

General Information

Mission Information

Project name	0708_ss97_gbg
Processing date	2018-10-25 11:03:19
Mission date	2018-07-08 07:07:10
Mission duration	02:17:12.016
Processing mode	IN-Fusion SmartBase
GPS Station	ASB

Rover Hardware Information

Product	POS AV 510 VER6 HW2.2-E
Serial number	S/N5443
IMU type	31
Receiver type	BD982
Antenna type	AV39

Project File List

Rover Data Files

File name	File type
test.018	POS Data
test.019	POS Data
test.020	POS Data
test.021	POS Data
test.022	POS Data
test.023	POS Data
test.024	POS Data
test.025	POS Data
test.026	POS Data
test.027	POS Data
test.028	POS Data
test.029	POS Data
test.030	POS Data
test.031	POS Data
test.032	POS Data
test.033	POS Data
test.034	POS Data
test.035	POS Data
test.036	POS Data
test.037	POS Data
test.038	POS Data
test.039	POS Data
test.040	POS Data
test.041	POS Data
test.042	POS Data
test.043	POS Data
test.044	POS Data
test.045	POS Data
test.046	POS Data
test.047	POS Data
test.048	POS Data
test.049	POS Data
test.050	POS Data
test.051	POS Data
test.052	POS Data
test.053	POS Data
test.054	POS Data
test.055	POS Data
test.056	POS Data
test.057	POS Data
test.058	POS Data
test.059	POS Data
test.060	POS Data
test.061	POS Data
test.062	POS Data
test.063	POS Data
test.064	POS Data
test.065	POS Data
test.066	POS Data
test.067	POS Data
test.068	POS Data
test.069	POS Data
test.070	POS Data
test.071	POS Data
test.072	POS Data
test.073	POS Data
test.074	POS Data
test.075	POS Data
test.076	POS Data

File name	File type
test.077	POS Data
test.078	POS Data
test.079	POS Data
test.080	POS Data
test.081	POS Data
test.082	POS Data
test.083	POS Data

Input Files

File Name	File type
Ephm1890.18g	GLONASS Broadcast Ephemeris
Ephm1890.18n	GPS Broadcast Ephemeris
igl20086.sp3	GLONASS Precise Ephemeris
igl20090.sp3	GLONASS Precise Ephemeris
igl20091.sp3	GLONASS Precise Ephemeris
igs20086.sp3	GPS Precise Ephemeris
igs20090.sp3	GPS Precise Ephemeris
igs20091.sp3	GPS Precise Ephemeris
0ali1890.18o	GNSS SingleBase
0mol1890.18o	GNSS SingleBase
0ror1890.18o	GNSS SingleBase
0sne1890.18o	GNSS SingleBase
1ons1890.18o	GNSS SingleBase
photoID1_Mission 1.txt	3 Fields (Time, Photo ID, Delay) Photo Id File

Output Files

Filename	File type
sbet_Mission 1.out	SBET Trajectory File

Rover Data Summary

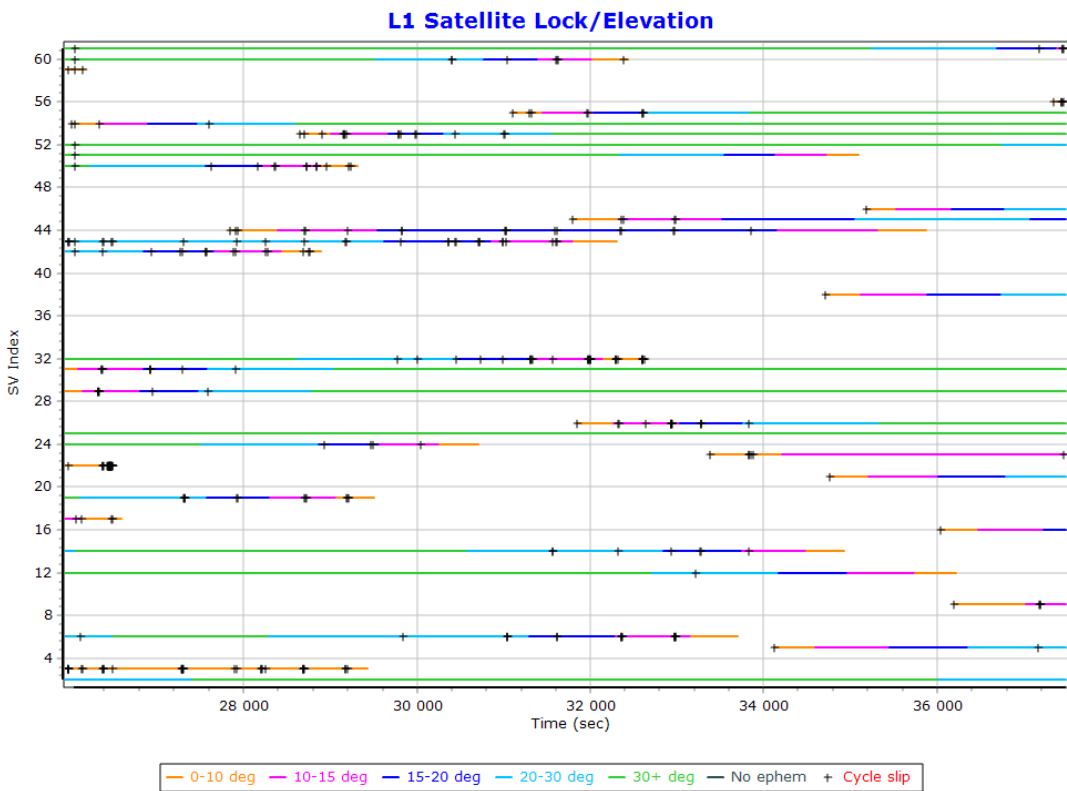
First raw data file	test.018		
Last raw data file	test.083		
Start GPS week	2009		
Start time	25641.403 (7/8/2018 7:07:21 AM)		
End time	37485.995 (7/8/2018 10:24:45 AM)		
Start of fine alignment	25977.845 (7/8/2018 7:12:57 AM)		
Available subsystems	Primary GNSS, Gimbal, IMU		
POS Event Input	Event 1 Input		
Correction data	None		
Gimbal to IMU lever arm [m]	-0.130	-0.046	-0.475
Gimbal to IMU mounting angles [deg]	90.000	0.000	90.000
Gimbal to Primary GNSS lever arm [m]	-0.069	0.087	-1.480
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

Raw Data QC

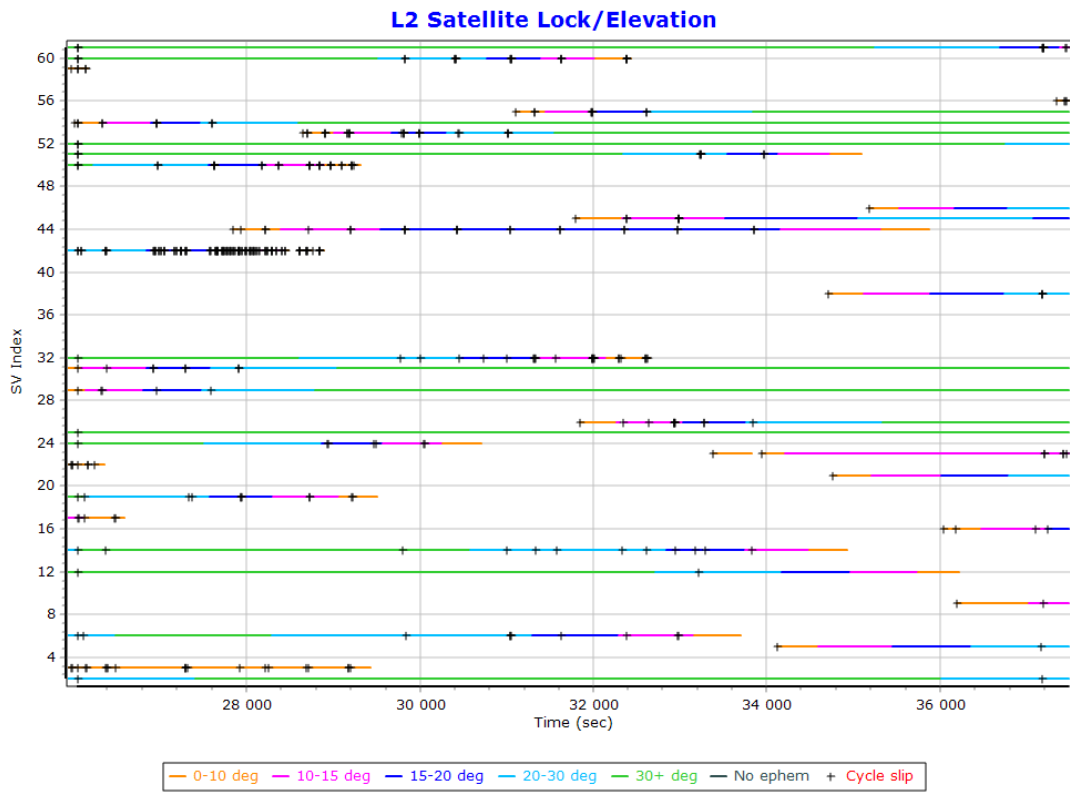
Raw IMU Import QC Summary

IMU data input file	imu_Mission 1.dat
IMU data check log file	imudt_Mission 1.log
IMU Records Processed	2374003
Termination Status	Warnings
IMU Anomalies	1
IMU Failure Messages	
25641.098 : WARNING : Gap of 25619.1118 seconds in CHECKDT input data	

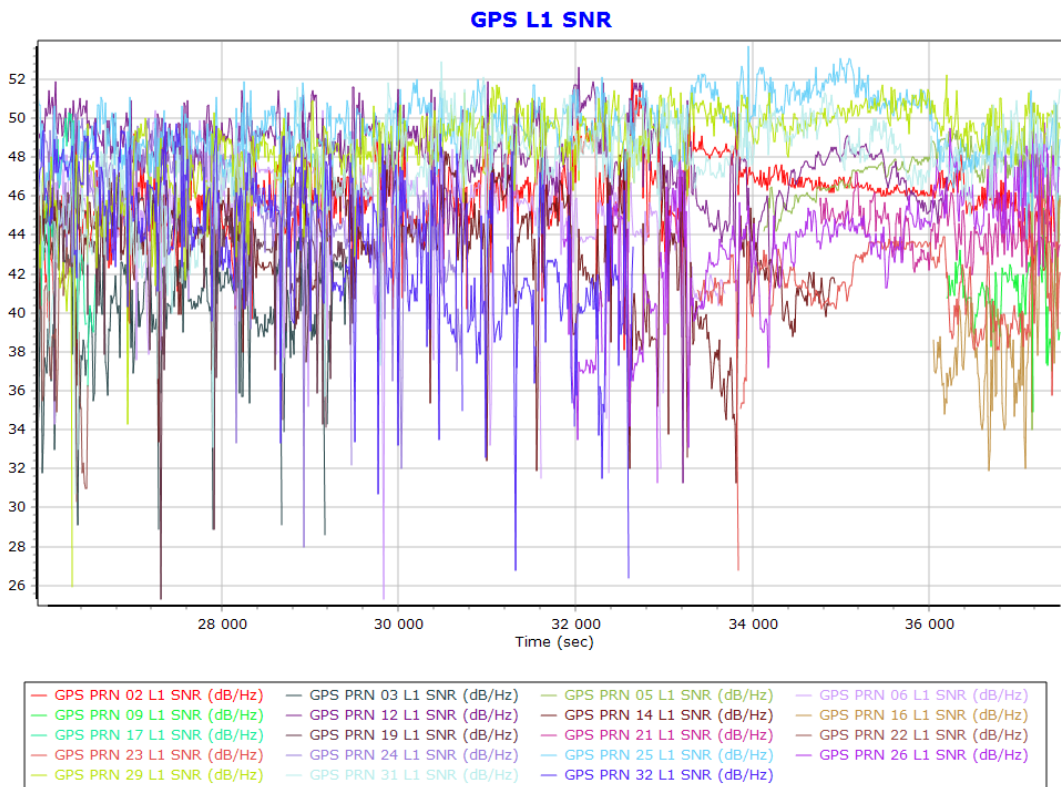
L1 Satellite Lock/Elevation



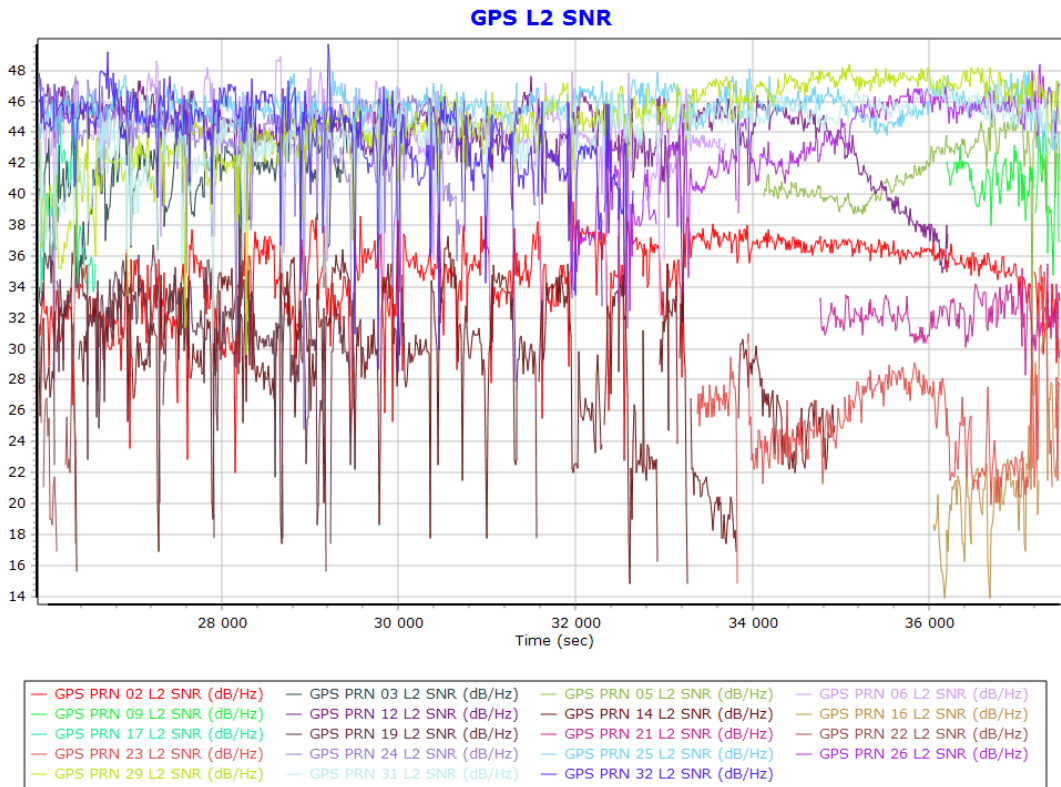
L2 Satellite Lock/Elevation



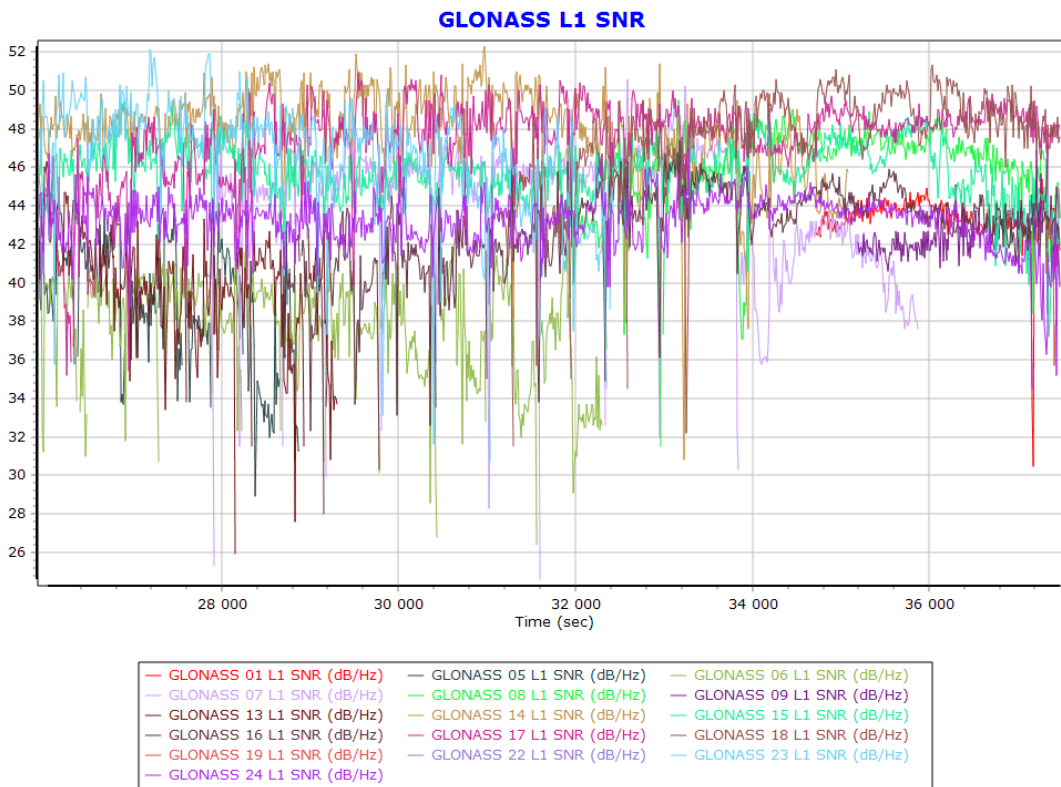
GPS L1 SNR



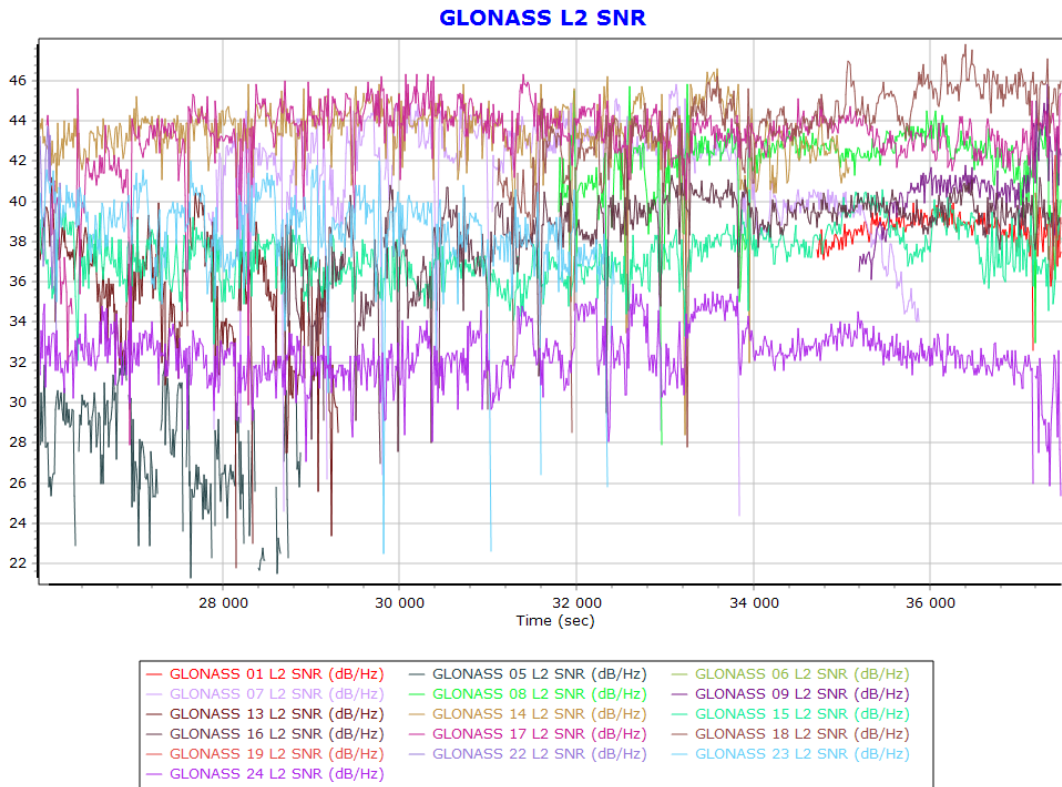
GPS L2 SNR



GLONASS L1 SNR

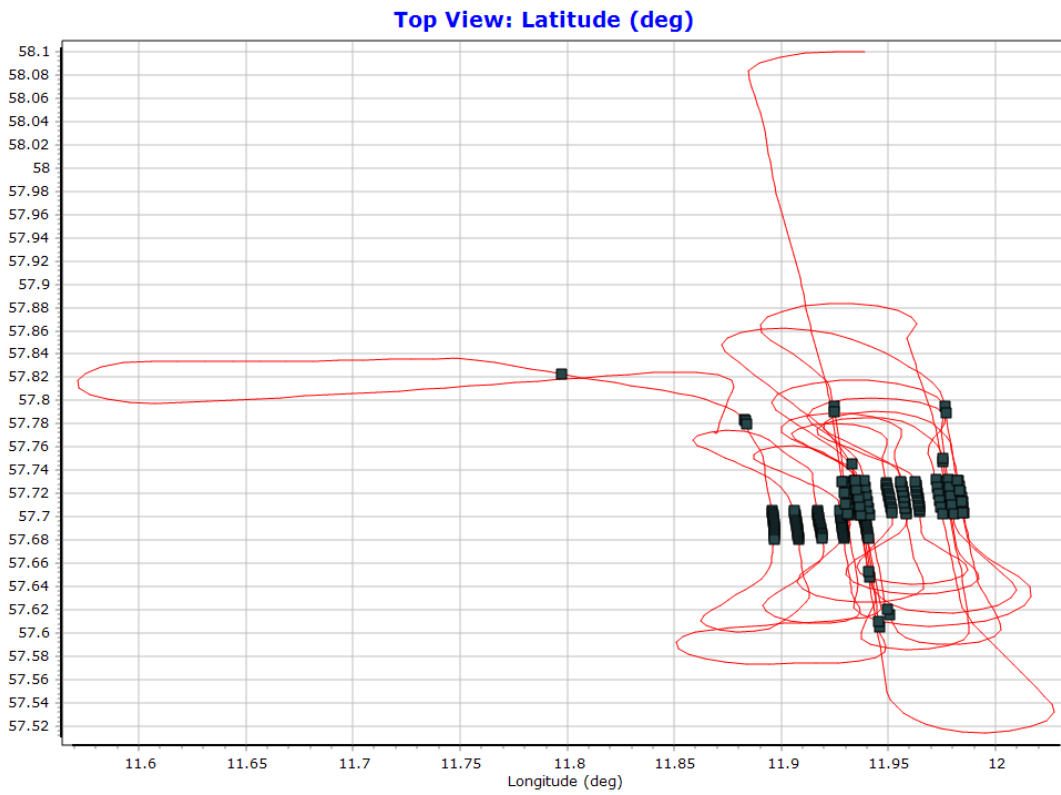


GLONASS L2 SNR

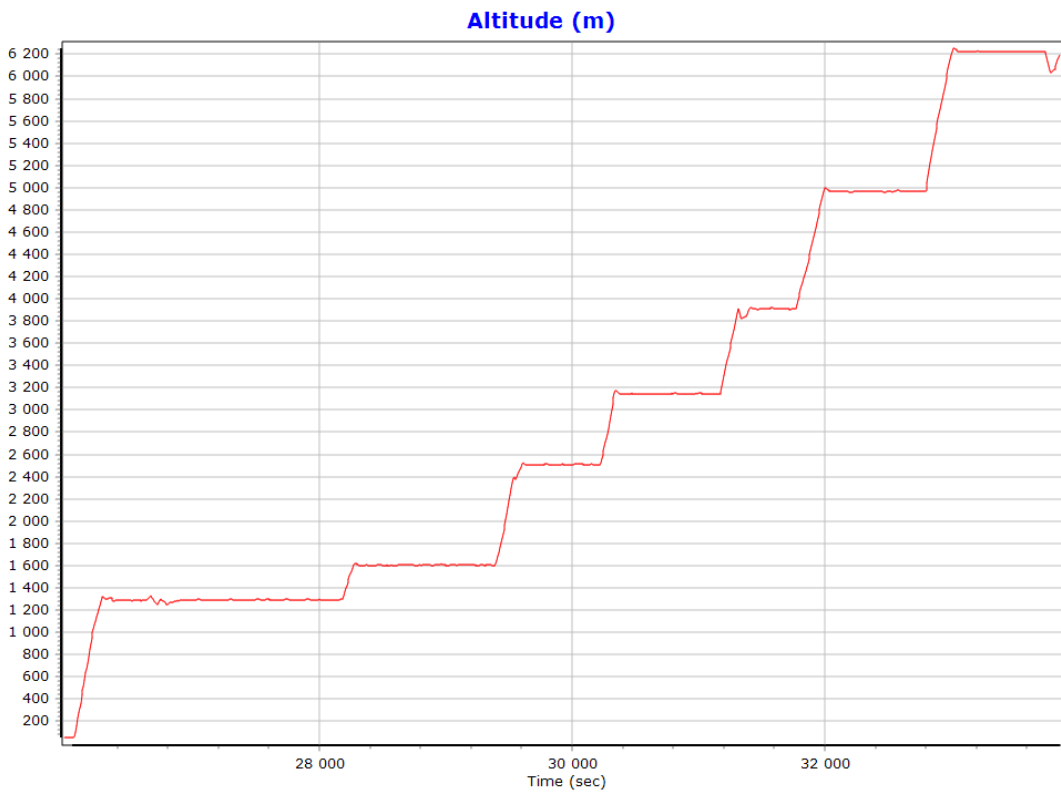


Trajectory Information

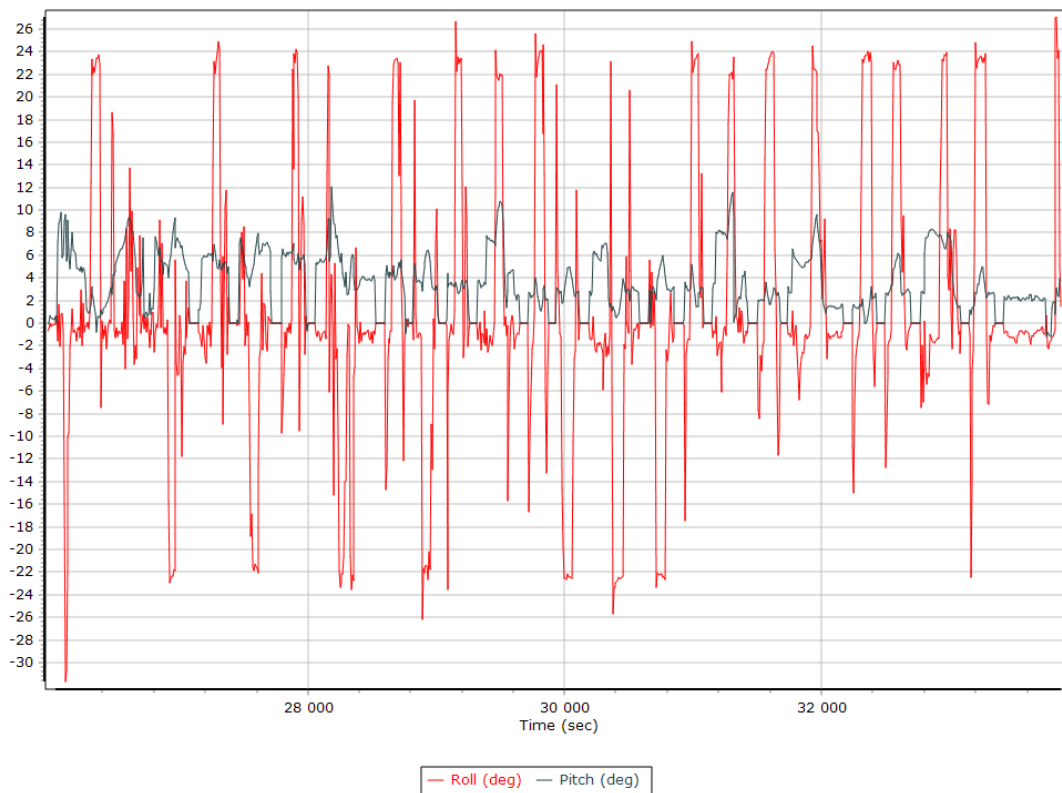
Top View



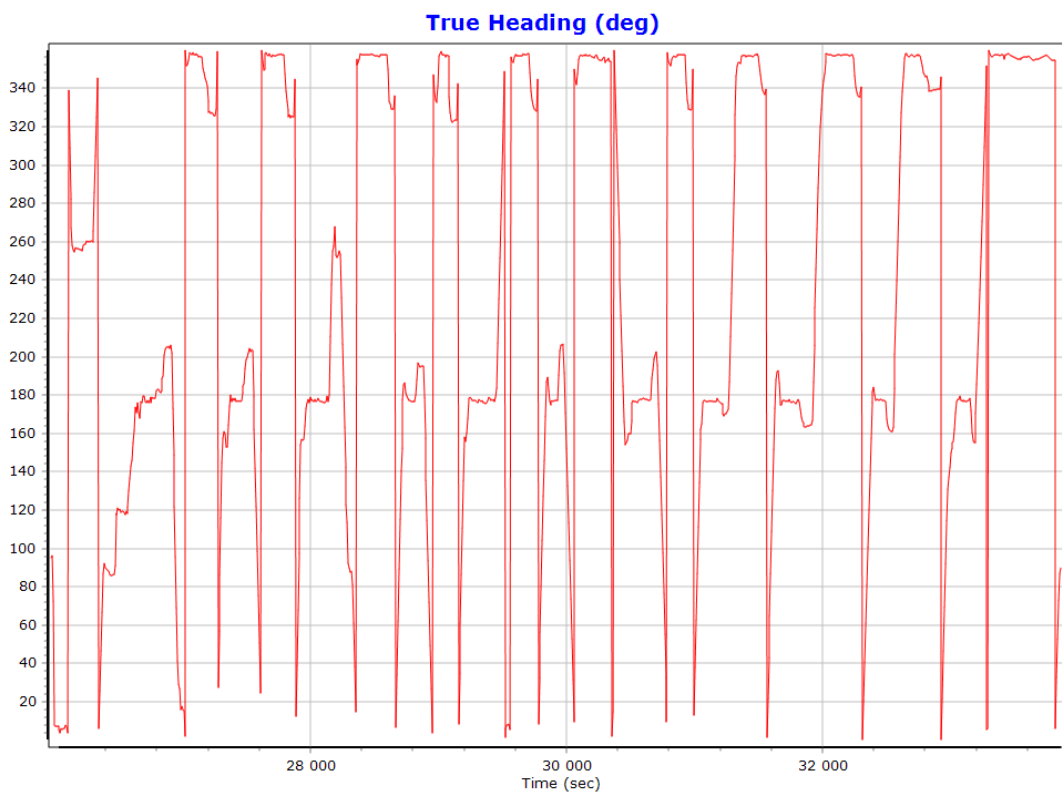
Altitude



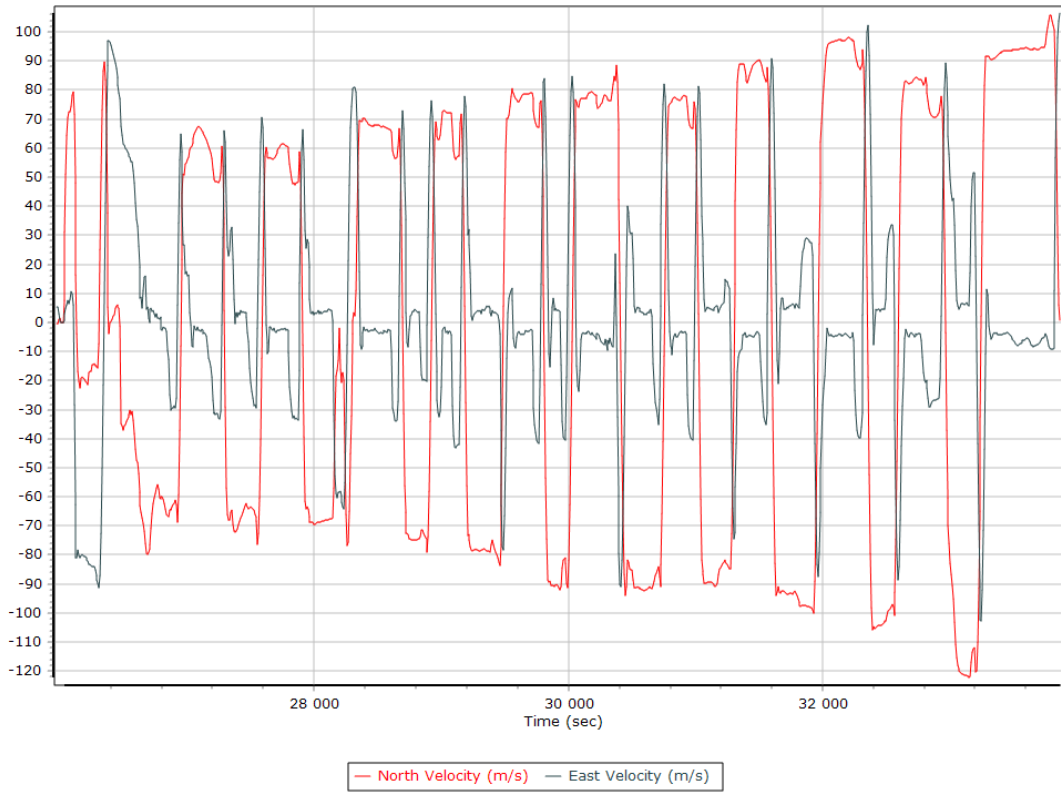
Roll/Pitch



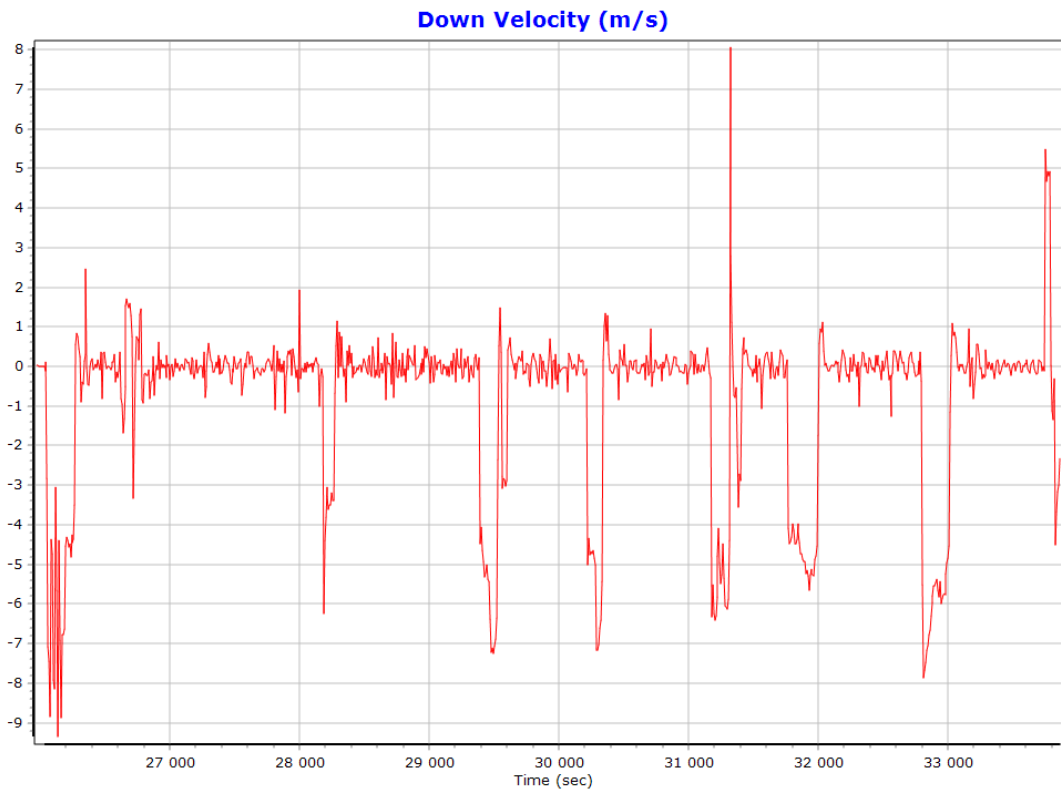
Heading



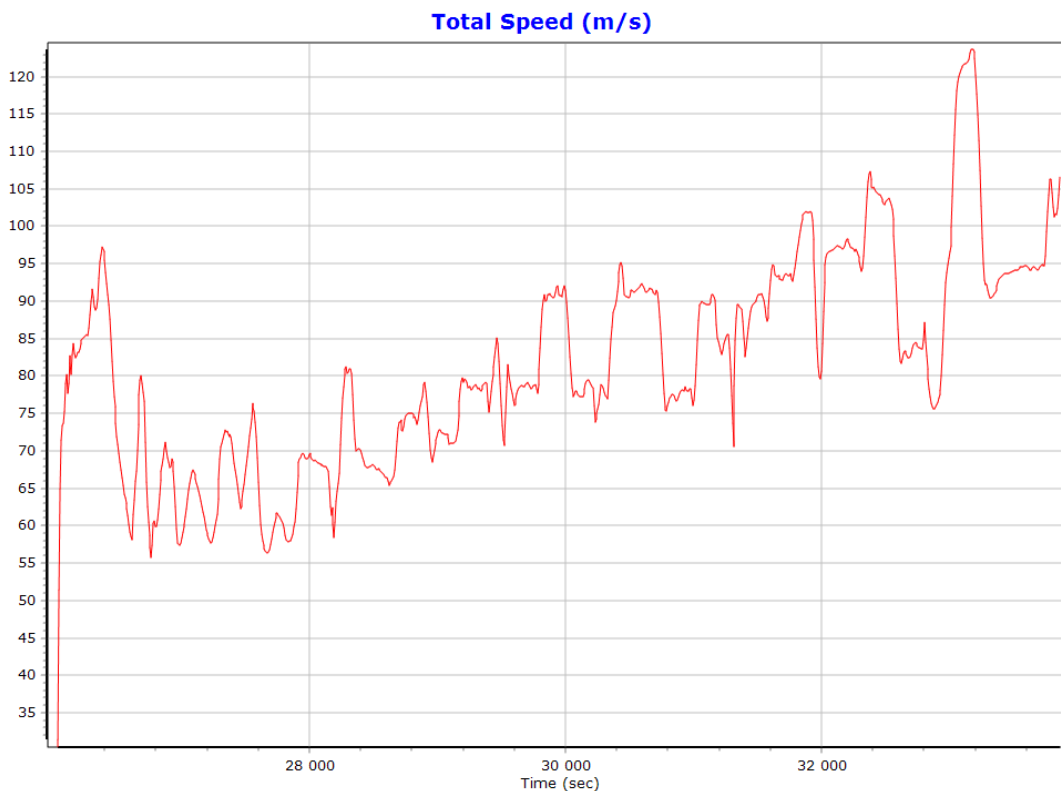
North/East Velocity



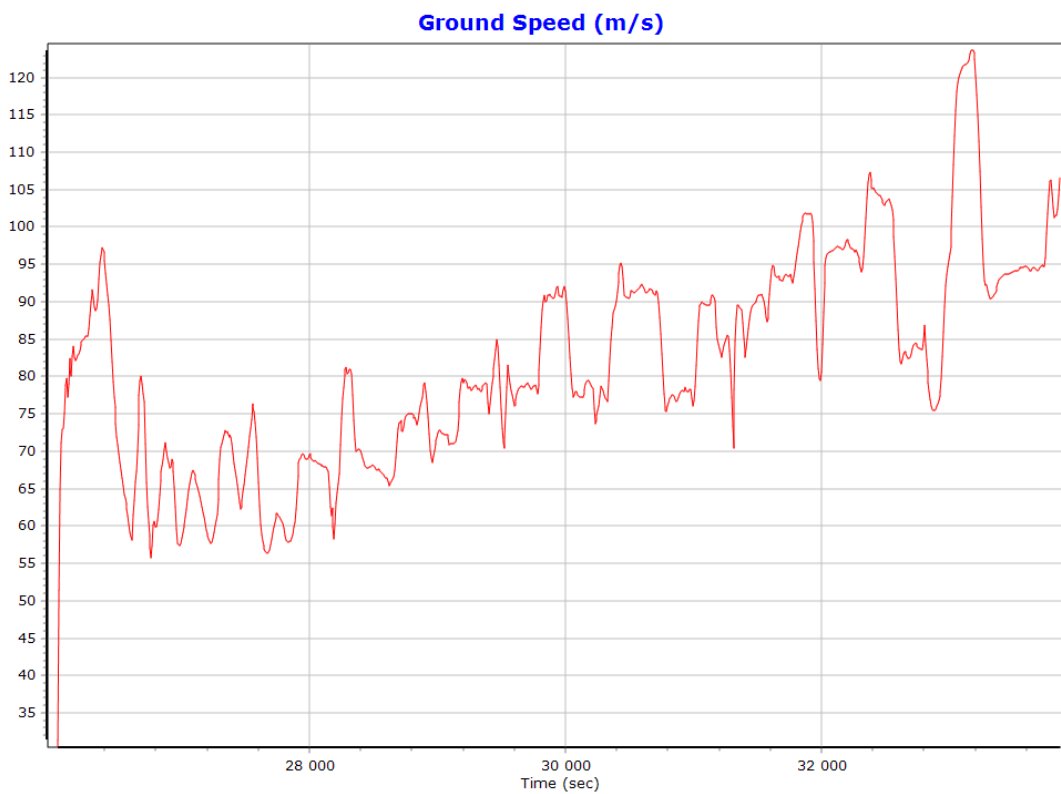
Down Velocity



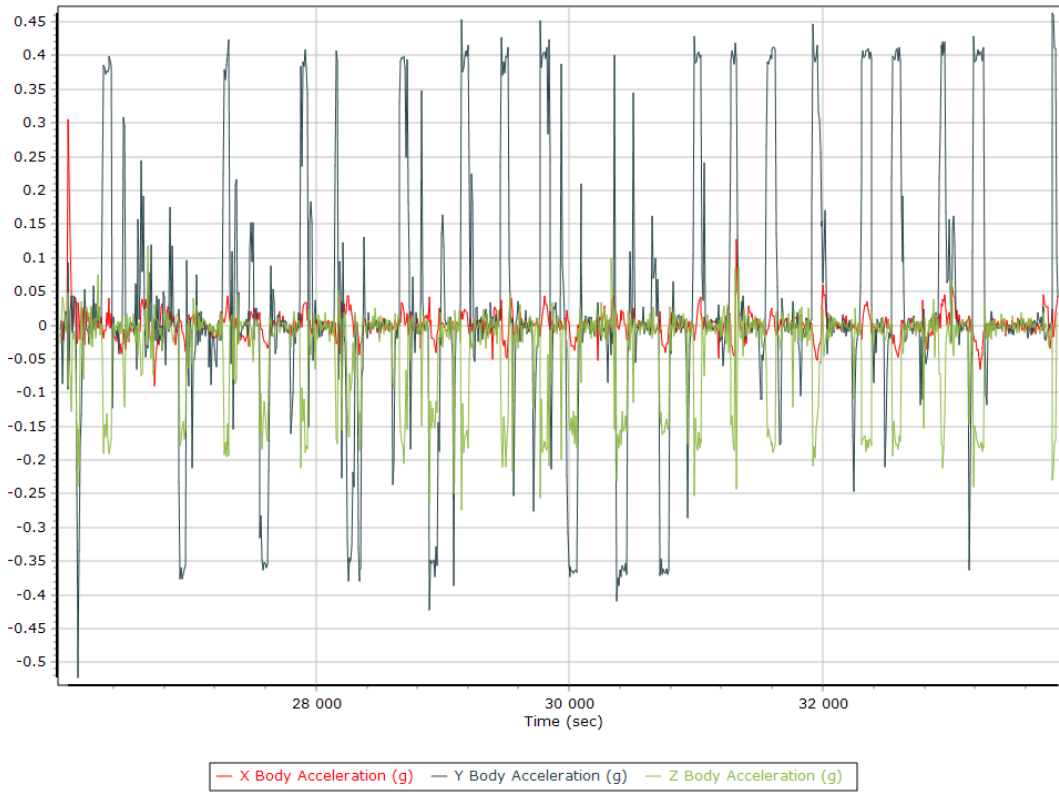
Total Speed



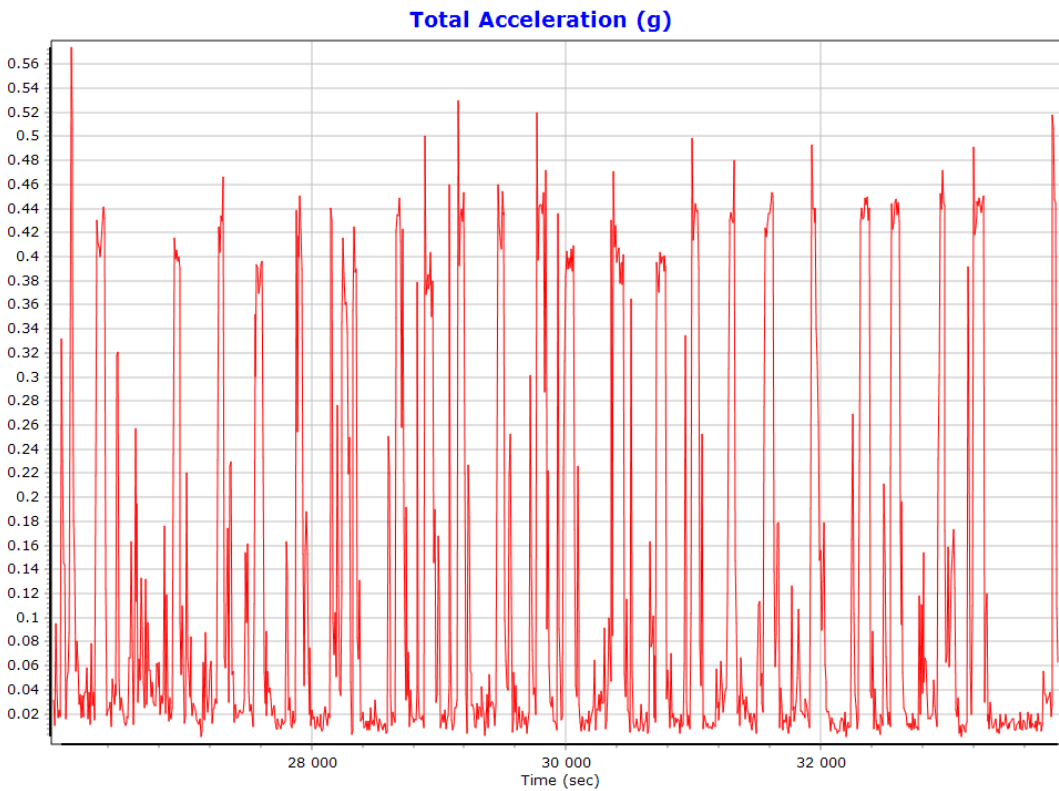
Ground Speed



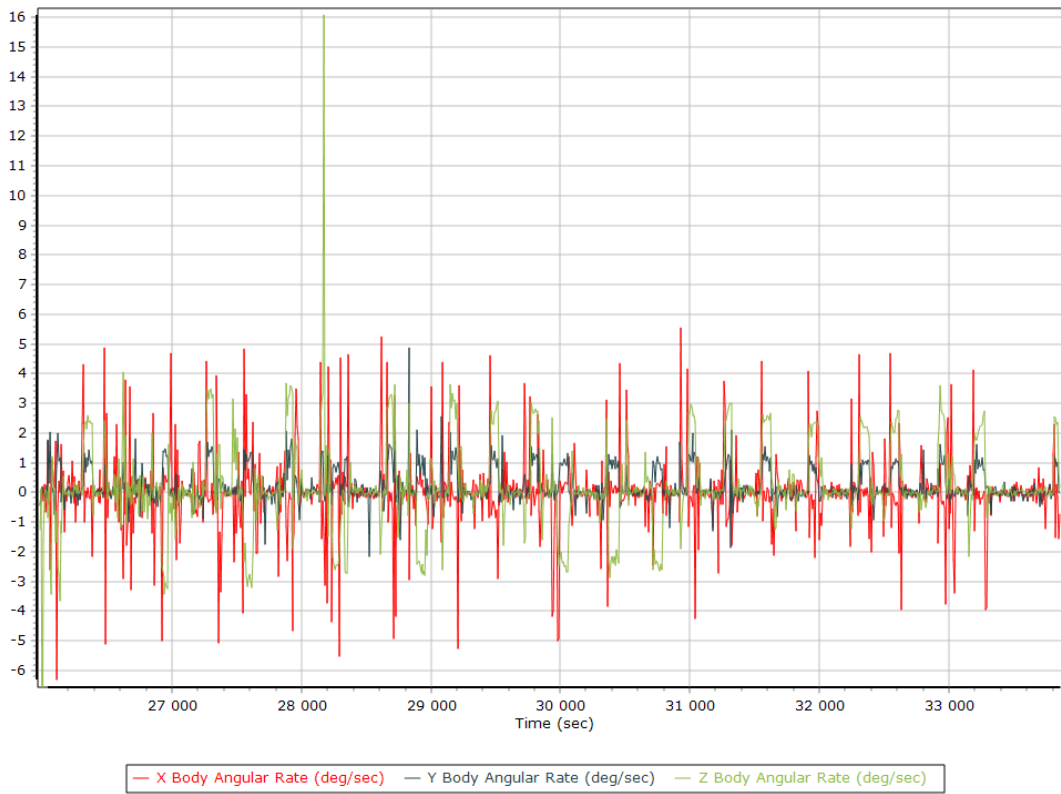
Body Acceleration



Total Body Acceleration



Body Angular Rate



SmartBase Processing Summary

Smart Select Options

Archive enabled	False
User database enabled	True
Include high-rate data sites	False
Target GNSS Selection	GNSS

Basestation Selection

Date	ID	Dist	Data Type	Rate	Service	Database	Status
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SmartBase Results

SmartBase status	
Primary station Id	
Primary station data rate [sec]	0.0
VRS/ASB generation rate [sec]	0.0
VRS/ASB timespan	
Number of reference stations	0
Primary station GPS measurement usage [%]	0.0
Average number of satellites per epoch	0.0
Max number of GPS stations used	0.0
Min number of GPS stations used	0.0
Total full data gap [sec]	0
Total individual satellite data gap [sec]	0
GPS precise vs. broadcast ephemeris used	0.0 % / 0.0 %
Termination Status	

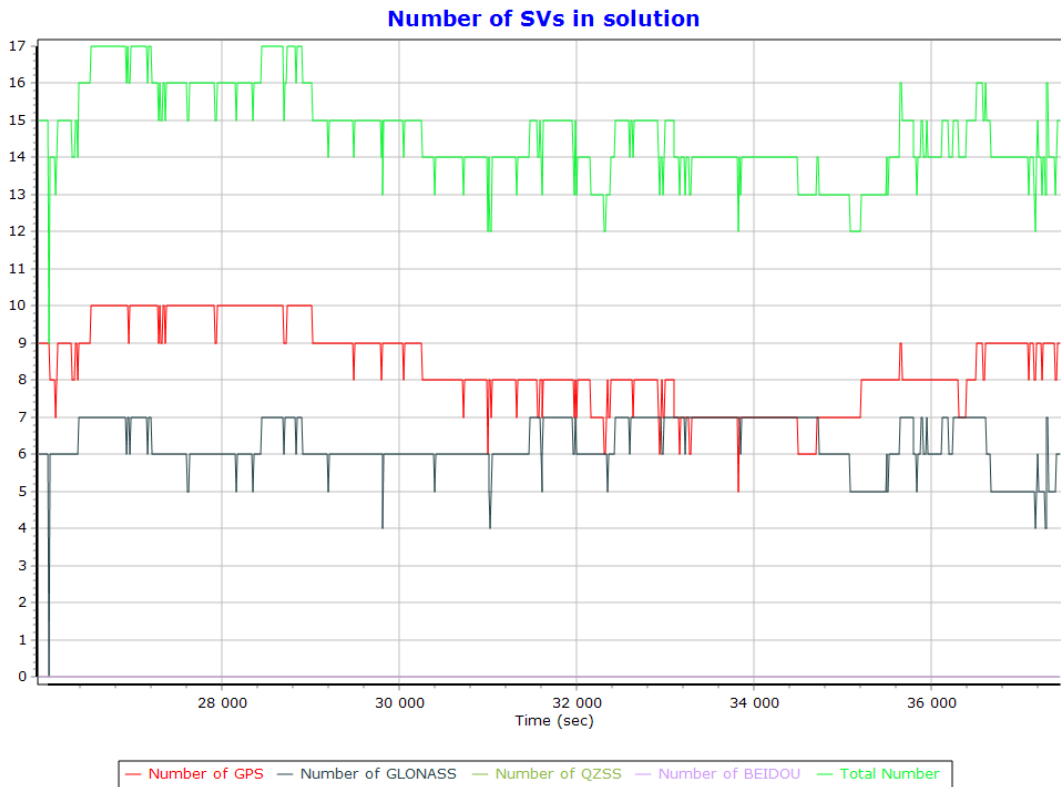
SmartBase Quality Check

GNSS QC

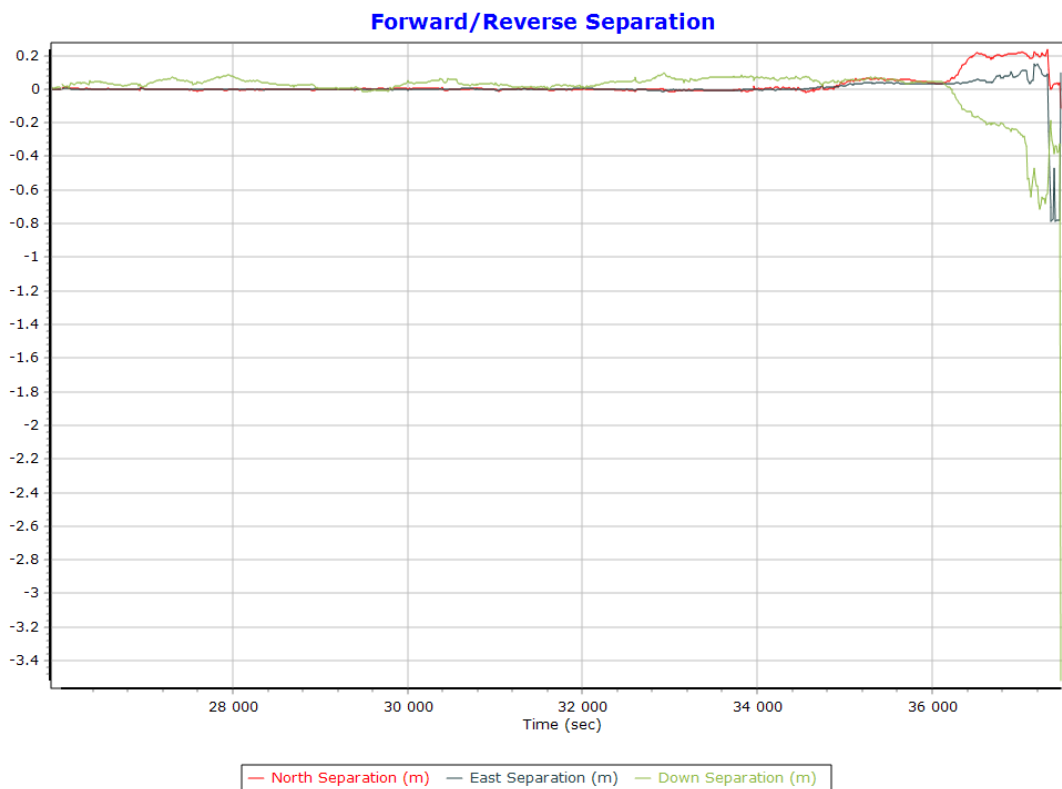
GNSS QC Statistics

Statistics	Min	Max	Mean
Baseline length [km]	1.26	435.16	
Number of GPS SV	5	10	8
Number of GLONASS SV	0	7	6
Number of QZSS SV	0	0	0
Number of BEIDOU SV	0	0	0
Total number of SV	9	17	15
PDOP	1.18	2.26	1.38
QC Solution Gaps	1.00	1.00	
Solution Type	Fixed	Float	No solution
Epoch (s)	11830.00	0.00	1.00
Percentage	99.99	0.00	0.01

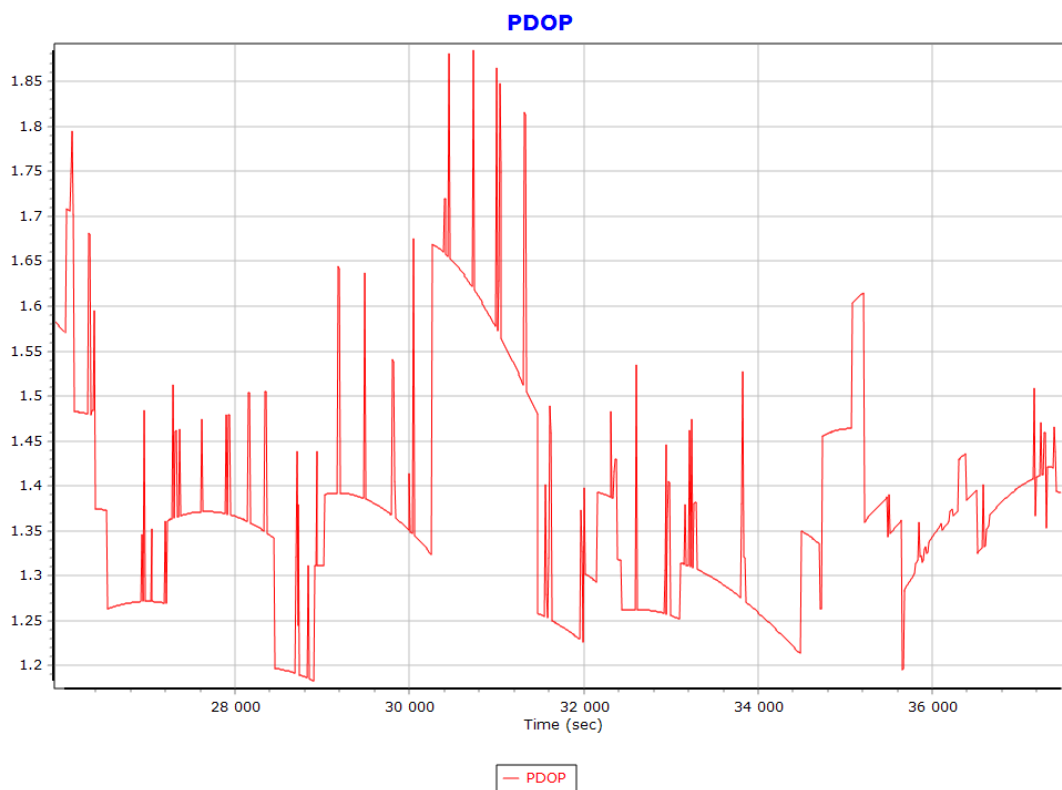
Num SVs in solution



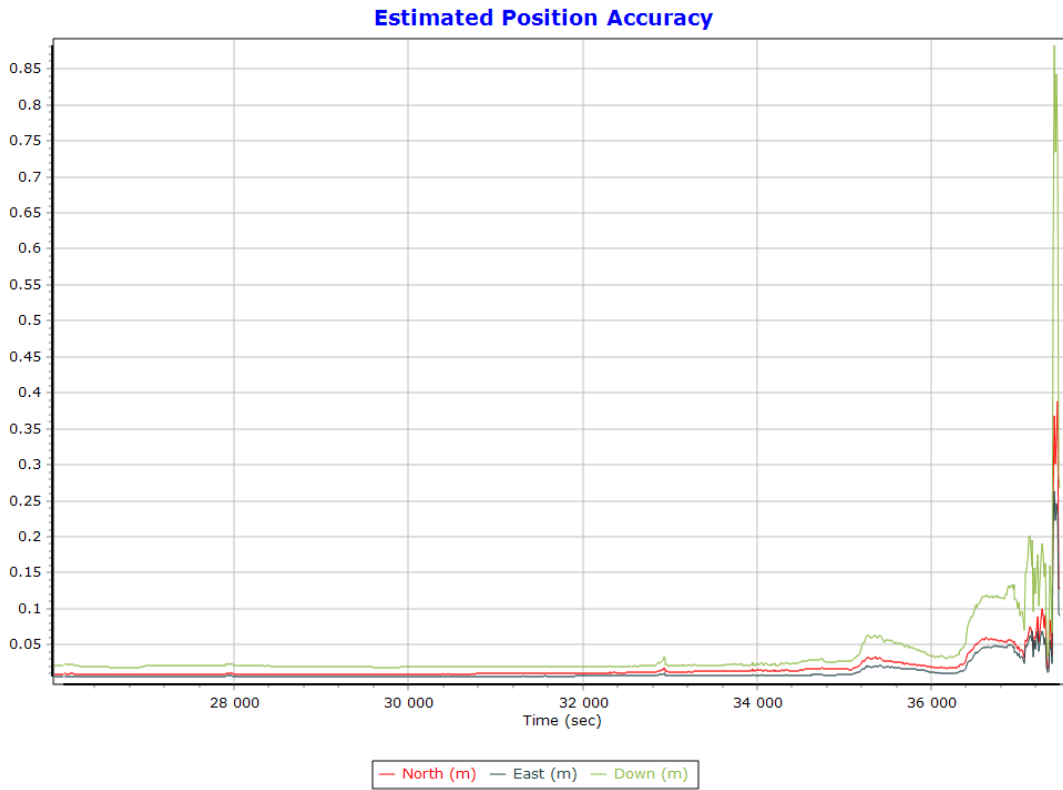
Forward/Reverse Separation



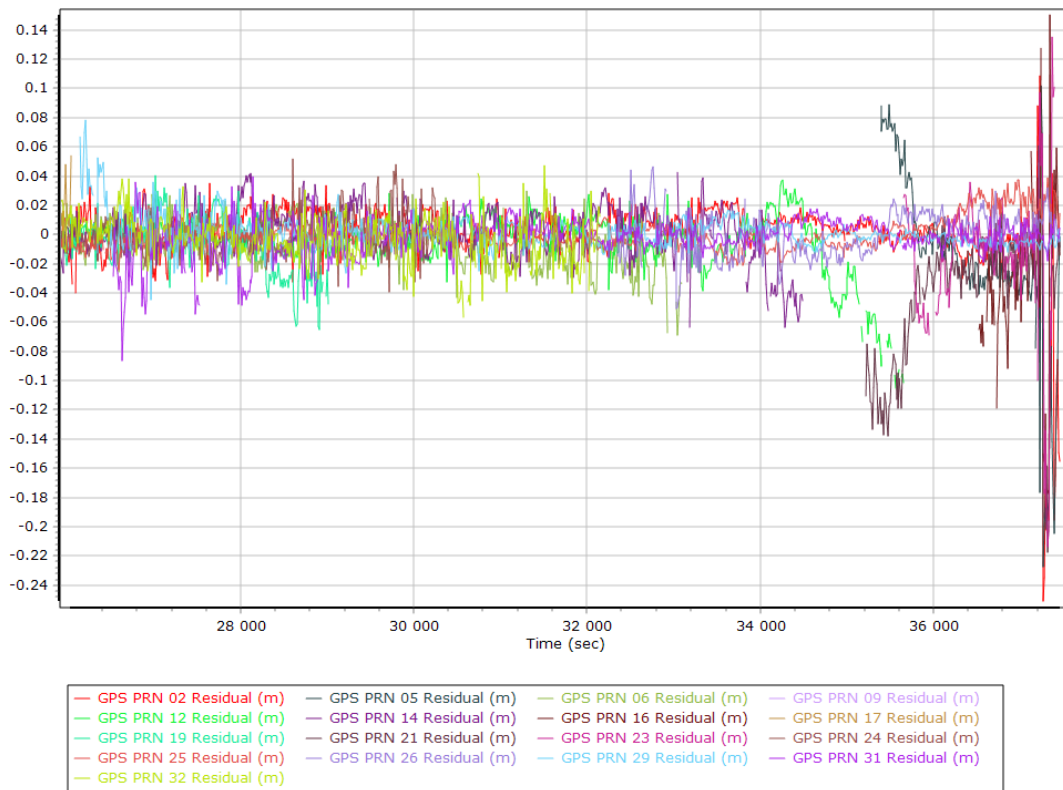
PDOP



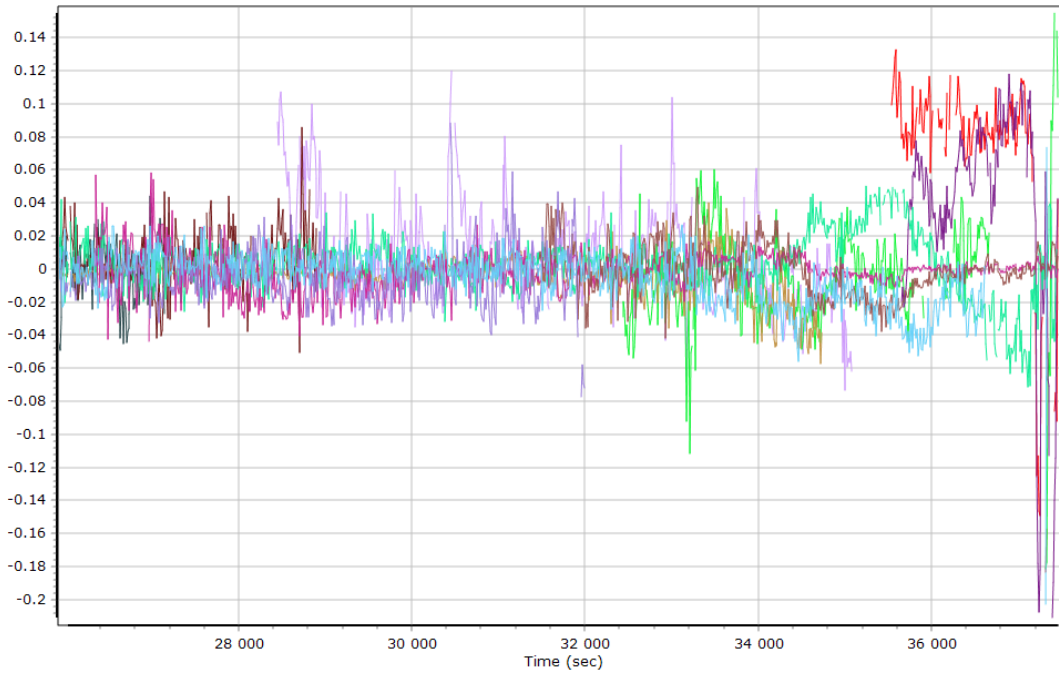
Estimated Position Accuracy



GPS Residuals



GLONASS Residuals



- | | | | |
|-------------------------|-------------------------|-------------------------|-------------------------|
| GLONASS 01 Residual (m) | GLONASS 05 Residual (m) | GLONASS 06 Residual (m) | GLONASS 07 Residual (m) |
| GLONASS 08 Residual (m) | GLONASS 09 Residual (m) | GLONASS 13 Residual (m) | GLONASS 14 Residual (m) |
| GLONASS 15 Residual (m) | GLONASS 16 Residual (m) | GLONASS 17 Residual (m) | GLONASS 18 Residual (m) |
| GLONASS 22 Residual (m) | GLONASS 23 Residual (m) | GLONASS 24 Residual (m) | |

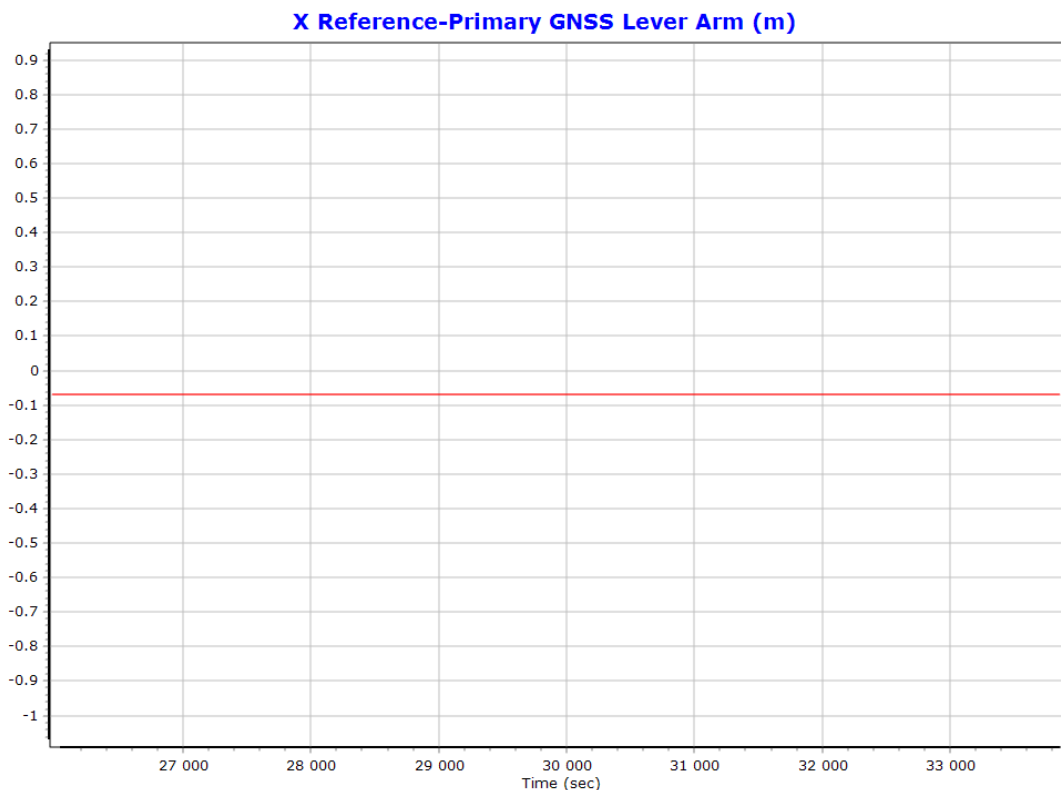
GNSS-Inertial Processor Configuration

Processing mode	IN-Fusion SmartBase		
Stabilized mount	True		
Base station	ASB		
Processing start time	25641.403 (7/8/2018 7:07:21 AM)		
Processing end time	33873.419 (7/8/2018 9:24:33 AM)		
Initial attitude source	Real-Time VNAV/RNAV Attitude		
Gimbal to IMU lever arm [m]	-0.130	-0.046	-0.475
Gimbal to IMU mounting angles [deg]	90.000	0.000	90.000
Gimbal to Primary GNSS lever arm [m]	-0.069	0.087	-1.480
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

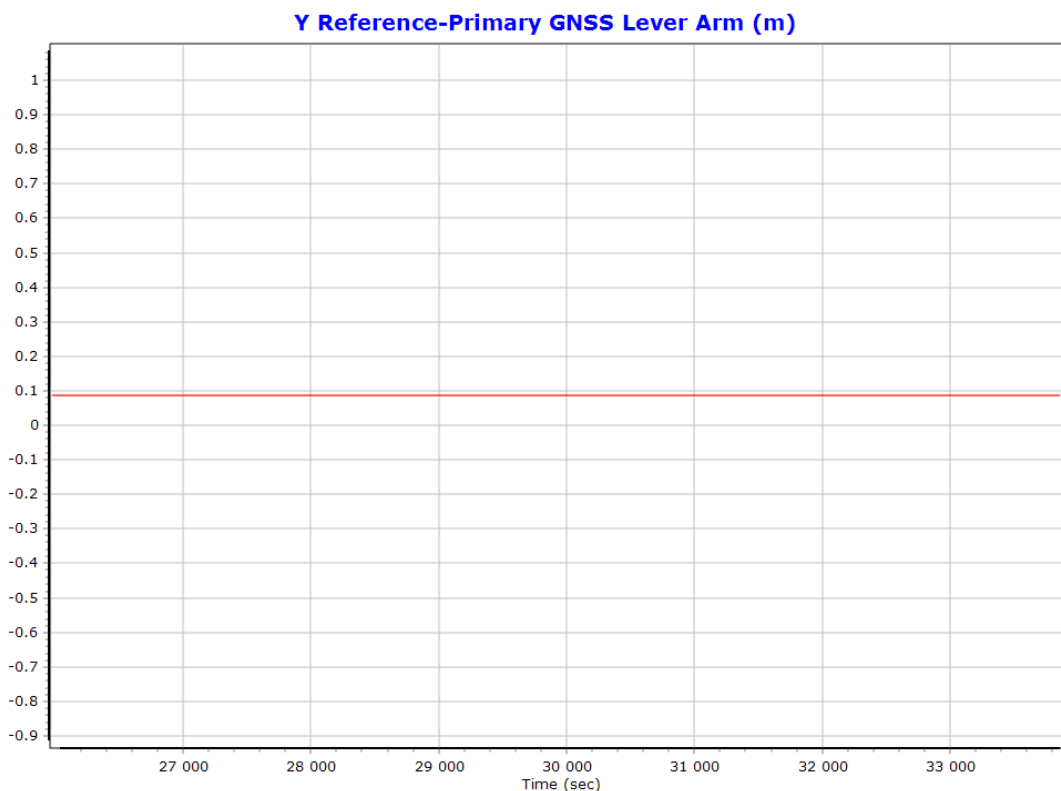
Calibrated Installation Parameters

Reference-Primary GNSS Lever Arm

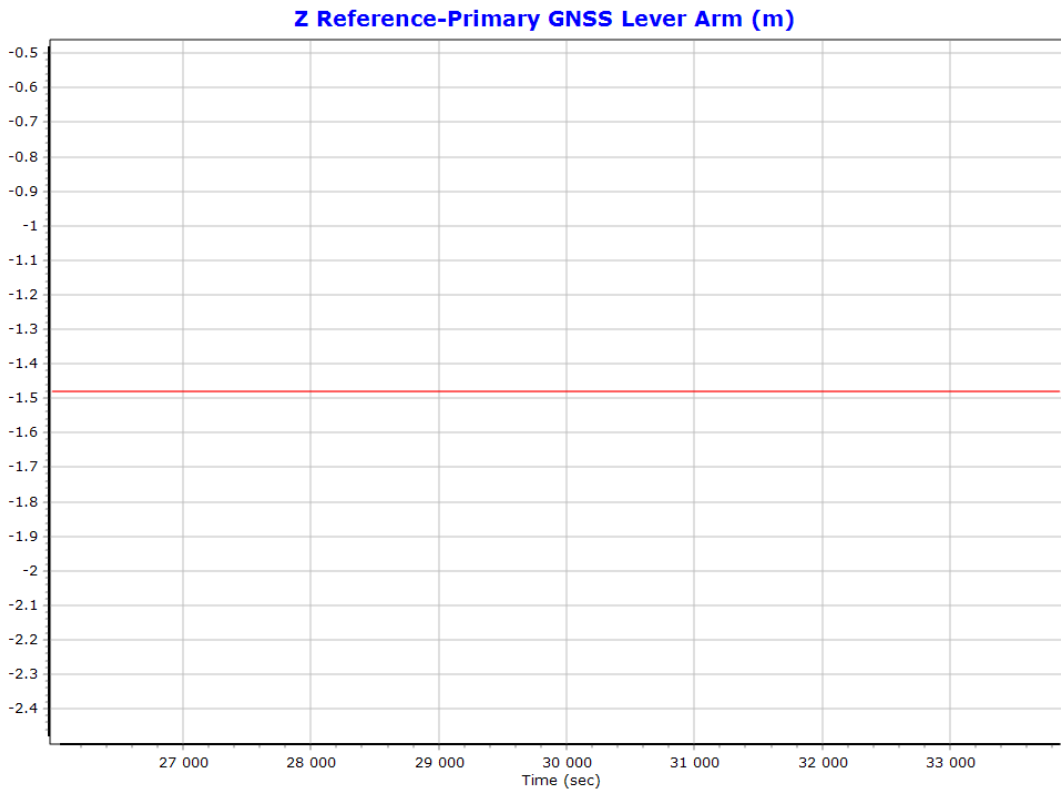
X Reference-Primary GNSS Lever Arm (m)



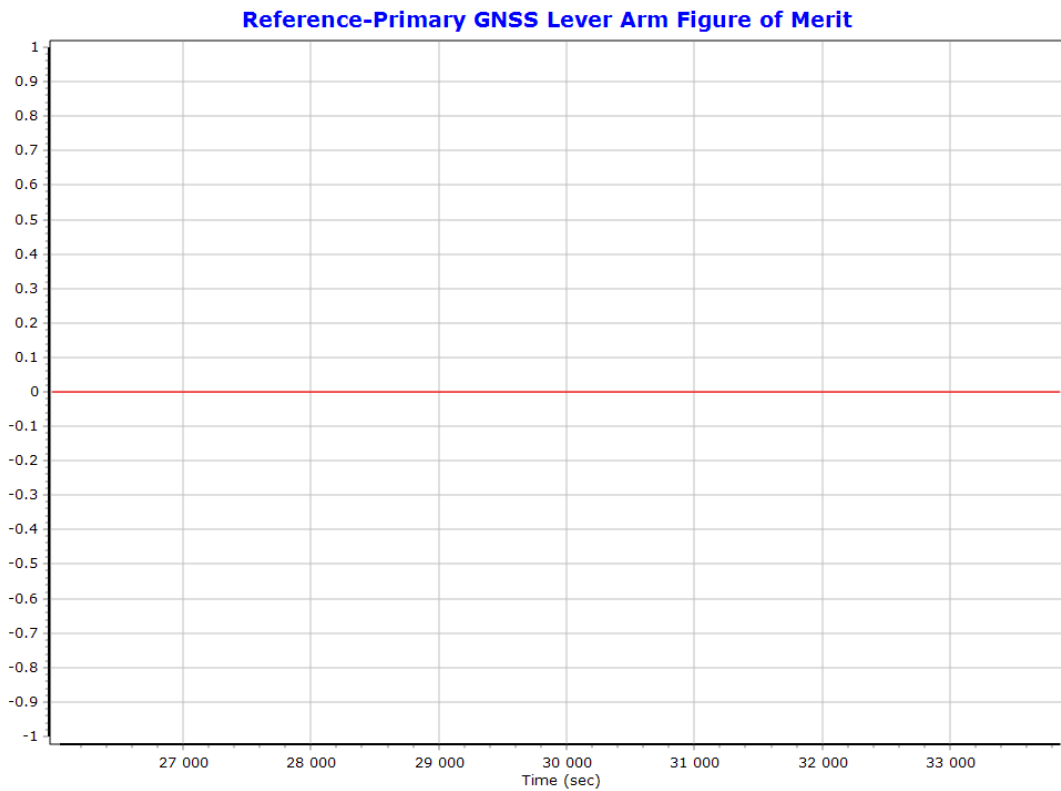
Y Reference-Primary GNSS Lever Arm (m)



Z Reference-Primary GNSS Lever Arm (m)



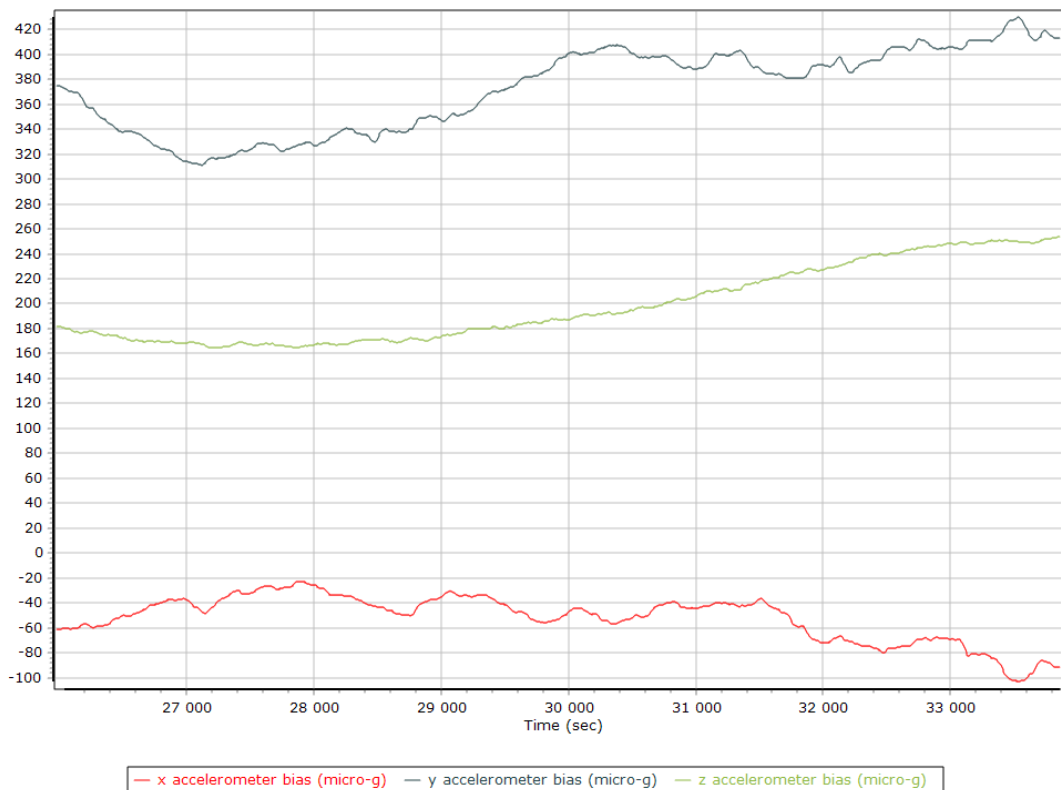
Reference-Primary GNSS Lever Arm Figure of Merit



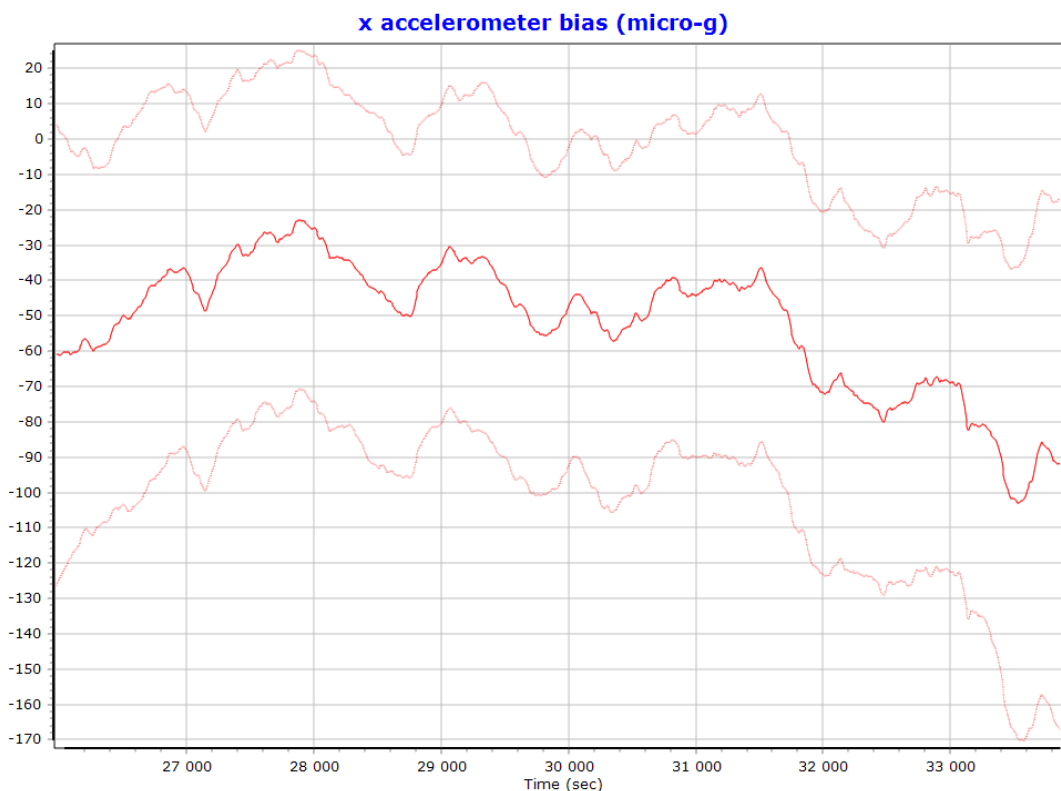
Smoothed IN-Fusion QC

Smoothed Estimated Errors, Reference Frame

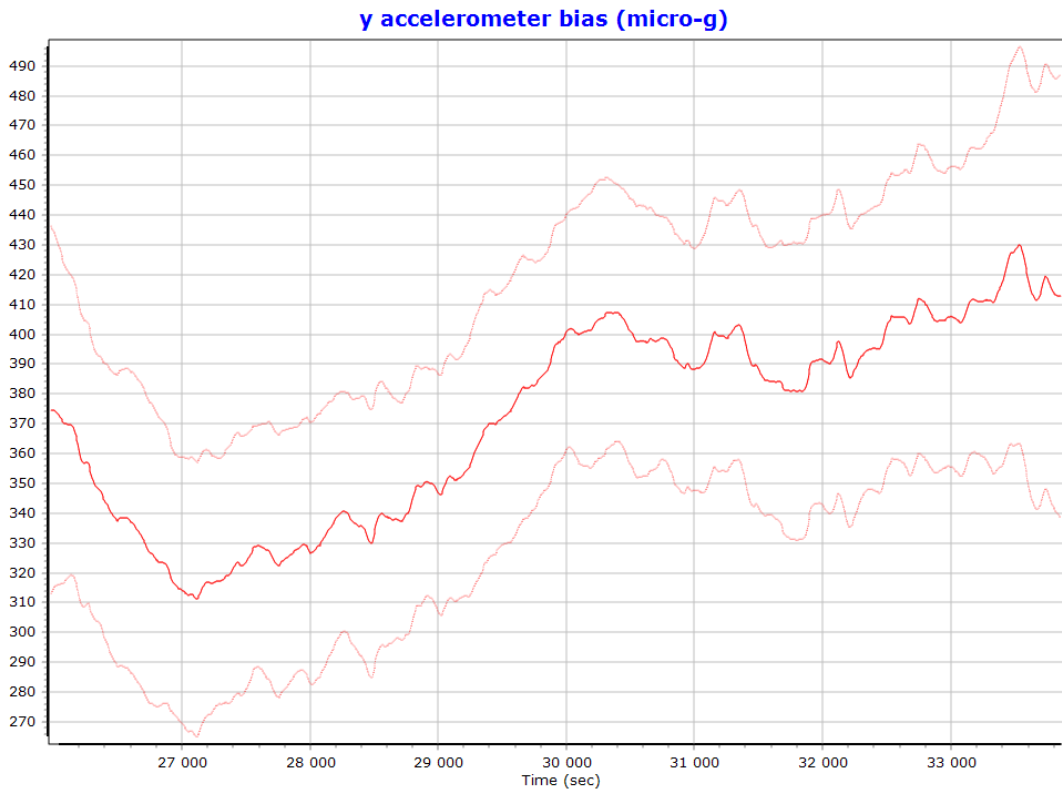
Accelerometer Bias (micro-g)



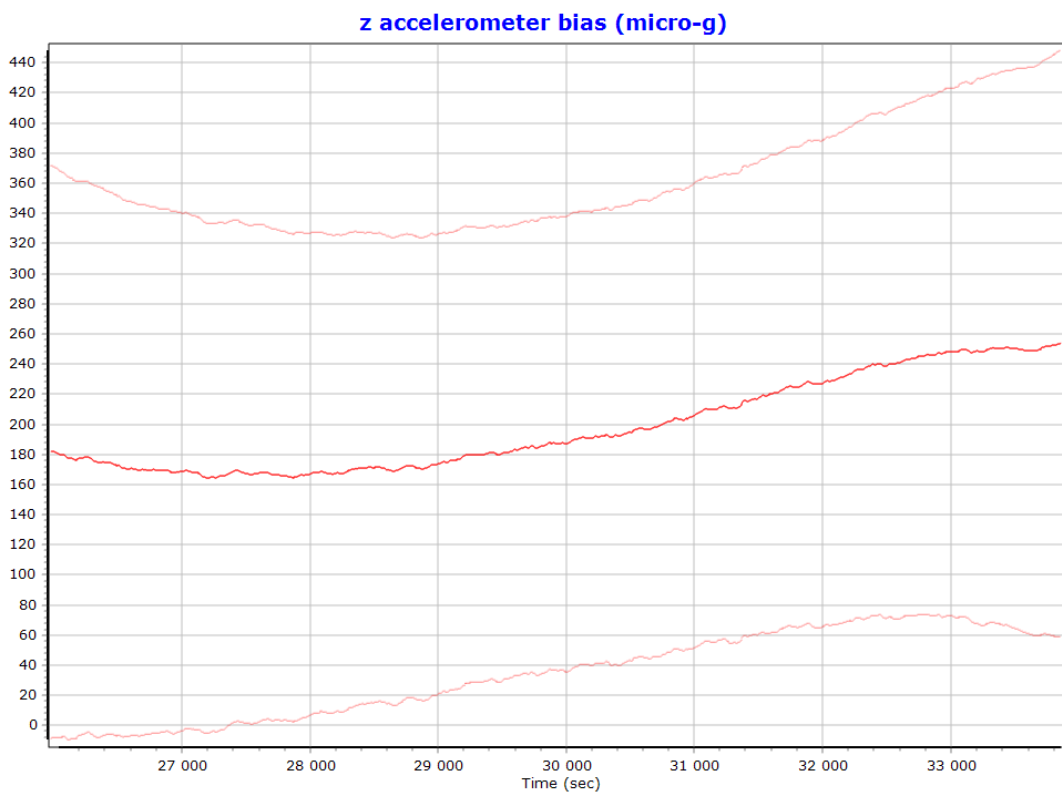
X Accelerometer Bias (micro-g)



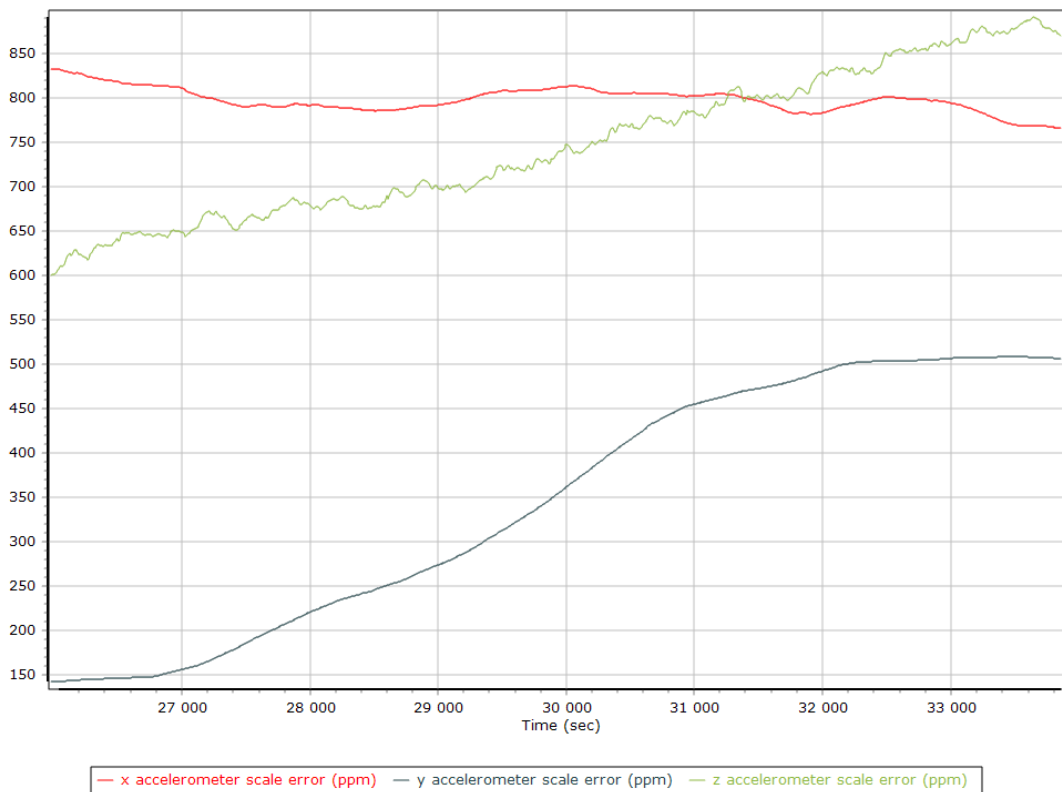
Y Accelerometer Bias (micro-g)



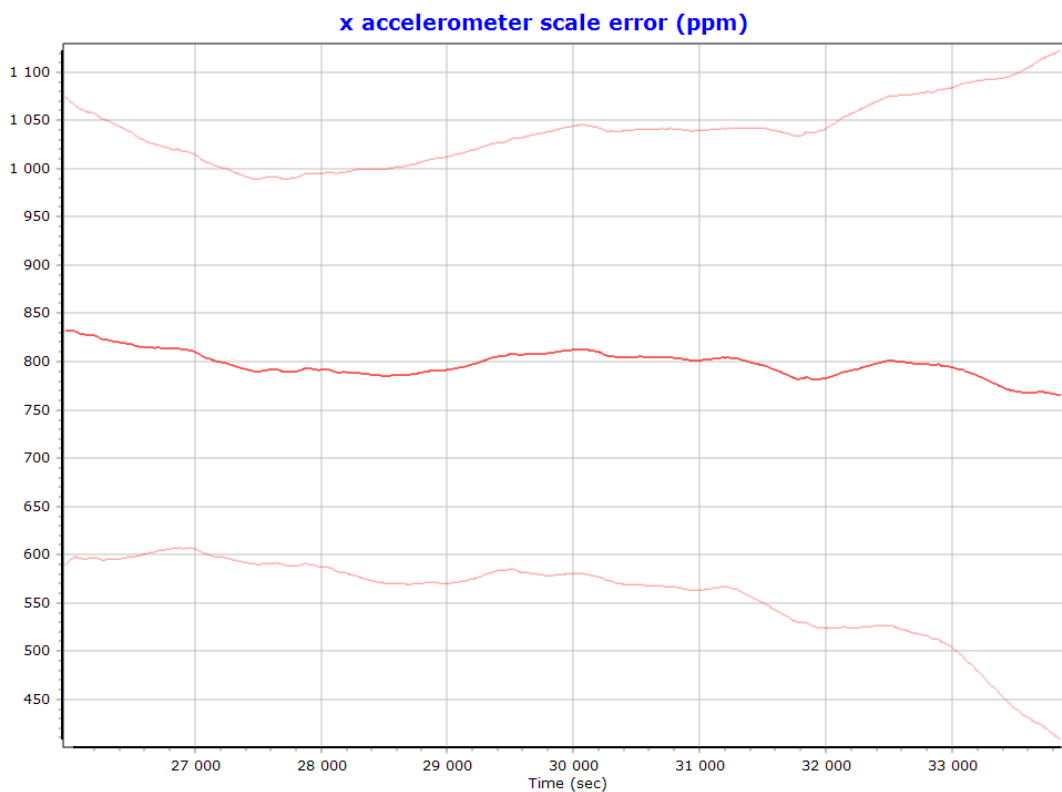
Z Accelerometer Bias (micro-g)



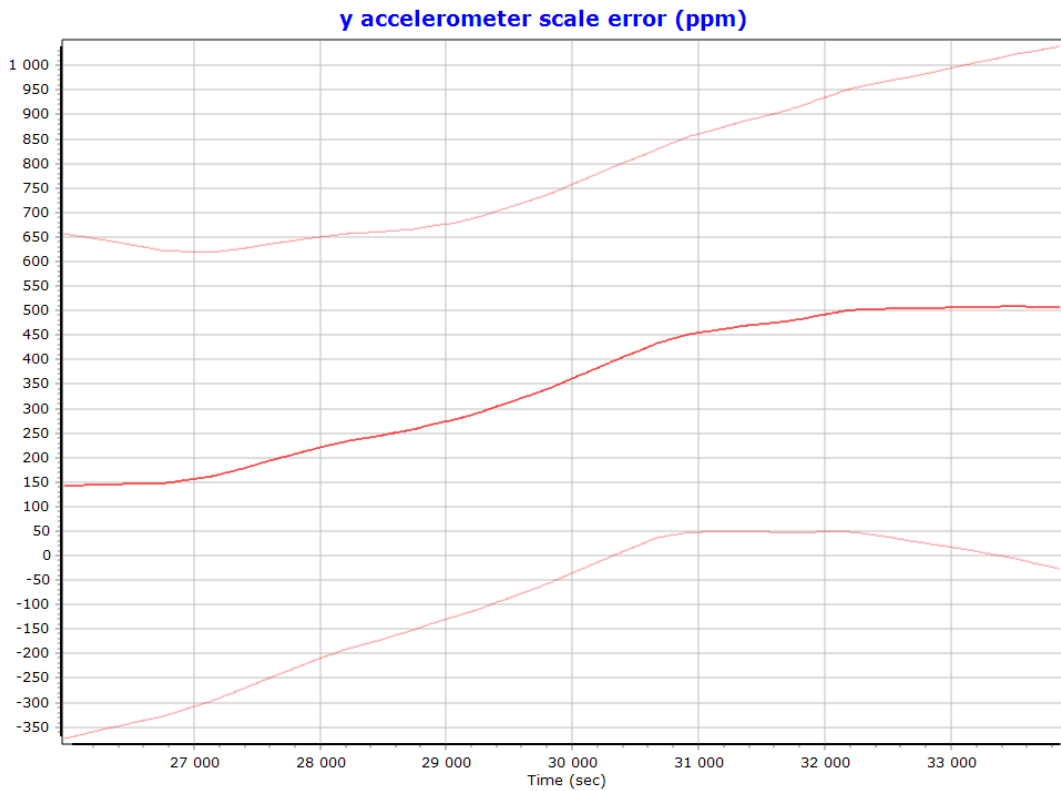
Accelerometer Scale Error (ppm)



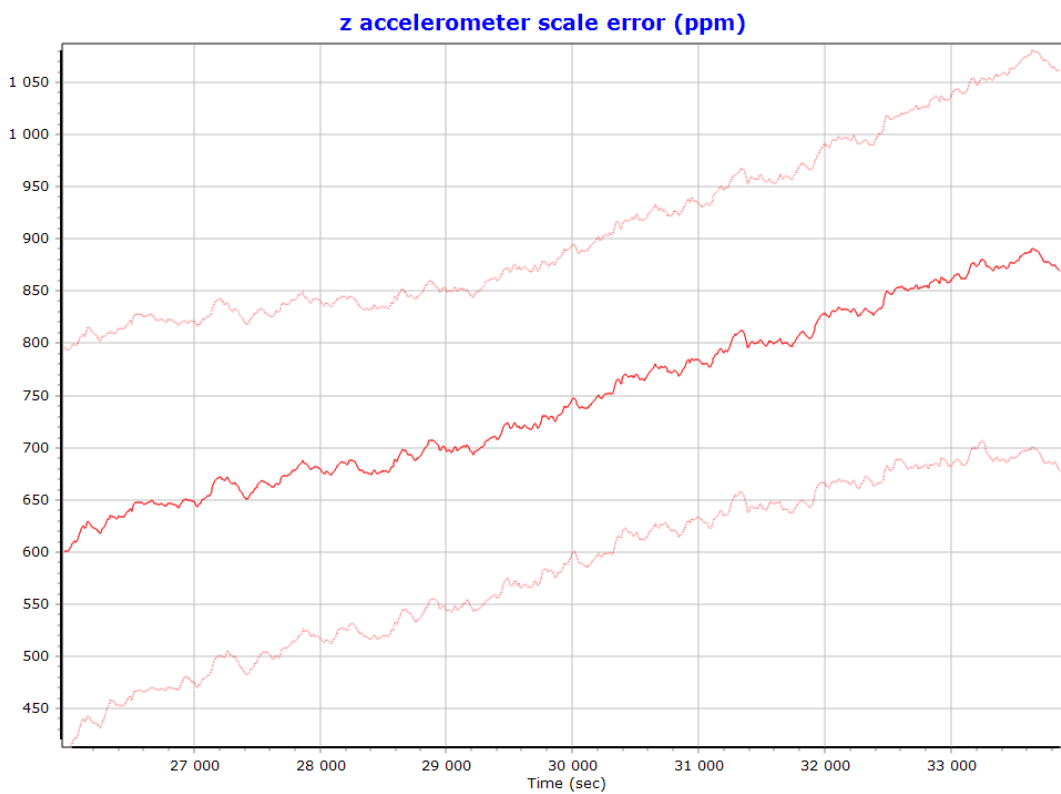
X Accelerometer Scale Error (ppm)



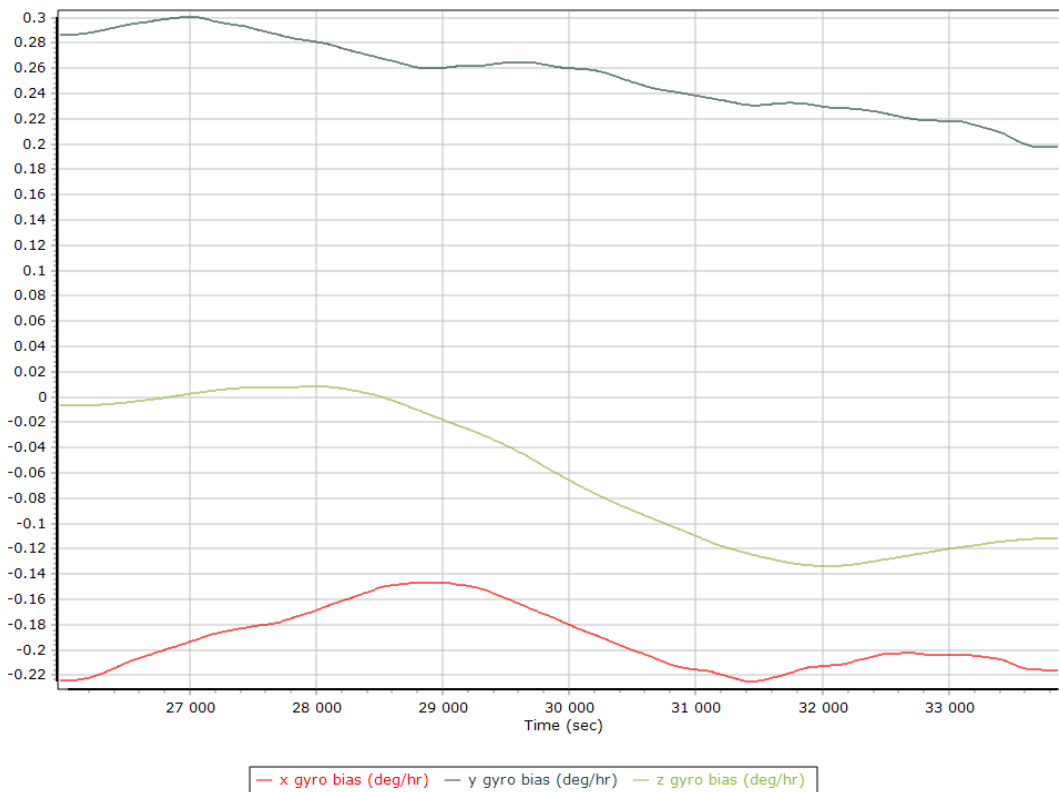
Y Accelerometer Scale Error (ppm)



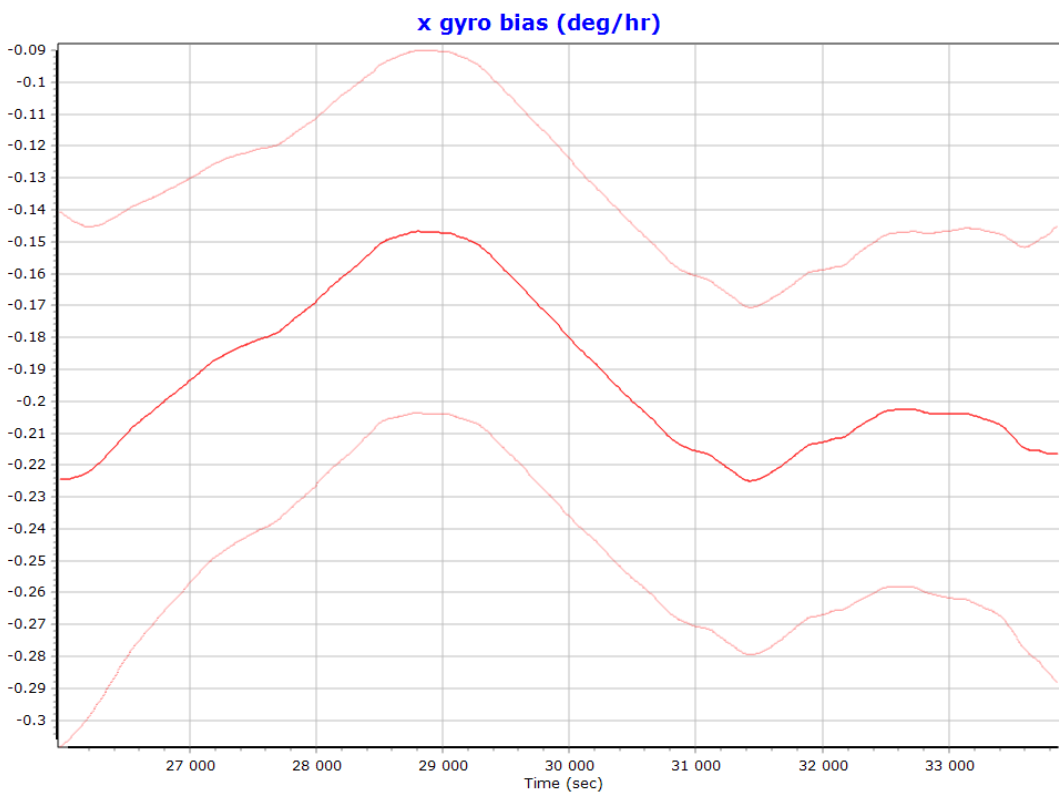
Z Accelerometer Scale Error (ppm)



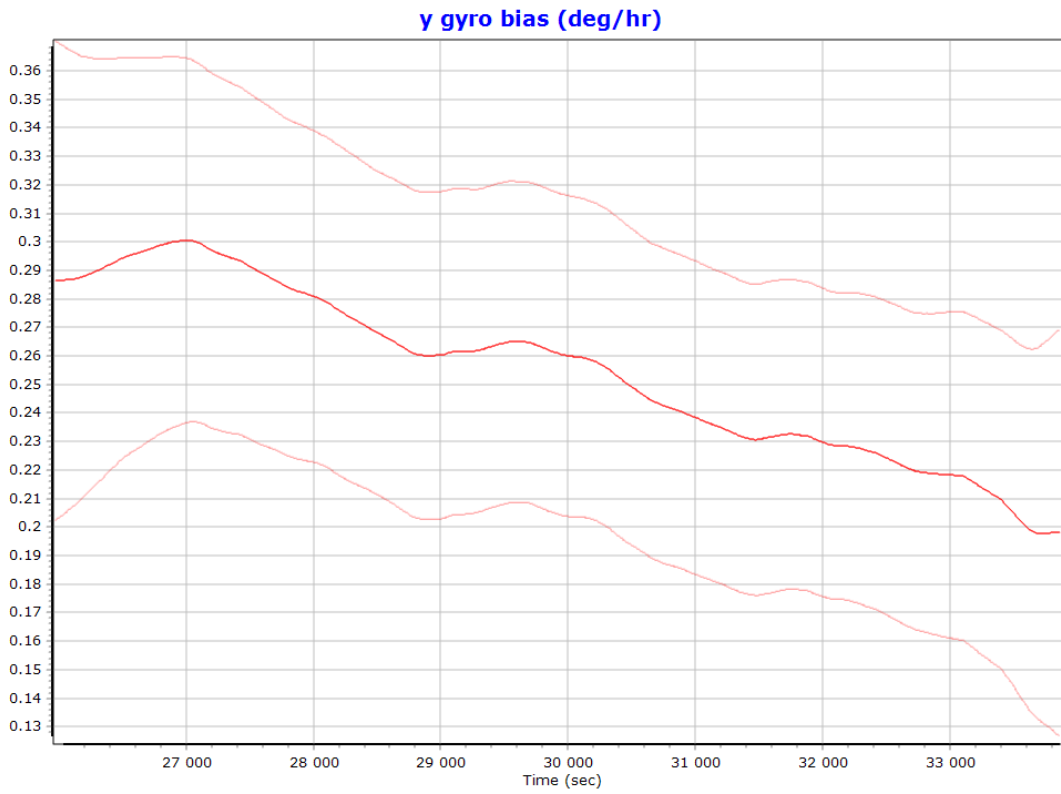
Gyro Bias (deg/h)



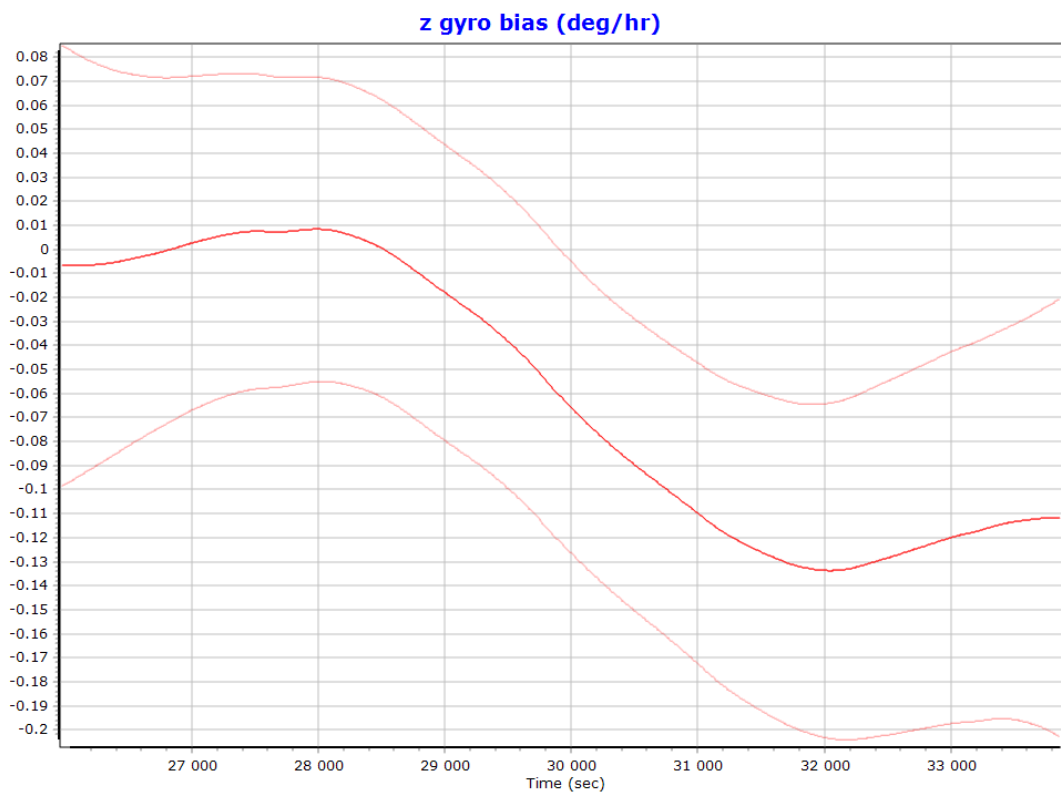
X Gyro Bias (deg/h)



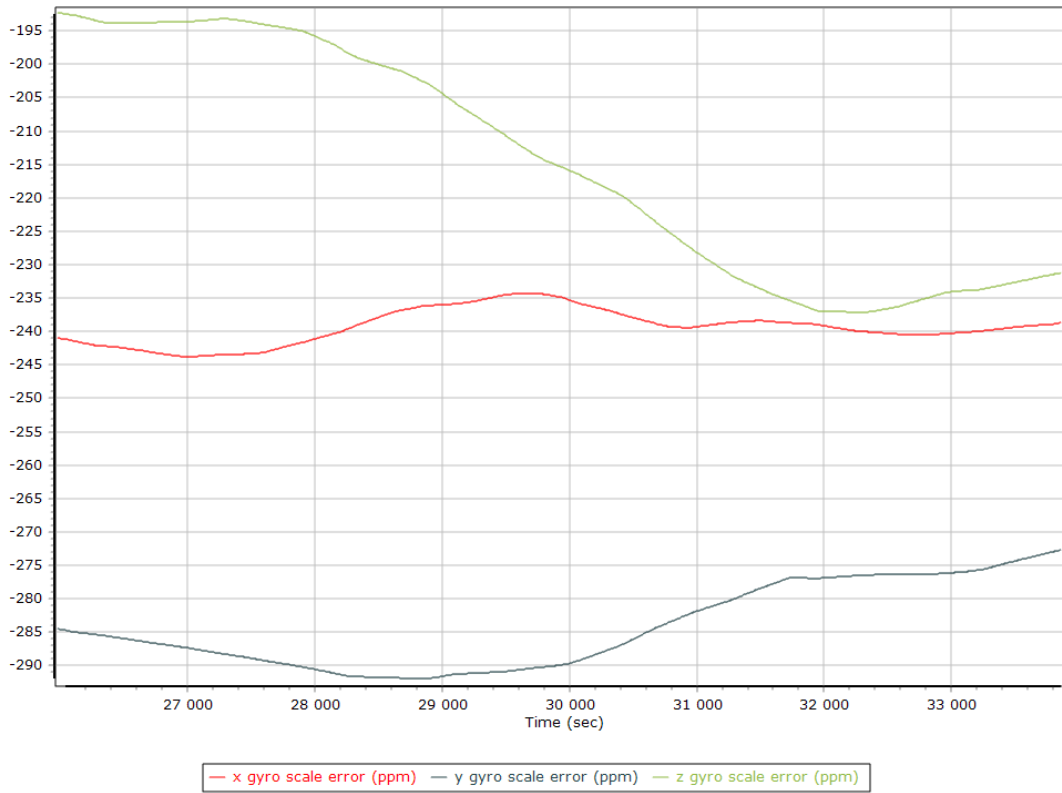
Y Gyro Bias (deg/h)



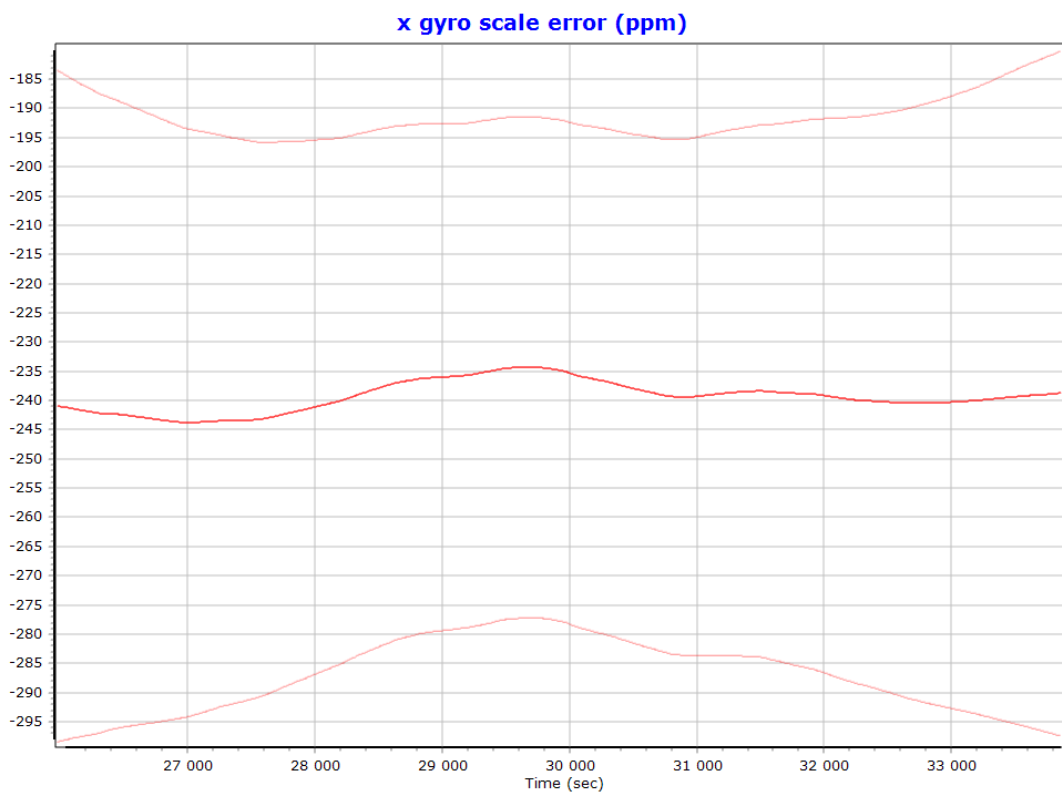
Z Gyro Bias (deg/h)



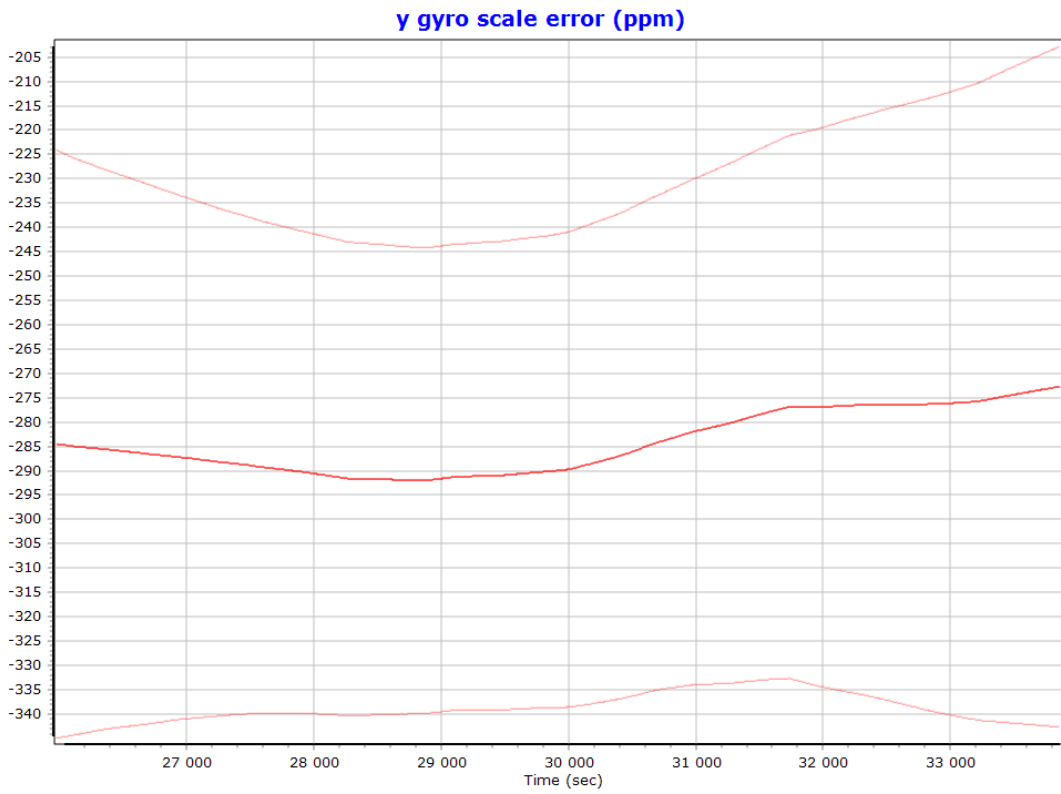
Gyro Scale Error (ppm)



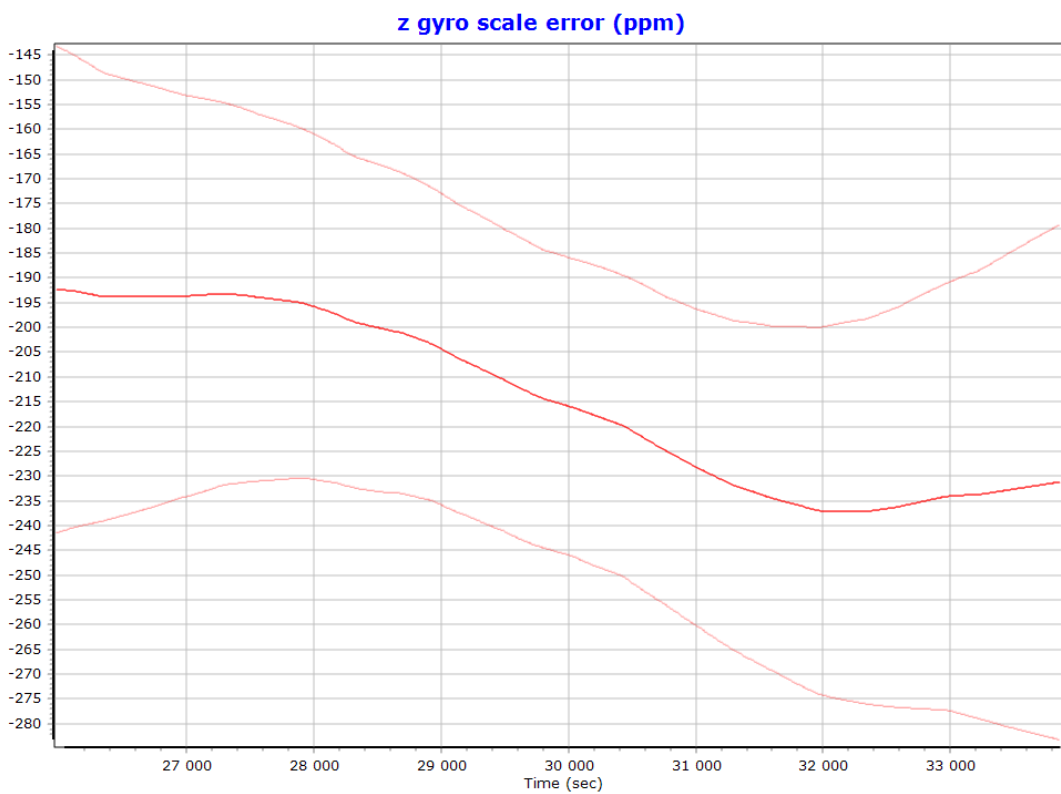
X Gyro Scale Error (ppm)



Y Gyro Scale Error (ppm)

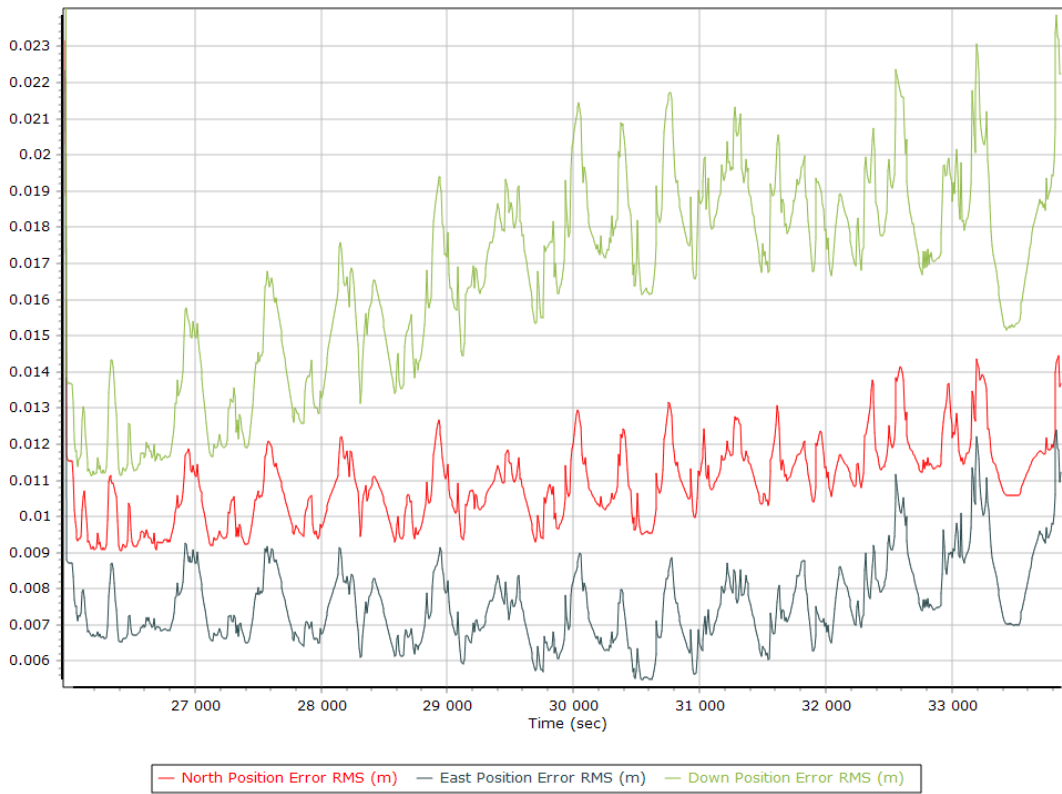


Z Gyro Scale Error (ppm)

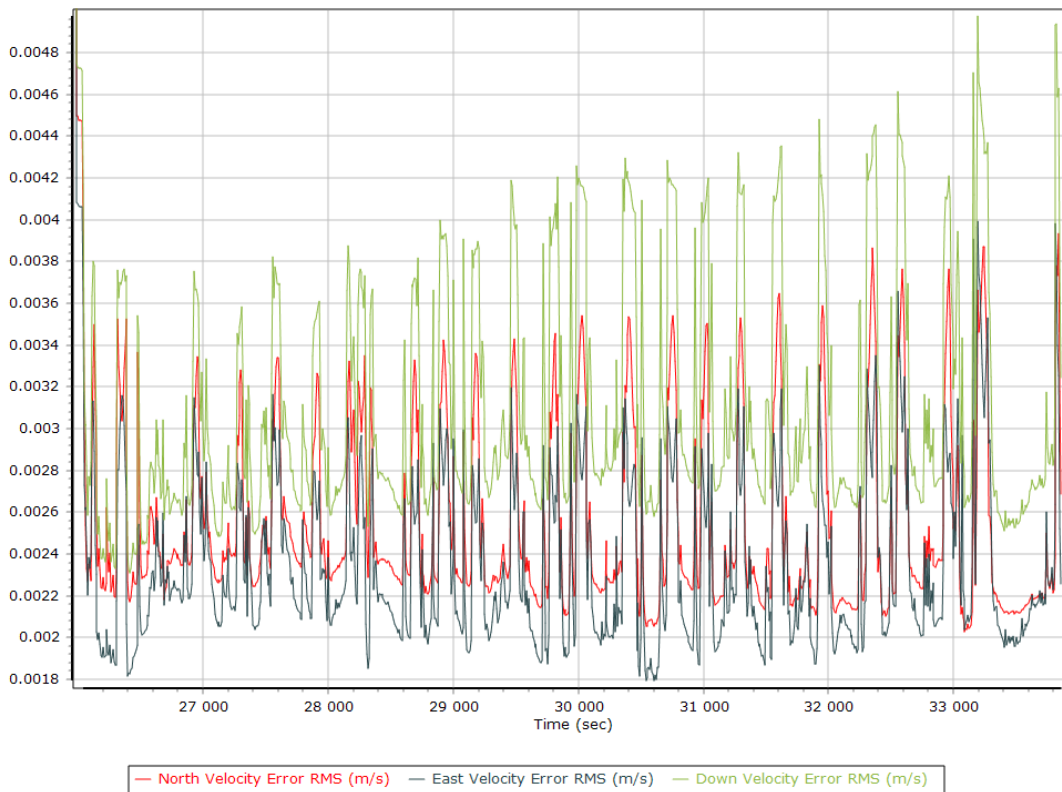


Smoothed Performance Metrics

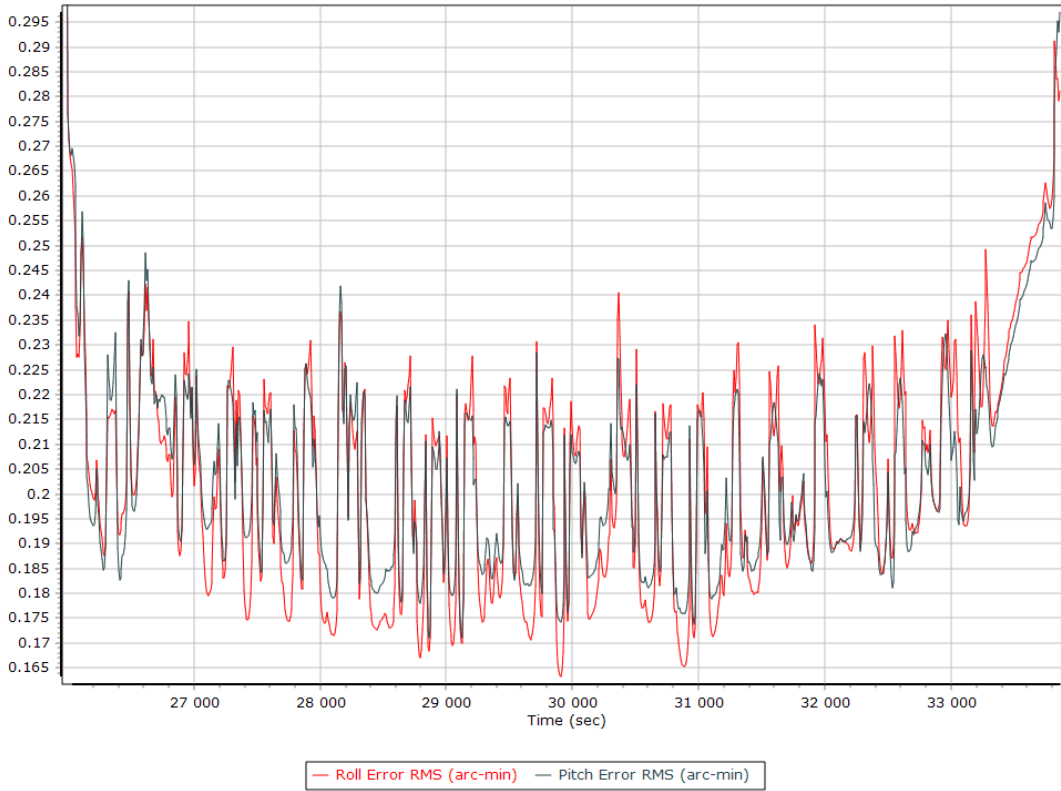
Position Error RMS (m)



Velocity Error RMS (m/s)

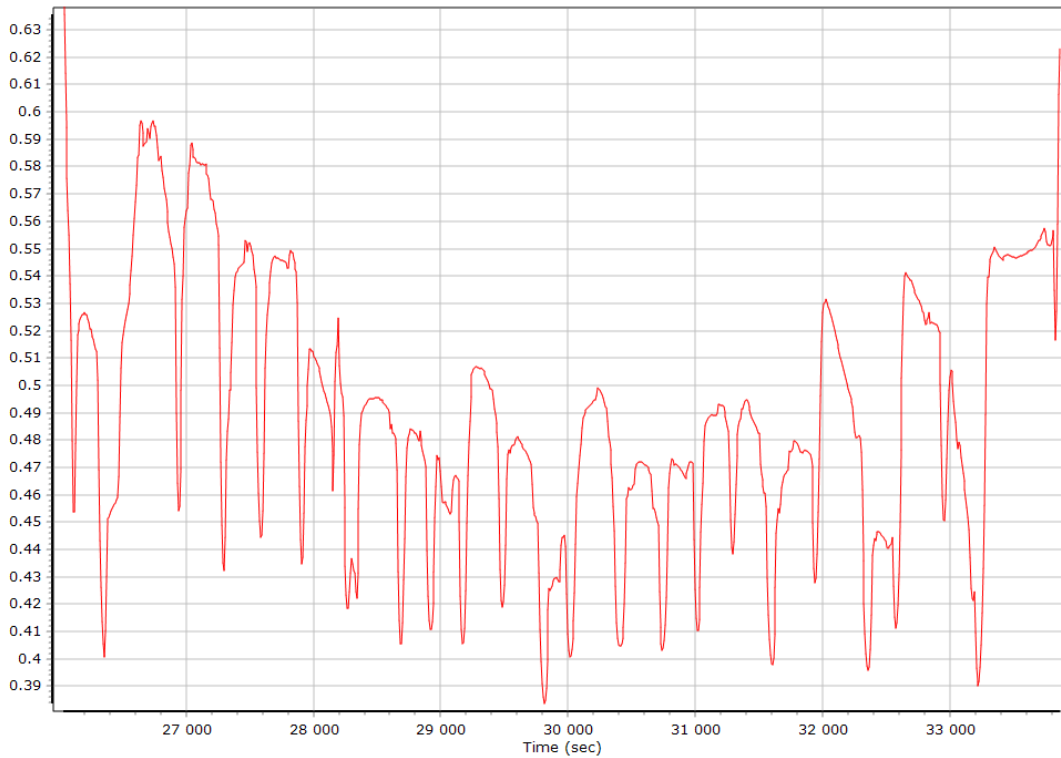


Roll/Pitch Error RMS (arc-min)



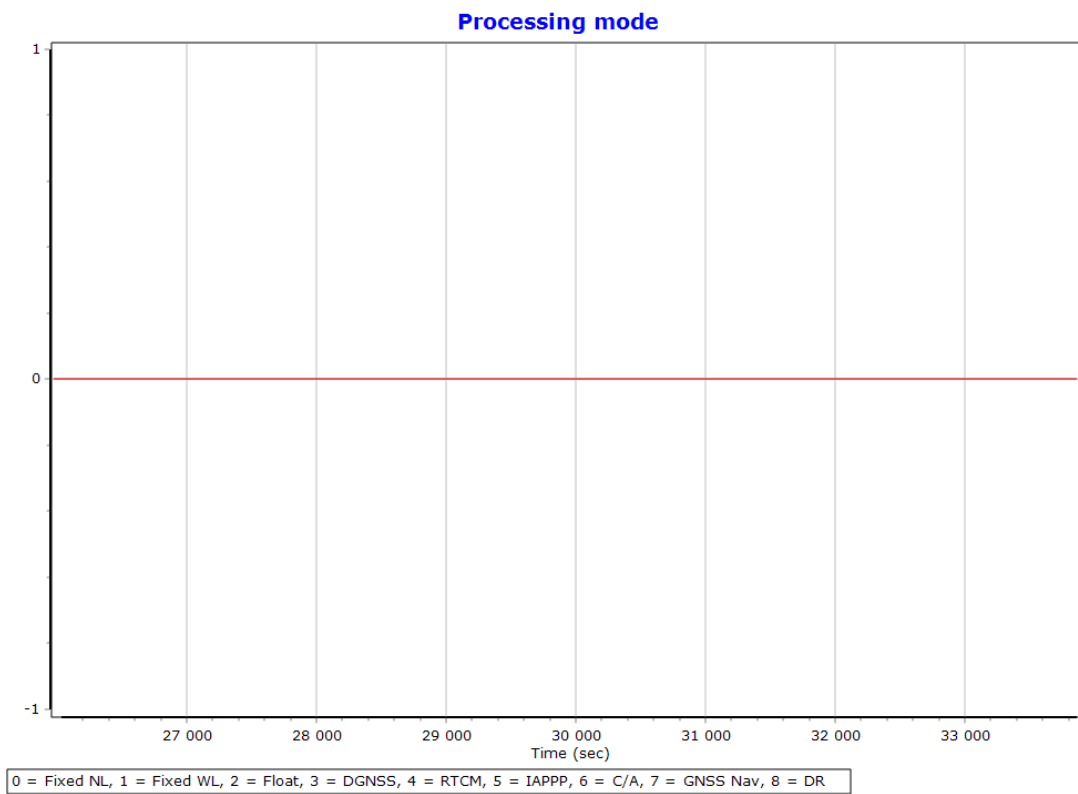
Heading Error RMS (arc-min)

Heading Error RMS (arc-min)

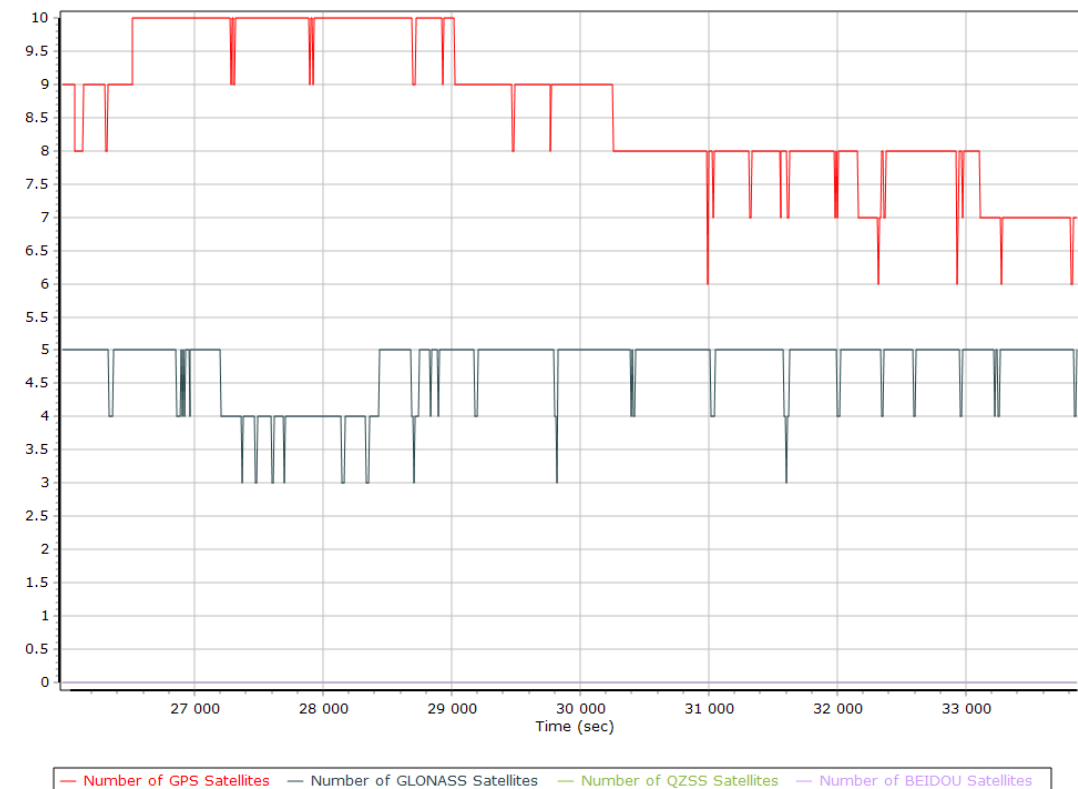


Smoothed Solution Status

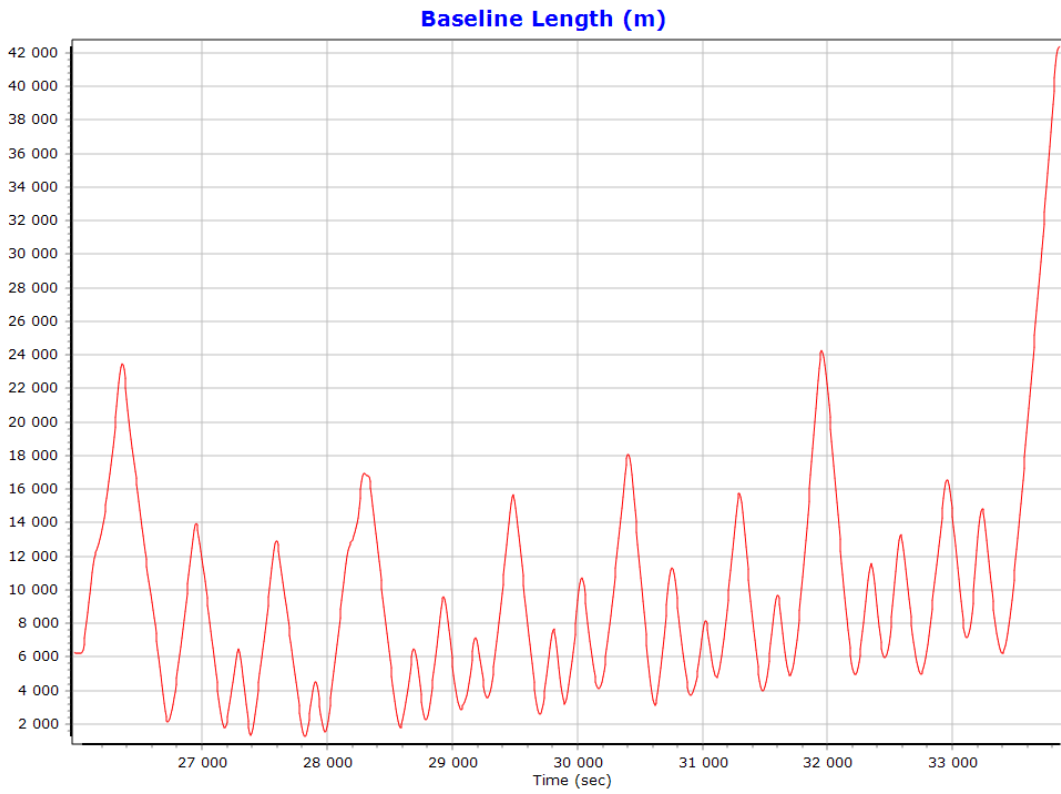
Processing Mode



Number of Satellites



Baseline Length



SBET IAkar Separation

