

General Information

Mission Information

Project name	14087
Processing date	2022-05-31 18:29:27
Mission date	2022-05-27 19:41:43
Mission duration	03:30:26.464
Processing mode	IN-Fusion PP-RTX

Rover Hardware Information

Product	POS AV 610 VER6 HW2.5-12
Serial number	S/N13003
IMU type	57
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
20220527.037	POS Data
20220527.038	POS Data
20220527.039	POS Data
20220527.040	POS Data
20220527.041	POS Data
20220527.042	POS Data
20220527.043	POS Data
20220527.044	POS Data
20220527.045	POS Data
20220527.046	POS Data
20220527.047	POS Data
20220527.048	POS Data
20220527.049	POS Data
20220527.050	POS Data
20220527.051	POS Data
20220527.052	POS Data
20220527.053	POS Data
20220527.054	POS Data
20220527.055	POS Data
20220527.056	POS Data
20220527.057	POS Data
20220527.058	POS Data
20220527.059	POS Data
20220527.060	POS Data
20220527.061	POS Data
20220527.062	POS Data
20220527.063	POS Data
20220527.064	POS Data
20220527.065	POS Data
20220527.066	POS Data

Input Files

File Name	File Type
Ephm1470.22g	GLONASS Broadcast Ephemeris
Ephm1470.22n	GPS Broadcast Ephemeris

Output Files

Filename	File type
sbet_14087.out	SBET Trajectory File
eo_14087.txt	ZI Imaging POSEO Output
sbet_14087_NAD83(2011).out	Custom Smoothed BET Export Output

Rover Data Summary

First raw data file	20220527.037		
Last raw data file	20220527.066		
Start GPS week	2211		
Start time	502903.028 (05/27/2022 19:41:43)		
End time	515529.492 (05/27/2022 23:12:09)		
Start of fine alignment	503379.273 (05/27/2022 19:49:39)		
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)	-0.399	-0.382	-1.125
Reference to Primary GNSS lever arm std dev (m)	-1.000		
Aircraft to Reference mounting angles (deg)	0.000	0.000	0.000

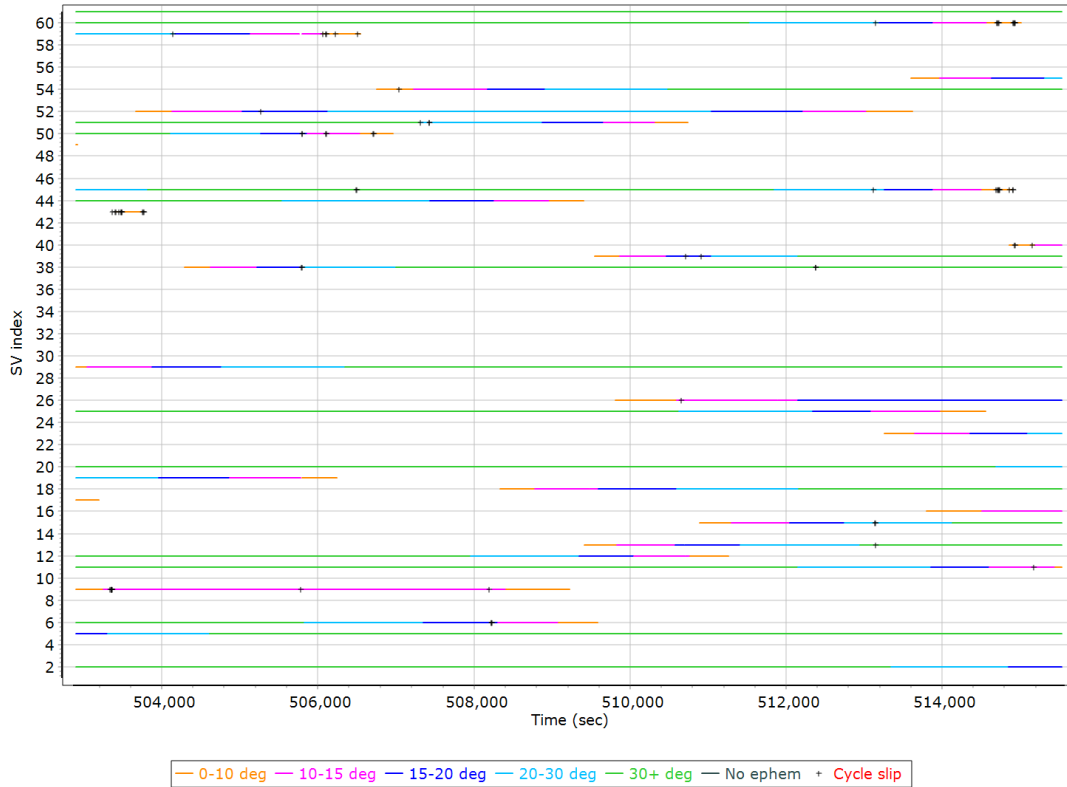
Rover Data QC

Raw IMU Import QC Summary

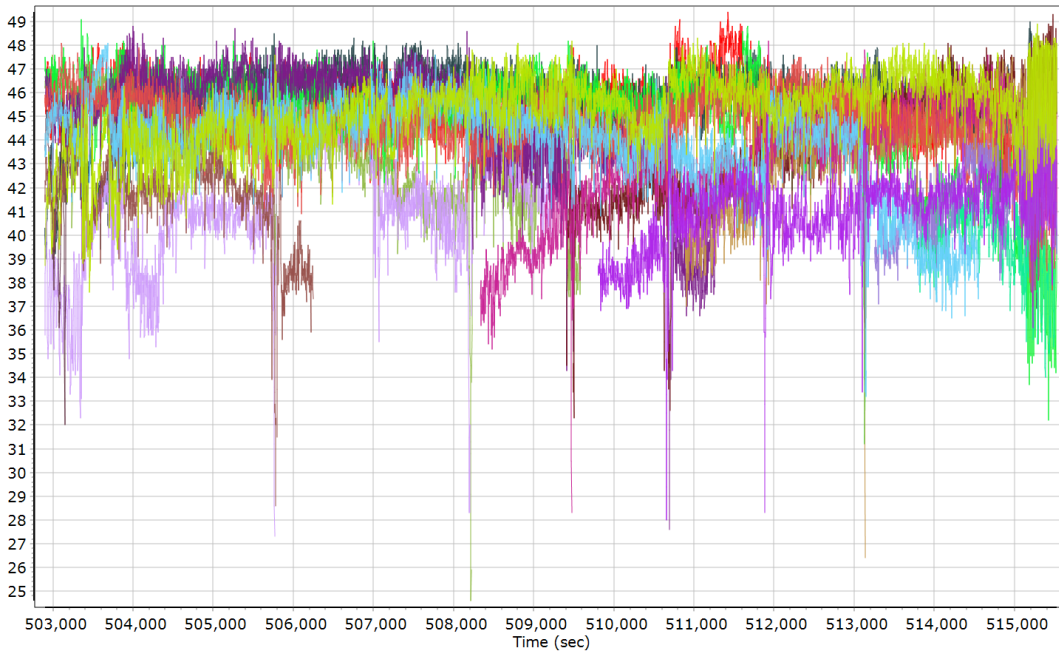
IMU data input file	imu_14087.dat
IMU data check log file	imudt_14087.log
IMU Records Processed	2525018
Termination Status	Normal
IMU Anomalies	0

Primary Observables & Satellite Data

GPS/GLONASS L1 Satellite Lock/Elevation

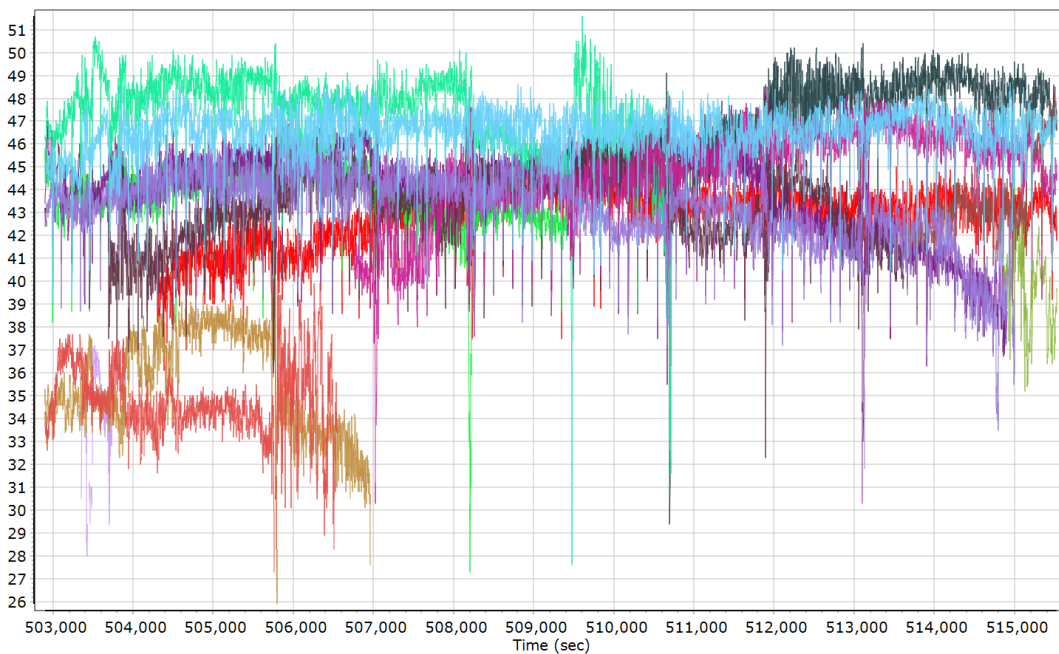


GPS L1 SNR



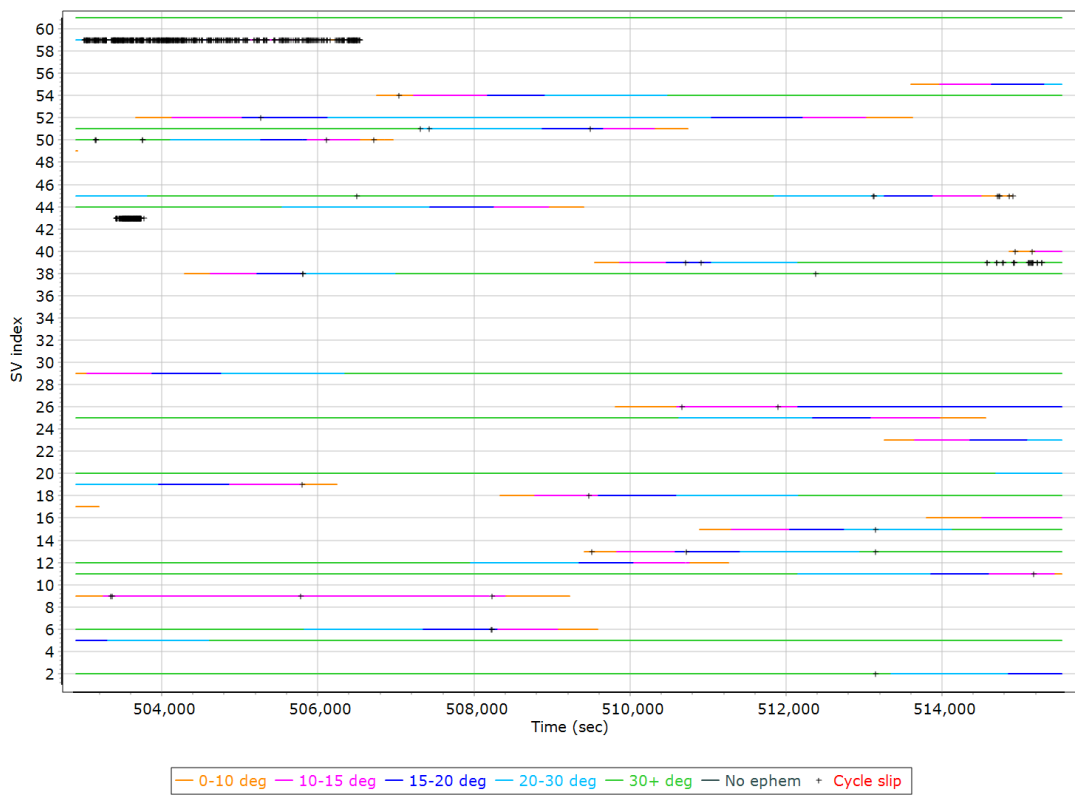
- | | | | |
|---------------------------|---------------------------|---------------------------|---------------------------|
| GPS PRN 02 L1 SNR (dB/Hz) | GPS PRN 05 L1 SNR (dB/Hz) | GPS PRN 06 L1 SNR (dB/Hz) | GPS PRN 09 L1 SNR (dB/Hz) |
| GPS PRN 11 L1 SNR (dB/Hz) | GPS PRN 12 L1 SNR (dB/Hz) | GPS PRN 13 L1 SNR (dB/Hz) | GPS PRN 15 L1 SNR (dB/Hz) |
| GPS PRN 16 L1 SNR (dB/Hz) | GPS PRN 17 L1 SNR (dB/Hz) | GPS PRN 18 L1 SNR (dB/Hz) | GPS PRN 19 L1 SNR (dB/Hz) |
| GPS PRN 20 L1 SNR (dB/Hz) | GPS PRN 23 L1 SNR (dB/Hz) | GPS PRN 25 L1 SNR (dB/Hz) | GPS PRN 26 L1 SNR (dB/Hz) |
| GPS PRN 29 L1 SNR (dB/Hz) | | | |

GLONASS L1 SNR

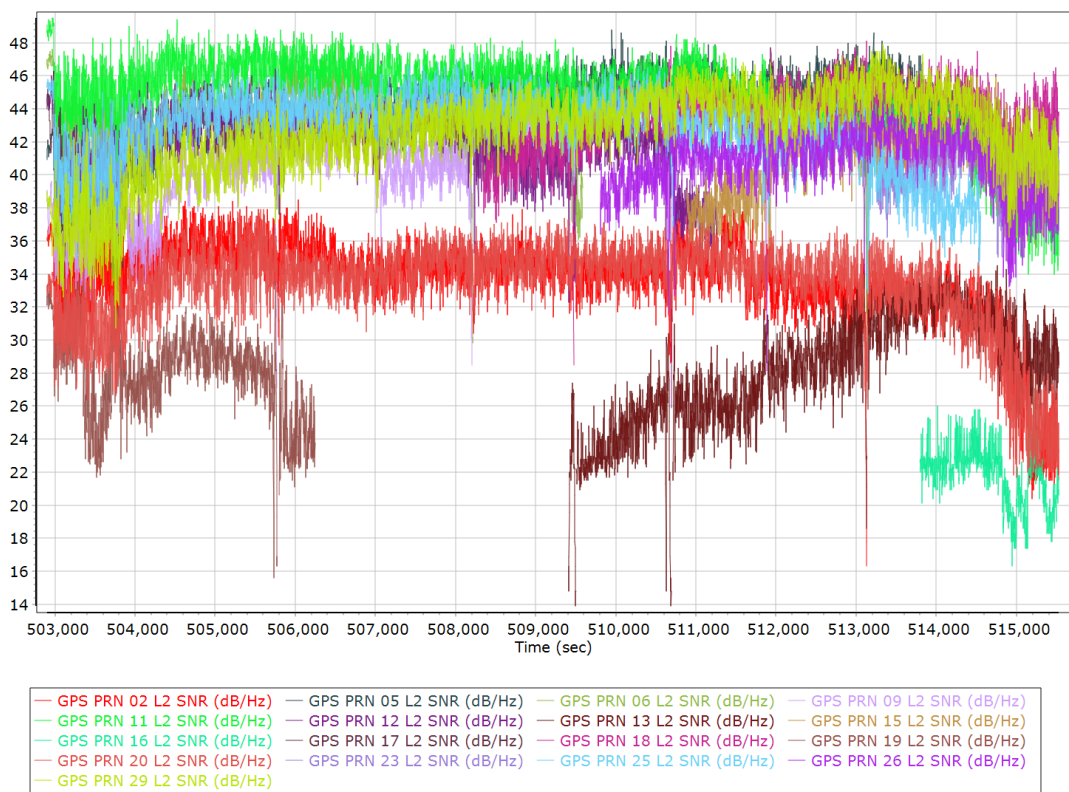


- | | | |
|---------------------------|---------------------------|---------------------------|
| GLONASS 01 L1 SNR (dB/Hz) | GLONASS 02 L1 SNR (dB/Hz) | GLONASS 03 L1 SNR (dB/Hz) |
| GLONASS 06 L1 SNR (dB/Hz) | GLONASS 07 L1 SNR (dB/Hz) | GLONASS 08 L1 SNR (dB/Hz) |
| GLONASS 12 L1 SNR (dB/Hz) | GLONASS 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 22 L1 SNR (dB/Hz) | GLONASS 23 L1 SNR (dB/Hz) | GLONASS 24 L1 SNR (dB/Hz) |

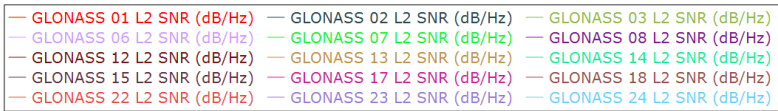
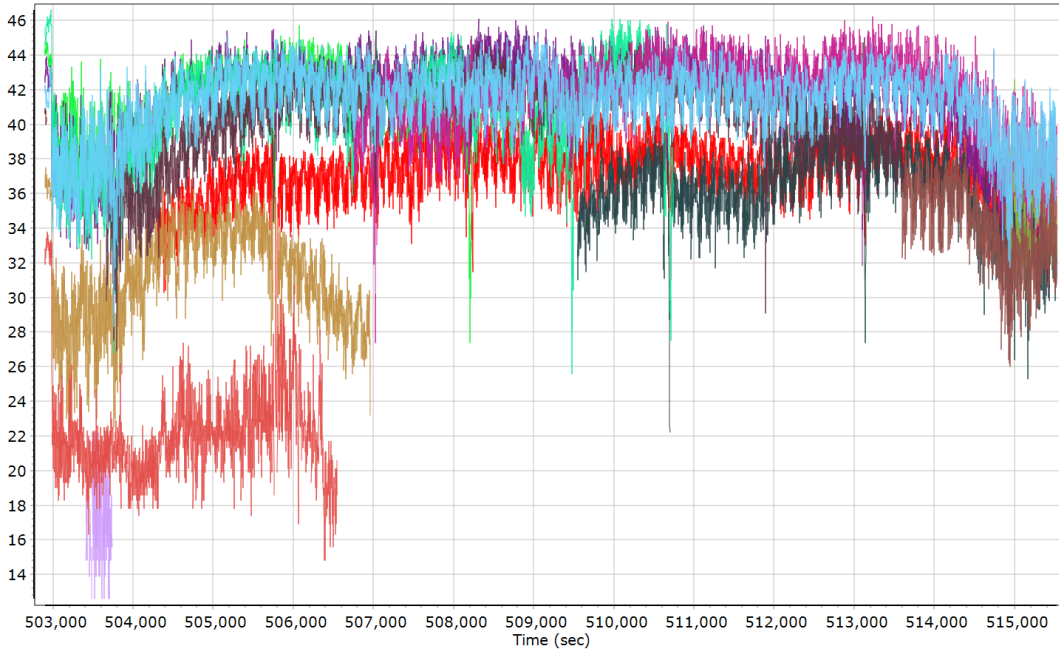
GPS/GLONASS L2 Satellite Lock/Elevation



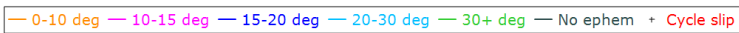
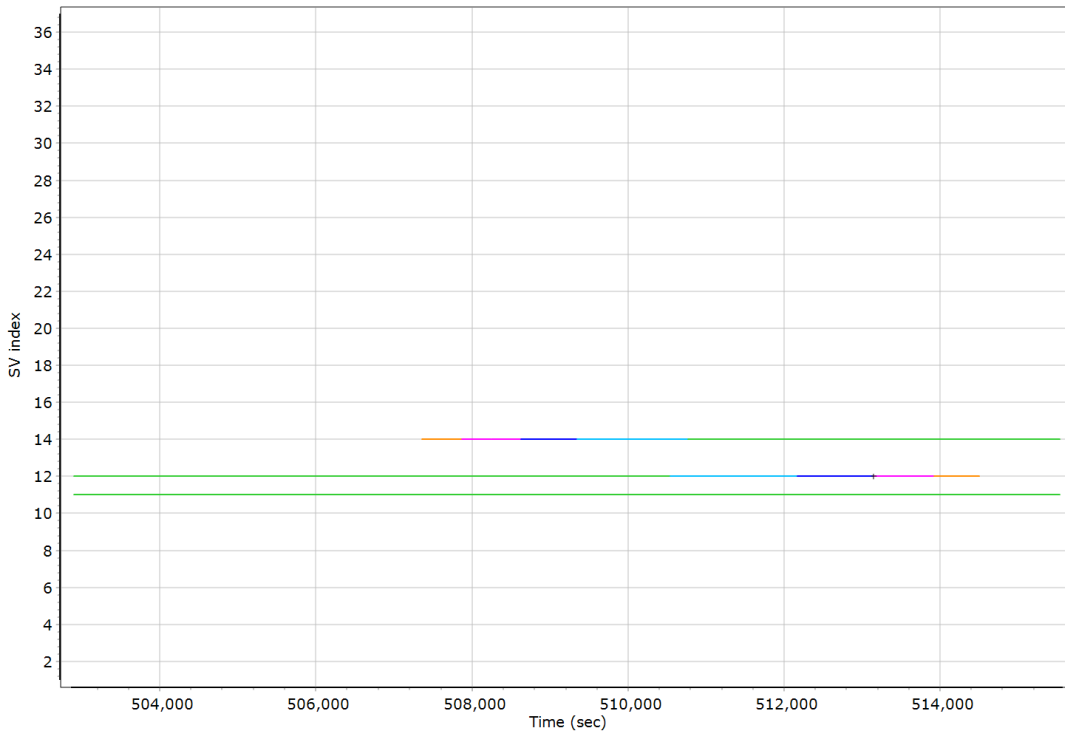
GPS L2 SNR



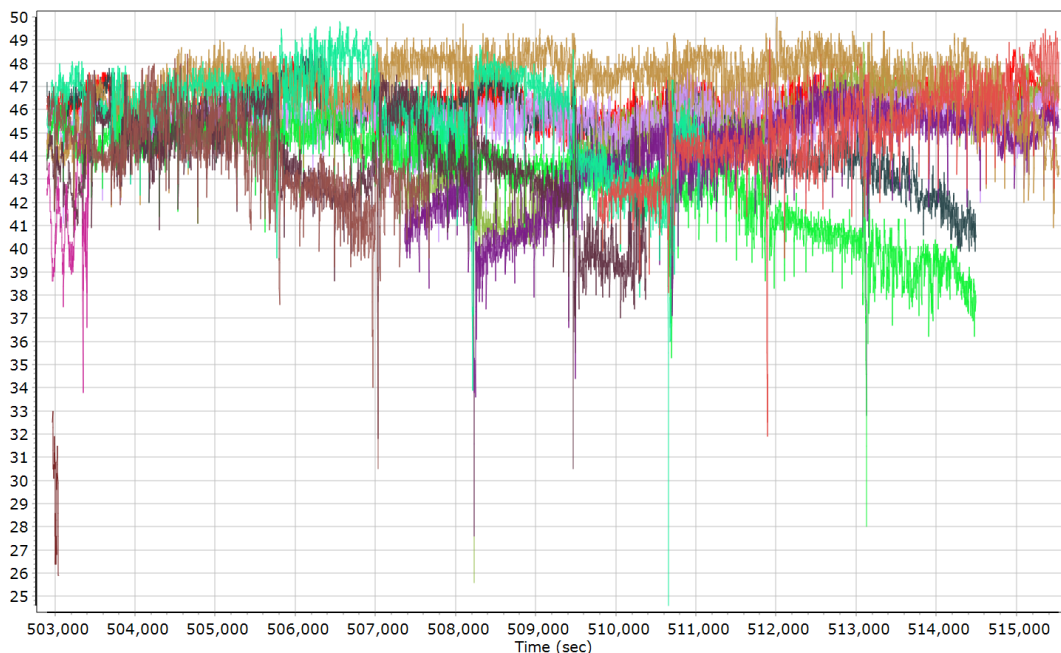
GLONASS L2 SNR



BEIDOU Satellite Lock/Elevation

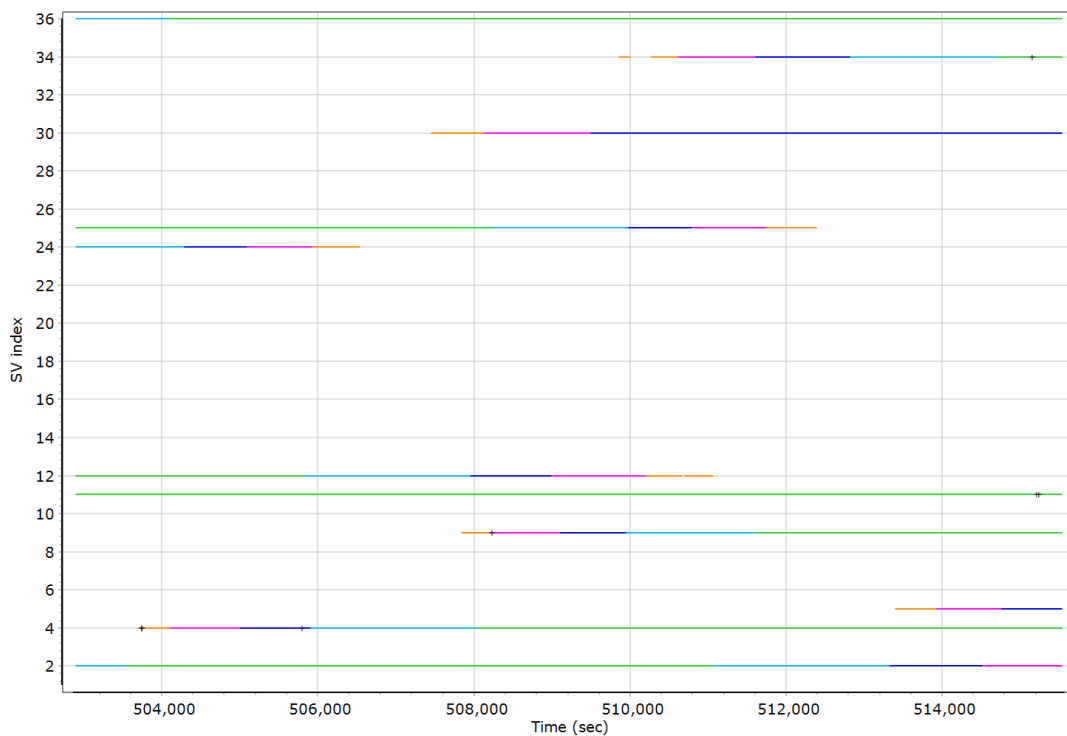


BEIDOU SNR



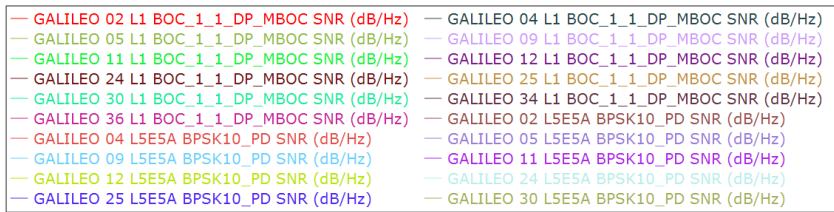
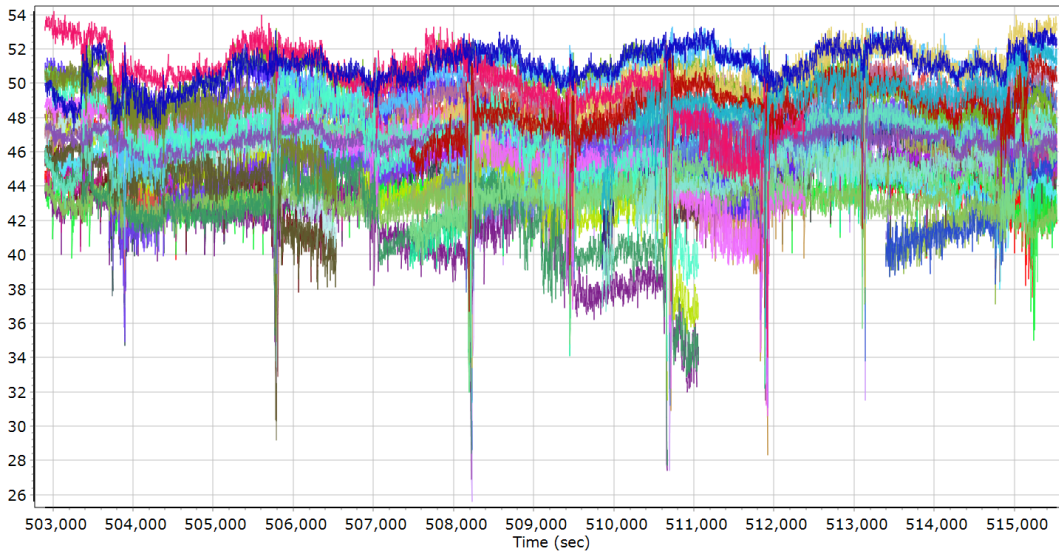
BEIDOU 11 E5B B2 SNR (dB/Hz)	BEIDOU 12 E5B B2 SNR (dB/Hz)	BEIDOU 14 E5B B2 SNR (dB/Hz)
BEIDOU 11 B1 B1 SNR (dB/Hz)	BEIDOU 12 B1 B1 SNR (dB/Hz)	BEIDOU 14 B1 B1 SNR (dB/Hz)
BEIDOU 19 B1 B1 SNR (dB/Hz)	BEIDOU 21 B1 B1 SNR (dB/Hz)	BEIDOU 22 B1 B1 SNR (dB/Hz)
BEIDOU 23 B1 B1 SNR (dB/Hz)	BEIDOU 24 B1 B1 SNR (dB/Hz)	BEIDOU 25 B1 B1 SNR (dB/Hz)
BEIDOU 28 B1 B1 SNR (dB/Hz)		

GALILEO Satellite Lock/Elevation



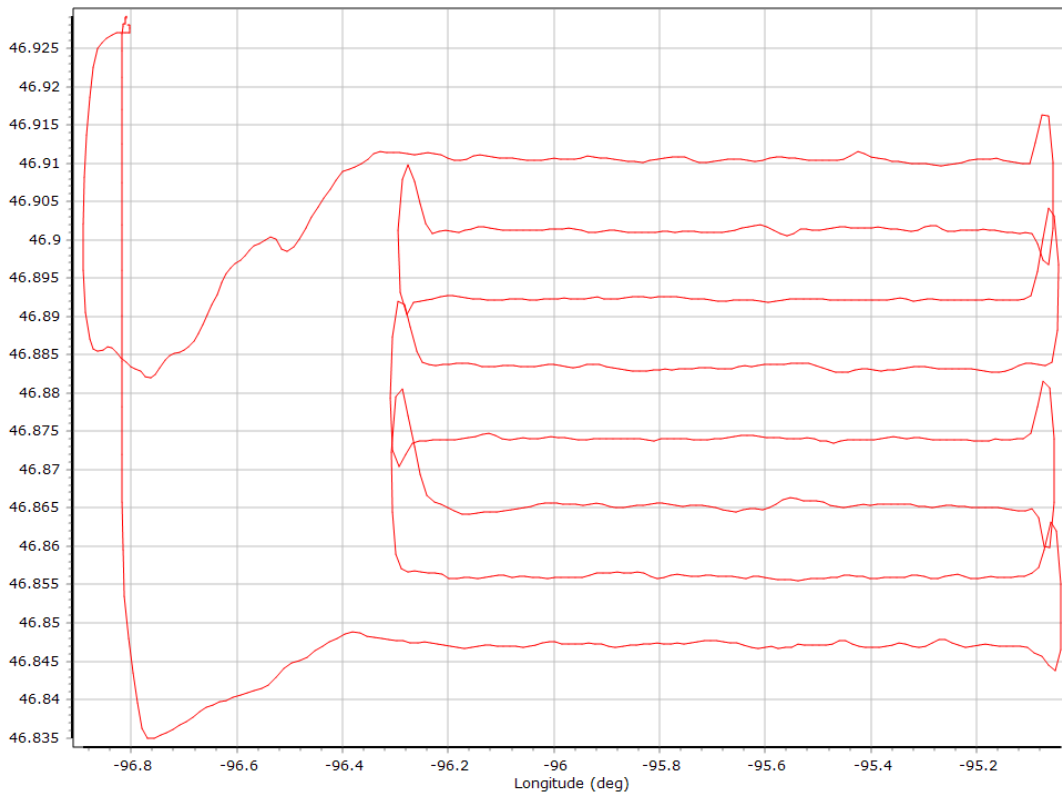
0-10 deg	10-15 deg	15-20 deg	20-30 deg	30+ deg	No ephem	+ Cycle slip
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GALILEO SNR

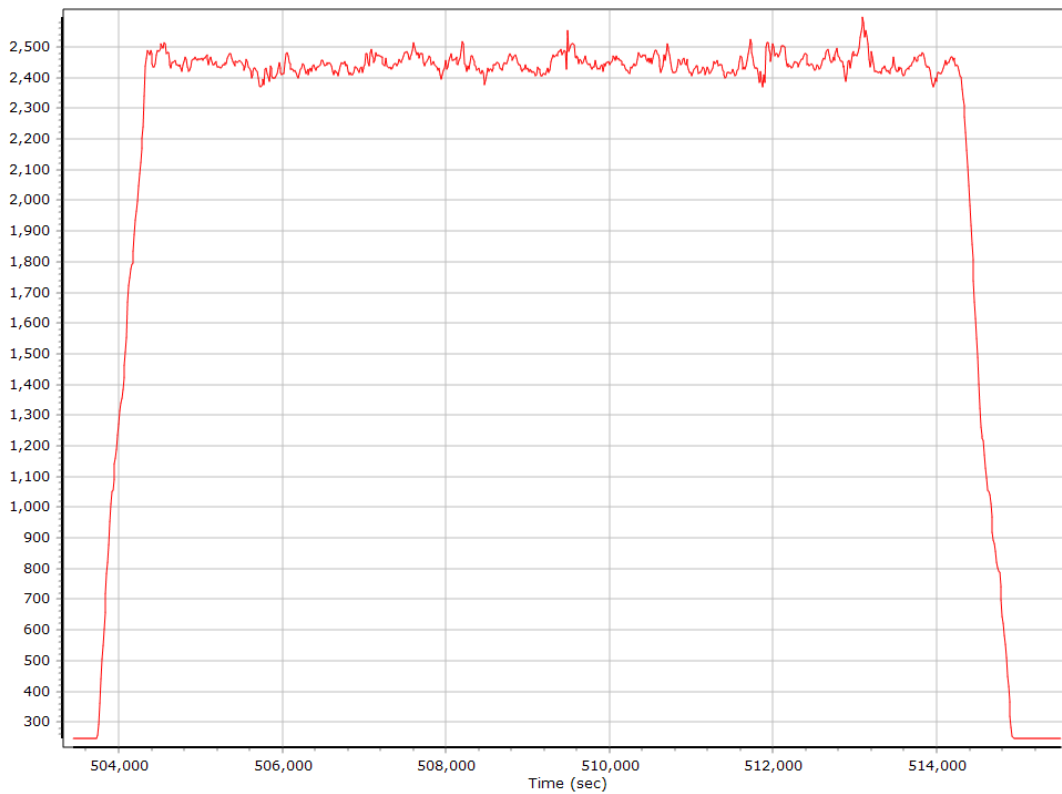


Smoothed Trajectory Information

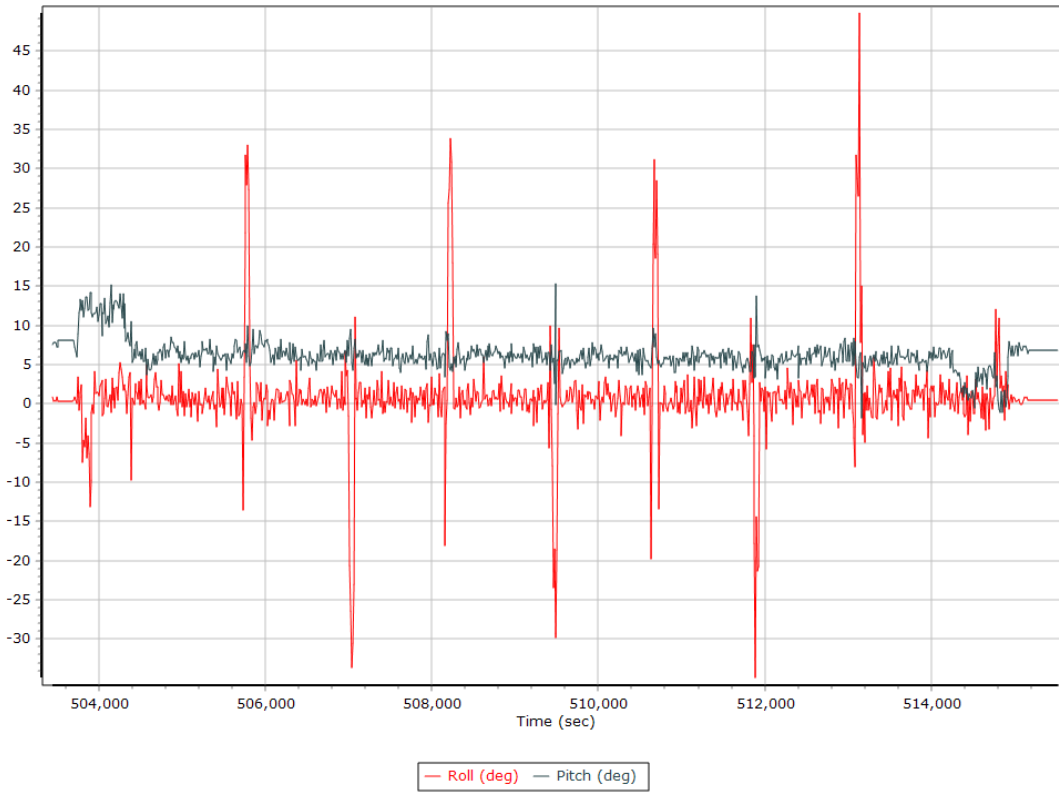
Top View



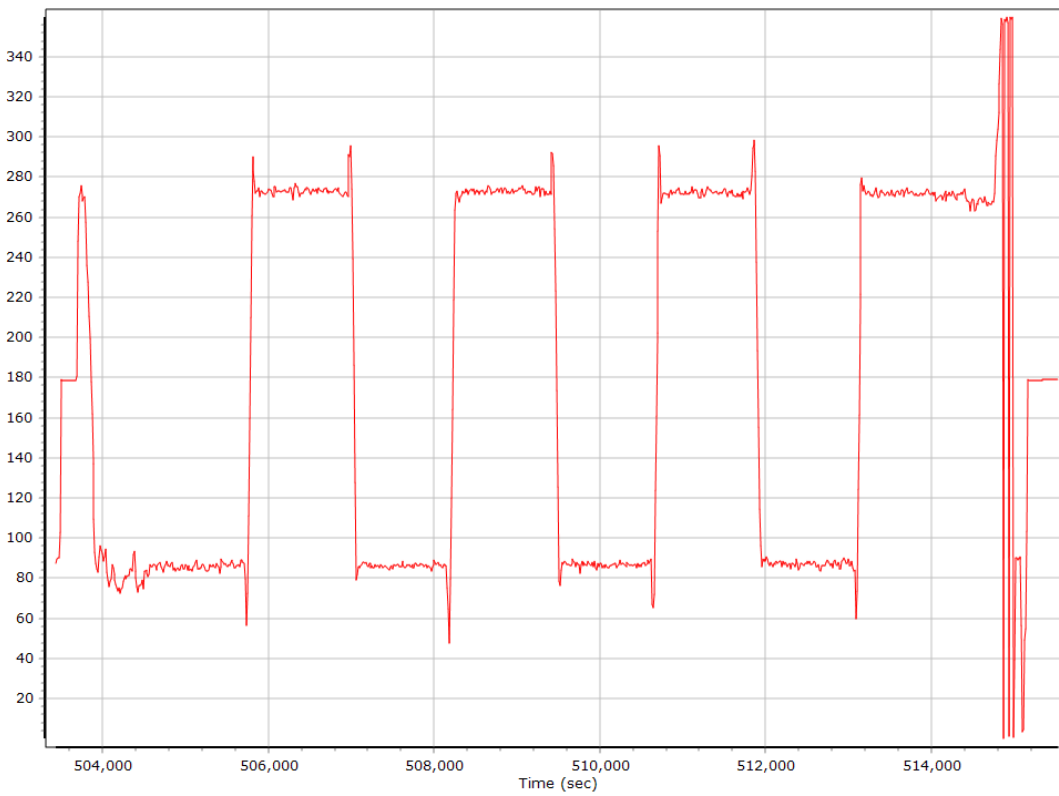
Altitude



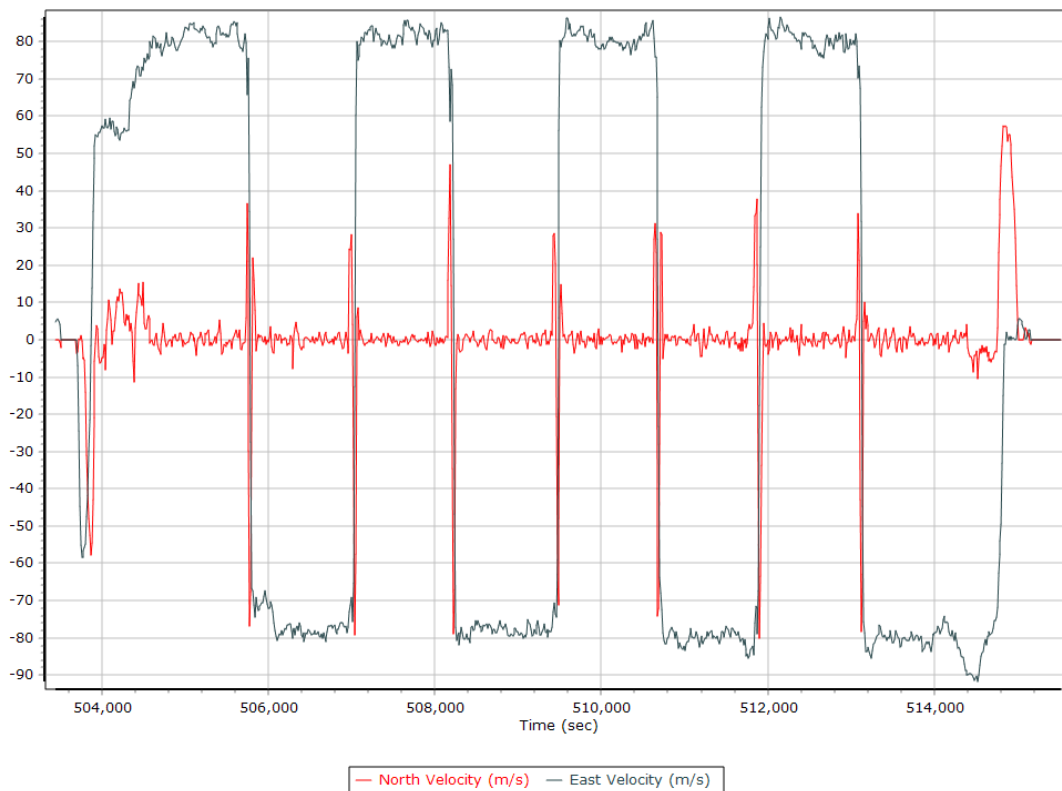
Roll/Pitch



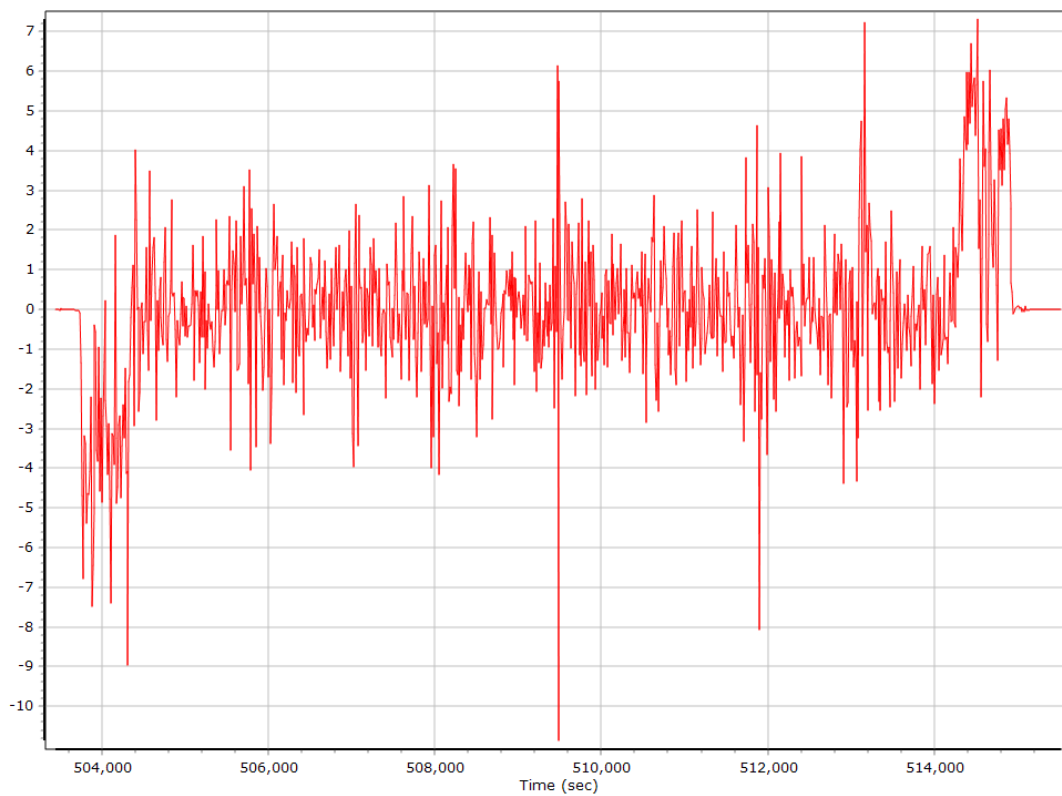
Heading



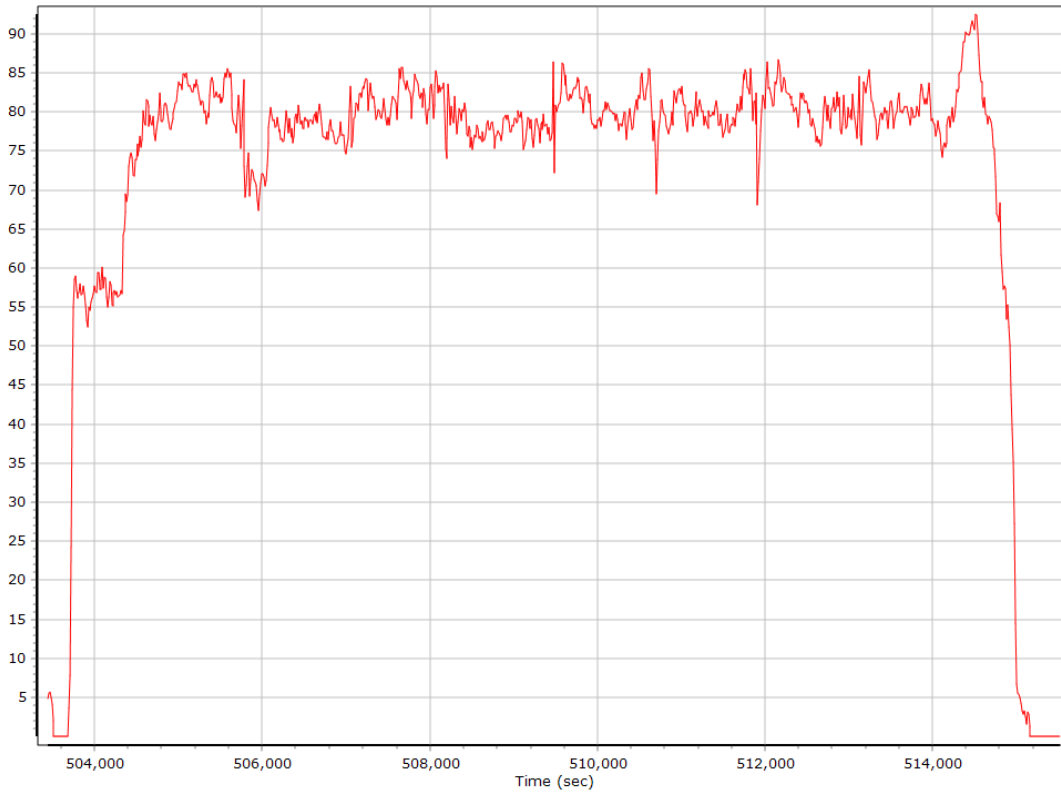
North/East Velocity



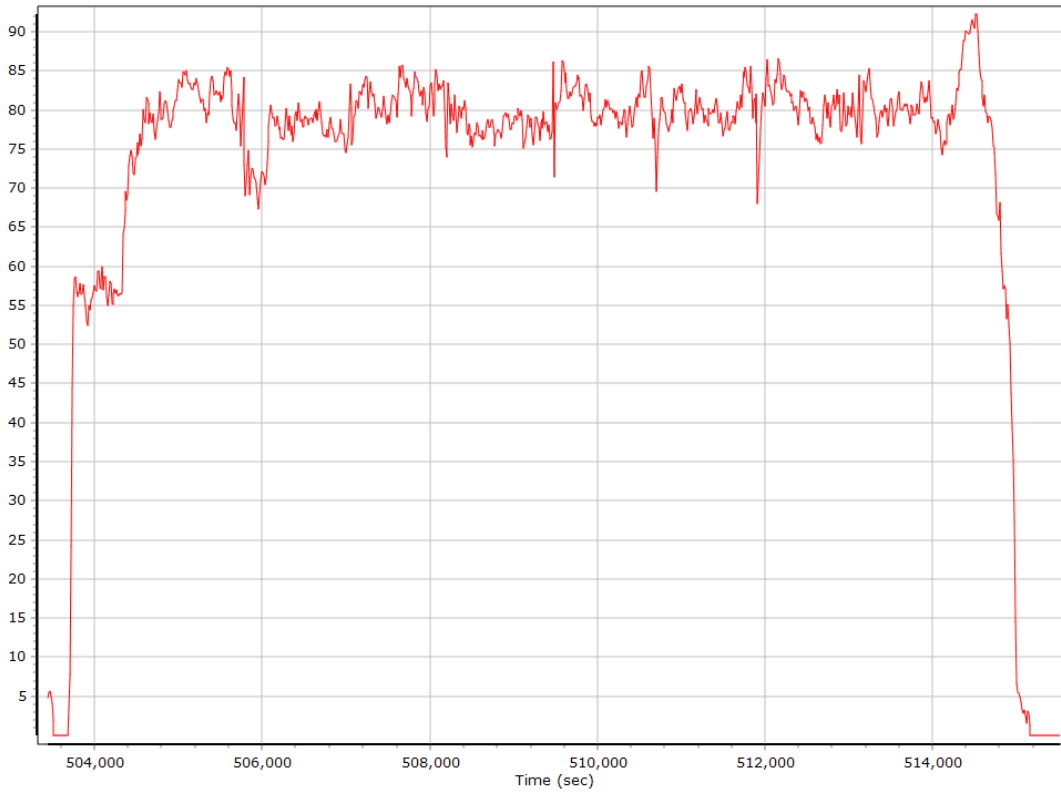
Down Velocity



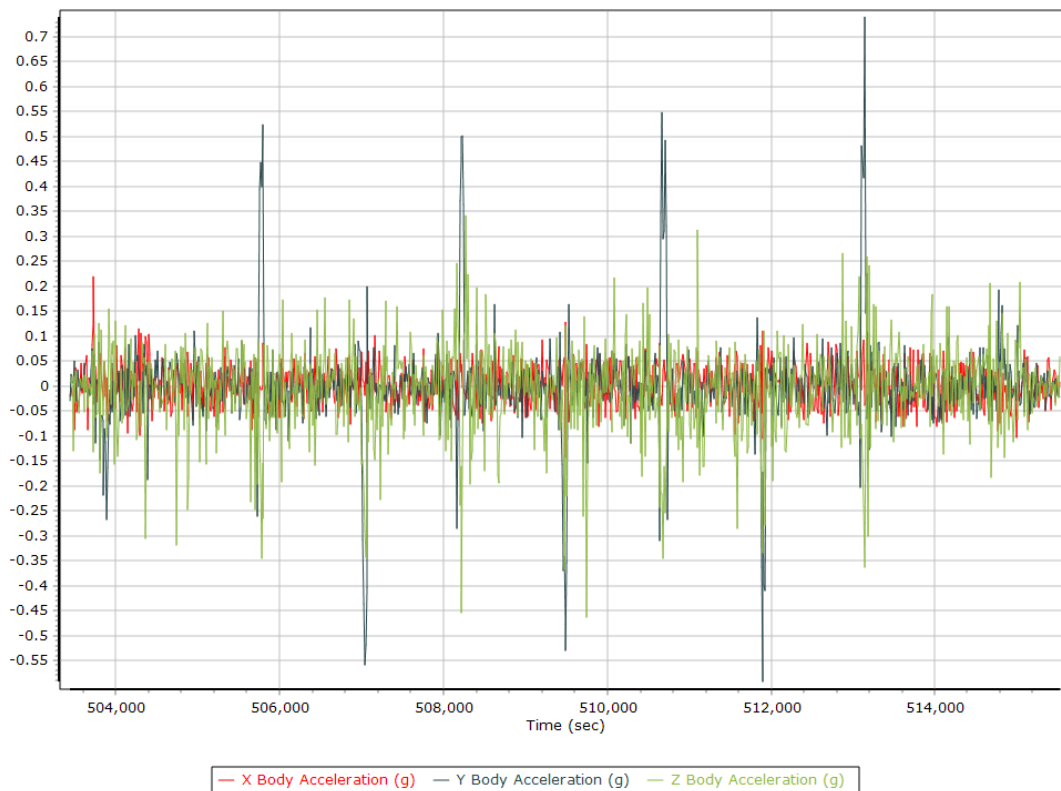
Total Speed



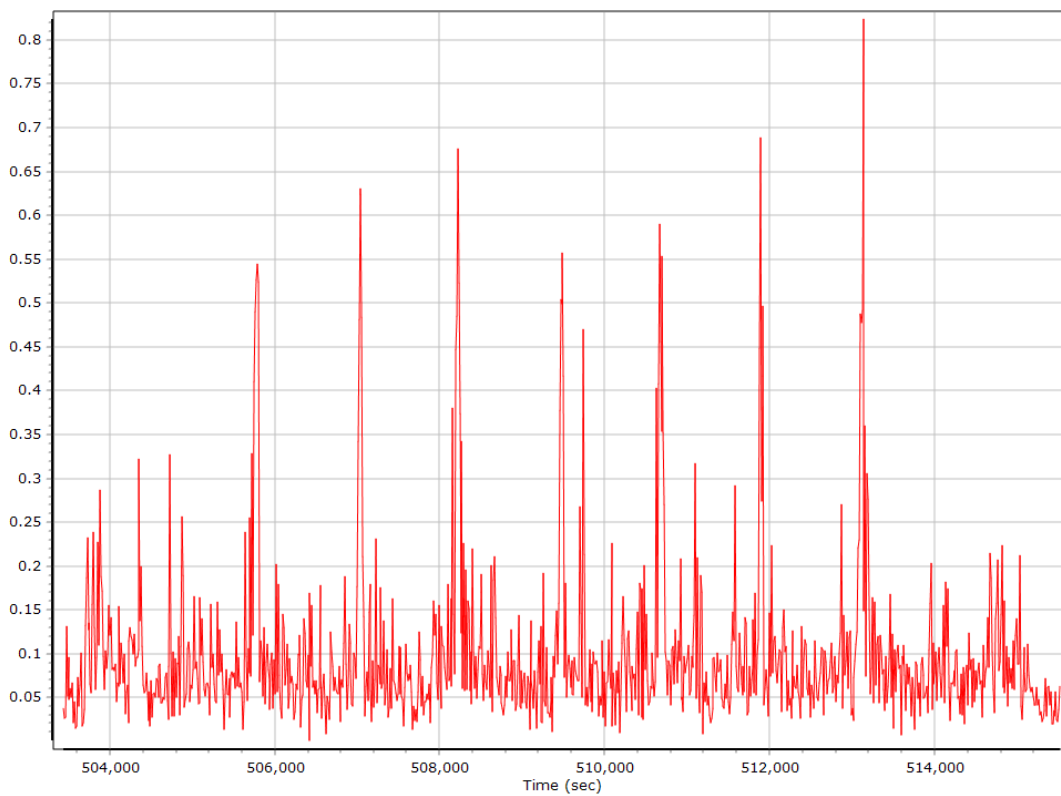
Ground Speed



Body Acceleration



Total Body Acceleration

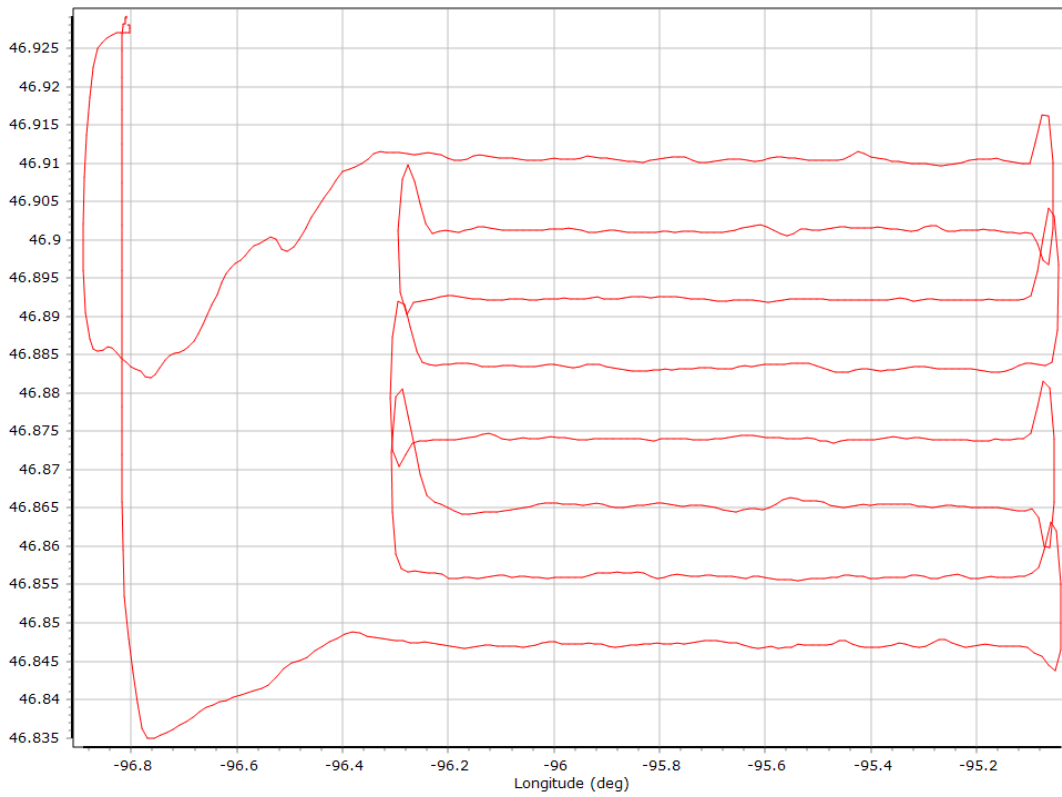


Body Angular Rate

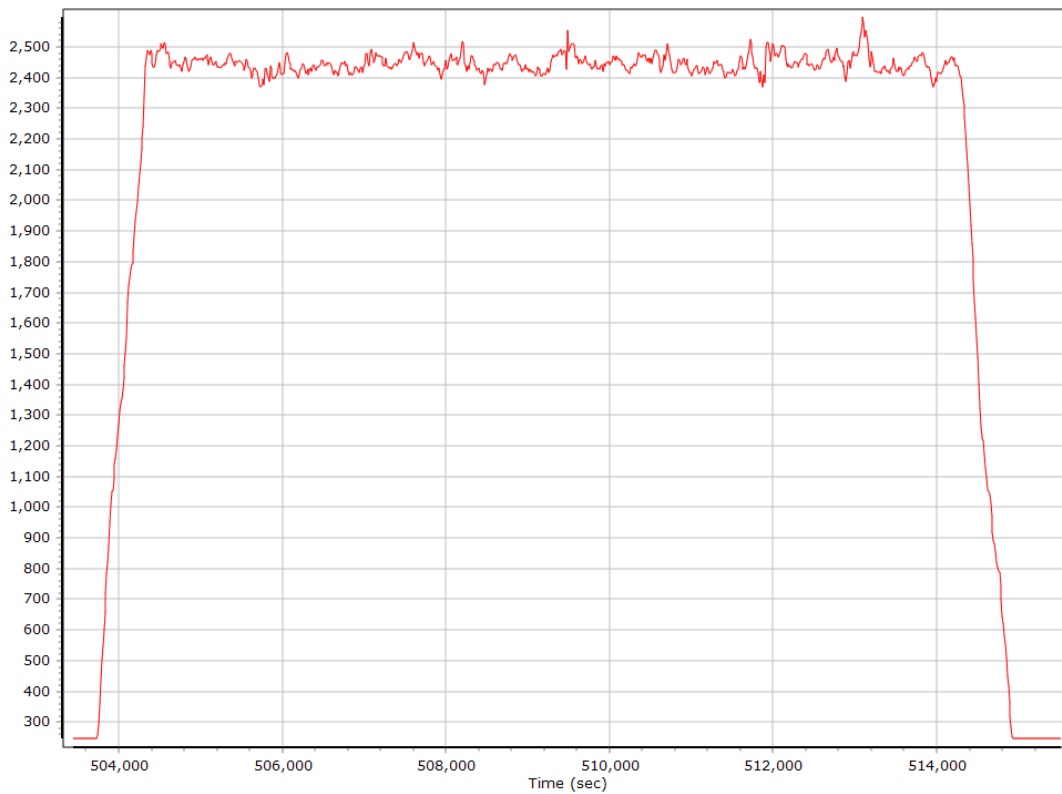


Forward Processed Trajectory Information

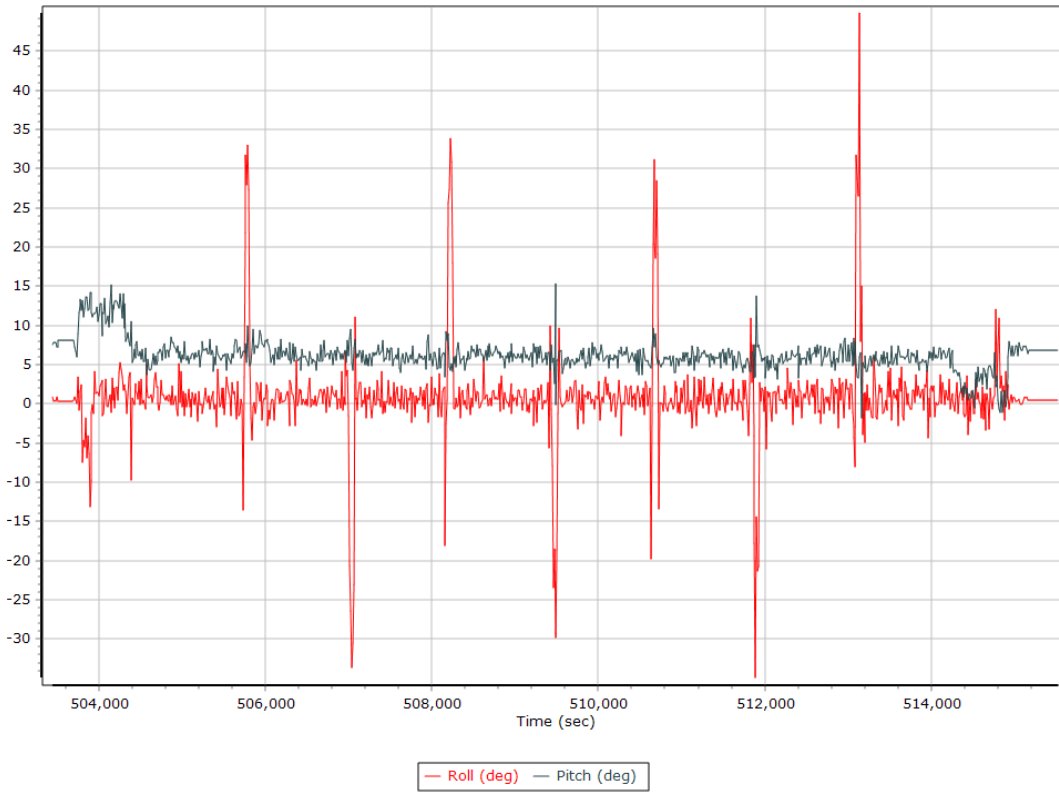
Top View



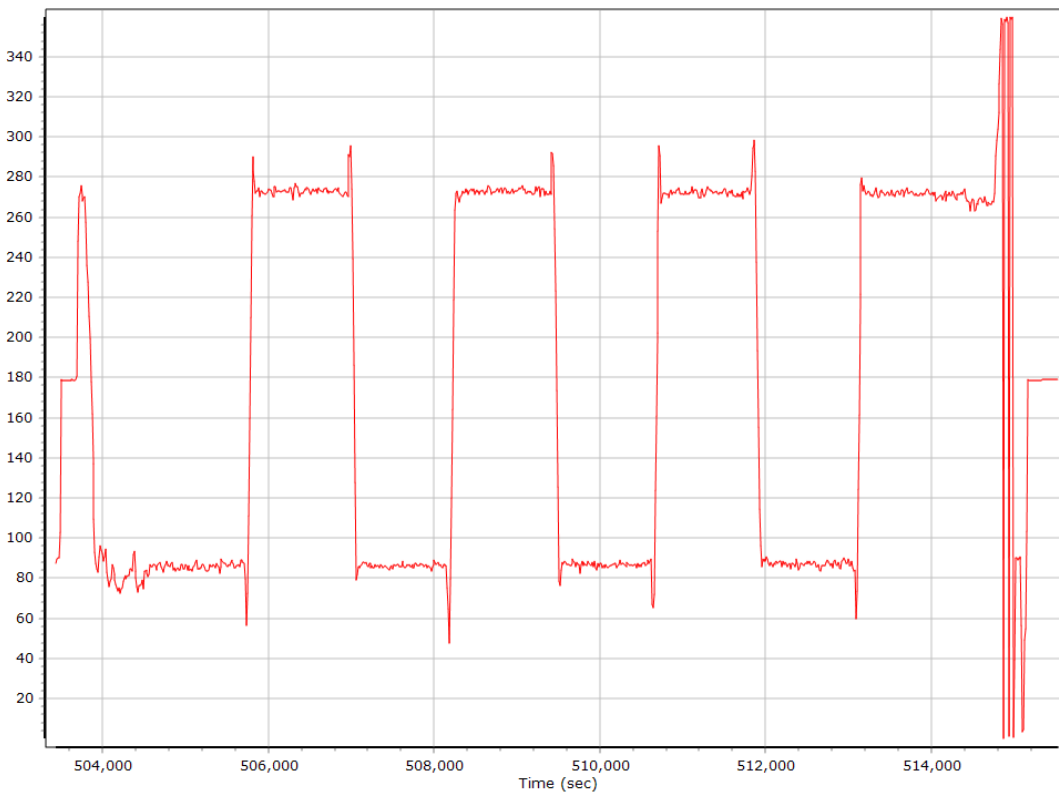
Altitude



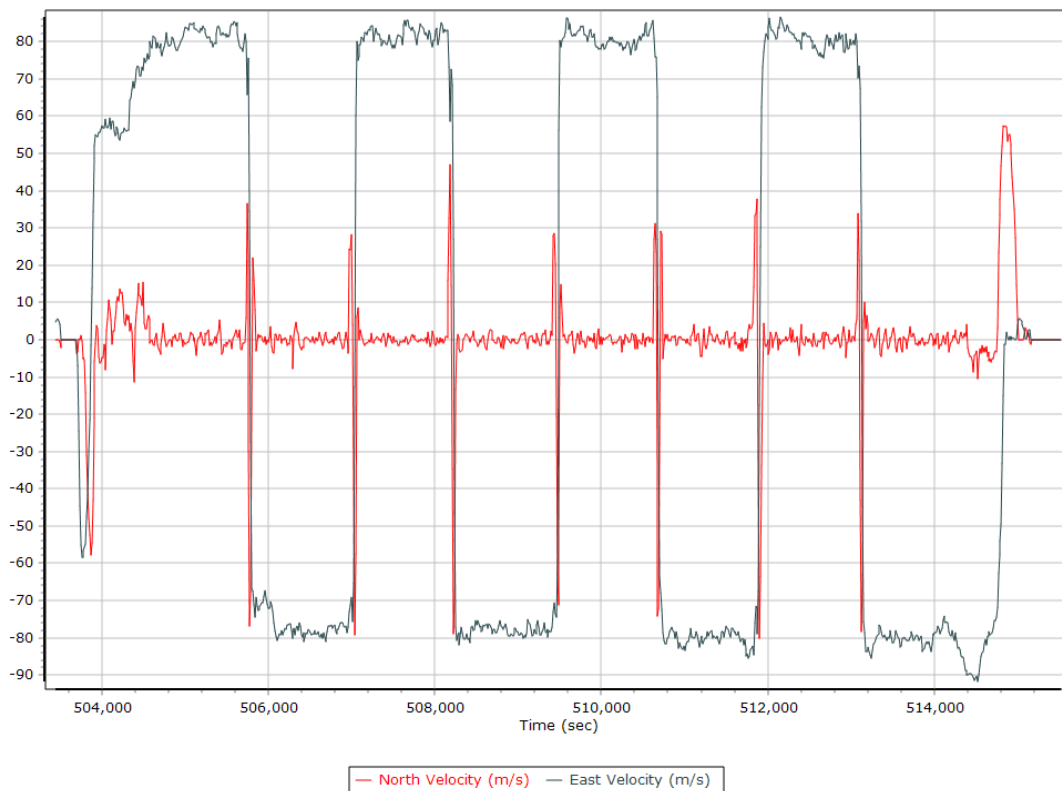
Roll/Pitch



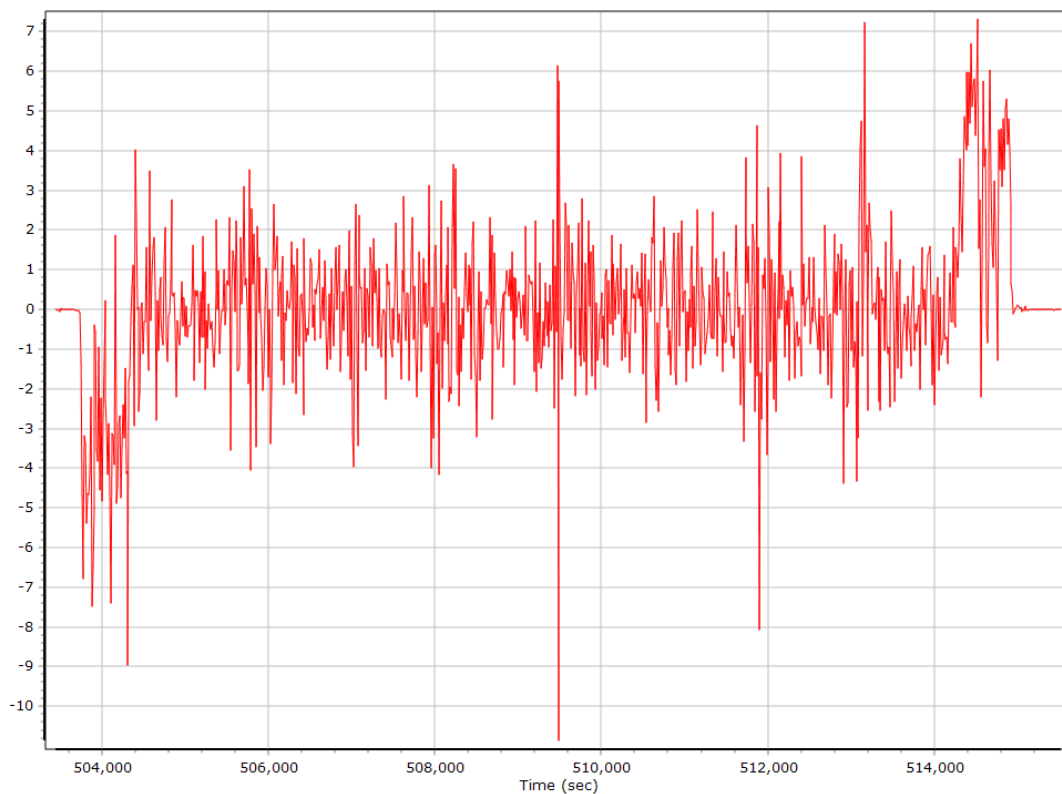
Heading



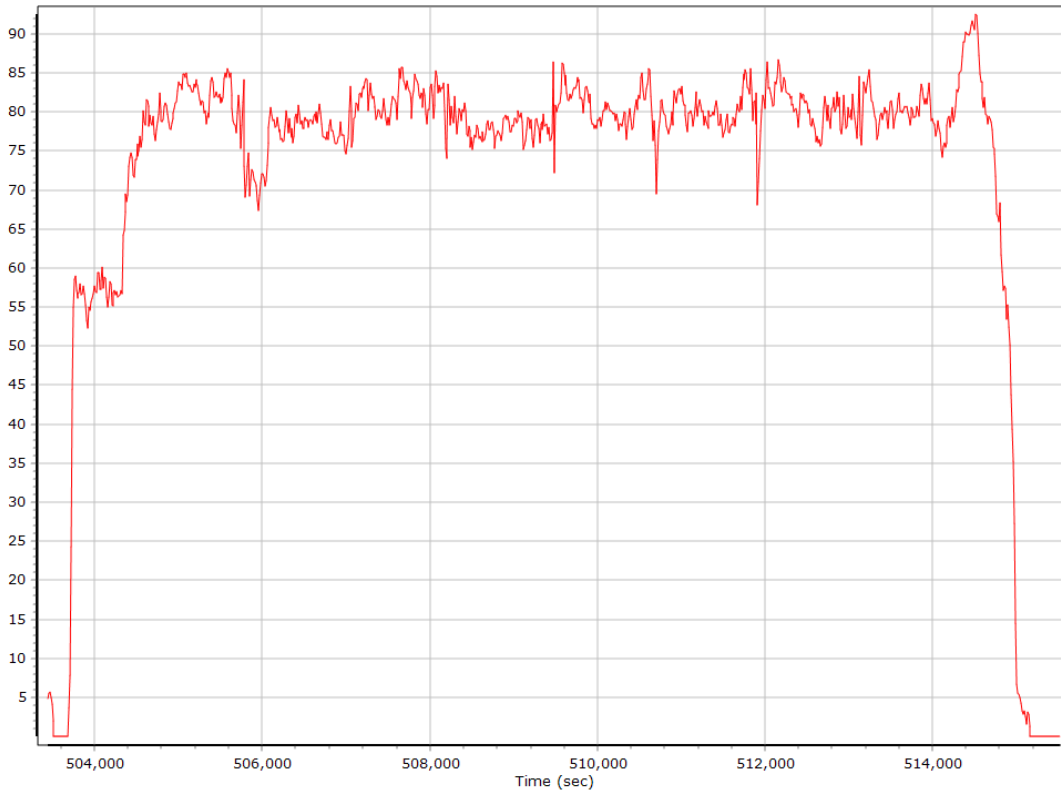
North/East Velocity



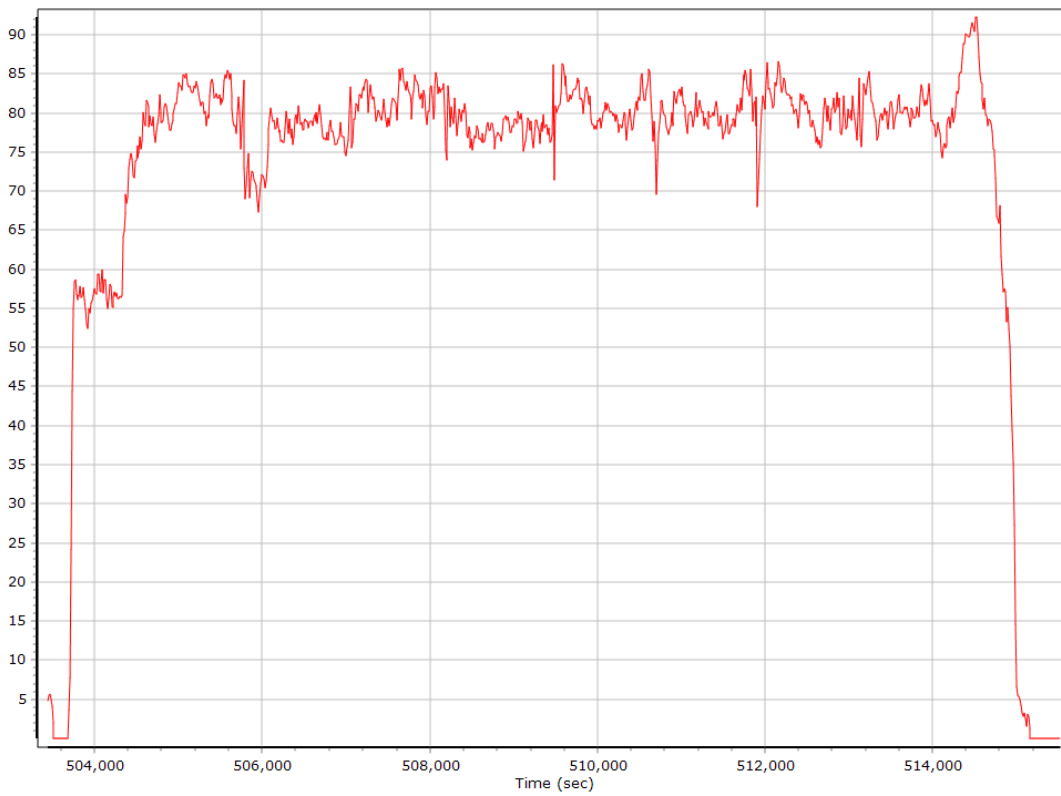
Down Velocity



Total Speed



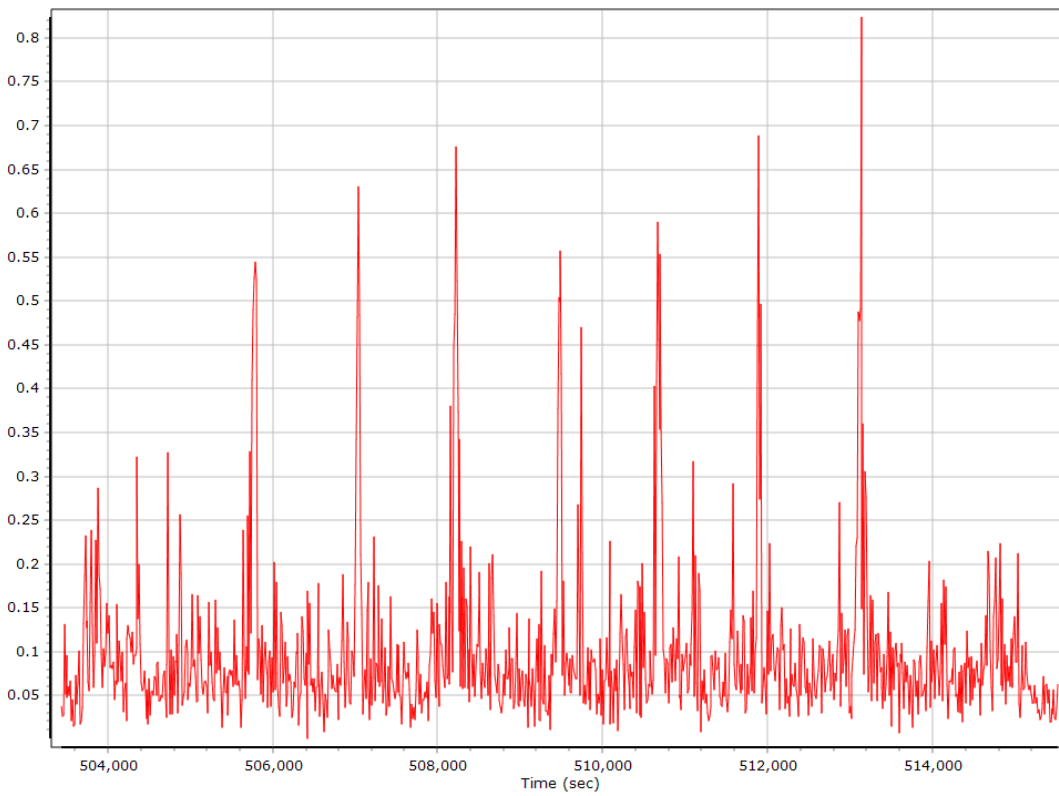
Ground Speed



Body Acceleration



Total Body Acceleration



Body Angular Rate

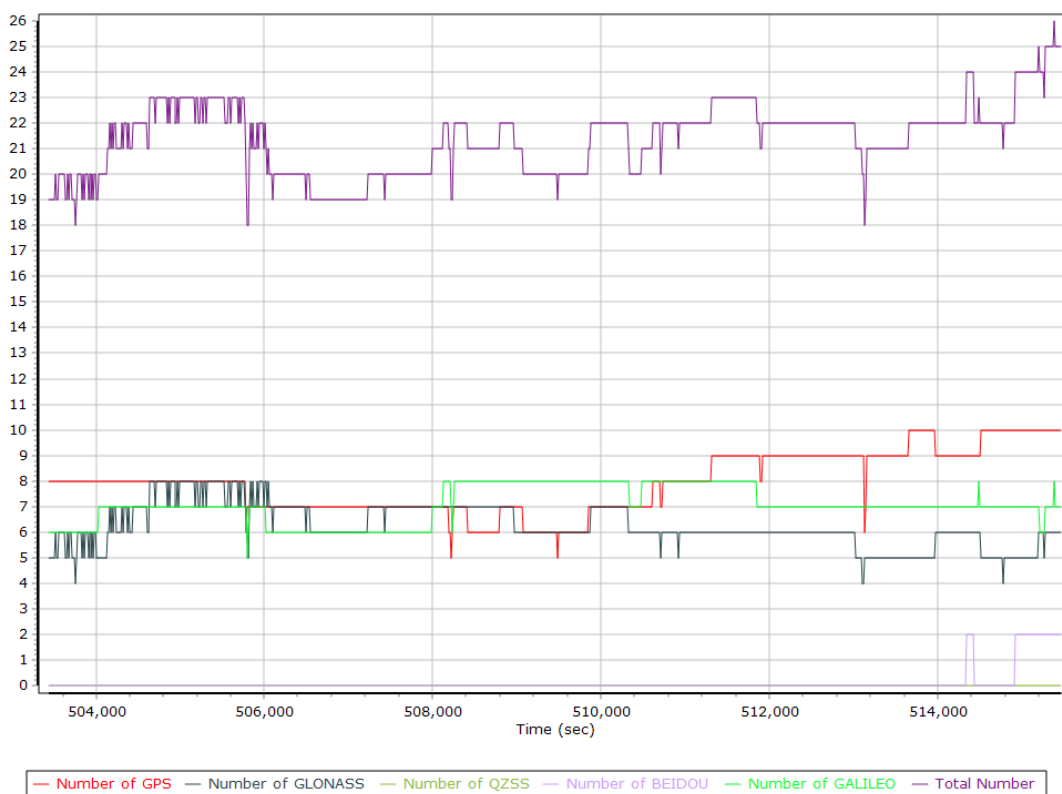


GNSS QC

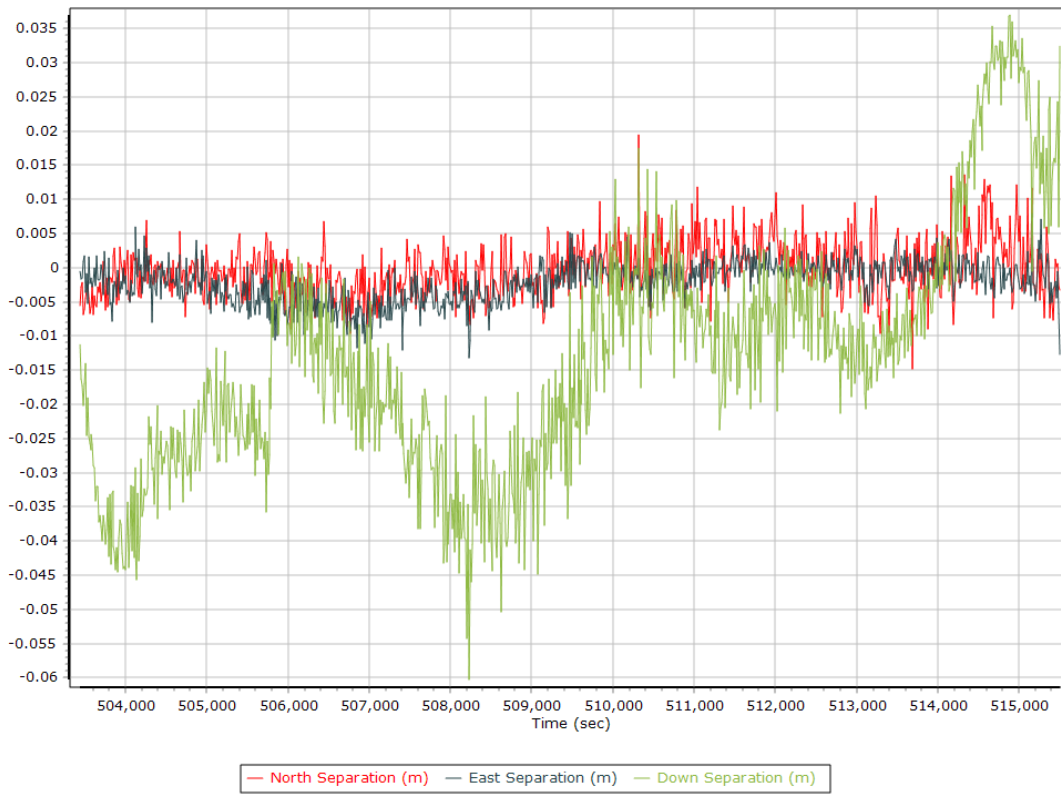
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length (km)	0.00	0.00	
Number of GPS SV	5	10	8
Number of GLONASS SV	4	8	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	2	0
Number of GALILEO SV	5	8	7
Total number of SV	17	26	21
PDOP	1.01	1.66	1.20
QC Solution Gaps	0.00	0.00	
Solution Type	Fixed	Float	No solution
Epoch (sec)	12567.00	0.00	0.00
Percentage	100.00	0.00	0.00

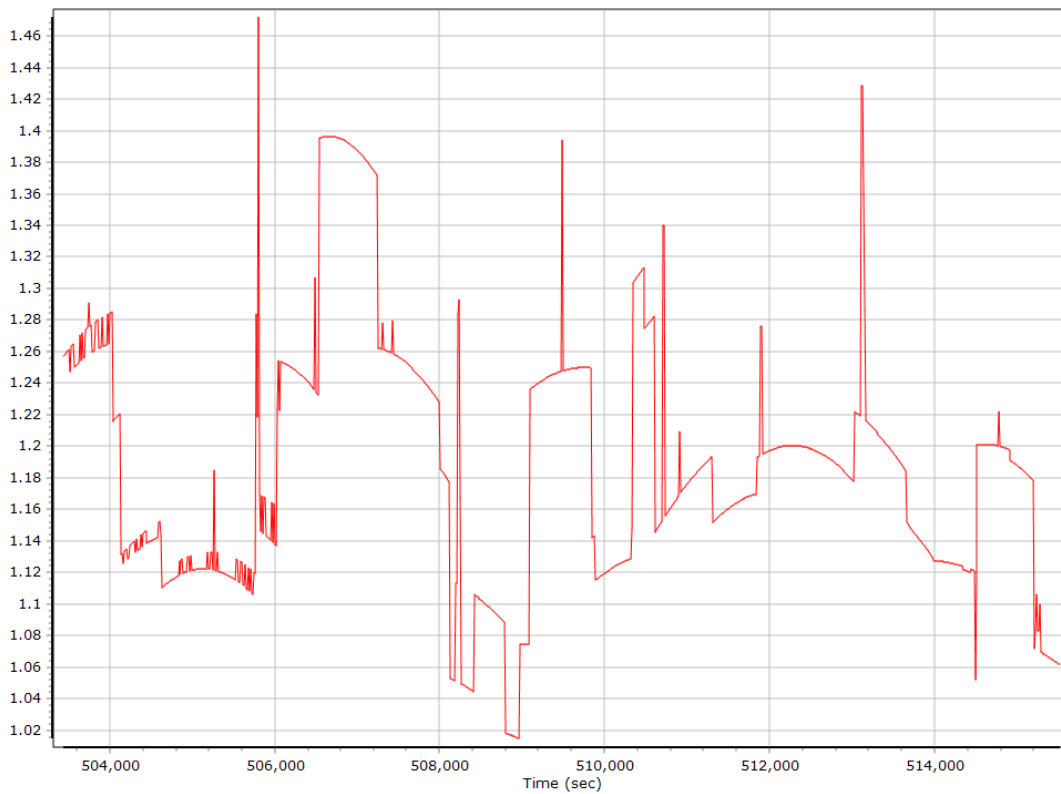
Num SVs in solution



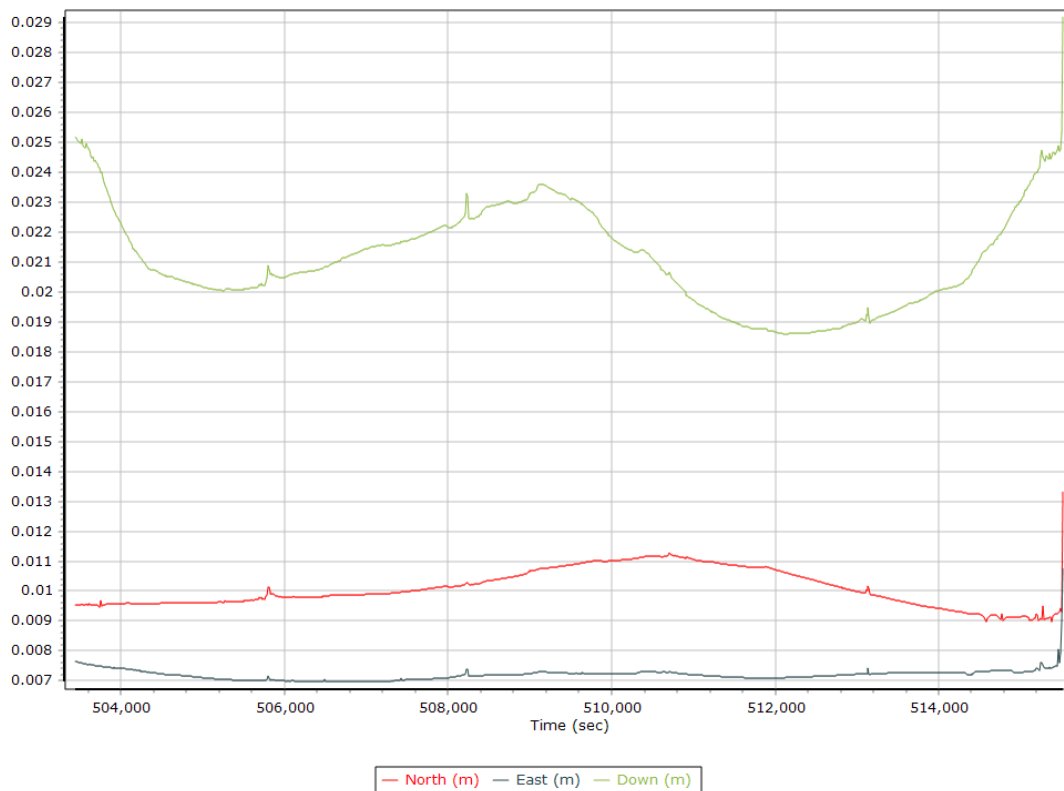
Forward/Reverse Separation



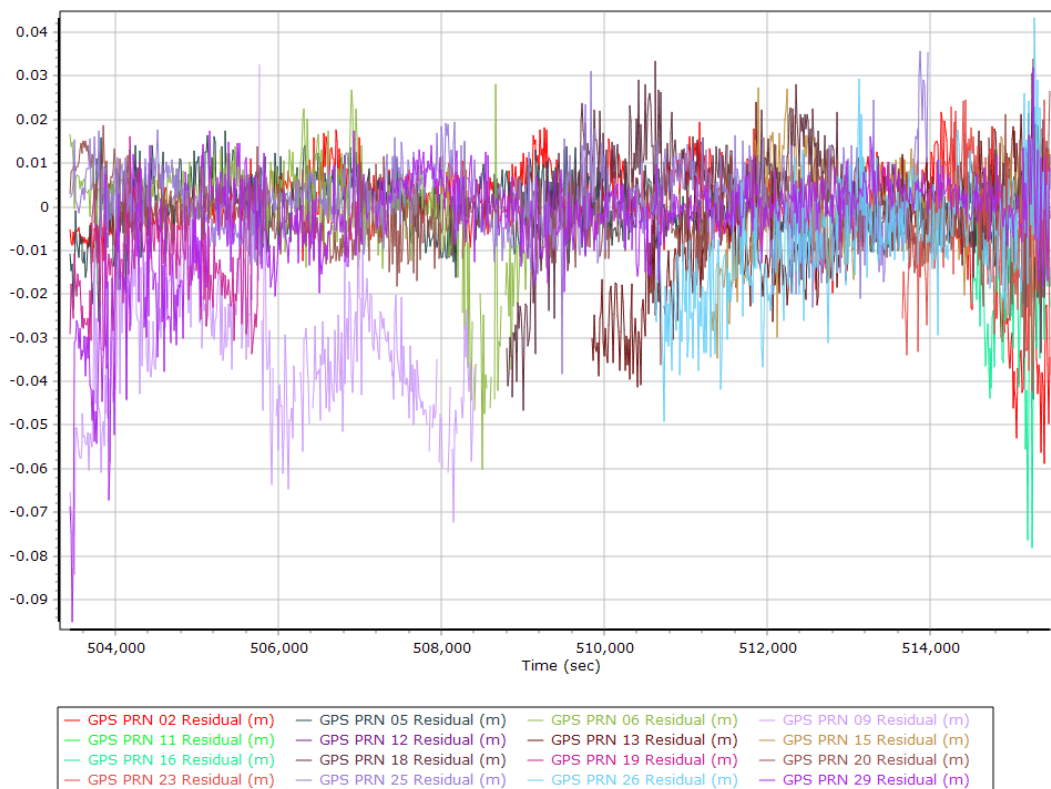
PDOP



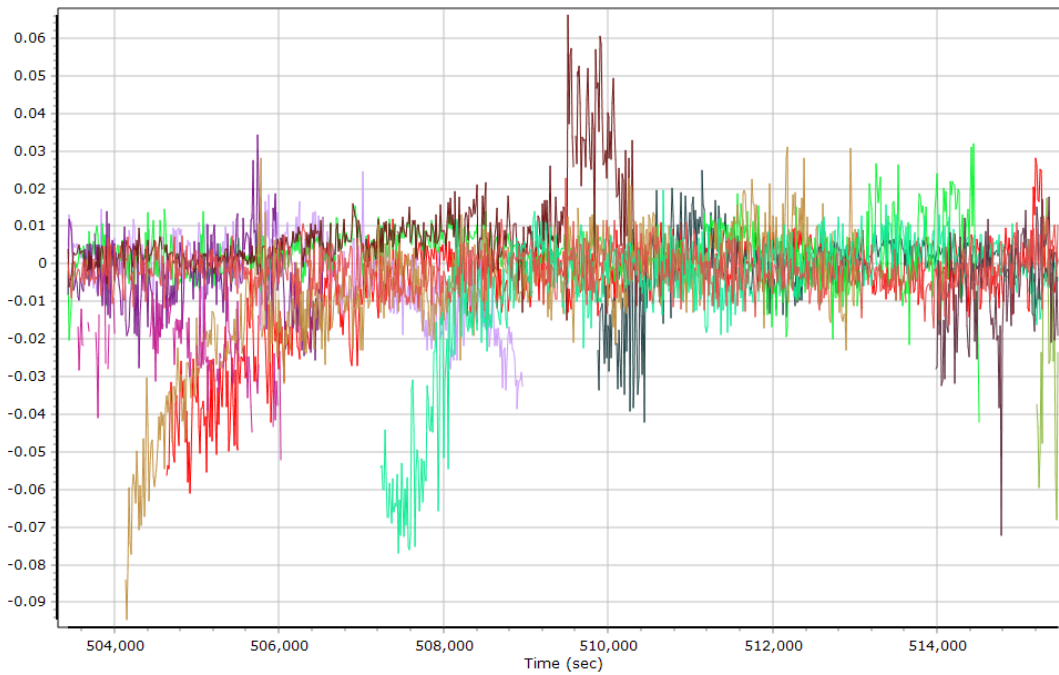
Estimated Position Accuracy



GPS Residuals

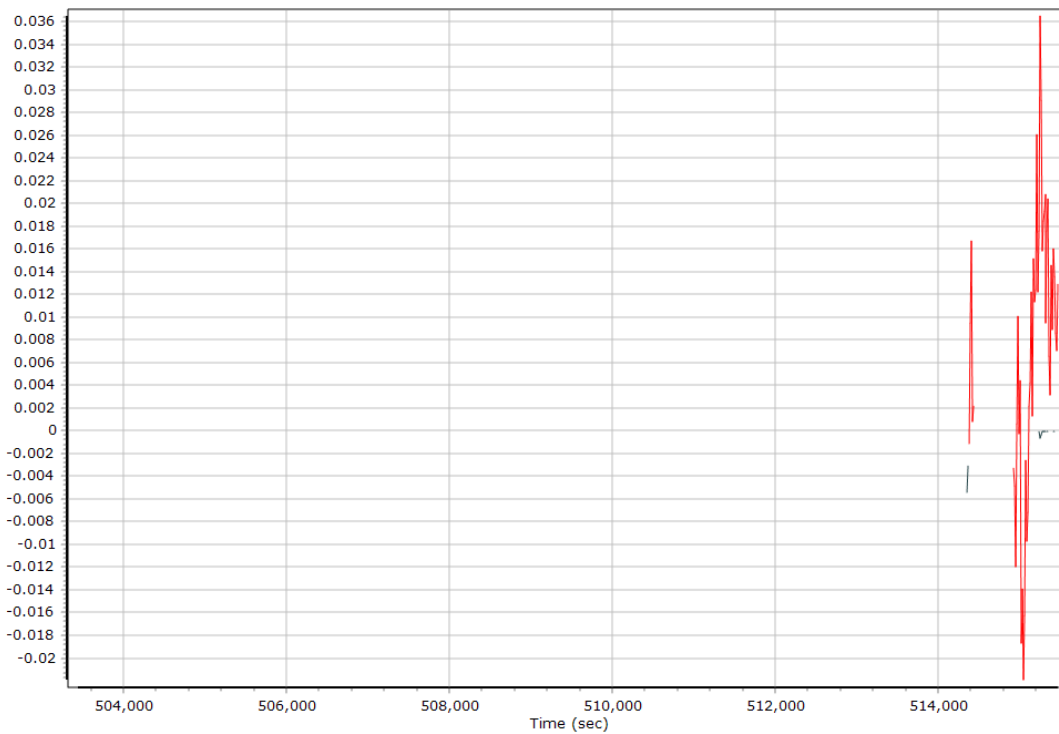


GLONASS Residuals



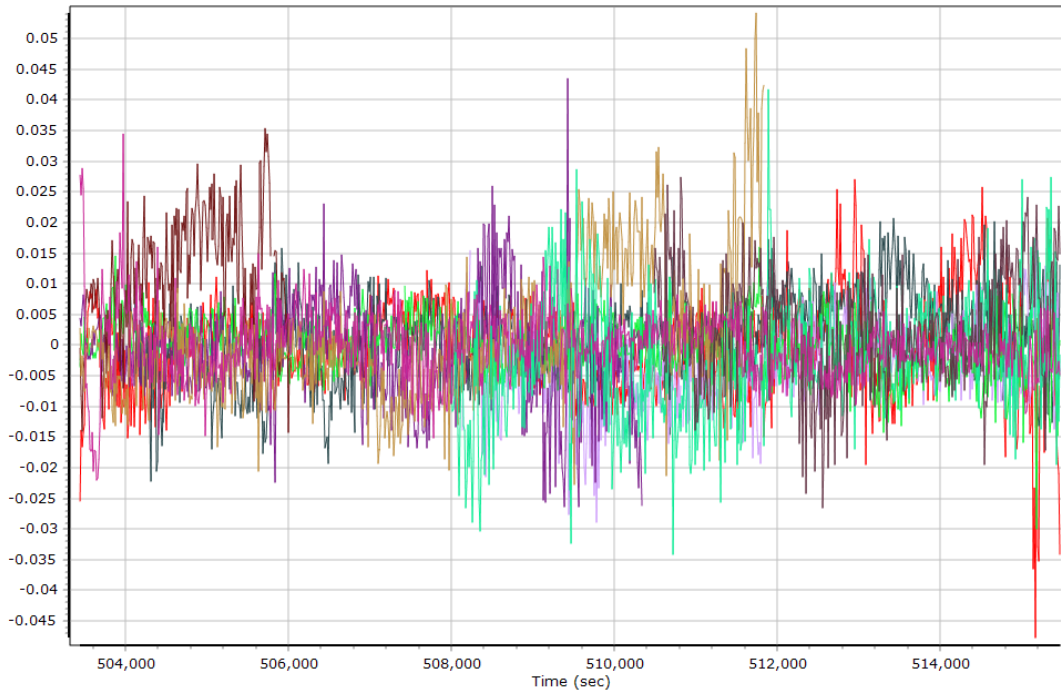
- GLONASS 01 Residual (m)
- GLONASS 02 Residual (m)
- GLONASS 03 Residual (m)
- GLONASS 07 Residual (m)
- GLONASS 08 Residual (m)
- GLONASS 13 Residual (m)
- GLONASS 14 Residual (m)
- GLONASS 15 Residual (m)
- GLONASS 17 Residual (m)
- GLONASS 18 Residual (m)
- GLONASS 22 Residual (m)
- GLONASS 23 Residual (m)
- GLONASS 24 Residual (m)

BEIDOU Residuals



- BEIDOU 11 Residual (m)
- BEIDOU 14 Residual (m)
- BEIDOU 21 Residual (m)
- BEIDOU 28 Residual (m)

GALILEO Residuals



- | | | | |
|-------------------------|-------------------------|-------------------------|-------------------------|
| GALILEO 02 Residual (m) | GALILEO 04 Residual (m) | GALILEO 05 Residual (m) | GALILEO 09 Residual (m) |
| GALILEO 11 Residual (m) | GALILEO 12 Residual (m) | GALILEO 24 Residual (m) | GALILEO 25 Residual (m) |
| GALILEO 30 Residual (m) | GALILEO 34 Residual (m) | GALILEO 36 Residual (m) | |

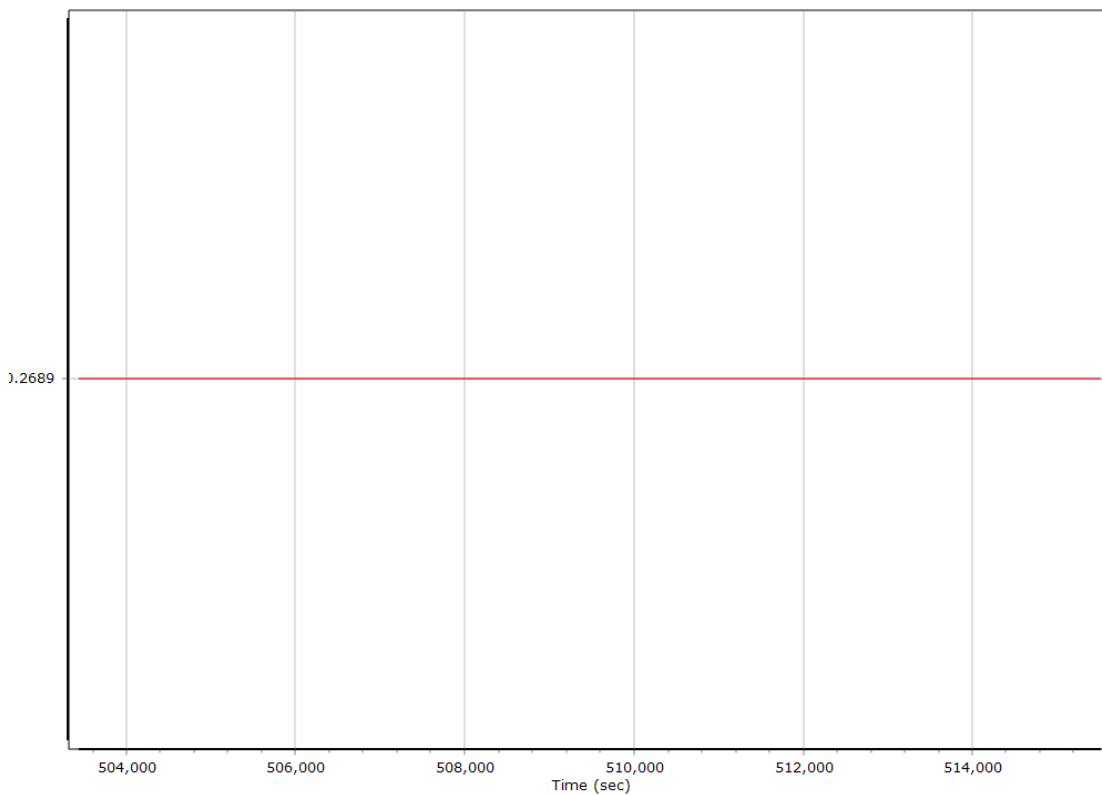
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion PP-RTX		
Stabilized mount	False		
Processing start time	502903.000 (05/27/2022 19:41:43)		
Processing end time	515530.000 (05/27/2022 23:12:10)		
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)	0.269	-0.094	-1.072
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

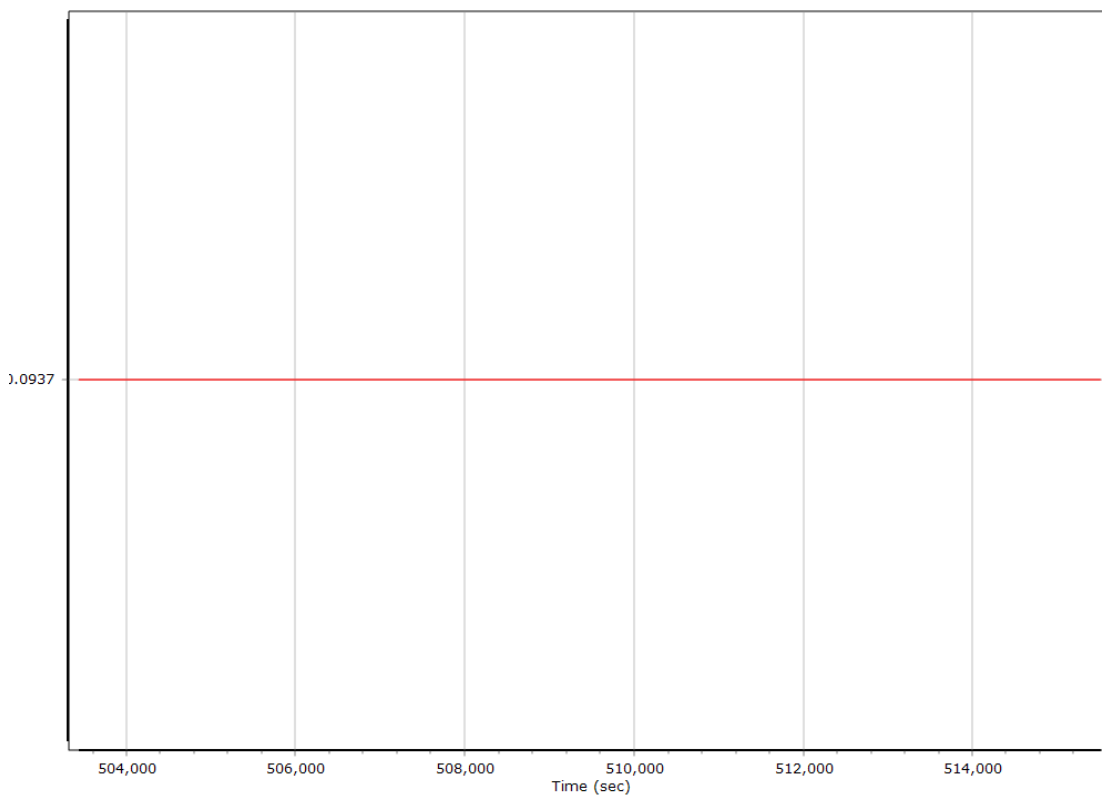
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm (m)

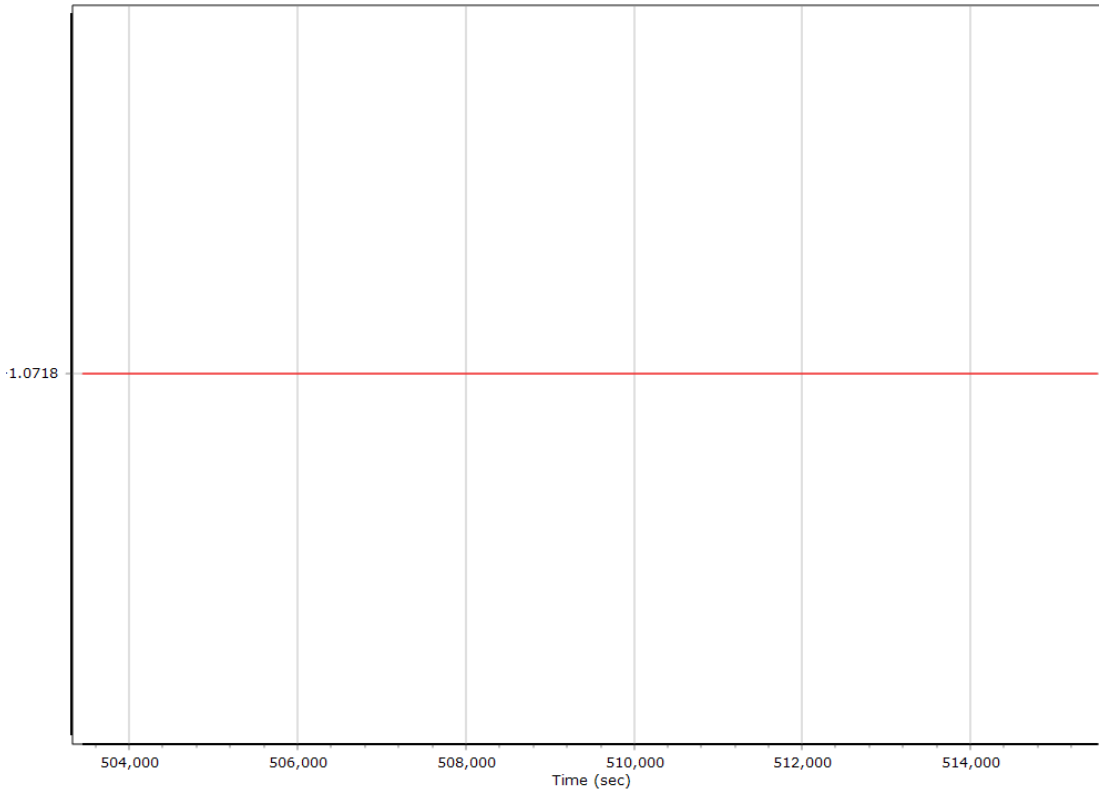
X Reference-Primary GNSS Lever Arm (m)



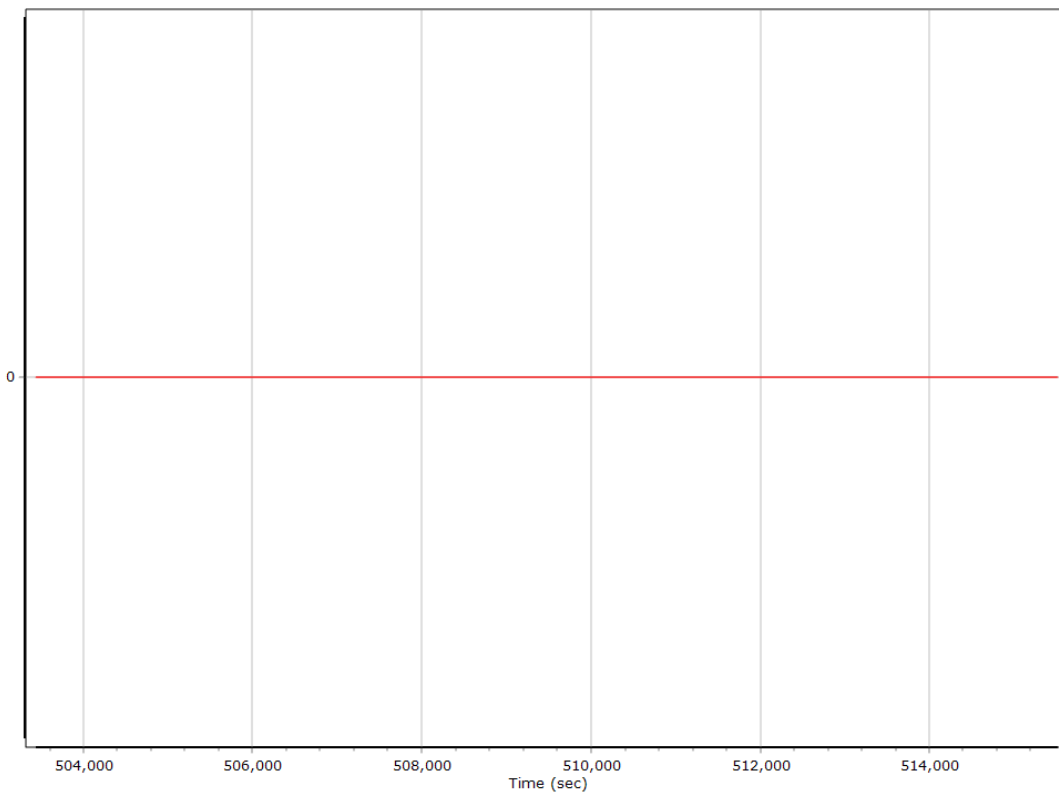
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



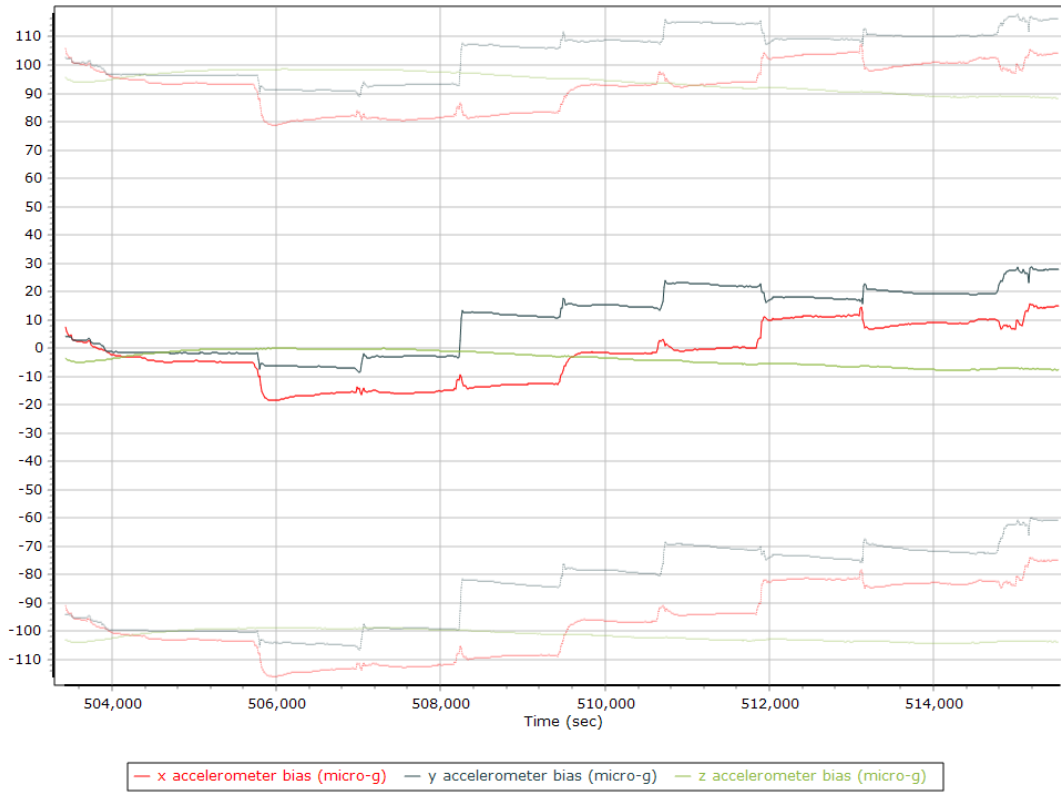
Reference-Primary GNSS Lever Arm Figure of Merit



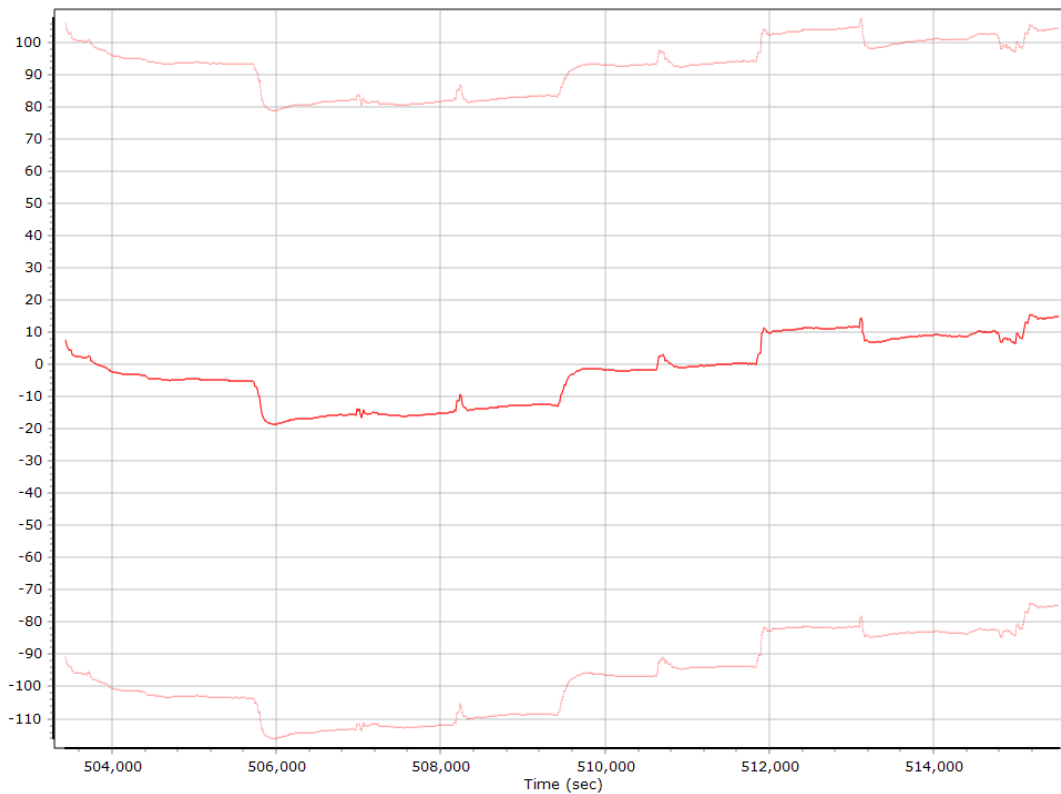
IN-Fusion QC

Forward Processed Estimated Errors, Reference Frame

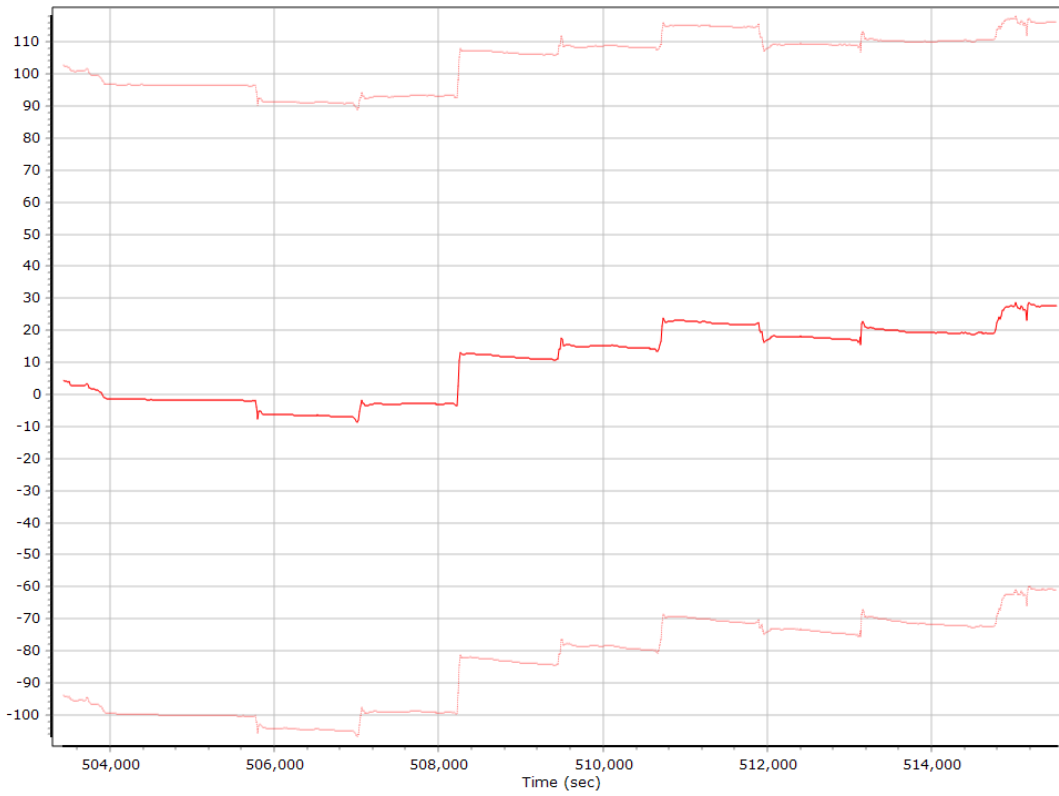
Accelerometer Bias (micro-g)



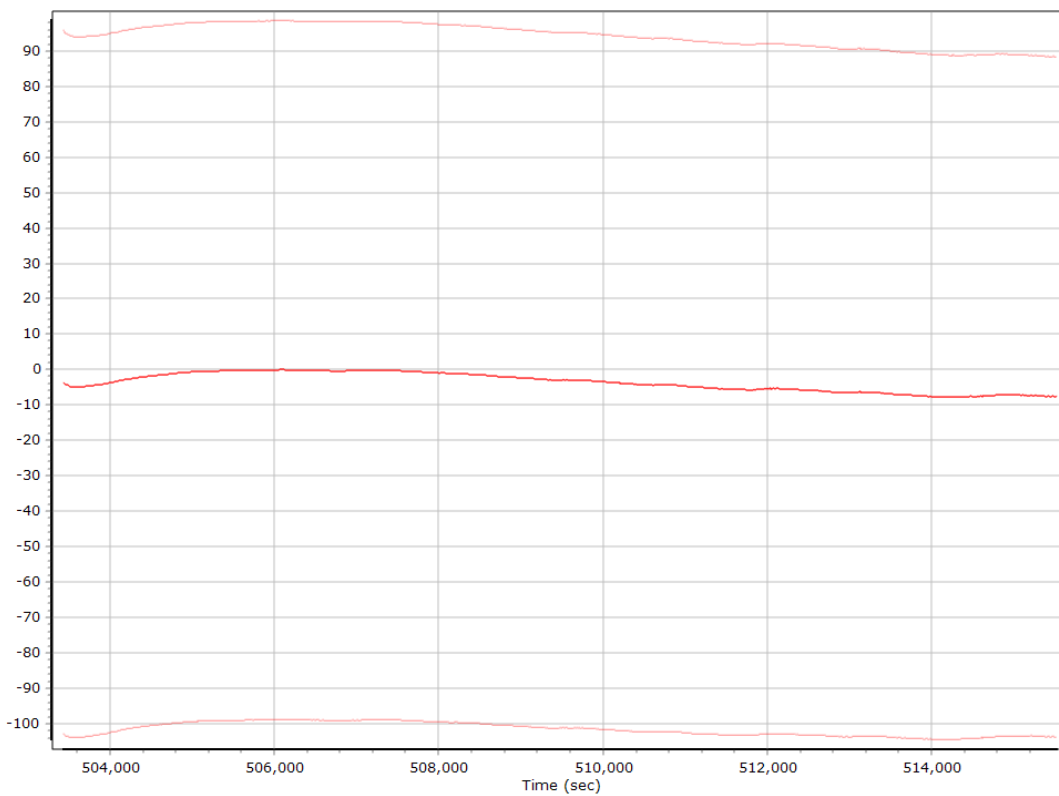
X Accelerometer Bias (micro-g)



Y Accelerometer Bias (micro-g)



Z Accelerometer Bias (micro-g)



Accelerometer Scale Error (ppm)



X Accelerometer Scale Error (ppm)



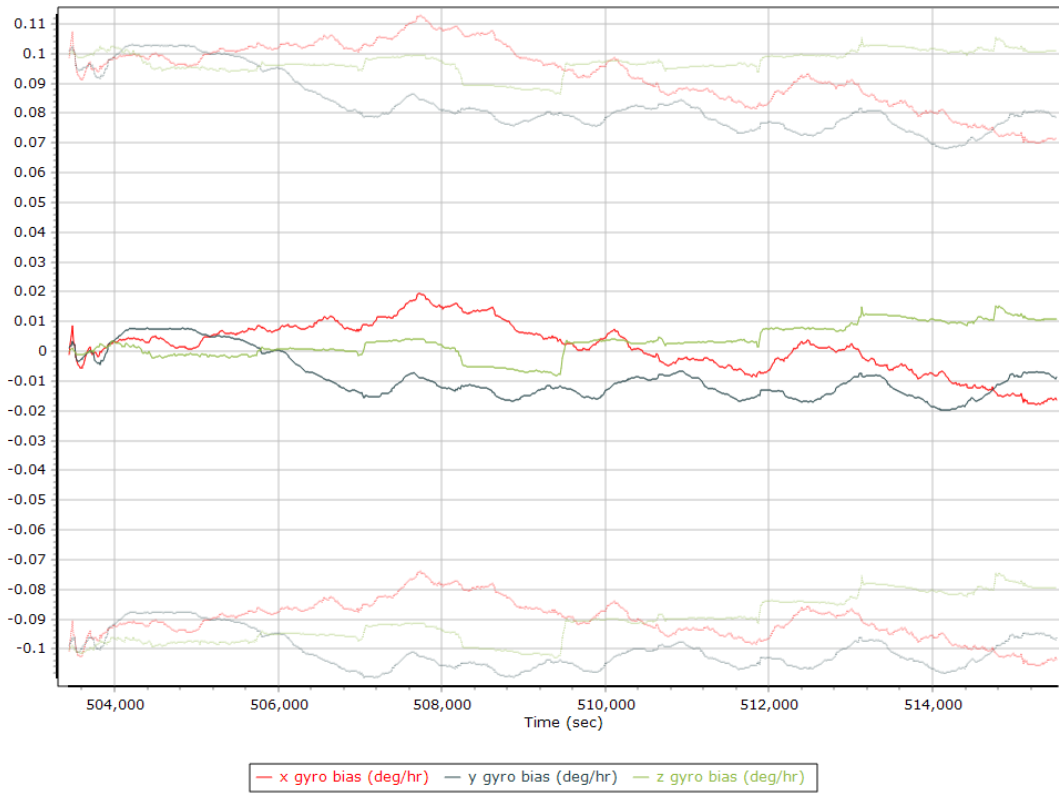
Y Accelerometer Scale Error (ppm)



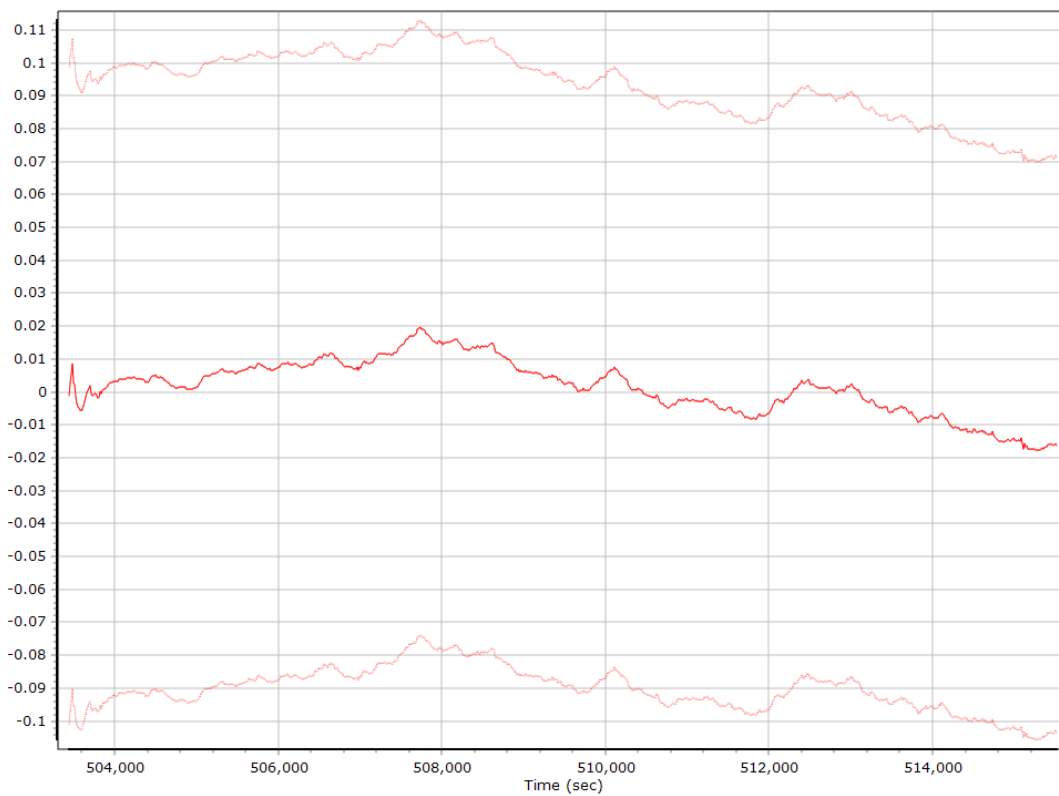
Z Accelerometer Scale Error (ppm)



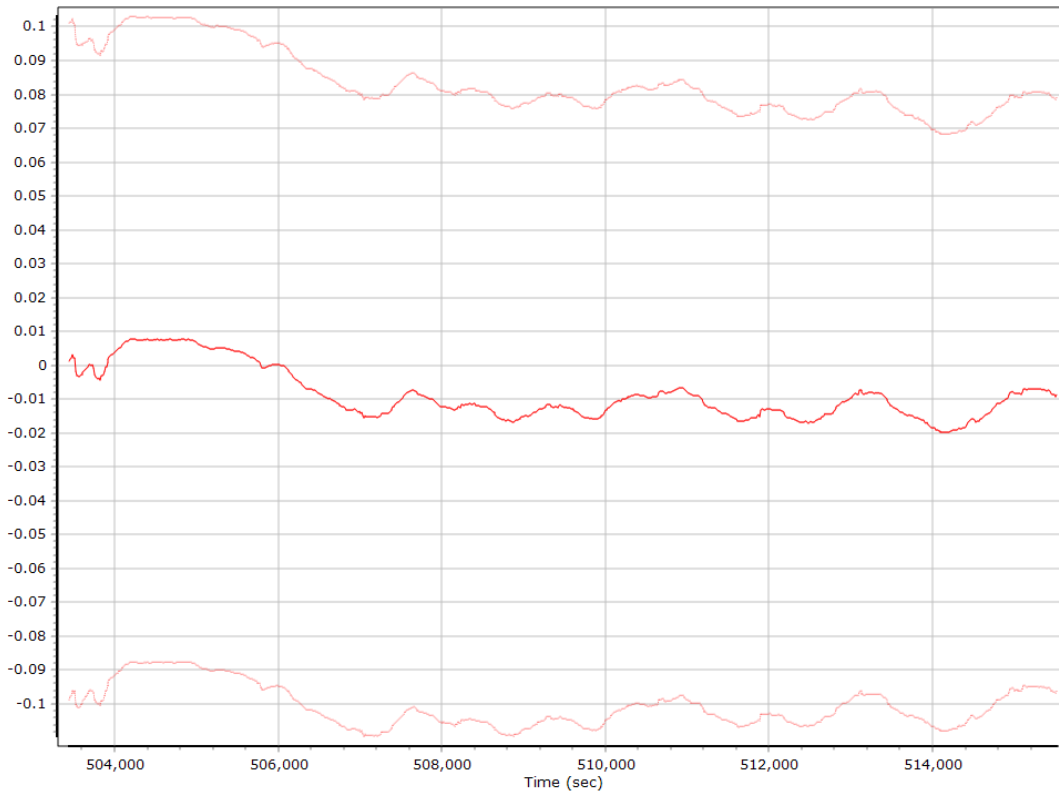
Gyro Bias (deg/h)



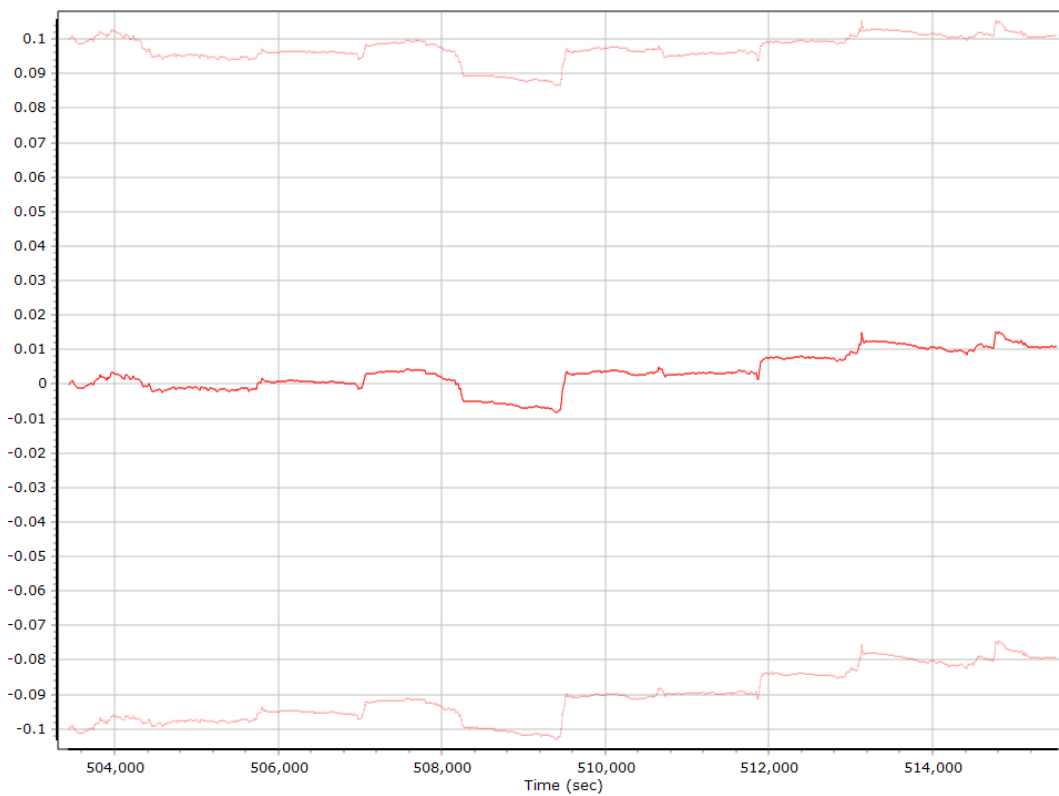
X Gyro Bias (deg/h)



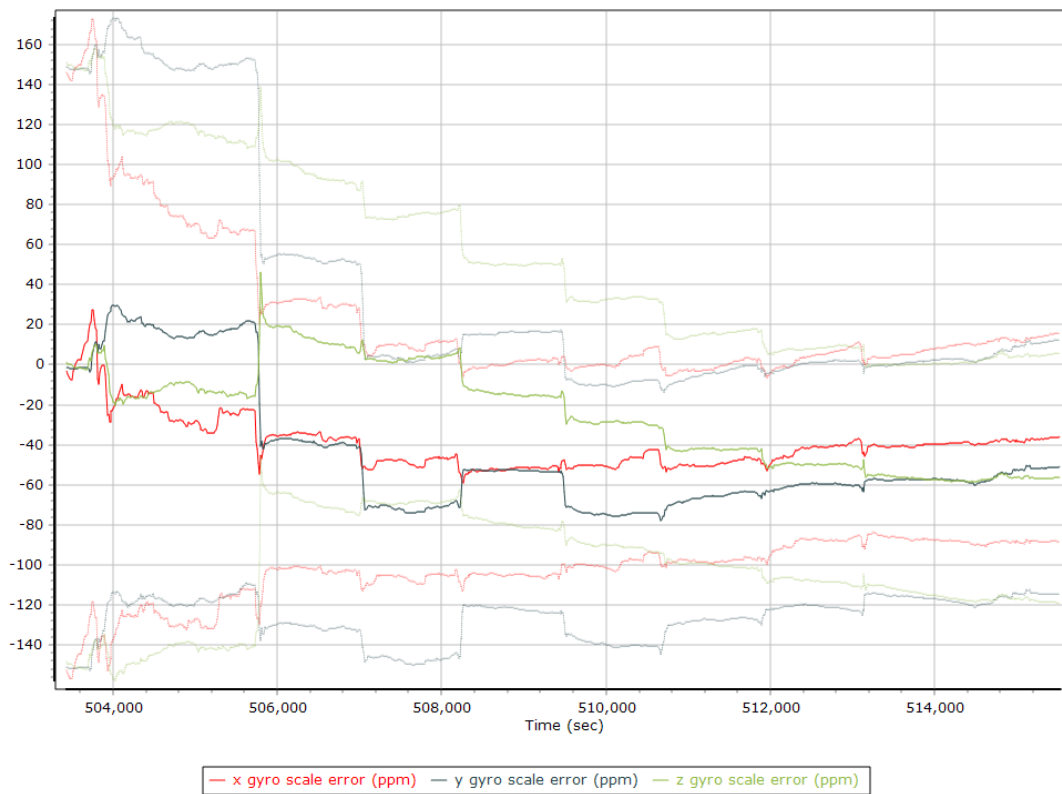
Y Gyro Bias (deg/h)



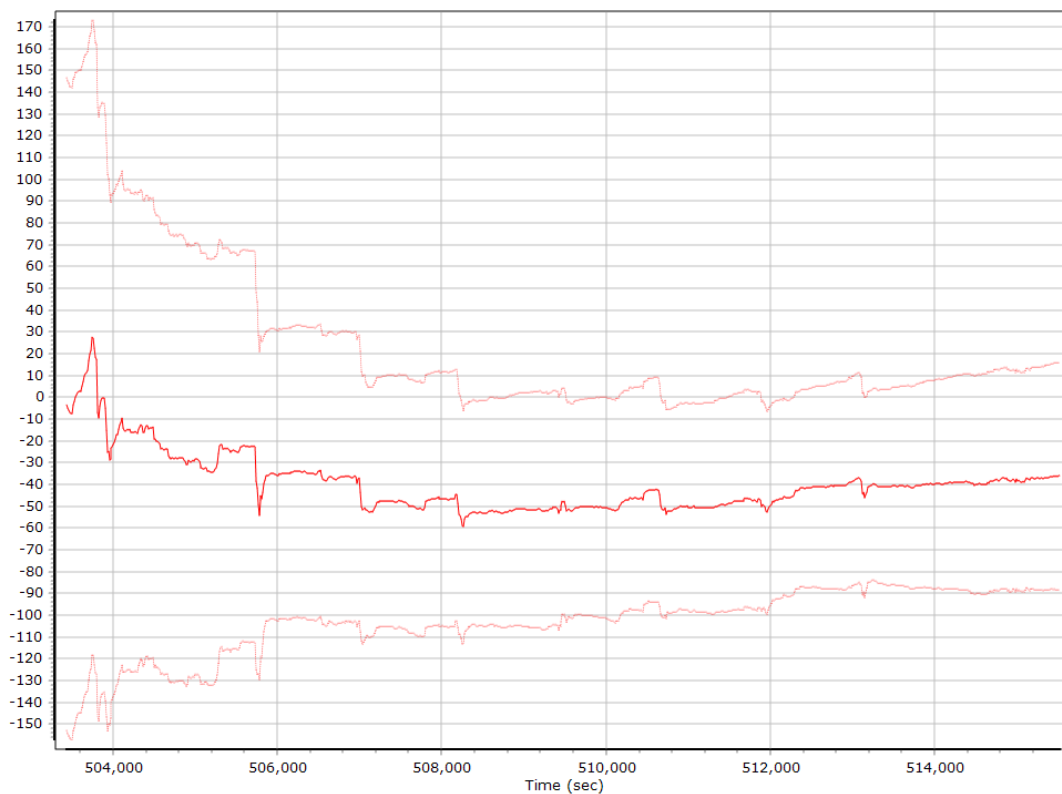
Z Gyro Bias (deg/h)



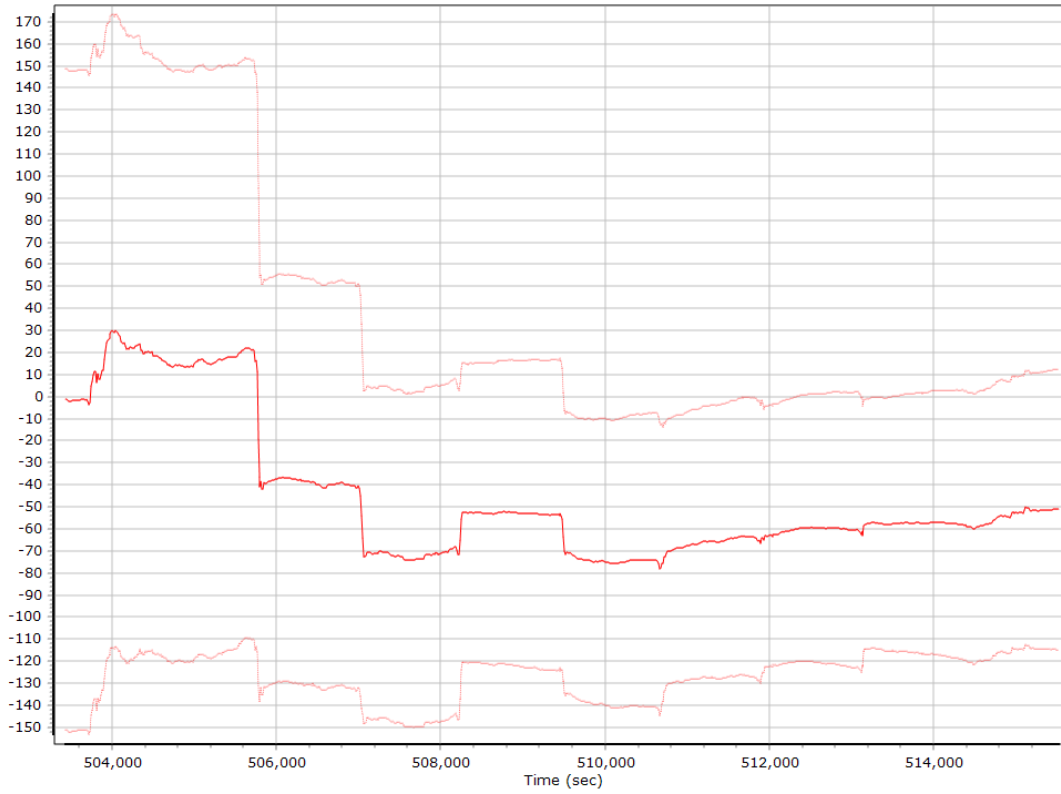
Gyro Scale Error (ppm)



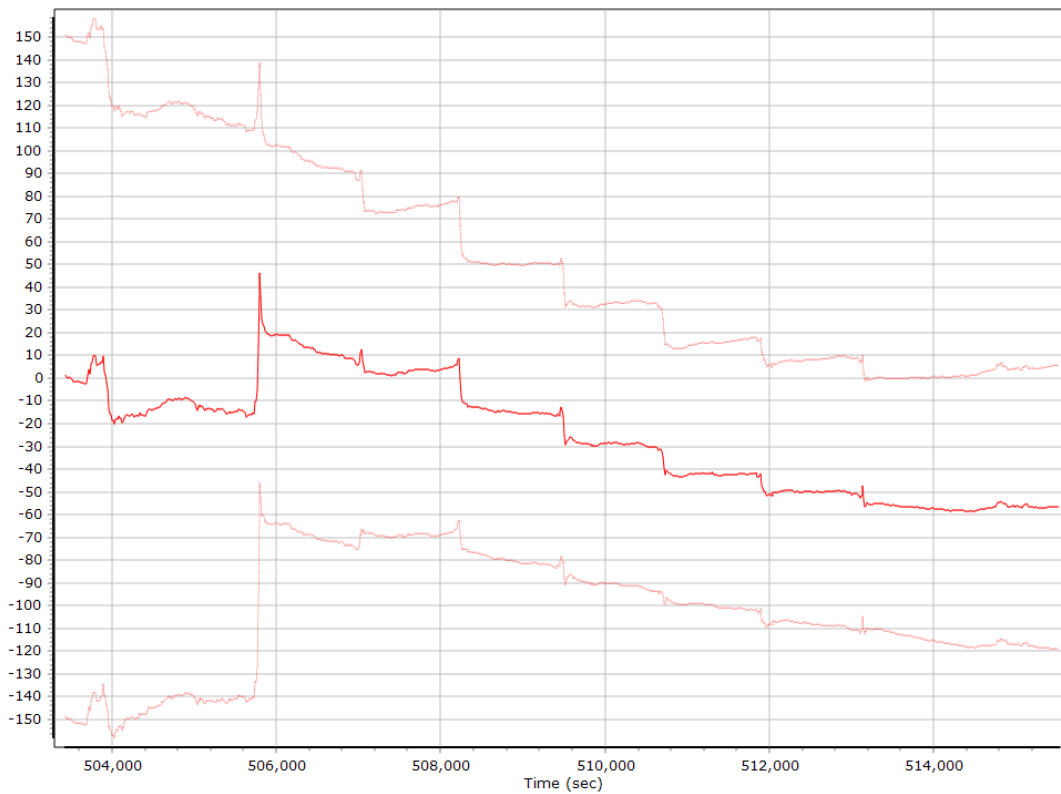
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

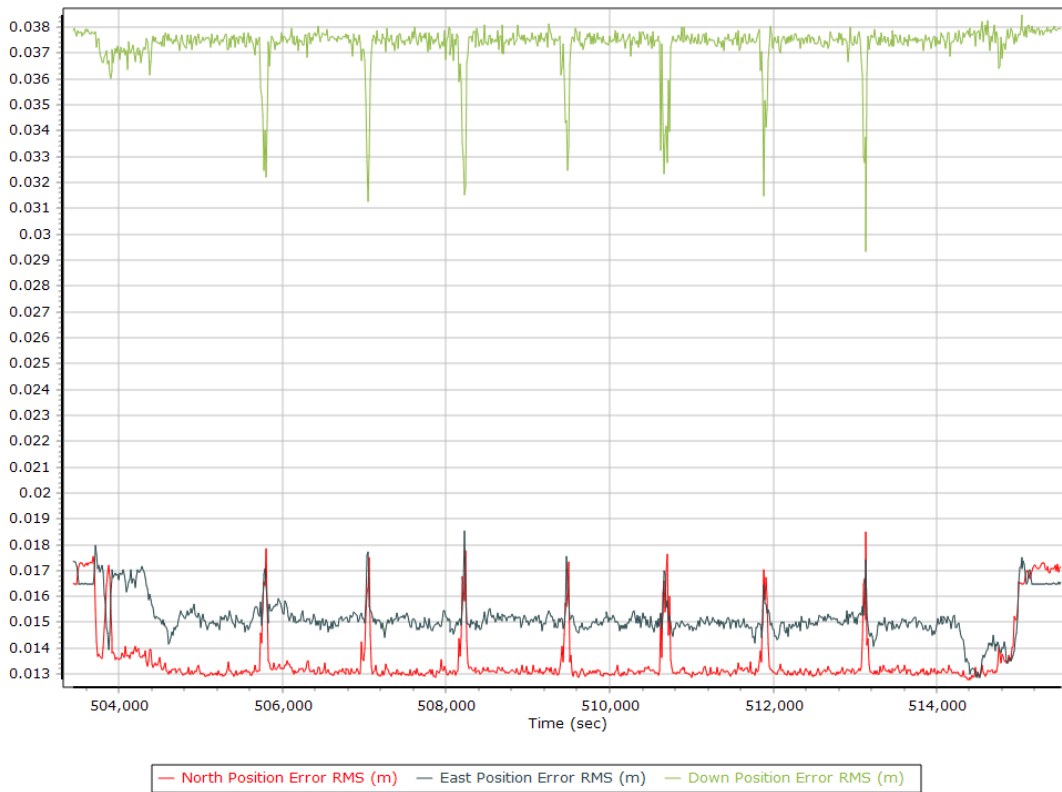


Z Gyro Scale Error (ppm)



Smoothed Performance Metrics

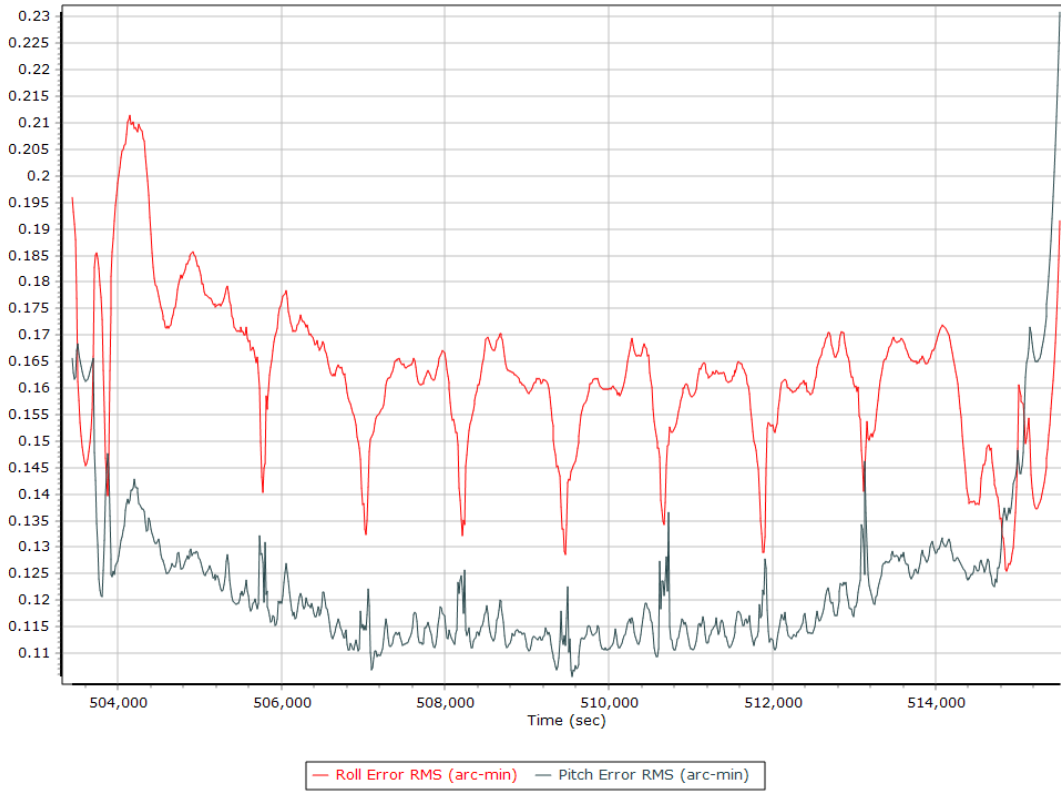
Position Error RMS (m)



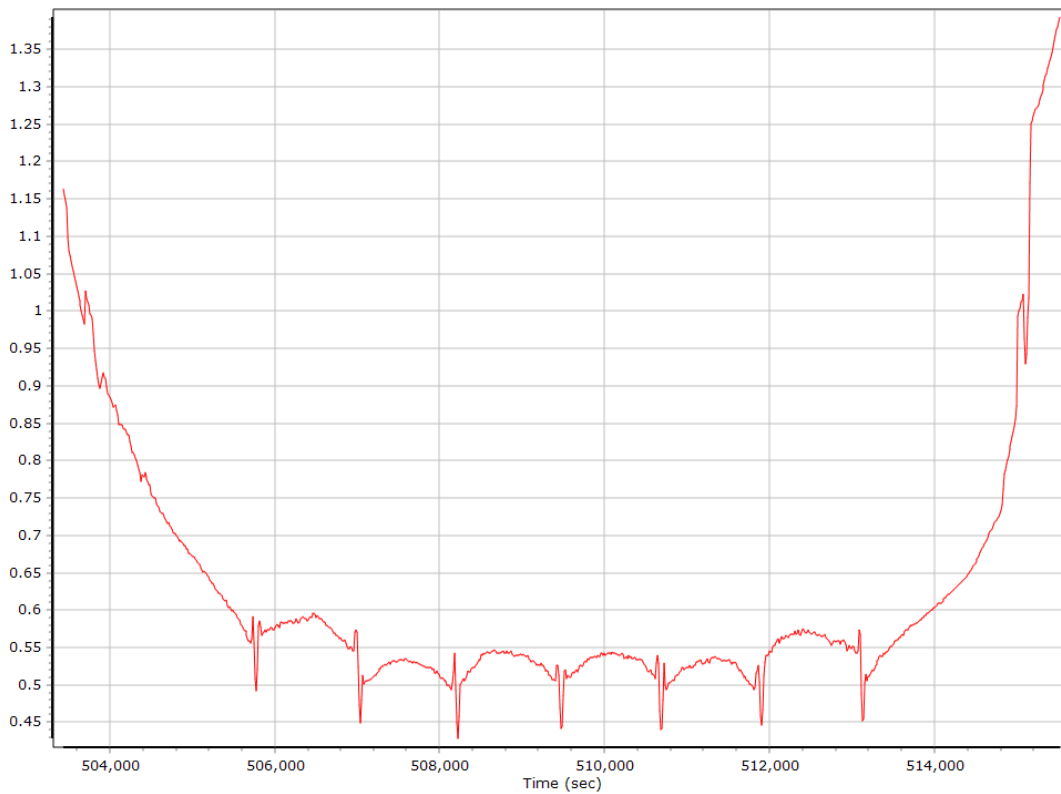
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

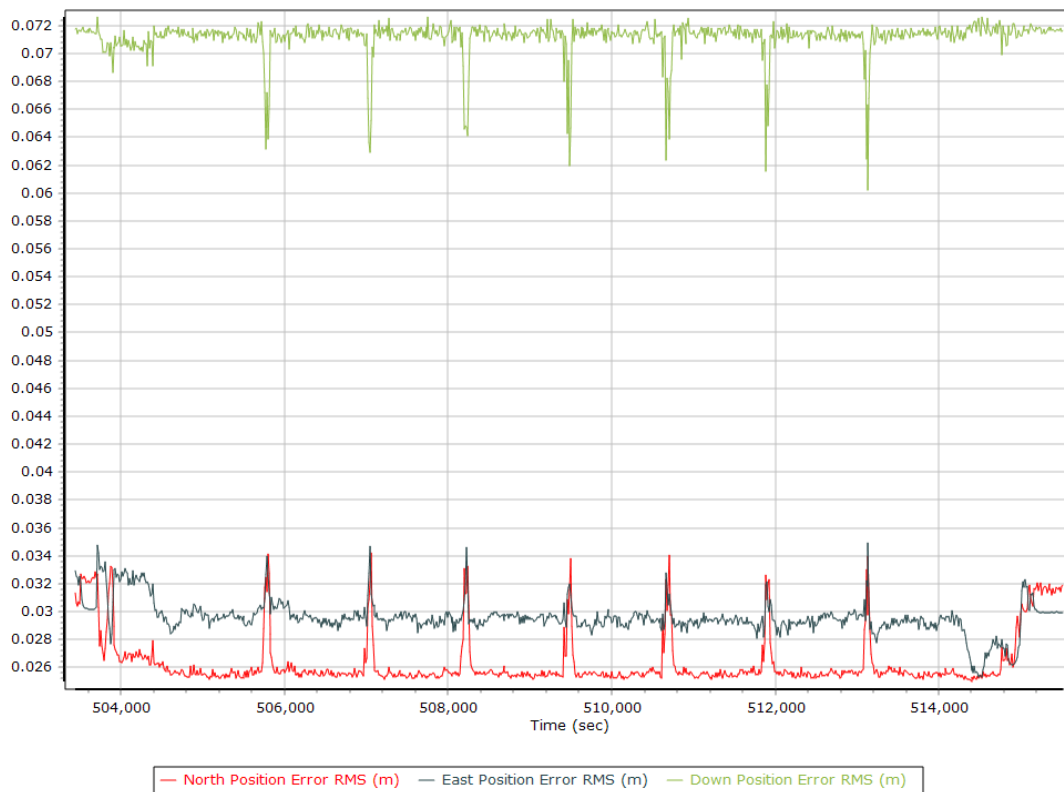


Heading Error RMS (arc-min)

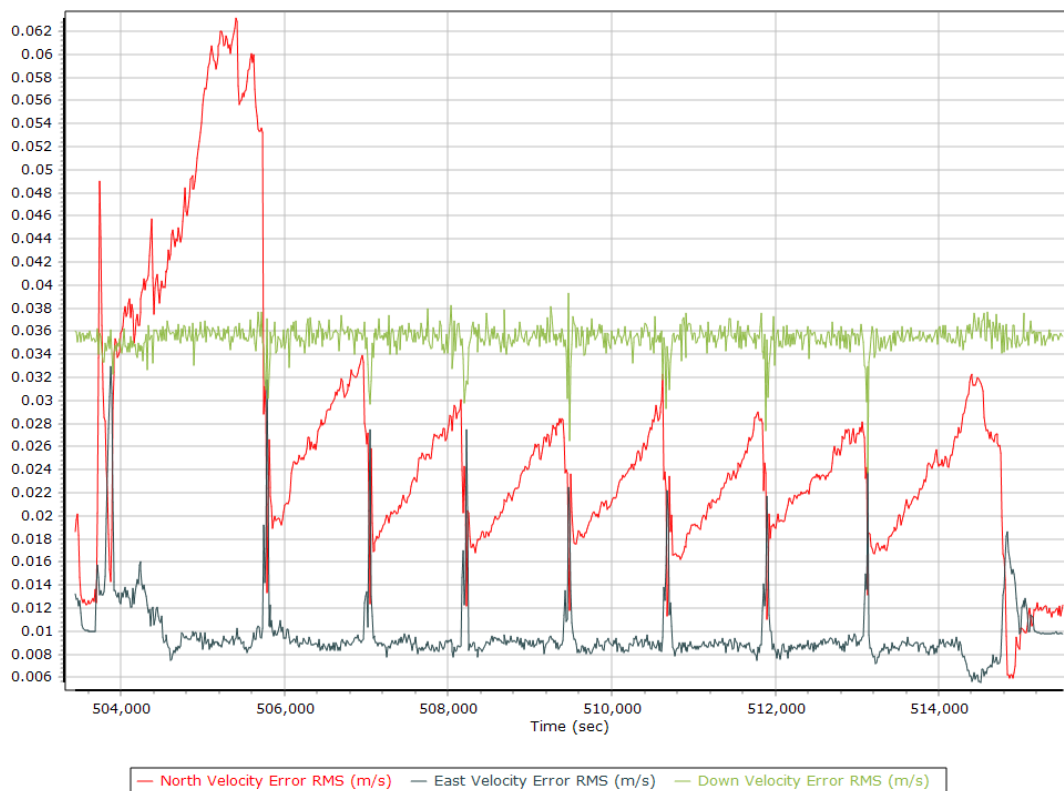


Forward Processed Performance Metrics

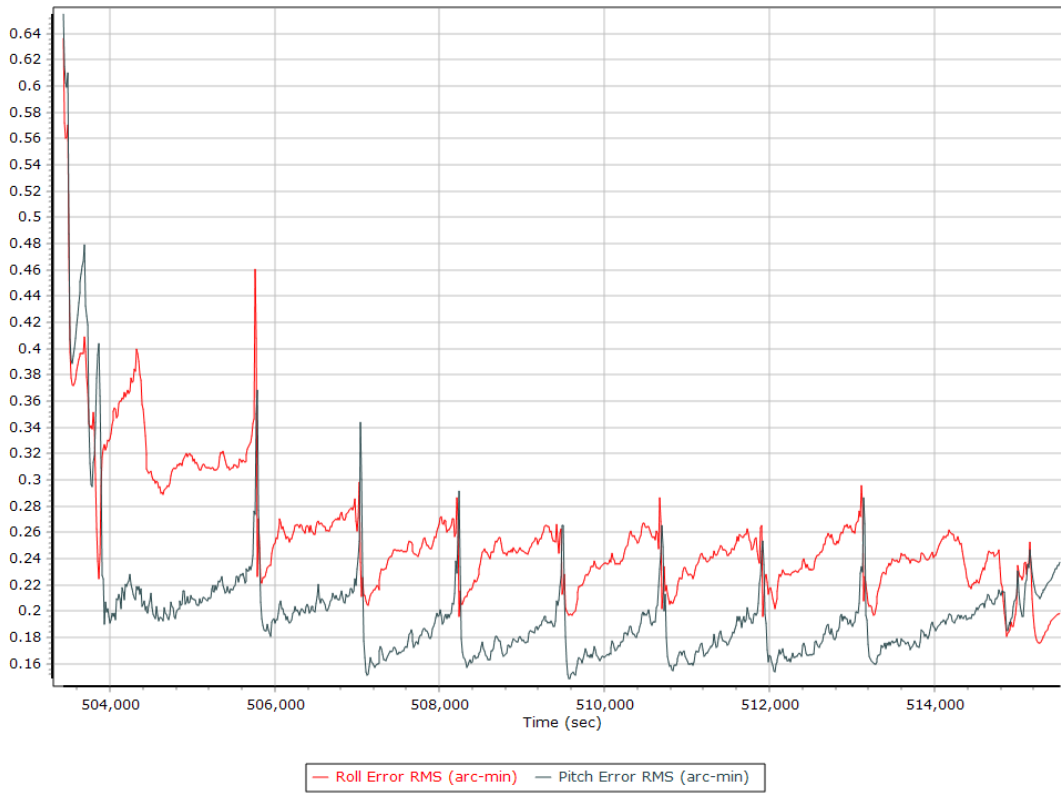
Position Error RMS (m)



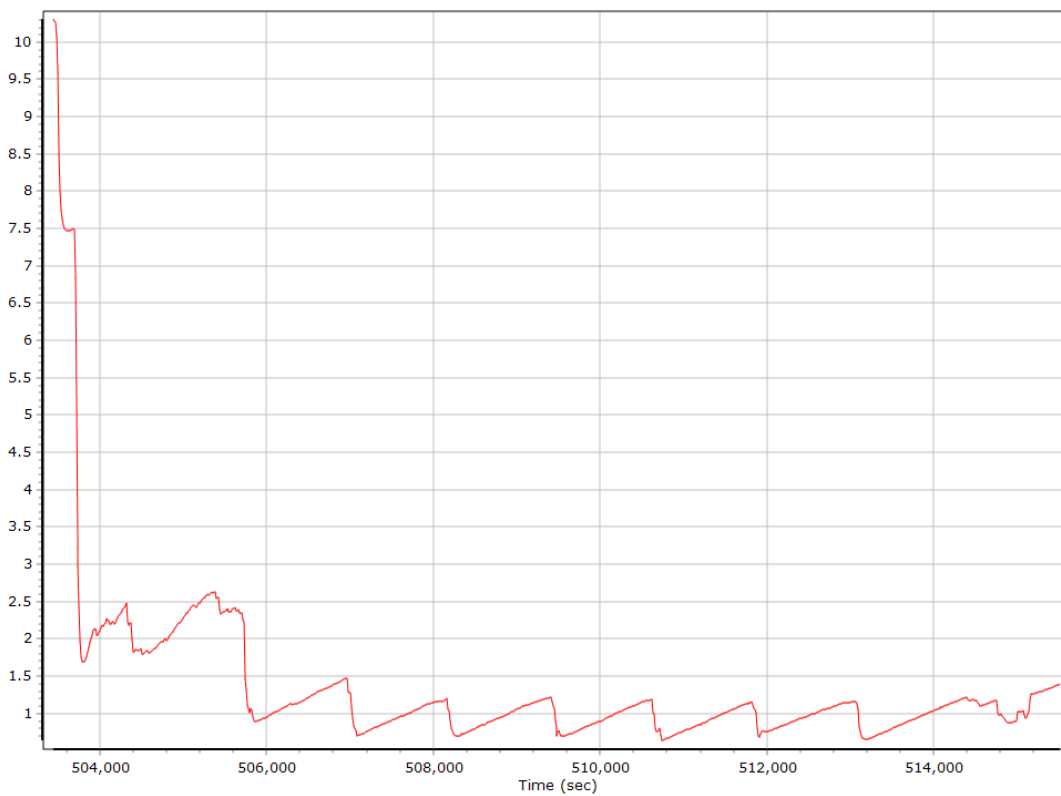
Velocity Error RMS (m/s)



Roll/Pitch Error RMS (arc-min)

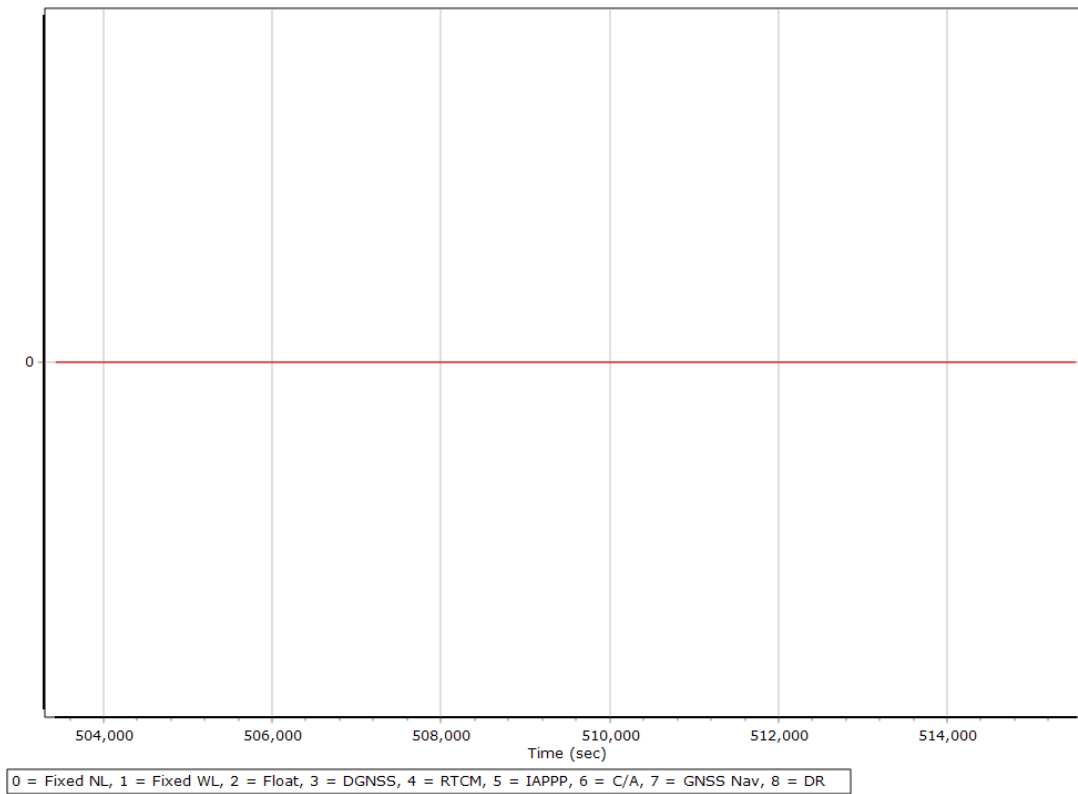


Heading Error RMS (arc-min)

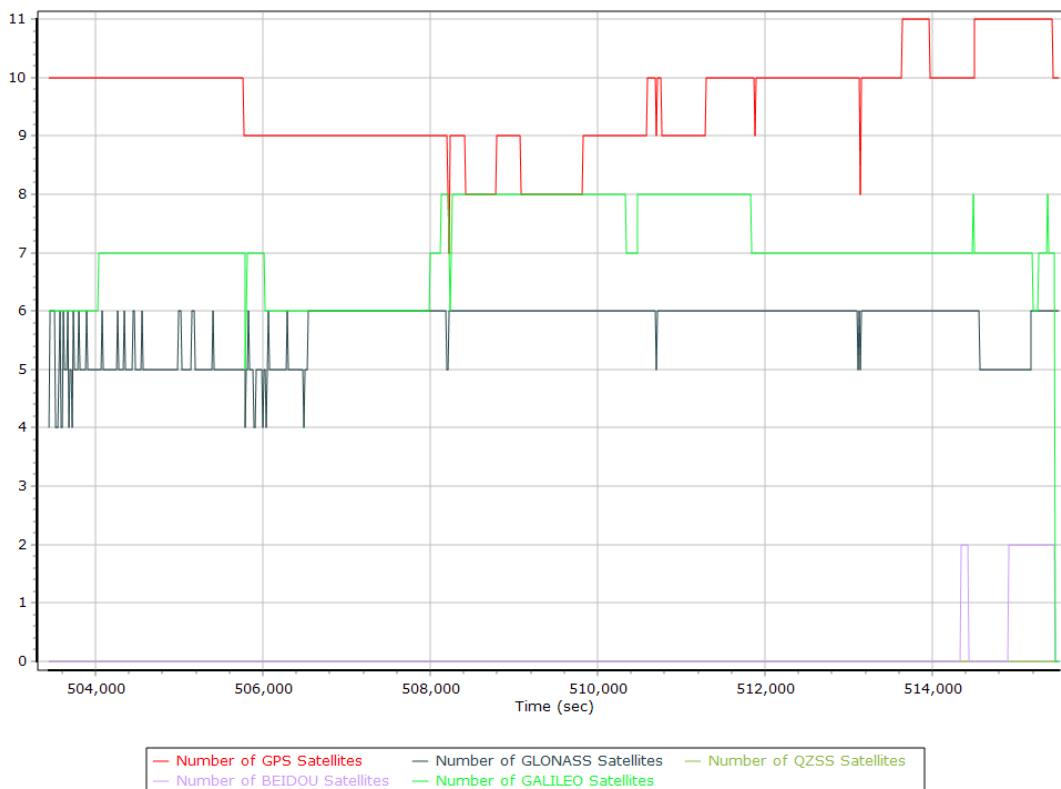


Forward Processed Solution Status

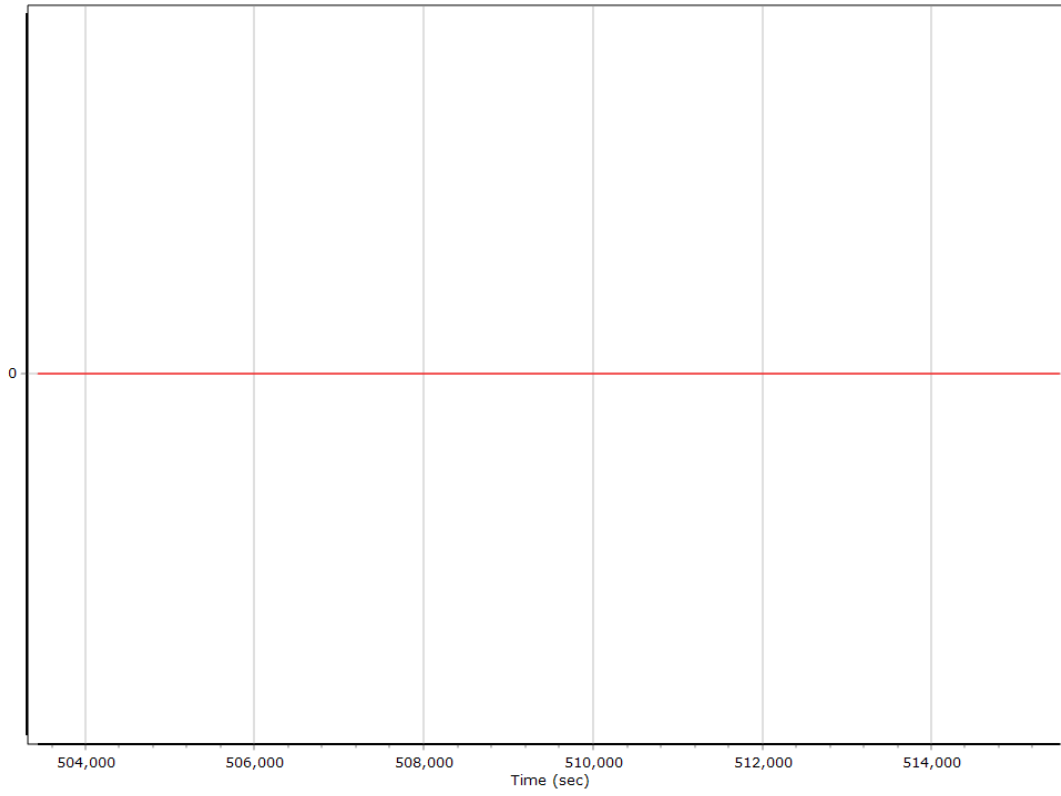
Processing Mode



Number of Satellites



Baseline Length



Export Summary Section 1

Export file	sbet_14087_NAD83(2011).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	Meter	
Export start time	503381.004 (05/27/2022 19:49:41)		
Export end time	515530.002 (05/27/2022 23:12:10)		
Height option	Ellipsoid Height		
WGS84 height flag	False		
Grid			
Zone			
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation			
Target Epoch	2010		

EO Summary Section 1

EO file			
EO format	ZI Imaging		
Lever arm (m)	0.000	0.000	0.000
Boresight angles (arcmin)	0.0000	0.0000	0.0000
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	503381.004 (05/27/2022 19:49:41)		
EO end time	515530.002 (05/27/2022 23:12:10)		
Grid	Universal Transverse Mercator		
Zone	UTM North 15 (96W to 90W)		
Datum	NAD83 (2011)		
Ellipsoid	GRS 1980		
Local Transformation	NONE		
Target Epoch	2010		