

General Information

Mission Information

Project name	20211115_F2_Basestation
Processing date	2021-12-07 14:17:02
Mission date	2021-11-15 21:08:03
Mission duration	03:15:02.000
Processing mode	IN-Fusion Single Base
GPS Station	DHLG Durmid Hill

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
VQ1560.927	POS Data
VQ1560.928	POS Data
VQ1560.929	POS Data
VQ1560.930	POS Data
VQ1560.931	POS Data
VQ1560.932	POS Data
VQ1560.933	POS Data
VQ1560.934	POS Data
VQ1560.935	POS Data
VQ1560.936	POS Data
VQ1560.937	POS Data
VQ1560.938	POS Data
VQ1560.939	POS Data
VQ1560.940	POS Data
VQ1560.941	POS Data
VQ1560.942	POS Data
VQ1560.943	POS Data
VQ1560.944	POS Data
VQ1560.945	POS Data
VQ1560.946	POS Data
VQ1560.947	POS Data
VQ1560.948	POS Data
VQ1560.949	POS Data
VQ1560.950	POS Data
VQ1560.951	POS Data
VQ1560.952	POS Data

Input Files

File Name	File type
Ephm3190.21g	GLONASS Broadcast Ephemeris
Ephm3190.21n	GPS Broadcast Ephemeris
Ephm3200.21g	GLONASS Broadcast Ephemeris
Ephm3200.21n	GPS Broadcast Ephemeris
dhlg3190.21o	GNSS SingleBase

Output Files

Filename	File type
sbet_20211115_F2_Basestation.out	SBET Trajectory File

Rover Data Summary

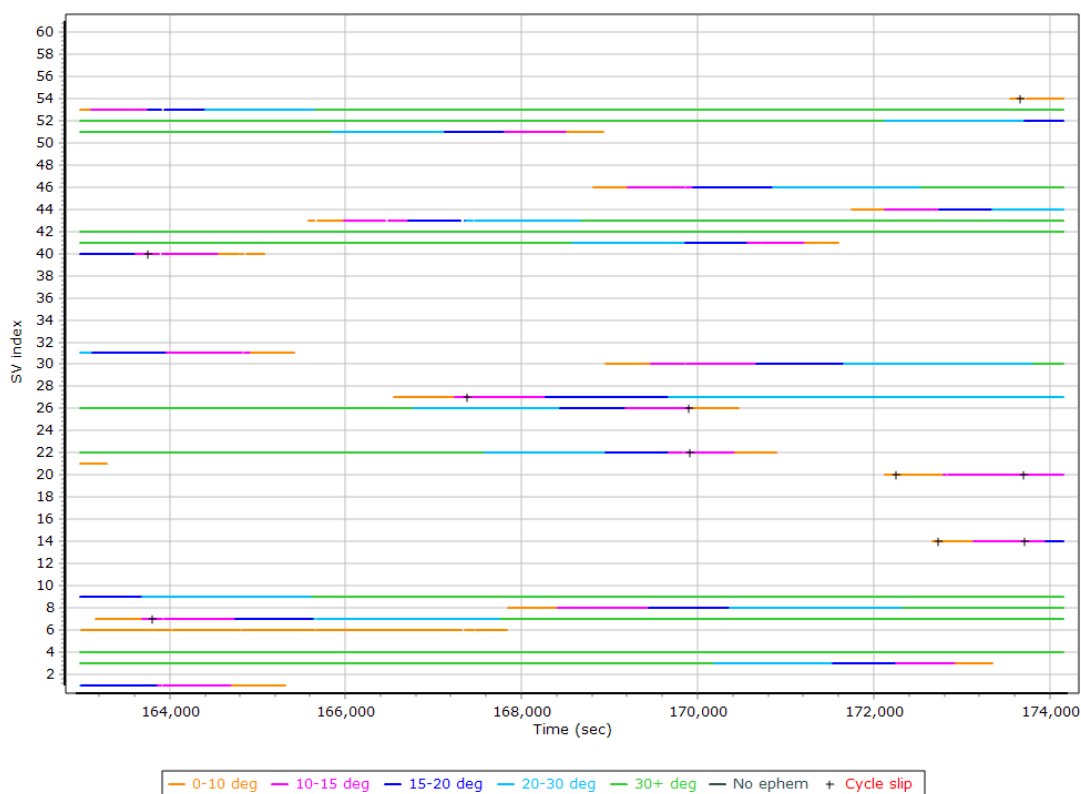
First raw data file	VQ1560.927		
Last raw data file	VQ1560.952		
Start GPS week	2184		
Start time	162476.927 (11/15/2021 9:07:56 PM)		
End time	174166.857 (11/16/2021 12:22:46 AM)		
Start of fine alignment	162924.893 (11/15/2021 9:15:24 PM)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	None		
Correction data	None		
IMU Installation Lever Arms & Mounting Angles			
Reference to IMU lever arm [m]	0.018	-0.010	-0.464
Reference to IMU mounting angles [deg]	0.000	0.000	0.000
Reference to Primary GNSS lever arm [m]	0.000	0.000	-1.000
Reference to Primary GNSS lever arm std dev [m]	-1.000		
Aircraft to Reference mounting angles [deg]	0.000	0.000	0.000

Raw Data QC

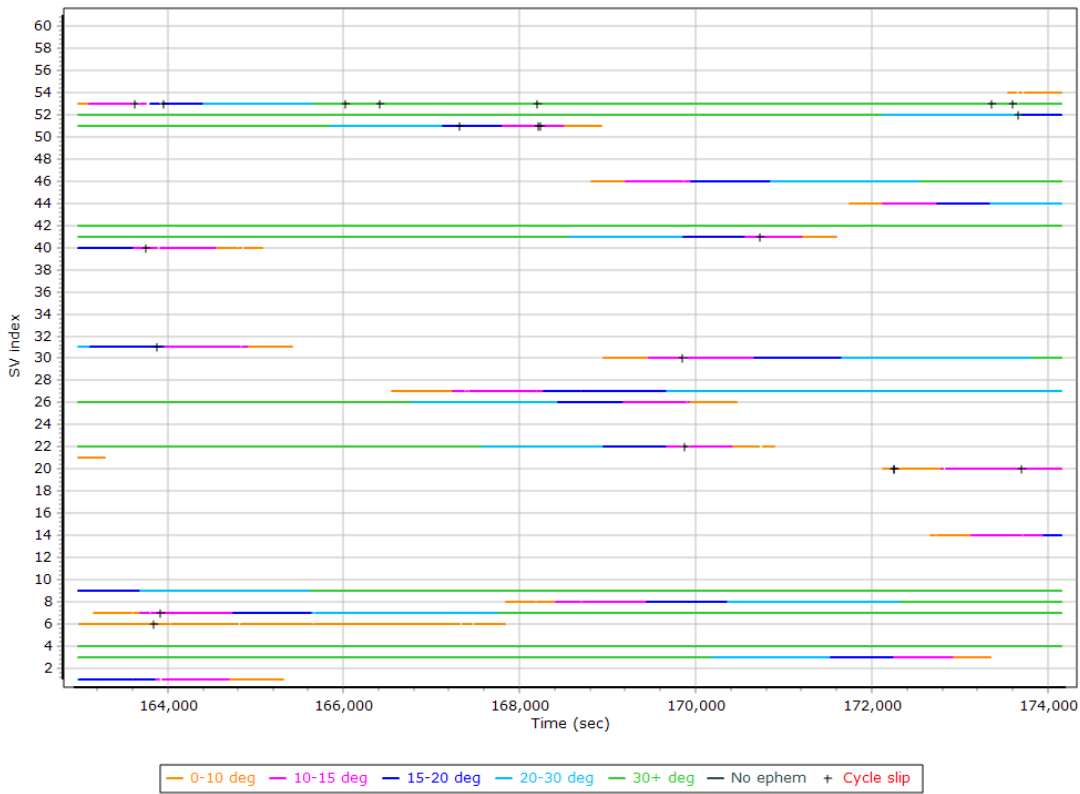
Raw IMU Import QC Summary

IMU data input file	imu_20211115_F2_Basestation.dat
IMU data check log file	imudt_20211115_F2_Basestation.log
IMU Records Processed	2339970
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
162476.742 : WARNING : Gap of 162464.7807 seconds in CHECKDT input data	

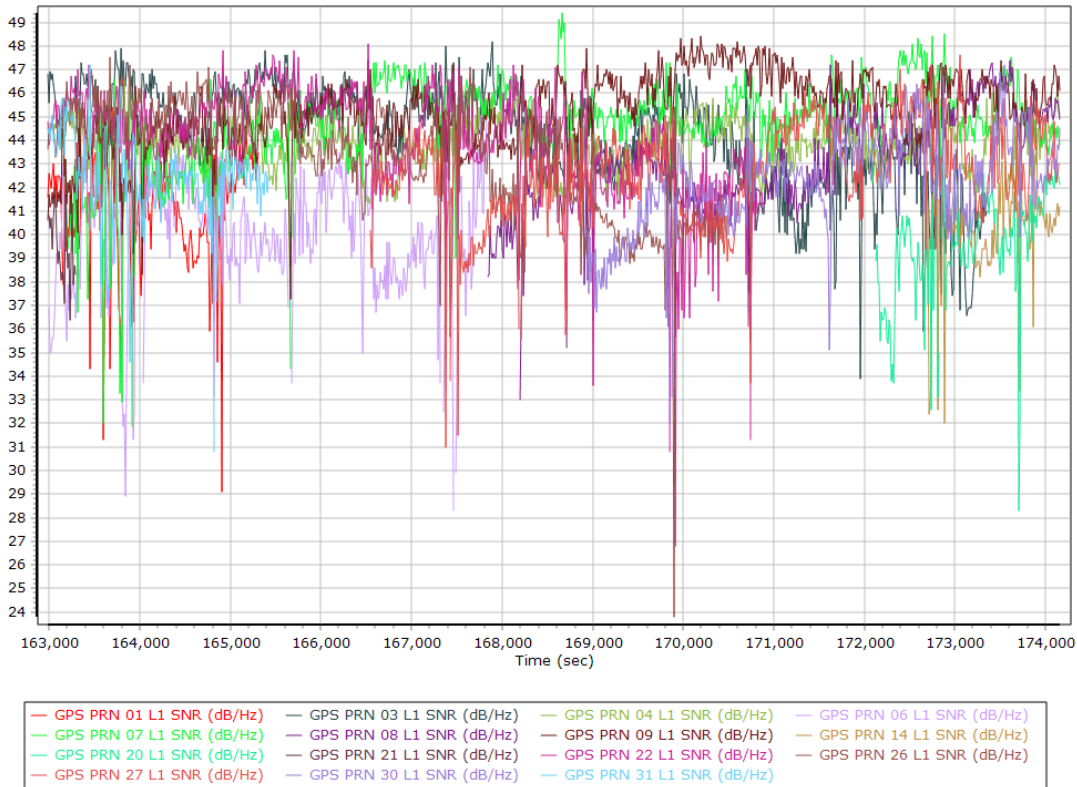
L1 Satellite Lock/Elevation



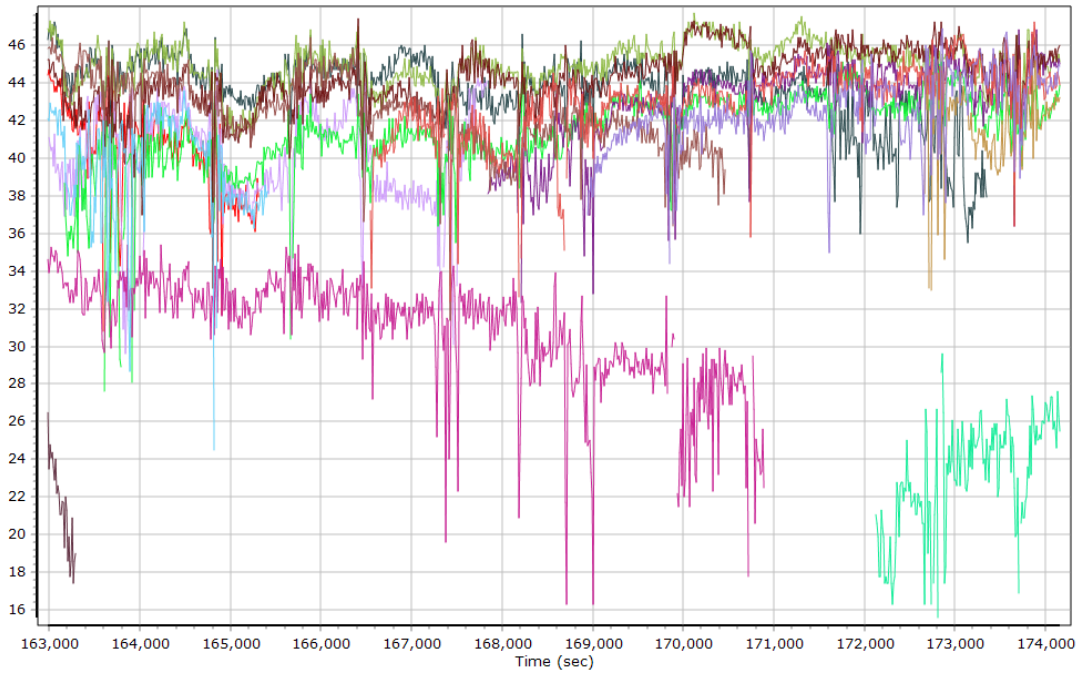
L2 Satellite Lock/Elevation



GPS L1 SNR

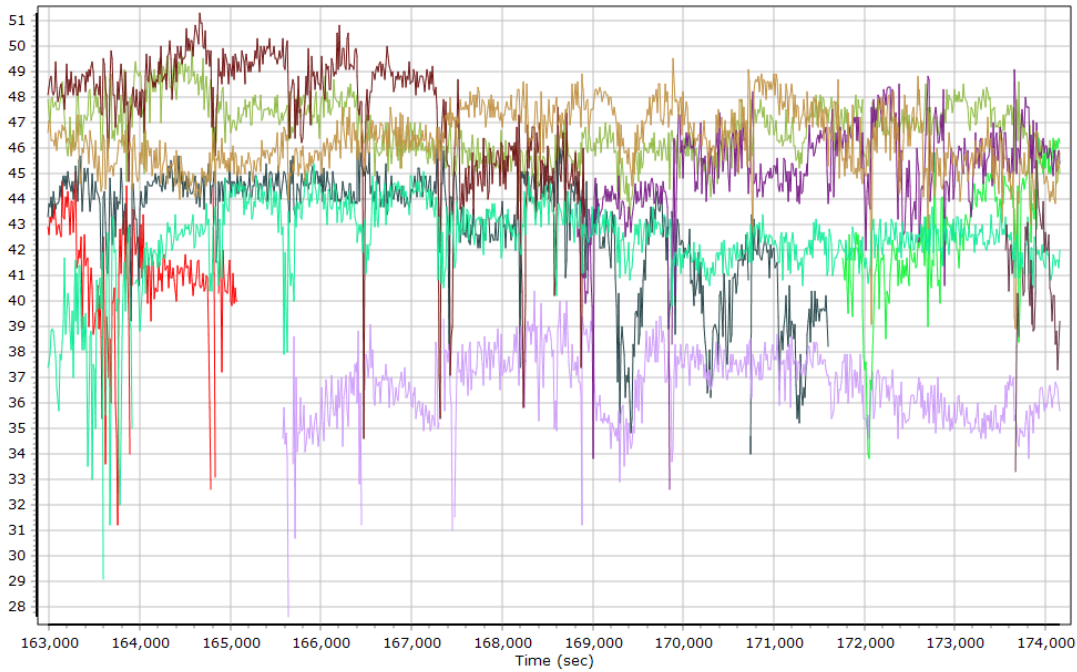


GPS L2 SNR



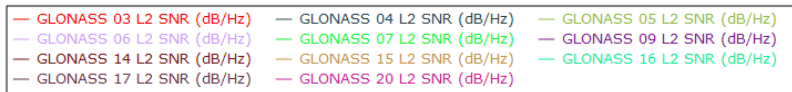
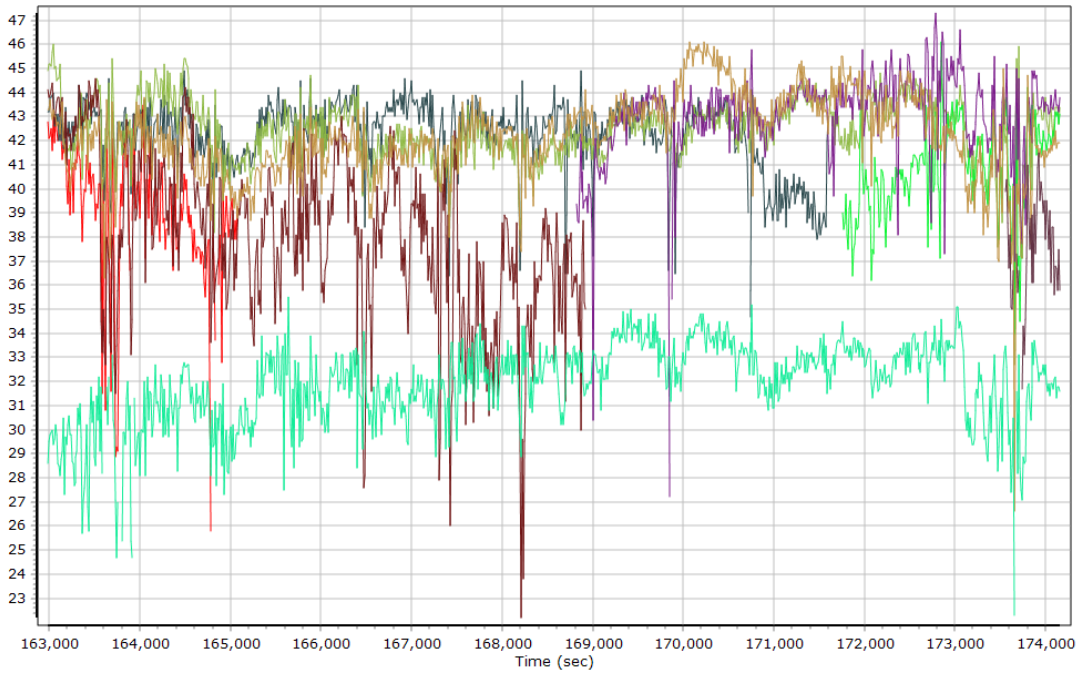
- | | | | |
|---------------------------|---------------------------|---------------------------|---------------------------|
| GPS PRN 01 L2 SNR (dB/Hz) | GPS PRN 03 L2 SNR (dB/Hz) | GPS PRN 04 L2 SNR (dB/Hz) | GPS PRN 06 L2 SNR (dB/Hz) |
| GPS PRN 07 L2 SNR (dB/Hz) | GPS PRN 08 L2 SNR (dB/Hz) | GPS PRN 09 L2 SNR (dB/Hz) | GPS PRN 14 L2 SNR (dB/Hz) |
| GPS PRN 20 L2 SNR (dB/Hz) | GPS PRN 21 L2 SNR (dB/Hz) | GPS PRN 22 L2 SNR (dB/Hz) | GPS PRN 26 L2 SNR (dB/Hz) |
| GPS PRN 27 L2 SNR (dB/Hz) | GPS PRN 30 L2 SNR (dB/Hz) | GPS PRN 31 L2 SNR (dB/Hz) | |

GLONASS L1 SNR

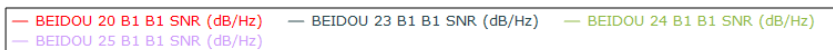
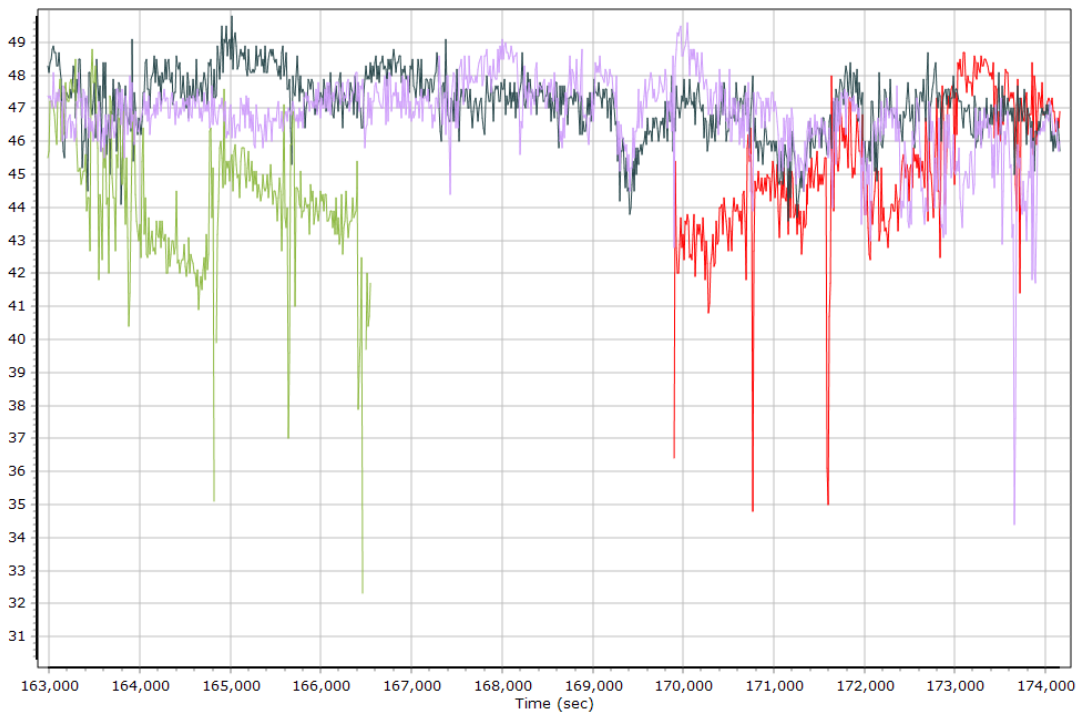


- | | | |
|---------------------------|---------------------------|---------------------------|
| GLONASS 03 L1 SNR (dB/Hz) | GLONASS 04 L1 SNR (dB/Hz) | GLONASS 05 L1 SNR (dB/Hz) |
| GLONASS 06 L1 SNR (dB/Hz) | GLONASS 07 L1 SNR (dB/Hz) | GLONASS 09 L1 SNR (dB/Hz) |
| GLONASS 14 L1 SNR (dB/Hz) | GLONASS 15 L1 SNR (dB/Hz) | GLONASS 16 L1 SNR (dB/Hz) |
| GLONASS 17 L1 SNR (dB/Hz) | GLONASS 20 L1 SNR (dB/Hz) | |

GLONASS L2 SNR

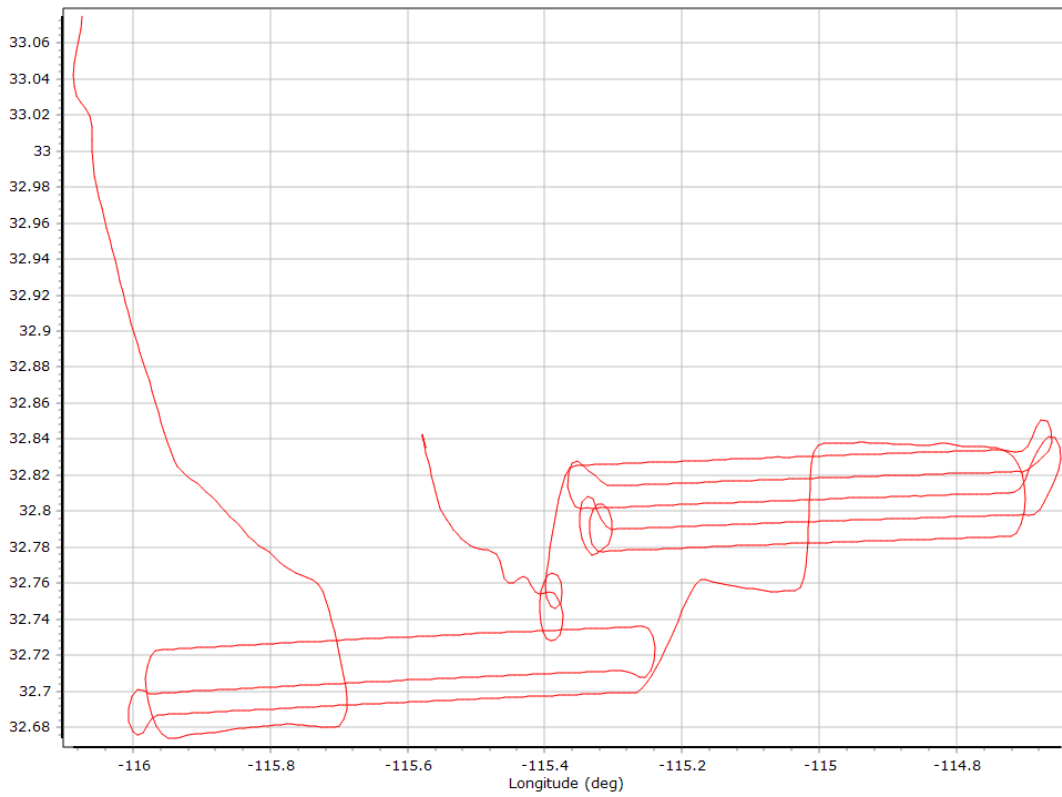


BEIDOU SNR

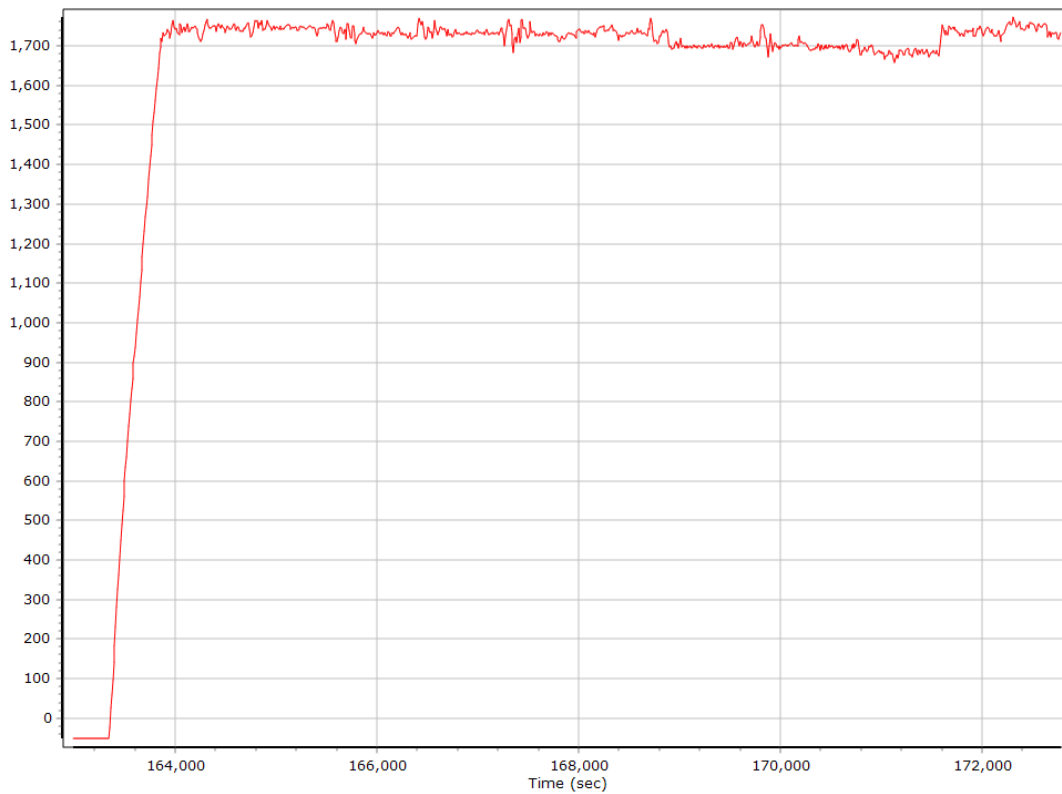


Trajectory Information

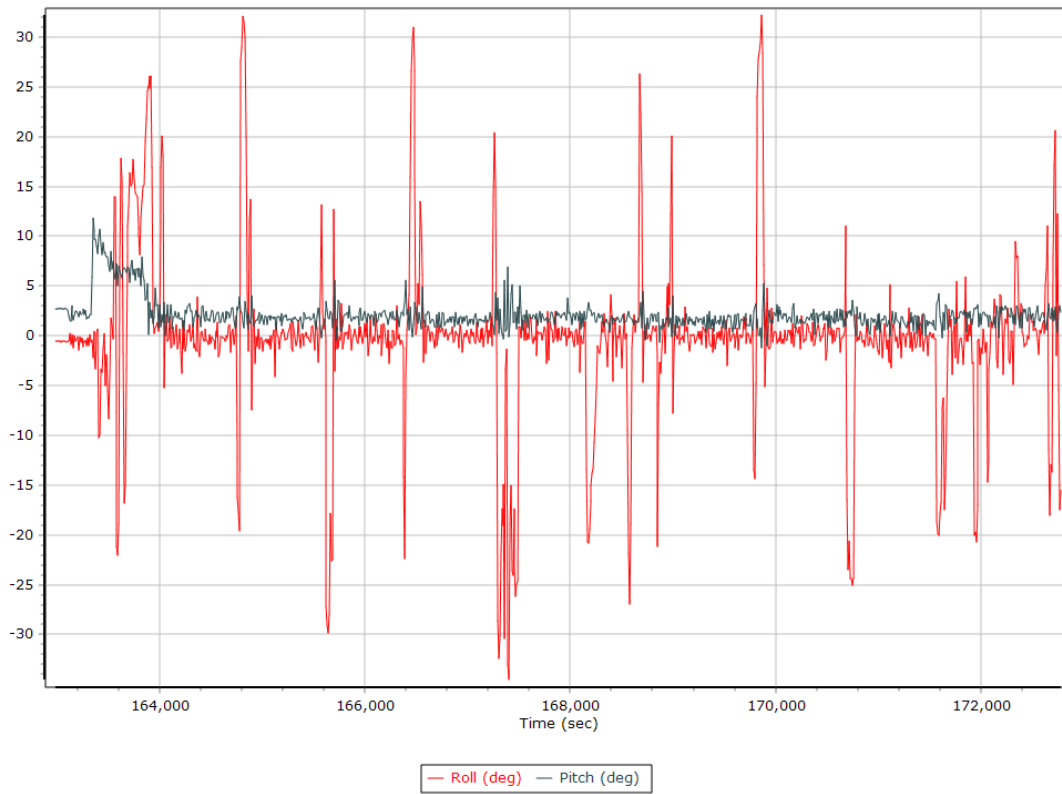
Top View



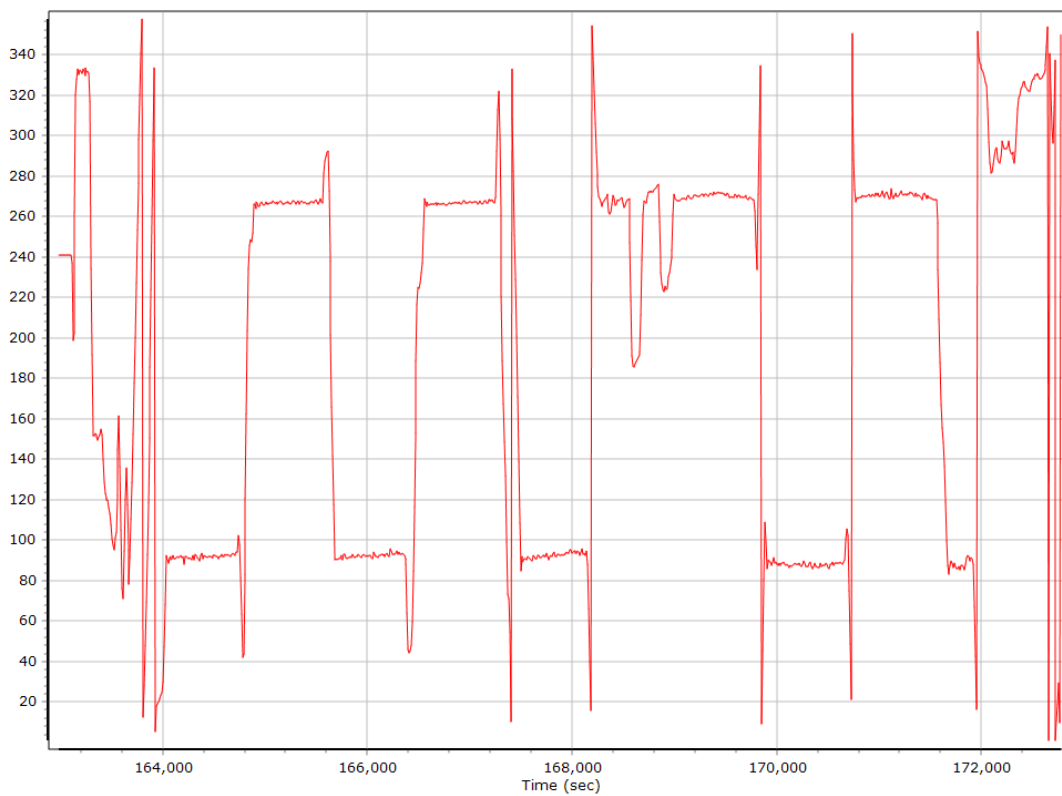
Altitude



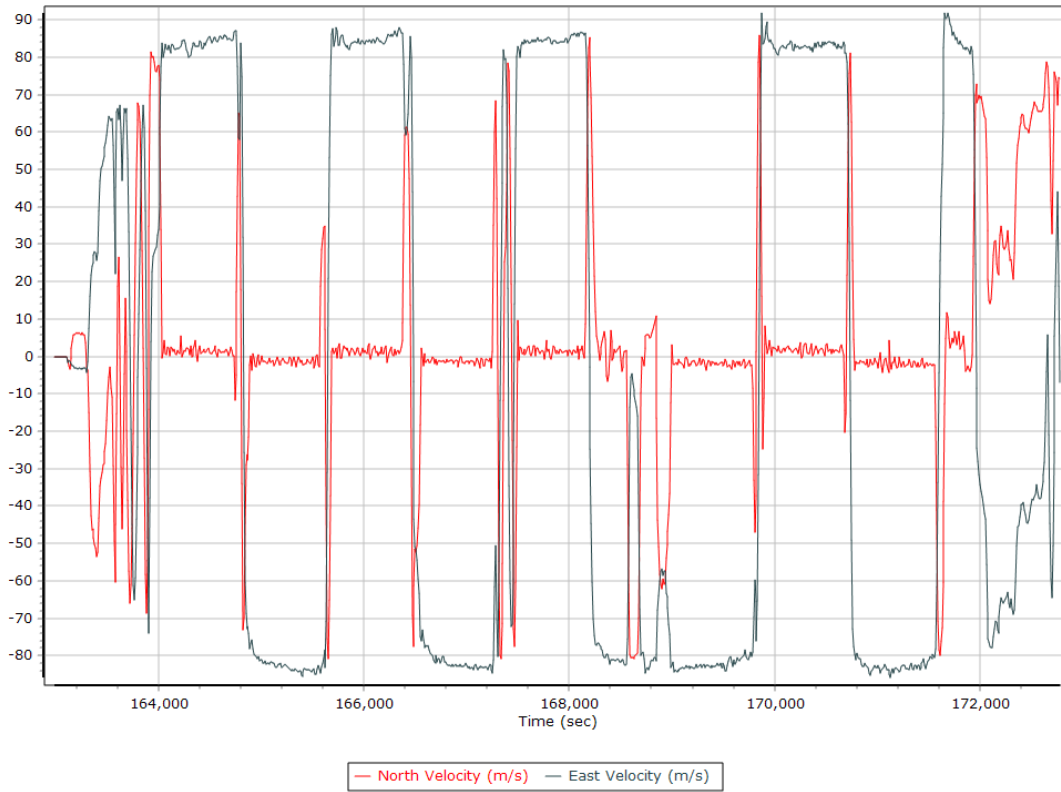
Roll/Pitch



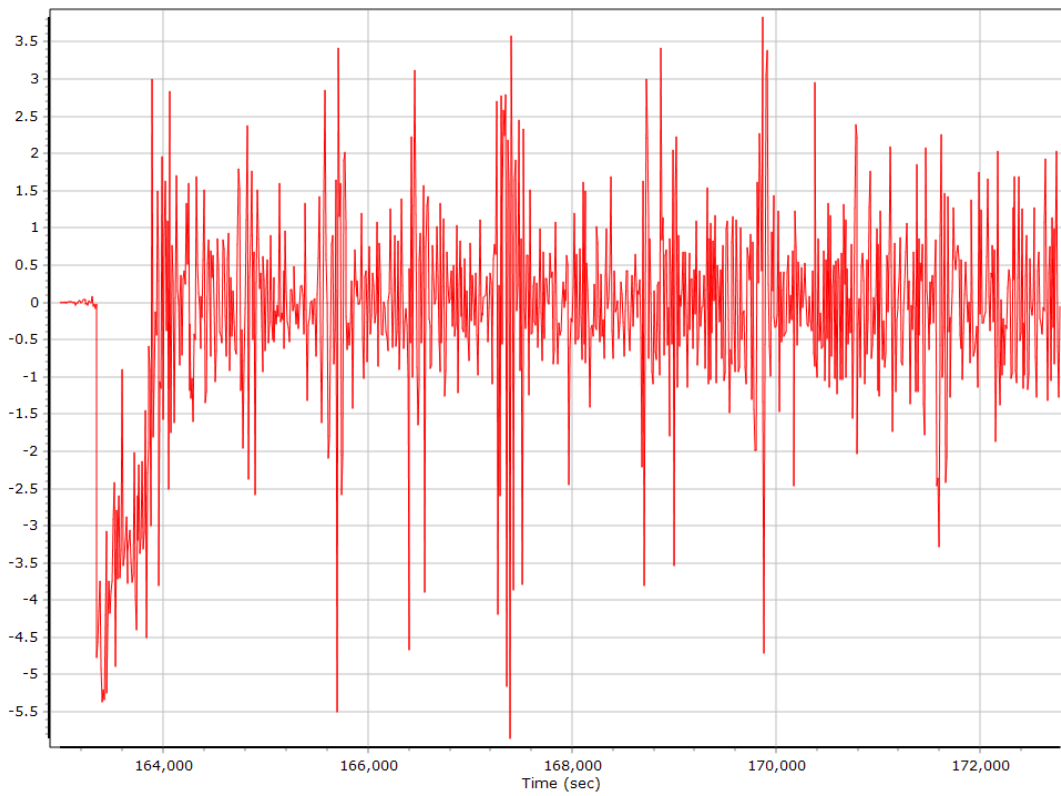
Heading



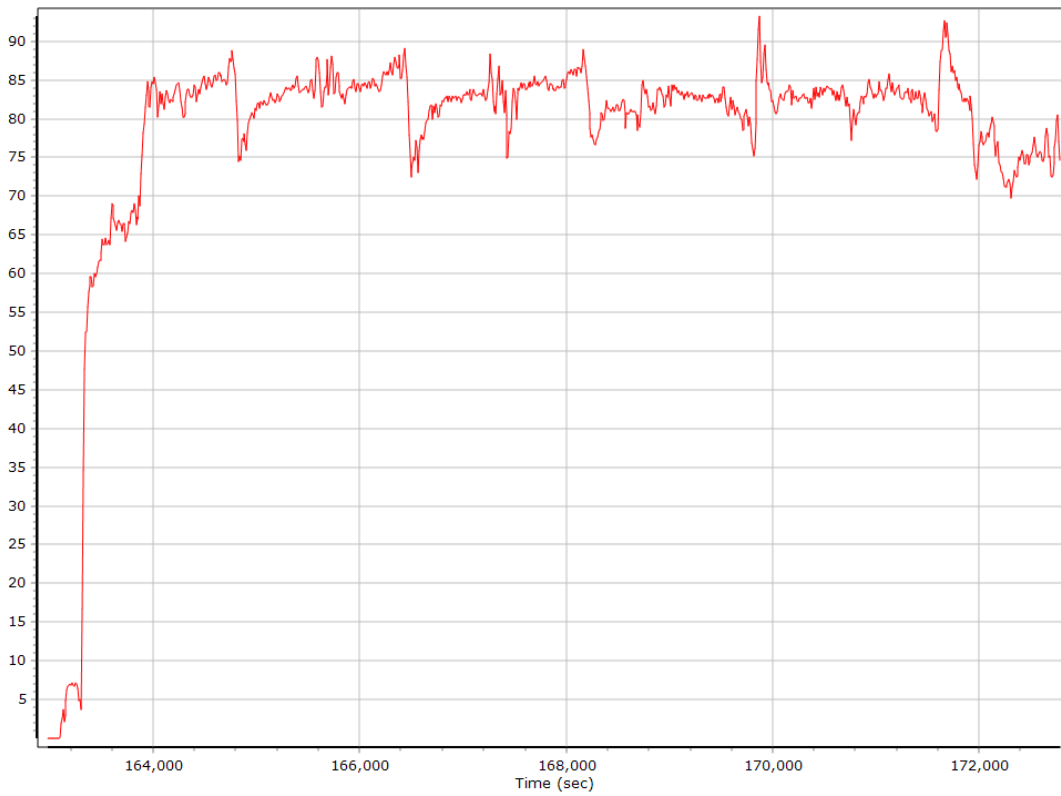
North/East Velocity



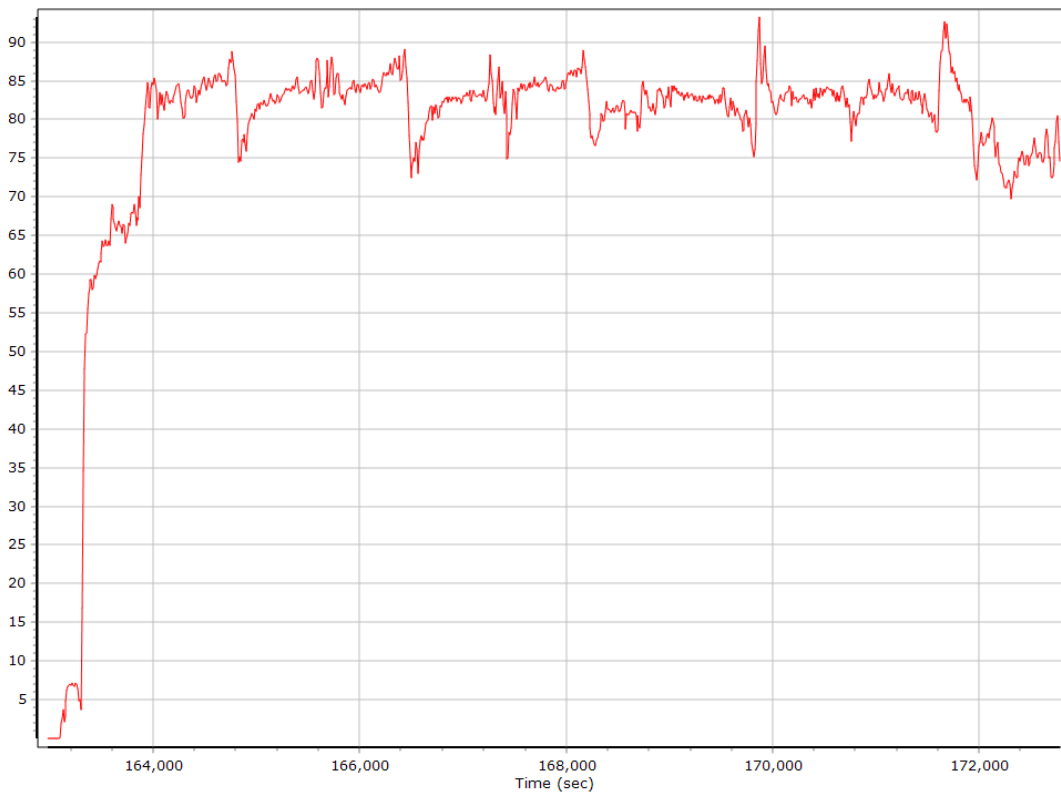
Down Velocity



Total Speed



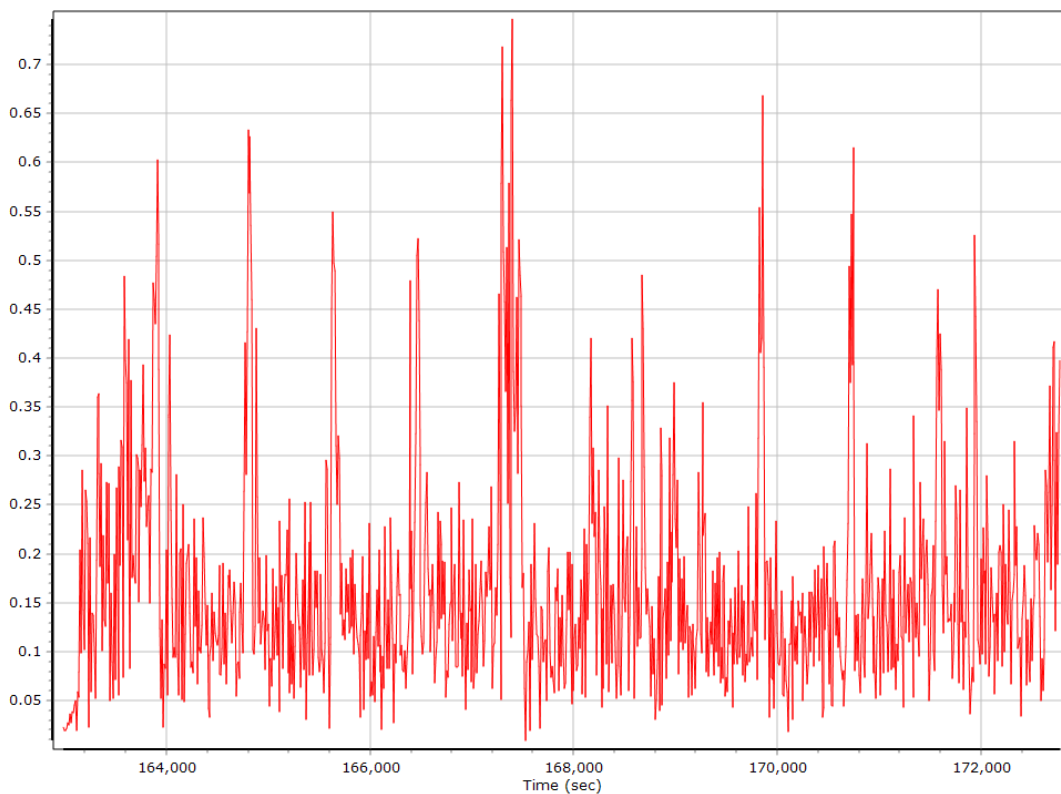
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate



Base Station Information

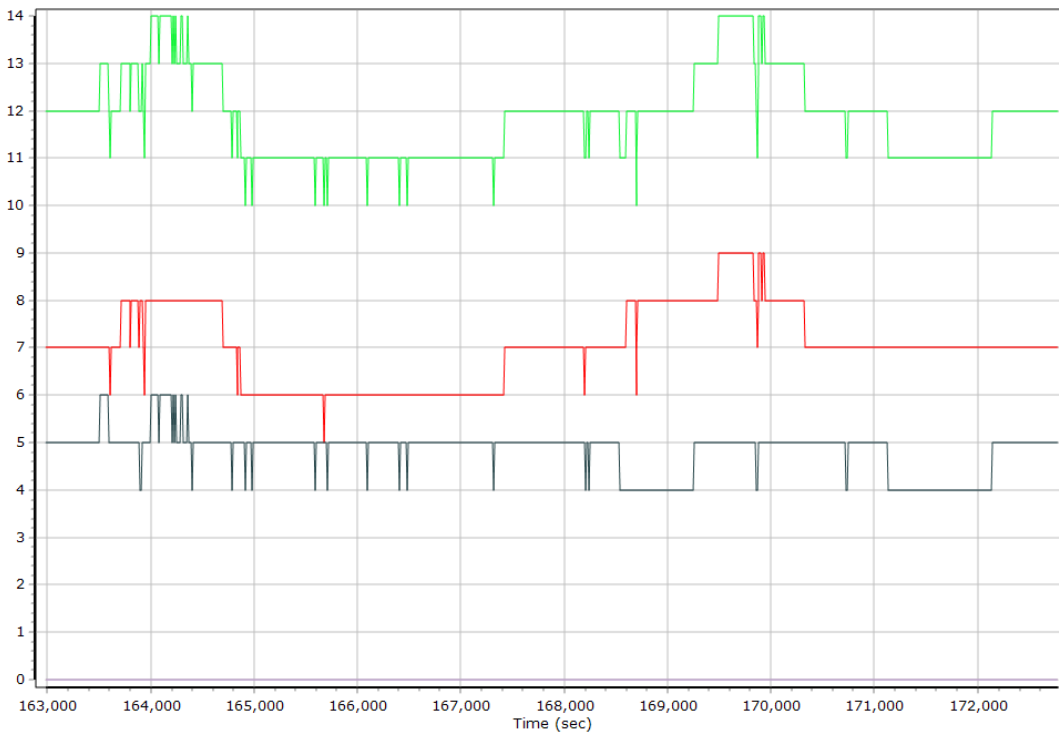
Station ID	DHLG Durmid Hill		
Filename	dhlg3190.21o		
Start date	11/15/2021 12:00:00 AM		
End date	11/15/2021 11:59:59 PM		
Duration	23:59:59.000		
Data type	GNSS		
Receiver manufacturer, model, serial no.	Topcon	NET-G3A	618-01037
Antenna manufacturer, model	Topcon	TPS CR.G3 w/SCIS	
Antenna height [m]	0.122		
Antenna measurement method	Bottom of antenna mount		
Offset from measured point to APC [m]	0.08417		
Latitude	N33°23'23.28790"		
Longitude	W115°47'16.85576"		
Ellipsoidal height [m]	-82.15100		
Frame	NAD83_2011		
Epoch	2010		
Ellipsoid	GRS_1980		
Velocity North [mm/y]	36.2		
Velocity East [mm/y]	-29.88		
Velocity Up [mm/y]	-1.08		

GNSS QC

GNSS QC Statistics

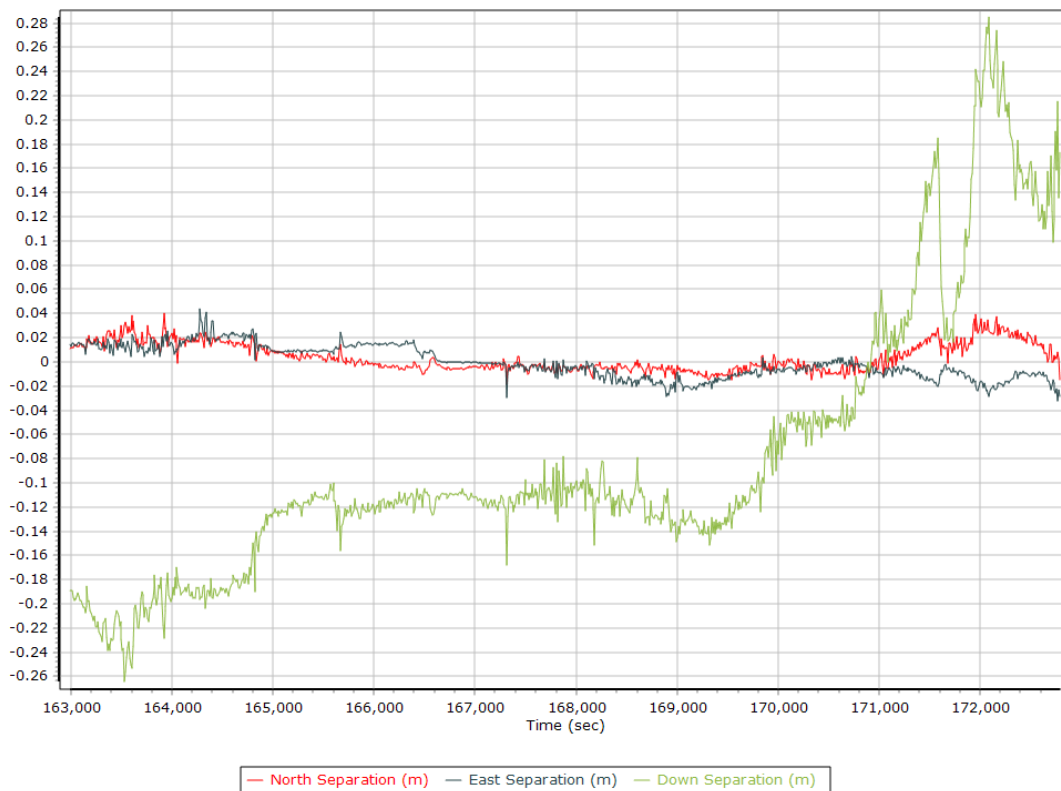
Statistics	Min	Max	Mean
Baseline length [km]	45.25	123.39	
Number of GPS SV	5	9	7
Number of GLONASS SV	4	6	5
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Total number of SV	9	14	12
PDOP	1.24	3.18	1.62
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (s)	10295.00	0.00	0.00
Percentage	100.00	0.00	0.00

Num SVs in solution

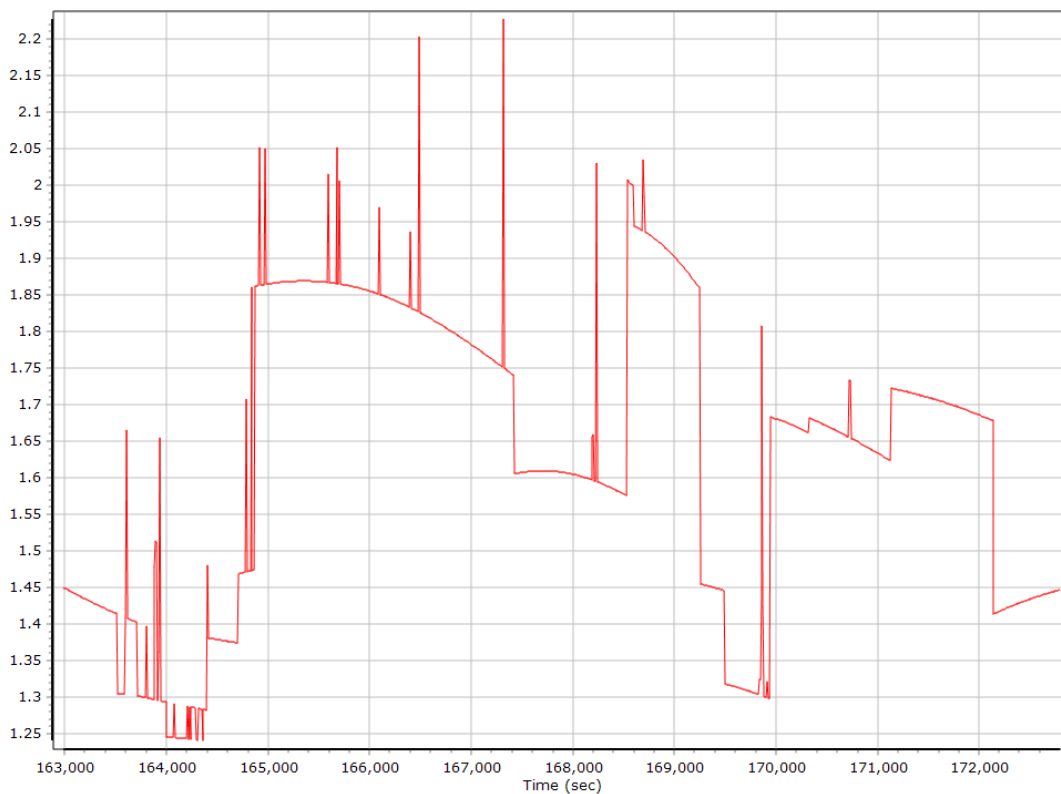


— Number of GPS — Number of GLONASS — Number of QZSS — Number of BEIDOU — Total Number

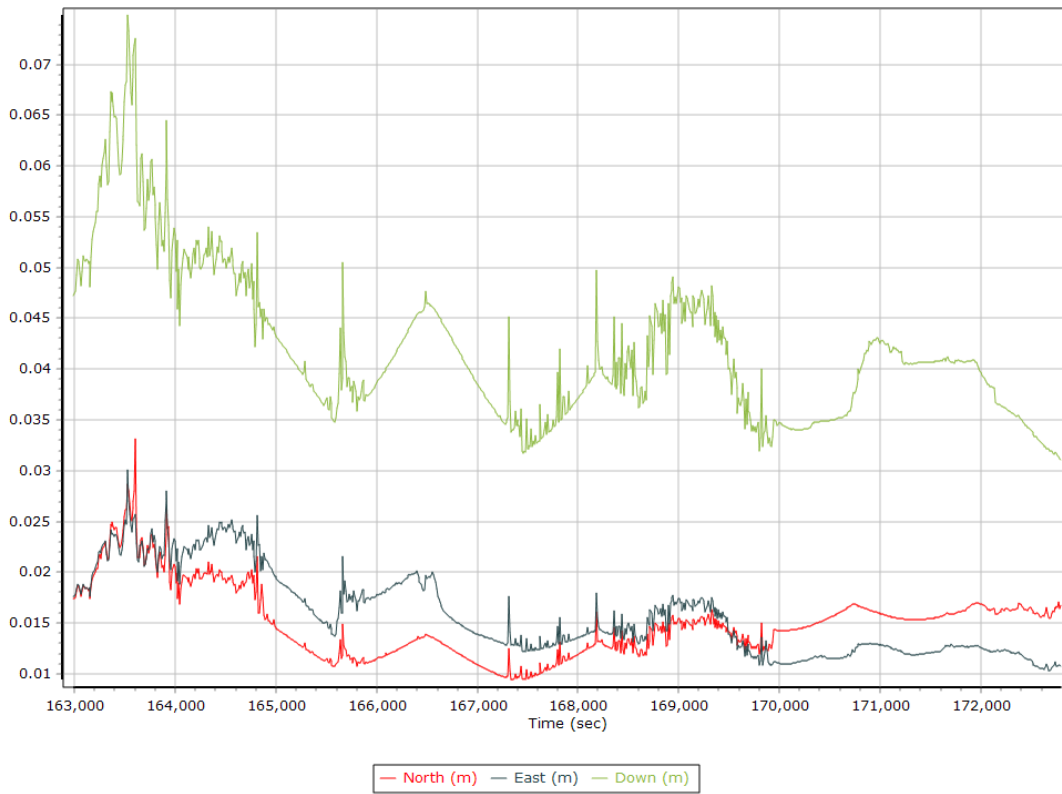
Forward/Reverse Separation



PDOP



Estimated Position Accuracy



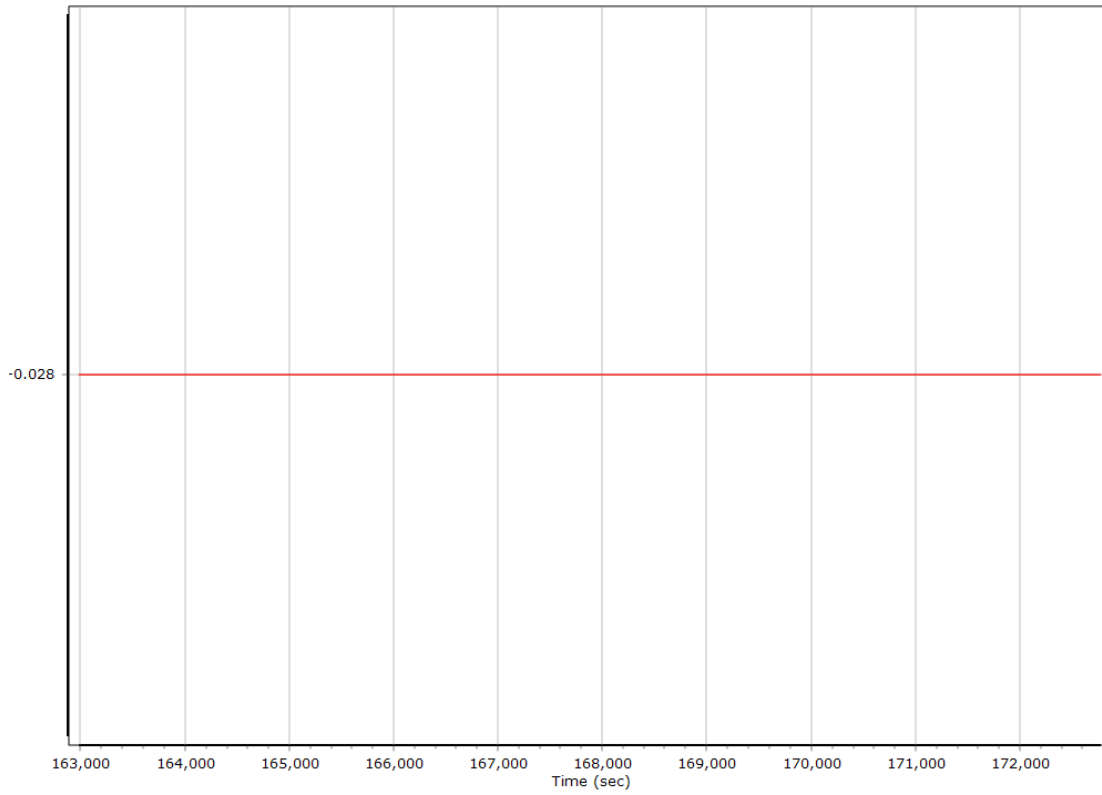
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Single Base		
Stabilized mount	False		
Base station	DHLG Durmid Hill		
Processing start time	162465.000 (11/15/2021 9:07:45 PM)		
Processing end time	174167.000 (11/16/2021 12:22:47 AM)		
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]	-0.028	-0.054	-0.948
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

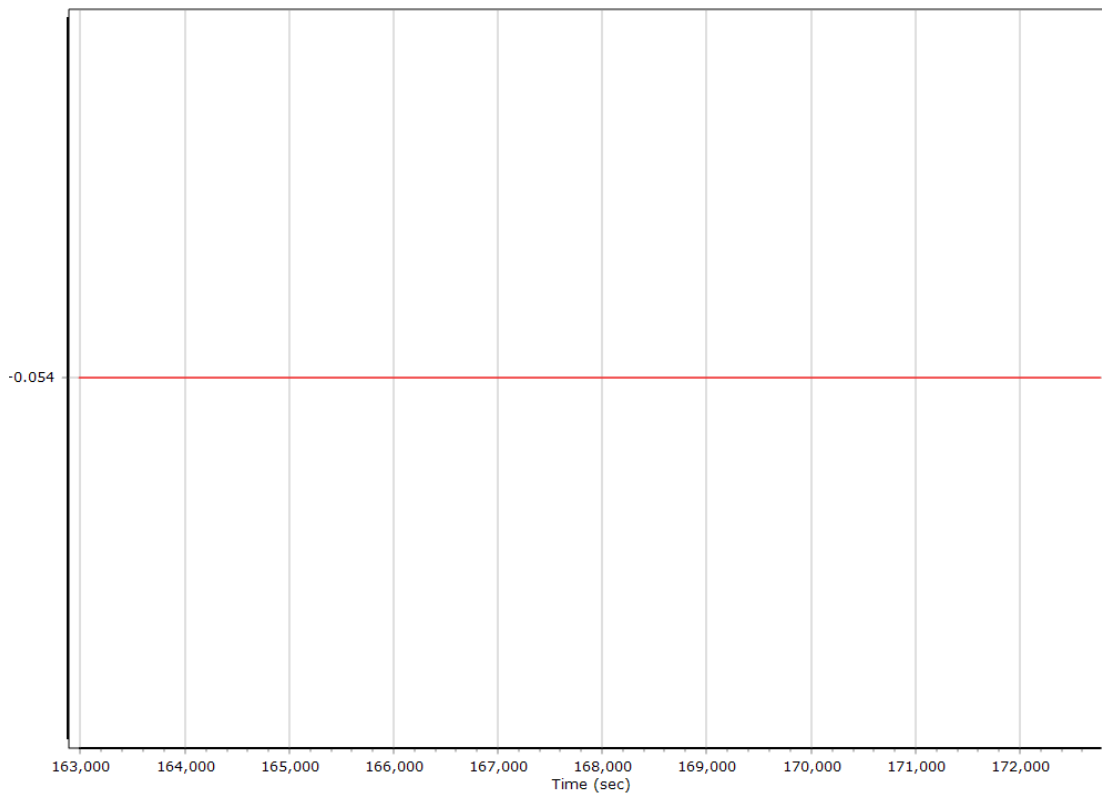
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm

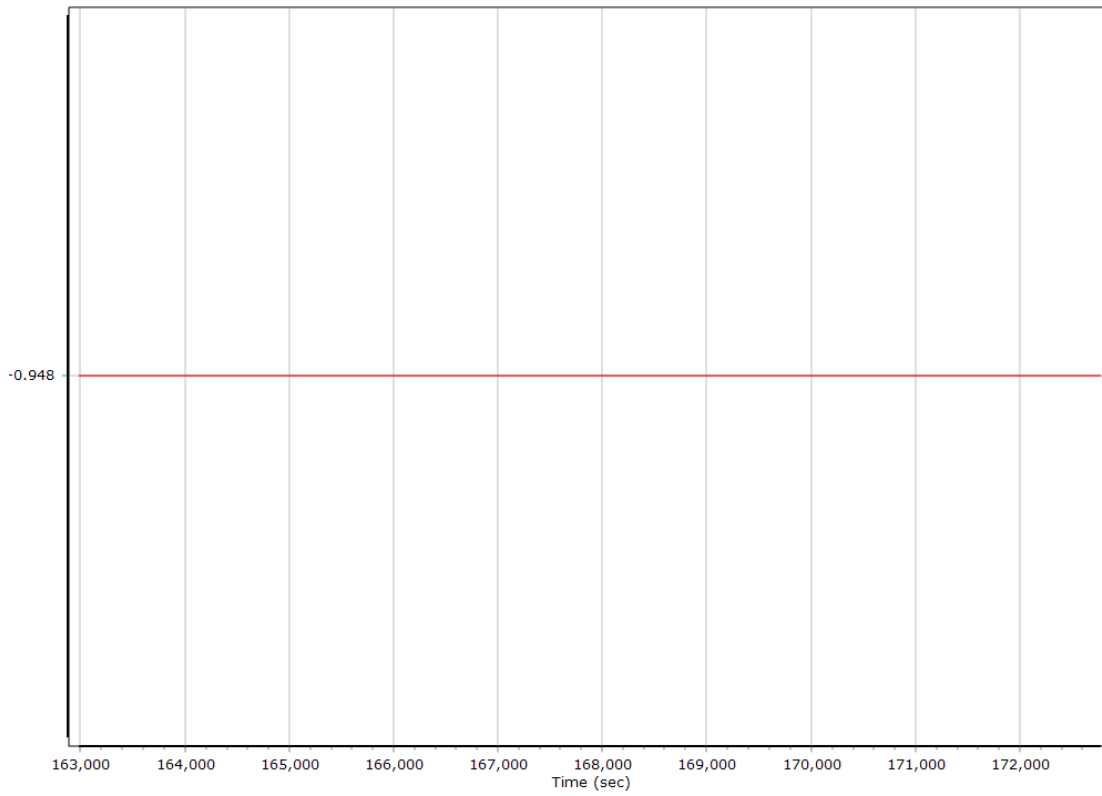
X Reference-Primary GNSS Lever Arm (m)



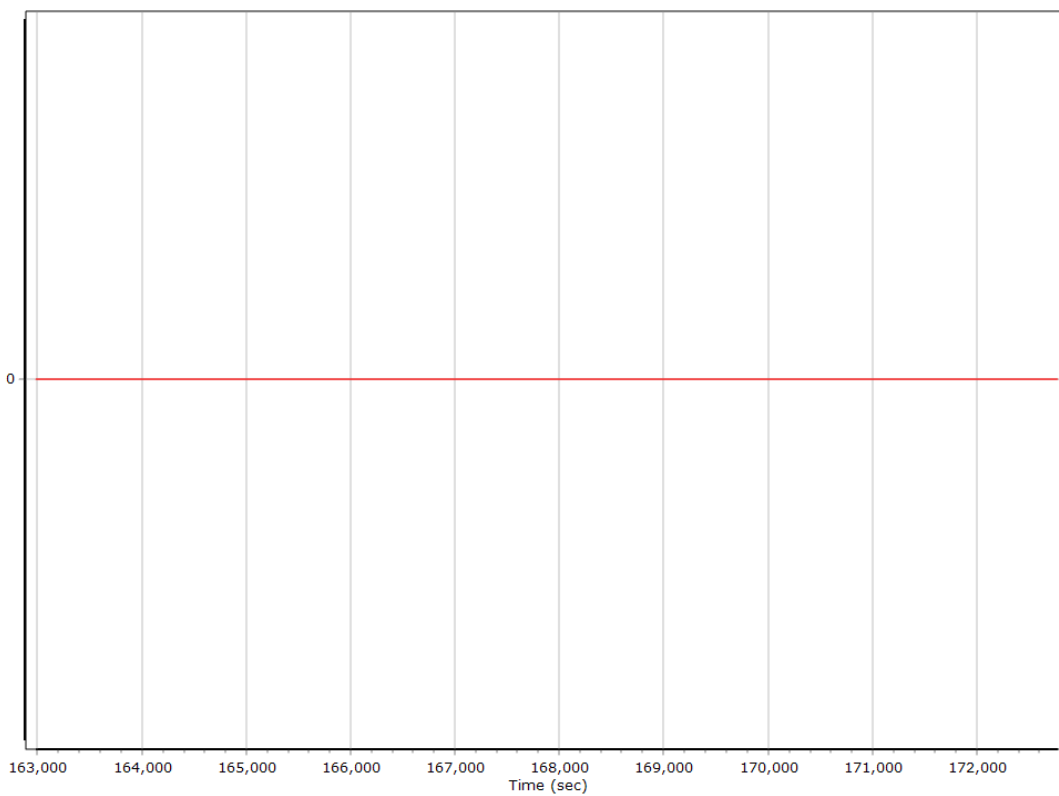
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



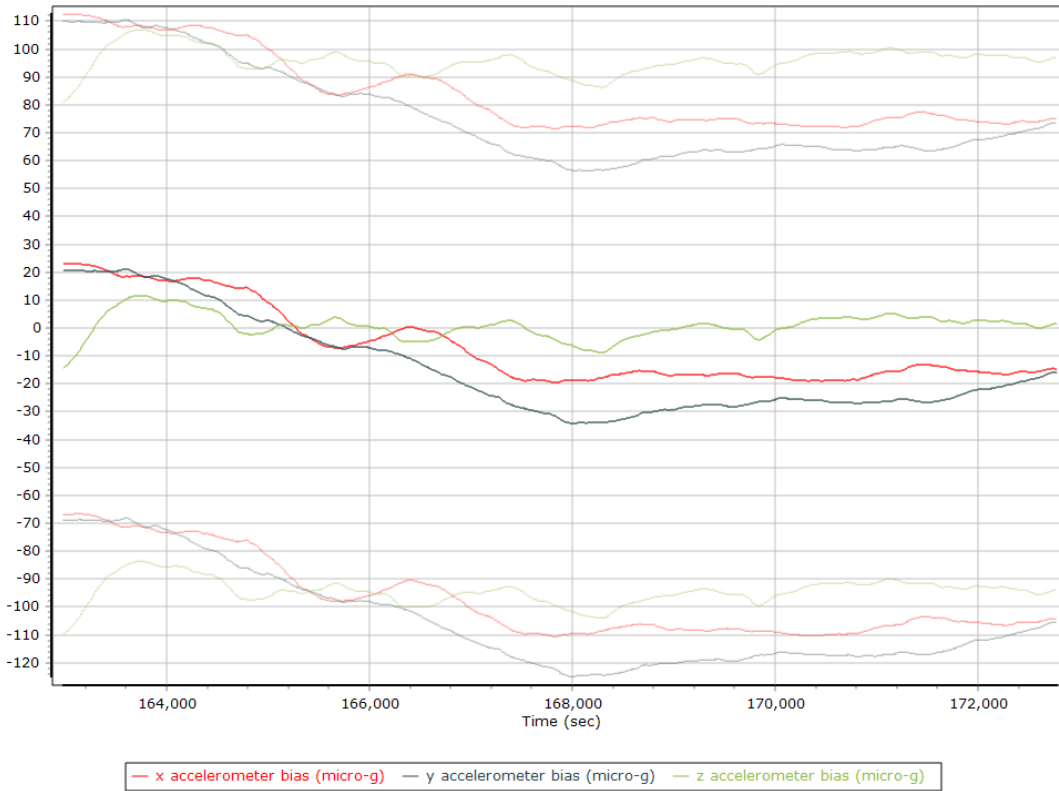
Reference-Primary GNSS Lever Arm Figure of Merit



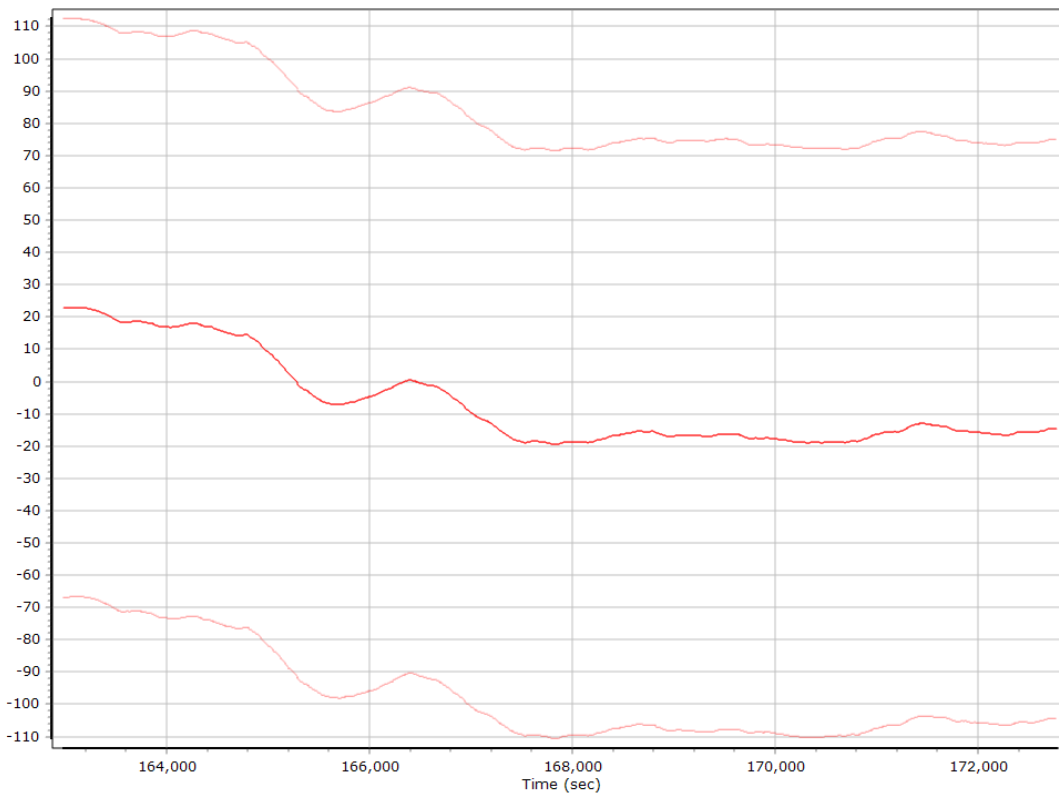
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

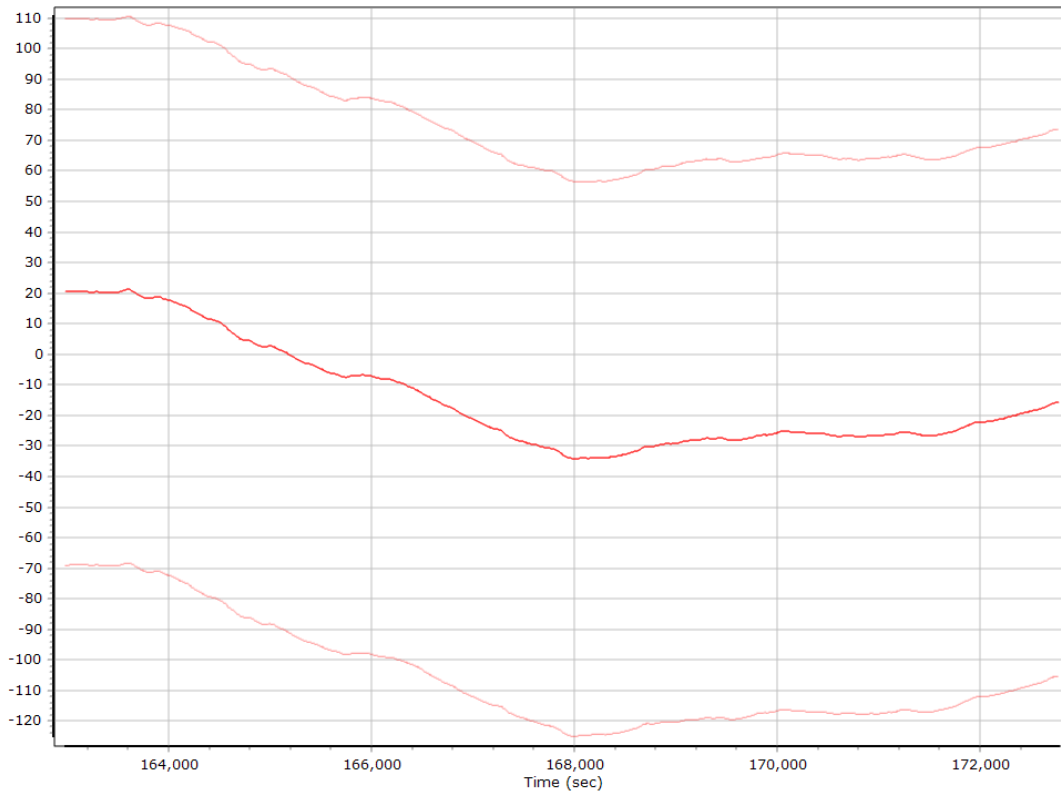
Accelerometer Bias (micro-g)



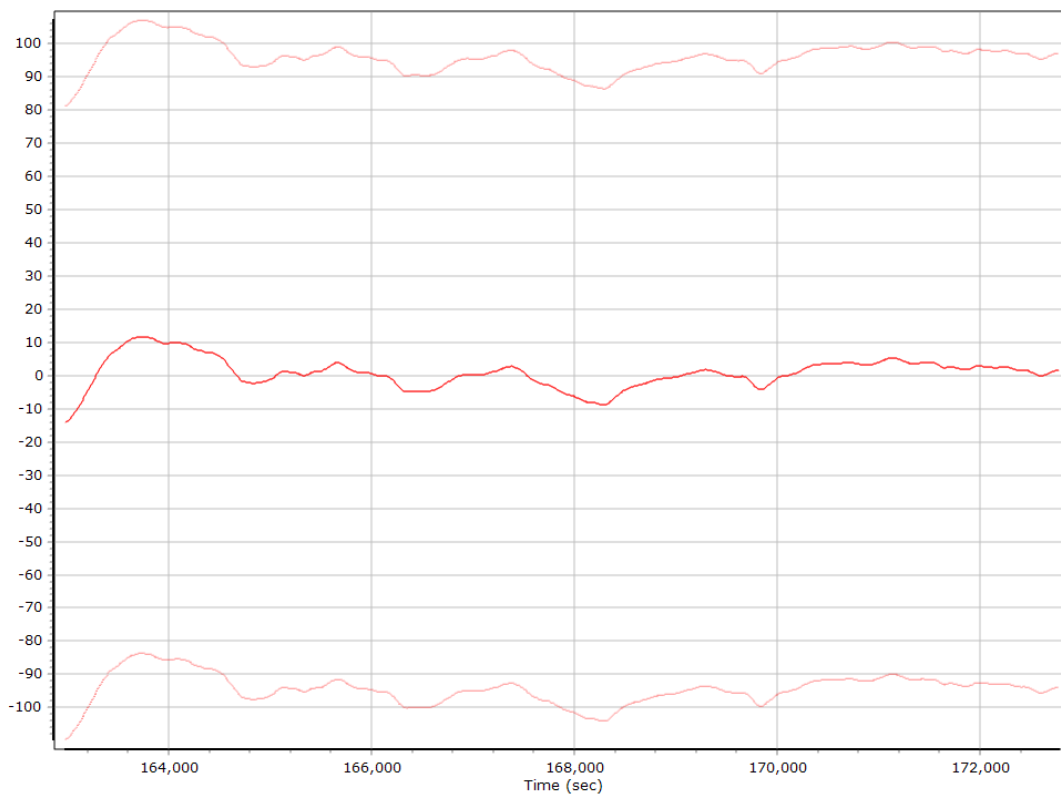
X Accelerometer Bias (micro-g)



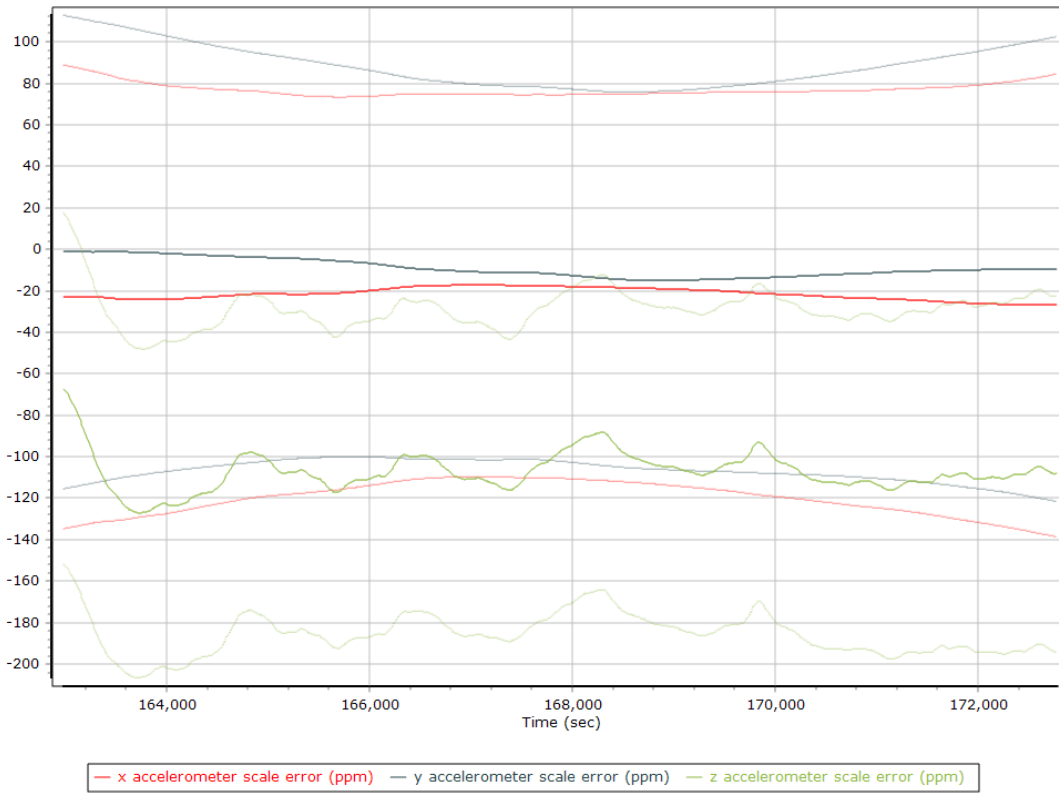
Y Accelerometer Bias (micro-g)



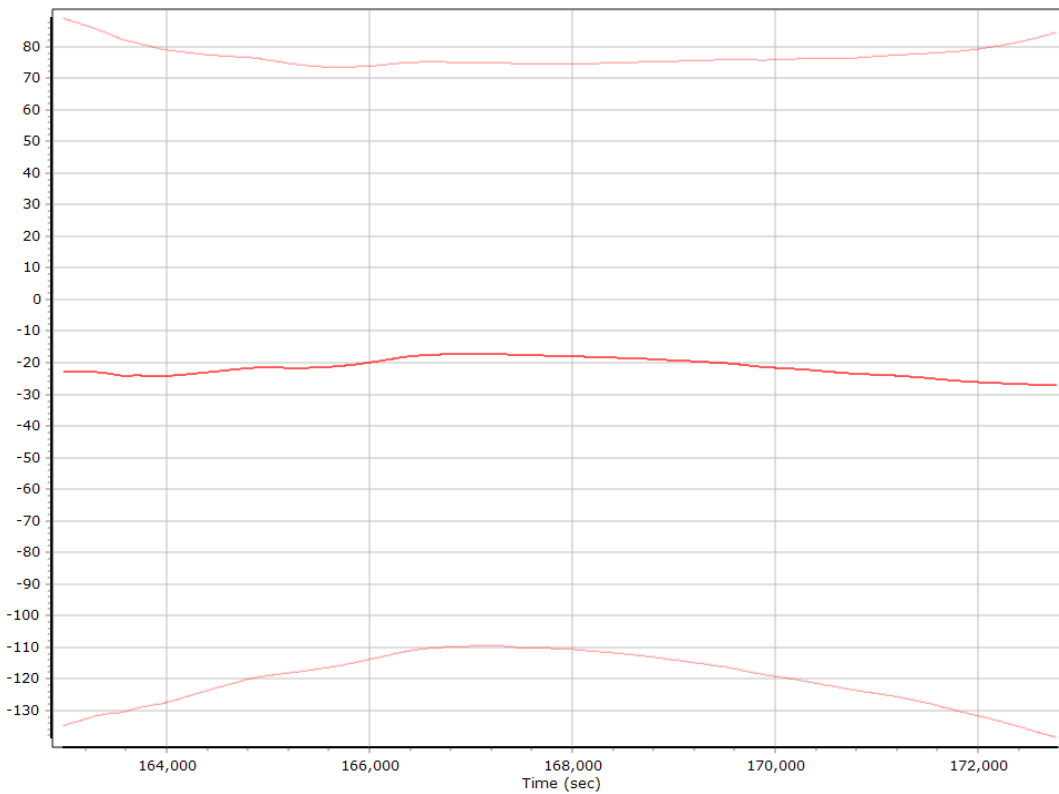
Z Accelerometer Bias (micro-g)



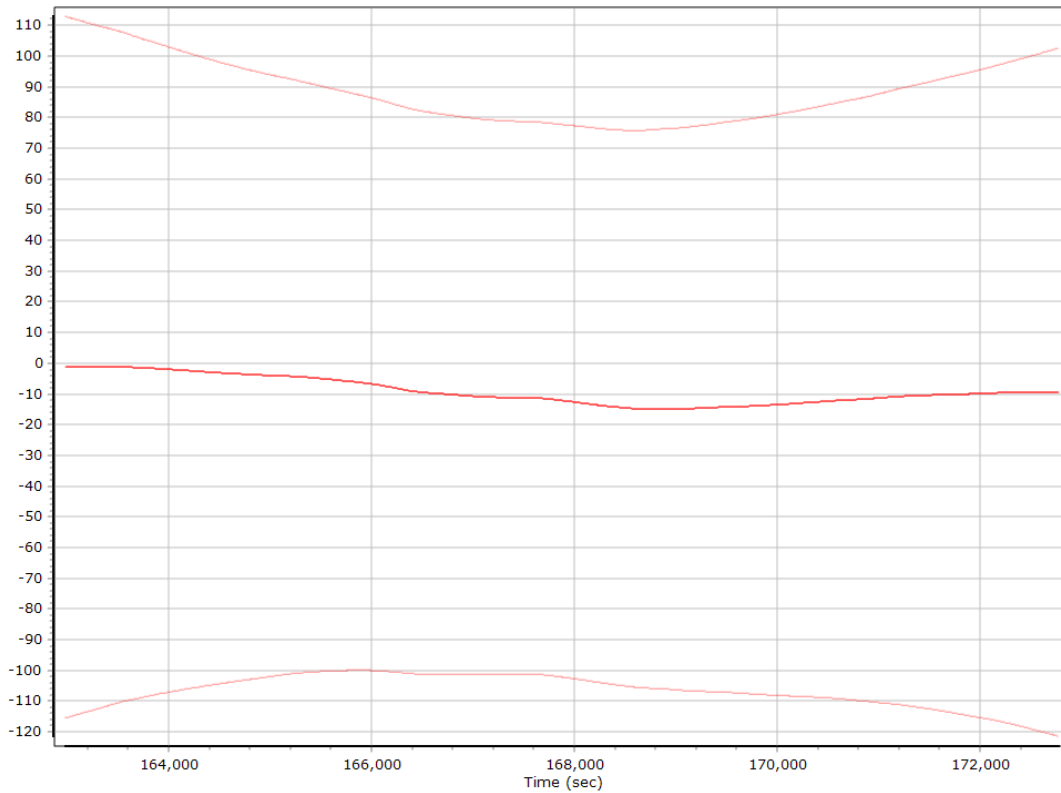
Accelerometer Scale Error (ppm)



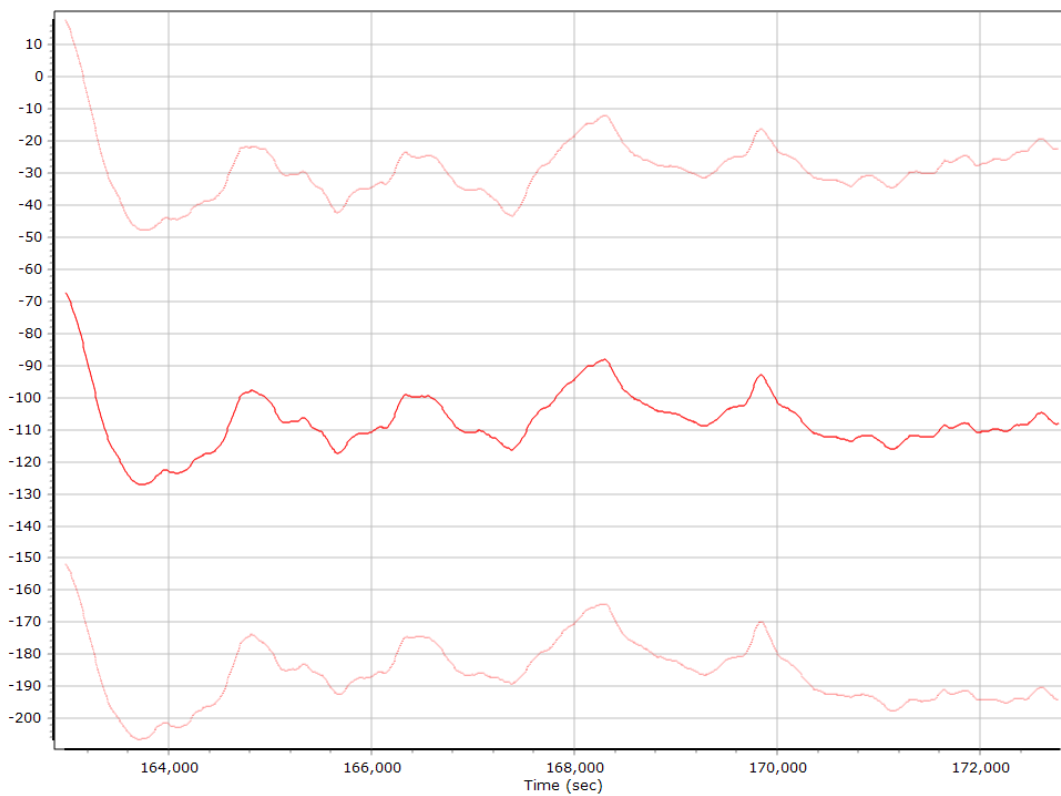
X Accelerometer Scale Error (ppm)



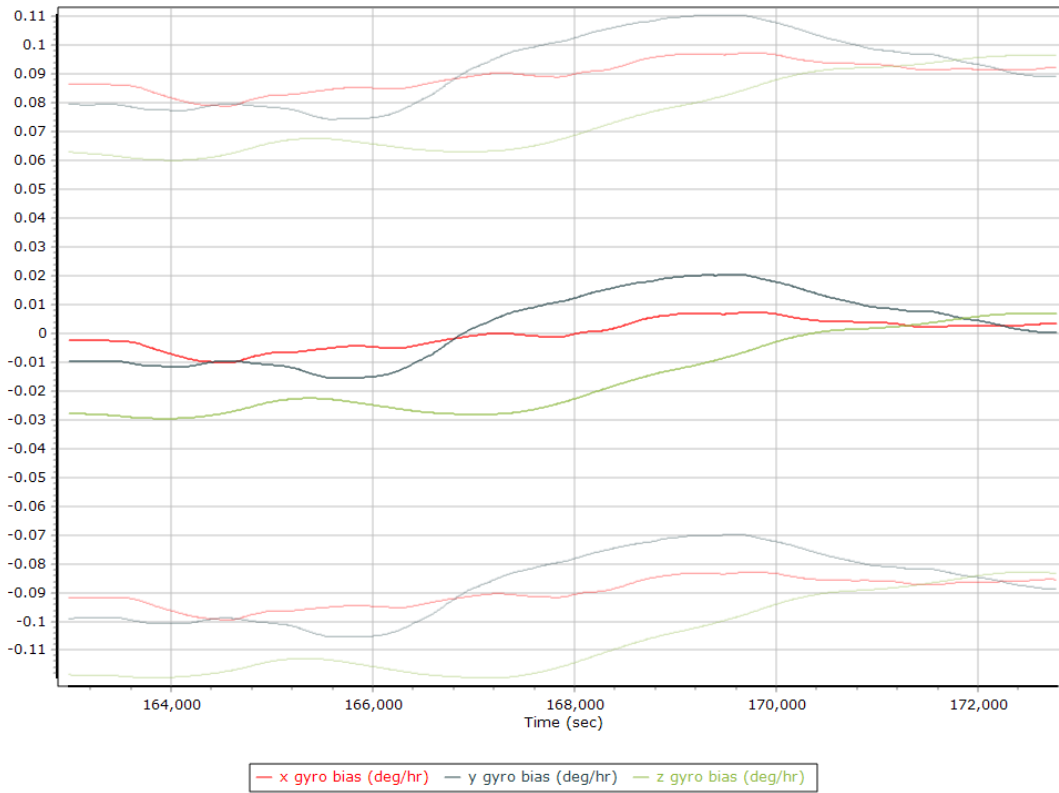
Y Accelerometer Scale Error (ppm)



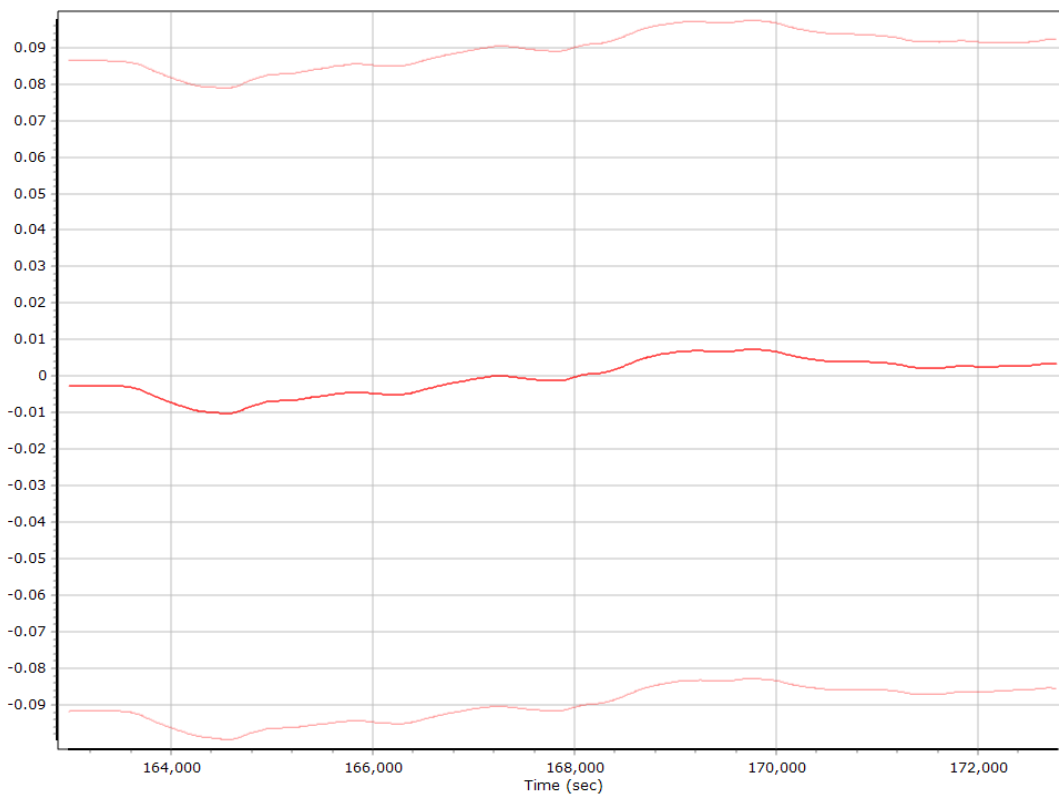
Z Accelerometer Scale Error (ppm)



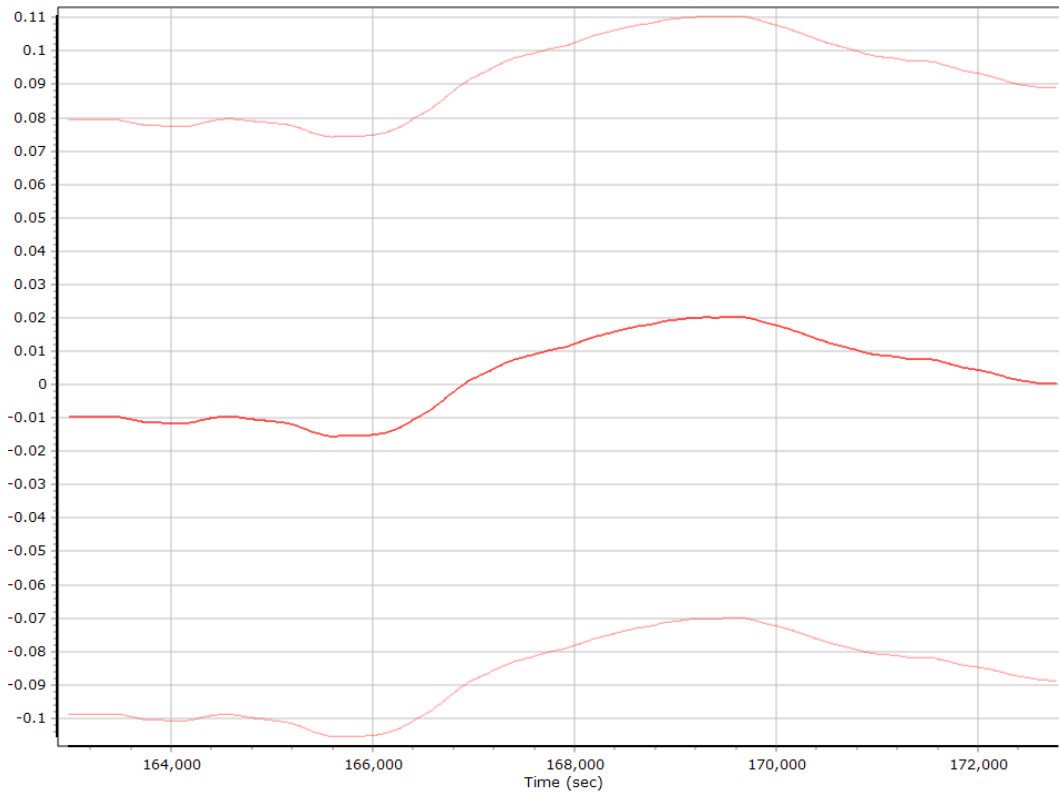
Gyro Bias (deg/h)



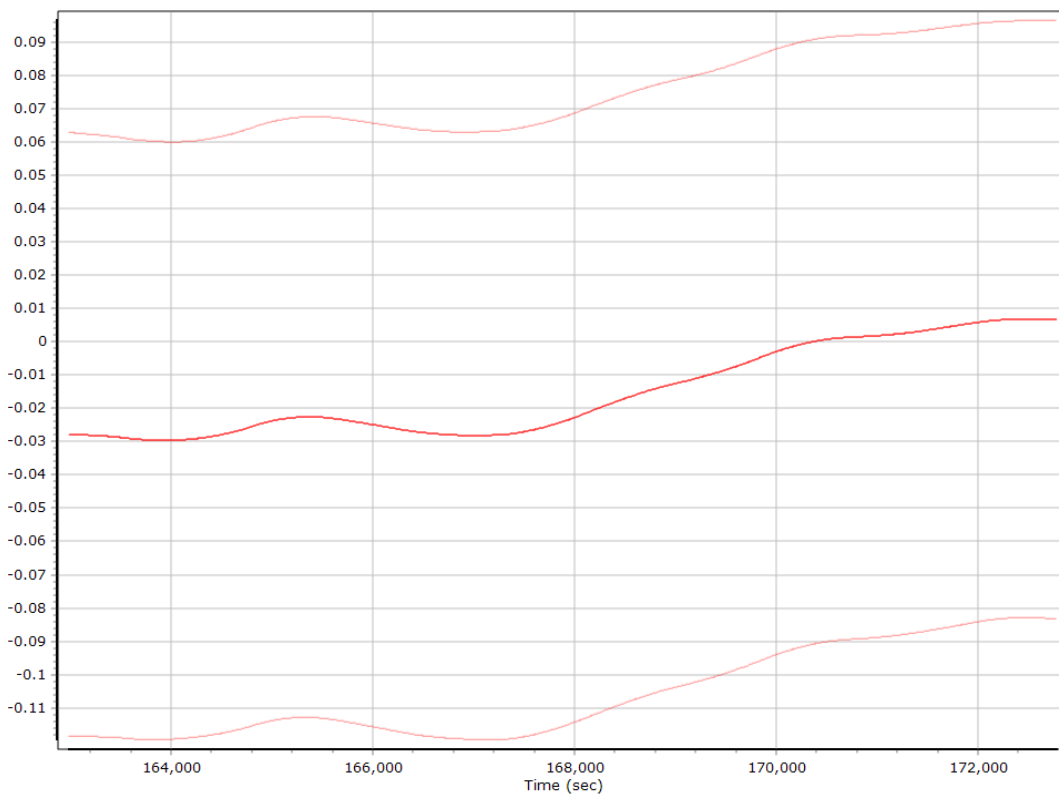
X Gyro Bias (deg/h)



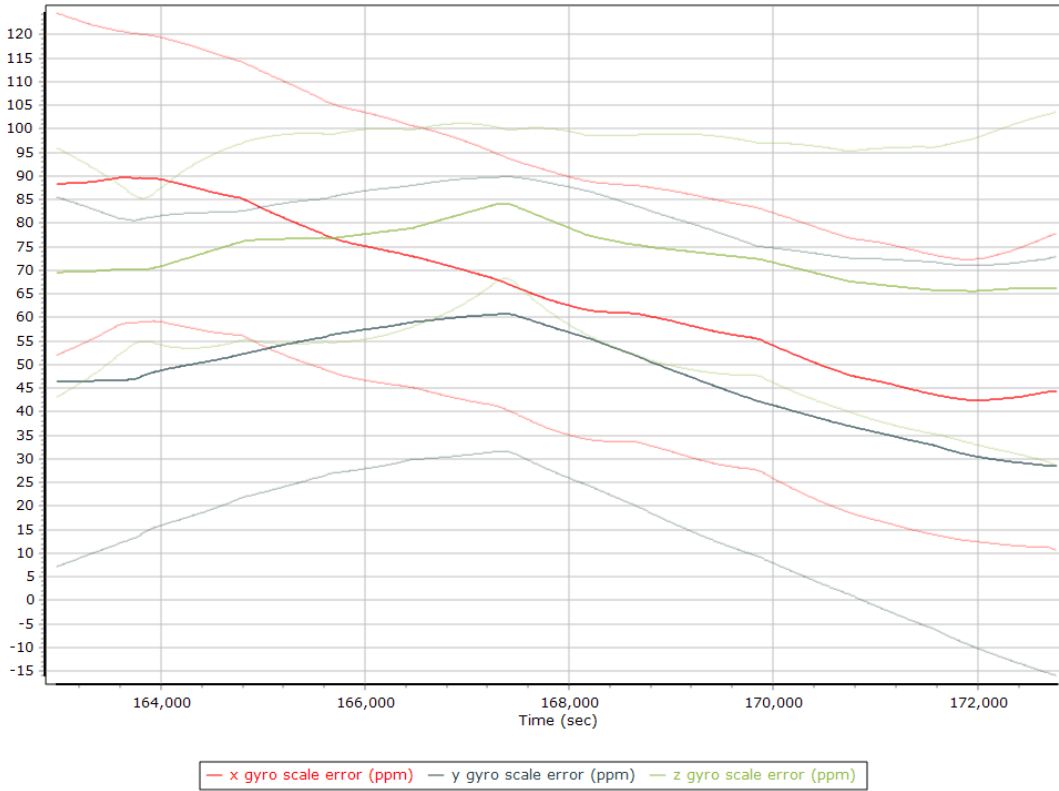
Y Gyro Bias (deg/h)



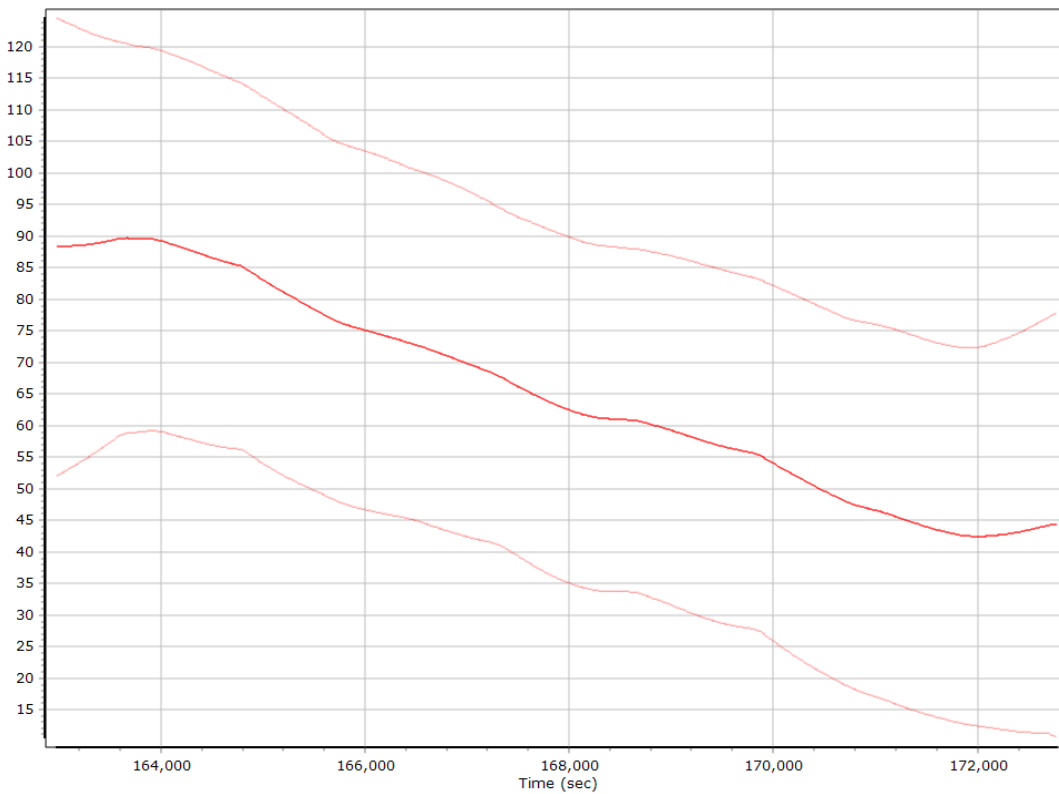
Z Gyro Bias (deg/h)



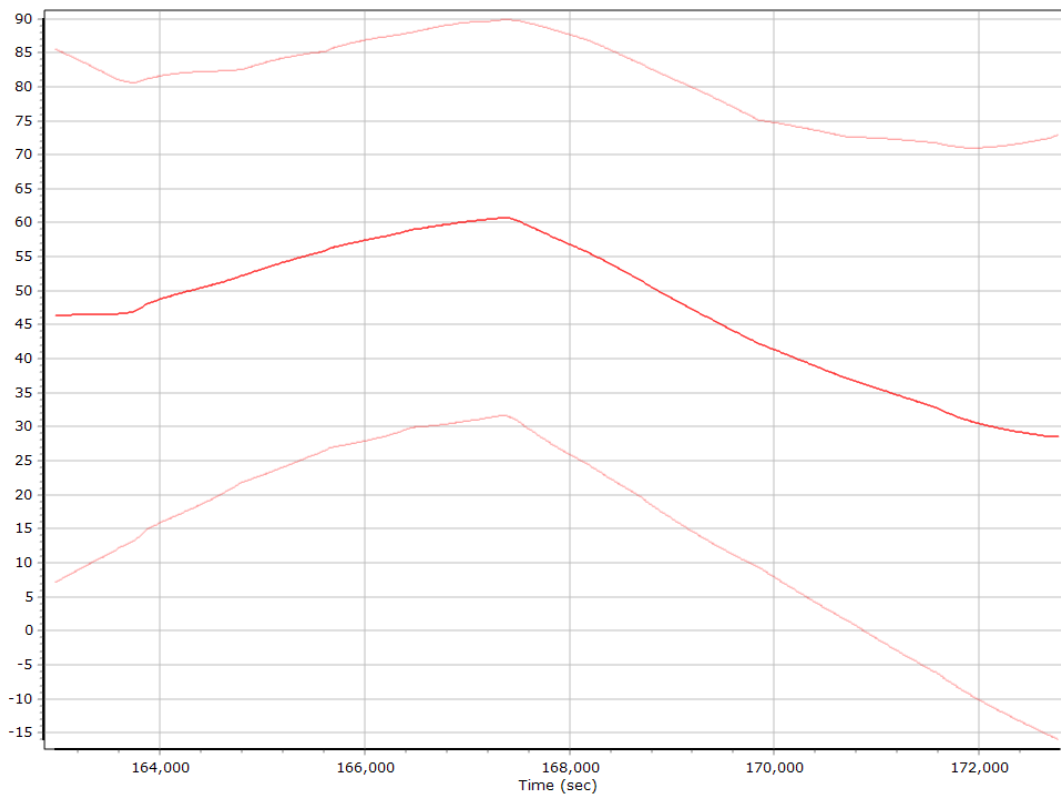
Gyro Scale Error (ppm)



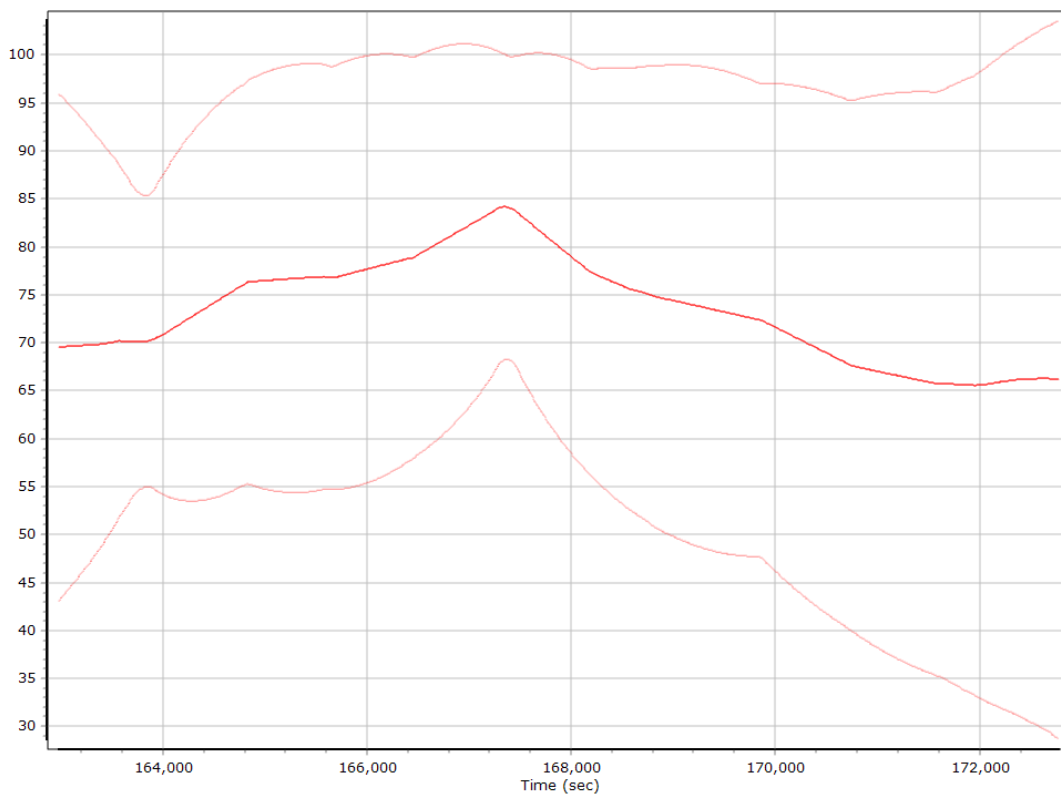
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

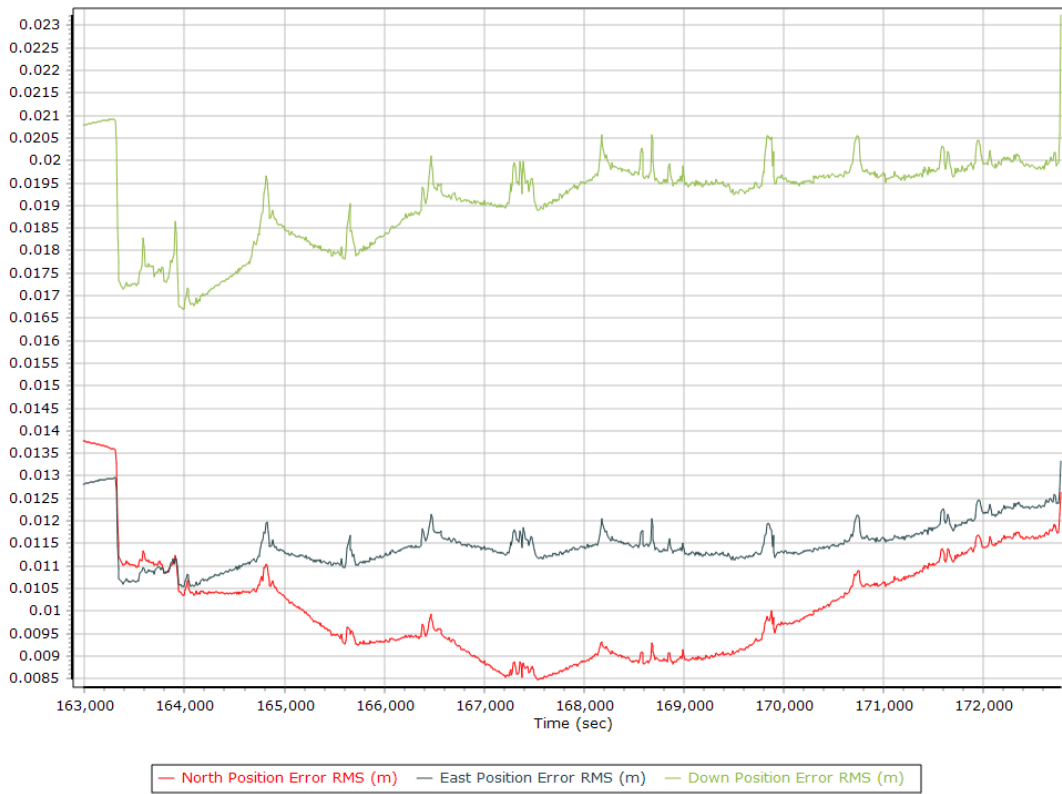


Z Gyro Scale Error (ppm)

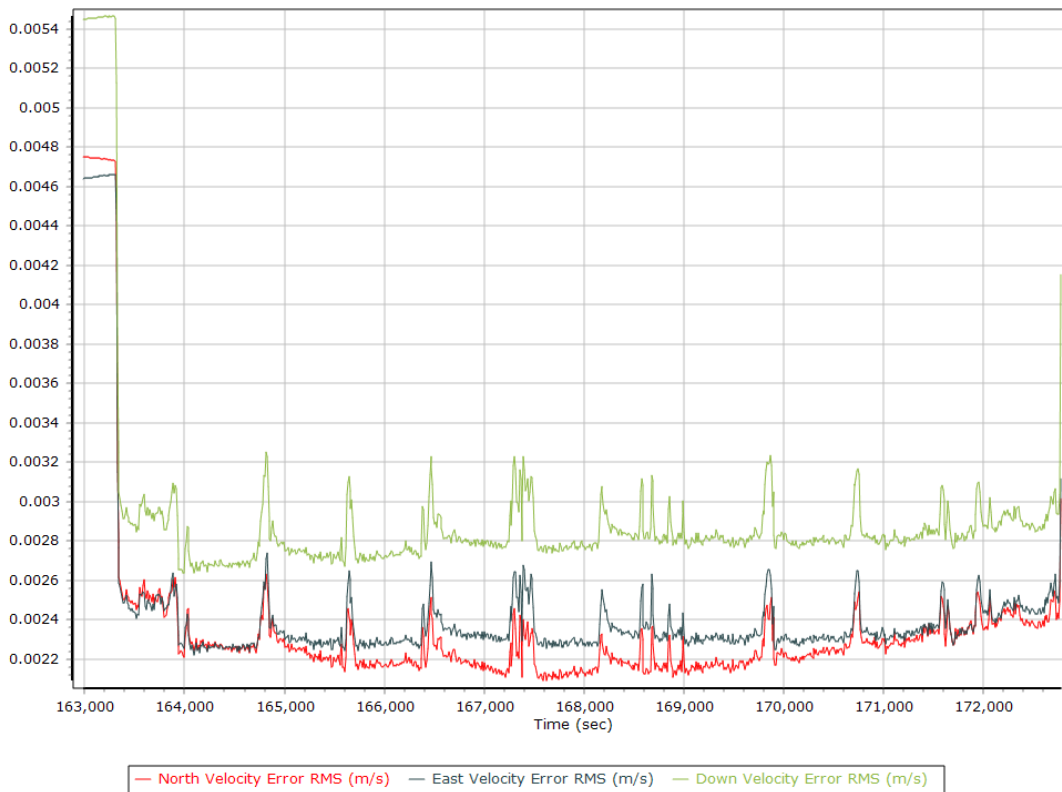


Smoothed Performance Metrics

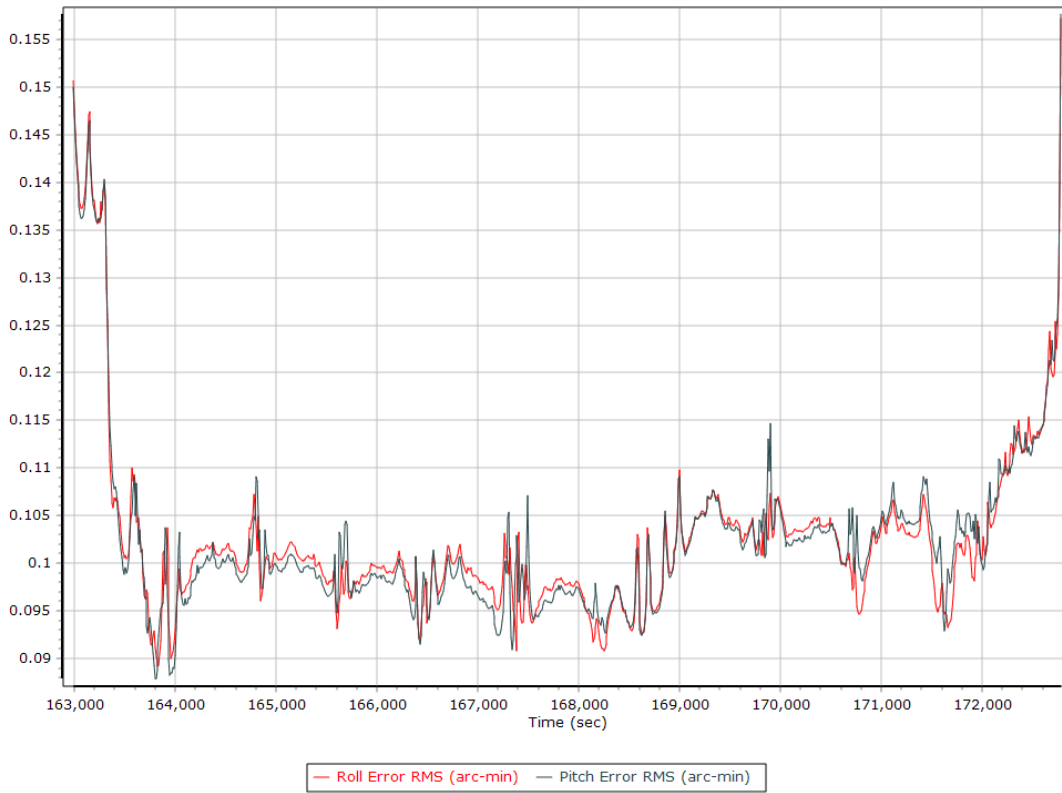
Position Error RMS (m)



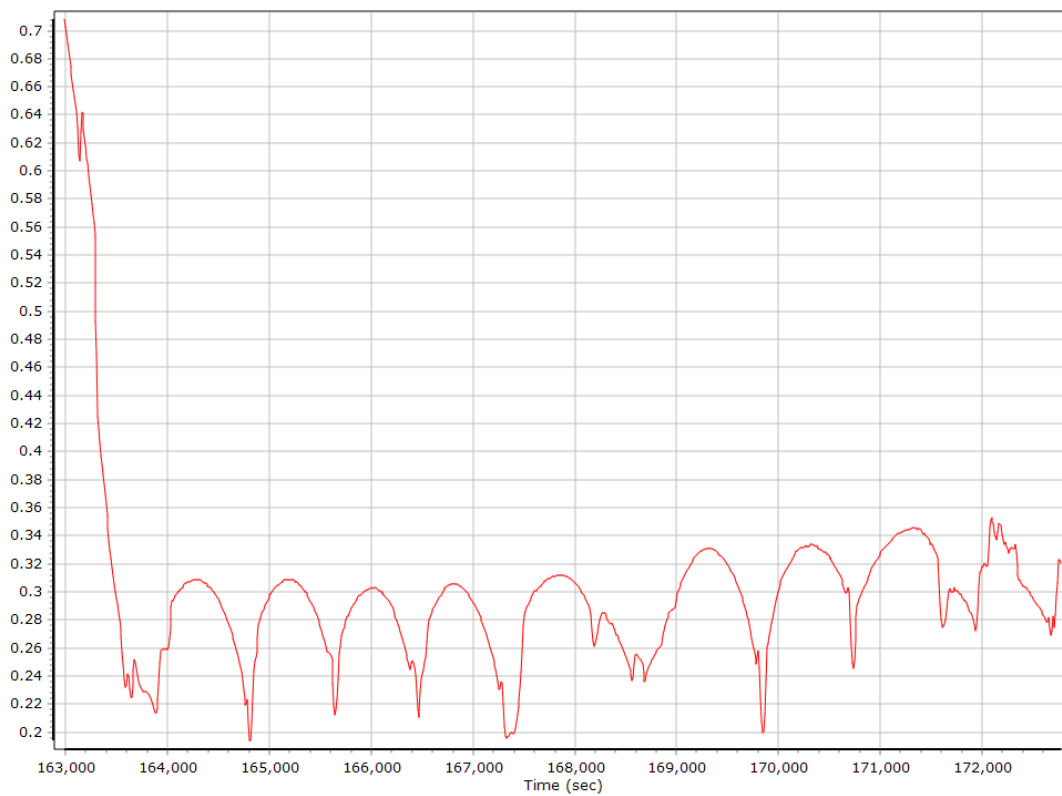
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

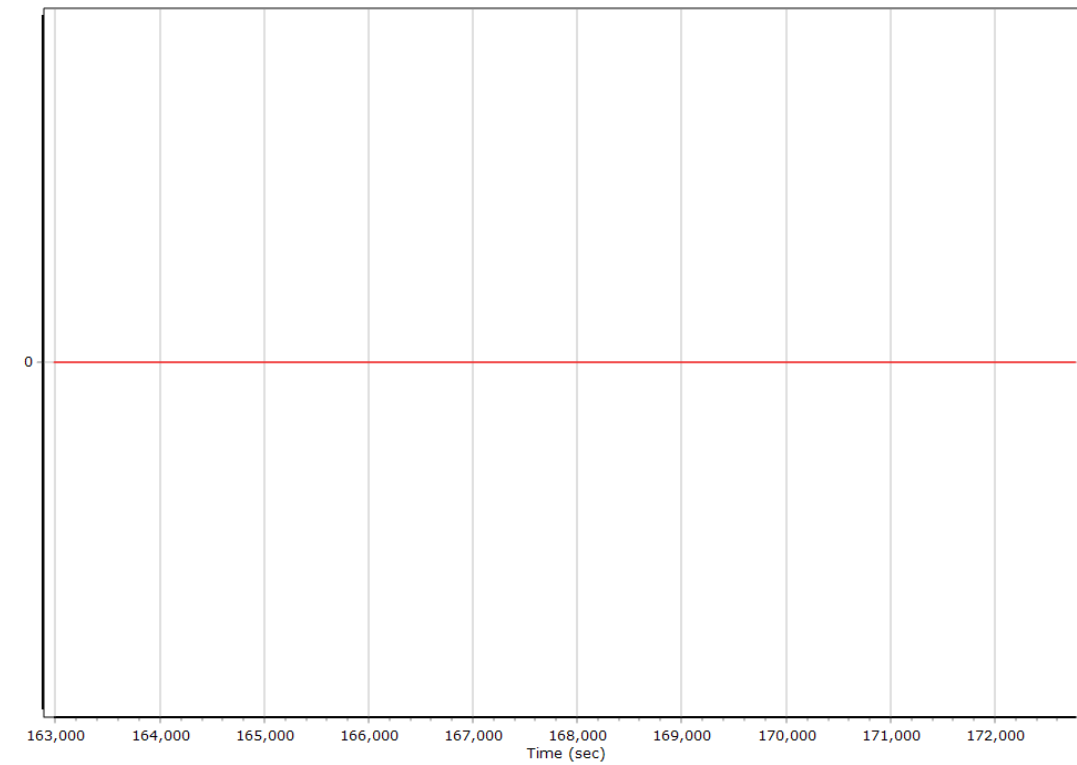


Heading Error RMS (arc-min)



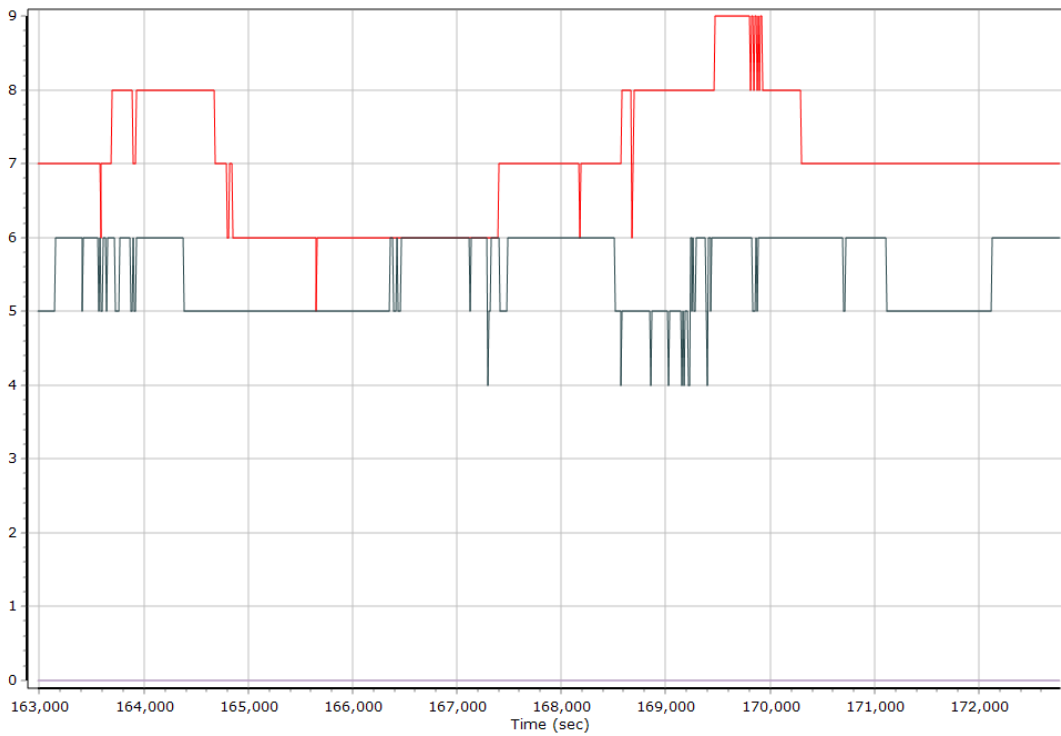
Smoothed Solution Status

Processing Mode



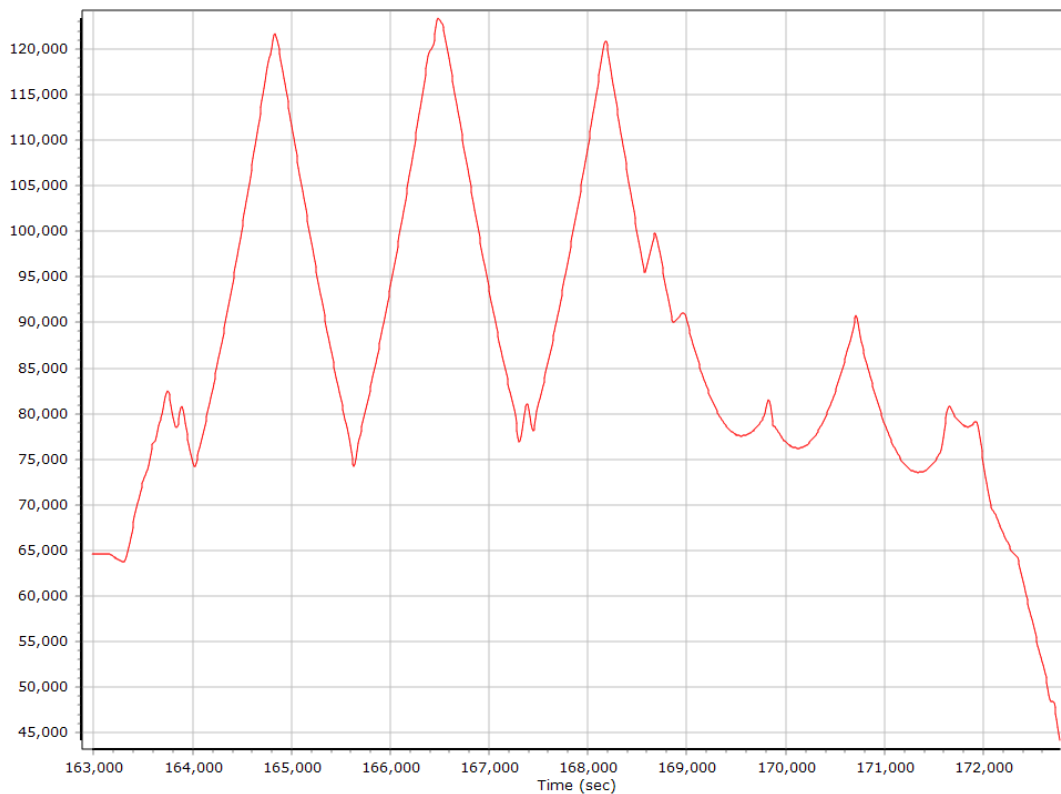
0 = Fixed NL, 1 = Fixed WL, 2 = Float, 3 = DGNSS, 4 = RTCM, 5 = IAPPP, 6 = C/A, 7 = GNSS Nav, 8 = DR

Number of Satellites



— Number of GPS Satellites — Number of GLONASS Satellites — Number of QZSS Satellites — Number of BEIDOU Satellites

Baseline Length



SBET IAkar Separation

