General Information

Mission Information

Project name	19-058_111819
Processing date	2019-11-27 23:39:55
Mission date	2019-11-18 20:56:40
Mission duration	04:09:34.000
Processing mode	IN-Fusion Trimble RTX Nav

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N6675
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
191118_205621_POSAV610-6675.raw	POS Data

Input Files

File Name	File type
Ephm3220.19g	GLONASS Broadcast Ephemeris
Ephm3220.19n	GPS Broadcast Ephemeris
Ephm3230.19g	GLONASS Broadcast Ephemeris
Ephm3230.19n	GPS Broadcast Ephemeris

Output Files

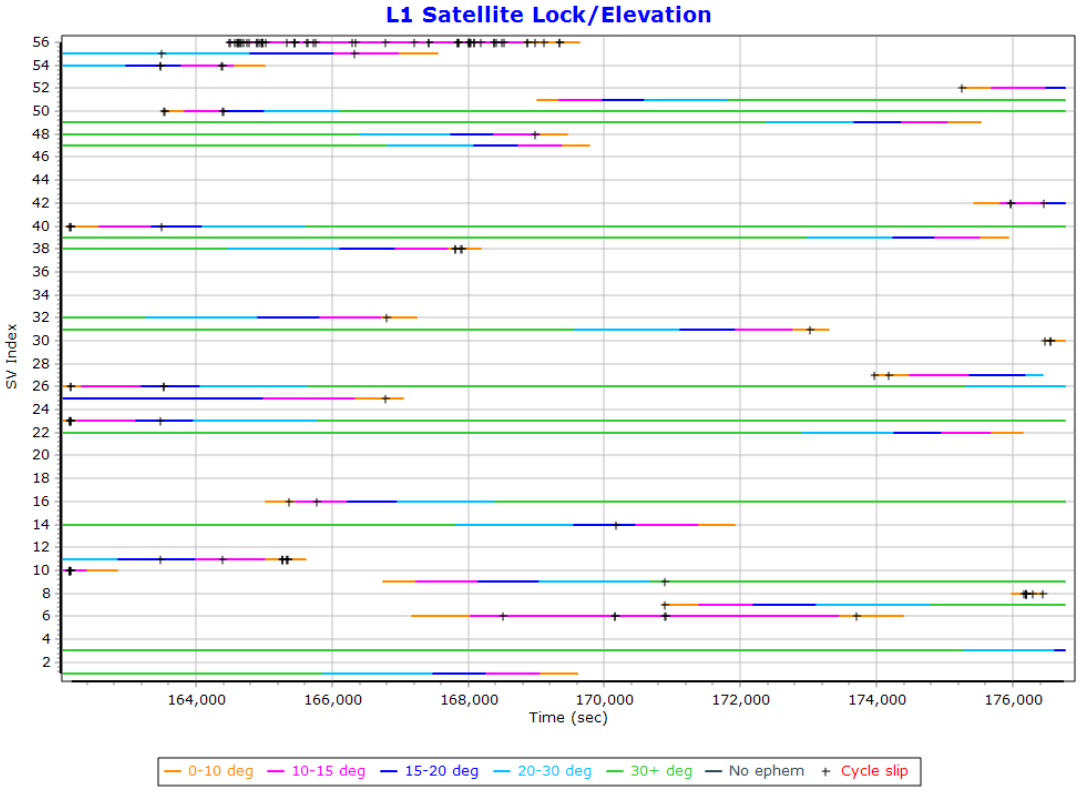
Filename	File type
sbet_19-058_111819.out	SBET Trajectory File
export_19-058_111819.out	Custom Smoothed BET Export Output

Rover Data Summary

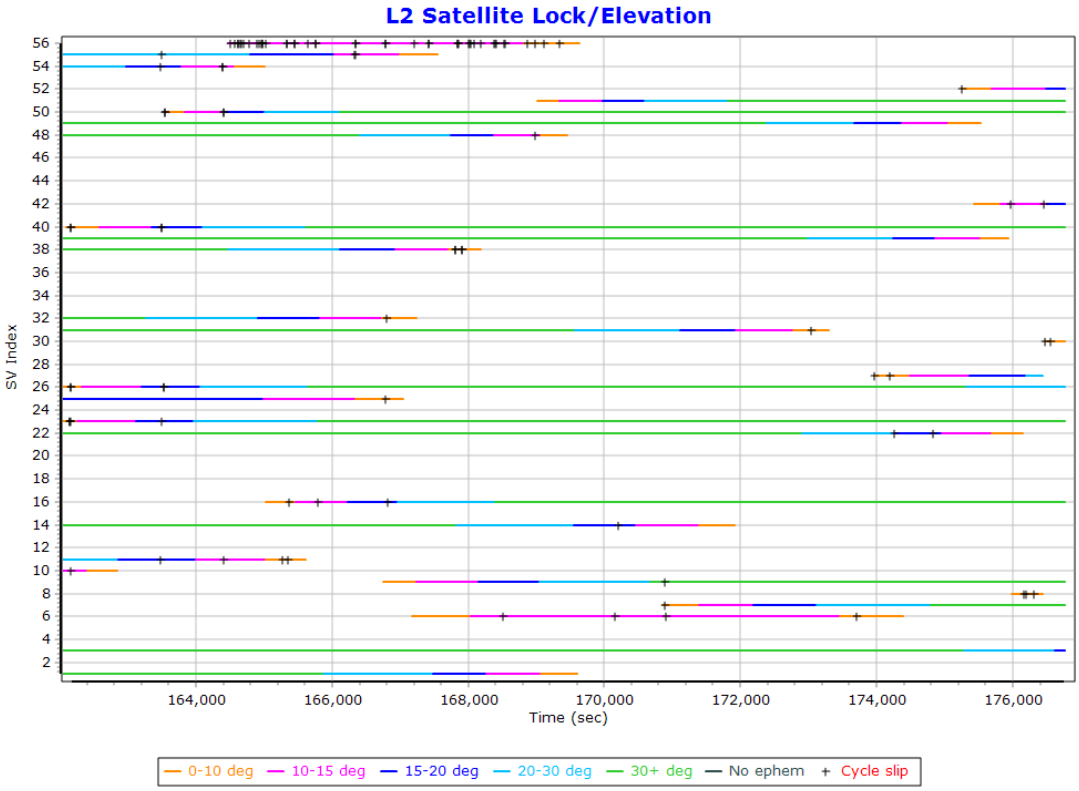
First raw data file	191118_205621_POSAV610-6675.raw		
Last raw data file	191118_205621_POSAV610-6675.raw		
Start GPS week	2080		
Start time	161781.679 (11/18/2019 20:56:21)		
End time	176757.126 (11/19/2019 01:05:57)		
Start of fine alignment	162107.562 (11/18/2019 21:01:47)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	None		
Correction data	Trimble RTX		
IMU Installation Lever Arms & Mounting Angles			
Gimbal to IMU lever arm [m]	0.000	0.000	0.000
Gimbal to IMU mounting angles [deg]	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm [m]	-0.233	-0.013	-0.922
Gimbal to Primary GNSS lever arm std dev [m]	-1.000		
Aircraft to Reference mounting angles [deg]	0.000	0.000	0.000

Raw Data QC

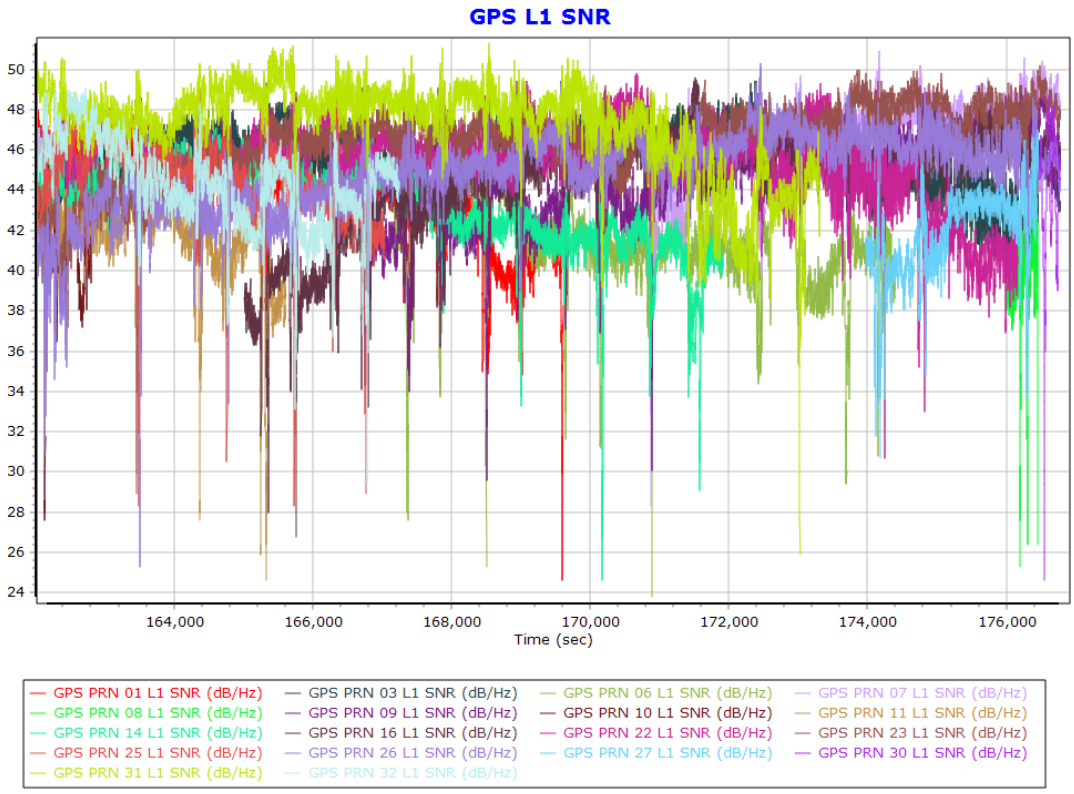
L1 Satellite Lock/Elevation



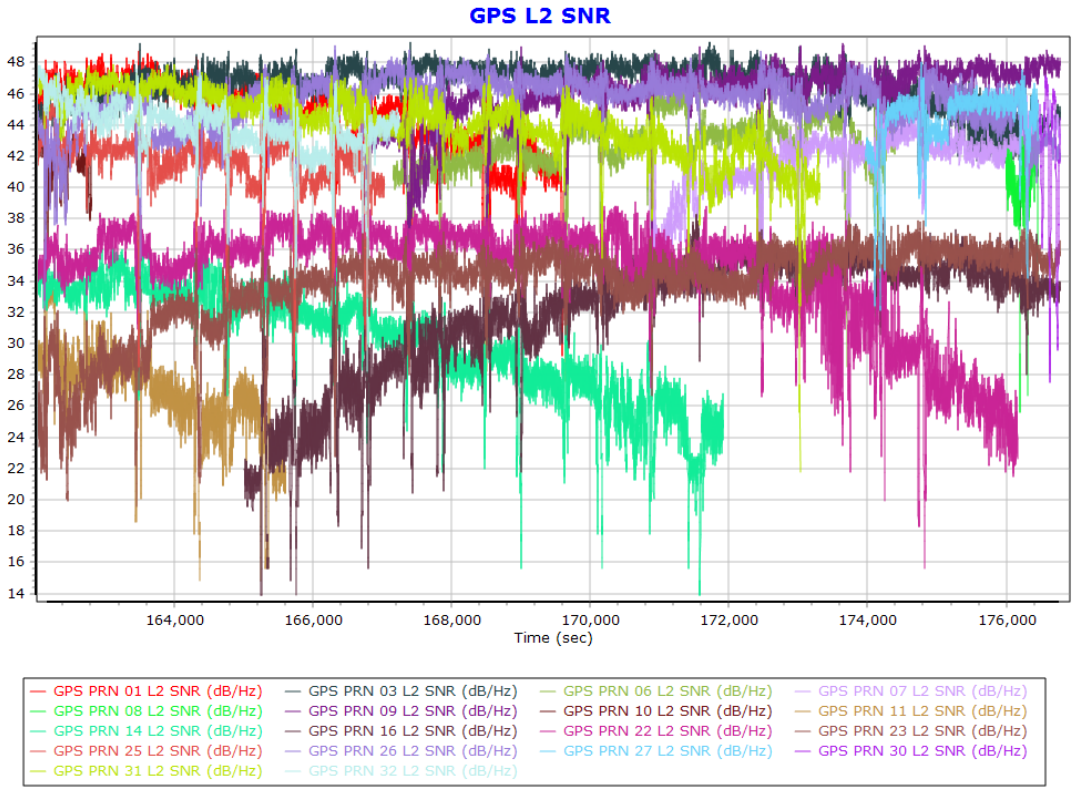
L2 Satellite Lock/Elevation



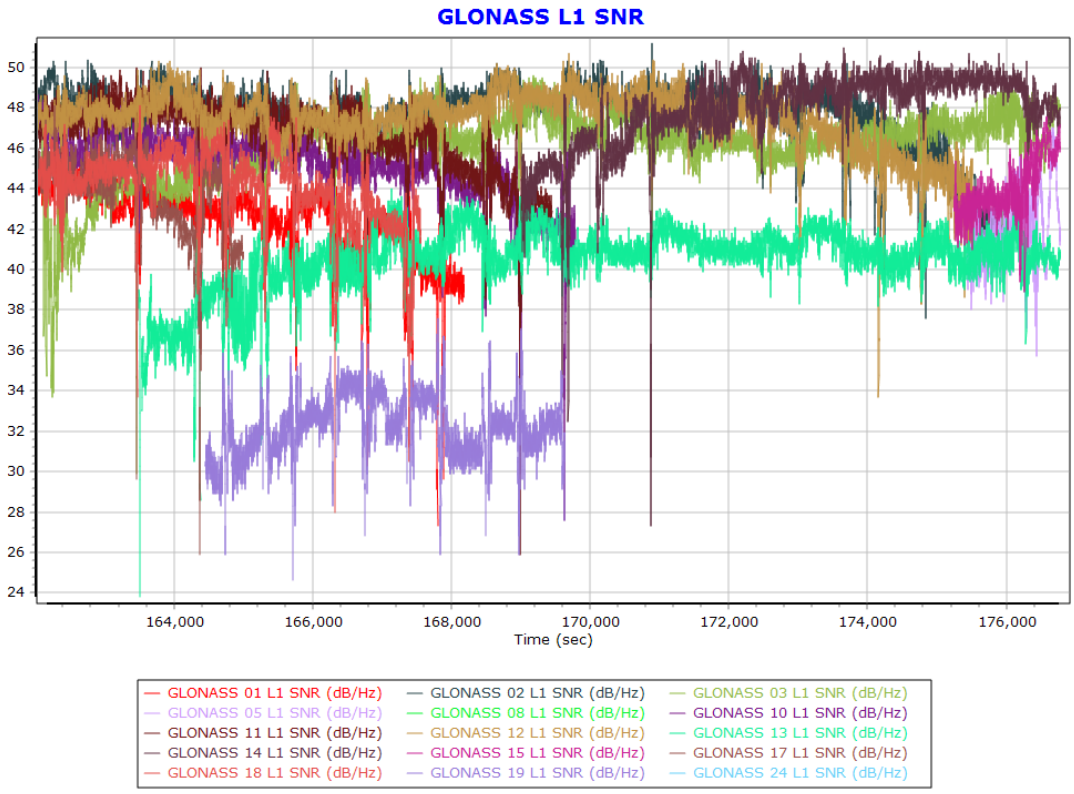
GPS L1 SNR



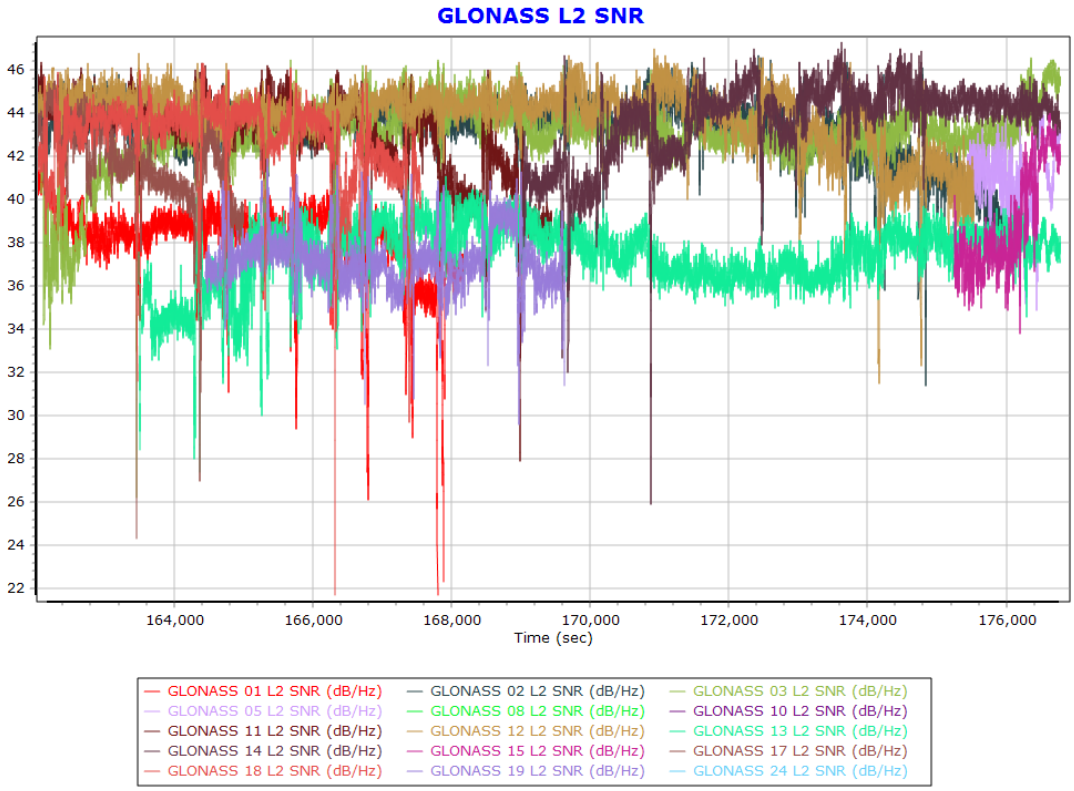
GPS L2 SNR



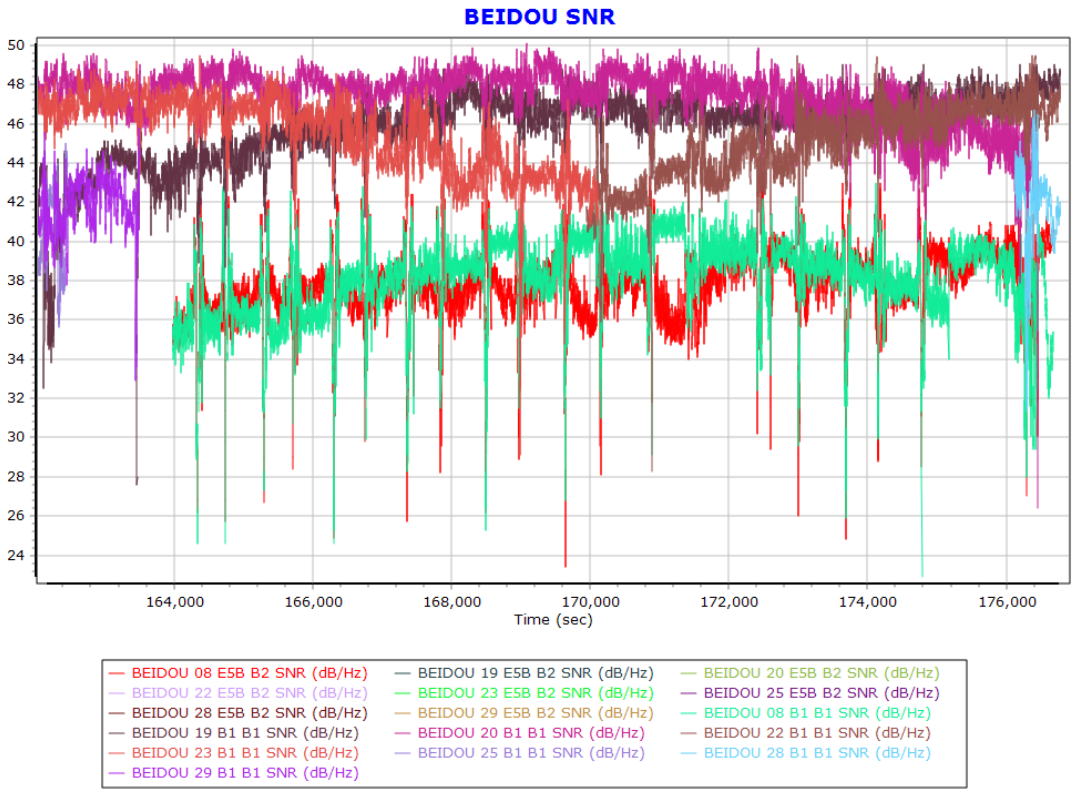
GLONASS L1 SNR



GLONASS L2 SNR

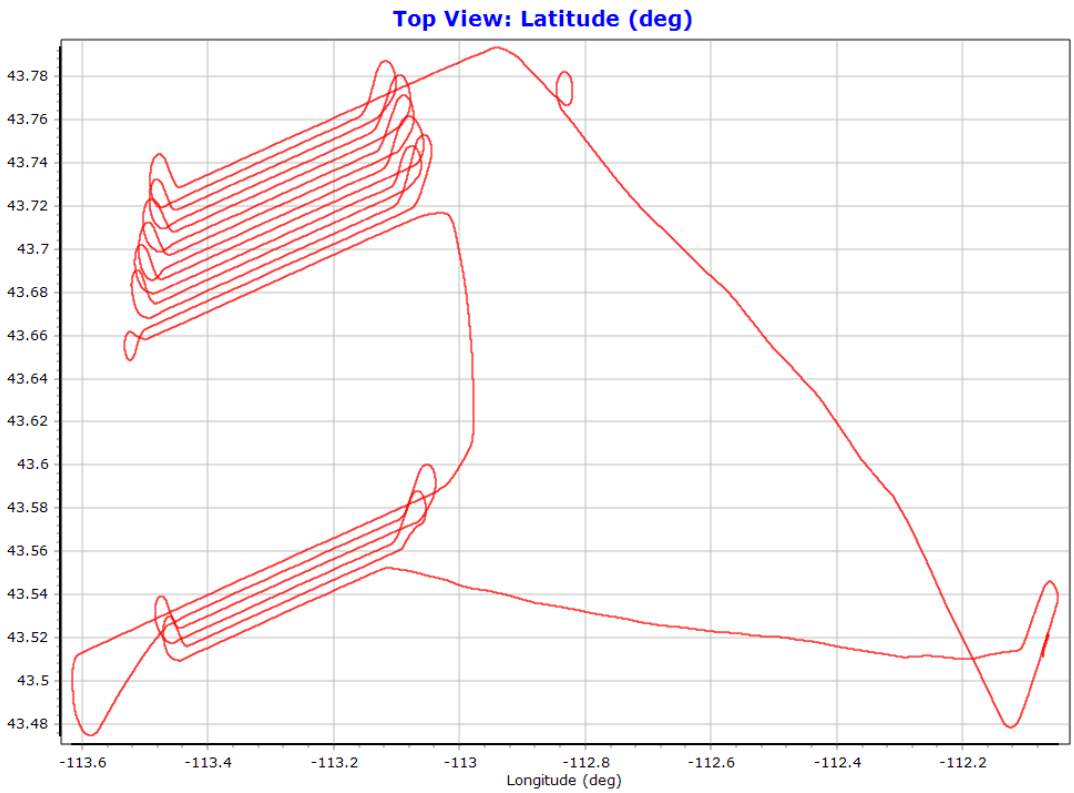


BEIDOU SNR

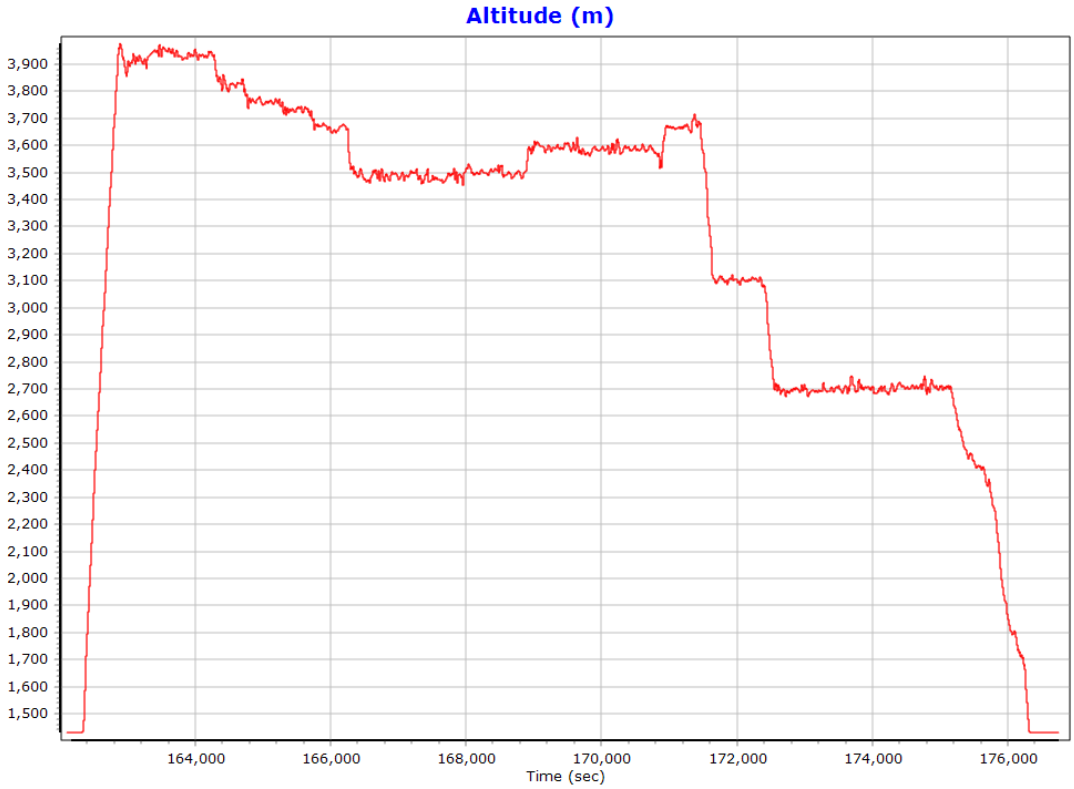

BEIDOU SNR
50
48
46
44
42
40
38
36
34
32
30
28
26
24
164,000
166,000
168,000
170,000
172,000
174,000
176,000
Time (sec)
BEIDOU 08 E5B B2 SNR (dB/Hz)
BEIDOU 19 E5B B2 SNR (dB/Hz)
BEIDOU 20 E5B B2 SNR (dB/Hz)
BEIDOU 22 E5B B2 SNR (dB/Hz)
BEIDOU 23 E5B B2 SNR (dB/Hz)
BEIDOU 25 E5B B2 SNR (dB/Hz)
BEIDOU 28 E5B B2 SNR (dB/Hz)
BEIDOU 29 E5B B2 SNR (dB/Hz)
BEIDOU 08 B1 B1 SNR (dB/Hz)
BEIDOU 19 B1 B1 SNR (dB/Hz)
BEIDOU 20 B1 B1 SNR (dB/Hz)
BEIDOU 22 B1 B1 SNR (dB/Hz)
BEIDOU 23 B1 B1 SNR (dB/Hz)
BEIDOU 25 B1 B1 SNR (dB/Hz)
BEIDOU 28 B1 B1 SNR (dB/Hz)
BEIDOU 29 B1 B1 SNR (dB/Hz)

Trajectory Information

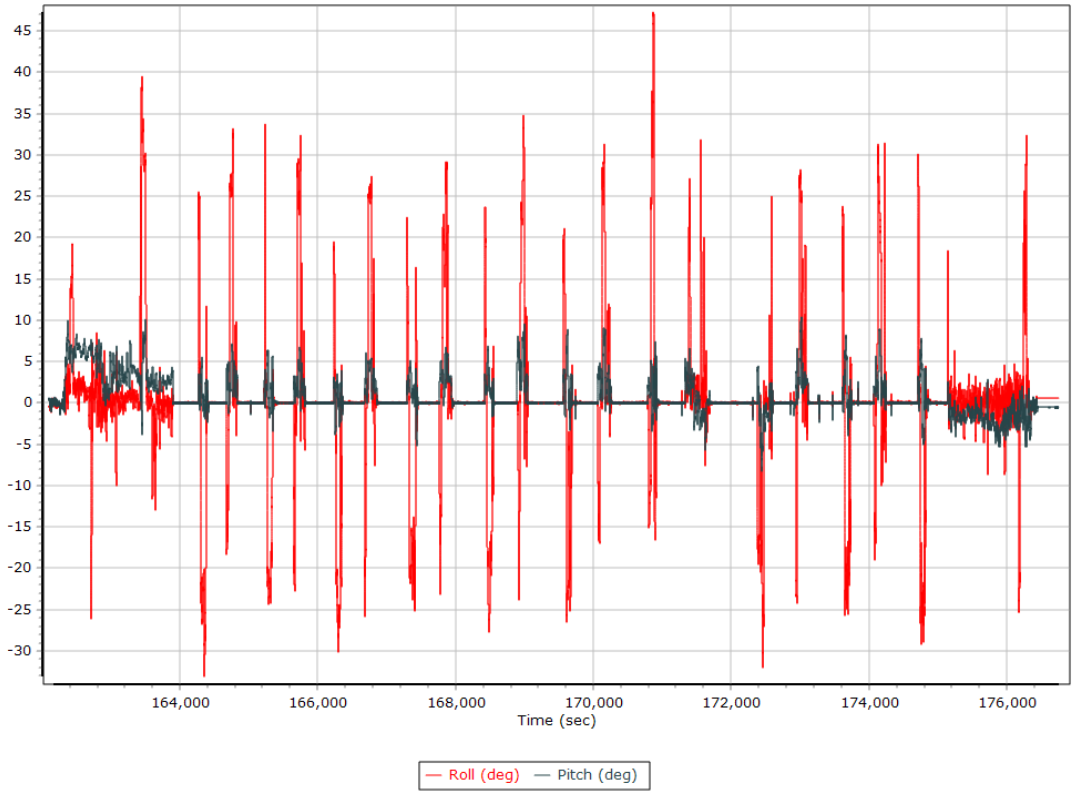
Top View



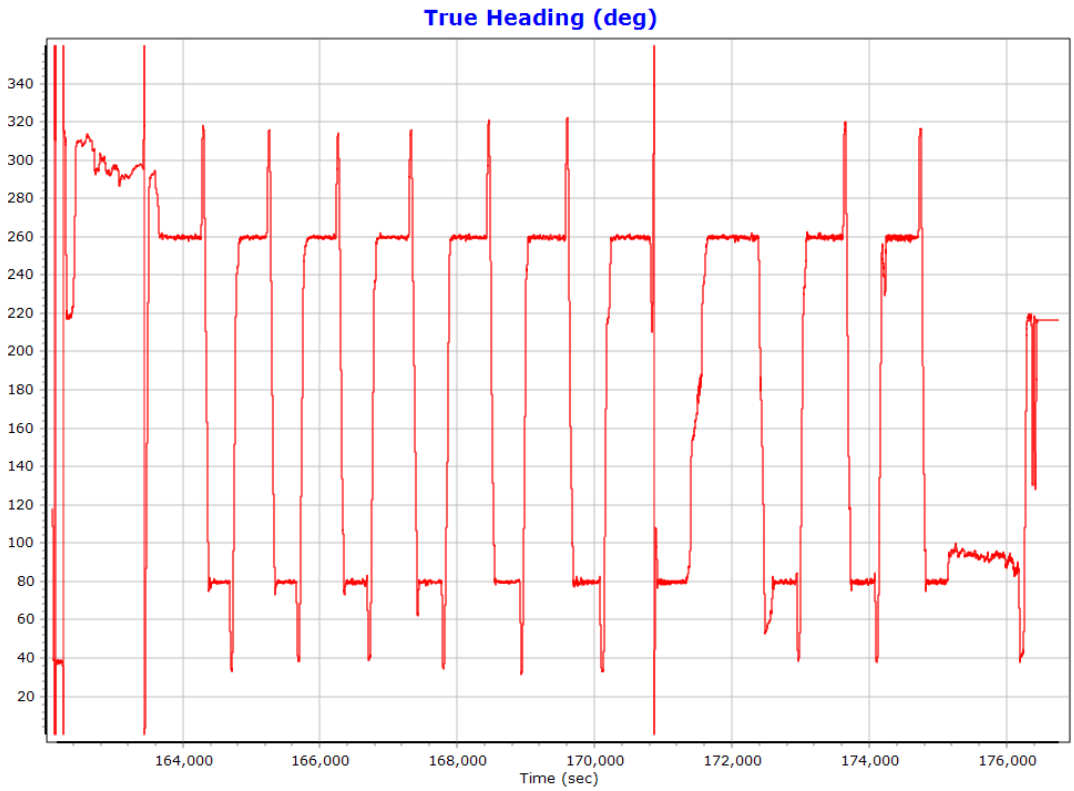
Altitude



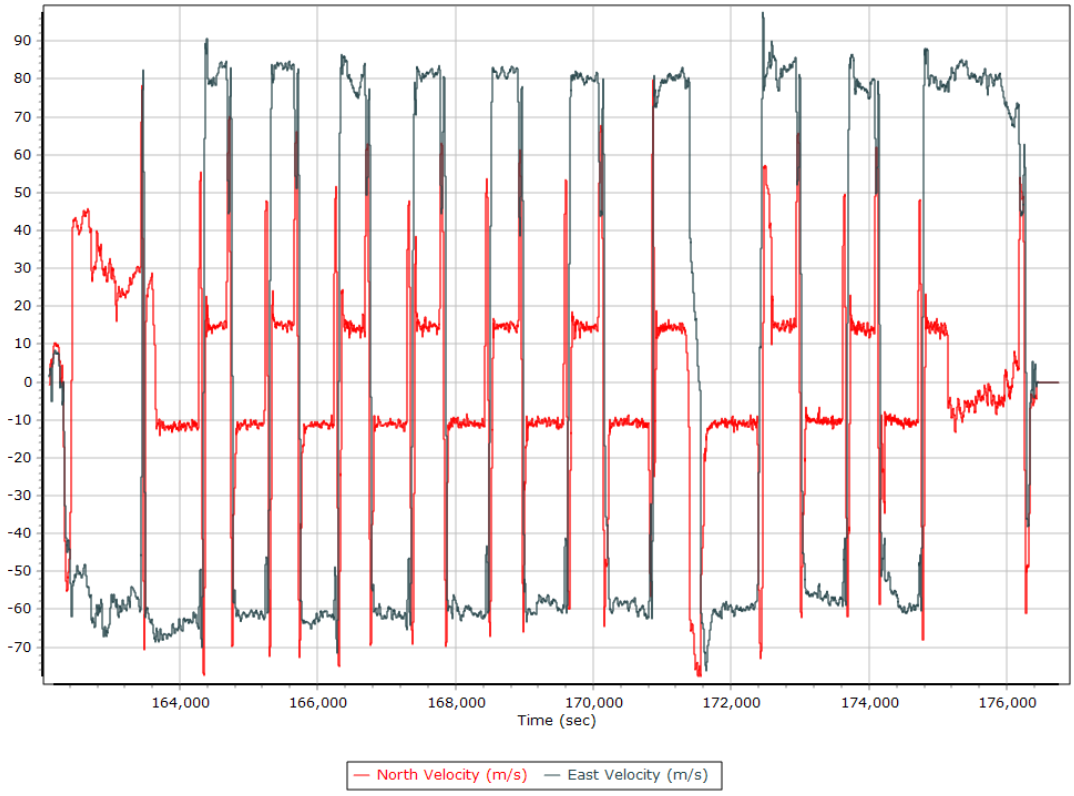
Roll/Pitch



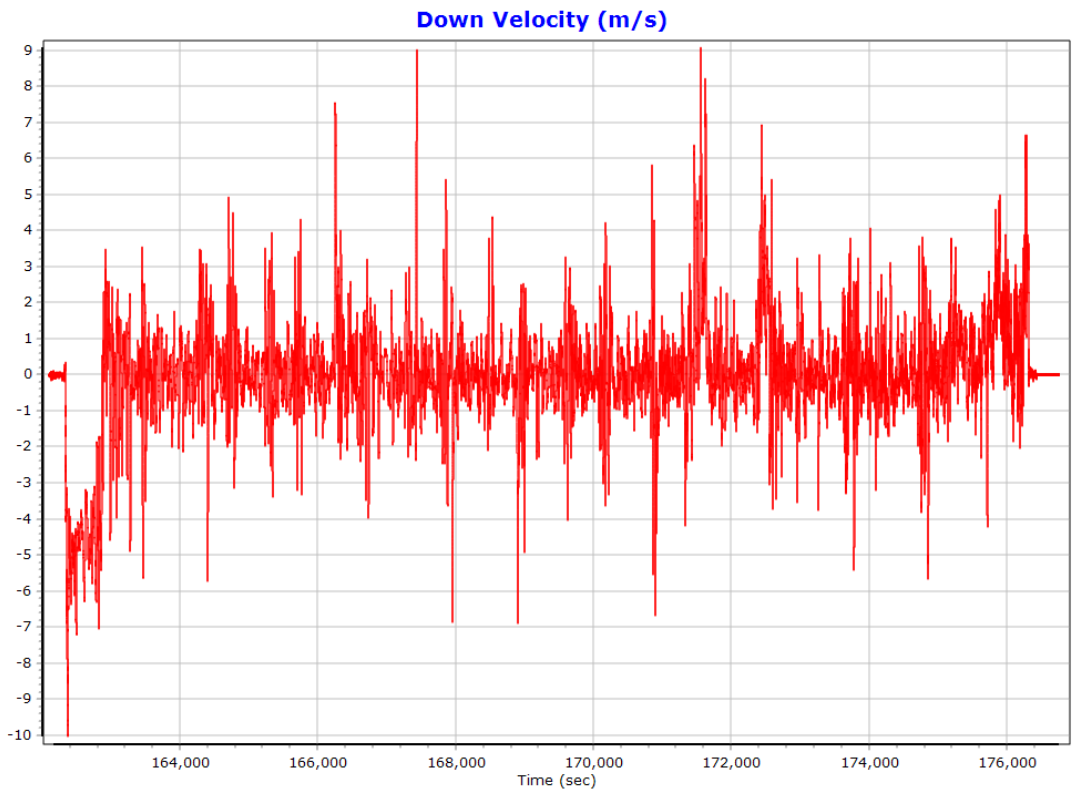
Heading



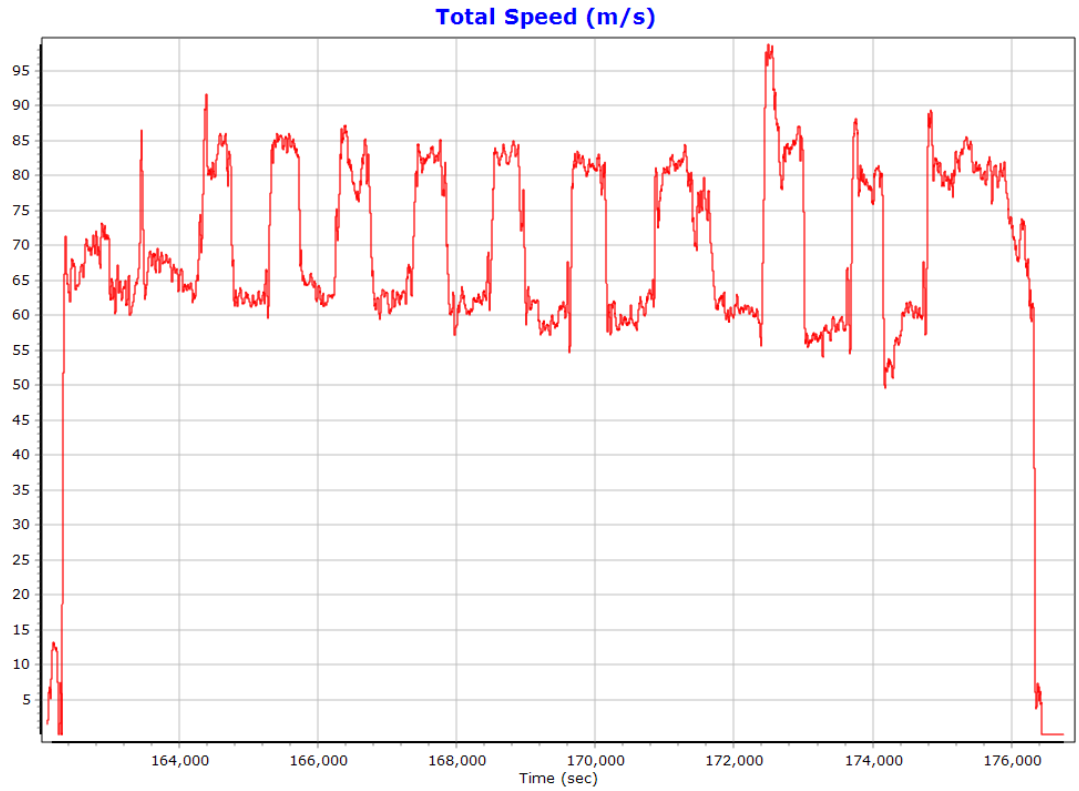
North/East Velocity



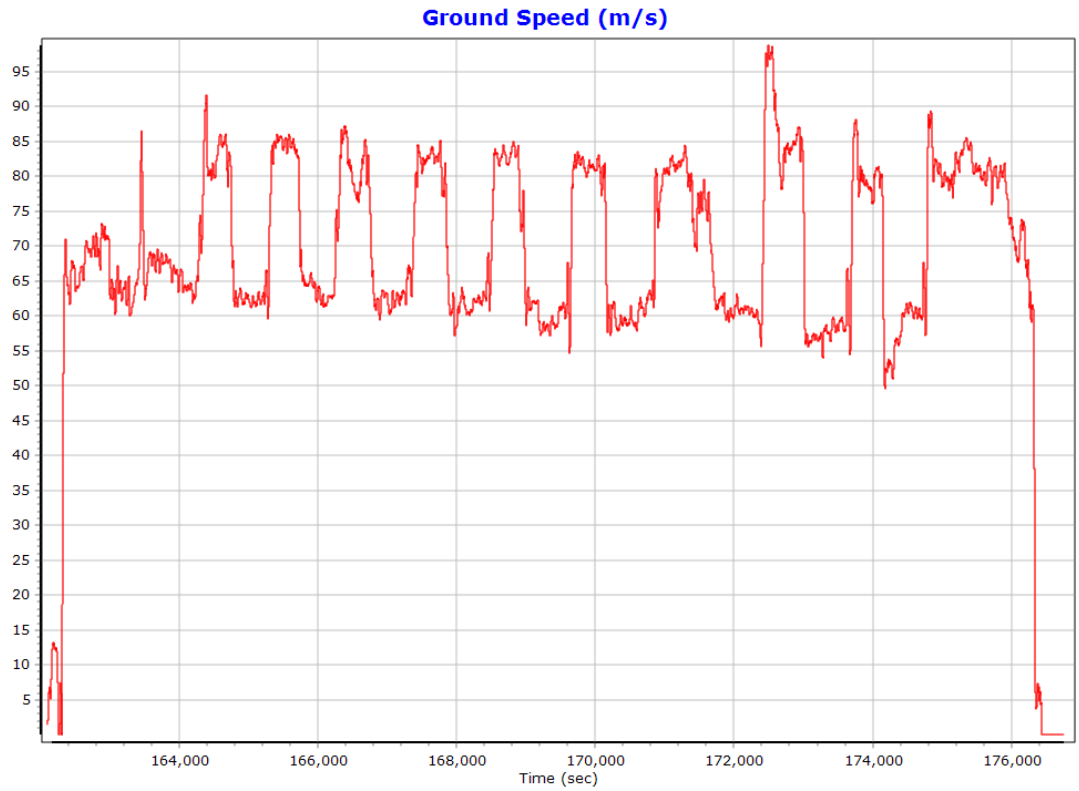
Down Velocity



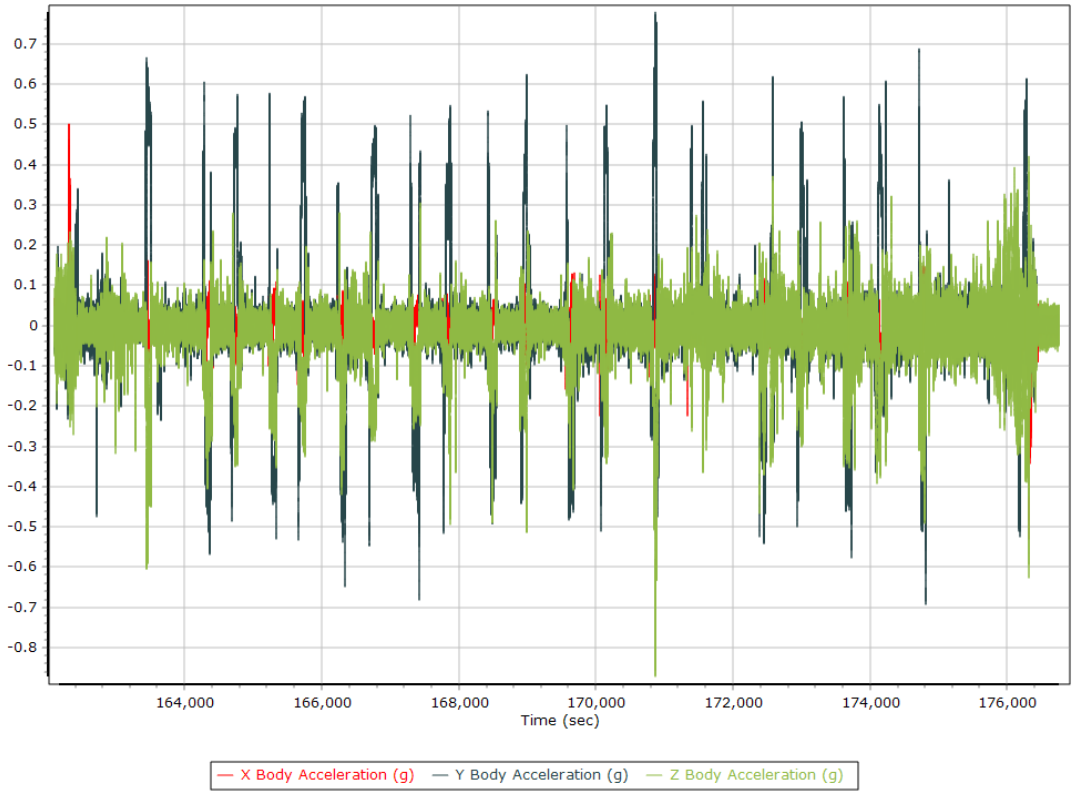
Total Speed



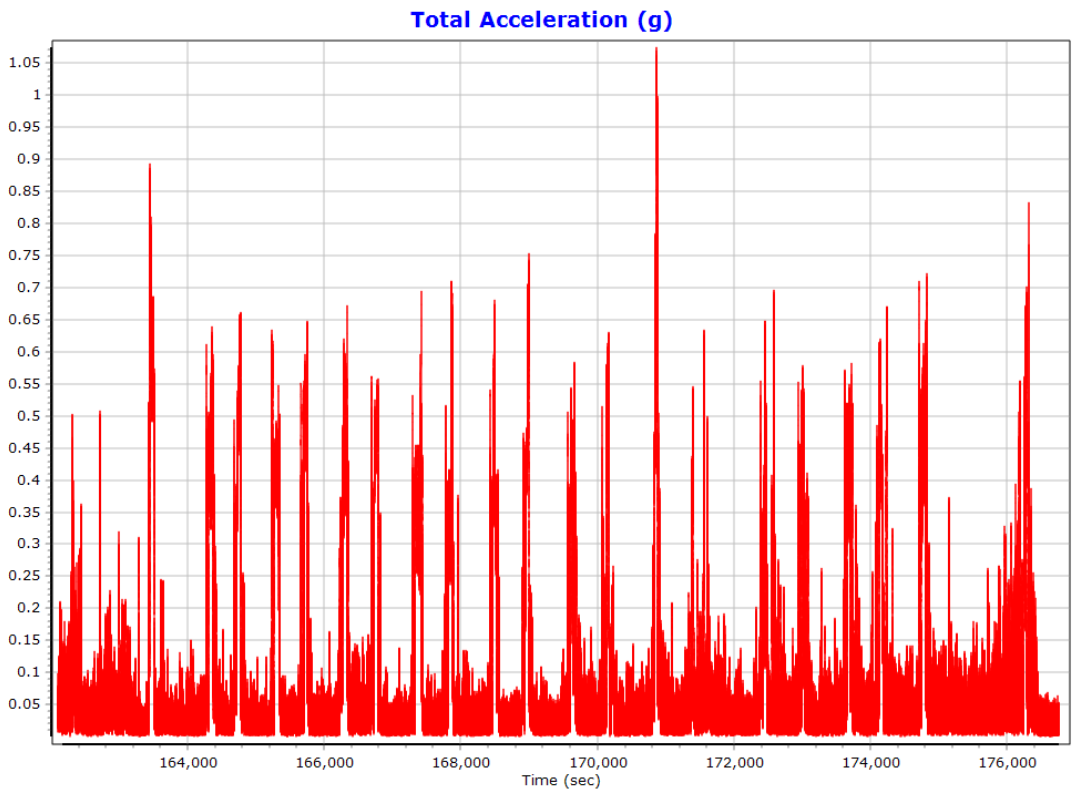
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

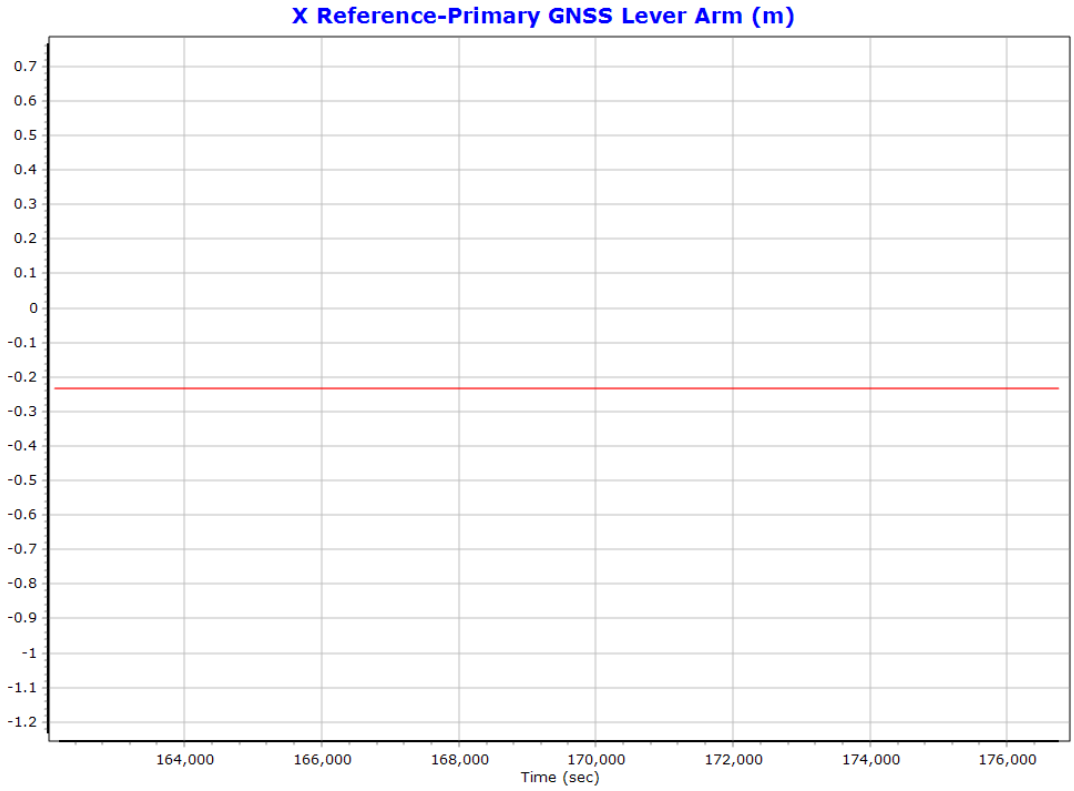
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Trimble RTX Nav		
Stabilized mount	True		
Processing start time	161782.000 (11/18/2019 20:56:22)		
Processing end time	176756.000 (11/19/2019 01:05:56)		
Initial attitude source	Real-Time VNAV/RNAV Attitude		
IMU Sensor Context	Processing with Onboard IMU		
Gimbal to IMU lever arm [m]	0.000	0.000	0.000
Gimbal to IMU mounting angles [deg]	0.000	0.000	0.000
Gimbal to Primary GNSS lever arm [m]	-0.233	-0.013	-0.922
Gimbal to Primary GNSS lever arm std dev [m]	0.030	0.030	0.030
Aircraft to Reference mounting angles [deg]	0.000	0.000	0.000

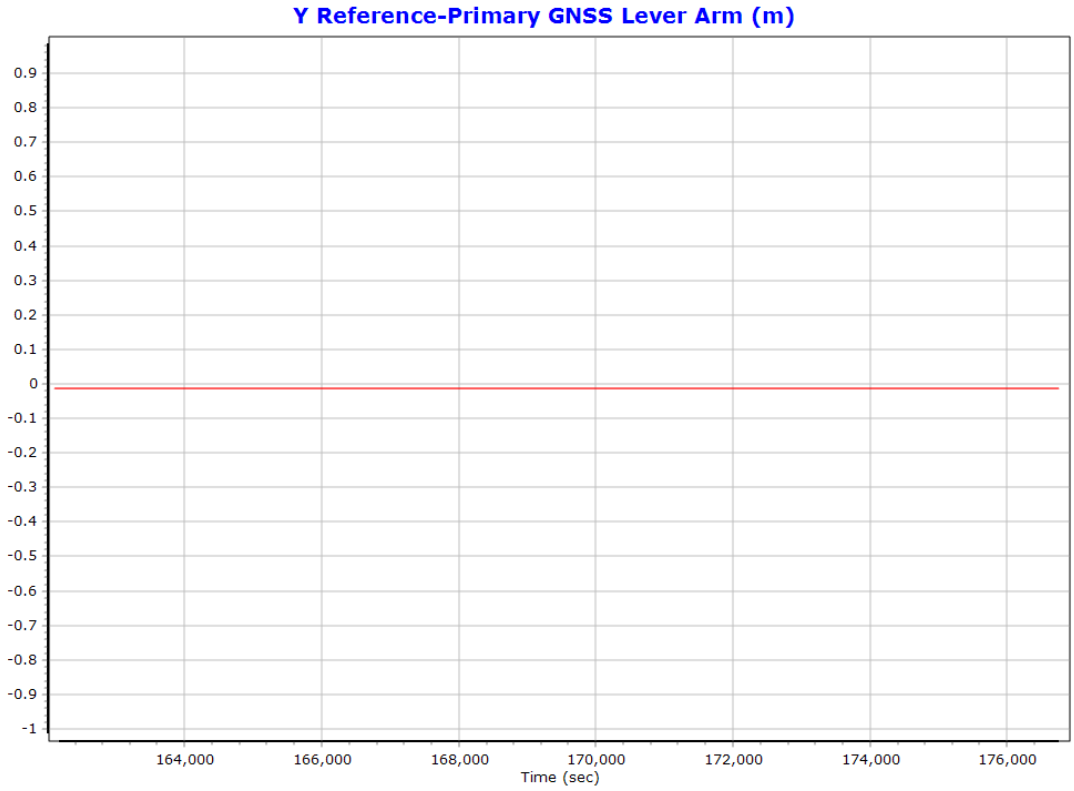
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm

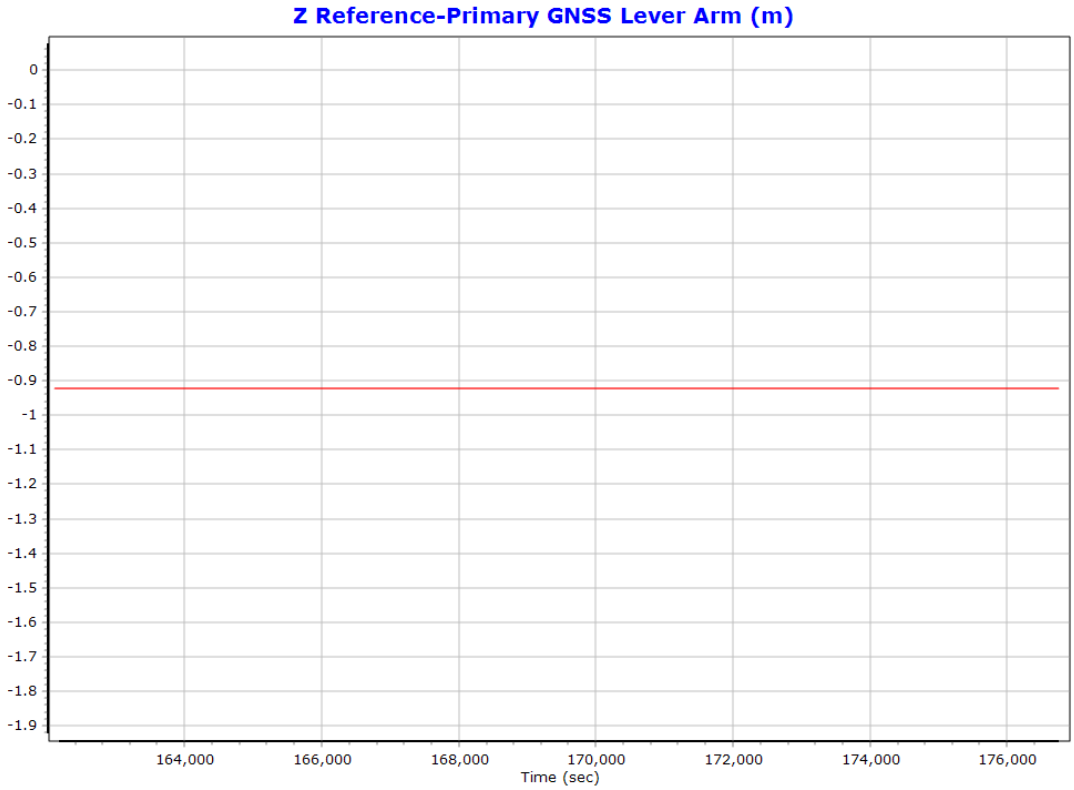
X Reference-Primary GNSS Lever Arm (m)



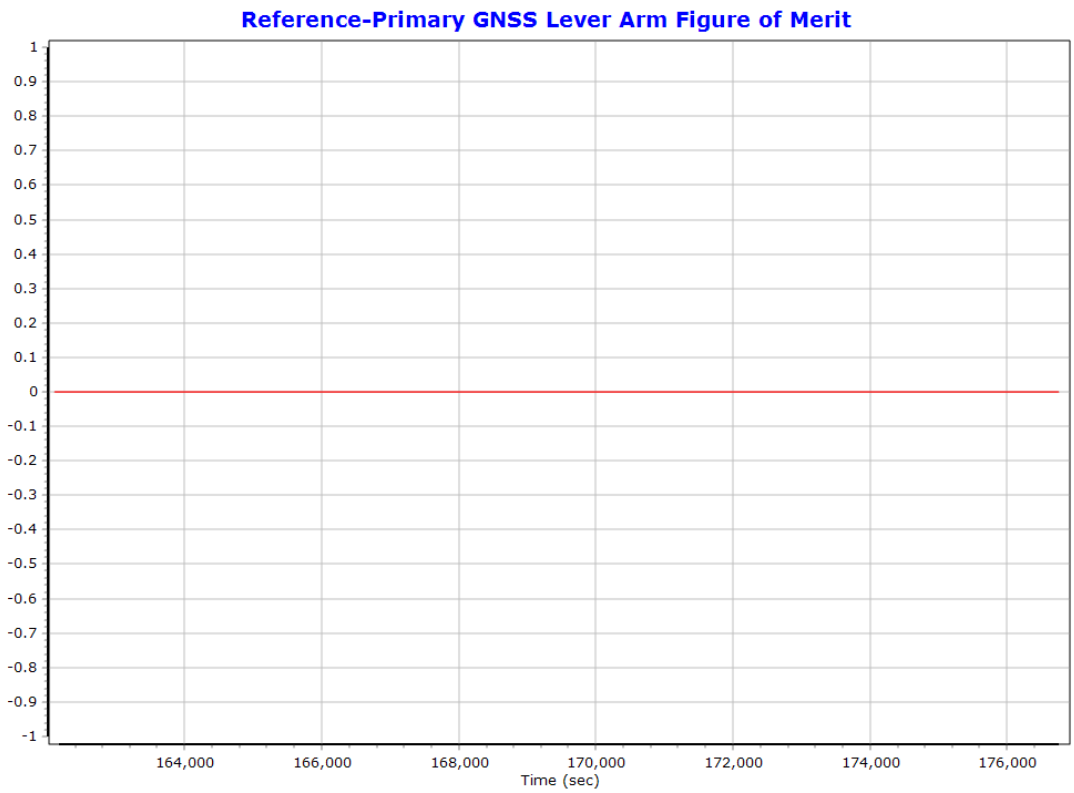
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



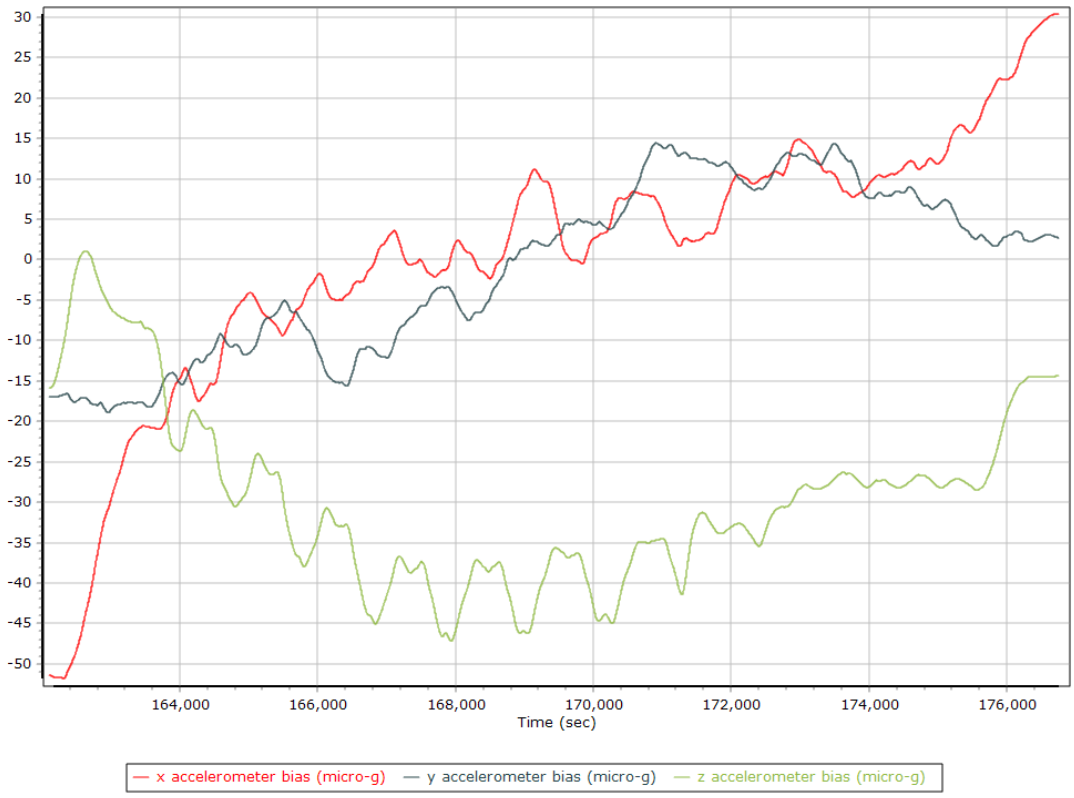
Reference-Primary GNSS Lever Arm Figure of Merit



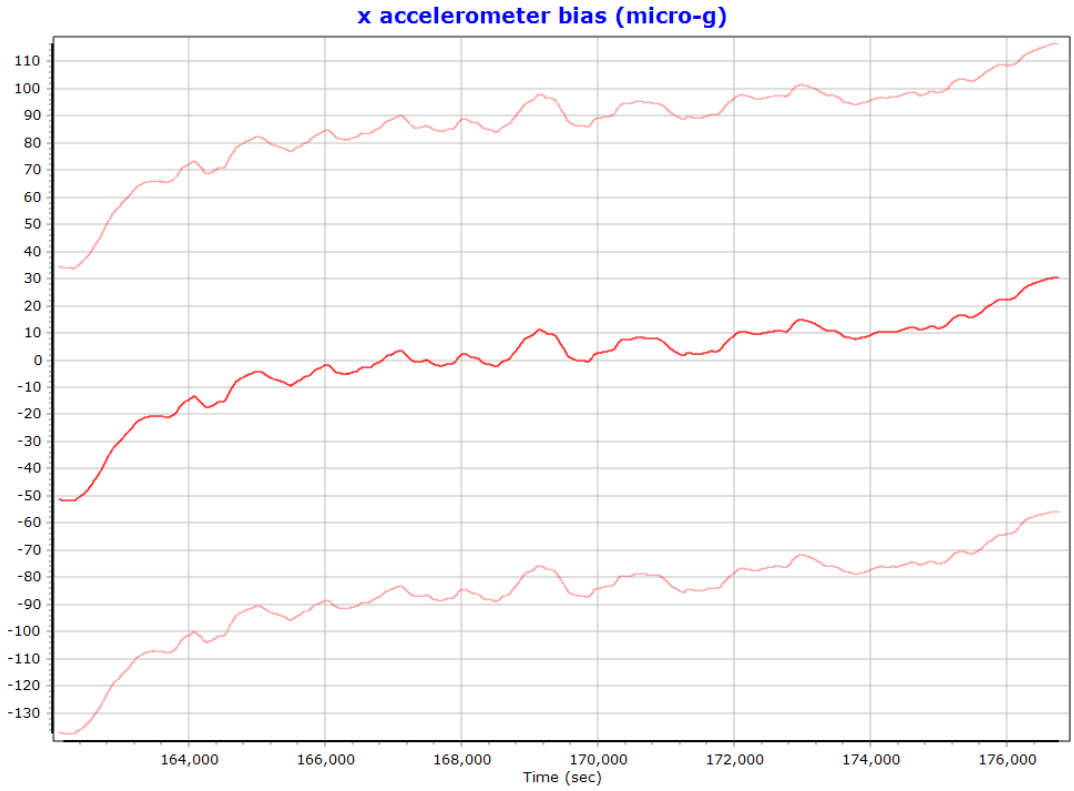
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

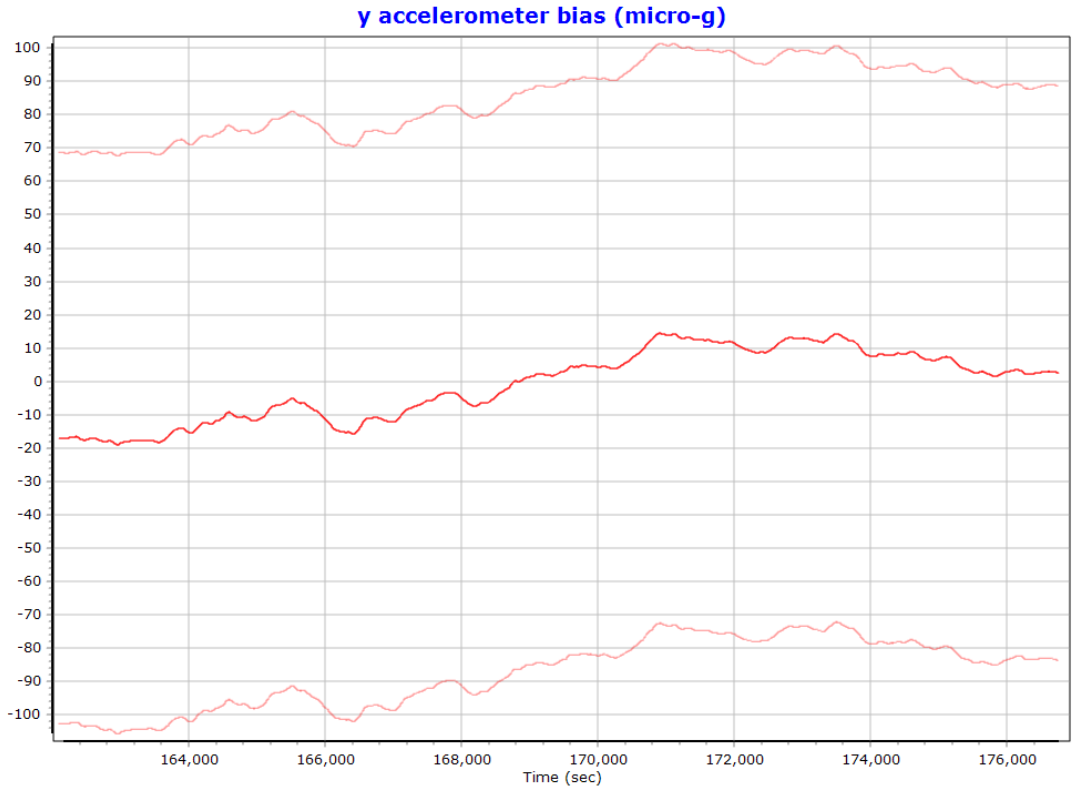
Accelerometer Bias (micro-g)



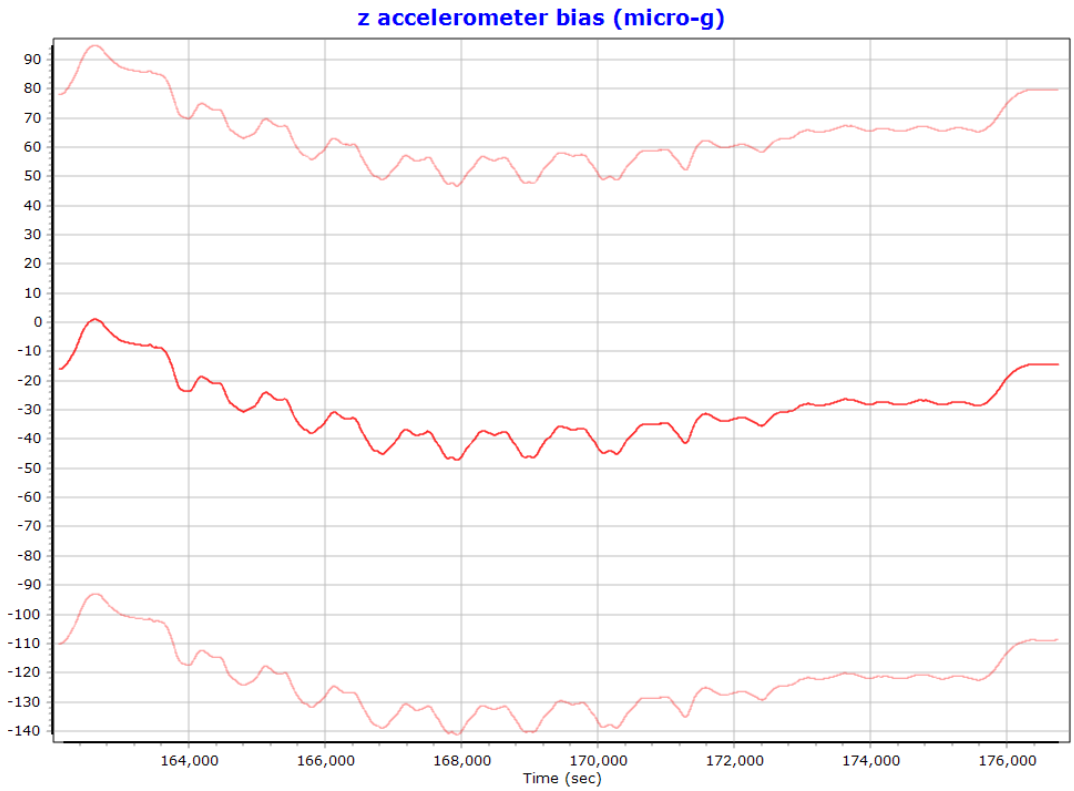
X Accelerometer Bias (micro-g)



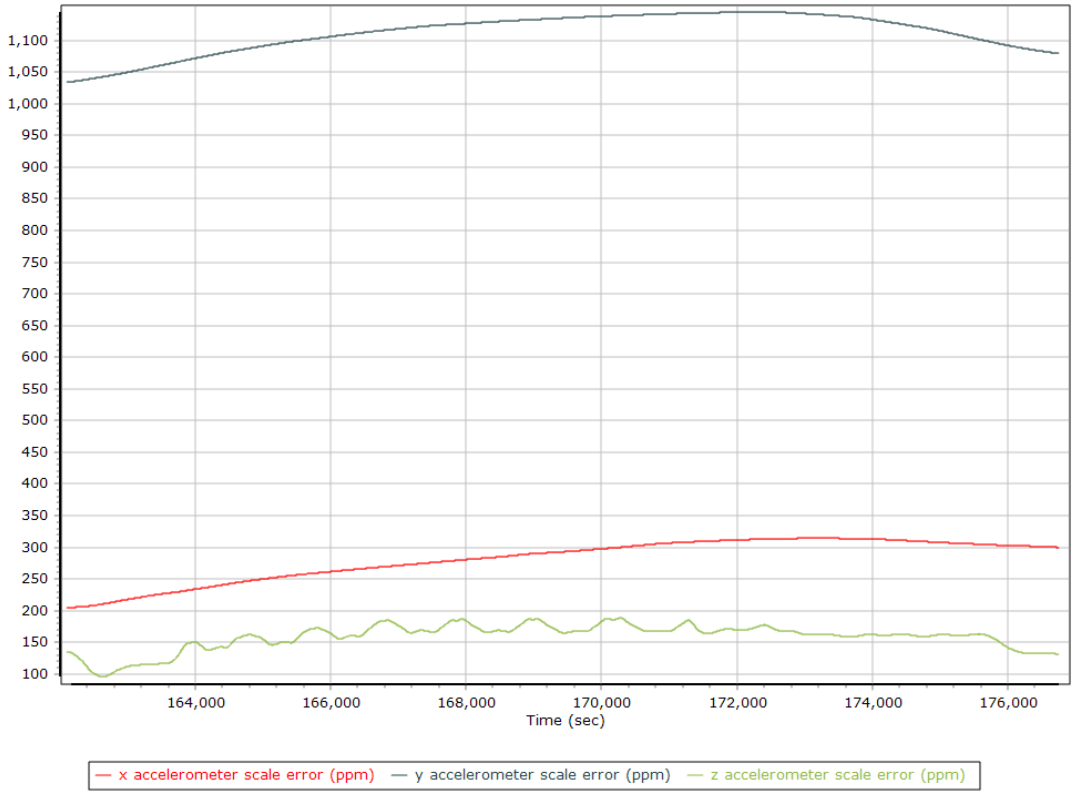
Y Accelerometer Bias (micro-g)



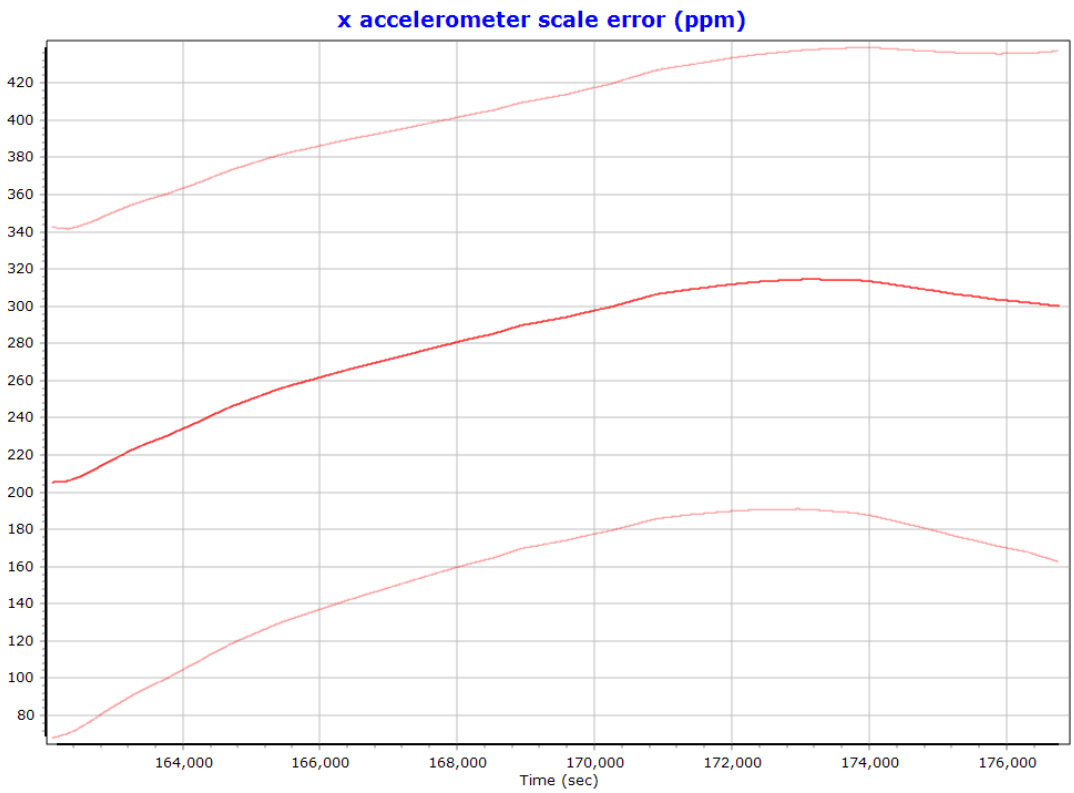
Z Accelerometer Bias (micro-g)



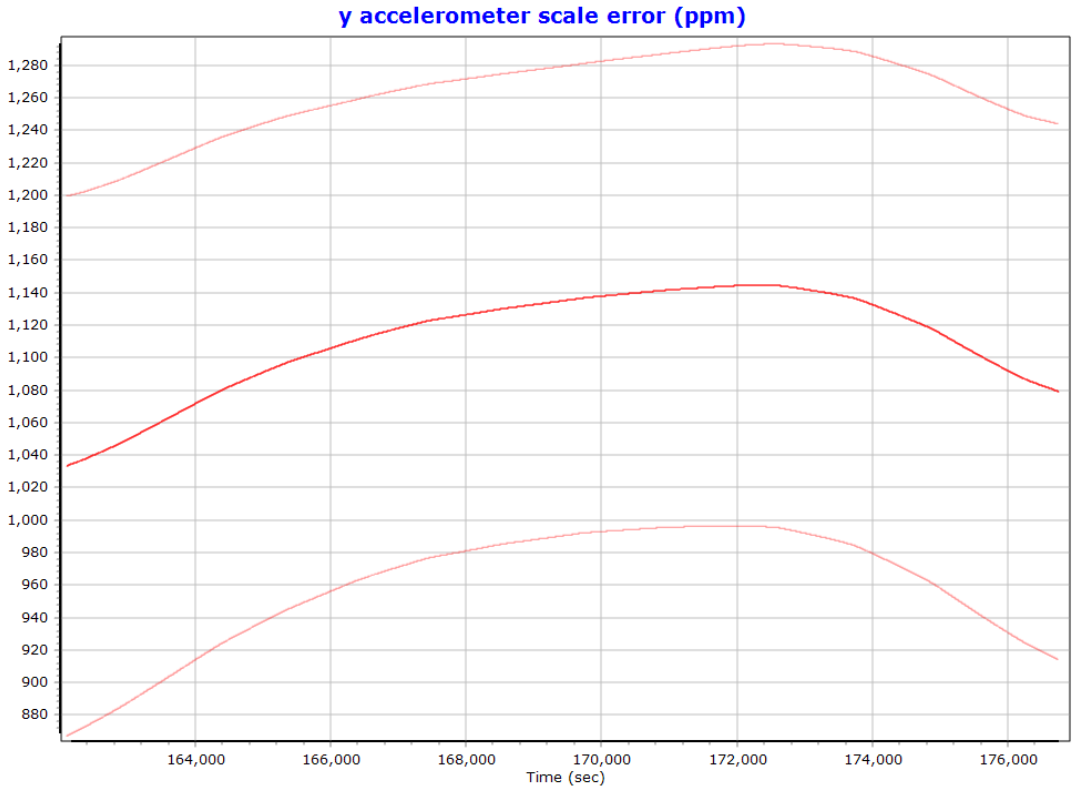
Accelerometer Scale Error (ppm)



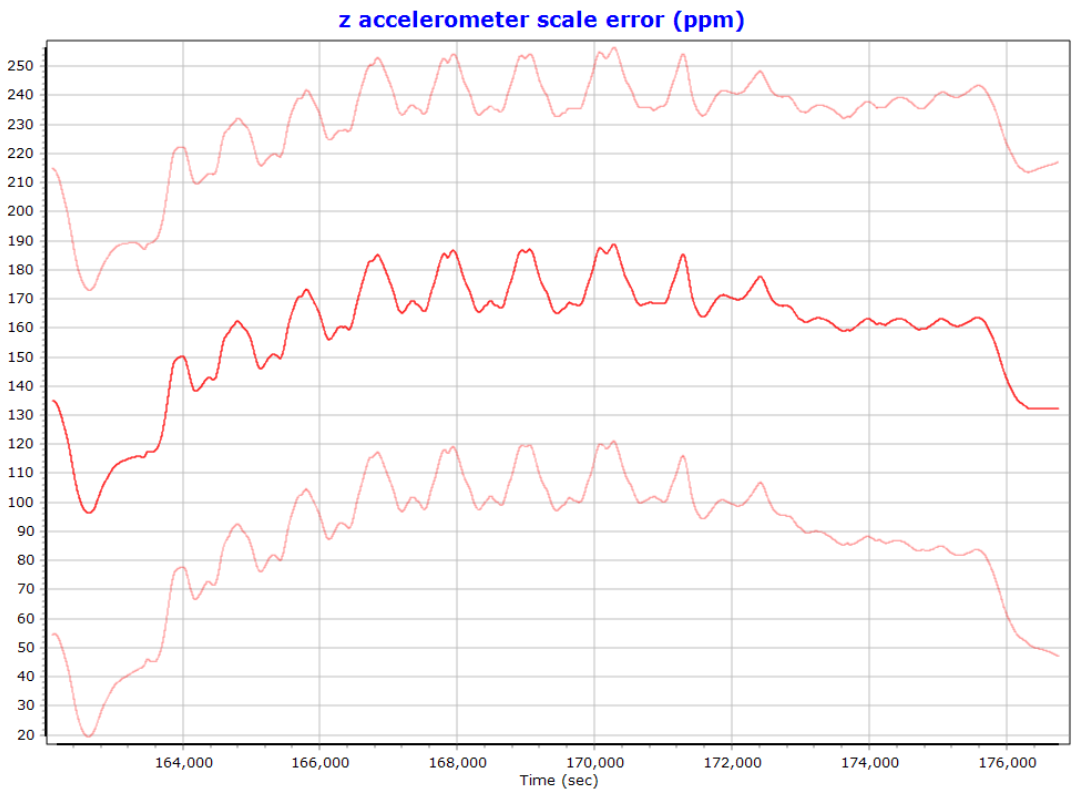
X Accelerometer Scale Error (ppm)



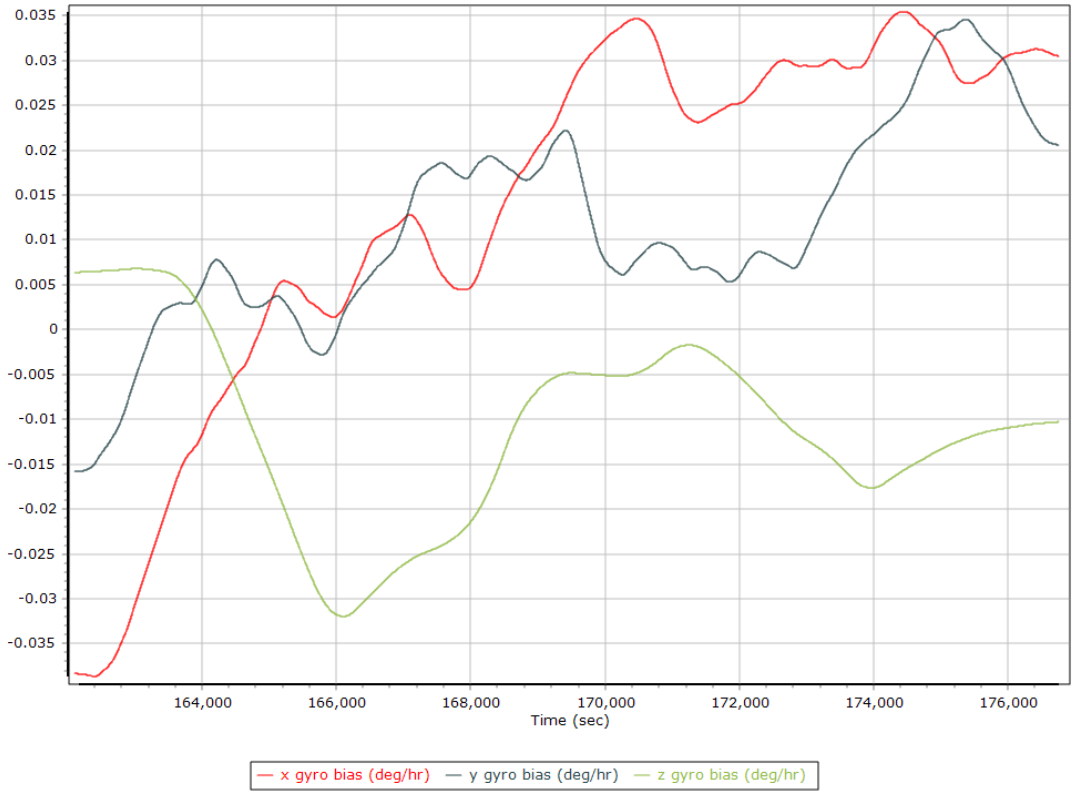
Y Accelerometer Scale Error (ppm)



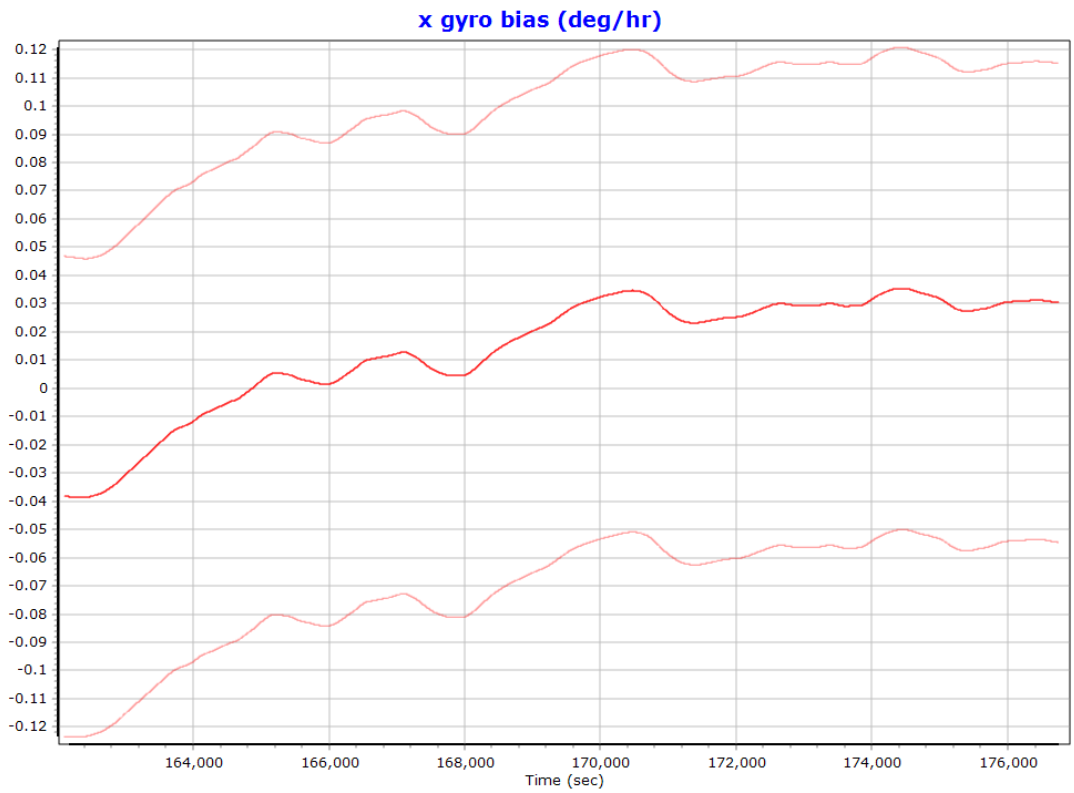
Z Accelerometer Scale Error (ppm)



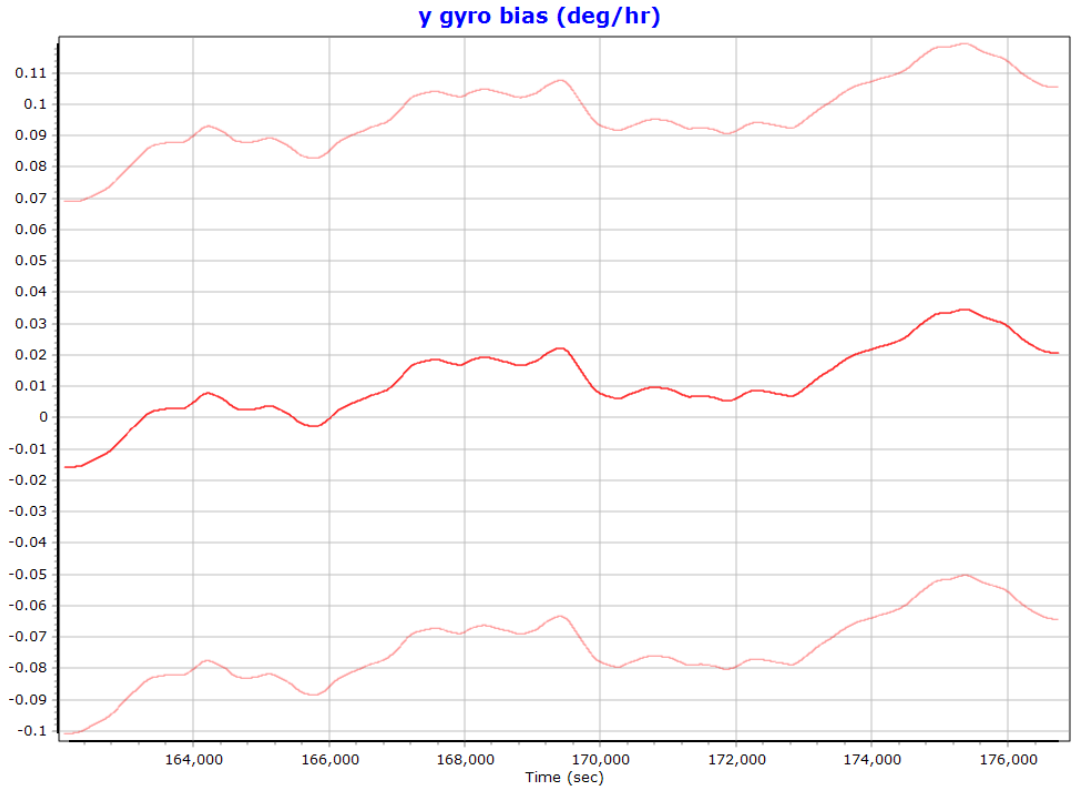
Gyro Bias (deg/h)



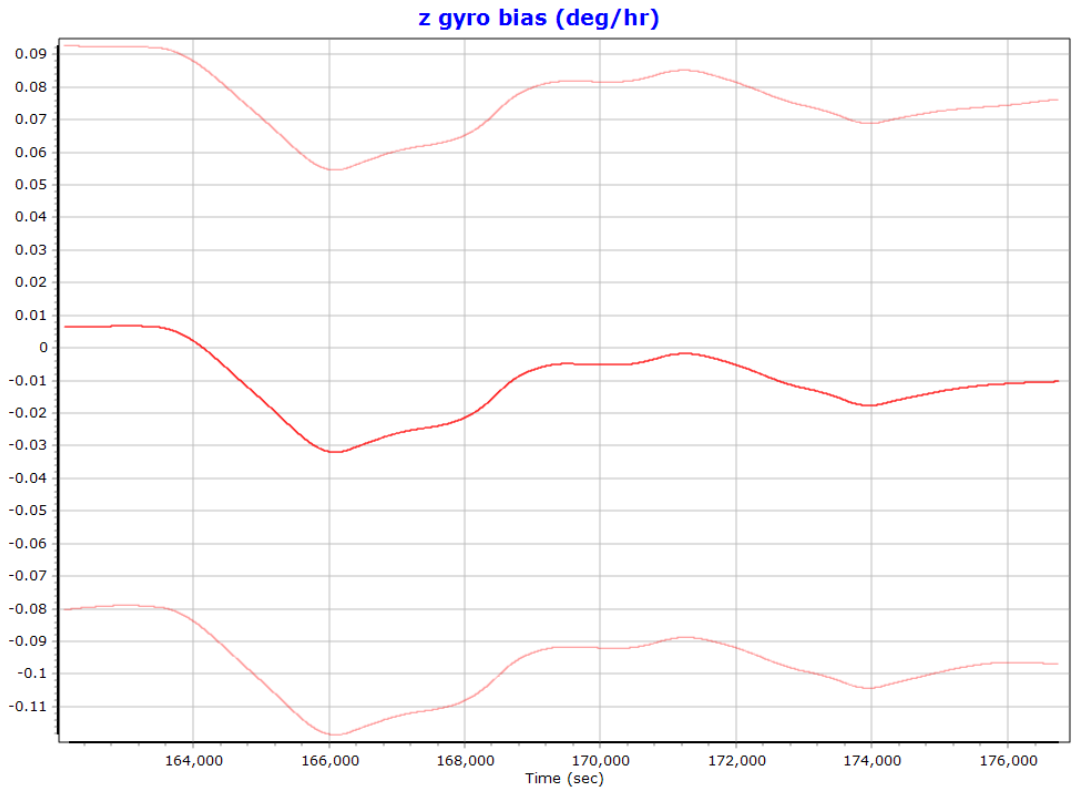
X Gyro Bias (deg/h)



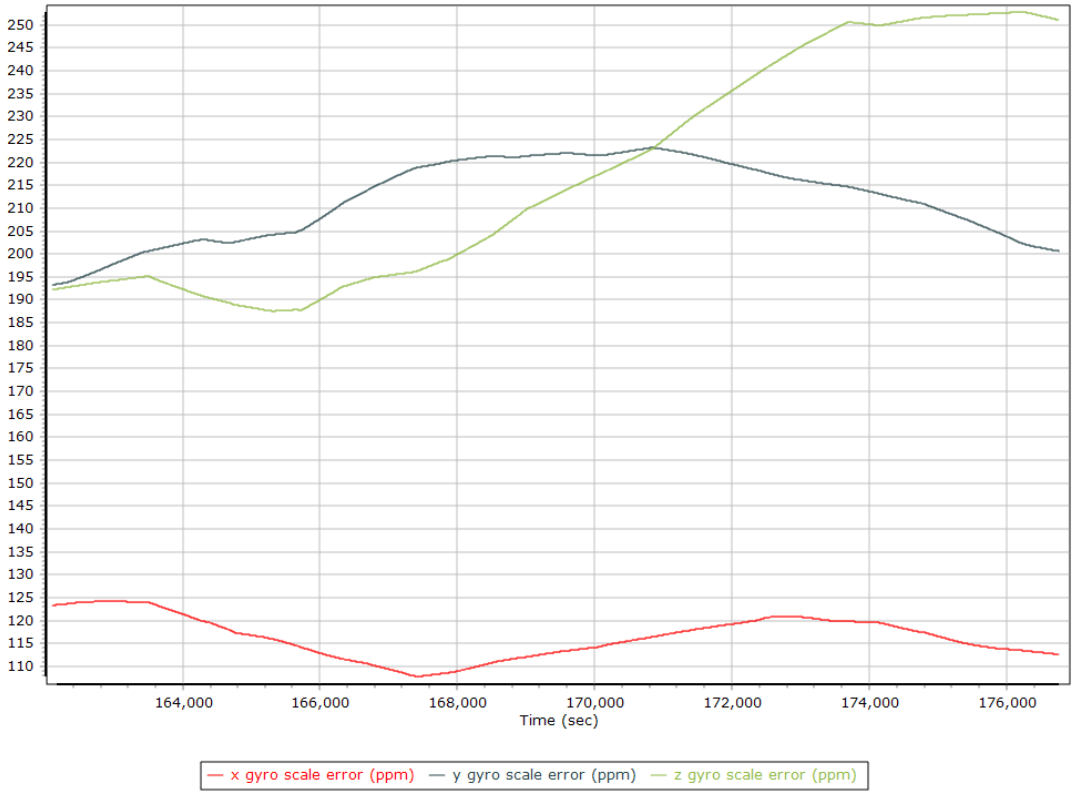
Y Gyro Bias (deg/h)



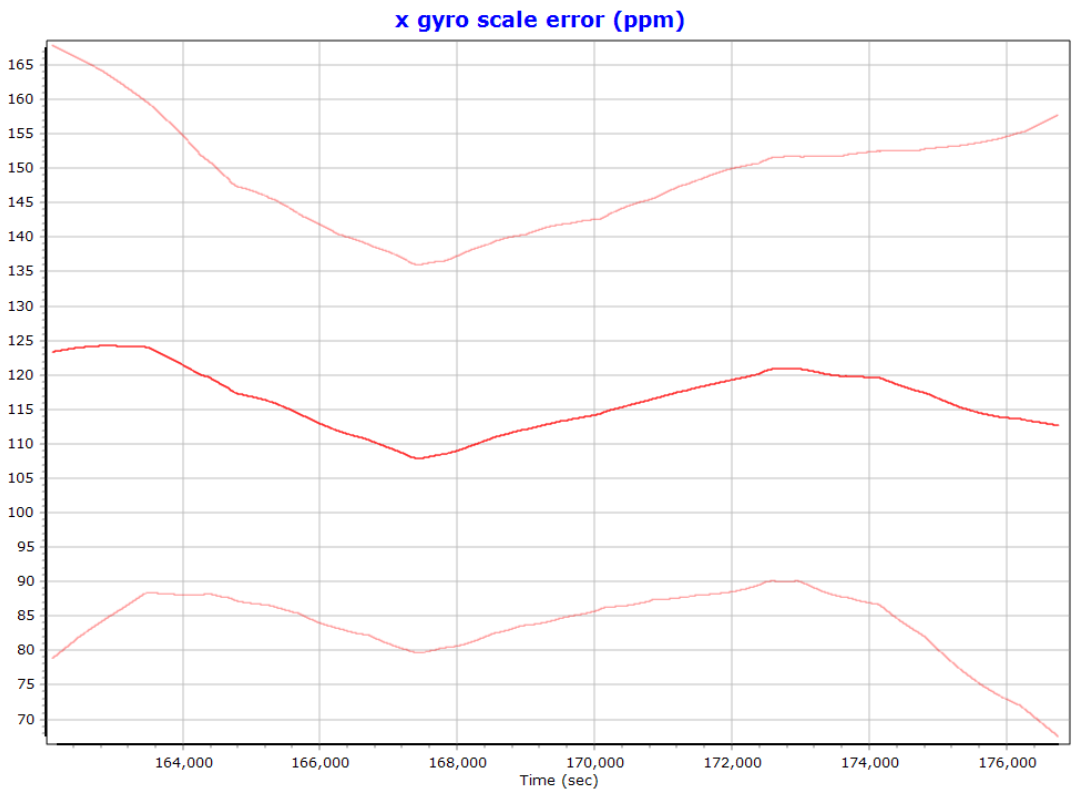
Z Gyro Bias (deg/h)



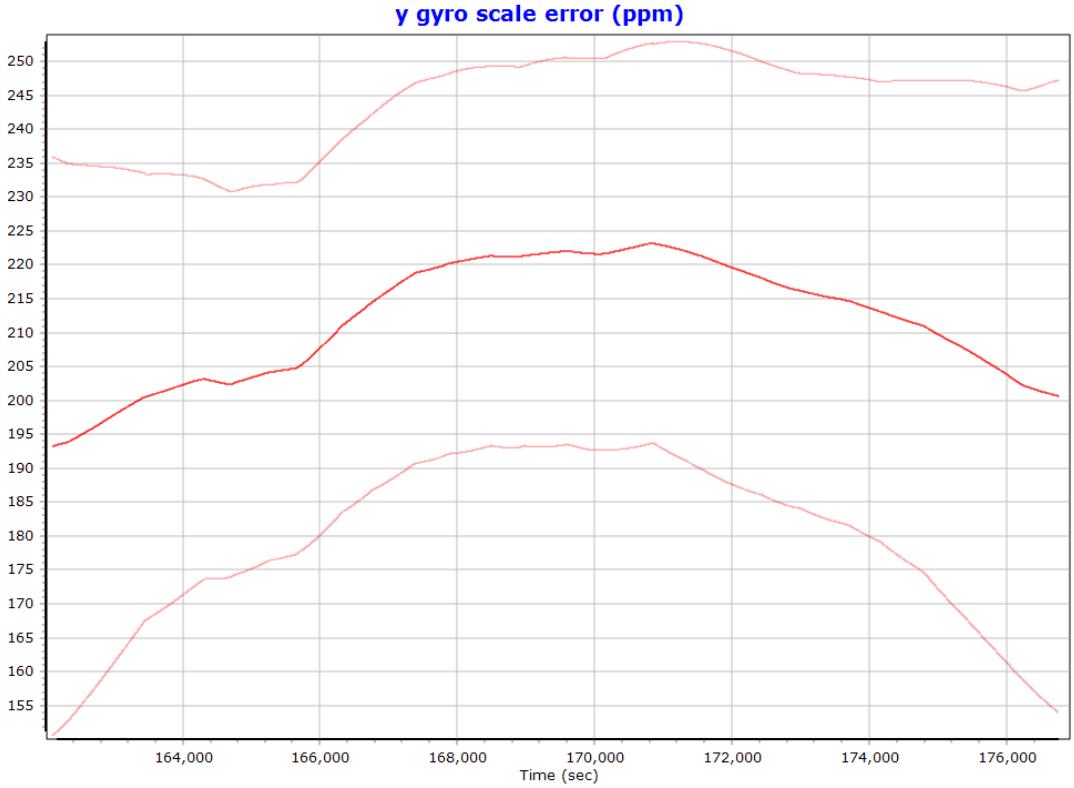
Gyro Scale Error (ppm)



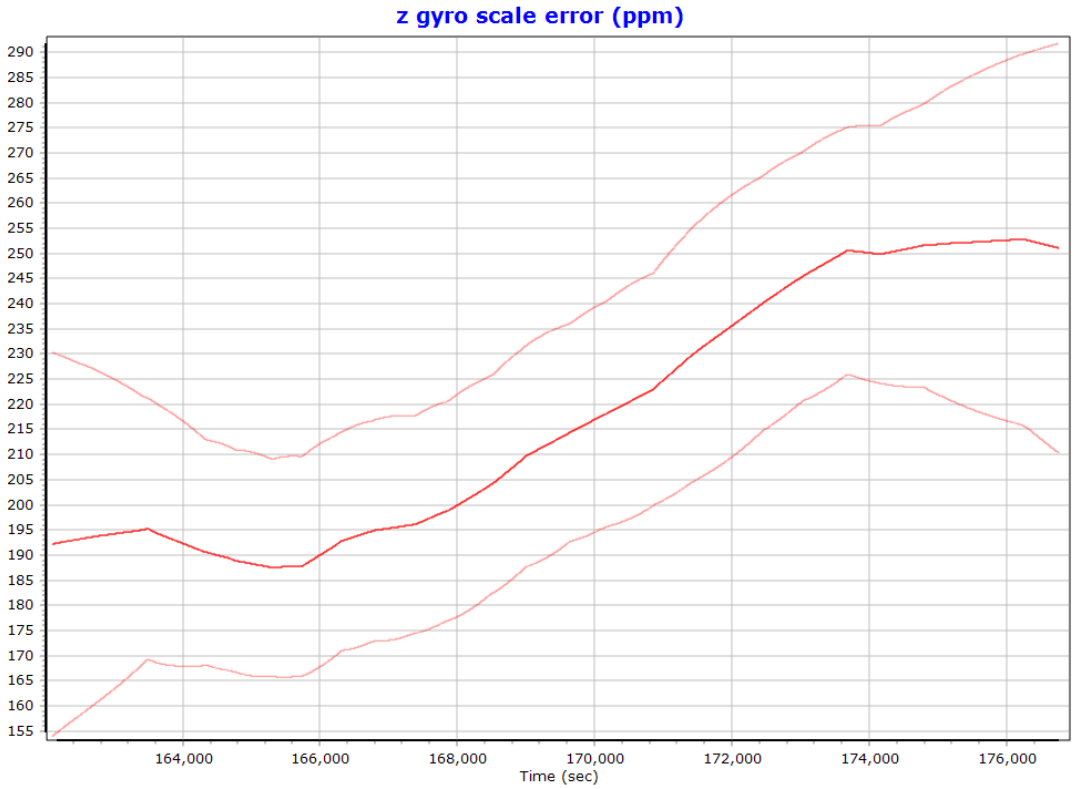
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

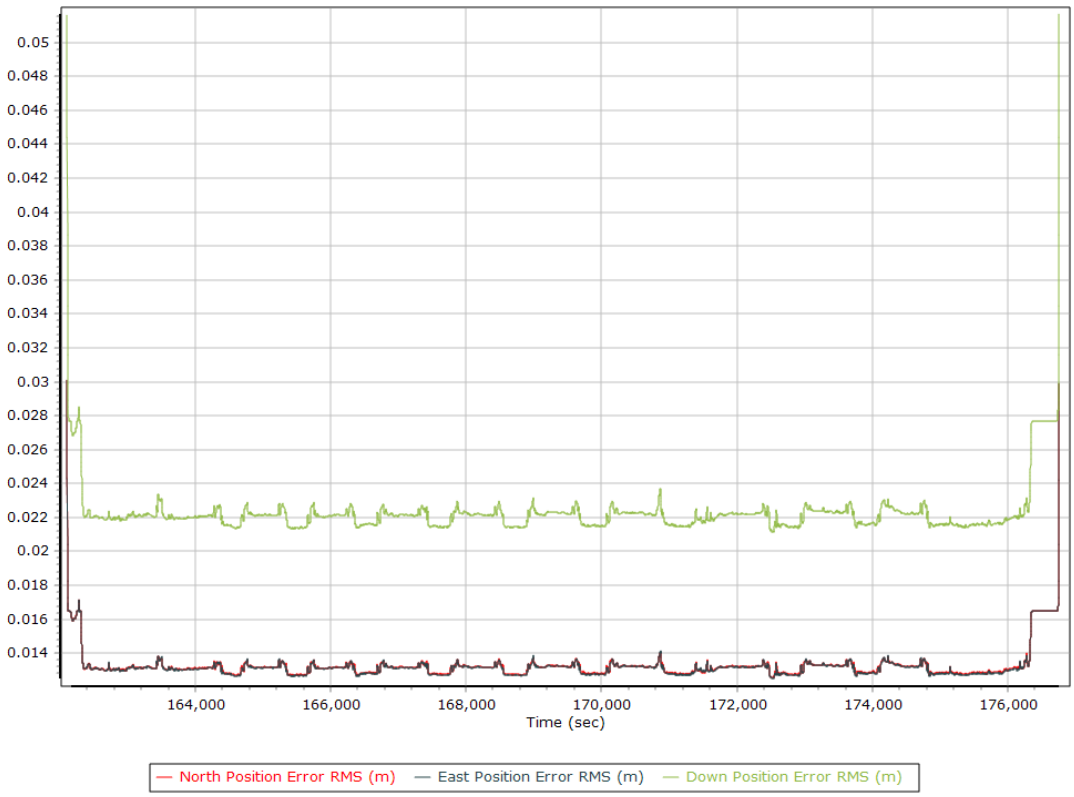


Z Gyro Scale Error (ppm)

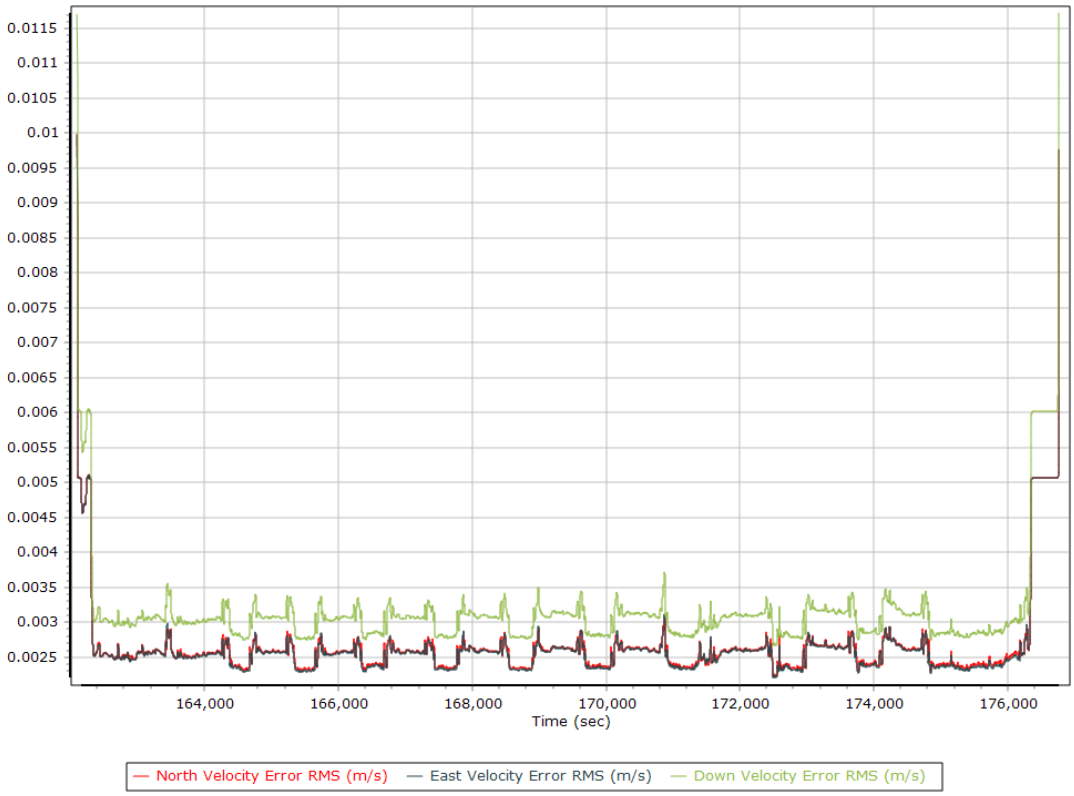


Smoothed Performance Metrics

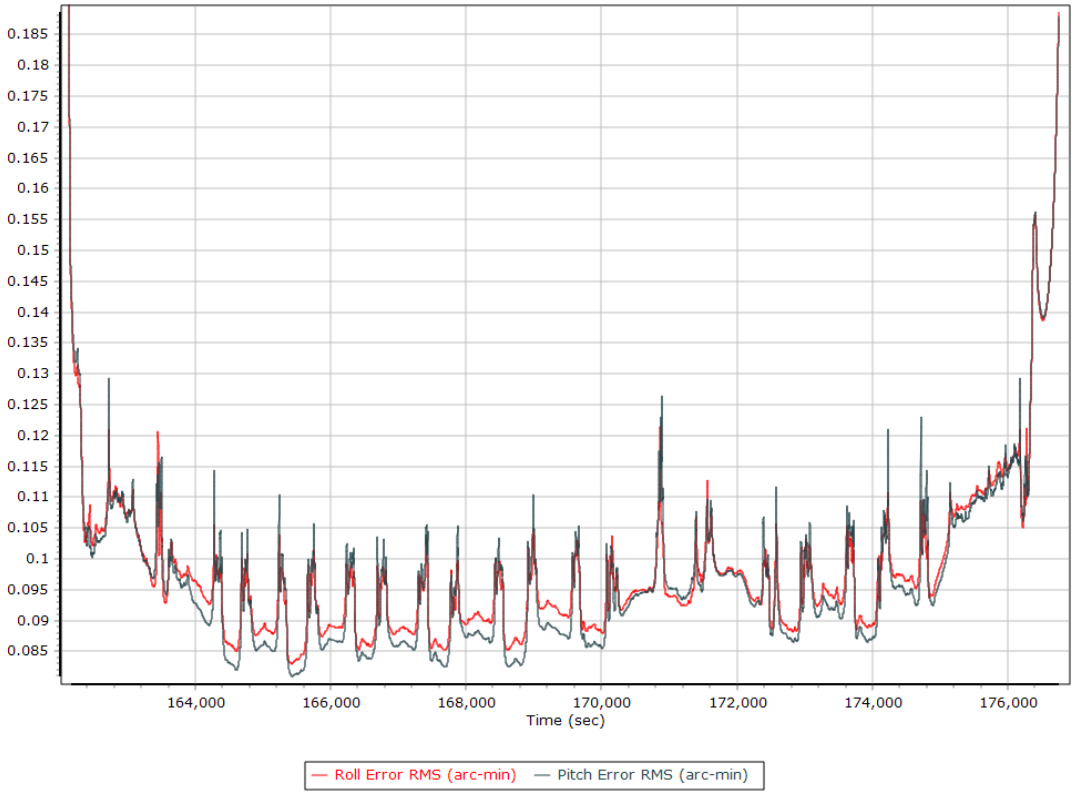
Position Error RMS (m)



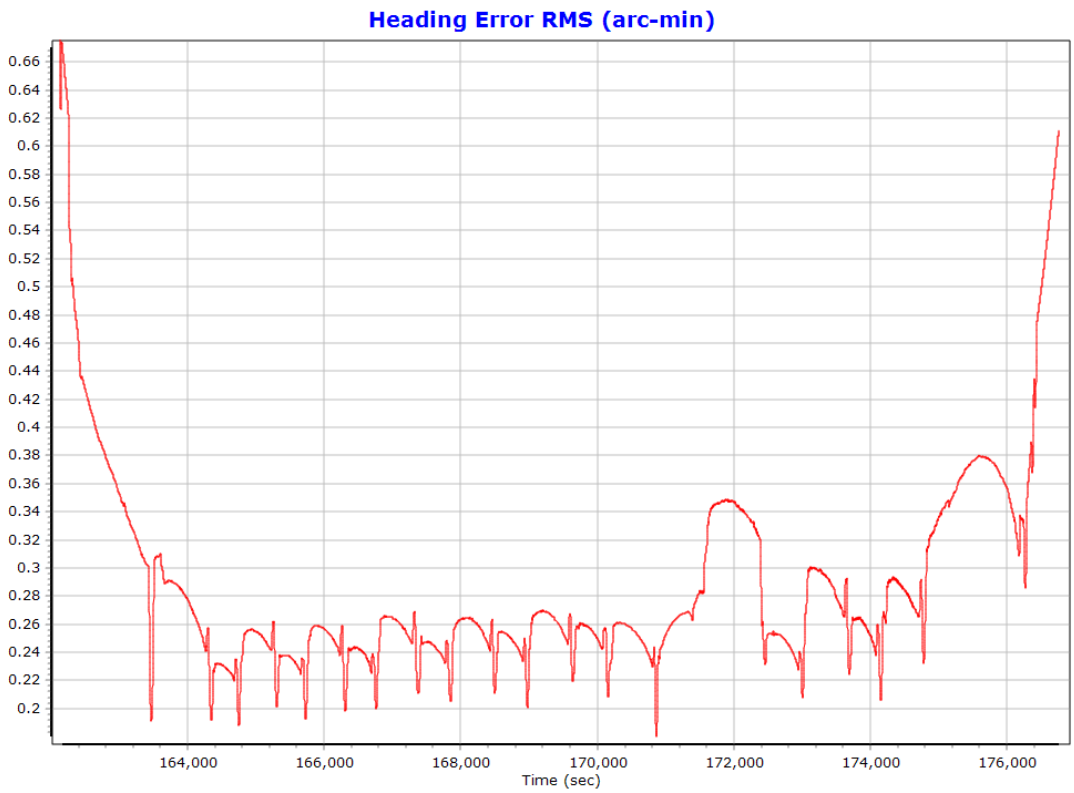
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)



Export Summary

Export file	export_19-058_111819.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	163386.040 (11/18/2019 21:23:06)		
Export end time	175201.765 (11/19/2019 00:40:01)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 12 (114W to 108W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2010		

EO Summary

EO file			
EO format			
Lever arm [m]	-0.049	-0.010	-0.338
Boresight angles [arcmin]	505.761	-265.537	257.848
Output rate	All Records		
Rotation sequence	x omega	y phi	z kappa
Local shift [m]	0.000	0.000	0.000
Output units (coordinate / angle / lat & lon)	Meter	Degree	Deg Decimal
Height option	Ellipsoid Height		
WGS84 height flag	False		
Scale height option	False		
Kappa cardinal rotation [deg]	0		
Solution in use	Post-processed		
EO start time	162109.003 (11/18/2019 21:01:49)		
EO end time	176756.001 (11/19/2019 01:05:56)		
Grid	Universal Transverse Mercator		
Zone	UTM North 12 (114W to 108W)		
Datum	WGS84		
Ellipsoid	WGS84		
Local Transformation	NONE		
Target Epoch	2019.879452		