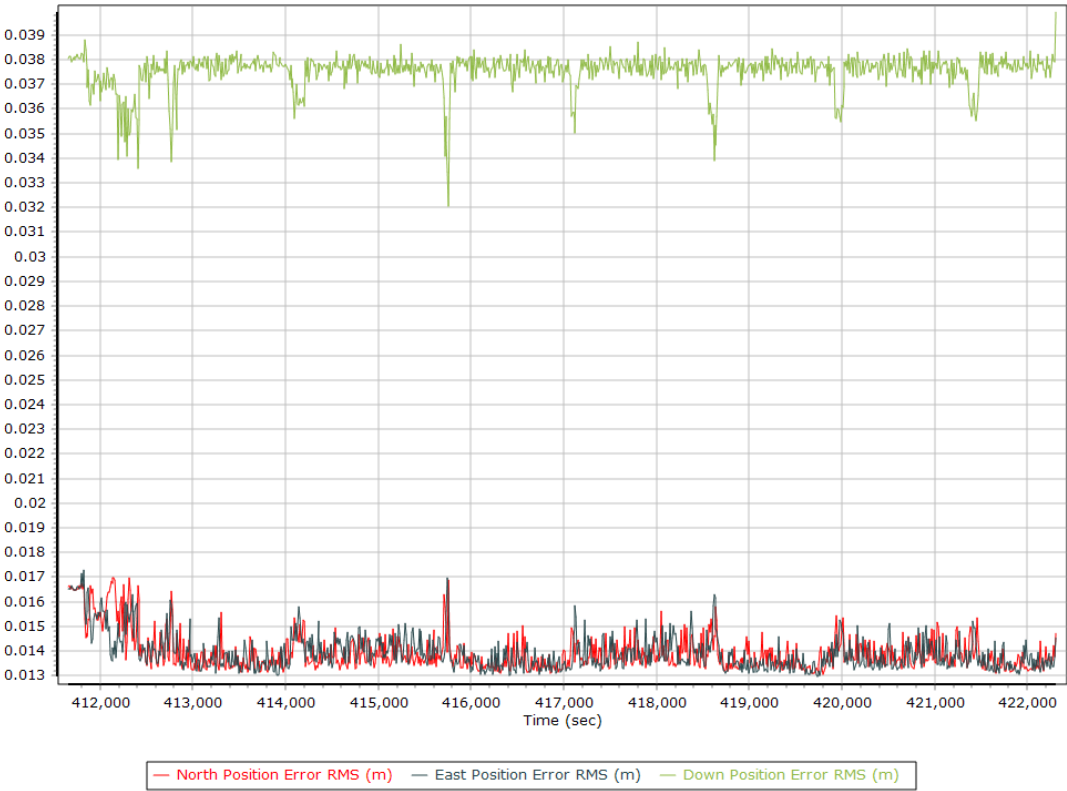


Z Gyro Scale Error (ppm)

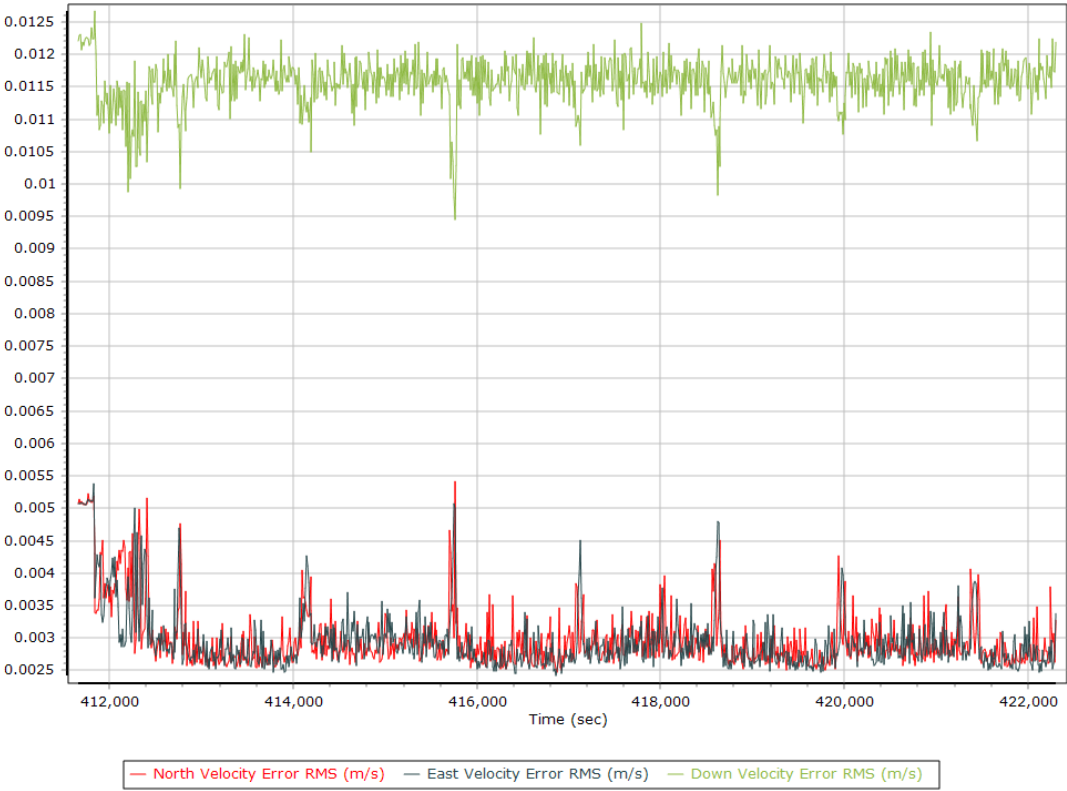


Smoothed Performance Metrics

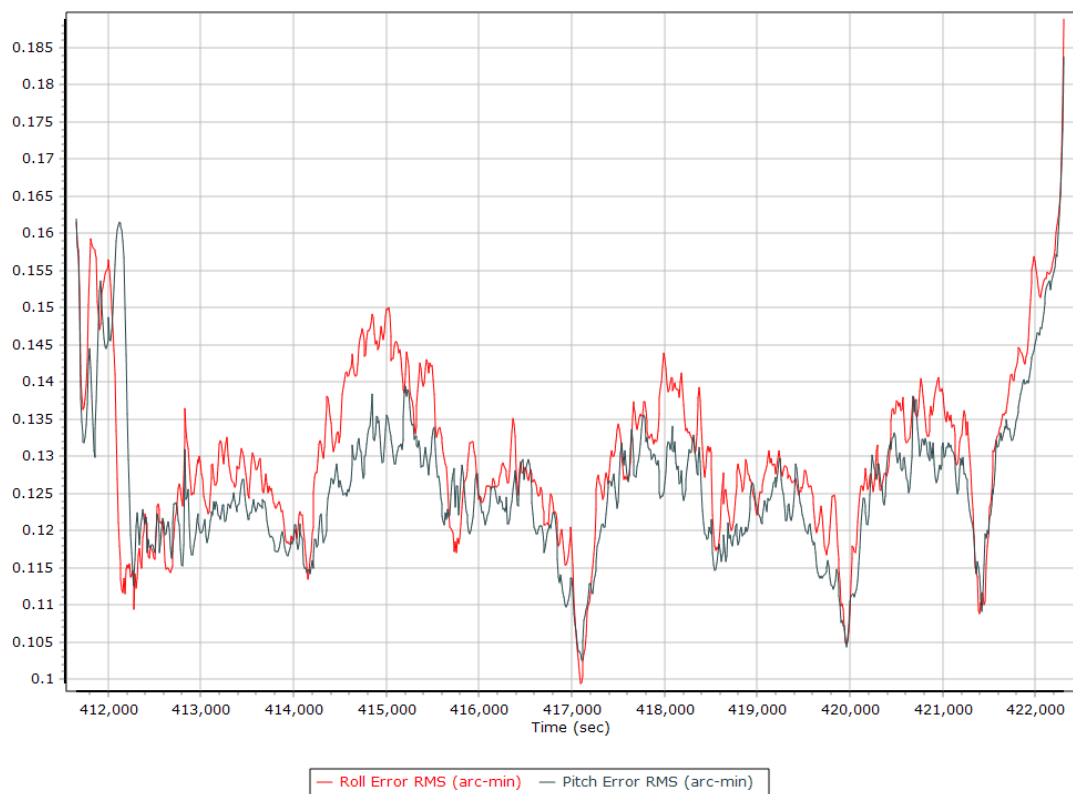
Position Error RMS (m)



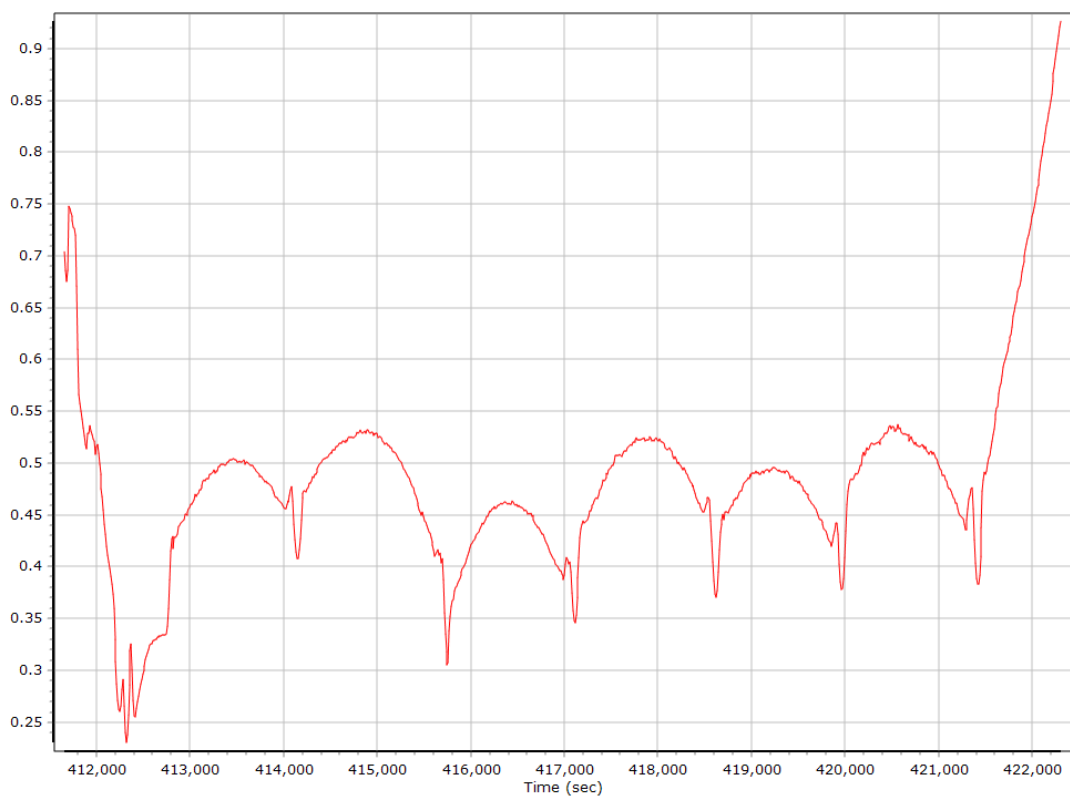
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

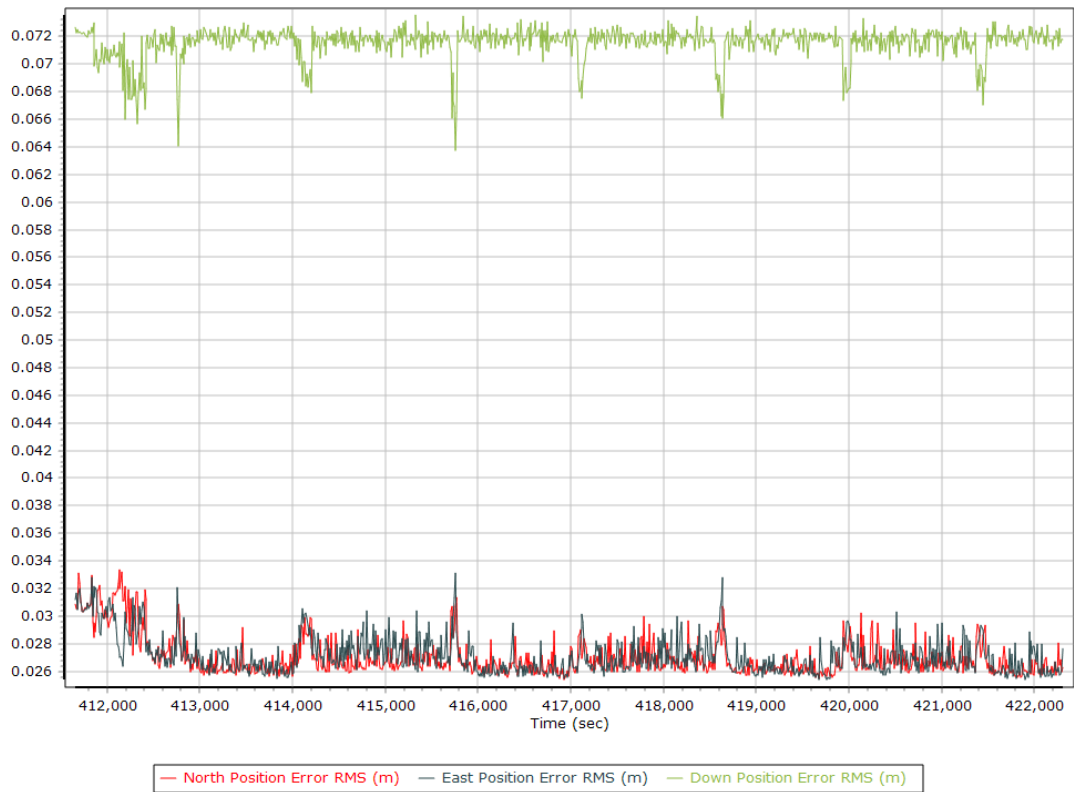


Heading Error RMS (arc-min)

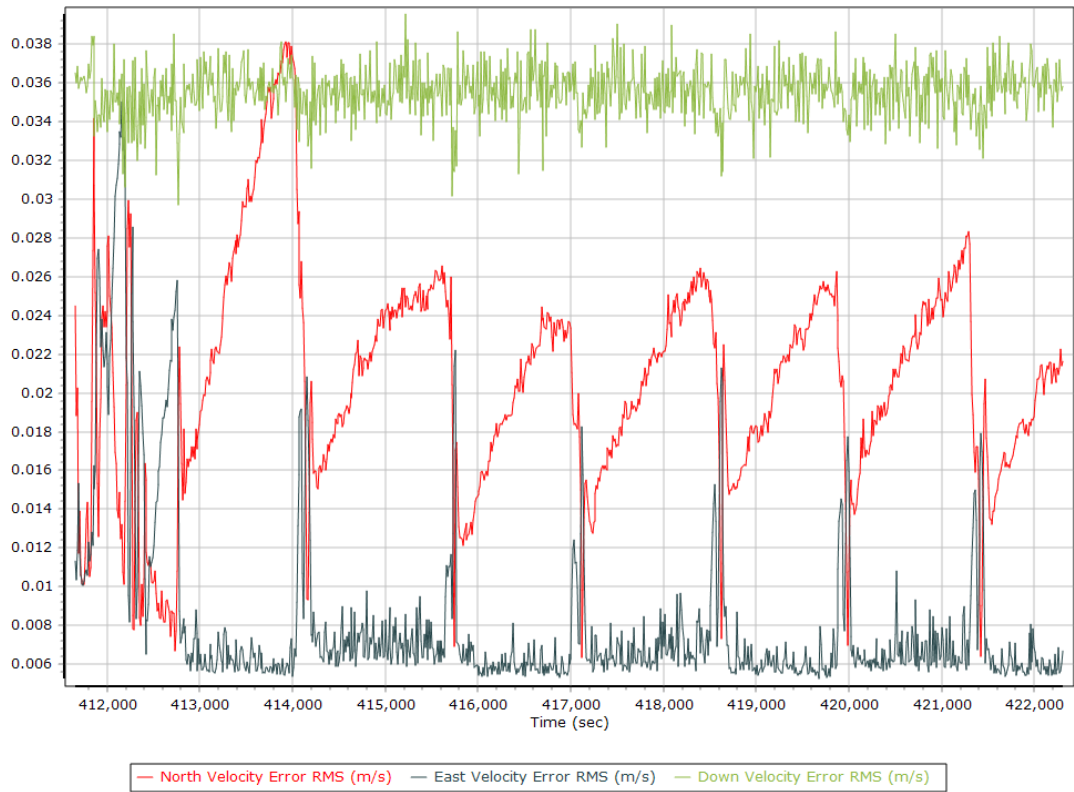


Forward Processed Performance Metrics

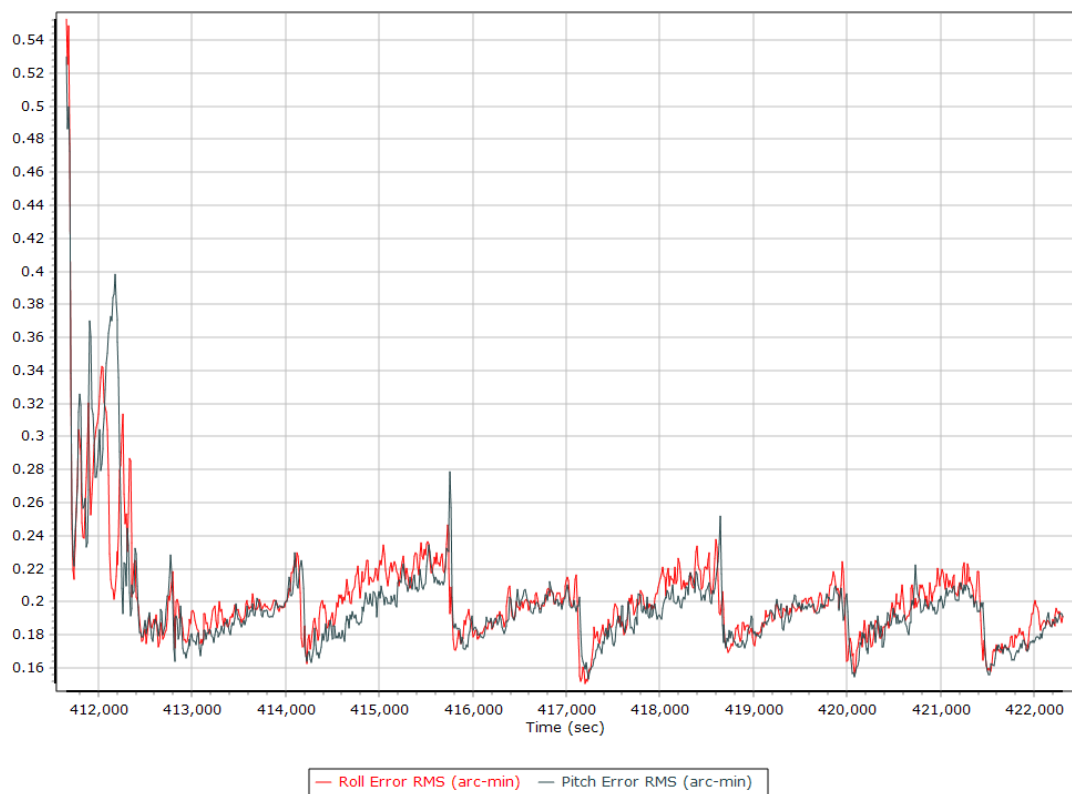
Position Error RMS (m)



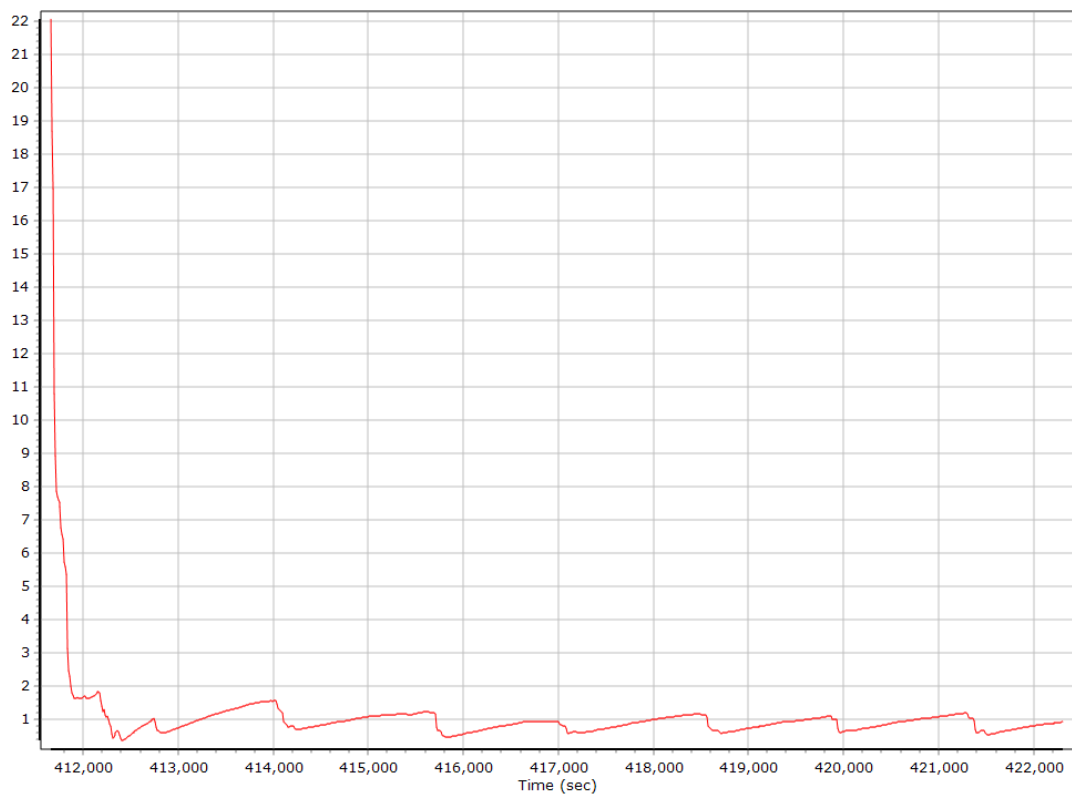
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

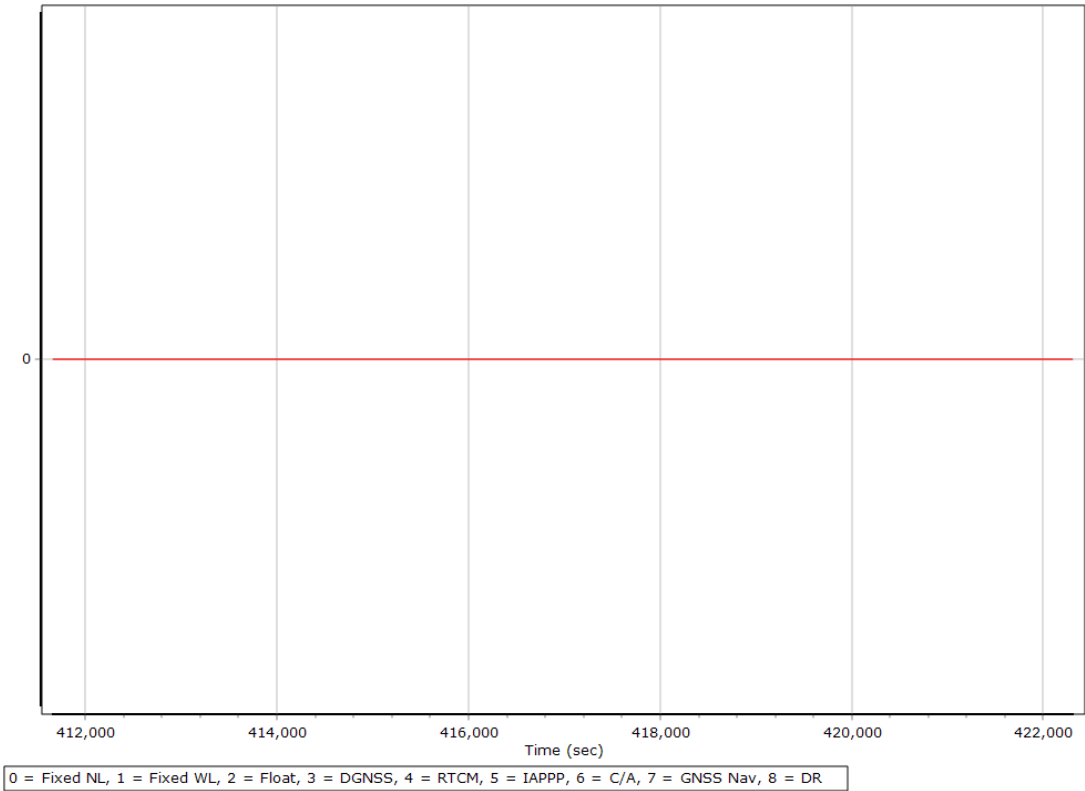


Heading Error RMS (arc-min)

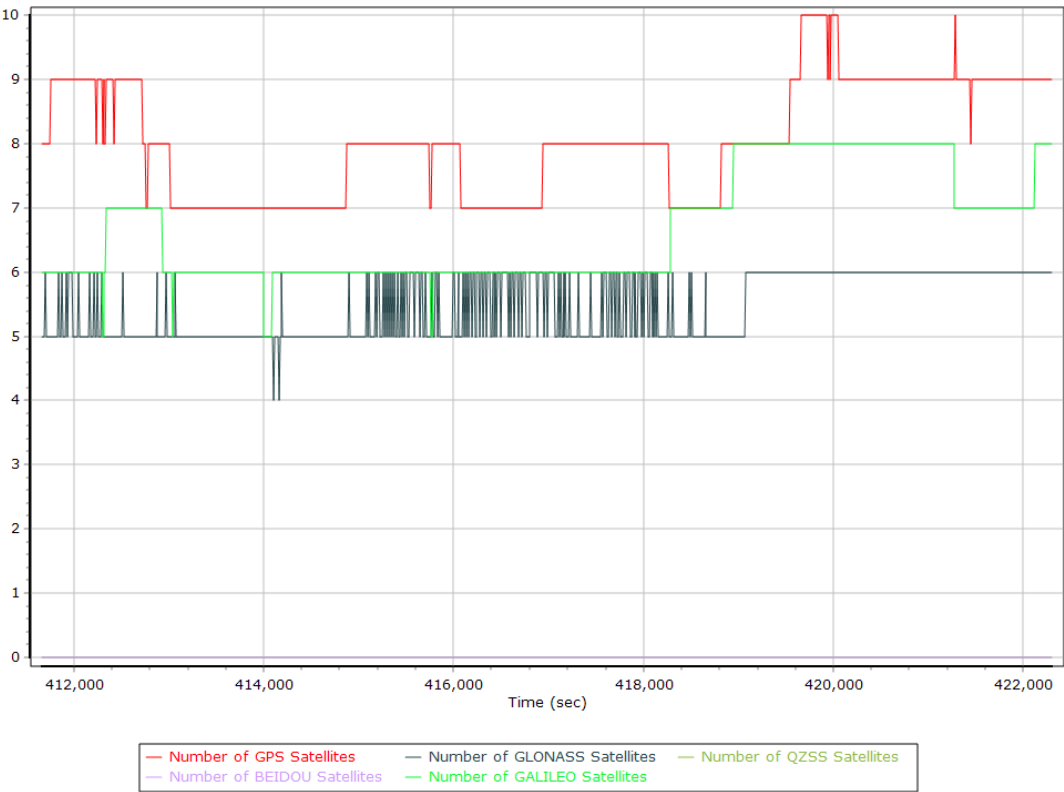


Forward Processed Solution Status

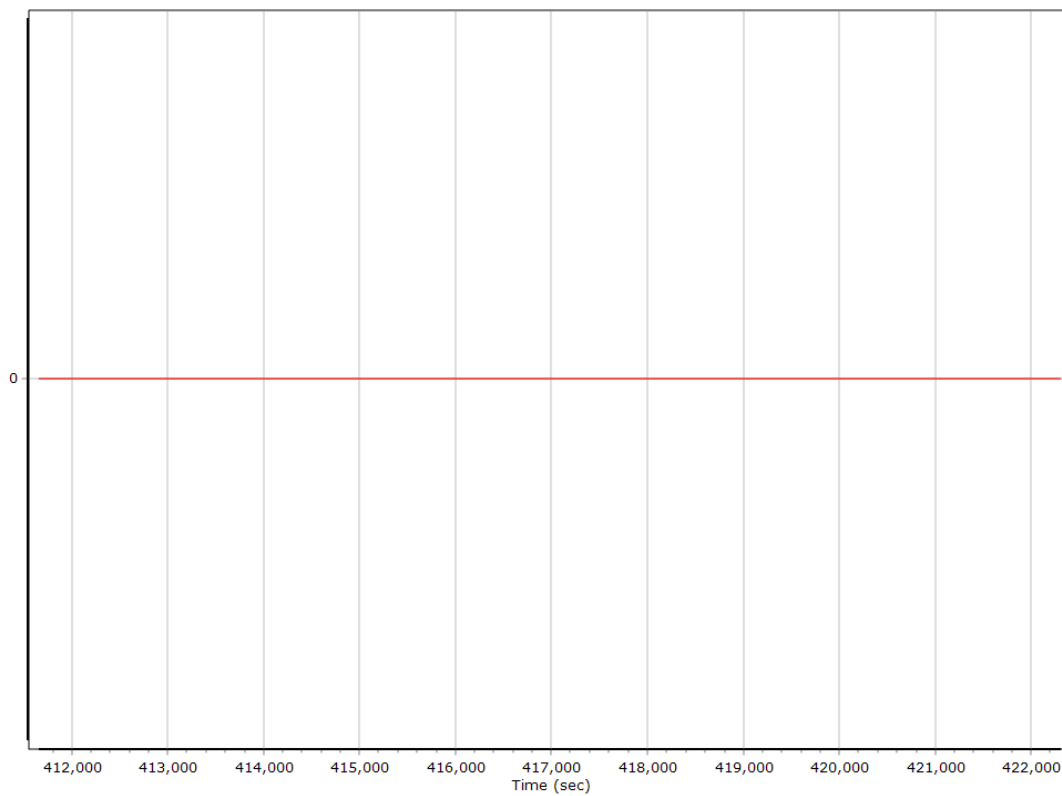
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230413_F2_4894_NAD832011.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	411601.005 (04/13/2023 18:20:01)		
Export end time	422313.003 (04/13/2023 21:18:33)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.279452		

General Information

Mission Information

Project name	20230414_F1_4894
Processing date	2023-04-19 18:06:35
Mission date	2023-04-14 12:36:40
Mission duration	04:39:18.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.438	POS Data
VQ1560.439	POS Data
VQ1560.440	POS Data
VQ1560.441	POS Data
VQ1560.442	POS Data
VQ1560.443	POS Data
VQ1560.444	POS Data
VQ1560.445	POS Data
VQ1560.446	POS Data
VQ1560.447	POS Data
VQ1560.448	POS Data
VQ1560.449	POS Data
VQ1560.450	POS Data
VQ1560.451	POS Data
VQ1560.452	POS Data
VQ1560.453	POS Data
VQ1560.454	POS Data
VQ1560.455	POS Data
VQ1560.456	POS Data
VQ1560.457	POS Data
VQ1560.458	POS Data
VQ1560.459	POS Data
VQ1560.460	POS Data
VQ1560.461	POS Data
VQ1560.462	POS Data
VQ1560.463	POS Data
VQ1560.464	POS Data
VQ1560.465	POS Data
VQ1560.466	POS Data
VQ1560.467	POS Data
VQ1560.468	POS Data
VQ1560.469	POS Data
VQ1560.470	POS Data
VQ1560.471	POS Data
VQ1560.472	POS Data
VQ1560.473	POS Data
VQ1560.474	POS Data
VQ1560.475	POS Data
VQ1560.476	POS Data

Input Files

File Name	File Type
Ephm1040.23g	GLONASS Broadcast Ephemeris
Ephm1040.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230414_F1_4894.out	SBET Trajectory File
export_20230414_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.438		
Last raw data file	VQ1560.476		
Start GPS week	2257		
Start time	477393.037 (04/14/2023 12:36:33)		
End time	494140.145 (04/14/2023 17:15:40)		
Start of fine alignment	477962.019 (04/14/2023 12:46:02)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

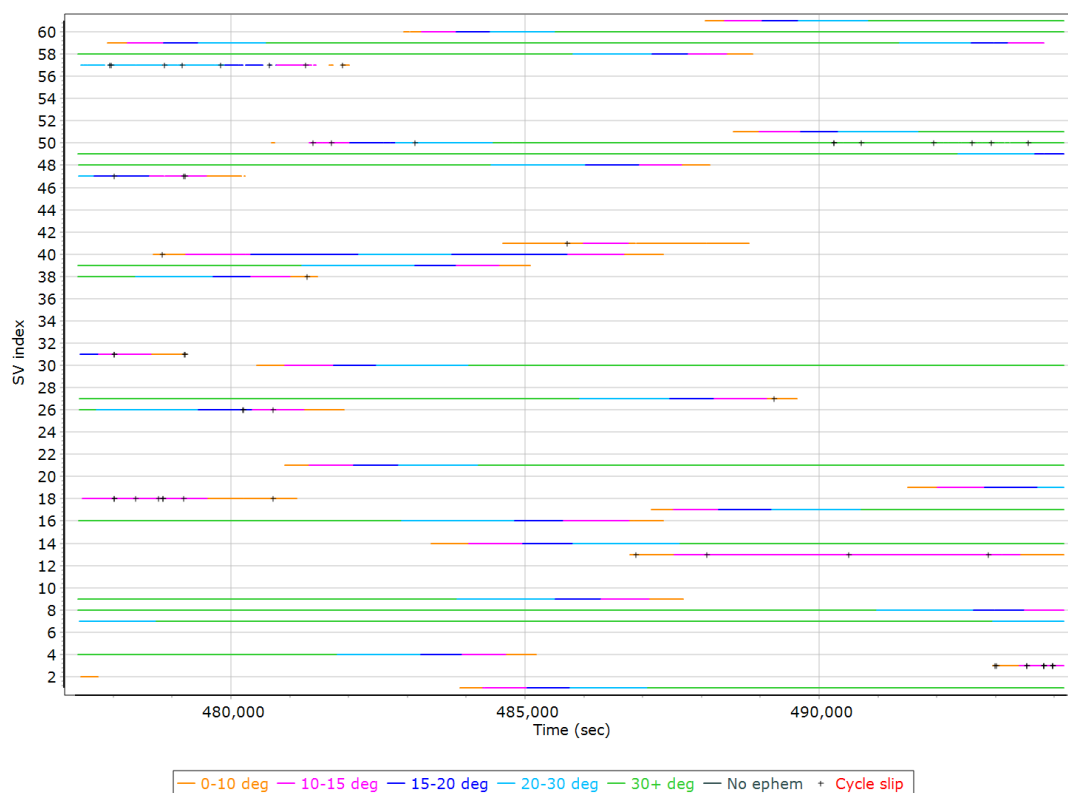
Rover Data QC

Raw IMU Import QC Summary

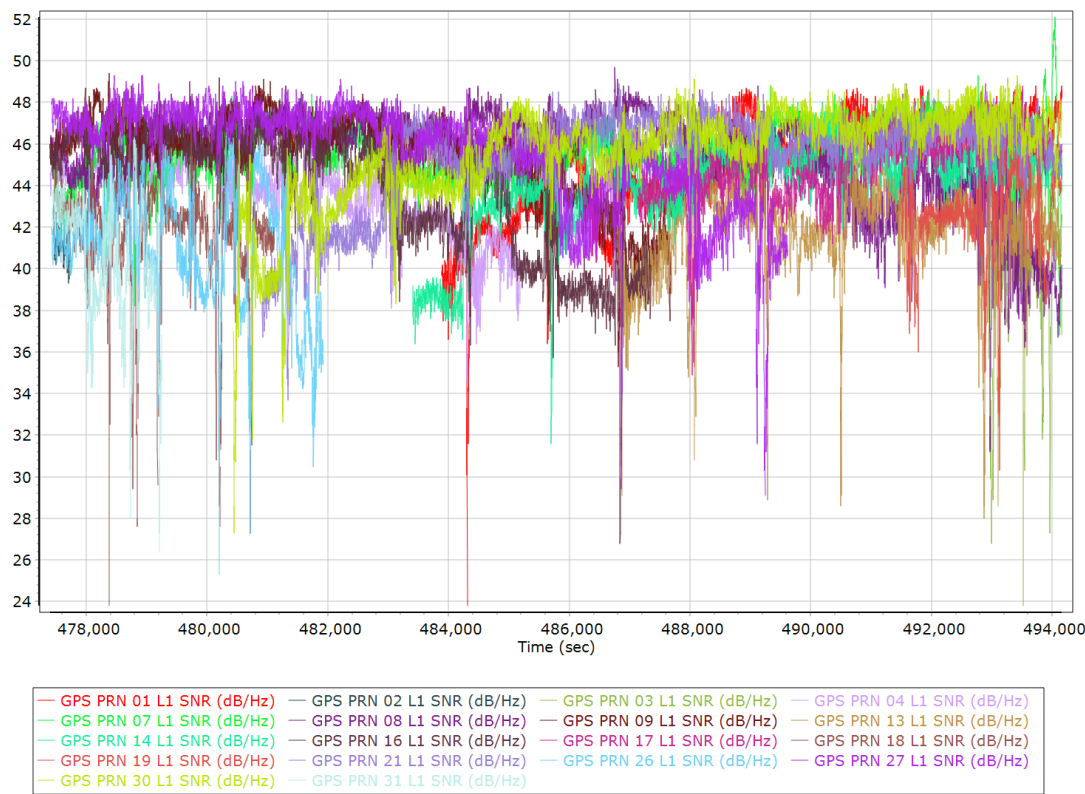
IMU data input file	imu_20230414_F1_4894.dat
IMU data check log file	imudt_20230414_F1_4894.log
IMU Records Processed	3351007
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
477392.837 : WARNING : Gap of 477380.8854 seconds in CHECKDT input data	

Primary Observables & Satellite Data

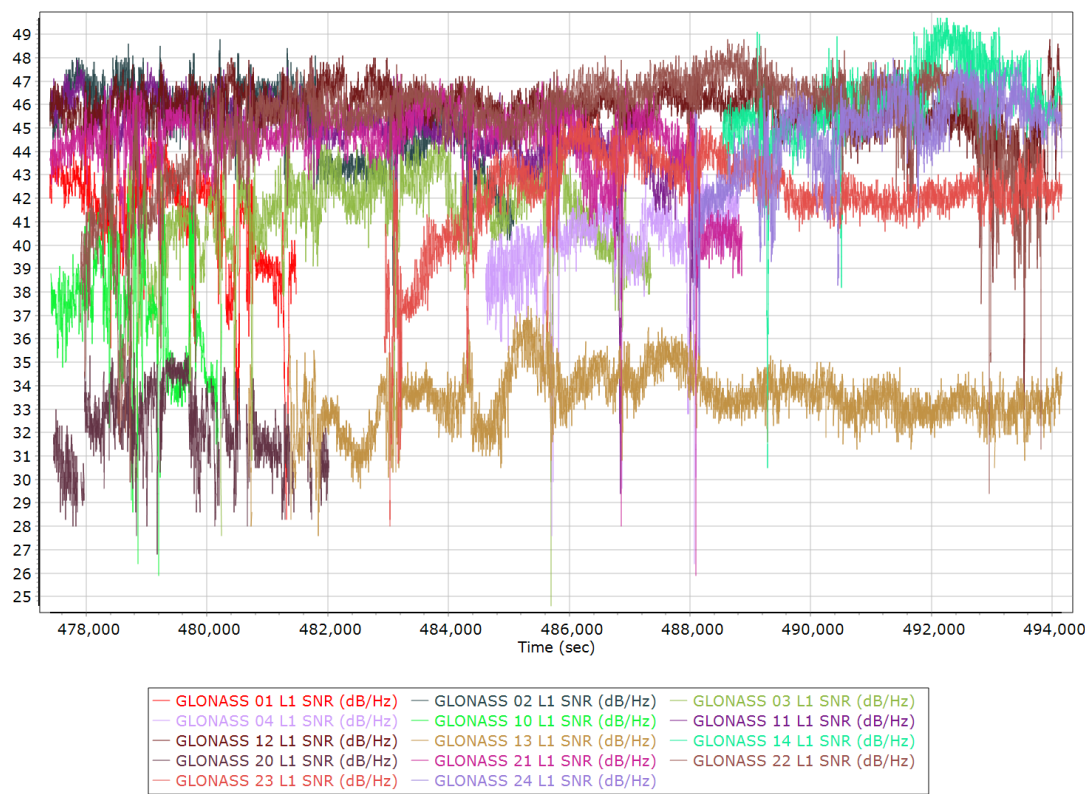
GPS/GLONASS L1 Satellite Lock/Elevation



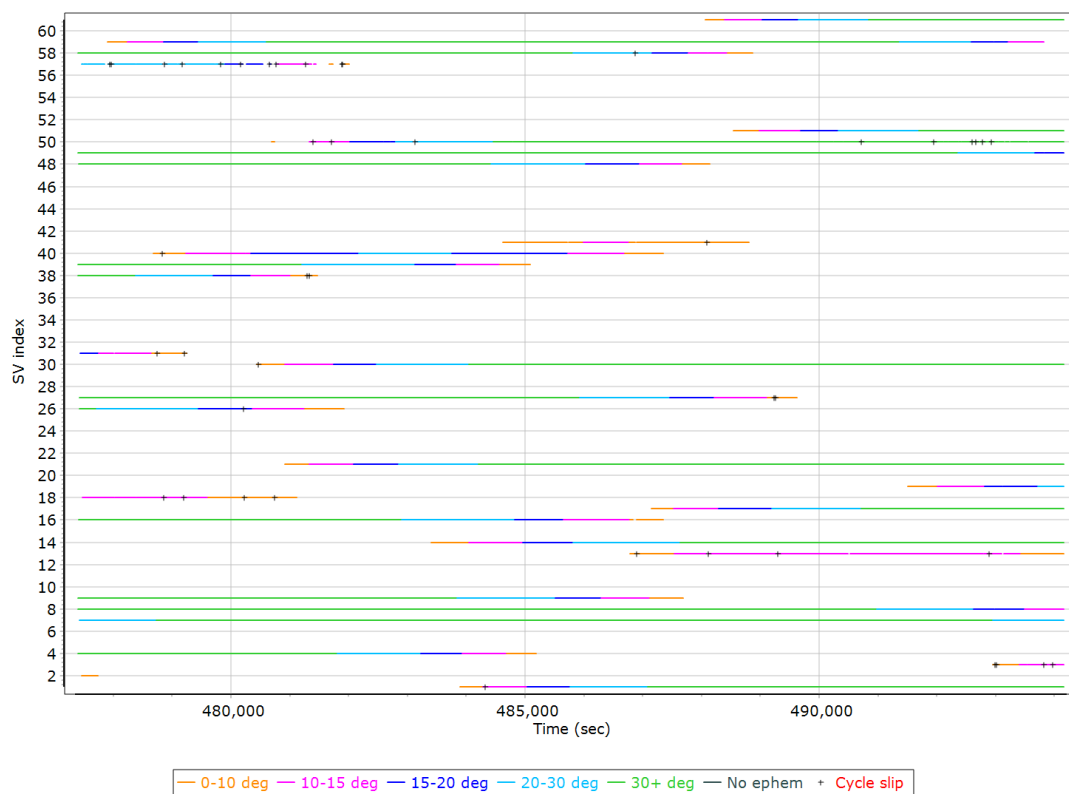
GPS L1 SNR



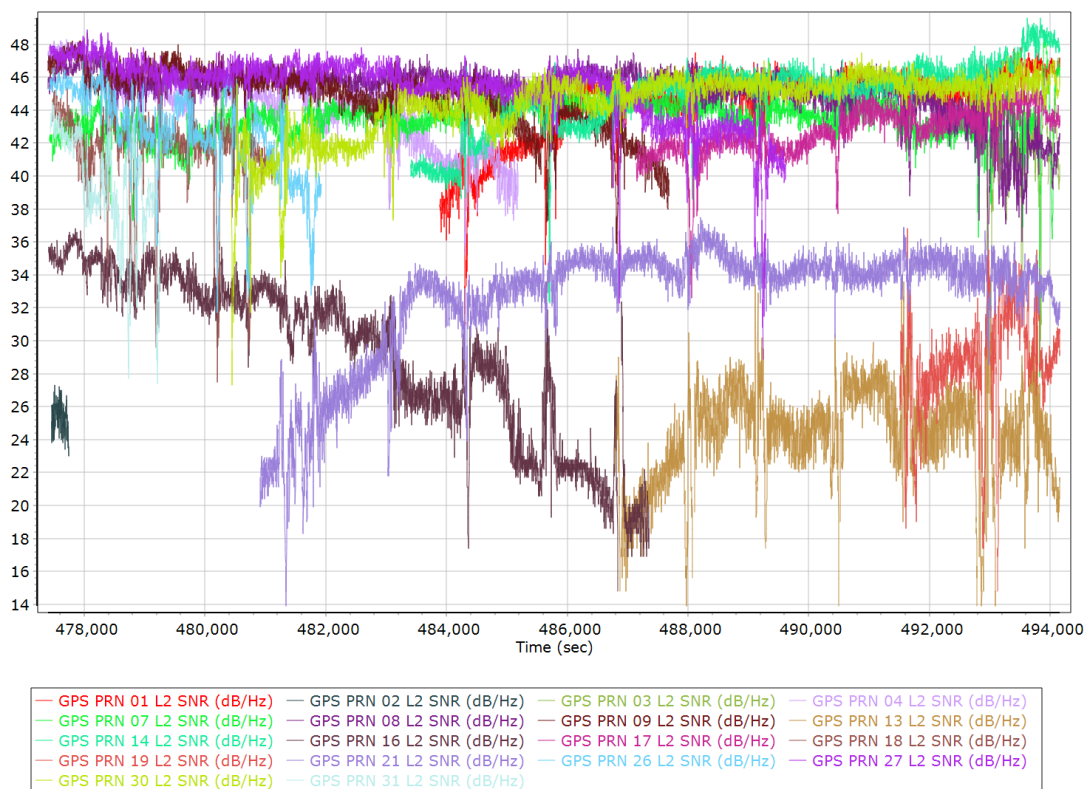
GLONASS L1 SNR



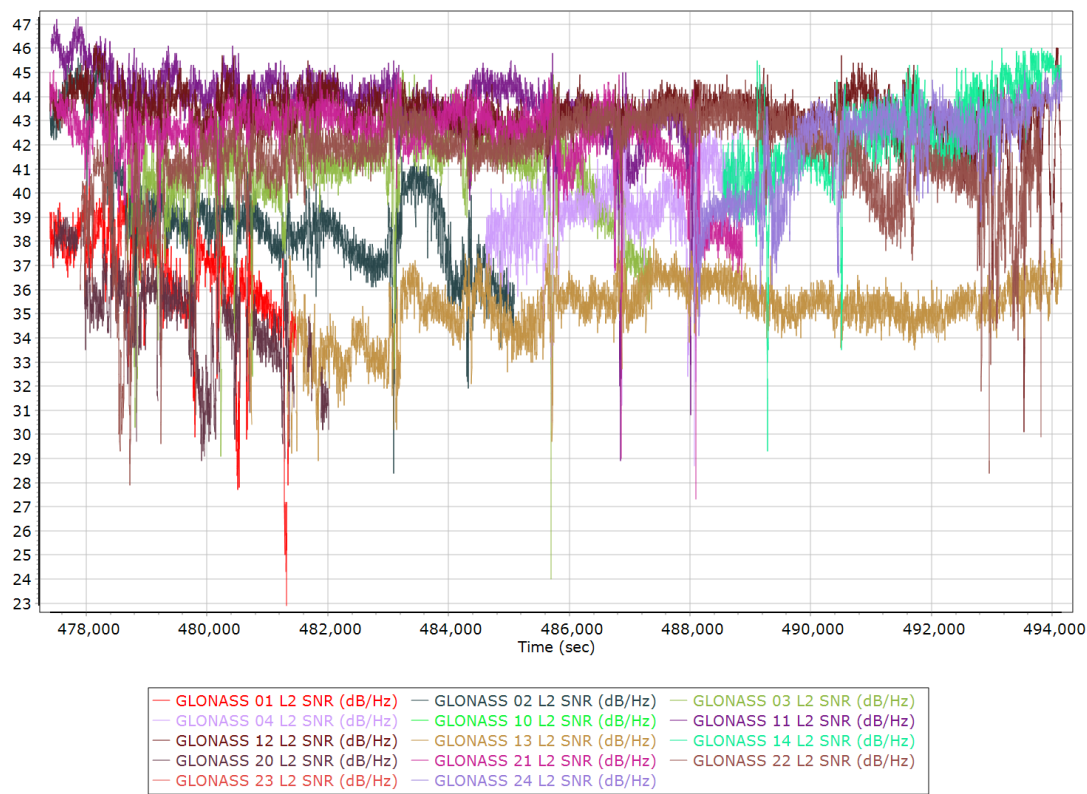
GPS/GLONASS L2 Satellite Lock/Elevation



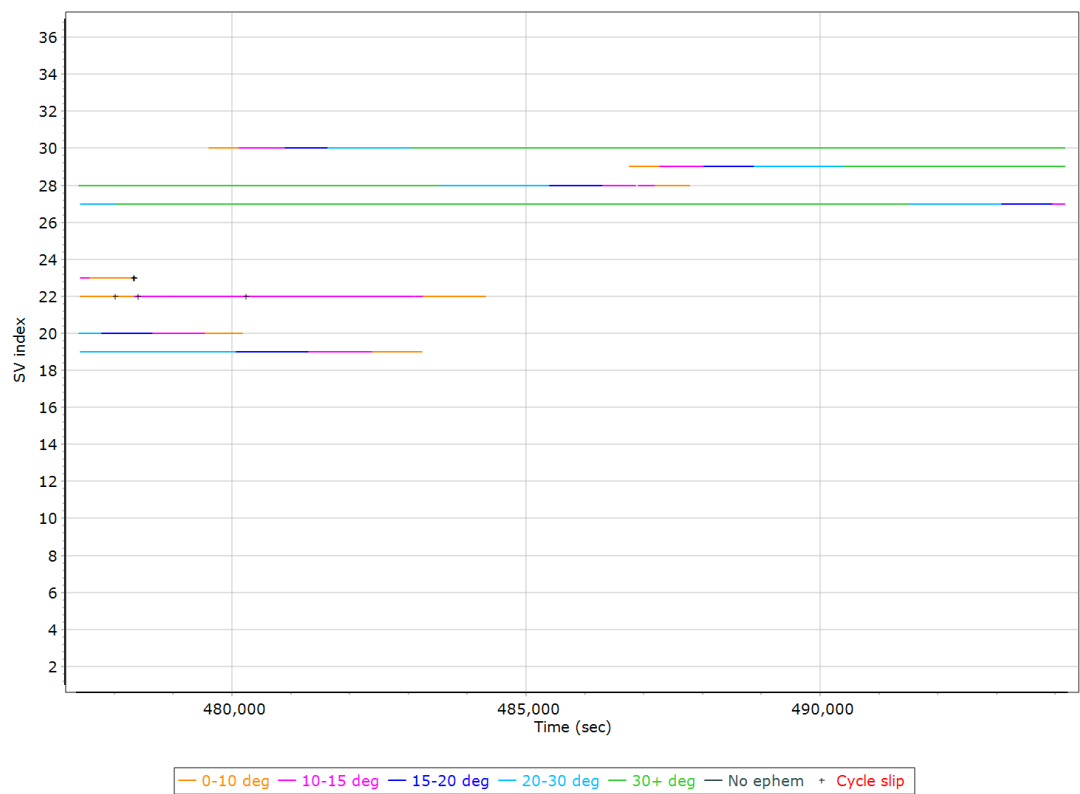
GPS L2 SNR



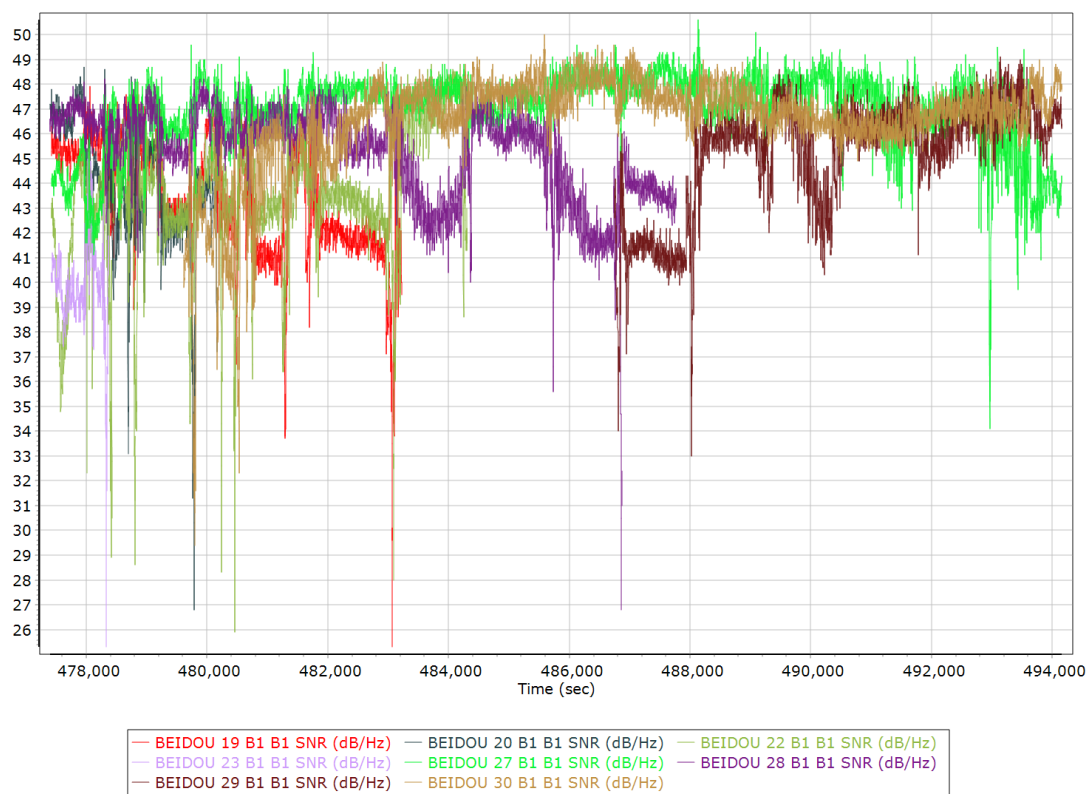
GLONASS L2 SNR



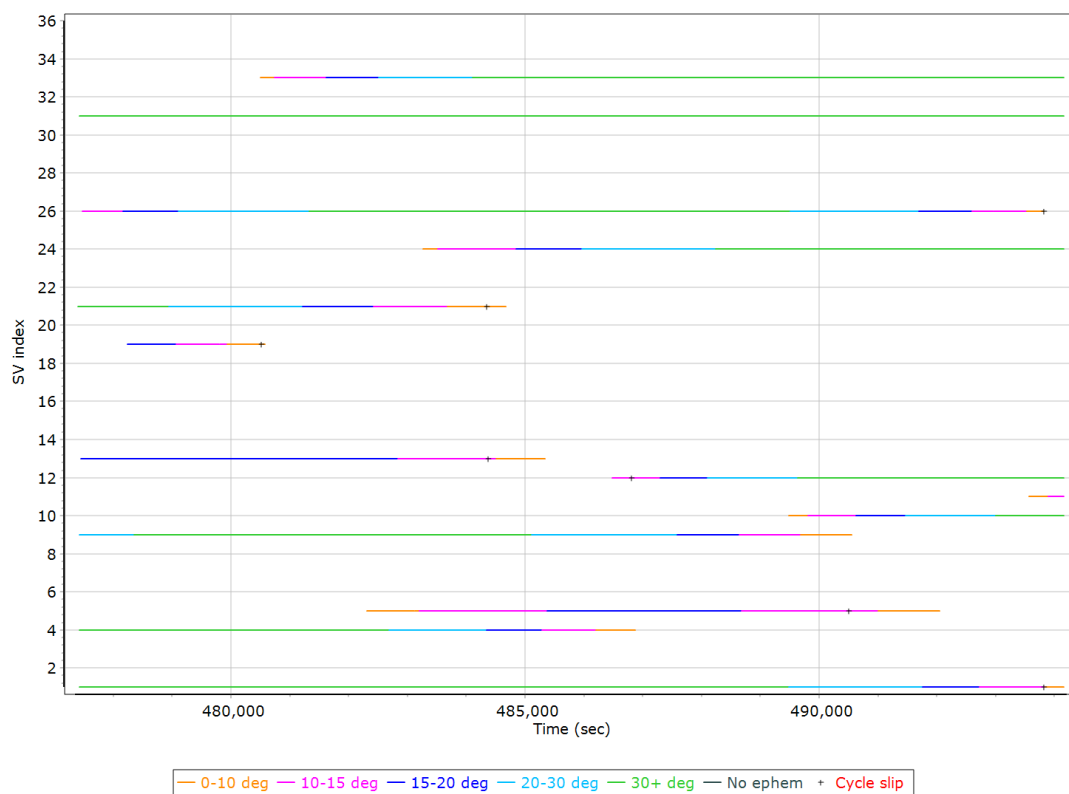
BEIDOU Satellite Lock/Elevation



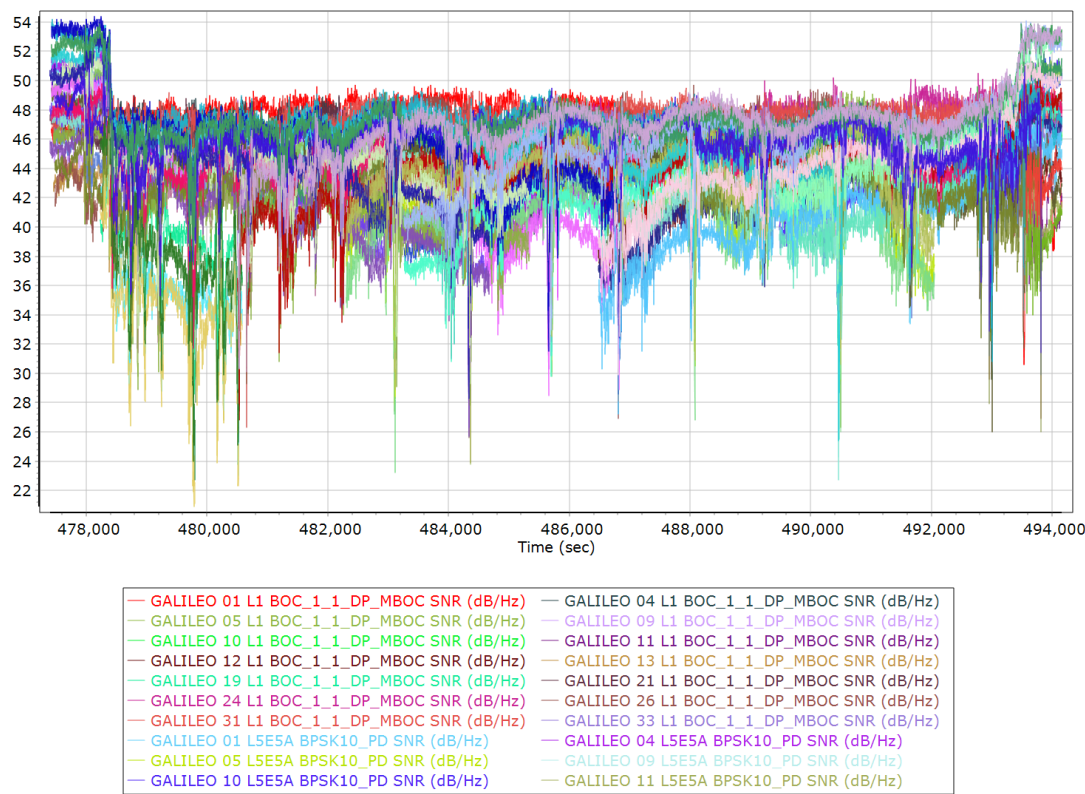
BEIDOU SNR



GALILEO Satellite Lock/Elevation

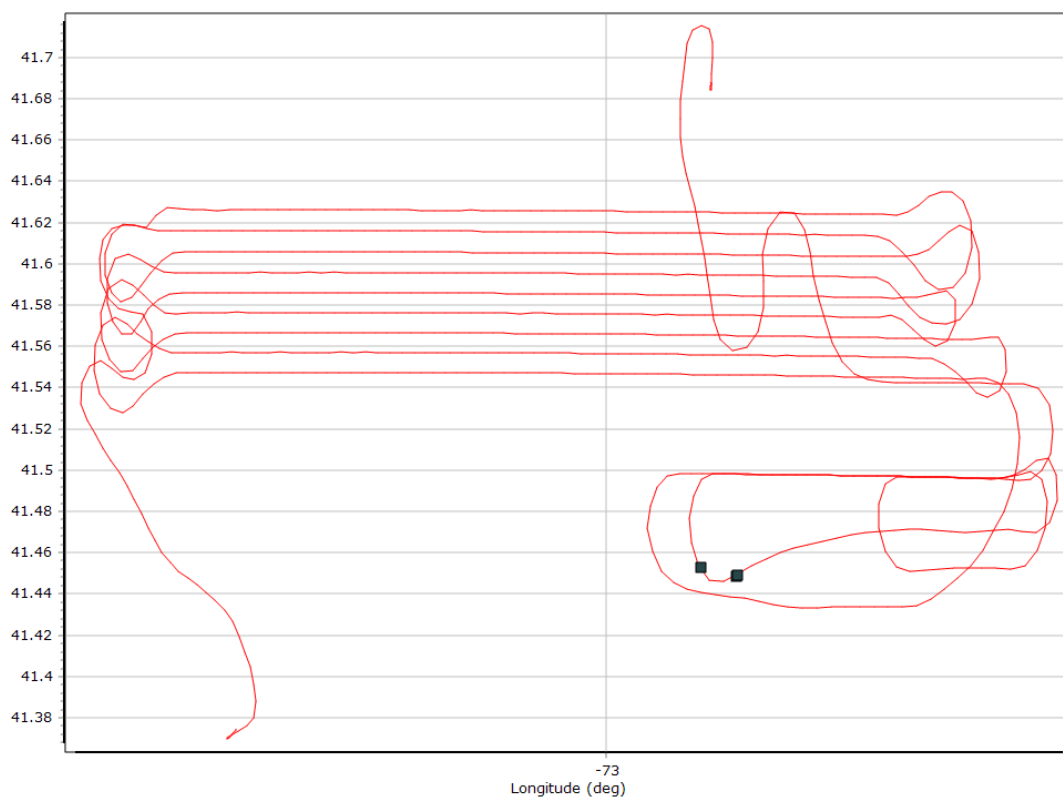


GALILEO SNR

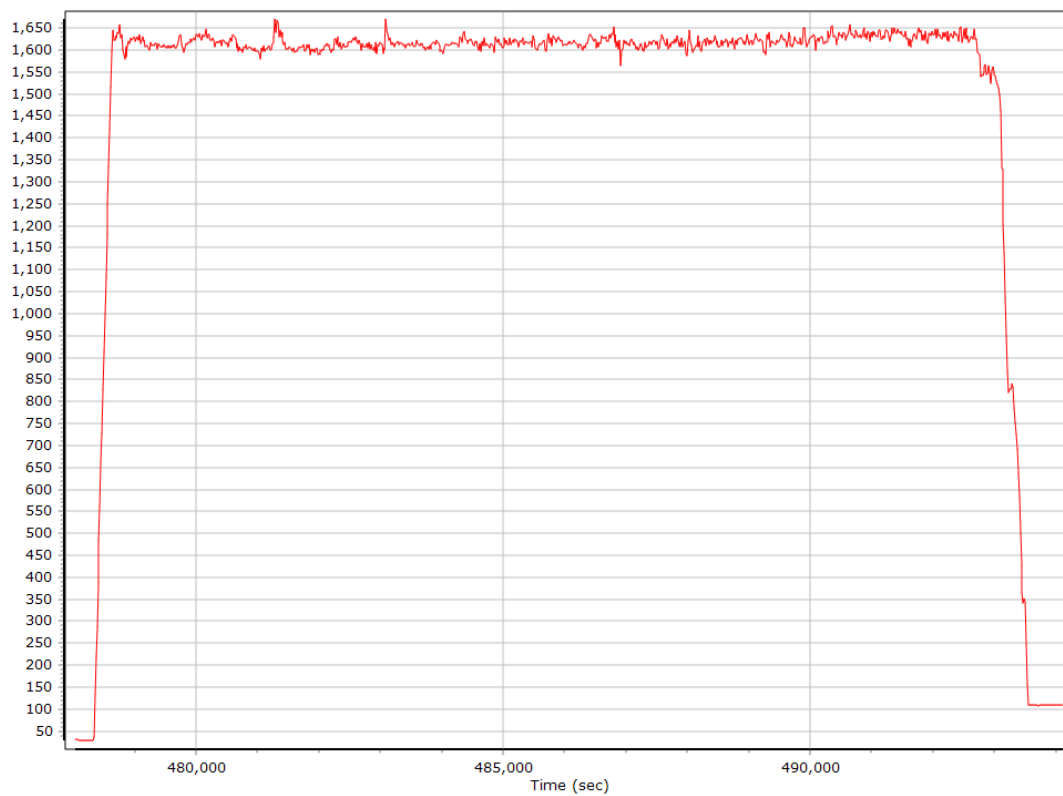


Smoothed Trajectory Information

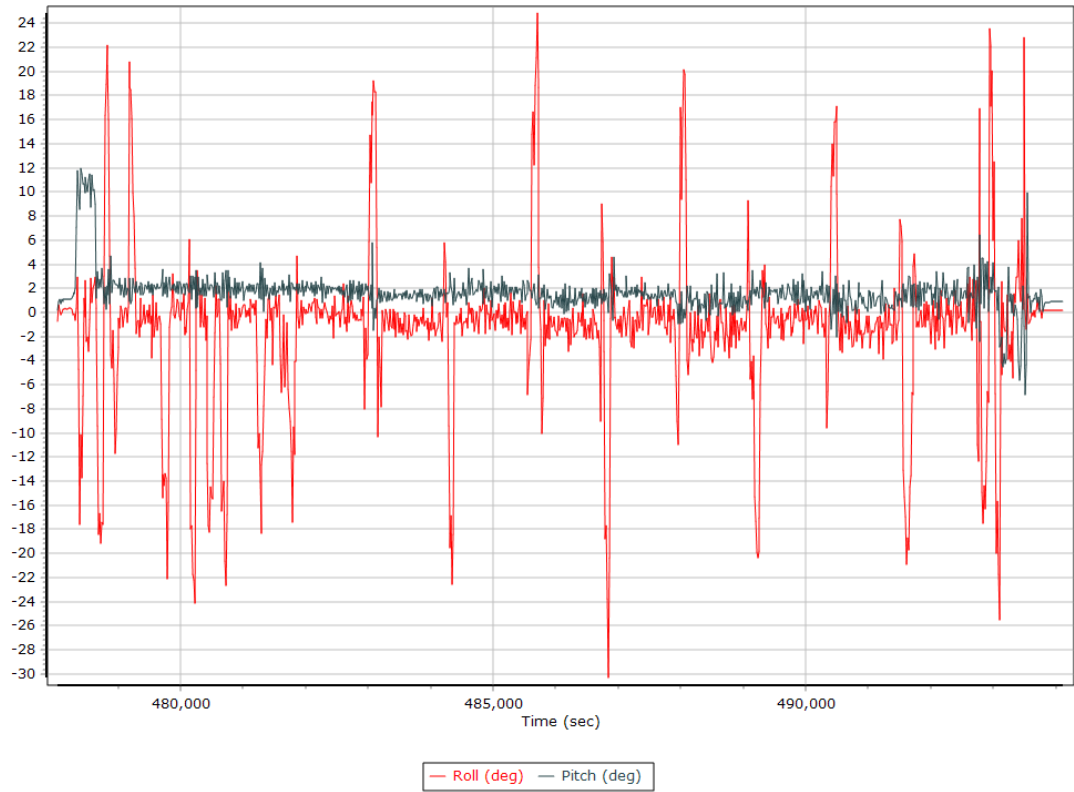
Top View



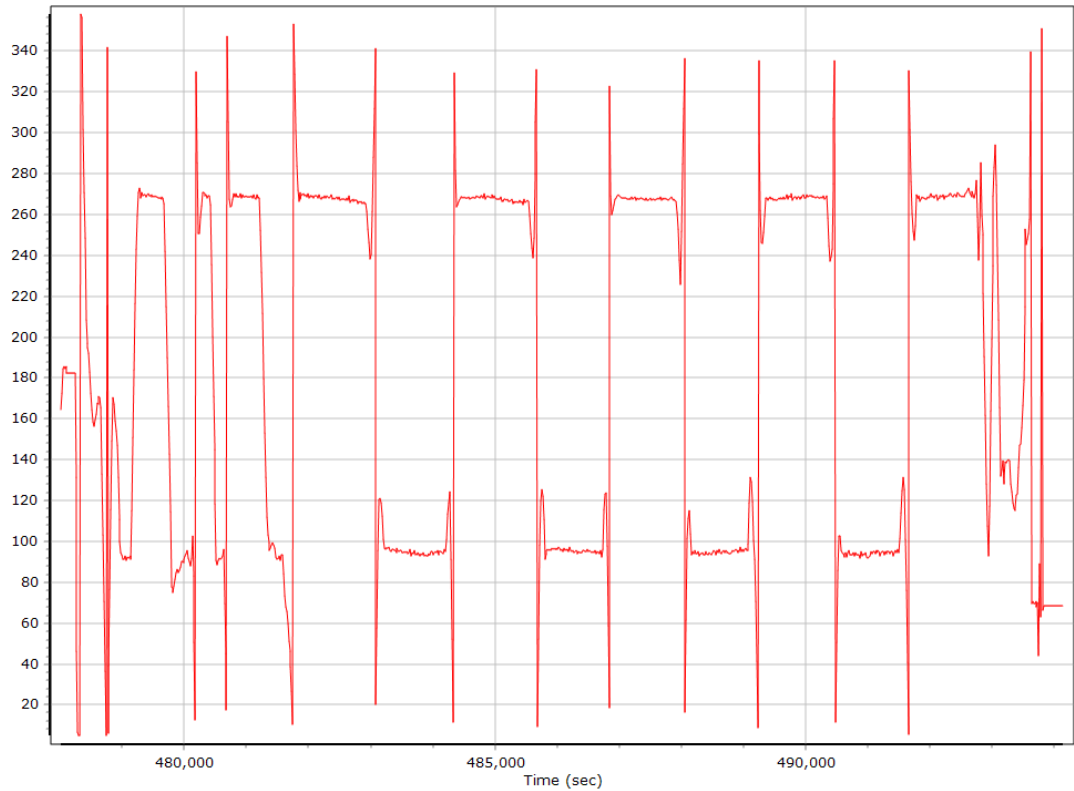
Altitude



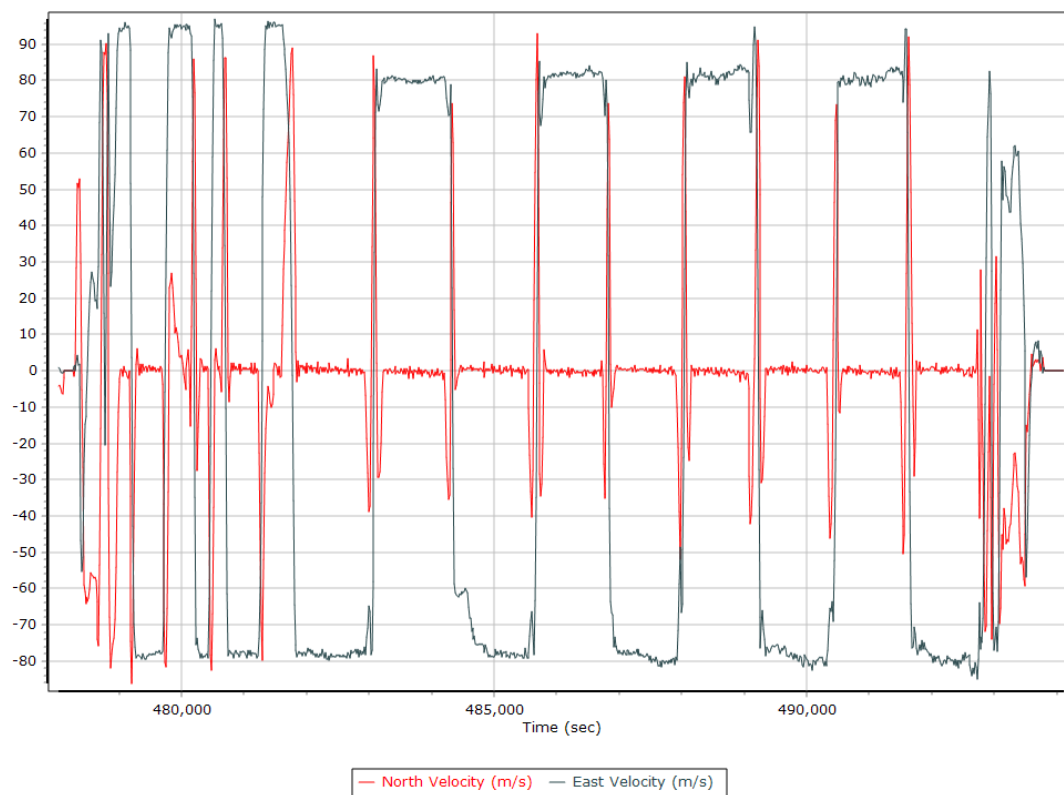
Roll/Pitch



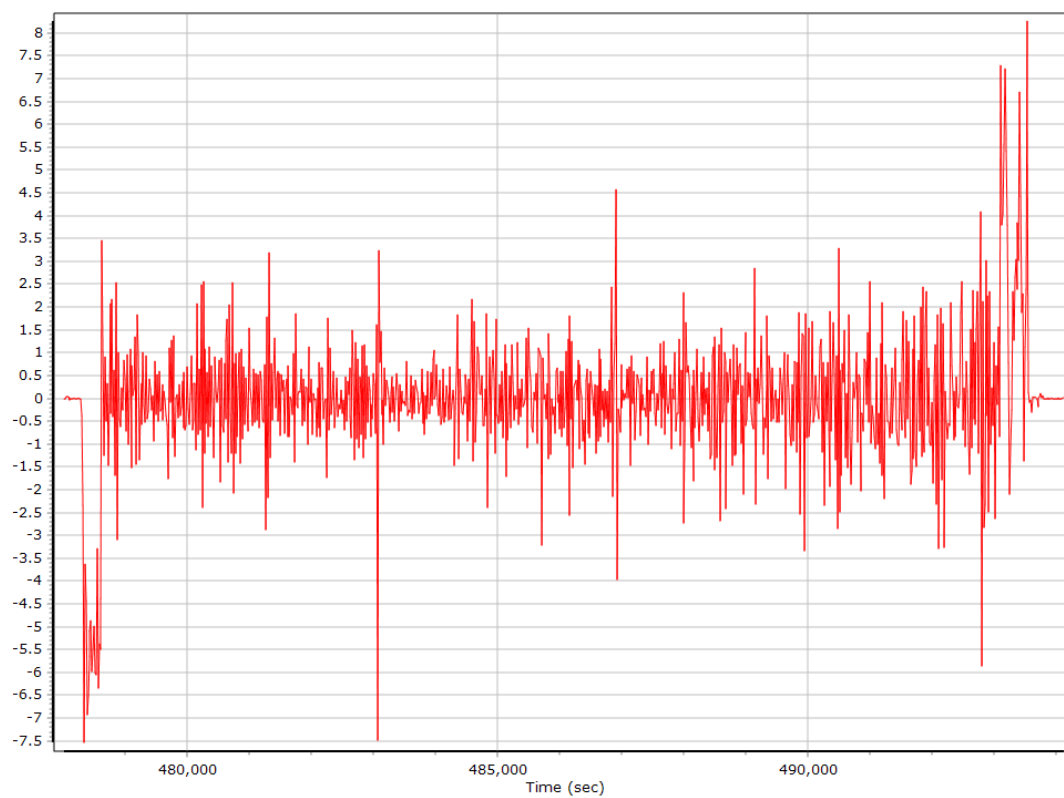
Heading



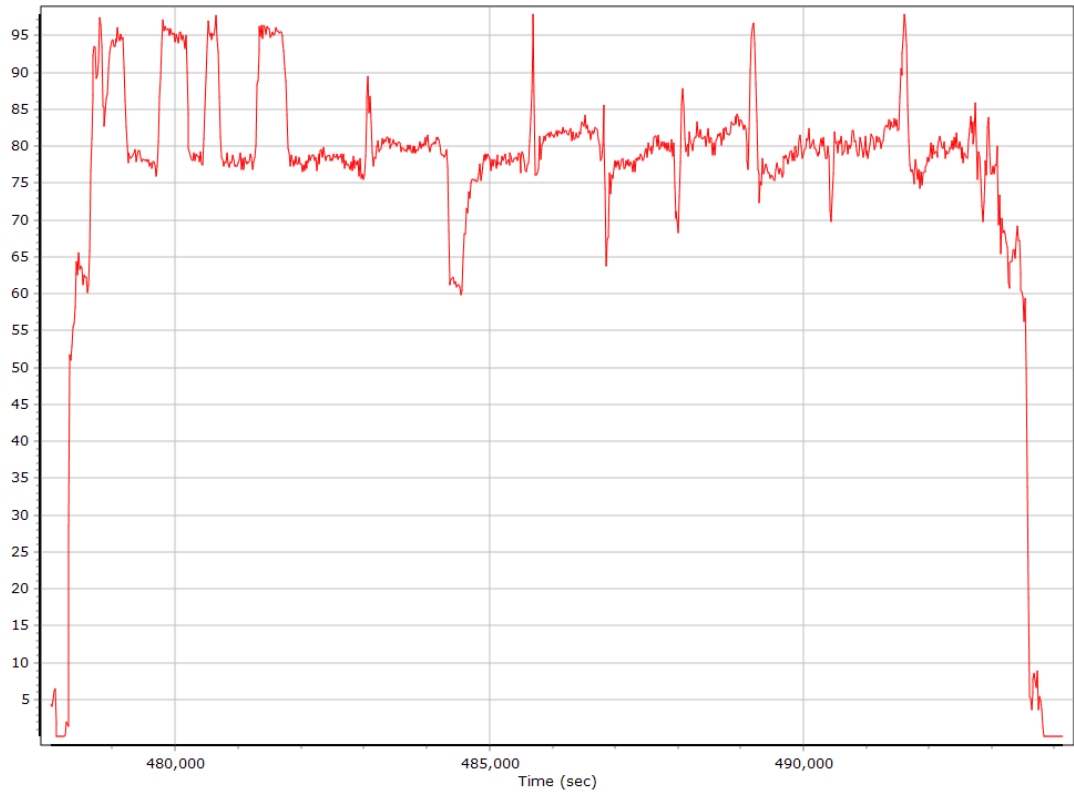
North/East Velocity



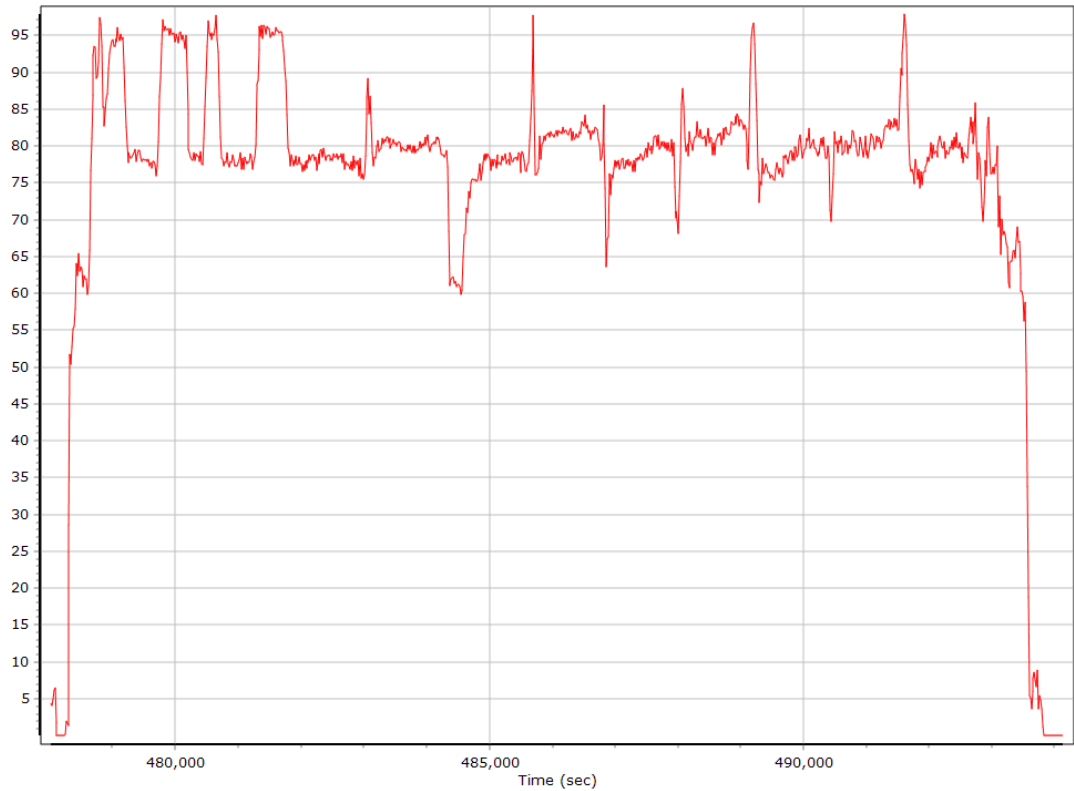
Down Velocity



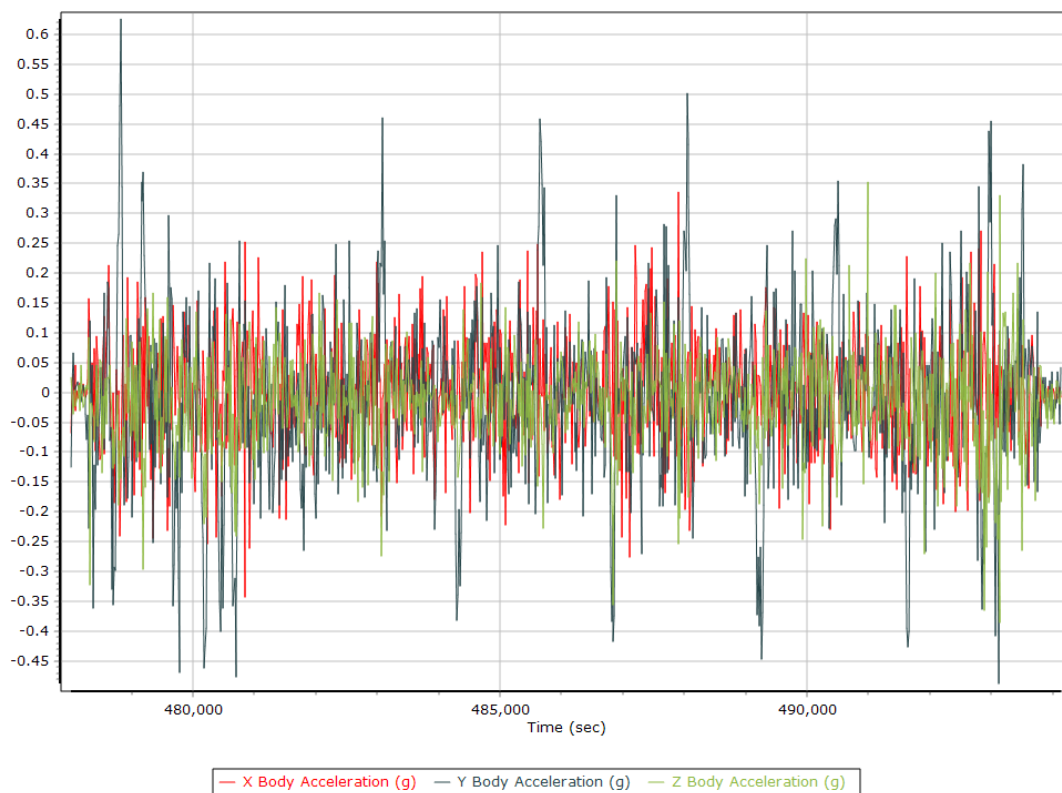
Total Speed



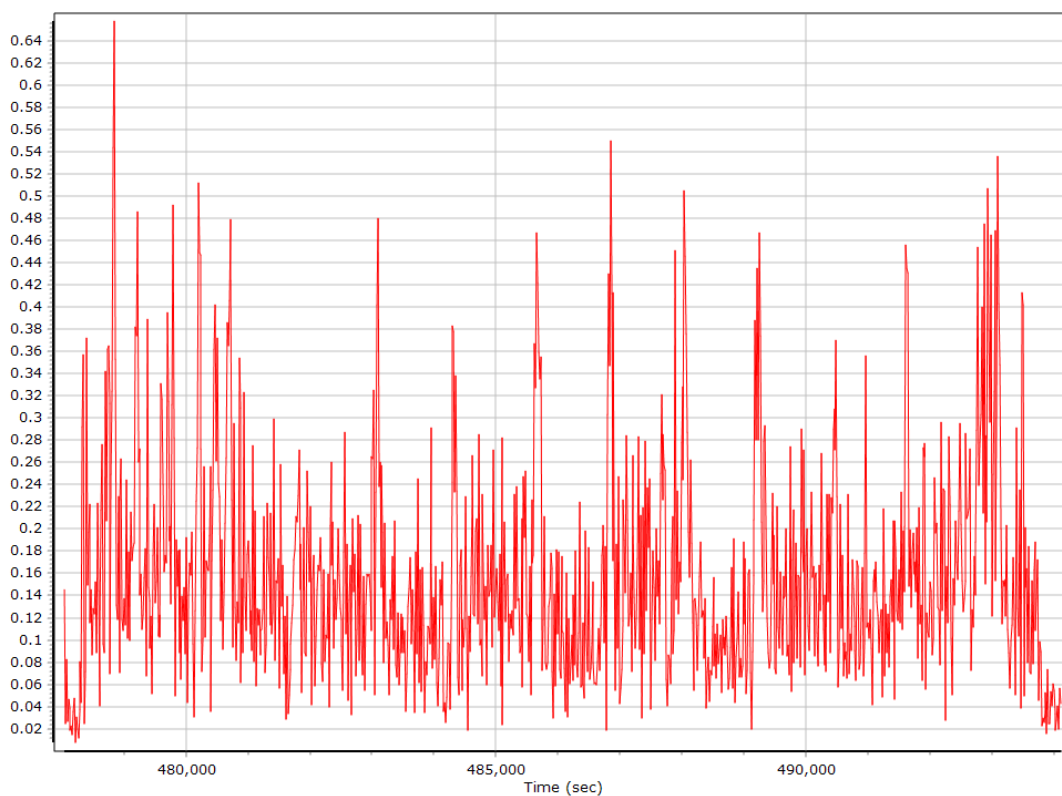
Ground Speed



Body Acceleration



Total Body Acceleration

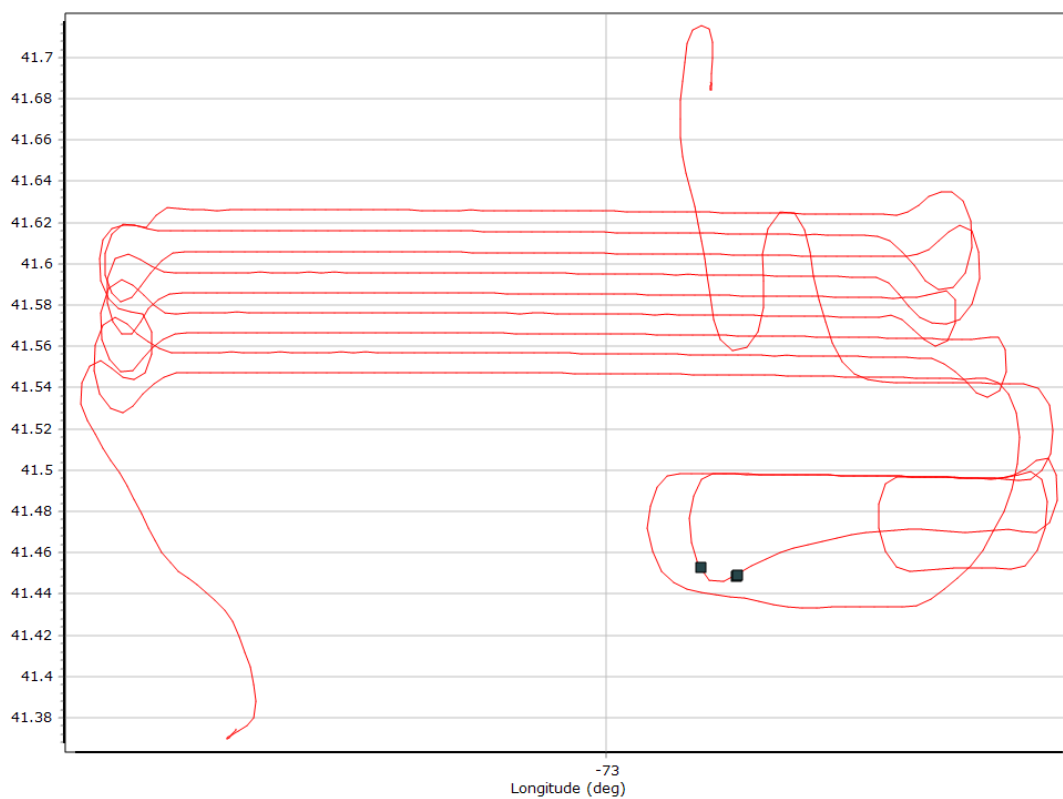


Body Angular Rate

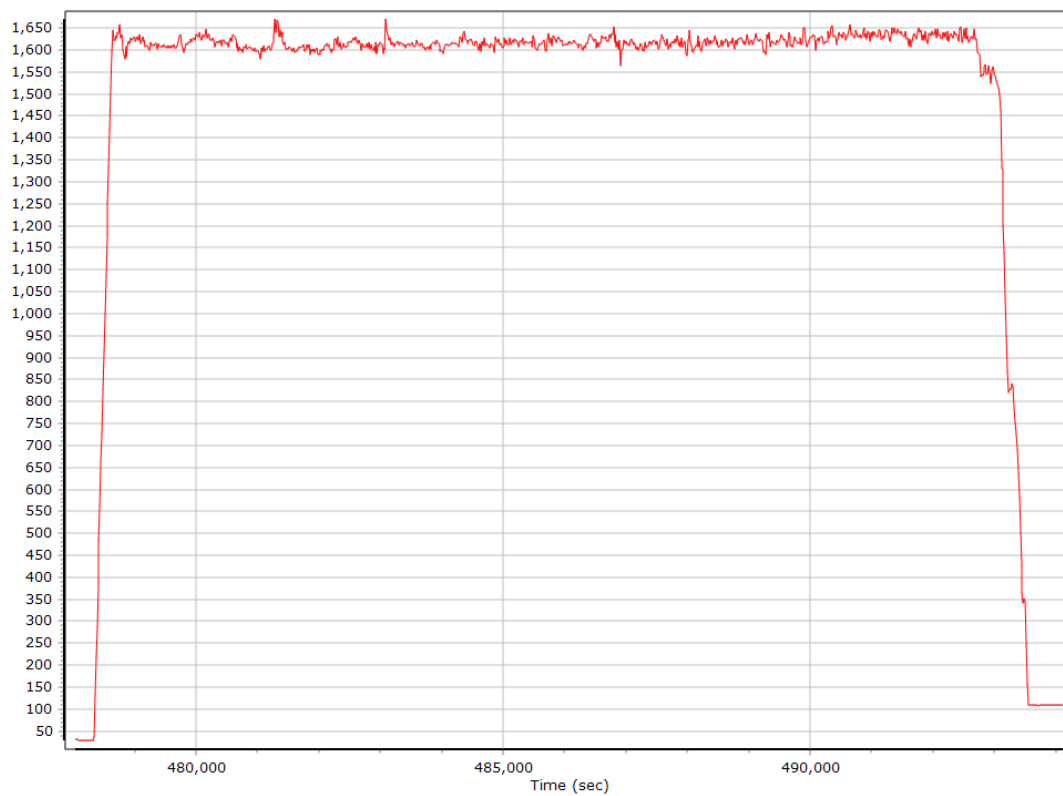


Forward Processed Trajectory Information

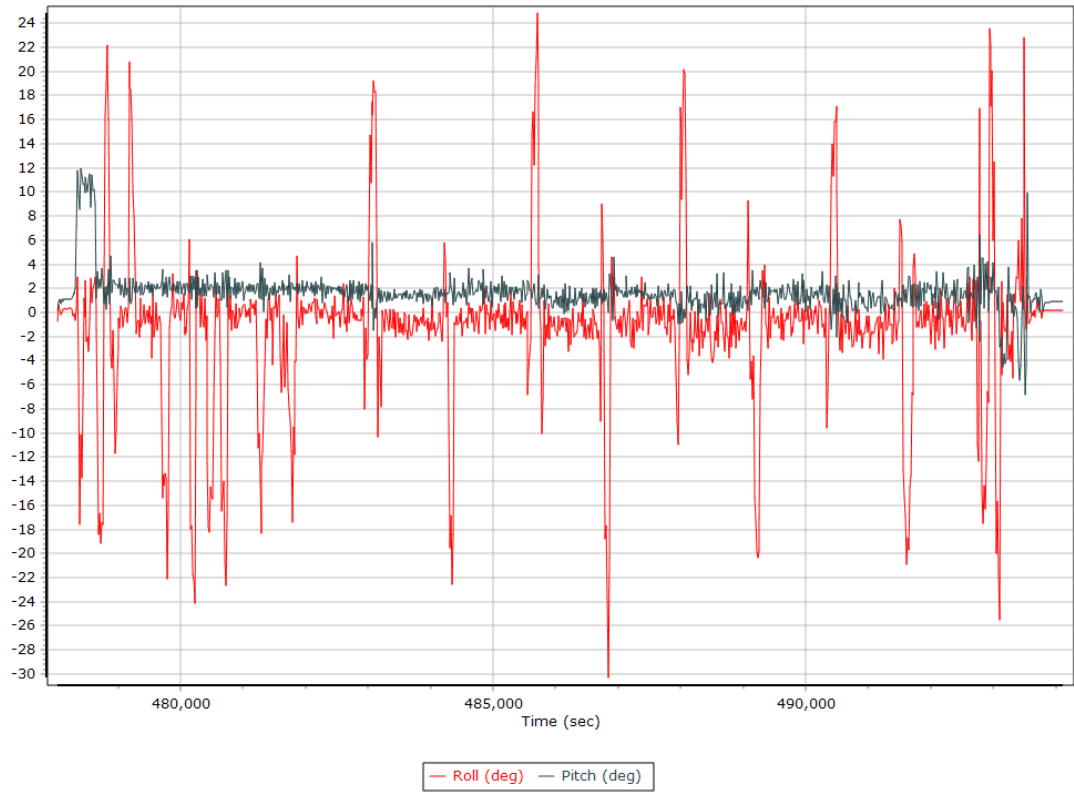
Top View



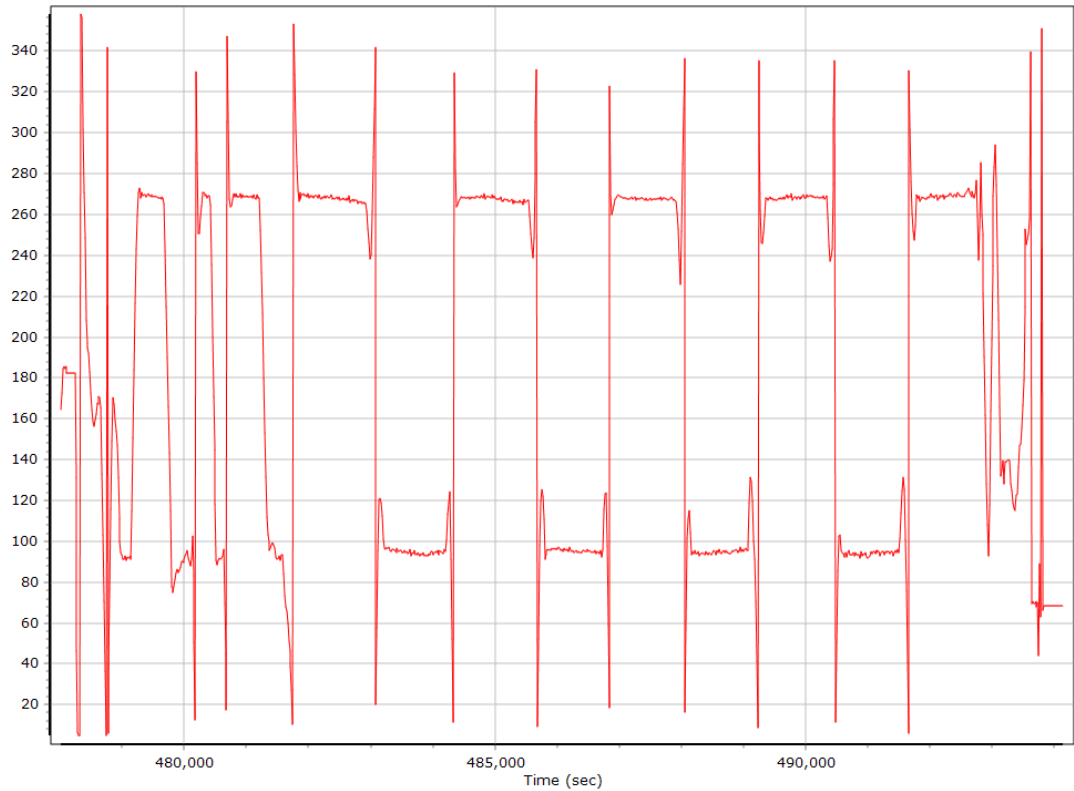
Altitude



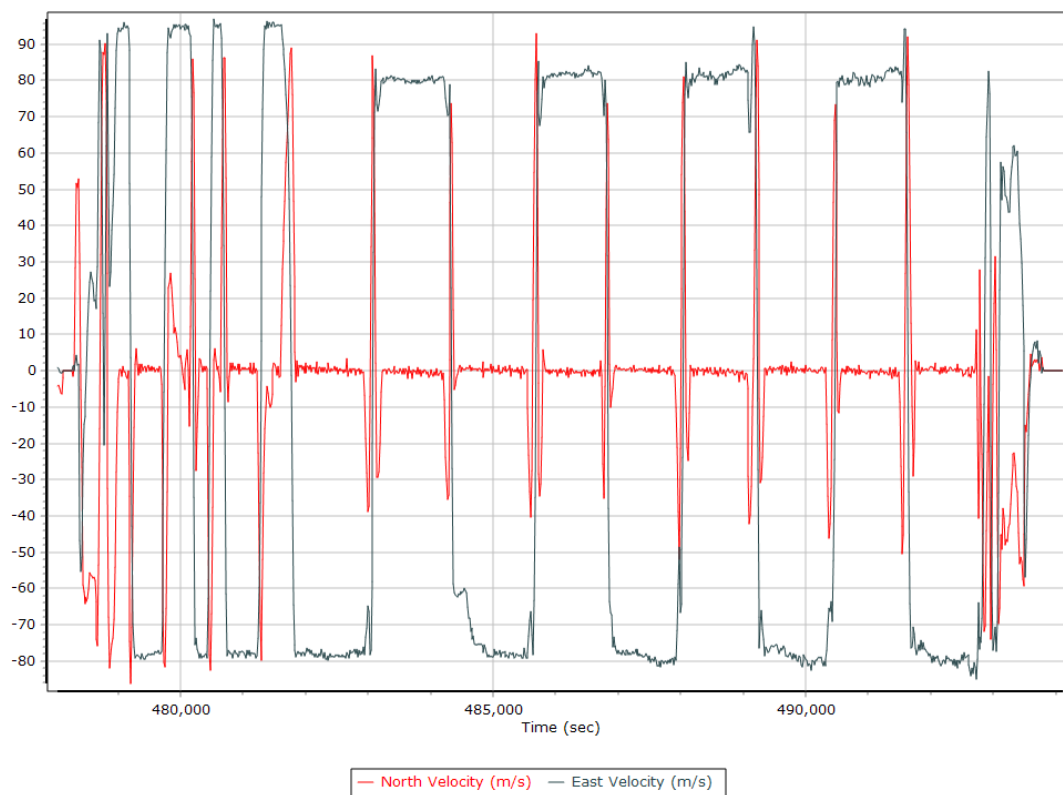
Roll/Pitch



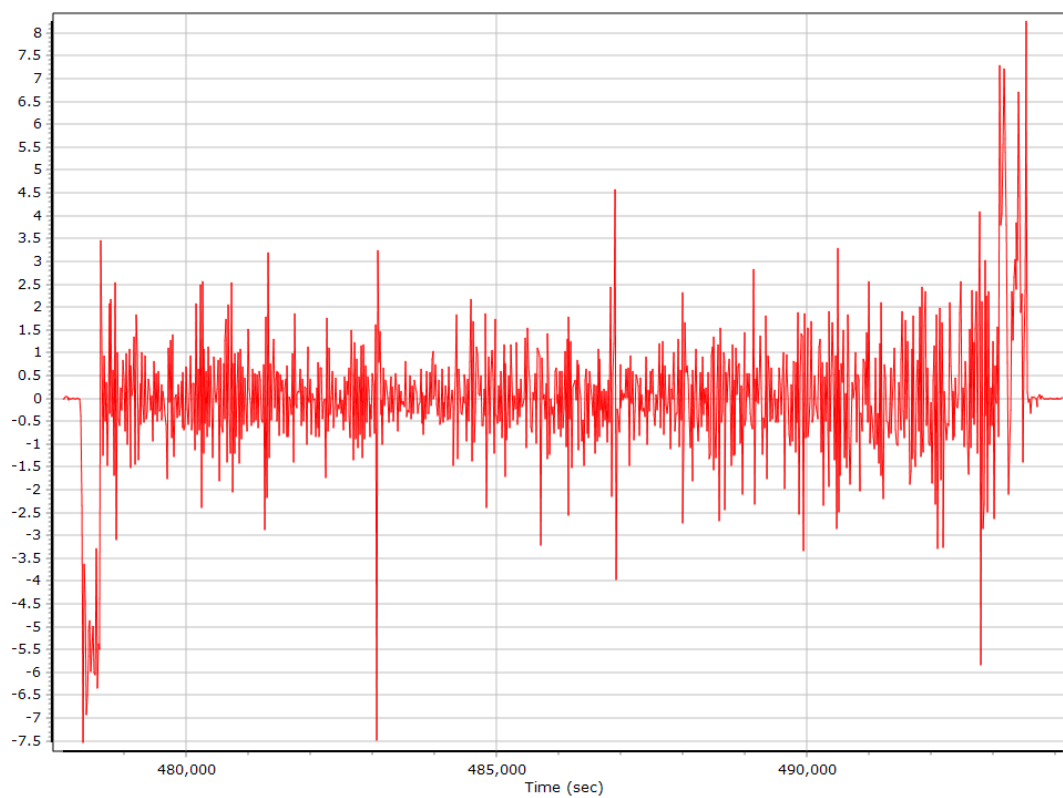
Heading



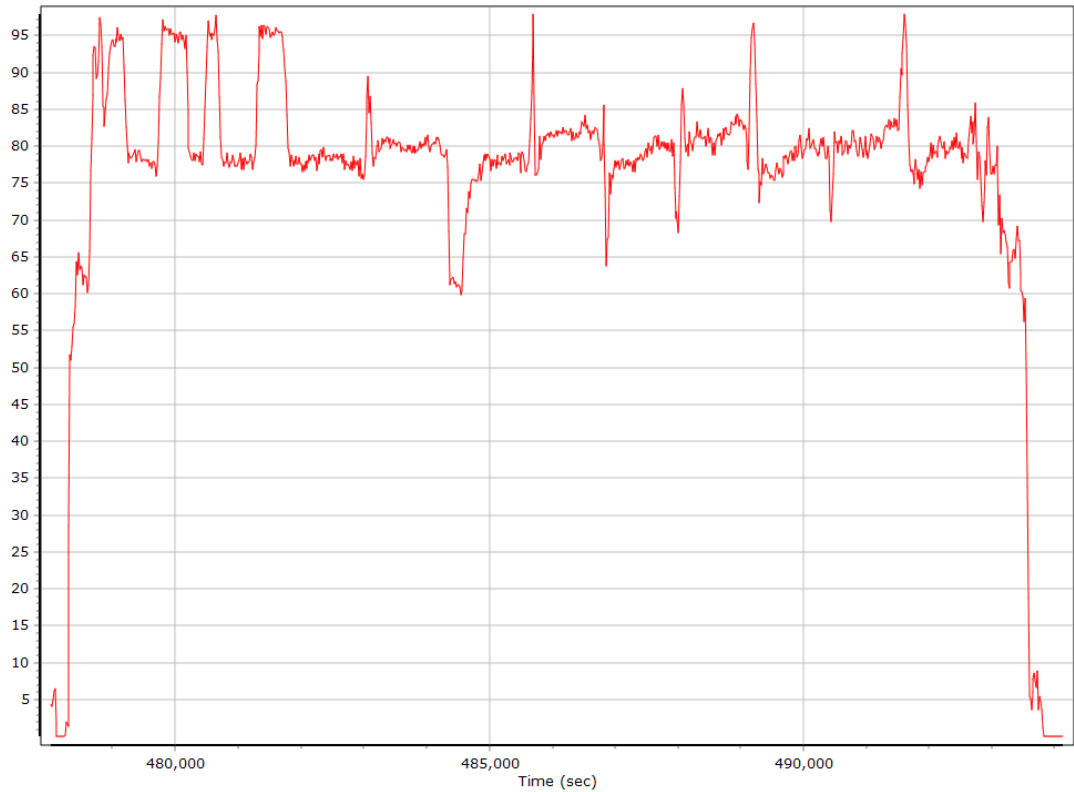
North/East Velocity



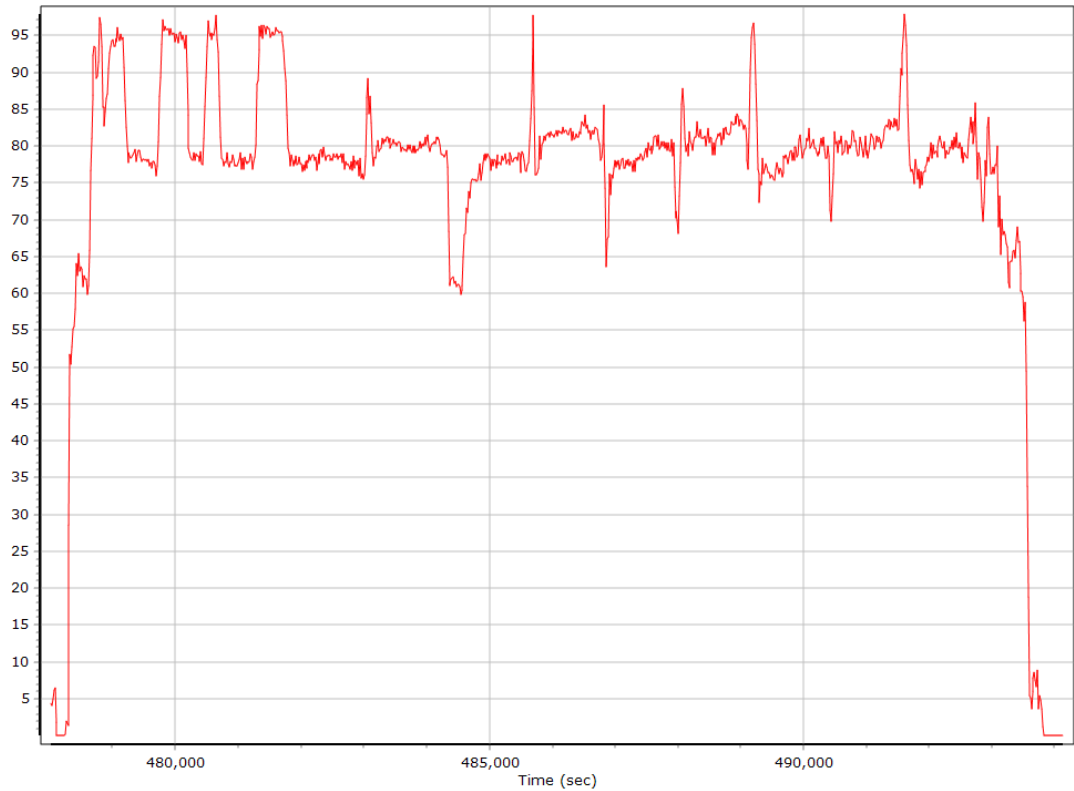
Down Velocity



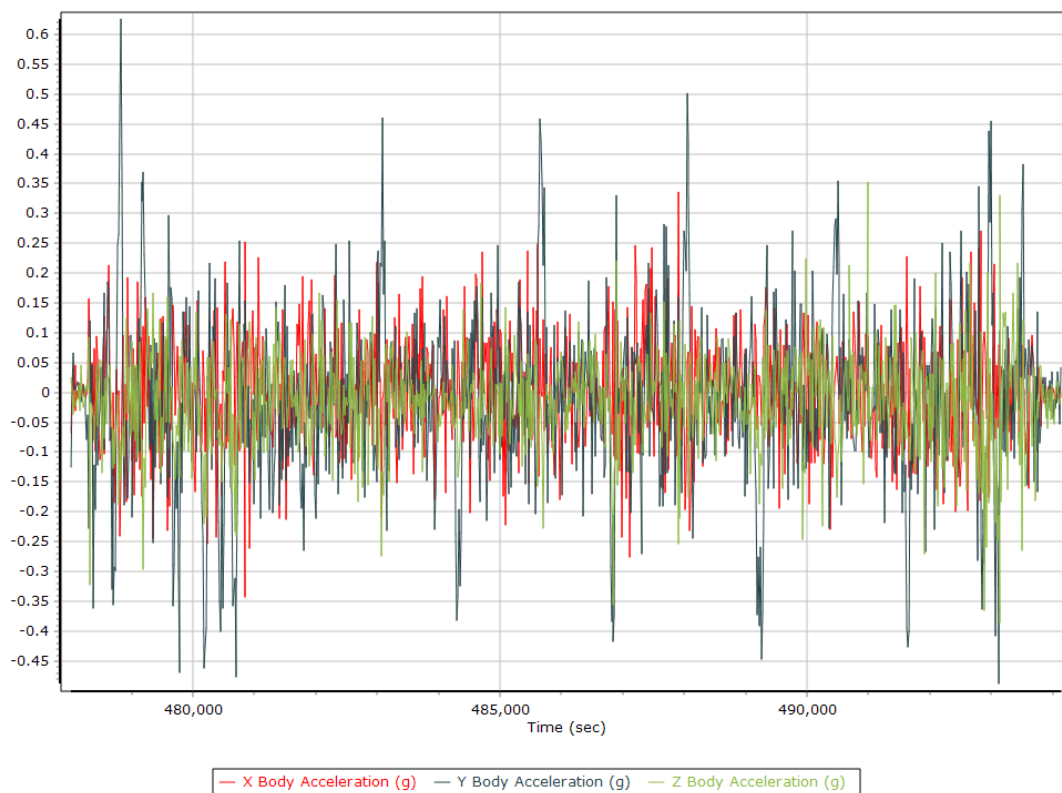
Total Speed



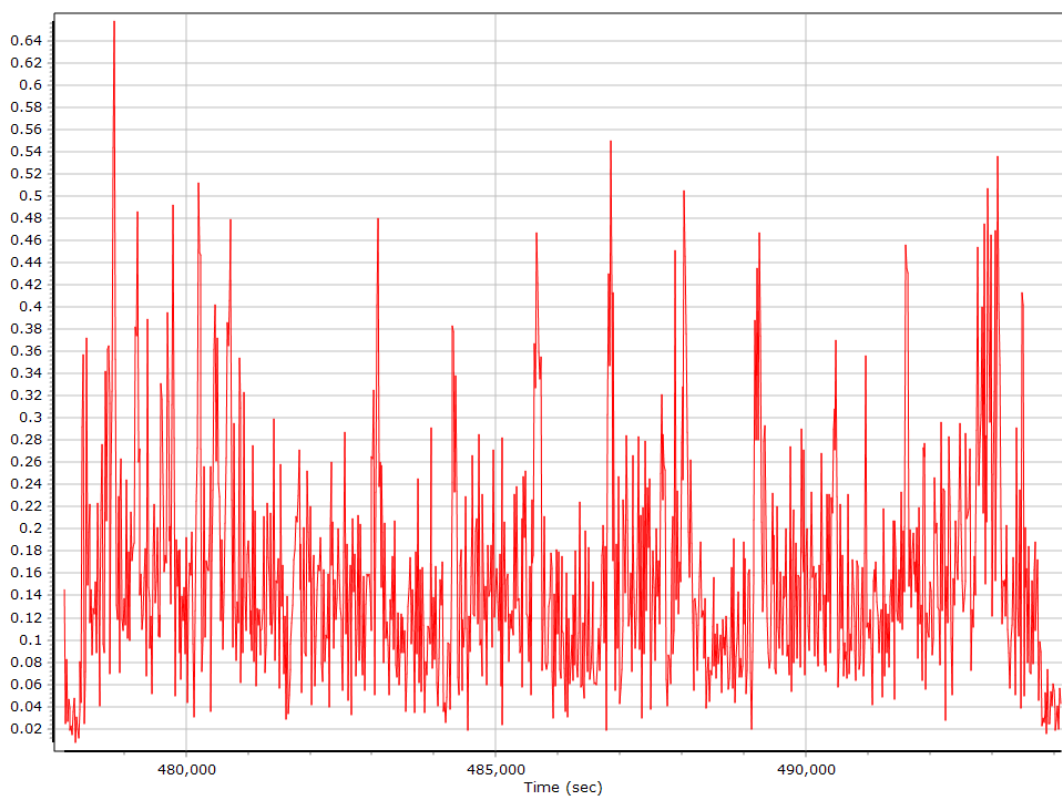
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

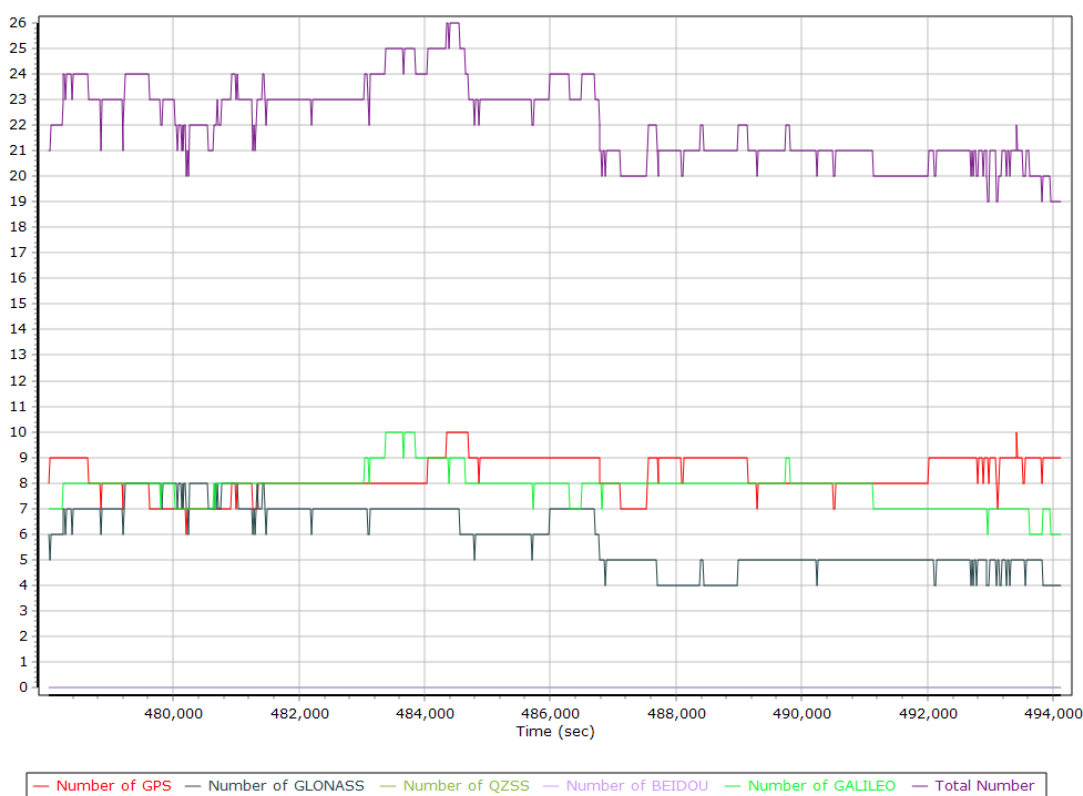


GNSS QC

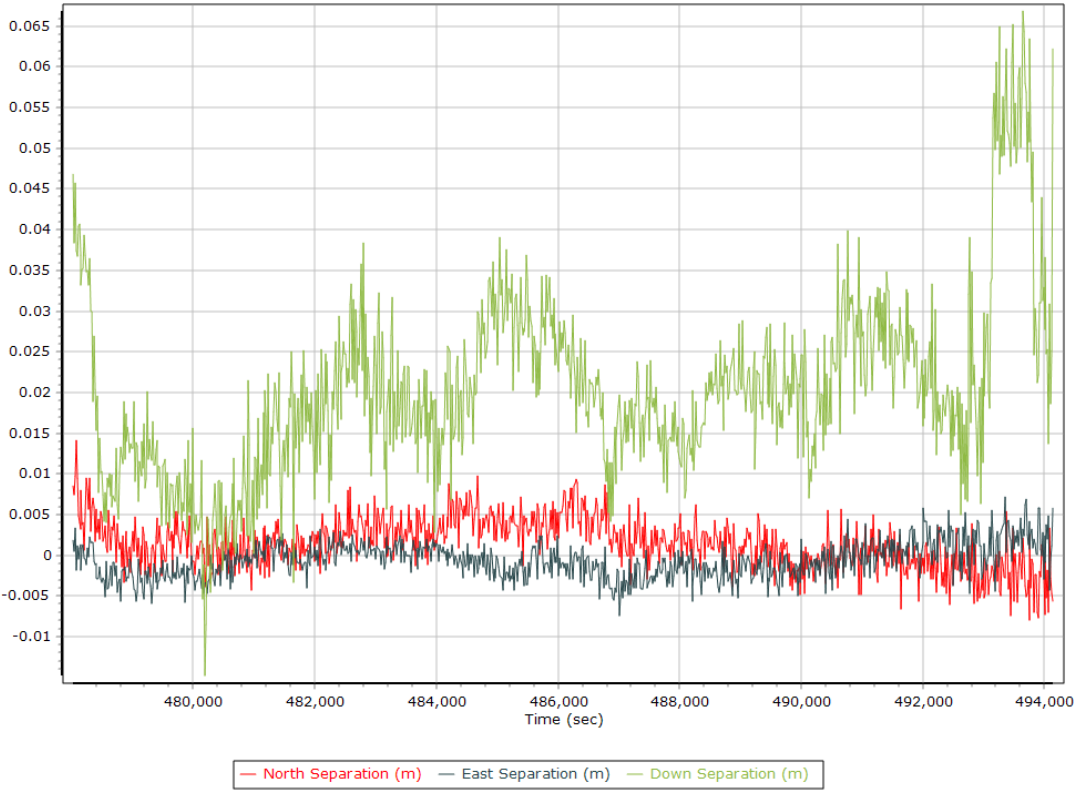
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	3	10	8
Number of GLONASS SV	3	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	0	10	8
Total number of SV	7	26	22
PDOP	0.98	5.57	1.14
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	16717.00	0.00	0.00
Percentage	100.00	0.00	0.00

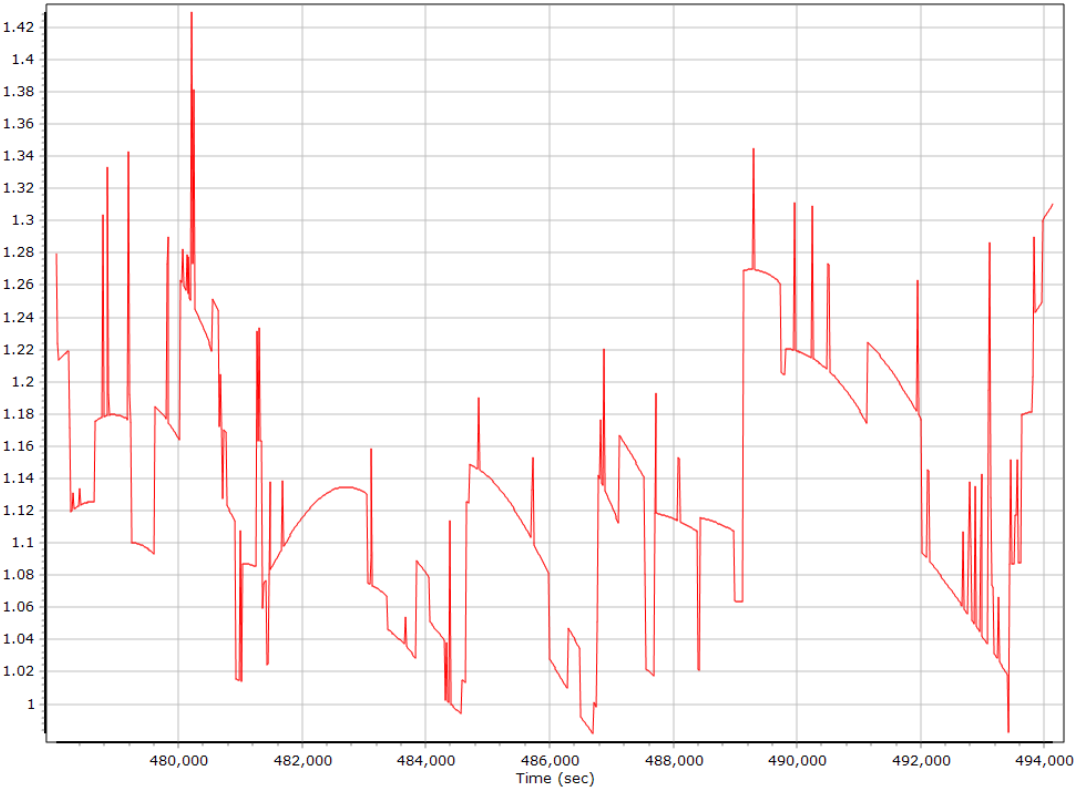
Num SVs in solution



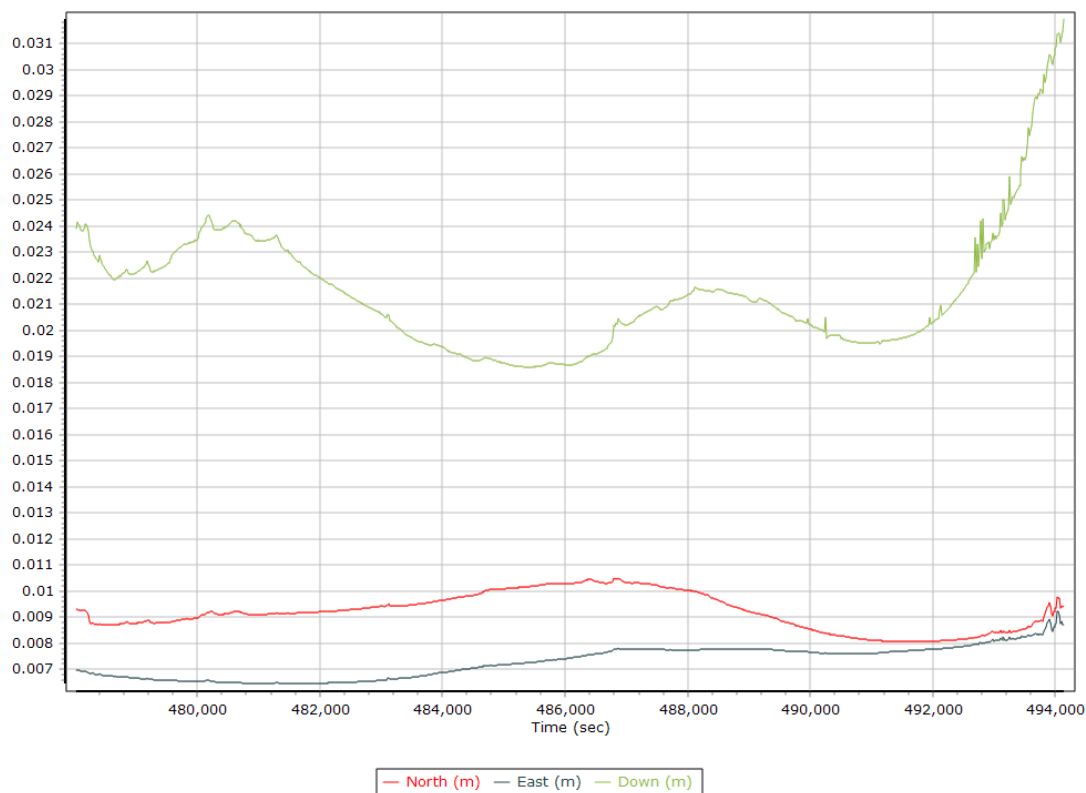
Forward/Reverse Separation



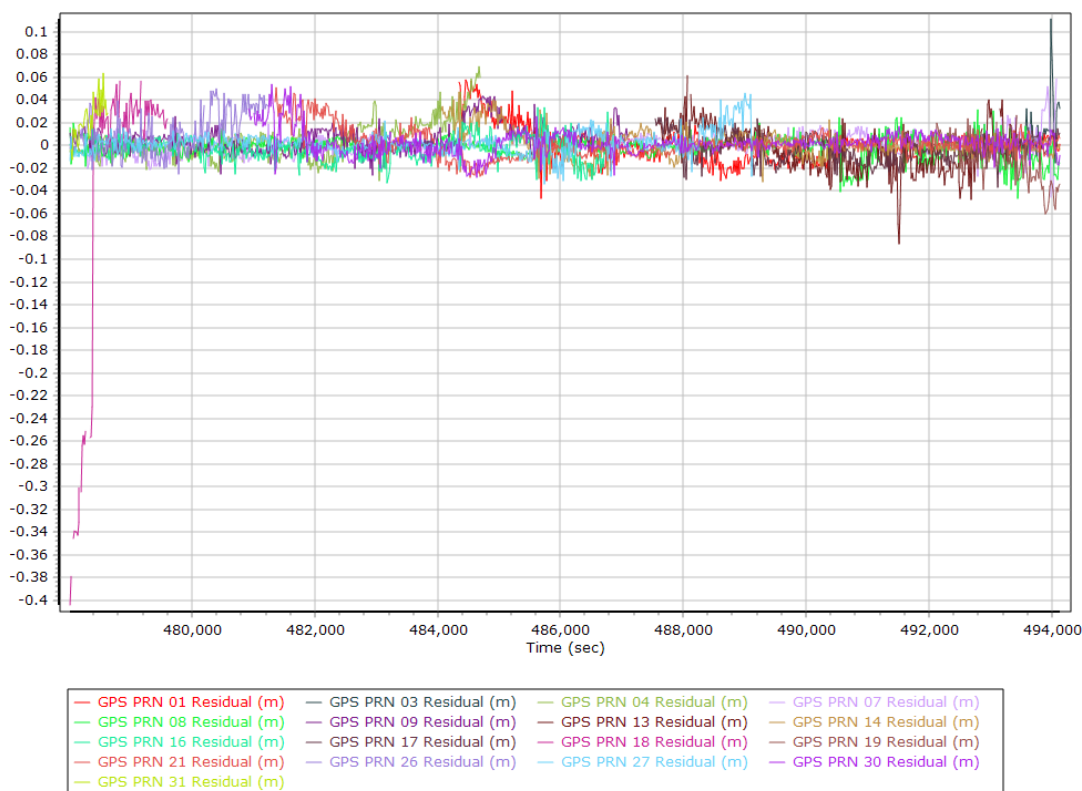
PDOP



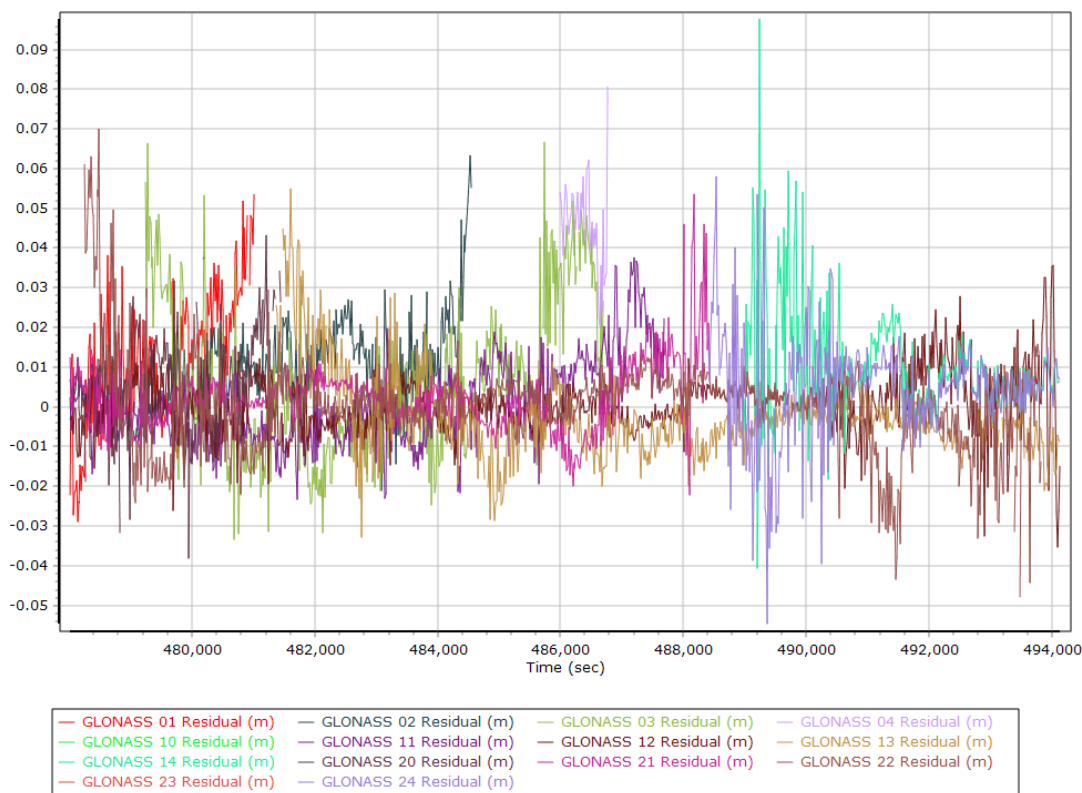
Estimated Position Accuracy



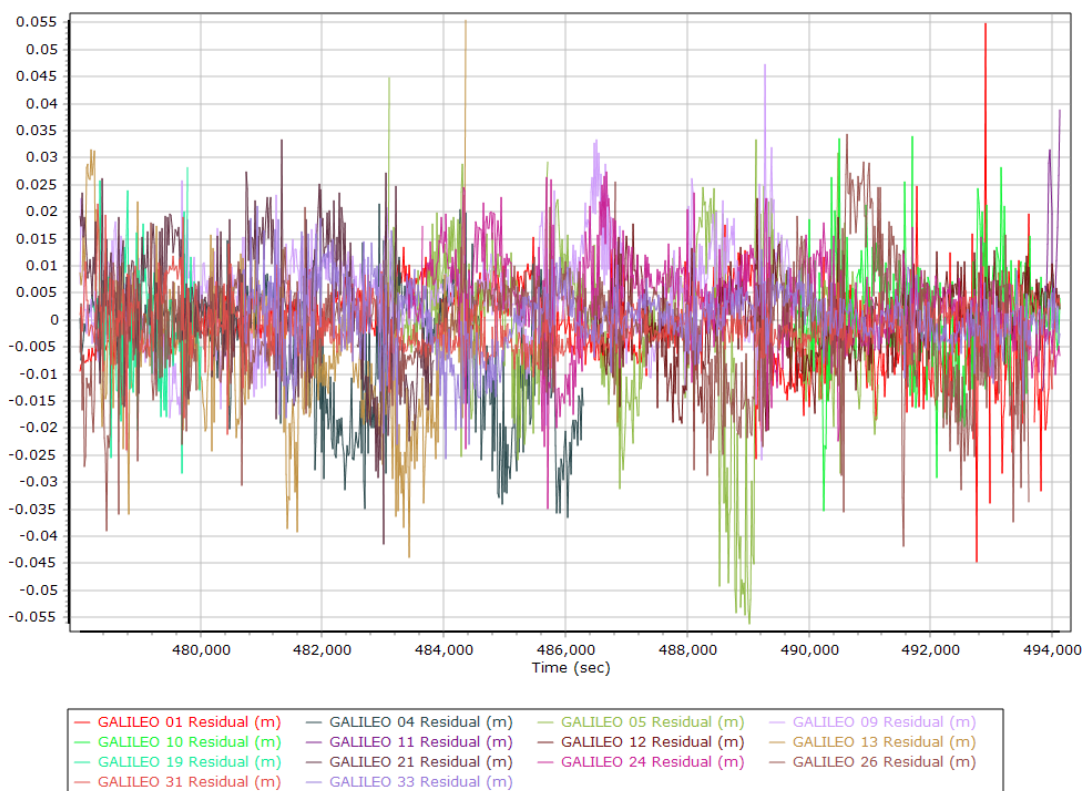
GPS Residuals



GLONASS Residuals



GALILEO Residuals



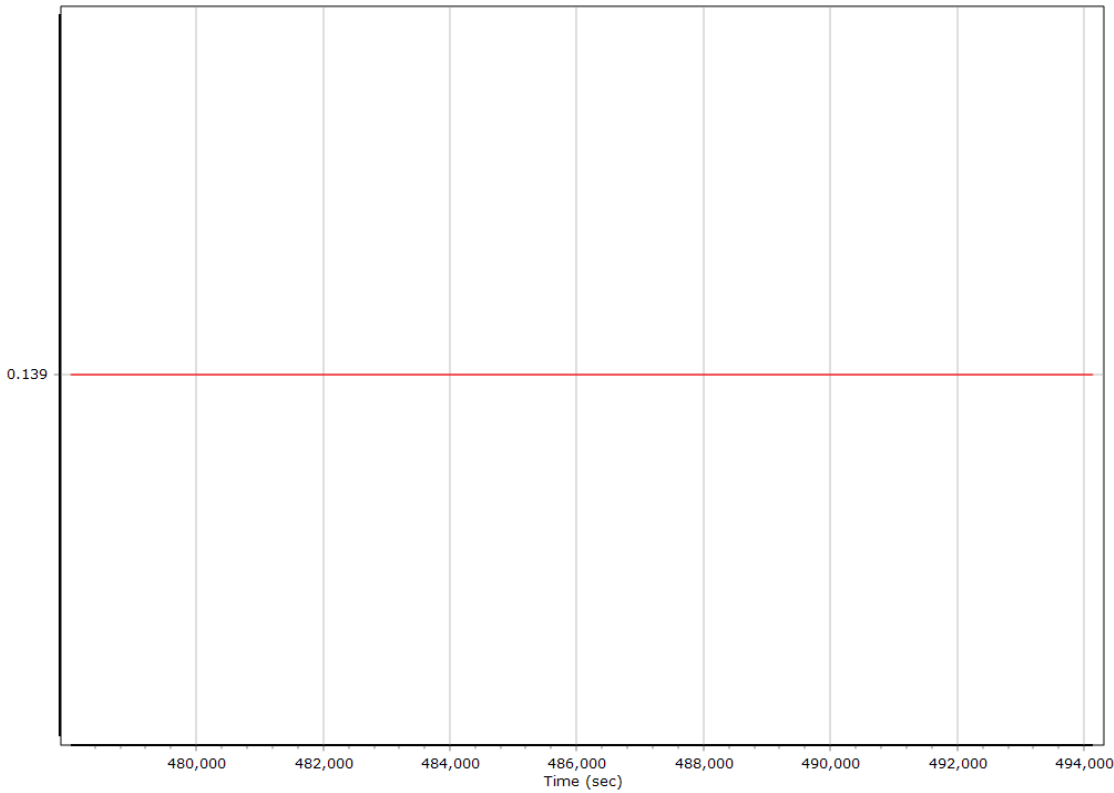
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	477382.000 (04/14/2023 12:36:22)		
Processing end time	494140.000 (04/14/2023 17:15:40)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

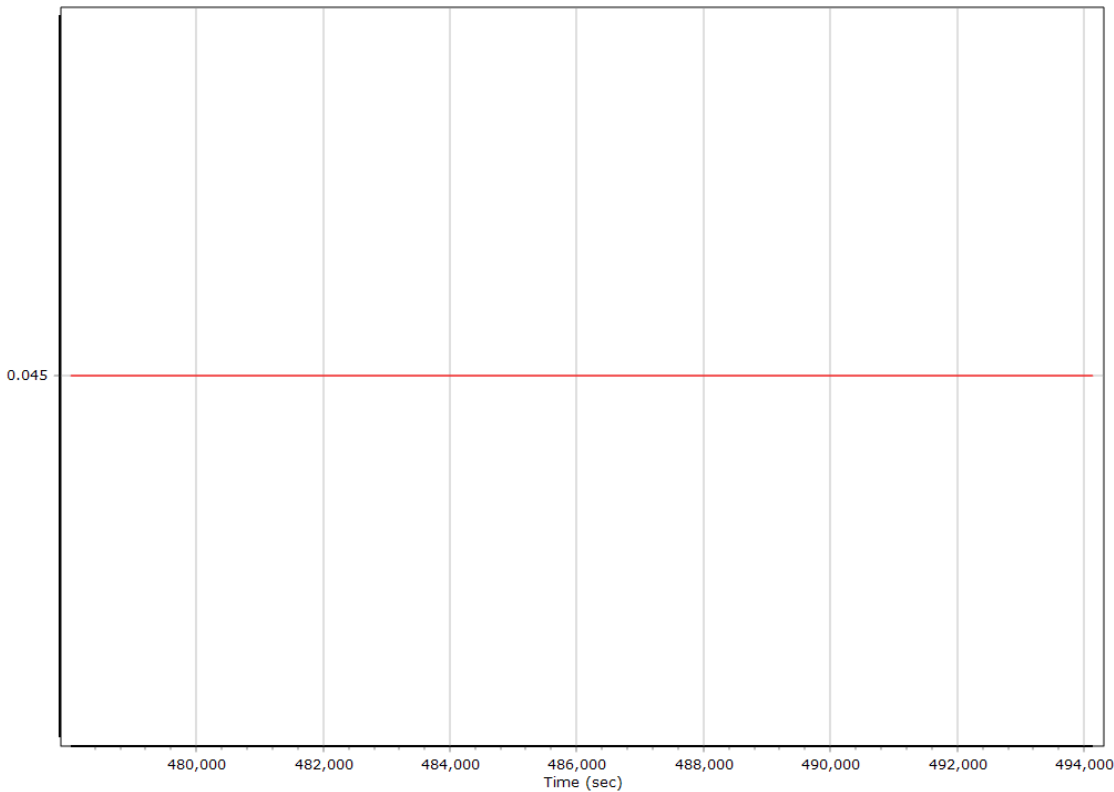
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

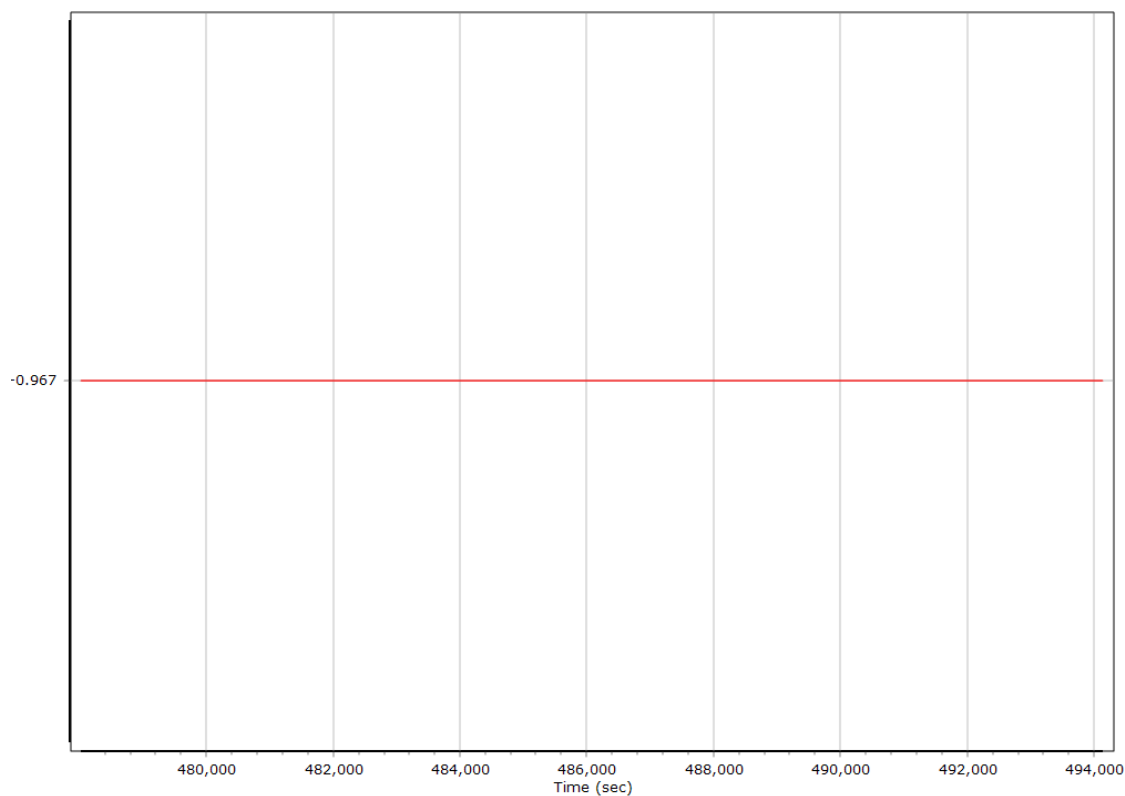
X Reference-Primary GNSS Lever Arm (m)



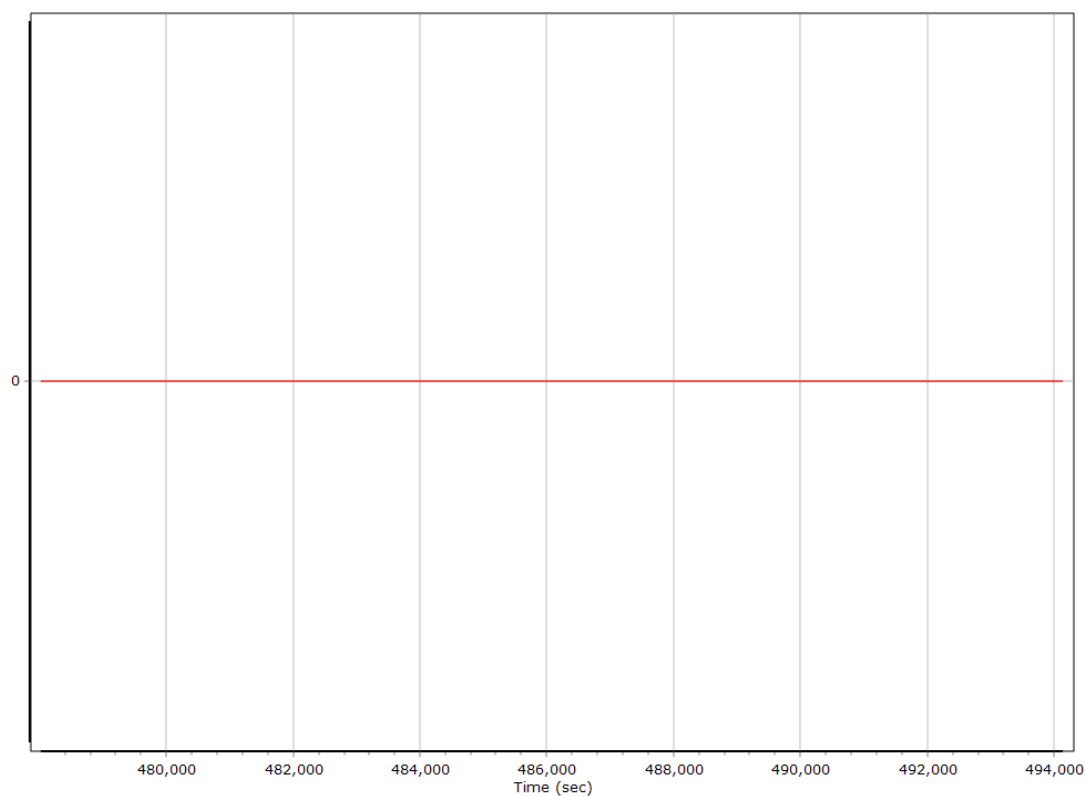
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



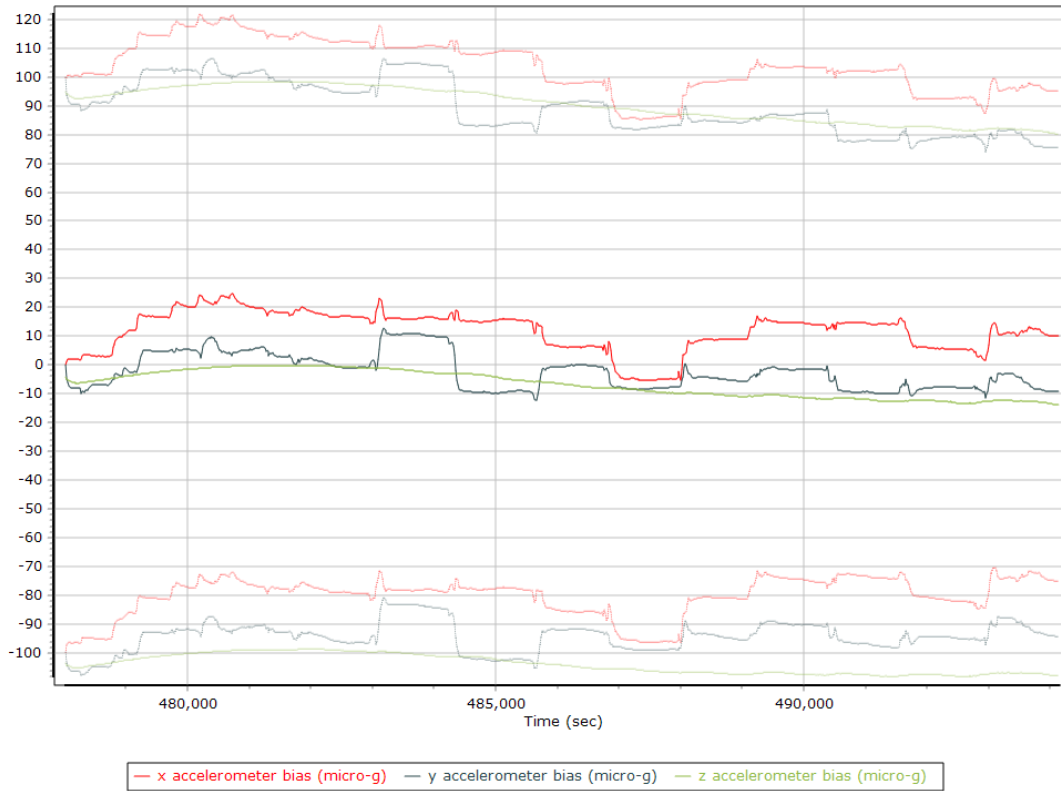
Reference-Primary GNSS Lever Arm Figure of Merit



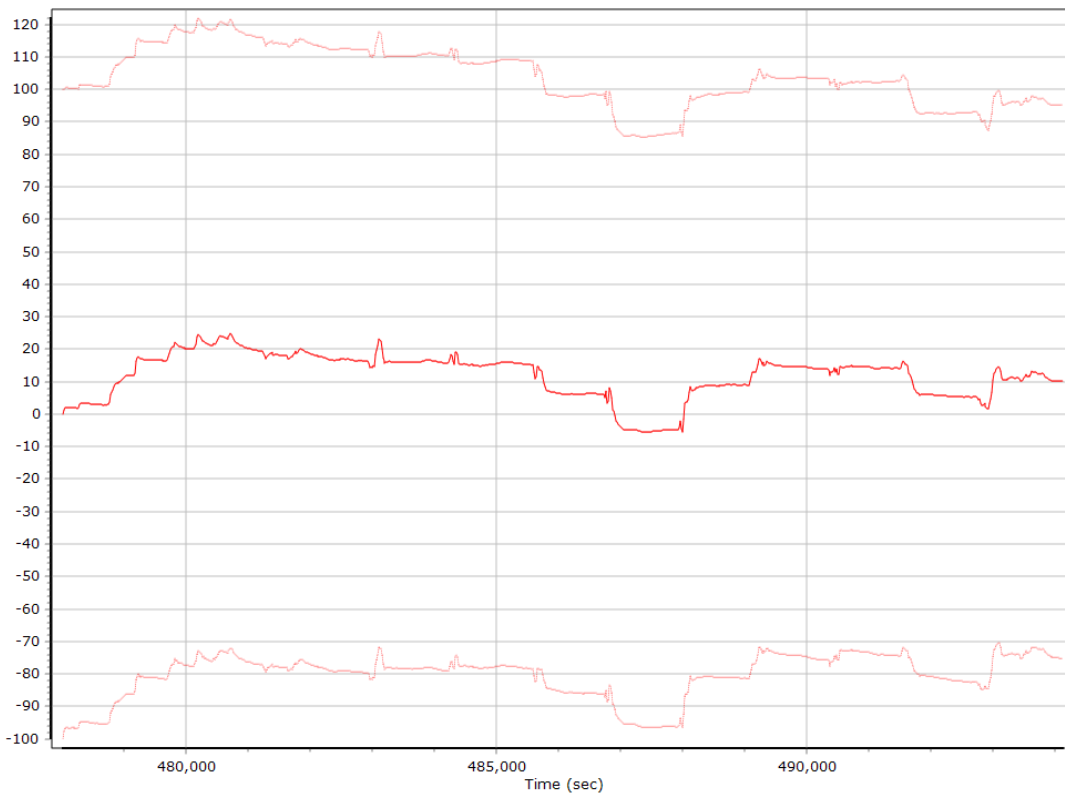
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

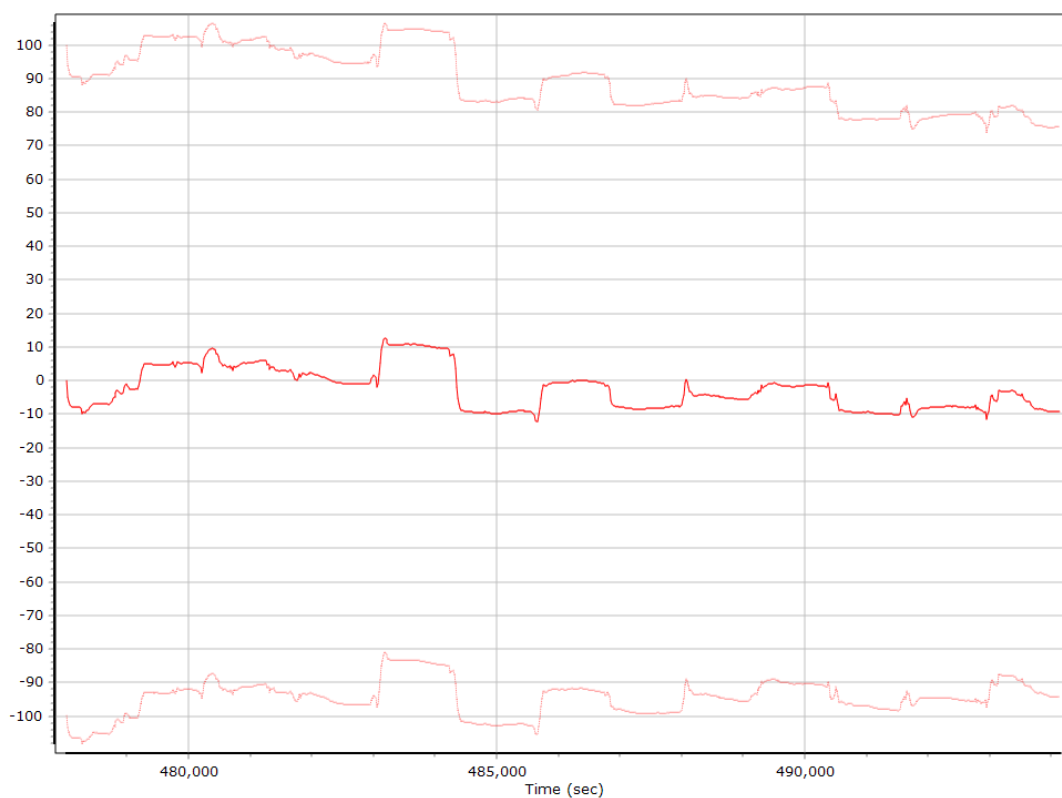
Accelerometer Bias (micro-g)



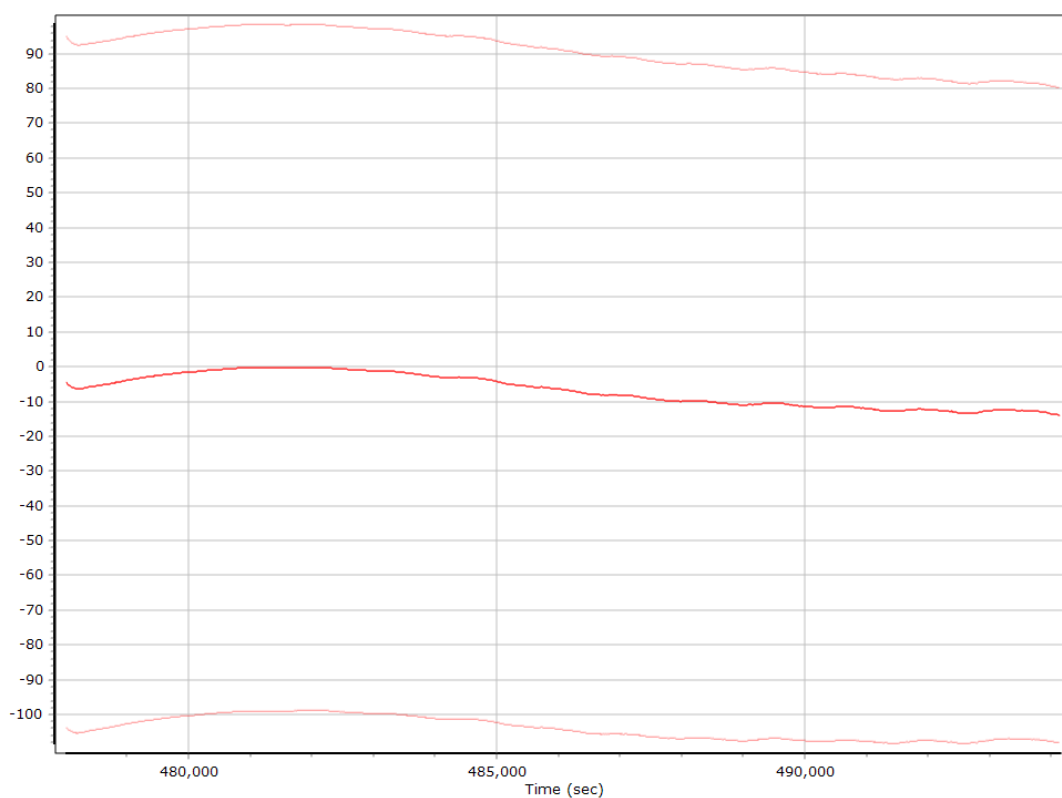
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



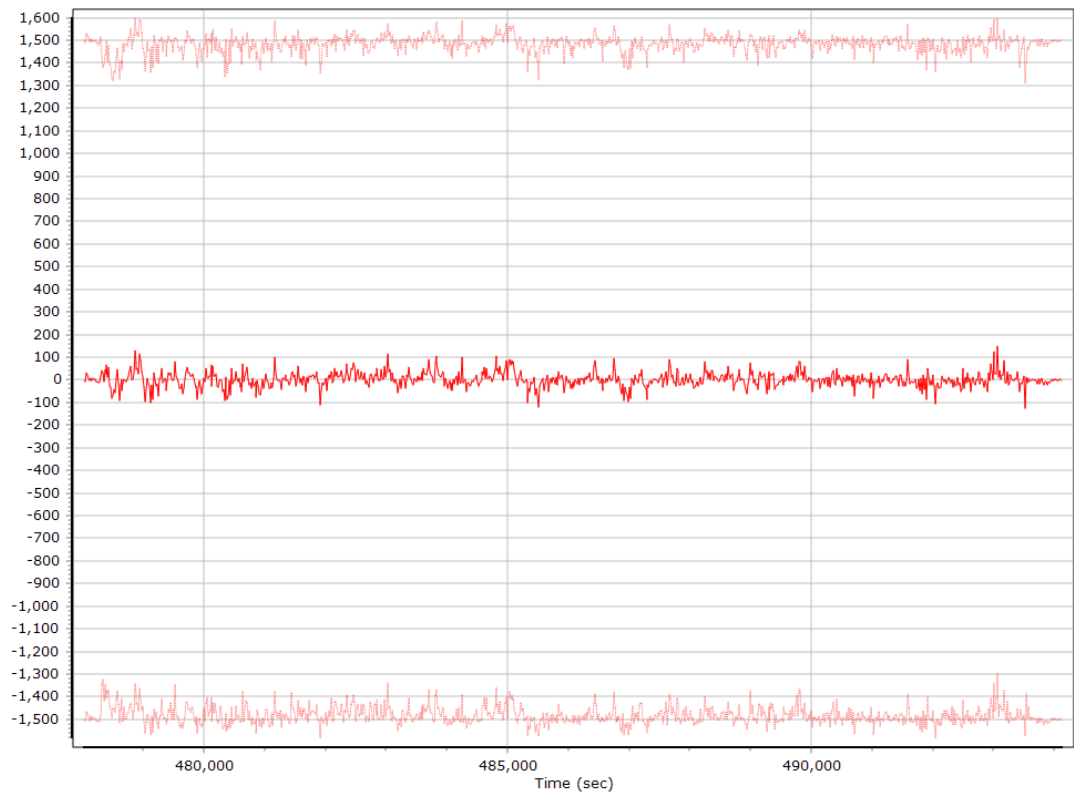
Z Accelerometer Bias (micro-g)



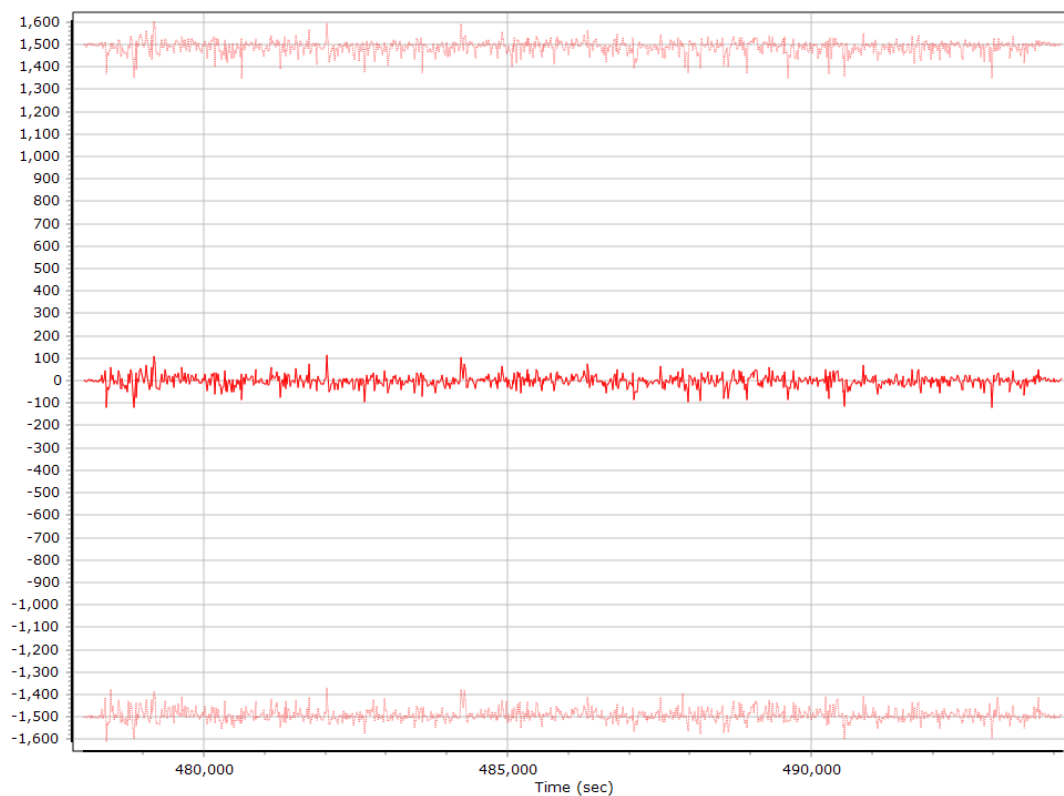
Accelerometer Scale Error (ppm)



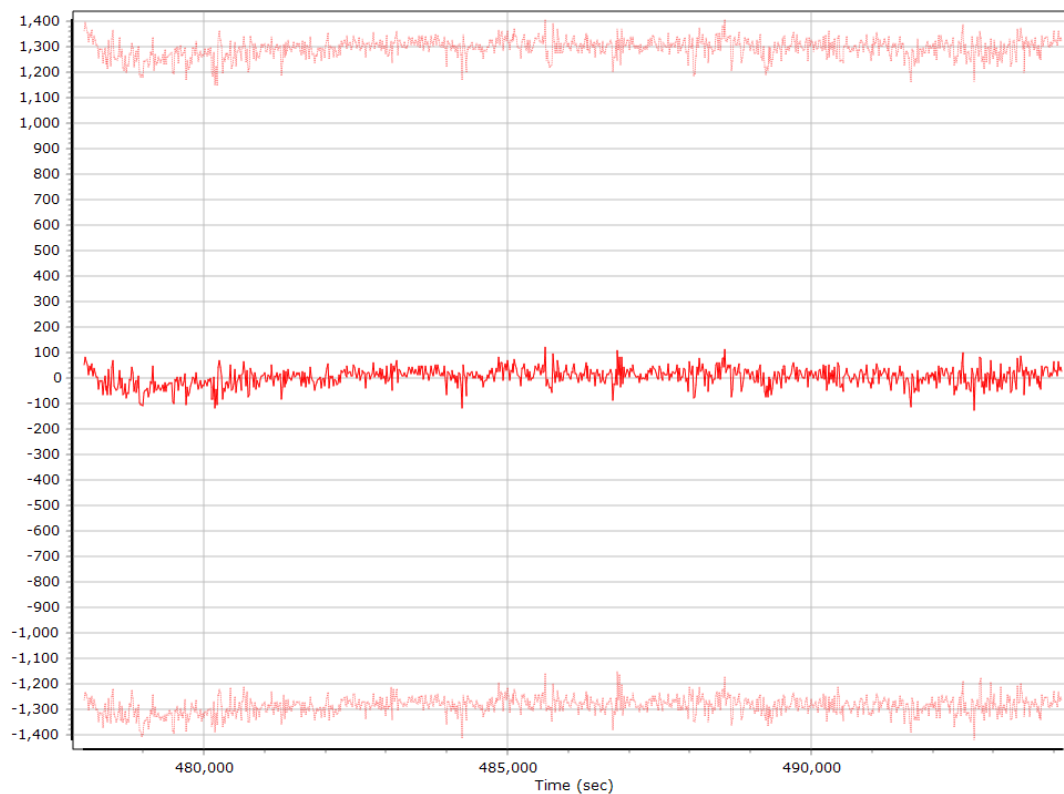
X Accelerometer Scale Error (ppm)



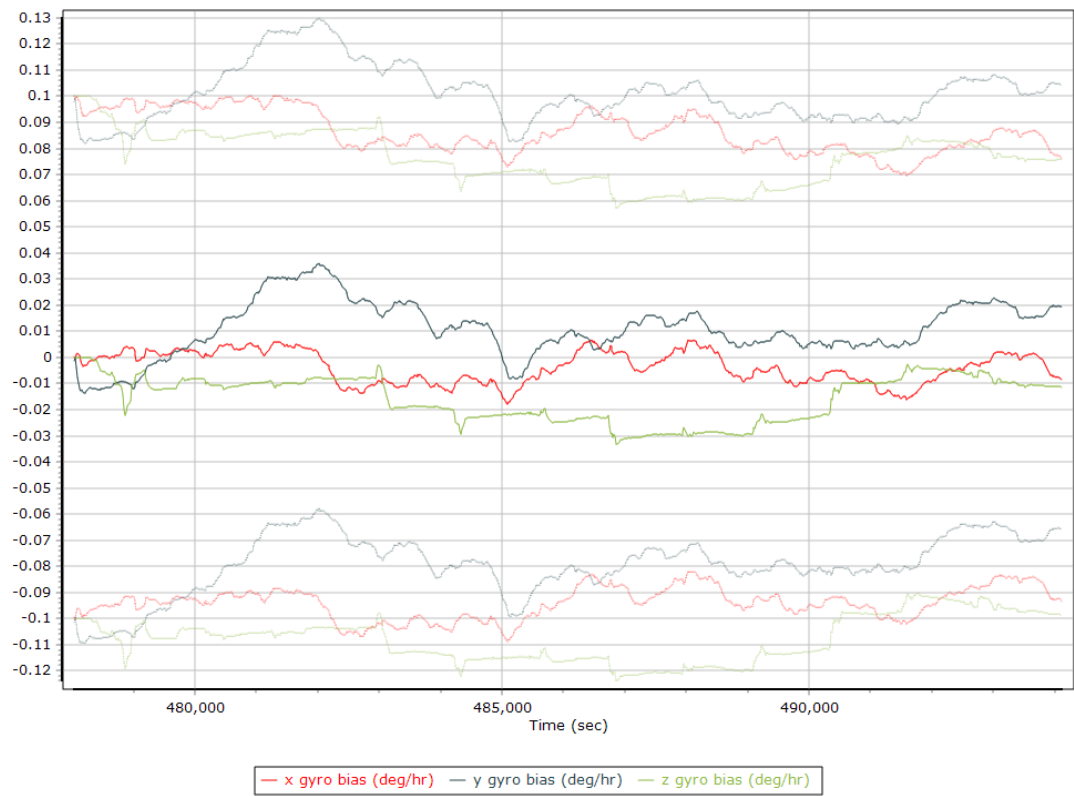
Y Accelerometer Scale Error (ppm)



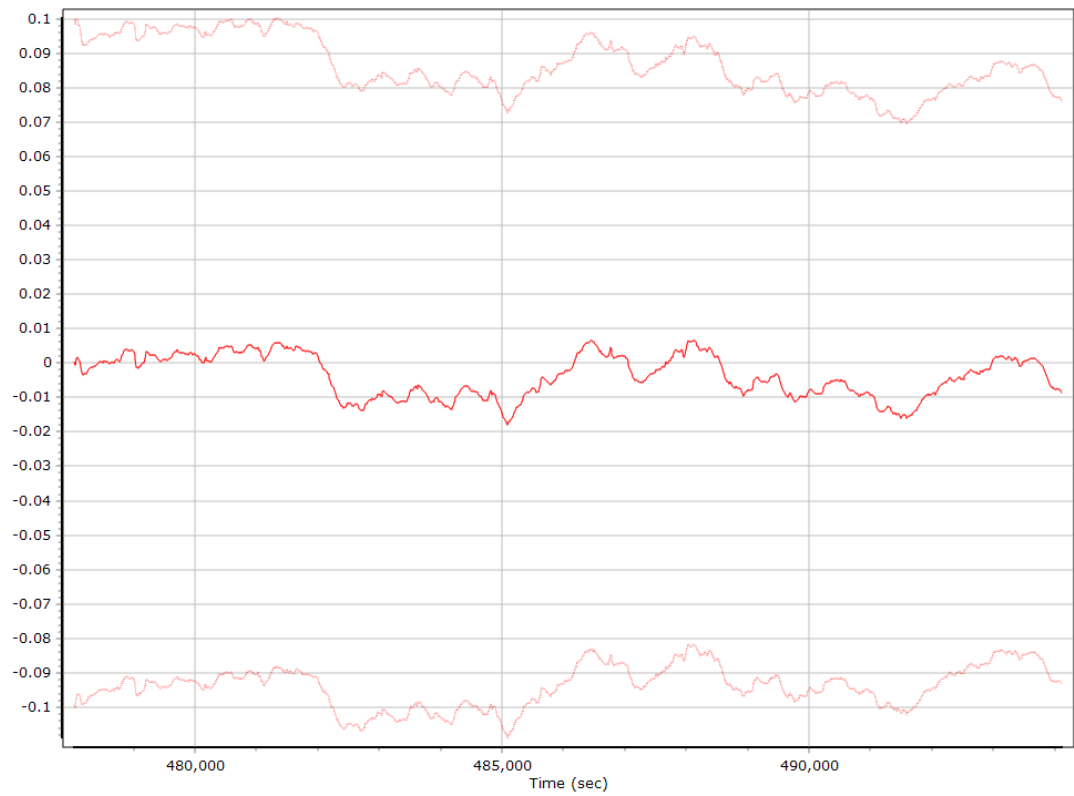
Z Accelerometer Scale Error (ppm)



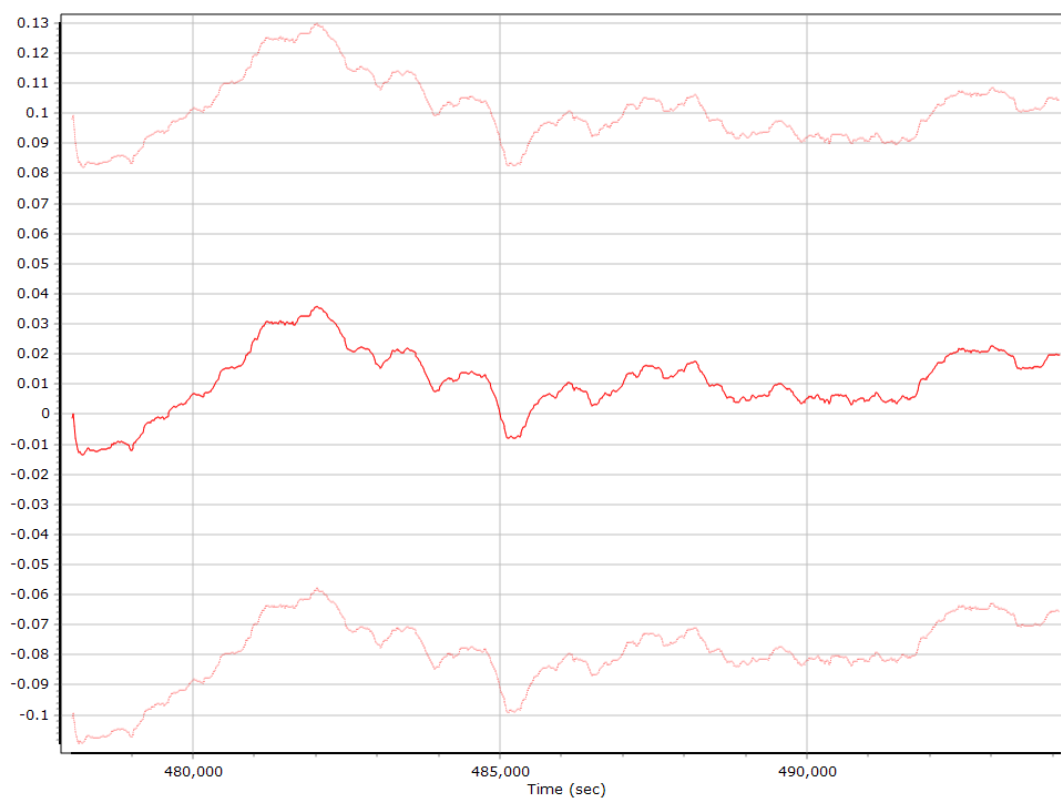
Gyro Bias (deg/h)



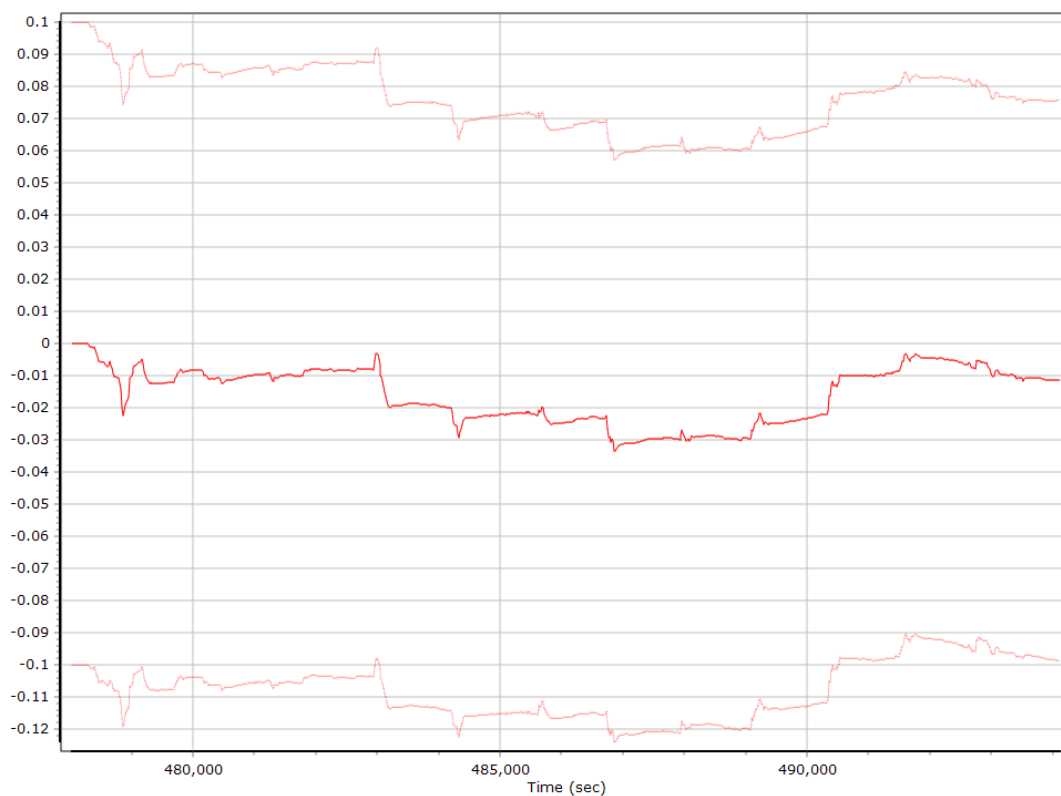
X Gyro Bias (deg/h)



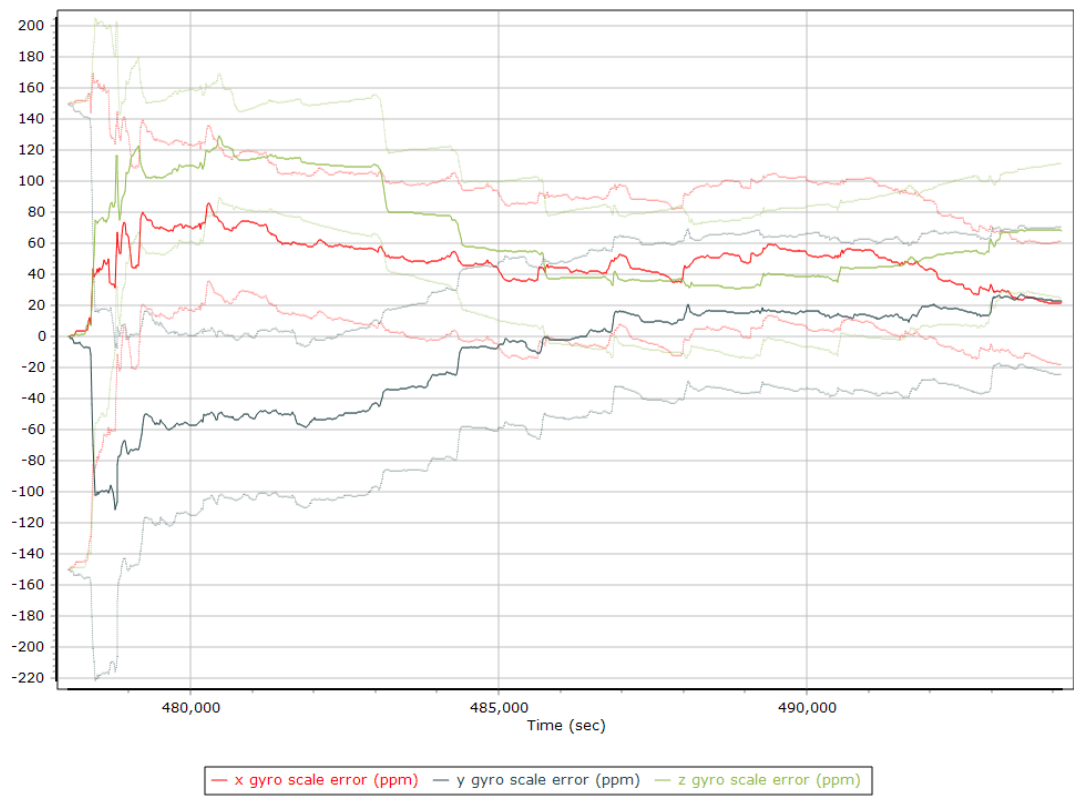
Y Gyro Bias (deg/h)



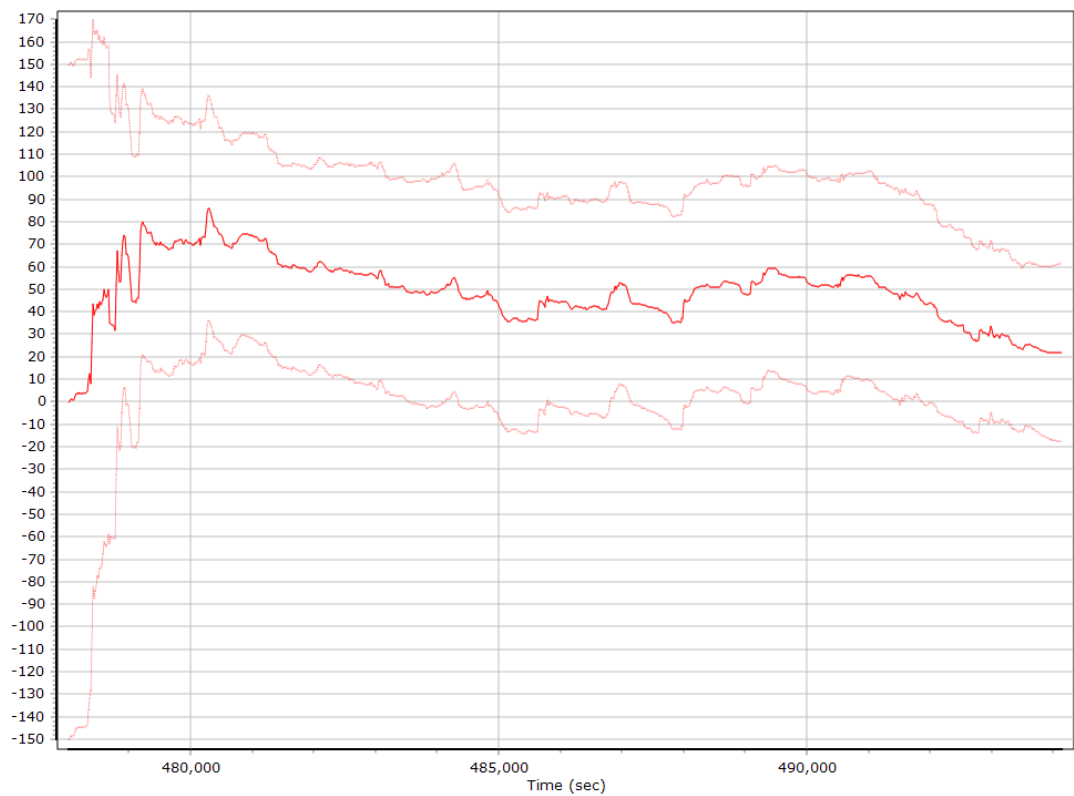
Z Gyro Bias (deg/h)



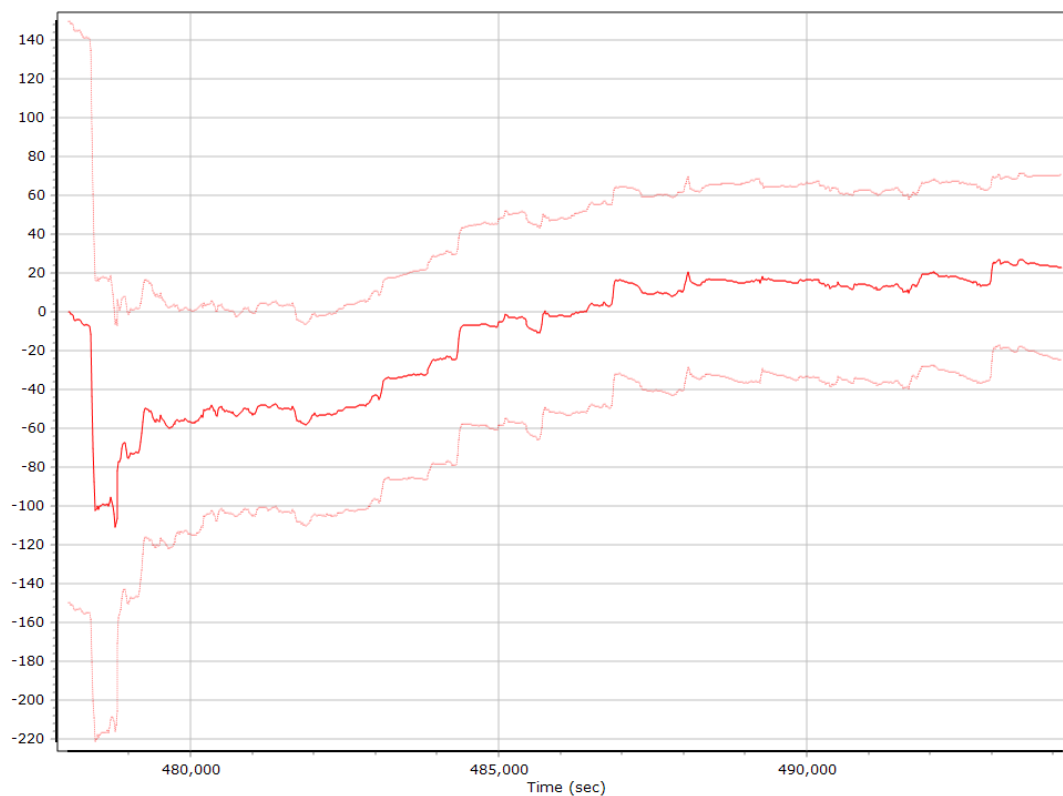
Gyro Scale Error (ppm)



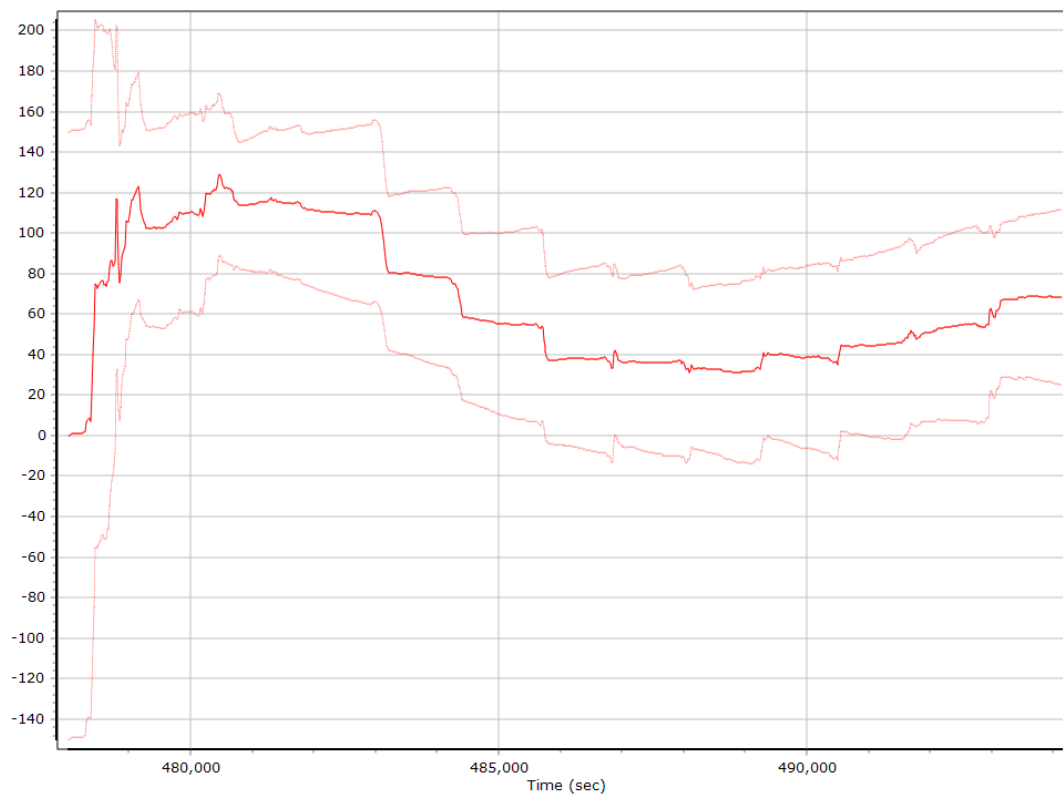
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

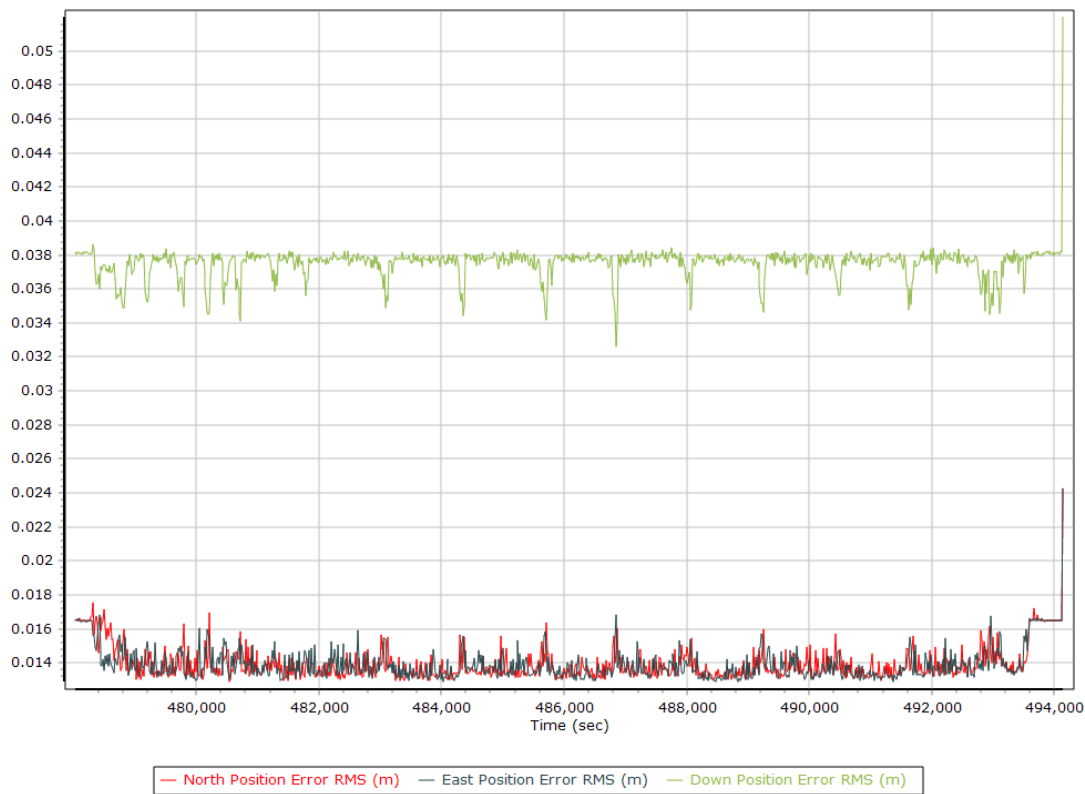


Z Gyro Scale Error (ppm)

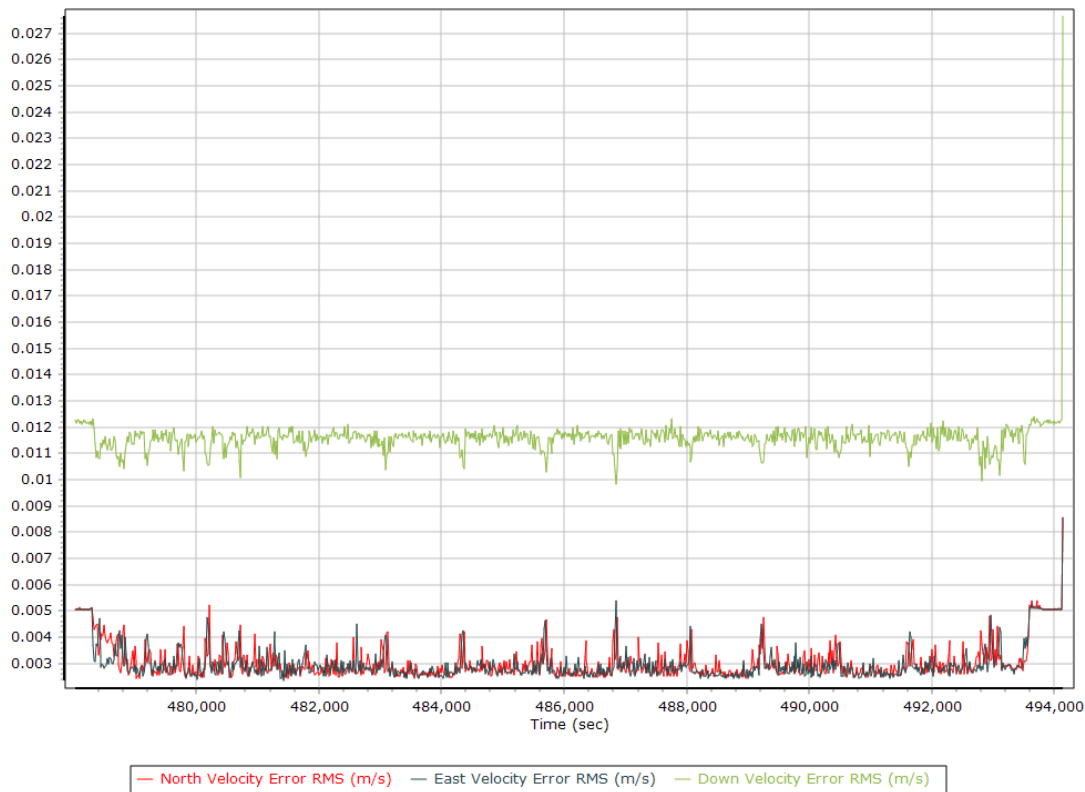


Smoothed Performance Metrics

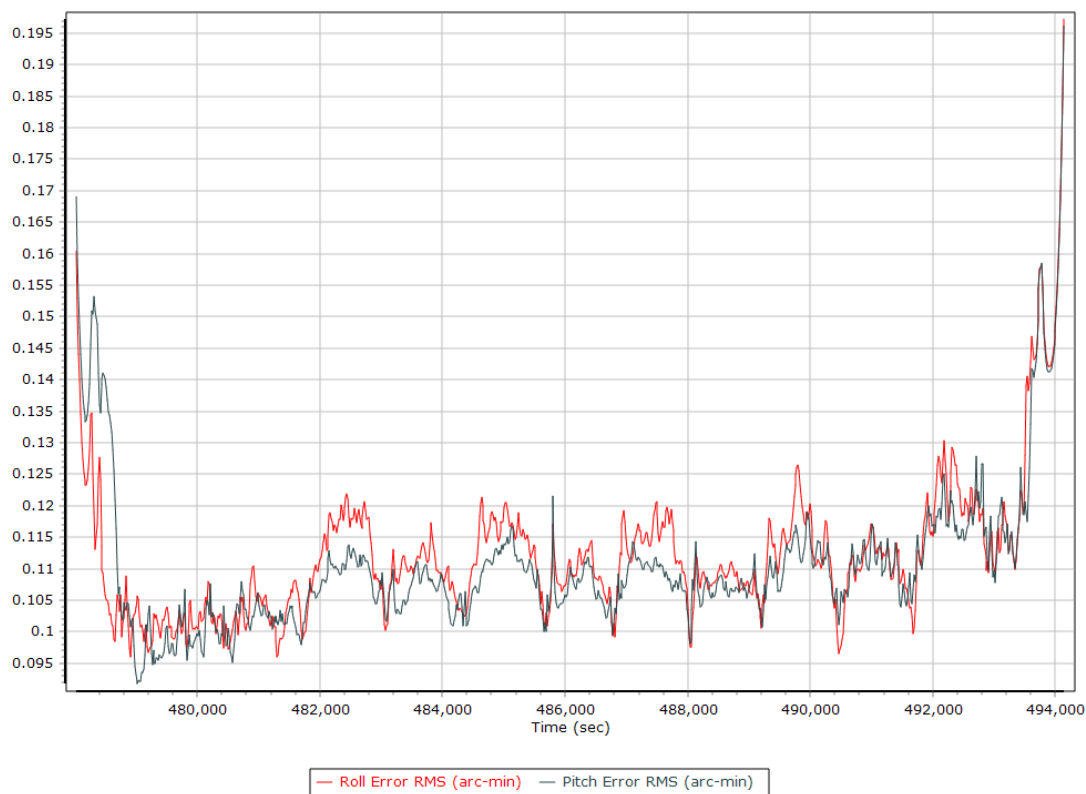
Position Error RMS (m)



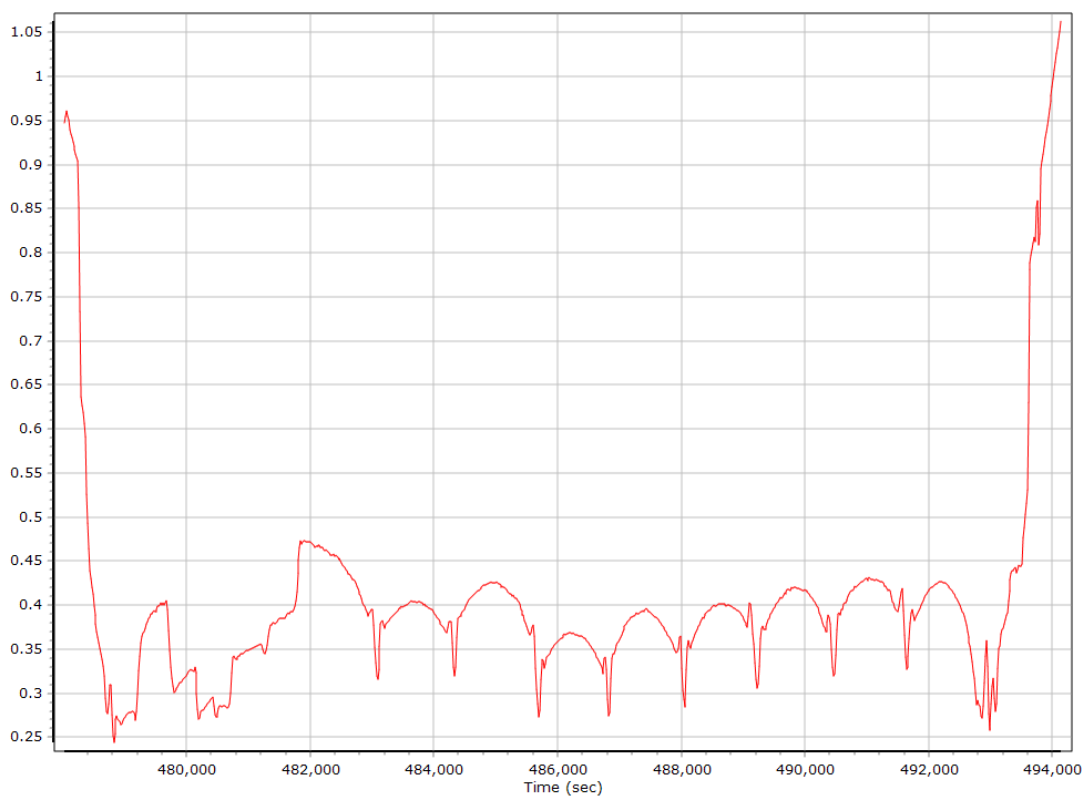
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

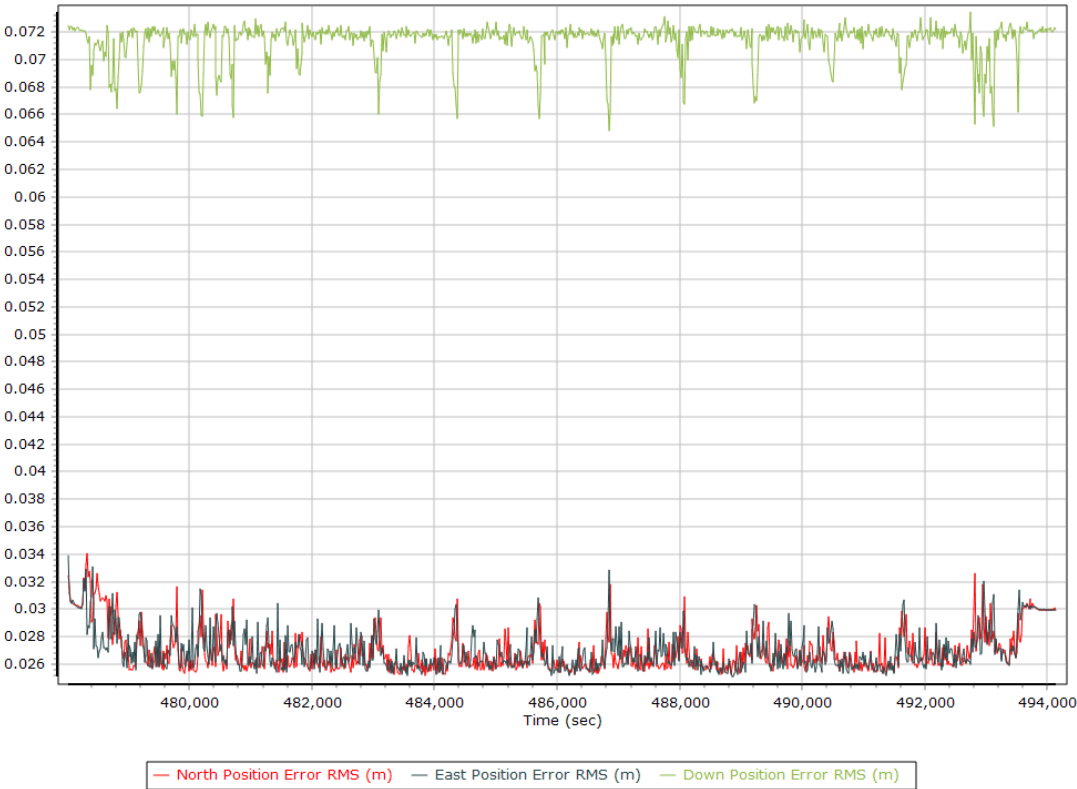


Heading Error RMS (arc-min)

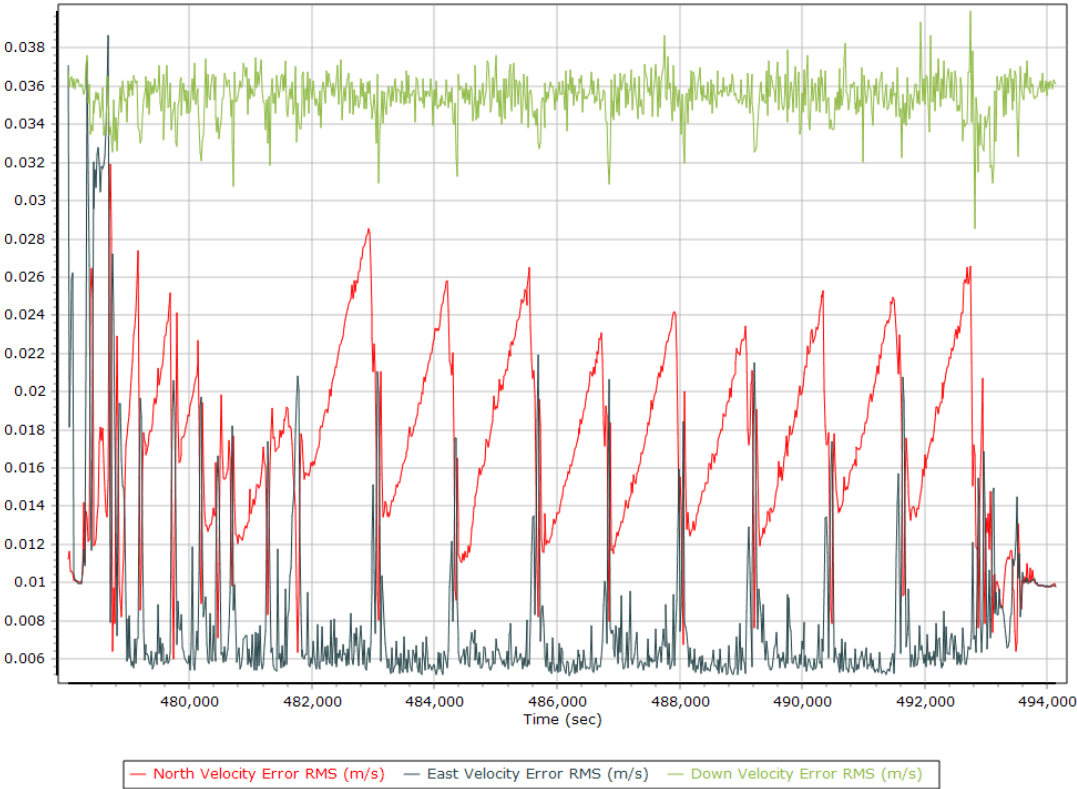


Forward Processed Performance Metrics

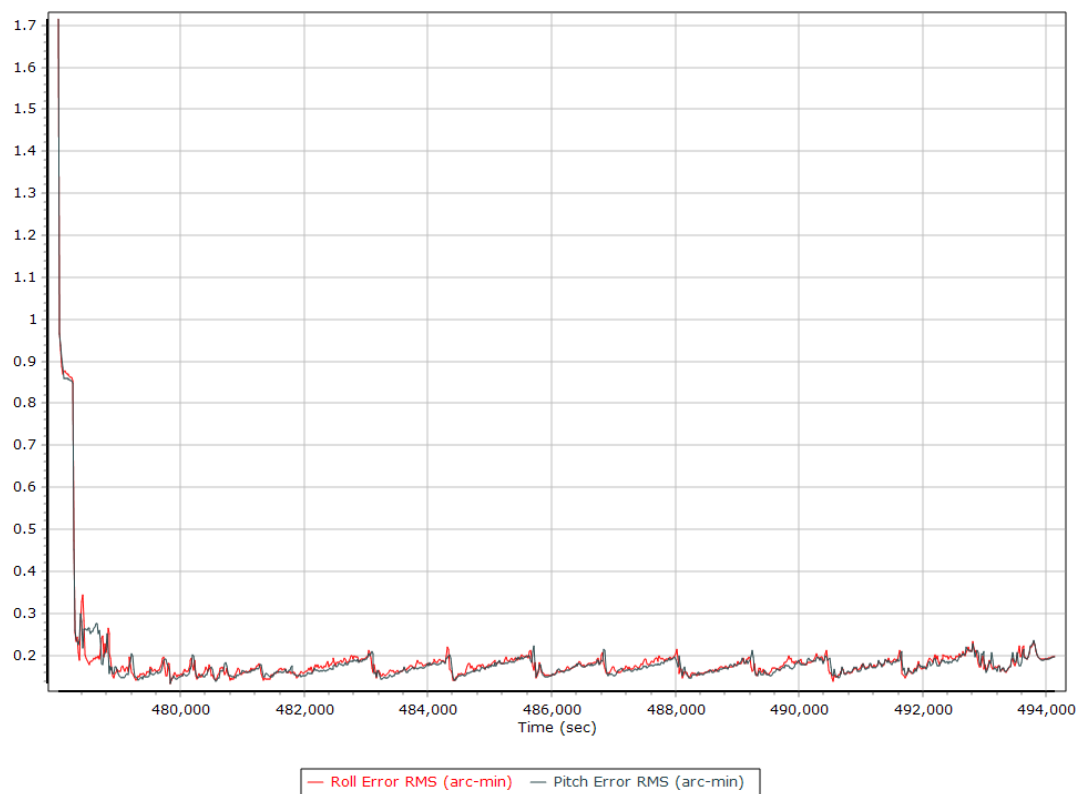
Position Error RMS (m)



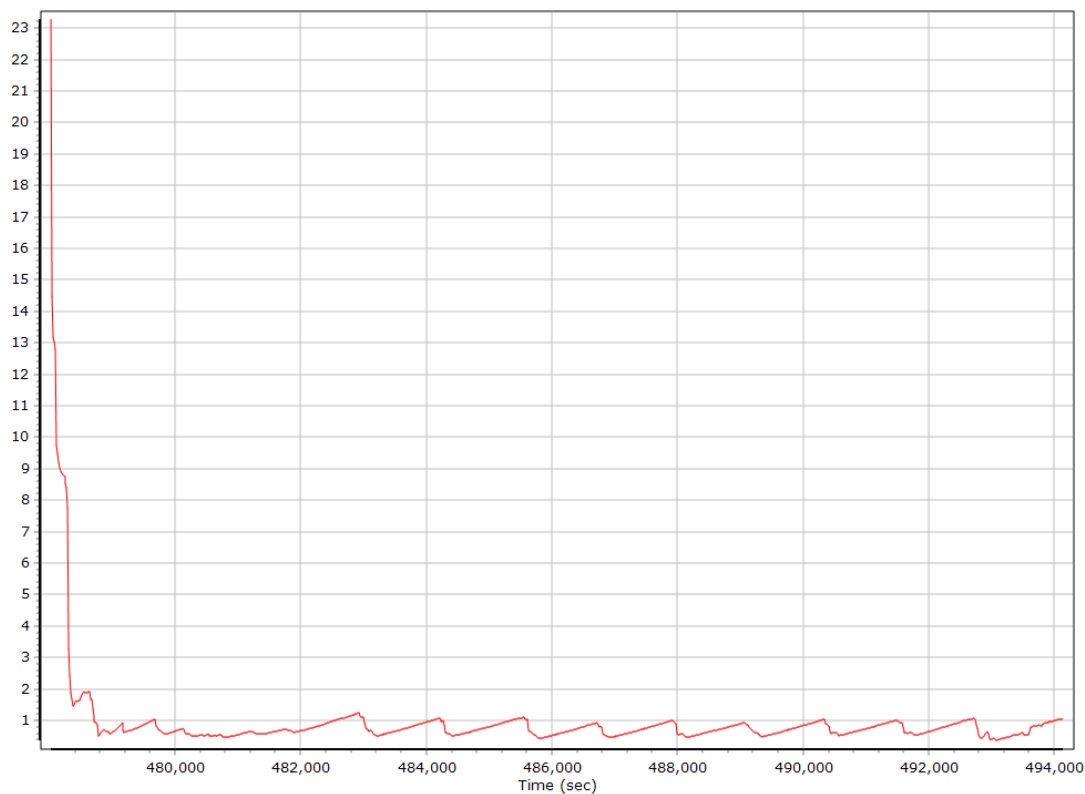
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

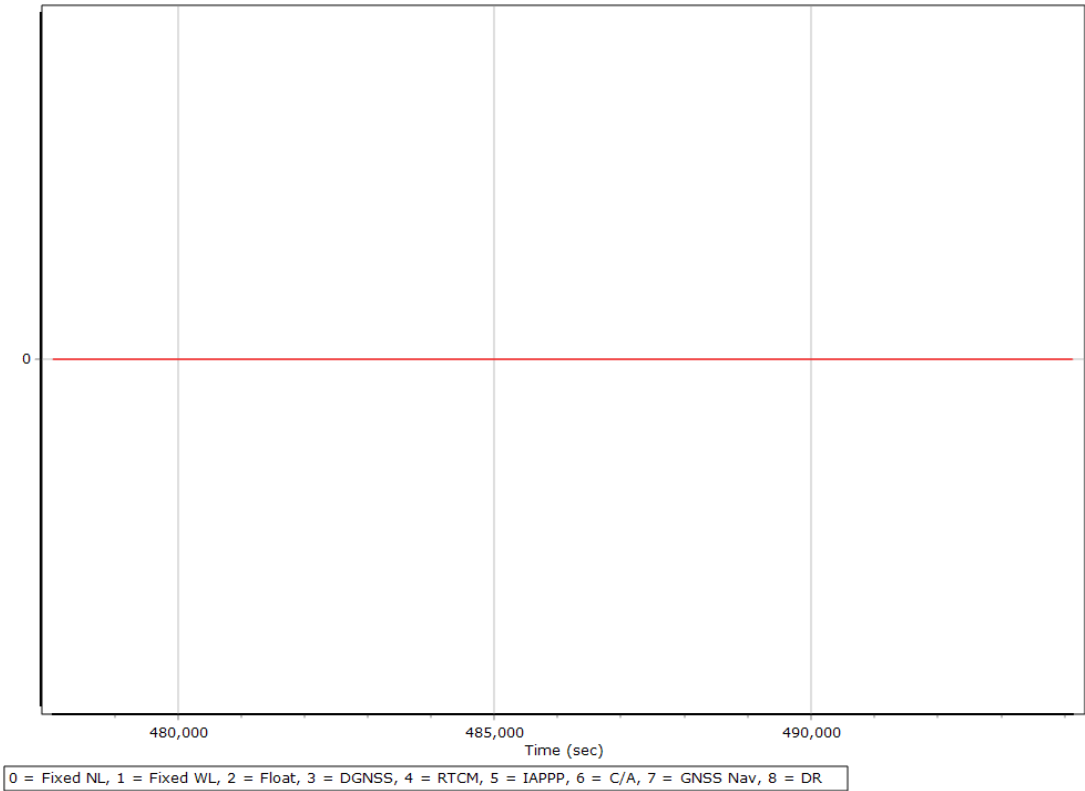


Heading Error RMS (arc-min)

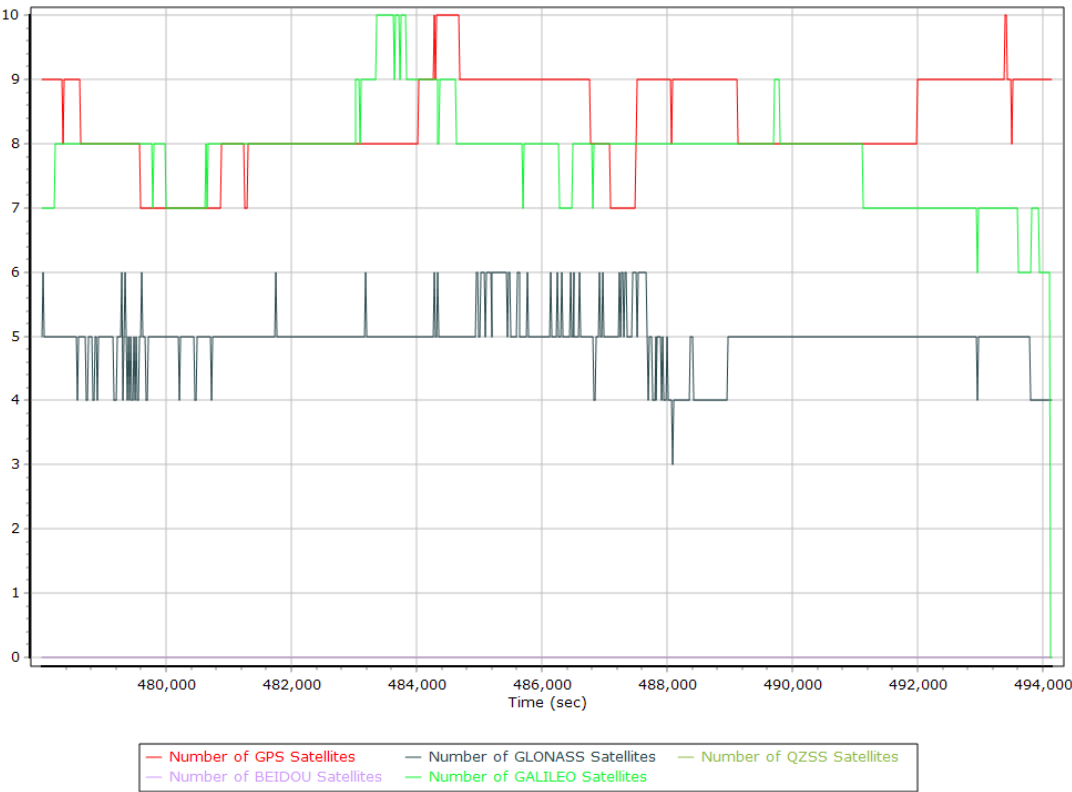


Forward Processed Solution Status

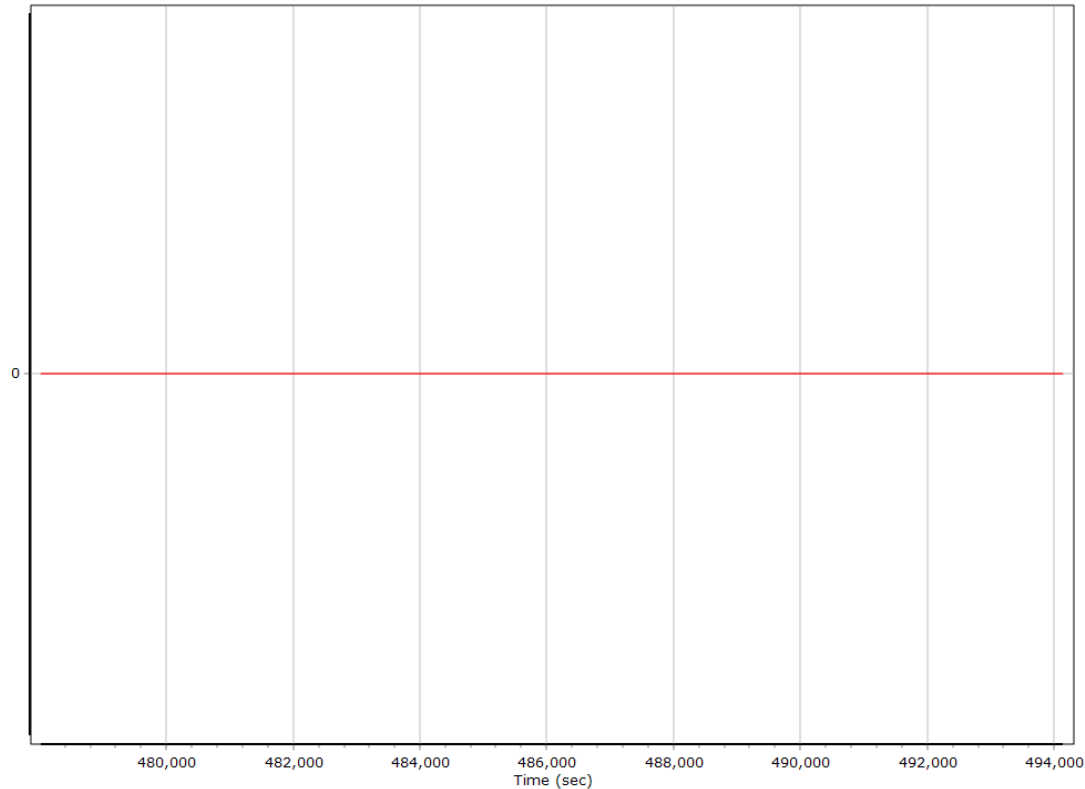
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230414_F1_4894_NAD832011.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	477963.004 (04/14/2023 12:46:03)		
Export end time	494140.000 (04/14/2023 17:15:40)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.282192		

General Information

Mission Information

Project name	20230414_F2_4894
Processing date	2023-04-19 18:10:39
Mission date	2023-04-14 18:32:59
Mission duration	03:32:31.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.477	POS Data
VQ1560.478	POS Data
VQ1560.479	POS Data
VQ1560.480	POS Data
VQ1560.481	POS Data
VQ1560.482	POS Data
VQ1560.483	POS Data
VQ1560.484	POS Data
VQ1560.485	POS Data
VQ1560.486	POS Data
VQ1560.487	POS Data
VQ1560.488	POS Data
VQ1560.489	POS Data
VQ1560.490	POS Data
VQ1560.491	POS Data
VQ1560.492	POS Data
VQ1560.493	POS Data
VQ1560.494	POS Data
VQ1560.495	POS Data
VQ1560.496	POS Data
VQ1560.497	POS Data
VQ1560.498	POS Data
VQ1560.499	POS Data
VQ1560.500	POS Data
VQ1560.501	POS Data
VQ1560.502	POS Data
VQ1560.503	POS Data
VQ1560.504	POS Data
VQ1560.505	POS Data
VQ1560.506	POS Data
VQ1560.507	POS Data

Input Files

File Name	File Type
Ephm1040.23g	GLONASS Broadcast Ephemeris
Ephm1040.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230414_F2_4894.out	SBET Trajectory File
export_20230414_F2_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.477		
Last raw data file	VQ1560.507		
Start GPS week	2257		
Start time	498772.778 (04/14/2023 18:32:52)		
End time	511511.960 (04/14/2023 22:05:11)		
Start of fine alignment	499267.749 (04/14/2023 18:41:07)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

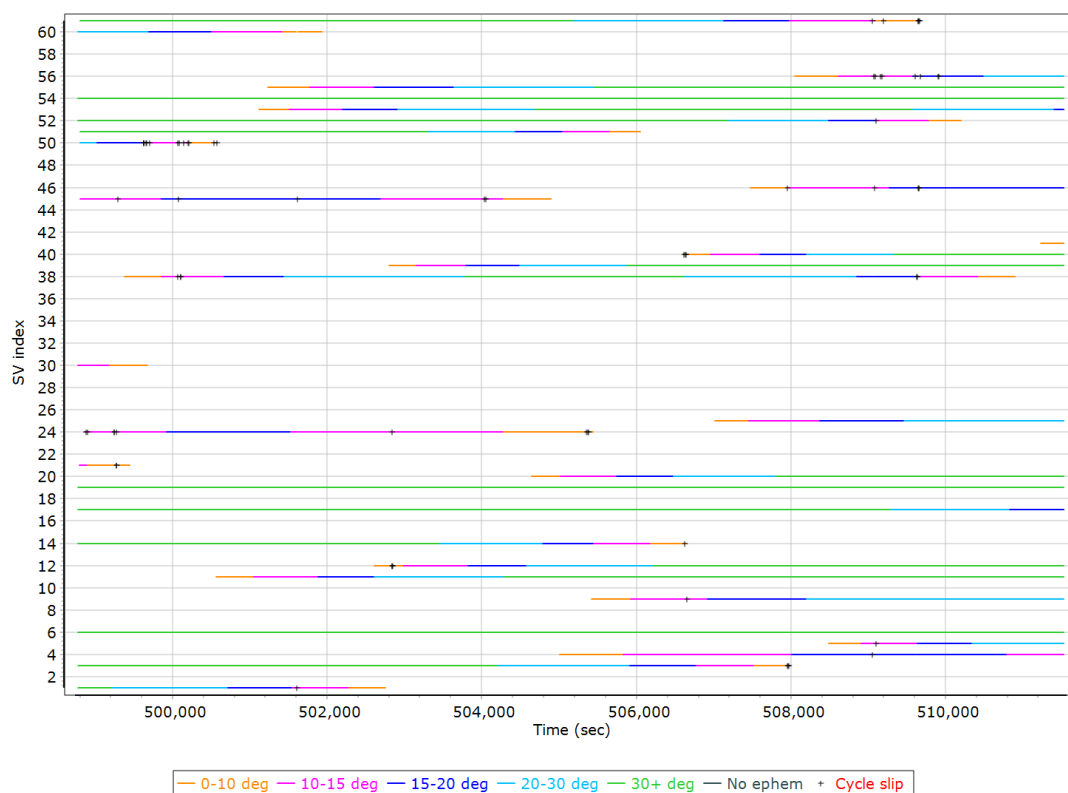
Rover Data QC

Raw IMU Import QC Summary

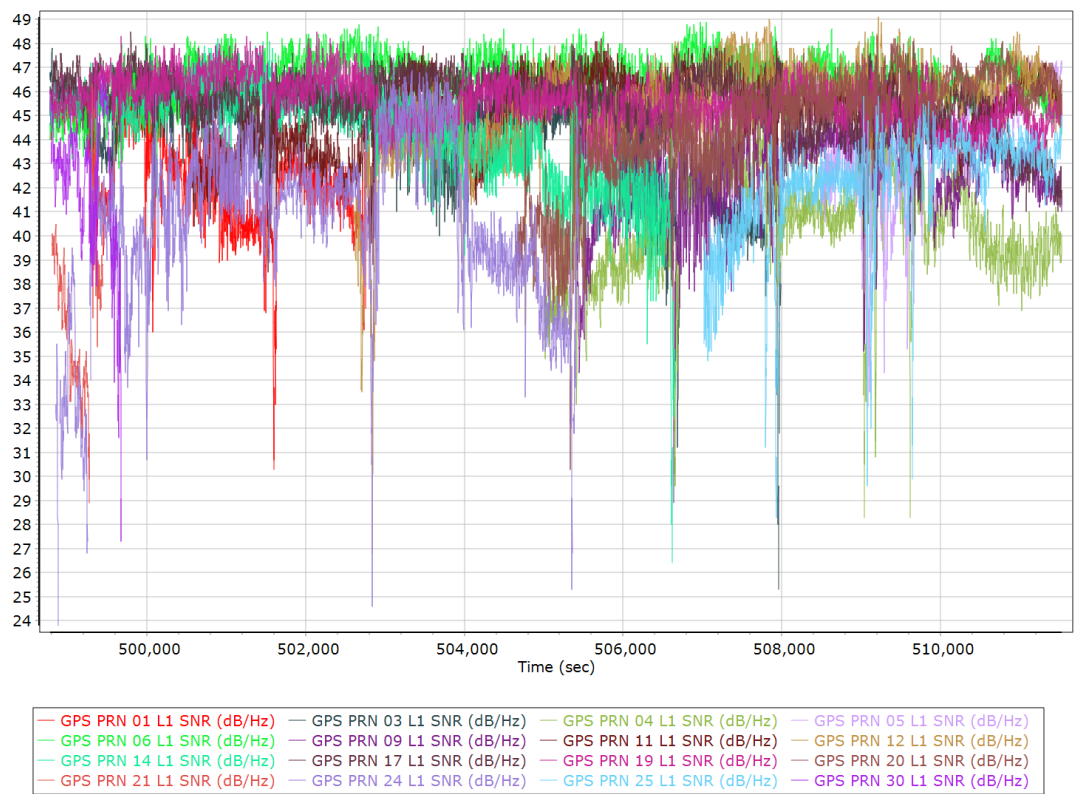
IMU data input file	imu_20230414_F2_4894.dat
IMU data check log file	imudt_20230414_F2_4894.log
IMU Records Processed	2549768
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
498772.578 : WARNING : Gap of 498760.6259 seconds in CHECKDT input data	

Primary Observables & Satellite Data

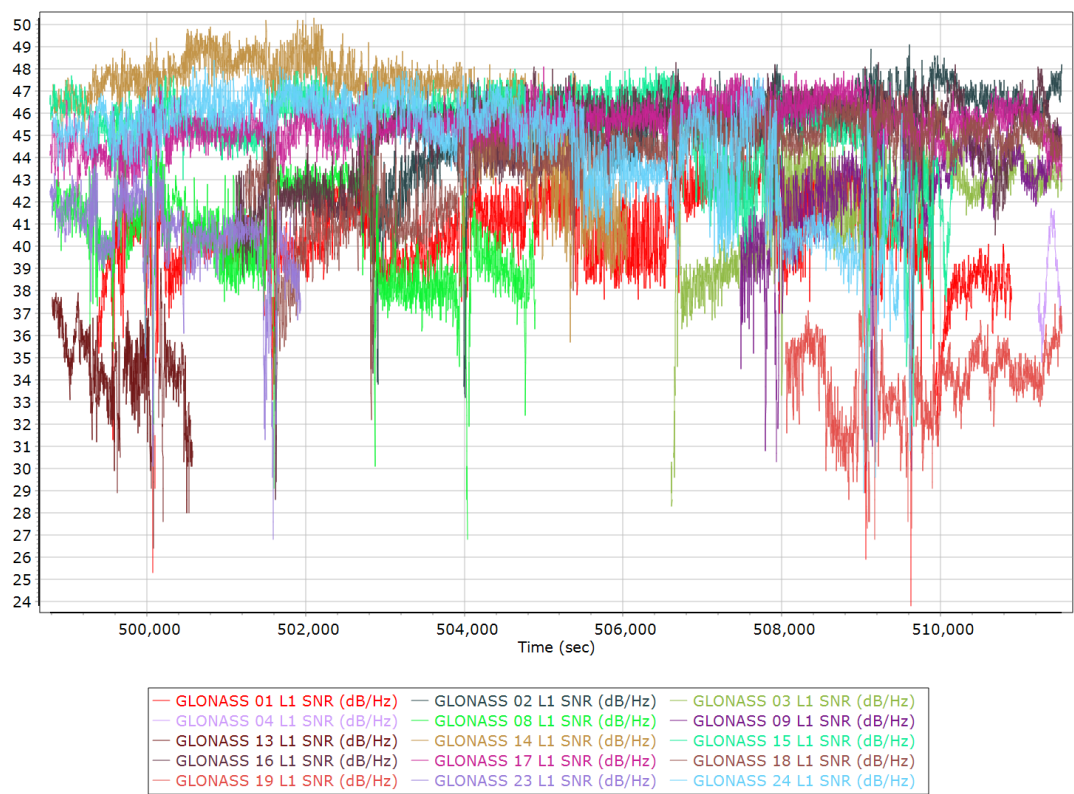
GPS/GLONASS L1 Satellite Lock/Elevation



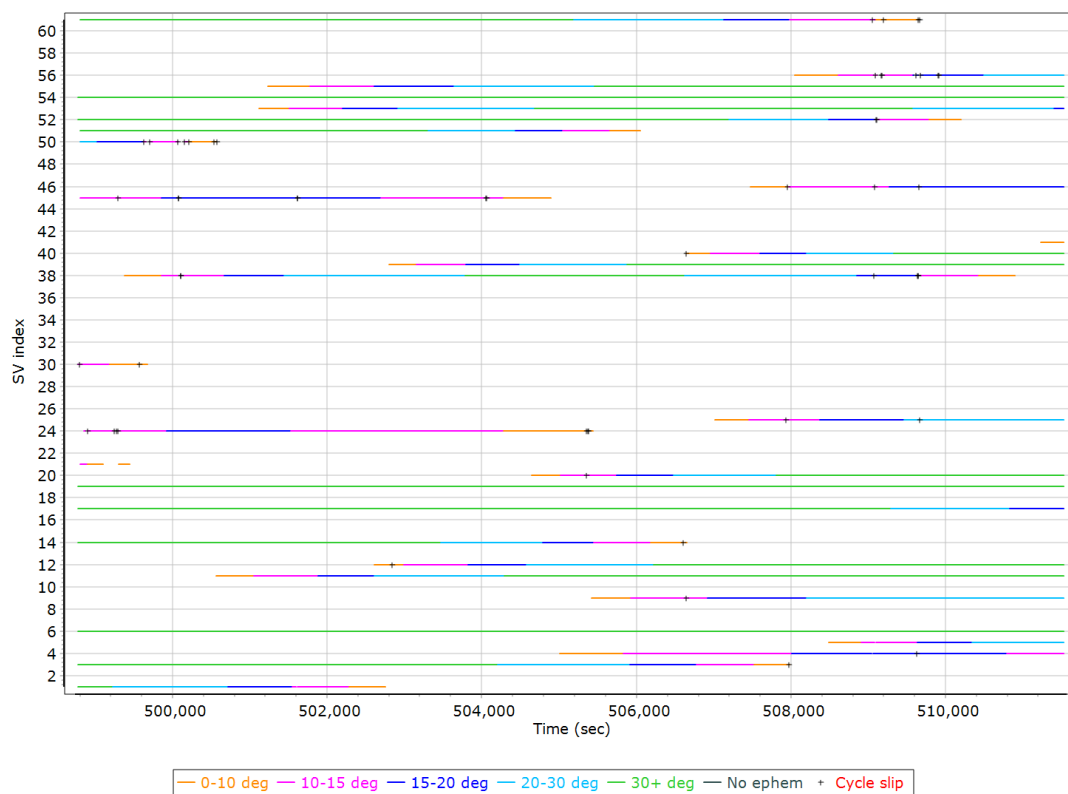
GPS L1 SNR



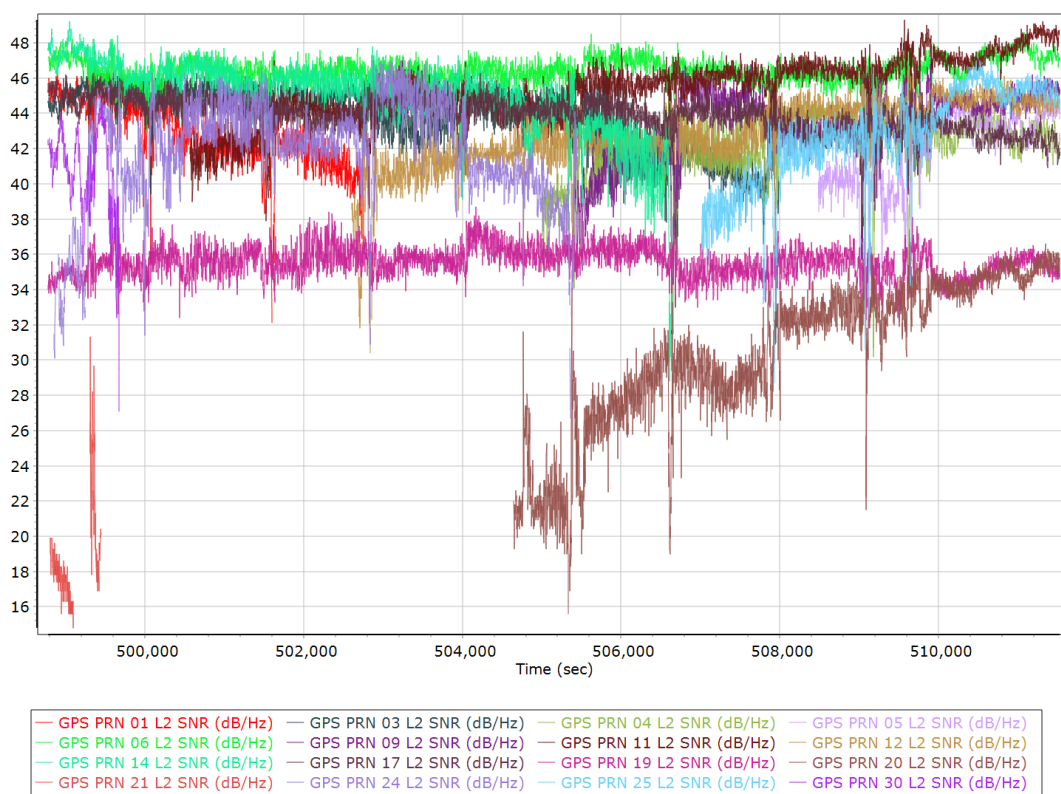
GLONASS L1 SNR



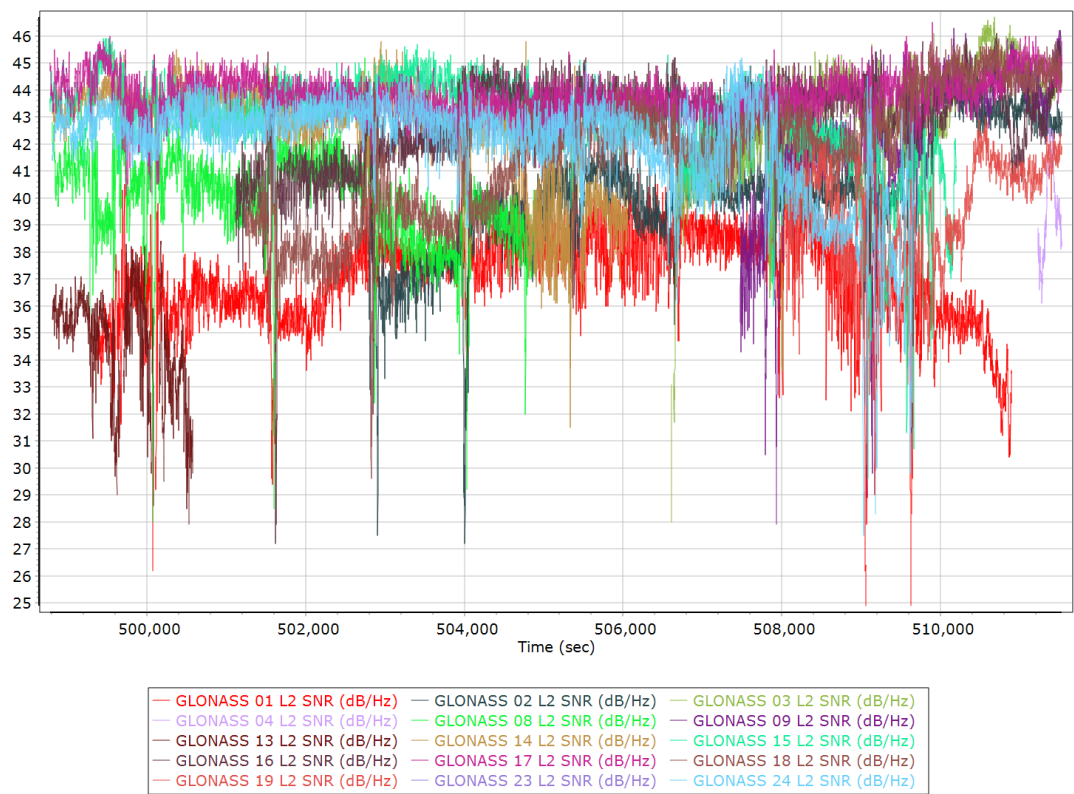
GPS/GLONASS L2 Satellite Lock/Elevation



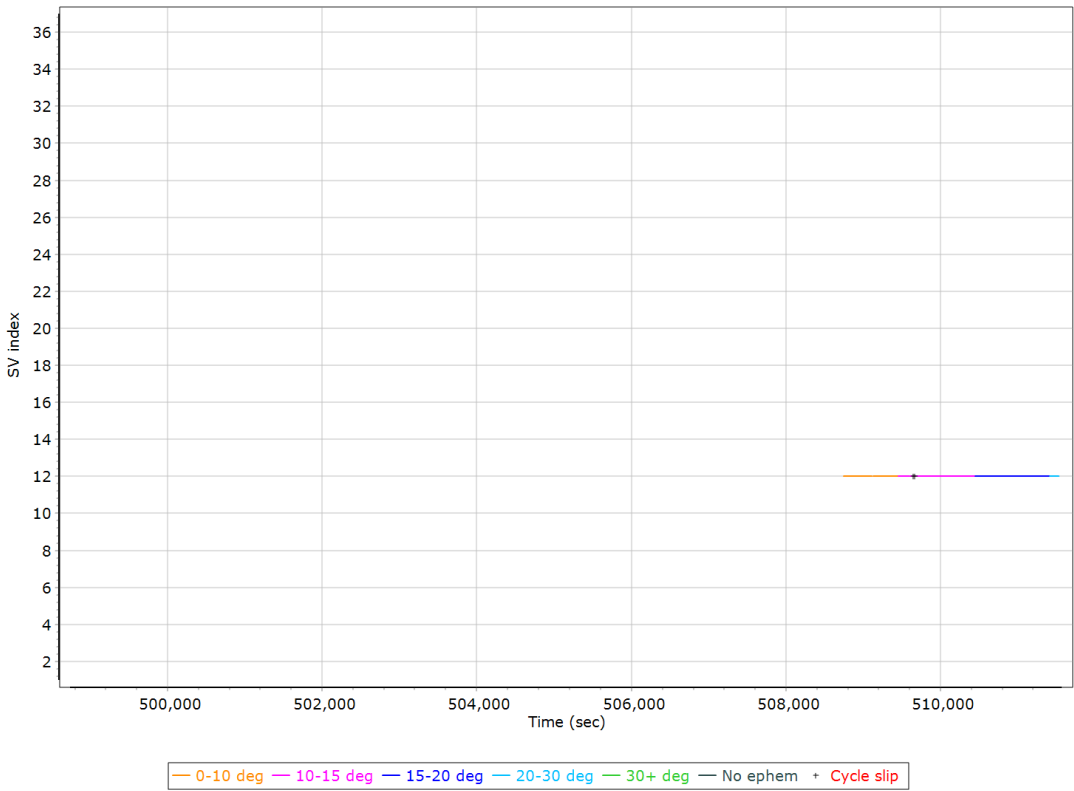
GPS L2 SNR



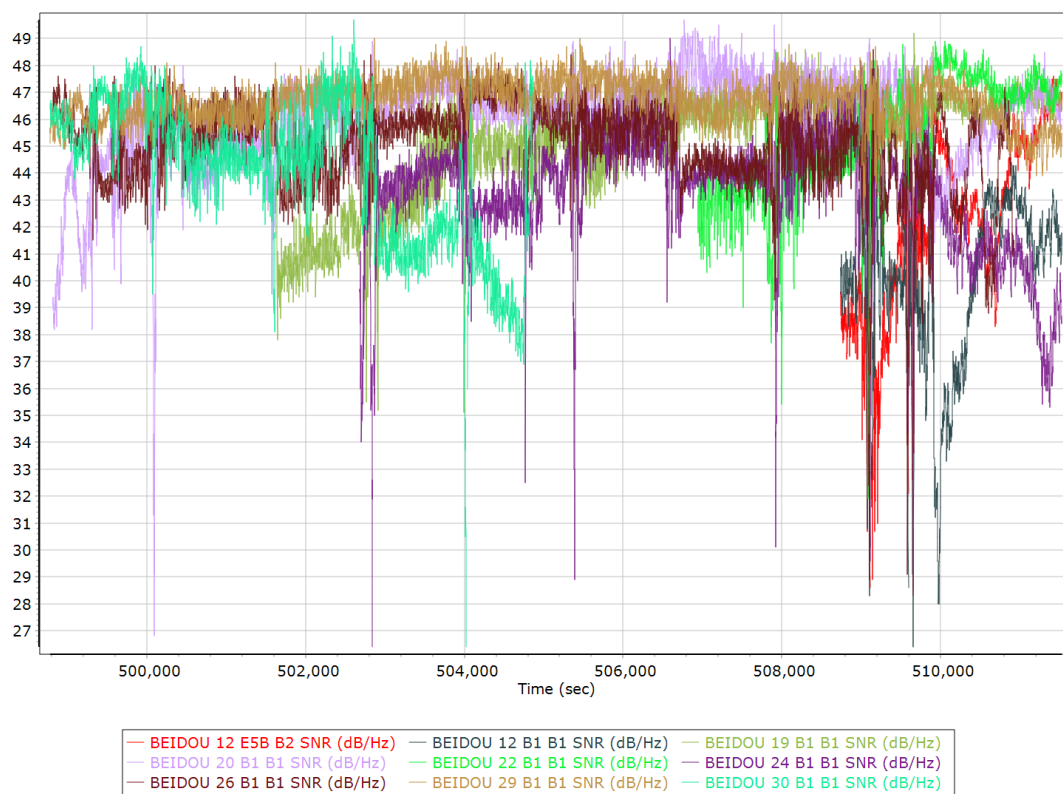
GLONASS L2 SNR



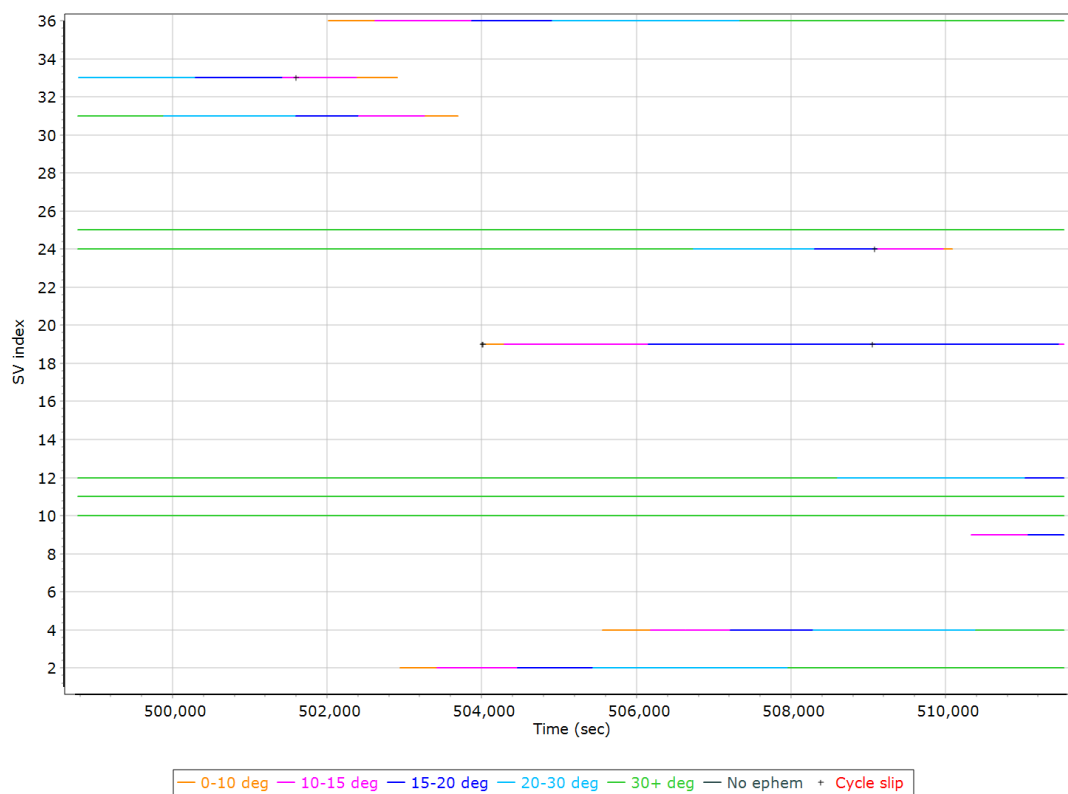
BEIDOU Satellite Lock/Elevation



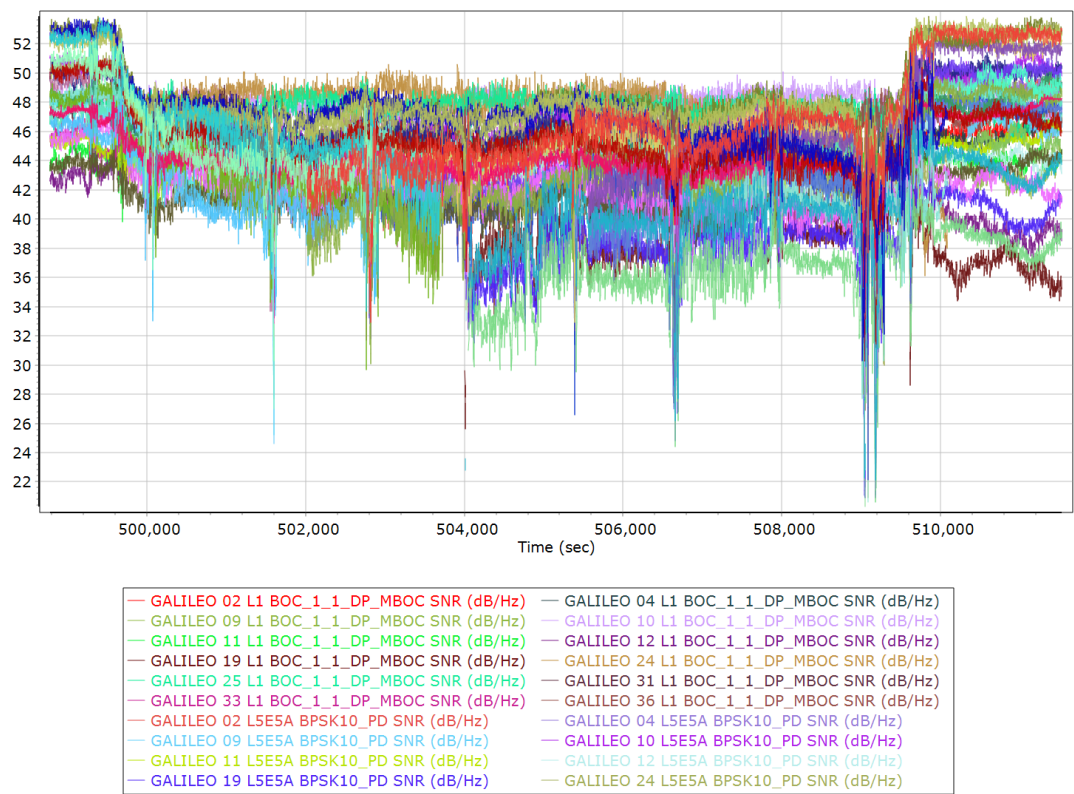
BEIDOU SNR



GALILEO Satellite Lock/Elevation

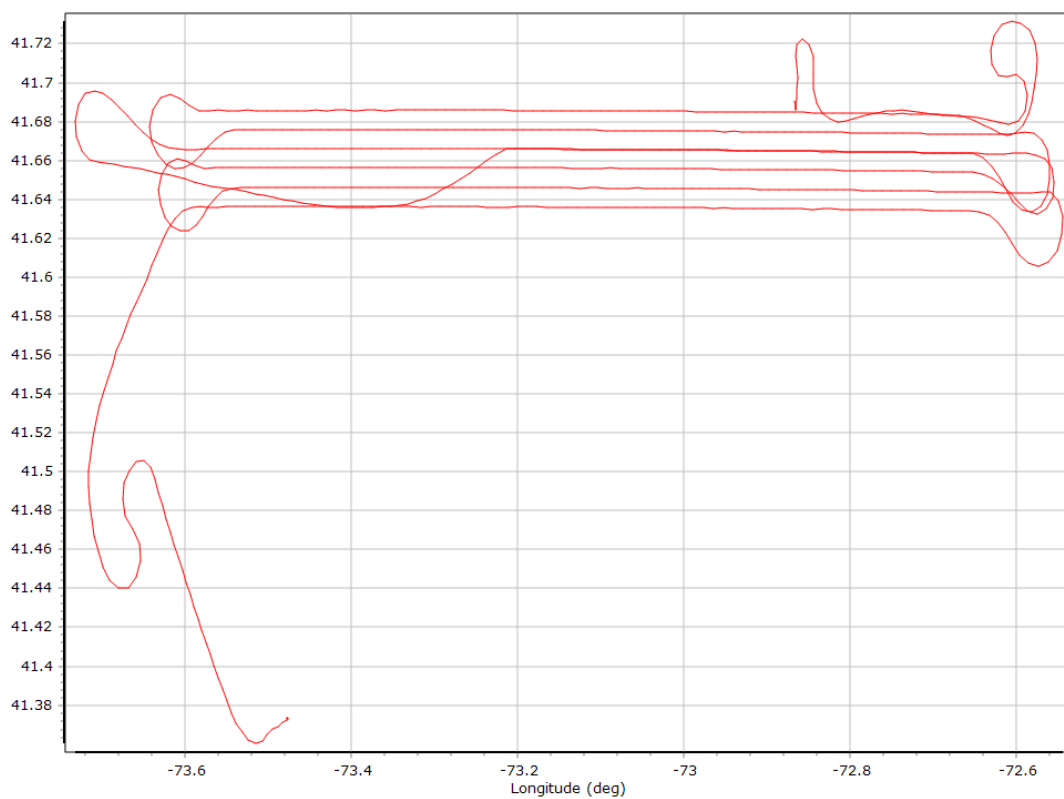


GALILEO SNR

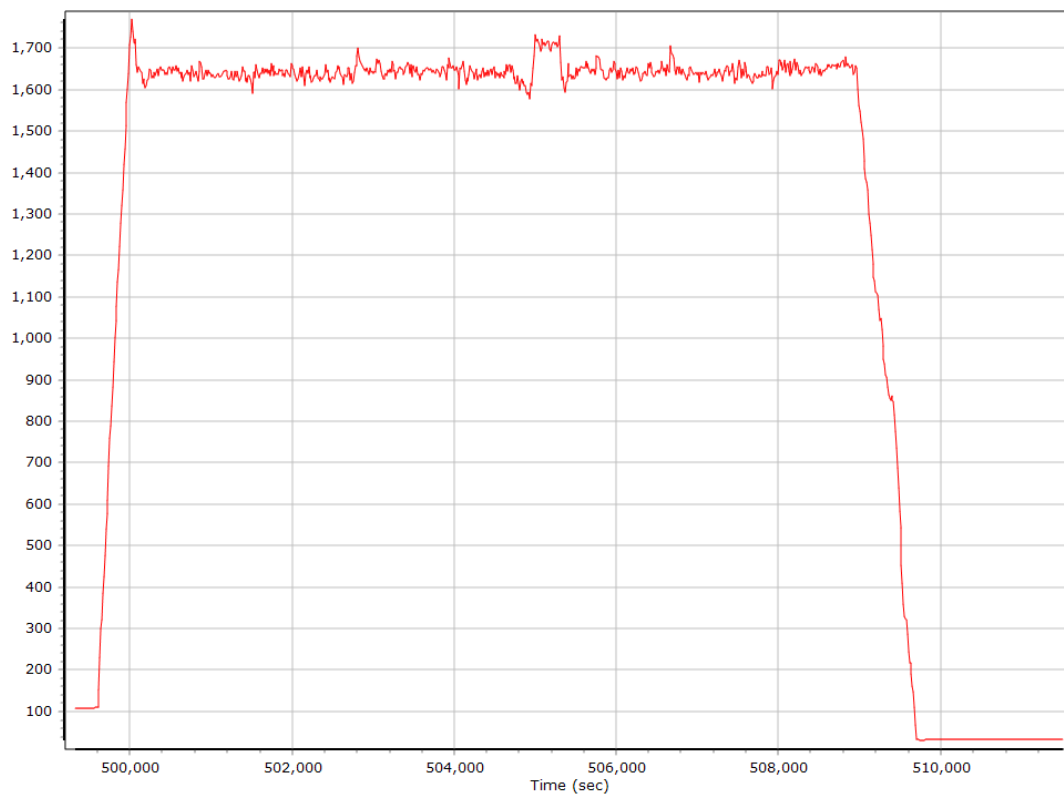


Smoothed Trajectory Information

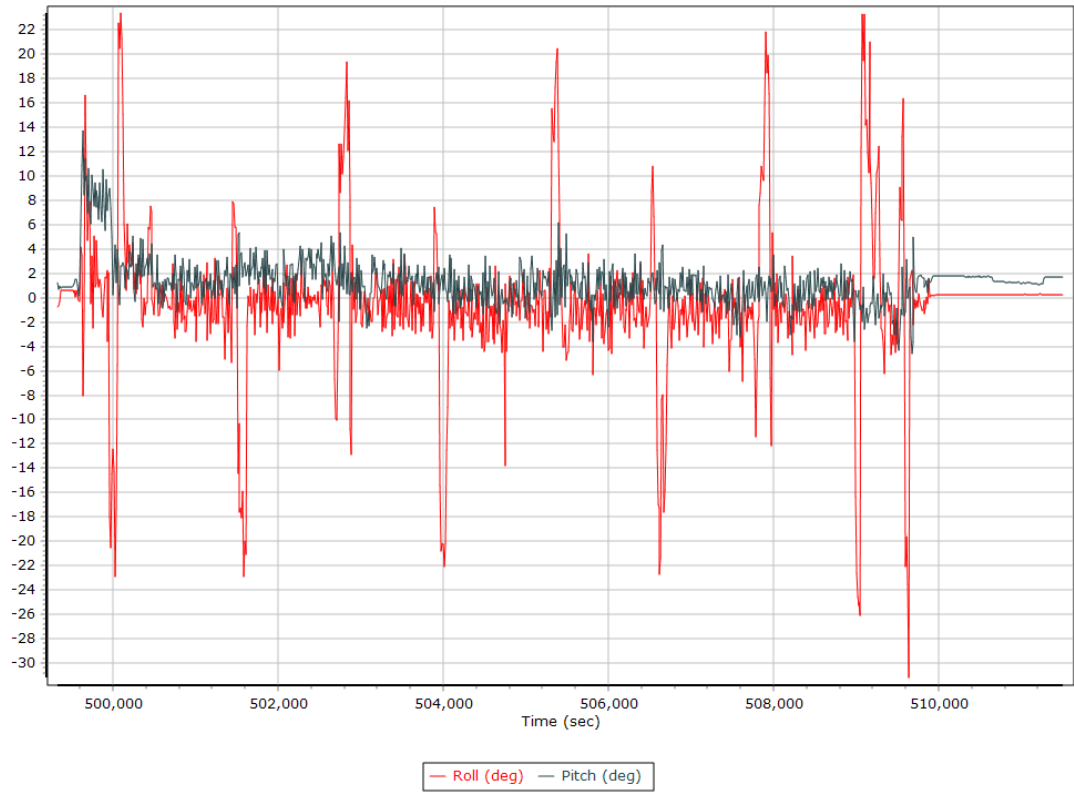
Top View



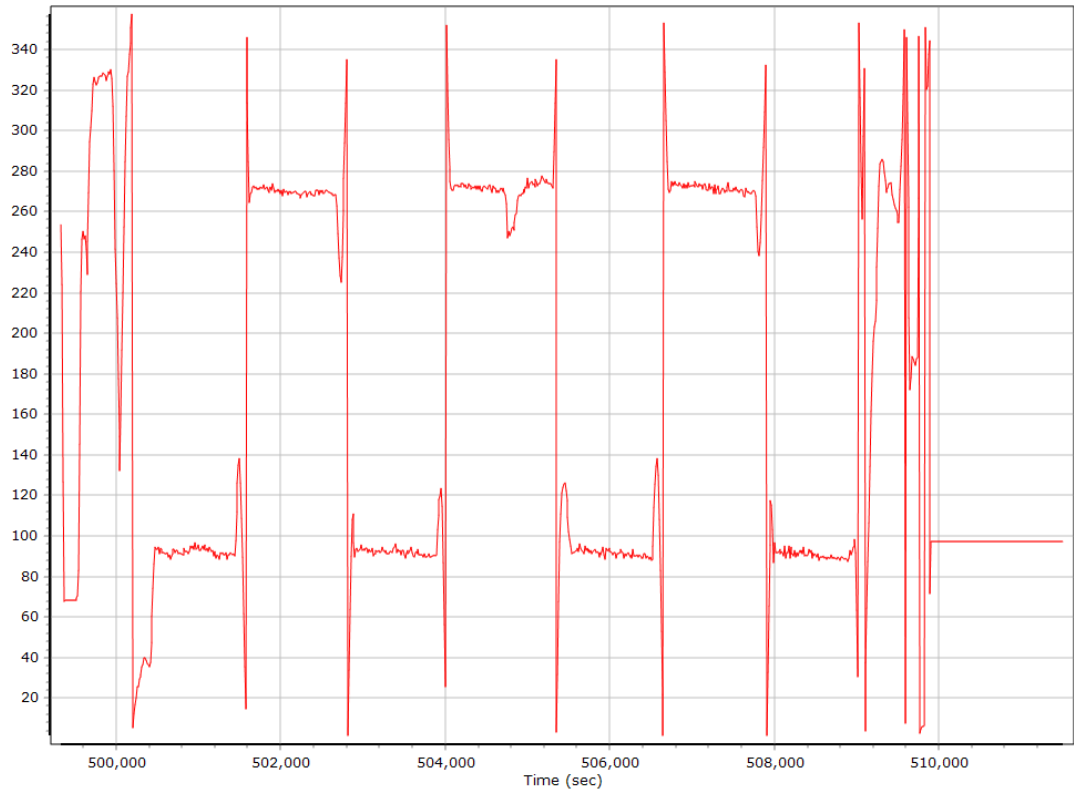
Altitude



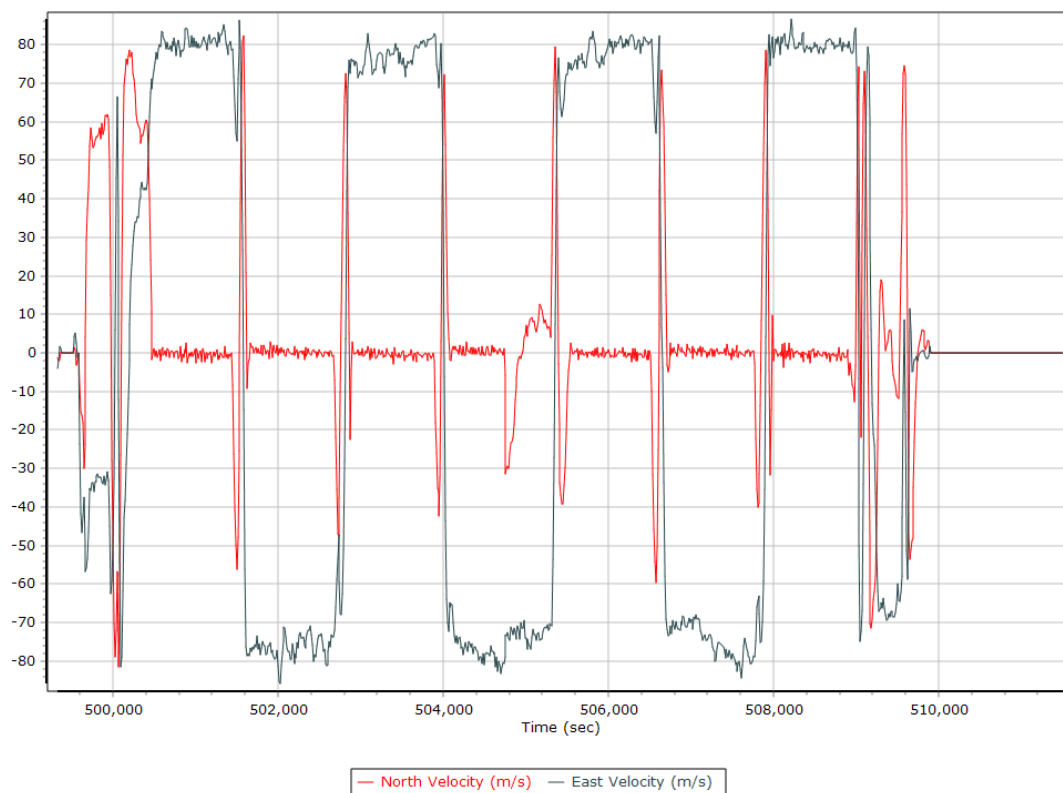
Roll/Pitch



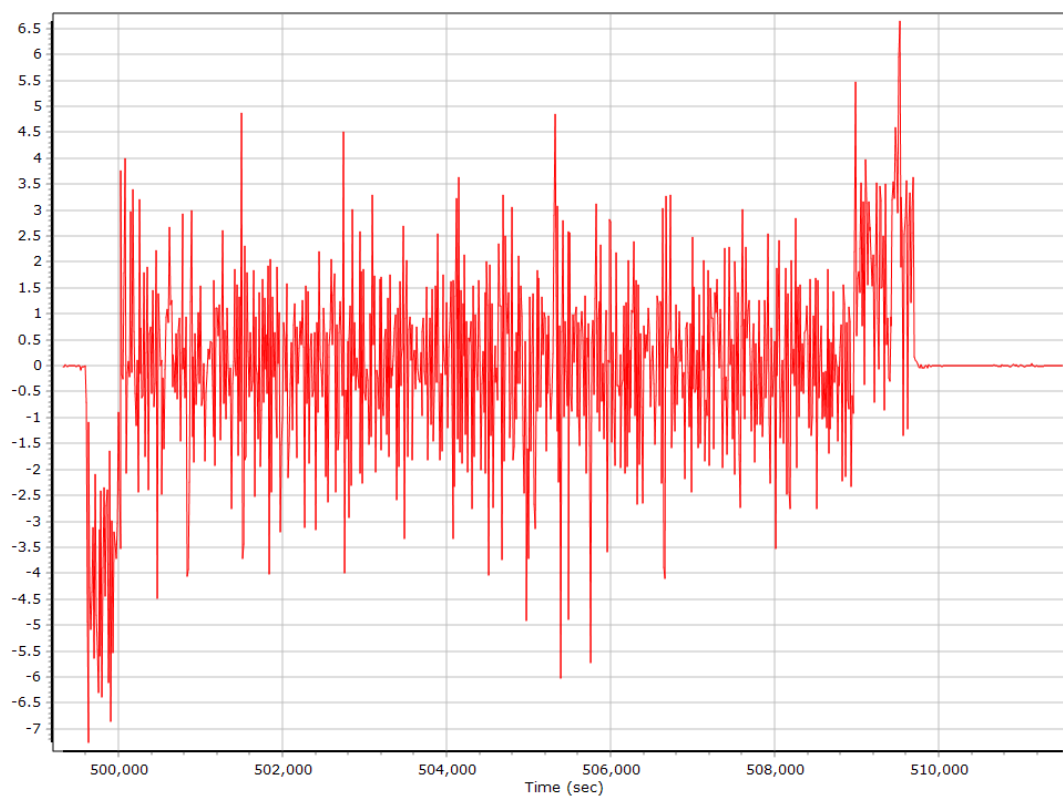
Heading



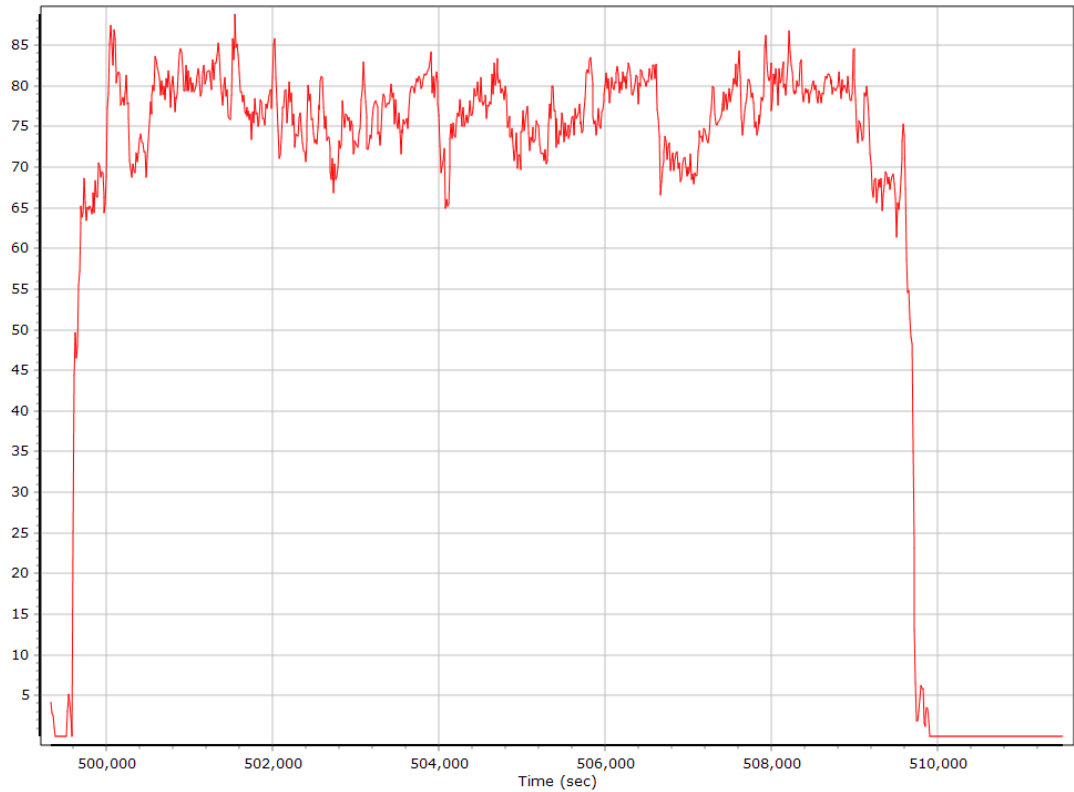
North/East Velocity



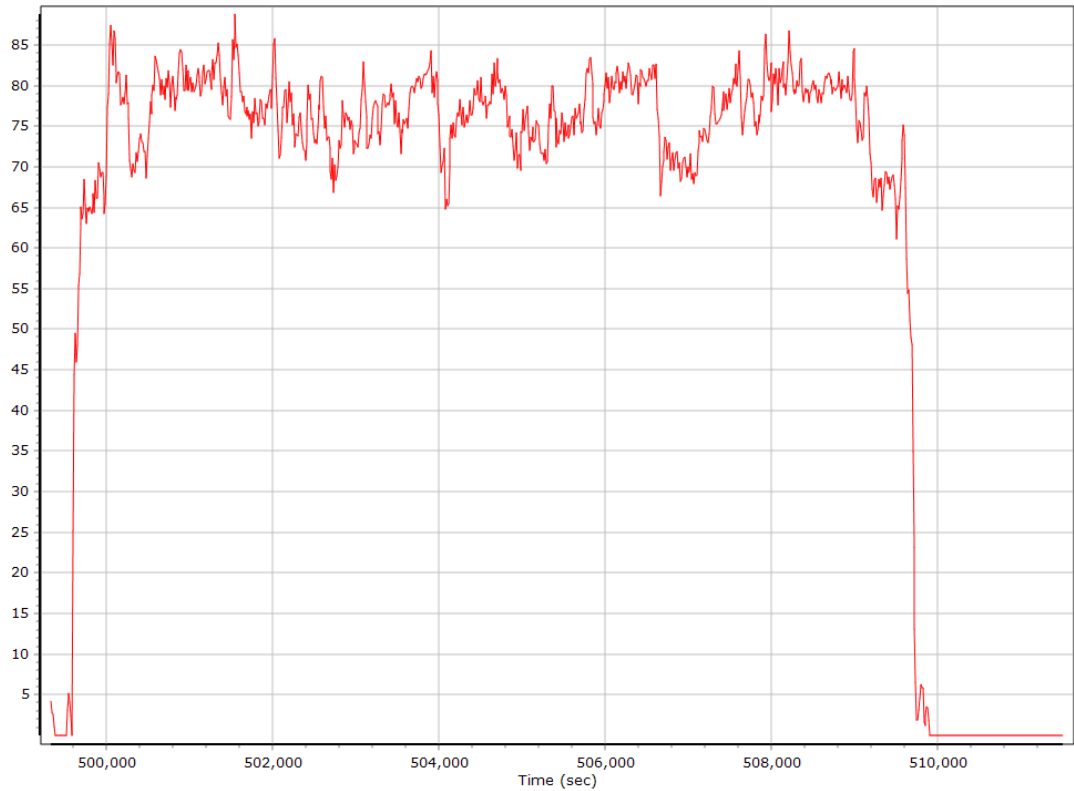
Down Velocity



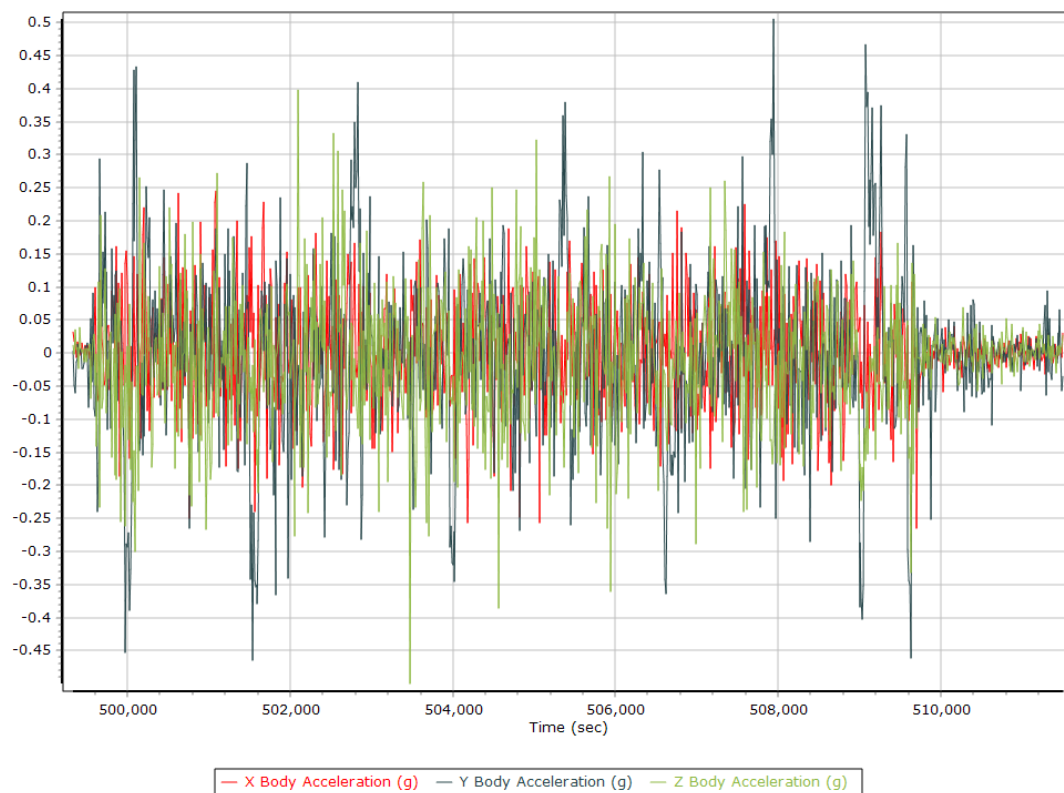
Total Speed



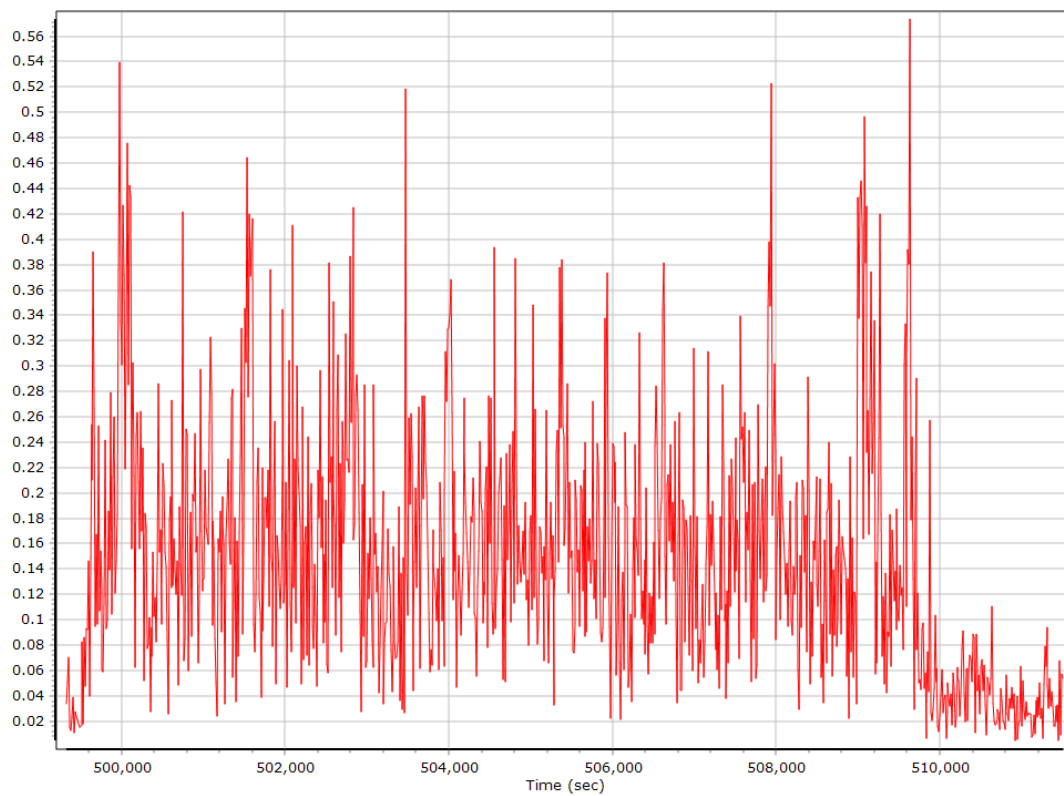
Ground Speed



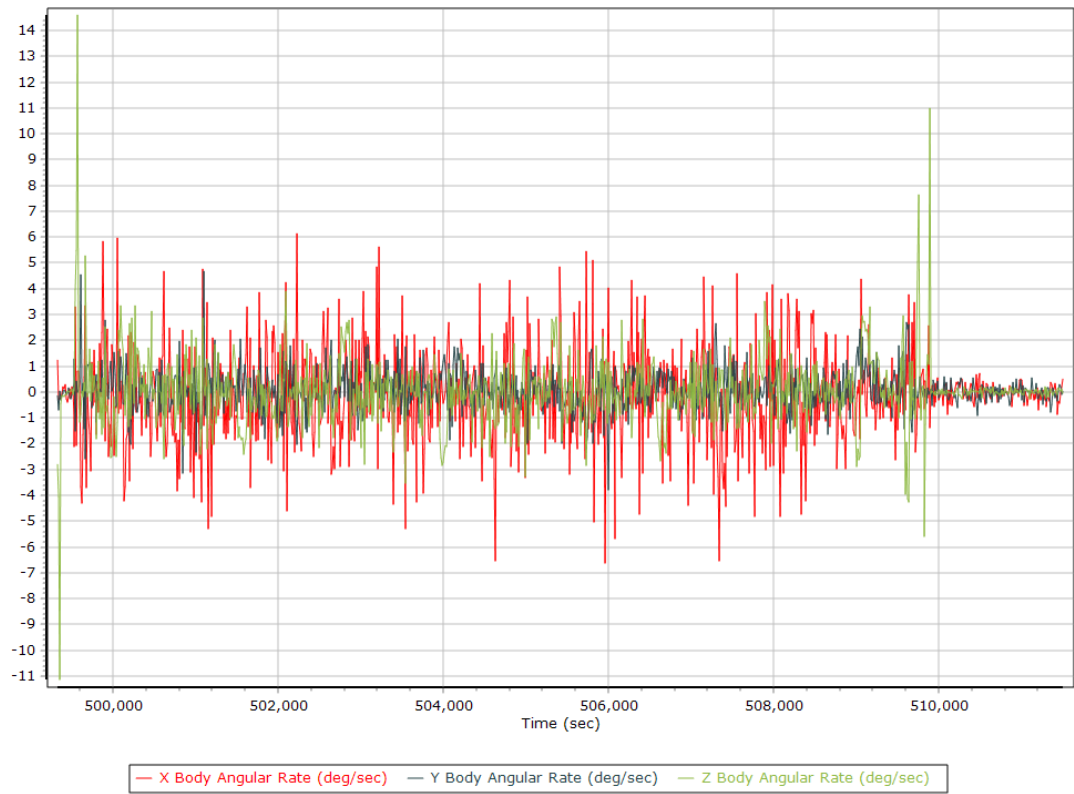
Body Acceleration



Total Body Acceleration

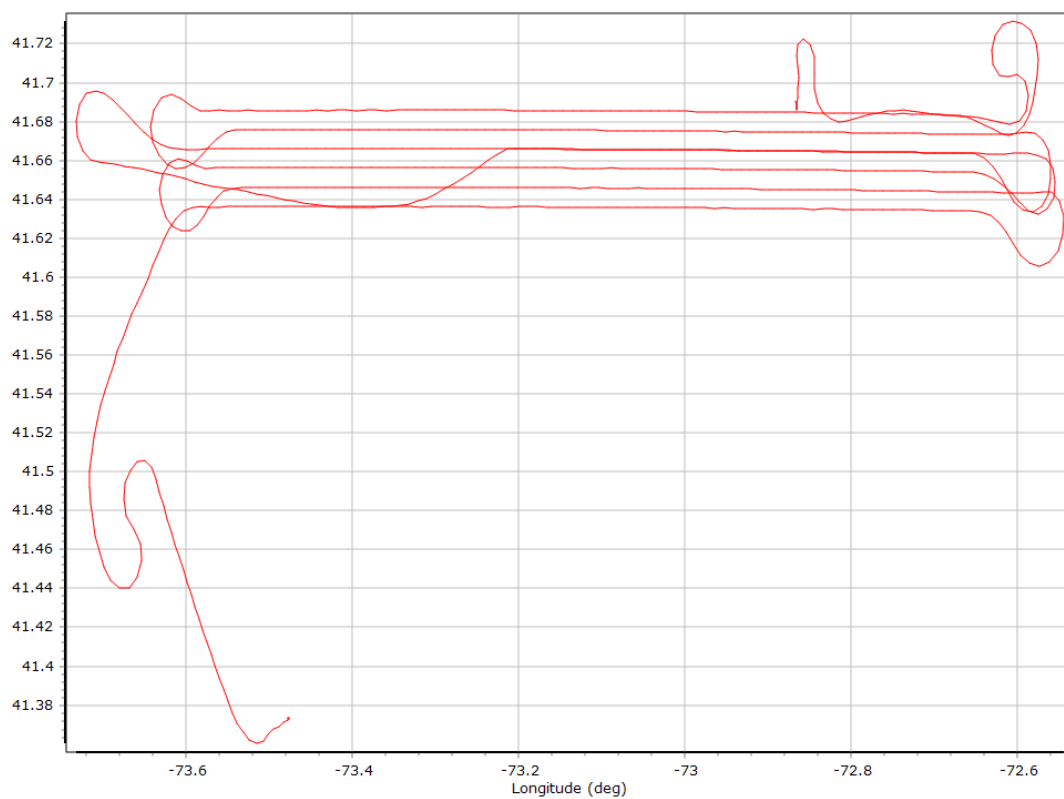


Body Angular Rate

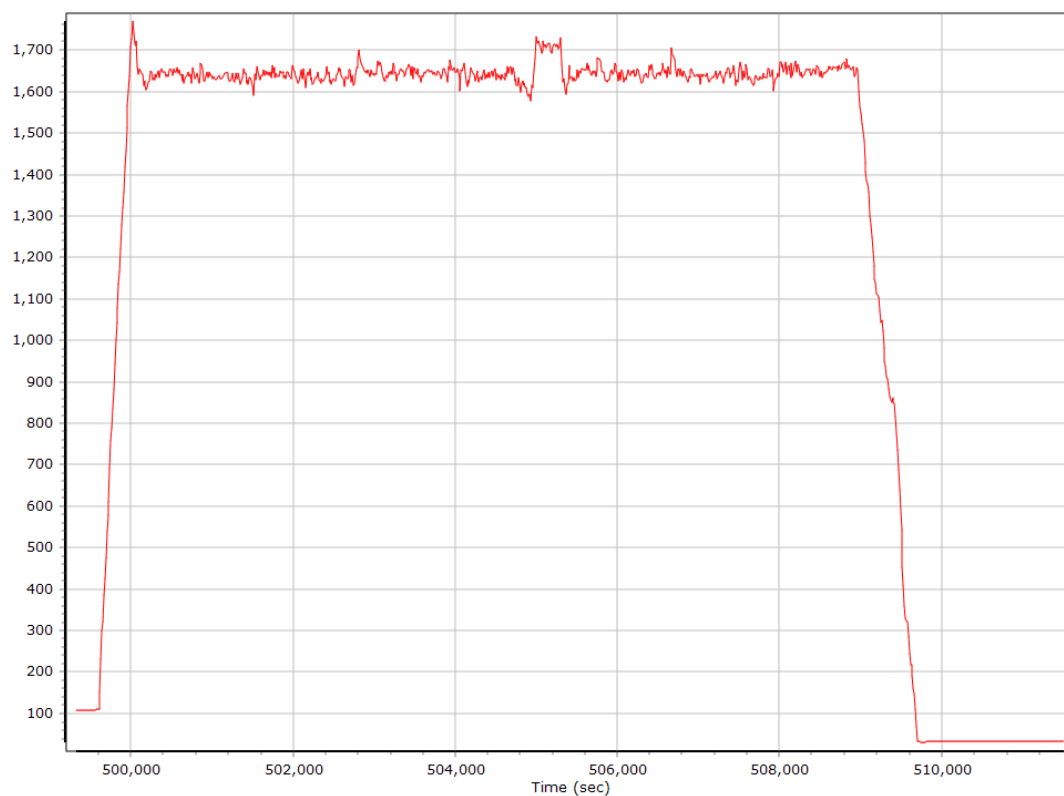


Forward Processed Trajectory Information

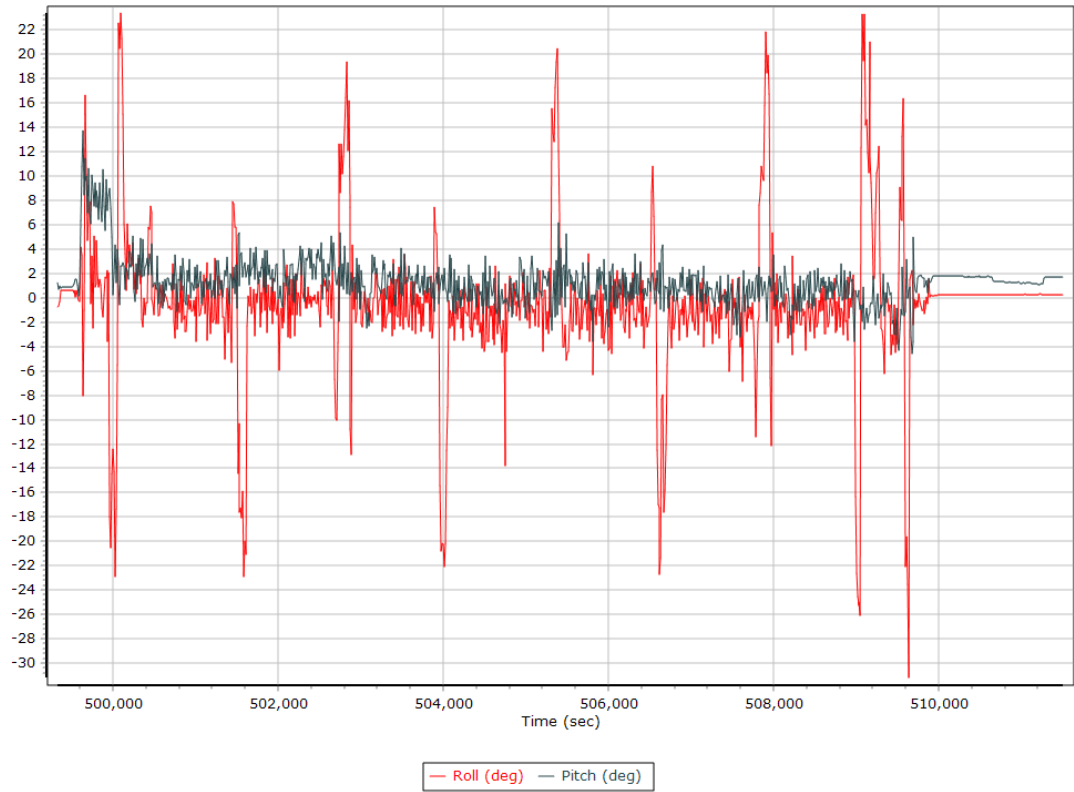
Top View



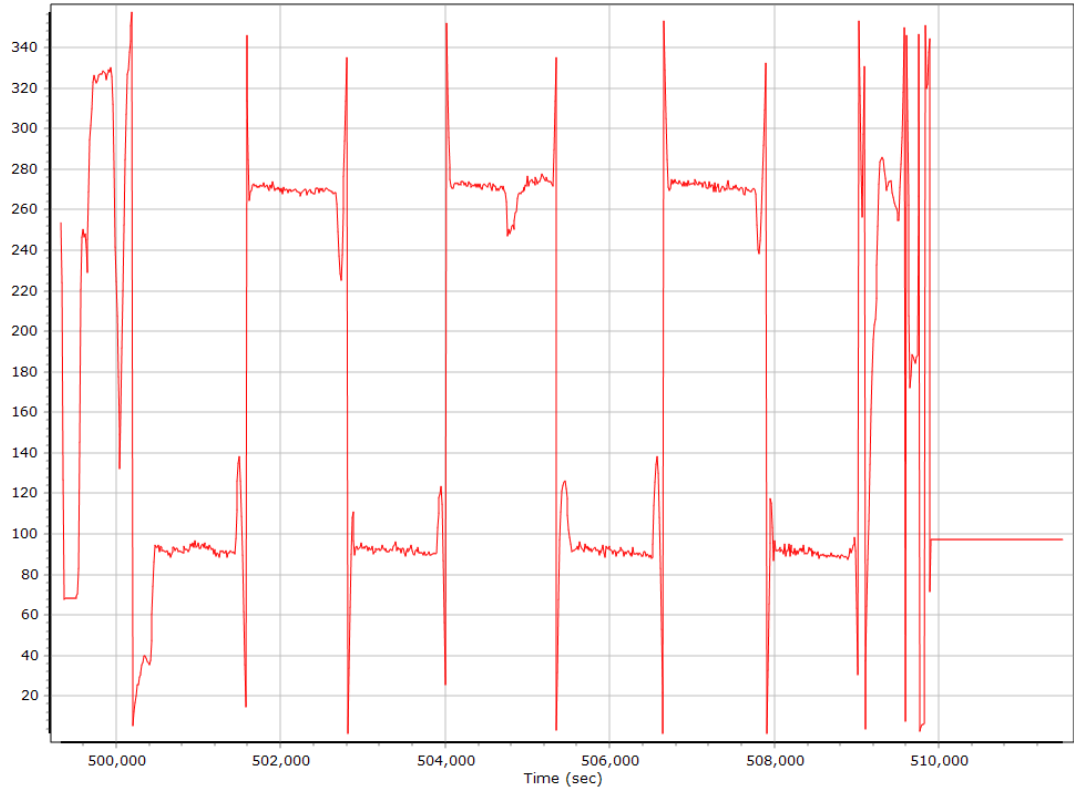
Altitude



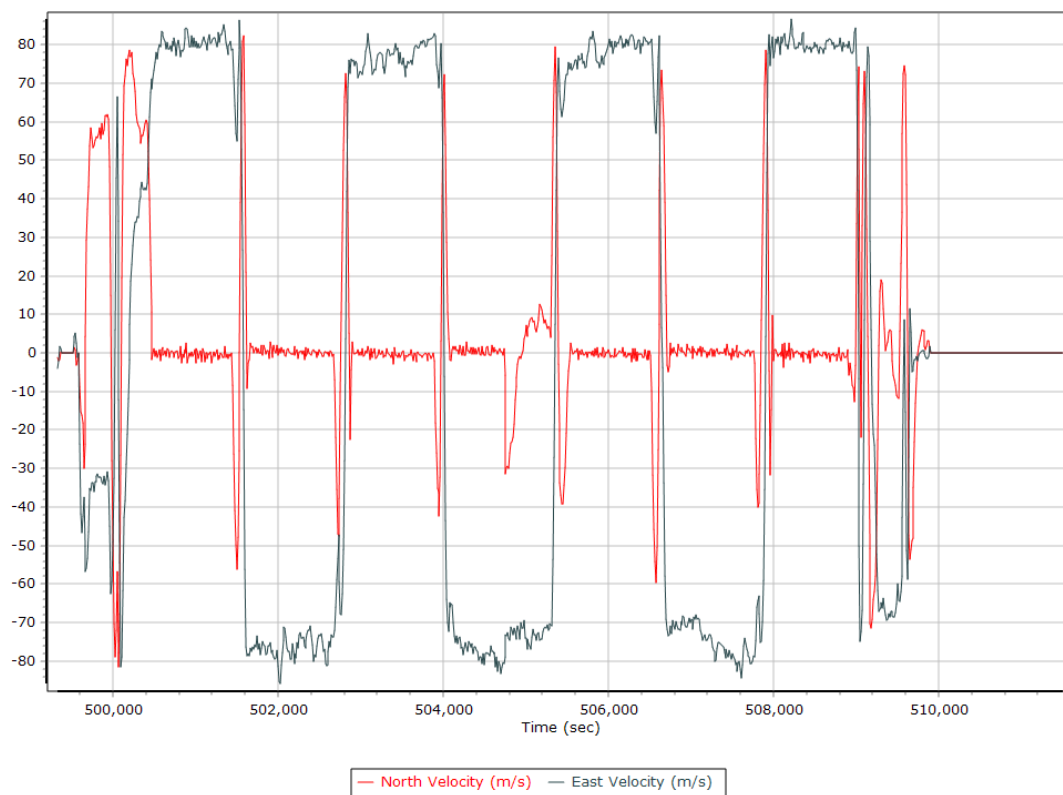
Roll/Pitch



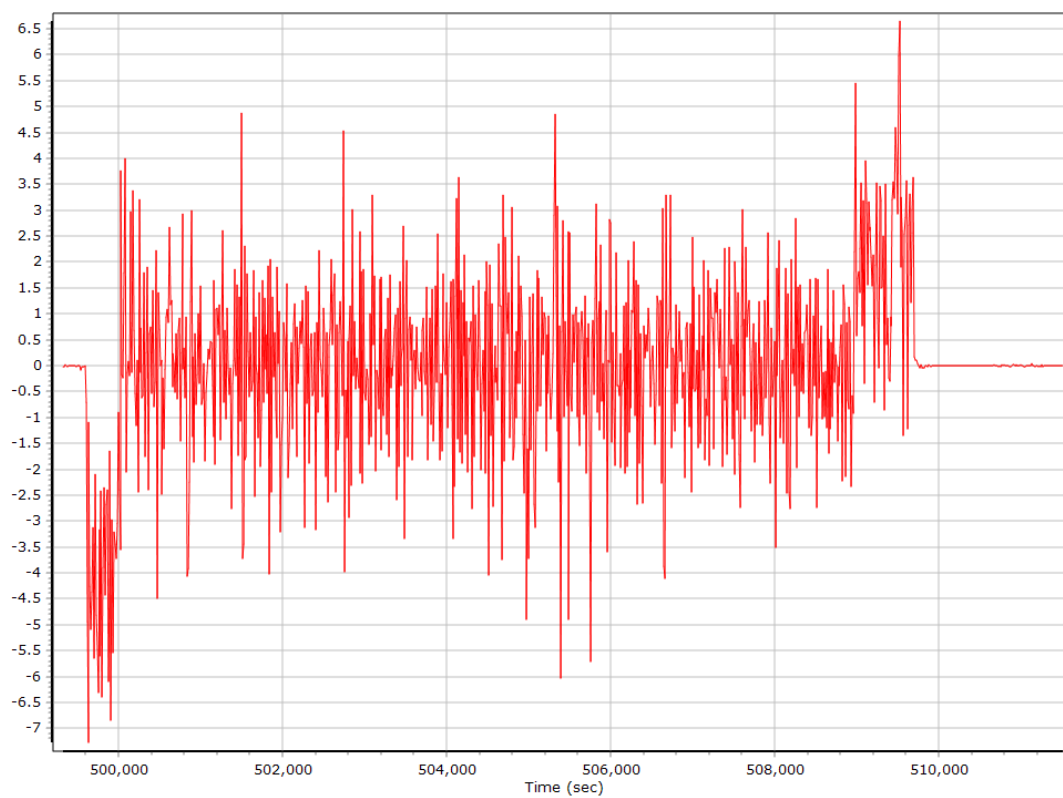
Heading



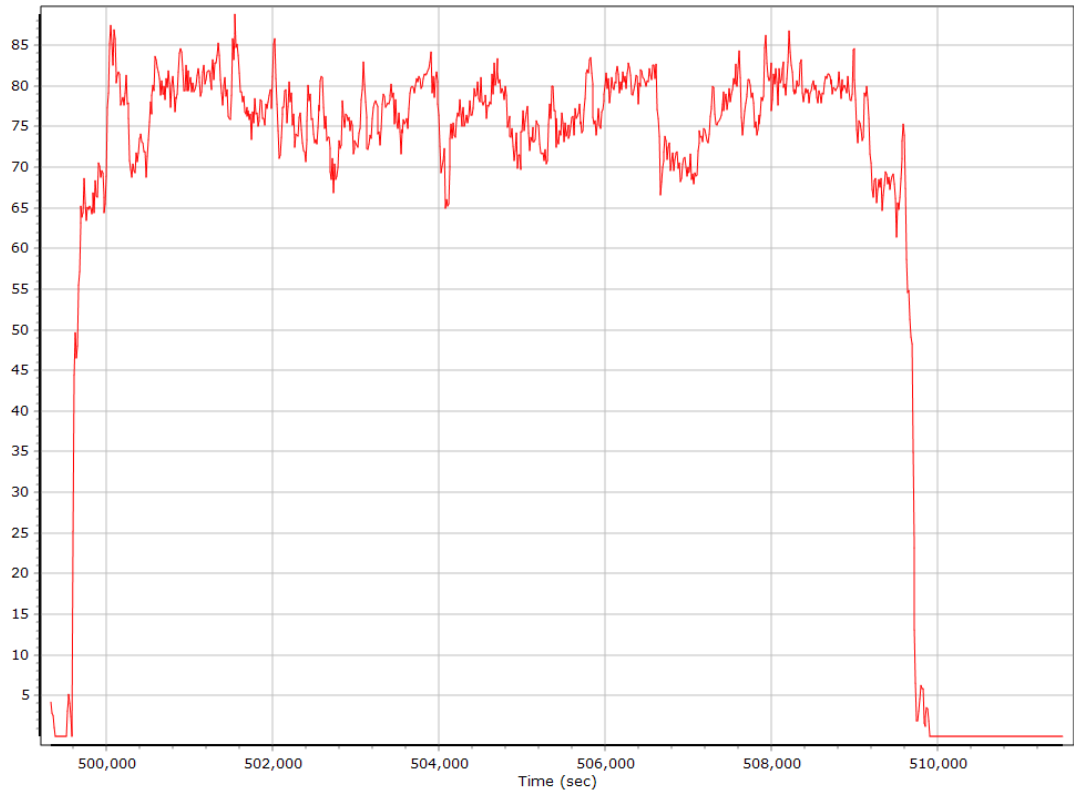
North/East Velocity



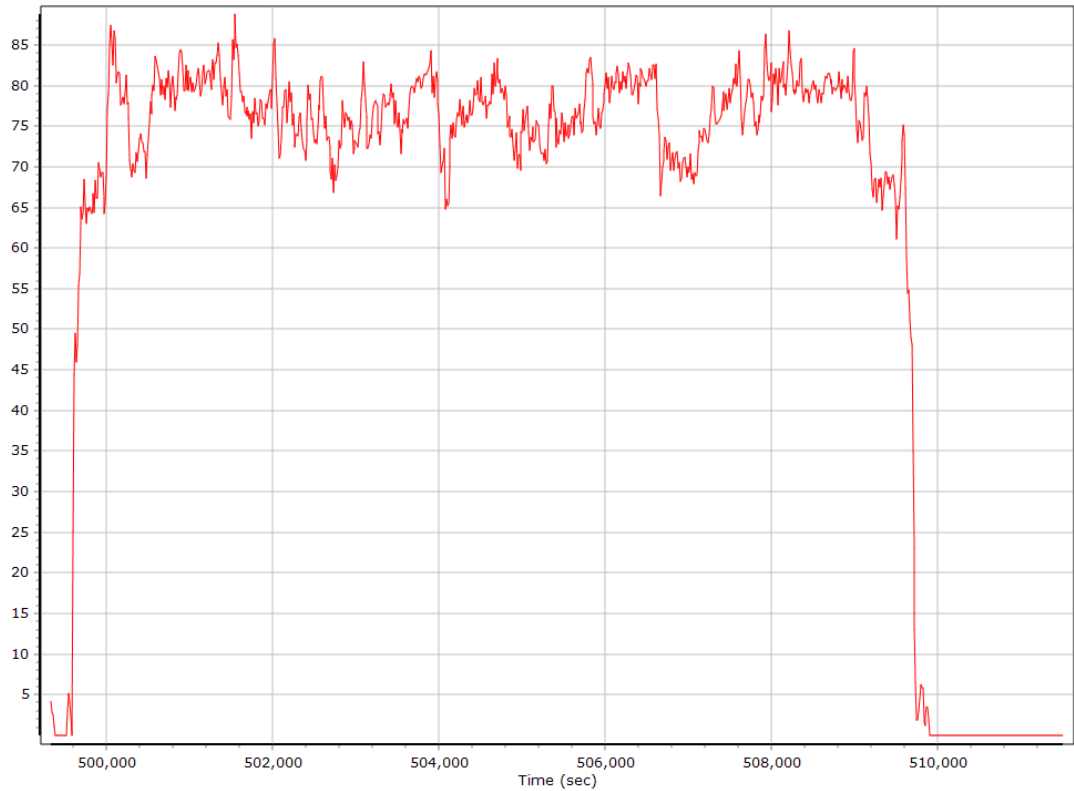
Down Velocity



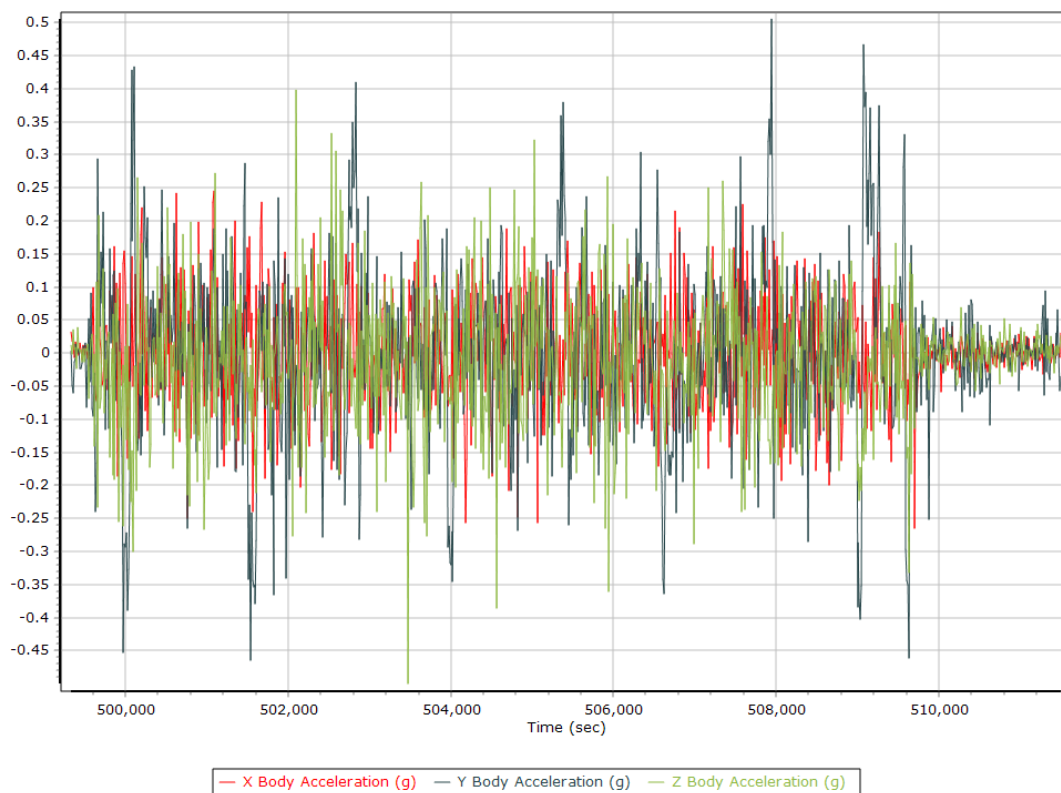
Total Speed



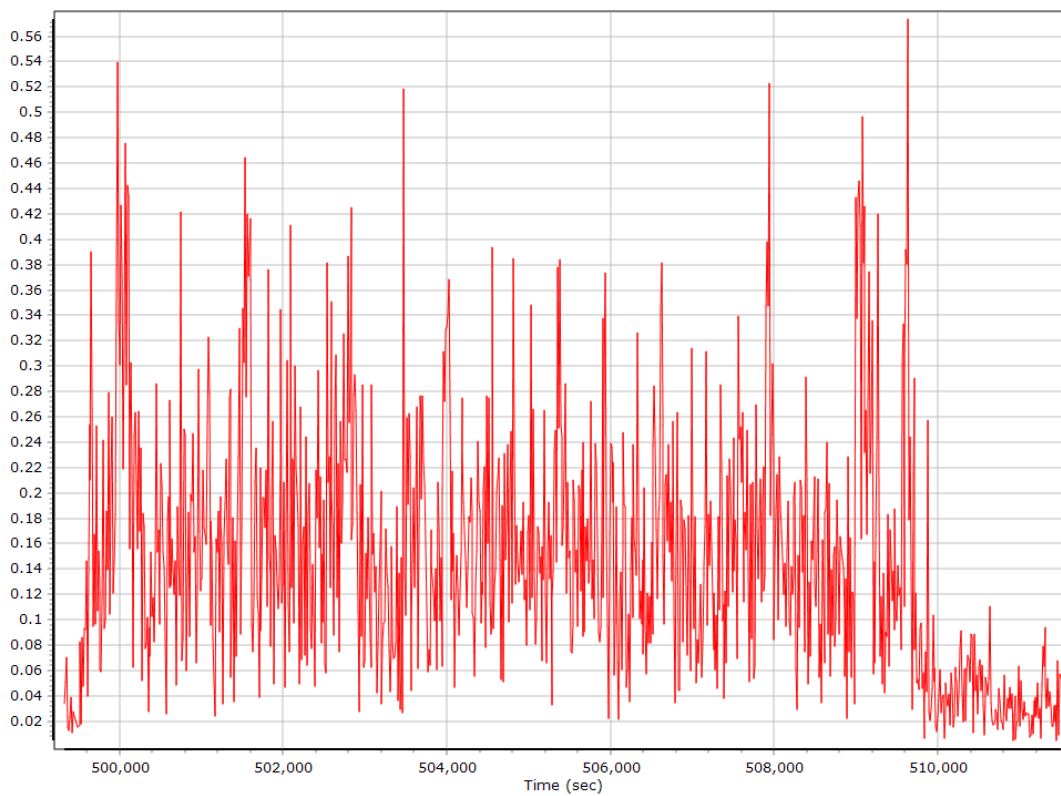
Ground Speed



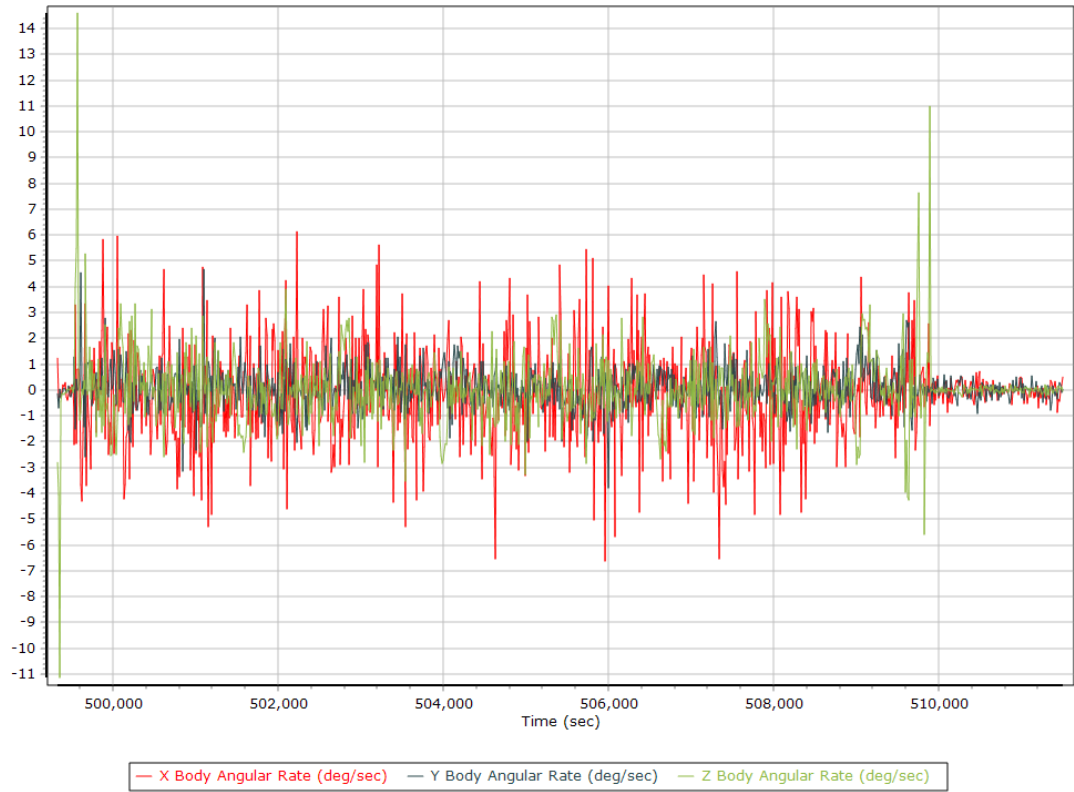
Body Acceleration



Total Body Acceleration



Body Angular Rate

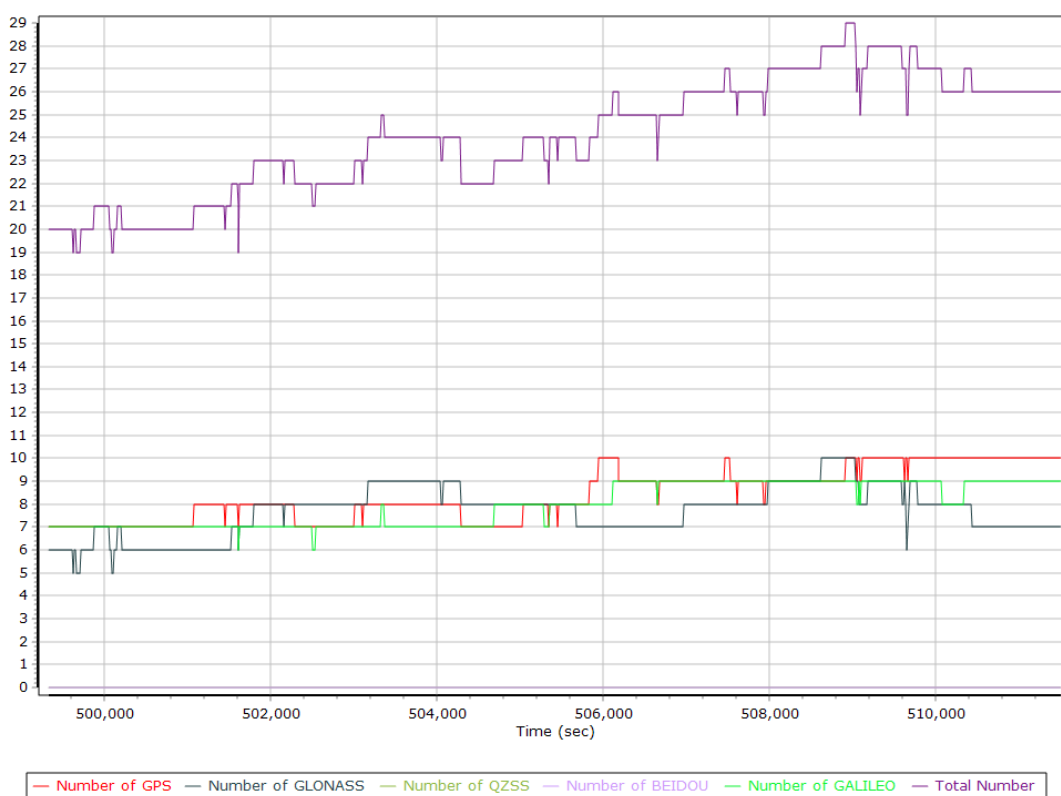


GNSS QC

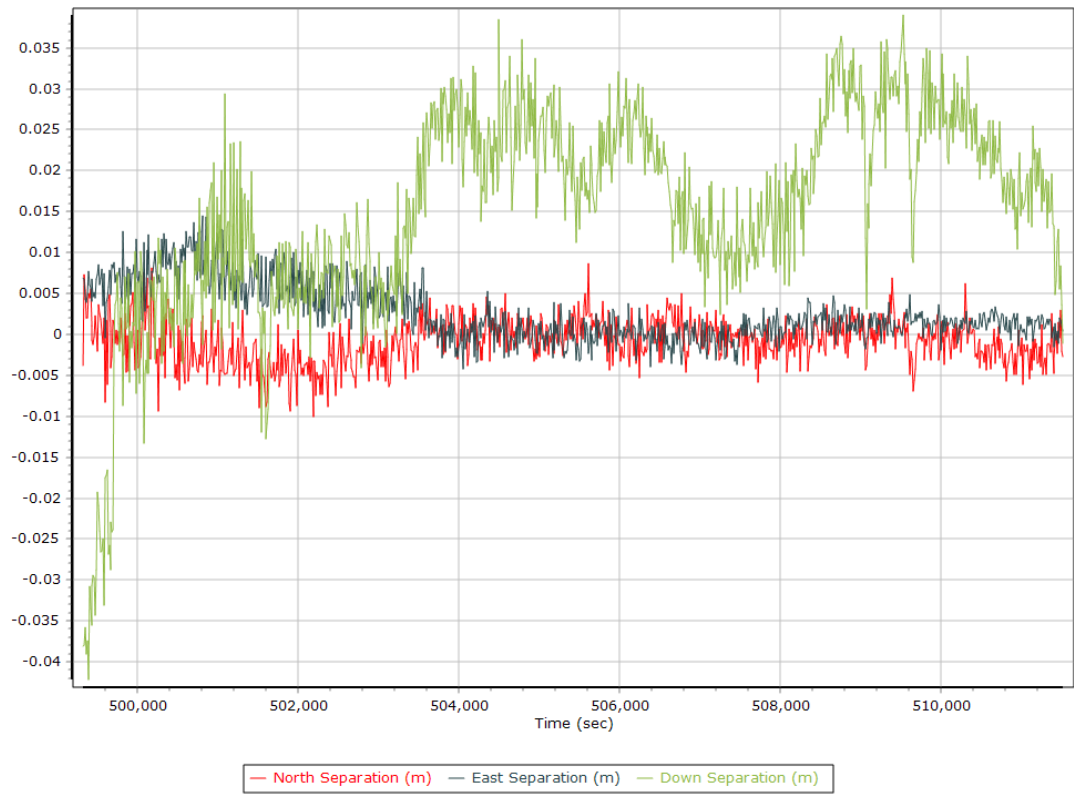
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	8
Number of GLONASS SV	0	10	8
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	6	9	8
Total number of SV	12	29	24
PDOP	0.90	1.85	1.07
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	12738.00	0.00	0.00
Percentage	100.00	0.00	0.00

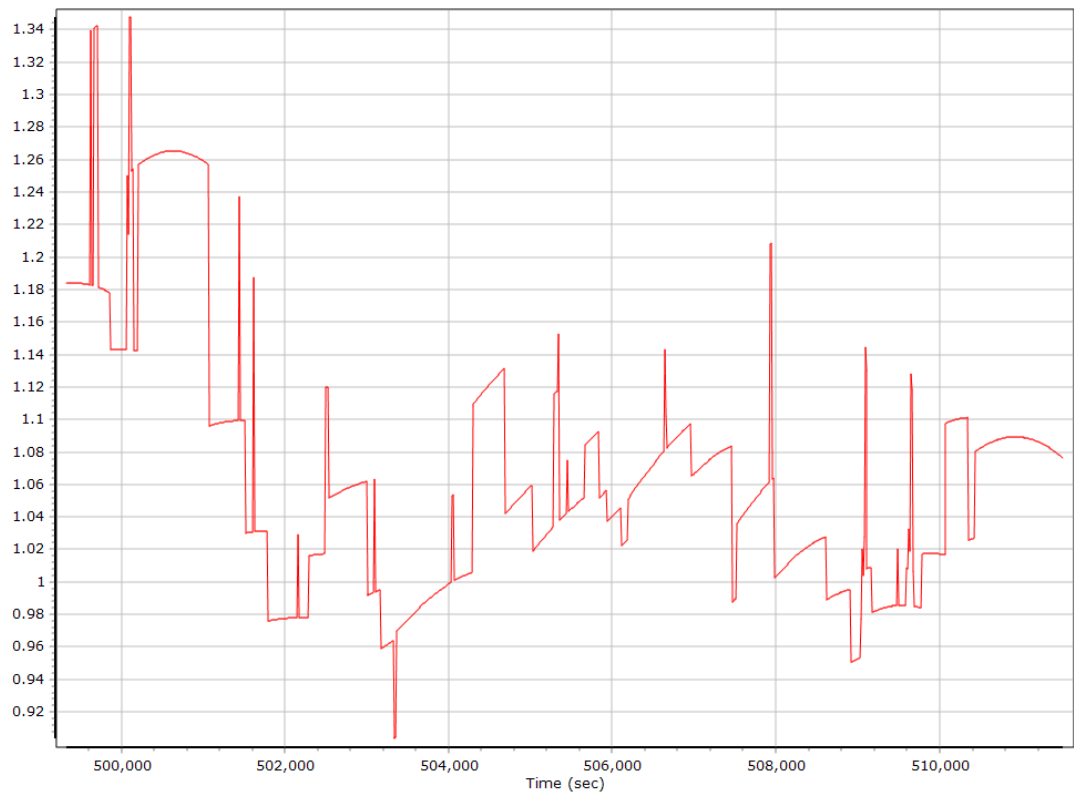
Num SVs in solution



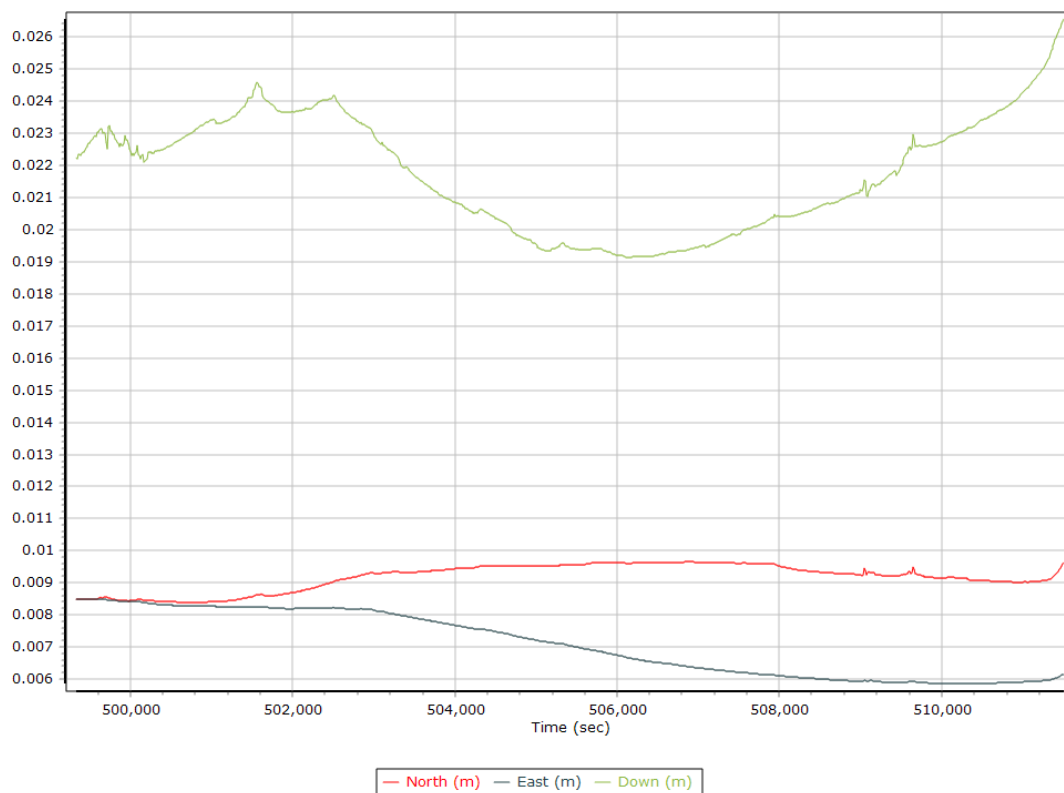
Forward/Reverse Separation



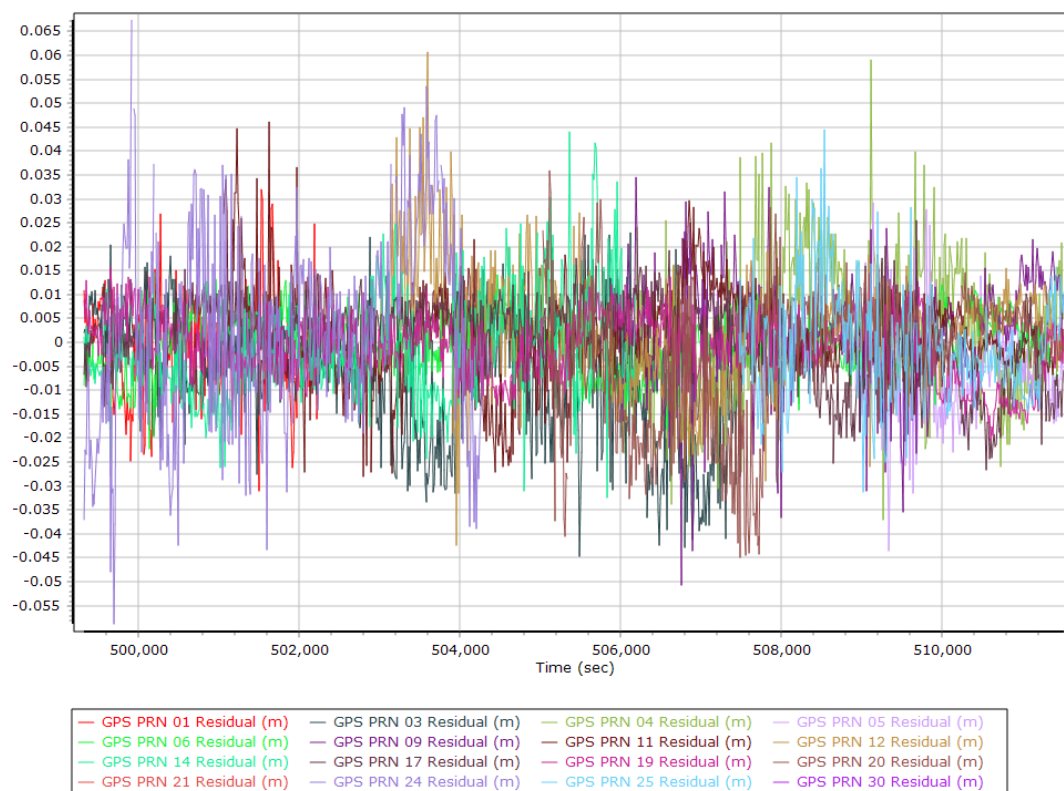
PDOP



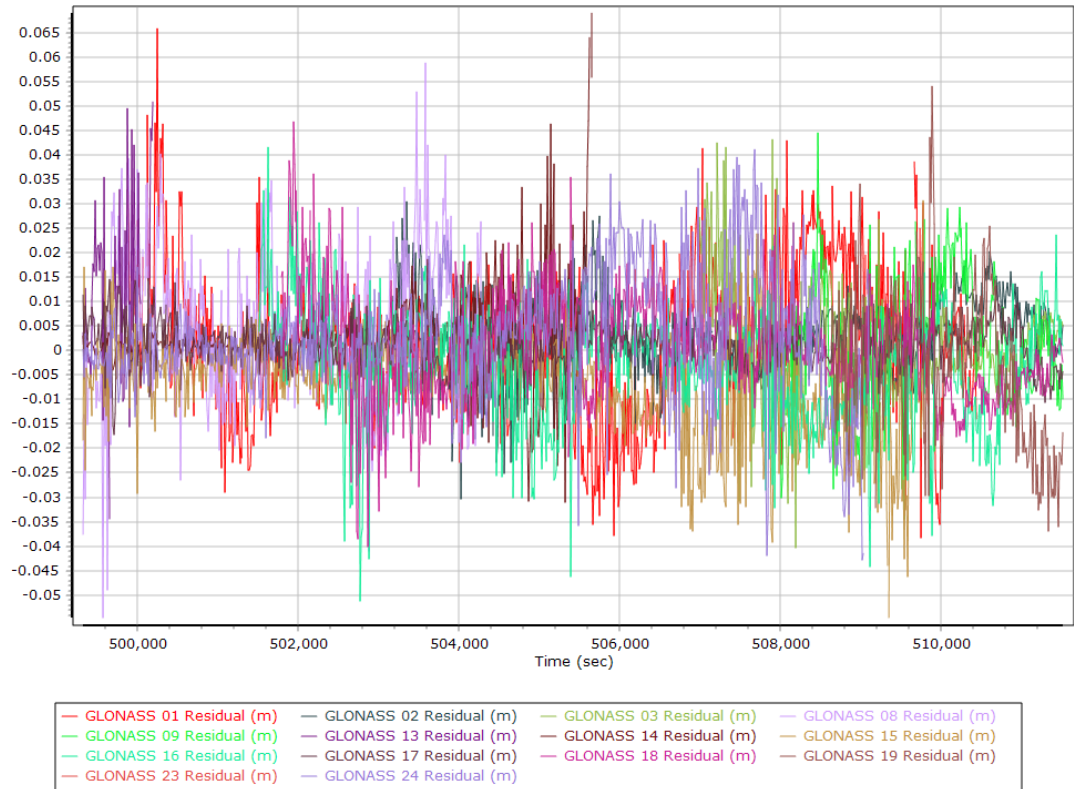
Estimated Position Accuracy



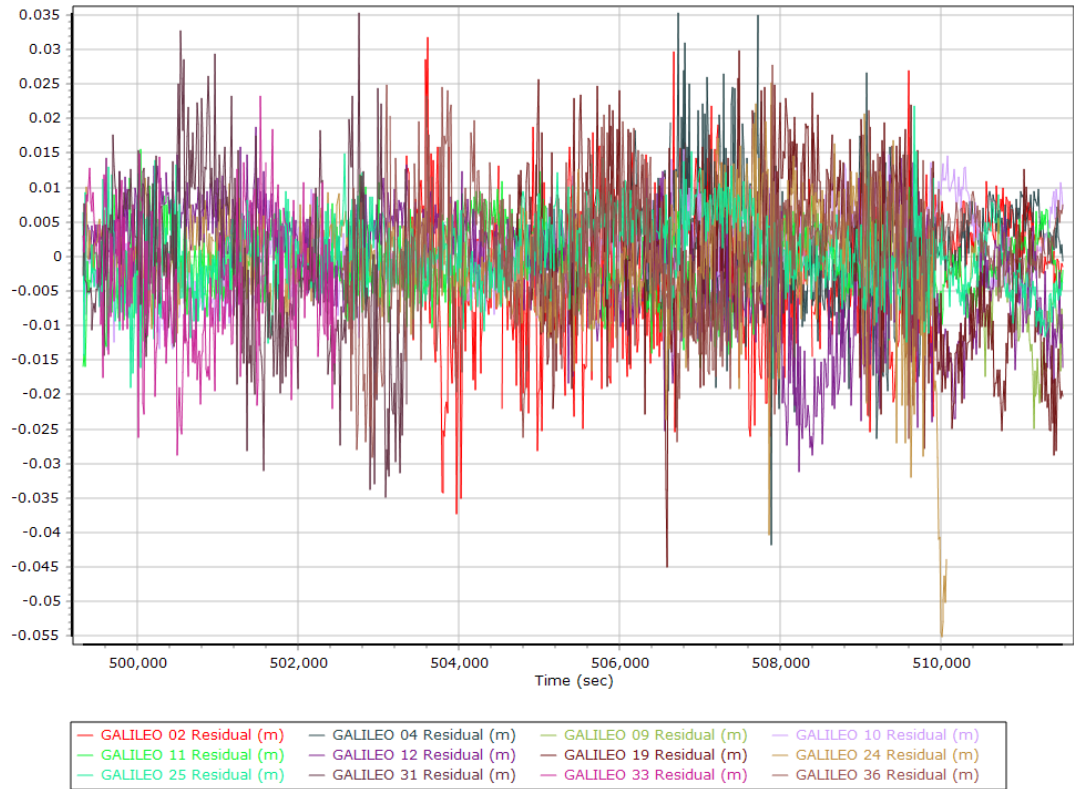
GPS Residuals



GLONASS Residuals



GALILEO Residuals



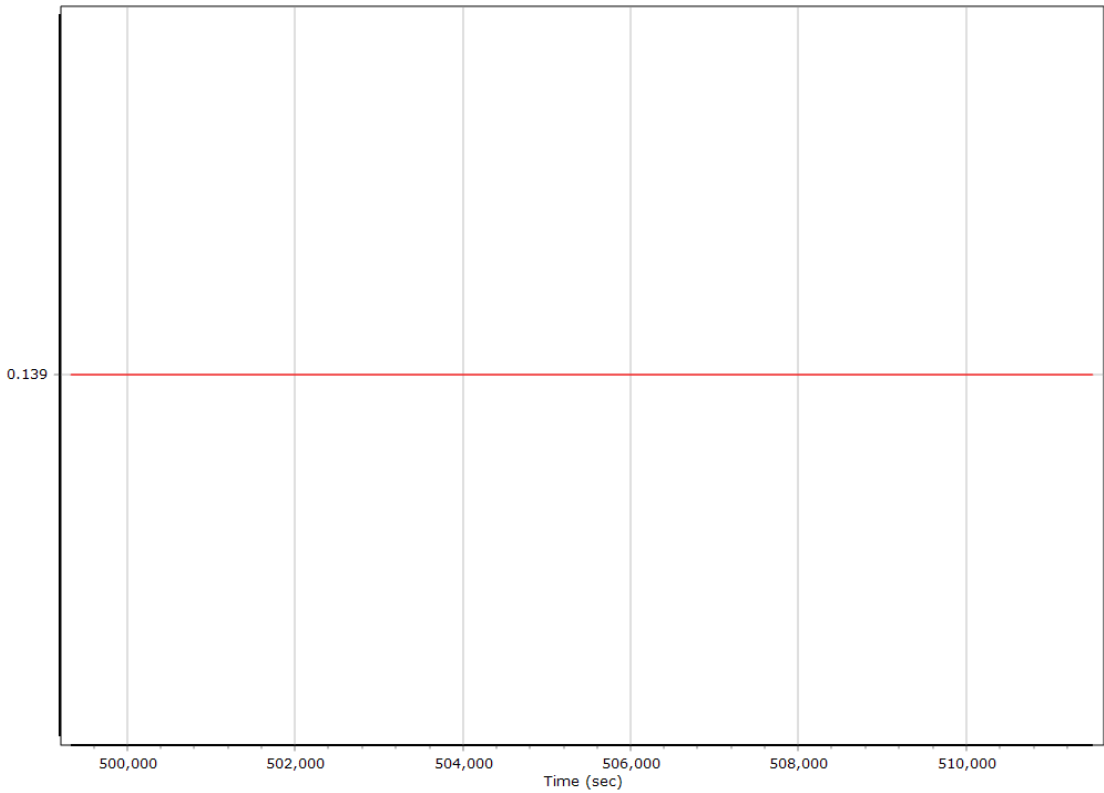
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	498761.000 (04/14/2023 18:32:41)		
Processing end time	511512.000 (04/14/2023 22:05:12)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

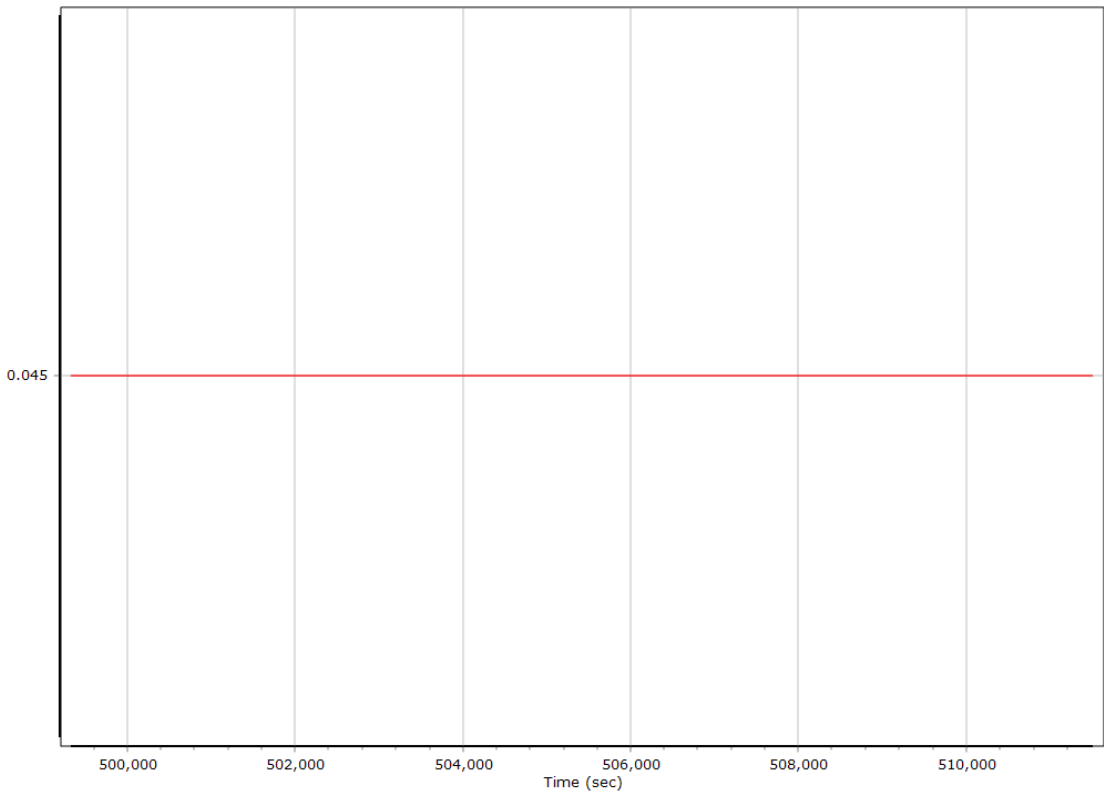
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

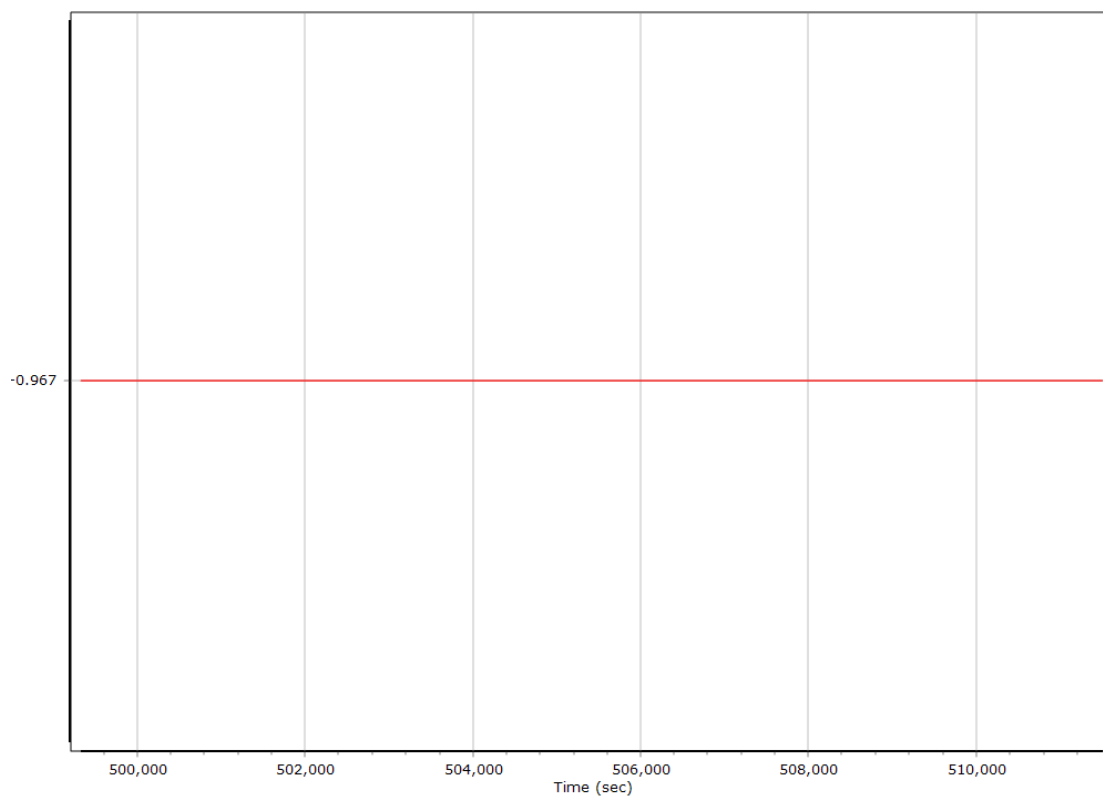
X Reference-Primary GNSS Lever Arm (m)



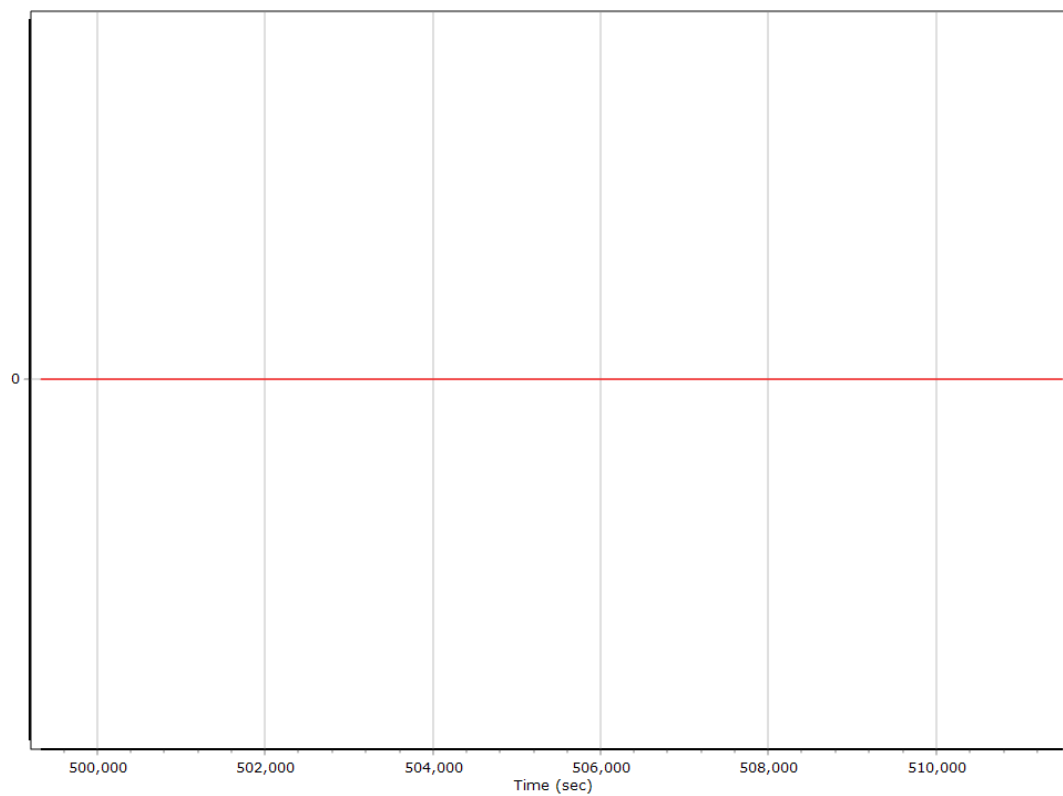
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



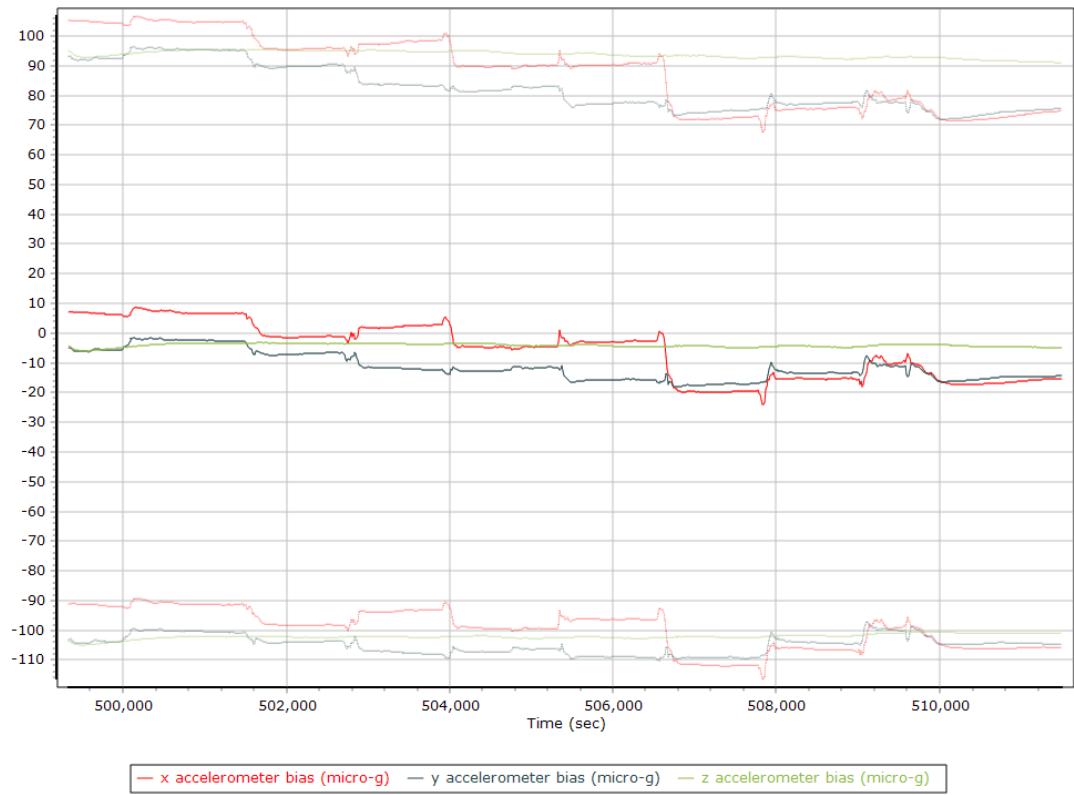
Reference-Primary GNSS Lever Arm Figure of Merit



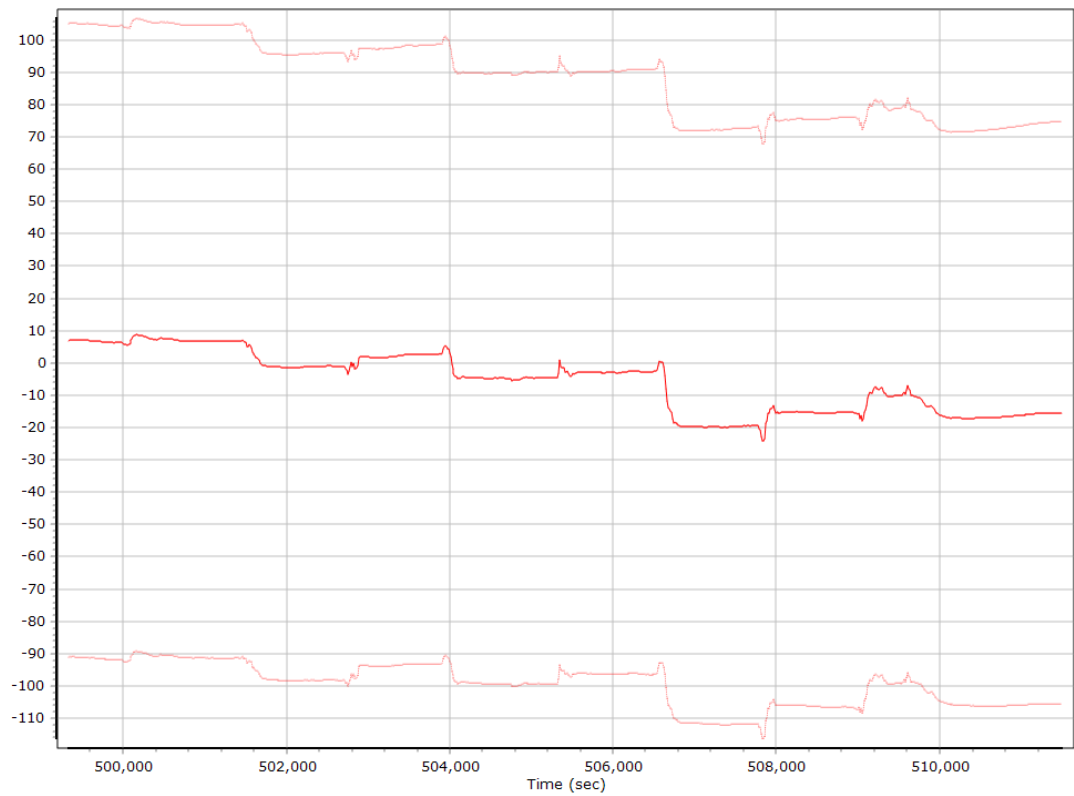
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

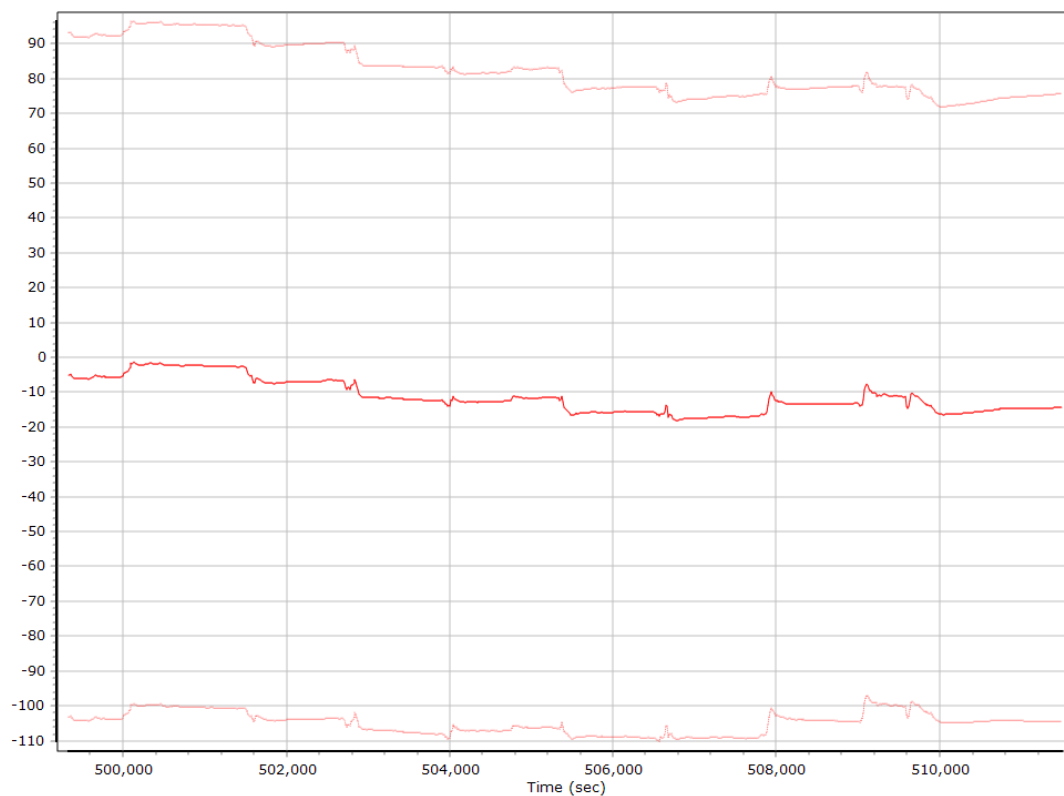
Accelerometer Bias (micro-g)



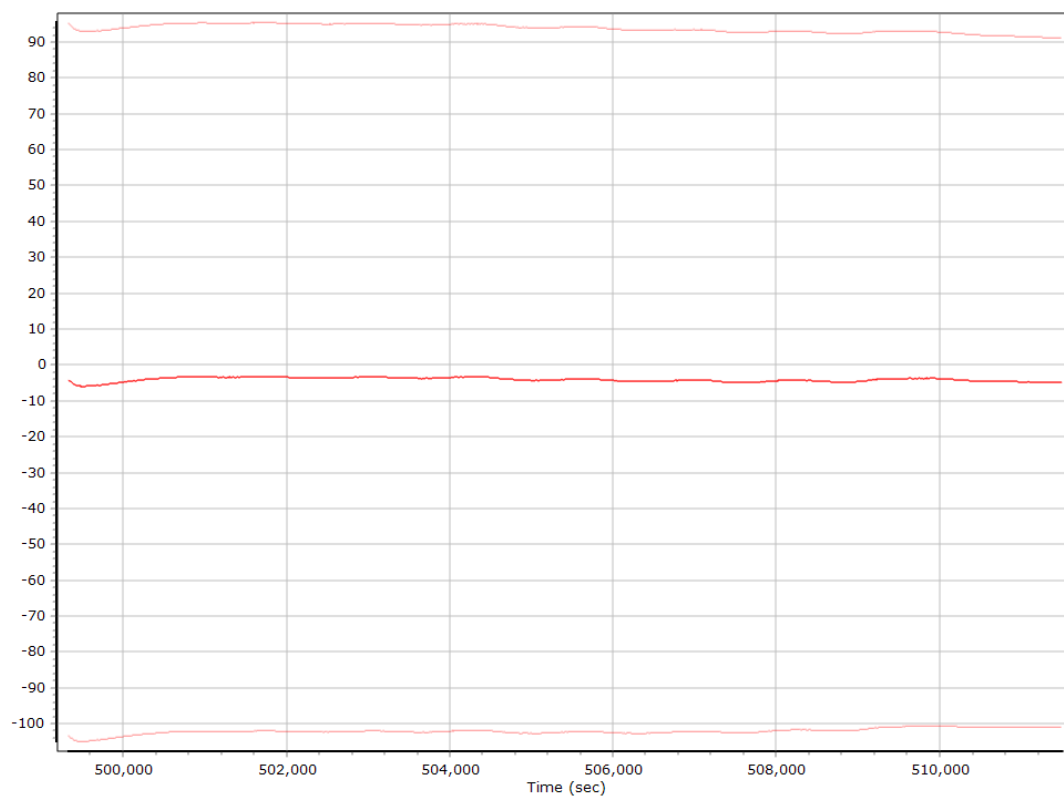
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



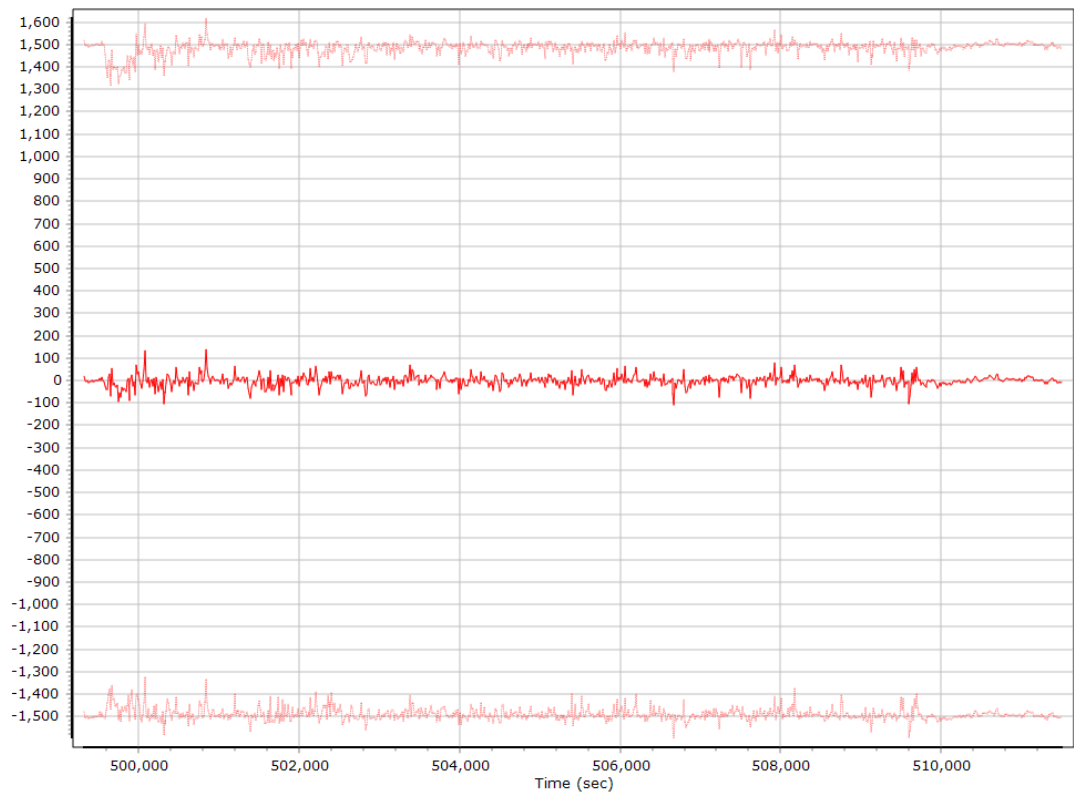
Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



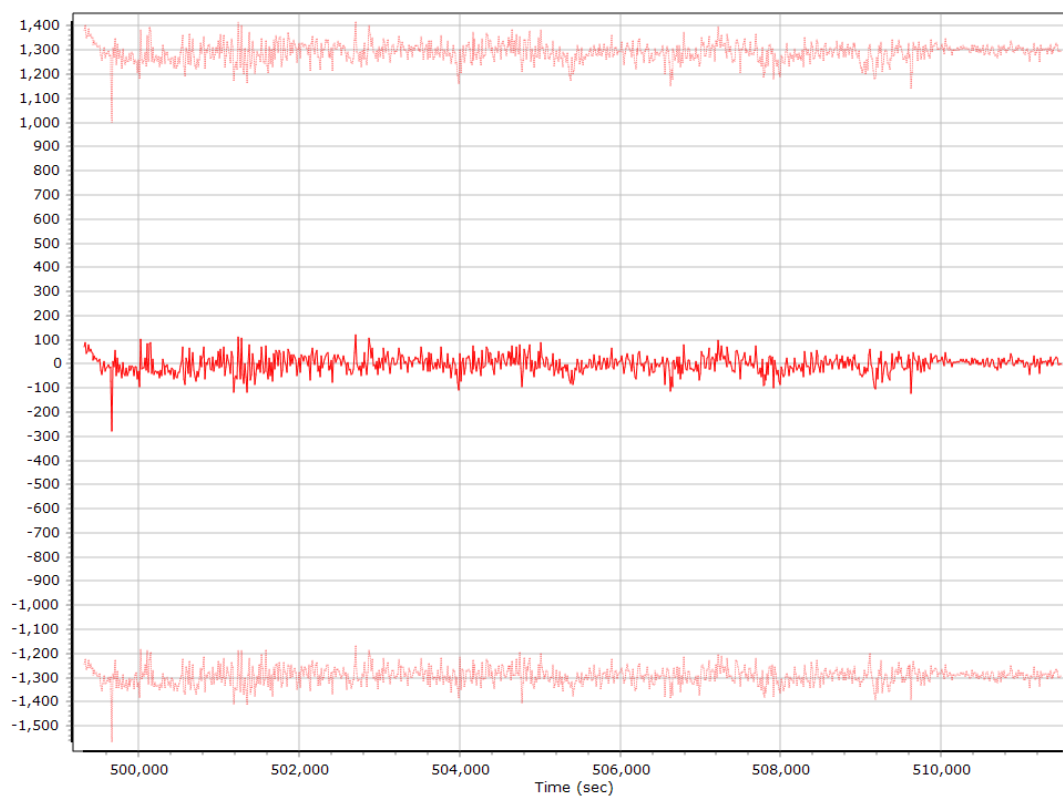
X Accelerometer Scale Error (ppm)



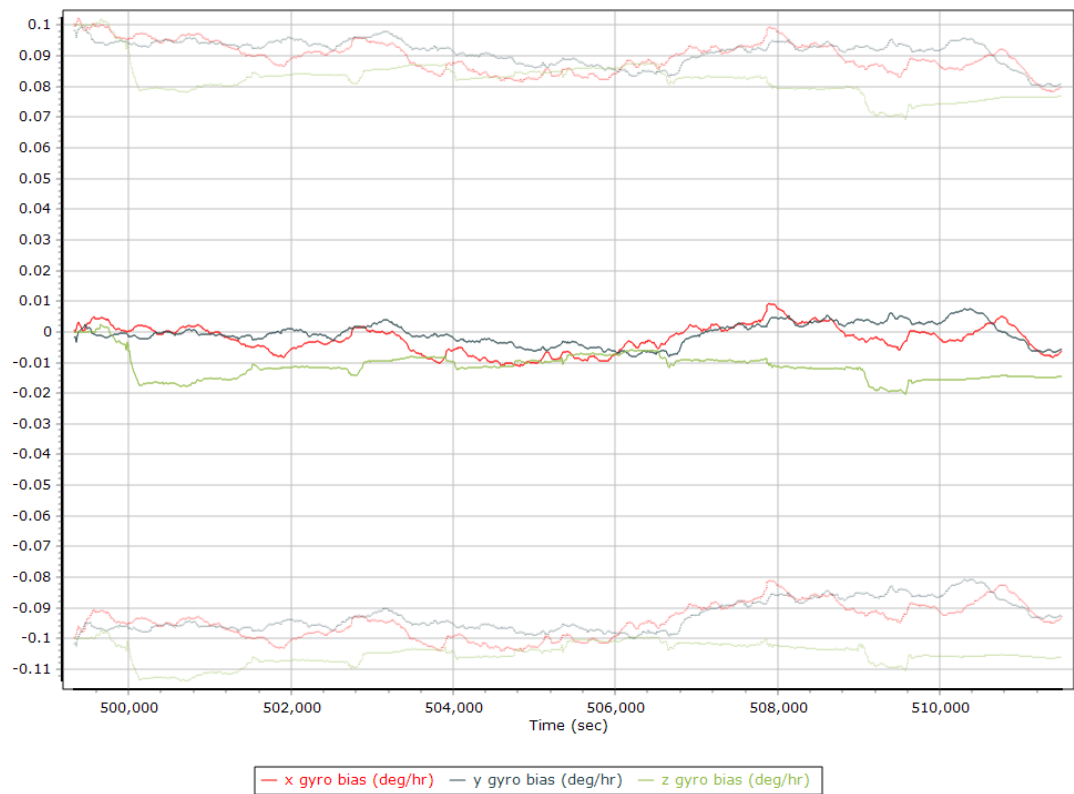
Y Accelerometer Scale Error (ppm)



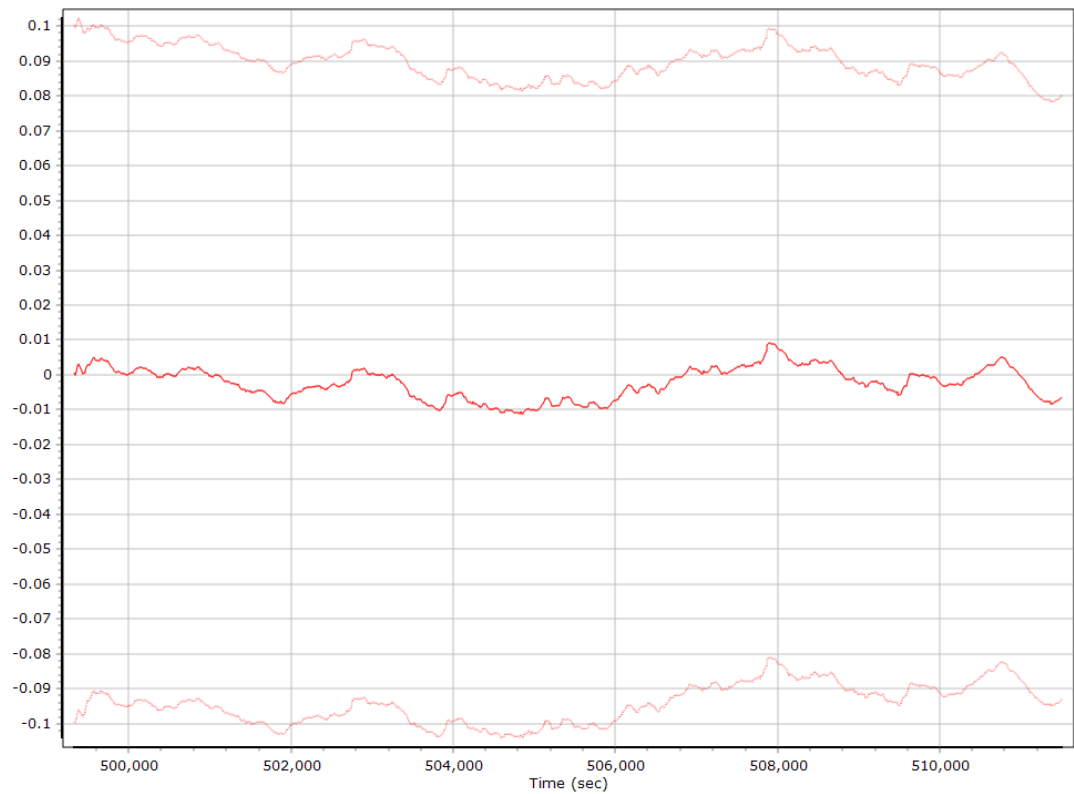
Z Accelerometer Scale Error (ppm)



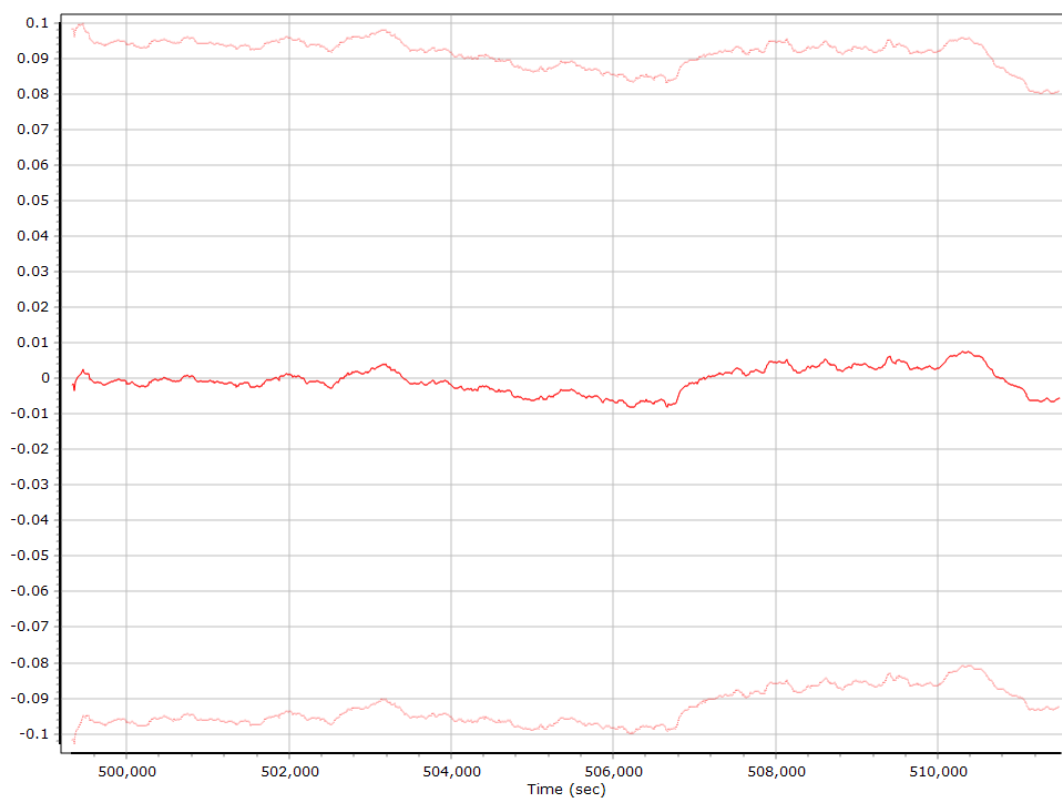
Gyro Bias (deg/h)



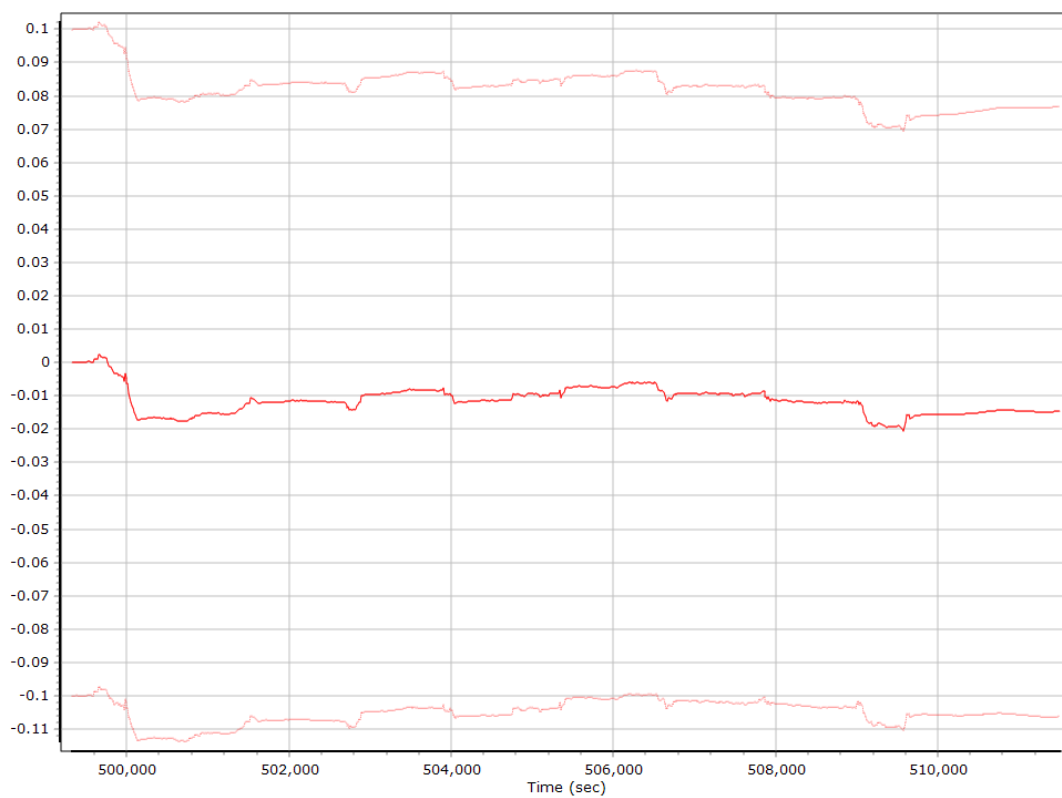
X Gyro Bias (deg/h)



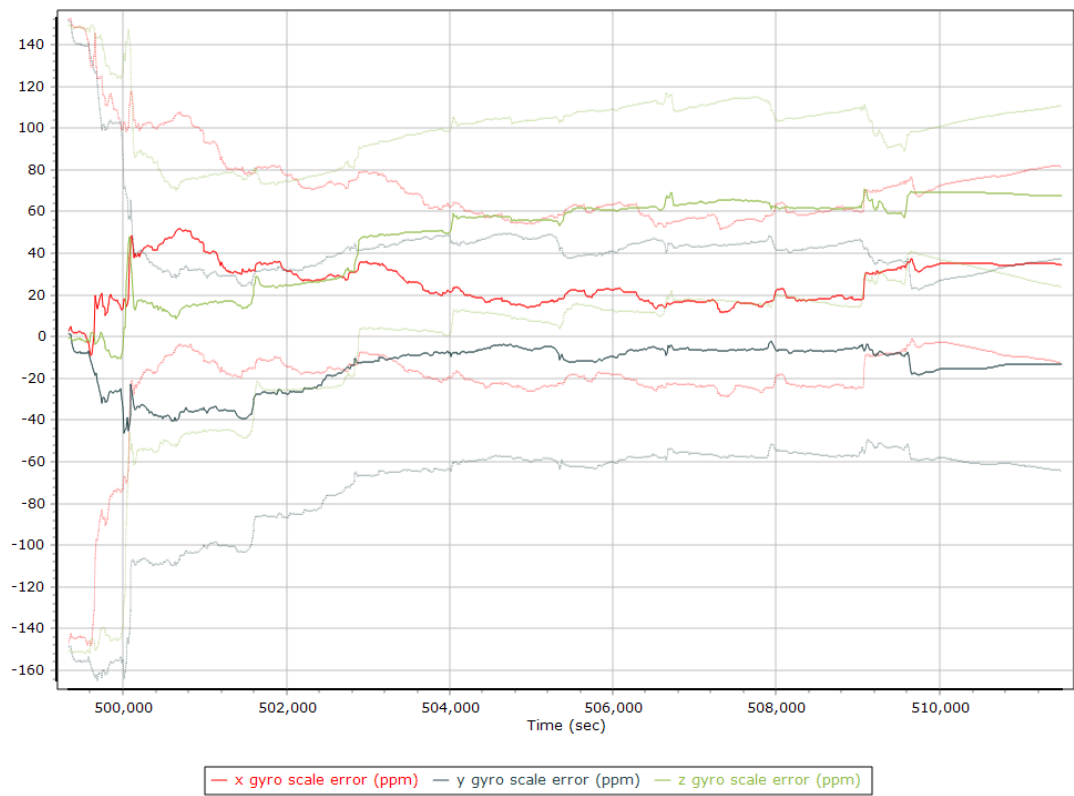
Y Gyro Bias (deg/h)



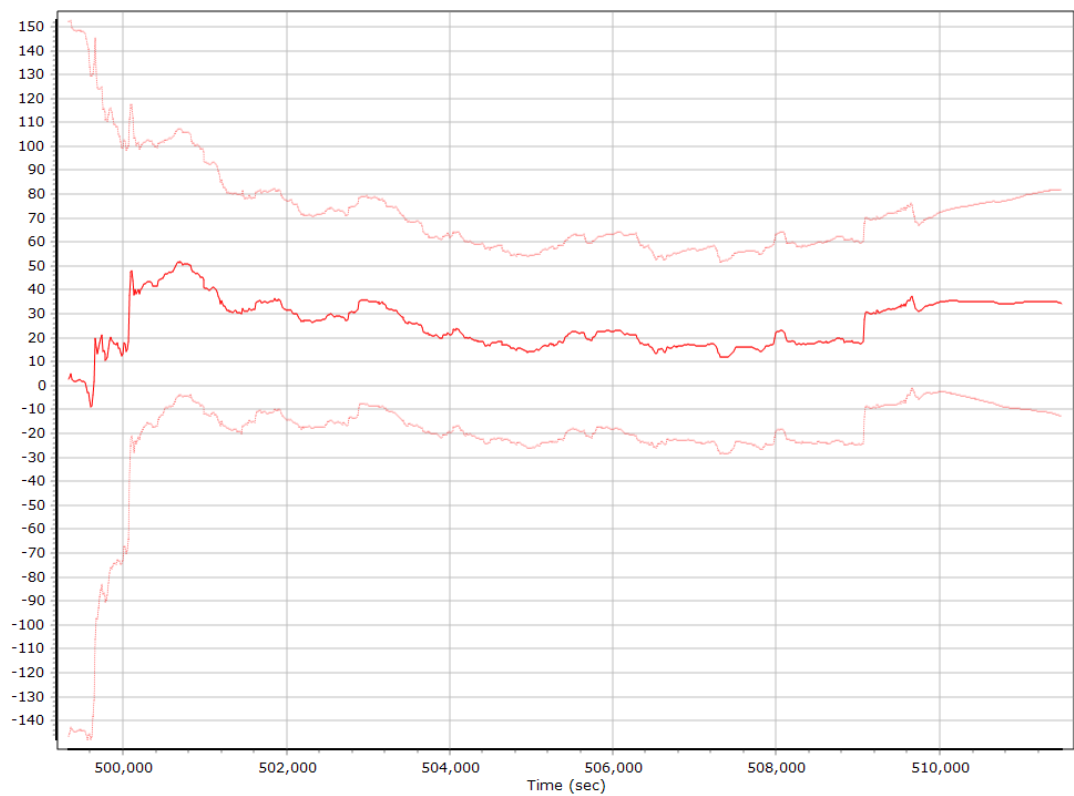
Z Gyro Bias (deg/h)



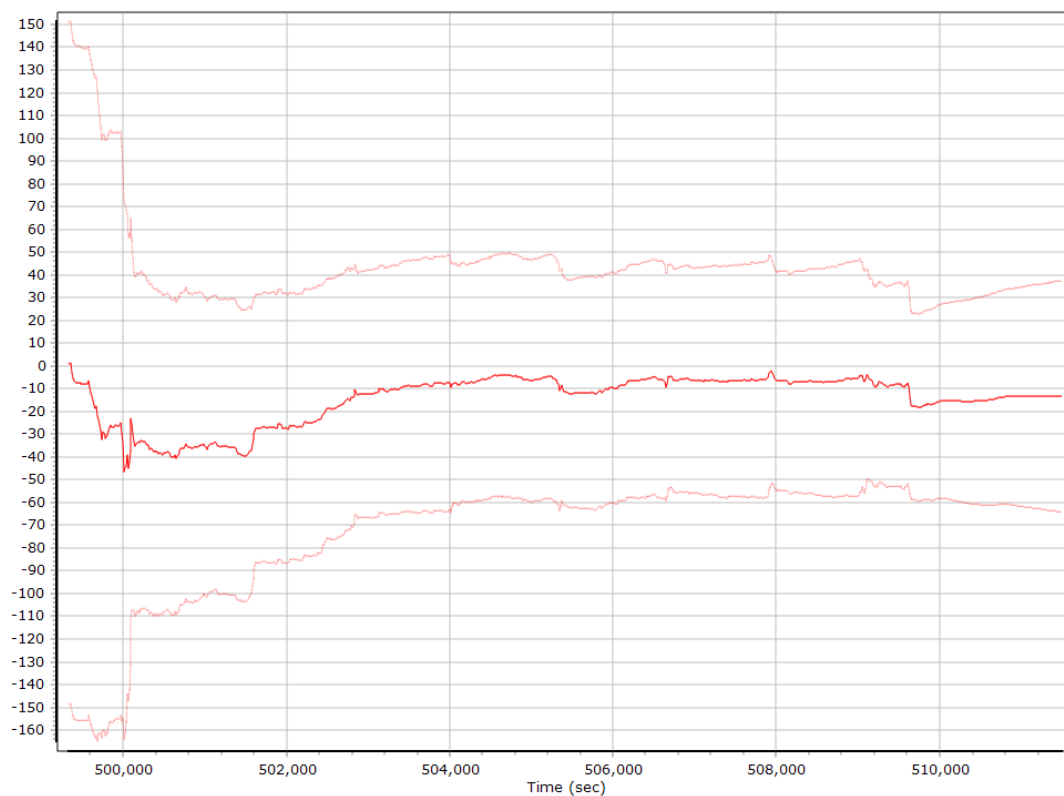
Gyro Scale Error (ppm)



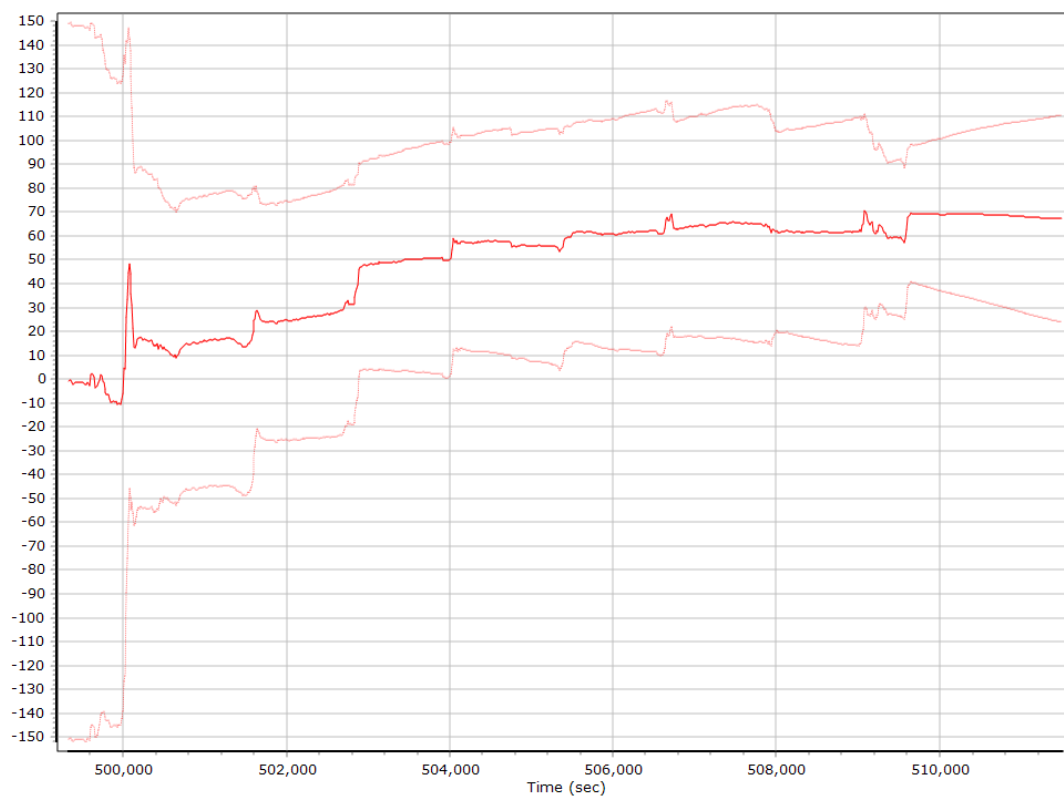
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

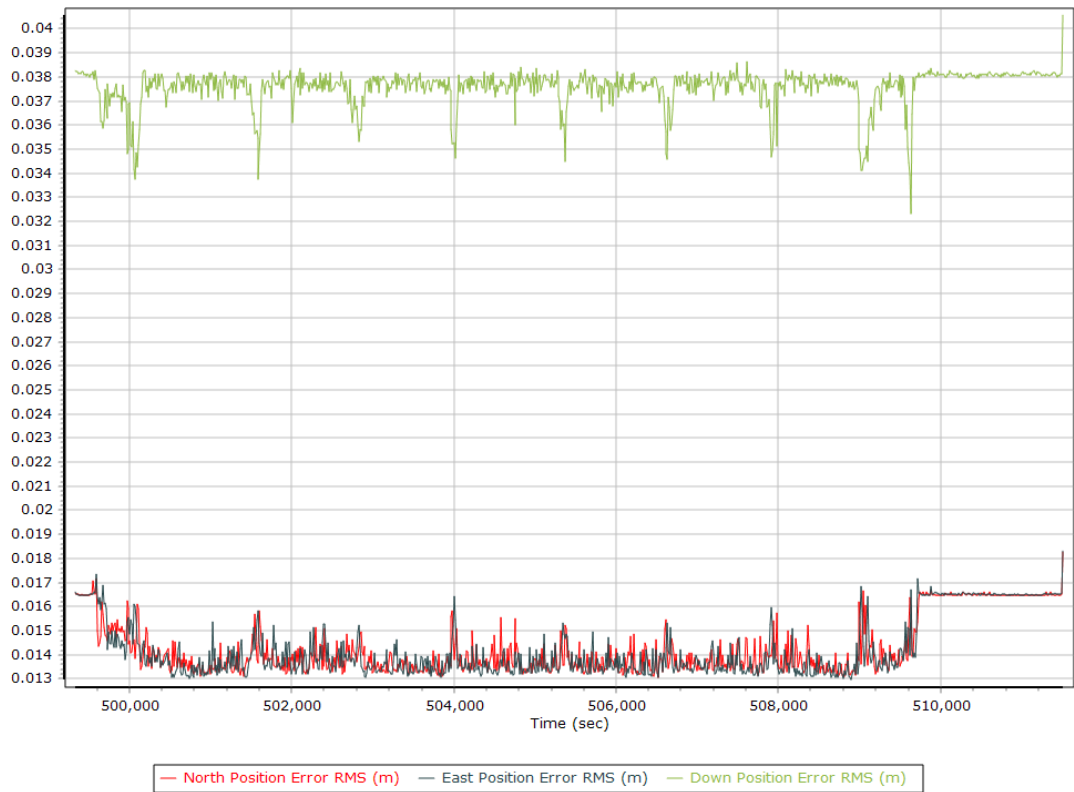


Z Gyro Scale Error (ppm)

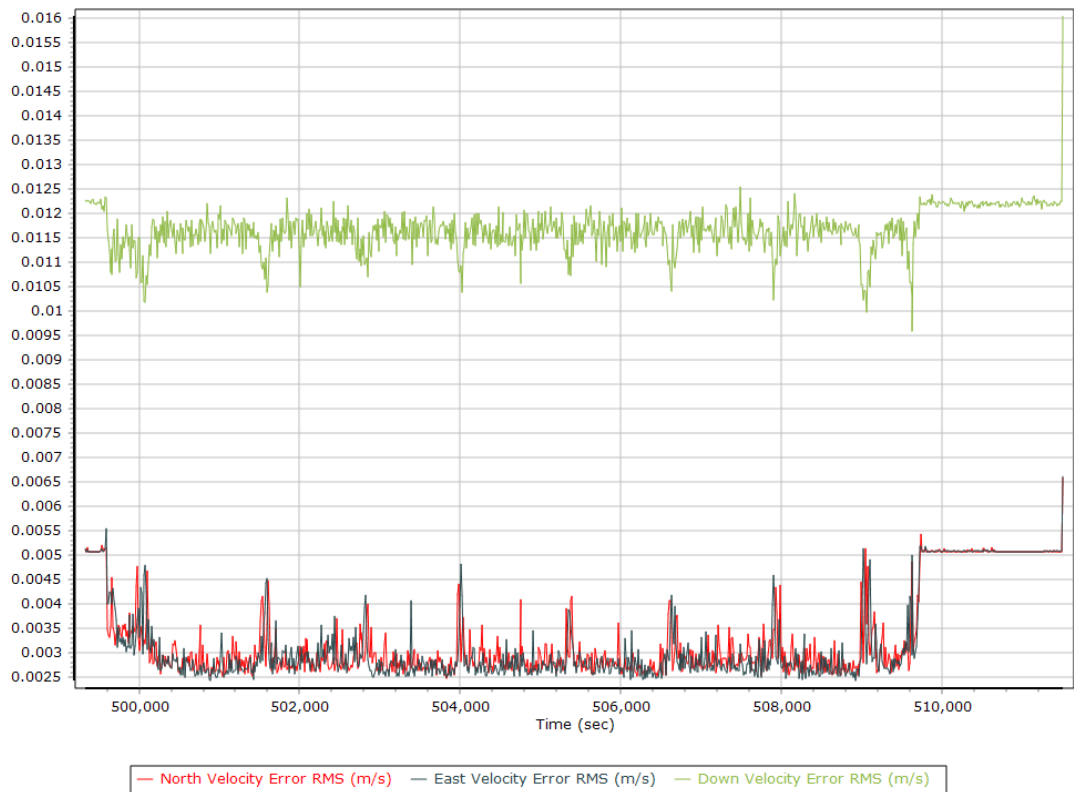


Smoothed Performance Metrics

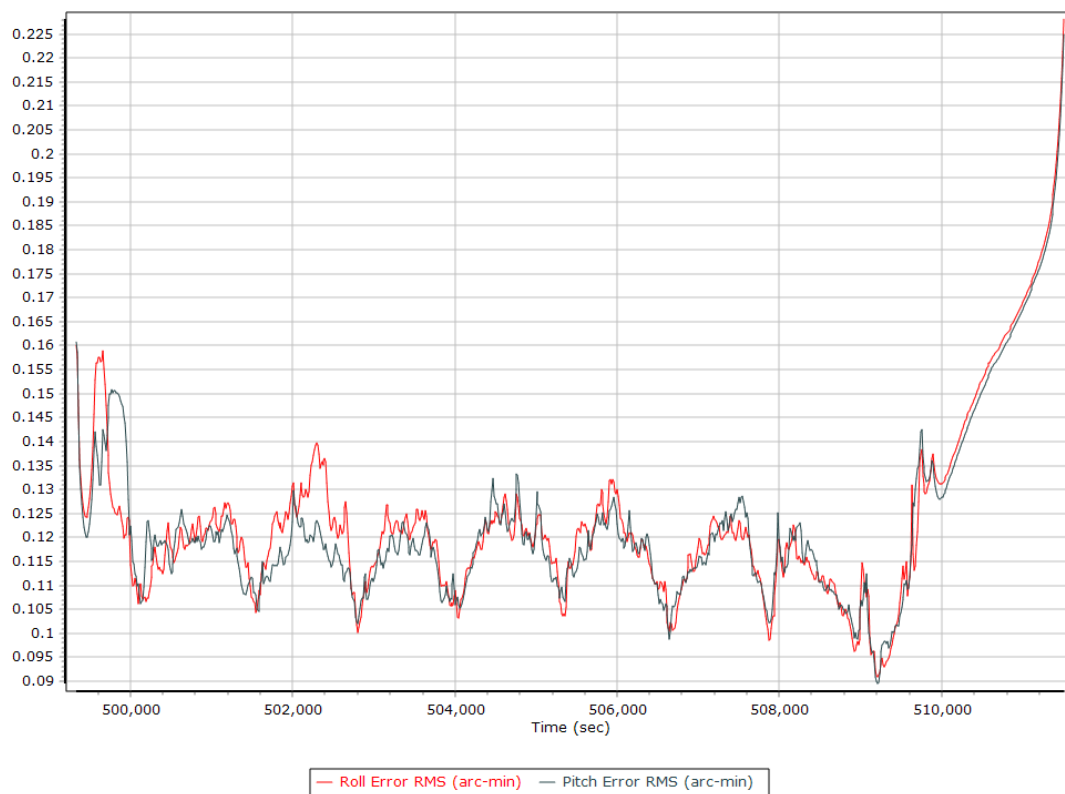
Position Error RMS (m)



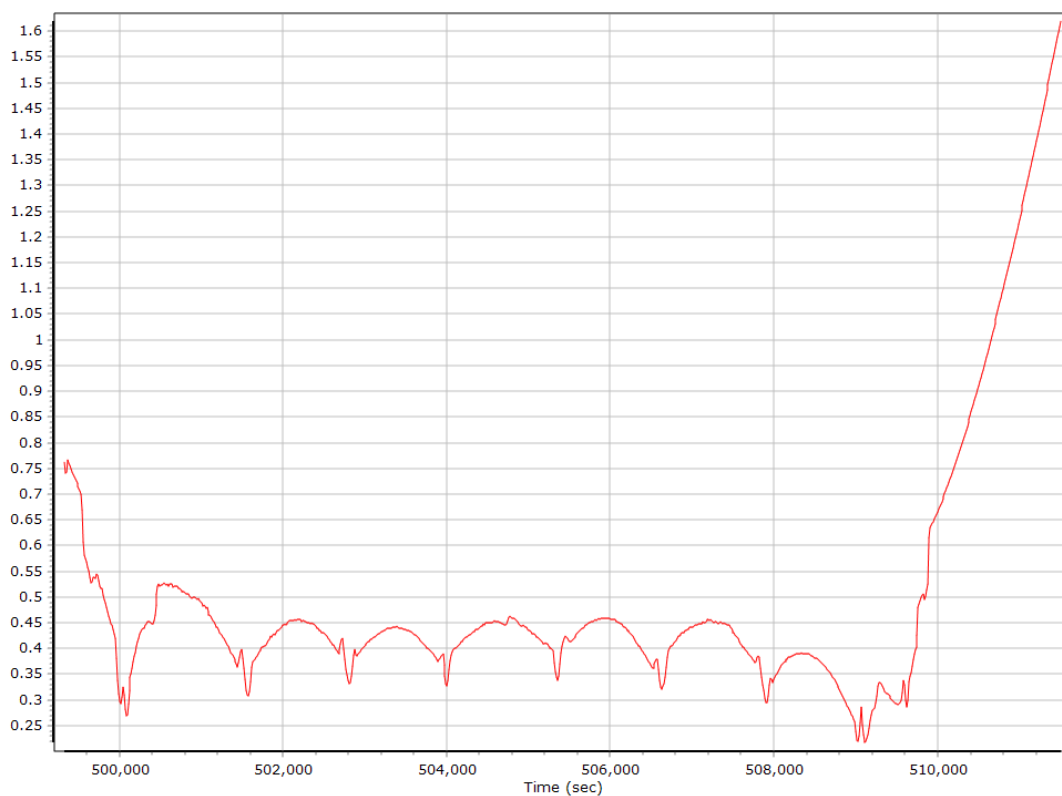
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

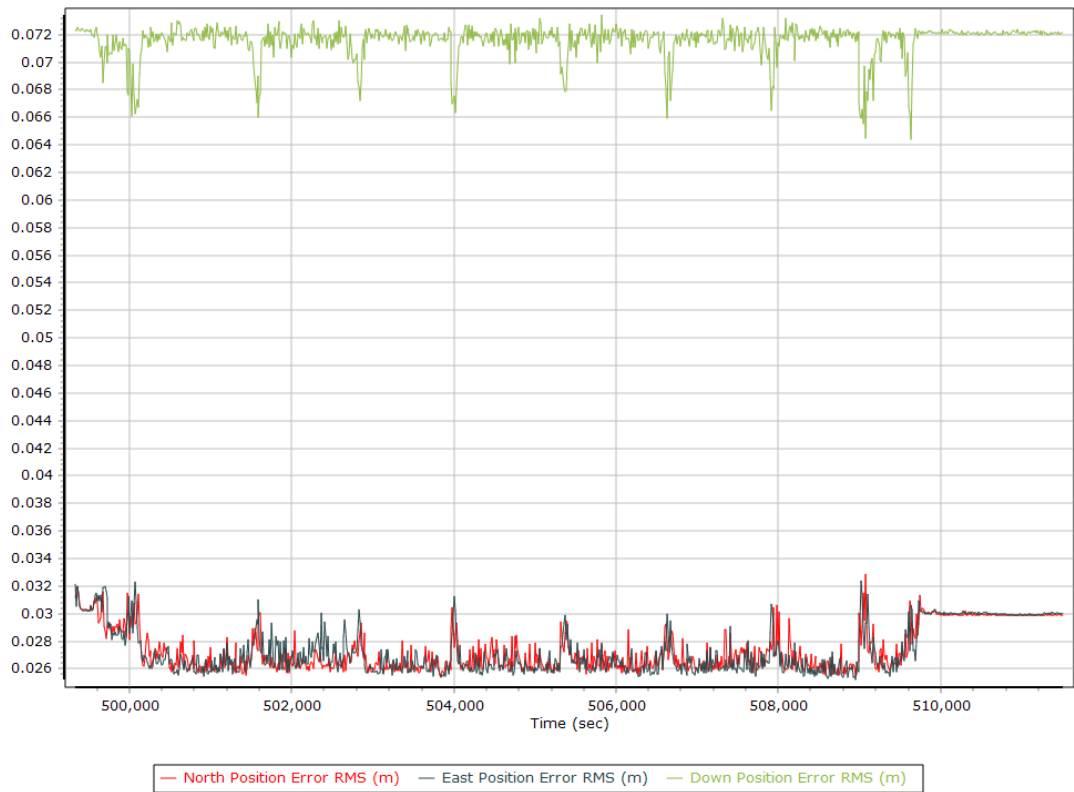


Heading Error RMS (arc-min)

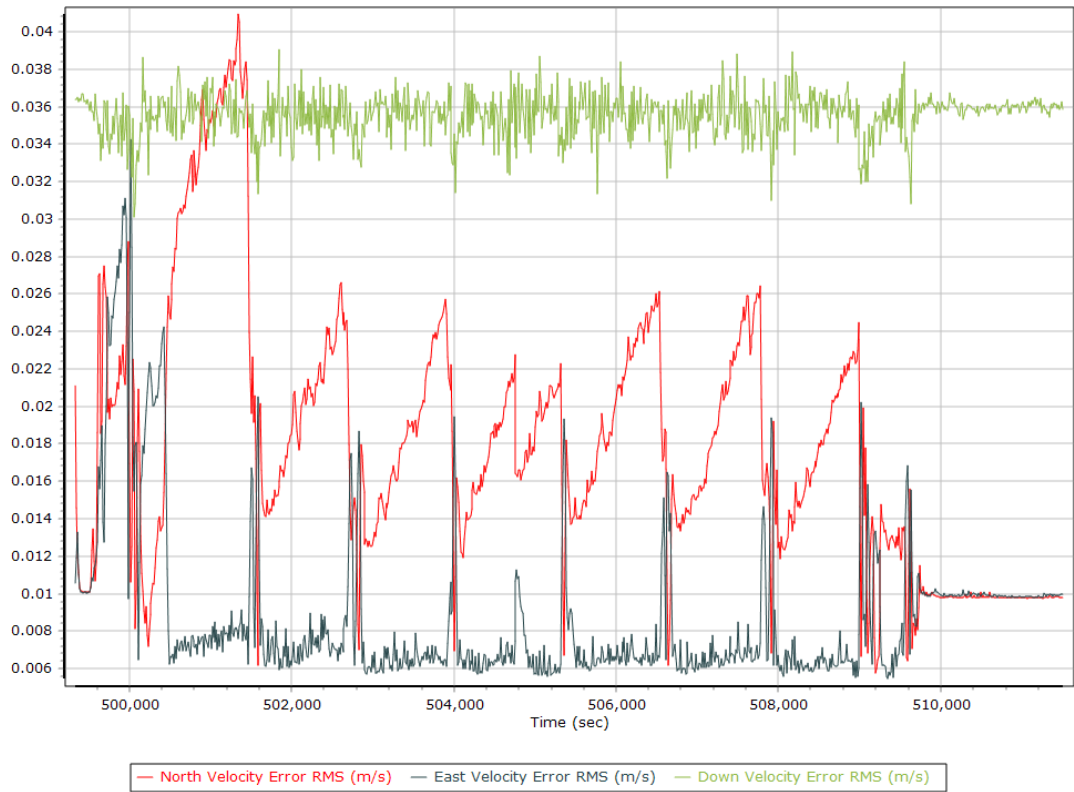


Forward Processed Performance Metrics

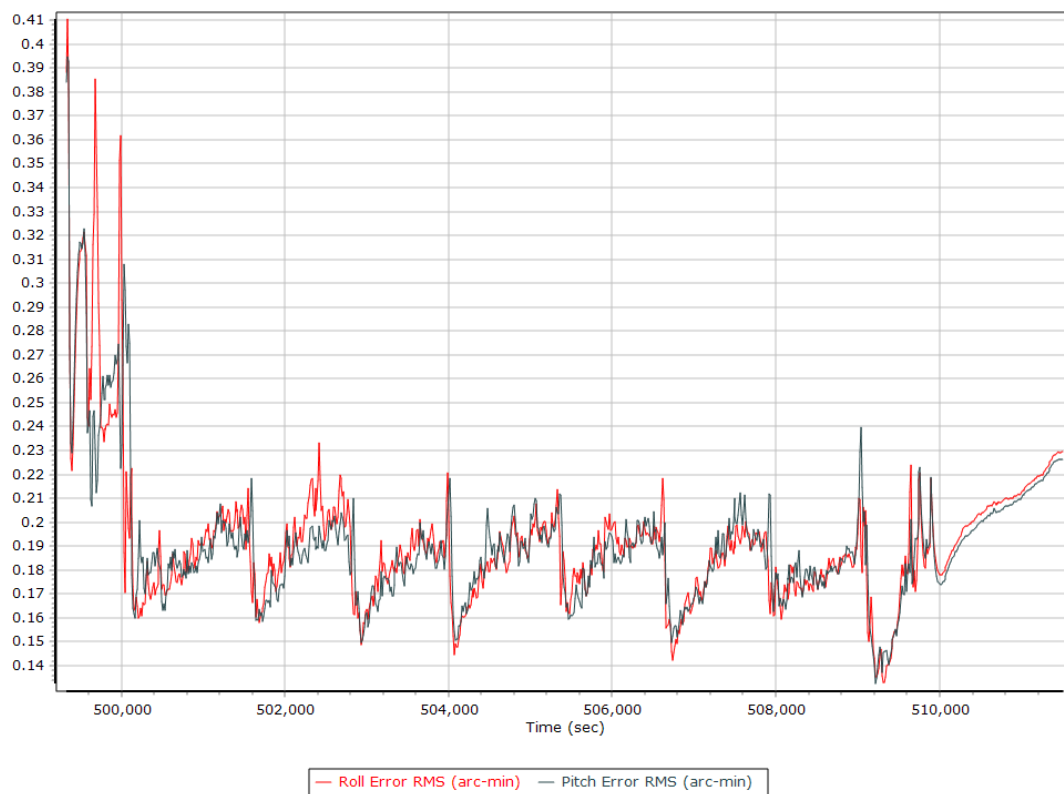
Position Error RMS (m)



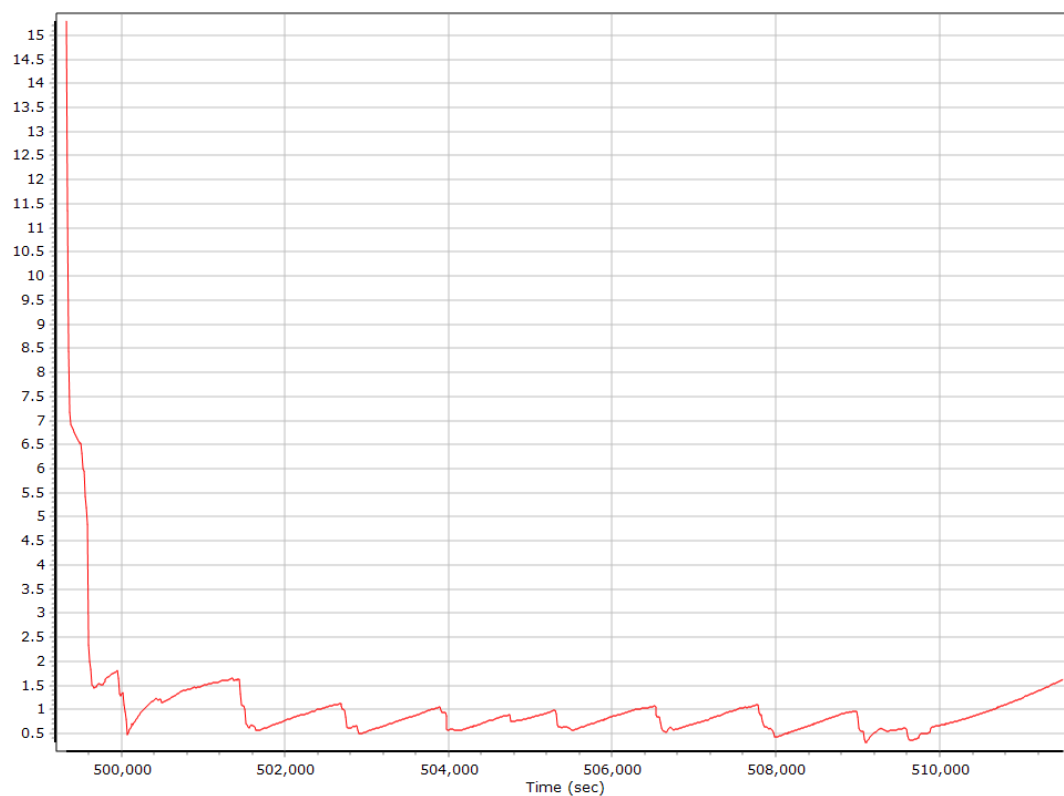
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

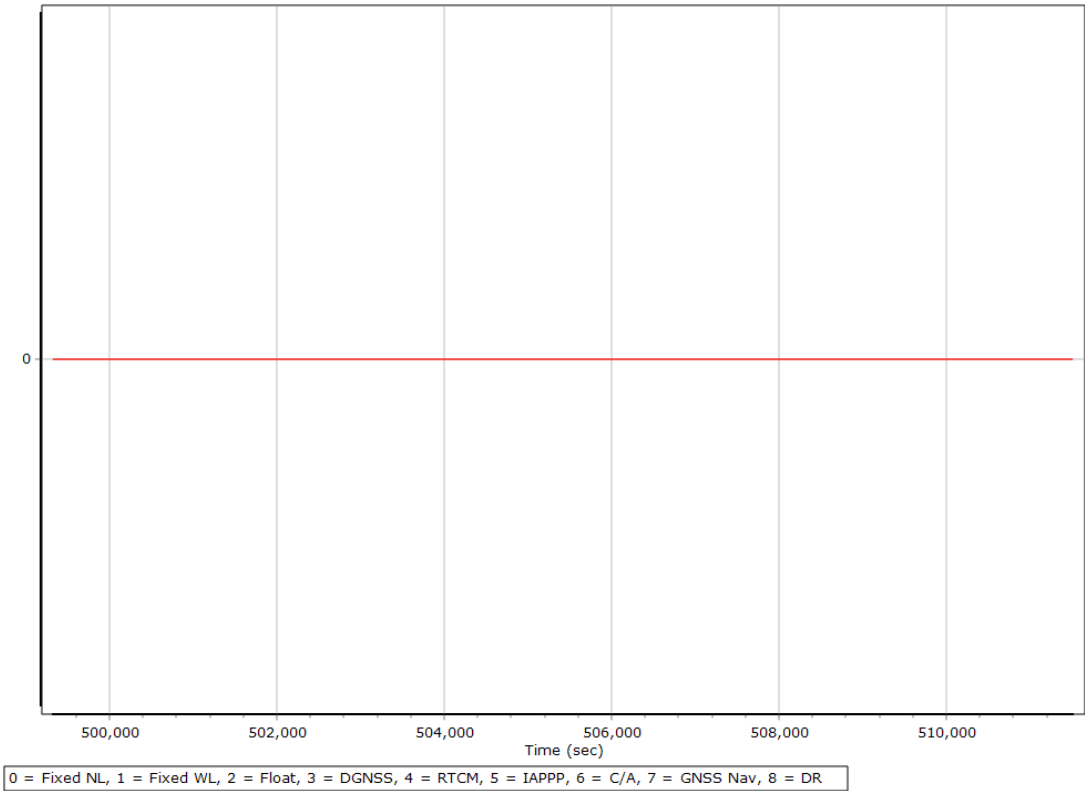


Heading Error RMS (arc-min)

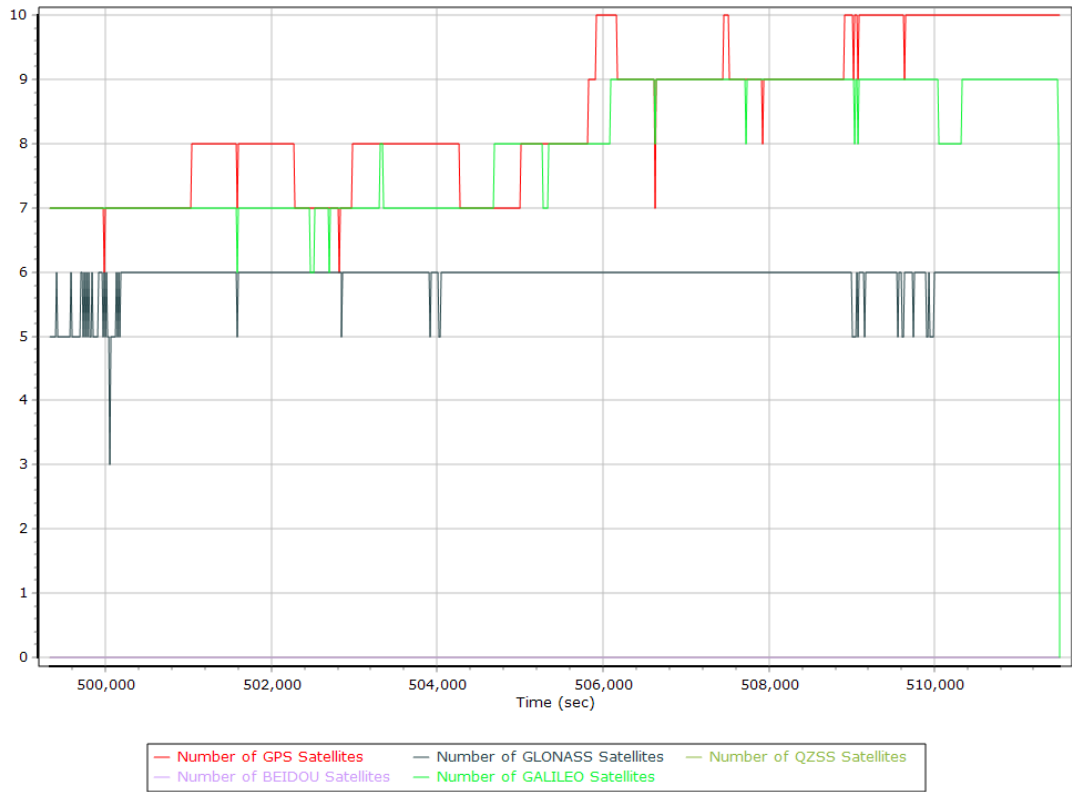


Forward Processed Solution Status

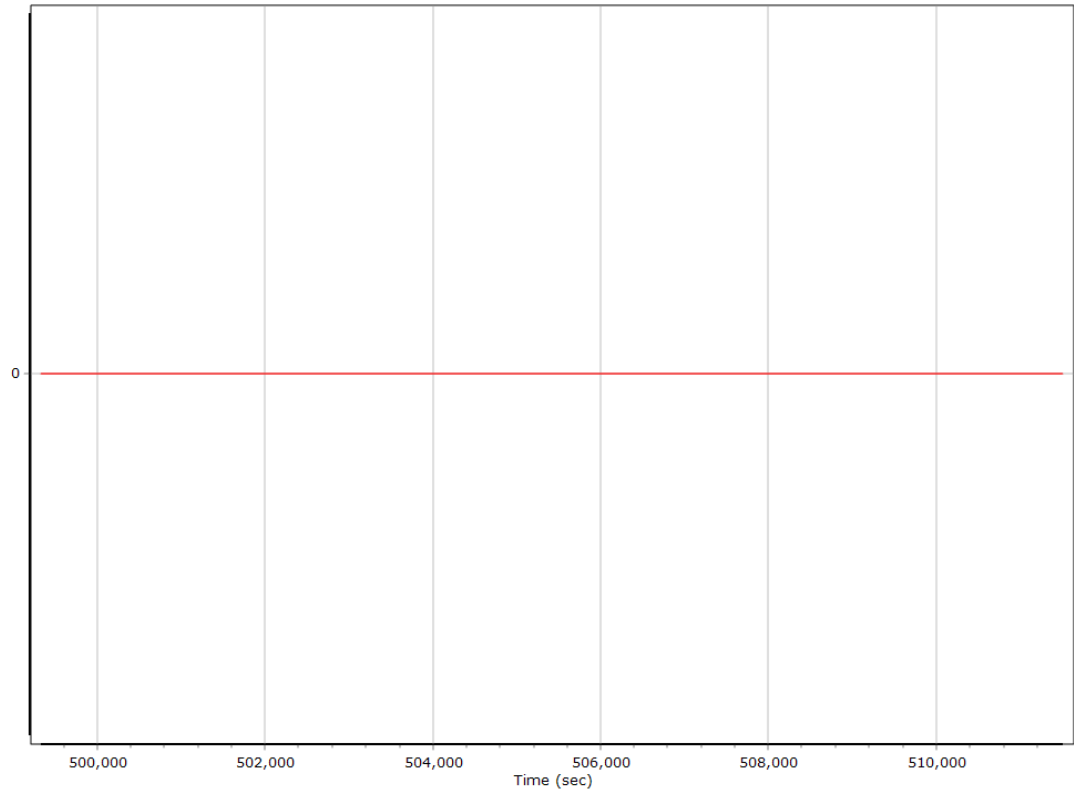
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230414_F2_4894_NAD832011.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	499269.005 (04/14/2023 18:41:09)		
Export end time	511512.000 (04/14/2023 22:05:12)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.282192		

General Information

Mission Information

Project name	20230419_F1_4894
Processing date	2023-04-20 20:31:24
Mission date	2023-04-19 07:20:21
Mission duration	03:41:35.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.516	POS Data
VQ1560.517	POS Data
VQ1560.518	POS Data
VQ1560.519	POS Data
VQ1560.520	POS Data
VQ1560.521	POS Data
VQ1560.522	POS Data
VQ1560.523	POS Data
VQ1560.524	POS Data
VQ1560.525	POS Data
VQ1560.526	POS Data
VQ1560.527	POS Data
VQ1560.528	POS Data
VQ1560.529	POS Data
VQ1560.530	POS Data
VQ1560.531	POS Data
VQ1560.532	POS Data
VQ1560.533	POS Data
VQ1560.534	POS Data
VQ1560.535	POS Data
VQ1560.536	POS Data
VQ1560.537	POS Data
VQ1560.538	POS Data
VQ1560.539	POS Data
VQ1560.540	POS Data
VQ1560.541	POS Data
VQ1560.542	POS Data
VQ1560.543	POS Data
VQ1560.544	POS Data
VQ1560.545	POS Data

Input Files

File Name	File Type
Ephm1090.23g	GLONASS Broadcast Ephemeris
Ephm1090.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230419_F1_4894.out	SBET Trajectory File
export_20230419_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.516		
Last raw data file	VQ1560.545		
Start GPS week	2258		
Start time	285614.770 (04/19/2023 07:20:14)		
End time	298898.925 (04/19/2023 11:01:38)		
Start of fine alignment	286461.808 (04/19/2023 07:34:21)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

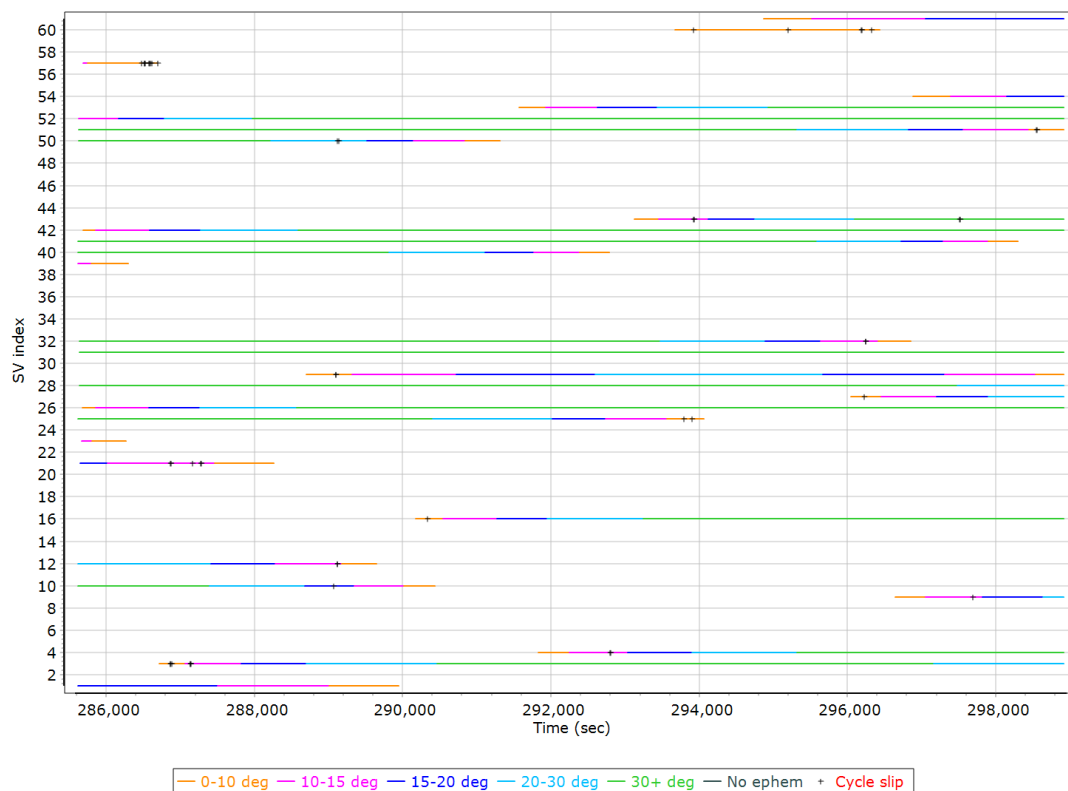
Rover Data QC

Raw IMU Import QC Summary

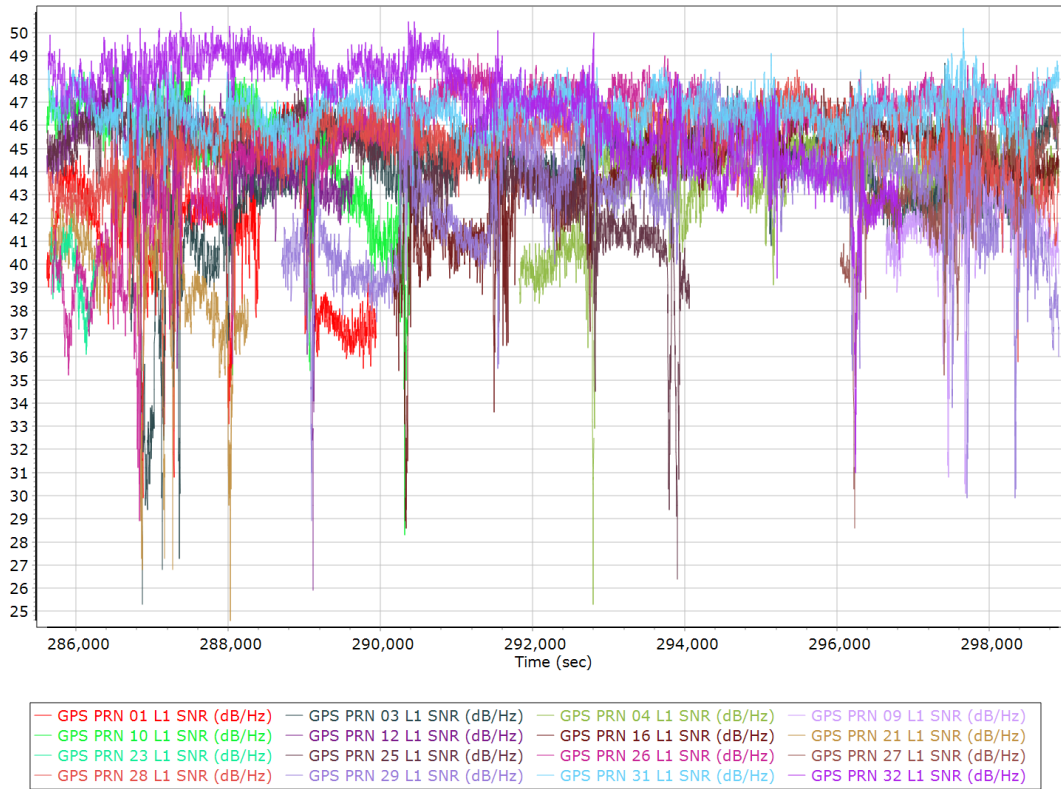
IMU data input file	imu_20230419_F1_4894.dat
IMU data check log file	imudt_20230419_F1_4894.log
IMU Records Processed	2658651
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
285614.569 : WARNING : Gap of 285602.6130 seconds in CHECKDT input data	

Primary Observables & Satellite Data

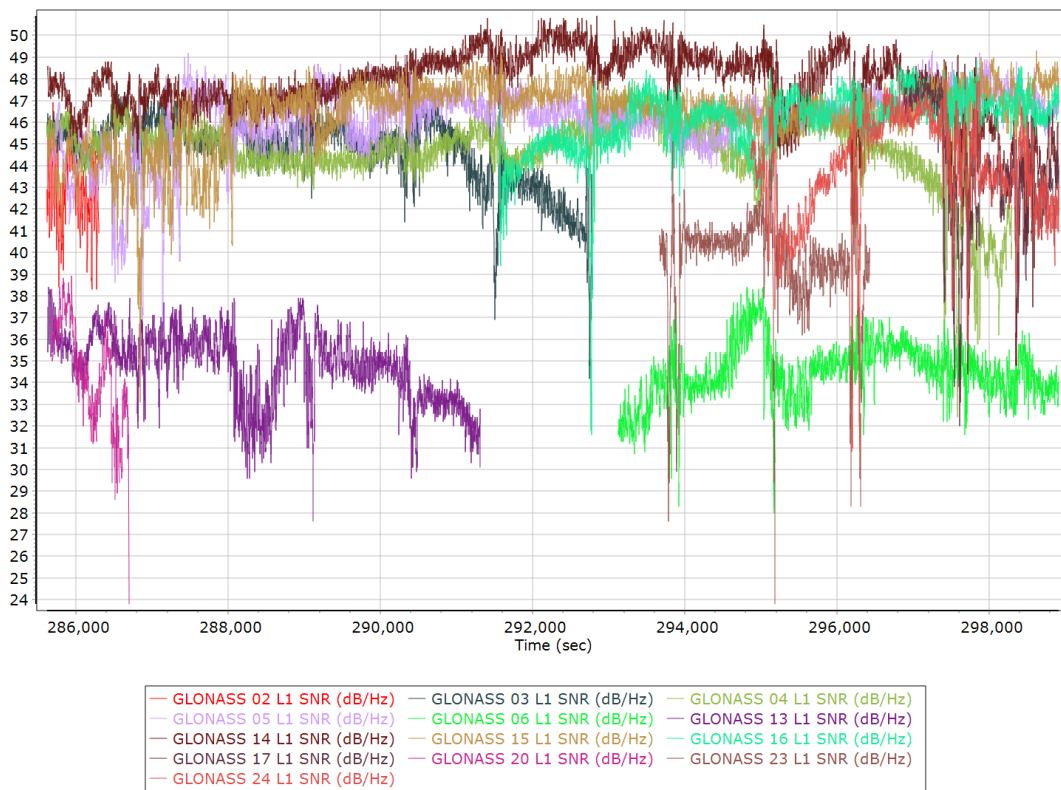
GPS/GLONASS L1 Satellite Lock/Elevation



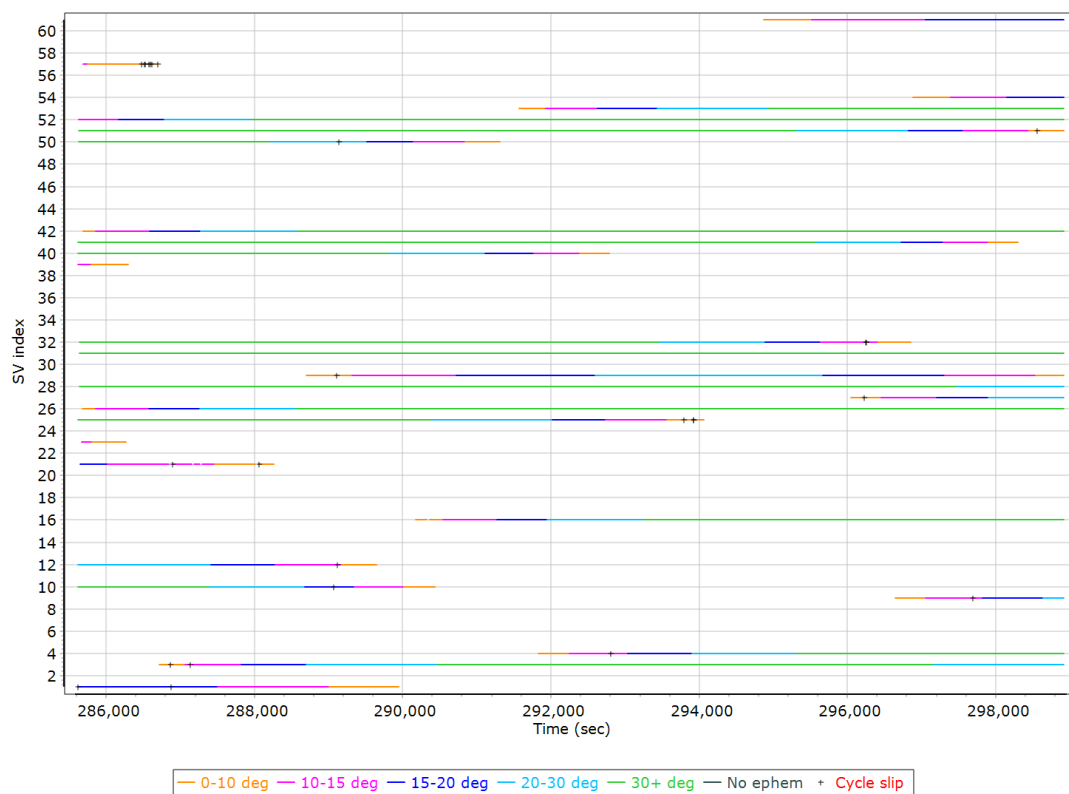
GPS L1 SNR



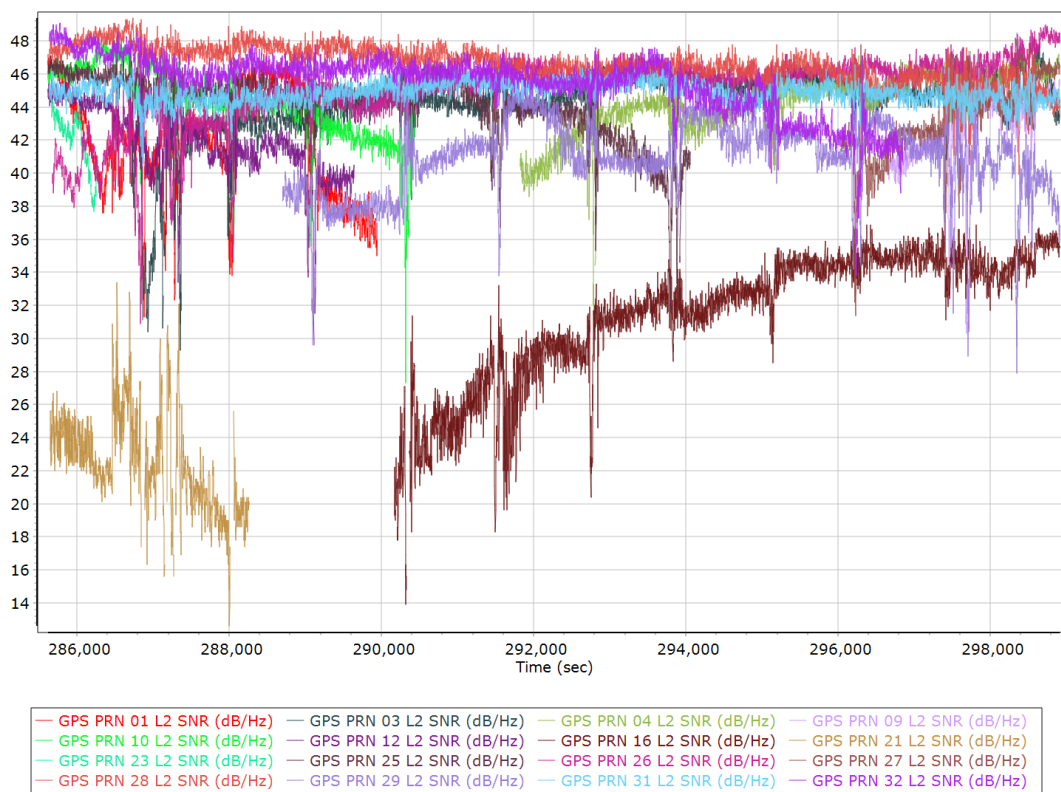
GLONASS L1 SNR



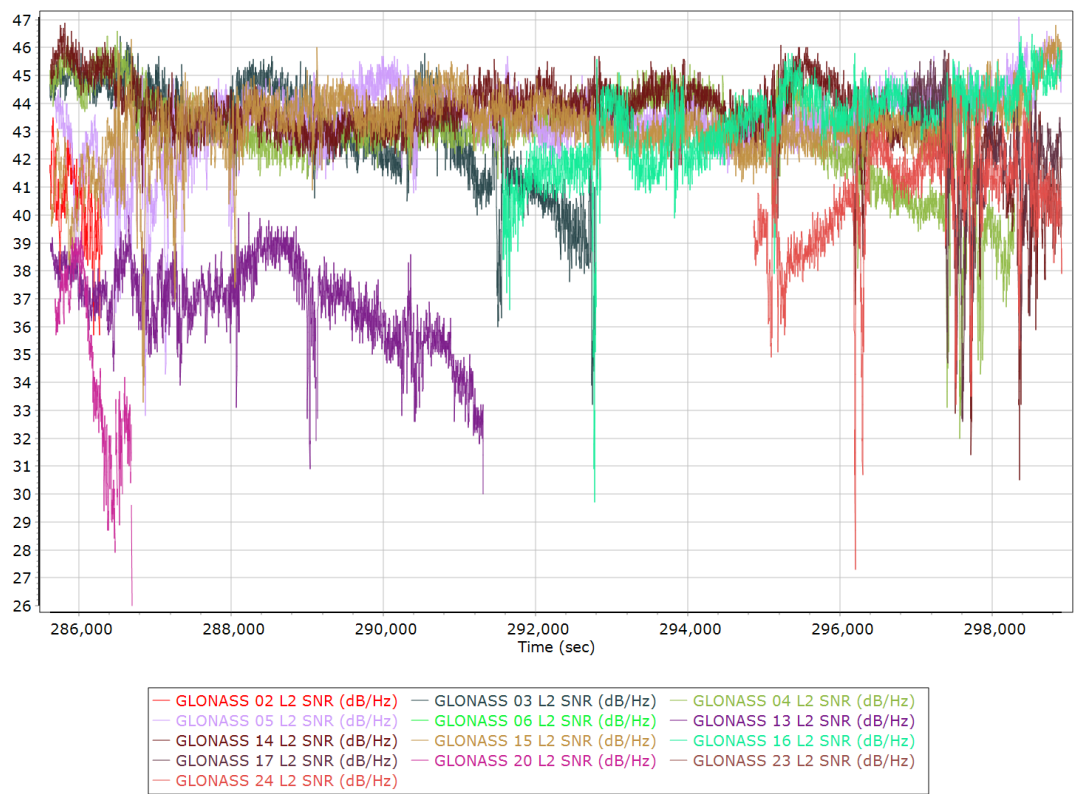
GPS/GLONASS L2 Satellite Lock/Elevation



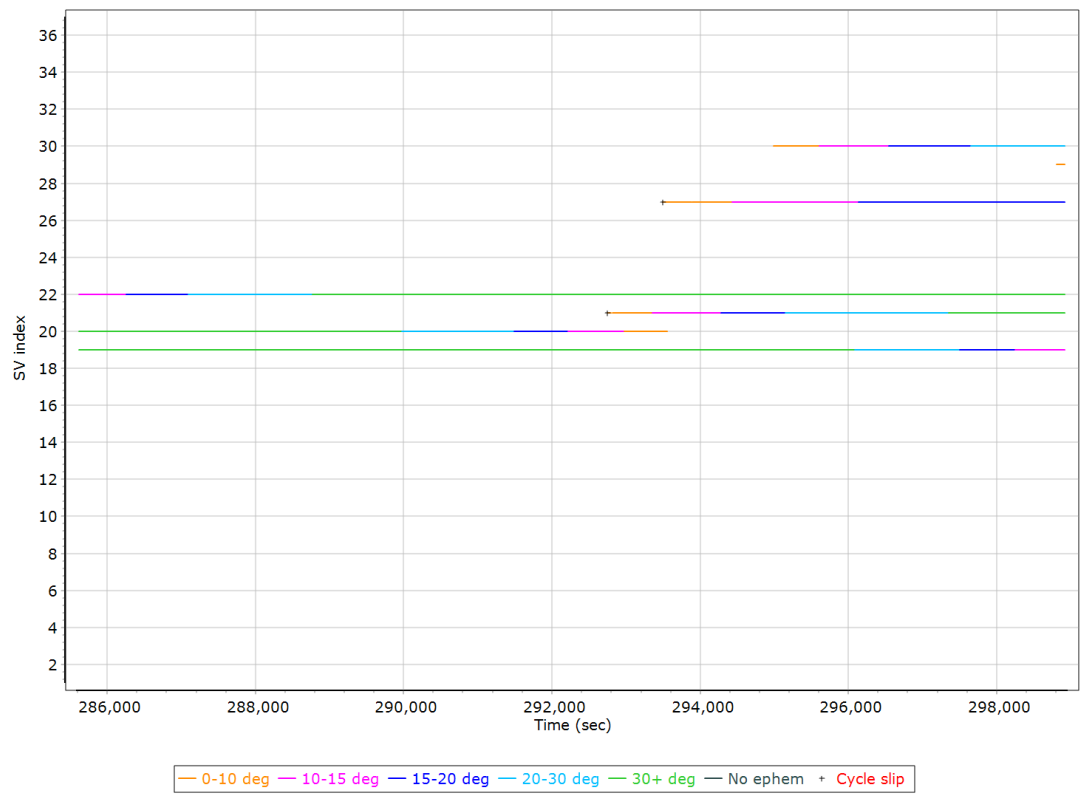
GPS L2 SNR



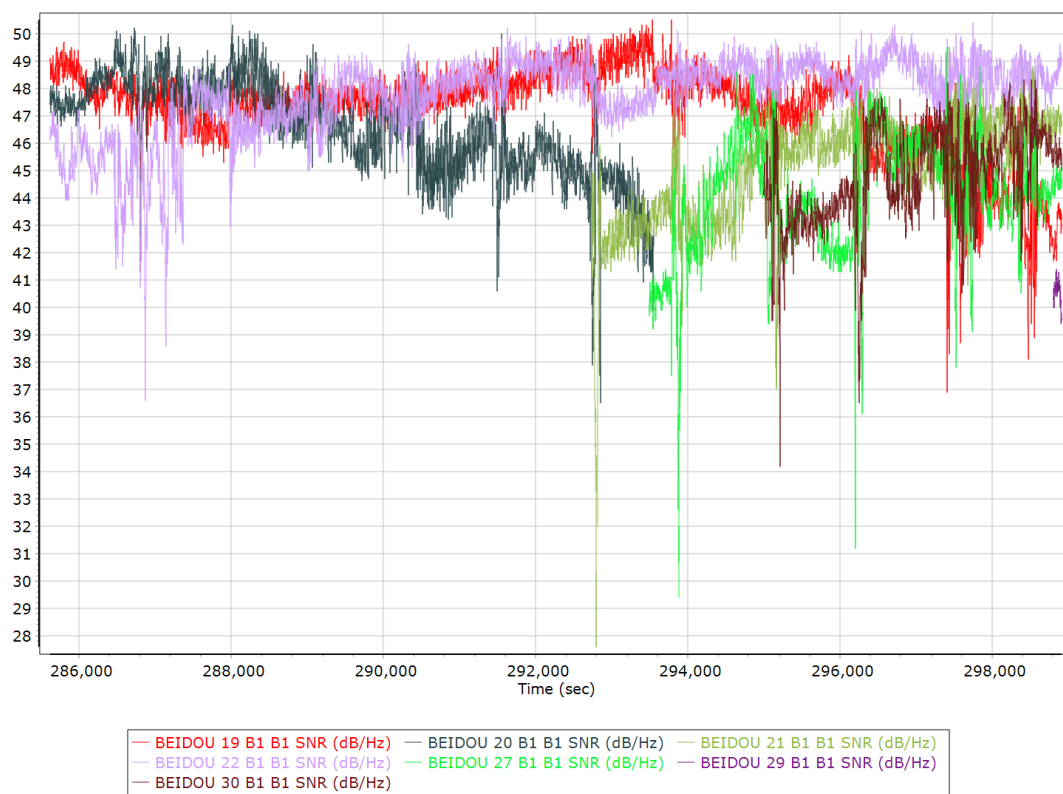
GLONASS L2 SNR



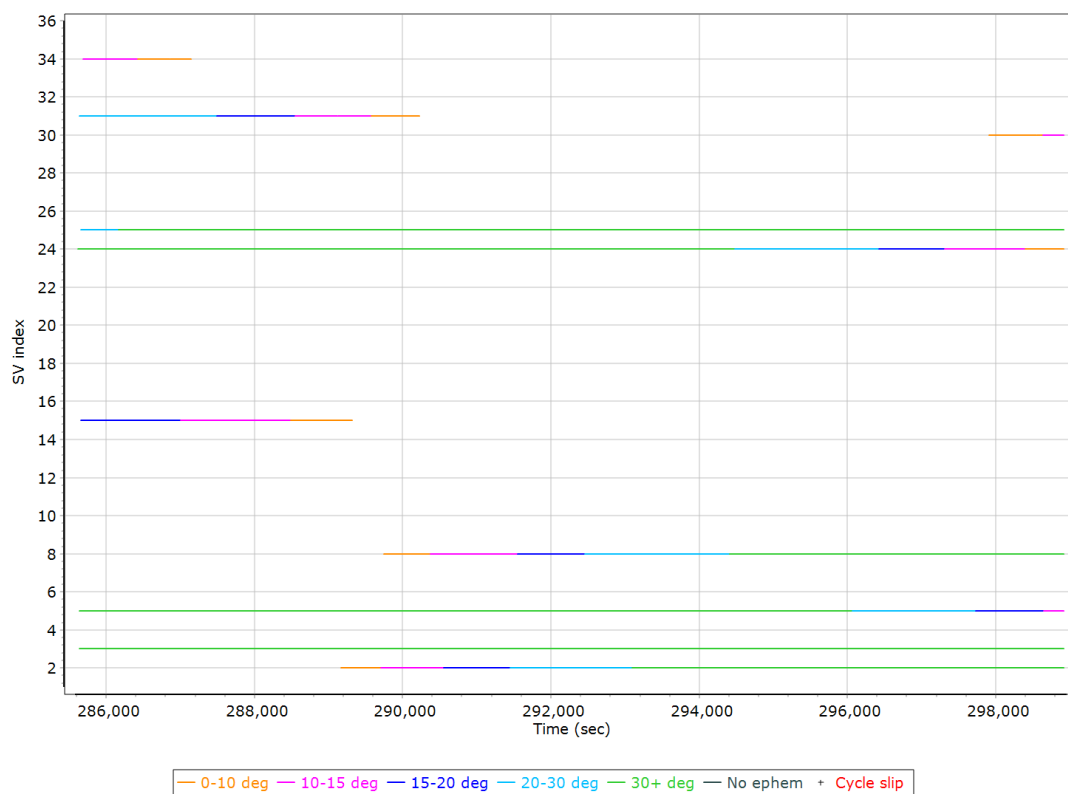
BEIDOU Satellite Lock/Elevation



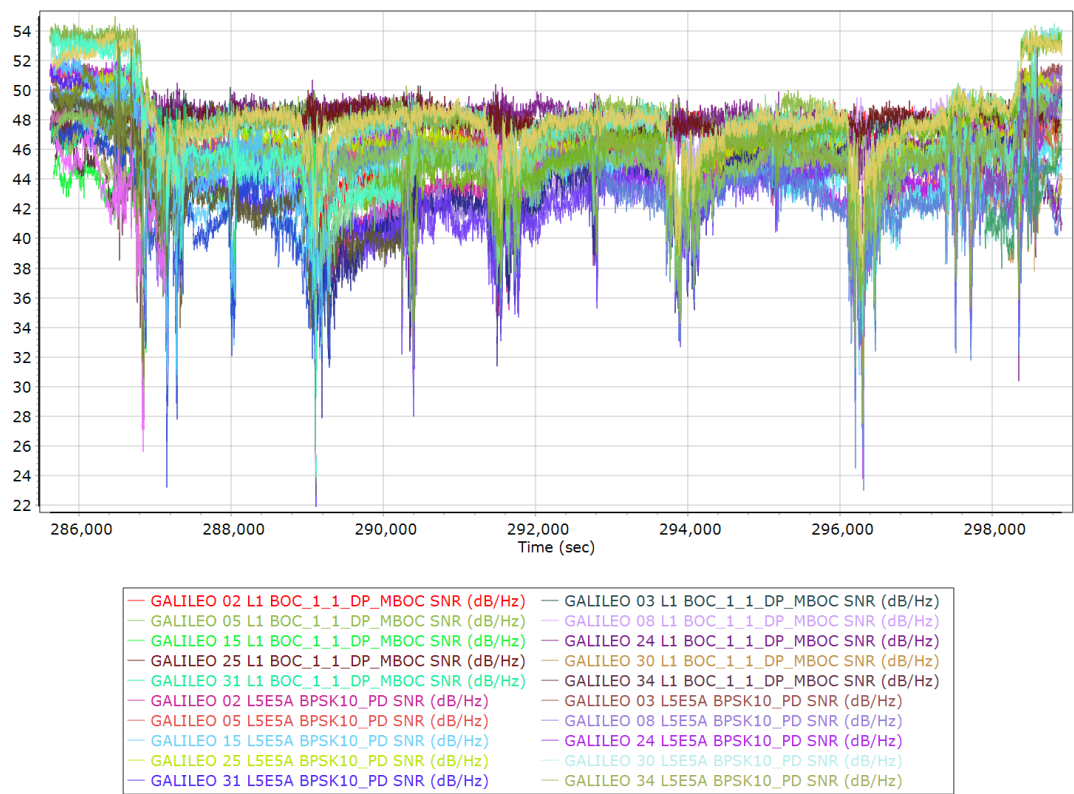
BEIDOU SNR



GALILEO Satellite Lock/Elevation

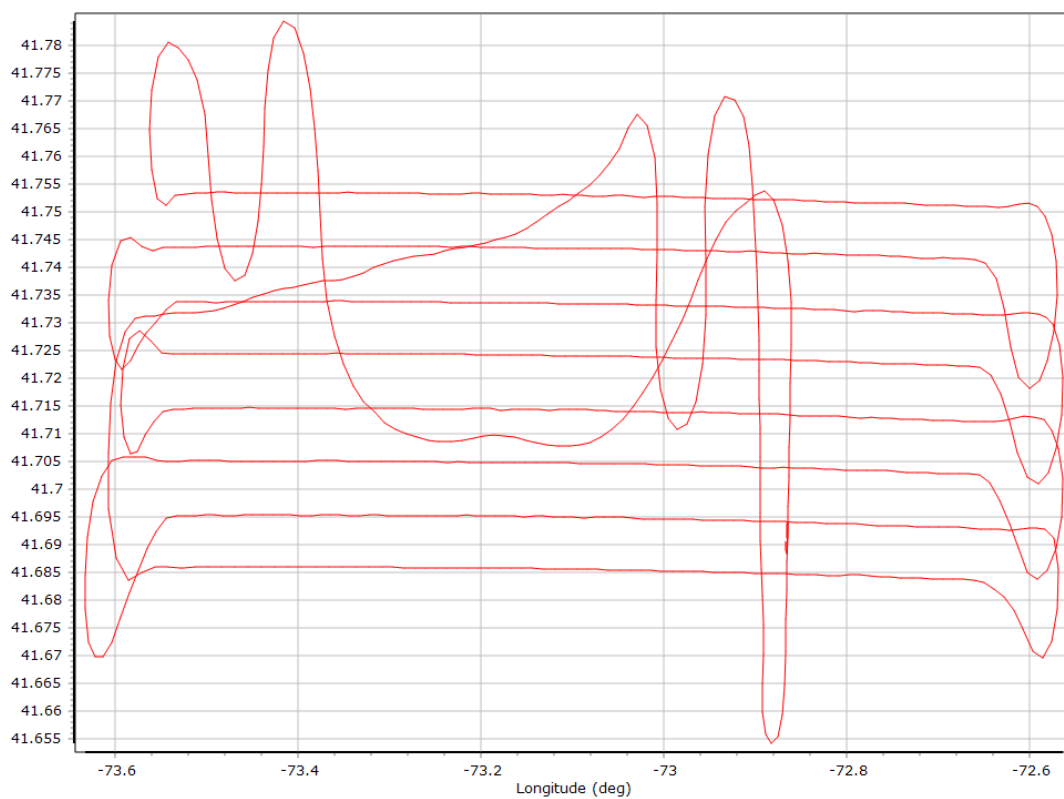


GALILEO SNR

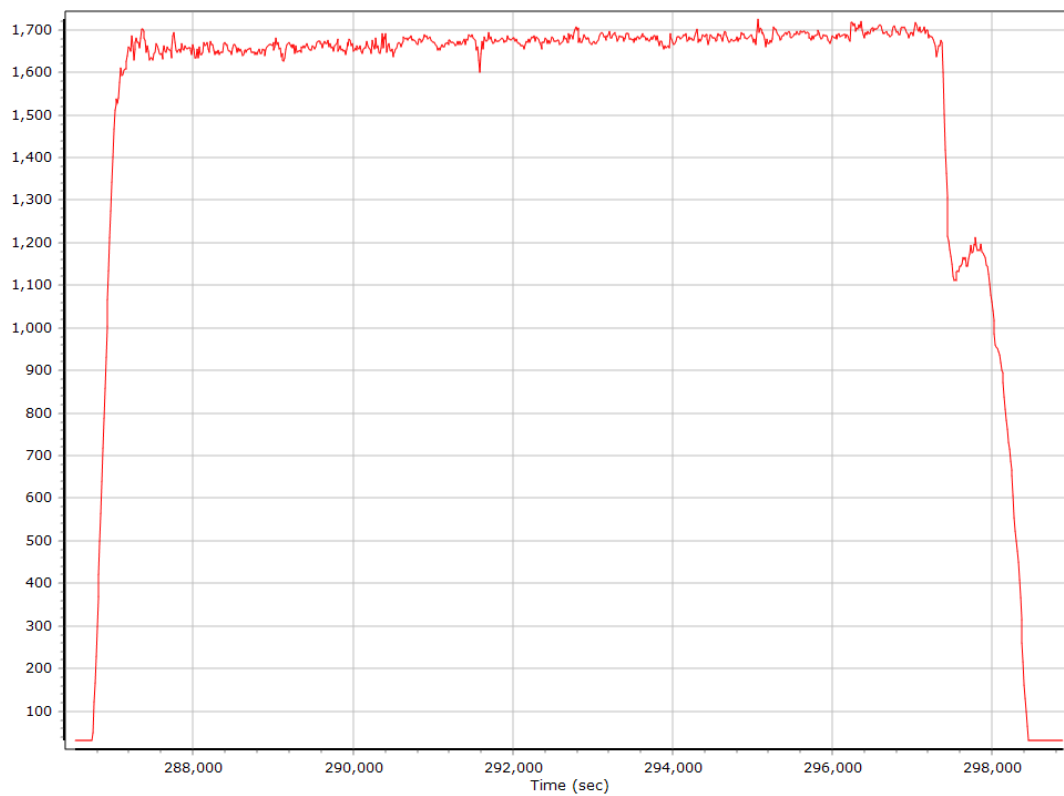


Smoothed Trajectory Information

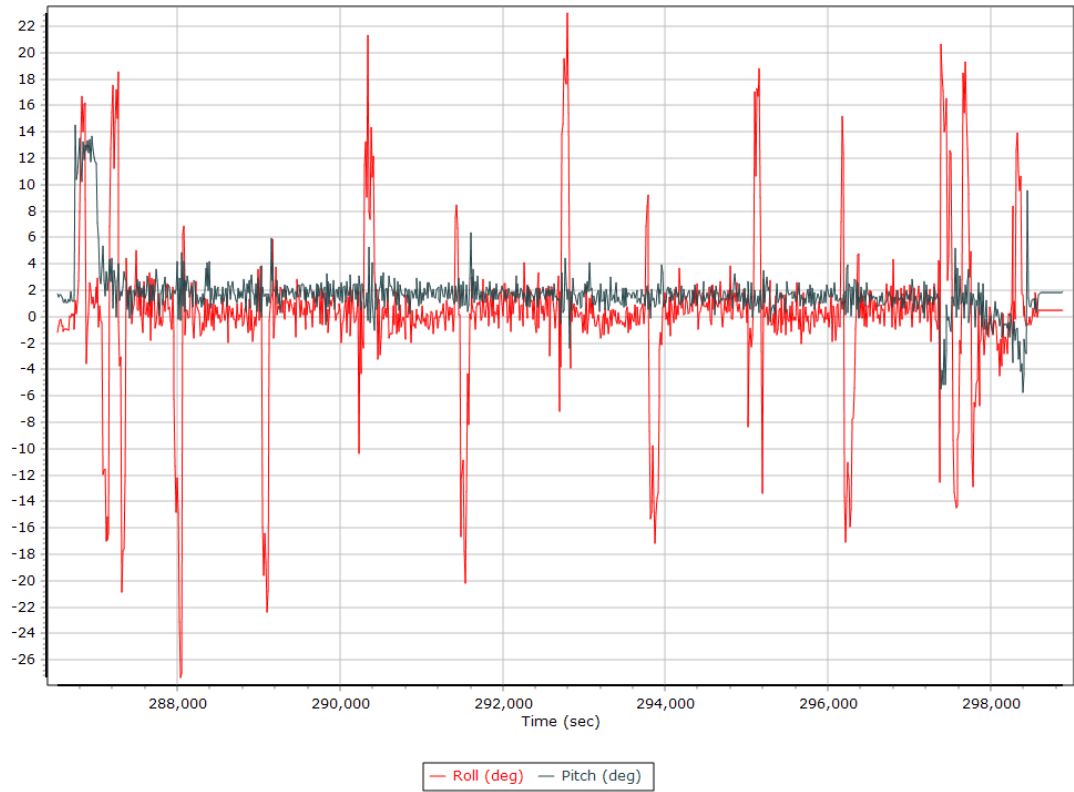
Top View



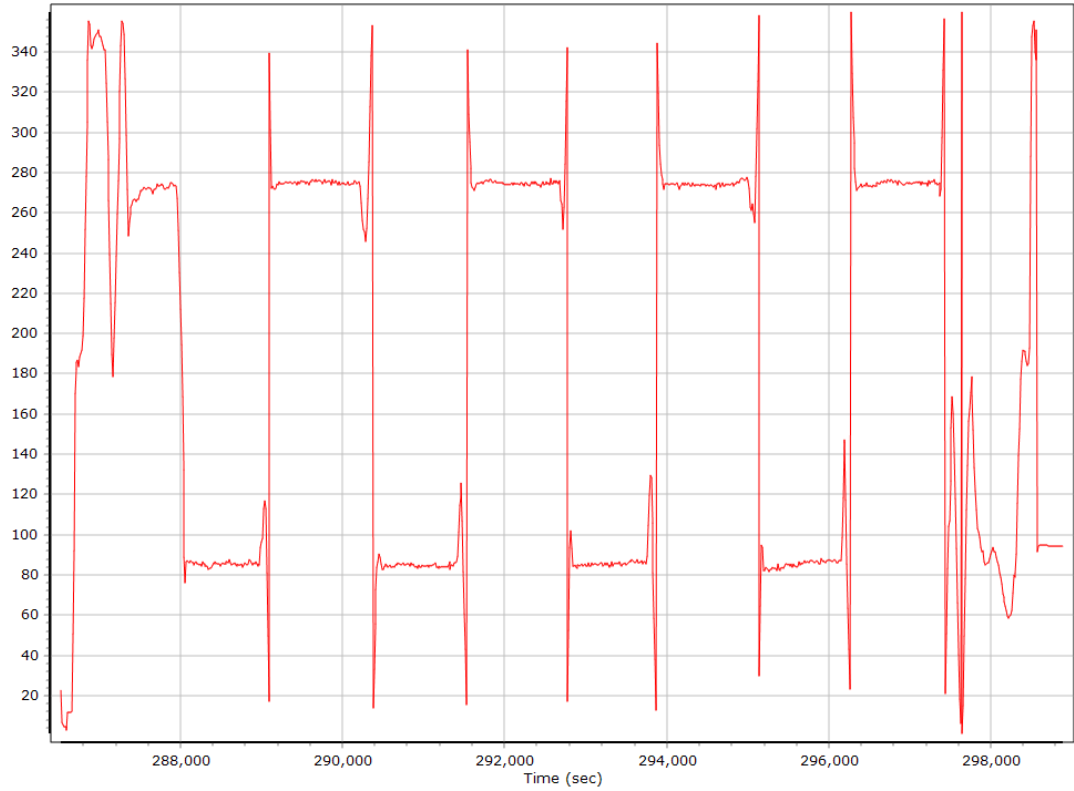
Altitude



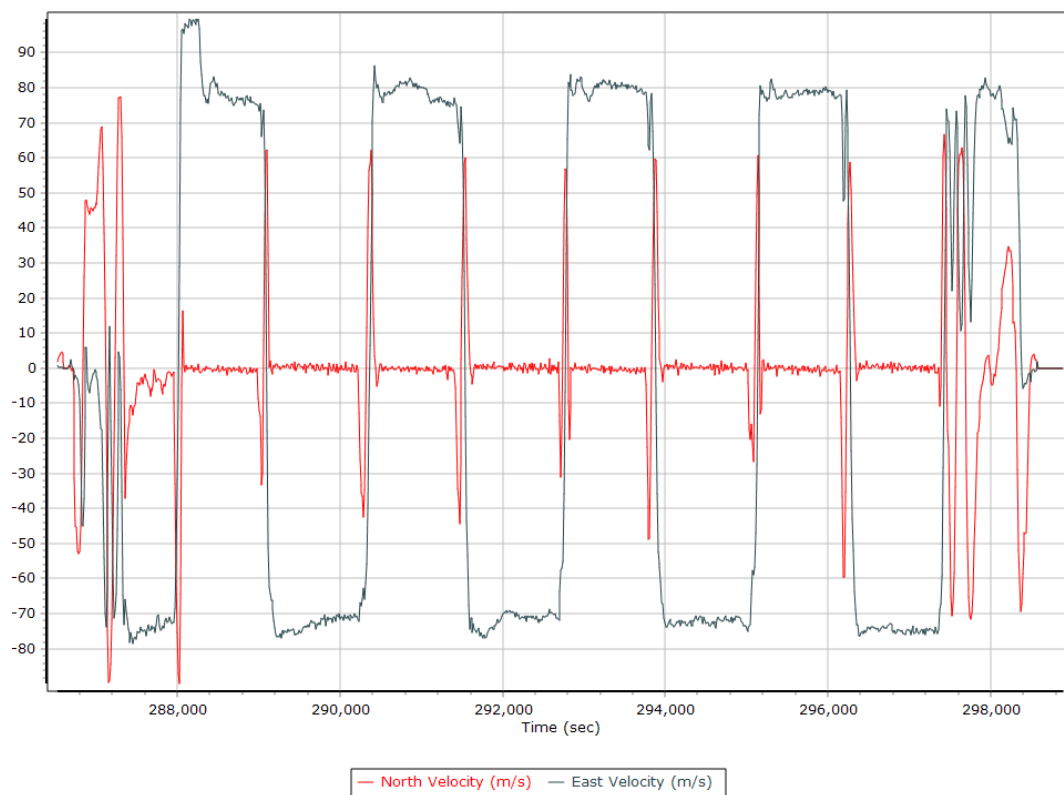
Roll/Pitch



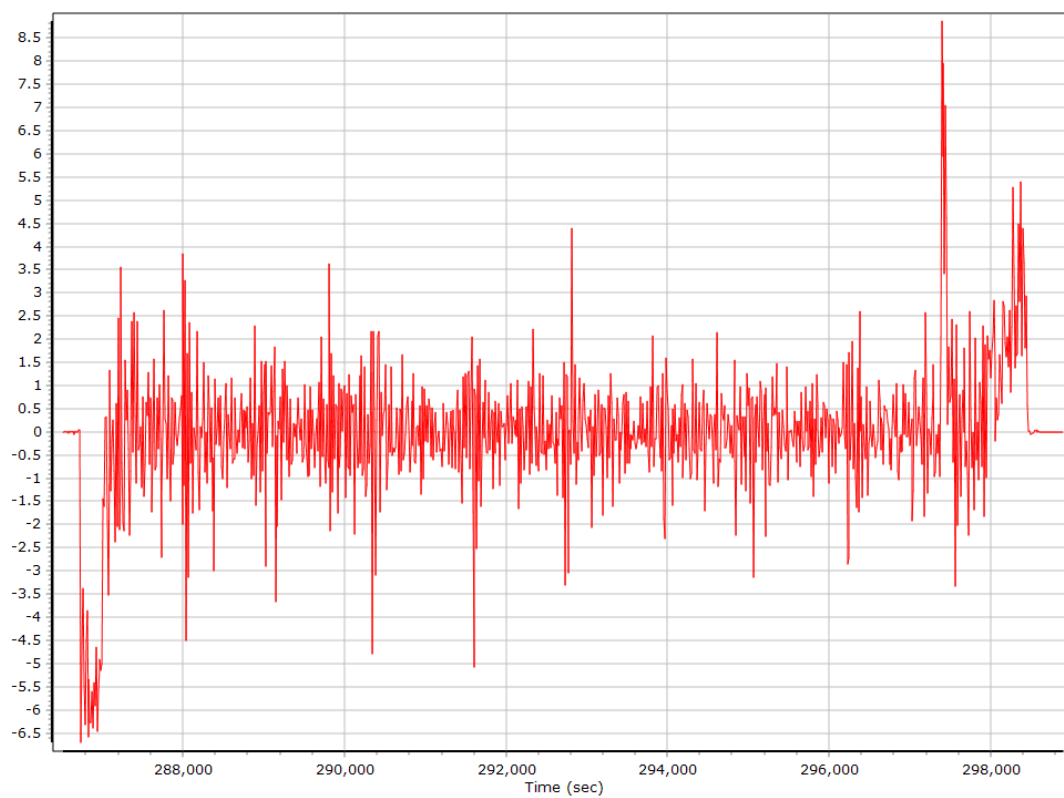
Heading



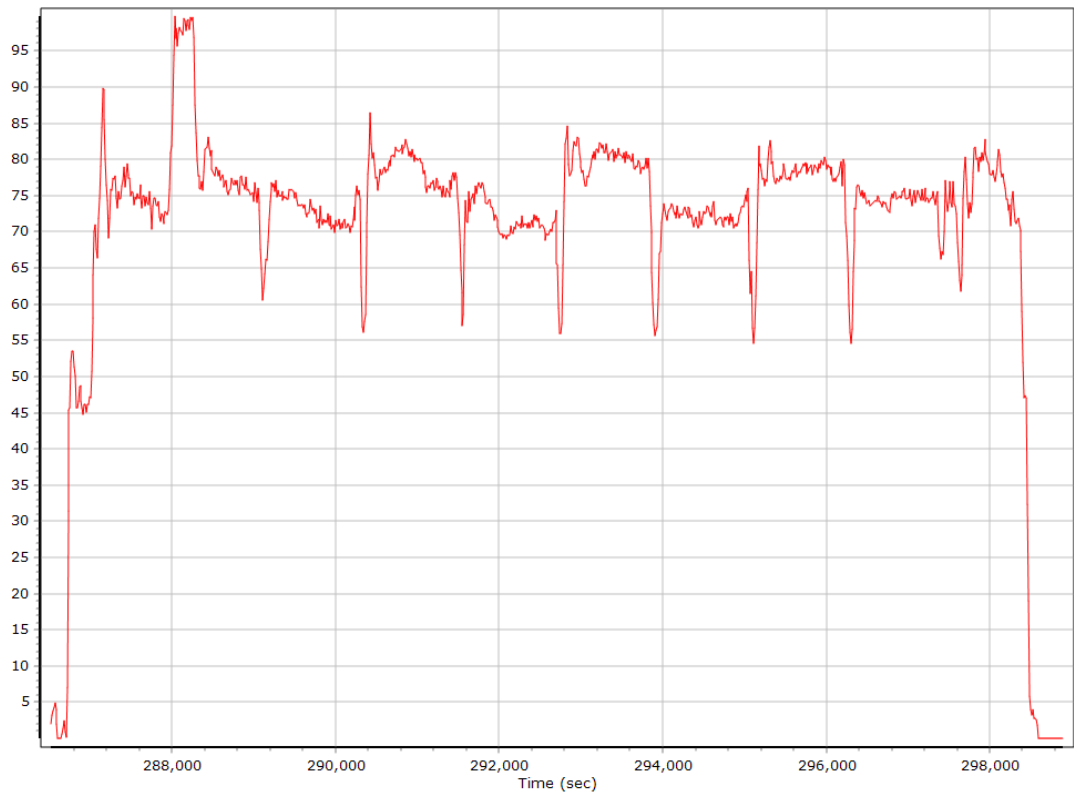
North/East Velocity



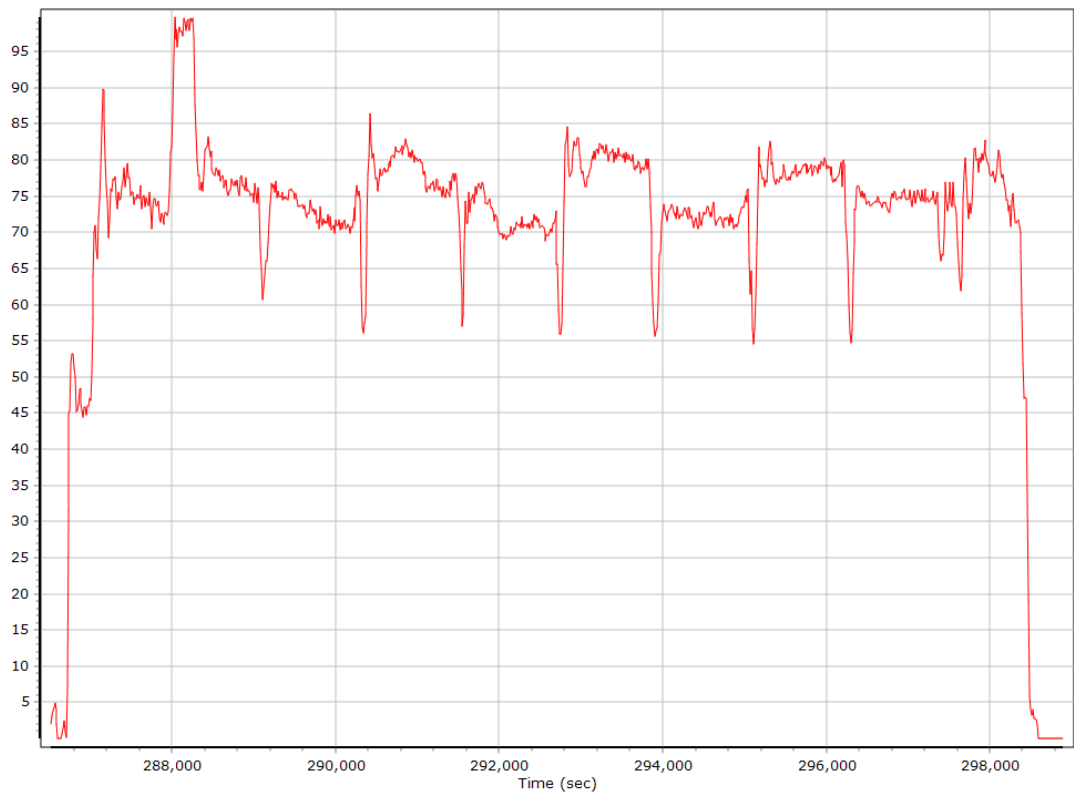
Down Velocity



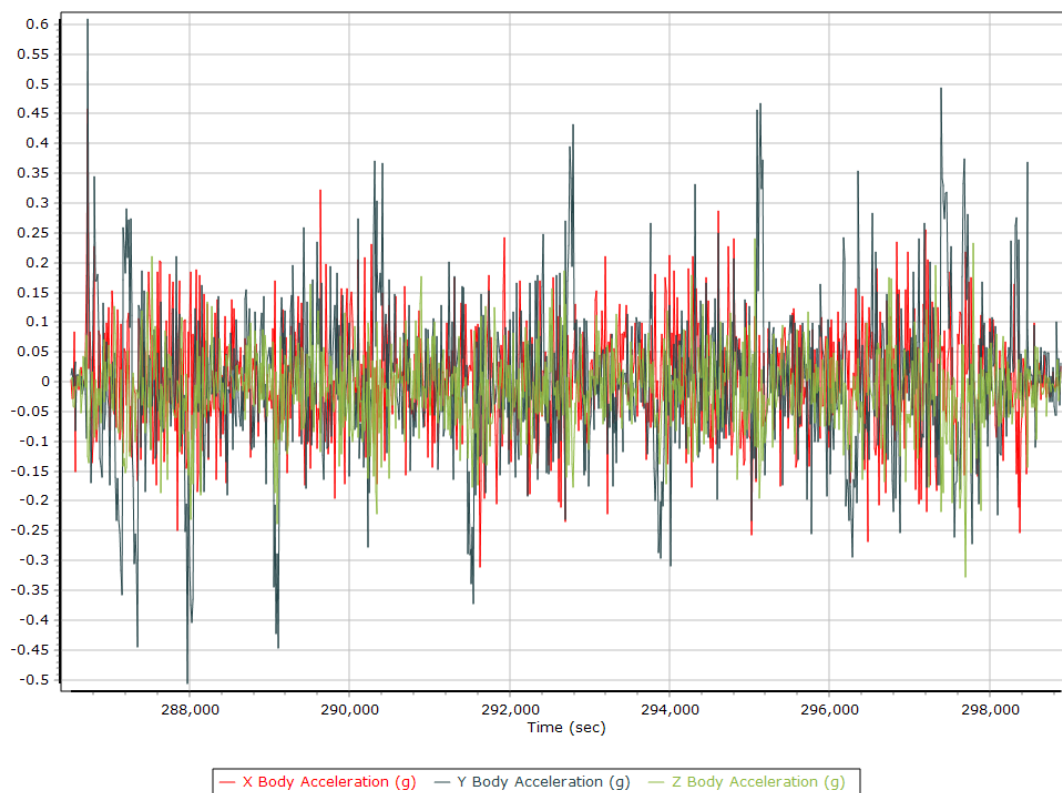
Total Speed



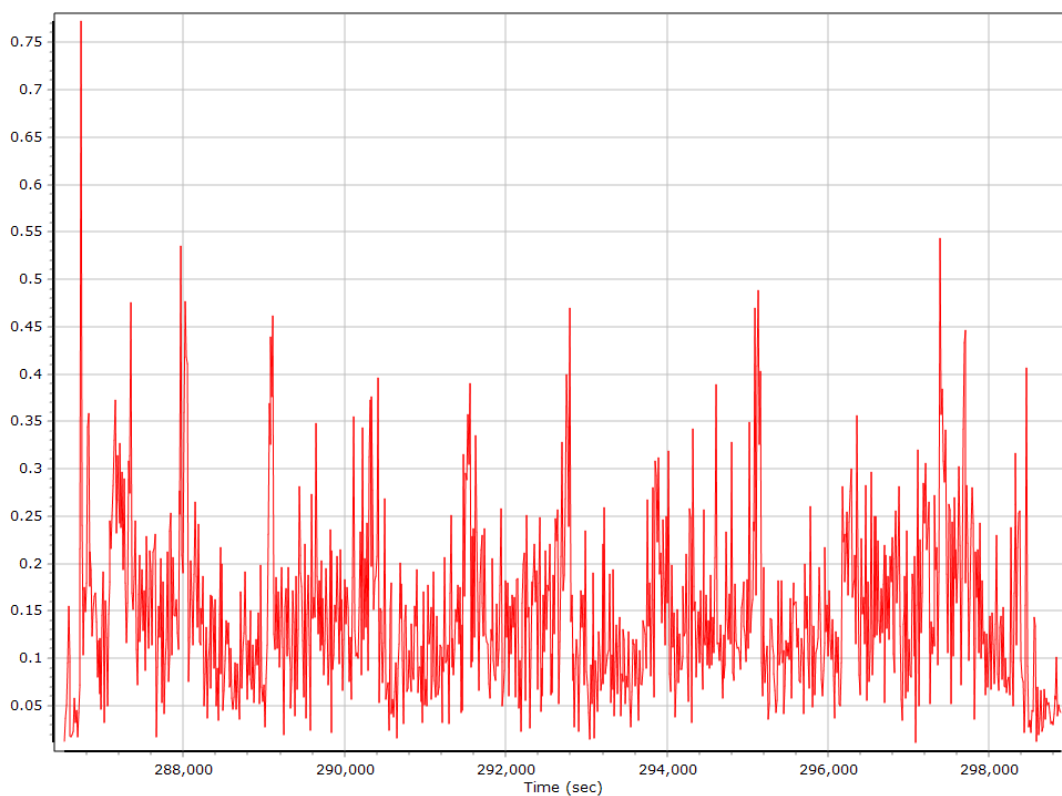
Ground Speed



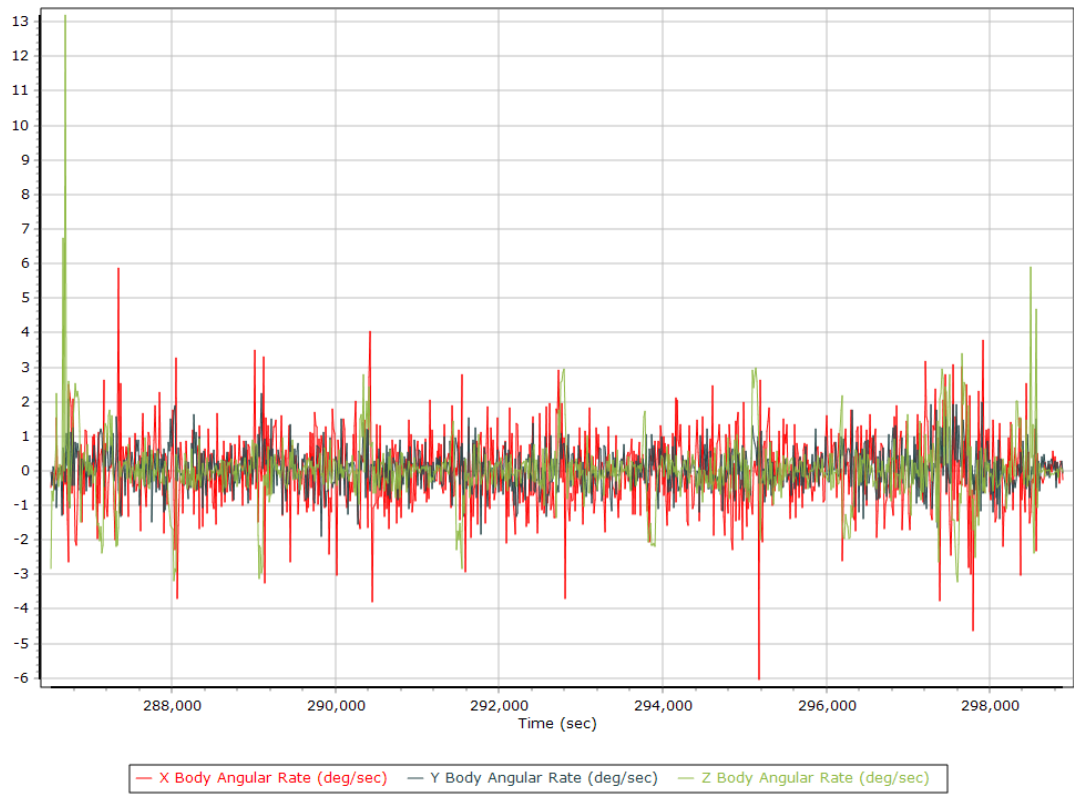
Body Acceleration



Total Body Acceleration

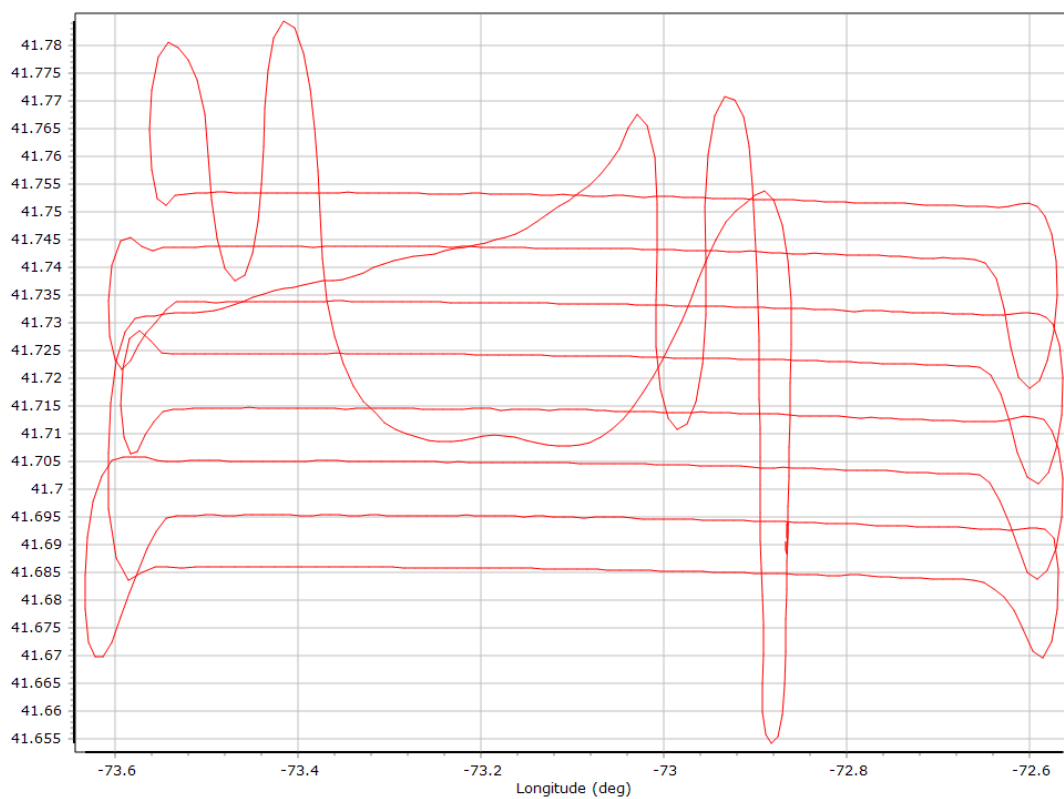


Body Angular Rate

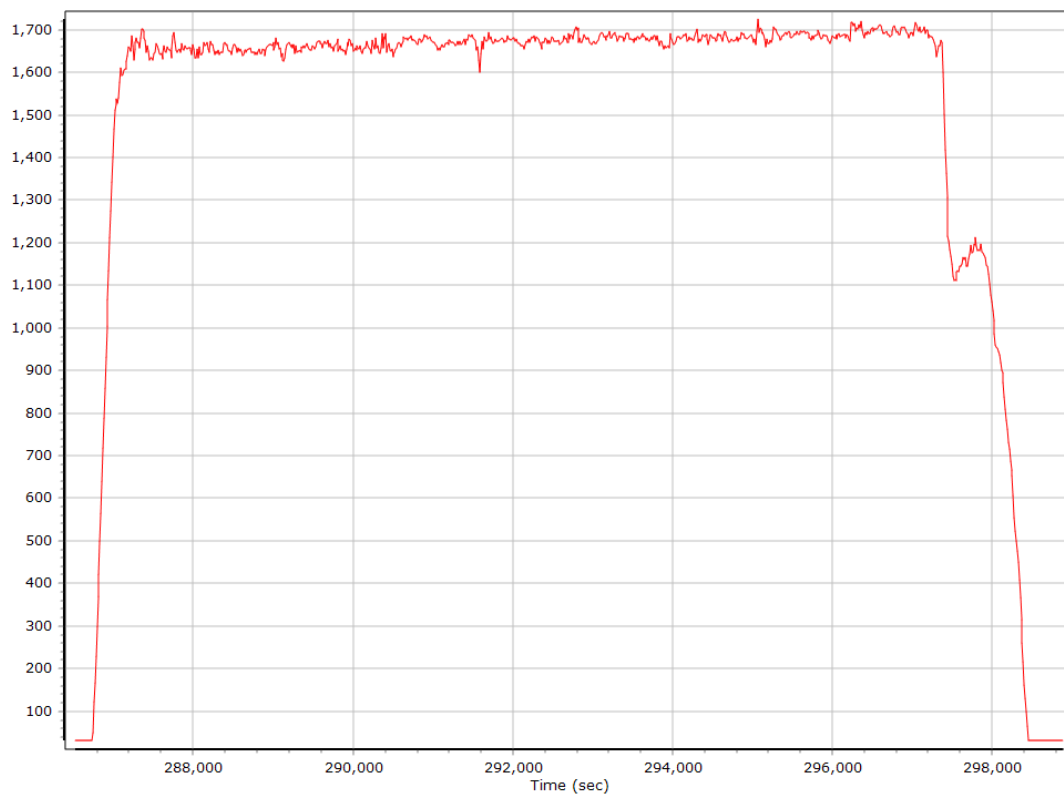


Forward Processed Trajectory Information

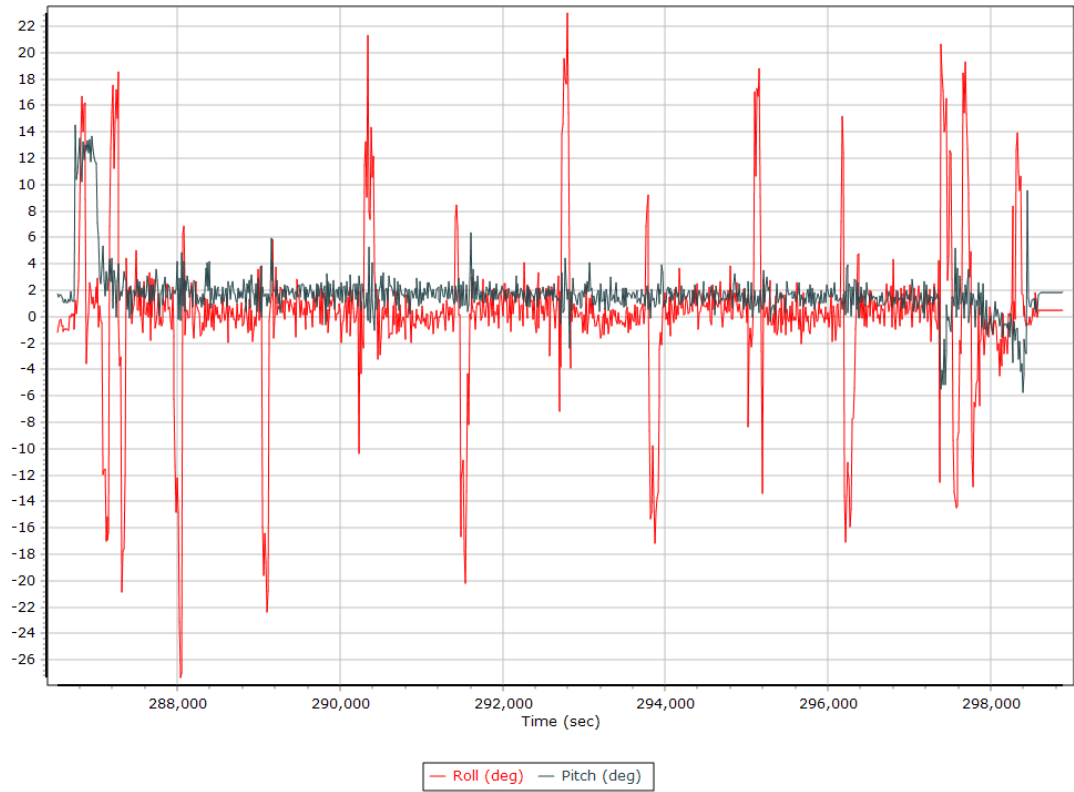
Top View



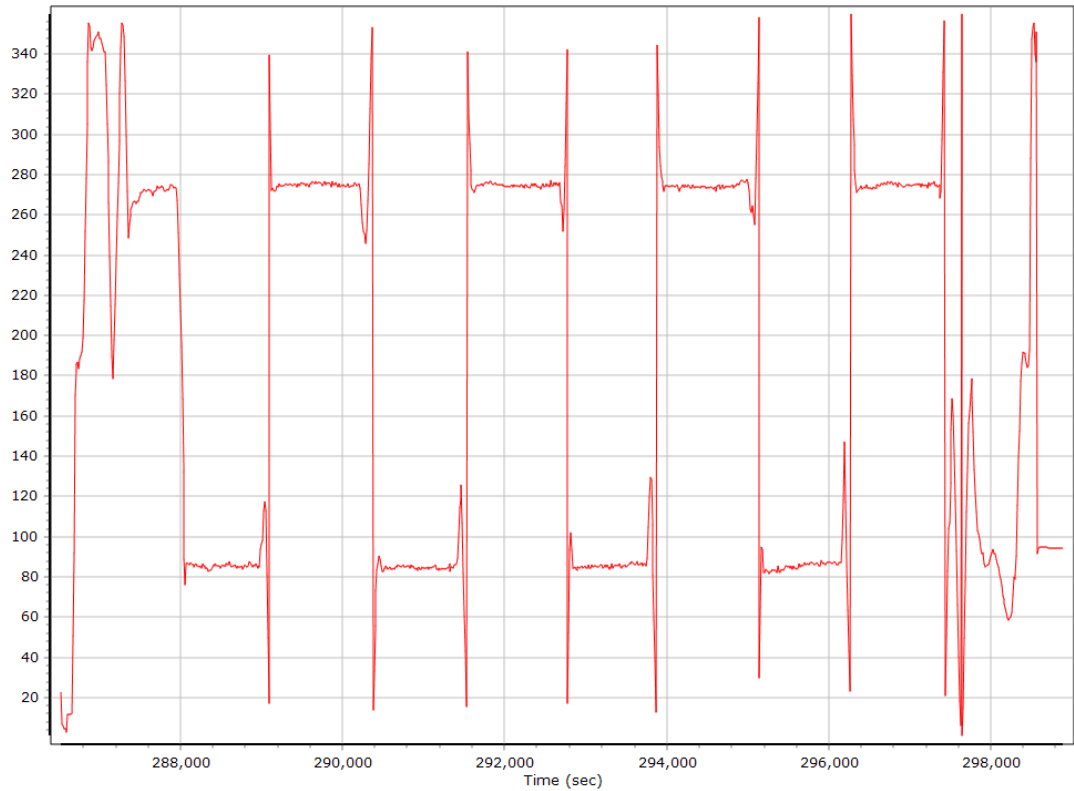
Altitude



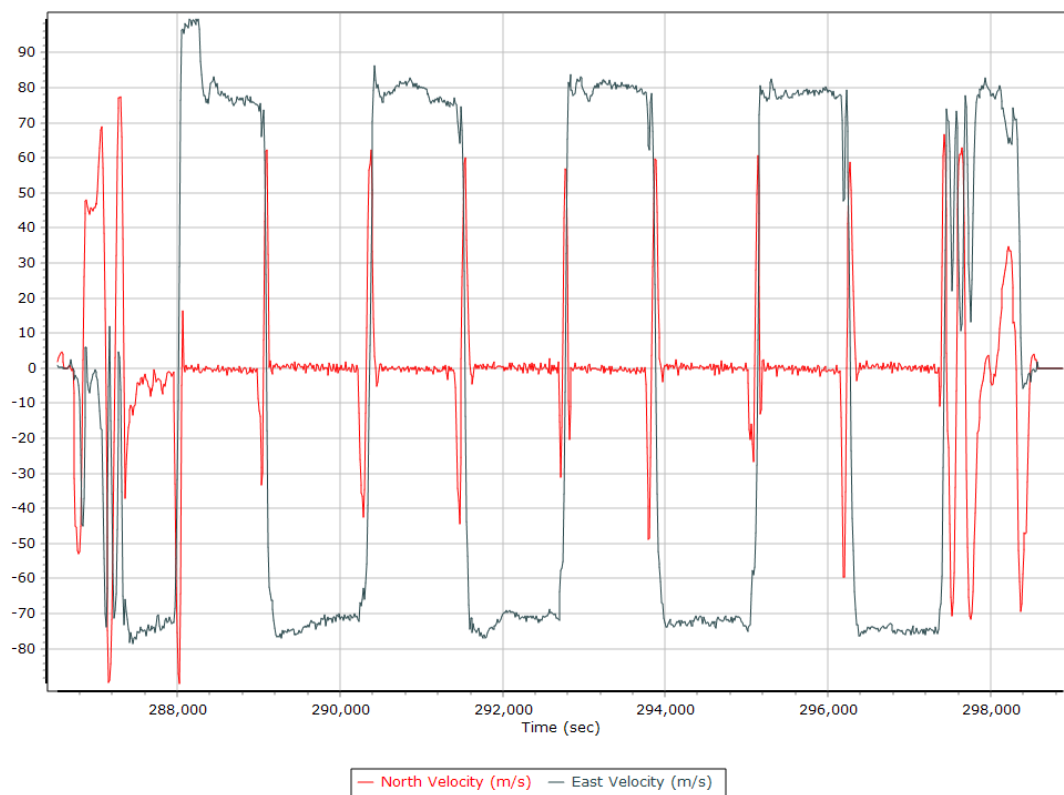
Roll/Pitch



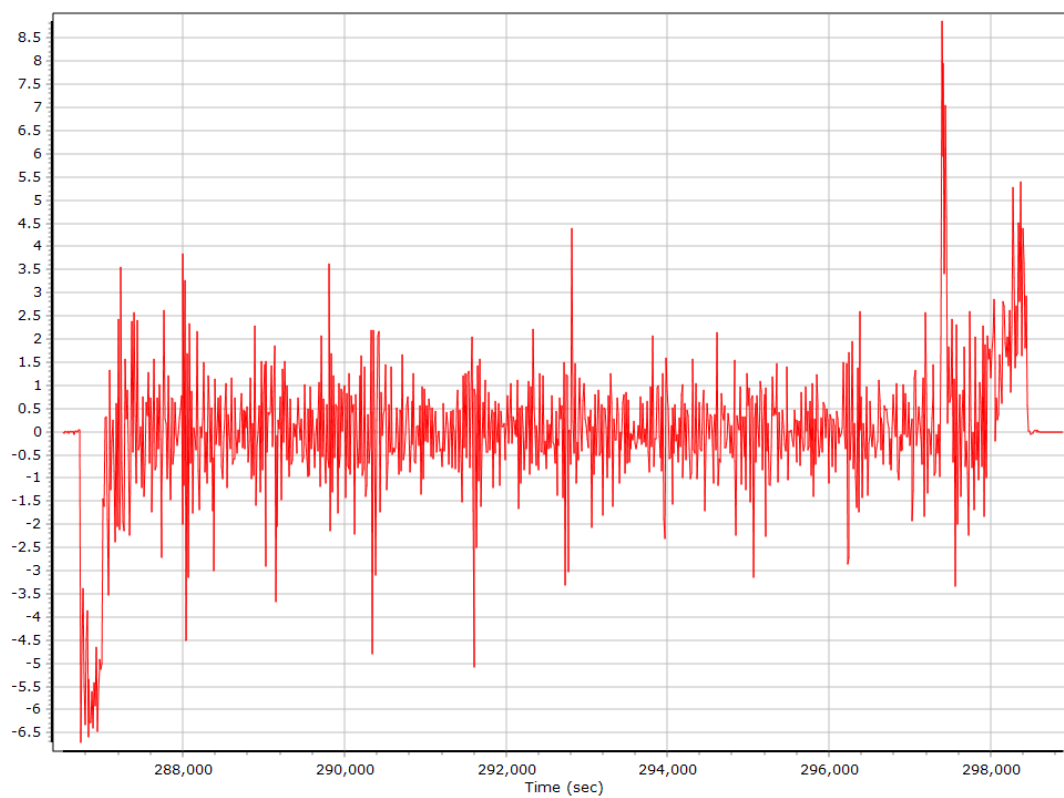
Heading



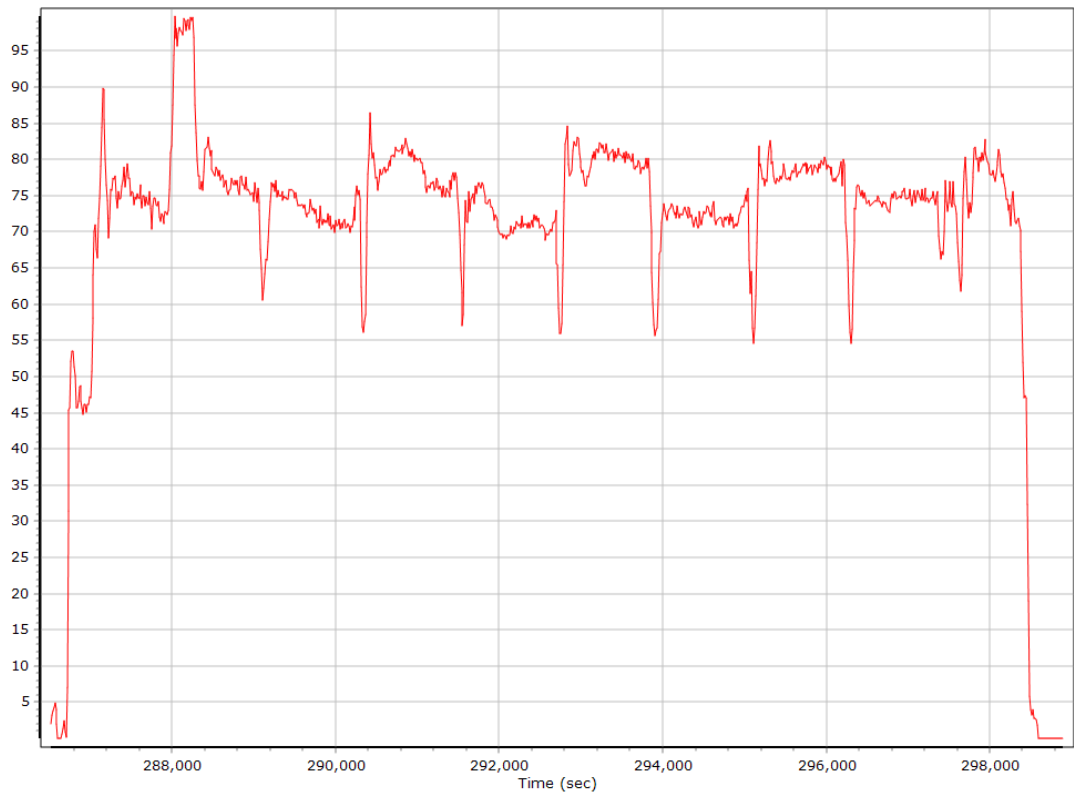
North/East Velocity



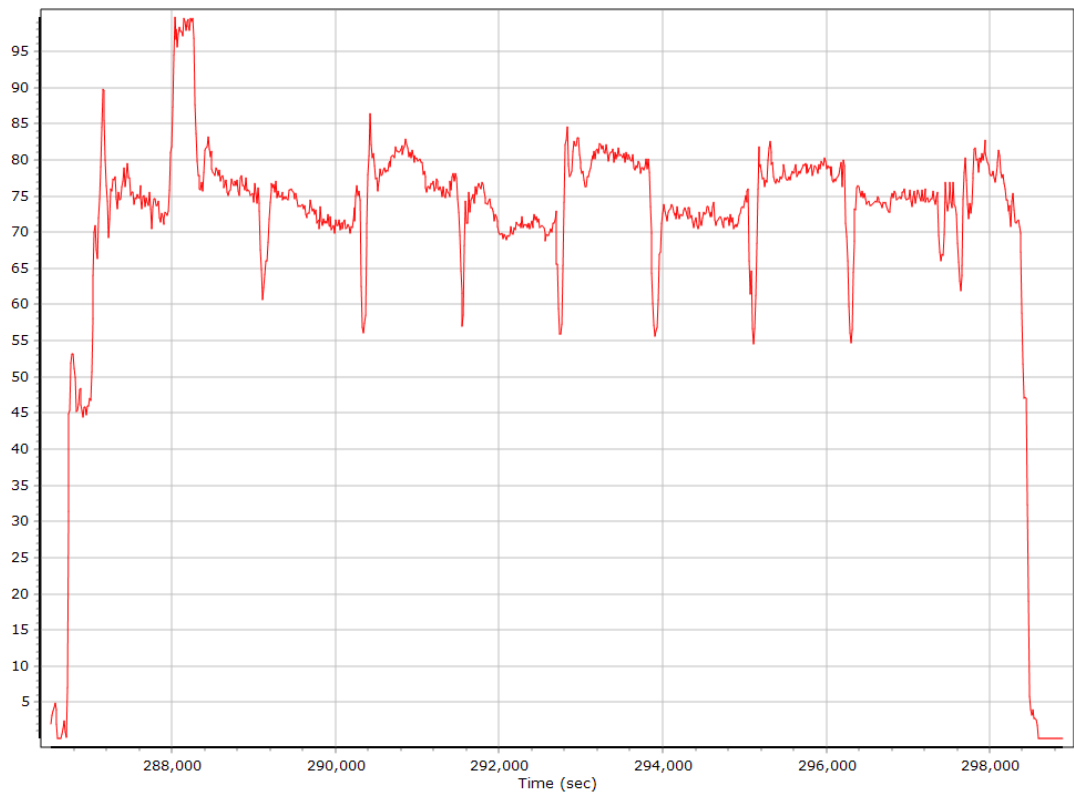
Down Velocity



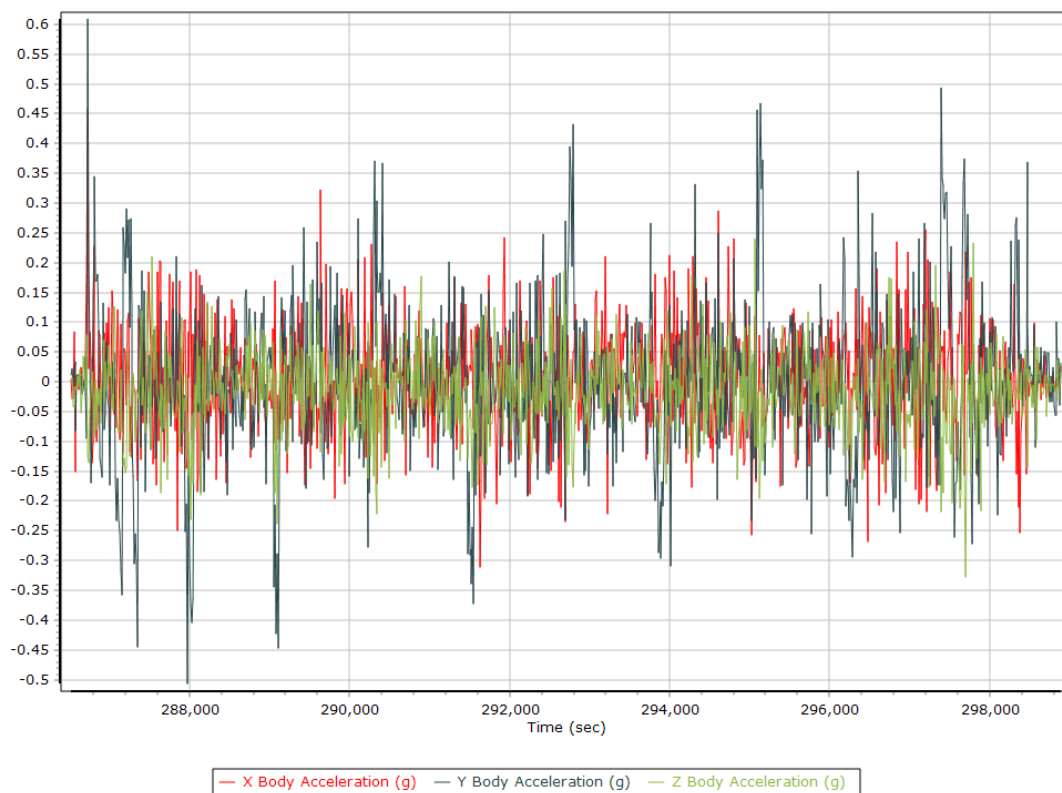
Total Speed



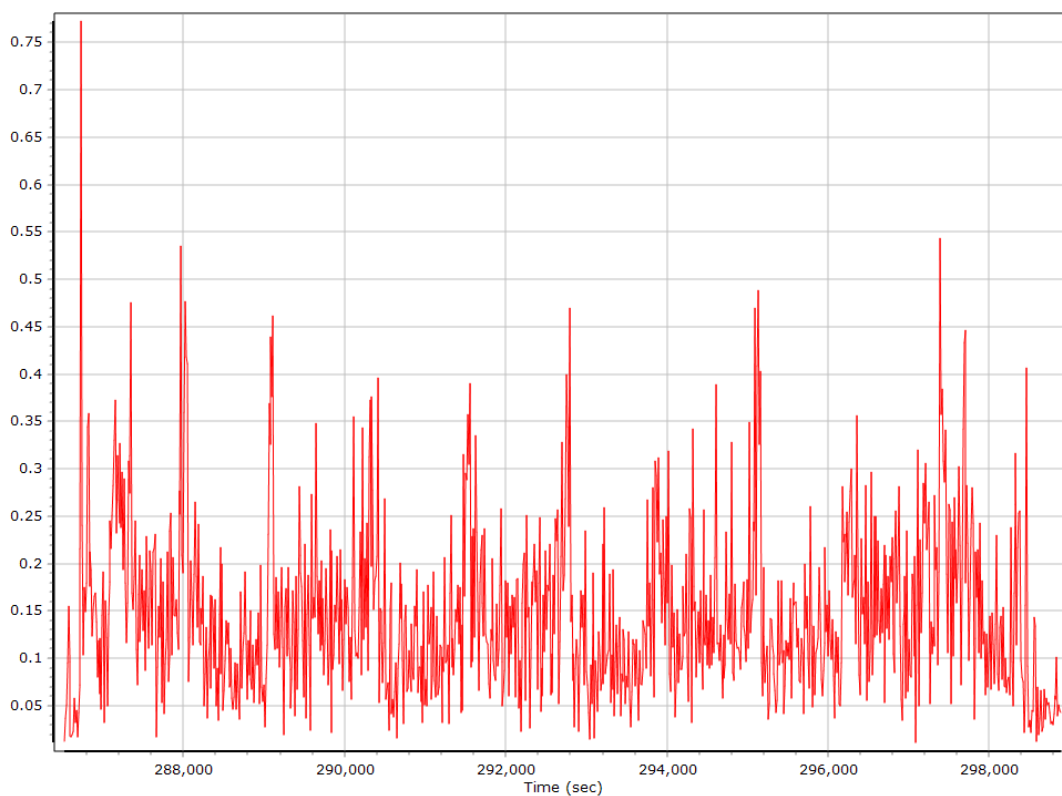
Ground Speed



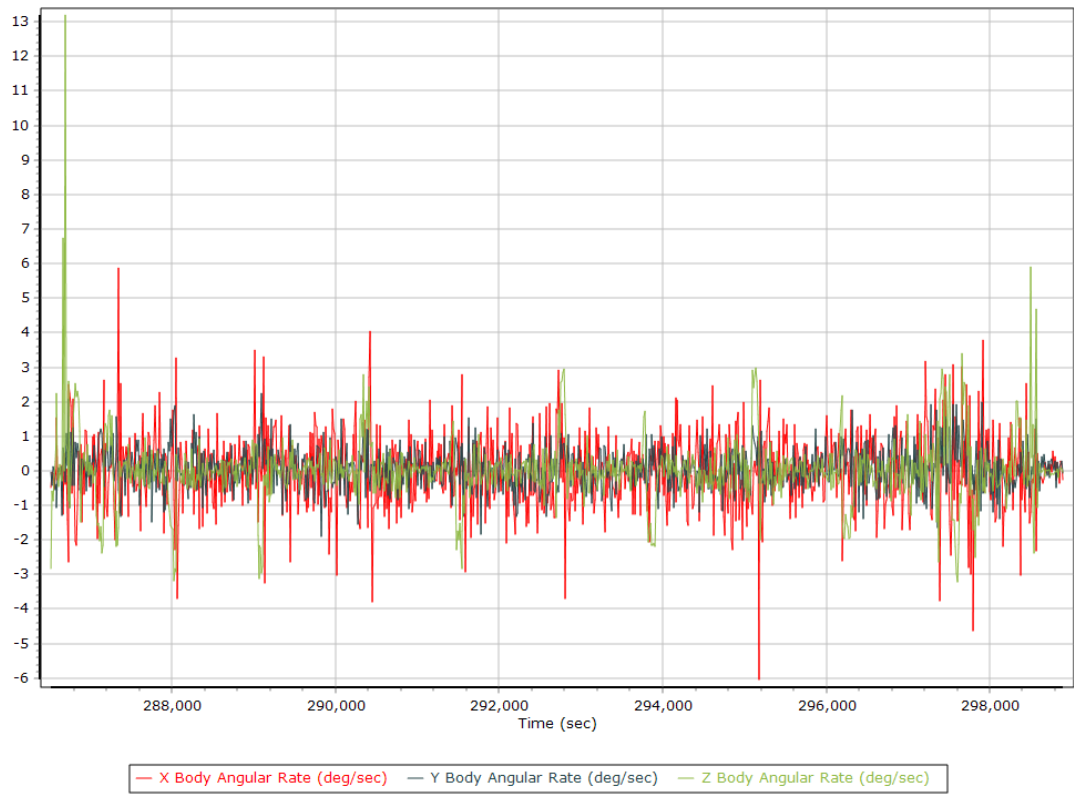
Body Acceleration



Total Body Acceleration



Body Angular Rate

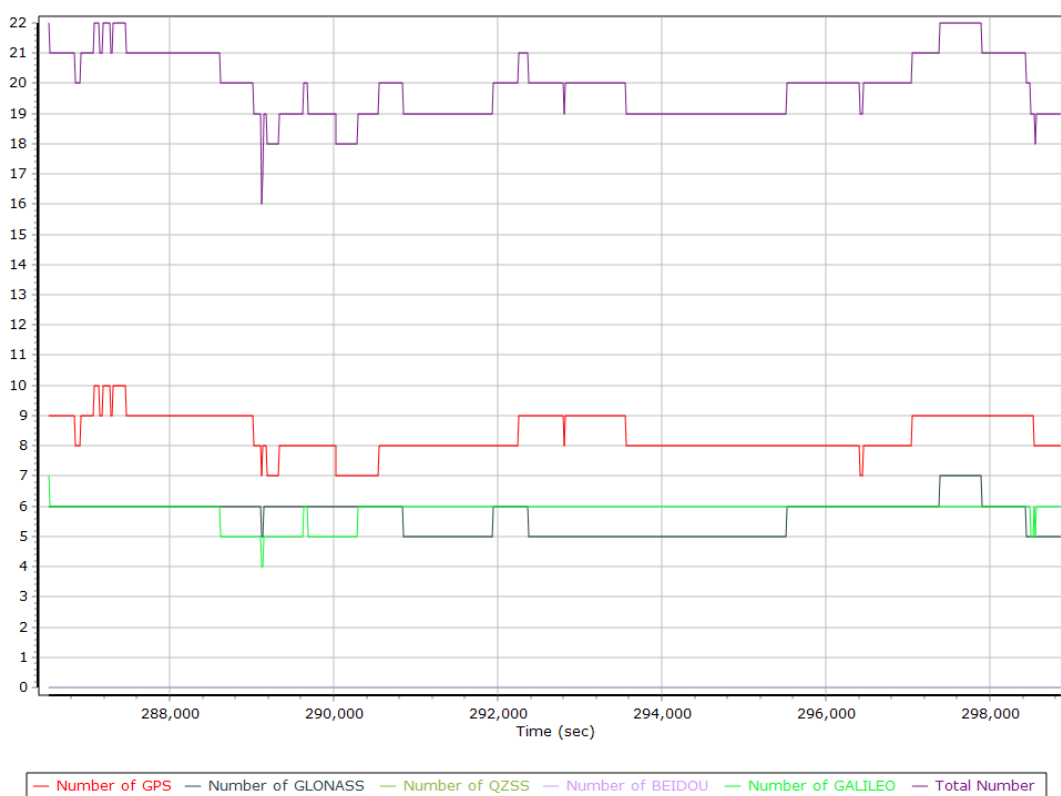


GNSS QC

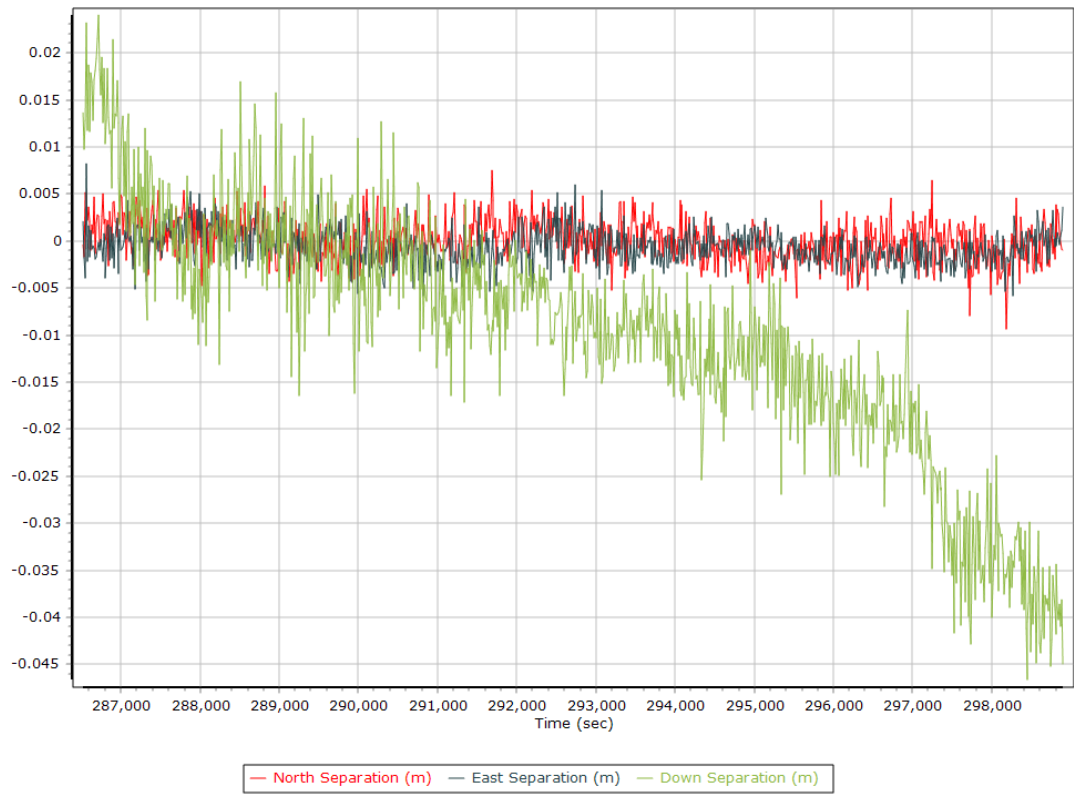
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	4	10	8
Number of GLONASS SV	3	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	0	7	6
Total number of SV	7	23	20
PDOP	0.99	2.90	1.14
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	13250.00	0.00	0.00
Percentage	100.00	0.00	0.00

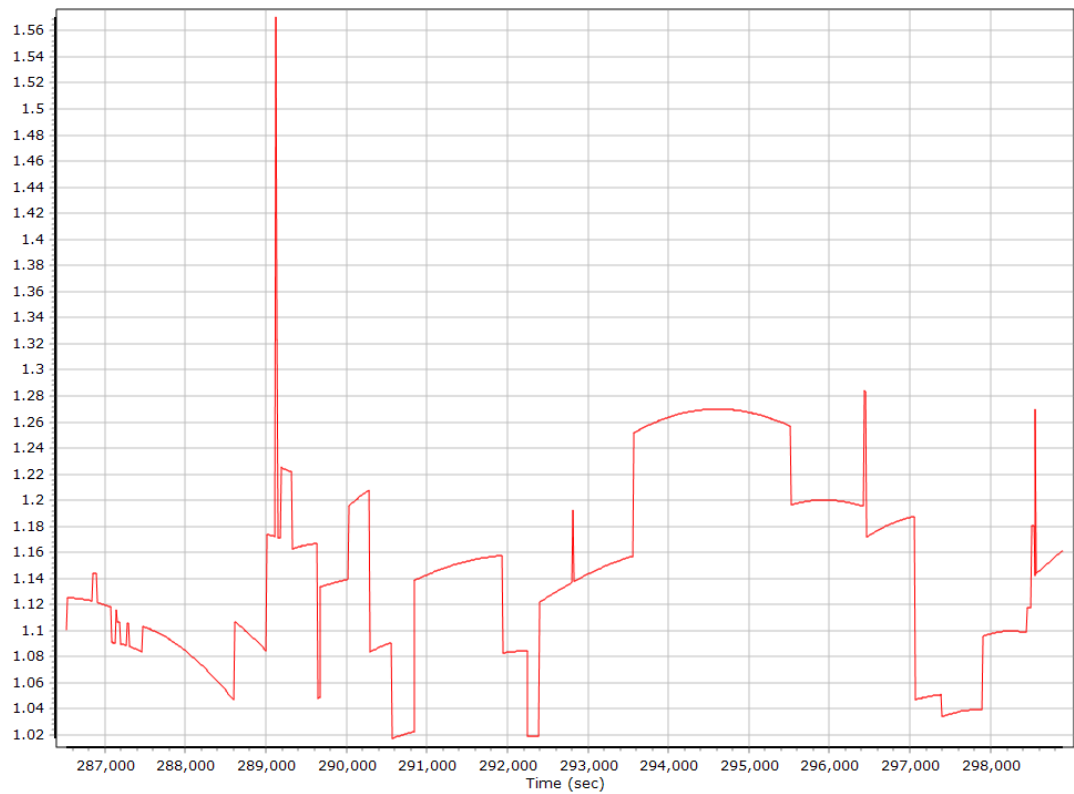
Num SVs in solution



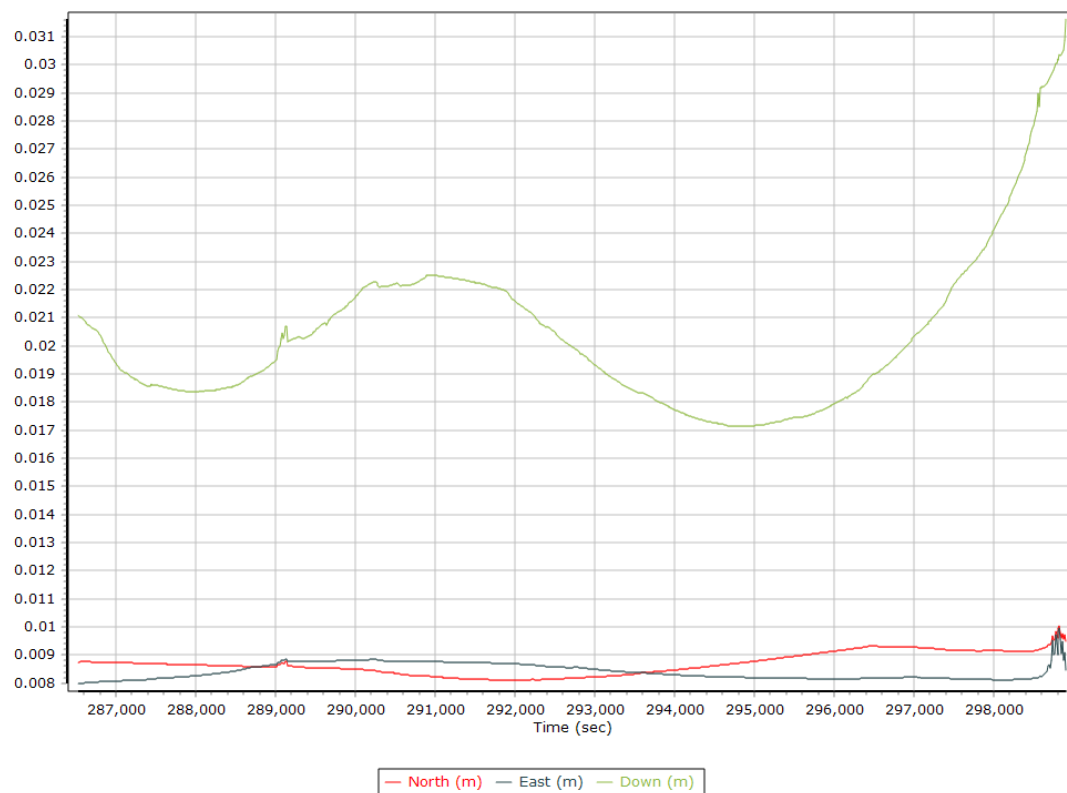
Forward/Reverse Separation



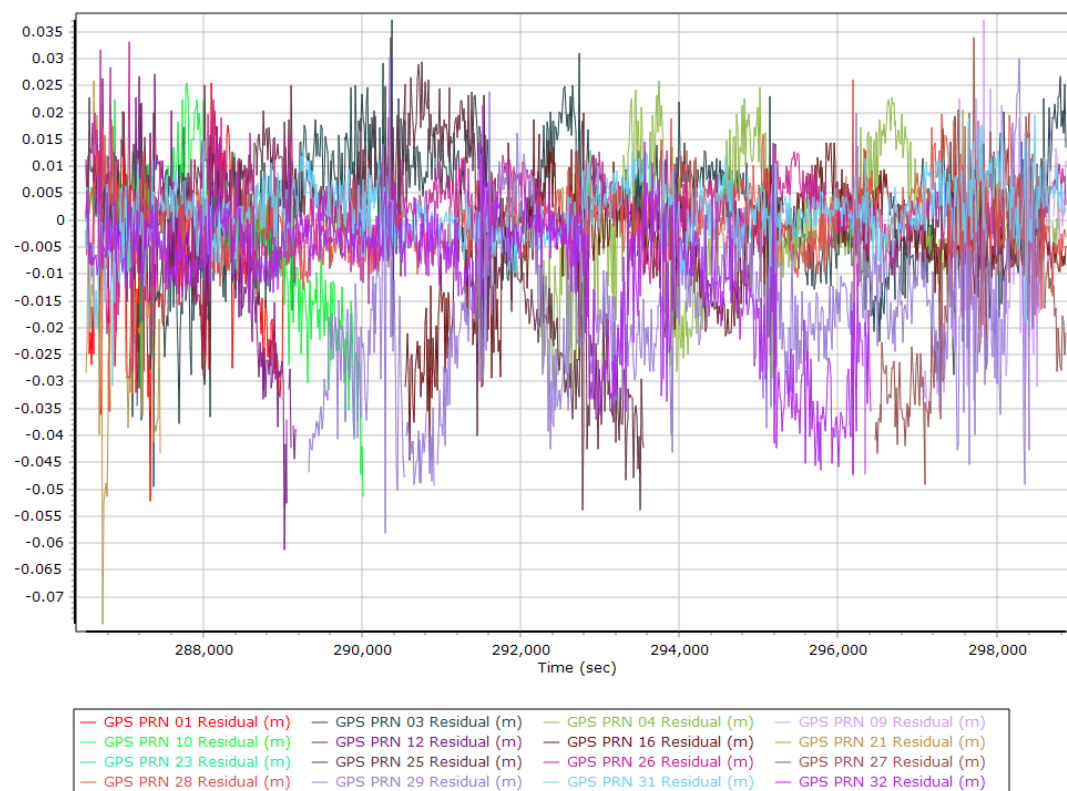
PDOP



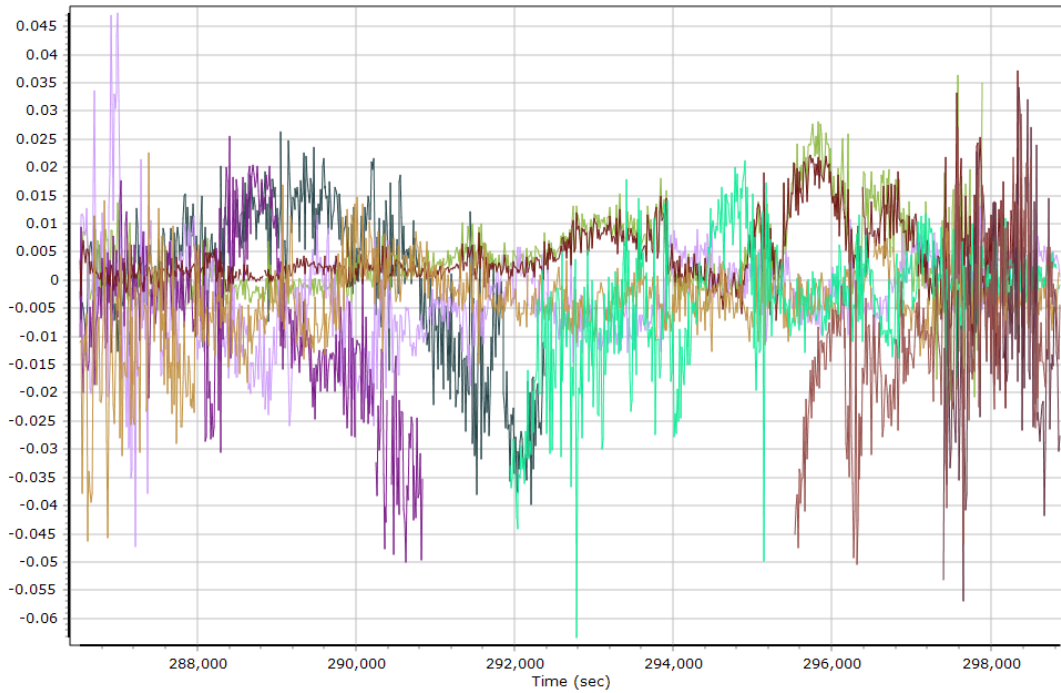
Estimated Position Accuracy



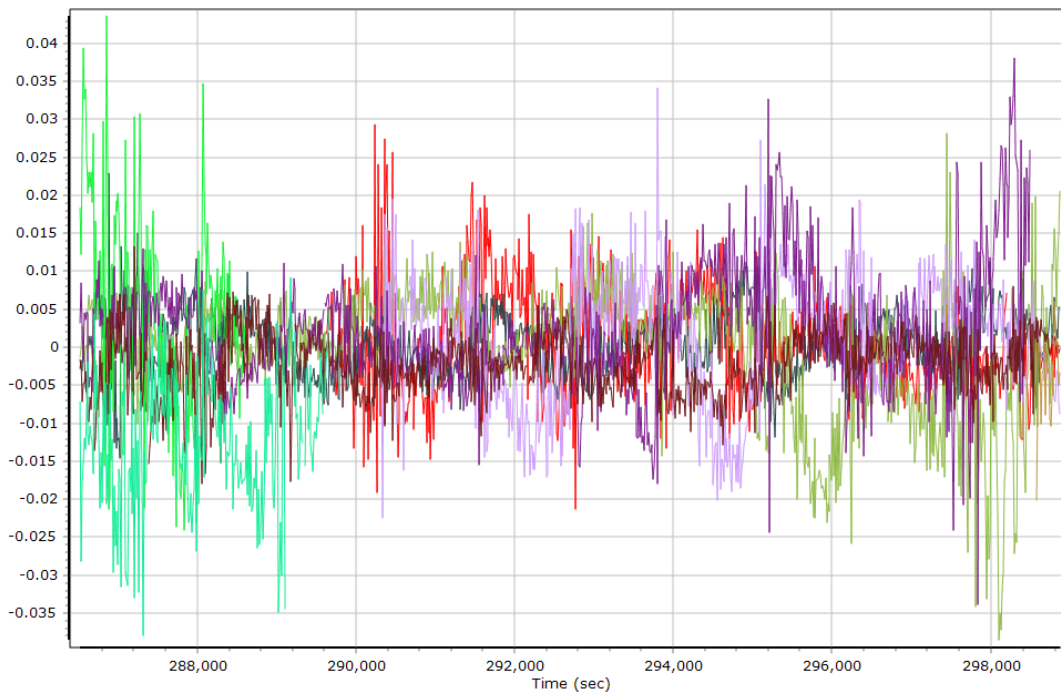
GPS Residuals



GLONASS Residuals



GALILEO Residuals



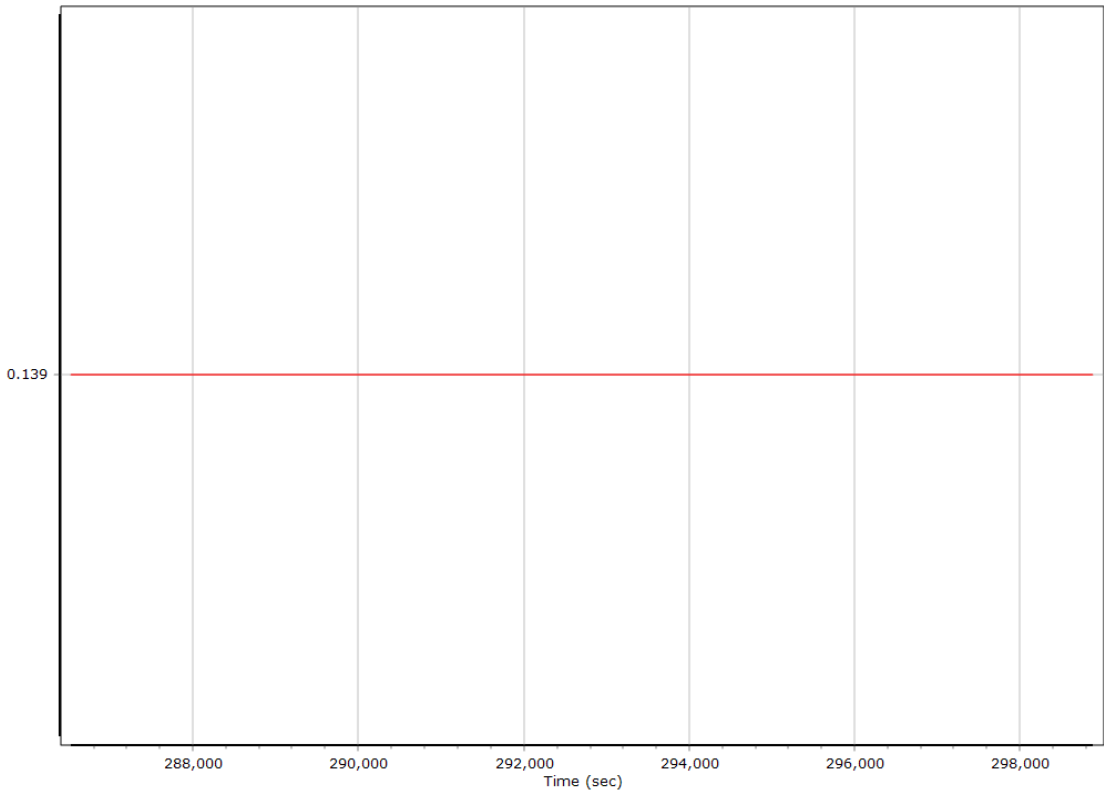
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	285603.000 (04/19/2023 07:20:03)		
Processing end time	298898.000 (04/19/2023 11:01:38)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

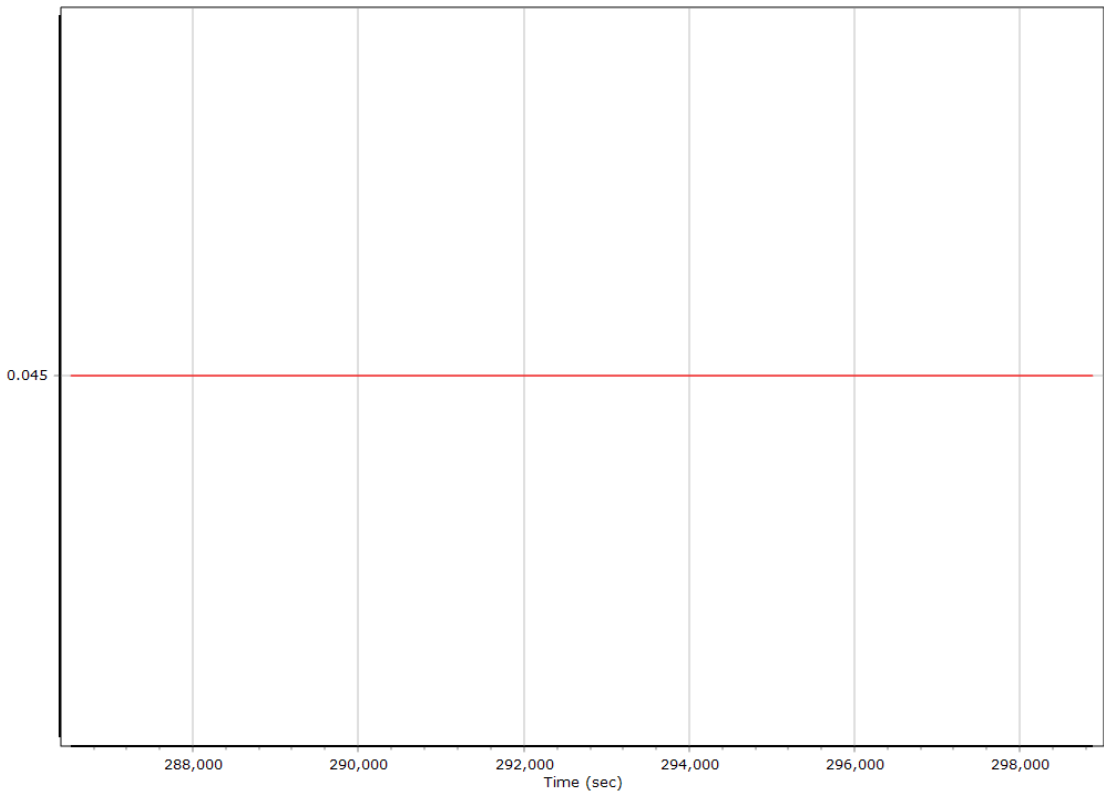
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

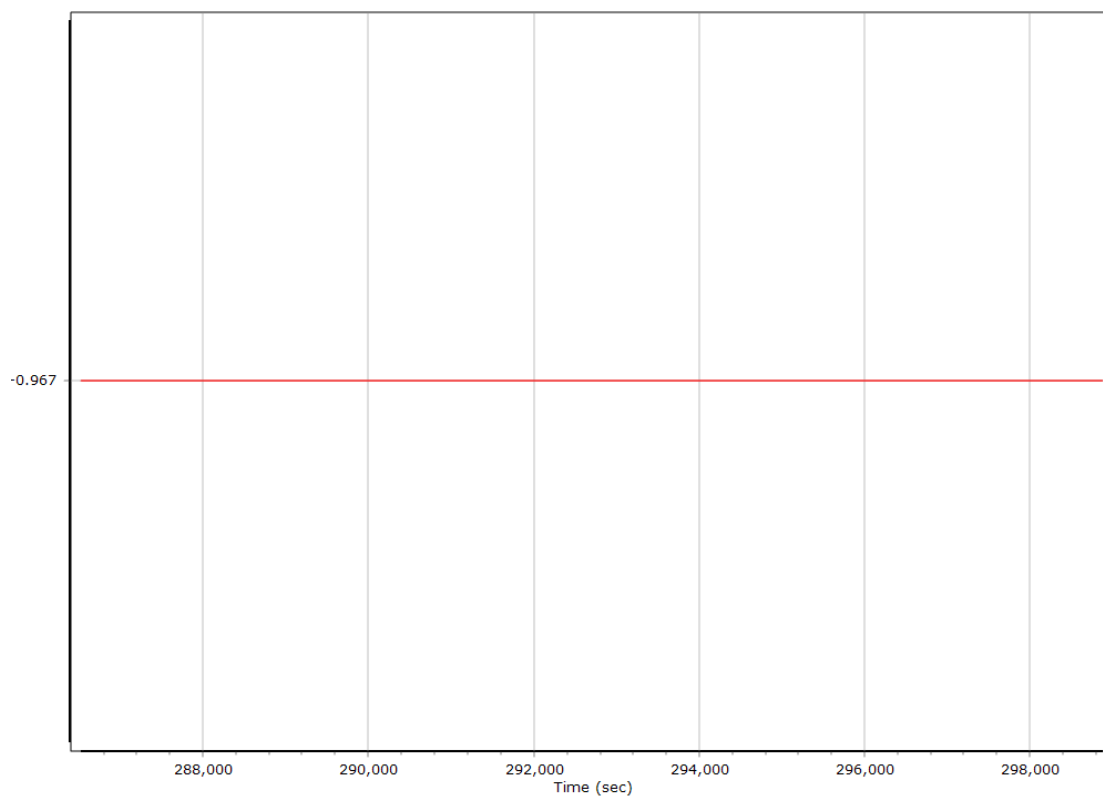
X Reference-Primary GNSS Lever Arm (m)



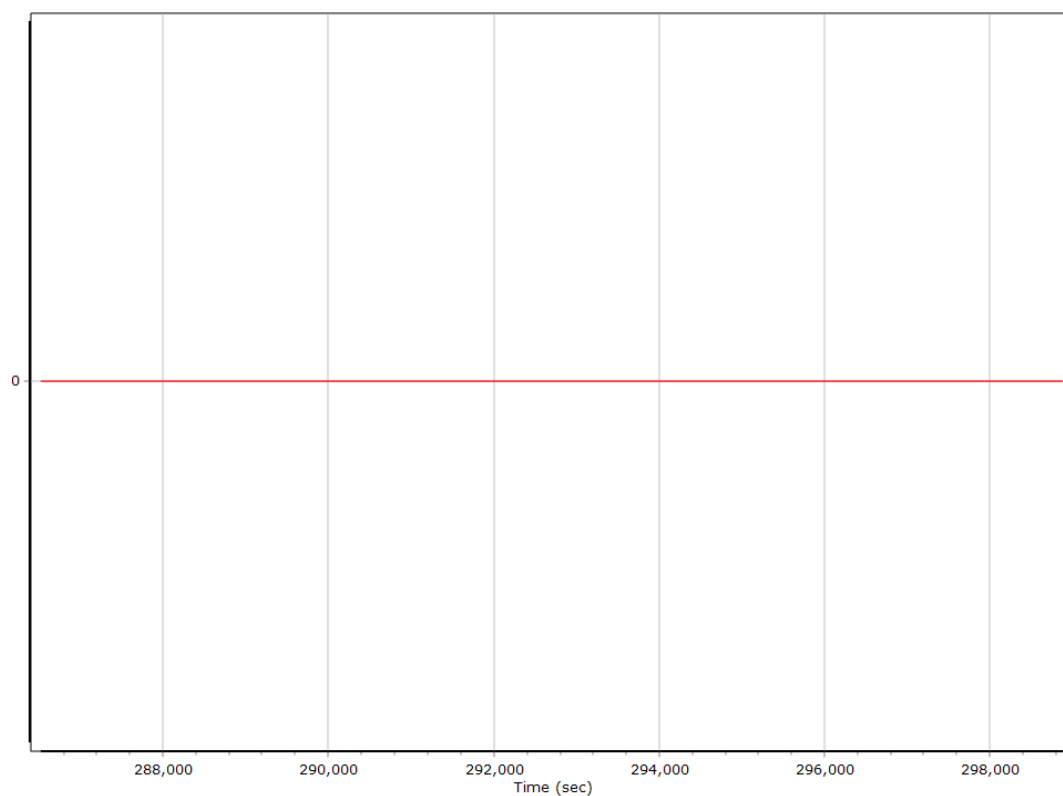
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



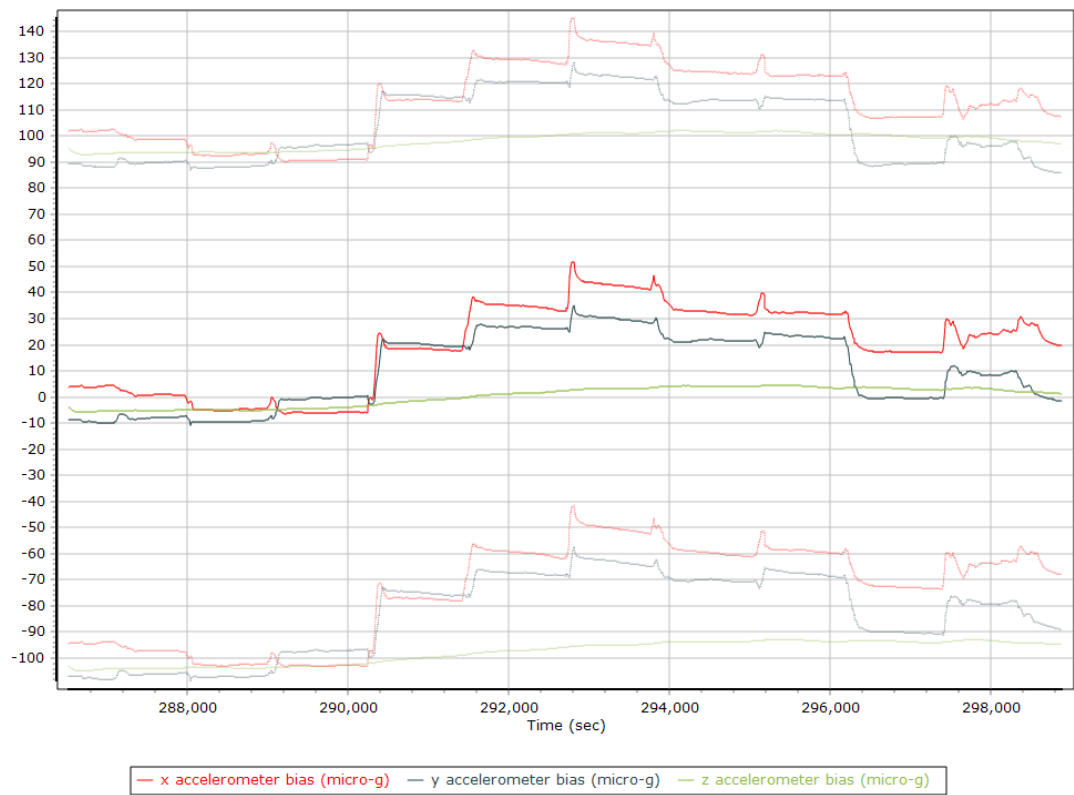
Reference-Primary GNSS Lever Arm Figure of Merit



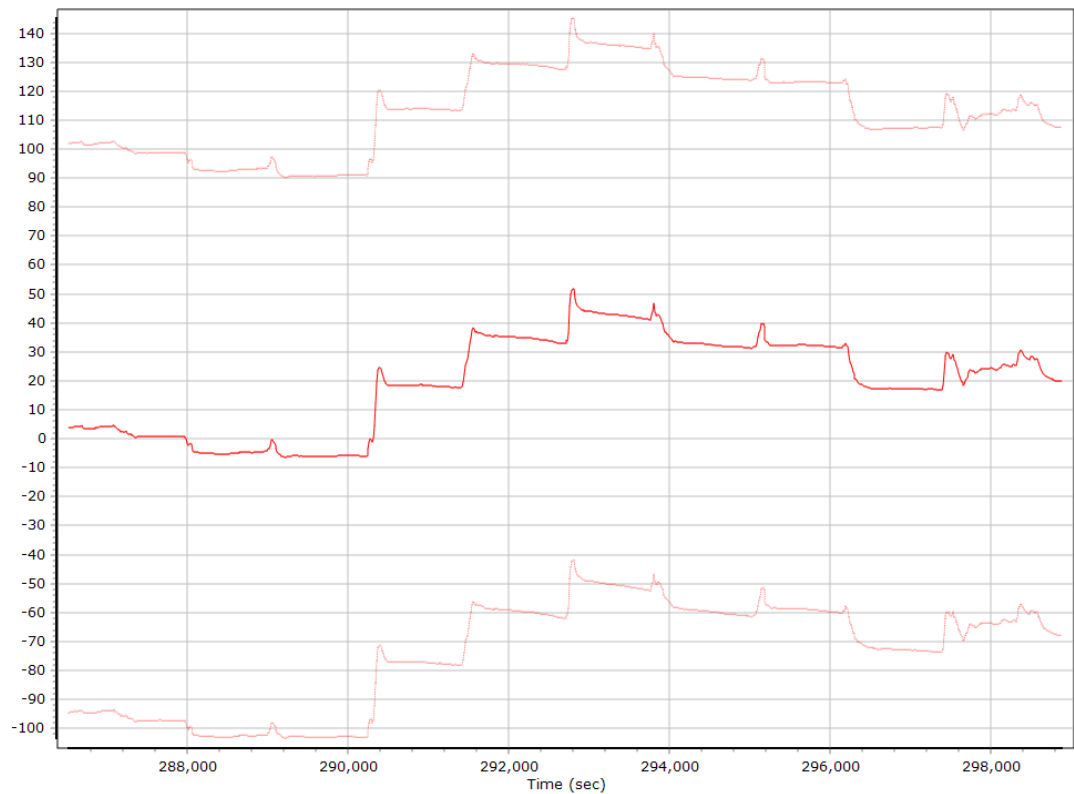
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

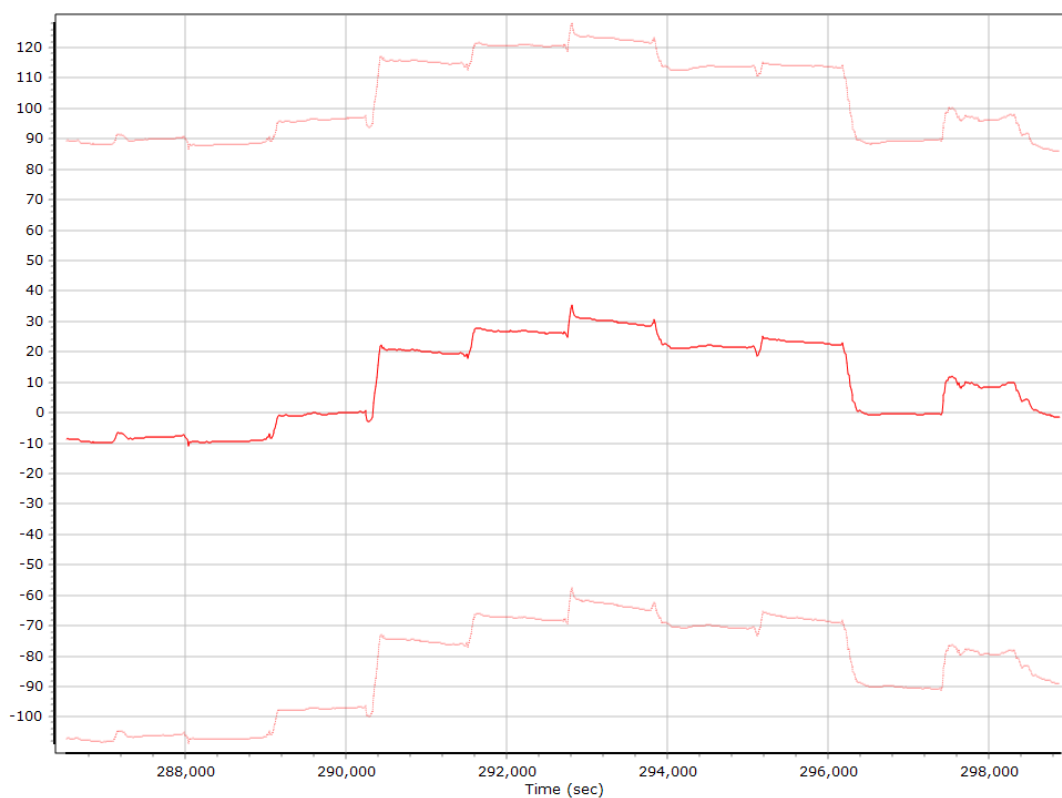
Accelerometer Bias (micro-g)



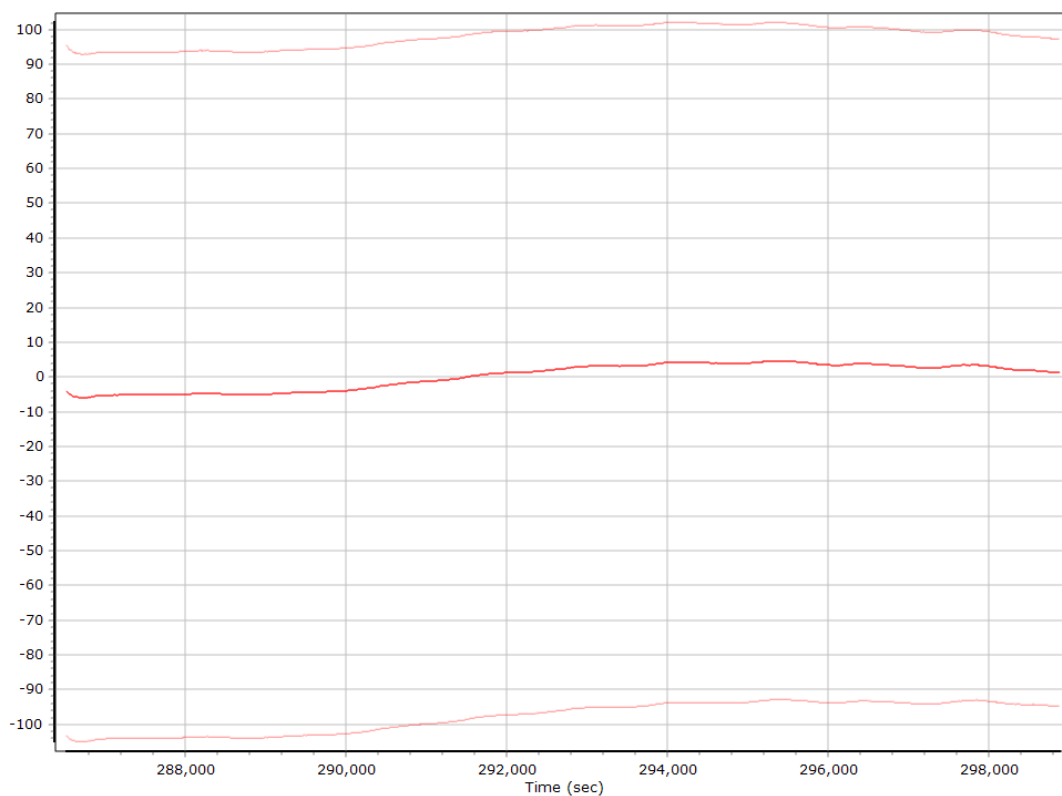
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



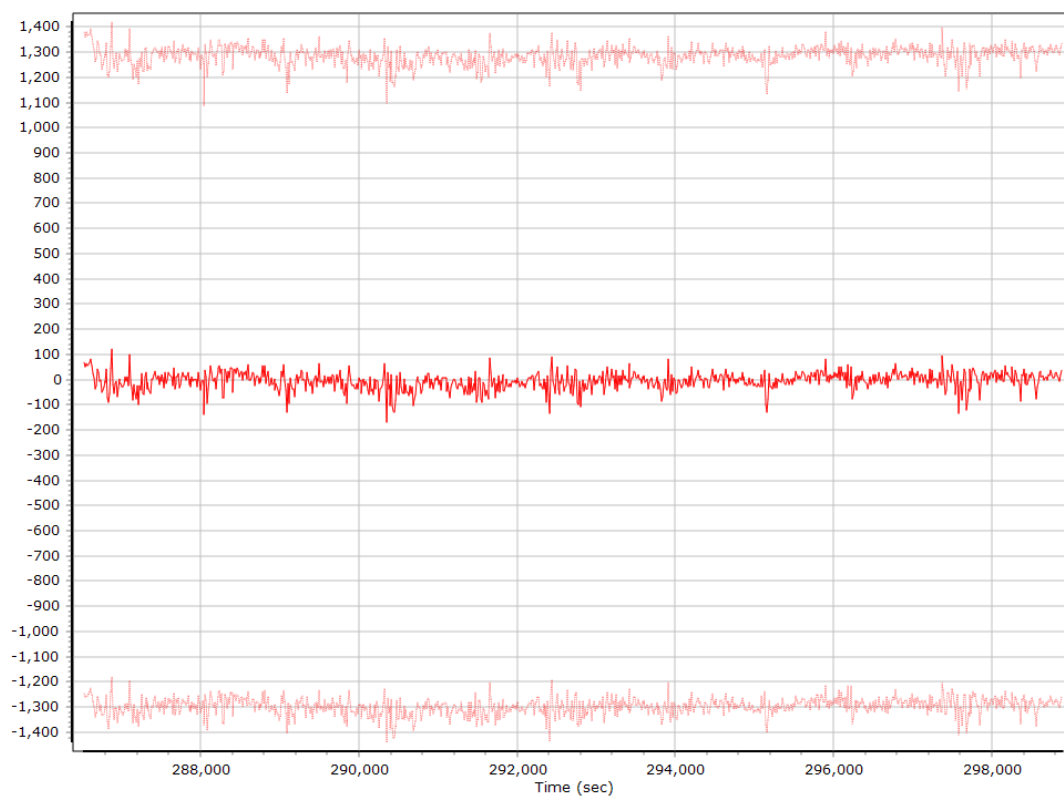
X Accelerometer Scale Error (ppm)



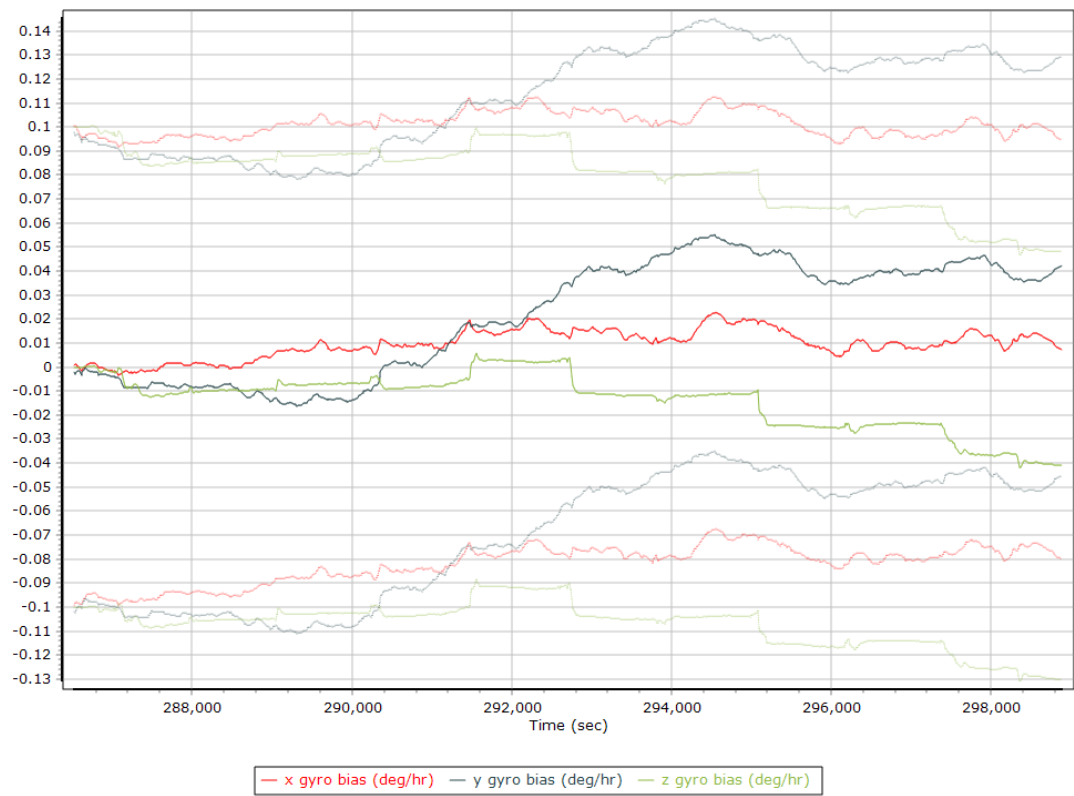
Y Accelerometer Scale Error (ppm)



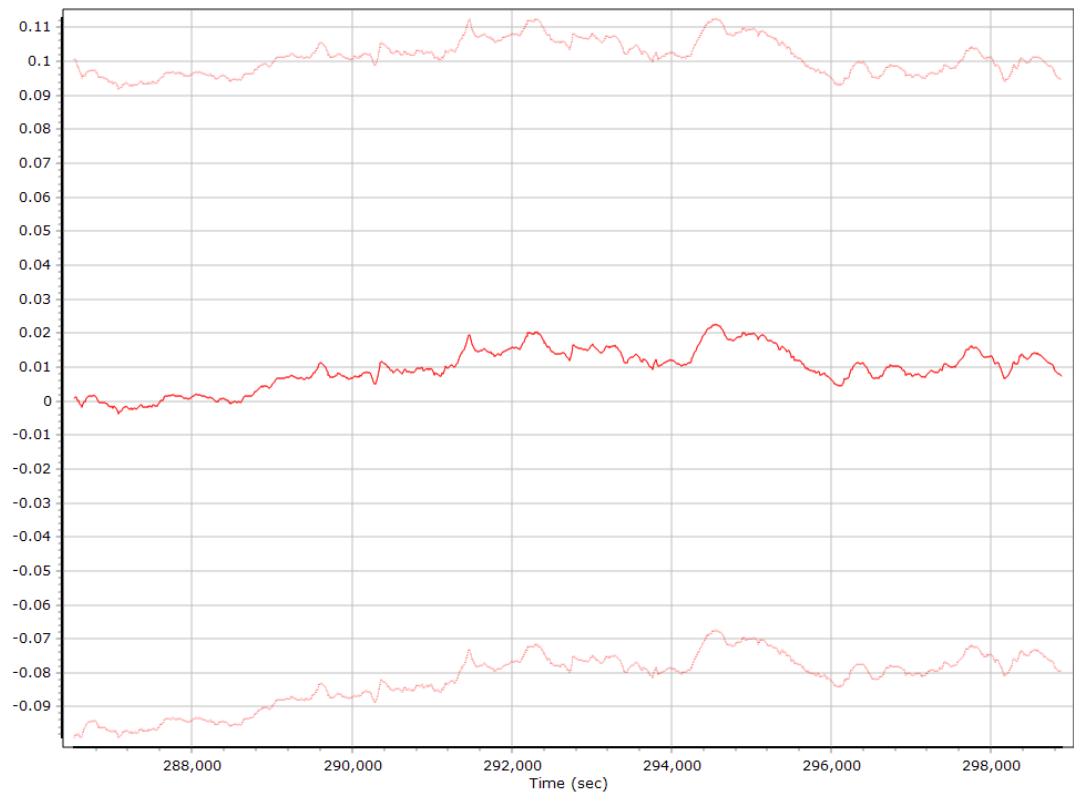
Z Accelerometer Scale Error (ppm)



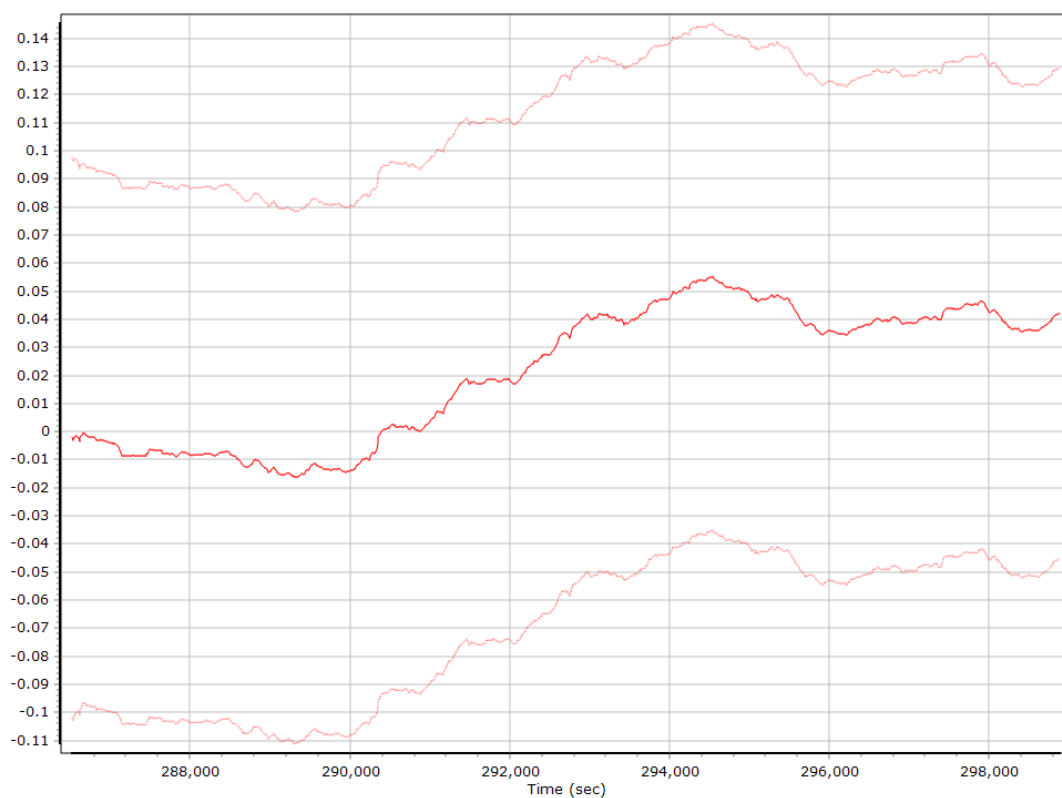
Gyro Bias (deg/h)



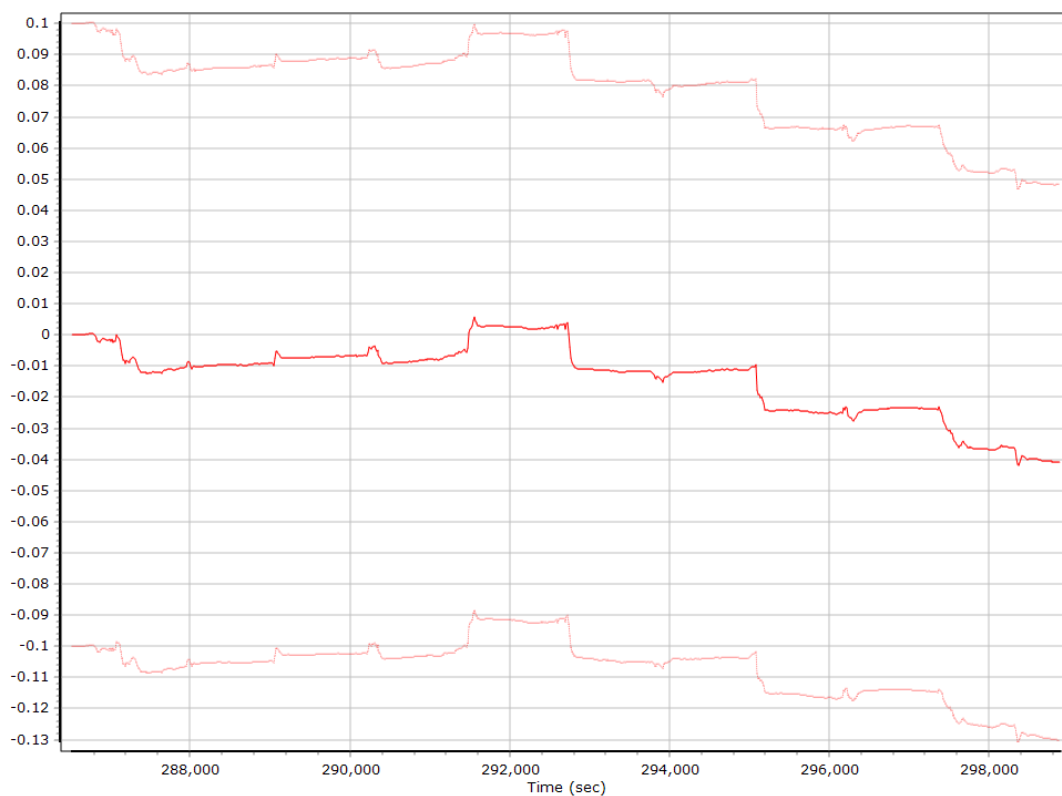
X Gyro Bias (deg/h)



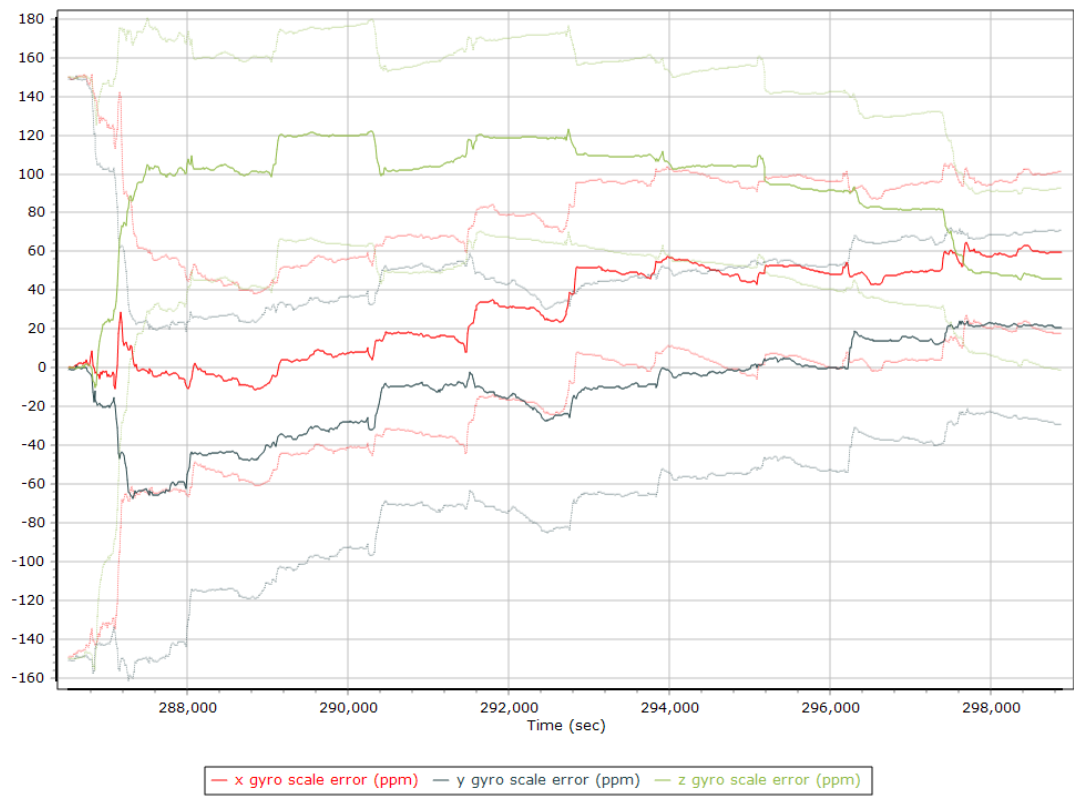
Y Gyro Bias (deg/h)



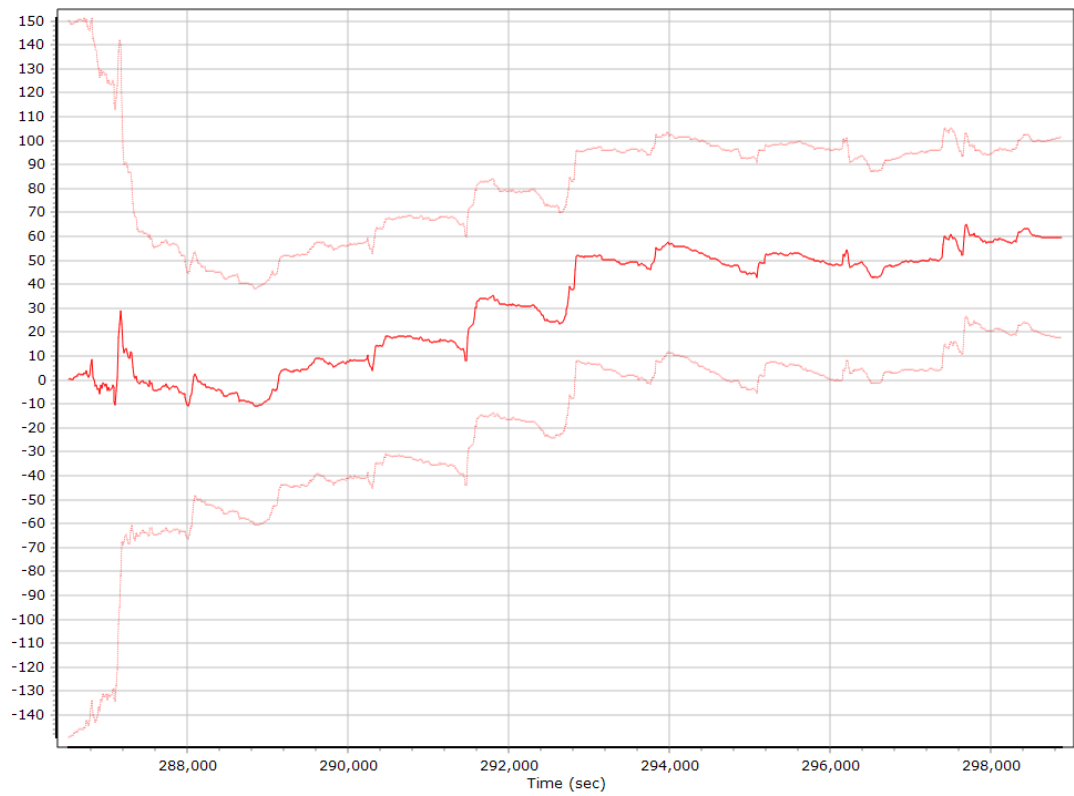
Z Gyro Bias (deg/h)



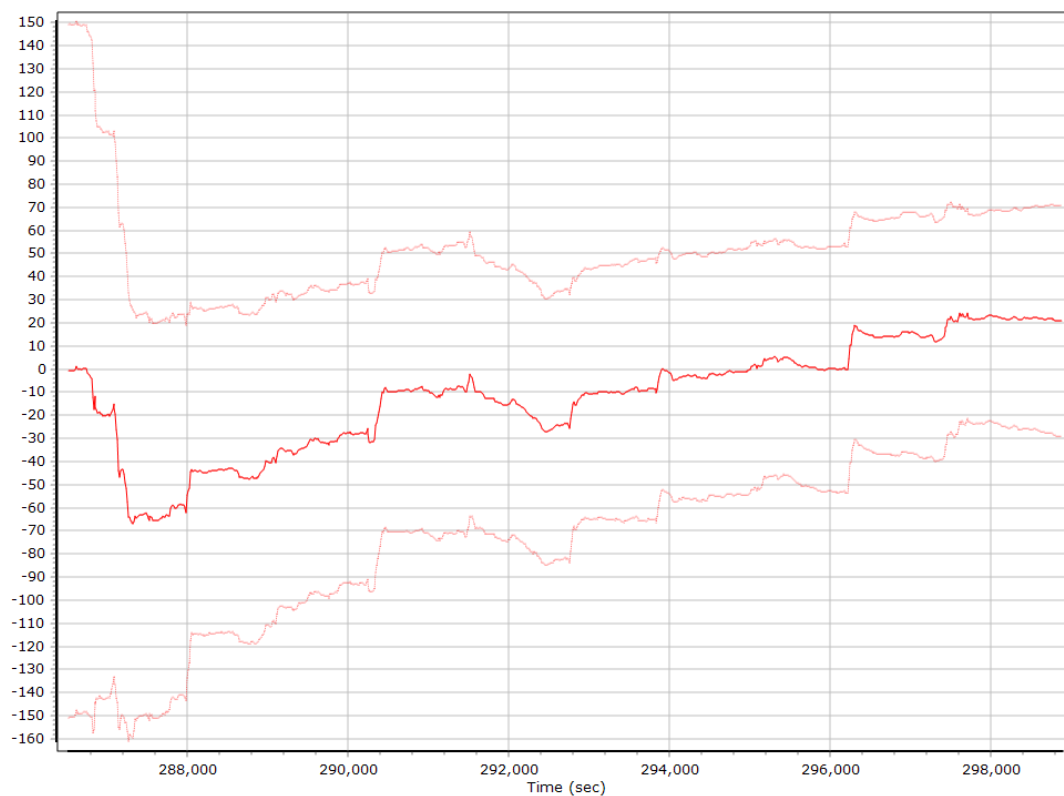
Gyro Scale Error (ppm)



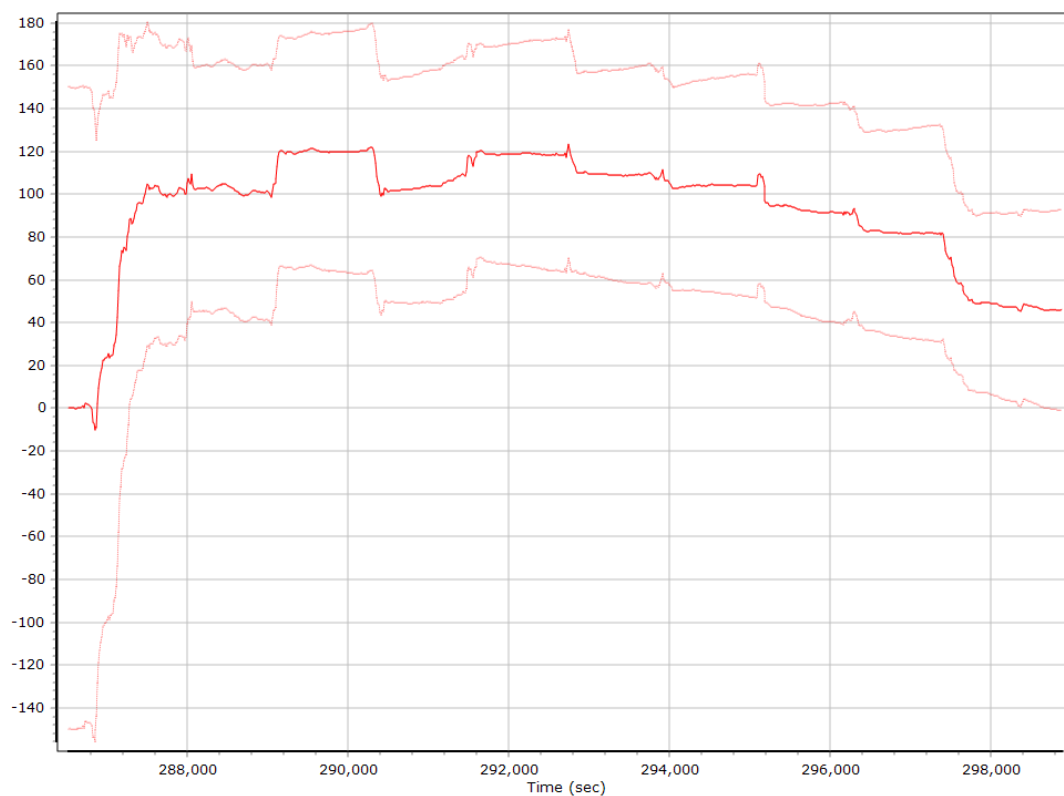
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

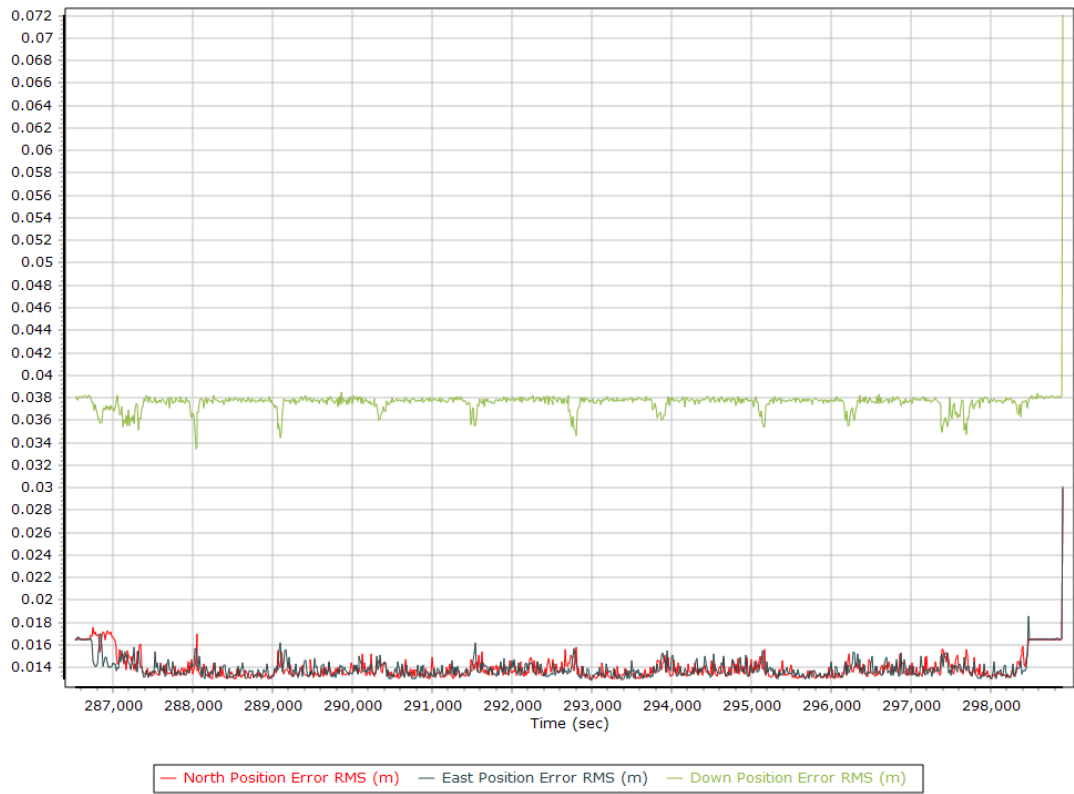


Z Gyro Scale Error (ppm)

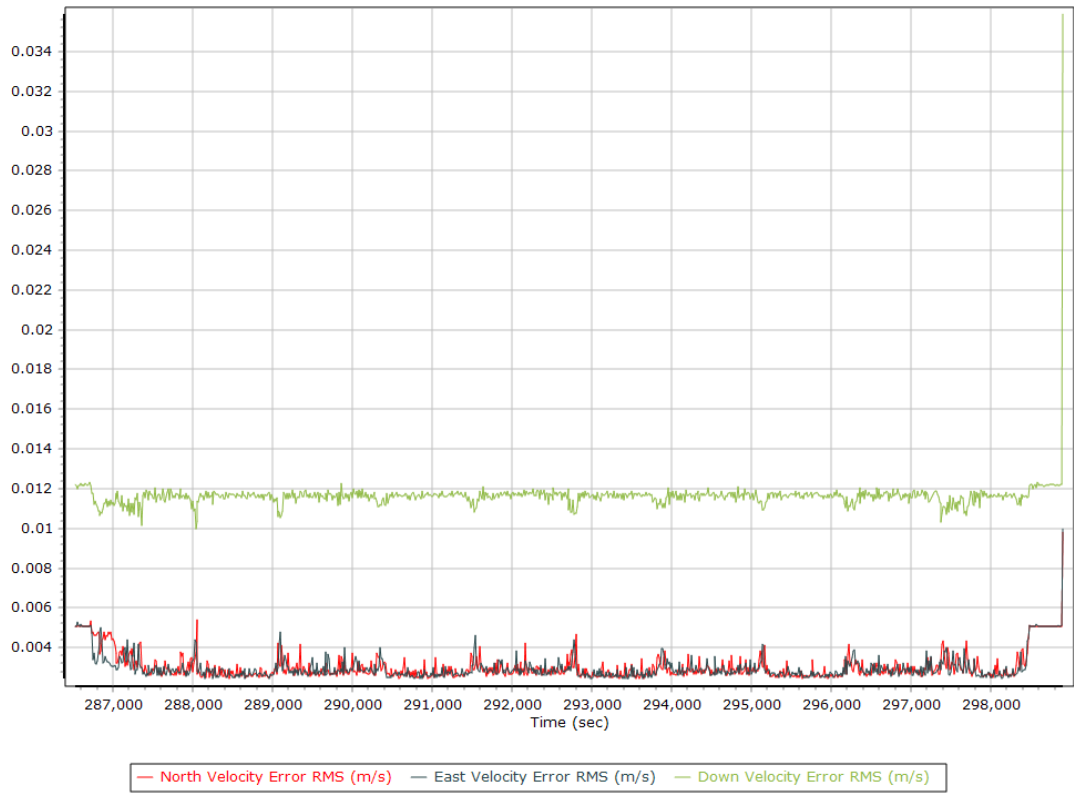


Smoothed Performance Metrics

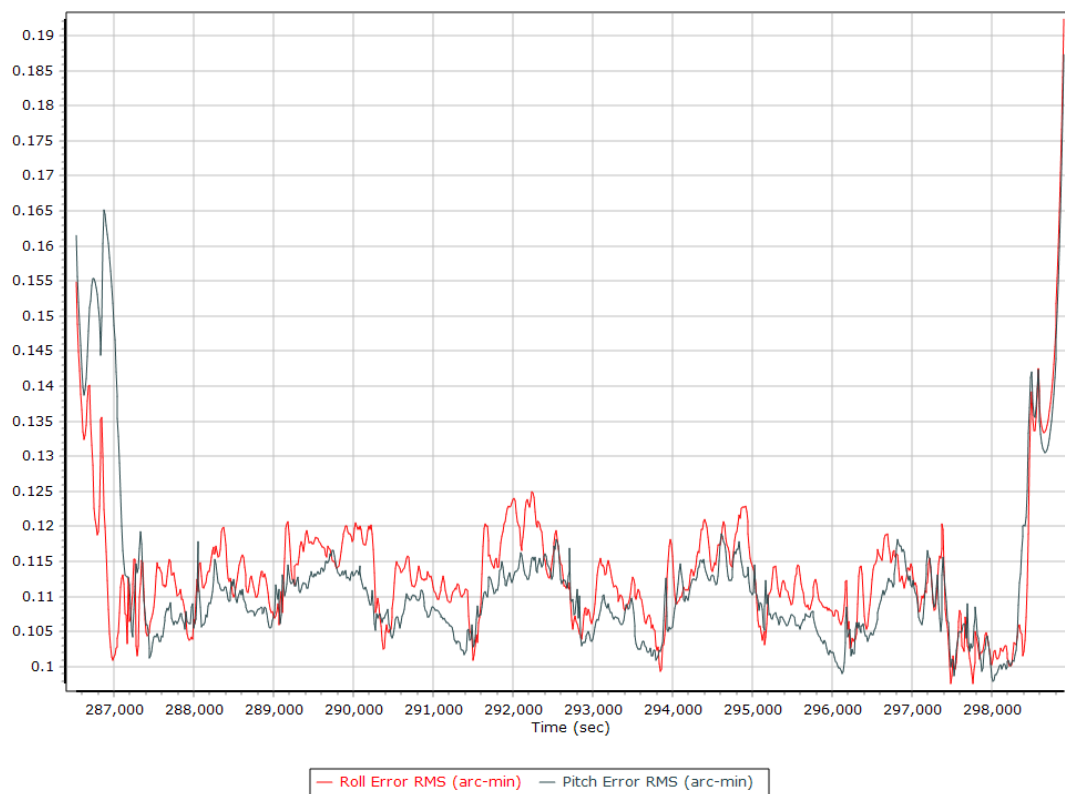
Position Error RMS (m)



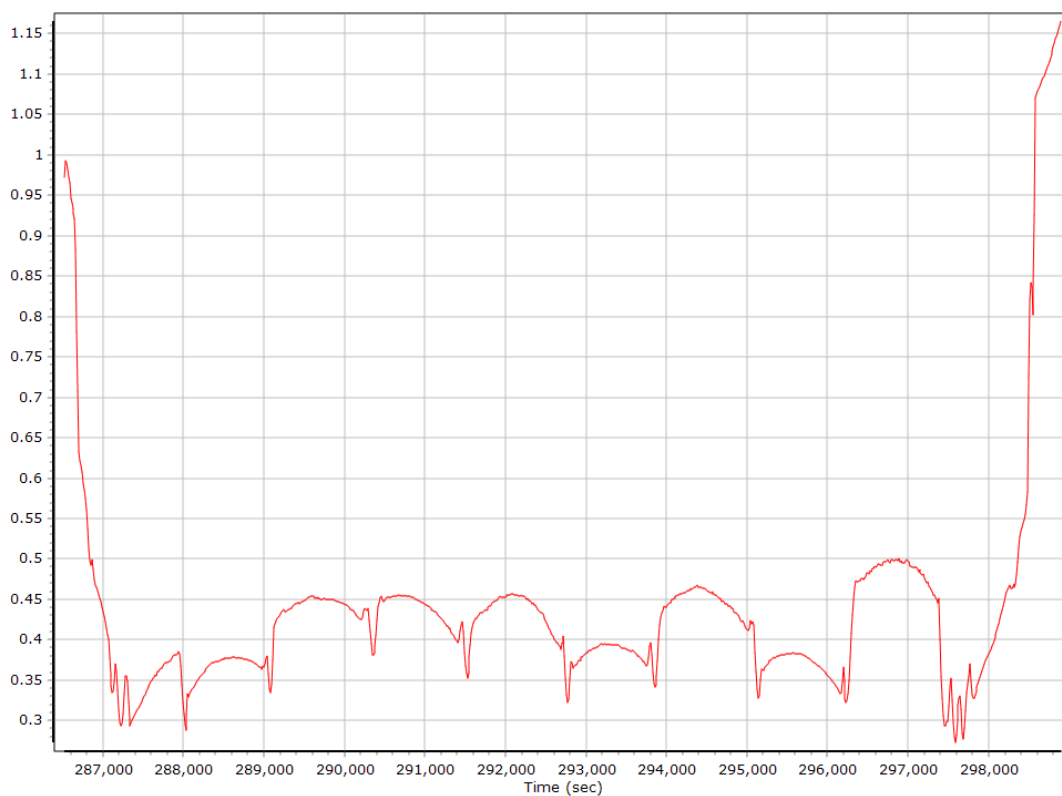
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

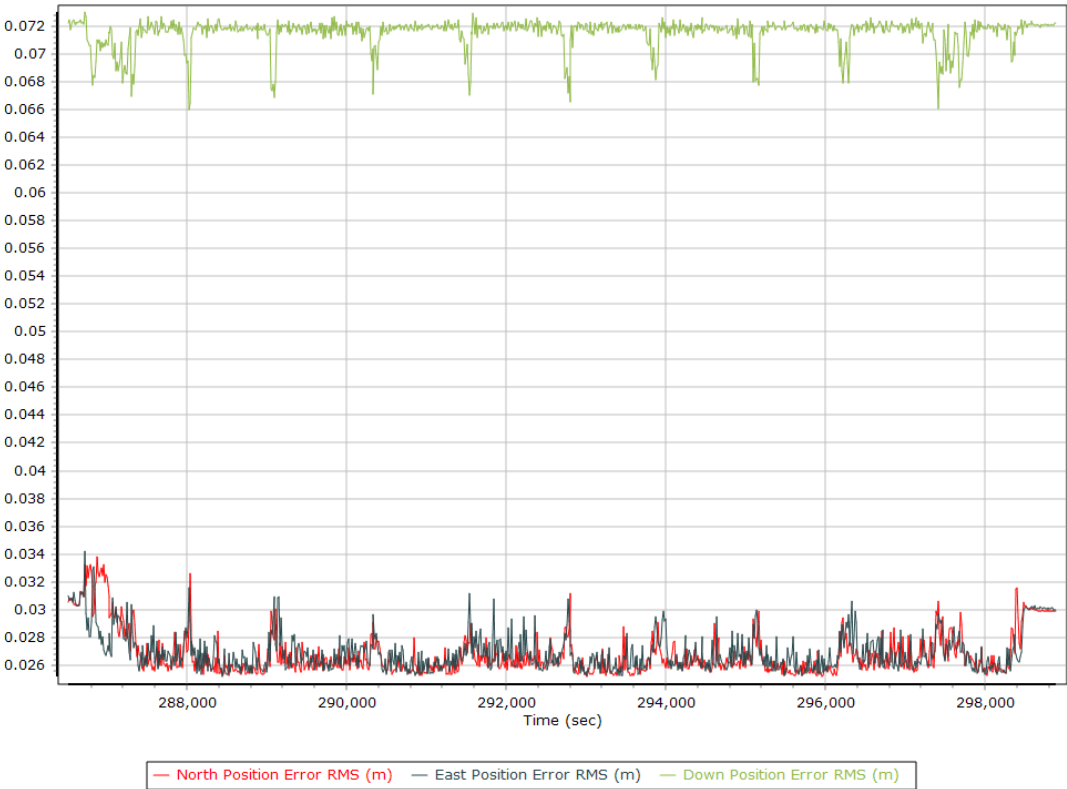


Heading Error RMS (arc-min)

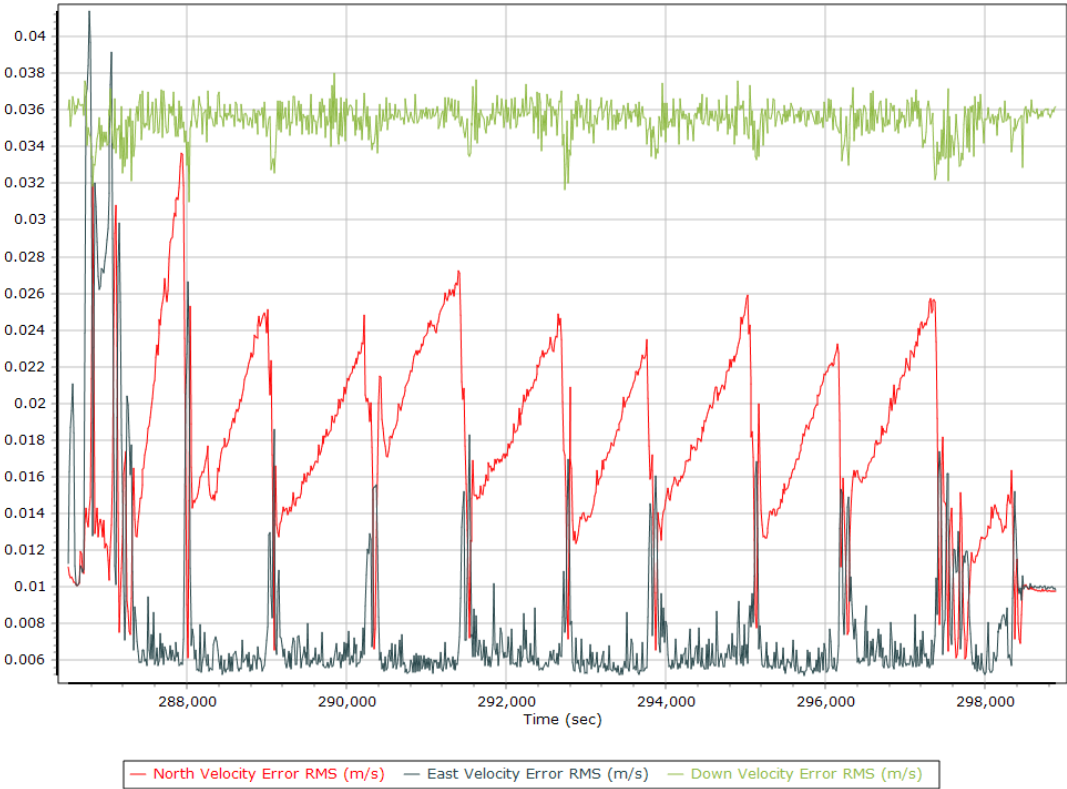


Forward Processed Performance Metrics

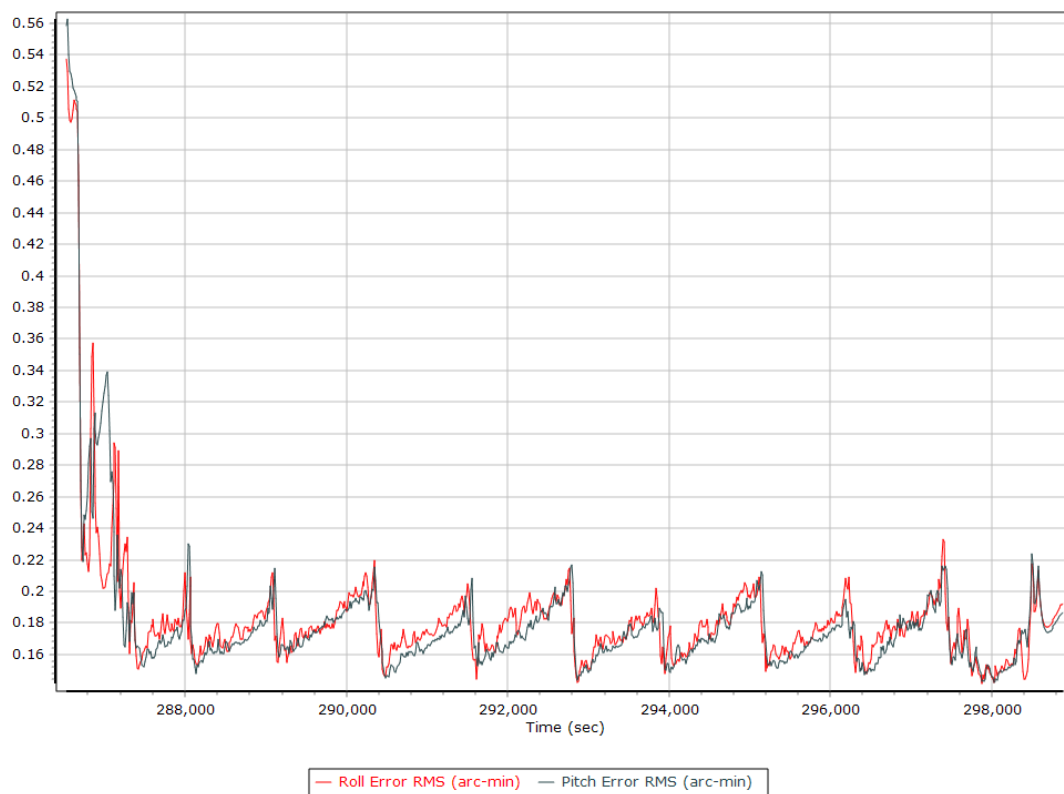
Position Error RMS (m)



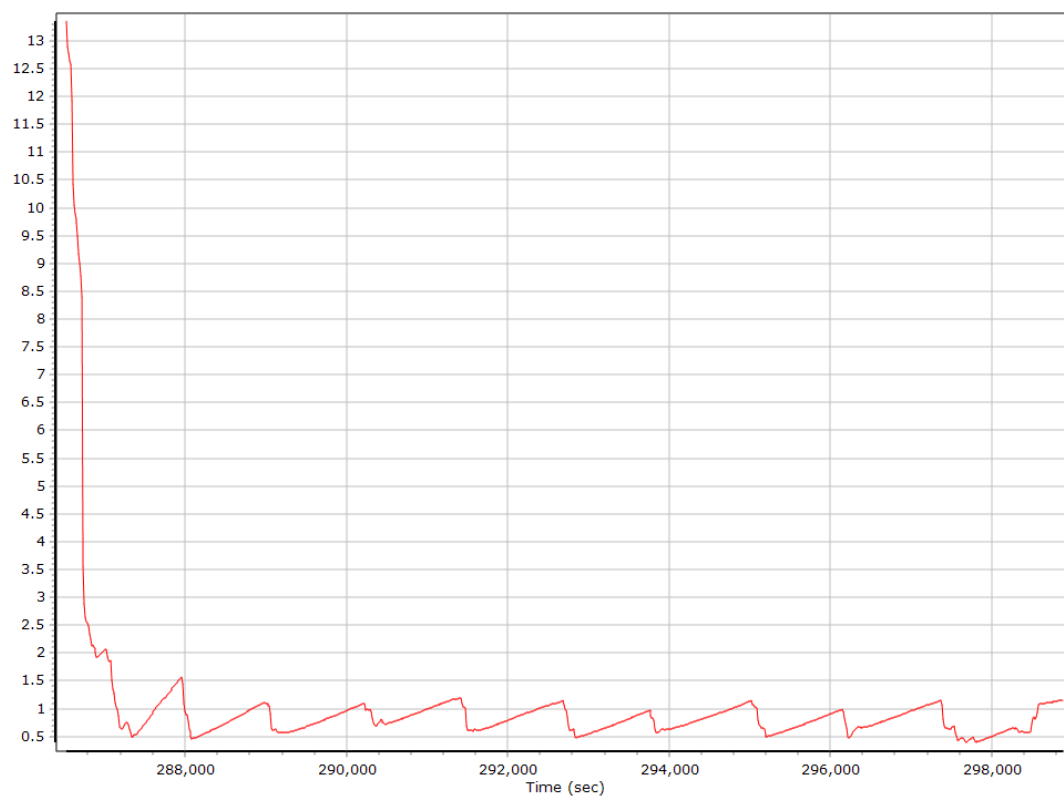
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

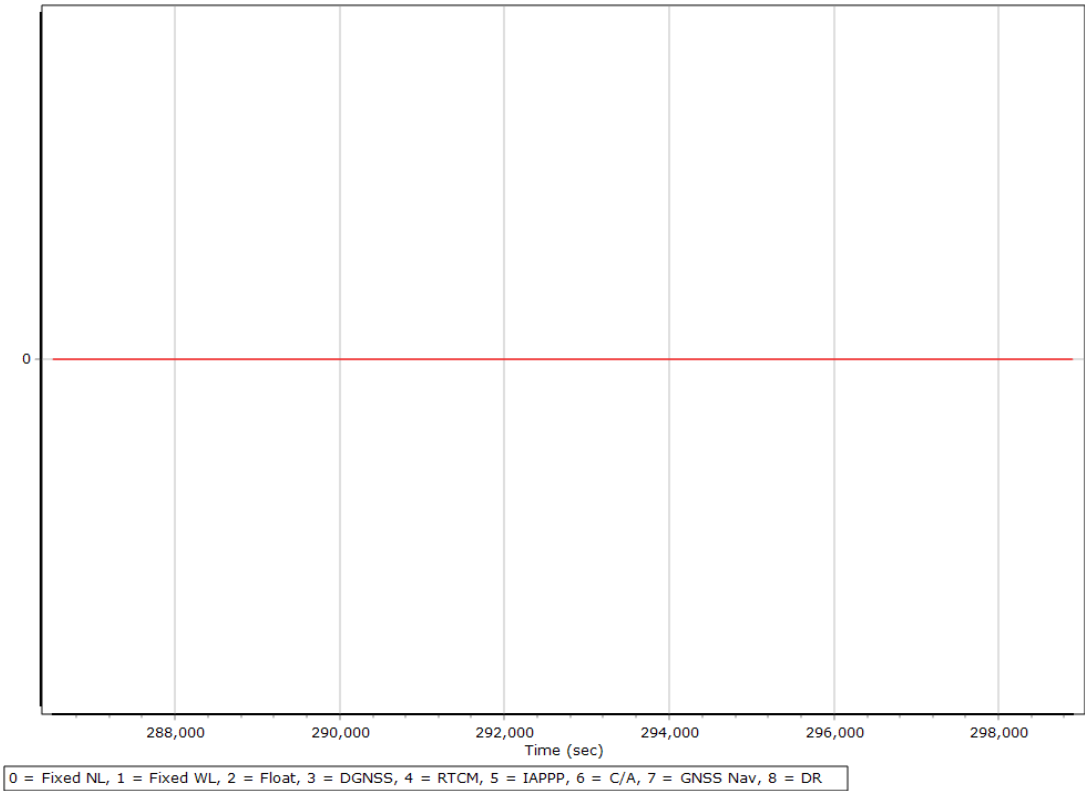


Heading Error RMS (arc-min)

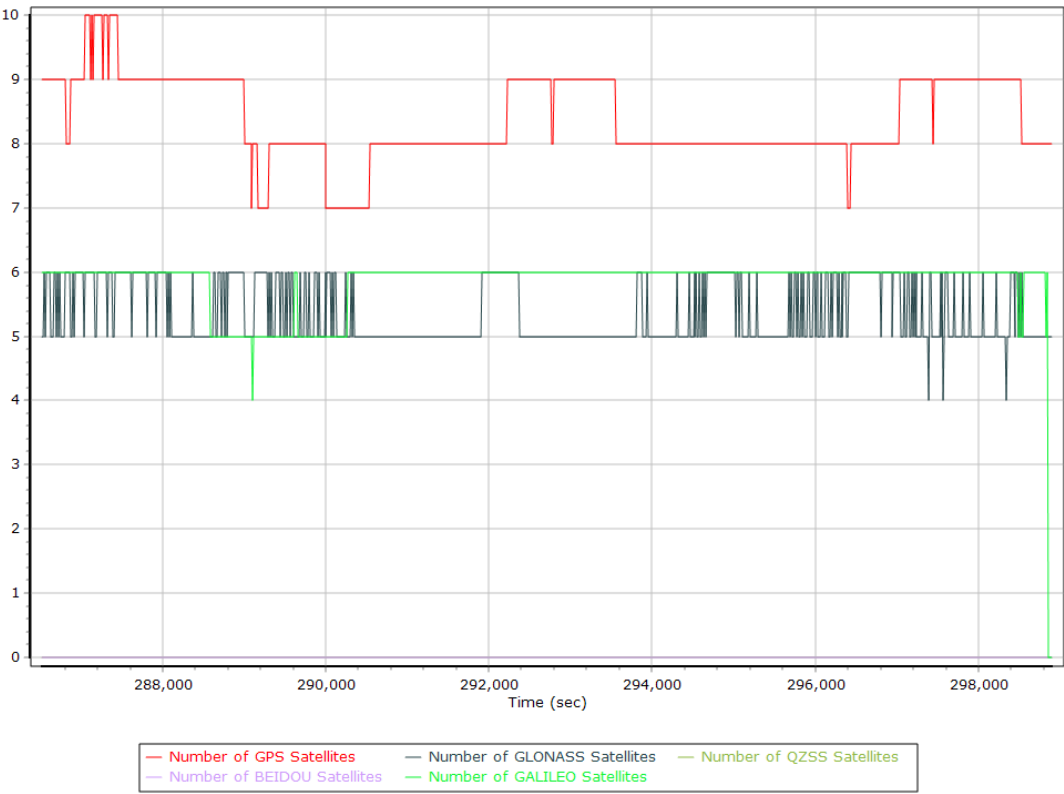


Forward Processed Solution Status

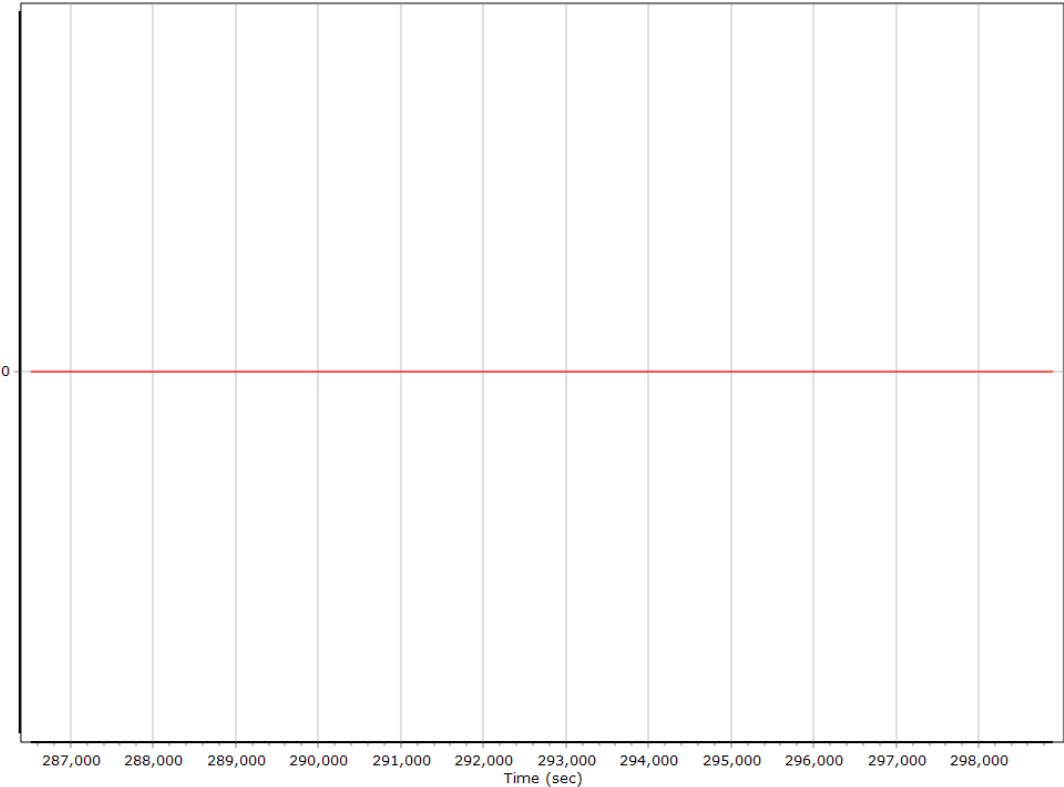
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230419_F1_4894_NAD832011.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	286463.004 (04/19/2023 07:34:23)		
Export end time	298898.004 (04/19/2023 11:01:38)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.29589		

General Information

Mission Information

Project name	20230420_F1_4894
Processing date	2023-04-25 21:08:23
Mission date	2023-04-20 11:29:36
Mission duration	04:17:36.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.547	POS Data
VQ1560.548	POS Data
VQ1560.549	POS Data
VQ1560.550	POS Data
VQ1560.551	POS Data
VQ1560.552	POS Data
VQ1560.553	POS Data
VQ1560.554	POS Data
VQ1560.555	POS Data
VQ1560.556	POS Data
VQ1560.557	POS Data
VQ1560.558	POS Data
VQ1560.559	POS Data
VQ1560.560	POS Data
VQ1560.561	POS Data
VQ1560.562	POS Data
VQ1560.563	POS Data
VQ1560.564	POS Data
VQ1560.565	POS Data
VQ1560.566	POS Data
VQ1560.567	POS Data
VQ1560.568	POS Data
VQ1560.569	POS Data
VQ1560.570	POS Data
VQ1560.571	POS Data
VQ1560.572	POS Data
VQ1560.573	POS Data
VQ1560.574	POS Data
VQ1560.575	POS Data
VQ1560.576	POS Data
VQ1560.577	POS Data
VQ1560.578	POS Data
VQ1560.579	POS Data
VQ1560.580	POS Data
VQ1560.581	POS Data
VQ1560.582	POS Data
VQ1560.583	POS Data

Input Files

File Name	File Type
Ephm1100.23g	GLONASS Broadcast Ephemeris
Ephm1100.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230420_F1_4894.out	SBET Trajectory File
export_20230420_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.547		
Last raw data file	VQ1560.583		
Start GPS week	2258		
Start time	386969.616 (04/20/2023 11:29:29)		
End time	402414.315 (04/20/2023 15:46:54)		
Start of fine alignment	387479.581 (04/20/2023 11:37:59)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

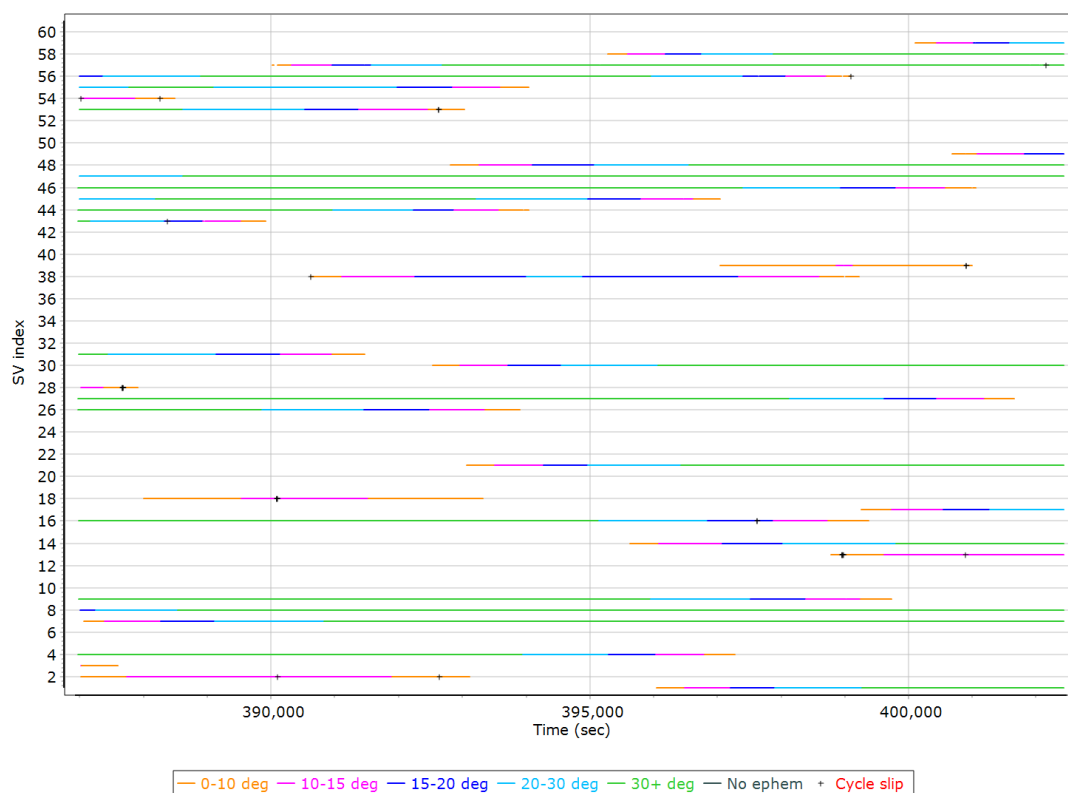
Rover Data QC

Raw IMU Import QC Summary

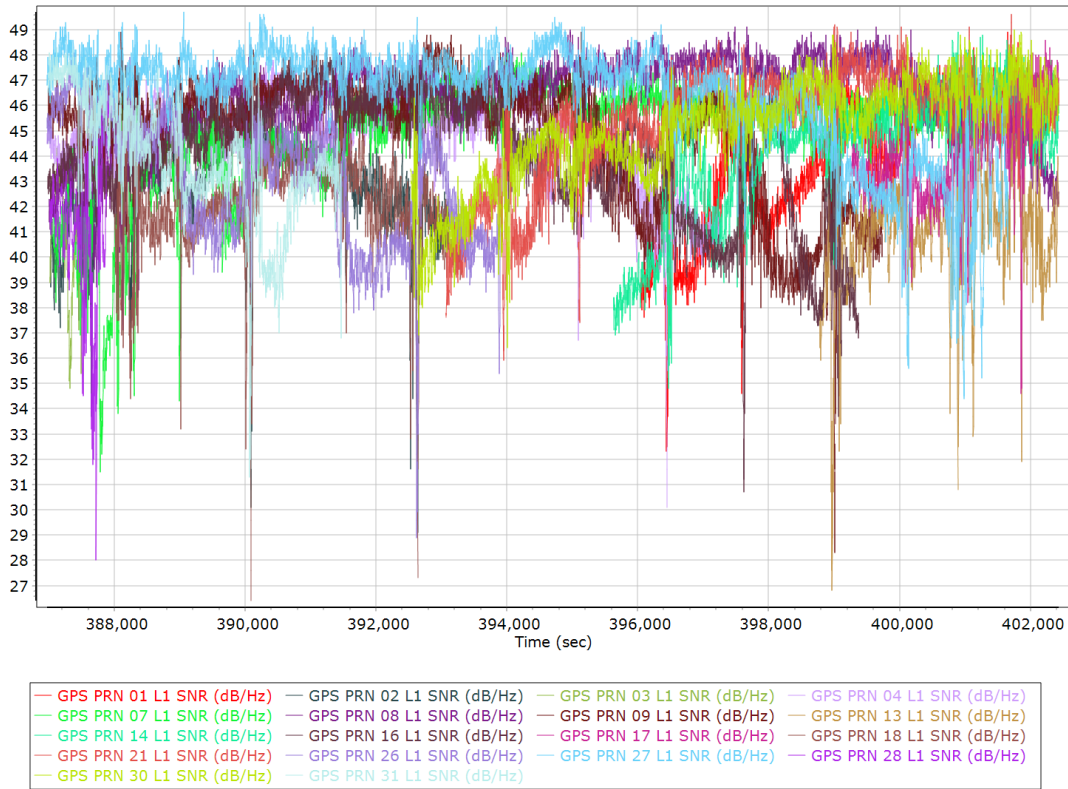
IMU data input file	imu_20230420_F1_4894.dat
IMU data check log file	imudt_20230420_F1_4894.log
IMU Records Processed	3090772
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
386969.421 : WARNING : Gap of 386957.4644 seconds in CHECKDT input data	

Primary Observables & Satellite Data

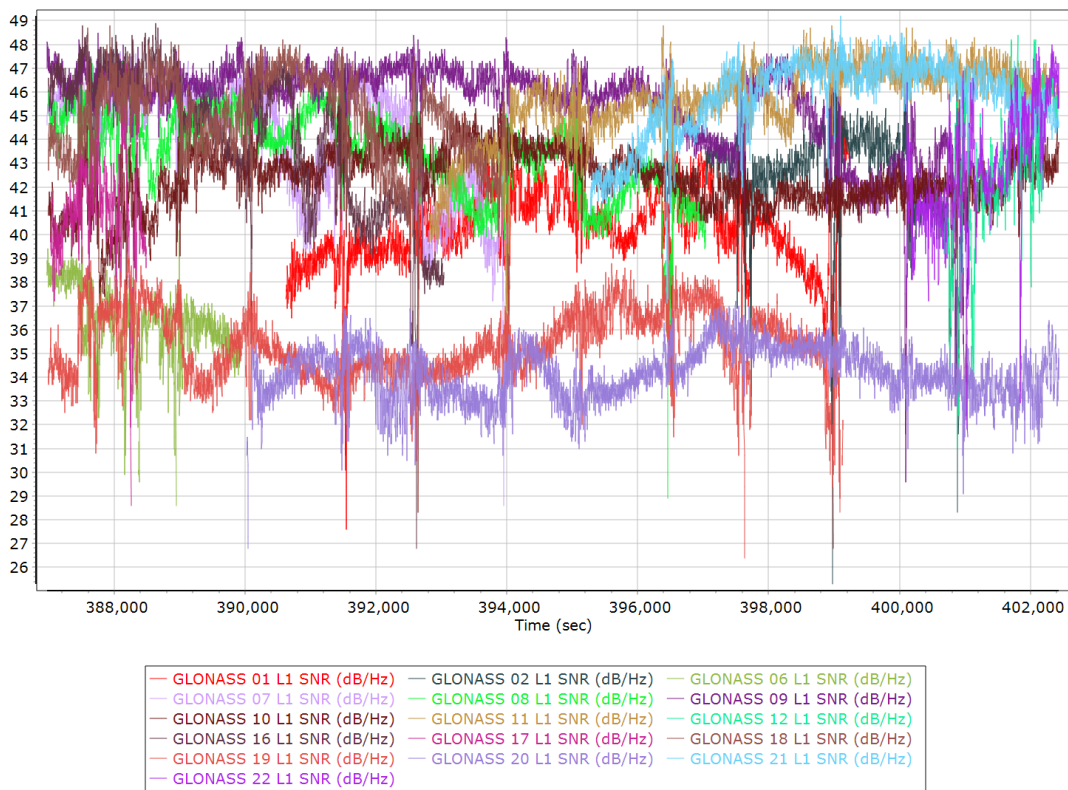
GPS/GLONASS L1 Satellite Lock/Elevation



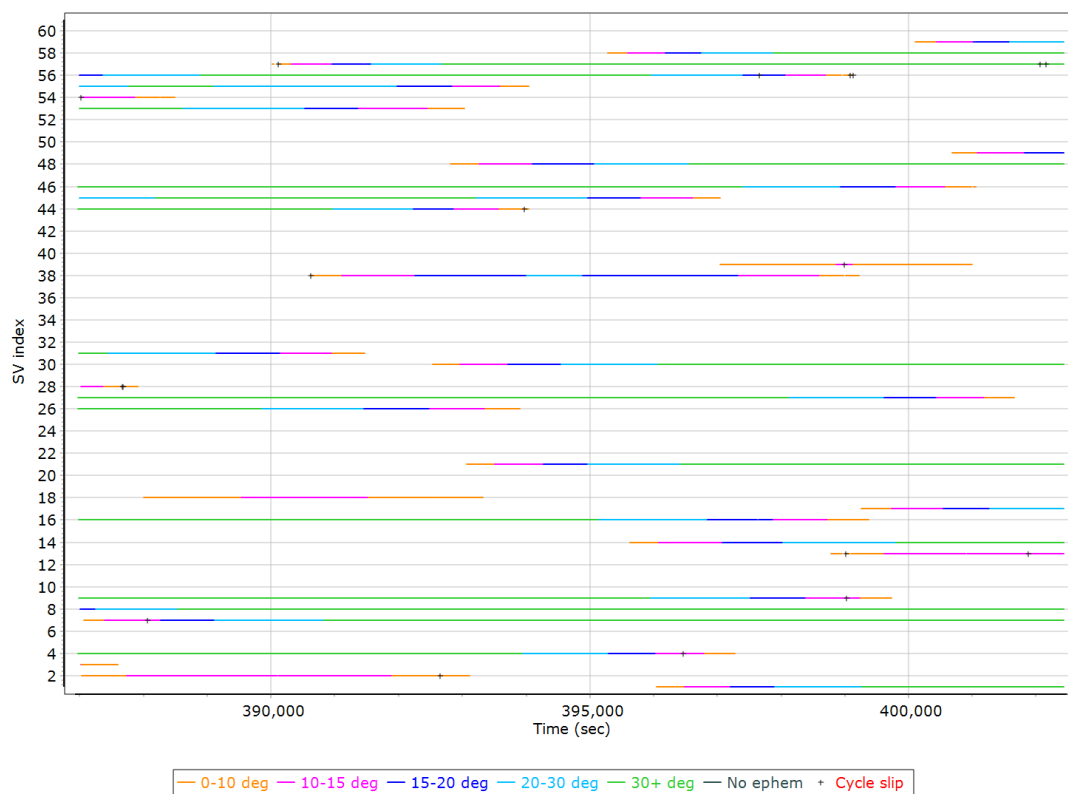
GPS L1 SNR



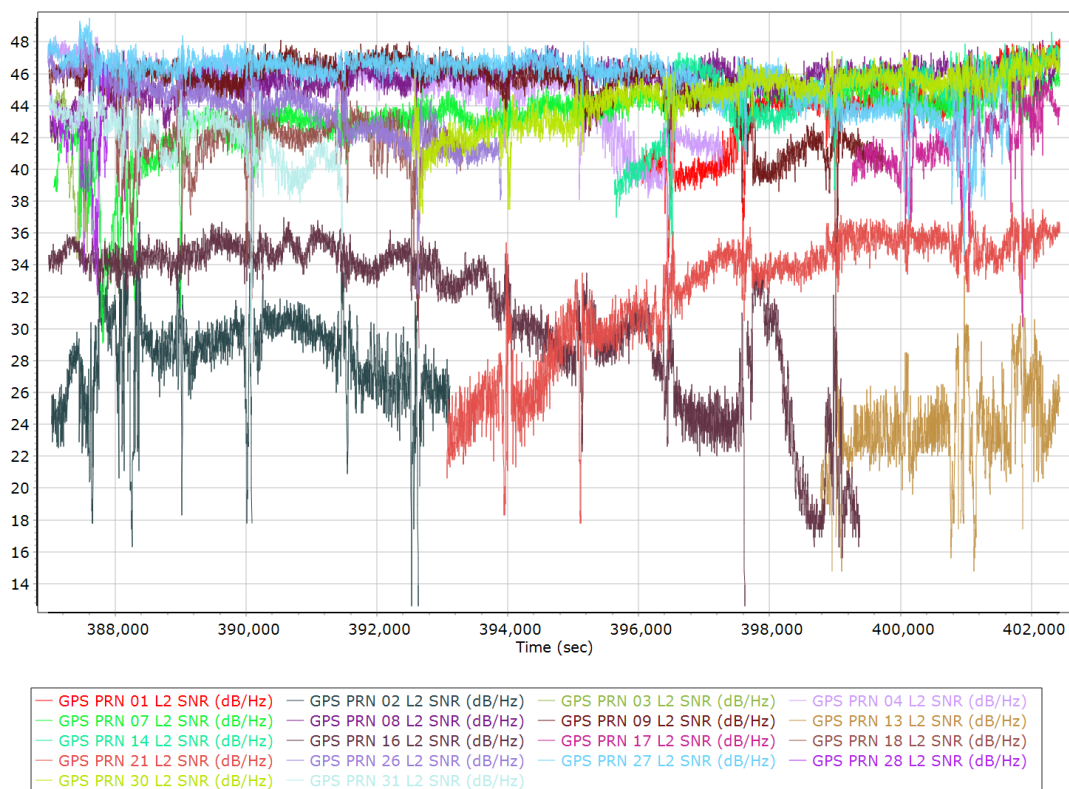
GLONASS L1 SNR



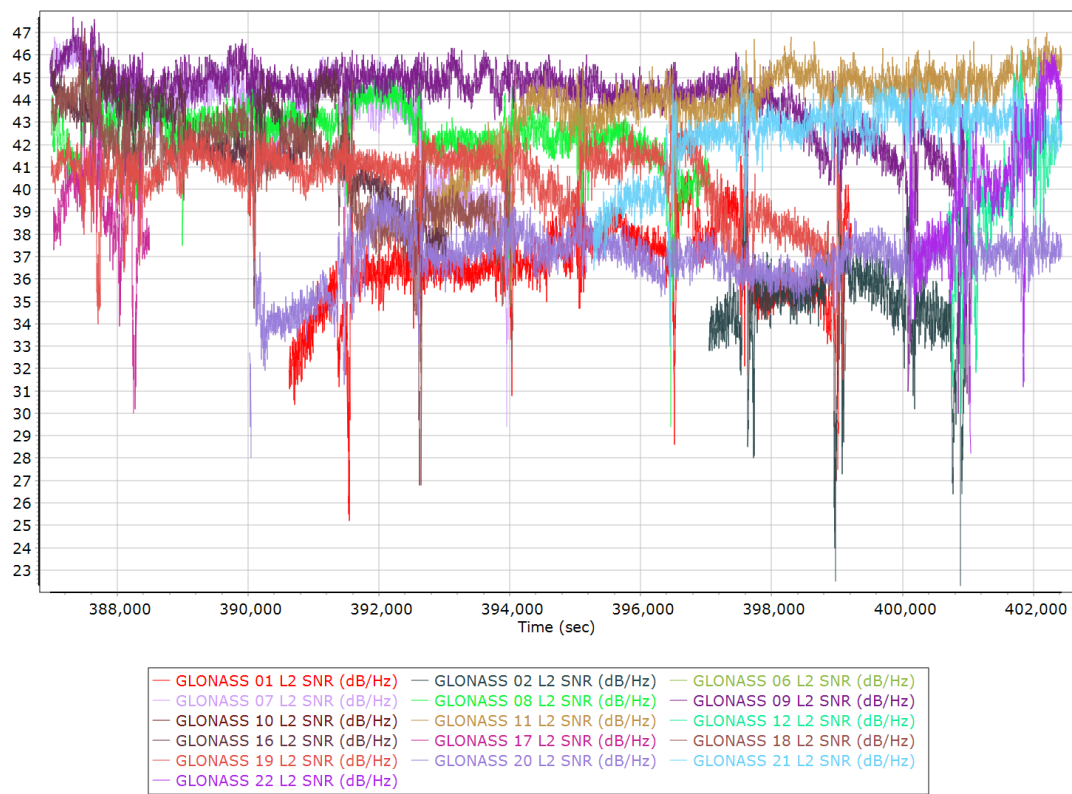
GPS/GLONASS L2 Satellite Lock/Elevation



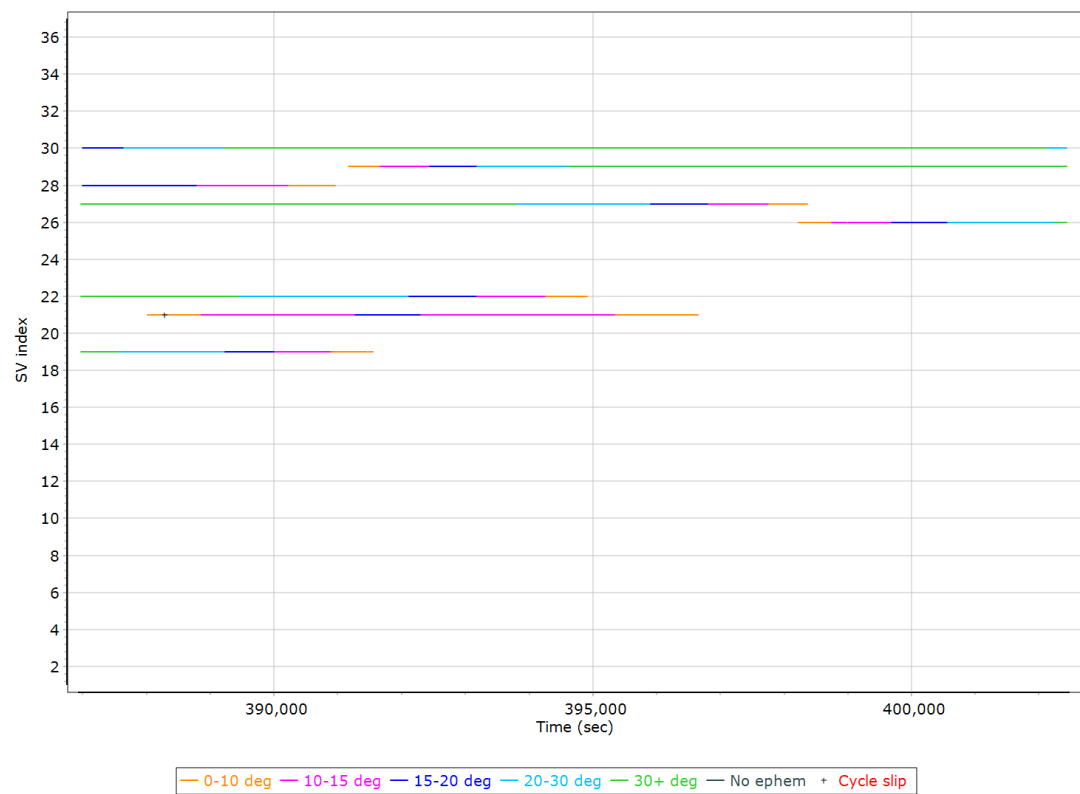
GPS L2 SNR



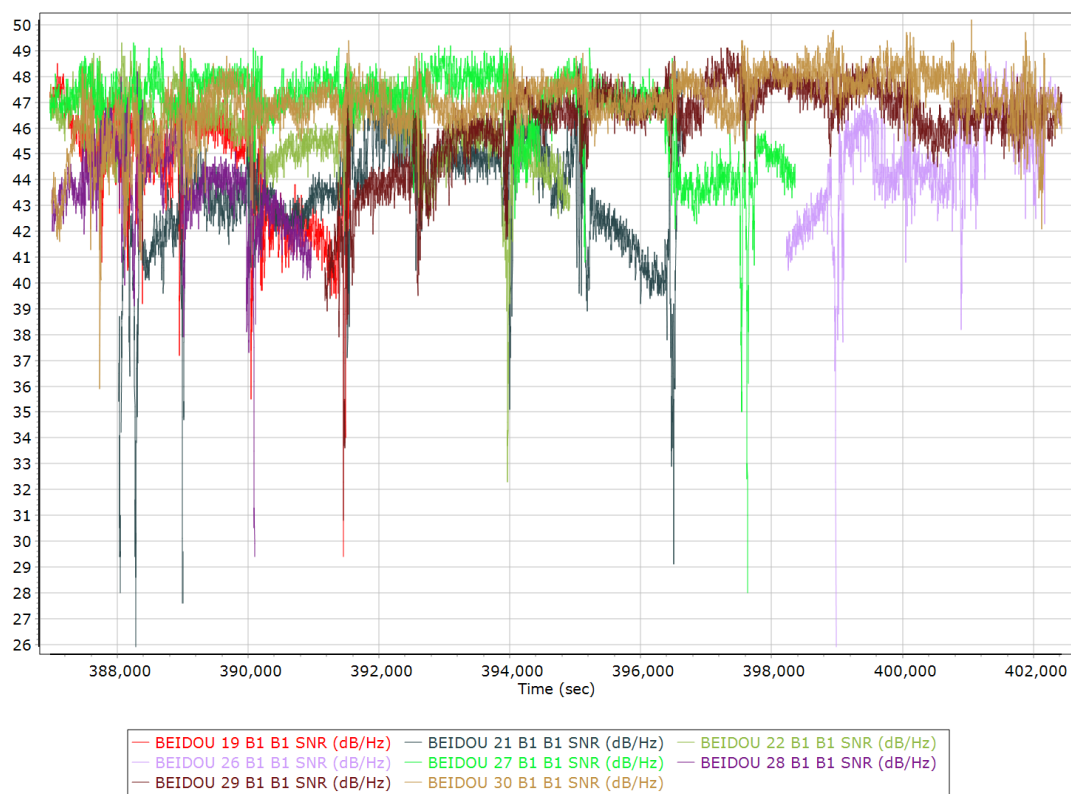
GLONASS L2 SNR



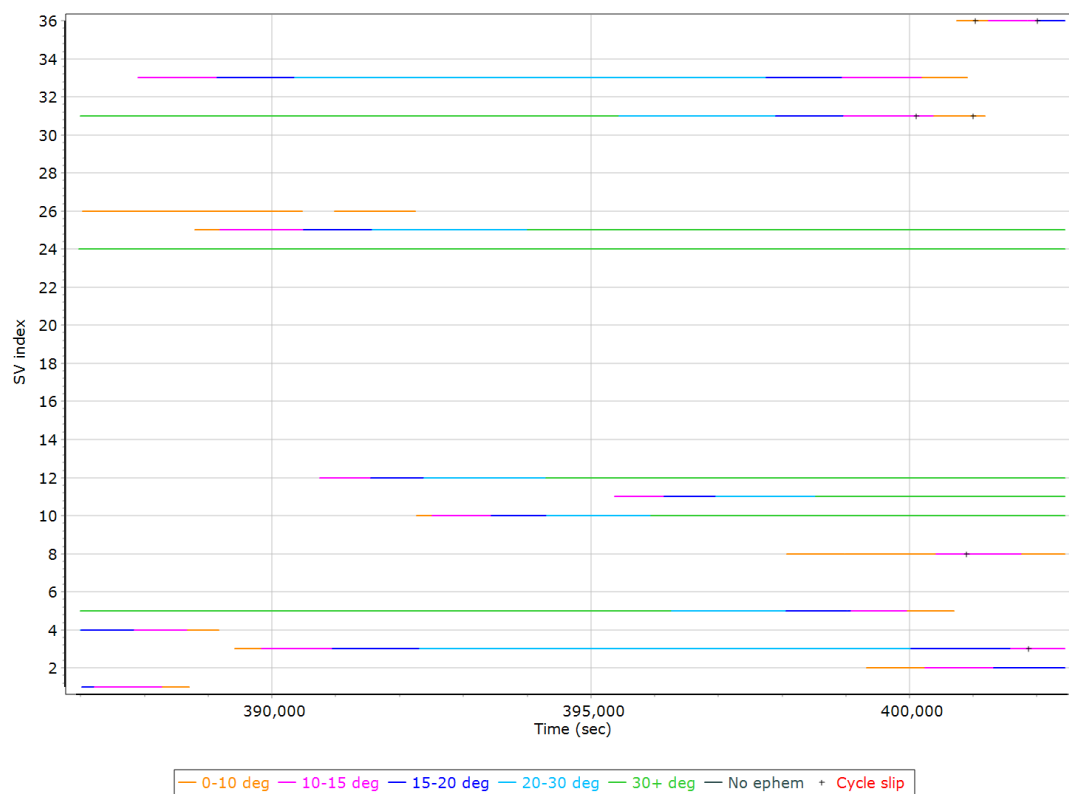
BEIDOU Satellite Lock/Elevation



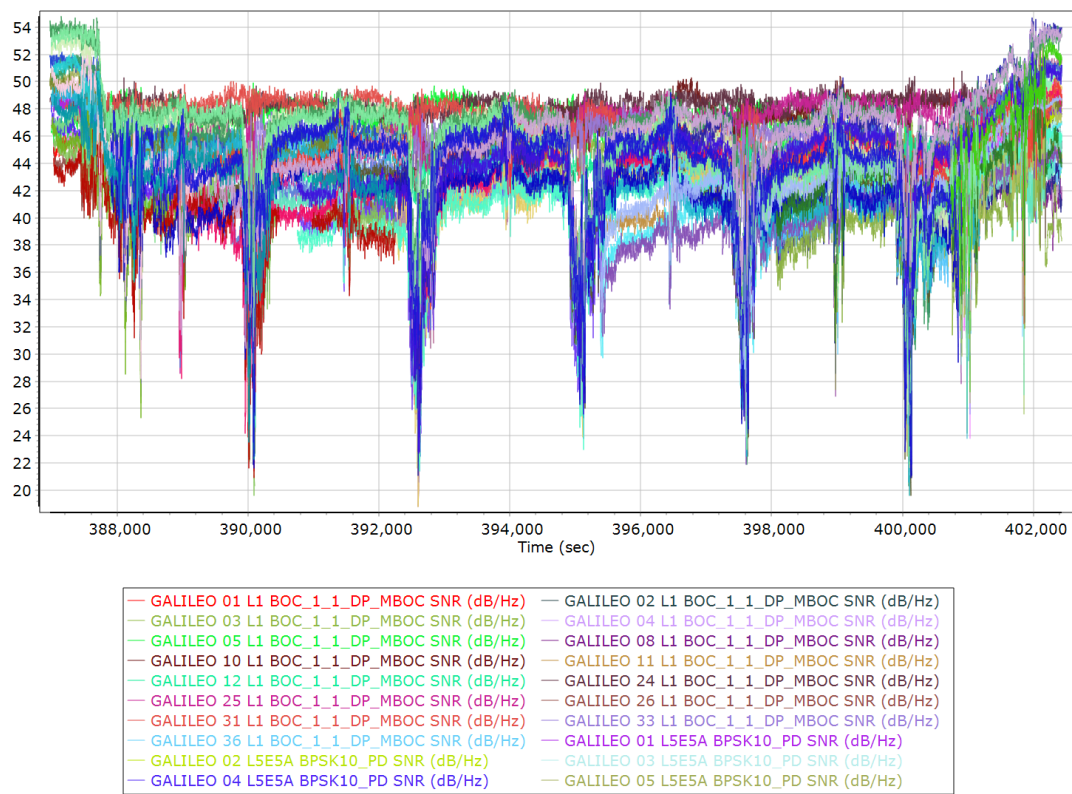
BEIDOU SNR



GALILEO Satellite Lock/Elevation

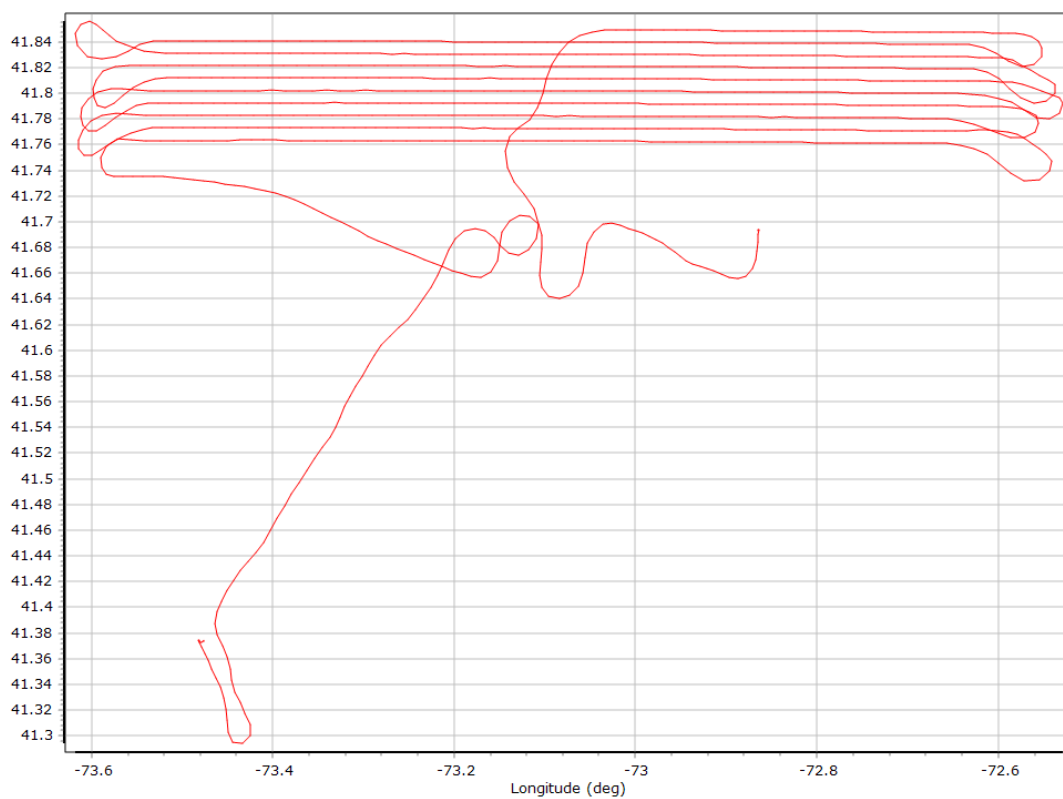


GALILEO SNR

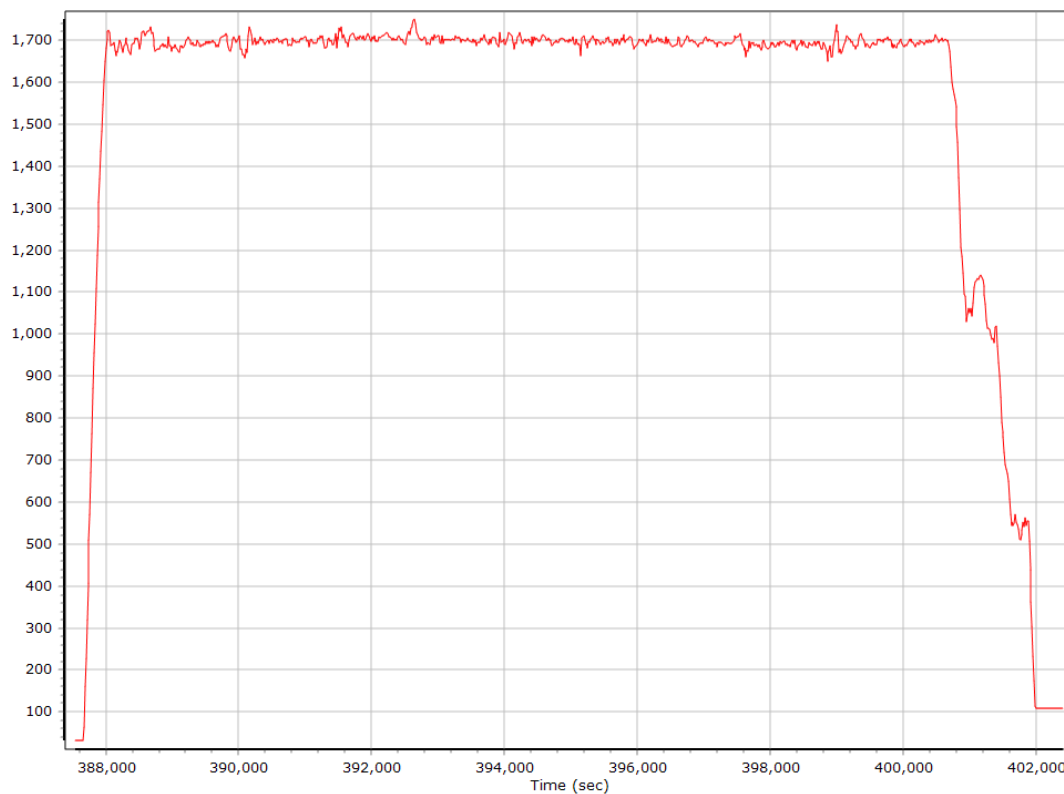


Smoothed Trajectory Information

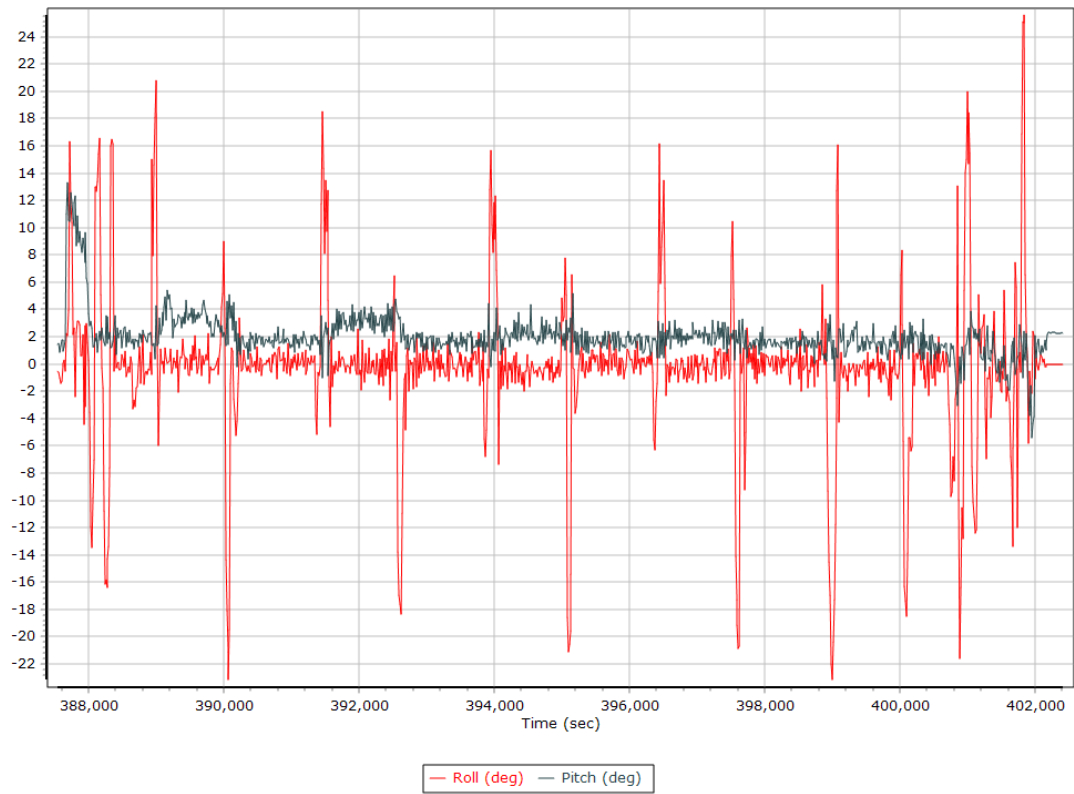
Top View



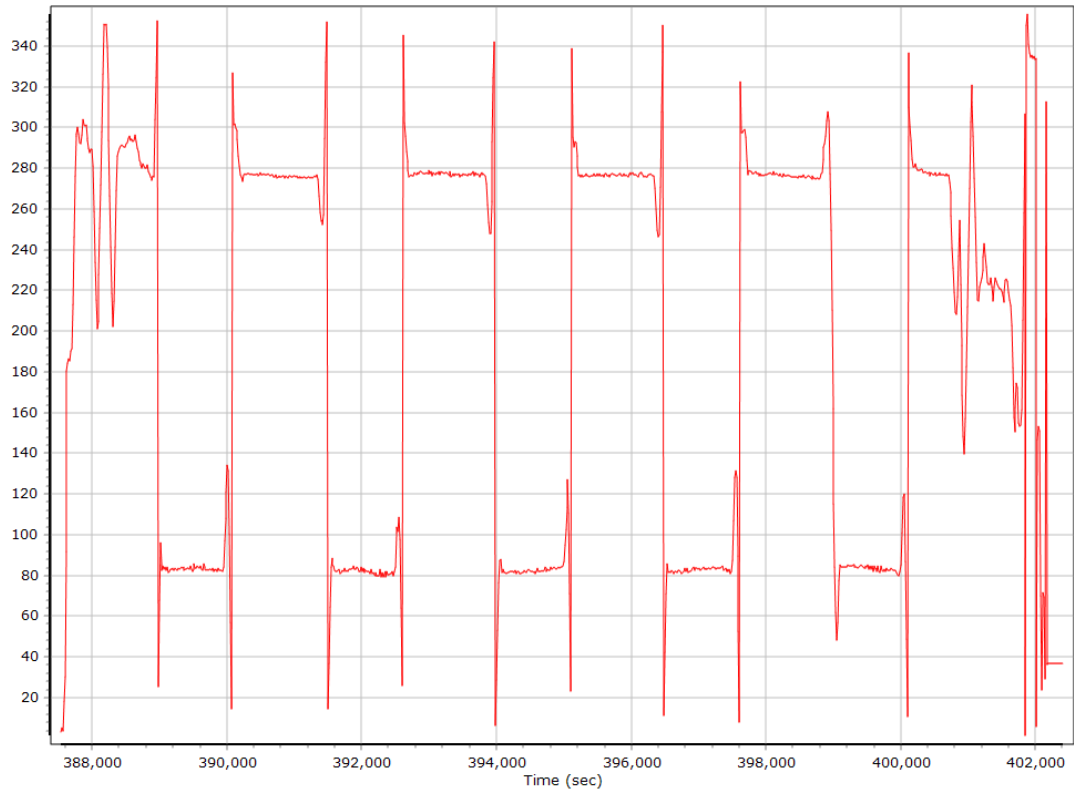
Altitude



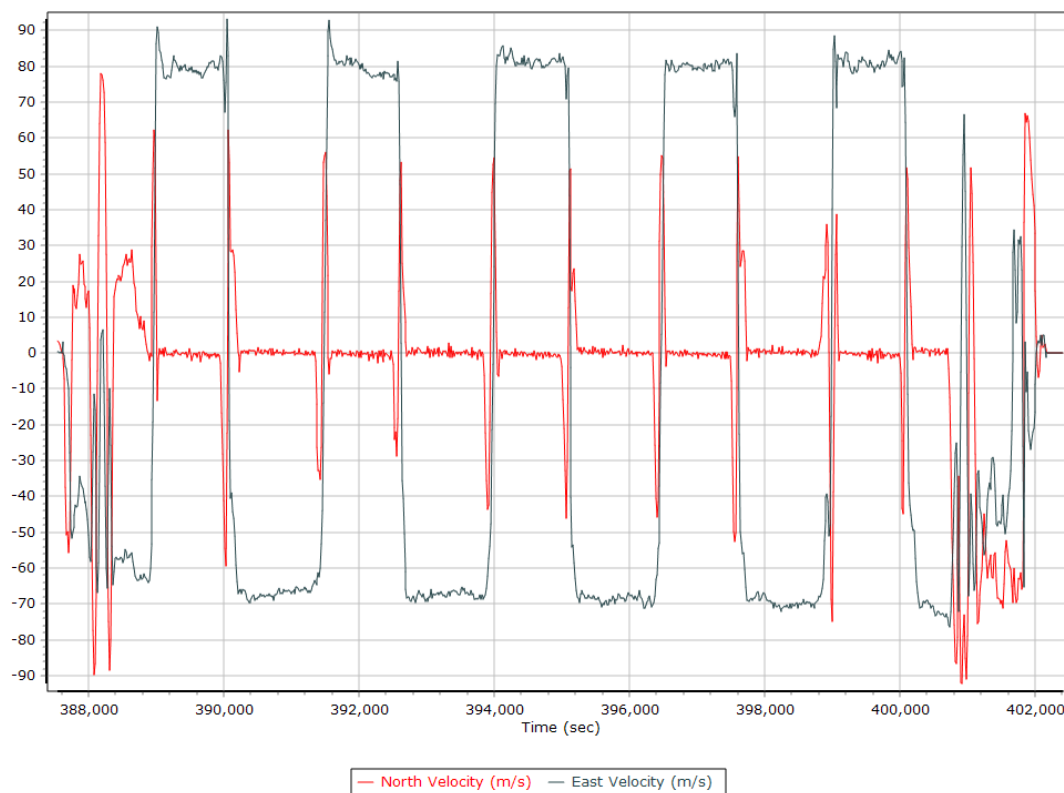
Roll/Pitch



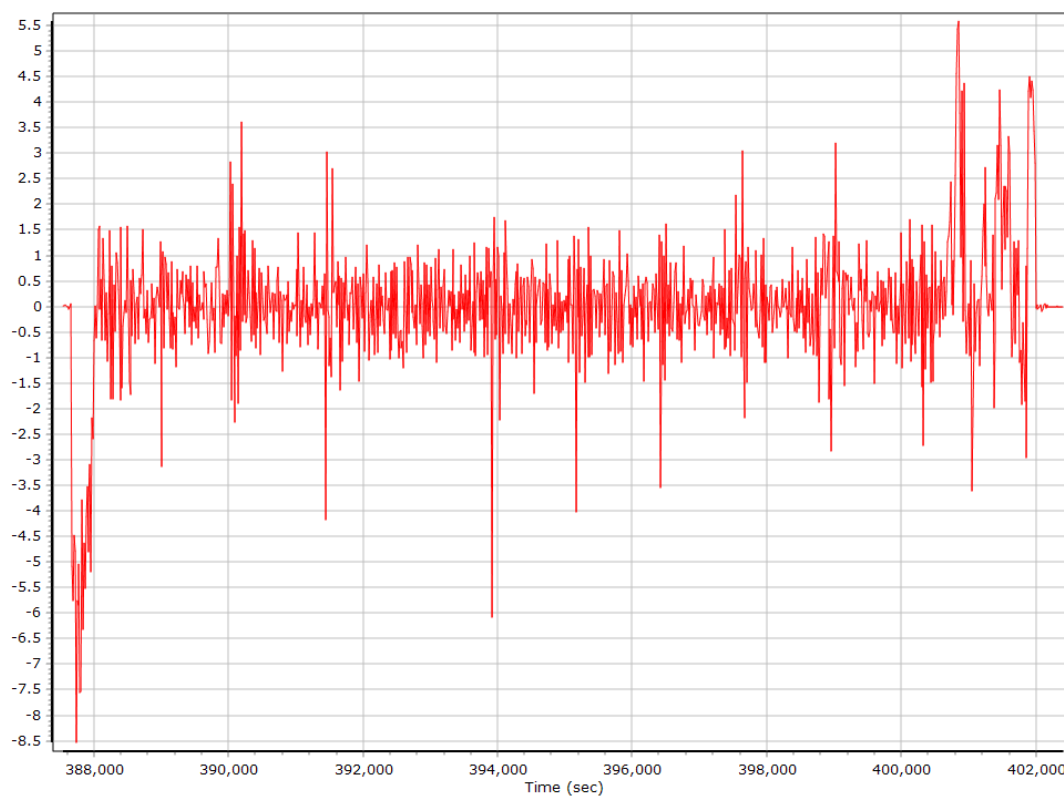
Heading



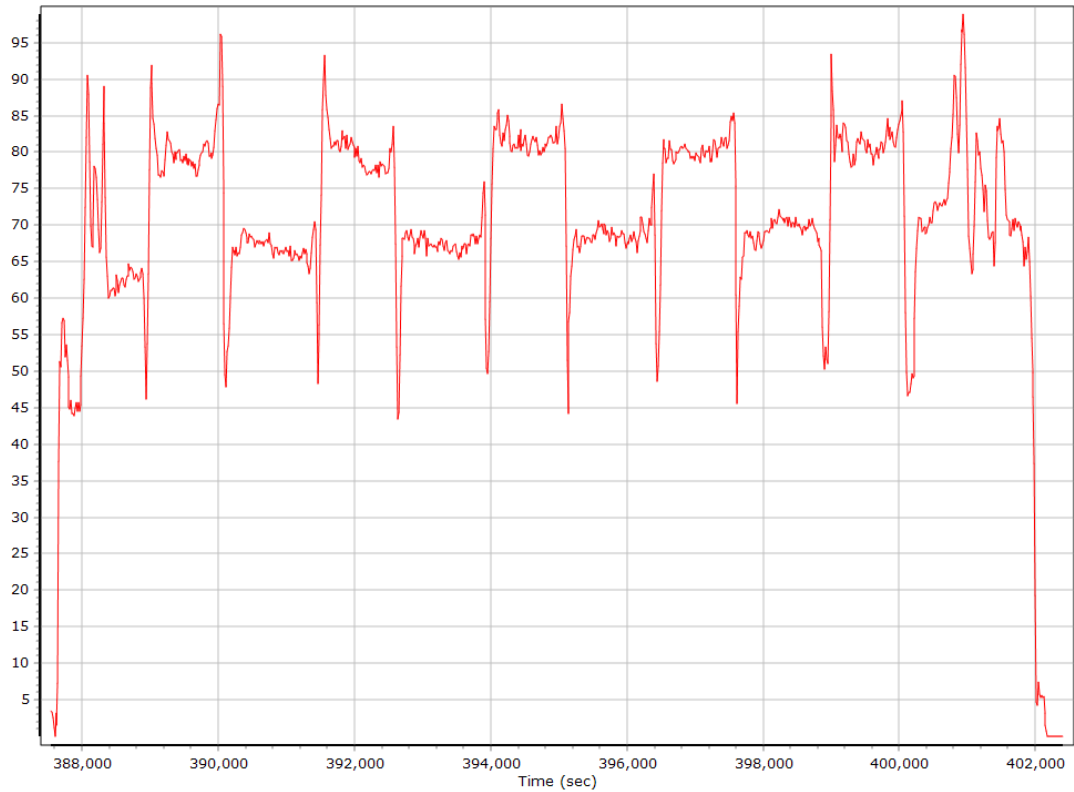
North/East Velocity



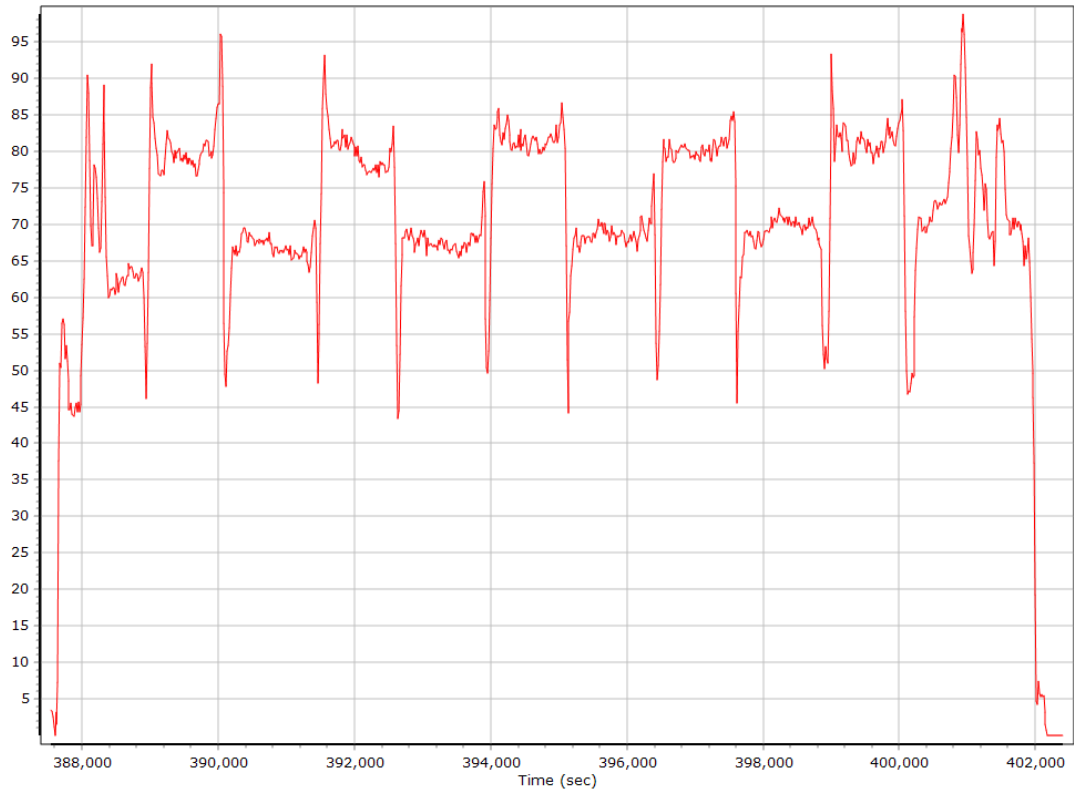
Down Velocity



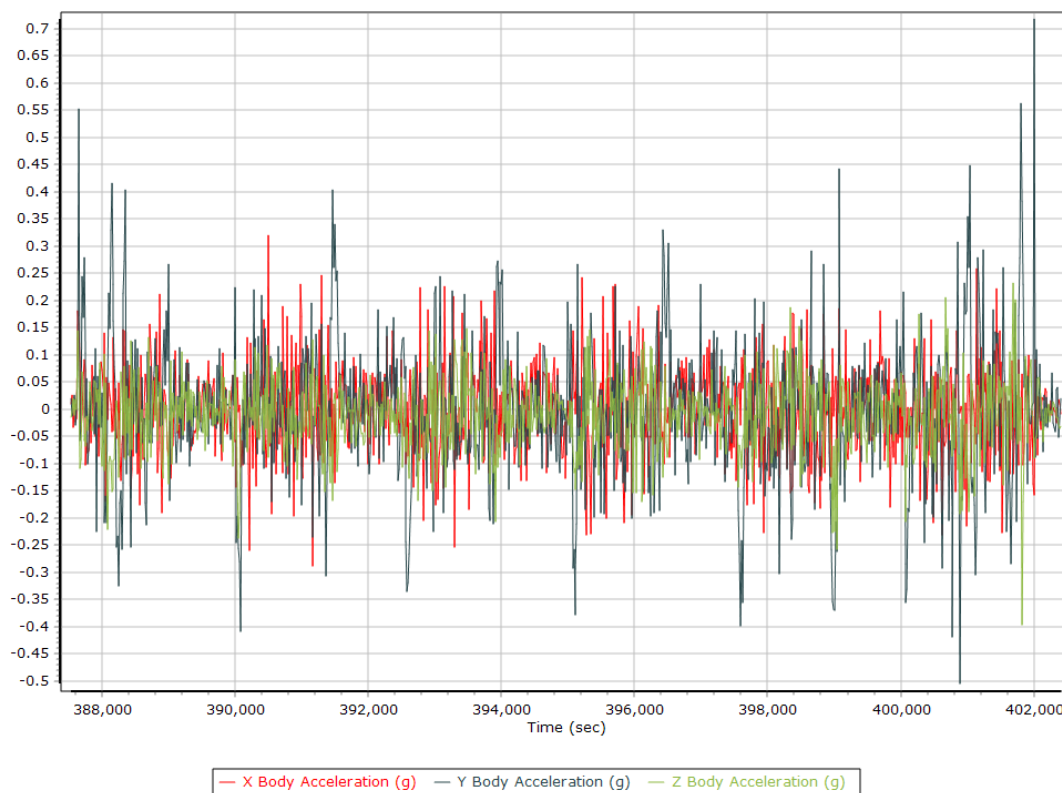
Total Speed



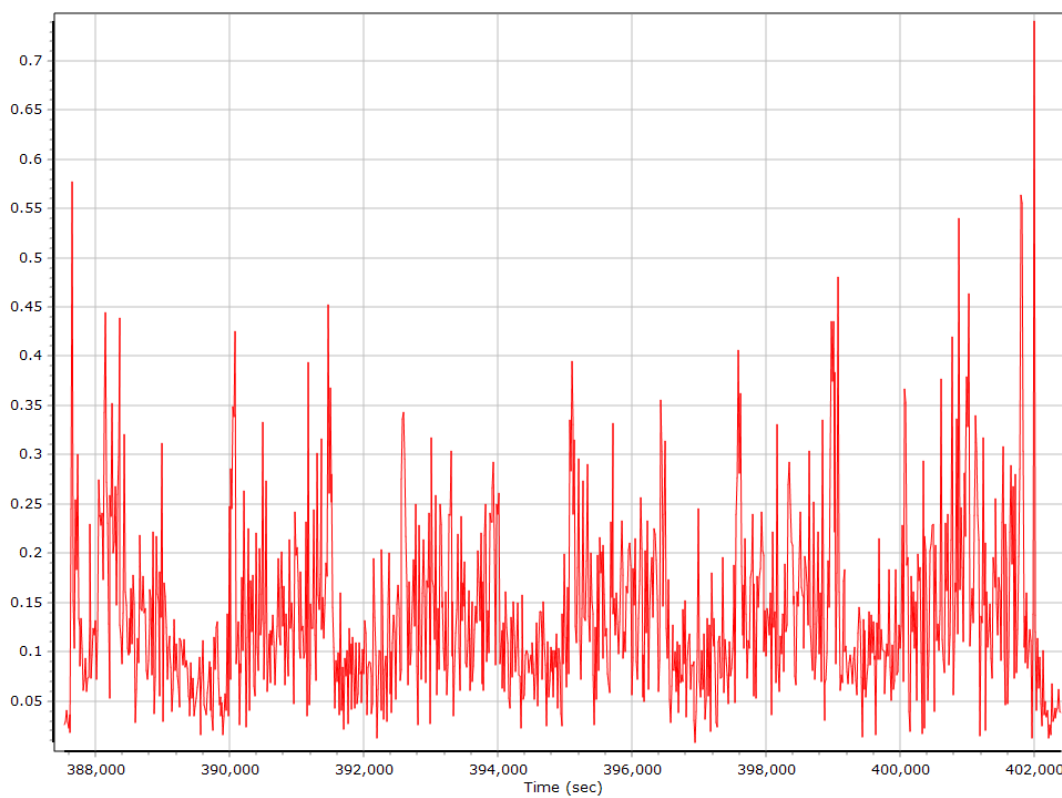
Ground Speed



Body Acceleration



Total Body Acceleration

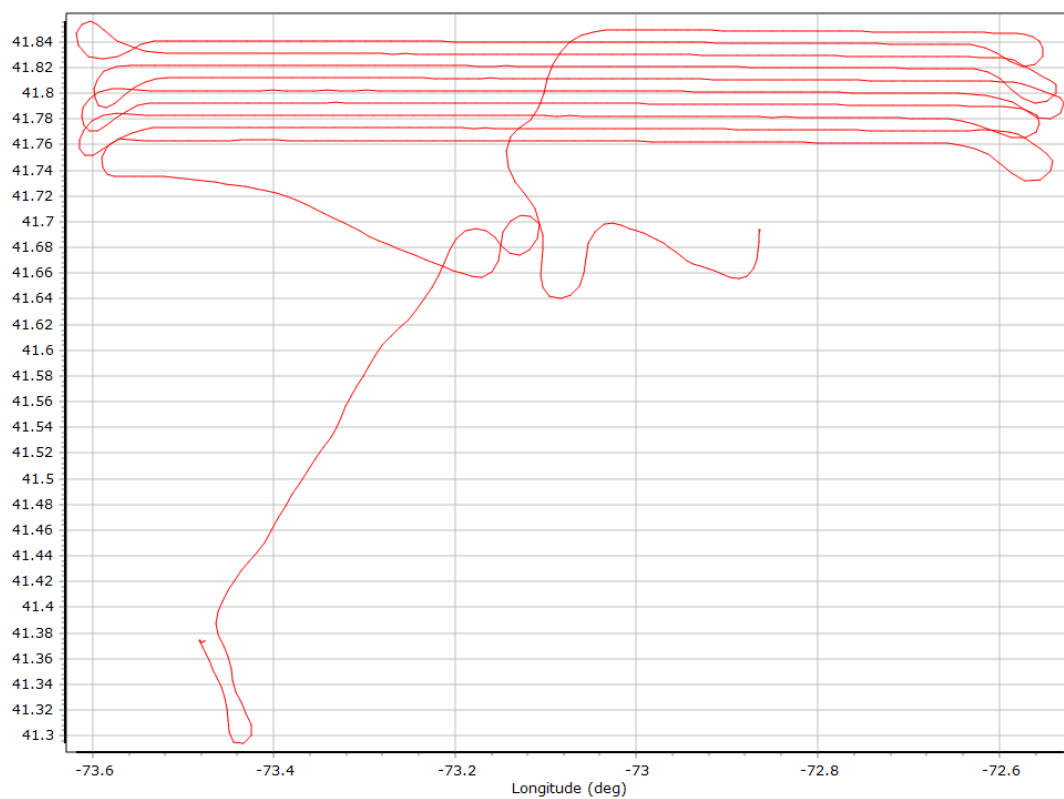


Body Angular Rate

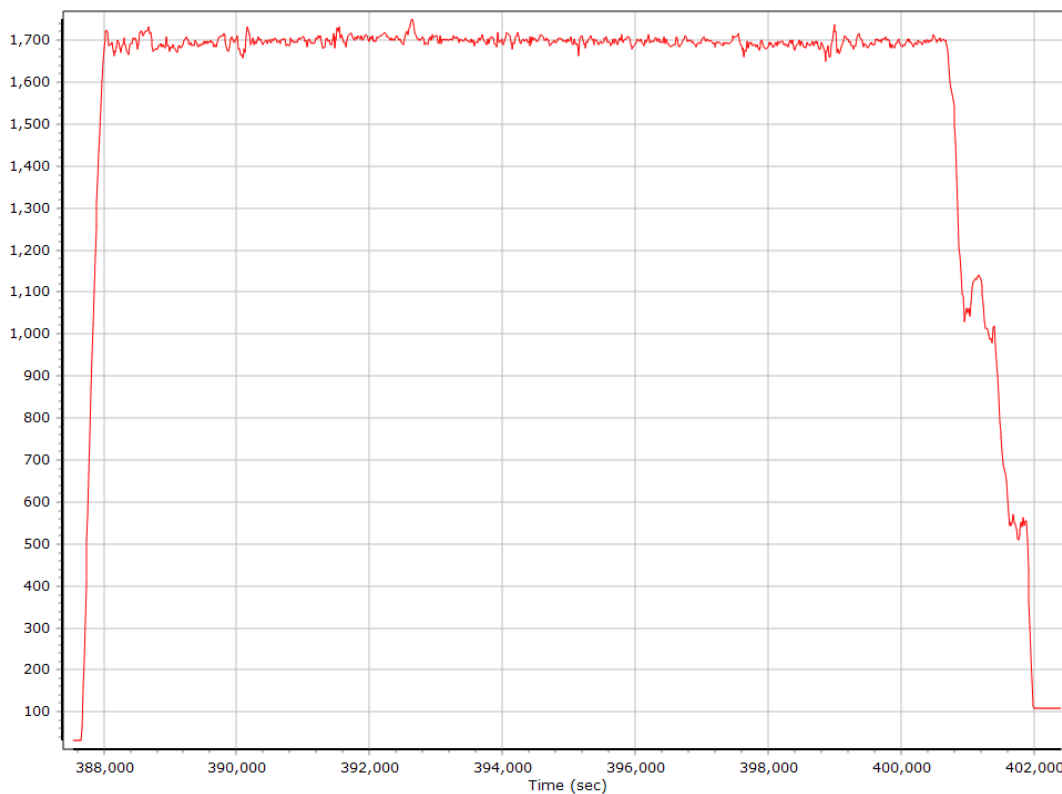


Forward Processed Trajectory Information

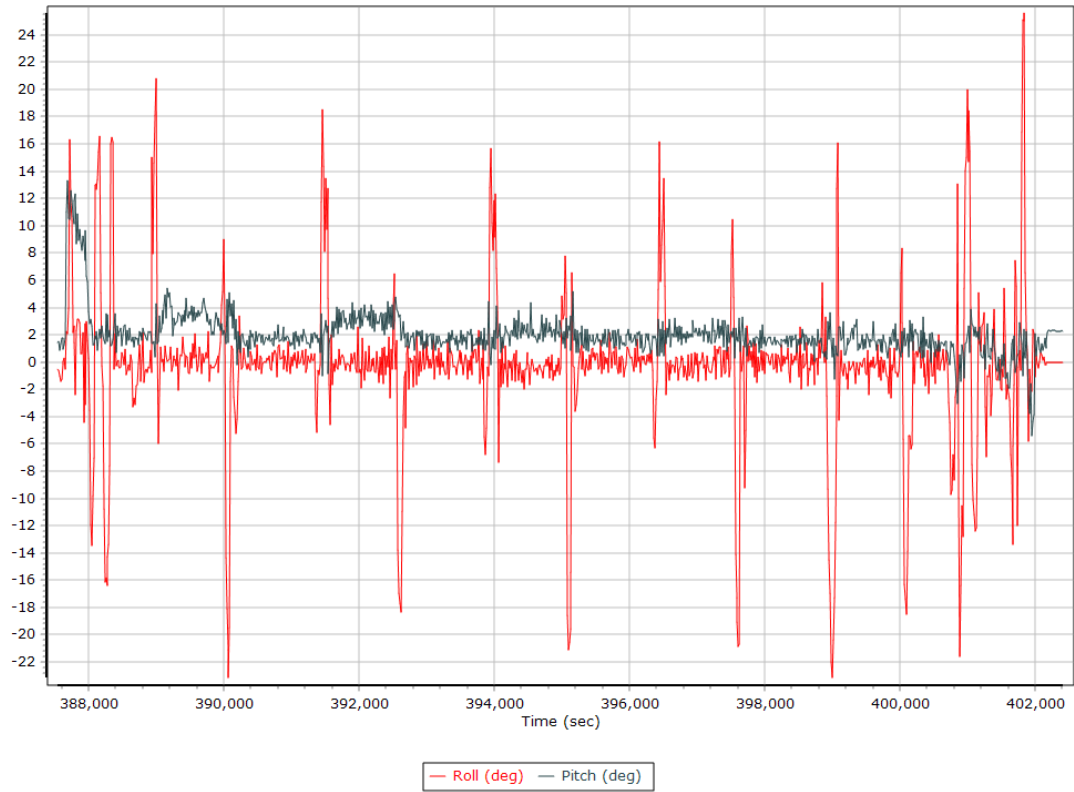
Top View



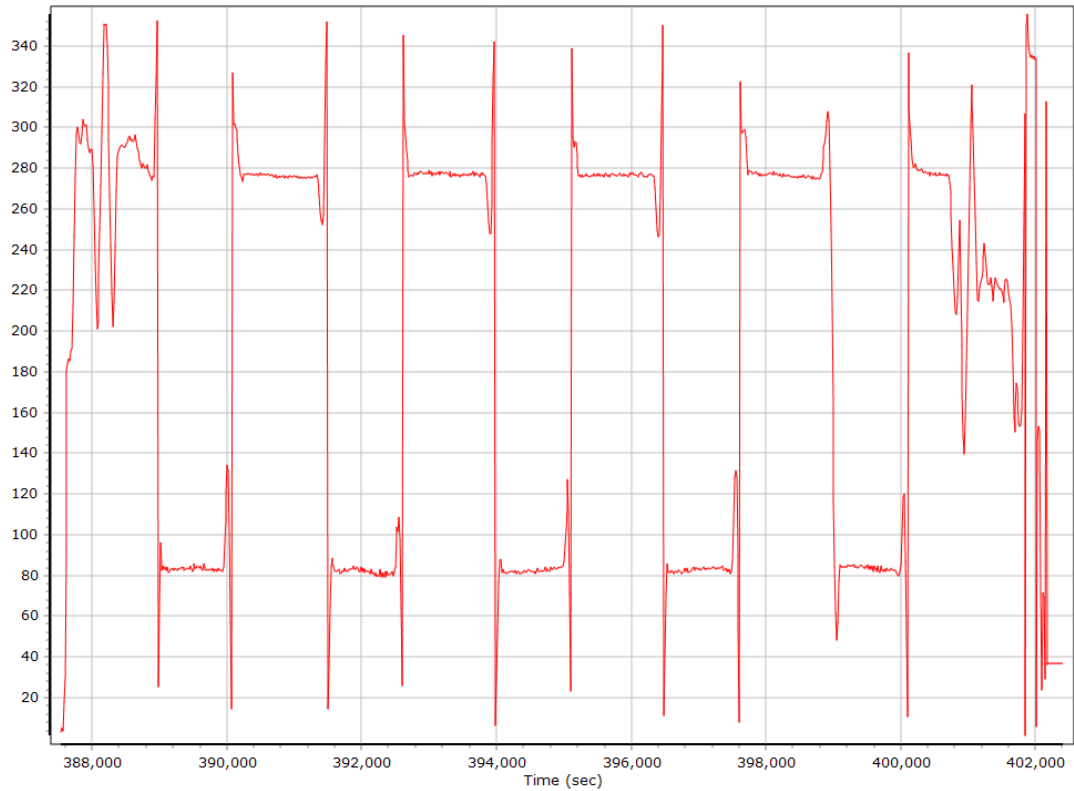
Altitude



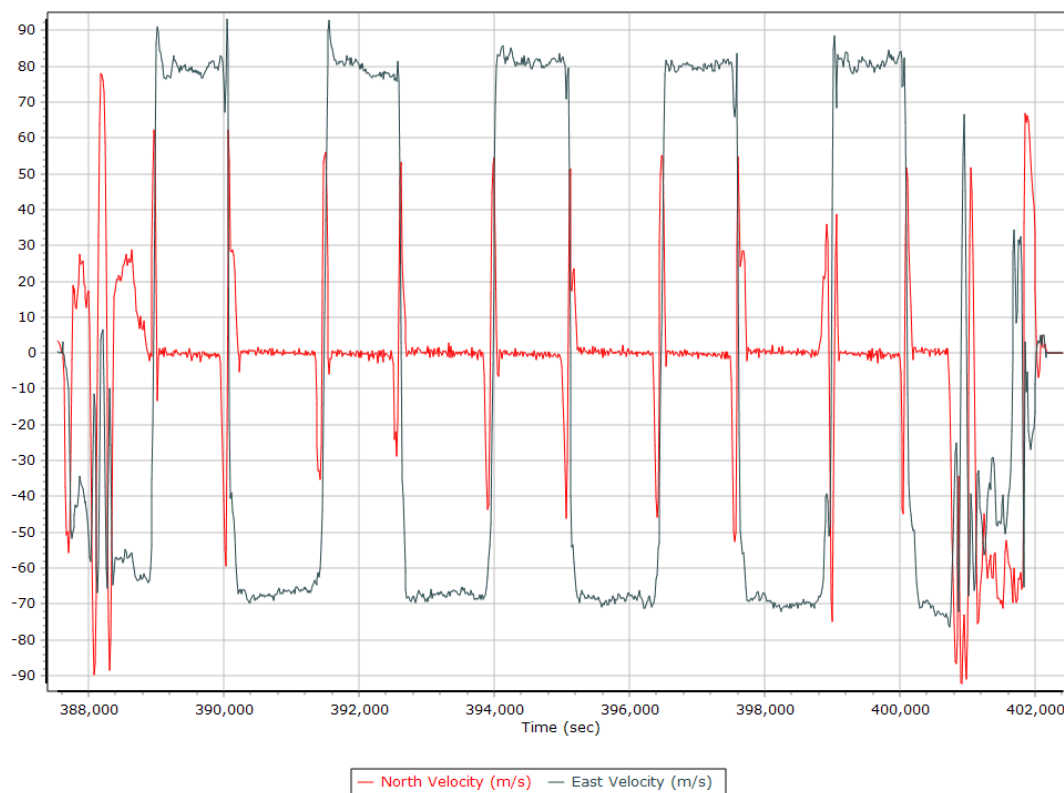
Roll/Pitch



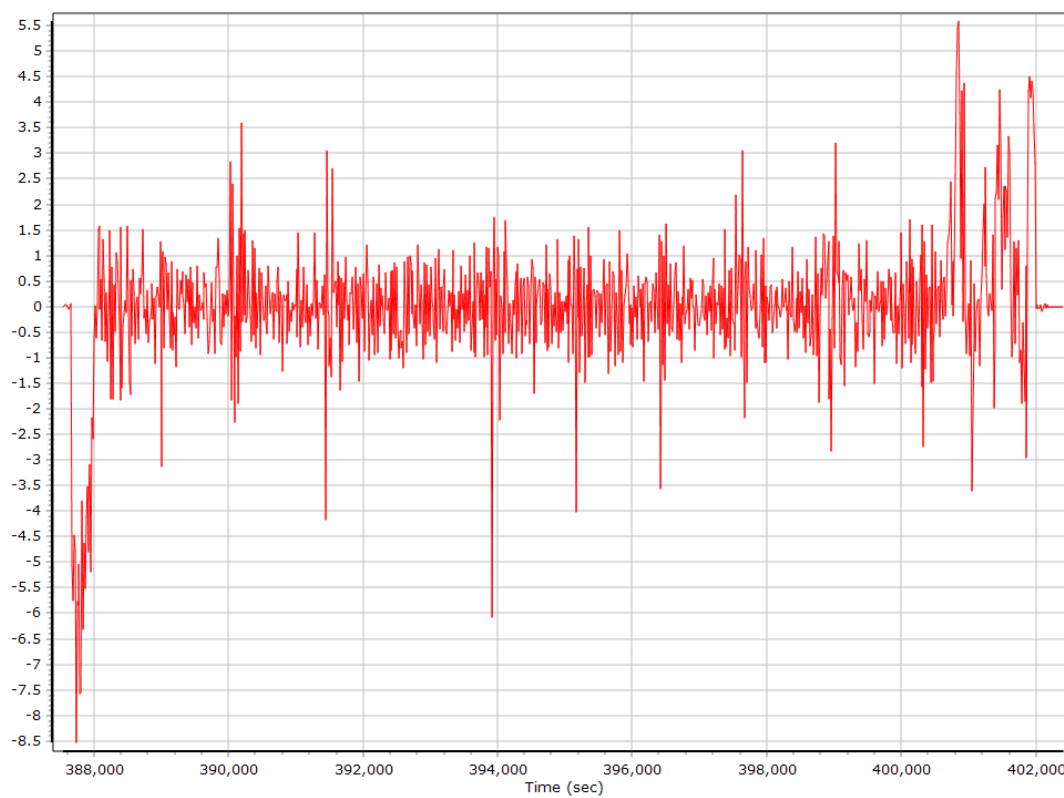
Heading



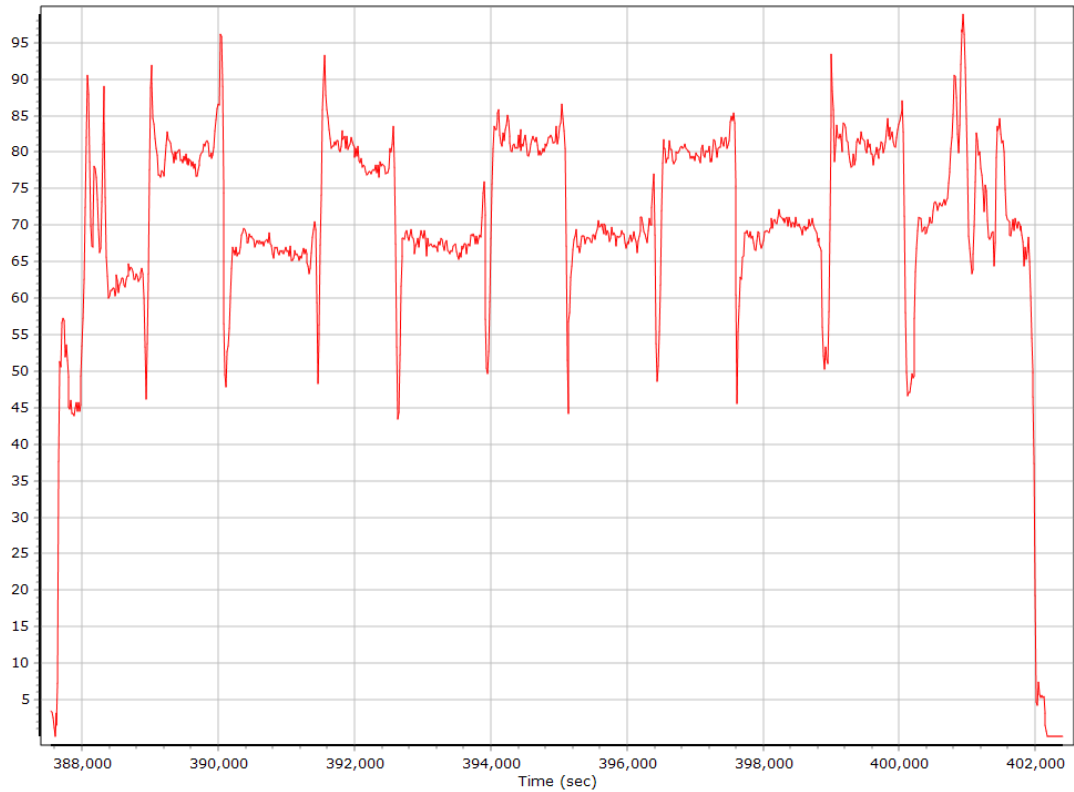
North/East Velocity



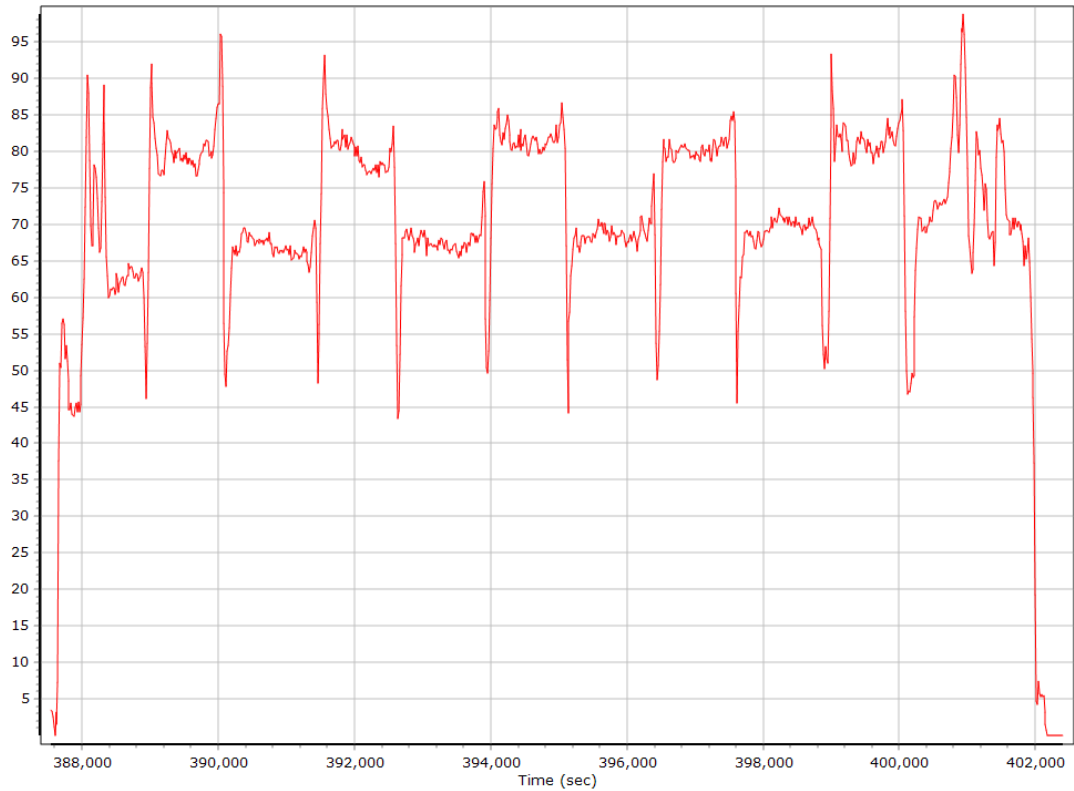
Down Velocity



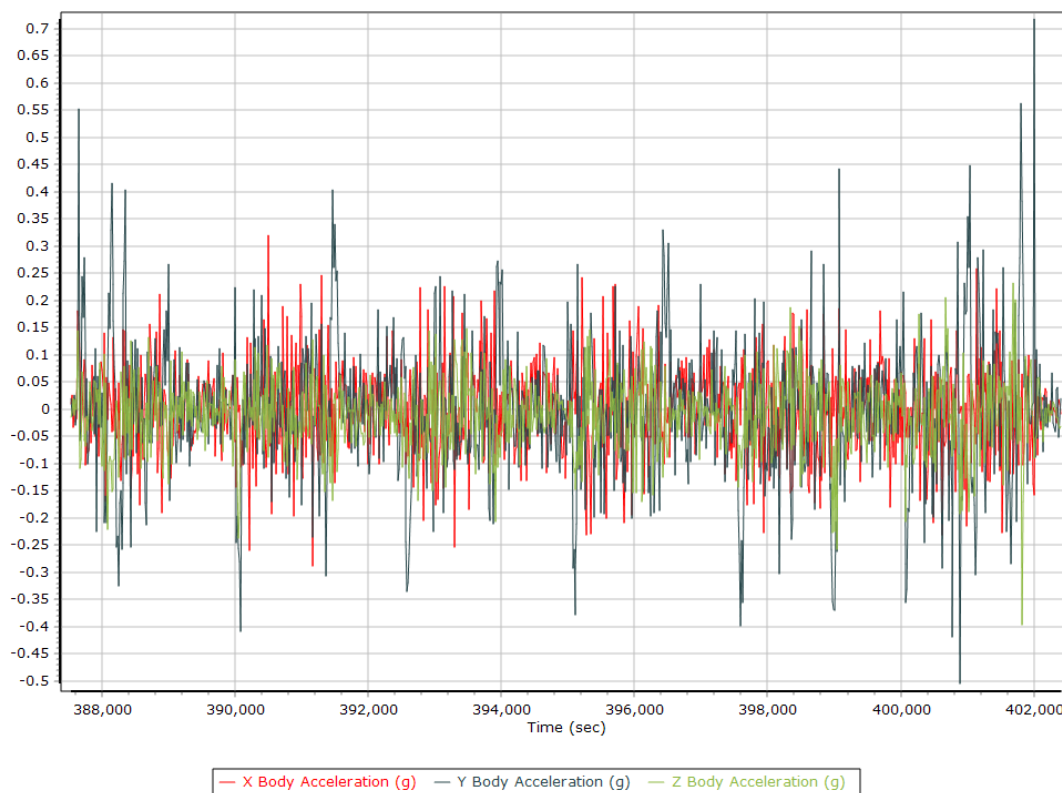
Total Speed



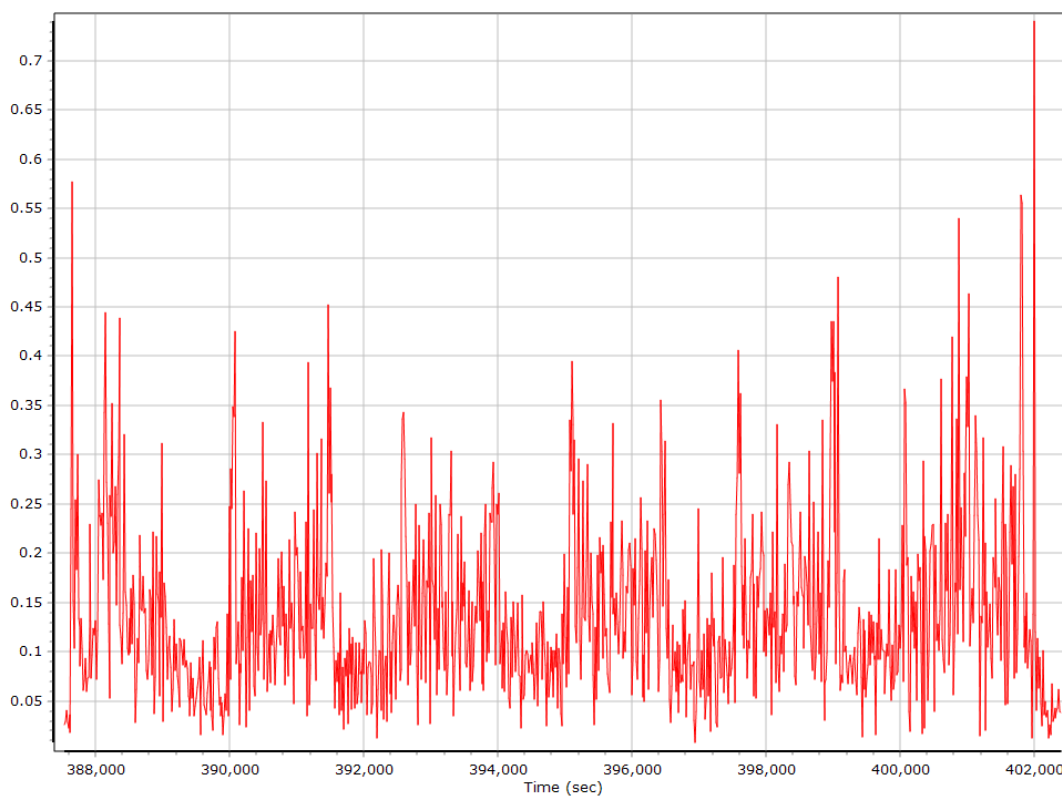
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

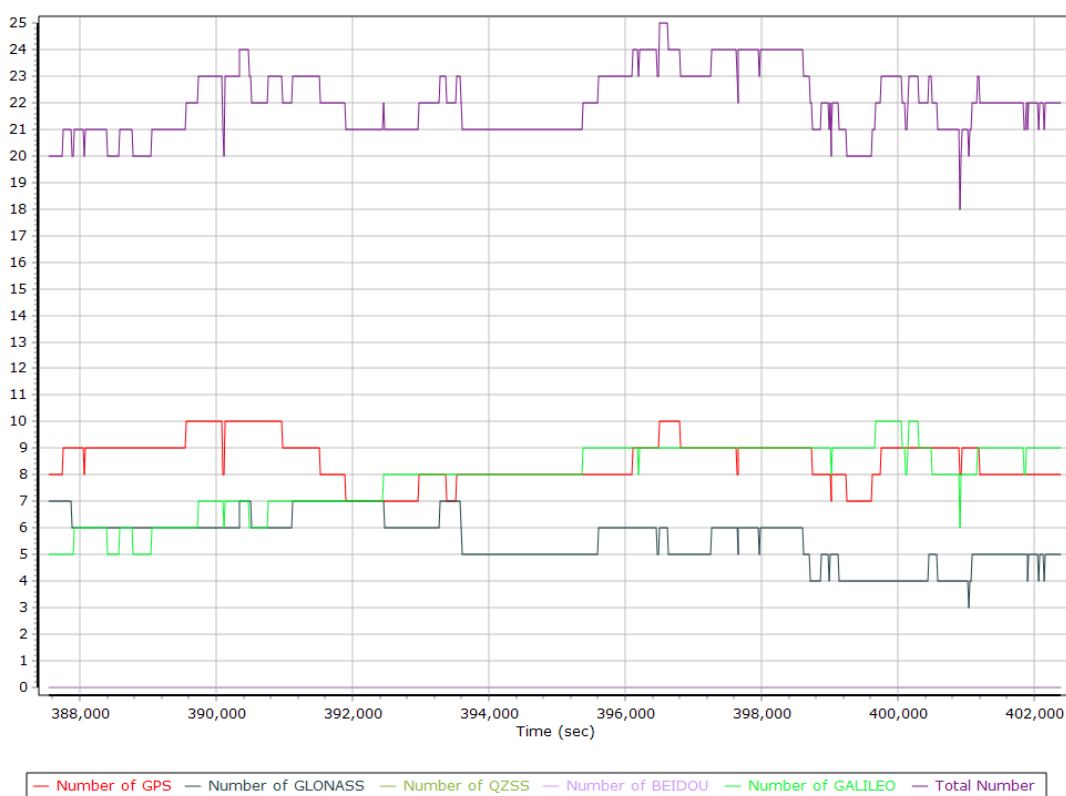


GNSS QC

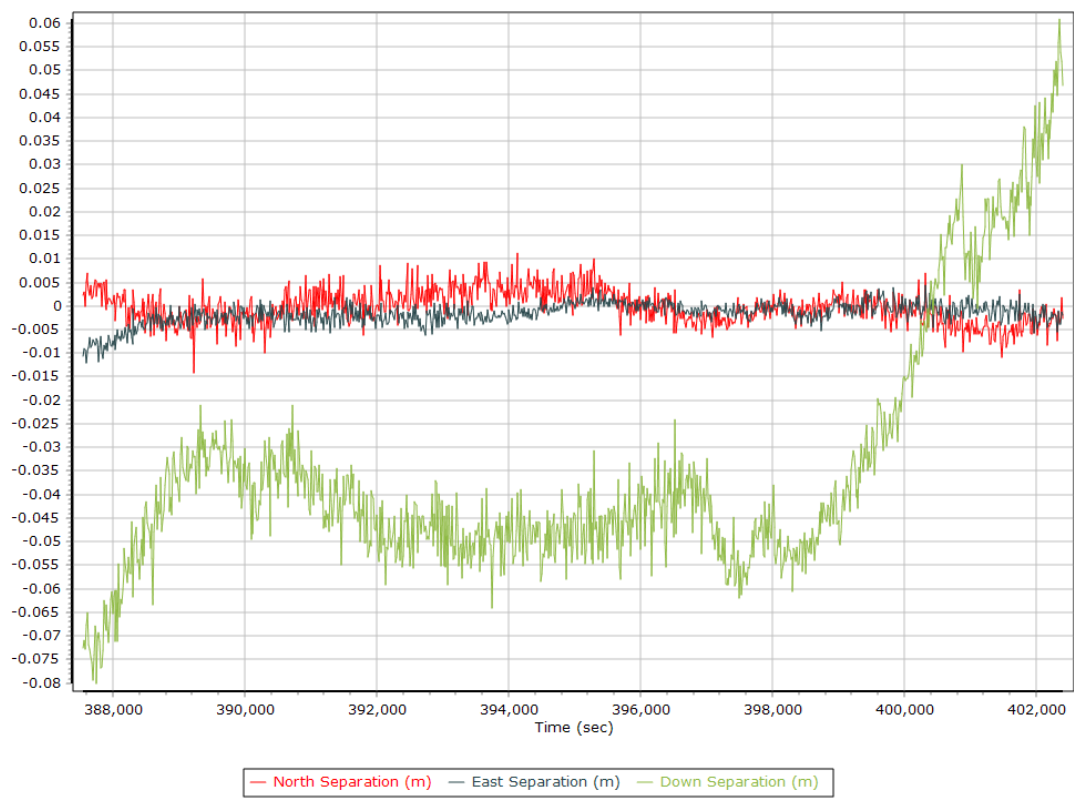
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	9
Number of GLONASS SV	0	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	0	10	8
Total number of SV	6	25	22
PDOP	0.95	2.87	1.17
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	15398.00	0.00	0.00
Percentage	100.00	0.00	0.00

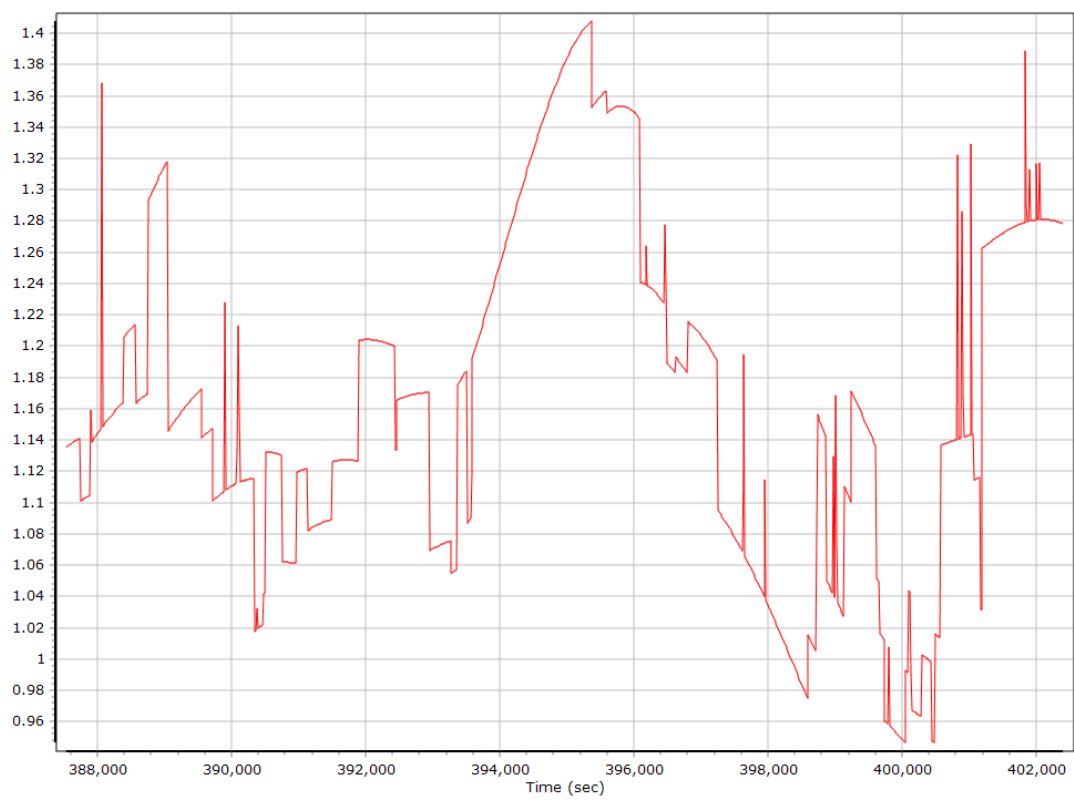
Num SVs in solution



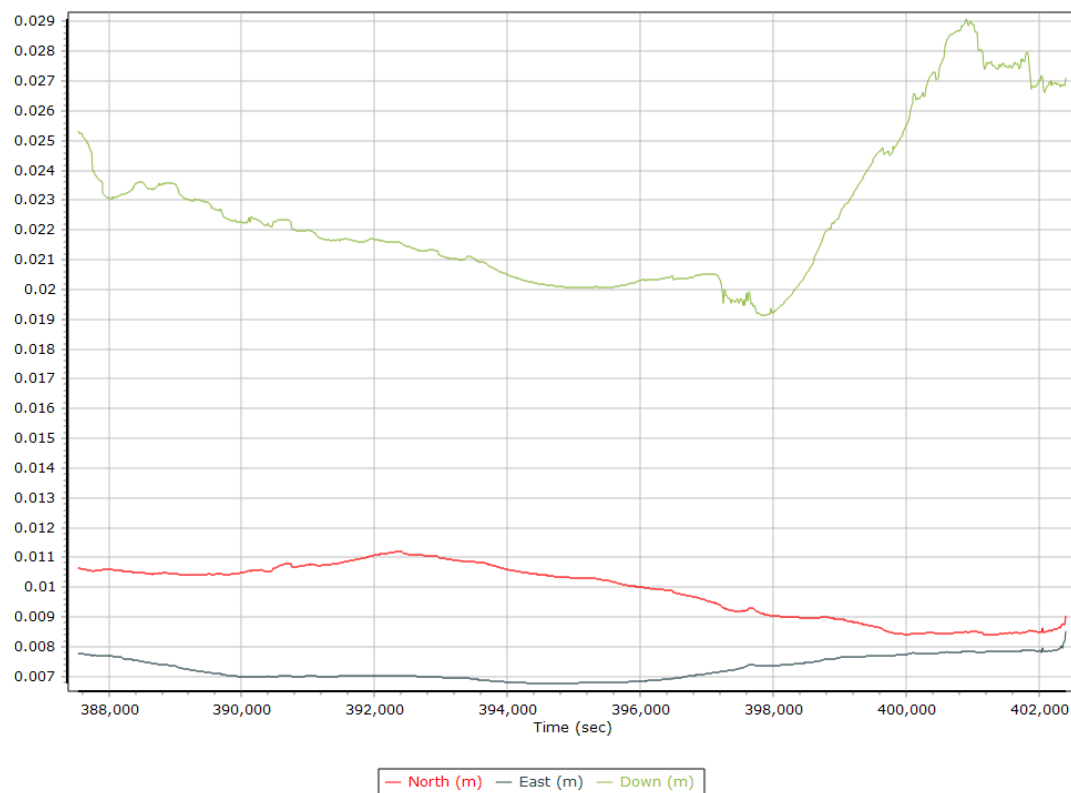
Forward/Reverse Separation



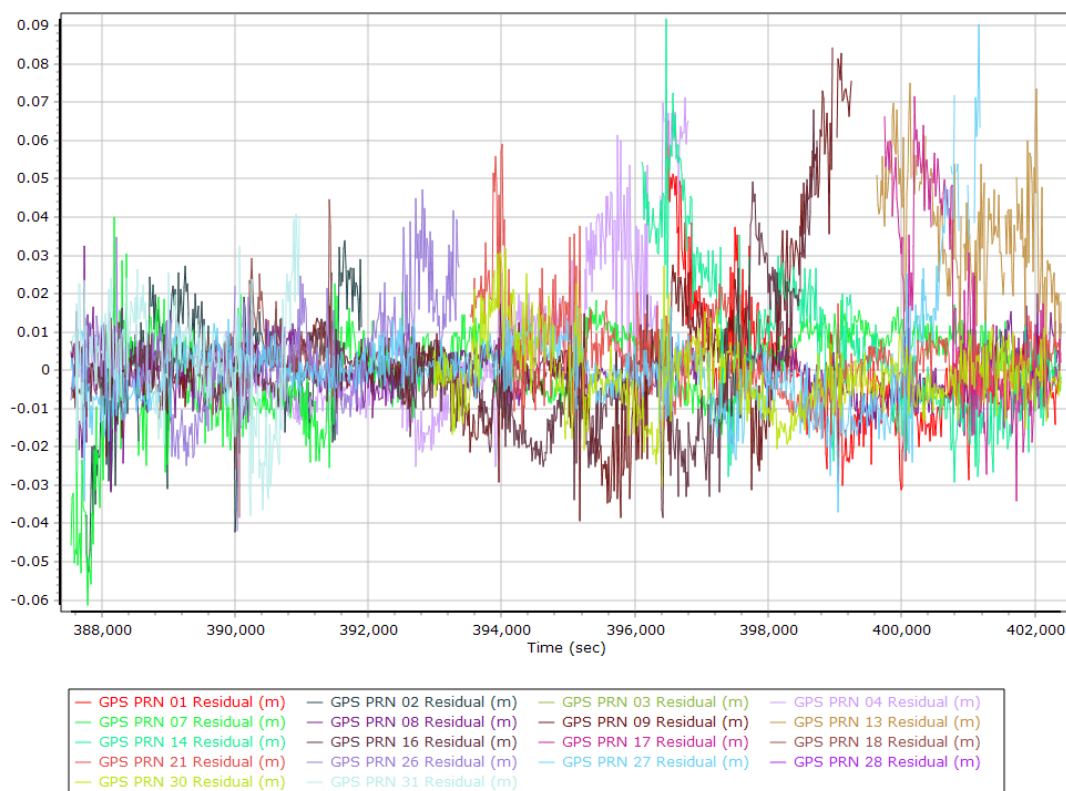
PDOP



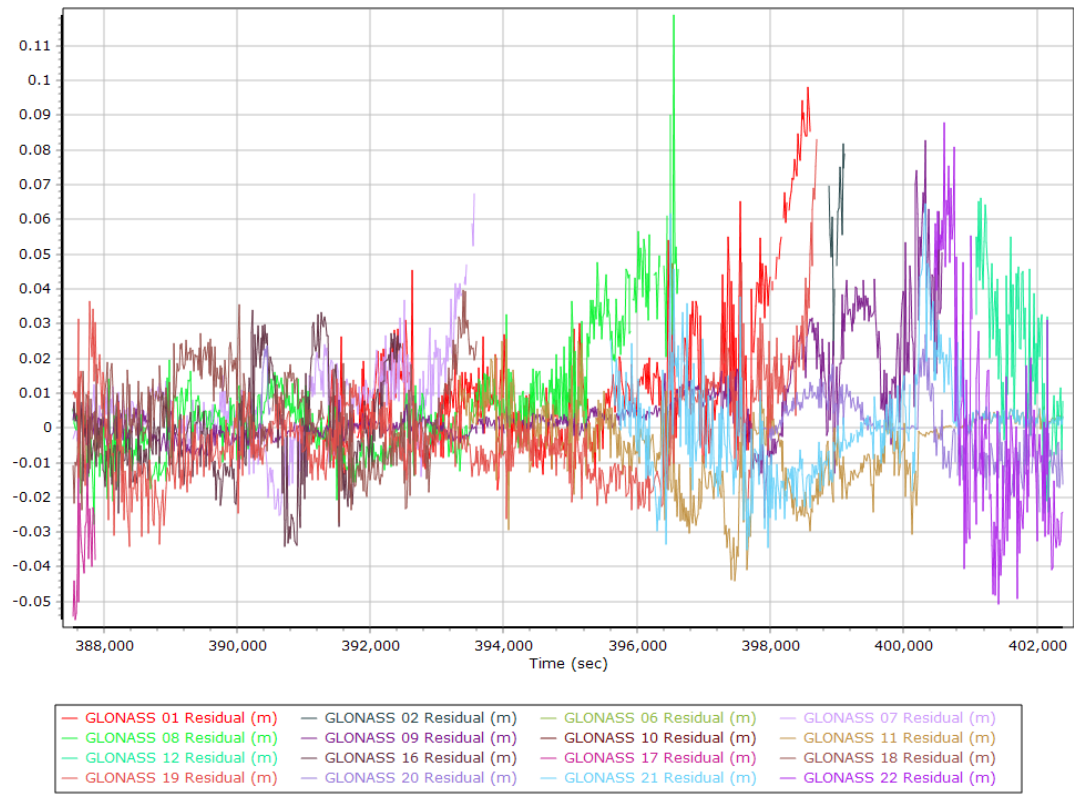
Estimated Position Accuracy



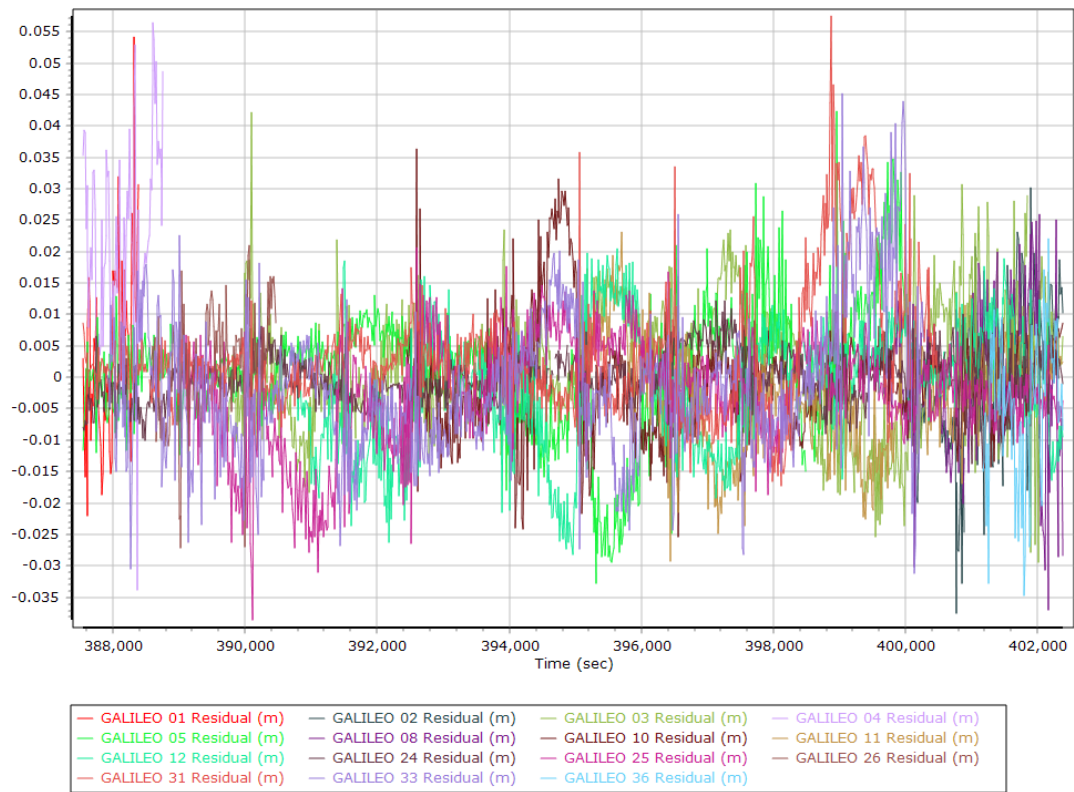
GPS Residuals



GLONASS Residuals



GALILEO Residuals



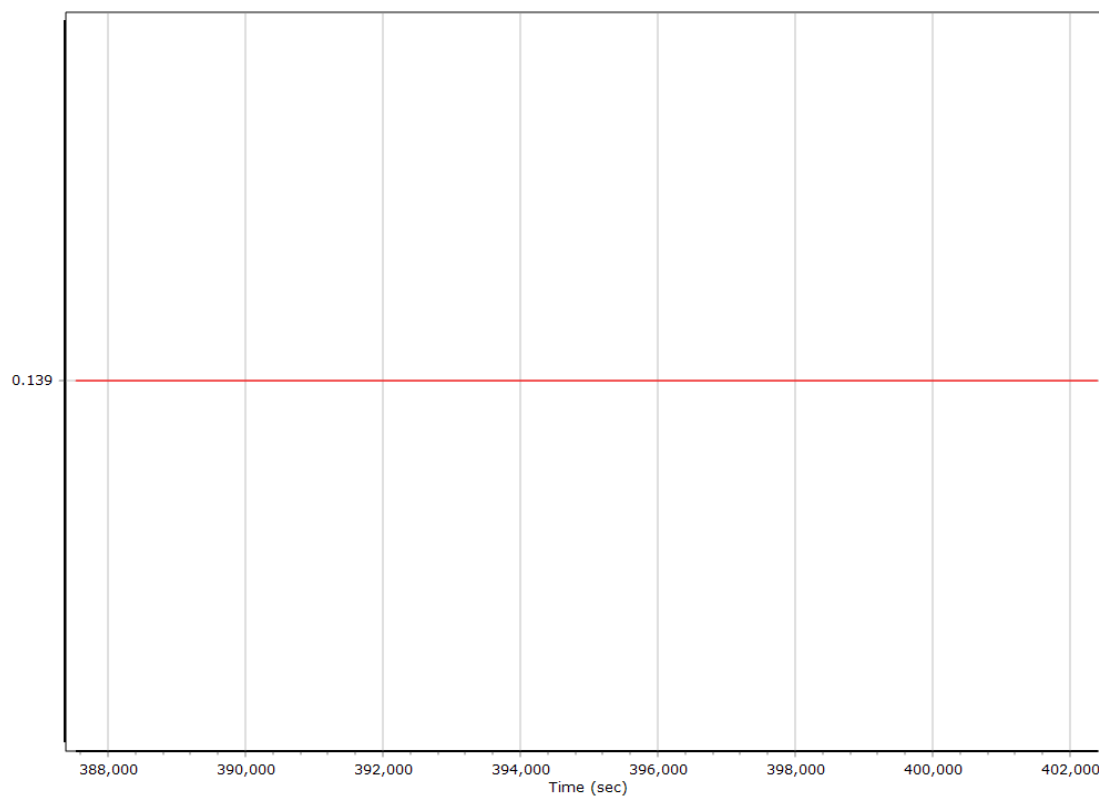
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	386958.000 (04/20/2023 11:29:18)		
Processing end time	402414.000 (04/20/2023 15:46:54)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

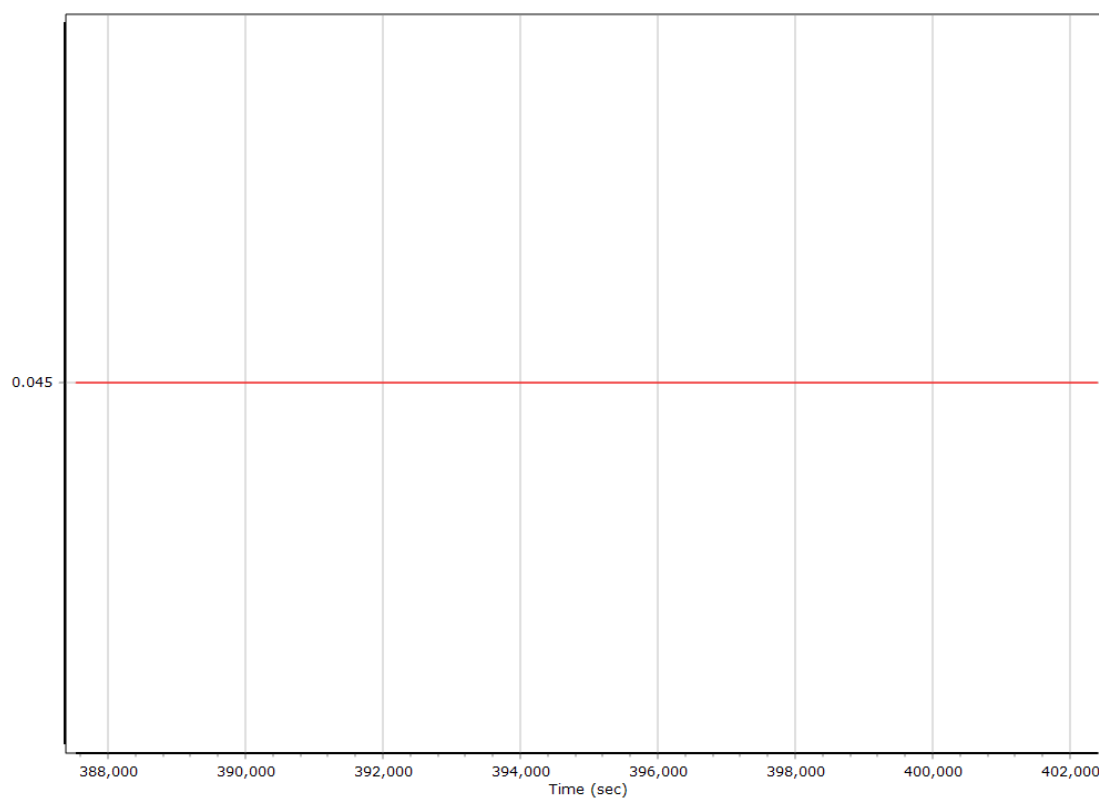
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

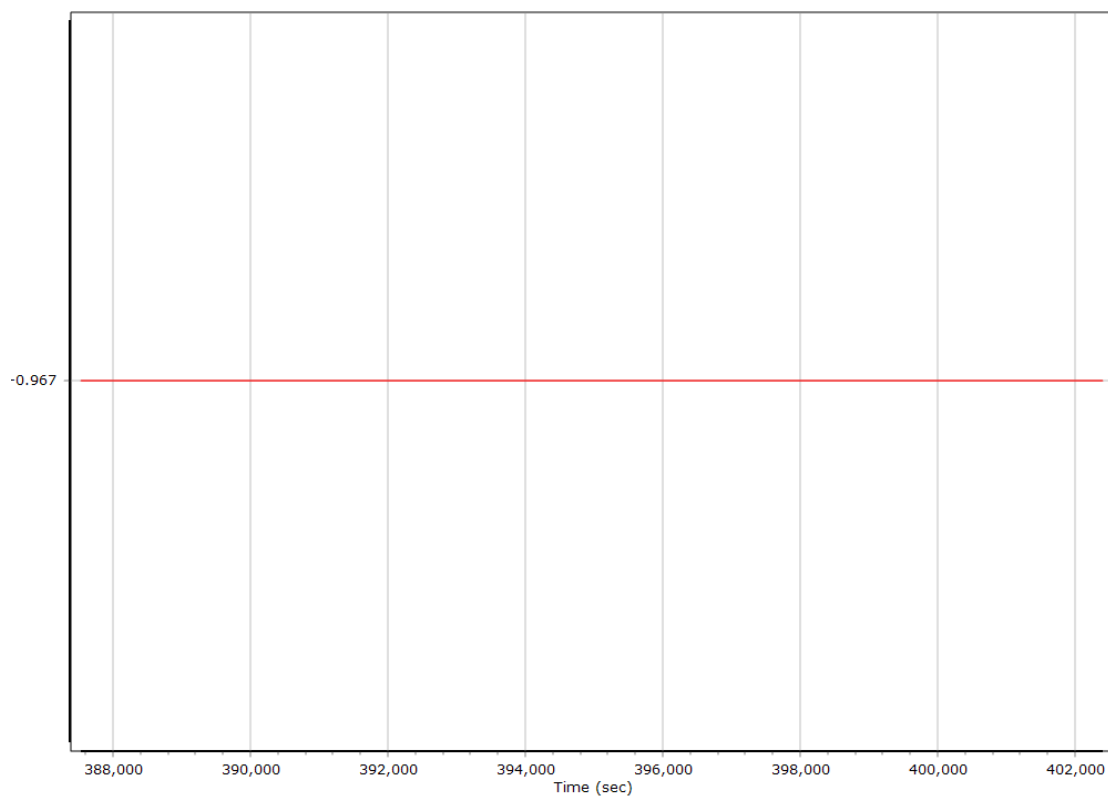
X Reference-Primary GNSS Lever Arm (m)



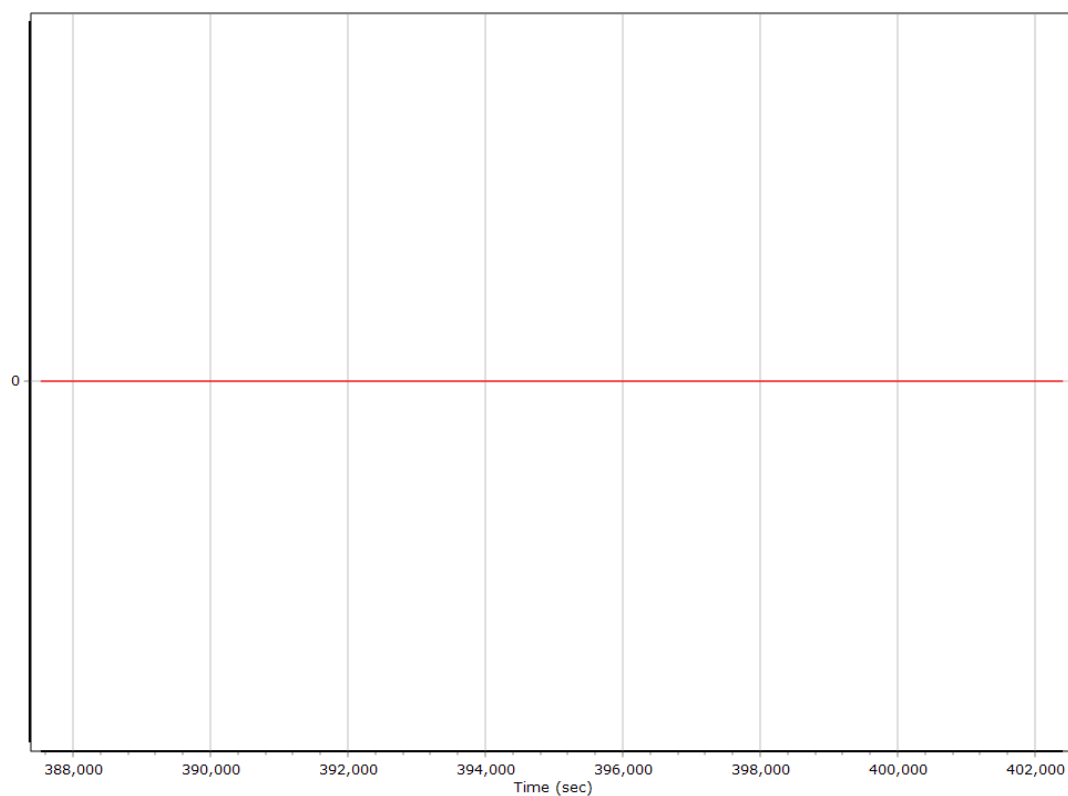
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



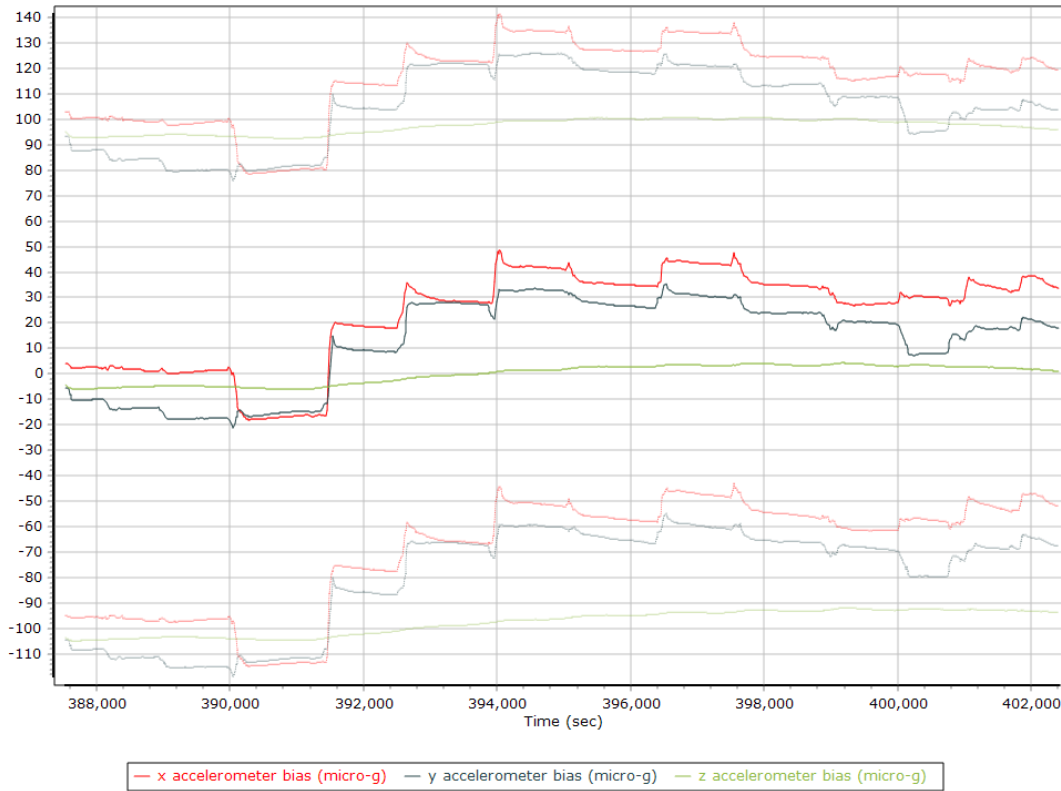
Reference-Primary GNSS Lever Arm Figure of Merit



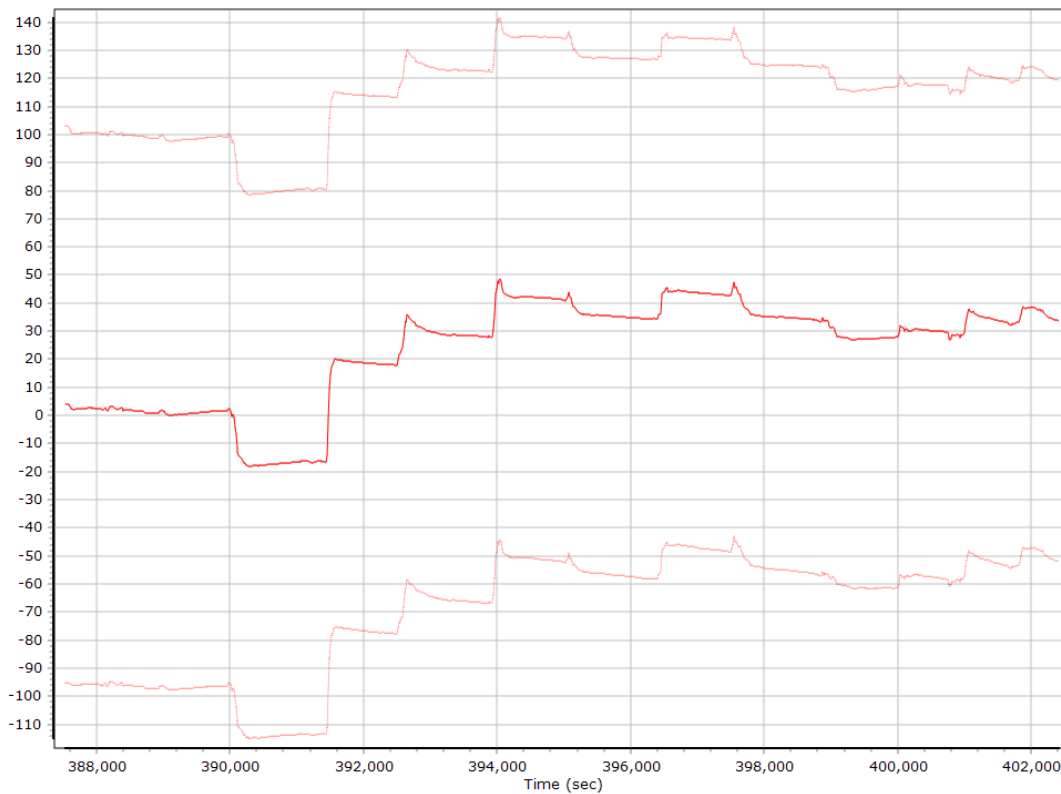
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

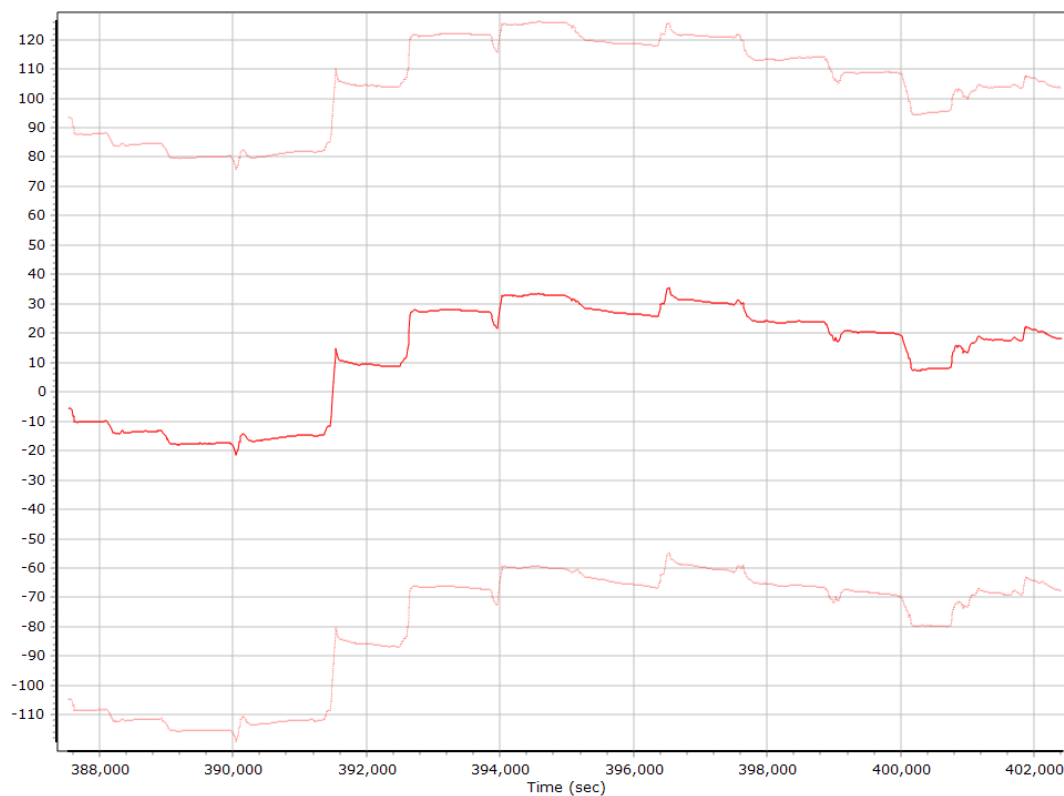
Accelerometer Bias (micro-g)



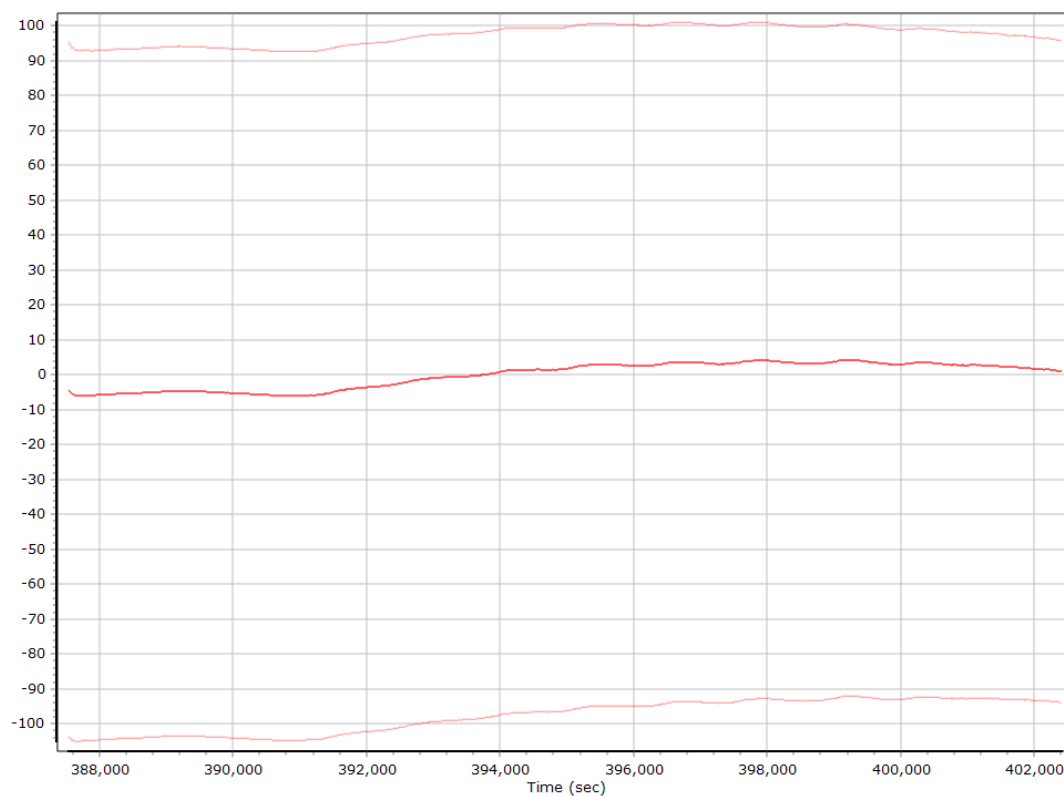
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



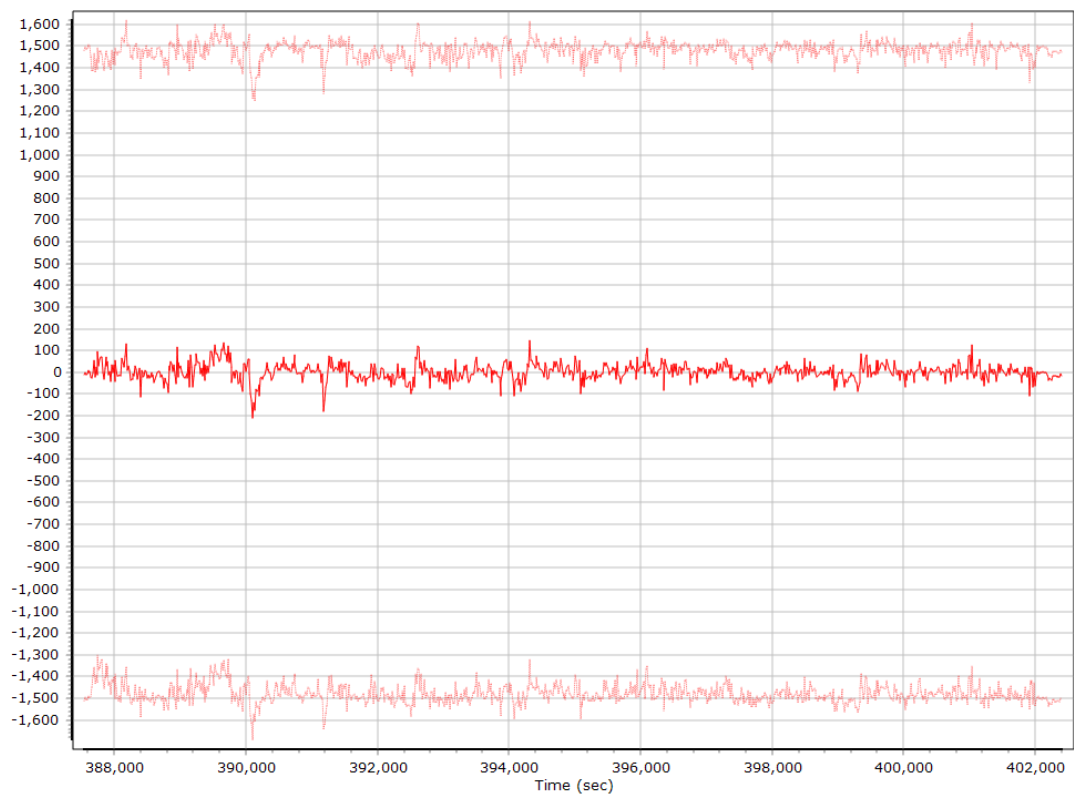
Z Accelerometer Bias (micro-g)



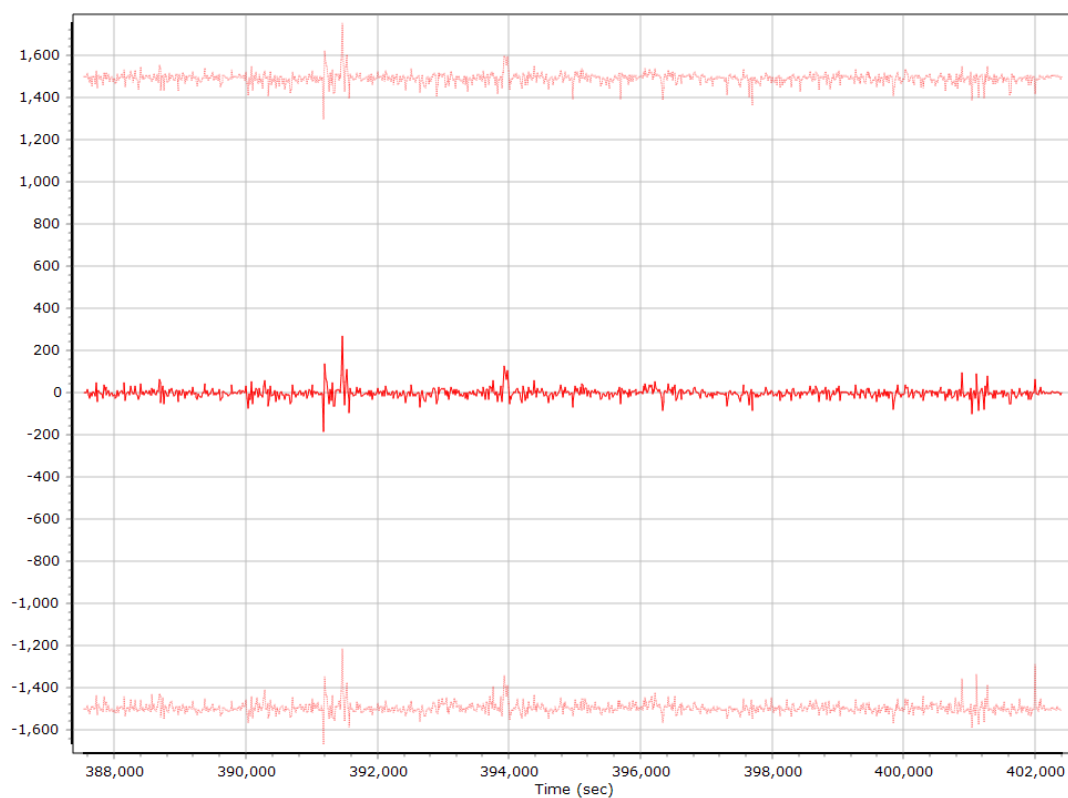
Accelerometer Scale Error (ppm)



X Accelerometer Scale Error (ppm)



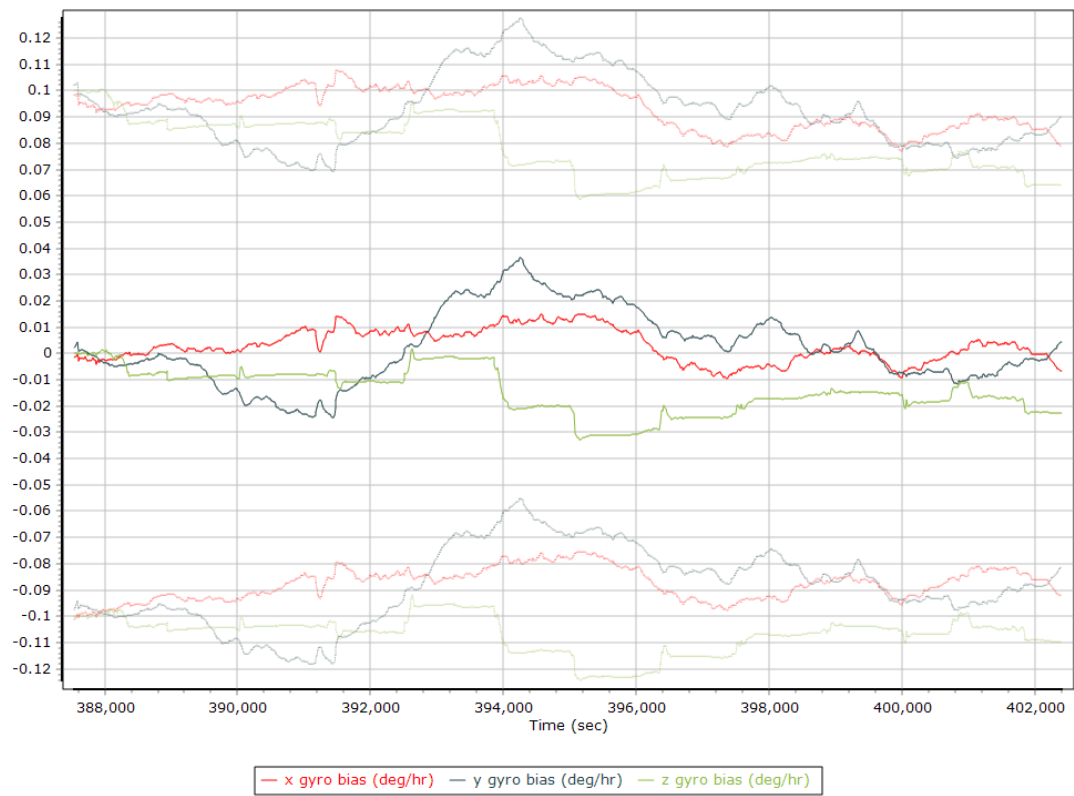
Y Accelerometer Scale Error (ppm)



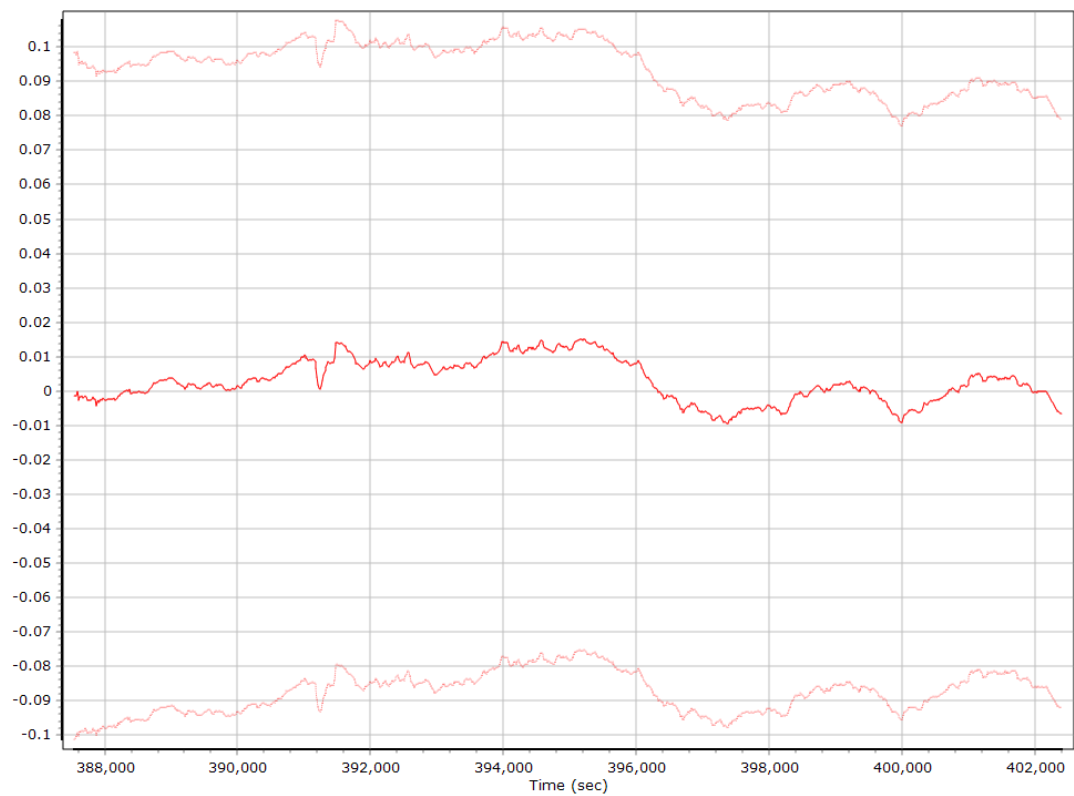
Z Accelerometer Scale Error (ppm)



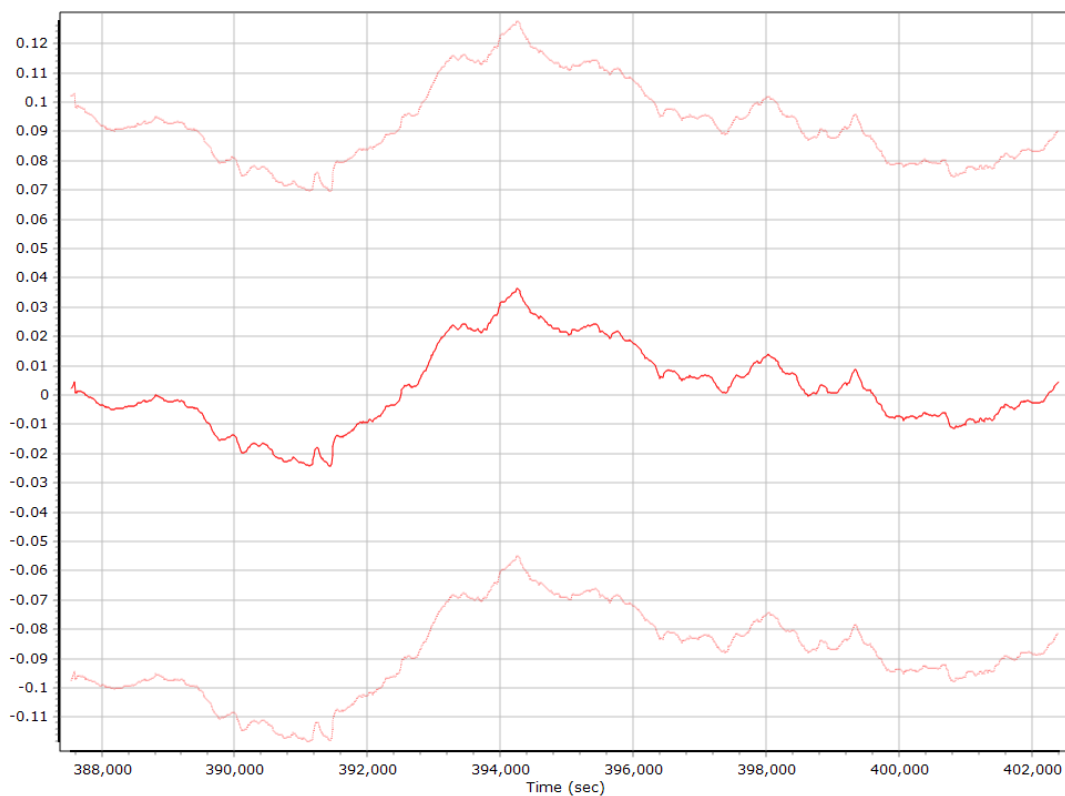
Gyro Bias (deg/h)



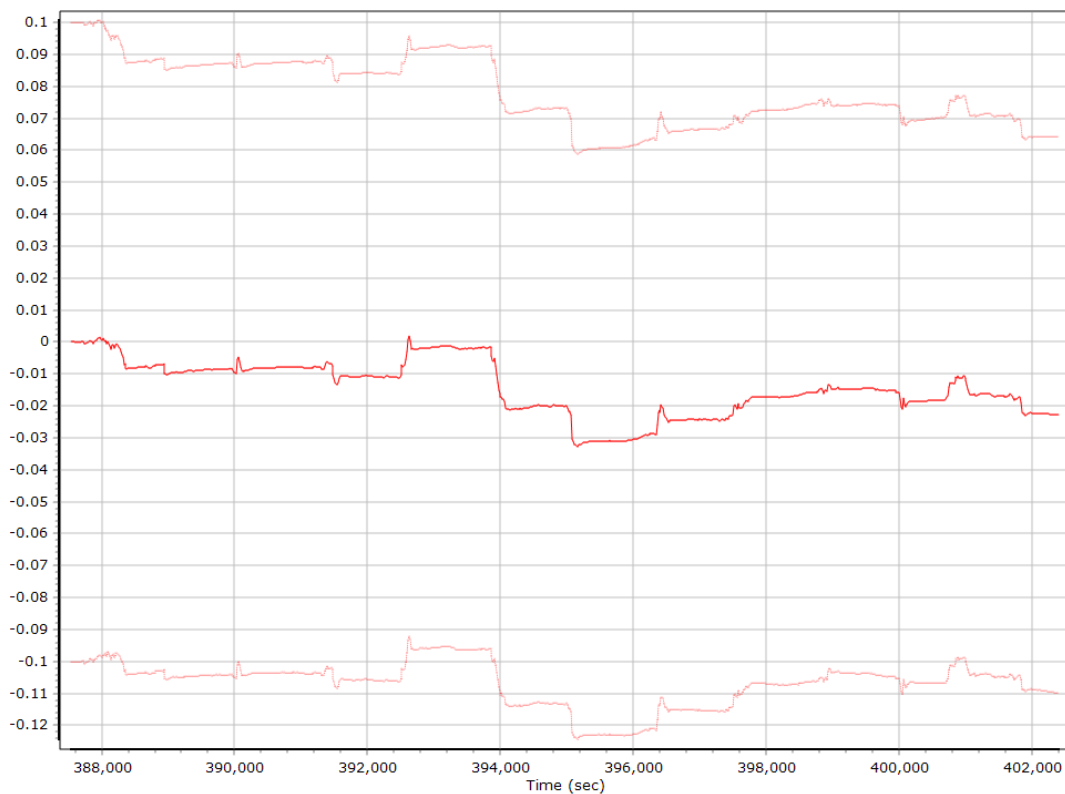
X Gyro Bias (deg/h)



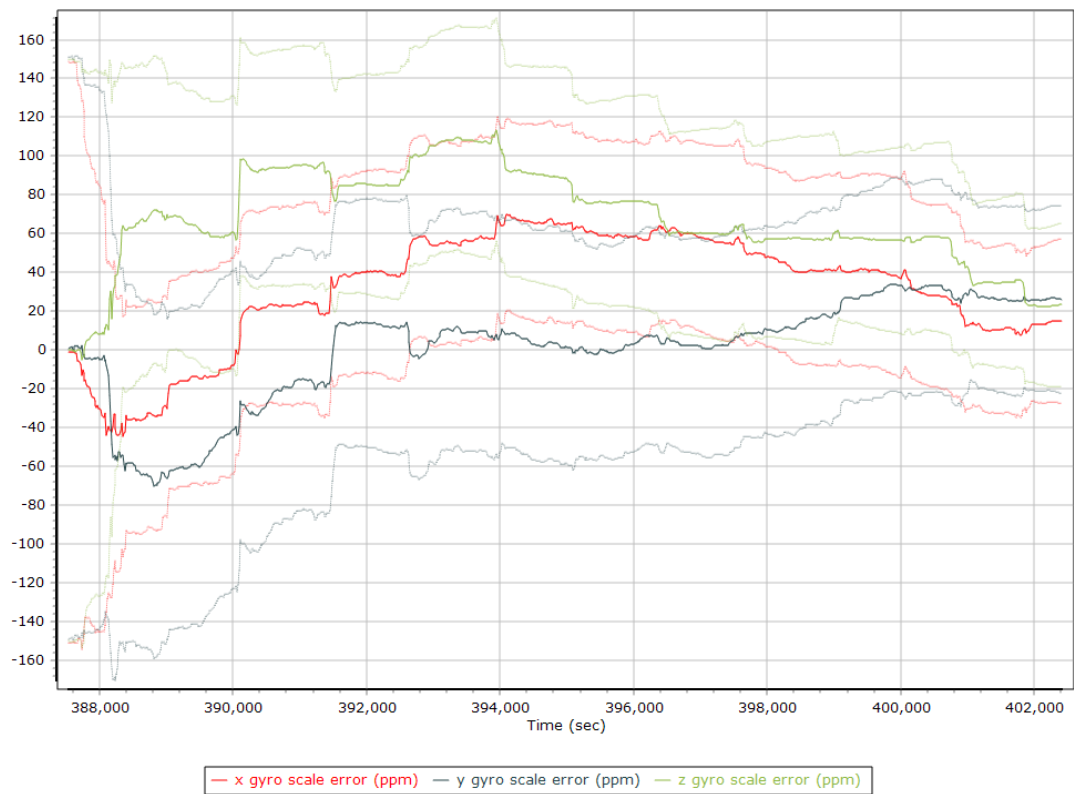
Y Gyro Bias (deg/h)



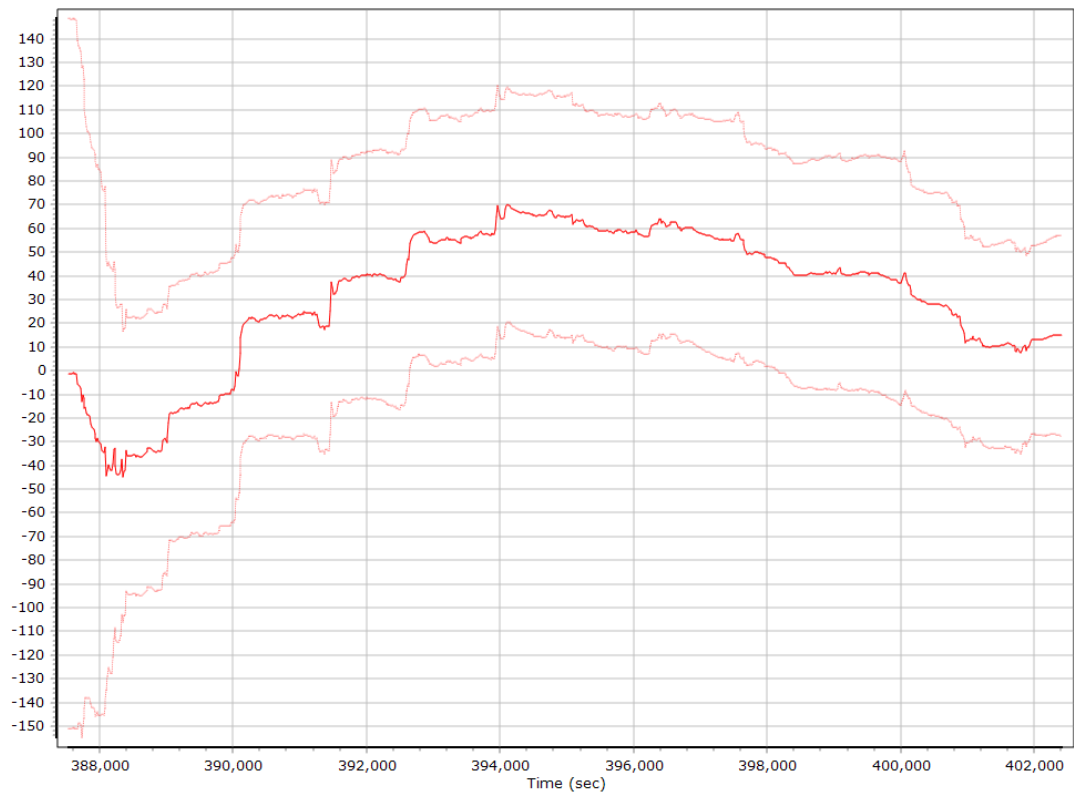
Z Gyro Bias (deg/h)



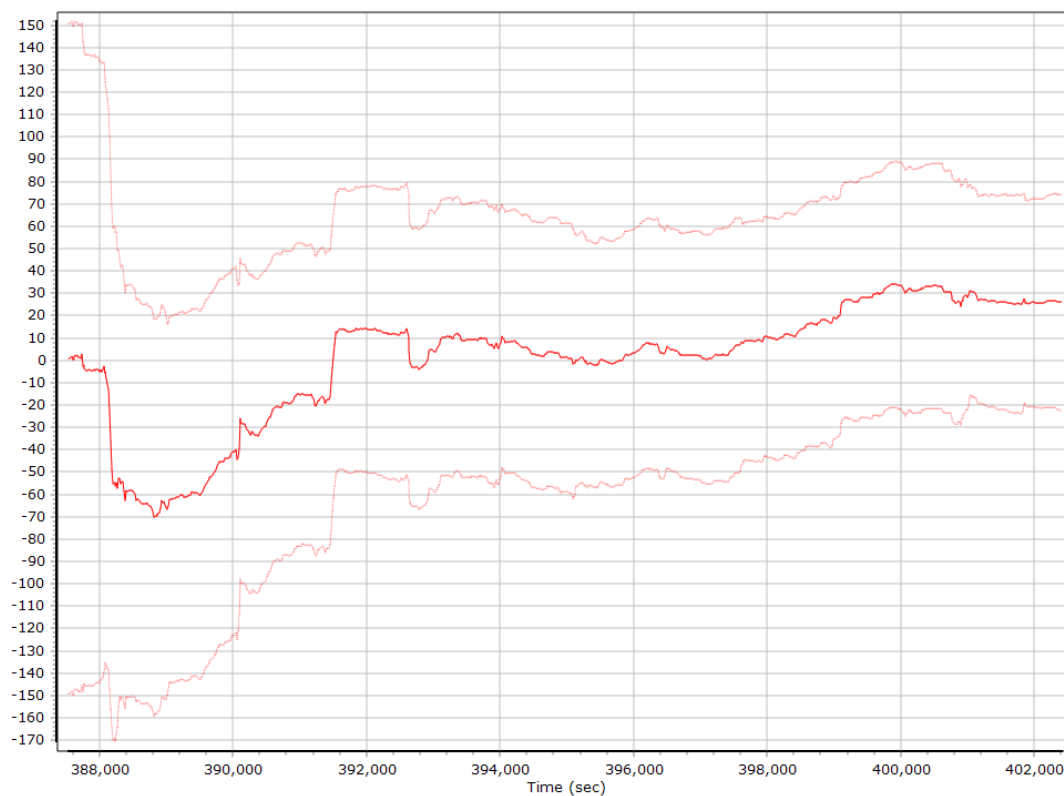
Gyro Scale Error (ppm)



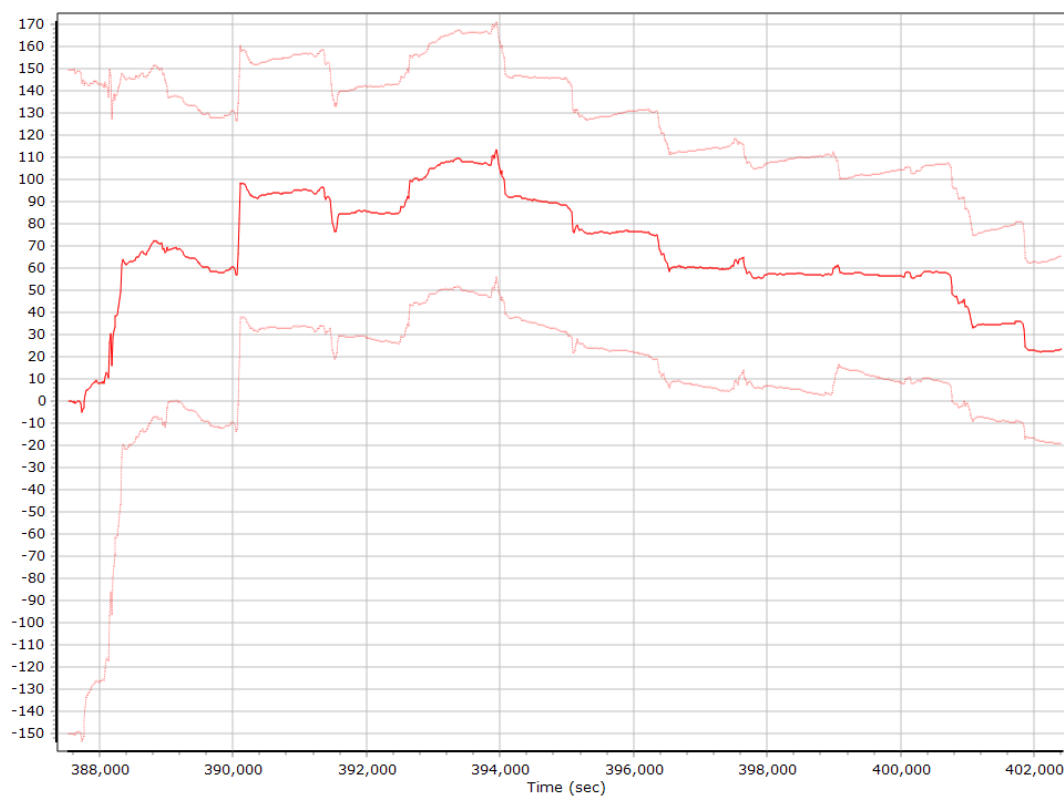
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

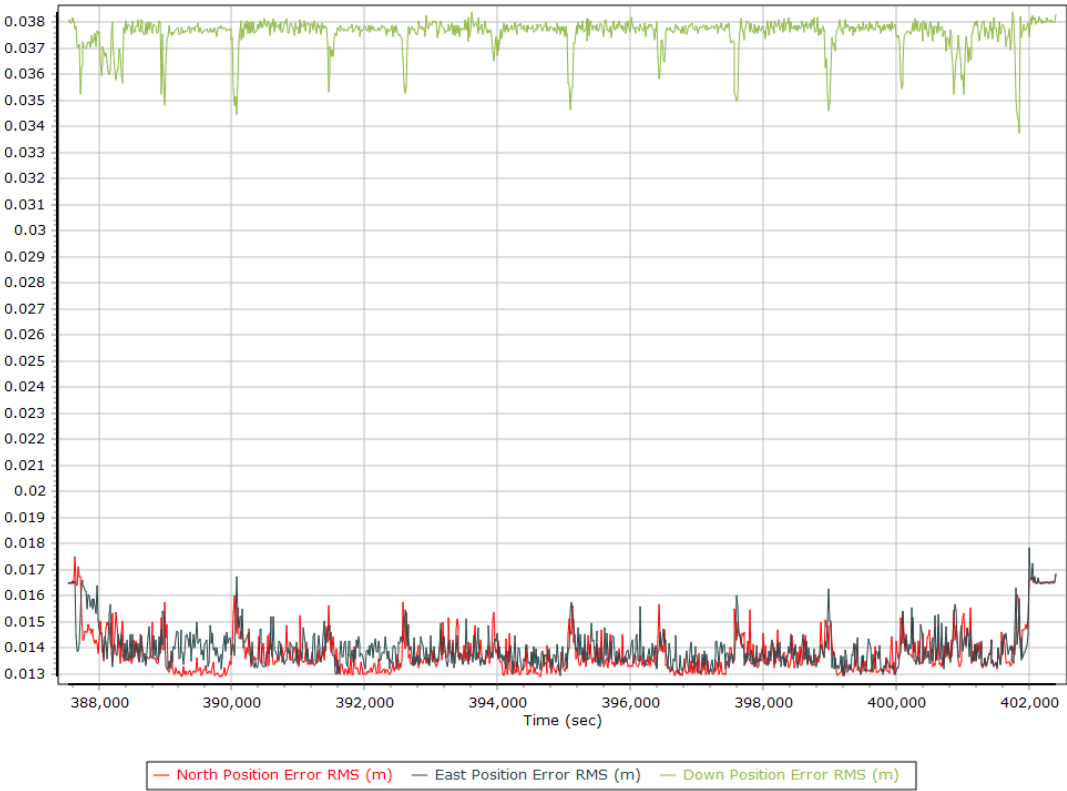


Z Gyro Scale Error (ppm)

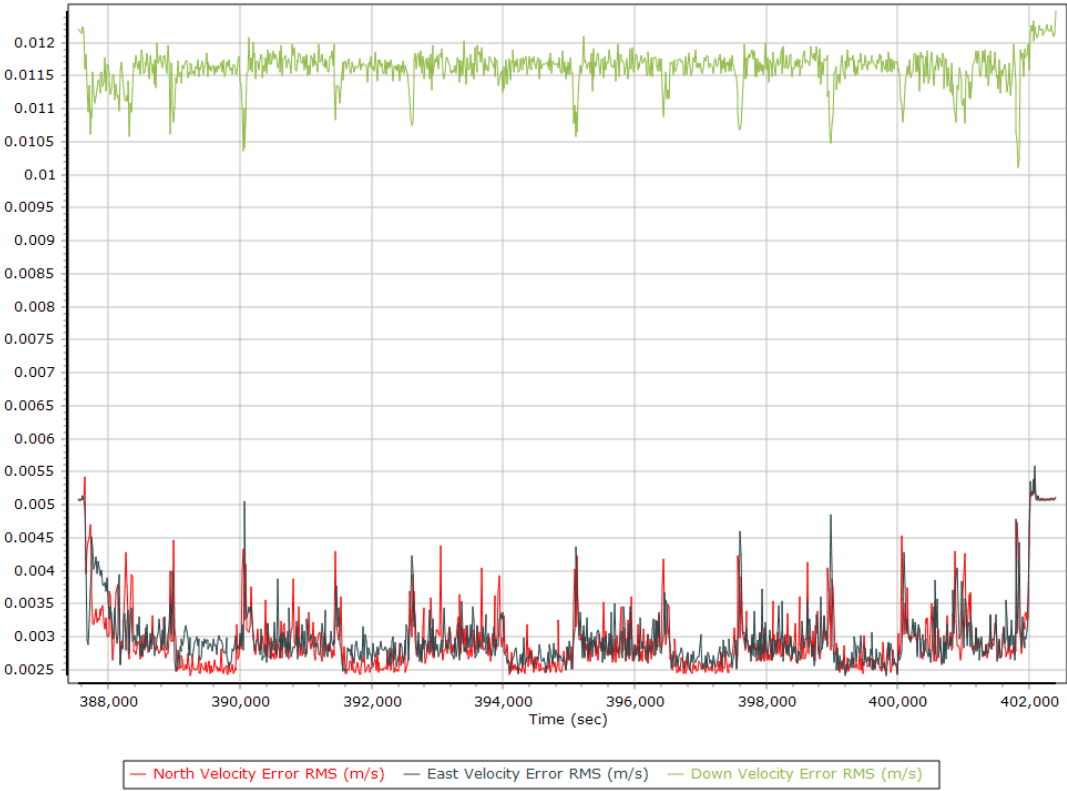


Smoothed Performance Metrics

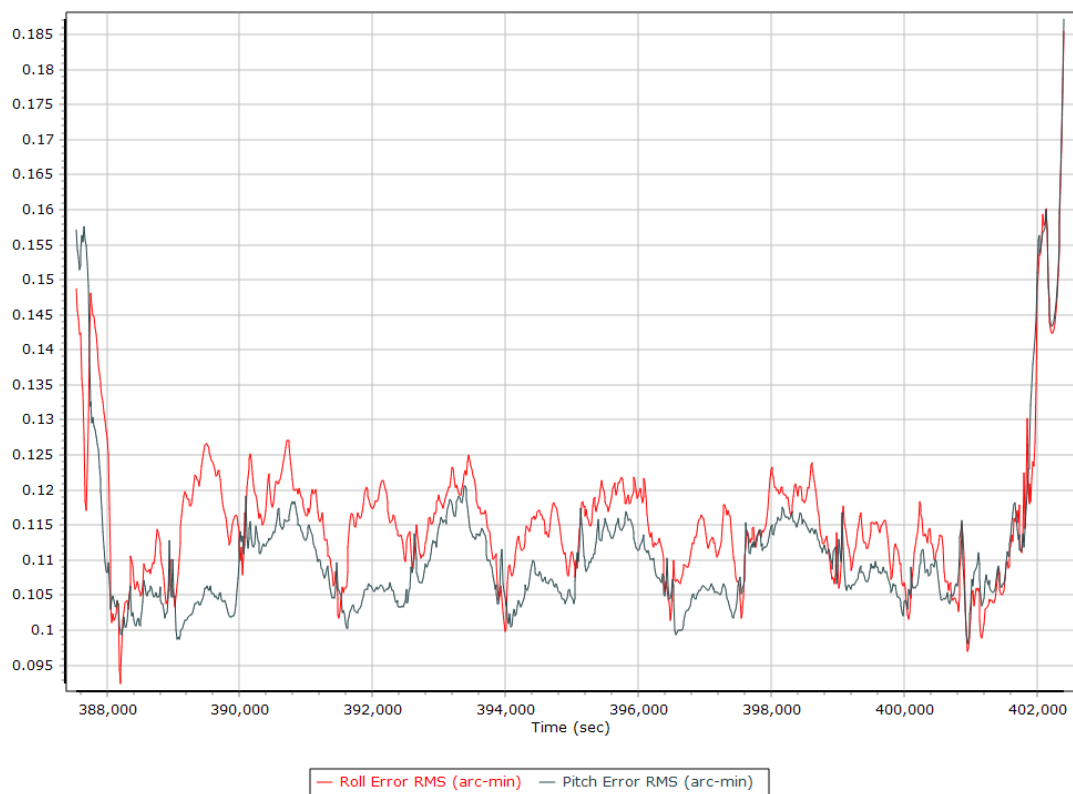
Position Error RMS (m)



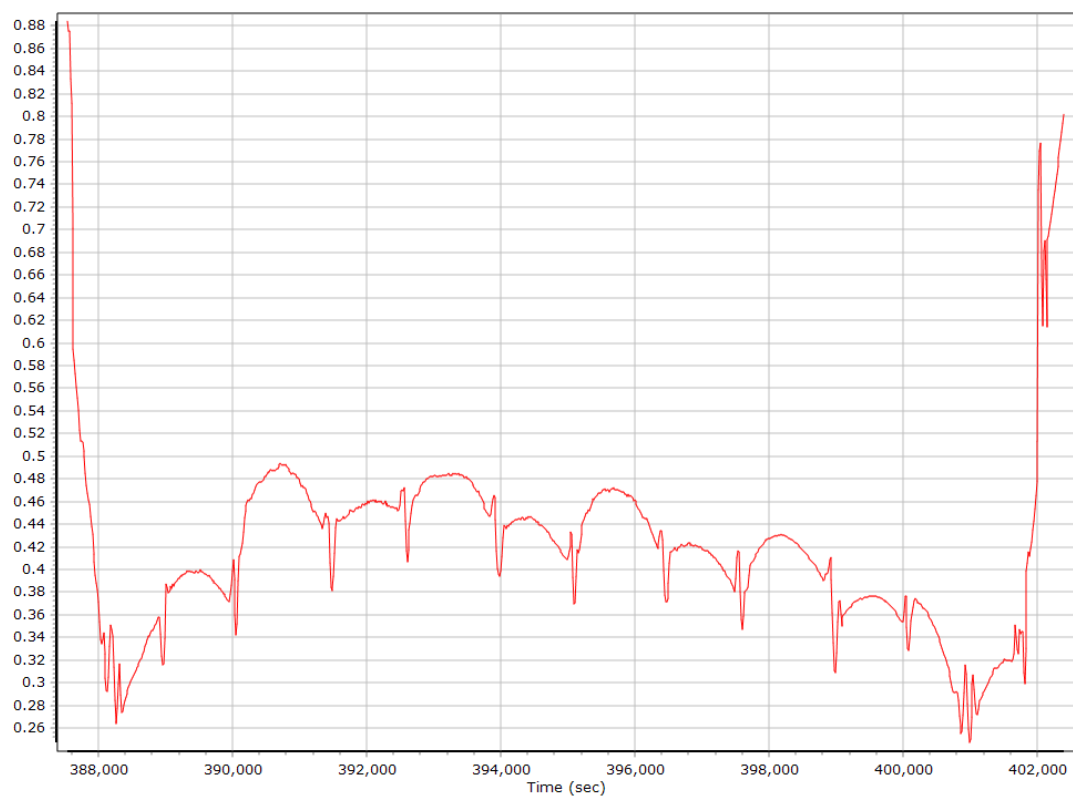
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

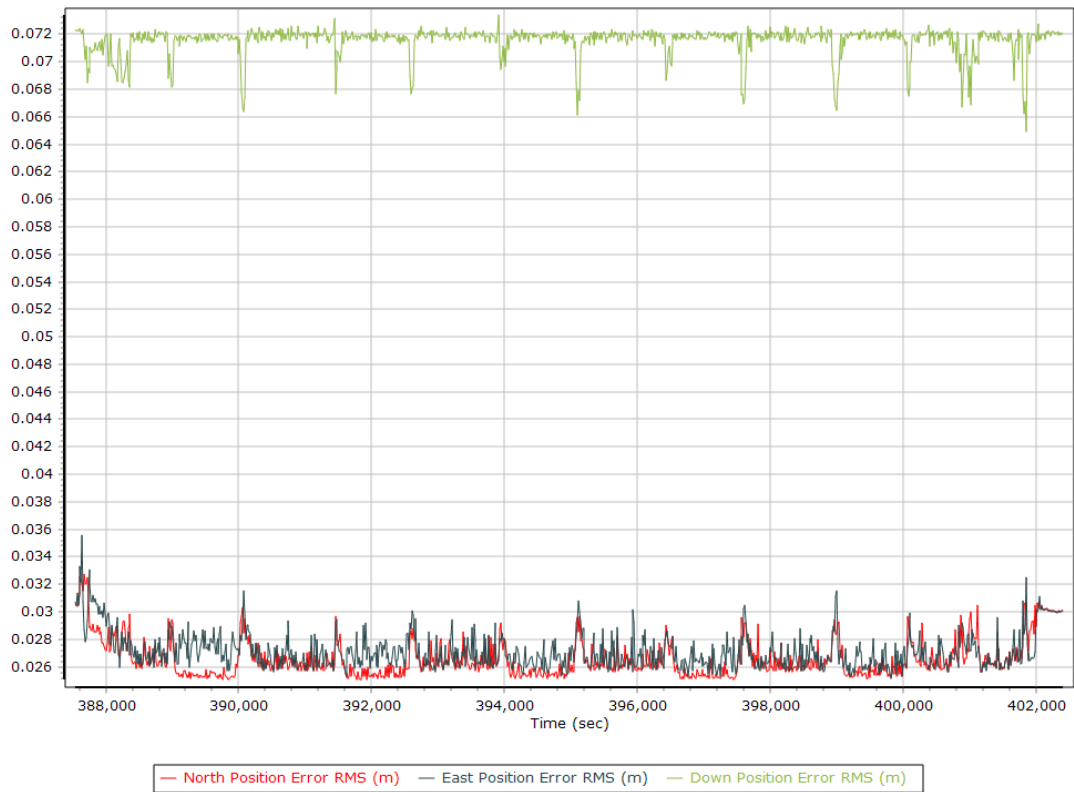


Heading Error RMS (arc-min)

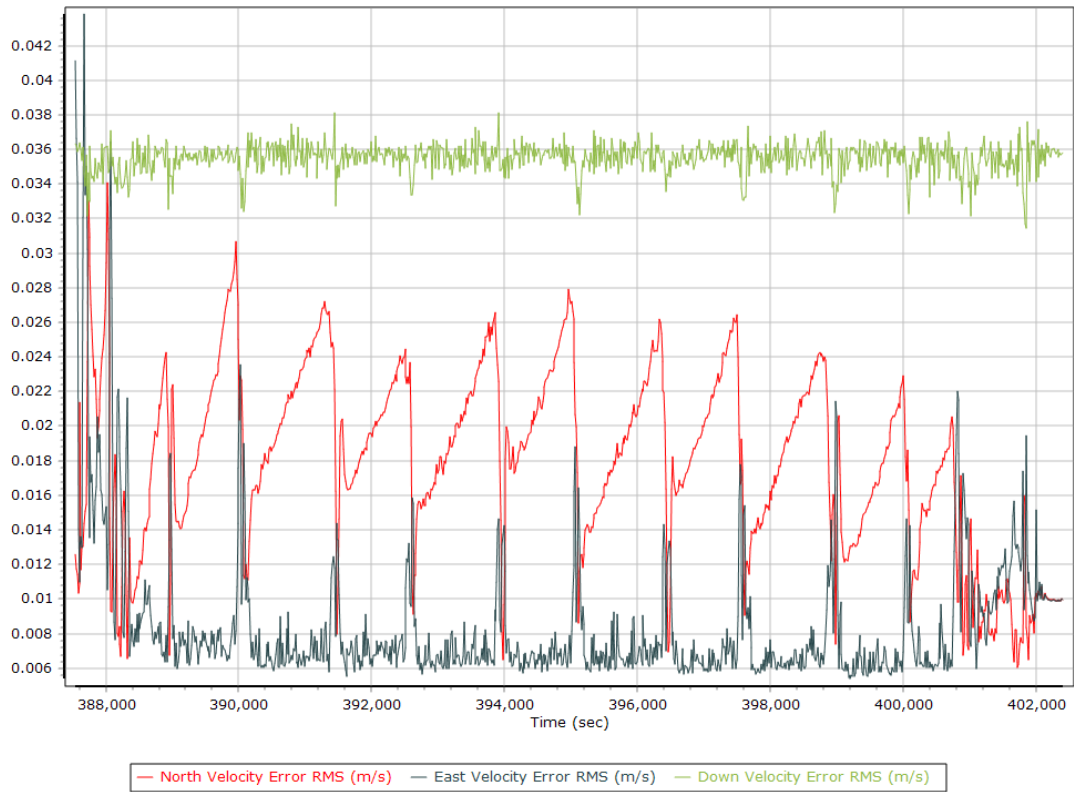


Forward Processed Performance Metrics

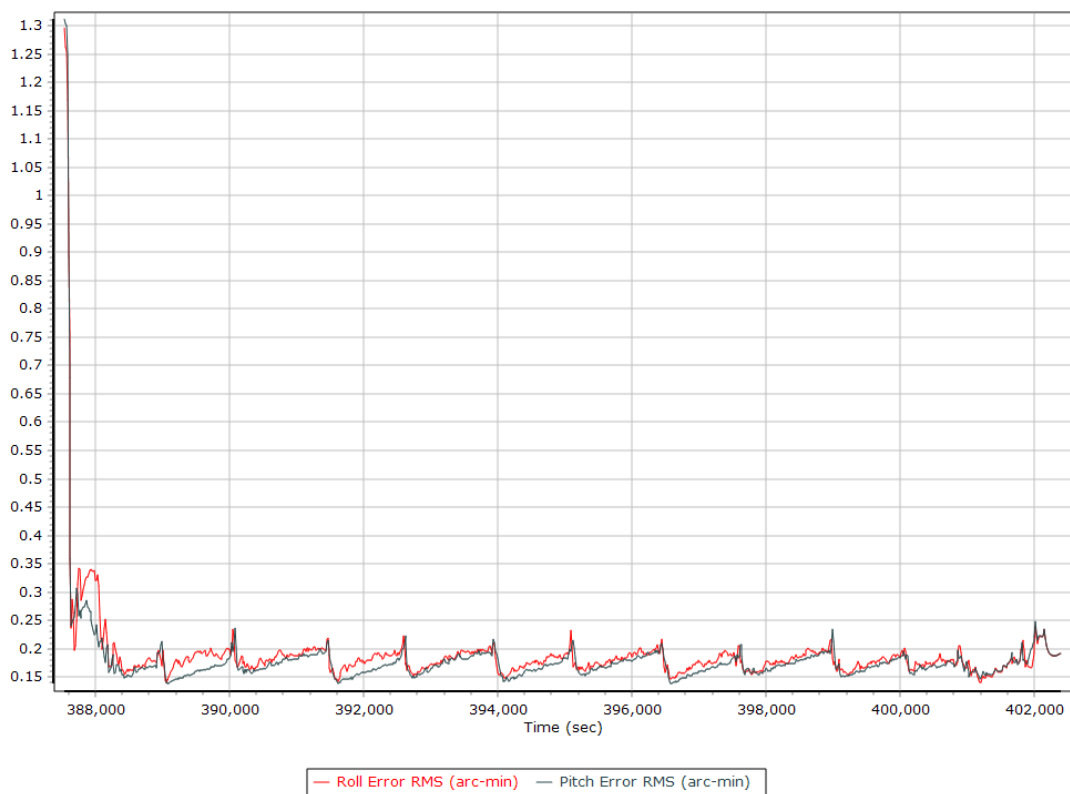
Position Error RMS (m)



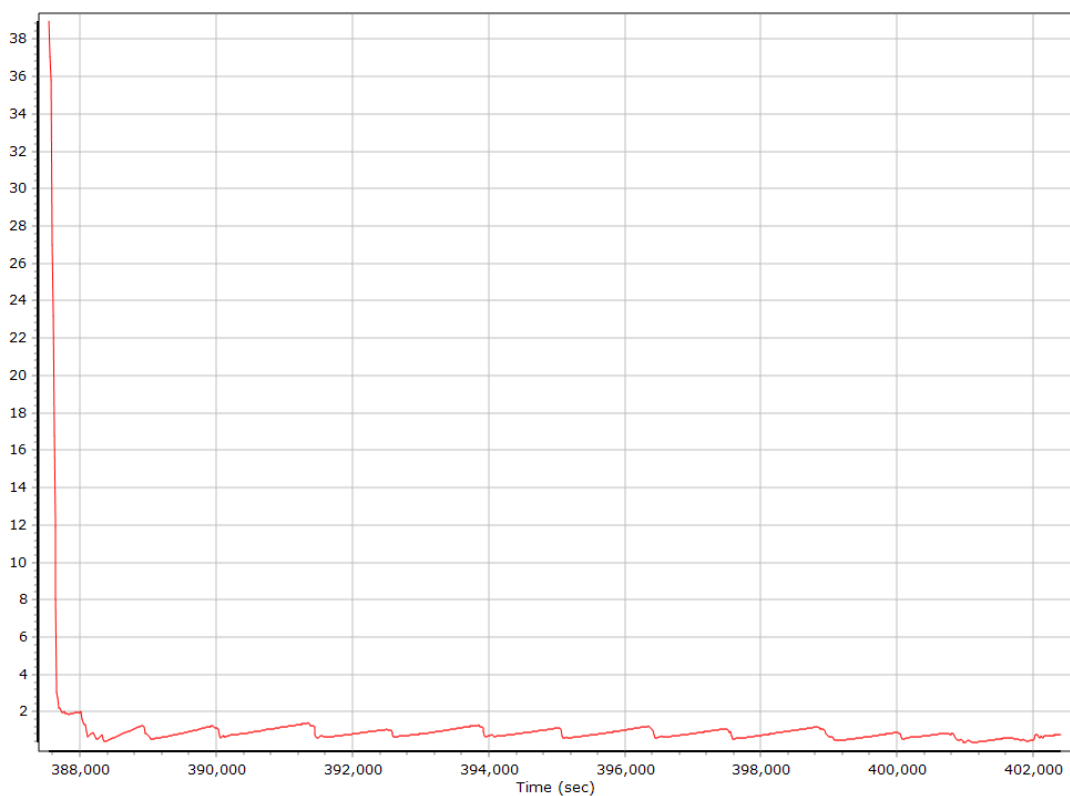
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

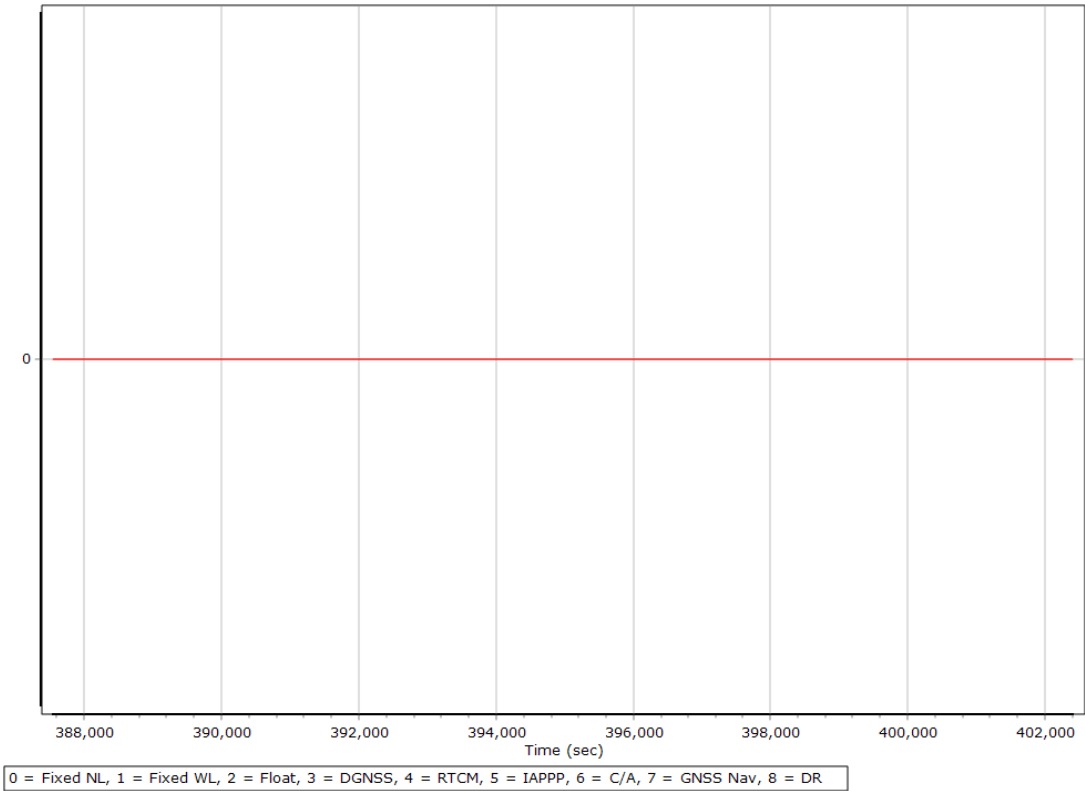


Heading Error RMS (arc-min)

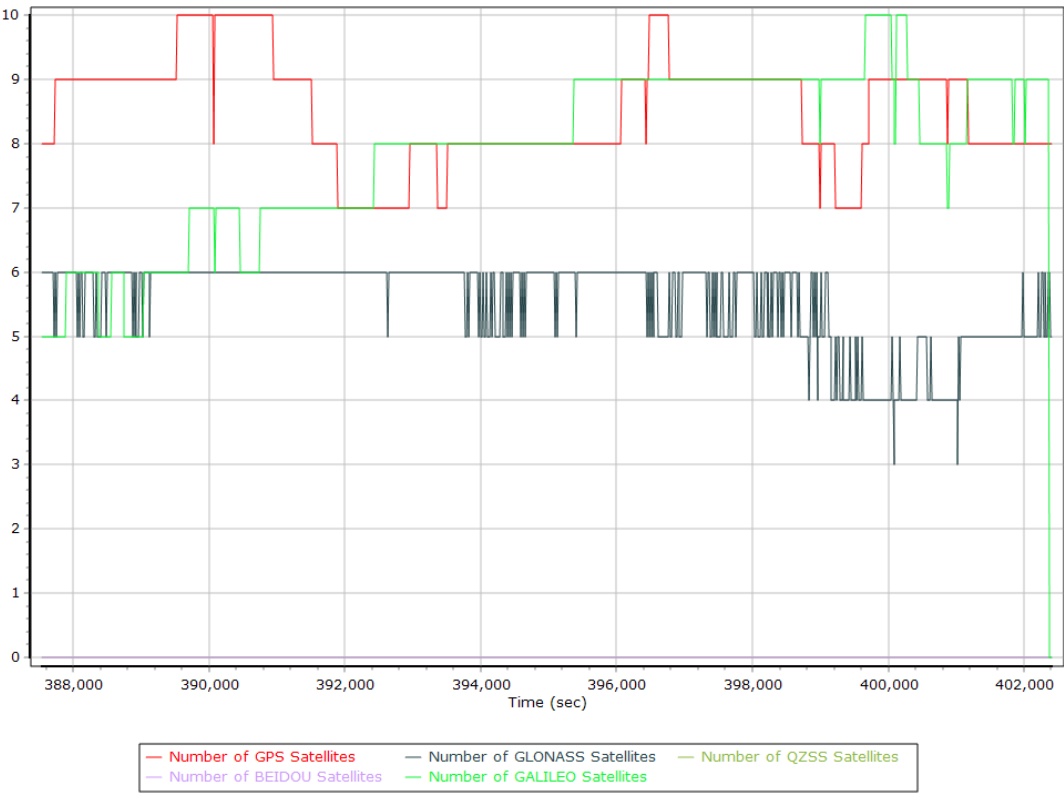


Forward Processed Solution Status

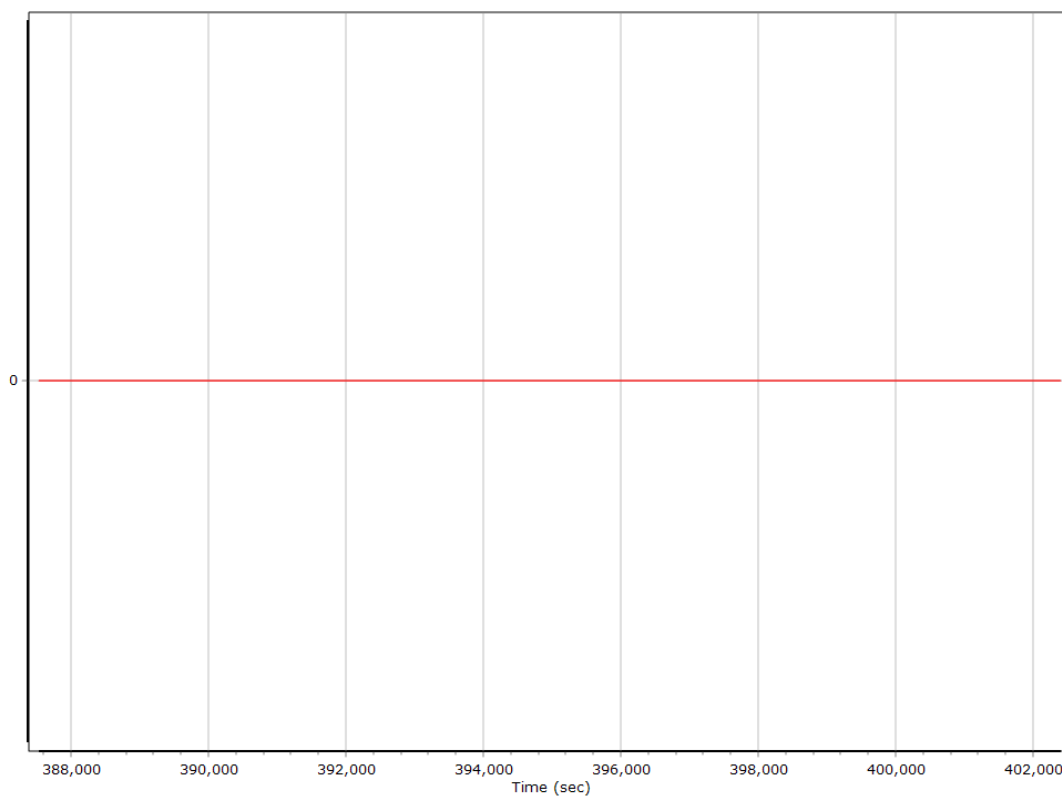
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230420_F1_4894_NAD832011.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	387481.001 (04/20/2023 11:38:01)		
Export end time	402414.005 (04/20/2023 15:46:54)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.29863		

General Information

Mission Information

Project name	20230420_F2_a_4894
Processing date	2023-04-25 22:34:27
Mission date	2023-04-20 17:12:32
Mission duration	02:37:41.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.585	POS Data
VQ1560.586	POS Data
VQ1560.587	POS Data
VQ1560.588	POS Data
VQ1560.589	POS Data
VQ1560.590	POS Data
VQ1560.591	POS Data
VQ1560.592	POS Data
VQ1560.593	POS Data
VQ1560.594	POS Data
VQ1560.595	POS Data
VQ1560.596	POS Data
VQ1560.597	POS Data
VQ1560.598	POS Data
VQ1560.599	POS Data
VQ1560.600	POS Data
VQ1560.601	POS Data
VQ1560.602	POS Data
VQ1560.603	POS Data
VQ1560.604	POS Data
VQ1560.605	POS Data
VQ1560.606	POS Data

Input Files

File Name	File Type
Ephm1100.23g	GLONASS Broadcast Ephemeris
Ephm1100.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbt_20230420_F2_a_4894.out	SBET Trajectory File
export_20230420_F2_a_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.585		
Last raw data file	VQ1560.606		
Start GPS week	2258		
Start time	407545.663 (04/20/2023 17:12:25)		
End time	416994.960 (04/20/2023 19:49:54)		
Start of fine alignment	408045.632 (04/20/2023 17:20:45)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

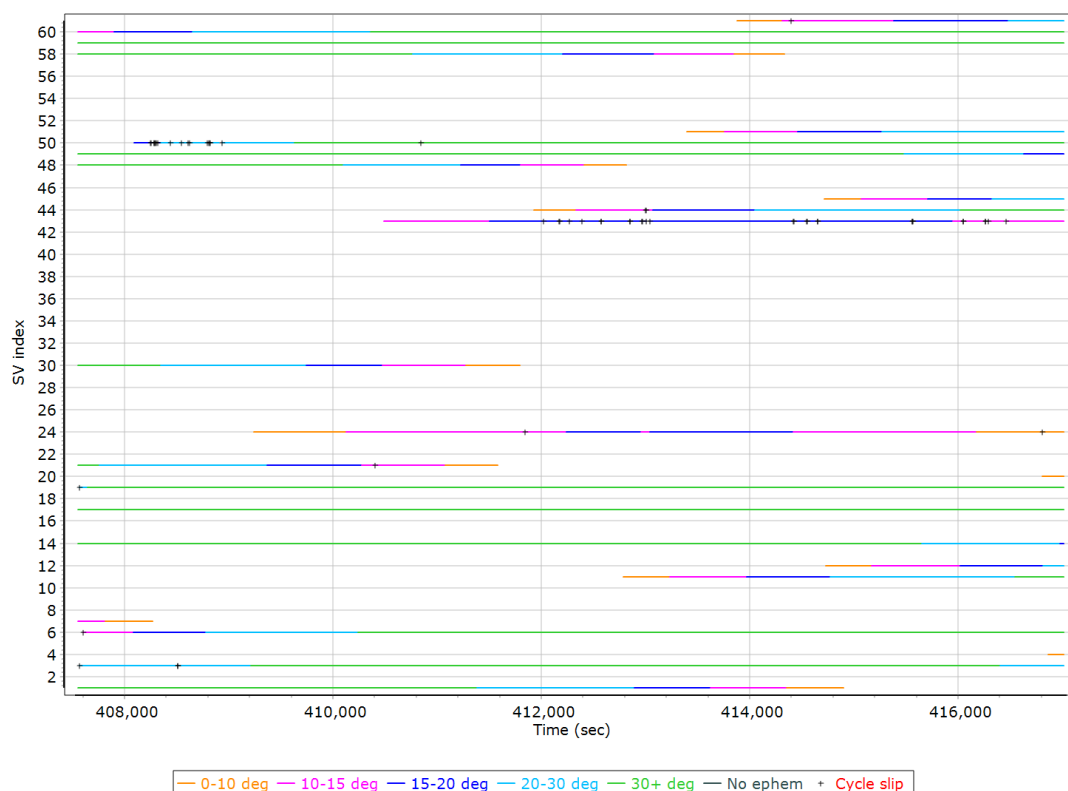
Rover Data QC

Raw IMU Import QC Summary

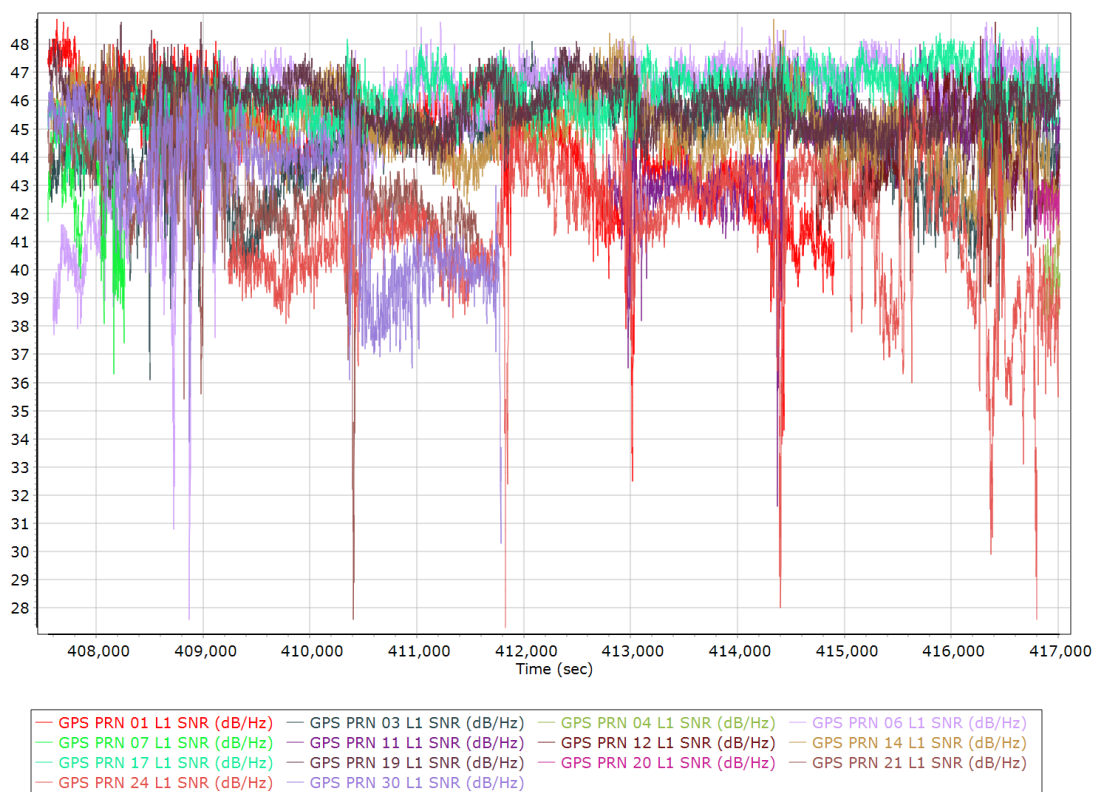
IMU data input file	imu_20230420_F2_a_4894.dat
IMU data check log file	imudt_20230420_F2_a_4894.log
IMU Records Processed	1891969
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
407545.463 : WARNING : Gap of 407533.5115 seconds in CHECKDT input data	

Primary Observables & Satellite Data

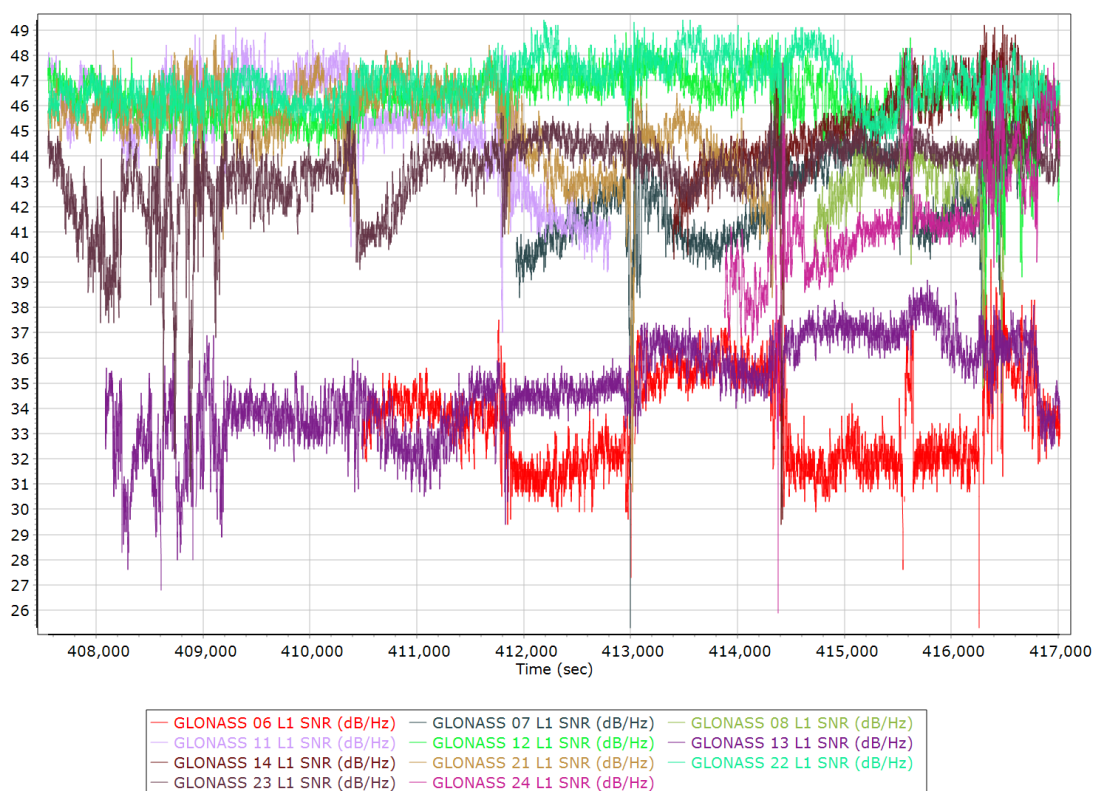
GPS/GLONASS L1 Satellite Lock/Elevation



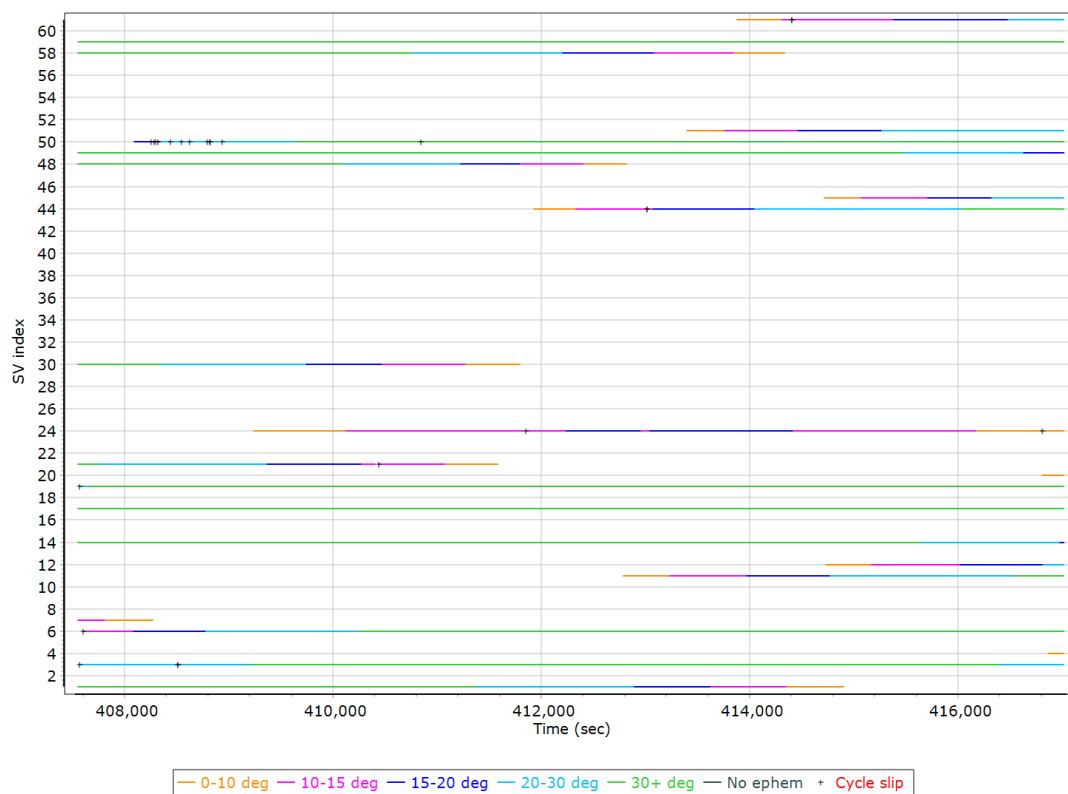
GPS L1 SNR



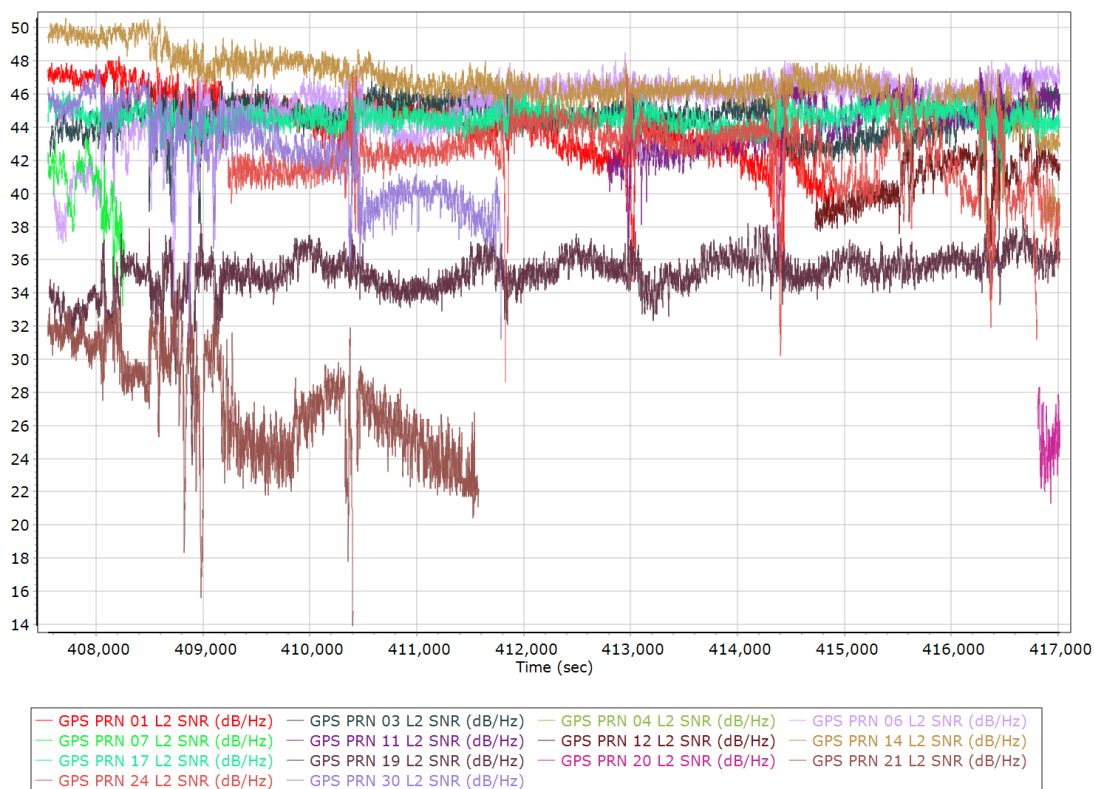
GLONASS L1 SNR



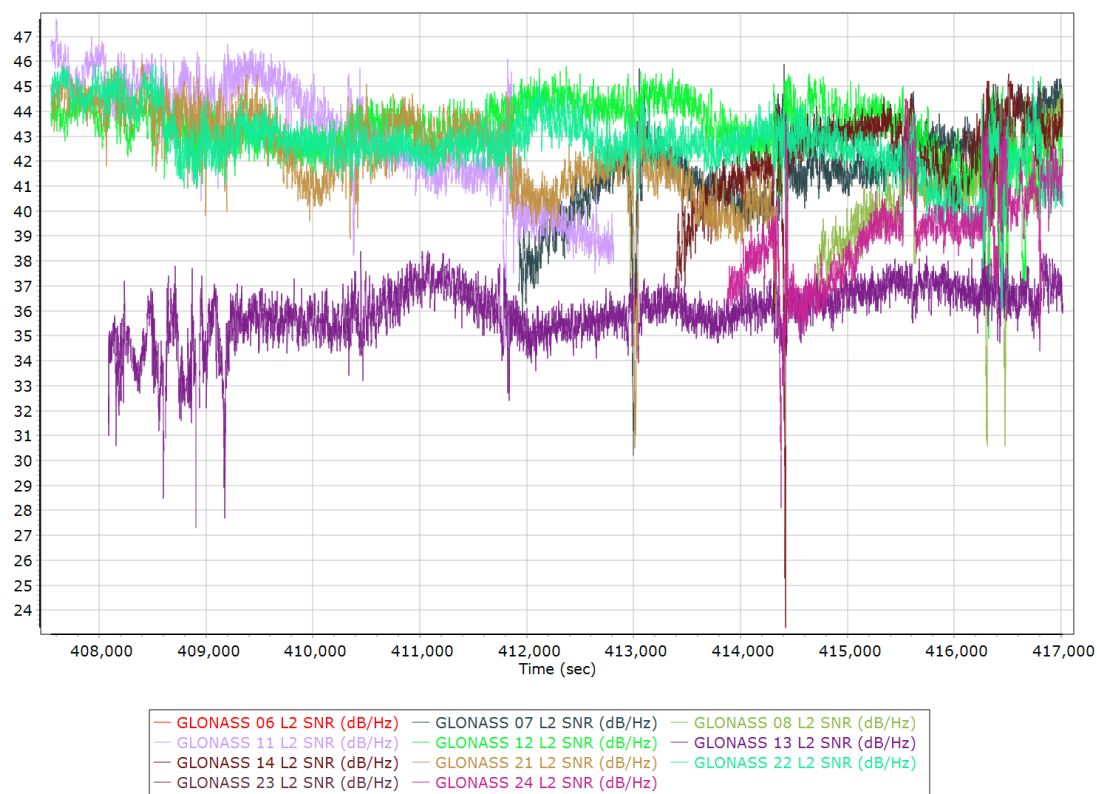
GPS/GLONASS L2 Satellite Lock/Elevation



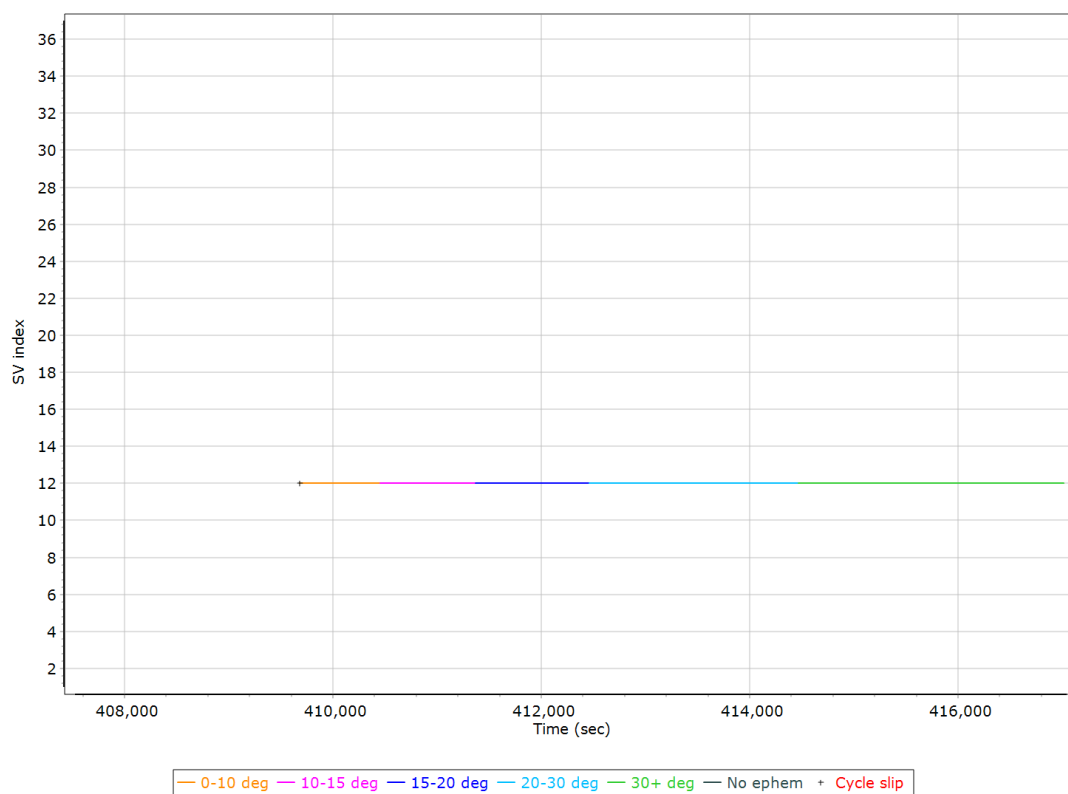
GPS L2 SNR



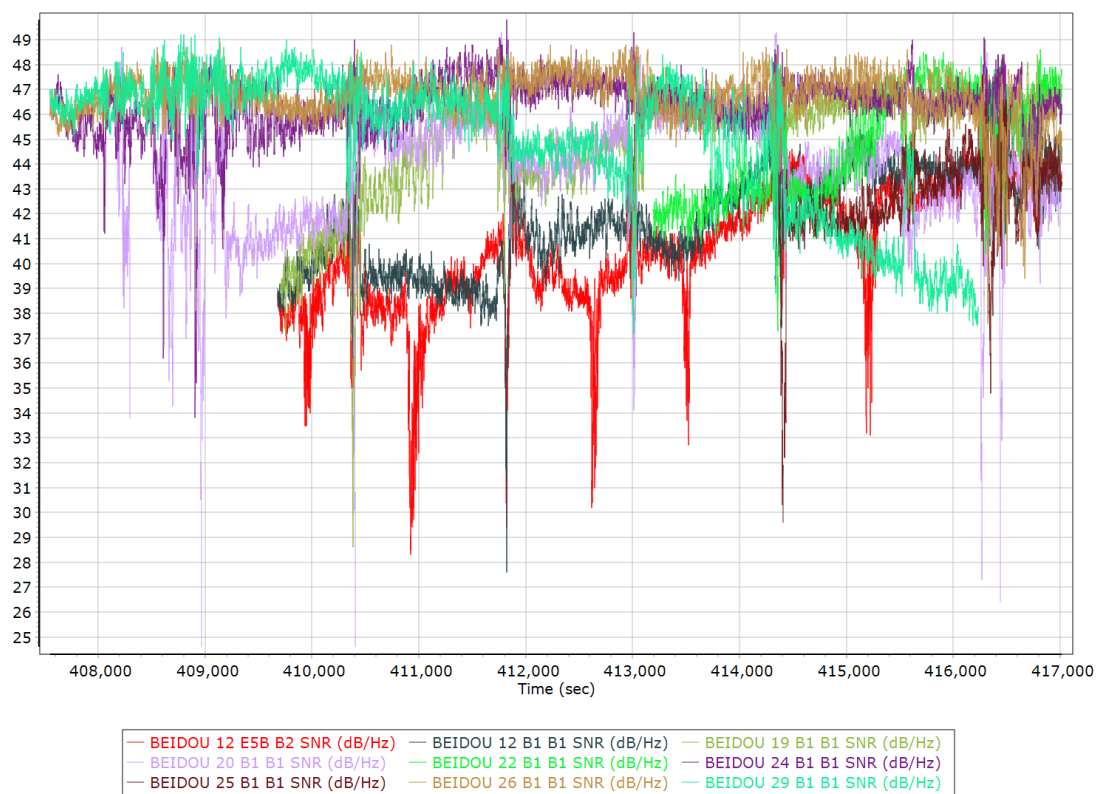
GLONASS L2 SNR



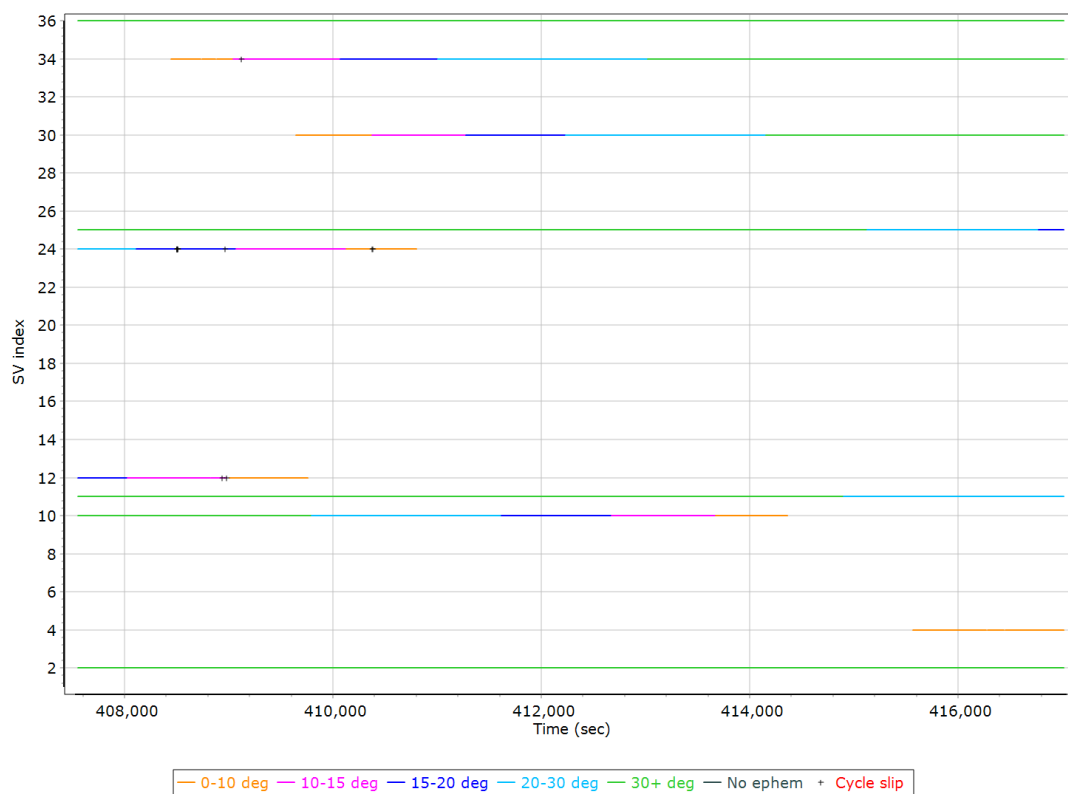
BEIDOU Satellite Lock/Elevation



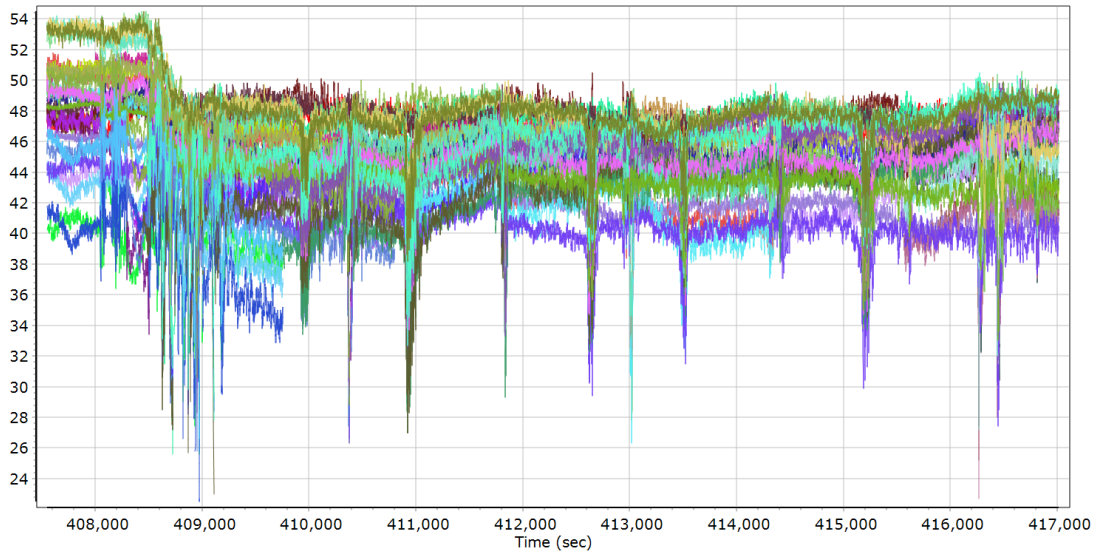
BEIDOU SNR



GALILEO Satellite Lock/Elevation



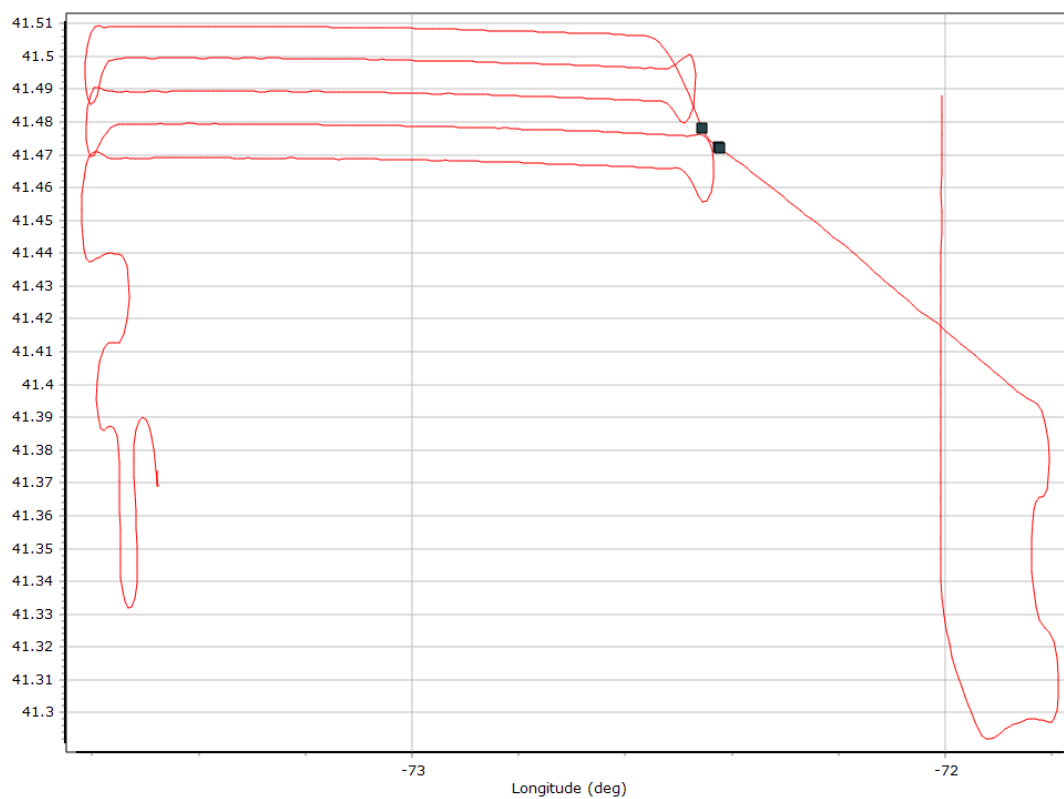
GALILEO SNR



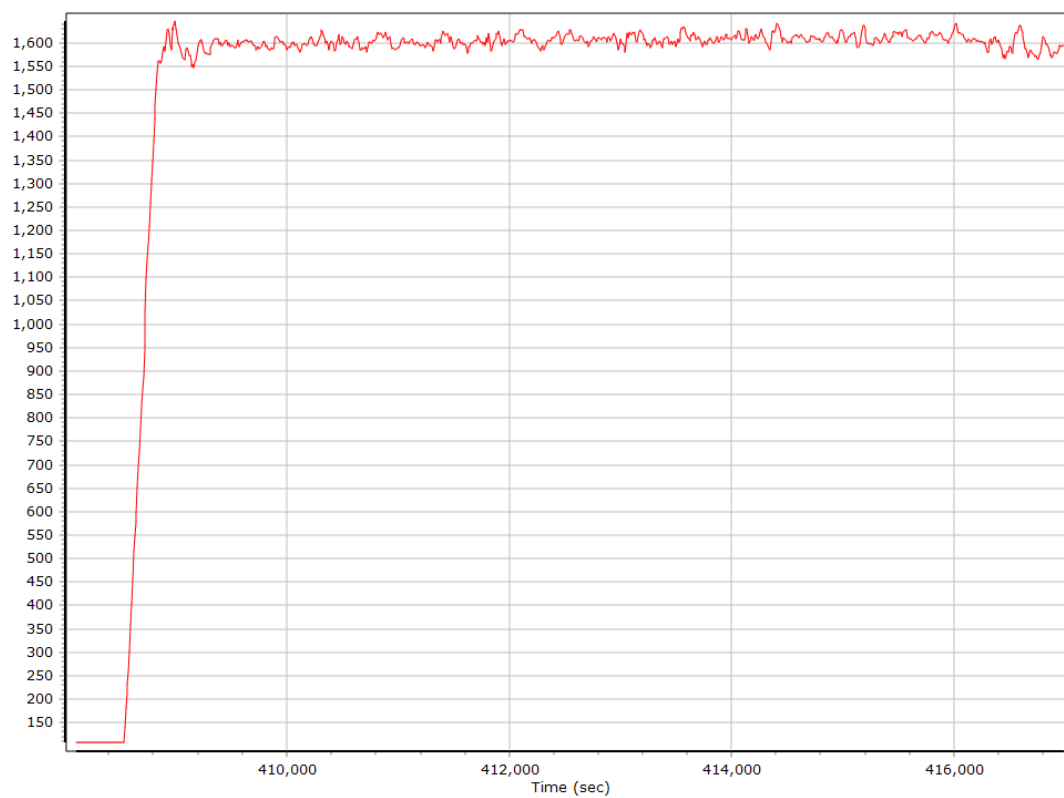
— GALILEO 02 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 04 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 10 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 24 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 25 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 30 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 34 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 04 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 10 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 11 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 24 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 25 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 30 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 34 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 36 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

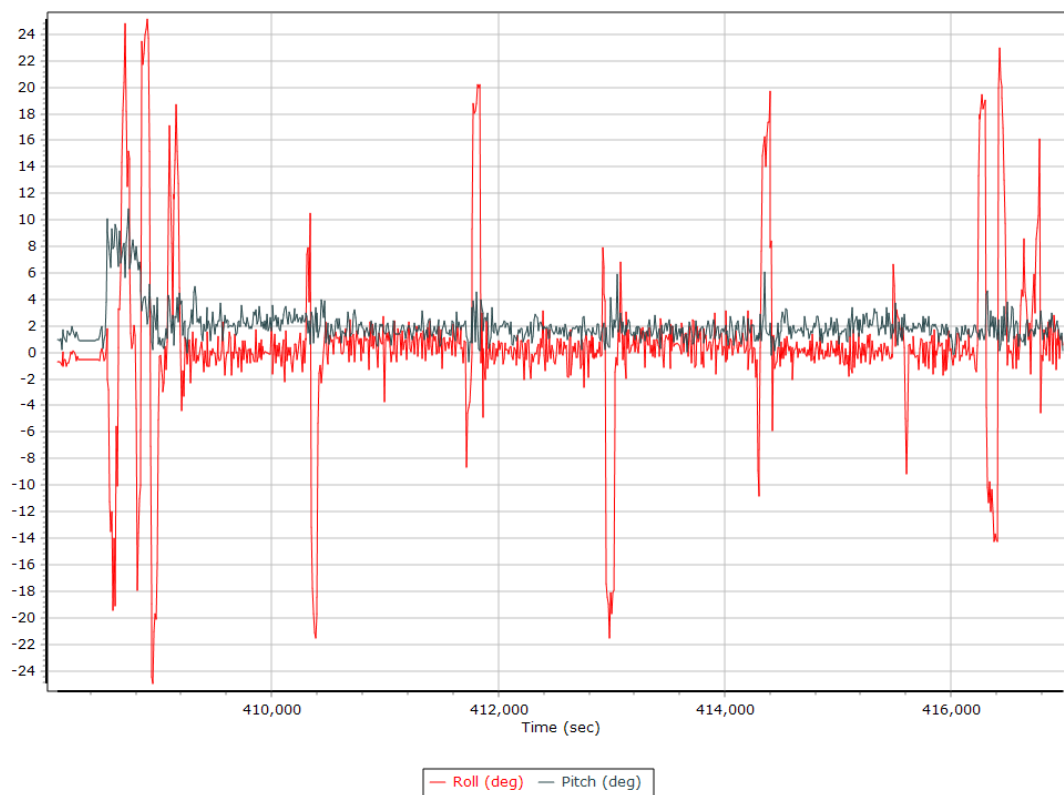
Top View



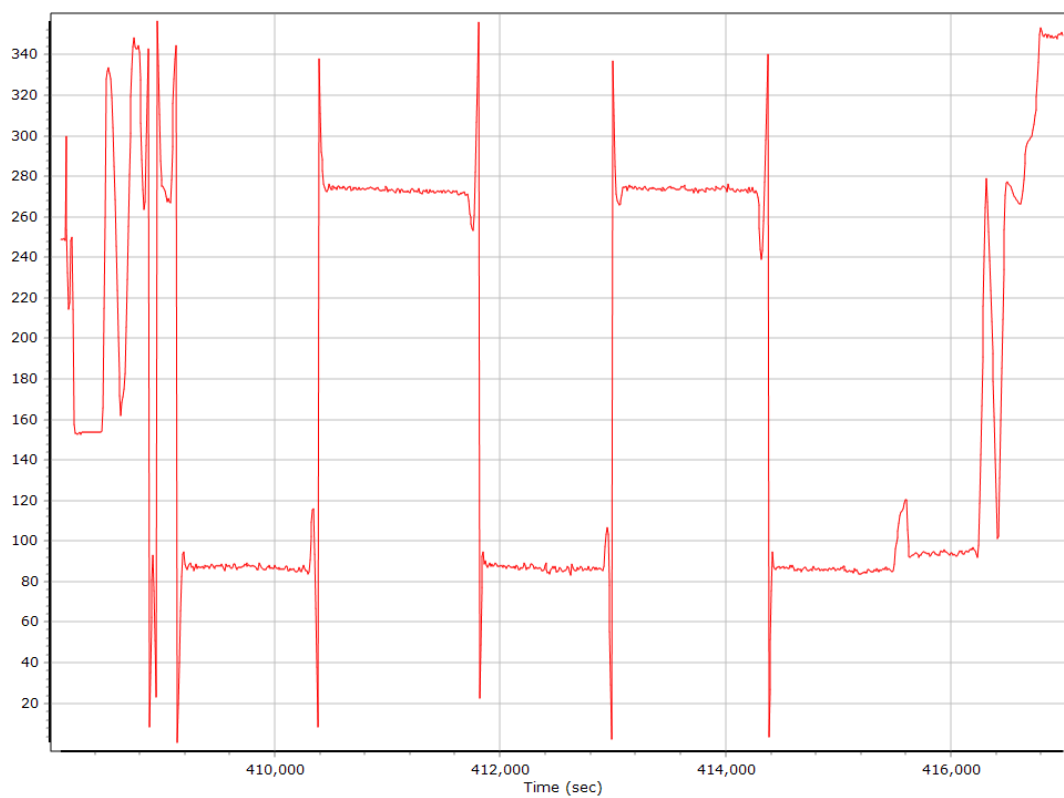
Altitude



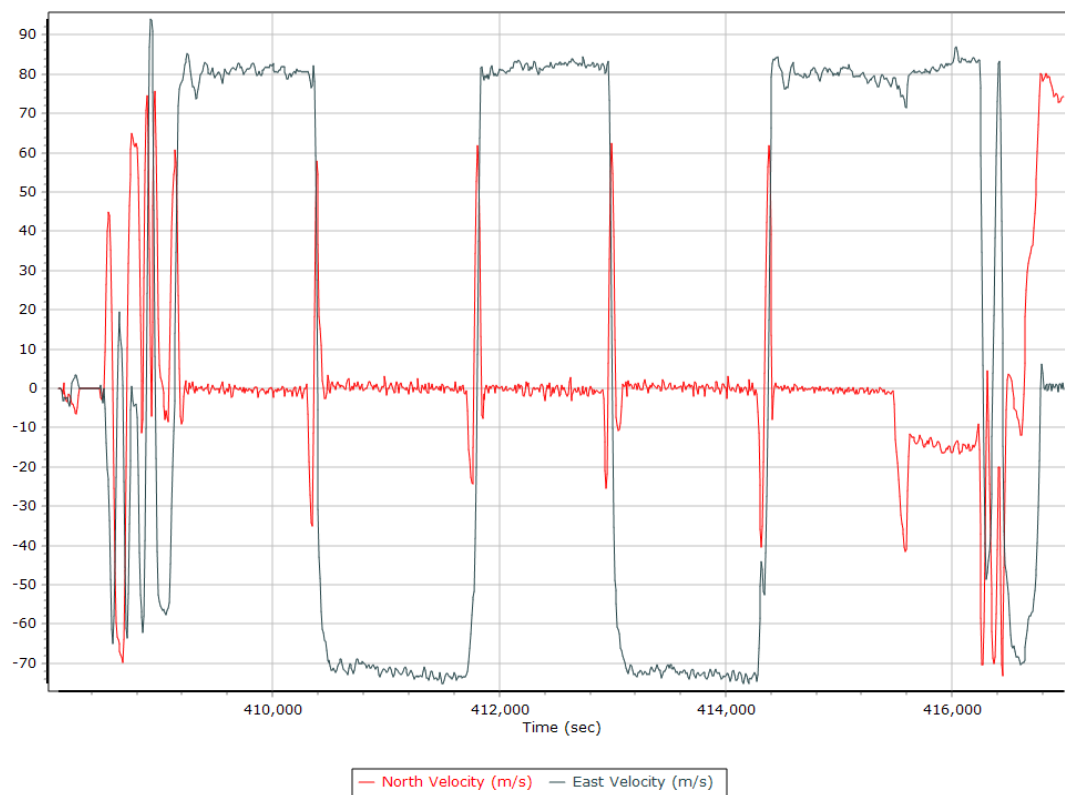
Roll/Pitch



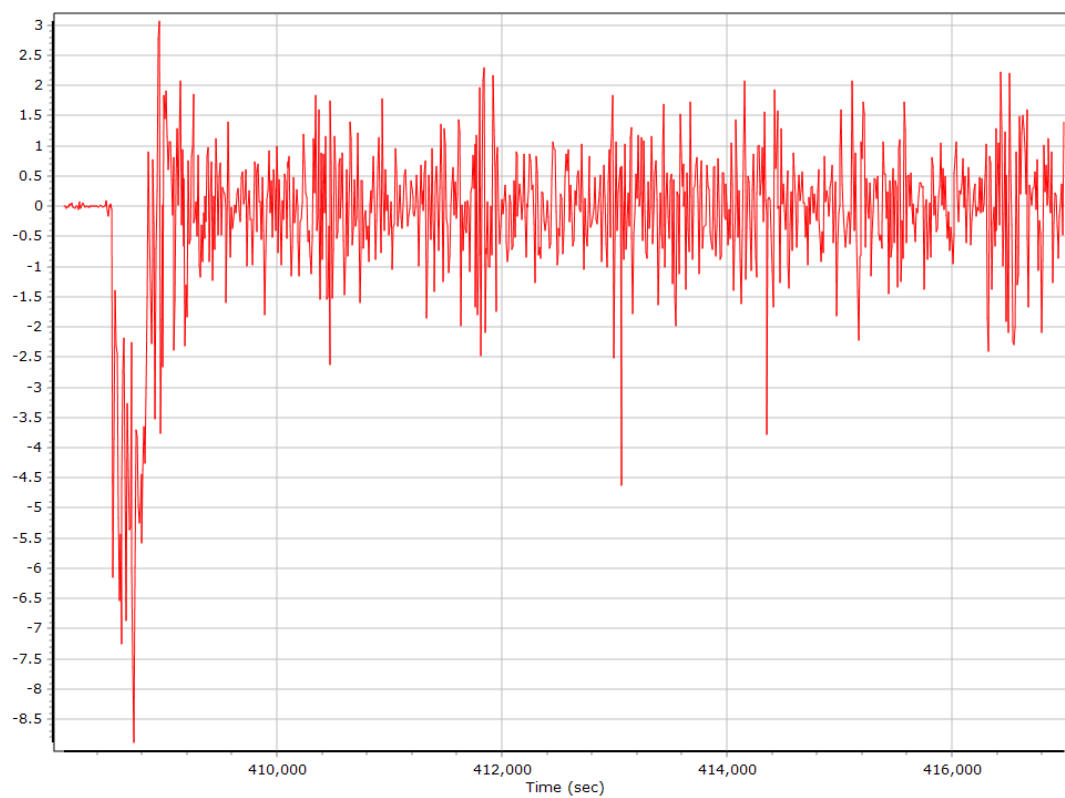
Heading



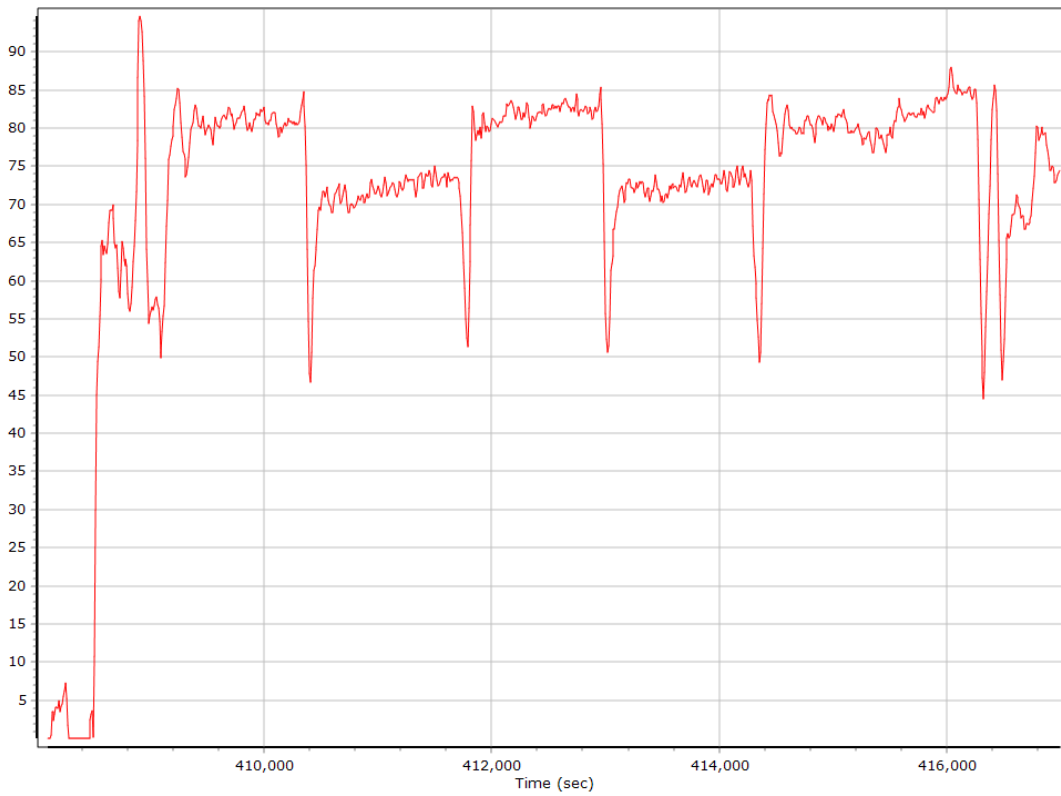
North/East Velocity



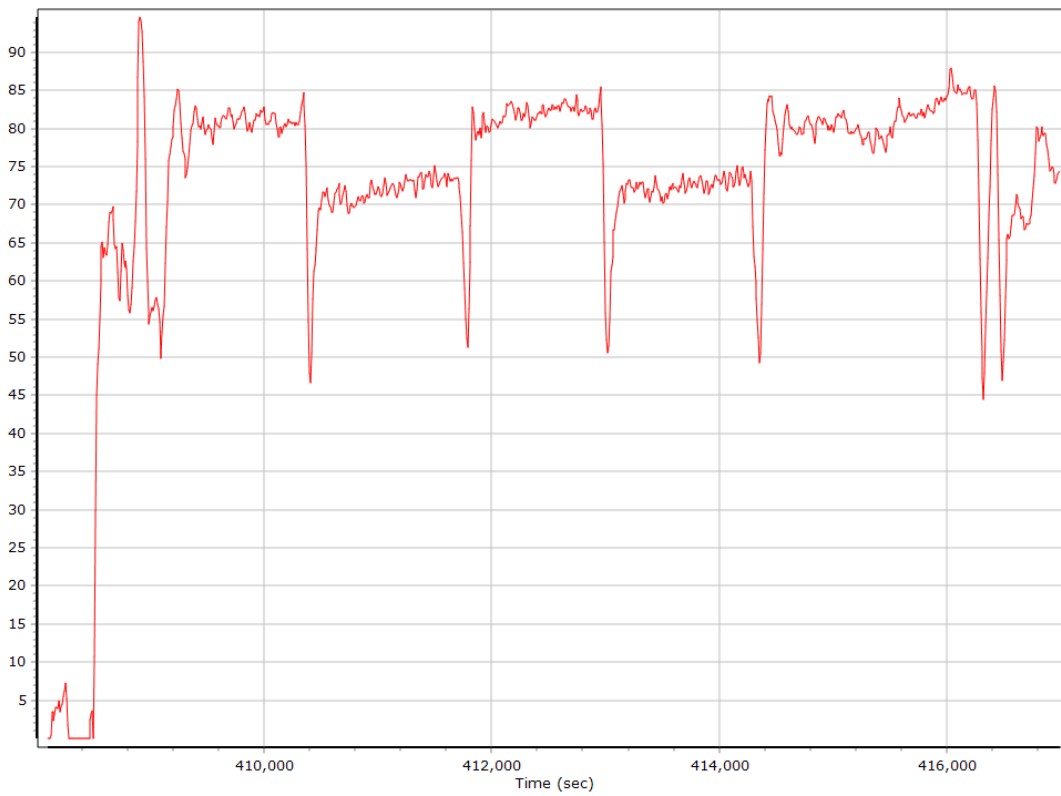
Down Velocity



Total Speed



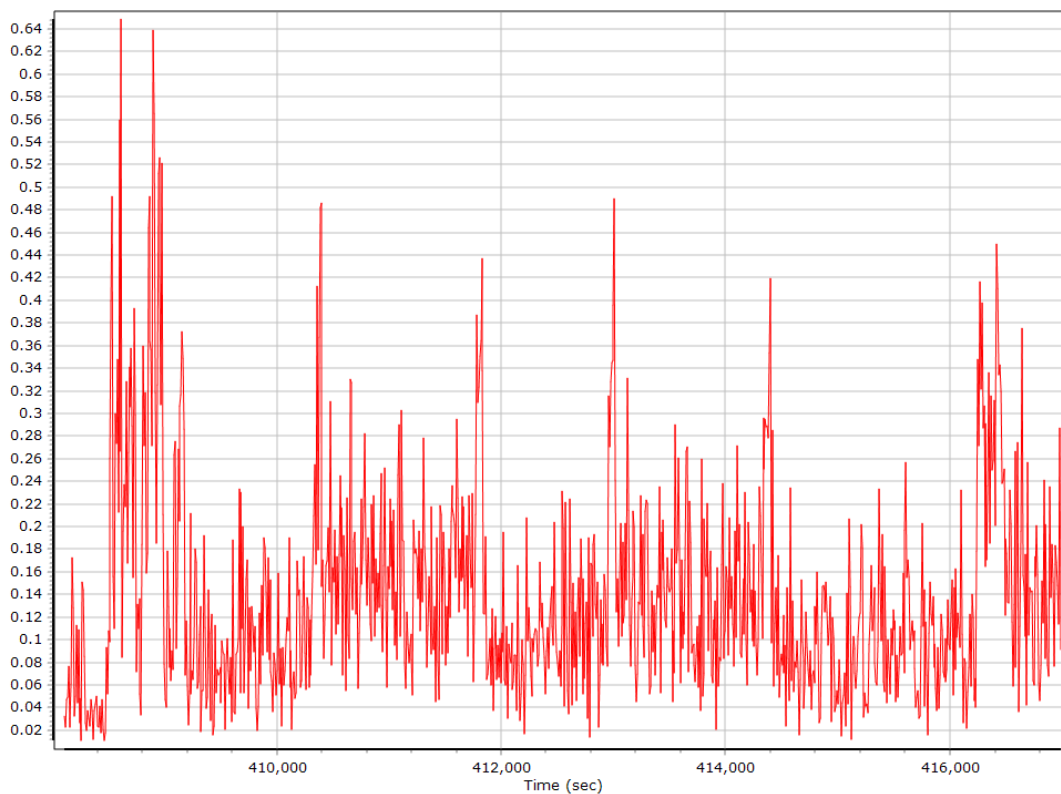
Ground Speed



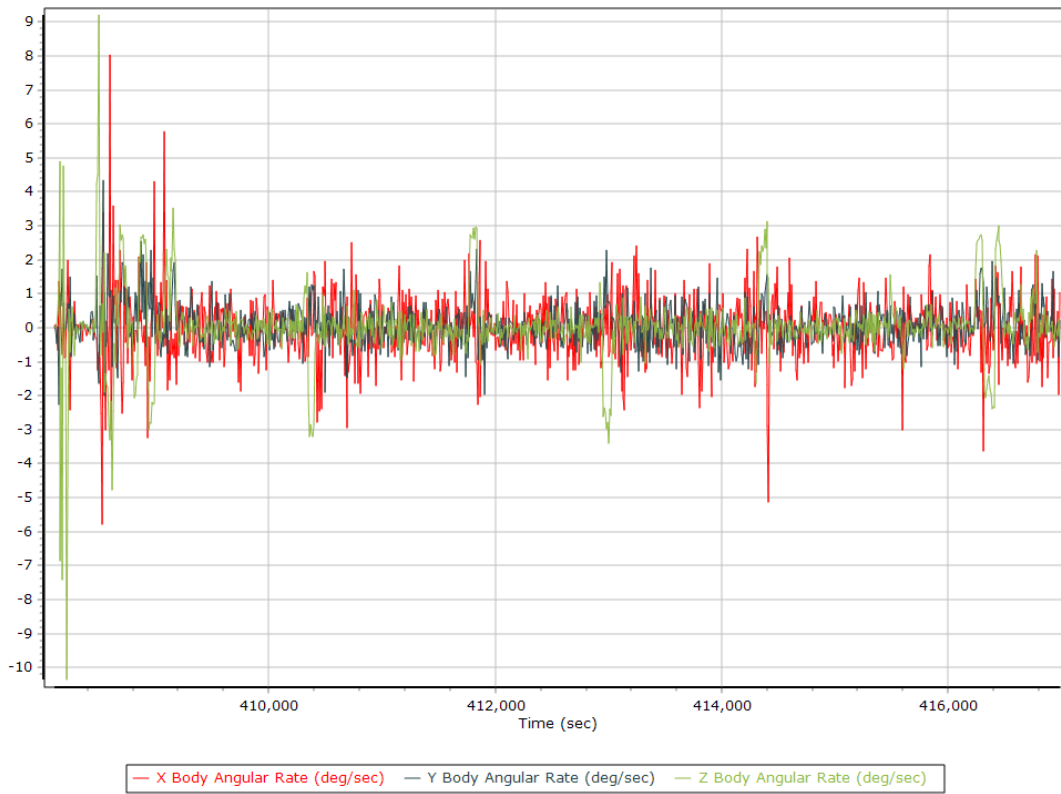
Body Acceleration



Total Body Acceleration

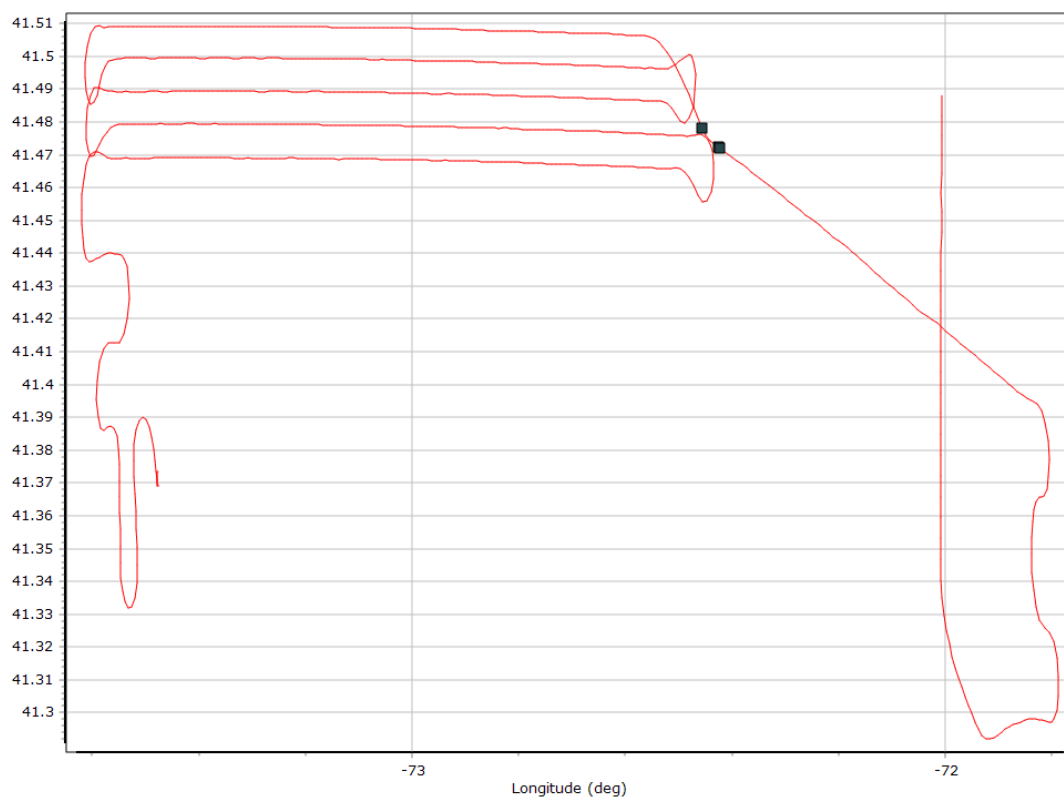


Body Angular Rate

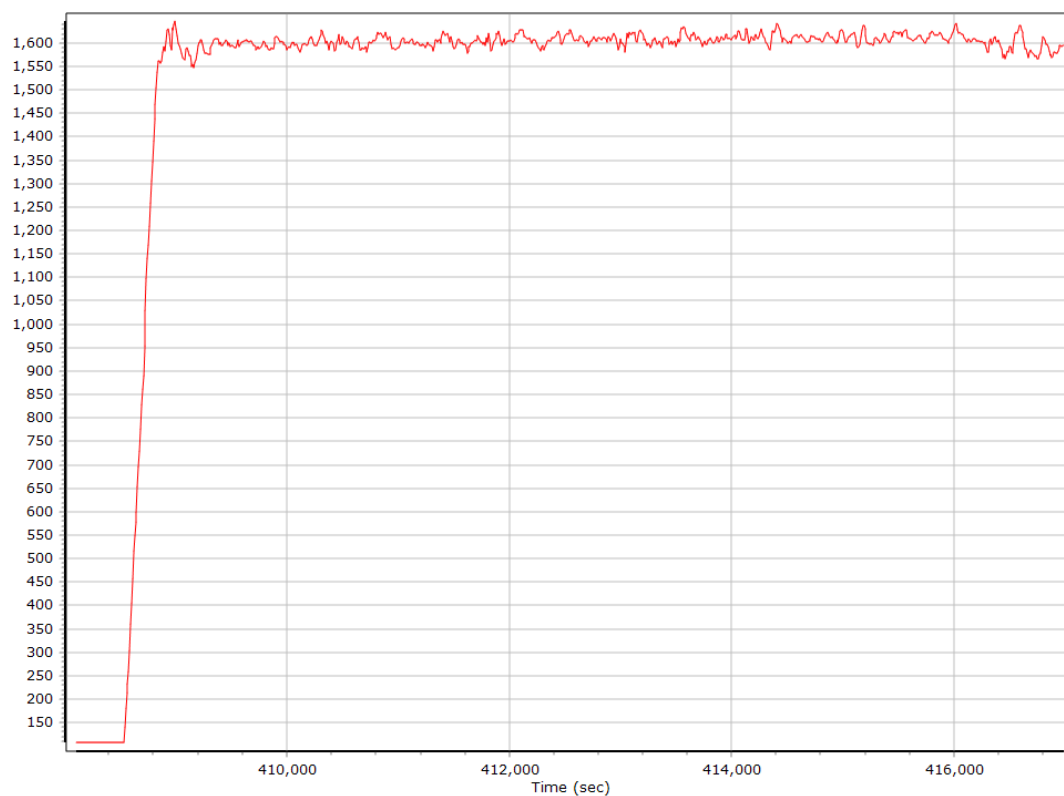


Forward Processed Trajectory Information

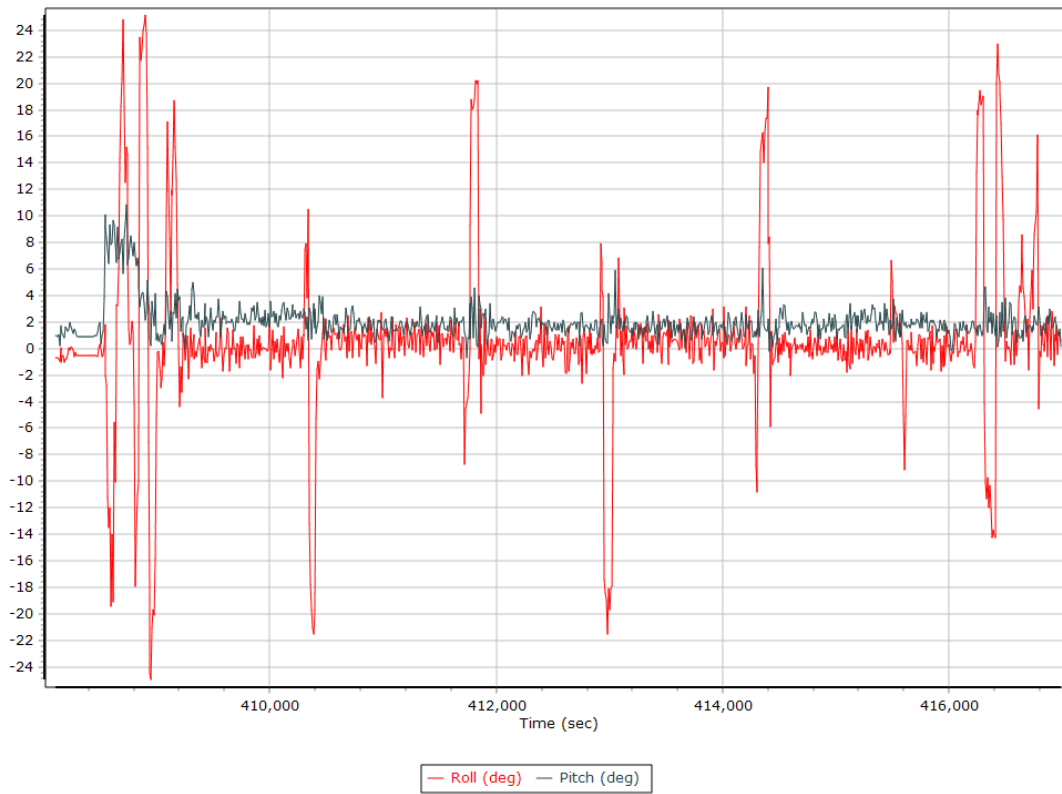
Top View



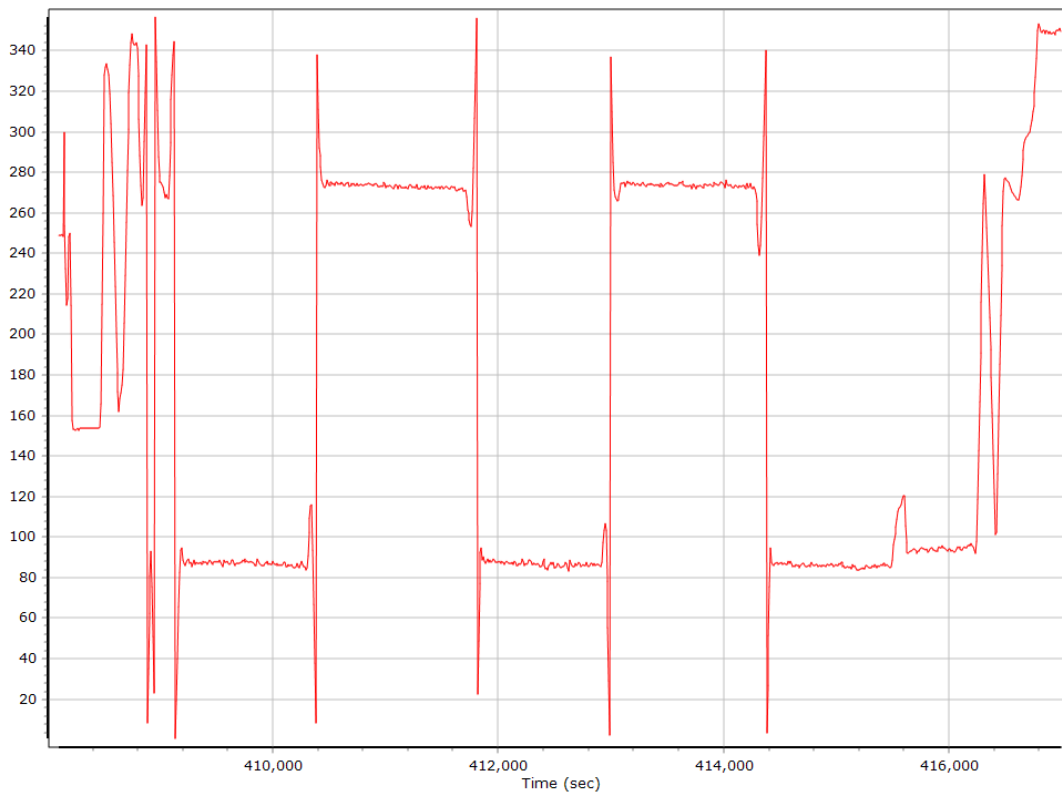
Altitude



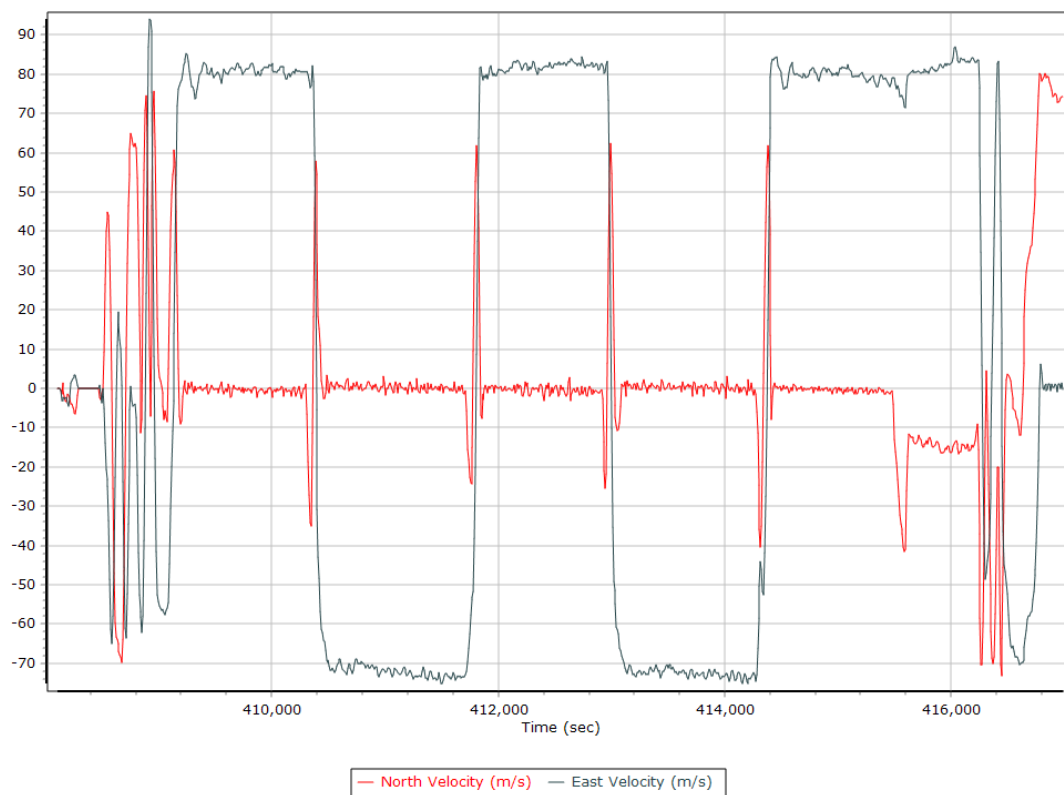
Roll/Pitch



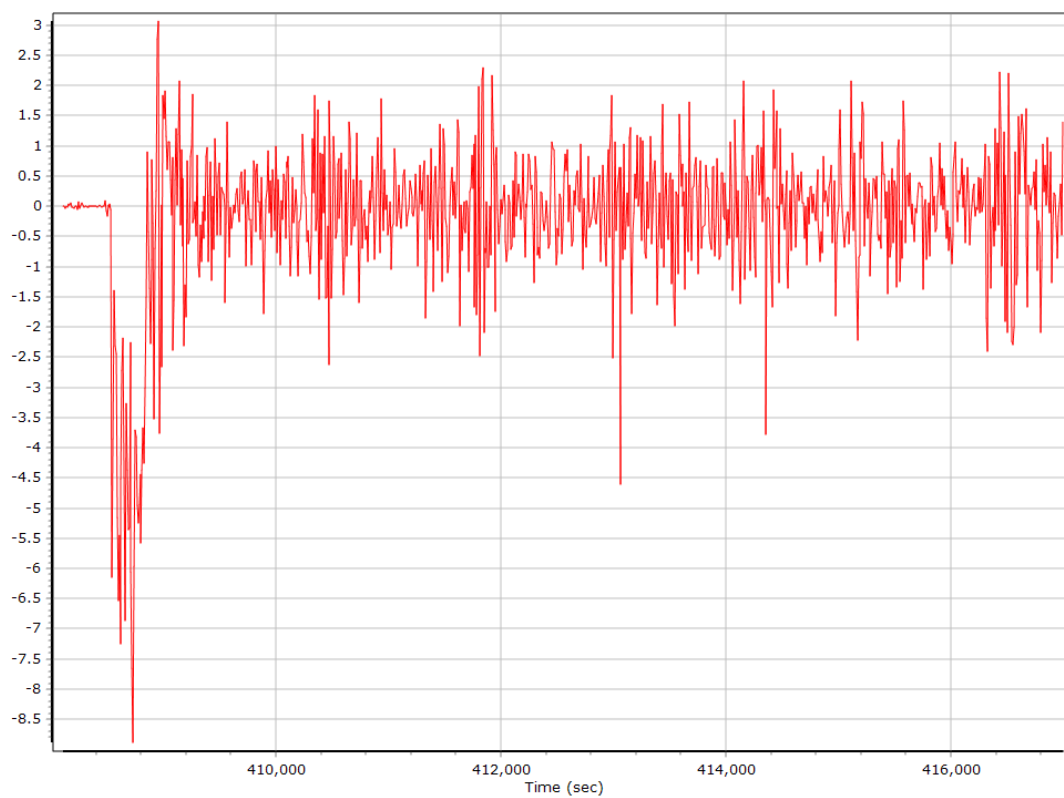
Heading



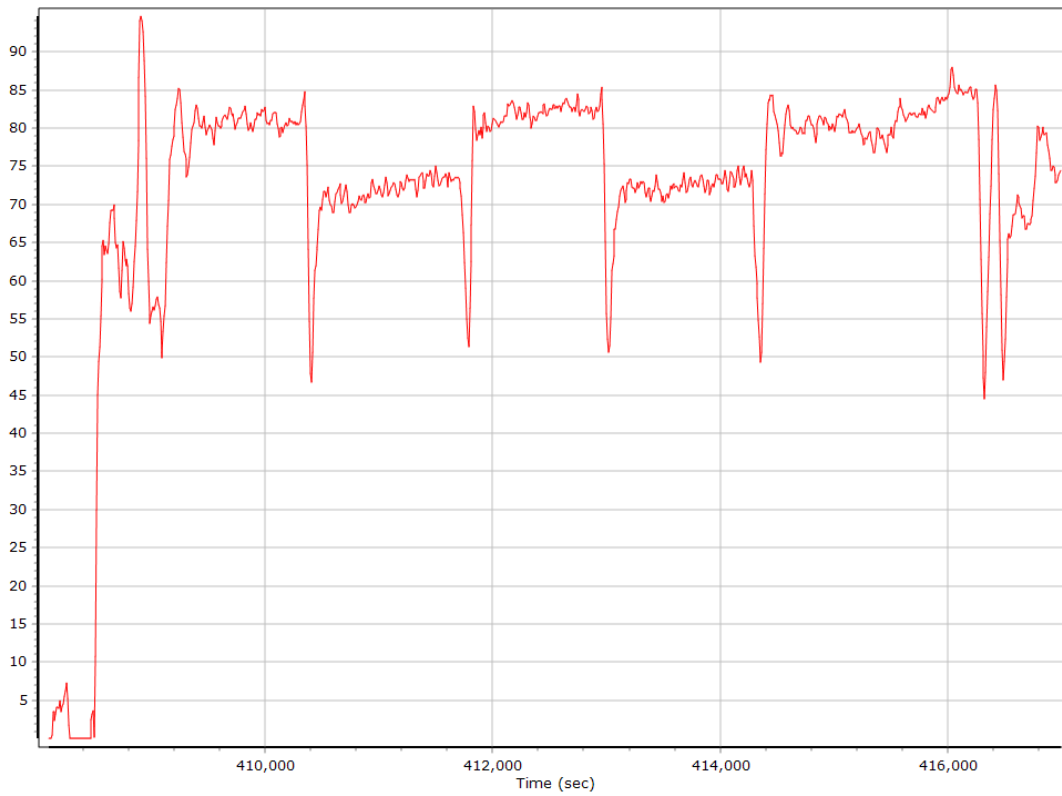
North/East Velocity



Down Velocity



Total Speed



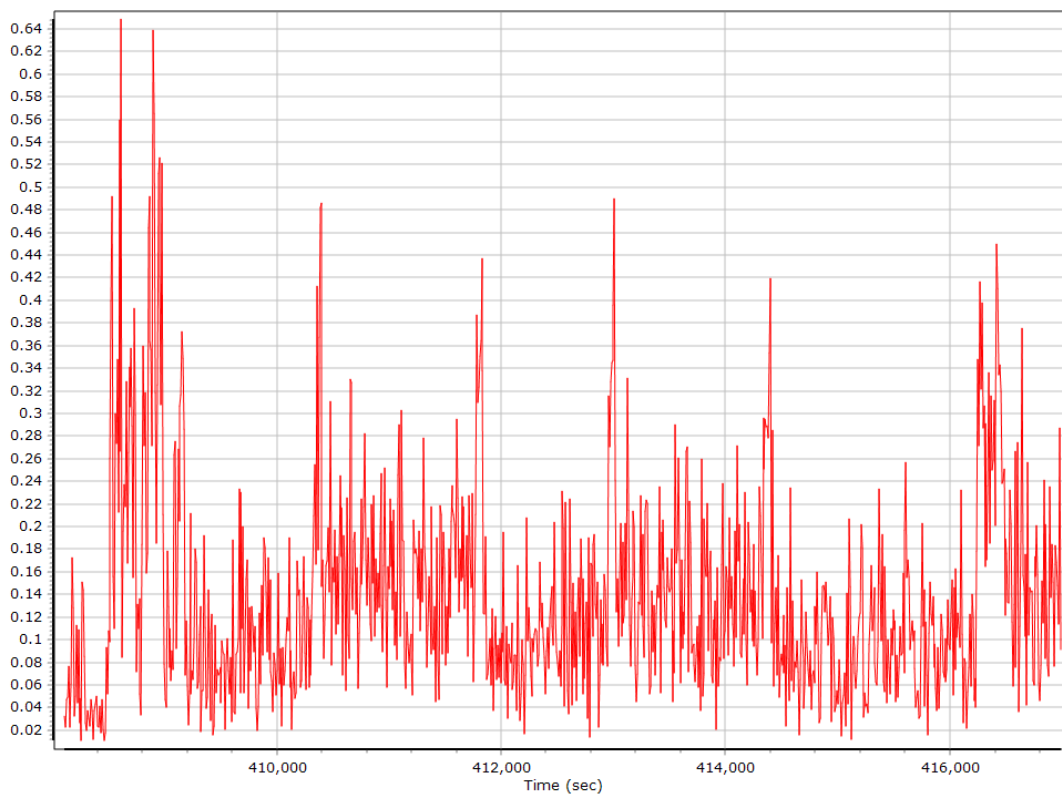
Ground Speed



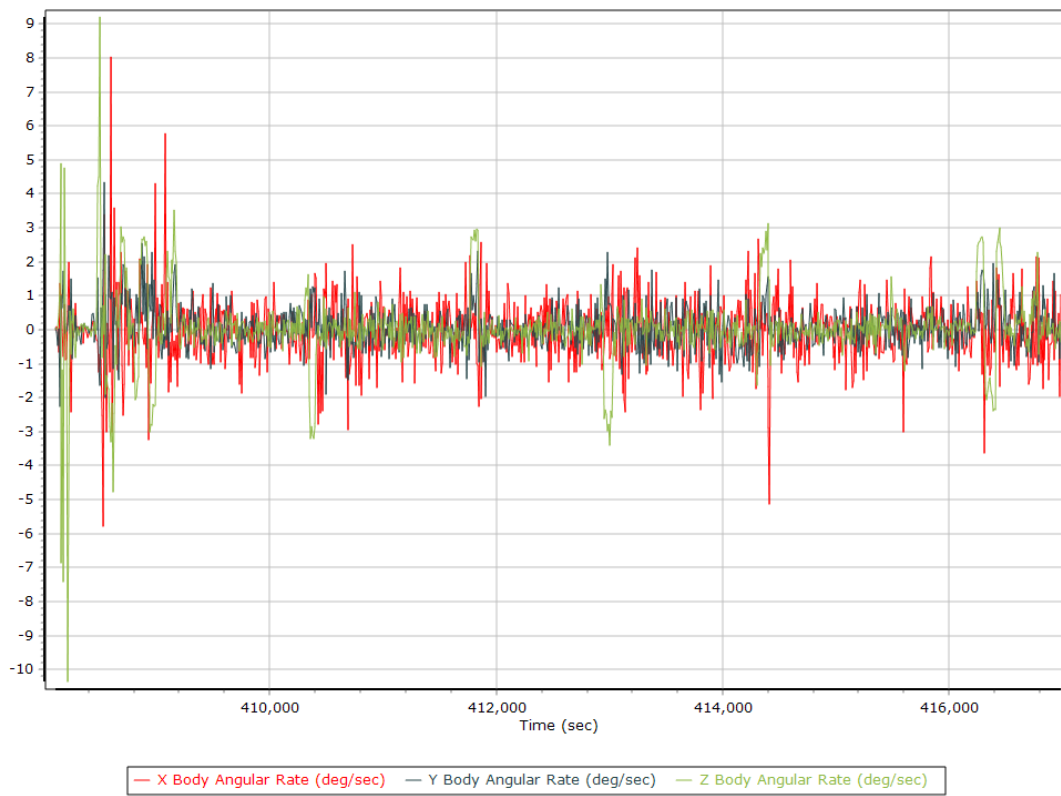
Body Acceleration



Total Body Acceleration



Body Angular Rate

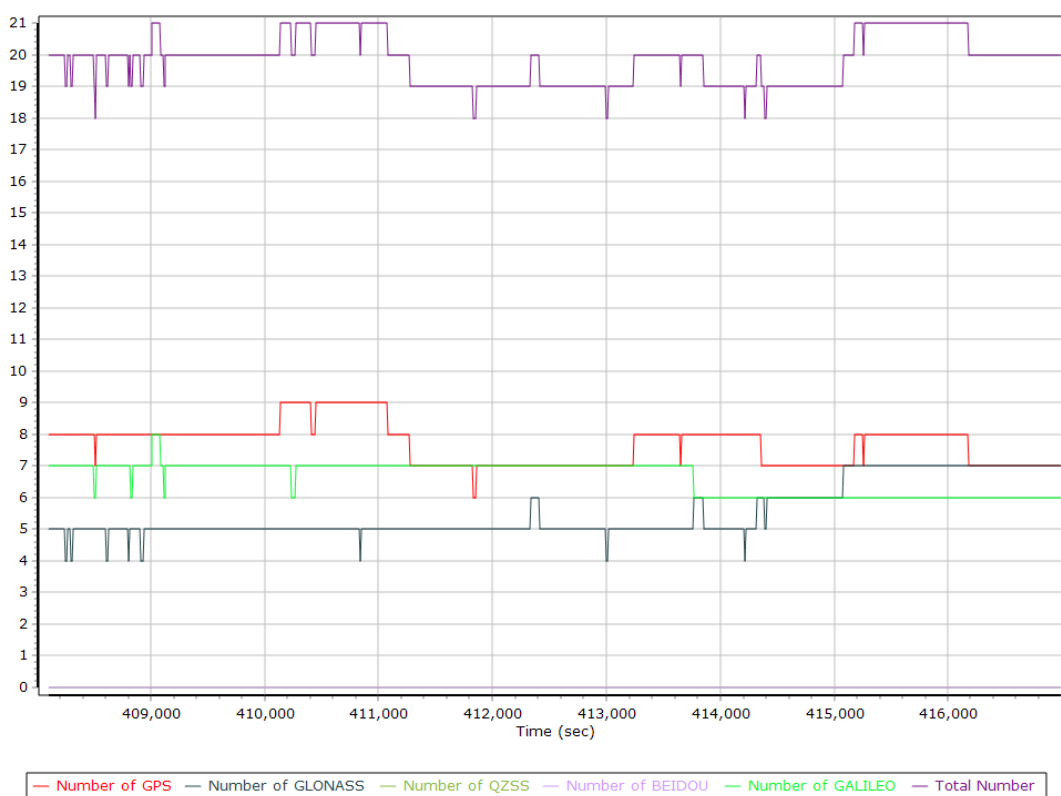


GNSS QC

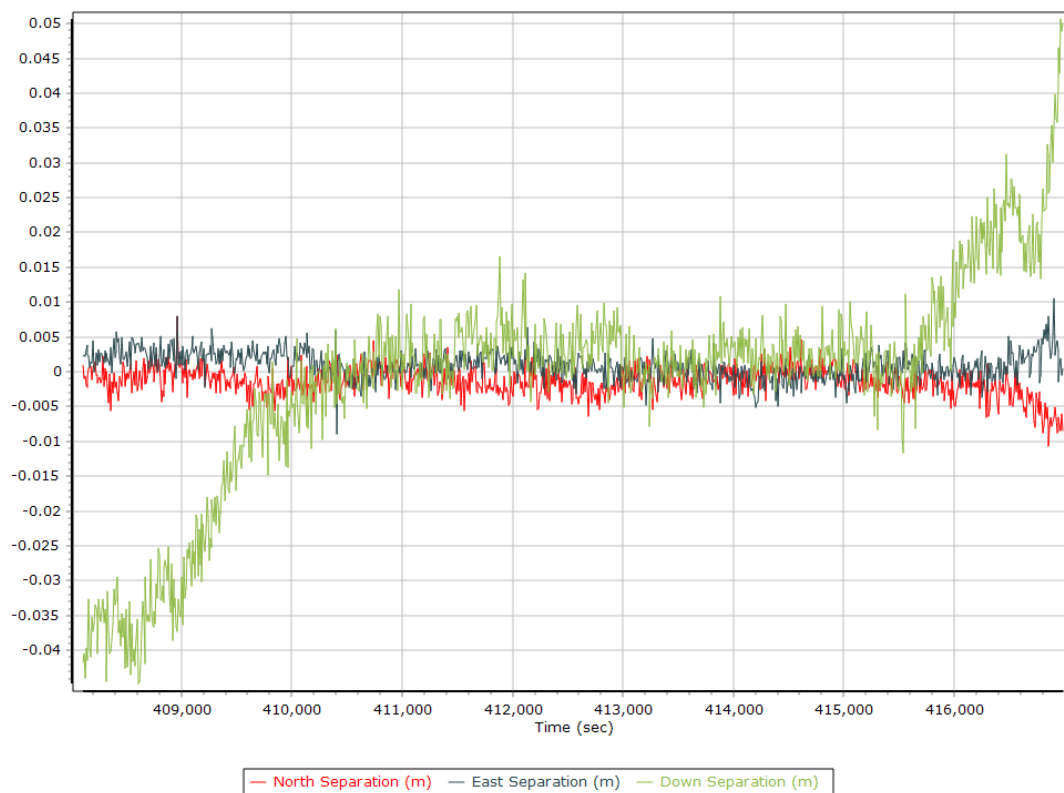
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	9	8
Number of GLONASS SV	4	7	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	6	8	7
Total number of SV	16	21	20
PDOP	1.01	1.77	1.16
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	9438.00	0.00	0.00
Percentage	100.00	0.00	0.00

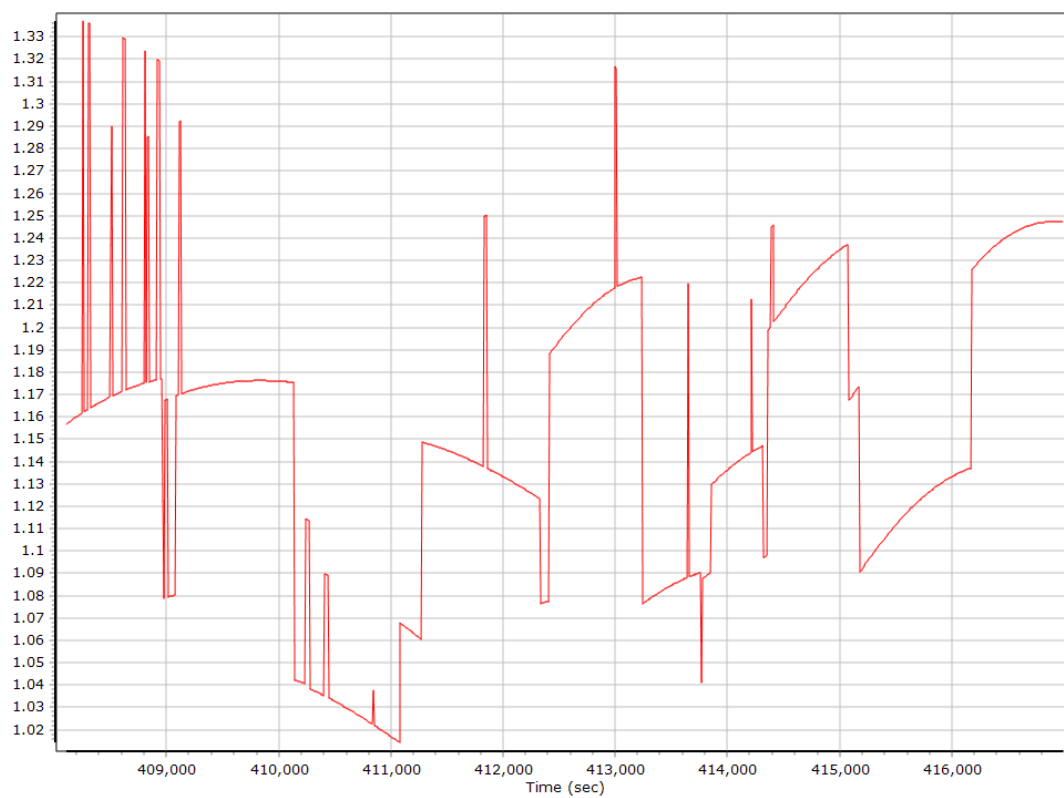
Num SVs in solution



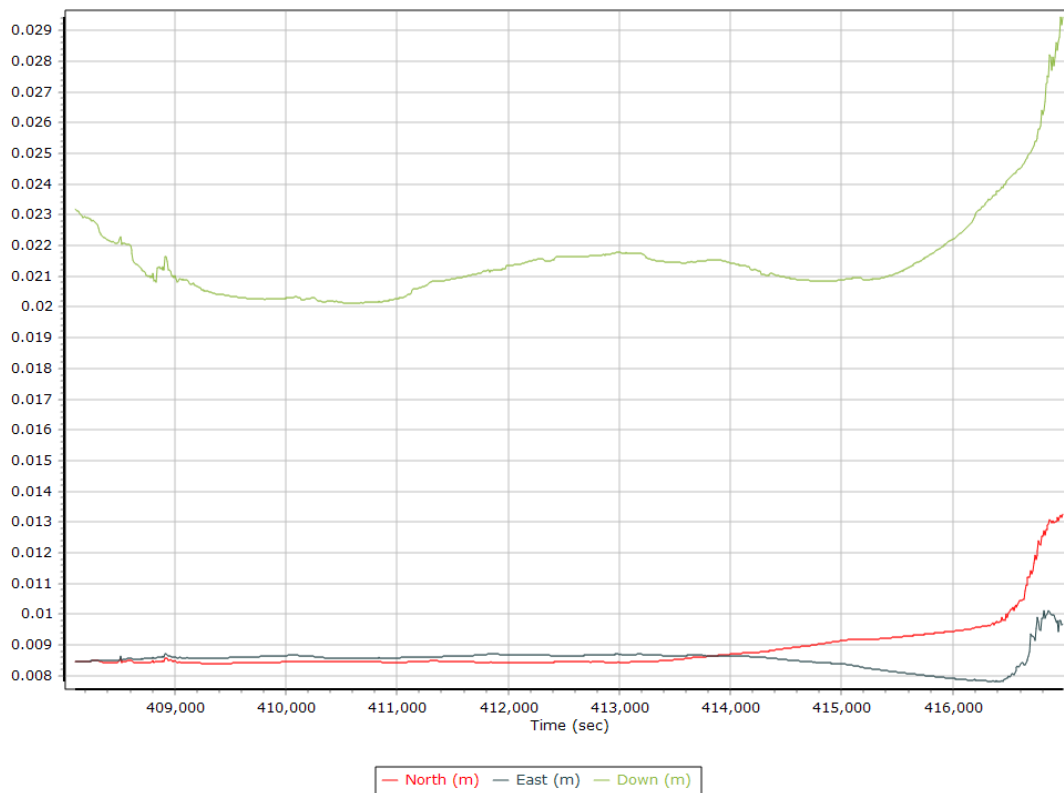
Forward/Reverse Separation



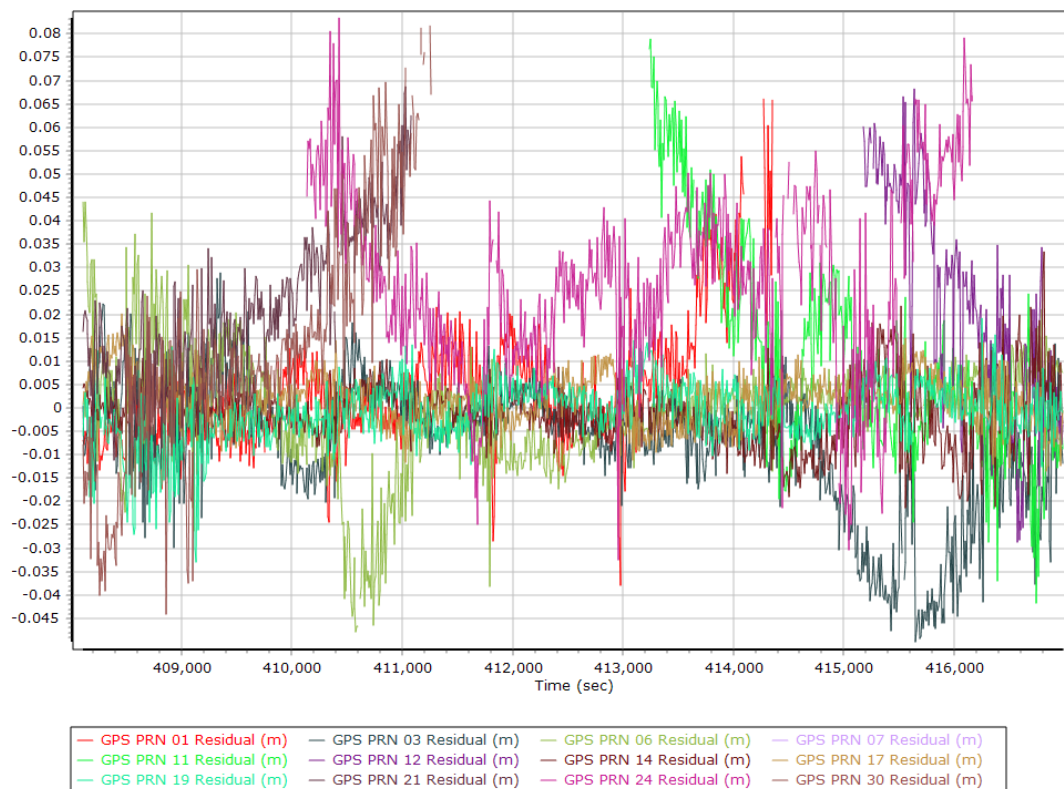
PDOP



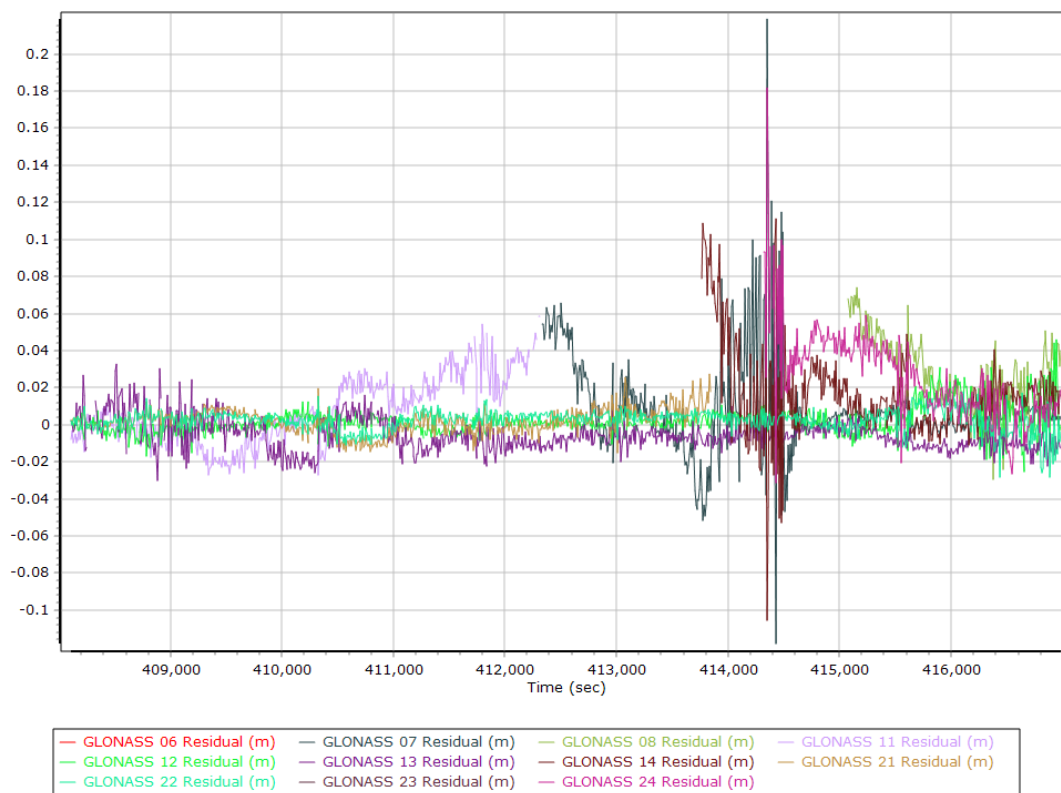
Estimated Position Accuracy



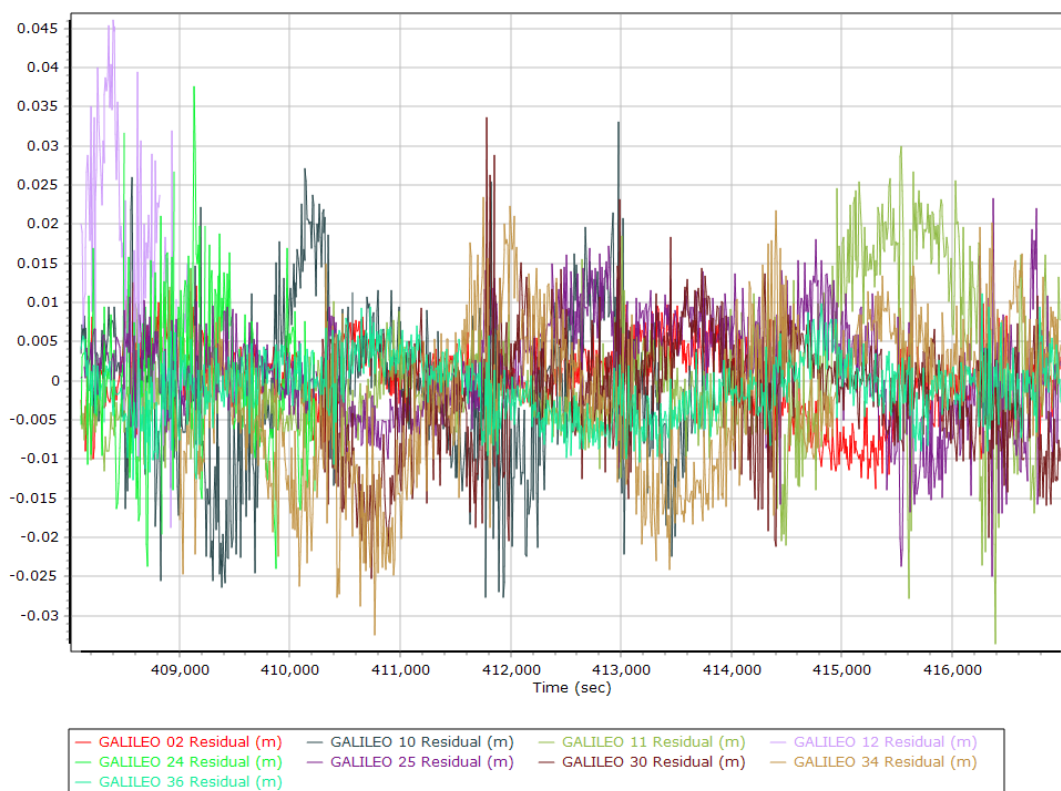
GPS Residuals



GLONASS Residuals



GALILEO Residuals



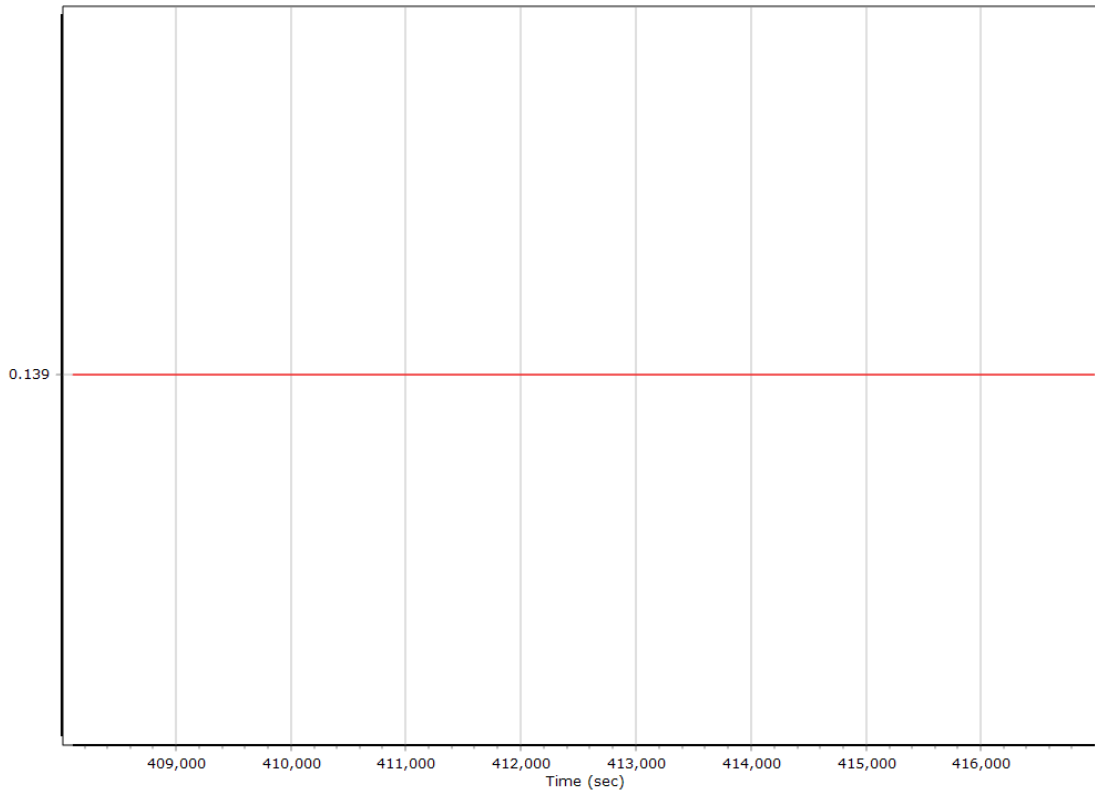
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	407534.000 (04/20/2023 17:12:14)		
Processing end time	416995.000 (04/20/2023 19:49:55)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

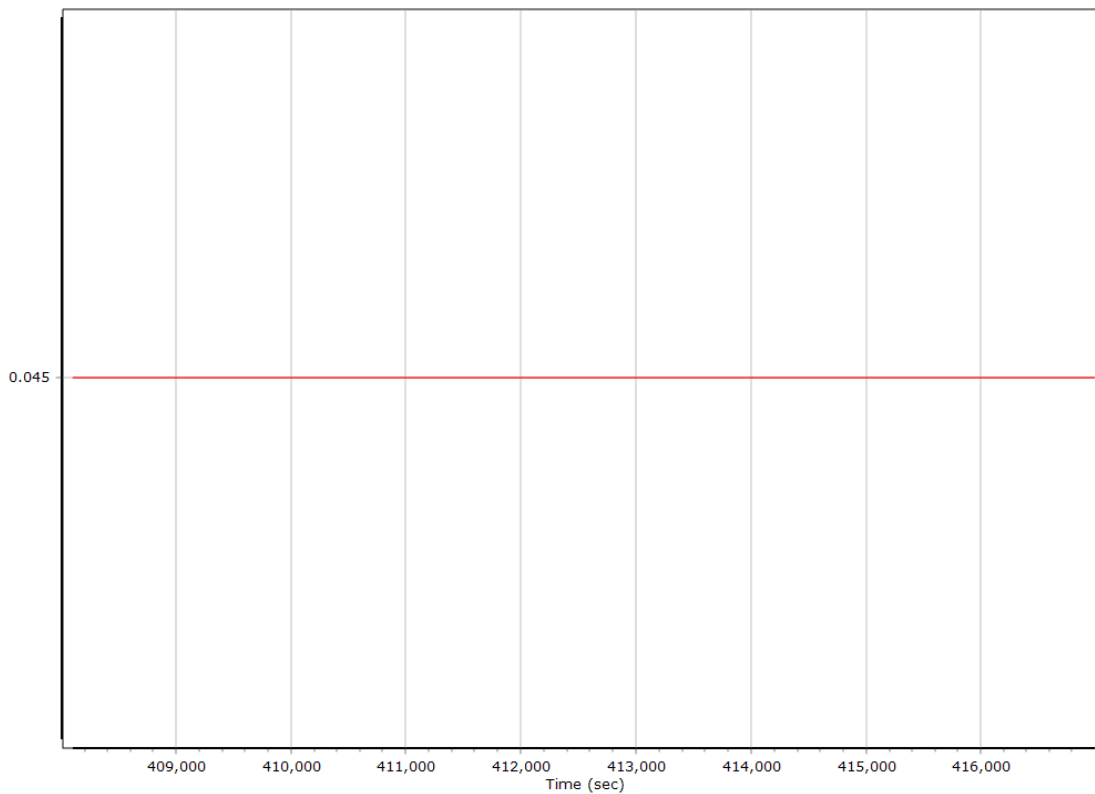
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

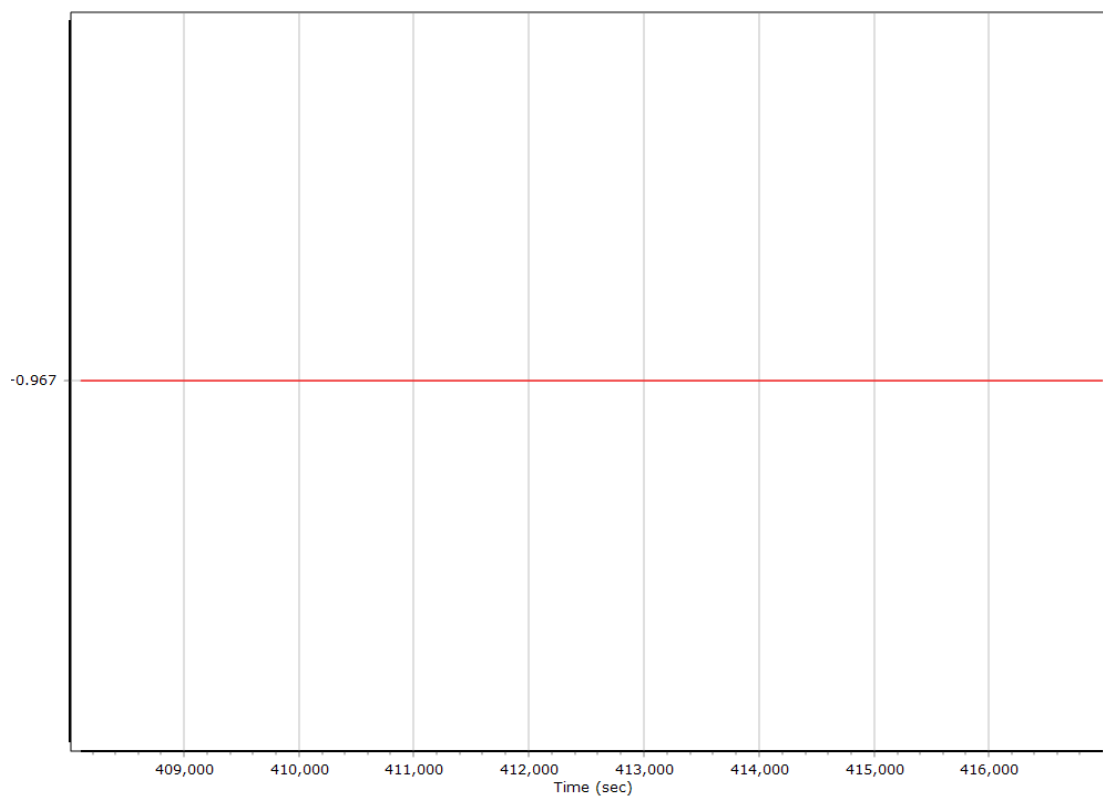
X Reference-Primary GNSS Lever Arm (m)



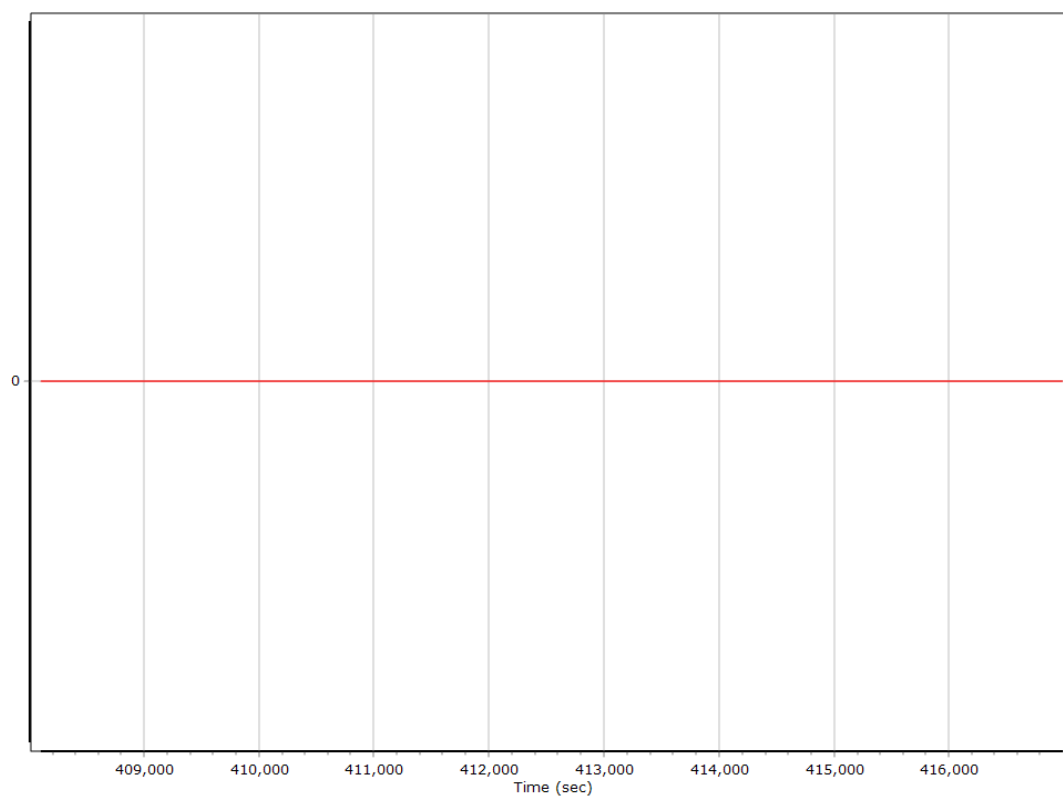
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



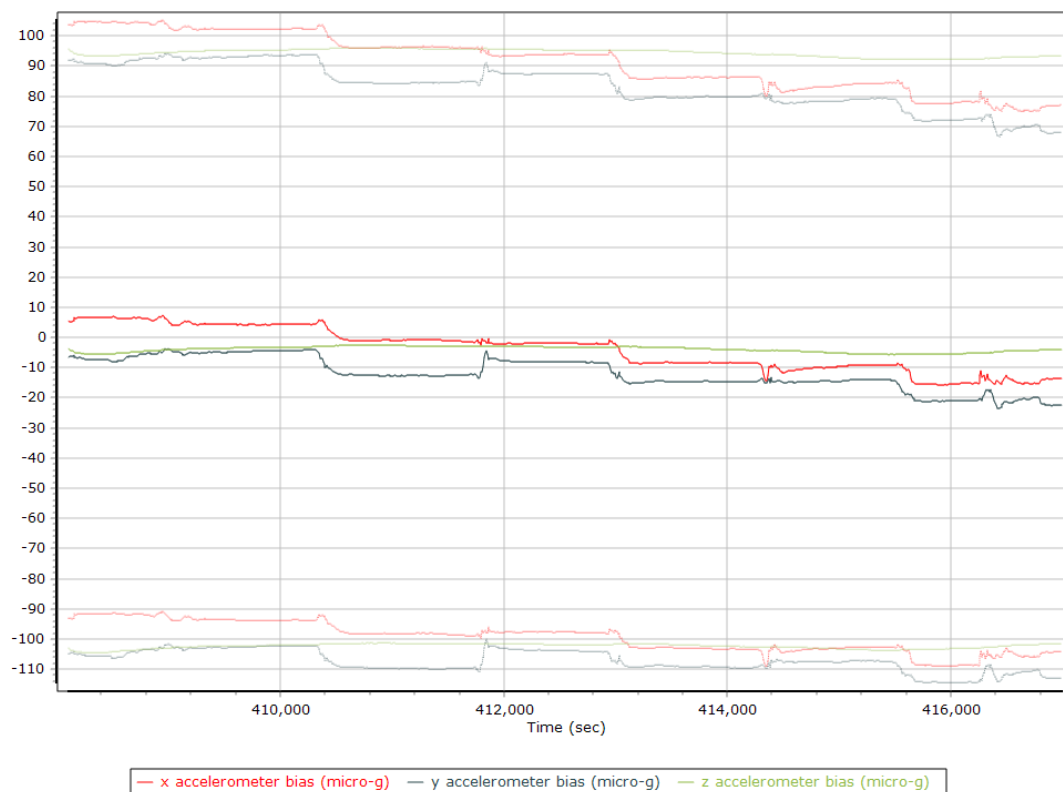
Reference-Primary GNSS Lever Arm Figure of Merit



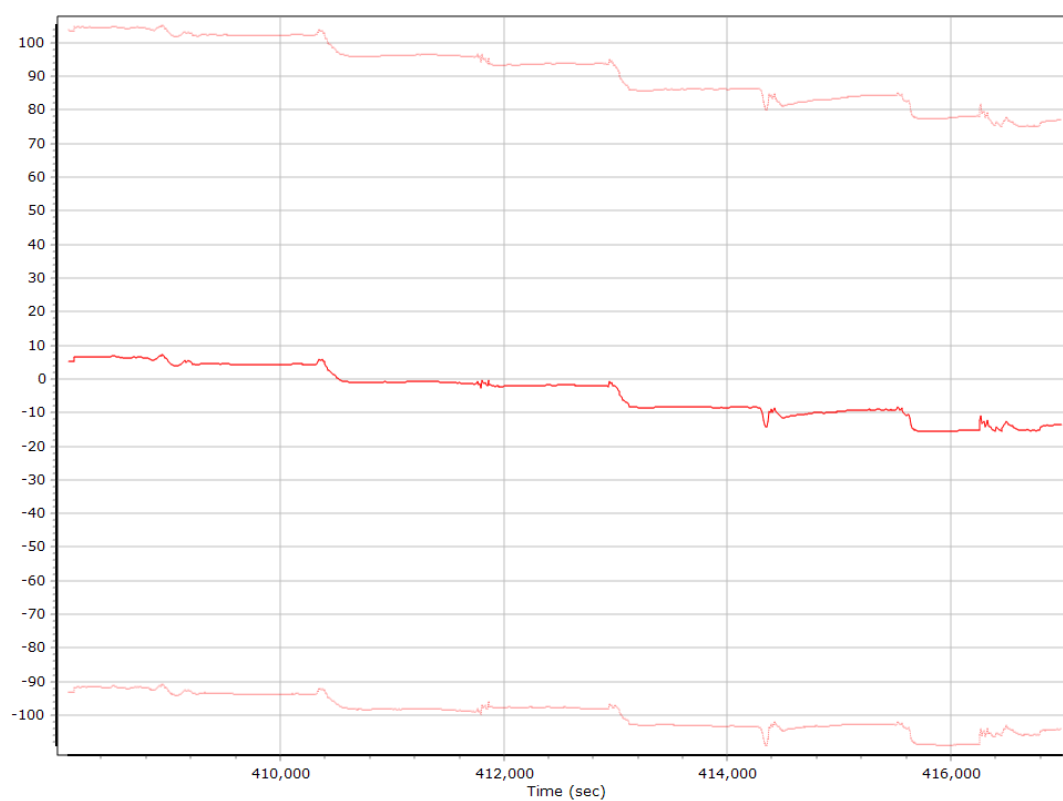
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

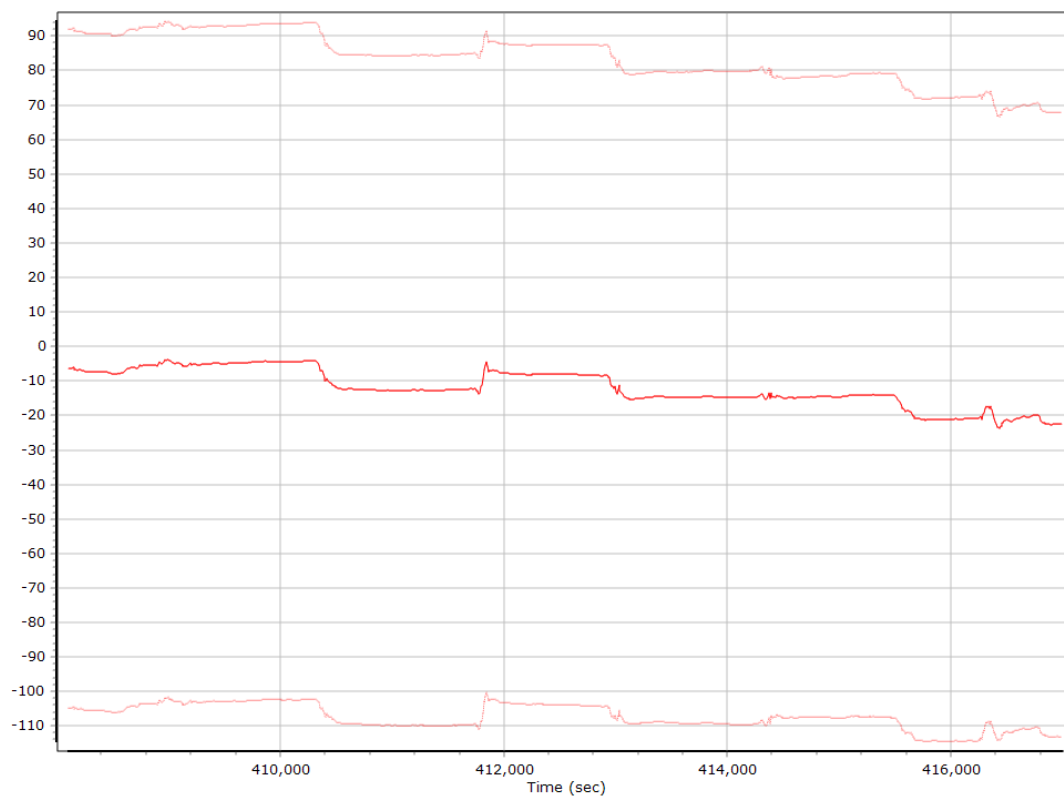
Accelerometer Bias (micro-g)



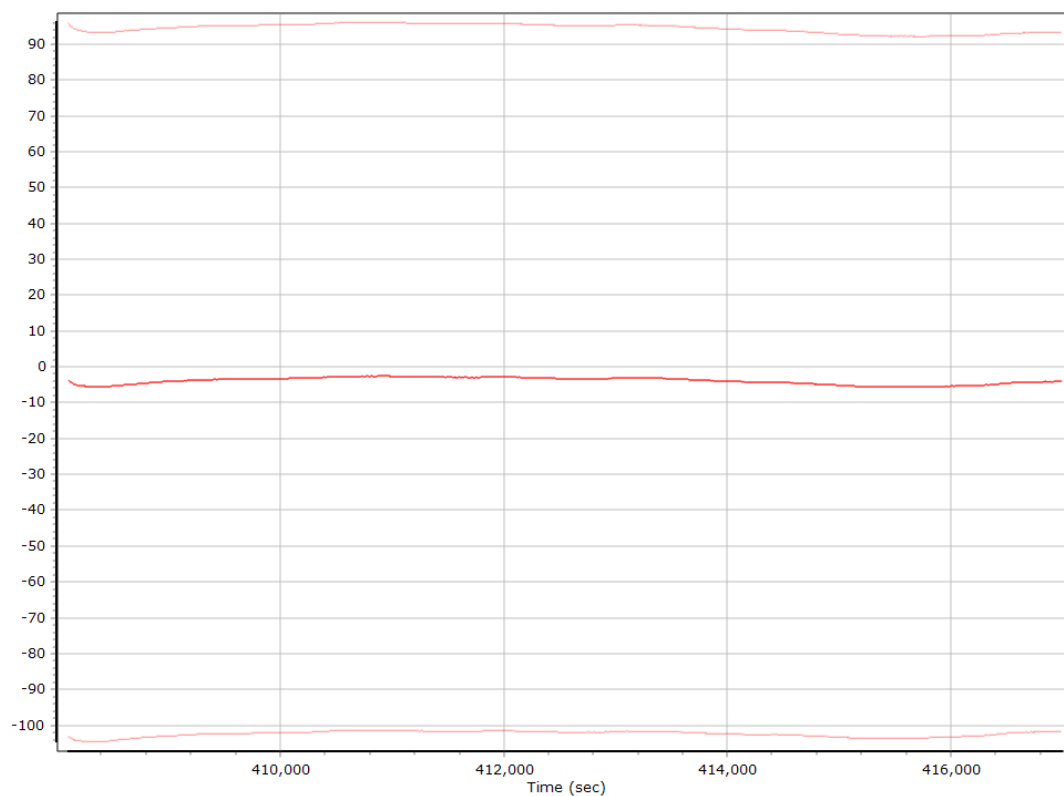
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



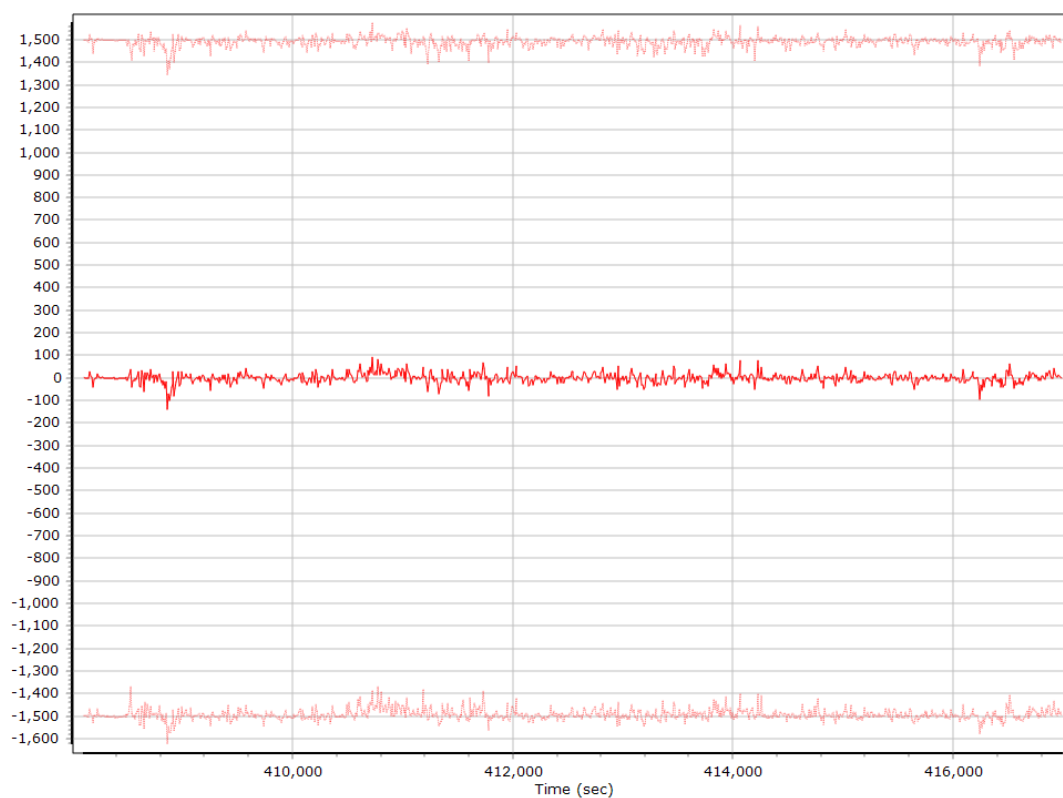
Accelerometer Scale Error (ppm)



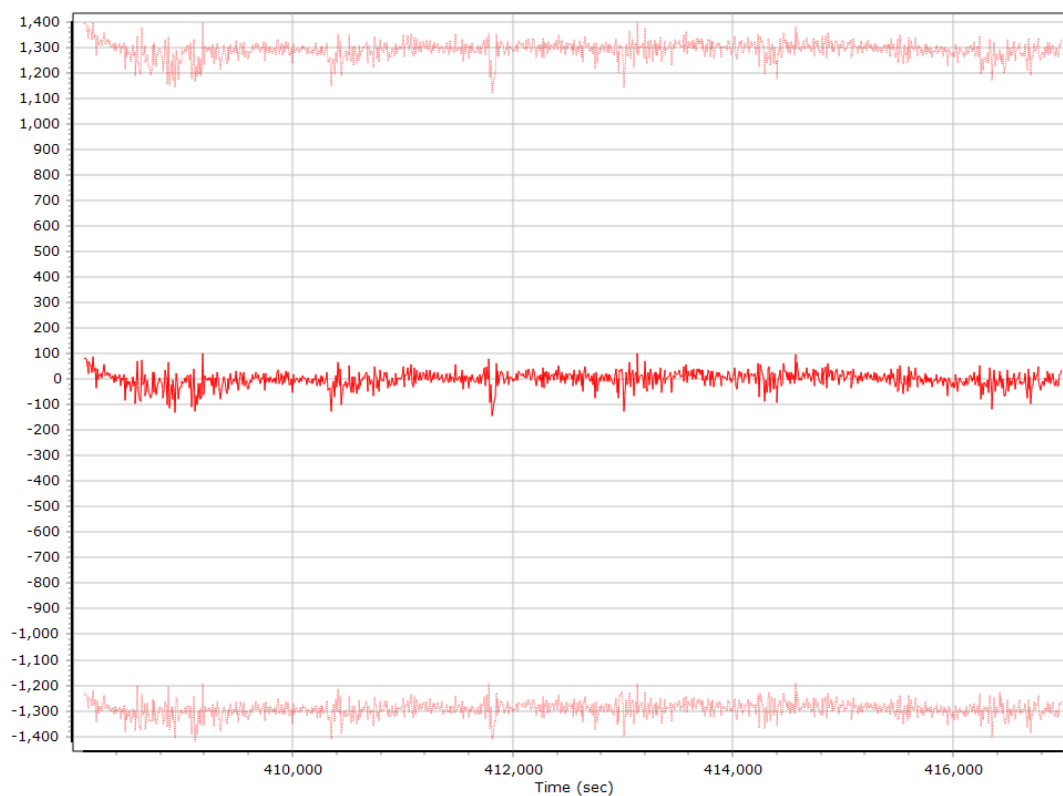
X Accelerometer Scale Error (ppm)



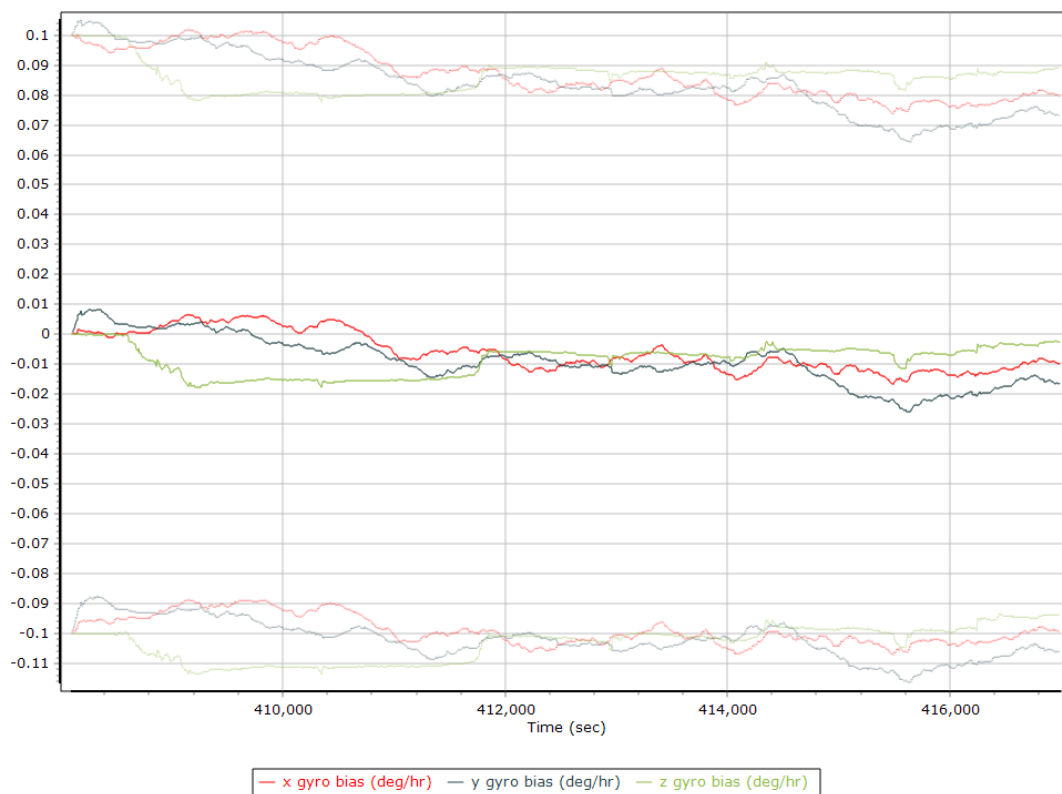
Y Accelerometer Scale Error (ppm)



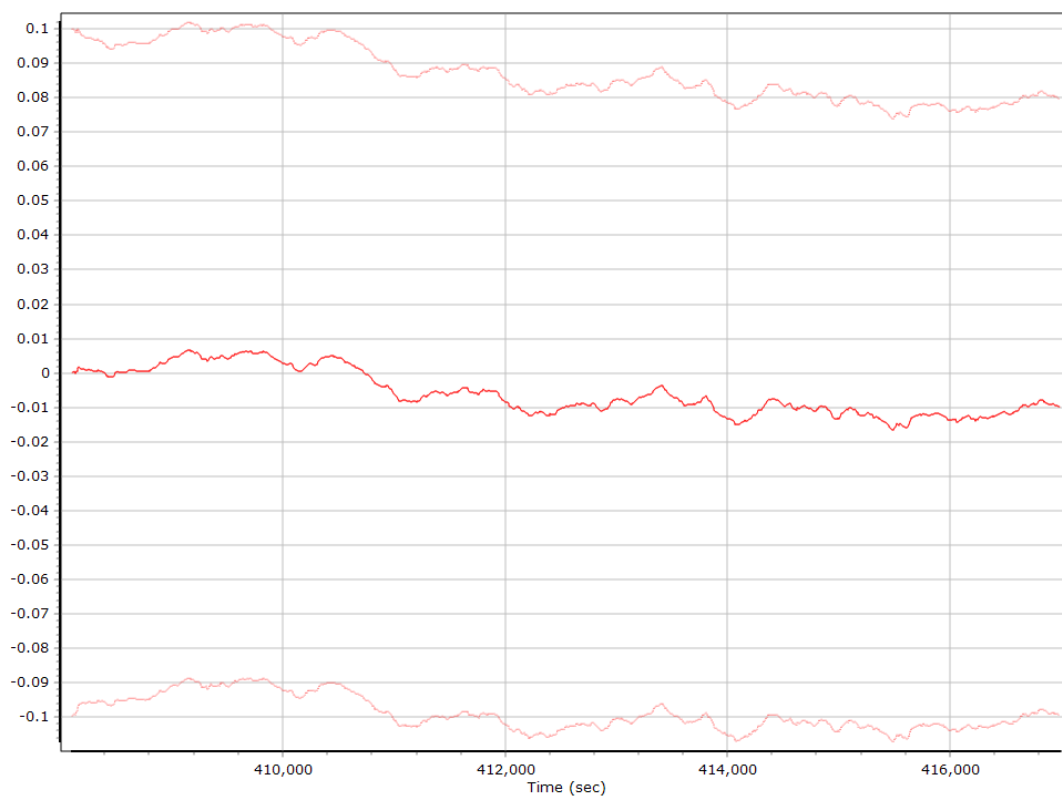
Z Accelerometer Scale Error (ppm)



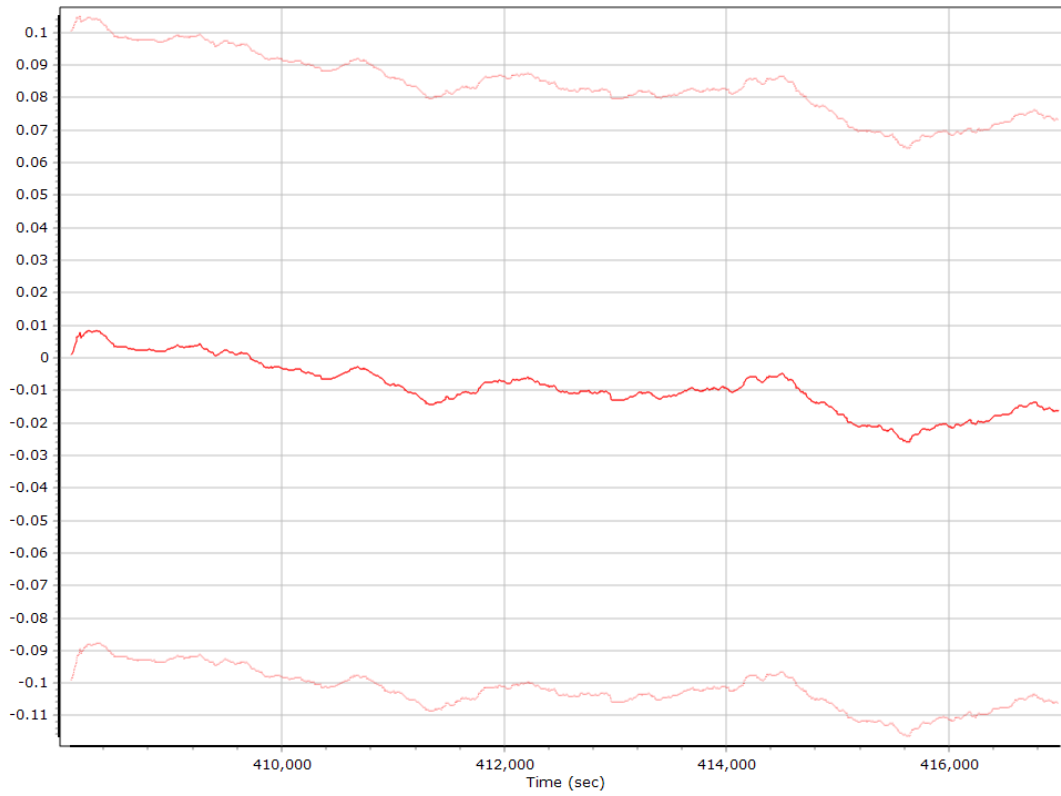
Gyro Bias (deg/h)



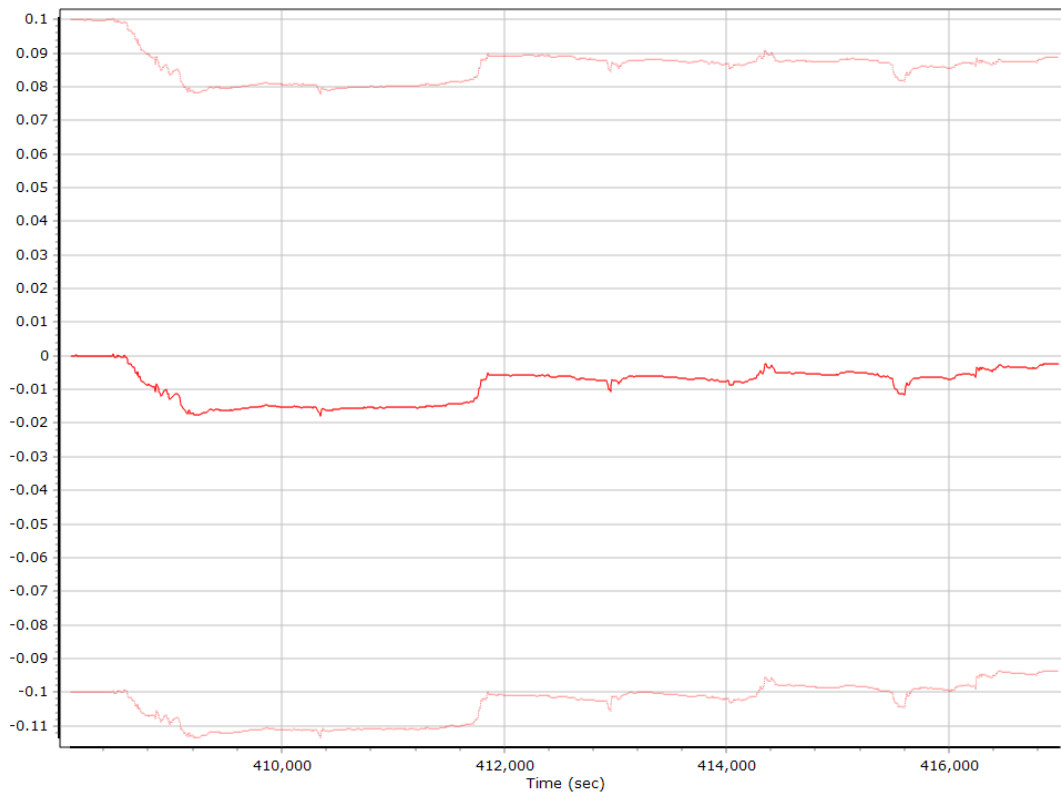
X Gyro Bias (deg/h)



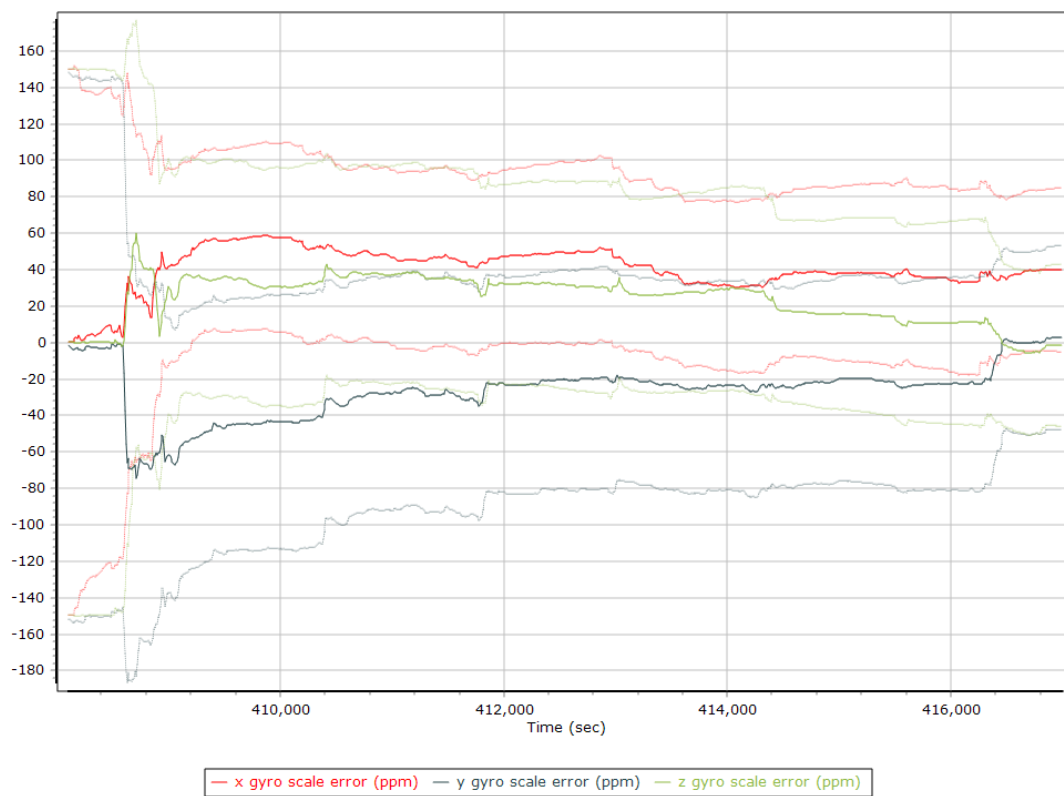
Y Gyro Bias (deg/h)



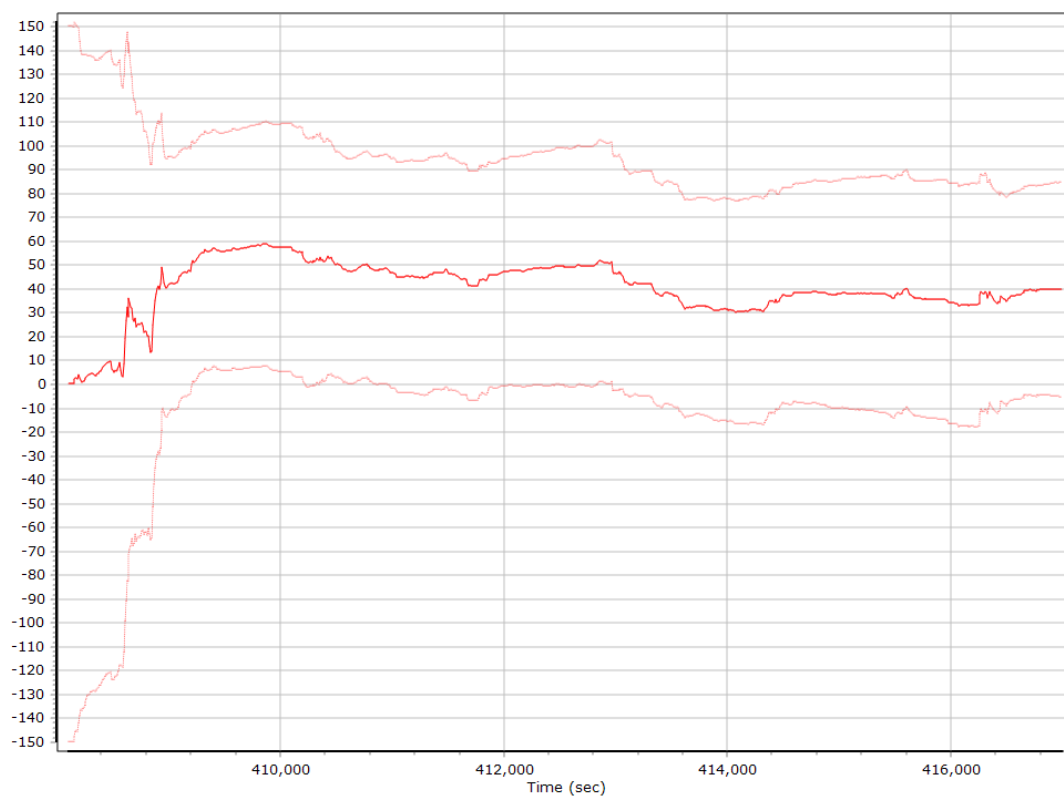
Z Gyro Bias (deg/h)



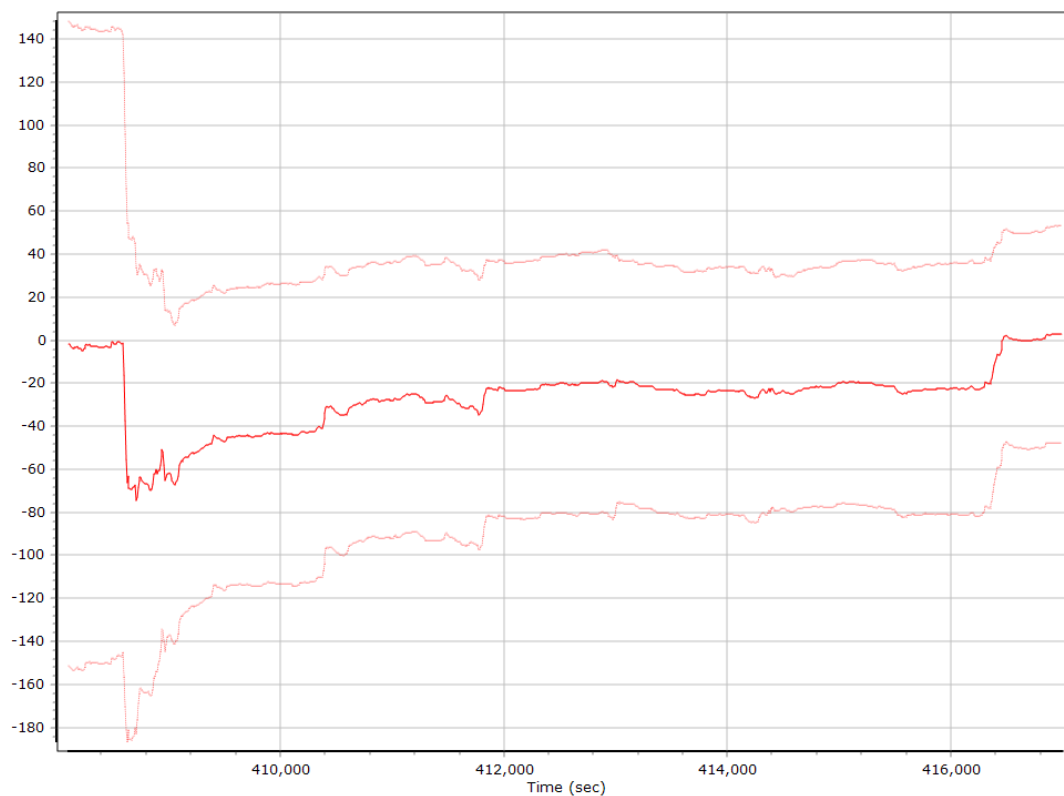
Gyro Scale Error (ppm)



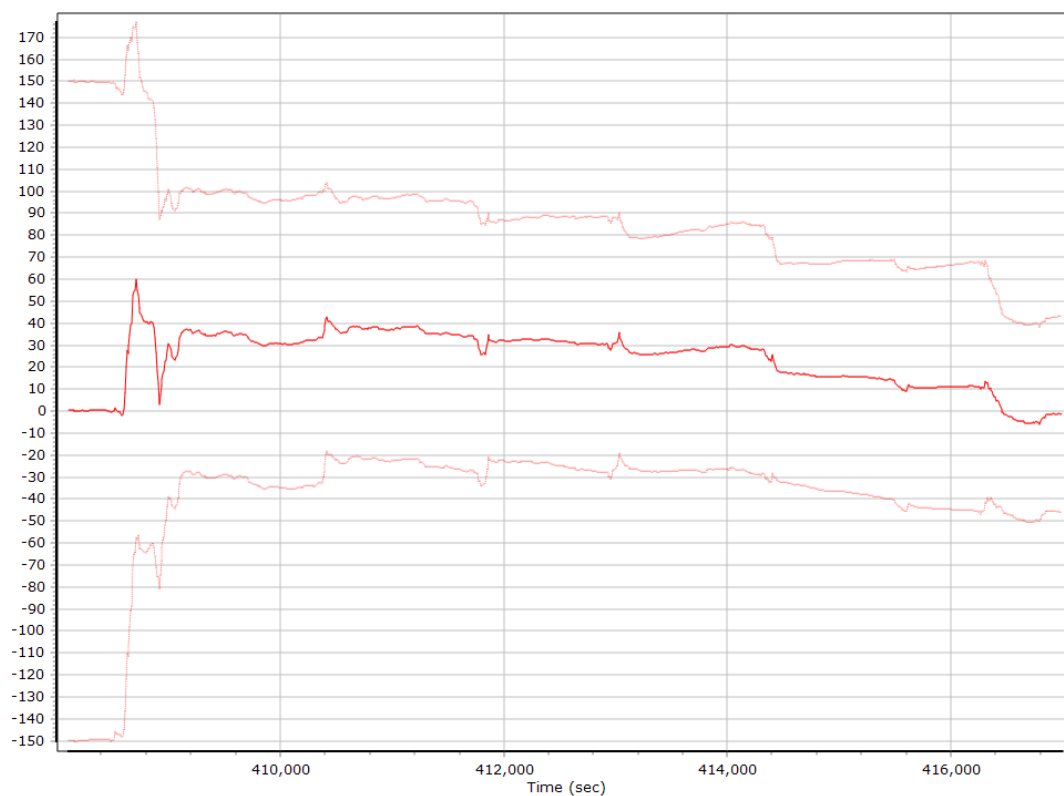
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

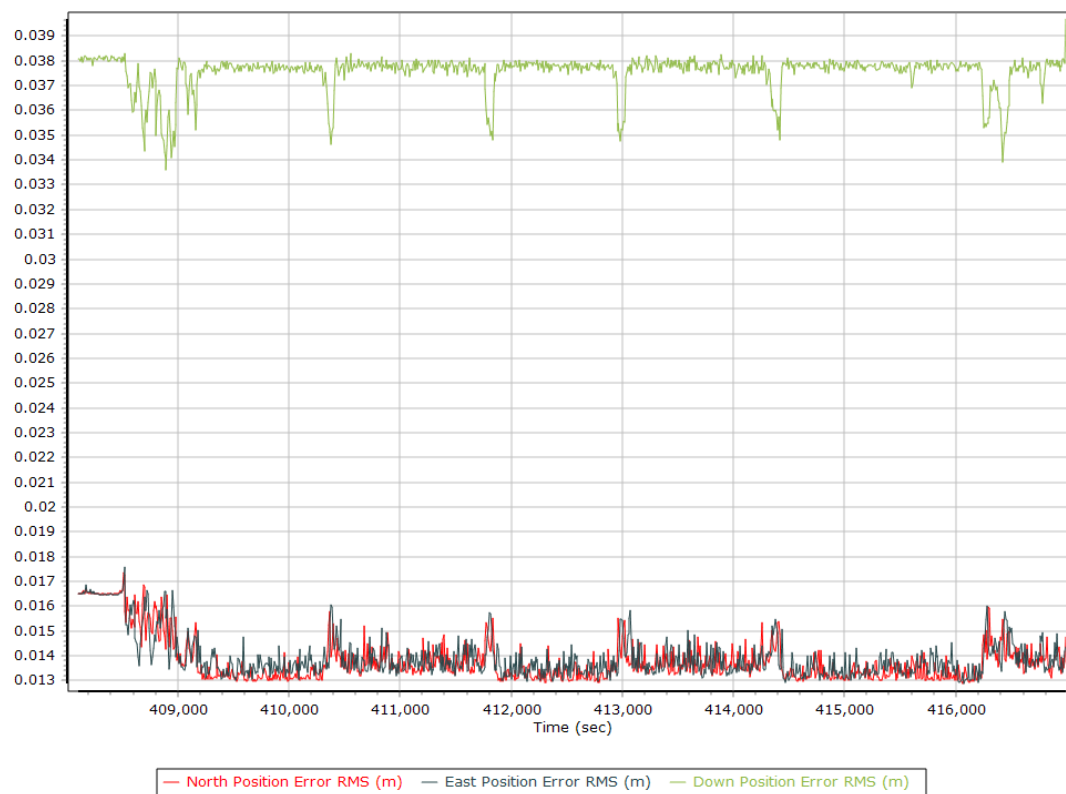


Z Gyro Scale Error (ppm)

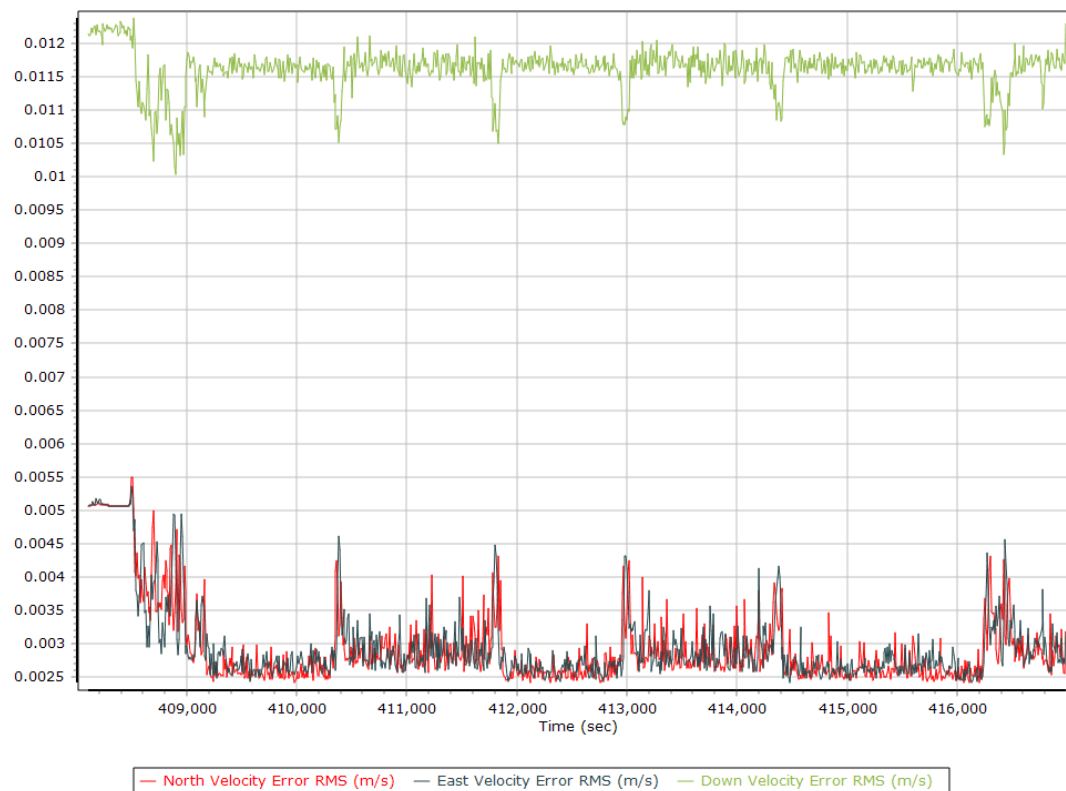


Smoothed Performance Metrics

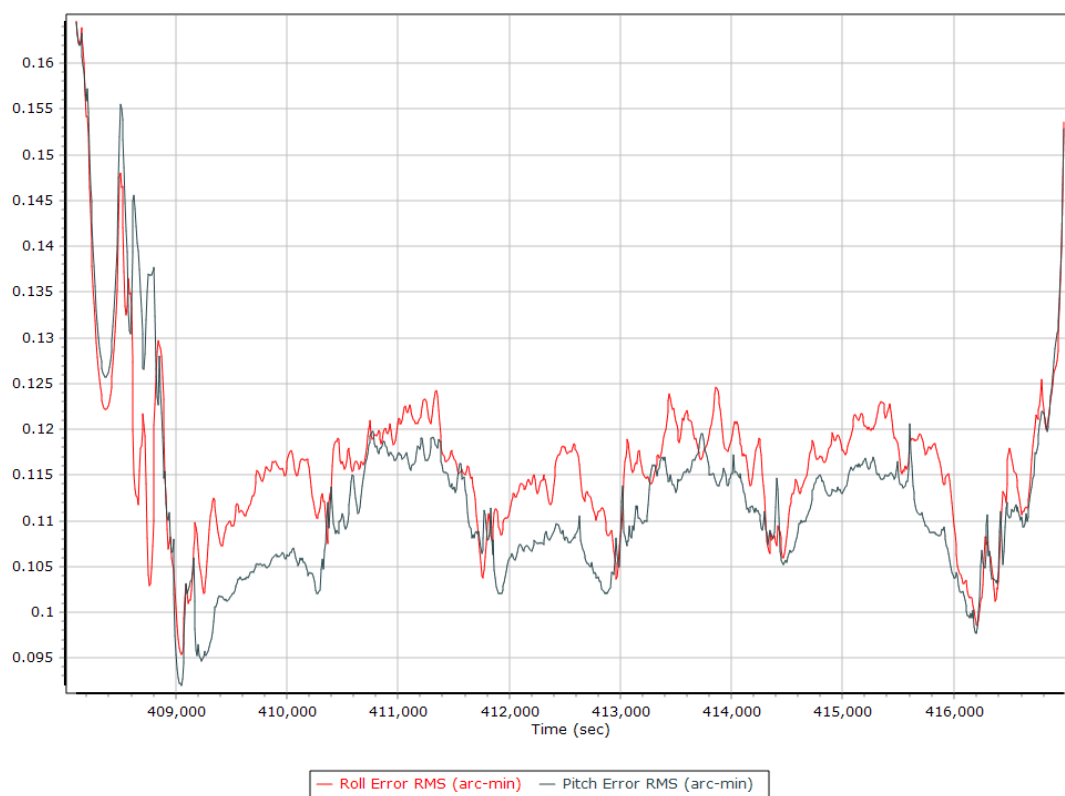
Position Error RMS (m)



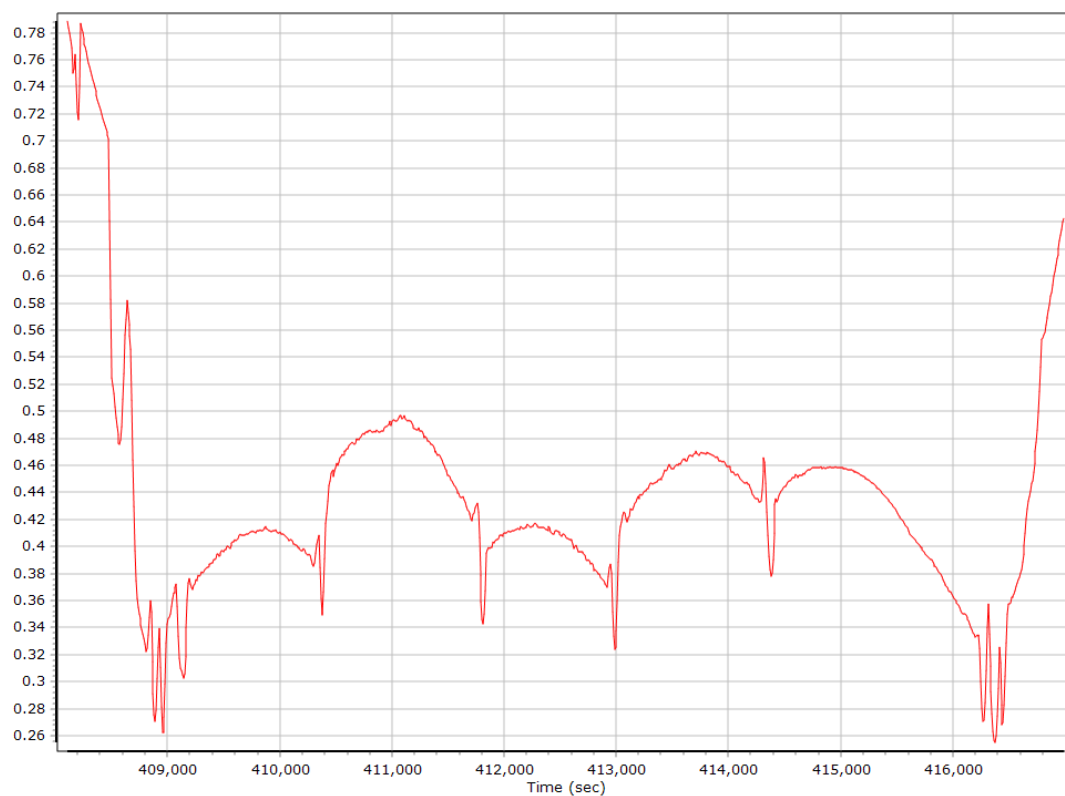
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

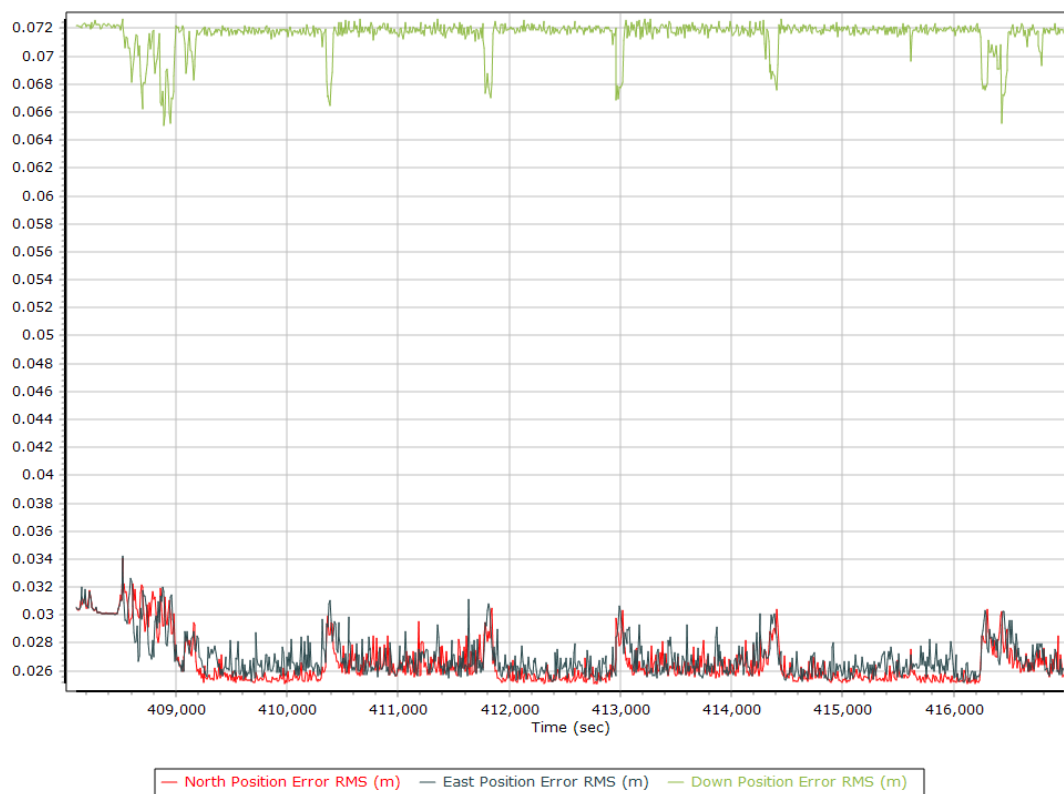


Heading Error RMS (arc-min)

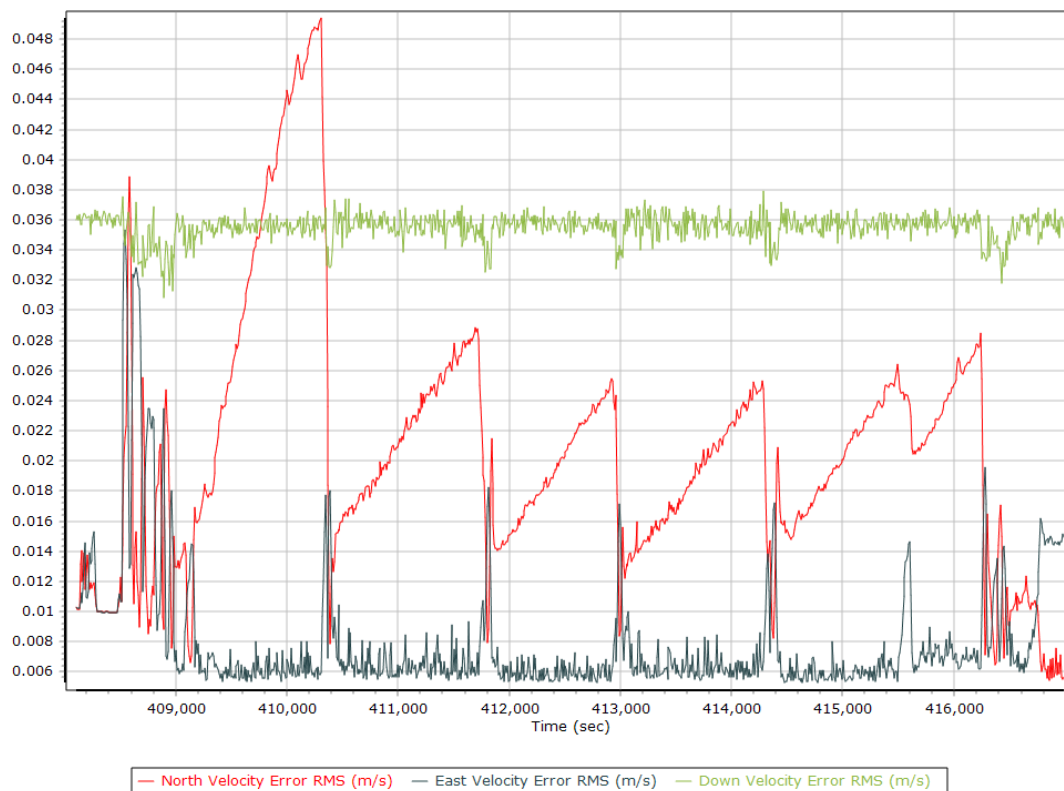


Forward Processed Performance Metrics

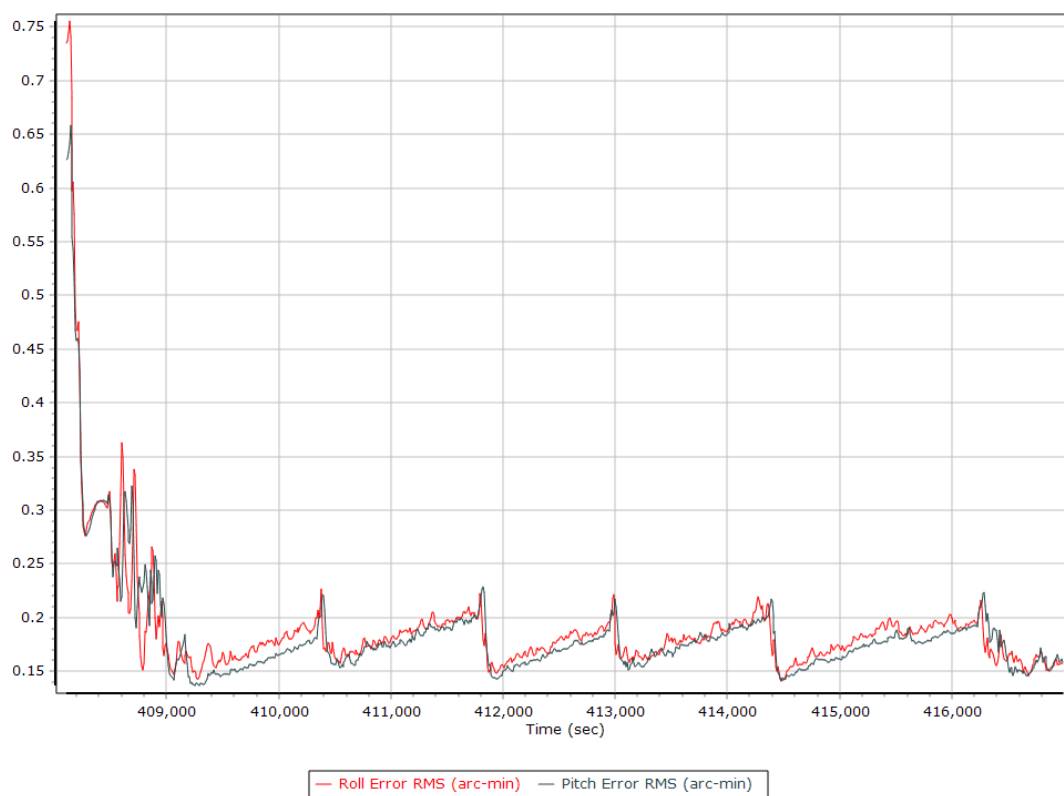
Position Error RMS (m)



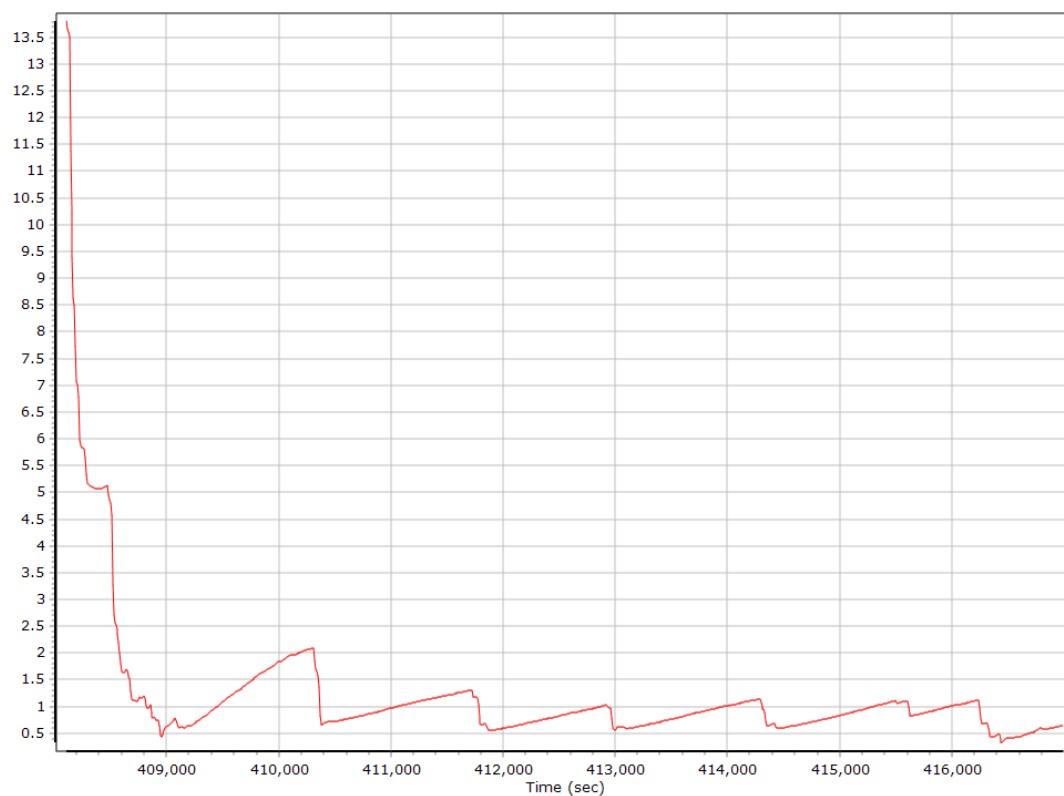
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

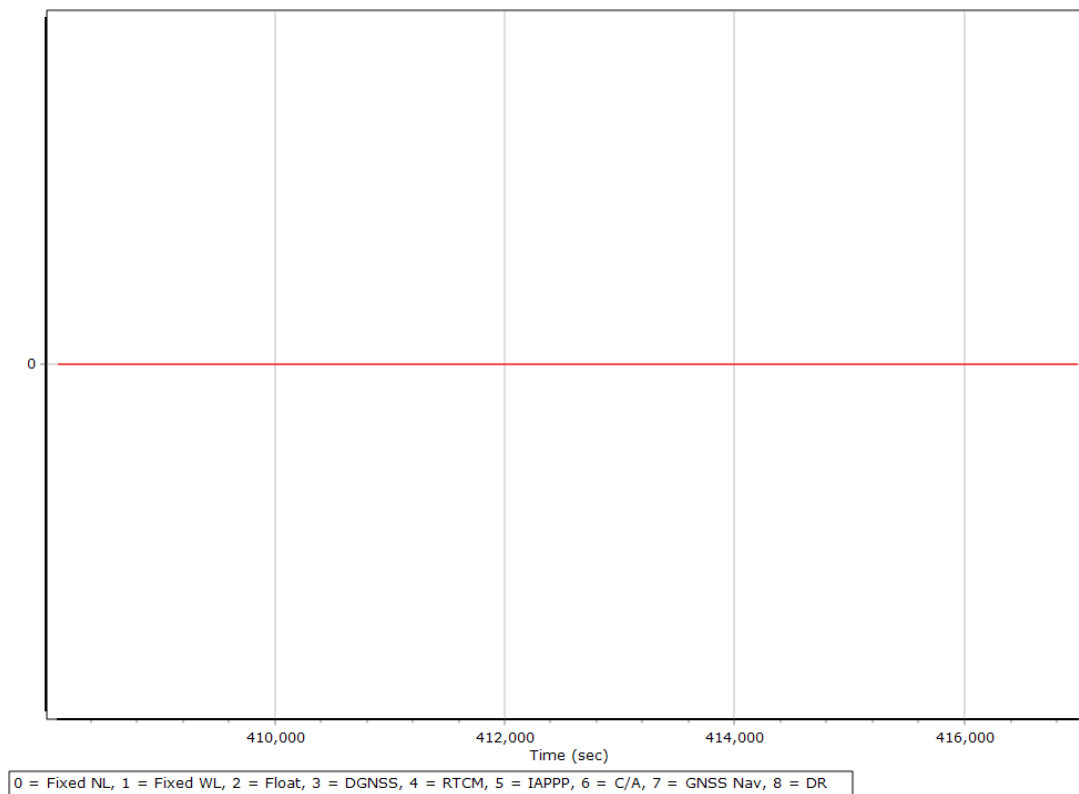


Heading Error RMS (arc-min)

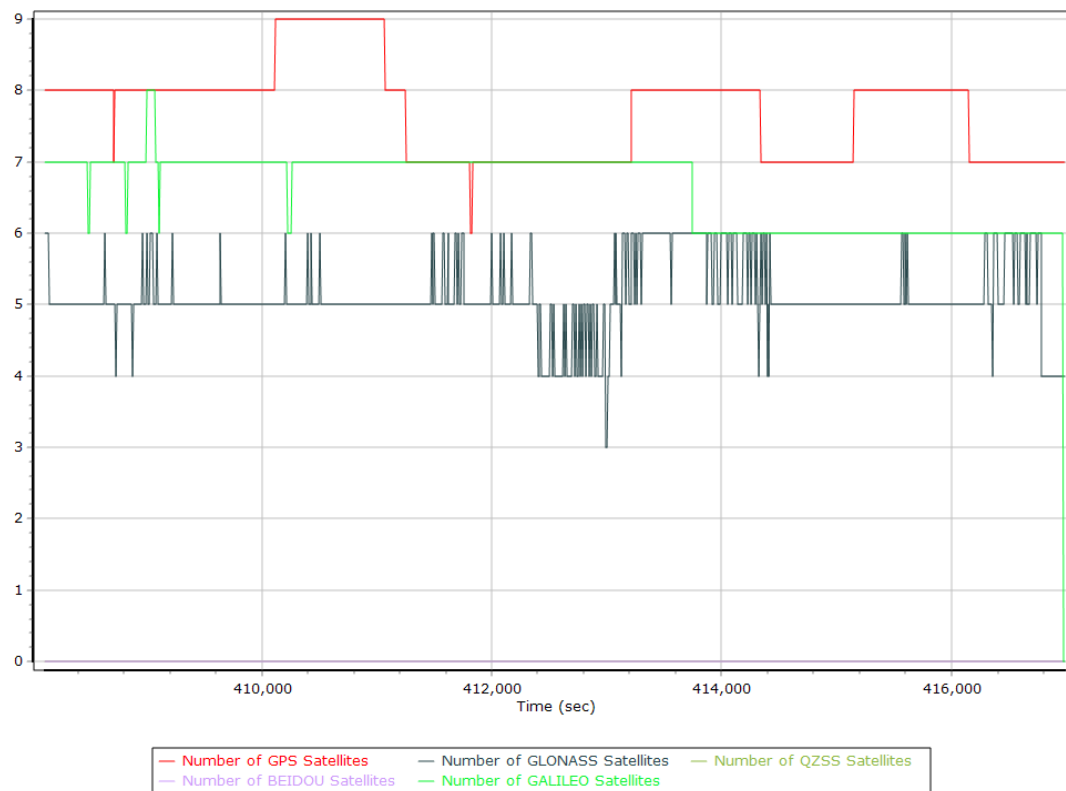


Forward Processed Solution Status

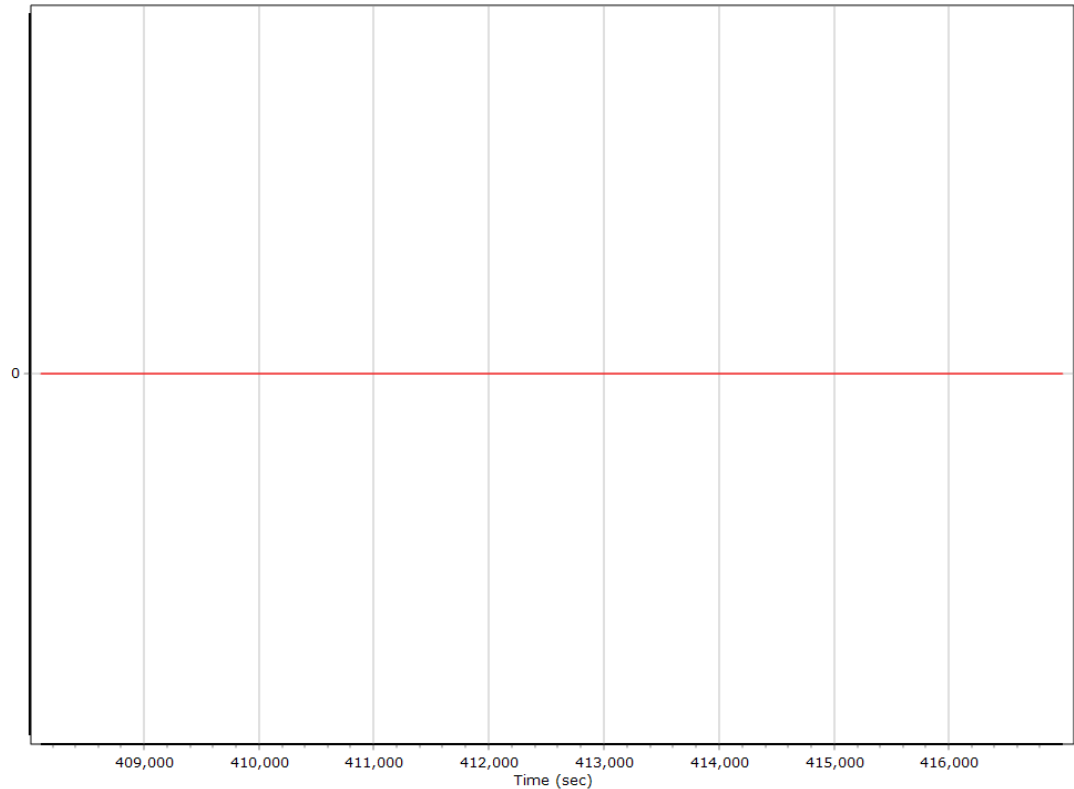
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230420_F2_a_4894_NAD832011.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	408047.003 (04/20/2023 17:20:47)		
Export end time	416995.005 (04/20/2023 19:49:55)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.29863		

General Information

Mission Information

Project name	20230420_F2_b_4894
Processing date	2023-04-25 22:37:59
Mission date	2023-04-20 19:56:37
Mission duration	02:29:14.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.608	POS Data
VQ1560.609	POS Data
VQ1560.610	POS Data
VQ1560.611	POS Data
VQ1560.612	POS Data
VQ1560.613	POS Data
VQ1560.614	POS Data
VQ1560.615	POS Data
VQ1560.616	POS Data
VQ1560.617	POS Data
VQ1560.618	POS Data
VQ1560.619	POS Data
VQ1560.620	POS Data
VQ1560.621	POS Data
VQ1560.622	POS Data
VQ1560.623	POS Data
VQ1560.624	POS Data
VQ1560.625	POS Data
VQ1560.626	POS Data
VQ1560.627	POS Data
VQ1560.628	POS Data
VQ1560.629	POS Data

Input Files

File Name	File Type
Ephm1100.23g	GLONASS Broadcast Ephemeris
Ephm1100.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbt_20230420_F2_b_4894.out	SBET Trajectory File
export_20230420_F2_b_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.608		
Last raw data file	VQ1560.629		
Start GPS week	2258		
Start time	417390.601 (04/20/2023 19:56:30)		
End time	426333.797 (04/20/2023 22:25:33)		
Start of fine alignment	417468.469 (04/20/2023 19:57:48)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

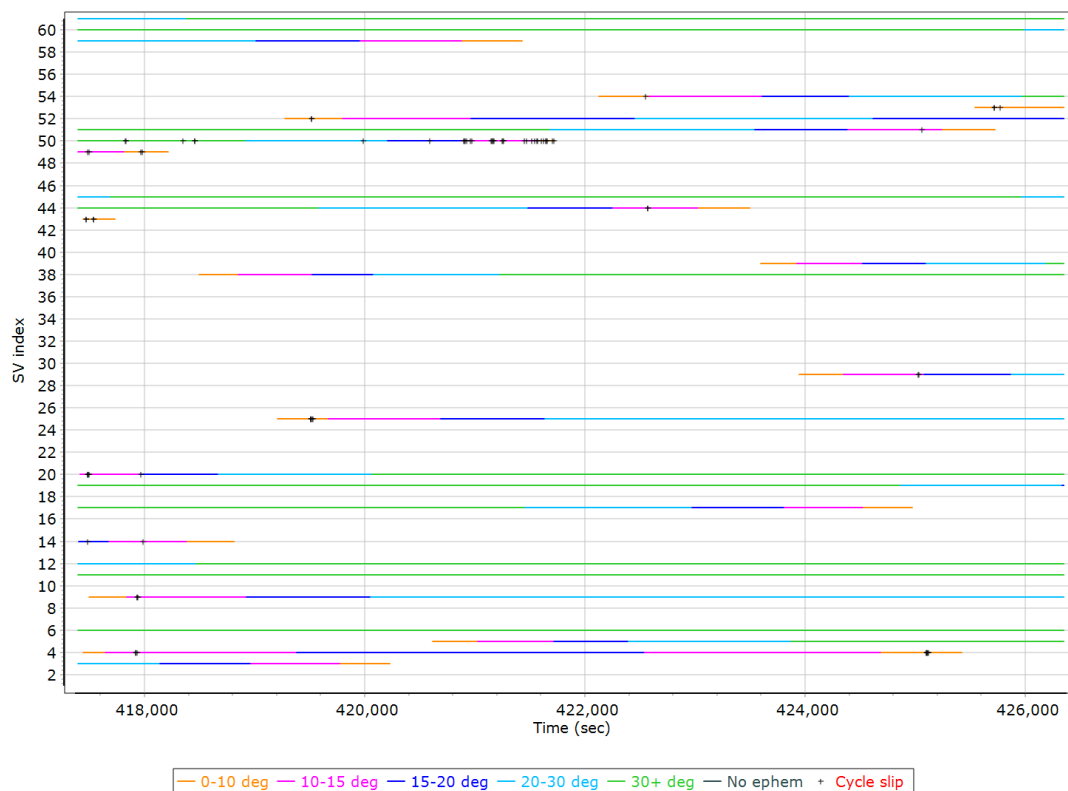
Rover Data QC

Raw IMU Import QC Summary

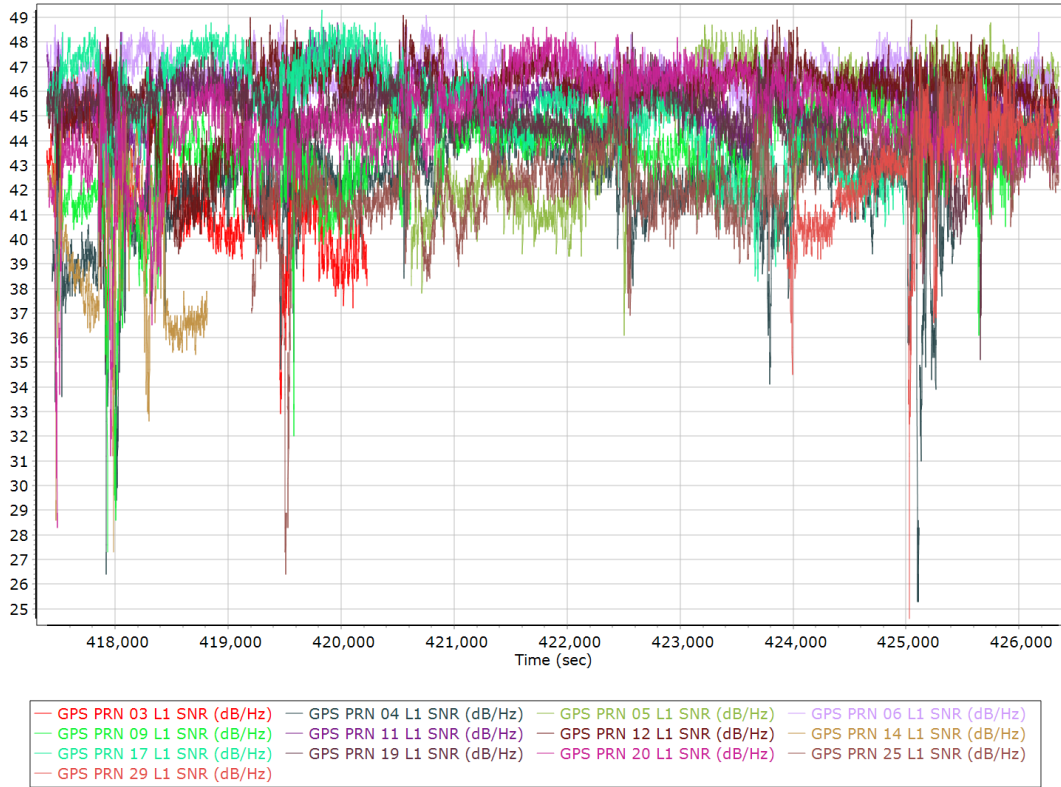
IMU data input file	imu_20230420_F2_b_4894.dat
IMU data check log file	imudt_20230420_F2_b_4894.log
IMU Records Processed	1790609
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
417390.406 : WARNING : Gap of 417378.4489 seconds in CHECKDT input data	

Primary Observables & Satellite Data

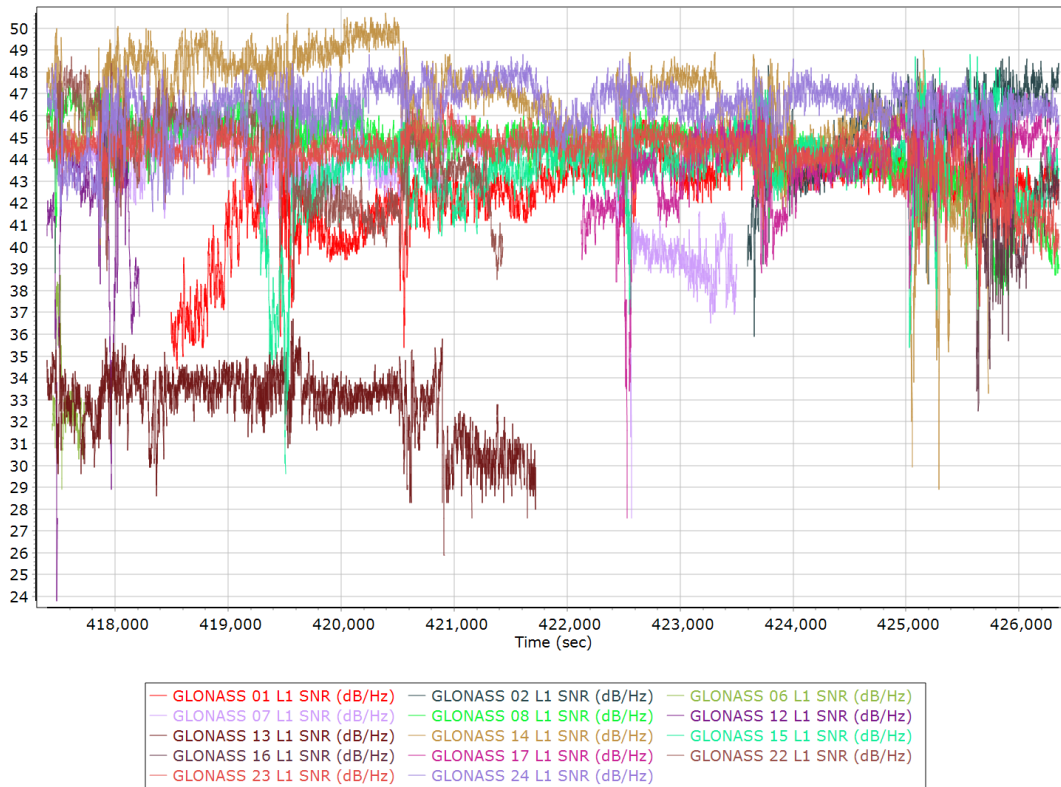
GPS/GLONASS L1 Satellite Lock/Elevation



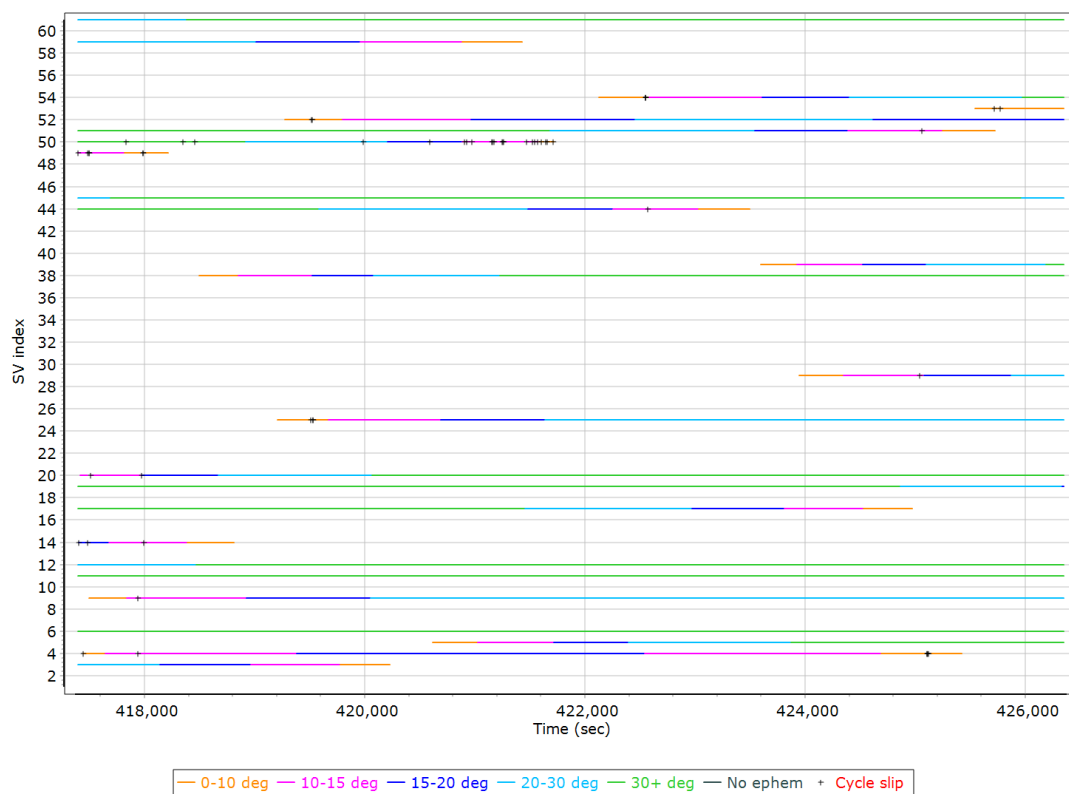
GPS L1 SNR



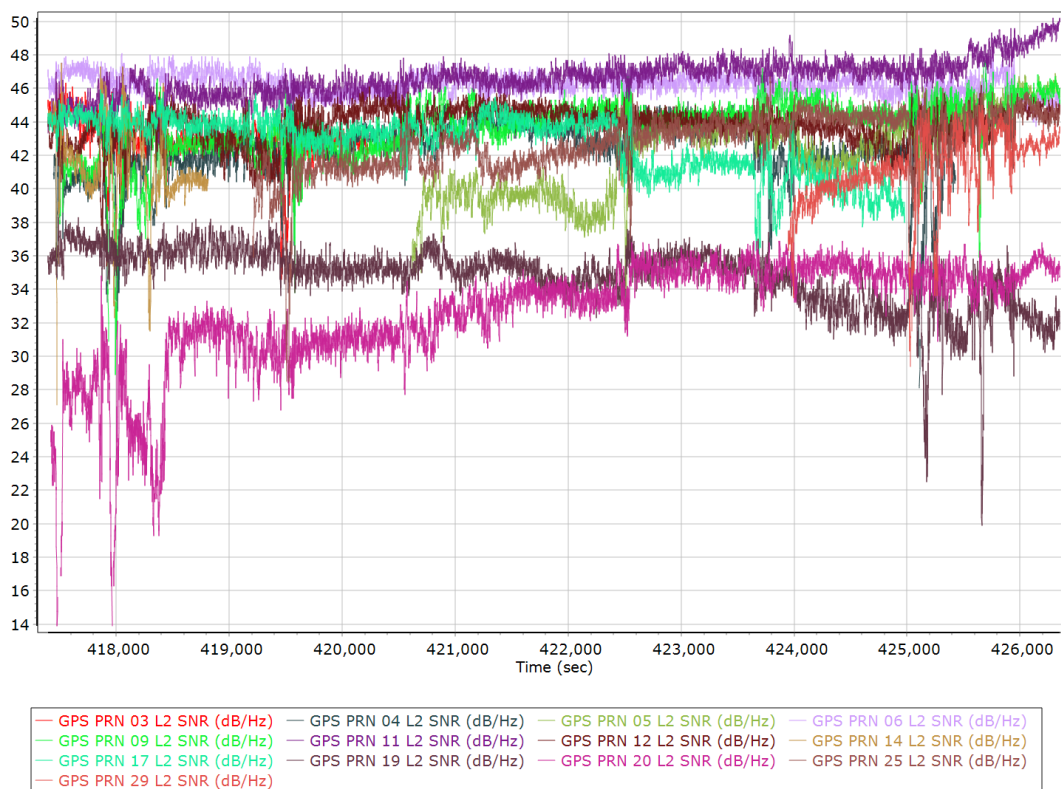
GLONASS L1 SNR



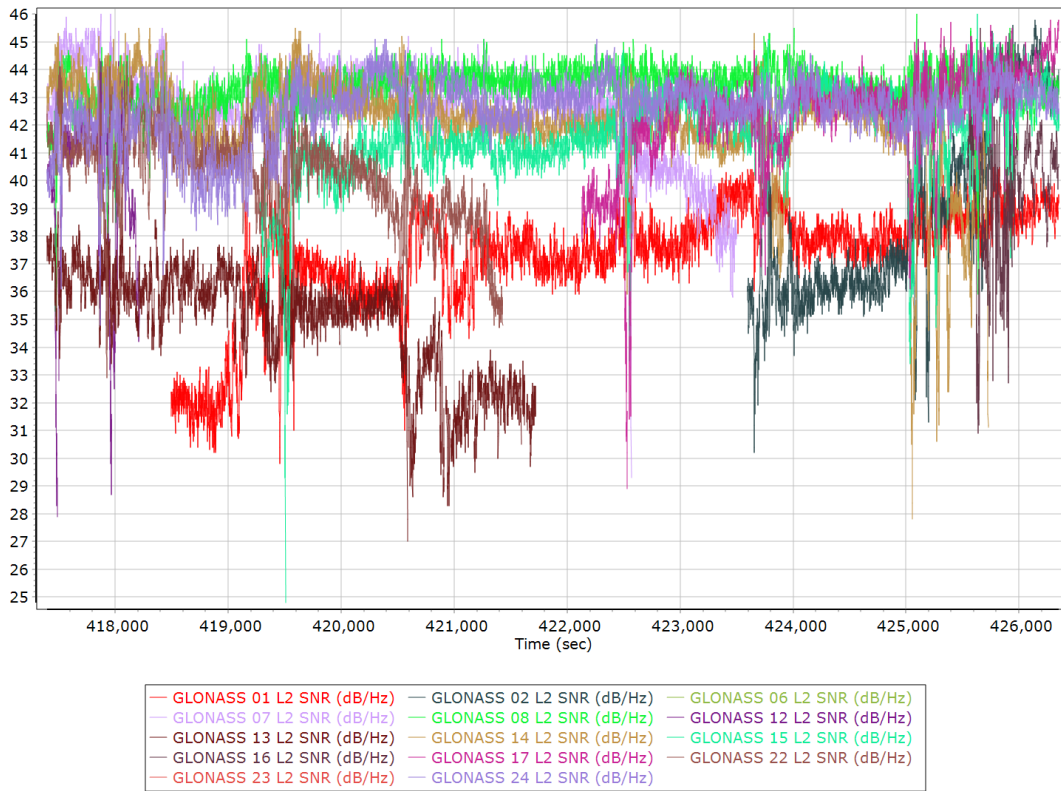
GPS/GLONASS L2 Satellite Lock/Elevation



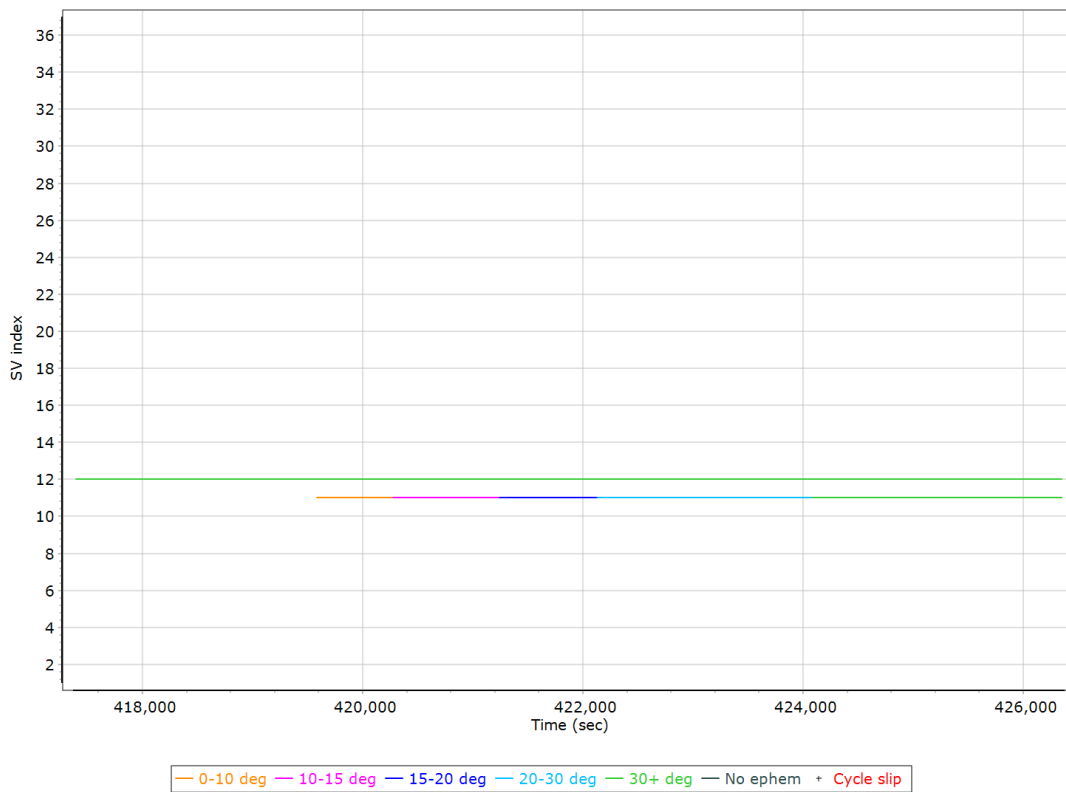
GPS L2 SNR



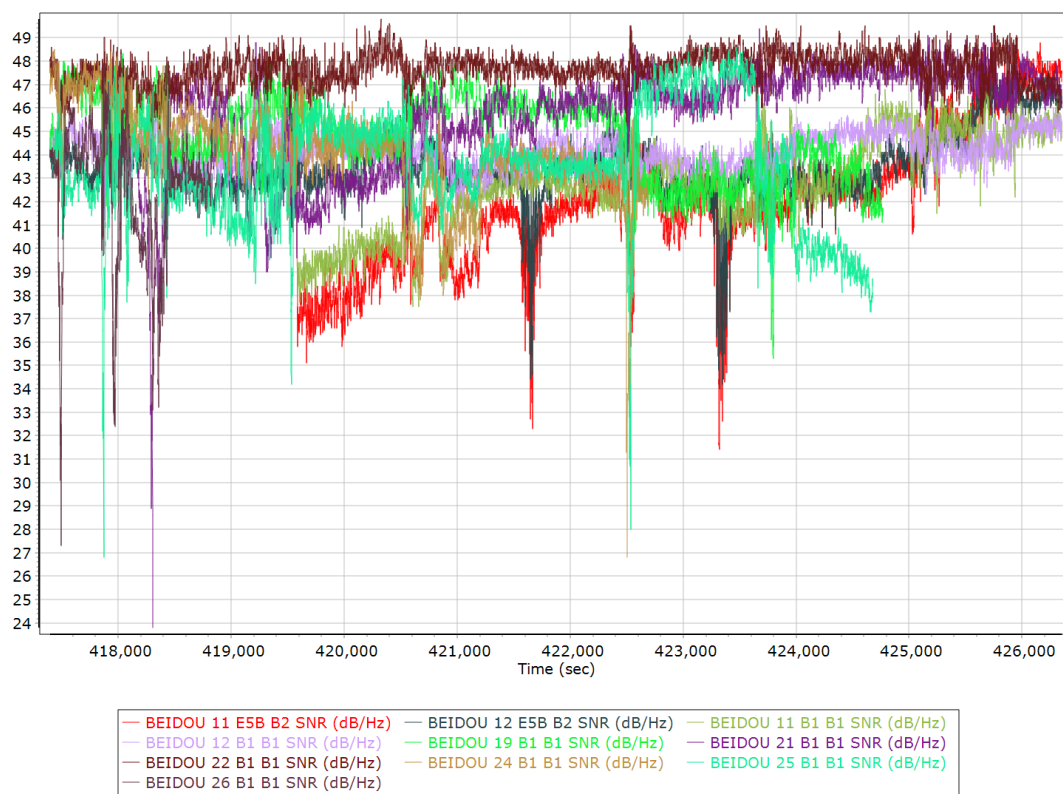
GLONASS L2 SNR



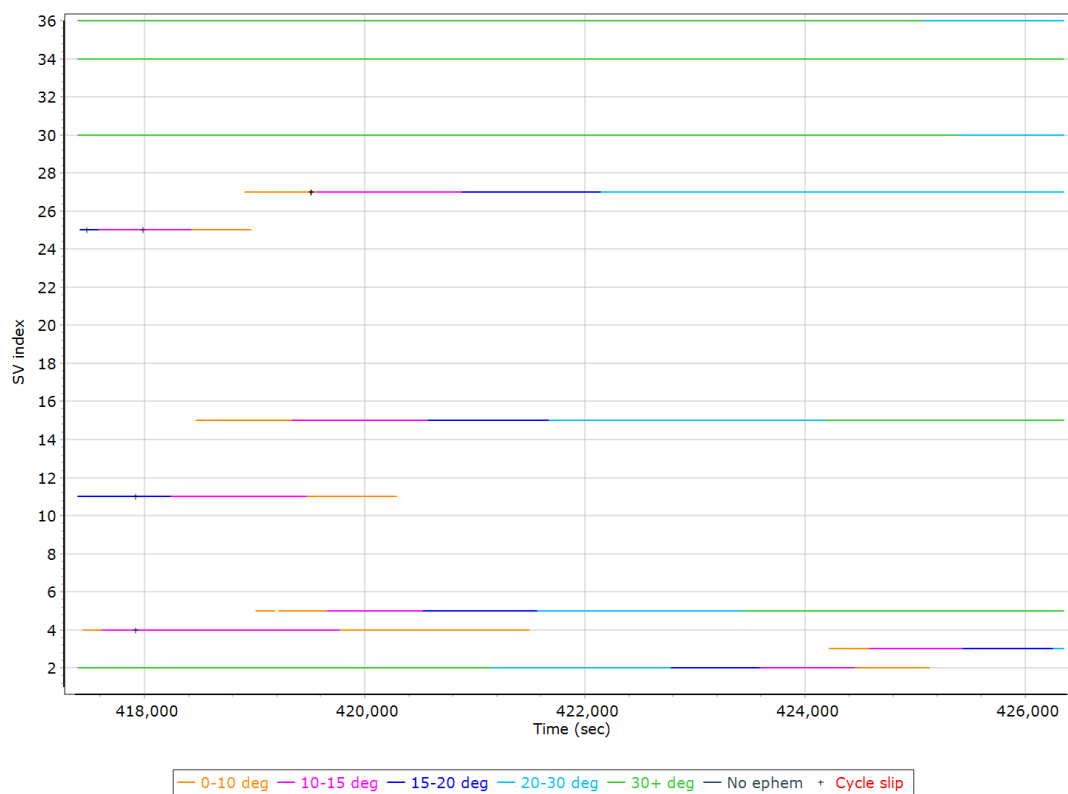
BEIDOU Satellite Lock/Elevation



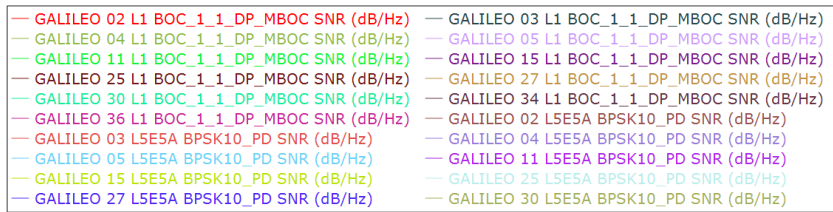
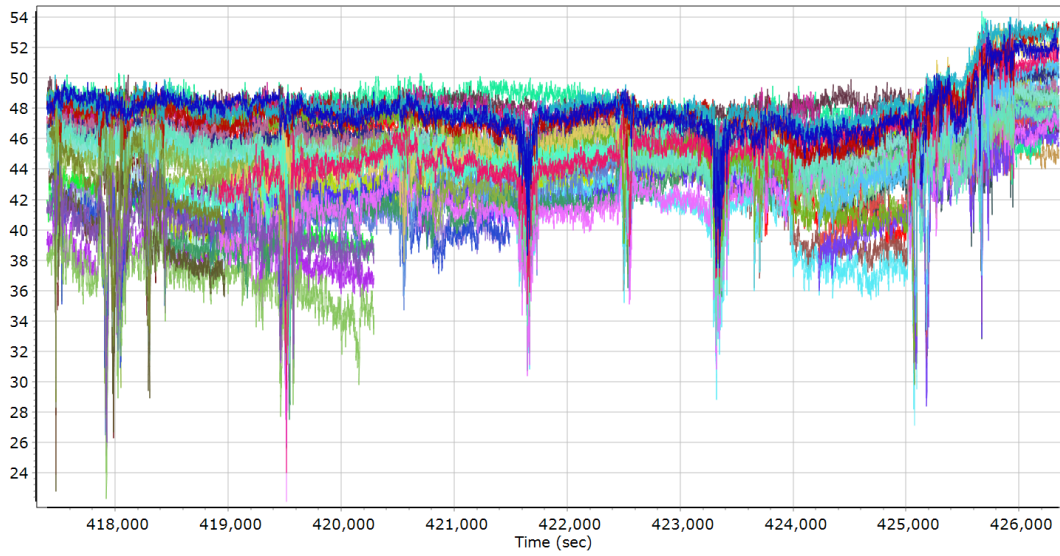
BEIDOU SNR



GALILEO Satellite Lock/Elevation

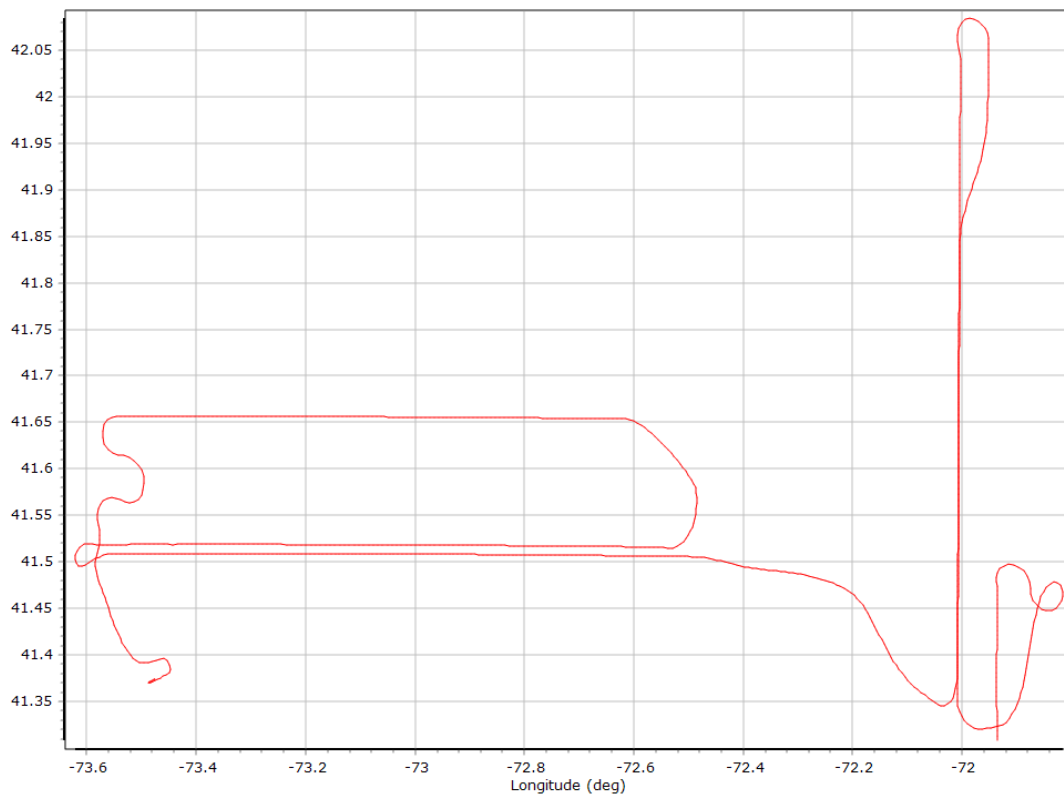


GALILEO SNR

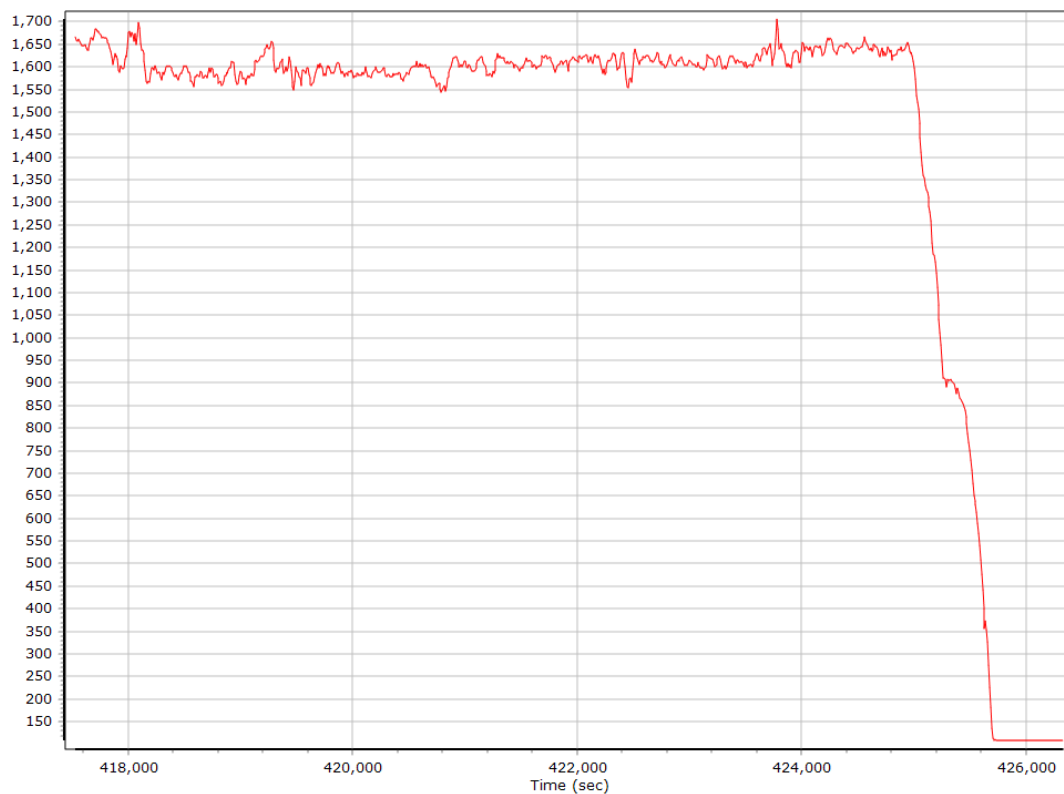


Smoothed Trajectory Information

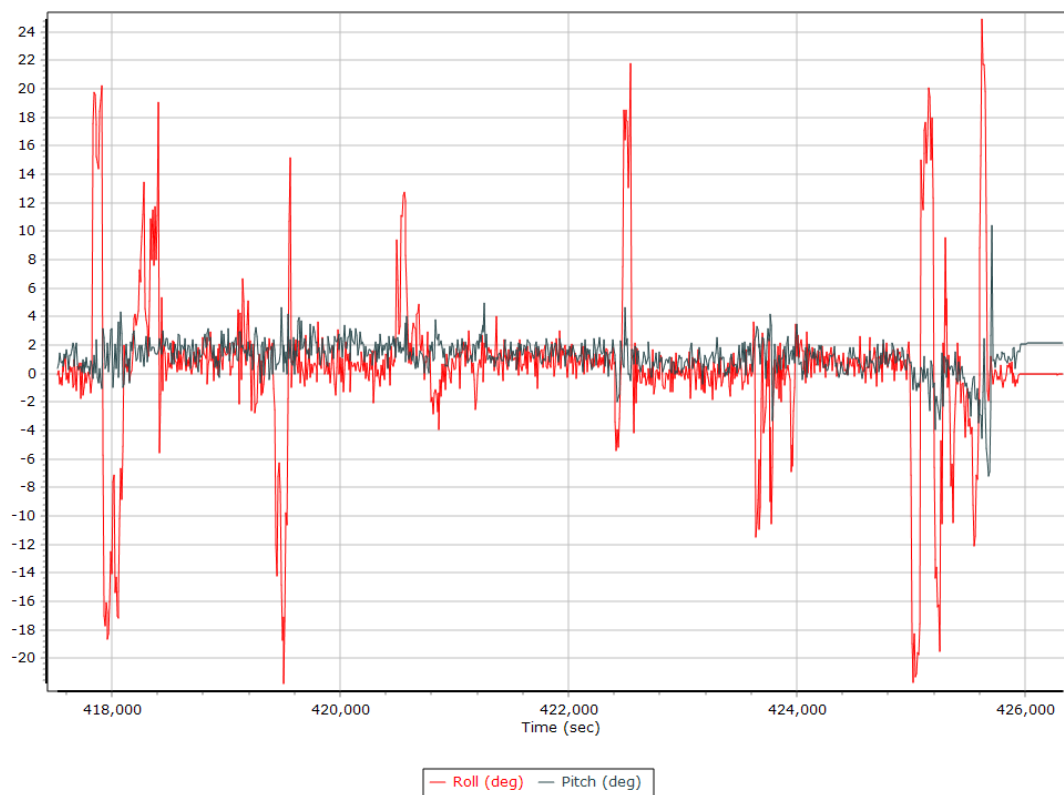
Top View



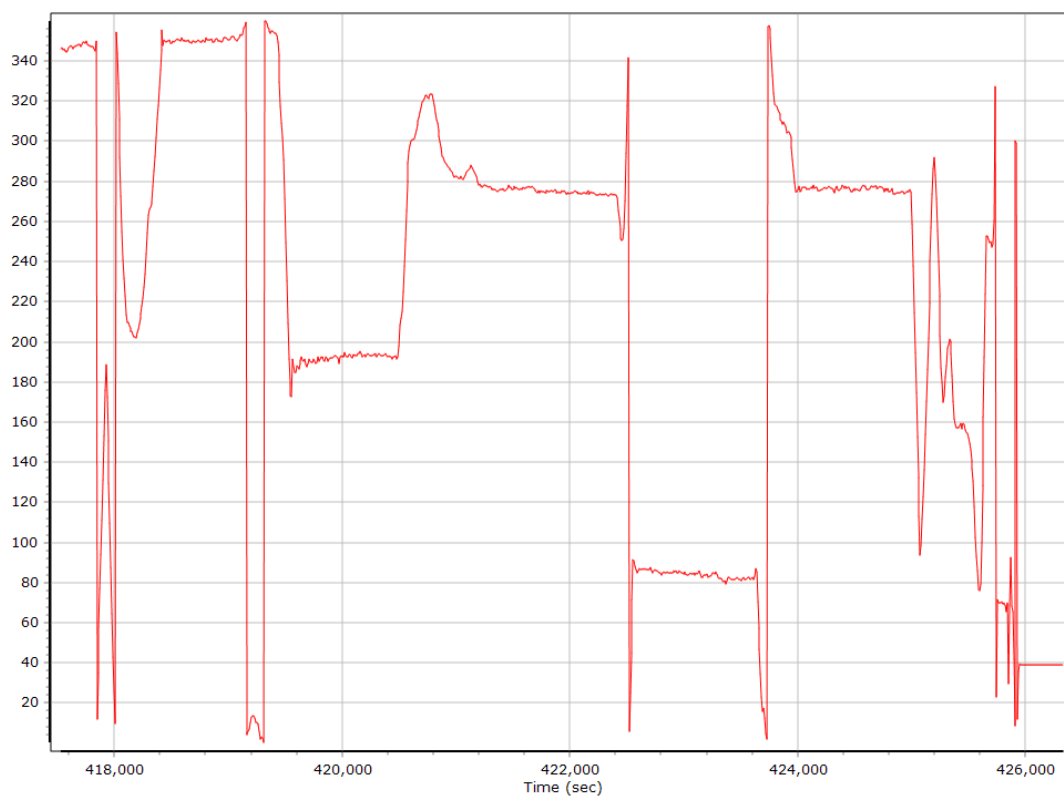
Altitude



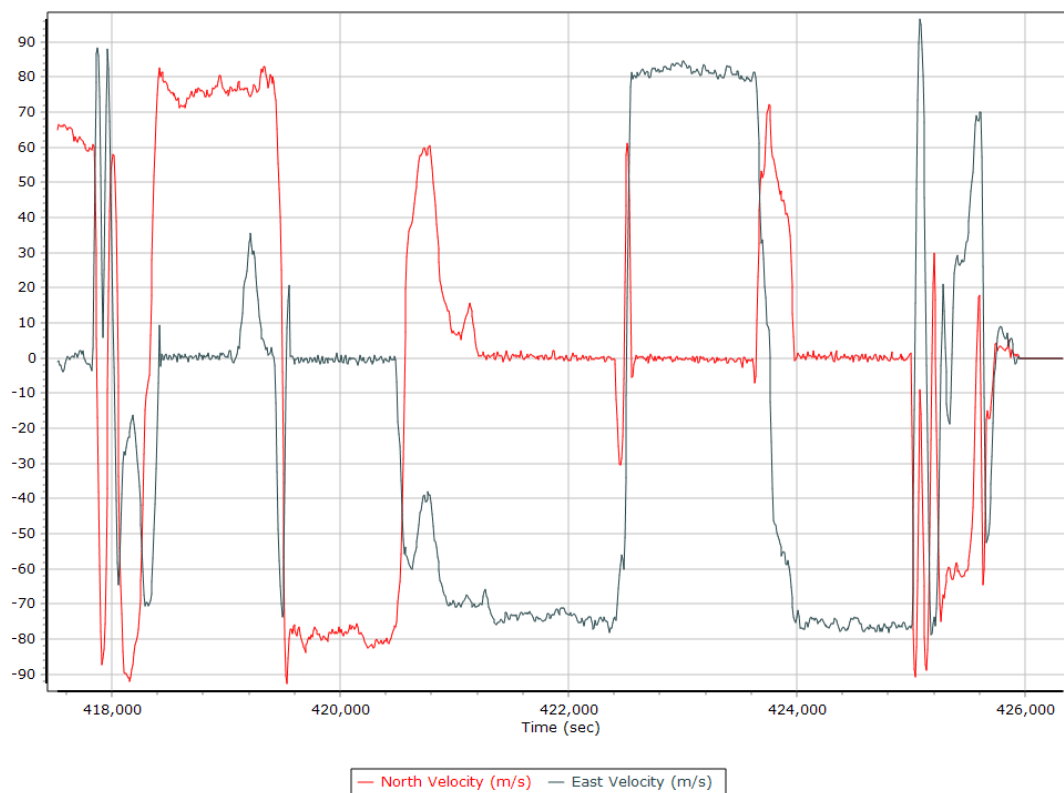
Roll/Pitch



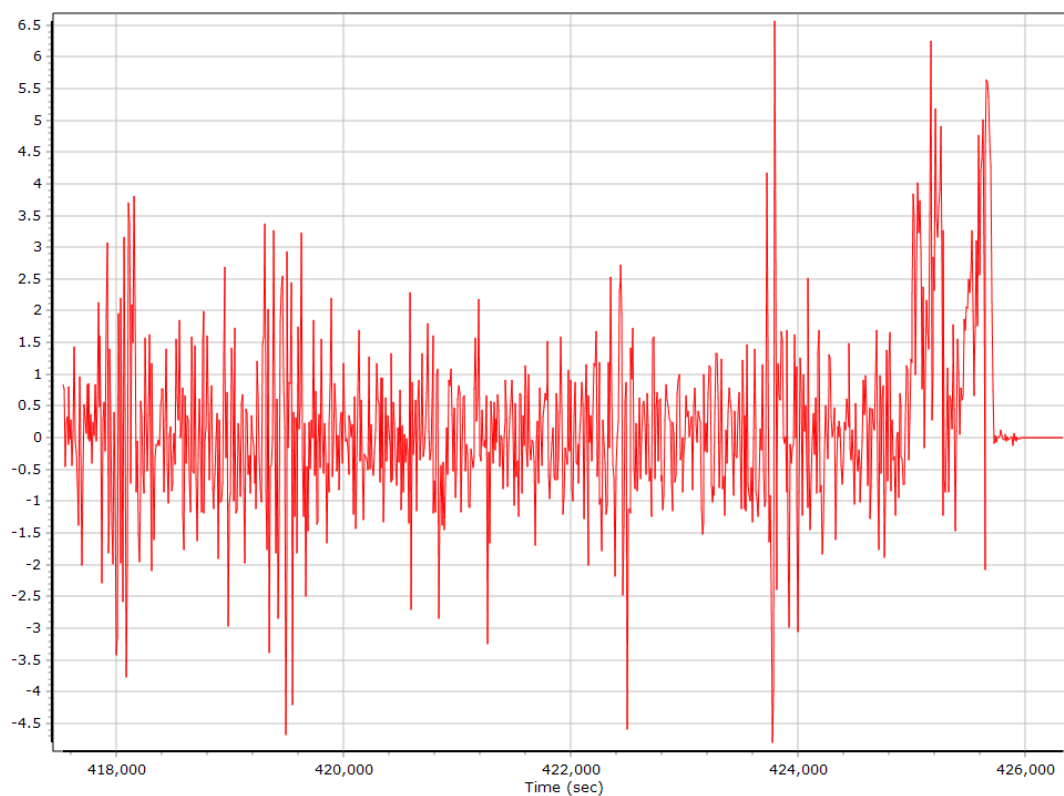
Heading



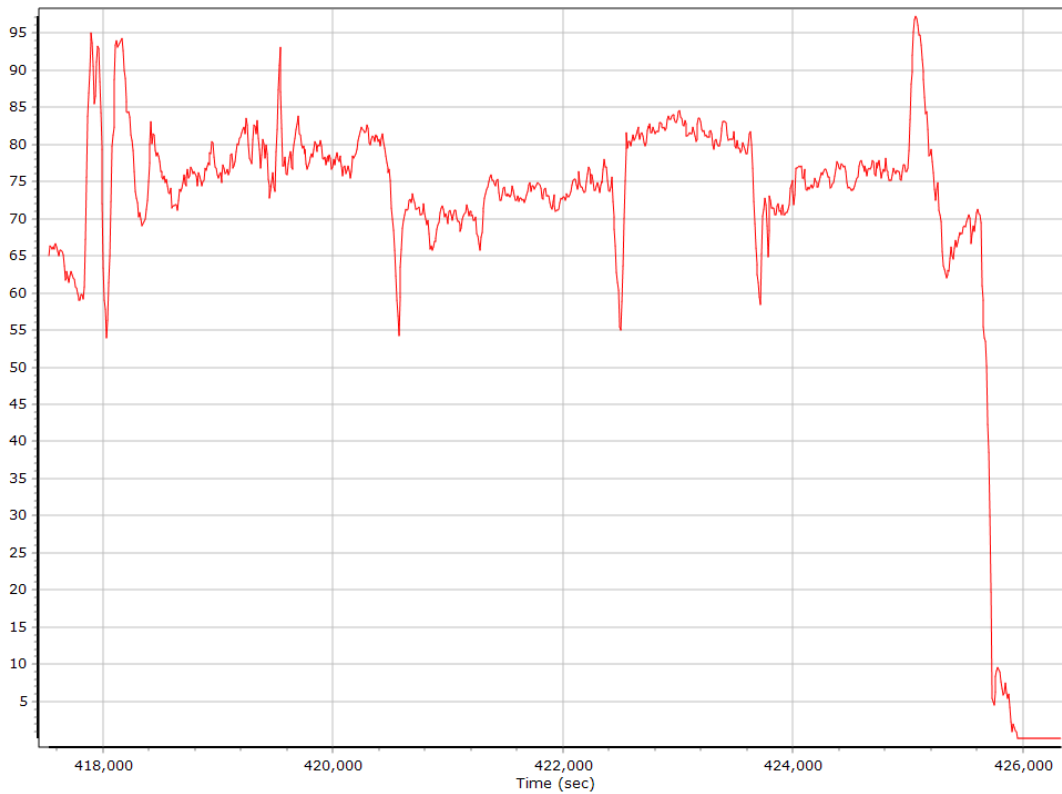
North/East Velocity



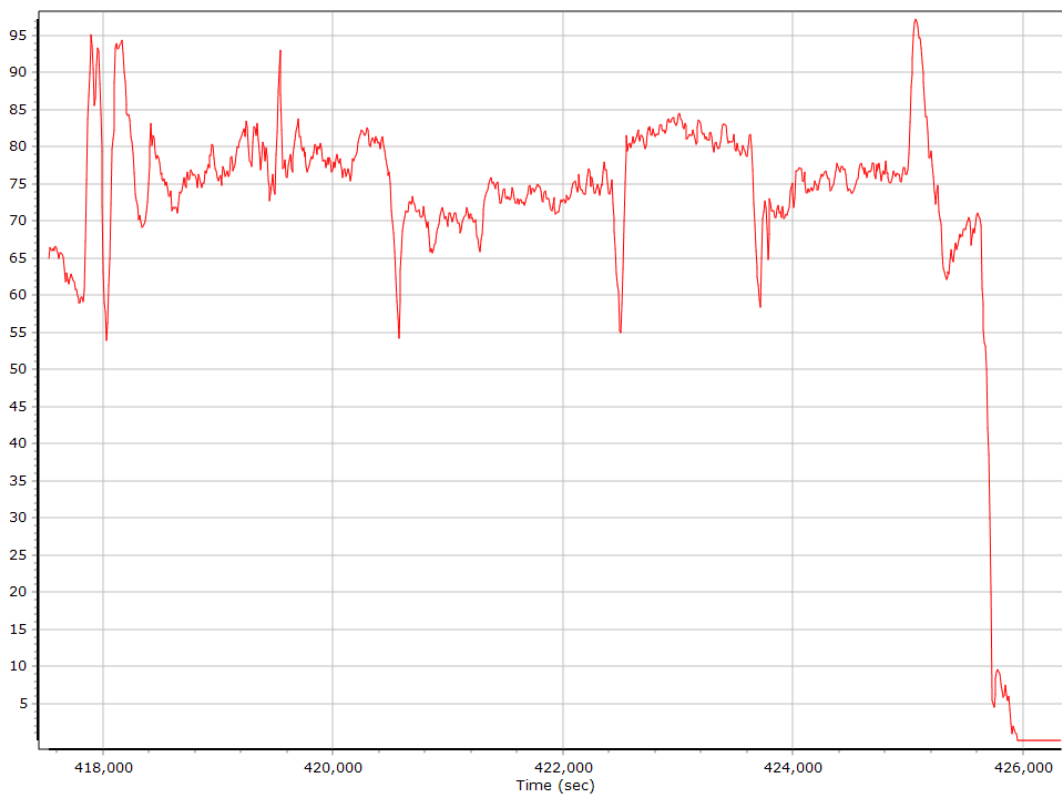
Down Velocity



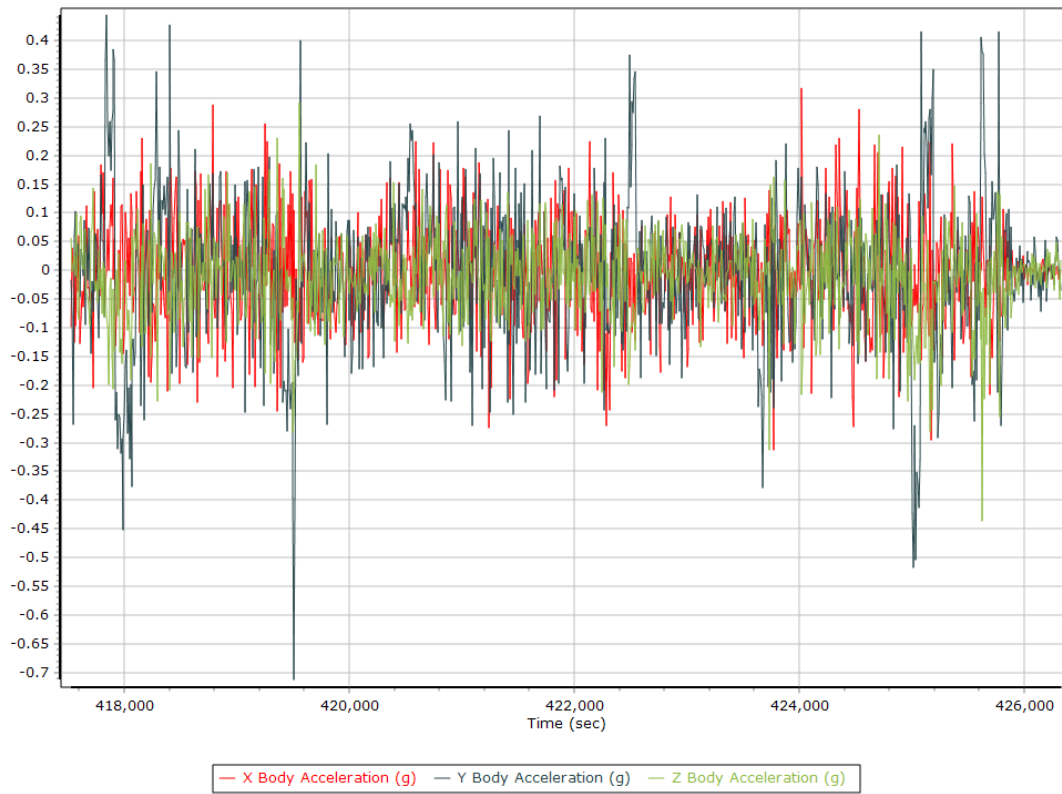
Total Speed



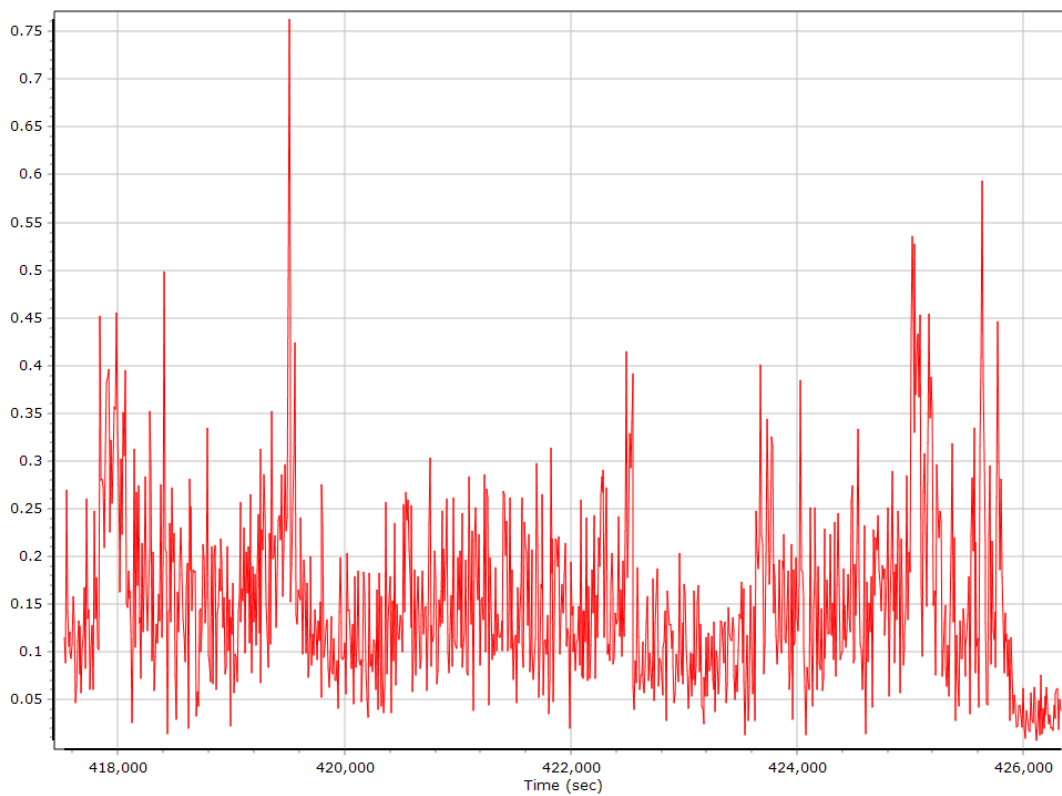
Ground Speed



Body Acceleration



Total Body Acceleration

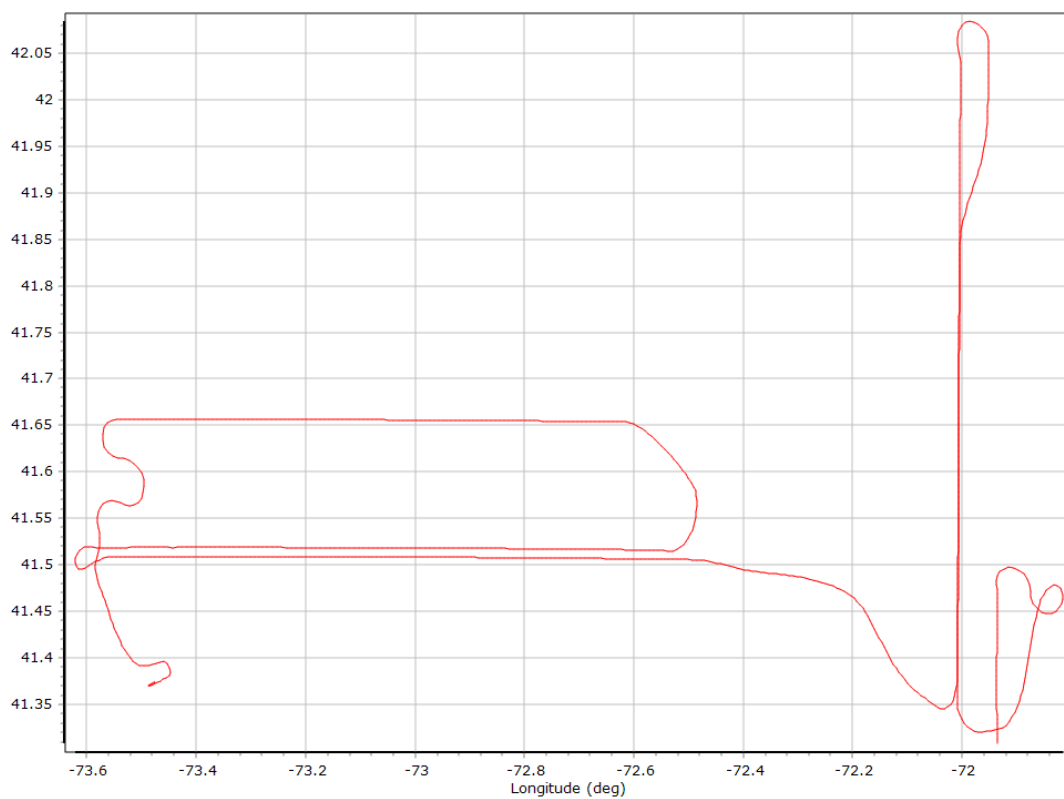


Body Angular Rate

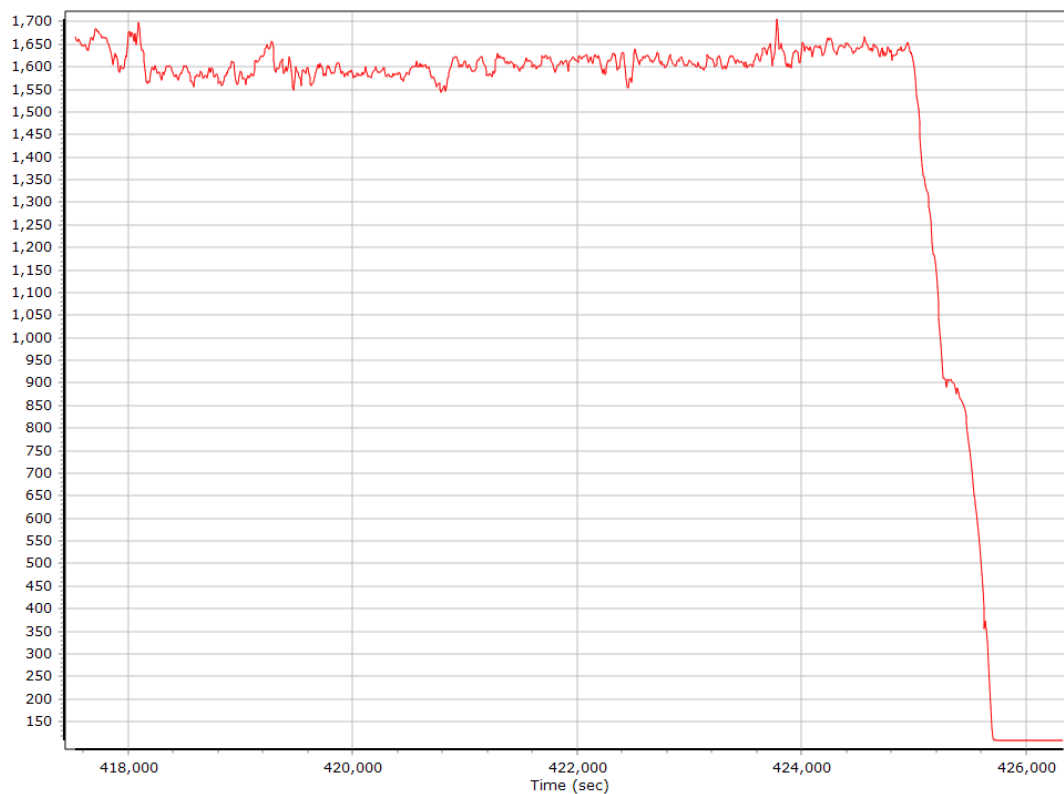


Forward Processed Trajectory Information

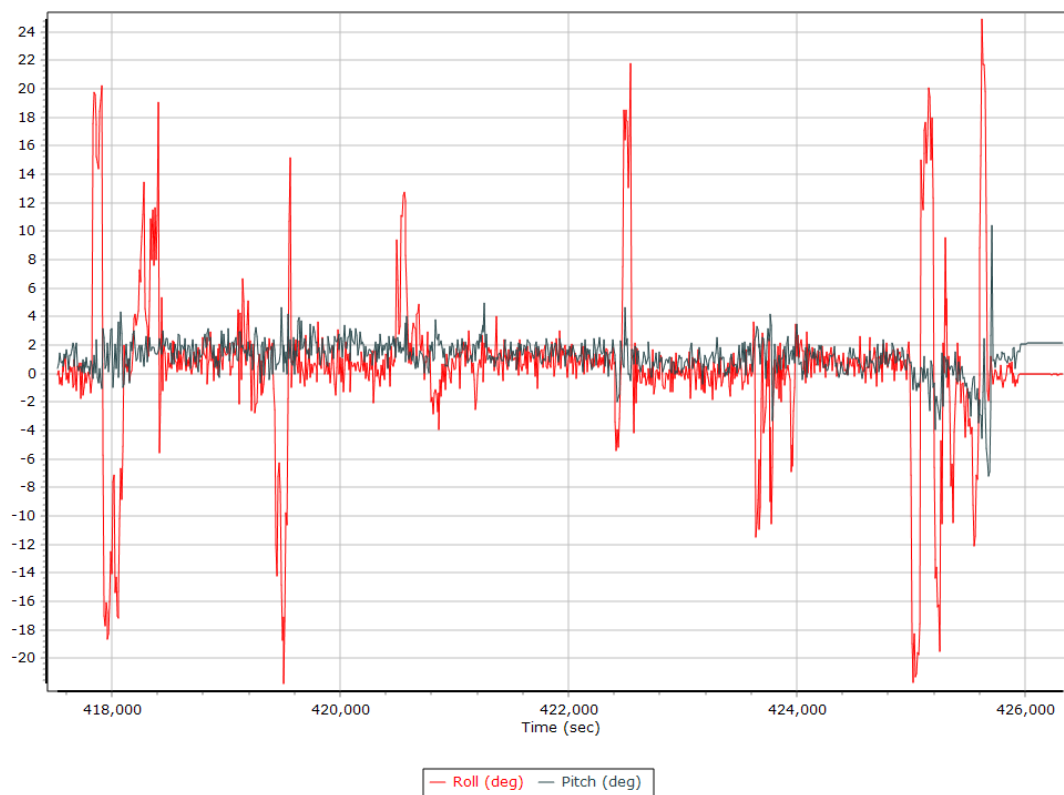
Top View



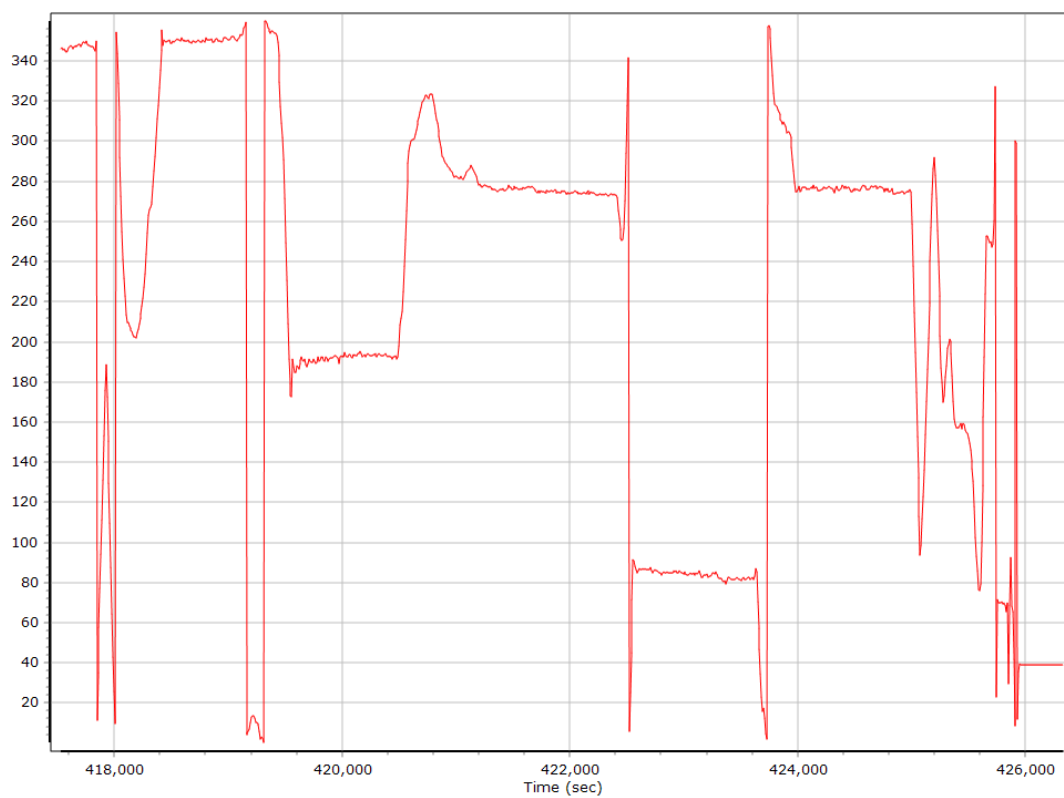
Altitude



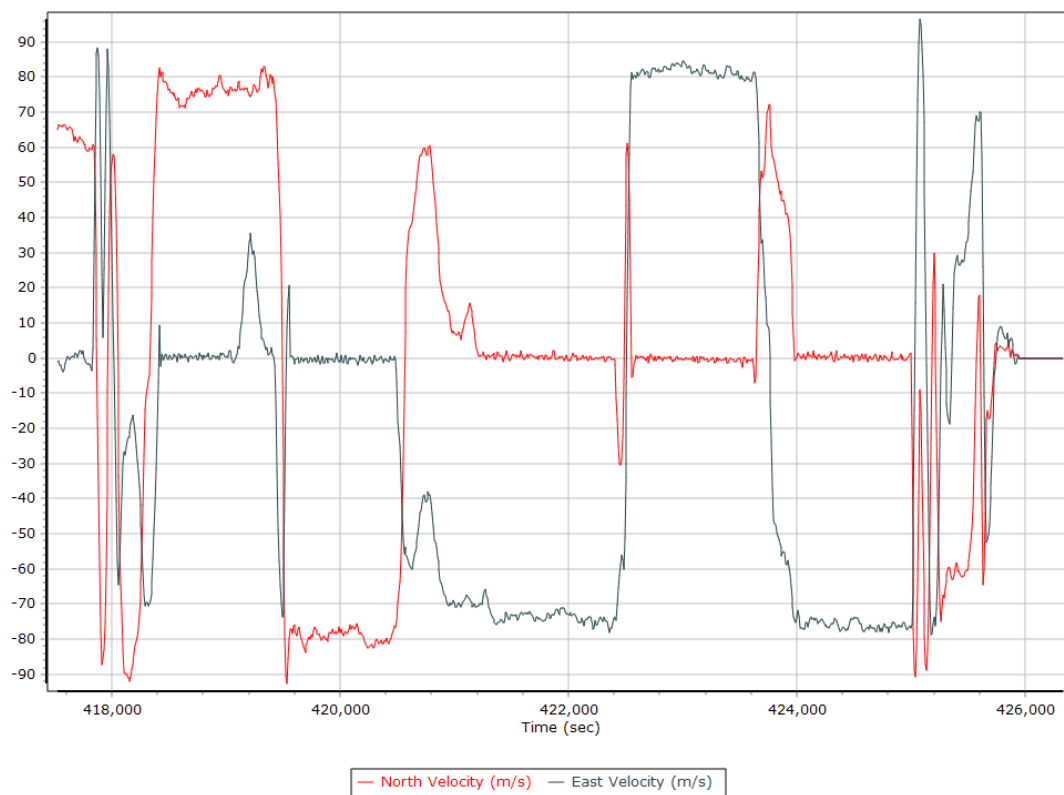
Roll/Pitch



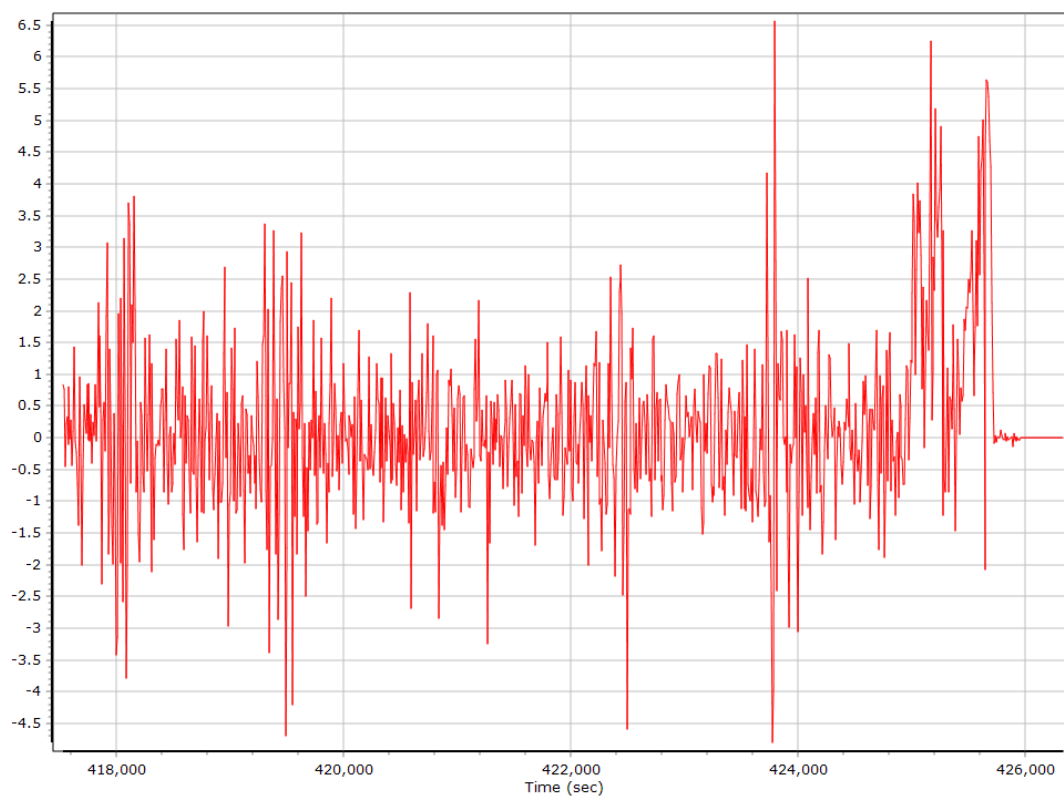
Heading



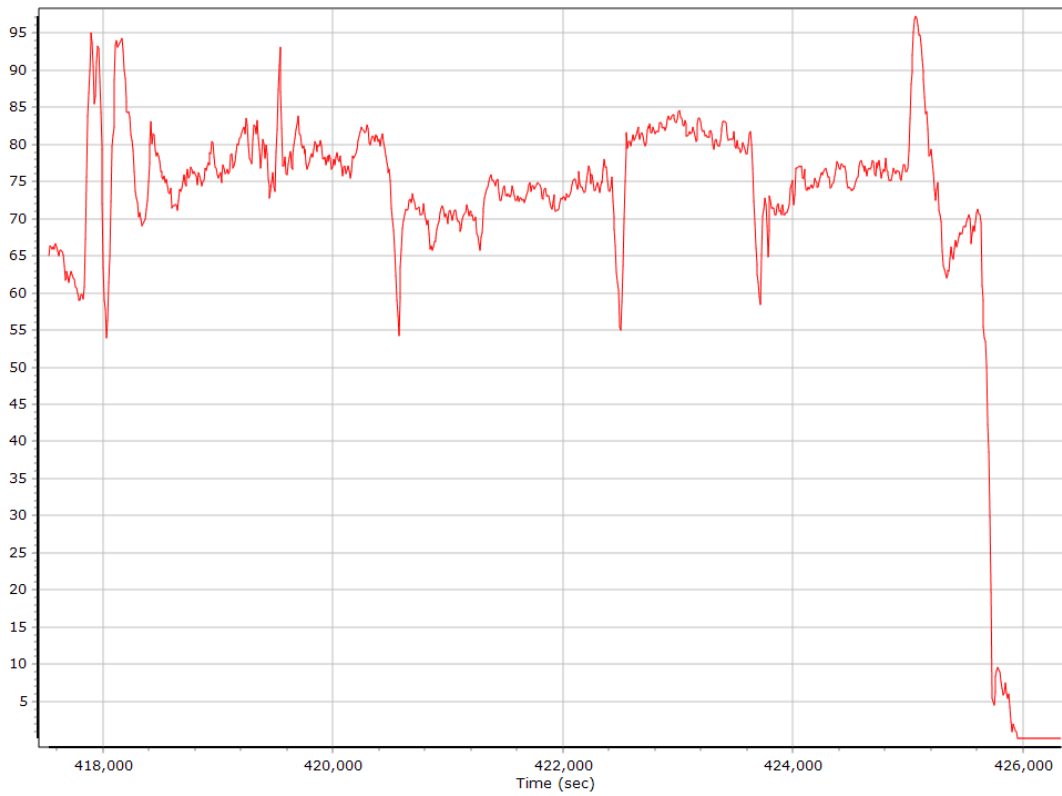
North/East Velocity



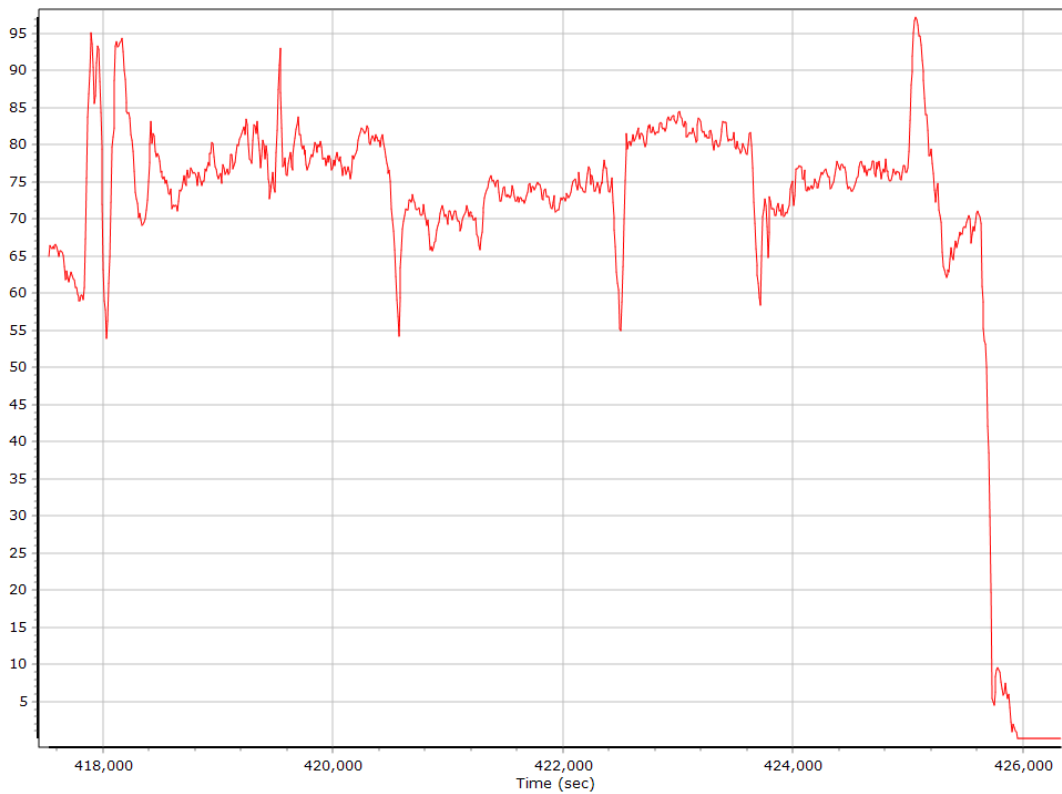
Down Velocity



Total Speed



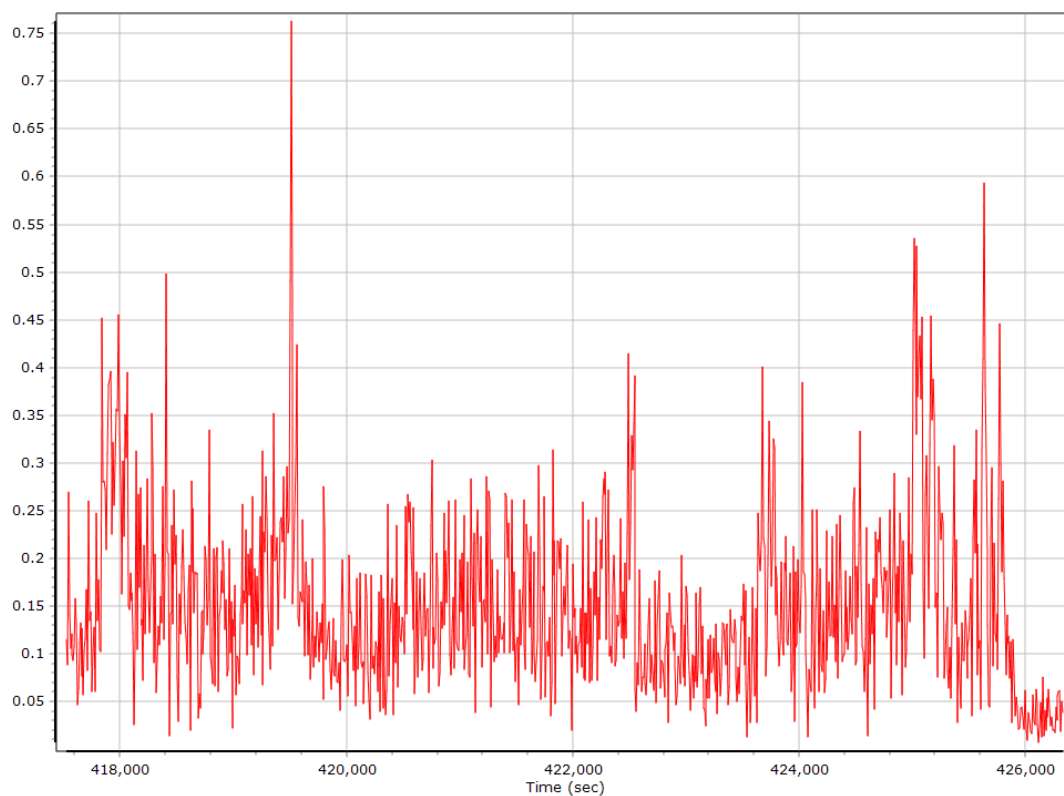
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

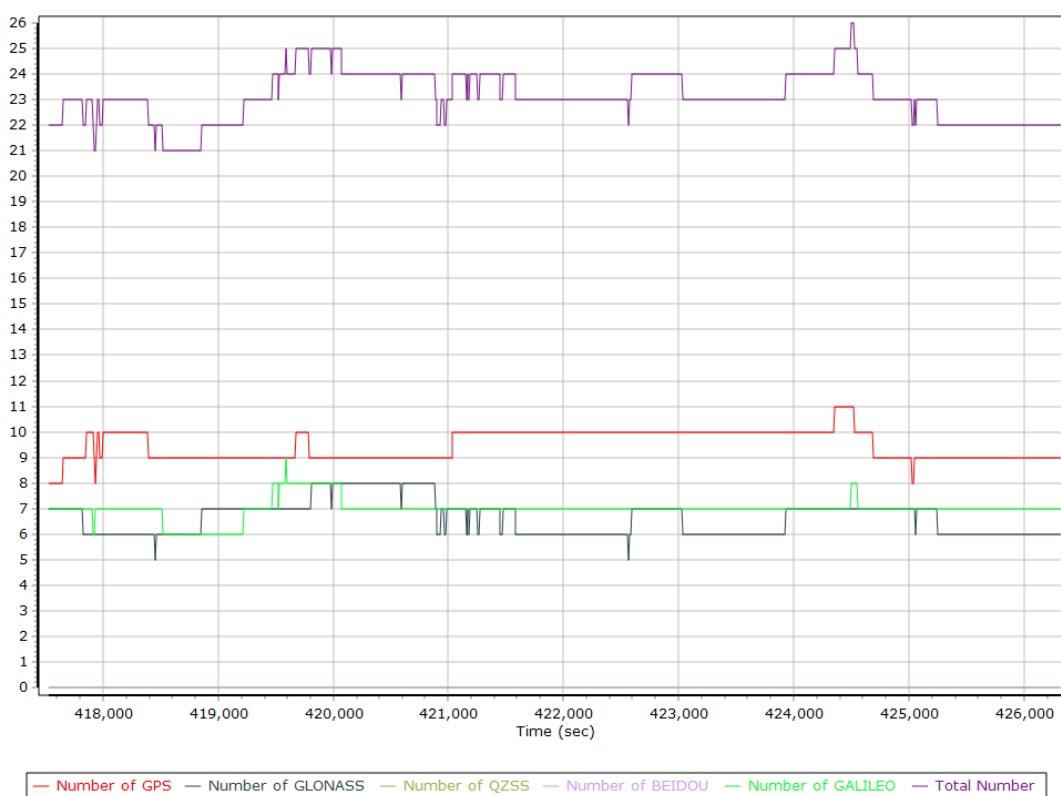


GNSS QC

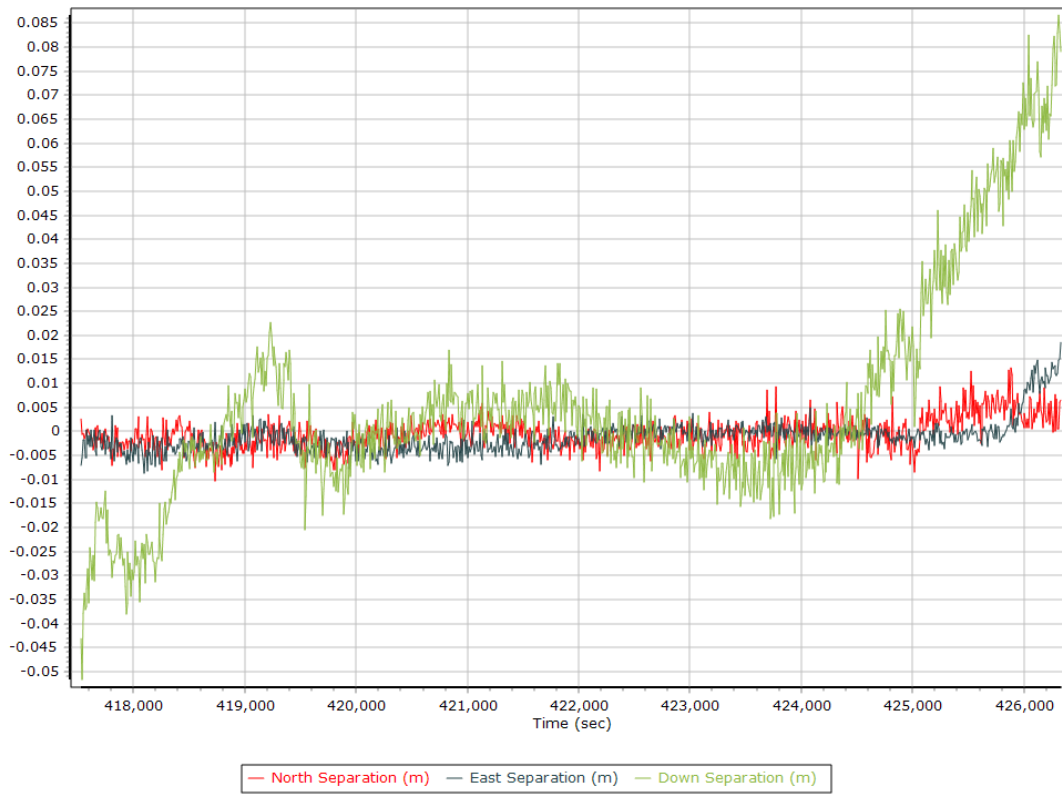
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	11	9
Number of GLONASS SV	5	8	7
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	5	9	7
Total number of SV	17	26	23
PDOP	0.95	1.67	1.10
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	8926.00	0.00	0.00
Percentage	100.00	0.00	0.00

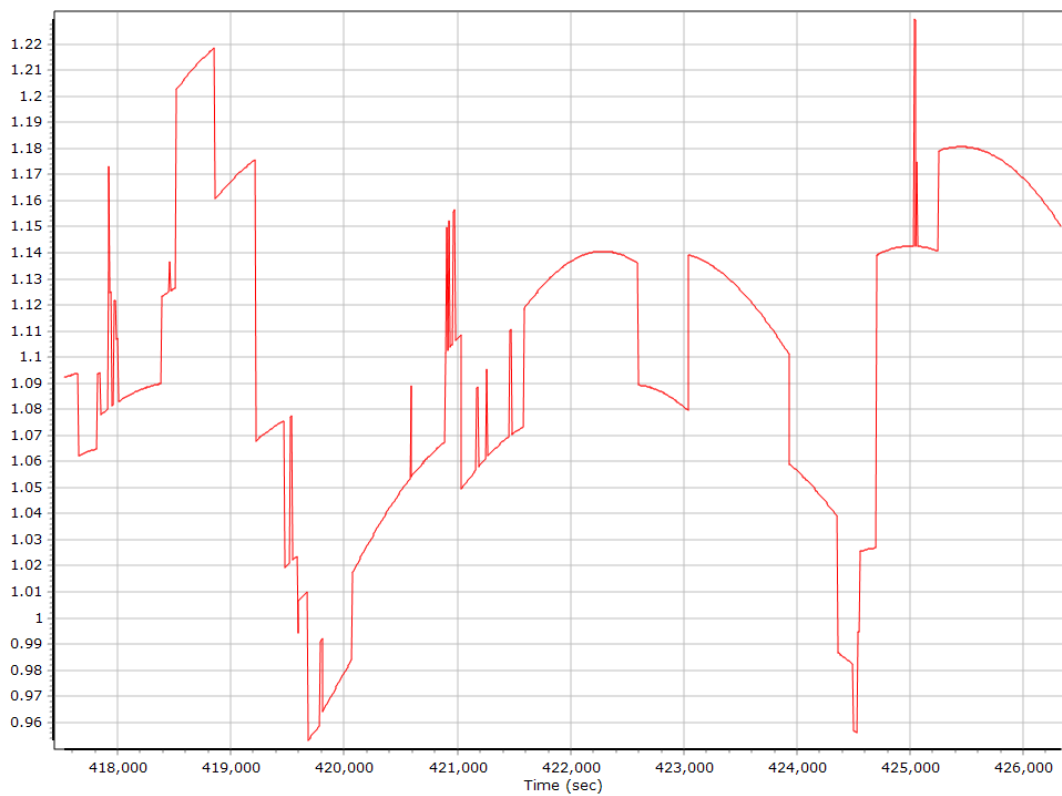
Num SVs in solution



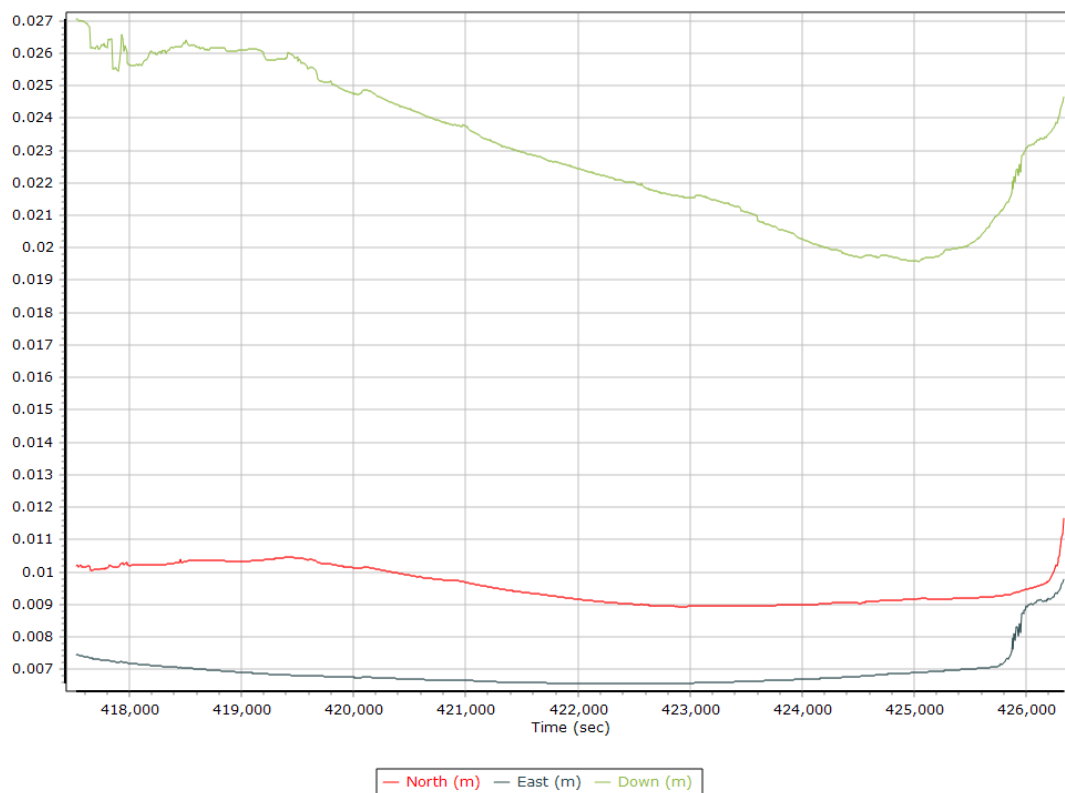
Forward/Reverse Separation



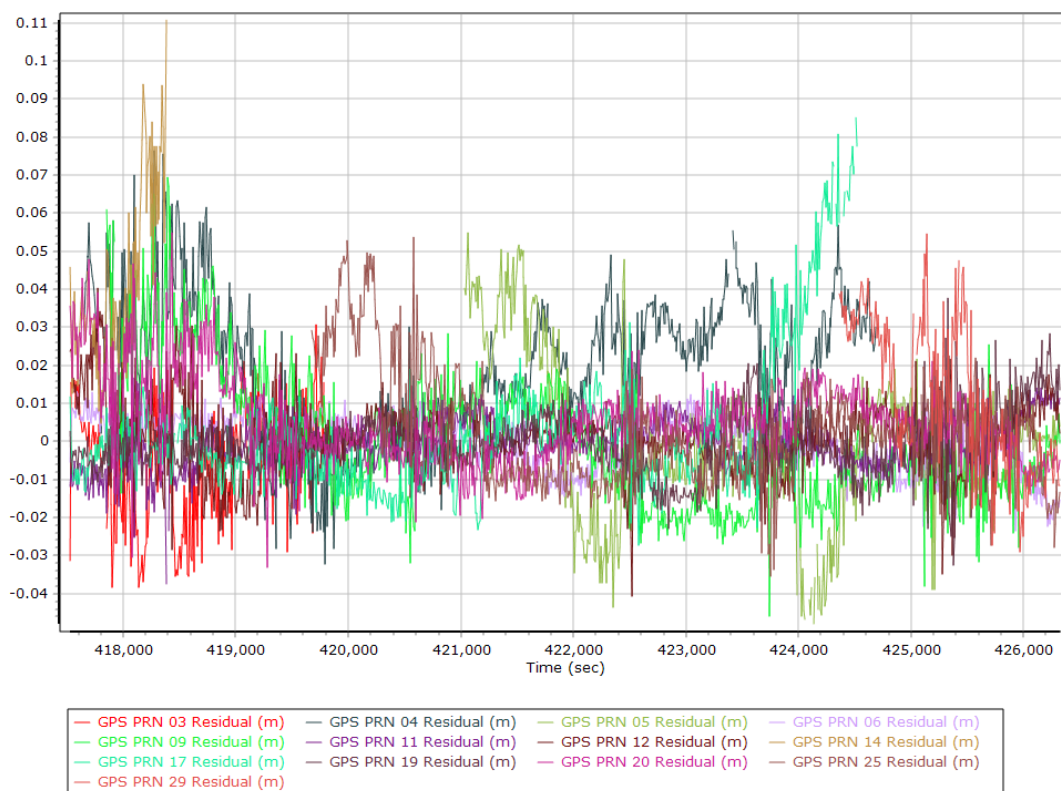
PDOP



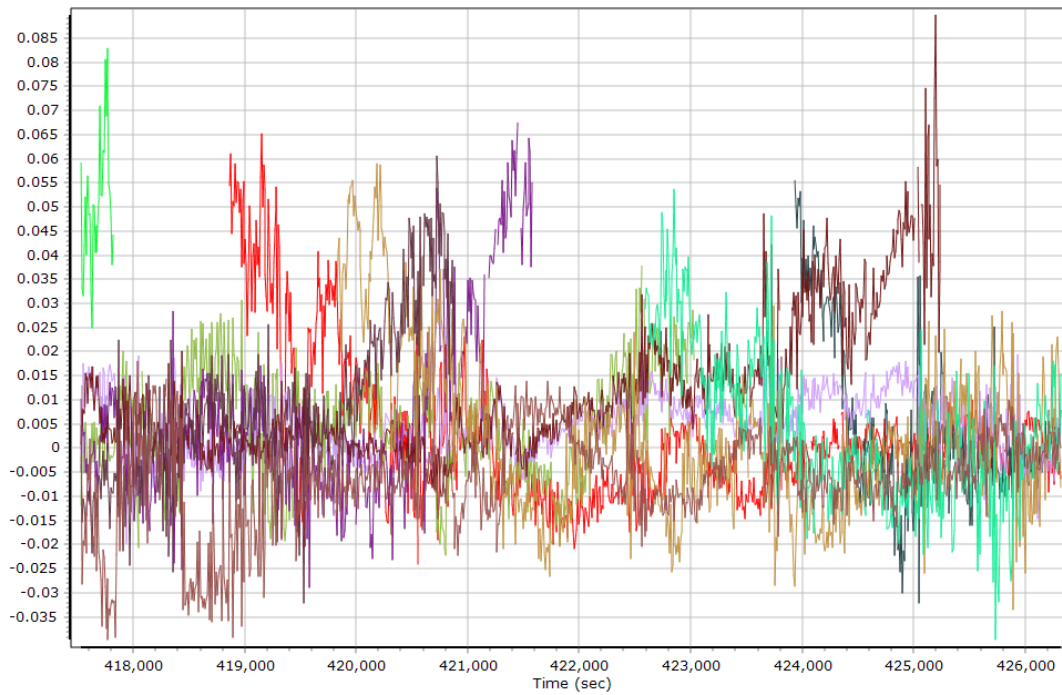
Estimated Position Accuracy



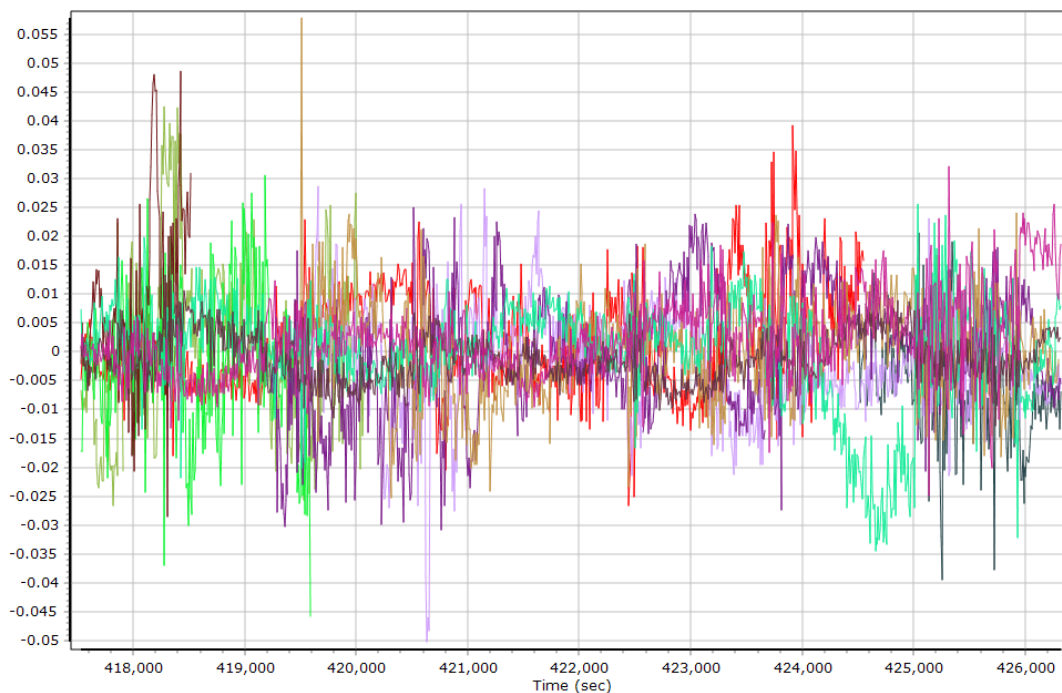
GPS Residuals



GLONASS Residuals



GALILEO Residuals



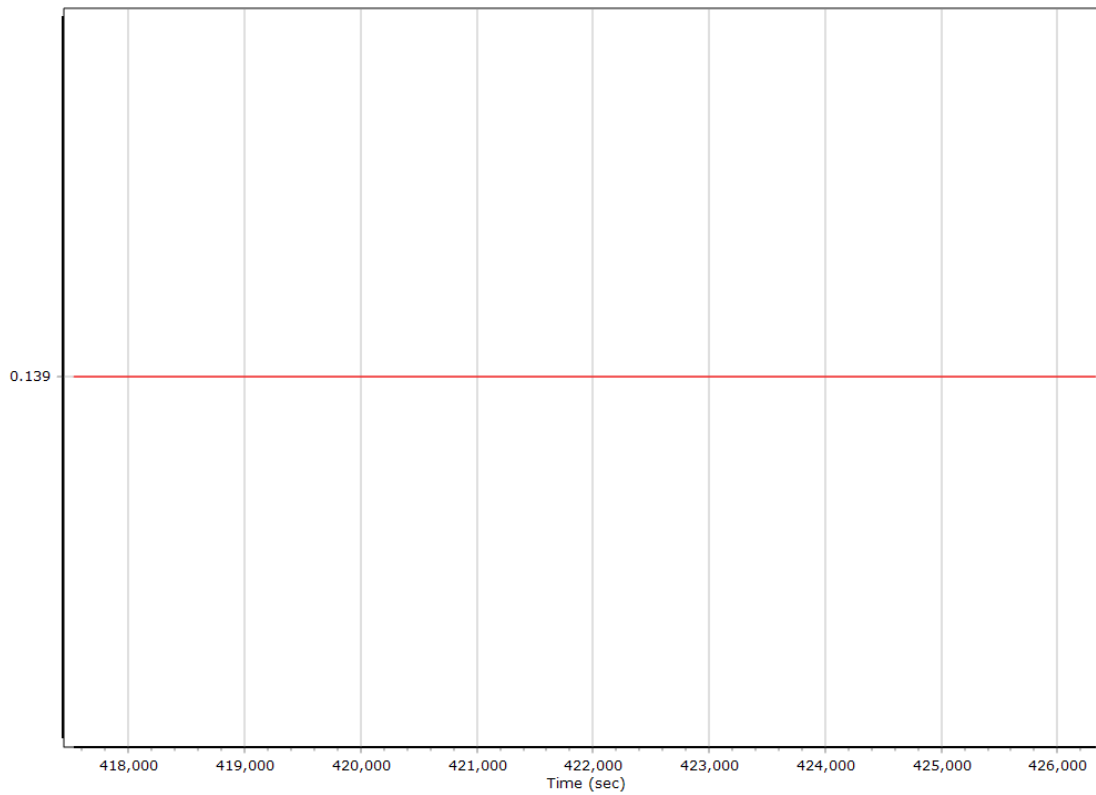
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	417379.000 (04/20/2023 19:56:19)		
Processing end time	426333.000 (04/20/2023 22:25:33)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

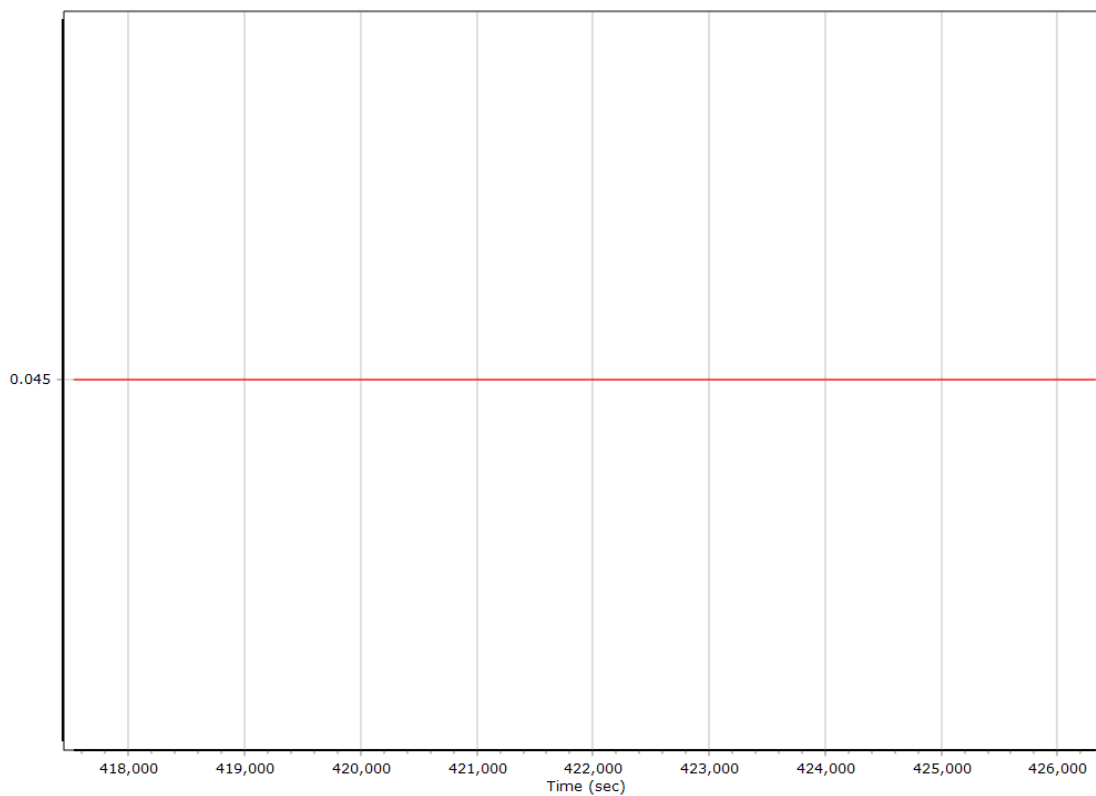
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

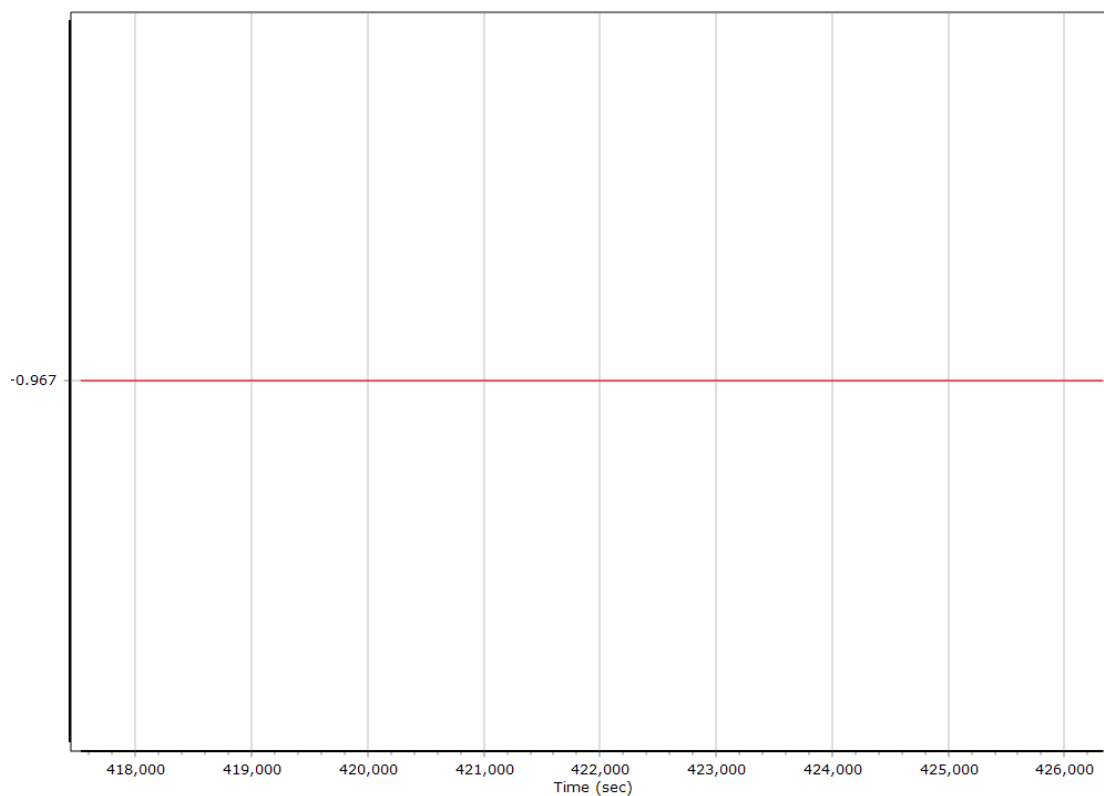
X Reference-Primary GNSS Lever Arm (m)



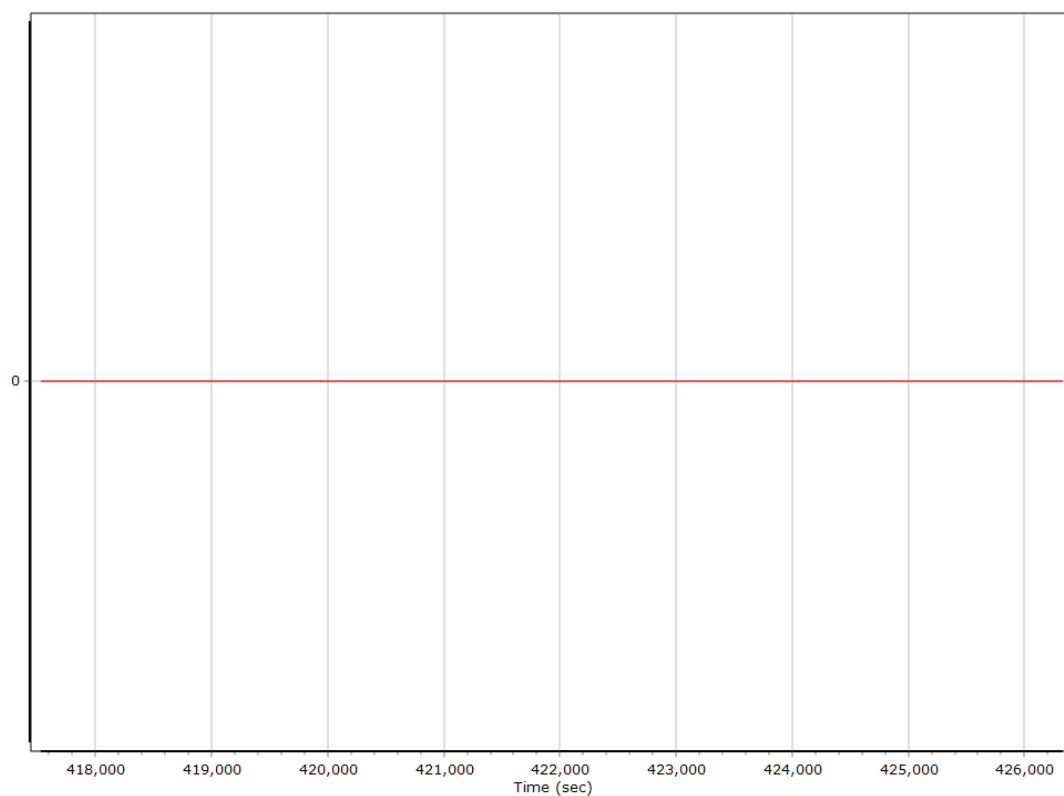
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



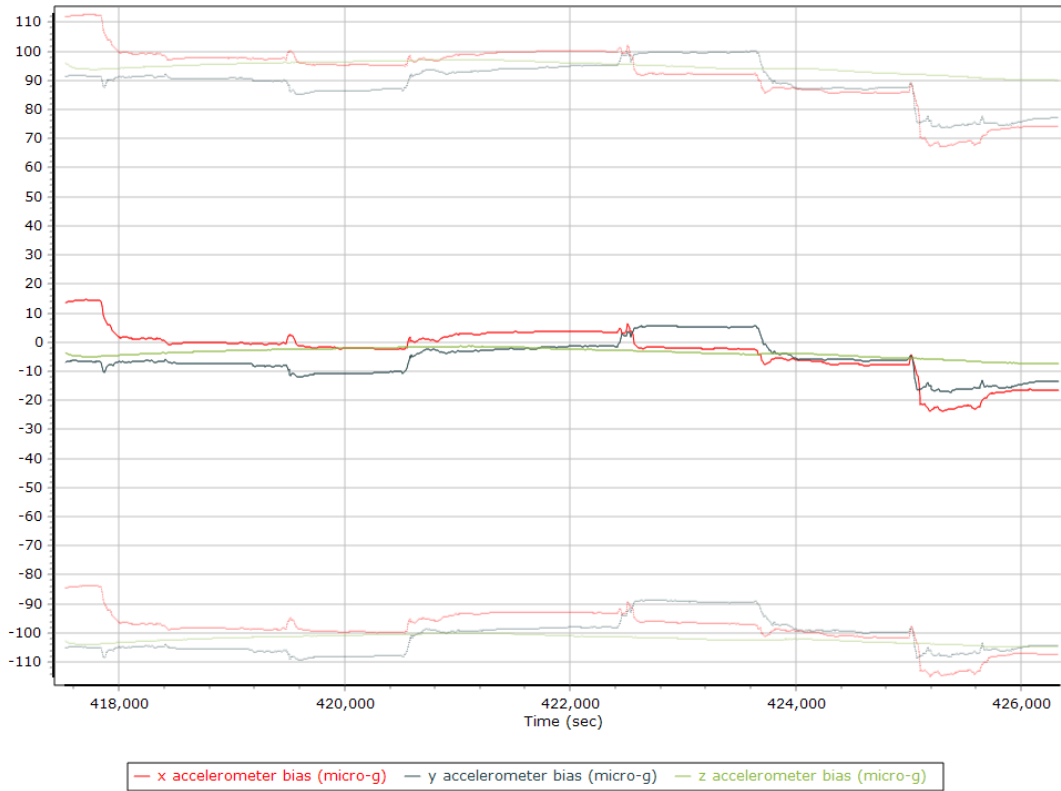
Reference-Primary GNSS Lever Arm Figure of Merit



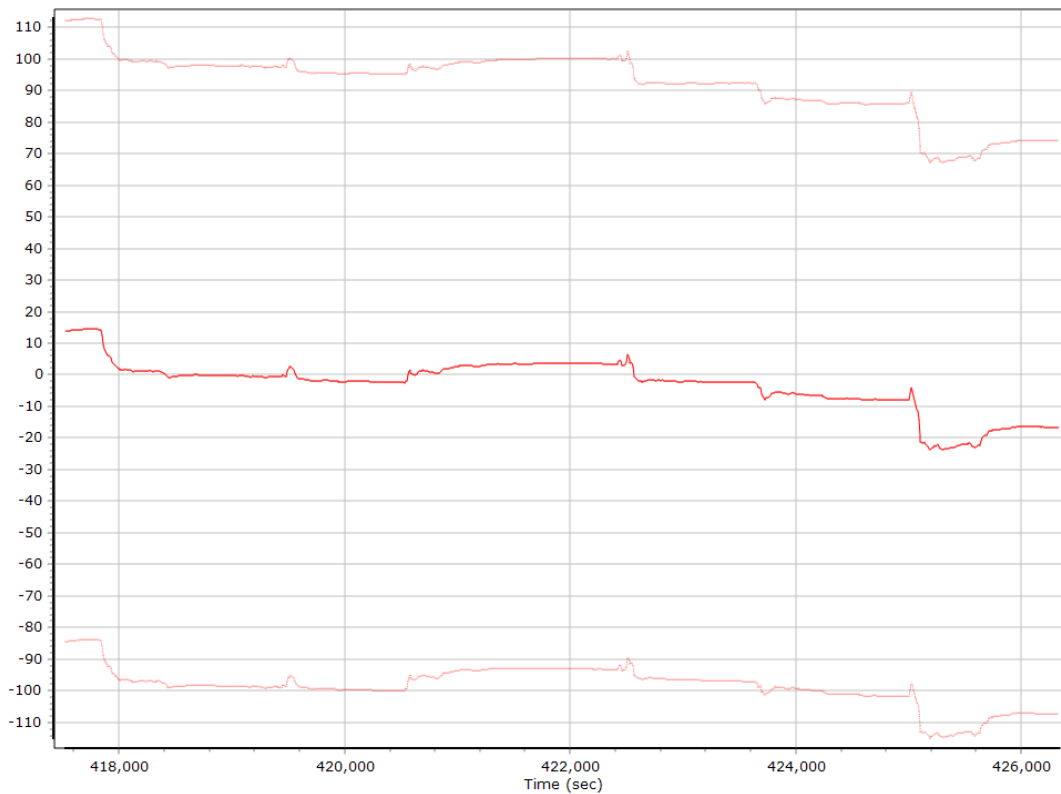
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

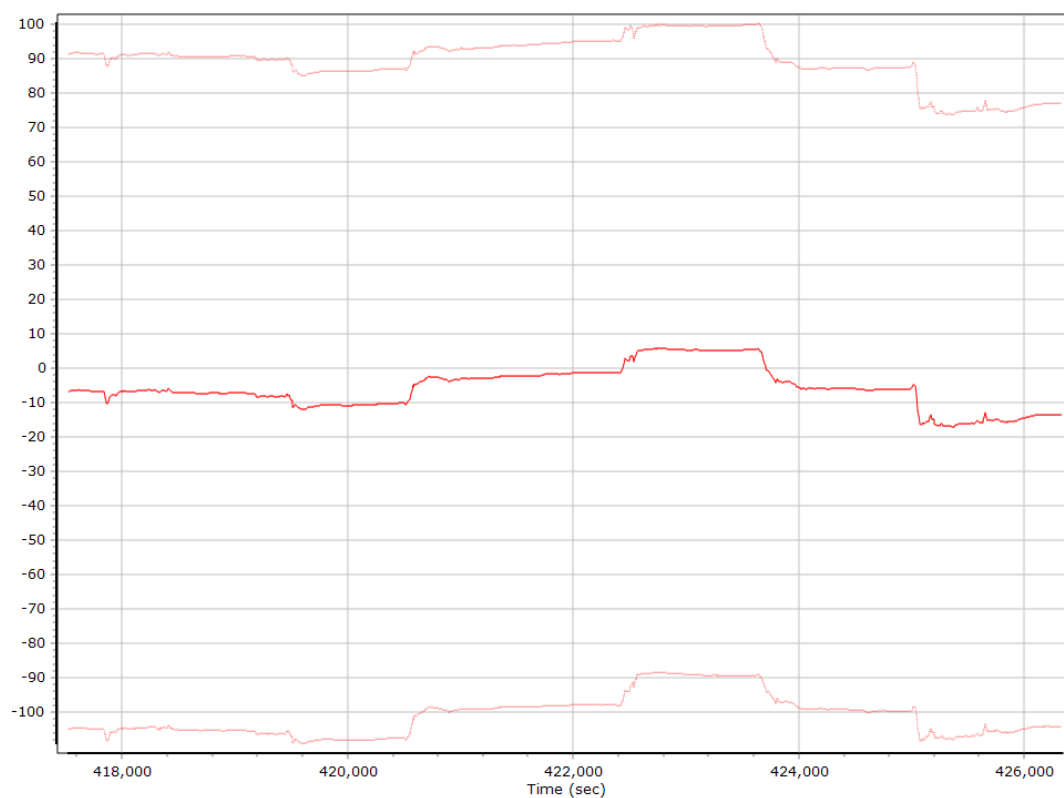
Accelerometer Bias (micro-g)



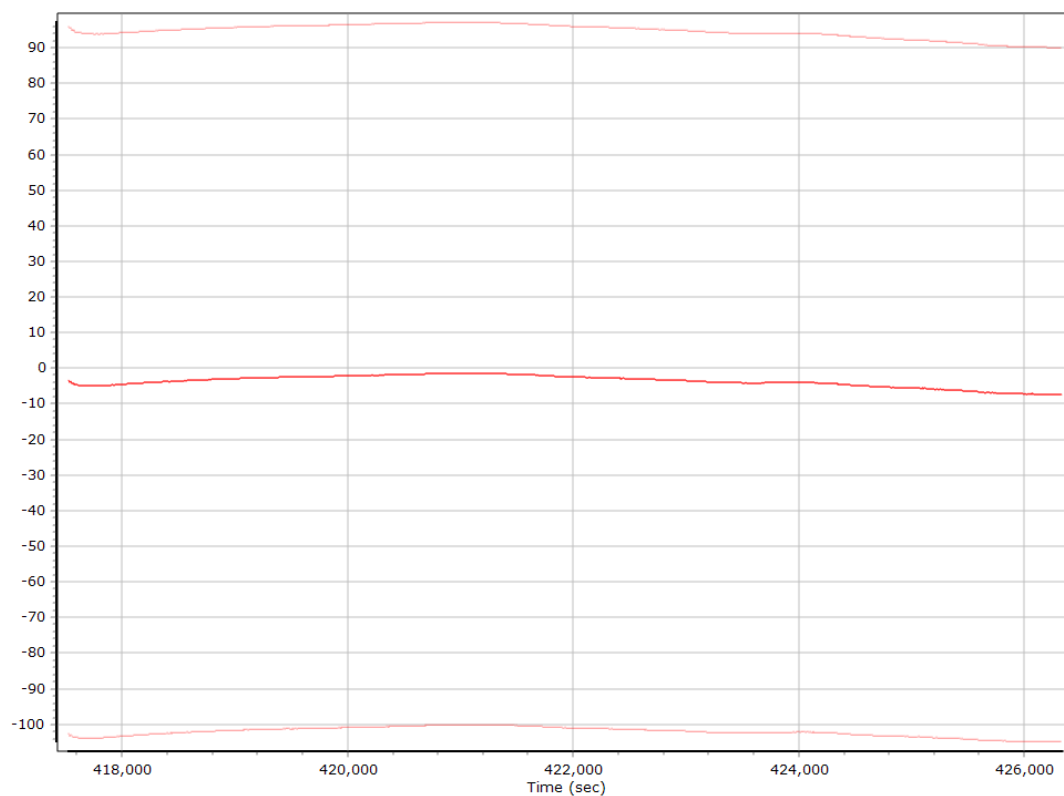
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



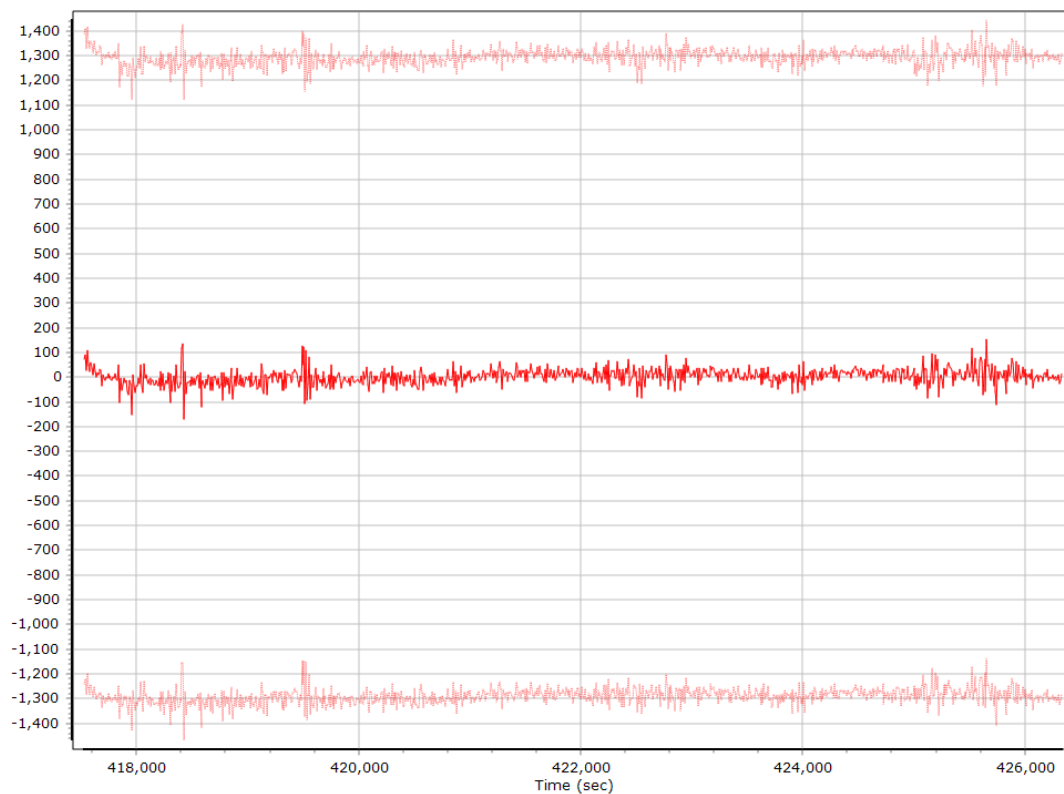
X Accelerometer Scale Error (ppm)



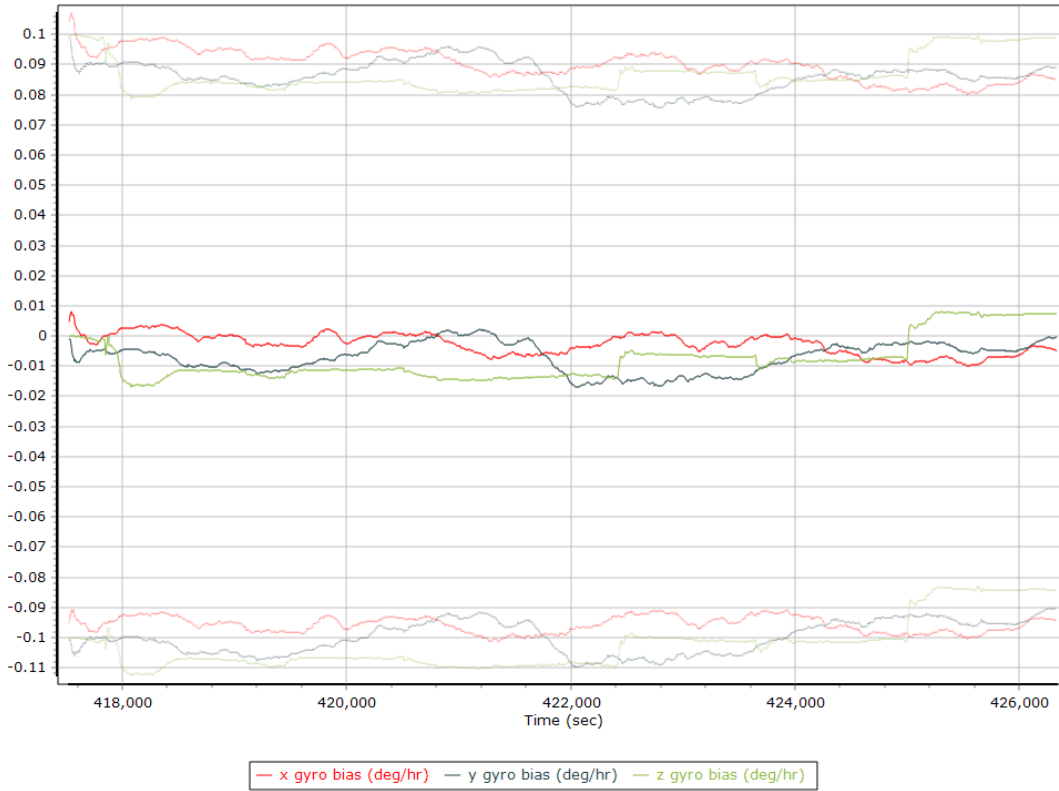
Y Accelerometer Scale Error (ppm)



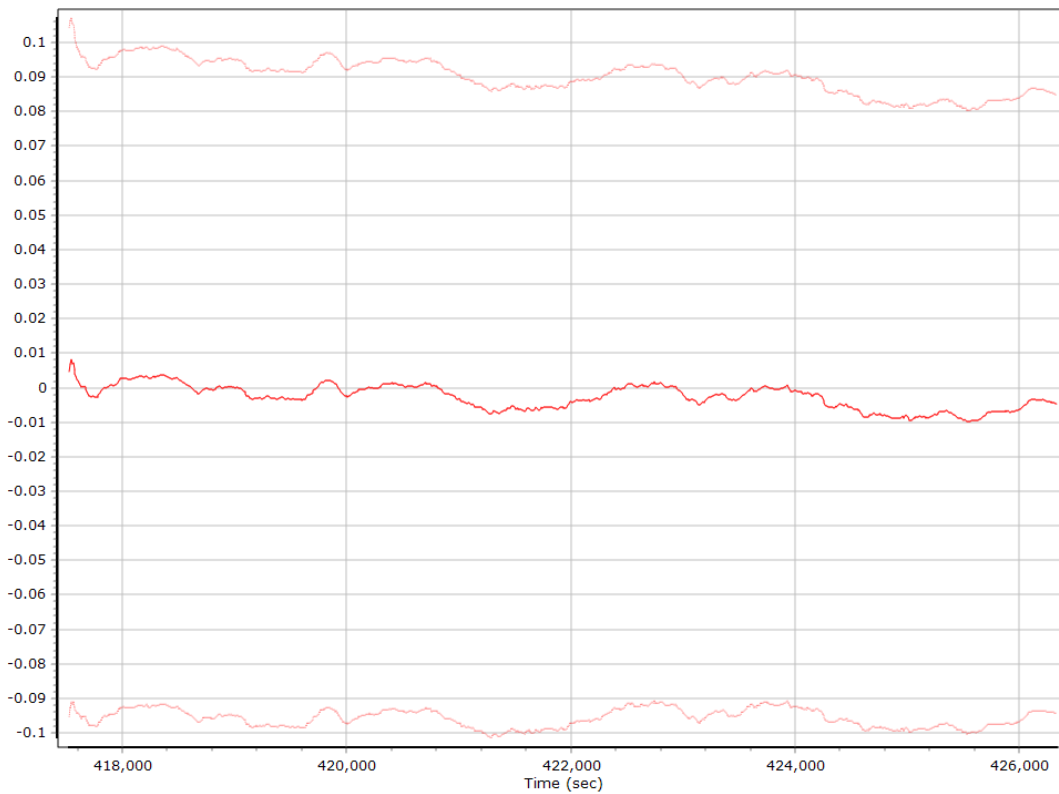
Z Accelerometer Scale Error (ppm)



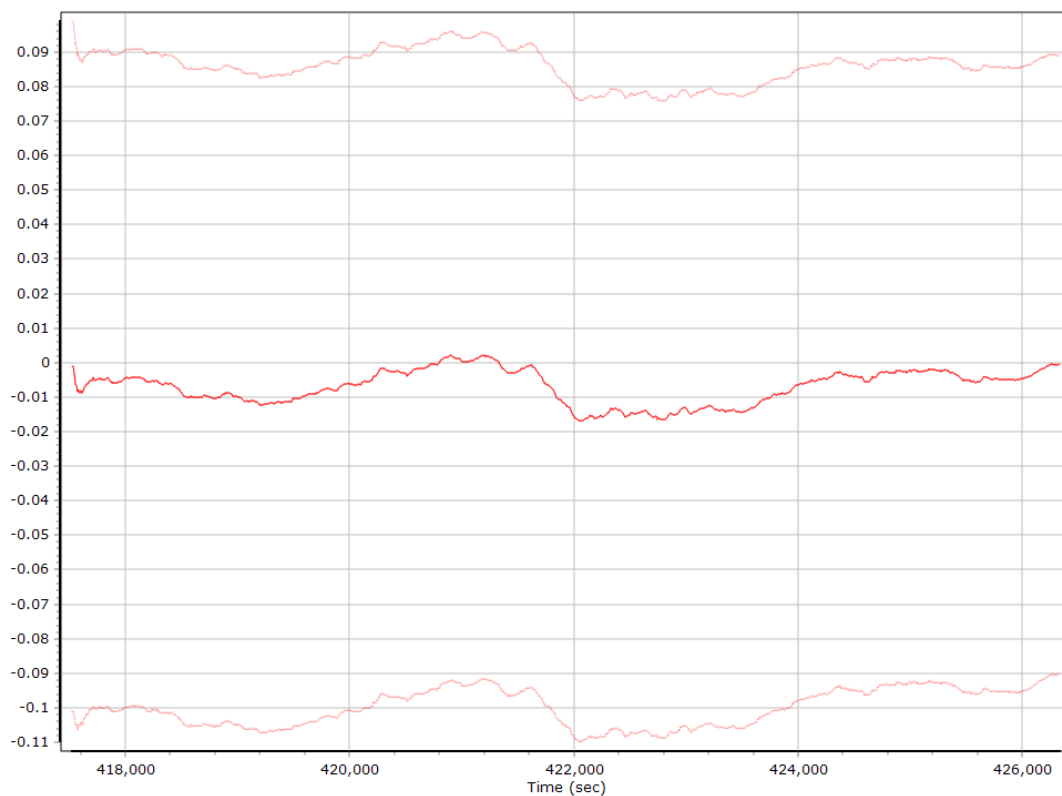
Gyro Bias (deg/h)



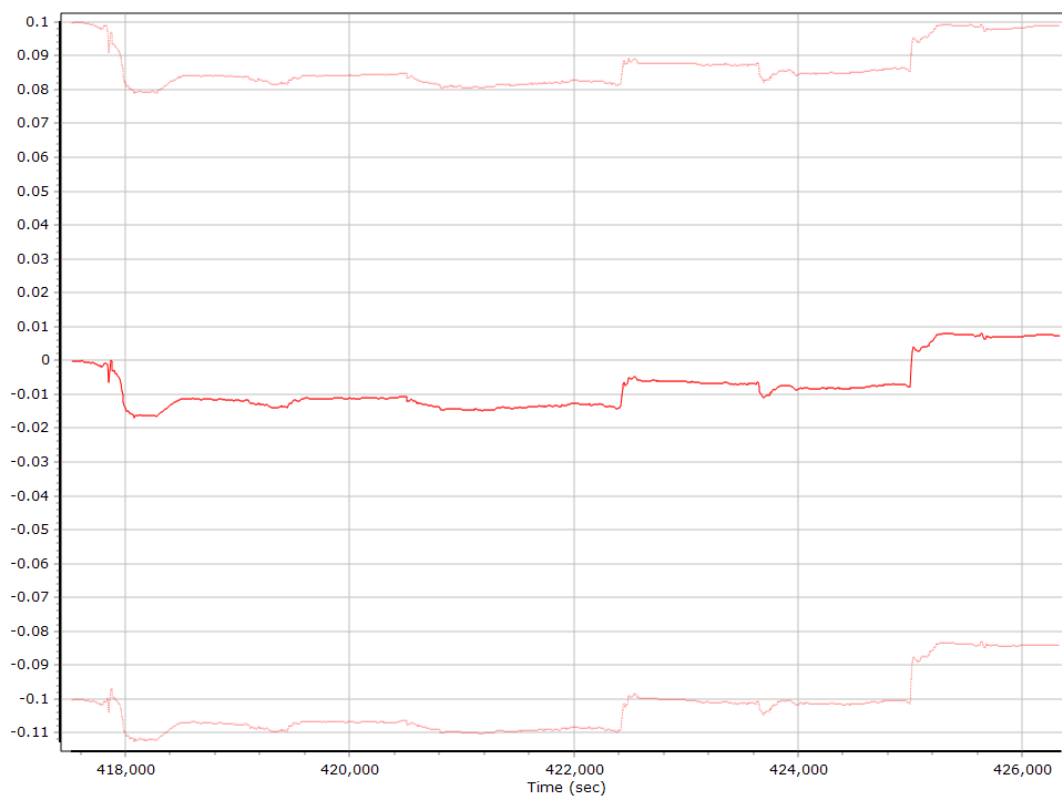
X Gyro Bias (deg/h)



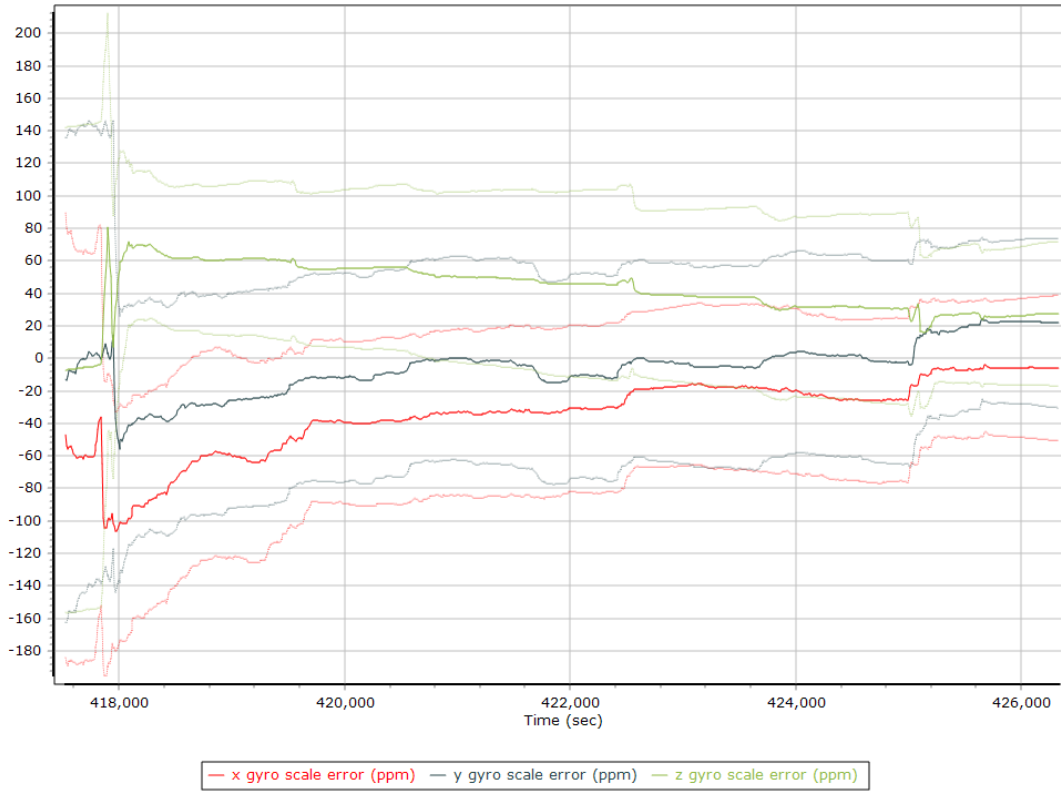
Y Gyro Bias (deg/h)



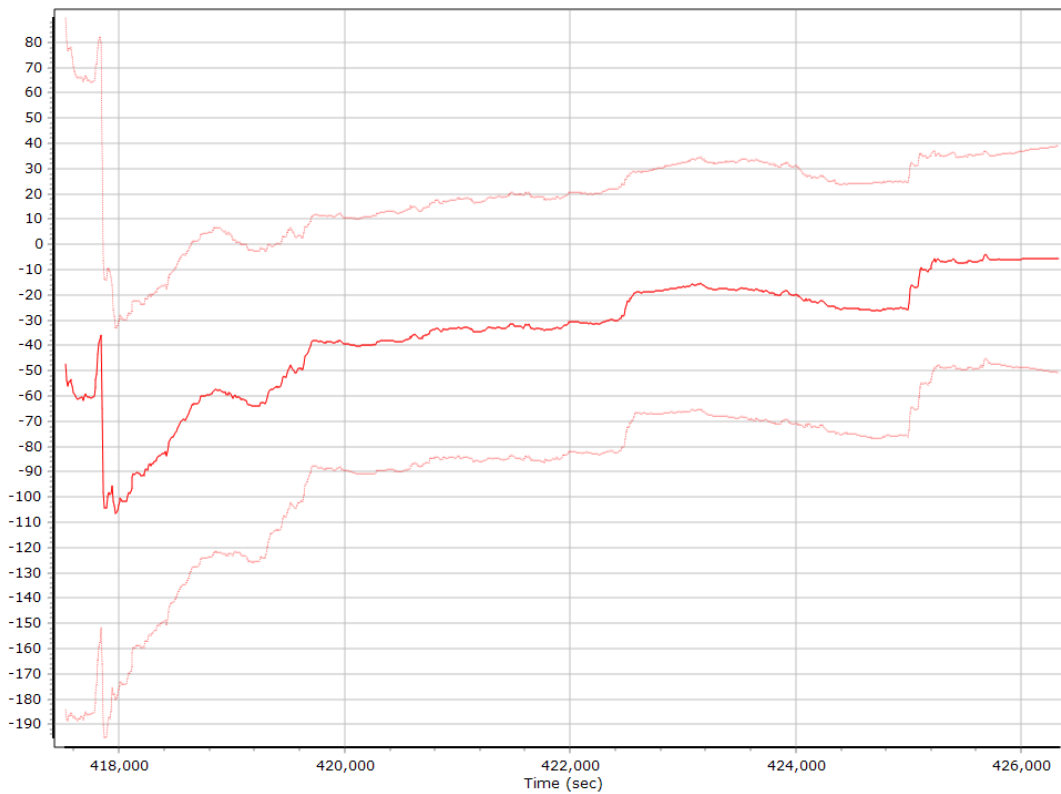
Z Gyro Bias (deg/h)



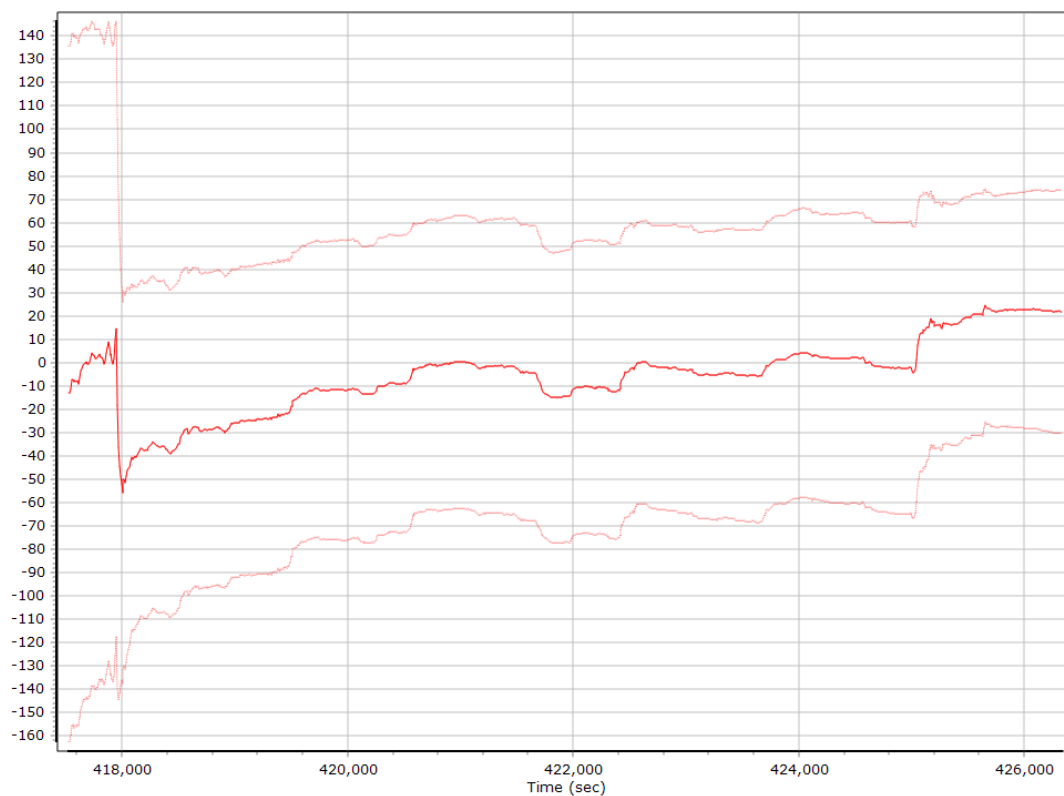
Gyro Scale Error (ppm)



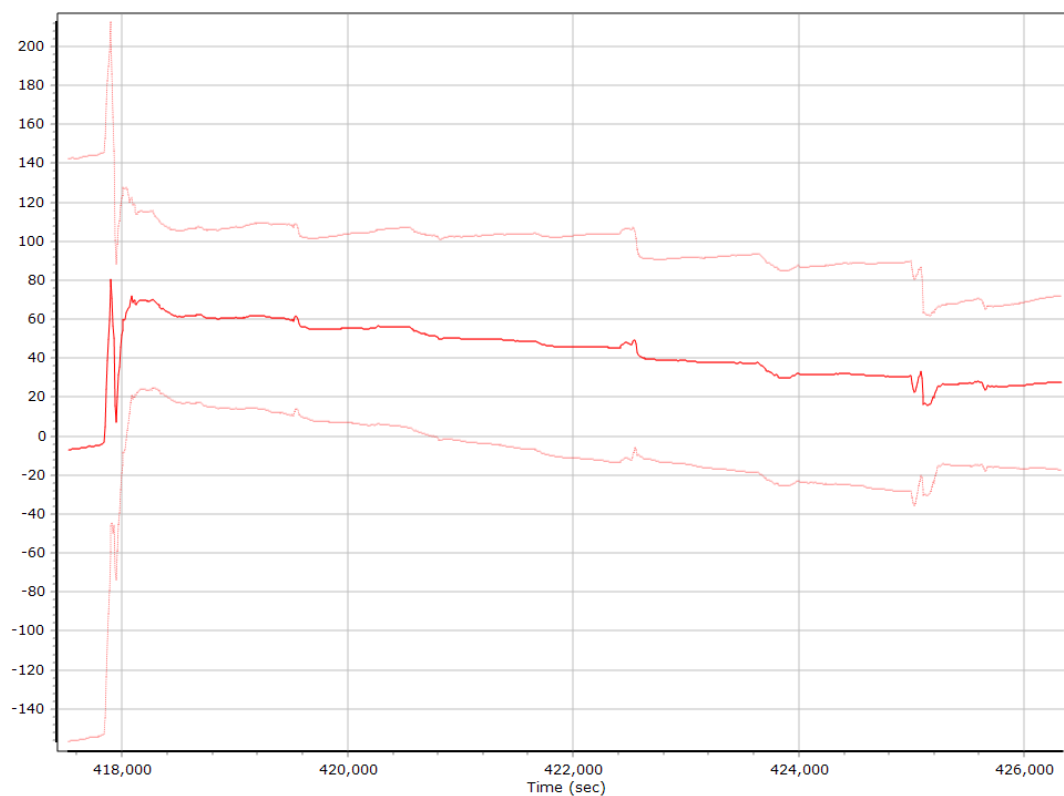
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

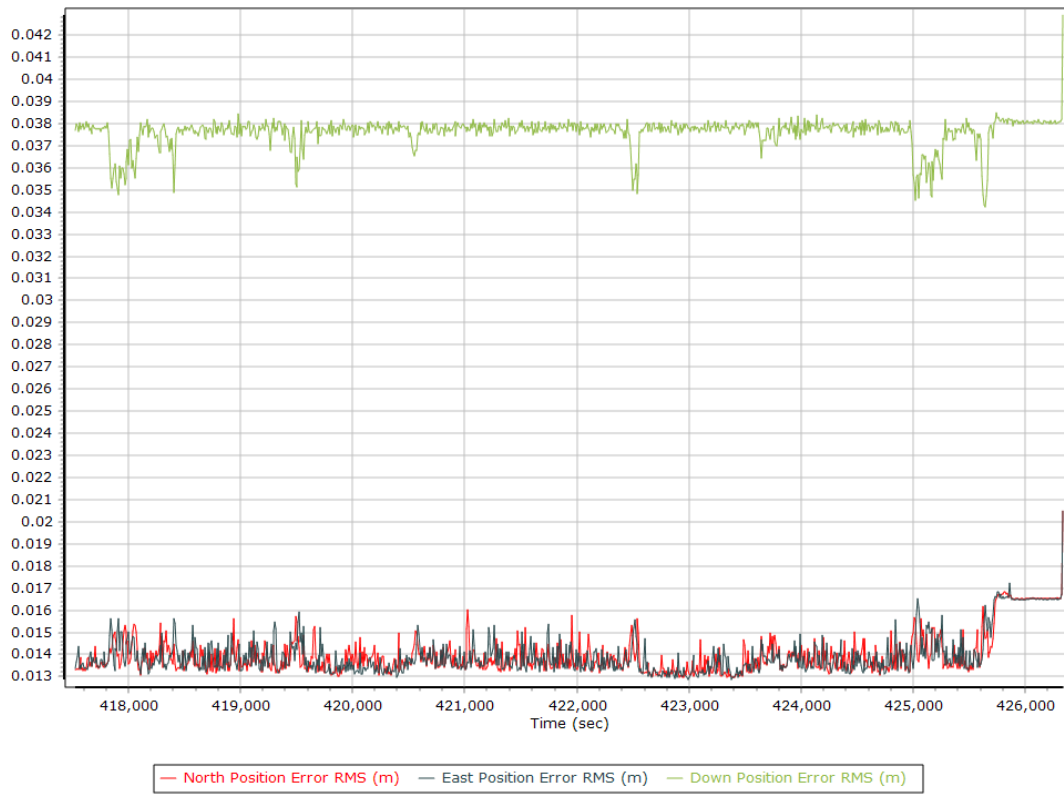


Z Gyro Scale Error (ppm)

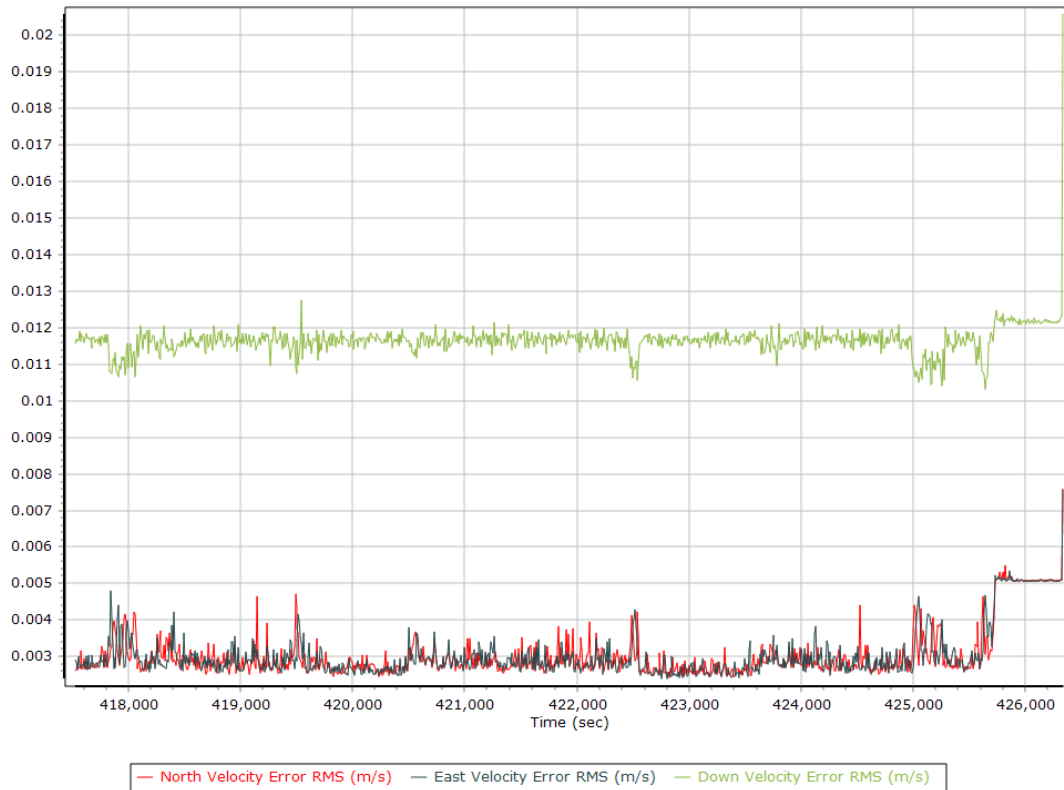


Smoothed Performance Metrics

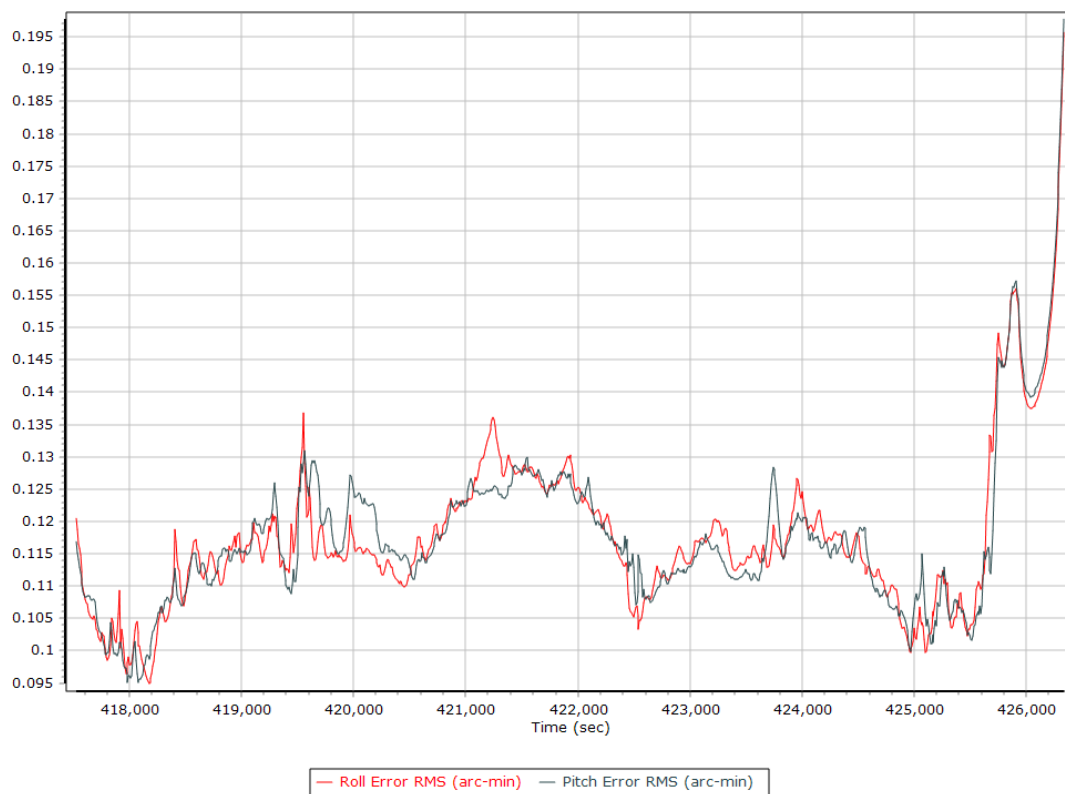
Position Error RMS (m)



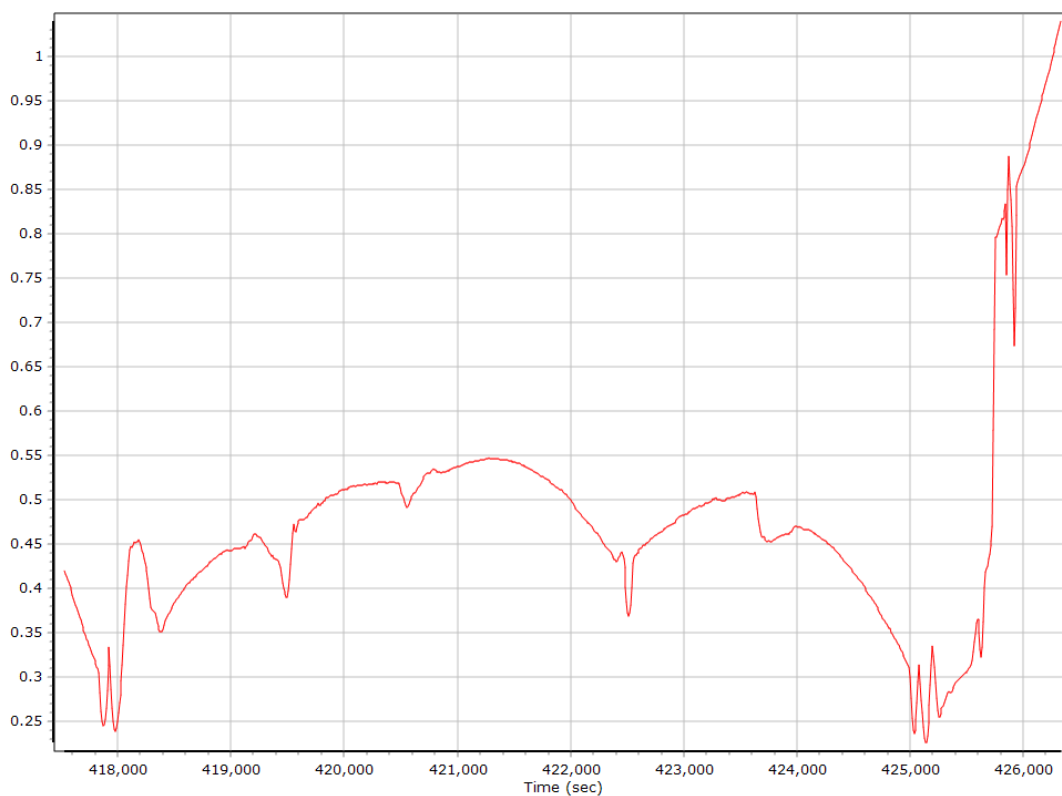
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

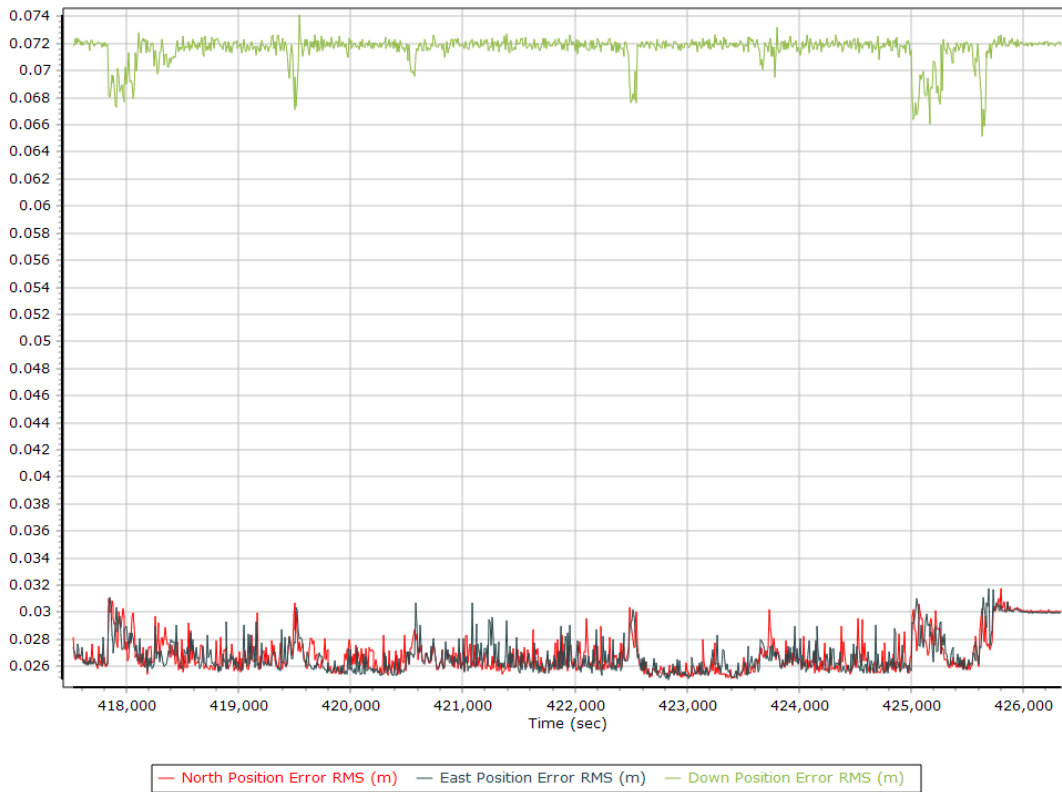


Heading Error RMS (arc-min)

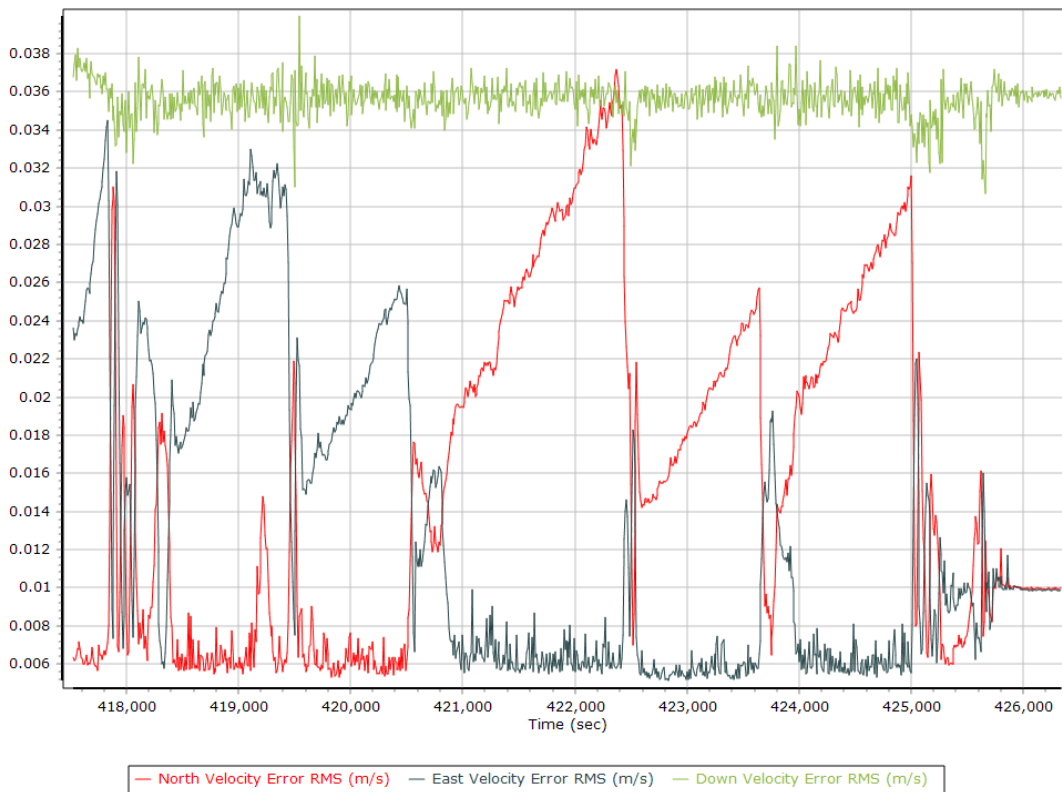


Forward Processed Performance Metrics

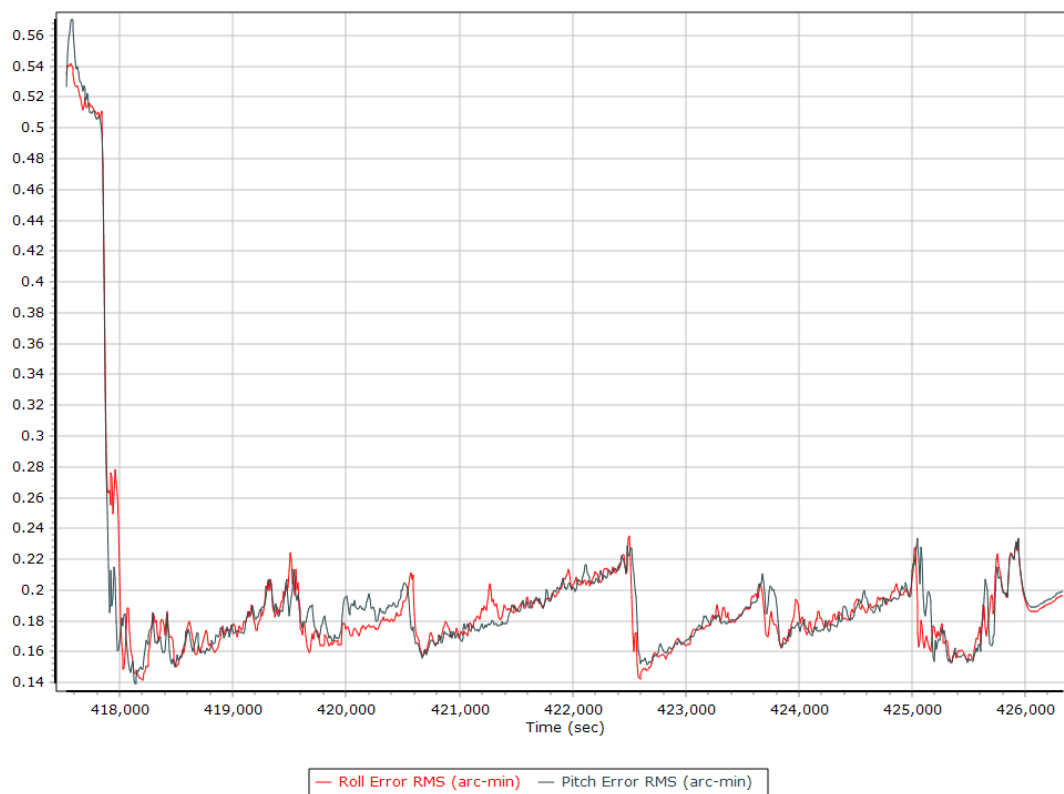
Position Error RMS (m)



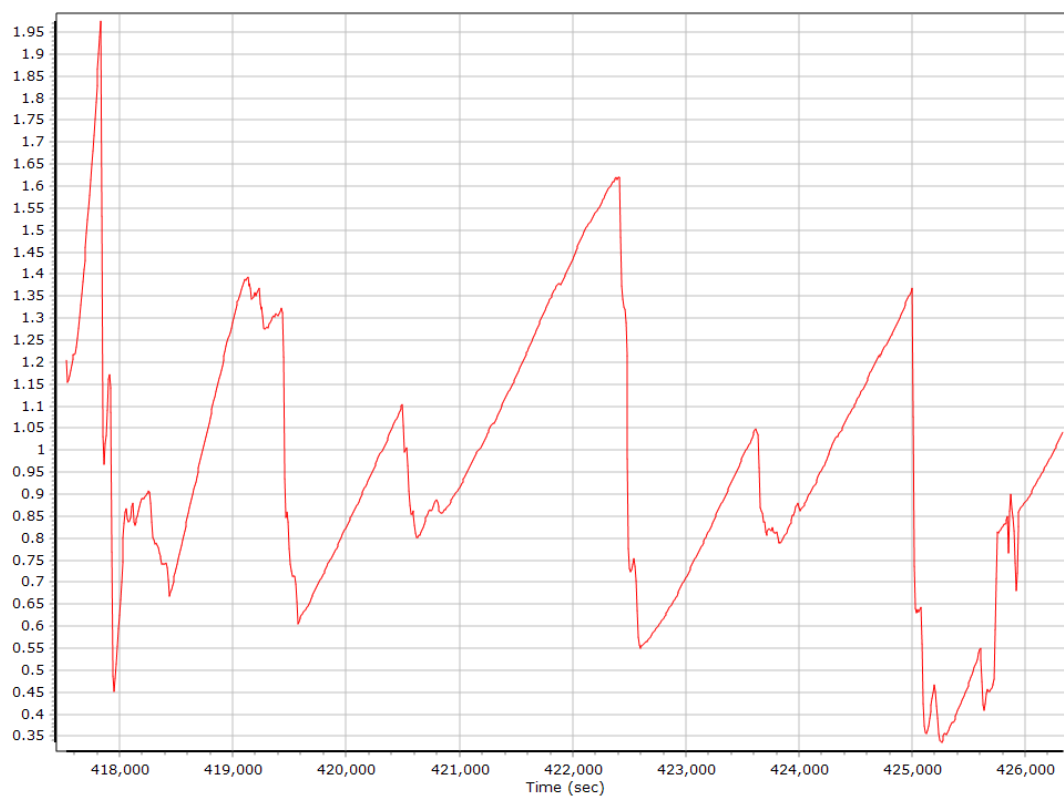
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

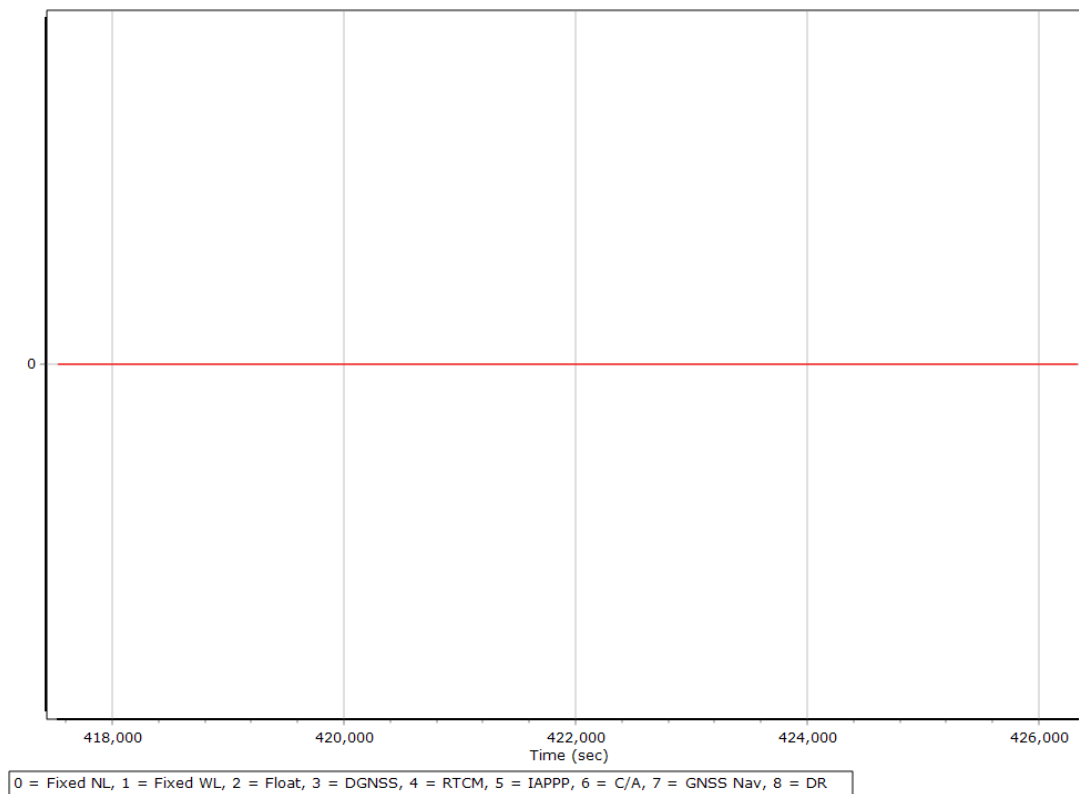


Heading Error RMS (arc-min)

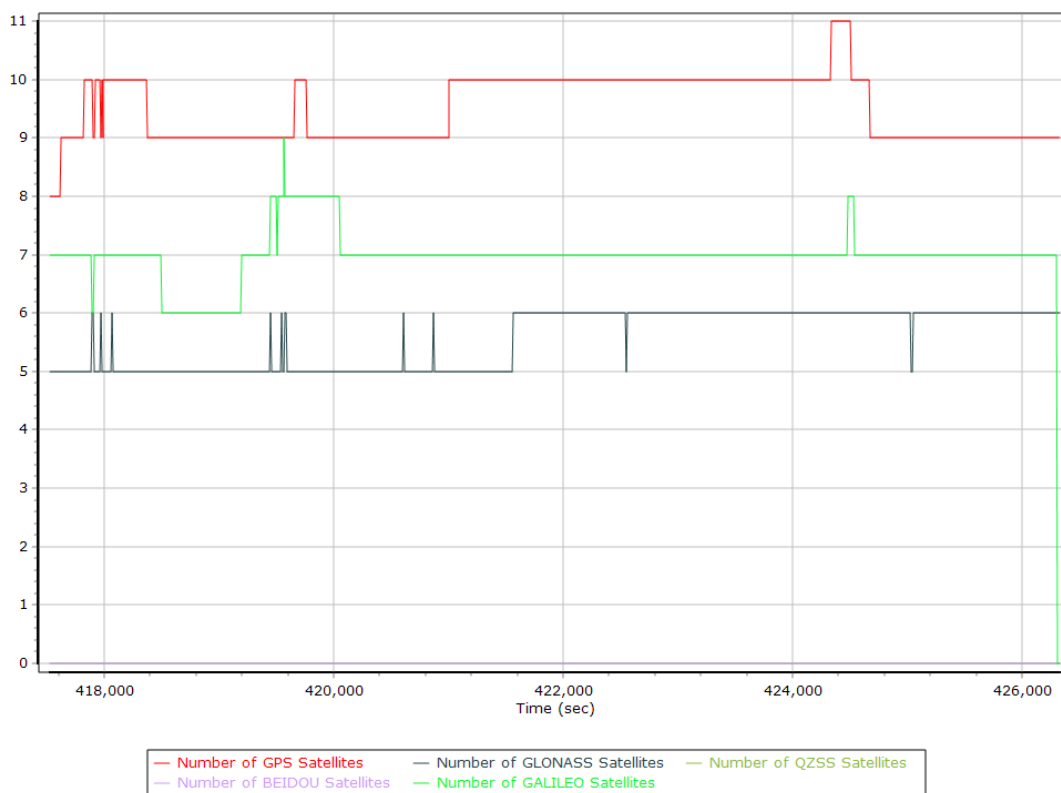


Forward Processed Solution Status

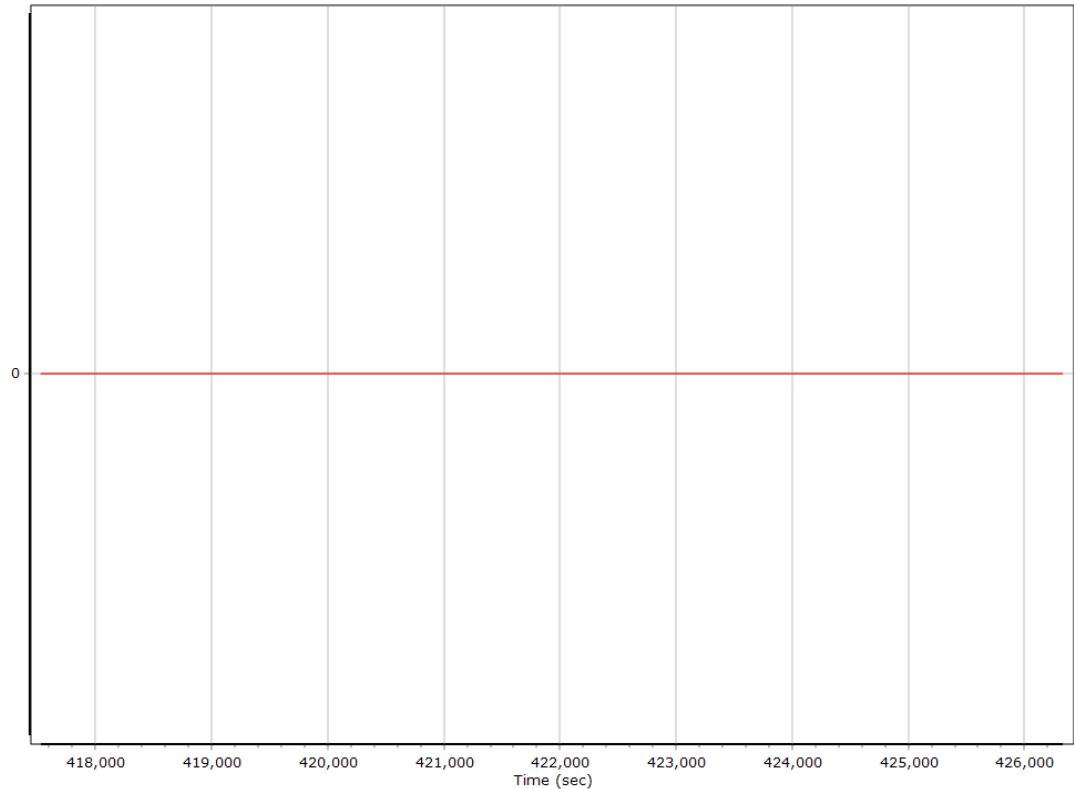
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230420_F2_b_4894_NAD832011.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	417470.005 (04/20/2023 19:57:50)		
Export end time	426333.002 (04/20/2023 22:25:33)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.29863		

General Information

Mission Information

Project name	20230420_F3_4894
Processing date	2023-04-25 21:04:59
Mission date	2023-04-20 22:59:50
Mission duration	04:46:49.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.630	POS Data
VQ1560.631	POS Data
VQ1560.632	POS Data
VQ1560.633	POS Data
VQ1560.634	POS Data
VQ1560.635	POS Data
VQ1560.636	POS Data
VQ1560.637	POS Data
VQ1560.638	POS Data
VQ1560.639	POS Data
VQ1560.640	POS Data
VQ1560.641	POS Data
VQ1560.642	POS Data
VQ1560.643	POS Data
VQ1560.644	POS Data
VQ1560.645	POS Data
VQ1560.646	POS Data
VQ1560.647	POS Data
VQ1560.648	POS Data
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VQ1560.650	POS Data
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VQ1560.652	POS Data
VQ1560.653	POS Data
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VQ1560.658	POS Data
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VQ1560.660	POS Data
VQ1560.661	POS Data
VQ1560.662	POS Data
VQ1560.663	POS Data
VQ1560.664	POS Data
VQ1560.665	POS Data
VQ1560.666	POS Data
VQ1560.667	POS Data
VQ1560.668	POS Data
VQ1560.669	POS Data

Input Files

File Name	File Type
Ephm1100.23g	GLONASS Broadcast Ephemeris
Ephm1100.23n	GPS Broadcast Ephemeris
Ephm1110.23g	GLONASS Broadcast Ephemeris
Ephm1110.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbt_20230420_F3_4894.out	SBET Trajectory File
export_20230420_F3_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.630		
Last raw data file	VQ1560.669		
Start GPS week	2258		
Start time	428383.952 (04/20/2023 22:59:43)		
End time	445581.188 (04/21/2023 03:46:21)		
Start of fine alignment	428809.900 (04/20/2023 23:06:49)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

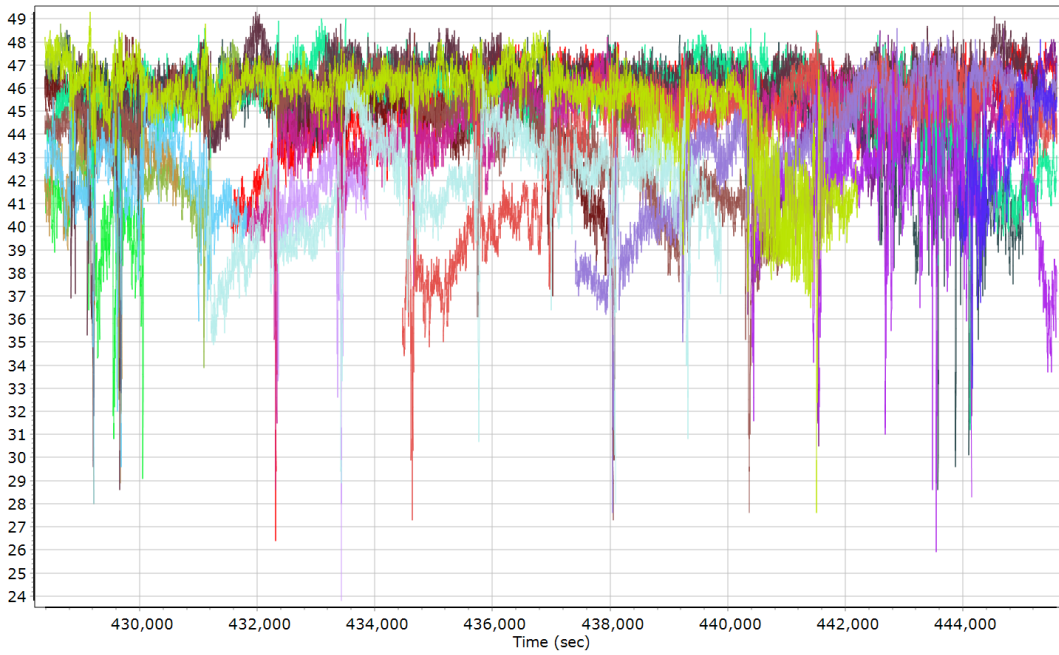
IMU data input file	imu_20230420_F3_4894.dat
IMU data check log file	imudt_20230420_F3_4894.log
IMU Records Processed	3441140
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
428383.752 : WARNING : Gap of 428371.7953 seconds in CHECKDT input data	

Primary Observables & Satellite Data

GPS/GLONASS L1 Satellite Lock/Elevation

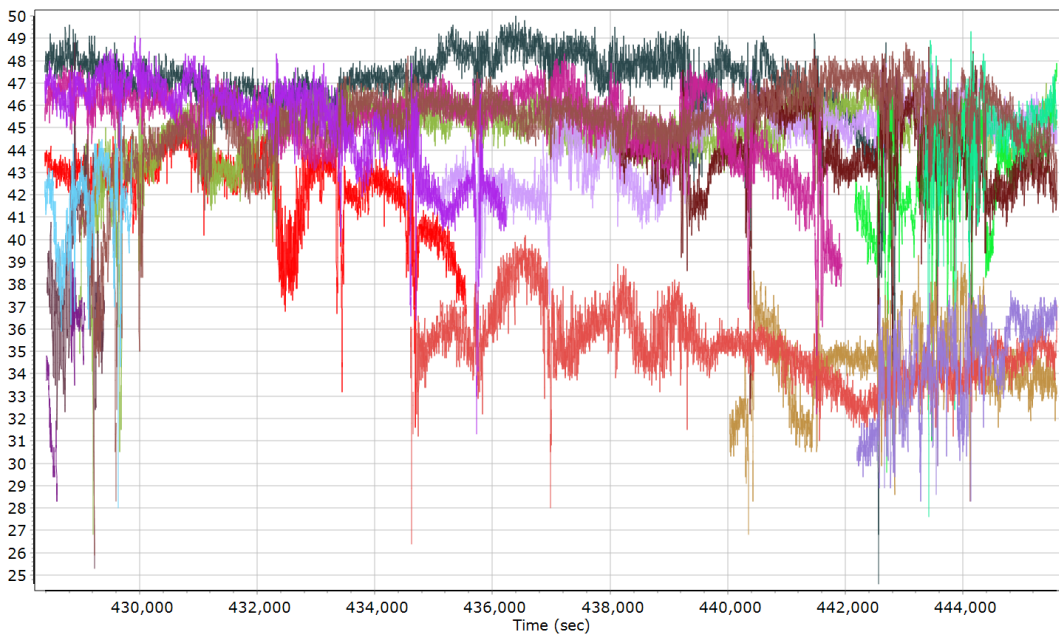


GPS L1 SNR



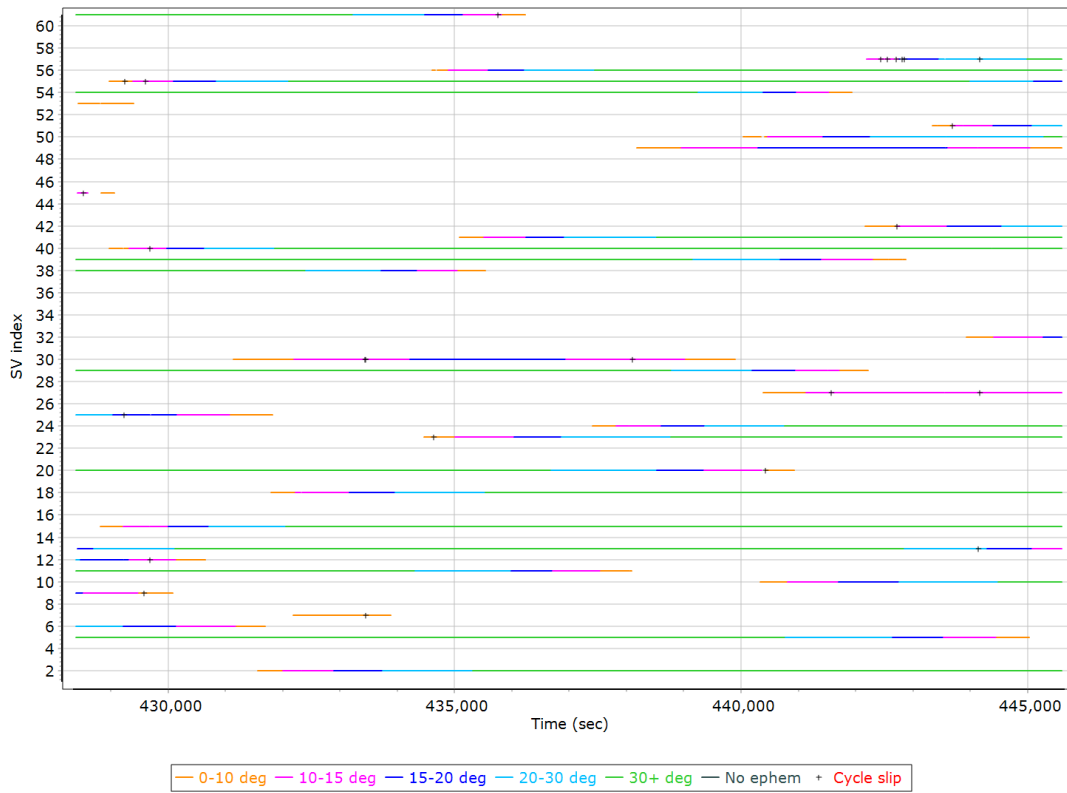
GPS PRN 02 L1 SNR (dB/Hz)	GPS PRN 05 L1 SNR (dB/Hz)	GPS PRN 06 L1 SNR (dB/Hz)	GPS PRN 07 L1 SNR (dB/Hz)
GPS PRN 09 L1 SNR (dB/Hz)	GPS PRN 10 L1 SNR (dB/Hz)	GPS PRN 11 L1 SNR (dB/Hz)	GPS PRN 12 L1 SNR (dB/Hz)
GPS PRN 13 L1 SNR (dB/Hz)	GPS PRN 15 L1 SNR (dB/Hz)	GPS PRN 18 L1 SNR (dB/Hz)	GPS PRN 20 L1 SNR (dB/Hz)
GPS PRN 23 L1 SNR (dB/Hz)	GPS PRN 24 L1 SNR (dB/Hz)	GPS PRN 25 L1 SNR (dB/Hz)	GPS PRN 27 L1 SNR (dB/Hz)
GPS PRN 29 L1 SNR (dB/Hz)	GPS PRN 30 L1 SNR (dB/Hz)	GPS PRN 32 L1 SNR (dB/Hz)	

GLONASS L1 SNR

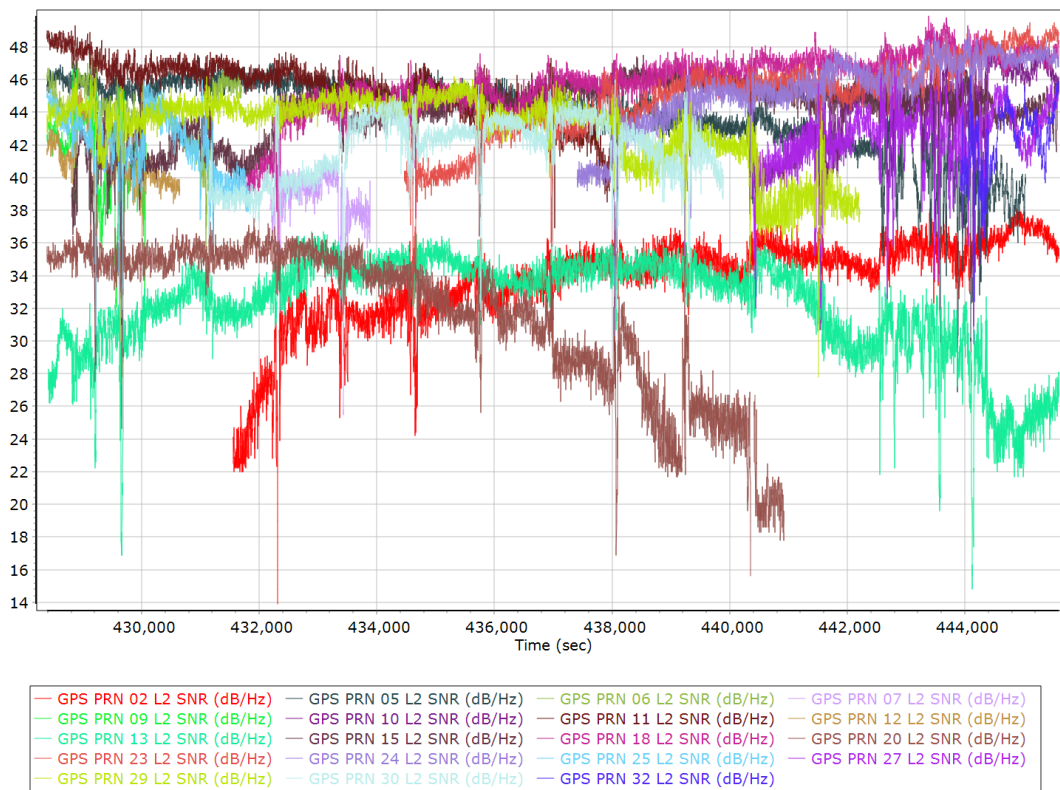


GLONASS 01 L1 SNR (dB/Hz)	GLONASS 02 L1 SNR (dB/Hz)	GLONASS 03 L1 SNR (dB/Hz)
GLONASS 04 L1 SNR (dB/Hz)	GLONASS 05 L1 SNR (dB/Hz)	GLONASS 08 L1 SNR (dB/Hz)
GLONASS 12 L1 SNR (dB/Hz)	GLONASS 13 L1 SNR (dB/Hz)	GLONASS 14 L1 SNR (dB/Hz)
GLONASS 16 L1 SNR (dB/Hz)	GLONASS 17 L1 SNR (dB/Hz)	GLONASS 18 L1 SNR (dB/Hz)
GLONASS 19 L1 SNR (dB/Hz)	GLONASS 20 L1 SNR (dB/Hz)	GLONASS 23 L1 SNR (dB/Hz)
GLONASS 24 L1 SNR (dB/Hz)		

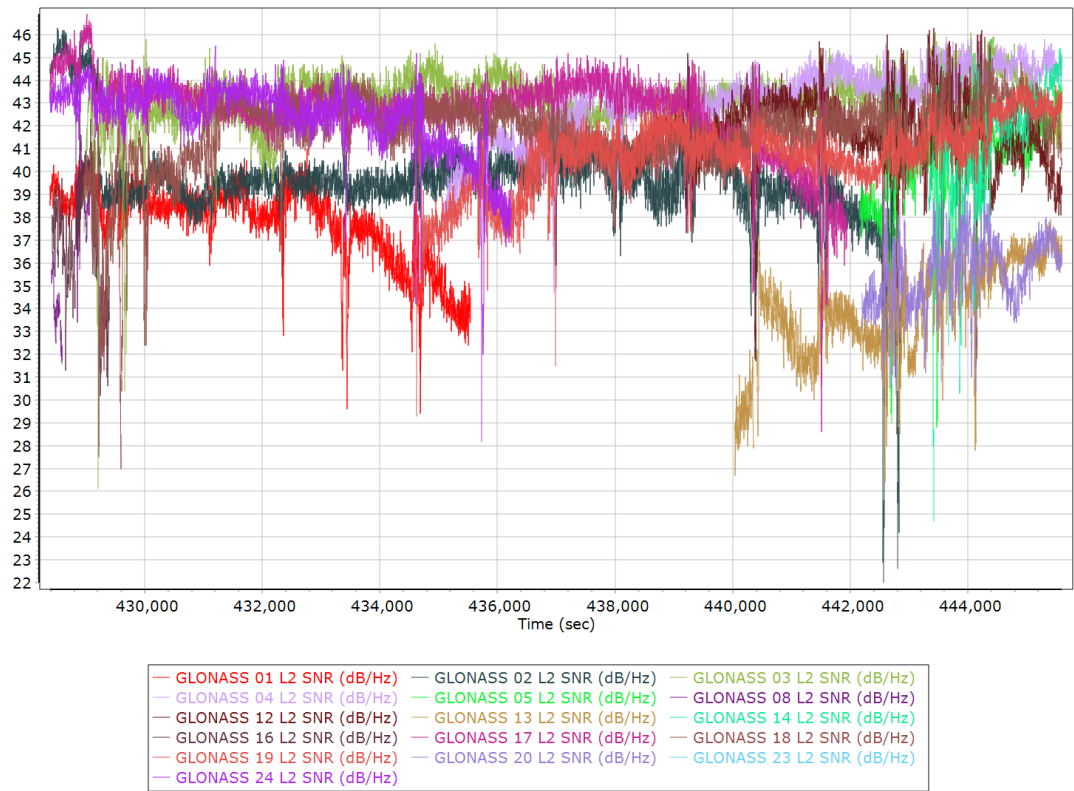
GPS/GLONASS L2 Satellite Lock/Elevation



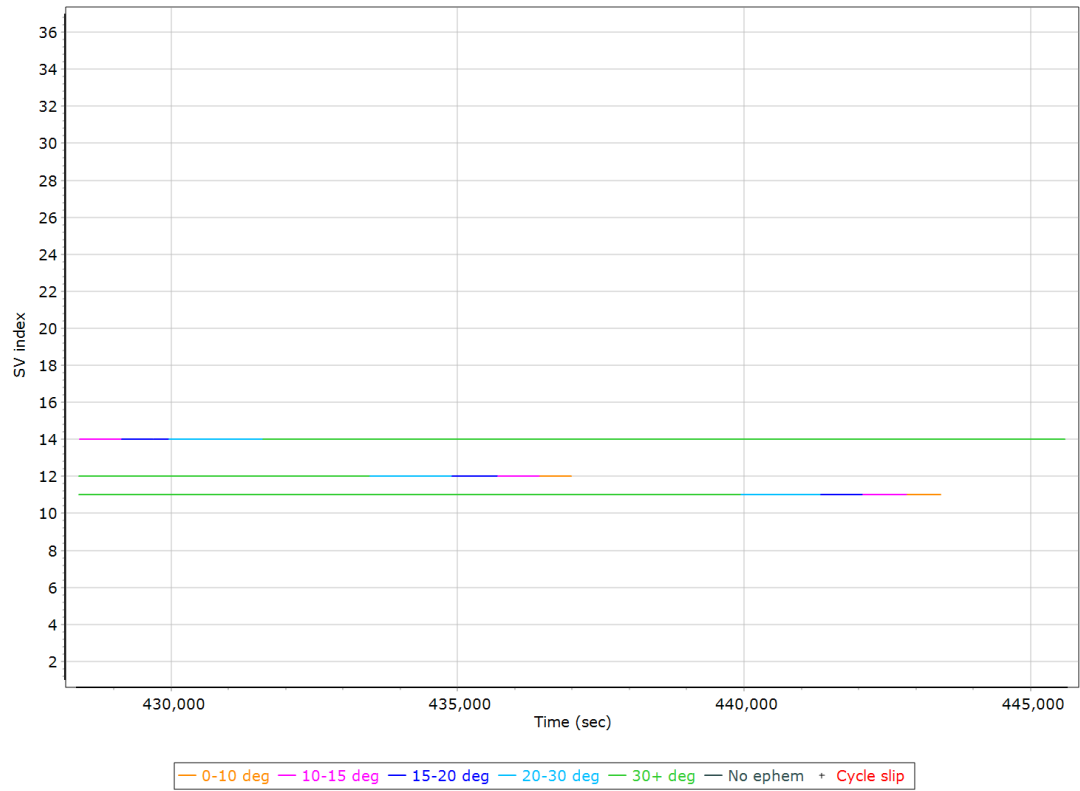
GPS L2 SNR



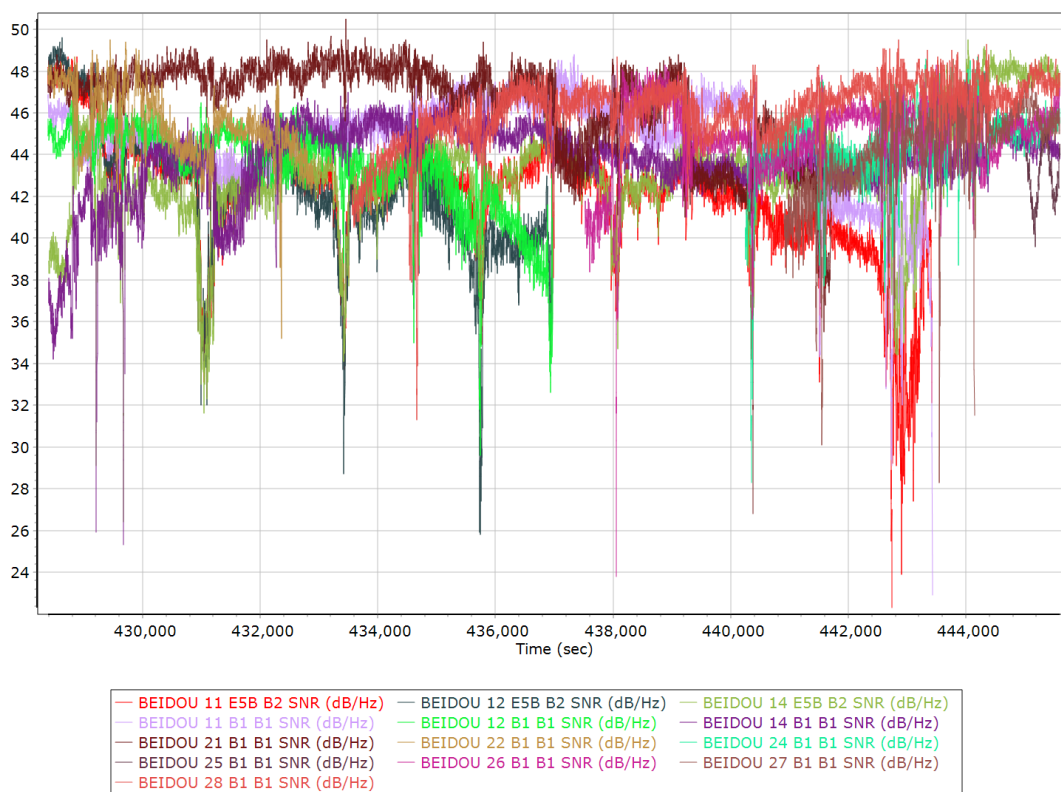
GLONASS L2 SNR



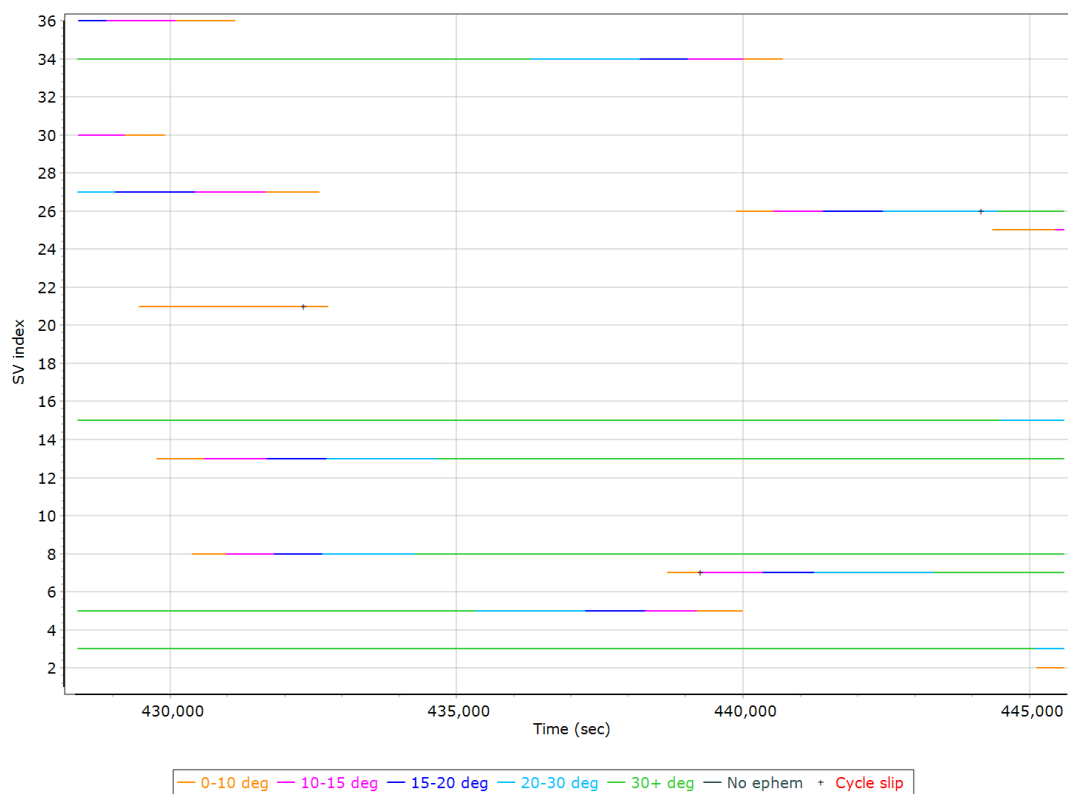
BEIDOU Satellite Lock/Elevation



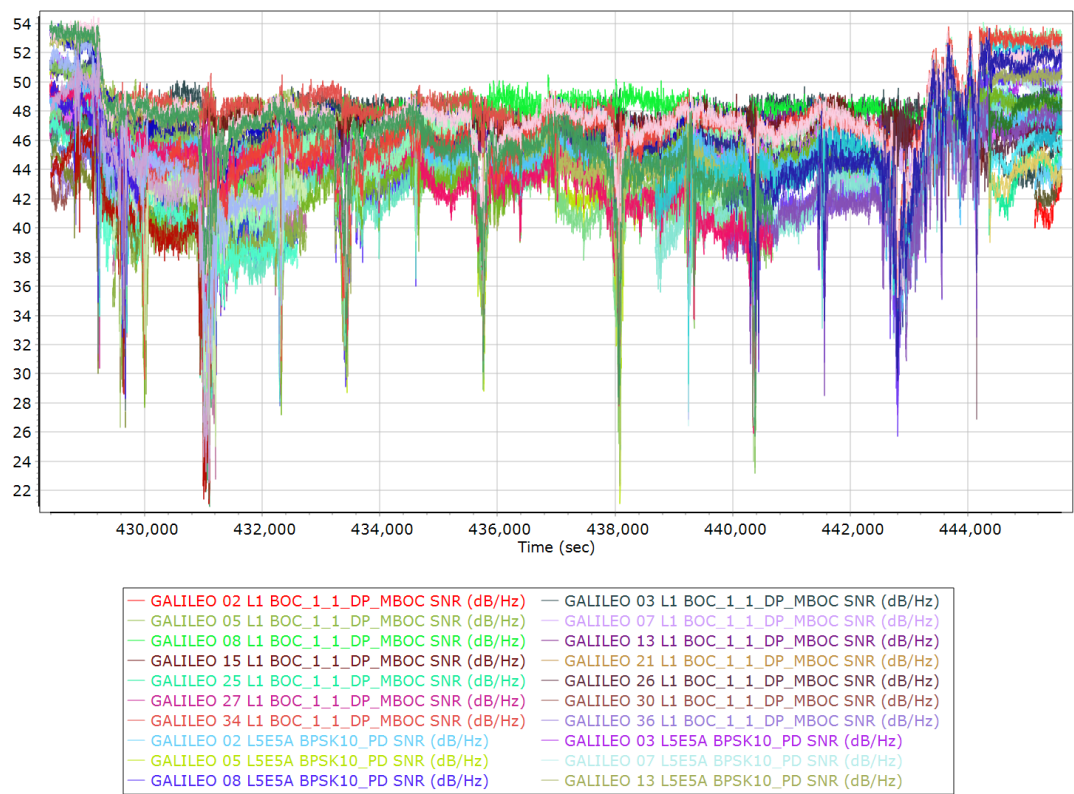
BEIDOU SNR



GALILEO Satellite Lock/Elevation

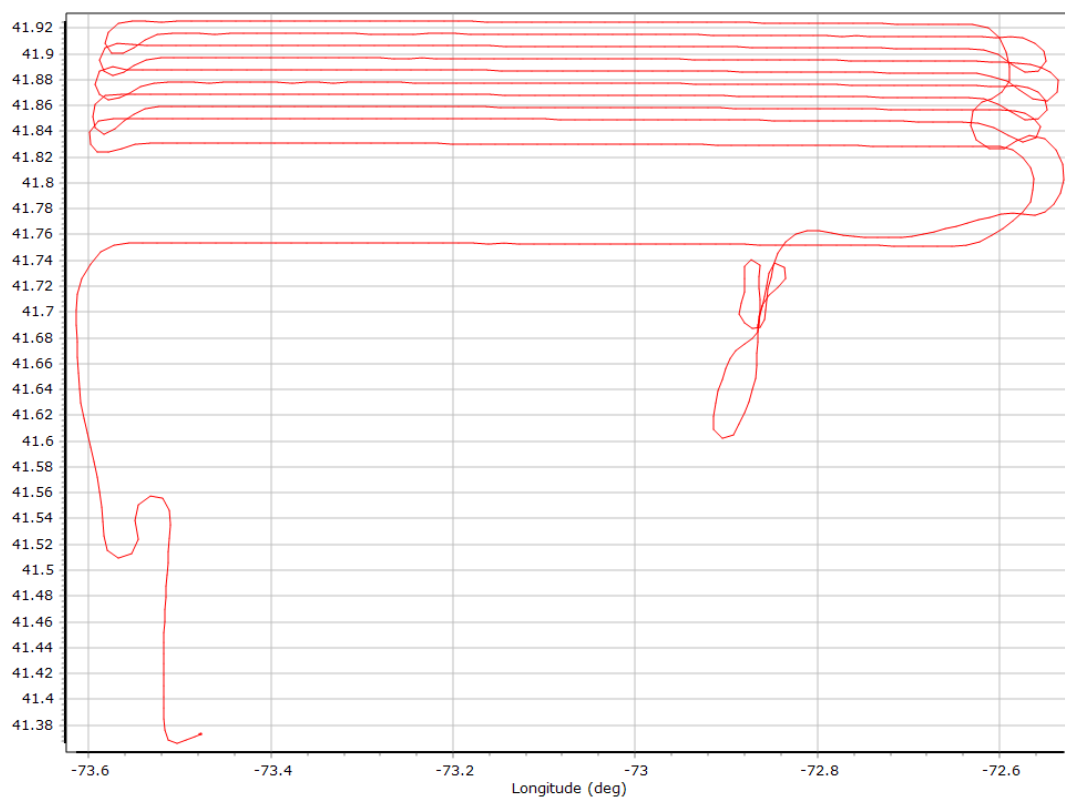


GALILEO SNR

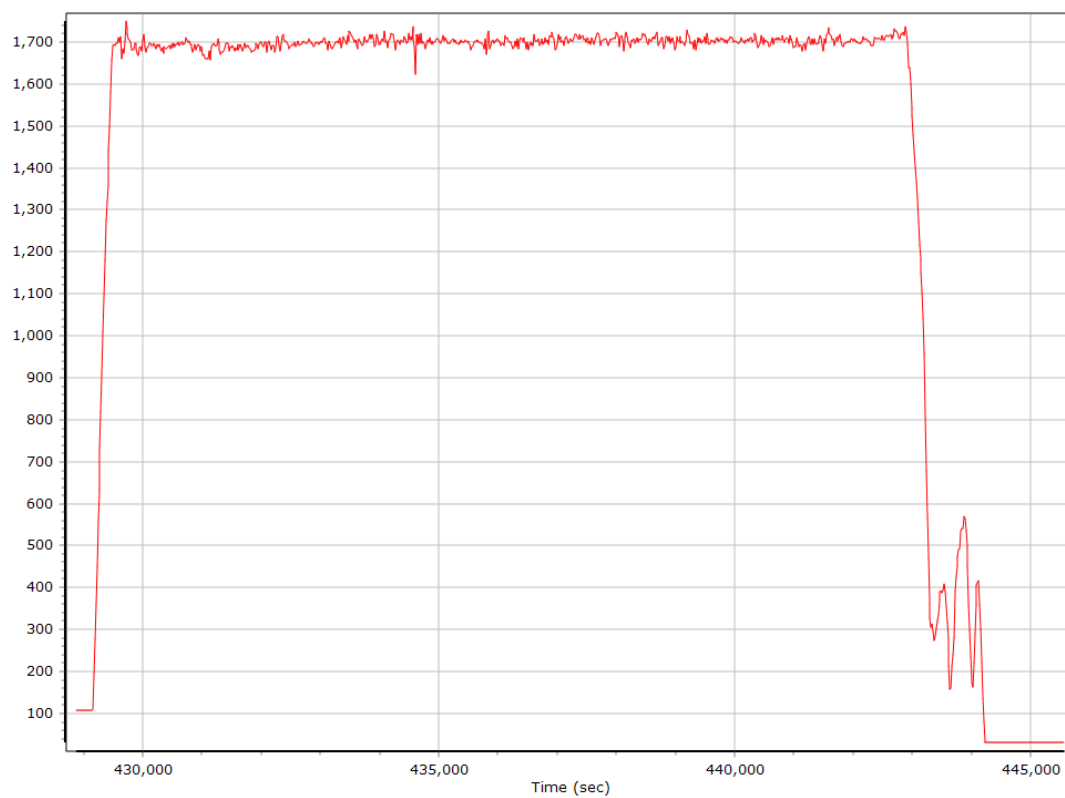


Smoothed Trajectory Information

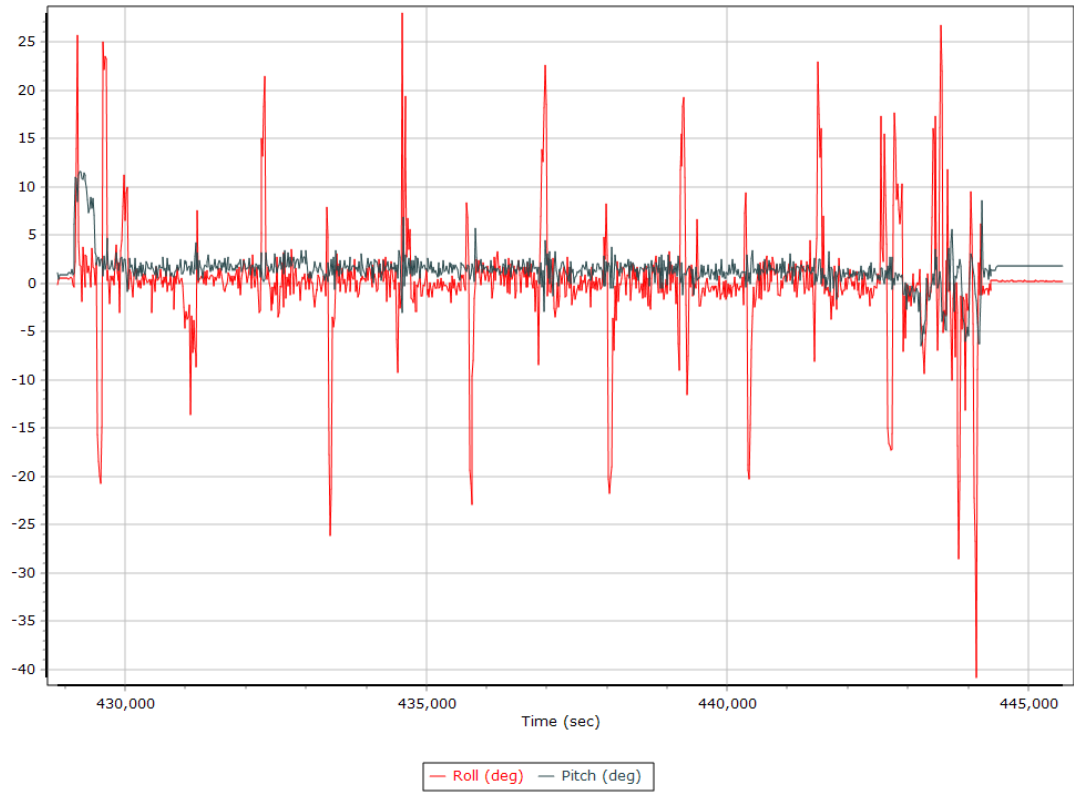
Top View



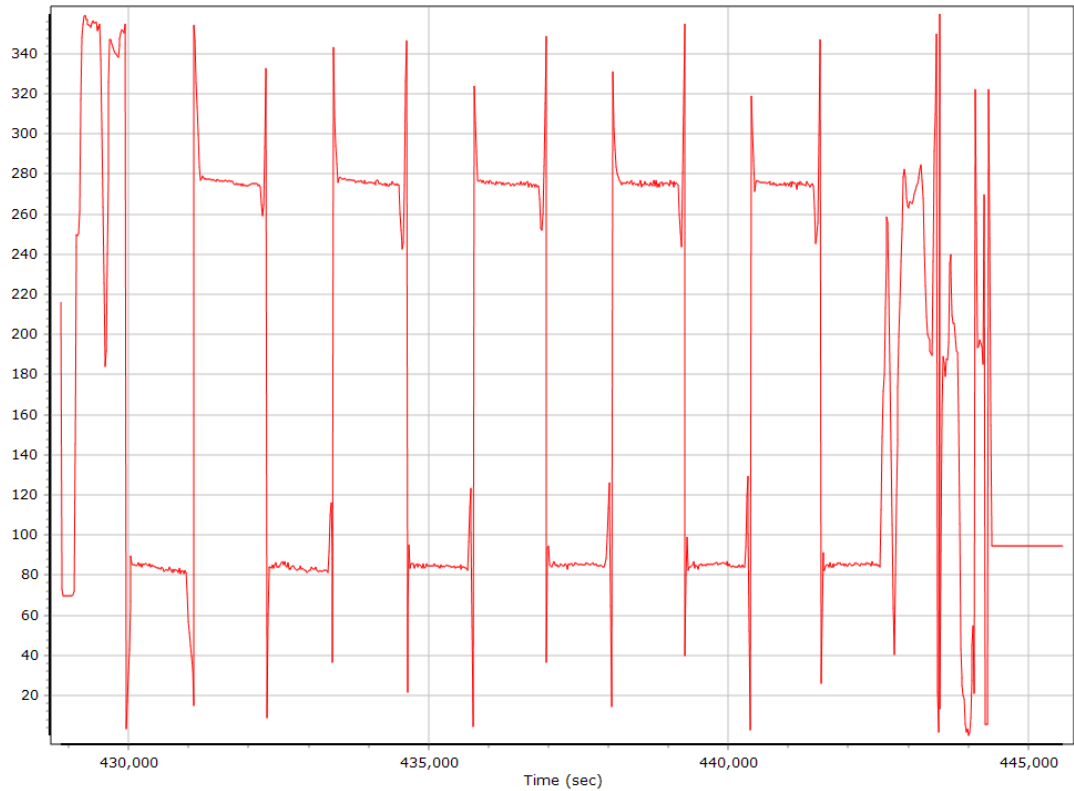
Altitude



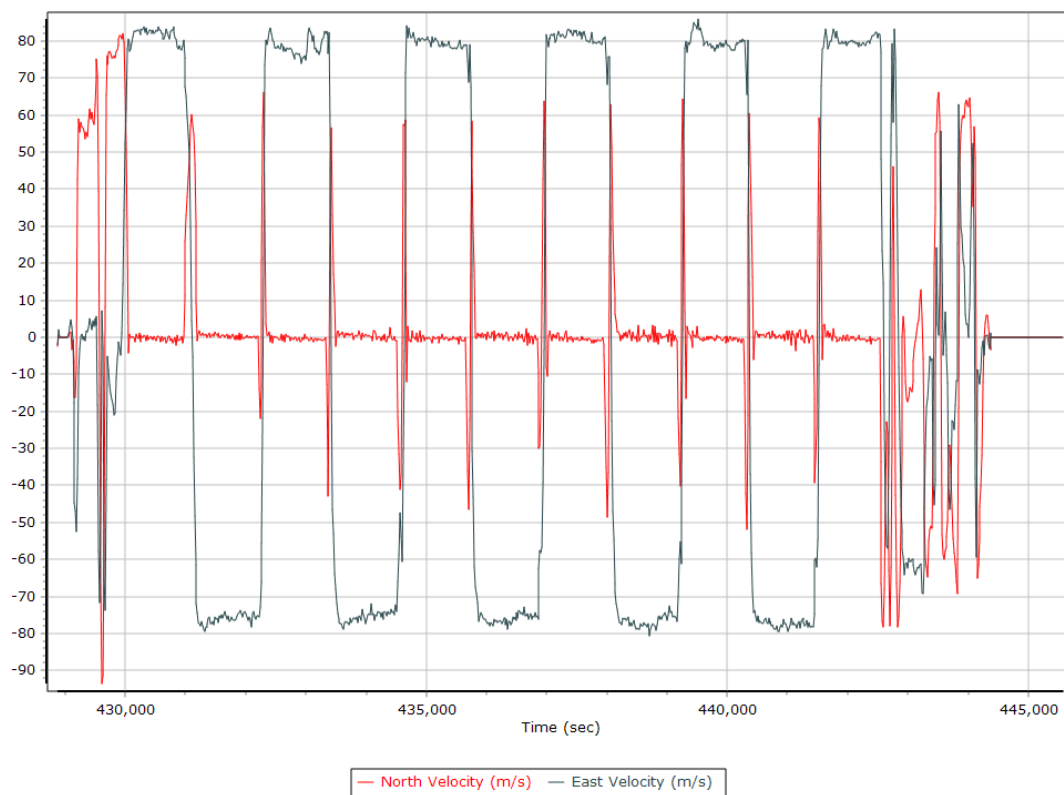
Roll/Pitch



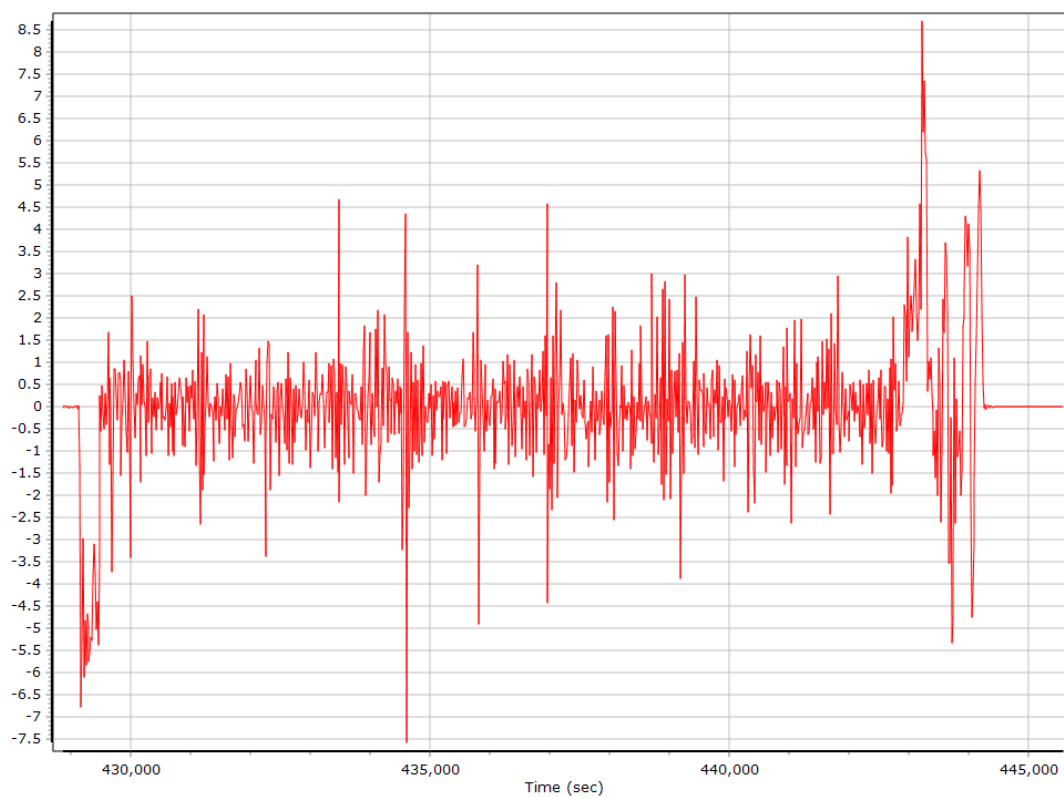
Heading



North/East Velocity



Down Velocity



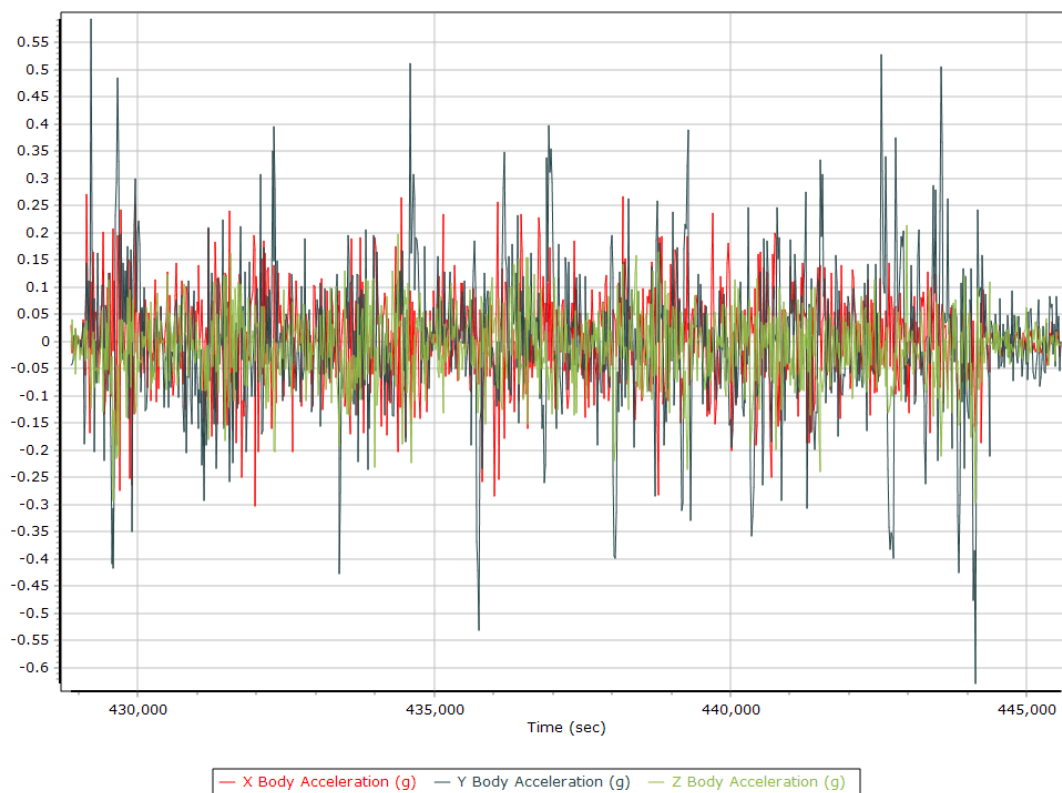
Total Speed



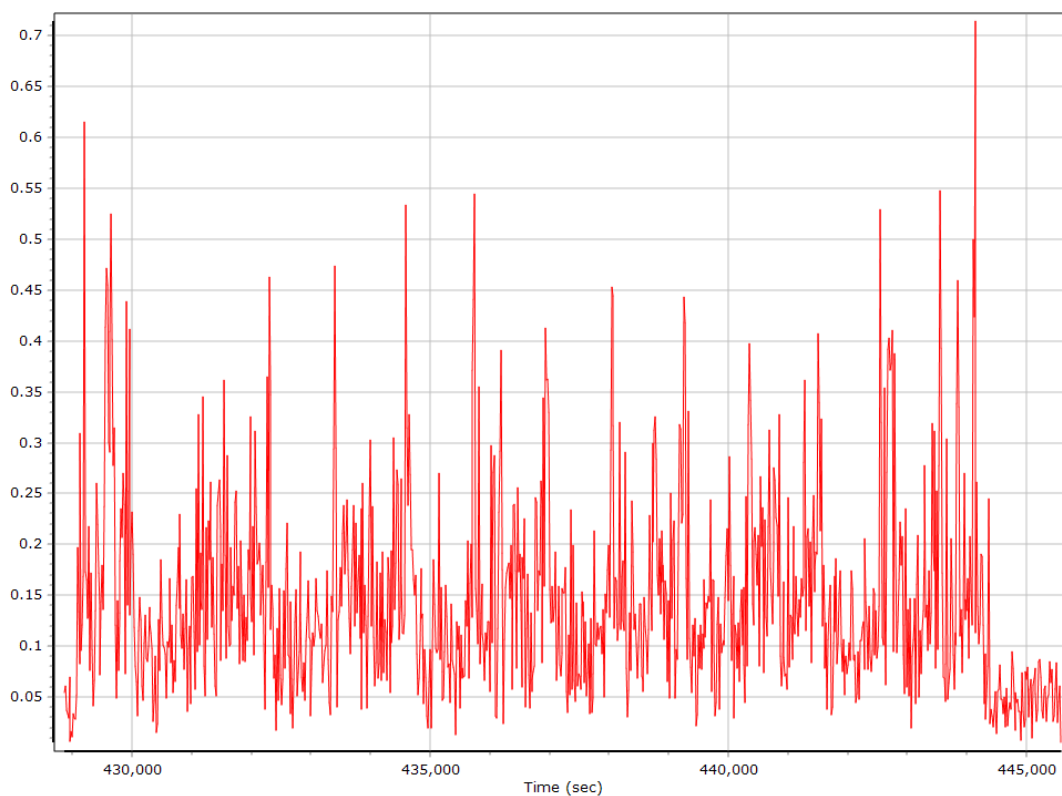
Ground Speed



Body Acceleration



Total Body Acceleration

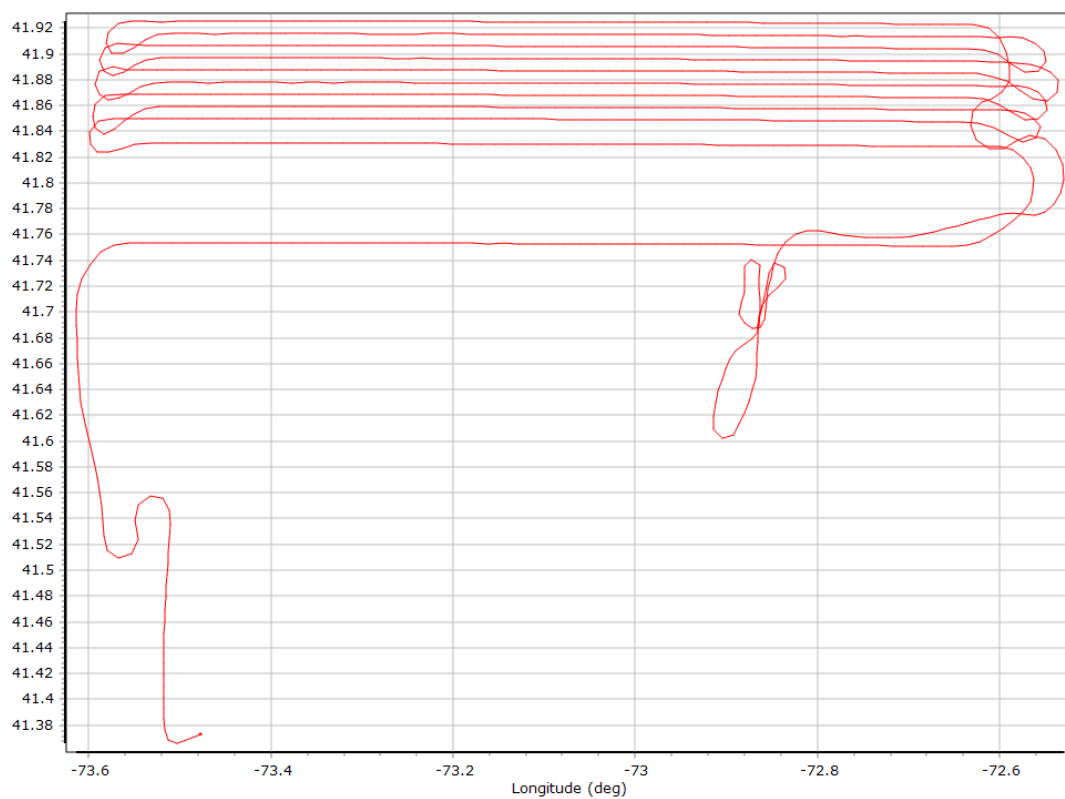


Body Angular Rate

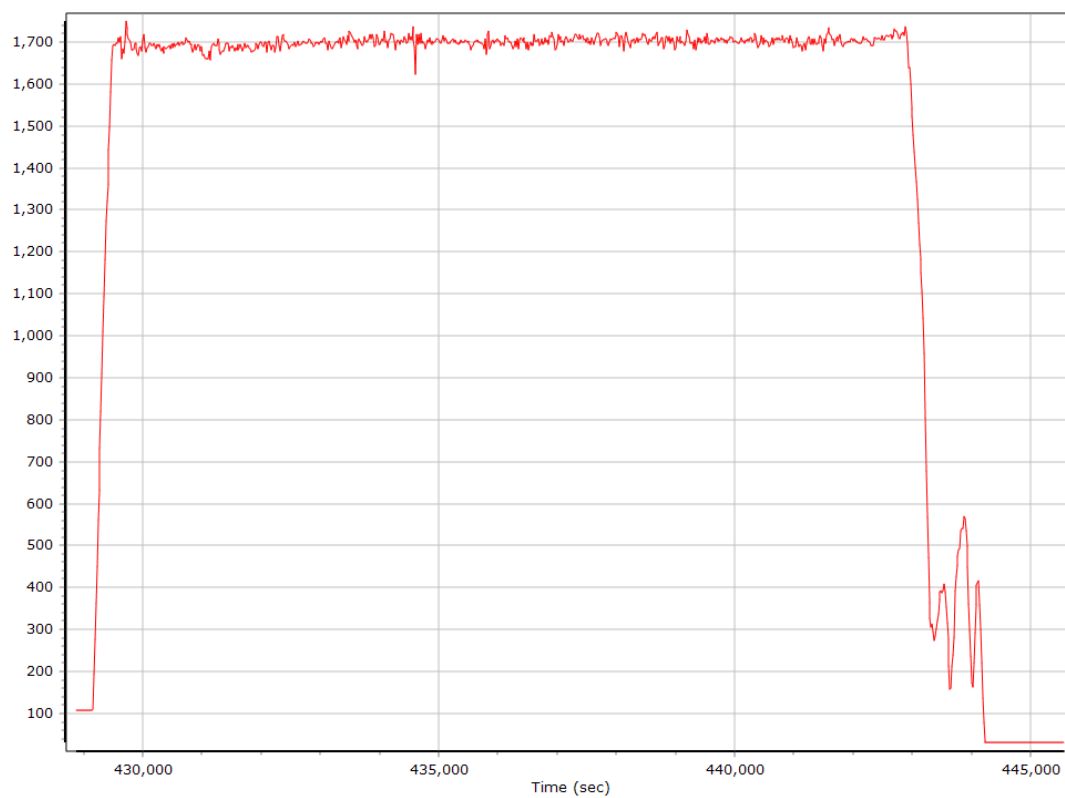


Forward Processed Trajectory Information

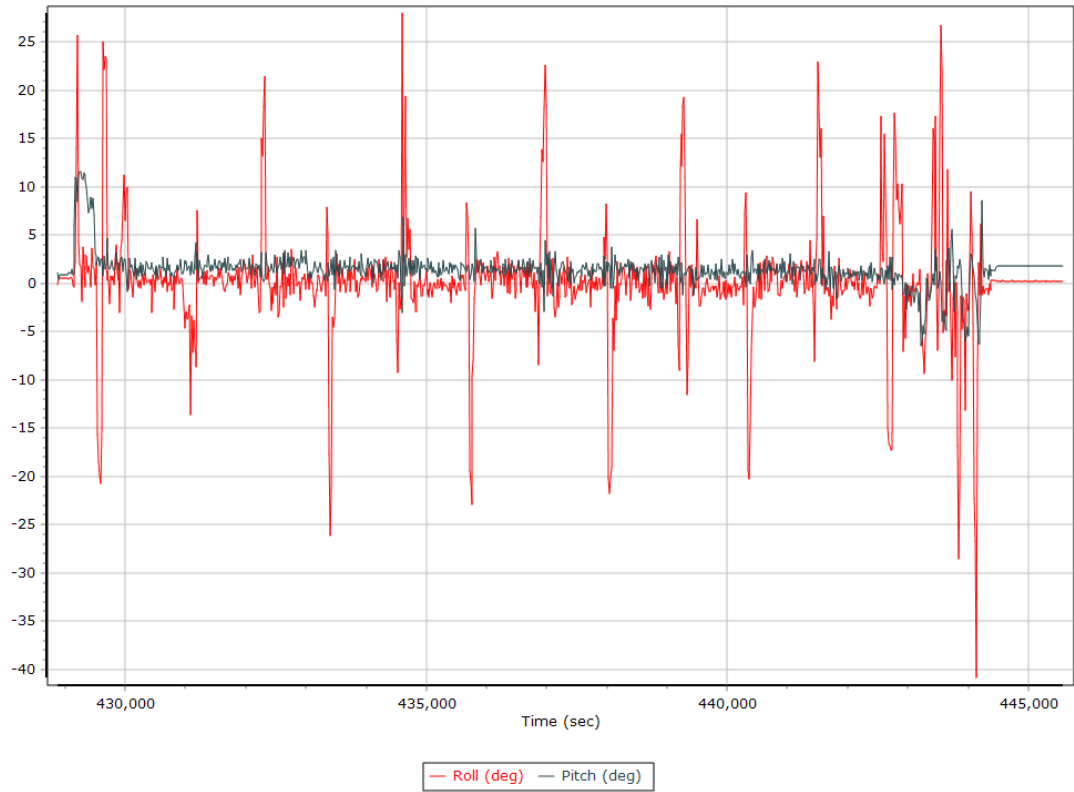
Top View



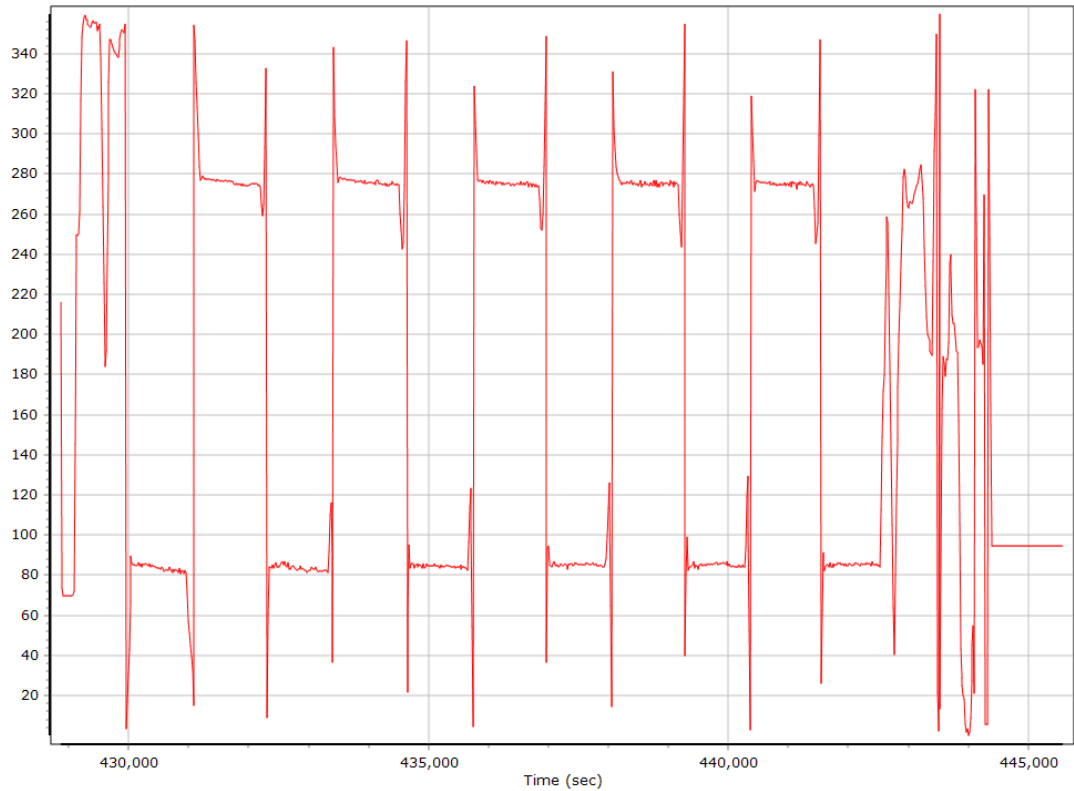
Altitude



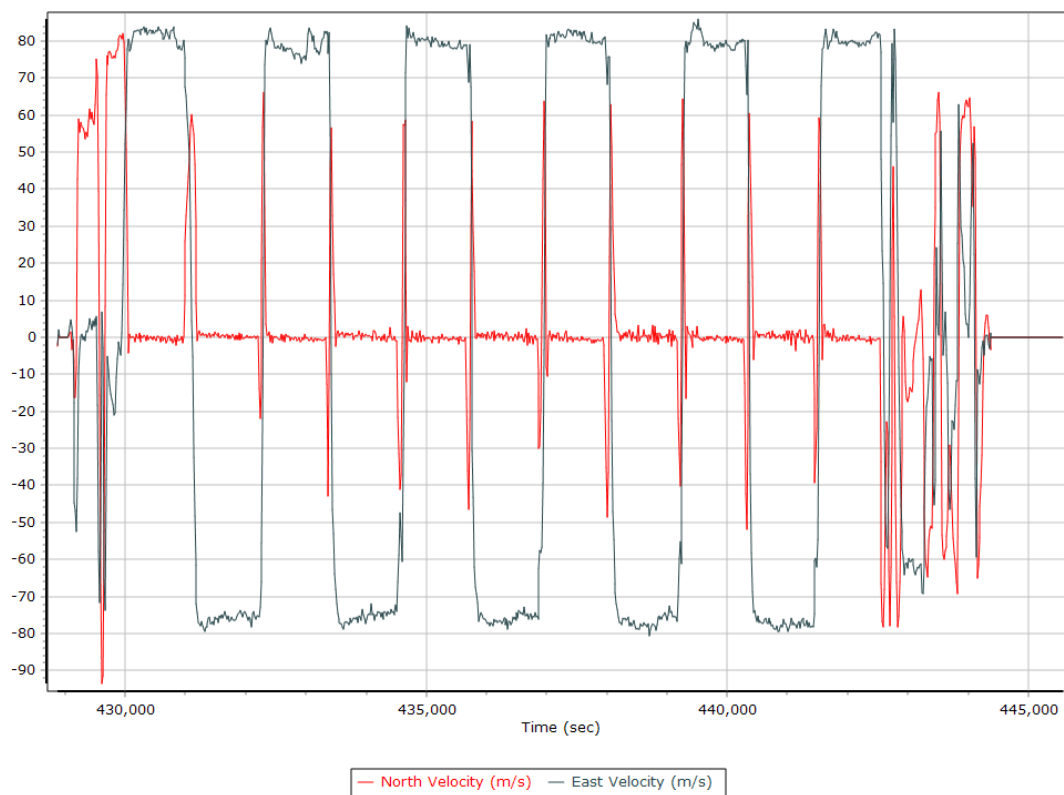
Roll/Pitch



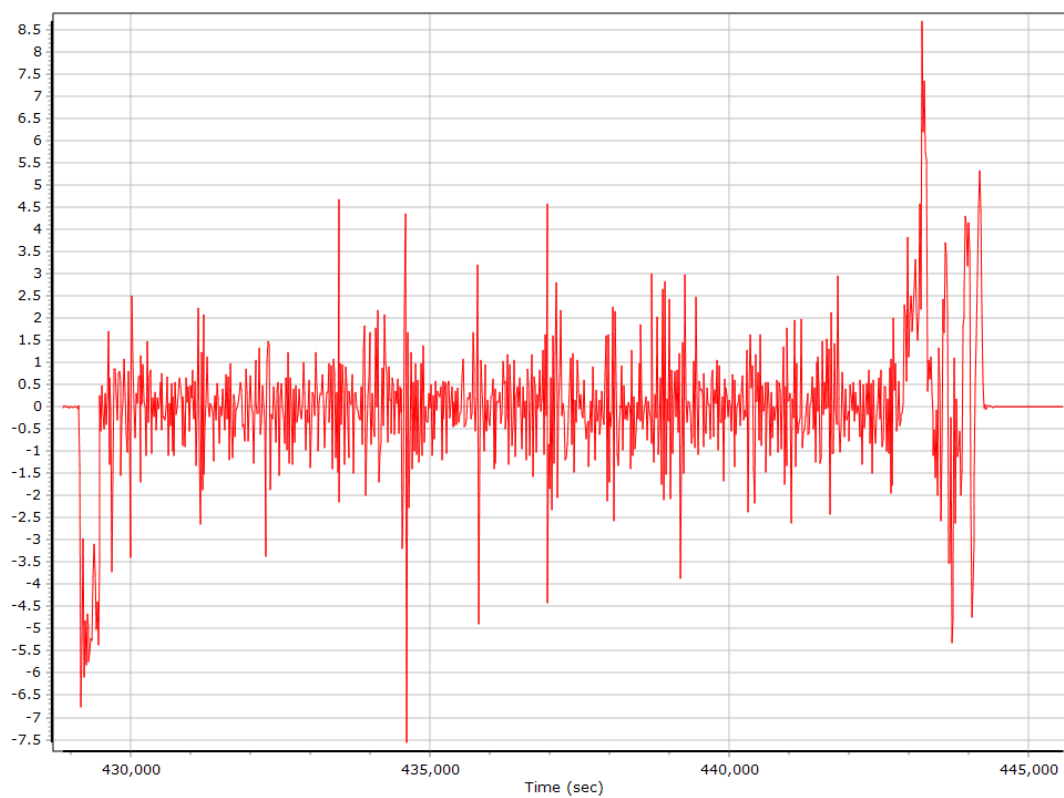
Heading



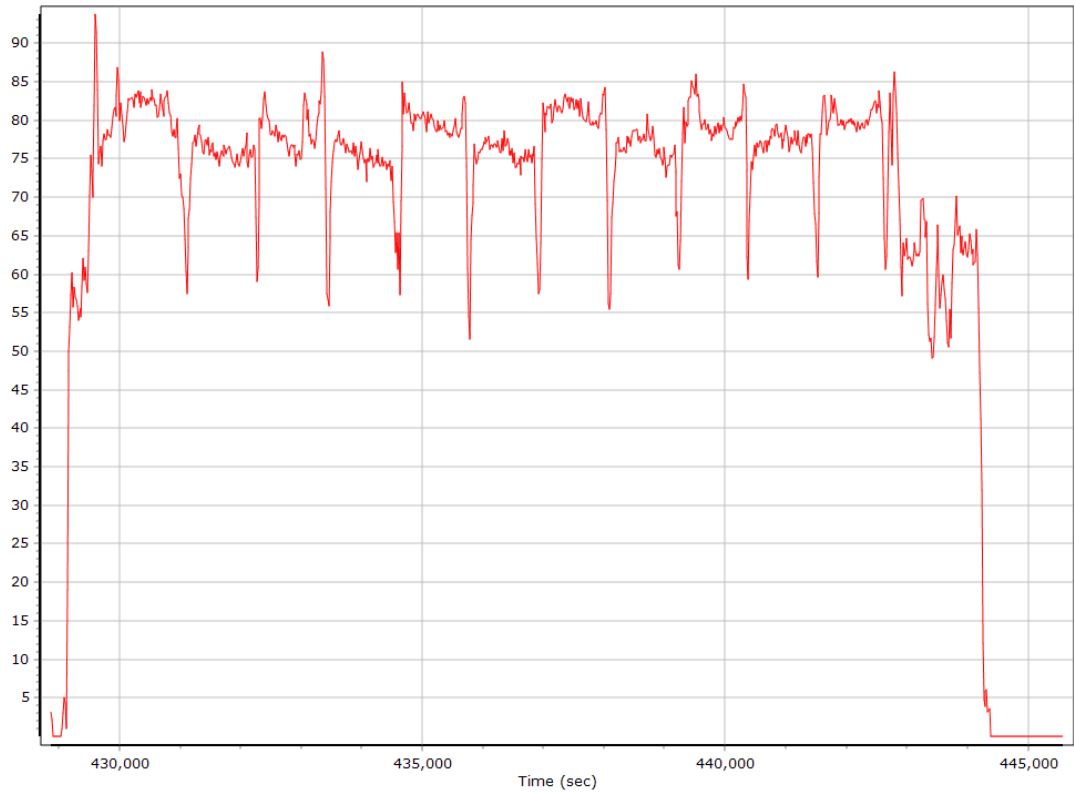
North/East Velocity



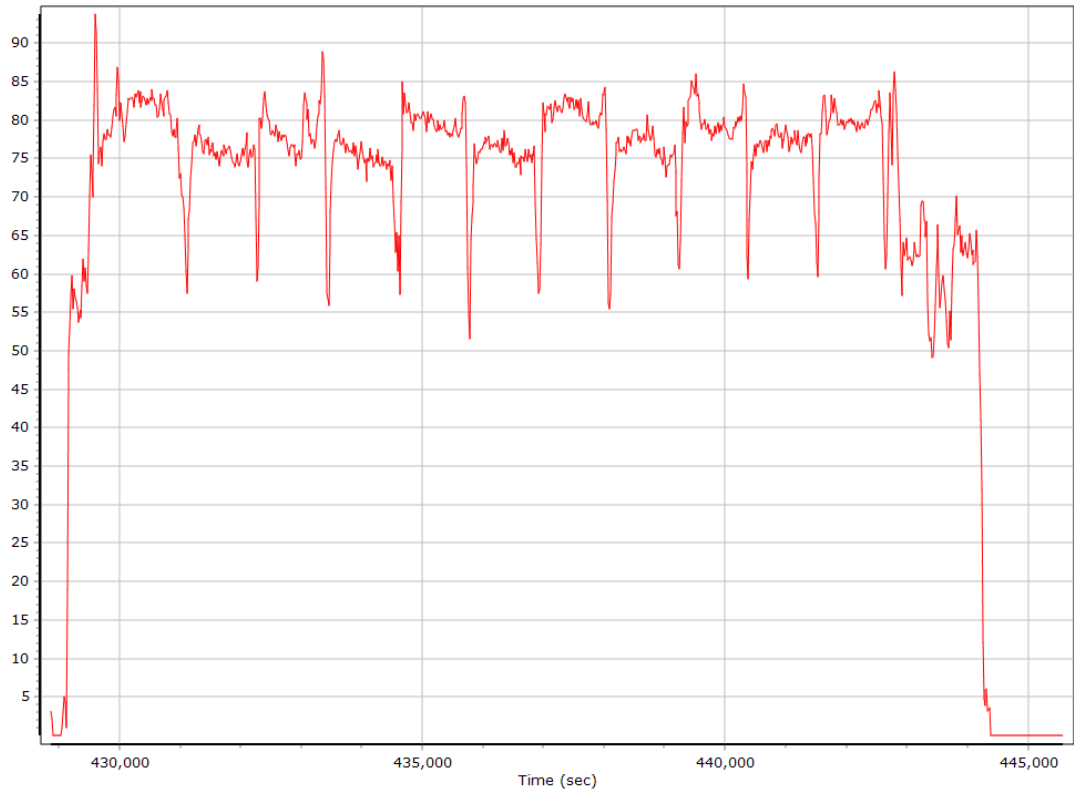
Down Velocity



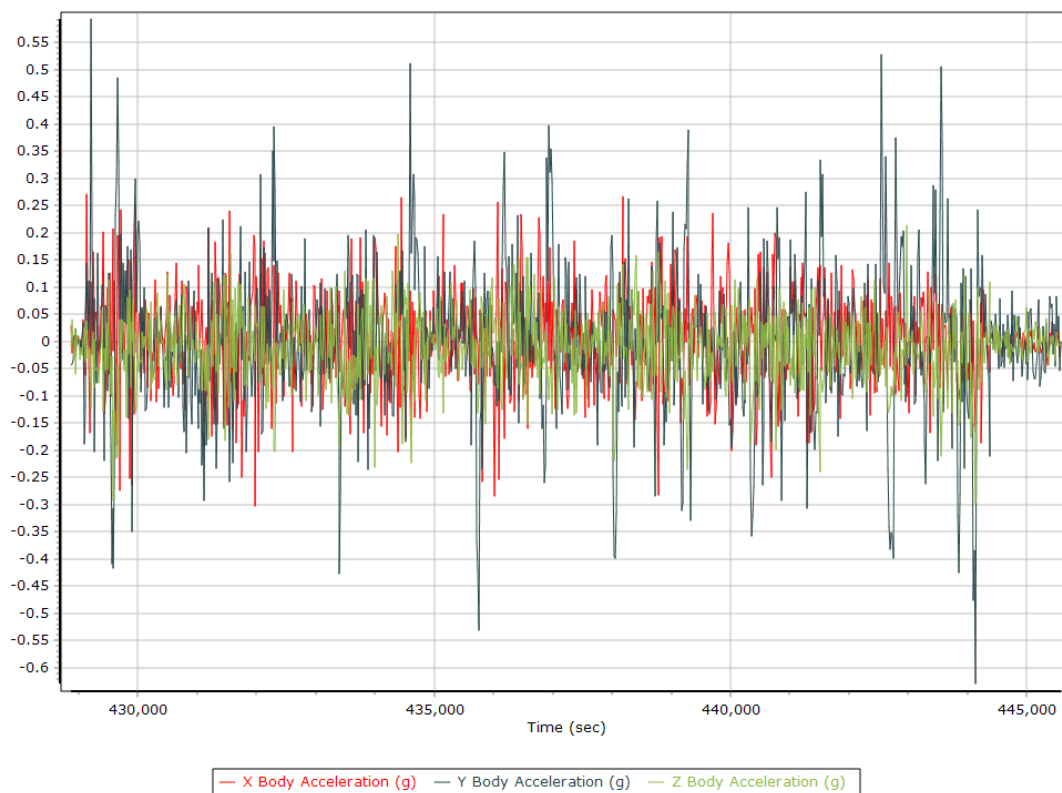
Total Speed



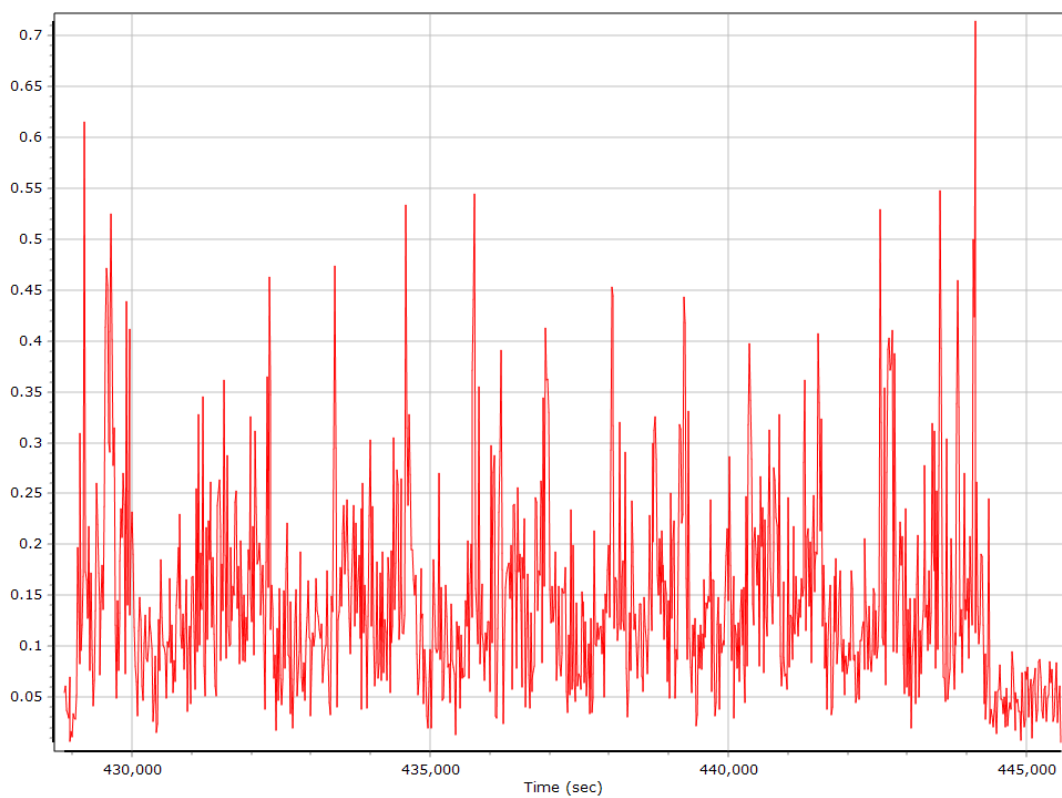
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

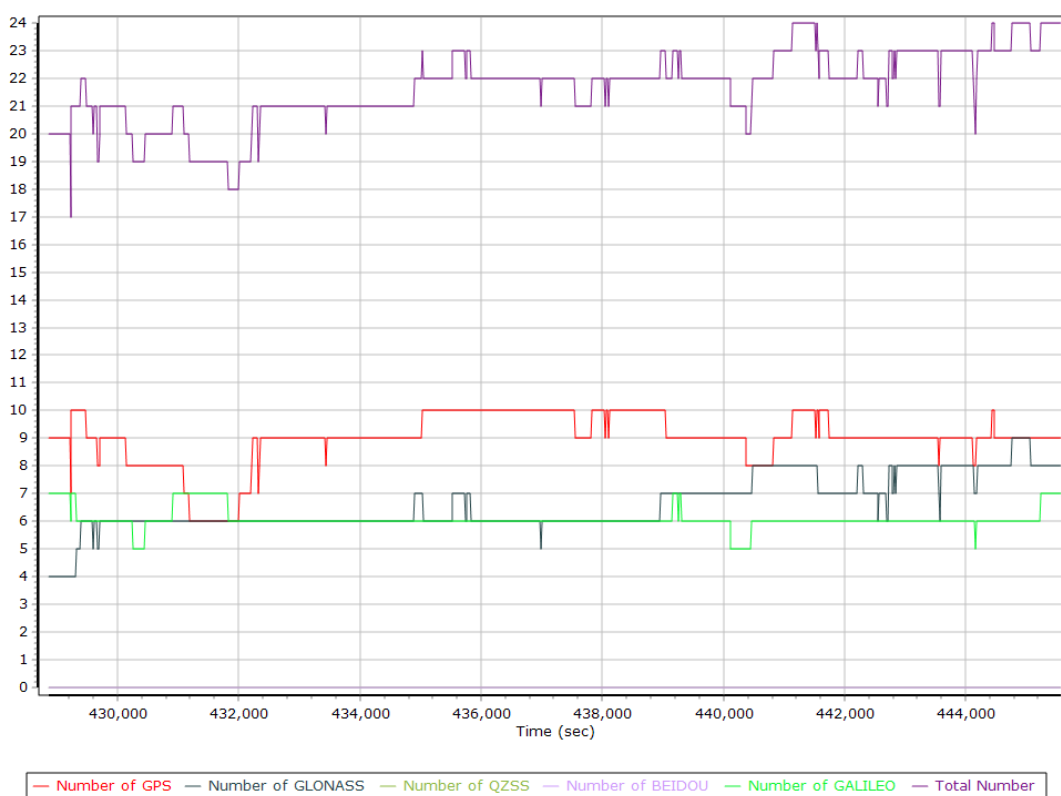


GNSS QC

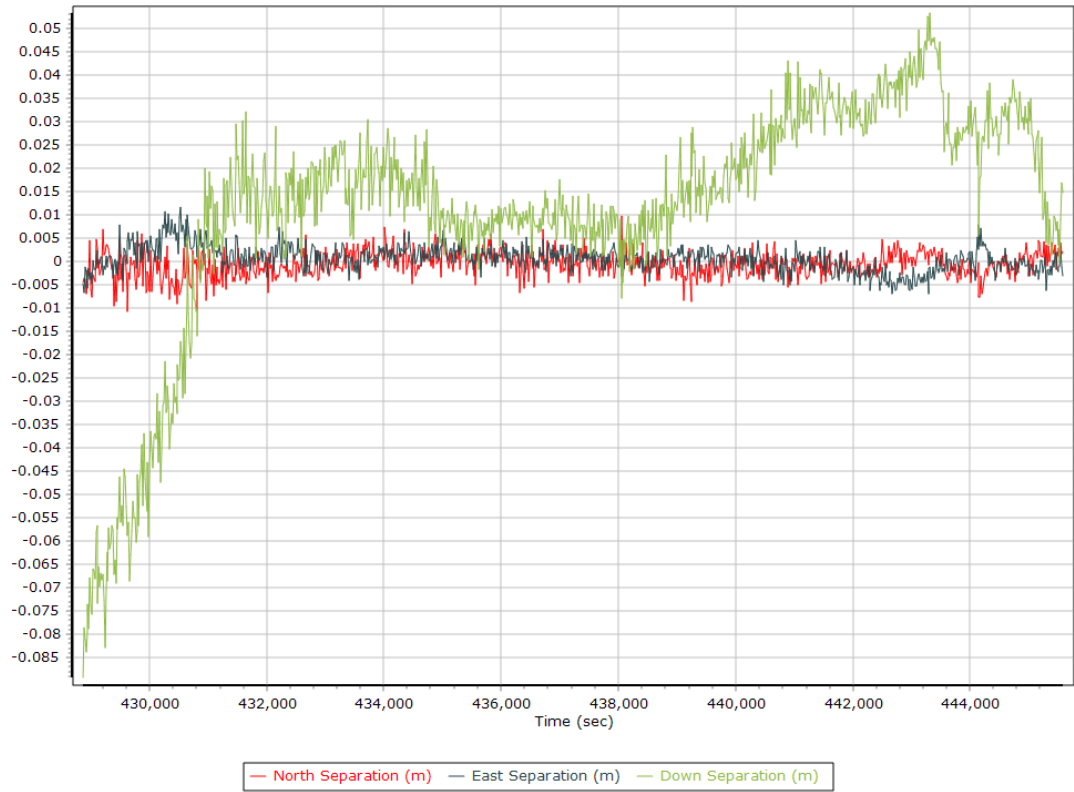
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	9
Number of GLONASS SV	4	9	7
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	5	7	6
Total number of SV	17	24	22
PDOP	0.91	1.68	1.12
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	17175.00	0.00	0.00
Percentage	100.00	0.00	0.00

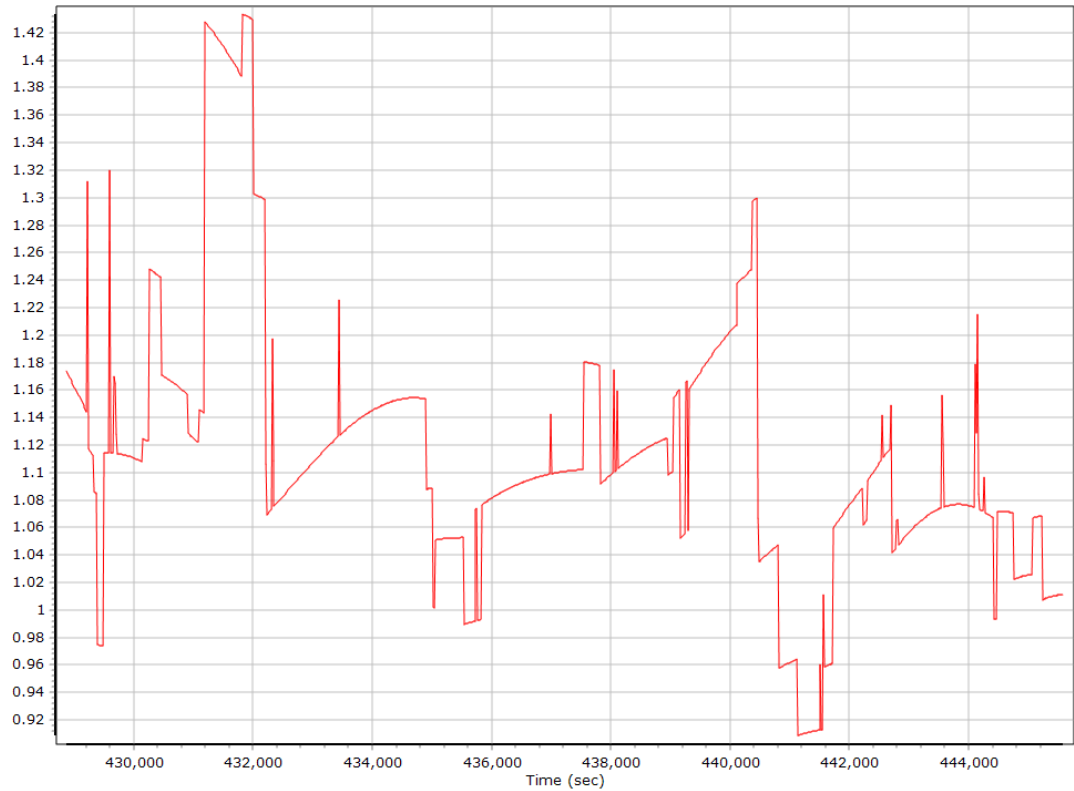
Num SVs in solution



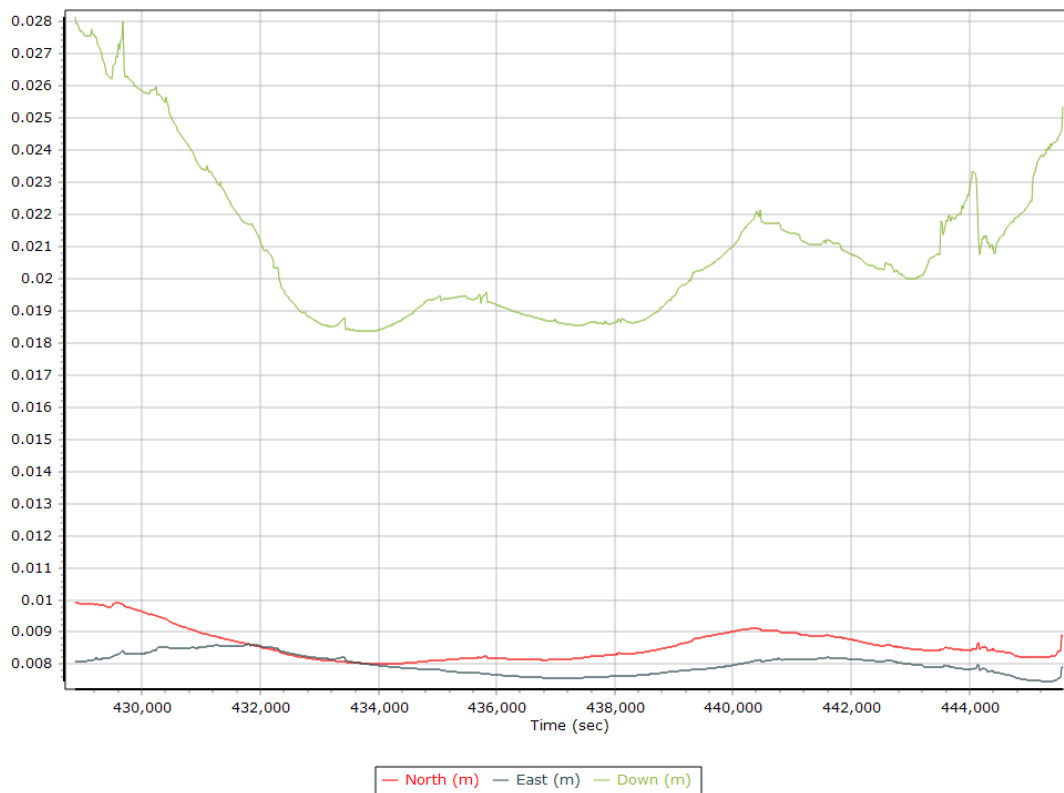
Forward/Reverse Separation



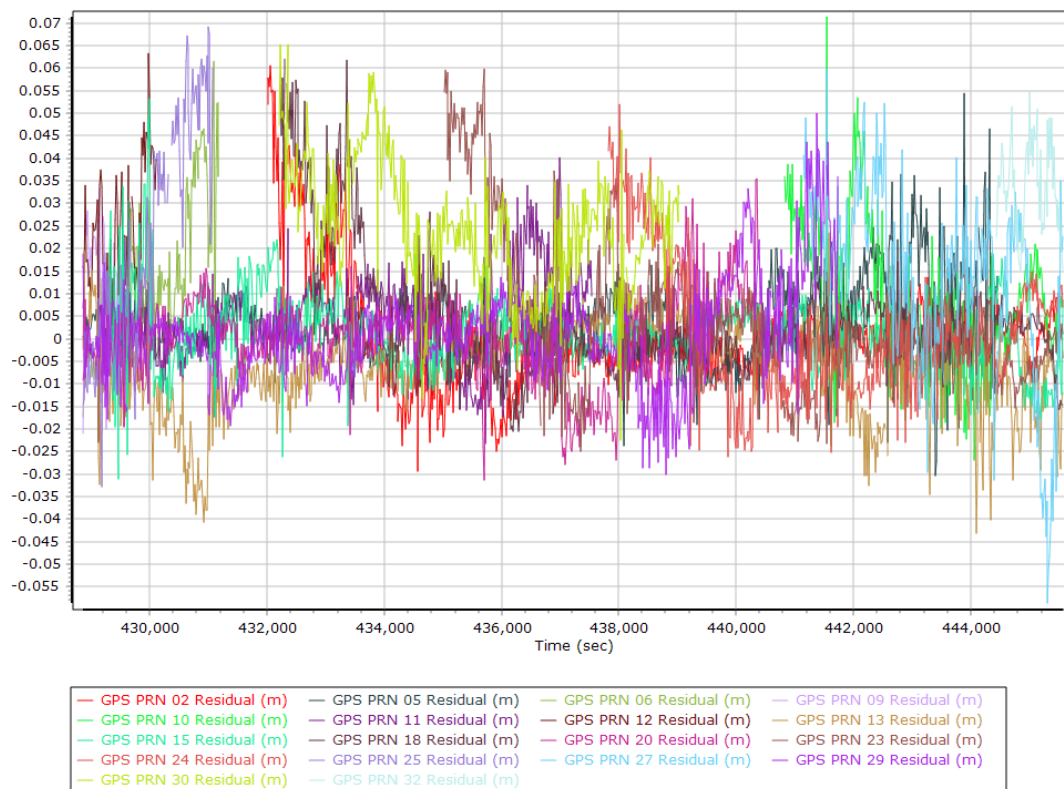
PDOP



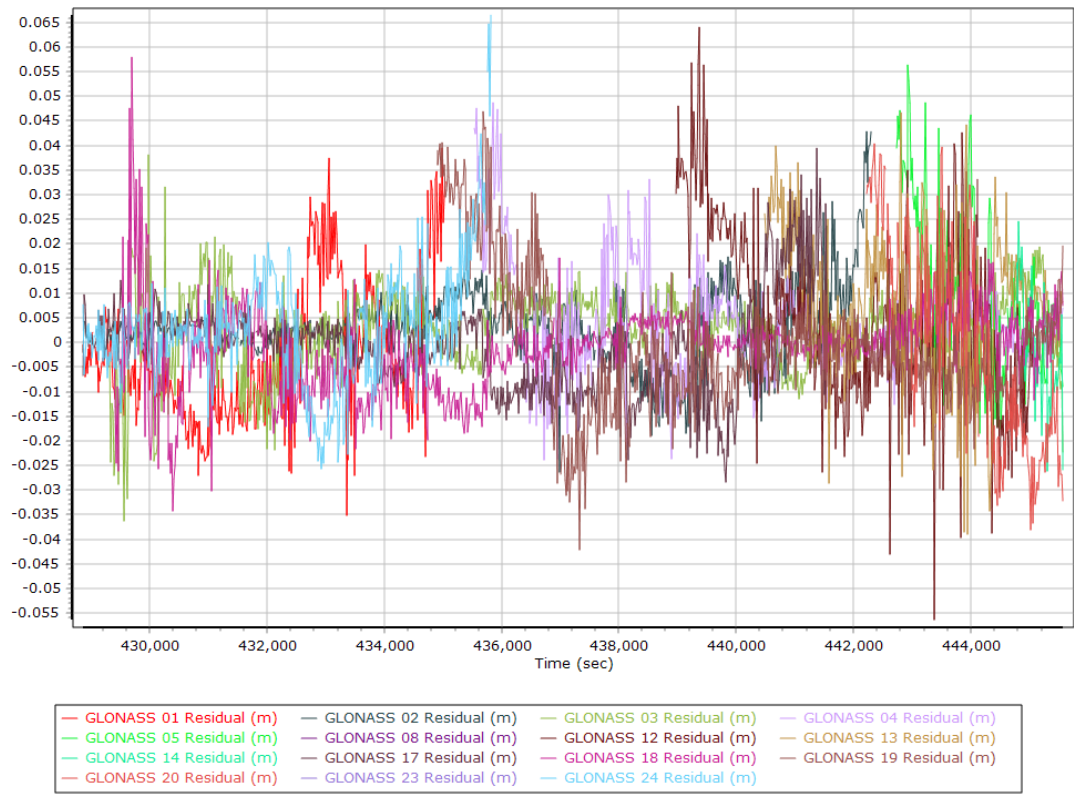
Estimated Position Accuracy



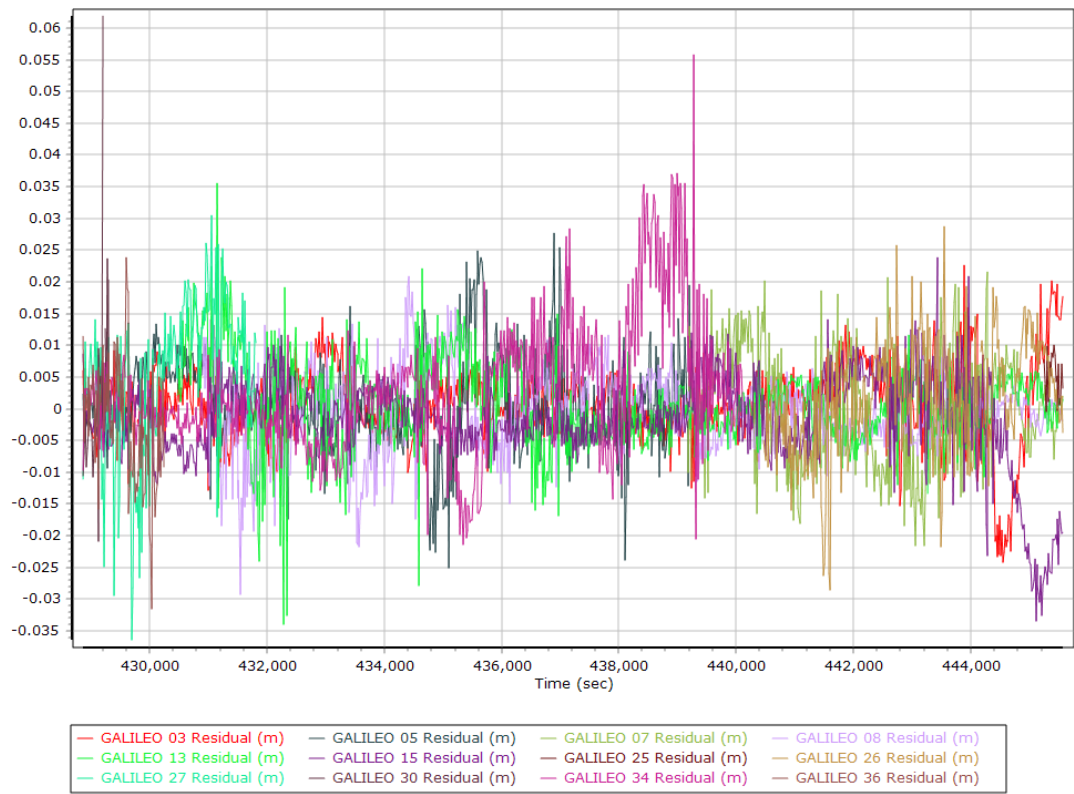
GPS Residuals



GLONASS Residuals



GALILEO Residuals



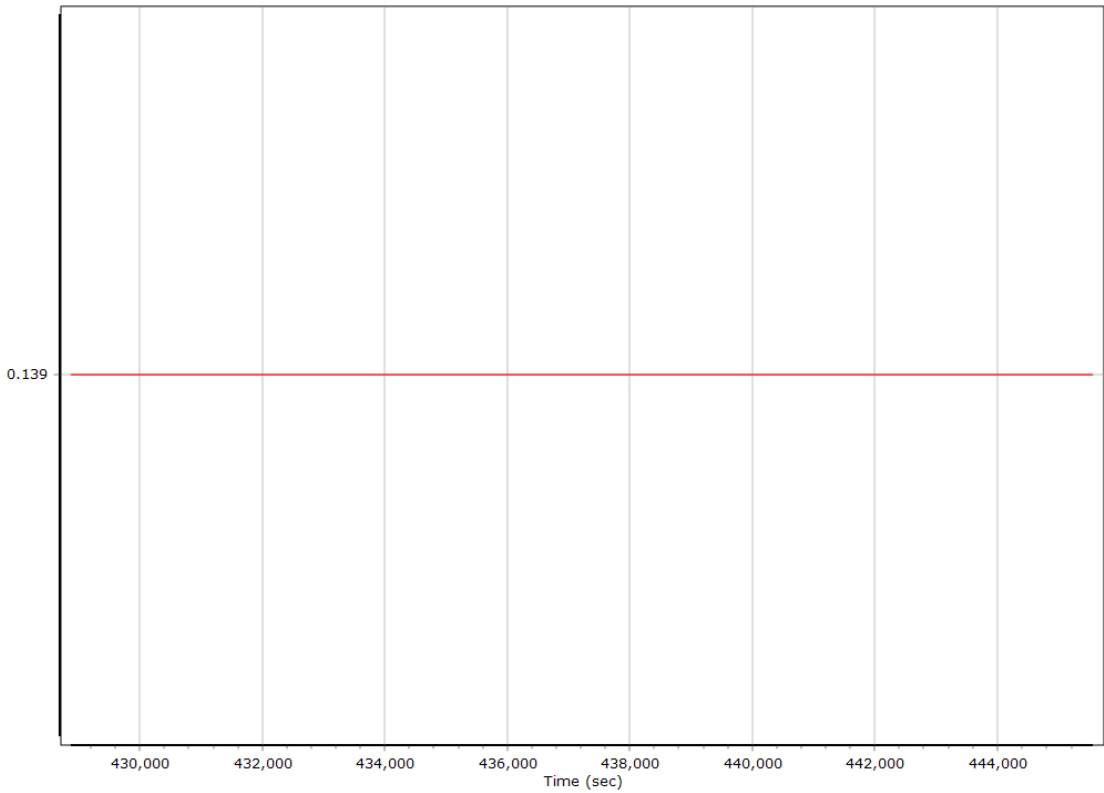
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	428372.000 (04/20/2023 22:59:32)		
Processing end time	445581.000 (04/21/2023 03:46:21)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

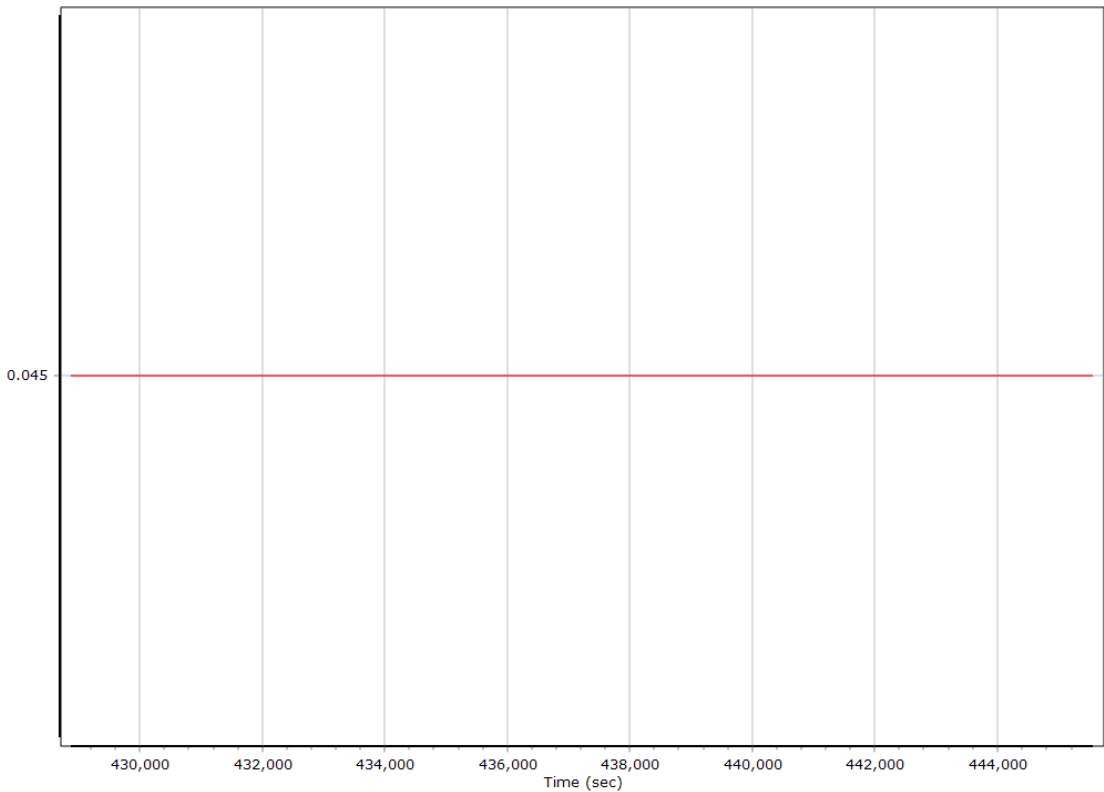
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

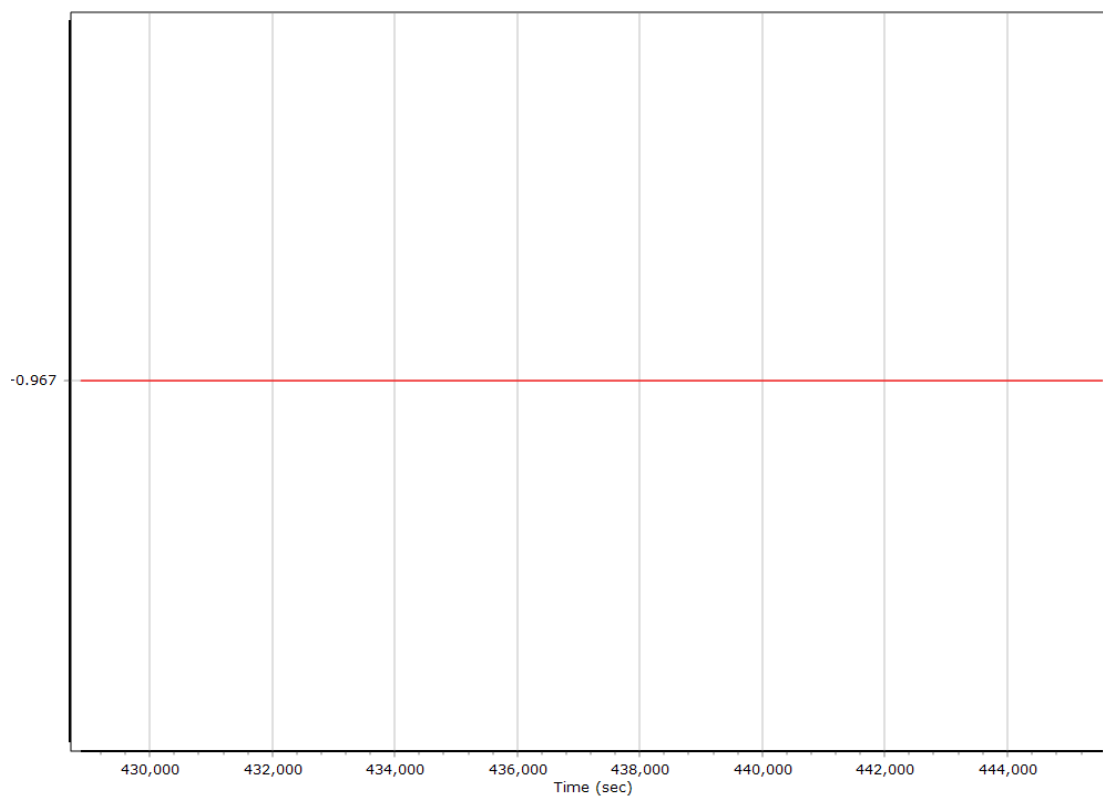
X Reference-Primary GNSS Lever Arm (m)



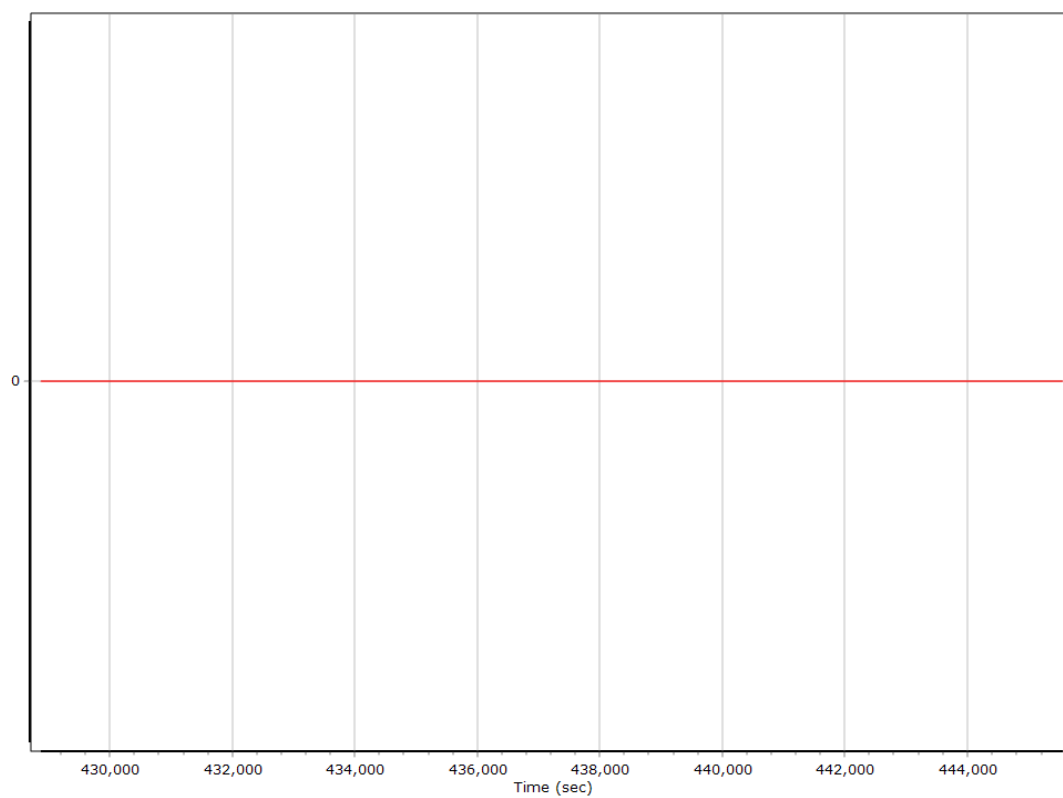
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



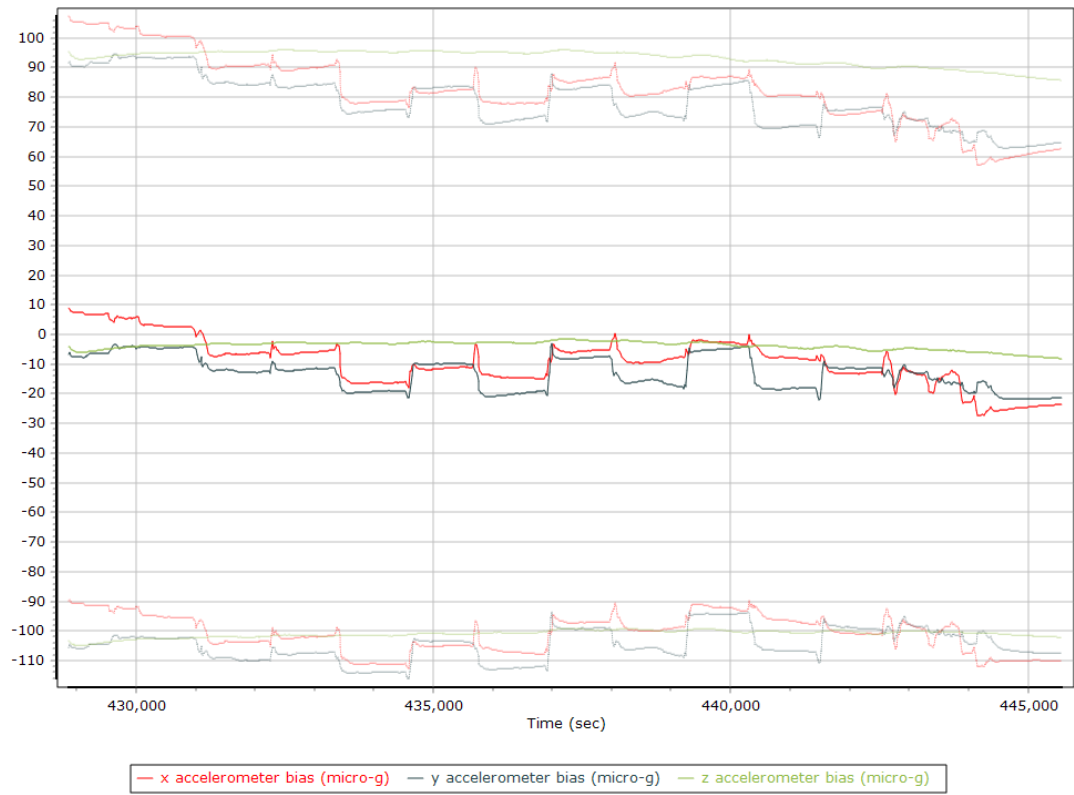
Reference-Primary GNSS Lever Arm Figure of Merit



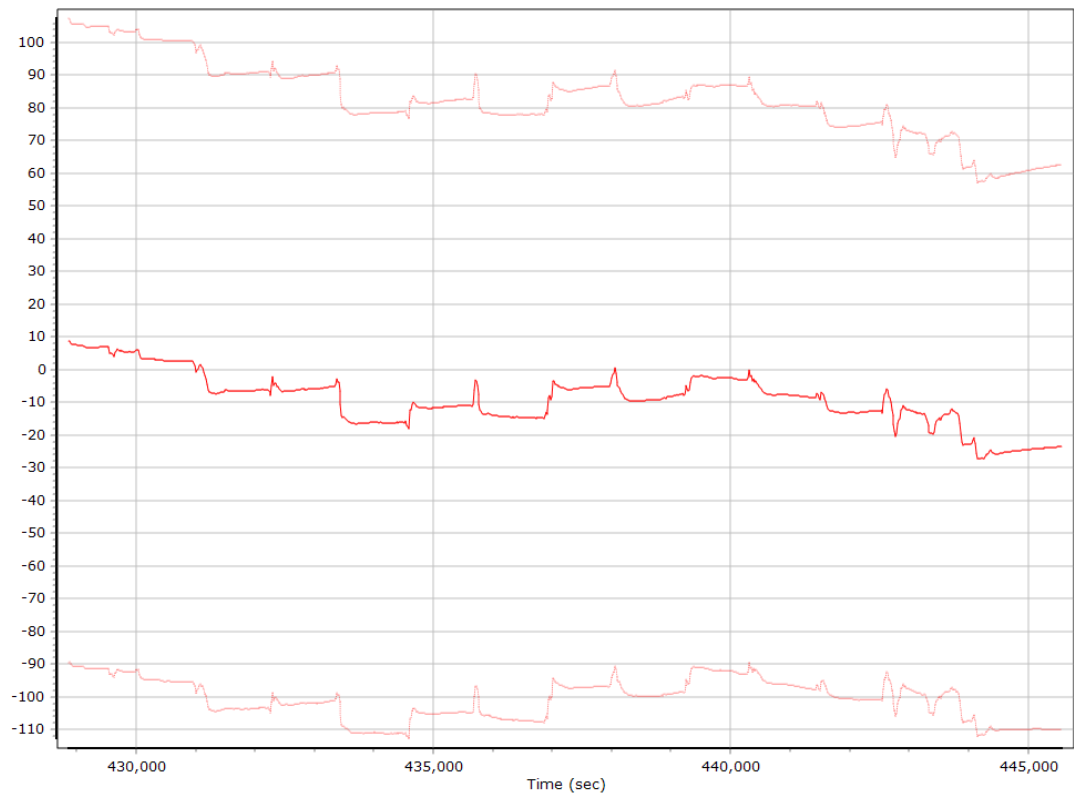
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

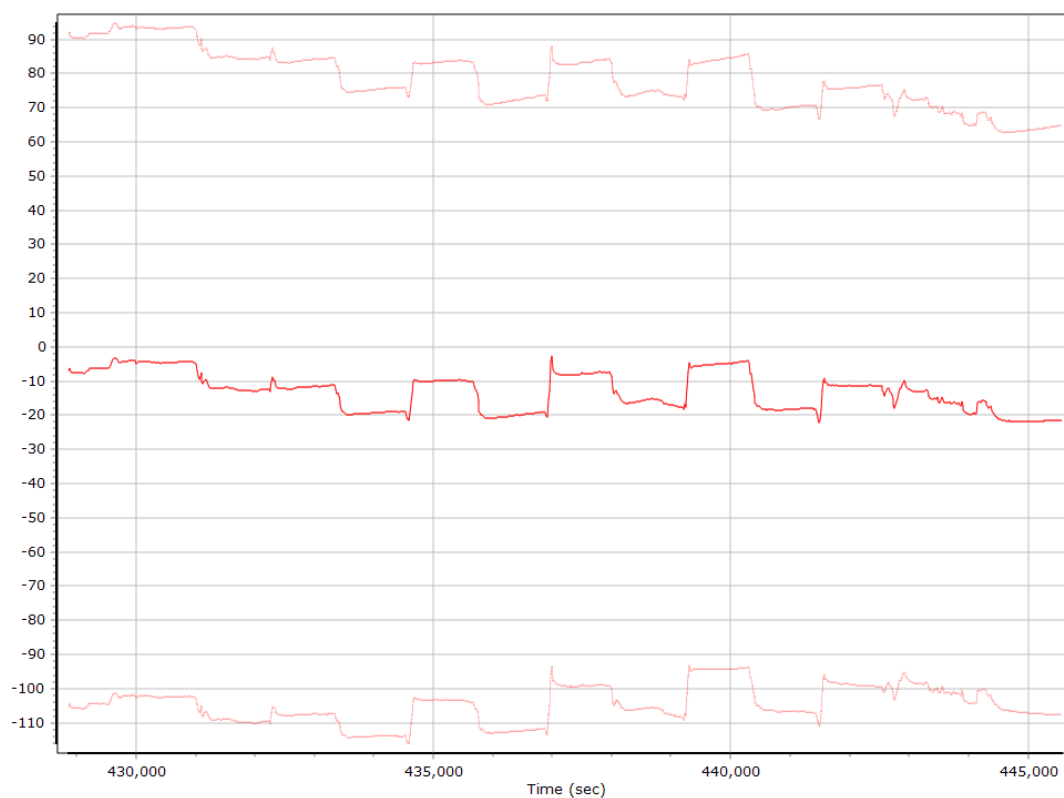
Accelerometer Bias (micro-g)



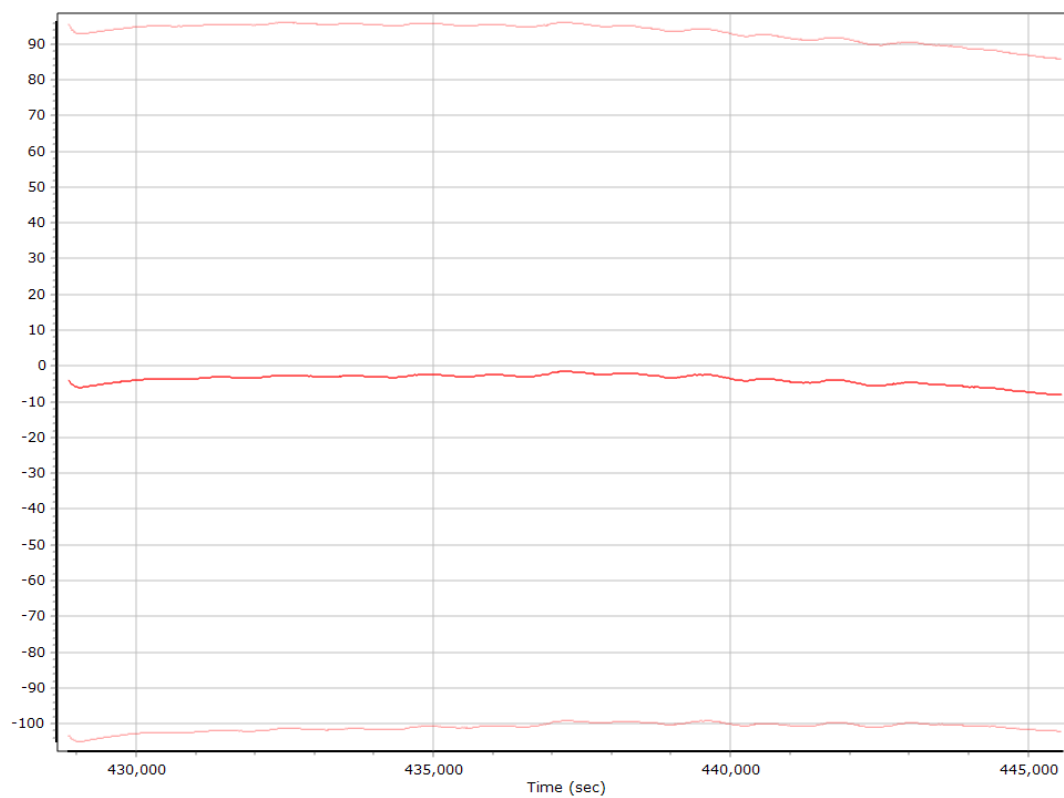
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



X Accelerometer Scale Error (ppm)



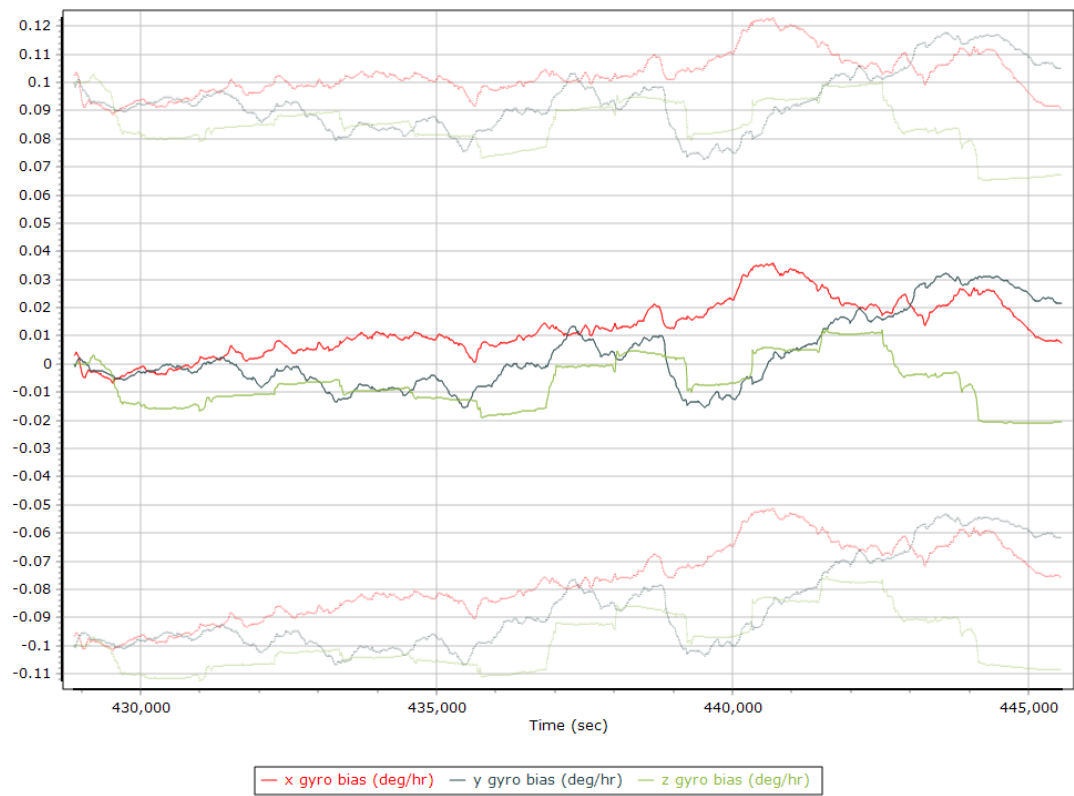
Y Accelerometer Scale Error (ppm)



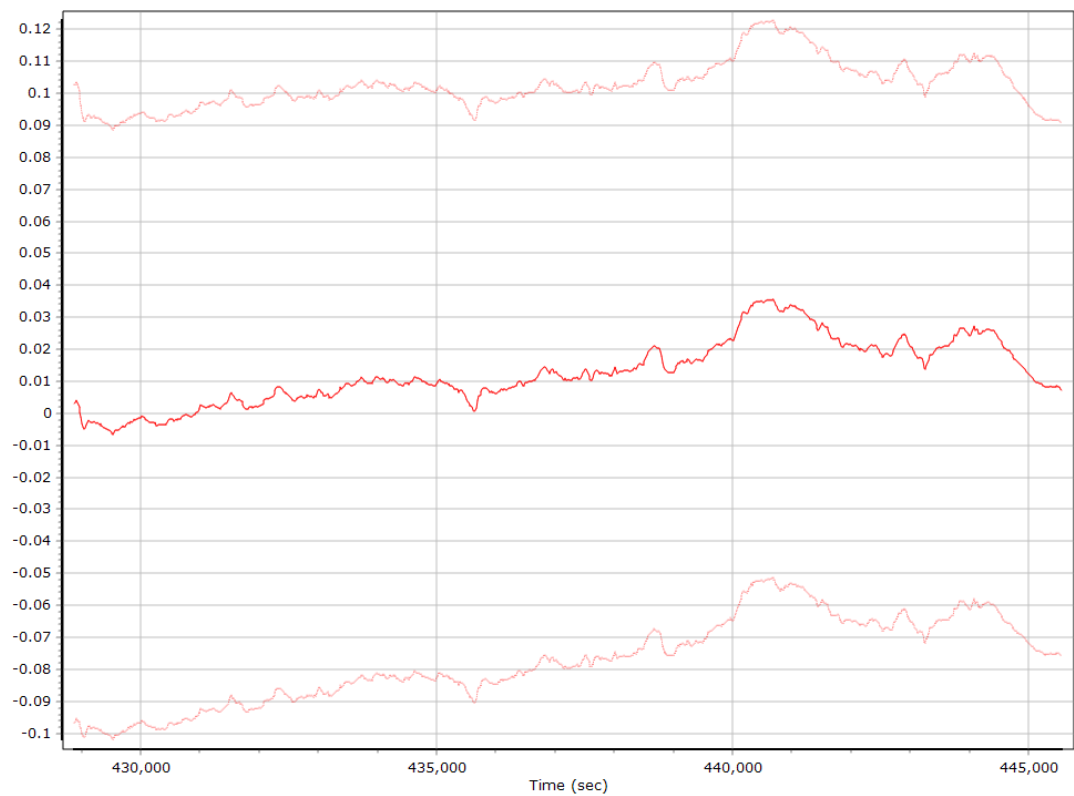
Z Accelerometer Scale Error (ppm)



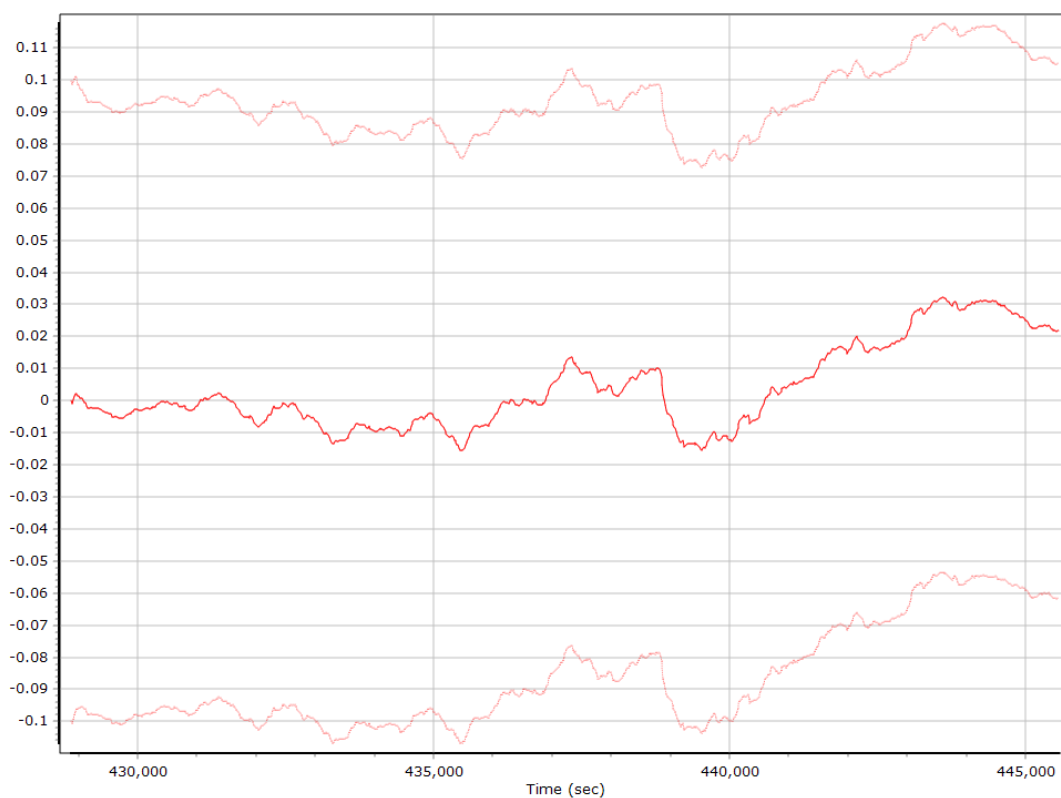
Gyro Bias (deg/h)



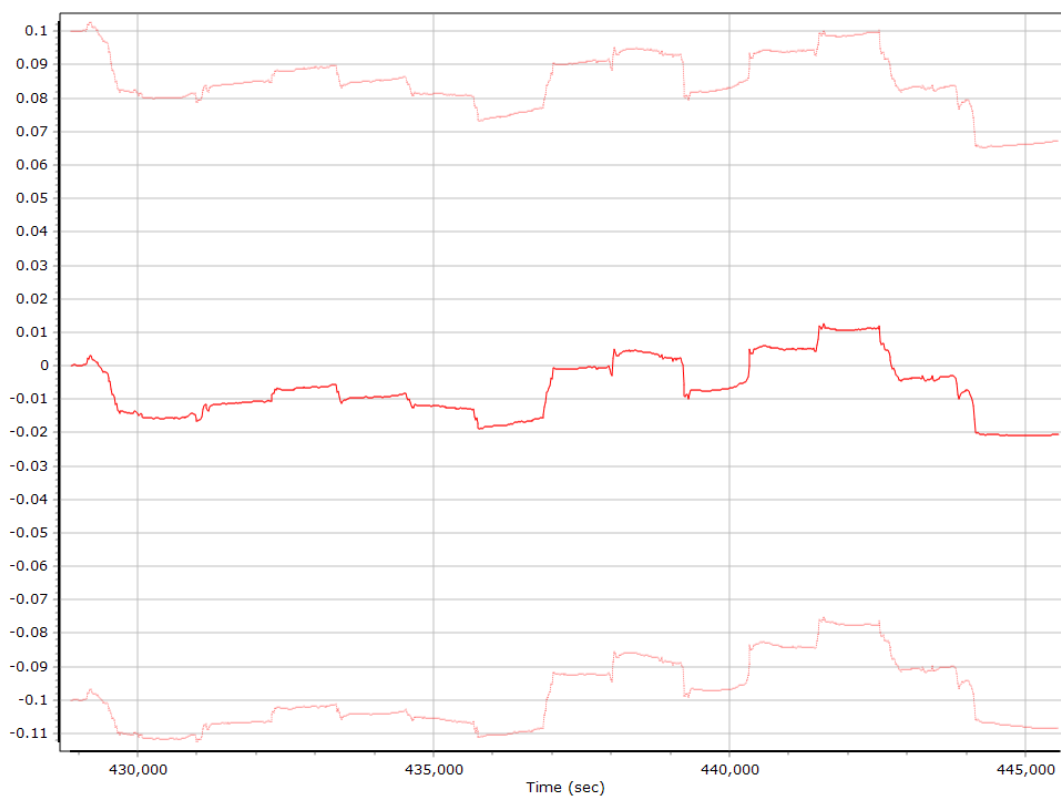
X Gyro Bias (deg/h)



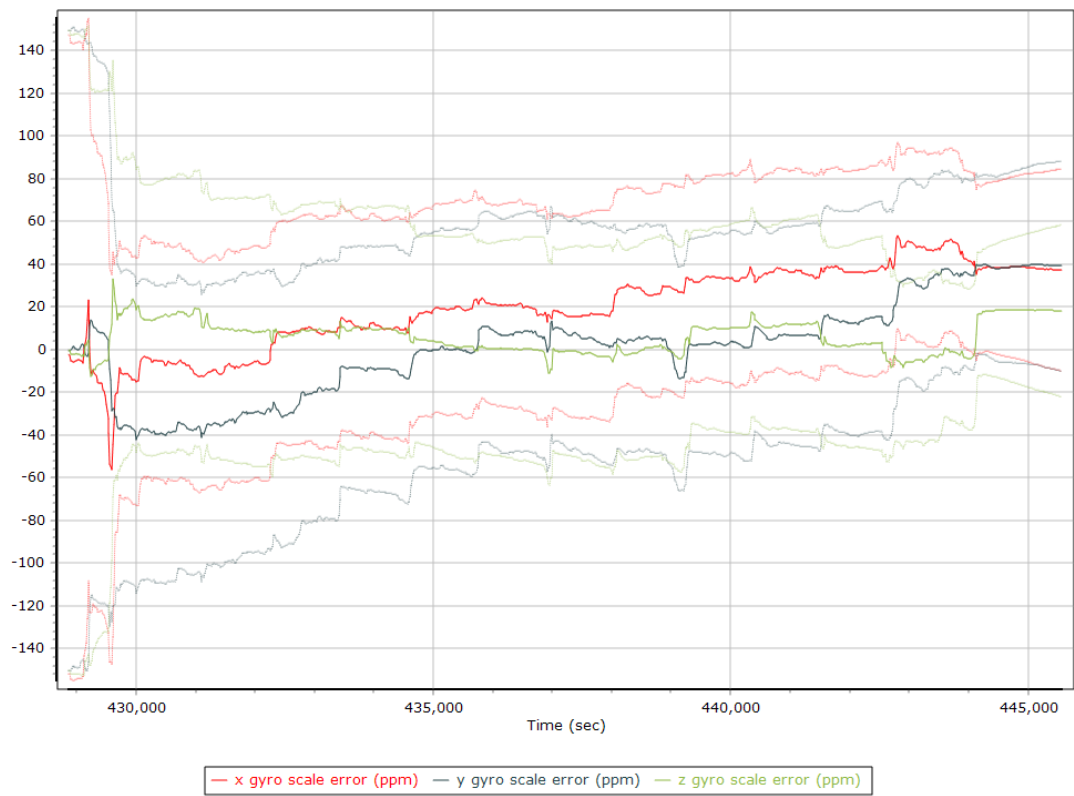
Y Gyro Bias (deg/h)



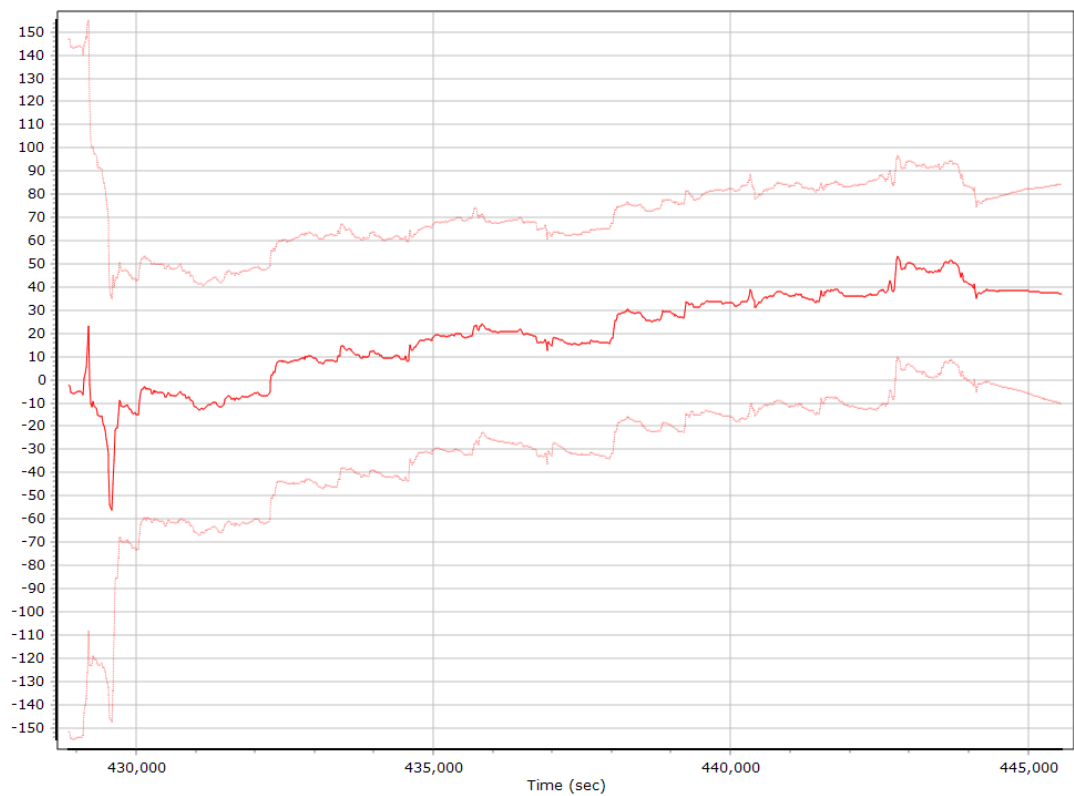
Z Gyro Bias (deg/h)



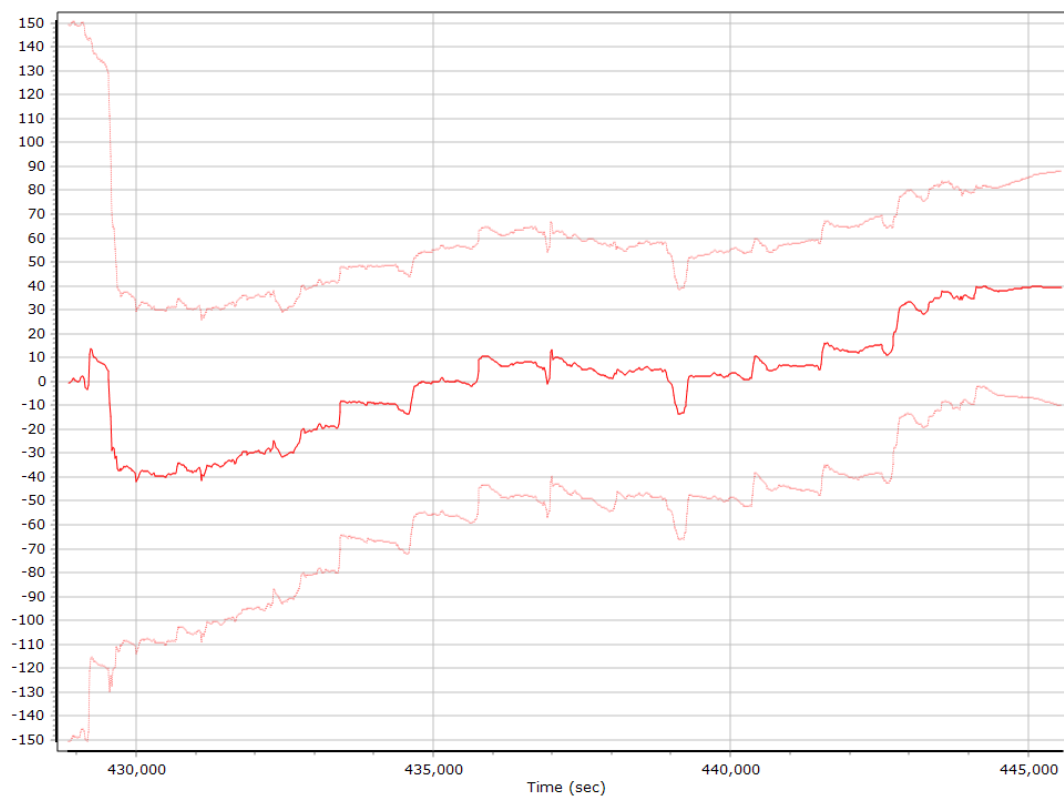
Gyro Scale Error (ppm)



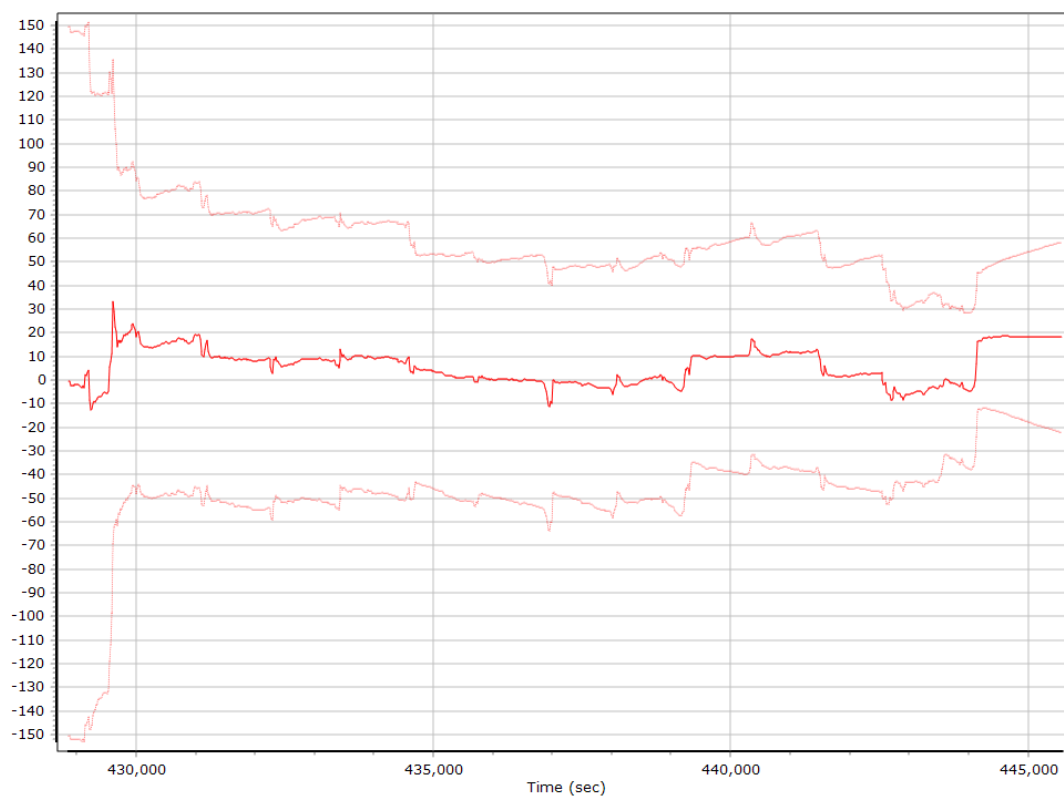
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

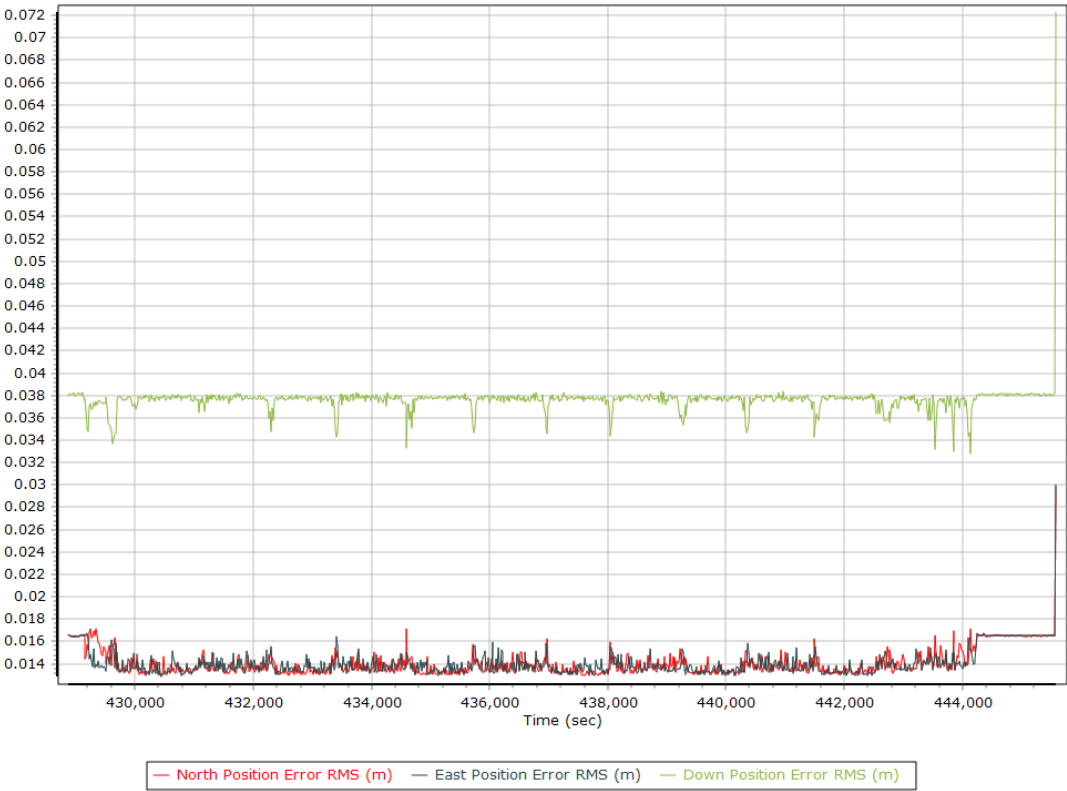


Z Gyro Scale Error (ppm)

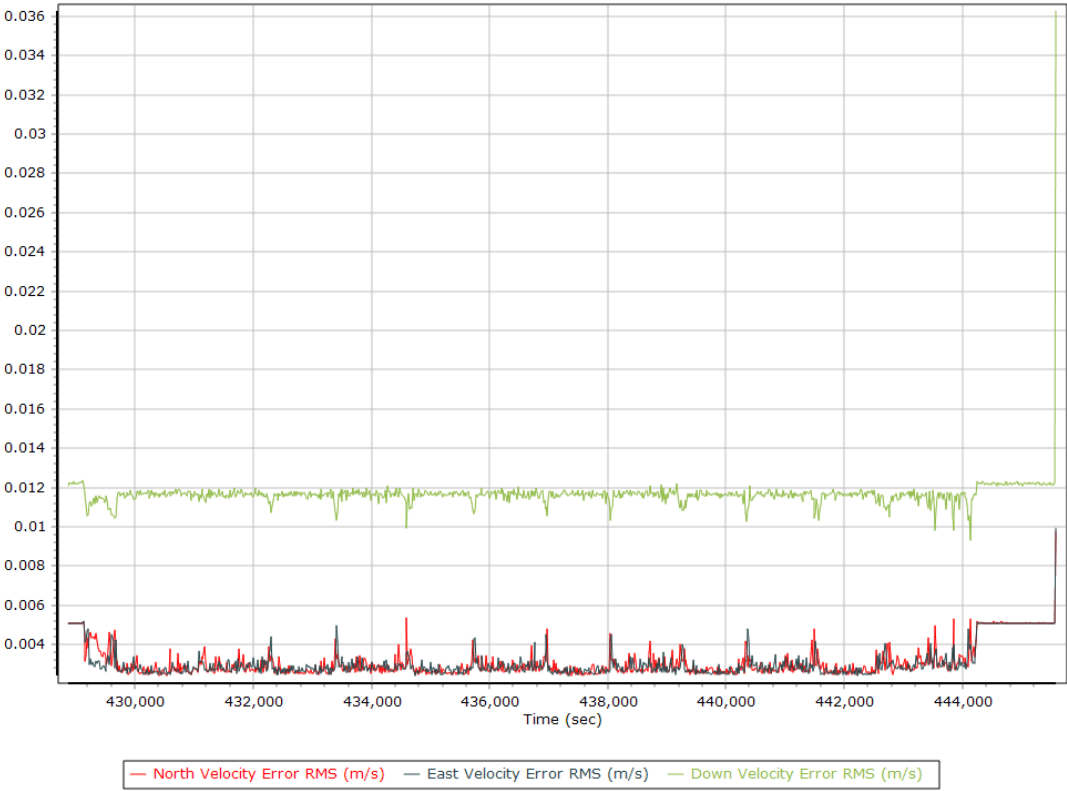


Smoothed Performance Metrics

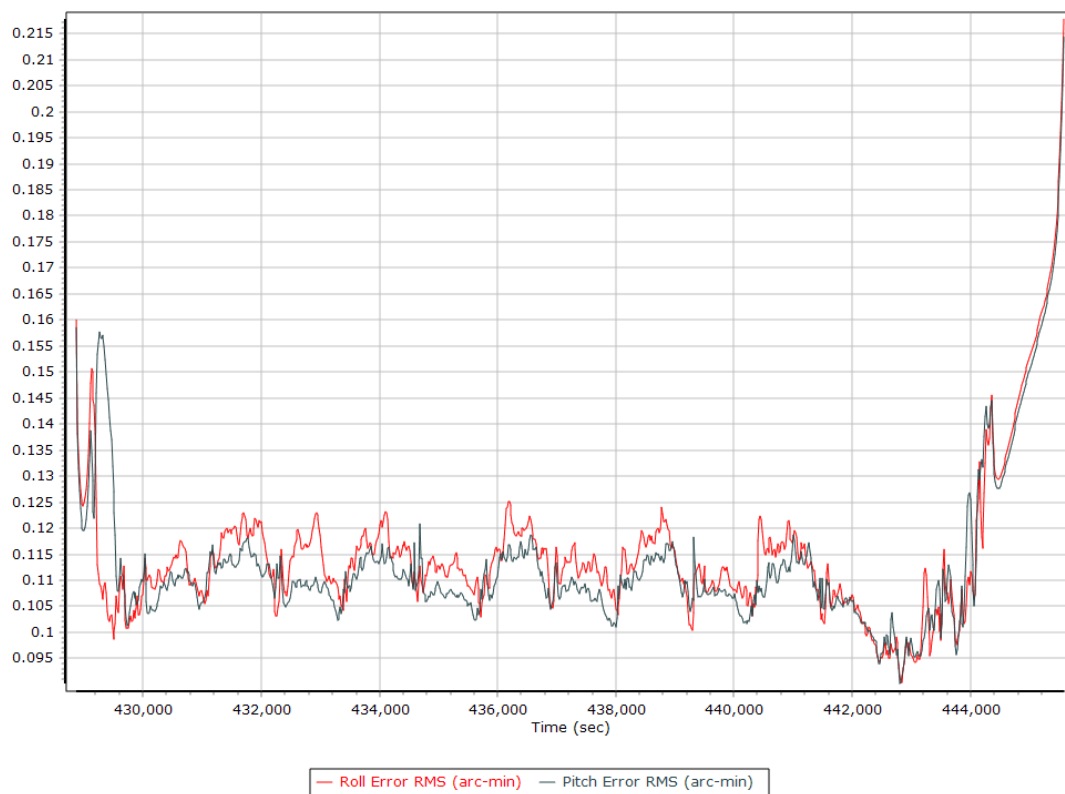
Position Error RMS (m)



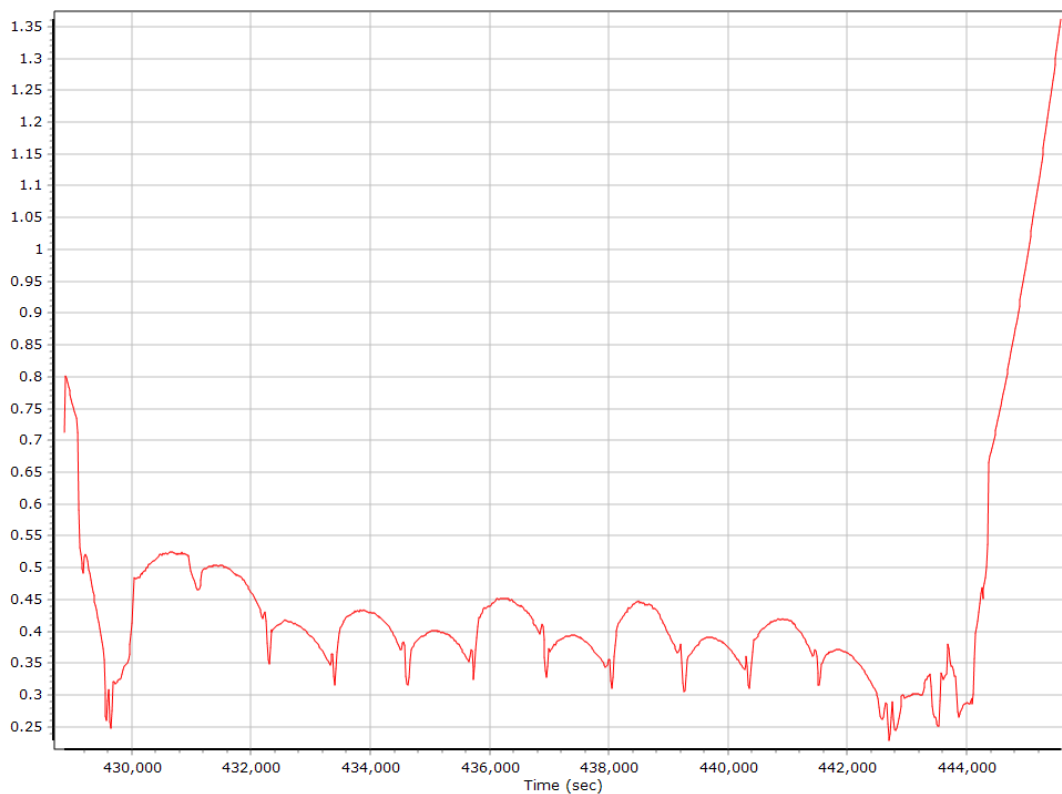
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

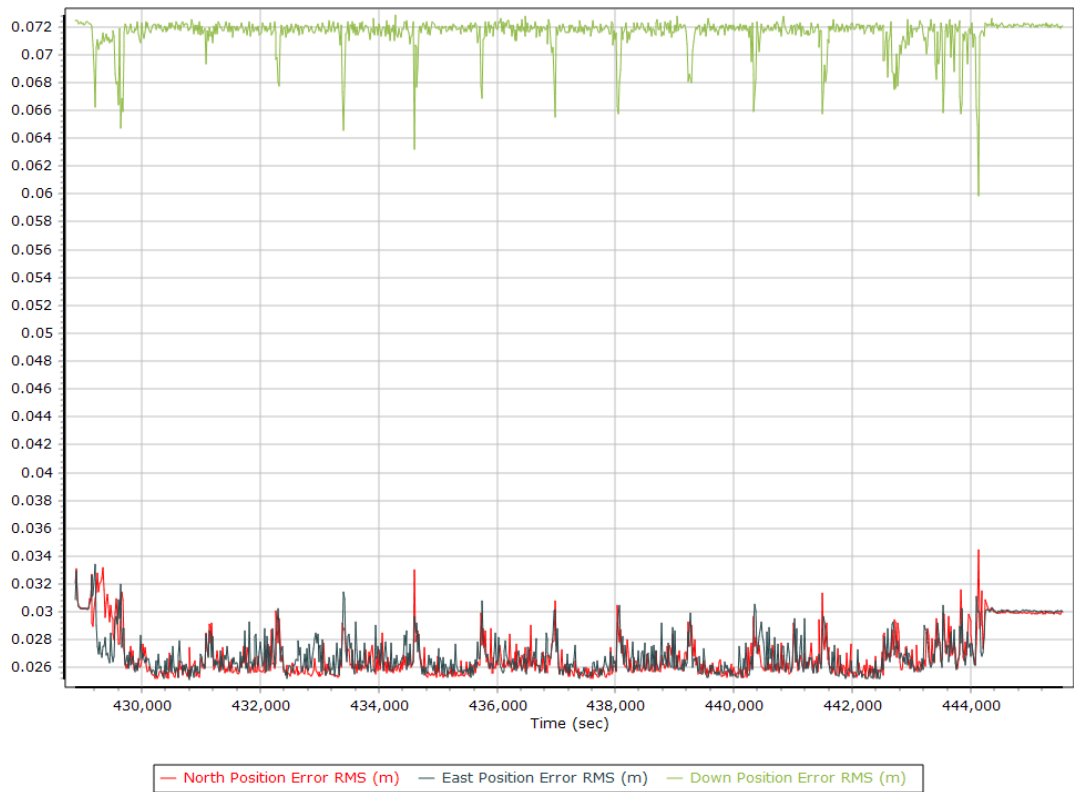


Heading Error RMS (arc-min)

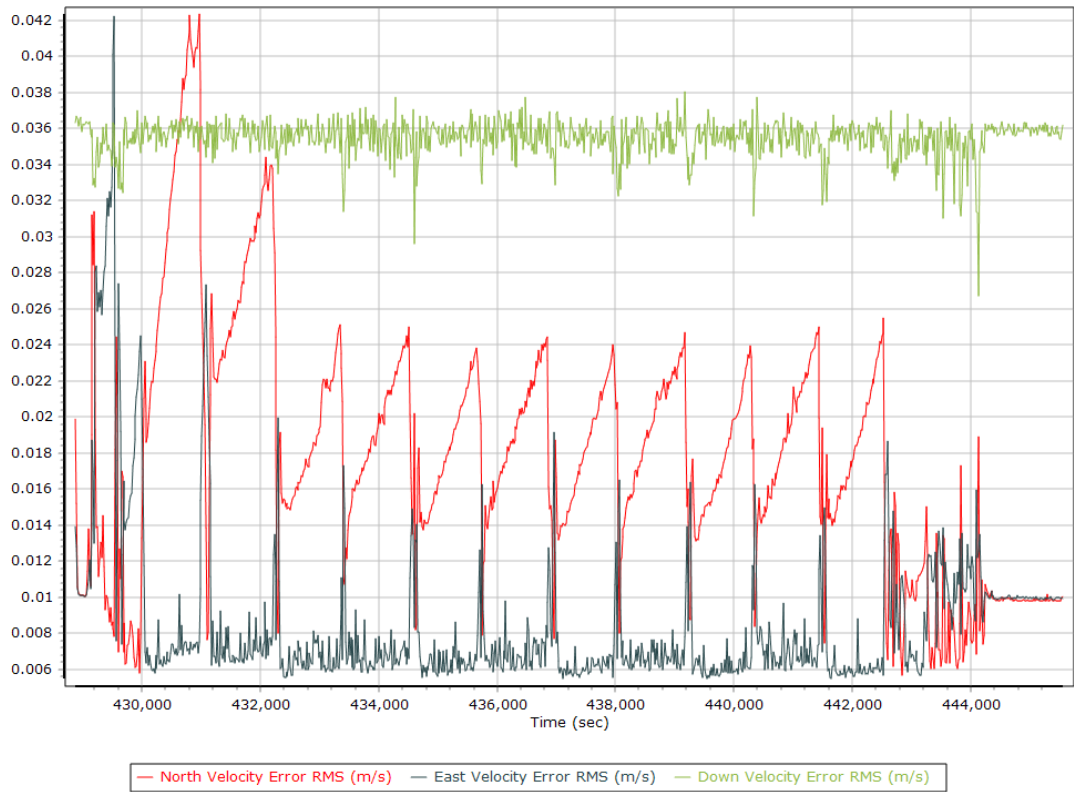


Forward Processed Performance Metrics

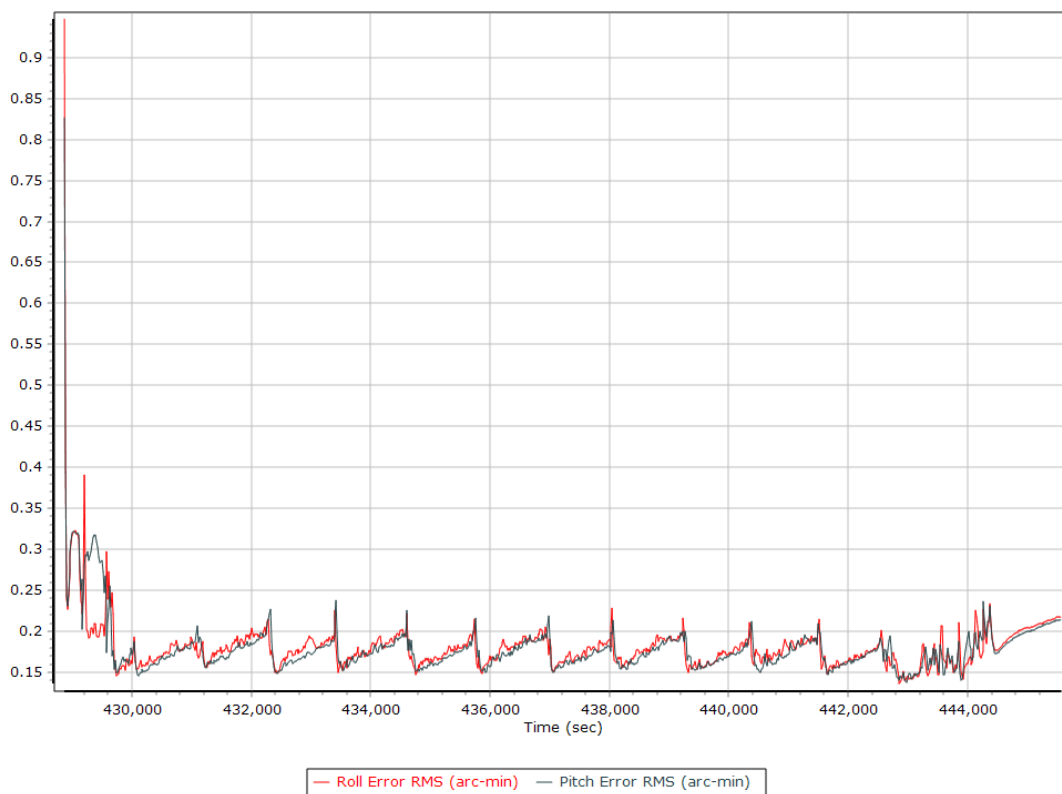
Position Error RMS (m)



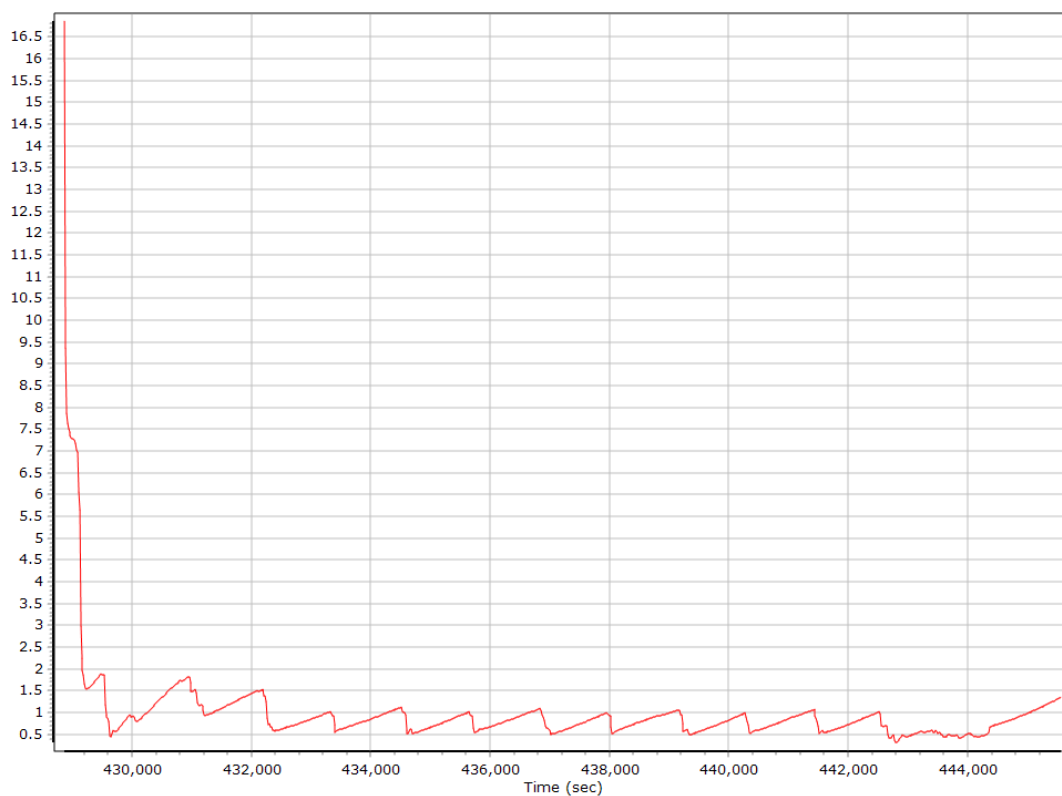
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

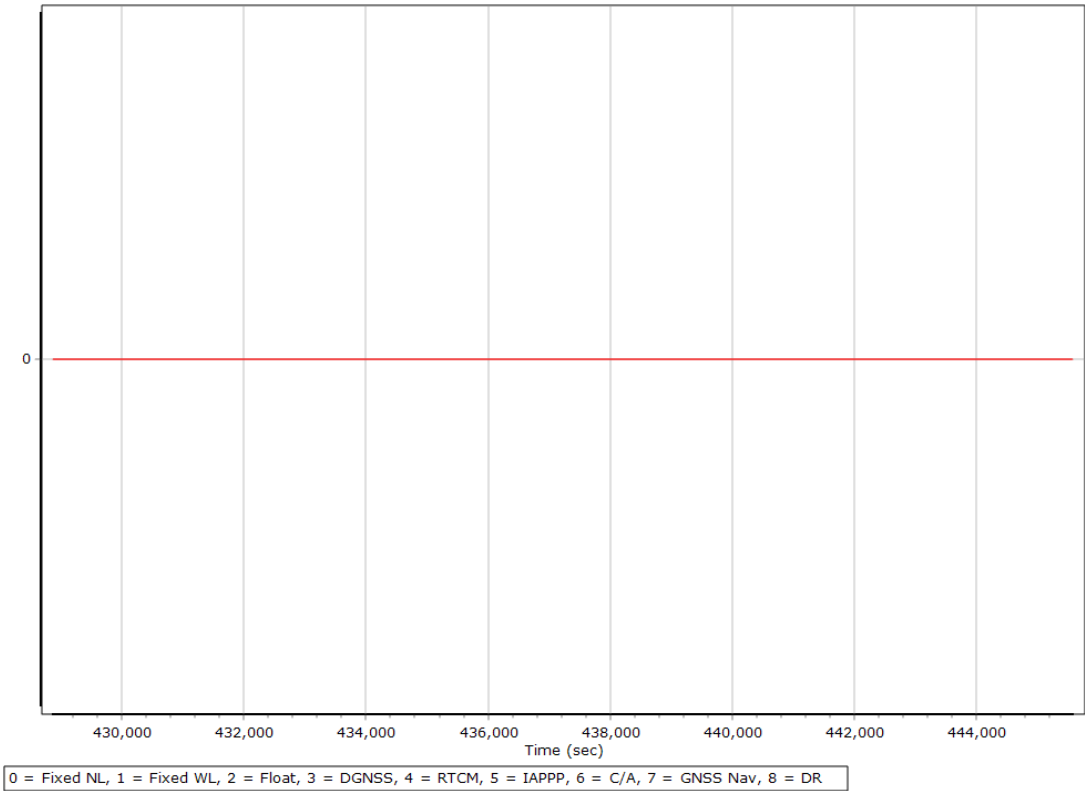


Heading Error RMS (arc-min)

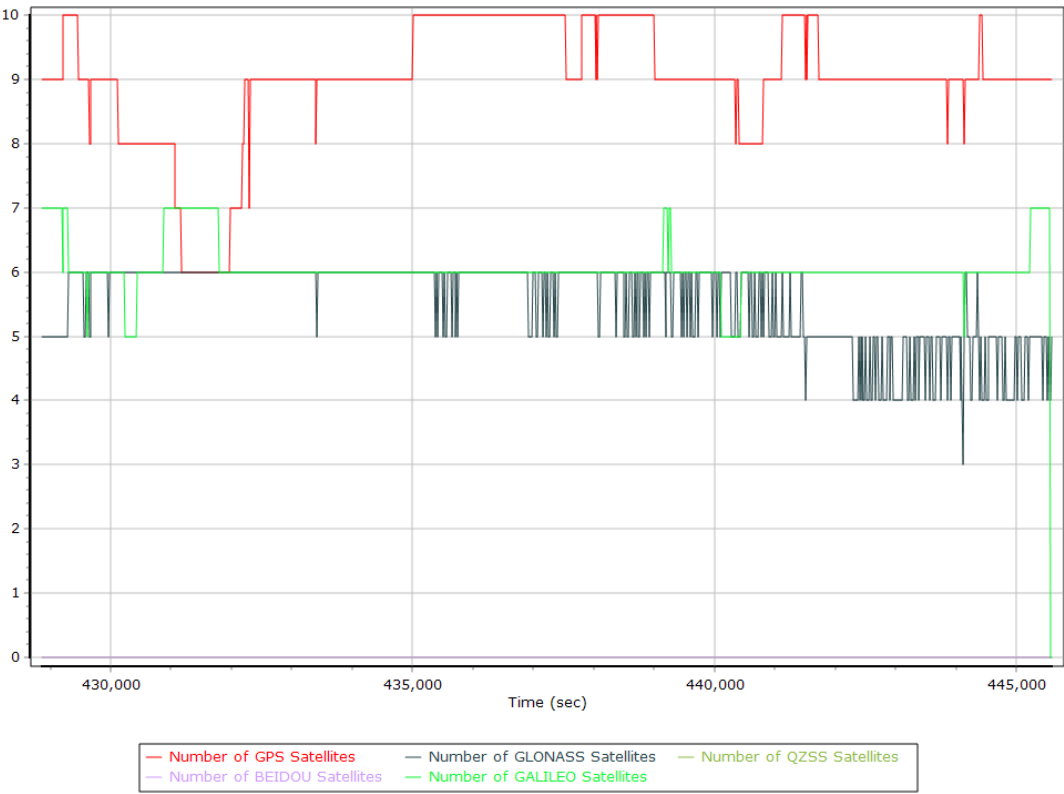


Forward Processed Solution Status

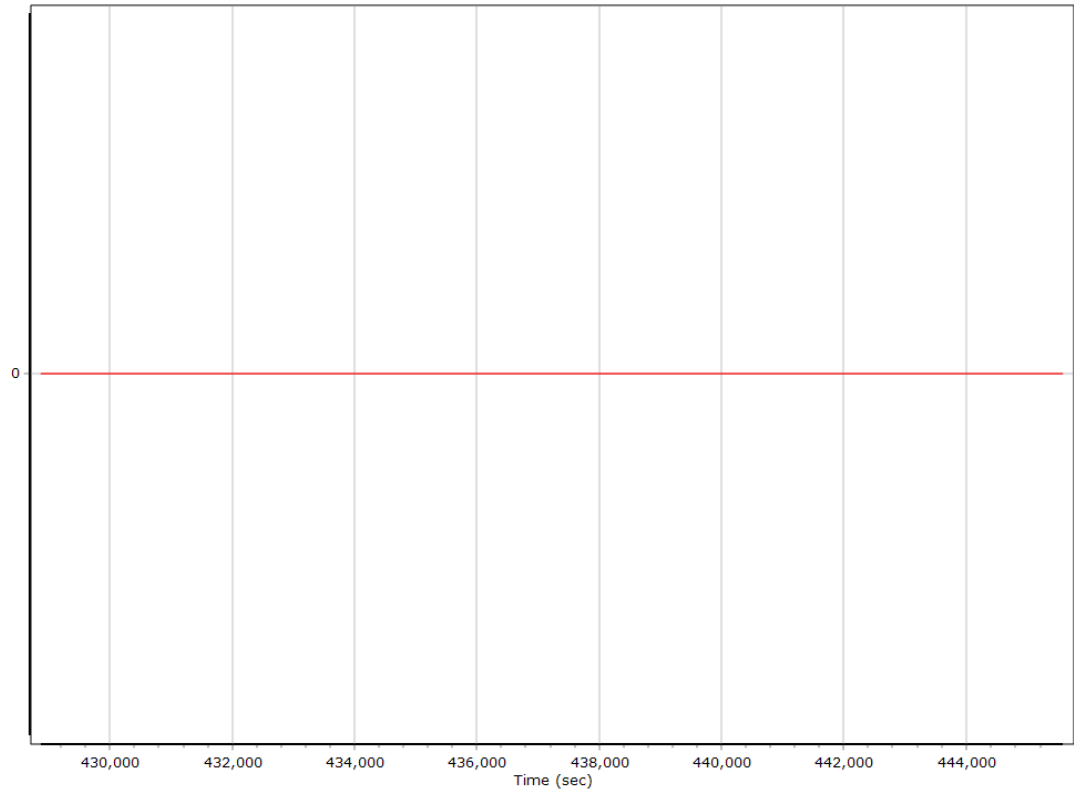
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230420_F3_4894_NAD832011.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	428811.001 (04/20/2023 23:06:51)		
Export end time	445581.003 (04/21/2023 03:46:21)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.29863		

General Information

Mission Information

Project name	20230421_F1_4894
Processing date	2023-04-25 21:46:43
Mission date	2023-04-21 13:20:47
Mission duration	05:03:48.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.670	POS Data
VQ1560.671	POS Data
VQ1560.672	POS Data
VQ1560.673	POS Data
VQ1560.674	POS Data
VQ1560.675	POS Data
VQ1560.676	POS Data
VQ1560.677	POS Data
VQ1560.678	POS Data
VQ1560.679	POS Data
VQ1560.680	POS Data
VQ1560.681	POS Data
VQ1560.682	POS Data
VQ1560.683	POS Data
VQ1560.684	POS Data
VQ1560.685	POS Data
VQ1560.686	POS Data
VQ1560.687	POS Data
VQ1560.688	POS Data
VQ1560.689	POS Data
VQ1560.690	POS Data
VQ1560.691	POS Data
VQ1560.692	POS Data
VQ1560.693	POS Data
VQ1560.694	POS Data
VQ1560.695	POS Data
VQ1560.696	POS Data
VQ1560.697	POS Data
VQ1560.698	POS Data
VQ1560.699	POS Data
VQ1560.700	POS Data
VQ1560.701	POS Data
VQ1560.702	POS Data
VQ1560.703	POS Data
VQ1560.704	POS Data
VQ1560.705	POS Data
VQ1560.706	POS Data
VQ1560.707	POS Data
VQ1560.708	POS Data
VQ1560.709	POS Data
VQ1560.710	POS Data
VQ1560.711	POS Data

Input Files

File Name	File Type
Ephm1110.23g	GLONASS Broadcast Ephemeris
Ephm1110.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbt_20230421_F1_4894.out	SBET Trajectory File
export_20230421_F1_4894_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.670		
Last raw data file	VQ1560.711		
Start GPS week	2258		
Start time	23.159 (04/16/2023 00:00:23)		
End time	498257.895 (04/21/2023 18:24:17)		
Start of fine alignment	480483.612 (04/21/2023 13:28:03)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

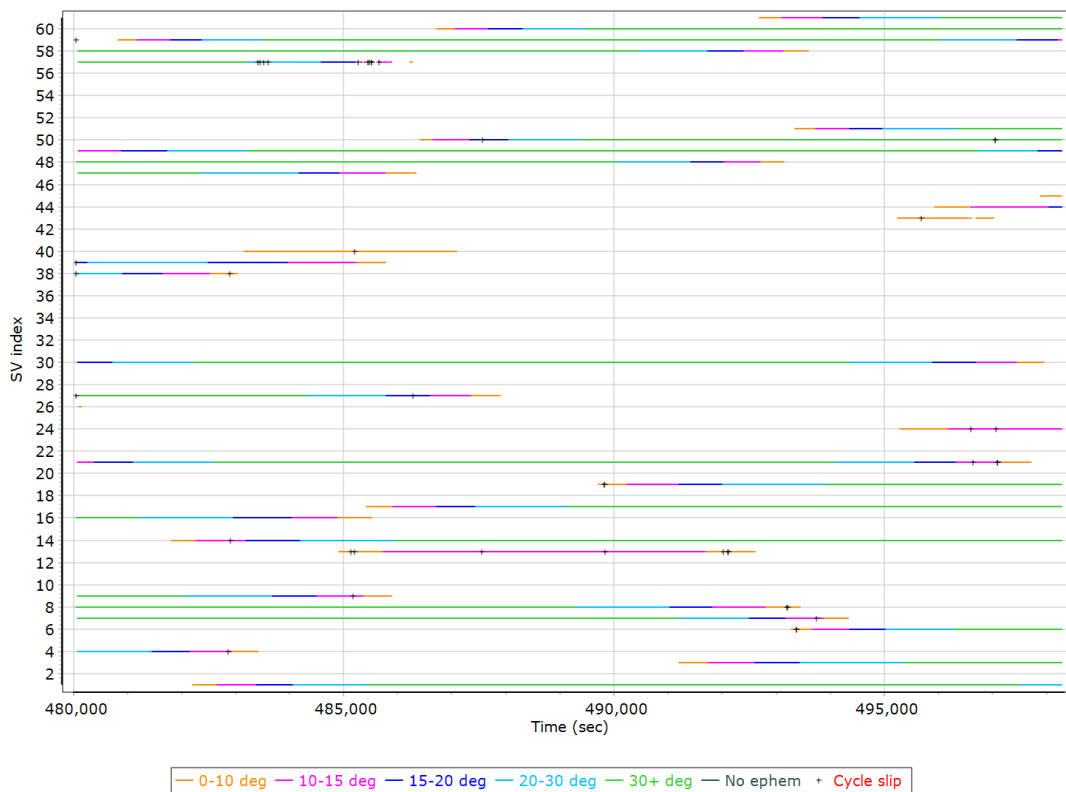
Rover Data QC

Raw IMU Import QC Summary

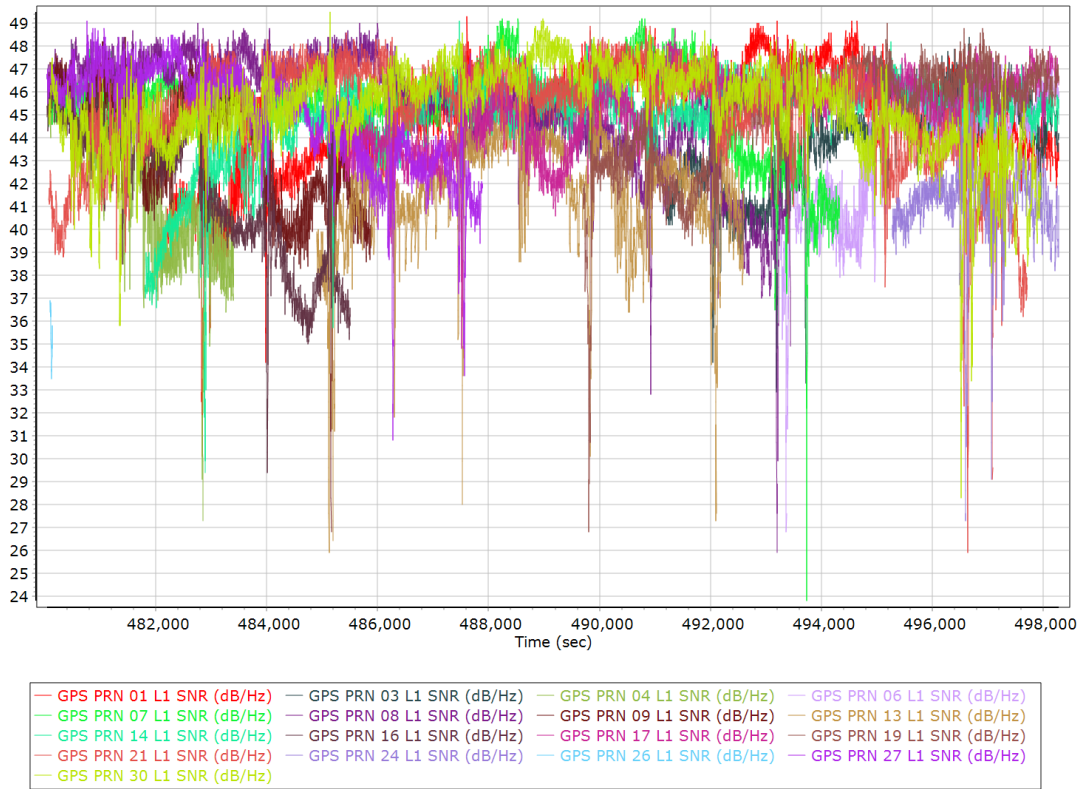
IMU data input file	imu_20230421_F1_4894.dat
IMU data check log file	imudt_20230421_F1_4894.log
IMU Records Processed	3637538
Termination Status	Warnings
IMU Anomalies	2
IMU Failure Messages	
498185.632 : WARNING : Gap of 37.4042 seconds in CHECKDT input data	
480052.463 : WARNING : Gap of 480028.5086 seconds in CHECKDT input data	

Primary Observables & Satellite Data

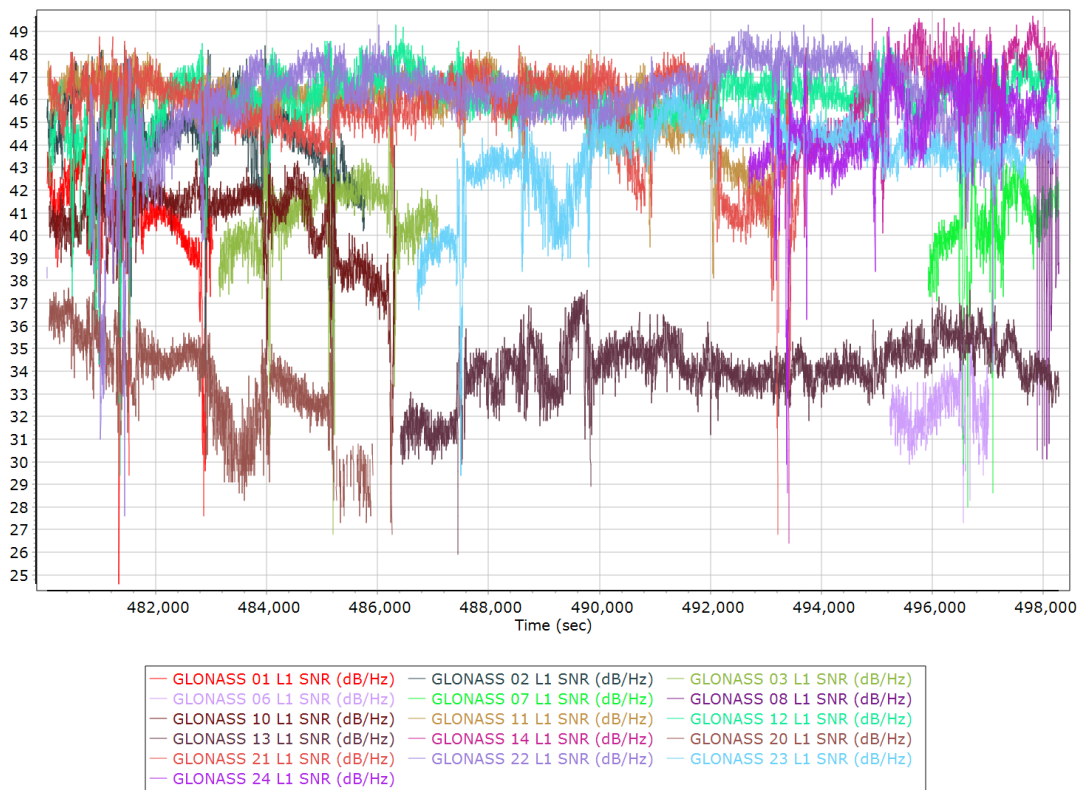
GPS/GLONASS L1 Satellite Lock/Elevation



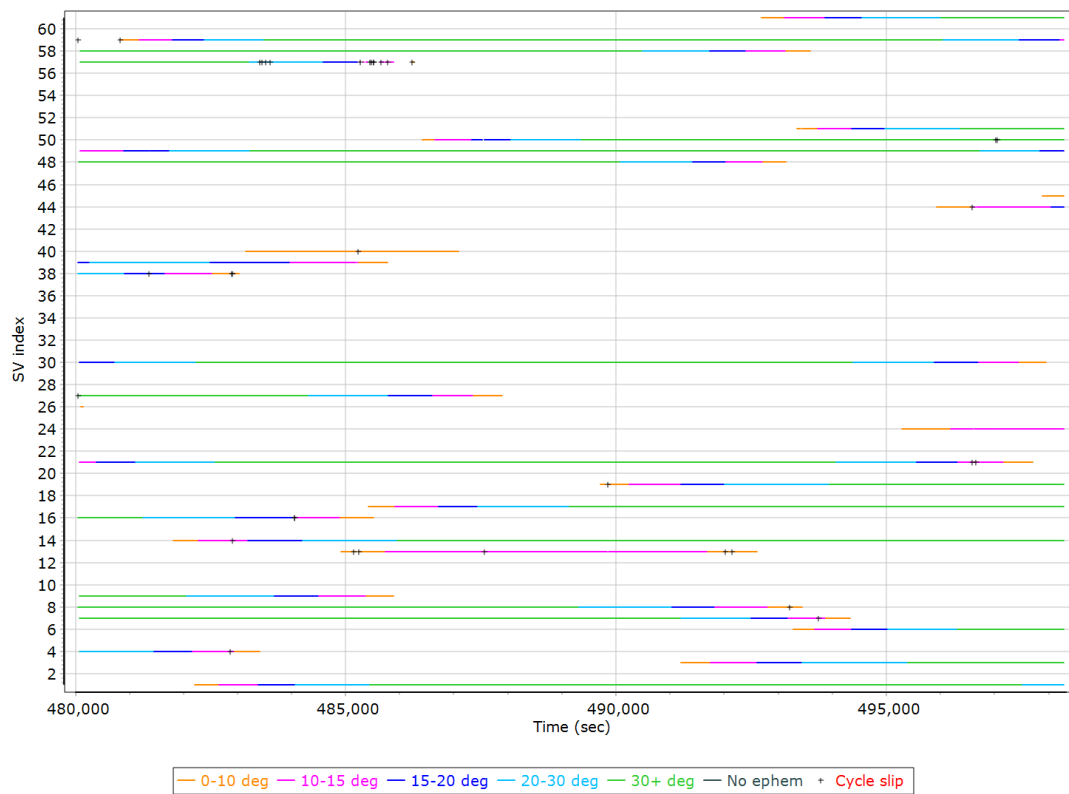
GPS L1 SNR



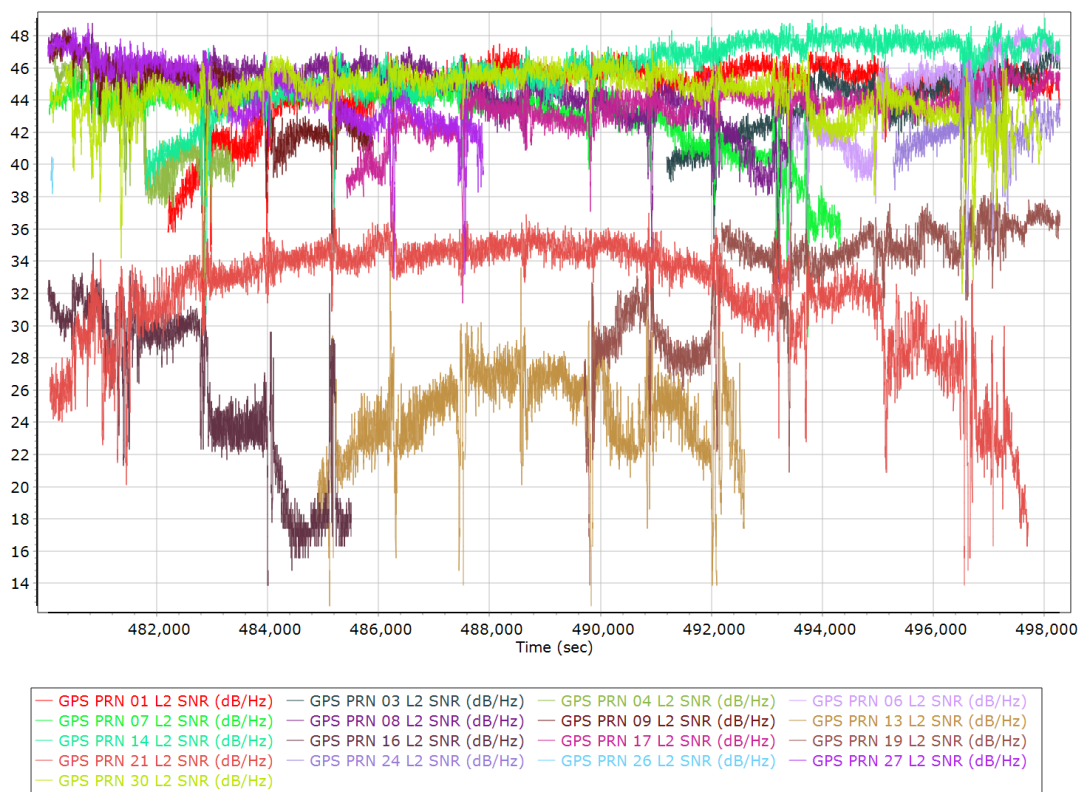
GLONASS L1 SNR



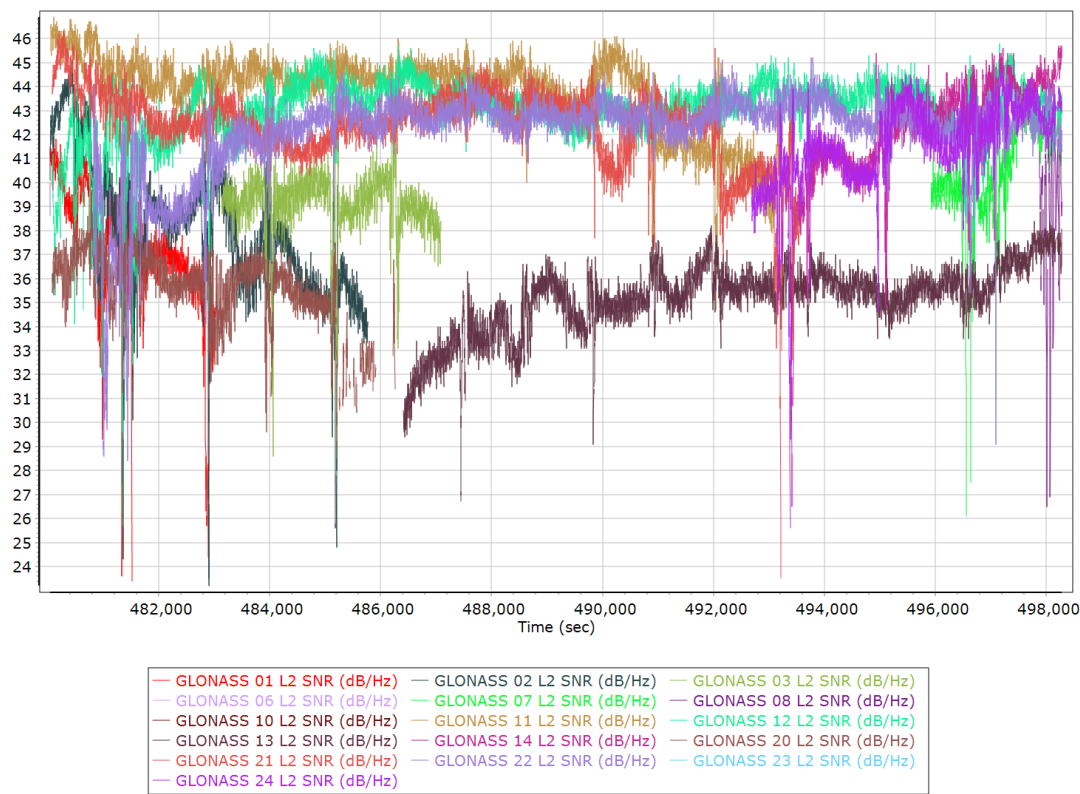
GPS/GLONASS L2 Satellite Lock/Elevation



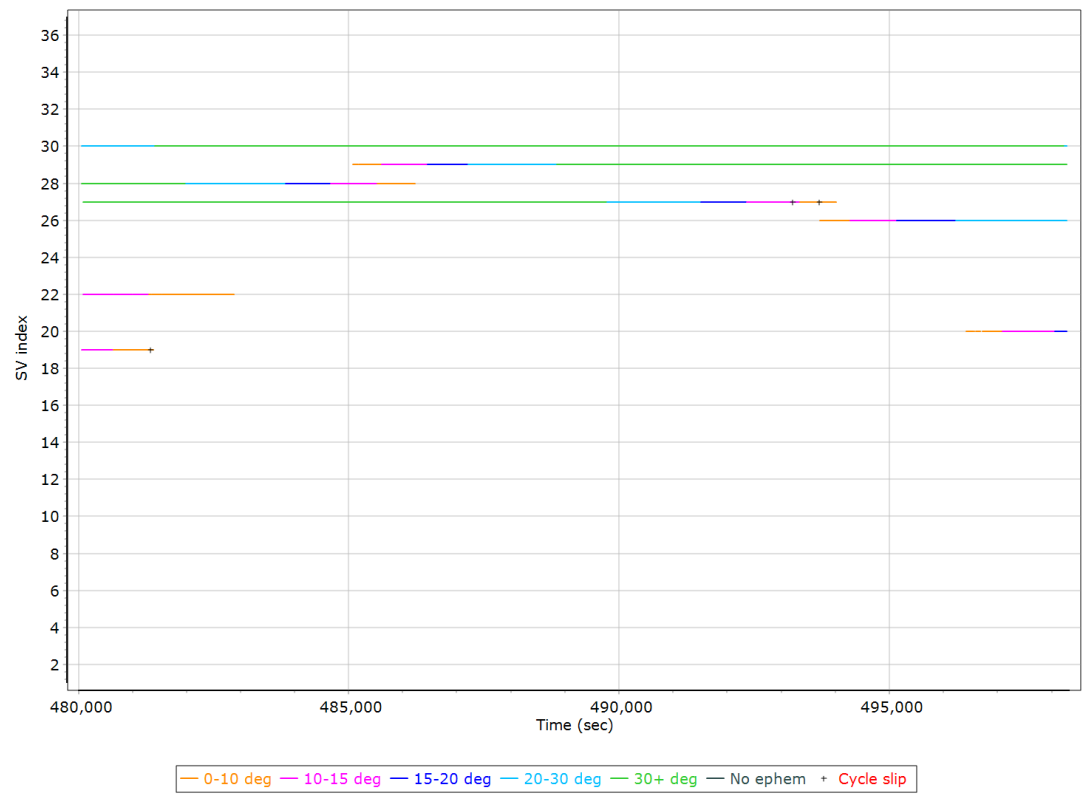
GPS L2 SNR



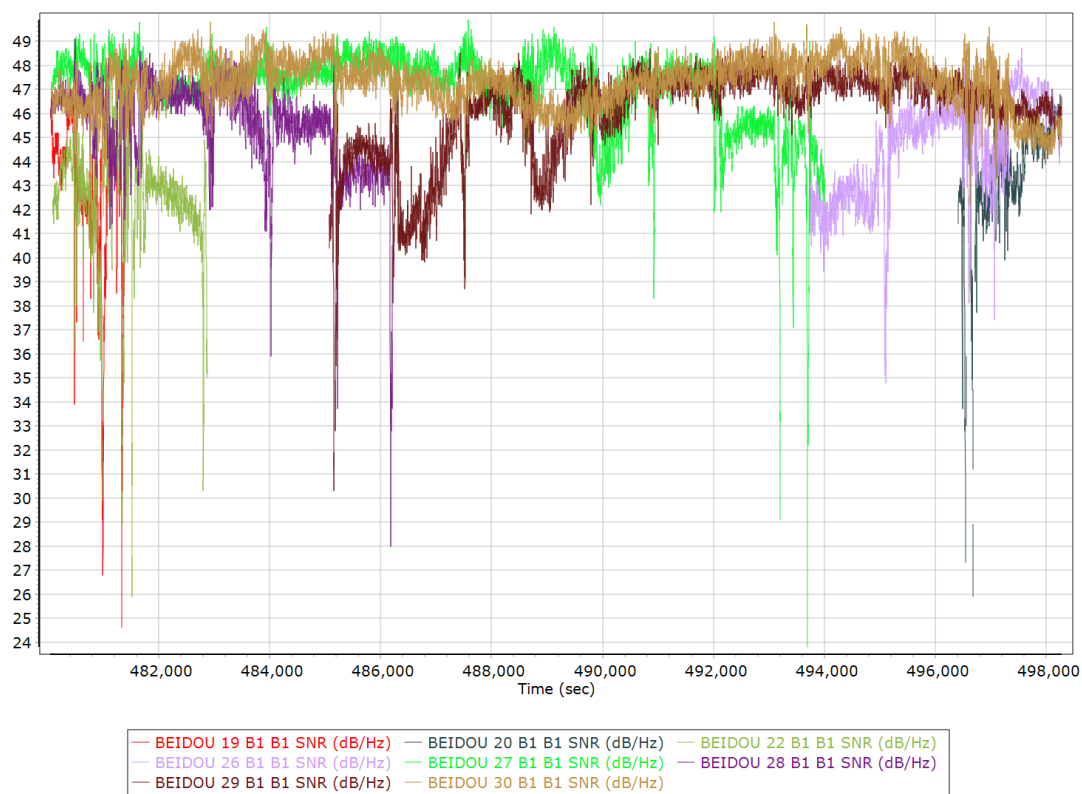
GLONASS L2 SNR



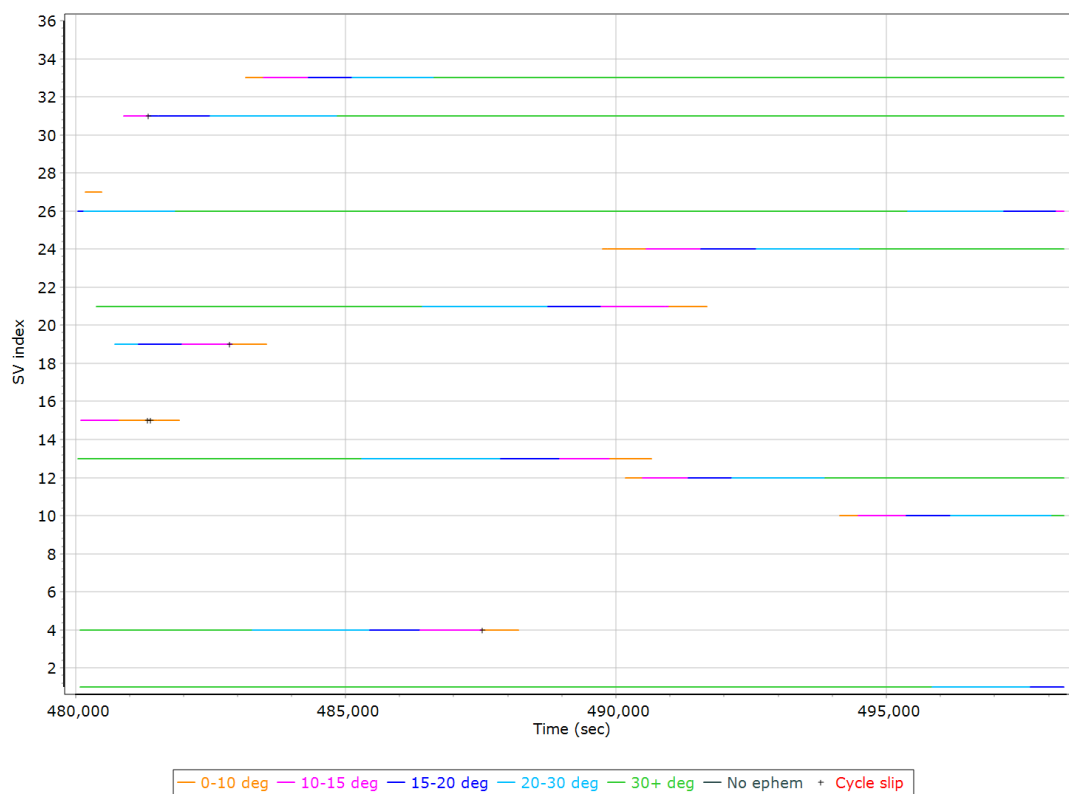
BEIDOU Satellite Lock/Elevation



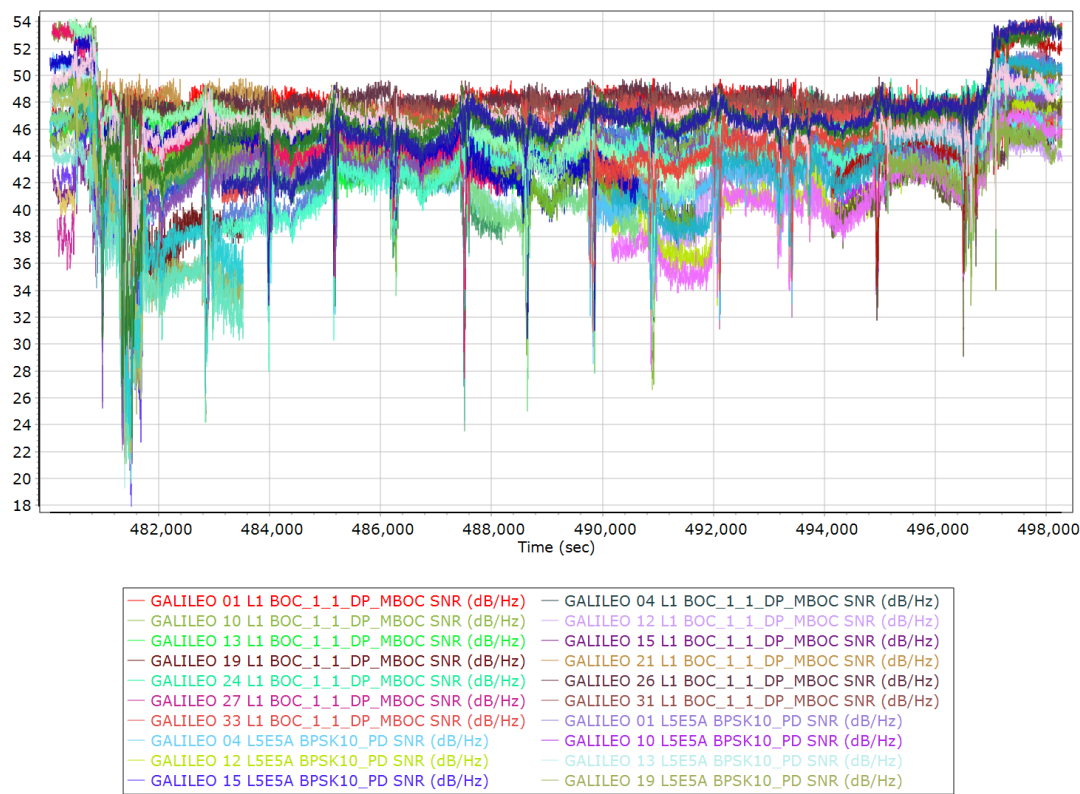
BEIDOU SNR



GALILEO Satellite Lock/Elevation

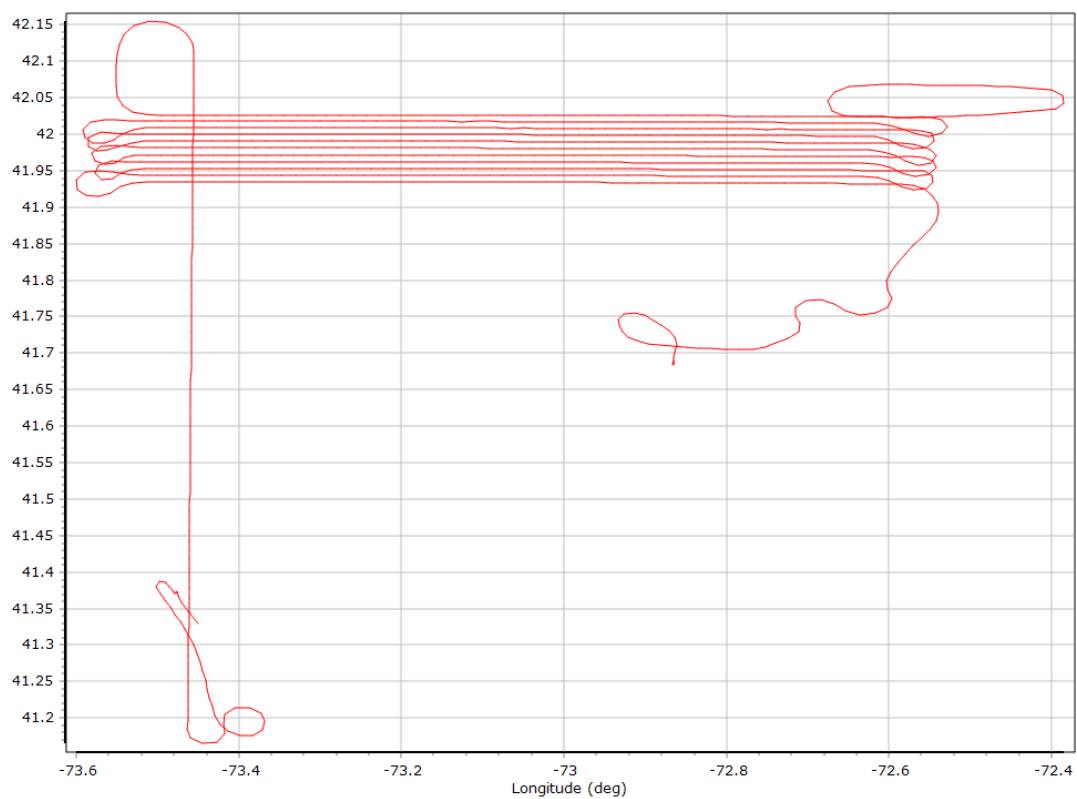


GALILEO SNR

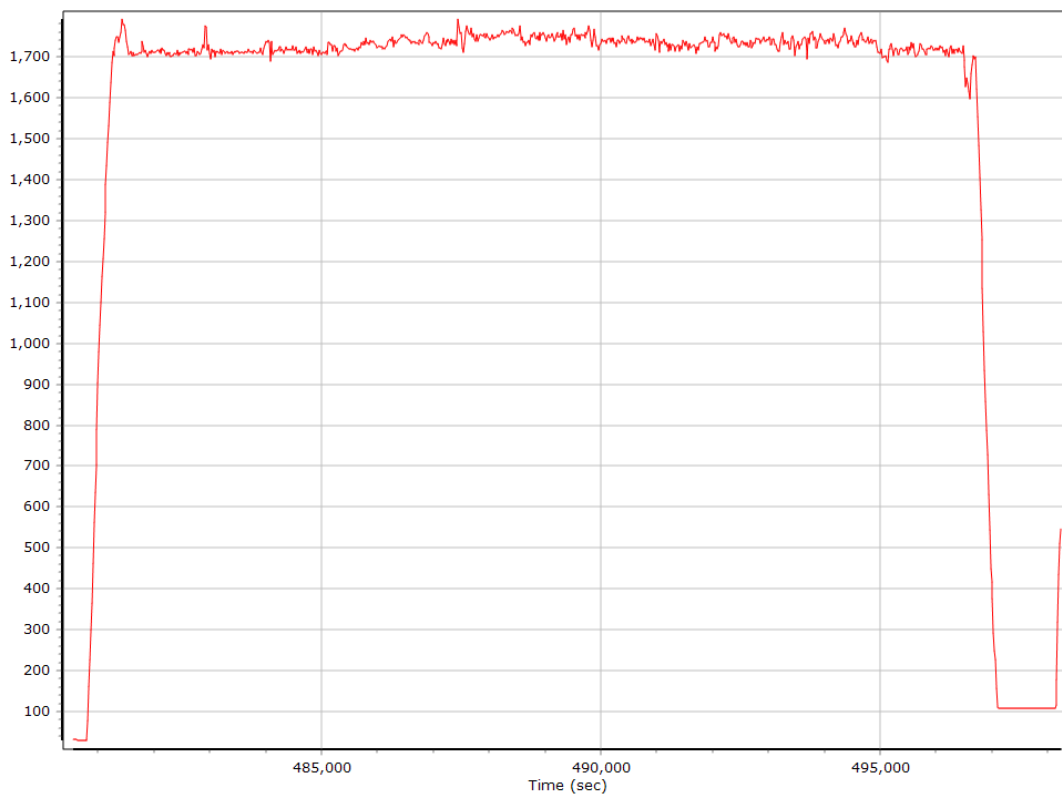


Smoothed Trajectory Information

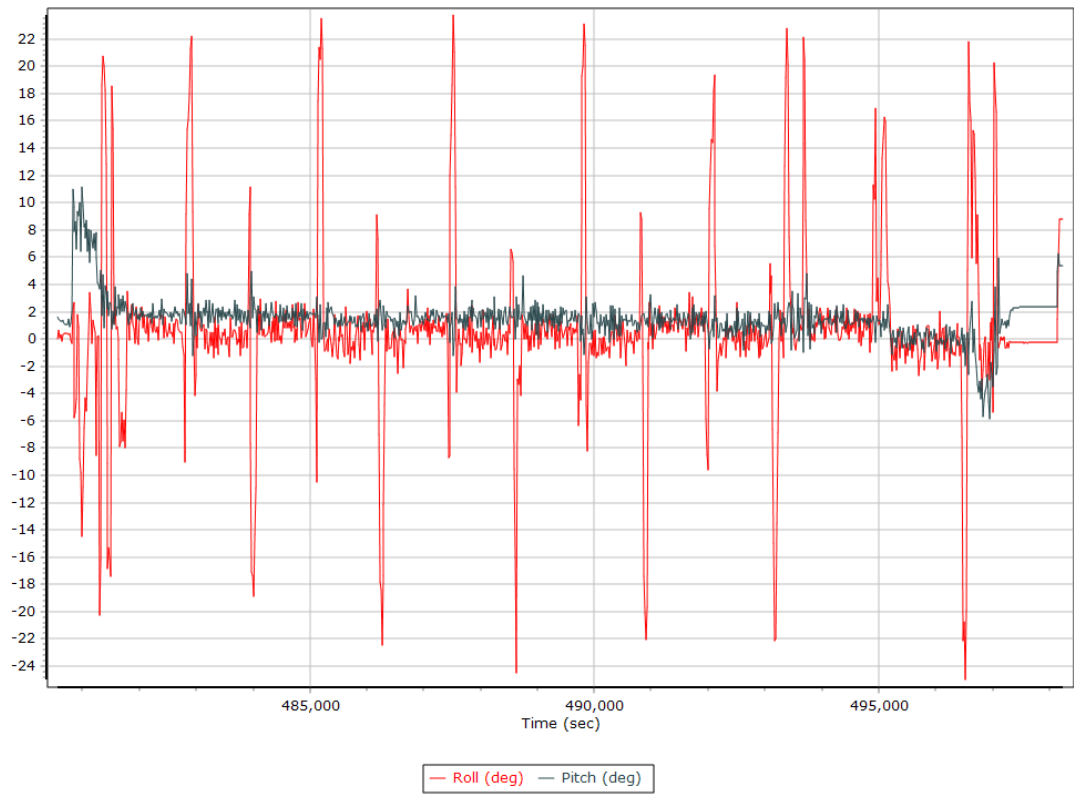
Top View



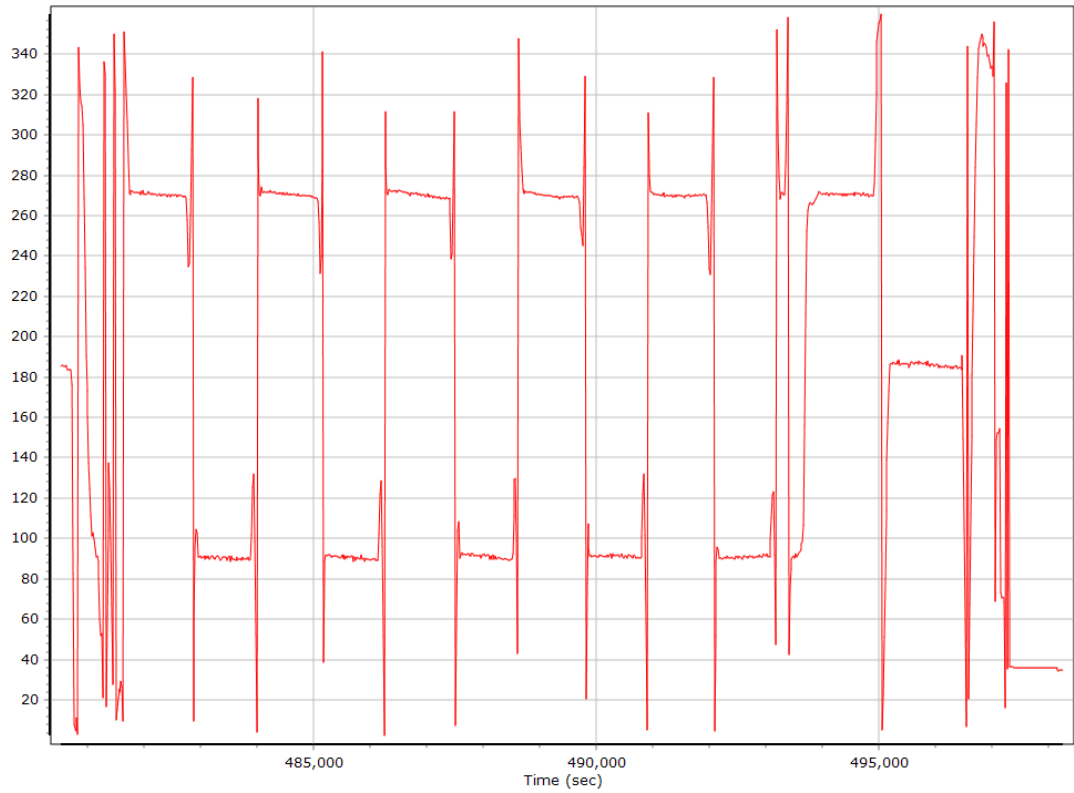
Altitude



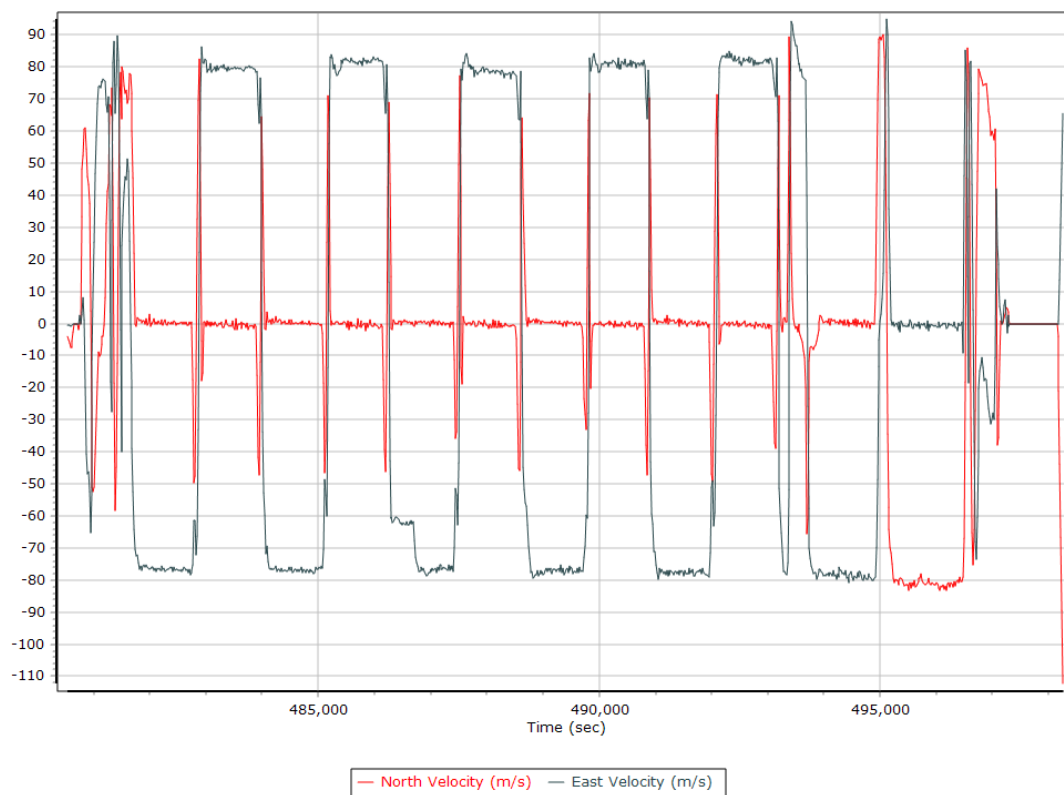
Roll/Pitch



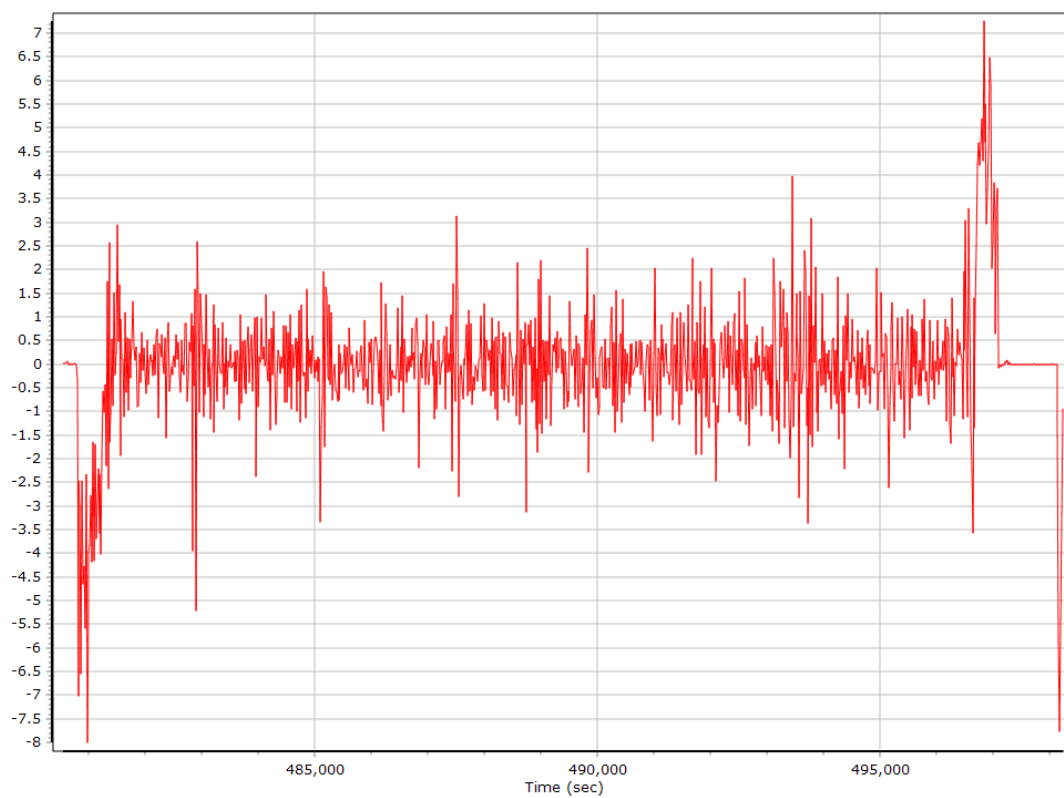
Heading



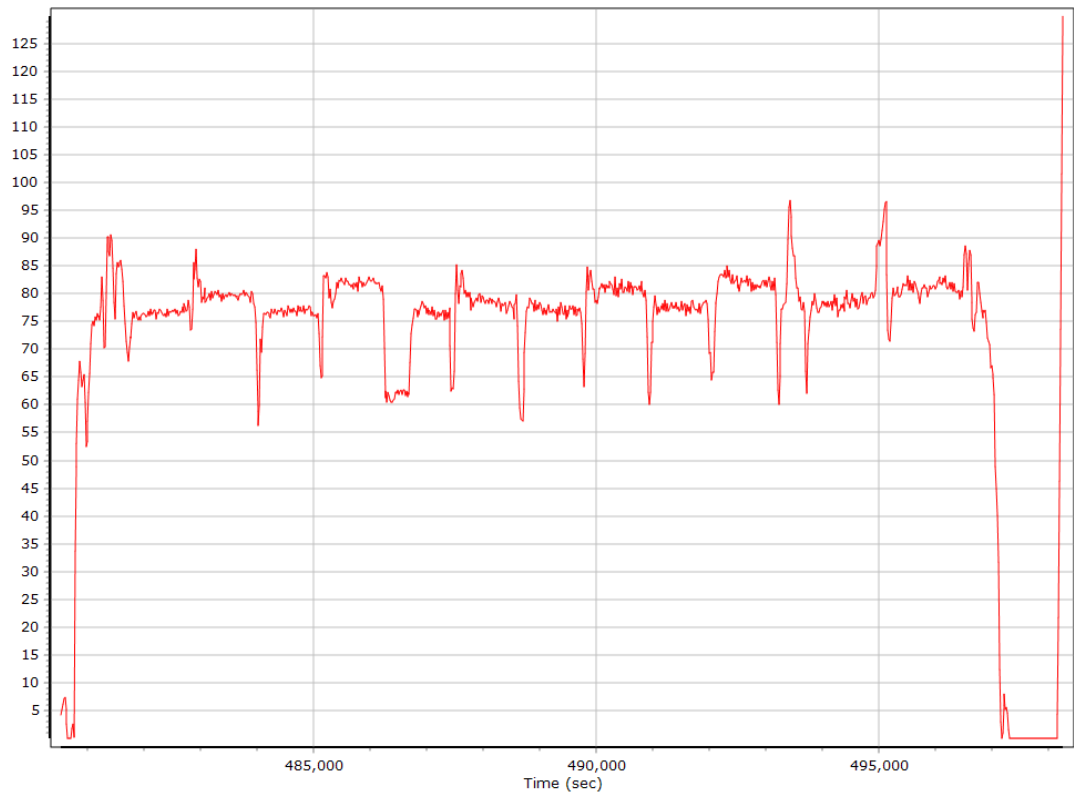
North/East Velocity



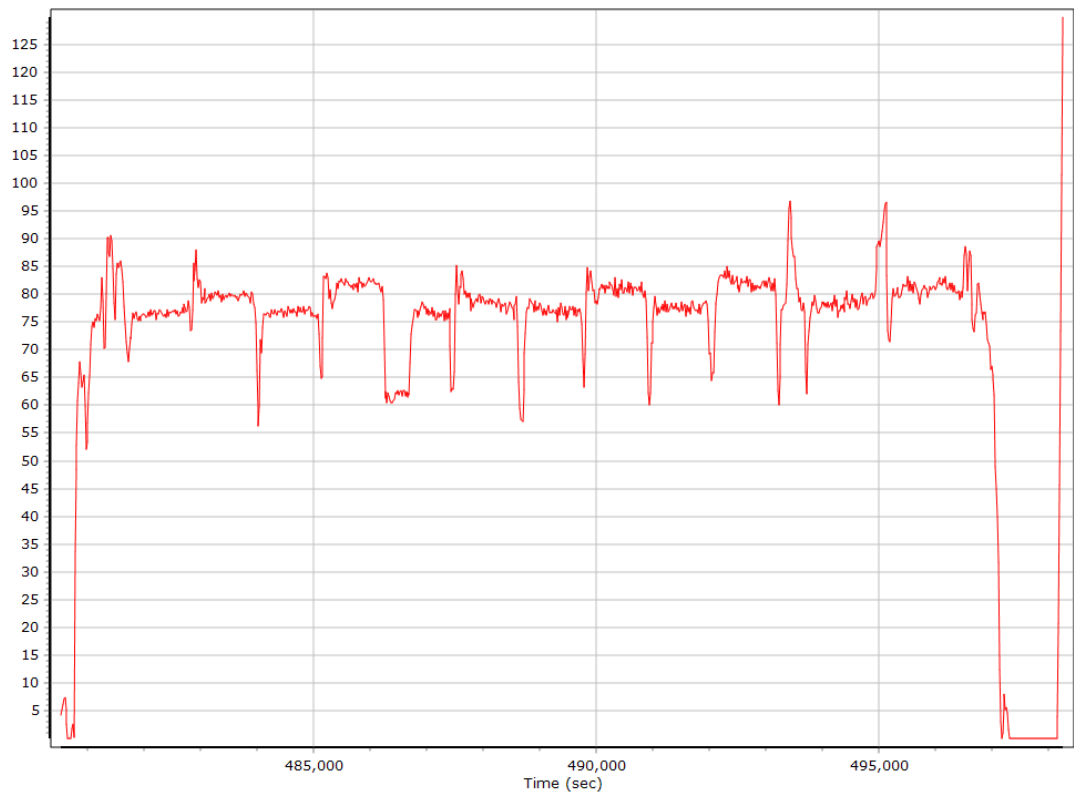
Down Velocity



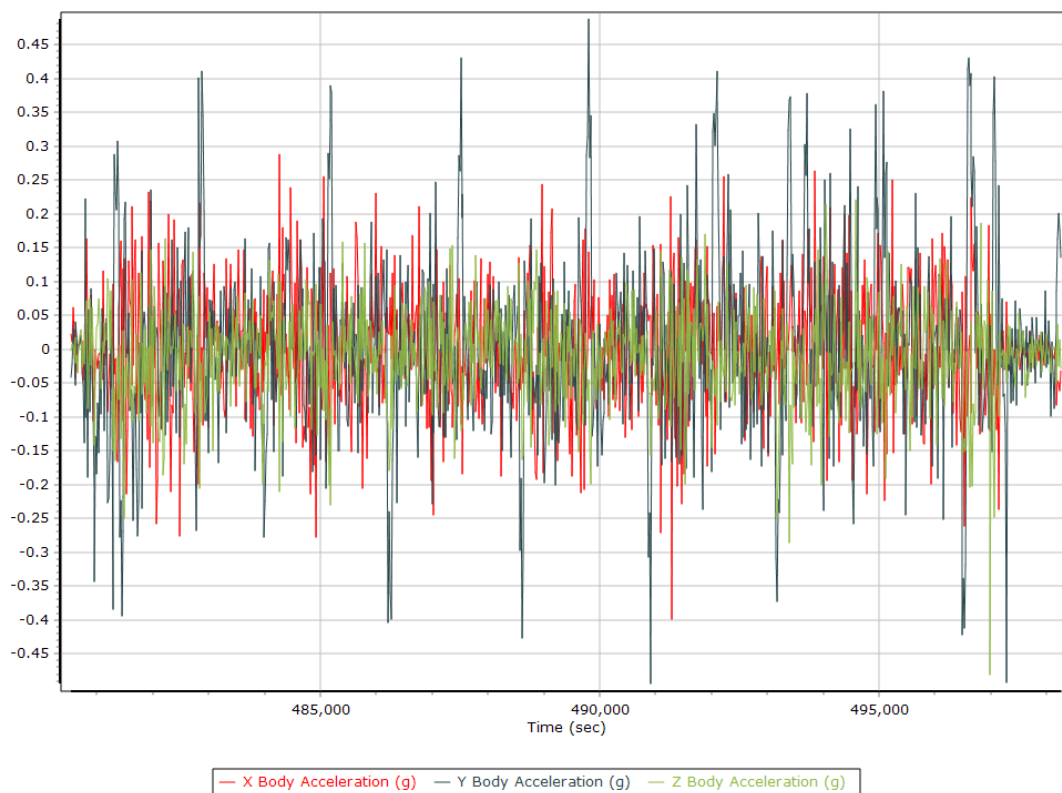
Total Speed



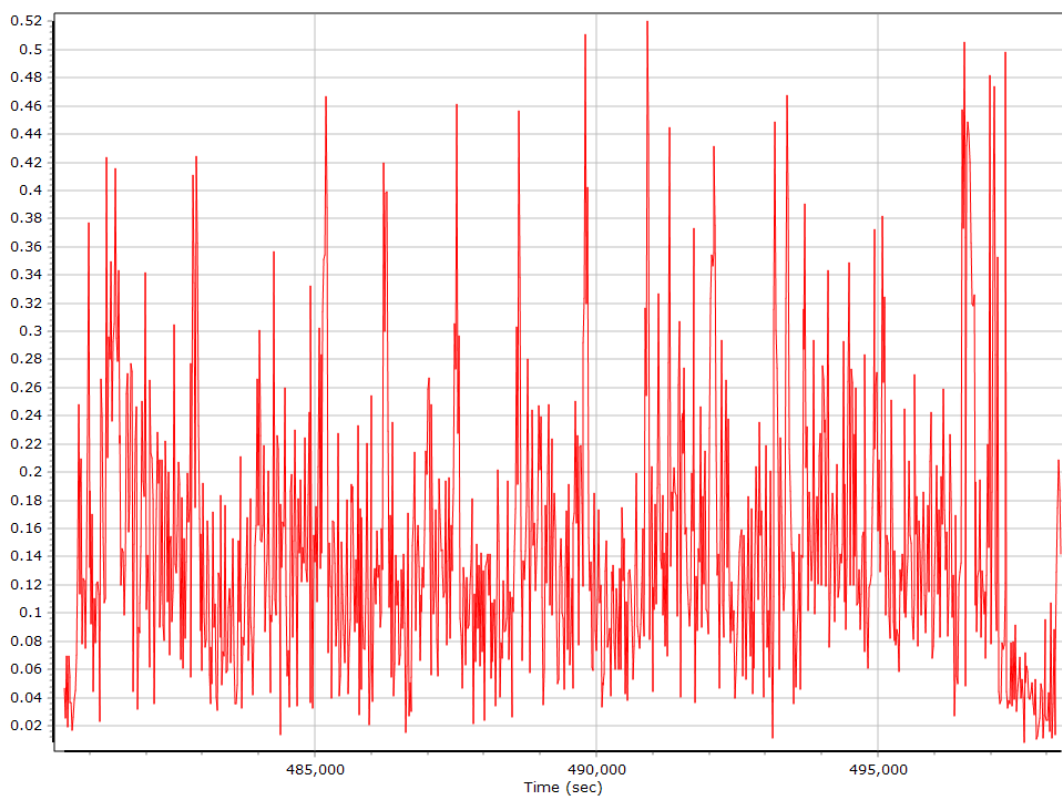
Ground Speed



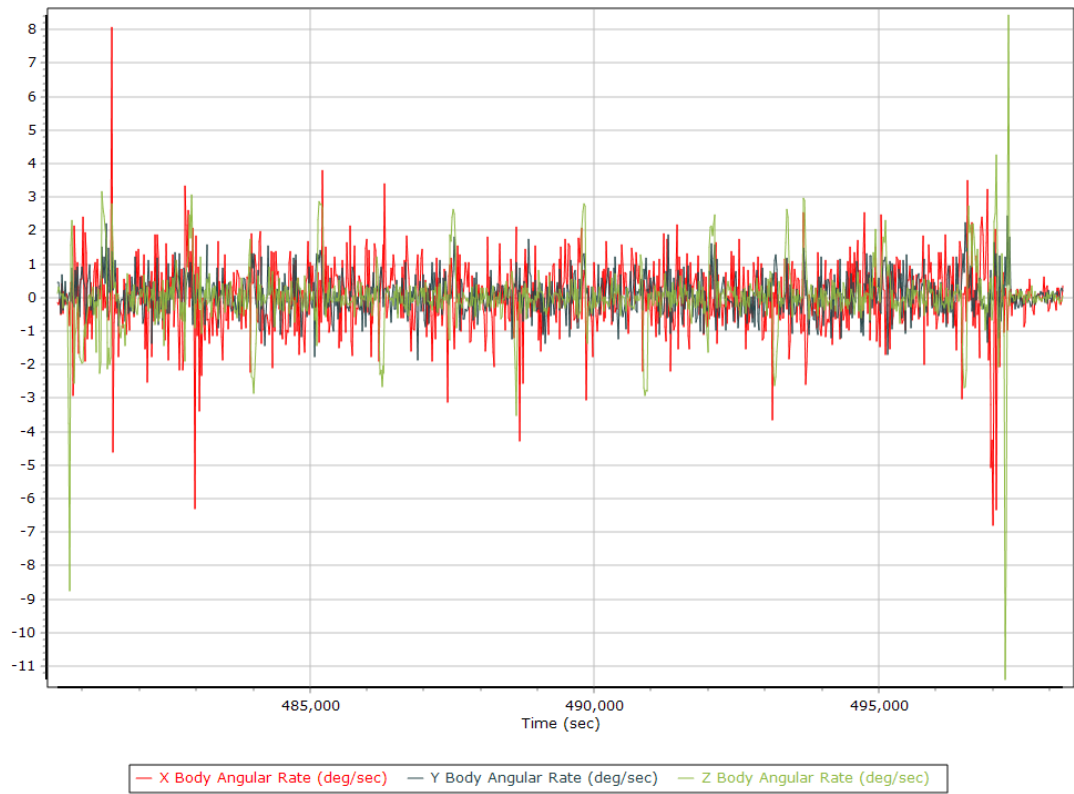
Body Acceleration



Total Body Acceleration

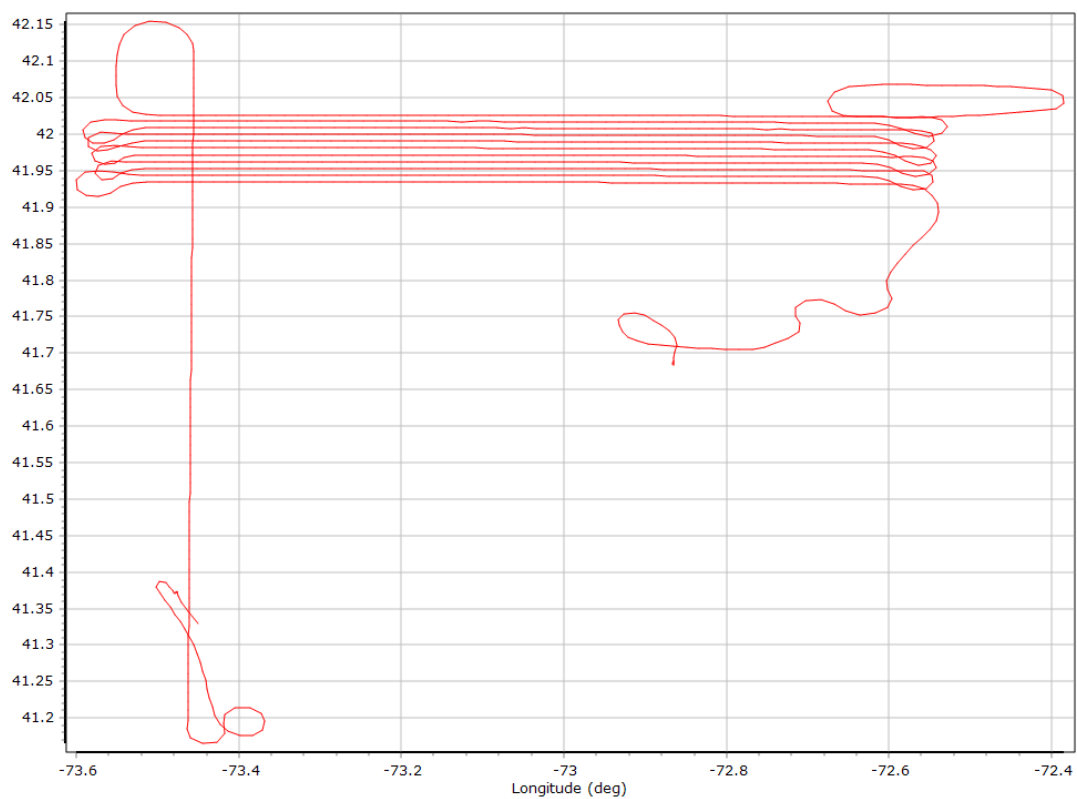


Body Angular Rate

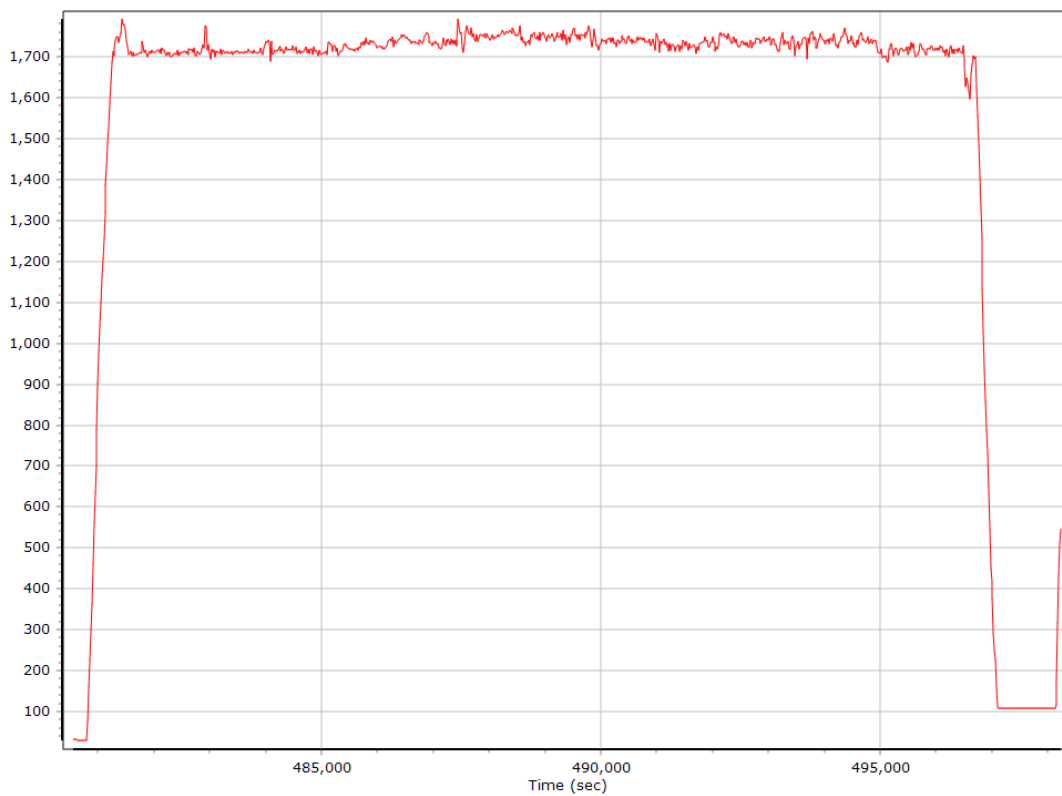


Forward Processed Trajectory Information

Top View



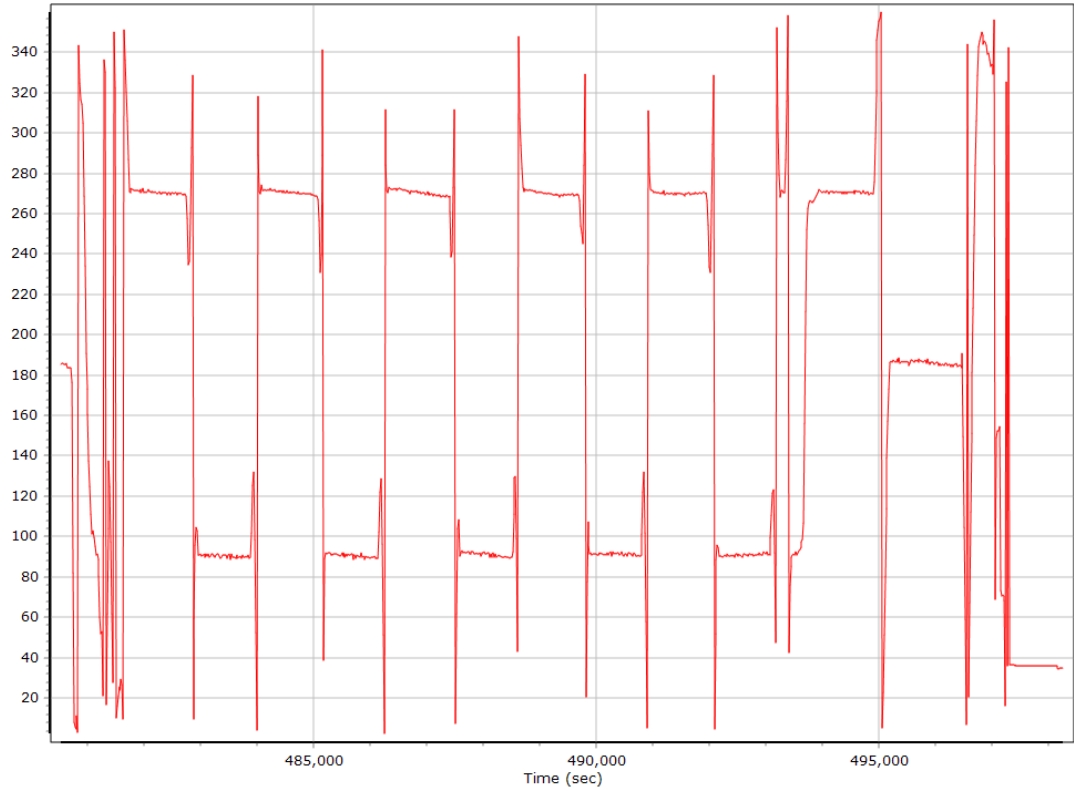
Altitude



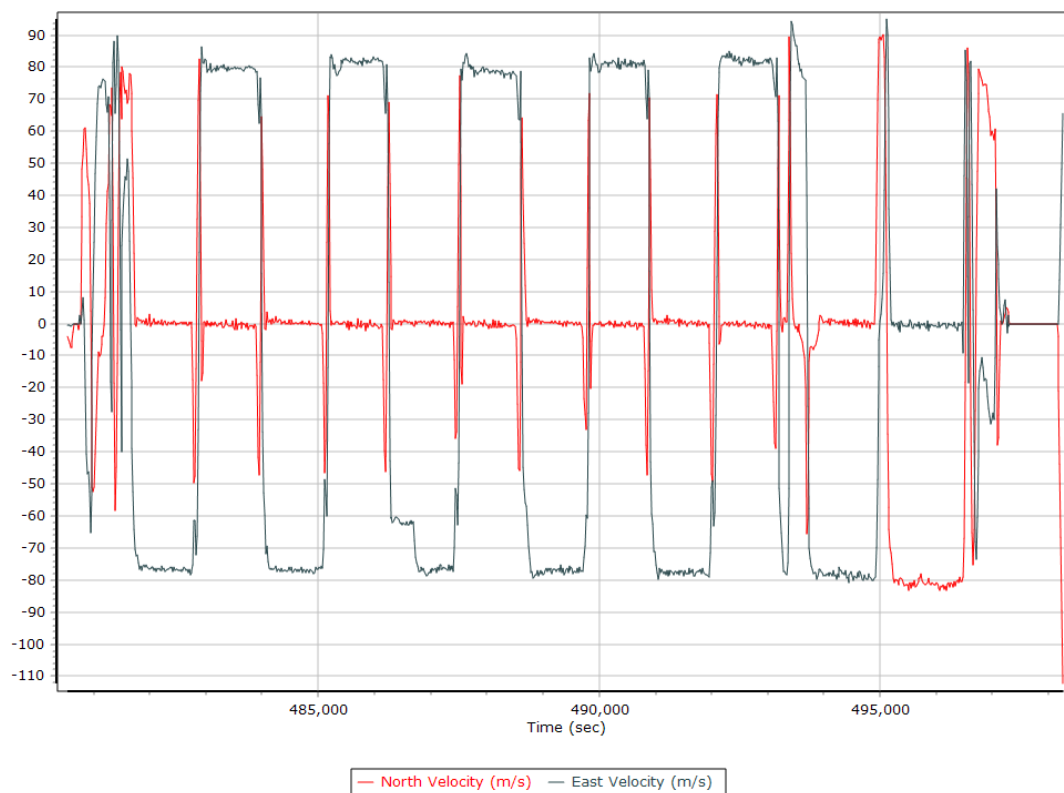
Roll/Pitch



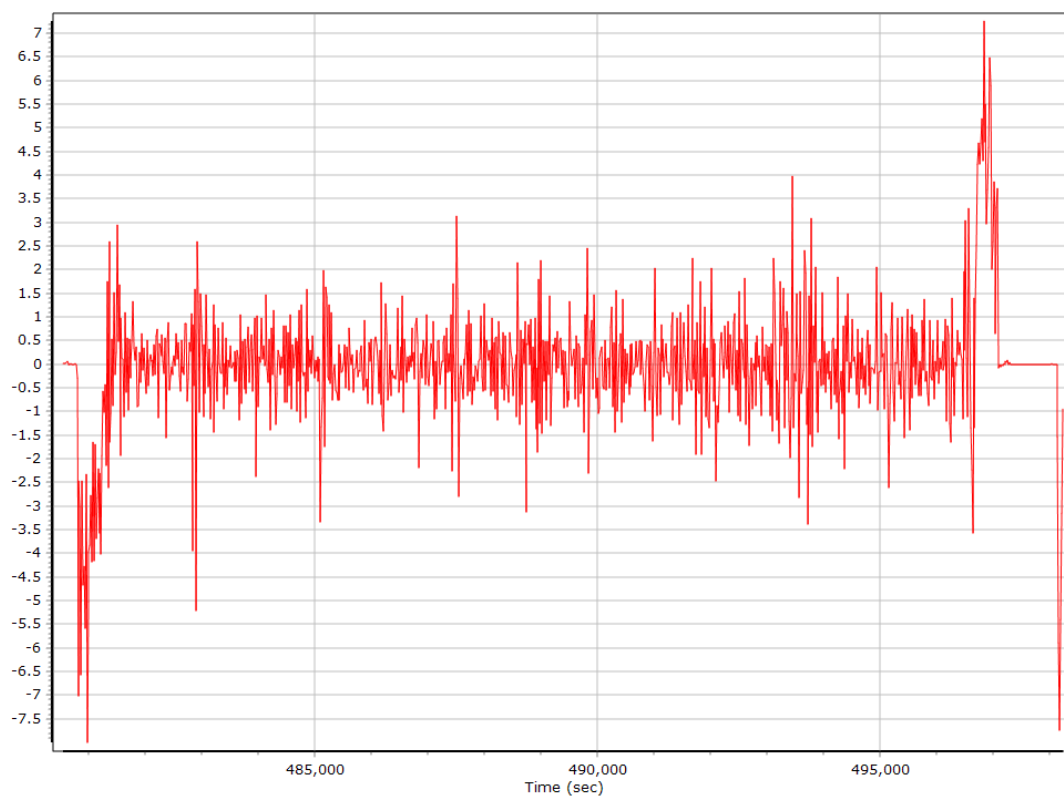
Heading



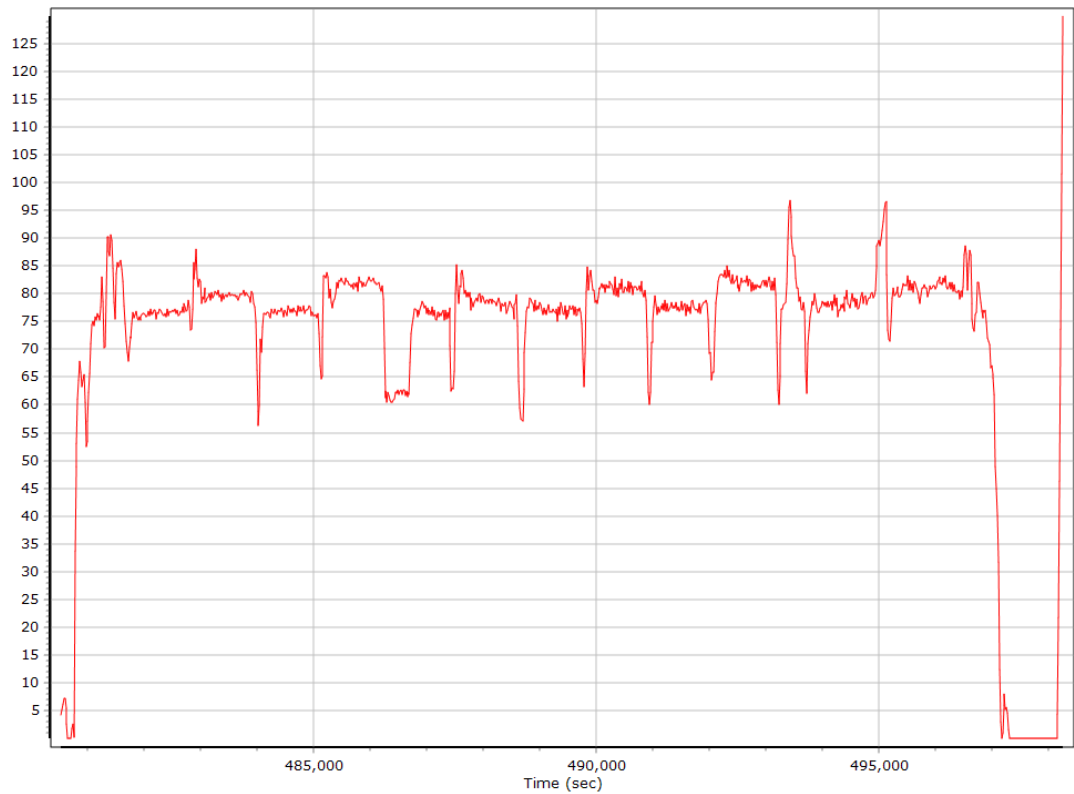
North/East Velocity



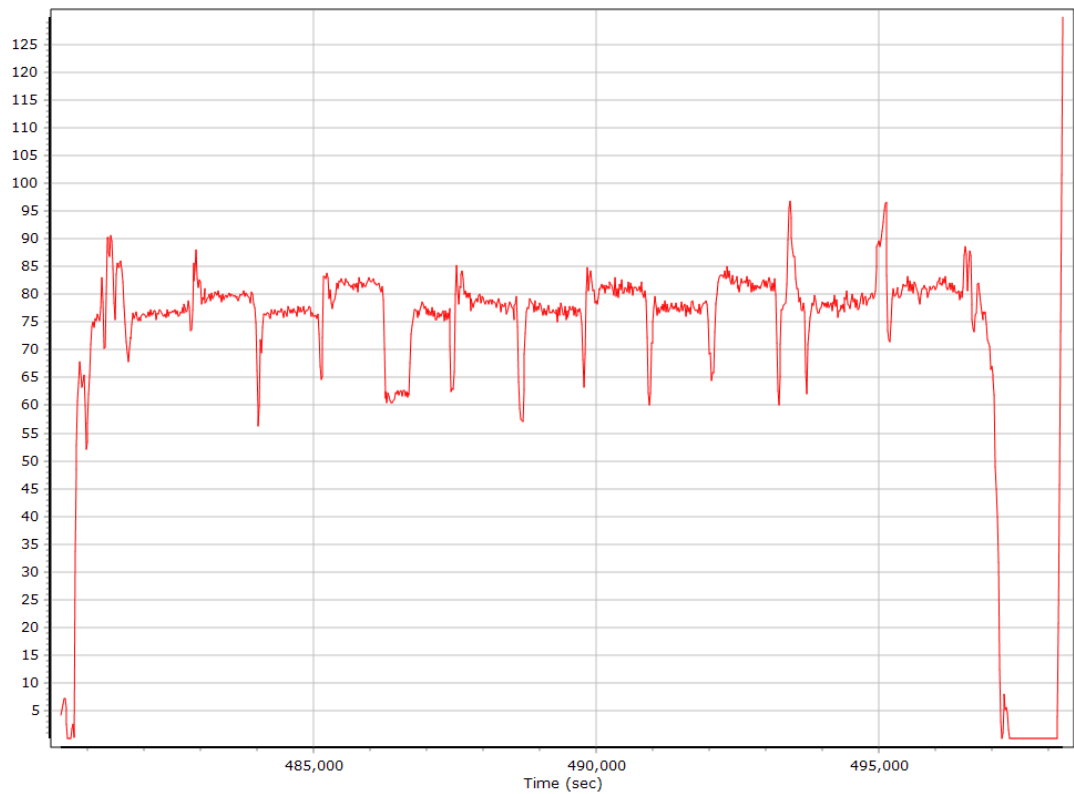
Down Velocity



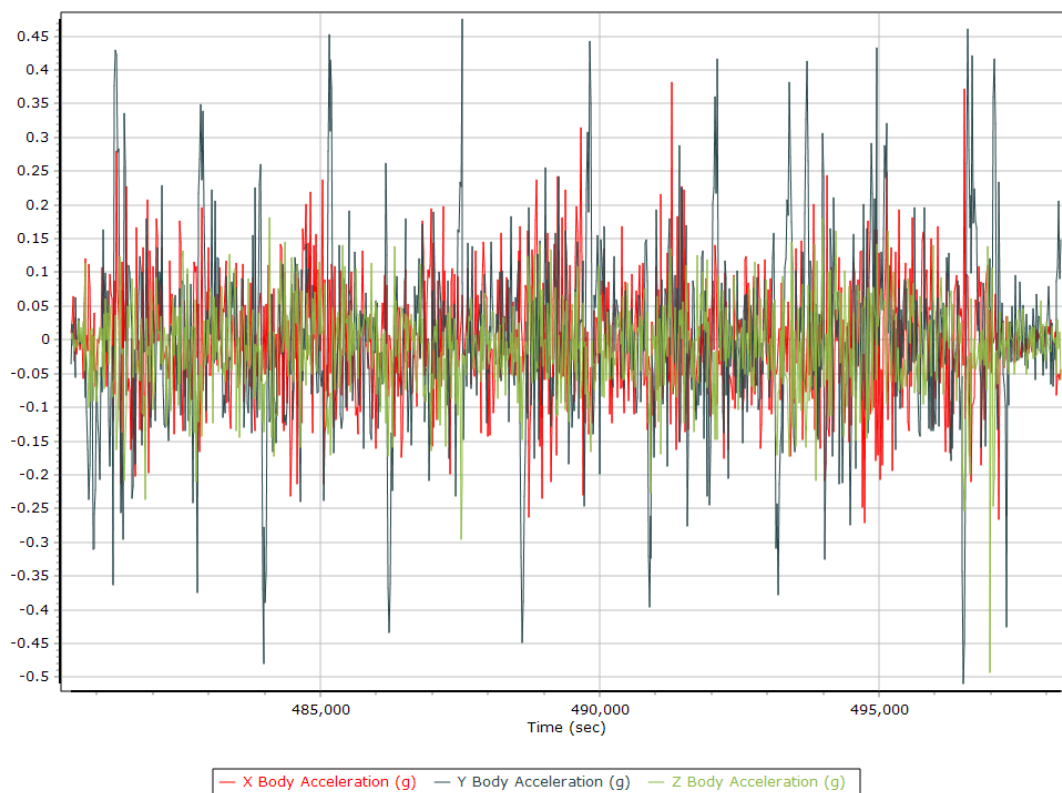
Total Speed



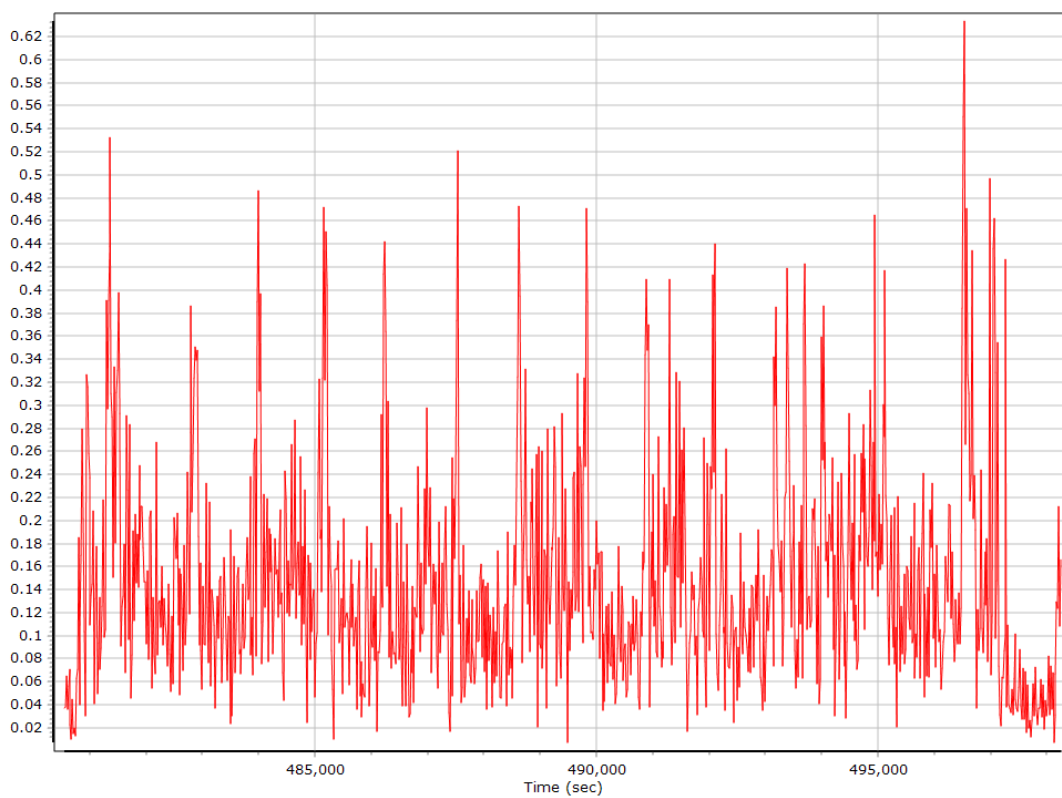
Ground Speed



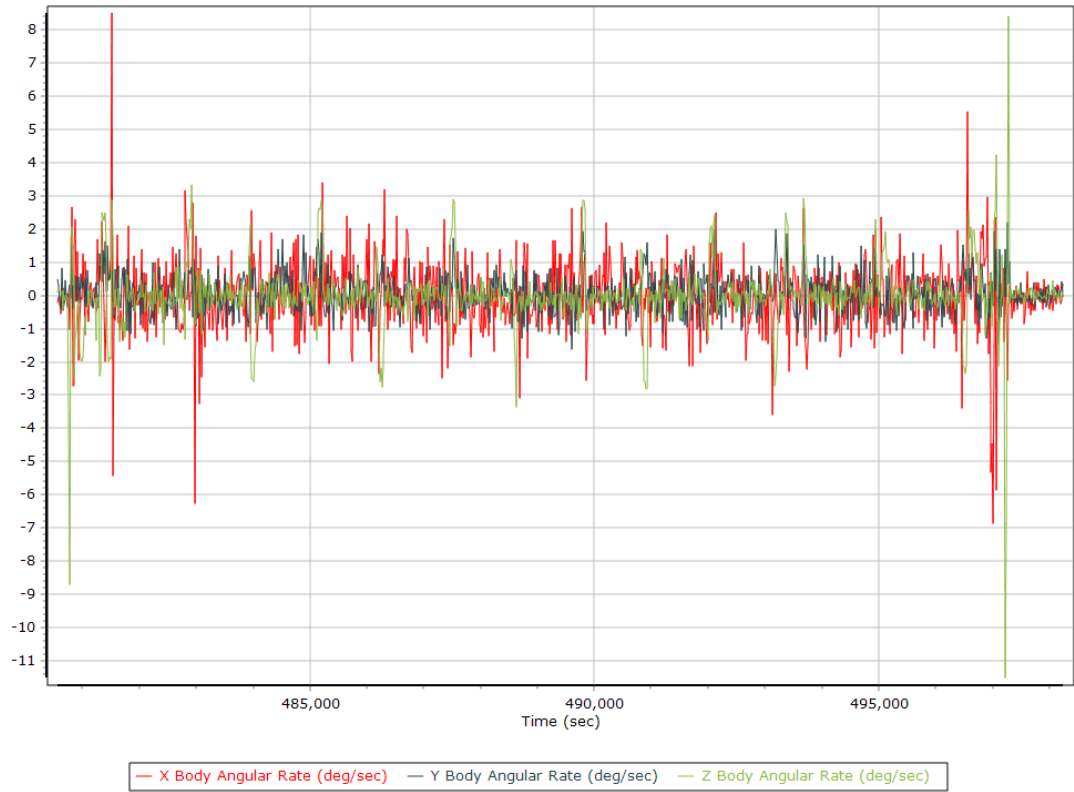
Body Acceleration



Total Body Acceleration



Body Angular Rate

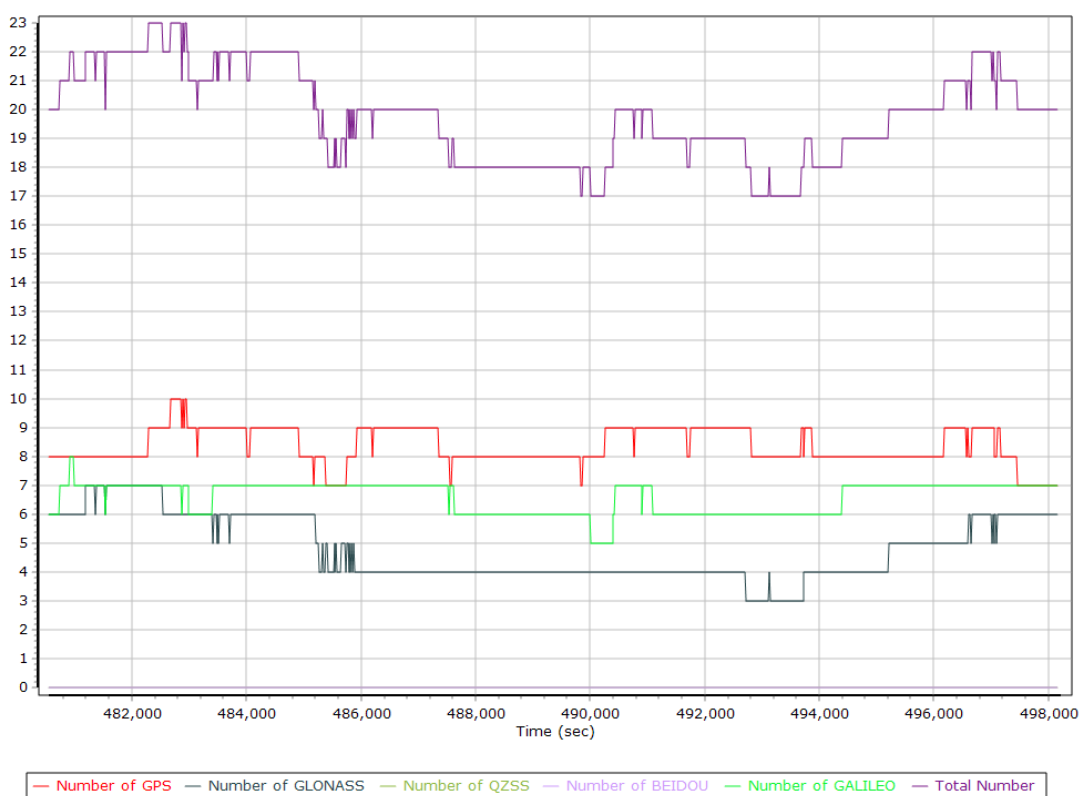


GNSS QC

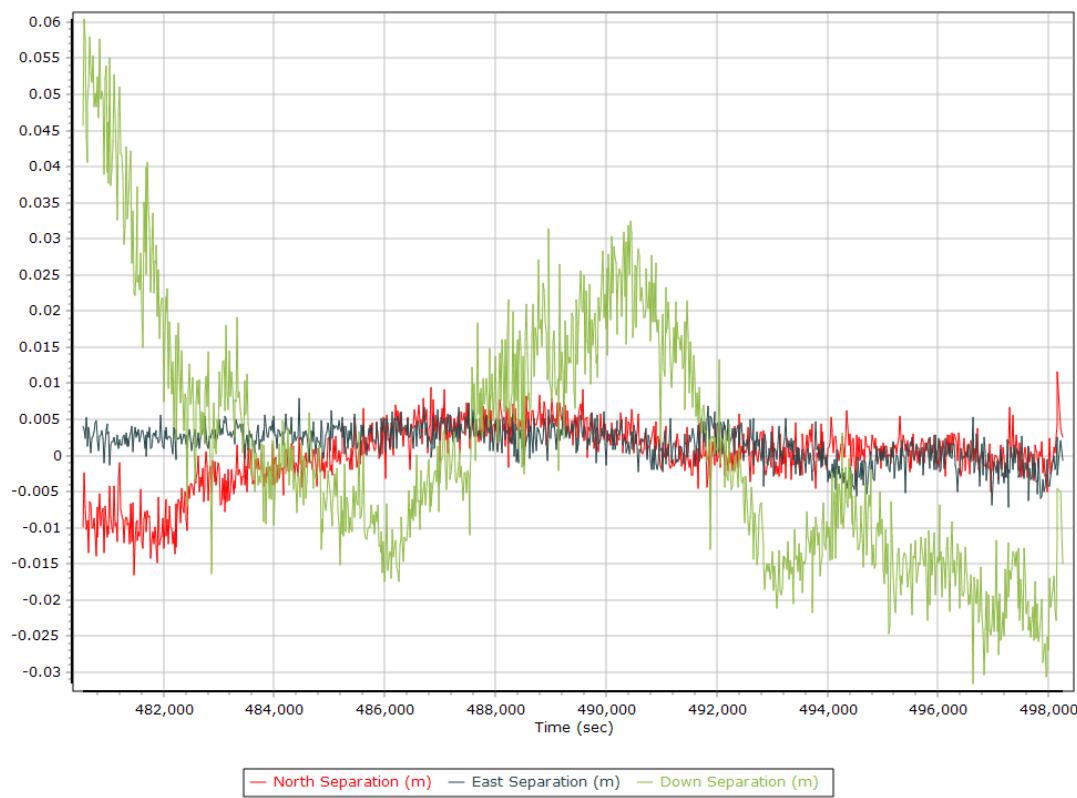
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	3	10	8
Number of GLONASS SV	2	7	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	2	8	7
Total number of SV	8	23	20
PDOP	1.02	3.57	1.21
QC Solution Gaps	37.00	37.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	18134.00	0.00	37.00
Percentage	99.80	0.00	0.20

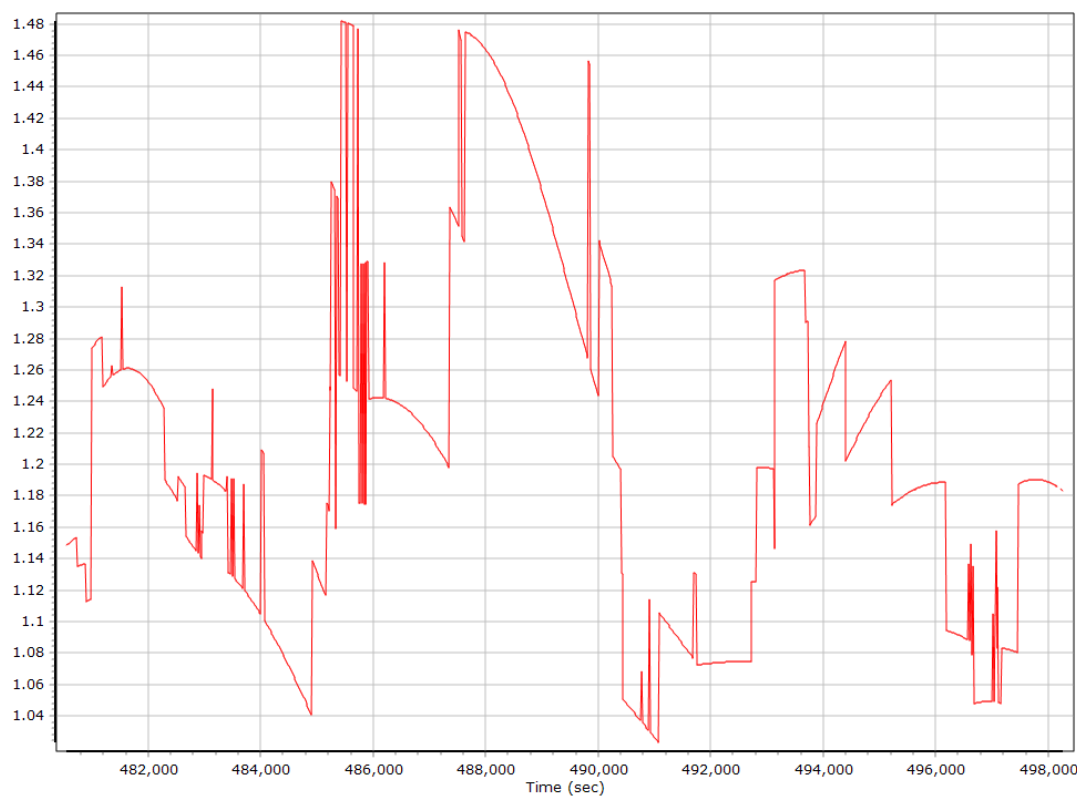
Num SVs in solution



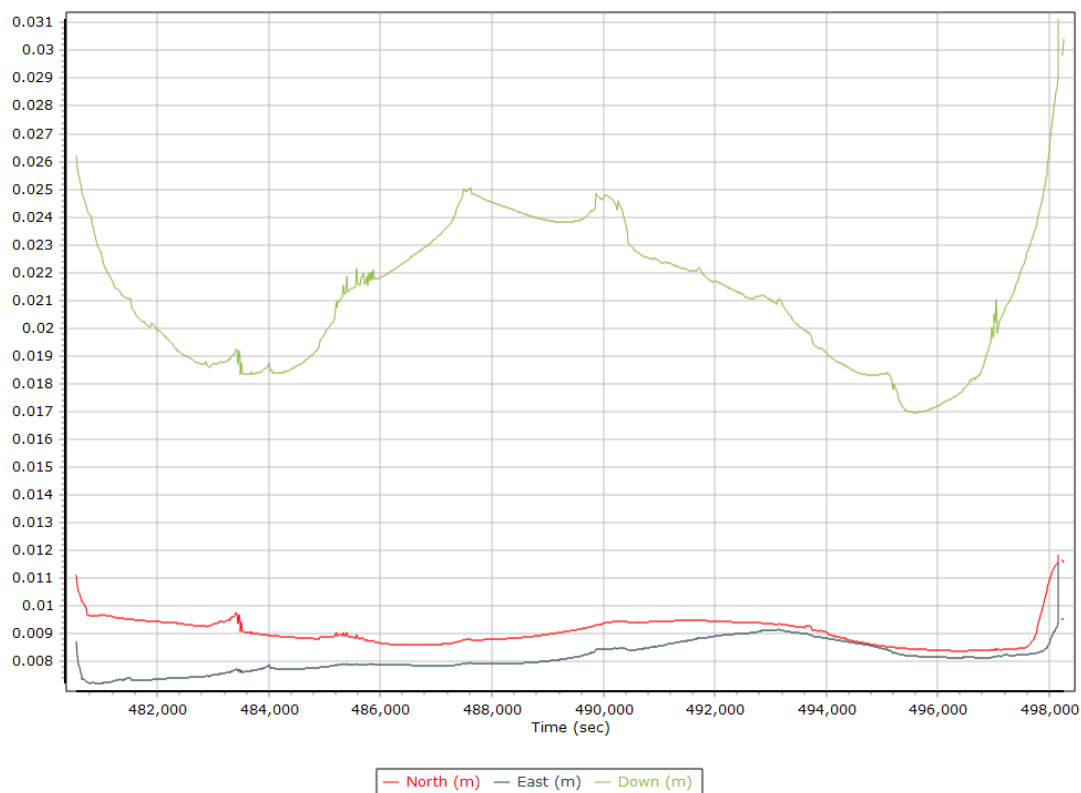
Forward/Reverse Separation



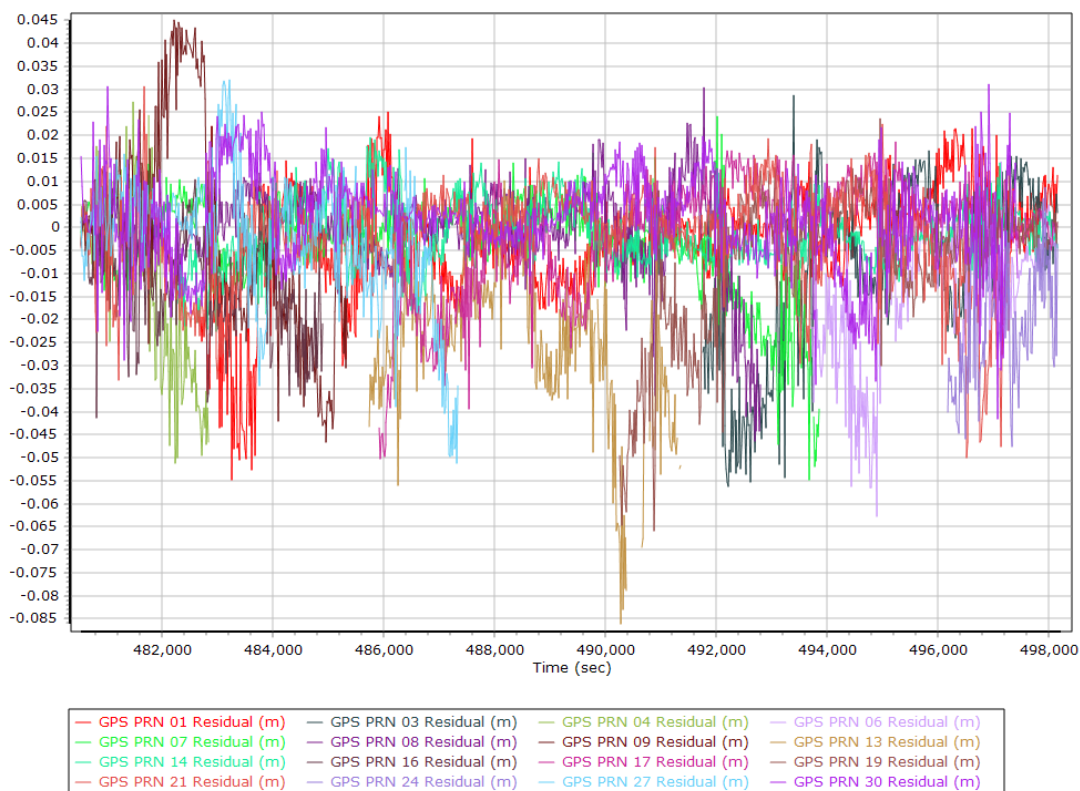
PDOP



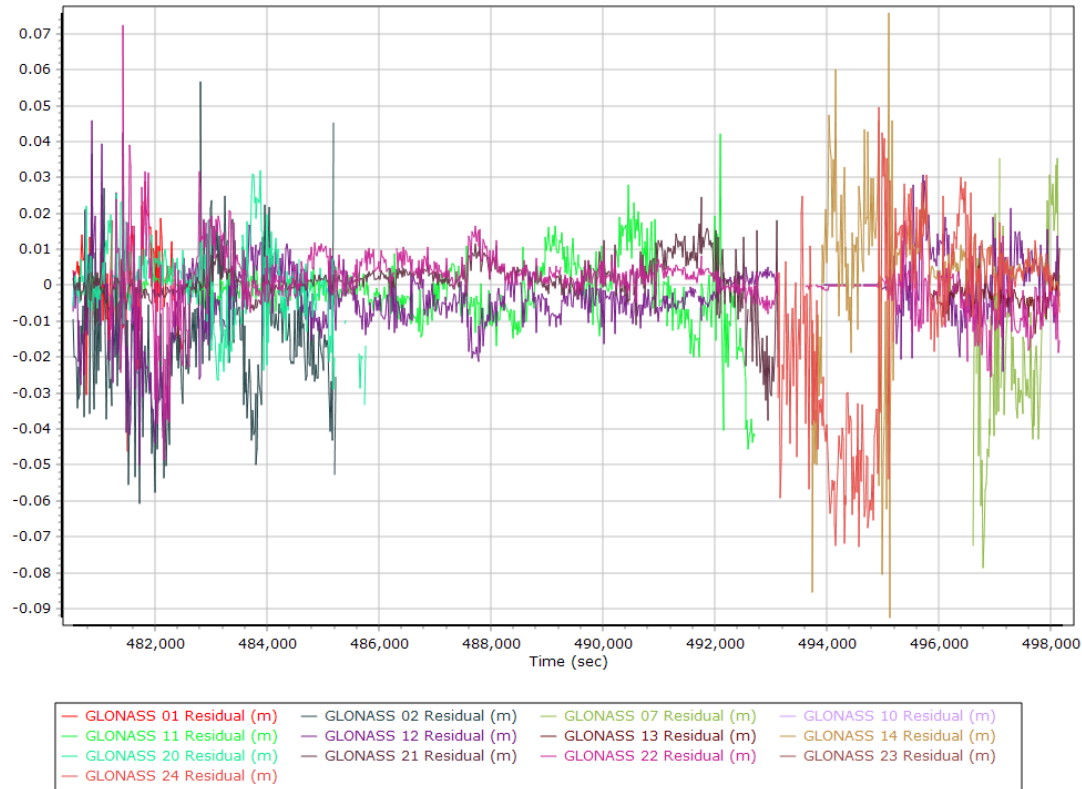
Estimated Position Accuracy



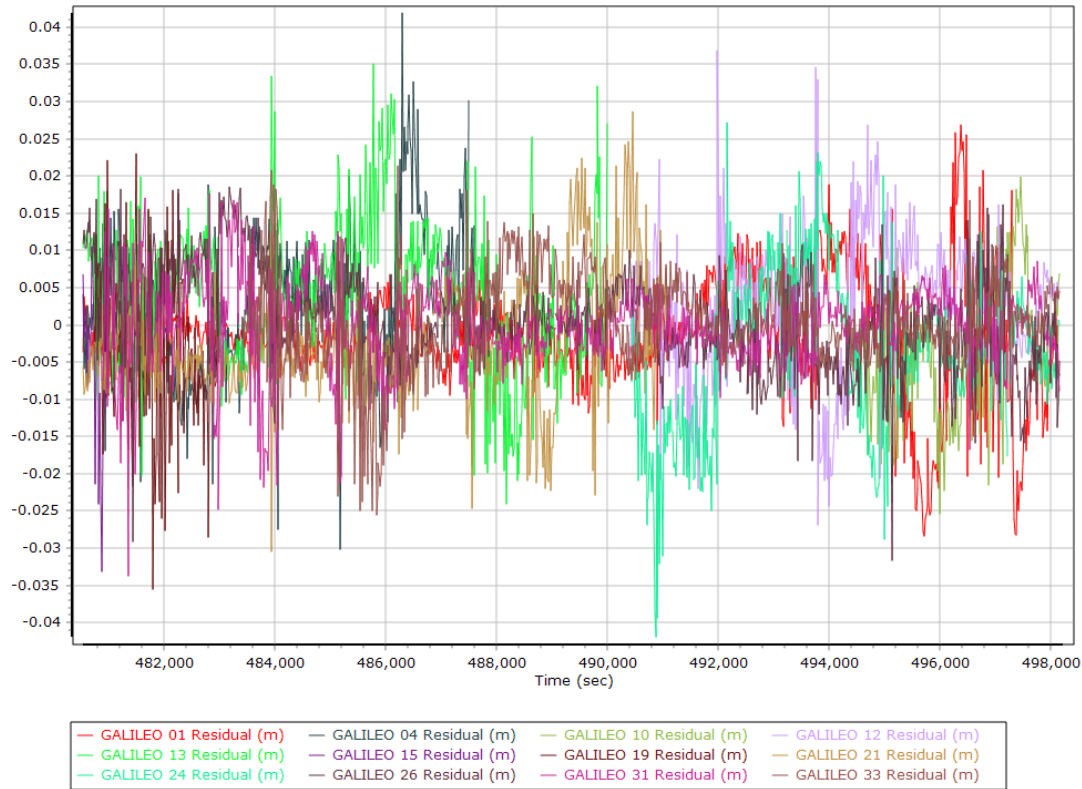
GPS Residuals



GLONASS Residuals



GALILEO Residuals



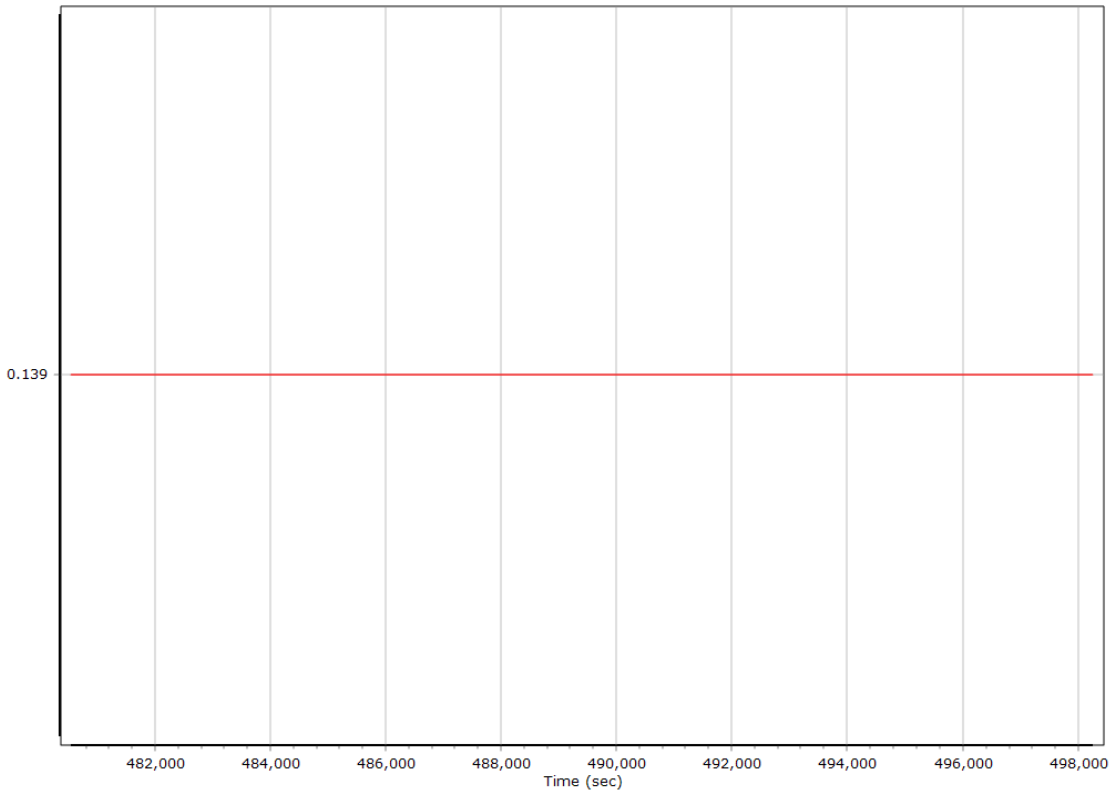
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	480029.000 (04/21/2023 13:20:29)		
Processing end time	498257.000 (04/21/2023 18:24:17)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

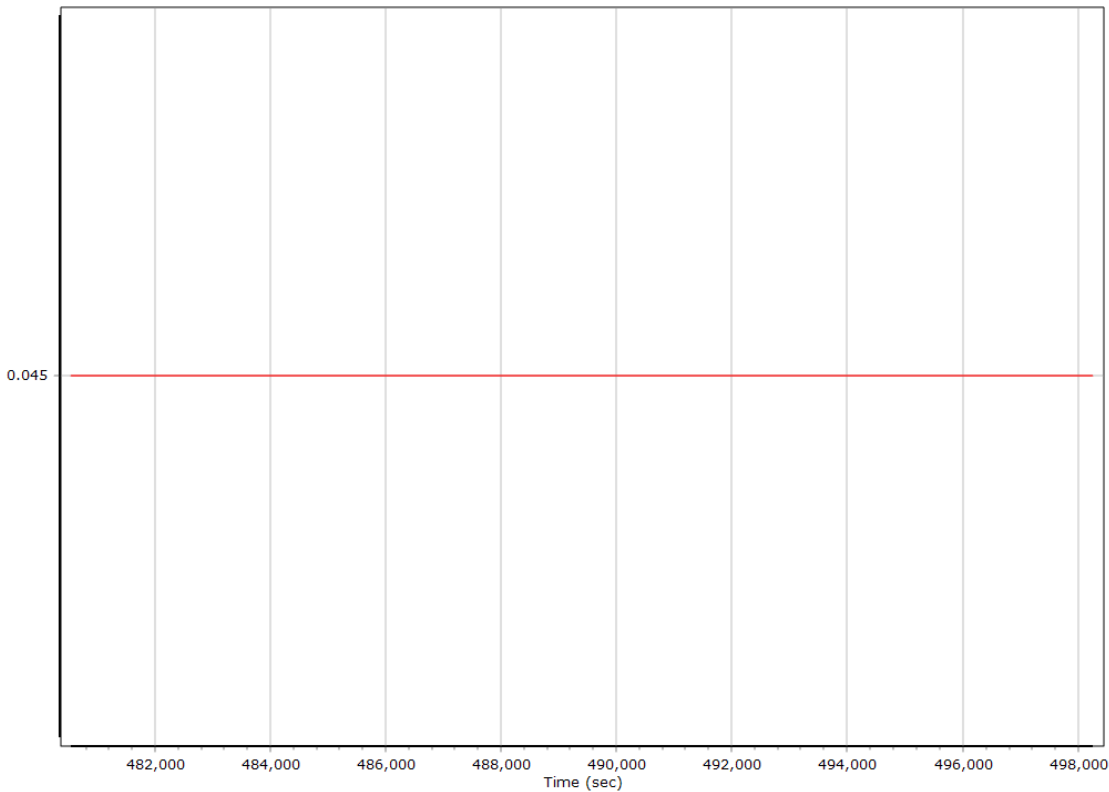
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

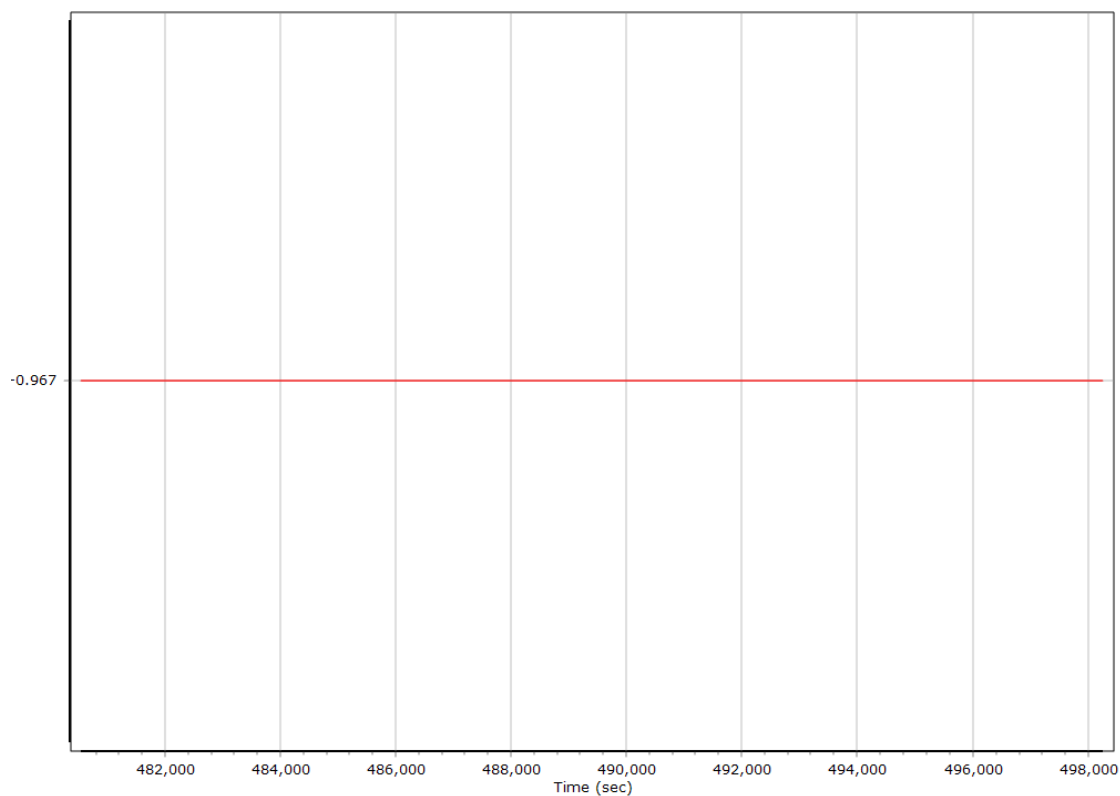
X Reference-Primary GNSS Lever Arm (m)



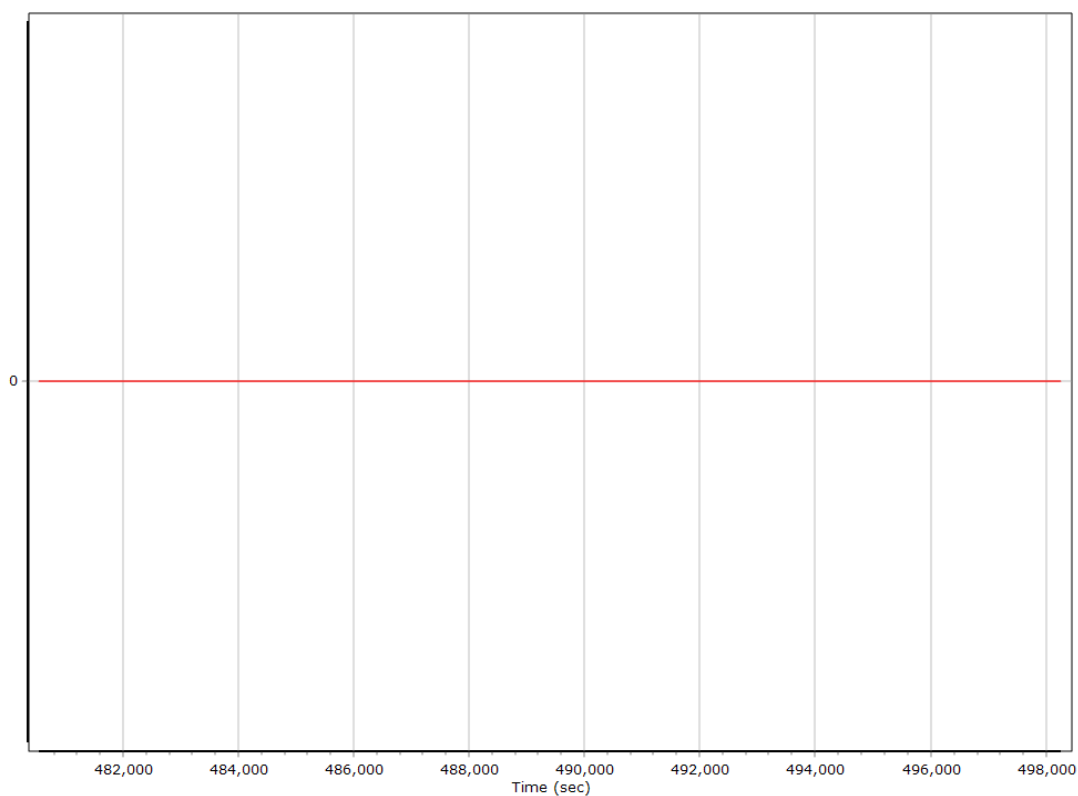
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



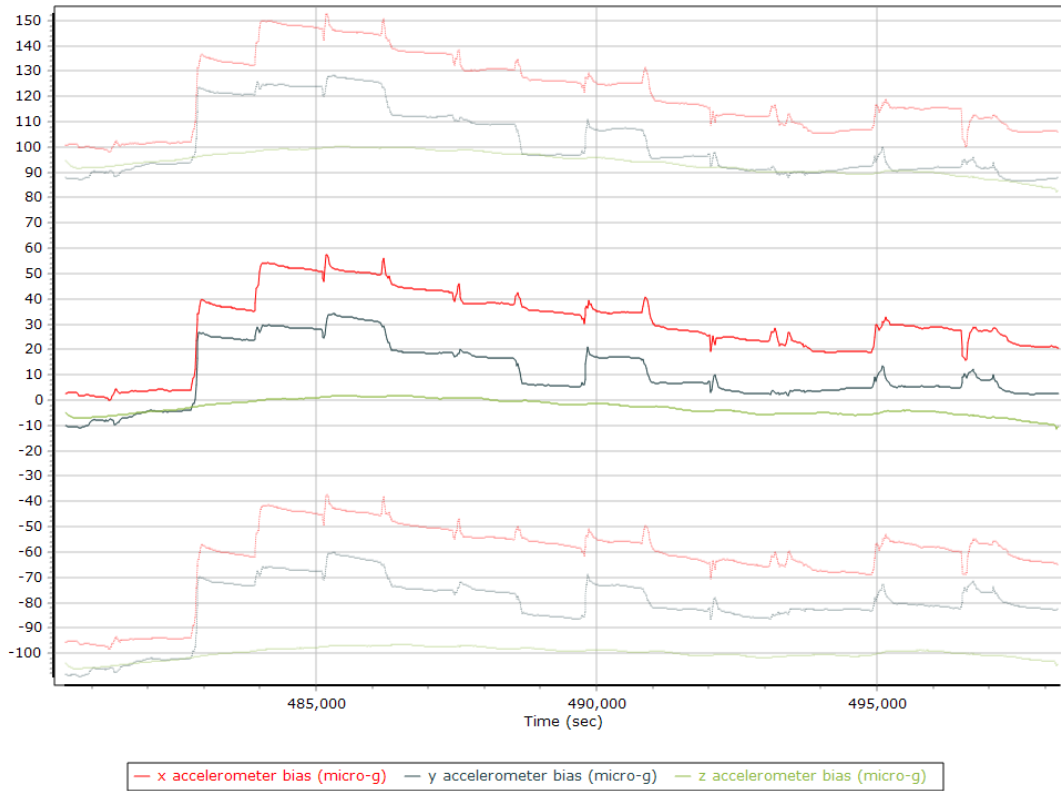
Reference-Primary GNSS Lever Arm Figure of Merit



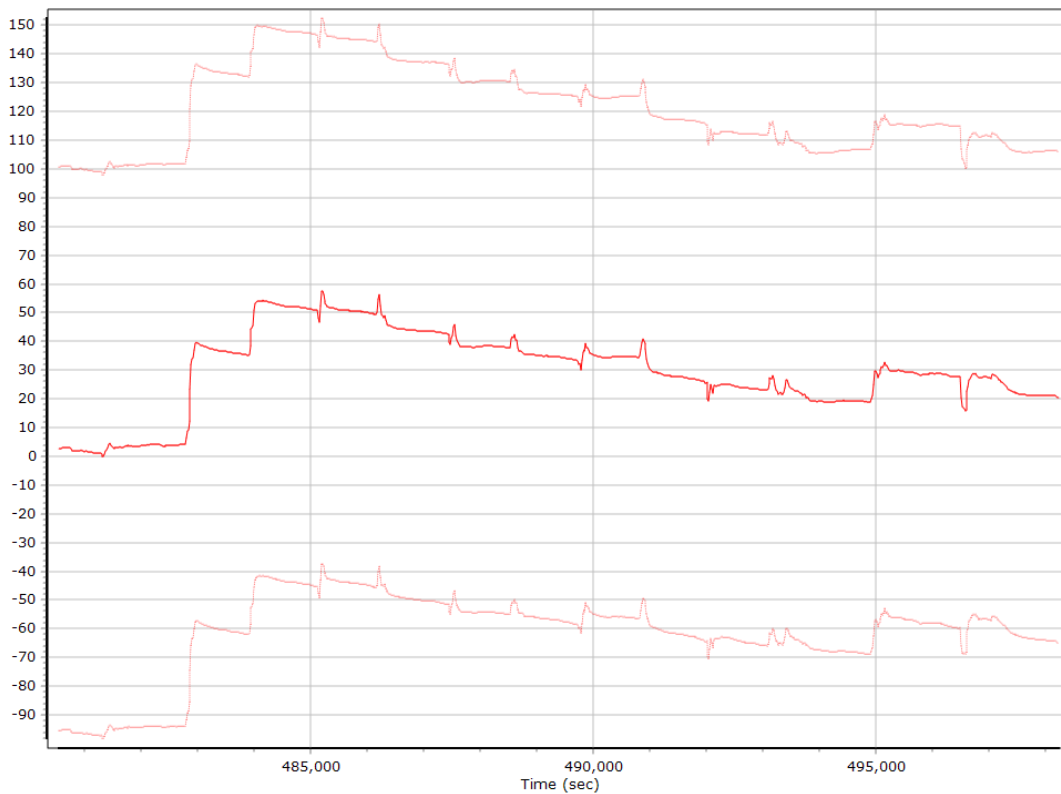
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

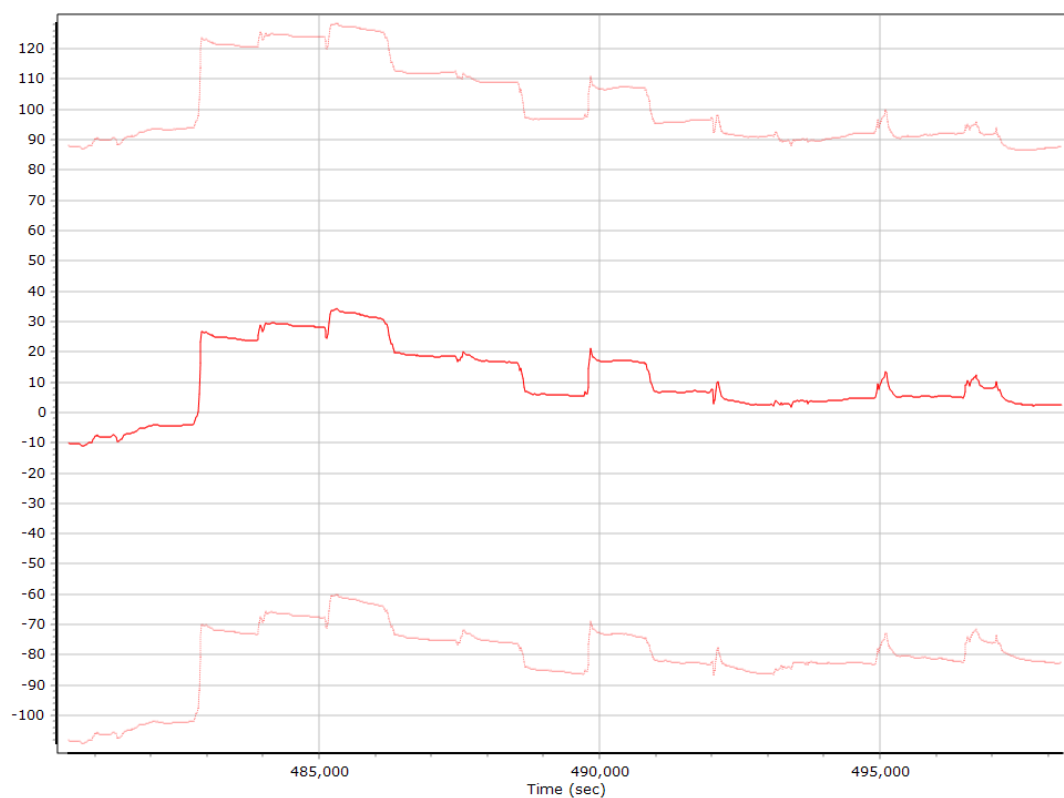
Accelerometer Bias (micro-g)



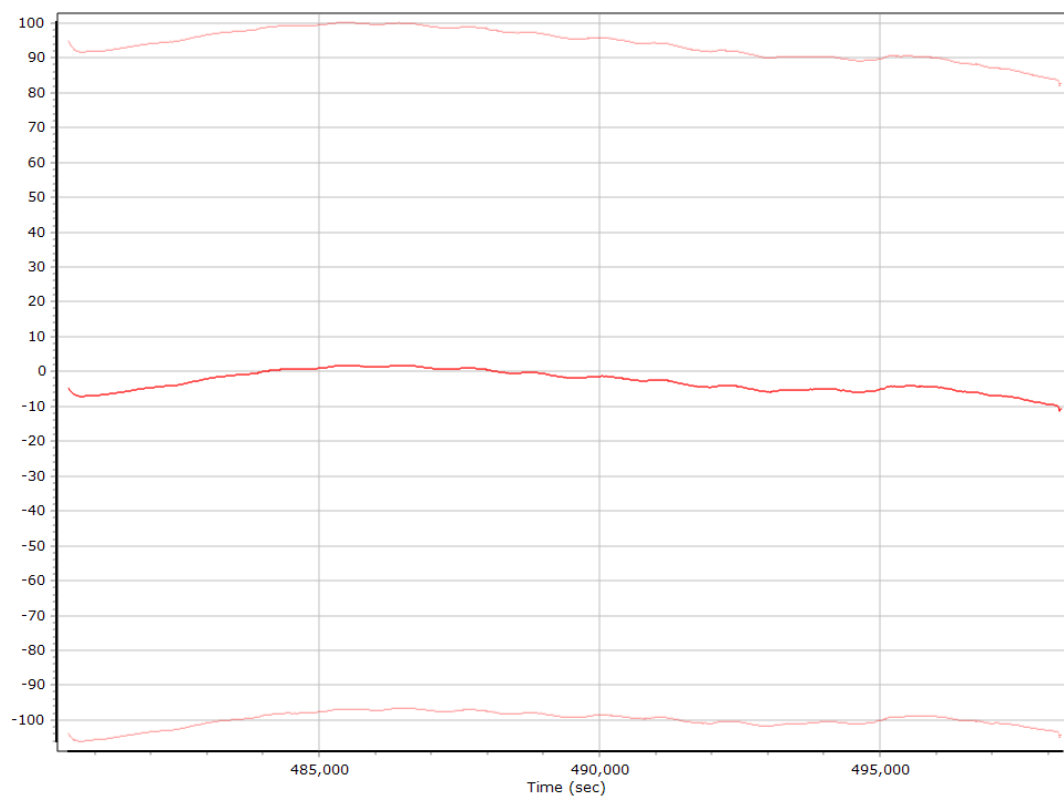
X Accelerometer Bias (micro-g)



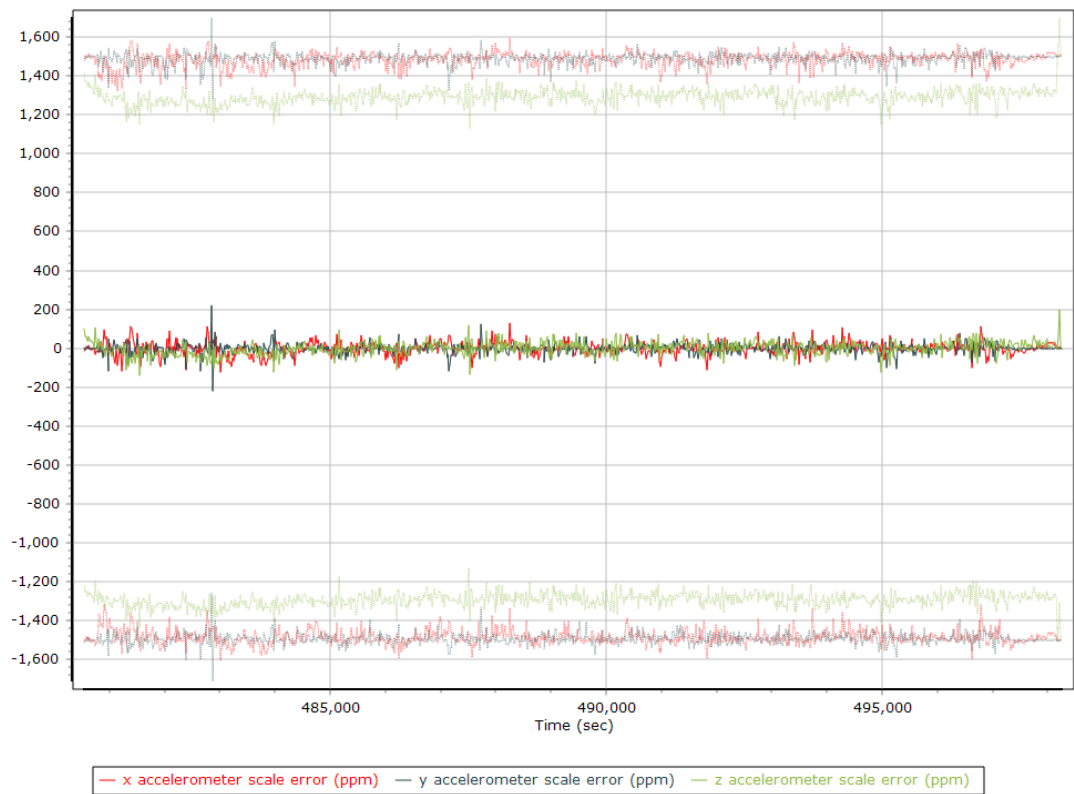
Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



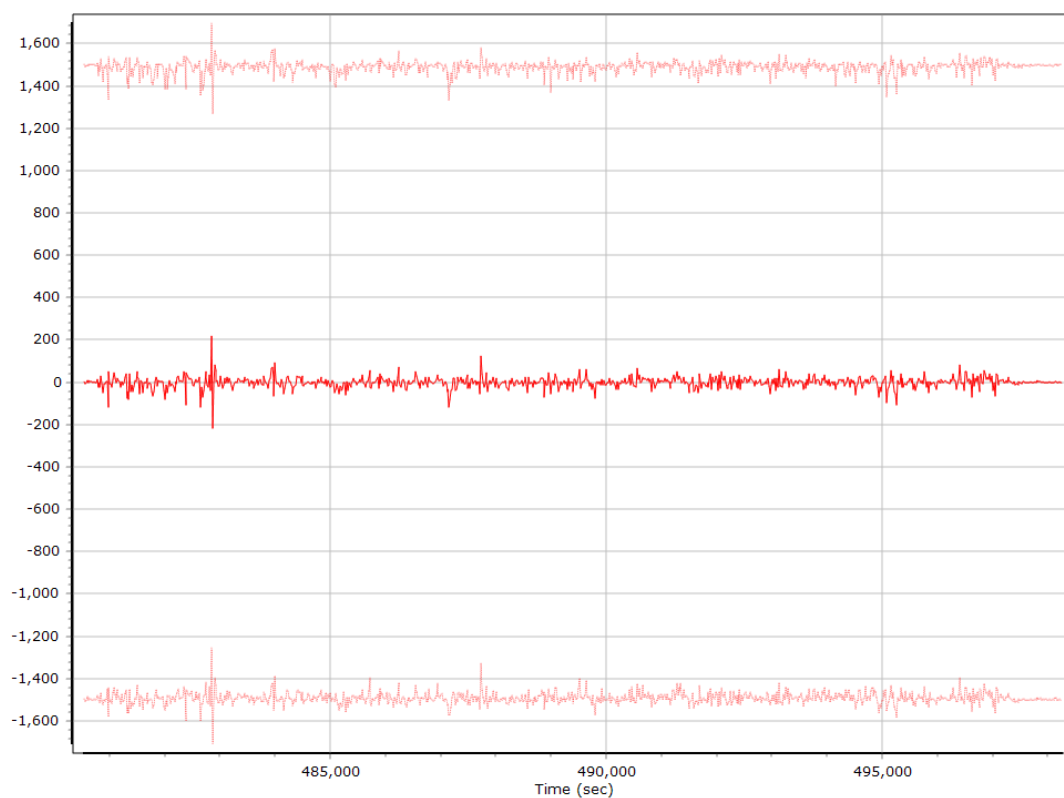
Accelerometer Scale Error (ppm)



X Accelerometer Scale Error (ppm)



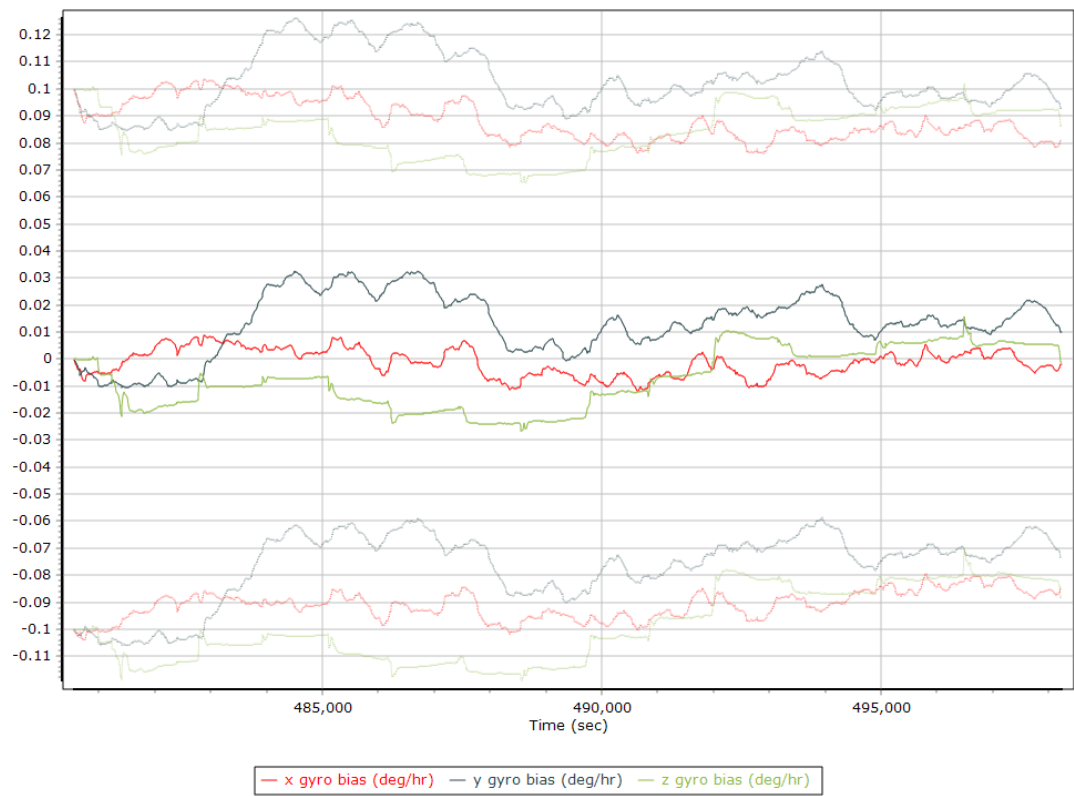
Y Accelerometer Scale Error (ppm)



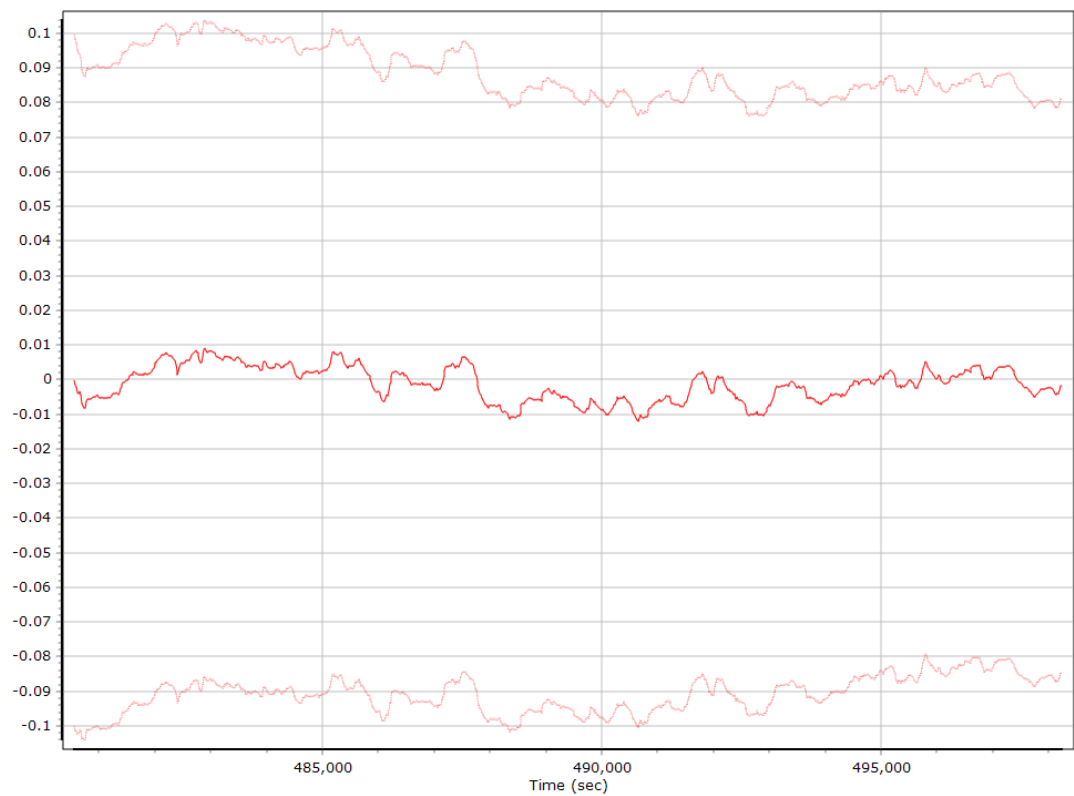
Z Accelerometer Scale Error (ppm)



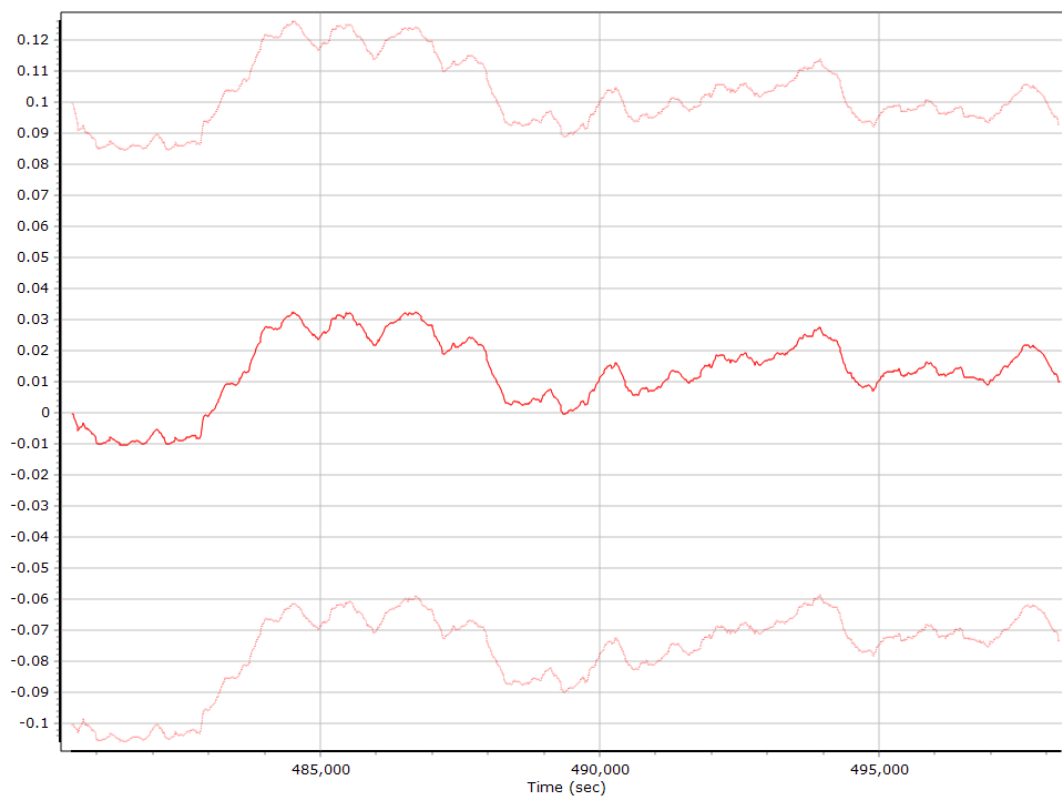
Gyro Bias (deg/h)



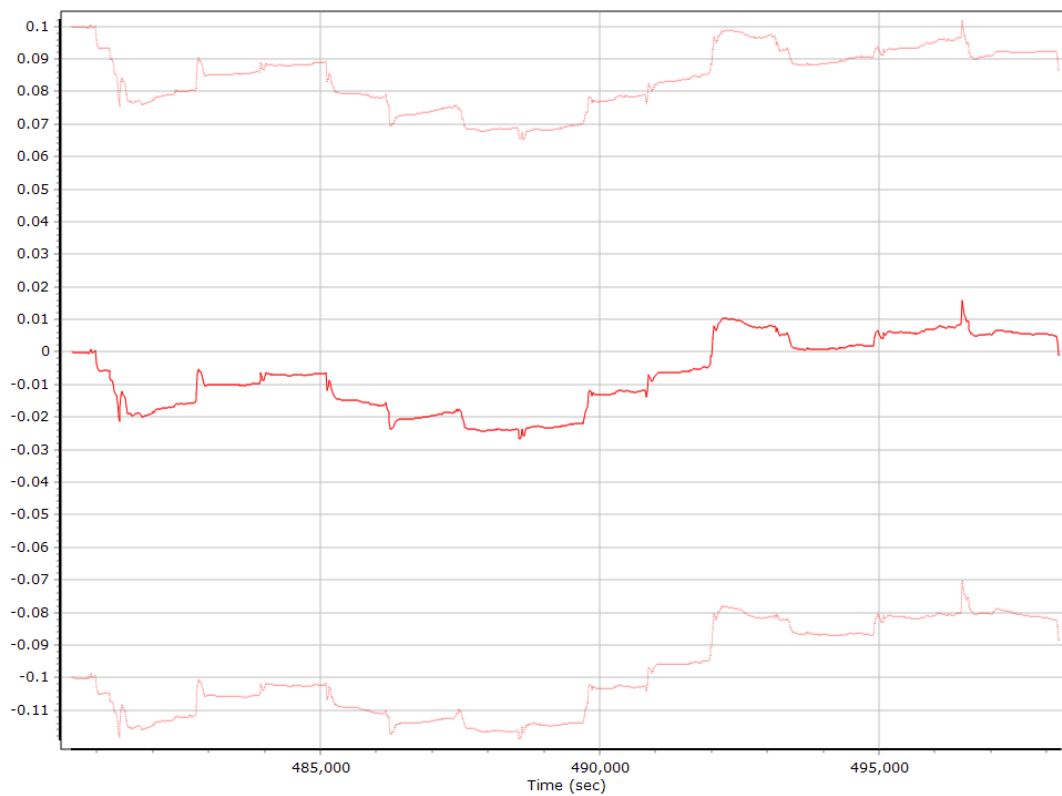
X Gyro Bias (deg/h)



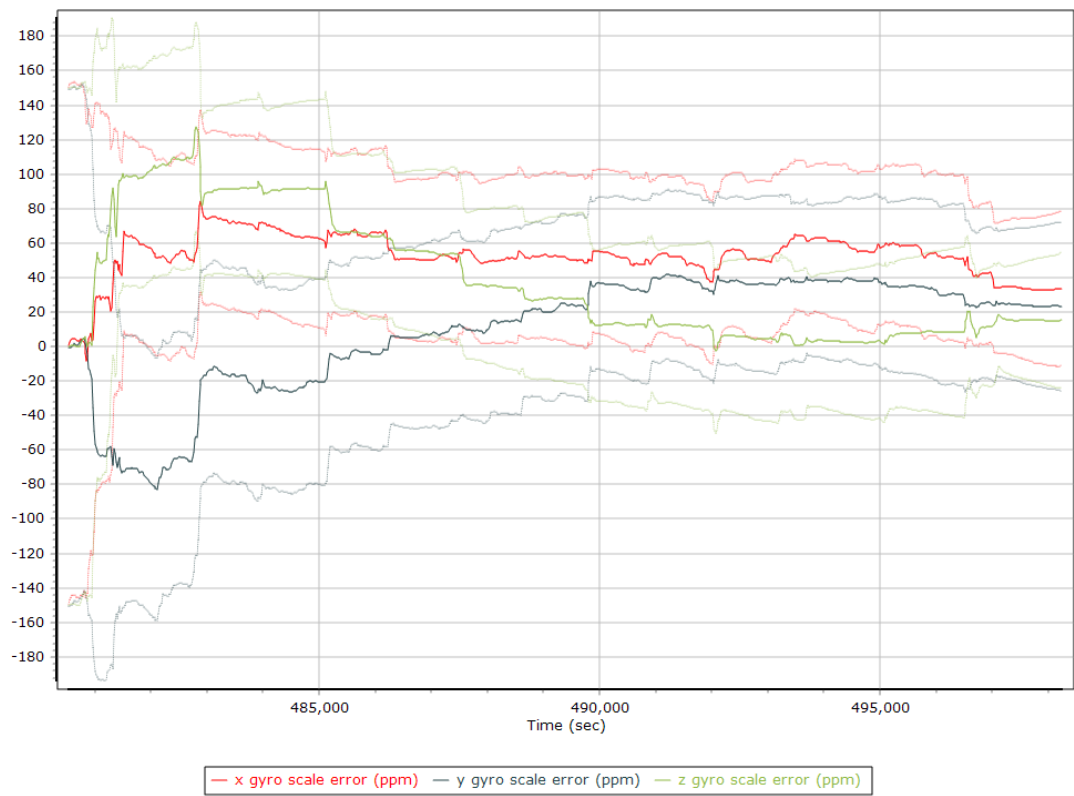
Y Gyro Bias (deg/h)



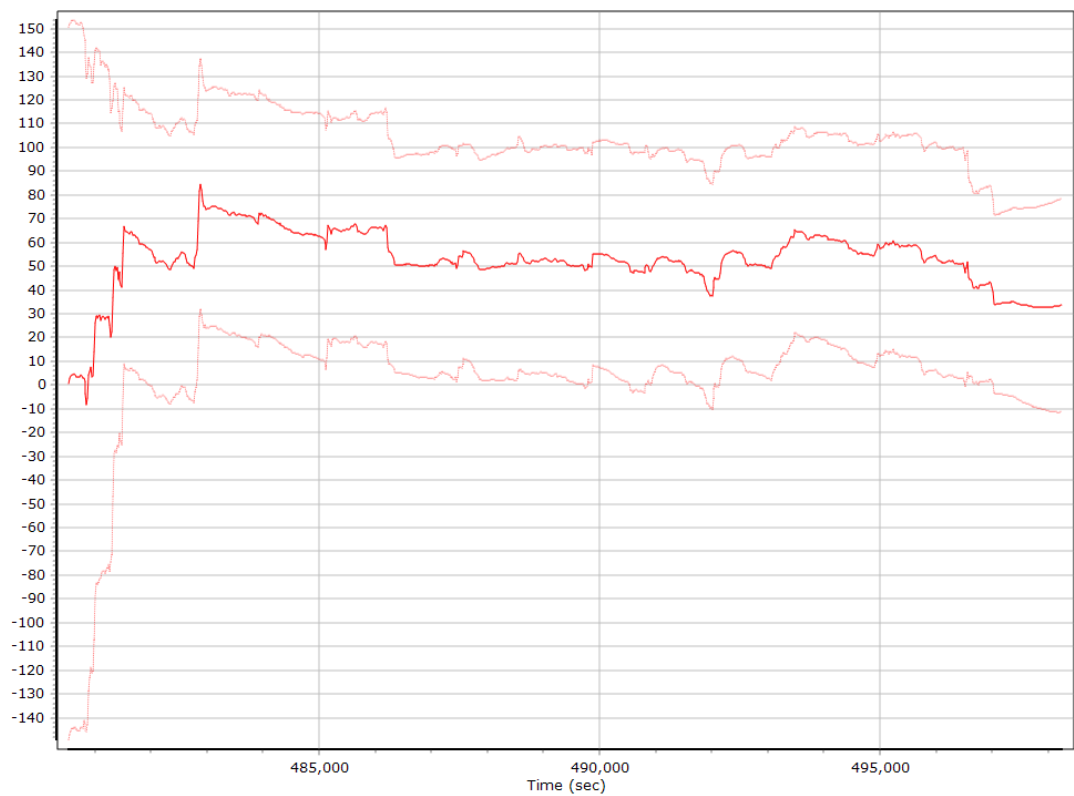
Z Gyro Bias (deg/h)



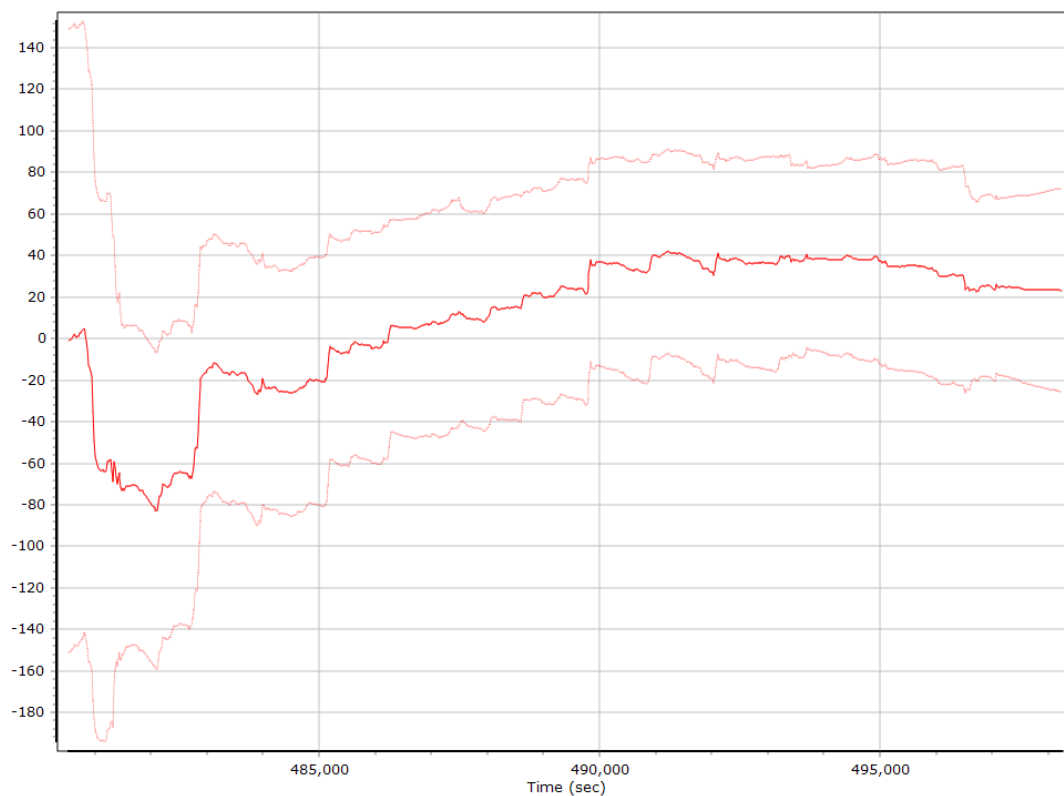
Gyro Scale Error (ppm)



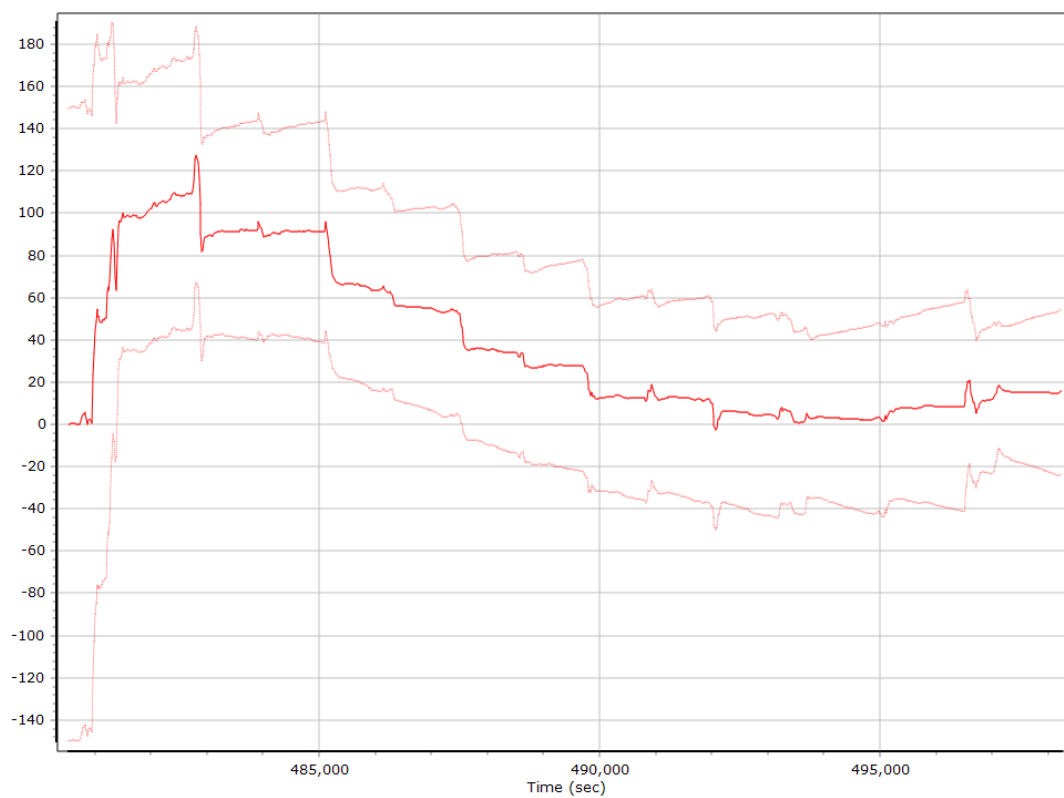
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)



Z Gyro Scale Error (ppm)

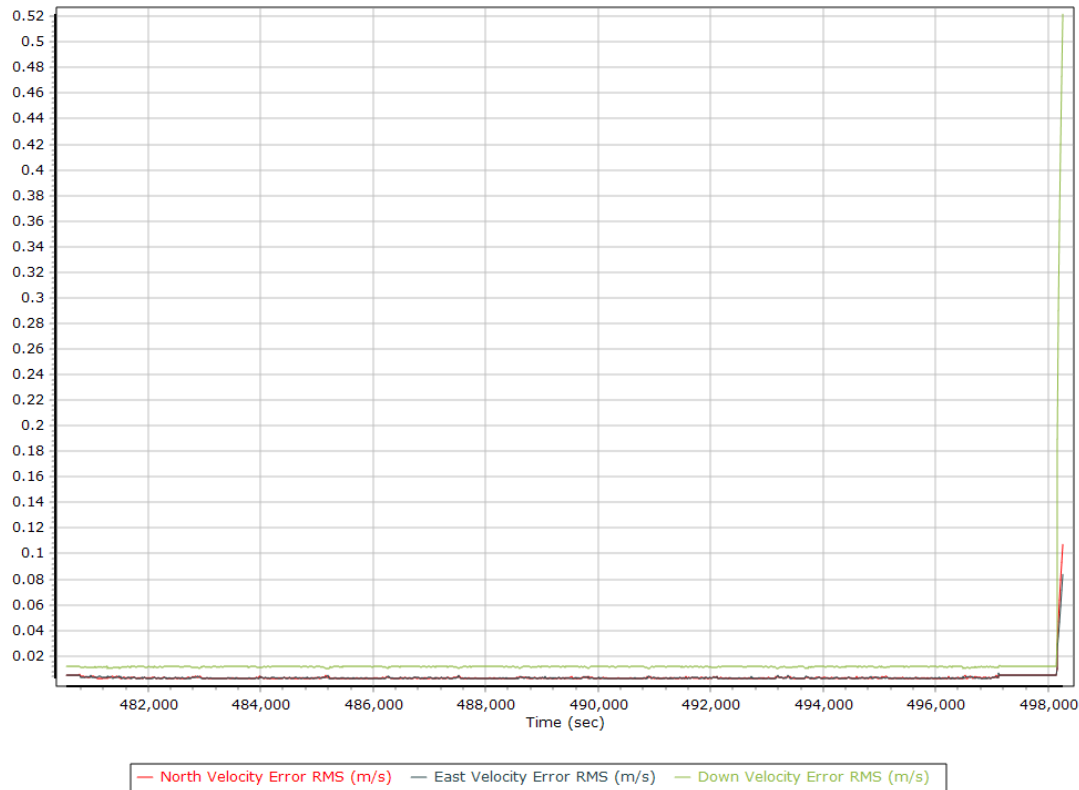


Smoothed Performance Metrics

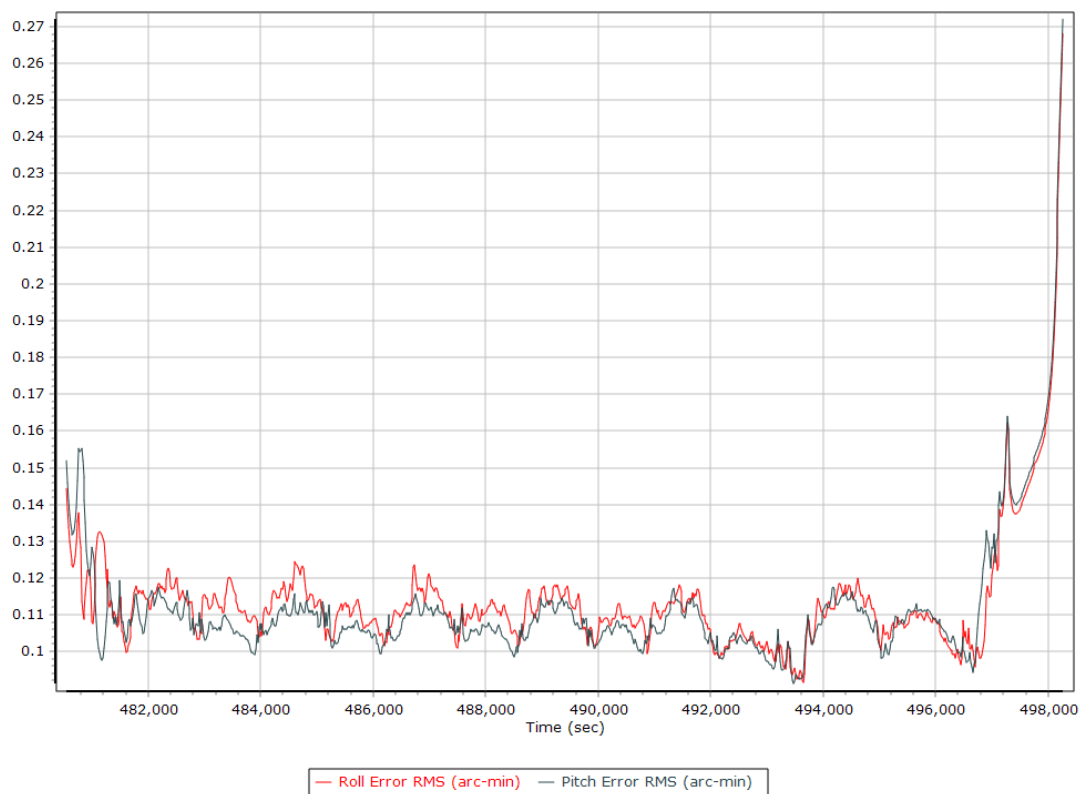
Position Error RMS (m)



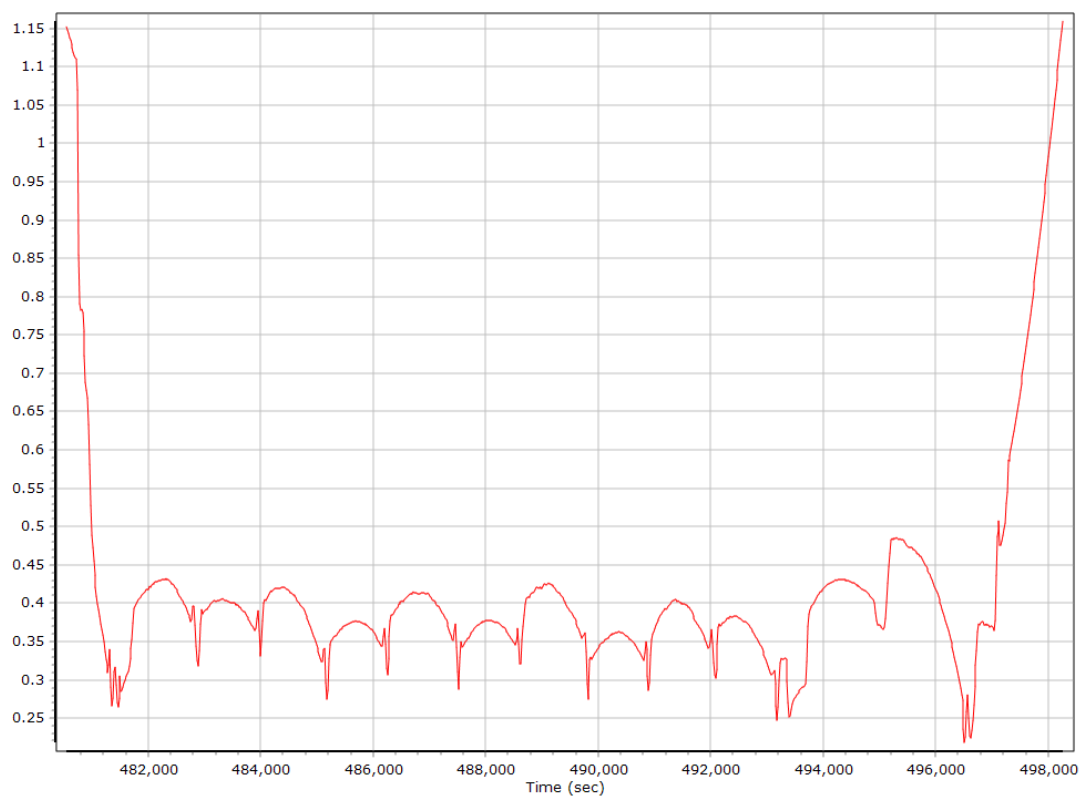
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

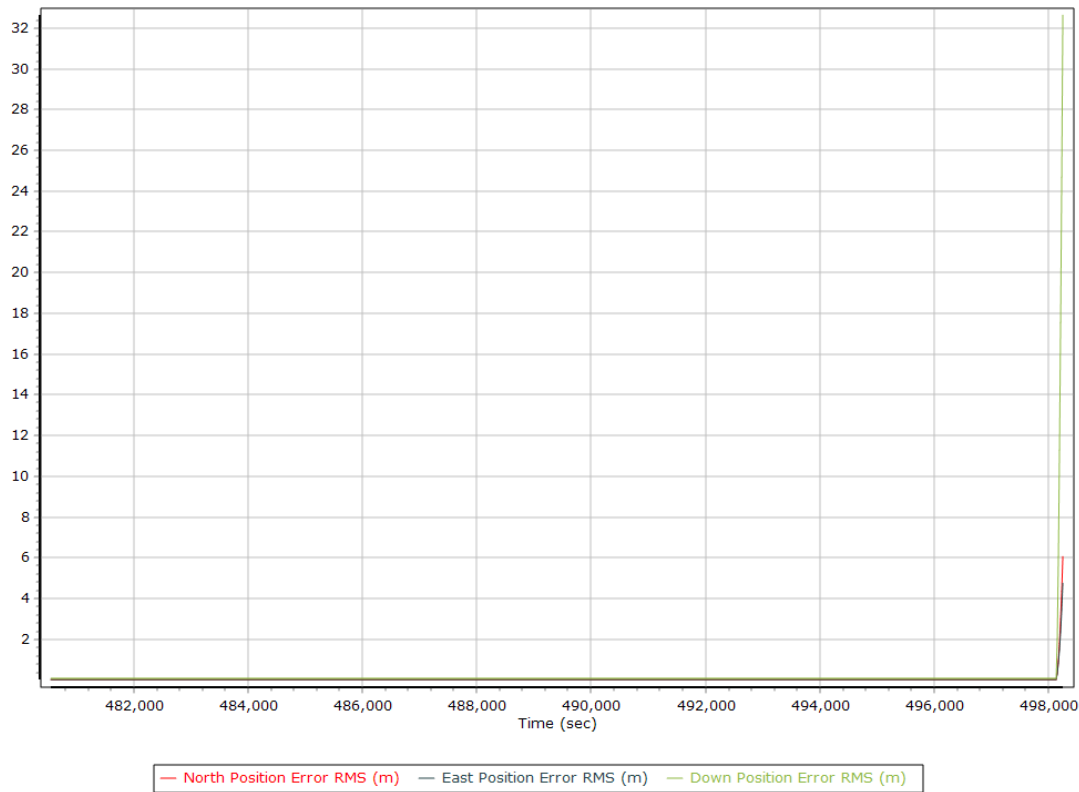


Heading Error RMS (arc-min)

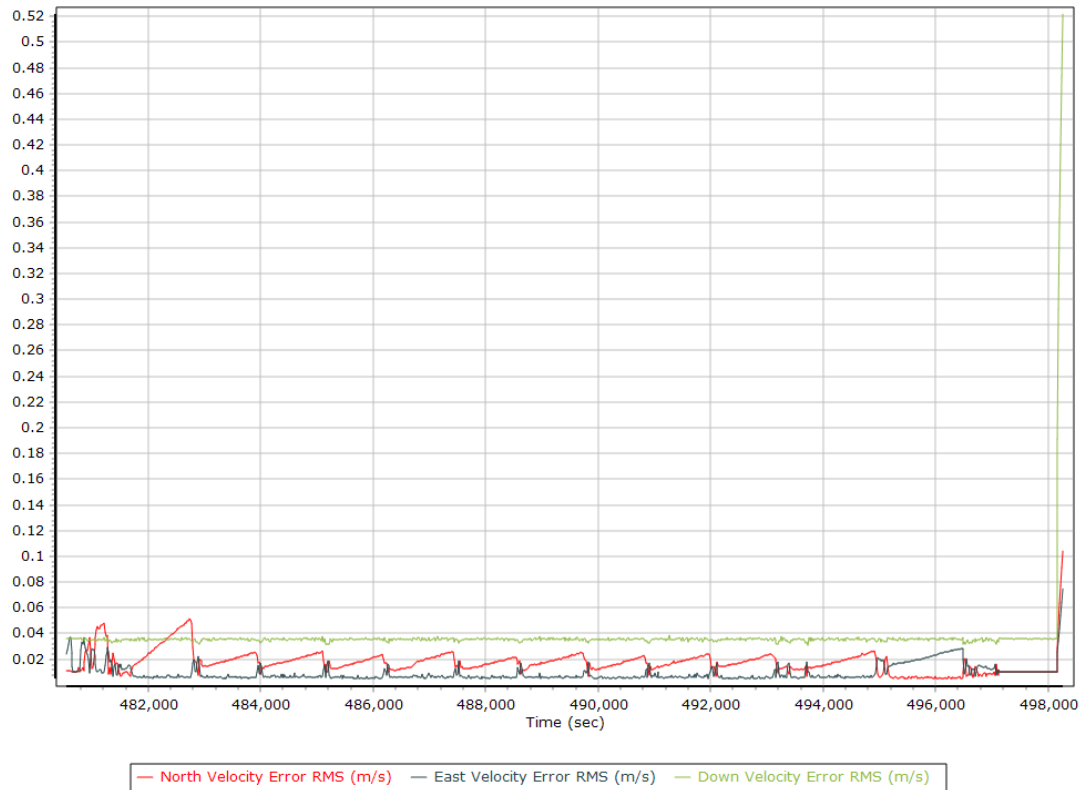


Forward Processed Performance Metrics

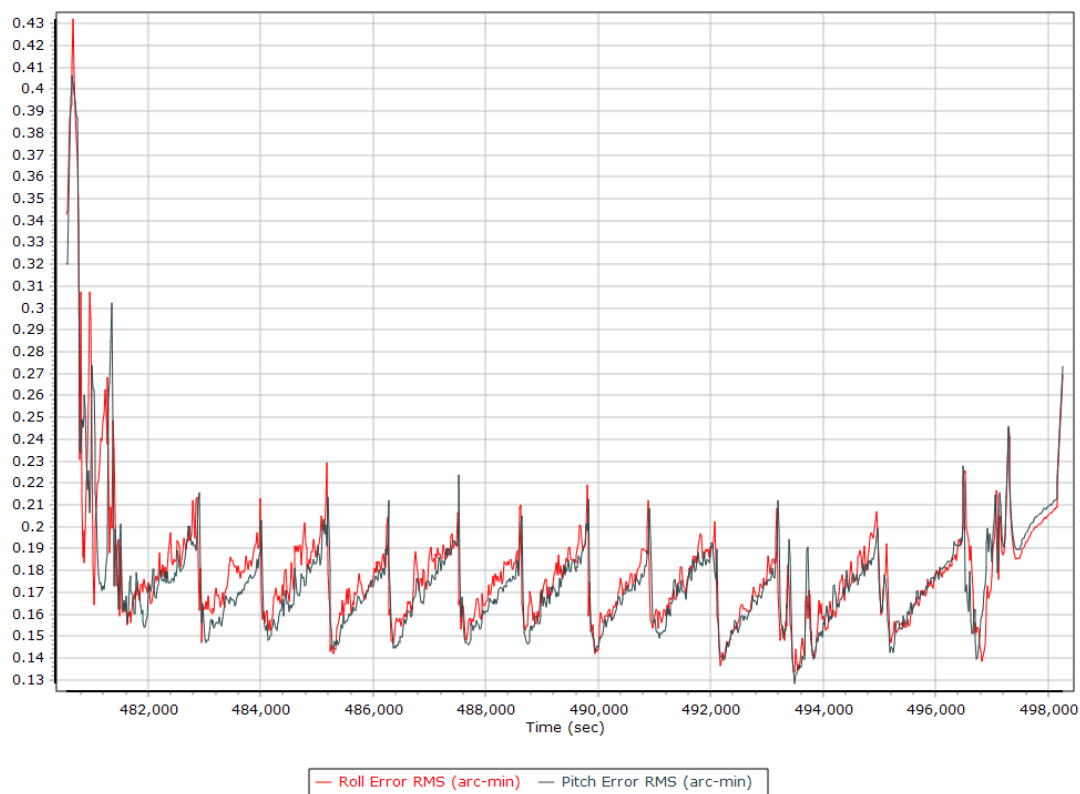
Position Error RMS (m)



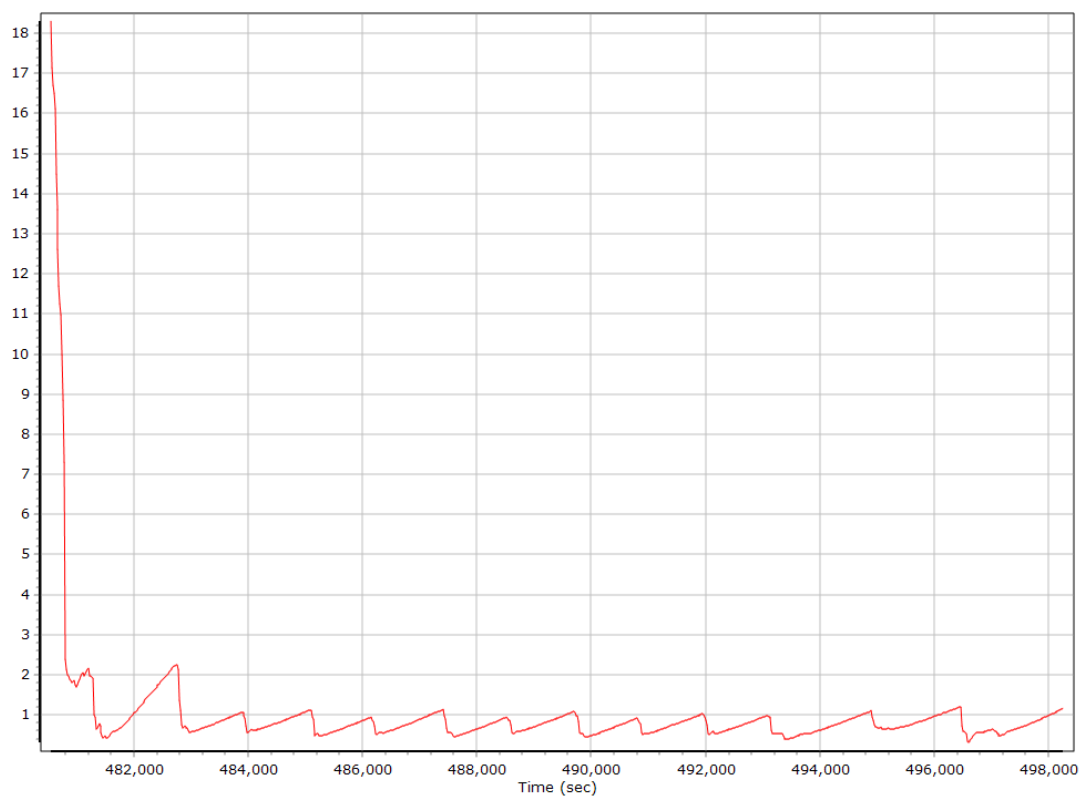
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

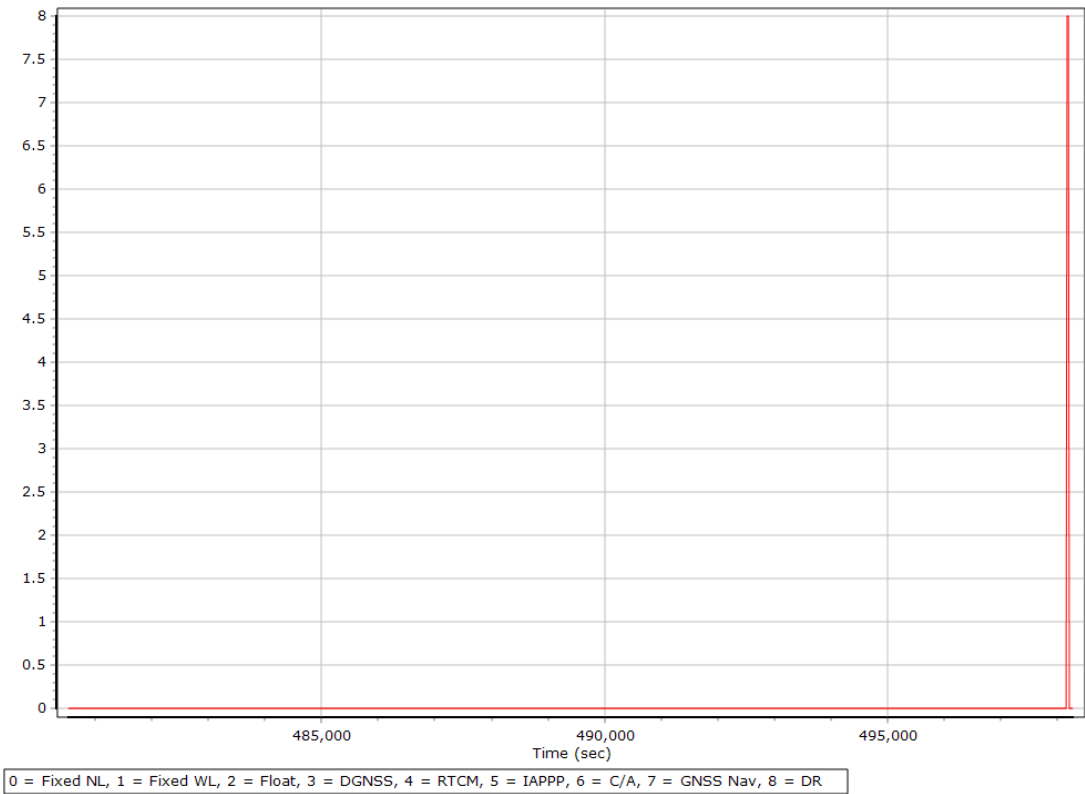


Heading Error RMS (arc-min)

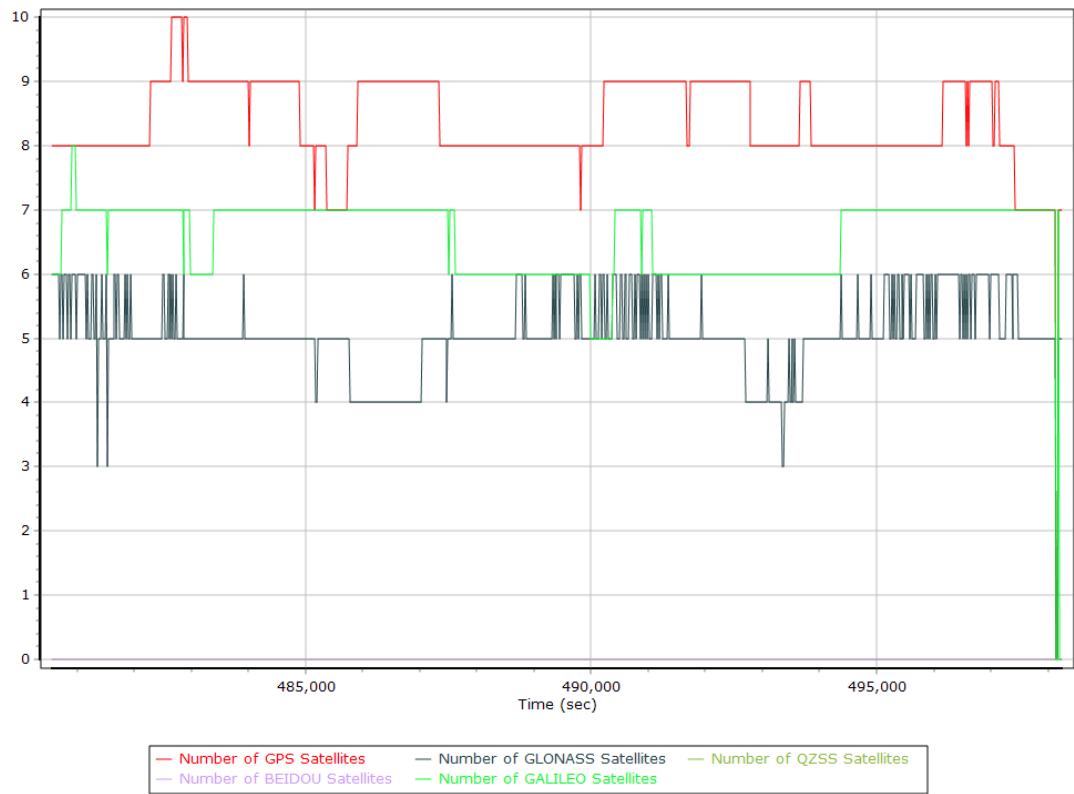


Forward Processed Solution Status

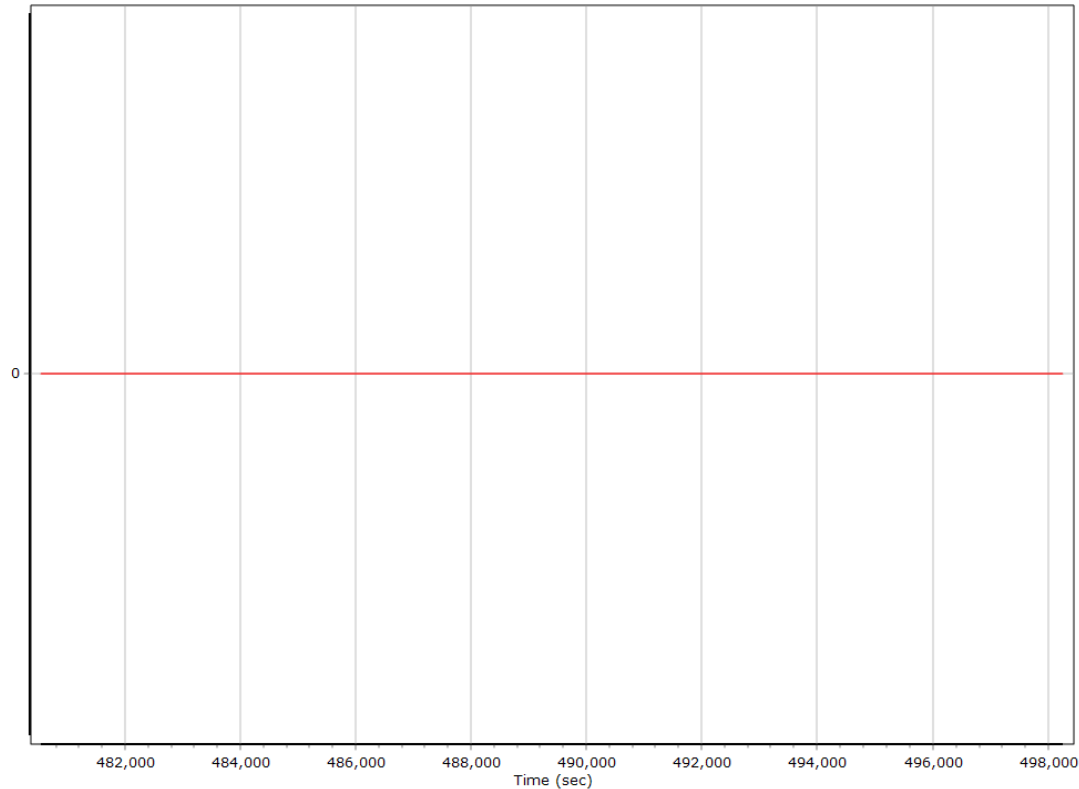
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230421_F1_4894_NAD832011.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	480485.003 (04/21/2023 13:28:05)		
Export end time	498257.004 (04/21/2023 18:24:17)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.30137		

General Information

Mission Information

Project name	20230421_F2__2_4894_c
Processing date	2023-04-25 22:32:16
Mission date	2023-04-21 22:52:35
Mission duration	01:15:43.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.739	POS Data
VQ1560.740	POS Data
VQ1560.741	POS Data
VQ1560.742	POS Data
VQ1560.743	POS Data
VQ1560.744	POS Data
VQ1560.745	POS Data
VQ1560.746	POS Data
VQ1560.747	POS Data
VQ1560.748	POS Data
VQ1560.749	POS Data

Input Files

File Name	File Type
Ephm1110.23g	GLONASS Broadcast Ephemeris
Ephm1110.23n	GPS Broadcast Ephemeris
Ephm1120.23g	GLONASS Broadcast Ephemeris
Ephm1120.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbt_20230421_F2__2_4894_c.out	SBET Trajectory File
20230421_F2__2_4894_c_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.739		
Last raw data file	VQ1560.749		
Start GPS week	2258		
Start time	514348.305 (04/21/2023 22:52:28)		
End time	518880.427 (04/22/2023 00:08:00)		
Start of fine alignment	514470.185 (04/21/2023 22:54:30)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

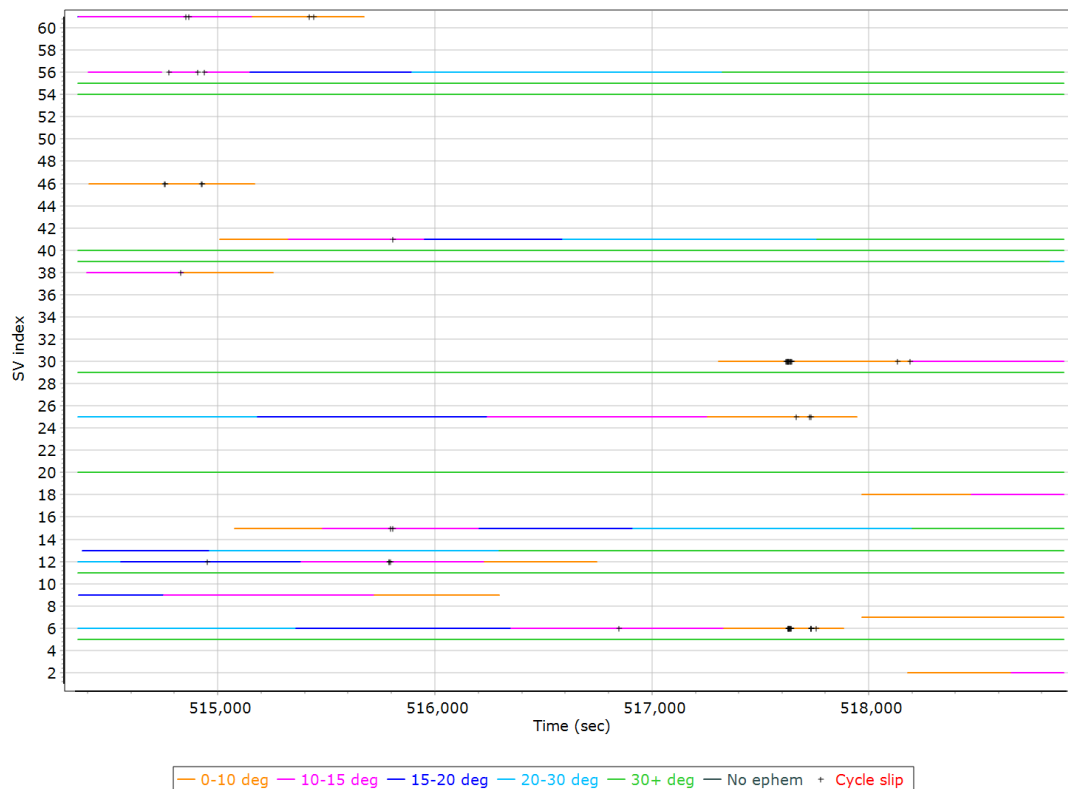
Rover Data QC

Raw IMU Import QC Summary

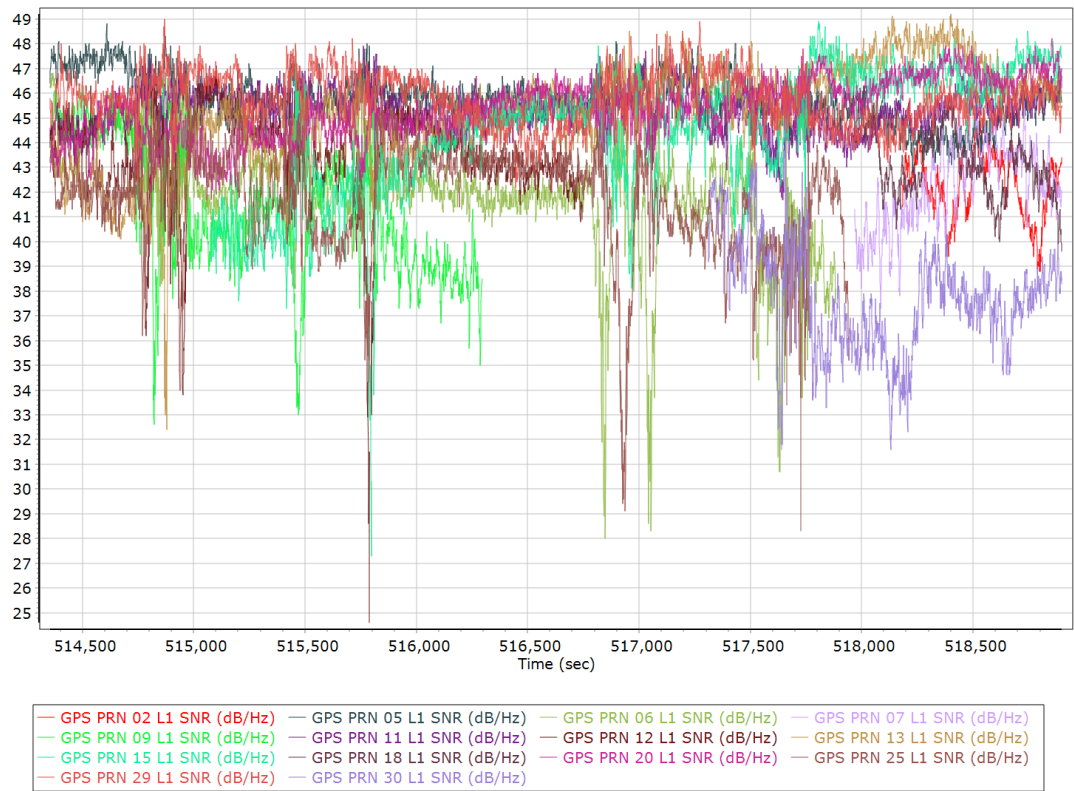
IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_20230421_F2__2_4894_c.log
IMU Records Processed	908630
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
514348.110 : WARNING : Gap of 514336.1533 seconds in CHECKDT input data	

Primary Observables & Satellite Data

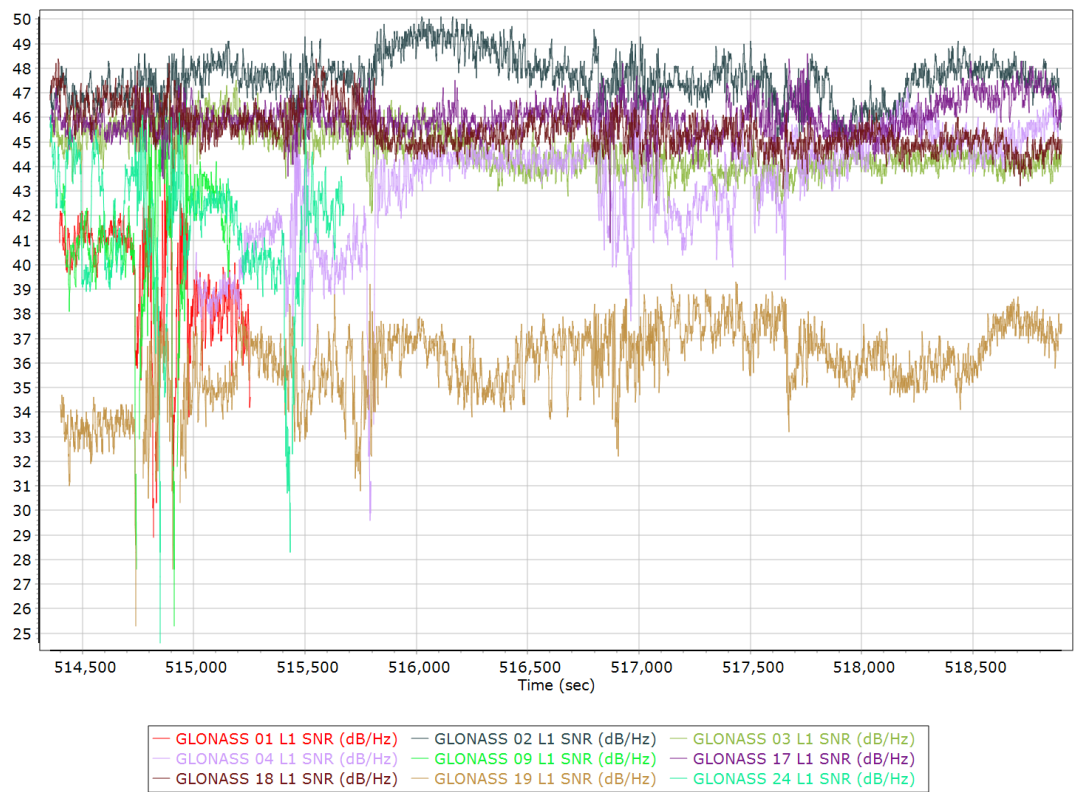
GPS/GLONASS L1 Satellite Lock/Elevation



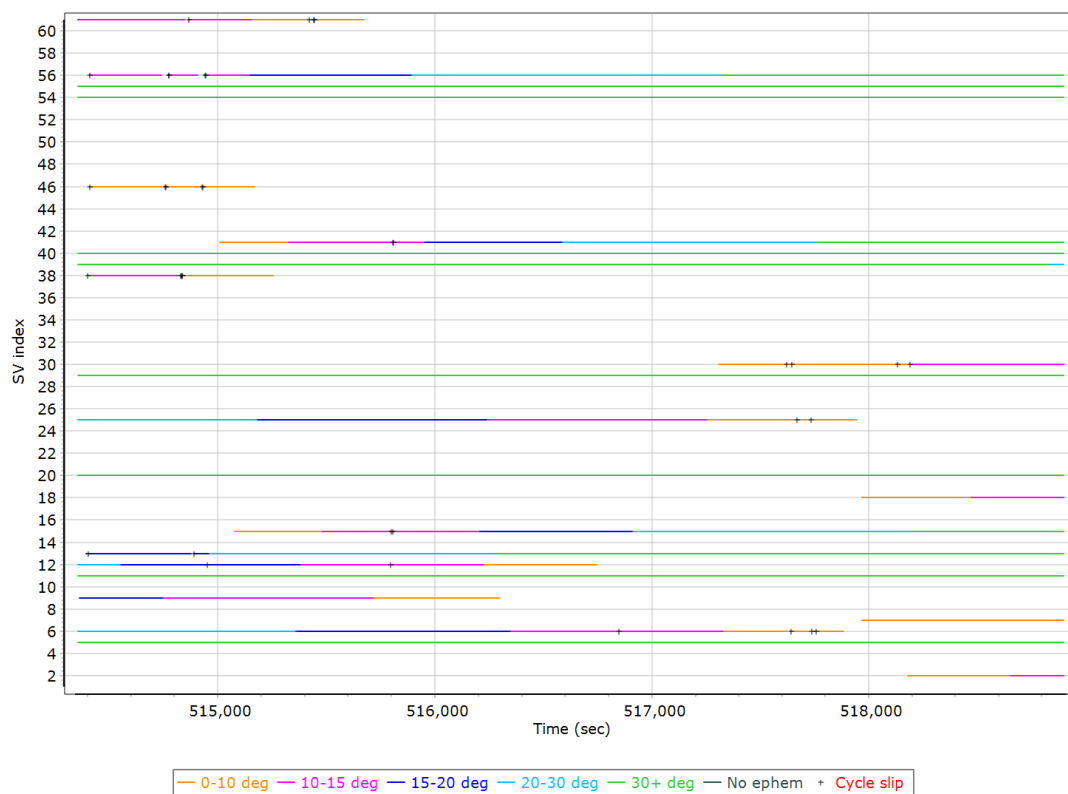
GPS L1 SNR



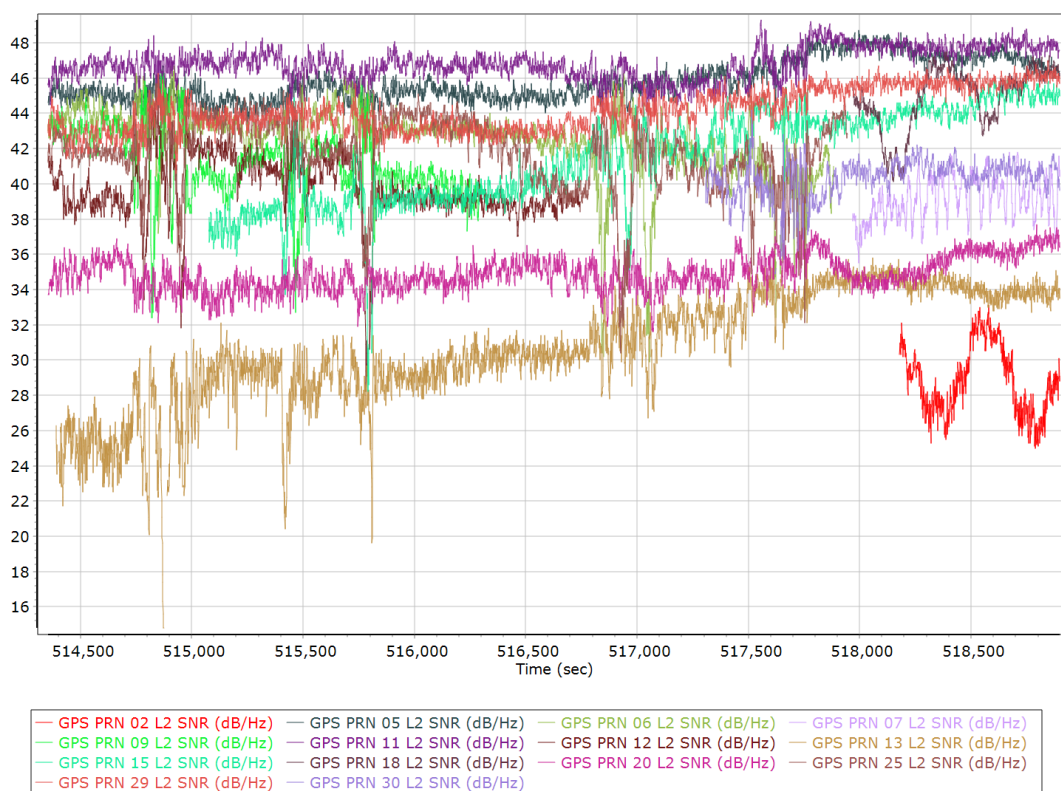
GLONASS L1 SNR



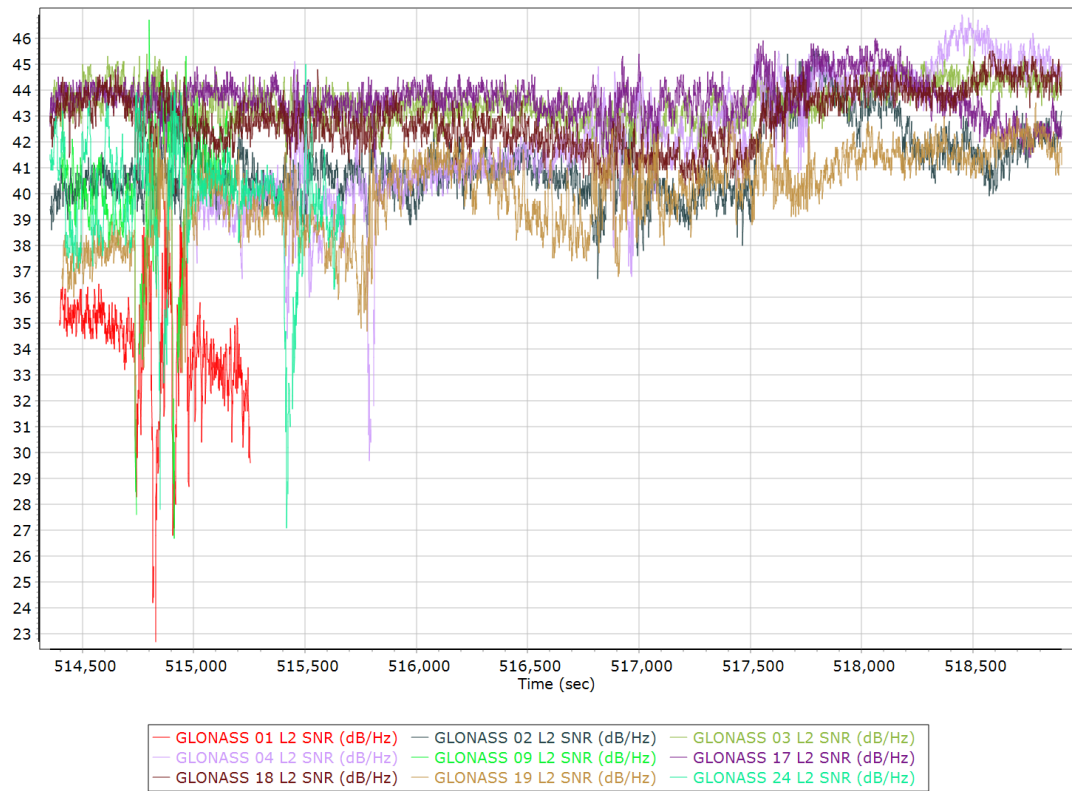
GPS/GLONASS L2 Satellite Lock/Elevation



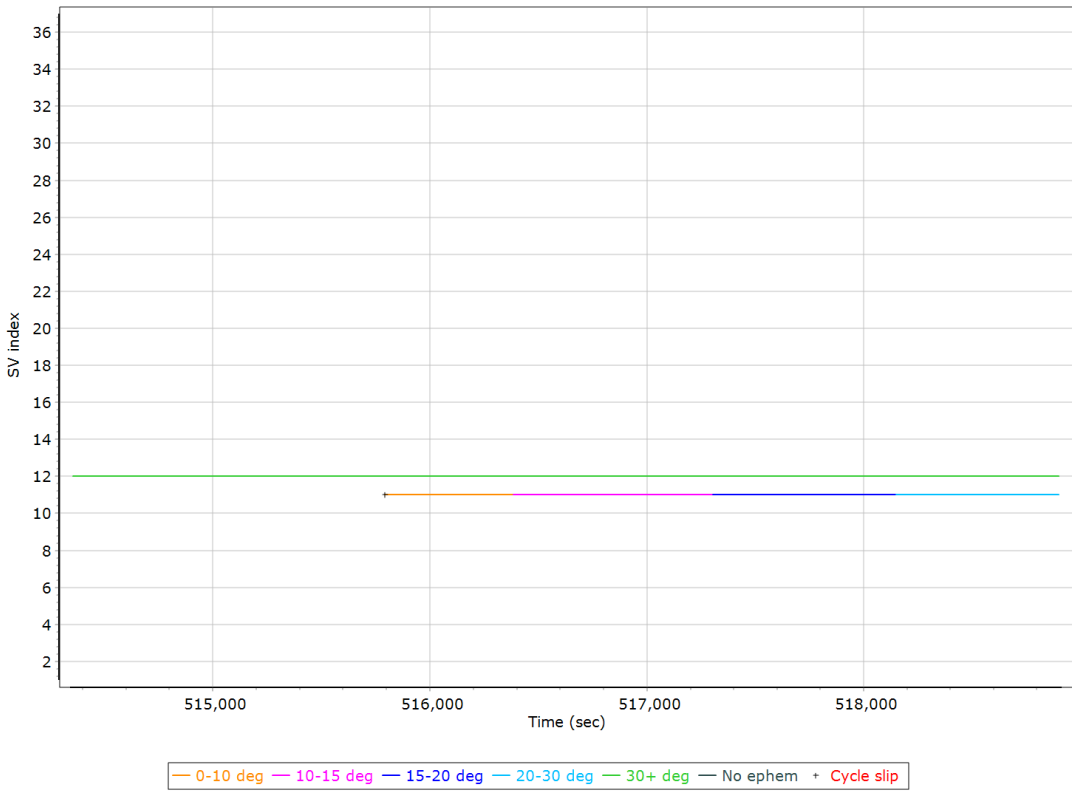
GPS L2 SNR



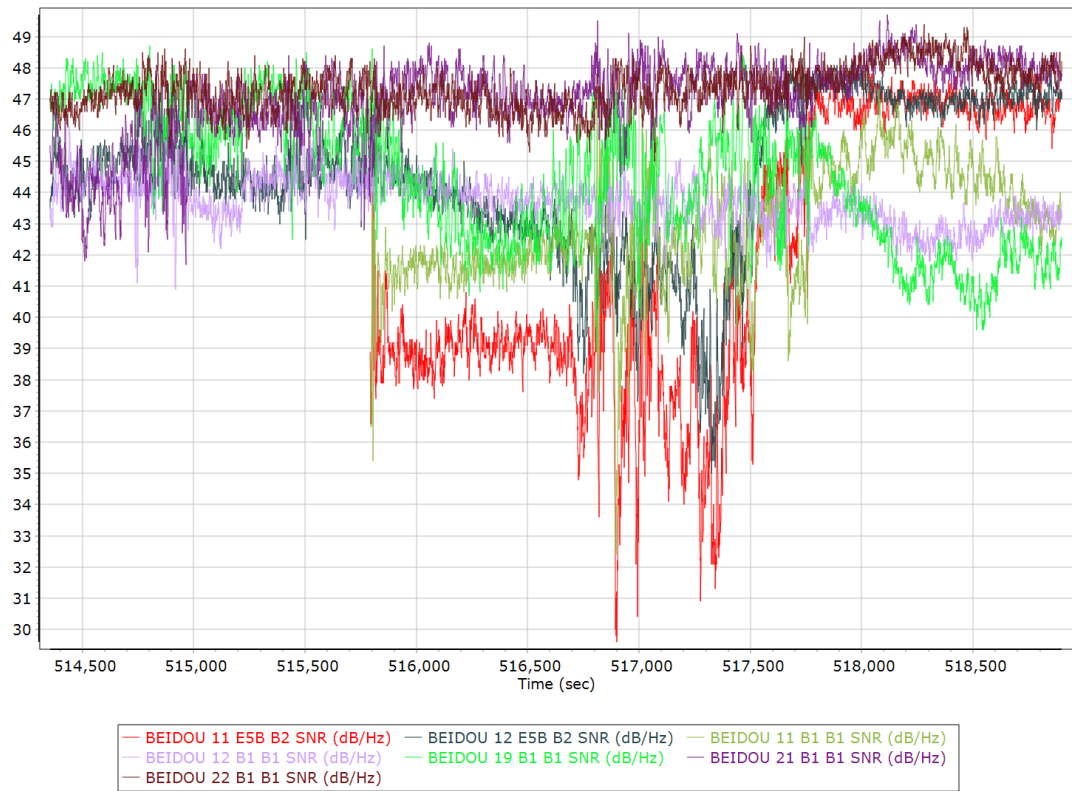
GLONASS L2 SNR



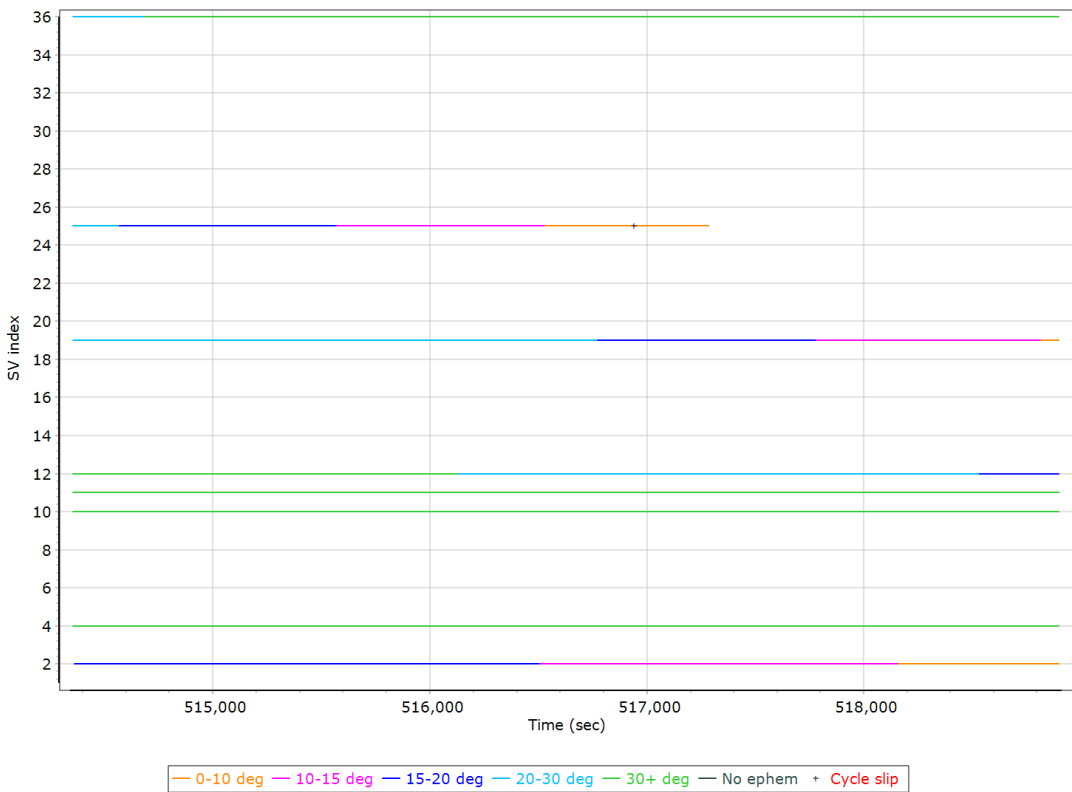
BEIDOU Satellite Lock/Elevation



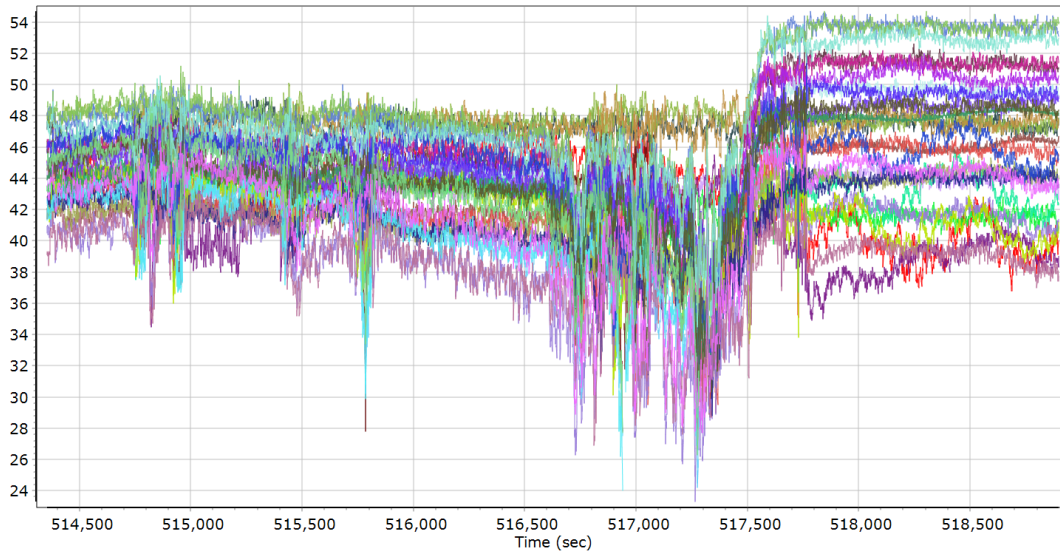
BEIDOU SNR



GALILEO Satellite Lock/Elevation



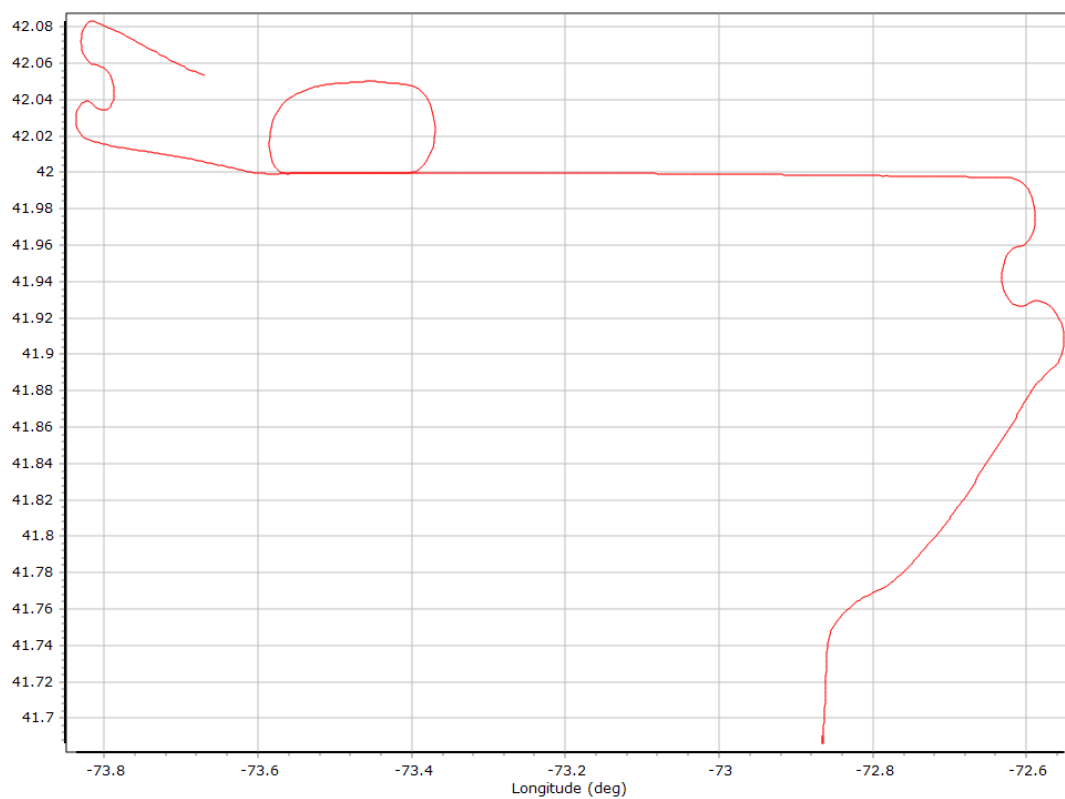
GALILEO SNR



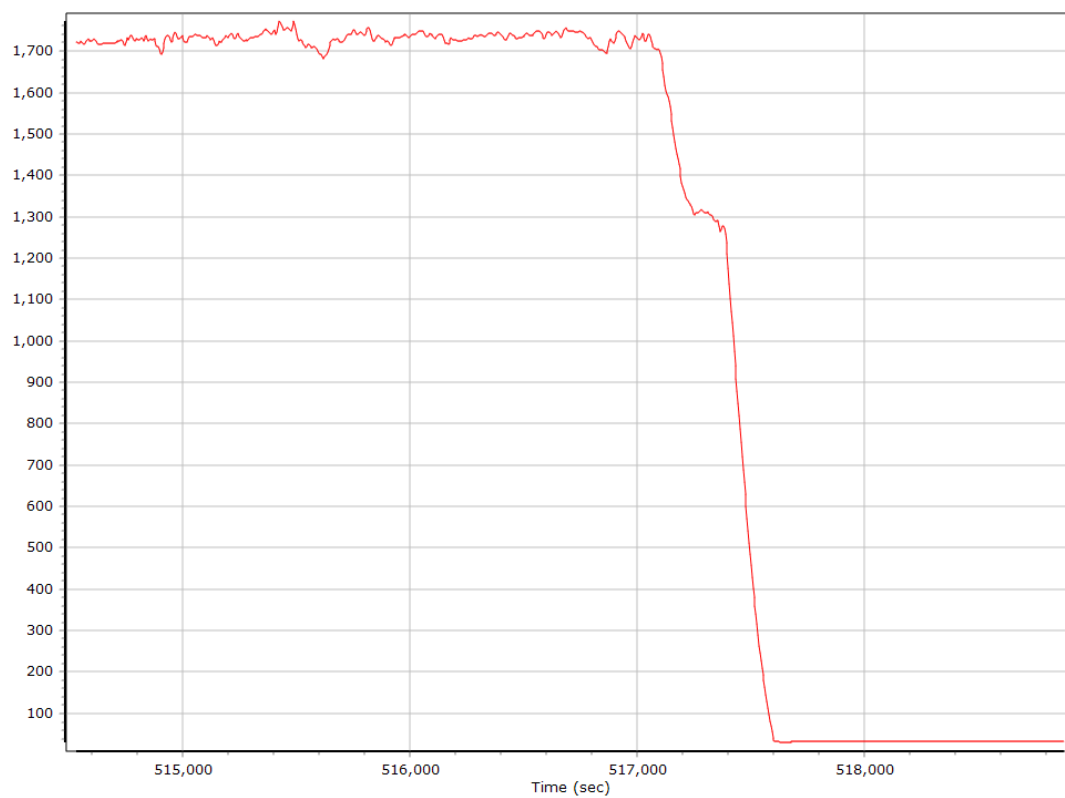
— GALILEO 02 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 04 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 10 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 19 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 25 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 36 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 02 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 04 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 10 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 11 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 19 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 25 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 36 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 02 E5B BPSK10_PD SNR (dB/Hz)	— GALILEO 04 E5B BPSK10_PD SNR (dB/Hz)
— GALILEO 10 E5B BPSK10_PD SNR (dB/Hz)	— GALILEO 11 E5B BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

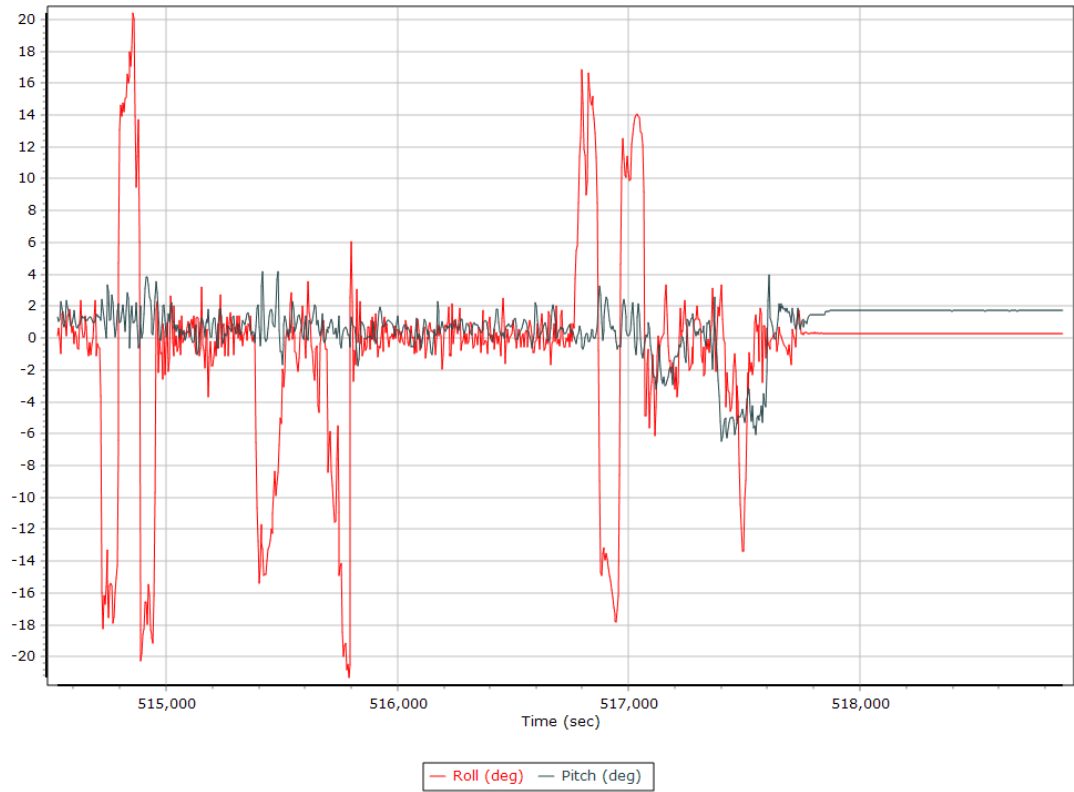
Top View



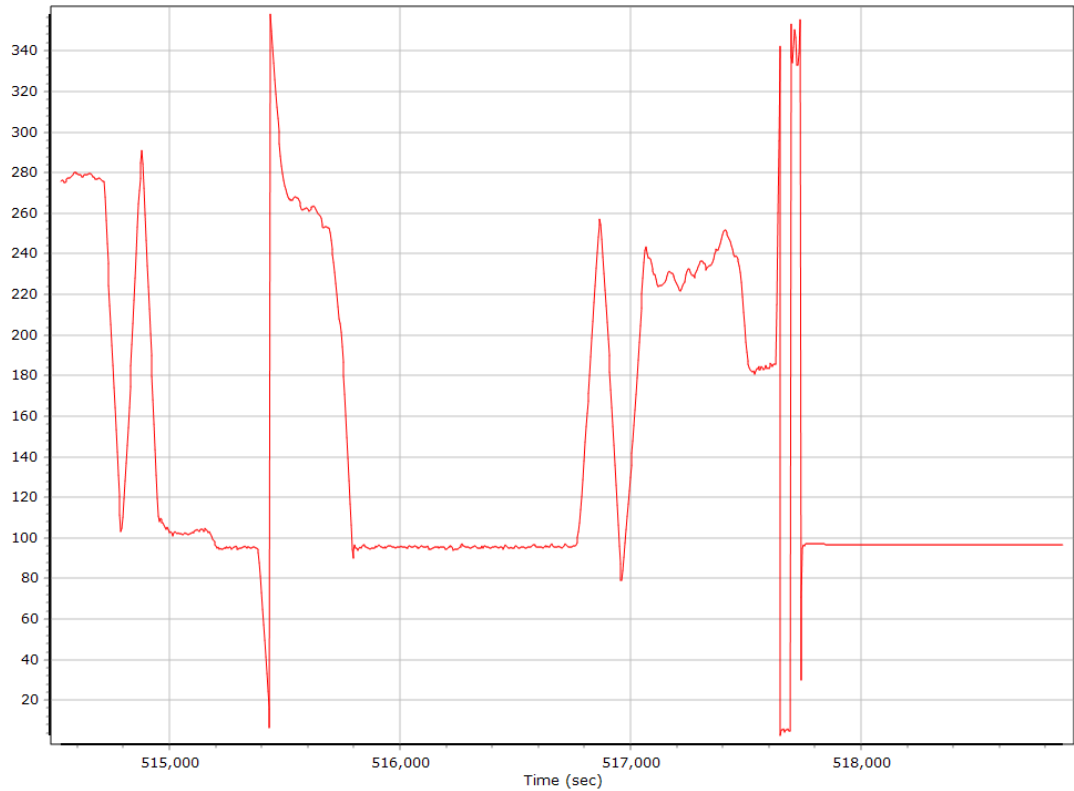
Altitude



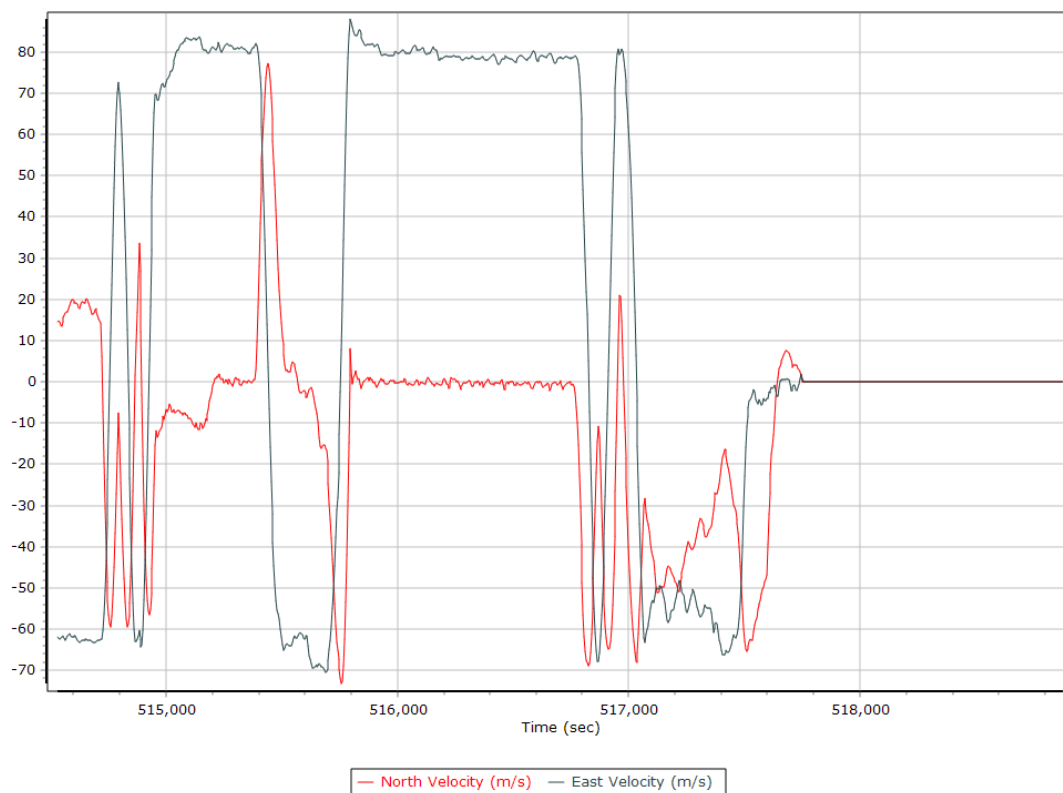
Roll/Pitch



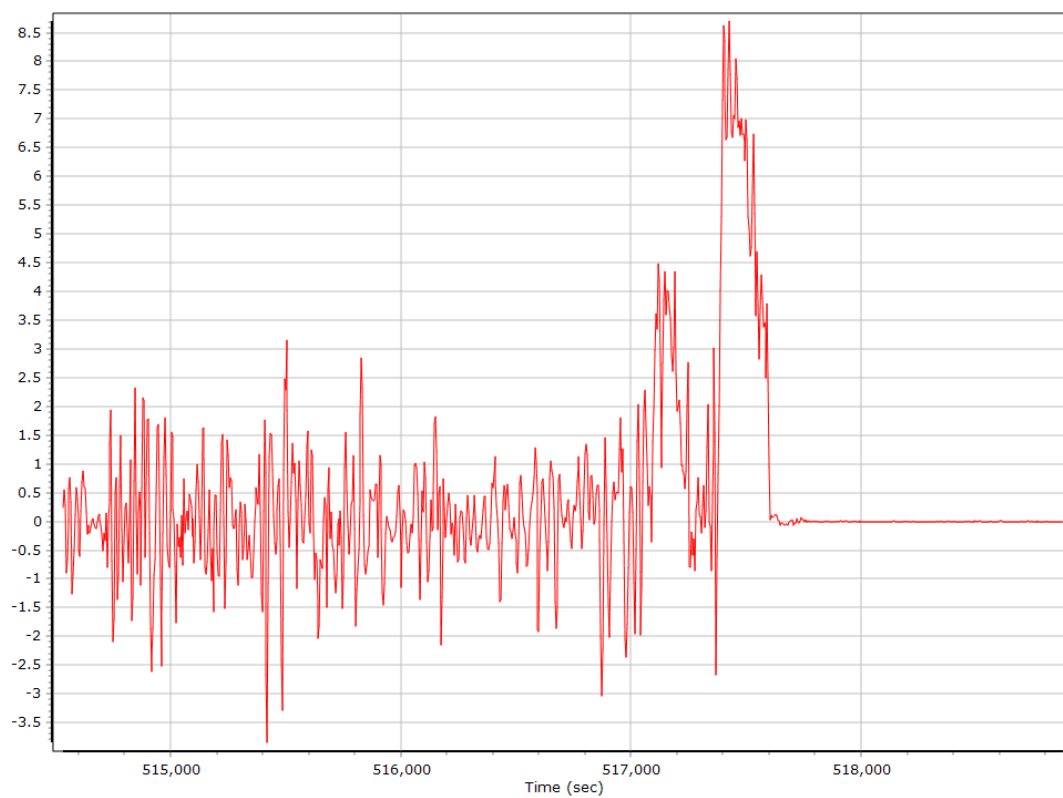
Heading



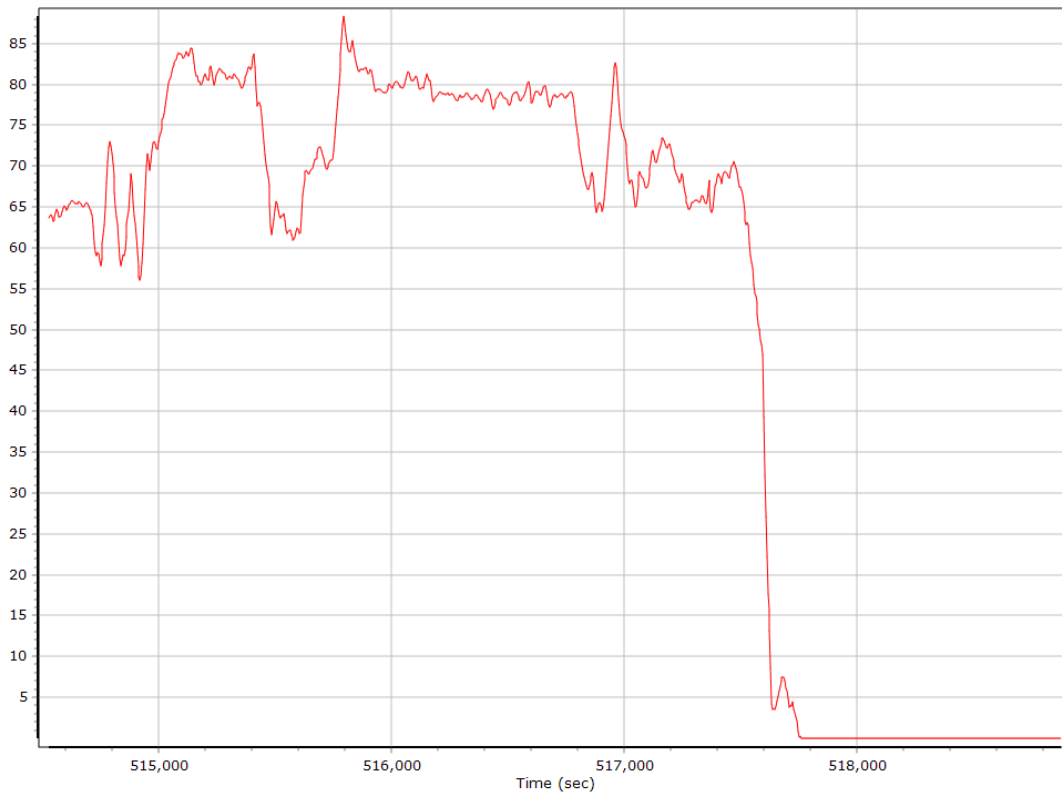
North/East Velocity



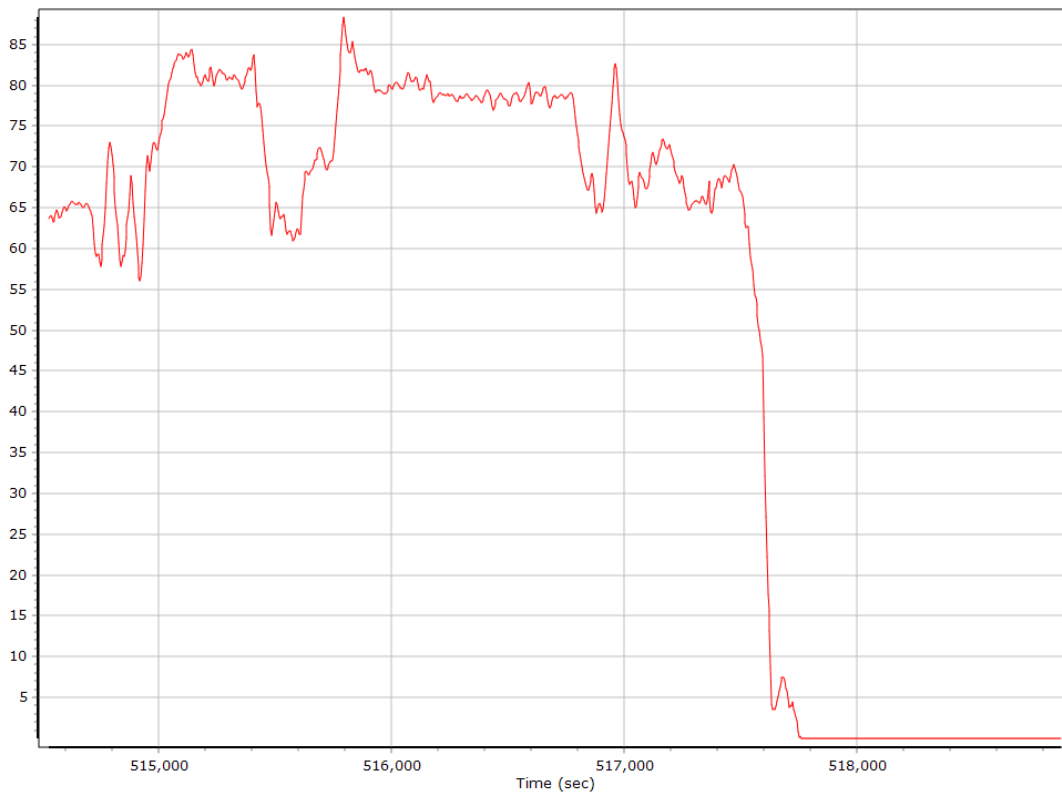
Down Velocity



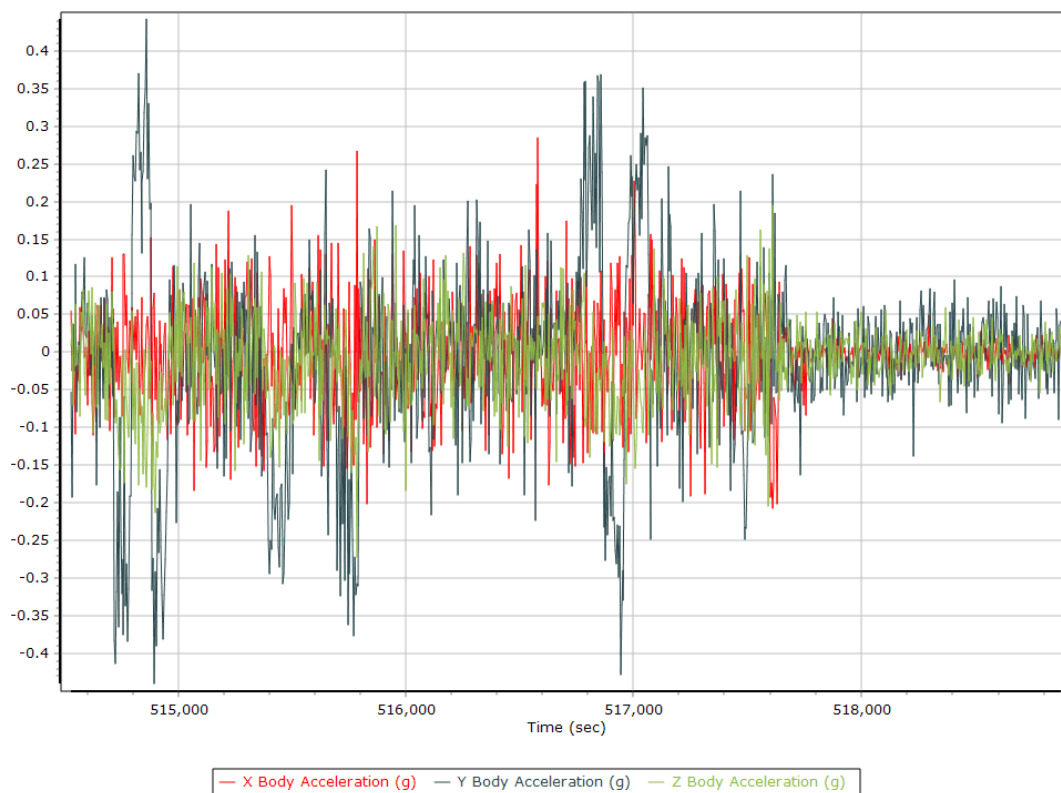
Total Speed



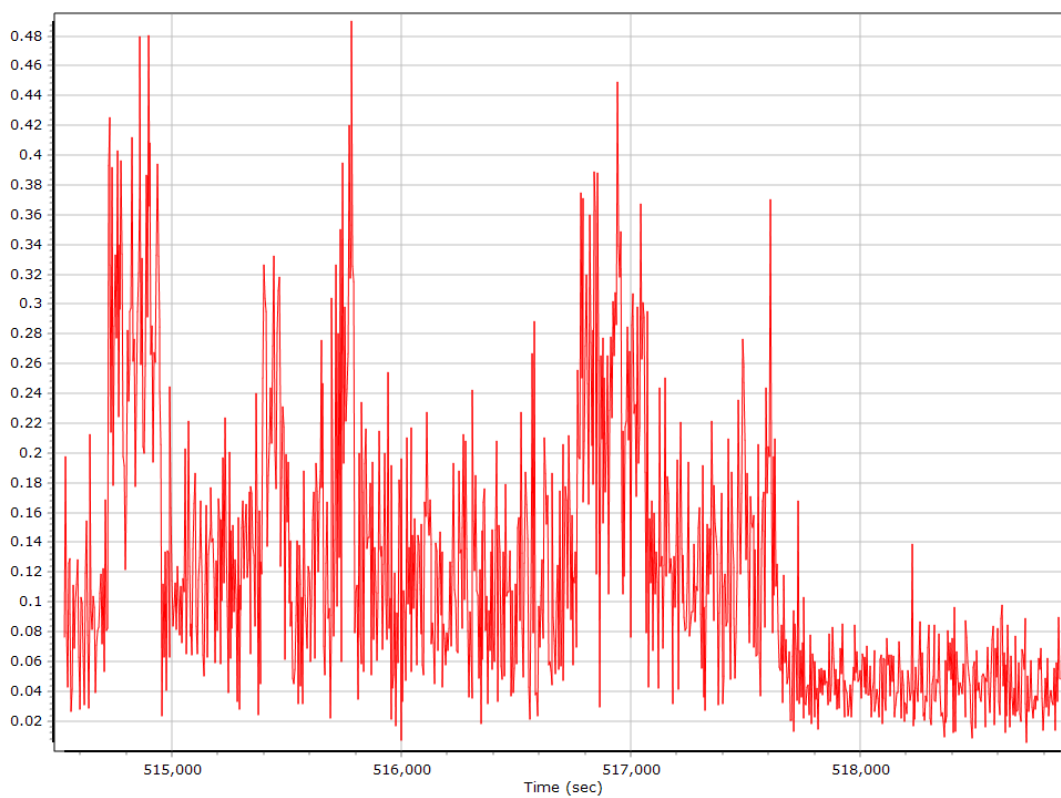
Ground Speed



Body Acceleration



Total Body Acceleration

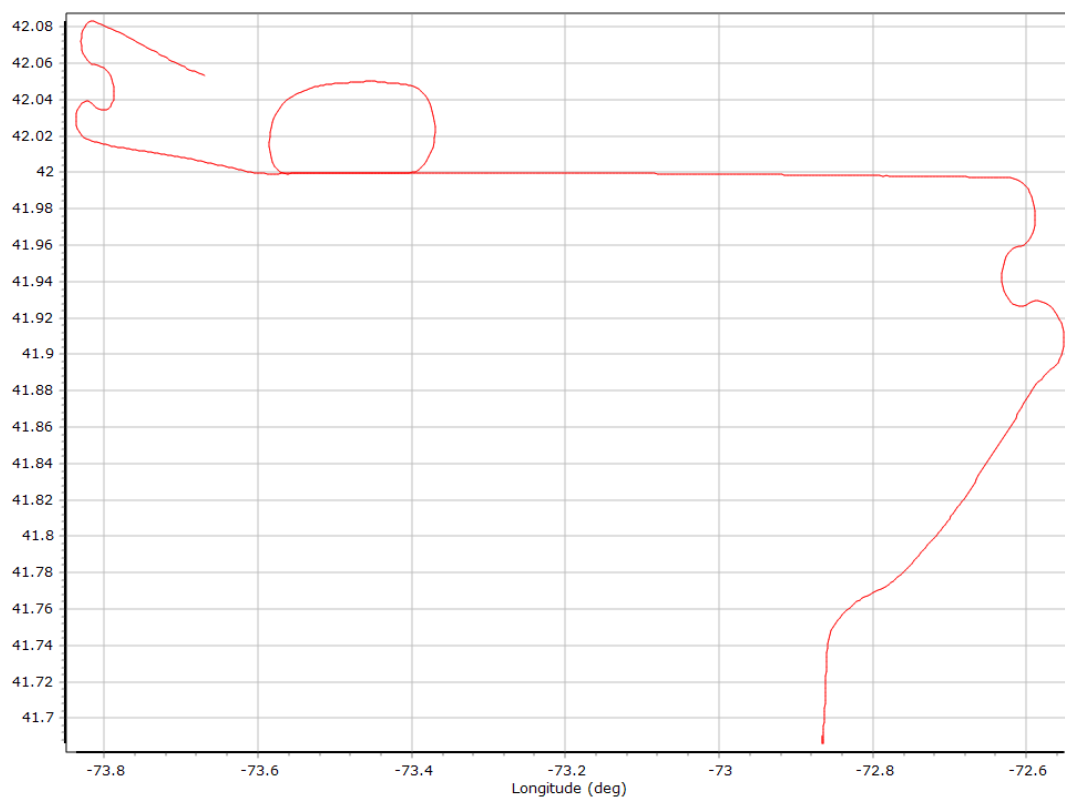


Body Angular Rate

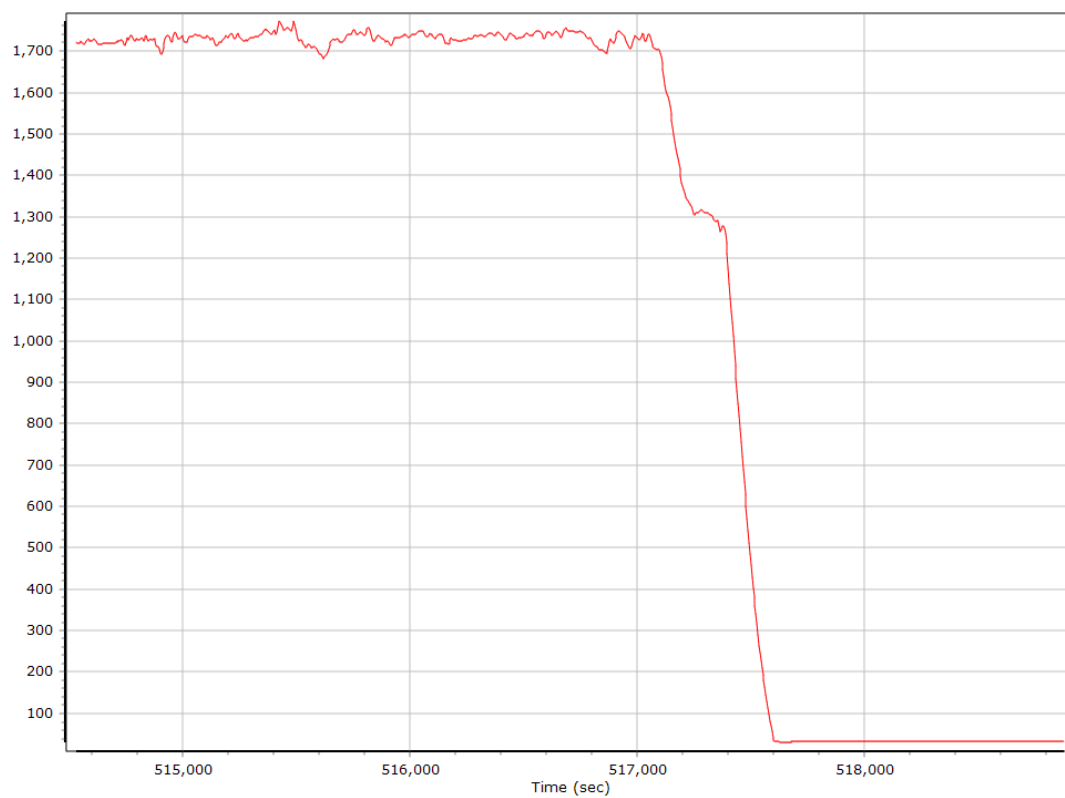


Forward Processed Trajectory Information

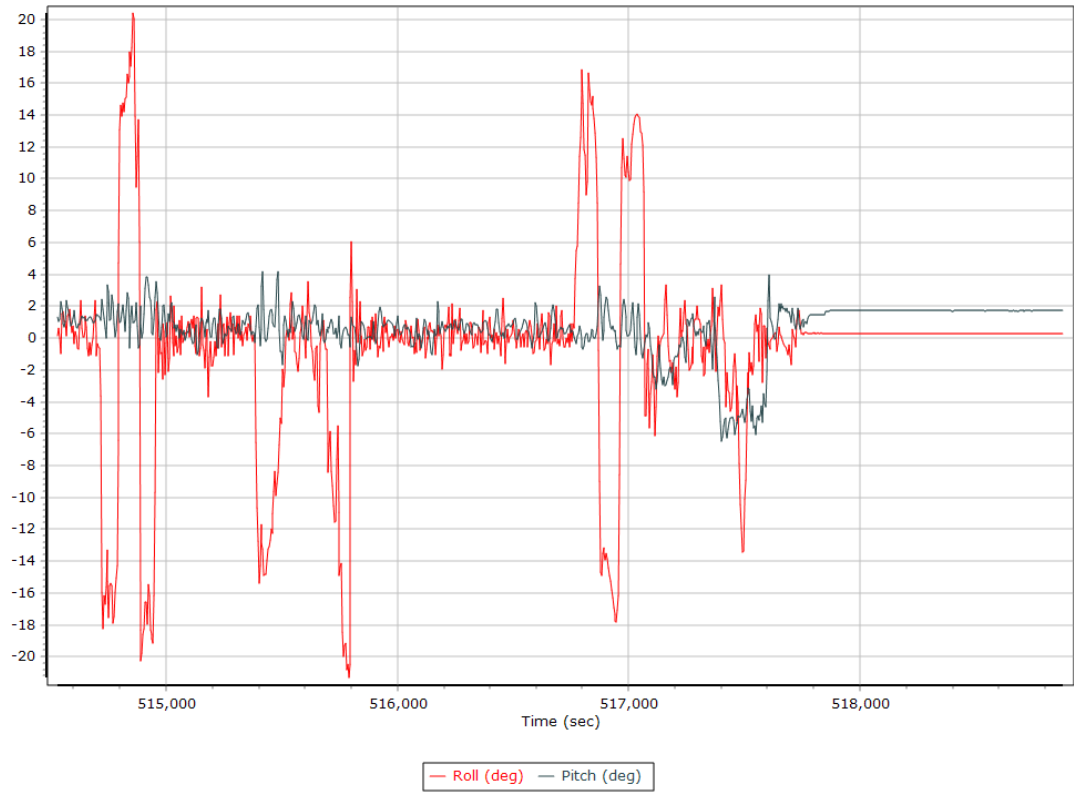
Top View



Altitude



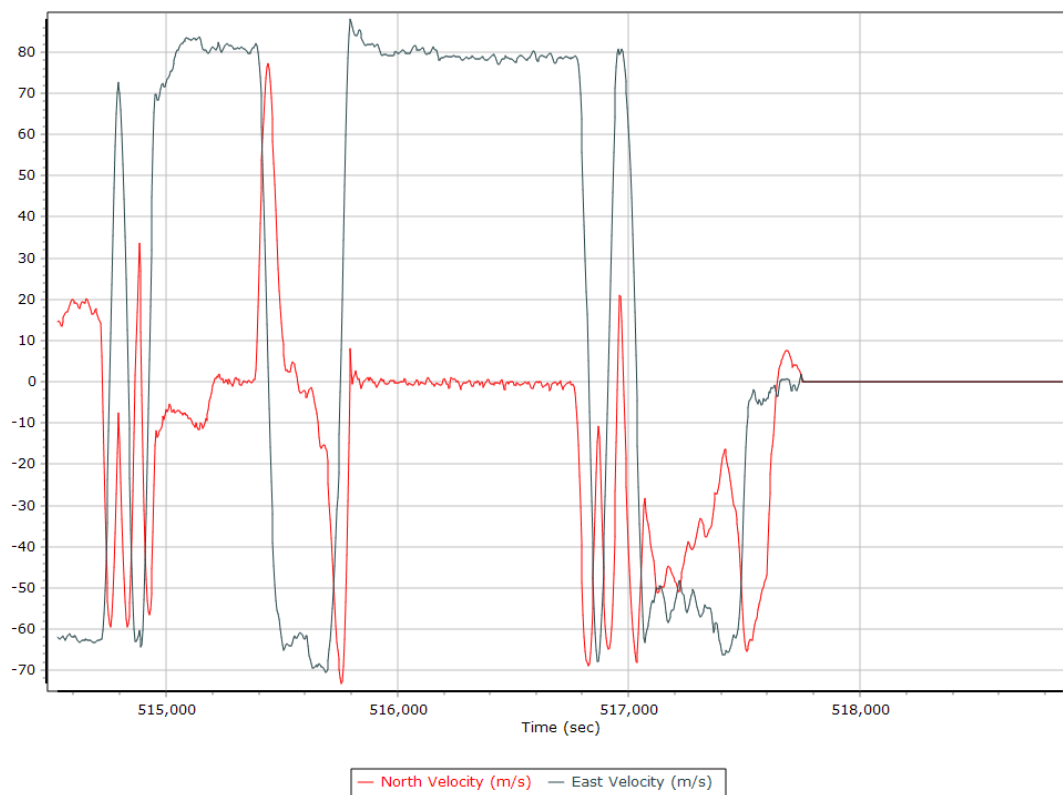
Roll/Pitch



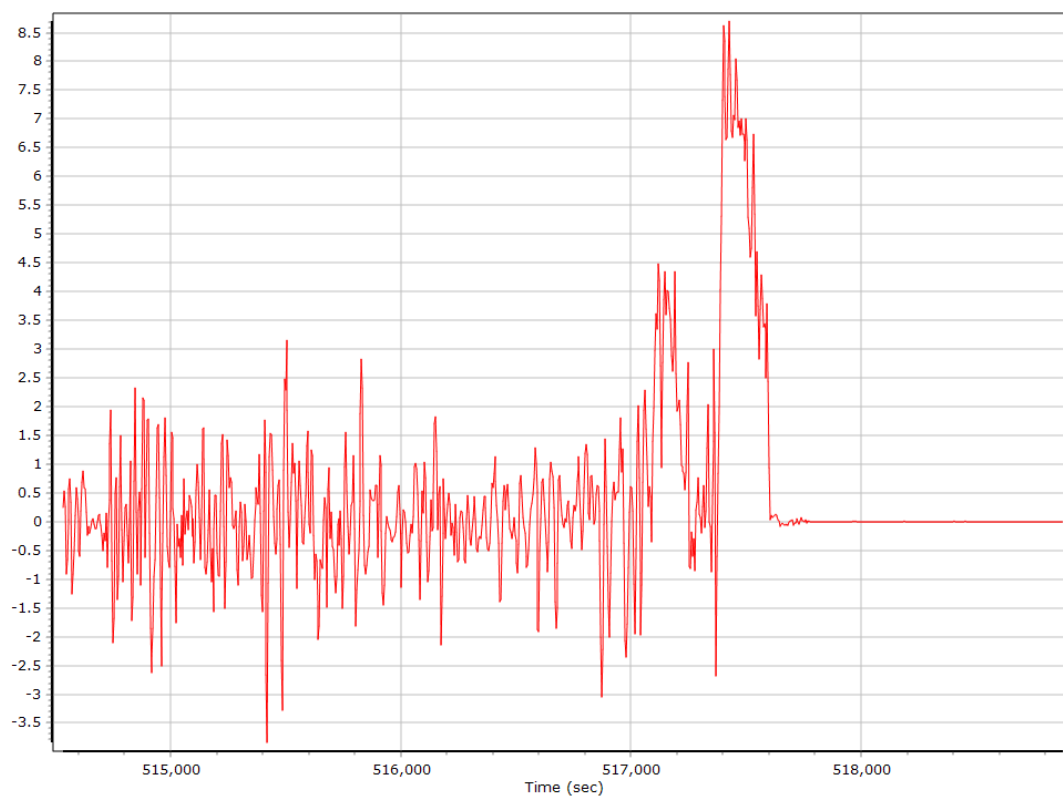
Heading



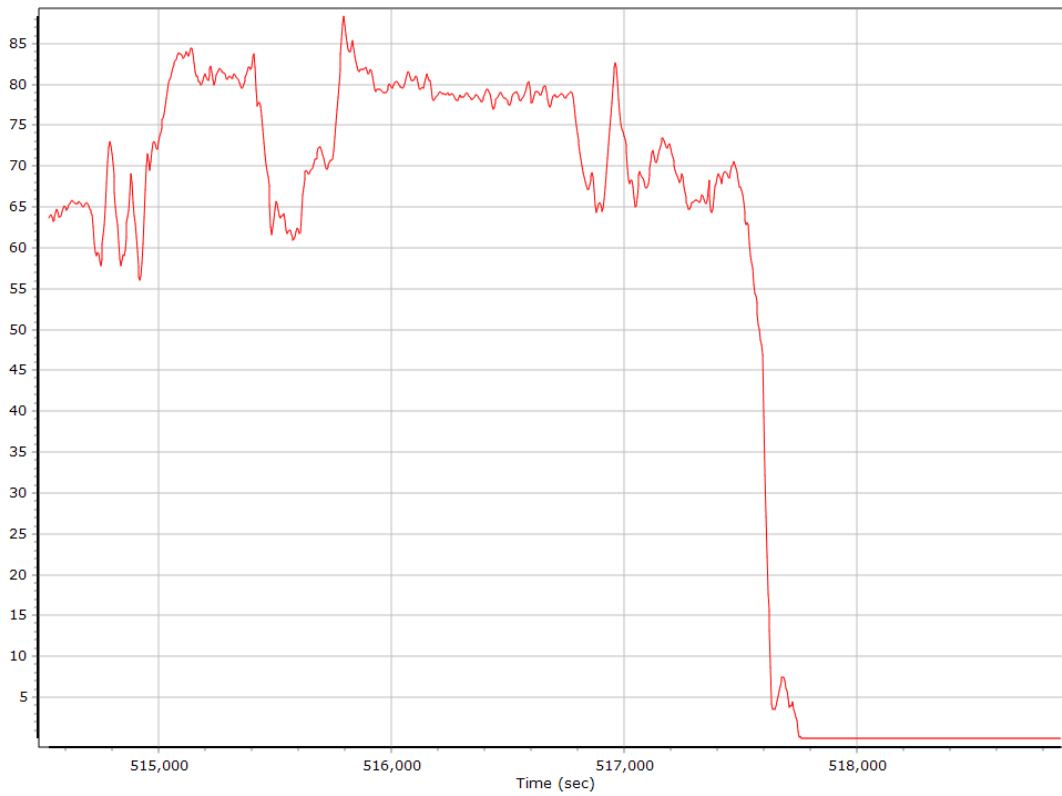
North/East Velocity



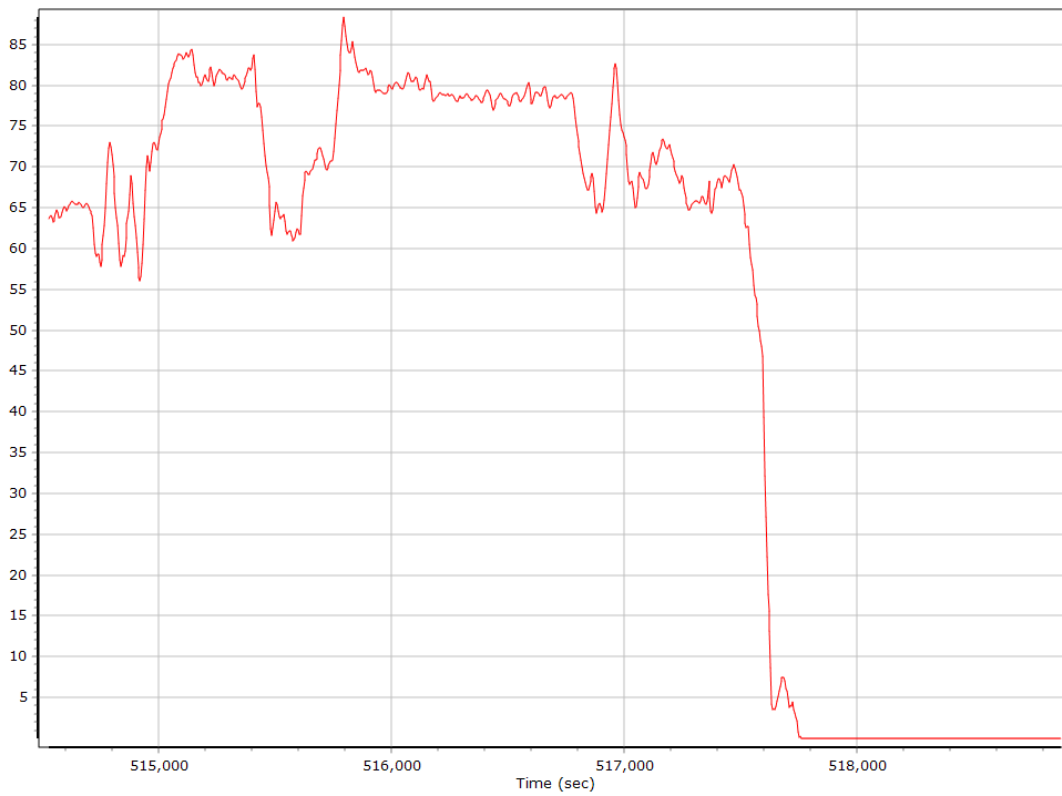
Down Velocity



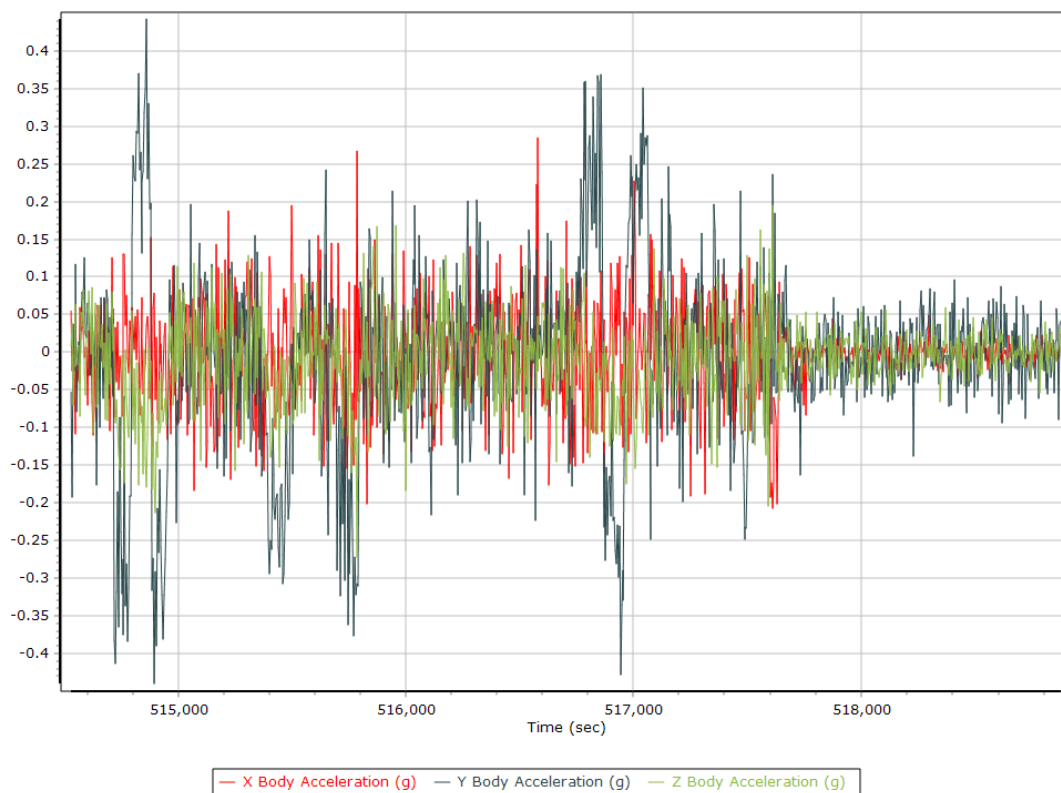
Total Speed



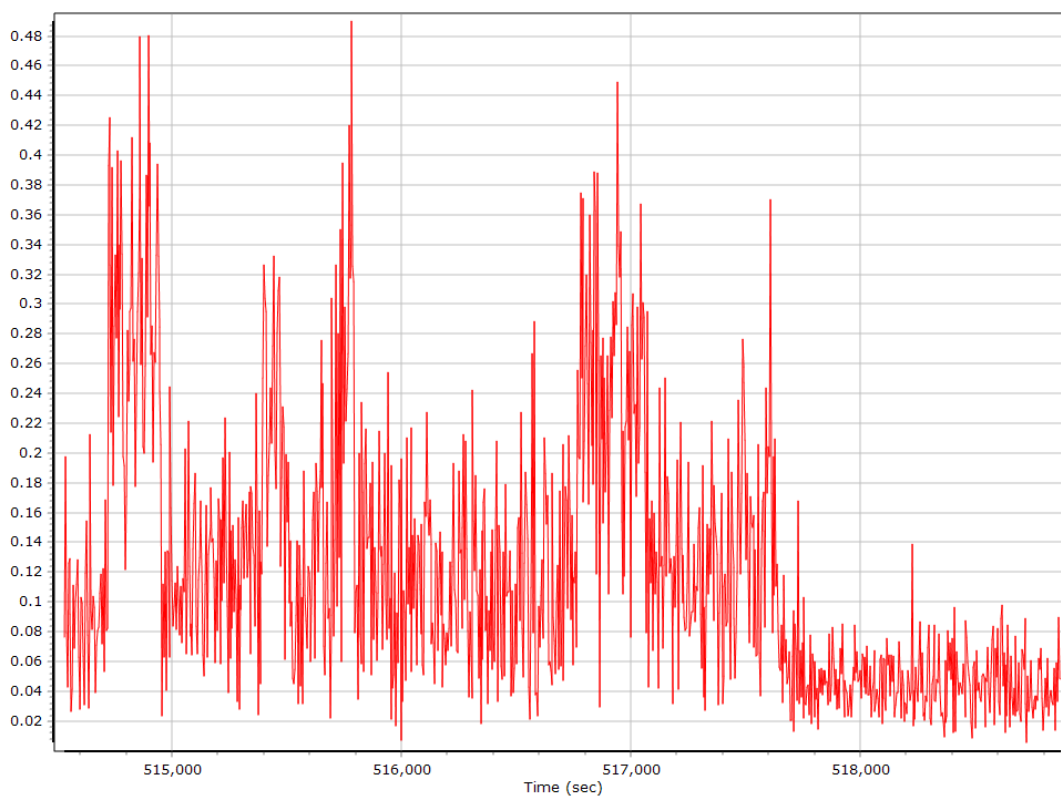
Ground Speed



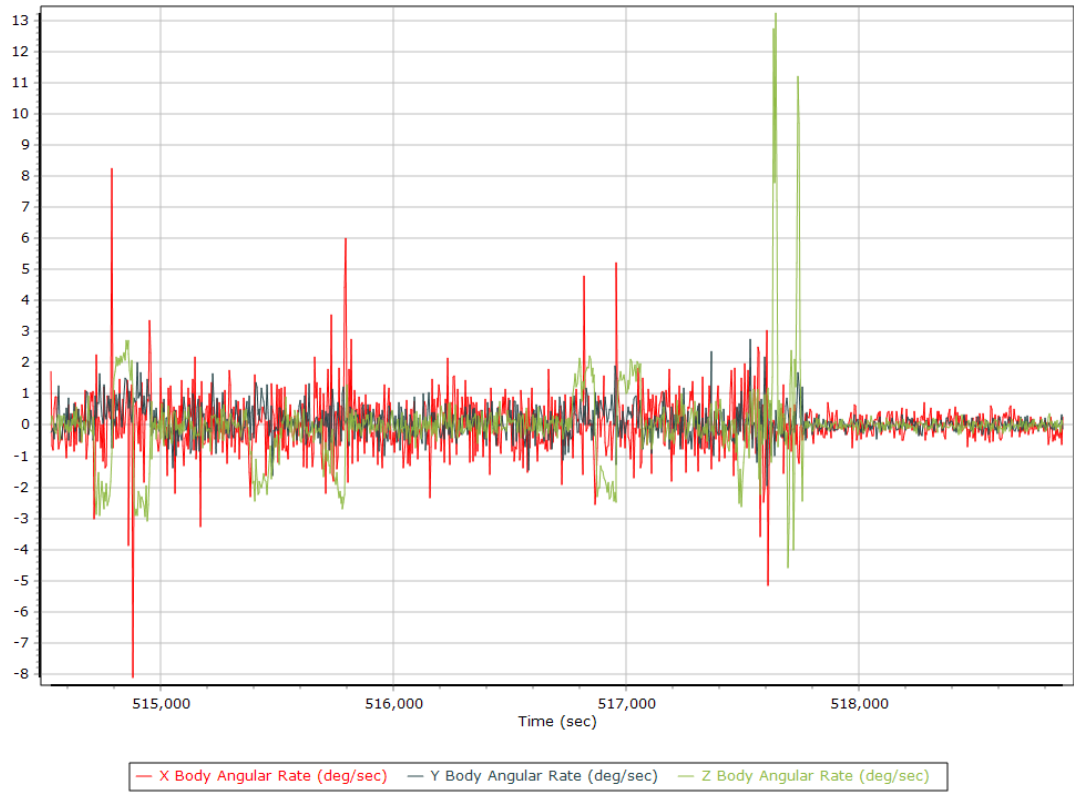
Body Acceleration



Total Body Acceleration



Body Angular Rate

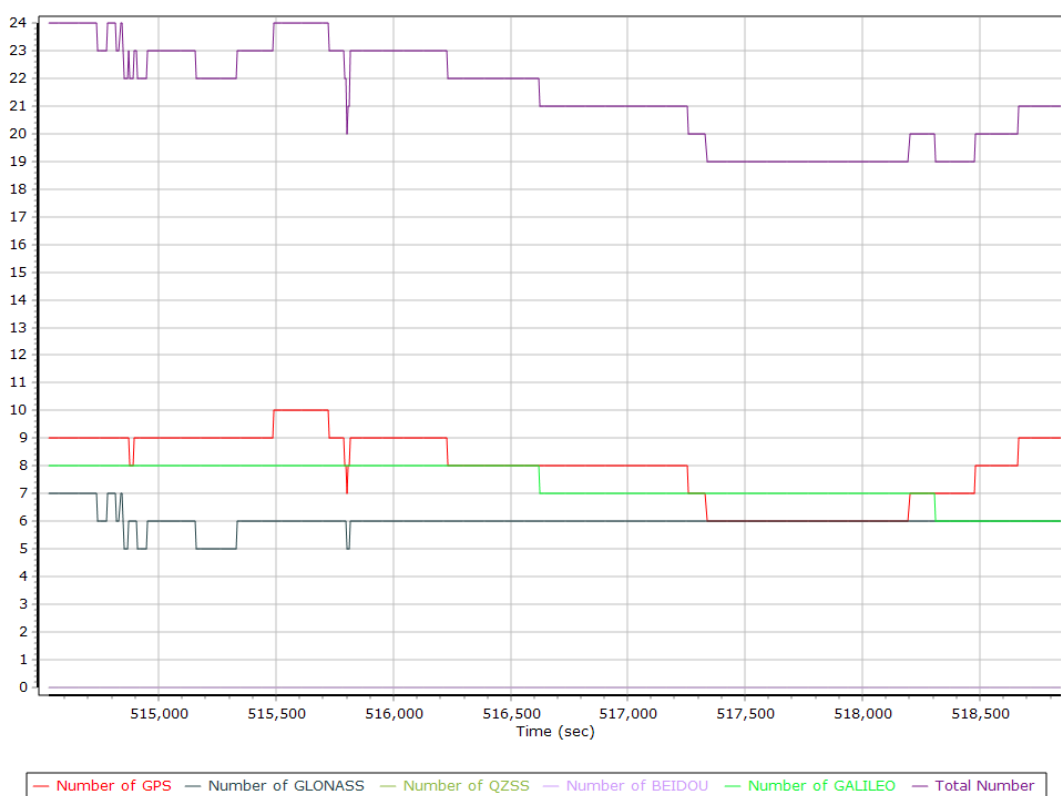


GNSS QC

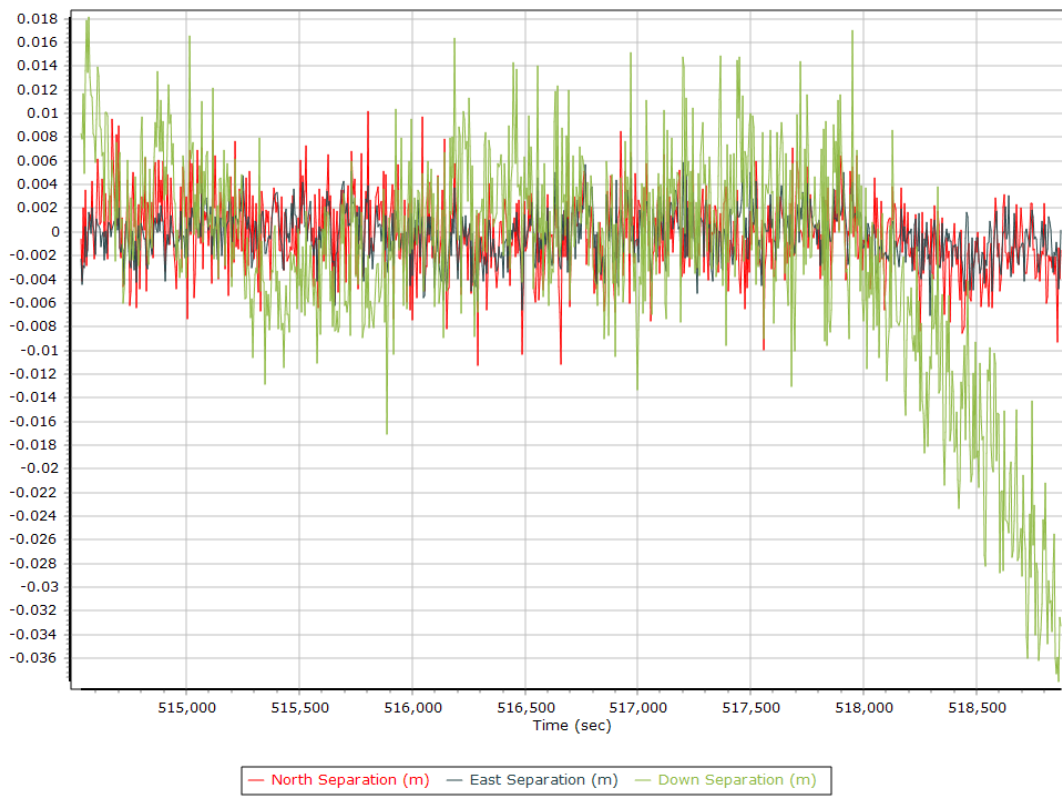
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	10	8
Number of GLONASS SV	5	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	6	8	7
Total number of SV	19	24	21
PDOP	0.94	1.32	1.12
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	4489.00	0.00	0.00
Percentage	100.00	0.00	0.00

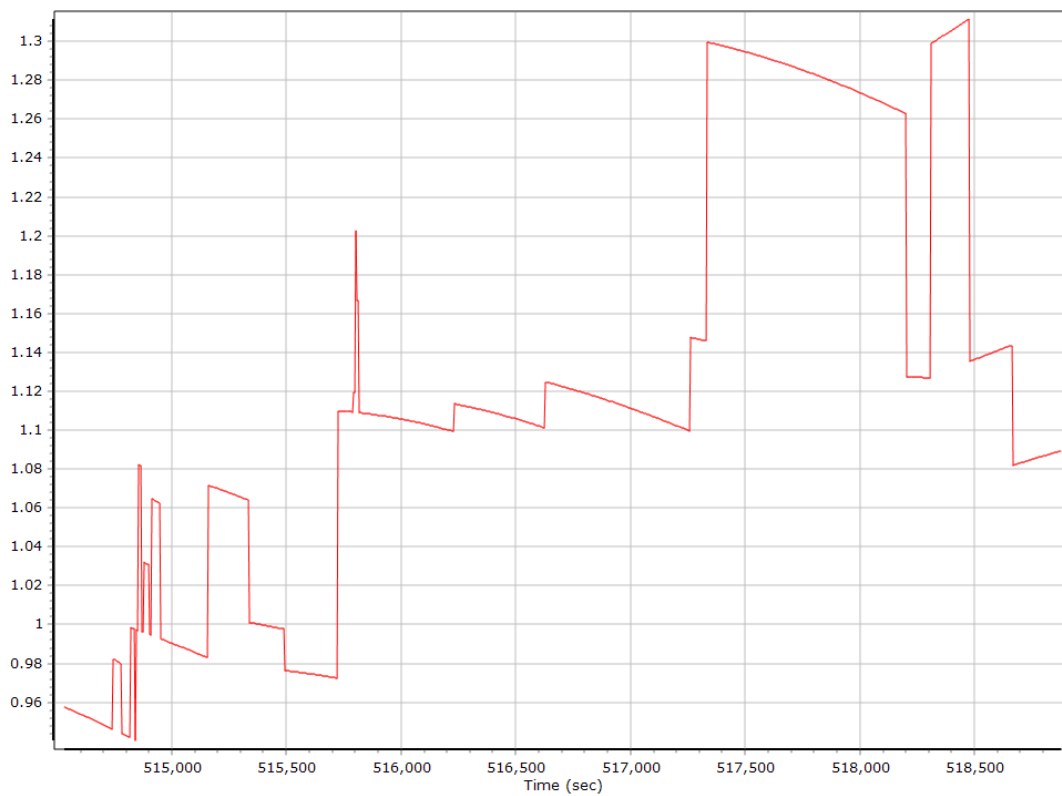
Num SVs in solution



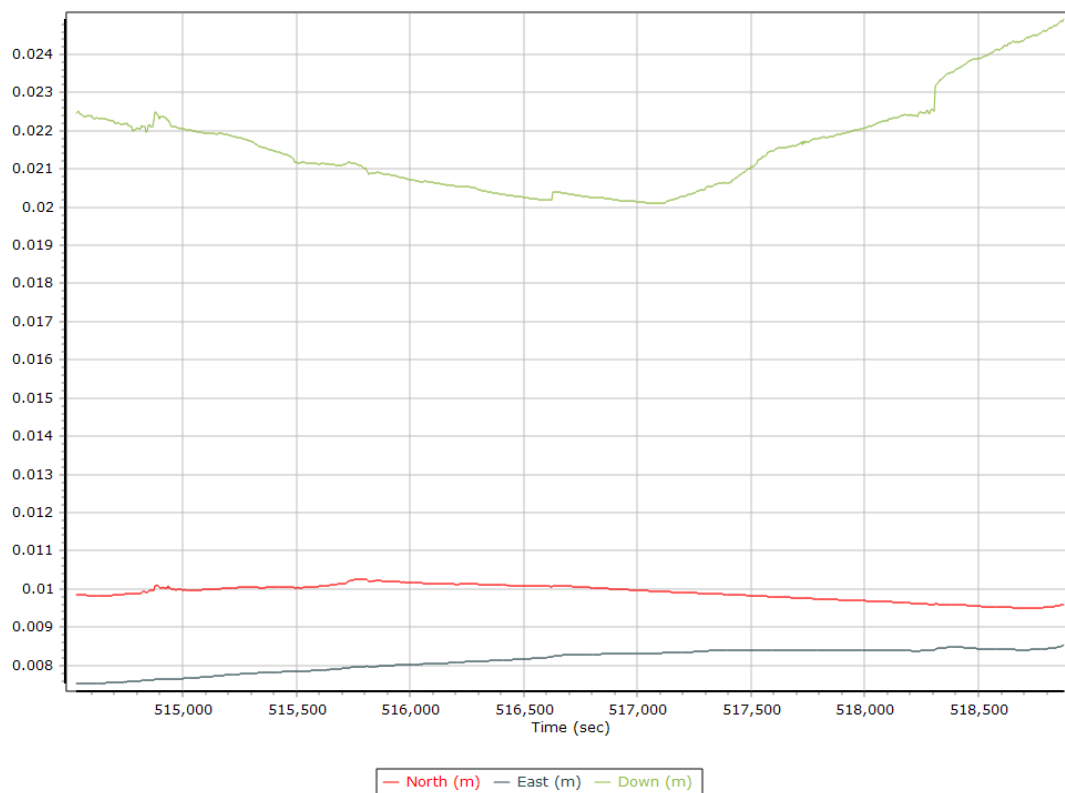
Forward/Reverse Separation



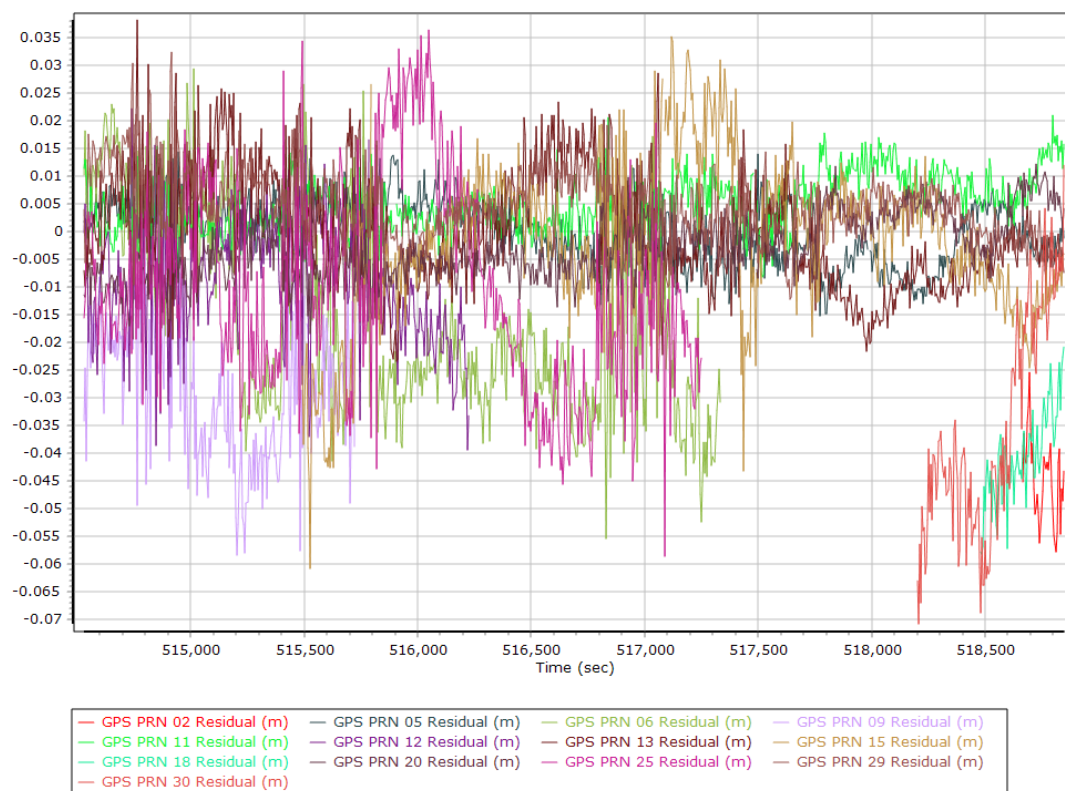
PDOP



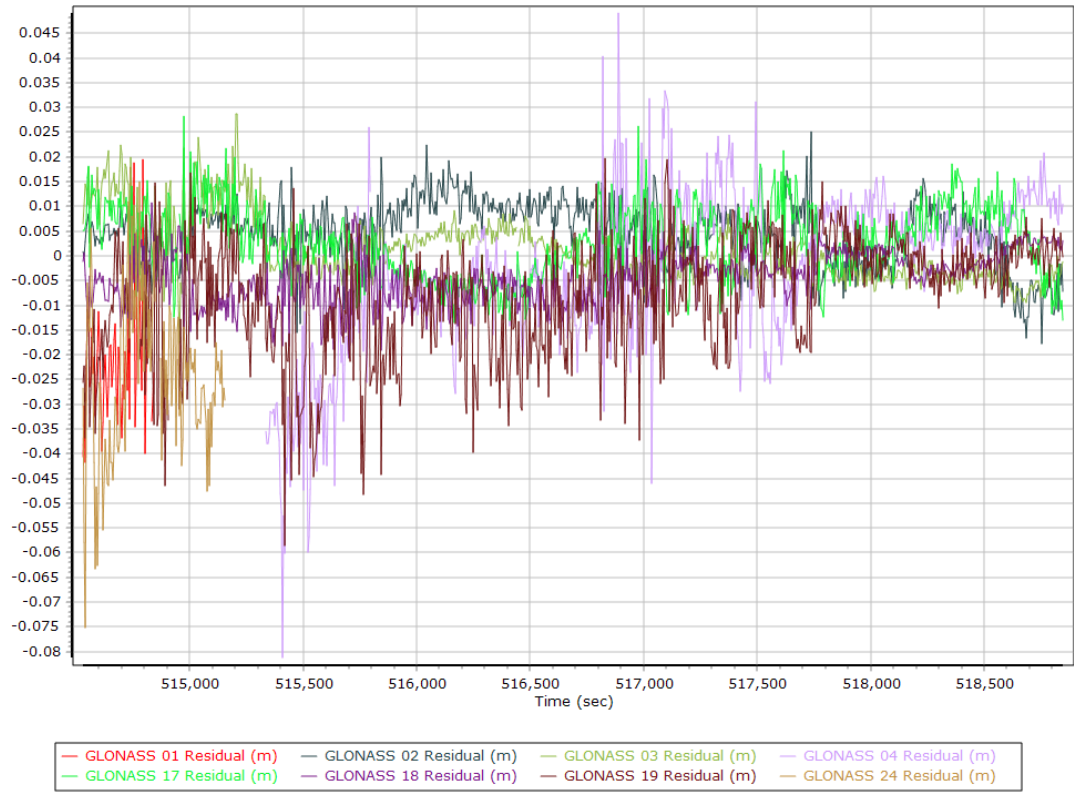
Estimated Position Accuracy



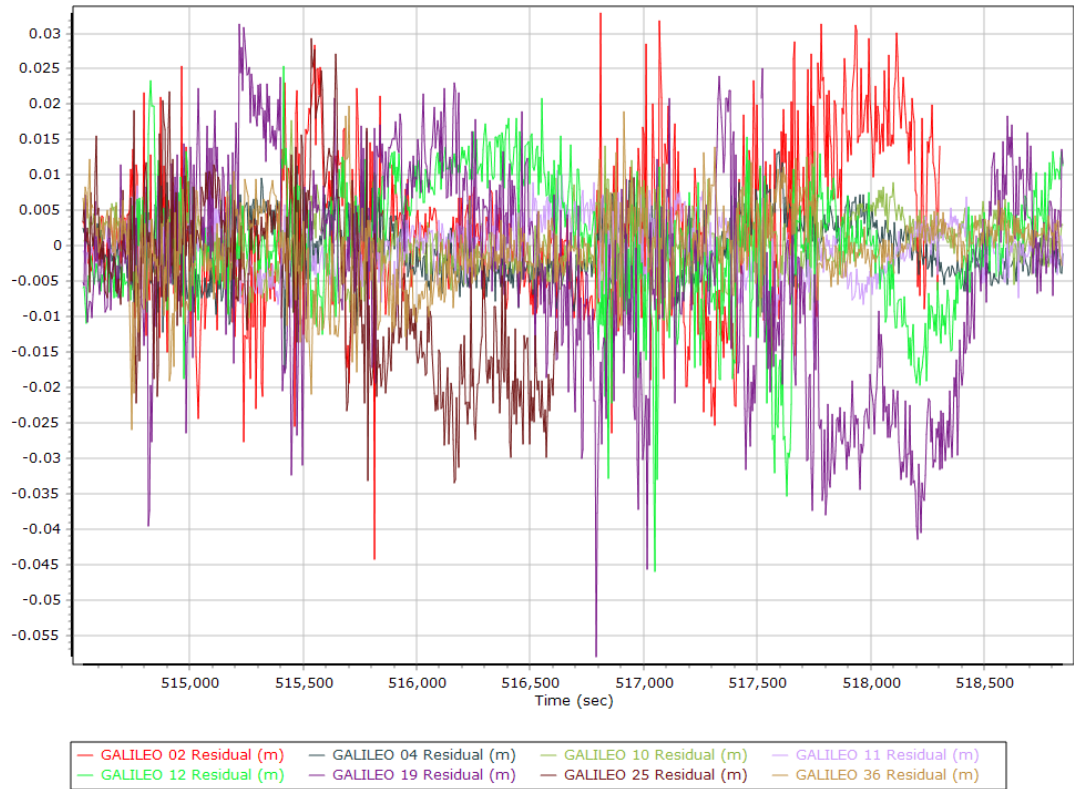
GPS Residuals



GLONASS Residuals



GALILEO Residuals



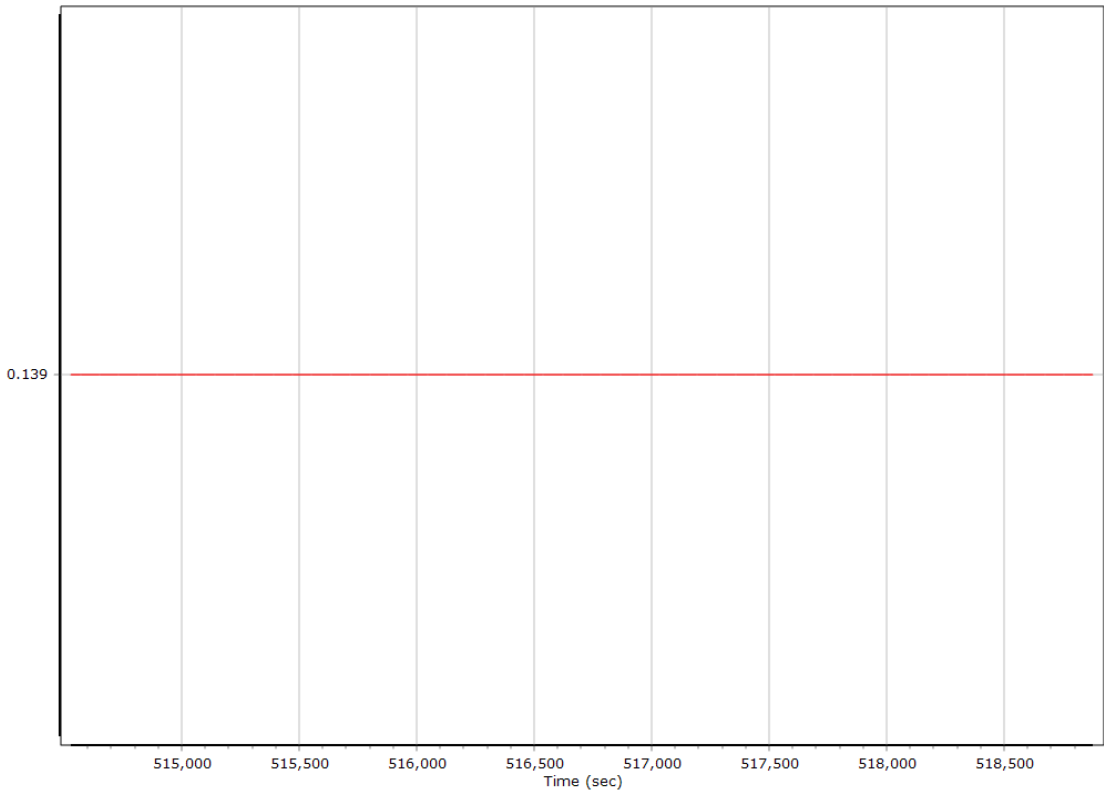
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	514337.000 (04/21/2023 22:52:17)		
Processing end time	518880.000 (04/22/2023 00:08:00)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

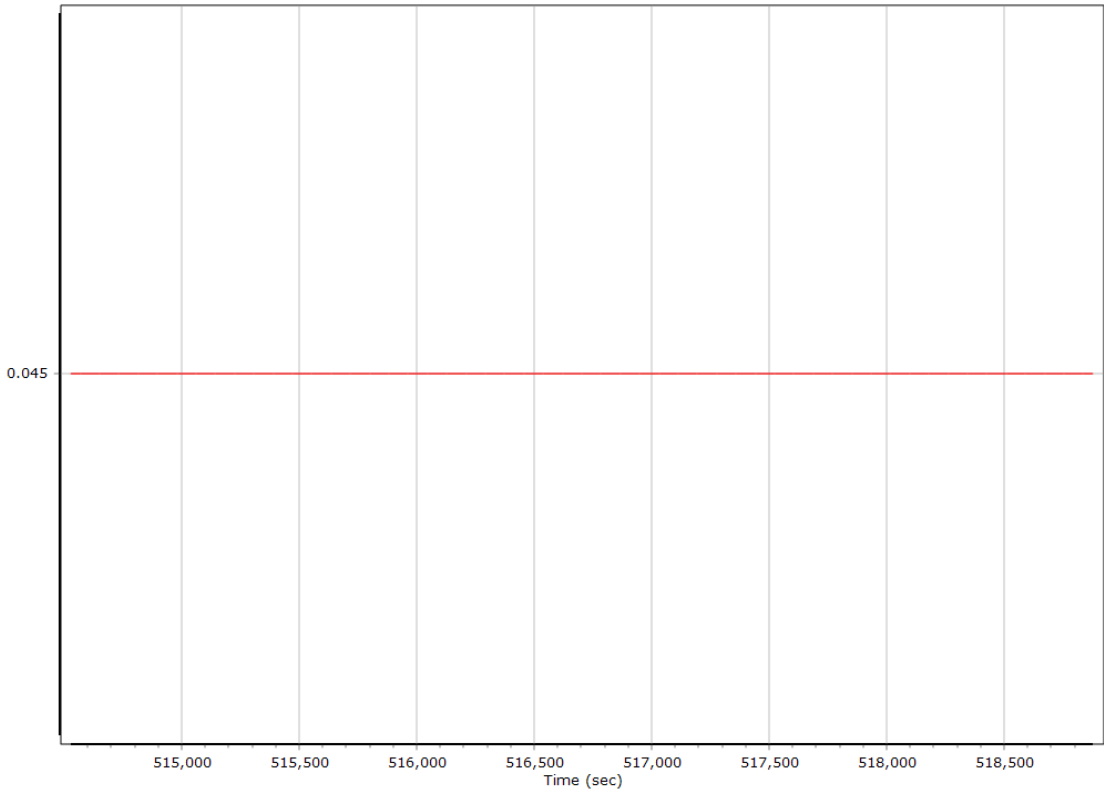
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

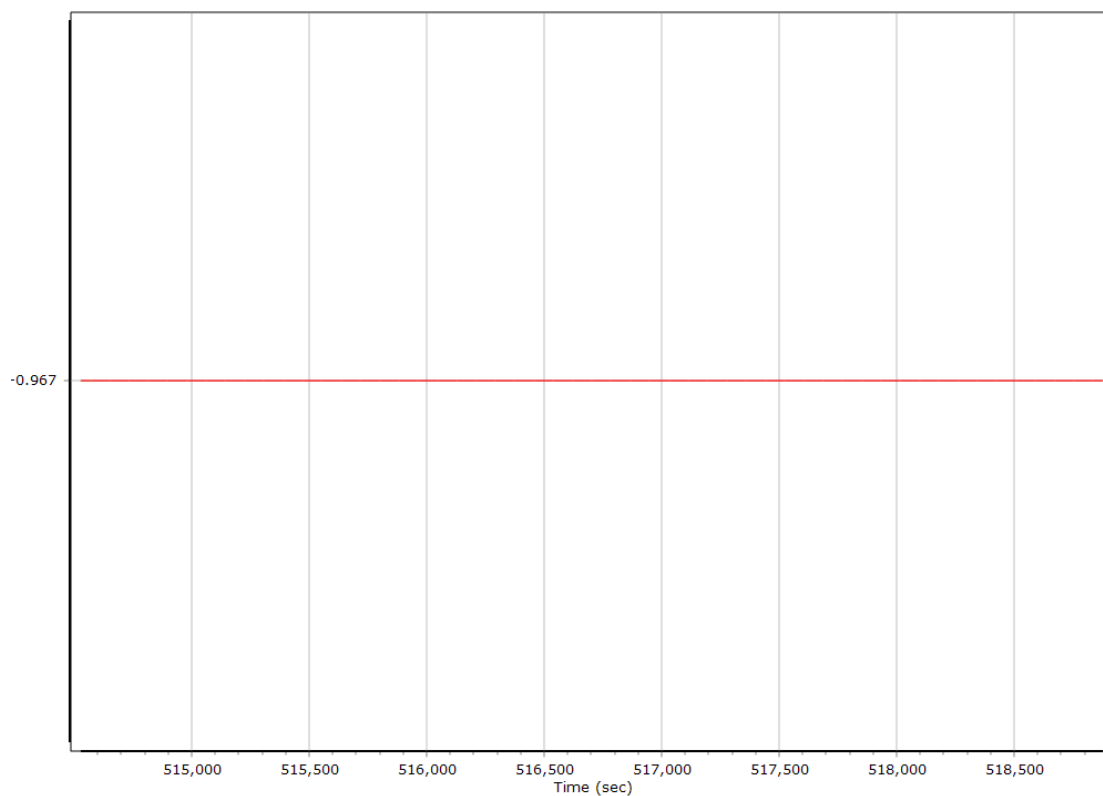
X Reference-Primary GNSS Lever Arm (m)



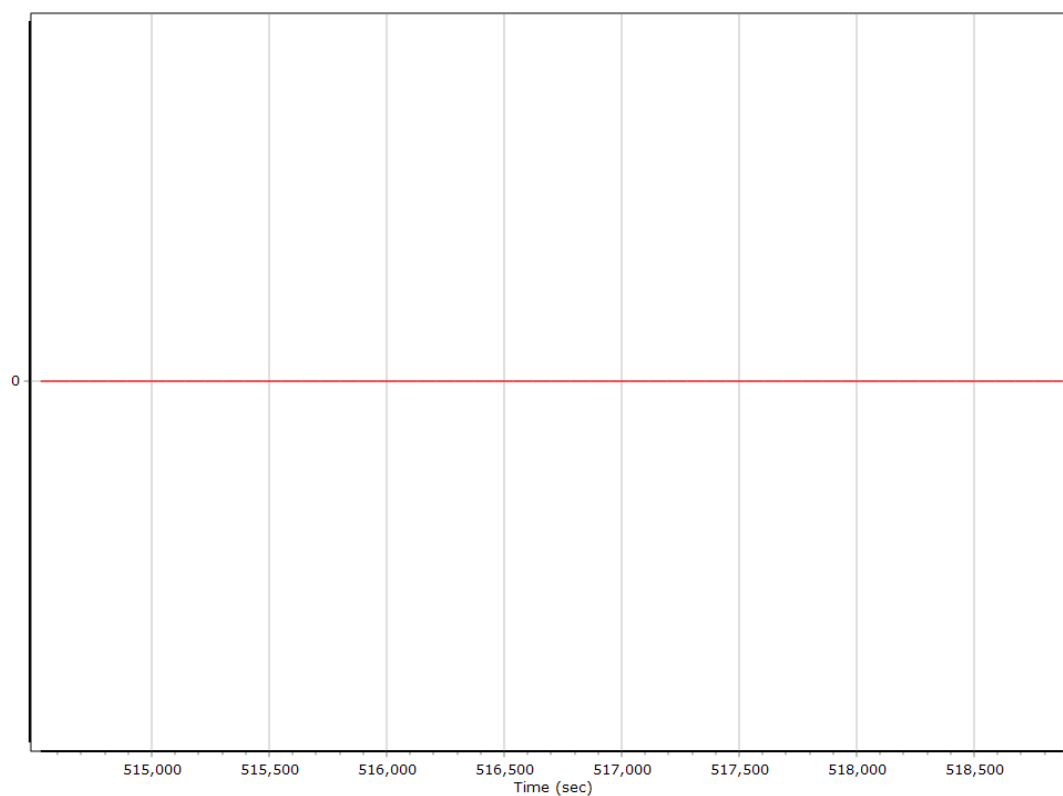
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



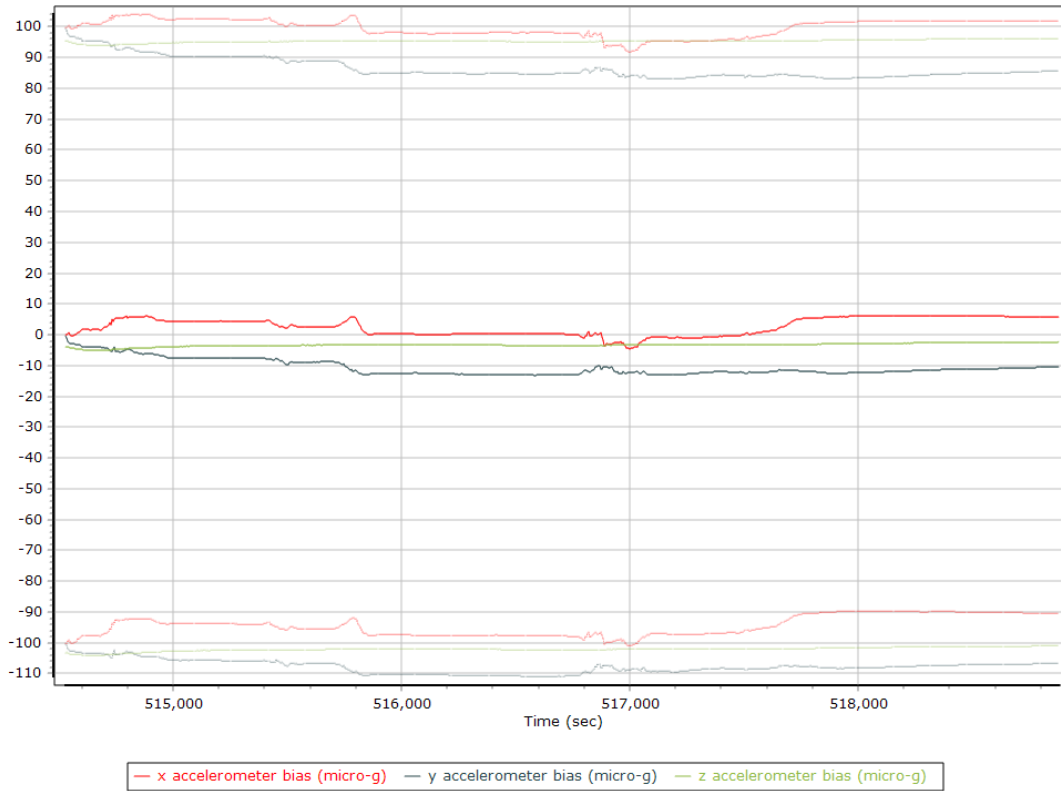
Reference-Primary GNSS Lever Arm Figure of Merit



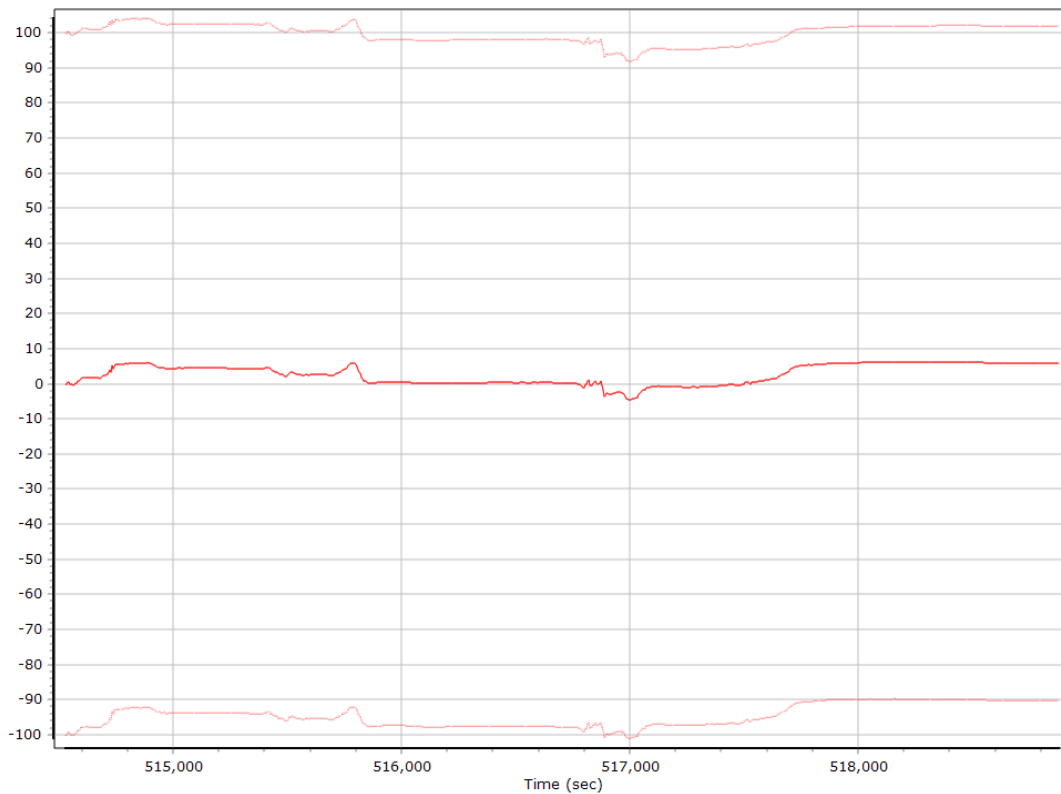
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

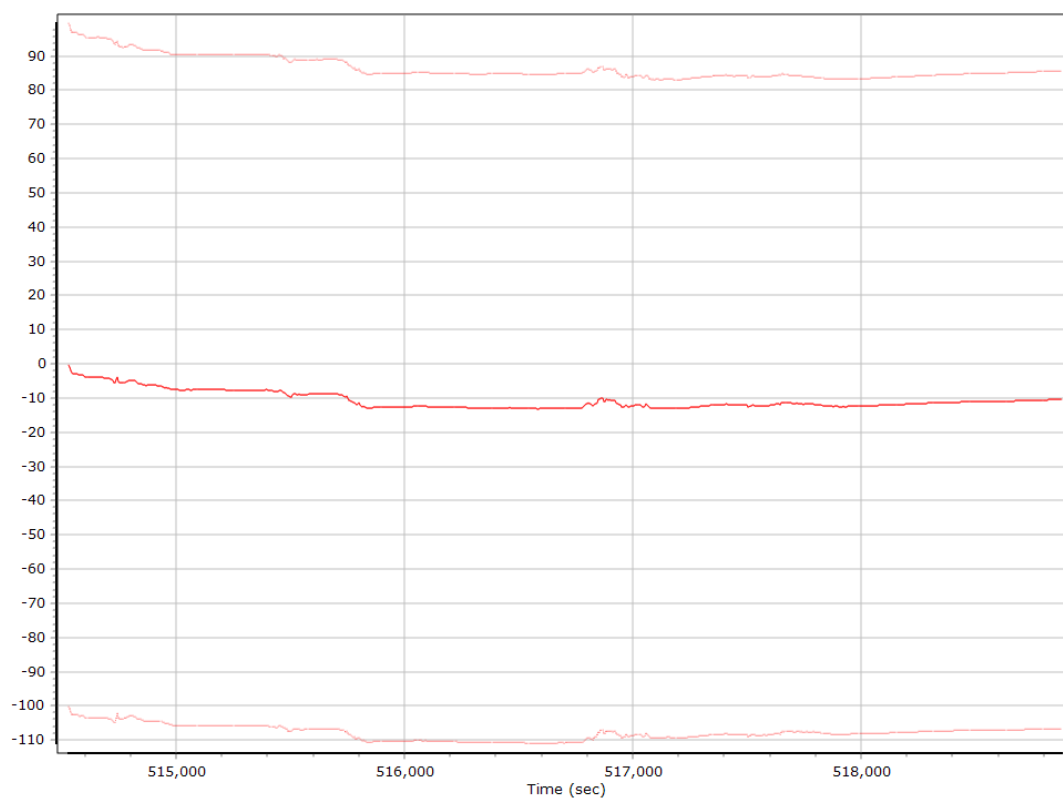
Accelerometer Bias (micro-g)



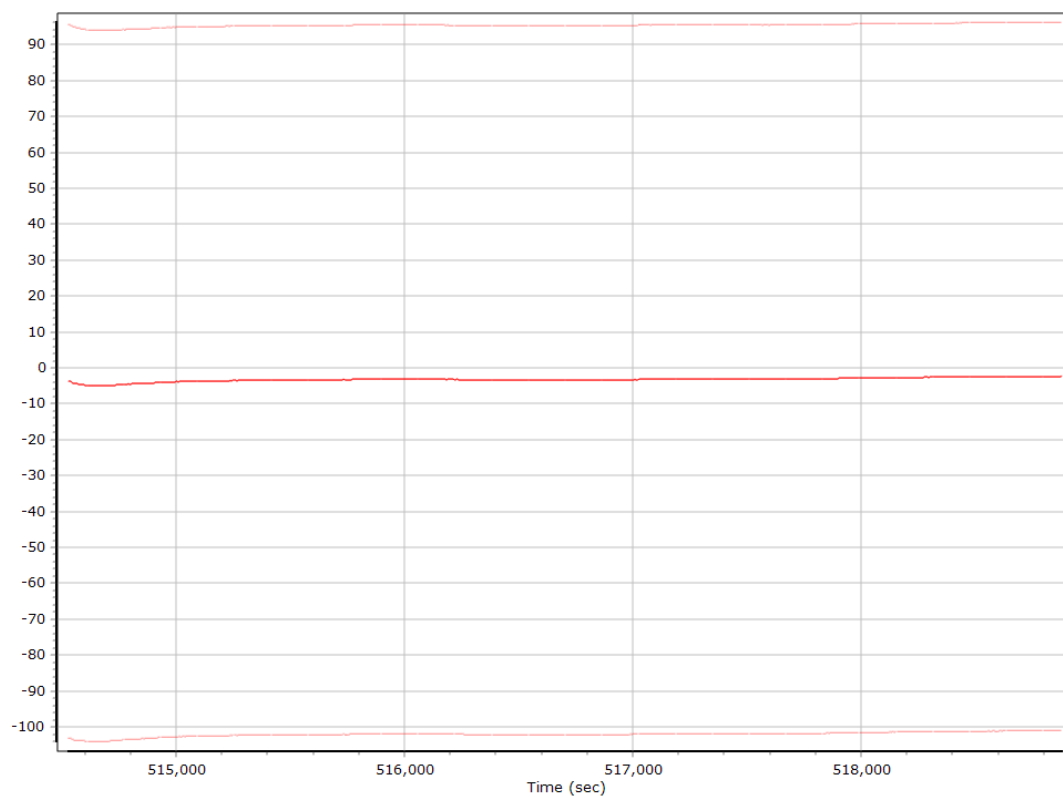
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



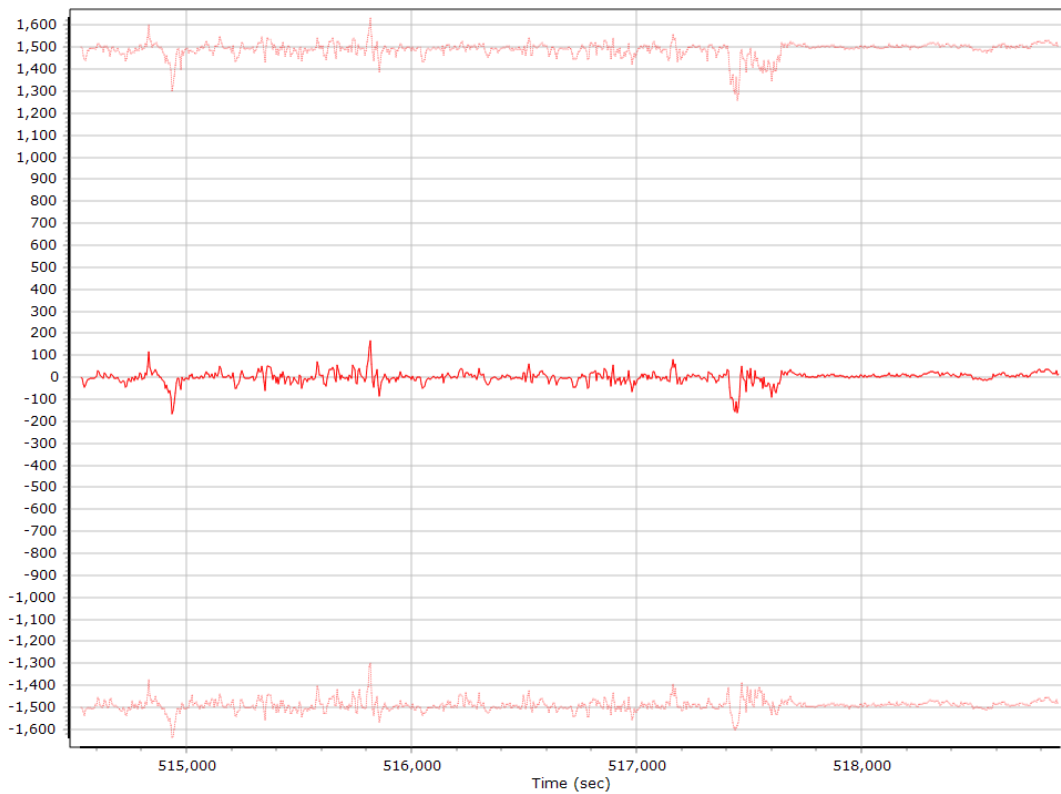
Z Accelerometer Bias (micro-g)



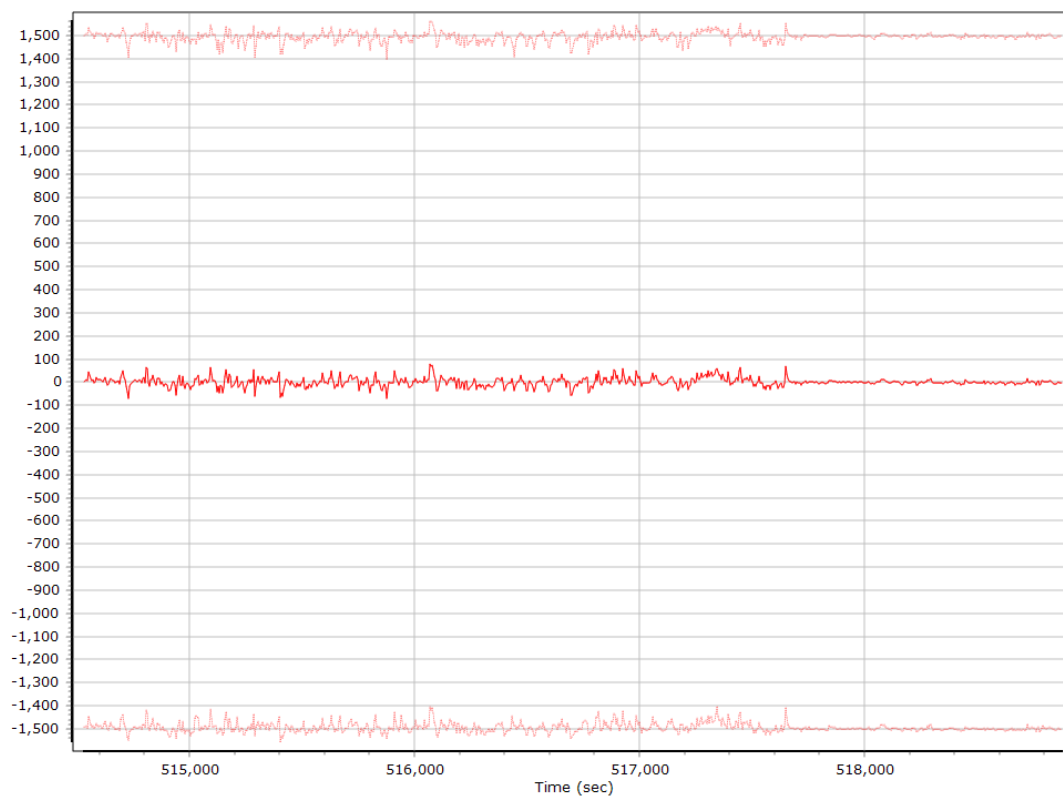
Accelerometer Scale Error (ppm)



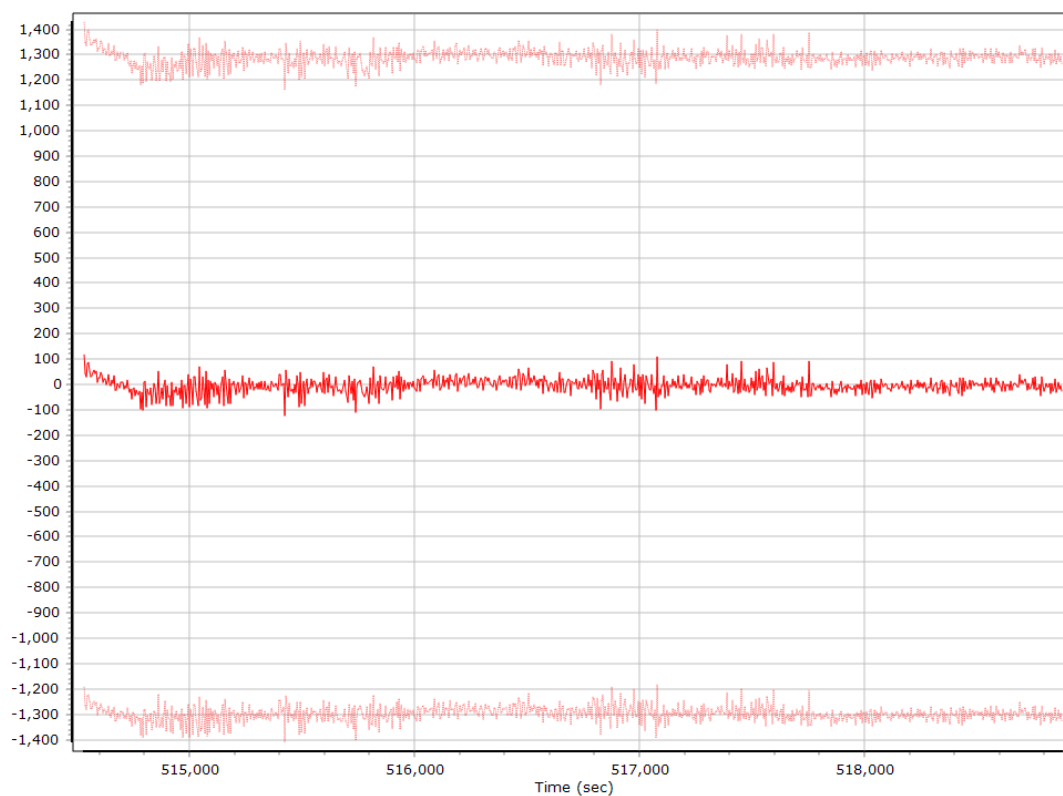
X Accelerometer Scale Error (ppm)



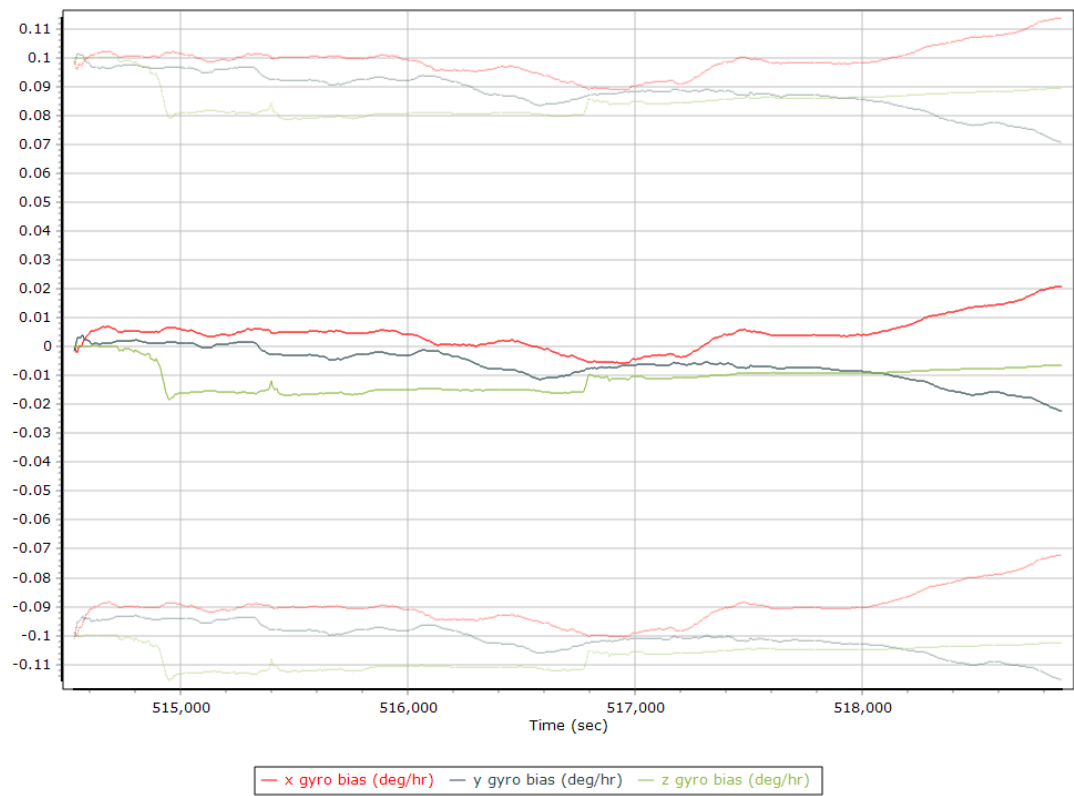
Y Accelerometer Scale Error (ppm)



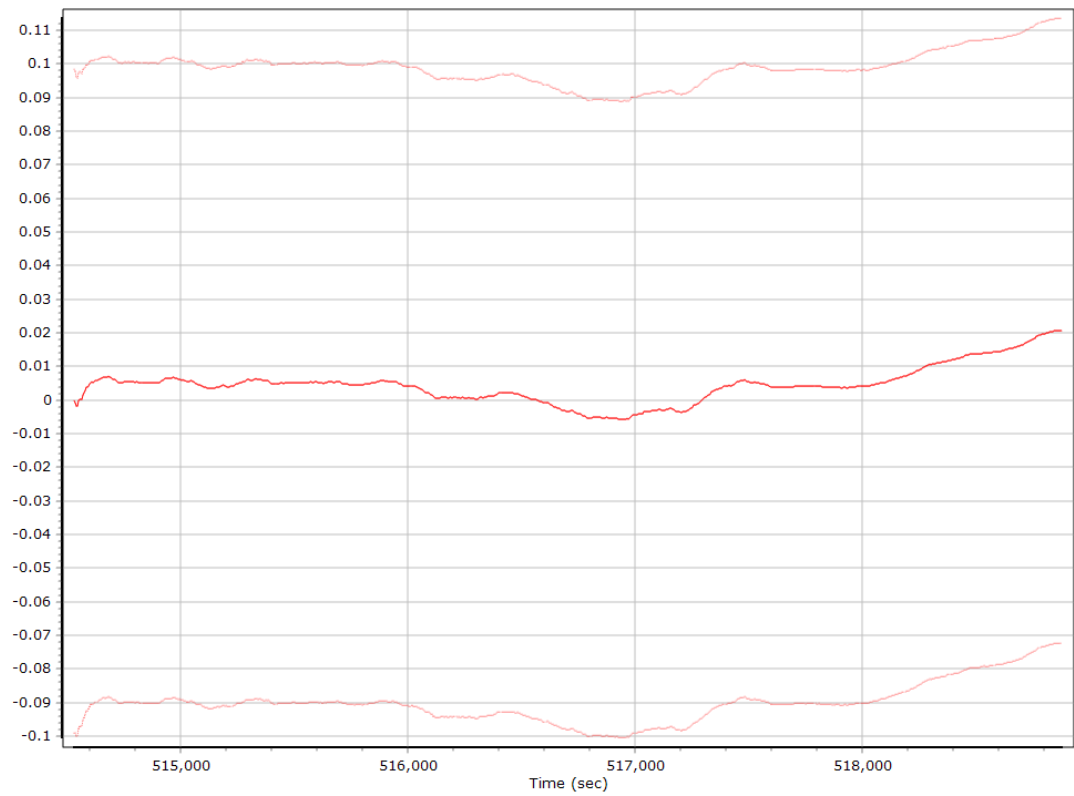
Z Accelerometer Scale Error (ppm)



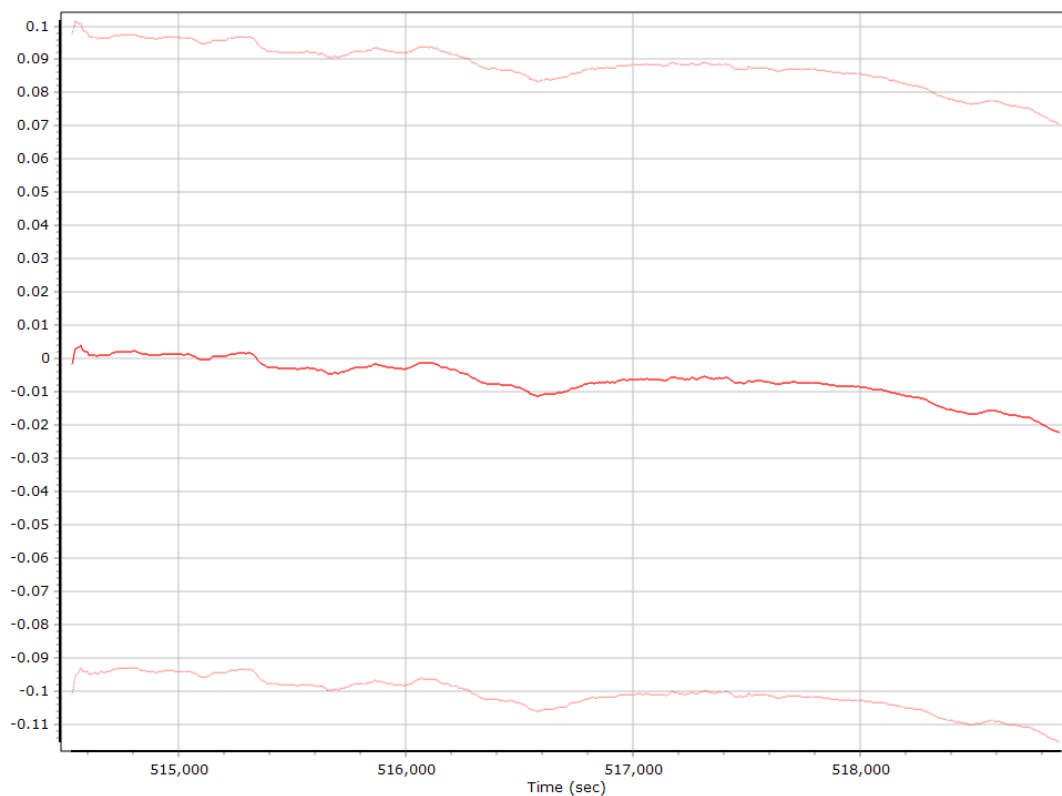
Gyro Bias (deg/h)



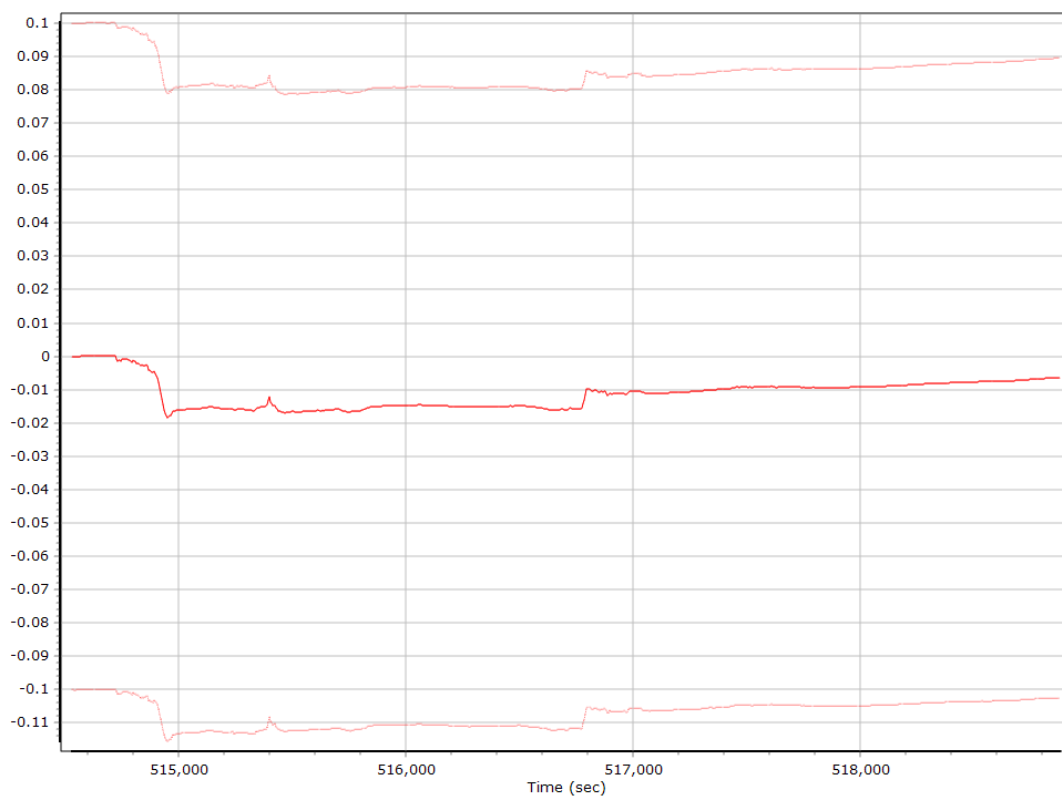
X Gyro Bias (deg/h)



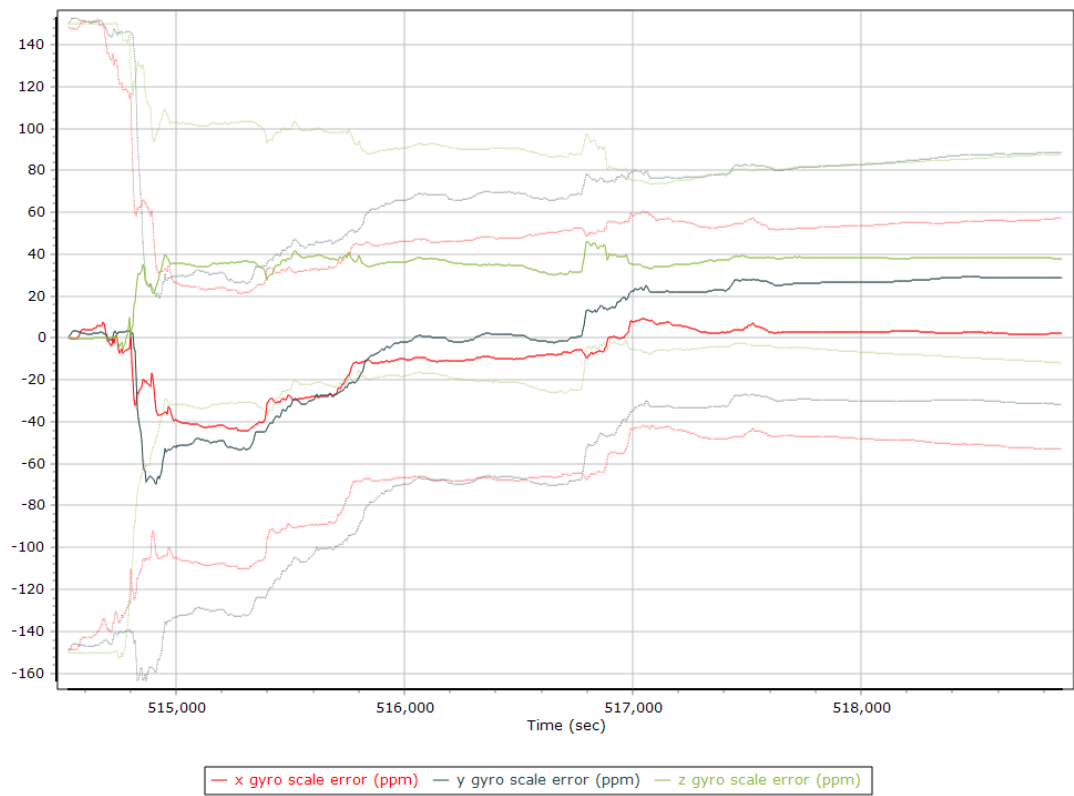
Y Gyro Bias (deg/h)



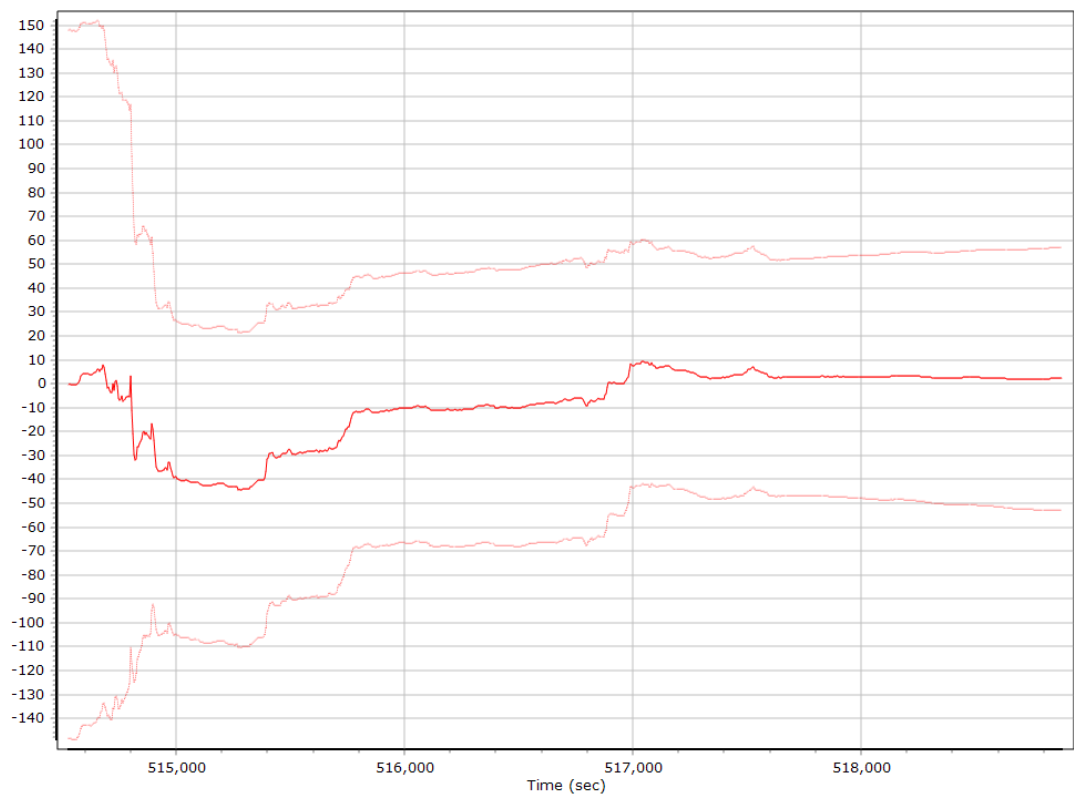
Z Gyro Bias (deg/h)



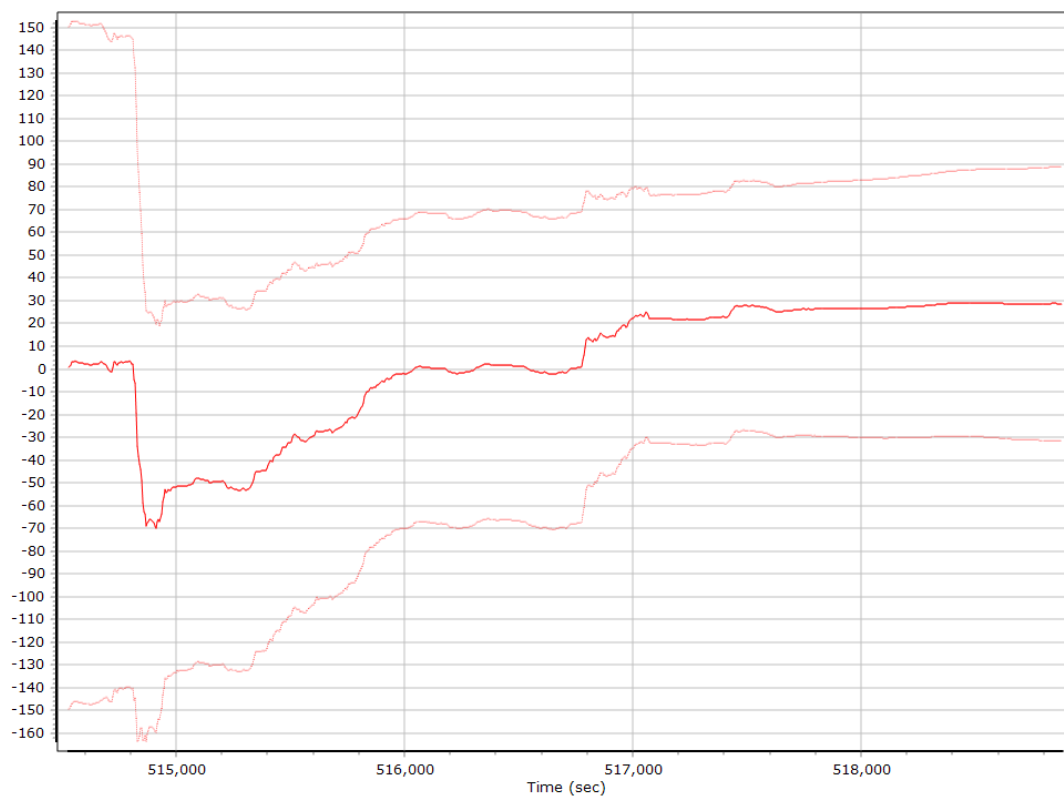
Gyro Scale Error (ppm)



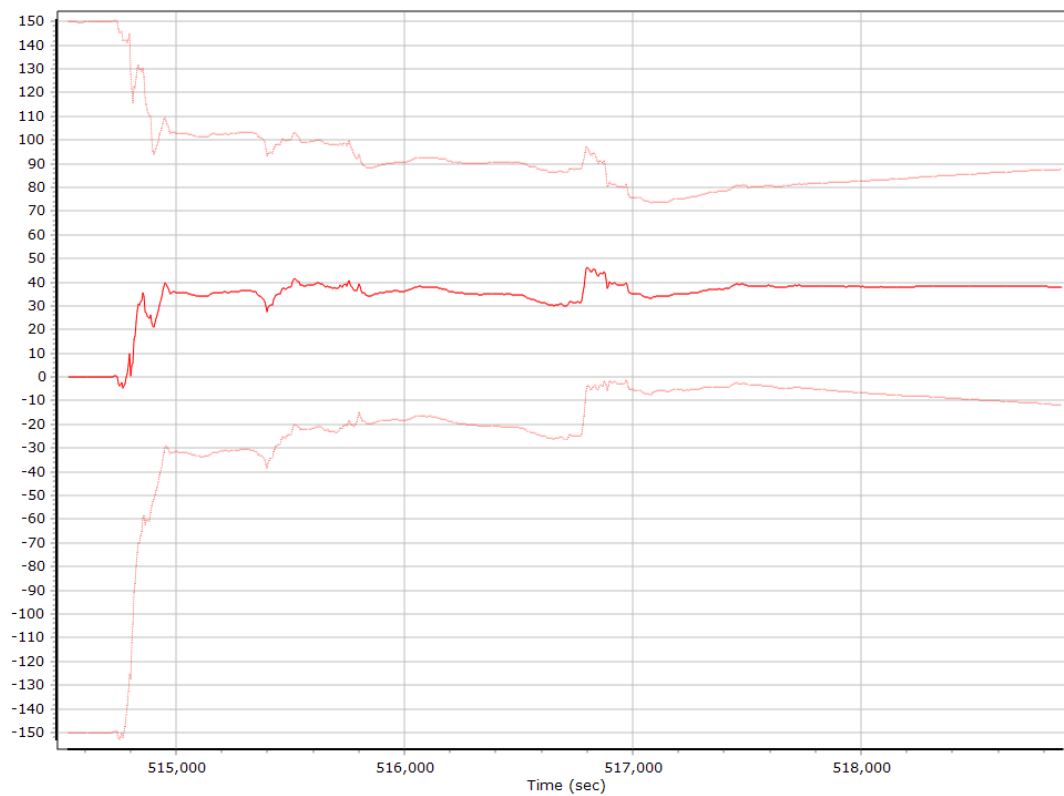
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

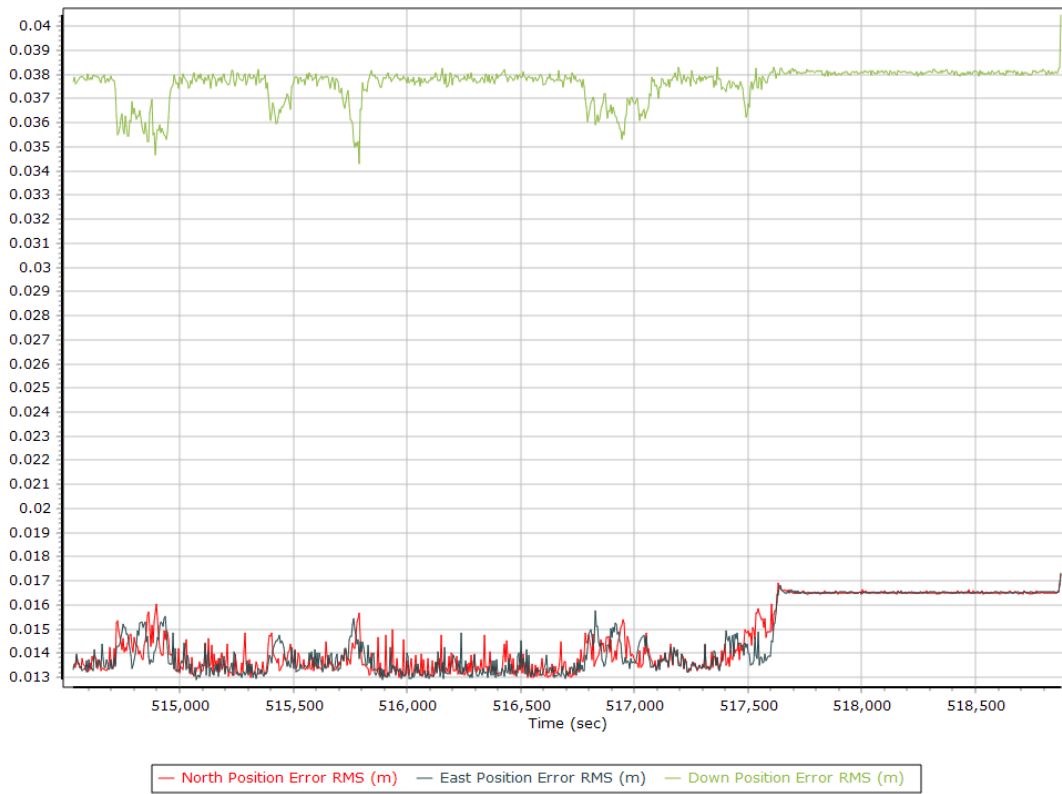


Z Gyro Scale Error (ppm)

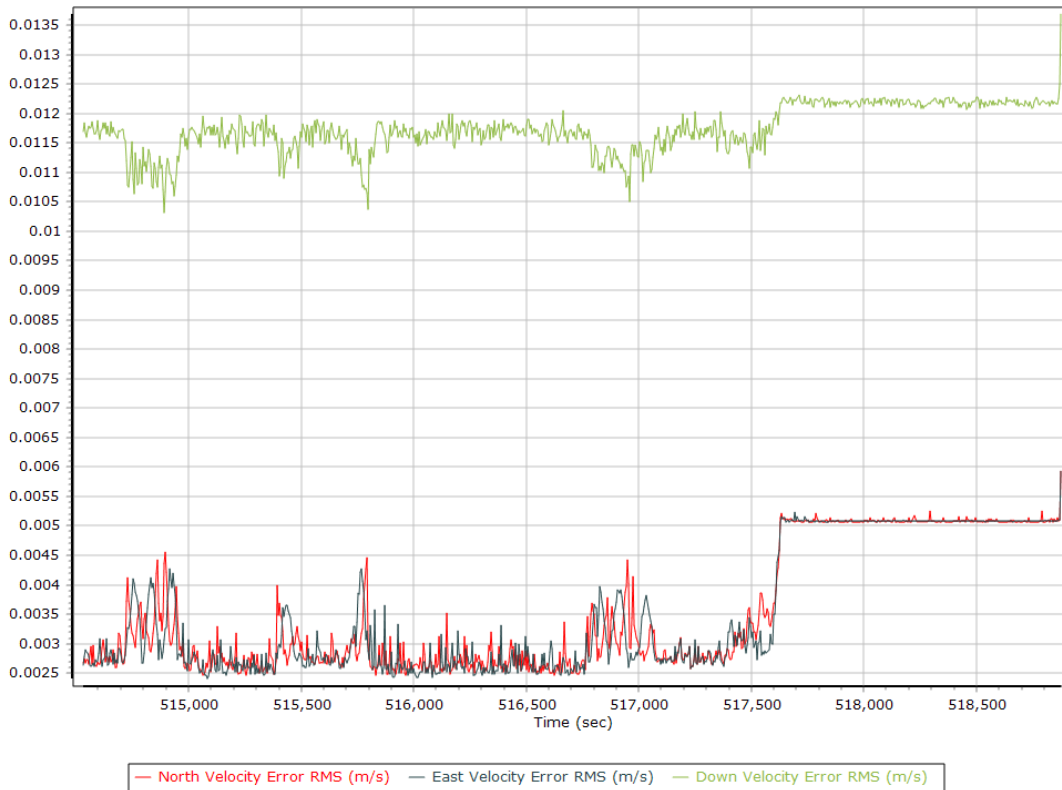


Smoothed Performance Metrics

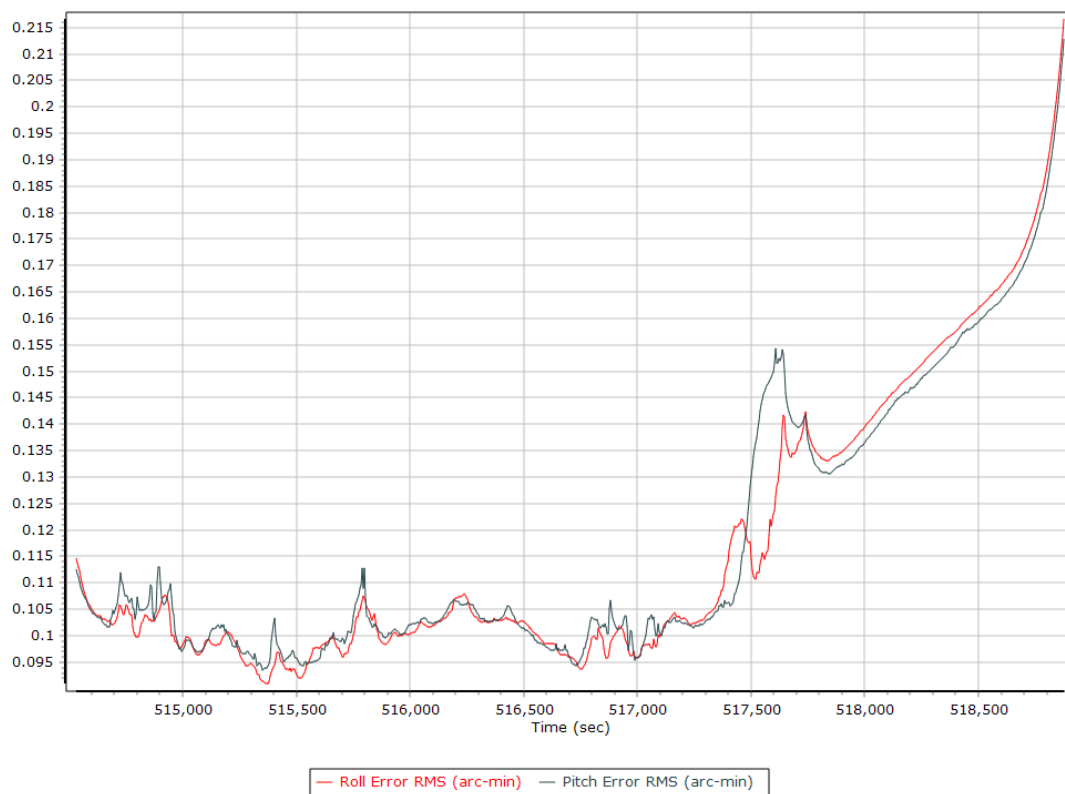
Position Error RMS (m)



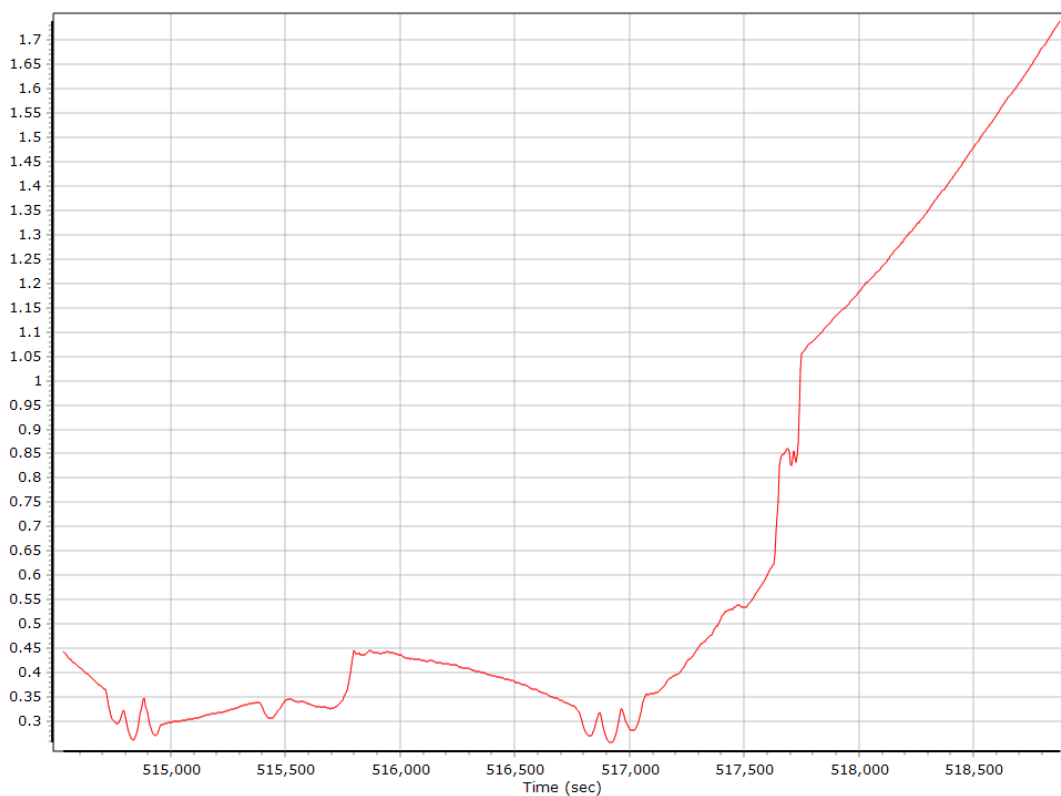
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

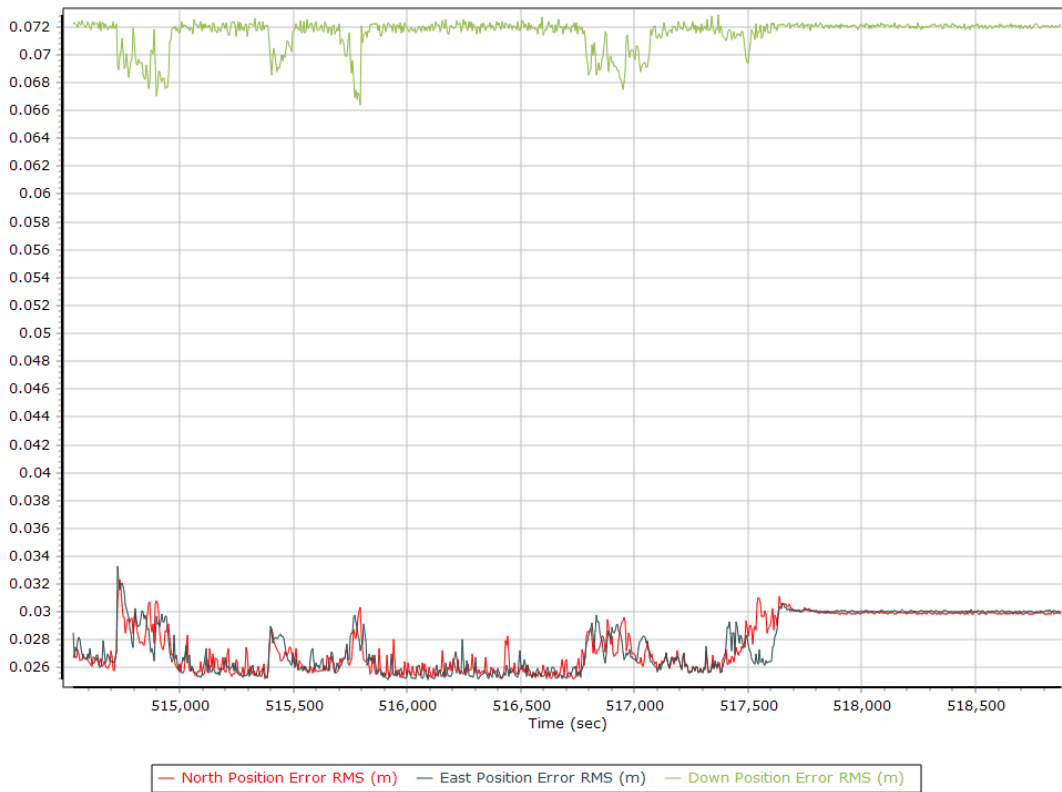


Heading Error RMS (arc-min)

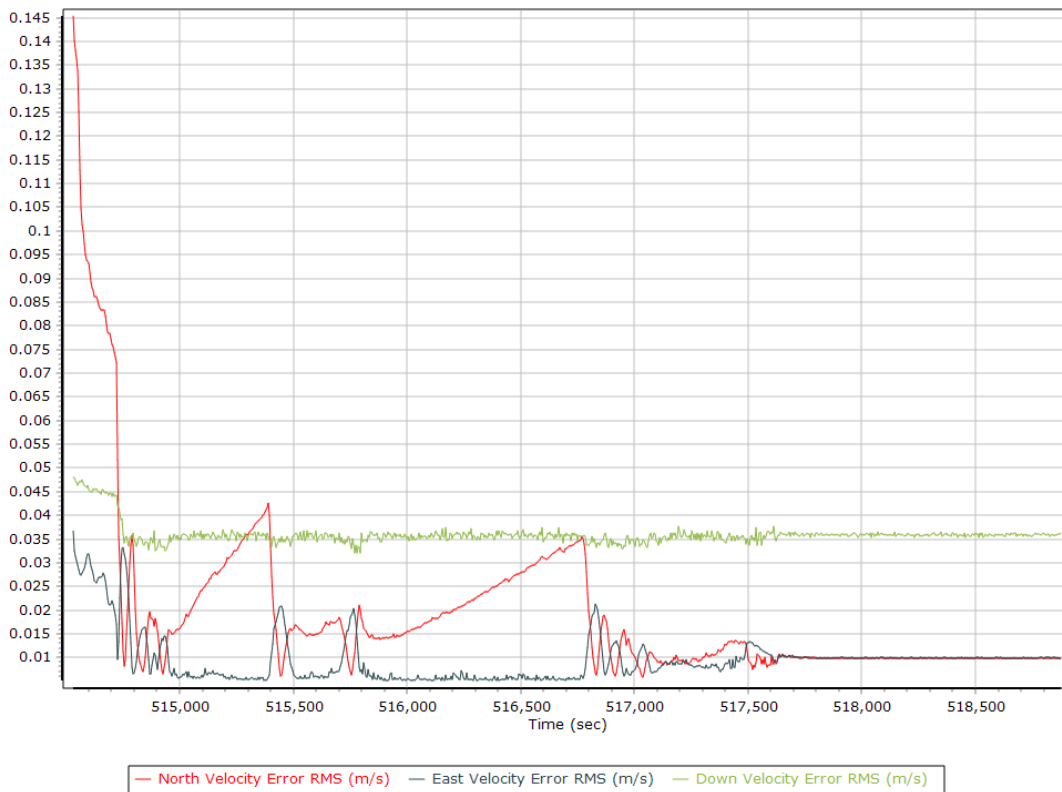


Forward Processed Performance Metrics

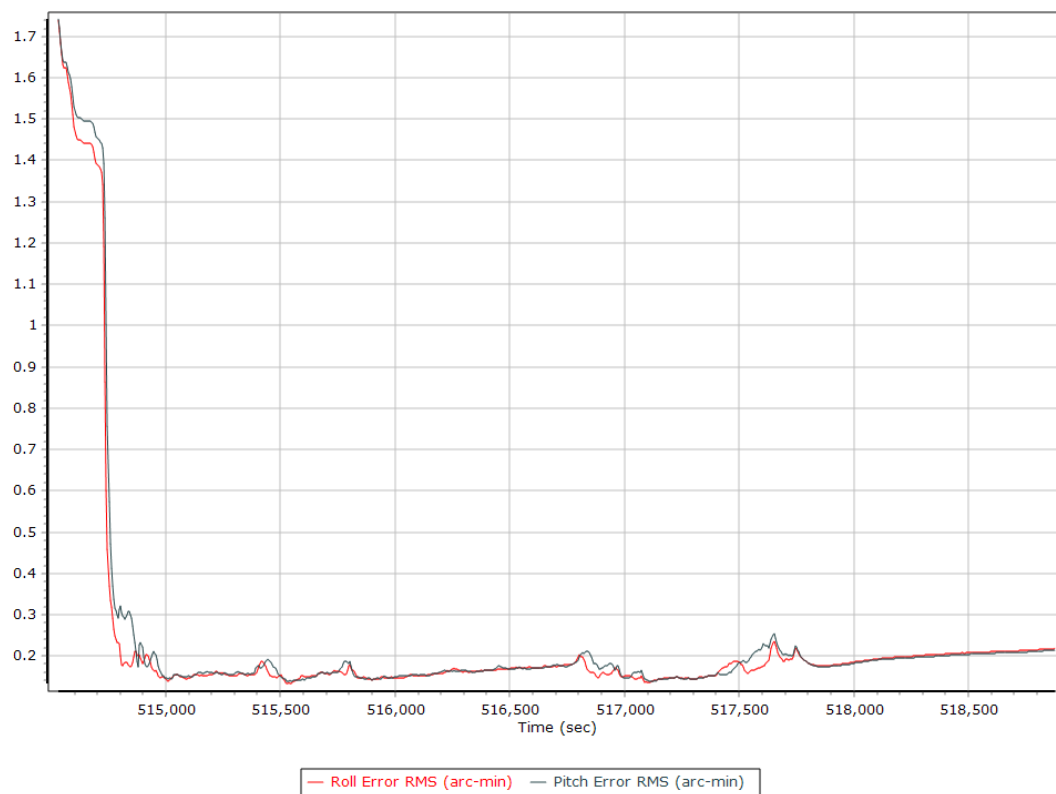
Position Error RMS (m)



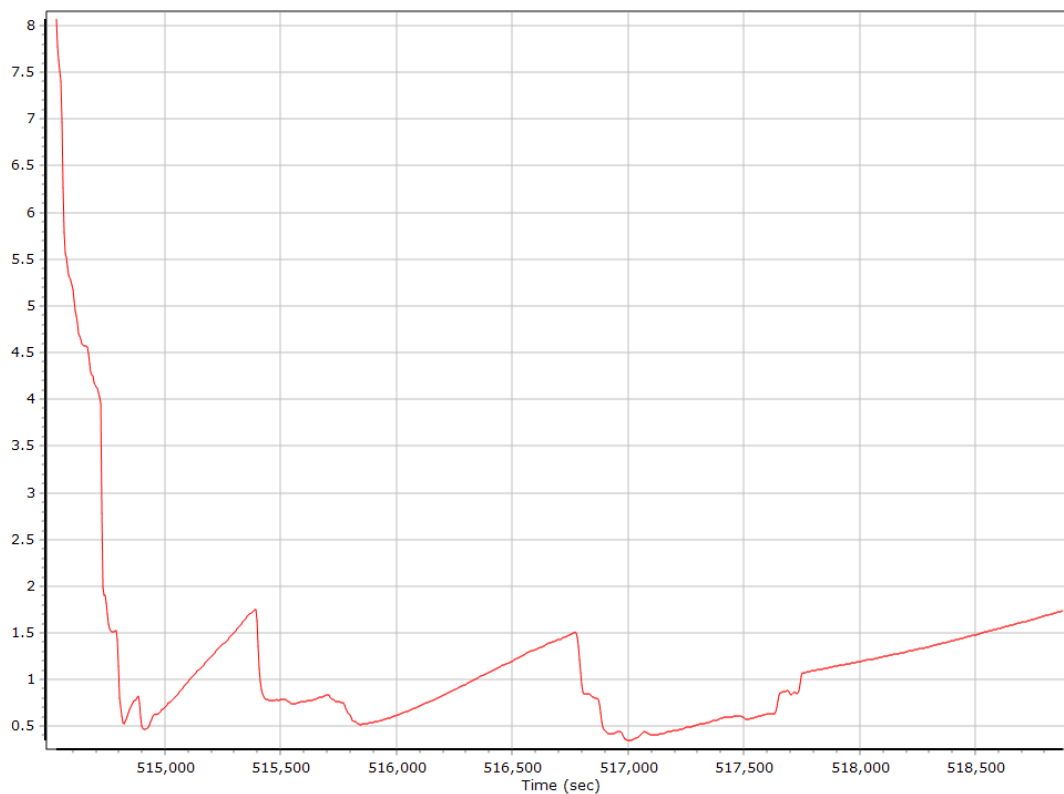
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

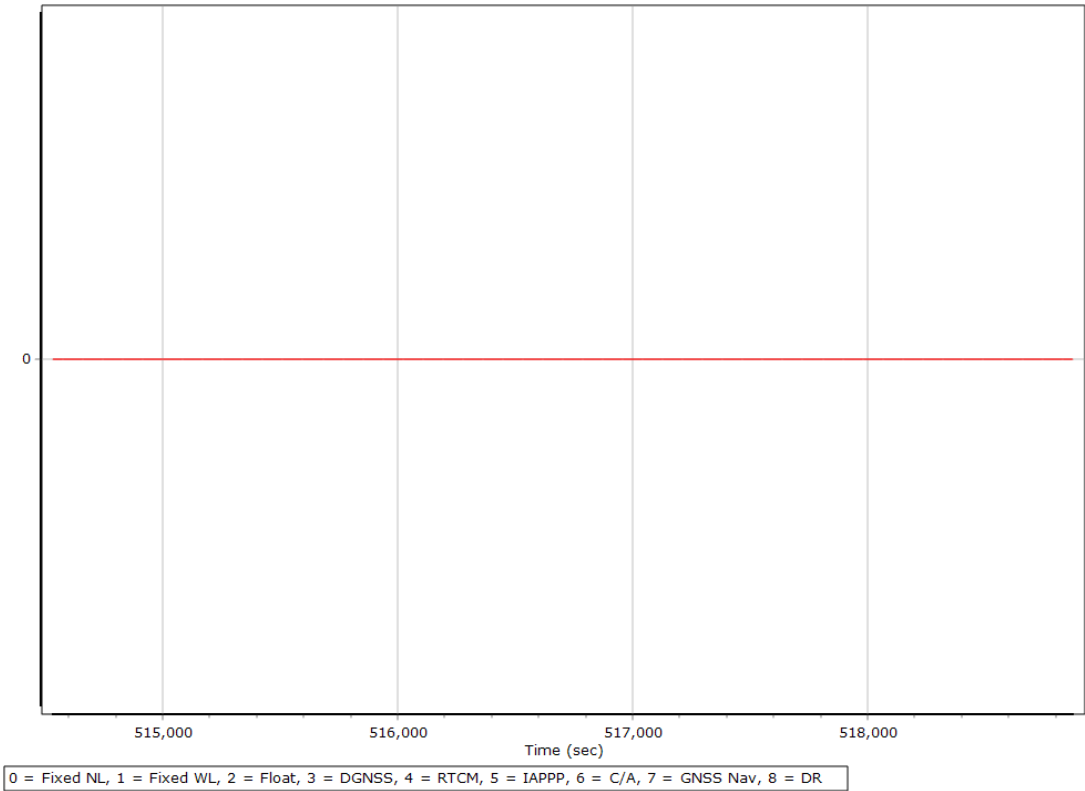


Heading Error RMS (arc-min)

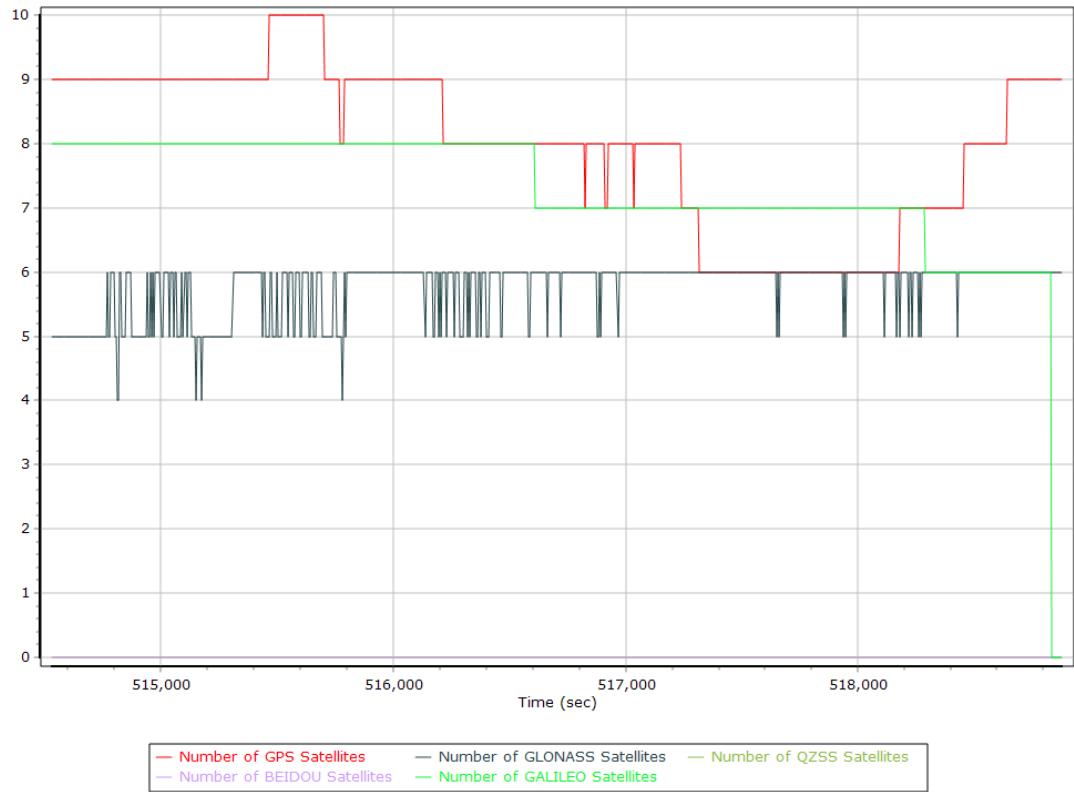


Forward Processed Solution Status

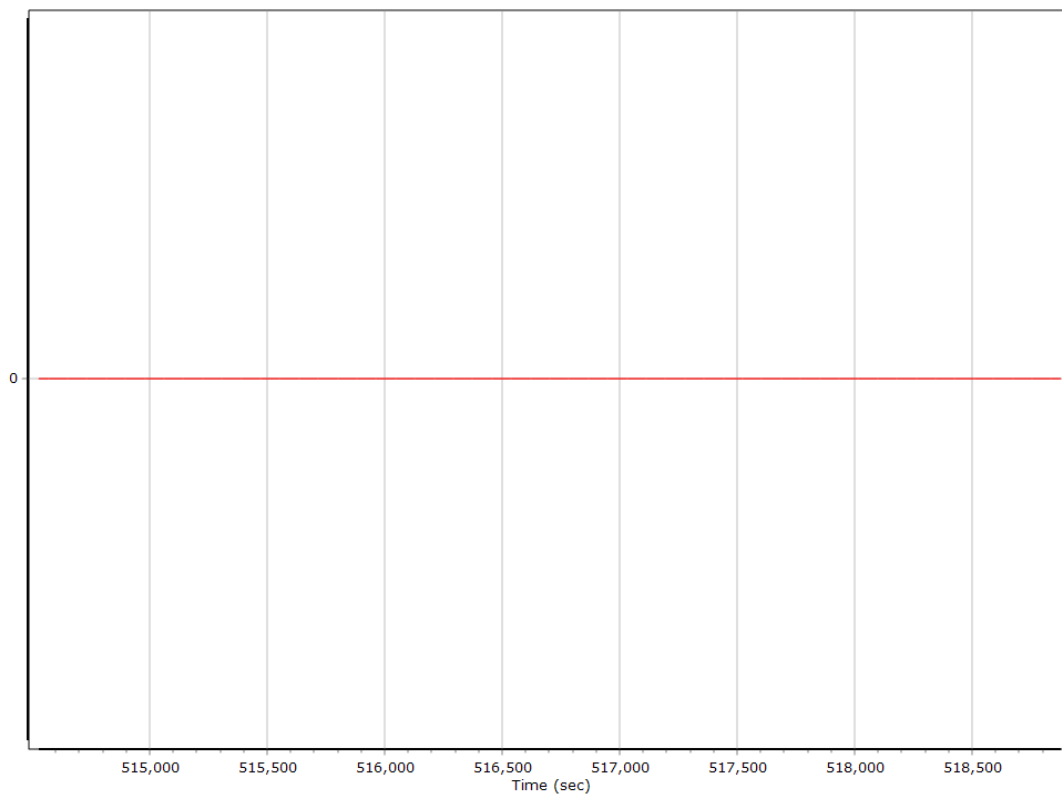
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	20230421_F2__2_4894_c_NAD832011.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	514472.001 (04/21/2023 22:54:32)		
Export end time	518880.002 (04/22/2023 00:08:00)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.30137		

General Information

Mission Information

Project name	20230421_F2_4894_a
Processing date	2023-04-25 22:52:18
Mission date	2023-04-21 19:47:53
Mission duration	02:54:11.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.712	POS Data
VQ1560.713	POS Data
VQ1560.714	POS Data
VQ1560.715	POS Data
VQ1560.716	POS Data
VQ1560.717	POS Data
VQ1560.718	POS Data
VQ1560.719	POS Data
VQ1560.720	POS Data
VQ1560.721	POS Data
VQ1560.722	POS Data
VQ1560.723	POS Data
VQ1560.724	POS Data
VQ1560.725	POS Data
VQ1560.726	POS Data
VQ1560.727	POS Data
VQ1560.728	POS Data
VQ1560.729	POS Data
VQ1560.730	POS Data
VQ1560.731	POS Data
VQ1560.732	POS Data
VQ1560.733	POS Data
VQ1560.734	POS Data
VQ1560.735	POS Data
VQ1560.736	POS Data

Input Files

File Name	File Type
Ephm1110.23g	GLONASS Broadcast Ephemeris
Ephm1110.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230421_F2_4894_a.out	SBET Trajectory File
export_20230421_F2_4894_a_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.712		
Last raw data file	VQ1560.736		
Start GPS week	2258		
Start time	503267.235 (04/21/2023 19:47:47)		
End time	513705.807 (04/21/2023 22:41:45)		
Start of fine alignment	503703.190 (04/21/2023 19:55:03)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

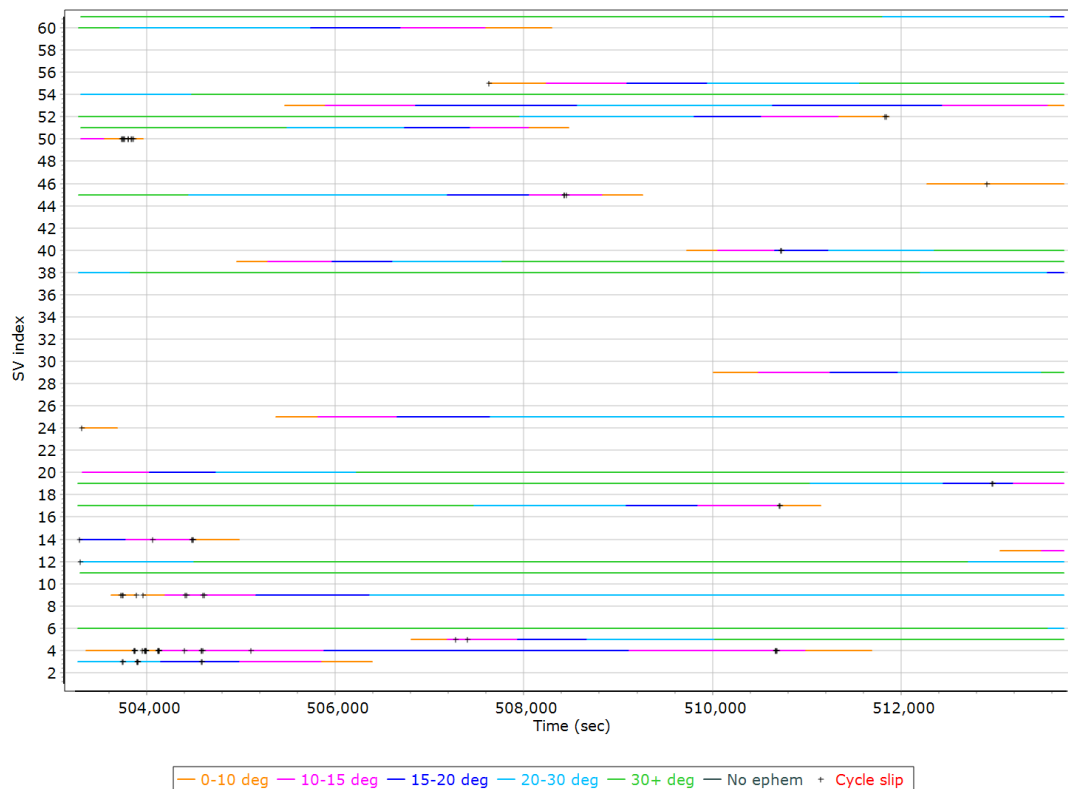
Rover Data QC

Raw IMU Import QC Summary

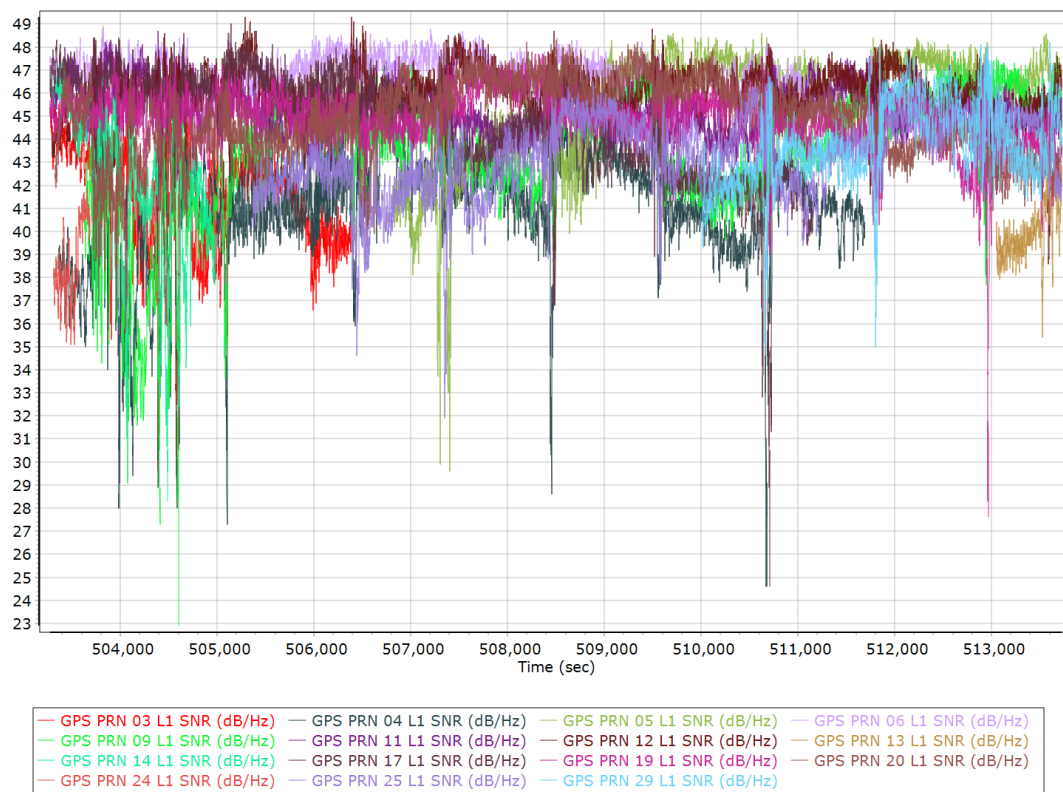
IMU data input file	imu_20230421_F2_4894_a.dat
IMU data check log file	imudt_20230421_F2_4894_a.log
IMU Records Processed	2089969
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
503266.035 : WARNING : Gap of 503254.0834 seconds in CHECKDT input data	

Primary Observables & Satellite Data

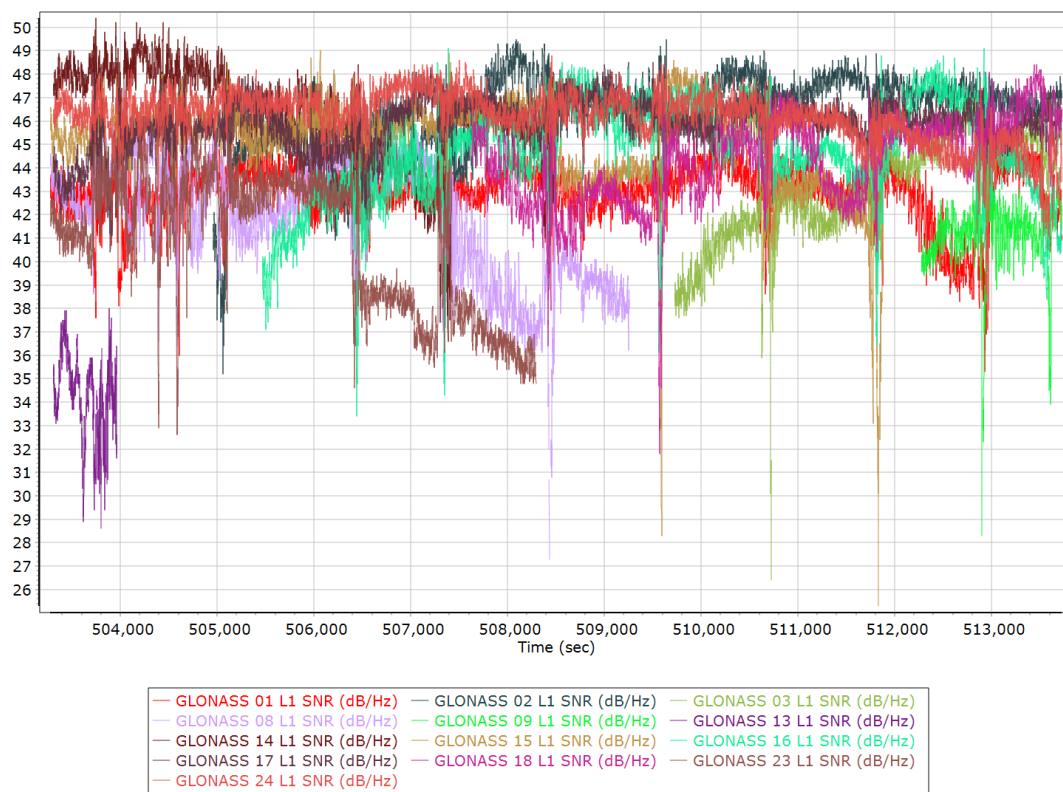
GPS/GLONASS L1 Satellite Lock/Elevation



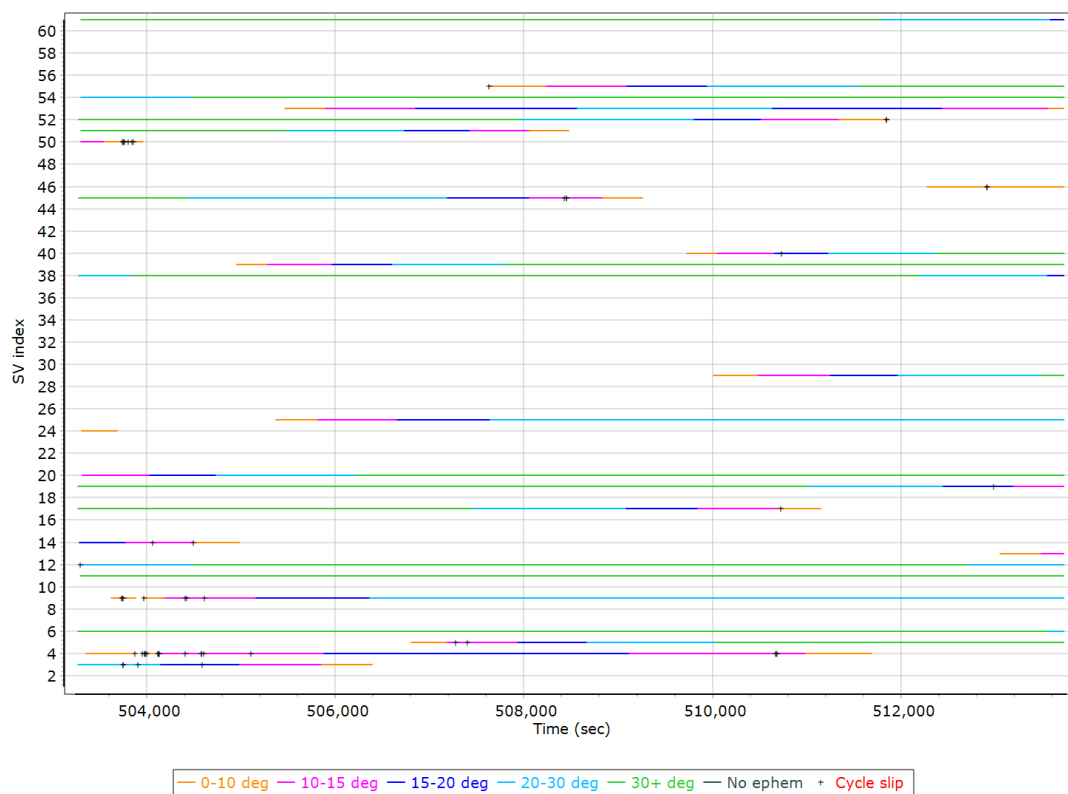
GPS L1 SNR



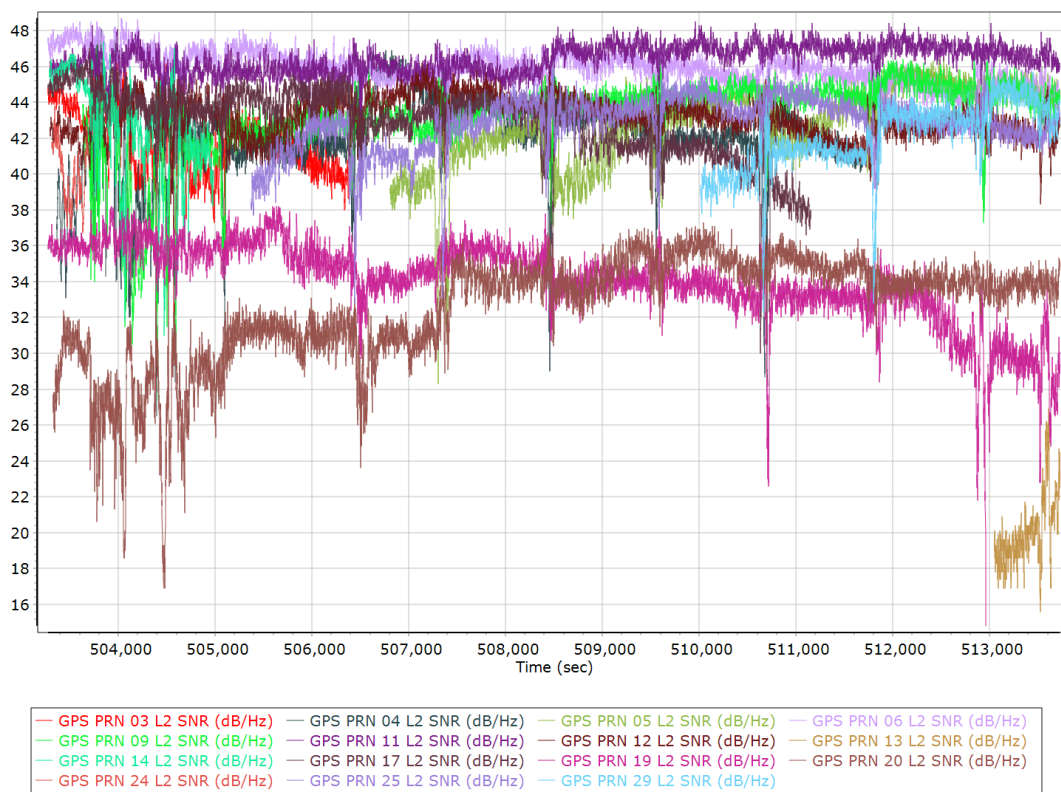
GLONASS L1 SNR



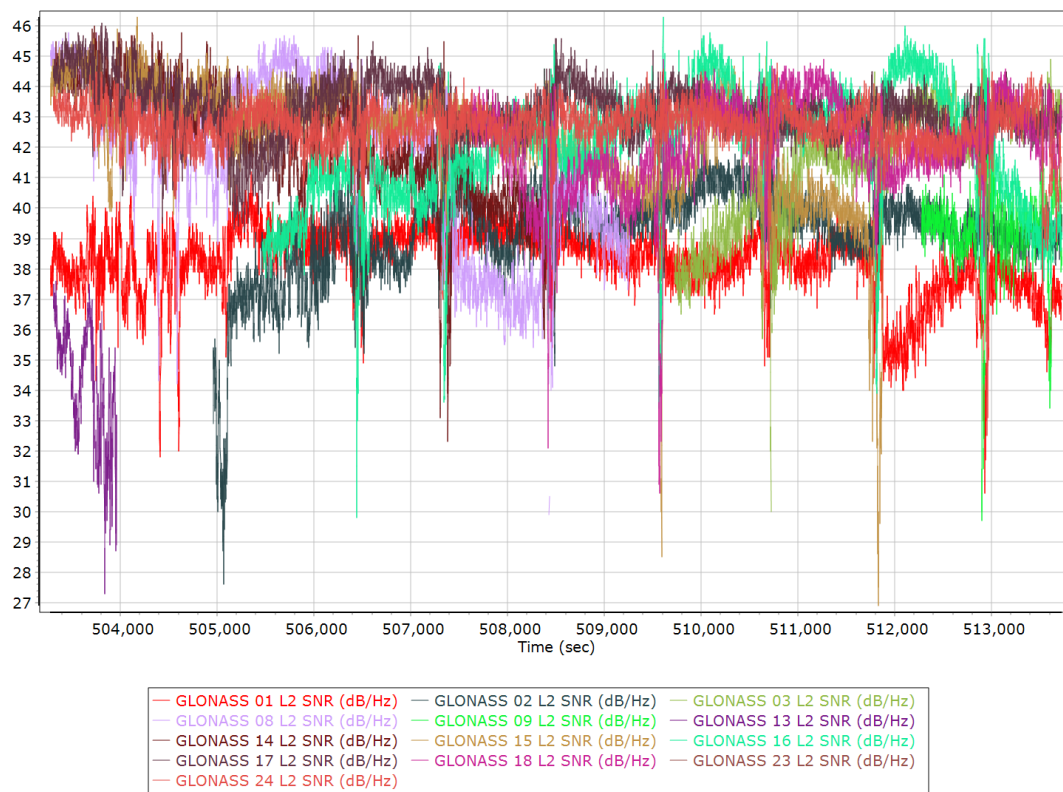
GPS/GLONASS L2 Satellite Lock/Elevation



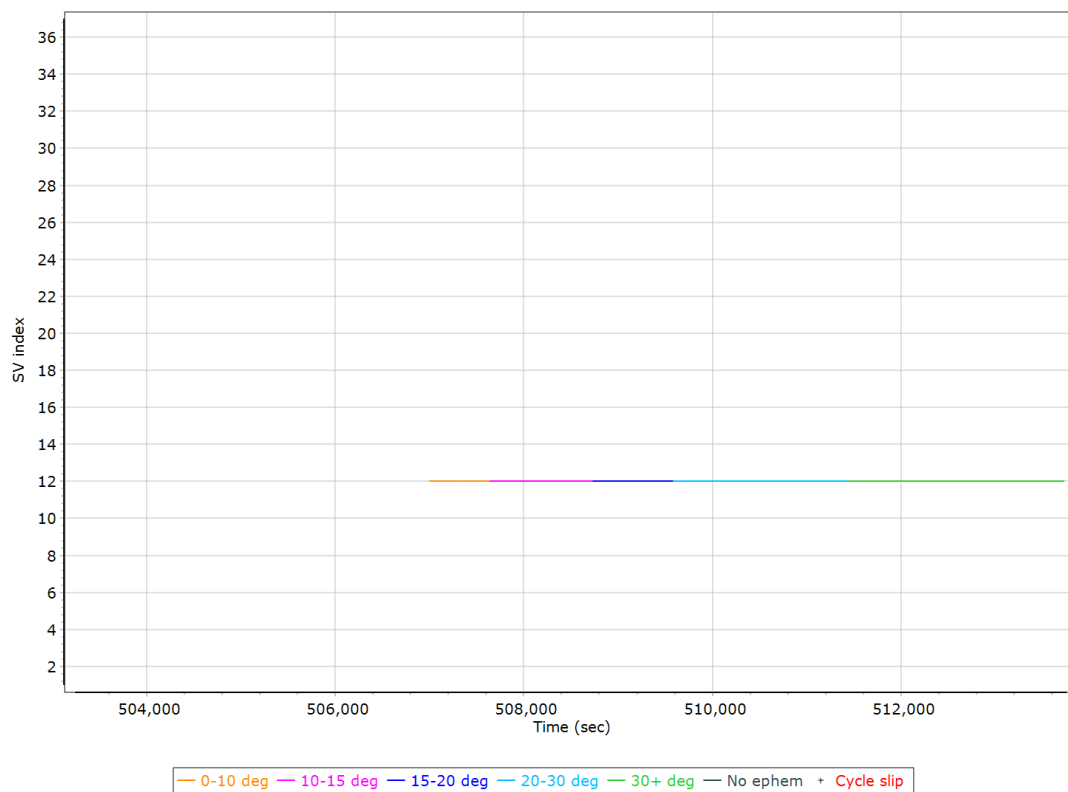
GPS L2 SNR



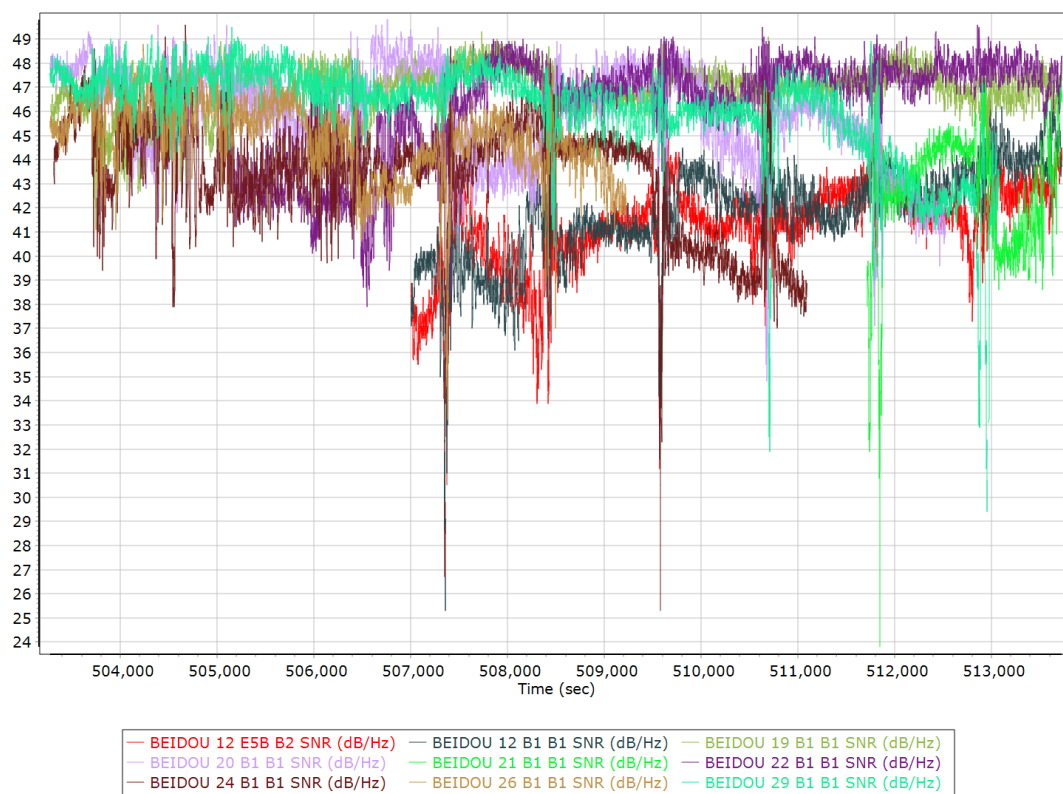
GLONASS L2 SNR



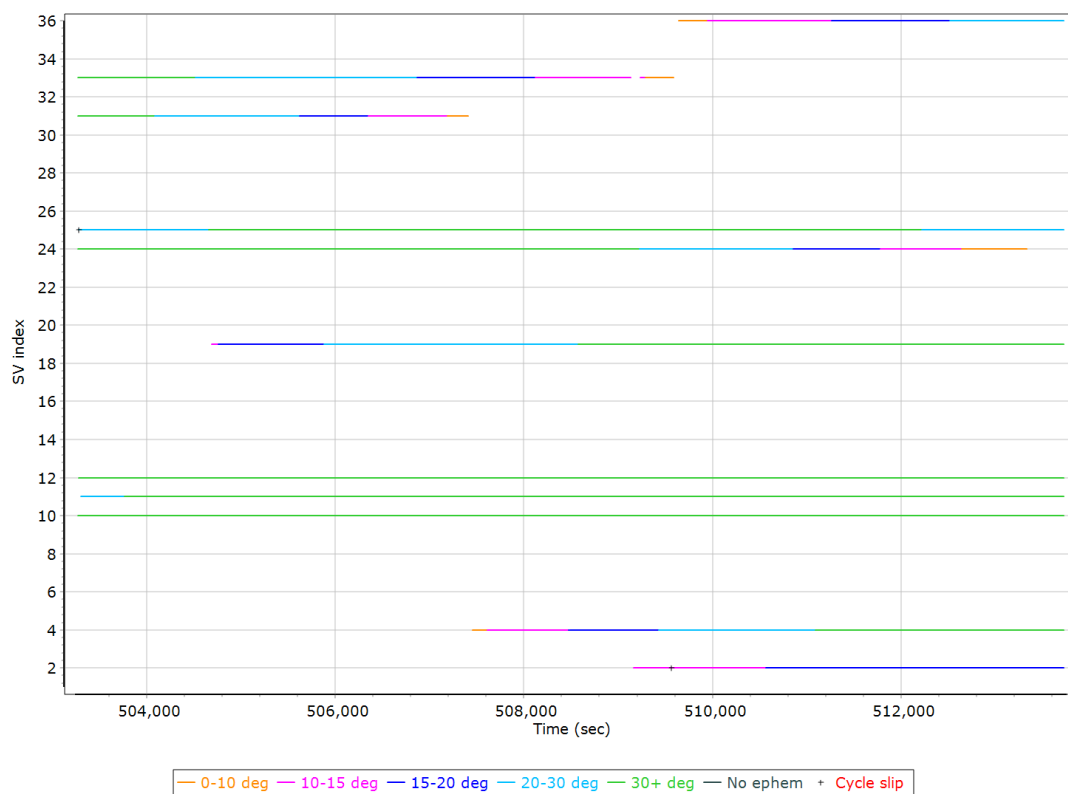
BEIDOU Satellite Lock/Elevation



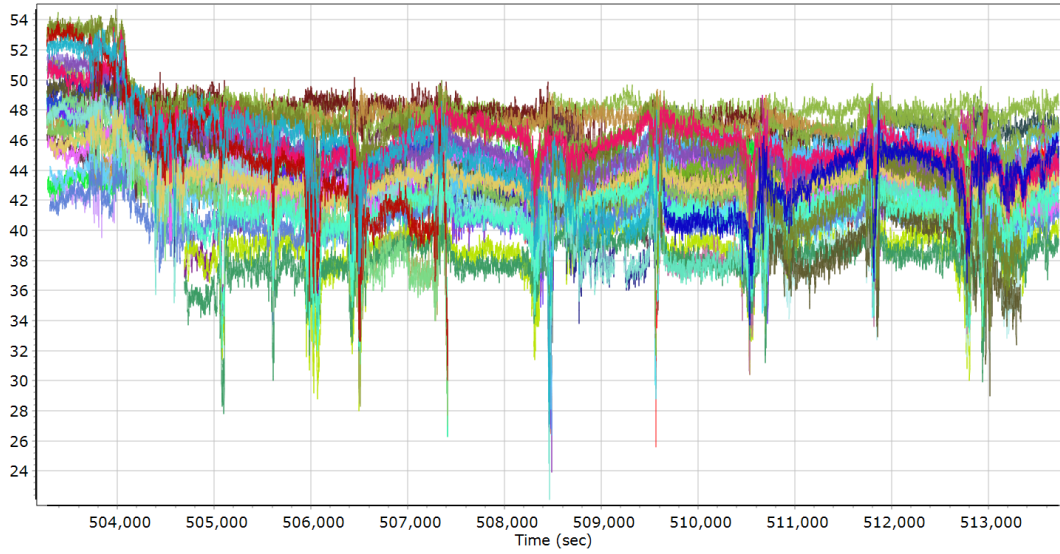
BEIDOU SNR



GALILEO Satellite Lock/Elevation



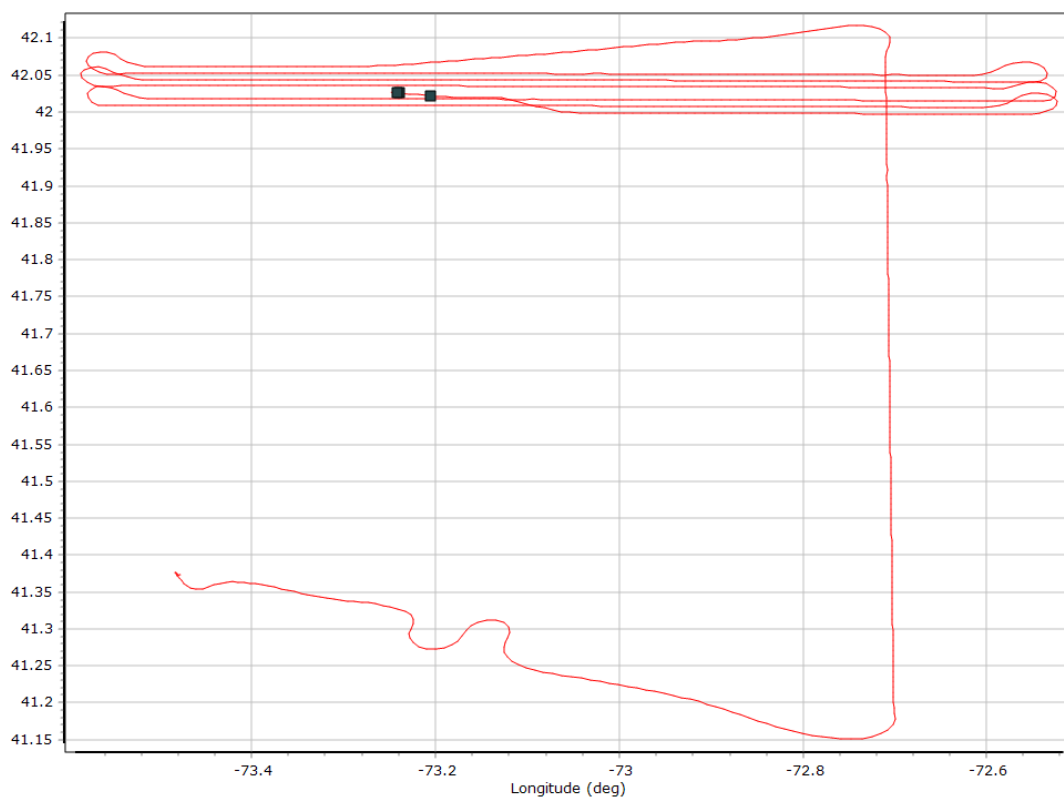
GALILEO SNR



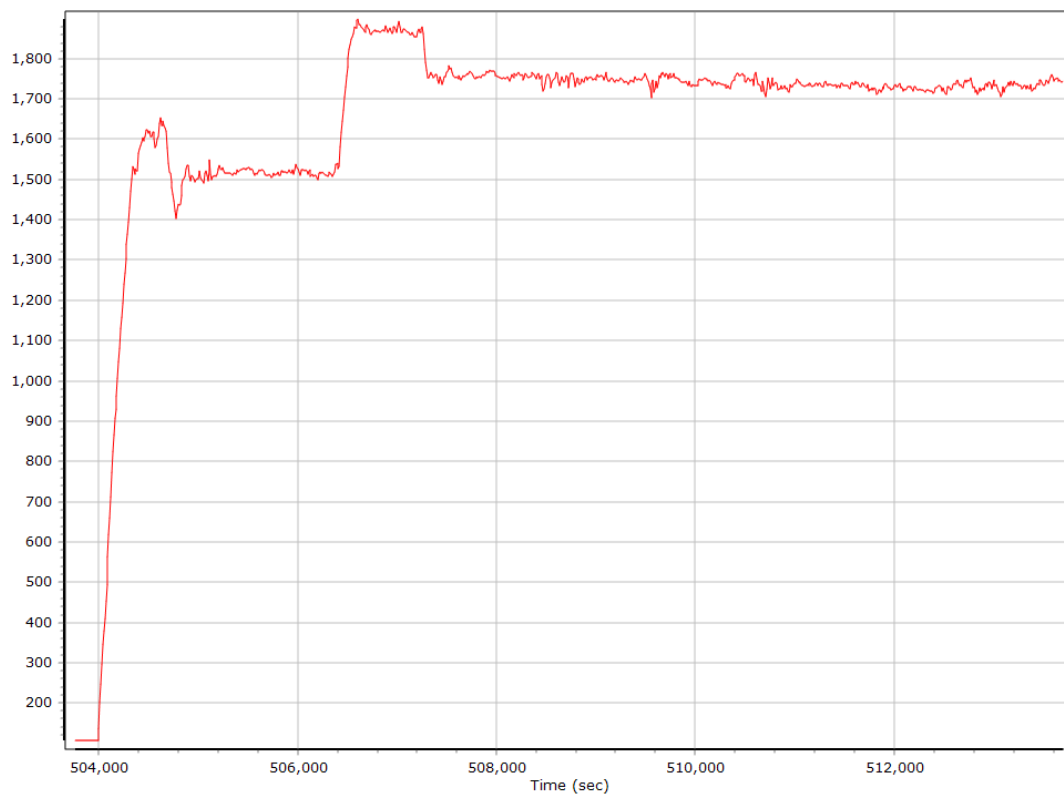
— GALILEO 02 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 04 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 10 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 11 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 19 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 24 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 25 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)
— GALILEO 31 L1 BOC_1_1_DP_MBOC SNR (dB/Hz)	— GALILEO 33 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 04 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 10 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 11 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 19 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 24 L5E5A BPSK10_PD SNR (dB/Hz)
— GALILEO 25 L5E5A BPSK10_PD SNR (dB/Hz)	— GALILEO 31 L5E5A BPSK10_PD SNR (dB/Hz)

Smoothed Trajectory Information

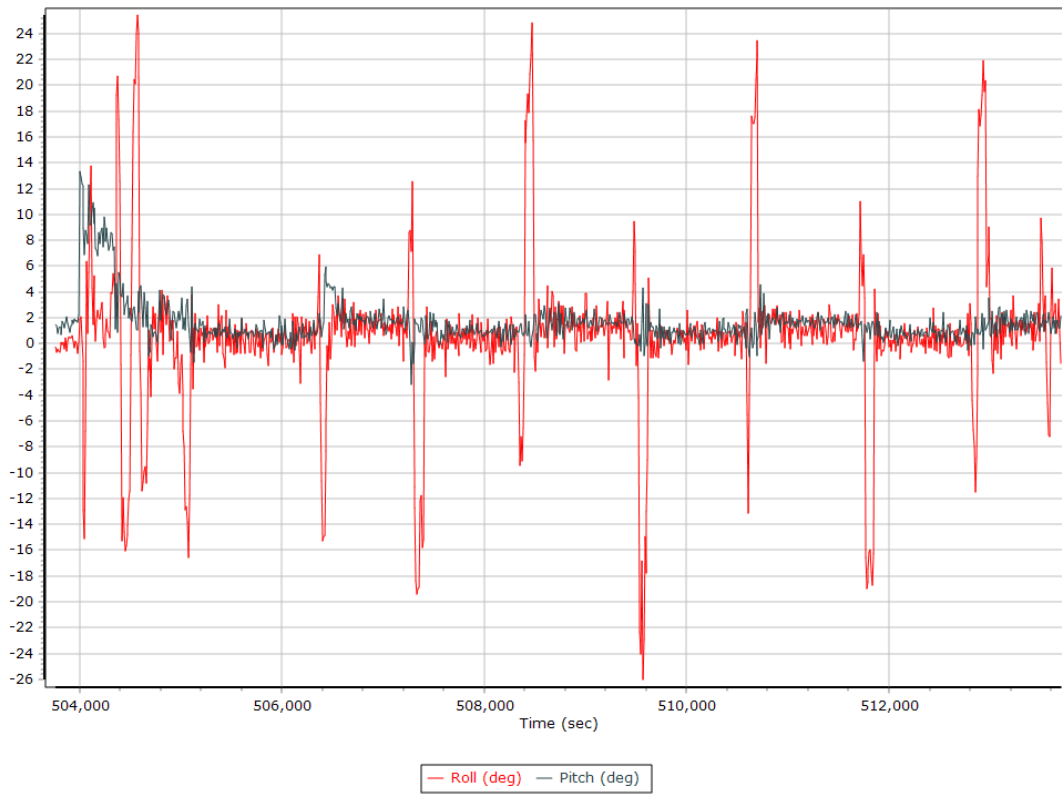
Top View



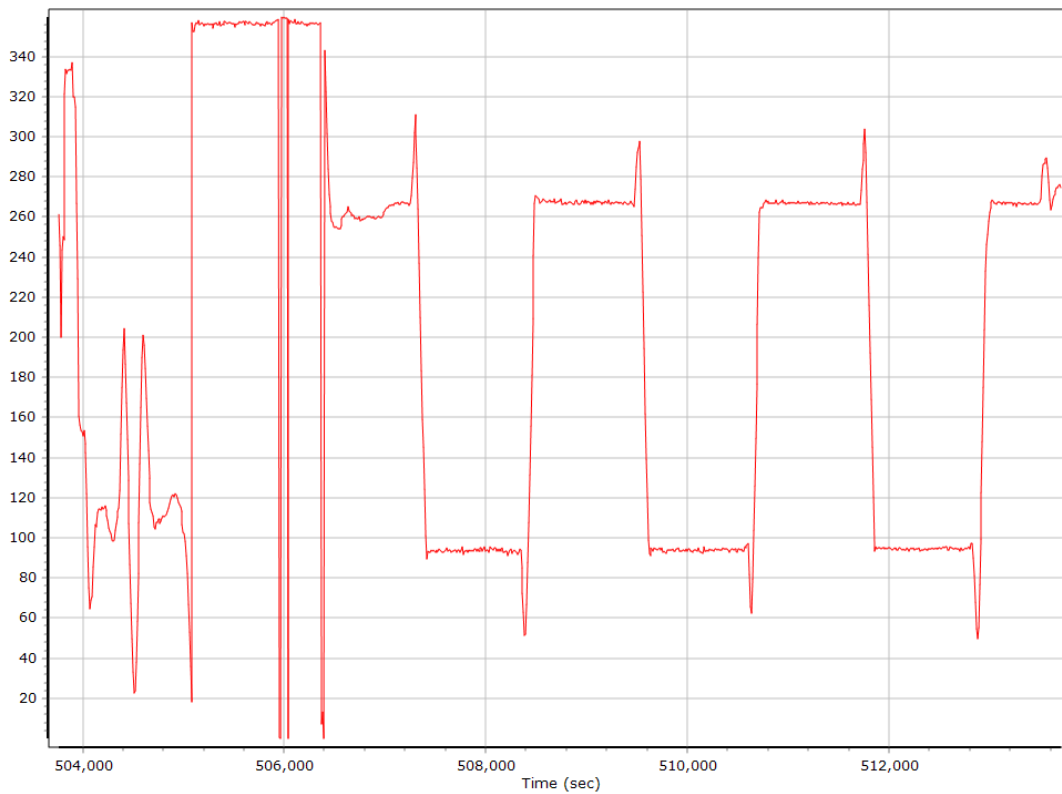
Altitude



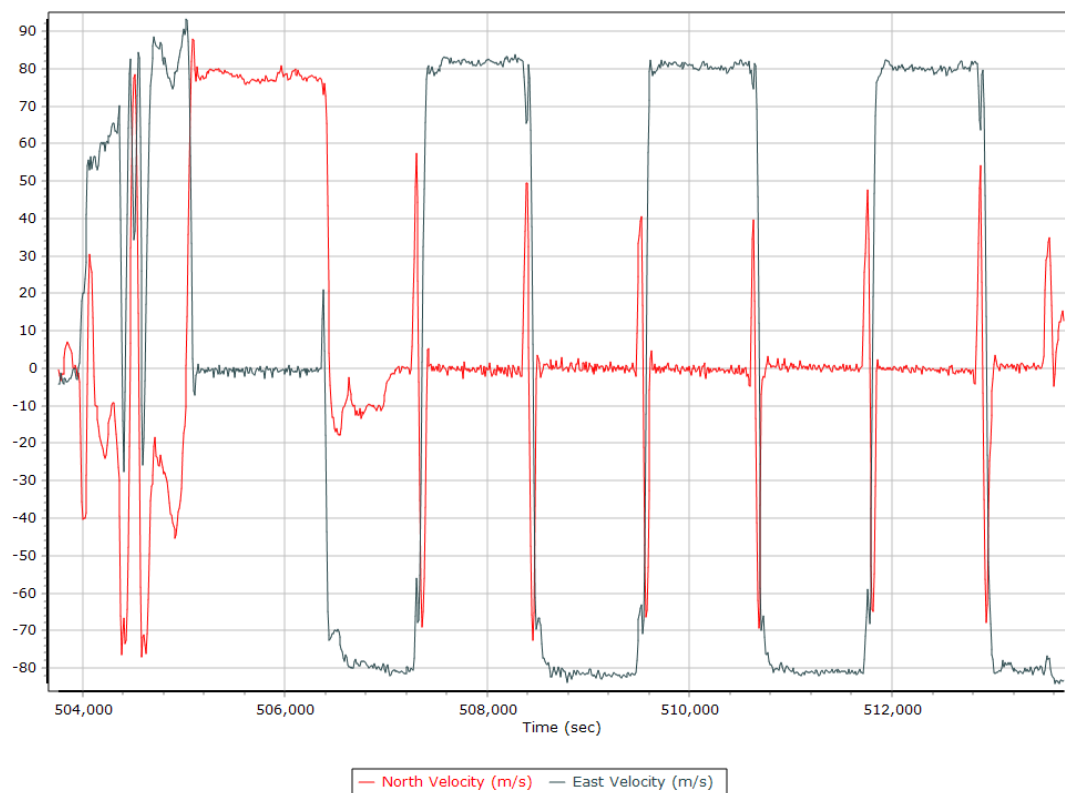
Roll/Pitch



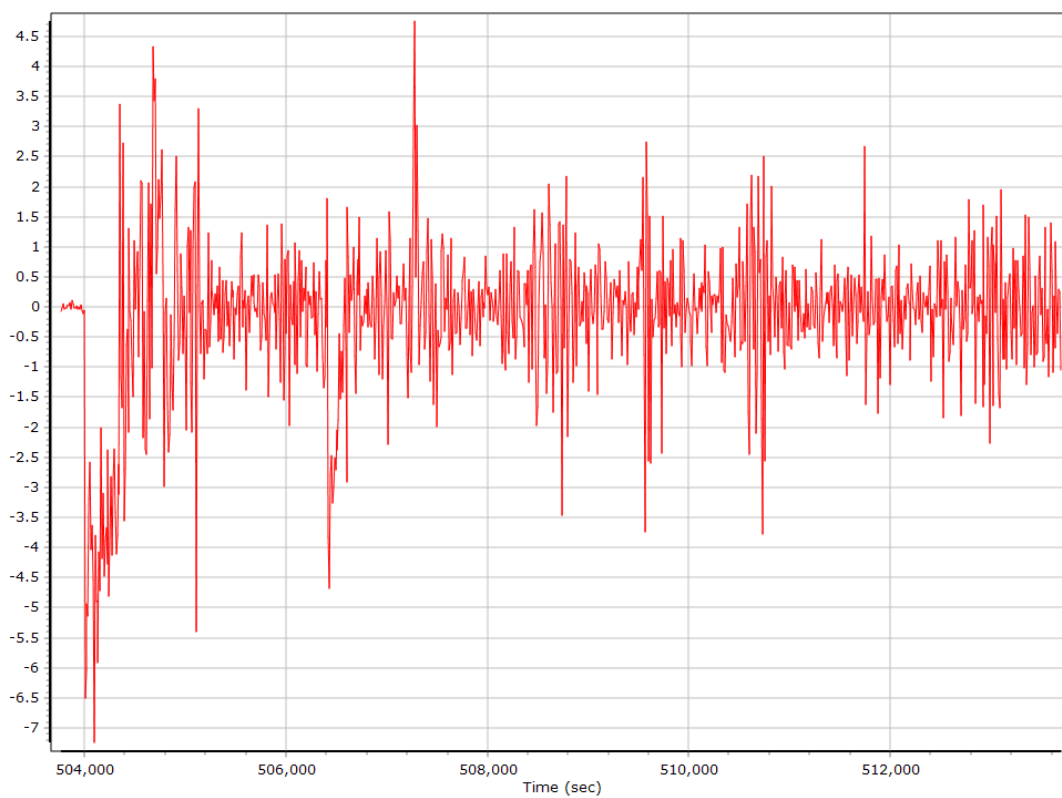
Heading



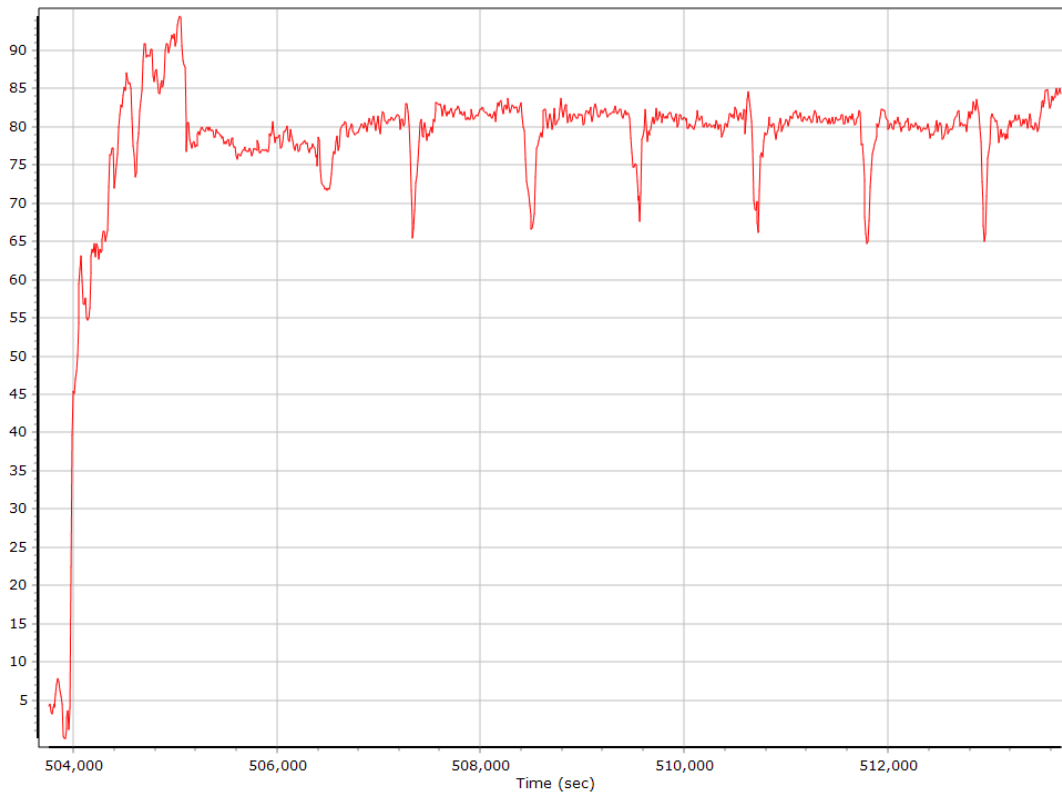
North/East Velocity



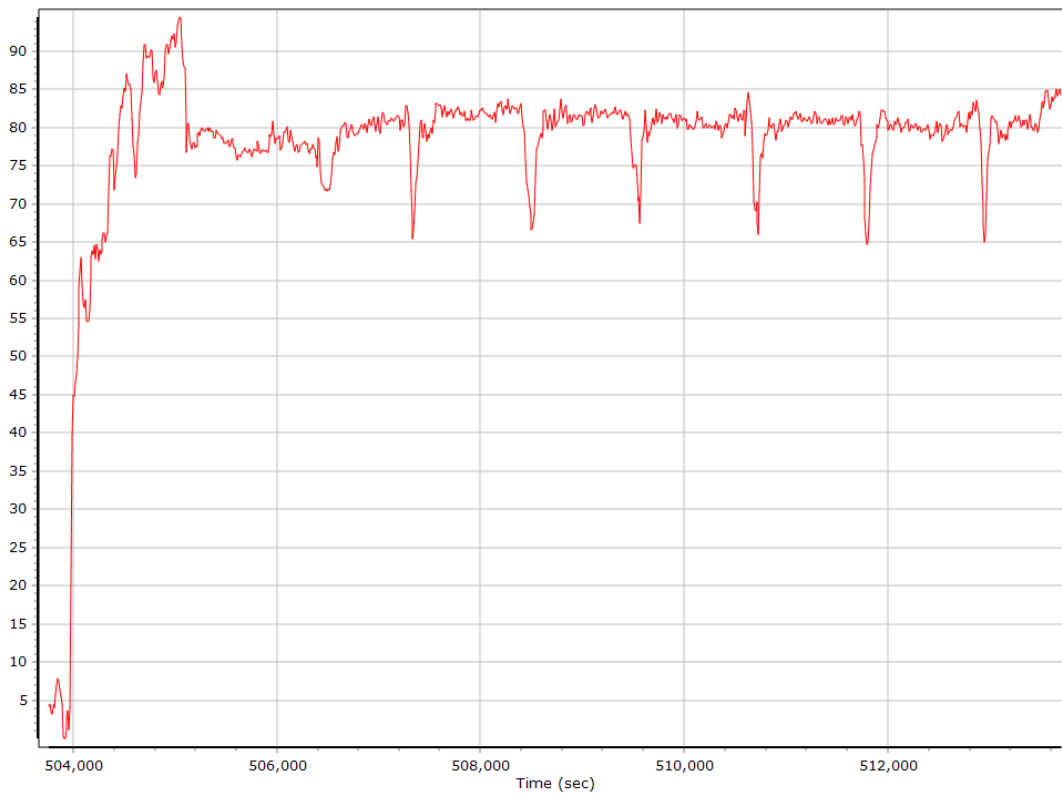
Down Velocity



Total Speed



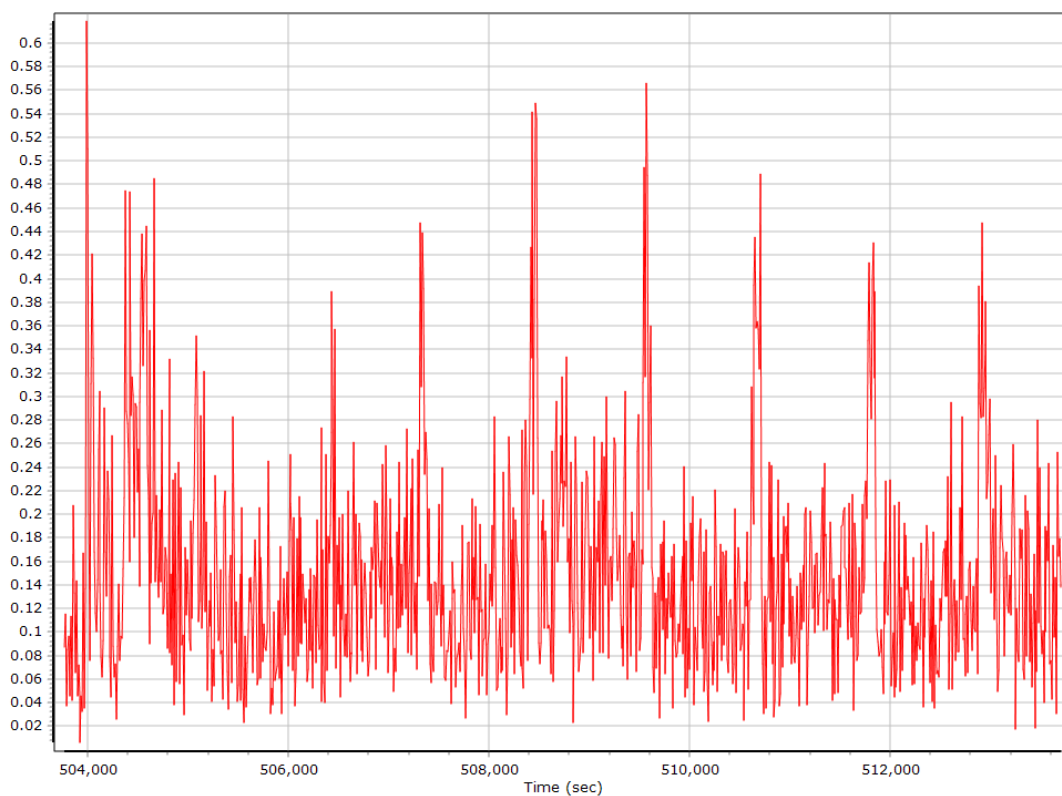
Ground Speed



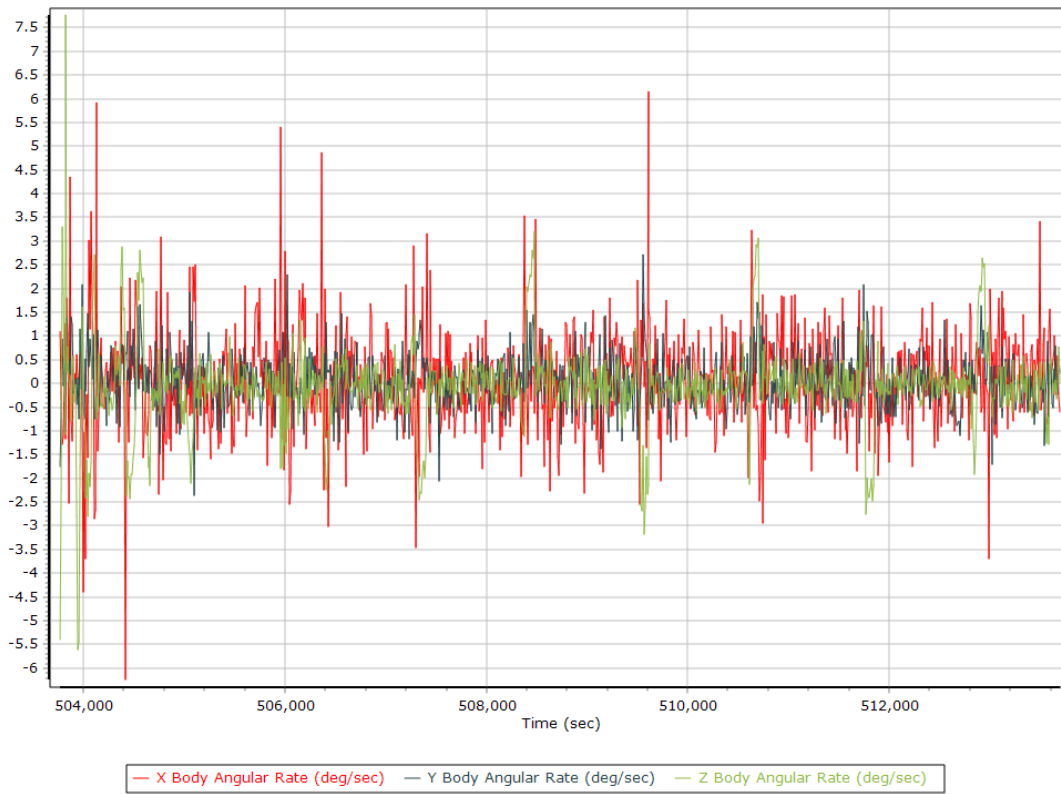
Body Acceleration



Total Body Acceleration

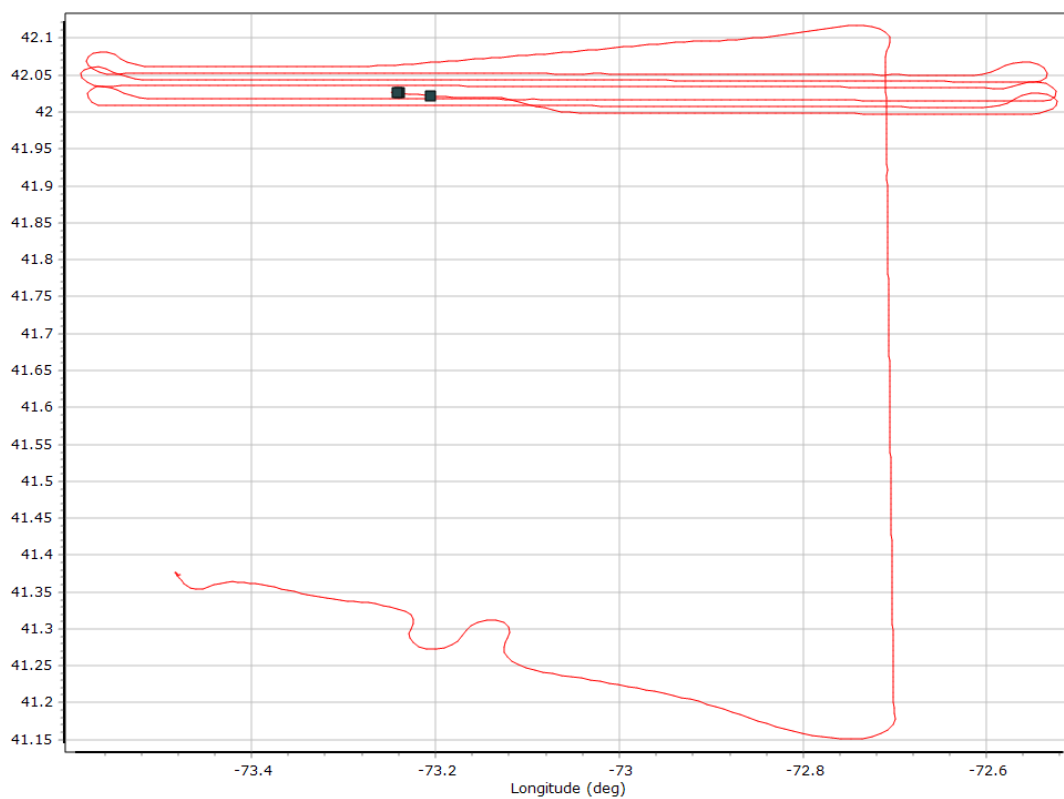


Body Angular Rate

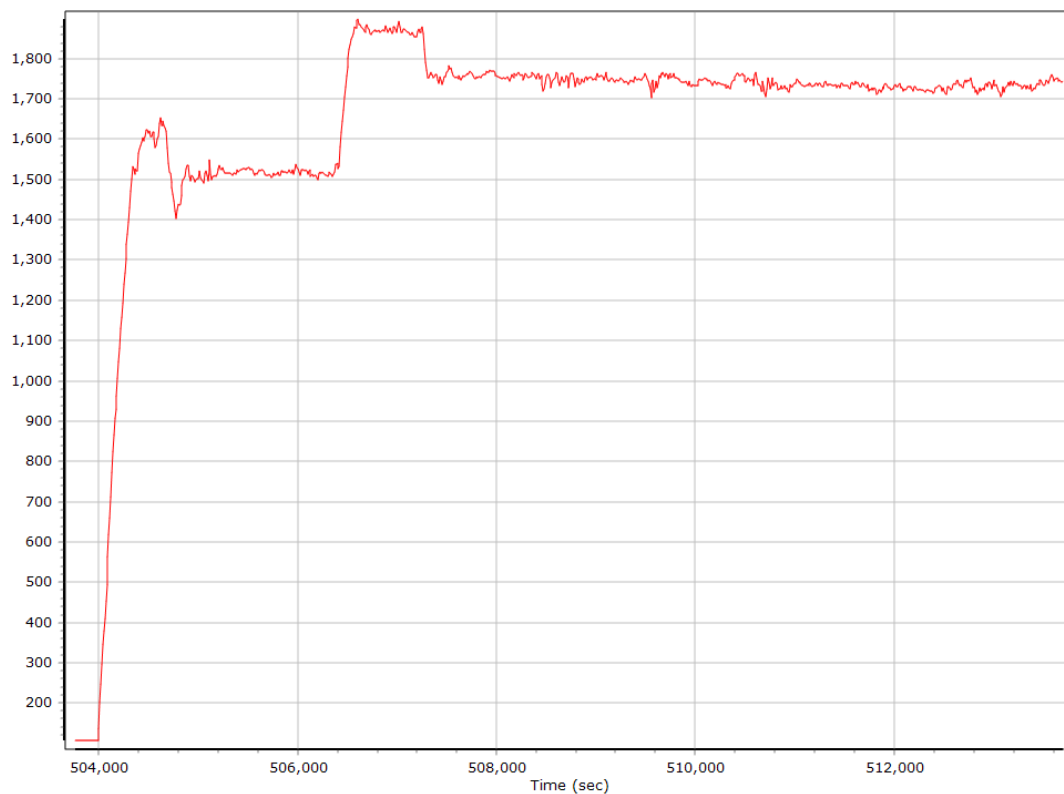


Forward Processed Trajectory Information

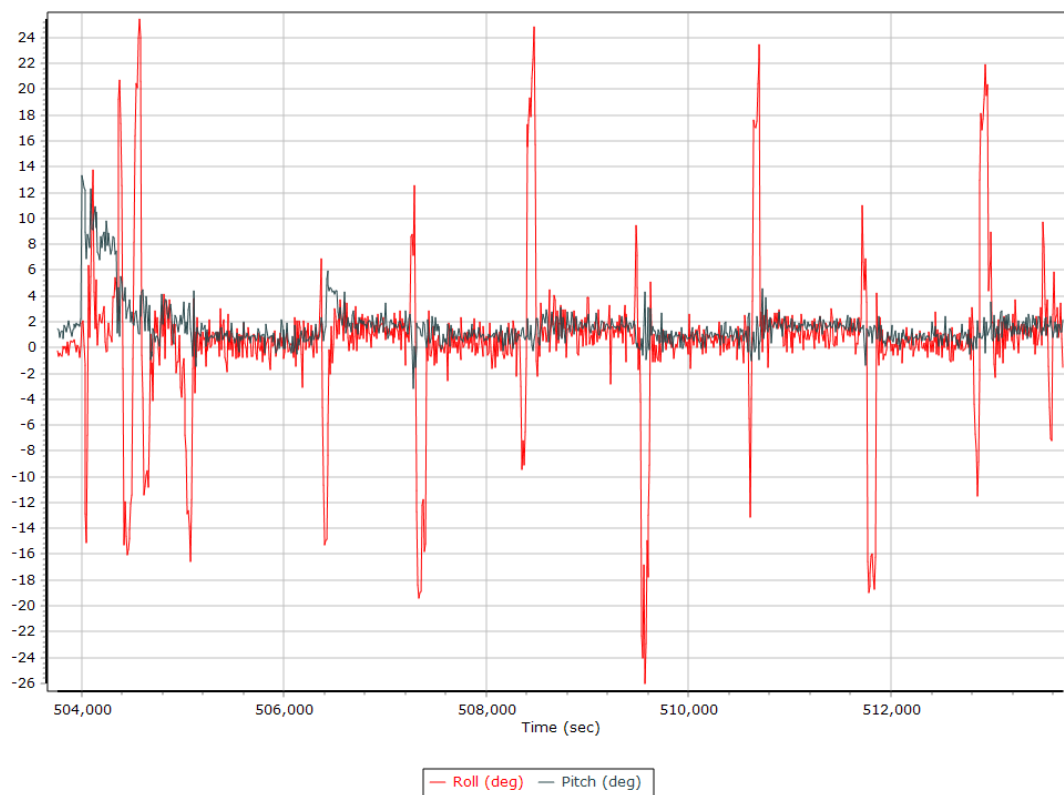
Top View



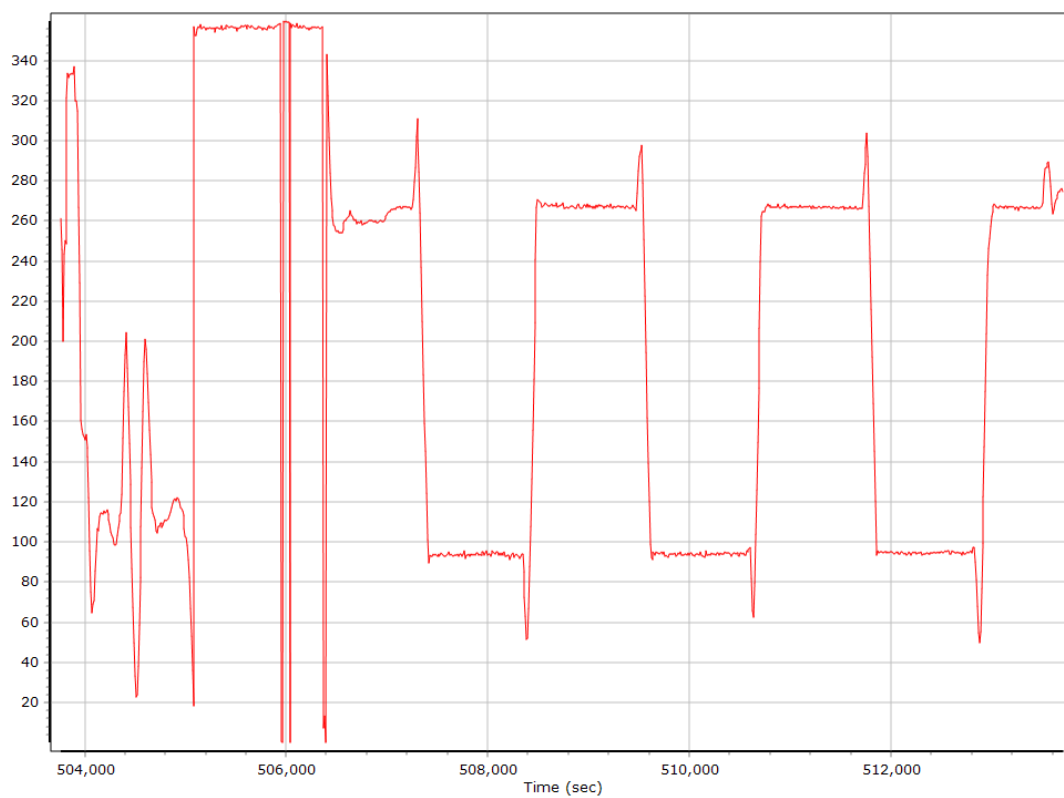
Altitude



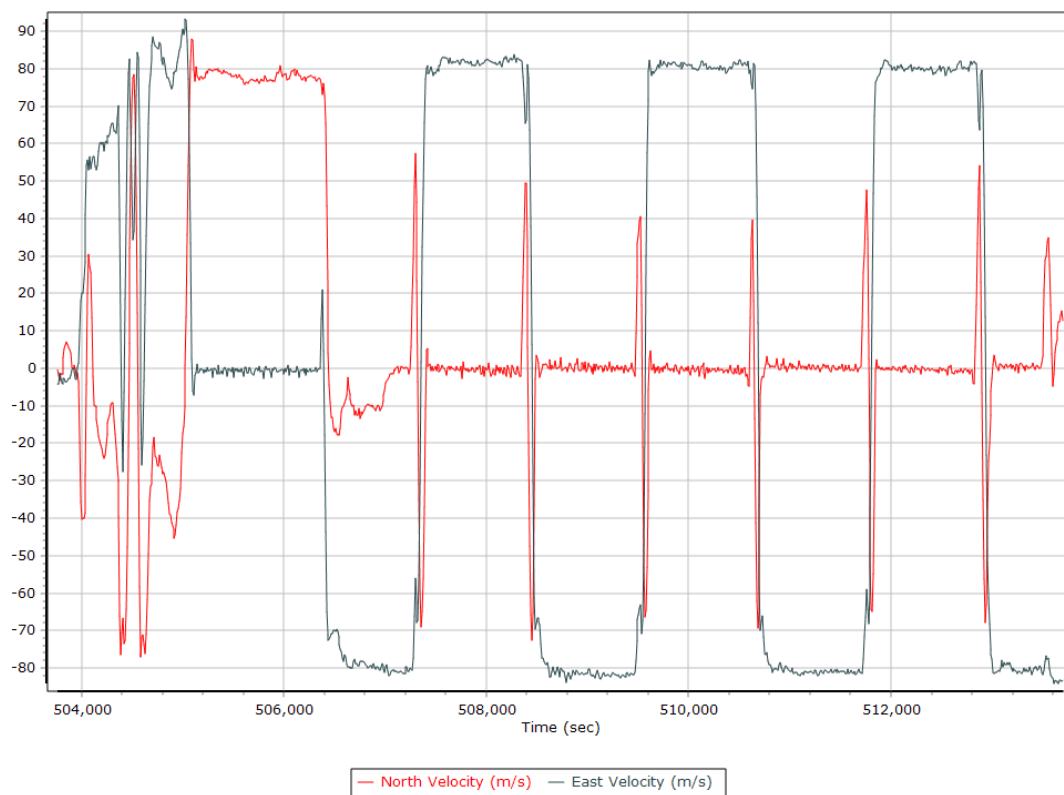
Roll/Pitch



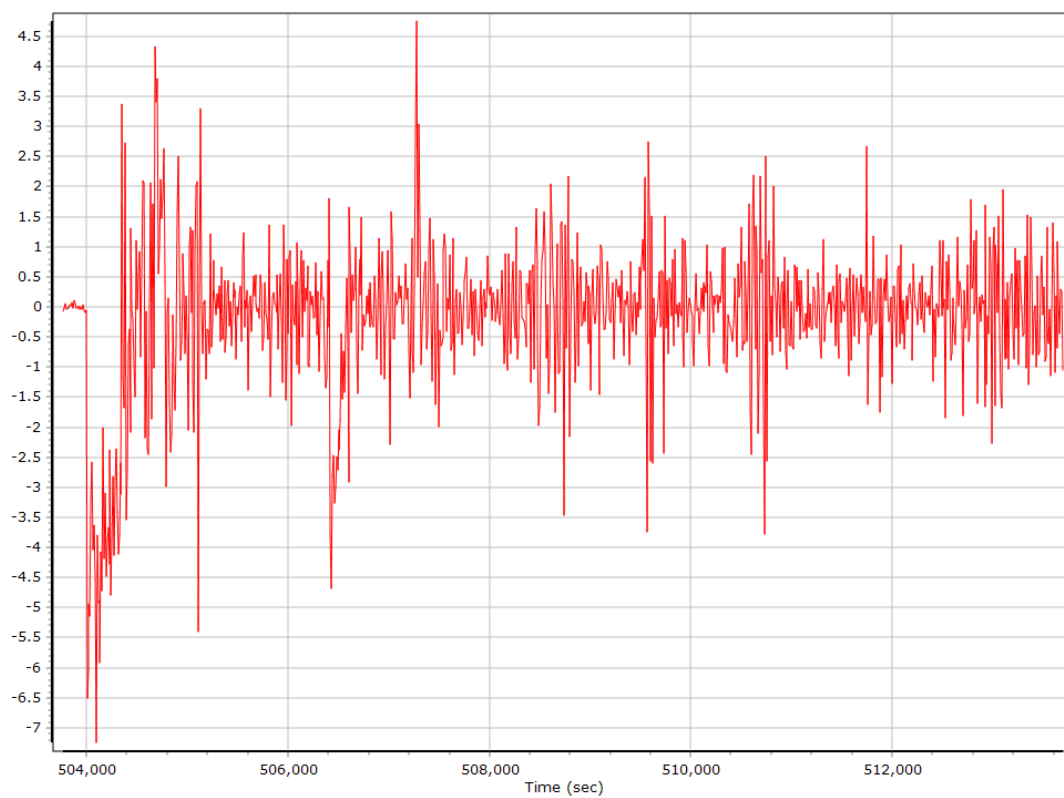
Heading



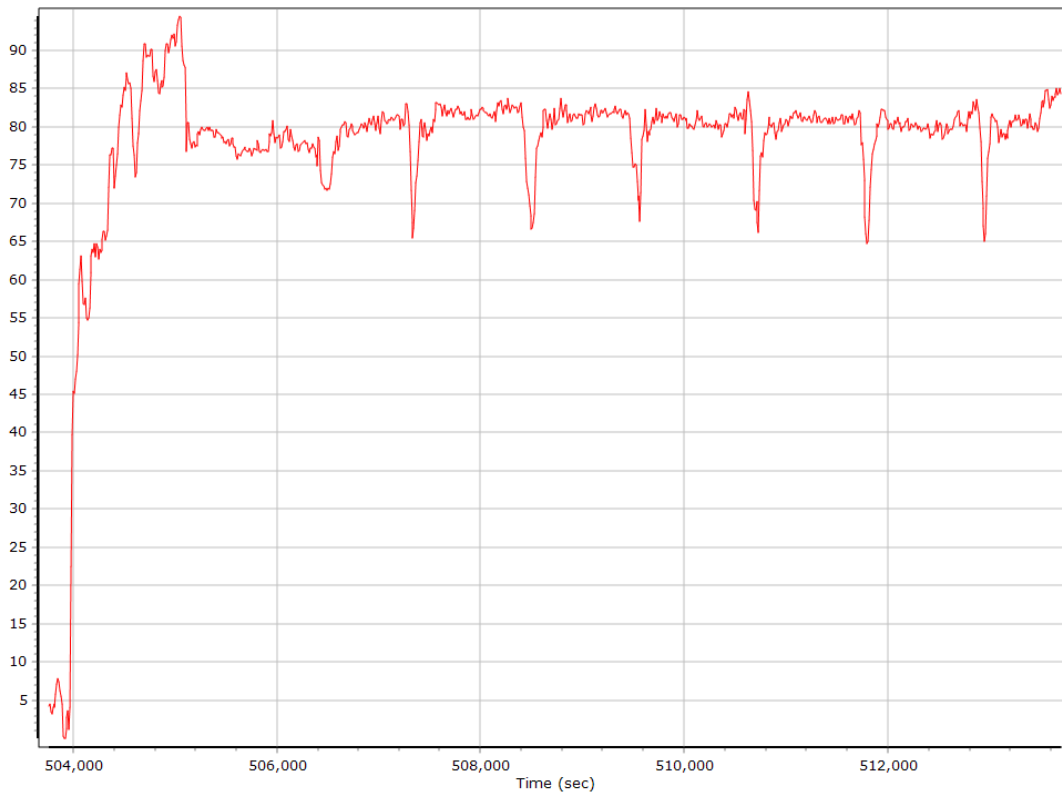
North/East Velocity



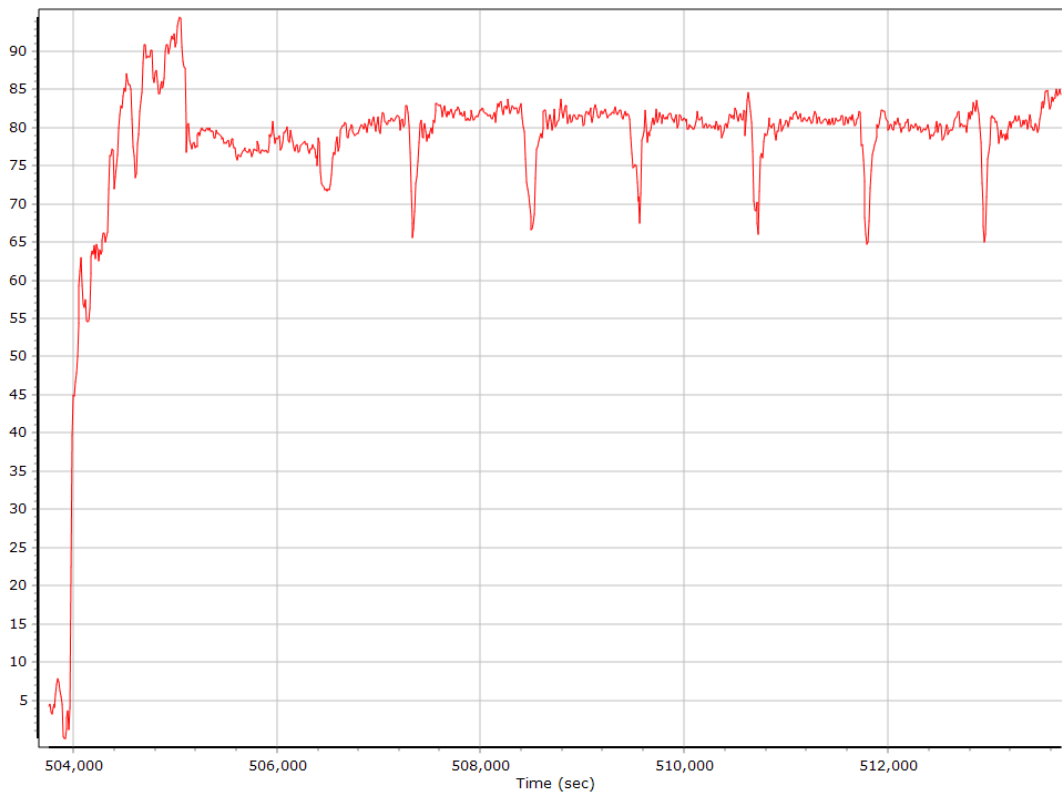
Down Velocity



Total Speed



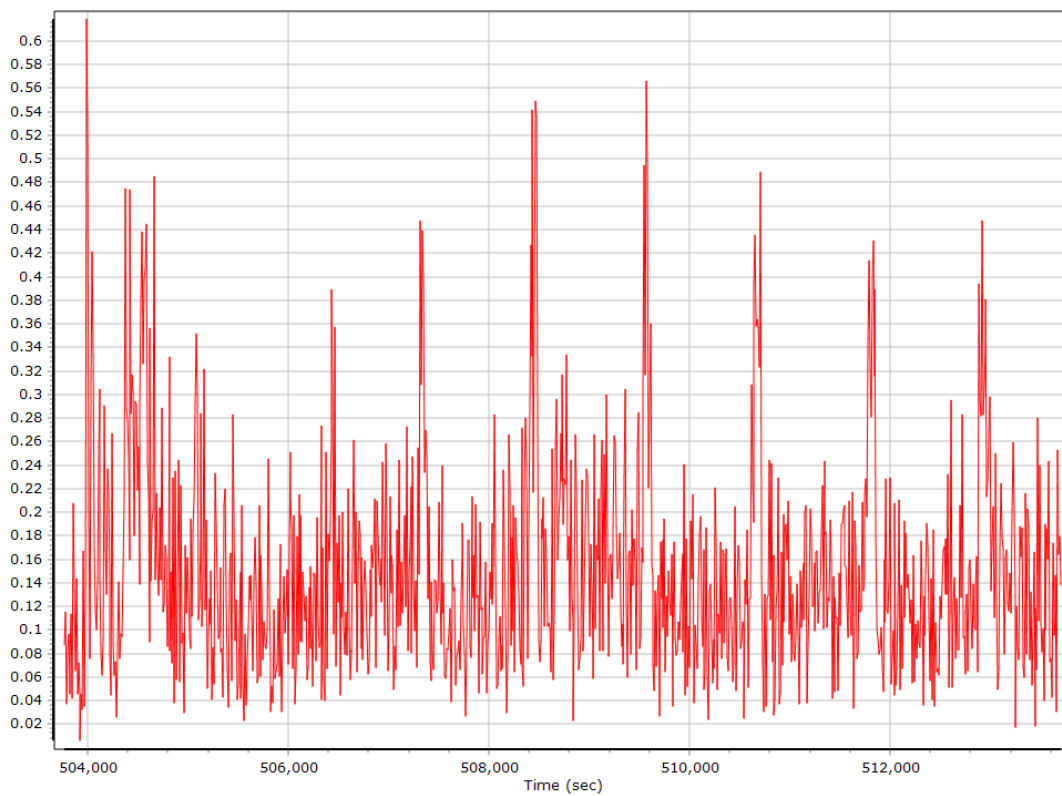
Ground Speed



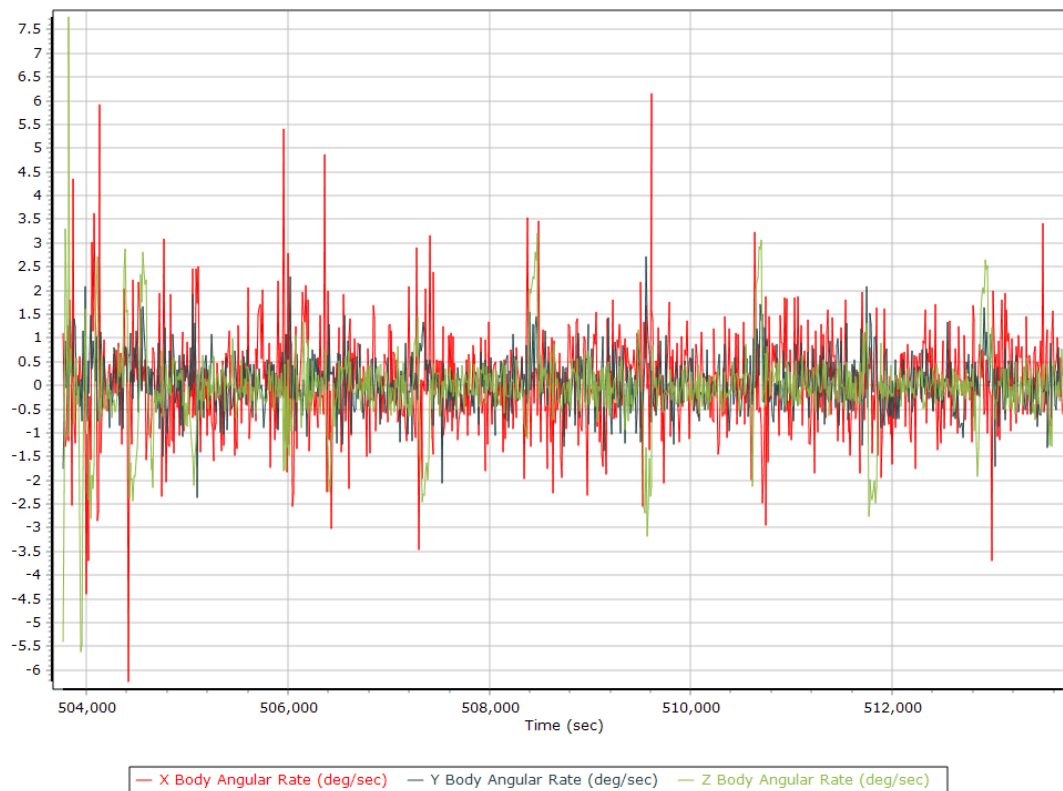
Body Acceleration



Total Body Acceleration



Body Angular Rate

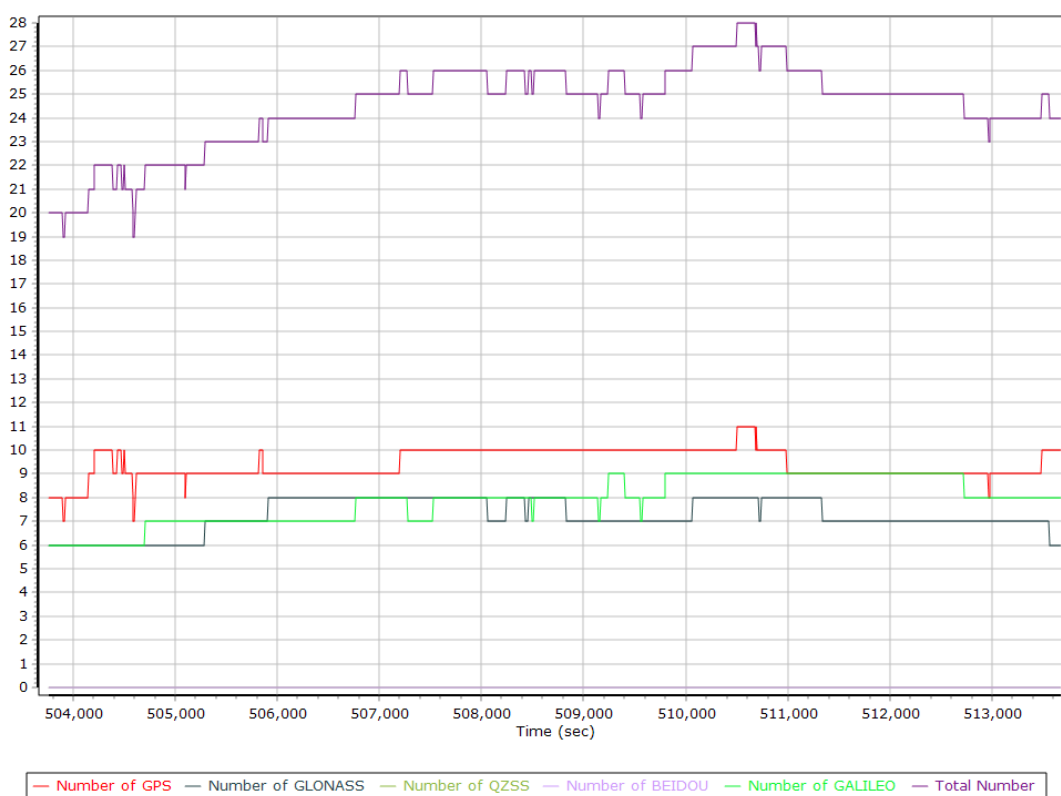


GNSS QC

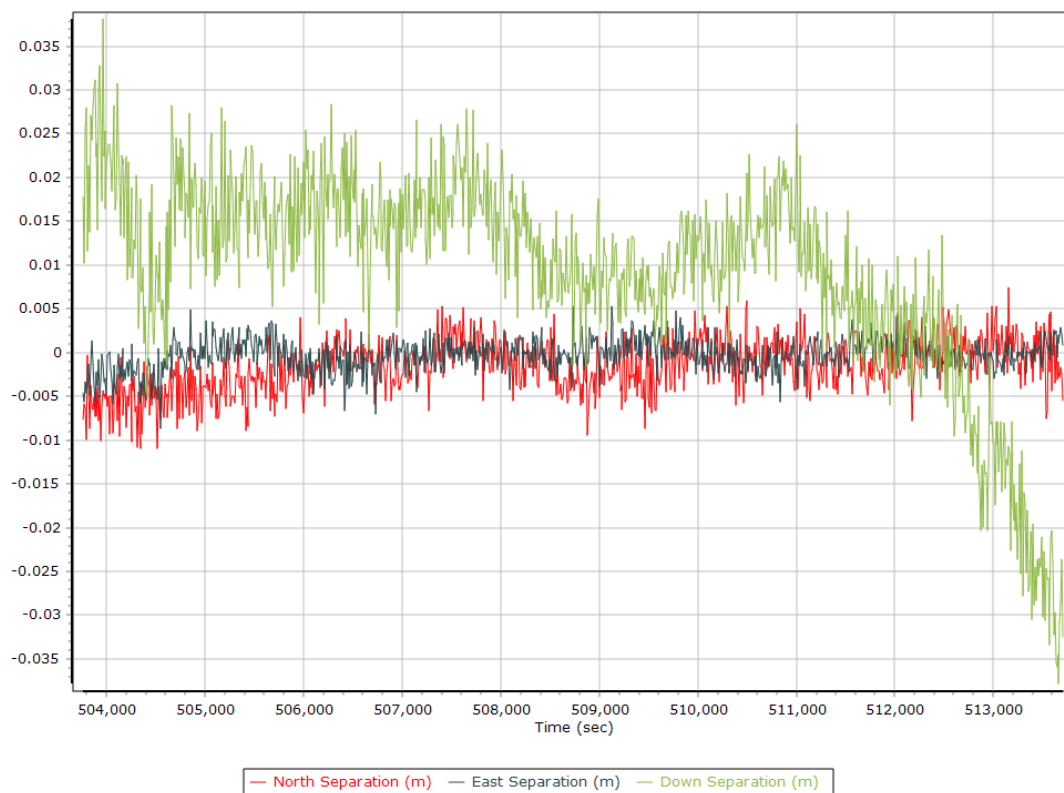
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	4	11	9
Number of GLONASS SV	0	8	7
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	4	9	8
Total number of SV	8	28	24
PDOP	0.94	3.34	1.08
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	10405.00	0.00	0.00
Percentage	100.00	0.00	0.00

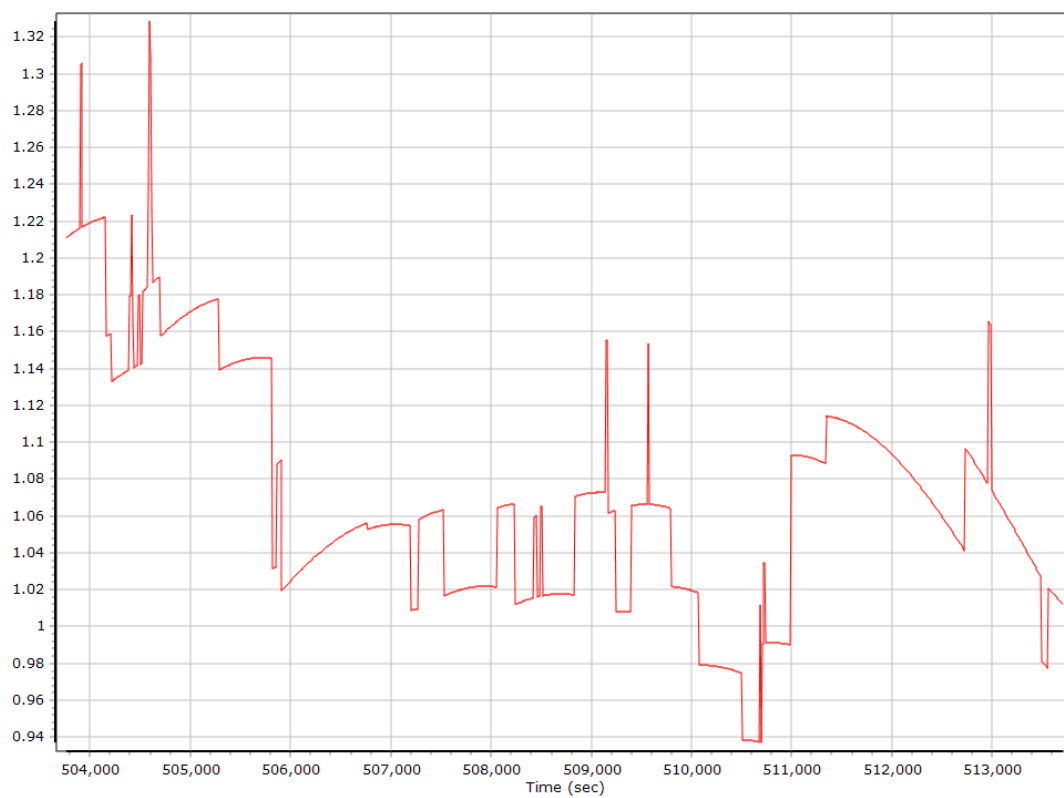
Num SVs in solution



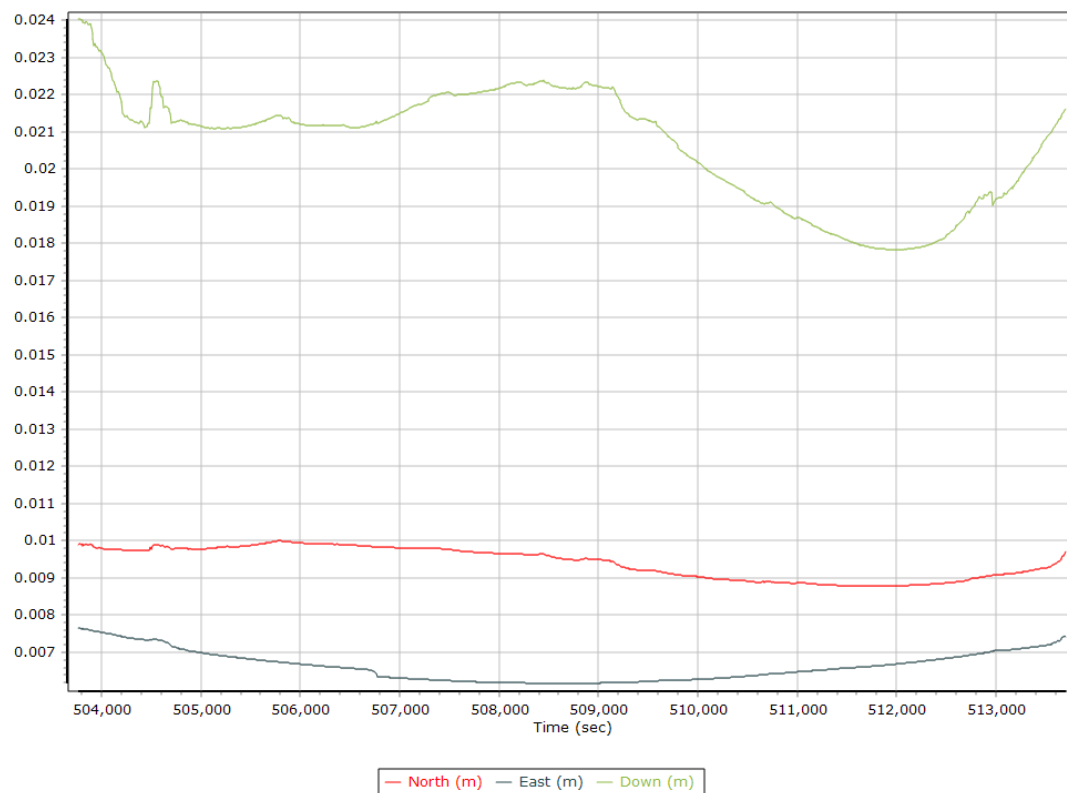
Forward/Reverse Separation



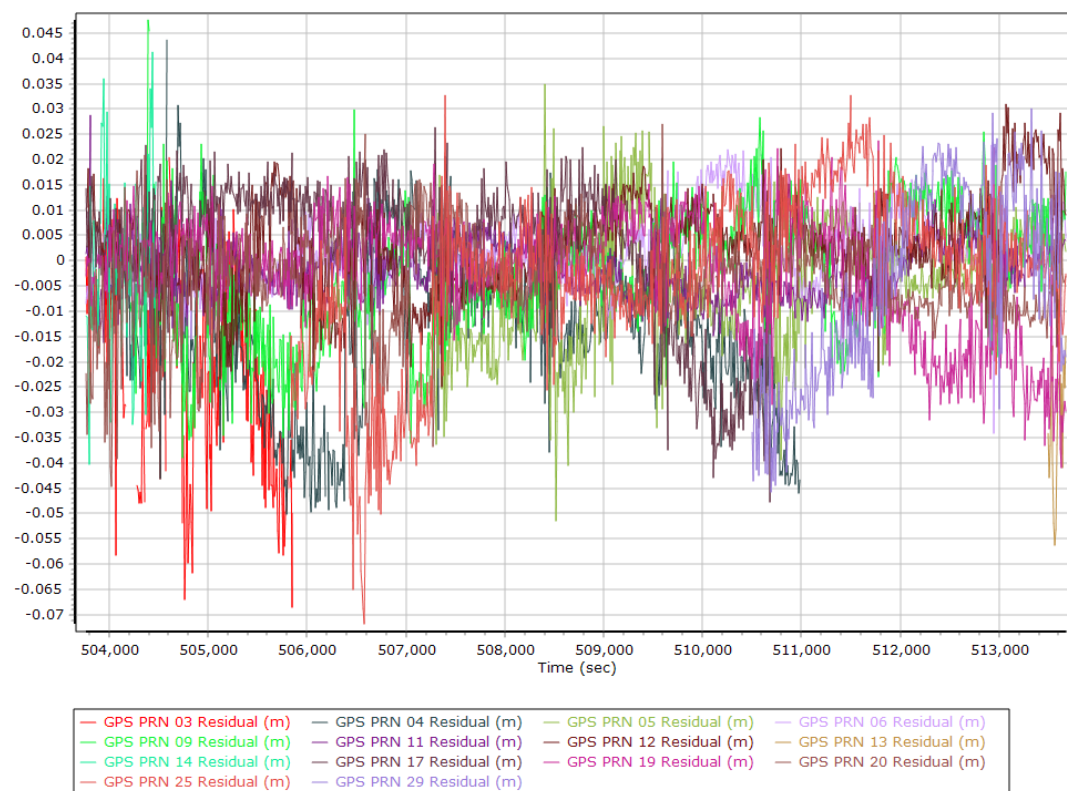
PDOP



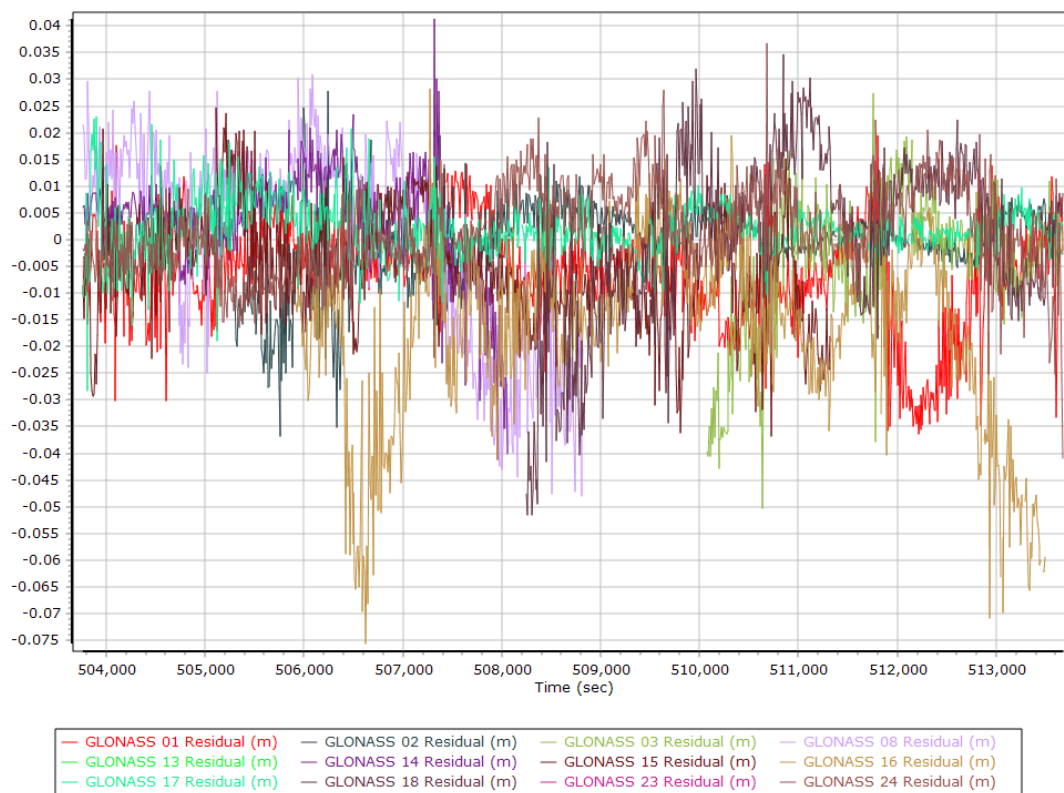
Estimated Position Accuracy



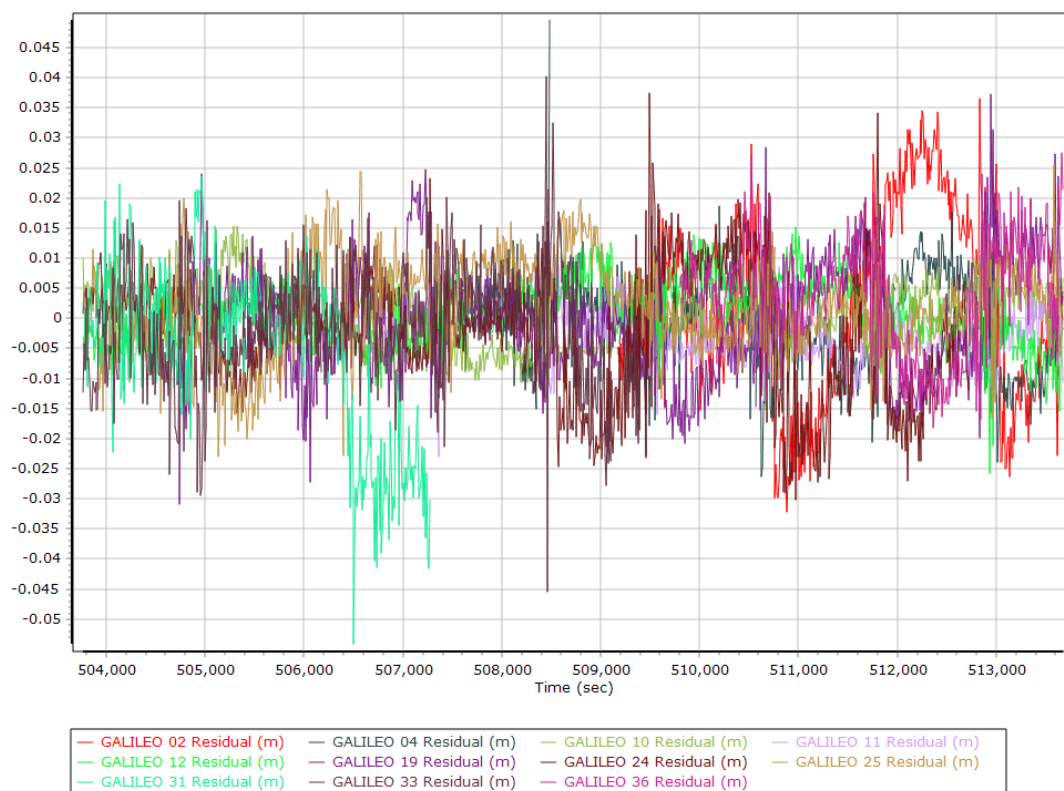
GPS Residuals



GLONASS Residuals



GALILEO Residuals



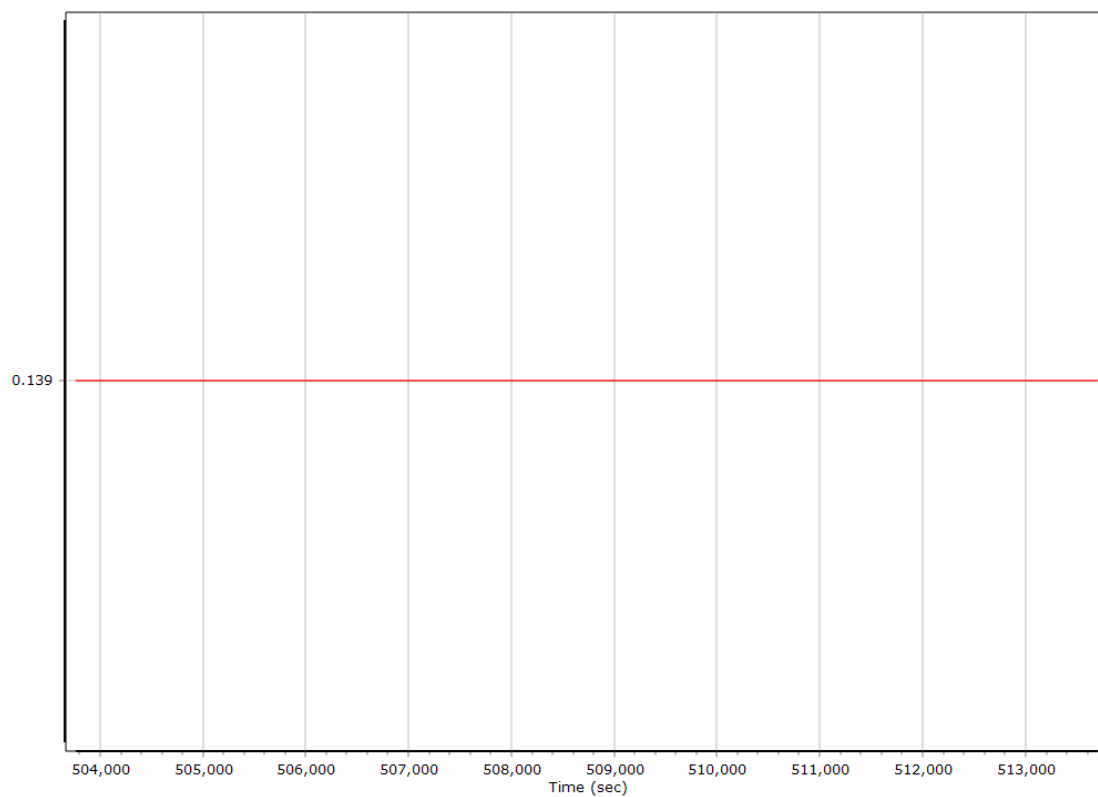
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	503255.000 (04/21/2023 19:47:35)		
Processing end time	513706.000 (04/21/2023 22:41:46)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

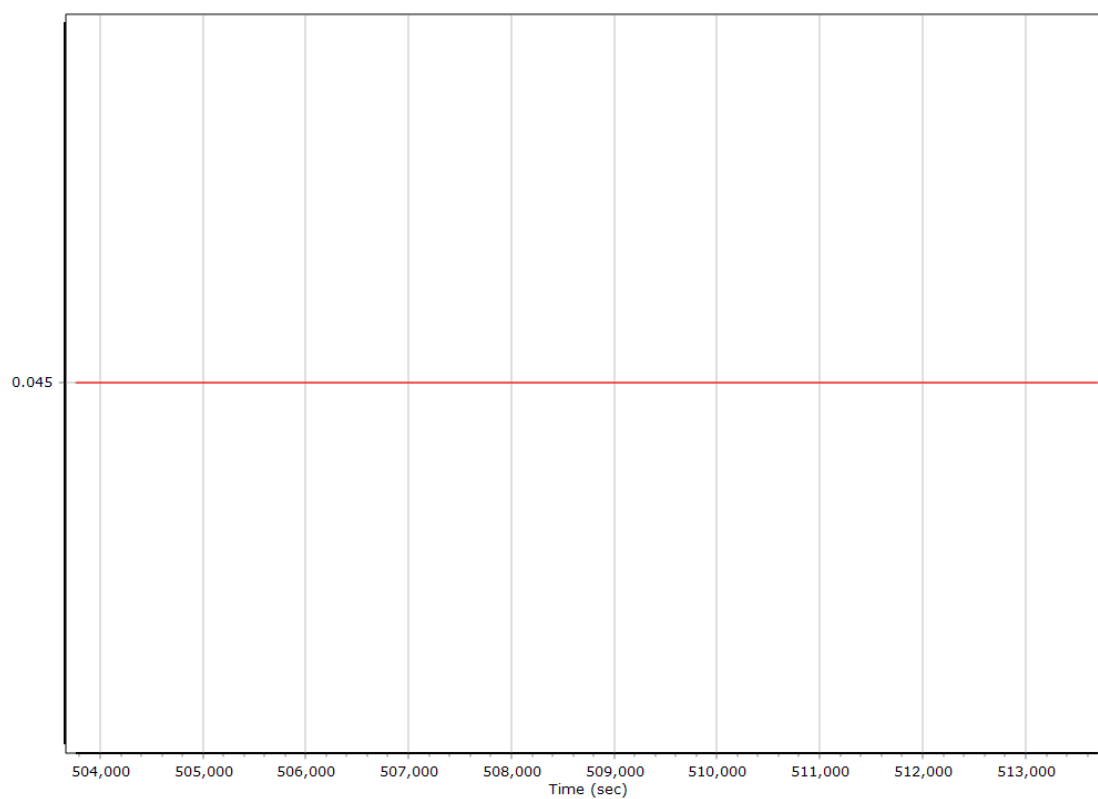
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

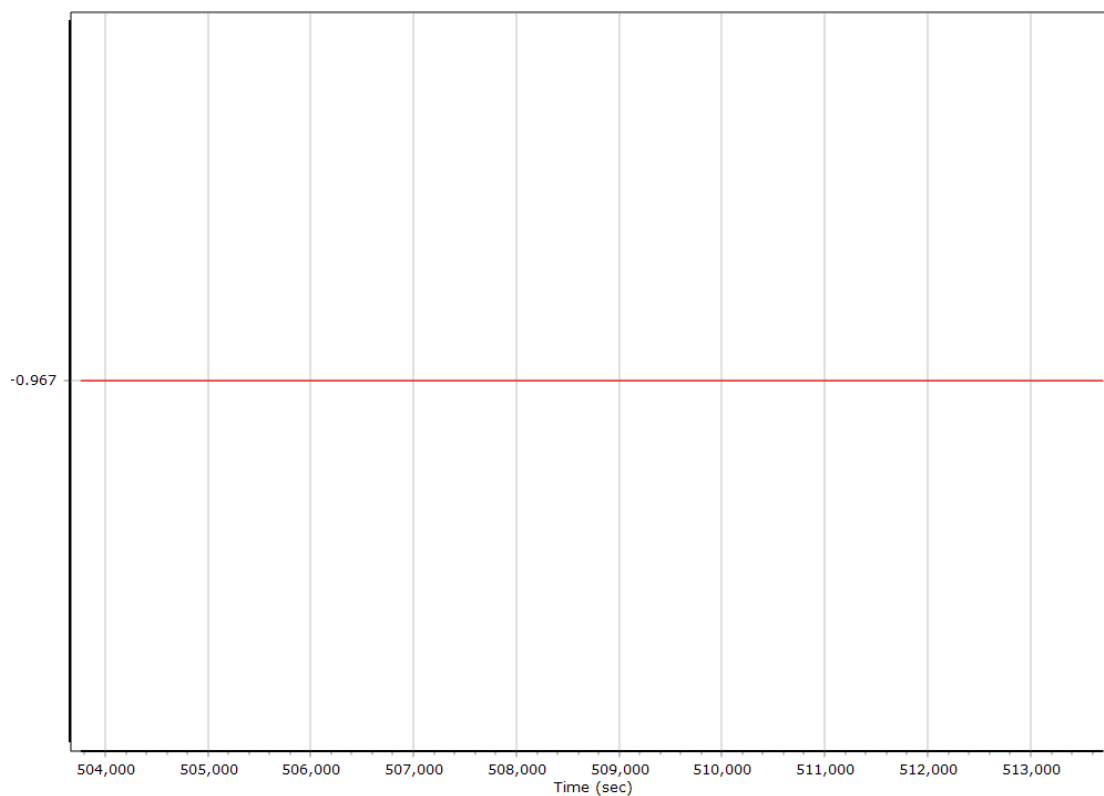
X Reference-Primary GNSS Lever Arm (m)



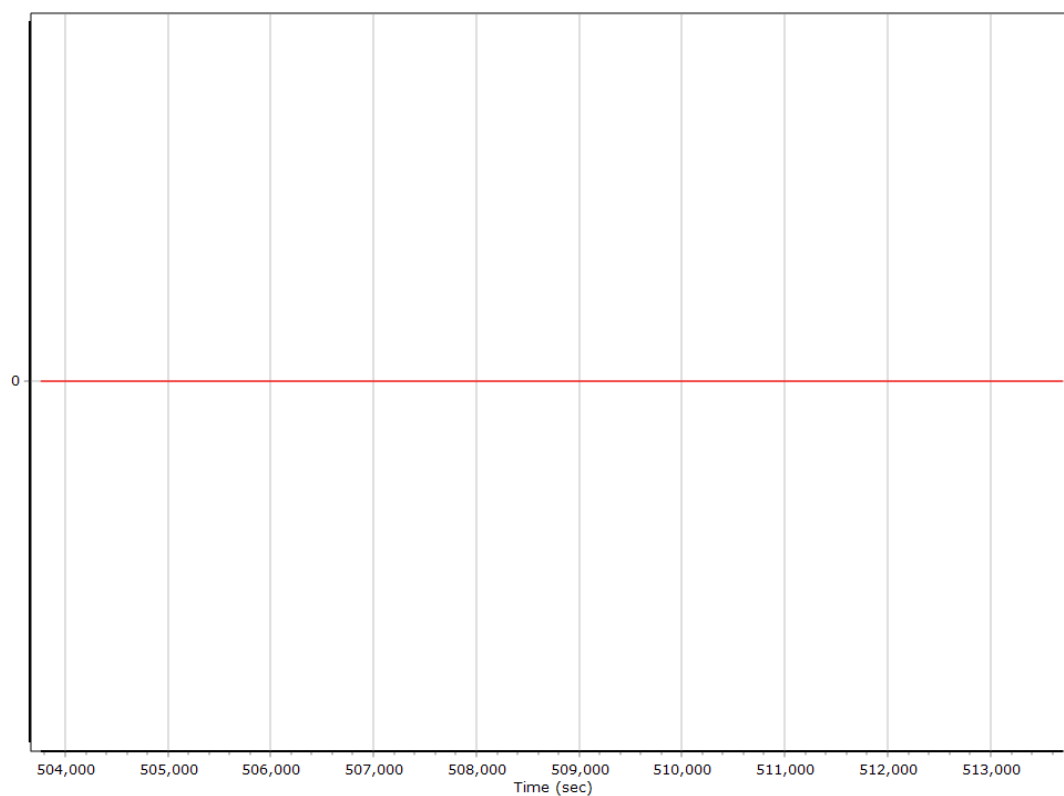
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



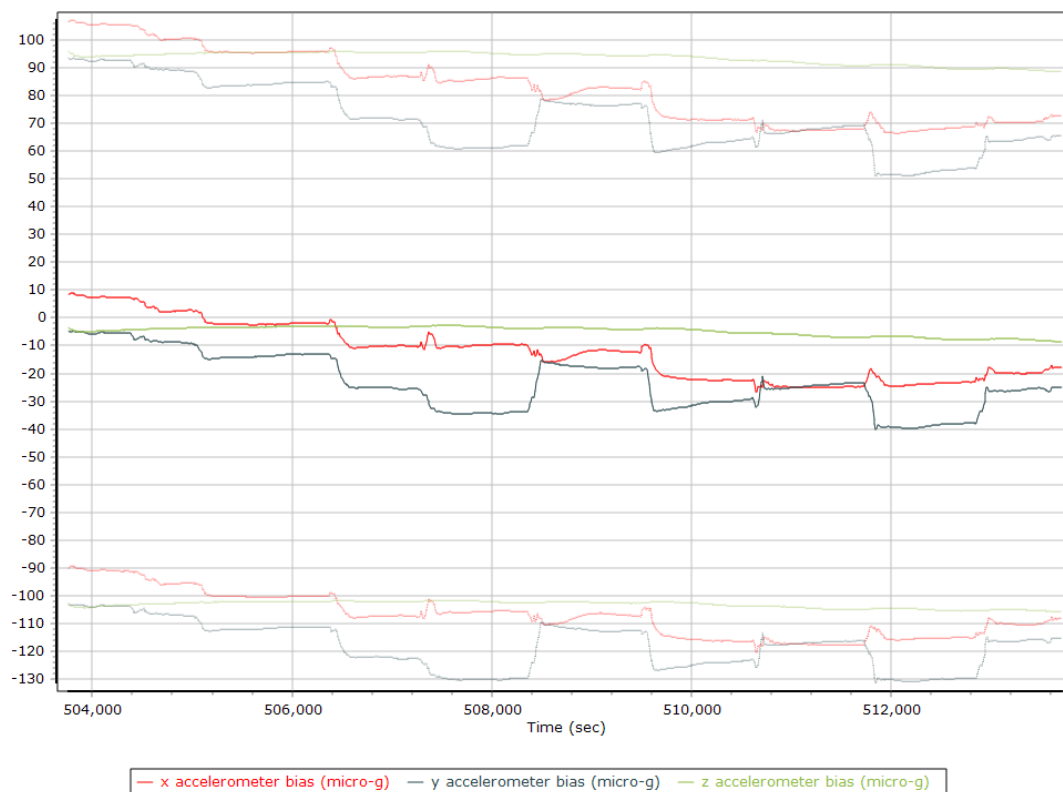
Reference-Primary GNSS Lever Arm Figure of Merit



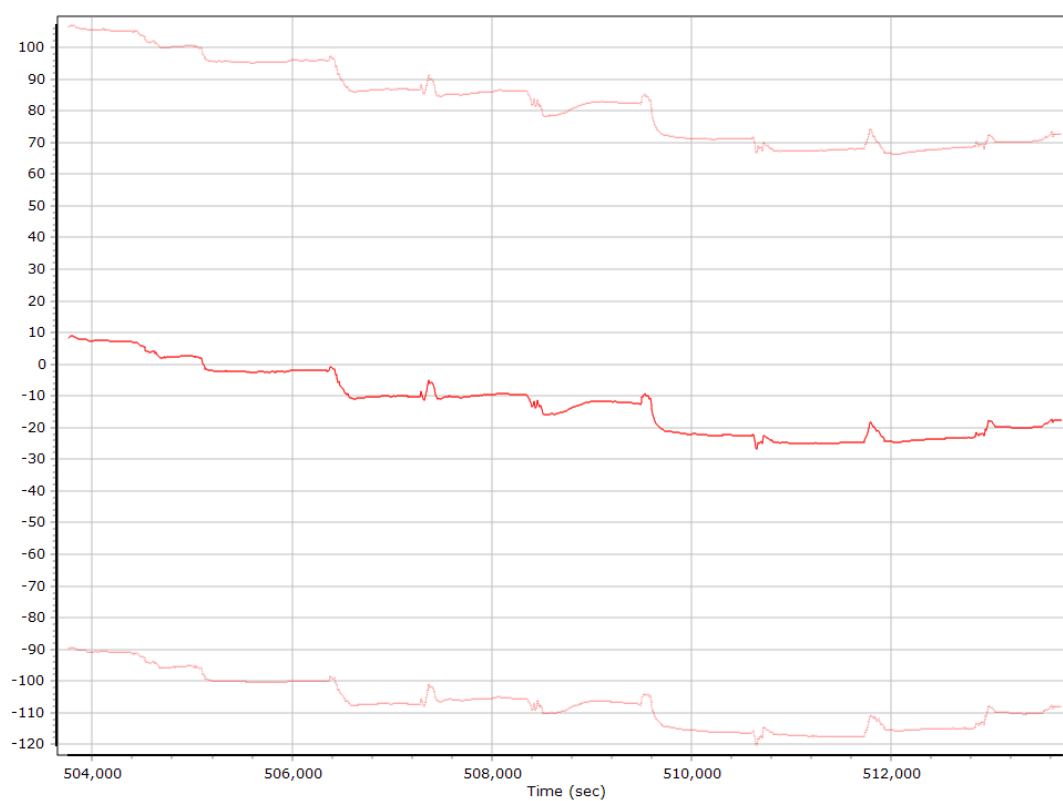
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

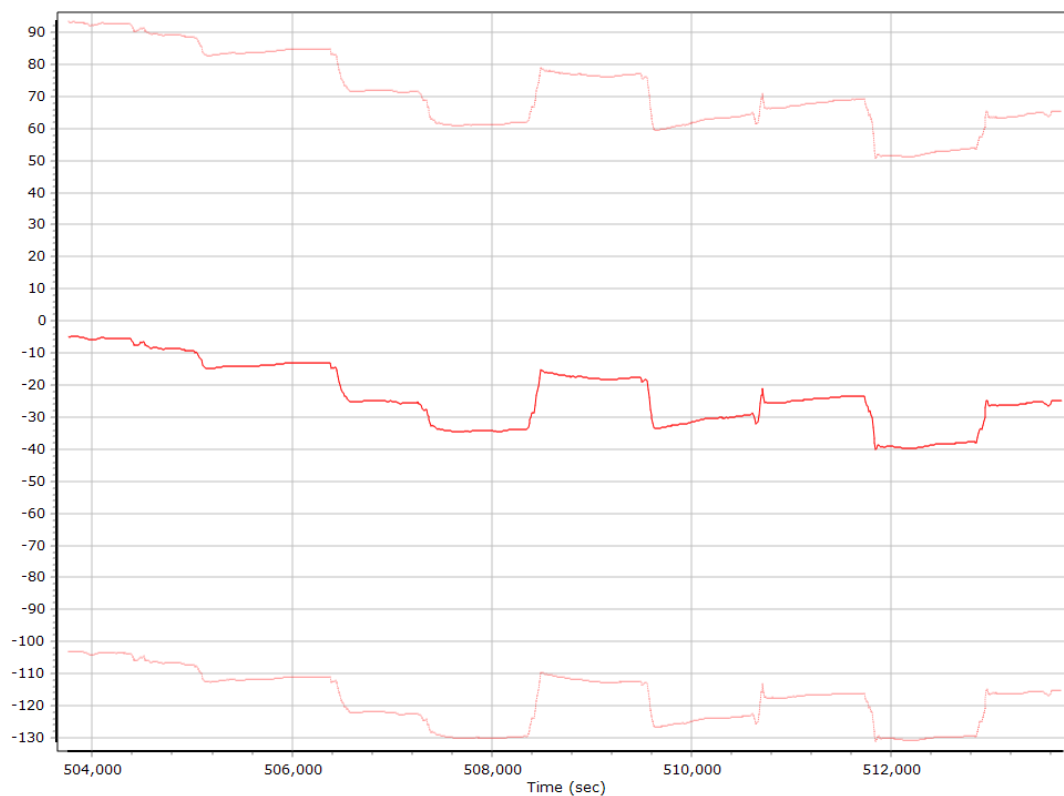
Accelerometer Bias (micro-g)



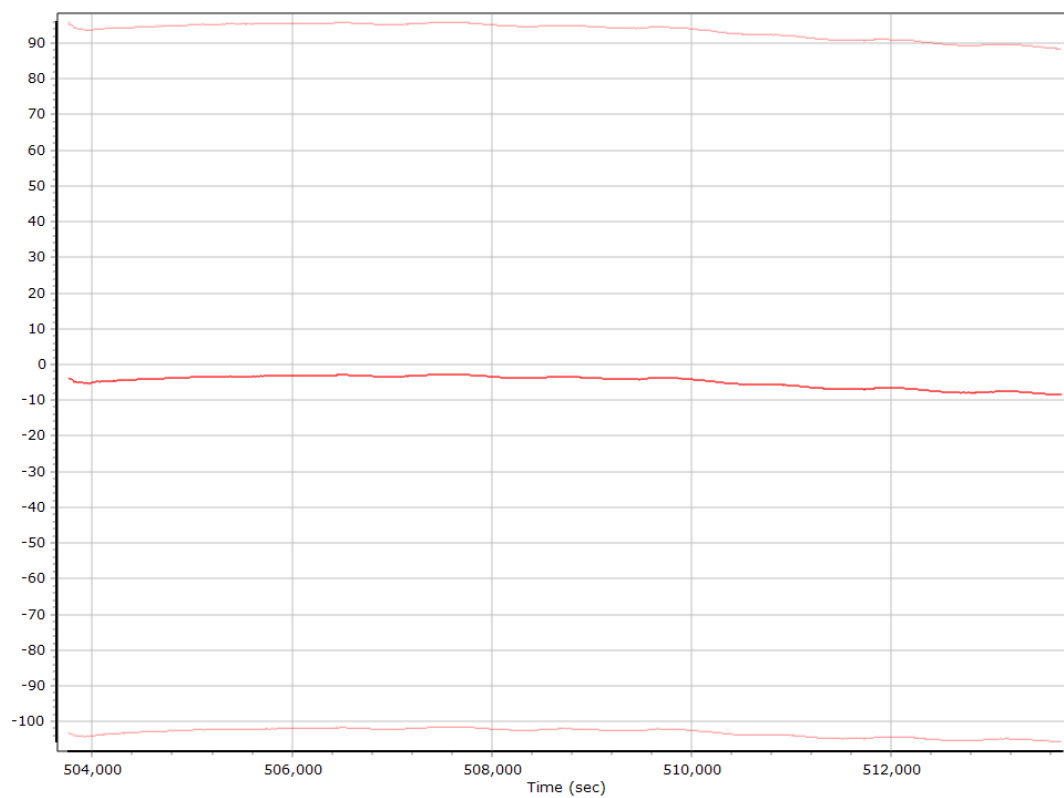
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



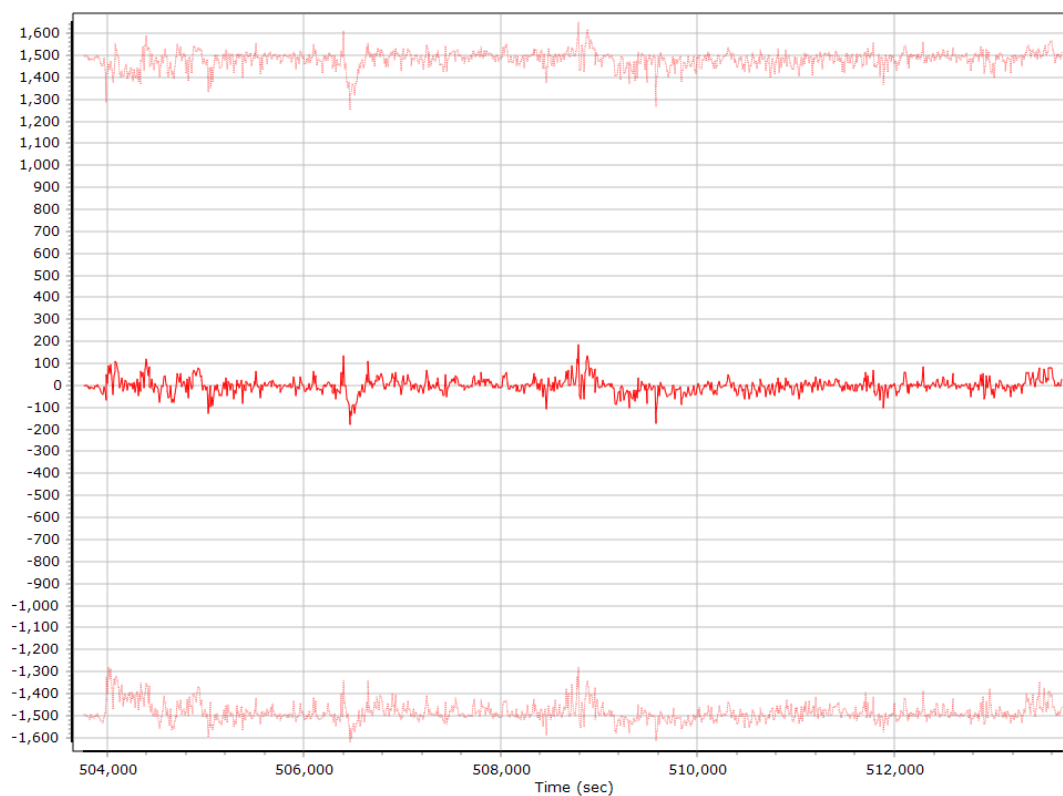
Z Accelerometer Bias (micro-g)



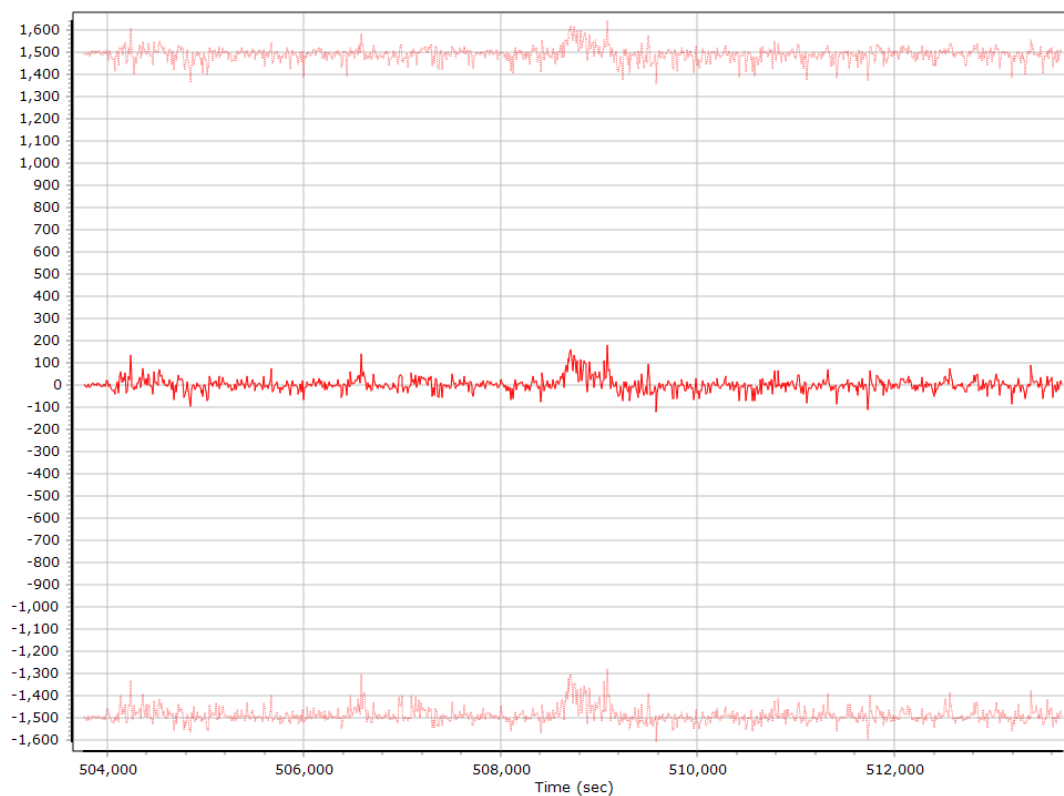
Accelerometer Scale Error (ppm)



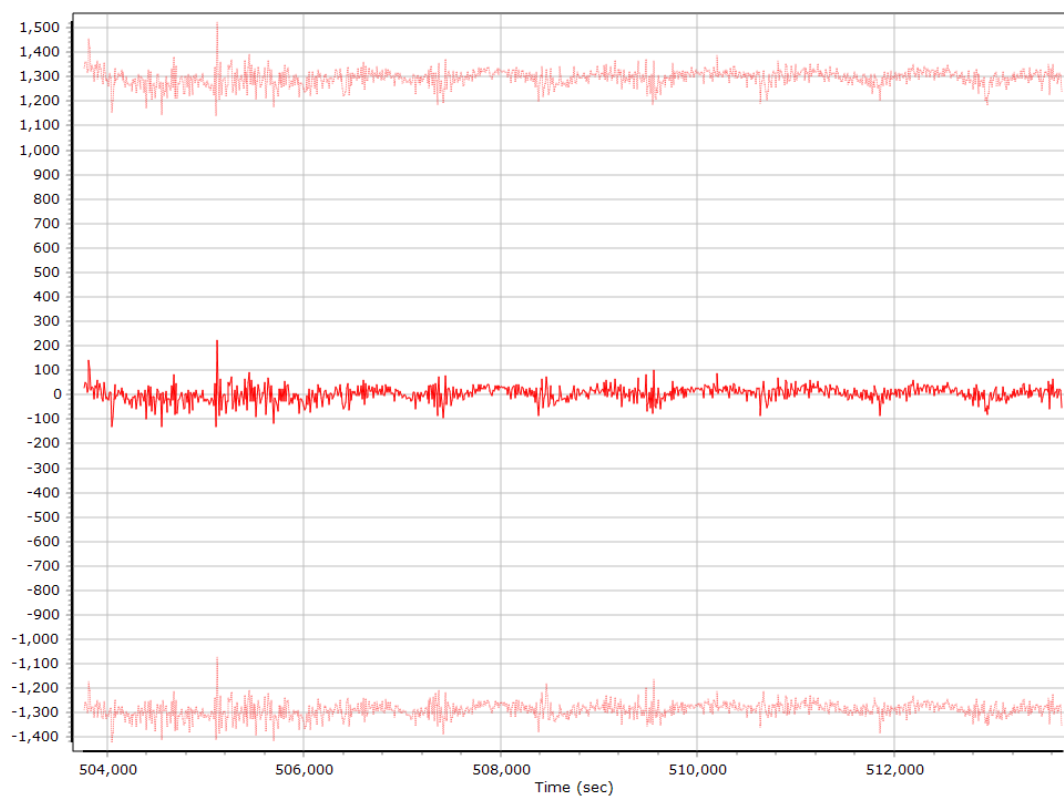
X Accelerometer Scale Error (ppm)



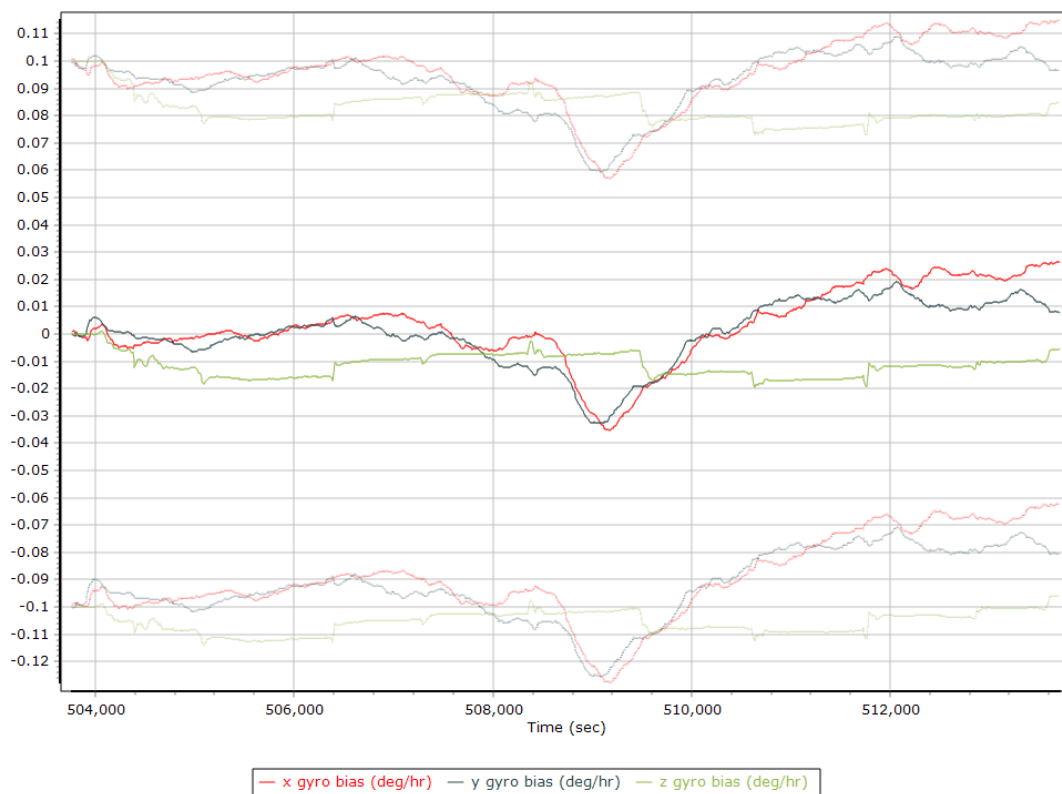
Y Accelerometer Scale Error (ppm)



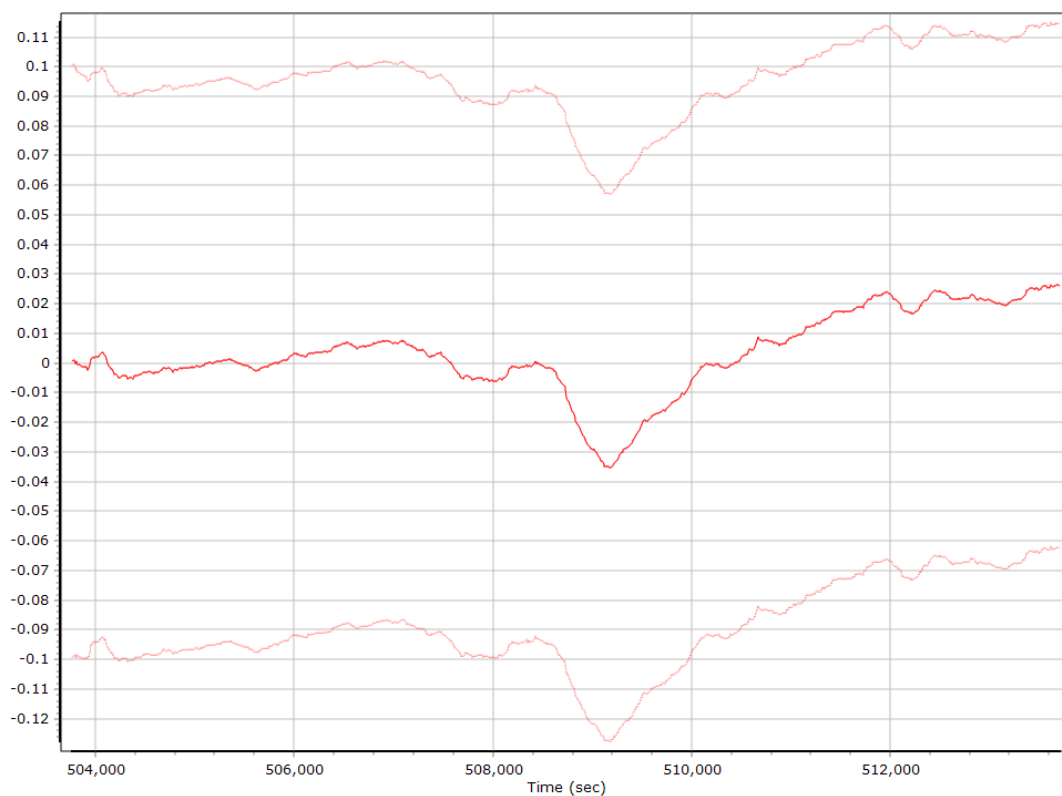
Z Accelerometer Scale Error (ppm)



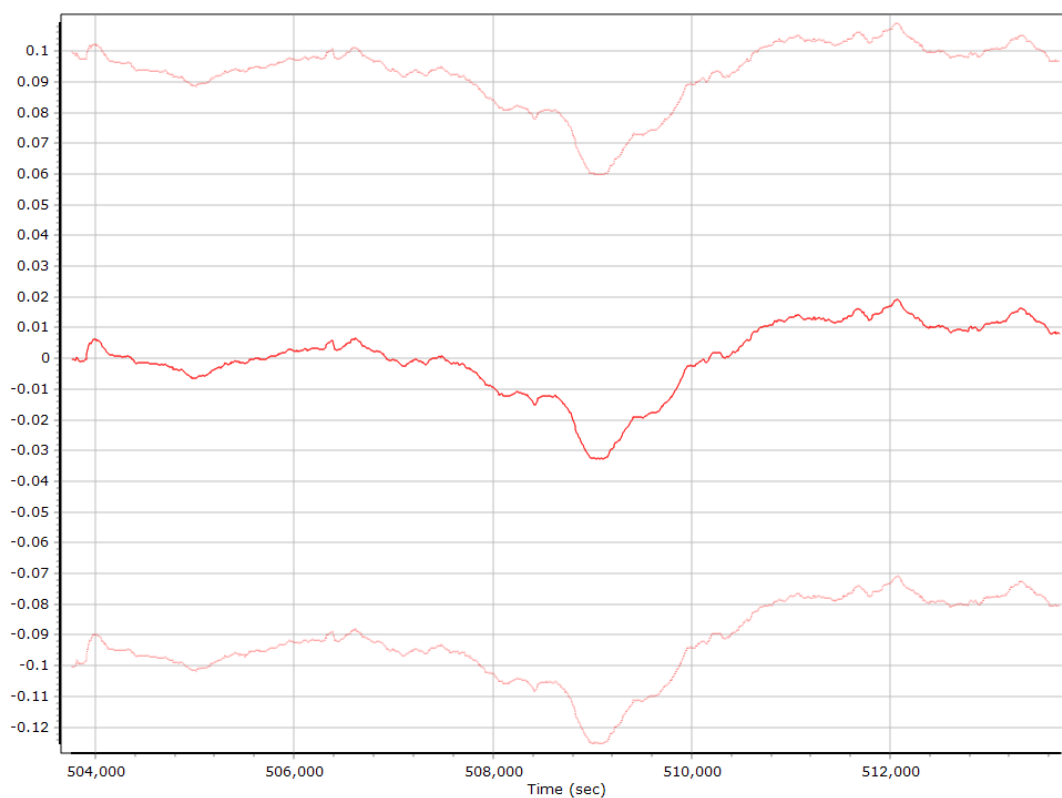
Gyro Bias (deg/h)



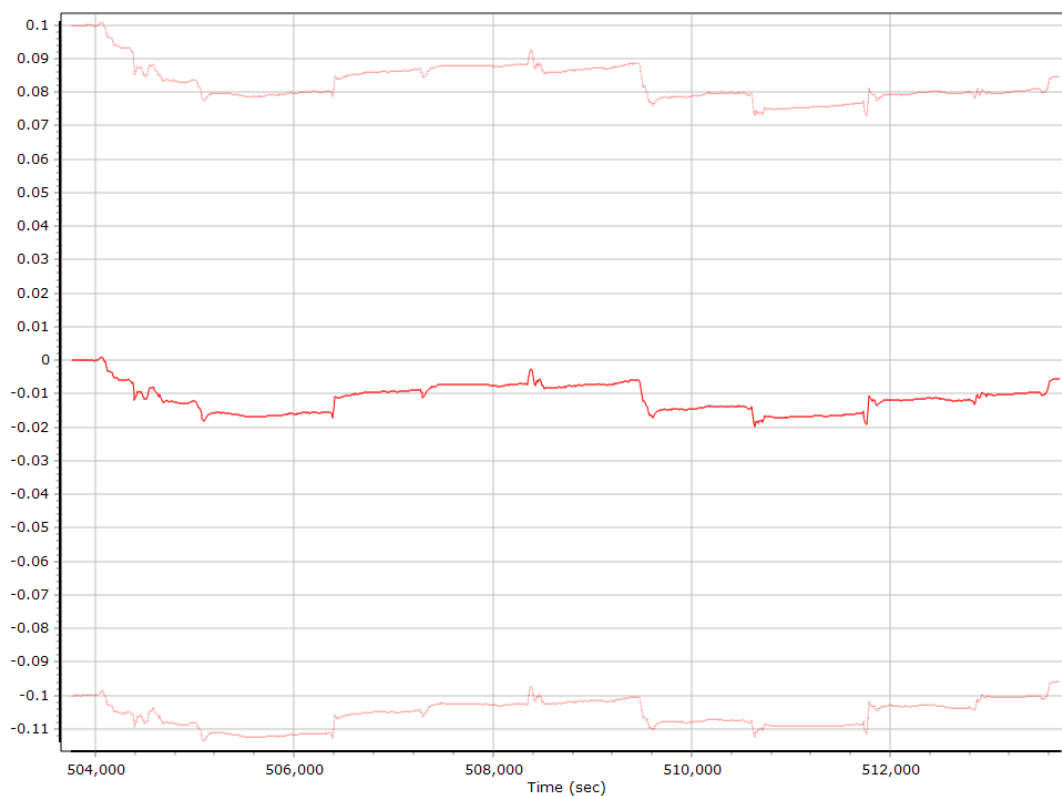
X Gyro Bias (deg/h)



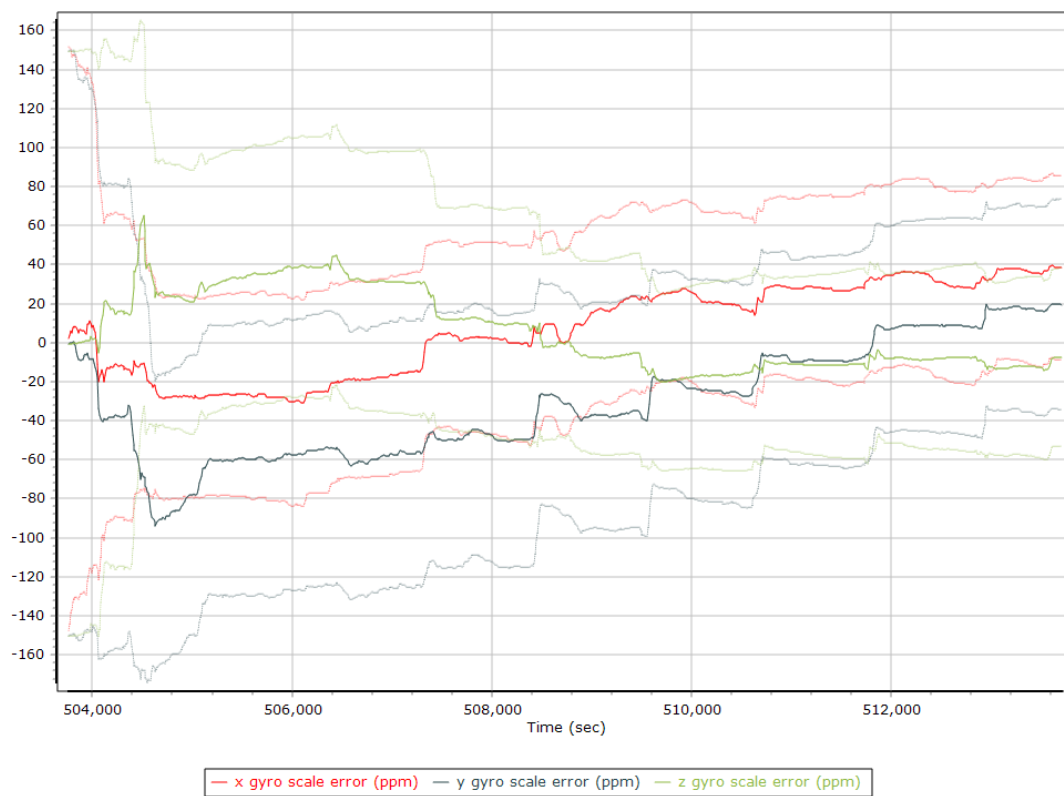
Y Gyro Bias (deg/h)



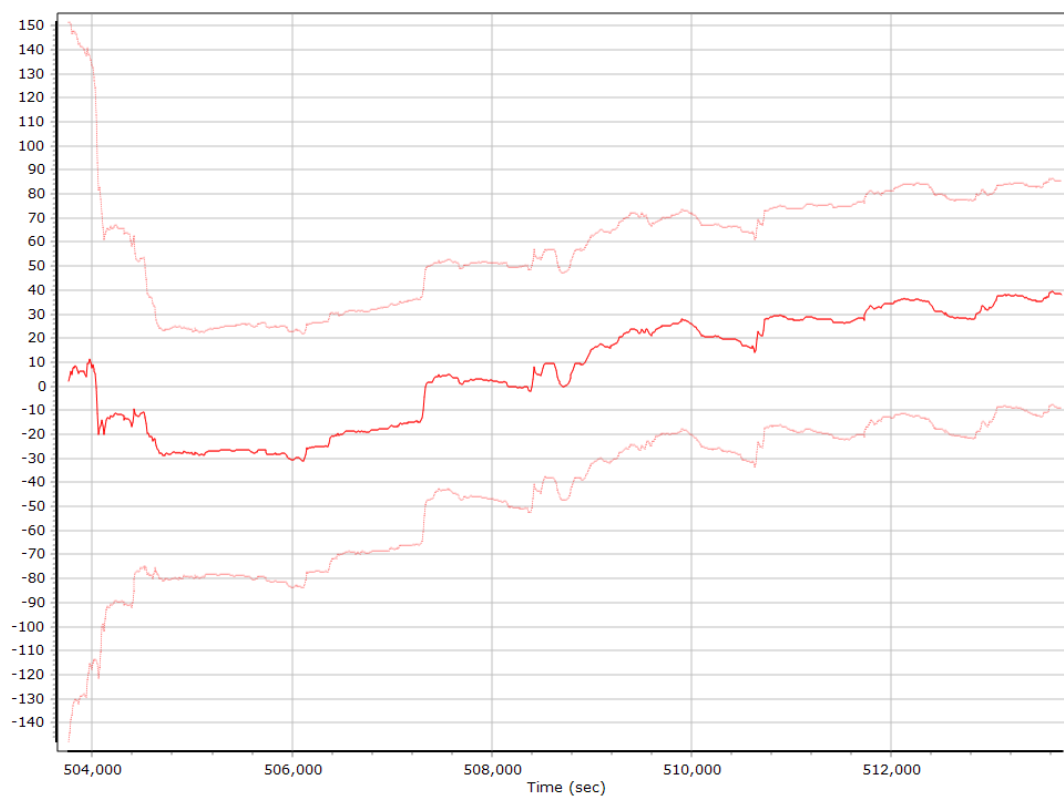
Z Gyro Bias (deg/h)



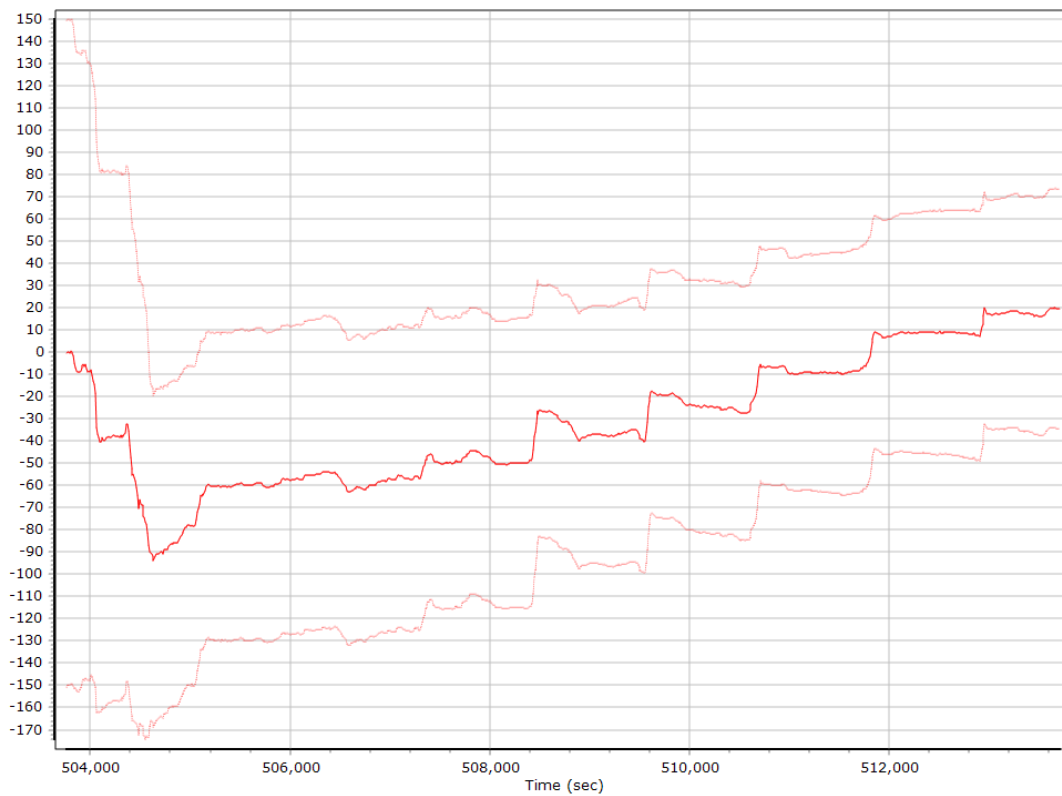
Gyro Scale Error (ppm)



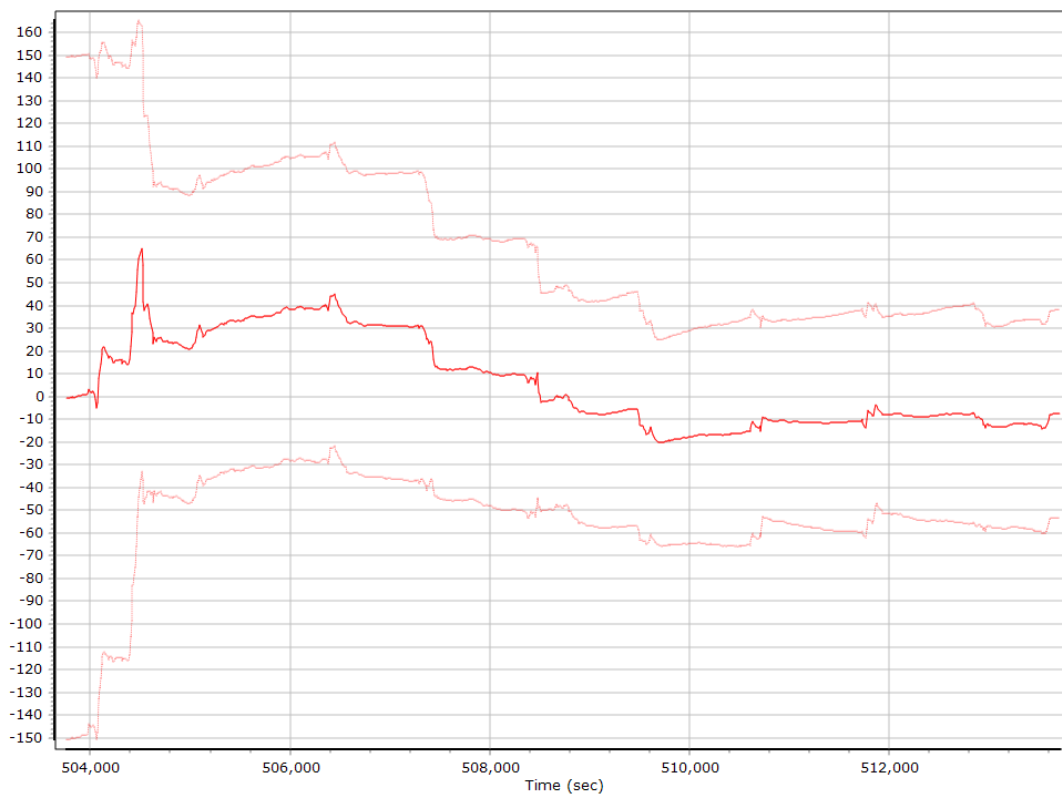
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

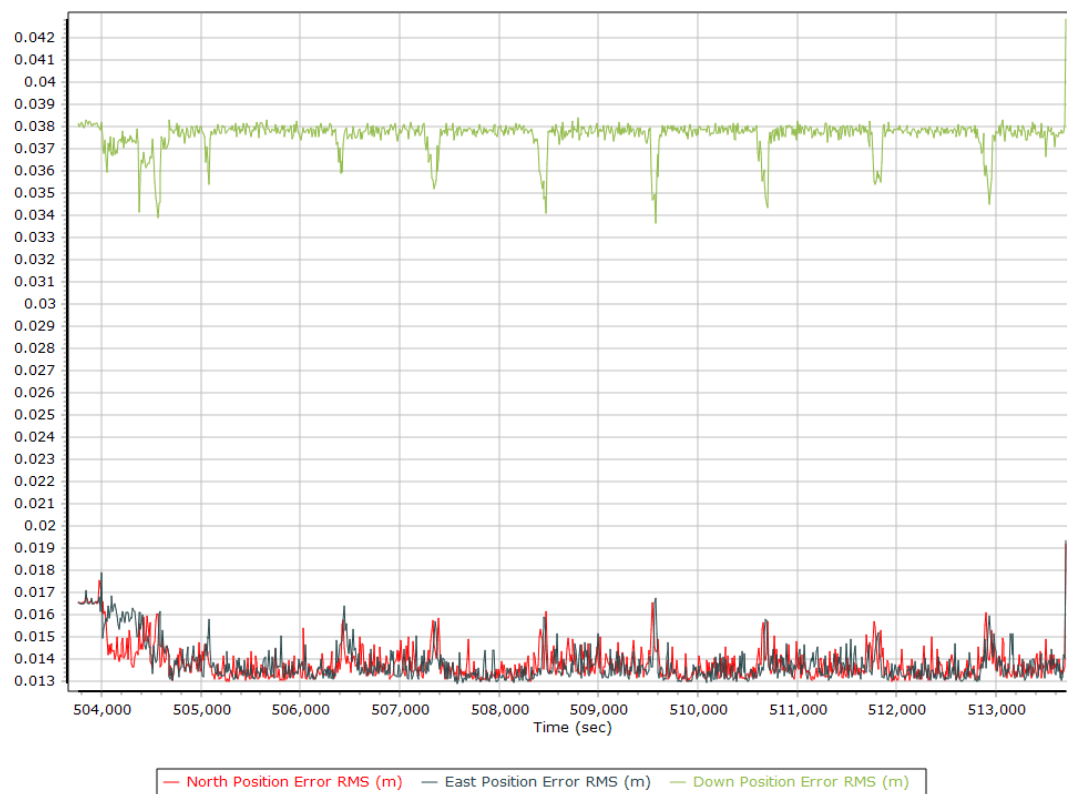


Z Gyro Scale Error (ppm)

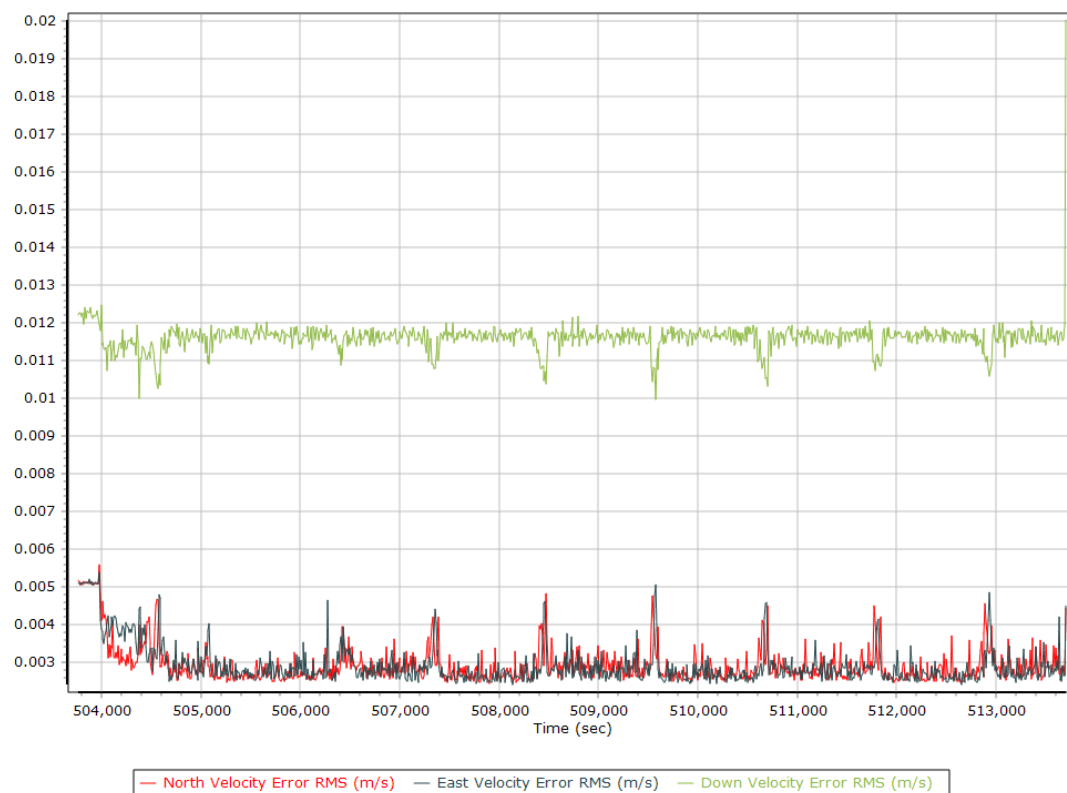


Smoothed Performance Metrics

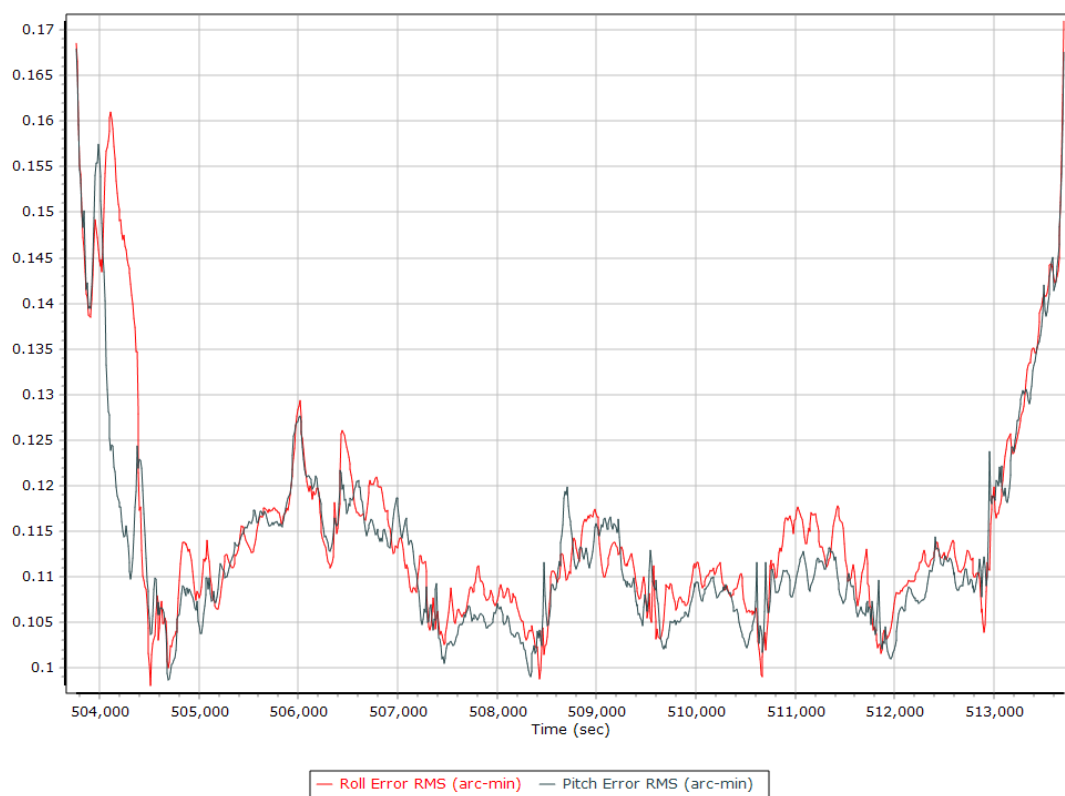
Position Error RMS (m)



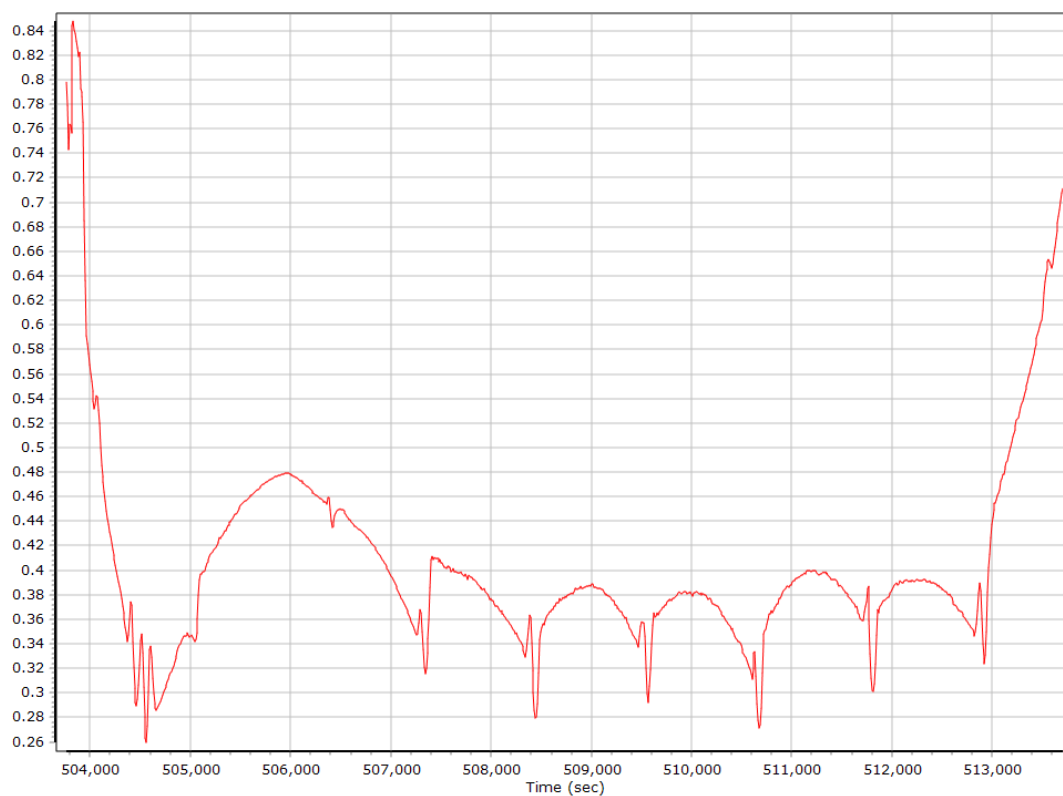
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

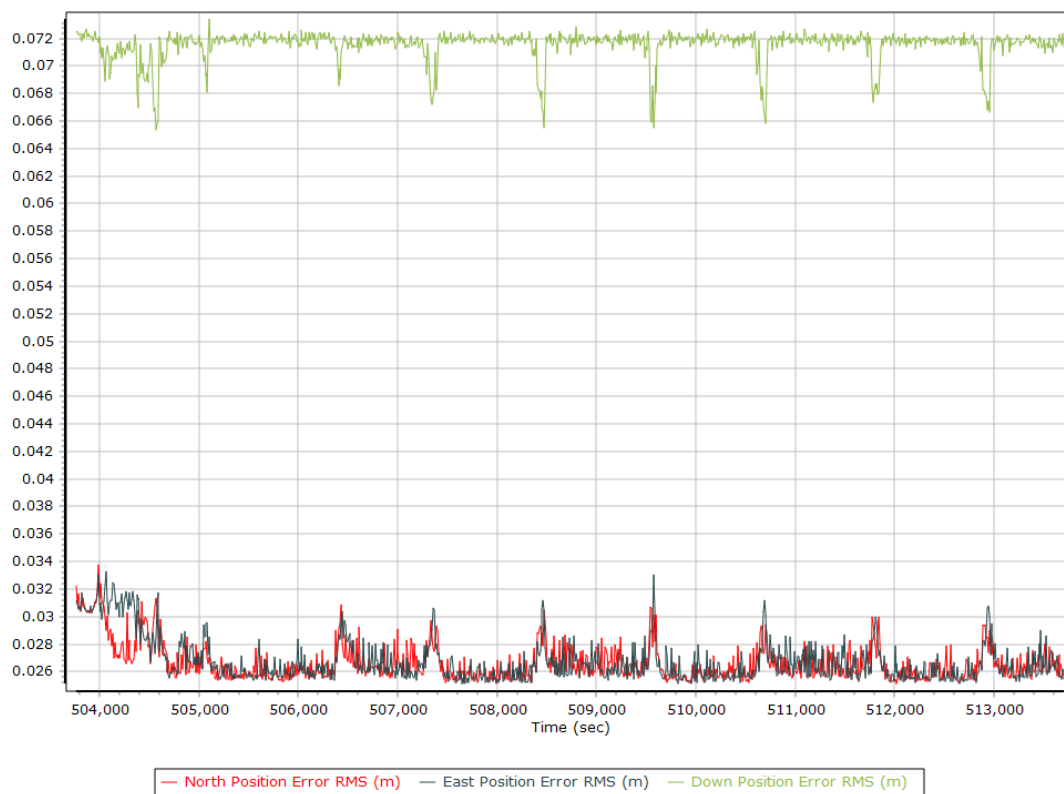


Heading Error RMS (arc-min)

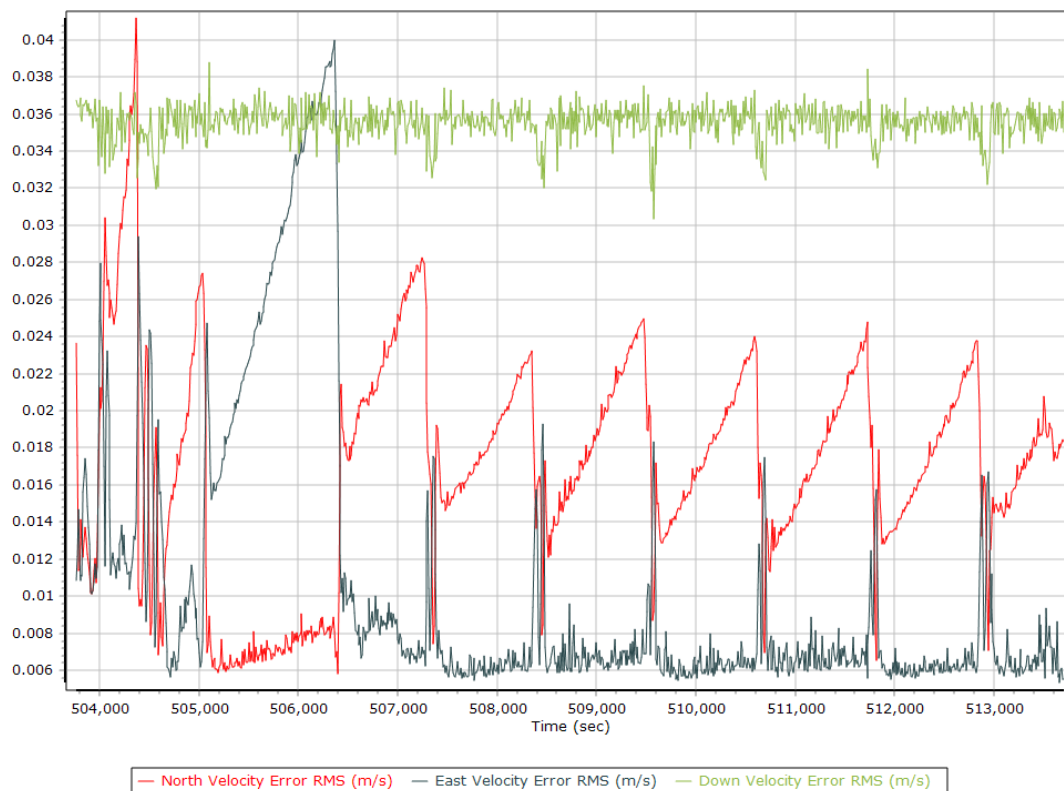


Forward Processed Performance Metrics

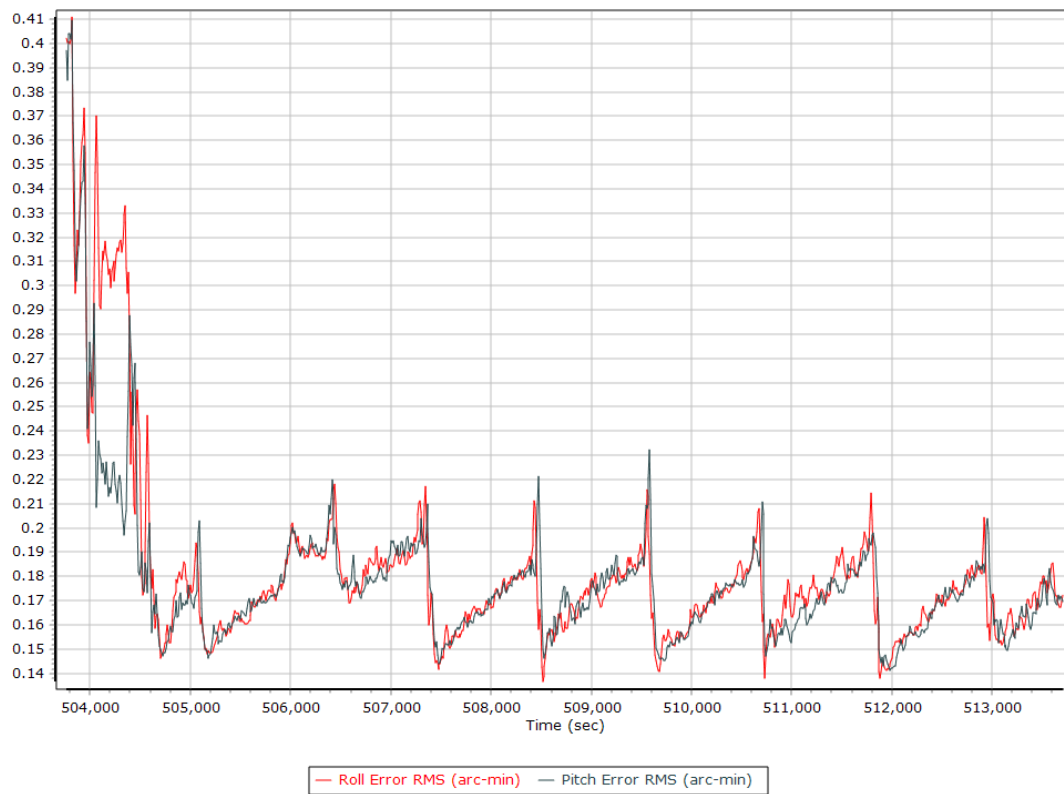
Position Error RMS (m)



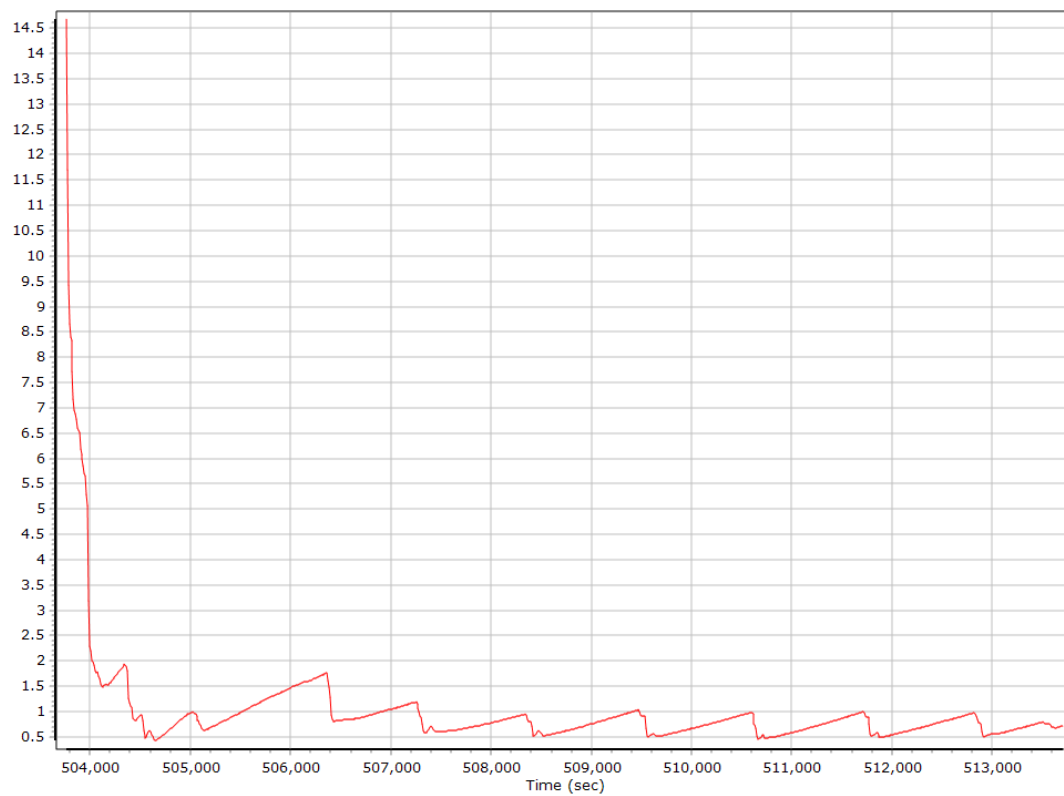
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

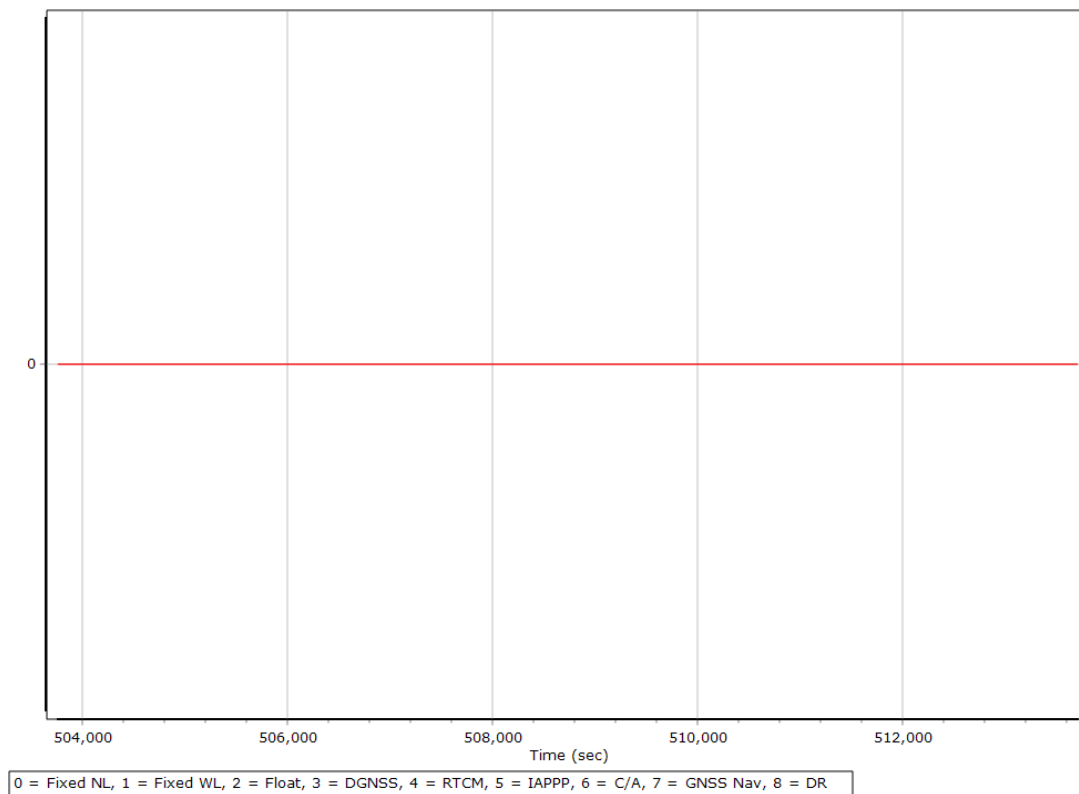


Heading Error RMS (arc-min)

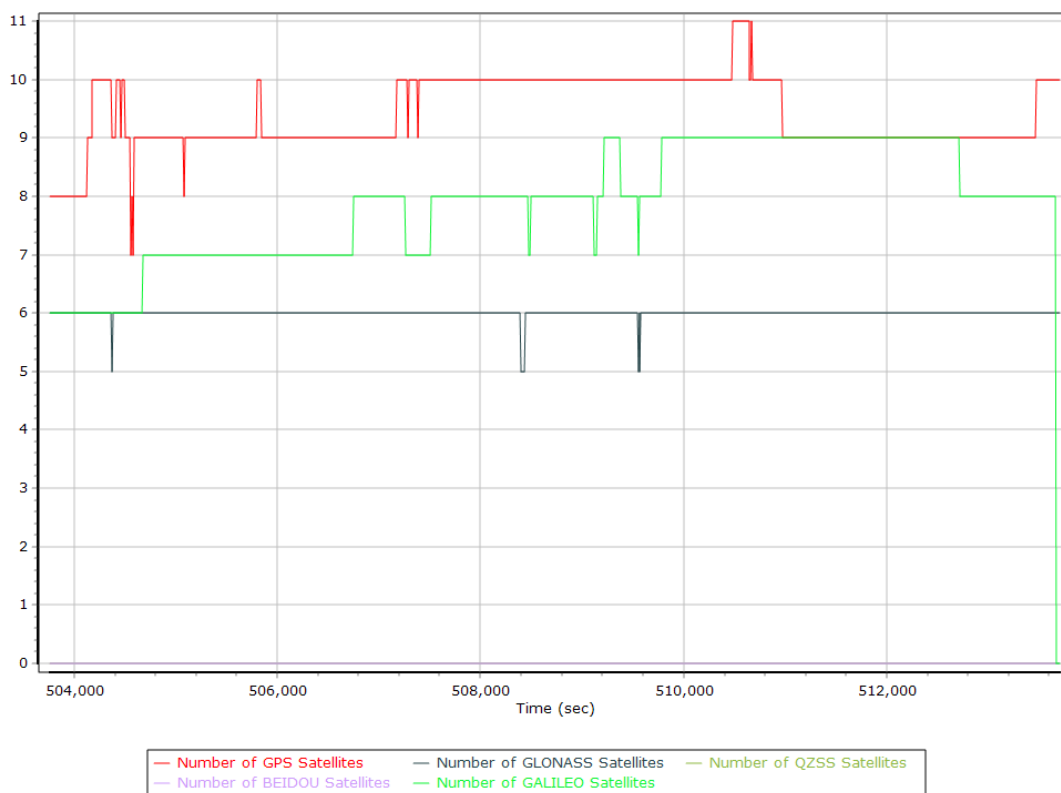


Forward Processed Solution Status

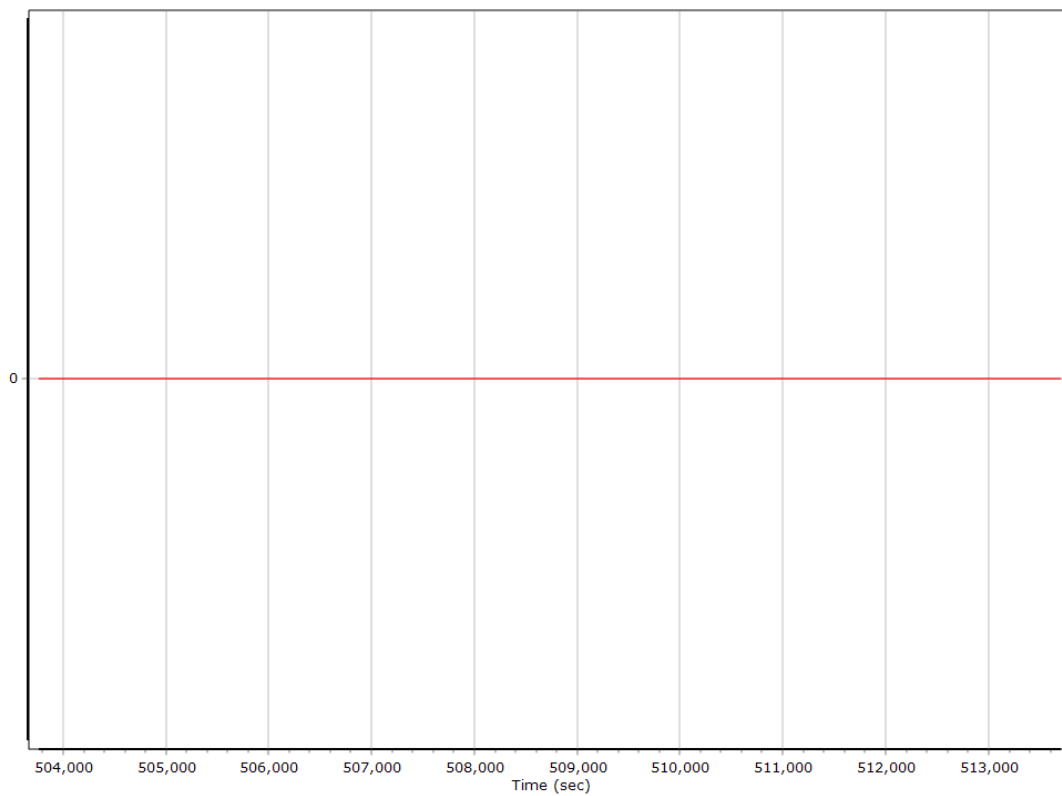
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230421_F2_4894_a_NAD832011.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	503705.001 (04/21/2023 19:55:05)		
Export end time	513706.002 (04/21/2023 22:41:46)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.30137		

General Information

Mission Information

Project name	20230421_F2_4894_b
Processing date	2023-04-25 22:51:59
Mission date	2023-04-21 22:52:35
Mission duration	00:16:15.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12299
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
VQ1560.739	POS Data
VQ1560.740	POS Data
VQ1560.741	POS Data

Input Files

File Name	File Type
Ephm1110.23g	GLONASS Broadcast Ephemeris
Ephm1110.23n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_20230421_F2_4894_b.out	SBET Trajectory File
export_20230421_F2_4894_b_NAD832011.out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	VQ1560.739		
Last raw data file	VQ1560.741		
Start GPS week	2258		
Start time	514348.305 (04/21/2023 22:52:28)		
End time	515312.544 (04/21/2023 23:08:32)		
Start of fine alignment	514470.185 (04/21/2023 22:54:30)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	Event 1 Input		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

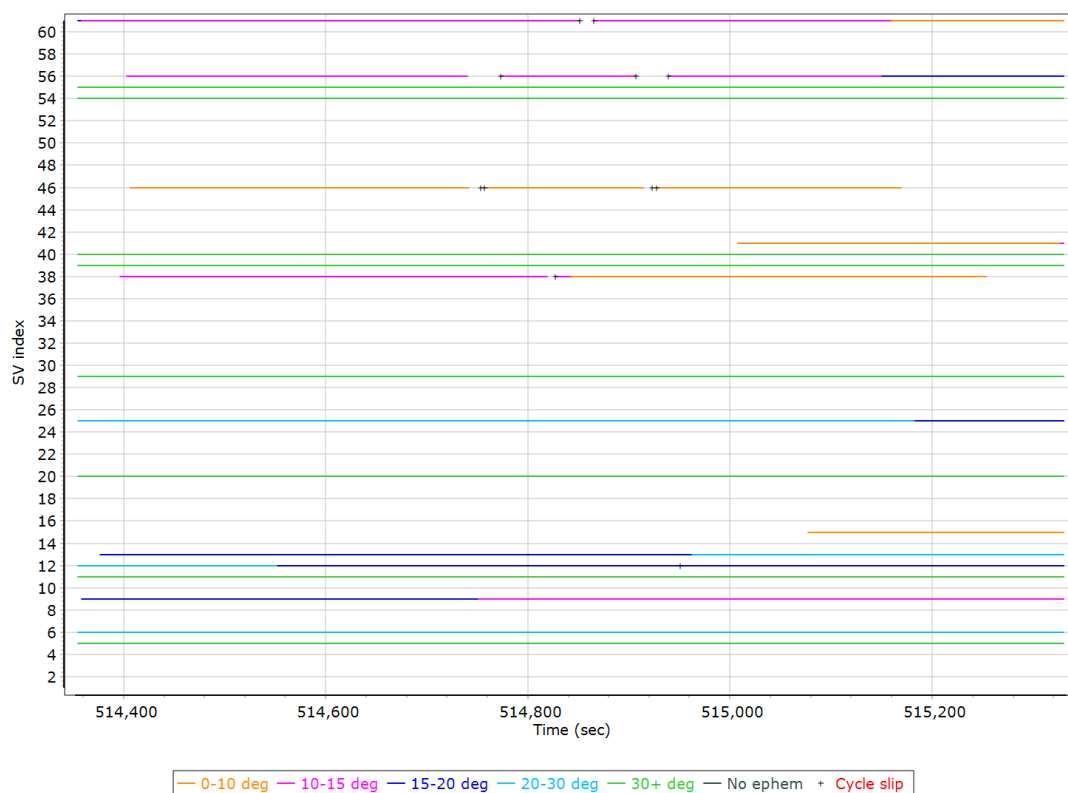
Rover Data QC

Raw IMU Import QC Summary

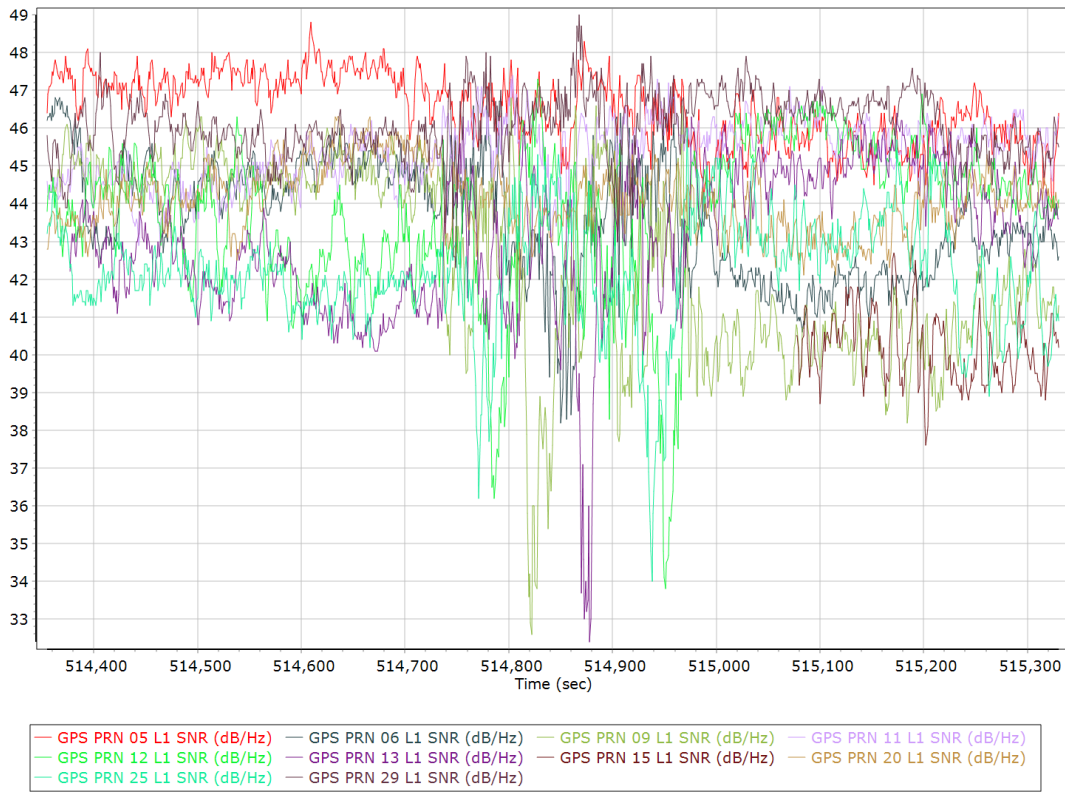
IMU data input file	imu_20230421_F2_4894_b.dat
IMU data check log file	imudt_20230421_F2_4894_b.log
IMU Records Processed	195241
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
514348.110 : WARNING : Gap of 514336.1533 seconds in CHECKDT input data	

Primary Observables & Satellite Data

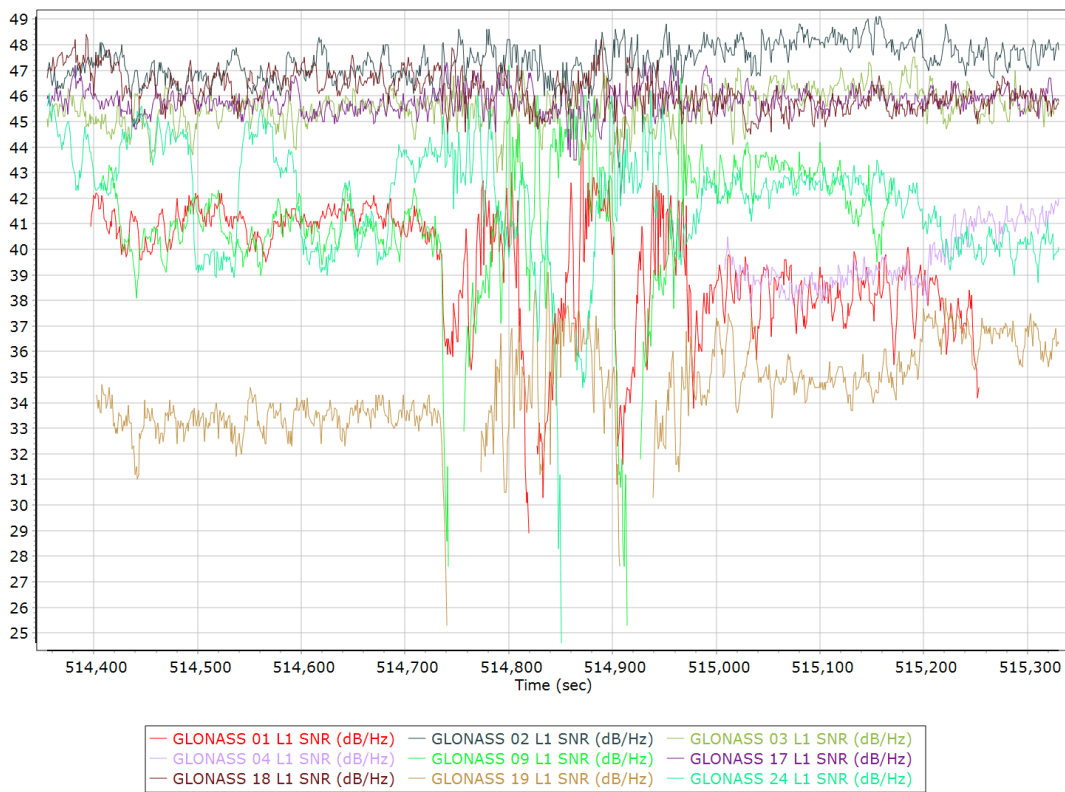
GPS/GLONASS L1 Satellite Lock/Elevation



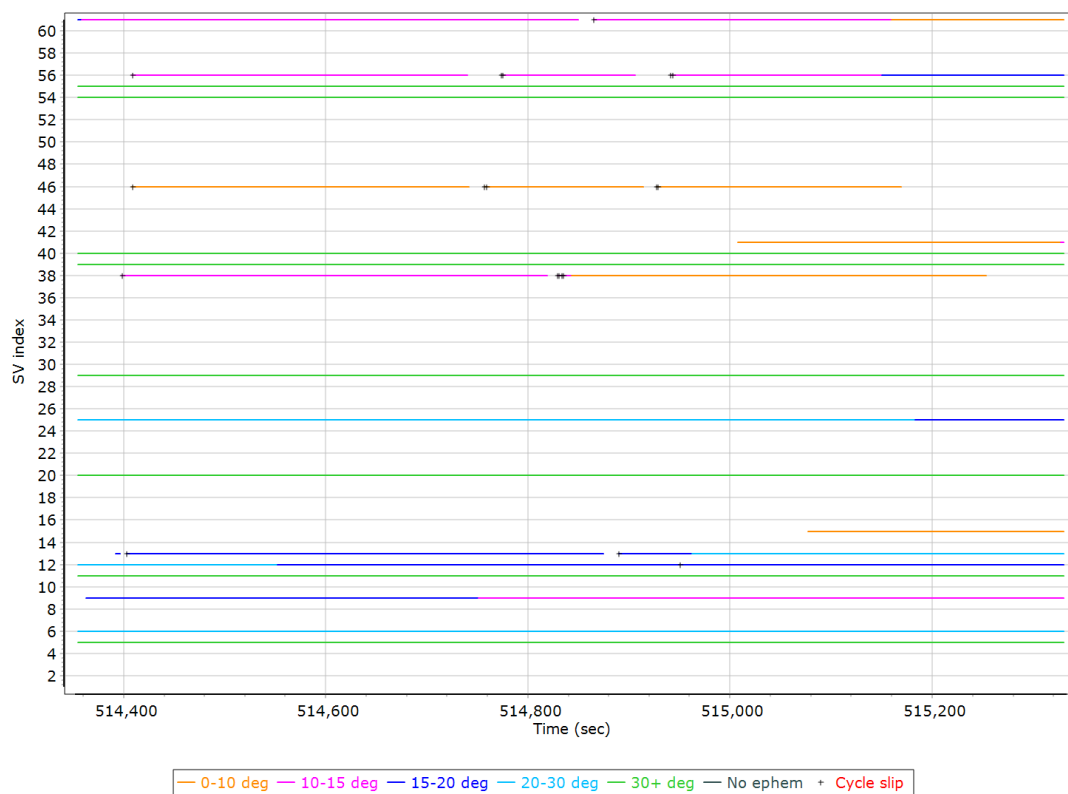
GPS L1 SNR



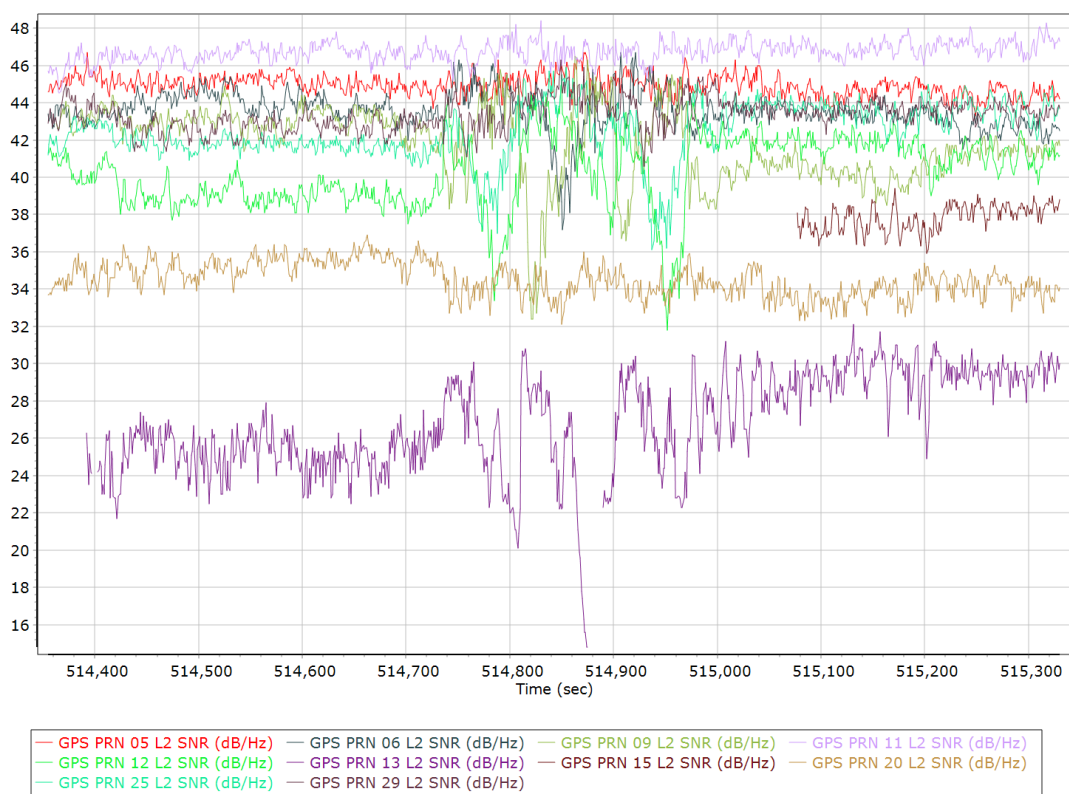
GLONASS L1 SNR



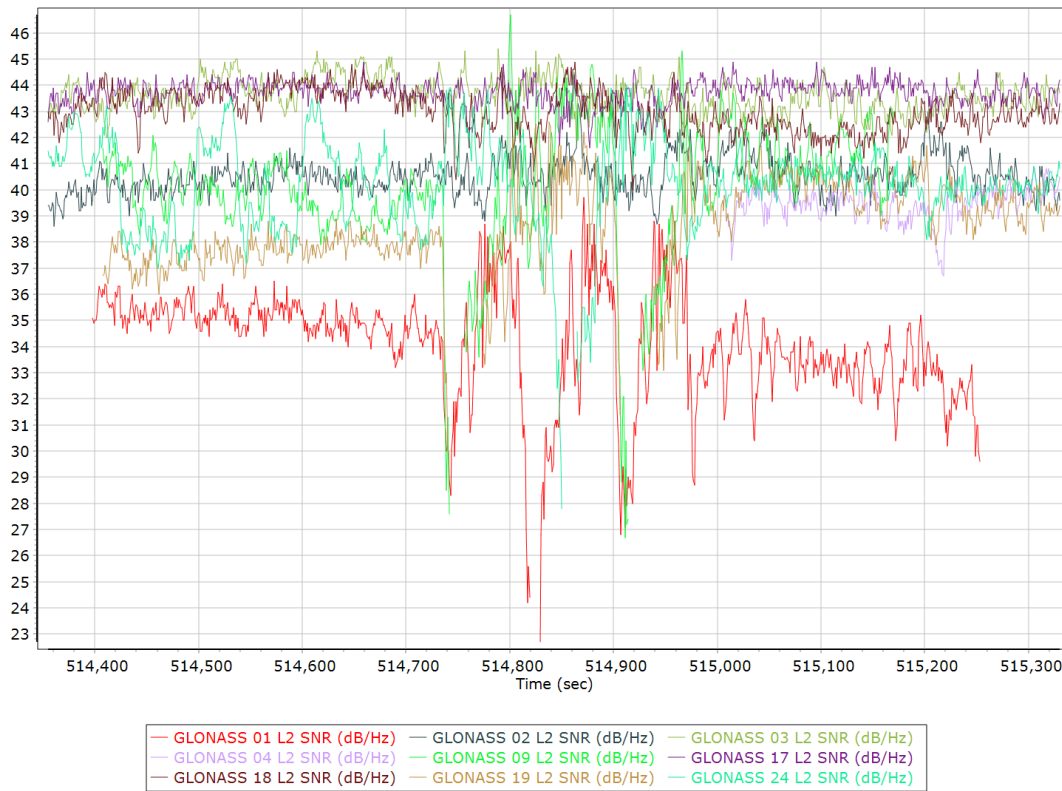
GPS/GLONASS L2 Satellite Lock/Elevation



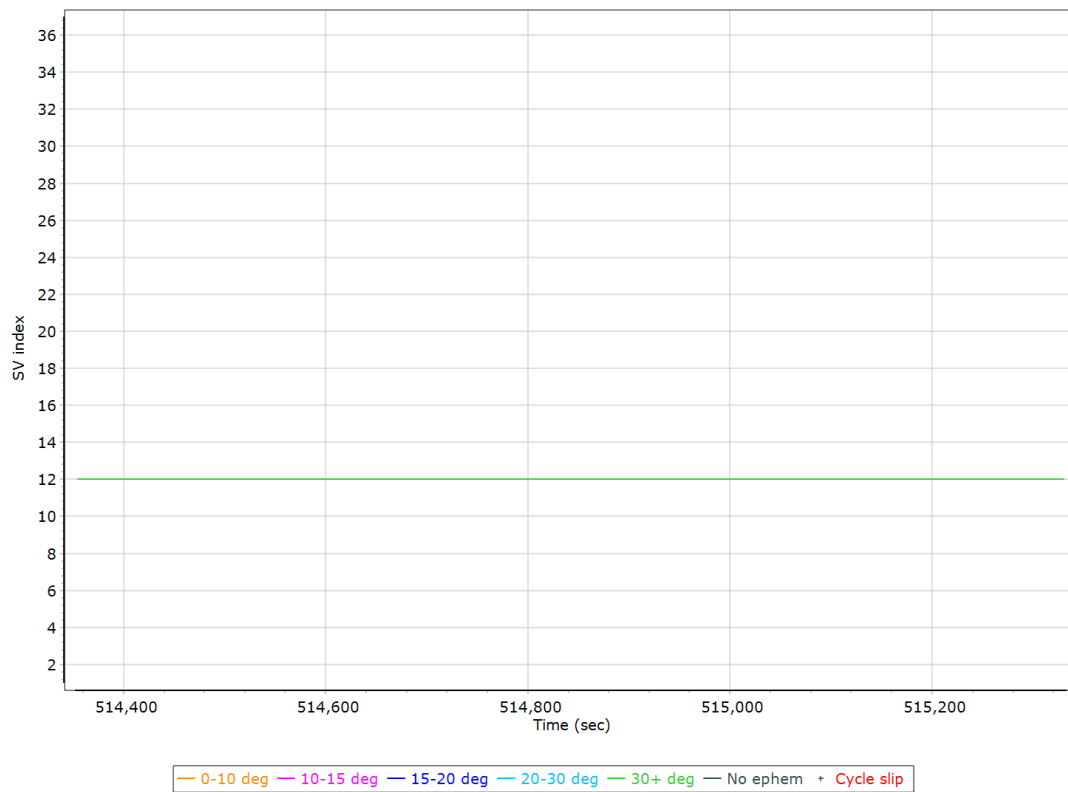
GPS L2 SNR



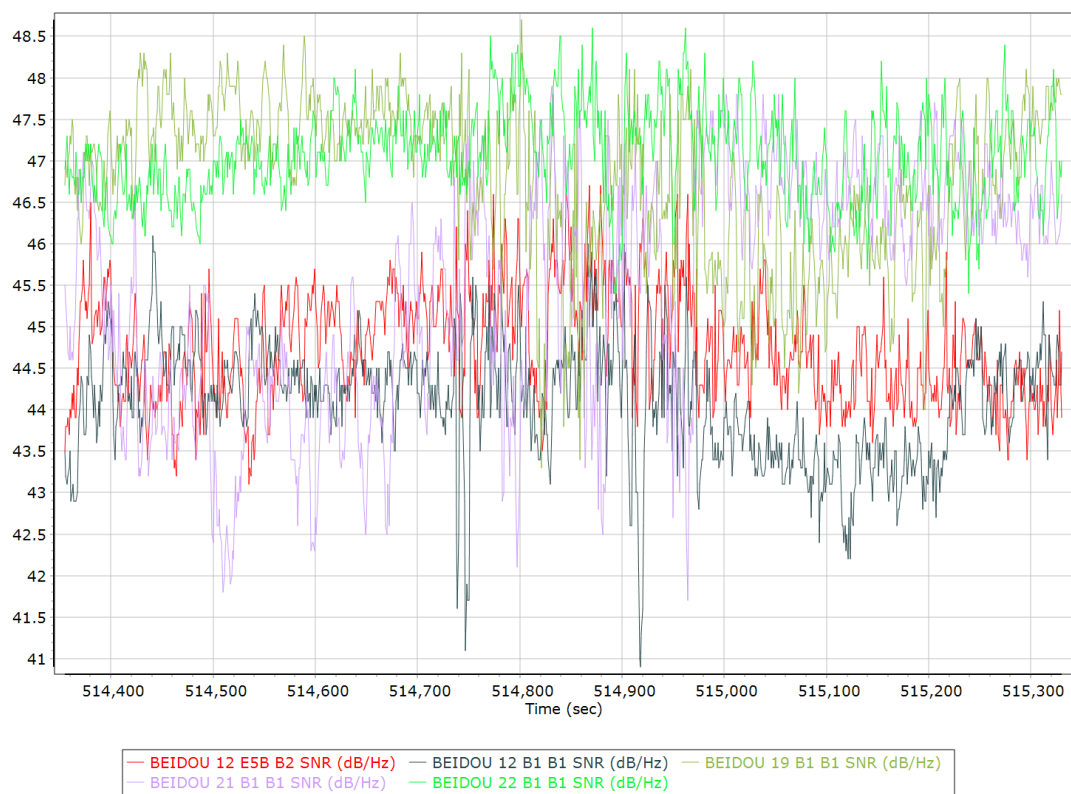
GLONASS L2 SNR



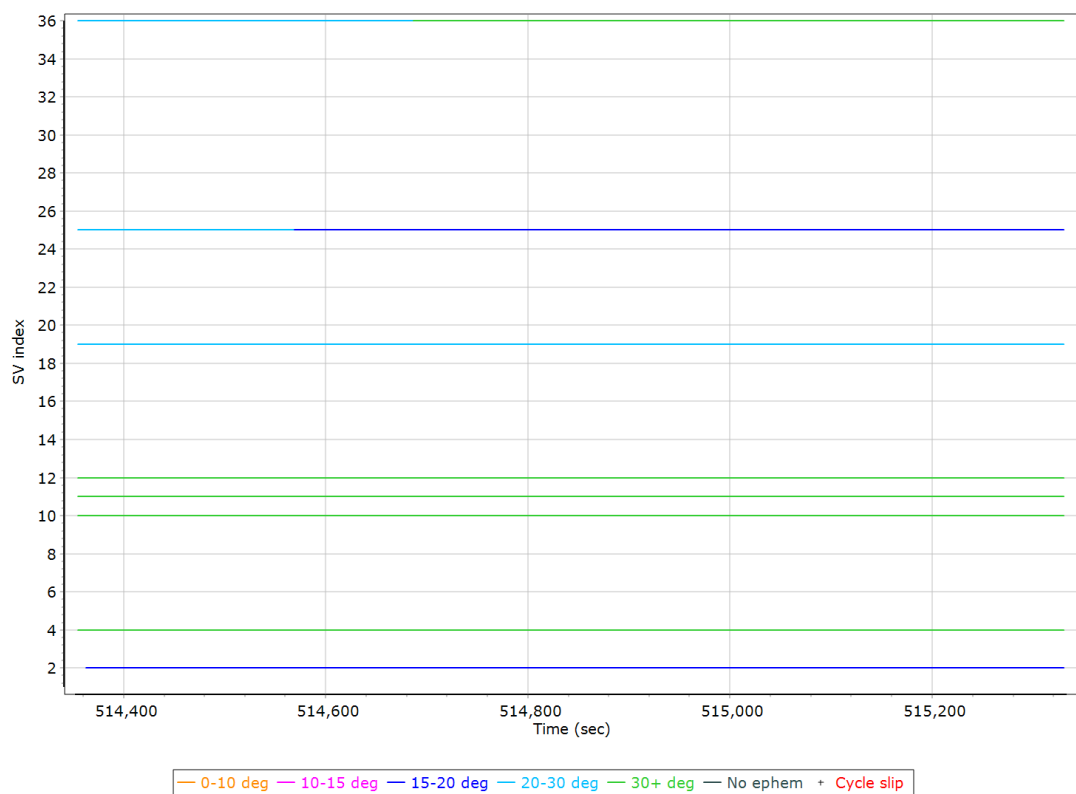
BEIDOU Satellite Lock/Elevation



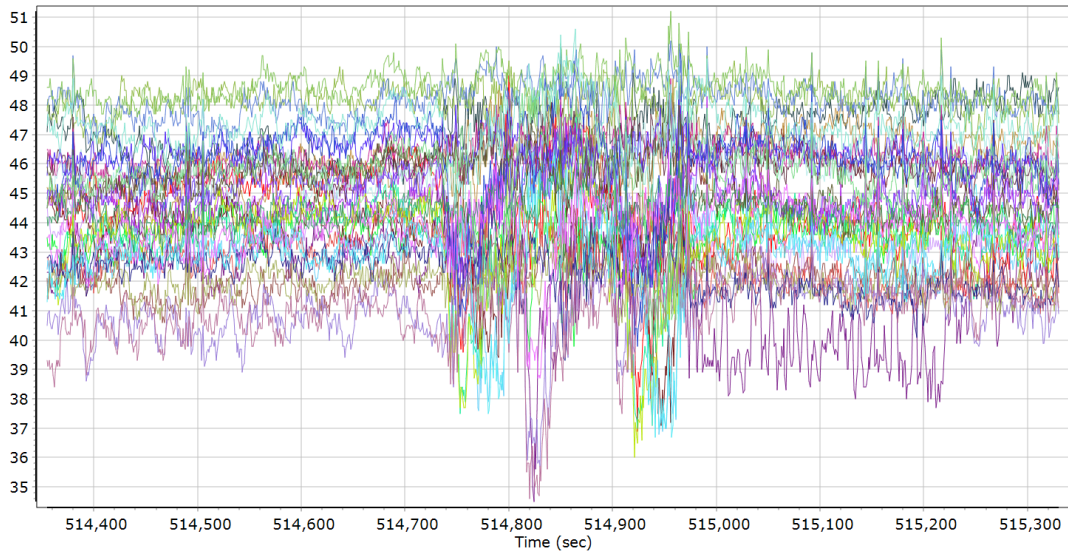
BEIDOU SNR



GALILEO Satellite Lock/Elevation

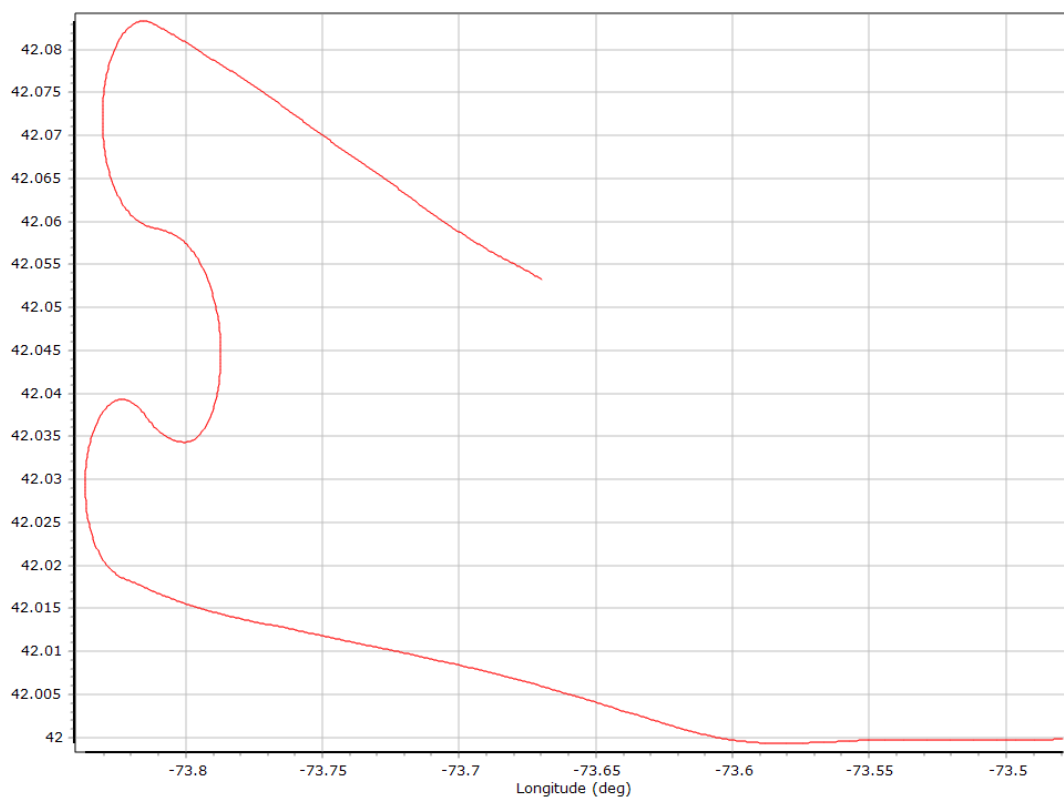


GALILEO SNR

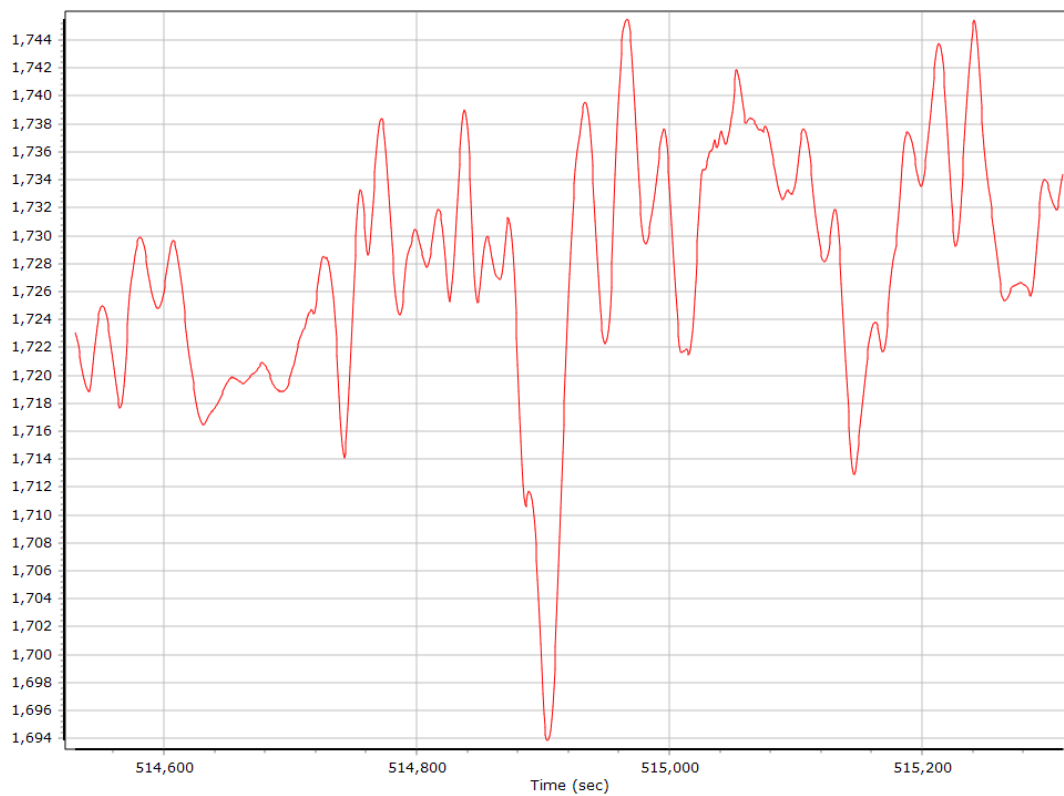


Smoothed Trajectory Information

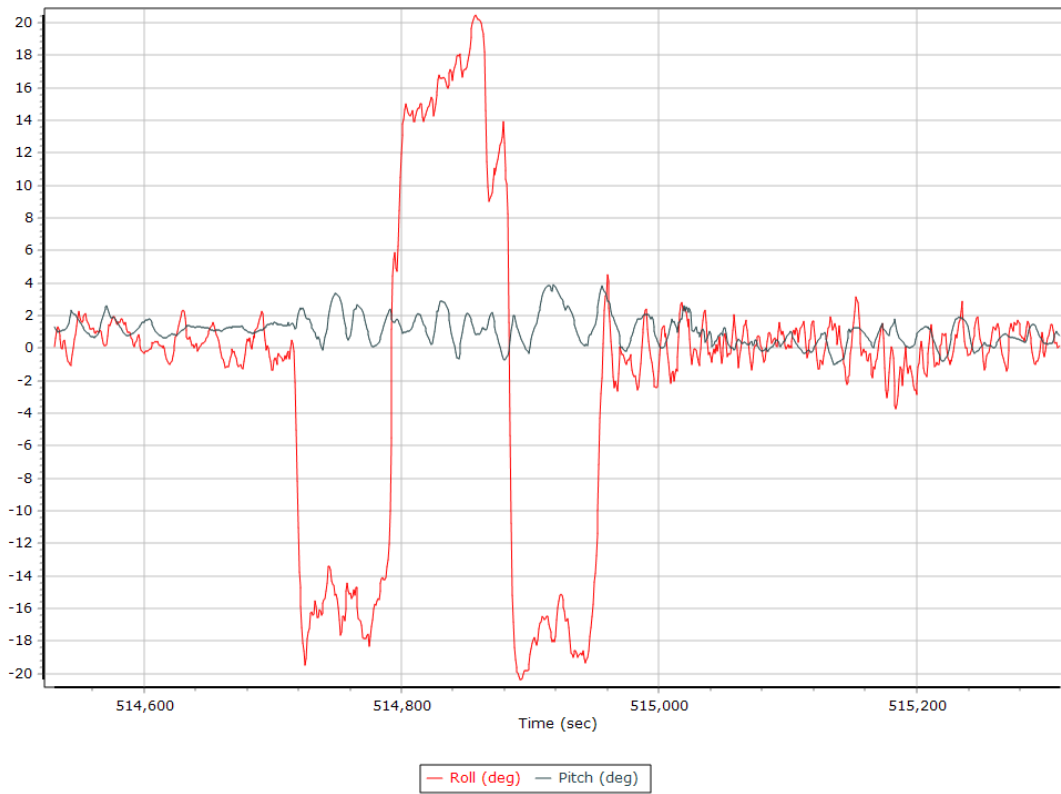
Top View



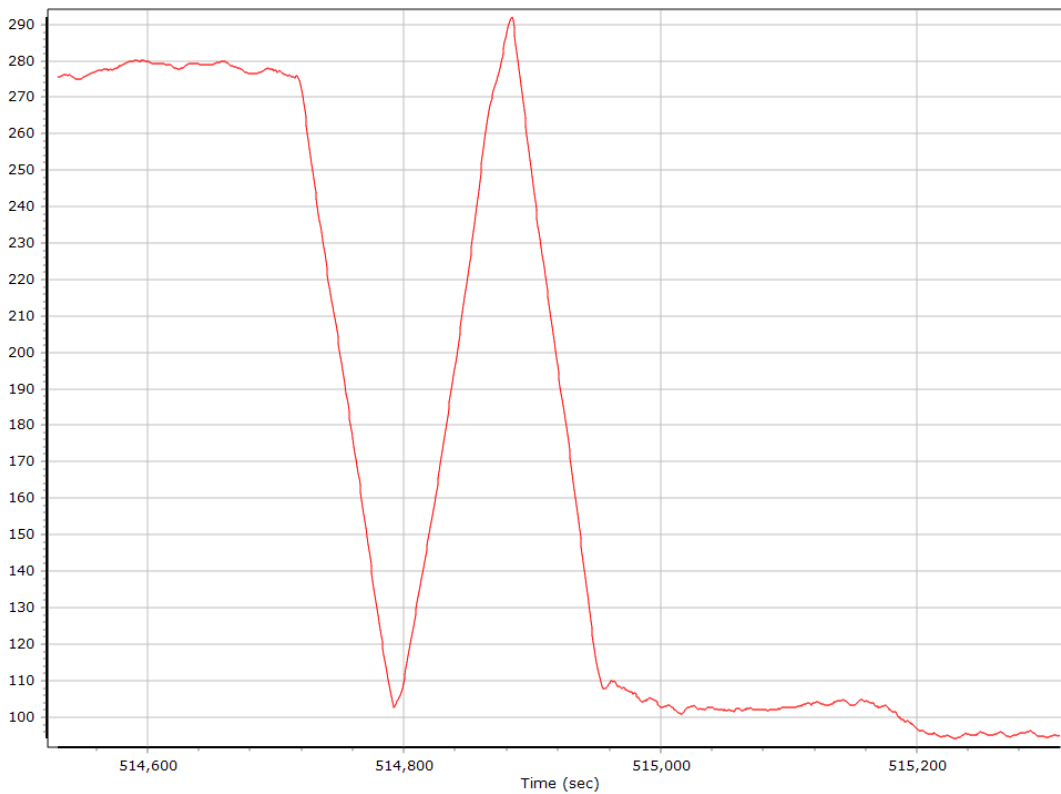
Altitude



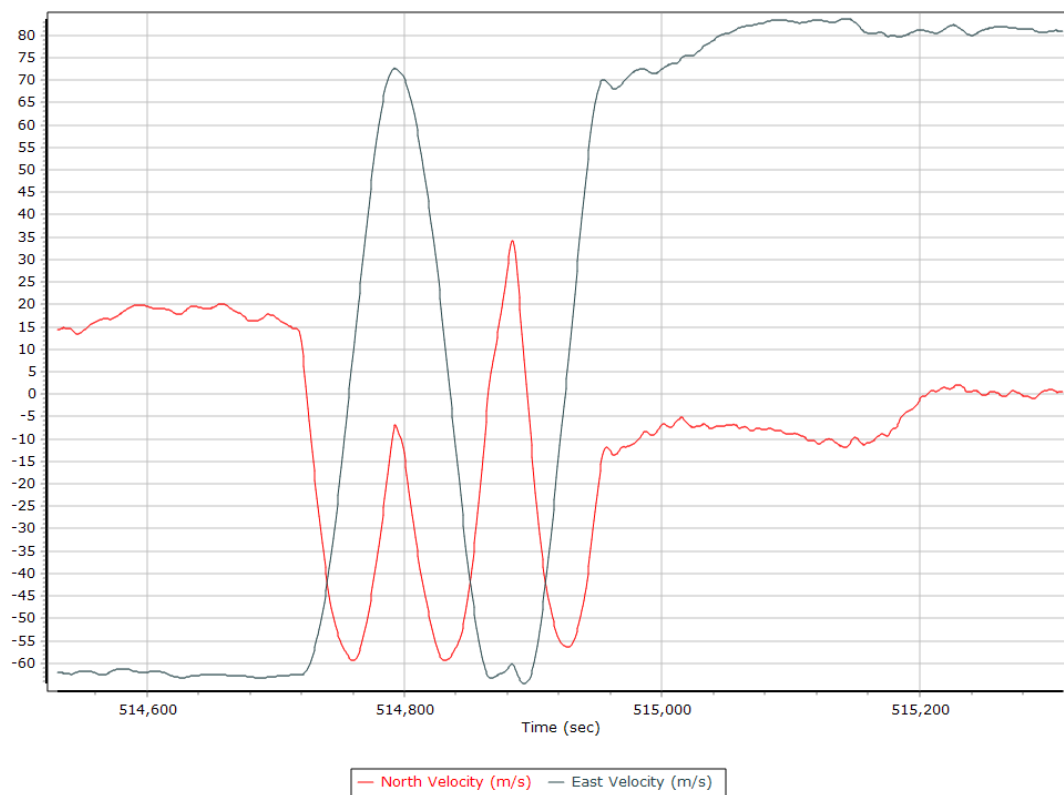
Roll/Pitch



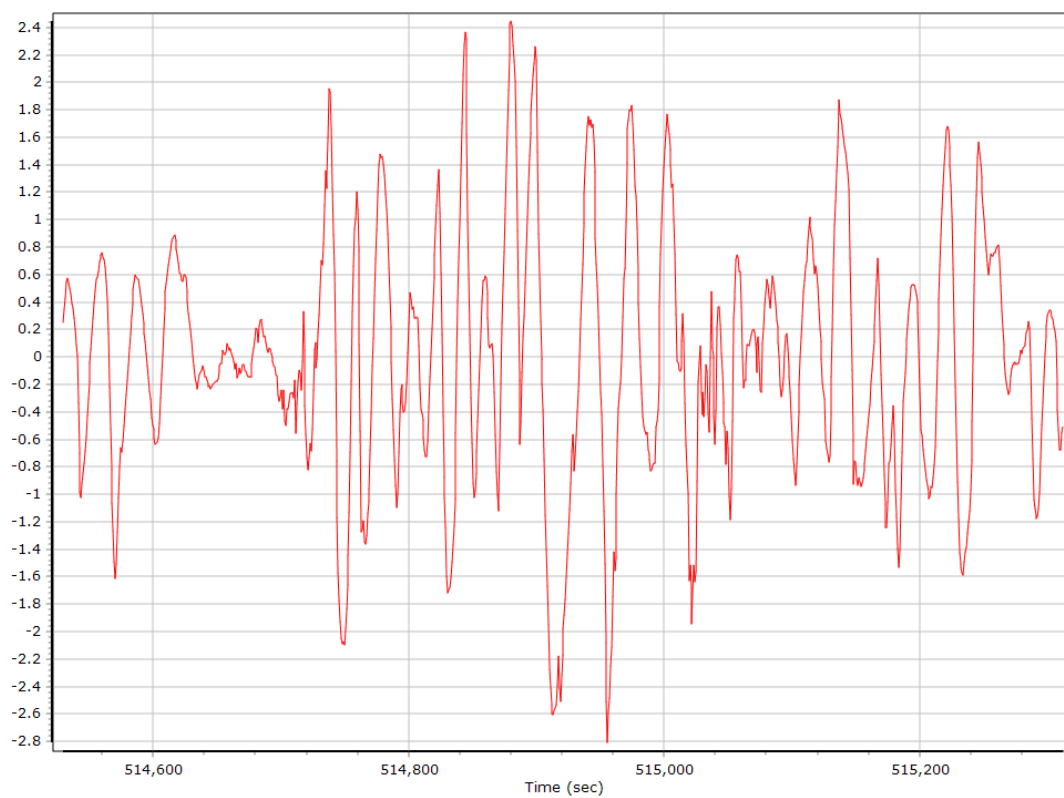
Heading



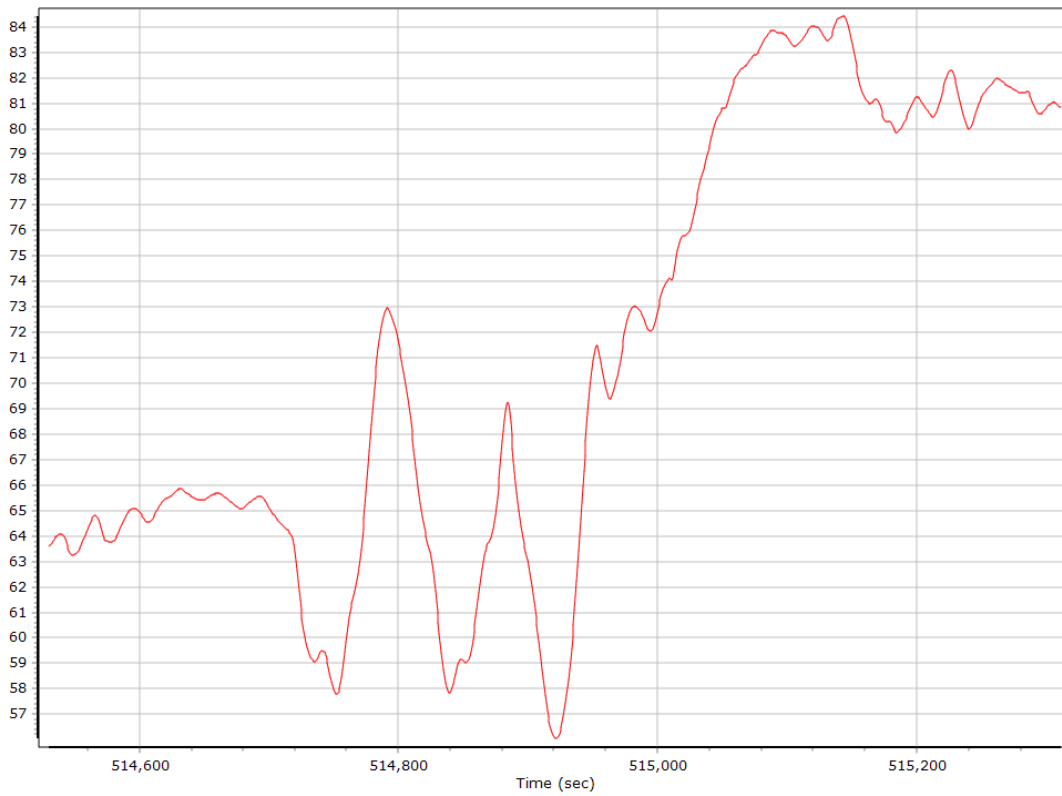
North/East Velocity



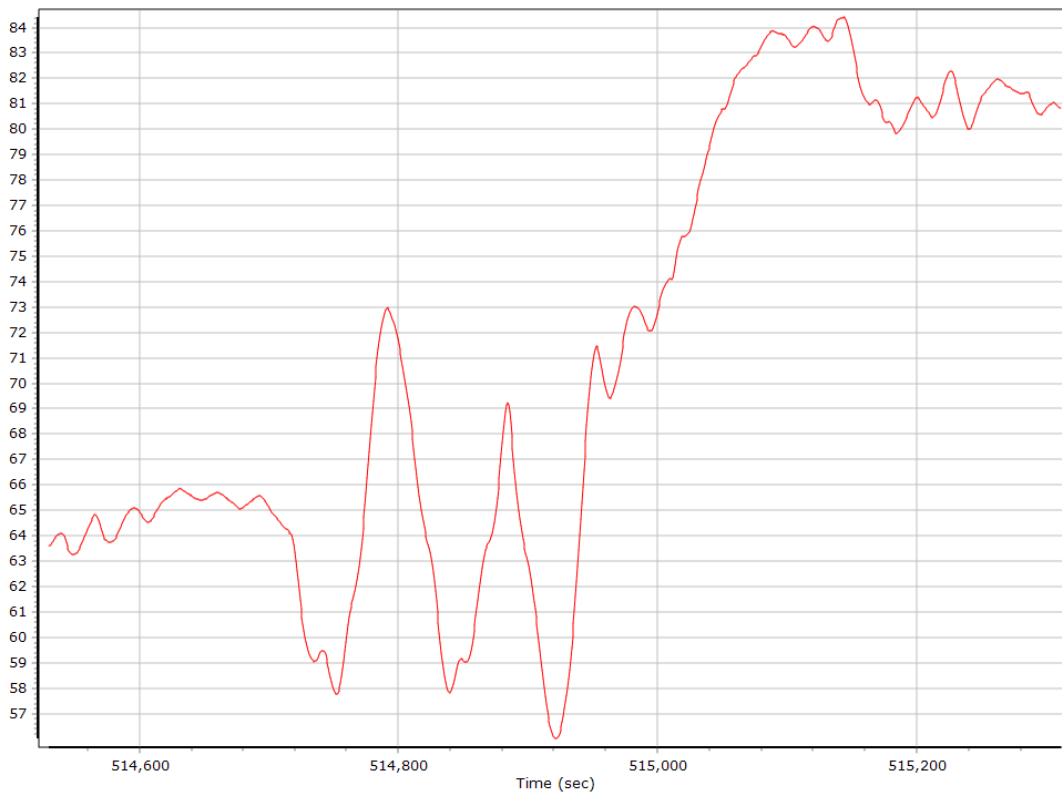
Down Velocity



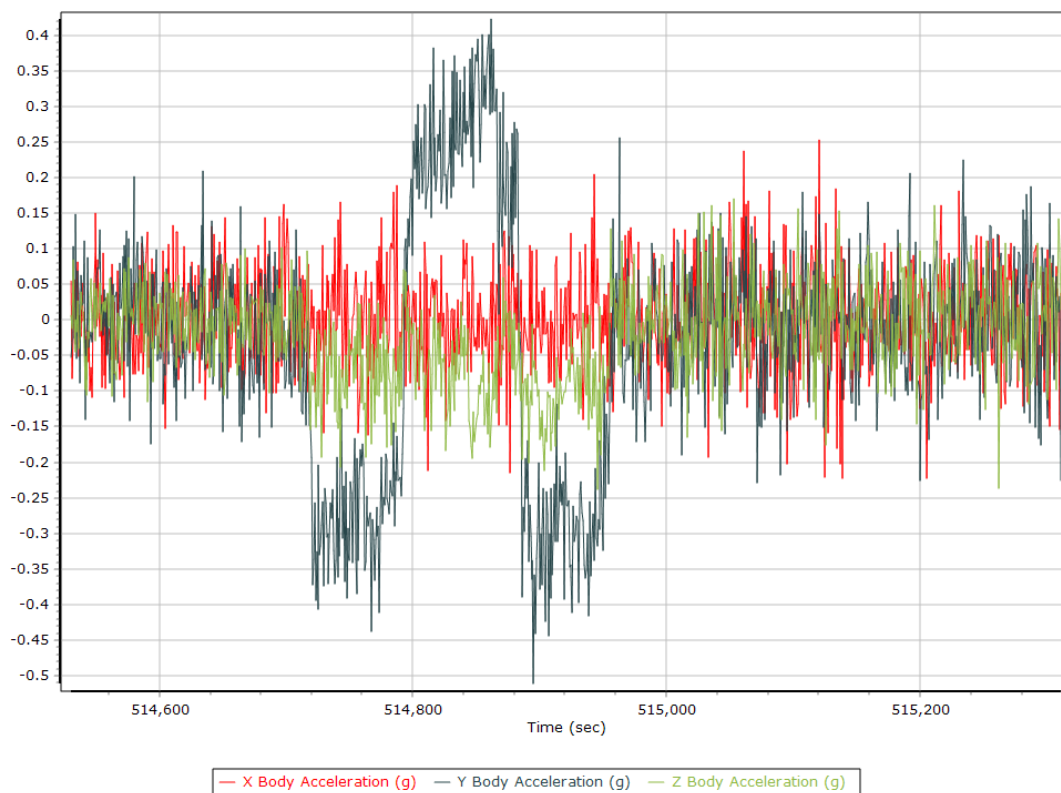
Total Speed



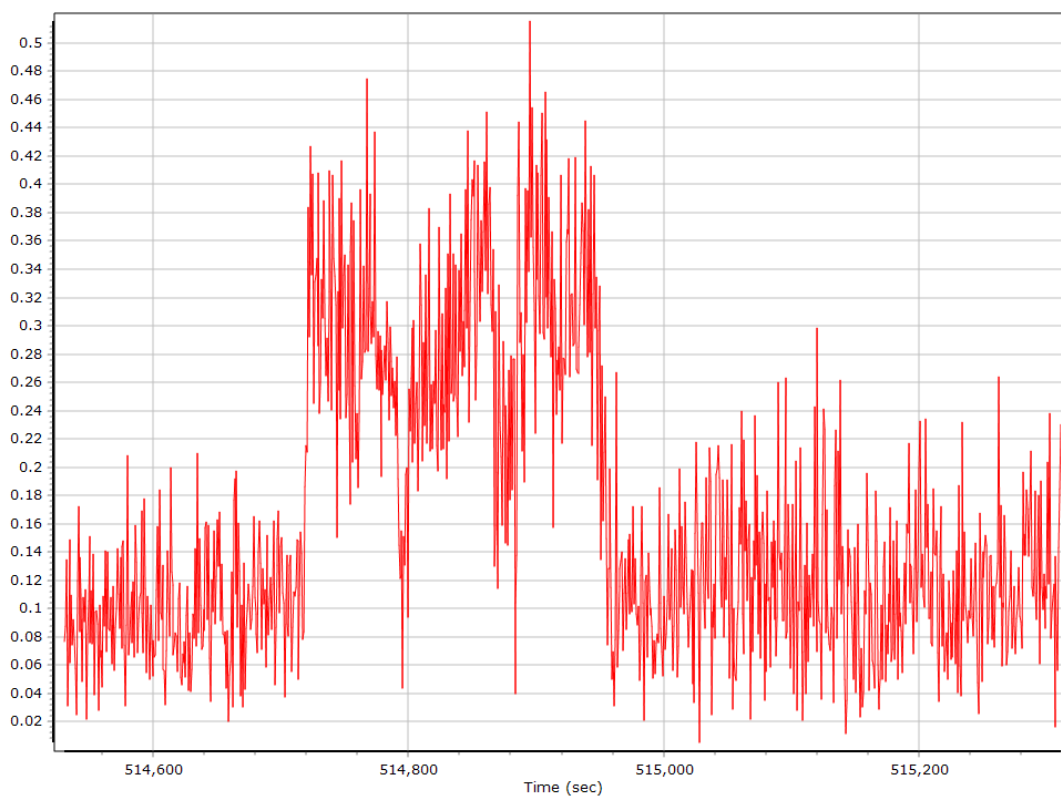
Ground Speed



Body Acceleration



Total Body Acceleration

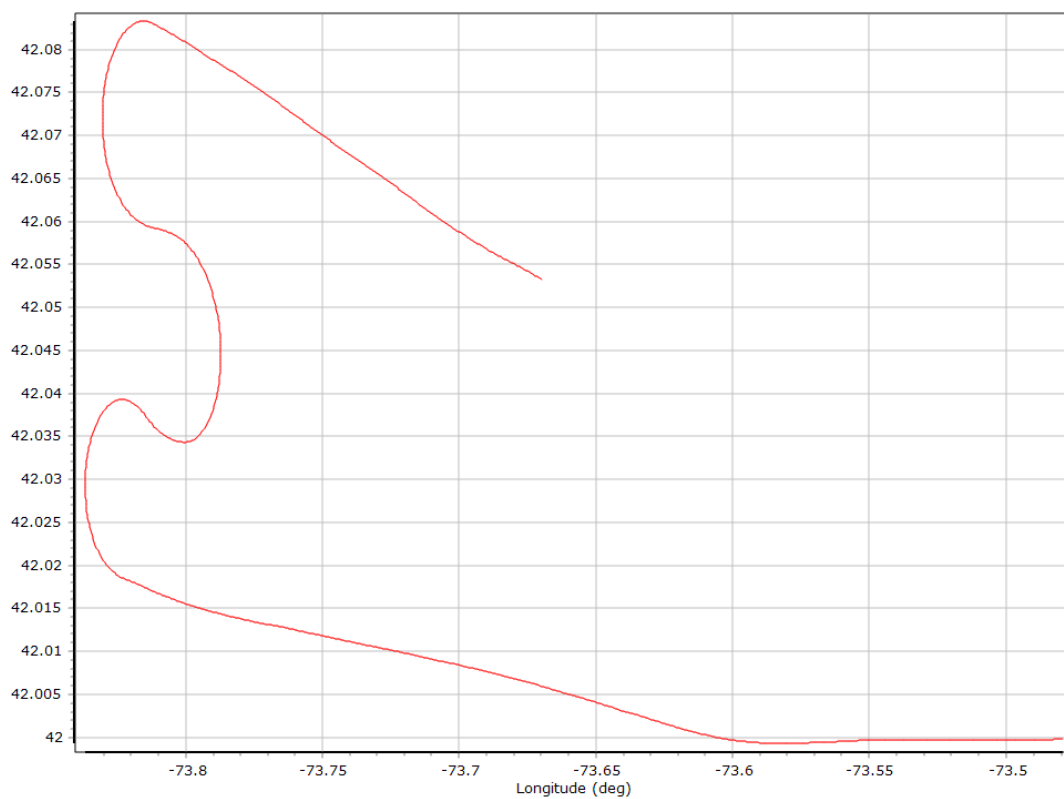


Body Angular Rate

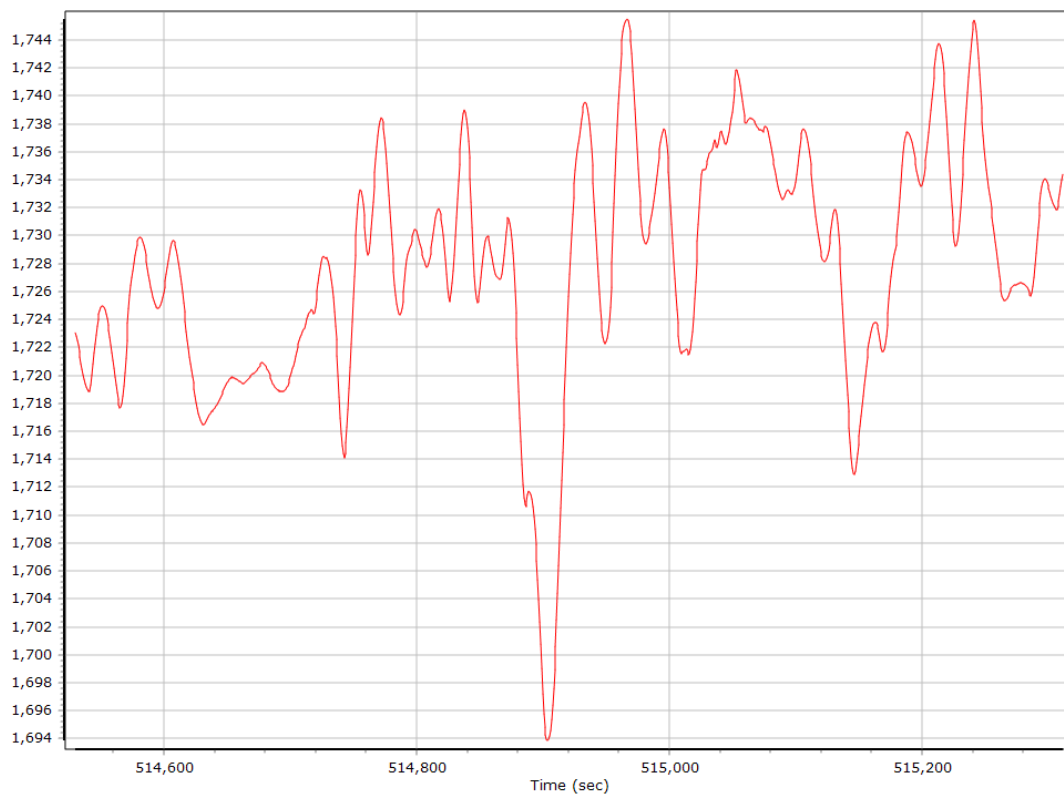


Forward Processed Trajectory Information

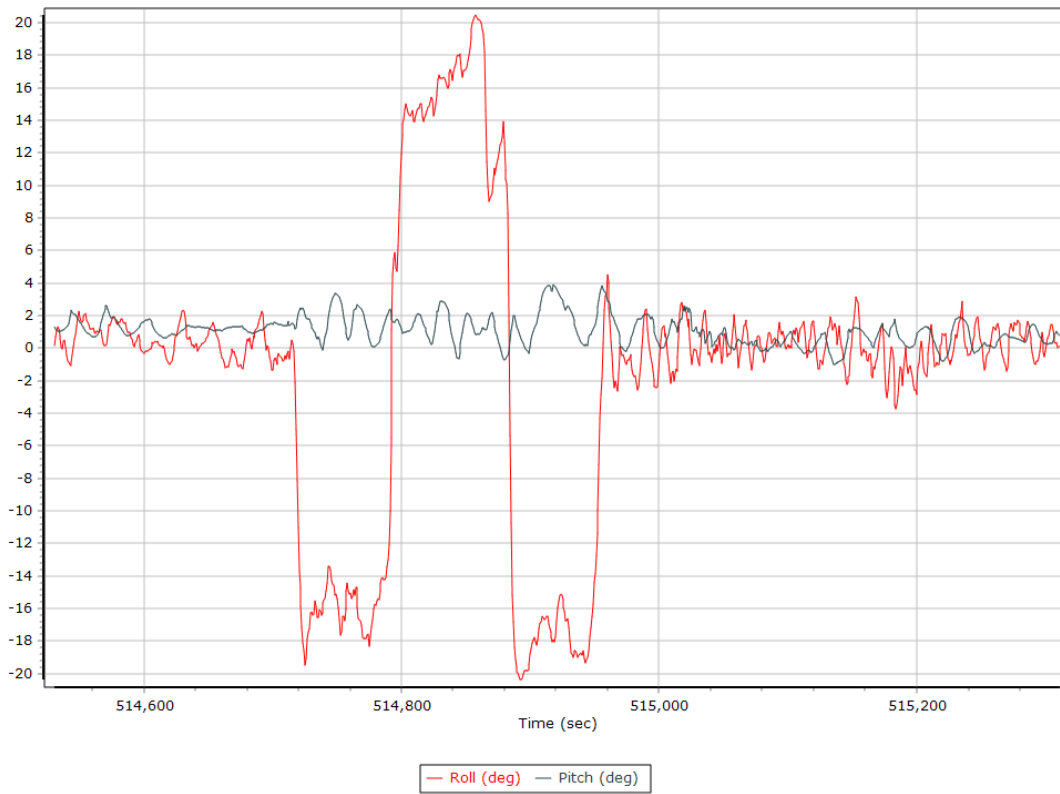
Top View



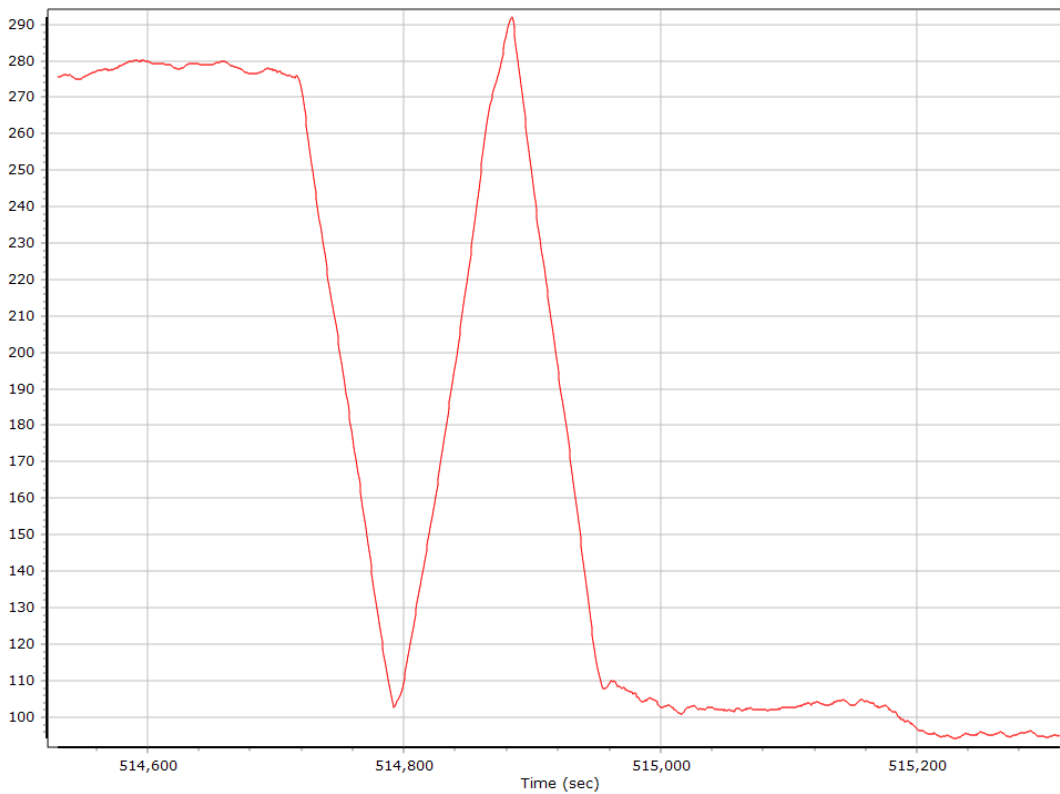
Altitude



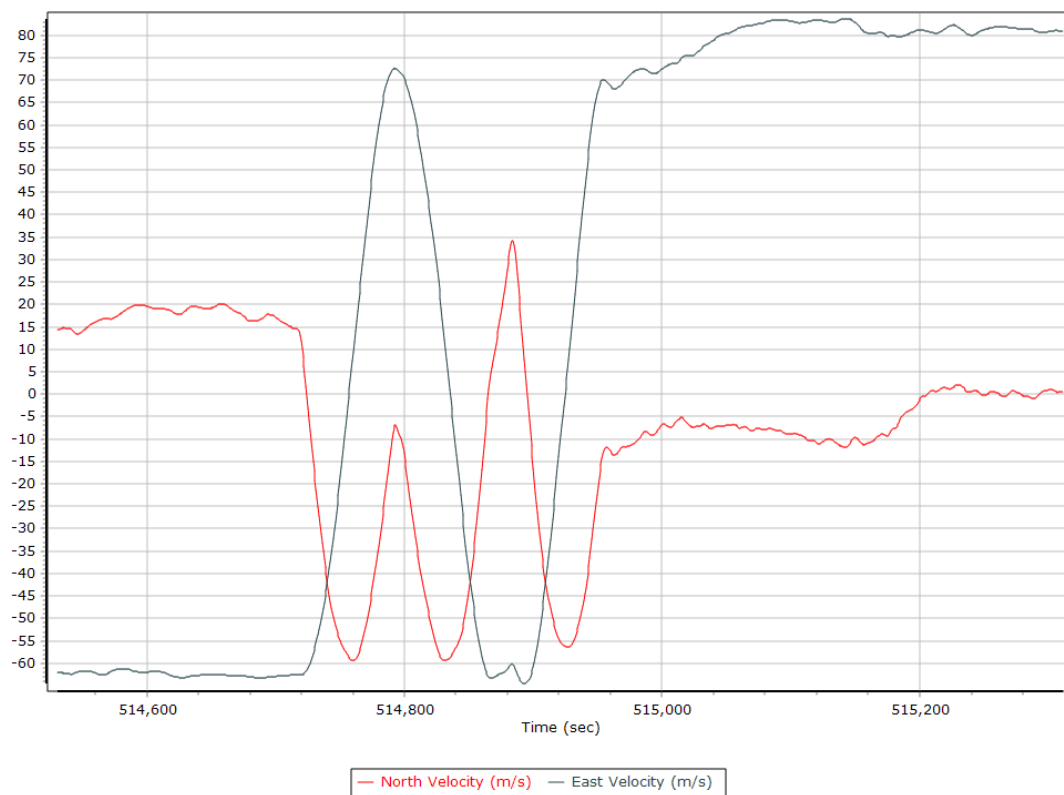
Roll/Pitch



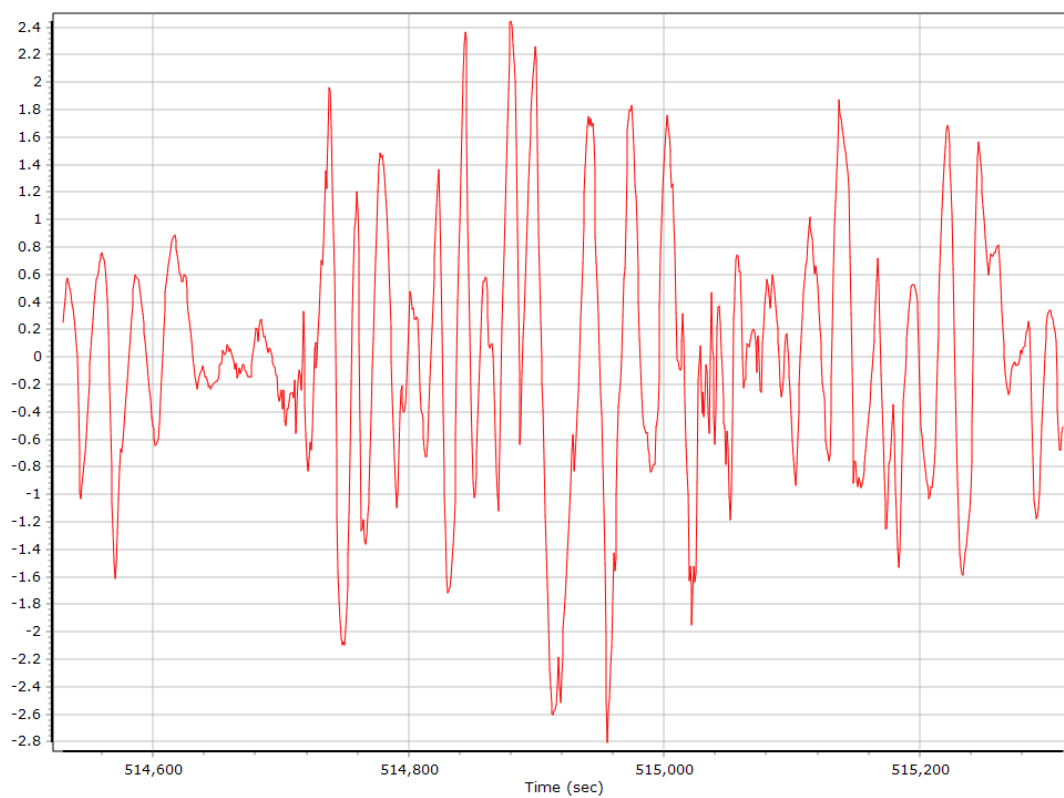
Heading



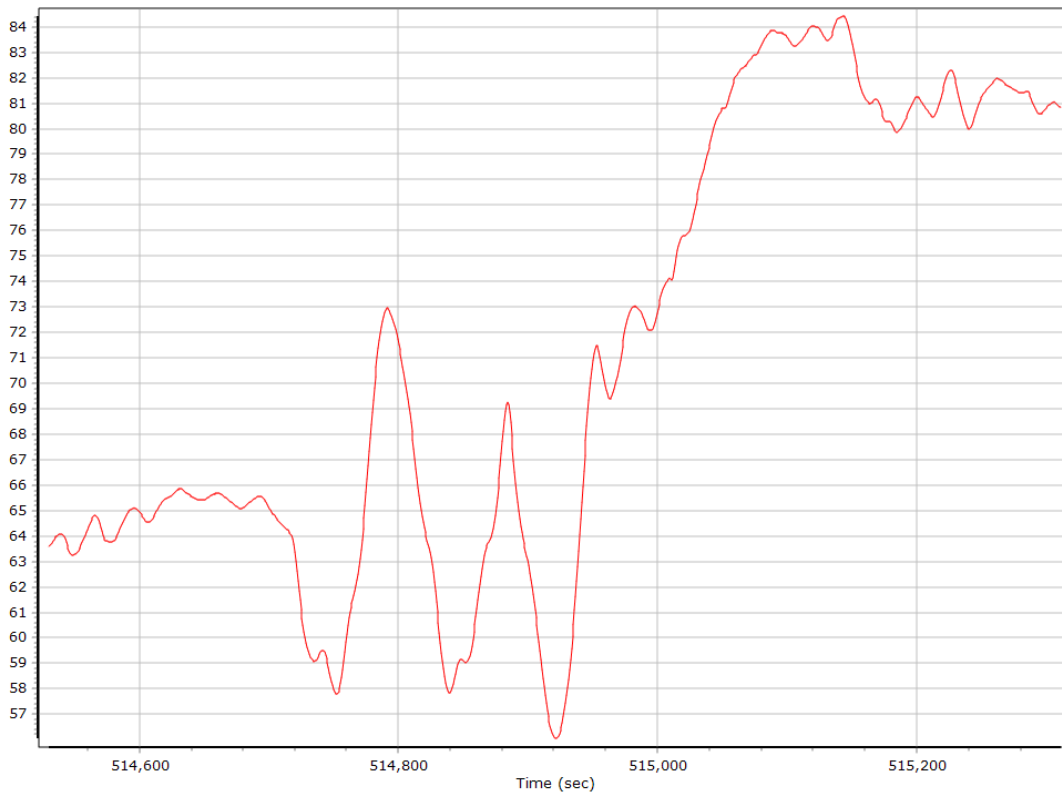
North/East Velocity



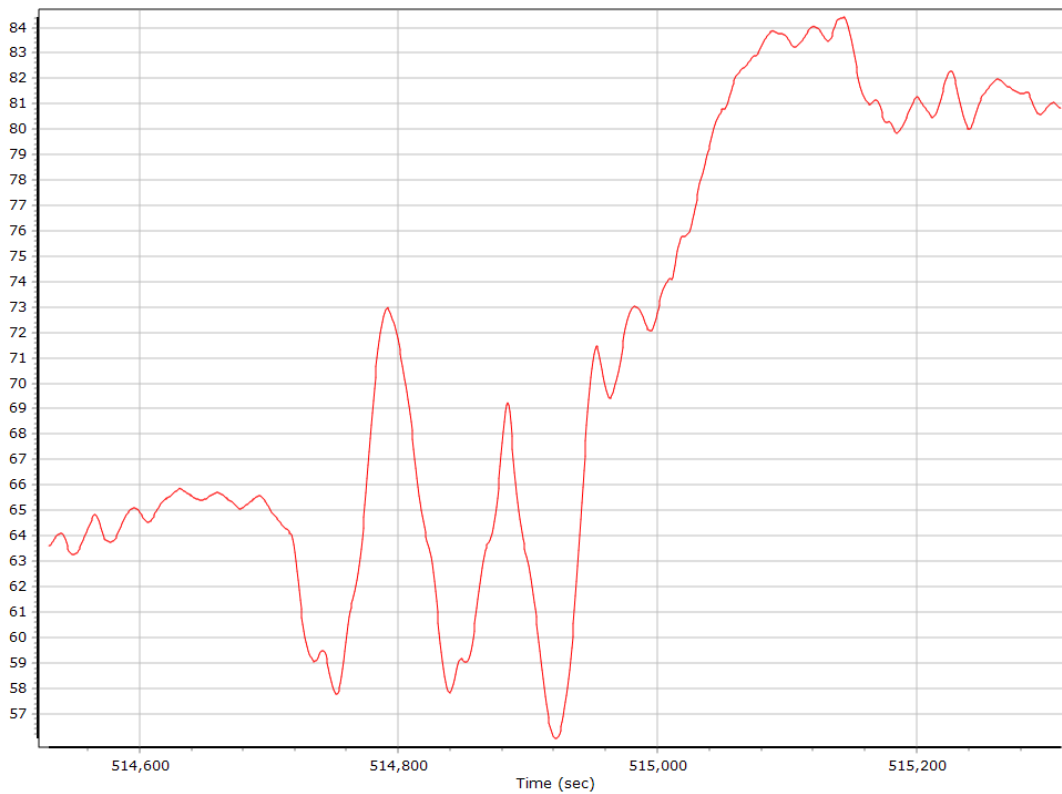
Down Velocity



Total Speed



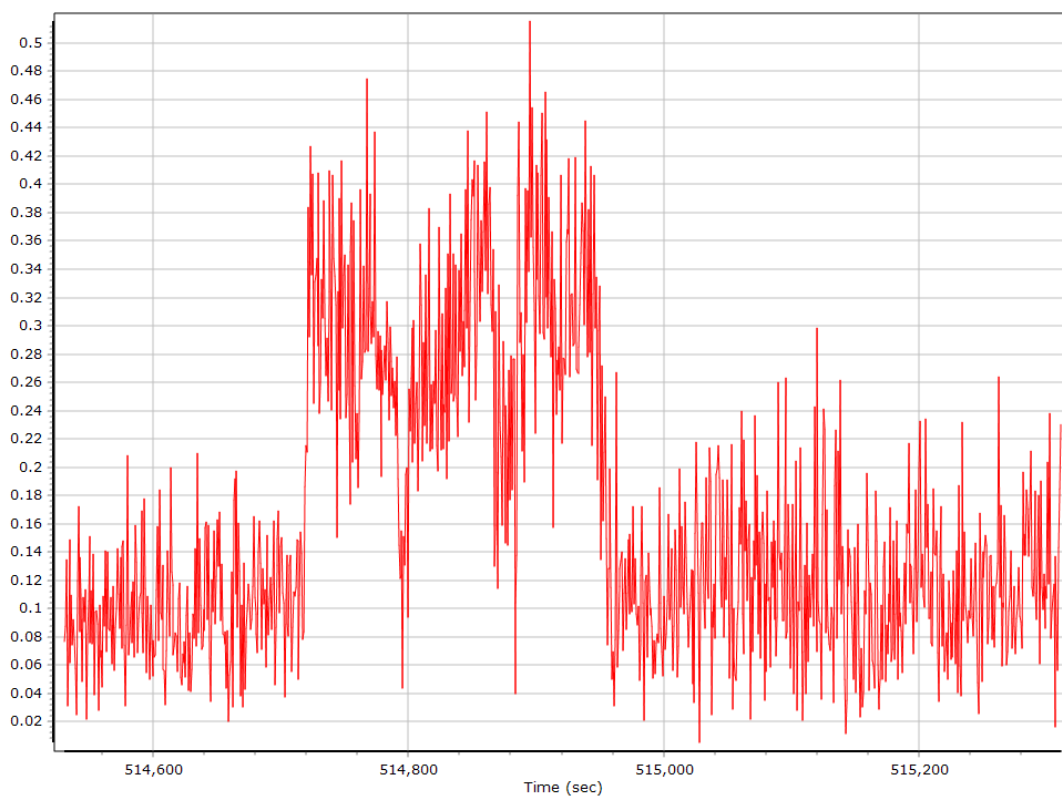
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

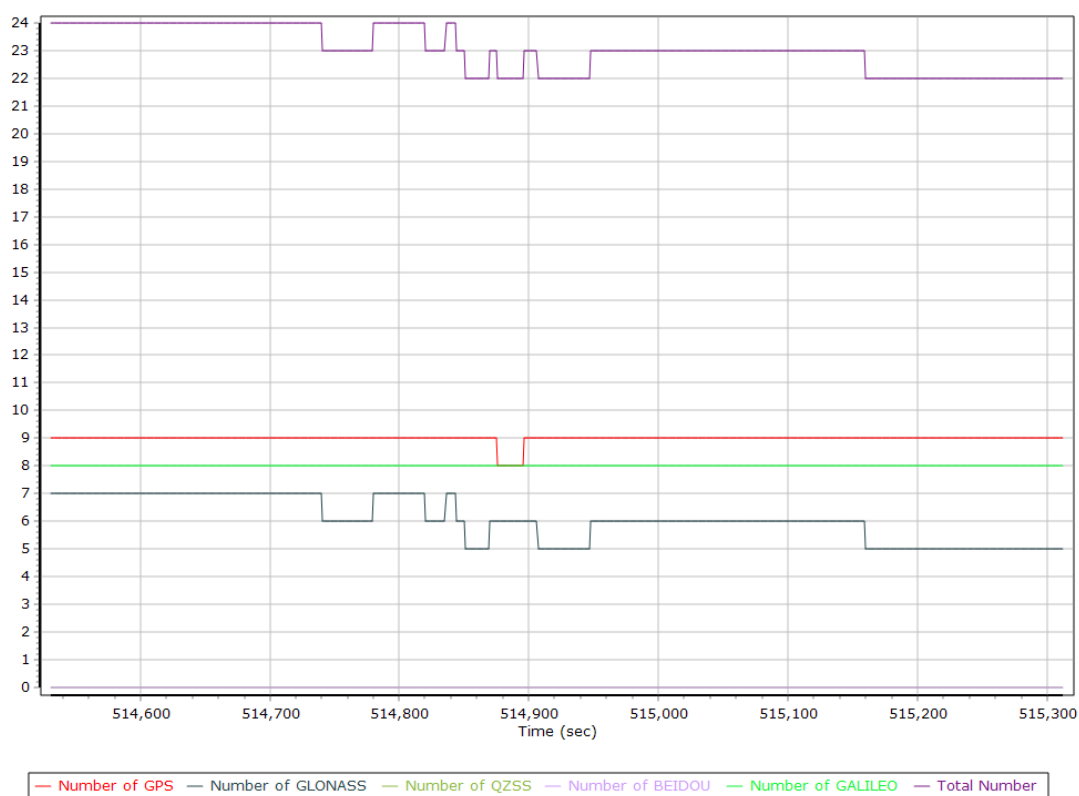


GNSS QC

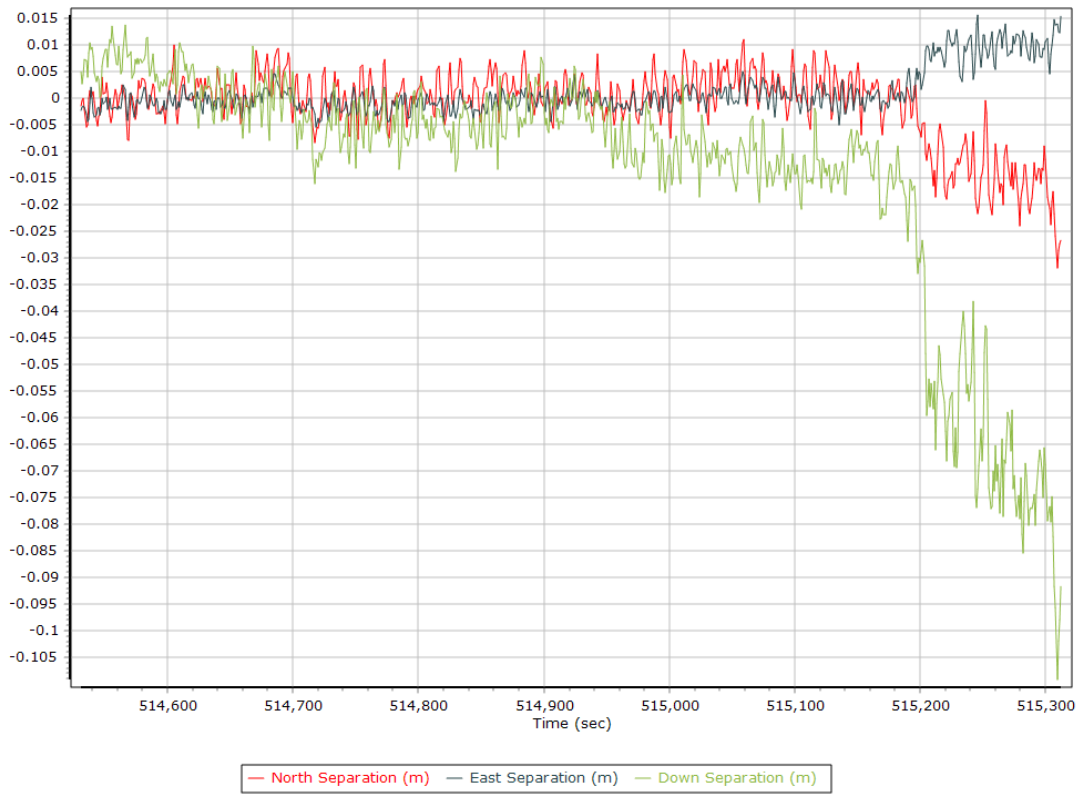
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	7	9	9
Number of GLONASS SV	5	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	7	8	8
Total number of SV	19	24	23
PDOP	0.94	1.32	1.00
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	962.00	0.00	0.00
Percentage	100.00	0.00	0.00

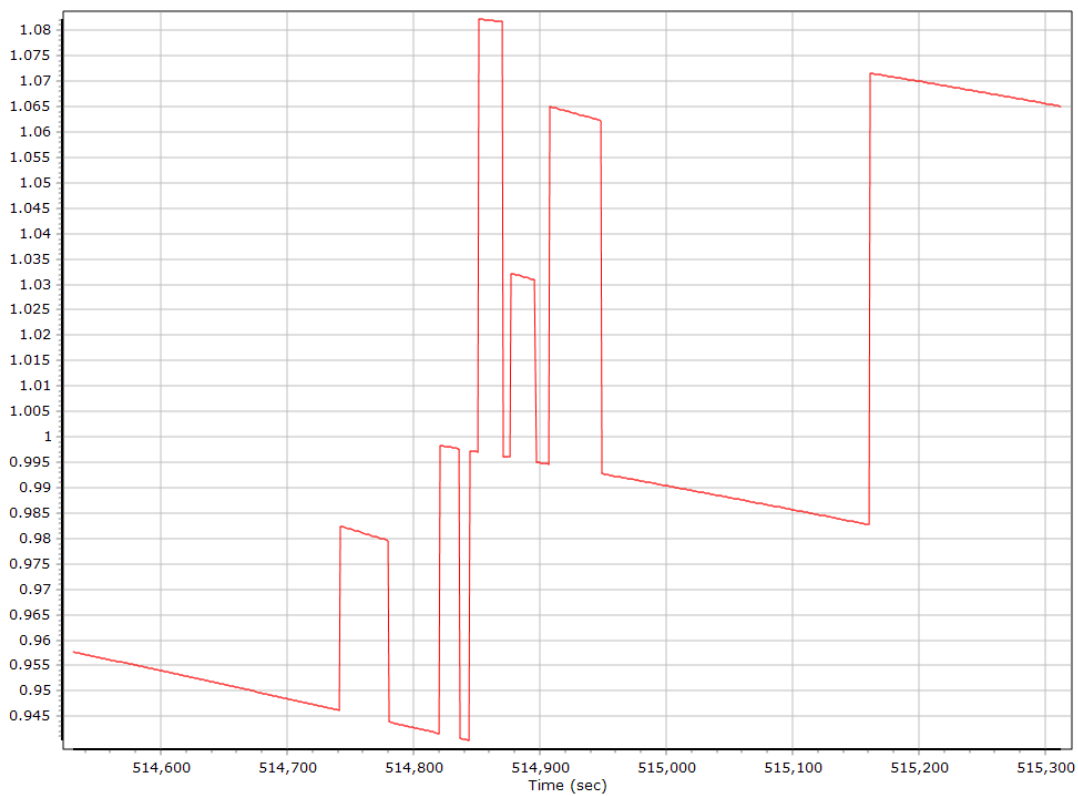
Num SVs in solution



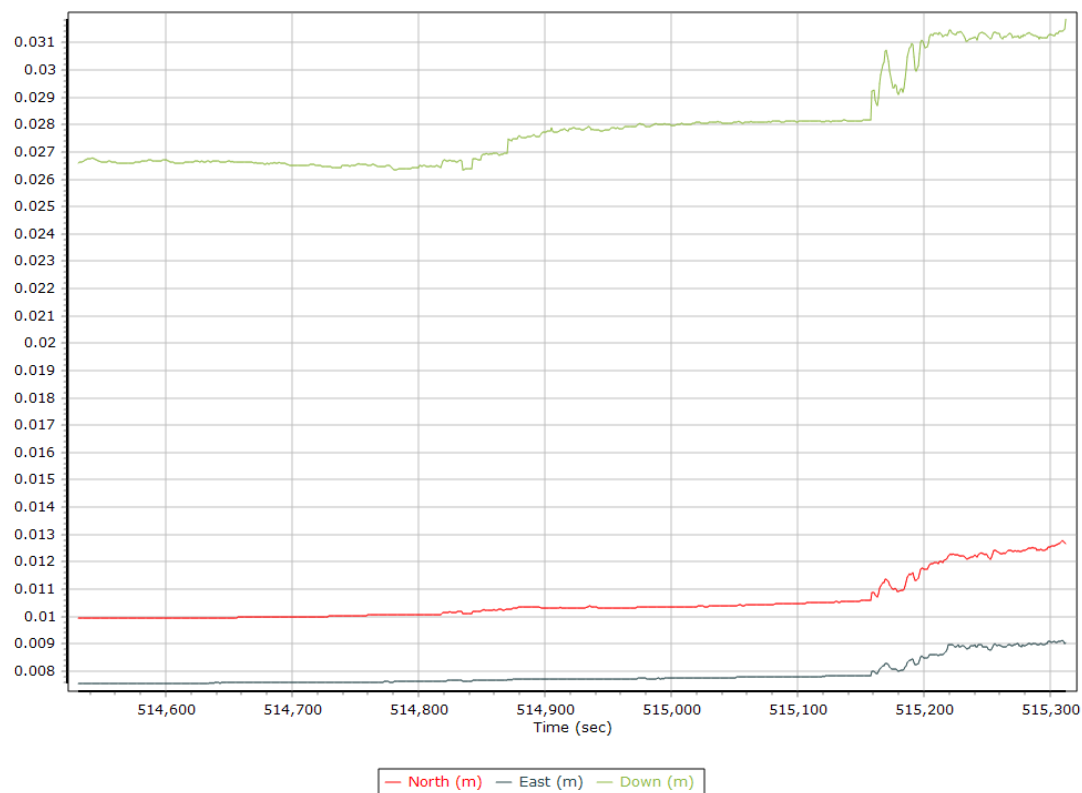
Forward/Reverse Separation



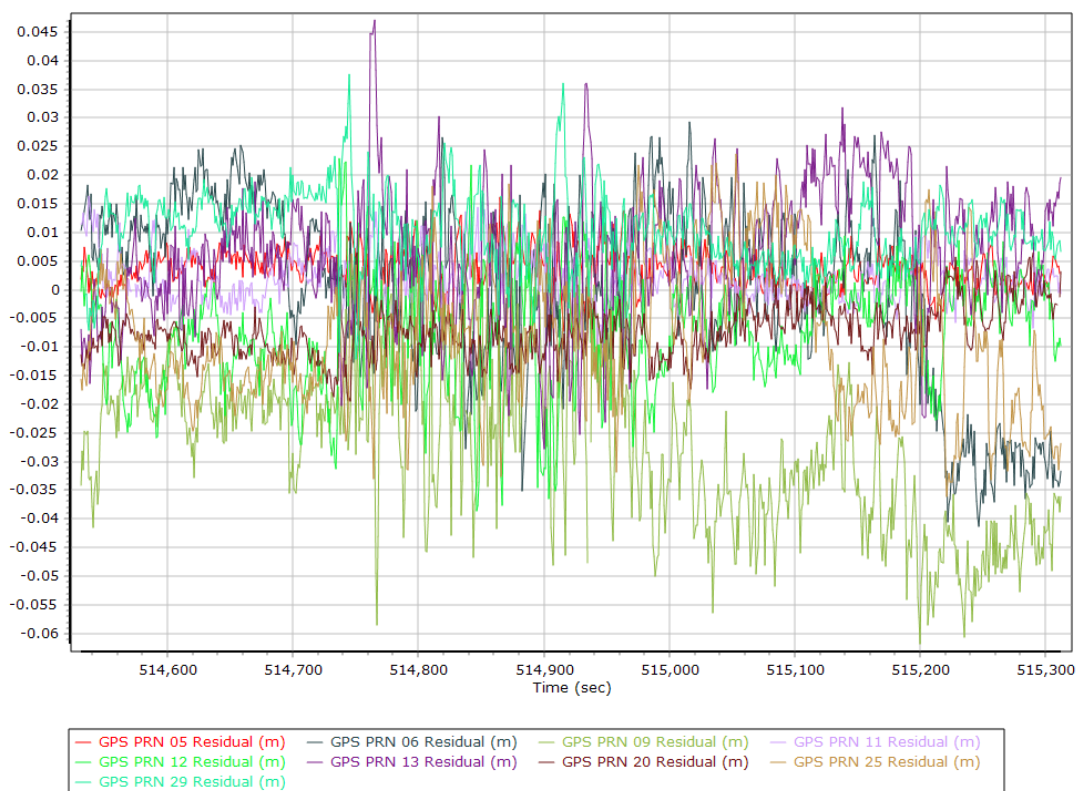
PDOP



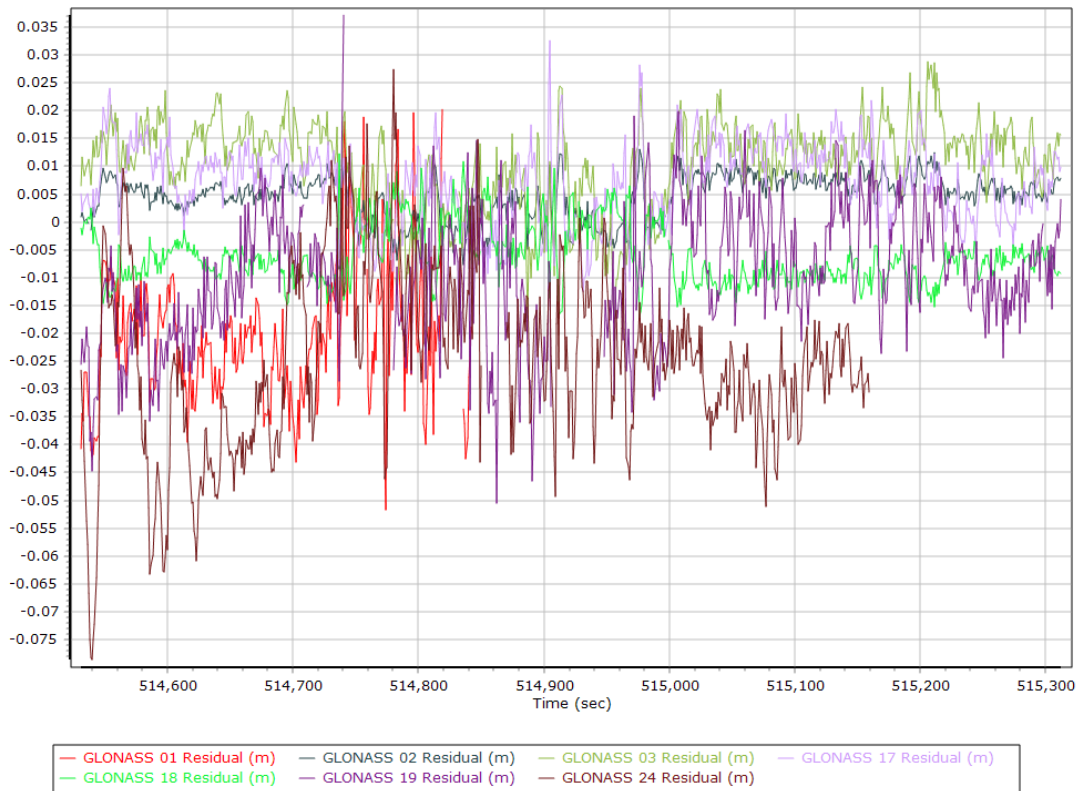
Estimated Position Accuracy



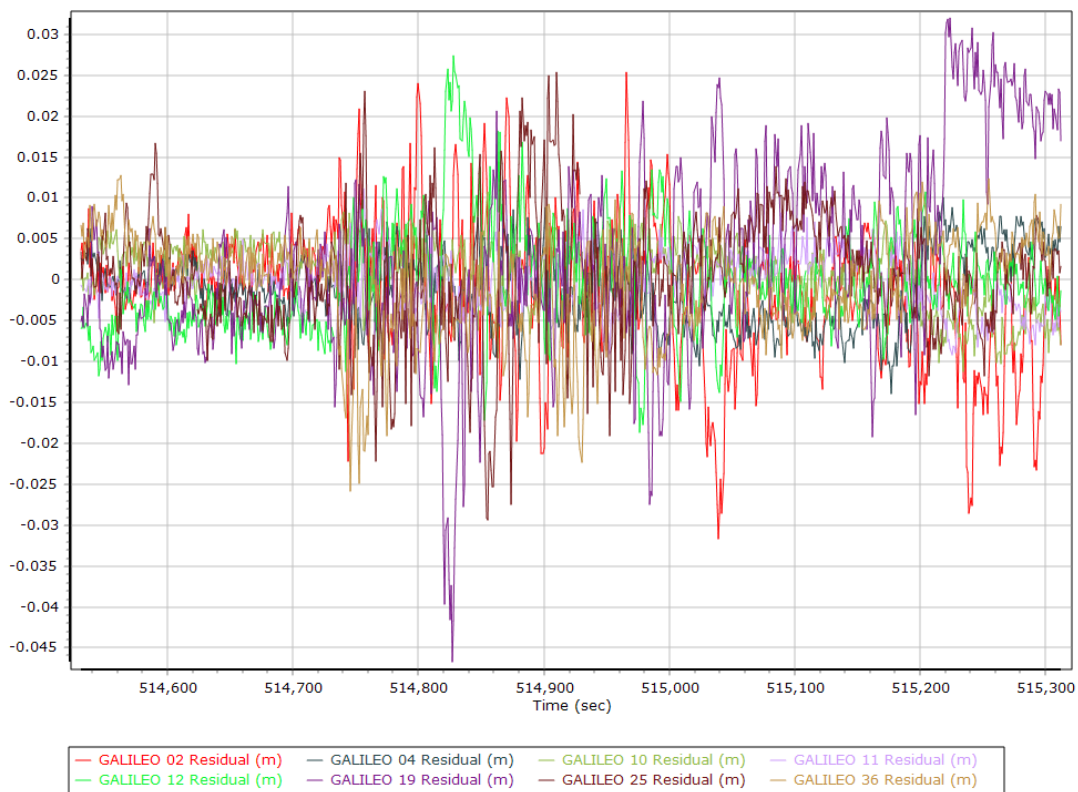
GPS Residuals



GLONASS Residuals



GALILEO Residuals



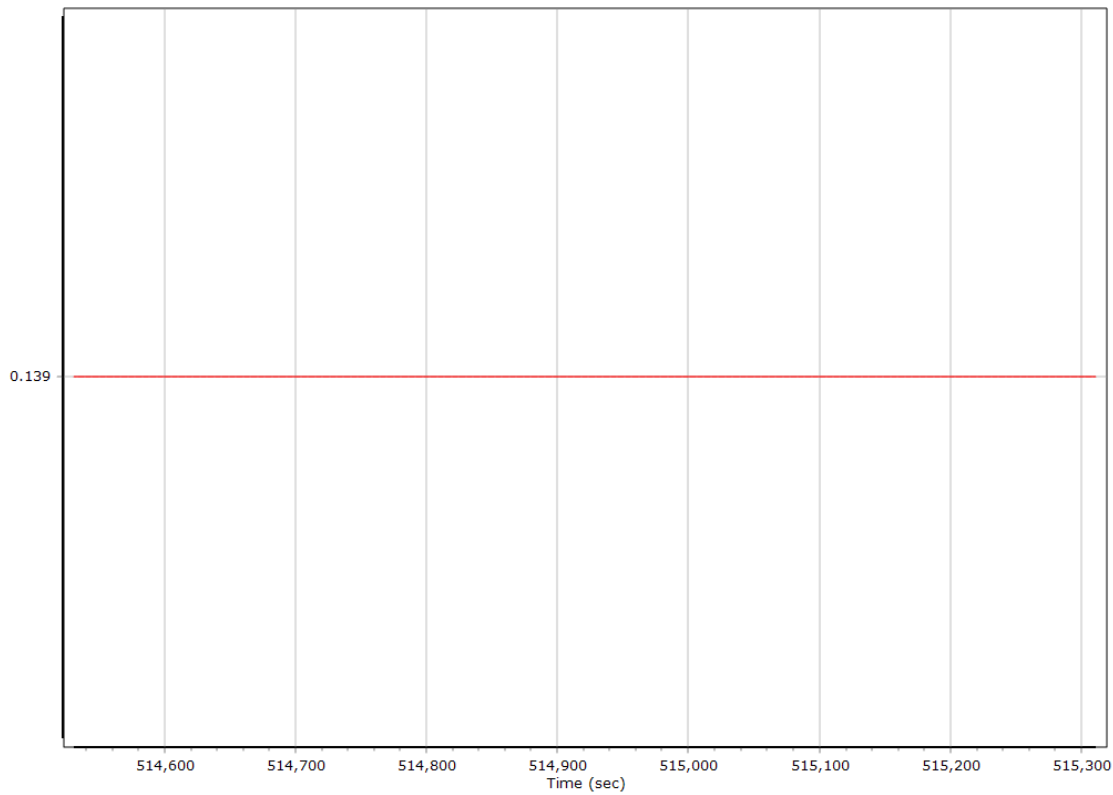
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	514337.000 (04/21/2023 22:52:17)		
Processing end time	515312.000 (04/21/2023 23:08:32)		
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	0.000
Reference to Primary GNSS lever arm (m)	0.139	0.045	-0.967
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

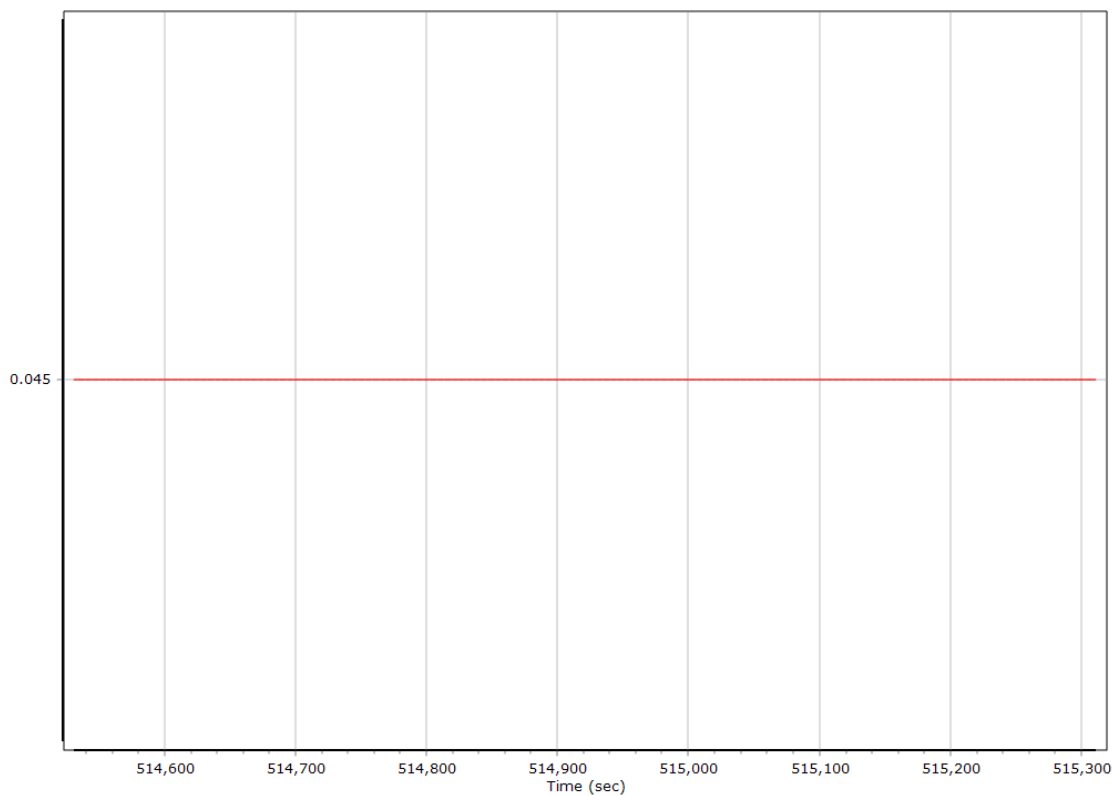
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

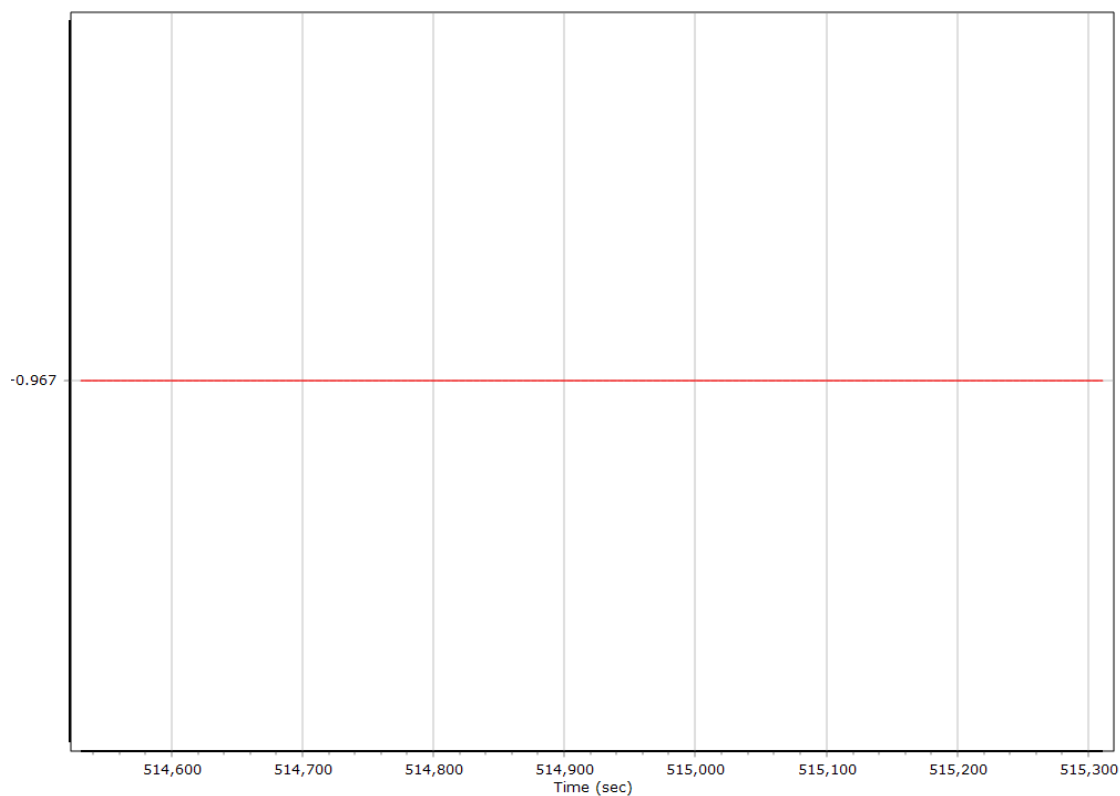
X Reference-Primary GNSS Lever Arm (m)



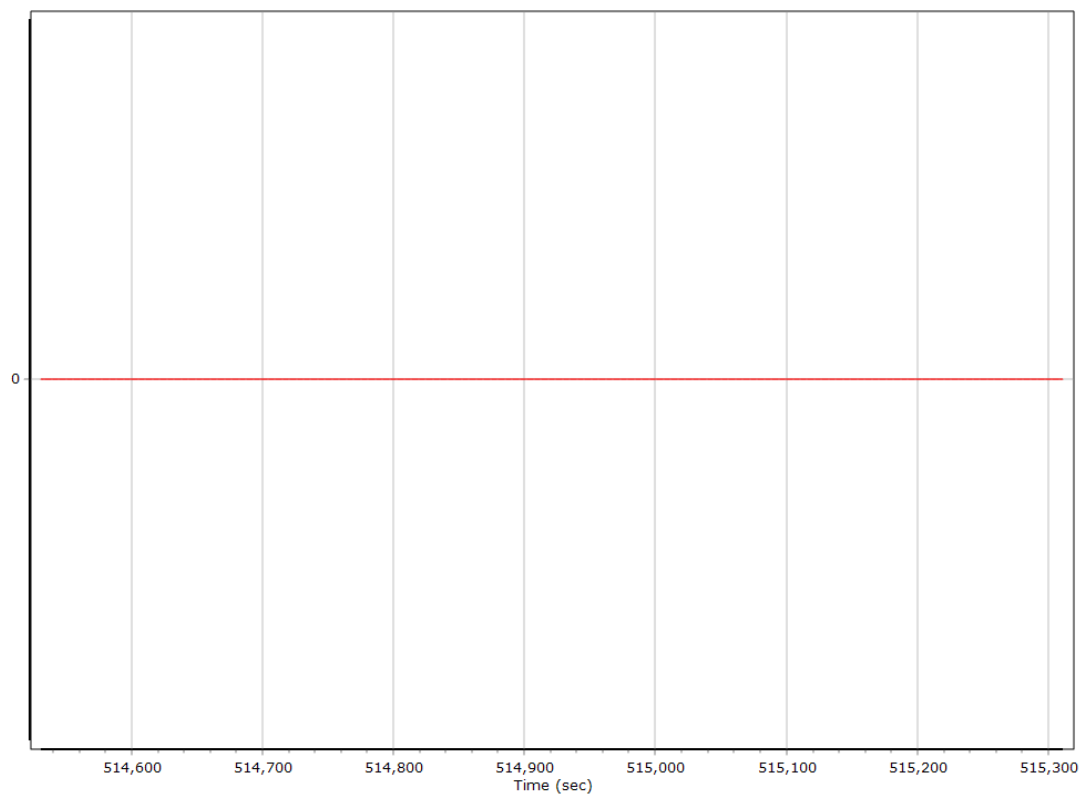
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



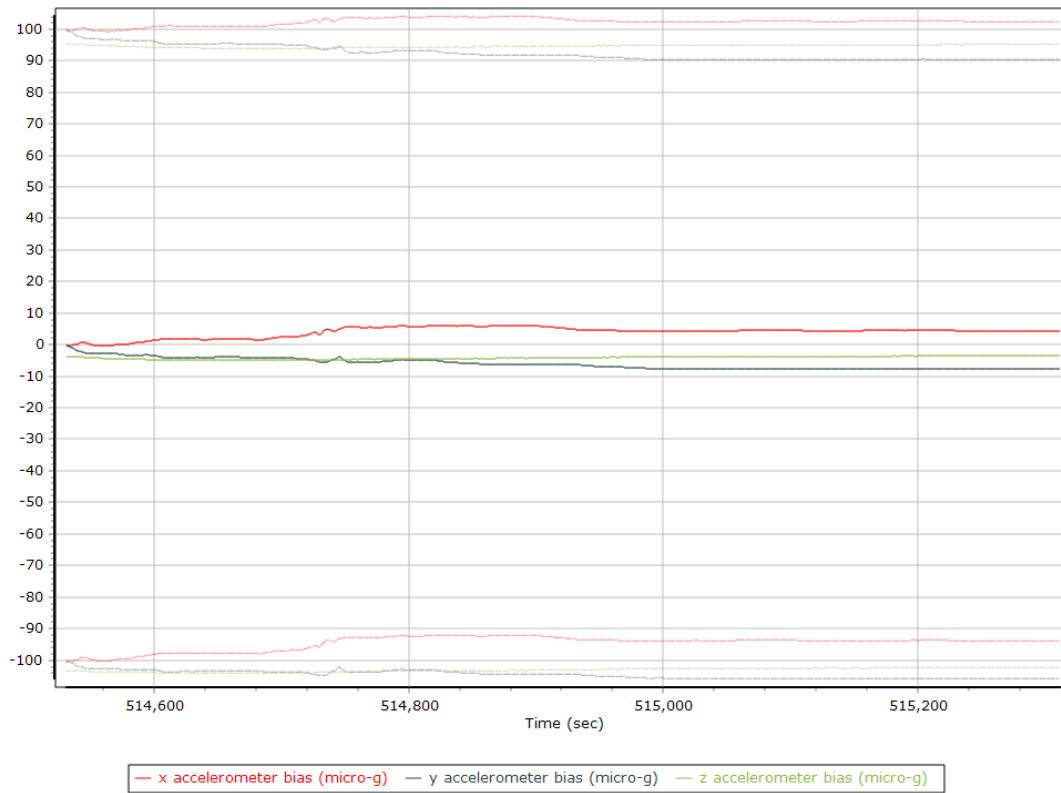
Reference-Primary GNSS Lever Arm Figure of Merit



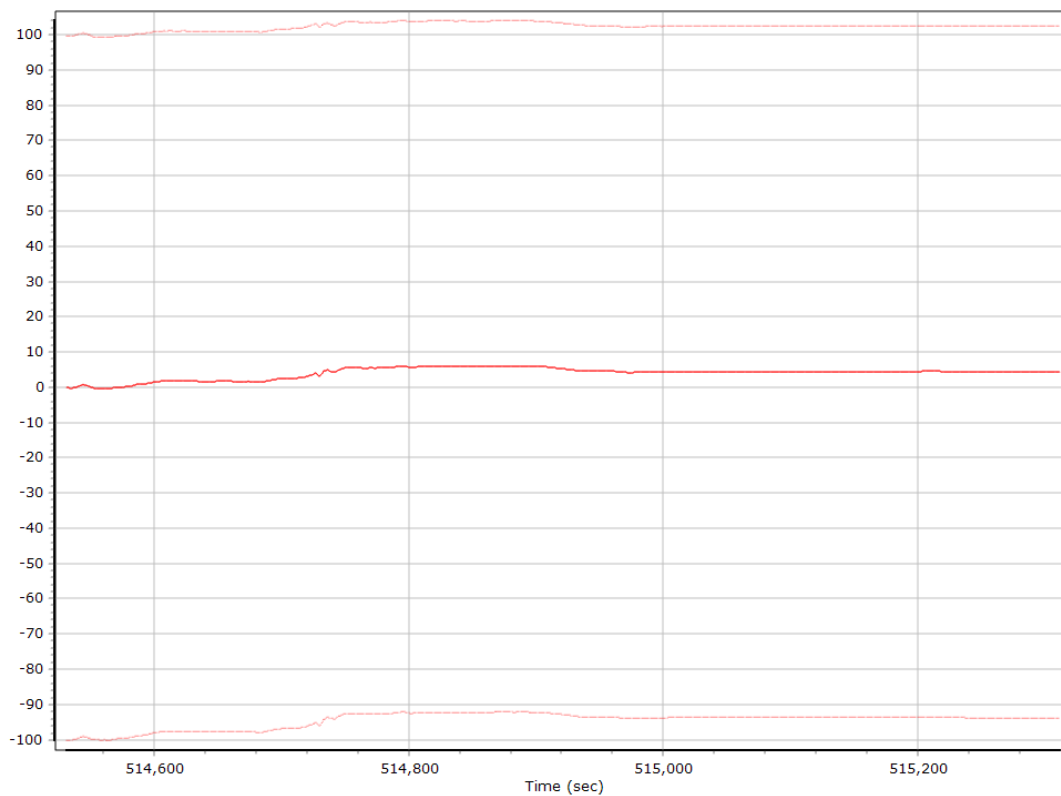
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

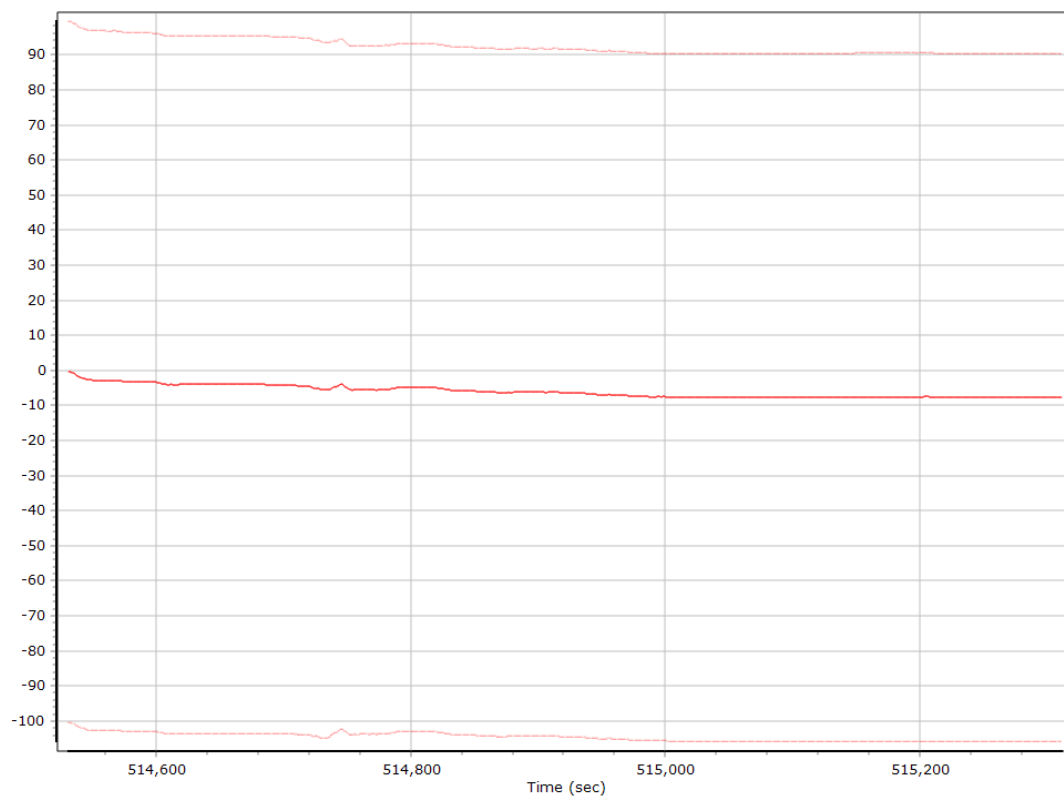
Accelerometer Bias (micro-g)



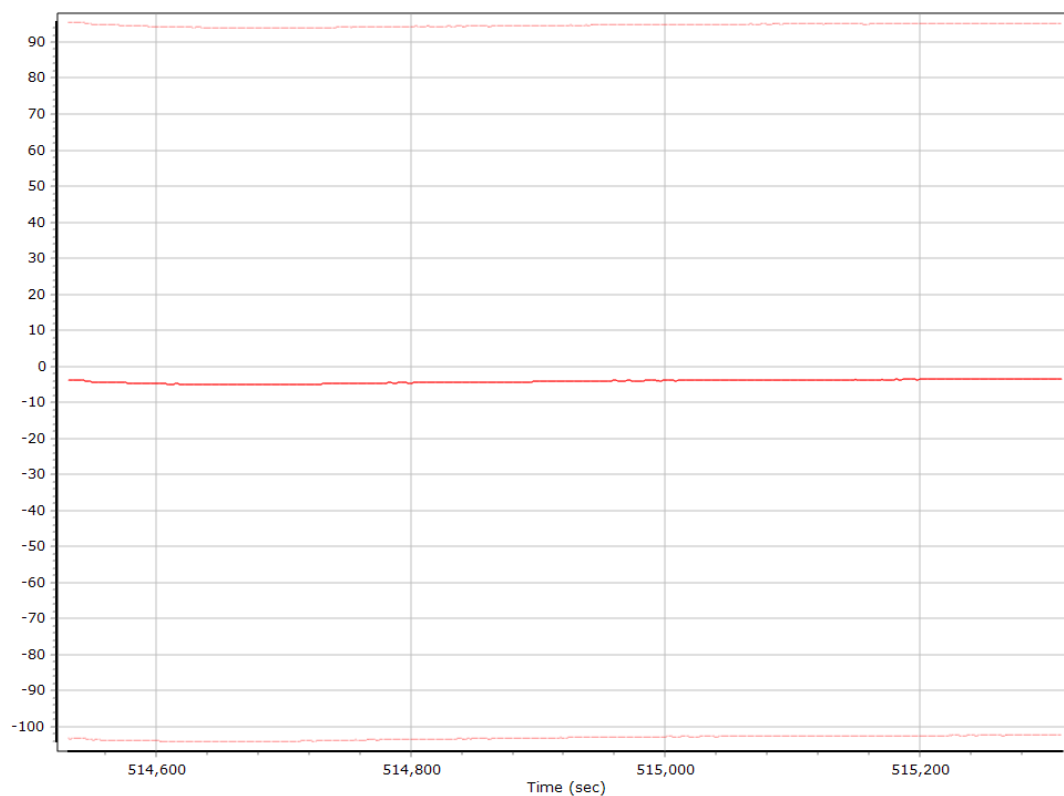
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



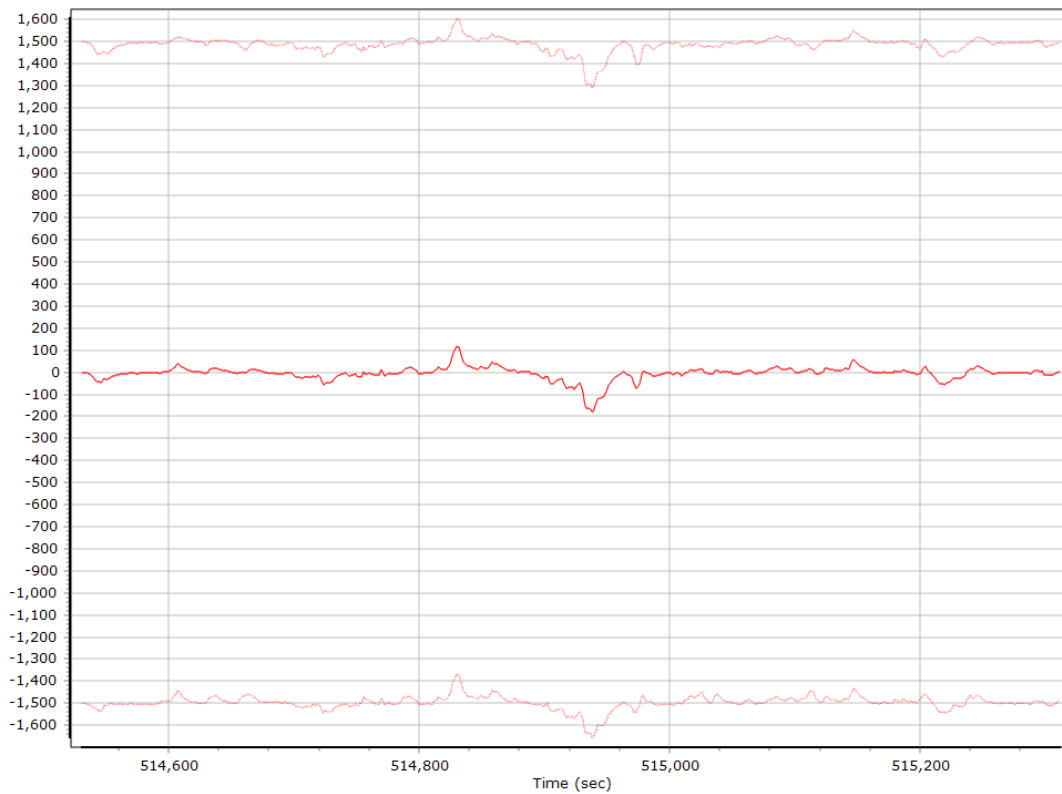
Z Accelerometer Bias (micro-g)



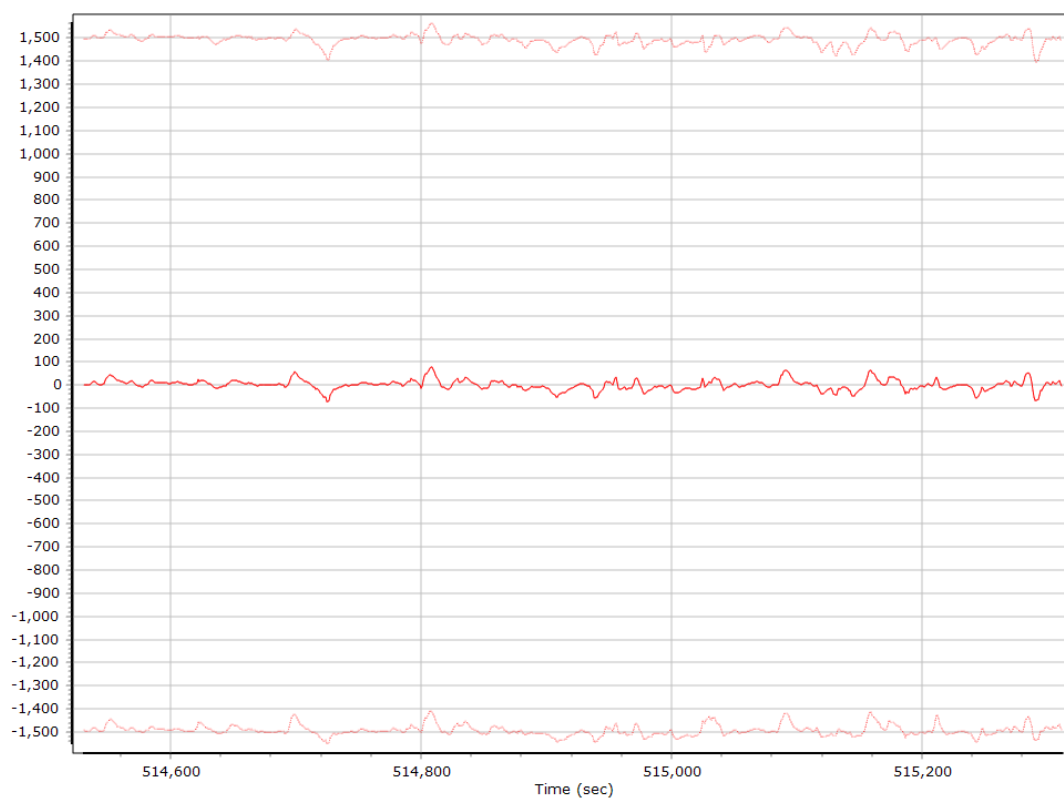
Accelerometer Scale Error (ppm)



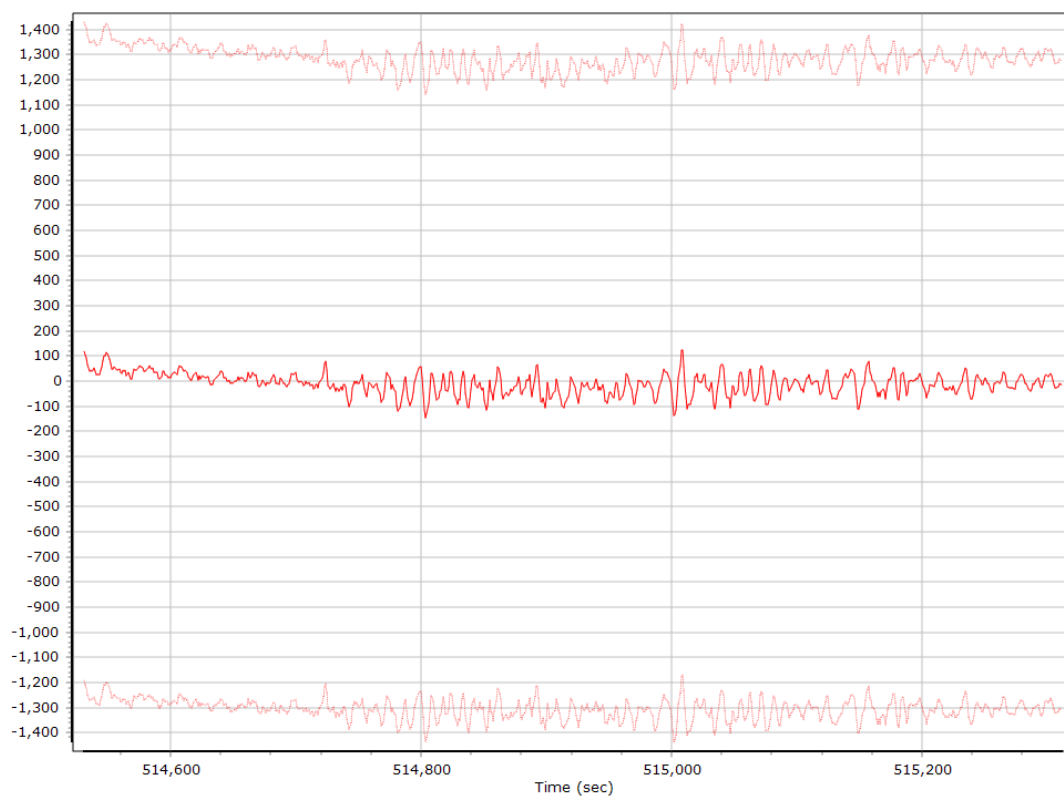
X Accelerometer Scale Error (ppm)



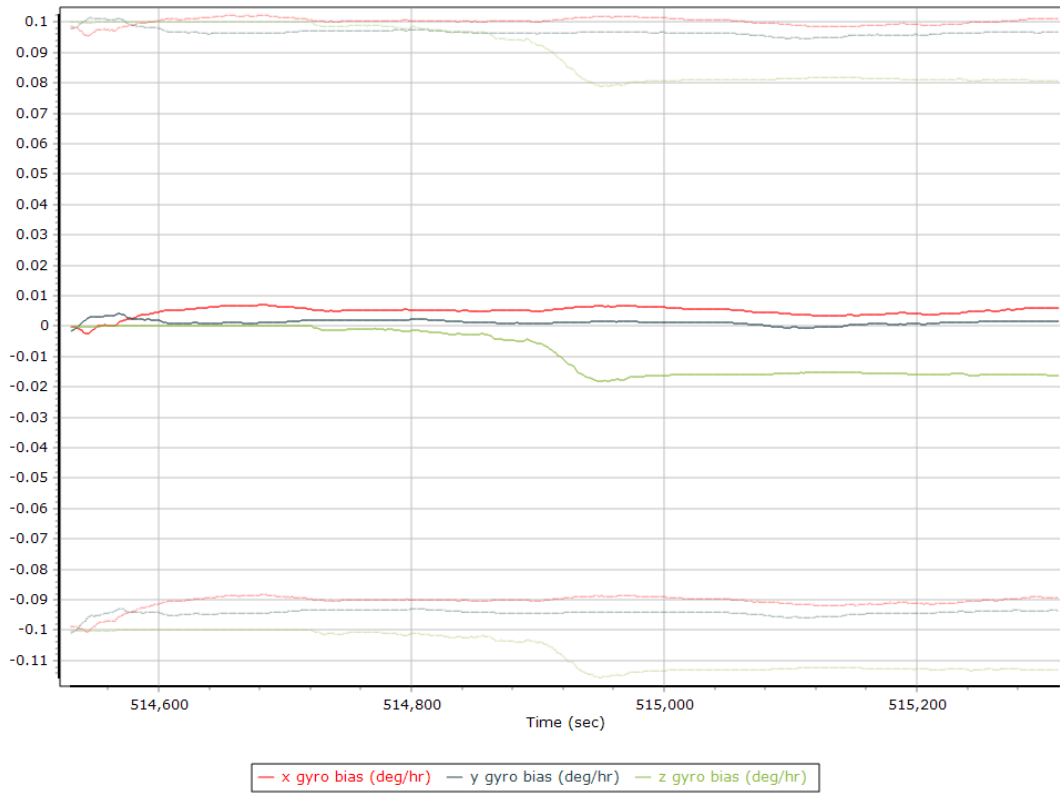
Y Accelerometer Scale Error (ppm)



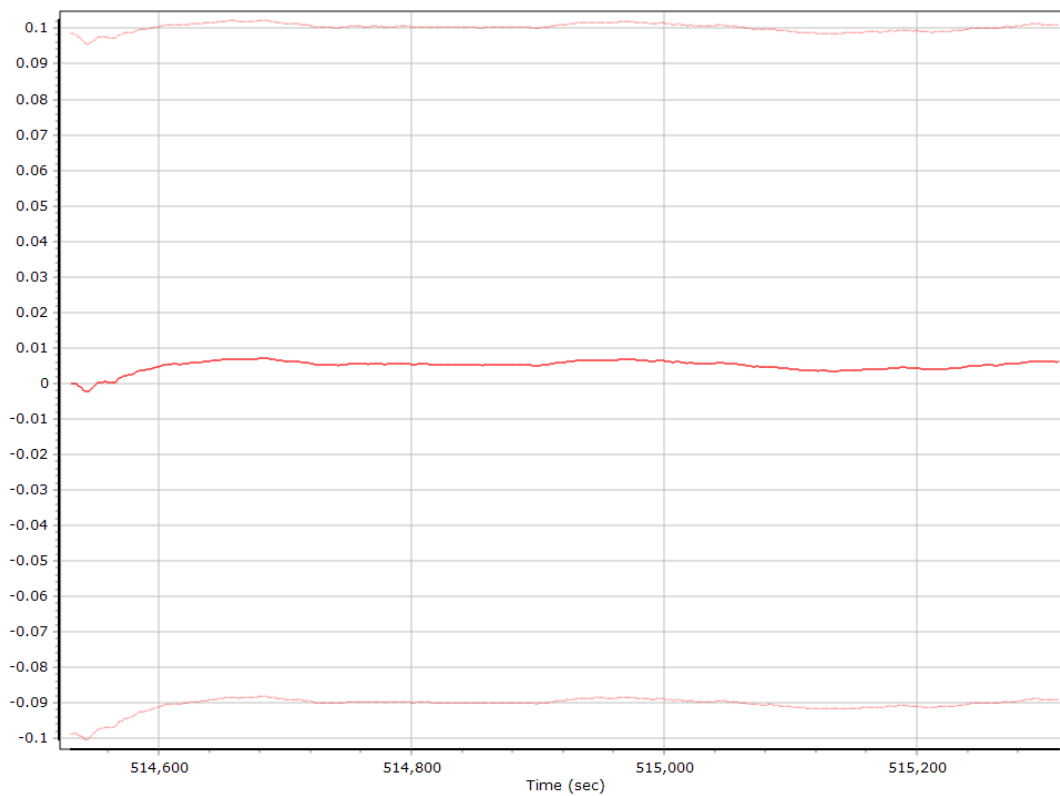
Z Accelerometer Scale Error (ppm)



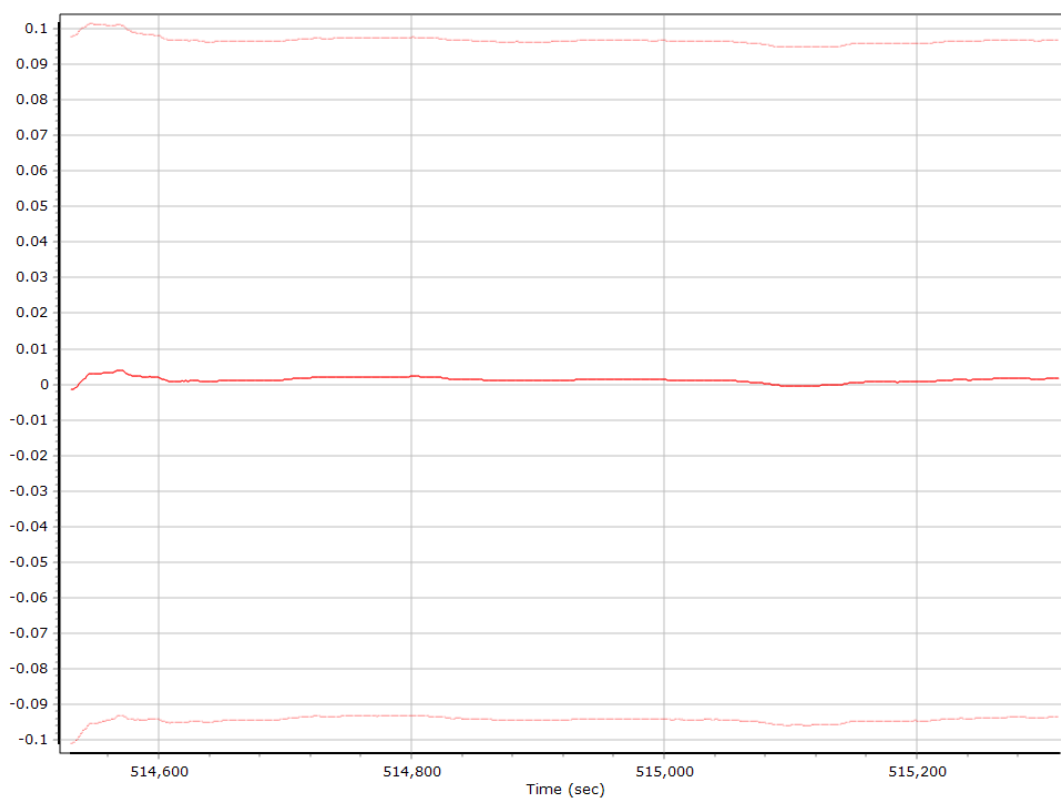
Gyro Bias (deg/h)



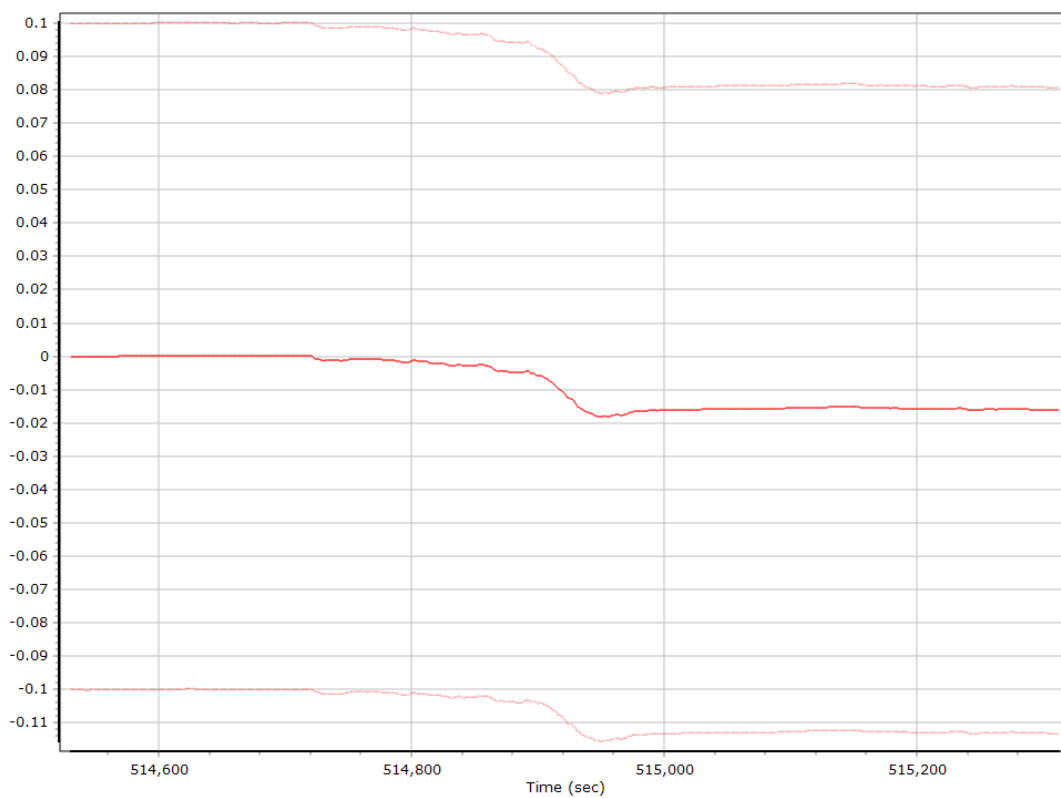
X Gyro Bias (deg/h)



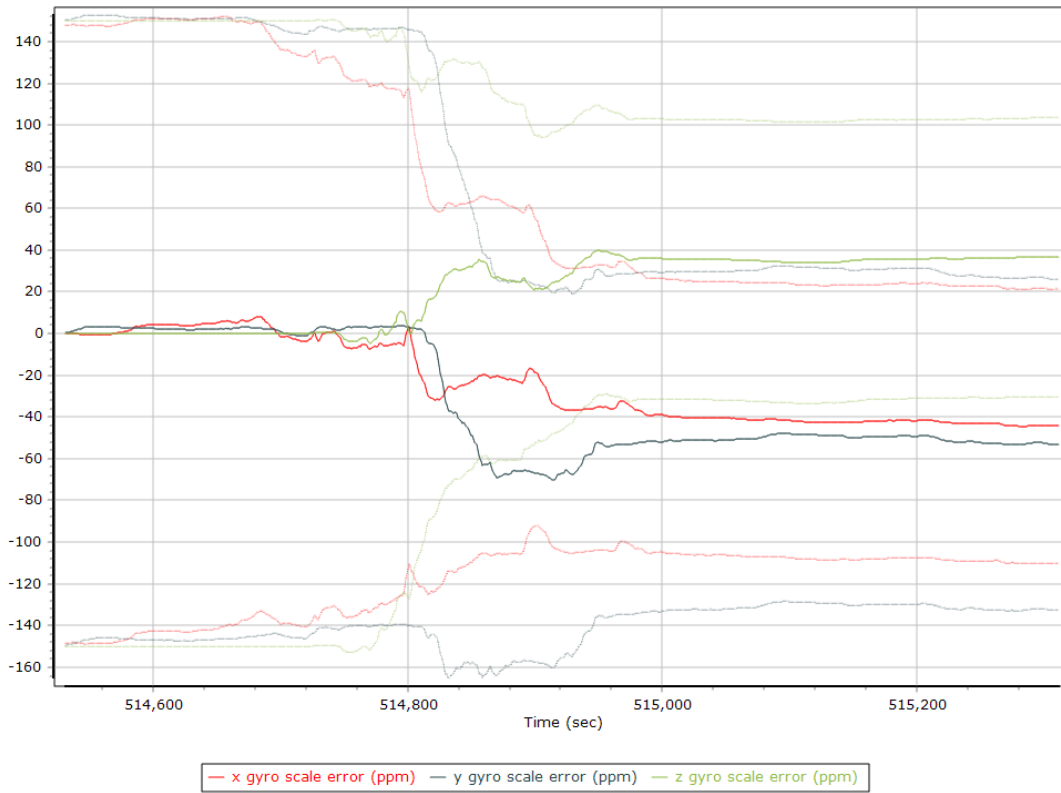
Y Gyro Bias (deg/h)



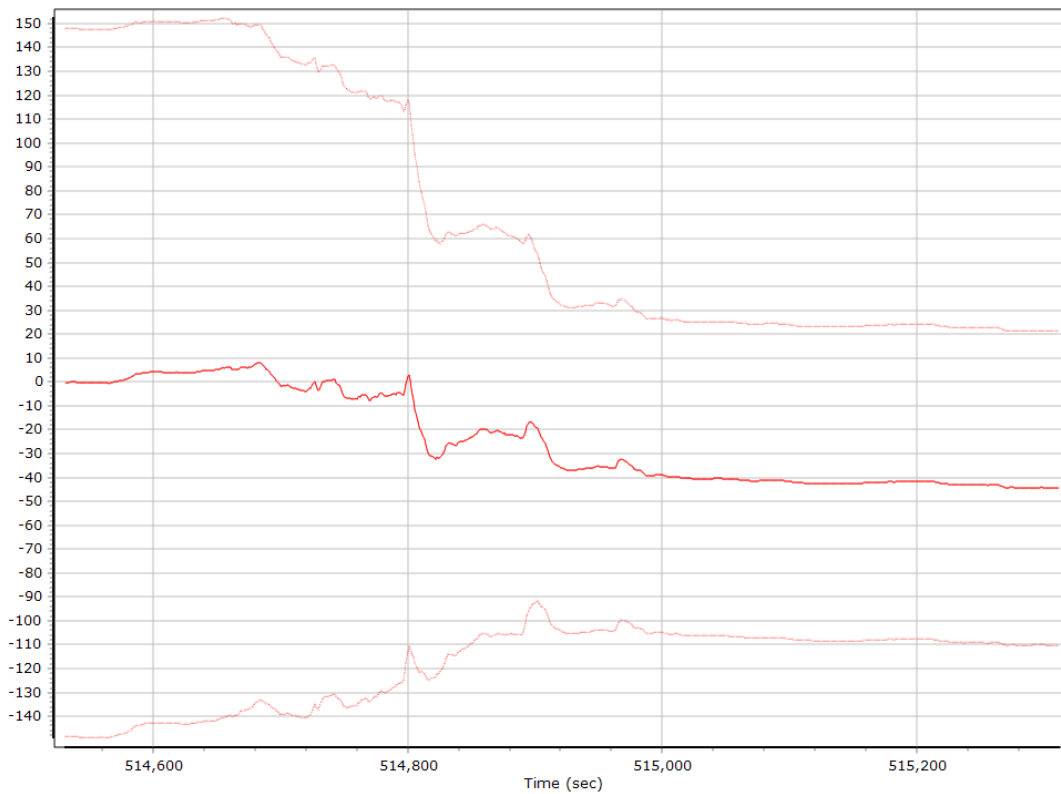
Z Gyro Bias (deg/h)



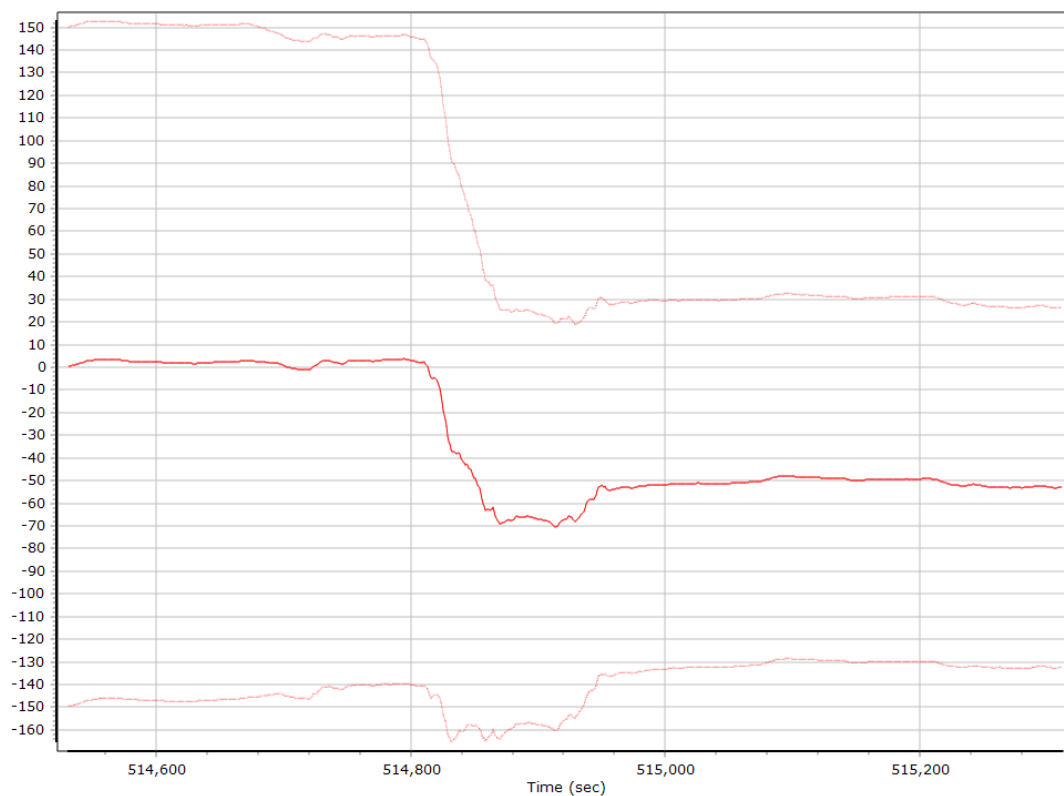
Gyro Scale Error (ppm)



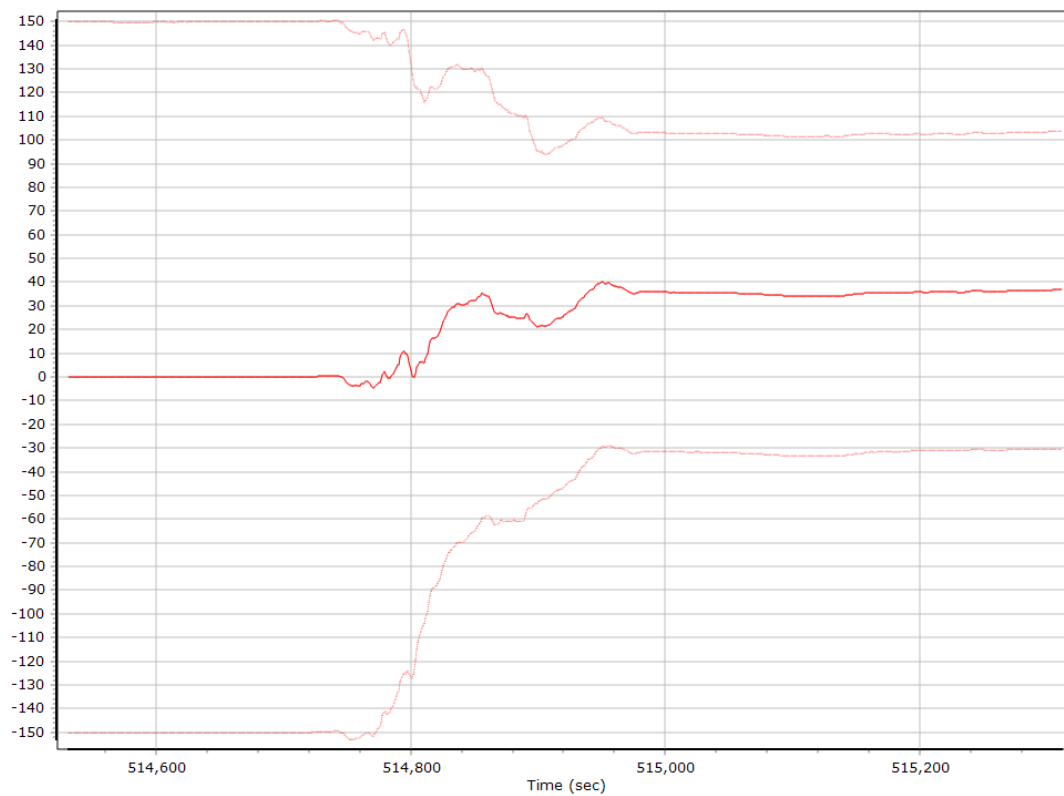
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

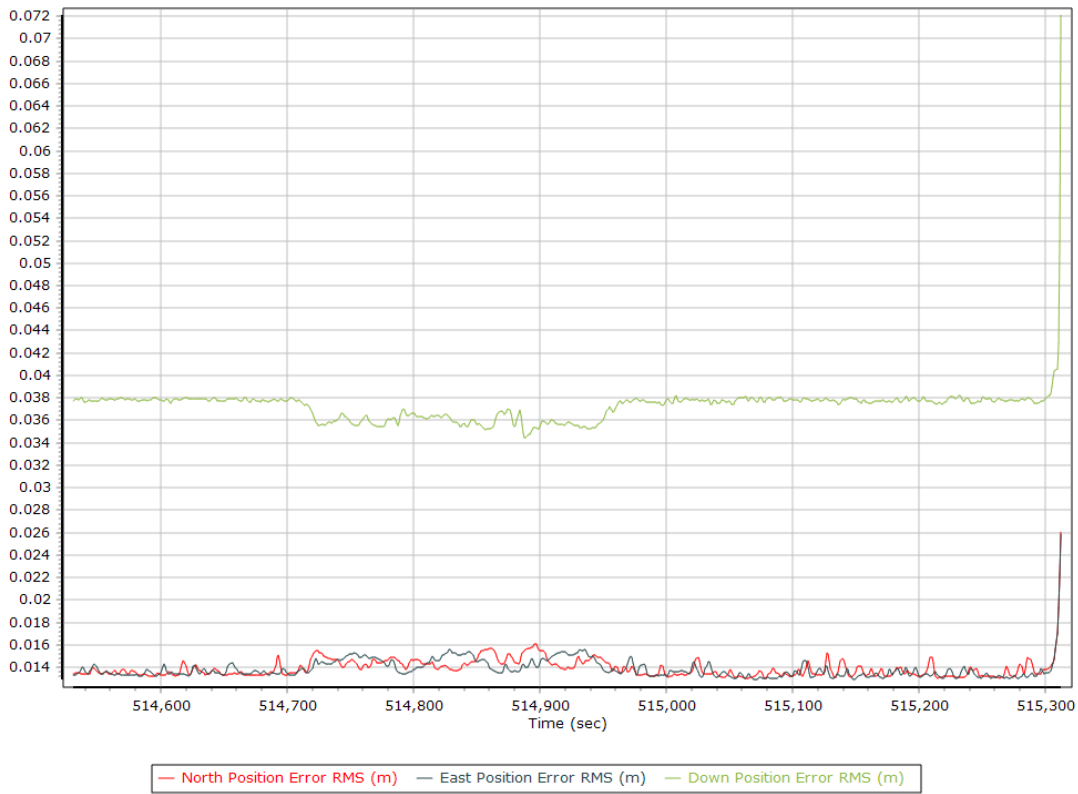


Z Gyro Scale Error (ppm)

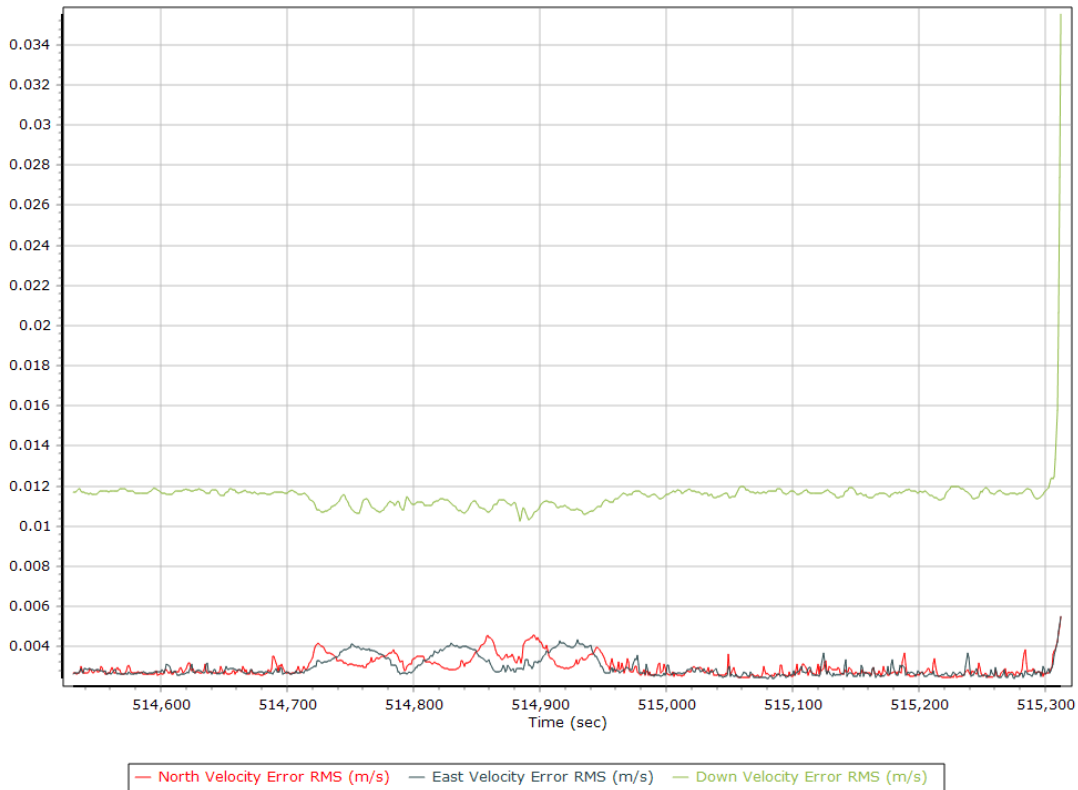


Smoothed Performance Metrics

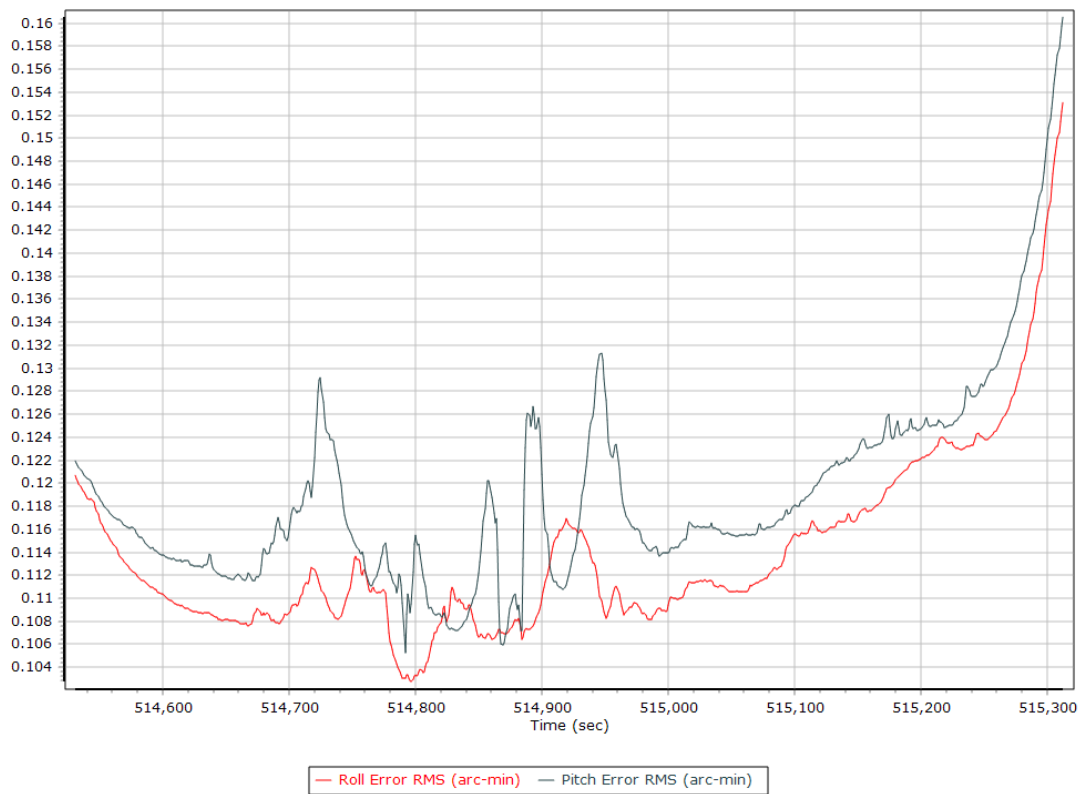
Position Error RMS (m)



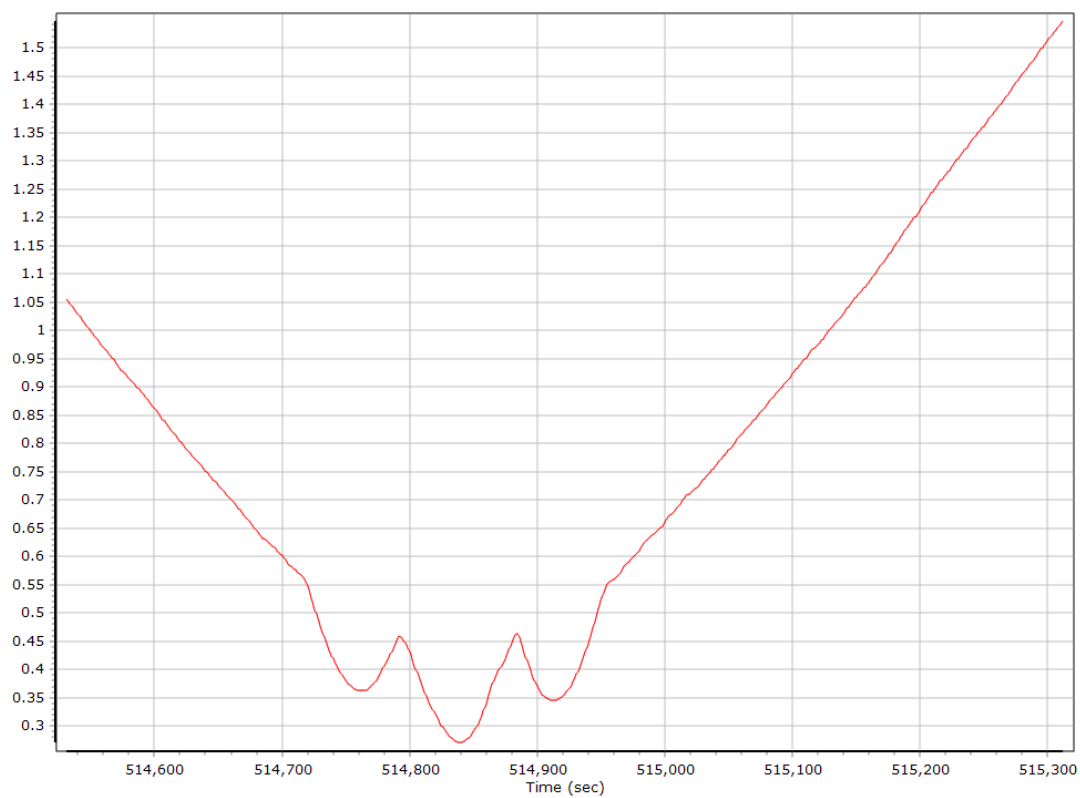
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

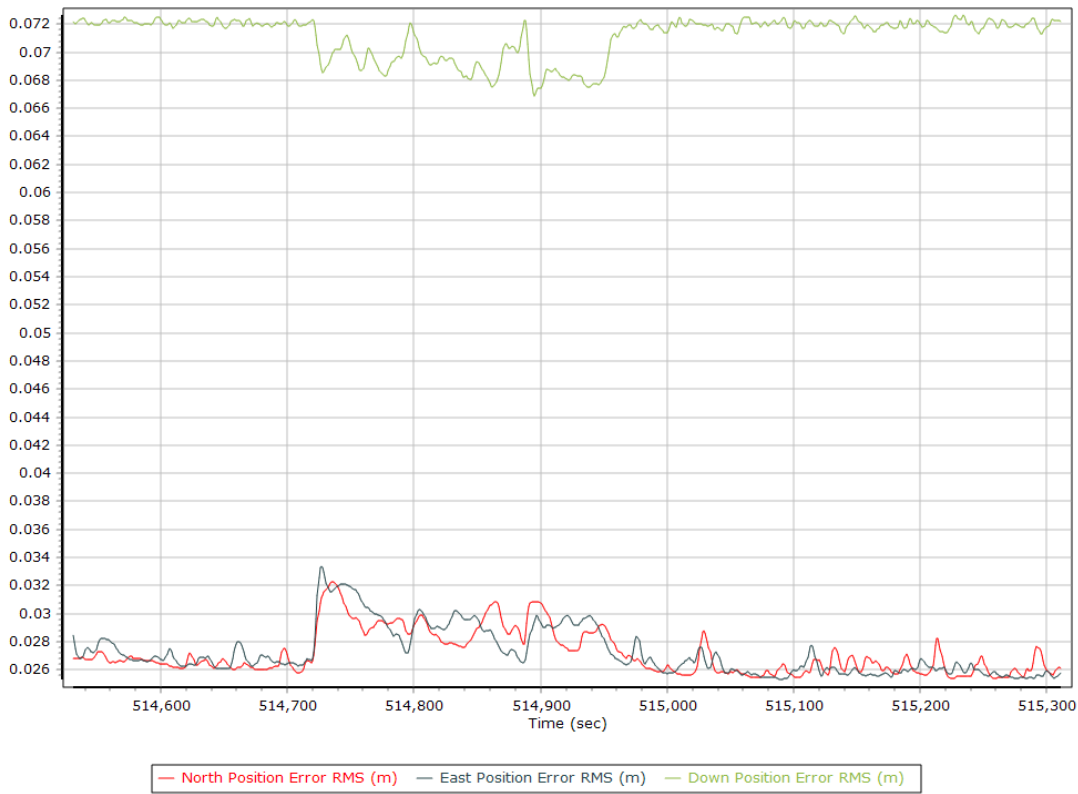


Heading Error RMS (arc-min)

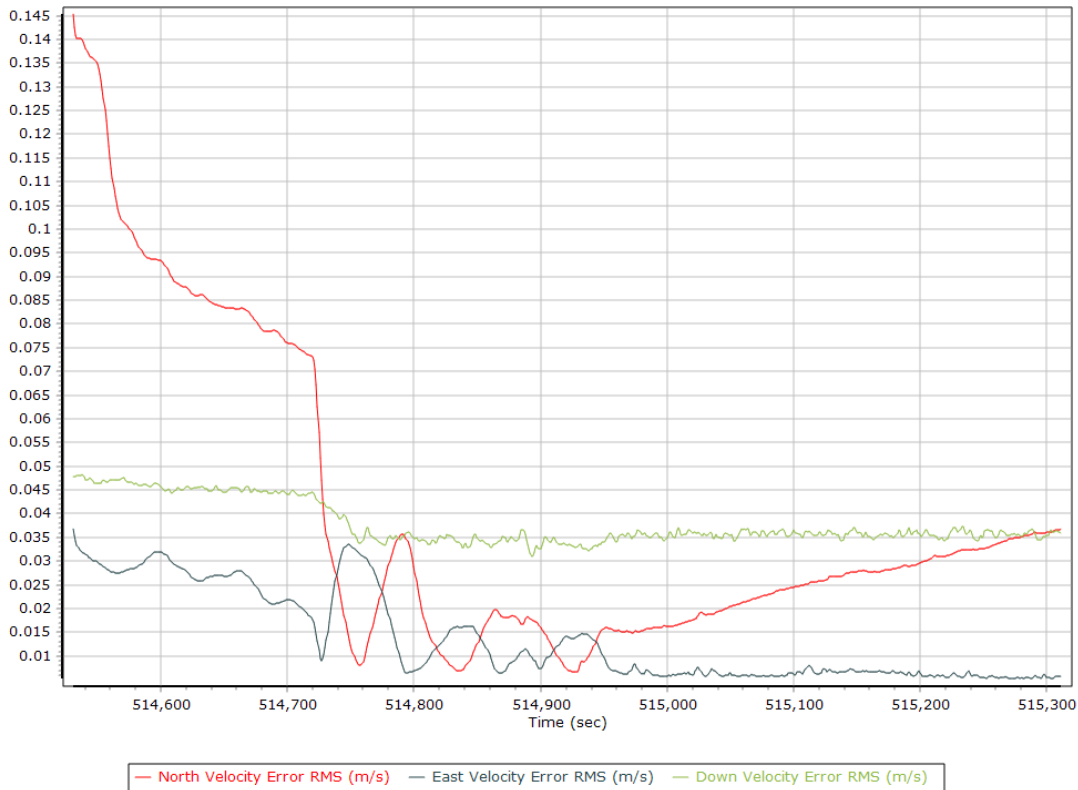


Forward Processed Performance Metrics

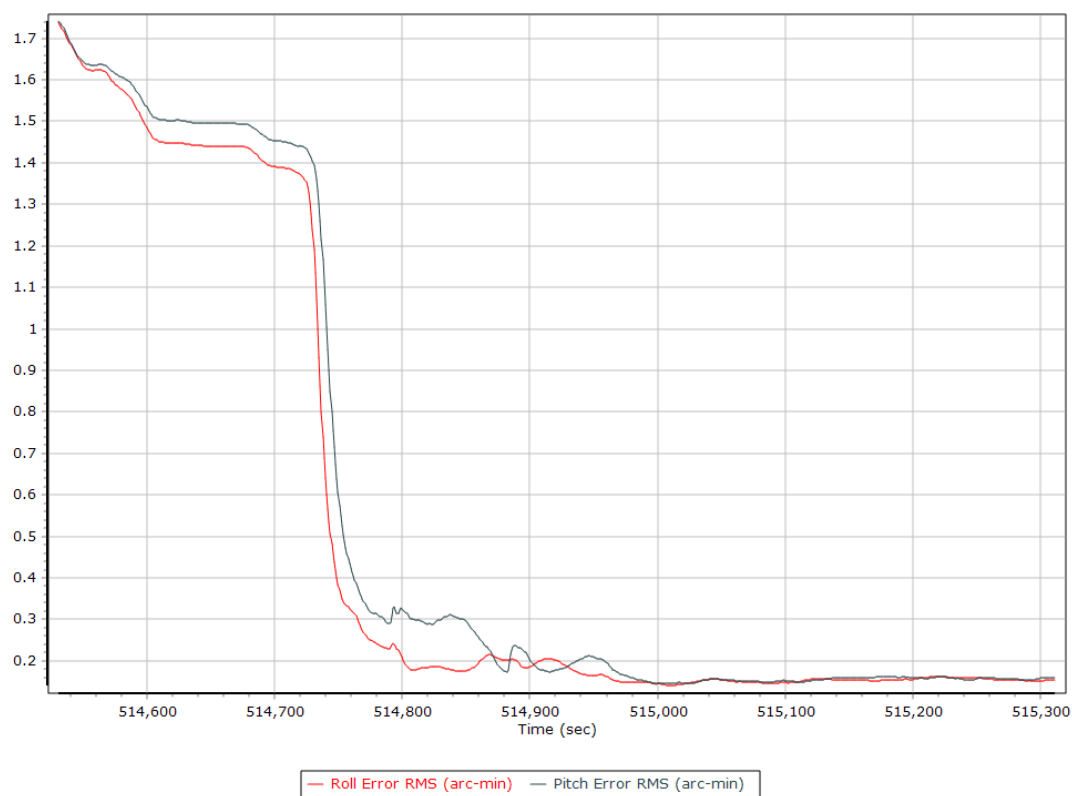
Position Error RMS (m)



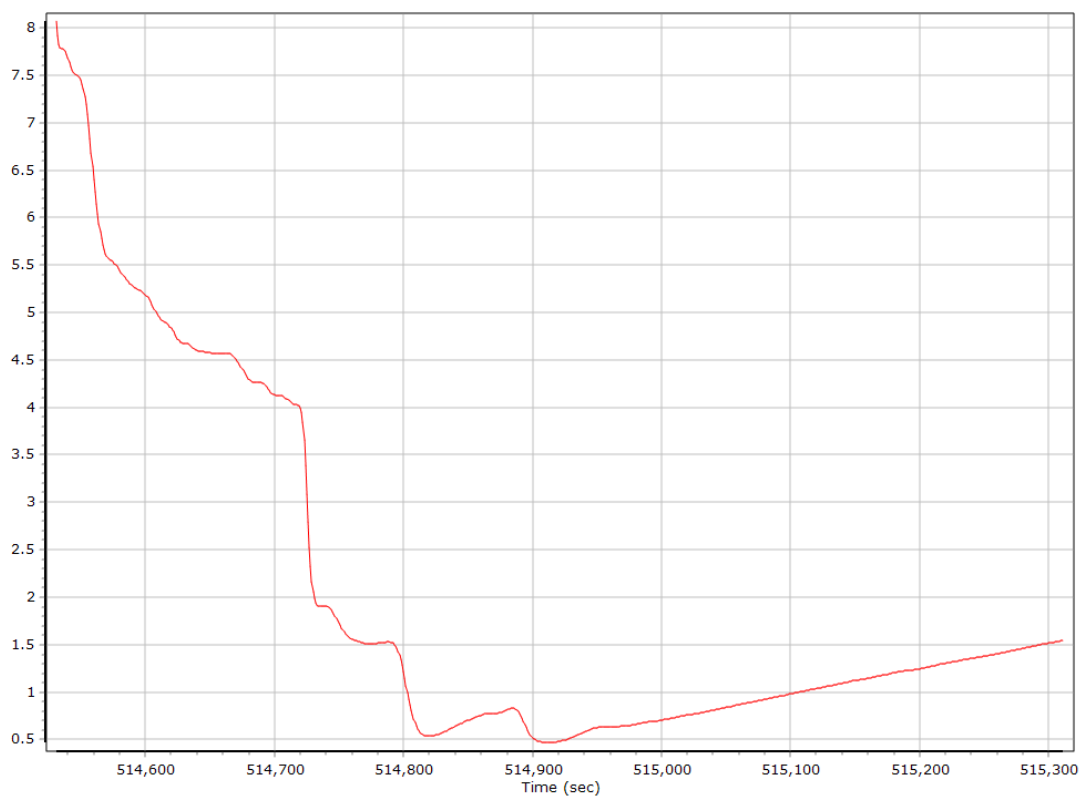
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

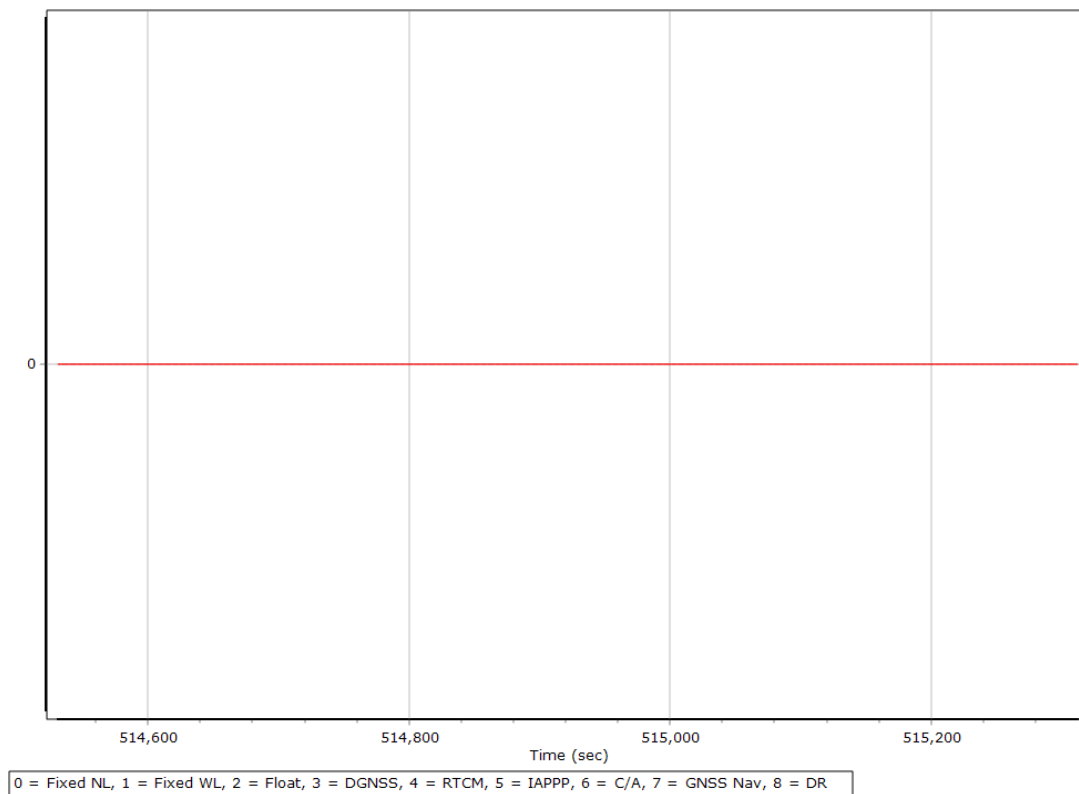


Heading Error RMS (arc-min)

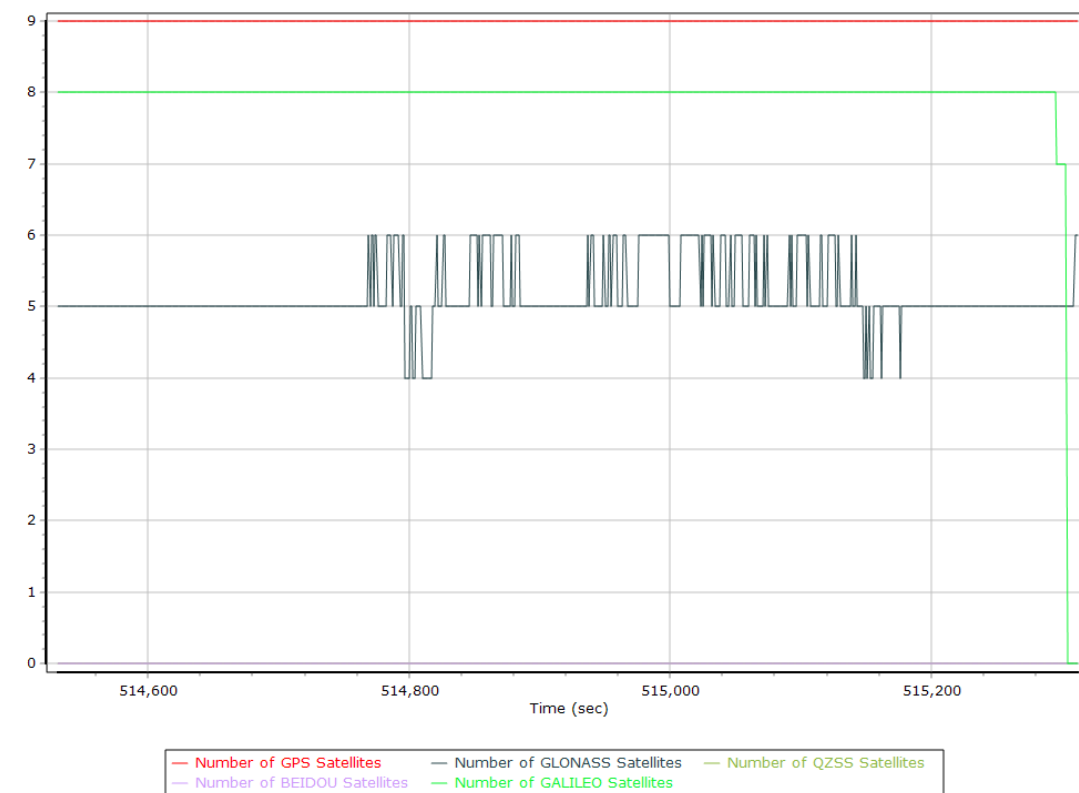


Forward Processed Solution Status

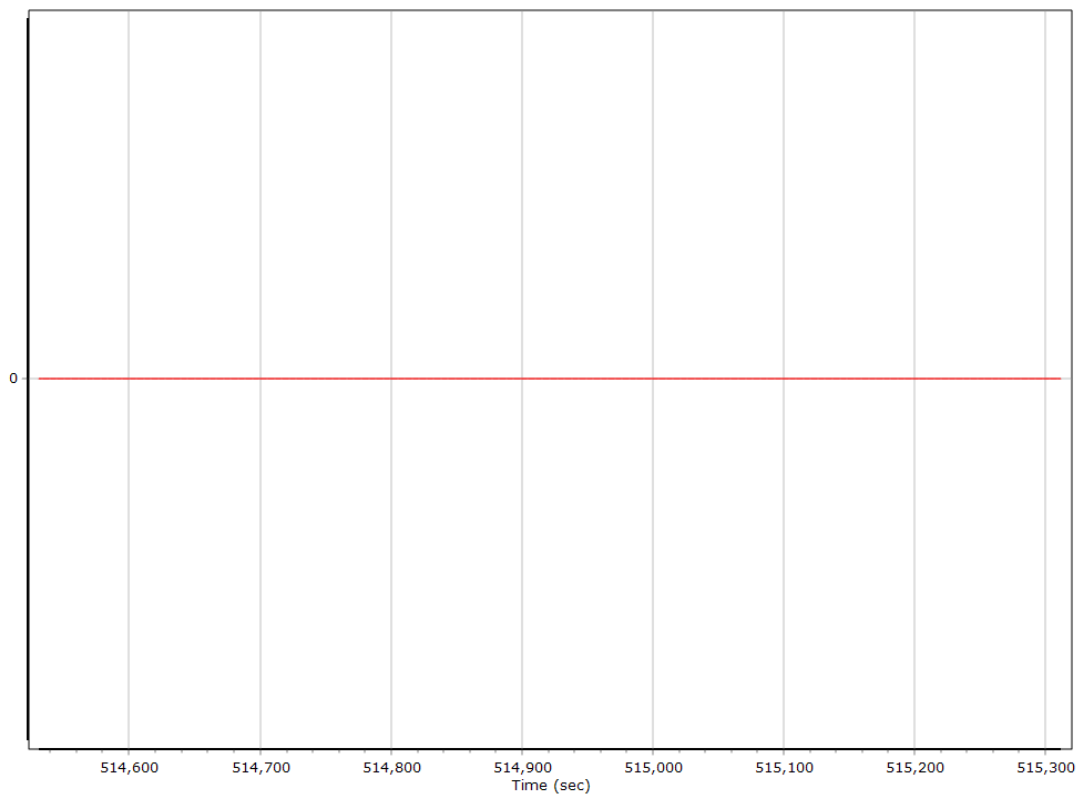
Processing Mode



Number of Satellites



Baseline Length



Export Summary

Export file	export_20230421_F2_4894_b_NAD832011.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	514472.001 (04/21/2023 22:54:32)		
Export end time	515312.004 (04/21/2023 23:08:32)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 18 (78W to 72W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2023.30137		