

General Information

Mission Information

Project name	211108_A_5060484_nad2011_FINAL
Processing date	2021-11-10 19:03:17
Mission date	2021-11-08 14:43:08
Mission duration	04:00:19.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N12118
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
211108a.084	POS Data
211108a.085	POS Data
211108a.086	POS Data
211108a.087	POS Data
211108a.088	POS Data
211108a.089	POS Data
211108a.090	POS Data
211108a.091	POS Data
211108a.092	POS Data
211108a.093	POS Data
211108a.094	POS Data
211108a.095	POS Data
211108a.096	POS Data
211108a.097	POS Data
211108a.098	POS Data
211108a.099	POS Data
211108a.100	POS Data
211108a.101	POS Data
211108a.102	POS Data
211108a.103	POS Data
211108a.104	POS Data
211108a.105	POS Data
211108a.106	POS Data
211108a.107	POS Data
211108a.108	POS Data
211108a.109	POS Data
211108a.110	POS Data
211108a.111	POS Data
211108a.112	POS Data
211108a.113	POS Data
211108a.114	POS Data
211108a.115	POS Data

Input Files

File Name	File Type
Ephm3120.21g	GLONASS Broadcast Ephemeris
Ephm3120.21n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_211108_A_5060484_nad2011_FINAL.out	SBET Trajectory File

Rover Data Summary

First raw data file	211108a.084		
Last raw data file	211108a.115		
Start GPS week	2183		
Start time	139403.182 (11/8/2021 2:43:23 PM)		
End time	153807.794 (11/8/2021 6:43:27 PM)		
Start of fine alignment	139586.979 (11/8/2021 2:46:26 PM)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	None		
Correction data	None		
IMU Installation Lever Arms & Mounting Angles			
Reference to IMU lever arm (m)	0.000	0.000	0.000
Reference to IMU mounting angles (deg)	0.000	0.000	180.000
Reference to Primary GNSS lever arm (m)	0.683	-0.546	-1.101
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

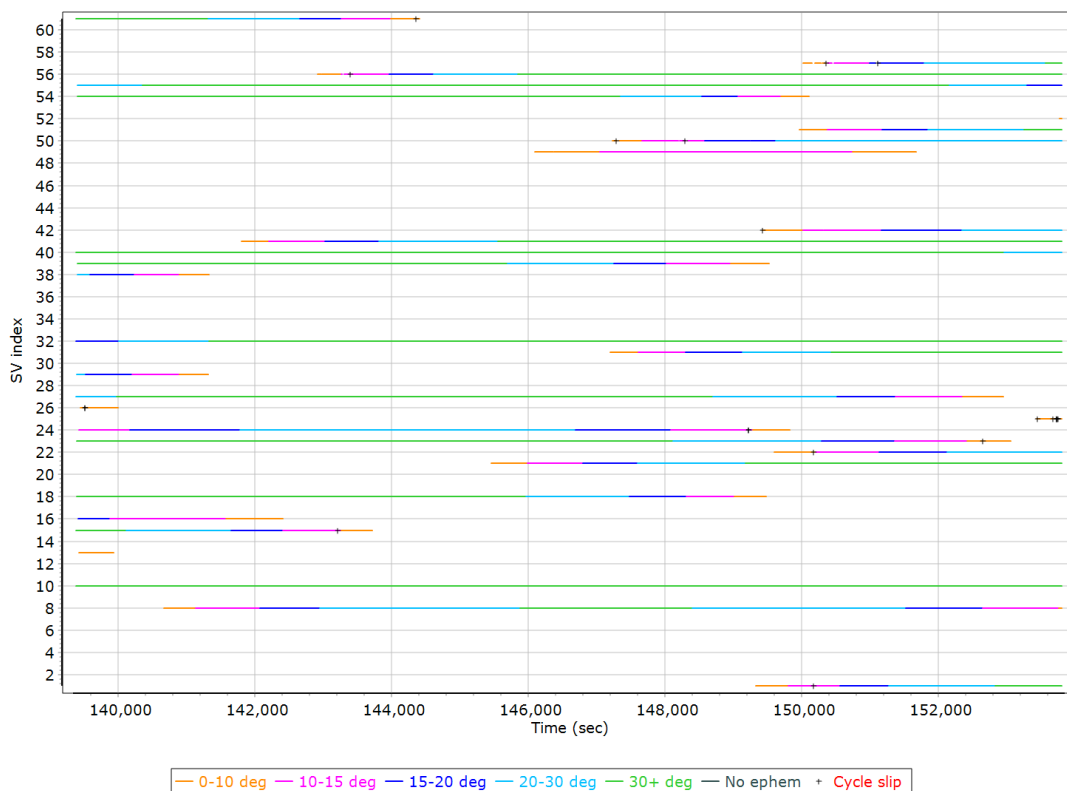
Rover Data QC

Raw IMU Import QC Summary

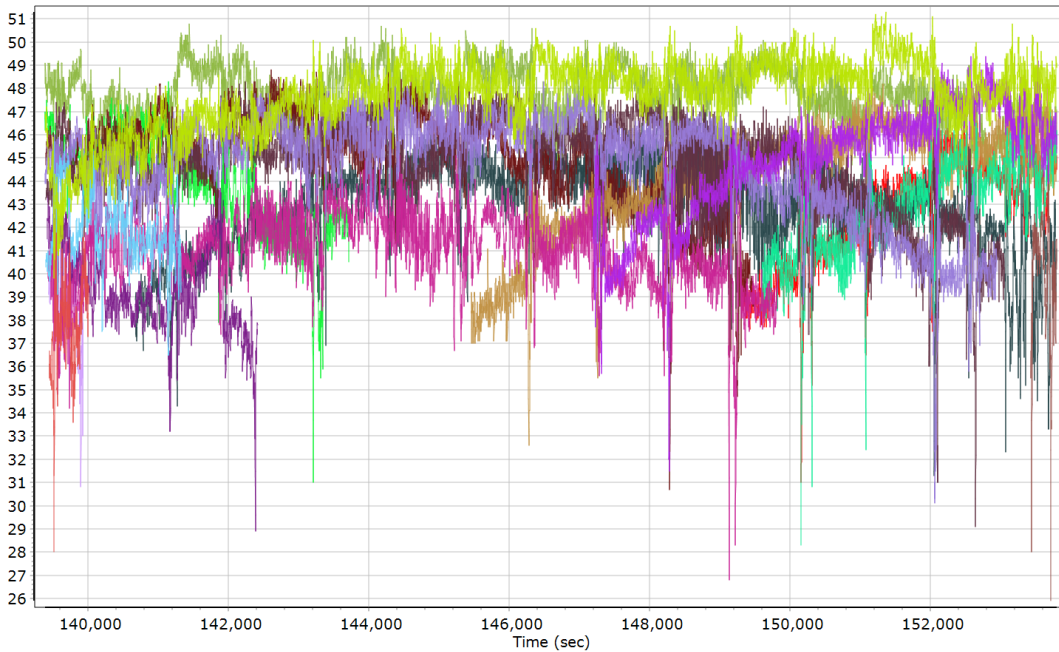
IMU data input file	imu_211108_A_5060484_nad2011_FINAL.dat
IMU data check log file	imudt_211108_A_5060484_nad2011_FINAL.log
IMU Records Processed	2883564
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
139402.932 : WARNING : Gap of 139368.9426 seconds in CHECKDT input data	

Primary Observables & Satellite Data

GPS/GLONASS L1 Satellite Lock/Elevation

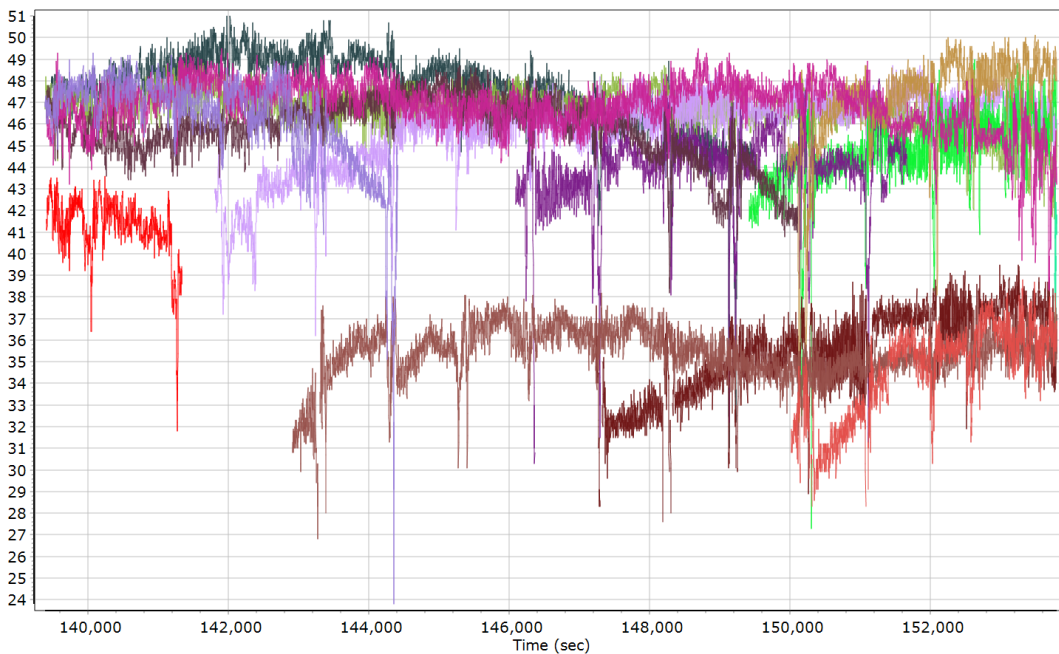


GPS L1 SNR



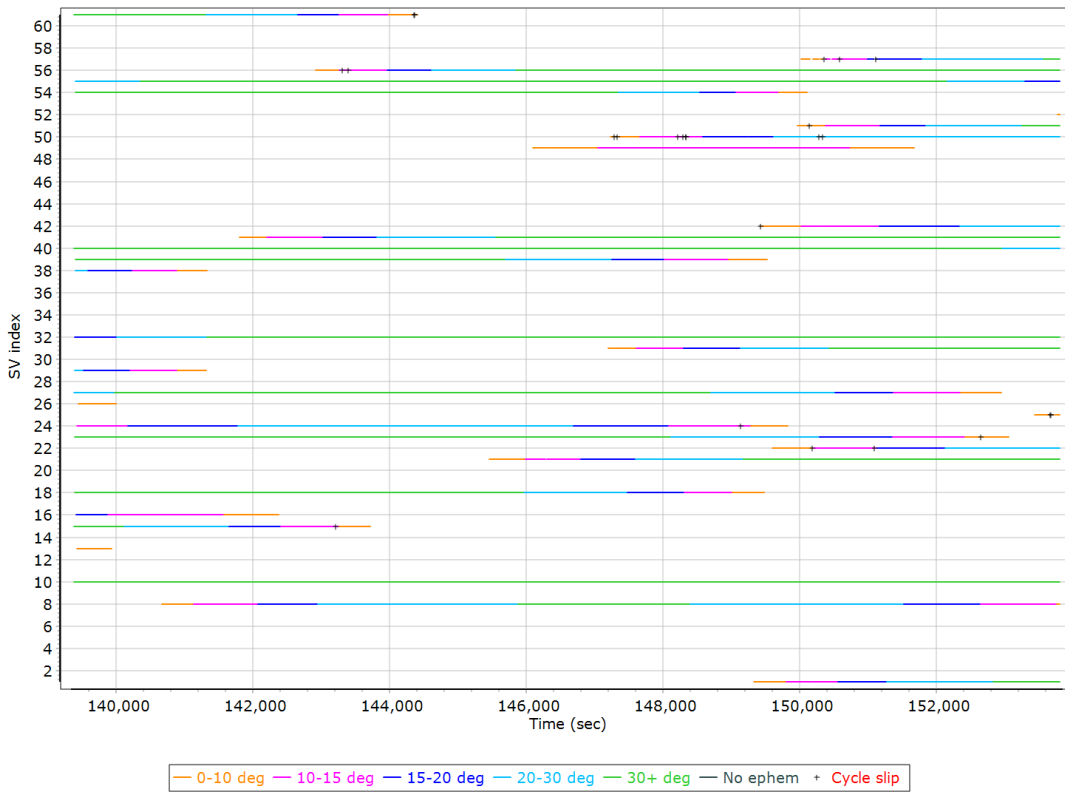
- | | | | |
|---------------------------|---------------------------|---------------------------|---------------------------|
| GPS PRN 01 L1 SNR (dB/Hz) | GPS PRN 08 L1 SNR (dB/Hz) | GPS PRN 10 L1 SNR (dB/Hz) | GPS PRN 13 L1 SNR (dB/Hz) |
| GPS PRN 15 L1 SNR (dB/Hz) | GPS PRN 16 L1 SNR (dB/Hz) | GPS PRN 18 L1 SNR (dB/Hz) | GPS PRN 21 L1 SNR (dB/Hz) |
| GPS PRN 22 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 26 L1 SNR (dB/Hz) | GPS PRN 27 L1 SNR (dB/Hz) | GPS PRN 29 L1 SNR (dB/Hz) | GPS PRN 31 L1 SNR (dB/Hz) |
| GPS PRN 32 L1 SNR (dB/Hz) | | | |

GLONASS L1 SNR

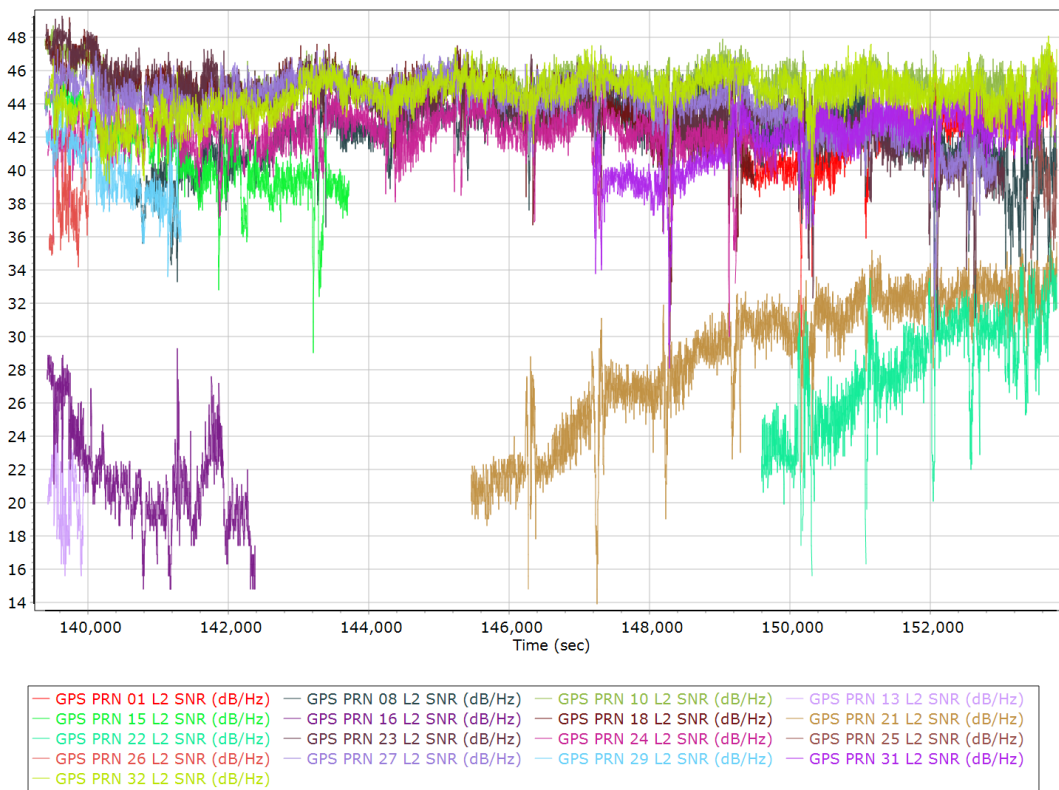


- | | | |
|---------------------------|---------------------------|---------------------------|
| GLONASS 01 L1 SNR (dB/Hz) | GLONASS 02 L1 SNR (dB/Hz) | GLONASS 03 L1 SNR (dB/Hz) |
| GLONASS 04 L1 SNR (dB/Hz) | GLONASS 05 L1 SNR (dB/Hz) | GLONASS 12 L1 SNR (dB/Hz) |
| GLONASS 13 L1 SNR (dB/Hz) | GLONASS 14 L1 SNR (dB/Hz) | GLONASS 15 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 24 L1 SNR (dB/Hz) | |

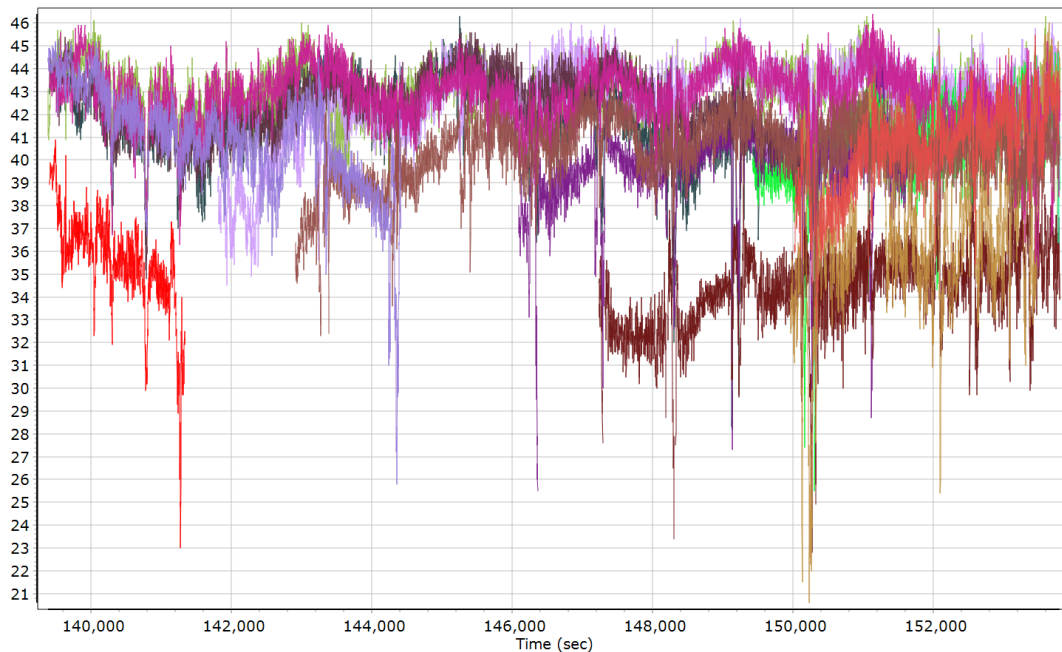
GPS/GLONASS L2 Satellite Lock/Elevation



GPS L2 SNR

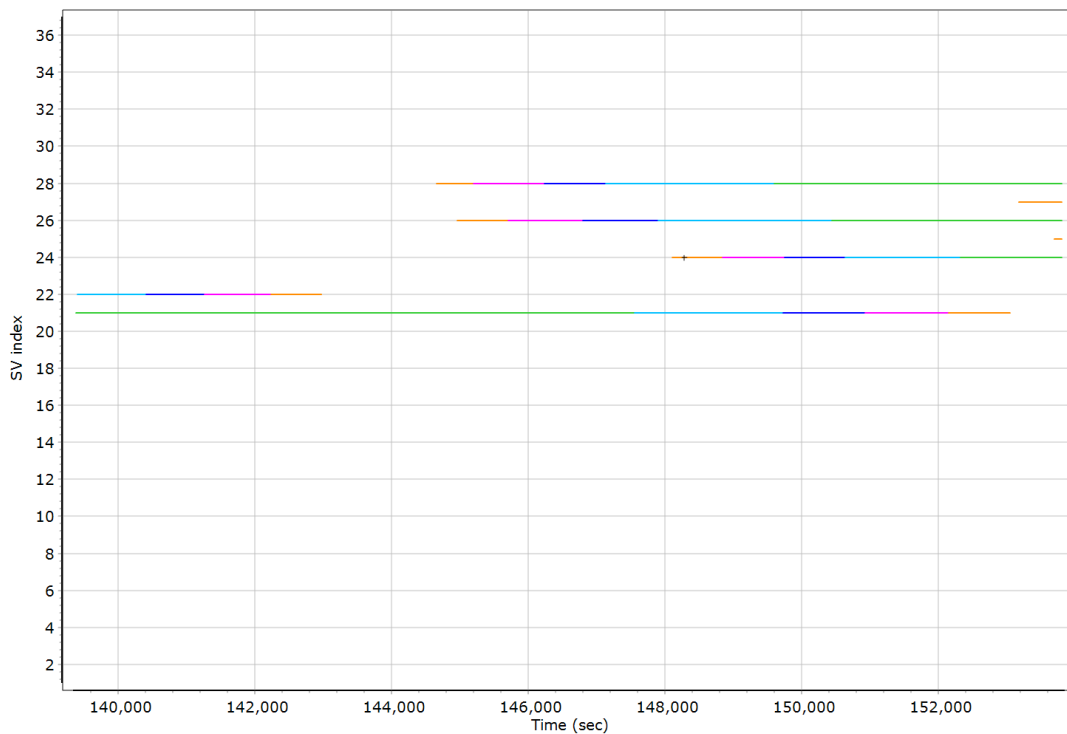


GLONASS L2 SNR



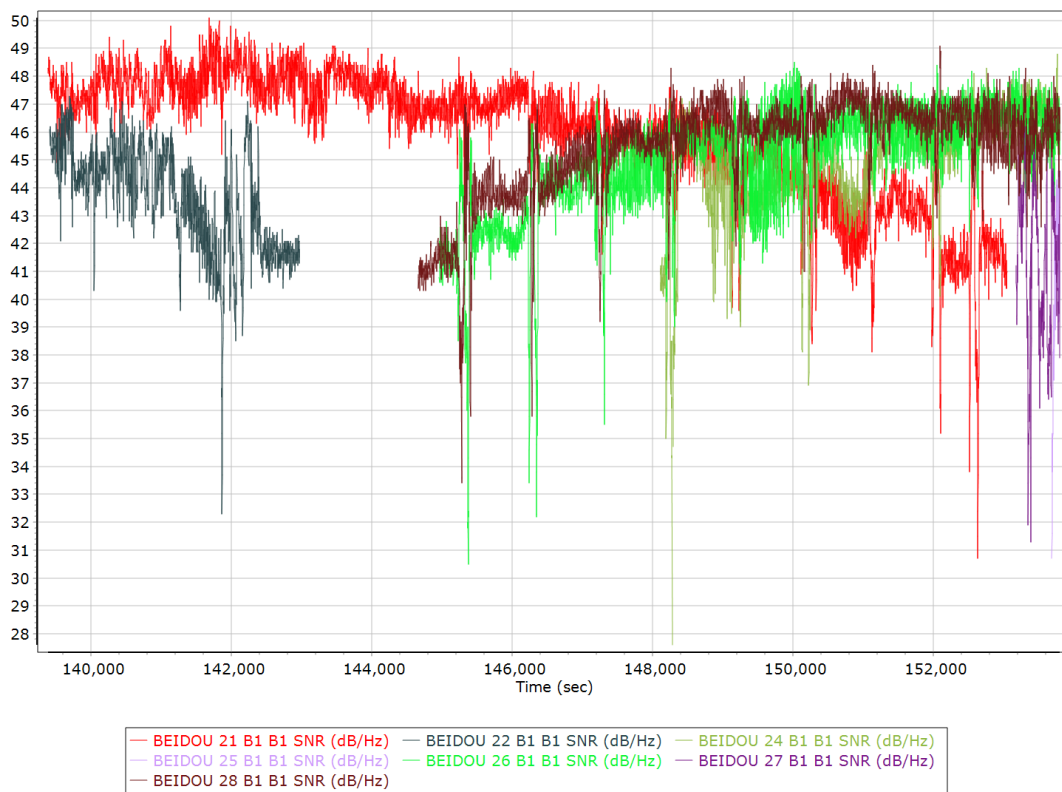
- GLONASS 01 L2 SNR (dB/Hz)
- GLONASS 02 L2 SNR (dB/Hz)
- GLONASS 03 L2 SNR (dB/Hz)
- GLONASS 04 L2 SNR (dB/Hz)
- GLONASS 05 L2 SNR (dB/Hz)
- GLONASS 12 L2 SNR (dB/Hz)
- GLONASS 13 L2 SNR (dB/Hz)
- GLONASS 14 L2 SNR (dB/Hz)
- GLONASS 15 L2 SNR (dB/Hz)
- GLONASS 17 L2 SNR (dB/Hz)
- GLONASS 18 L2 SNR (dB/Hz)
- GLONASS 19 L2 SNR (dB/Hz)
- GLONASS 20 L2 SNR (dB/Hz)
- GLONASS 24 L2 SNR (dB/Hz)

BEIDOU Satellite Lock/Elevation

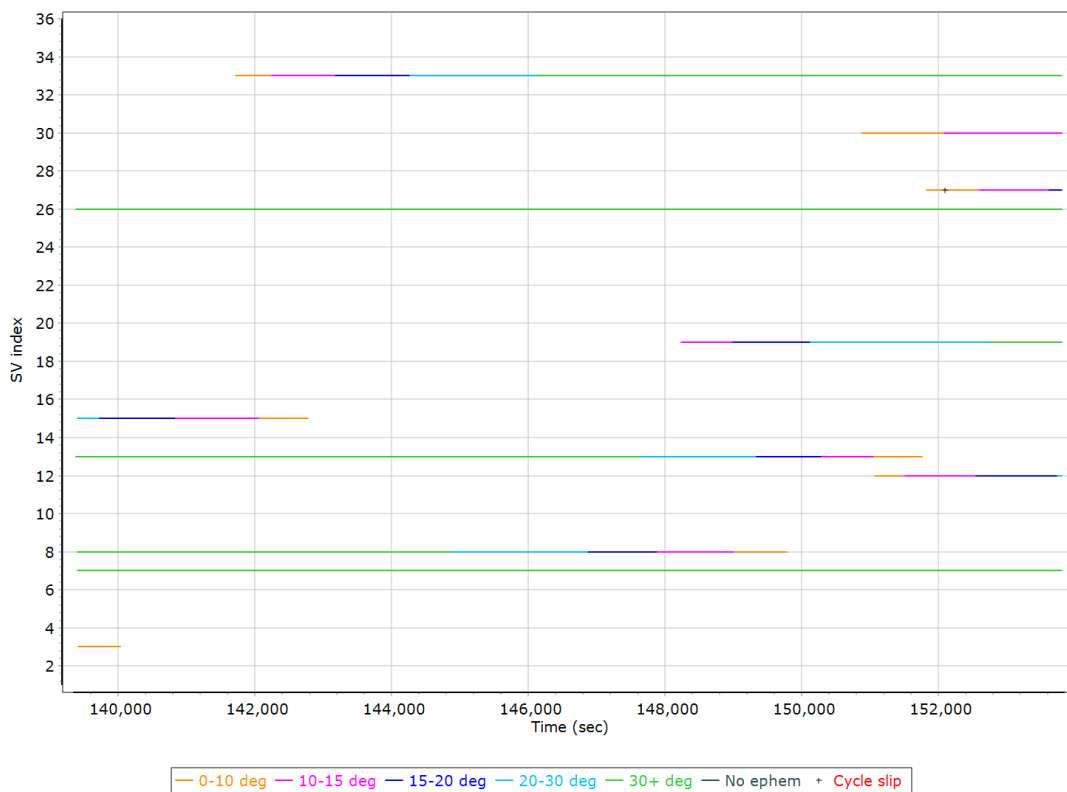


- 0-10 deg
- 10-15 deg
- 15-20 deg
- 20-30 deg
- 30+ deg
- No ephem
- + Cycle slip

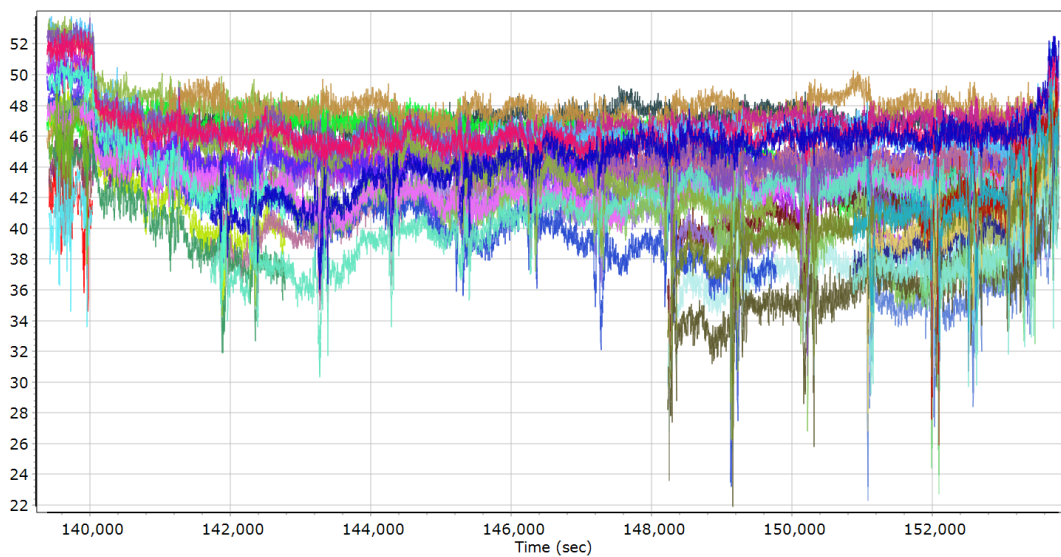
BEIDOU SNR



GALILEO Satellite Lock/Elevation



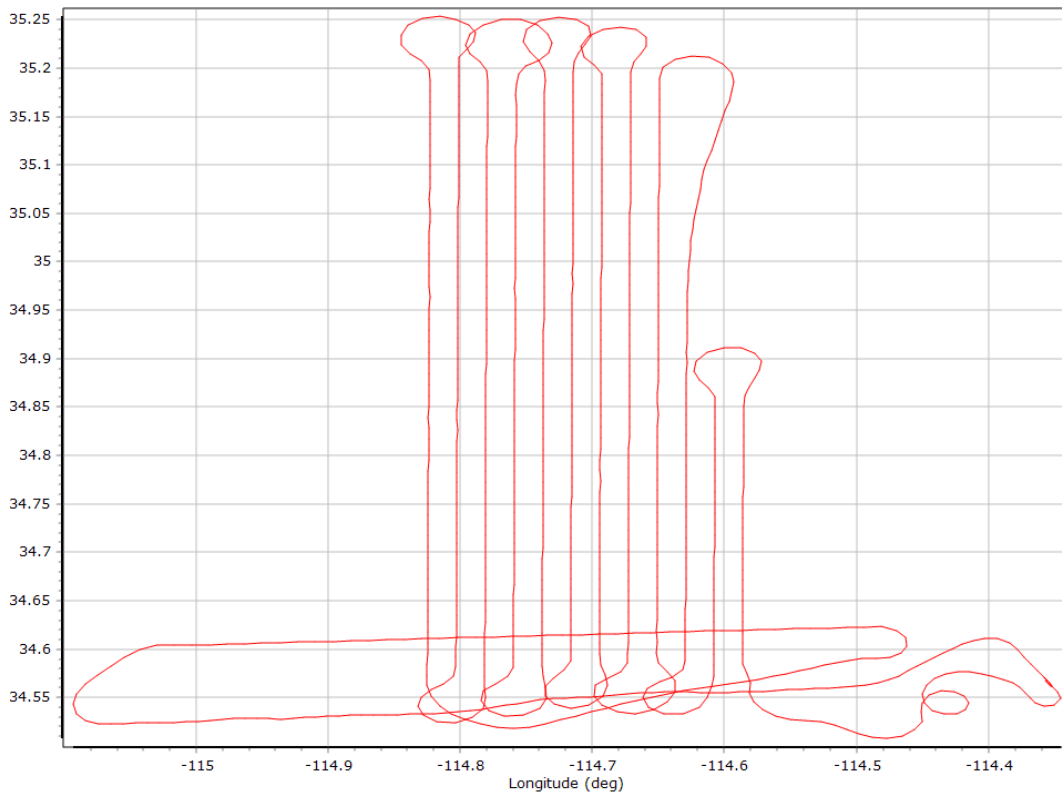
GALILEO SNR



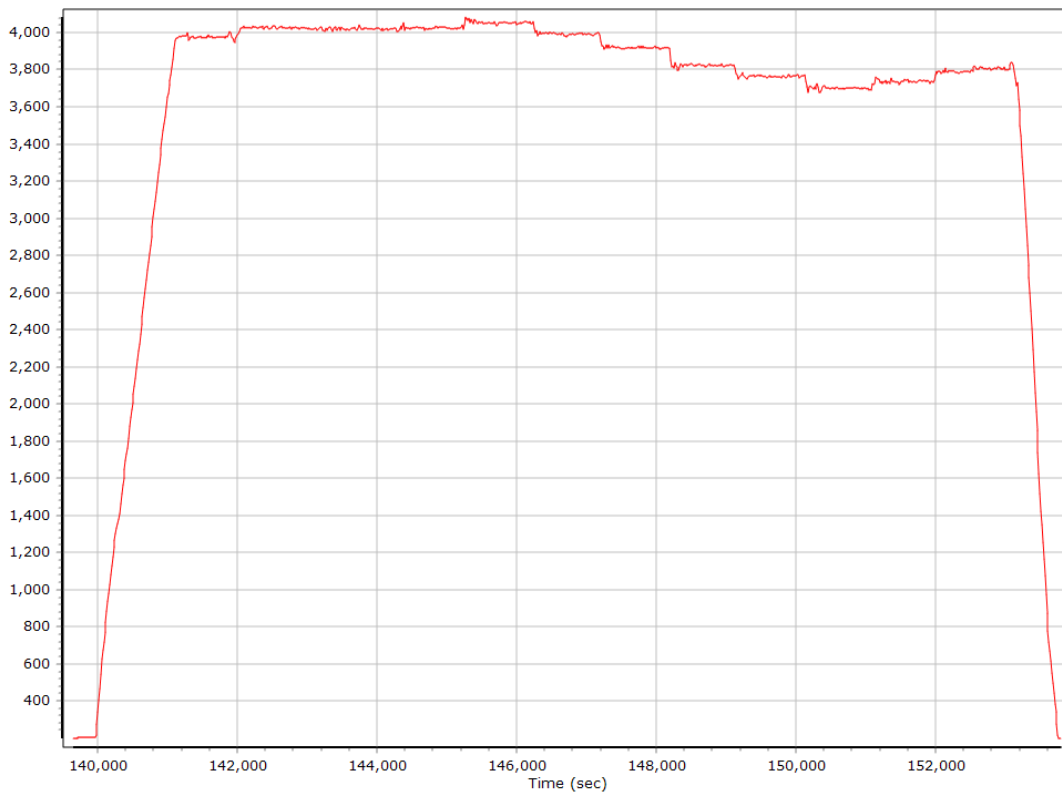
- | | |
|---|---|
| — GALILEO 03 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 07 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 08 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 12 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 13 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 15 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) |
| — GALILEO 19 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 26 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 33 L1 BOC_1_1_DP_MBOC SNR (dB/Hz) | — GALILEO 03 L5E5A BPSK10_PD SNR (dB/Hz) |
| — GALILEO 07 L5E5A BPSK10_PD SNR (dB/Hz) | — GALILEO 08 L5E5A BPSK10_PD SNR (dB/Hz) |
| — GALILEO 12 L5E5A BPSK10_PD SNR (dB/Hz) | — GALILEO 13 L5E5A BPSK10_PD SNR (dB/Hz) |
| — GALILEO 15 L5E5A BPSK10_PD SNR (dB/Hz) | — GALILEO 19 L5E5A BPSK10_PD SNR (dB/Hz) |
| — GALILEO 26 L5E5A BPSK10_PD SNR (dB/Hz) | — GALILEO 27 L5E5A BPSK10_PD SNR (dB/Hz) |

Smoothed Trajectory Information

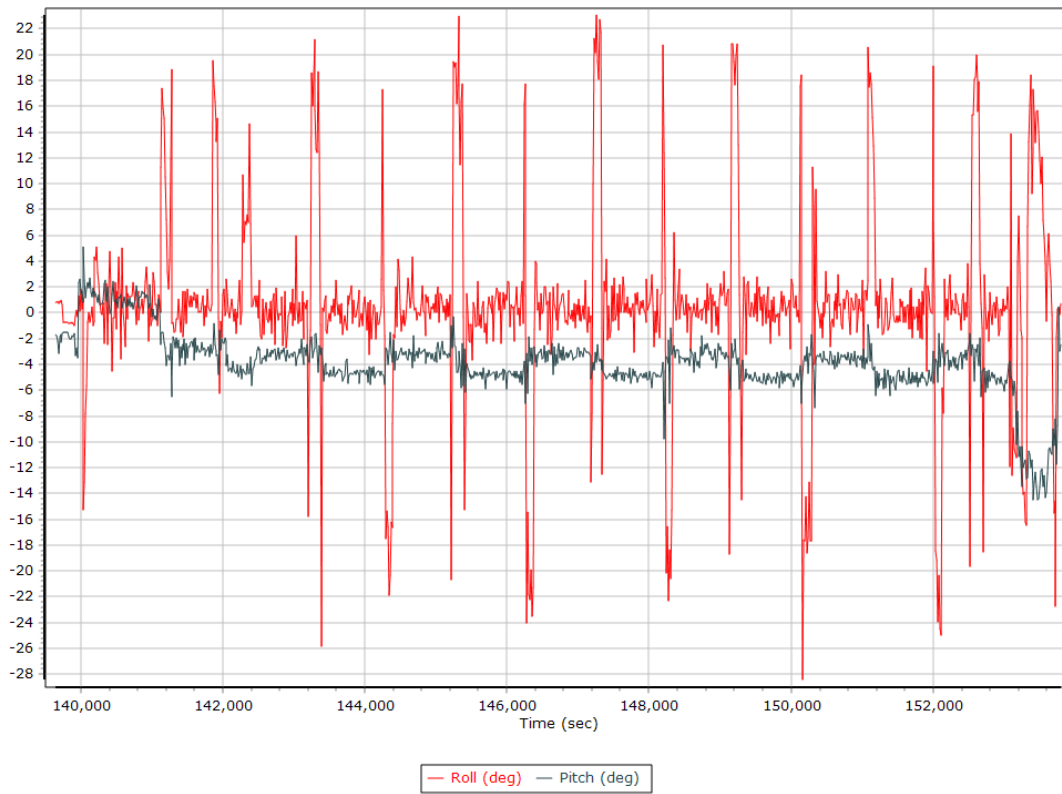
Top View



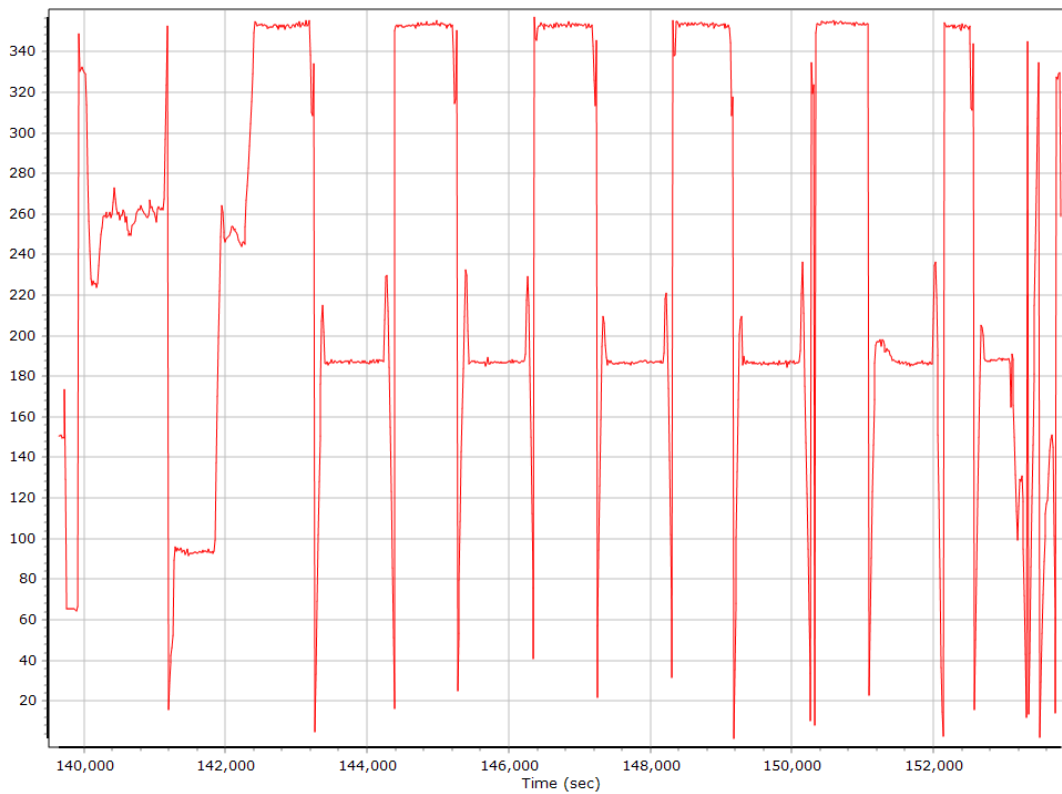
Altitude



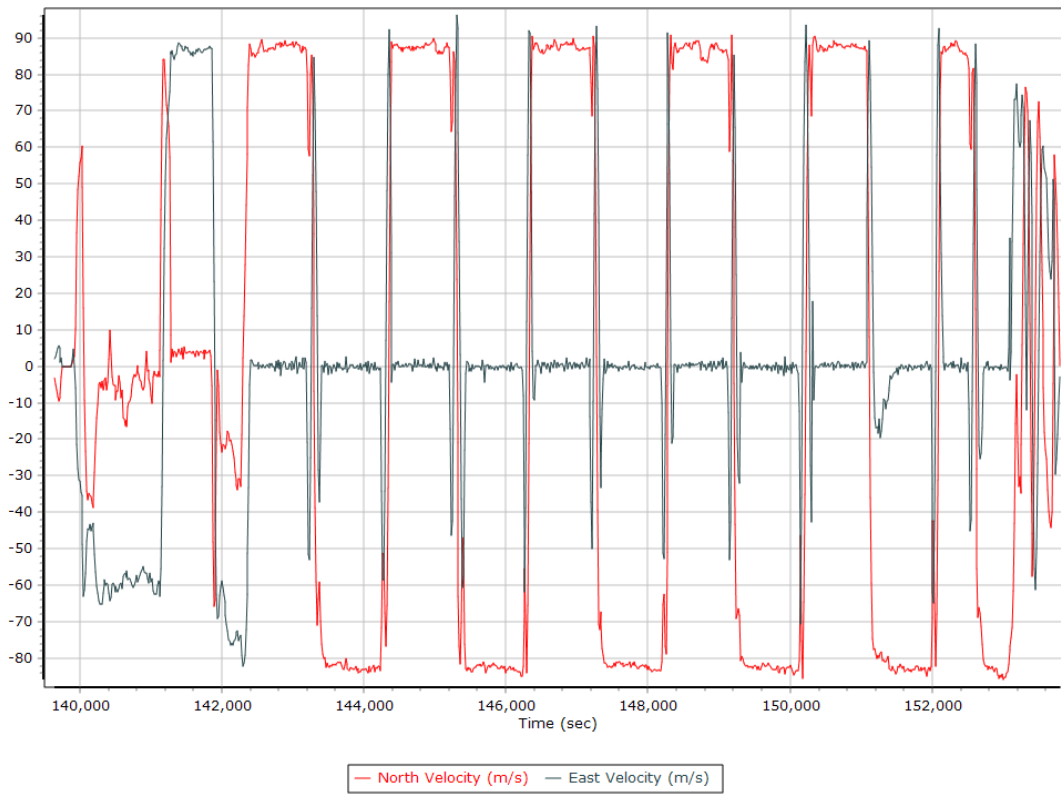
Roll/Pitch



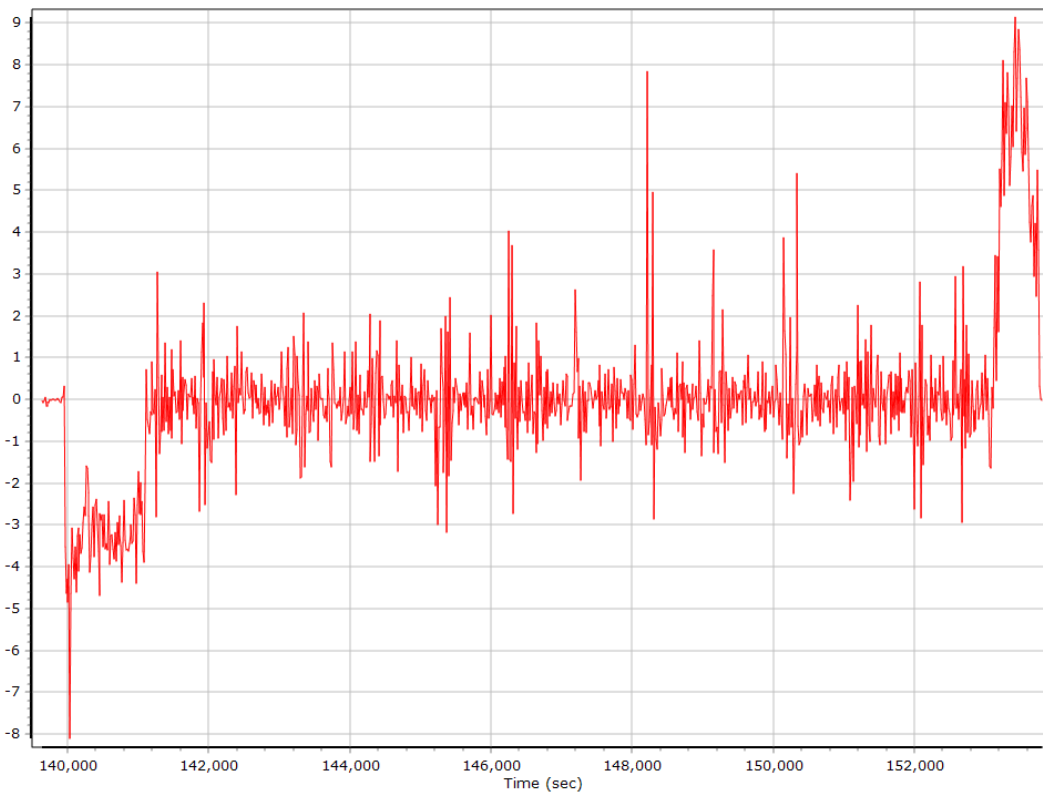
Heading



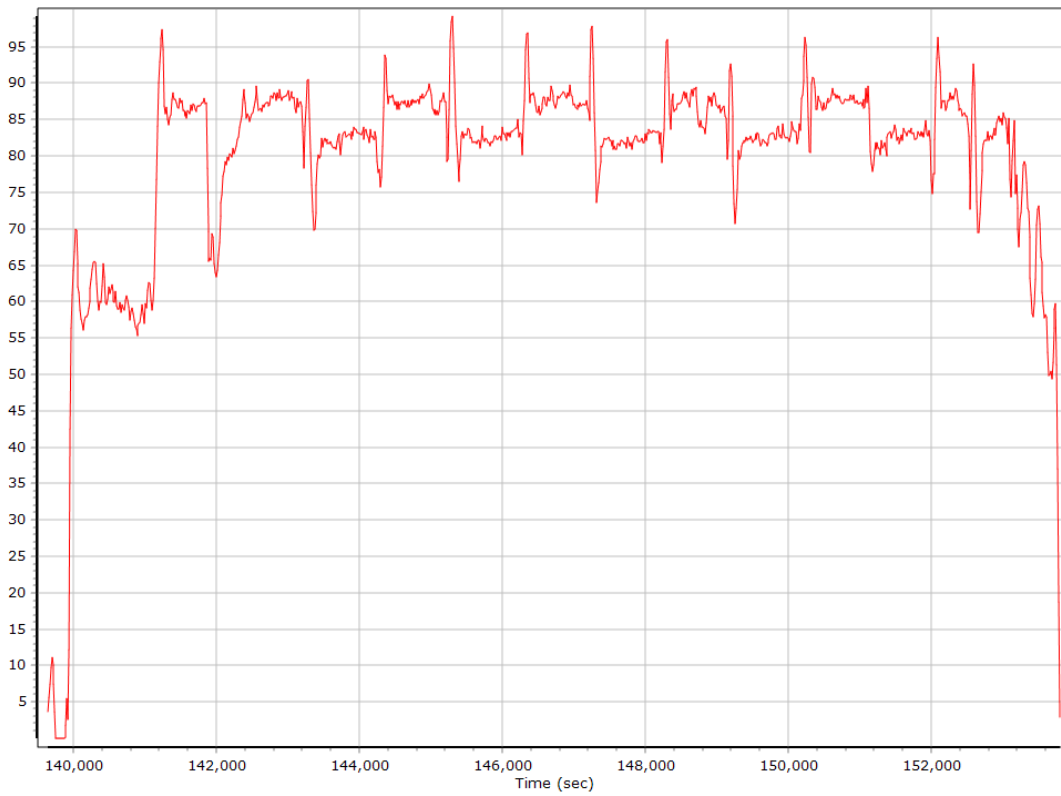
North/East Velocity



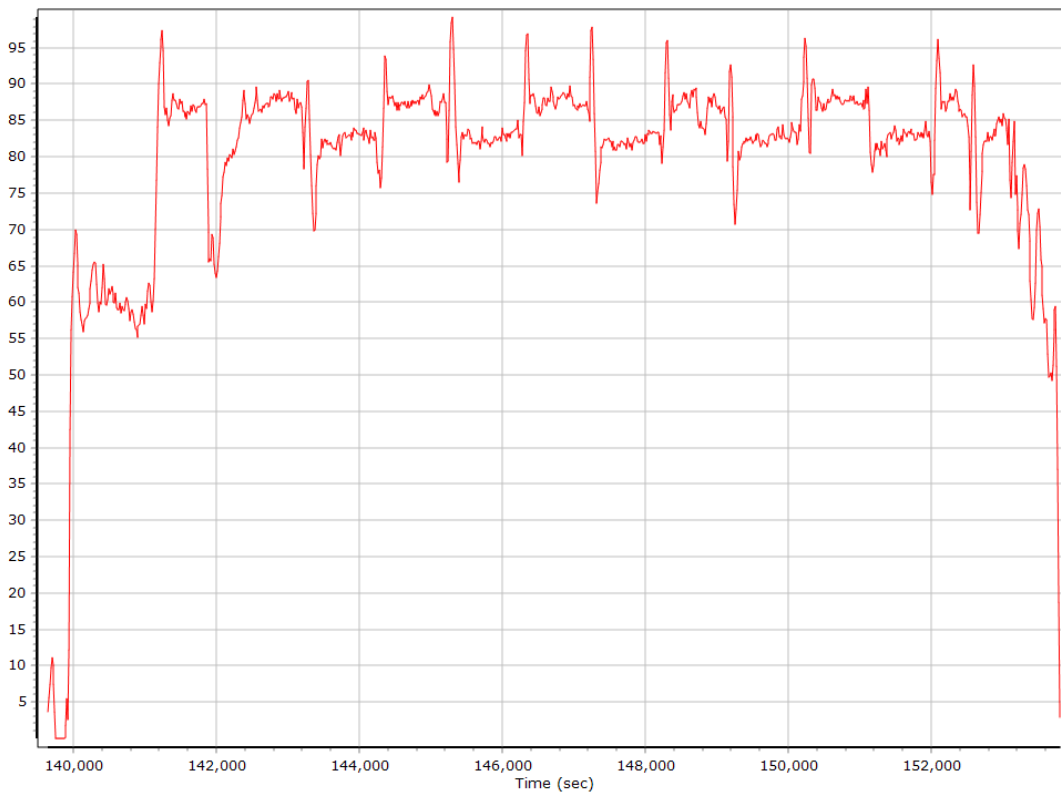
Down Velocity



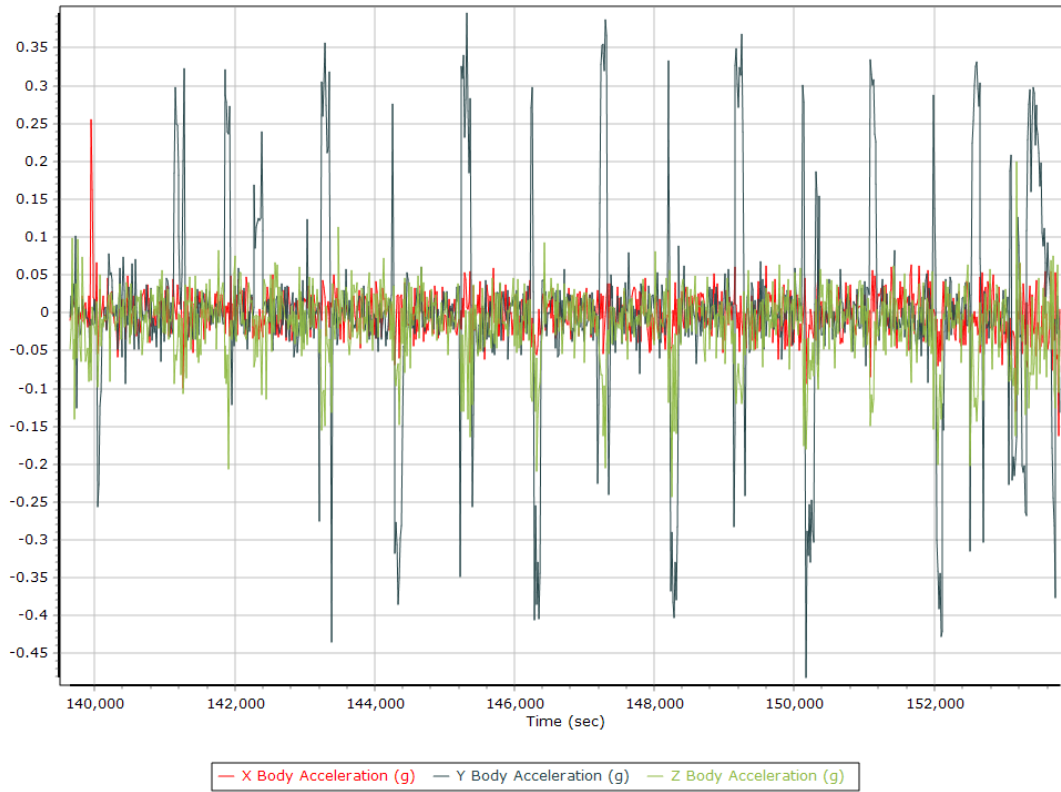
Total Speed



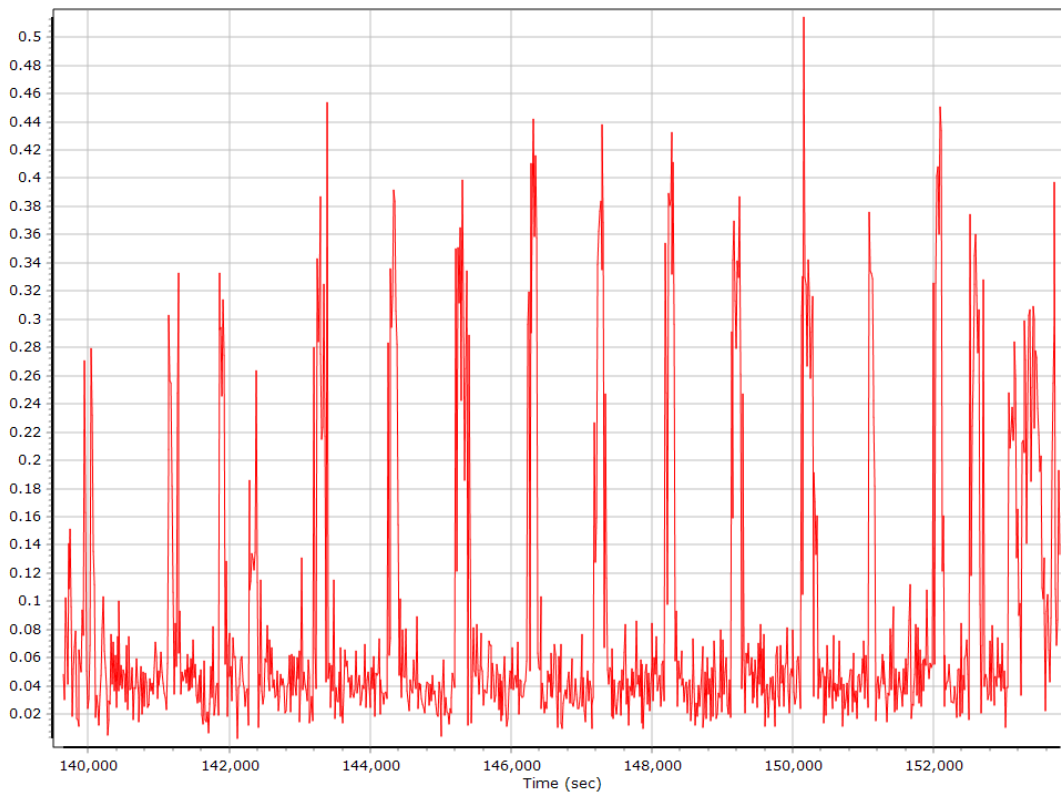
Ground Speed



Body Acceleration



Total Body Acceleration

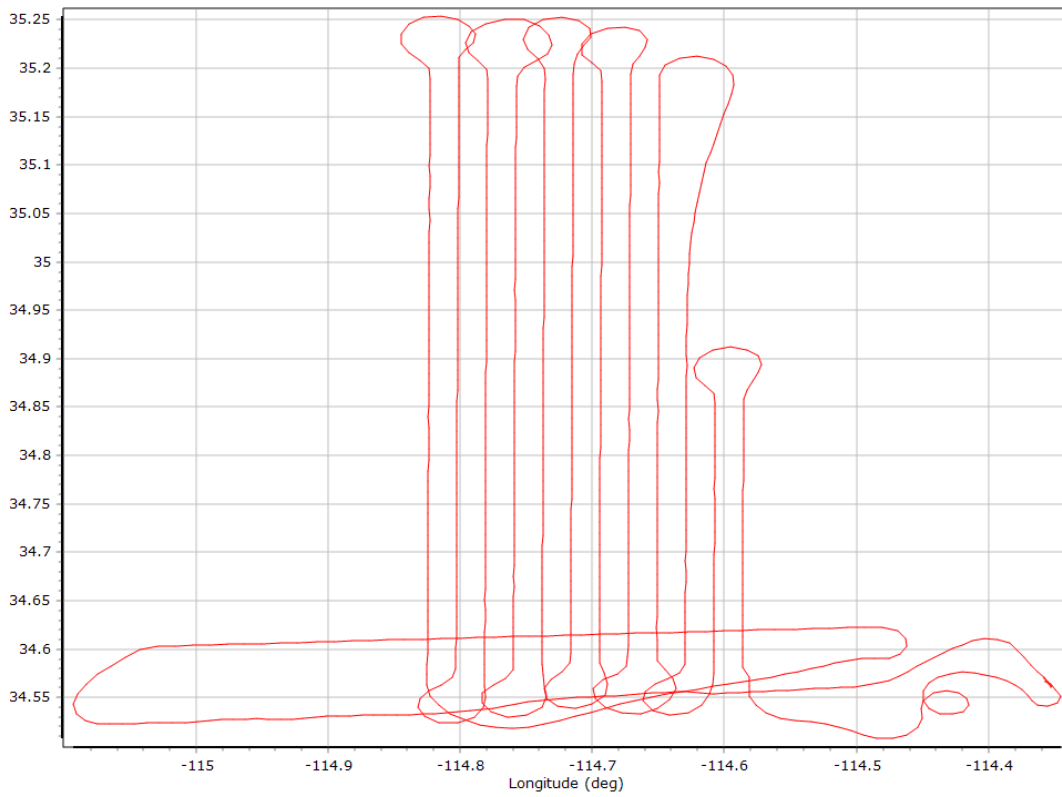


Body Angular Rate

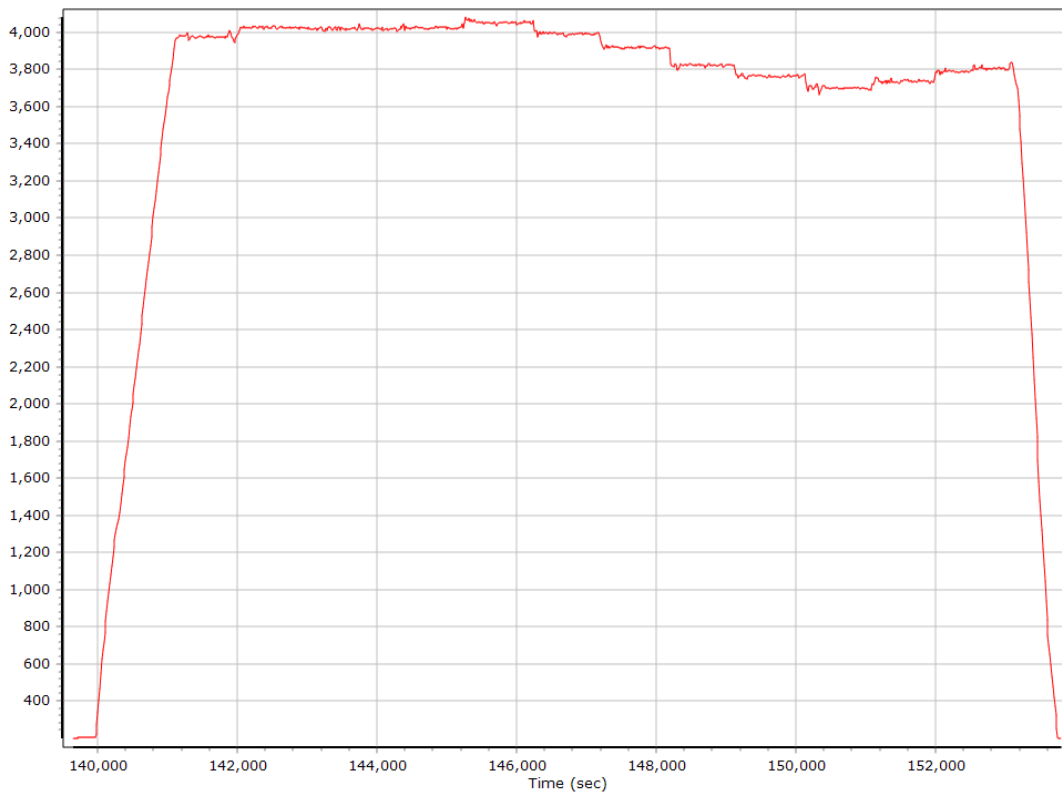


Forward Processed Trajectory Information

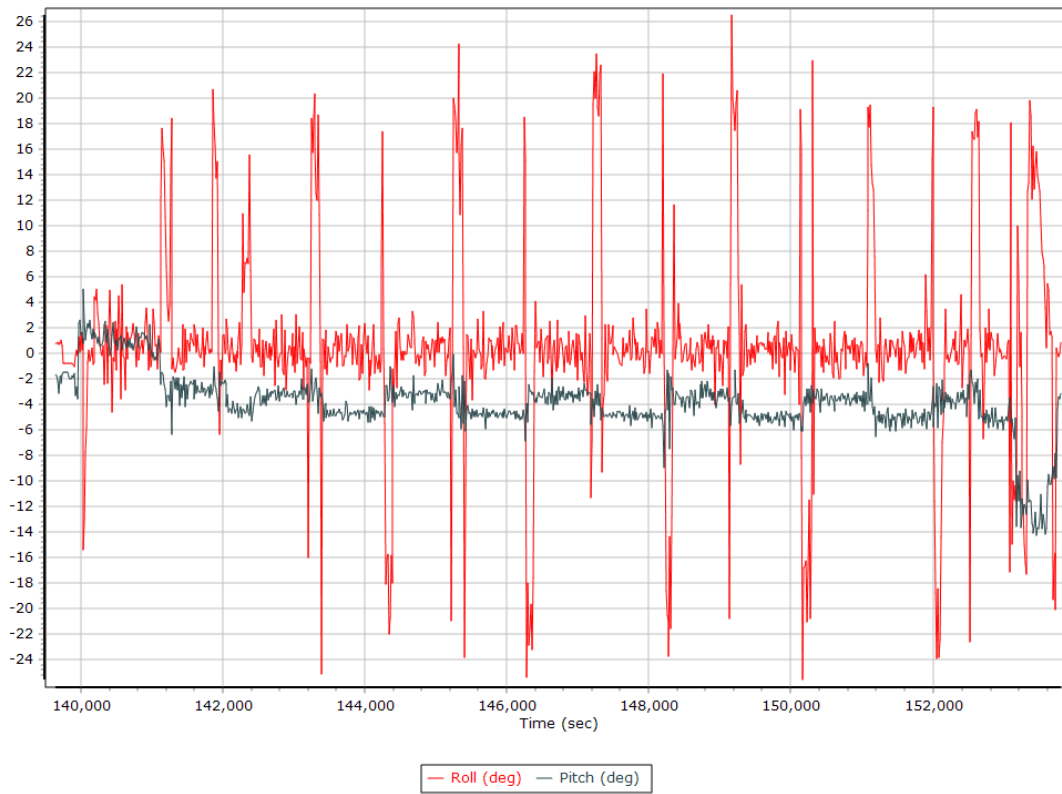
Top View



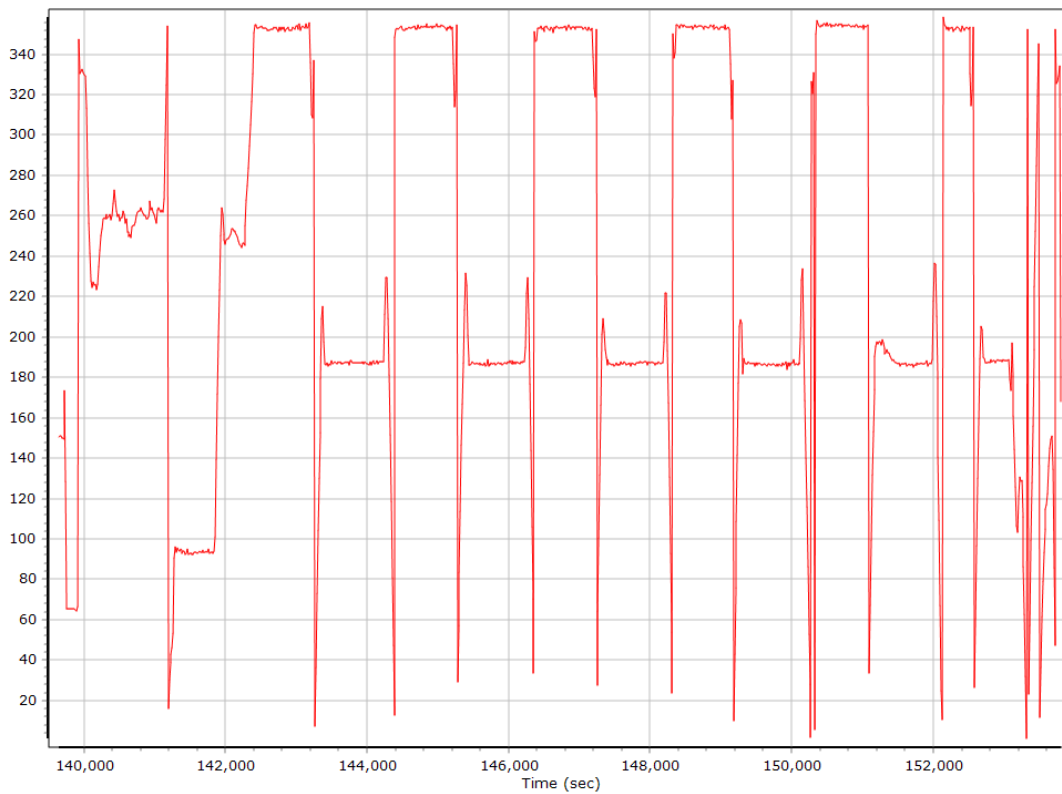
Altitude



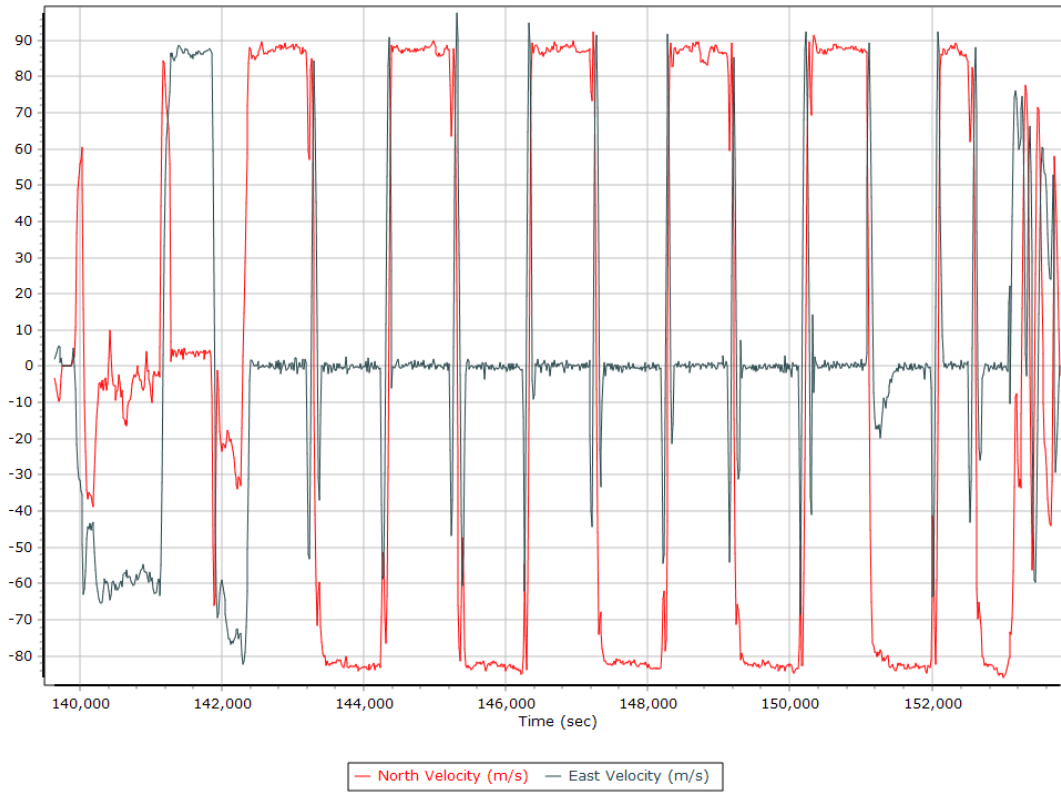
Roll/Pitch



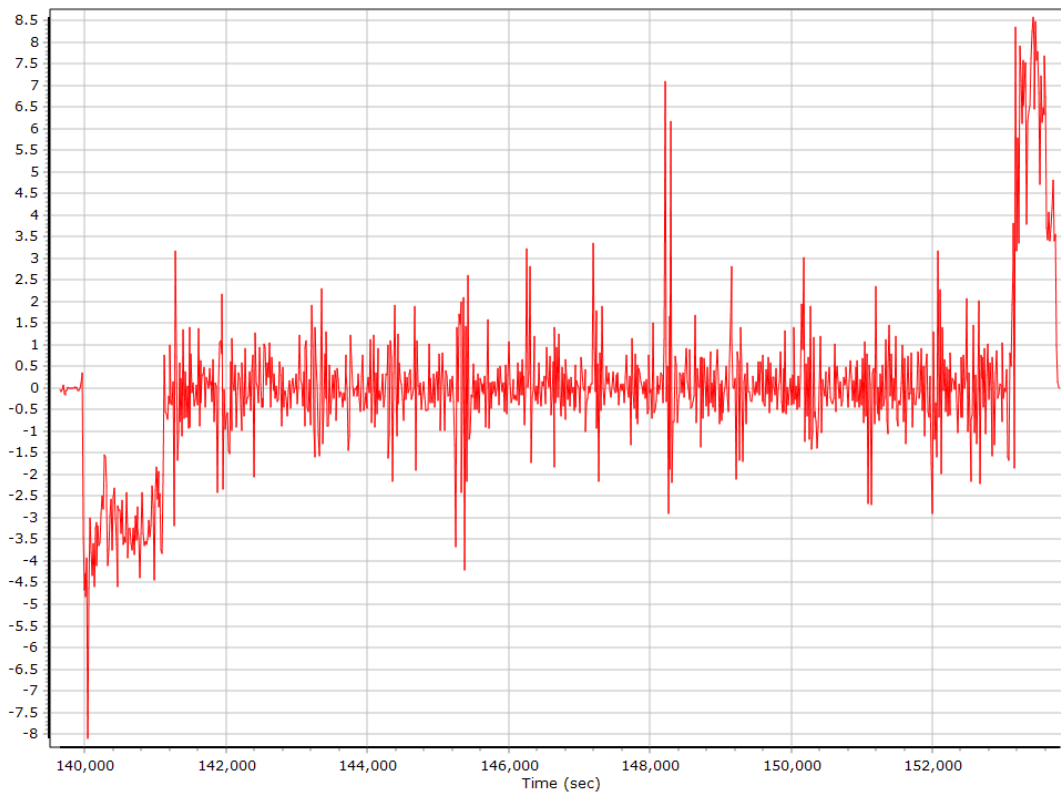
Heading



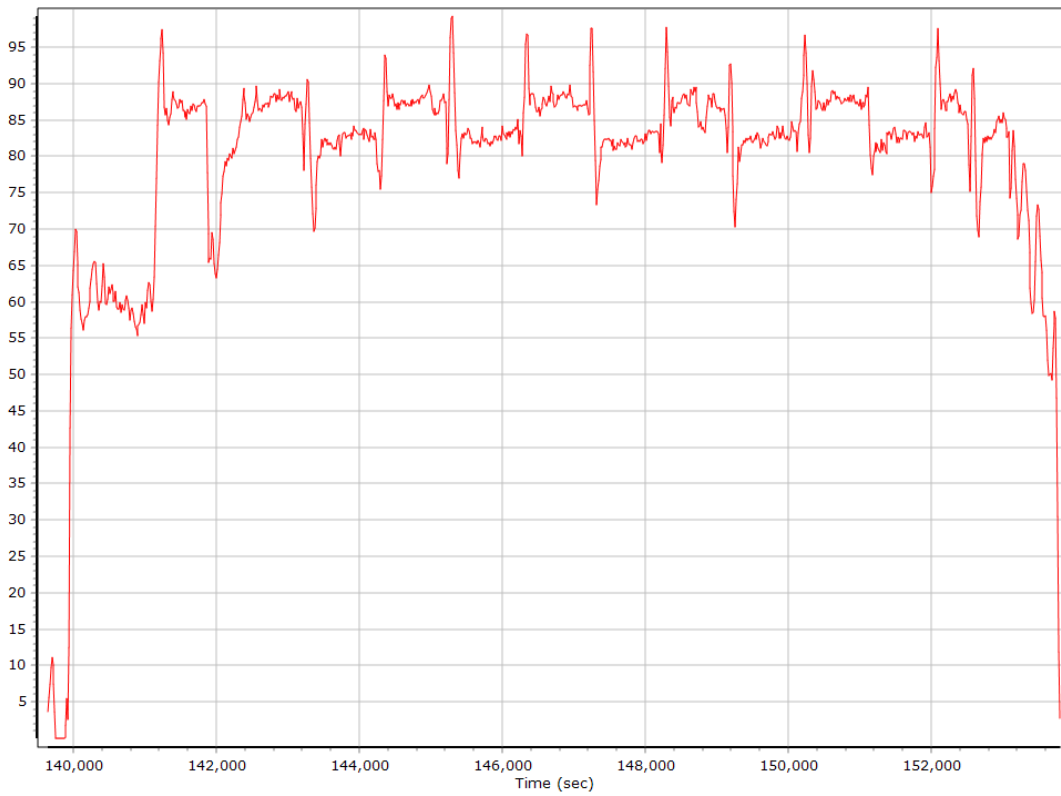
North/East Velocity



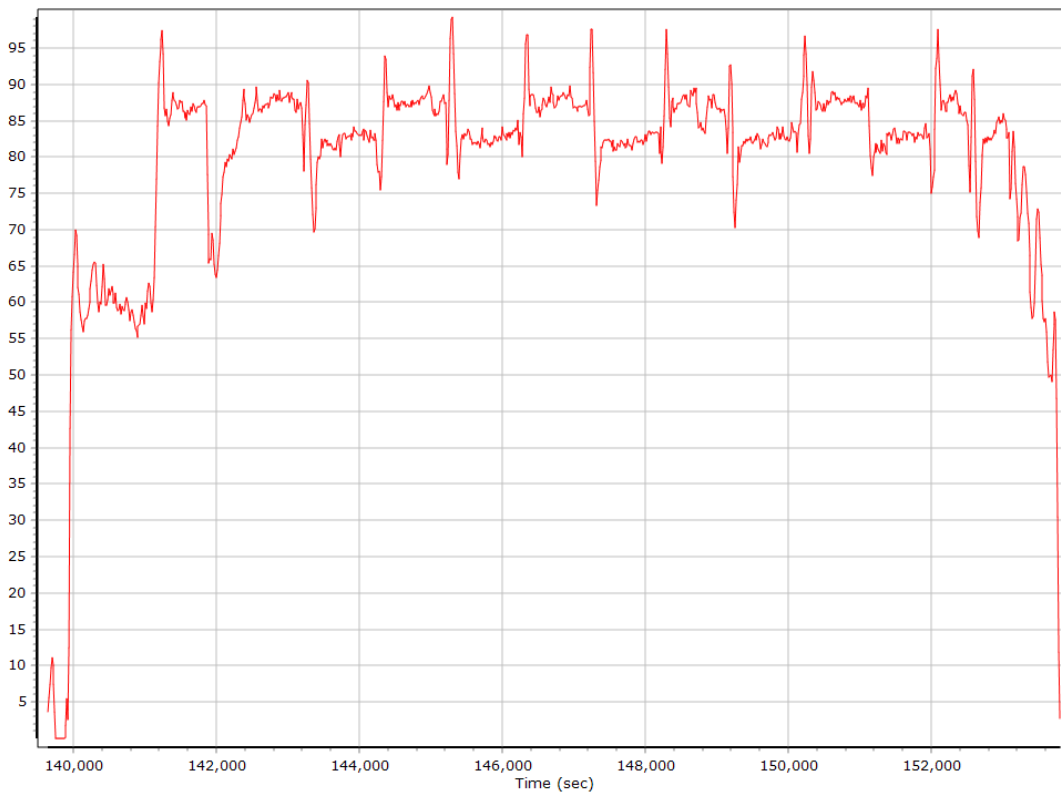
Down Velocity



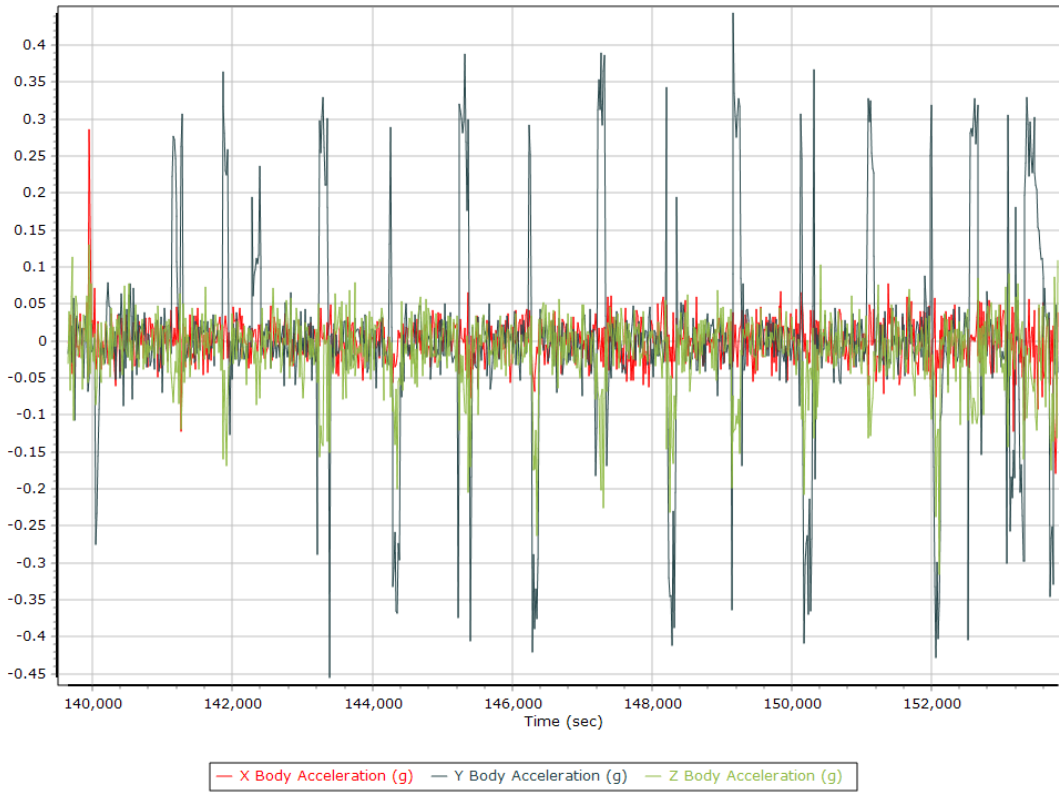
Total Speed



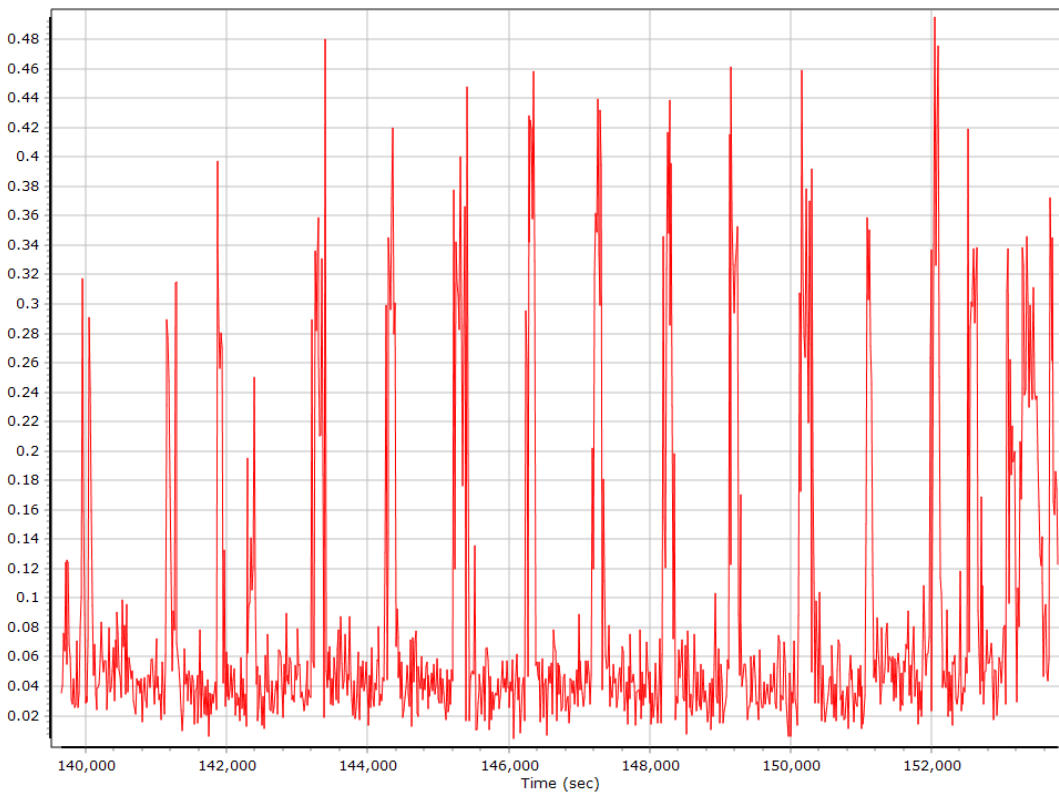
Ground Speed



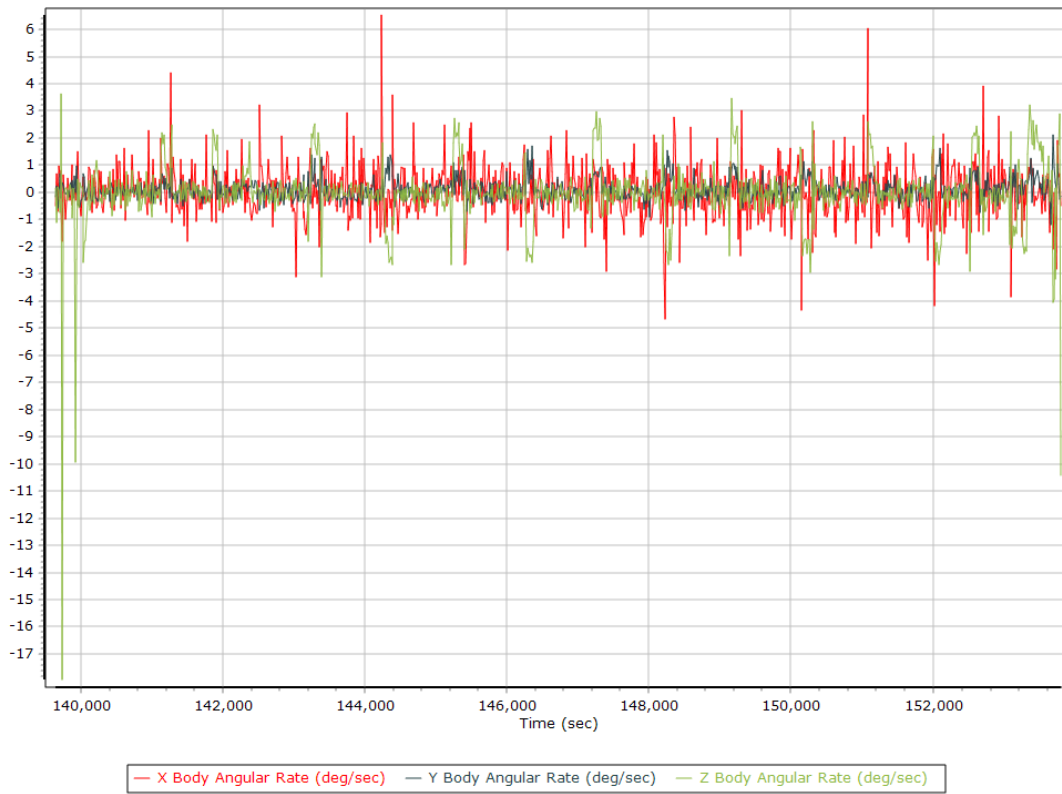
Body Acceleration



Total Body Acceleration



Body Angular Rate

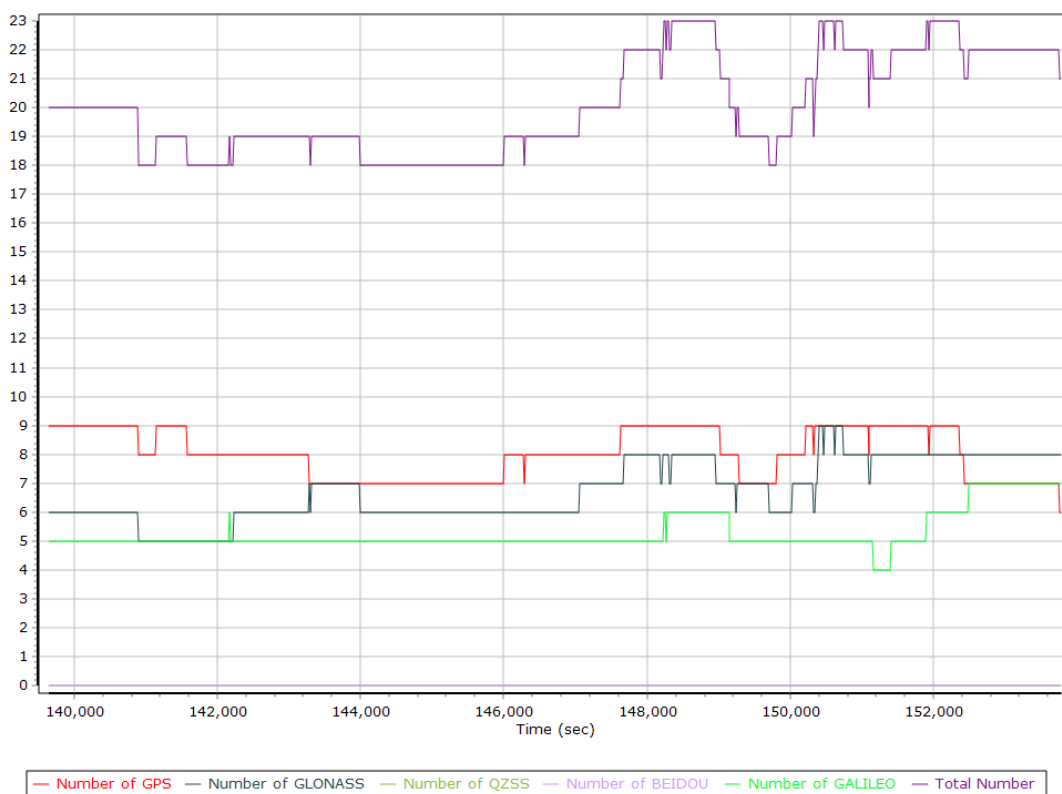


GNSS QC

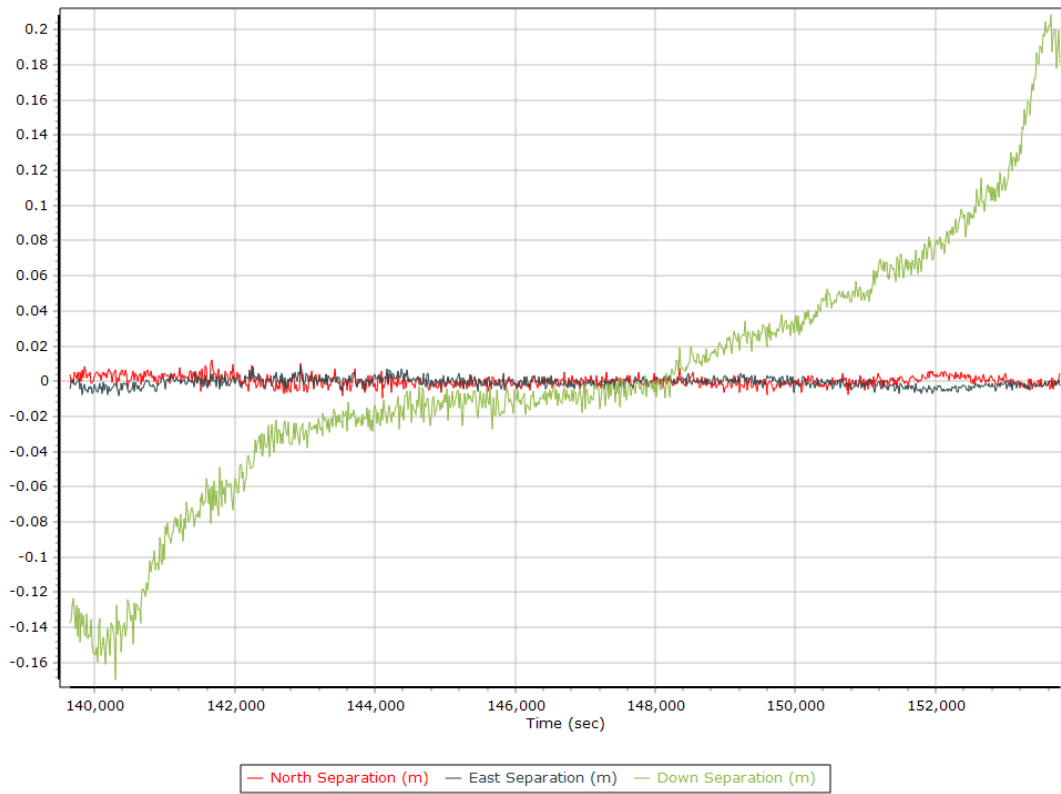
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	4	9	8
Number of GLONASS SV	0	9	7
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	2	7	5
Total number of SV	6	23	20
PDOP	0.98	2.79	1.19
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	14382.00	0.00	0.00
Percentage	100.00	0.00	0.00

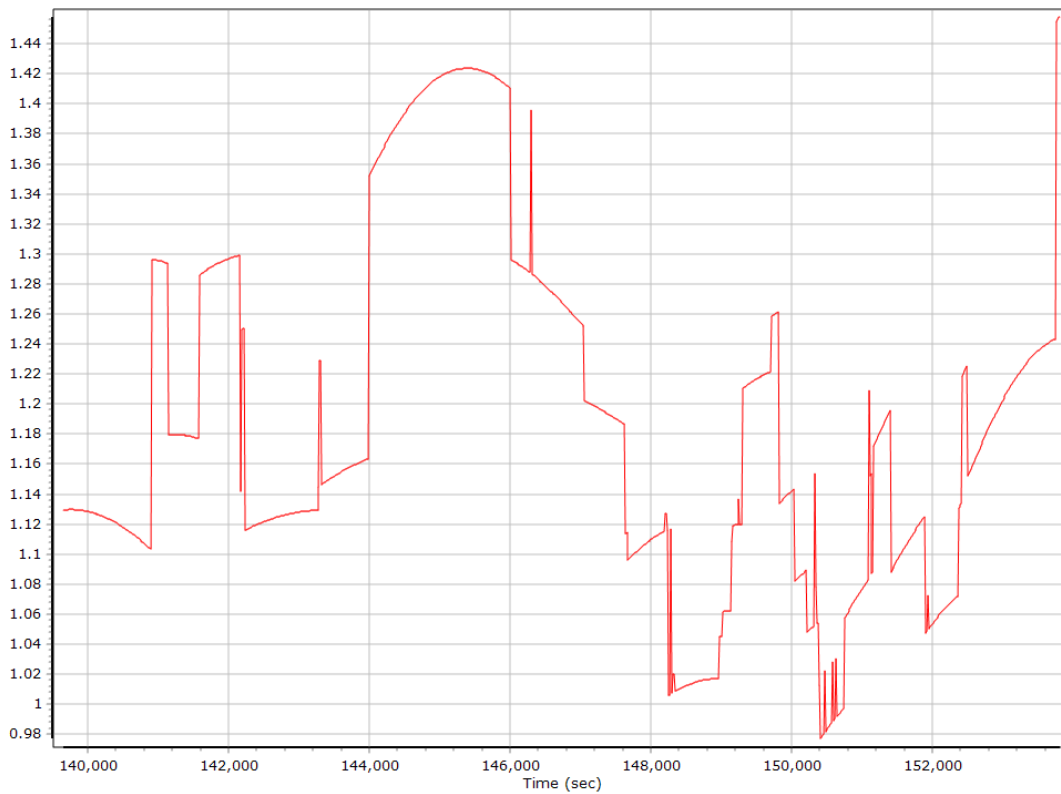
Num SVs in solution



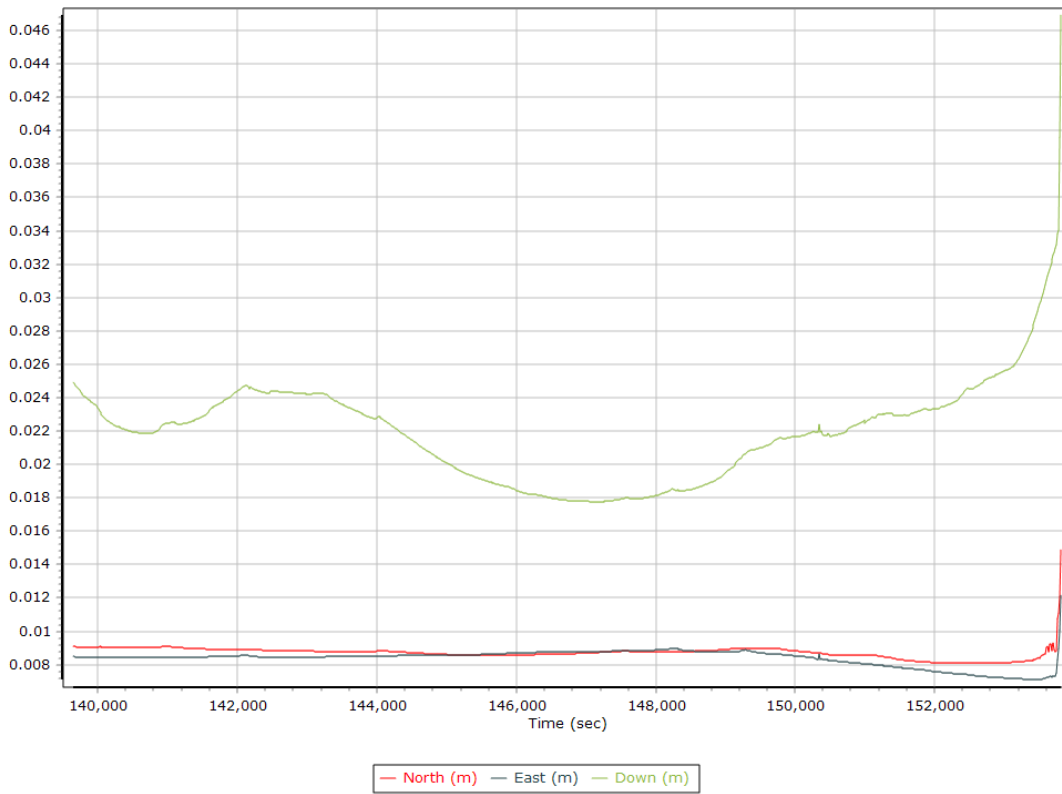
Forward/Reverse Separation



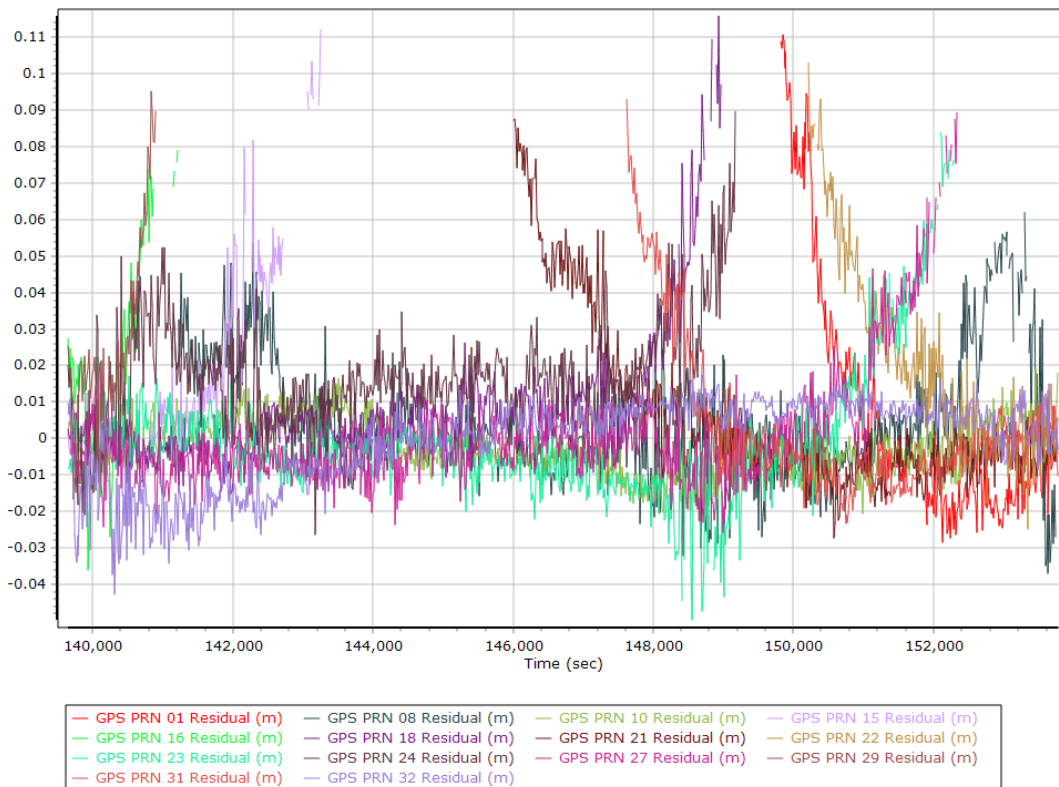
PDOP



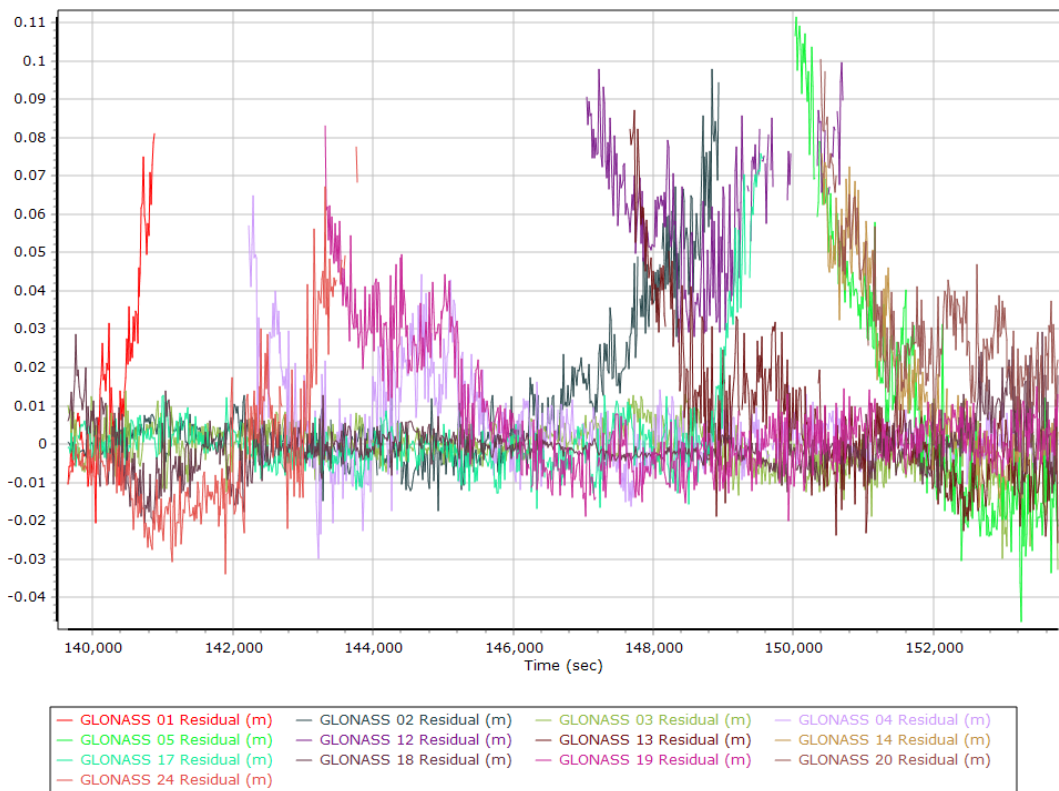
Estimated Position Accuracy



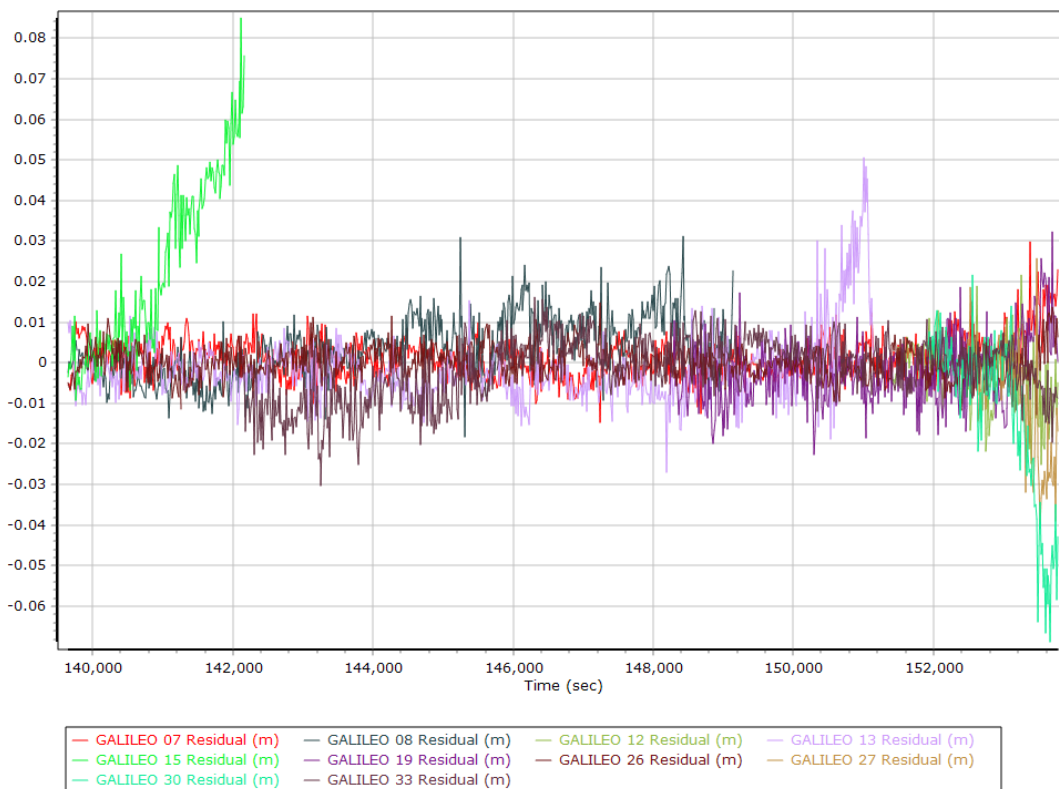
GPS Residuals



GLONASS Residuals



GALILEO Residuals



GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	139388.000 (11/8/2021 2:43:08 PM)		
Processing end time	153807.000 (11/8/2021 6:43:27 PM)		
Initial attitude source	Real-Time VNAV/RNAV Attitude		
IMU Sensor Context	Processing with Onboard IMU		
Reference to IMU lever arm (m)	0.000	0.000	0.000
Reference to IMU mounting angles (deg)	0.000	0.000	180.000
Reference to Primary GNSS lever arm (m)	0.390	-0.426	-1.089
Reference to Primary GNSS lever arm std dev (m)	0.030	0.030	0.030
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

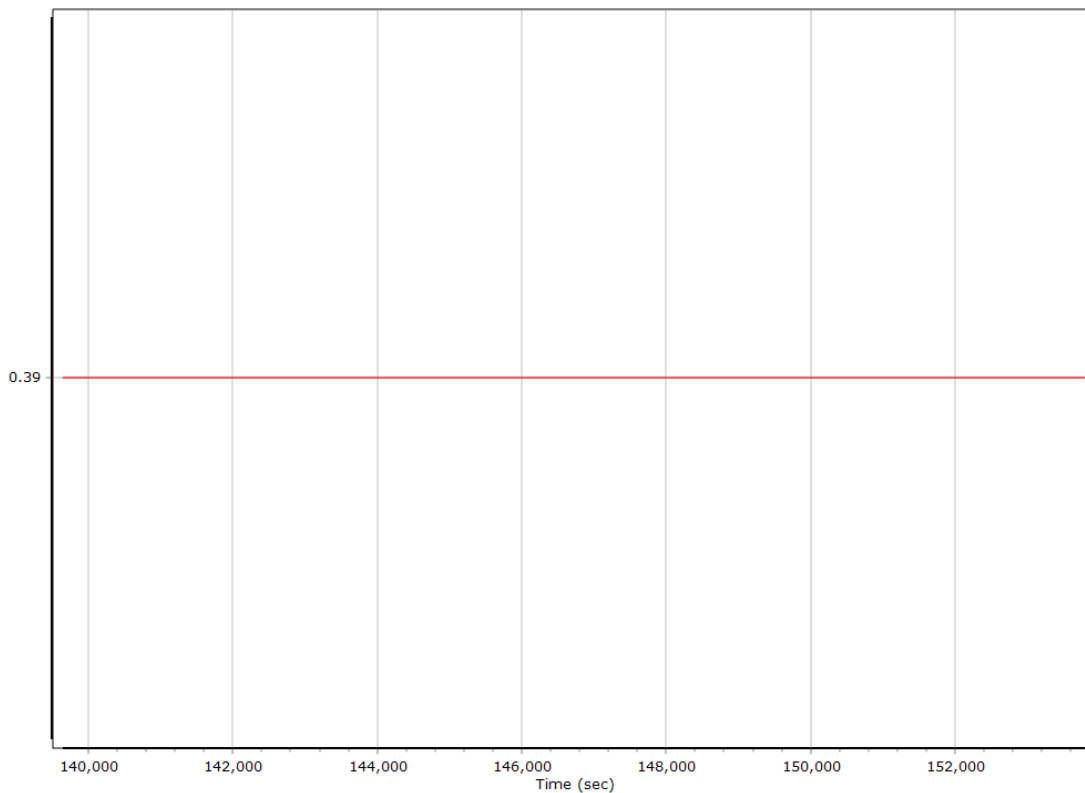
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

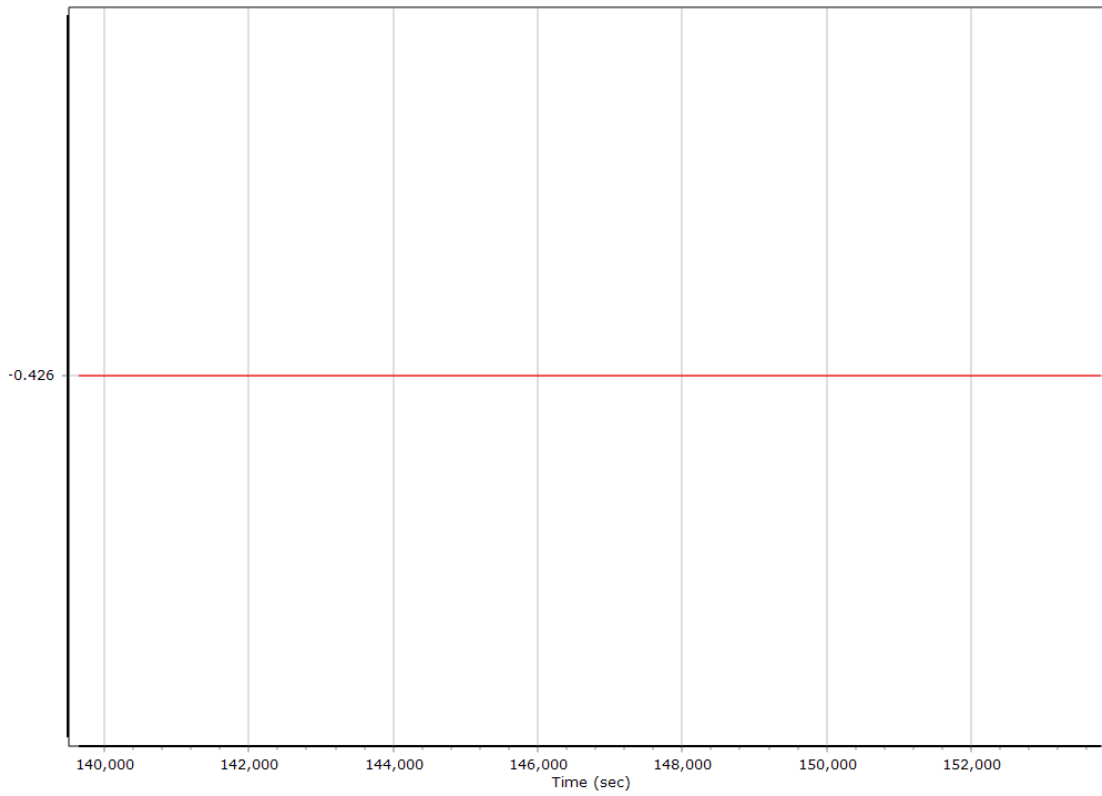
Reference-Primary GNSS Lever Arm Automatic Calibration Results

Original Reference to Primary GNSS lever arm (m)	0.398	-0.434	-1.093
Iteration 1 Reference to Primary GNSS lever arm (m)	0.391	-0.426	-1.089
Iteration 2 Reference to Primary GNSS lever arm (m)	0.390	-0.426	-1.089
Primary GNSS Lever Arm In use	Iteration 2		

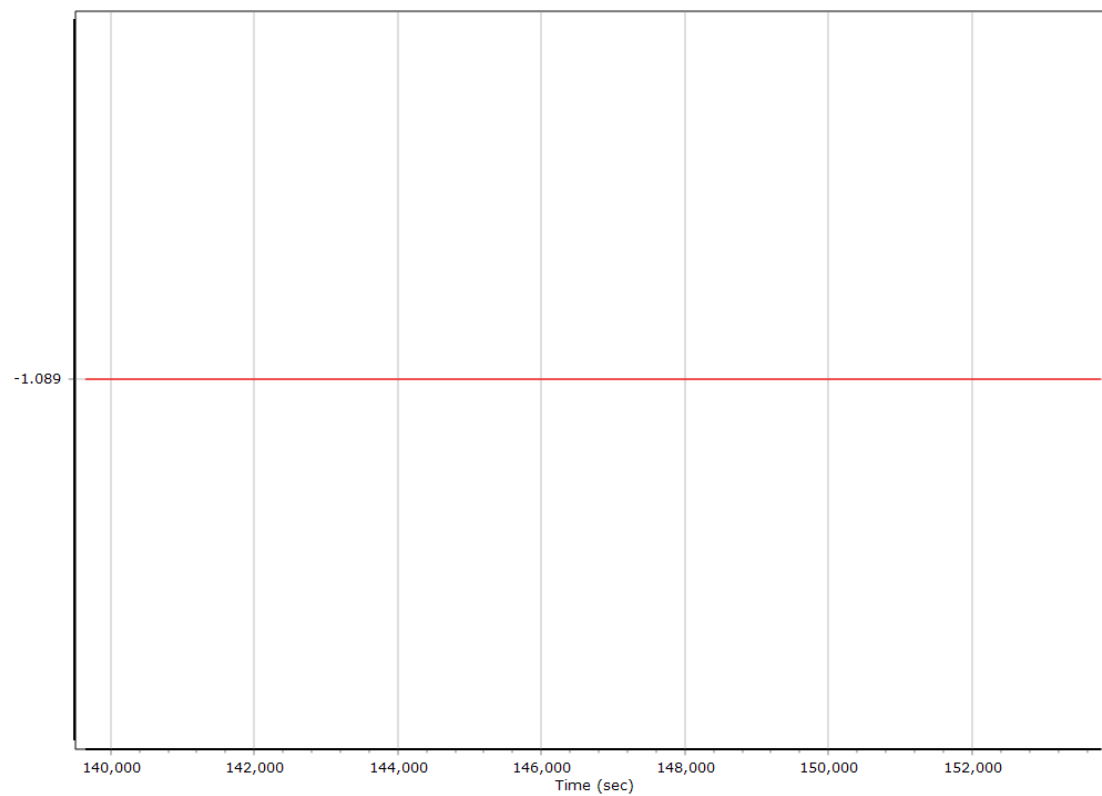
X Reference-Primary GNSS Lever Arm (m)



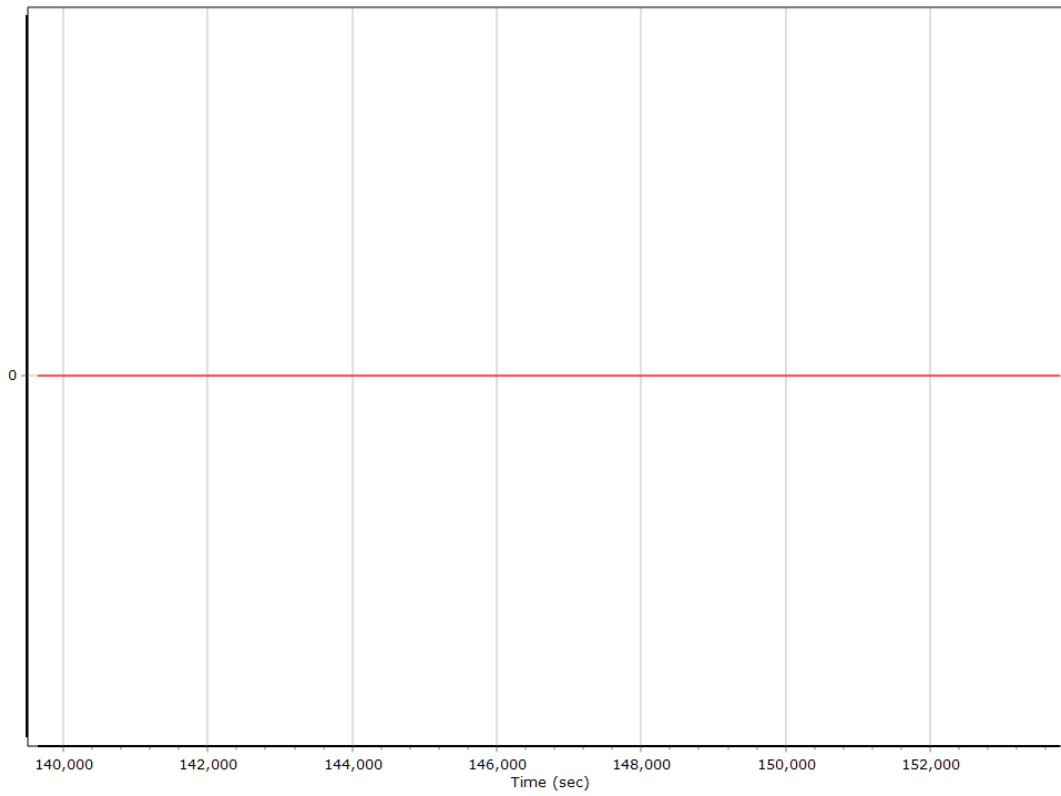
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



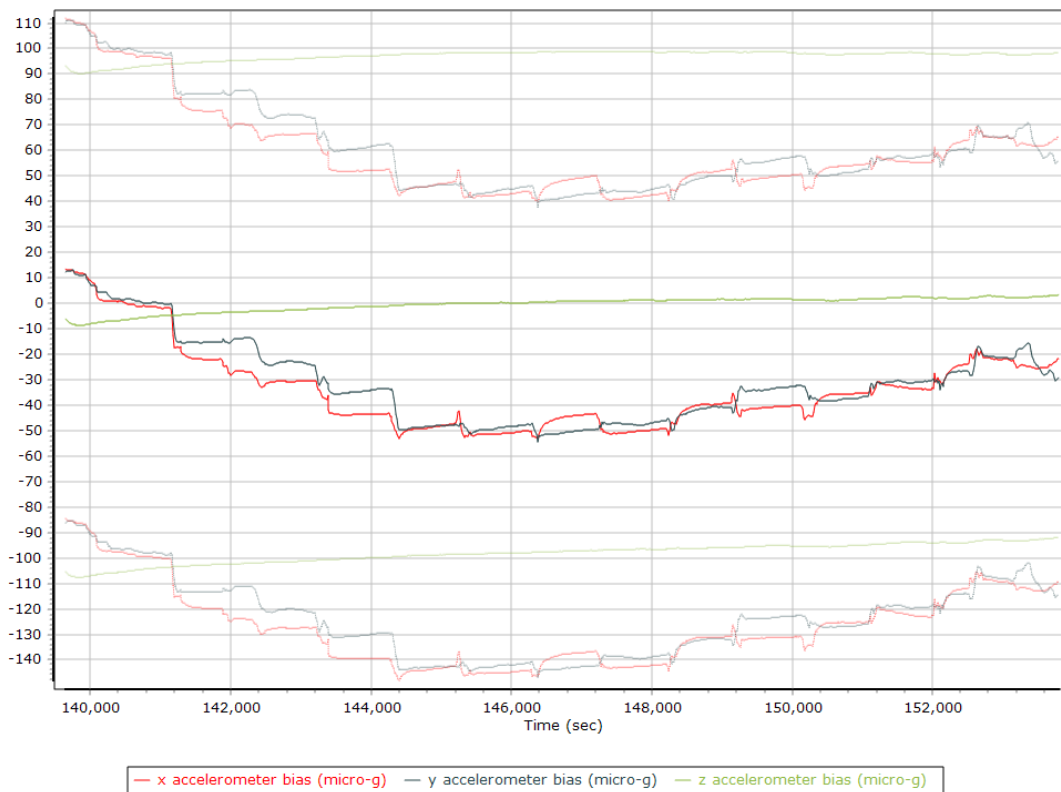
Reference-Primary GNSS Lever Arm Figure of Merit



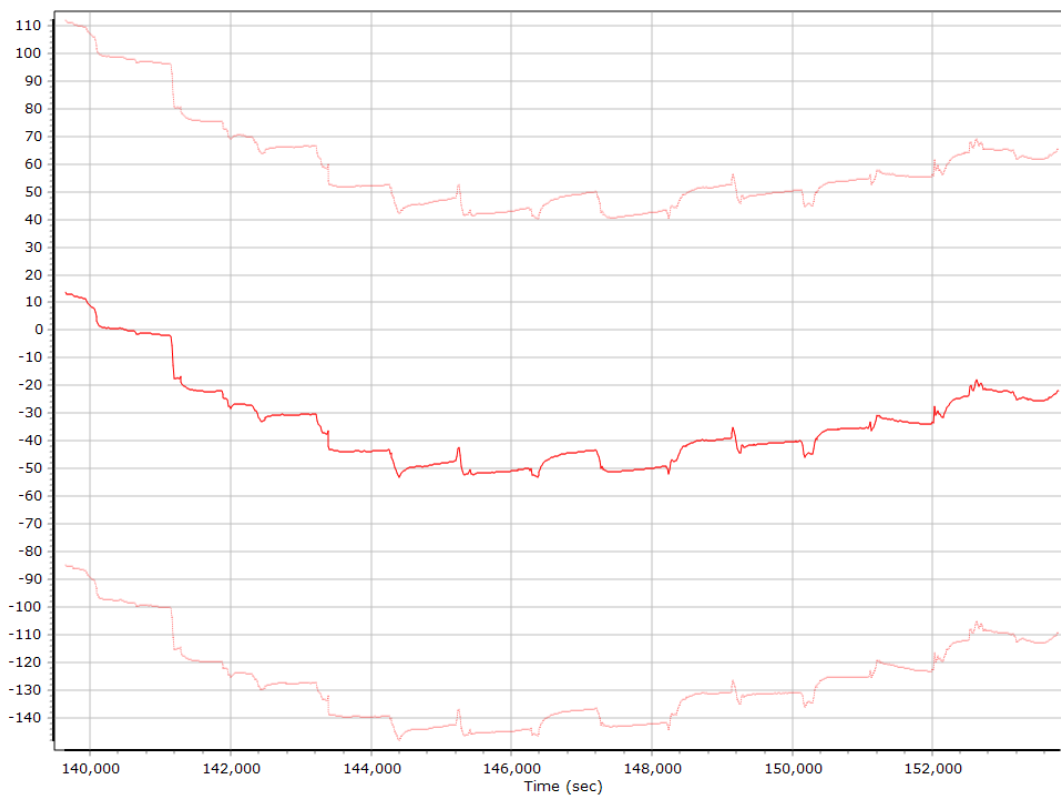
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

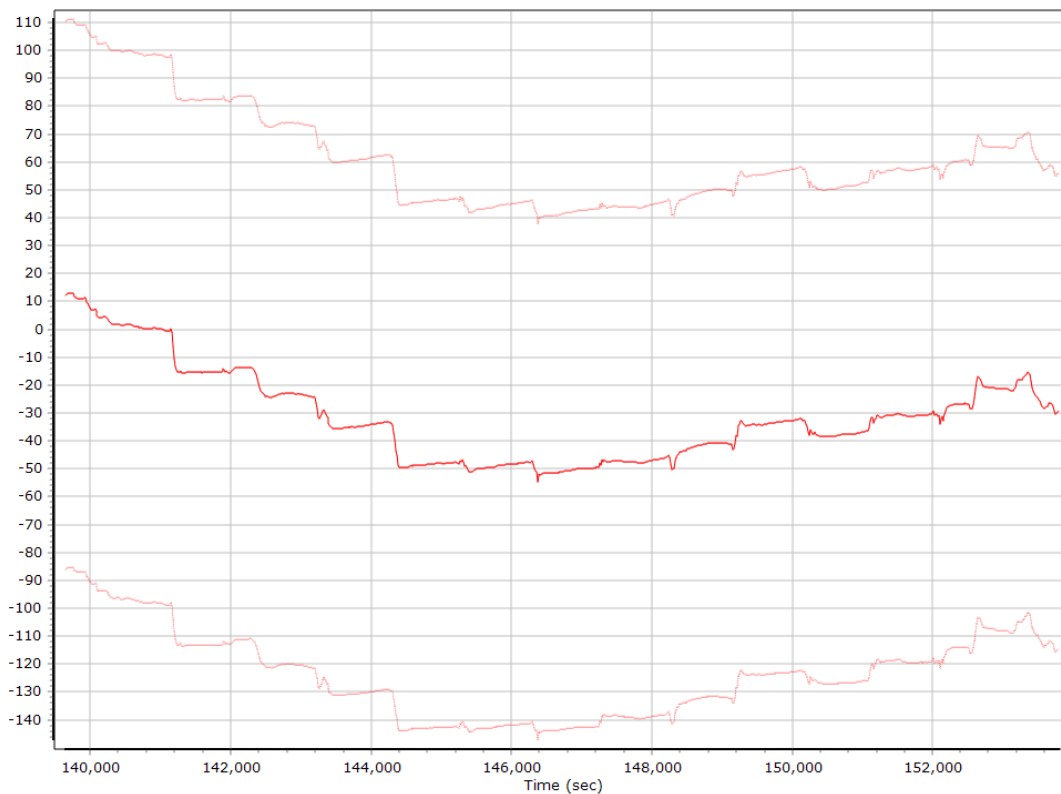
Accelerometer Bias (micro-g)



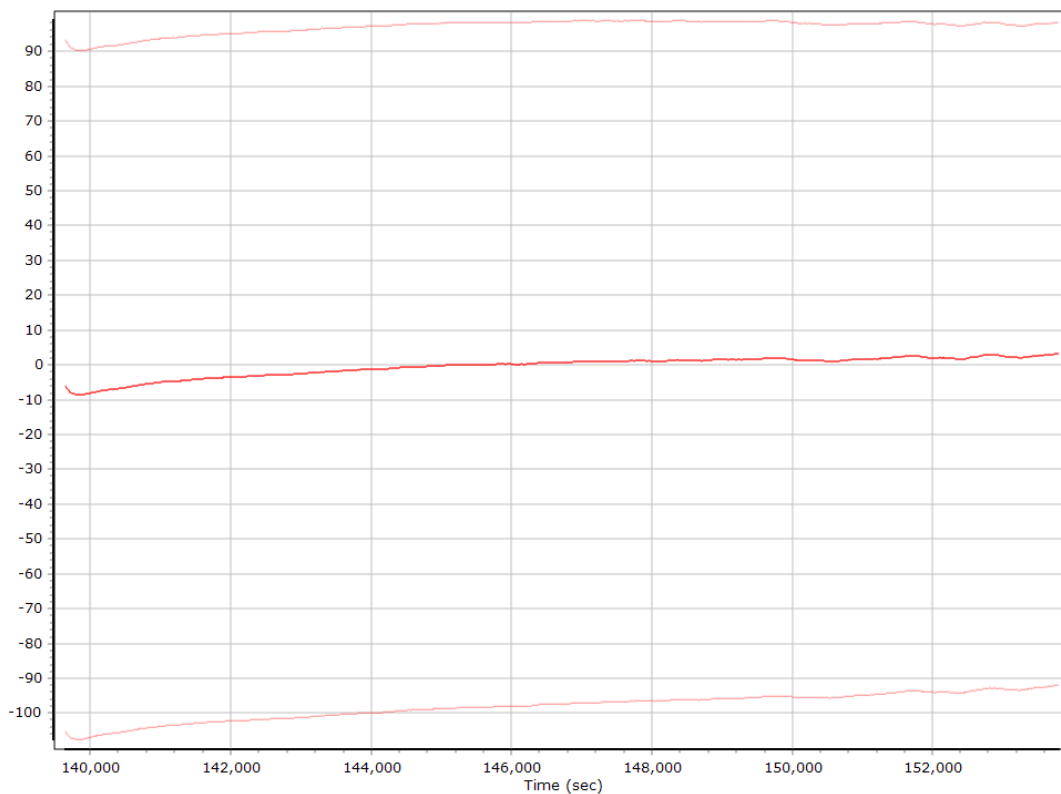
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



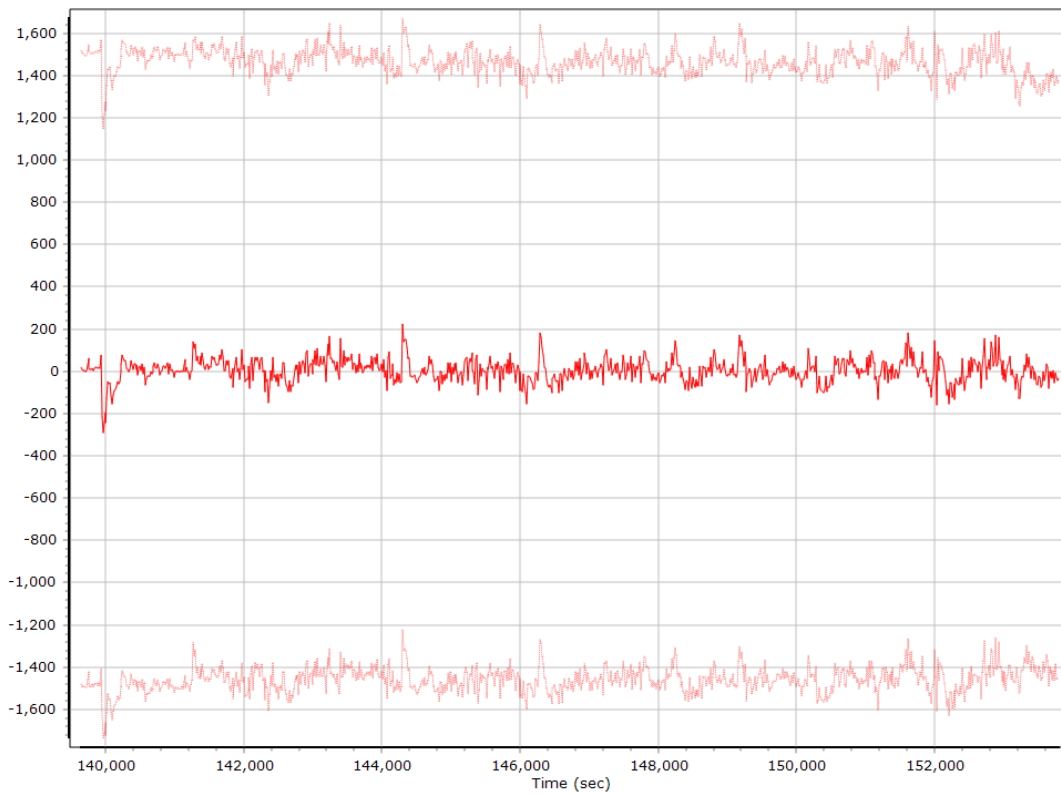
Z Accelerometer Bias (micro-g)



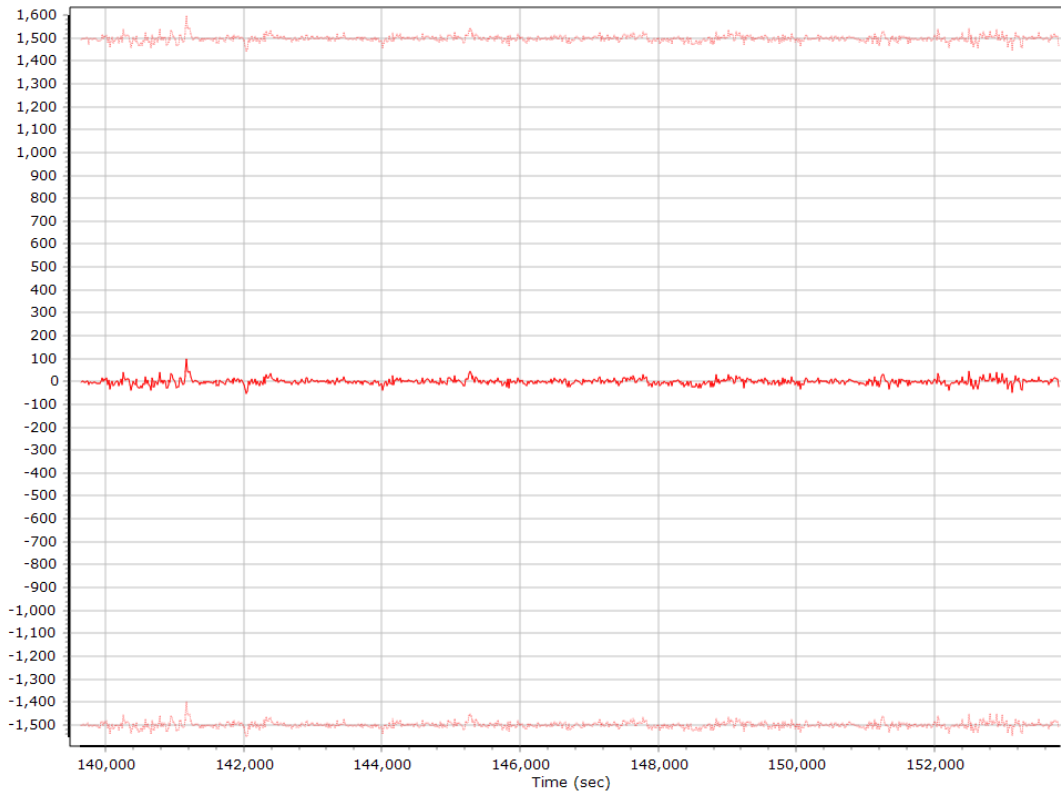
Accelerometer Scale Error (ppm)



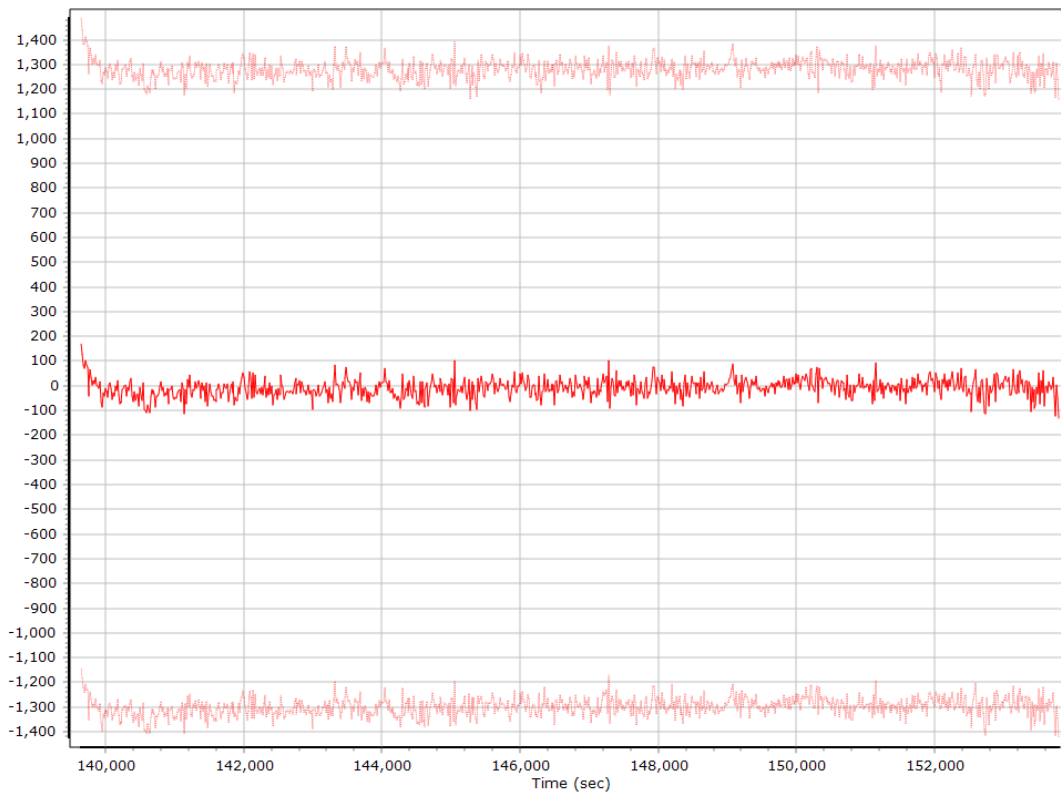
X Accelerometer Scale Error (ppm)



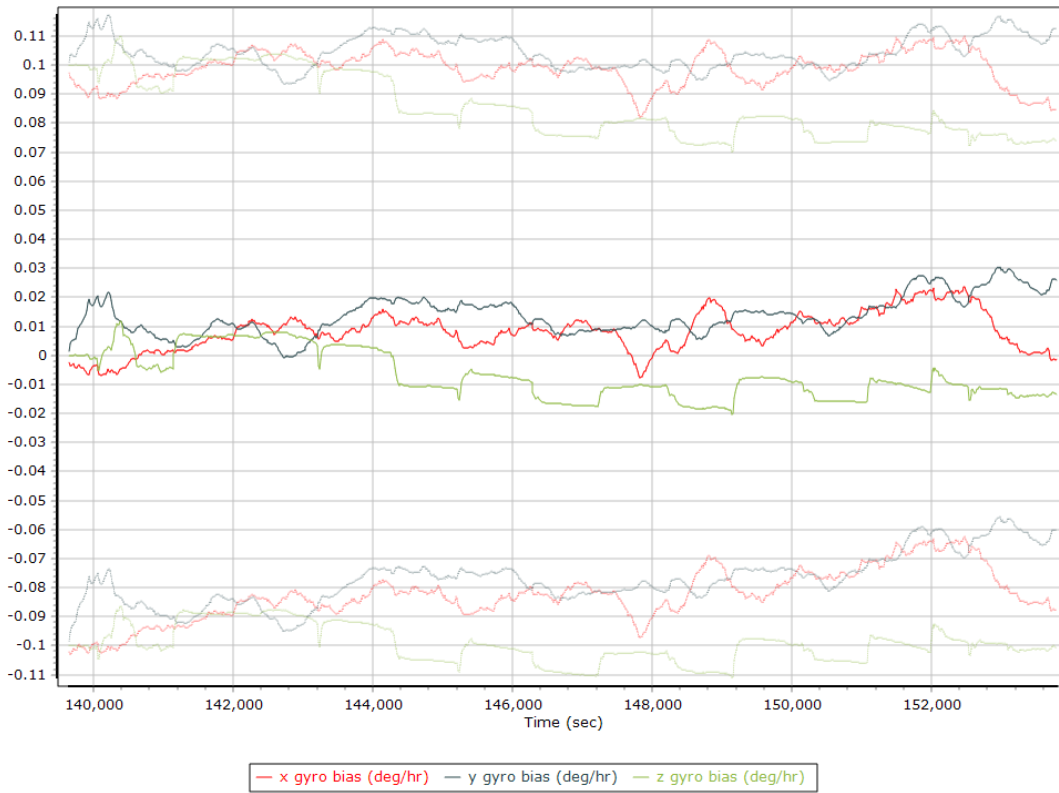
Y Accelerometer Scale Error (ppm)



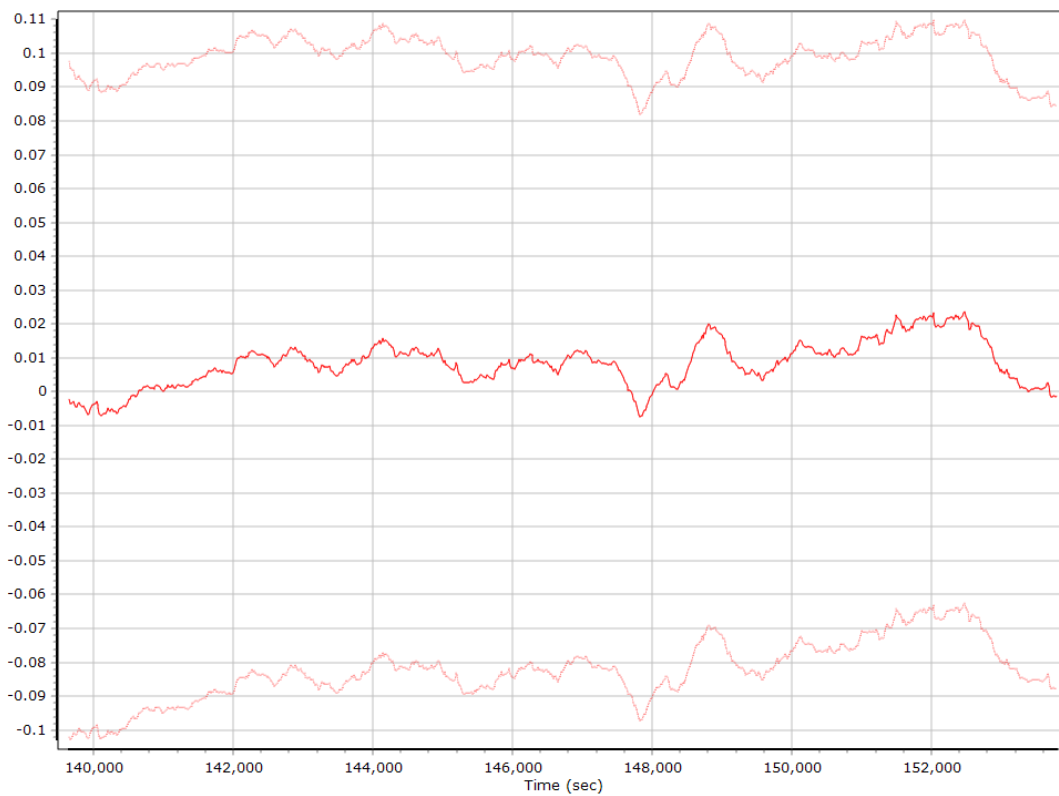
Z Accelerometer Scale Error (ppm)



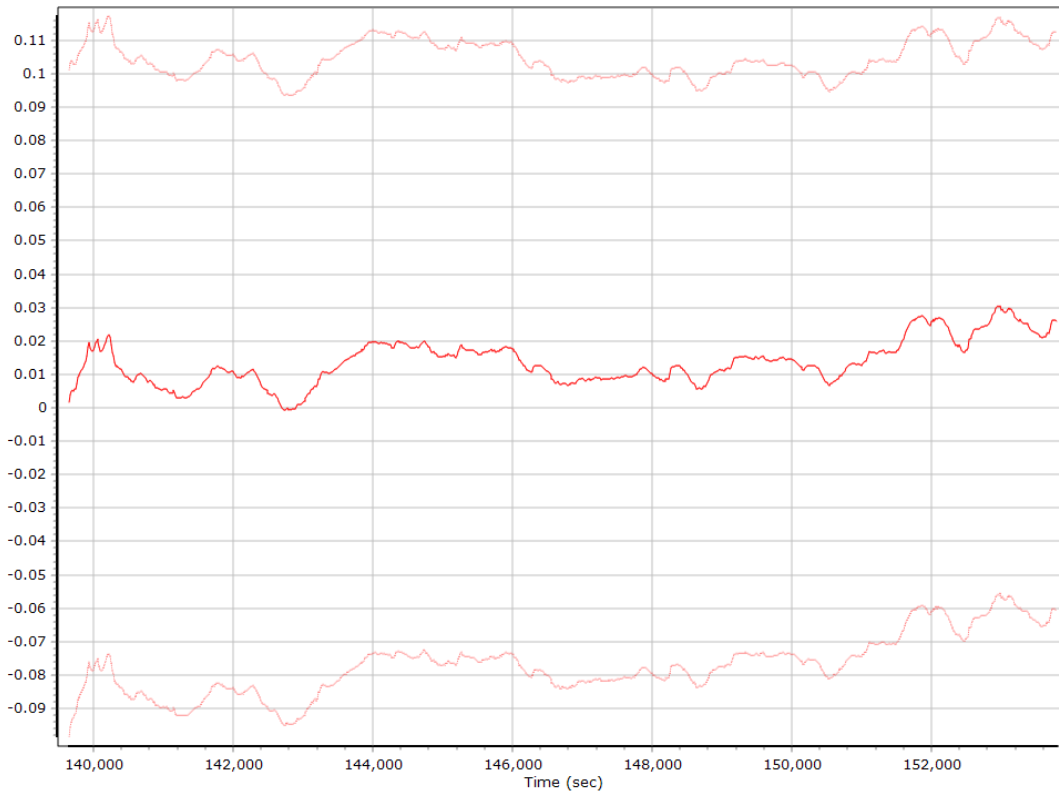
Gyro Bias (deg/h)



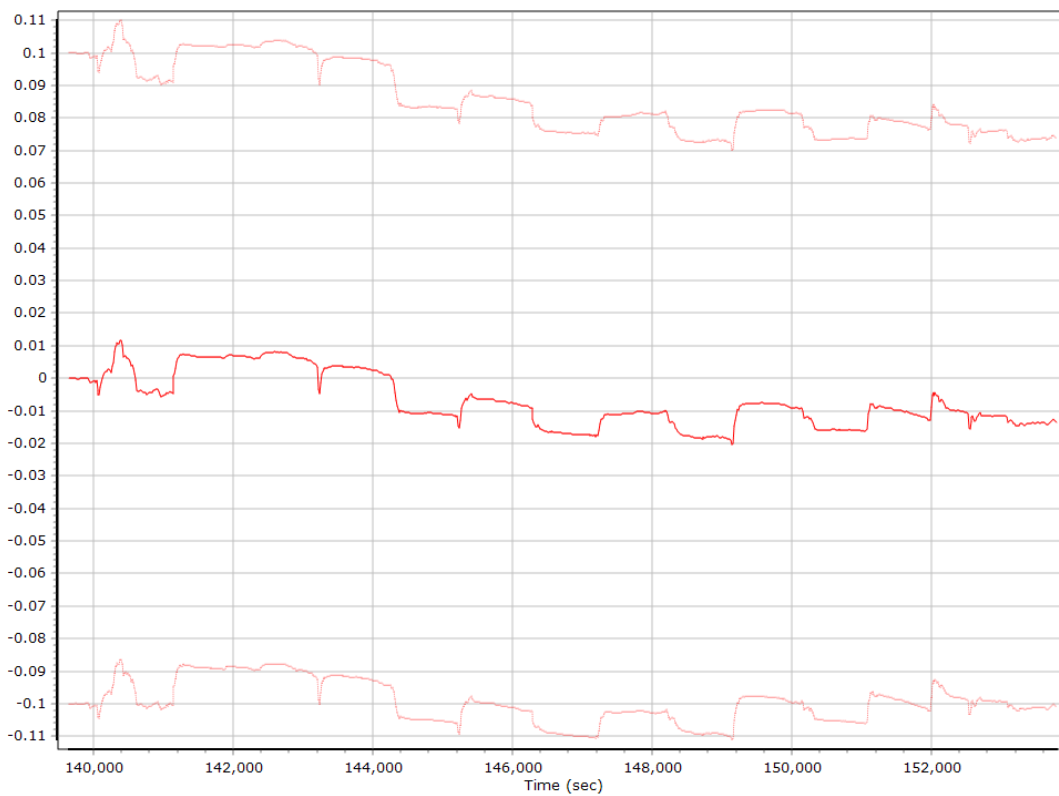
X Gyro Bias (deg/h)



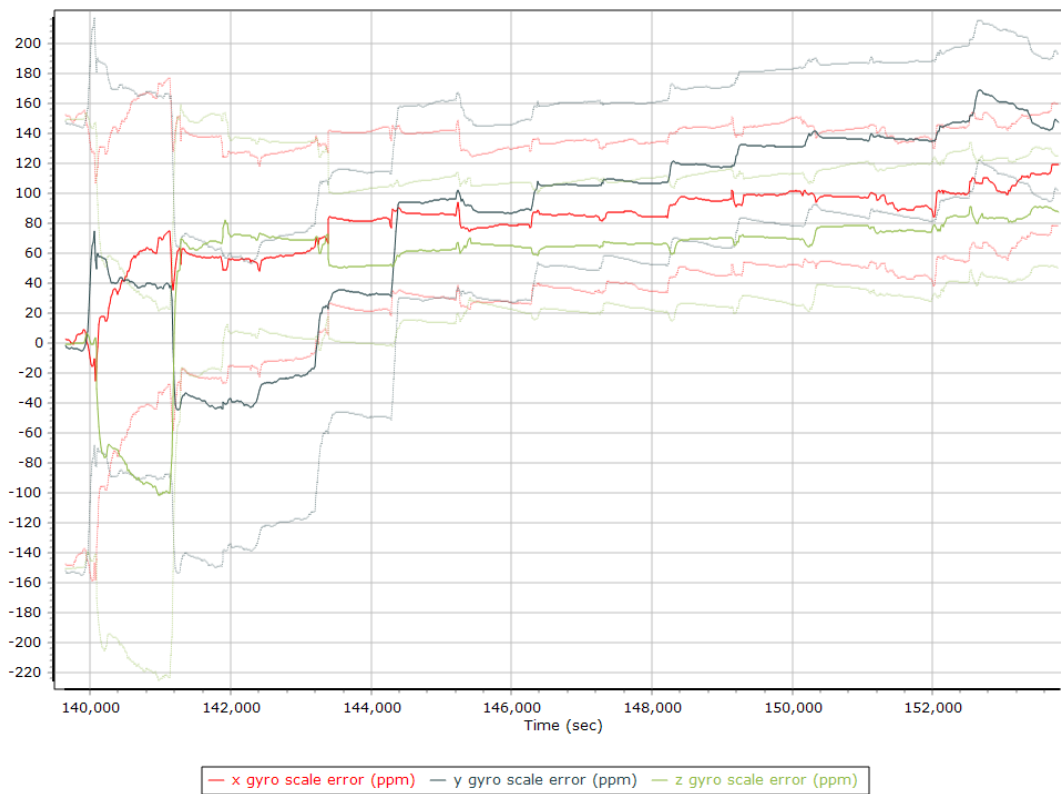
Y Gyro Bias (deg/h)



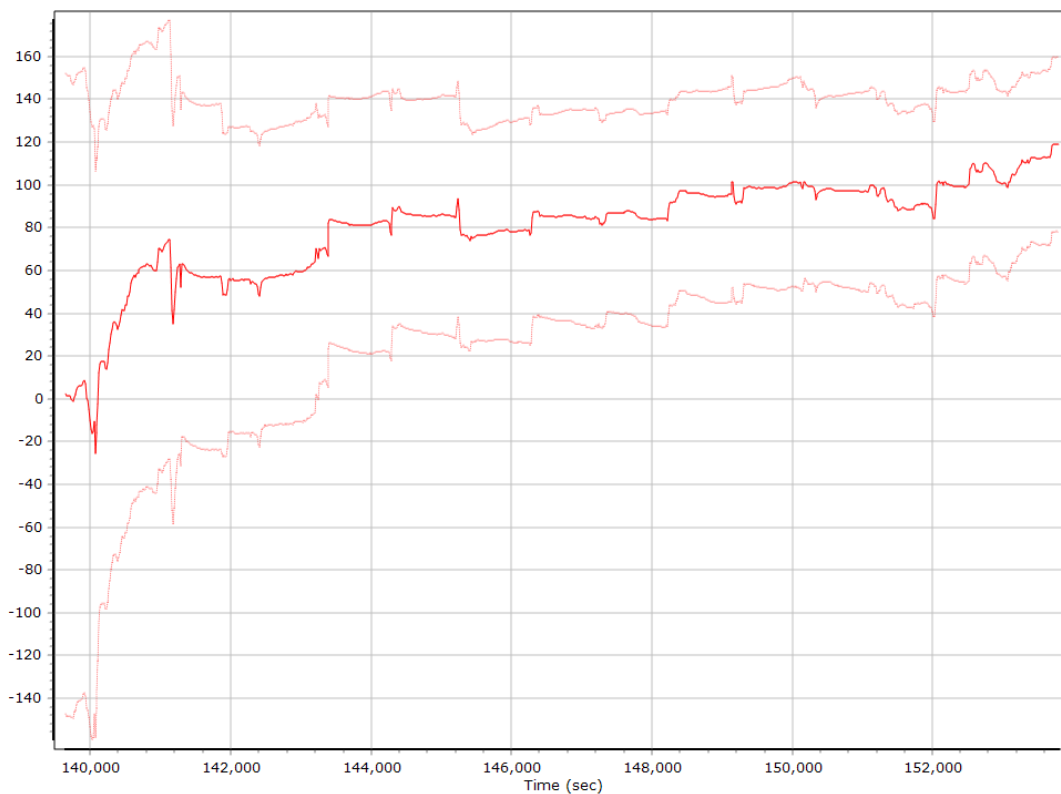
Z Gyro Bias (deg/h)



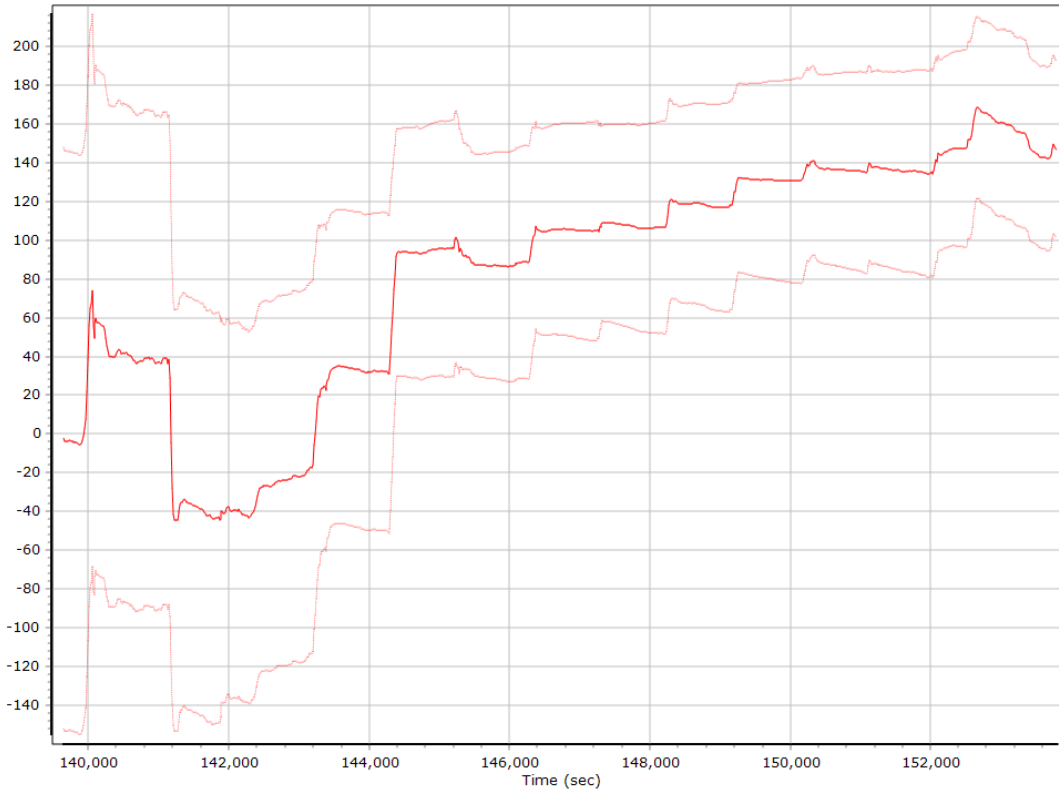
Gyro Scale Error (ppm)



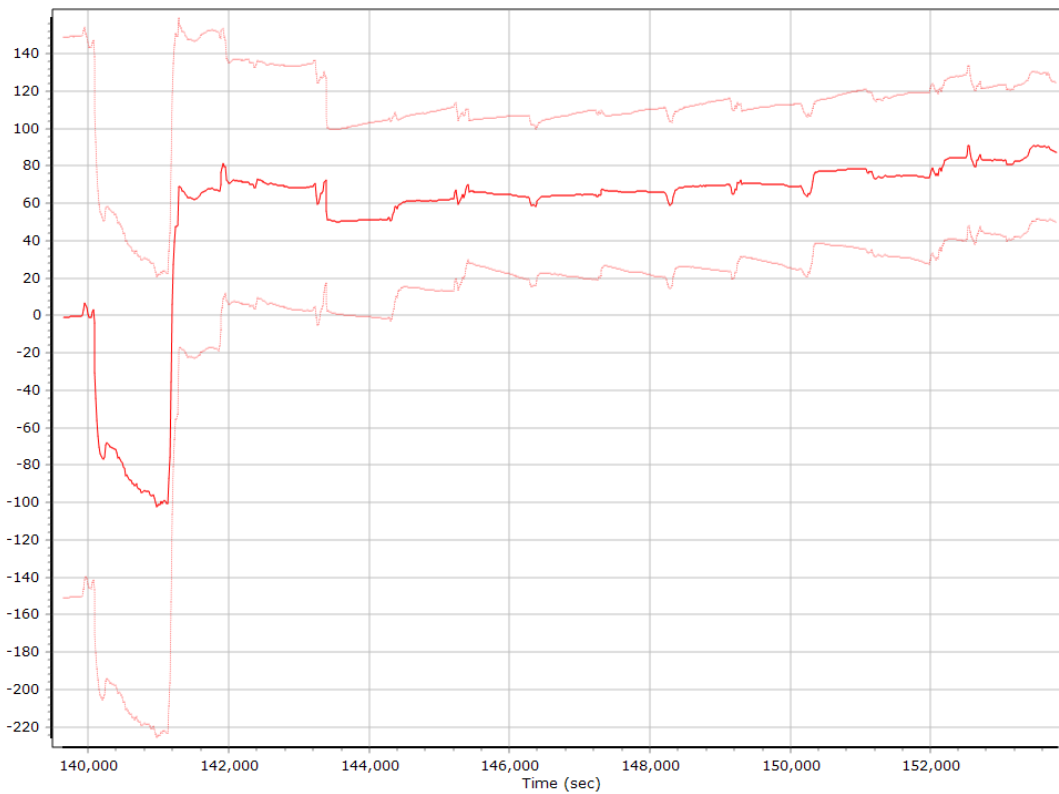
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

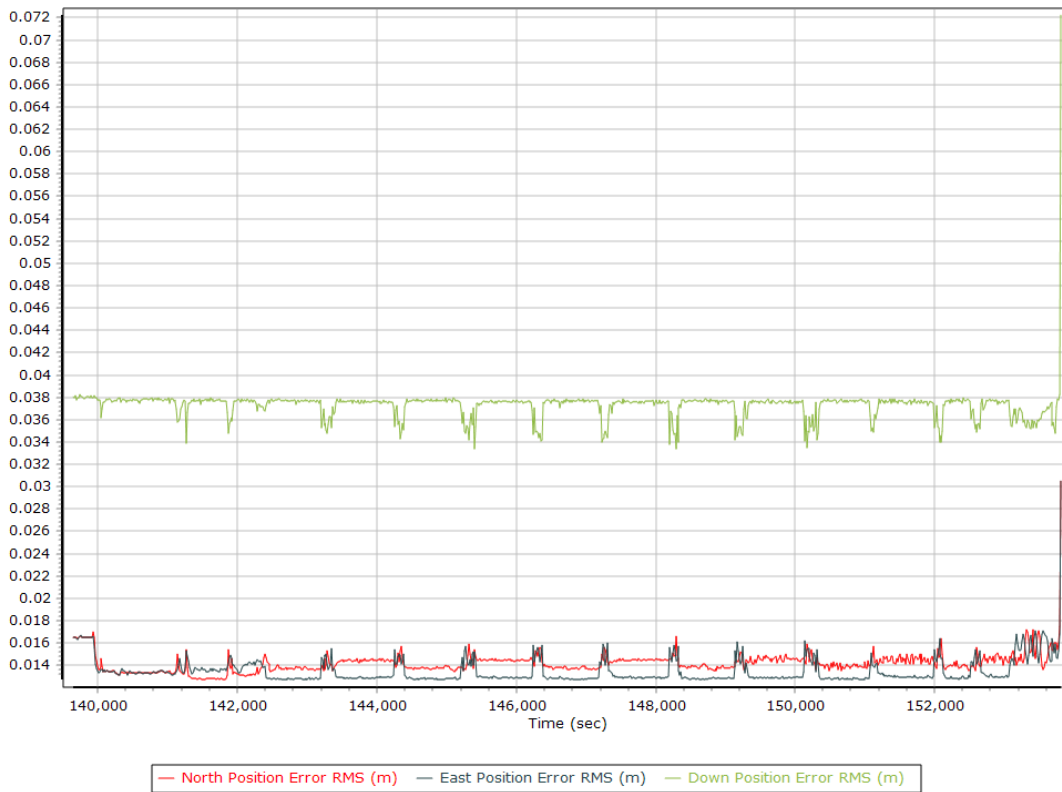


Z Gyro Scale Error (ppm)

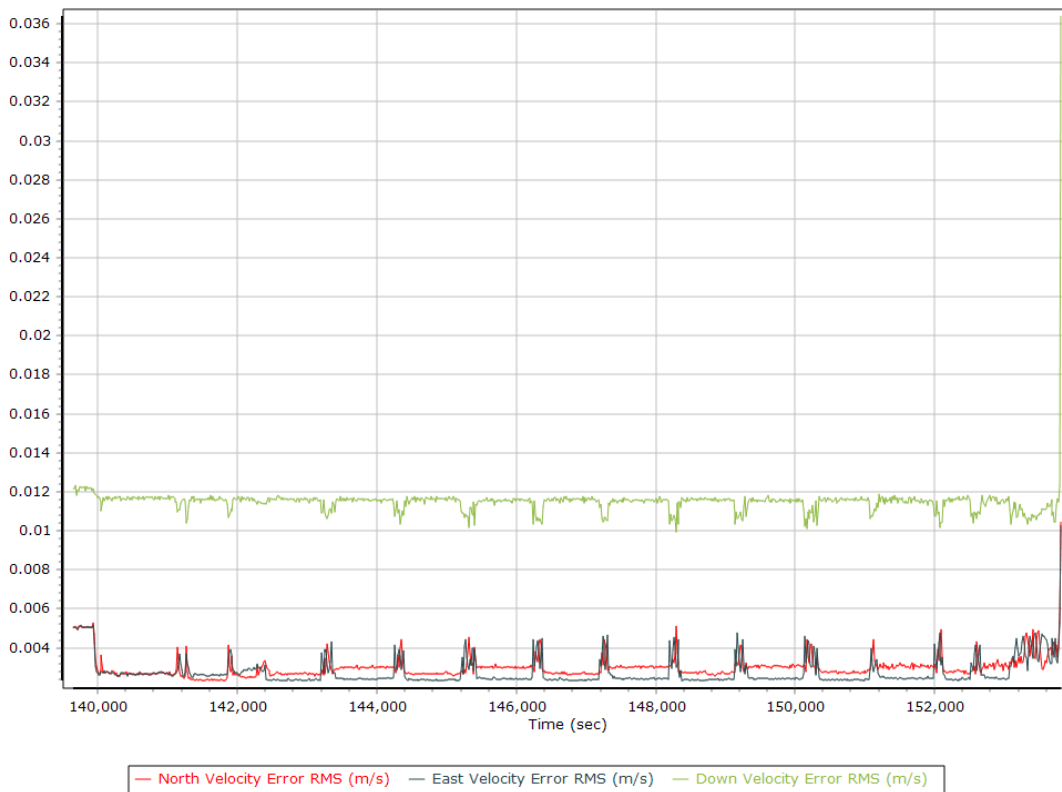


Smoothed Performance Metrics

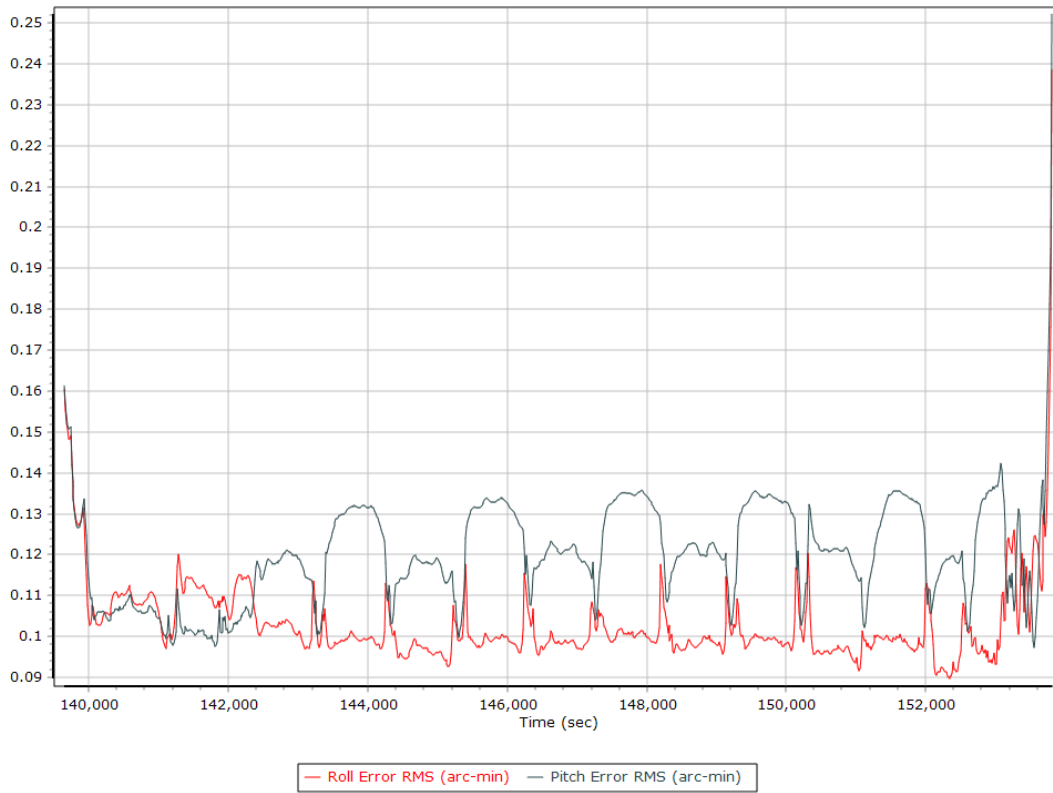
Position Error RMS (m)



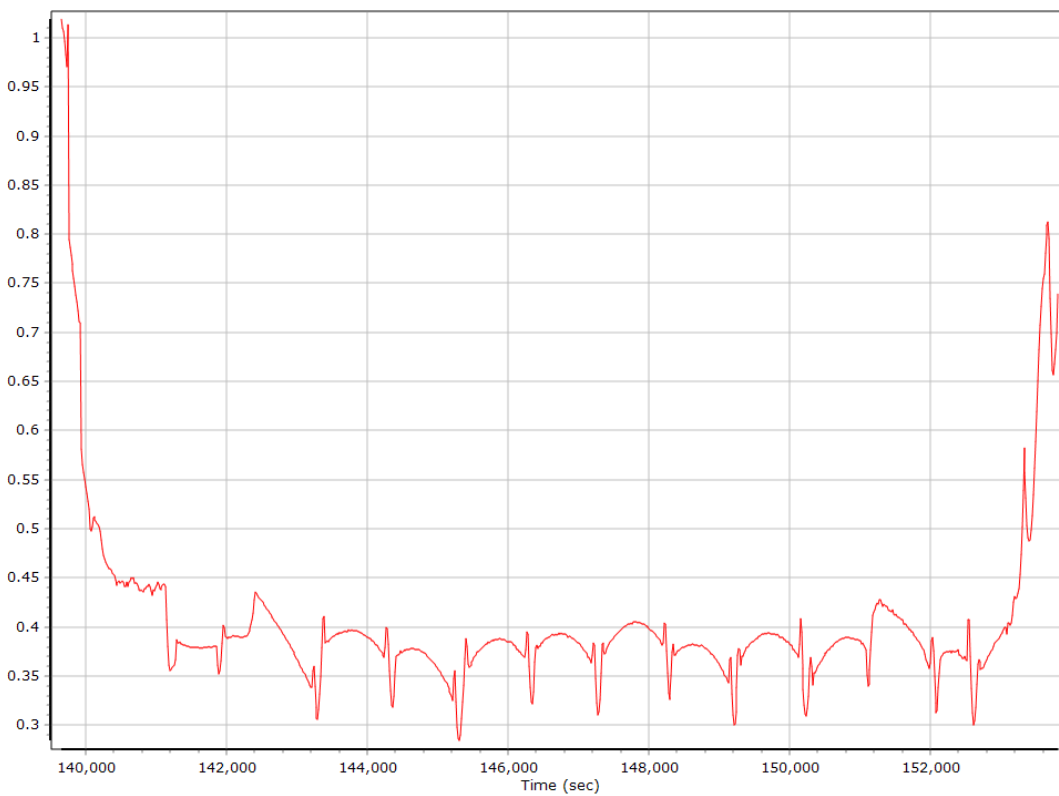
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

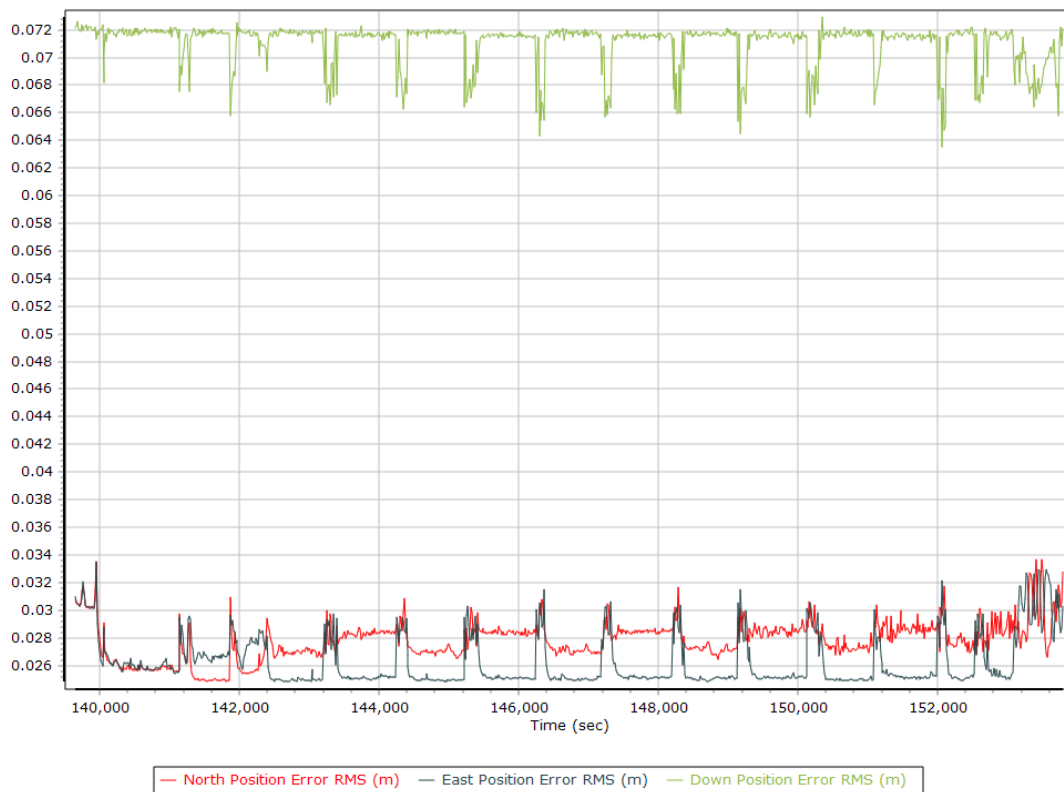


Heading Error RMS (arc-min)

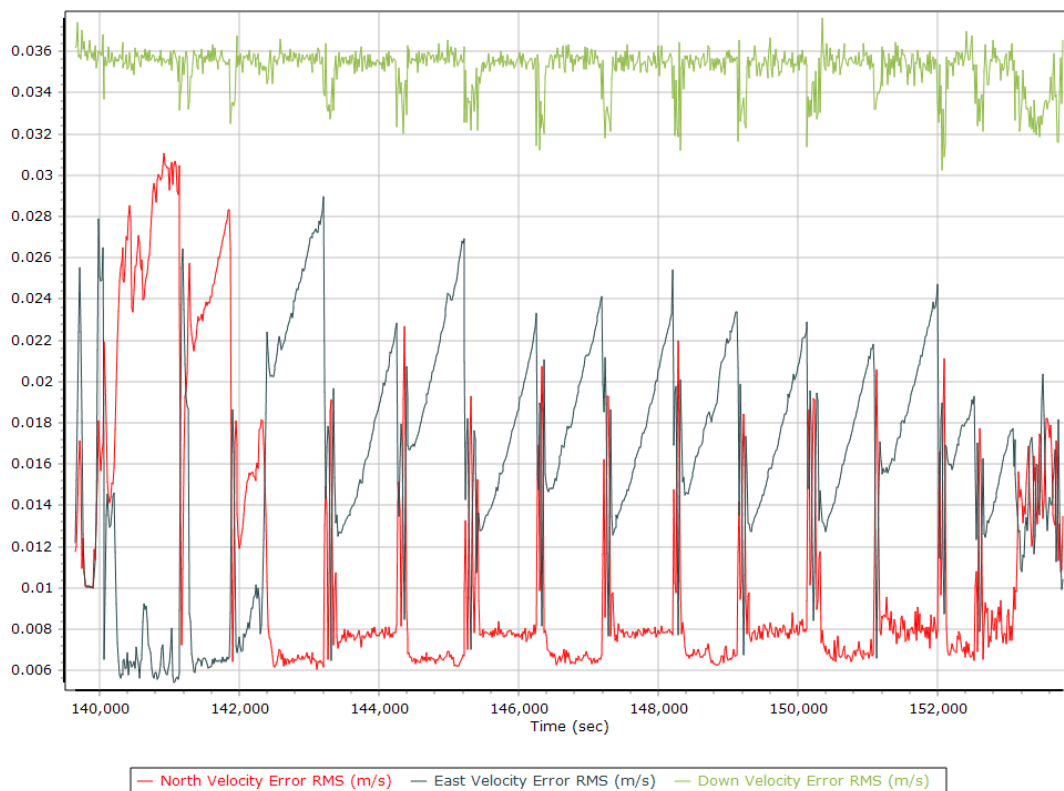


Forward Processed Performance Metrics

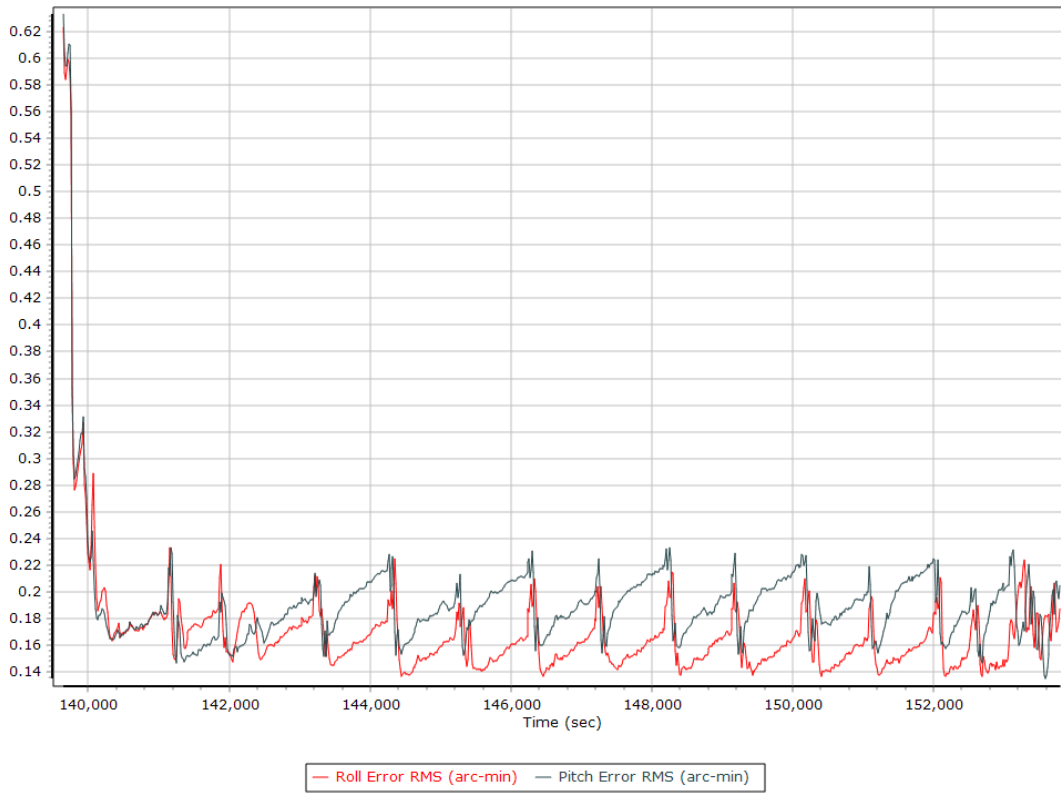
Position Error RMS (m)



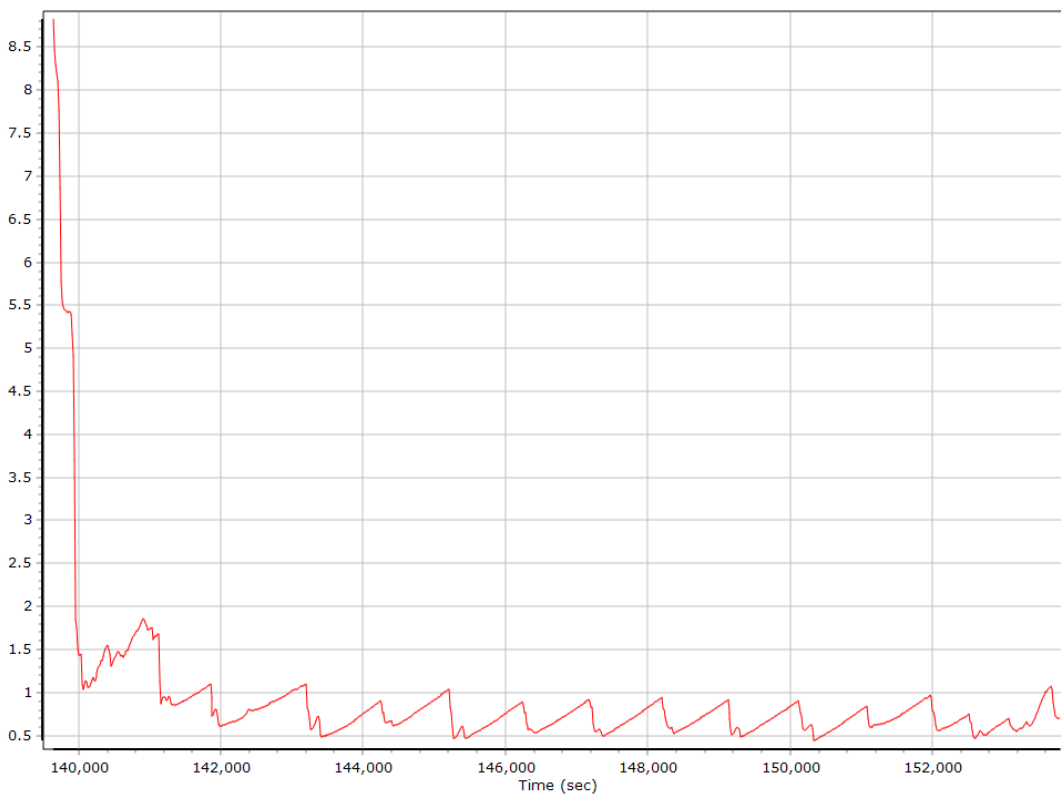
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

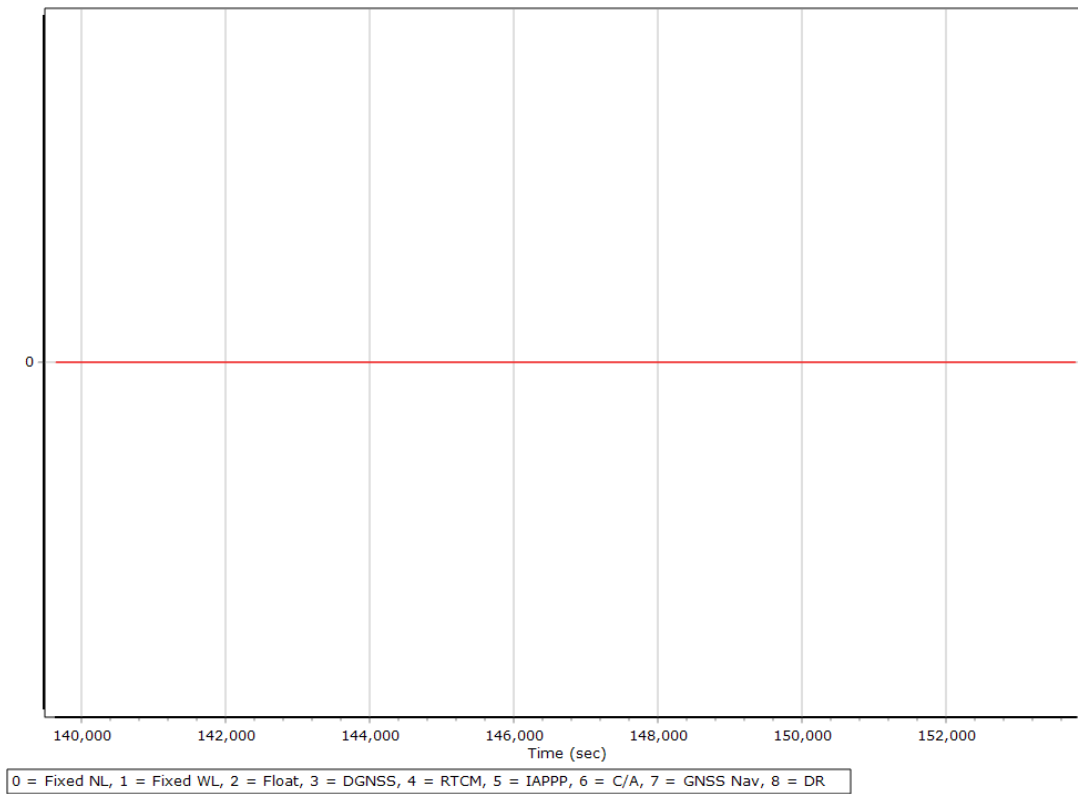


Heading Error RMS (arc-min)

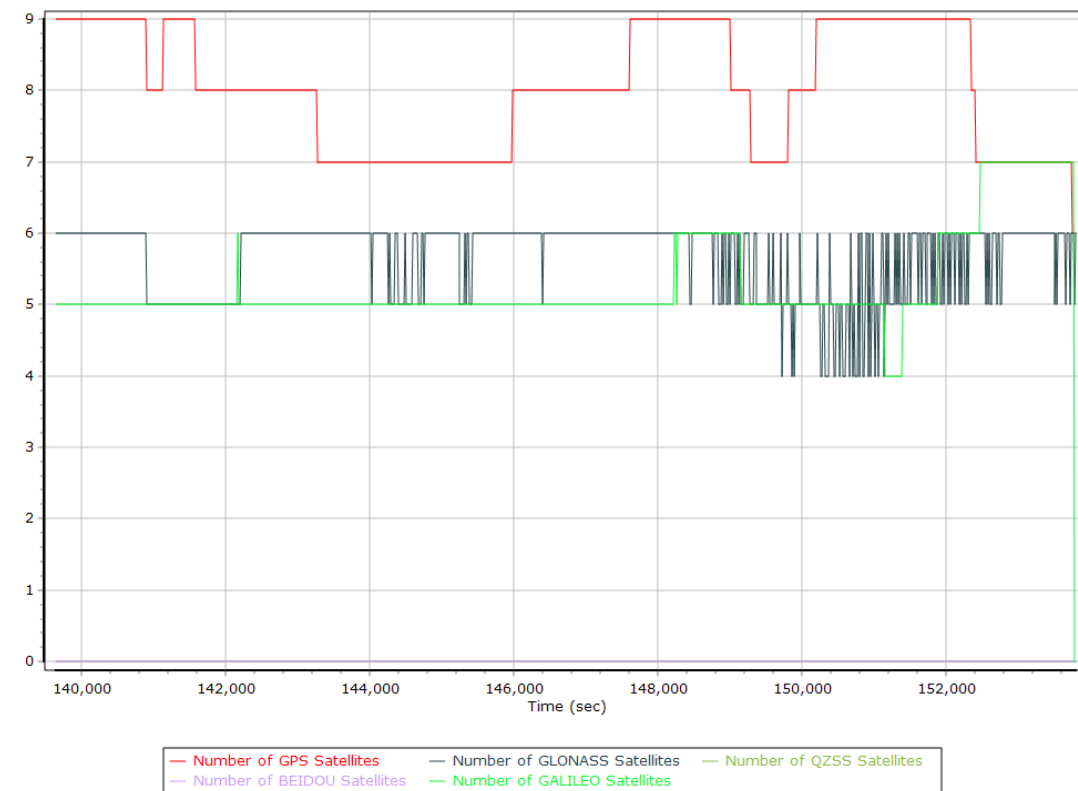


Forward Processed Solution Status

Processing Mode



Number of Satellites



Baseline Length

