General Information

Mission Information

Project name	19-058_110319b
Processing date	2019-11-26 23:08:22
Mission date	2019-11-03 17:01:37
Mission duration	06:23:17.000
Processing mode	IN-Fusion Trimble RTX Nav

Rover Hardware Information

Product	POS AV 510 VER6 HW2.4-11
Serial number	S/N6310
IMU type	46
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
ALS.353	POS Data
ALS.354	POS Data
ALS.355	POS Data
ALS.356	POS Data
ALS.357	POS Data
ALS.358	POS Data
ALS.359	POS Data
ALS.360	POS Data
ALS.361	POS Data
ALS.362	POS Data
ALS.363	POS Data
ALS.364	POS Data
ALS.365	POS Data
ALS.366	POS Data
ALS.367	POS Data
ALS.368	POS Data
ALS.369	POS Data
ALS.370	POS Data
ALS.371	POS Data
ALS.372	POS Data
ALS.373	POS Data
ALS.374	POS Data
ALS.375	POS Data
ALS.376	POS Data
ALS.377	POS Data
ALS.378	POS Data
ALS.379	POS Data
ALS.380	POS Data
ALS.381	POS Data
ALS.382	POS Data
ALS.383	POS Data
ALS.384	POS Data
ALS.385	POS Data
ALS.386	POS Data
ALS.387	POS Data
ALS.388	POS Data
ALS.389	POS Data
ALS.390	POS Data
ALS.391	POS Data
ALS.392	POS Data
ALS.393	POS Data
ALS.394	POS Data
ALS.395	POS Data
ALS.396	POS Data
ALS.397	POS Data

Input Files

File Name	File type
Ephm3070.19g	GLONASS Broadcast Ephemeris
Ephm3070.19n	GPS Broadcast Ephemeris
igl20776.sp3	GLONASS Precise Ephemeris
igl20780.sp3	GLONASS Precise Ephemeris
igl20781.sp3	GLONASS Precise Ephemeris
igs20776.sp3	GPS Precise Ephemeris
igs20780.sp3	GPS Precise Ephemeris
igs20781.sp3	GPS Precise Ephemeris

Output Files

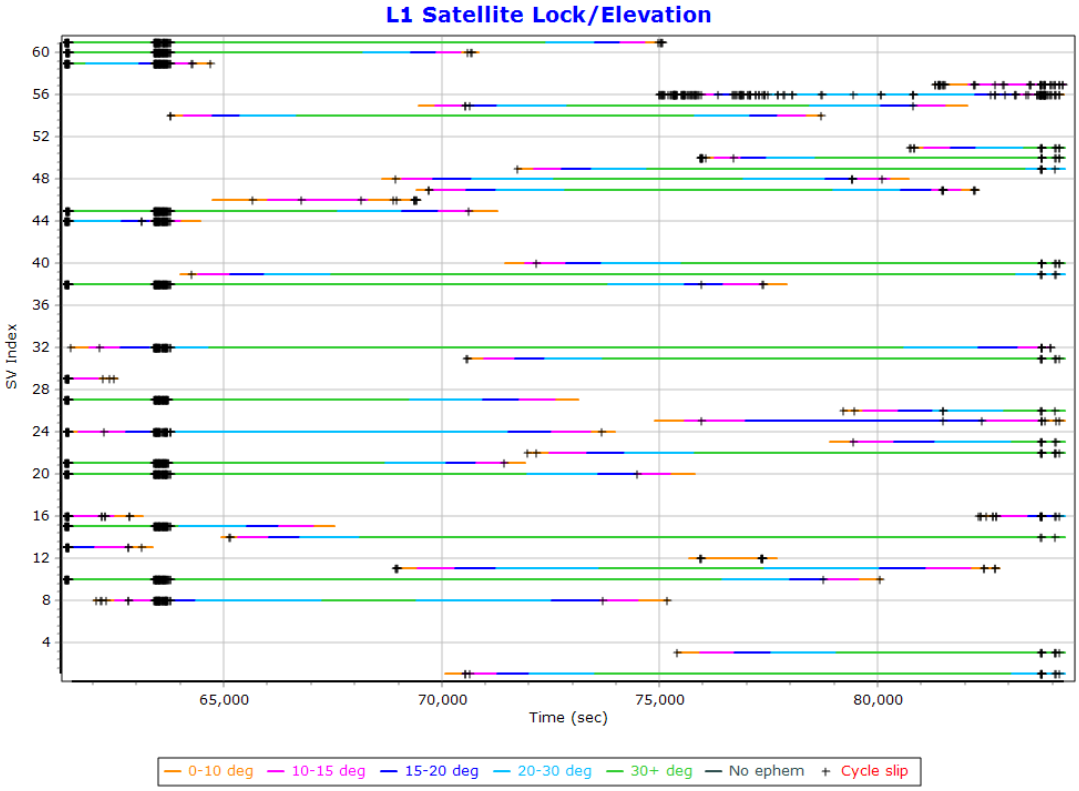
Filename	File type
sbet_19-058_110319b.out	SBET Trajectory File
export_19-058_110319b.out	Custom Smoothed BET Export Output

Rover Data Summary

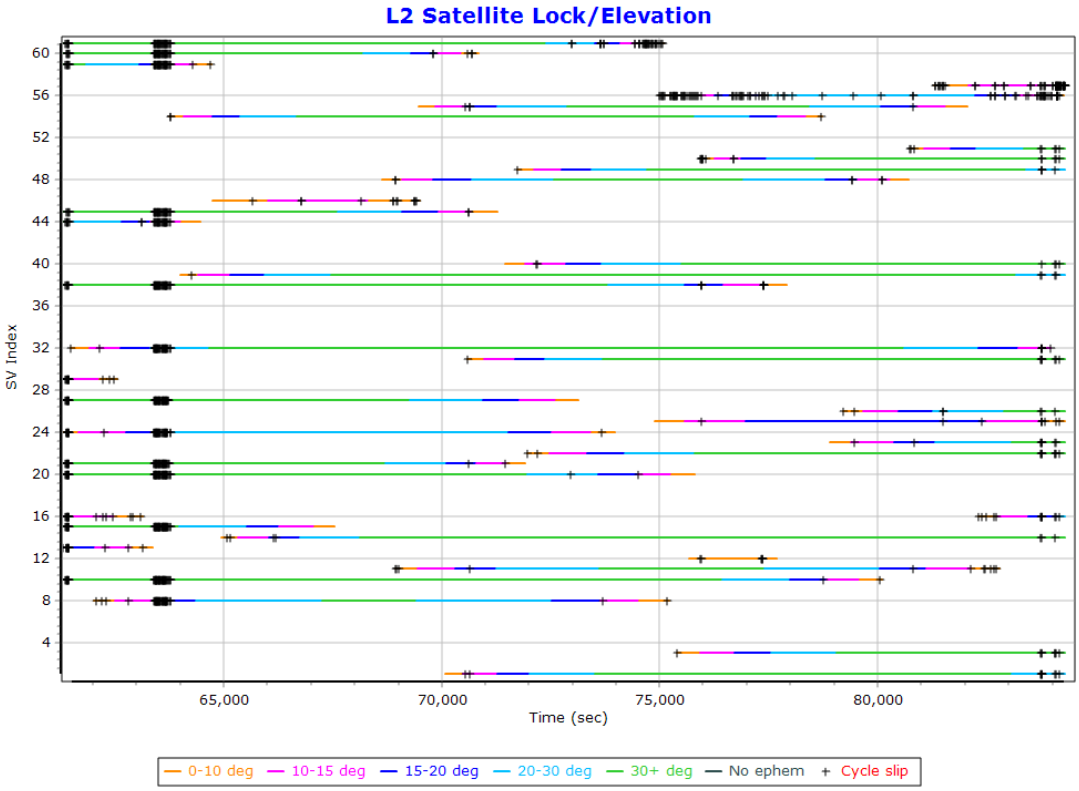
First raw data file	ALS.353		
Last raw data file	ALS.397		
Start GPS week	2078		
Start time	61365.543 (11/03/2019 17:02:45)		
End time	84272.593 (11/03/2019 23:24:32)		
Start of fine alignment	61458.800 (11/03/2019 17:04:18)		
Available subsystems	Primary GNSS, IMU		
POS Event Input	None		
Correction data	Trimble RTX		
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]	-0.011	0.039	-1.017
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

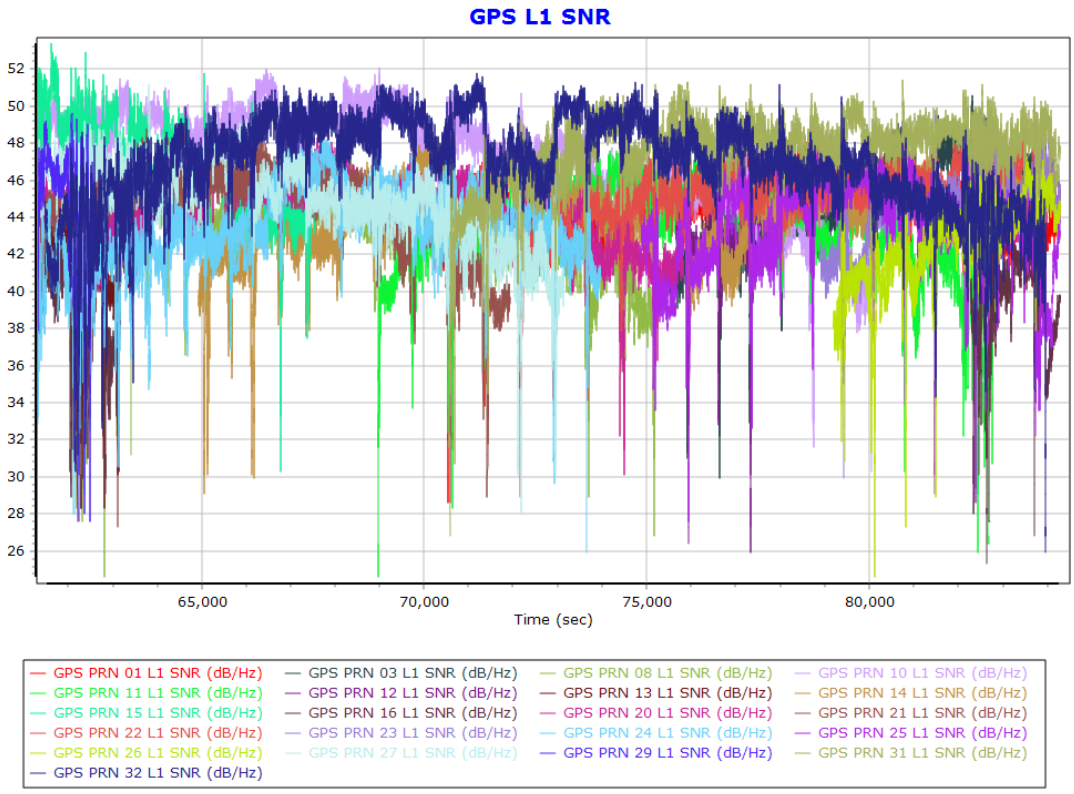
L1 Satellite Lock/Elevation



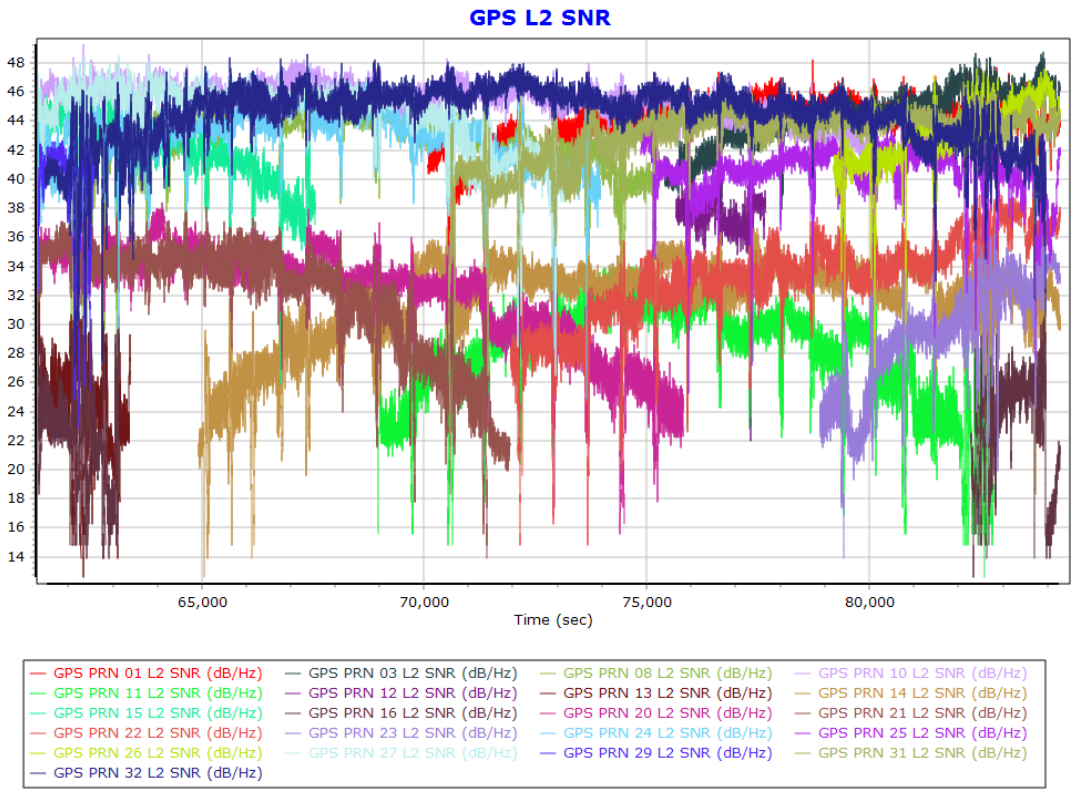
L2 Satellite Lock/Elevation



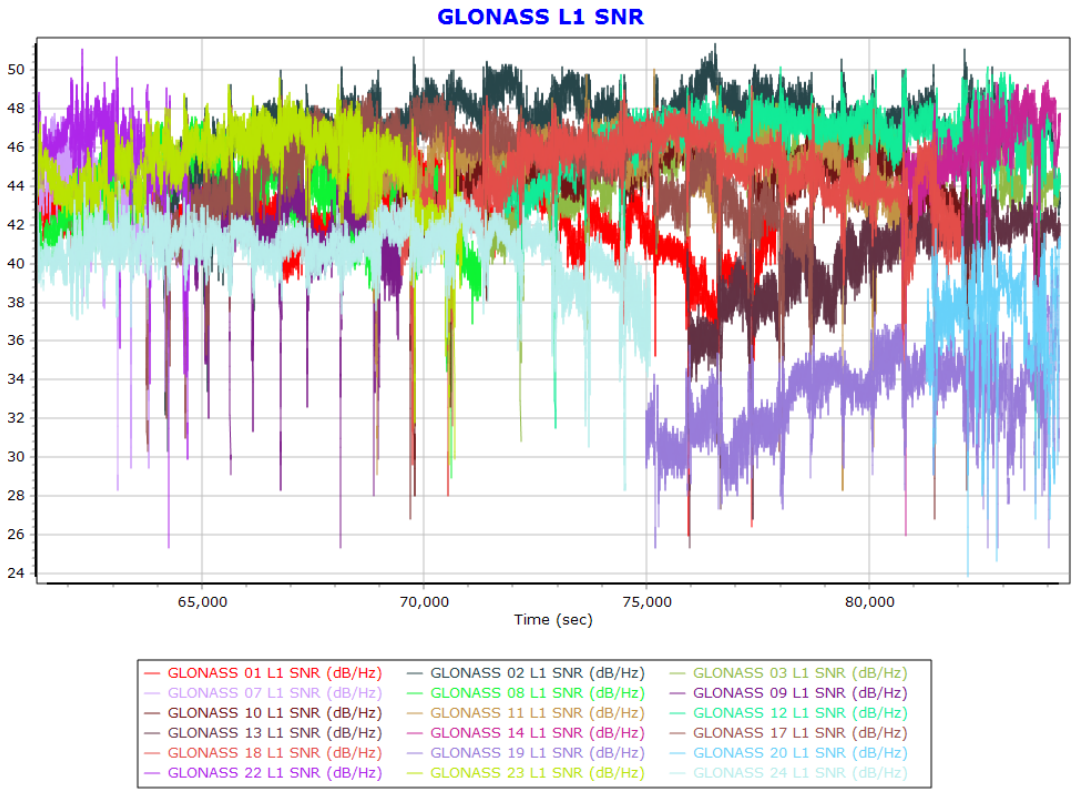
GPS L1 SNR



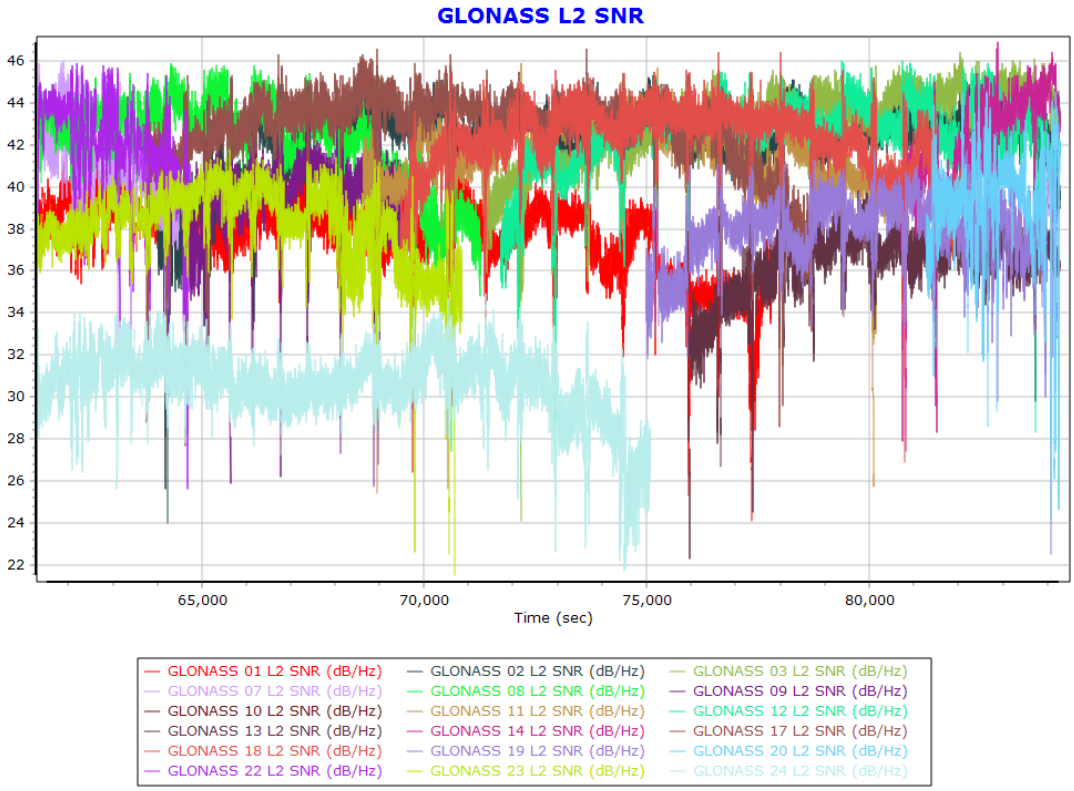
GPS L2 SNR



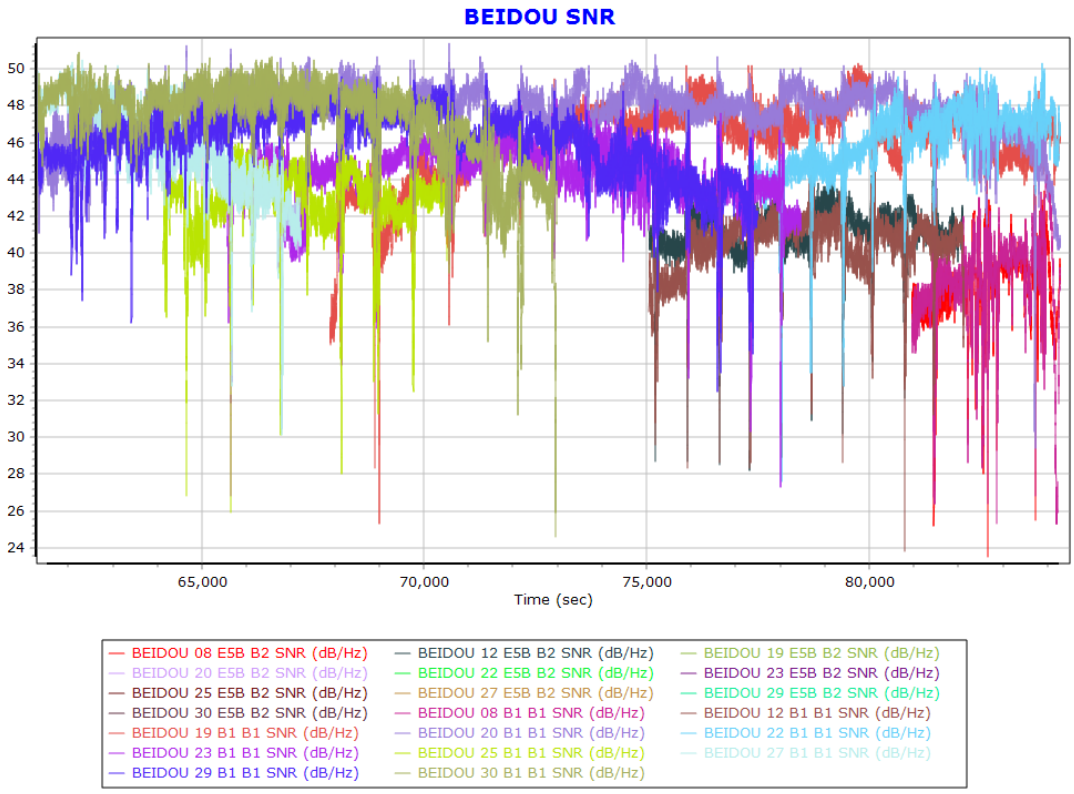
GLONASS L1 SNR



GLONASS L2 SNR

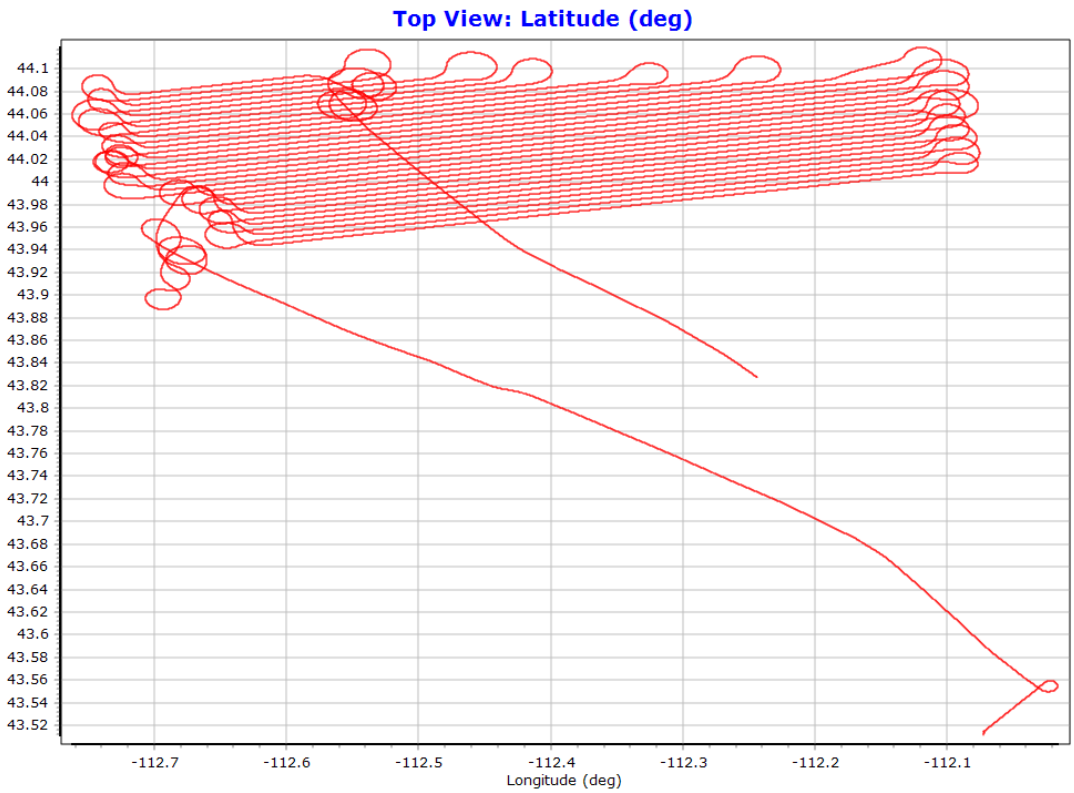


BEIDOU SNR

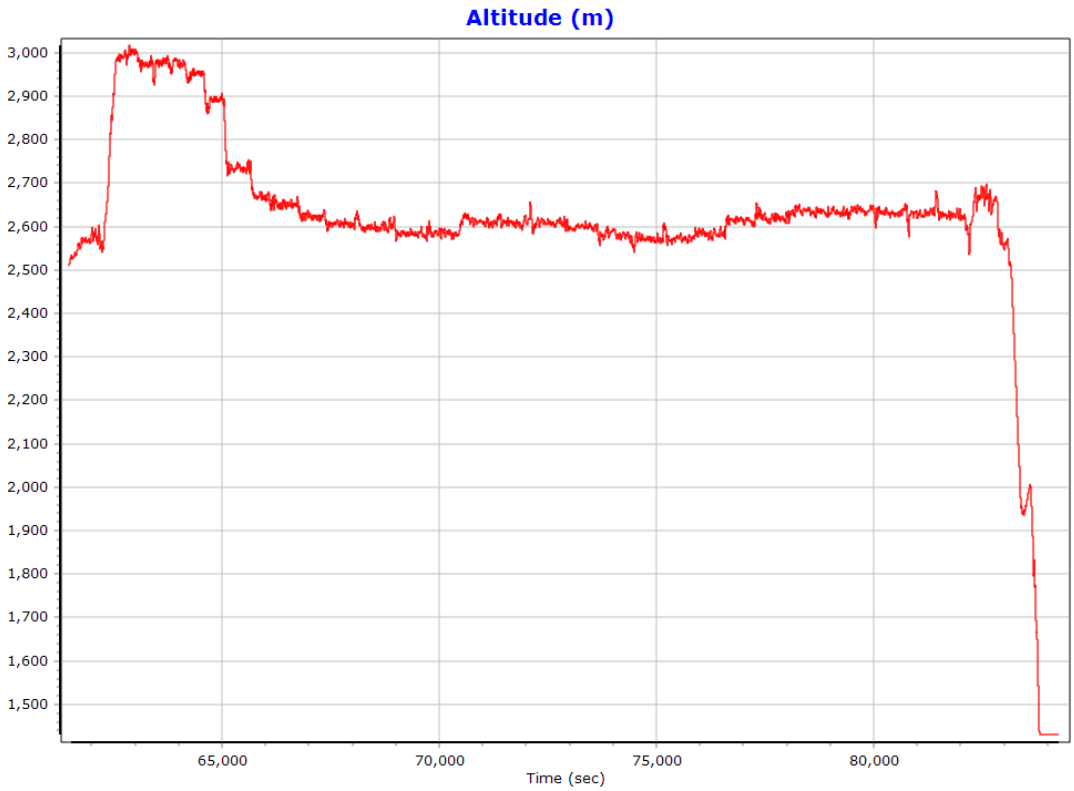

BEIDOU SNR
50
48
46
44
42
40
38
36
34
32
30
28
26
24
65,000
70,000
75,000
80,000
Time (sec)
BEIDOU 08 E5B B2 SNR (dB/Hz)
BEIDOU 12 E5B B2 SNR (dB/Hz)
BEIDOU 19 E5B B2 SNR (dB/Hz)
BEIDOU 20 E5B B2 SNR (dB/Hz)
BEIDOU 22 E5B B2 SNR (dB/Hz)
BEIDOU 23 E5B B2 SNR (dB/Hz)
BEIDOU 25 E5B B2 SNR (dB/Hz)
BEIDOU 27 E5B B2 SNR (dB/Hz)
BEIDOU 29 E5B B2 SNR (dB/Hz)
BEIDOU 30 E5B B2 SNR (dB/Hz)
BEIDOU 08 B1 B1 SNR (dB/Hz)
BEIDOU 12 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 27 B1 B1 SNR (dB/Hz)
BEIDOU 29 B1 B1 SNR (dB/Hz)
BEIDOU 30 B1 B1 SNR (dB/Hz)

Trajectory Information

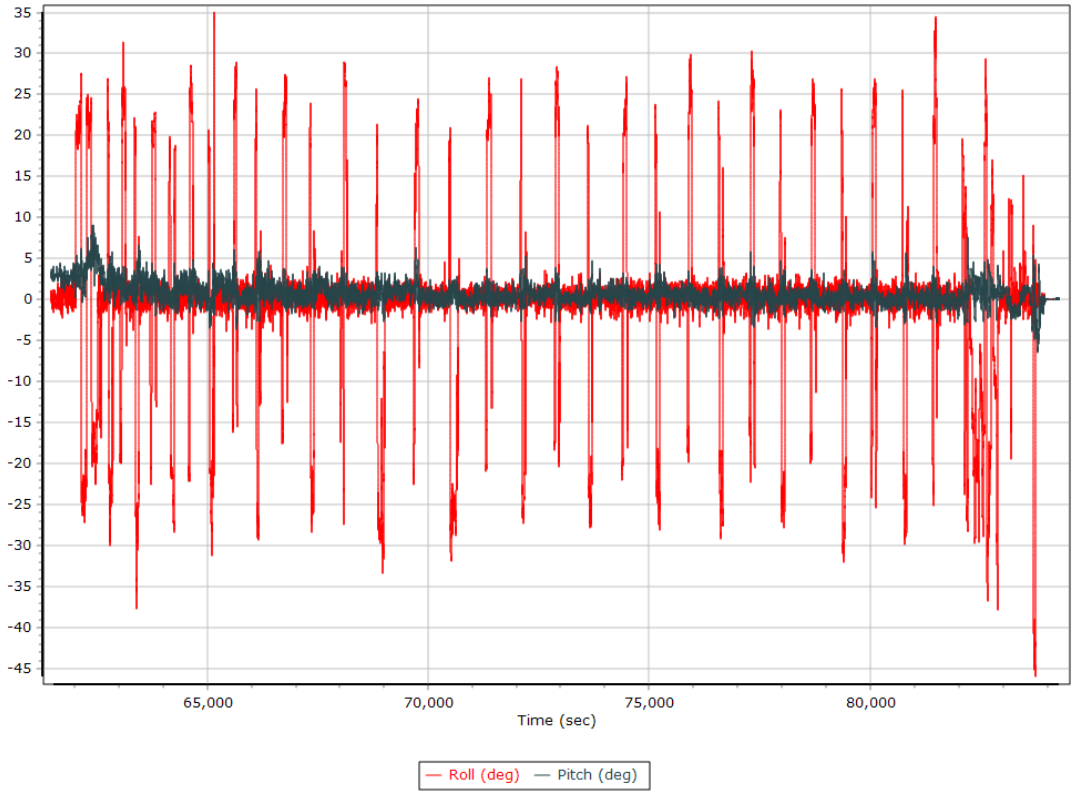
Top View



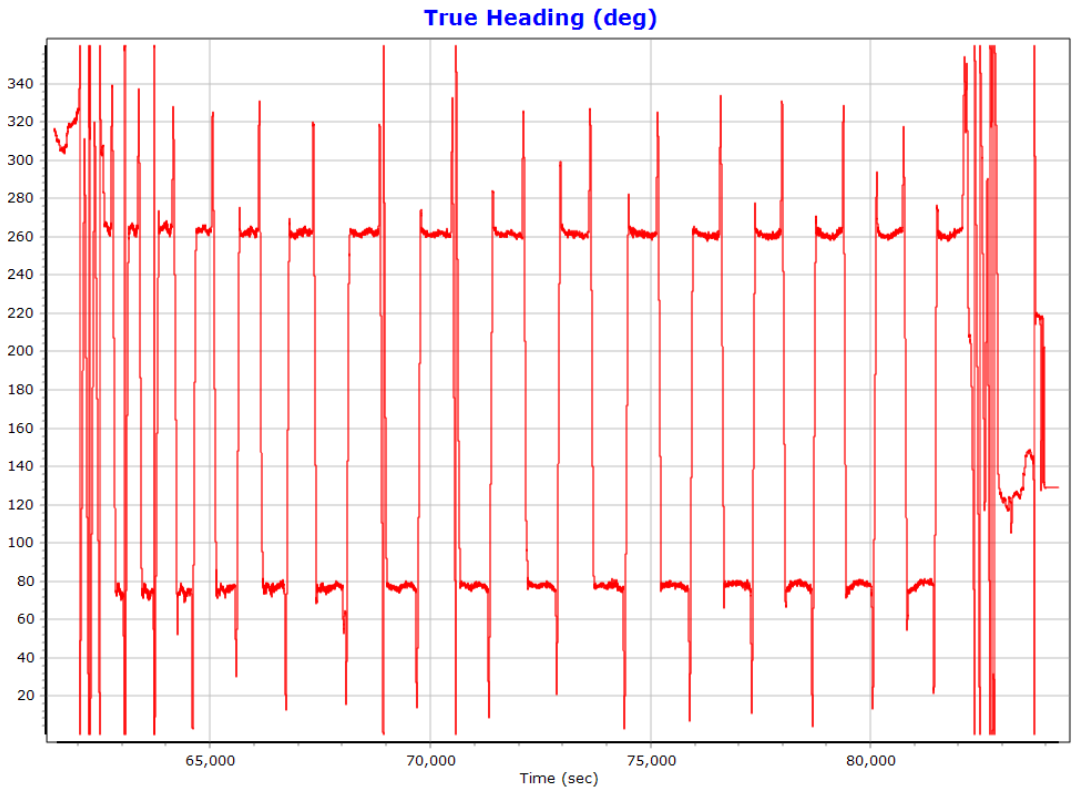
Altitude



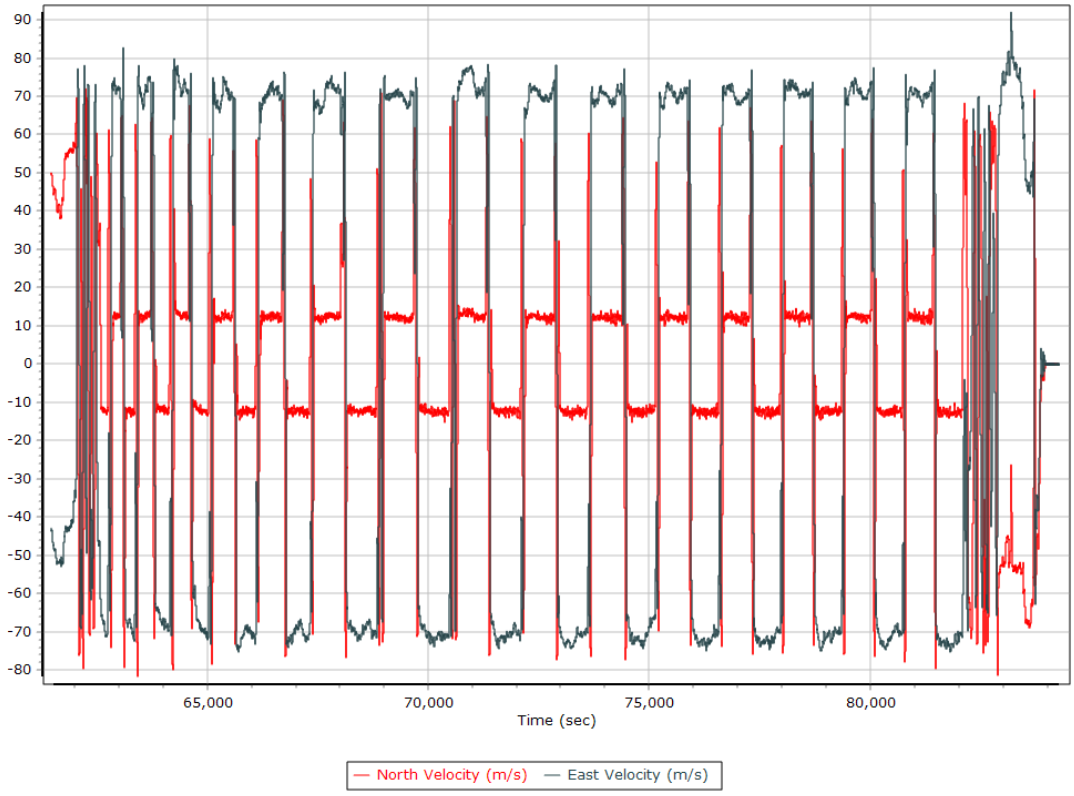
Roll/Pitch



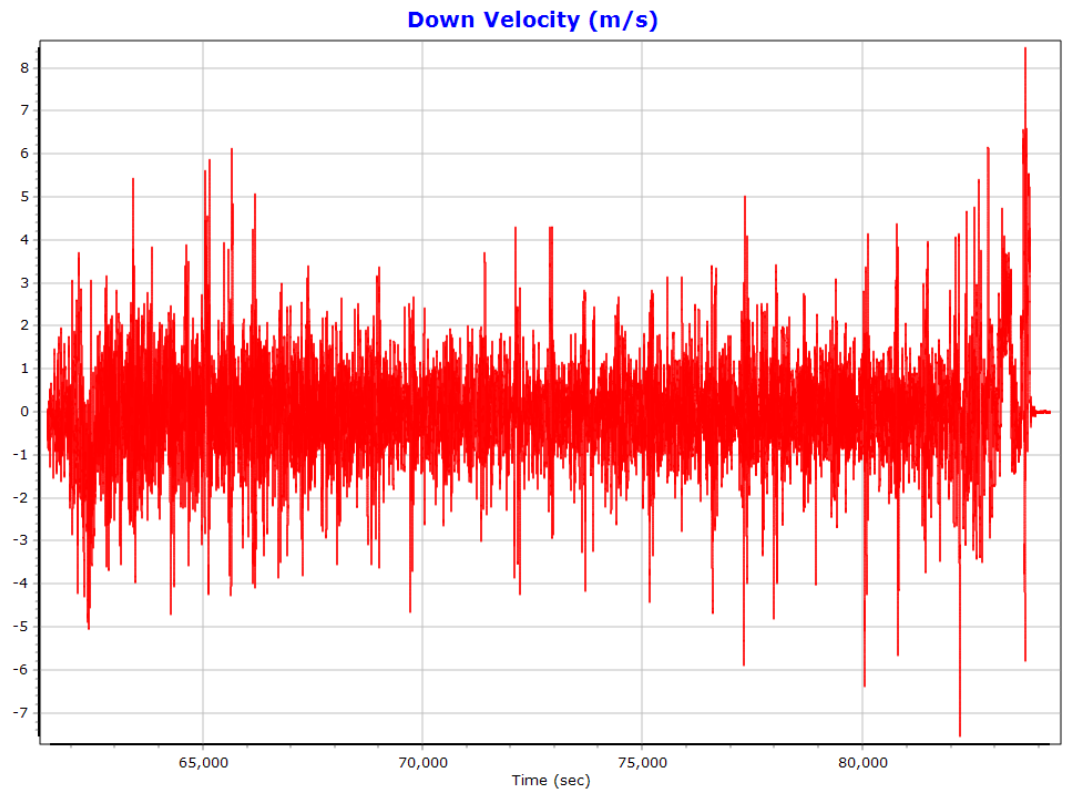
Heading



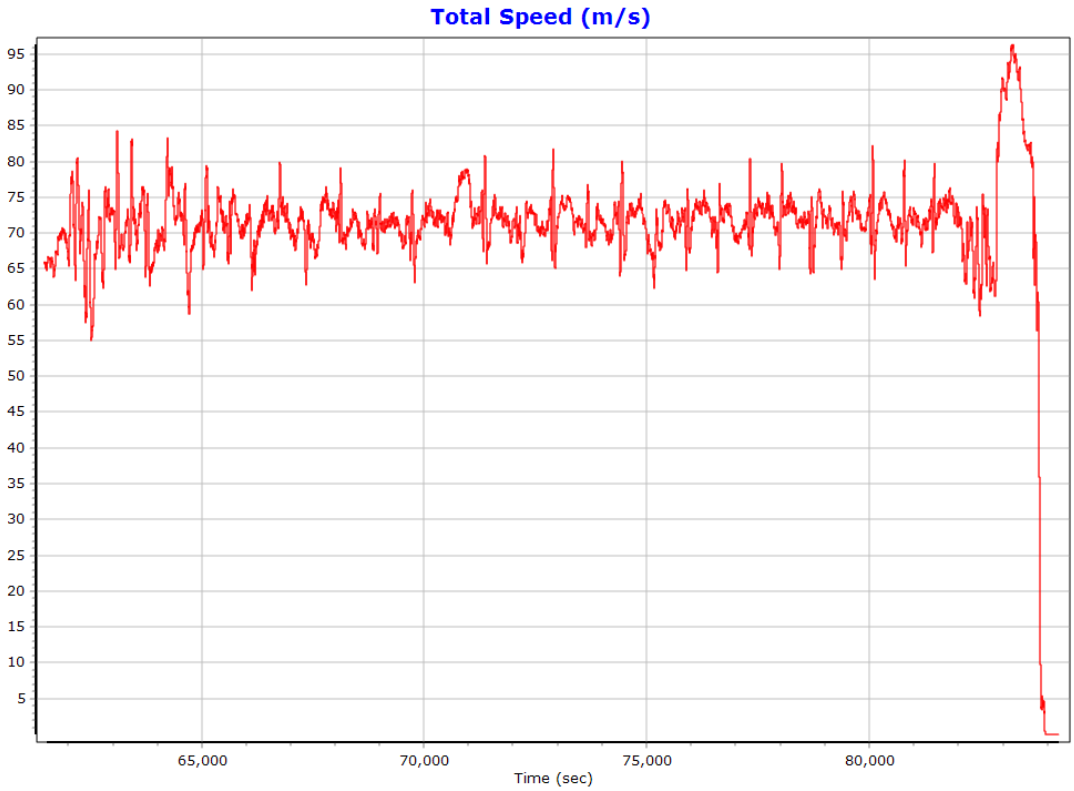
North/East Velocity



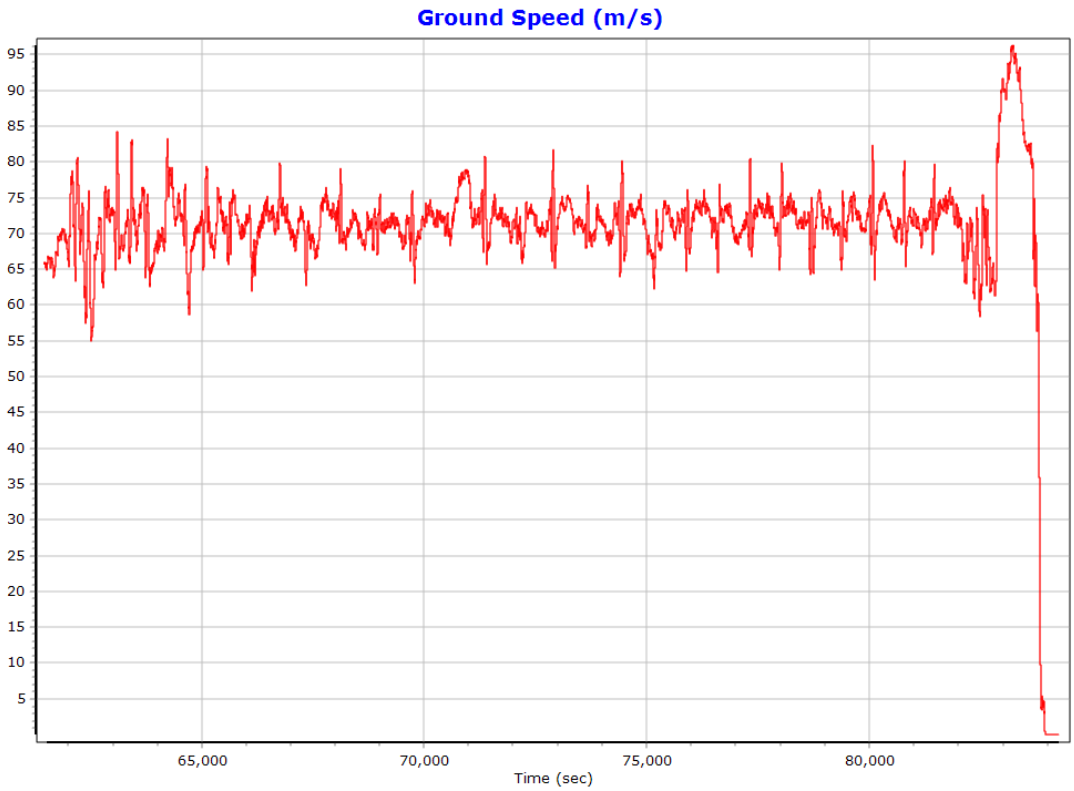
Down Velocity



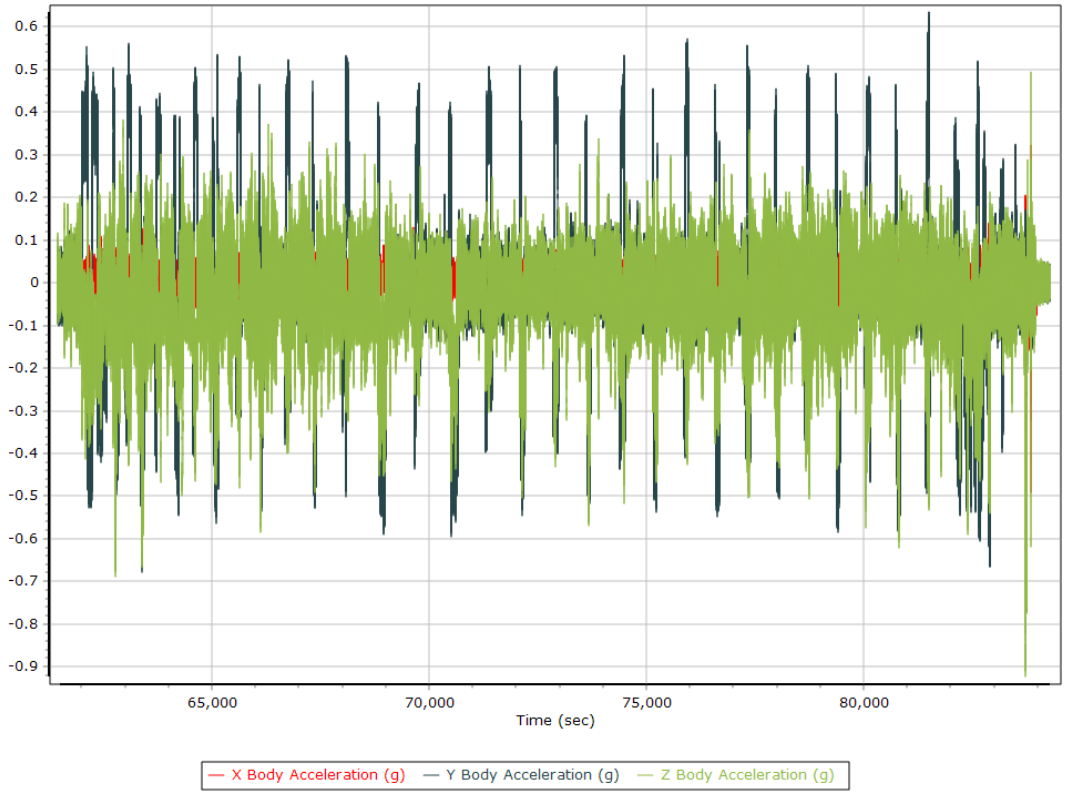
Total Speed



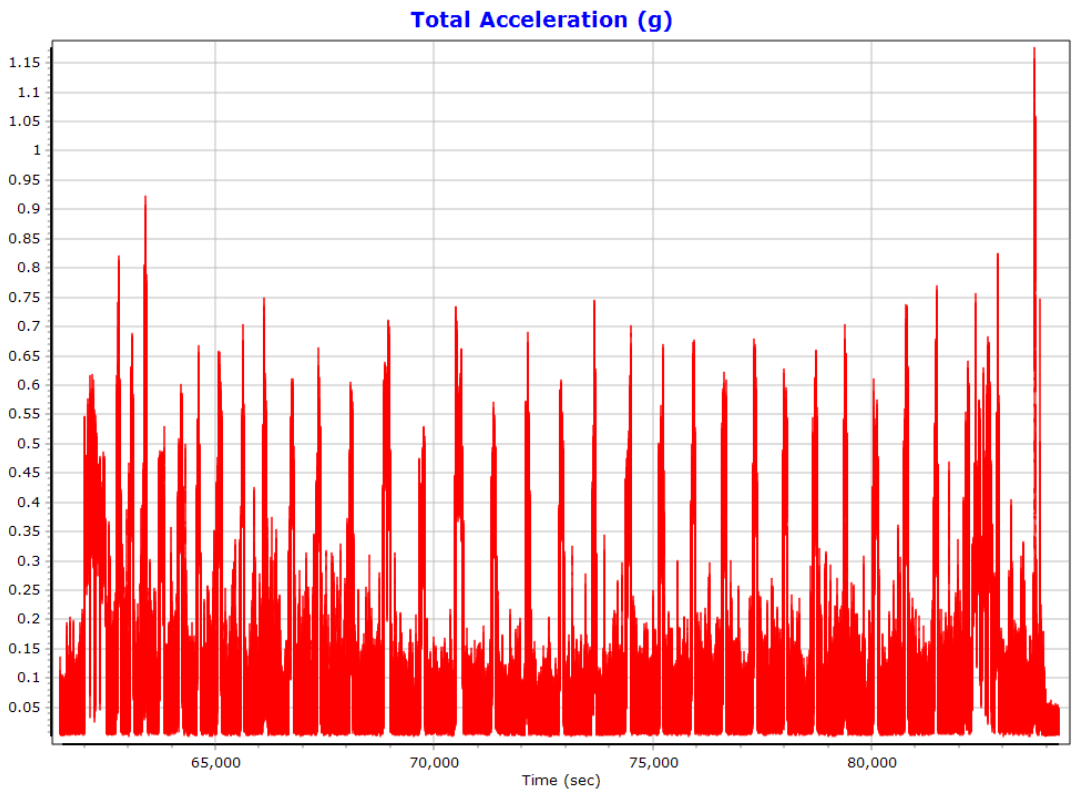
Ground Speed



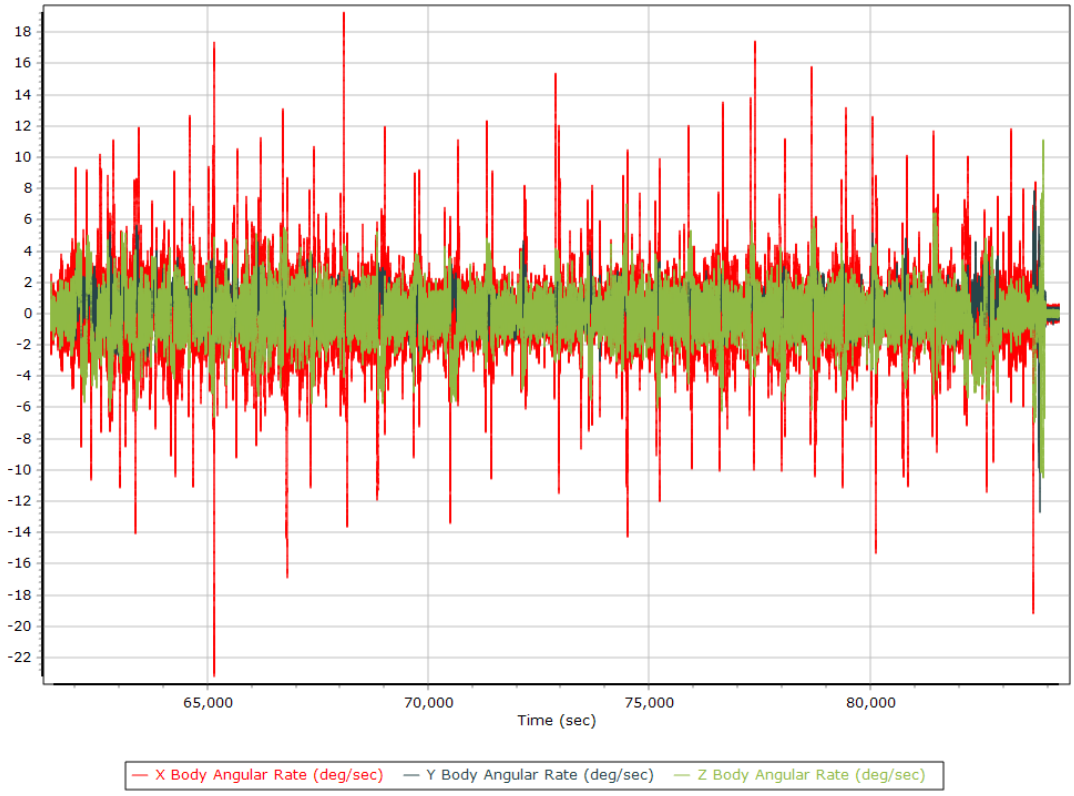
Body Acceleration



Total Body Acceleration



Body Angular Rate



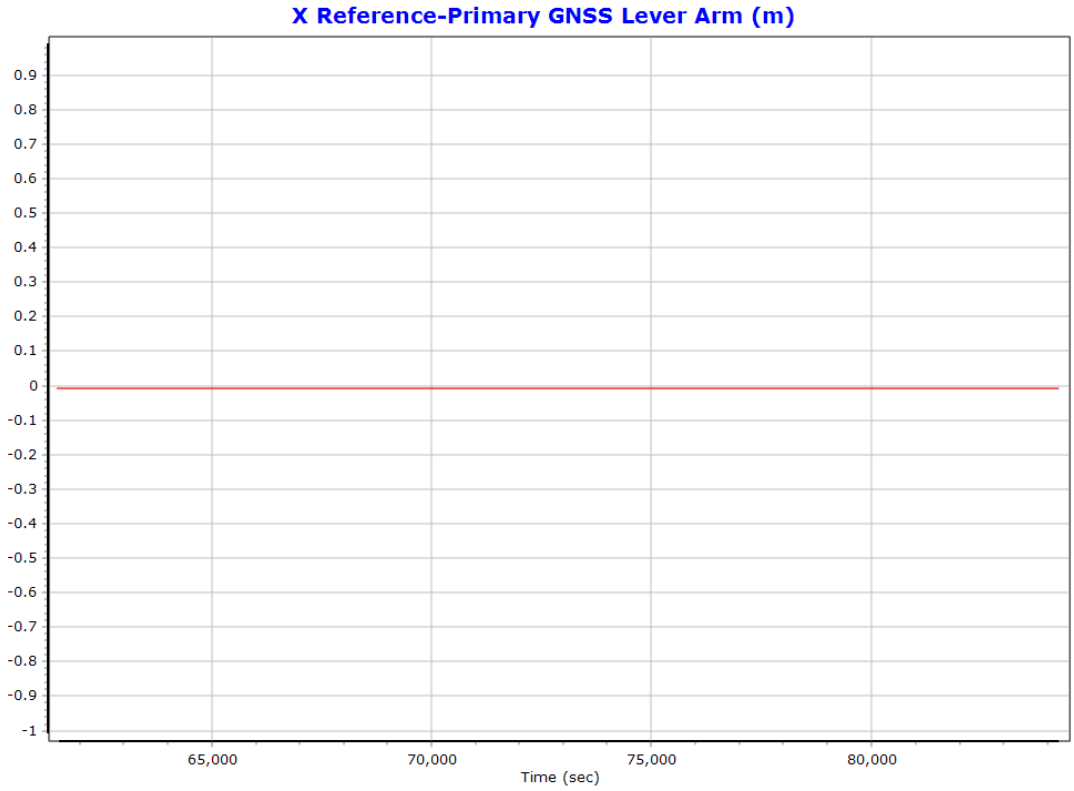
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion Trimble RTX Nav		
Stabilized mount	False		
Processing start time	61279.000 (11/03/2019 17:01:19)		
Processing end time	84276.000 (11/03/2019 23:24:36)		
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]	-0.008	0.046	-1.014
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

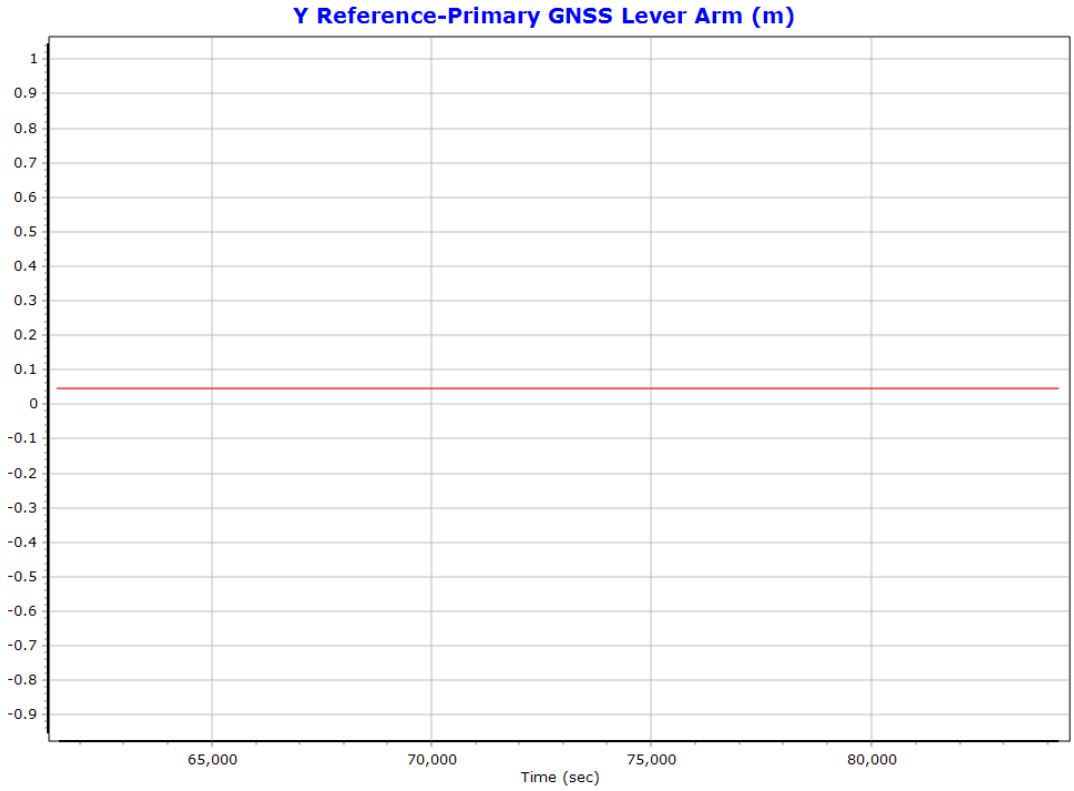
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm

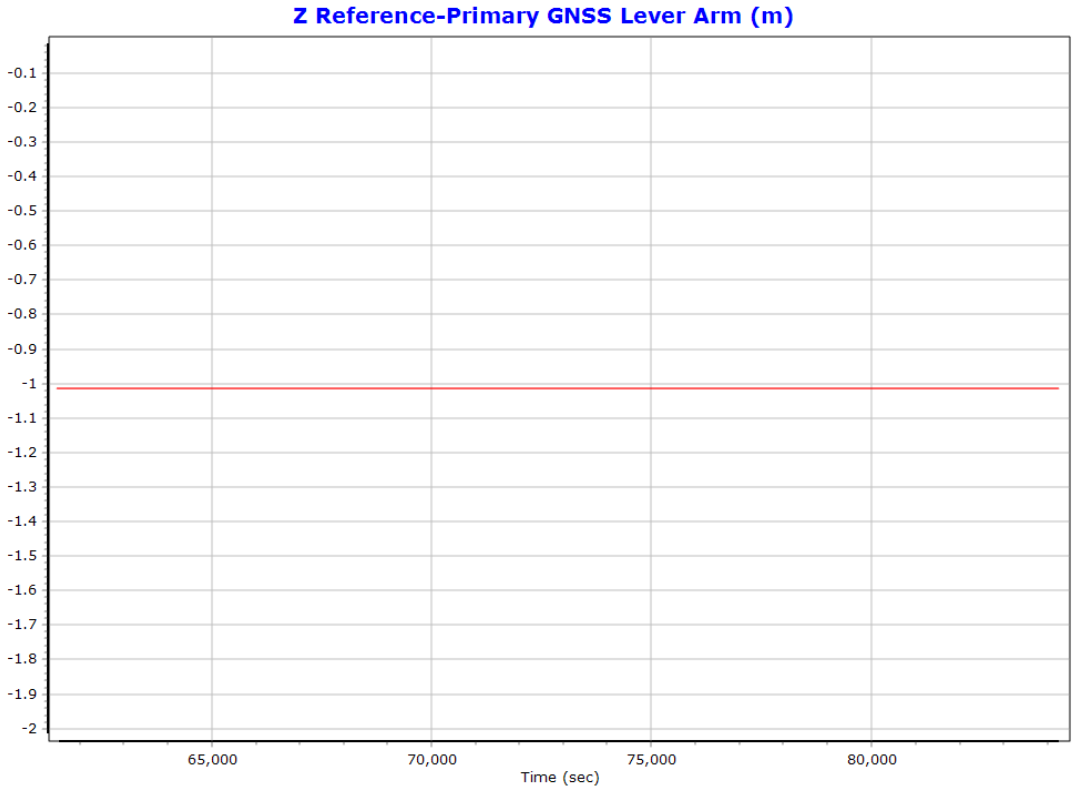
X Reference-Primary GNSS Lever Arm (m)



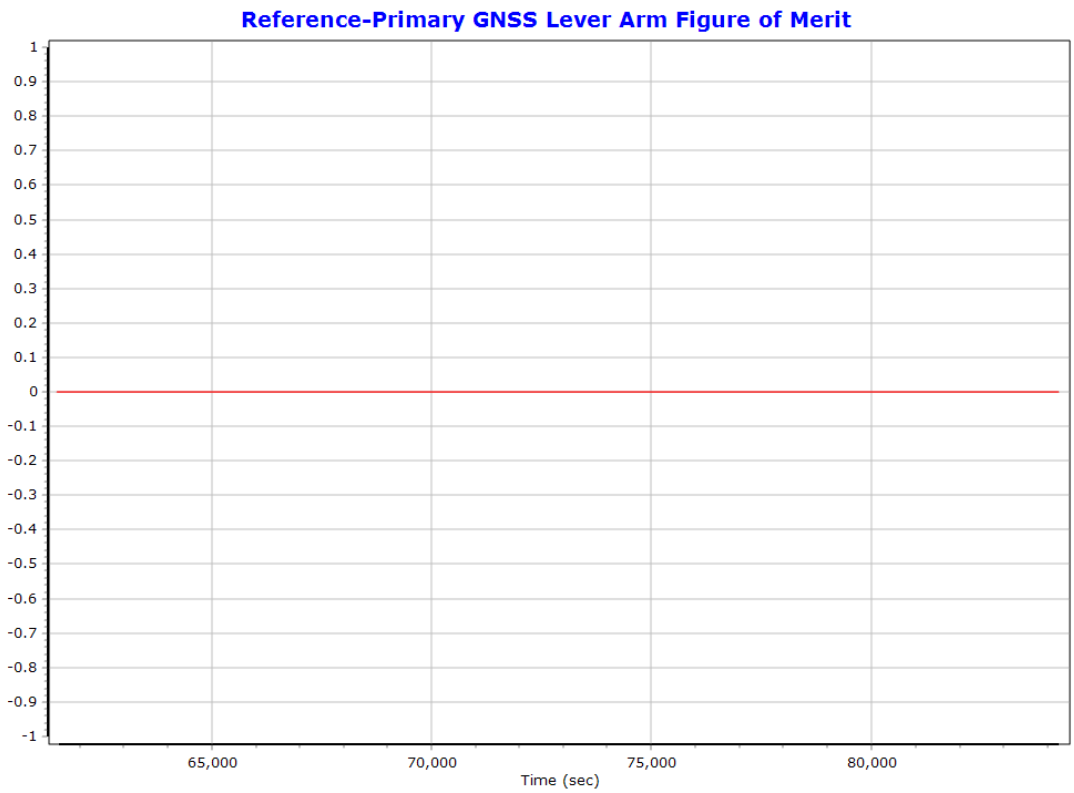
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



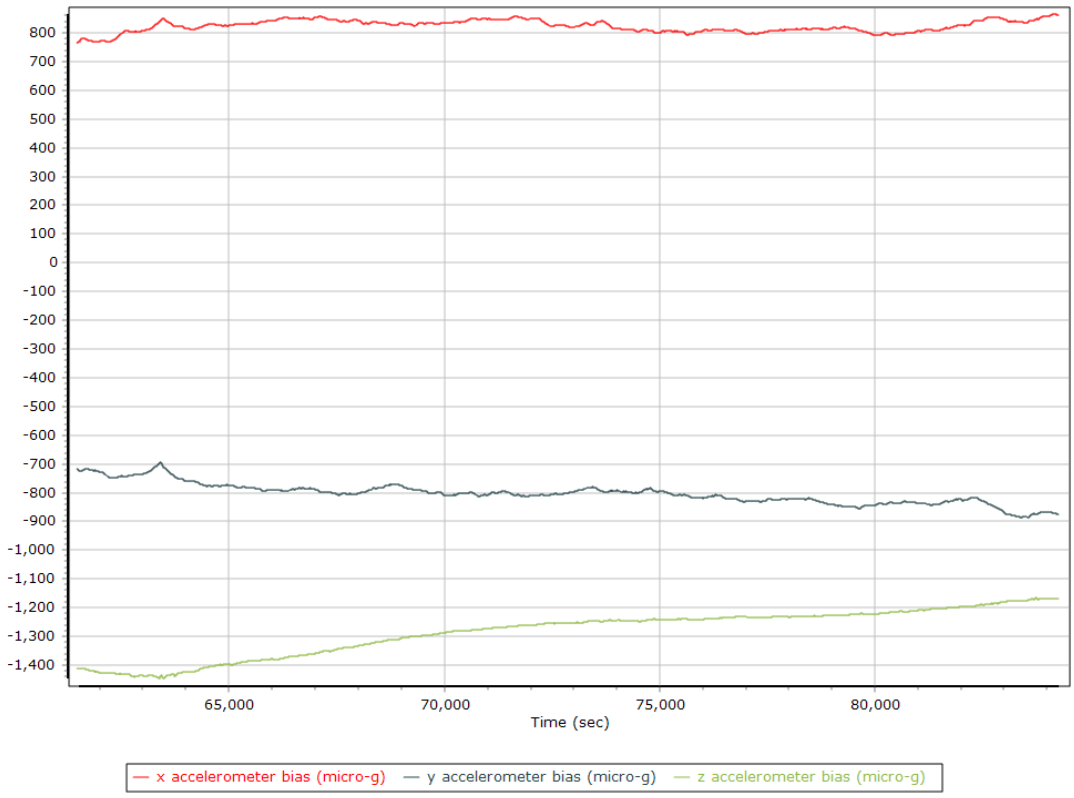
Reference-Primary GNSS Lever Arm Figure of Merit



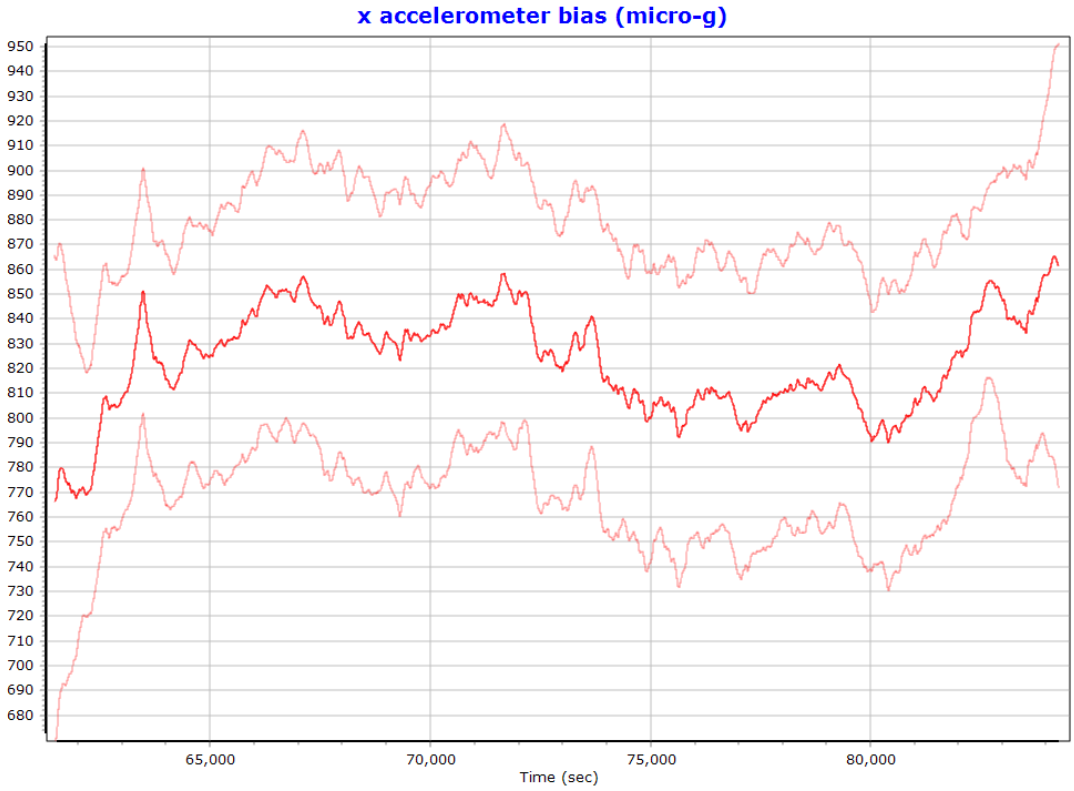
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

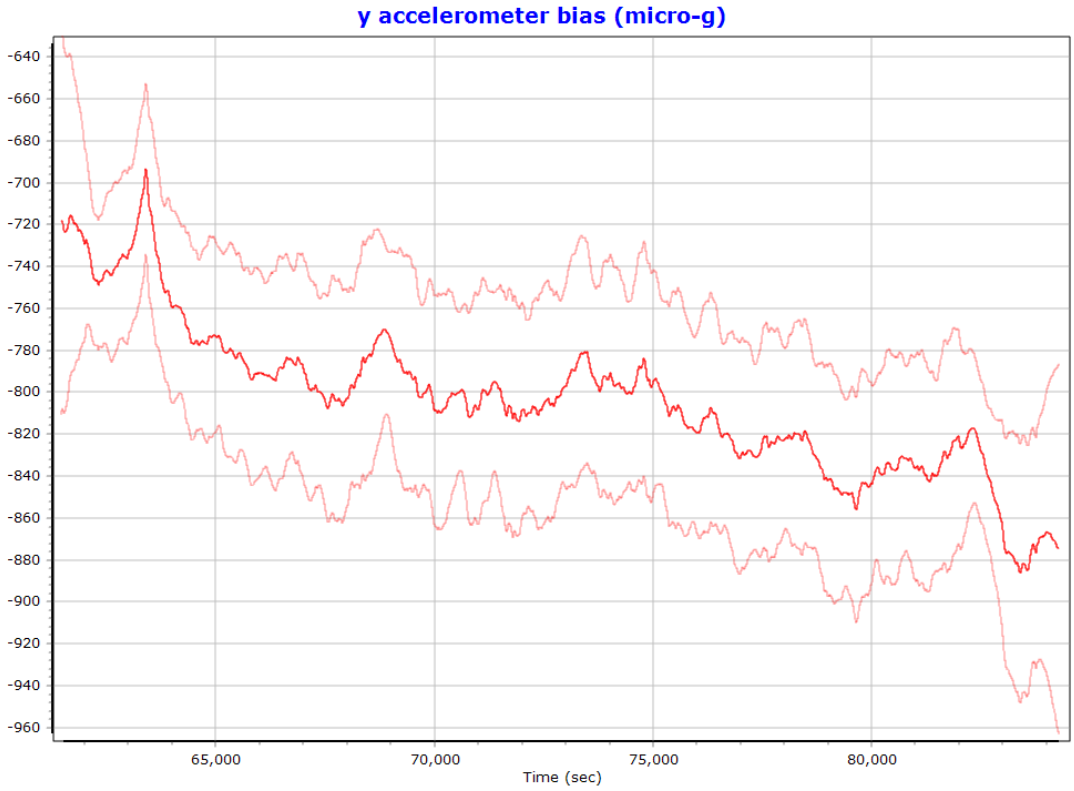
Accelerometer Bias (micro-g)



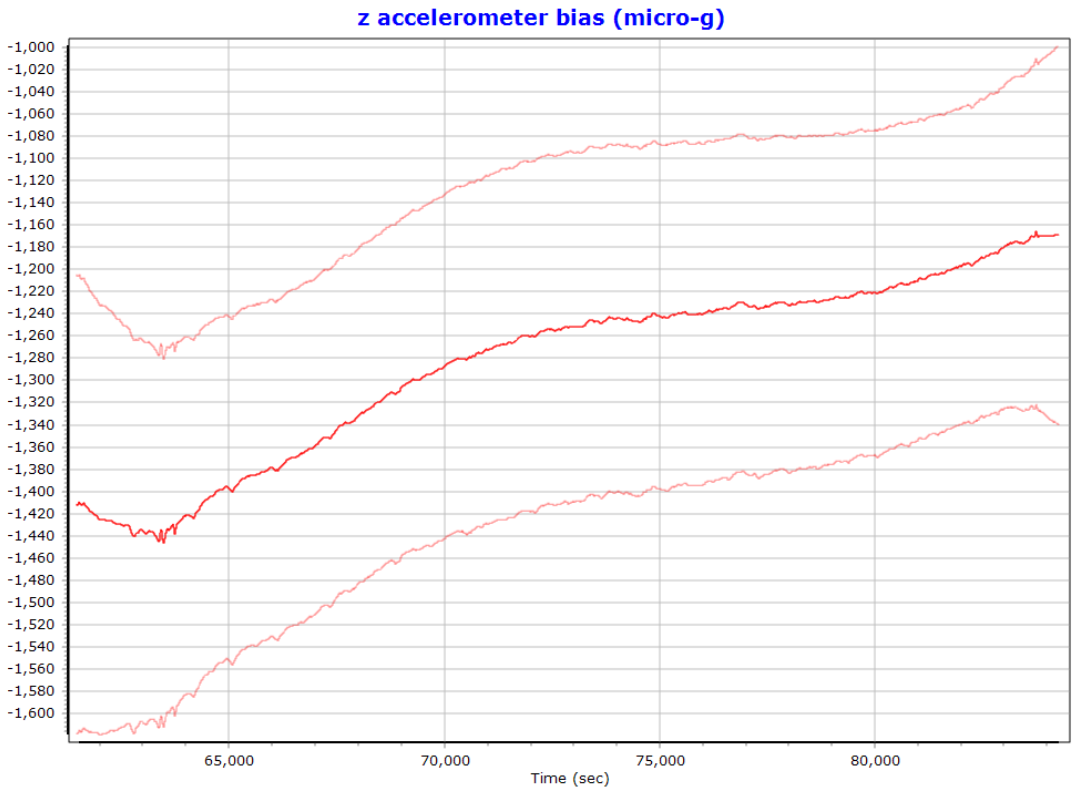
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



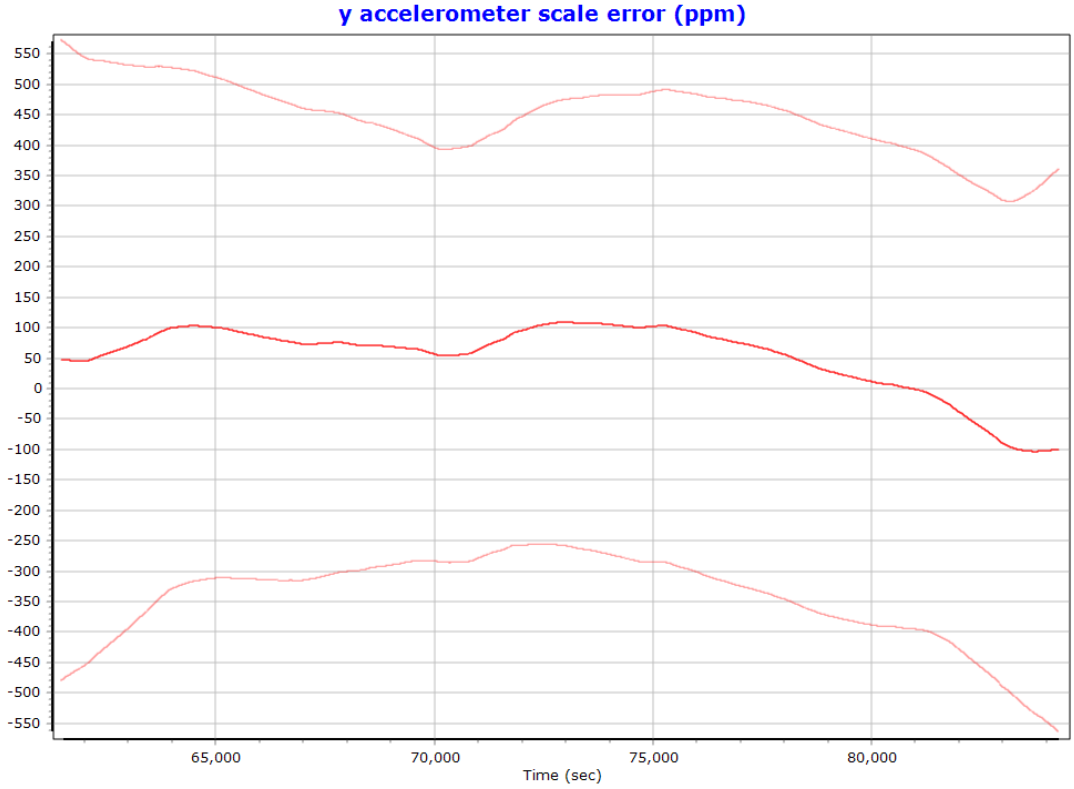
Z Accelerometer Bias (micro-g)



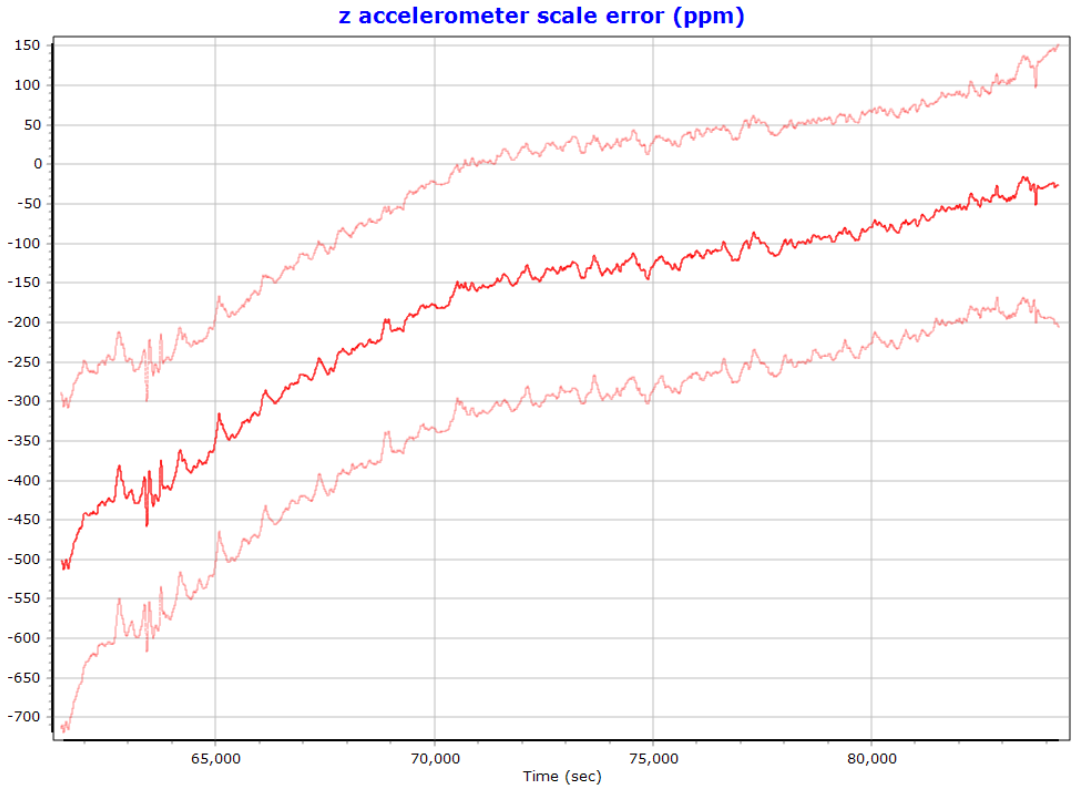
Accelerometer Scale Error (ppm)

X Accelerometer Scale Error (ppm)

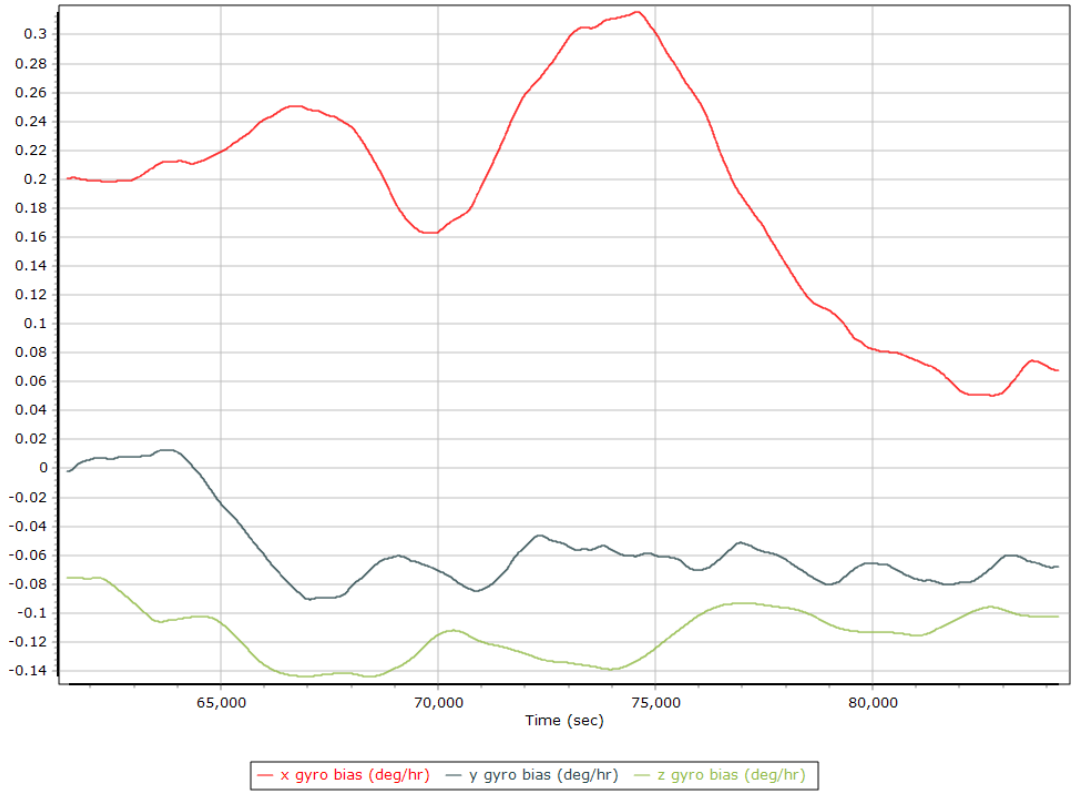
Y Accelerometer Scale Error (ppm)



Z Accelerometer Scale Error (ppm)

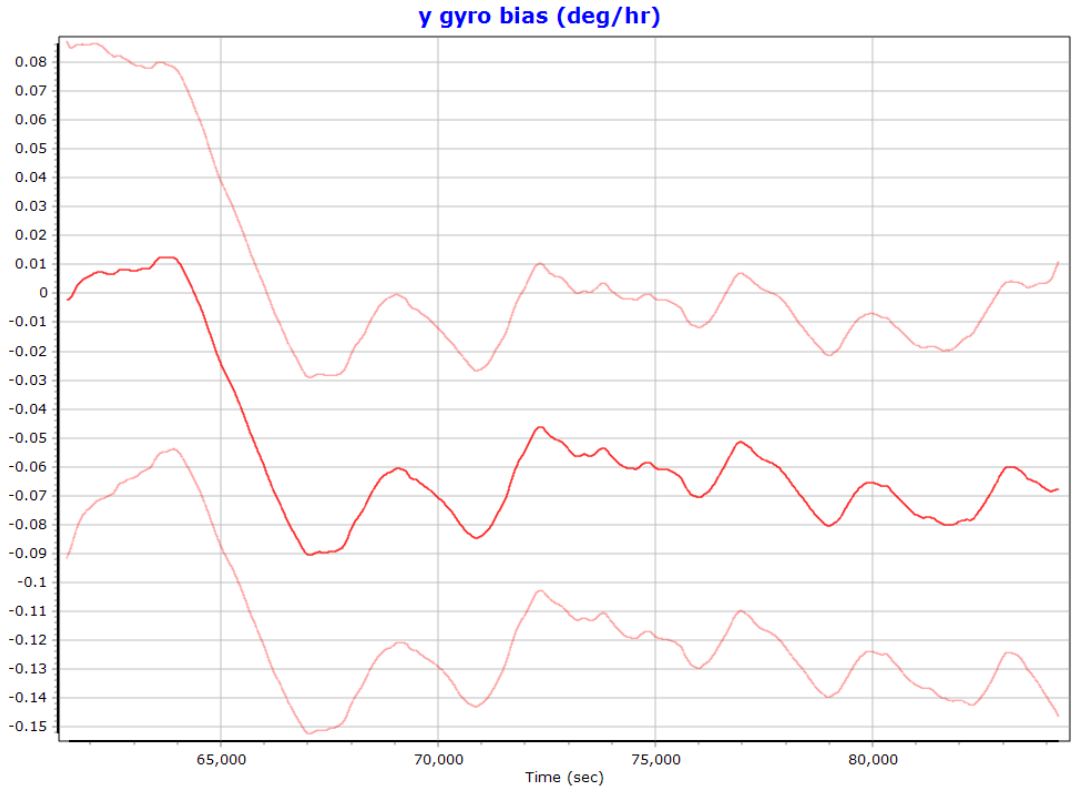


Gyro Bias (deg/h)

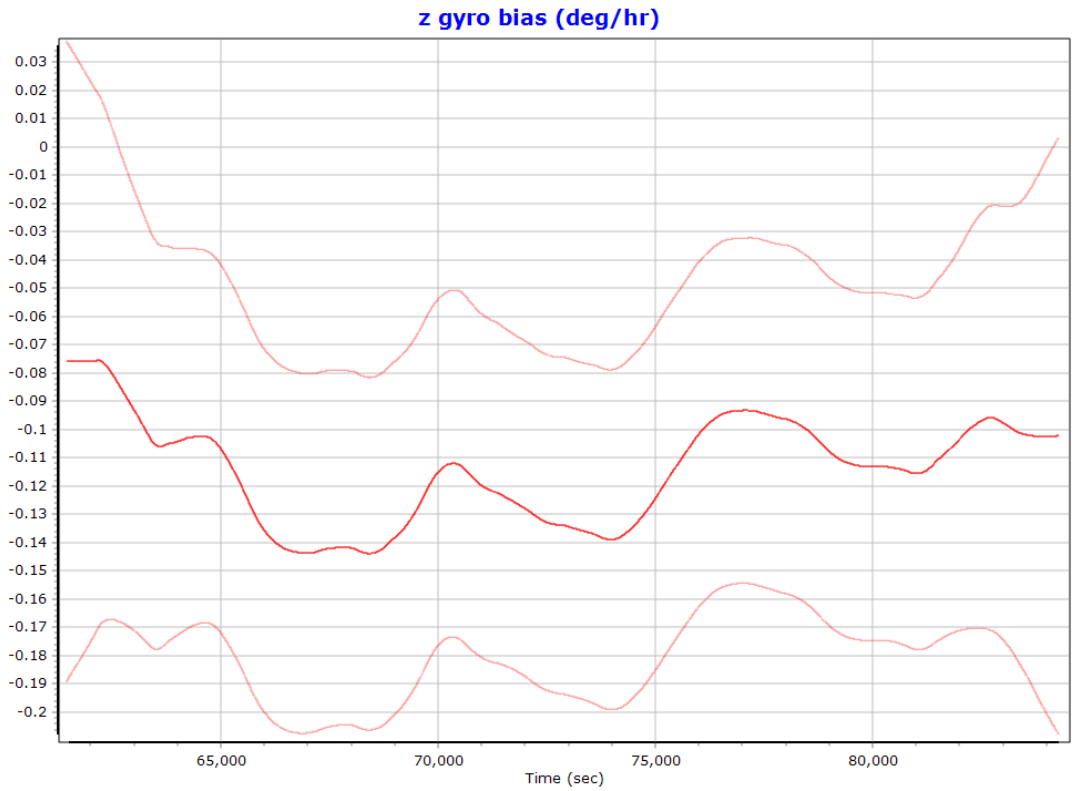


X Gyro Bias (deg/h)

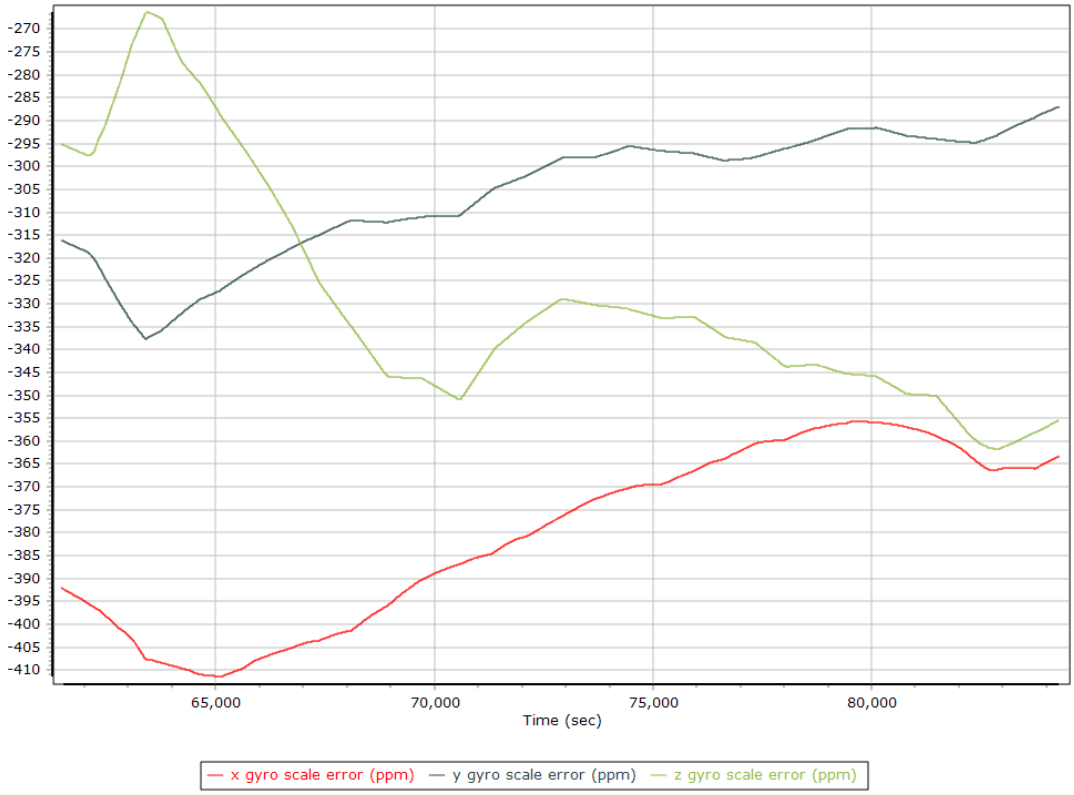
Y Gyro Bias (deg/h)



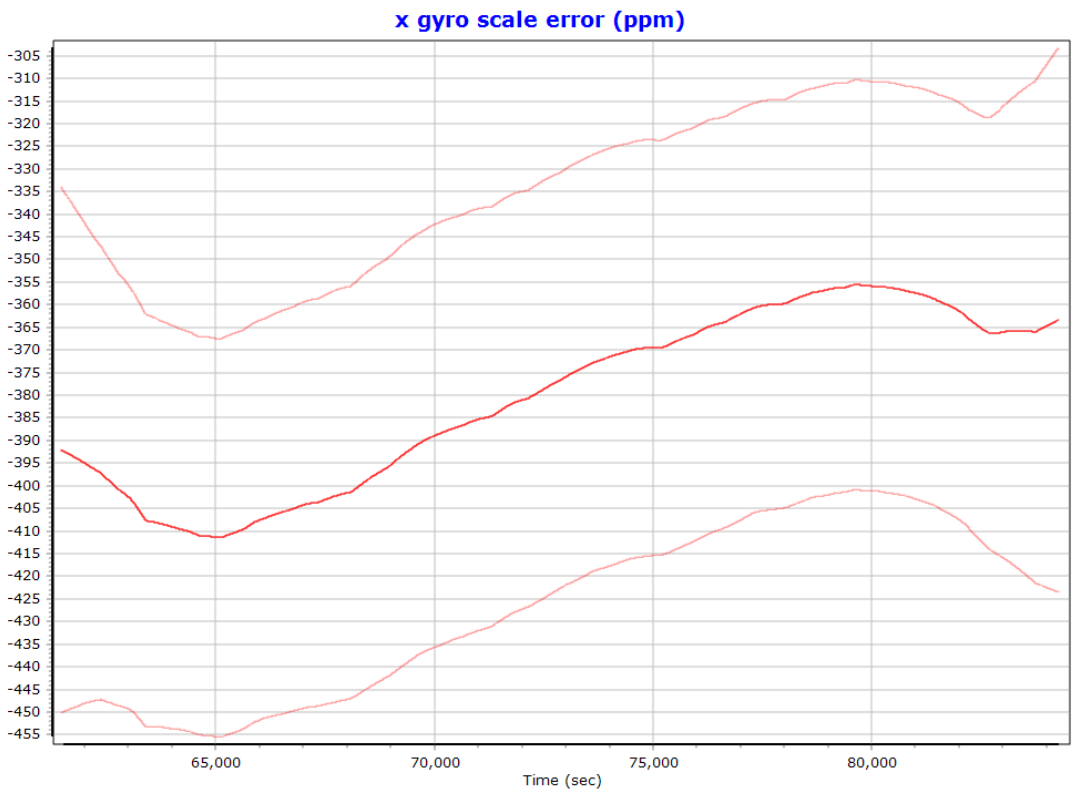
Z Gyro Bias (deg/h)



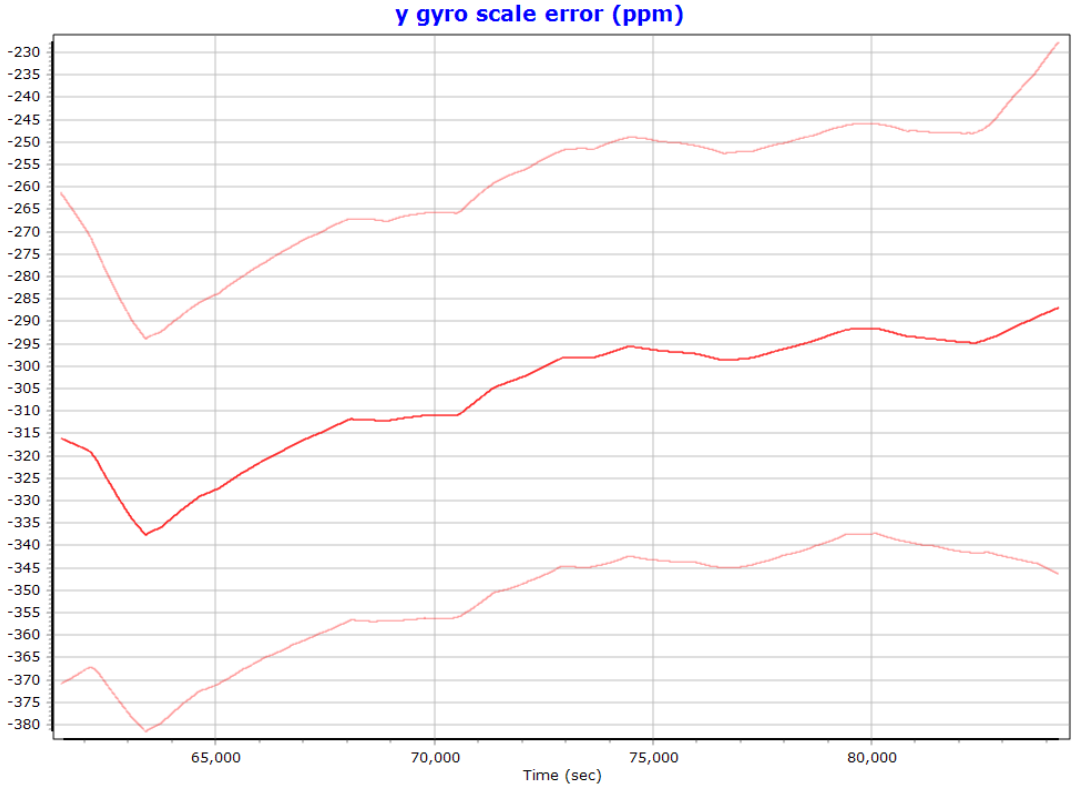
Gyro Scale Error (ppm)



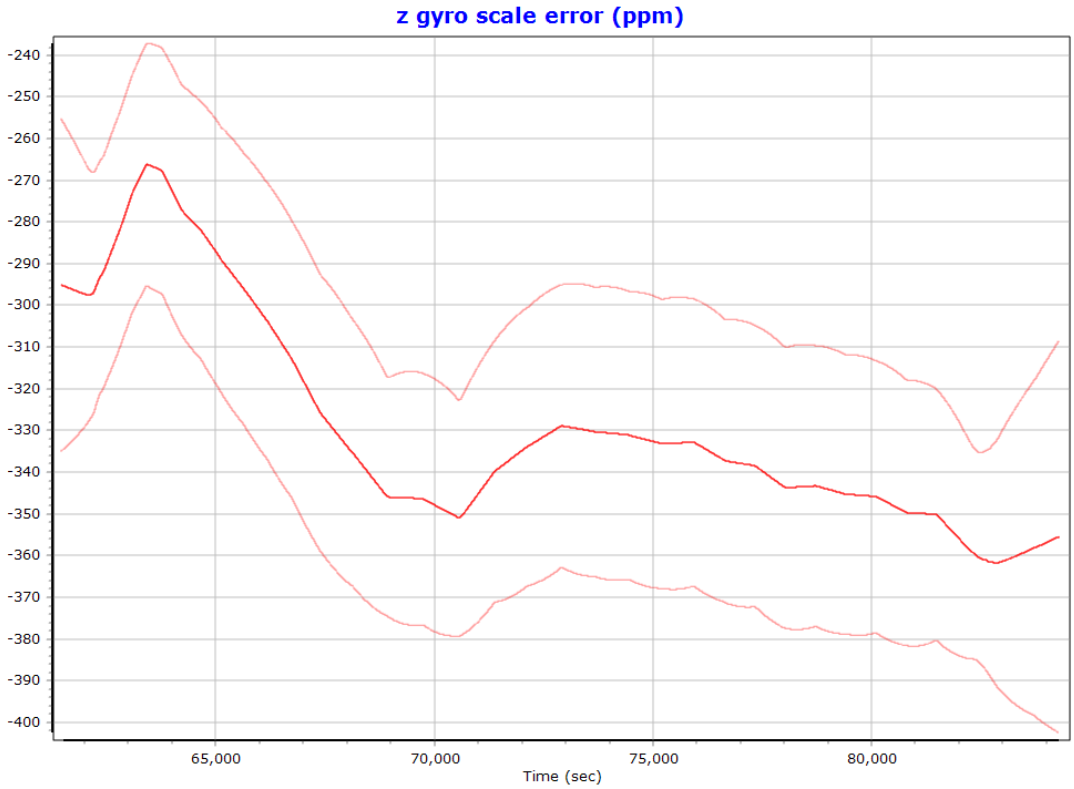
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

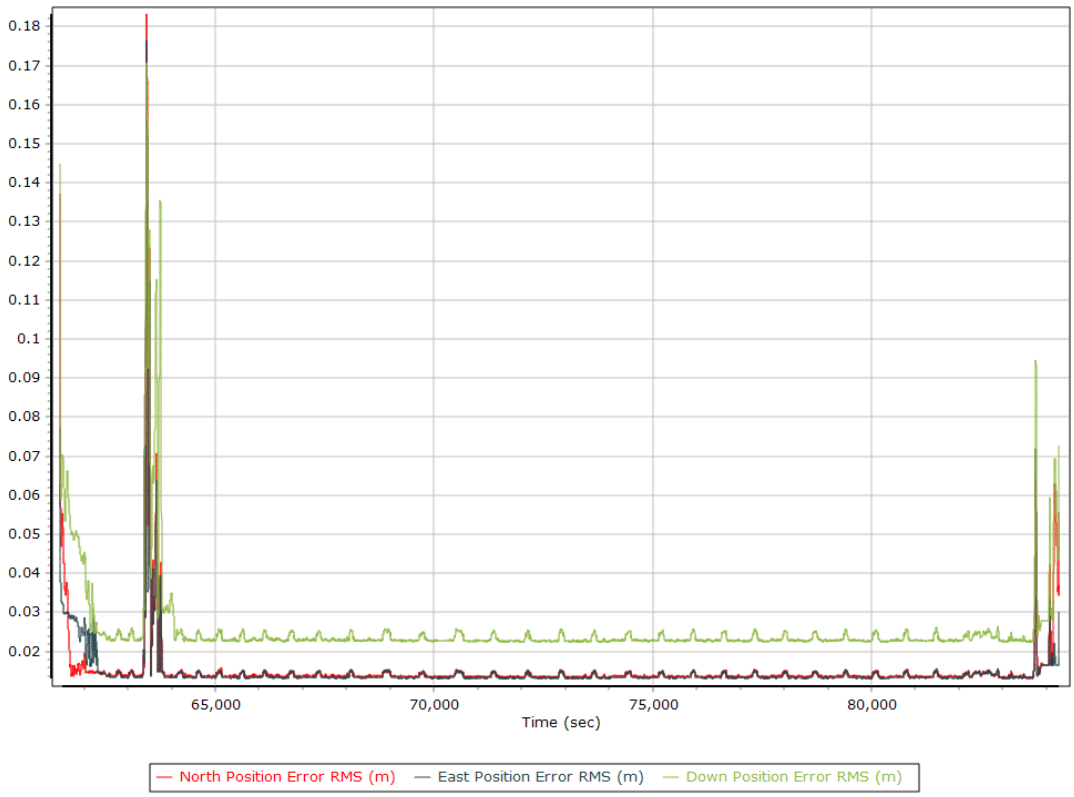


Z Gyro Scale Error (ppm)

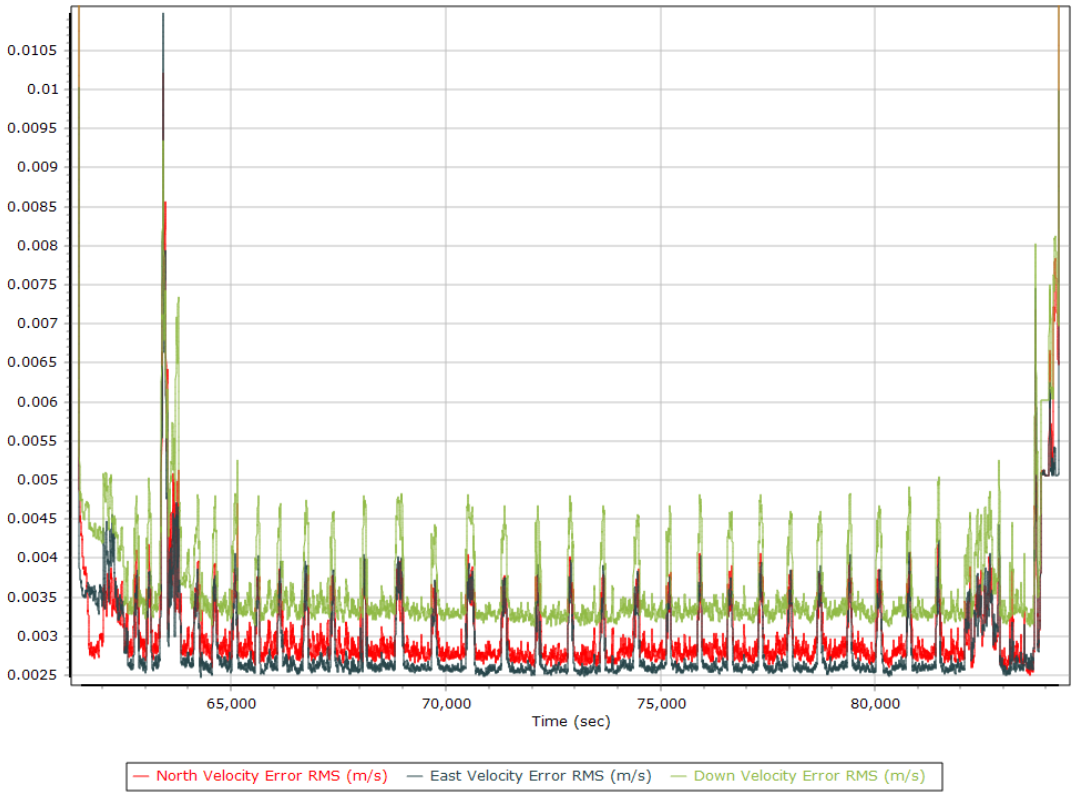


Smoothed Performance Metrics

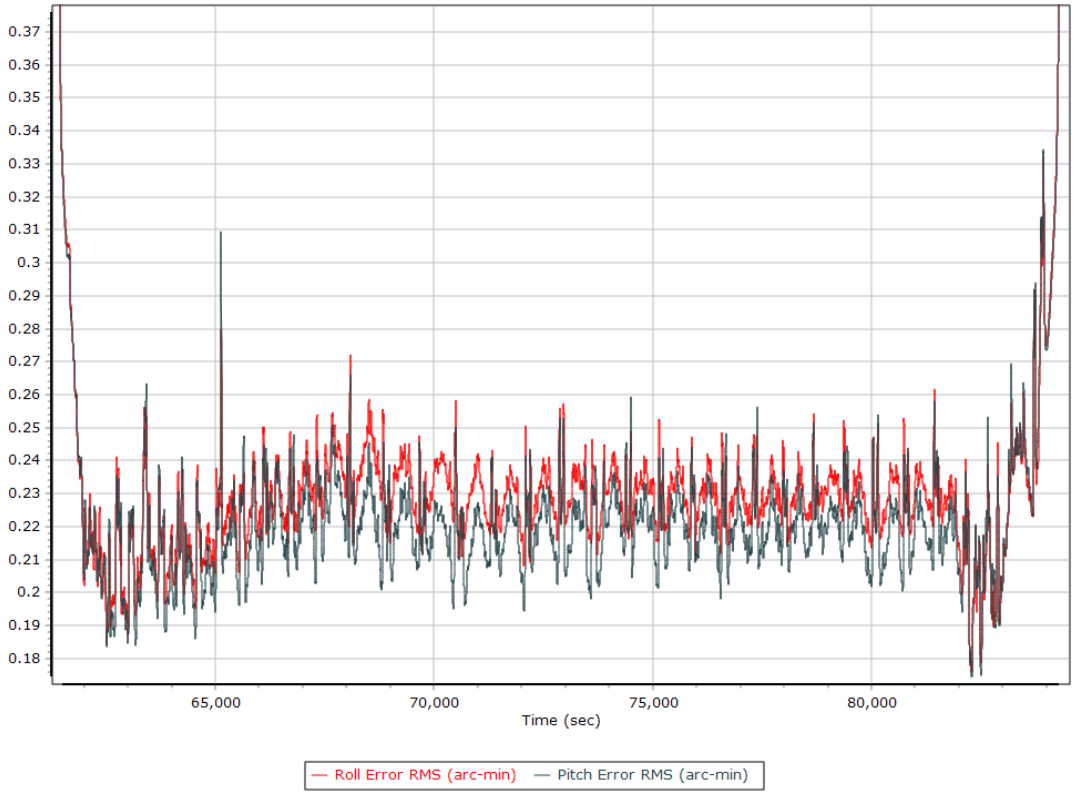
Position Error RMS (m)



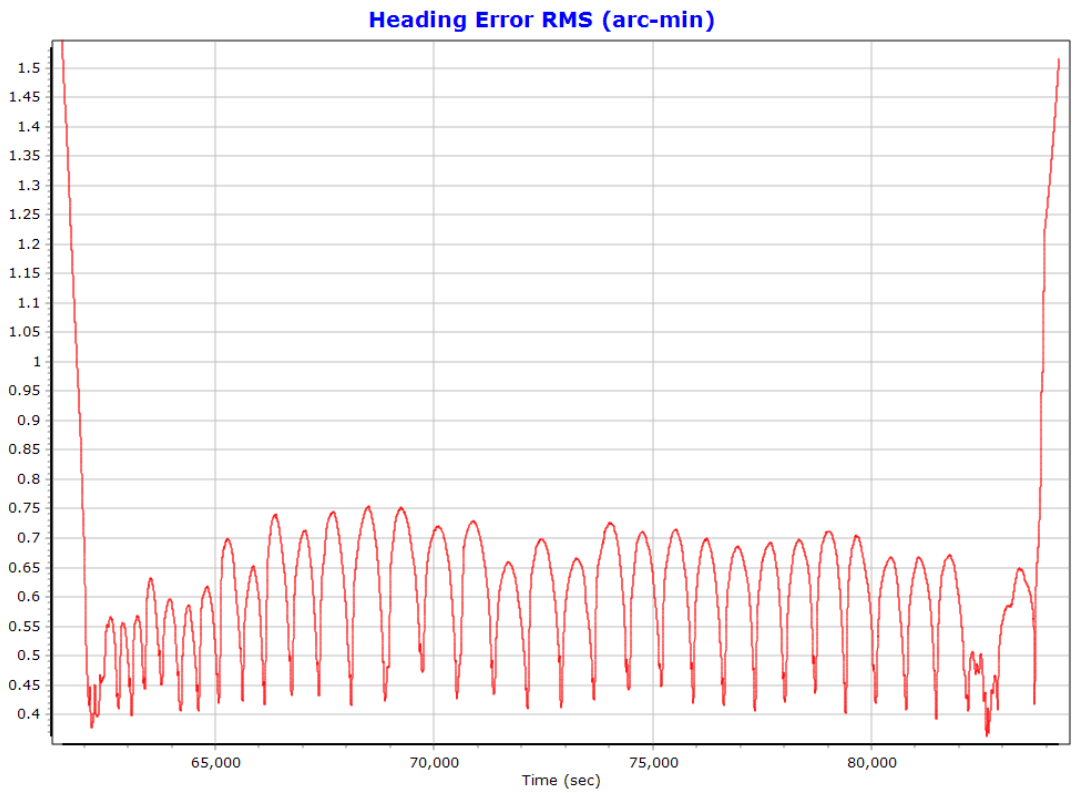
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)



Export Summary

Export file	export_19-058_110319b.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	61460.005 (11/03/2019 17:04:20)		
Export end time	84272.593 (11/03/2019 23:24:32)		
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]	-0.032	0.010	-0.282
Boresight angles [arcmin]	302.837	-45.779	-1265.005
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	61365.543 (11/03/2019 17:02:45)		
EO end time	84272.593 (11/03/2019 23:24:32)		
Grid	Universal Transverse Mercator		
Zone	UTM North 12 (114W to 108W)		
Datum	WGS84		
Ellipsoid	WGS84		
Local Transformation	NONE		
Target Epoch	2019.838356		