General Information

Mission Information

Project name	2SU20297_186
Processing date	2020-10-26 15:24:11
Mission date	2020-10-23 19:41:10
Mission duration	03:32:50.000
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N9642
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
2SU20297B.158	POS Data
2SU20297B.159	POS Data
2SU20297B.160	POS Data
2SU20297B.161	POS Data
2SU20297B.162	POS Data
2SU20297B.163	POS Data
2SU20297B.164	POS Data
2SU20297B.165	POS Data
2SU20297B.166	POS Data
2SU20297B.167	POS Data
2SU20297B.168	POS Data
2SU20297B.169	POS Data
2SU20297B.170	POS Data
2SU20297B.171	POS Data
2SU20297B.172	POS Data
2SU20297B.173	POS Data
2SU20297B.174	POS Data
2SU20297B.175	POS Data
2SU20297B.176	POS Data
2SU20297B.177	POS Data
2SU20297B.178	POS Data
2SU20297B.179	POS Data
2SU20297B.180	POS Data
2SU20297B.181	POS Data
2SU20297B.182	POS Data
2SU20297B.183	POS Data
2SU20297B.184	POS Data
2SU20297B.185	POS Data
2SU20297B.186	POS Data
2SU20297B.187	POS Data
2SU20297B.188	POS Data
2SU20297B.189	POS Data

Input Files

File Name	File Type
Ephm2970.20g	GLONASS Broadcast Ephemeris
Ephm2970.20n	GPS Broadcast Ephemeris
igr21284.sp3	GPS Precise Ephemeris
igr21285.sp3	GPS Precise Ephemeris
igr21286.sp3	GPS Precise Ephemeris

Output Files

Filename	File type
sbet_2SU20297_186.out	SBET Trajectory File
export_2SU20297_186.out	Custom Smoothed BET Export Output

Rover Data Summary

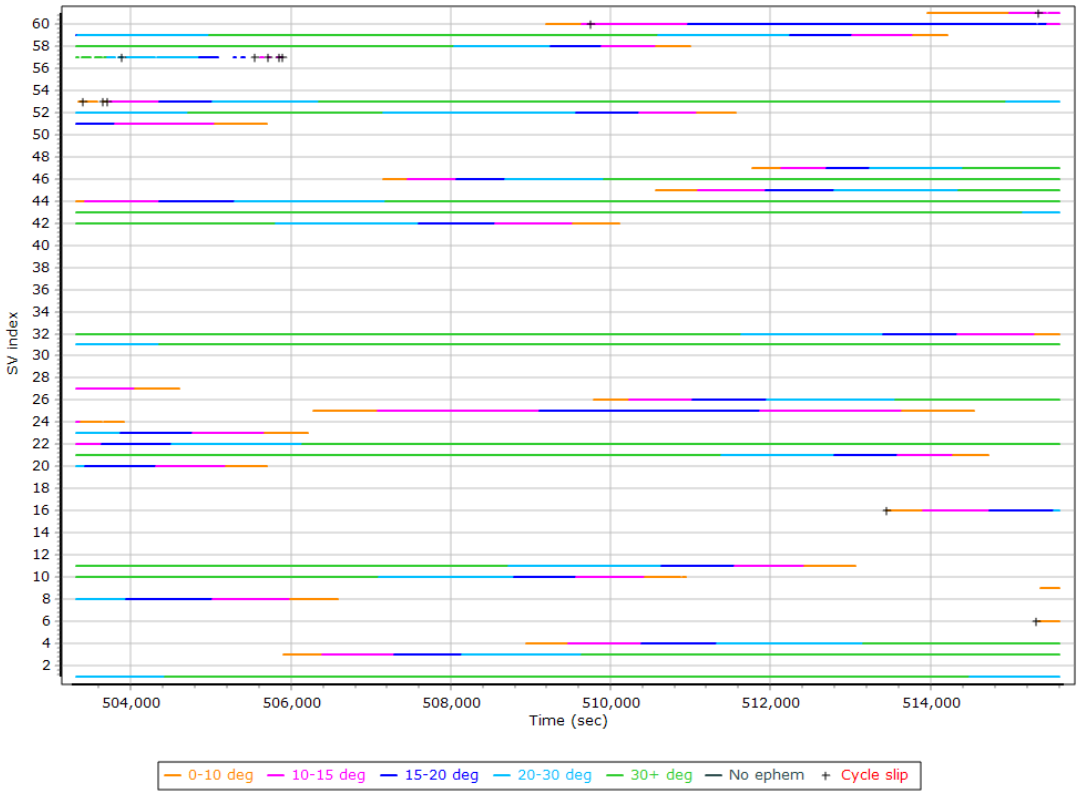
First raw data file	2SU20297B.158		
Last raw data file	2SU20297B.189		
Start GPS week	2128		
Start time	502851.347 (10/23/2020 19:40:51)		
End time	515622.788 (10/23/2020 23:13:42)		
Start of fine alignment	503256.263 (10/23/2020 19:47:36)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	None		
Correction data	None		
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)	0.000	0.000	0.000
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

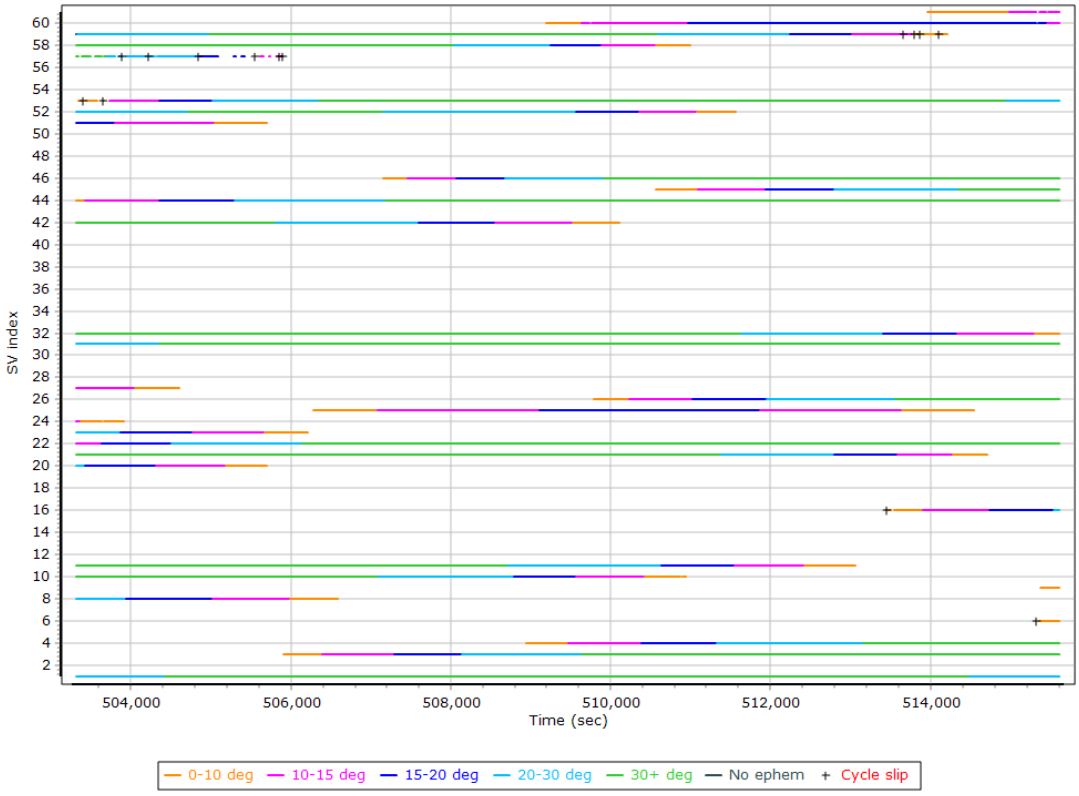
Raw IMU Import QC Summary

IMU data input file	imu_2SU20297_186.dat
IMU data check log file	imudt_2SU20297_186.log
IMU Records Processed	2553980
Termination Status	Normal
IMU Anomalies	0

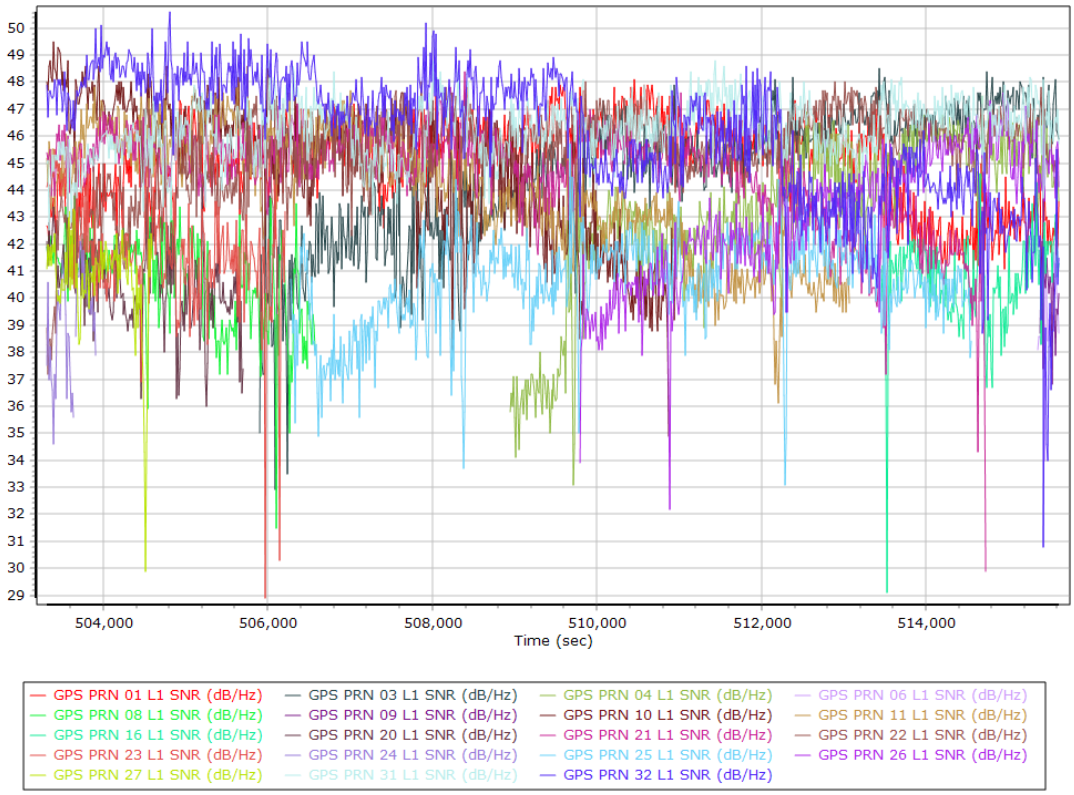
L1 Satellite Lock/Elevation



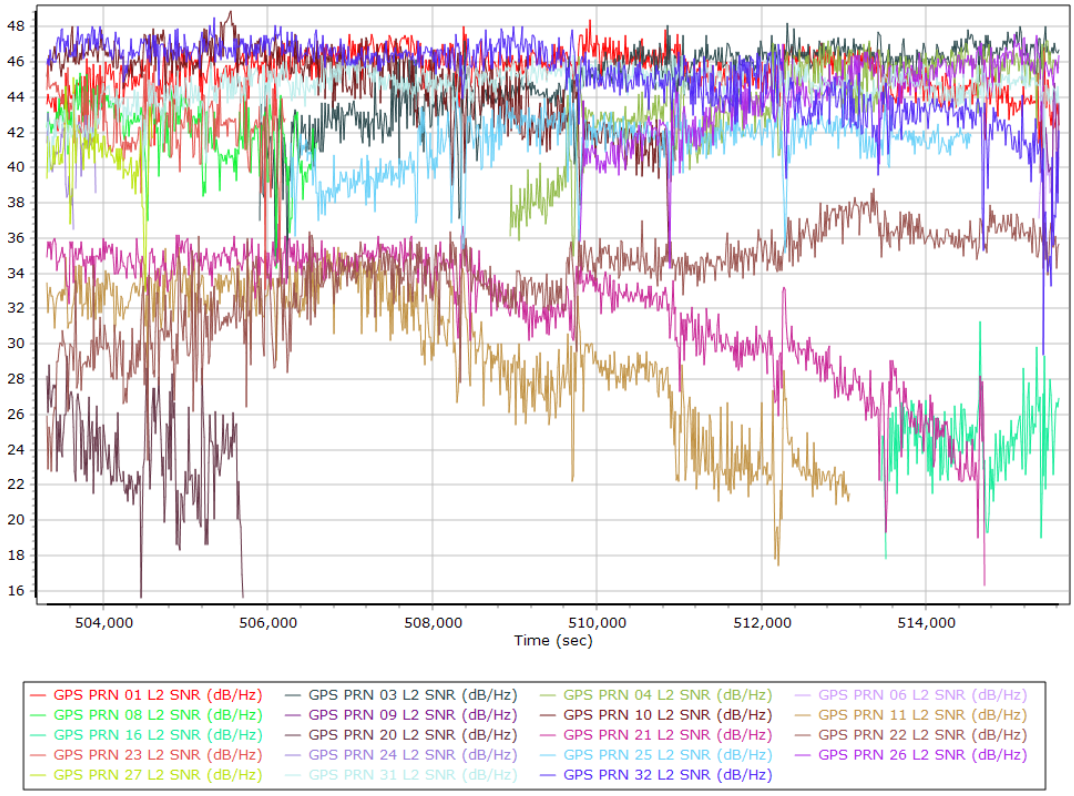
L2 Satellite Lock/Elevation



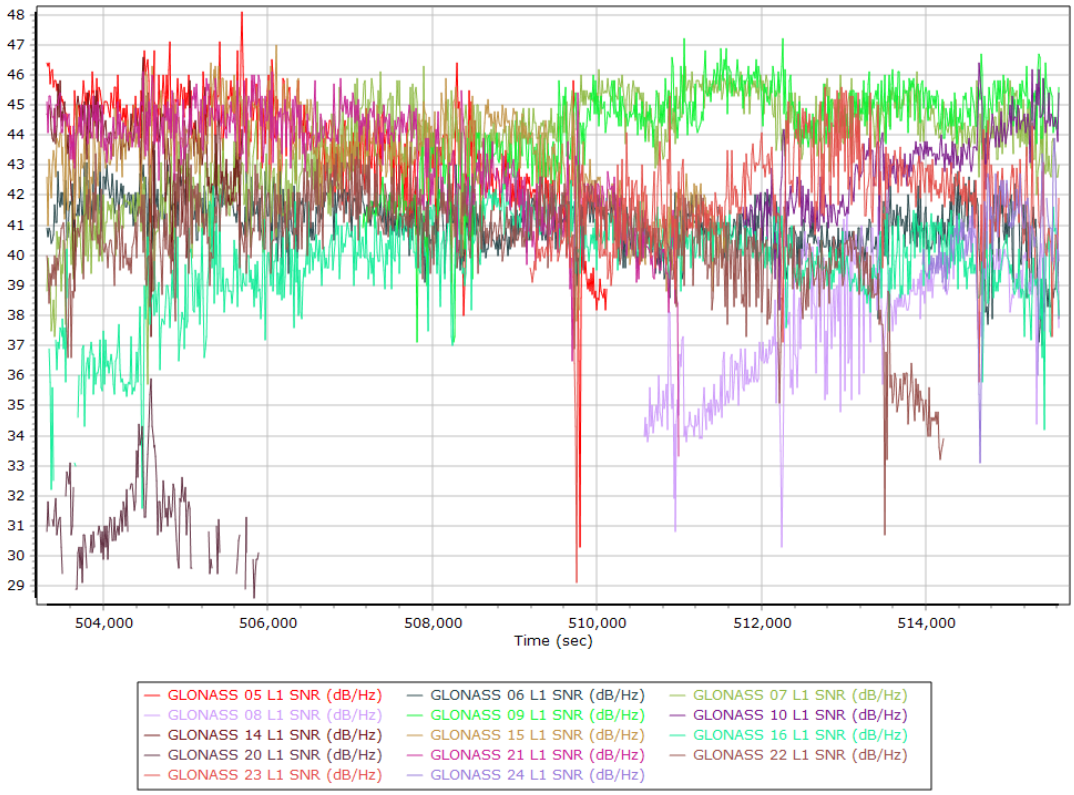
GPS L1 SNR



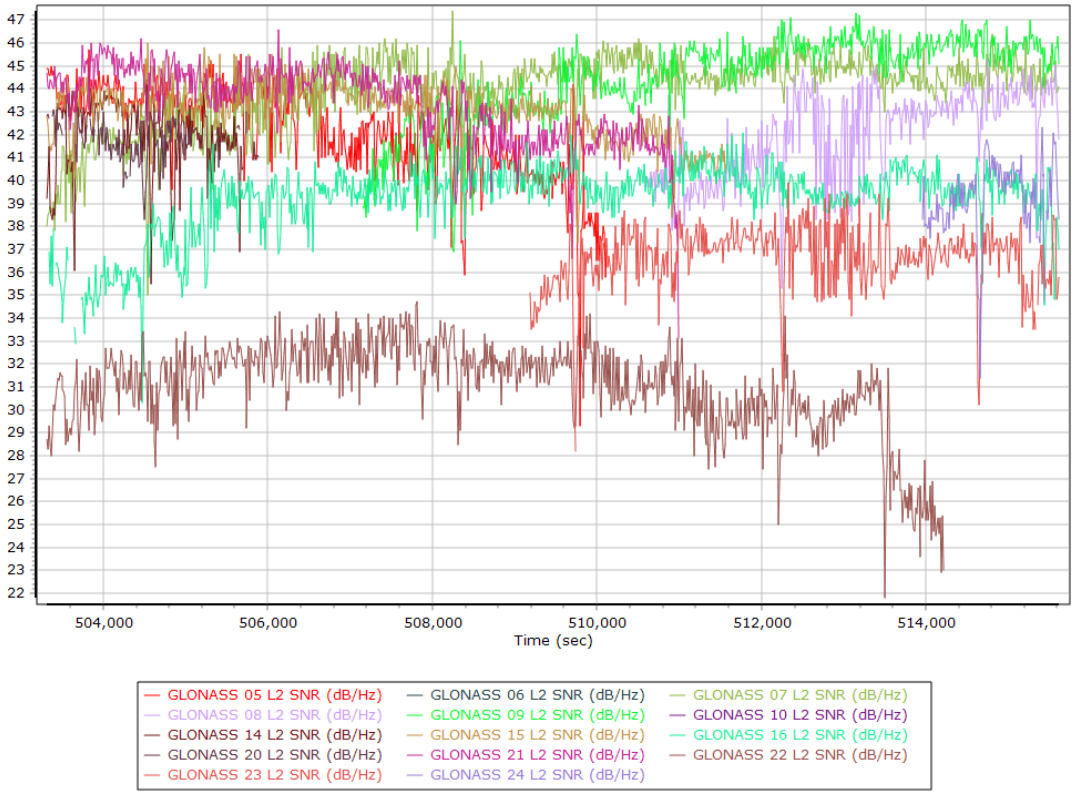
GPS L2 SNR



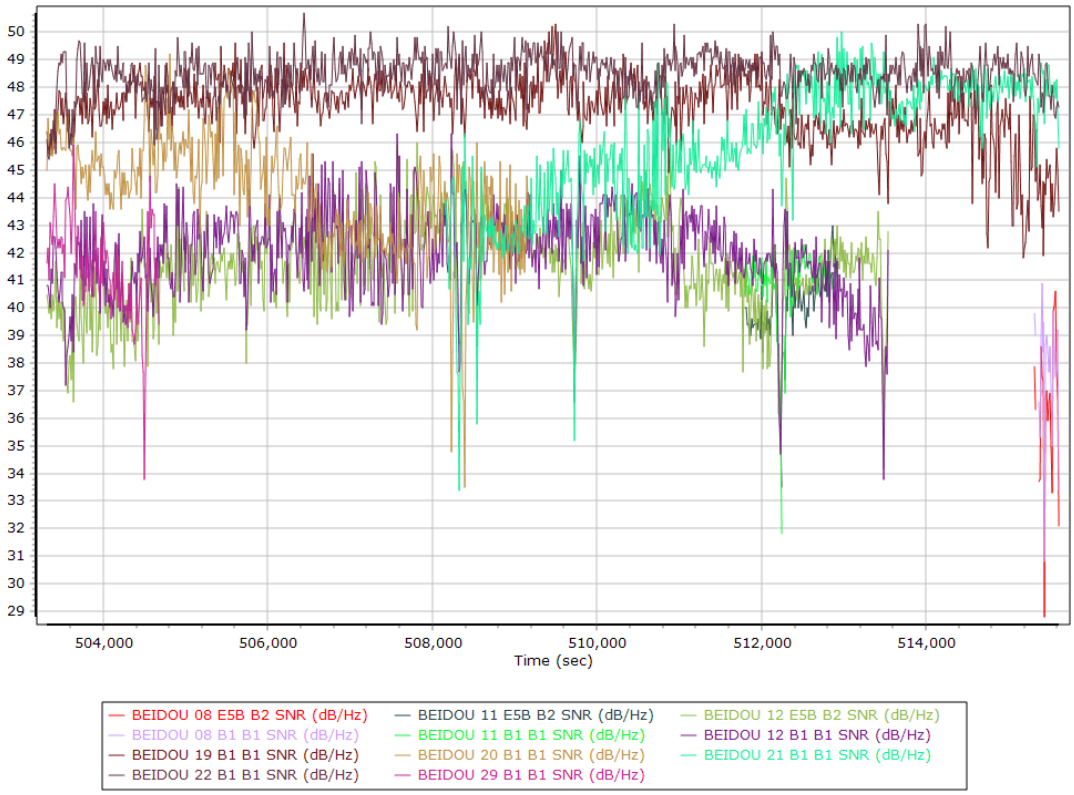
GLONASS L1 SNR



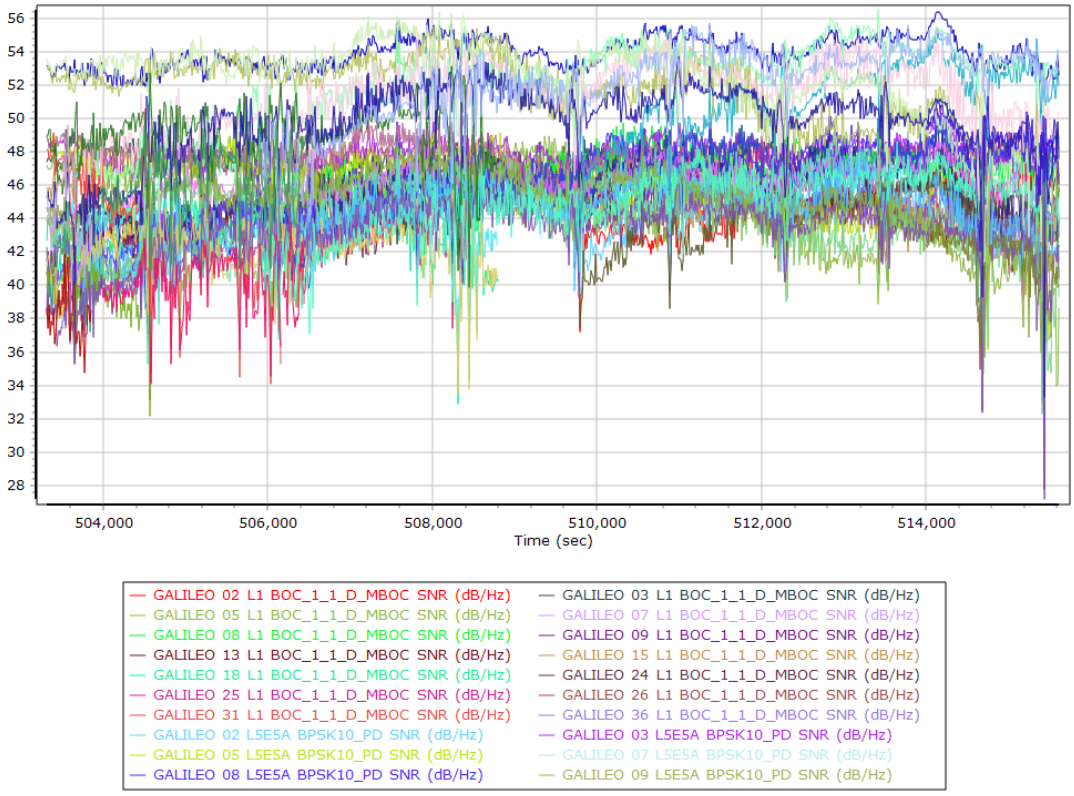
GLONASS L2 SNR



BEIDOU SNR

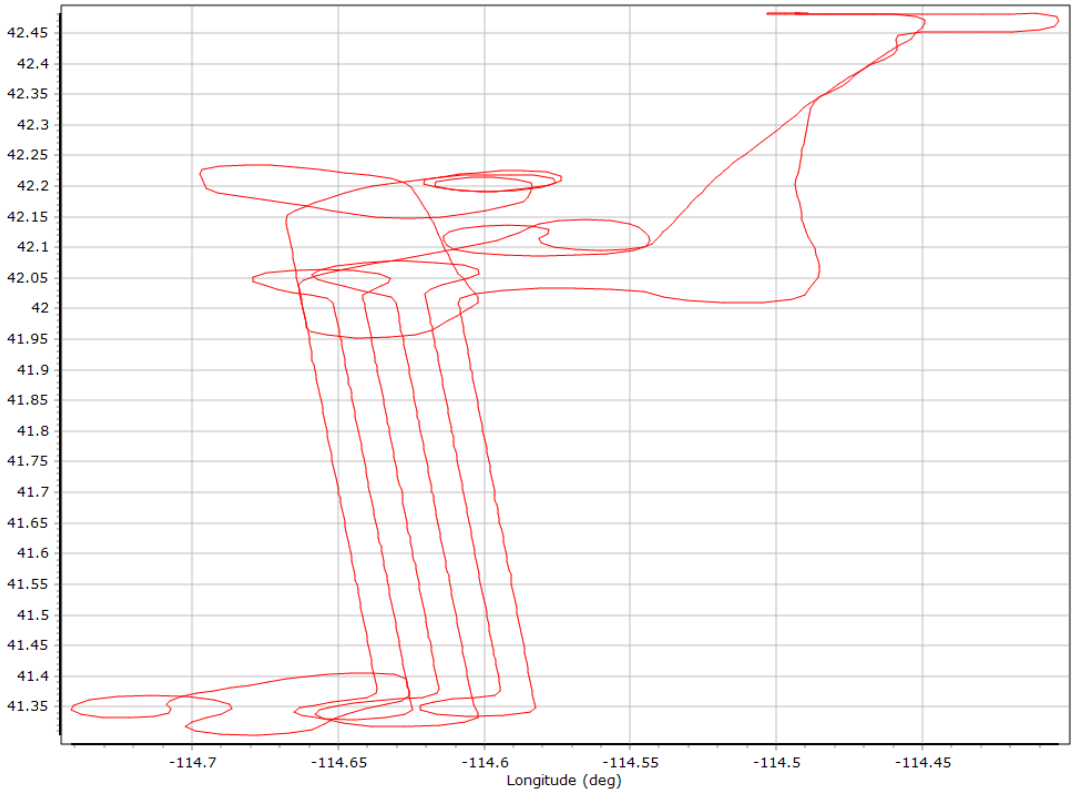


GALILEO SNR

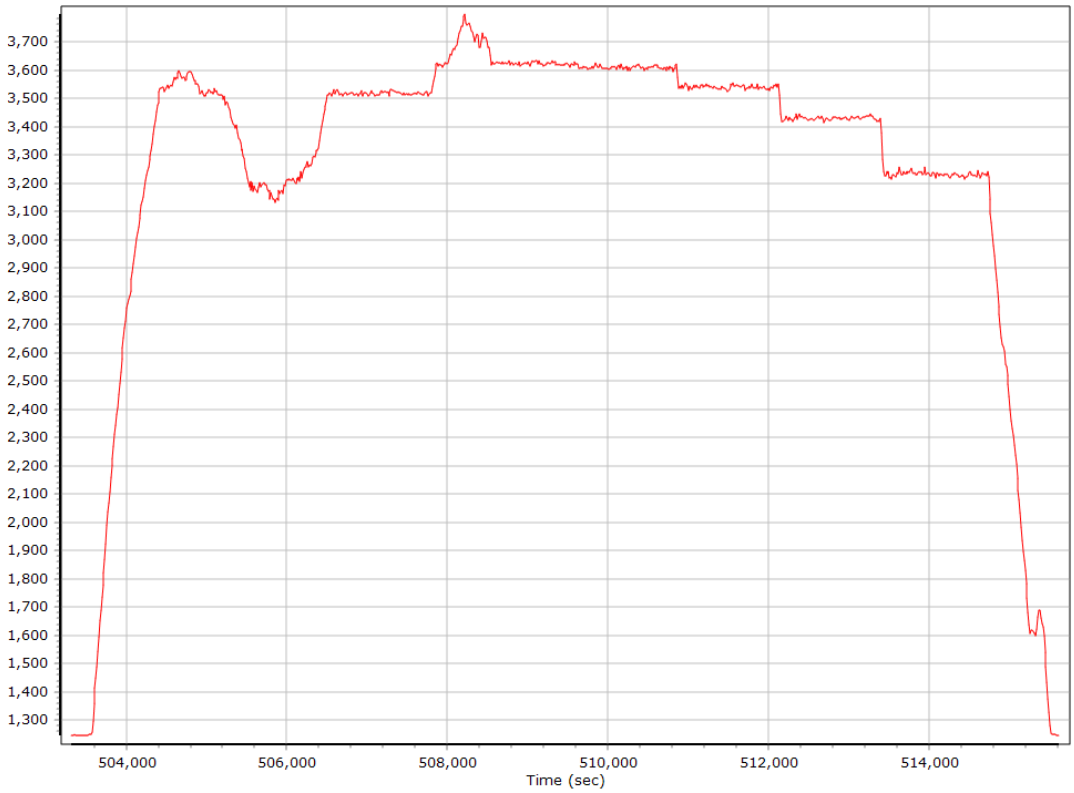

56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
504,000
506,000
508,000
510,000
512,000
514,000
Time (sec)
GALILEO 02 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 03 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 05 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 07 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 08 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 09 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 13 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 15 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 18 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 24 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 25 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 26 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 31 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 36 L1 BOC_1_1_D_MBOC SNR (dB/Hz)
GALILEO 02 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 03 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 05 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 07 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 08 L5E5A BPSK10_PD SNR (dB/Hz)
GALILEO 09 L5E5A BPSK10_PD SNR (dB/Hz)

Trajectory Information

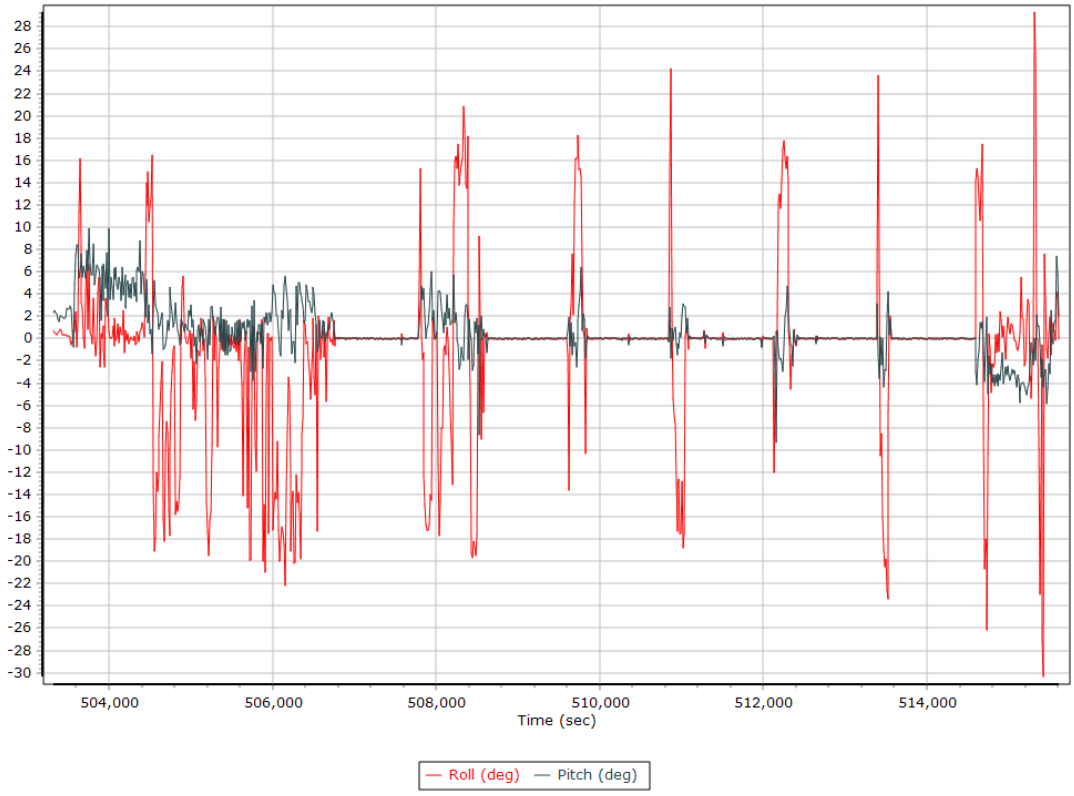
Top View



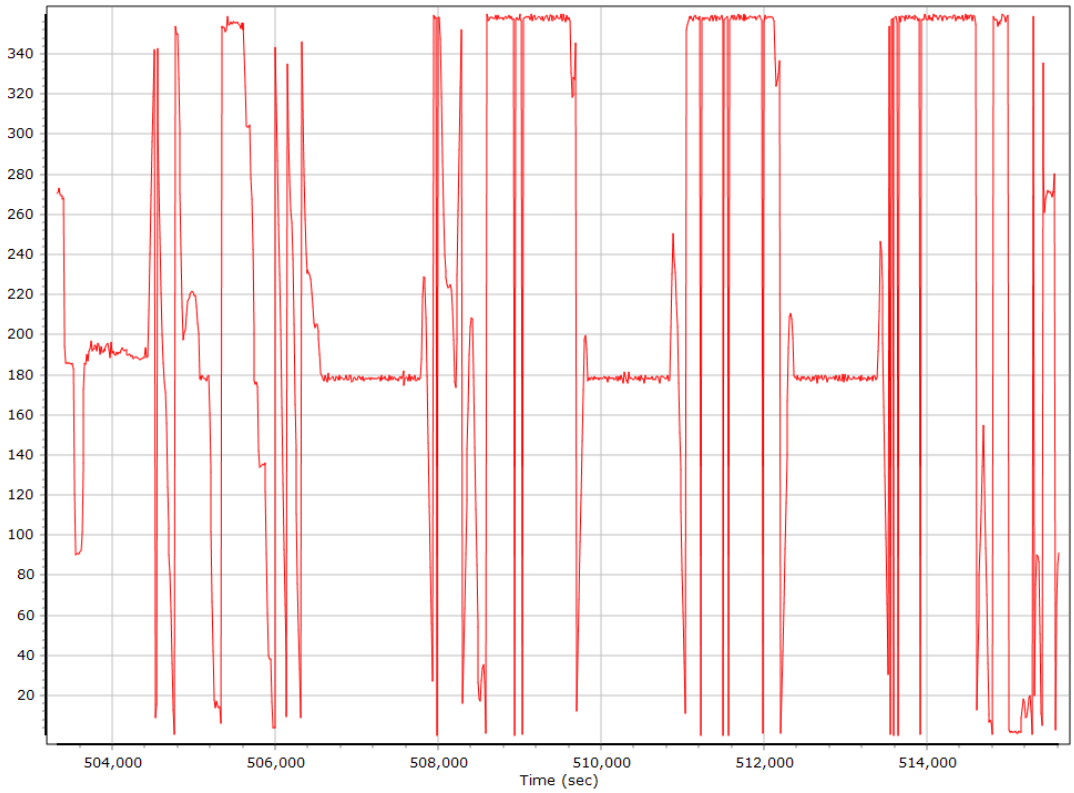
Altitude



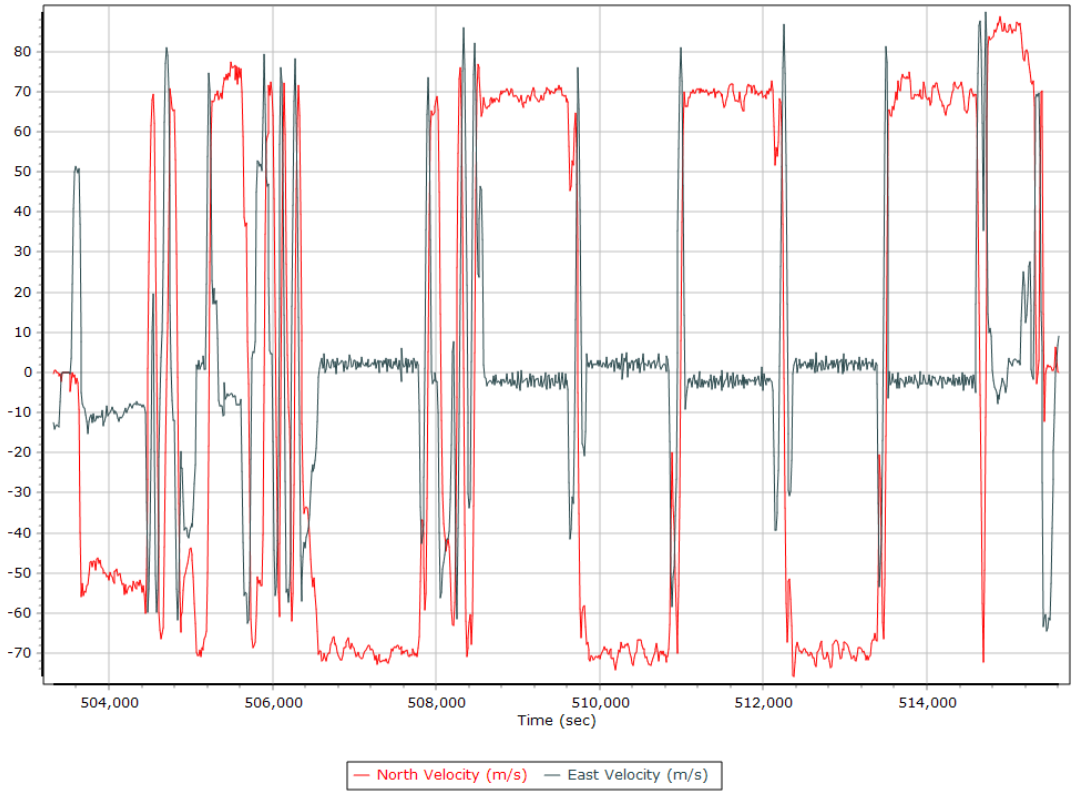
Roll/Pitch



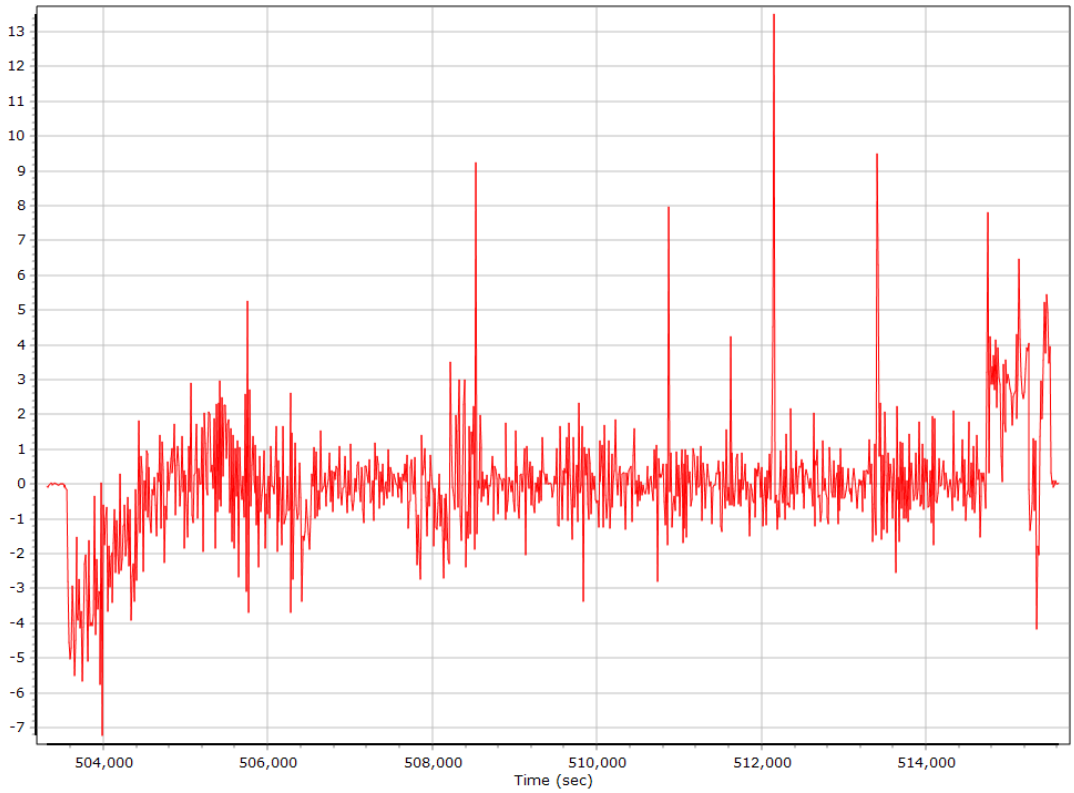
Heading



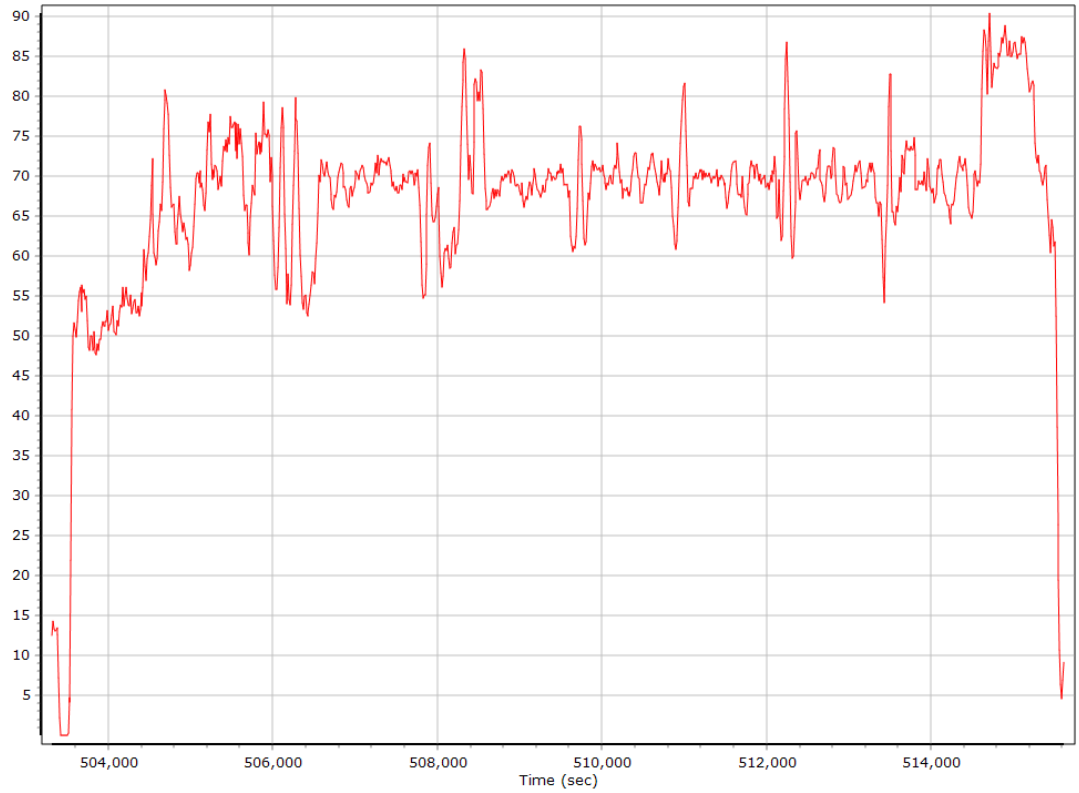
North/East Velocity



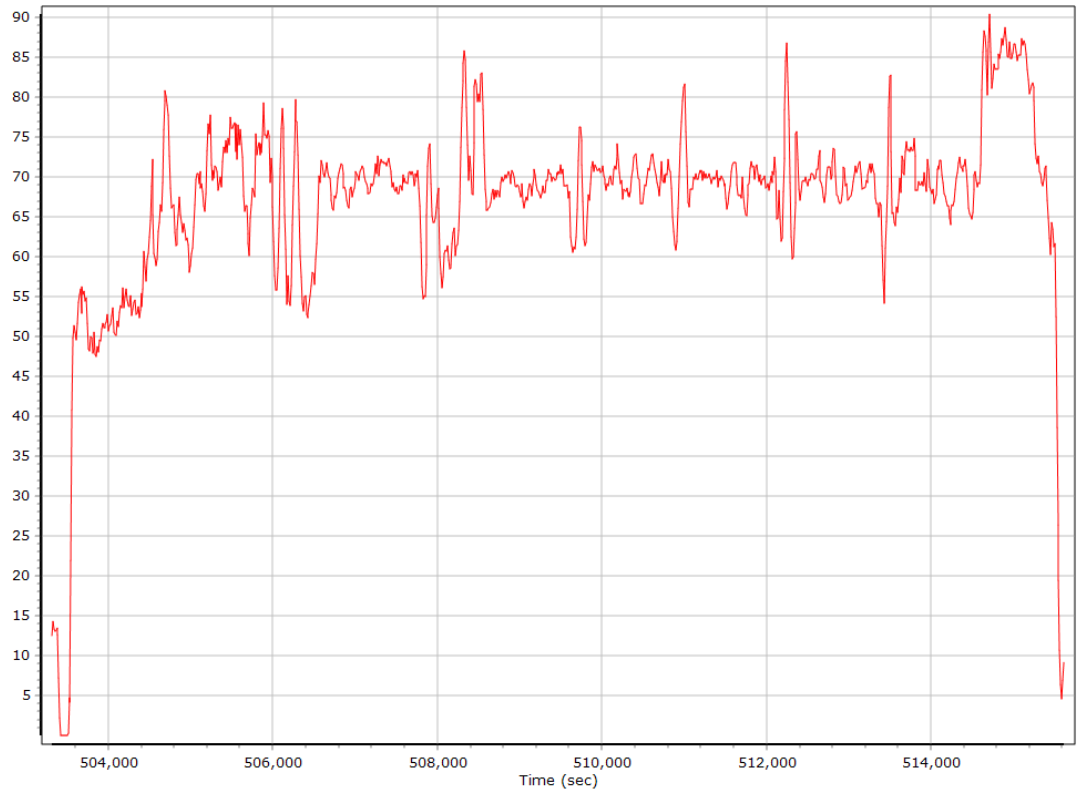
Down Velocity



Total Speed

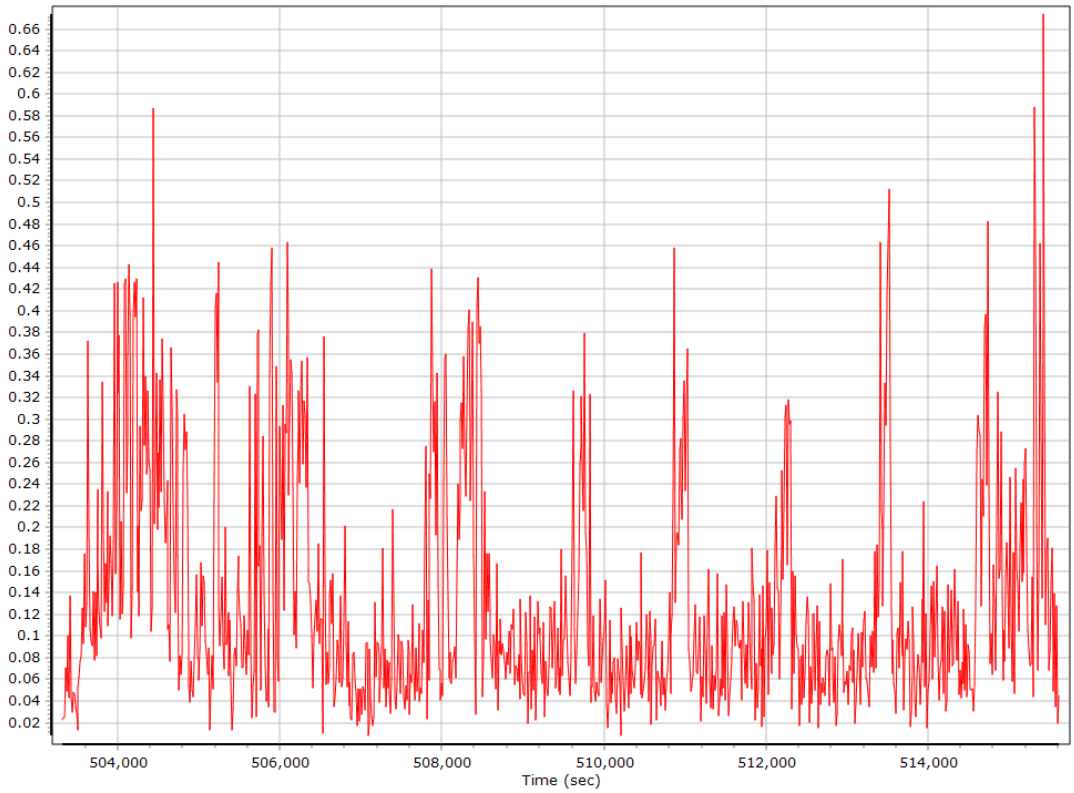


Ground Speed



Body Acceleration

Total Body Acceleration



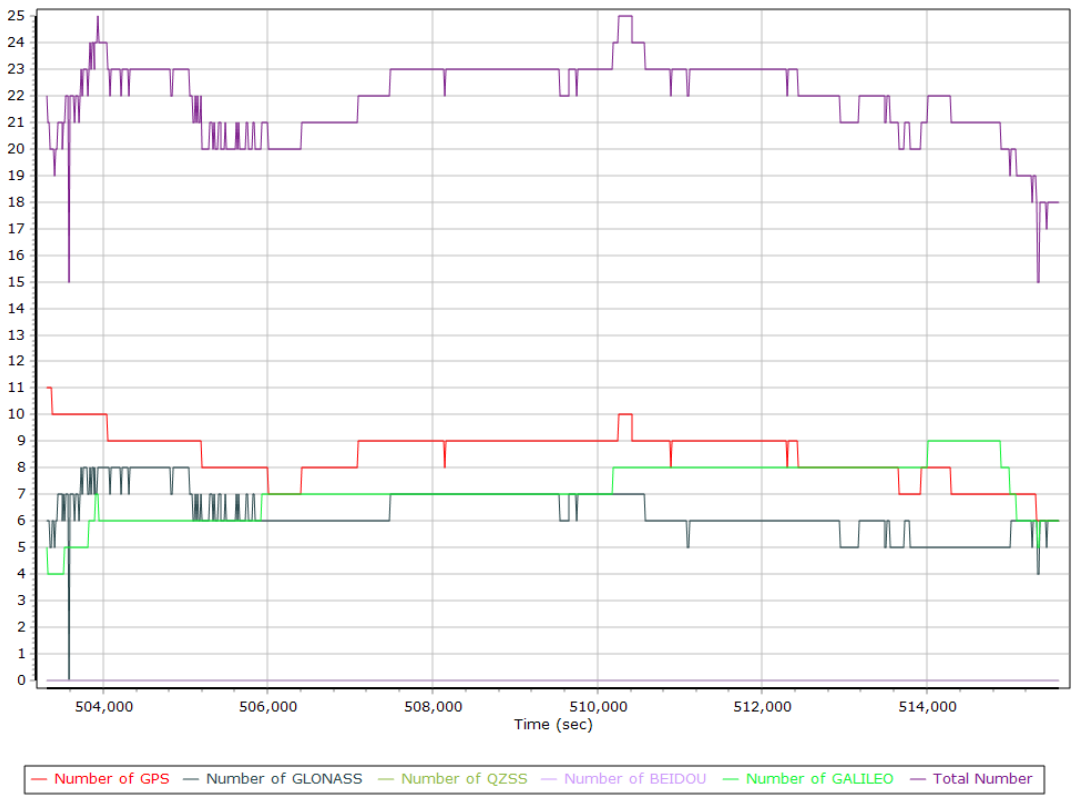
Body Angular Rate

GNSS QC

GNSS QC Statistics

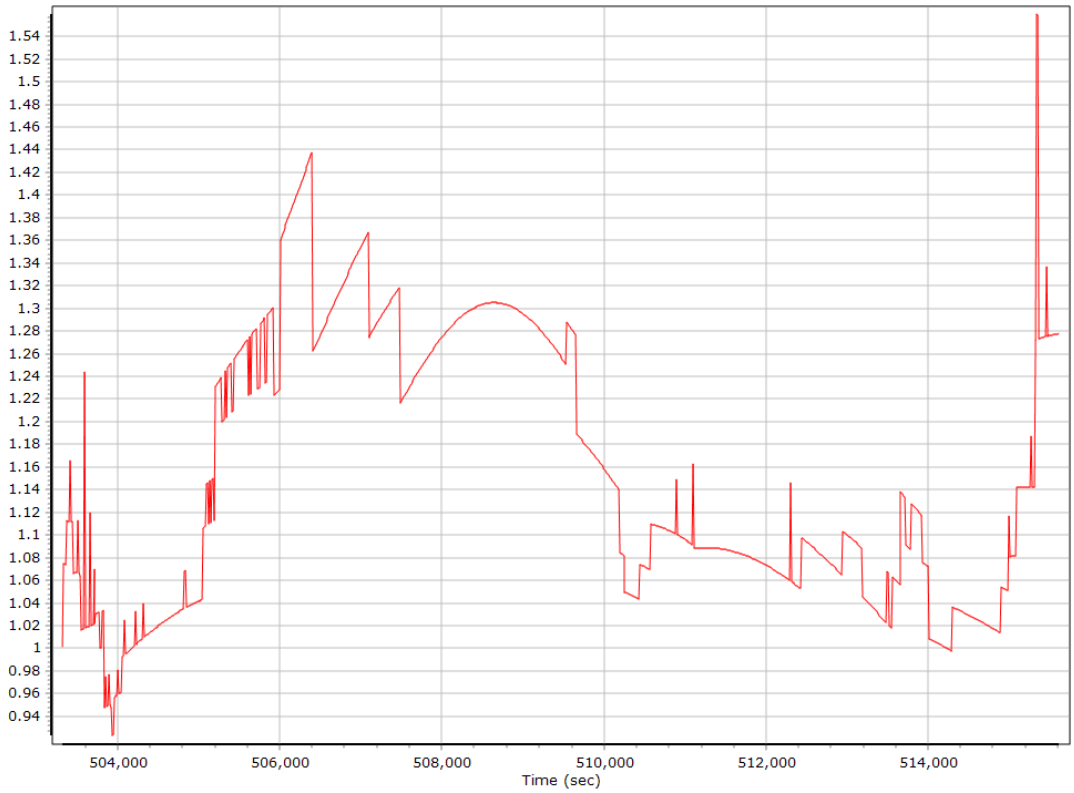
Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	6	11	9
Number of GLONASS SV	0	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Number of GALILEO SV	4	9	7
Total number of SV	15	25	22
PDOP	0.92	1.56	1.15
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	12738.00	0.00	0.00
Percentage	100.00	0.00	0.00

Num SVs in solution

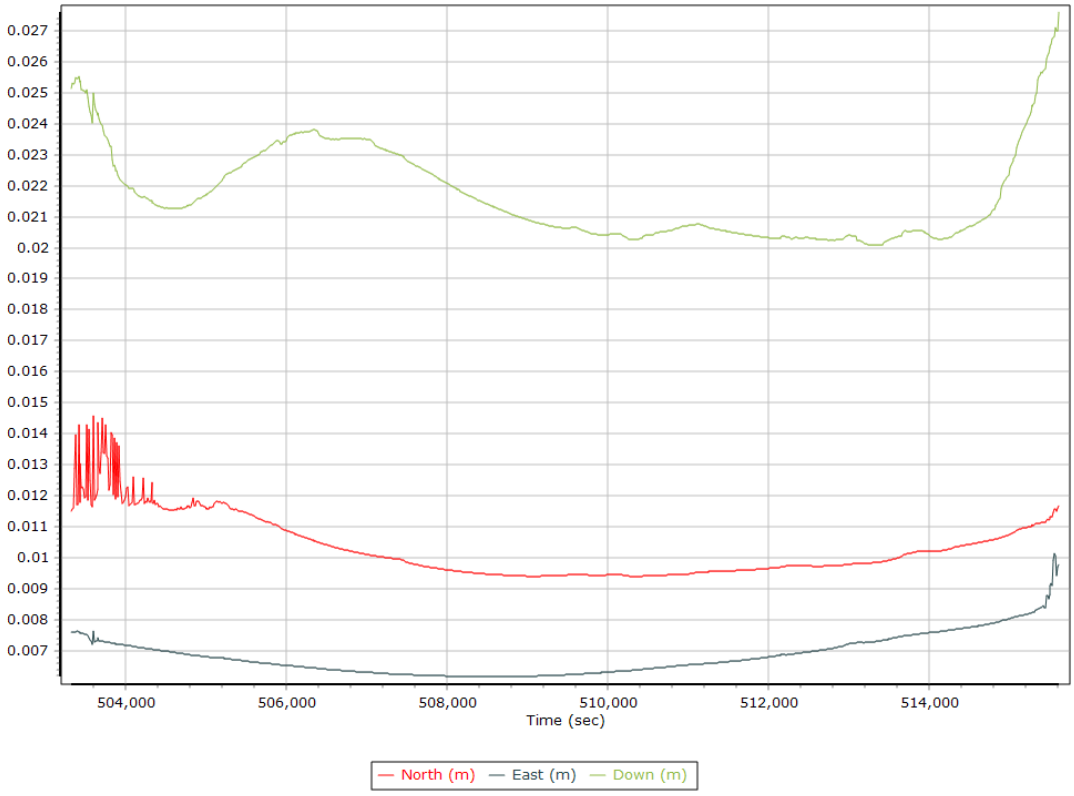


Forward/Reverse Separation

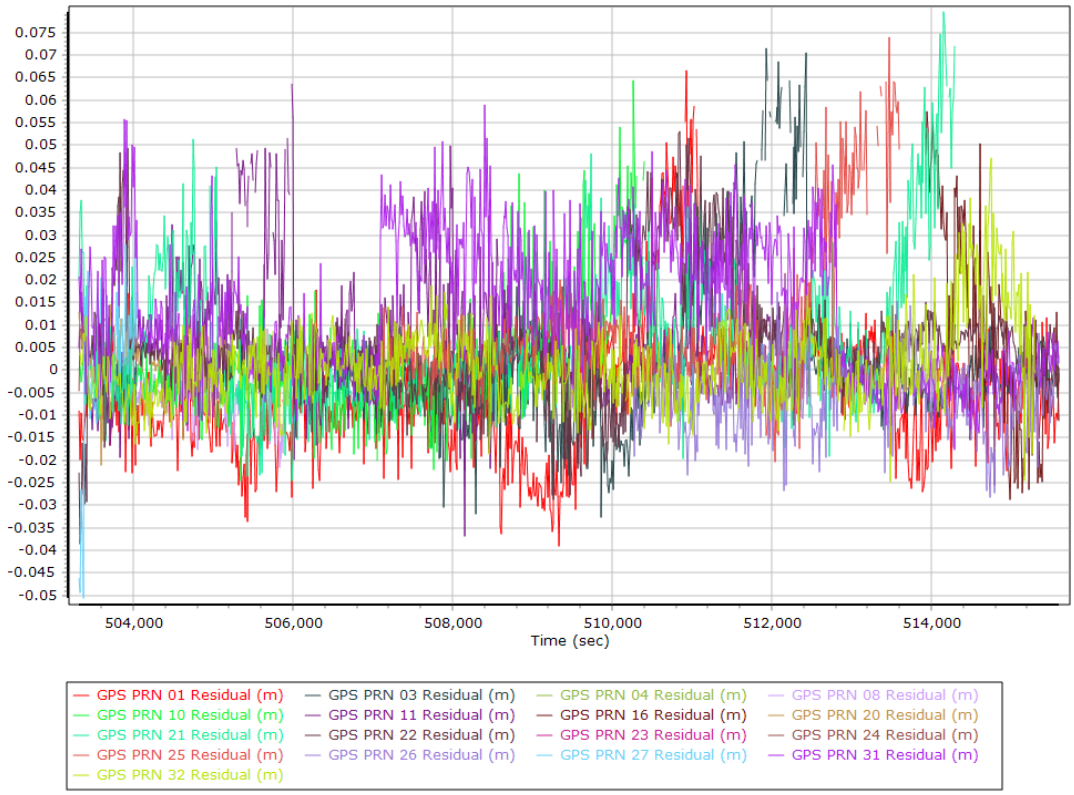
PDOP



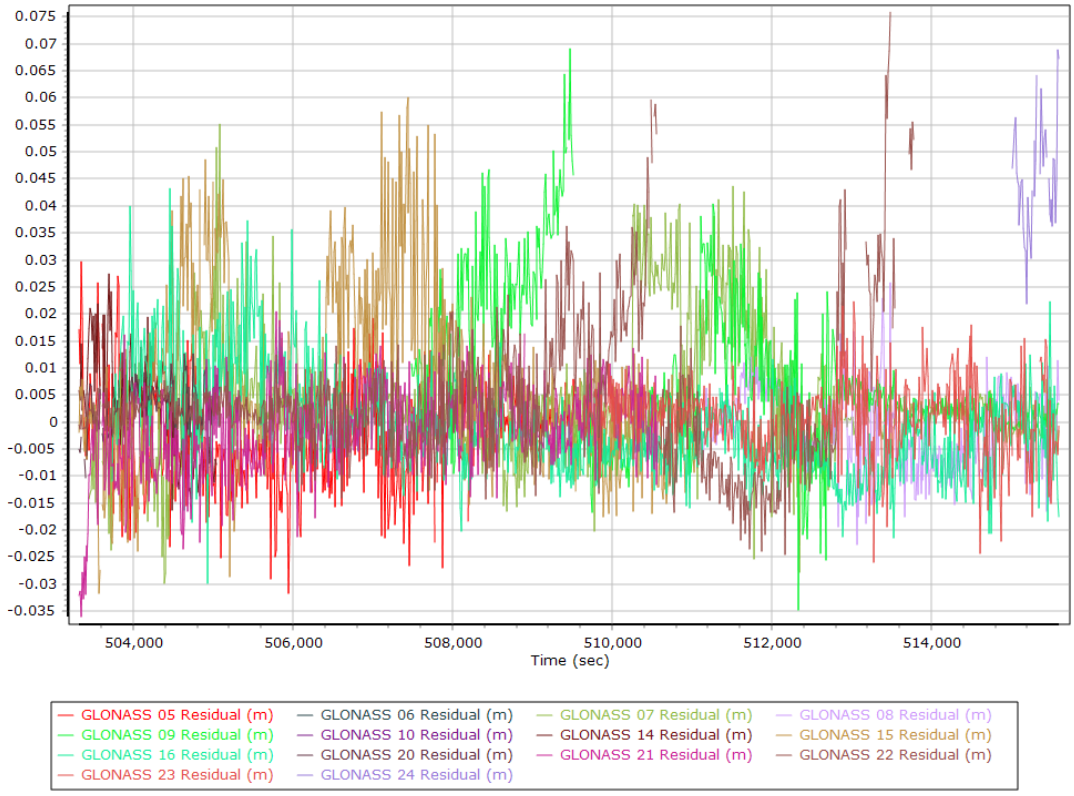
Estimated Position Accuracy



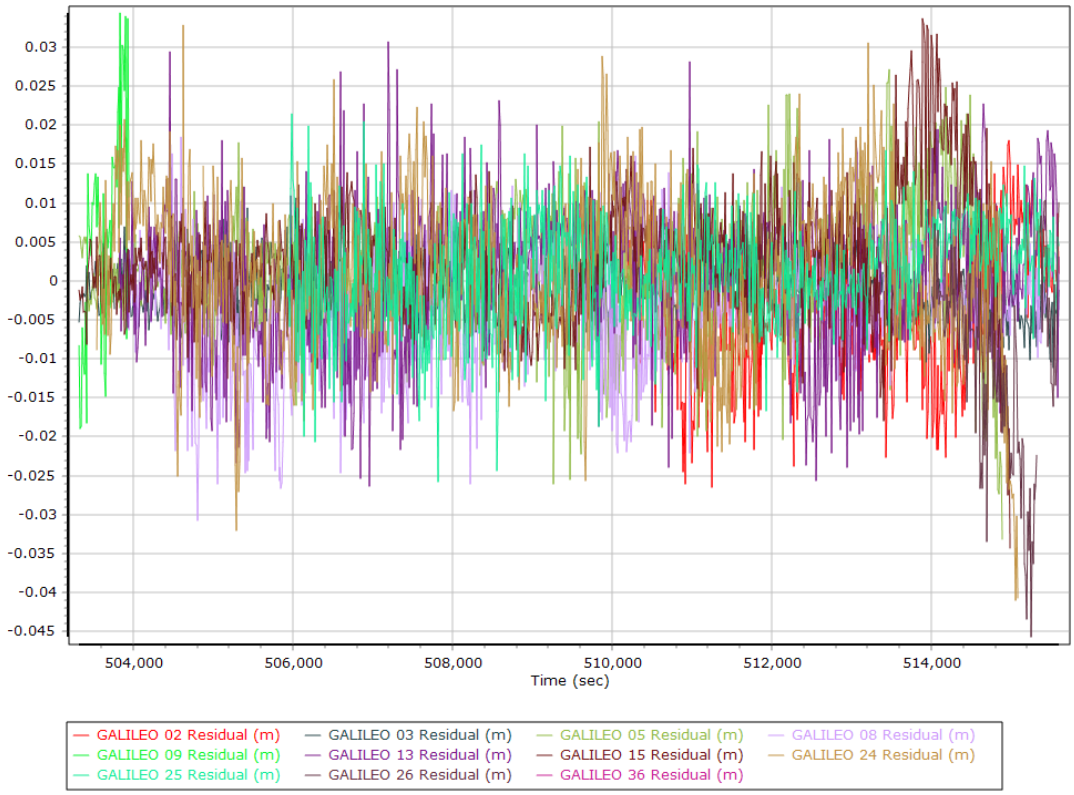
GPS Residuals



GLONASS Residuals



GALILEO Residuals



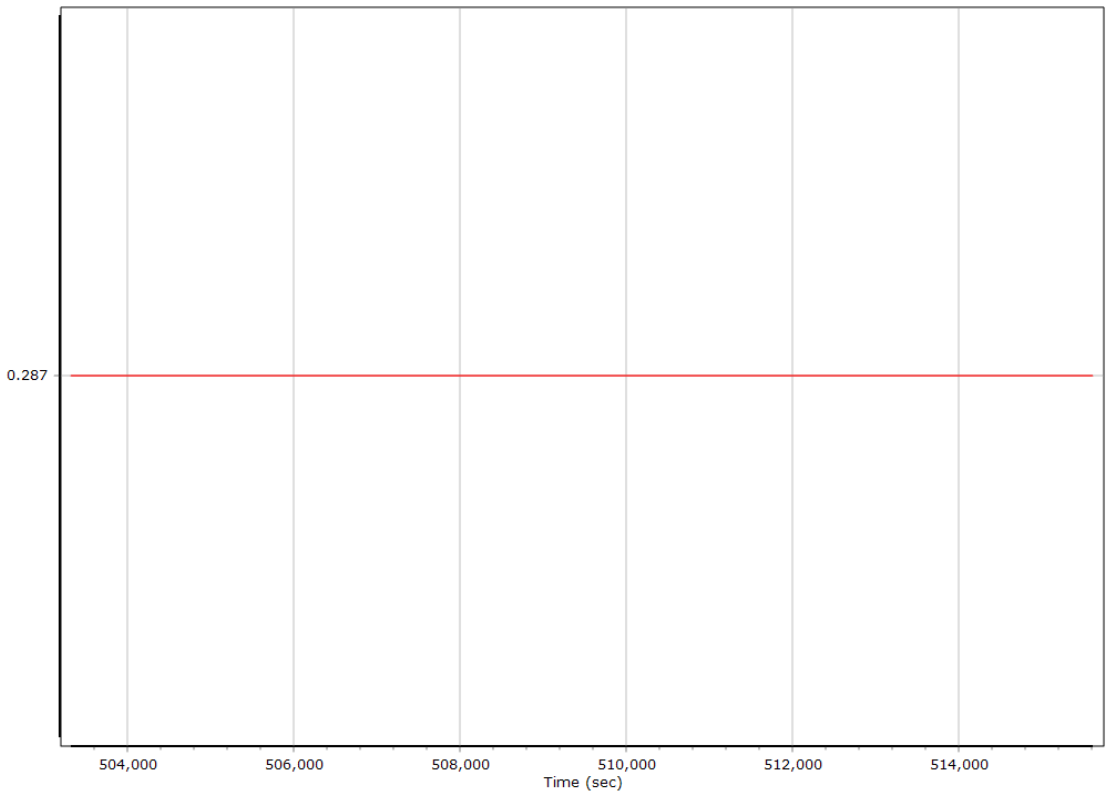
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	True		
Processing start time	502852.000 (10/23/2020 19:40:52)		
Processing end time	515622.000 (10/23/2020 23:13:42)		
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)	0.287	0.144	-1.269
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

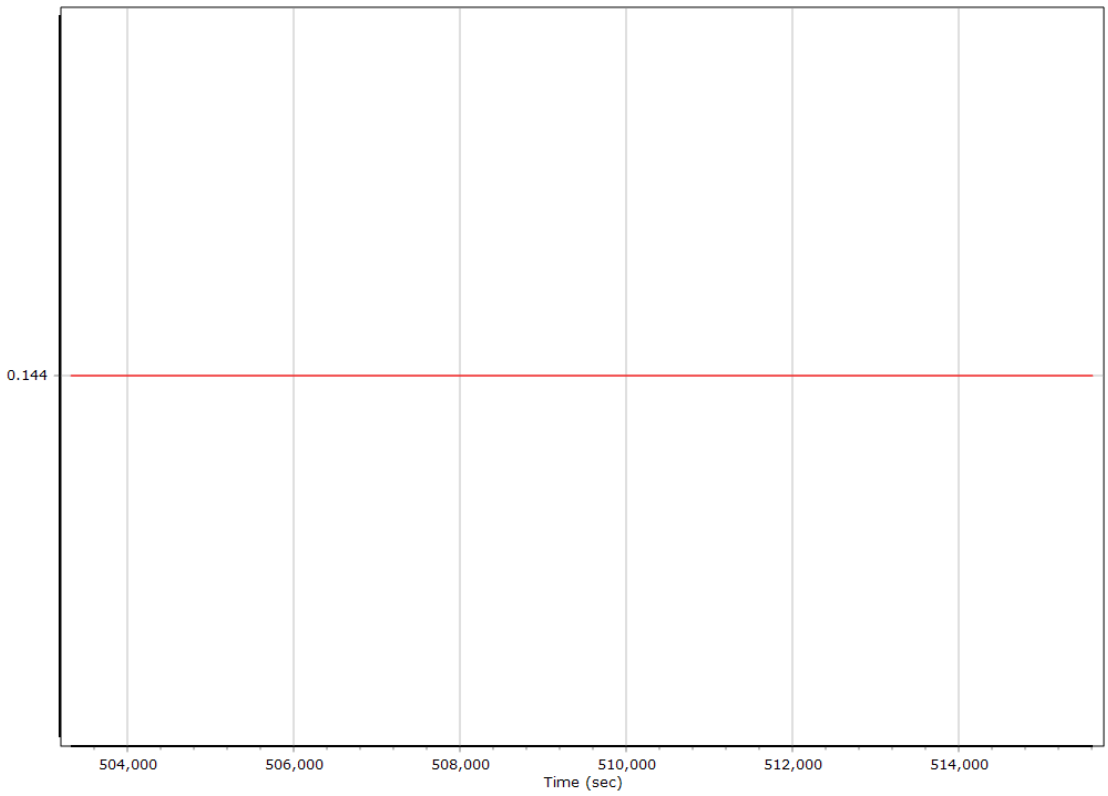
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

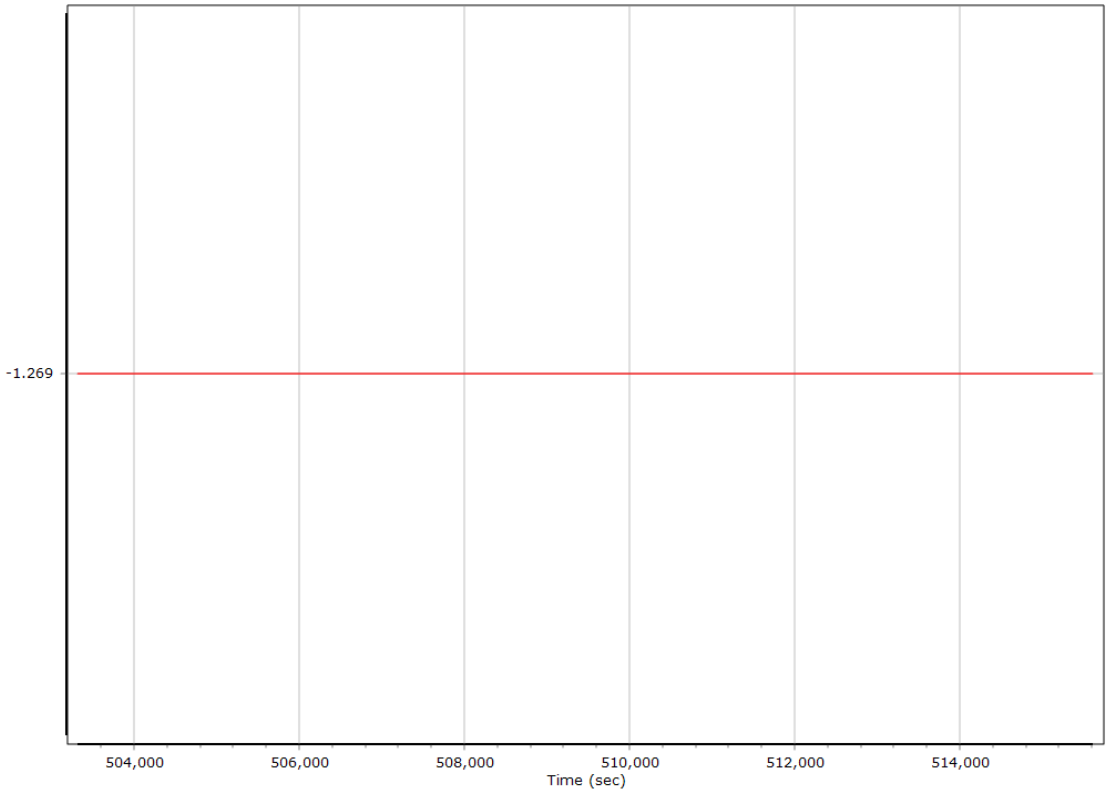
X Reference-Primary GNSS Lever Arm (m)



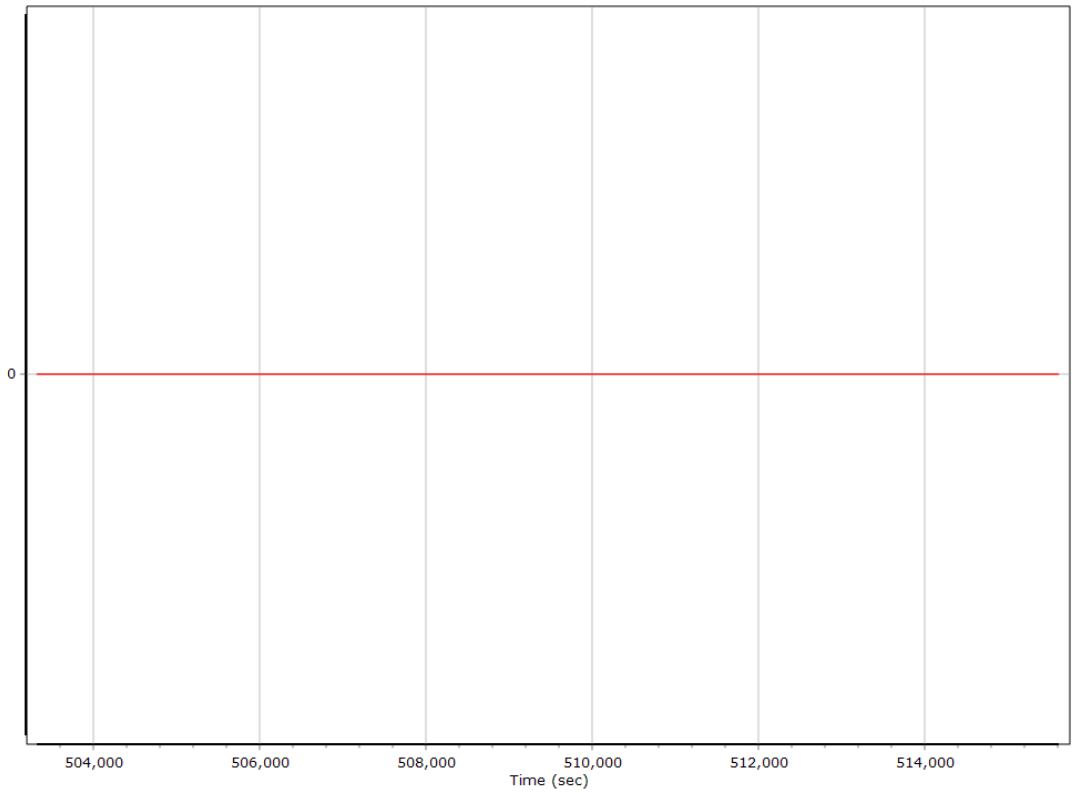
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



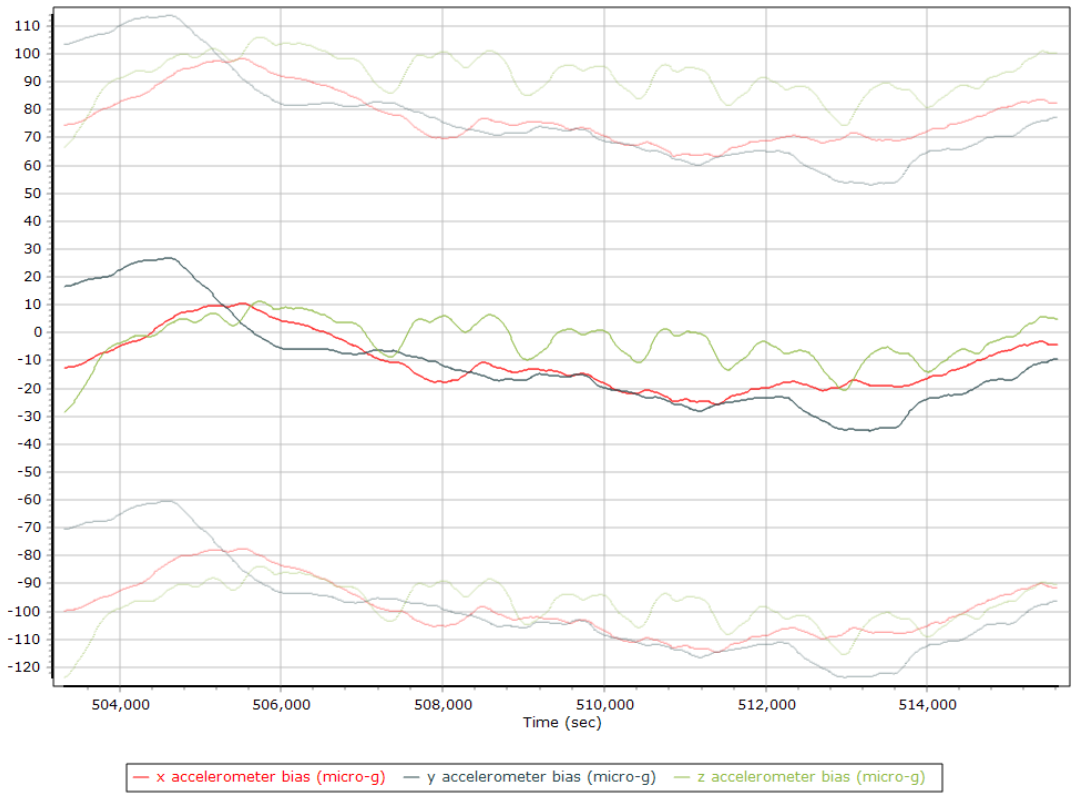
Reference-Primary GNSS Lever Arm Figure of Merit



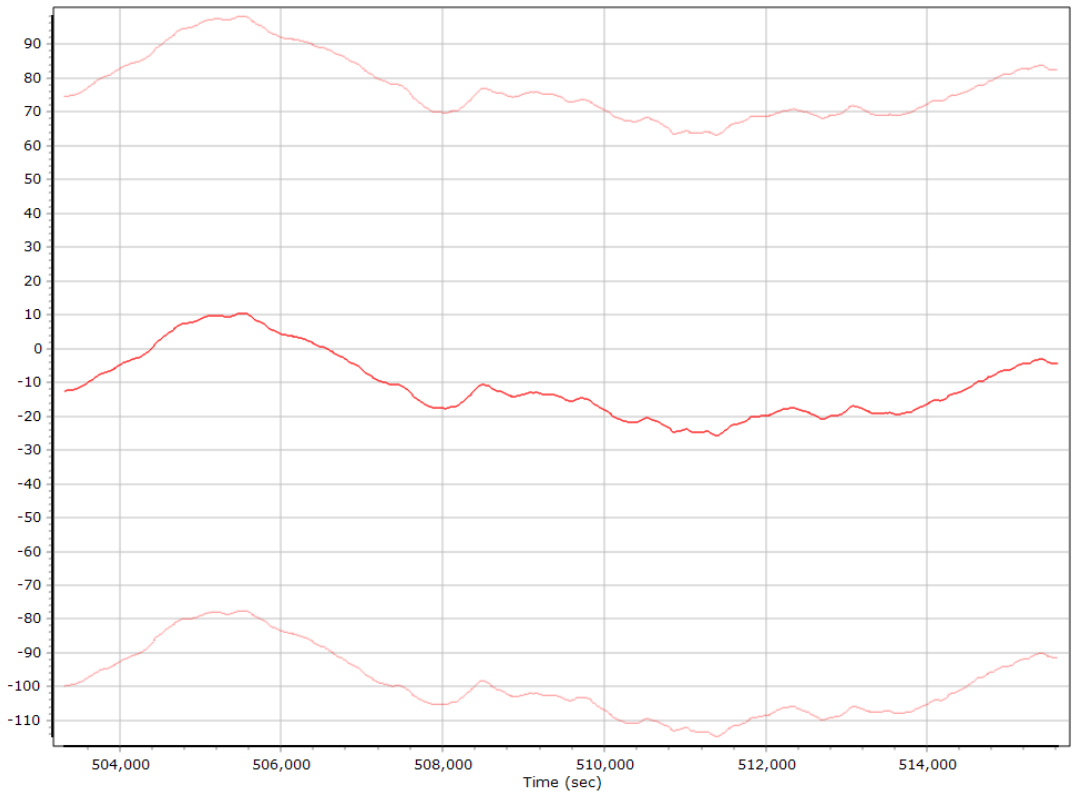
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

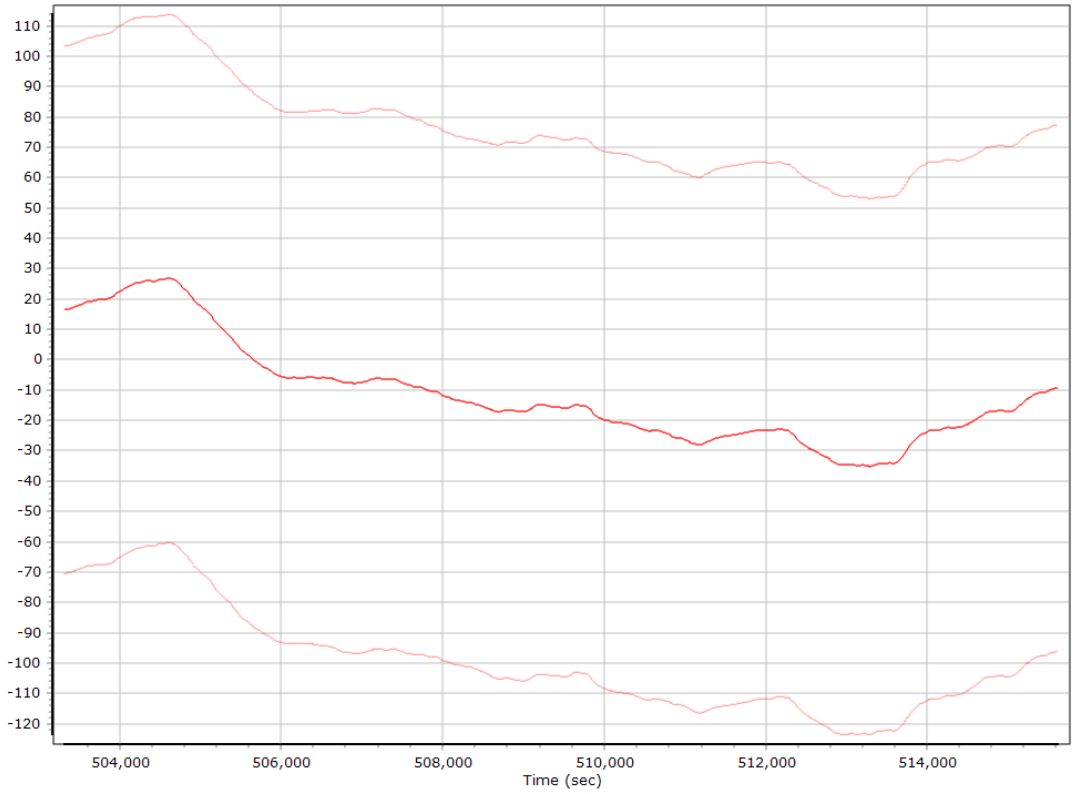
Accelerometer Bias (micro-g)



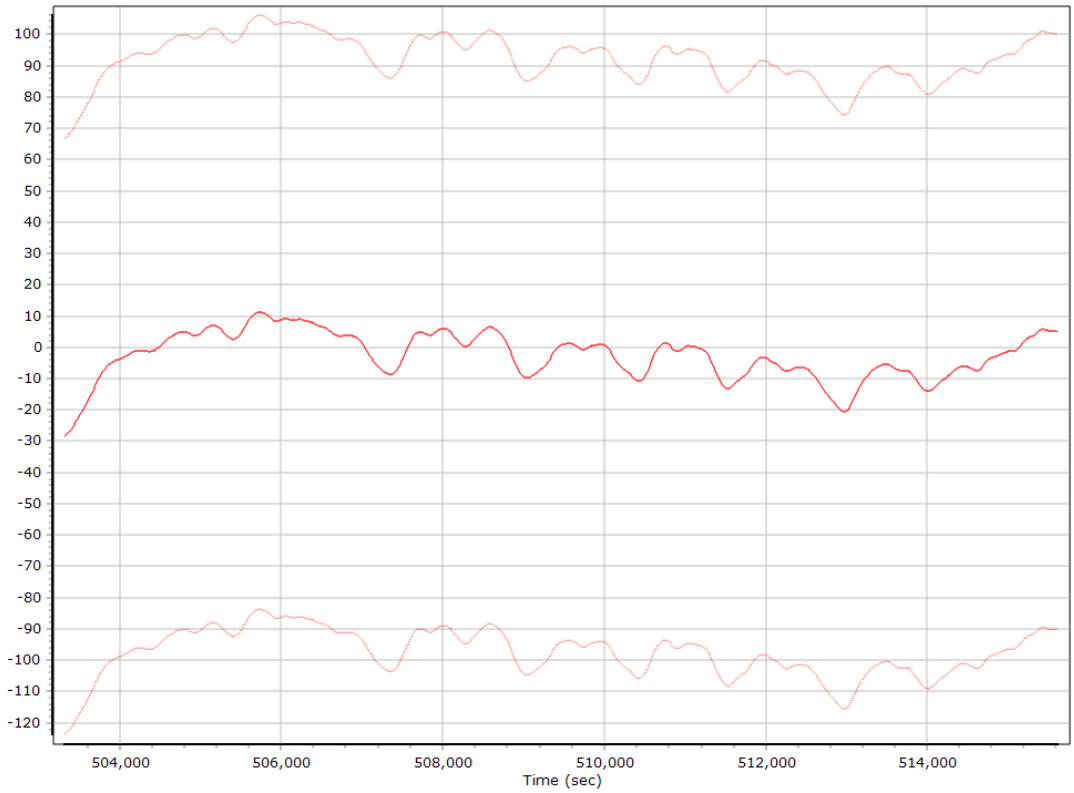
X Accelerometer Bias (micro-g)



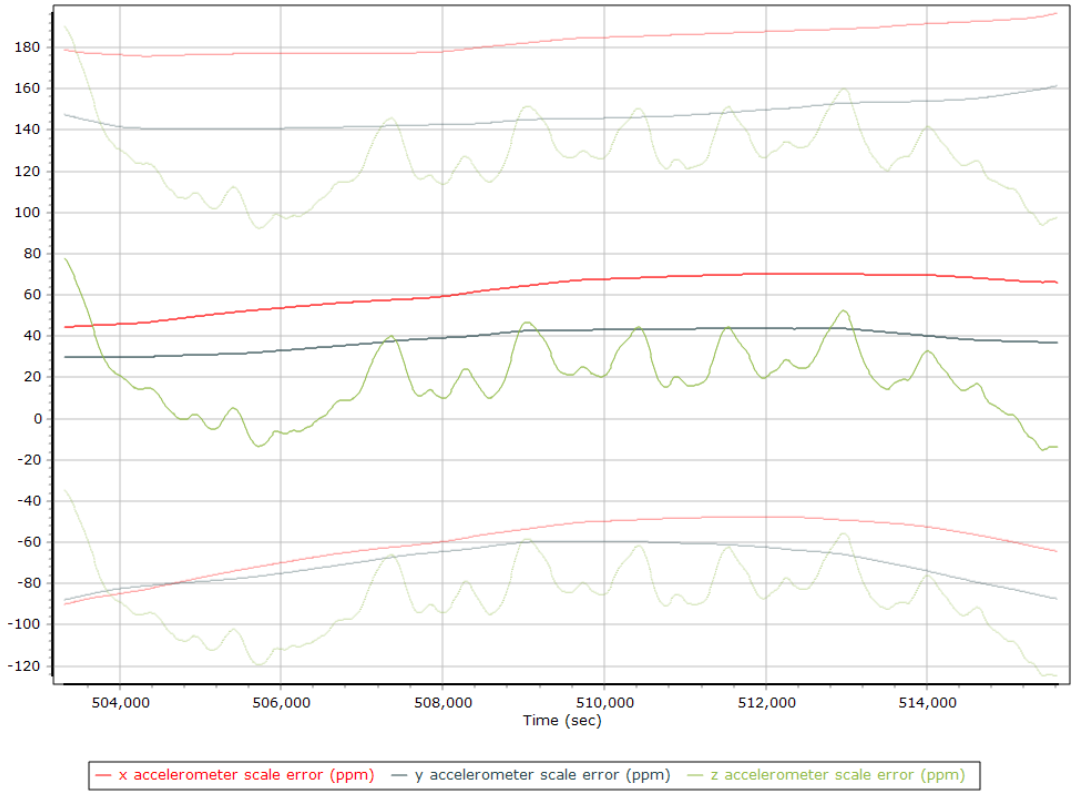
Y Accelerometer Bias (micro-g)



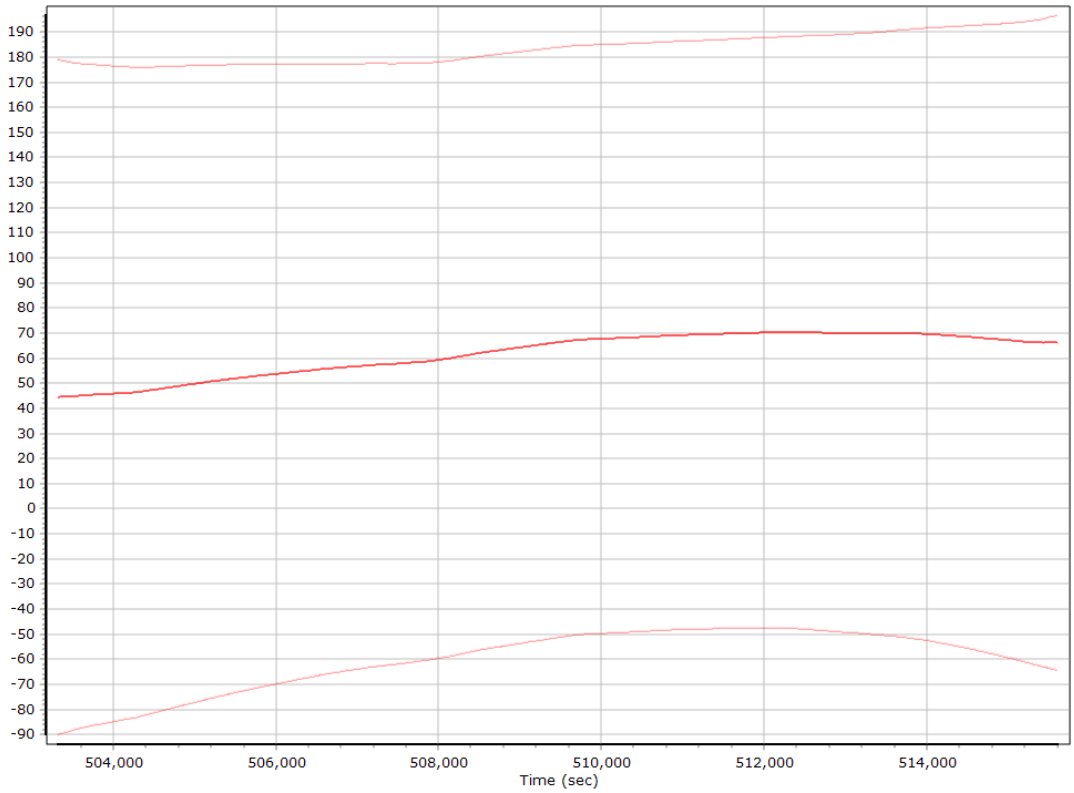
Z Accelerometer Bias (micro-g)



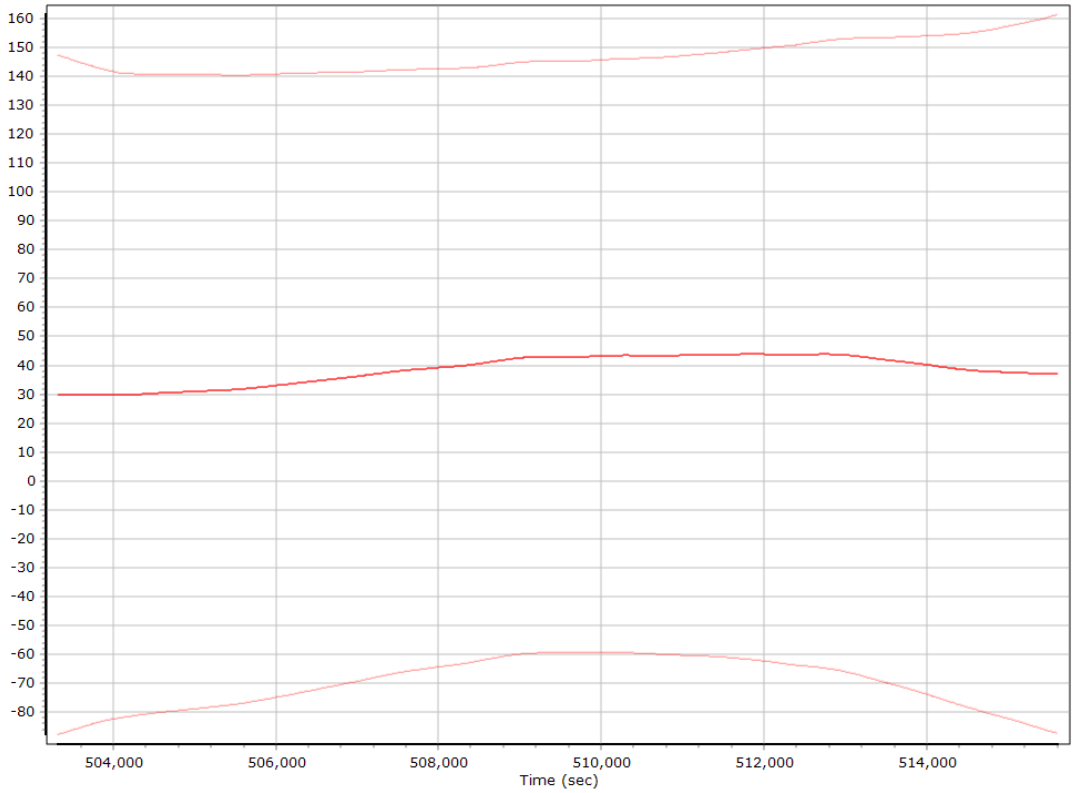
Accelerometer Scale Error (ppm)



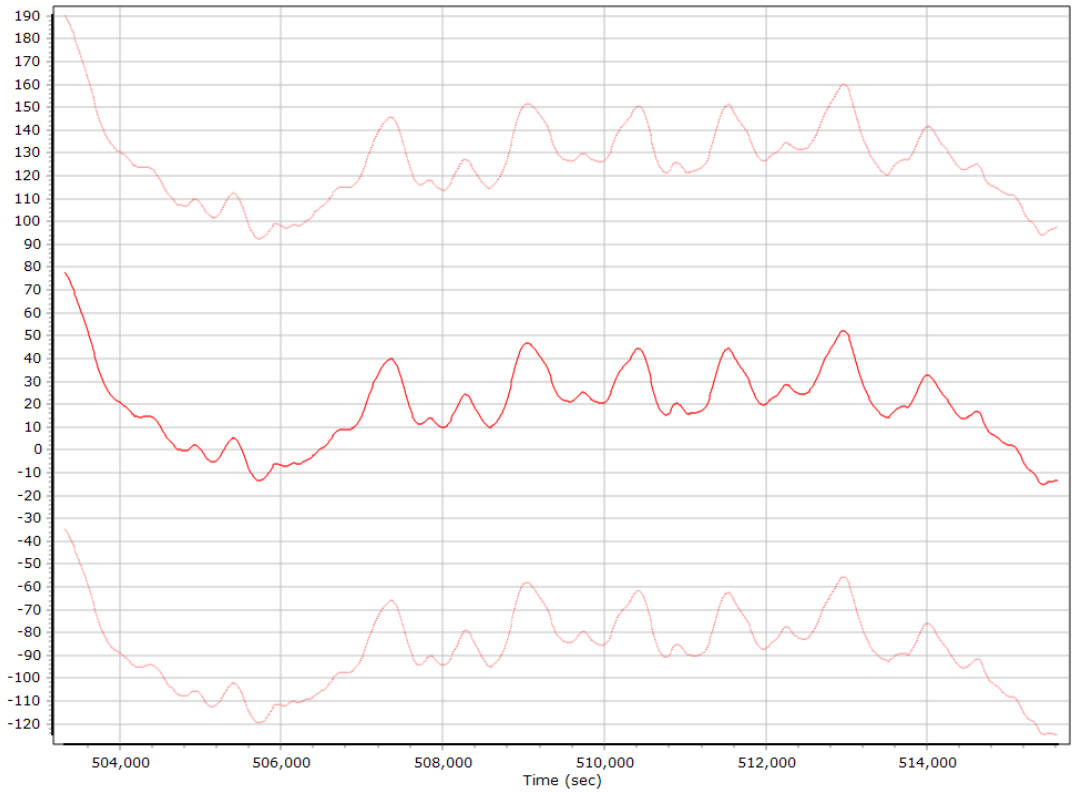
X Accelerometer Scale Error (ppm)



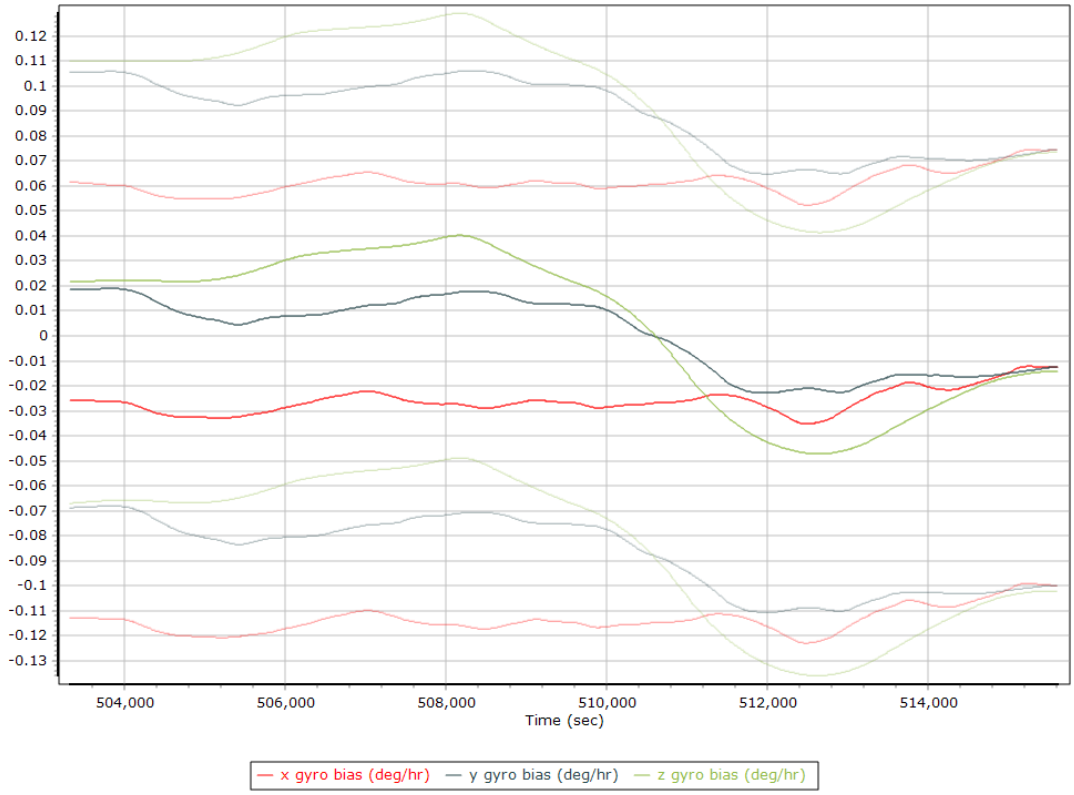
Y Accelerometer Scale Error (ppm)



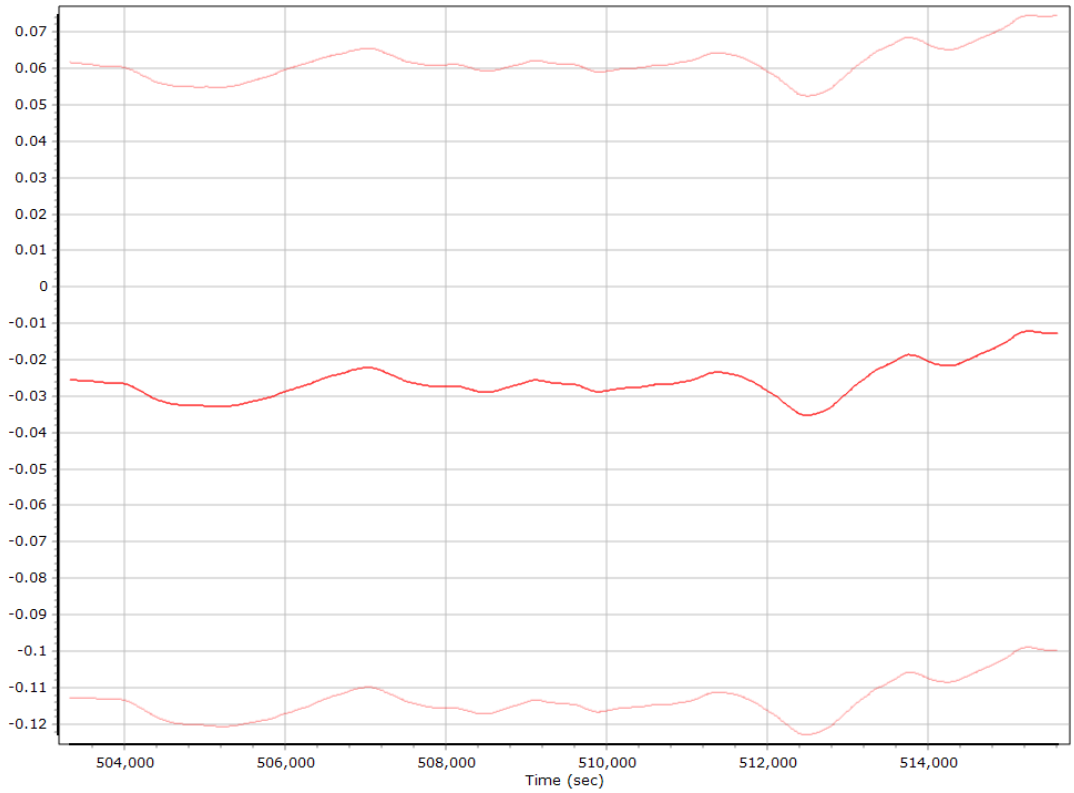
Z Accelerometer Scale Error (ppm)



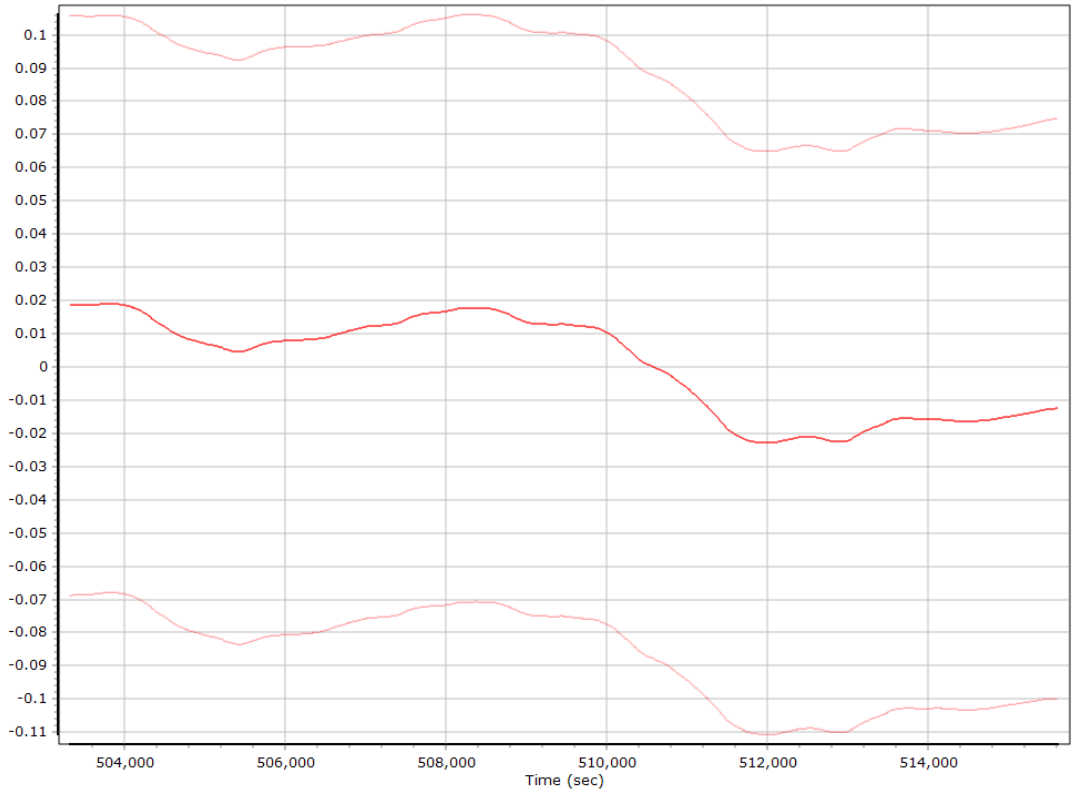
Gyro Bias (deg/h)



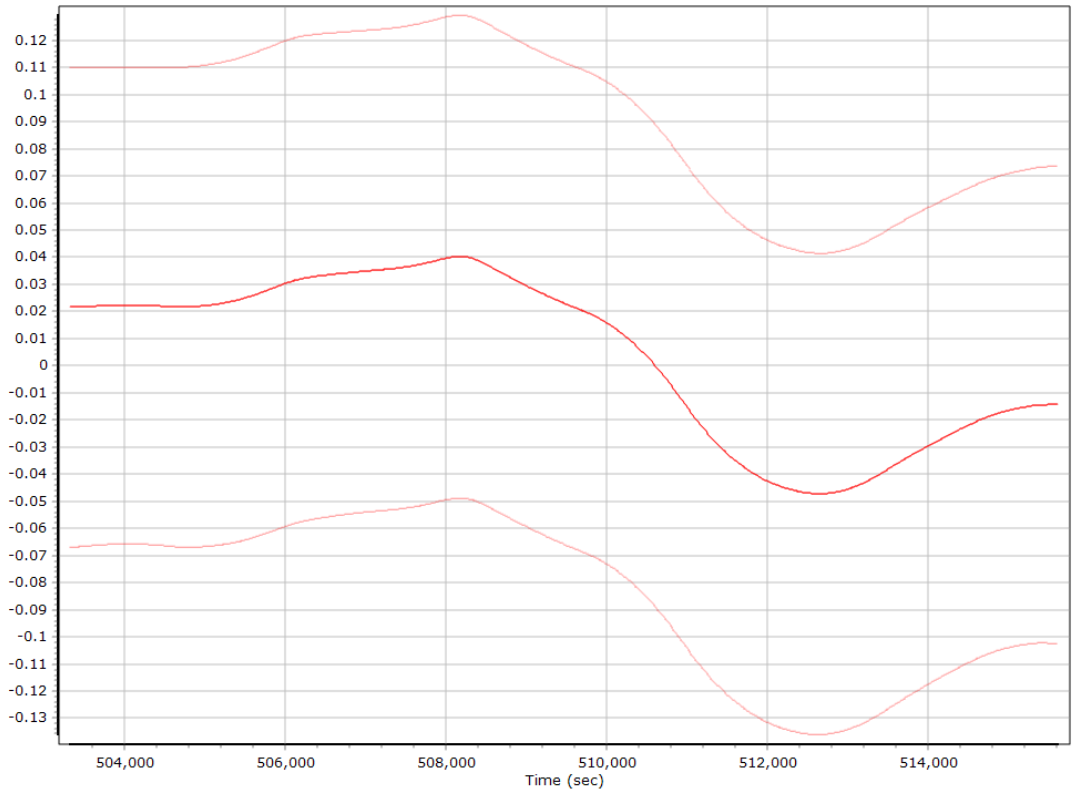
X Gyro Bias (deg/h)



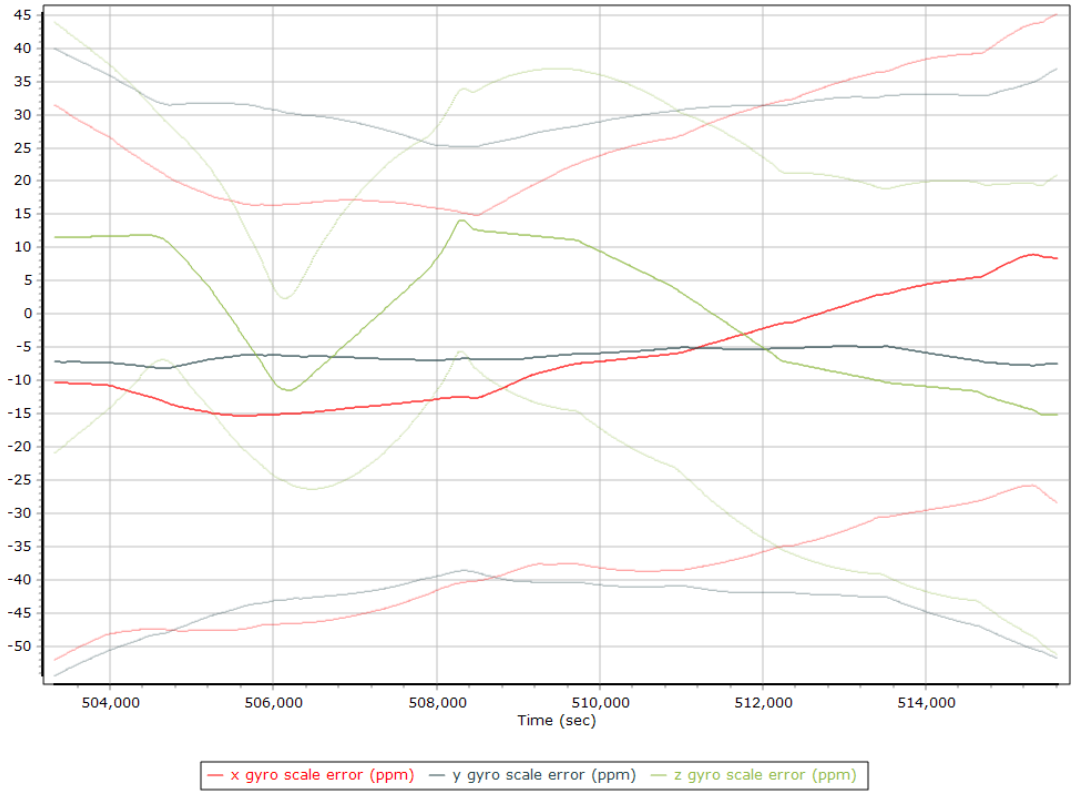
Y Gyro Bias (deg/h)



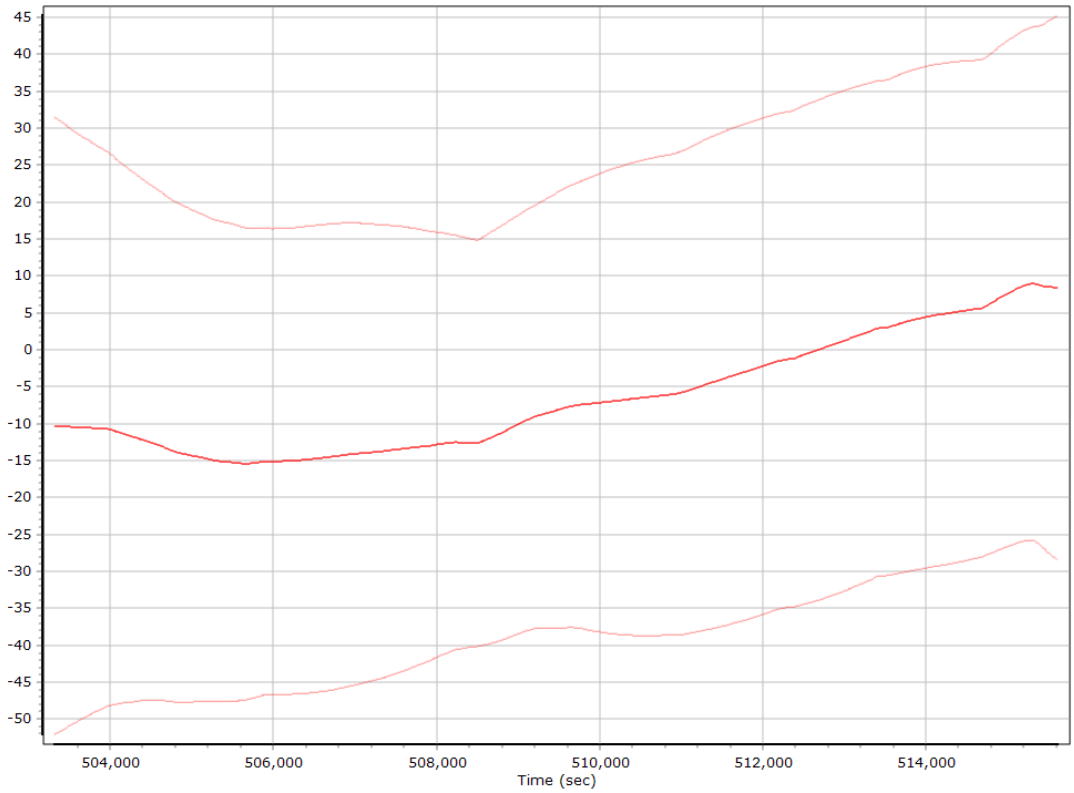
Z Gyro Bias (deg/h)



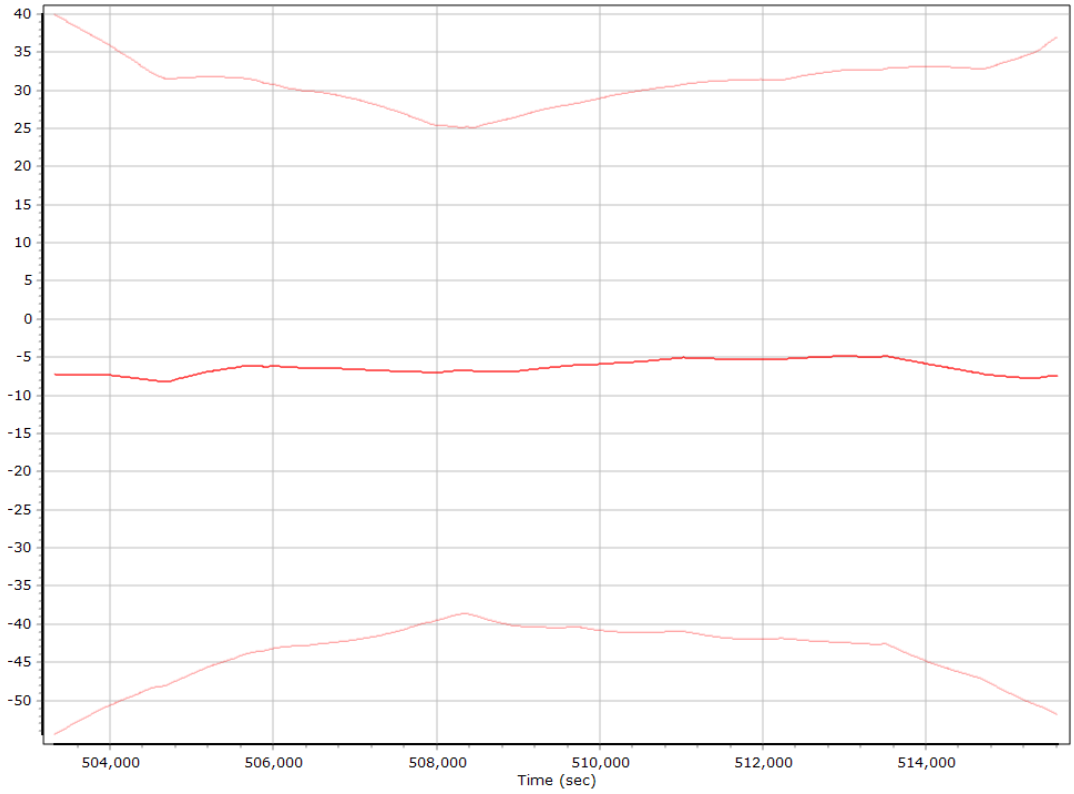
Gyro Scale Error (ppm)



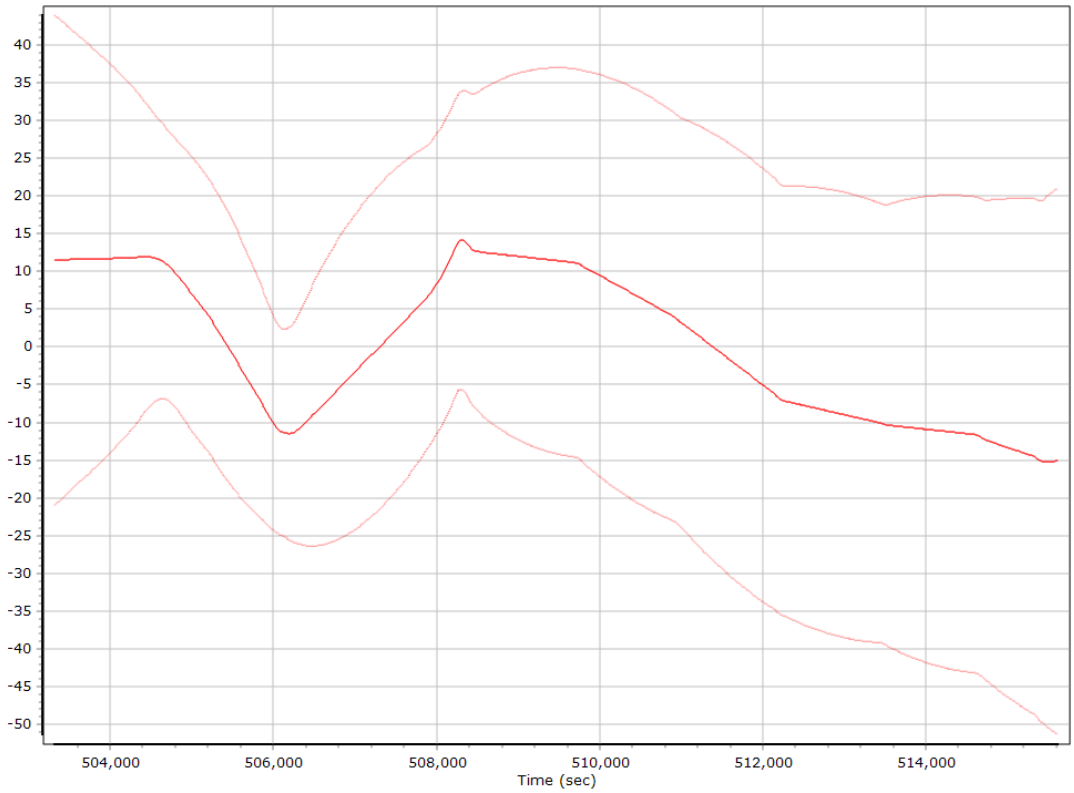
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)



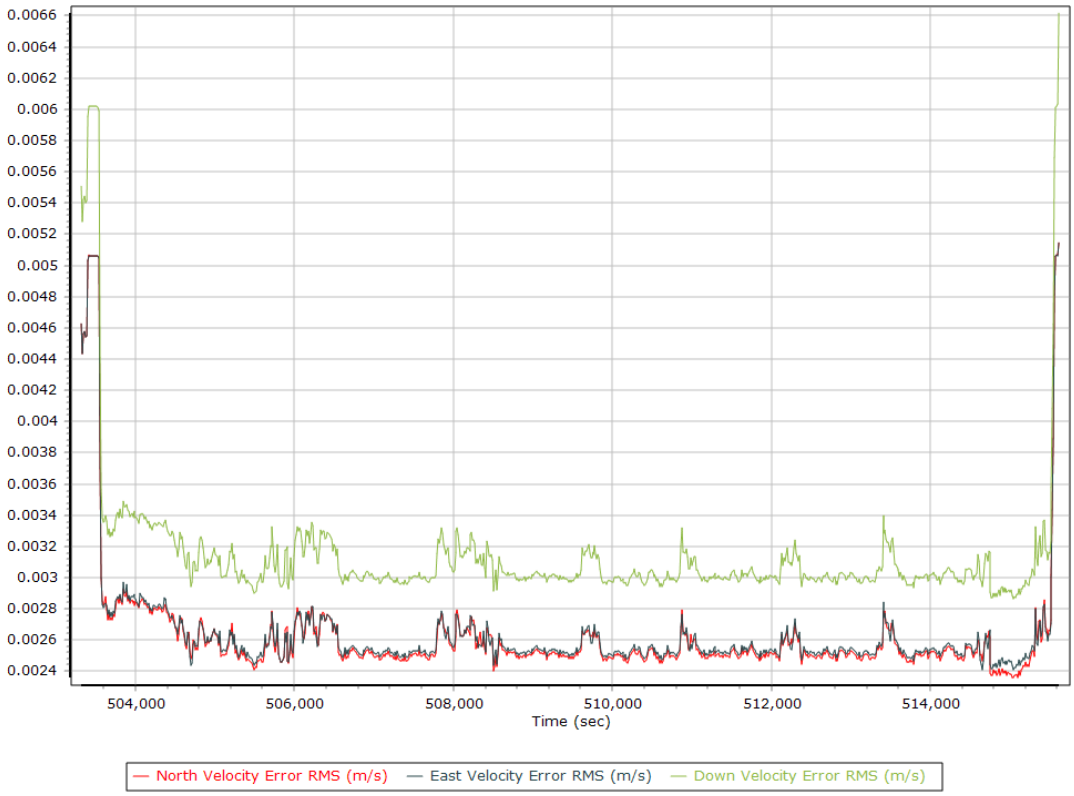
Z Gyro Scale Error (ppm)



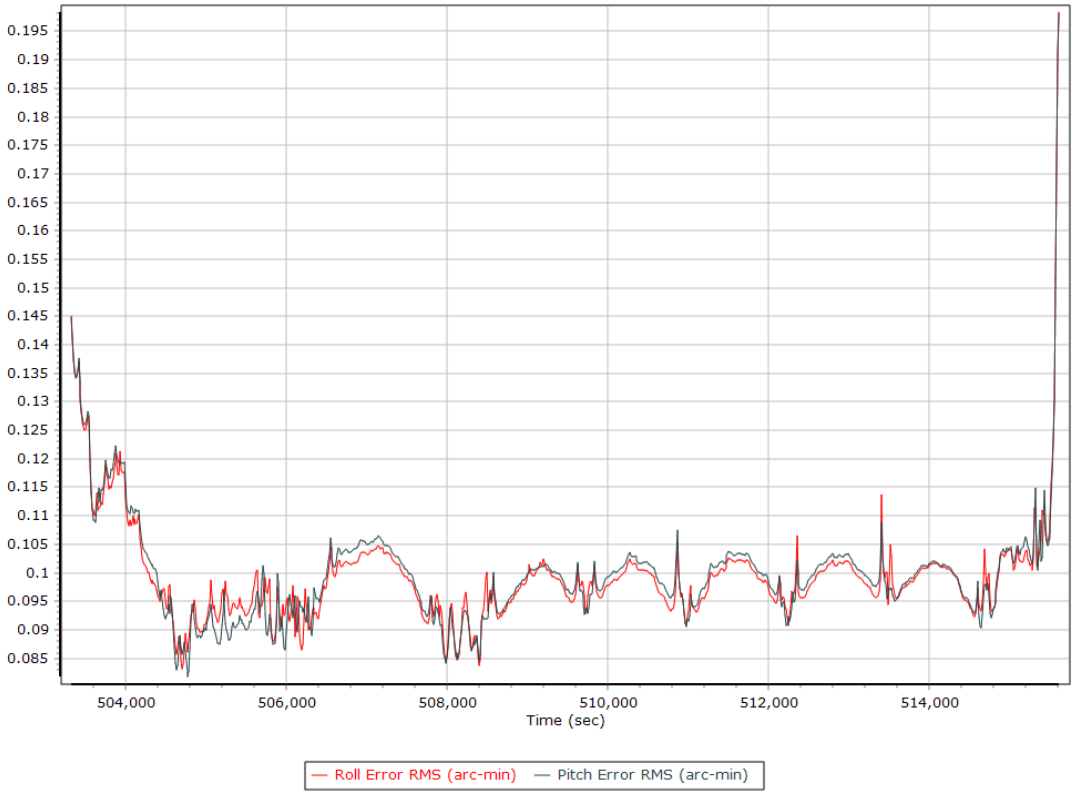
Smoothed Performance Metrics

Position Error RMS (m)

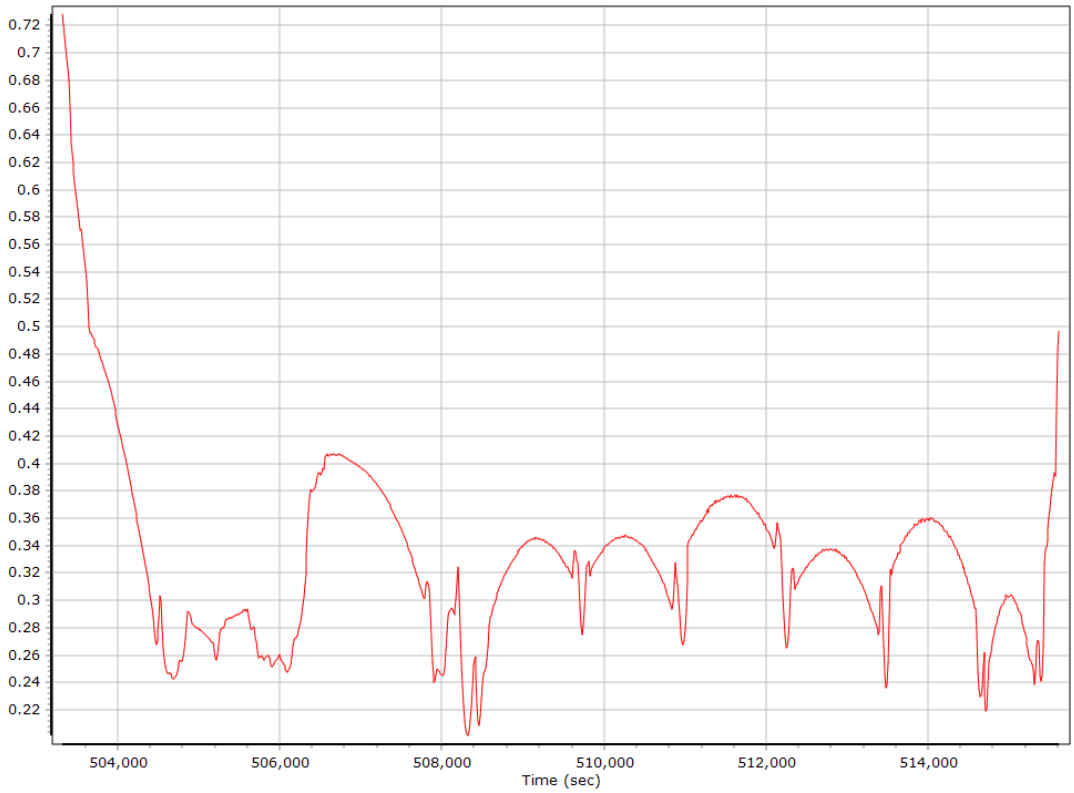
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)



Heading Error RMS (arc-min)



Export Summary

Export file	export_2SU20297_186.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	503258.003 (10/23/2020 19:47:38)		
Export end time	515622.003 (10/23/2020 23:13:42)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid	Universal Transverse Mercator		
Zone	UTM North 11 (120W to 114W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2010		