

GPS and IMU Processing Re Appendix B: GPS and IMU Processing Reports for Each Mission

Program:	Inertial Explorer
Version:	8.60.6129

Mission 2017-01-07 A

20170107_210329 [Smoothed TC Combined] - Smoothed TC Combined – Map

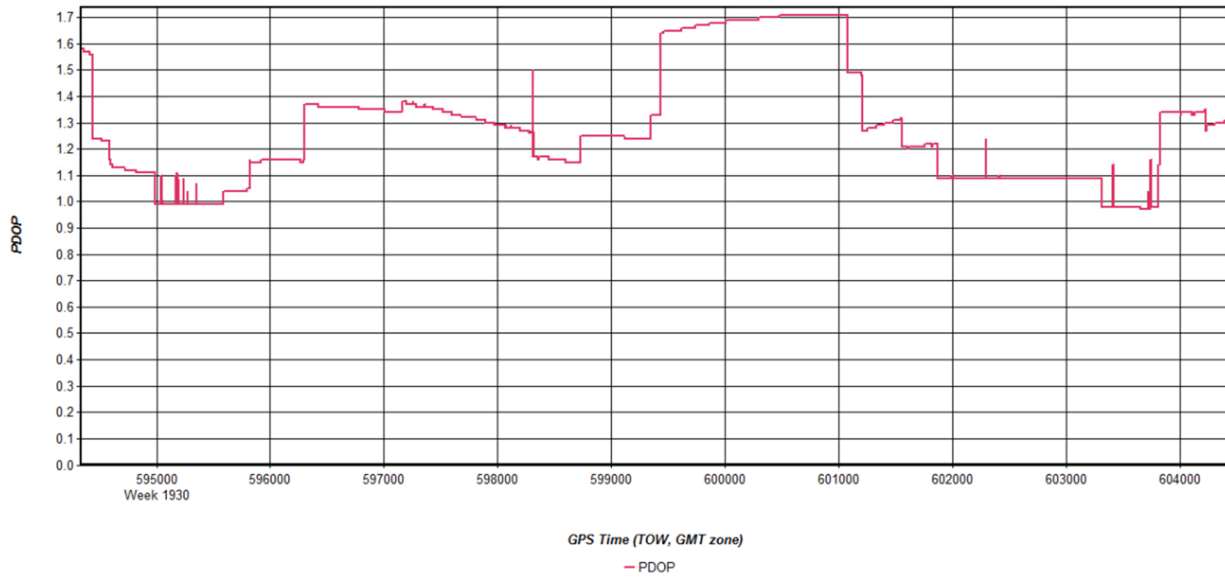


20170107_210329 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot

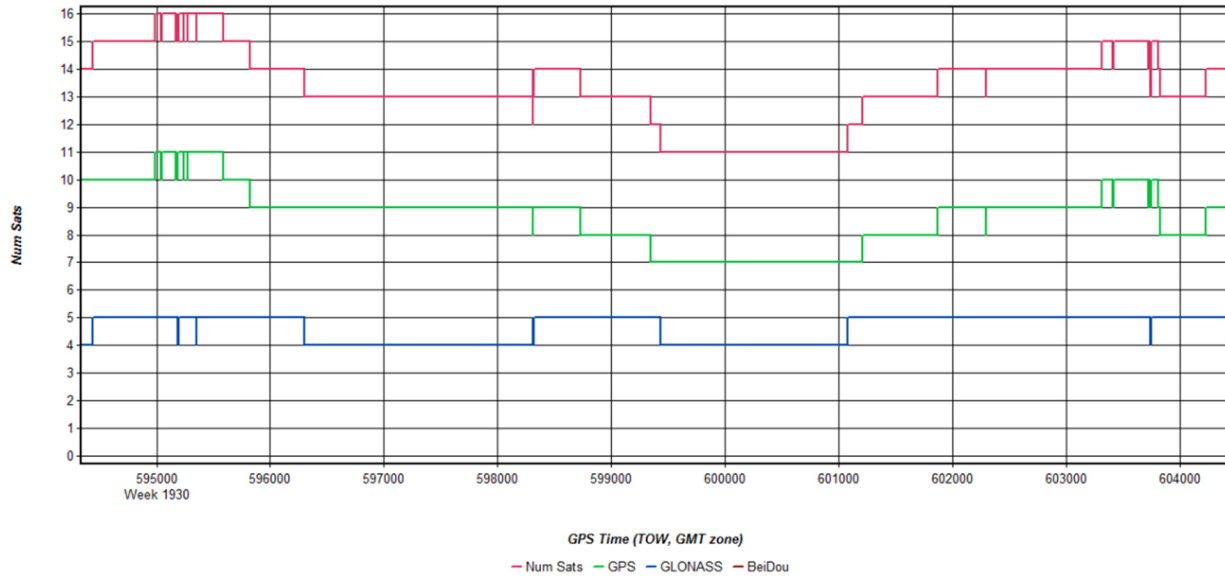
20170107_210329 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



20170107_210329 [Smoothed TC Combined] - PDOP Plot



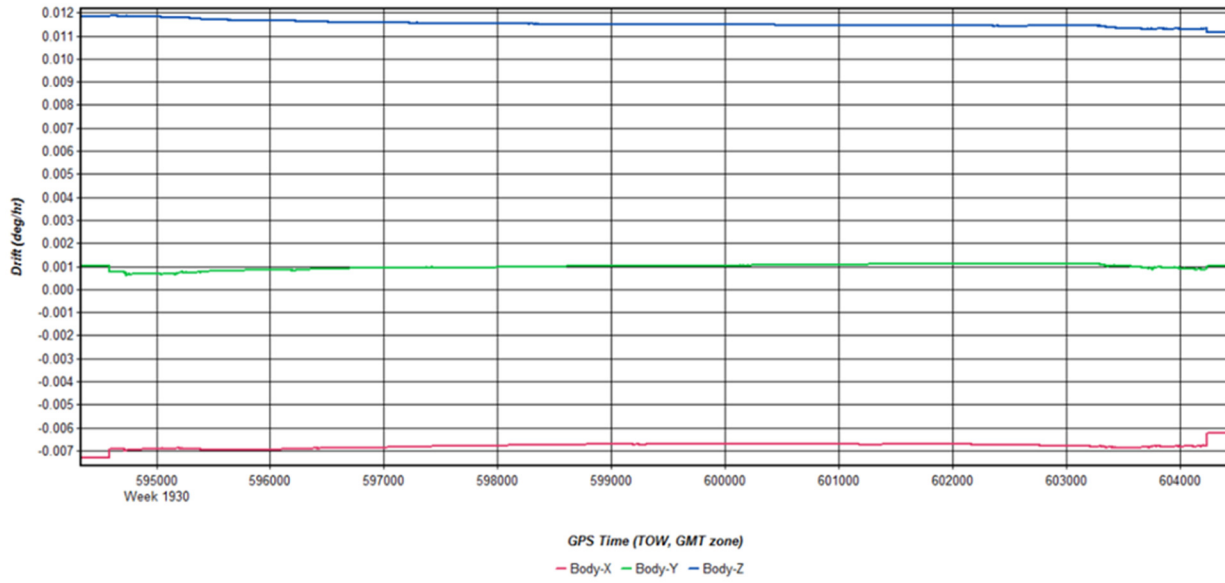
20170107_210329 [Smoothed TC Combined] - Number of Satellites Line Plot



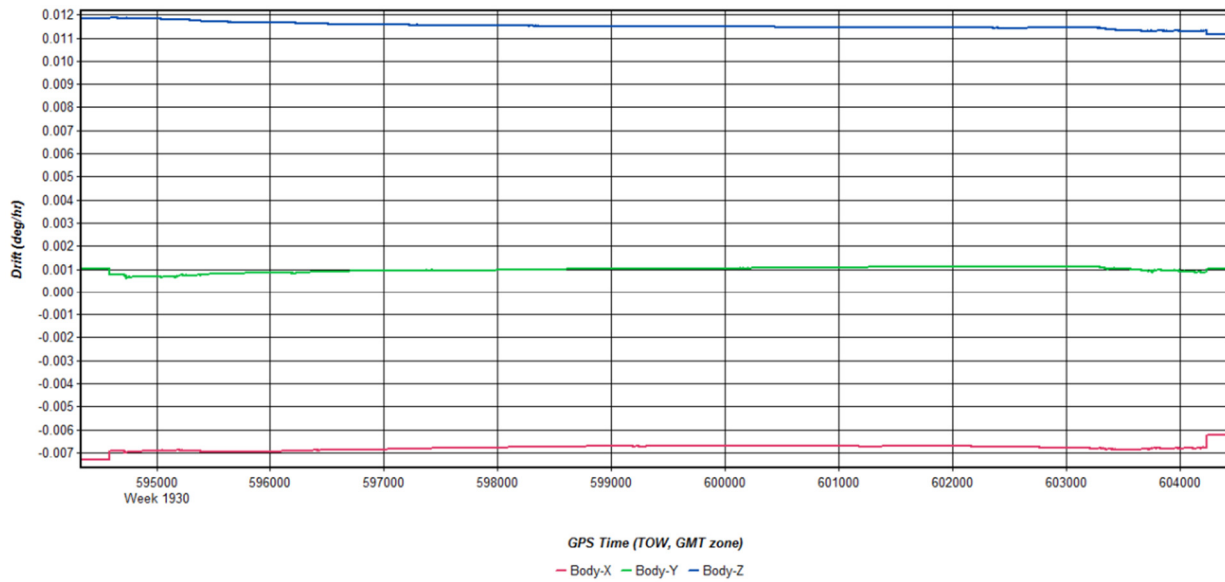
20170107_210329 [Smoothed TC Combined] - Accelerometer Bias Plot



20170107_210329 [Smoothed TC Combined] - Gyro Drift Plot



20170107_210329 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170107_210329\Gnss\mu\20170107_210329.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file:	20245
No processed position:	6
Missing Fwd or Rev:	942
With bad C/A code:	0
With bad L1 Phase:	0

Measurement RMS Values:

L1 Phase:	0.0167	(m)
C/A Code:	0.34	(m)
L1 Doppler:	0.029	(m/s)

Fwd/Rev Separation RMS Values:

East:	0.006	(m)
North:	0.005	(m)
Height:	0.034	(m)

Fwd/Rev Sep. RMS for dual FWD/REV fixes (19297 occurrences):

East:	0.006	(m)
North:	0.005	(m)
Height:	0.034	(m)

Quality Number Percentages:

Q 1:	59.8 %
Q 2:	35.6 %
Q 3:	4.6 %
Q 4:	0.0 %
Q 5:	0.0 %
Q 6:	0.0 %

Position Standard Deviation Percentages:

0.00 - 0.10 m:	100.0 %
0.10 - 0.30 m:	0.0 %
0.30 - 1.00 m:	0.0 %
1.00 - 5.00 m:	0.0 %
5.00 m + over:	0.0 %

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol:	0.0 %
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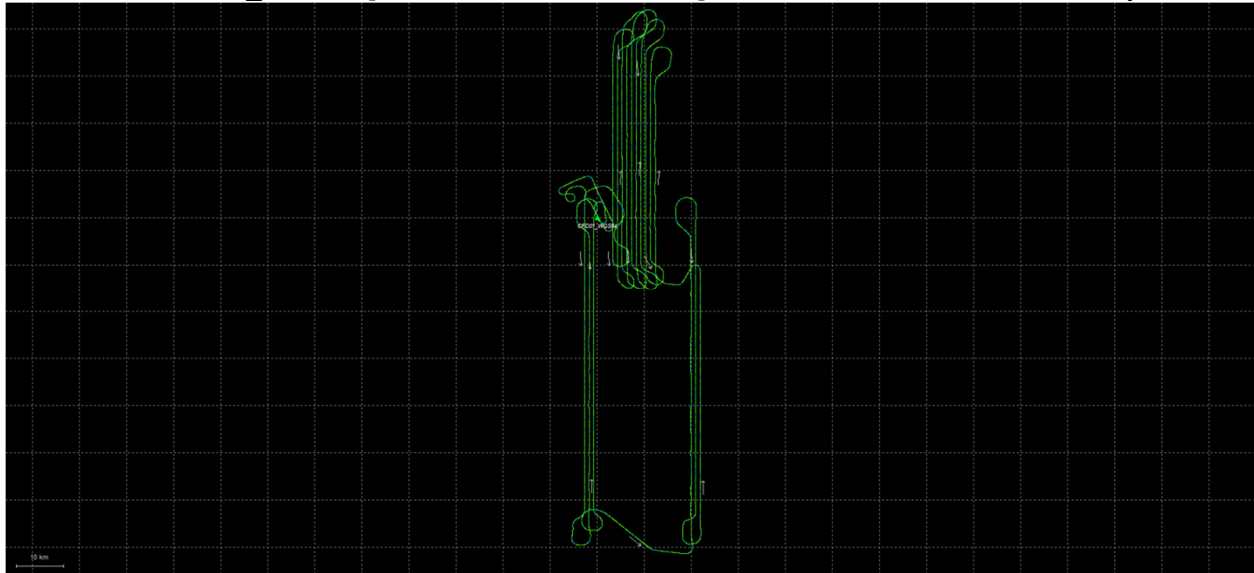
Baseline Distances:

Maximum:	73.510 (km)
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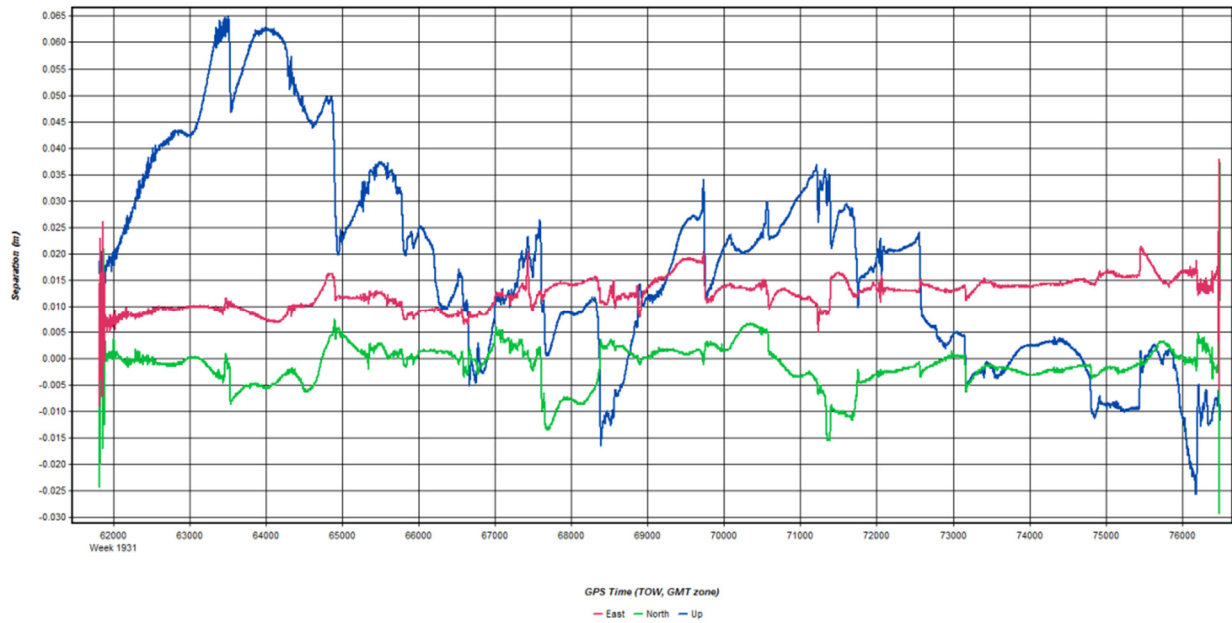
Minimum: 0.046 (km)
Average: 29.392 (km)
First Epoch: 0.168 (km)
Last Epoch: 0.069 (km)

Mission 2017-01-08 A

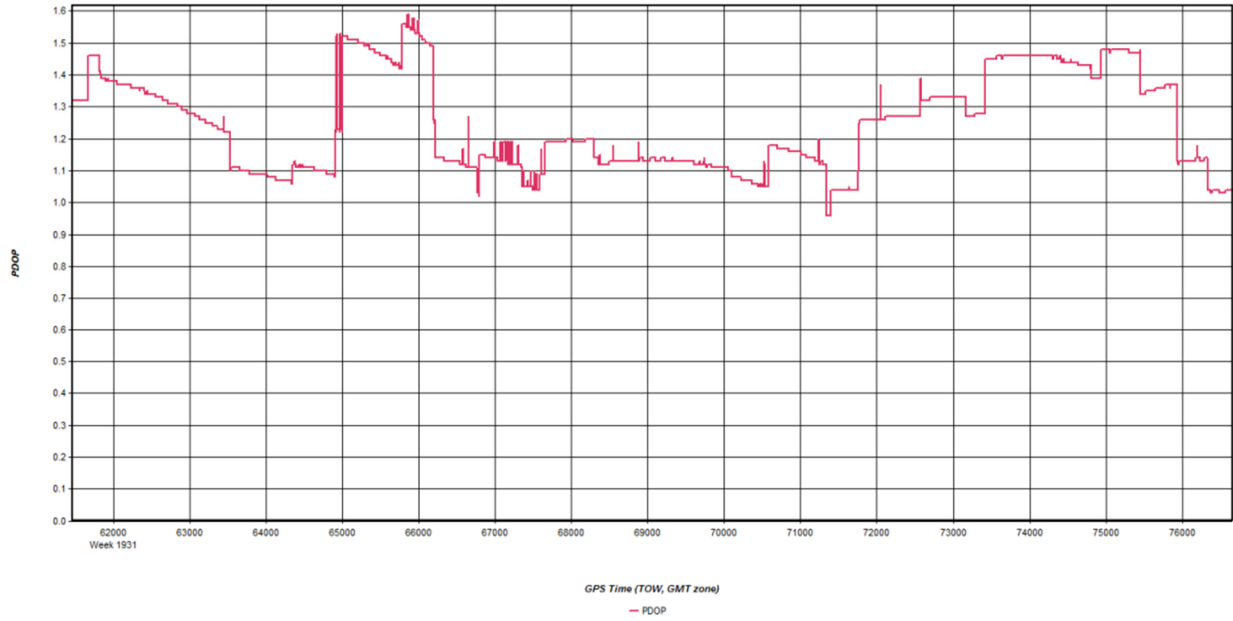
20170108_170214 [Smoothed TC Combined] - Smoothed TC Combined – Map



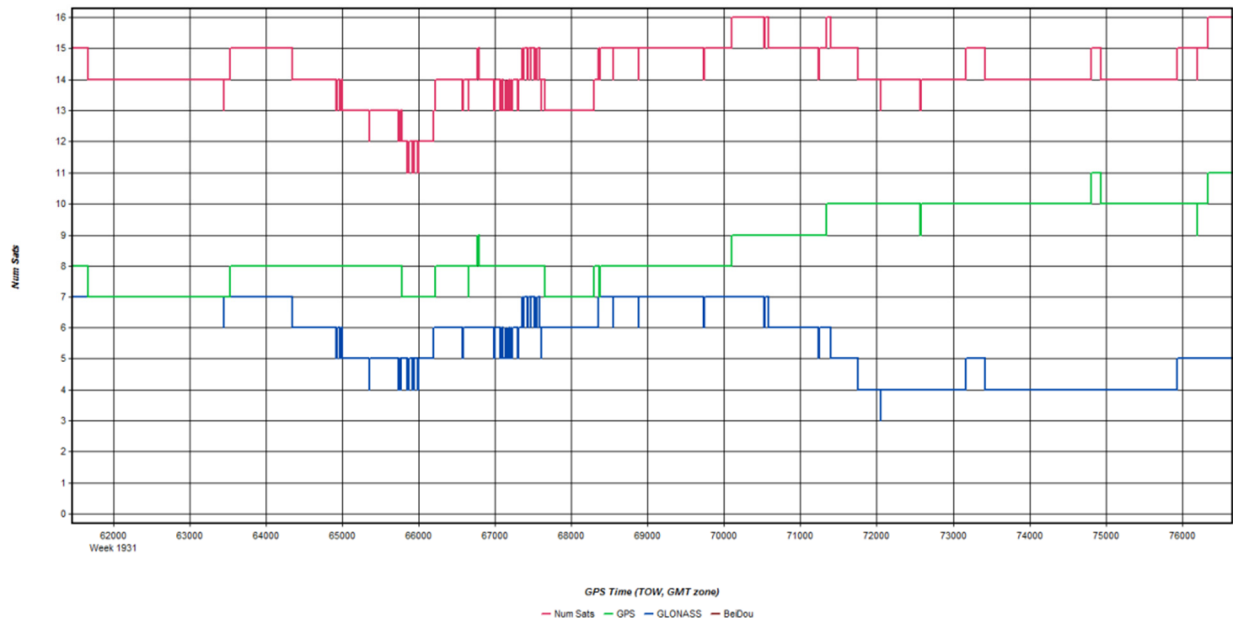
20170108_170214 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



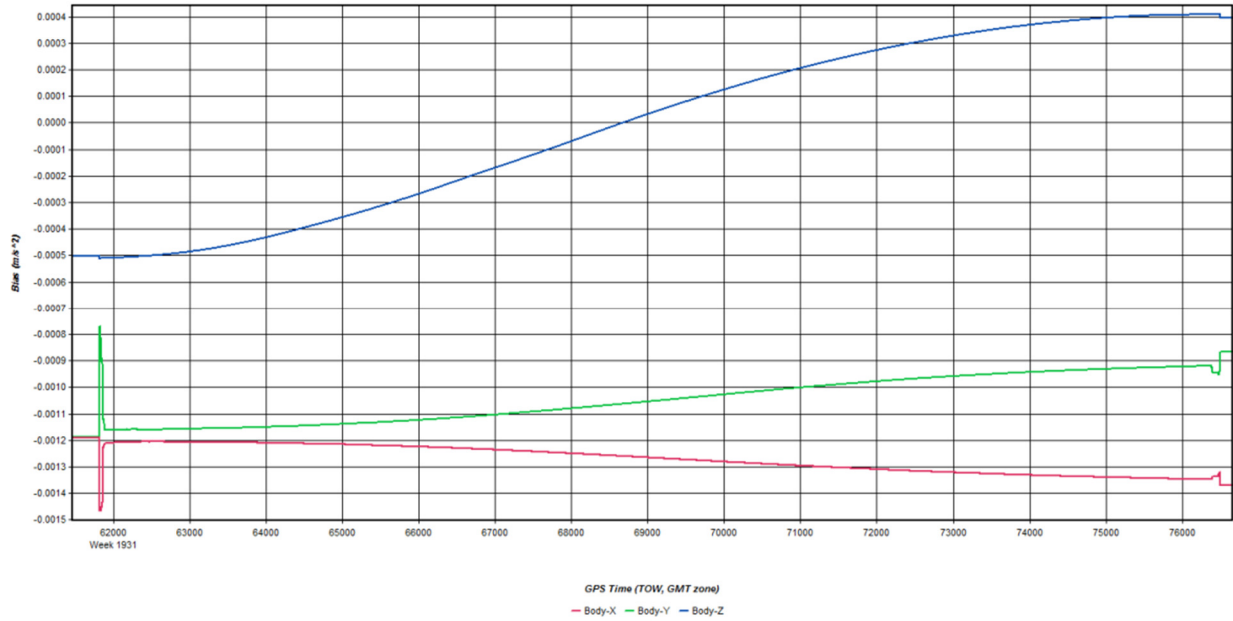
20170108_170214 [Smoothed TC Combined] - PDOP Plot



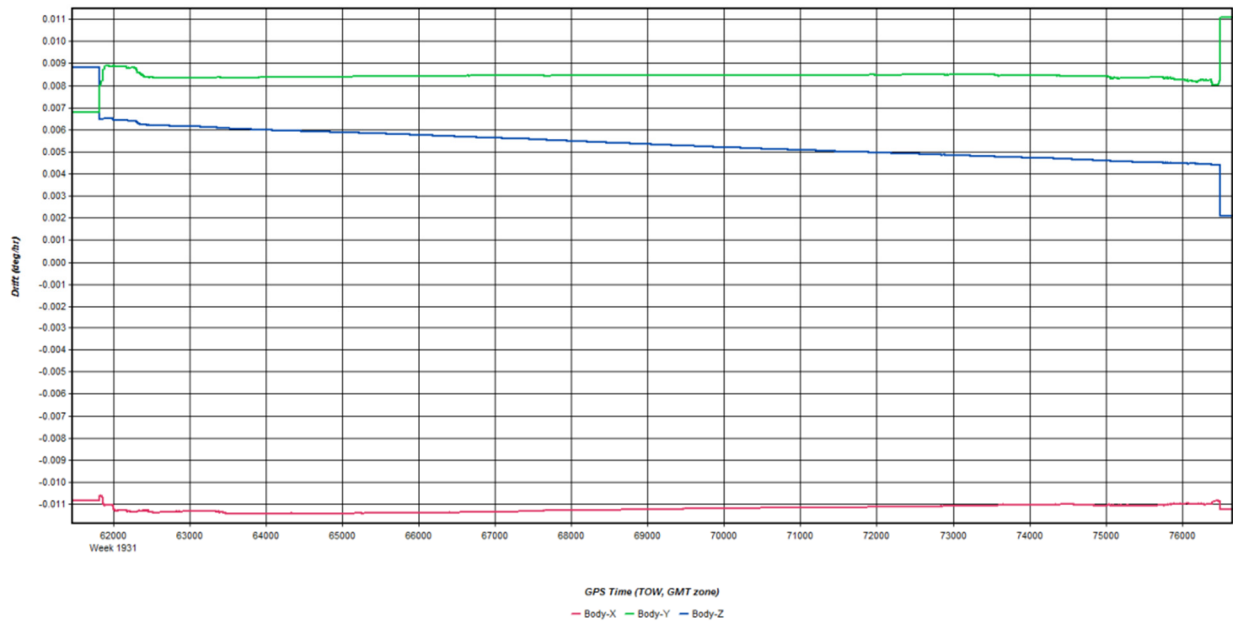
20170108_170214 [Smoothed TC Combined] - Number of Satellites Line Plot



20170108_170214 [Smoothed TC Combined] - Accelerometer Bias Plot



20170108_170214 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170108_170214\GnssImu\20170108_170214.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 30453
No processed position: 6
Missing Fwd or Rev: 1084
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 58.7 %
Q 2: 36.7 %
Q 3: 4.6 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0179 (m)
C/A Code: 0.33 (m)
L1 Doppler: 0.029 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.013 (m)
North: 0.004 (m)
Height: 0.027 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (29363 occurrences):

East: 0.013 (m)
North: 0.004 (m)
Height: 0.027 (m)

Baseline Distances:

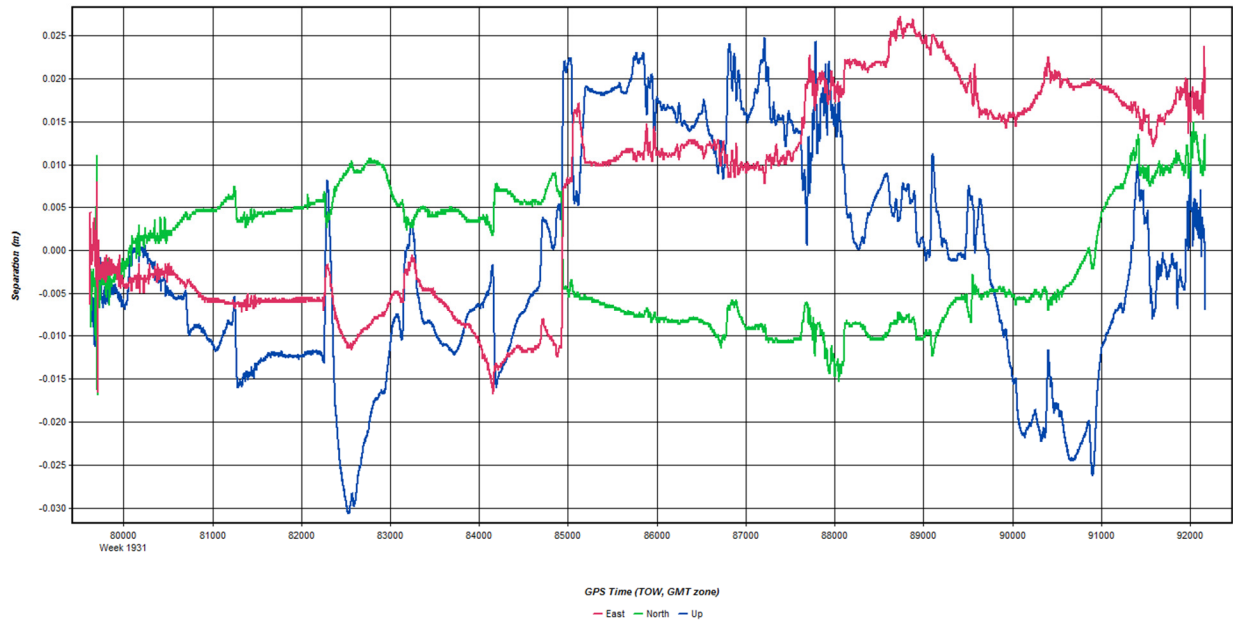
Maximum: 73.251 (km)
Minimum: 0.151 (km)
Average: 25.369 (km)
First Epoch: 0.172 (km)
Last Epoch: 0.163 (km)

Mission 2017-01-08 B

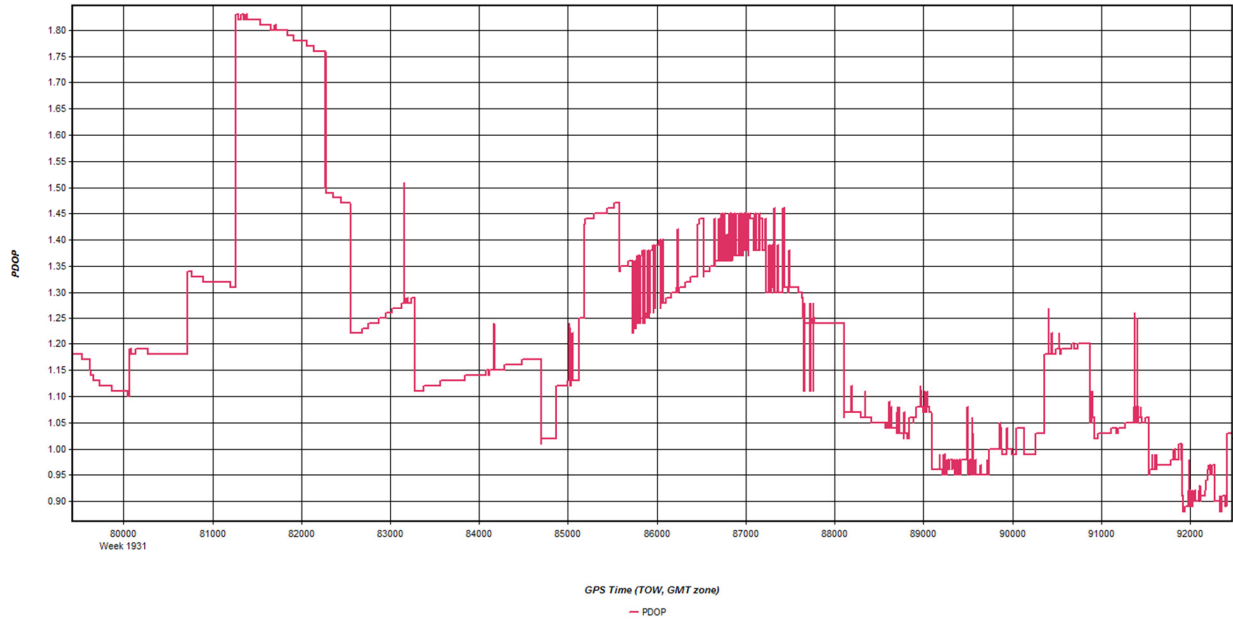
20170108_220139 [Smoothed TC Combined] - Smoothed TC Combined – Map



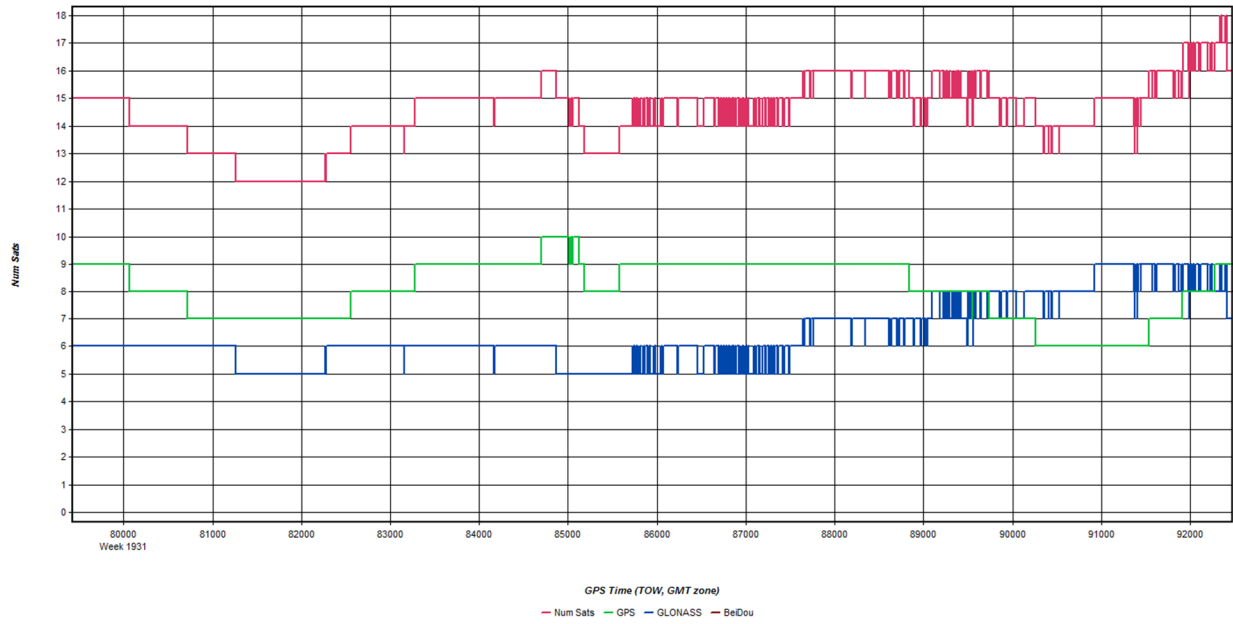
20170108_220139 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



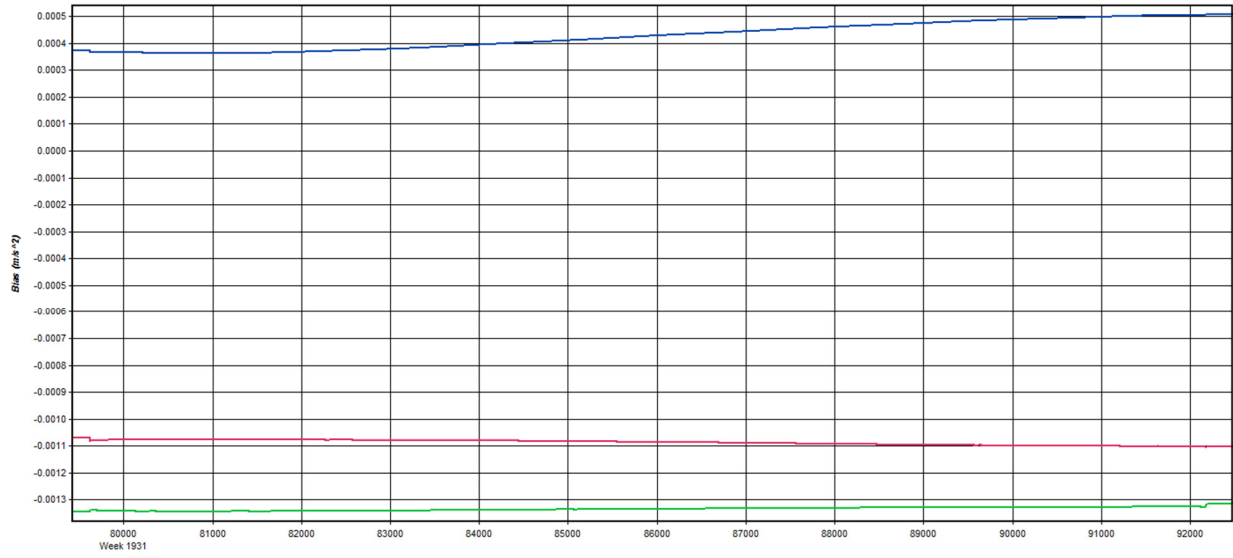
20170108_220139 [Smoothed TC Combined] - PDOP Plot



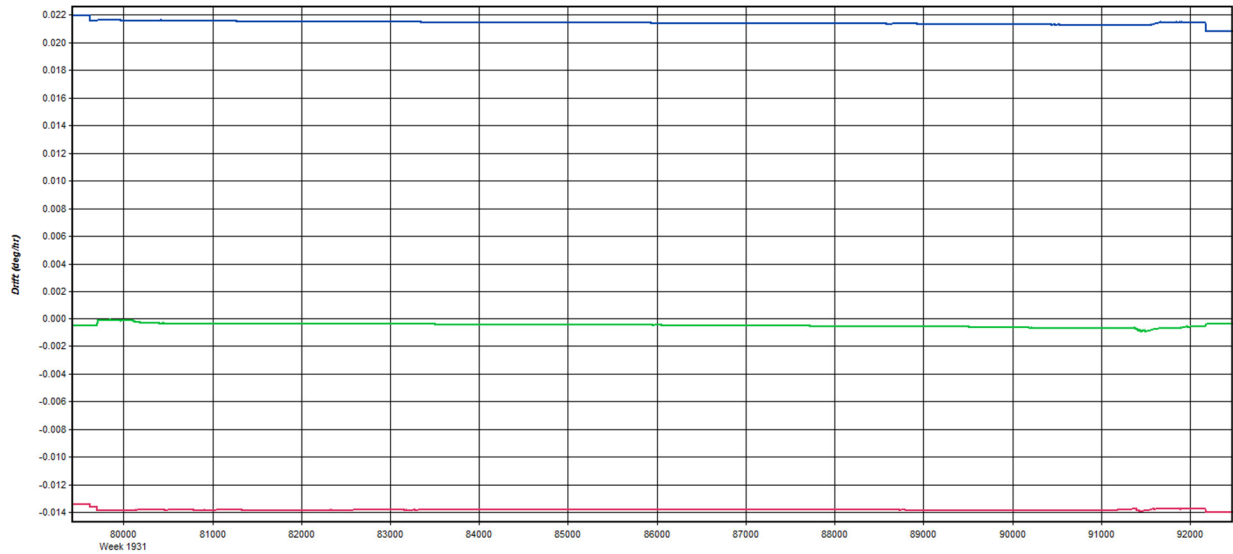
20170108_220139 [Smoothed TC Combined] - Number of Satellites Line Plot



20170108_220139 [Smoothed TC Combined] - Accelerometer Bias Plot



20170108_220139 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170108_220139\GnssImu\20170108_220139.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 26146
No processed position: 7
Missing Fwd or Rev: 1036
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 57.5 %
Q 2: 37.4 %
Q 3: 5.1 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0158 (m)
C/A Code: 0.50 (m)
L1 Doppler: 0.030 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.014 (m)
North: 0.007 (m)
Height: 0.013 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (25103 occurrences):

East: 0.014 (m)
North: 0.007 (m)
Height: 0.013 (m)

Baseline Distances:

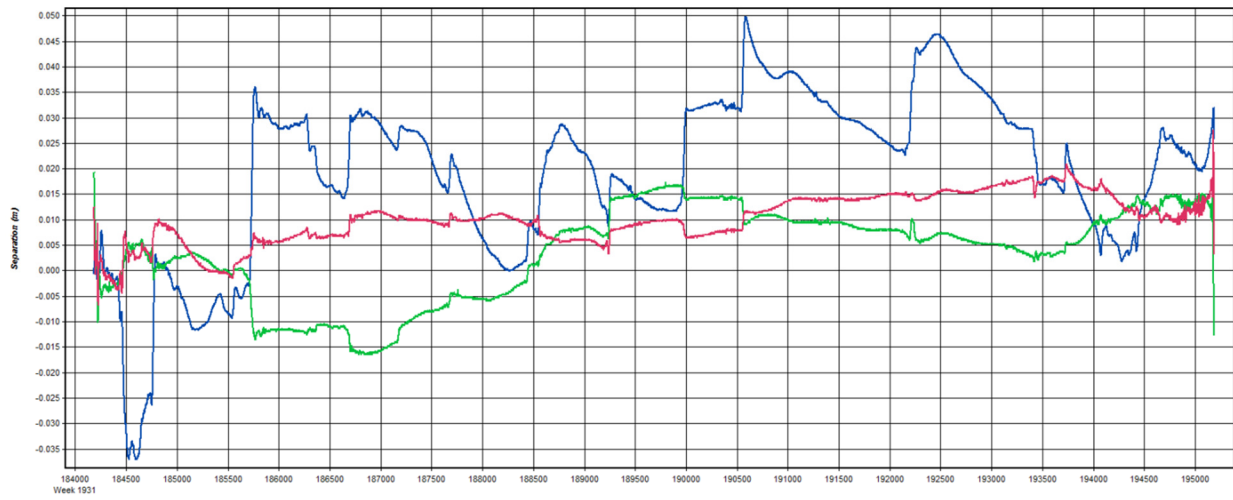
Maximum: 70.757 (km)
Minimum: 0.235 (km)
Average: 32.534 (km)
First Epoch: 0.272 (km)
Last Epoch: 1.040 (km)

Mission 2017-01-10 A

20170110_030109 [Smoothed TC Combined] - Smoothed TC Combined – Map



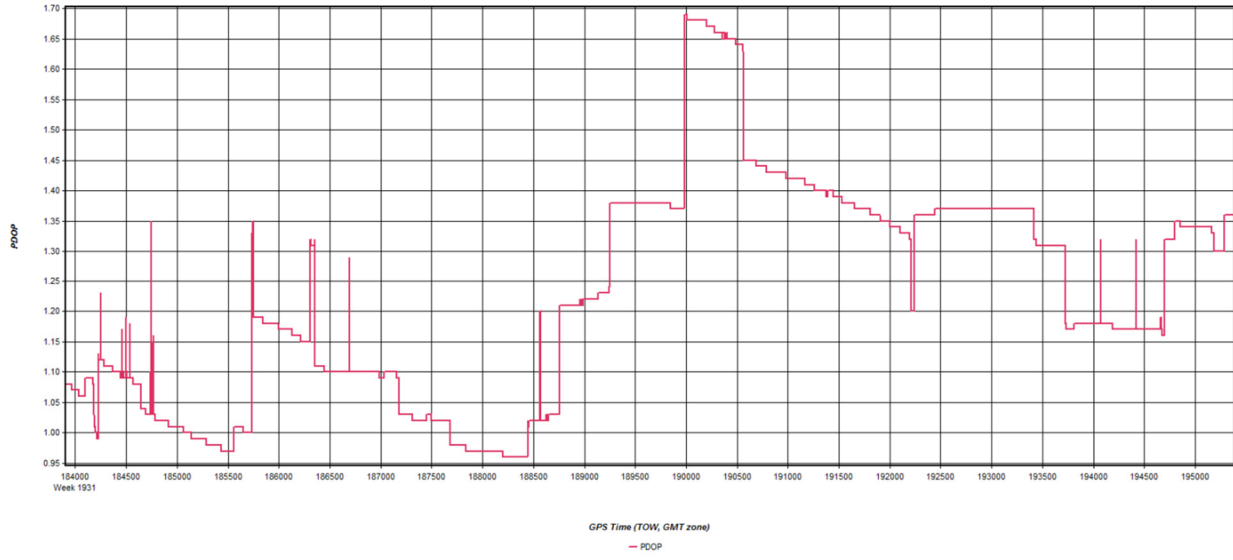
20170110_030109 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



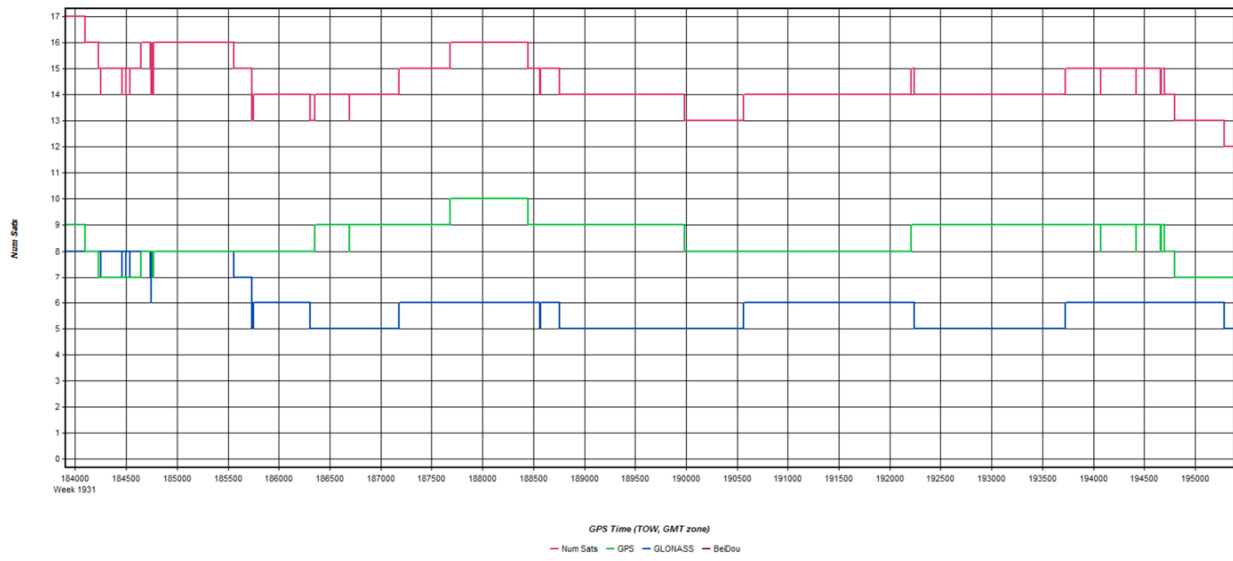
GPS Time (TOW, GMT zone)

— East — North — Up

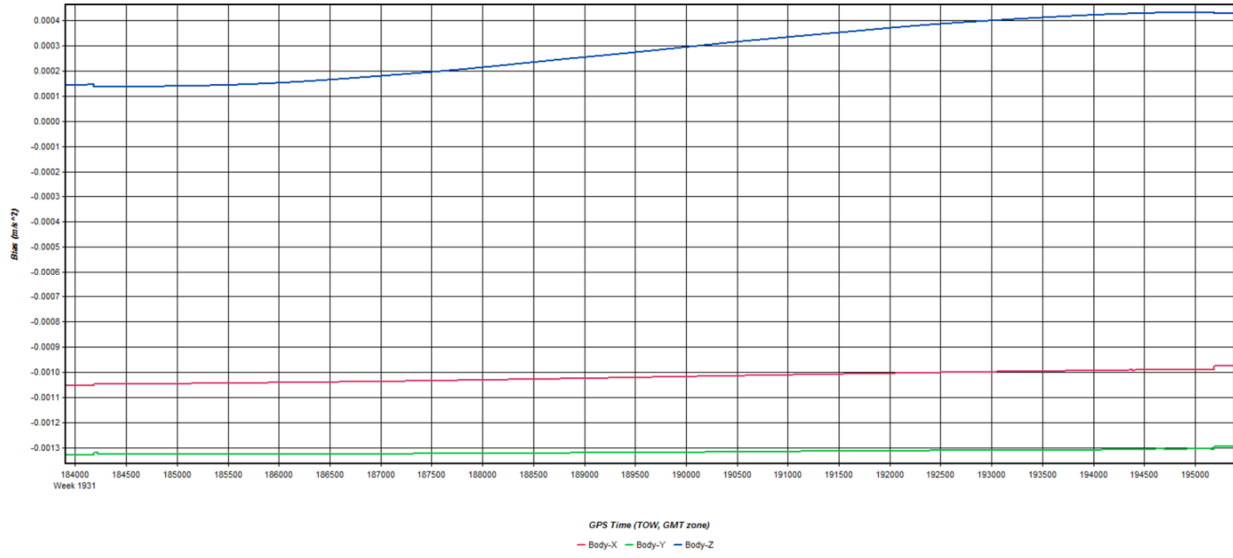
20170110_030109 [Smoothed TC Combined] - PDOP Plot



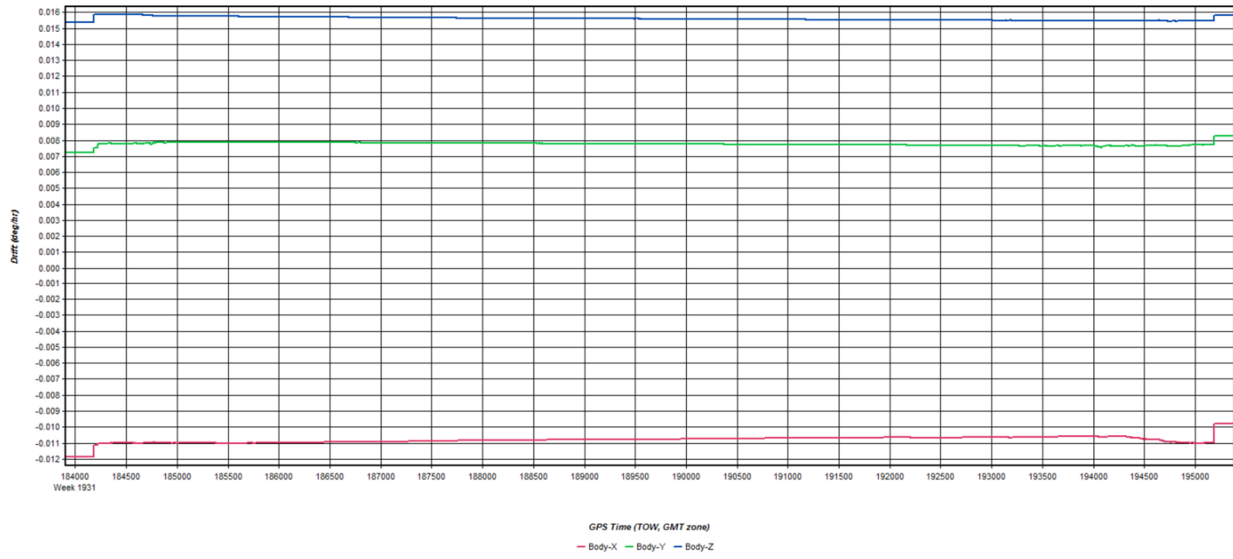
20170110_030109 [Smoothed TC Combined] - Number of Satellites Line Plot



20170110_030109 [Smoothed TC Combined] - Accelerometer Bias Plot



20170110_030109 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170110_030109\GnssImu\20170110_030109.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 23004
No processed position: 7
Missing Fwd or Rev: 990
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 60.2 %
Q 2: 36.0 %
Q 3: 3.8 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0179 (m)
C/A Code: 0.30 (m)
L1 Doppler: 0.029 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.011 (m)
North: 0.010 (m)
Height: 0.025 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (22007 occurrences):

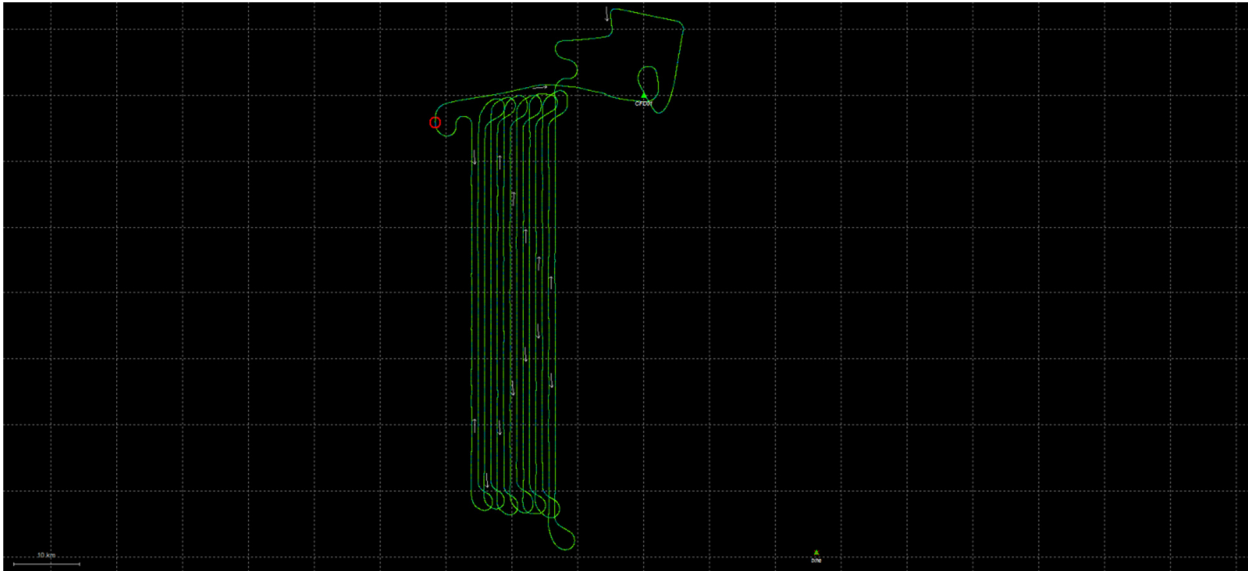
East: 0.011 (m)
North: 0.010 (m)
Height: 0.025 (m)

Baseline Distances:

Maximum: 68.895 (km)
Minimum: 0.233 (km)
Average: 28.114 (km)
First Epoch: 0.272 (km)
Last Epoch: 1.048 (km)

Mission 2017-01-11 A

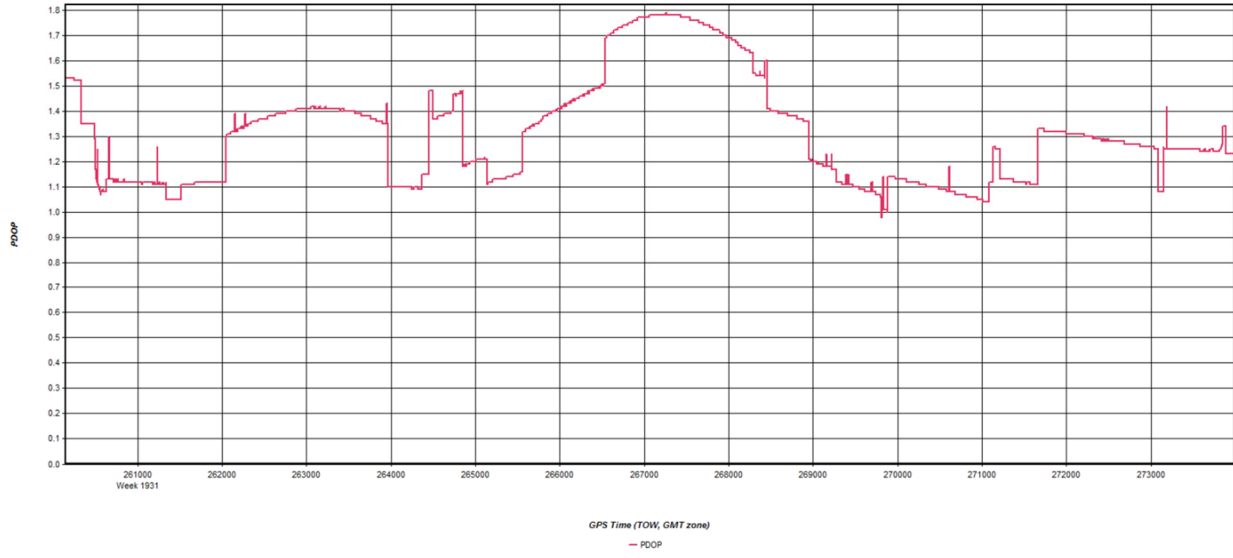
20170111_001334 [Smoothed TC Combined] - Smoothed TC Combined – Map



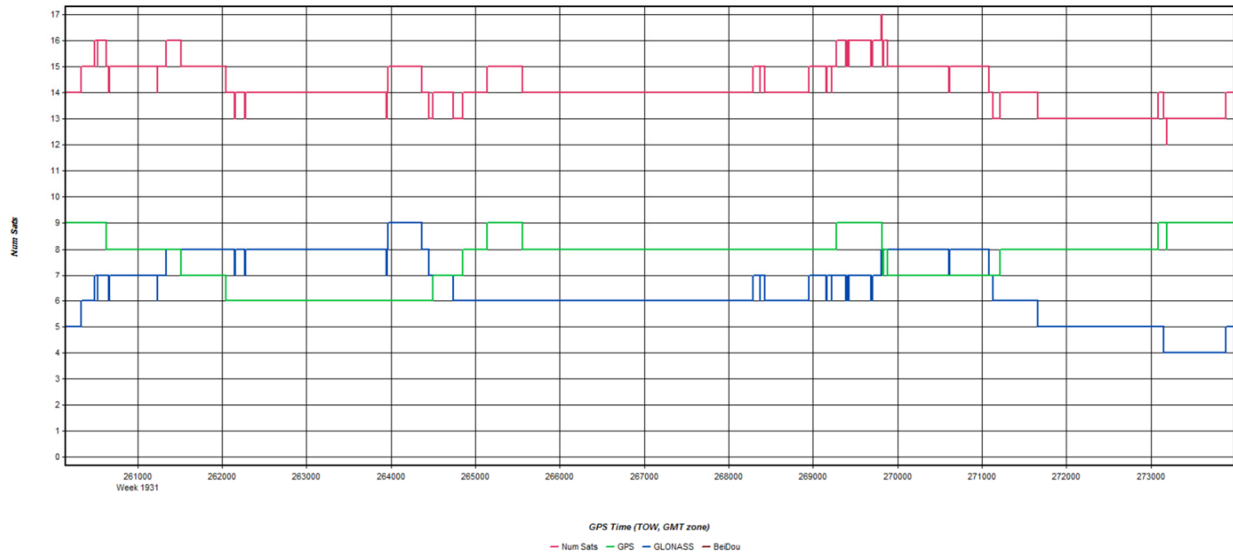
20170111_001334 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



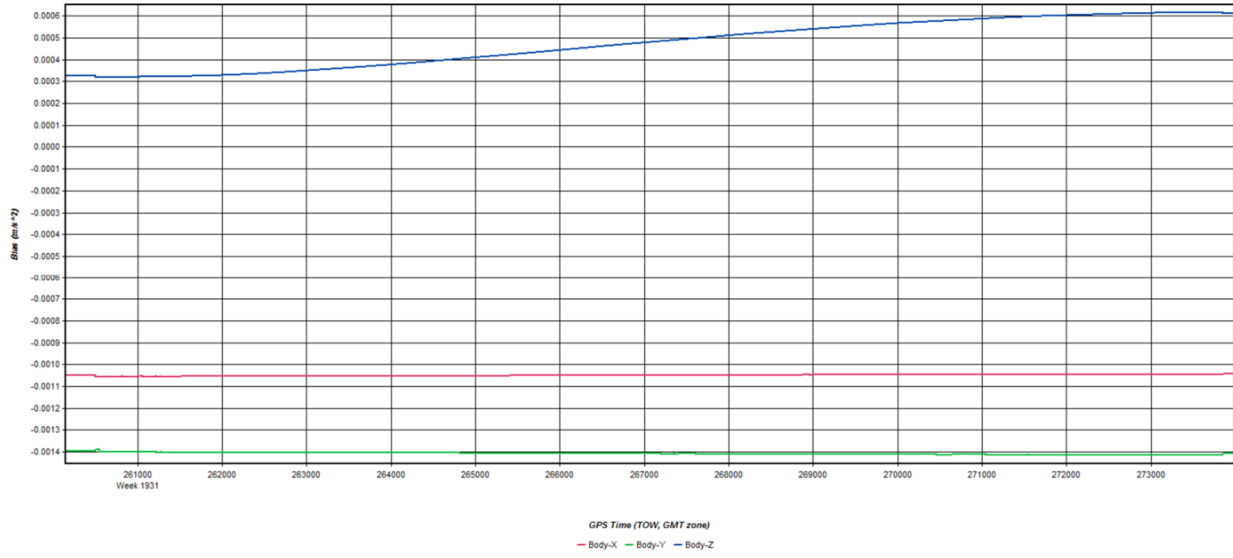
20170111_001334 [Smoothed TC Combined] - PDOP Plot



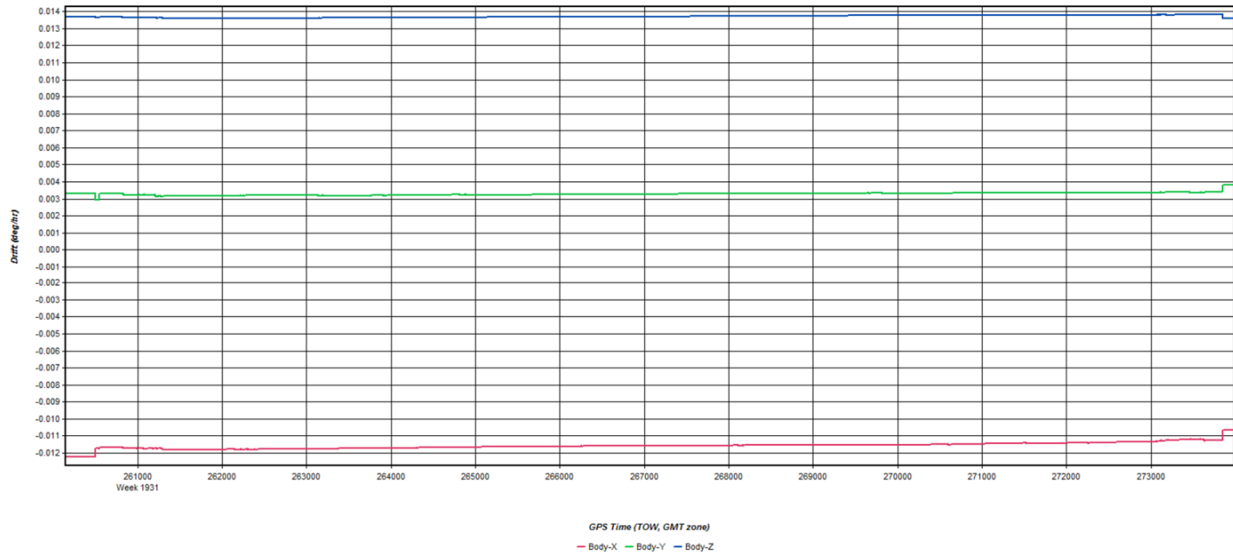
20170111_001334 [Smoothed TC Combined] - Number of Satellites Line Plot



20170111_001334 [Smoothed TC Combined] - Accelerometer Bias Plot



20170111_001334 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170111_001334\GnssImu\20170111_001334.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 27730
No processed position: 5
Missing Fwd or Rev: 1020
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 60.2 %
Q 2: 35.7 %
Q 3: 4.1 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0182 (m)
C/A Code: 0.32 (m)
L1 Doppler: 0.028 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.011 (m)
North: 0.010 (m)
Height: 0.018 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (26705 occurrences):

East: 0.011 (m)
North: 0.010 (m)
Height: 0.018 (m)

Baseline Distances:

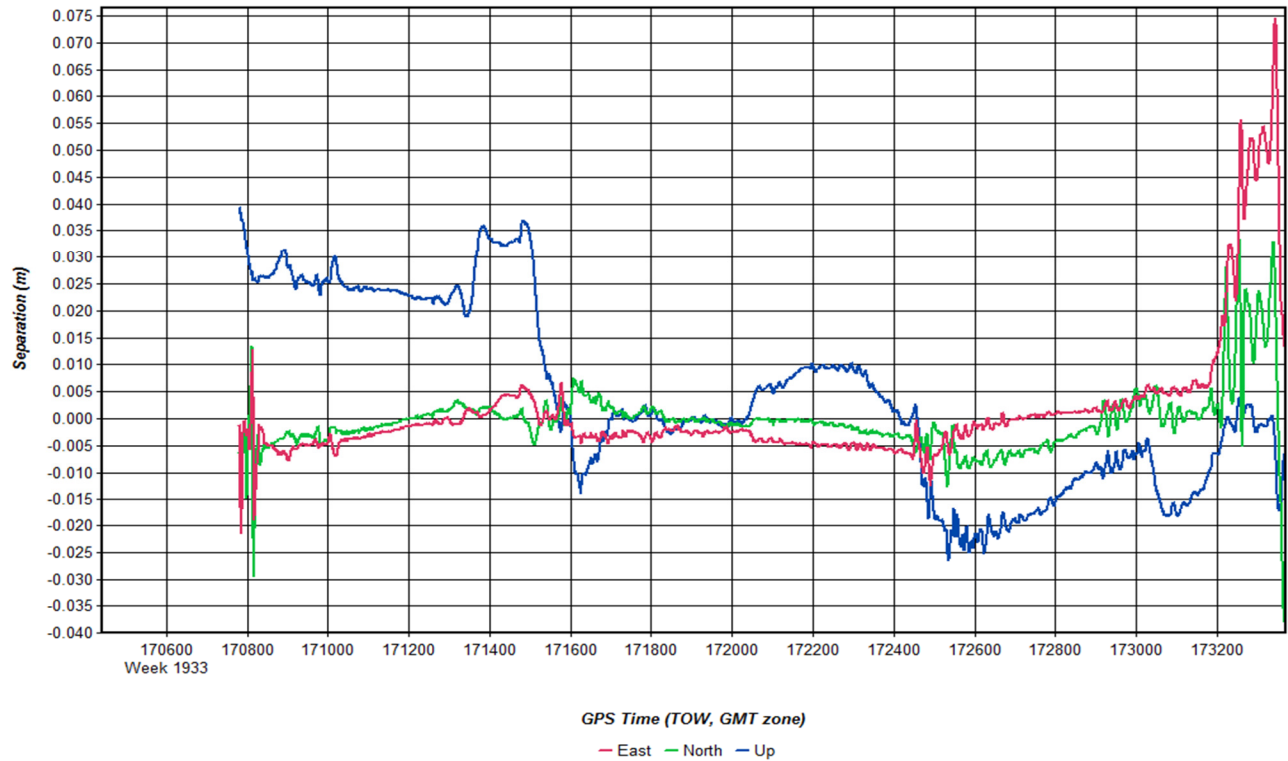
Maximum: 69.349 (km)
Minimum: 0.236 (km)
Average: 34.416 (km)
First Epoch: 0.273 (km)
Last Epoch: 1.040 (km)

Mission 2017-01-23 A

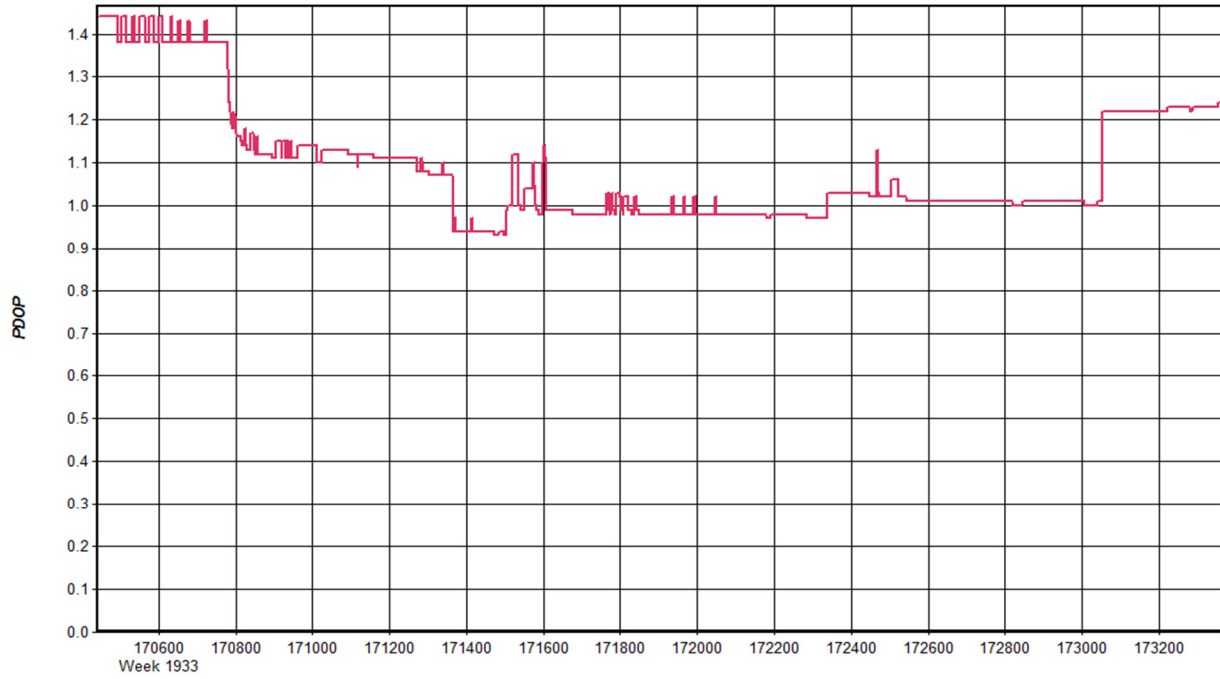
20170123_231718 [Smoothed TC Combined] - Smoothed TC Combined – Map



20170123_231718 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



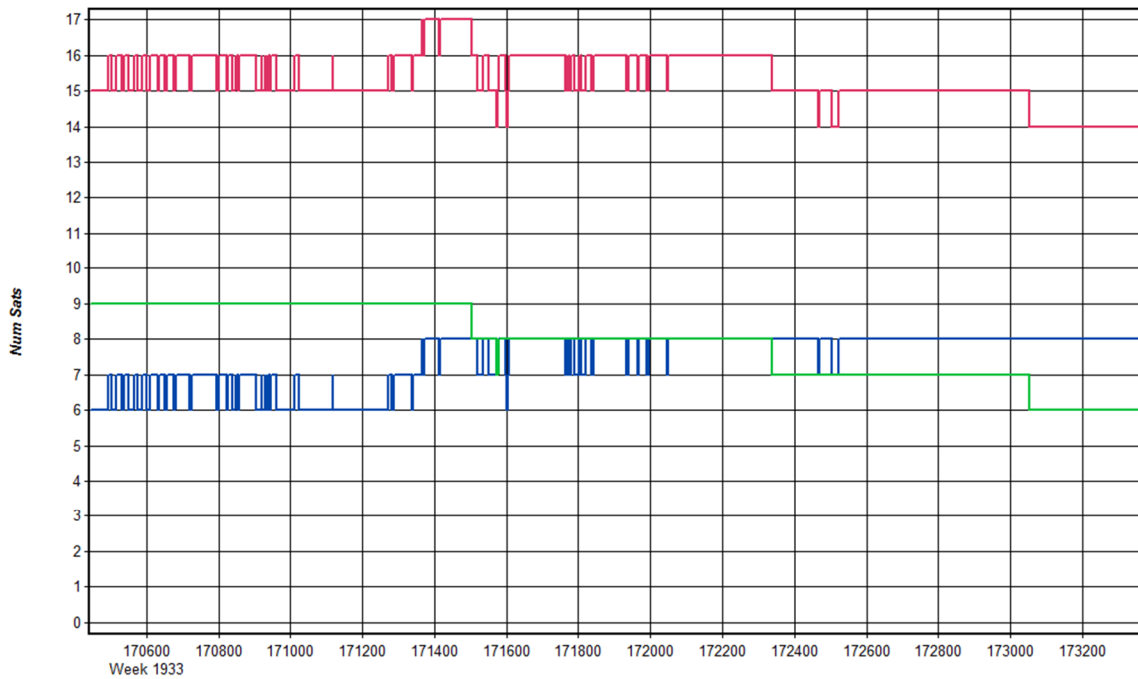
20170123_231718 [Smoothed TC Combined] - PDOP Plot



GPS Time (TOW, GMT zone)

— PDOP

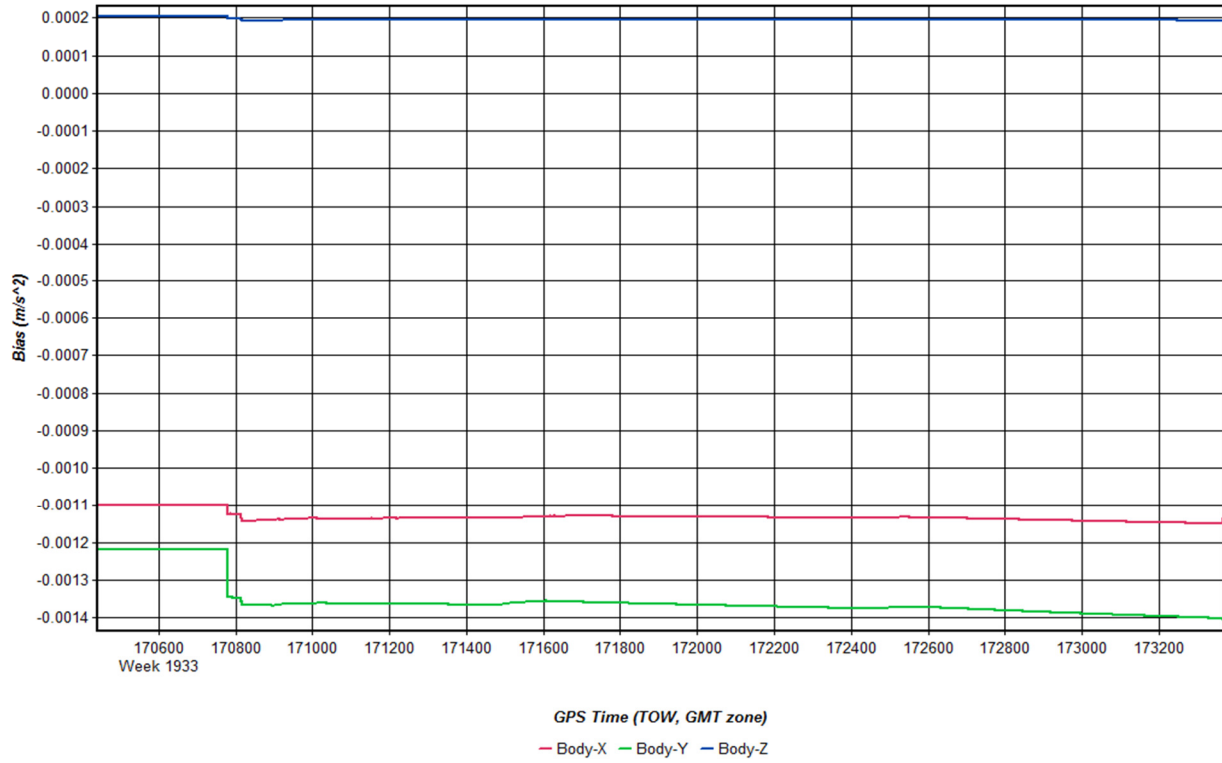
20170123_231718 [Smoothed TC Combined] - Number of Satellites Line Plot



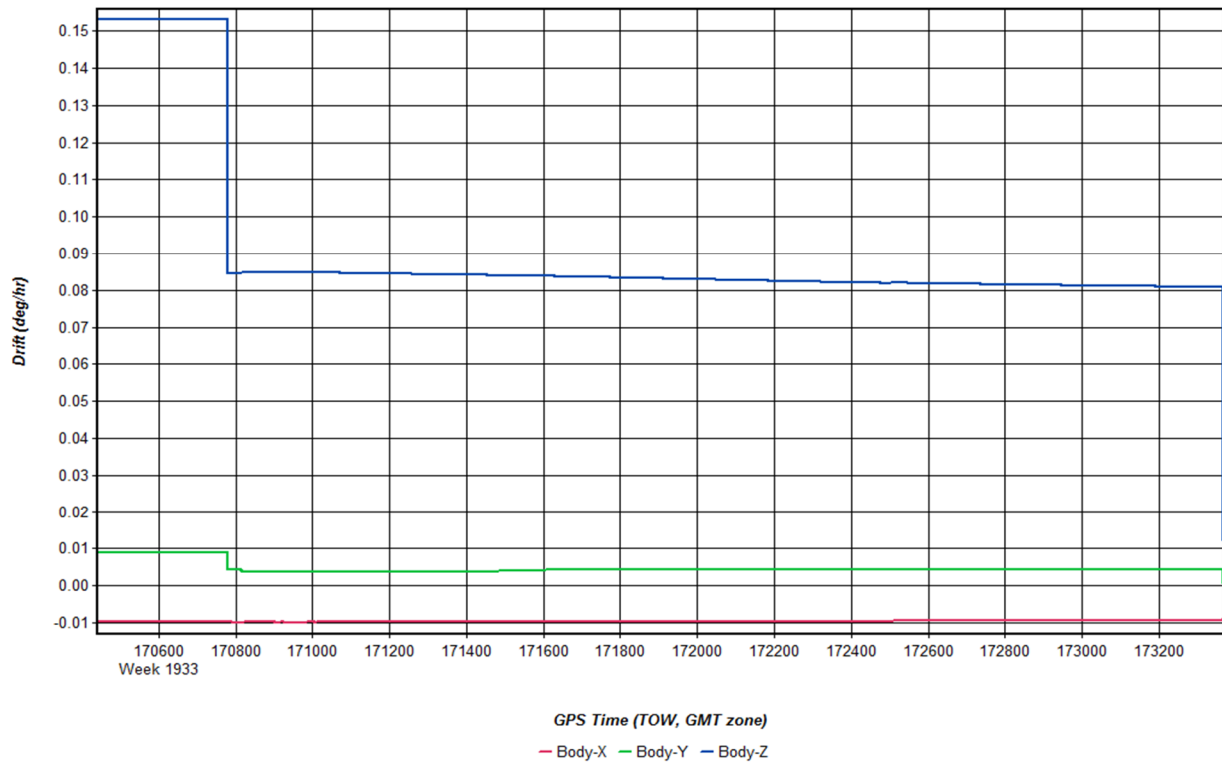
GPS Time (TOW, GMT zone)

— Num Sats — GPS — GLONASS — BeiDou

20170123_231718 [Smoothed TC Combined] - Accelerometer Bias Plot



20170123_231718 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170123_231718\Gnsslmu\20170123_231718.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 5877
No processed position: 6
Missing Fwd or Rev: 700
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 52.8 %
Q 2: 39.6 %
Q 3: 7.6 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0145 (m)
C/A Code: 0.29 (m)
L1 Doppler: 0.031 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.012 (m)
North: 0.006 (m)
Height: 0.017 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (5154 occurrences):

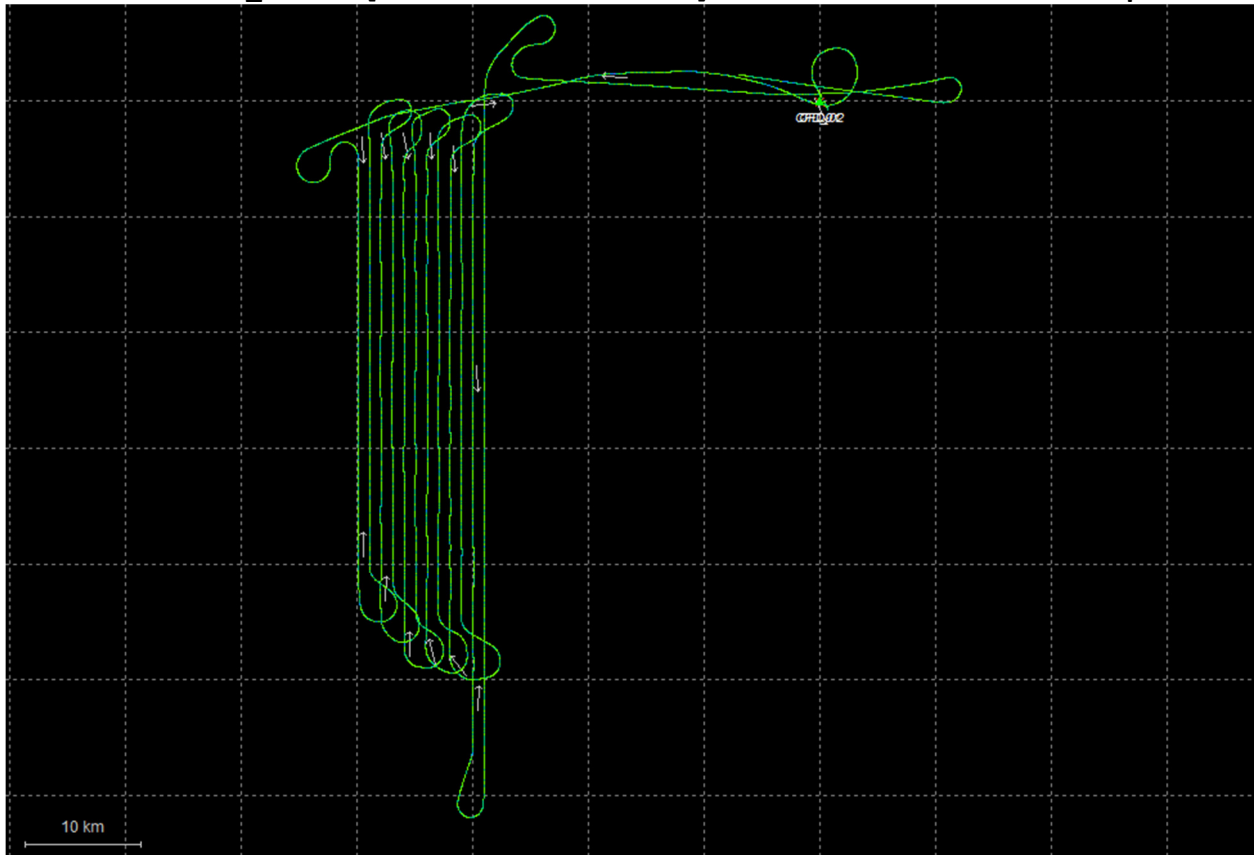
East: 0.012 (m)
North: 0.006 (m)
Height: 0.017 (m)

Baseline Distances:

Maximum: 68.407 (km)
Minimum: 0.236 (km)
Average: 29.186 (km)
First Epoch: 0.270 (km)
Last Epoch: 27.969 (km)

Mission 2017-01-24 A

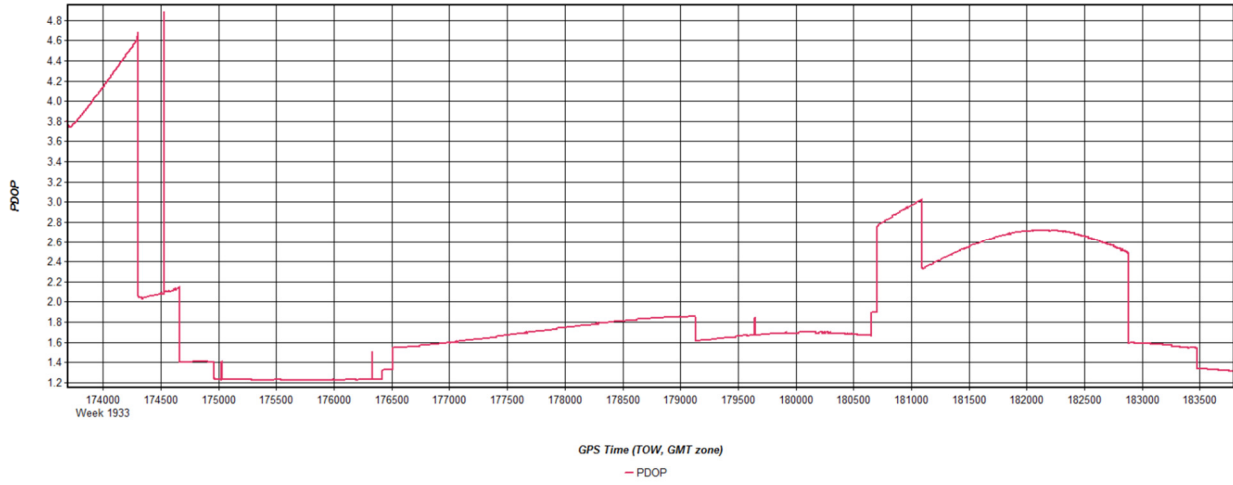
20170124_001251 [Smoothed TC Combined] - Smoothed TC Combined – Map



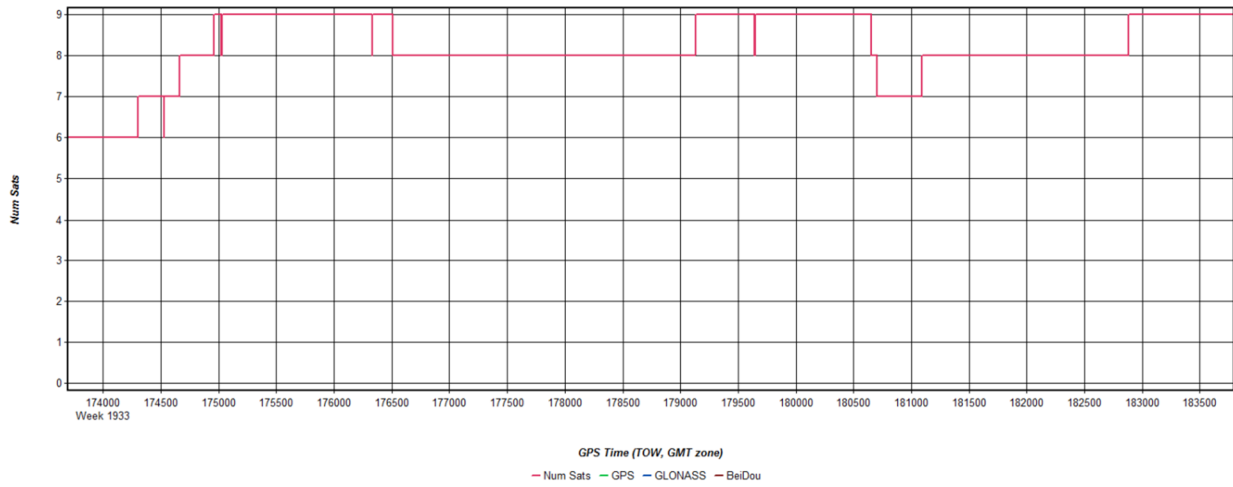
20170124_001251 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



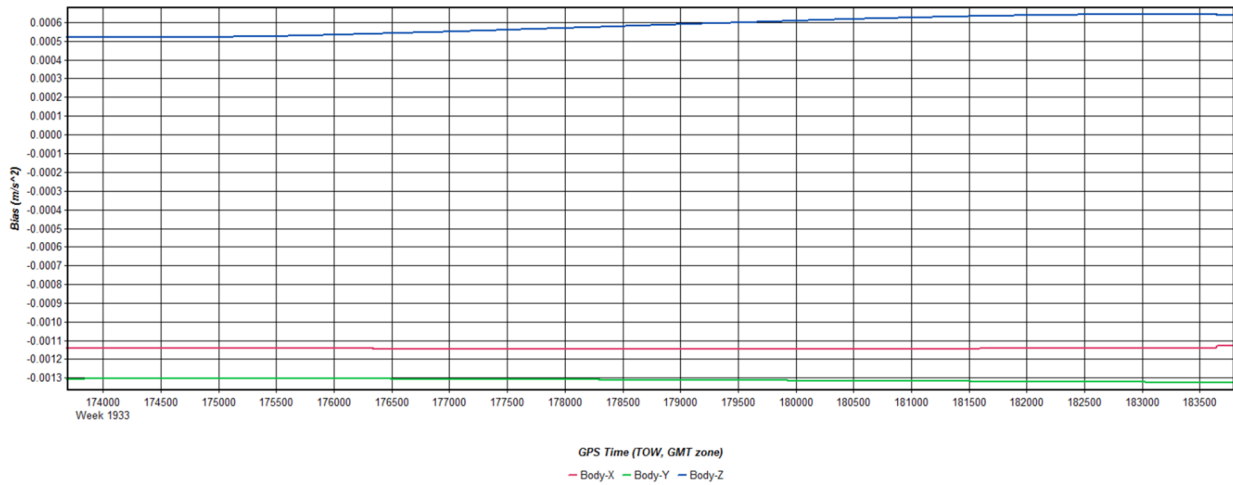
20170124_001251 [Smoothed TC Combined] - PDOP Plot



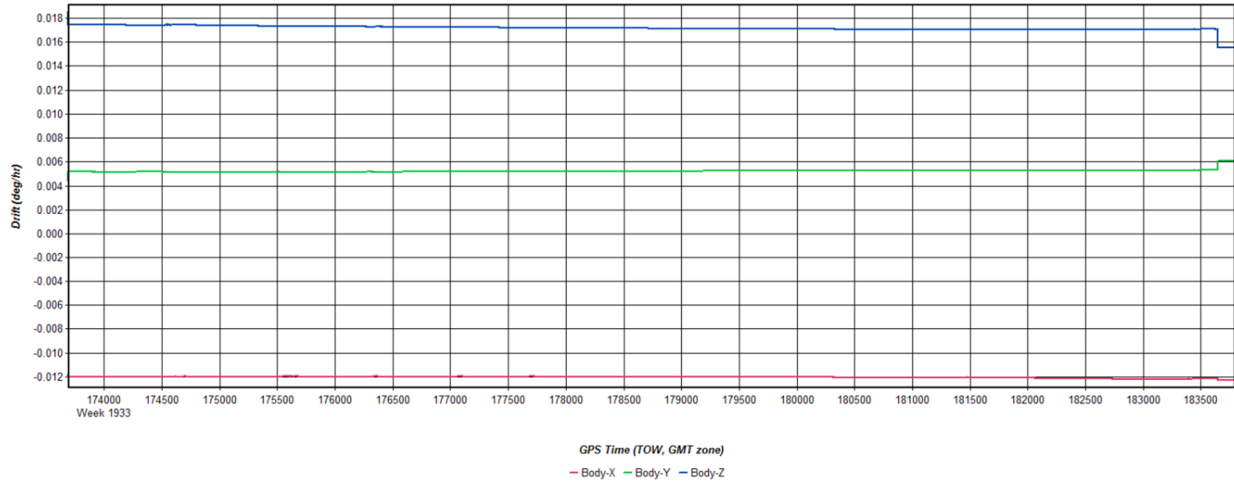
20170124_001251 [Smoothed TC Combined] - Number of Satellites Line Plot



20170124_001251 [Smoothed TC Combined] - Accelerometer Bias Plot



20170124_001251 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170124_001251\GnssImu\20170124_001251.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 20242
No processed position: 7
Missing Fwd or Rev: 316
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 58.7 %
Q 2: 36.9 %
Q 3: 4.4 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0172 (m)
C/A Code: 0.42 (m)
L1 Doppler: 0.032 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.006 (m)
North: 0.009 (m)
Height: 0.029 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 6.2 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (19904 occurrences):

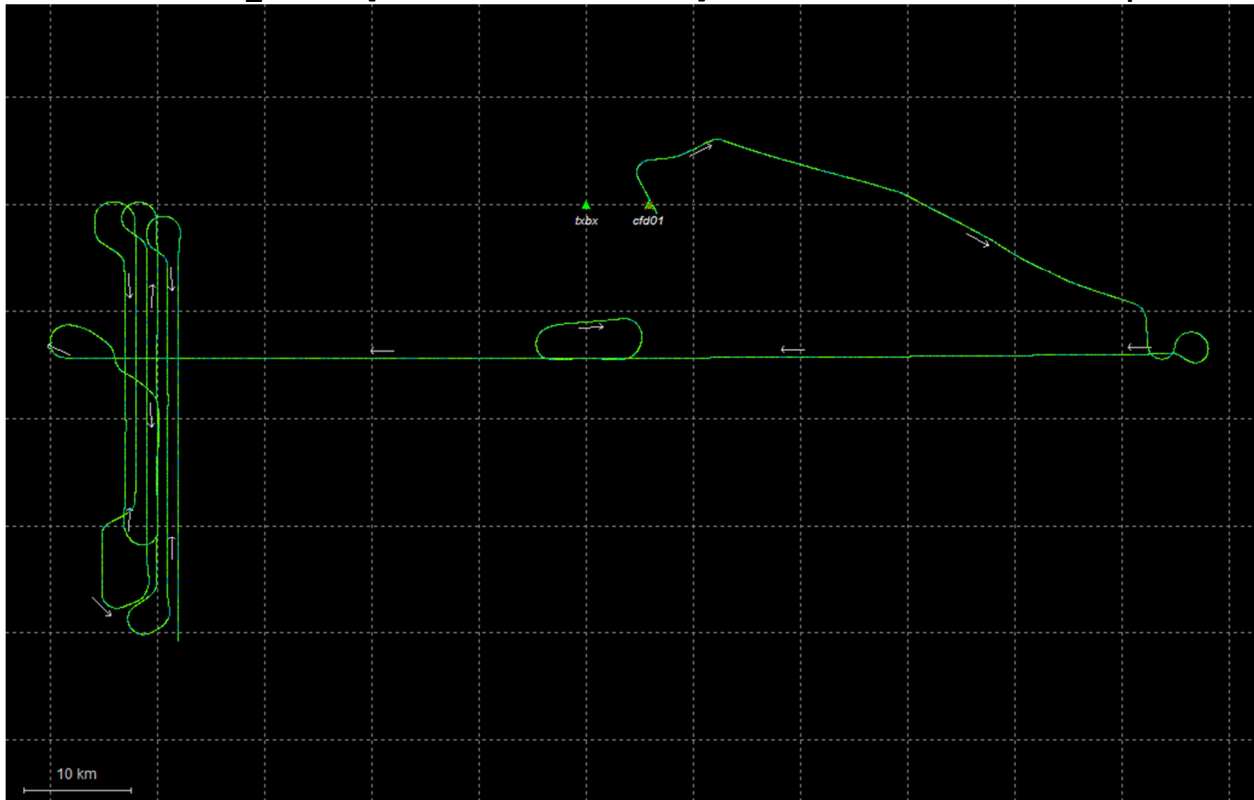
East: 0.005 (m)
North: 0.009 (m)
Height: 0.029 (m)

Baseline Distances:

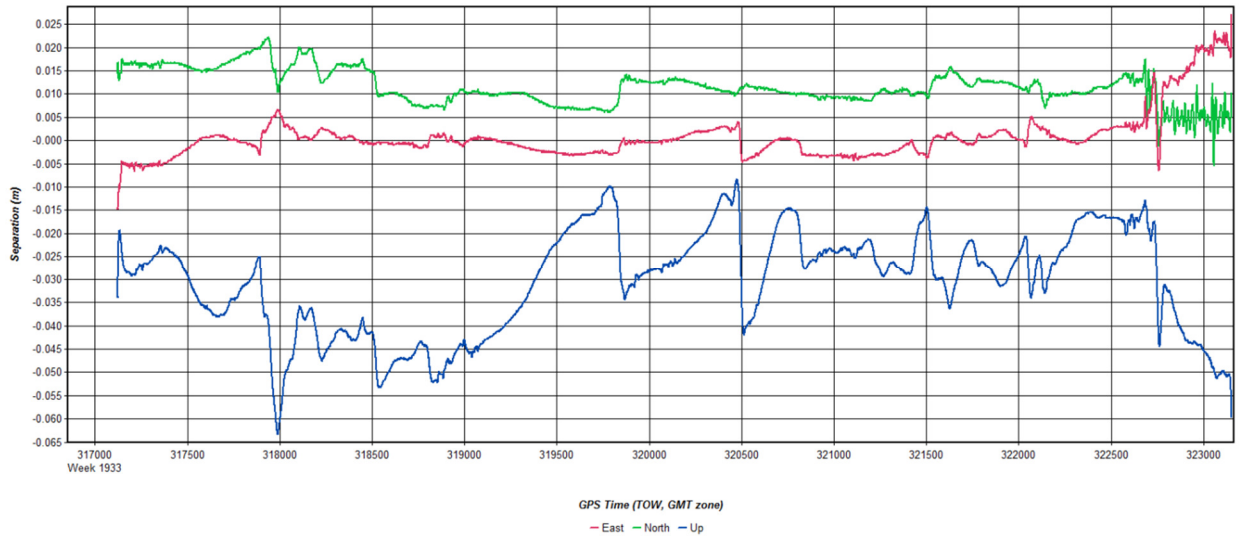
Maximum: 68.714 (km)
Minimum: 0.233 (km)
Average: 38.001 (km)
First Epoch: 7.274 (km)
Last Epoch: 1.044 (km)

Mission 2017-01-24 B

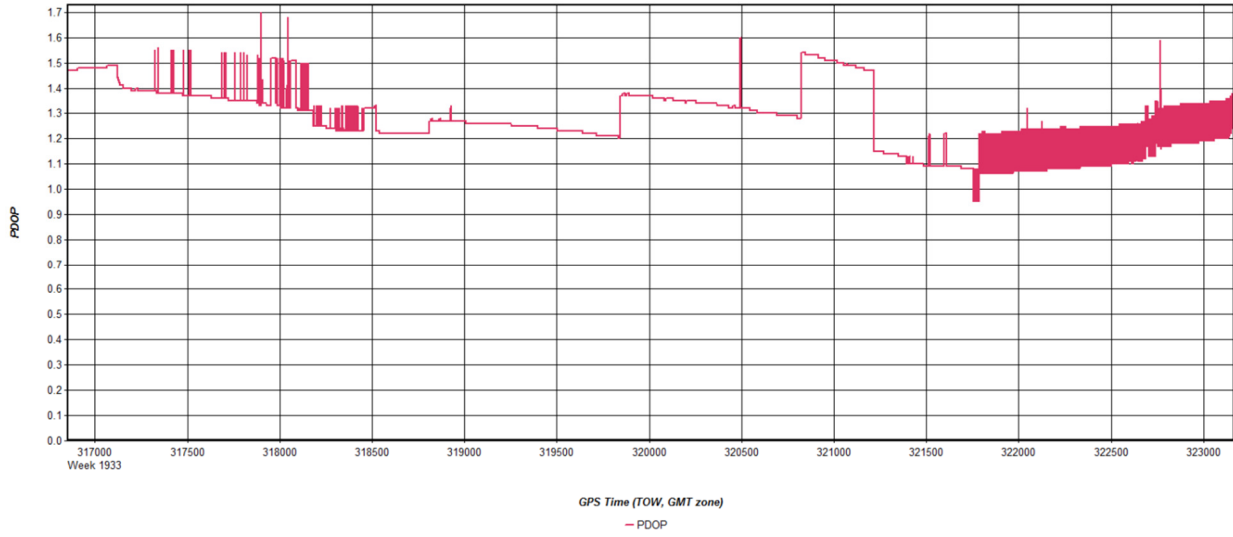
20170125_155538 [Smoothed TC Combined] - Smoothed TC Combined – Map



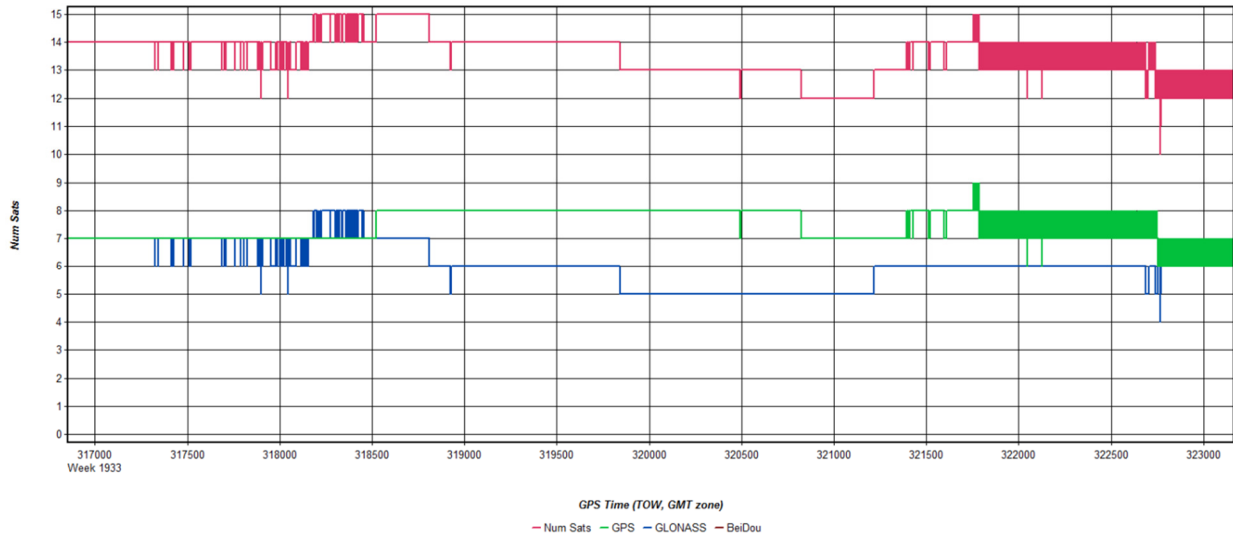
20170125_155538 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



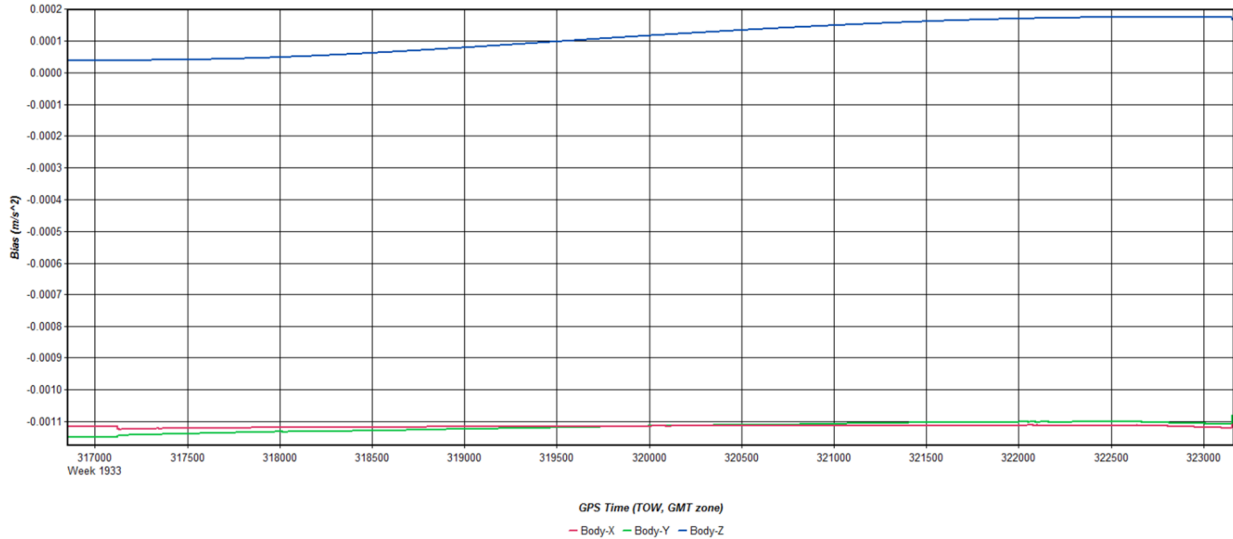
20170125_155538 [Smoothed TC Combined] - PDOP Plot



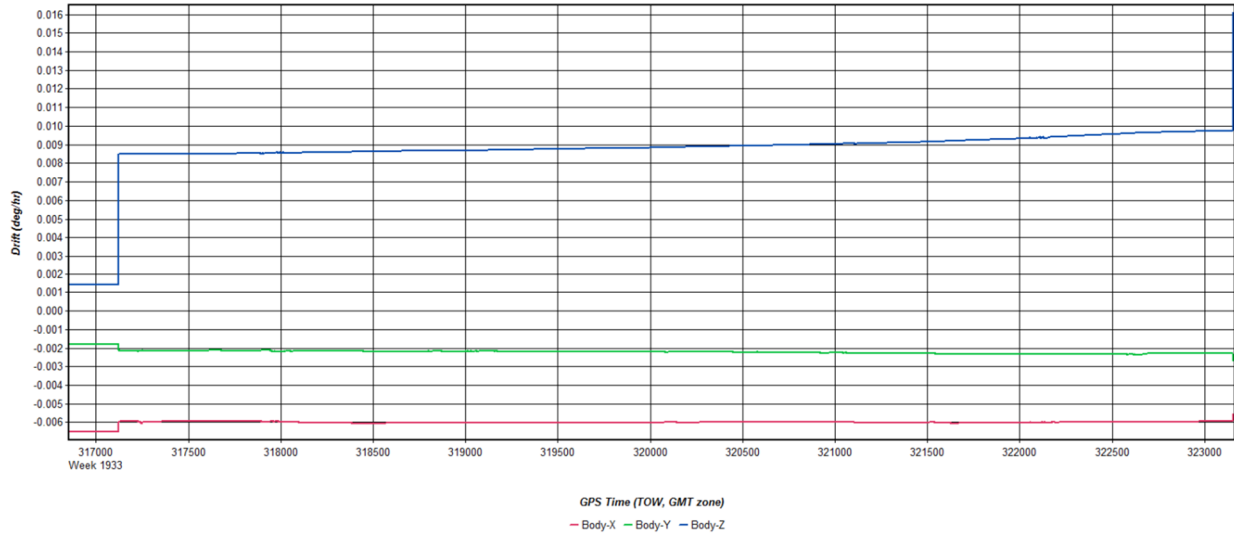
20170125_155538 [Smoothed TC Combined] - Number of Satellites Line Plot



20170125_155538 [Smoothed TC Combined] - Accelerometer Bias Plot



20170125_15538 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170125_155538\GnssImu\20170125_155538.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 12647
No processed position: 6
Missing Fwd or Rev: 580
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 57.5 %
Q 2: 38.1 %
Q 3: 4.3 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0192 (m)
C/A Code: 0.96 (m)
L1 Doppler: 0.048 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.005 (m)
North: 0.012 (m)
Height : 0.032 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (12061 occurrences):

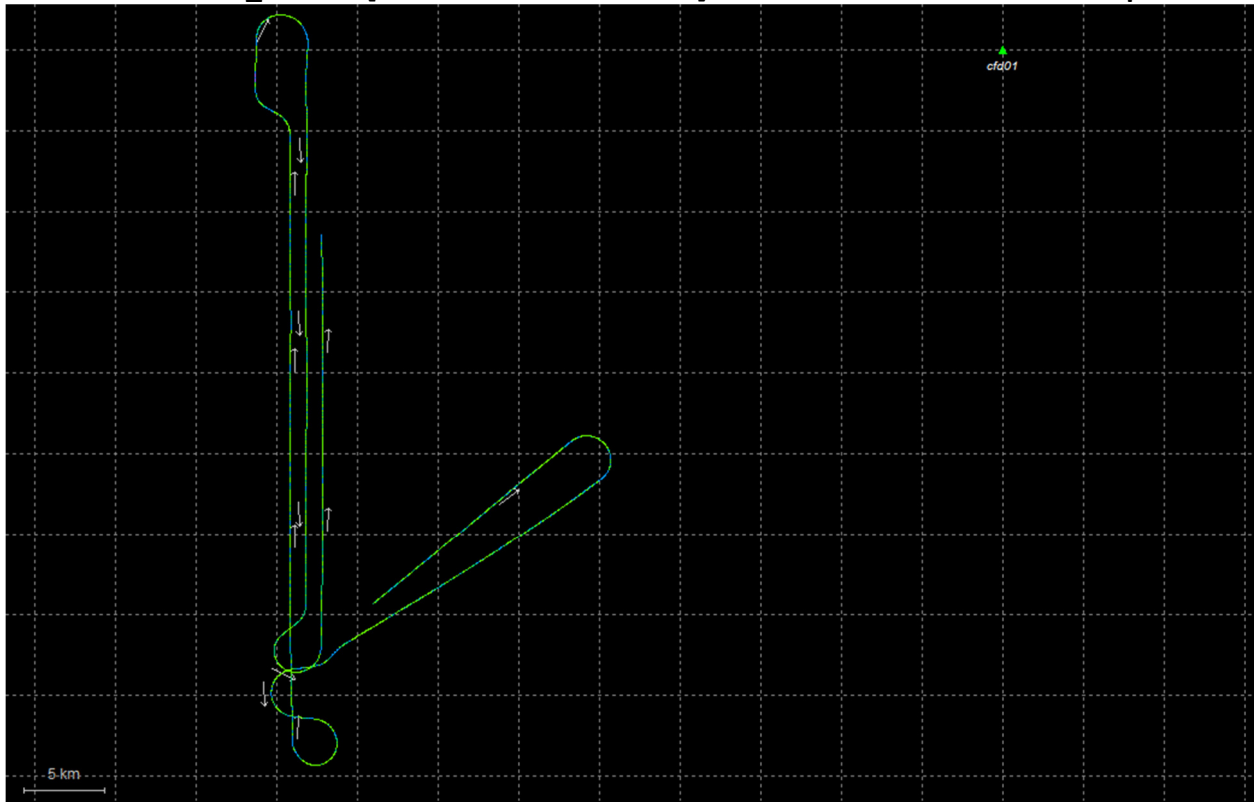
East: 0.005 (m)
North: 0.012 (m)
Height: 0.032 (m)

Baseline Distances:

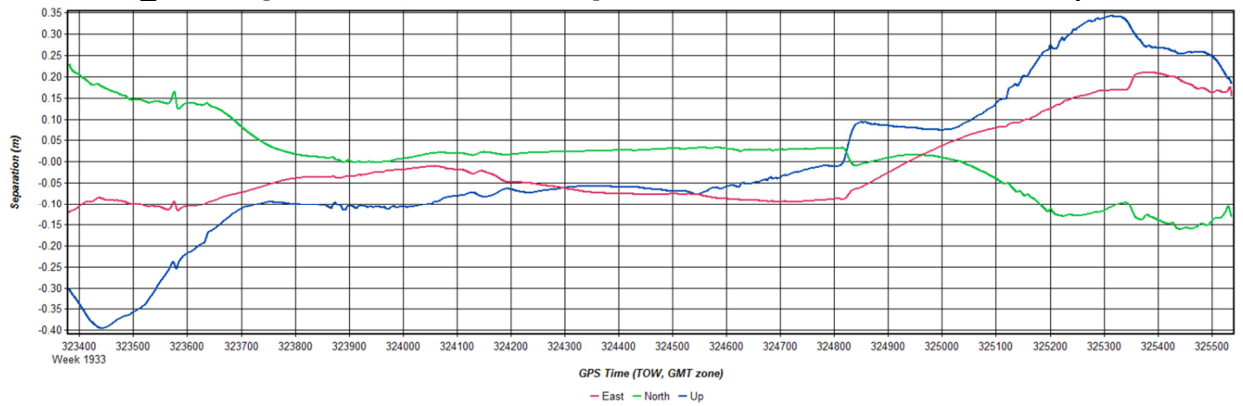
Maximum: 59.319 (km)
Minimum: 5.380 (km)
Average: 37.292 (km)
First Epoch: 6.545 (km)
Last Epoch: 55.483 (km)

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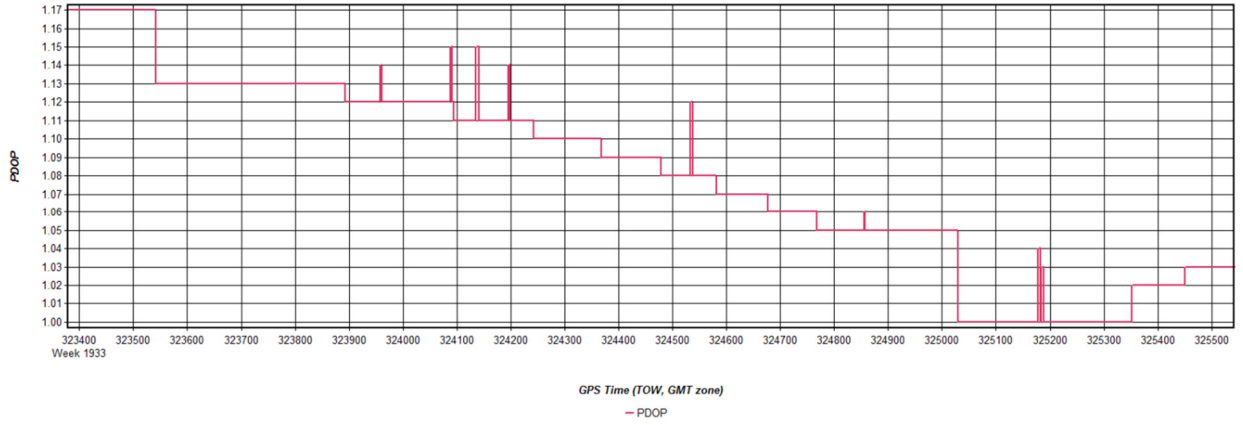
20170125_174748 [Smoothed TC Combined] - Smoothed TC Combined – Map



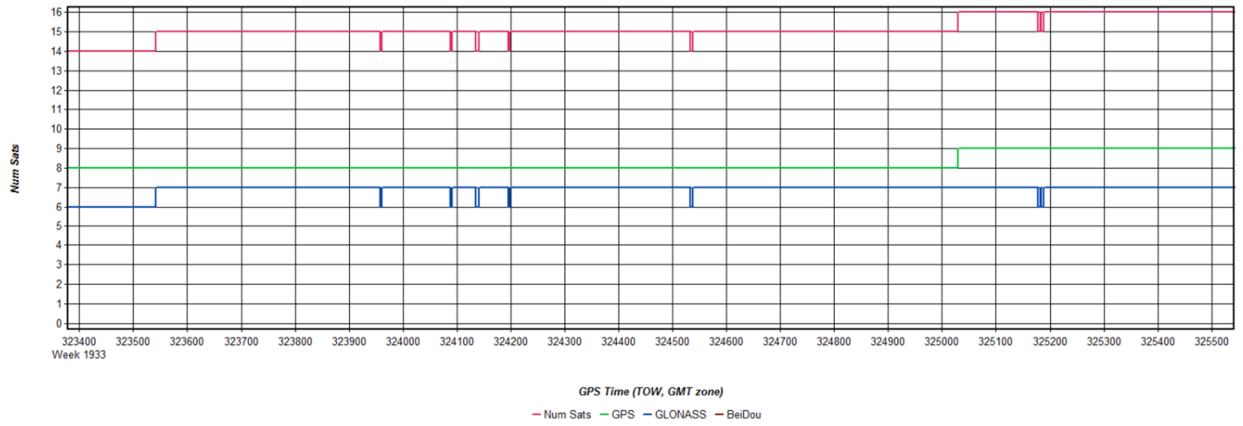
20170125_174748 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



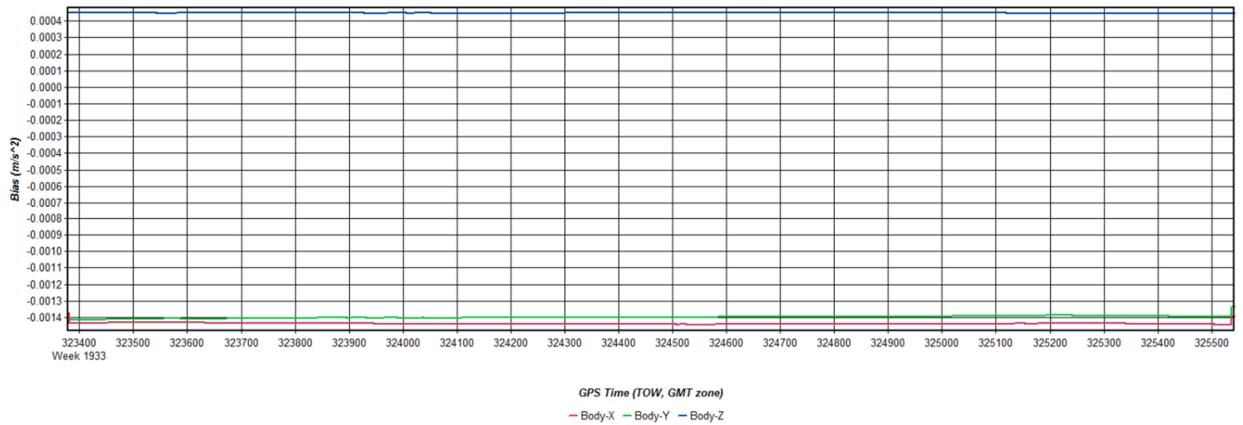
20170125_174748 [Smoothed TC Combined] - PDOP Plot



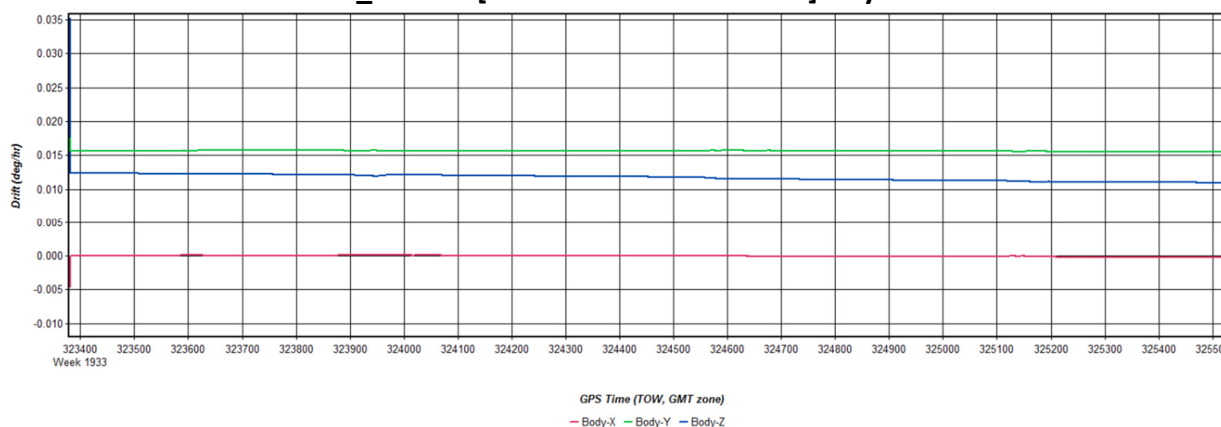
20170125_174748 [Smoothed TC Combined] - Number of Satellites Line Plot



20170125_174748 [Smoothed TC Combined] - Accelerometer Bias Plot



20170125_174748 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170125_174748\GnssImu\20170125_174748.cfg

Solution Type: Combined

Quality Number Percentages:

Number of Epochs:

Total in GPB file: 4340
 No processed position: 7
 Missing Fwd or Rev: 22
 With bad C/A code: 0
 With bad L1 Phase: 0

Q 1: 54.7 %
 Q 2: 38.3 %
 Q 3: 6.9 %
 Q 4: 0.0 %
 Q 5: 0.0 %
 Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0222 (m)
 C/A Code: 1.02 (m)
 L1 Doppler: 0.025 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
 0.10 - 0.30 m: 0.0 %
 0.30 - 1.00 m: 0.0 %
 1.00 - 5.00 m: 0.0 %
 5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.023 (m)
 North: 0.200 (m)
 Height: 0.180 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (3895 occurrences):

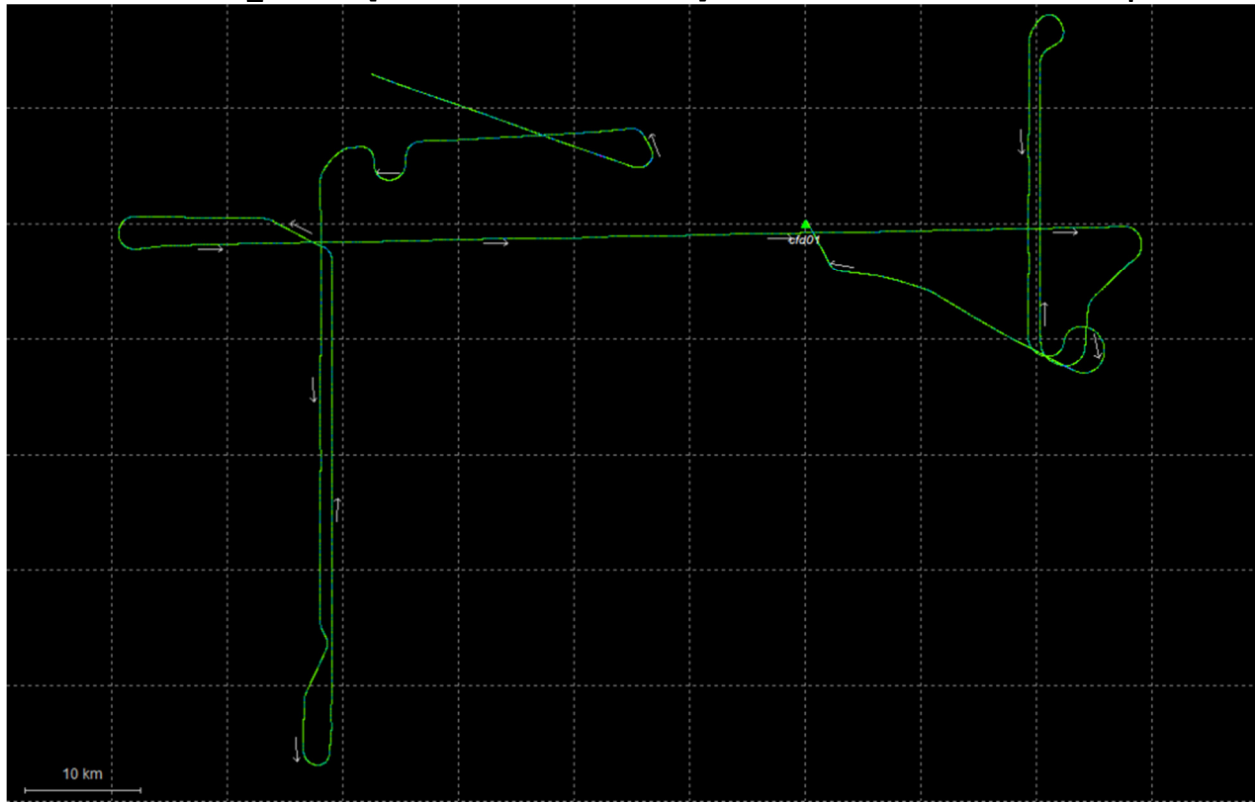
East: 0.007 (m)
 North: 0.015 (m)
 Height: 0.016 (m)

Baseline Distances:

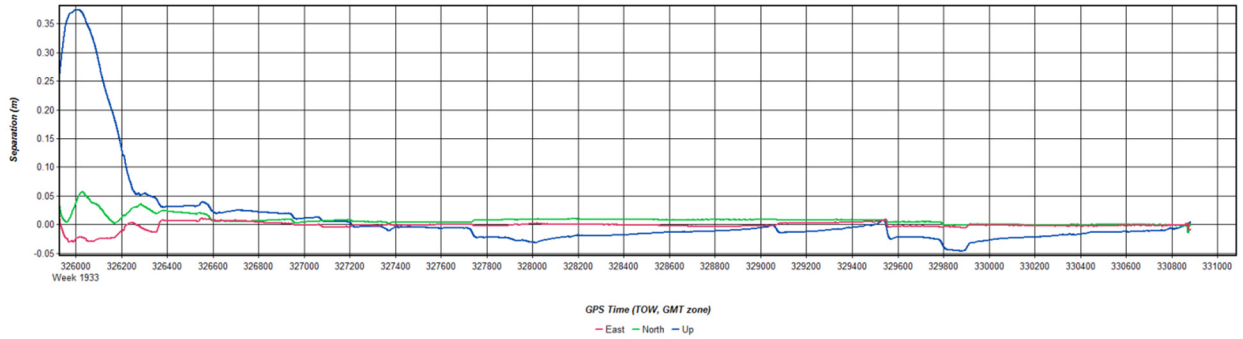
Maximum: 57.228 (km)
 Minimum: 30.413 (km)
 Average: 43.750 (km)
 First Epoch: 47.244 (km)
 Last Epoch: 37.700 (km)

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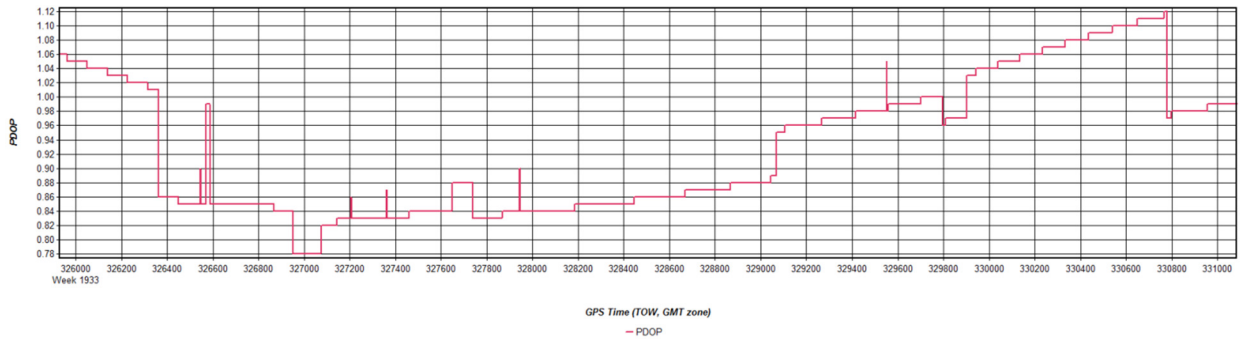
20170125_183013 [Smoothed TC Combined] - Smoothed TC Combined – Map



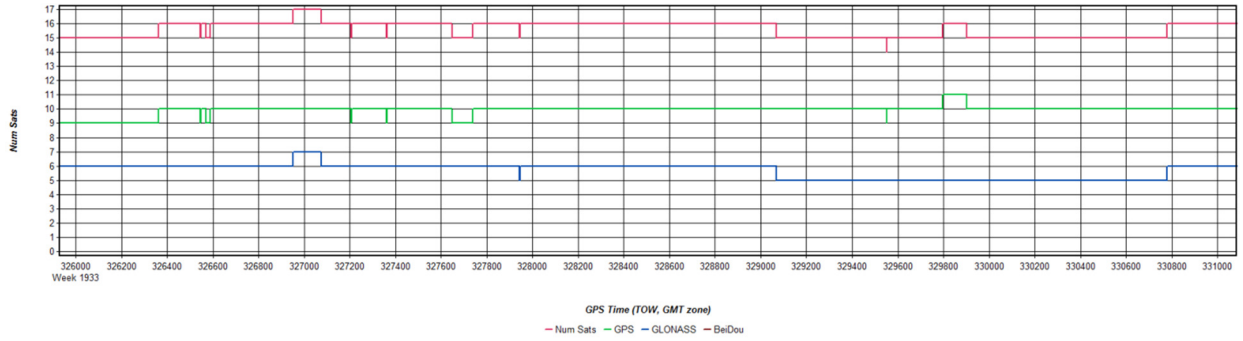
20170125_183013 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



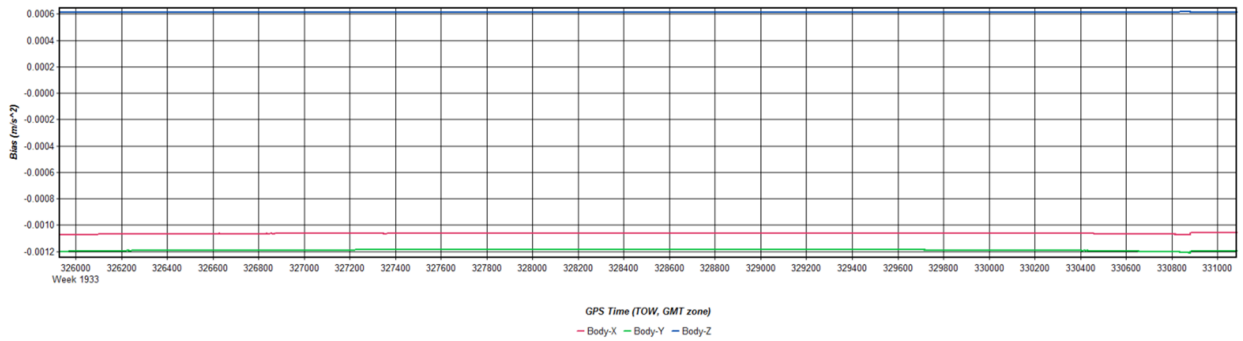
20170125_183013 [Smoothed TC Combined] - PDOP Plot



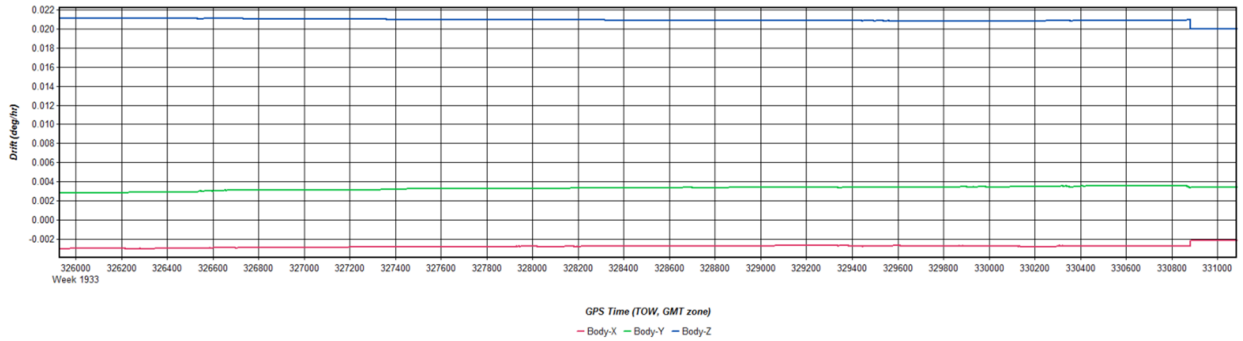
20170125_183013 [Smoothed TC Combined] - Number of Satellites Line Plot



20170125_183013 [Smoothed TC Combined] - Accelerometer Bias Plot



20170125_183013 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170125_183013\GnssImu\20170125_183013.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 10332
No processed position: 7
Missing Fwd or Rev: 418
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 57.8 %
Q 2: 35.3 %
Q 3: 6.8 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0180 (m)
C/A Code: 0.33 (m)
L1 Doppler: 0.030 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.006 (m)
North: 0.011 (m)
Height: 0.074 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (9038 occurrences):

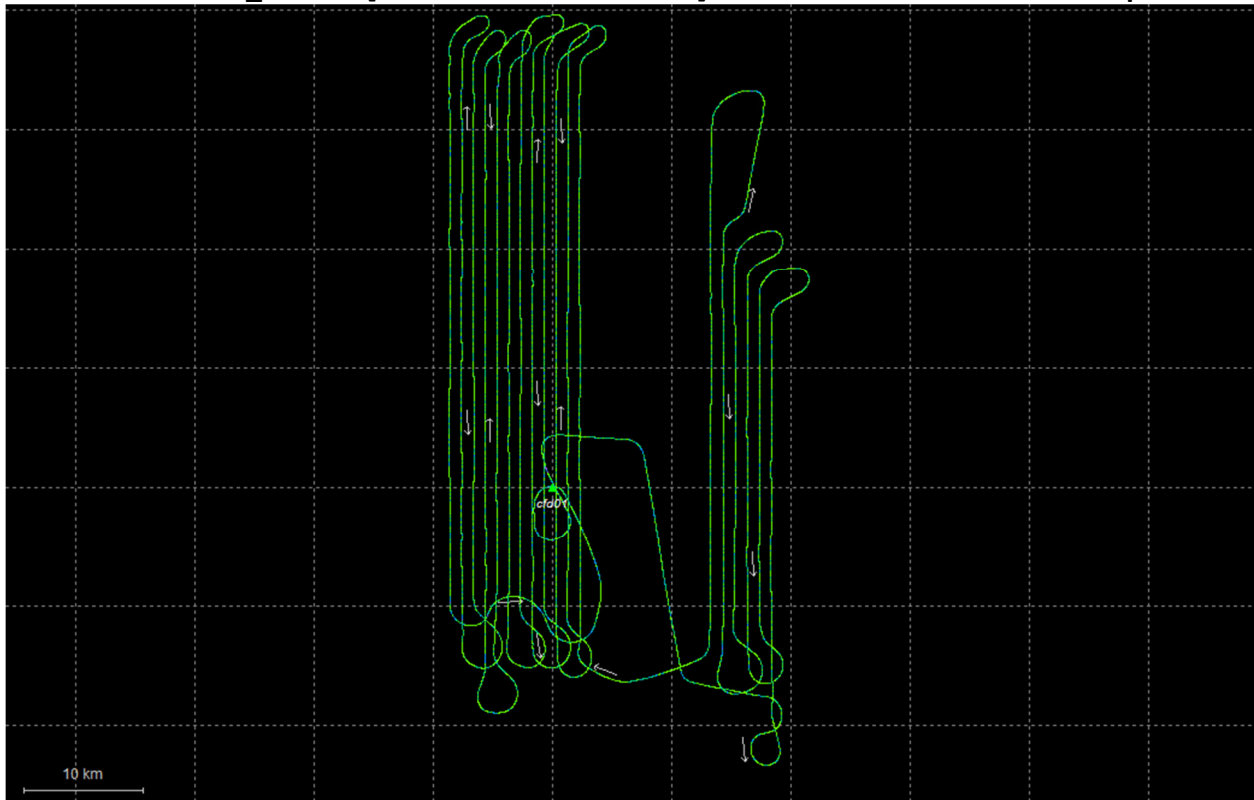
East: 0.003 (m)
North: 0.008 (m)
Height: 0.019 (m)

Baseline Distances:

Maximum: 63.077 (km)
Minimum: 0.235 (km)
Average: 29.848 (km)
First Epoch: 39.445 (km)
Last Epoch: 0.272 (km)

Mission 2017-01-25 D

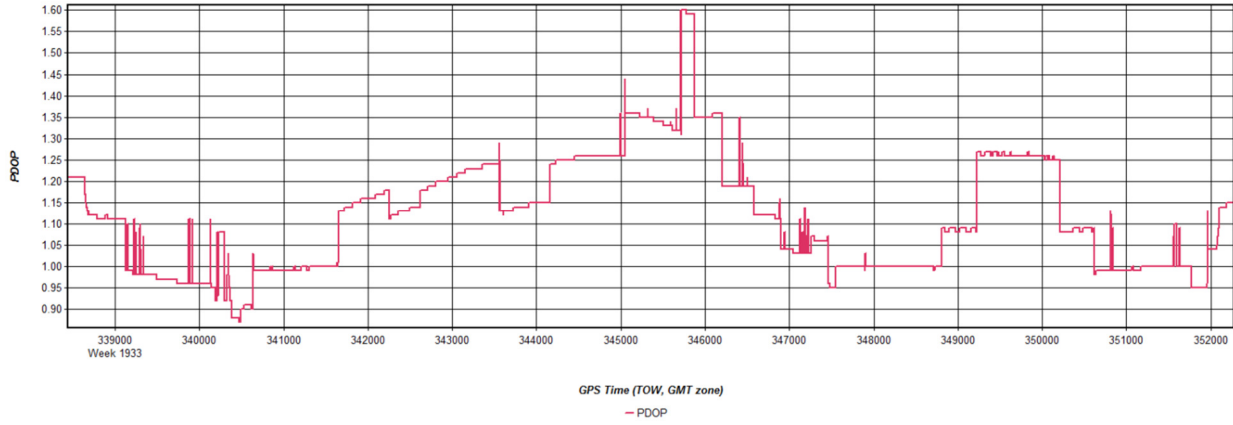
20170125_215443 [Smoothed TC Combined] - Smoothed TC Combined – Map



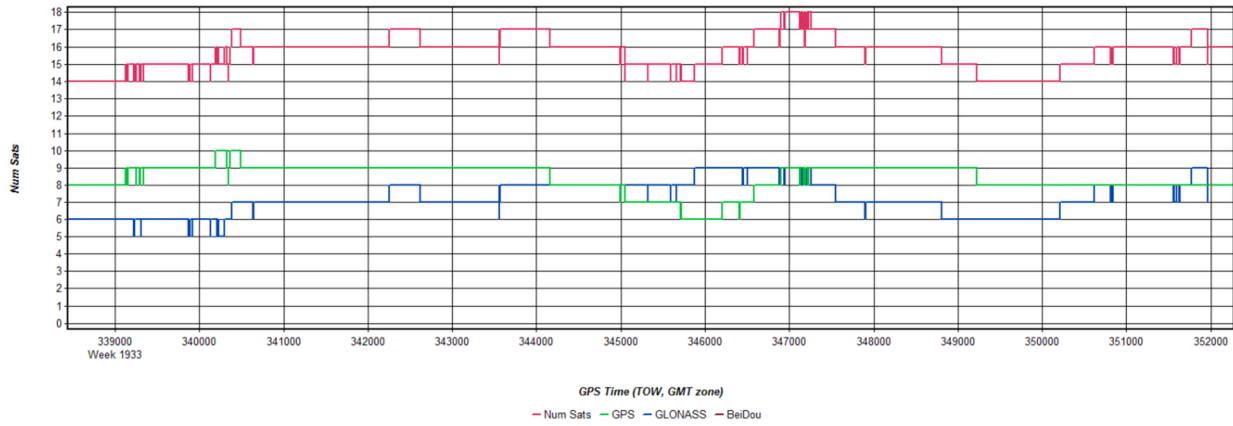
20170125_215443 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



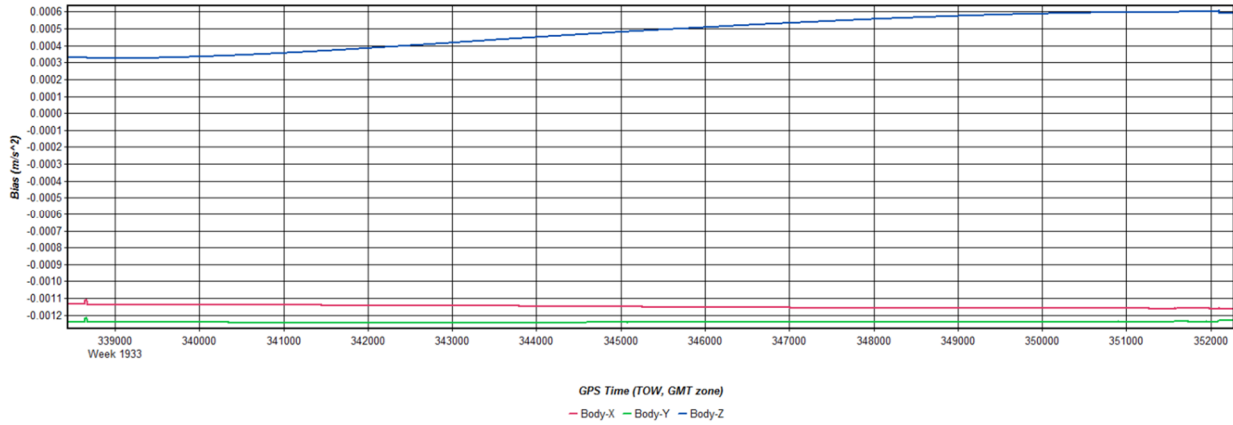
20170125_215443 [Smoothed TC Combined] - PDOP Plot



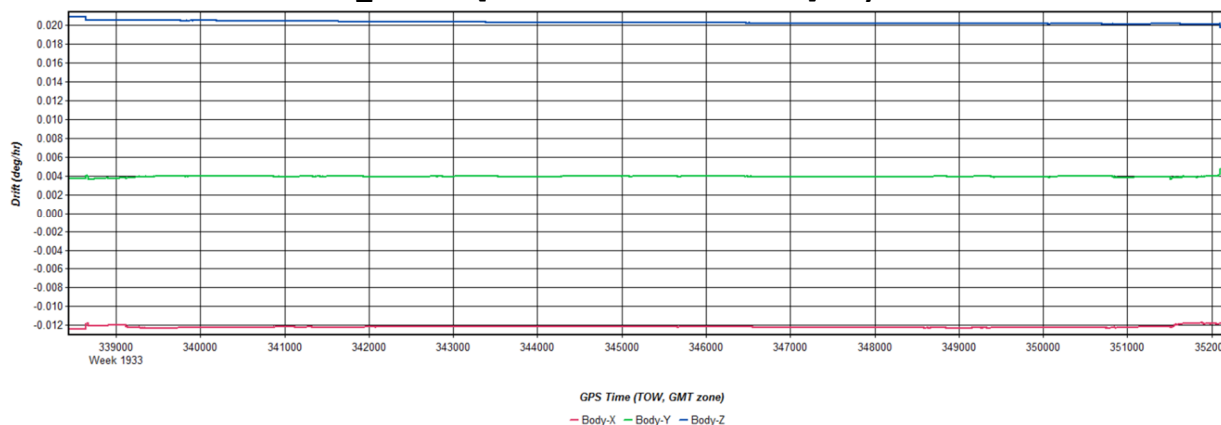
20170125_215443 [Smoothed TC Combined] - Number of Satellites Line Plot



20170125_215443 [Smoothed TC Combined] - Accelerometer Bias Plot



20170125_215443 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170125_215443\GnssImu\20170125_215443.cfg

Solution Type: Combined

Quality Number Percentages:

Number of Epochs:

Total in GPB file: 27719
 No processed position: 8
 Missing Fwd or Rev: 798
 With bad C/A code: 0
 With bad L1 Phase: 0

Q 1: 57.7 %
 Q 2: 37.1 %
 Q 3: 5.0 %
 Q 4: 0.1 %
 Q 5: 0.0 %
 Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0199 (m)
 C/A Code: 0.31 (m)
 L1 Doppler: 0.031 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
 0.10 - 0.30 m: 0.0 %
 0.30 - 1.00 m: 0.0 %
 1.00 - 5.00 m: 0.0 %
 5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.012 (m)
 North: 0.012 (m)
 Height: 0.032 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (26913 occurrences):

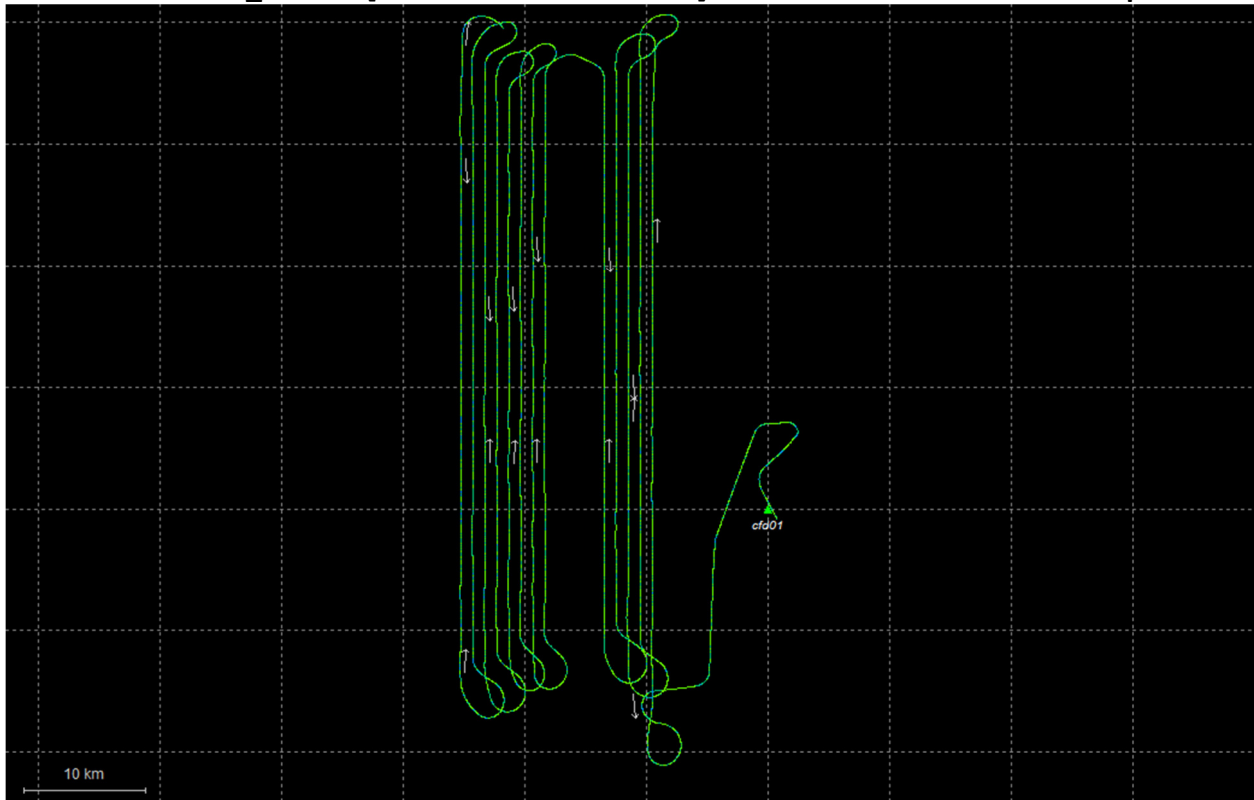
East: 0.012 (m)
 North: 0.012 (m)
 Height: 0.032 (m)

Baseline Distances:

Maximum: 39.533 (km)
 Minimum: 0.156 (km)
 Average: 17.205 (km)
 First Epoch: 1.052 (km)
 Last Epoch: 0.271 (km)

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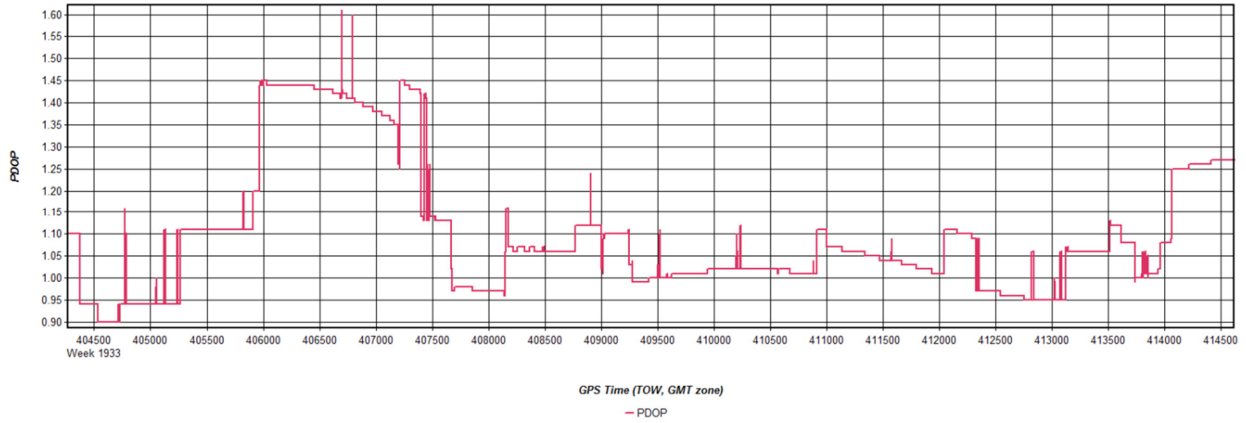
20170126_161233 [Smoothed TC Combined] - Smoothed TC Combined – Map



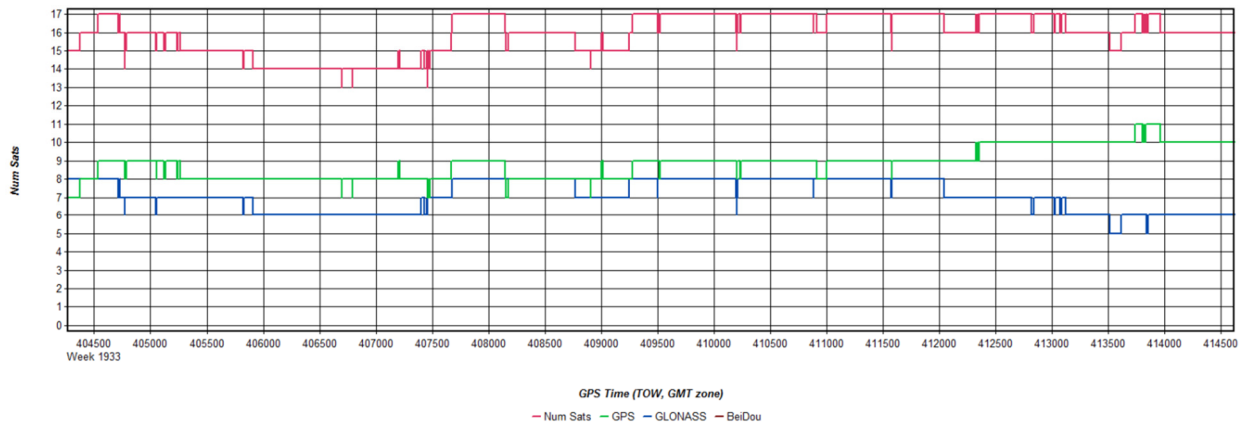
20170126_161233 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



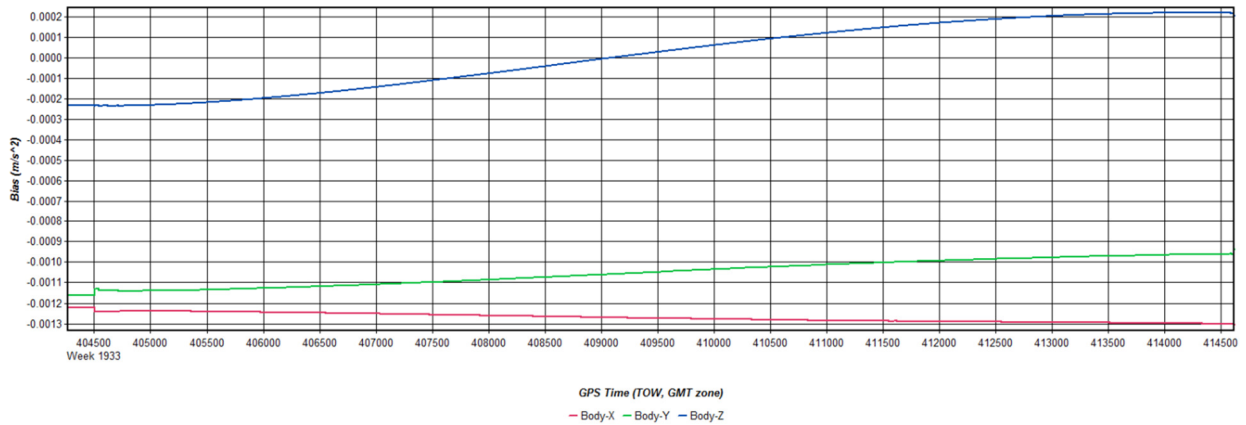
20170126_161233 [Smoothed TC Combined] - PDOP Plot



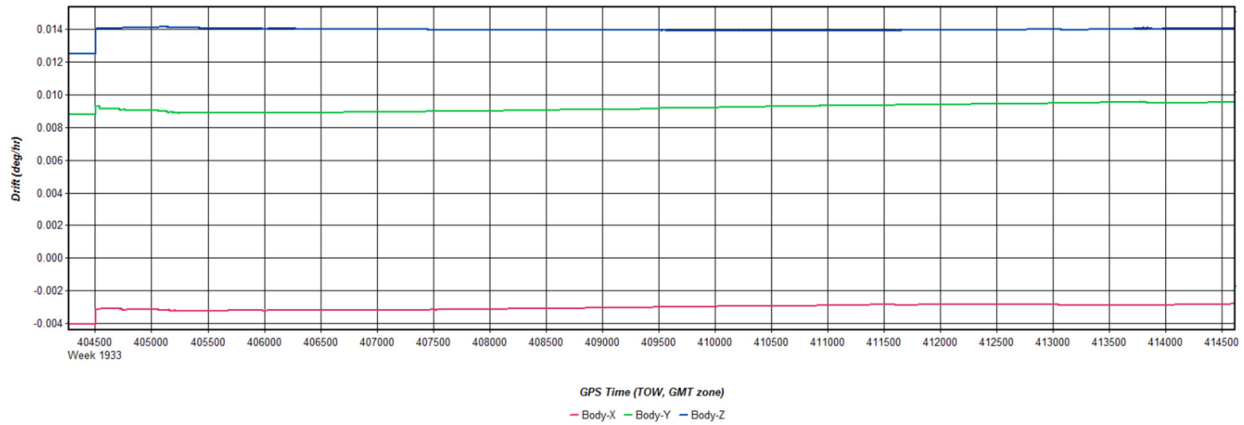
20170126_161233 [Smoothed TC Combined] - Number of Satellites Line Plot



20170126_161233 [Smoothed TC Combined] - Accelerometer Bias Plot



20170126_161233 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170126_161233\GnssImu\20170126_161233.cfg

Solution Type: Combined

Quality Number Percentages:

Number of Epochs:

Total in GPB file: 20744
 No processed position: 11
 Missing Fwd or Rev: 510
 With bad C/A code: 0
 With bad L1 Phase: 0

Q 1: 56.9 %
 Q 2: 38.8 %
 Q 3: 4.3 %
 Q 4: 0.0 %
 Q 5: 0.0 %
 Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0153 (m)
 C/A Code: 0.32 (m)
 L1 Doppler: 0.032 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
 0.10 - 0.30 m: 0.0 %
 0.30 - 1.00 m: 0.0 %
 1.00 - 5.00 m: 0.0 %
 5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.019 (m)
 North: 0.035 (m)
 Height: 0.043 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (19130 occurrences):

East: 0.008 (m)
 North: 0.007 (m)
 Height: 0.023 (m)

Baseline Distances:

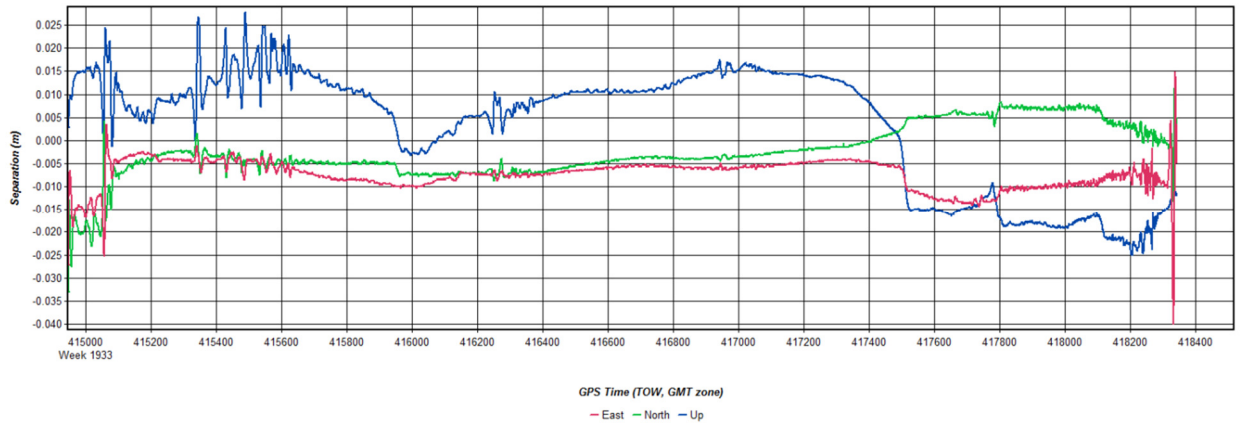
Maximum: 46.591 (km)
 Minimum: 0.235 (km)
 Average: 24.068 (km)
 First Epoch: 1.052 (km)
 Last Epoch: 44.593 (km)

Mission 2017-01-26 B

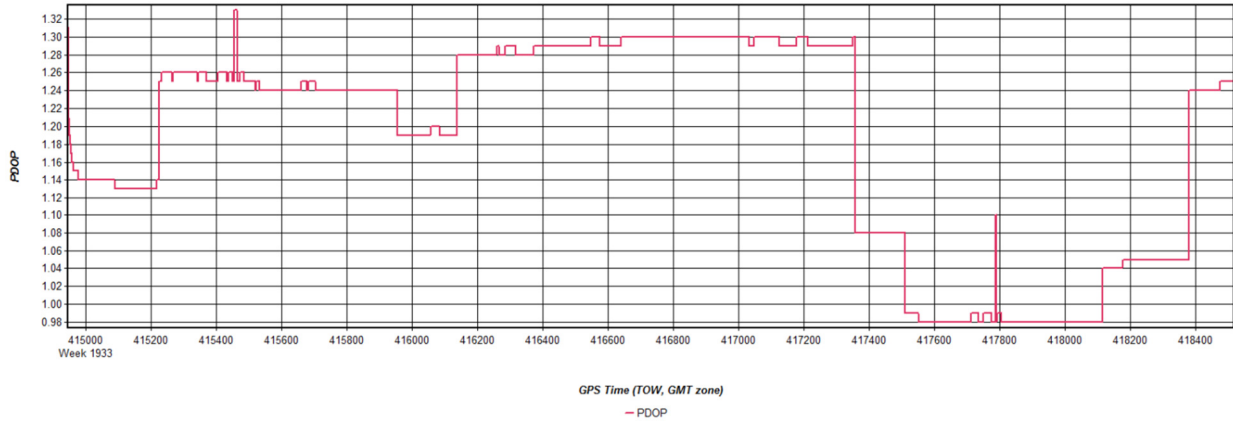
20170126_191353 [Smoothed TC Combined] - Smoothed TC Combined – Map



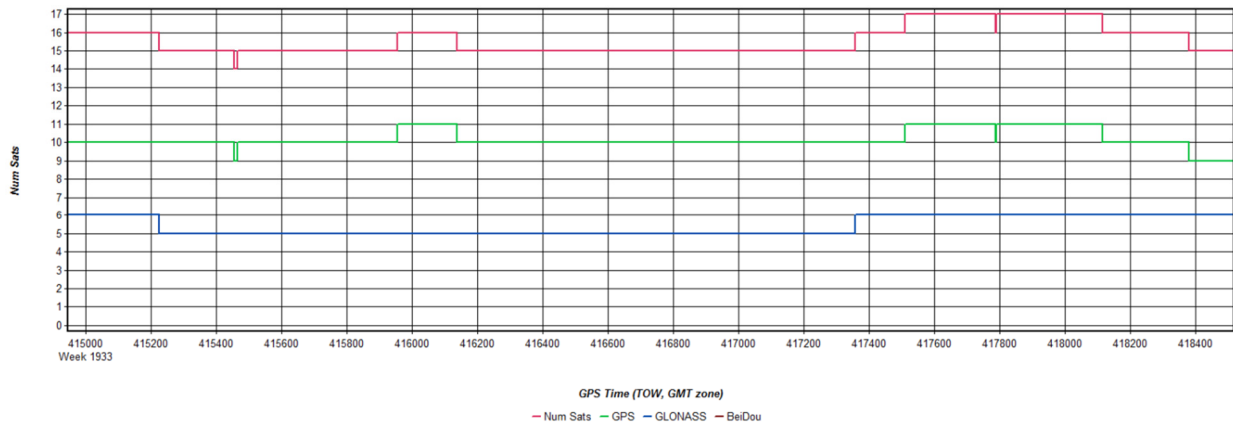
20170126_191353 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



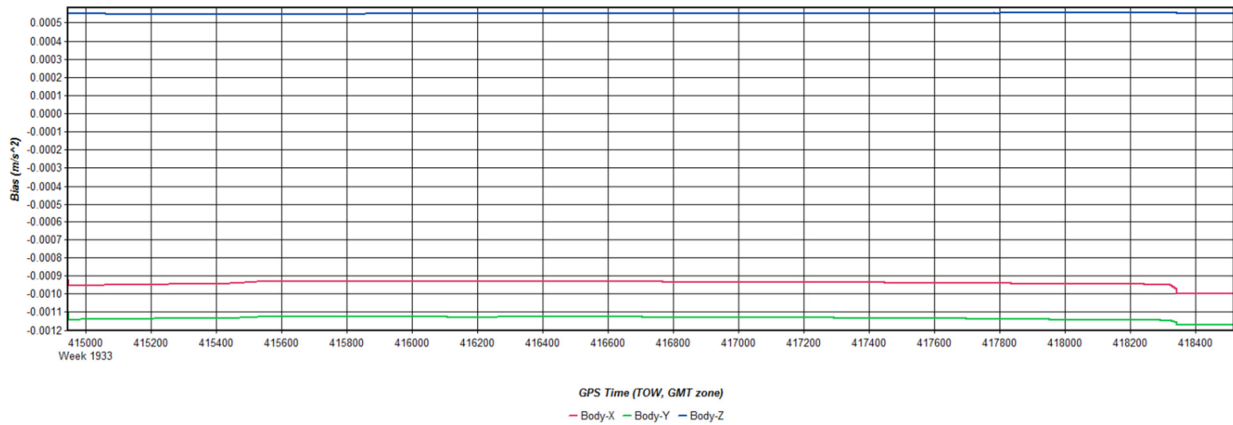
20170126_191353 [Smoothed TC Combined] - PDOP Plot



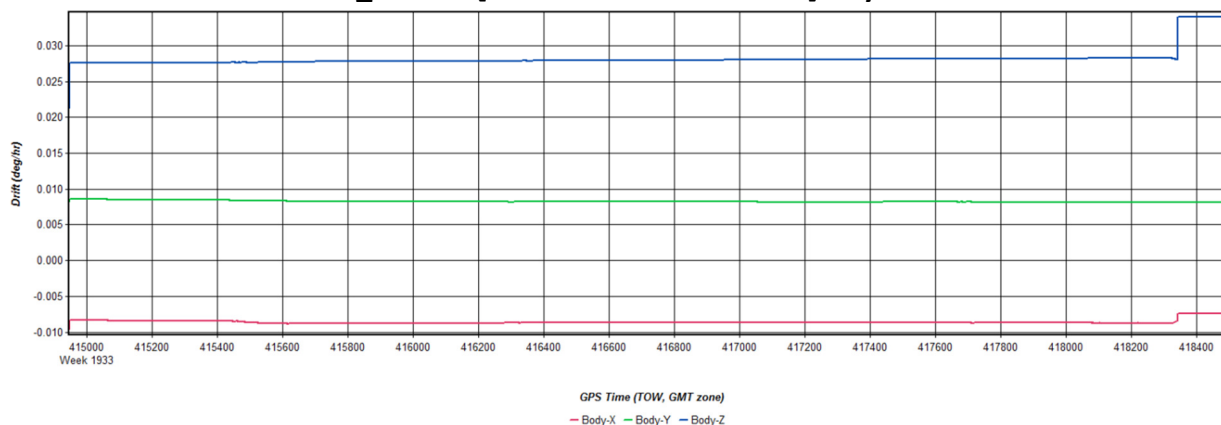
20170126_191353 [Smoothed TC Combined] - Number of Satellites Line Plot



20170126_191353 [Smoothed TC Combined] - Accelerometer Bias Plot



20170126_191353 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170126_191353\GnssImu\20170126_191353.cfg

Solution Type: Combined

Quality Number Percentages:

Number of Epochs:

Total in GPB file: 7159
 No processed position: 6
 Missing Fwd or Rev: 362
 With bad C/A code: 0
 With bad L1 Phase: 0

Q 1: 56.0 %
 Q 2: 37.2 %
 Q 3: 6.8 %
 Q 4: 0.0 %
 Q 5: 0.0 %
 Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0168 (m)
 C/A Code: 0.31 (m)
 L1 Doppler: 0.030 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
 0.10 - 0.30 m: 0.0 %
 0.30 - 1.00 m: 0.0 %
 1.00 - 5.00 m: 0.0 %
 5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.008 (m)
 North: 0.006 (m)
 Height: 0.013 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (6791 occurrences):

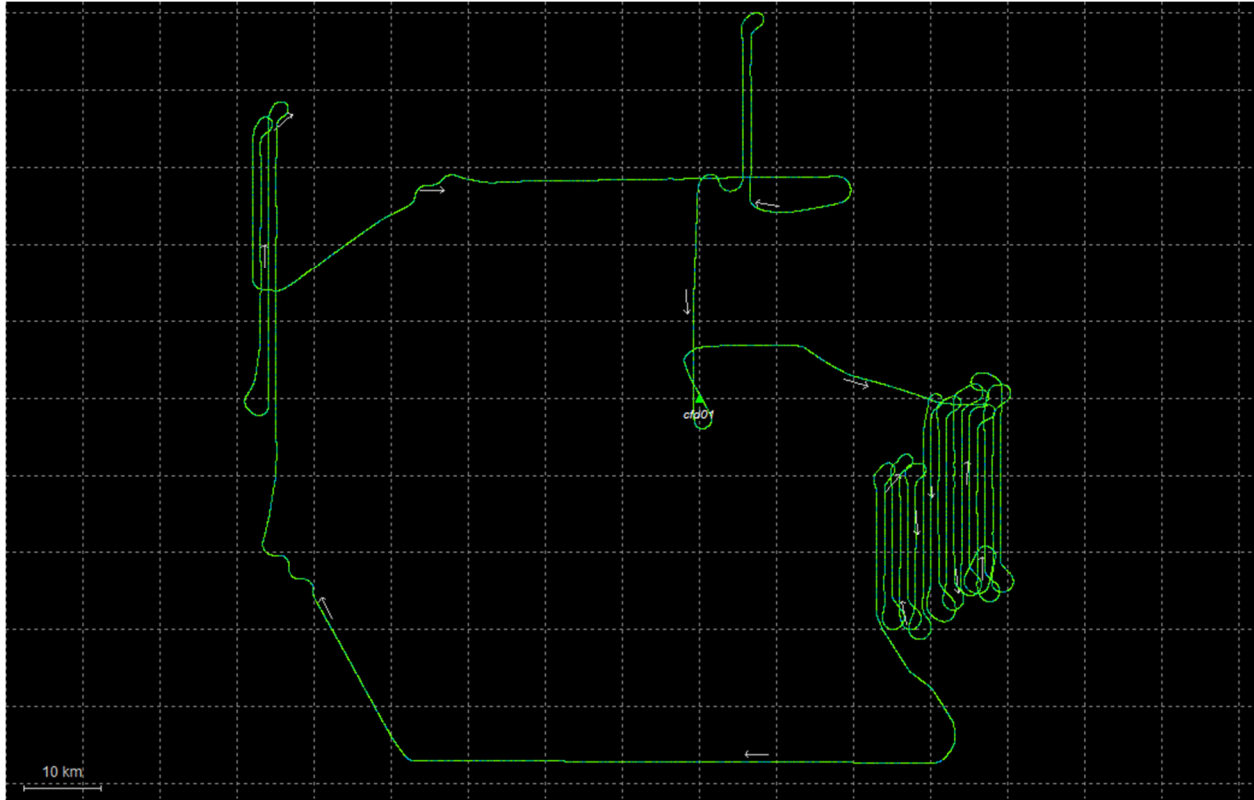
East: 0.008 (m)
 North: 0.006 (m)
 Height: 0.013 (m)

Baseline Distances:

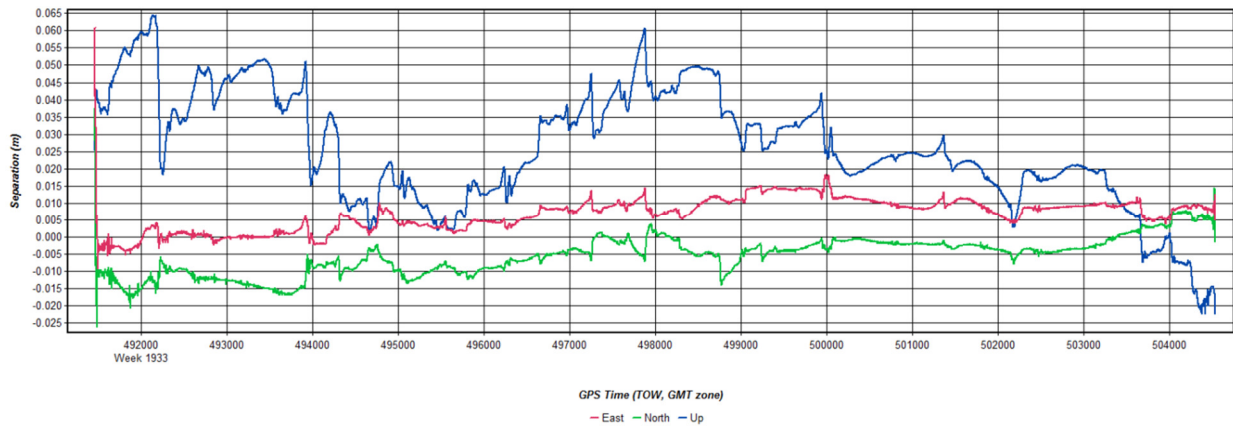
Maximum: 45.389 (km)
 Minimum: 0.236 (km)
 Average: 24.829 (km)
 First Epoch: 18.035 (km)
 Last Epoch: 0.272 (km)

Mission 2017-01-27 A

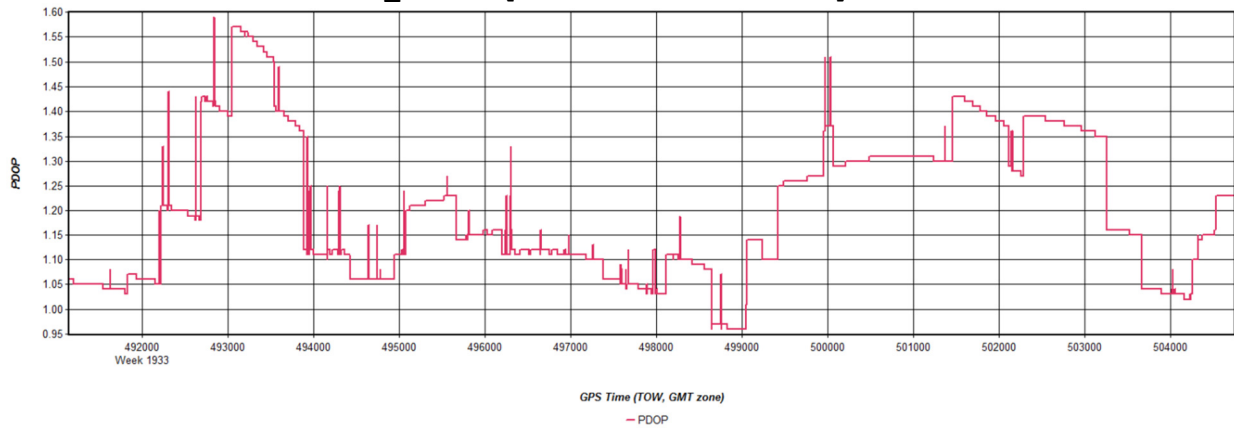
20170127_161849 [Smoothed TC Combined] - Smoothed TC Combined - Map



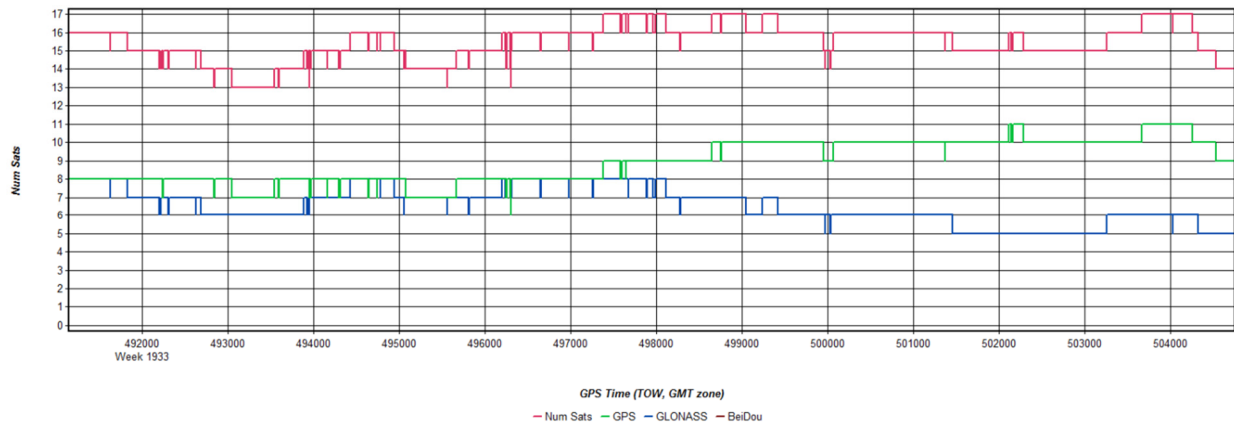
20170127_161849 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



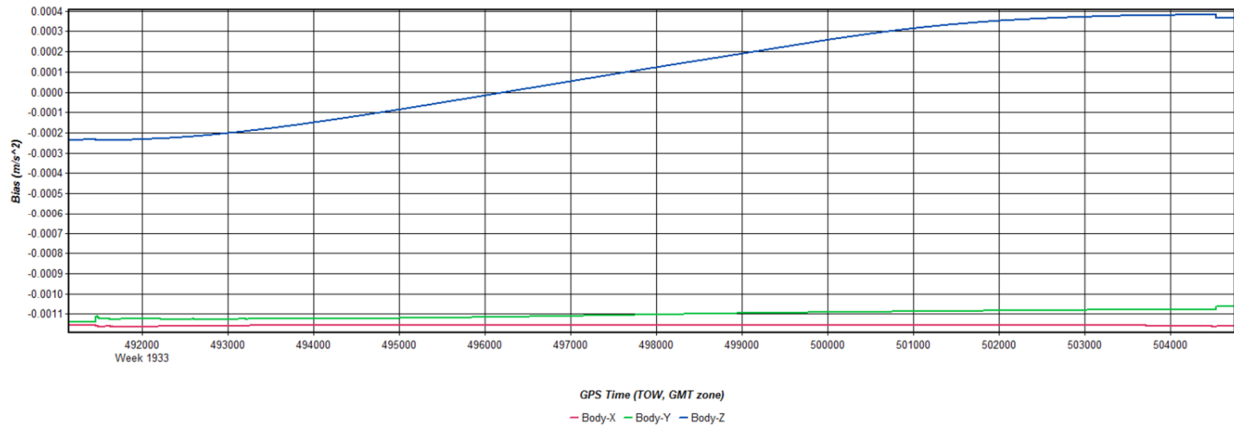
20170127_161849 [Smoothed TC Combined] - PDOP Plot



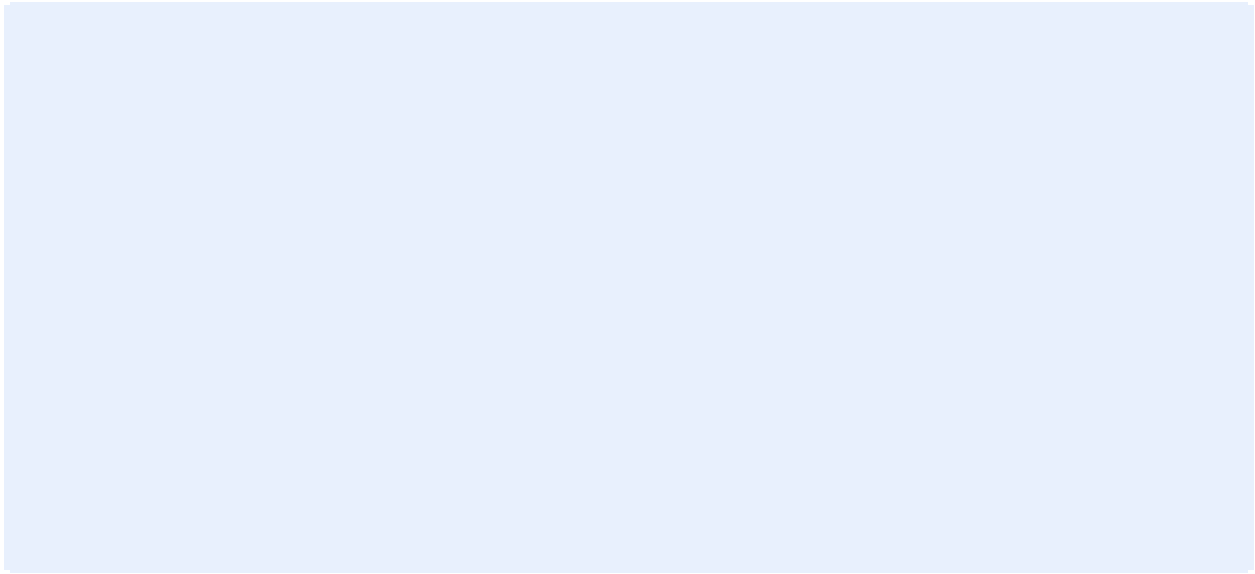
20170127_161849 [Smoothed TC Combined] - Number of Satellites Line Plot



20170127_161849 [Smoothed TC Combined] - Accelerometer Bias Plot



20170127_161849 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170127_161849\GnssImu\20170127_161849.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 27277
No processed position: 10
Missing Fwd or Rev: 1102
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 59.0 %
Q 2: 37.2 %
Q 3: 3.7 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0166 (m)
C/A Code: 0.30 (m)
L1 Doppler: 0.031 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.008 (m)
North: 0.008 (m)
Height: 0.031 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (26165 occurrences):

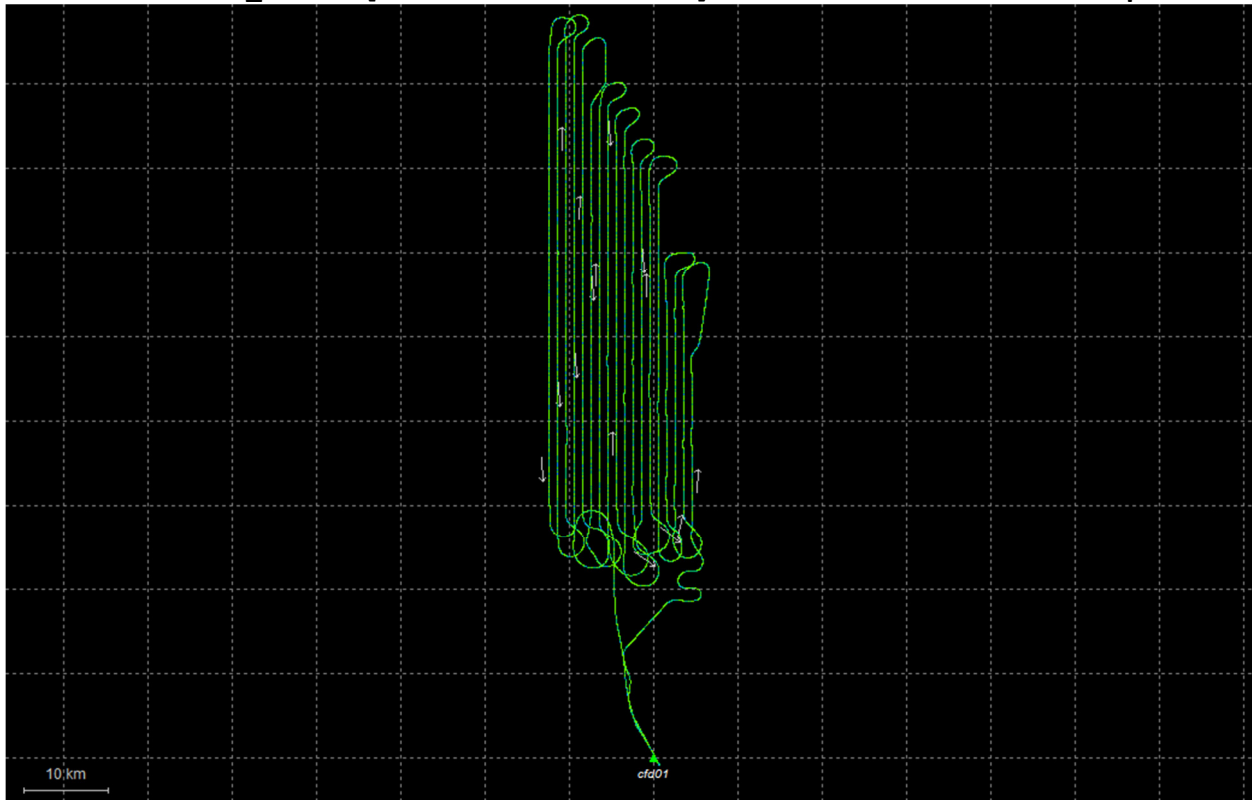
East: 0.008 (m)
North: 0.008 (m)
Height: 0.031 (m)

Baseline Distances:

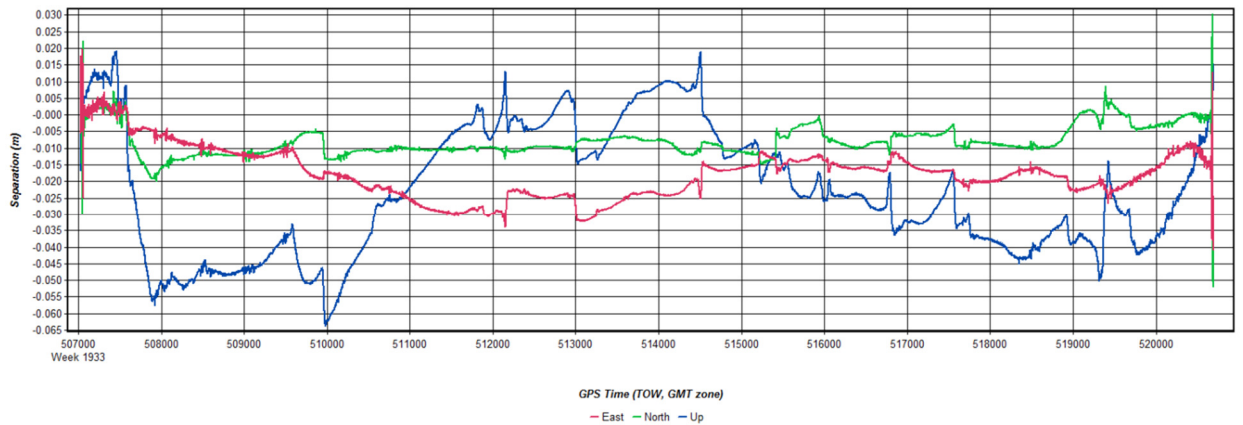
Maximum: 66.900 (km)
Minimum: 0.234 (km)
Average: 37.962 (km)
First Epoch: 1.054 (km)
Last Epoch: 0.272 (km)

Mission 2017-01-27 B

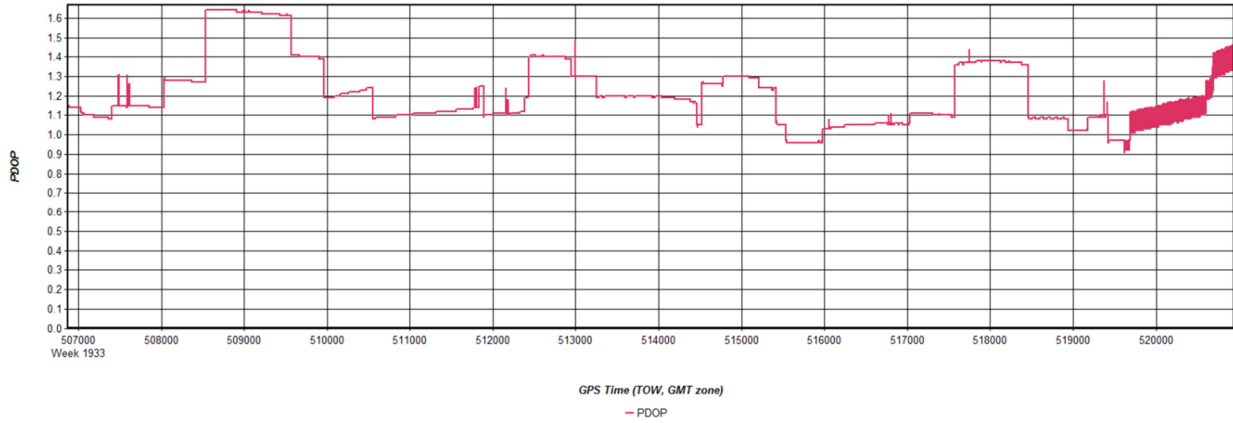
20170127_204252 [Smoothed TC Combined] - Smoothed TC Combined – Map



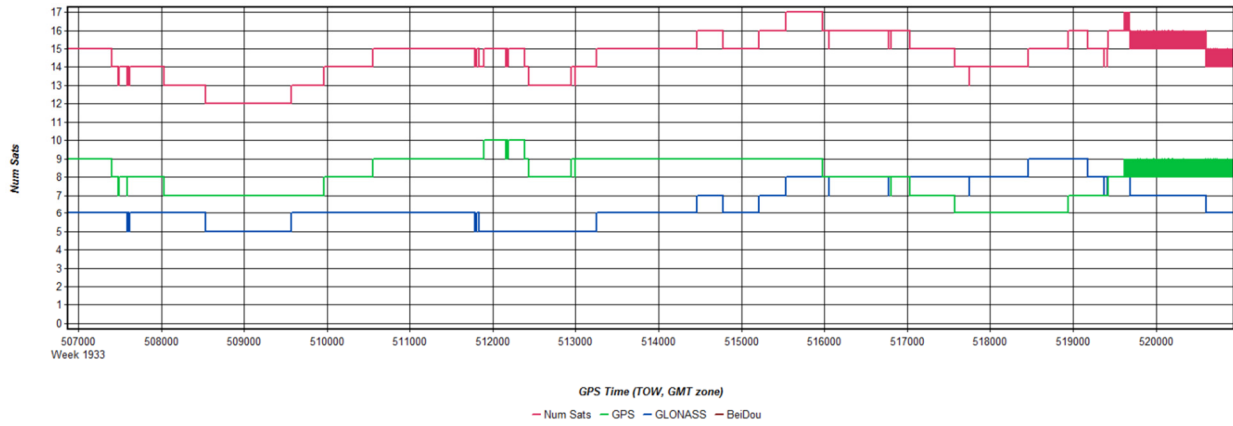
20170127_204252 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



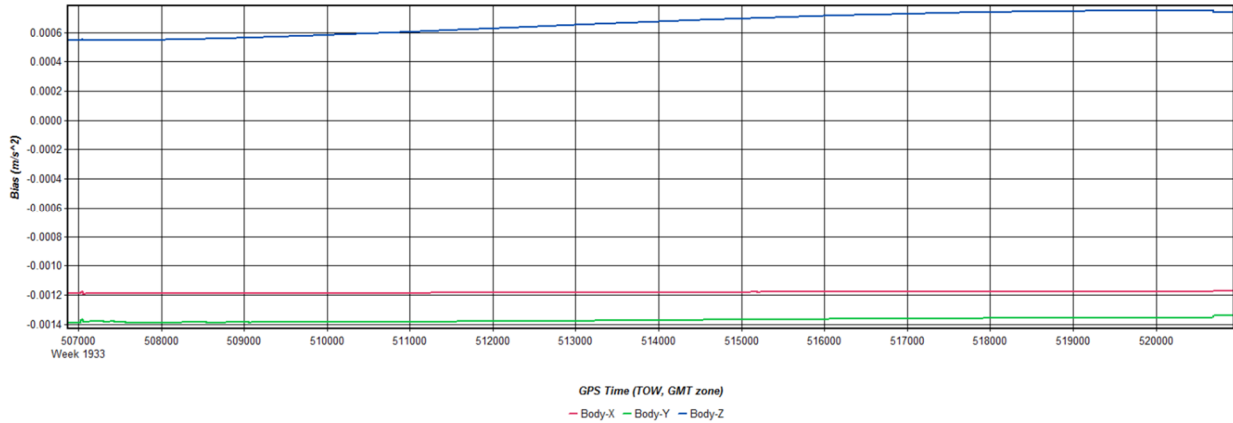
20170127_204252 [Smoothed TC Combined] - PDOP Plot



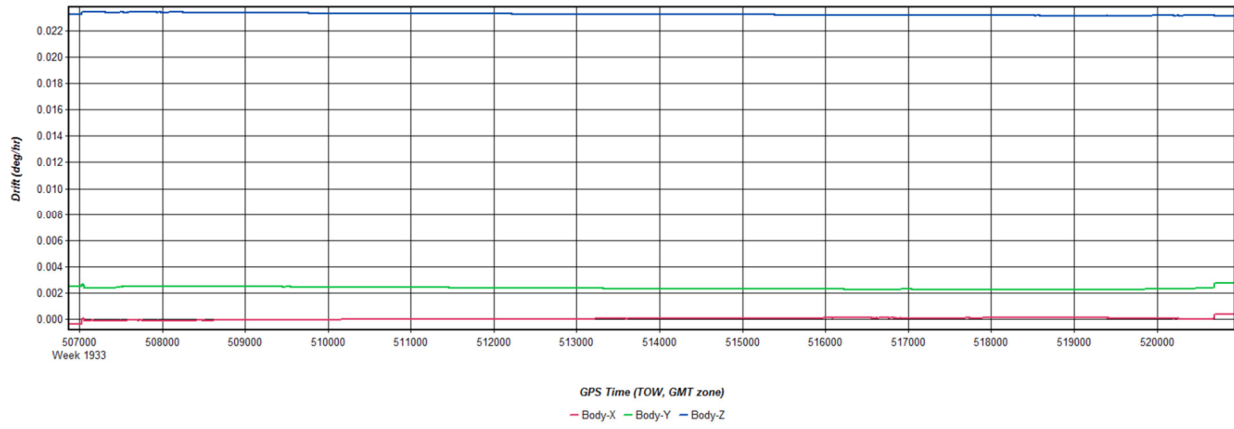
20170127_204252 [Smoothed TC Combined] - Number of Satellites Line Plot



20170127_204252 [Smoothed TC Combined] - Accelerometer Bias Plot



20170127_204252 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170127_204252\GnssImu\20170127_204252.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 28185
No processed position: 8
Missing Fwd or Rev: 842
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 59.2 %
Q 2: 36.4 %
Q 3: 4.4 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0166 (m)
C/A Code: 0.28 (m)
L1 Doppler: 0.028 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.019 (m)
North: 0.009 (m)
Height: 0.030 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (27335 occurrences):

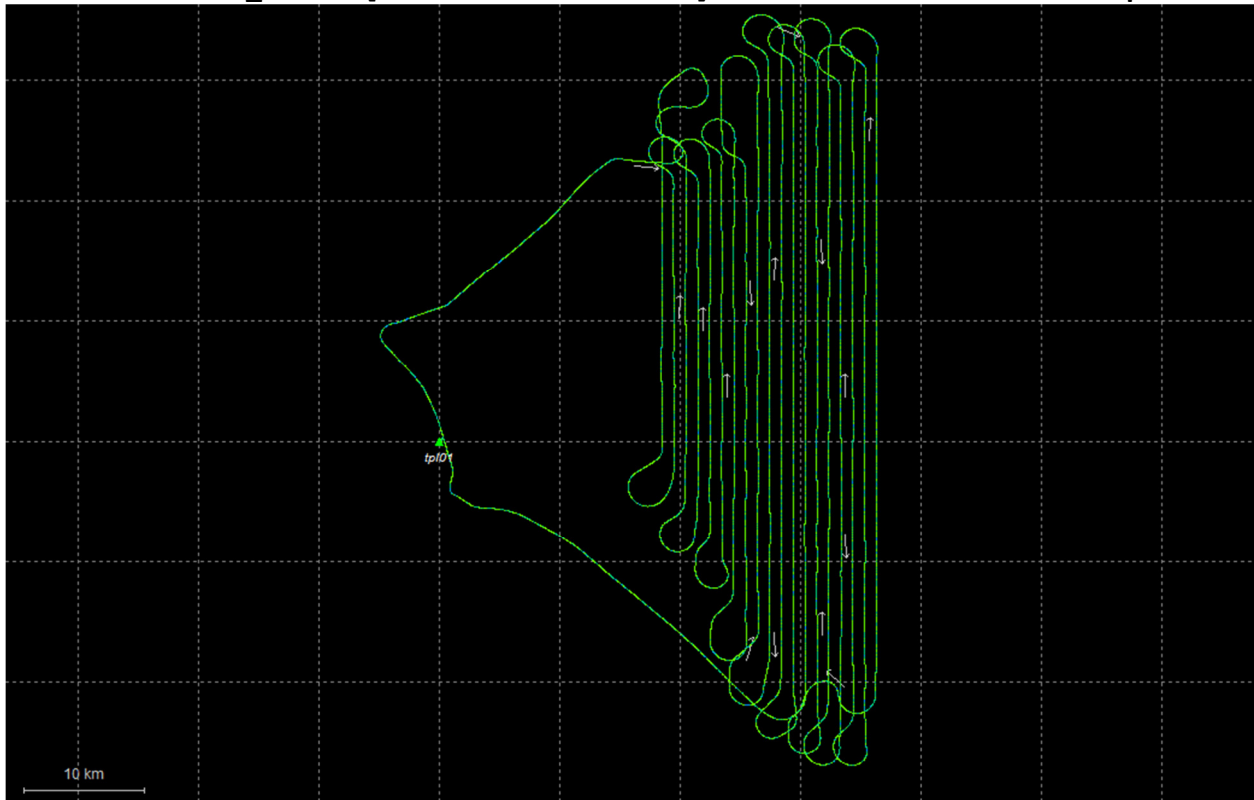
East: 0.019 (m)
North: 0.009 (m)
Height: 0.030 (m)

Baseline Distances:

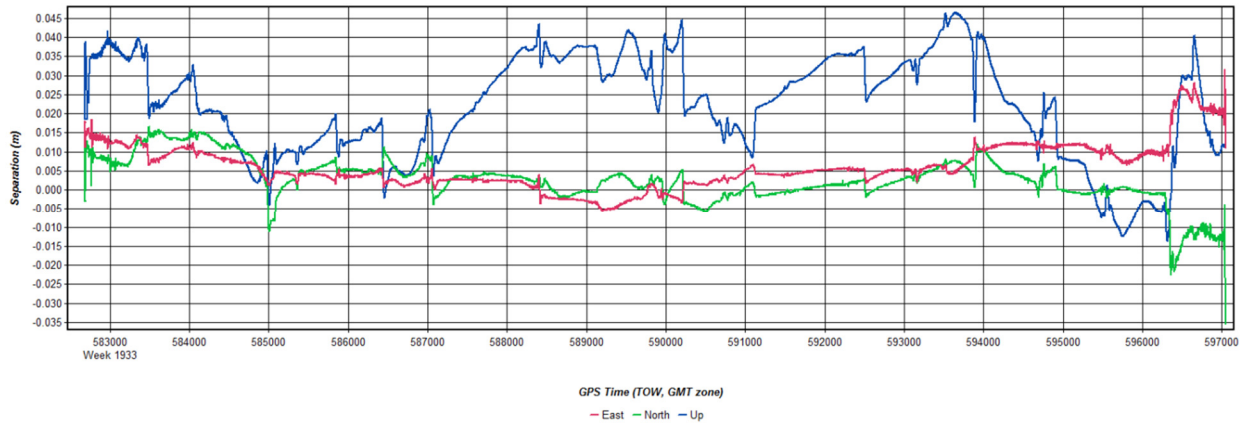
Maximum: 87.543 (km)
Minimum: 0.232 (km)
Average: 45.936 (km)
First Epoch: 1.052 (km)
Last Epoch: 1.047 (km)

Mission 2017-01-28 A

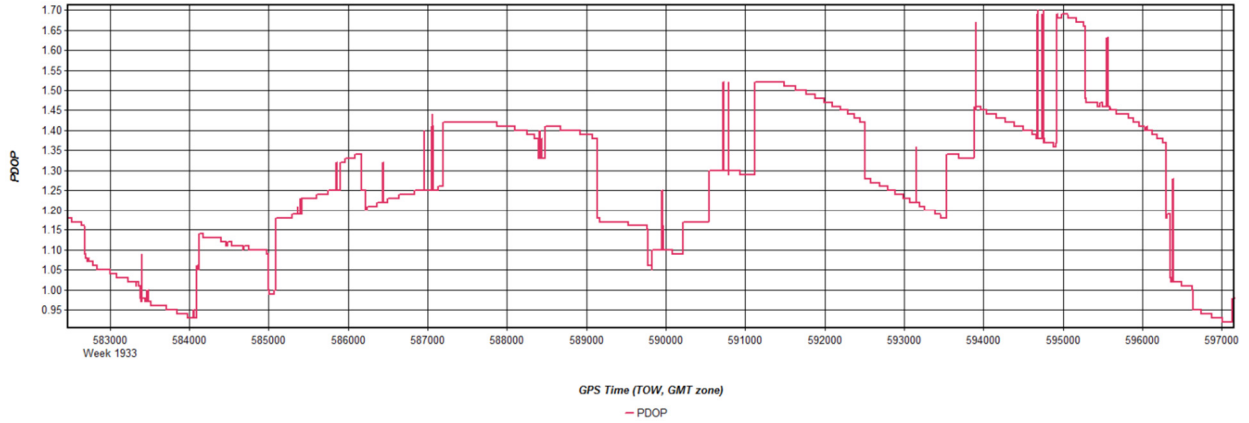
20170128_174405 [Smoothed TC Combined] - Smoothed TC Combined – Map



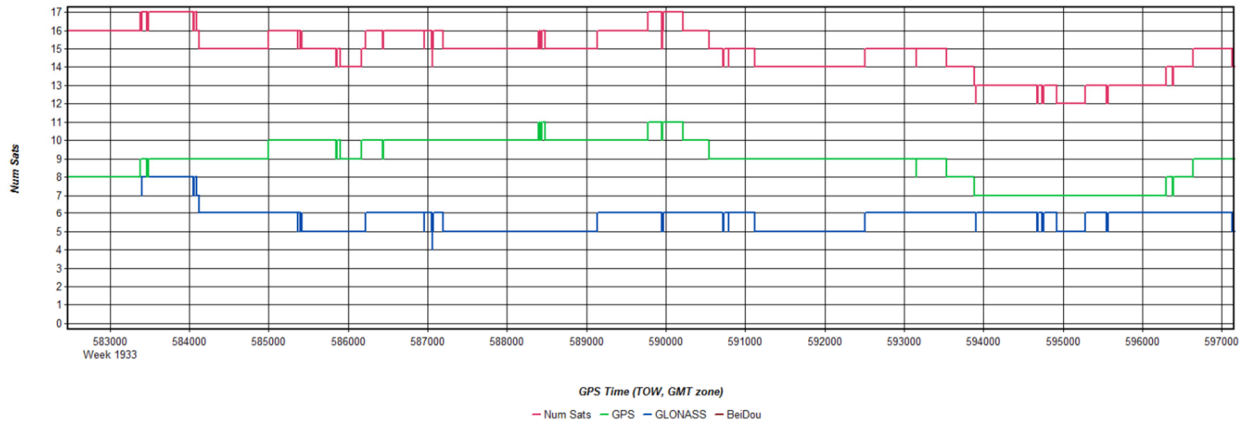
20170128_174405 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



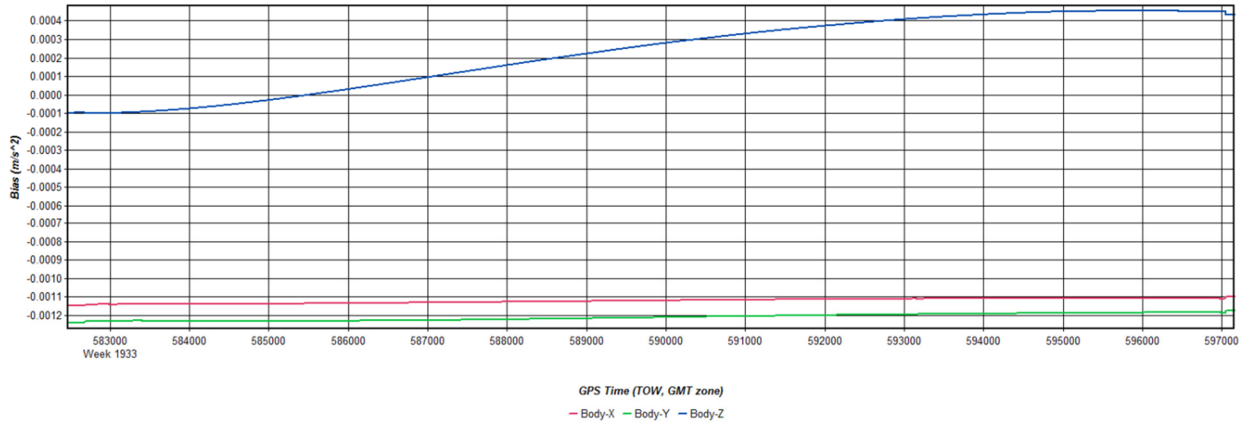
20170128_174405 [Smoothed TC Combined] - PDOP Plot



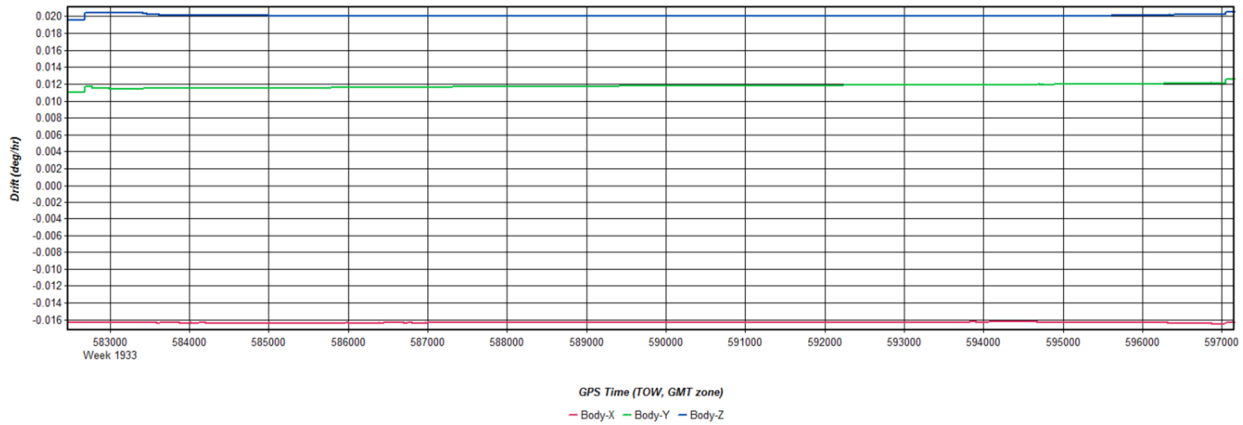
20170128_174405 [Smoothed TC Combined] - Number of Satellites Line Plot



20170128_174405 [Smoothed TC Combined] - Accelerometer Bias Plot



20170128_174405 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170128_174405\GnssImu\20170128_174405.cfg

Solution Type: Combined

Quality Number Percentages:

Number of Epochs:

Total in GPB file: 29416
 No processed position: 5
 Missing Fwd or Rev: 666
 With bad C/A code: 0
 With bad L1 Phase: 0

Q 1: 58.5 %
 Q 2: 37.4 %
 Q 3: 4.1 %
 Q 4: 0.0 %
 Q 5: 0.0 %
 Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0170 (m)
 C/A Code: 0.29 (m)
 L1 Doppler: 0.030 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
 0.10 - 0.30 m: 0.0 %
 0.30 - 1.00 m: 0.0 %
 1.00 - 5.00 m: 0.0 %
 5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.008 (m)
 North: 0.006 (m)
 Height: 0.026 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (28745 occurrences):

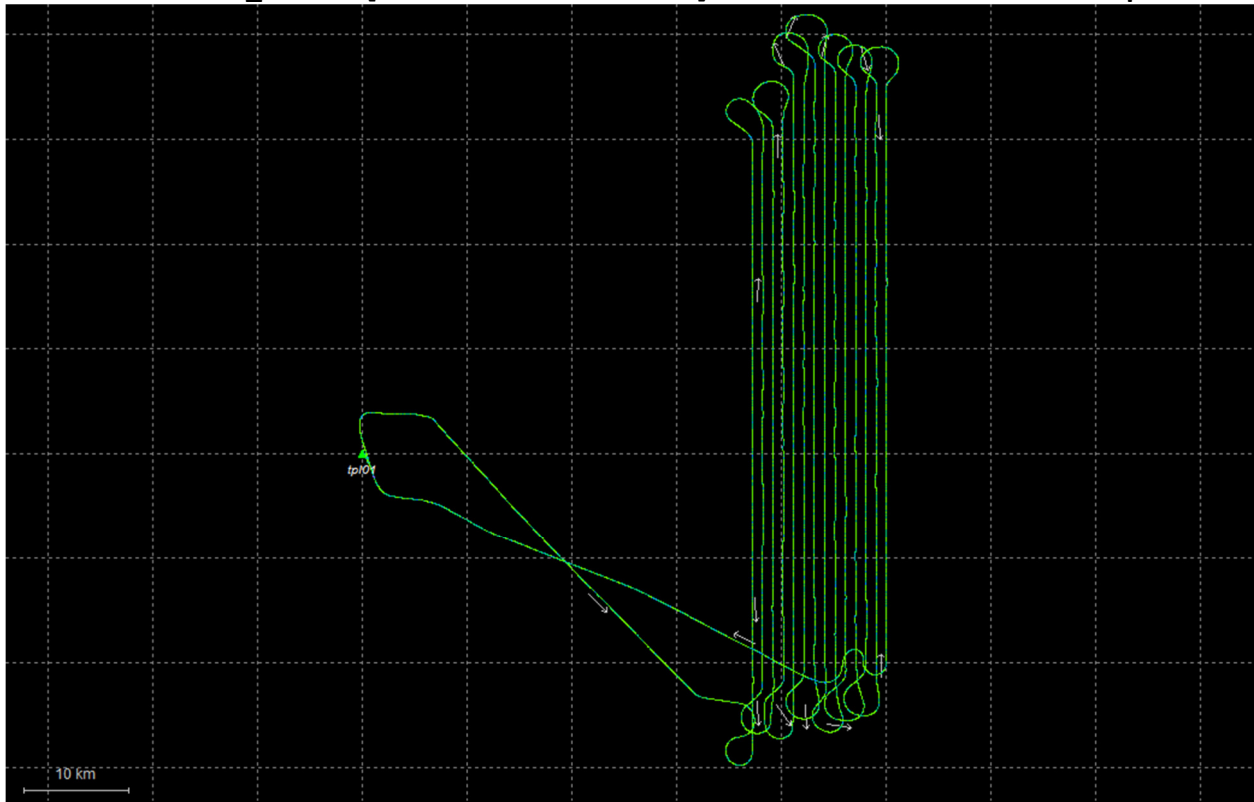
East: 0.008 (m)
 North: 0.006 (m)
 Height: 0.026 (m)

Baseline Distances:

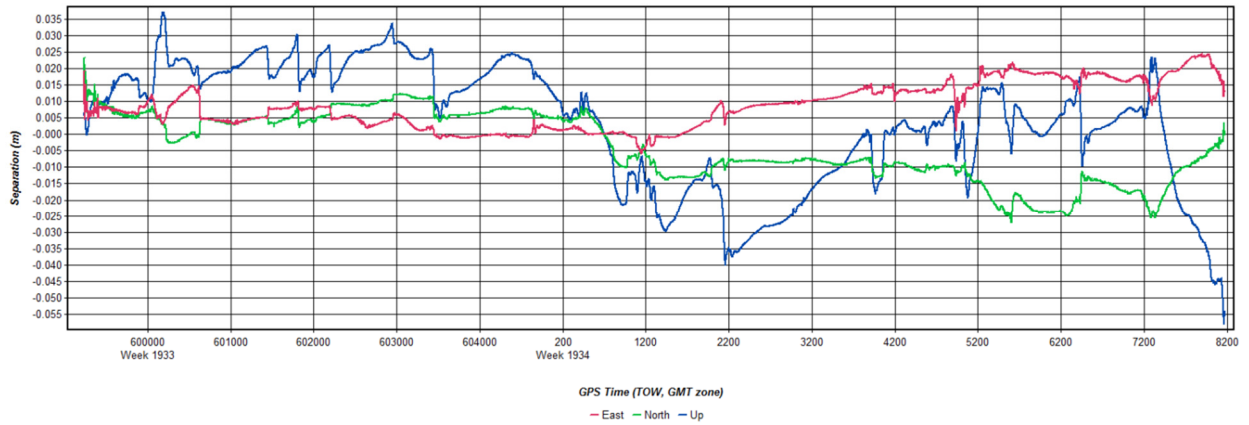
Maximum: 49.120 (km)
 Minimum: 0.171 (km)
 Average: 30.292 (km)
 First Epoch: 1.139 (km)
 Last Epoch: 0.183 (km)

Mission 2017-01-28 B

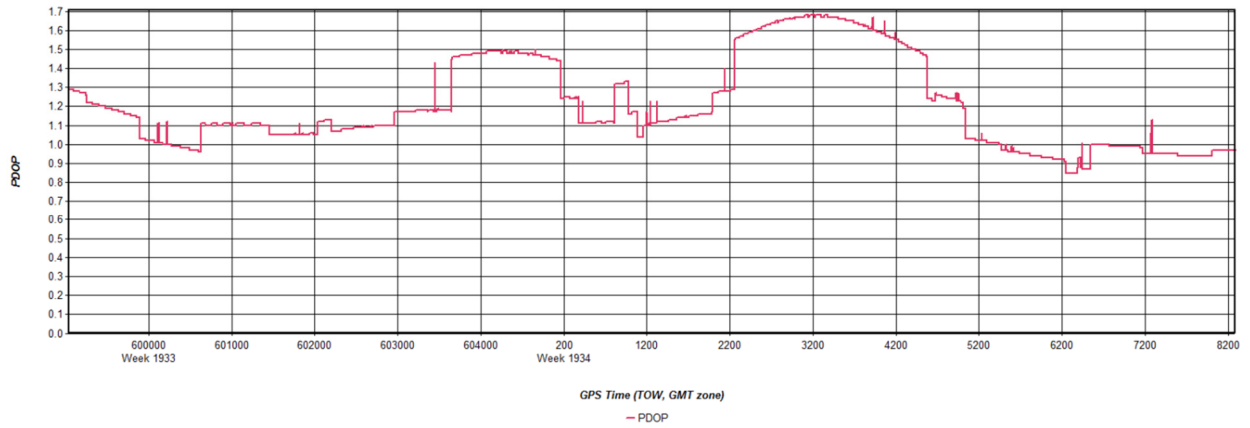
20170128_222152 [Smoothed TC Combined] - Smoothed TC Combined – Map



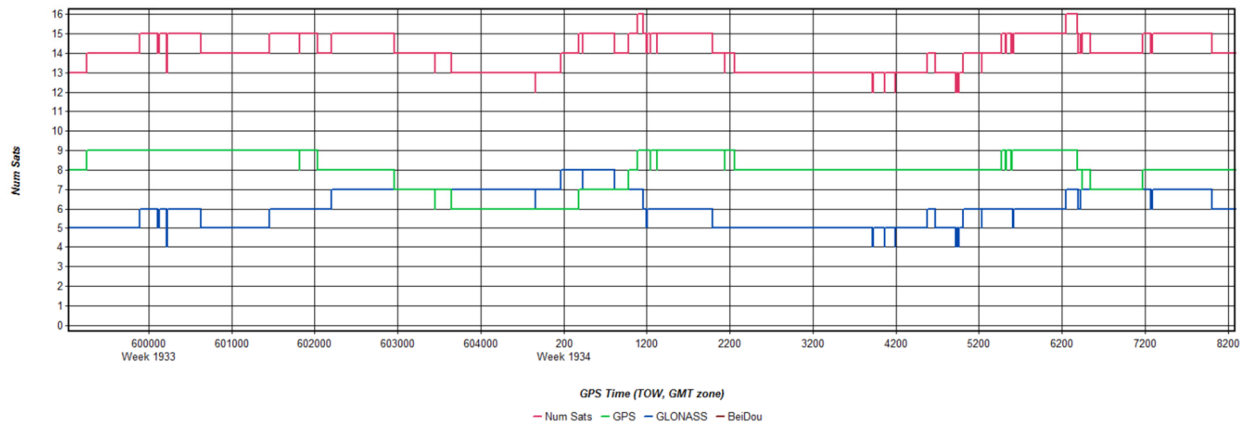
20170128_222152 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



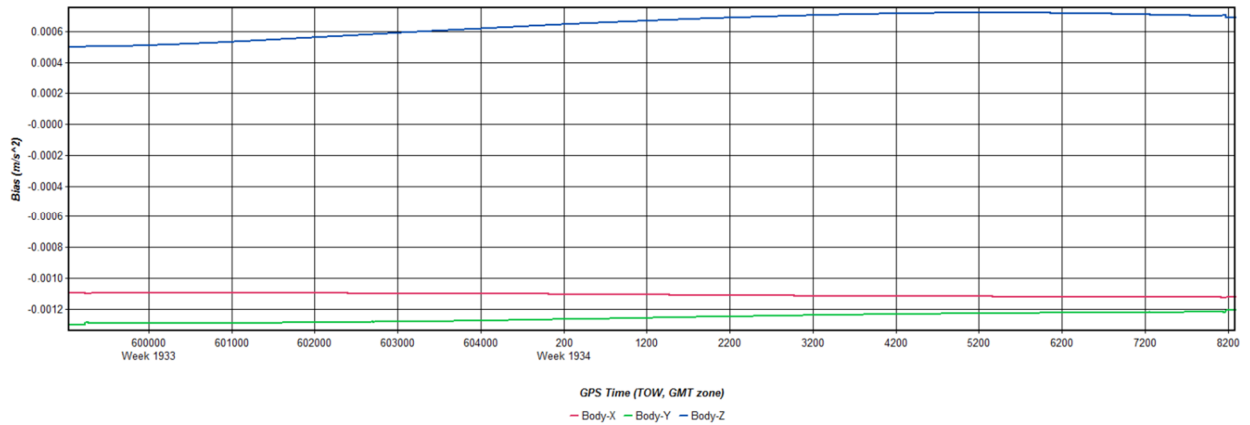
20170128_222152 [Smoothed TC Combined] - PDOP Plot



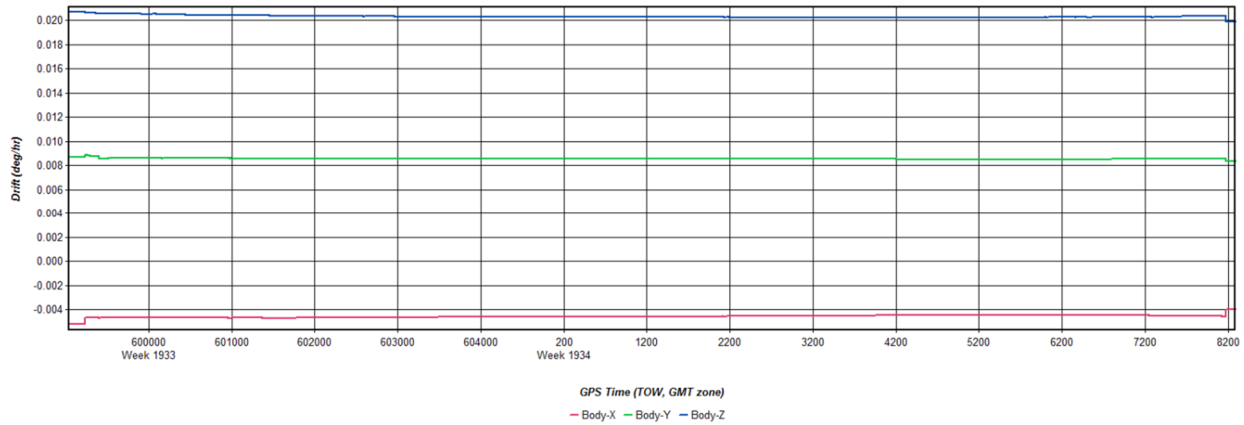
20170128_222152 [Smoothed TC Combined] - Number of Satellites Line Plot



20170128_222152 [Smoothed TC Combined] - Accelerometer Bias Plot



20170128_222152 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170128_222152\GnssImu\20170128_222152.cfg

Solution Type: Combined

Quality Number Percentages:

Number of Epochs:

Total in GPB file: 28140
 No processed position: 11564
 Missing Fwd or Rev: 245
 With bad C/A code: 0
 With bad L1 Phase: 0

Q 1: 56.3 %
 Q 2: 37.5 %
 Q 3: 6.2 %
 Q 4: 0.0 %
 Q 5: 0.0 %
 Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0171 (m)
 C/A Code: 0.30 (m)
 L1 Doppler: 0.027 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
 0.10 - 0.30 m: 0.0 %
 0.30 - 1.00 m: 0.0 %
 1.00 - 5.00 m: 0.0 %
 5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.036 (m)
 North: 0.023 (m)
 Height: 0.025 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (15570 occurrences):

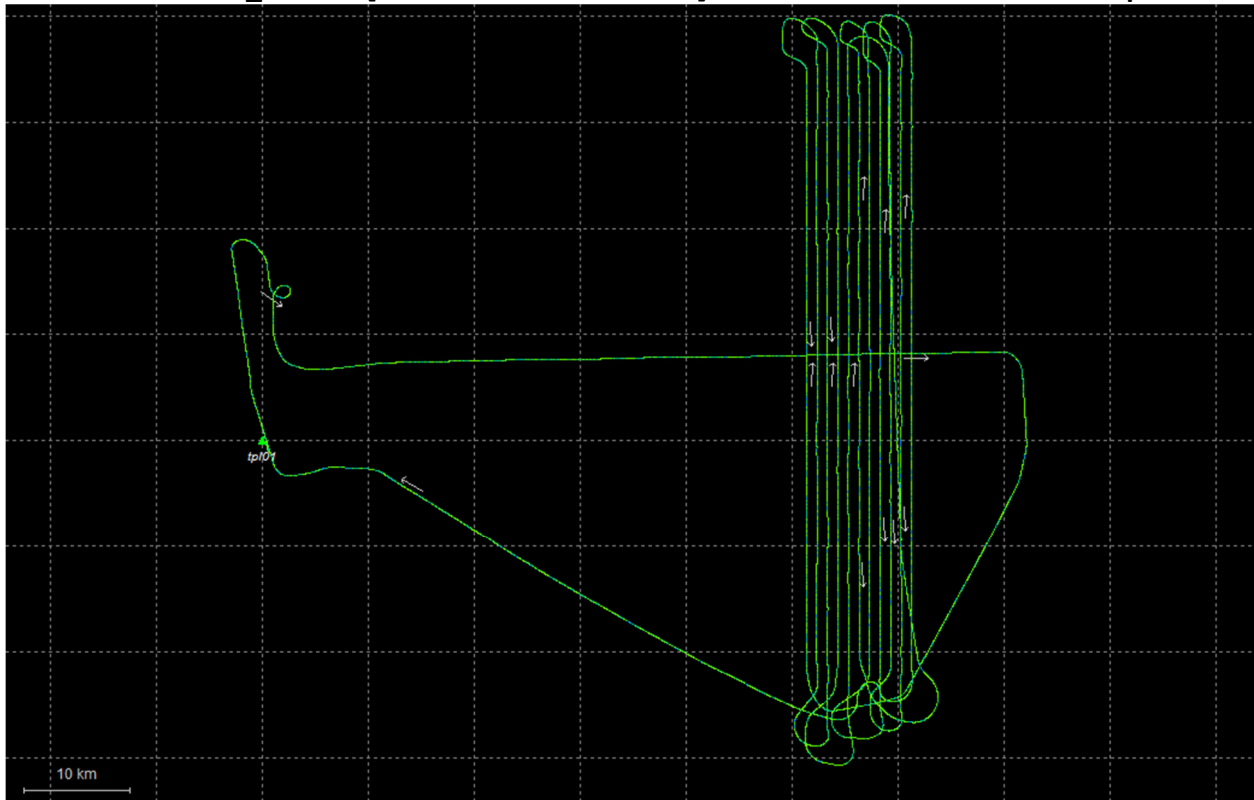
East: 0.009 (m)
 North: 0.009 (m)
 Height: 0.015 (m)

Baseline Distances:

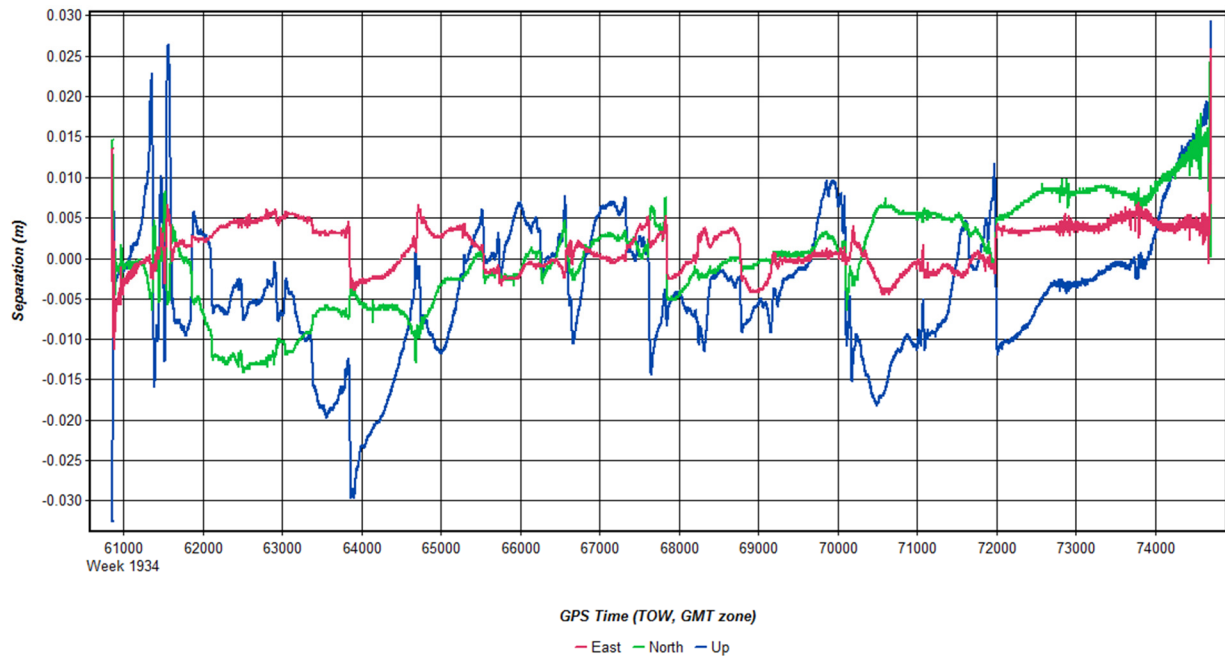
Maximum: 63.563 (km)
 Minimum: 0.165 (km)
 Average: 46.593 (km)
 First Epoch: 42.512 (km)
 Last Epoch: 0.165 (km)

Mission 2017-01-29 A

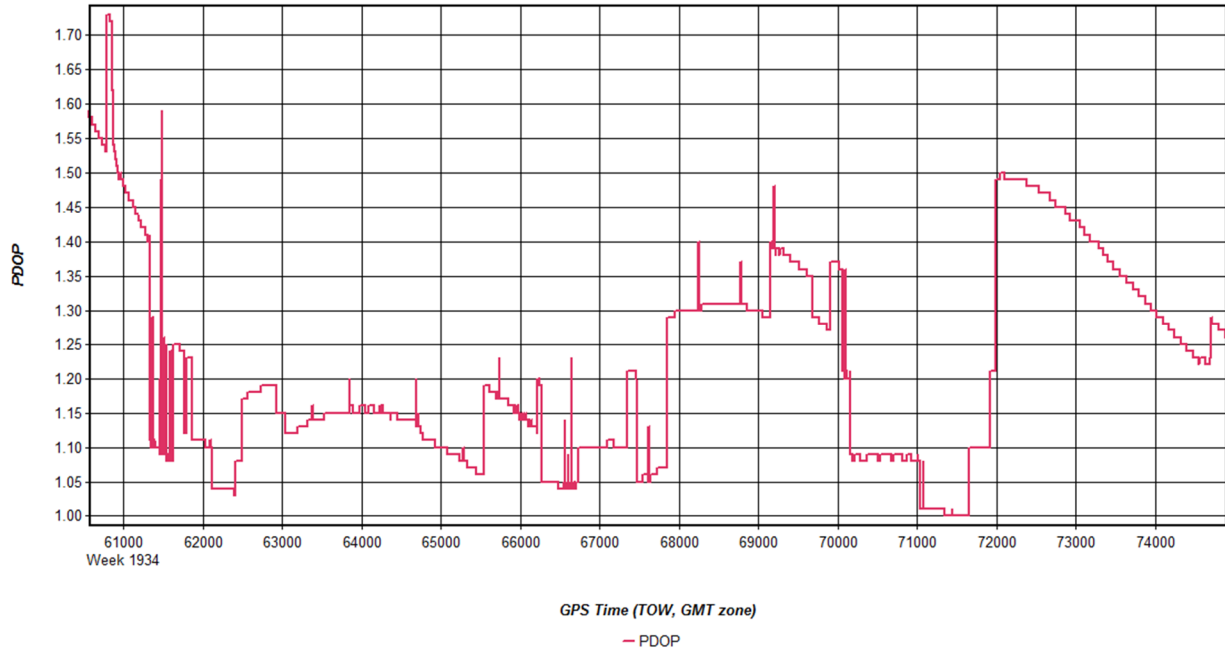
20170129_164727 [Smoothed TC Combined] - Smoothed TC Combined – Map



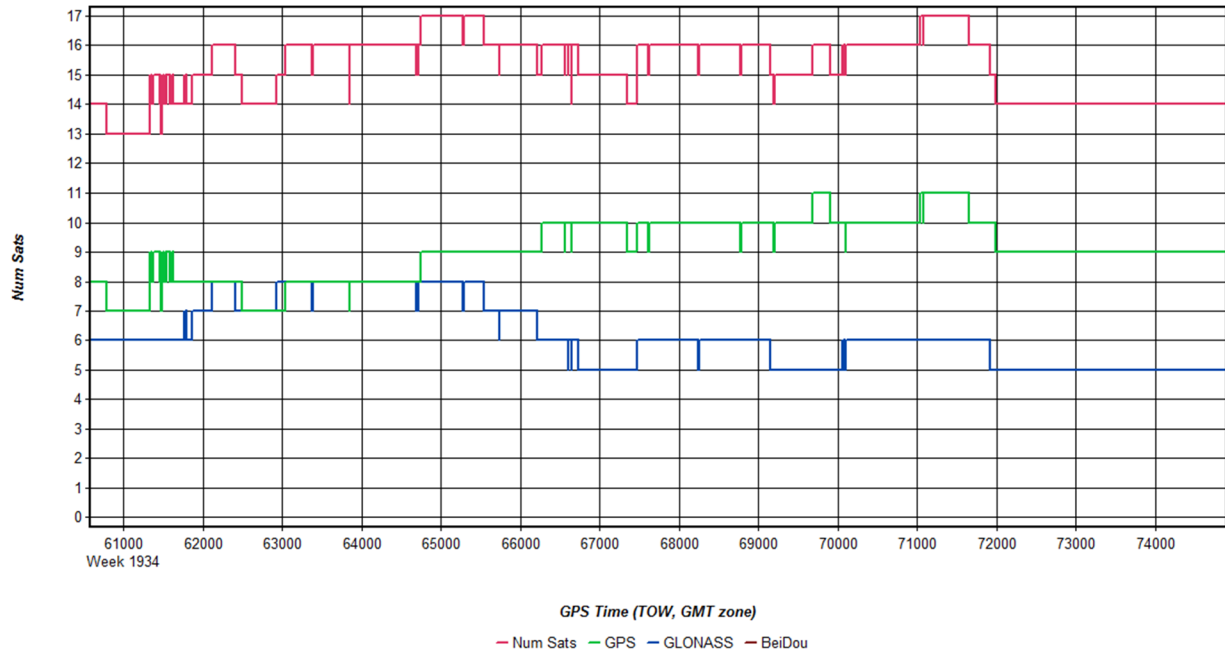
20170129_164727 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



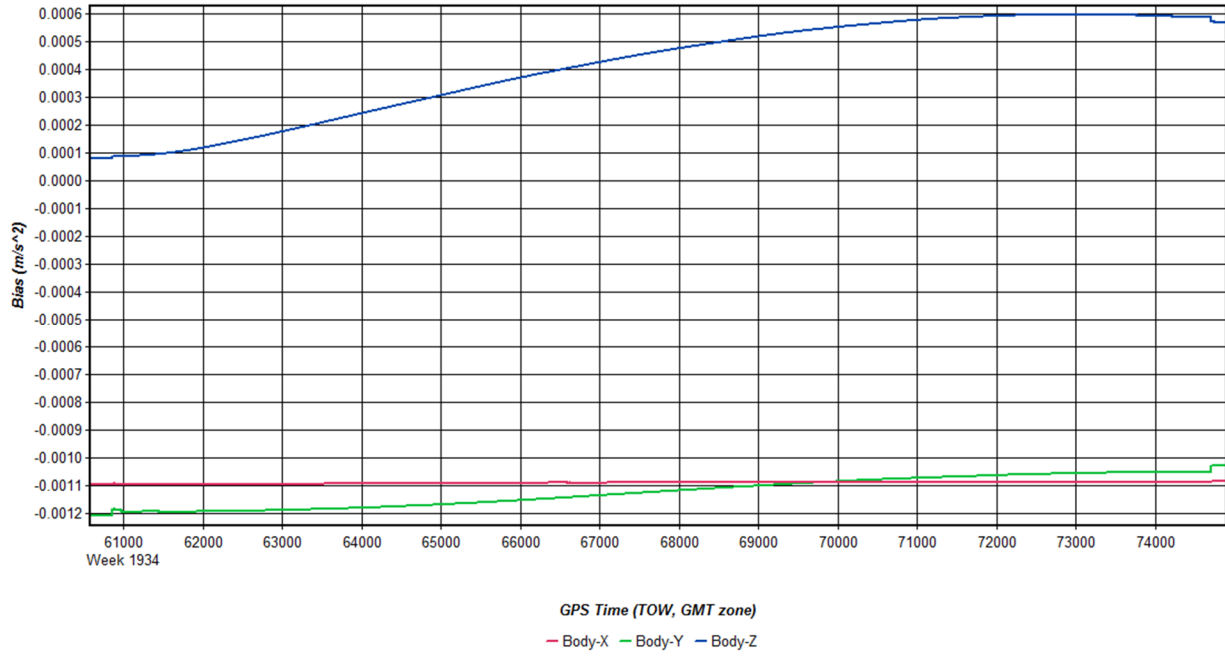
20170129_164727 [Smoothed TC Combined] - PDOP Plot



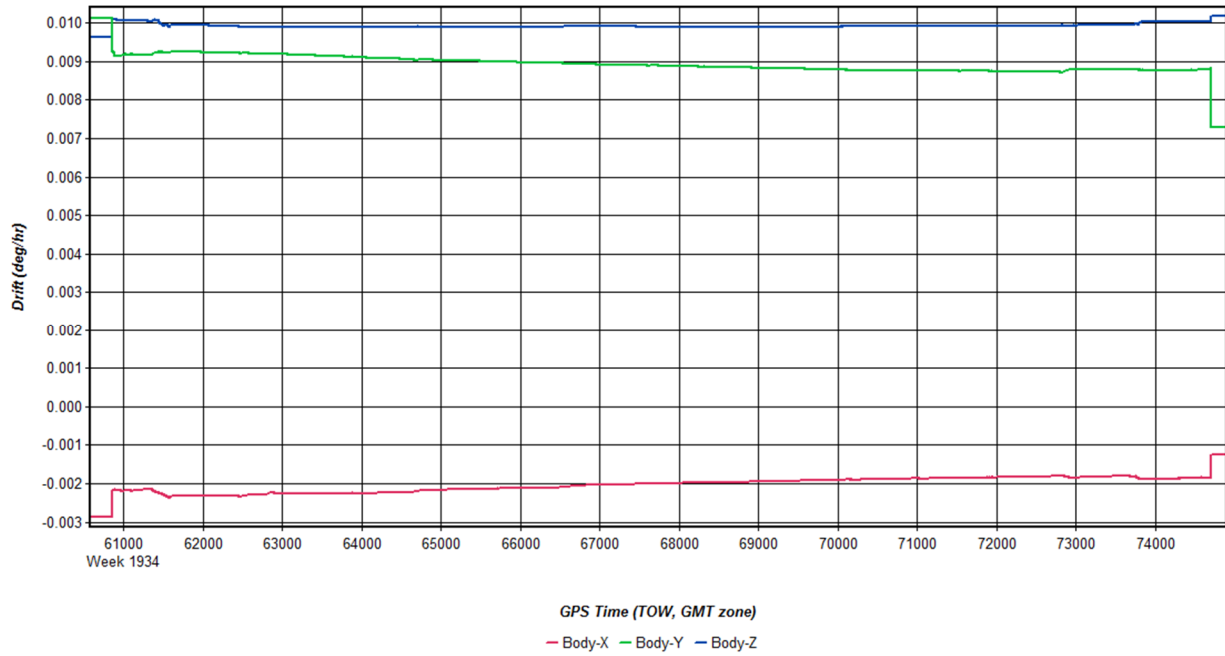
20170129_164727 [Smoothed TC Combined] - Number of Satellites Line Plot



20170129_164727 [Smoothed TC Combined] - Accelerometer Bias Plot



20170129_164727 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170129_164727\GnssImu\20170129_164727.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 28700
No processed position: 5
Missing Fwd or Rev: 1006
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 58.2 %
Q 2: 37.6 %
Q 3: 4.2 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0167 (m)
C/A Code: 0.29 (m)
L1 Doppler: 0.028 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.003 (m)
North: 0.006 (m)
Height: 0.009 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (27689 occurrences):

East: 0.003 (m)
North: 0.006 (m)
Height: 0.009 (m)

Baseline Distances:

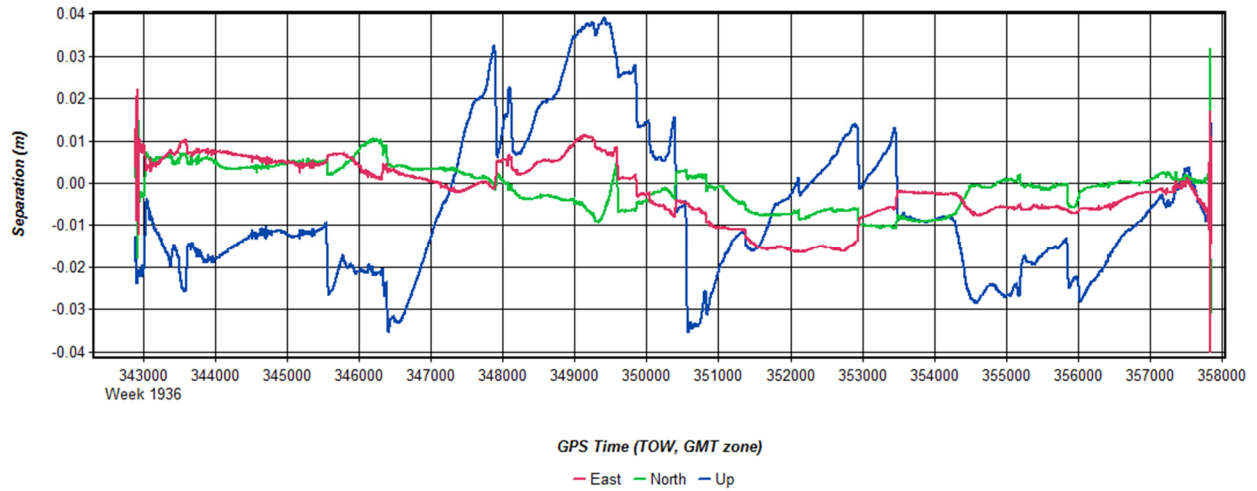
Maximum: 71.859 (km)
Minimum: 0.248 (km)
Average: 51.941 (km)
First Epoch: 0.258 (km)
Last Epoch: 0.362 (km)

Mission 2017-02-15 A

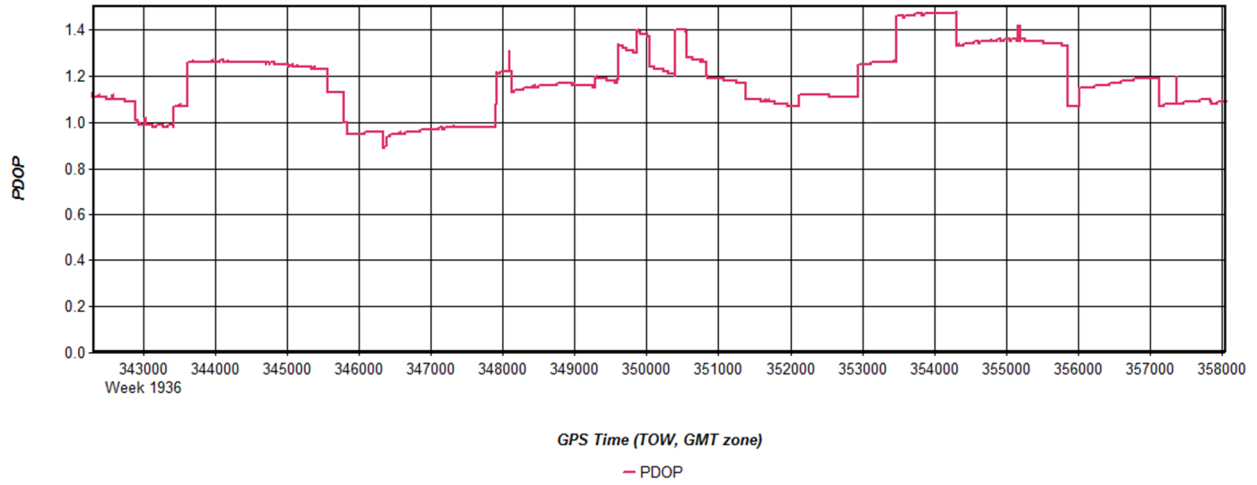
20170215_230104 [Smoothed TC Combined] - Smoothed TC Combined – Map



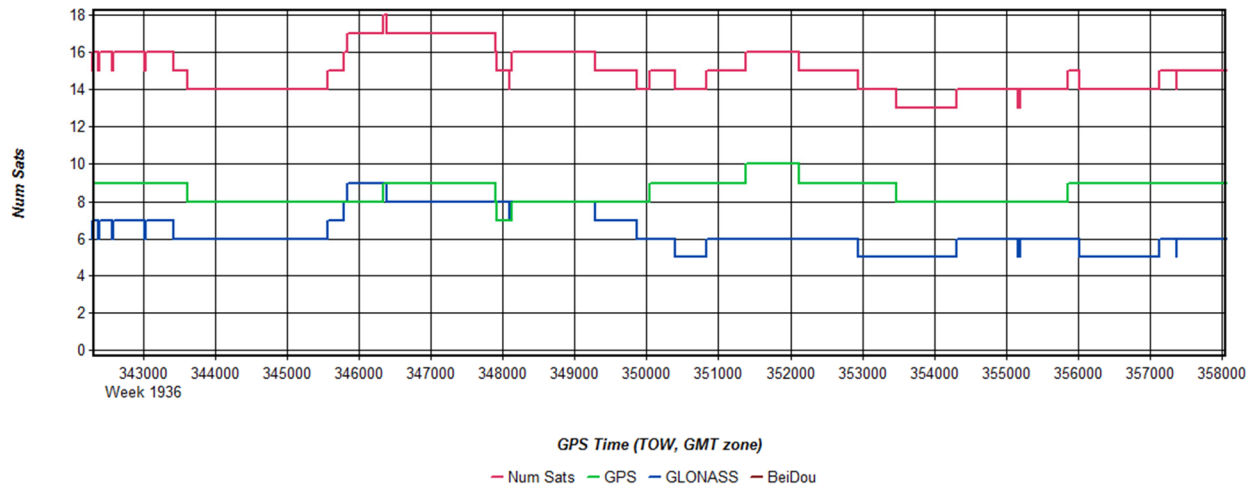
20170215_230104 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



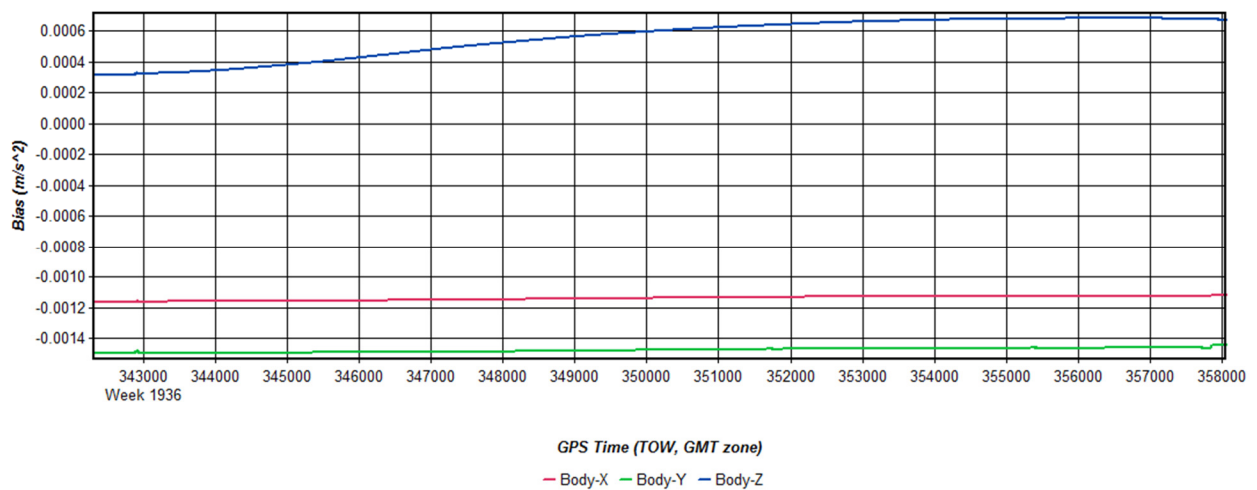
20170215_230104 [Smoothed TC Combined] - PDOP Plot



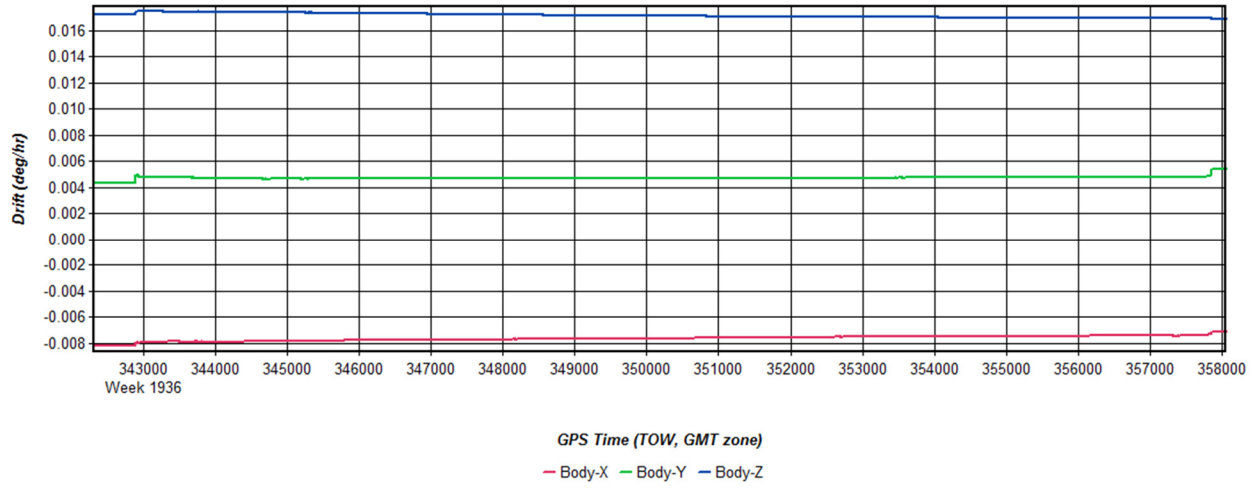
20170215_230104 [Smoothed TC Combined] - Number of Satellites Line Plot



20170215_230104 [Smoothed TC Combined] - Accelerometer Bias Plot



20170215_230104 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170215_230104\GnssImu\20170215_230104.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 31540
No processed position: 7
Missing Fwd or Rev: 1608
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 59.4 %
Q 2: 36.7 %
Q 3: 3.9 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0160 (m)
C/A Code: 0.34 (m)
L1 Doppler: 0.029 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.007 (m)
North: 0.005 (m)
Height: 0.018 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (29925 occurrences):

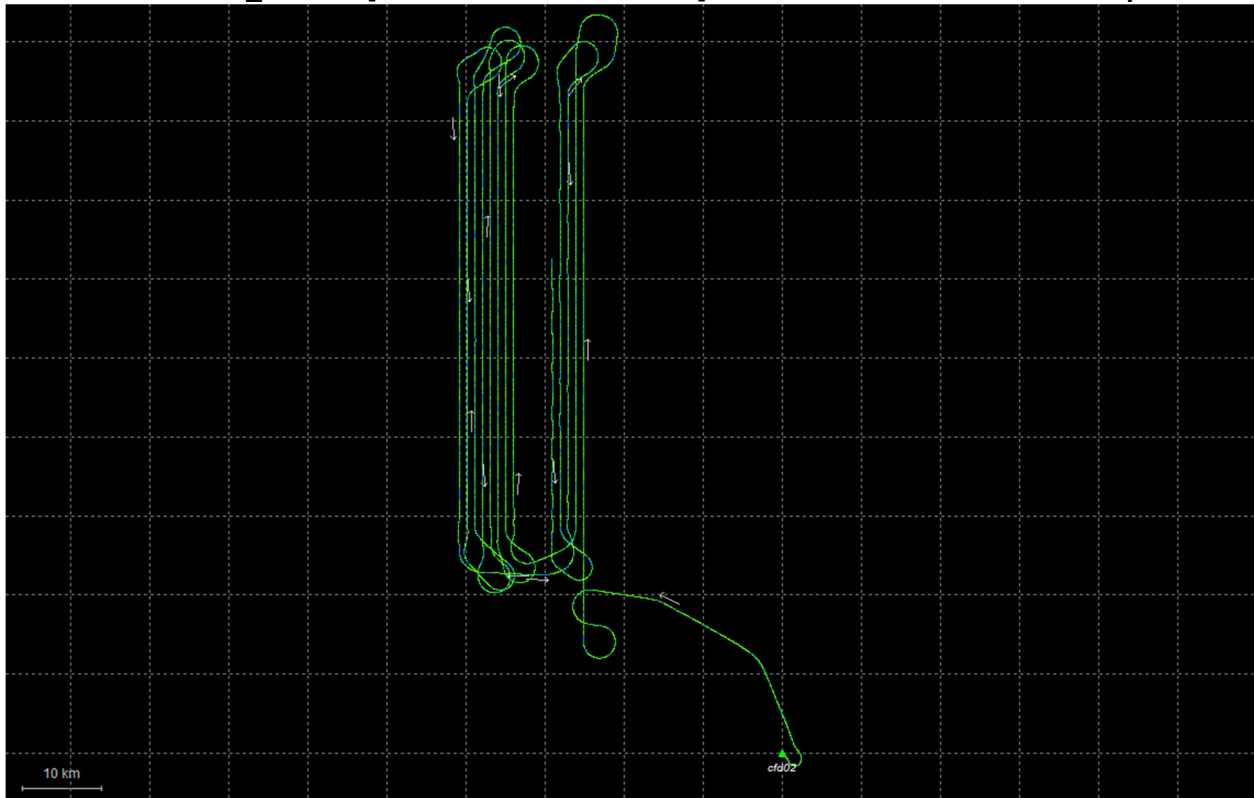
East: 0.007 (m)
North: 0.005 (m)
Height: 0.018 (m)

Baseline Distances:

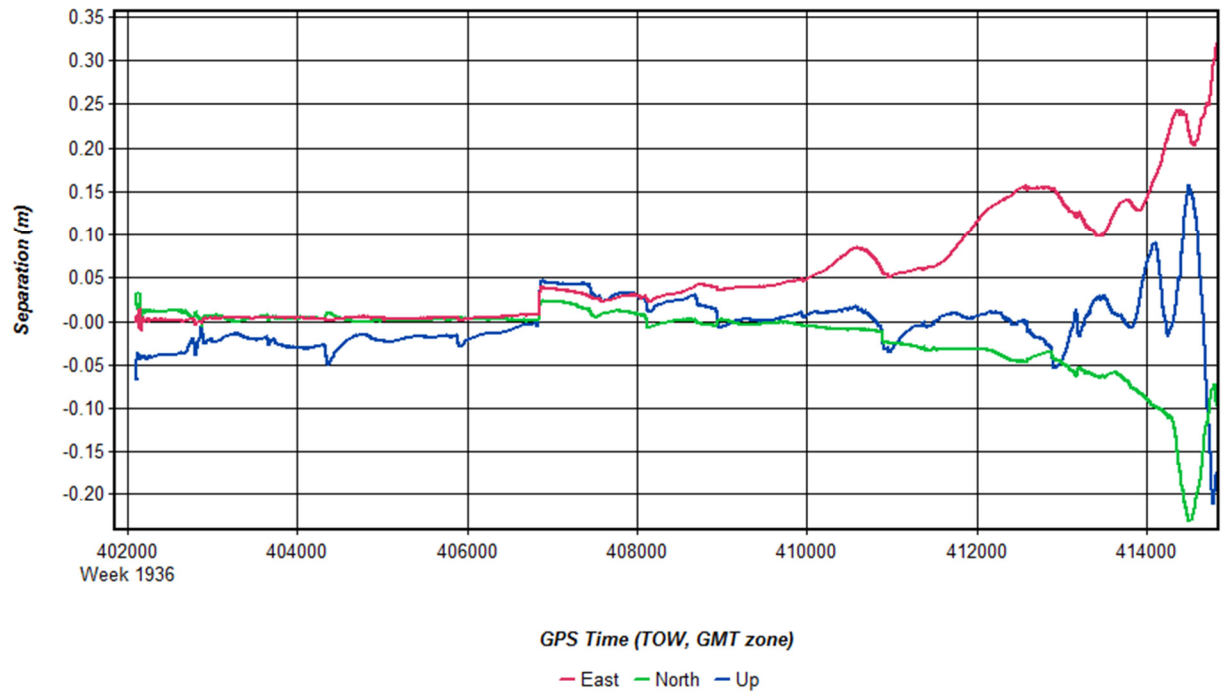
Maximum: 93.235 (km)
Minimum: 0.235 (km)
Average: 48.986 (km)
First Epoch: 1.052 (km)
Last Epoch: 1.050 (km)

Mission 2017-02-16 A

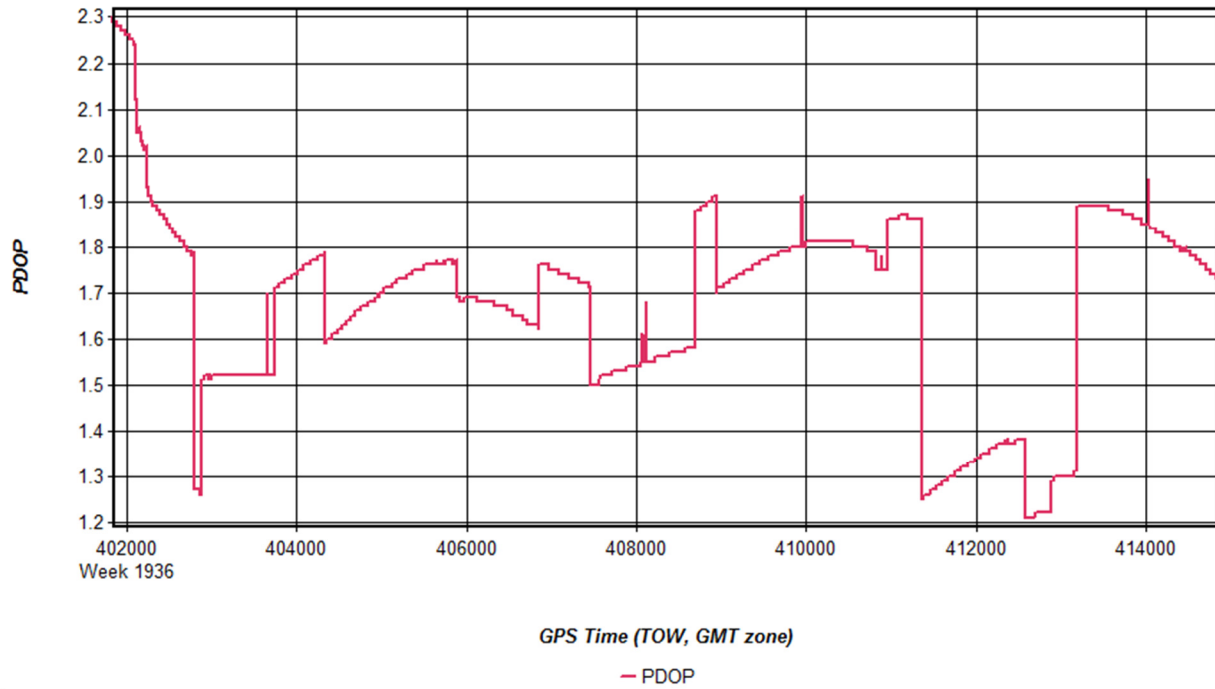
20170216_153514 [Smoothed TC Combined] - Smoothed TC Combined – Map



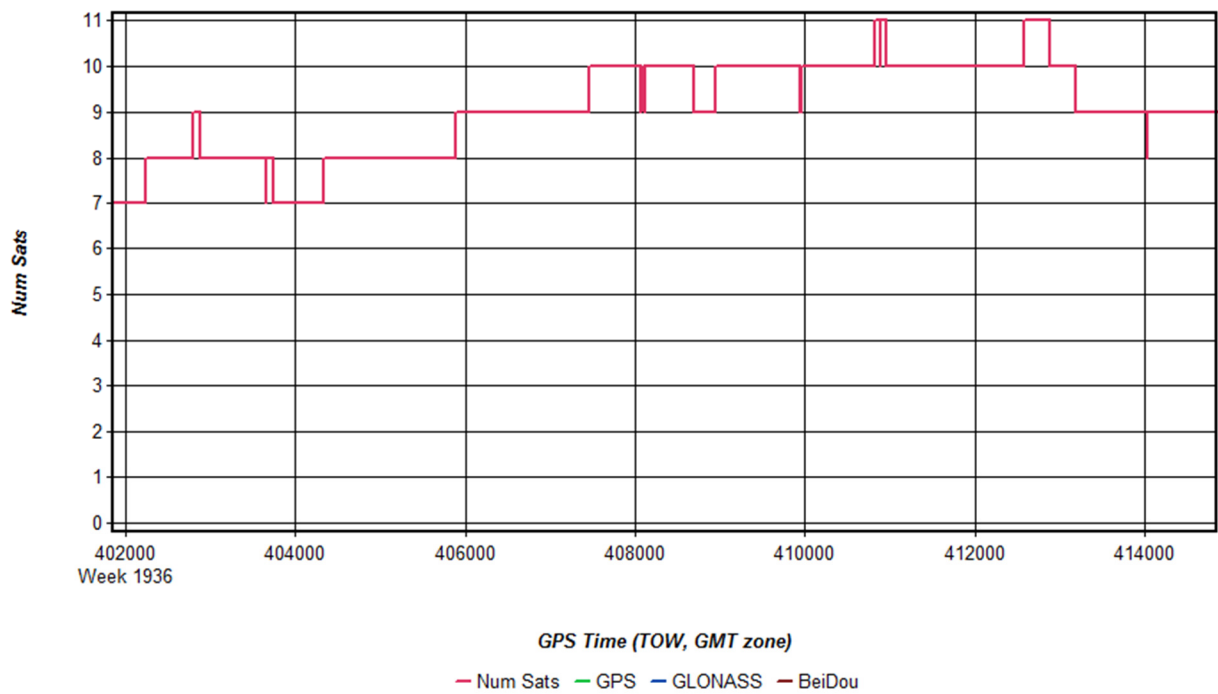
20170216_153514 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



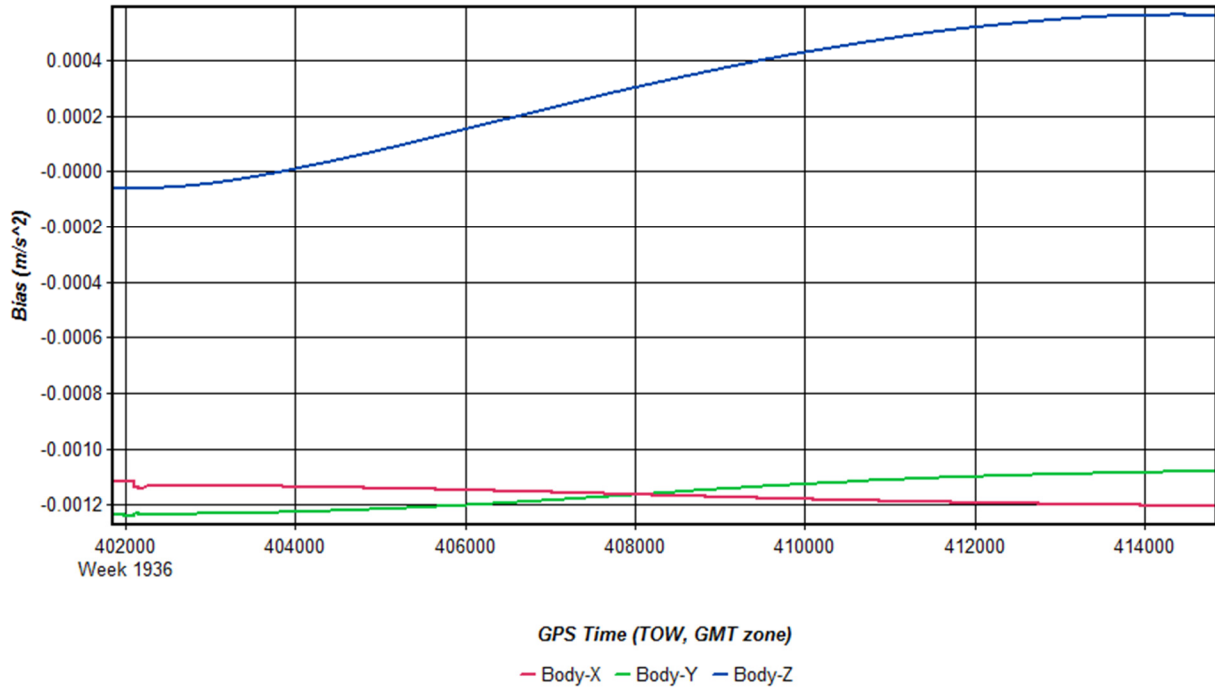
20170216_153514 [Smoothed TC Combined] - PDOP Plot



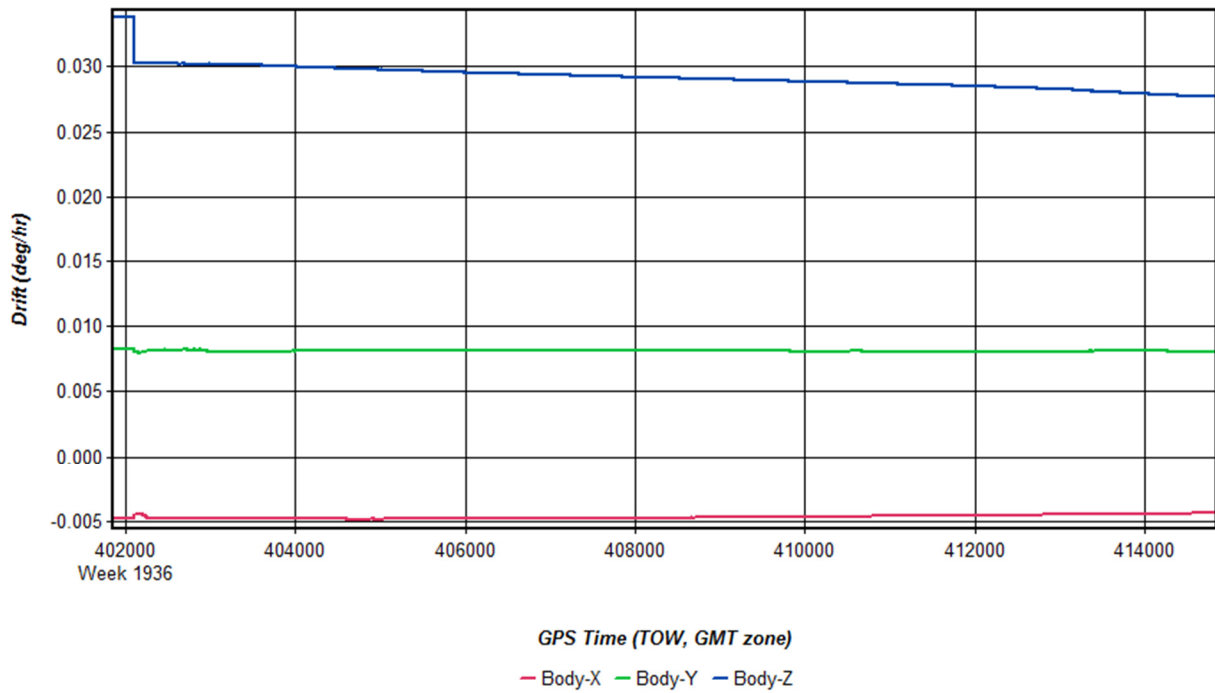
20170216_153514 [Smoothed TC Combined] - Number of Satellites Line Plot



20170216_153514 [Smoothed TC Combined] - Accelerometer Bias Plot



20170216_153514 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170216_153514\GnssImu\20170216_153514.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 26053
No processed position: 6
Missing Fwd or Rev: 574
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 52.3 %
Q 2: 37.1 %
Q 3: 10.5 %
Q 4: 0.1 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0185 (m)
C/A Code: 0.45 (m)
L1 Doppler: 0.033 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.086 (m)
North: 0.045 (m)
Height: 0.034 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (9494 occurrences):

East: 0.004 (m)
North: 0.005 (m)
Height: 0.025 (m)

Baseline Distances:

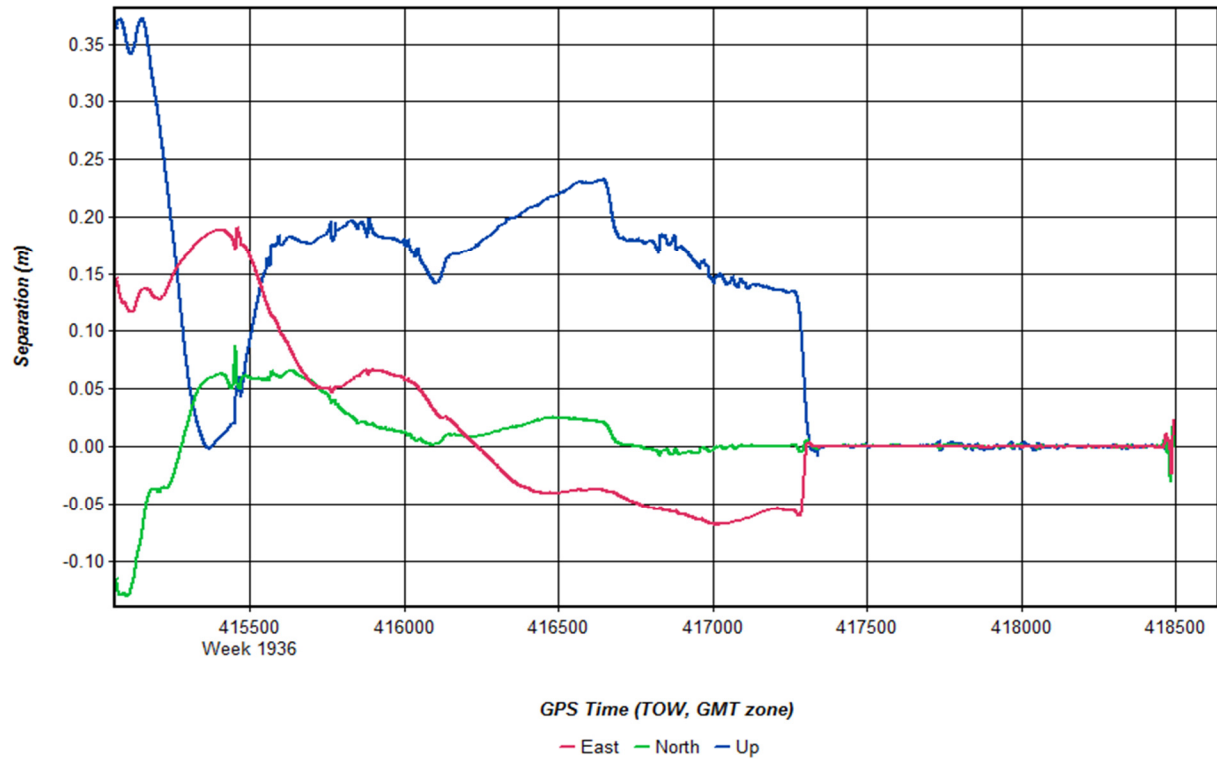
Maximum: 97.858 (km)
Minimum: 0.233 (km)
Average: 60.687 (km)
First Epoch: 0.268 (km)
Last Epoch: 68.795 (km)

Mission 2017-02-16 B

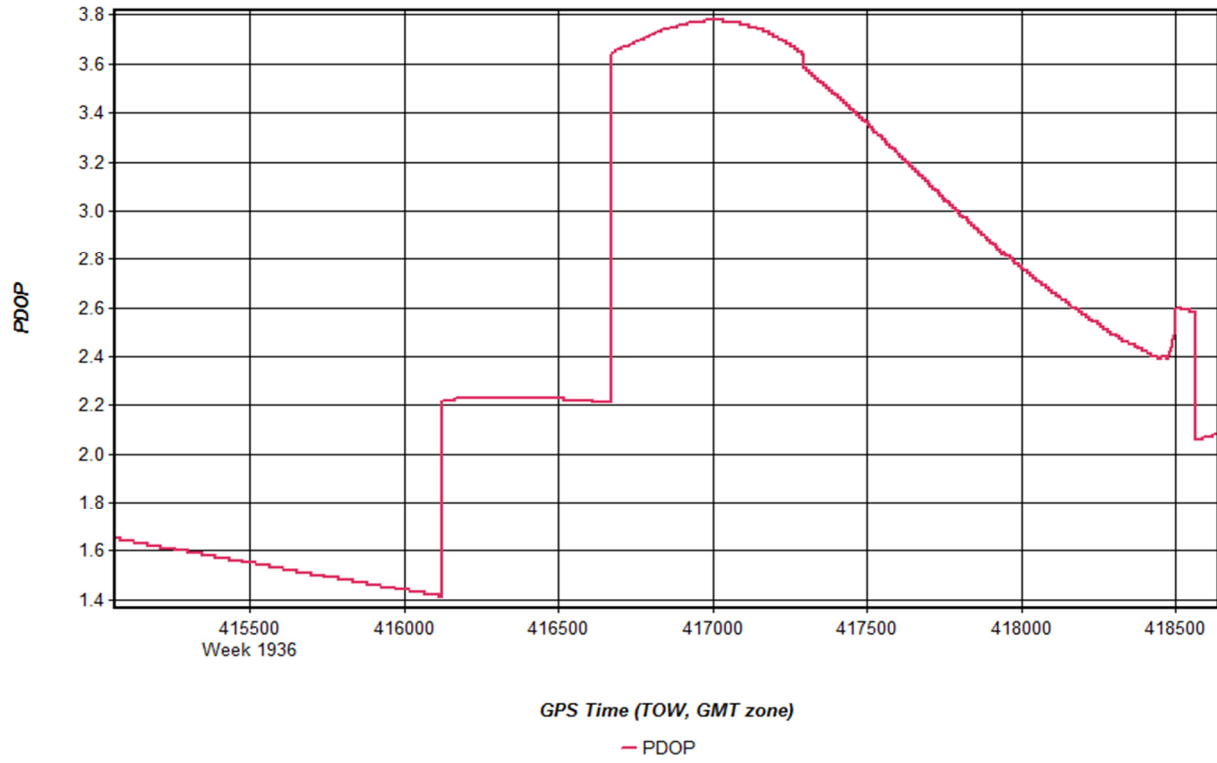
20170216_191546 [Smoothed TC Combined] - Smoothed TC Combined – Map



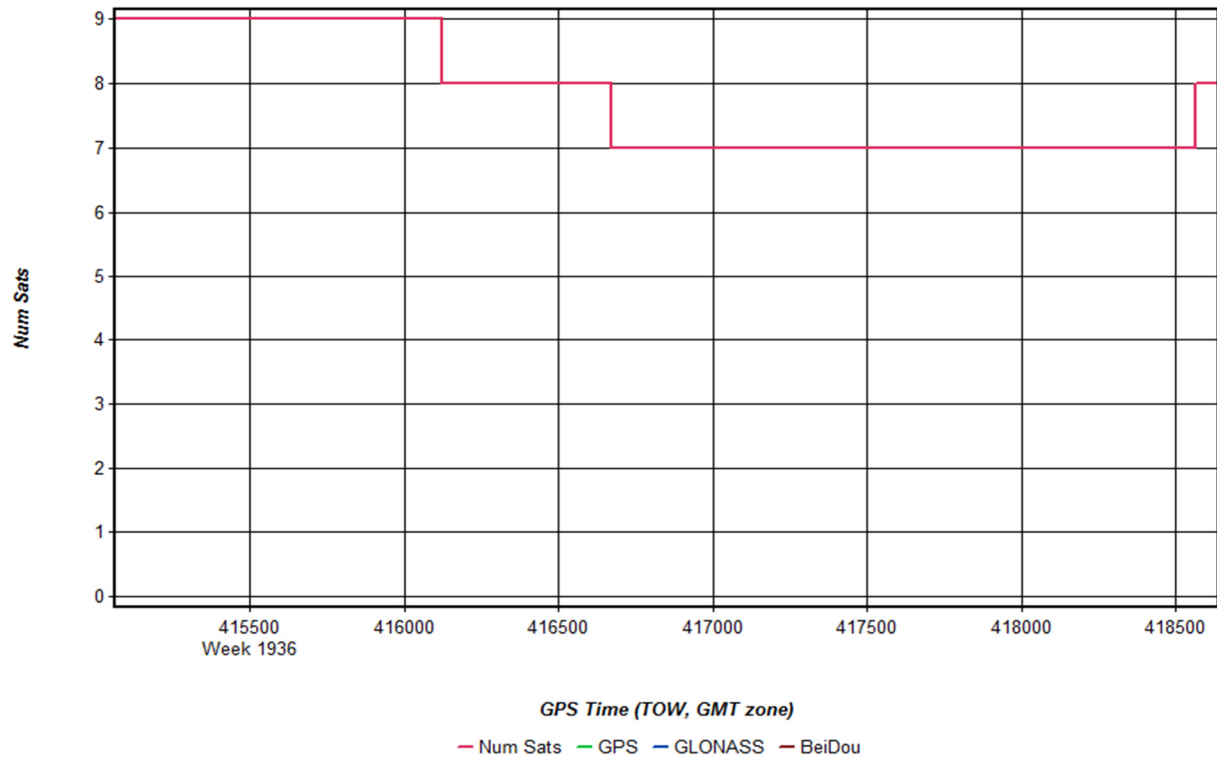
20170216_191546 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



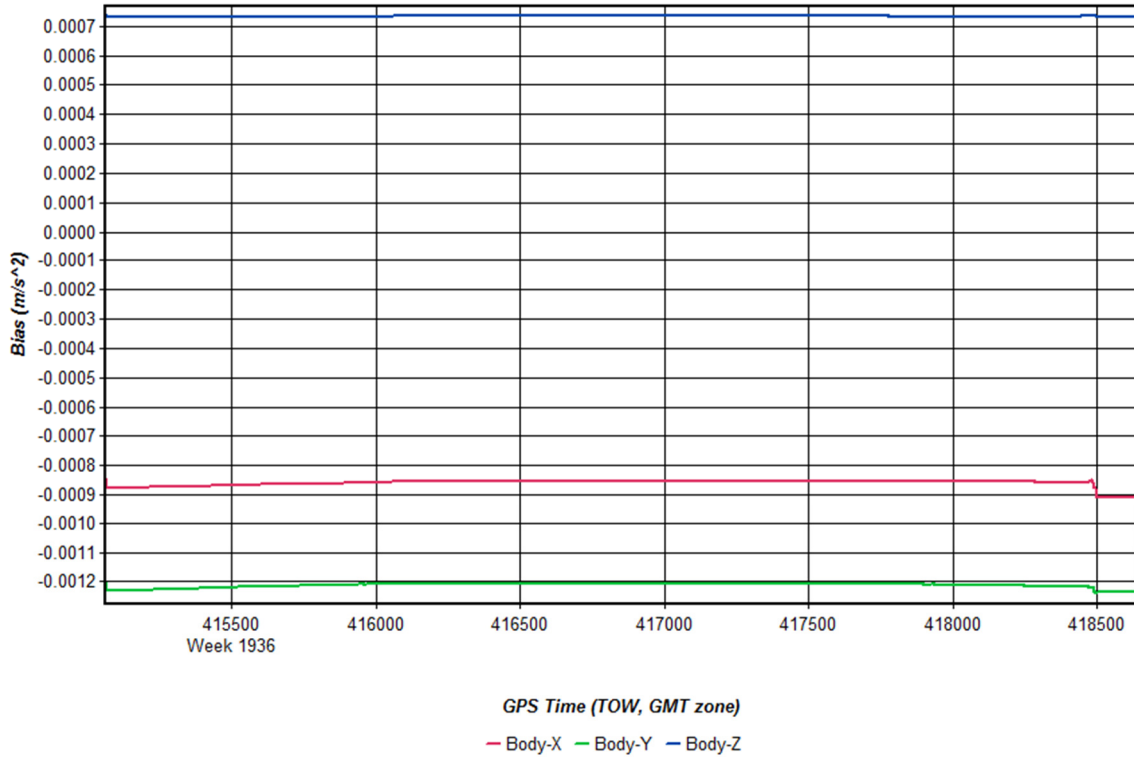
20170216_191546 [Smoothed TC Combined] - PDOP Plot



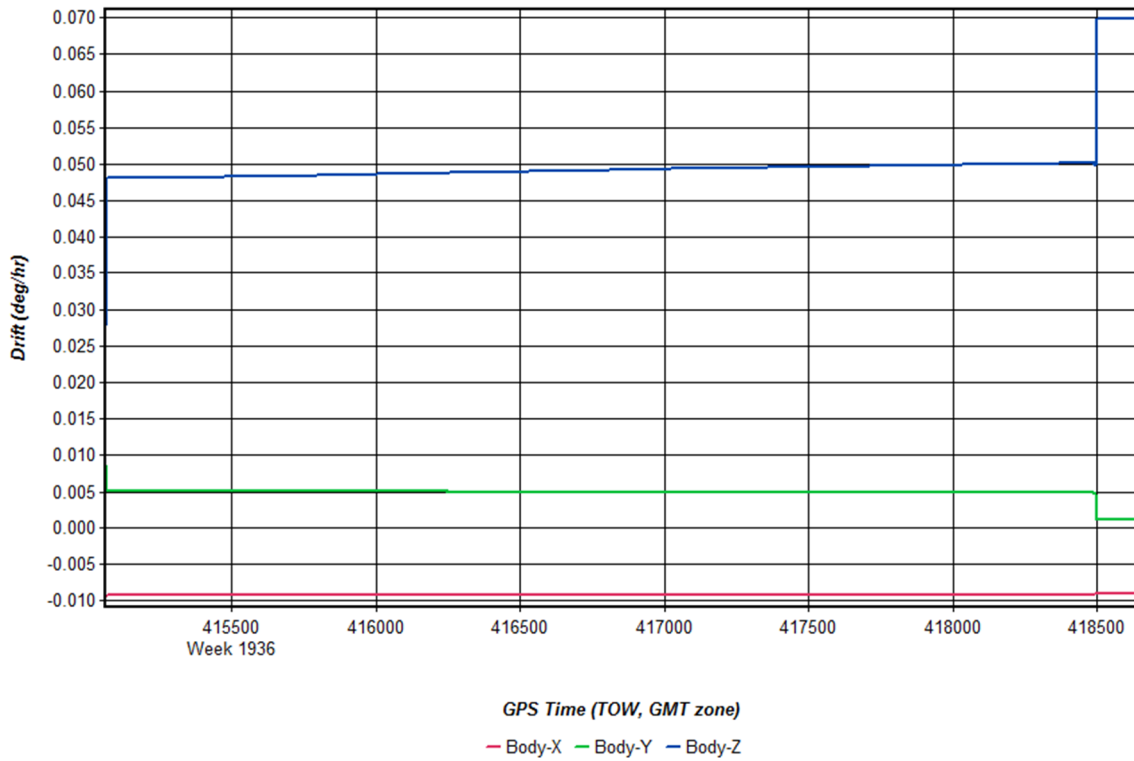
20170216_191546 [Smoothed TC Combined] - Number of Satellites Line Plot



20170216_191546 [Smoothed TC Combined] - Accelerometer Bias Plot



20170216_191546 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170216_191546\GnssImu\20170216_191546.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 7180
No processed position: 7
Missing Fwd or Rev: 310
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 55.5 %
Q 2: 31.2 %
Q 3: 13.3 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0169 (m)
C/A Code: 0.43 (m)
L1 Doppler: 0.029 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.071 (m)
North: 0.031 (m)
Height: 0.151 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (2402 occurrences):

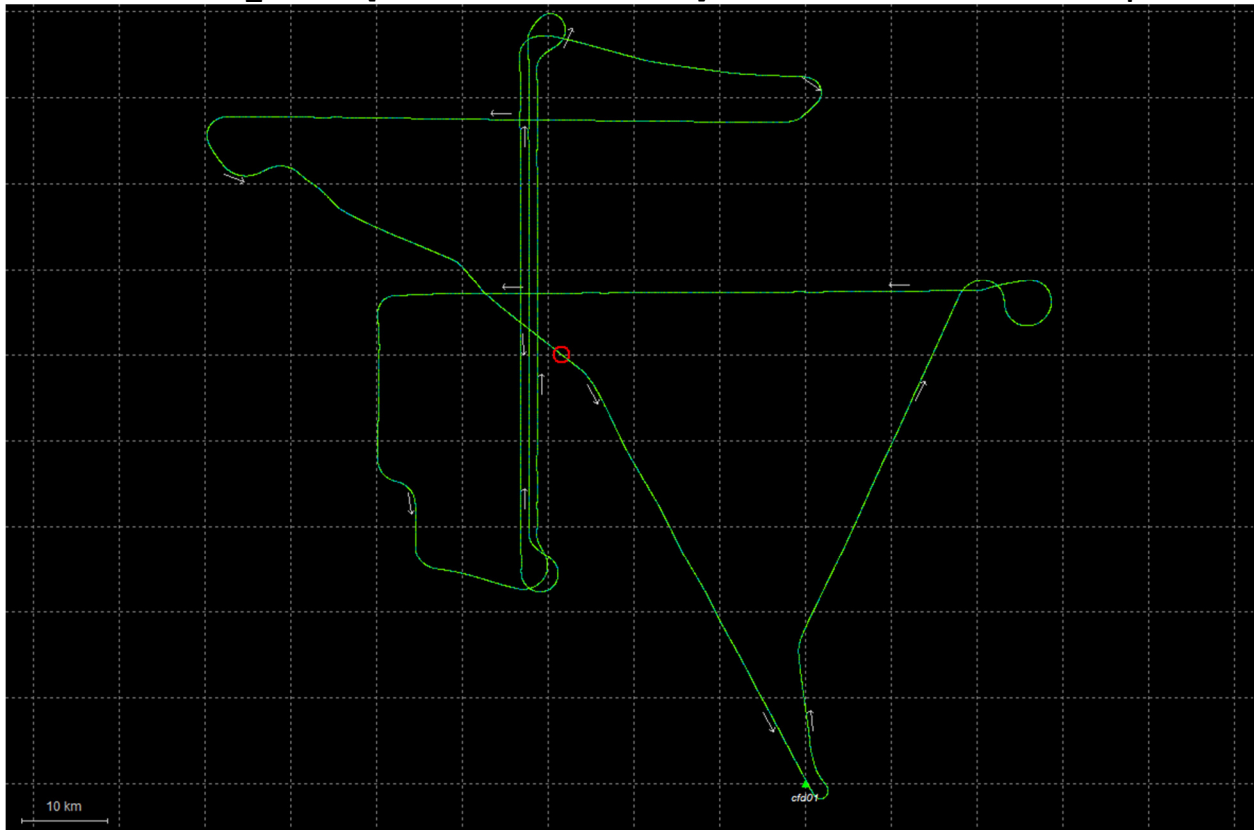
East: 0.002 (m)
North: 0.002 (m)
Height: 0.004 (m)

Baseline Distances:

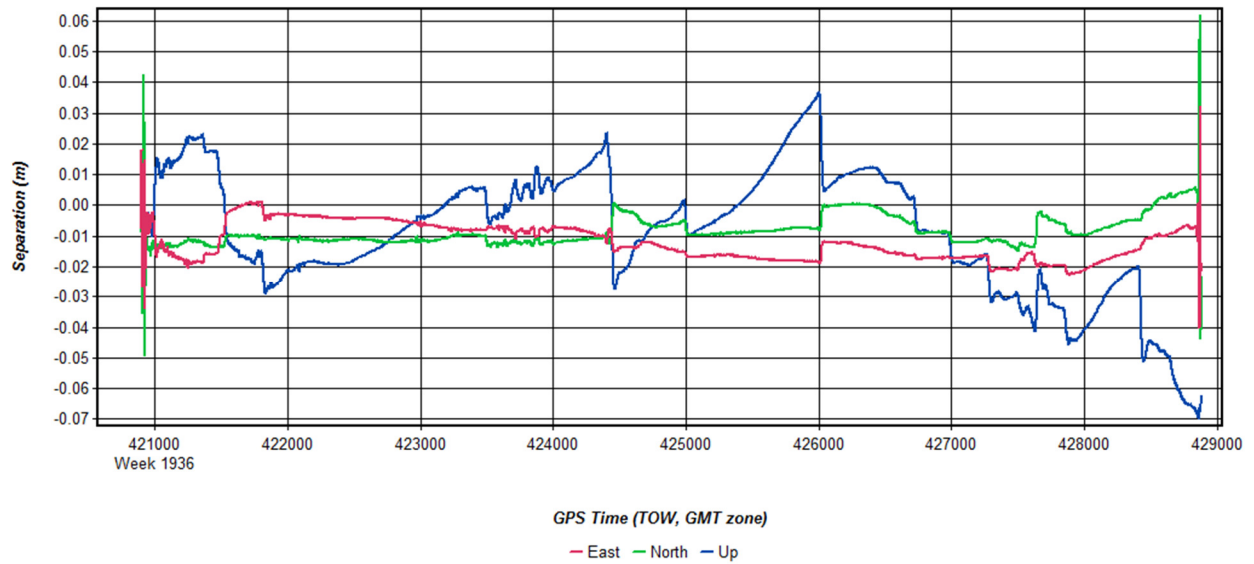
Maximum: 93.136 (km)
Minimum: 0.234 (km)
Average: 46.533 (km)
First Epoch: 66.228 (km)
Last Epoch: 1.052 (km)

Mission 2017-02-16 C

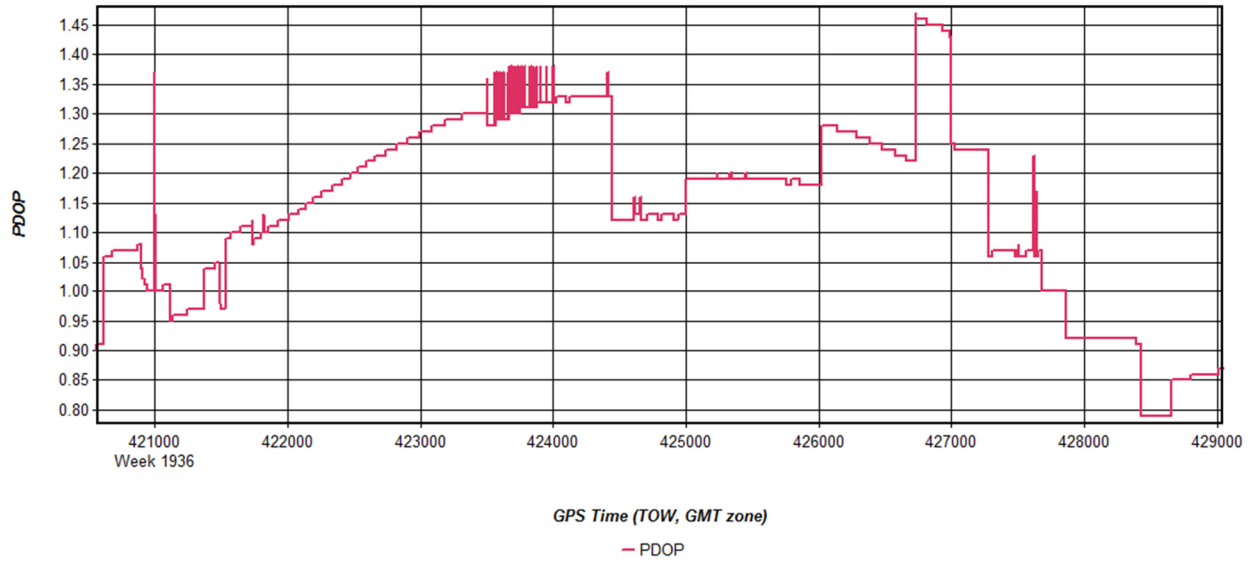
20170216_204726 [Smoothed TC Combined] - Smoothed TC Combined – Map



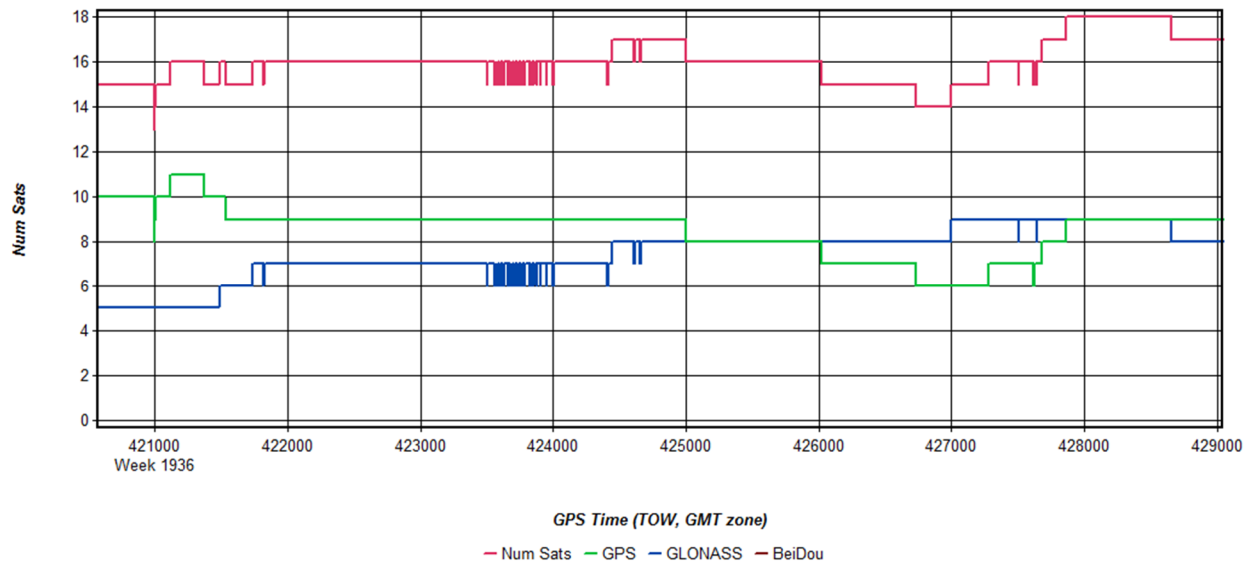
20170216_204726 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



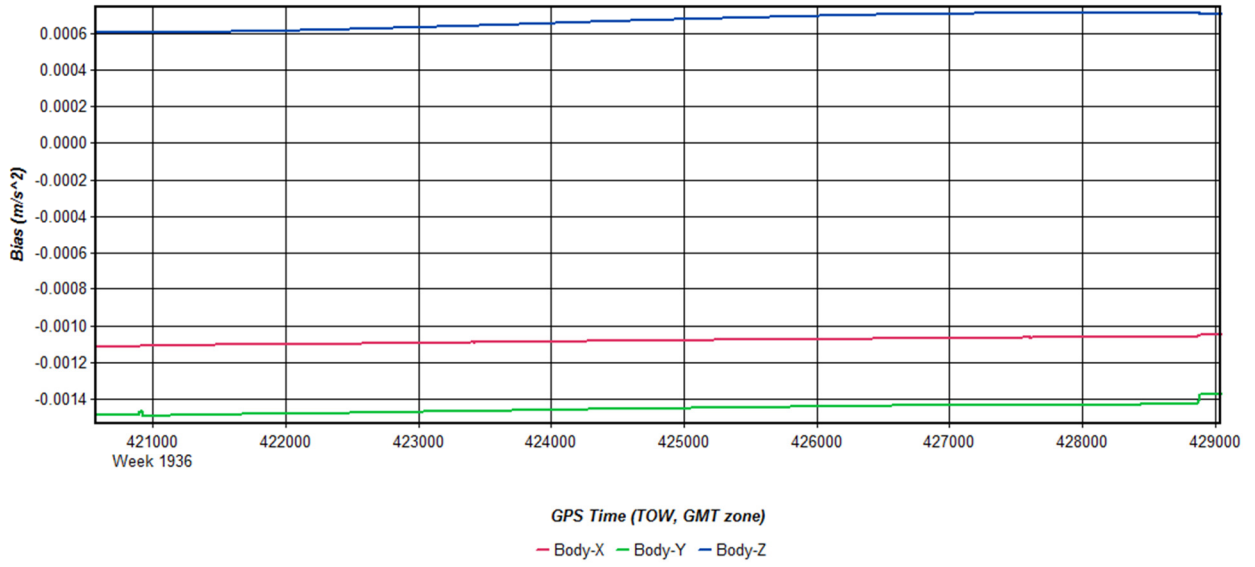
20170216_204726 [Smoothed TC Combined] - PDOP Plot



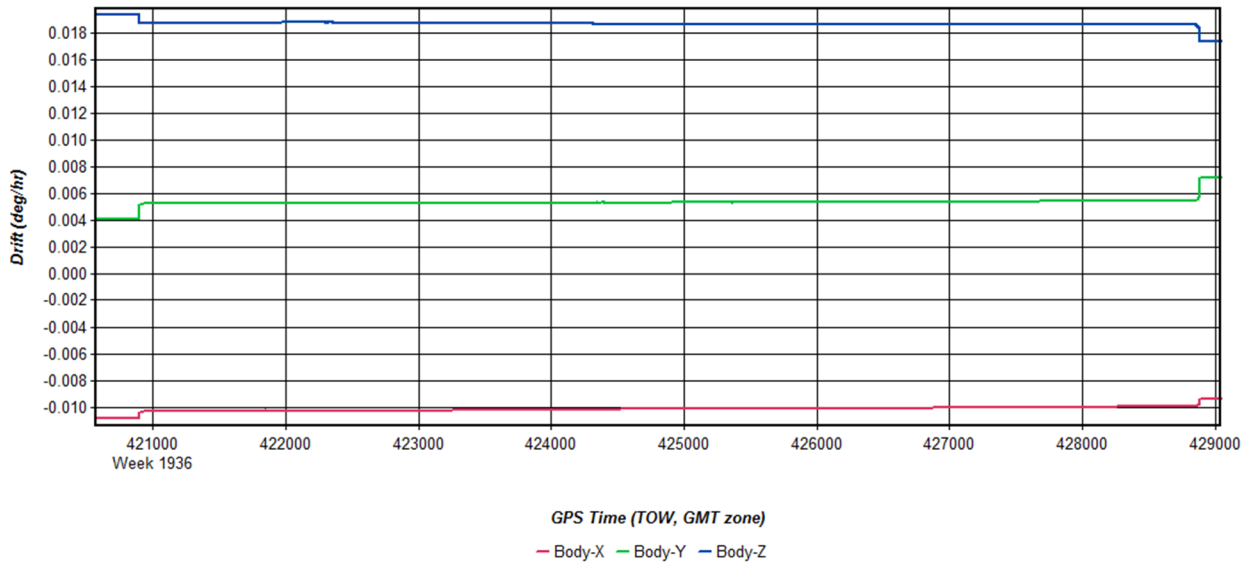
20170216_204726 [Smoothed TC Combined] - Number of Satellites Line Plot



20170216_204726 [Smoothed TC Combined] - Accelerometer Bias Plot



20170216_204726 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170216_204726\Gnsslmu\20170216_204726.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 16981
No processed position: 6
Missing Fwd or Rev: 1010
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 59.8 %
Q 2: 35.7 %
Q 3: 4.4 %
Q 4: 0.1 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0202 (m)
C/A Code: 0.31 (m)
L1 Doppler: 0.033 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.013 (m)
North: 0.010 (m)
Height: 0.022 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (15965 occurrences):

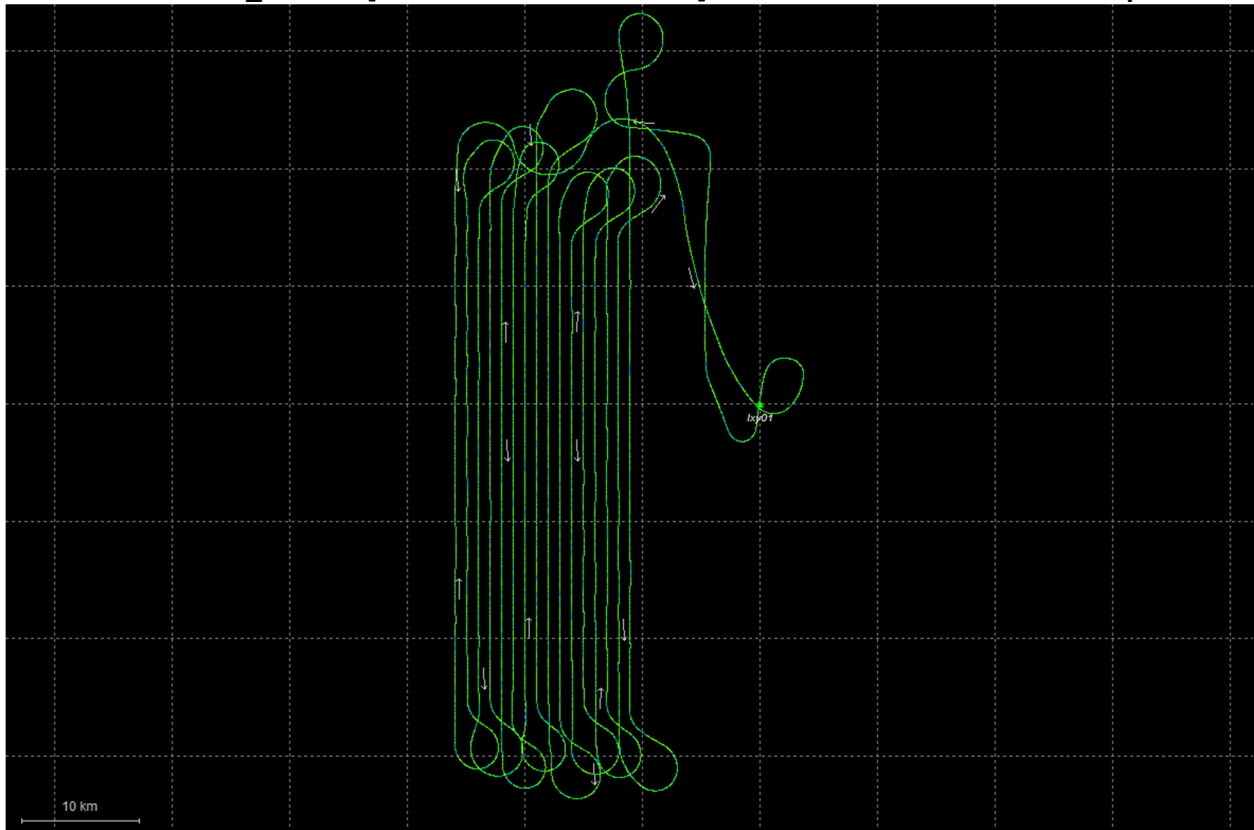
East: 0.013 (m)
North: 0.010 (m)
Height: 0.022 (m)

Baseline Distances:

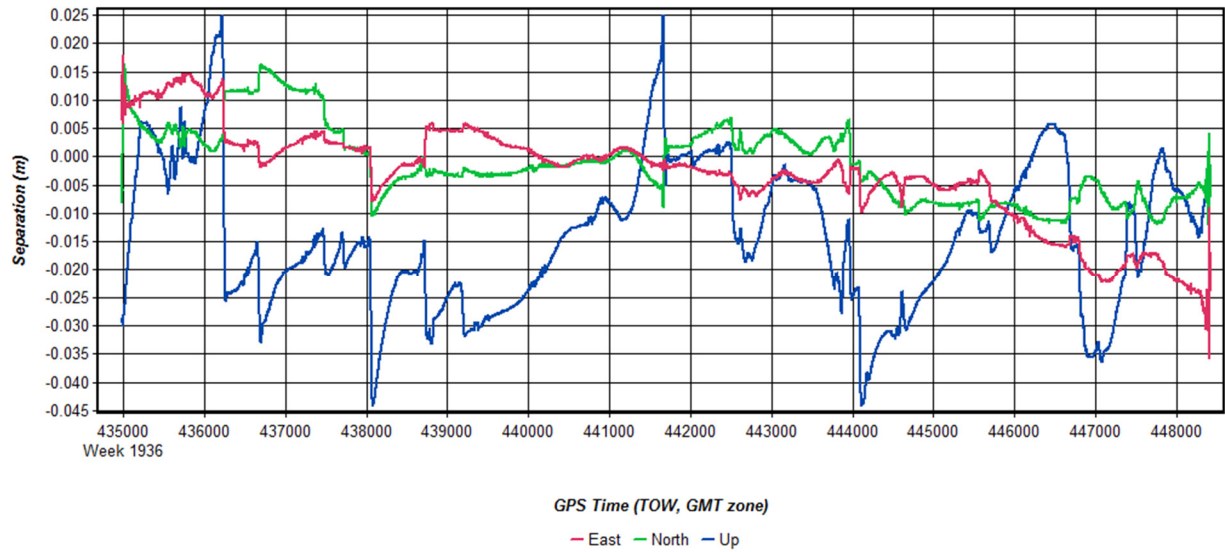
Maximum: 102.440 (km)
Minimum: 0.236 (km)
Average: 56.060 (km)
First Epoch: 0.273 (km)
Last Epoch: 1.045 (km)

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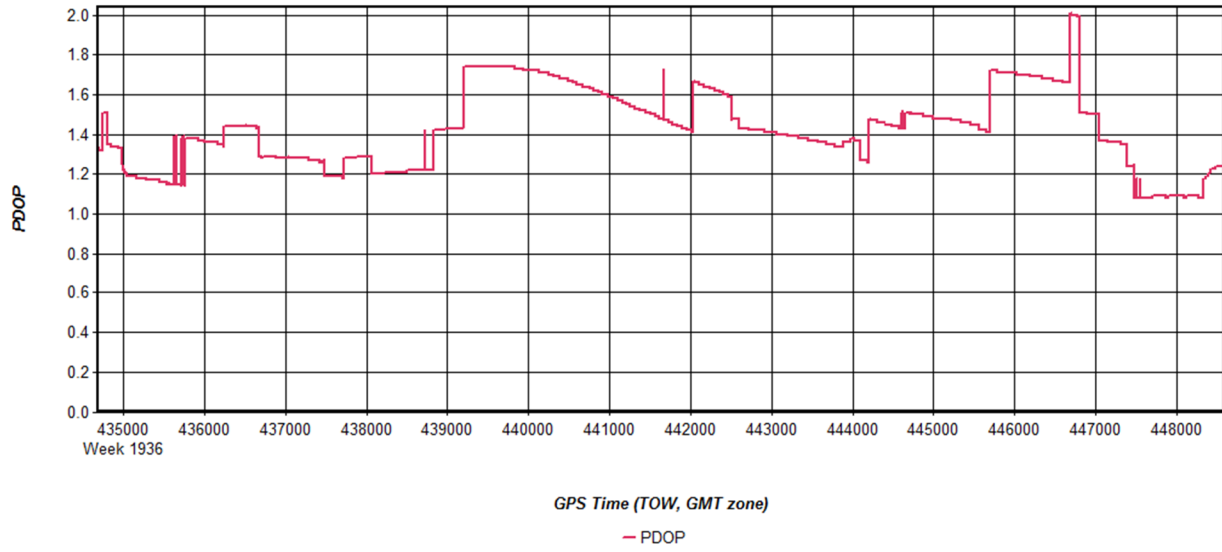
20170217_004045 [Smoothed TC Combined] - Smoothed TC Combined – Map



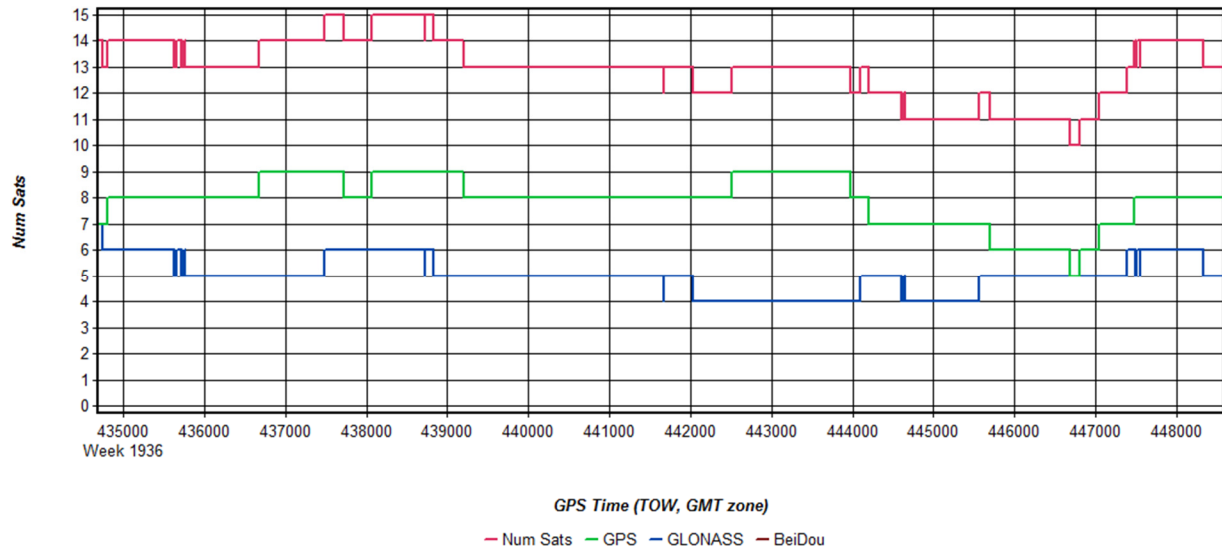
20170217_004045 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



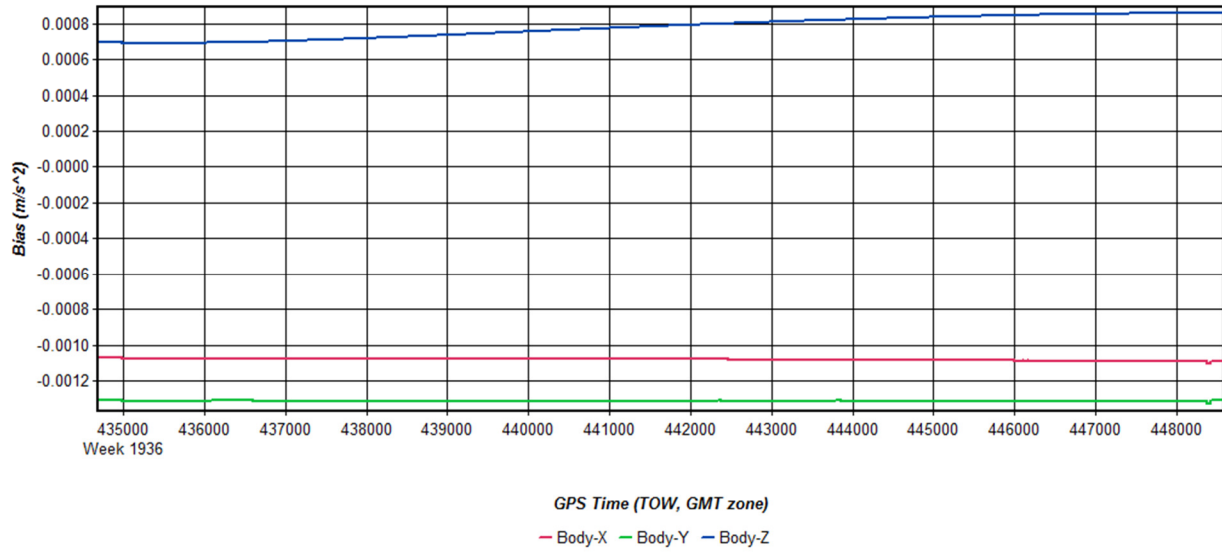
20170217_004045 [Smoothed TC Combined] - PDOP Plot



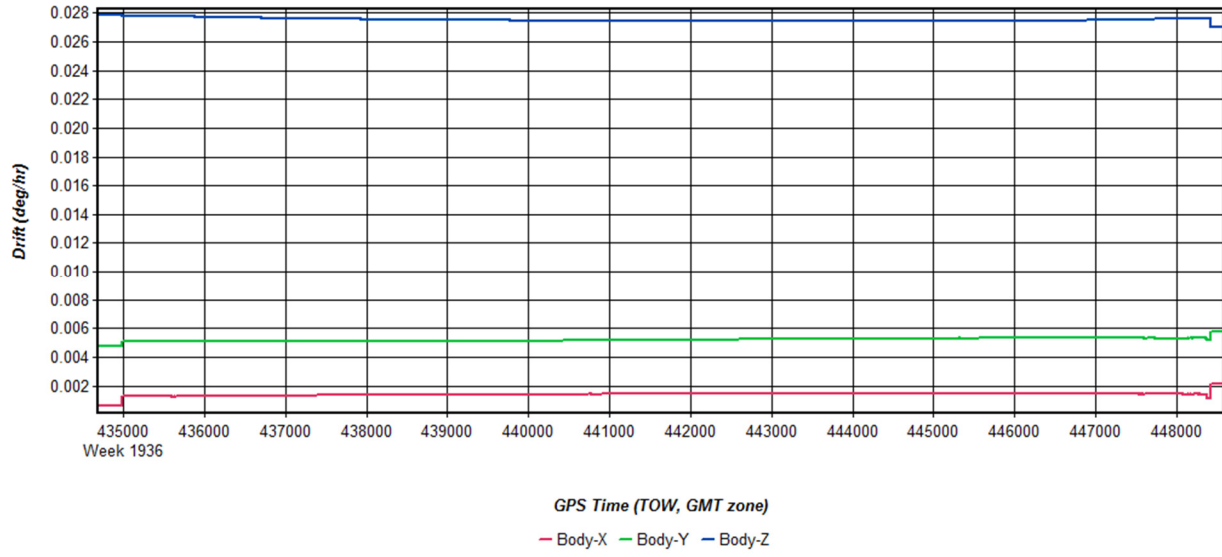
20170217_004045 [Smoothed TC Combined] - Number of Satellites Line Plot



20170217_004045 [Smoothed TC Combined] - Accelerometer Bias Plot



20170217_004045 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170217_004045\GnssImu\20170217_004045.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 27866
No processed position: 7
Missing Fwd or Rev: 1006
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 60.1 %
Q 2: 35.6 %
Q 3: 4.3 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0156 (m)
C/A Code: 0.32 (m)
L1 Doppler: 0.027 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.009 (m)
North: 0.007 (m)
Height: 0.019 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (26853 occurrences):

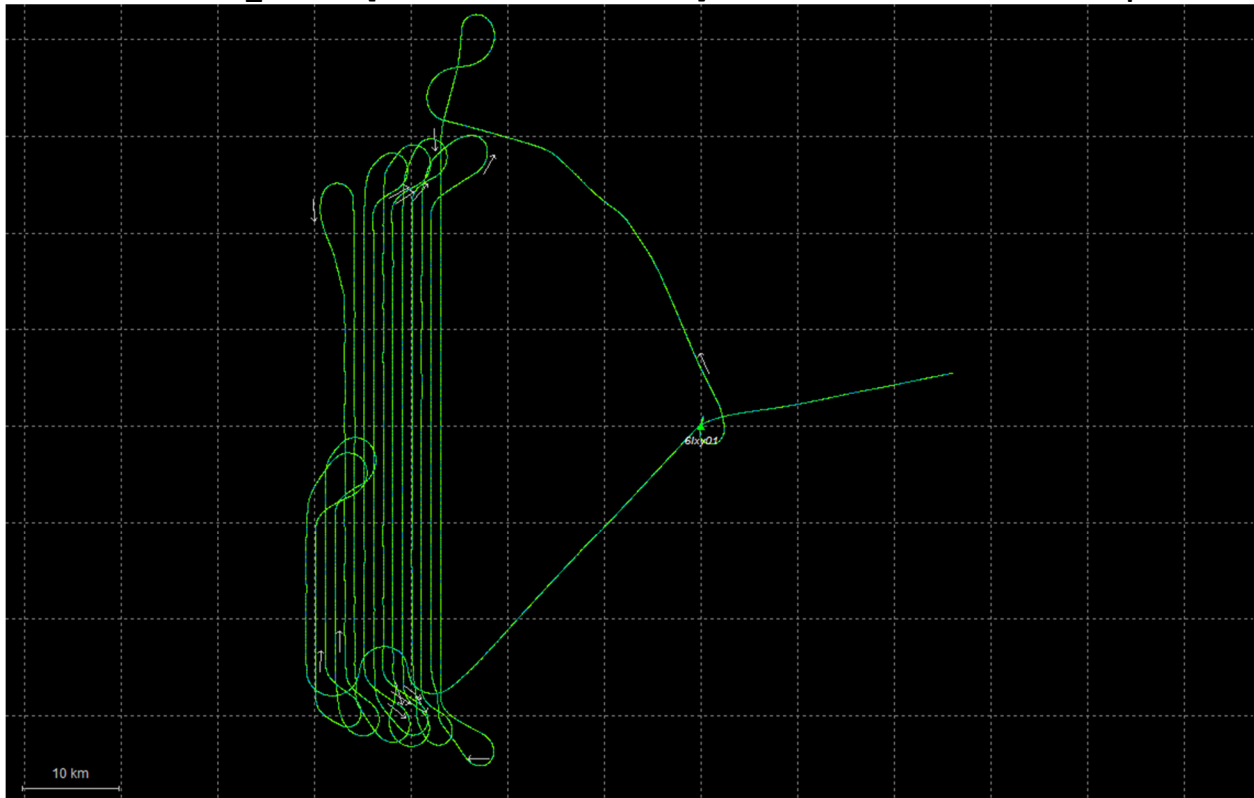
East: 0.009 (m)
North: 0.007 (m)
Height: 0.019 (m)

Baseline Distances:

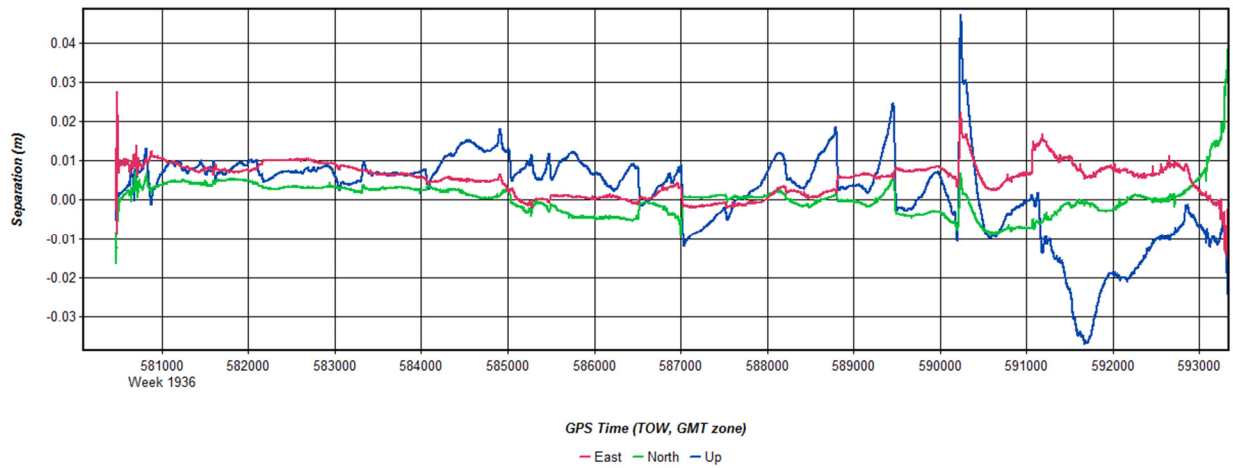
Maximum: 39.597 (km)
Minimum: 0.044 (km)
Average: 22.578 (km)
First Epoch: 0.977 (km)
Last Epoch: 0.213 (km)

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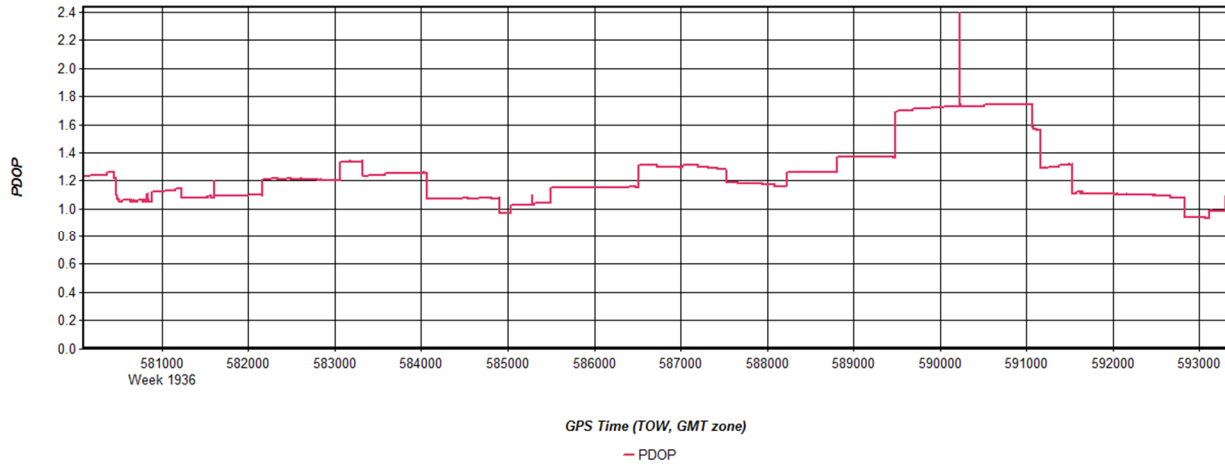
20170218_170607 [Smoothed TC Combined] - Smoothed TC Combined – Map



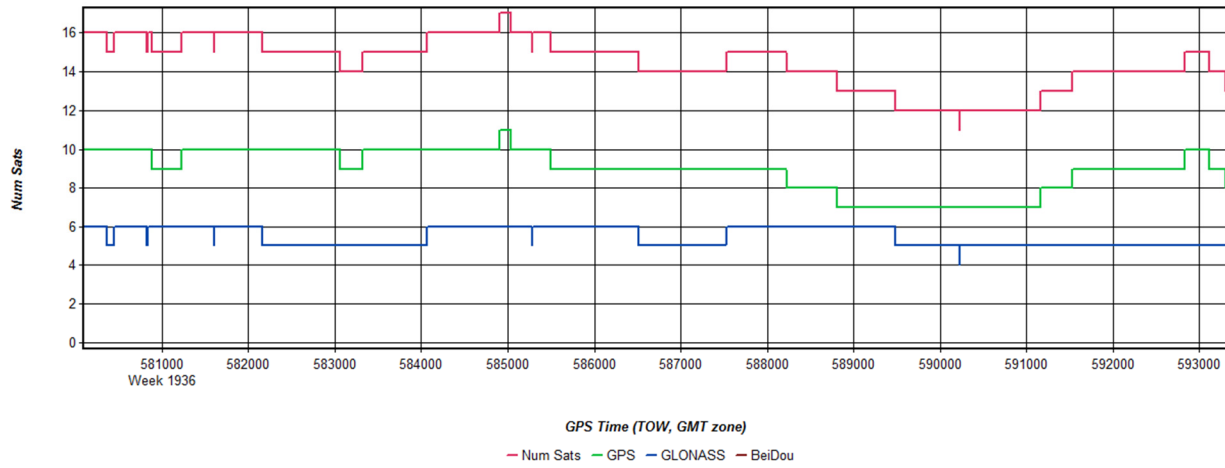
20170218_170607 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



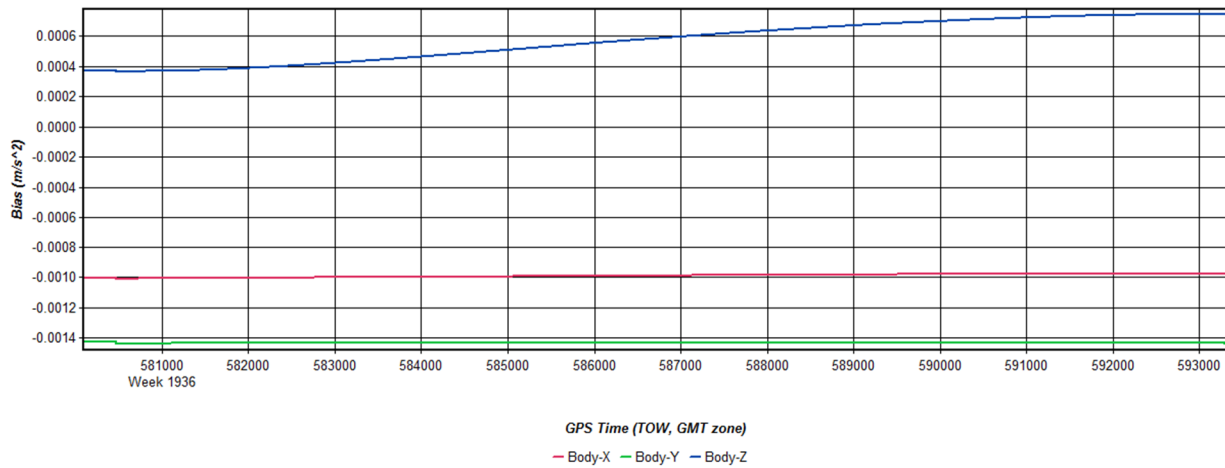
20170218_170607 [Smoothed TC Combined] - PDOP Plot



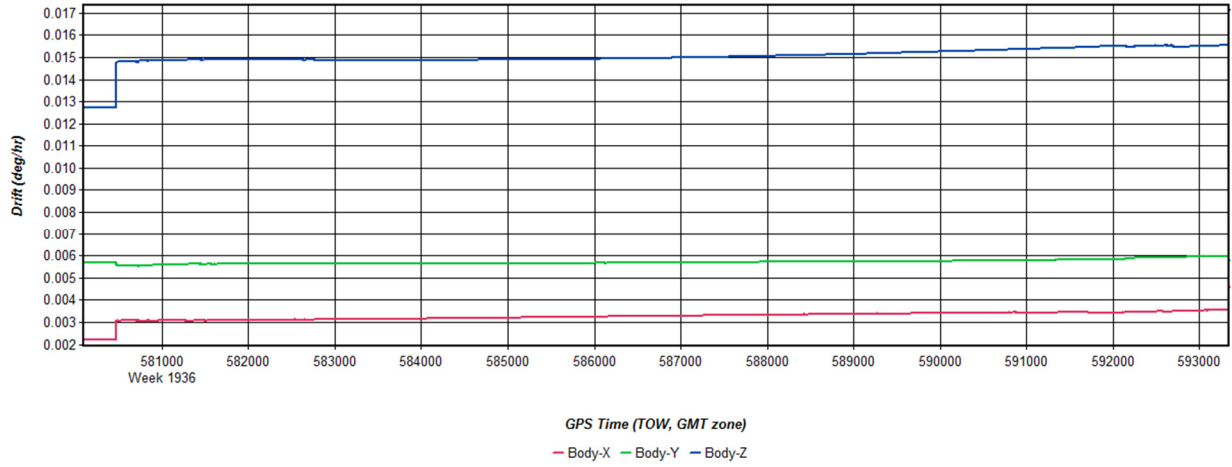
20170218_170607 [Smoothed TC Combined] - Number of Satellites Line Plot



20170218_170607 [Smoothed TC Combined] - Accelerometer Bias Plot



20170218_170607 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170218_170607\GnssImu\20170218_170607.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 26554
No processed position: 7
Missing Fwd or Rev: 798
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 57.3 %
Q 2: 38.1 %
Q 3: 4.6 %
Q 4: 0.1 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0166 (m)
C/A Code: 0.33 (m)
L1 Doppler: 0.031 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.007 (m)
North: 0.004 (m)
Height: 0.011 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (25748 occurrences):

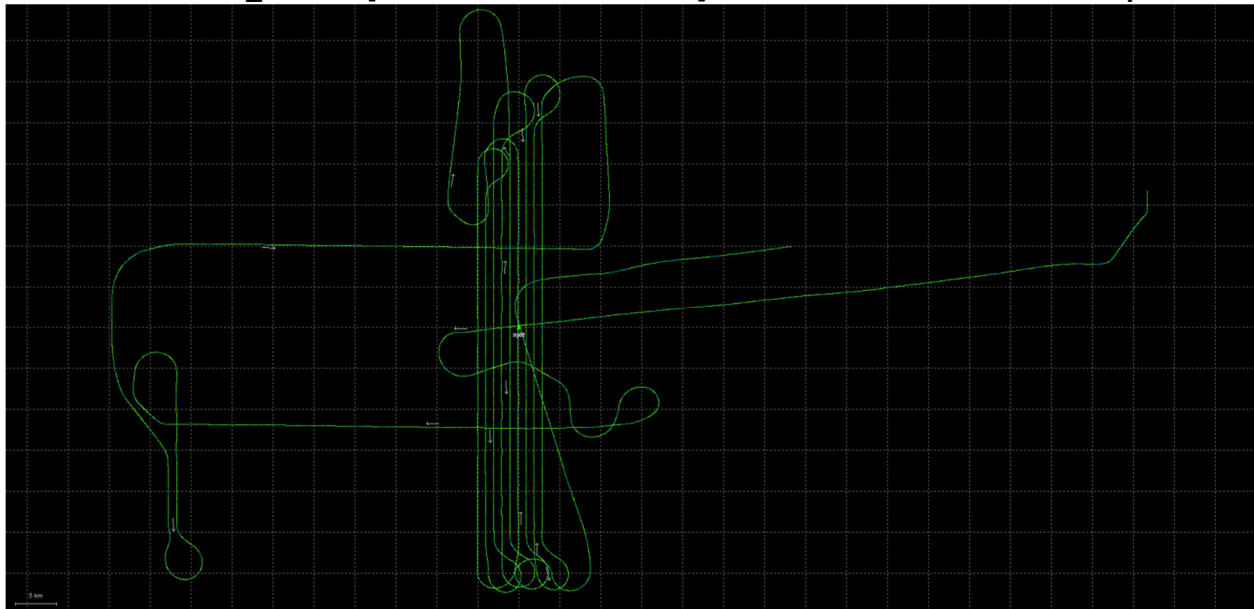
East: 0.007 (m)
North: 0.004 (m)
Height: 0.011 (m)

Baseline Distances:

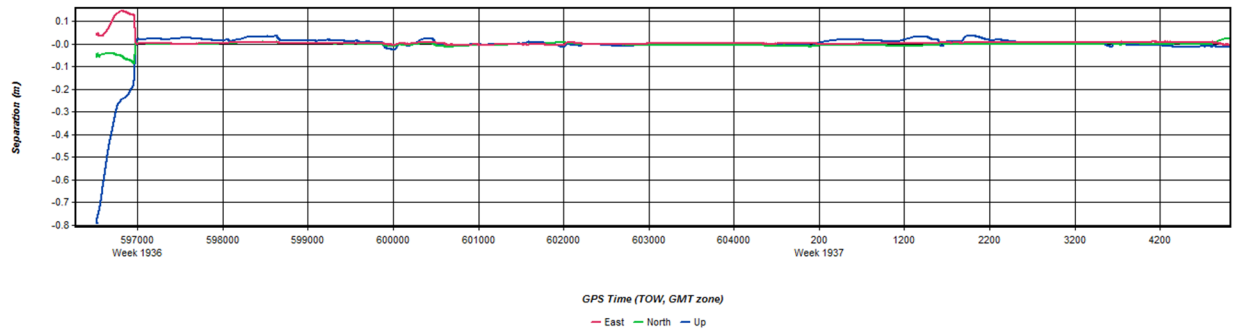
Maximum: 49.009 (km)
Minimum: 0.027 (km)
Average: 33.673 (km)
First Epoch: 0.086 (km)
Last Epoch: 26.407 (km)

Mission 2017-02-18 B

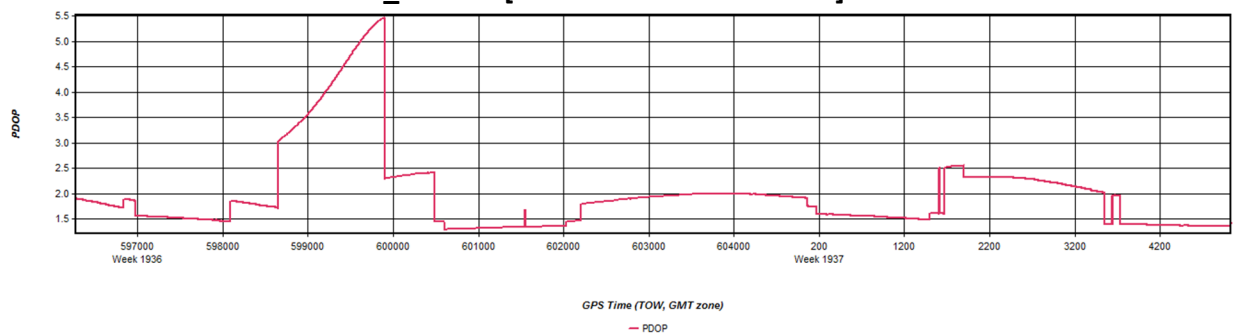
20170218_213350 [Smoothed TC Combined] - Smoothed TC Combined – Map



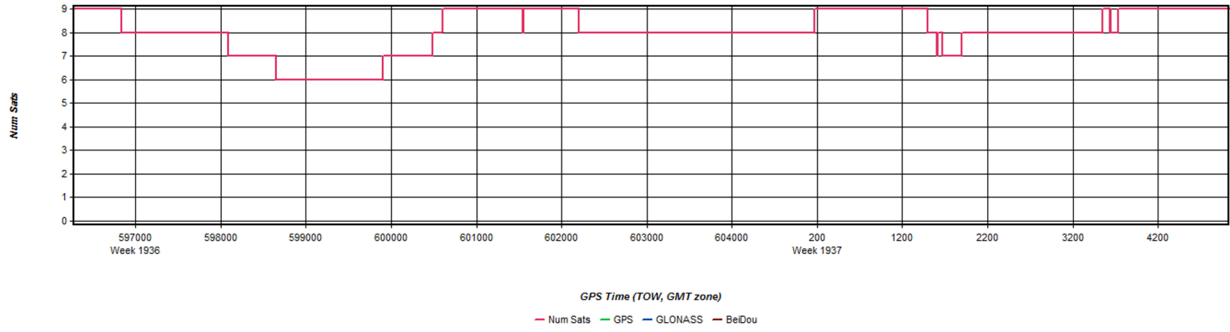
20170218_213350 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



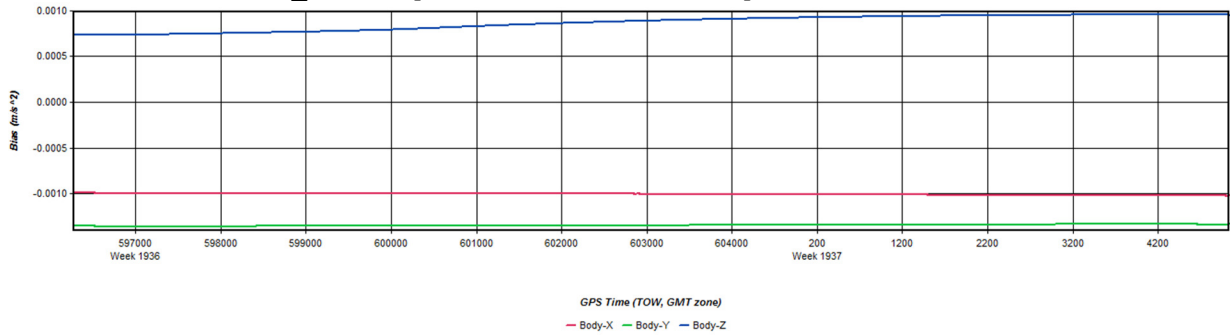
20170218_213350 [Smoothed TC Combined] - PDOP Plot



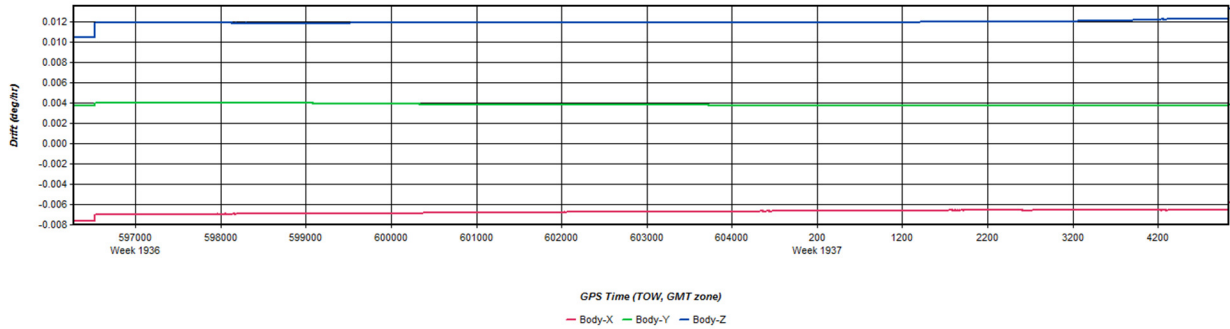
20170218_213350 [Smoothed TC Combined] - Number of Satellites Line Plot



20170218_213350 [Smoothed TC Combined] - Accelerometer Bias Plot



20170218_213350 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170218_213350\Gnss\imu\20170218_213350.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 27157
No processed position: 17089
Missing Fwd or Rev: 23
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 57.9 %
Q 2: 32.7 %
Q 3: 9.4 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0159 (m)
C/A Code: 0.45 (m)
L1 Doppler: 0.029 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.085 (m)
North: 0.049 (m)
Height: 0.042 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (6826 occurrences):

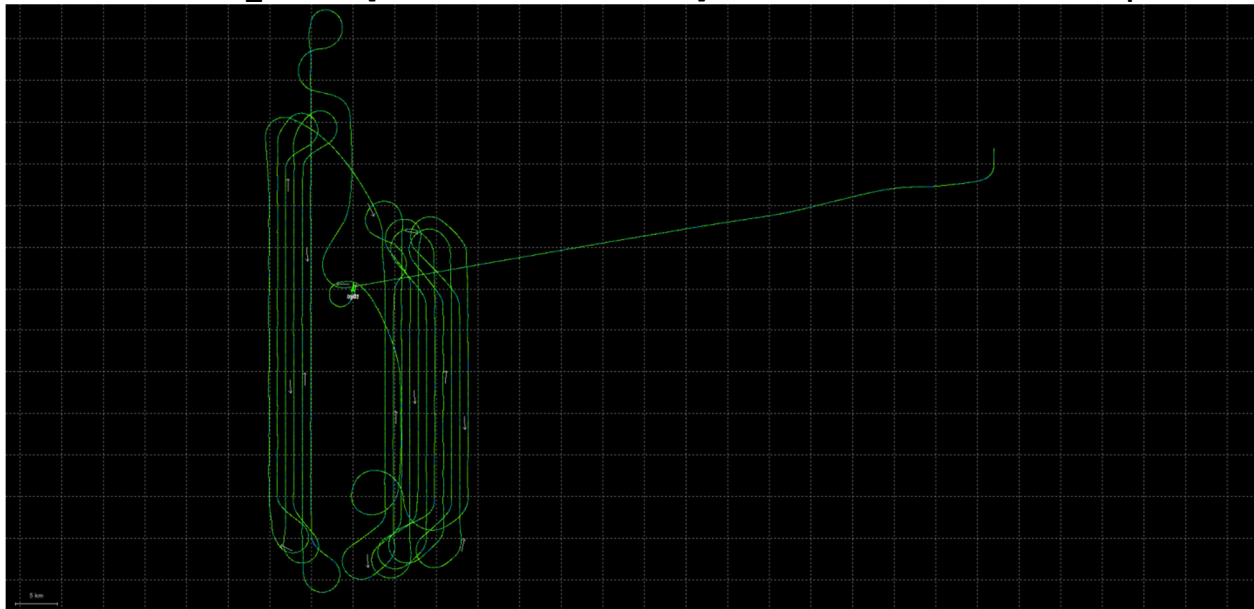
East: 0.003 (m)
North: 0.006 (m)
Height: 0.008 (m)

Baseline Distances:

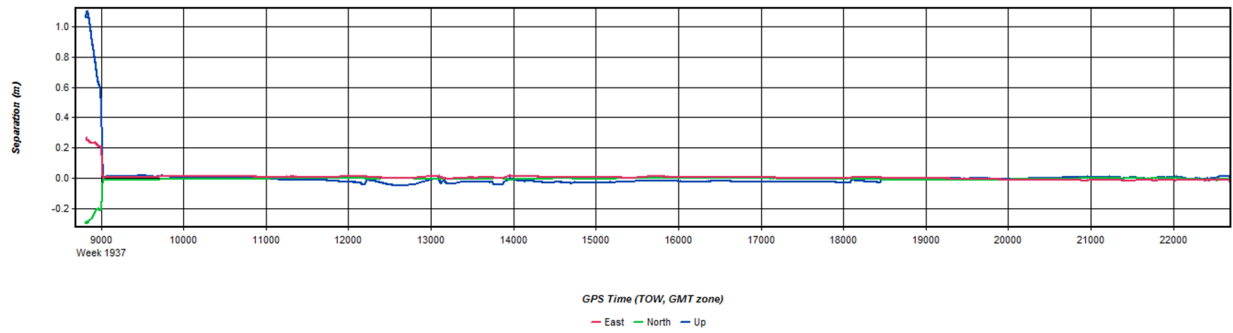
Maximum: 38.846 (km)
Minimum: 0.122 (km)
Average: 17.435 (km)
First Epoch: 31.220 (km)
Last Epoch: 34.564 (km)

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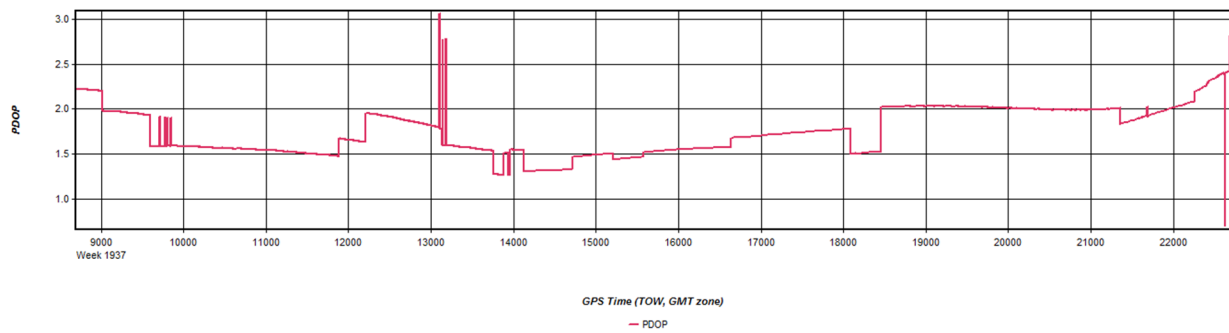
20170219_022244 [Smoothed TC Combined] - Smoothed TC Combined – Map



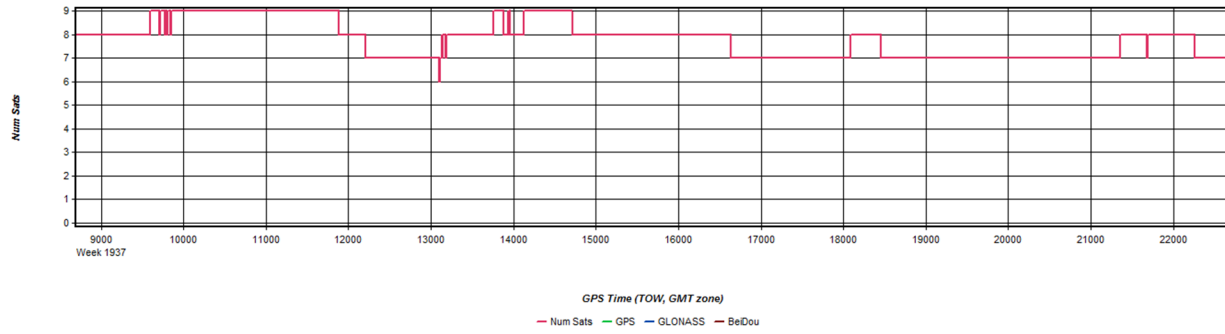
20170219_022244 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



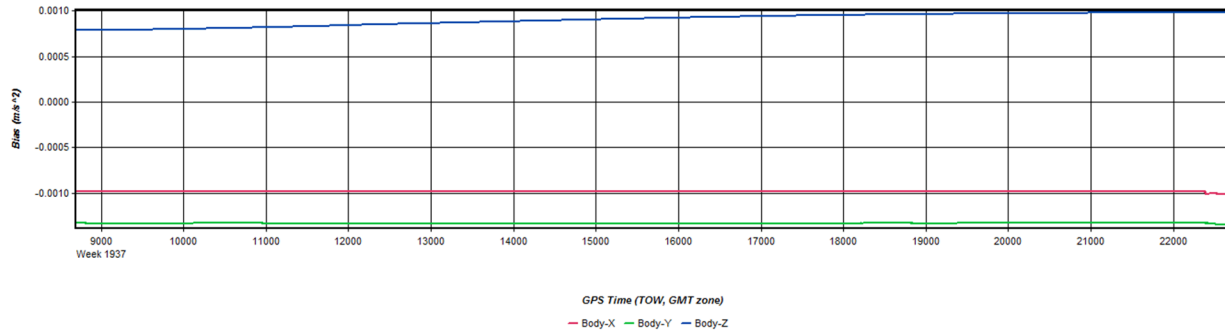
20170219_022244 [Smoothed TC Combined] - PDOP Plot



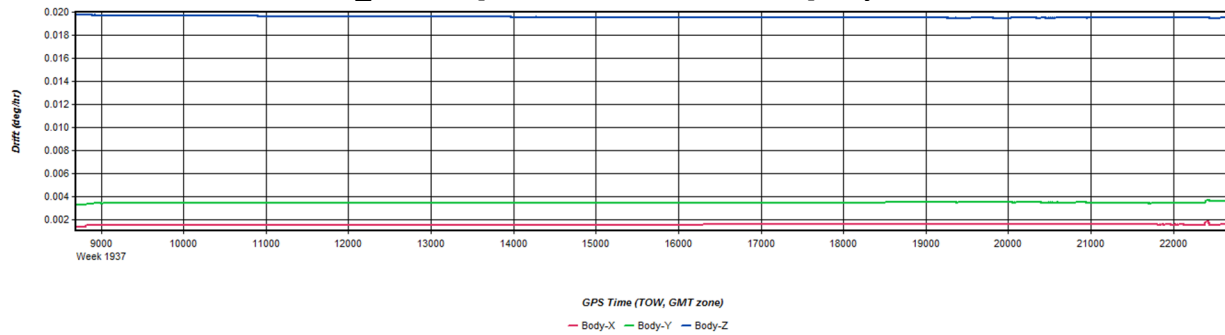
20170219_022244 [Smoothed TC Combined] - Number of Satellites Line Plot



20170219_022244 [Smoothed TC Combined] - Accelerometer Bias Plot



20170219_022244 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170219_022244\Gnss\imu\20170219_022244.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 28062
No processed position: 7
Missing Fwd or Rev: 308
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 55.4 %
Q 2: 38.5 %
Q 3: 6.1 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0158 (m)
C/A Code: 0.40 (m)
L1 Doppler: 0.031 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.029 (m)
North: 0.029 (m)
Height: 0.102 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (27348 occurrences):

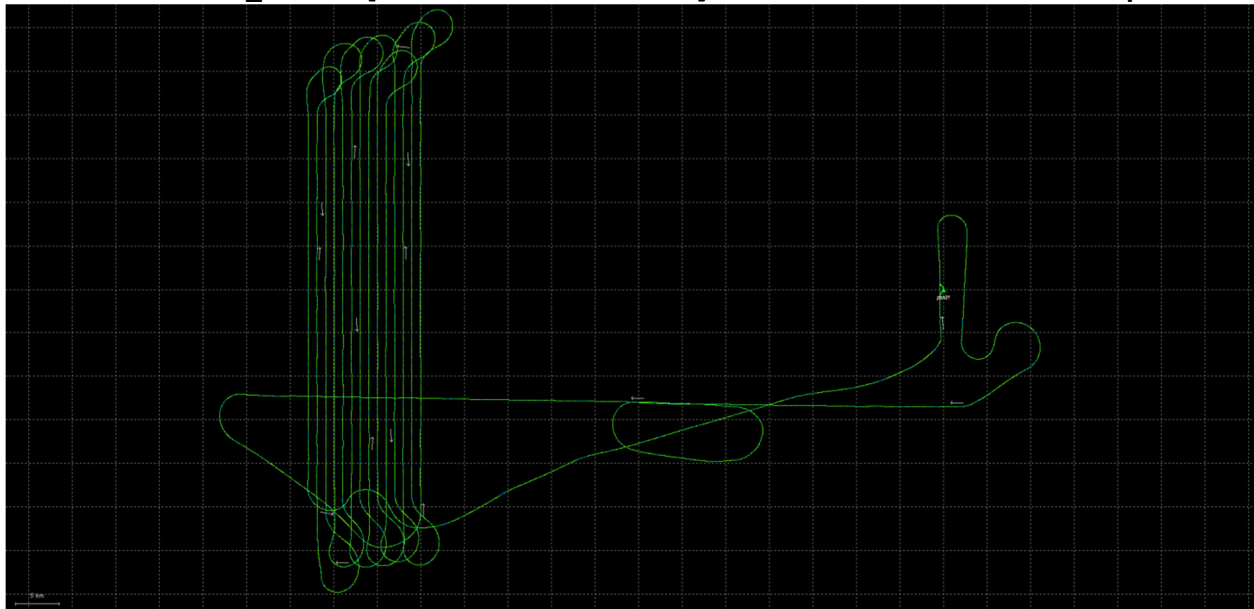
East: 0.009 (m)
North: 0.005 (m)
Height: 0.019 (m)

Baseline Distances:

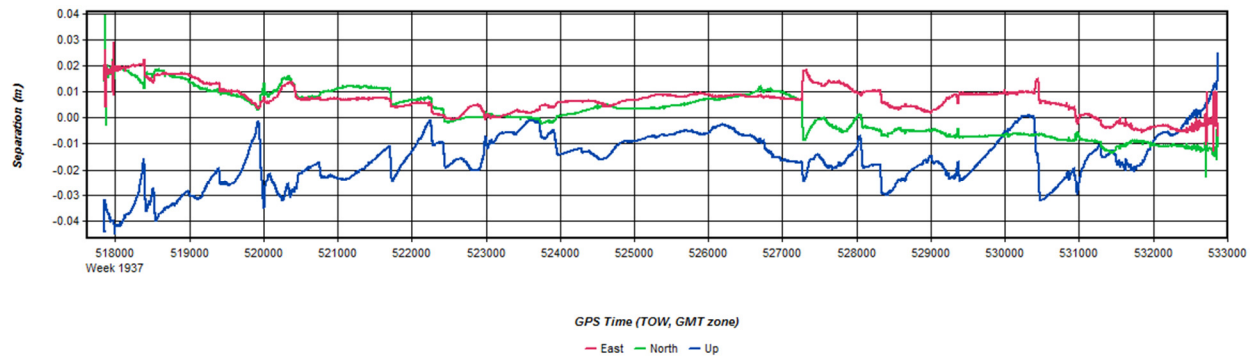
Maximum: 78.436 (km)
Minimum: 0.023 (km)
Average: 19.864 (km)
First Epoch: 78.436 (km)
Last Epoch: 0.035 (km)

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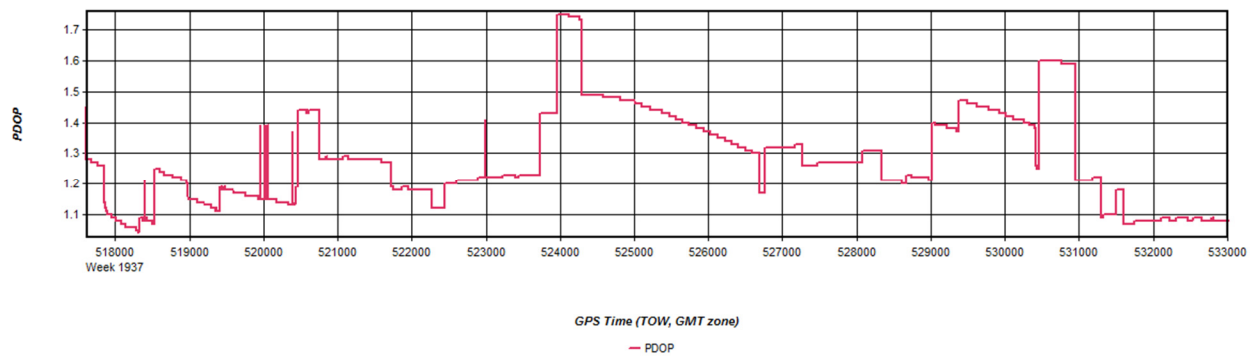
20170224_234447 [Smoothed TC Combined] - Smoothed TC Combined – Map



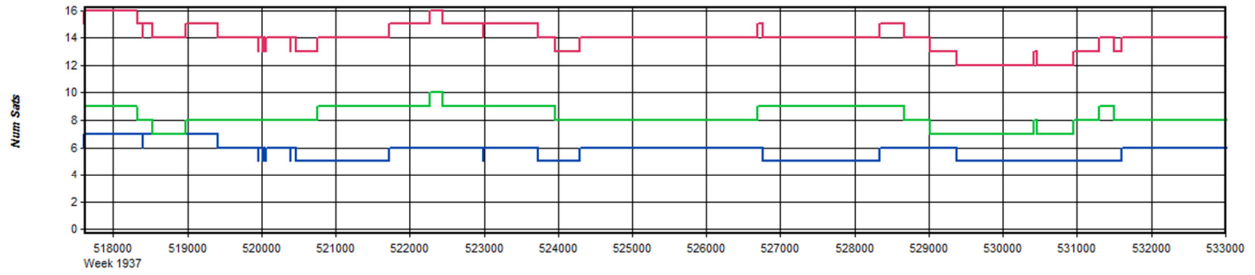
20170224_234447 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



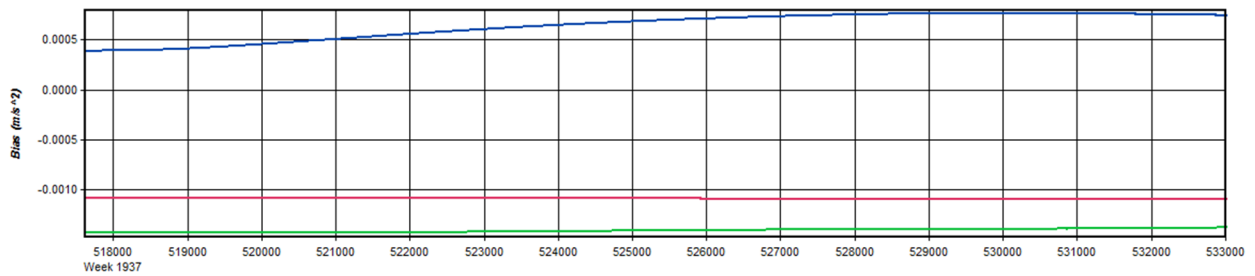
20170224_234447 [Smoothed TC Combined] - PDOP Plot



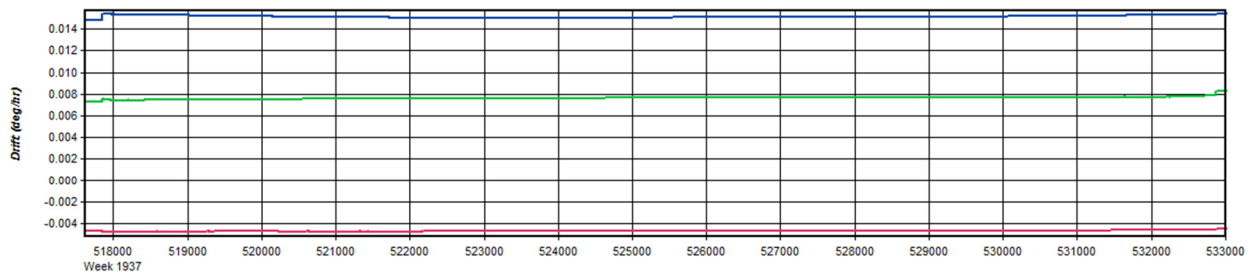
20170224_234447 [Smoothed TC Combined] - Number of Satellites Line Plot



20170224_234447 [Smoothed TC Combined] - Accelerometer Bias Plot



20170224_234447 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170224_234447\GnssImu\20170224_234447.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 30829
No processed position: 6
Missing Fwd or Rev: 770
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 59.1 %
Q 2: 36.9 %
Q 3: 4.0 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0163 (m)
C/A Code: 0.30 (m)
L1 Doppler: 0.028 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.009 (m)
North: 0.009 (m)
Height: 0.019 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

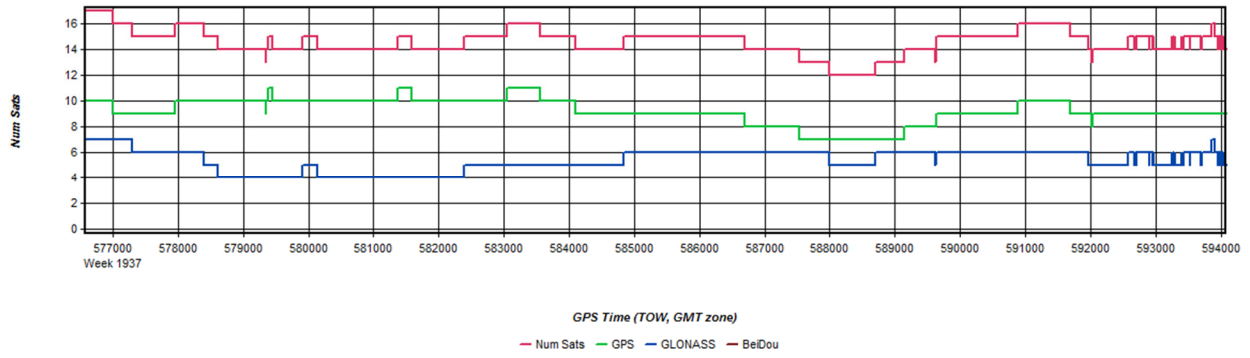
Fwd/Rev Sep. RMS for dual FWD/REV fixes (30053 occurrences):

East: 0.009 (m)
North: 0.009 (m)
Height: 0.019 (m)

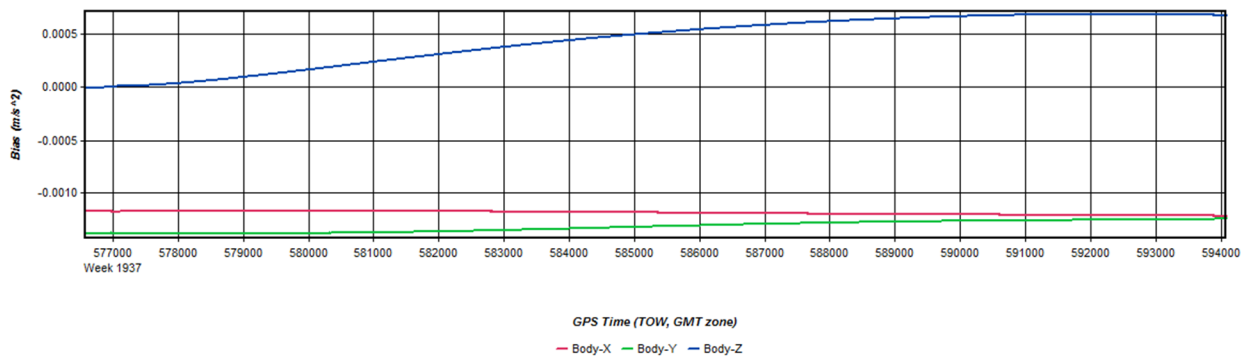
Baseline Distances:

Maximum: 83.554 (km)
Minimum: 0.028 (km)
Average: 56.774 (km)
First Epoch: 0.028 (km)
Last Epoch: 0.049 (km)

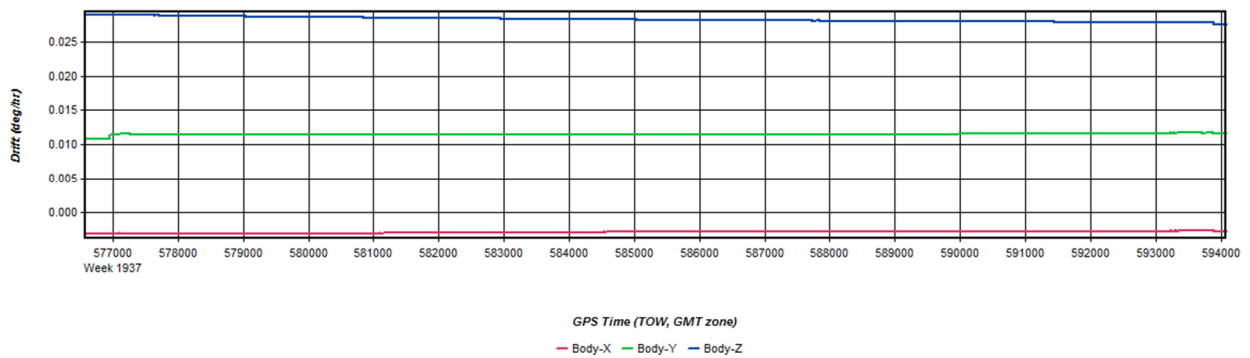
20170225_160718 [Smoothed TC Combined] - Number of Satellites Line Plot



20170225_160718 [Smoothed TC Combined] - Accelerometer Bias Plot



20170225_160718 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170225_160718\Gnss\mu\20170225_160718.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 35073
No processed position: 6
Missing Fwd or Rev: 1202
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 59.3 %
Q 2: 36.9 %
Q 3: 3.8 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0192 (m)
C/A Code: 0.36 (m)
L1 Doppler: 0.030 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.008 (m)
North: 0.008 (m)
Height: 0.029 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (33865 occurrences):

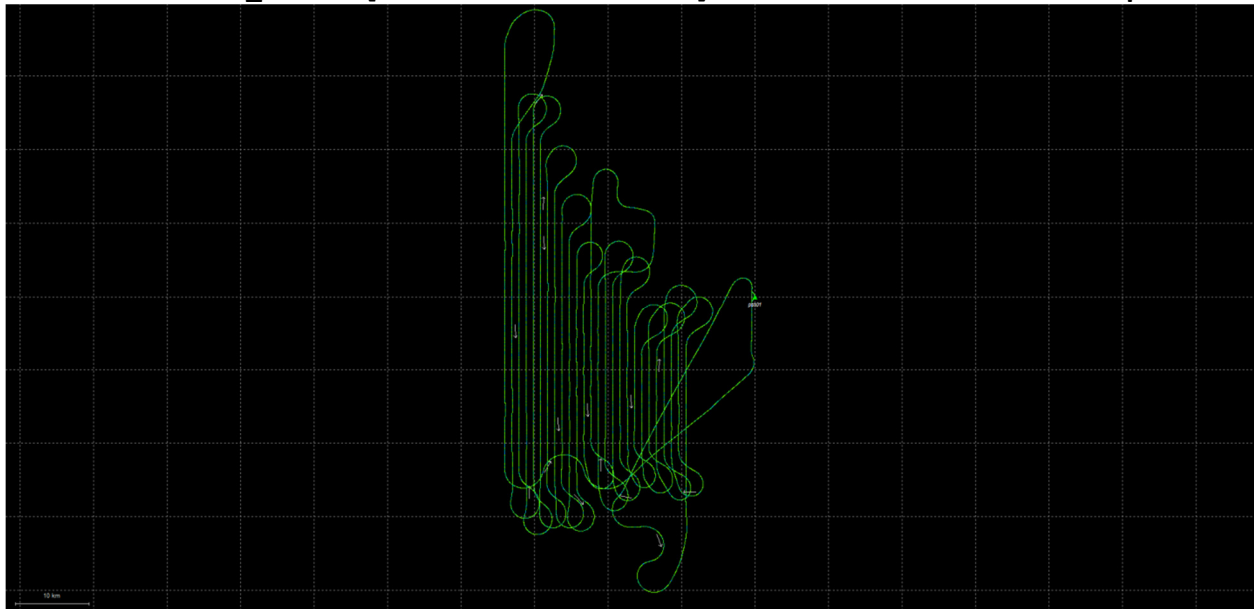
East: 0.008 (m)
North: 0.008 (m)
Height: 0.029 (m)

Baseline Distances:

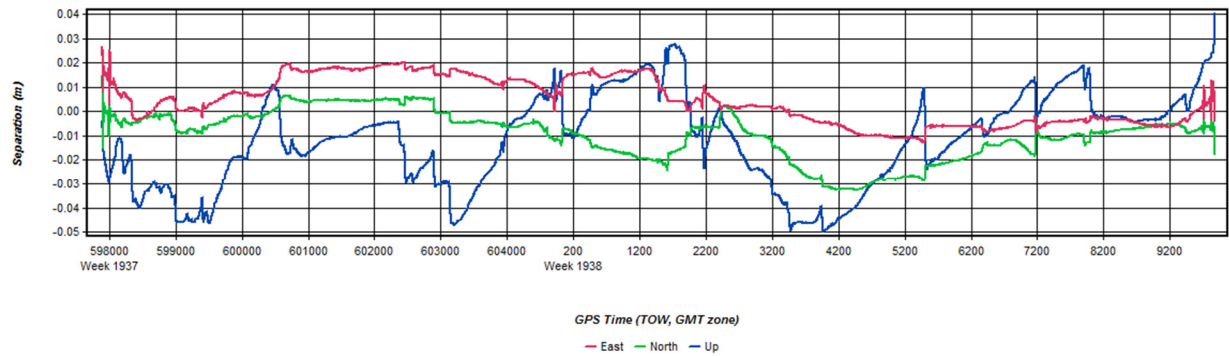
Maximum: 83.485 (km)
Minimum: 0.057 (km)
Average: 52.028 (km)
First Epoch: 0.095 (km)
Last Epoch: 0.746 (km)

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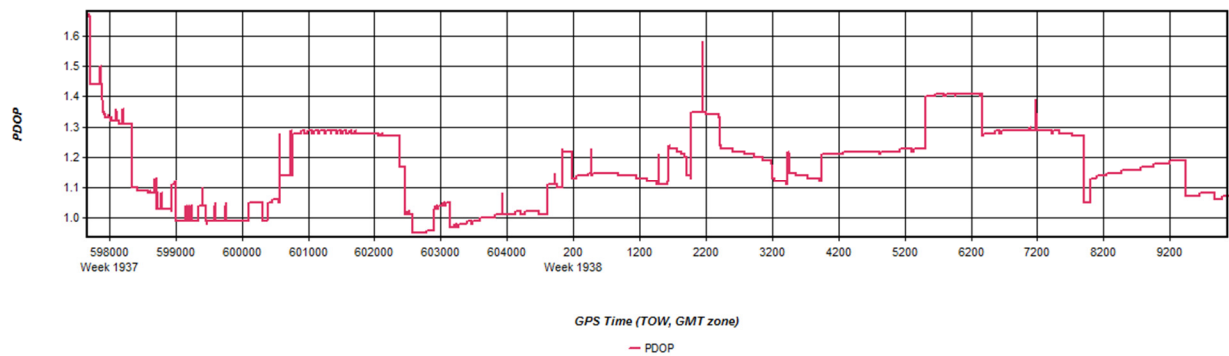
20170225_215850 [Smoothed TC Combined] - Smoothed TC Combined – Map



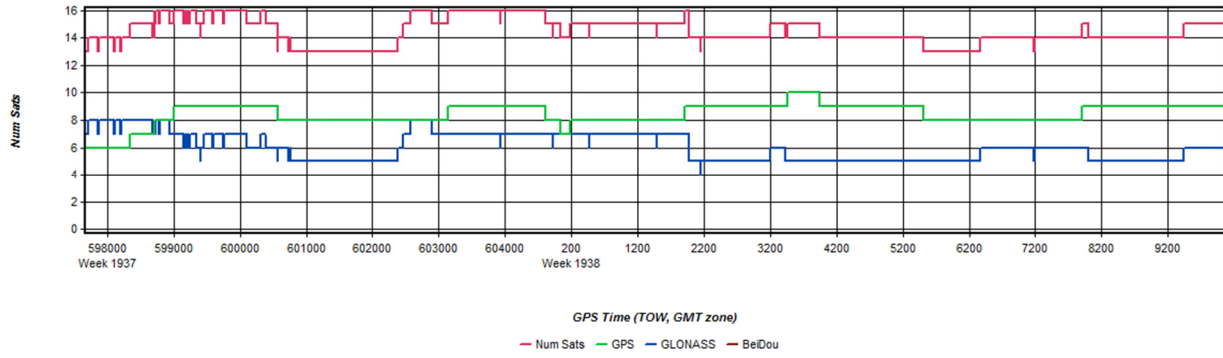
20170225_215850 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



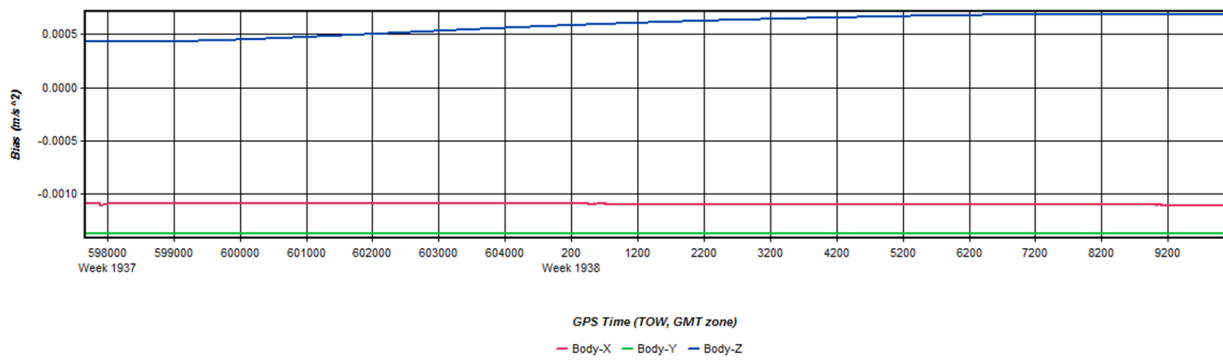
20170225_215850 [Smoothed TC Combined] - PDOP Plot



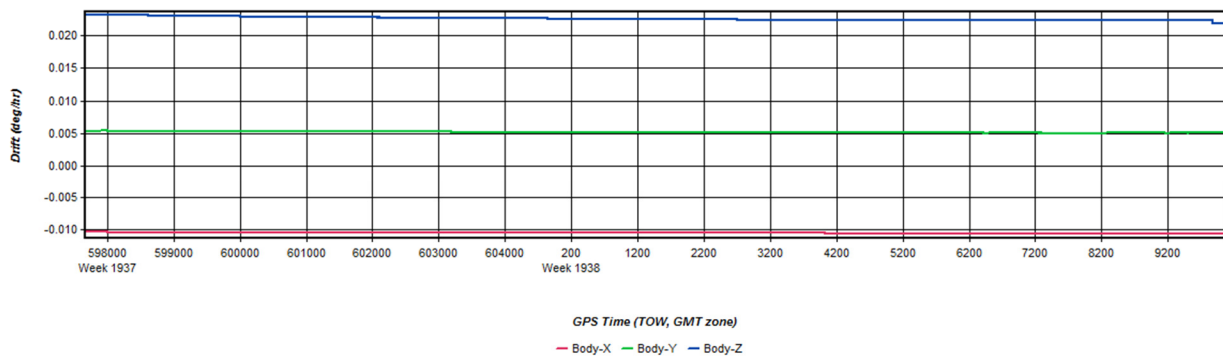
20170225_215850 [Smoothed TC Combined] - Number of Satellites Line Plot



20170225_215850 [Smoothed TC Combined] - Accelerometer Bias Plot



20170225_215850 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170225_215850\Gnss\imu\20170225_215850.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 34483
No processed position: 14329
Missing Fwd or Rev: 417
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 57.5 %
Q 2: 37.4 %
Q 3: 5.1 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0175 (m)
C/A Code: 0.31 (m)
L1 Doppler: 0.027 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.008 (m)
North: 0.011 (m)
Height: 0.016 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (19674 occurrences):

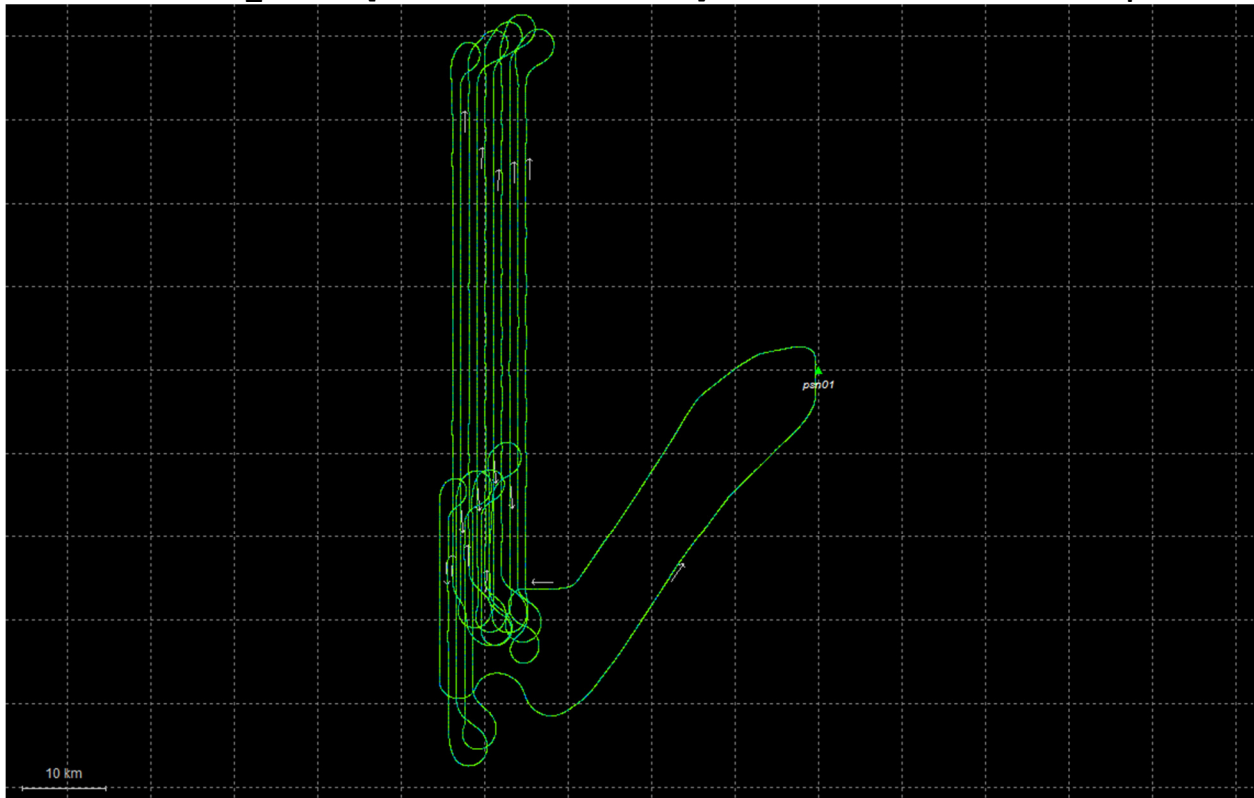
East: 0.006 (m)
North: 0.008 (m)
Height: 0.011 (m)

Baseline Distances:

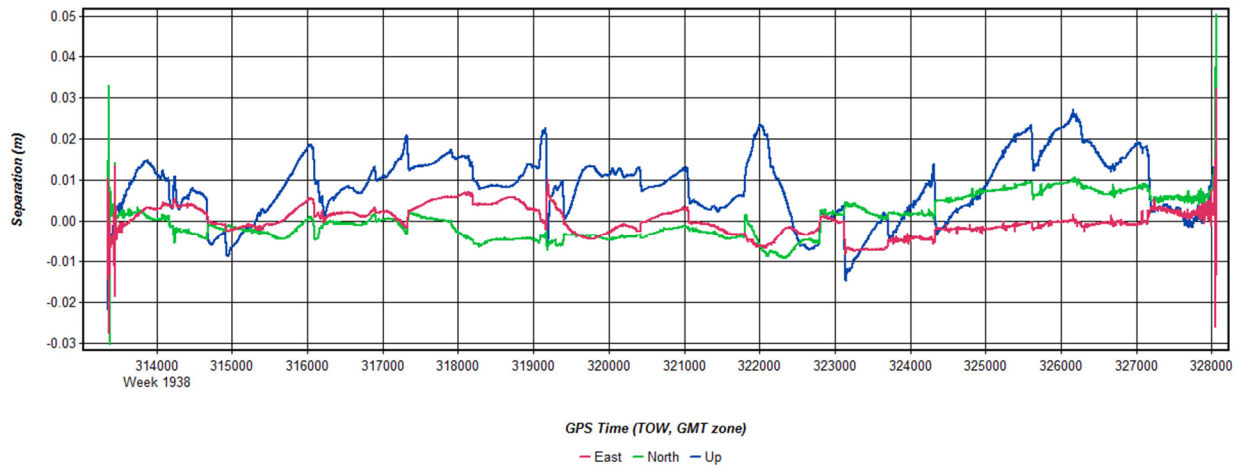
Maximum: 49.610 (km)
Minimum: 0.047 (km)
Average: 31.065 (km)
First Epoch: 27.088 (km)
Last Epoch: 0.047 (km)

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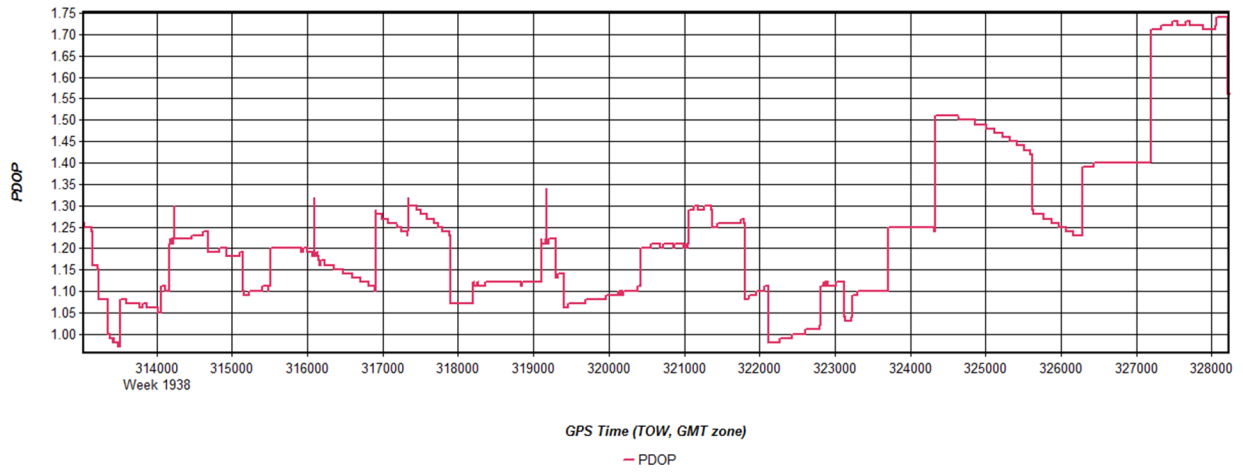
20170301_145502 [Smoothed TC Combined] - Smoothed TC Combined – Map



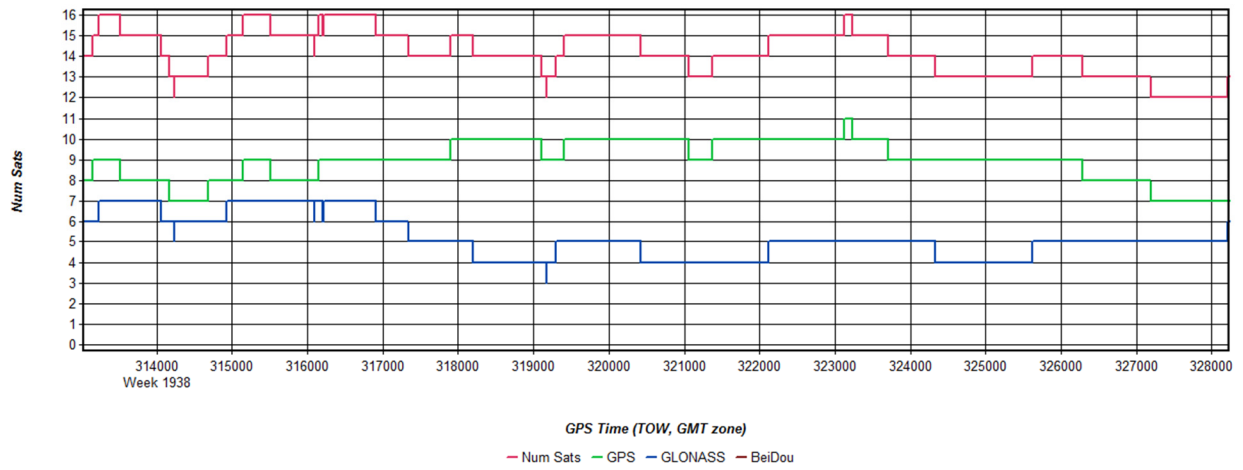
20170301_145502 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



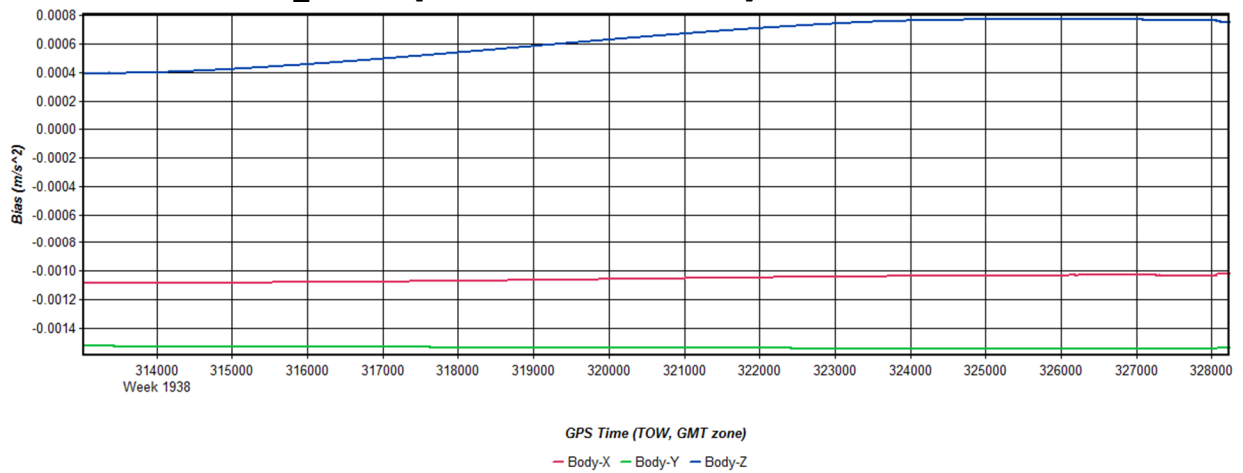
20170301_145502 [Smoothed TC Combined] - PDOP Plot



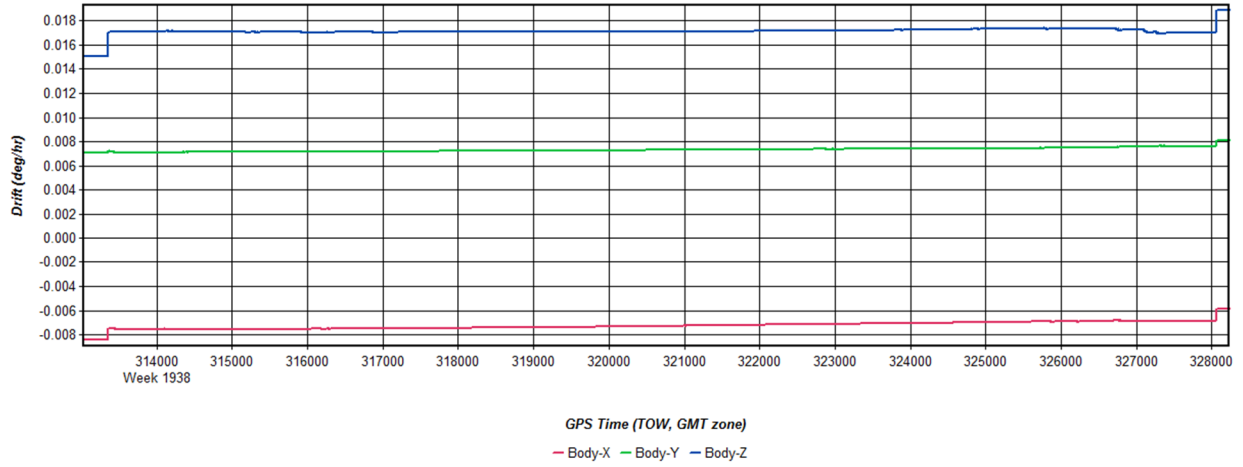
20170301_145502 [Smoothed TC Combined] - Number of Satellites Line Plot



20170301_145502 [Smoothed TC Combined] - Accelerometer Bias Plot



20170301_145502 [Smoothed TC Combined] - Gyro Drift Plot



Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170301_145502\GnssImu\20170301_145502.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 30458
No processed position: 5
Missing Fwd or Rev: 1020
With bad C/A code: 0
With bad L1 Phase: 0

Quality Number Percentages:

Q 1: 59.6 %
Q 2: 36.6 %
Q 3: 3.8 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Measurement RMS Values:

L1 Phase: 0.0153 (m)
C/A Code: 0.33 (m)
L1 Doppler: 0.029 (m/s)

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

Fwd/Rev Separation RMS Values:

East: 0.003 (m)
North: 0.005 (m)
Height: 0.011 (m)

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Fwd/Rev Sep. RMS for dual FWD/REV fixes (29433 occurrences):

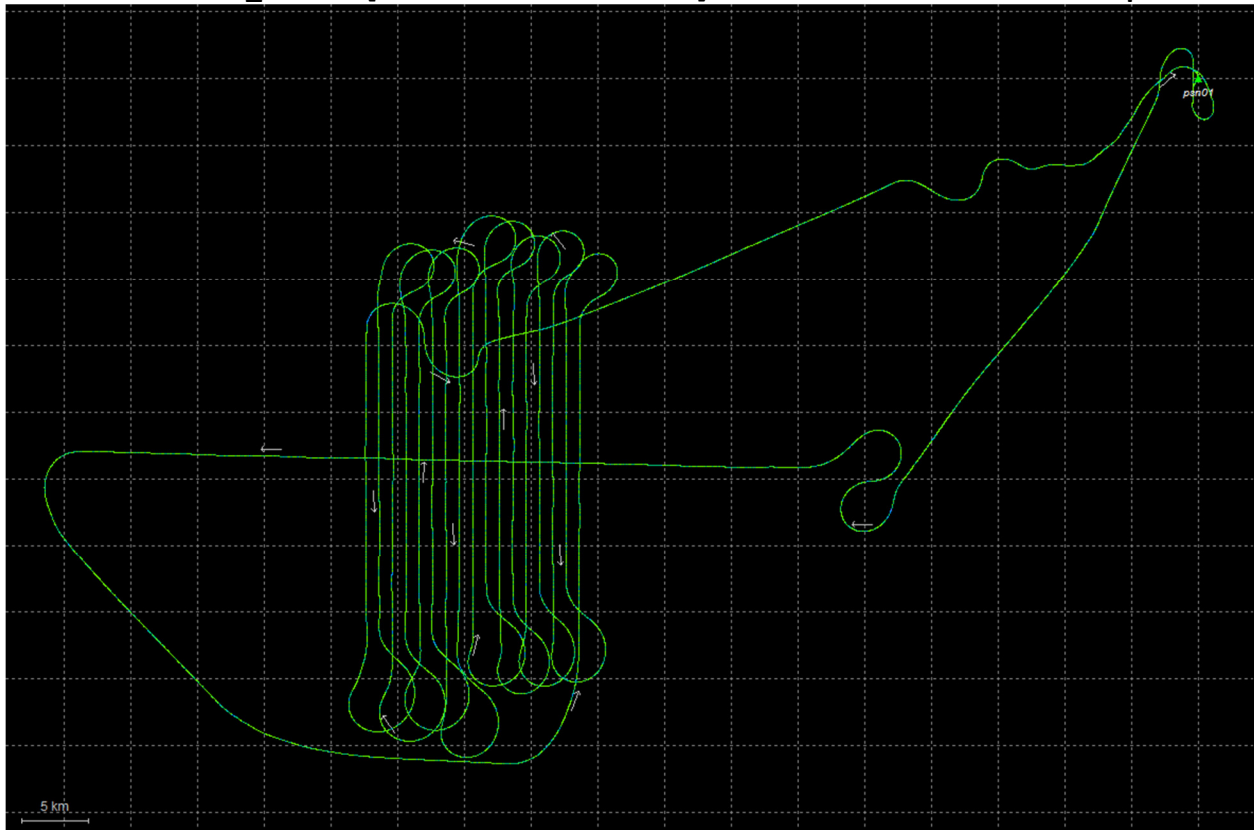
East: 0.003 (m)
North: 0.005 (m)
Height: 0.011 (m)

Baseline Distances:

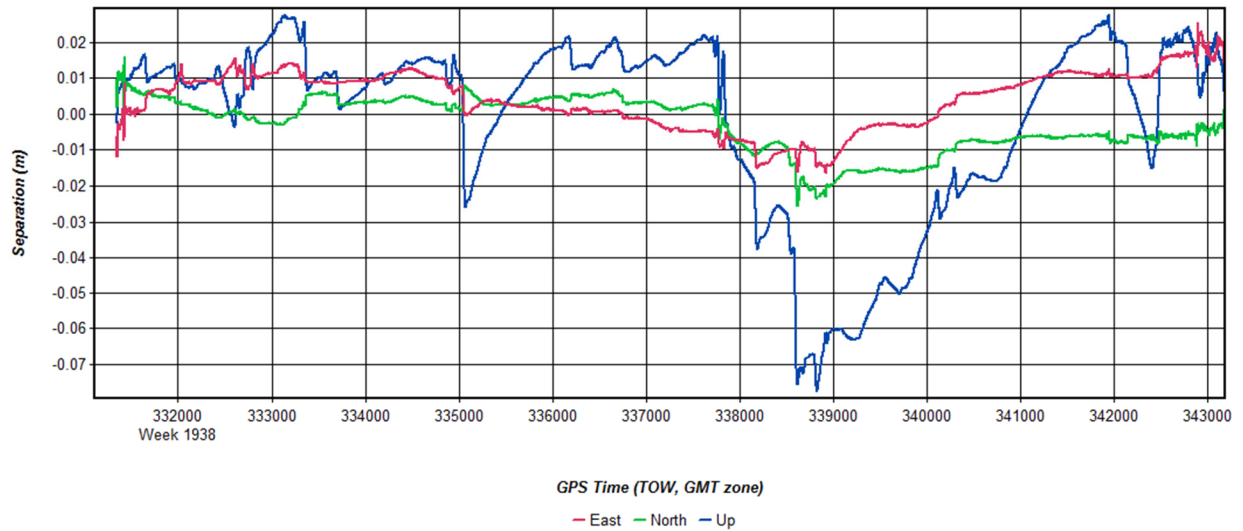
Maximum: 63.532 (km)
Minimum: 0.030 (km)
Average: 41.747 (km)
First Epoch: 0.030 (km)
Last Epoch: 0.733 (km)

Mission 2017-03-01 B

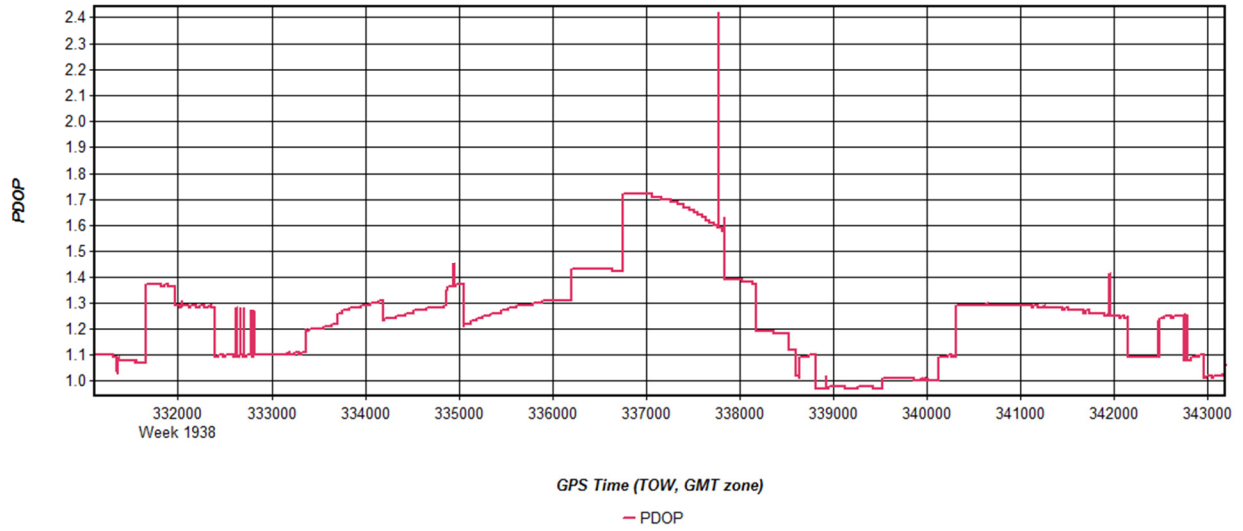
20170301_195620 [Smoothed TC Combined] - Smoothed TC Combined – Map



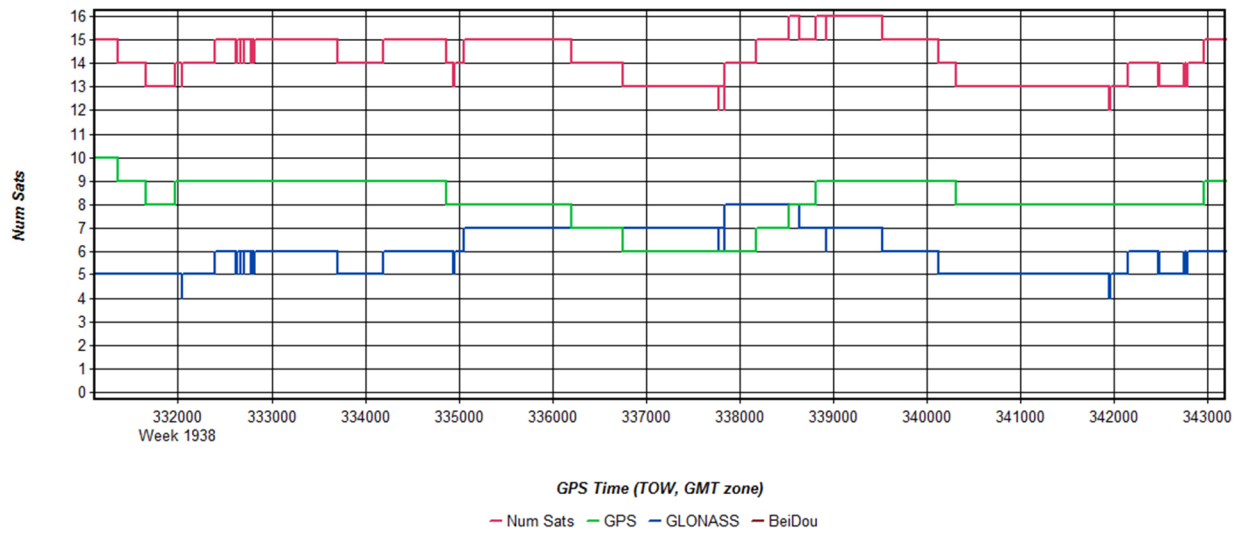
20170301_195620 [Smoothed TC Combined] - Forward/Reverse or Combined Separation Plot



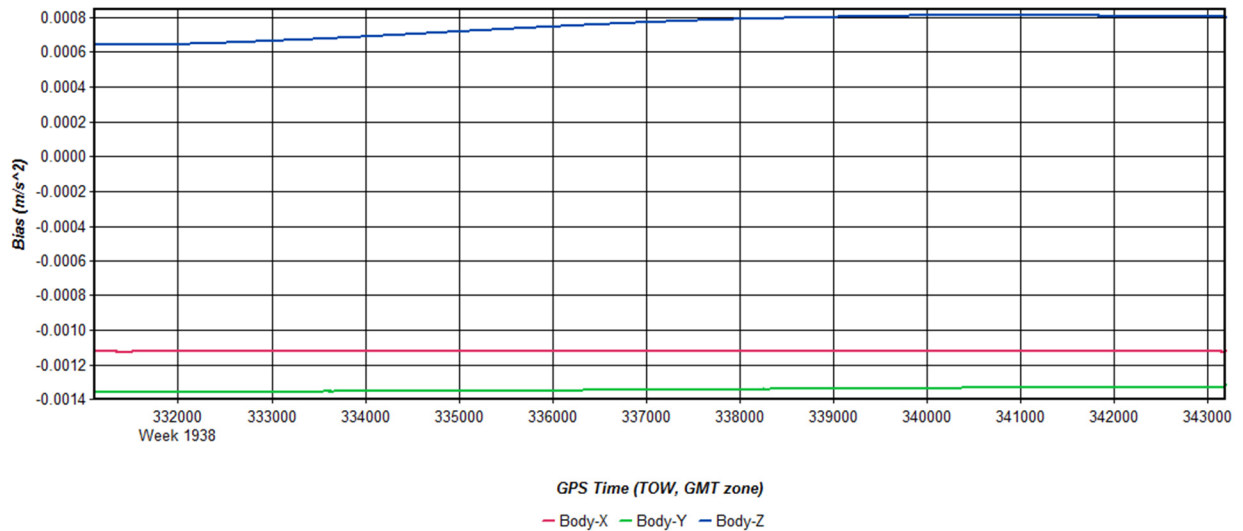
20170301_195620 [Smoothed TC Combined] - PDOP Plot



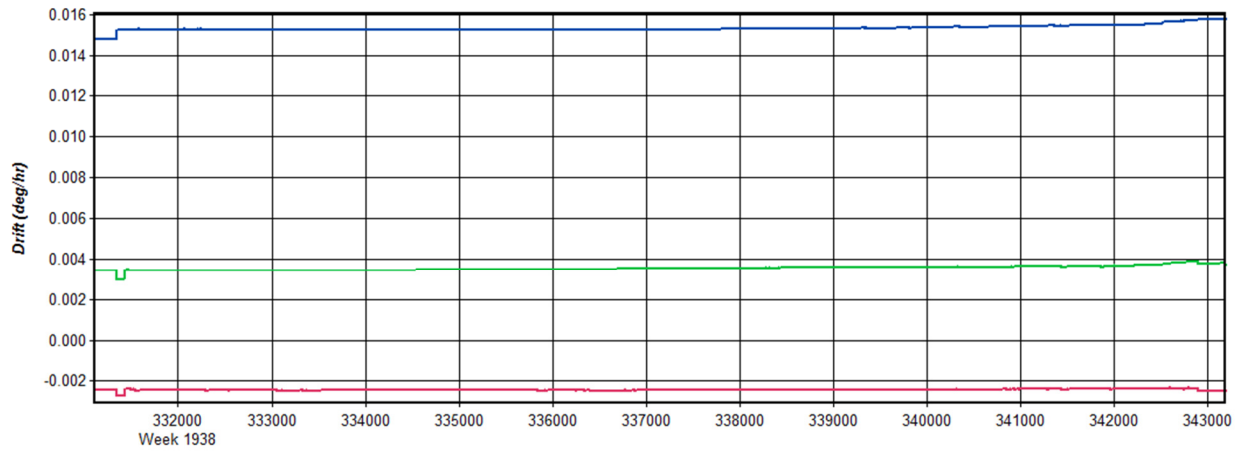
20170301_195620 [Smoothed TC Combined] - Number of Satellites Line Plot



20170301_195620 [Smoothed TC Combined] - Accelerometer Bias Plot



20170301_195620 [Smoothed TC Combined] - Gyro Drift Plot



GPS Time (TOW, GMT zone)

— Body-X — Body-Y — Body-Z

Processing Summary Information

Project:

N:\Production\LiDAR_Projects\17003_TX_RedRiver_FEMA_R6_2016\Flight_Raw\20170301_195620\GnssImu\20170301_195620.cfg

Solution Type: Combined

Number of Epochs:

Total in GPB file: 24206
No processed position: 7
Missing Fwd or Rev: 530
With bad C/A code: 0
With bad L1 Phase: 0

Percentages of epochs with DD_DOP over 10.00:

DOP over Tol: 0.0 %

Baseline Distances:

Maximum: 91.810 (km)
Minimum: 0.057 (km)
Average: 54.223 (km)
First Epoch: 0.084 (km)
Last Epoch: 0.144 (km)

Measurement RMS Values:

L1 Phase: 0.0173 (m)
C/A Code: 0.32 (m)
L1 Doppler: 0.029 (m/s)

Fwd/Rev Separation RMS Values:

East: 0.009 (m)
North: 0.008 (m)
Height: 0.025 (m)

Fwd/Rev Sep. RMS for dual FWD/REV fixes
(23669 occurrences):

East: 0.009 (m)
North: 0.008 (m)
Height: 0.025 (m)

Quality Number Percentages:

Q 1: 59.6 %
Q 2: 36.6 %
Q 3: 3.8 %
Q 4: 0.0 %
Q 5: 0.0 %
Q 6: 0.0 %

Position Standard Deviation Percentages:

0.00 - 0.10 m: 100.0 %
0.10 - 0.30 m: 0.0 %
0.30 - 1.00 m: 0.0 %
1.00 - 5.00 m: 0.0 %
5.00 m + over: 0.0 %

