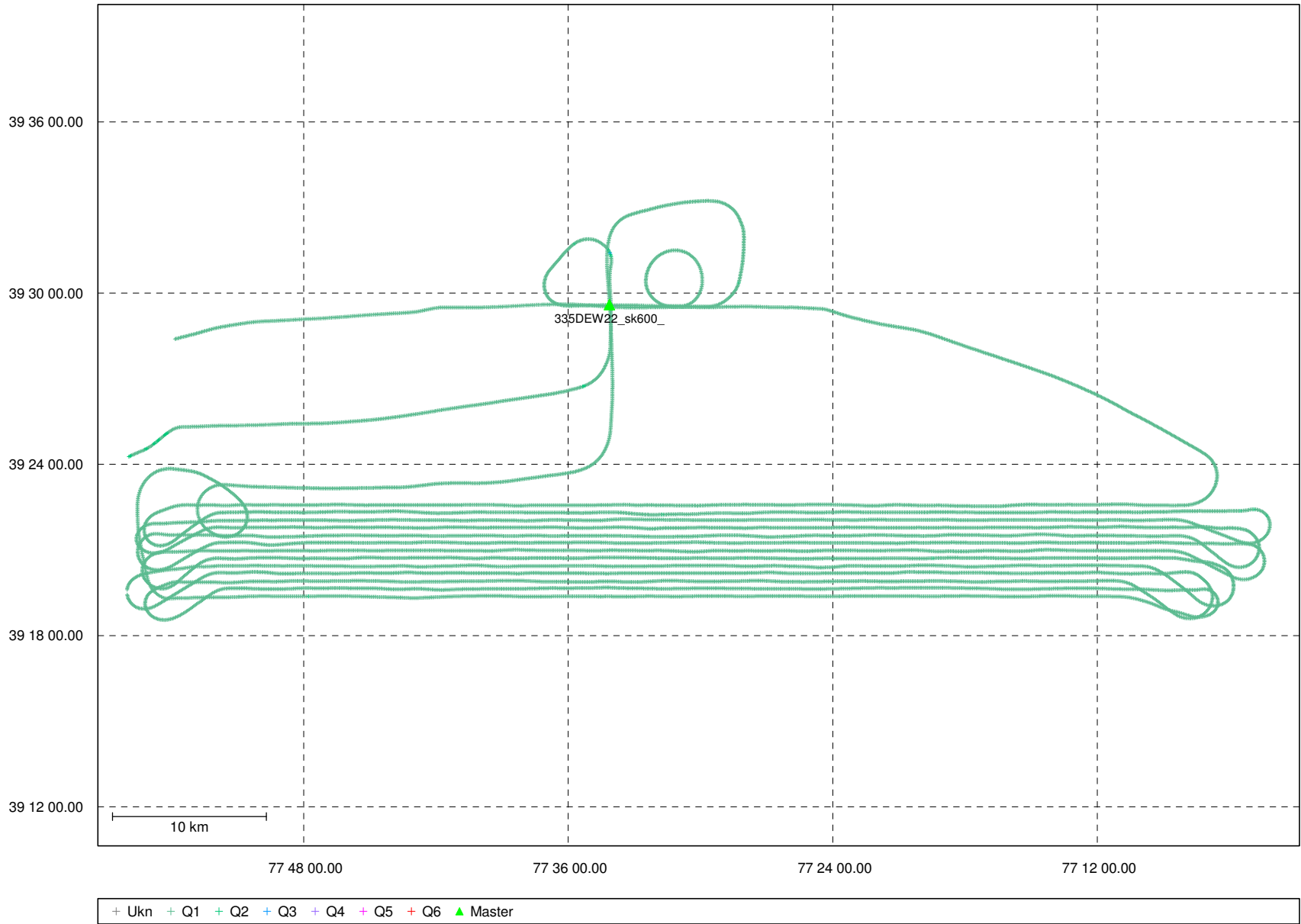


### Combined - Map Run (3)

Geographic, DMS



Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: L:\335DEW11  
USGS\_MD\_VA\_lidar\2\_Operations\6\_Missions\o112070a\3\_Processed\GPS\o112070a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:

Total in GPB file: 168738  
No processed position: 153121  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:

L1 Phase: 0.0166 (m)  
C/A Code: 0.82 (m)  
L1 Doppler: 0.029 (m/s)

Fwd/Rev Separation RMS Values:

East: 0.027 (m)  
North: 0.024 (m)  
Height: 0.045 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (15572 occurances):

East: 0.026 (m)  
North: 0.023 (m)  
Height: 0.039 (m)

Quality Number Percentages:

Q 1: 99.8 %  
Q 2: 0.2 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:

0.00 - 0.10 m: 98.3 %  
0.10 - 0.30 m: 1.7 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

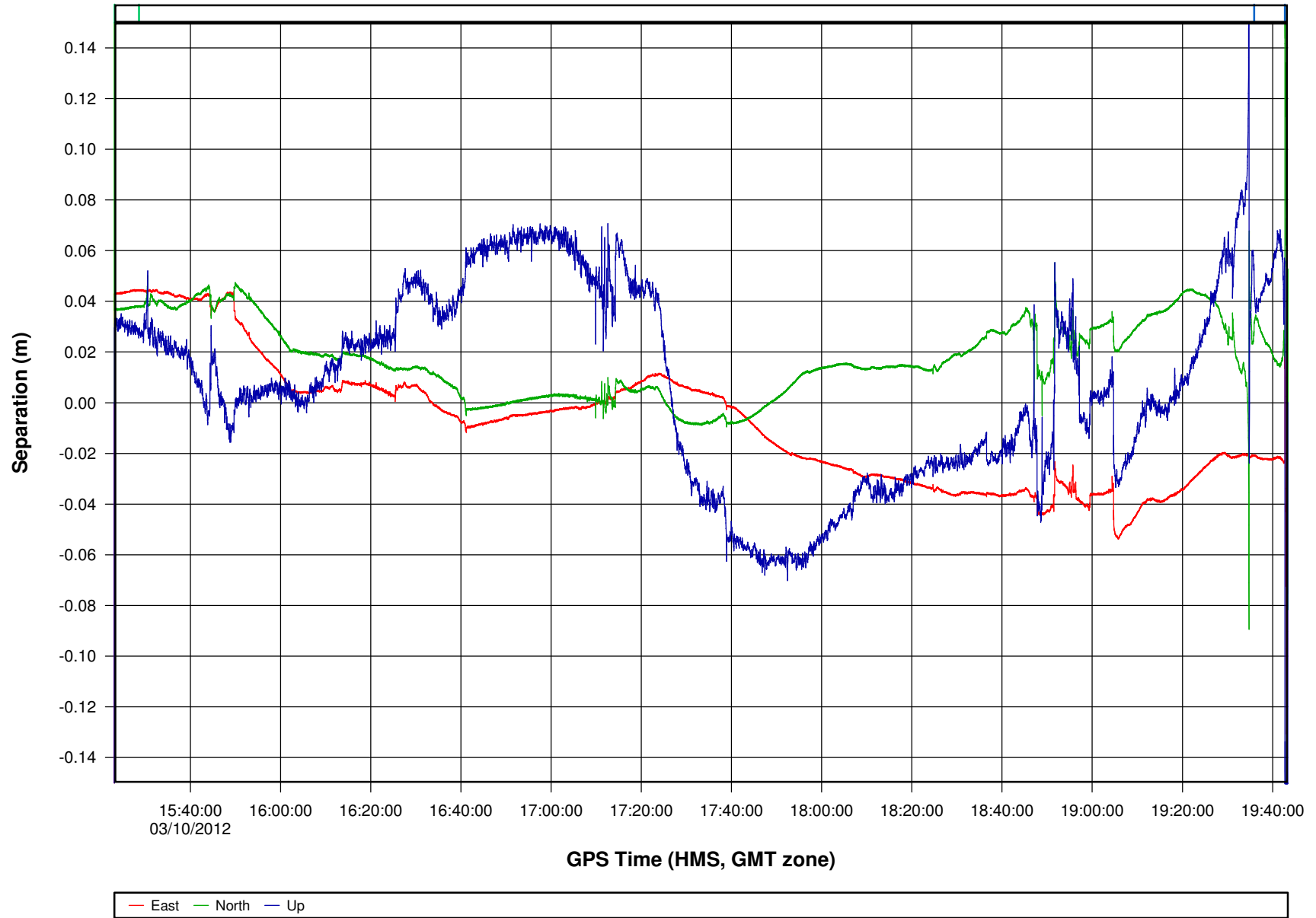
Percentages of epochs with DD\_DOP over 10.00:

DOP over Tol: 0.0 %

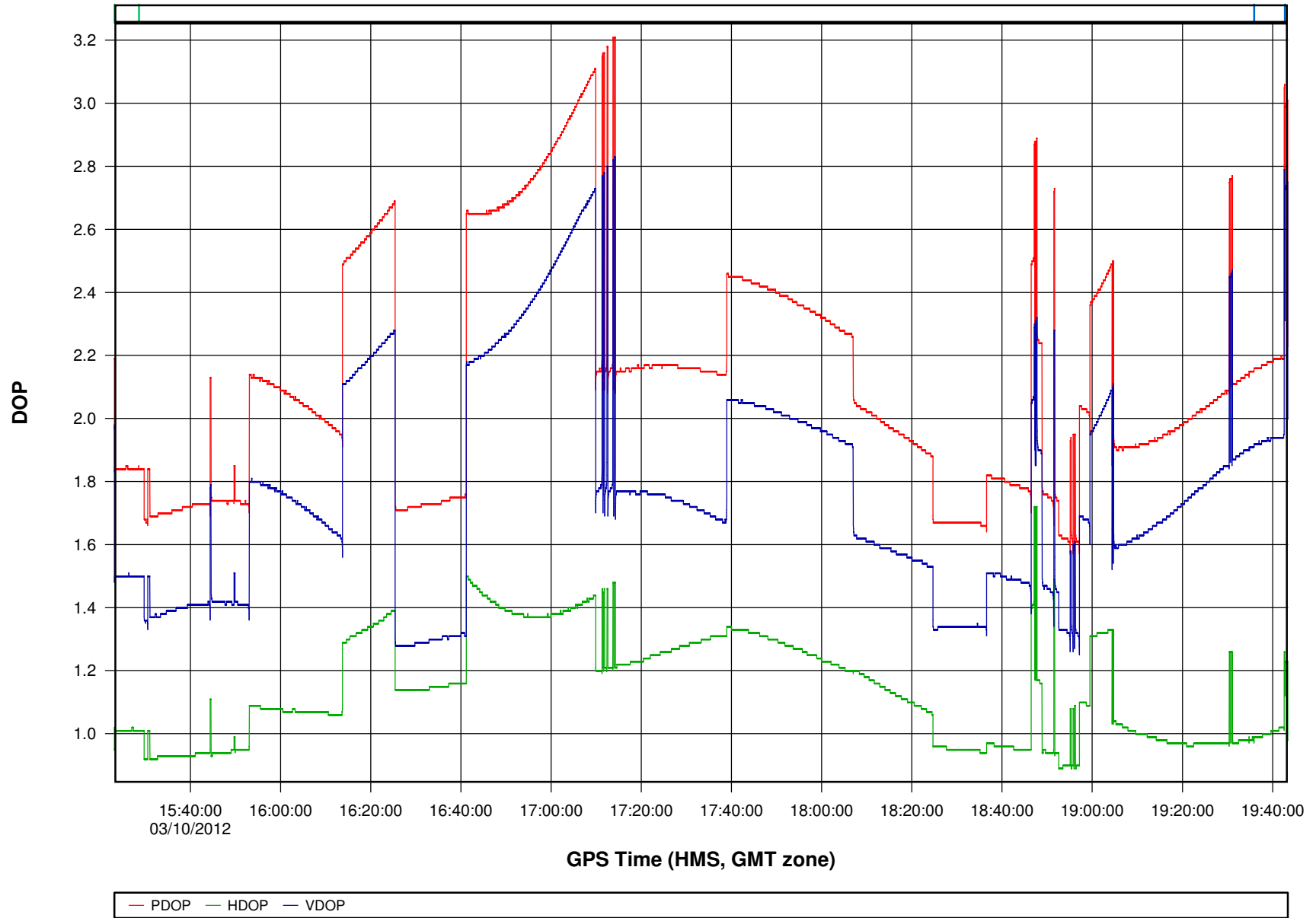
Baseline Distances:

Maximum: 45.872 (km)  
Minimum: 0.916 (km)  
Average: 24.003 (km)  
First Epoch: 28.360 (km)  
Last Epoch: 32.787 (km)

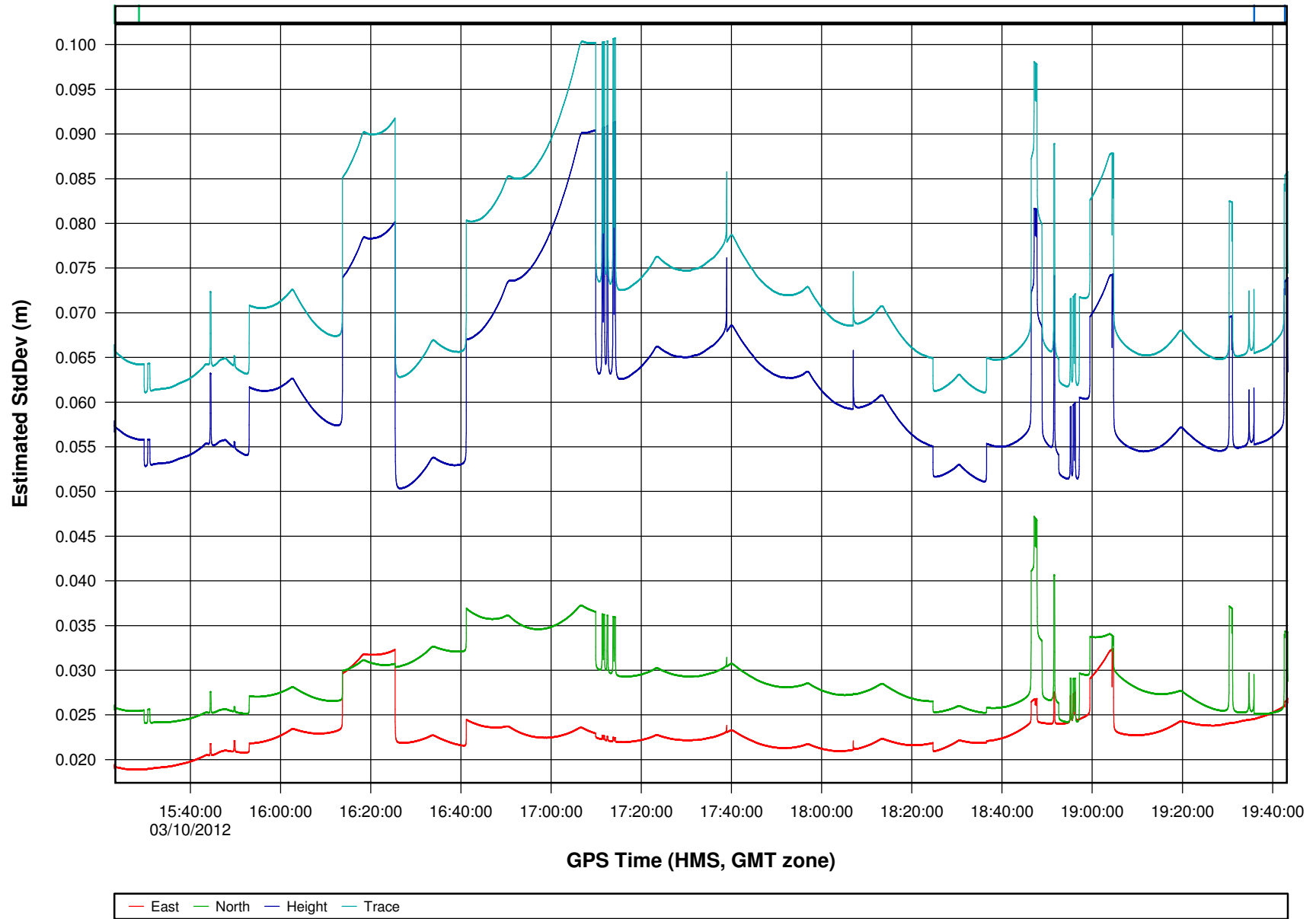
### o112070a [Combined] - Forward/Reverse or Combined Separation Plot



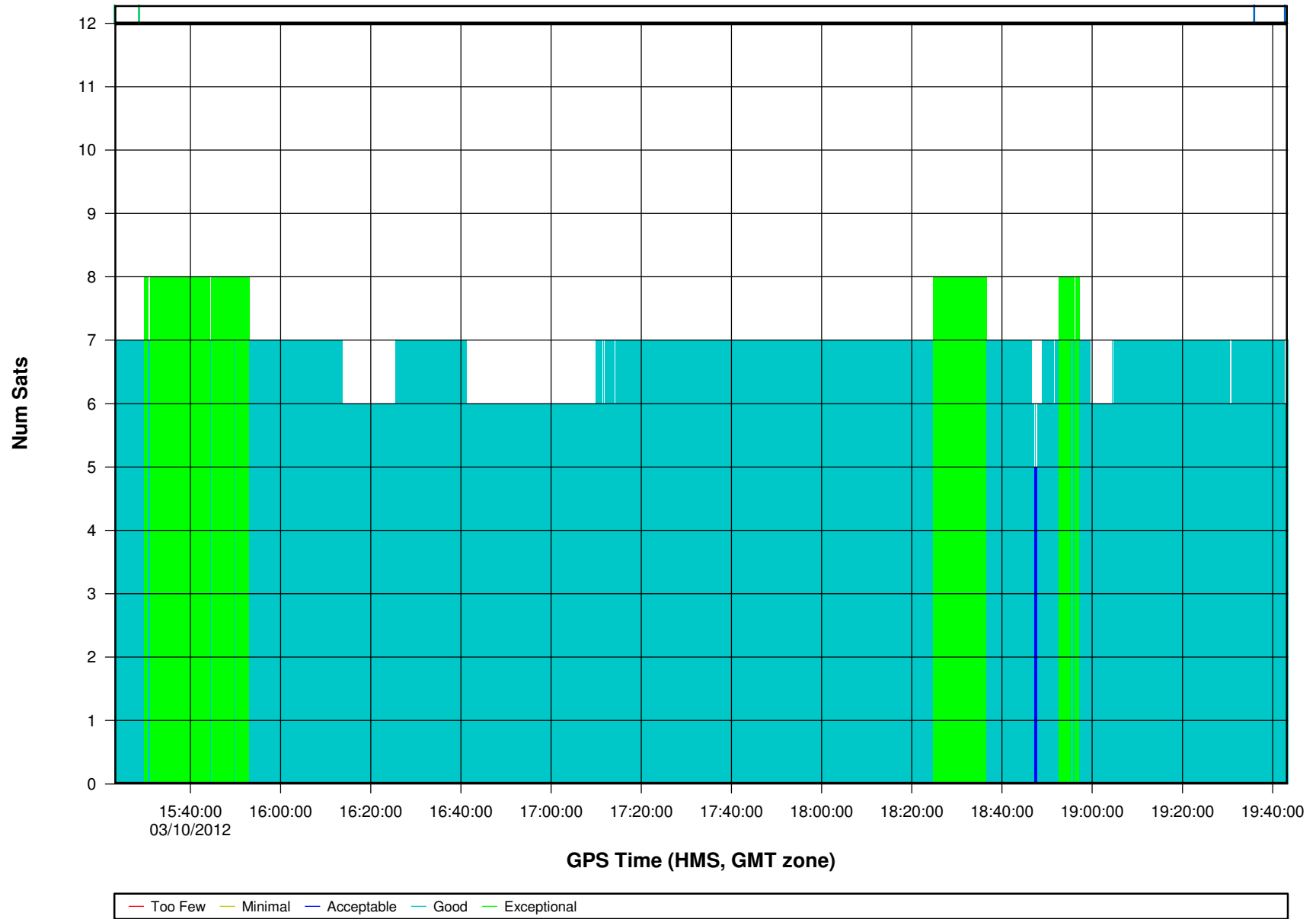
**o112070a [Combined] - PDOP, HDOP, VDOP Plots**

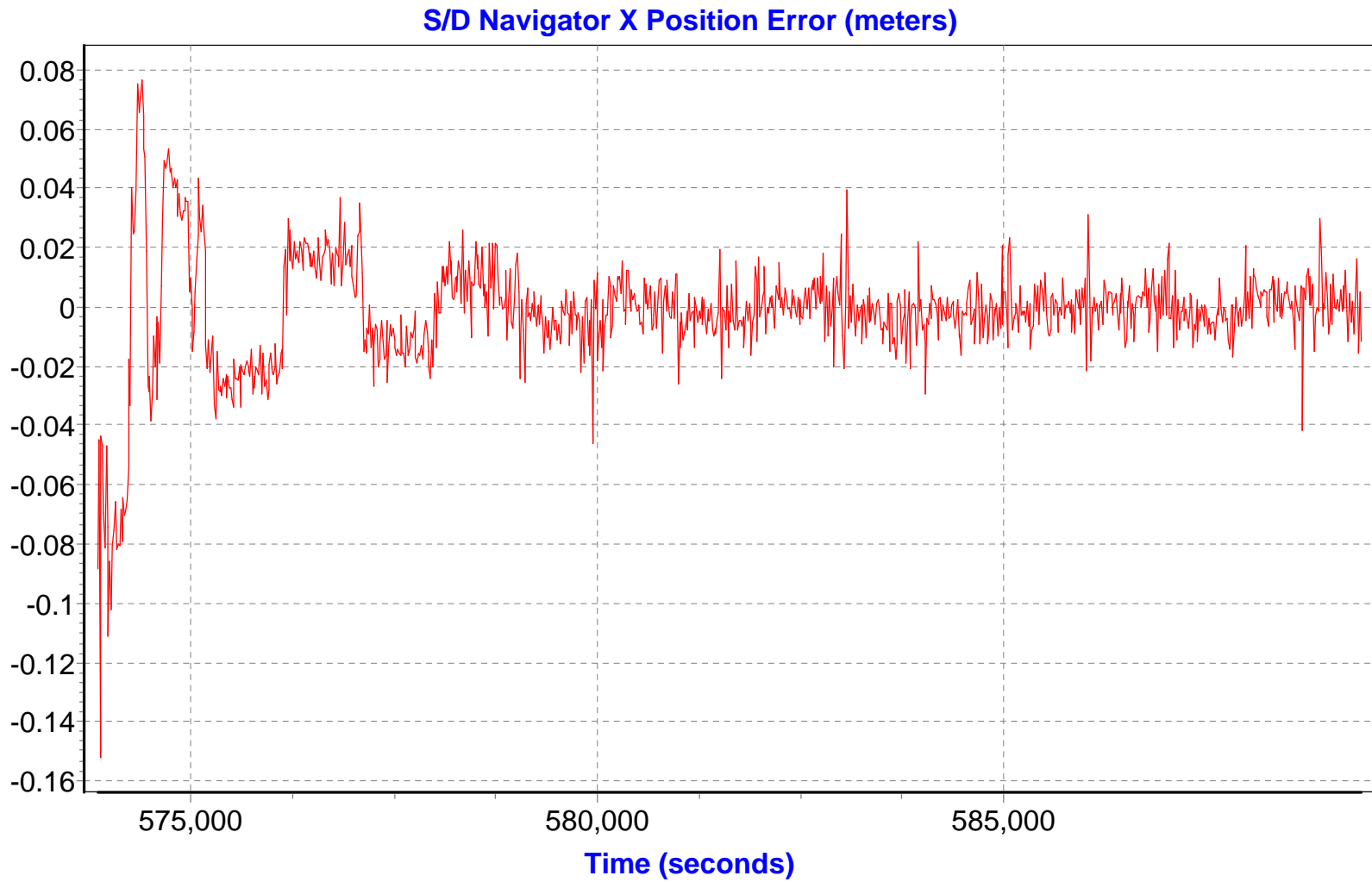


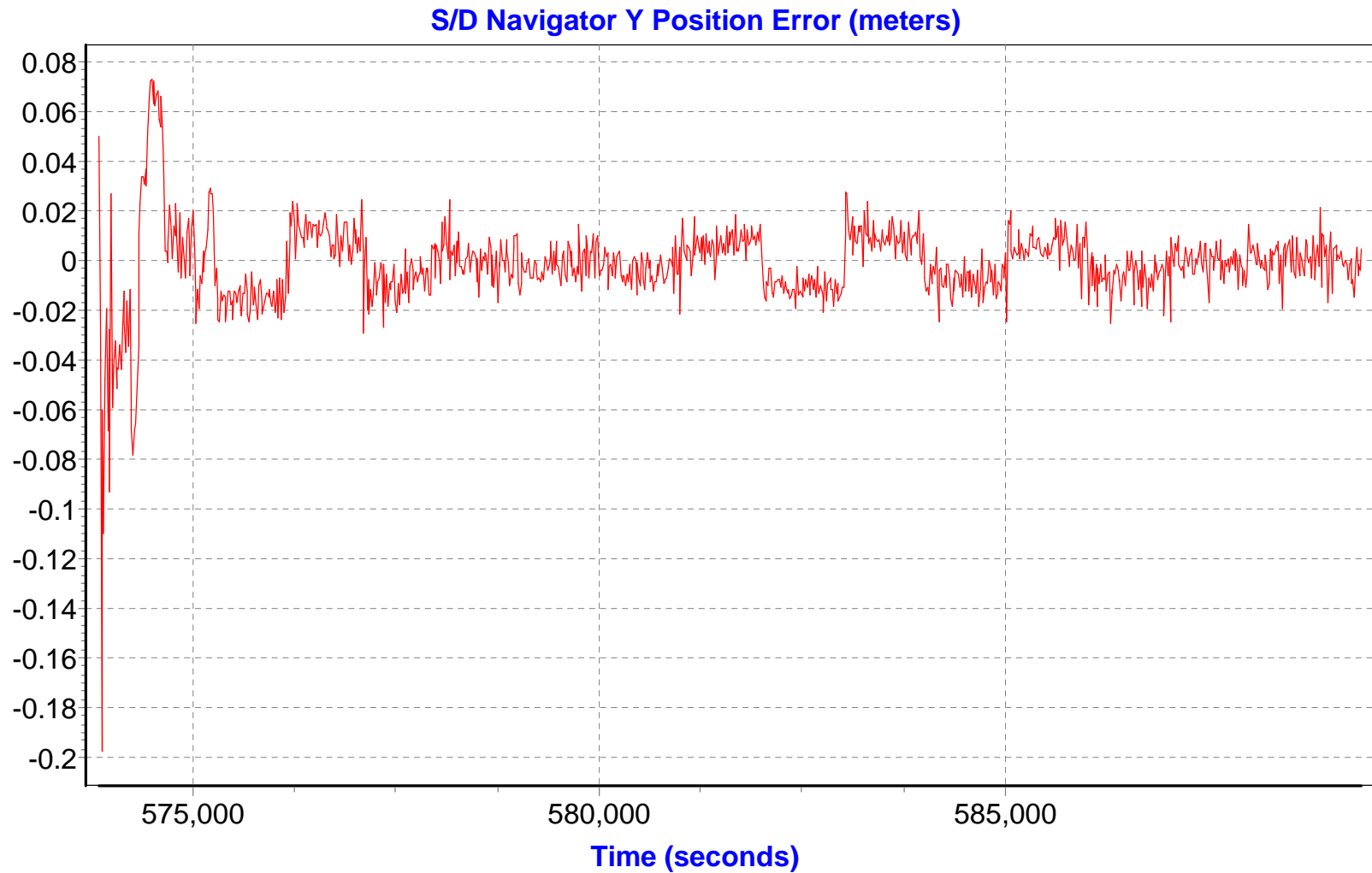
### o112070a [Combined] - Estimated Position Accuracy Plot



### o112070a [Combined] - Number of Satellites Bar Plot

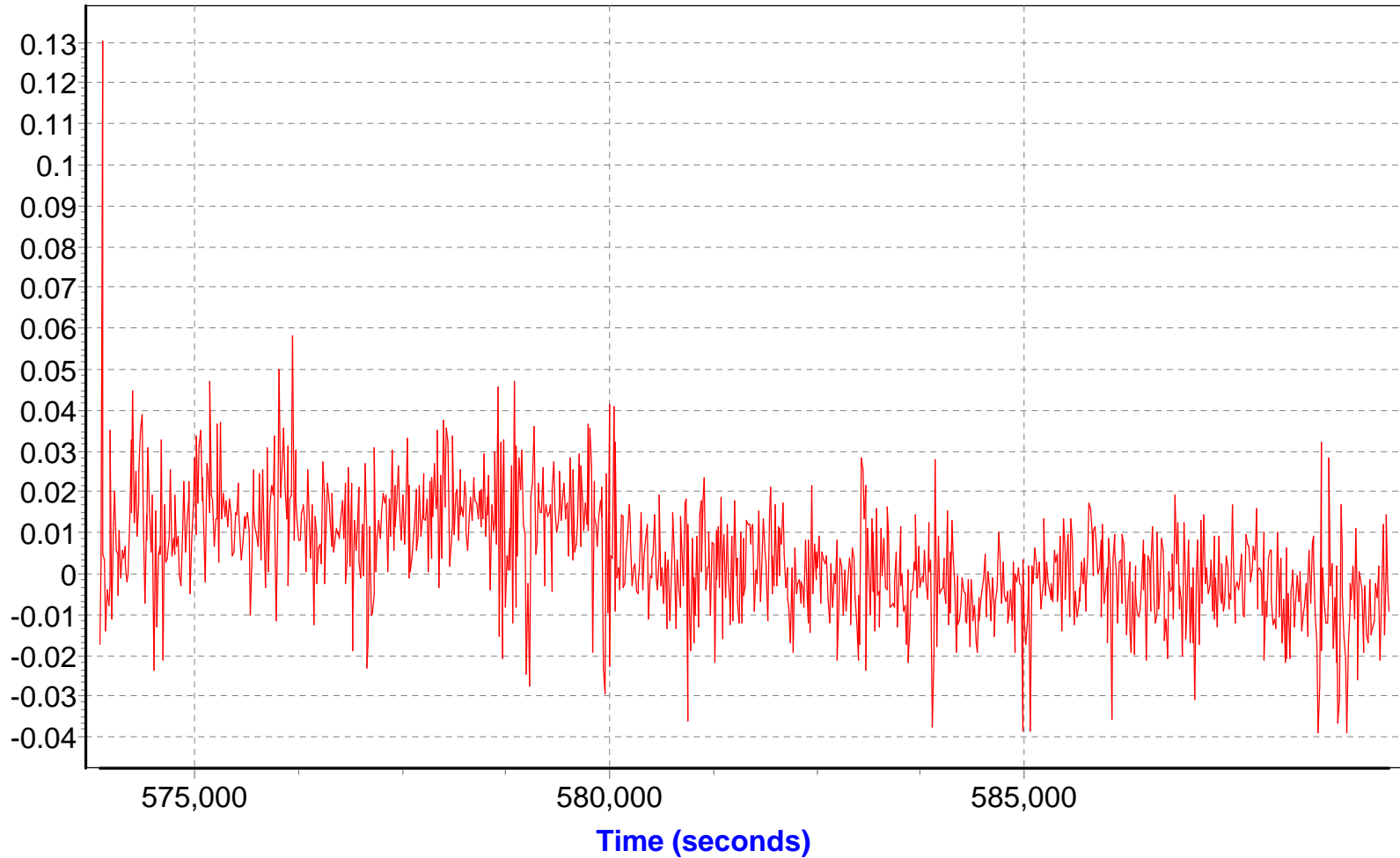




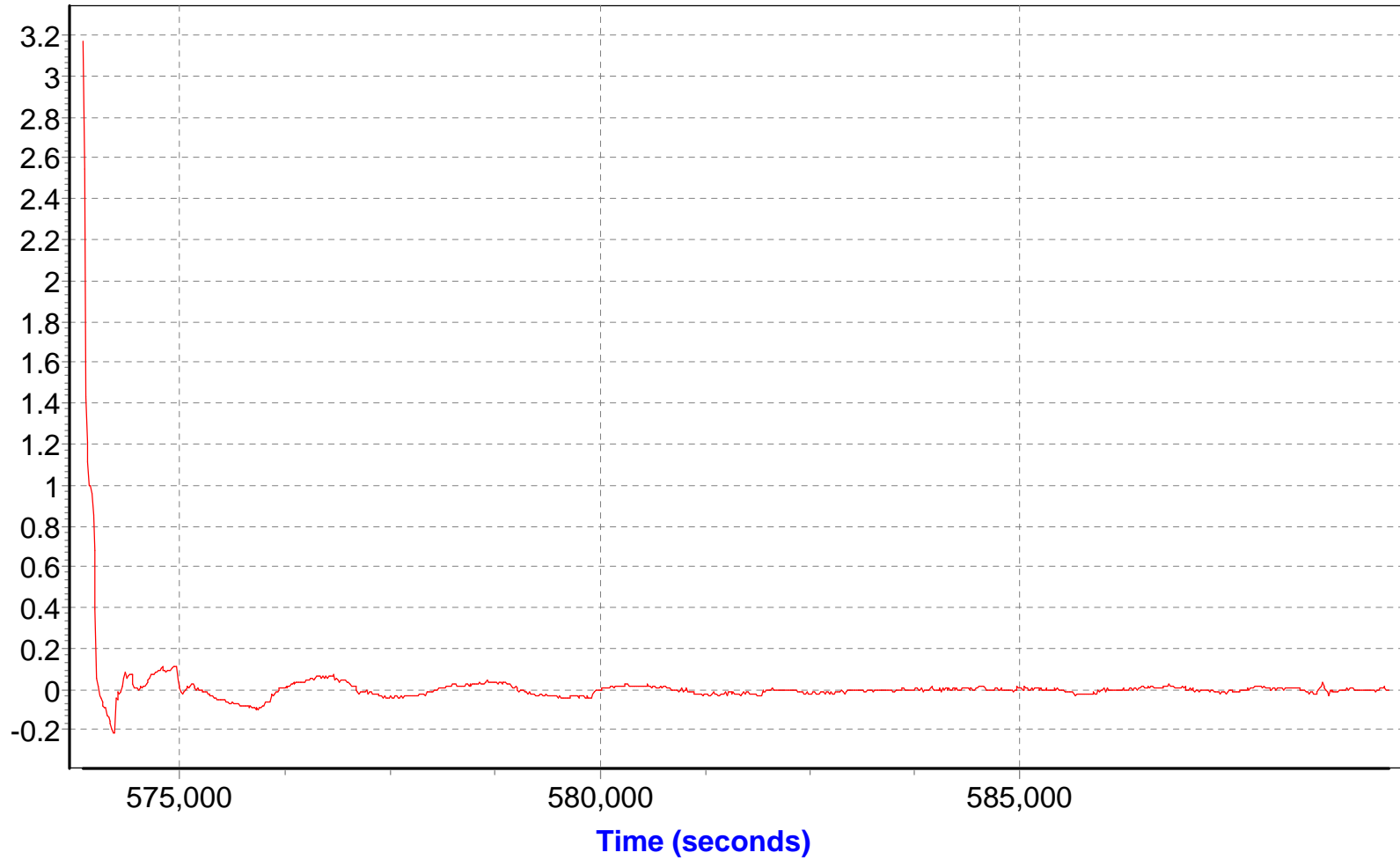




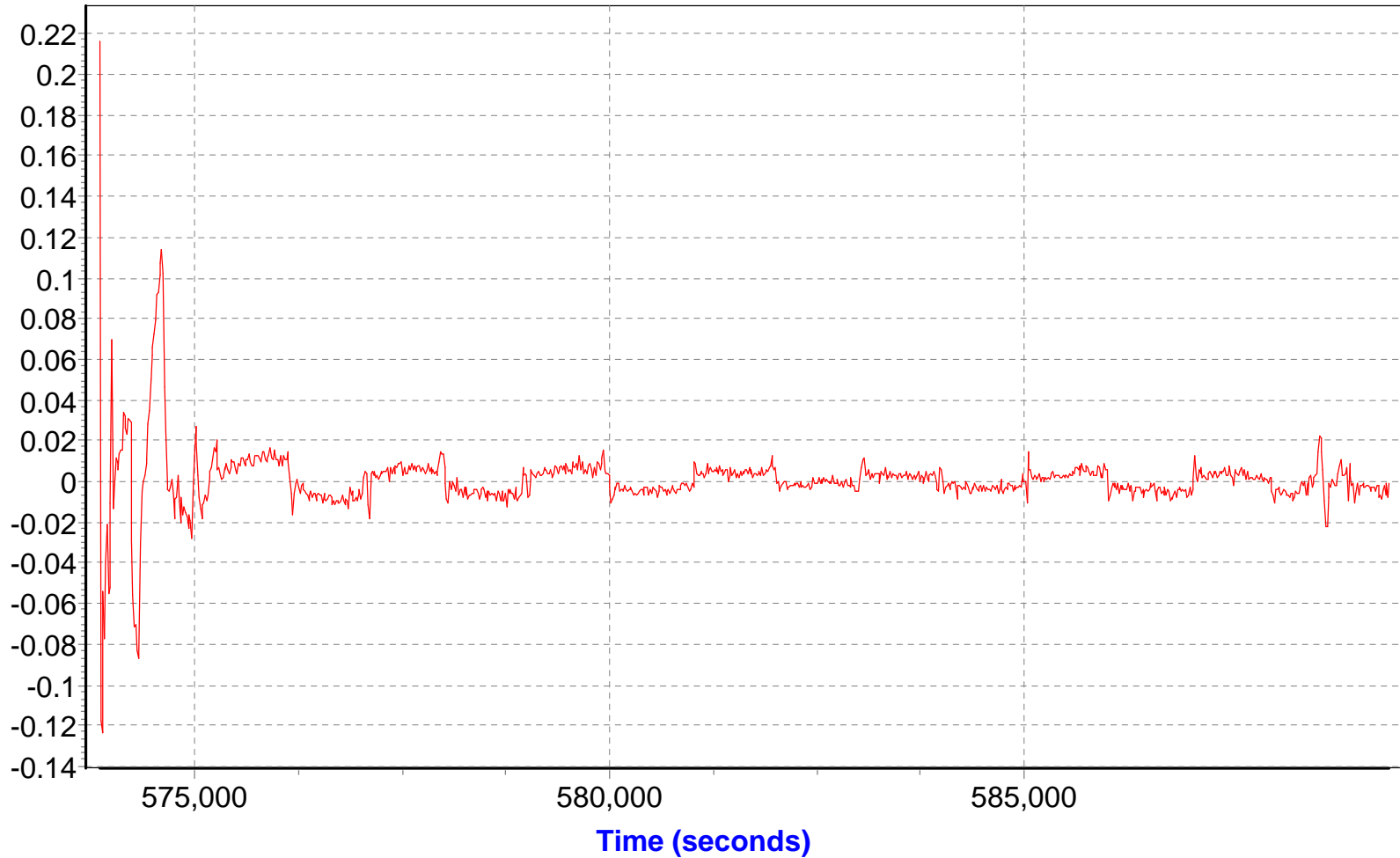
**S/D Navigator Z Position Error (meters)**

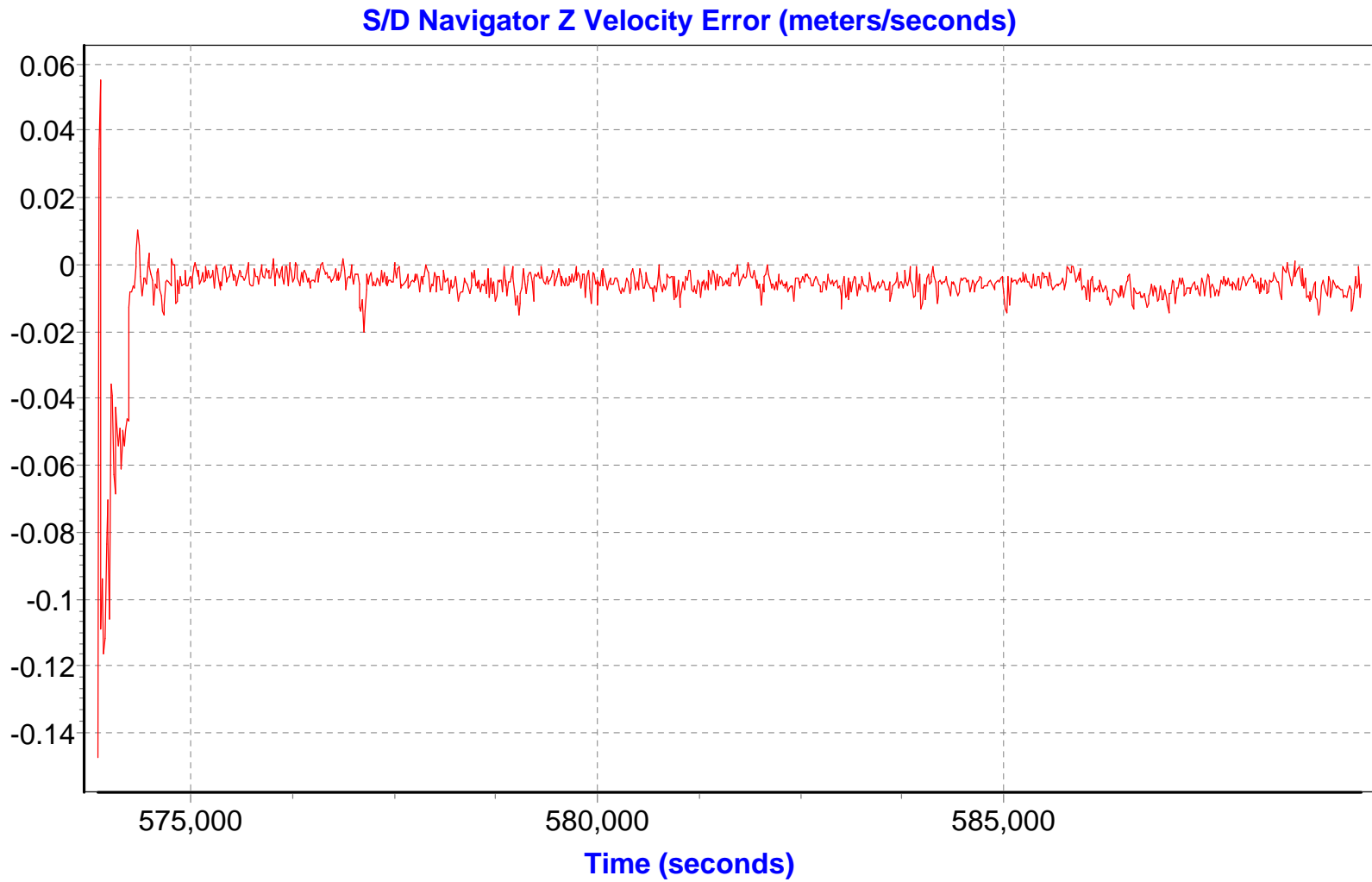


**S/D Navigator X Velocity Error (meters/seconds)**

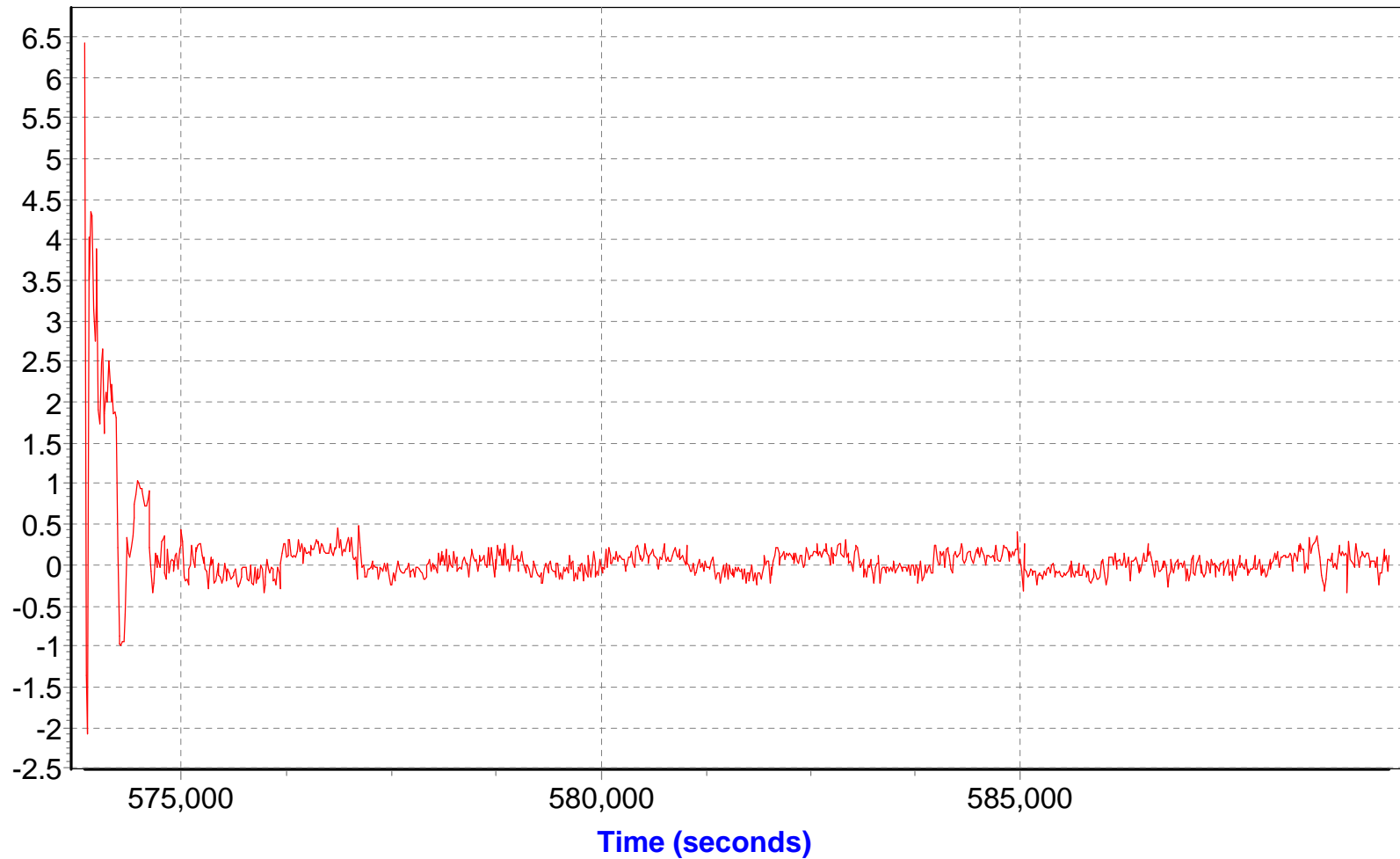


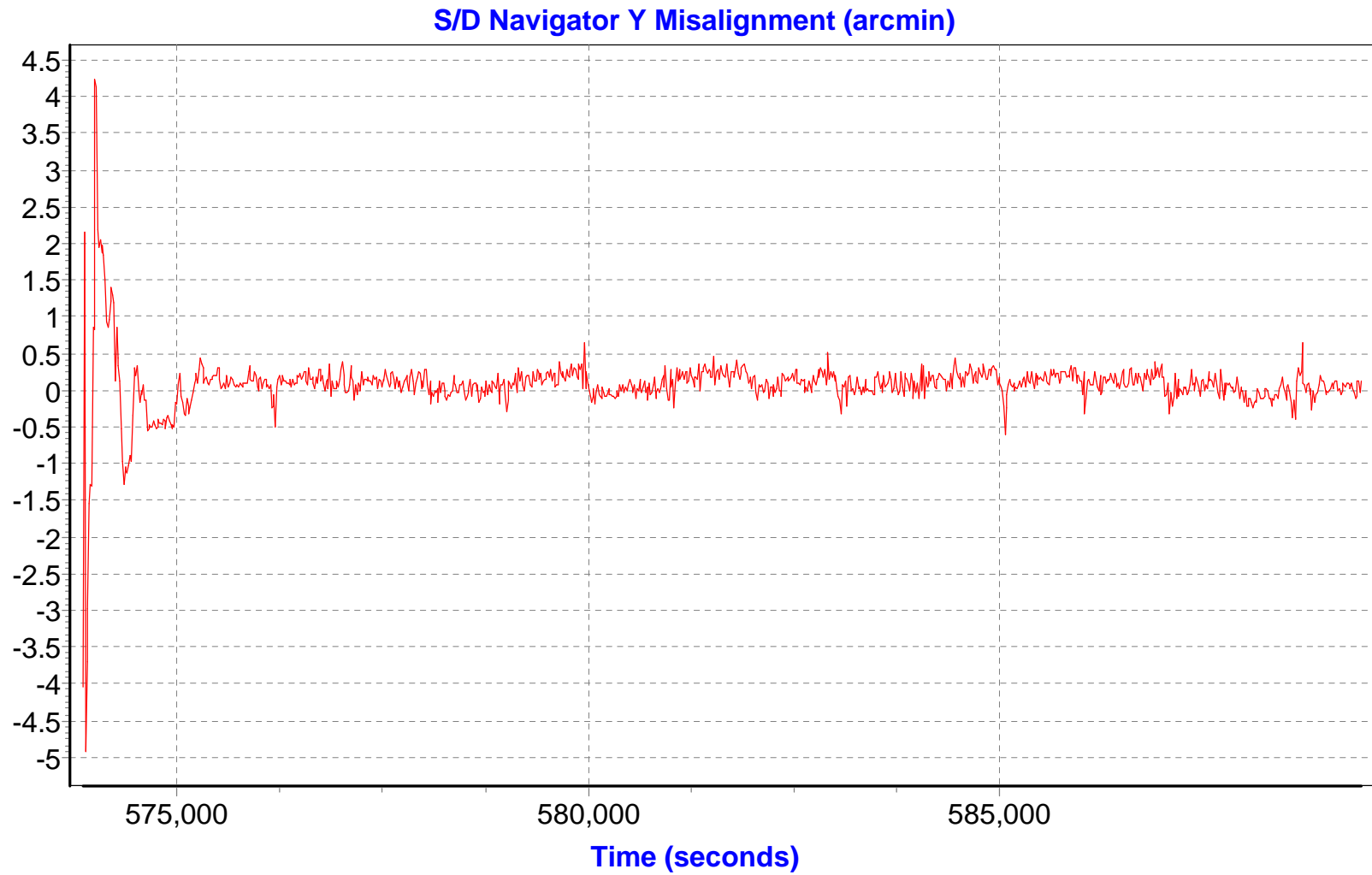
**S/D Navigator Y Velocity Error (meters/seconds)**



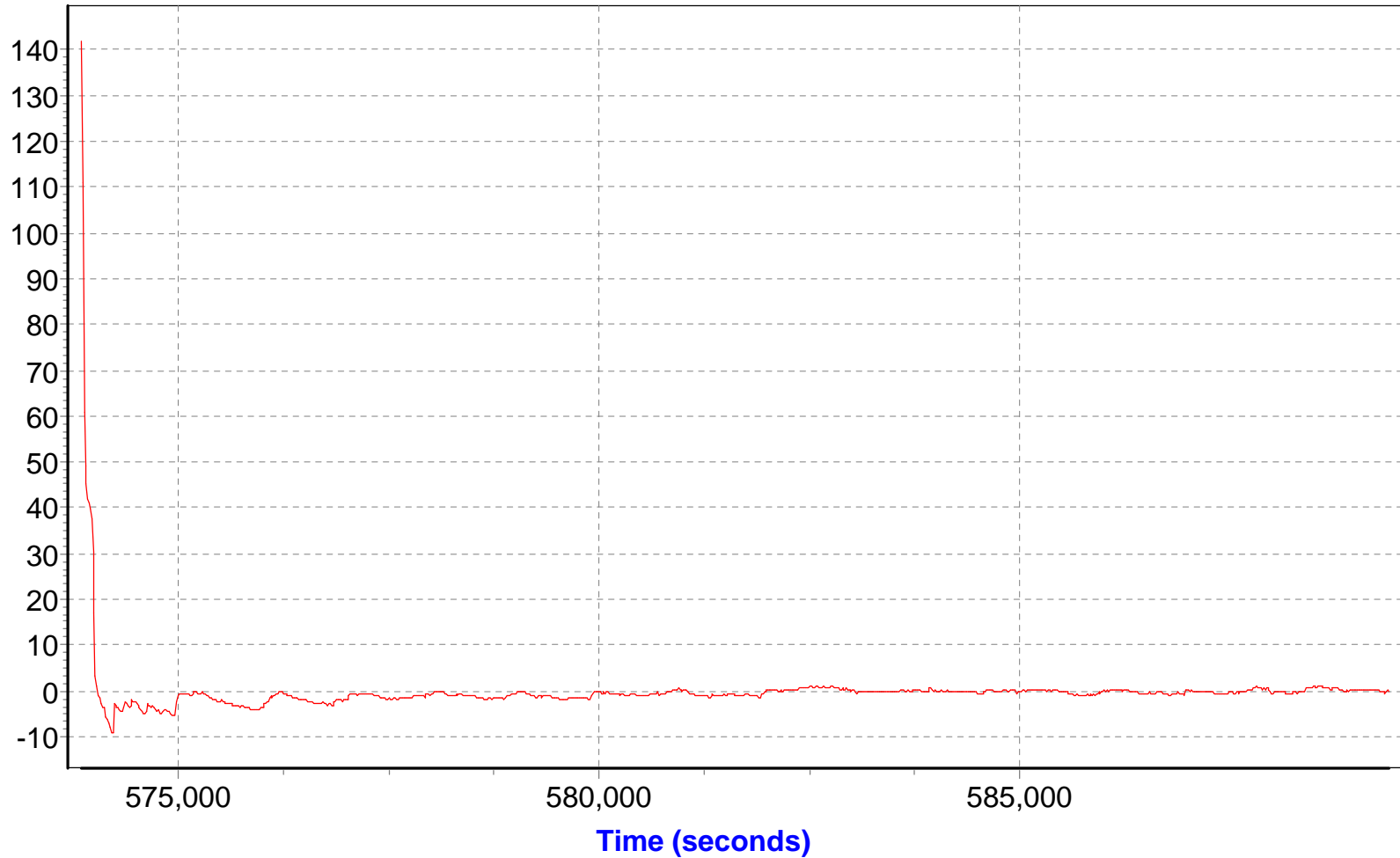


**S/D Navigator X Misalignment (arcmin)**

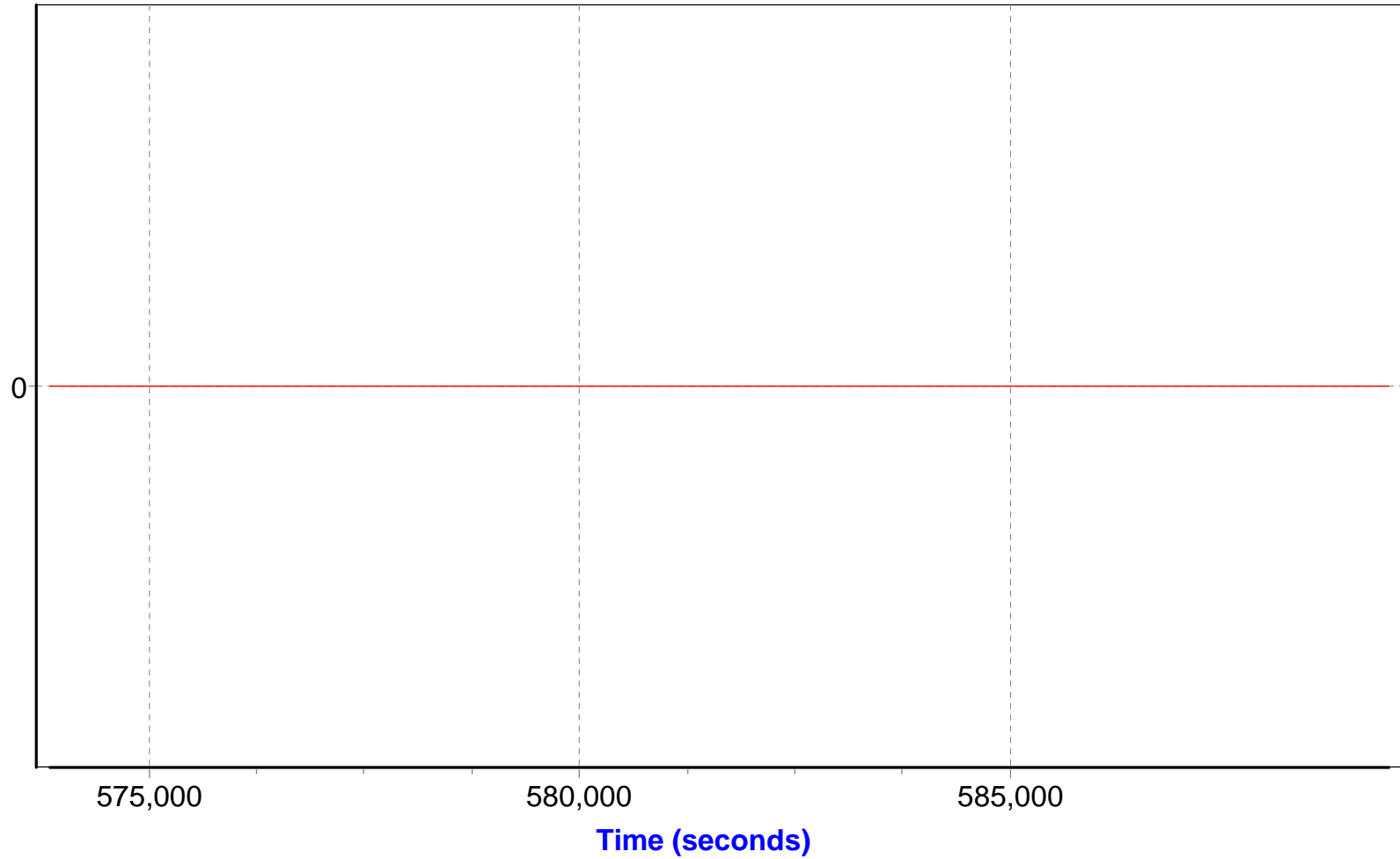




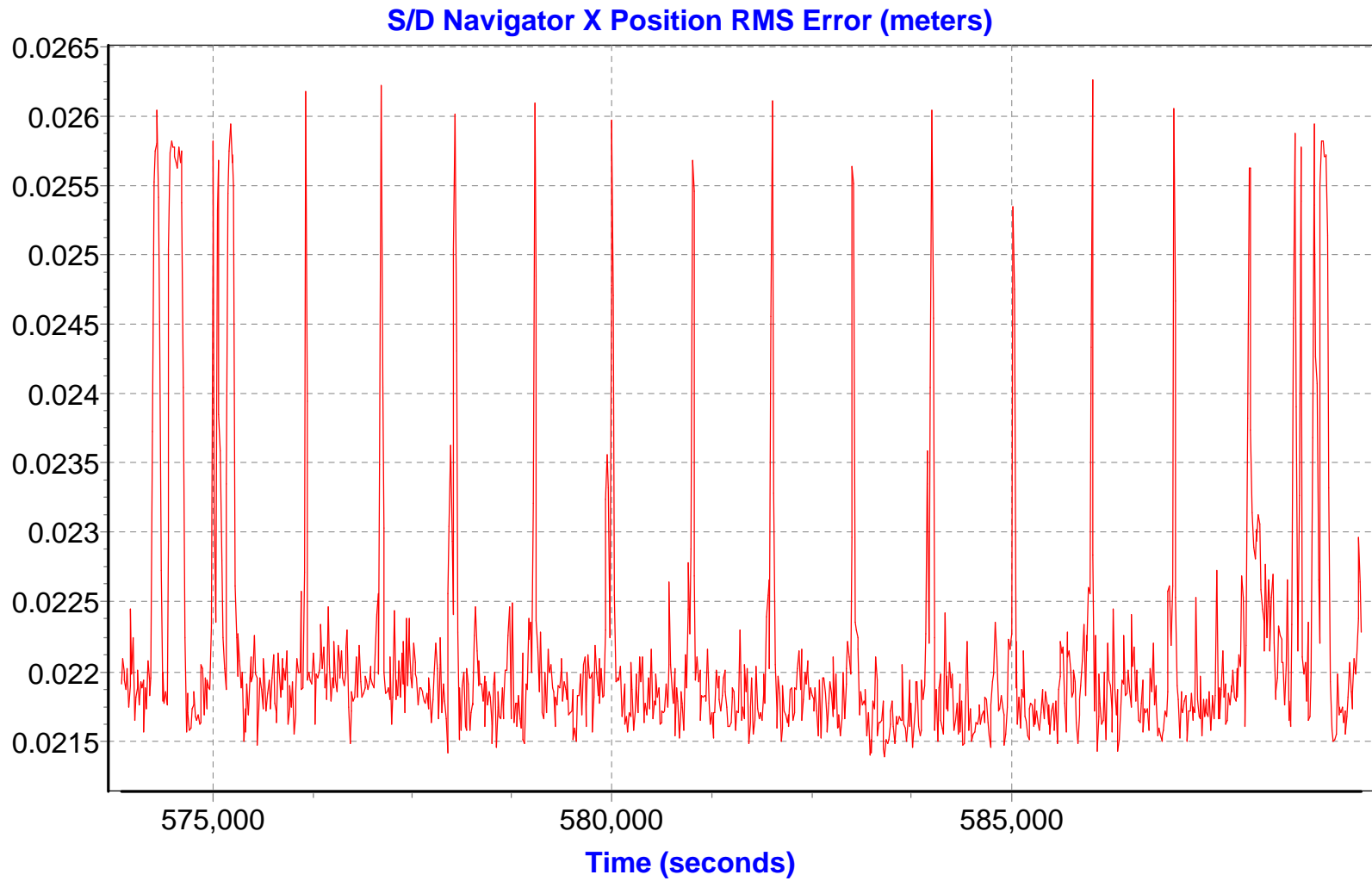
**S/D Navigator Z Misalignment (arcmin)**



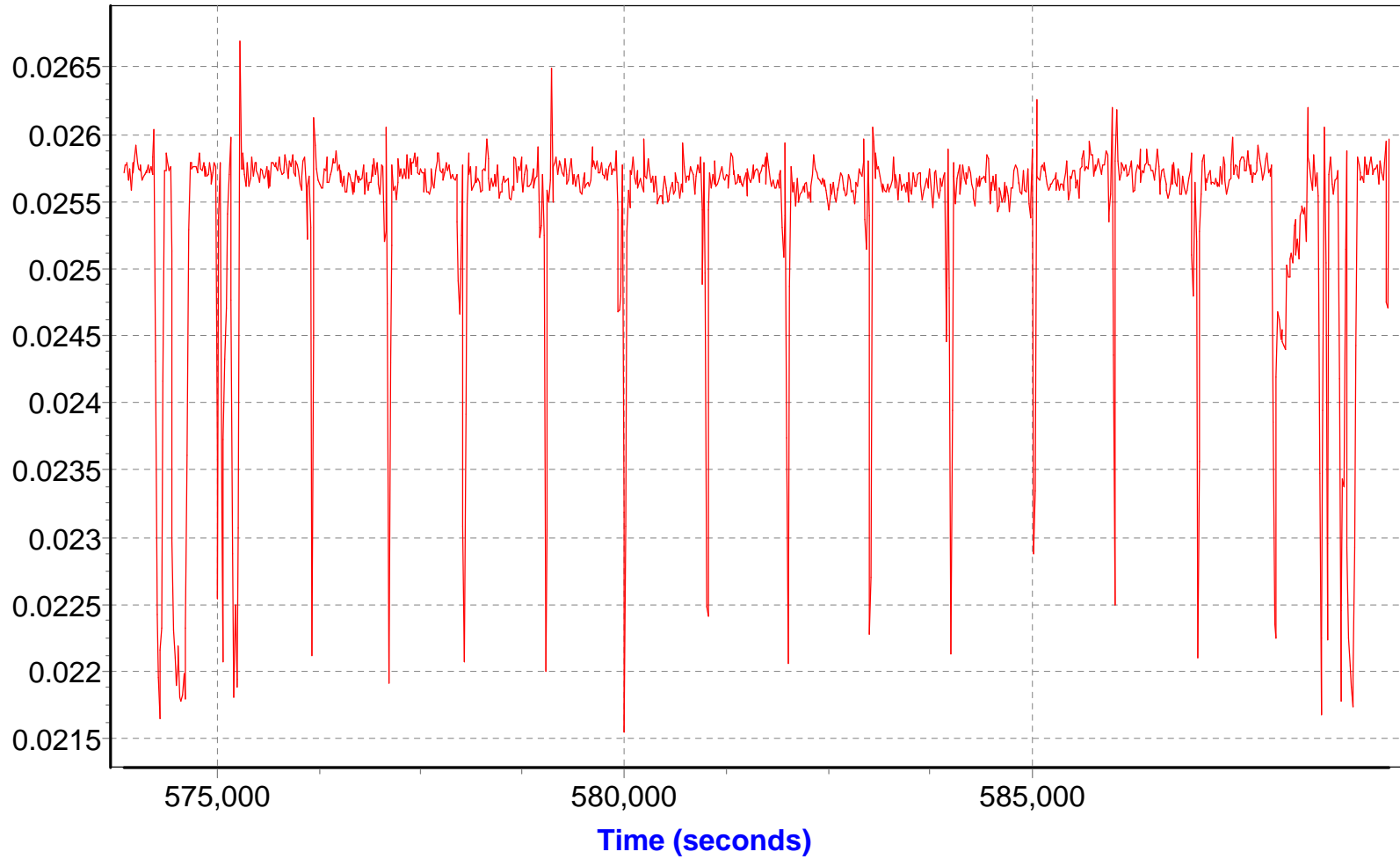
**S/D Navigator COS(Z Misalignment)-1 (radians)**



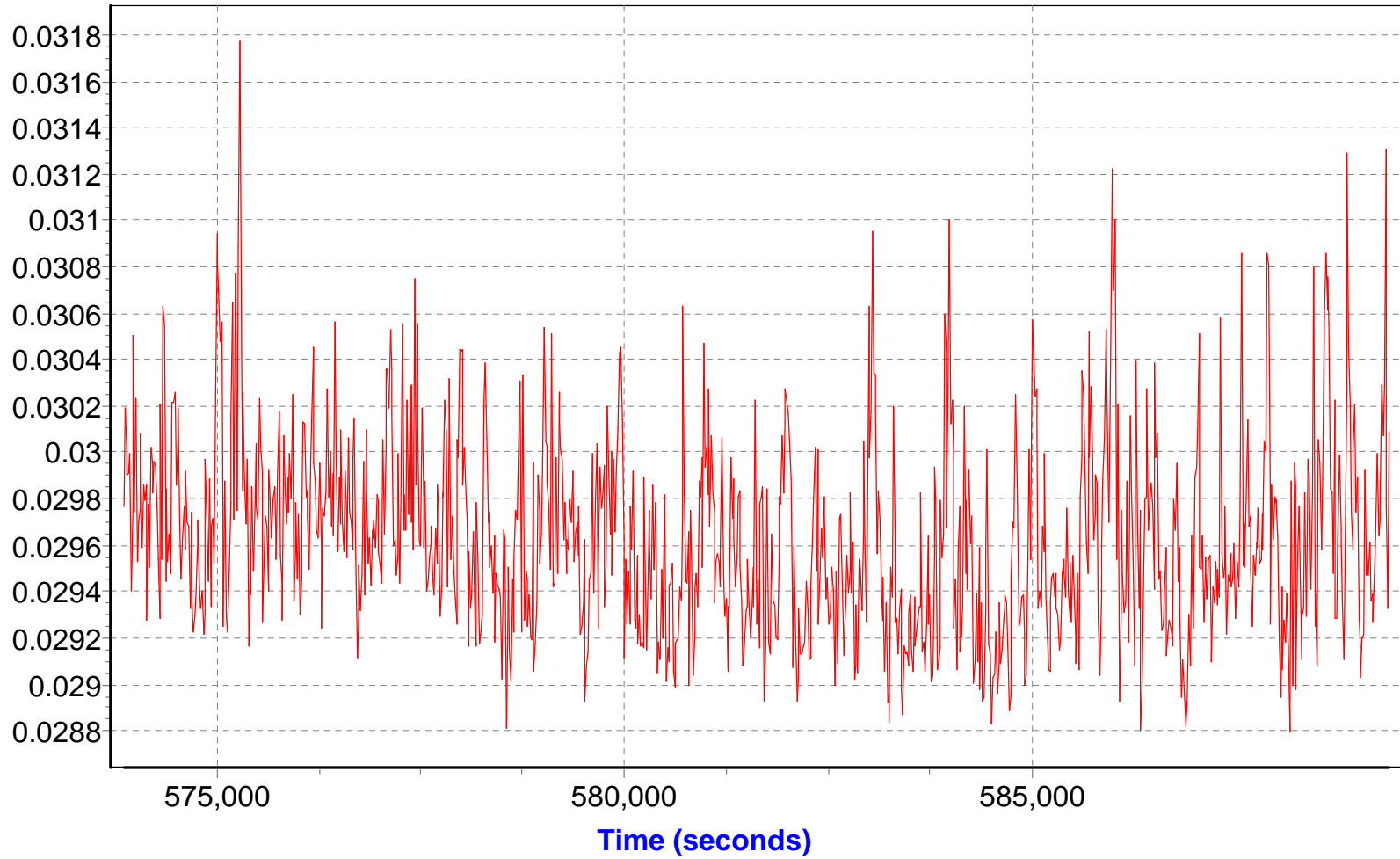


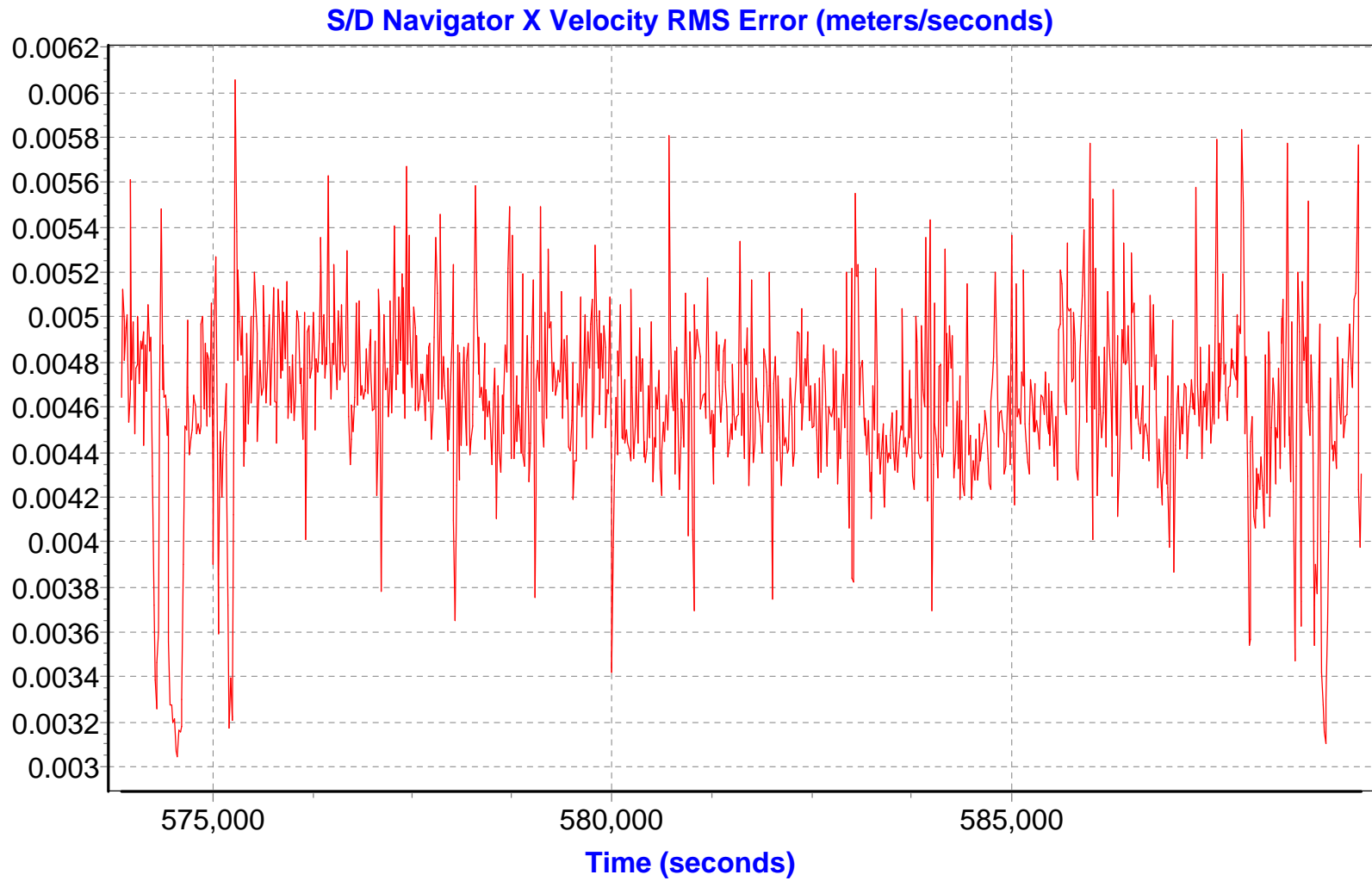


**S/D Navigator Y Position RMS Error (meters)**

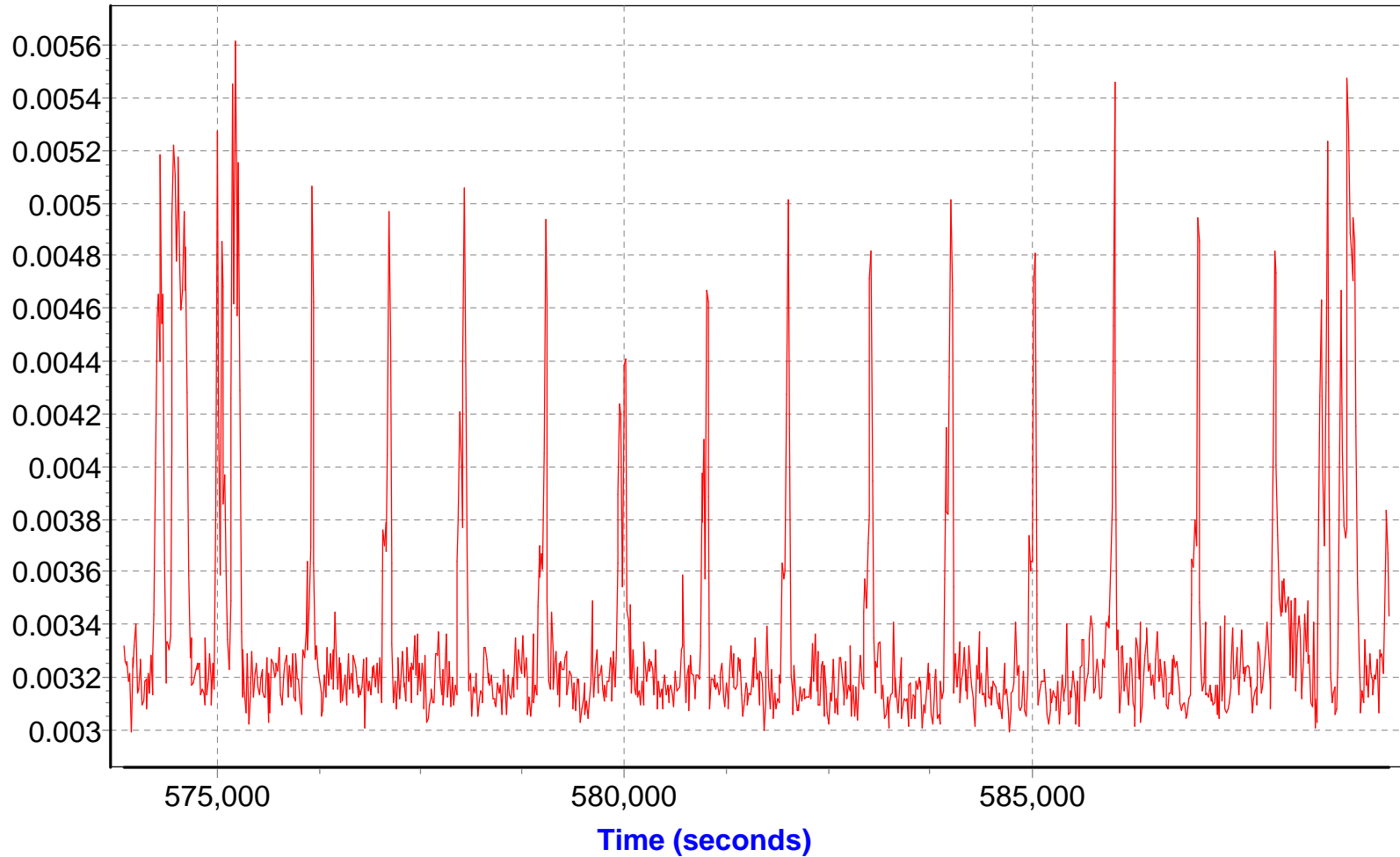


**S/D Navigator Z Position RMS Error (meters)**

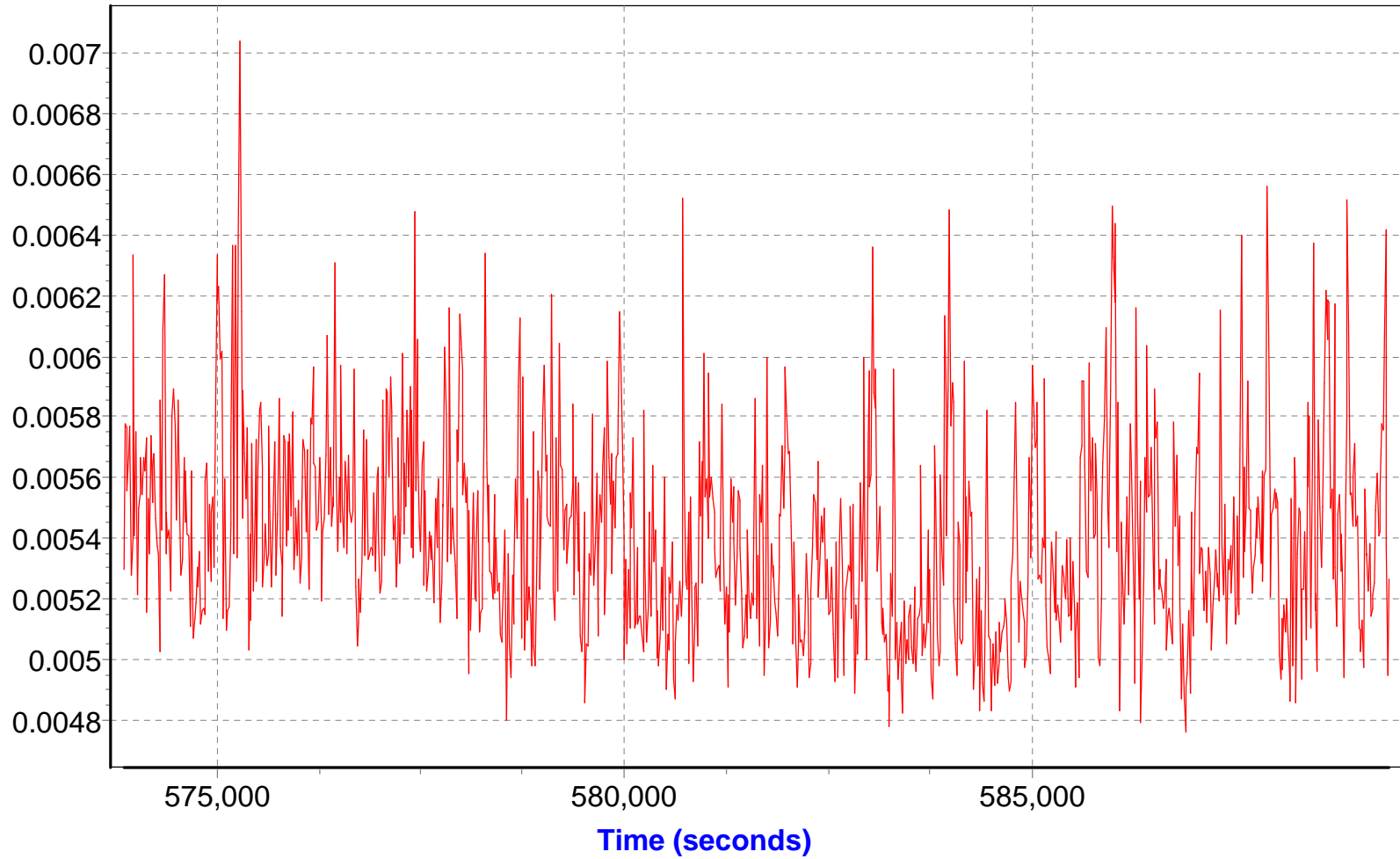




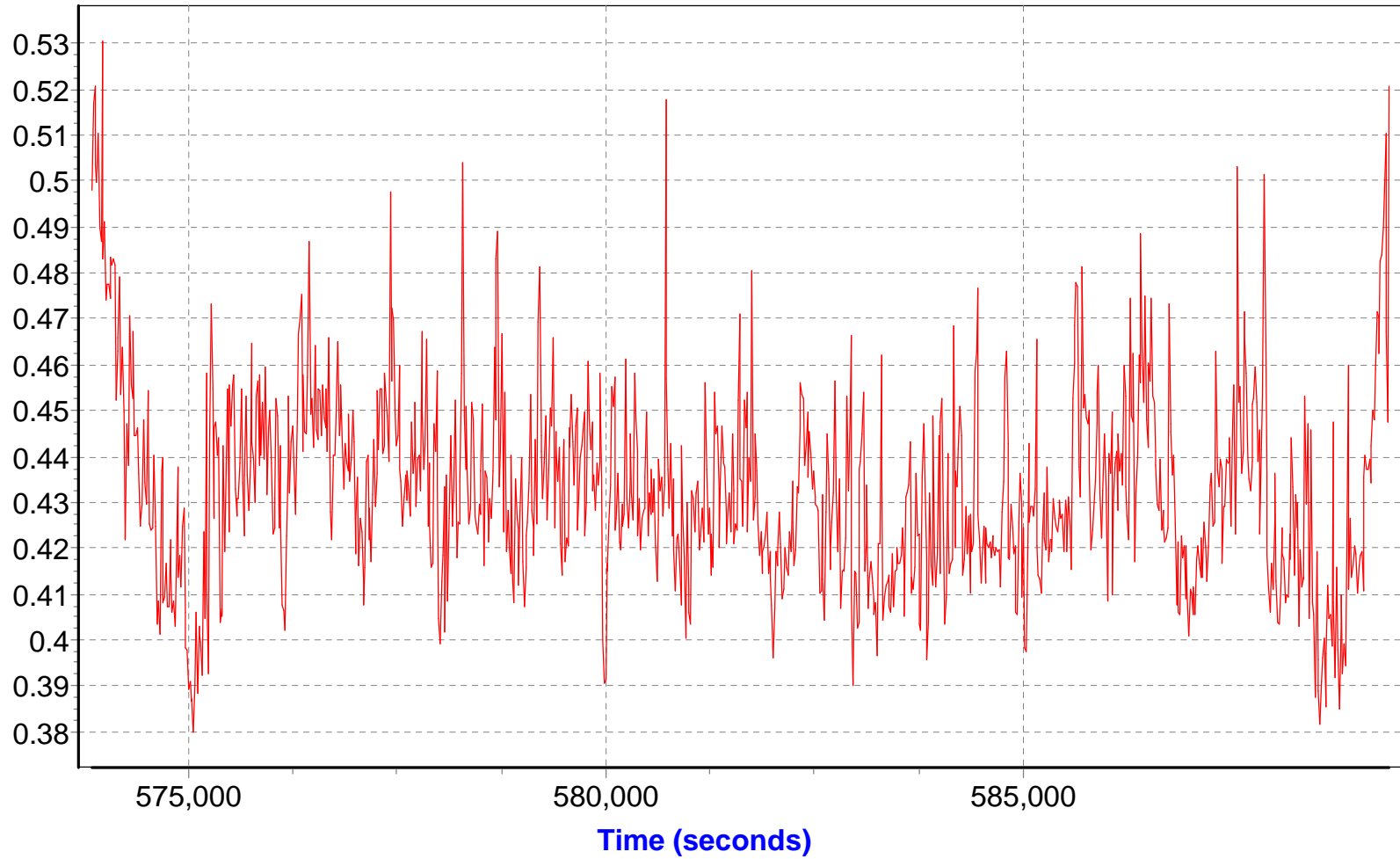
**S/D Navigator Y Velocity RMS Error (meters/seconds)**

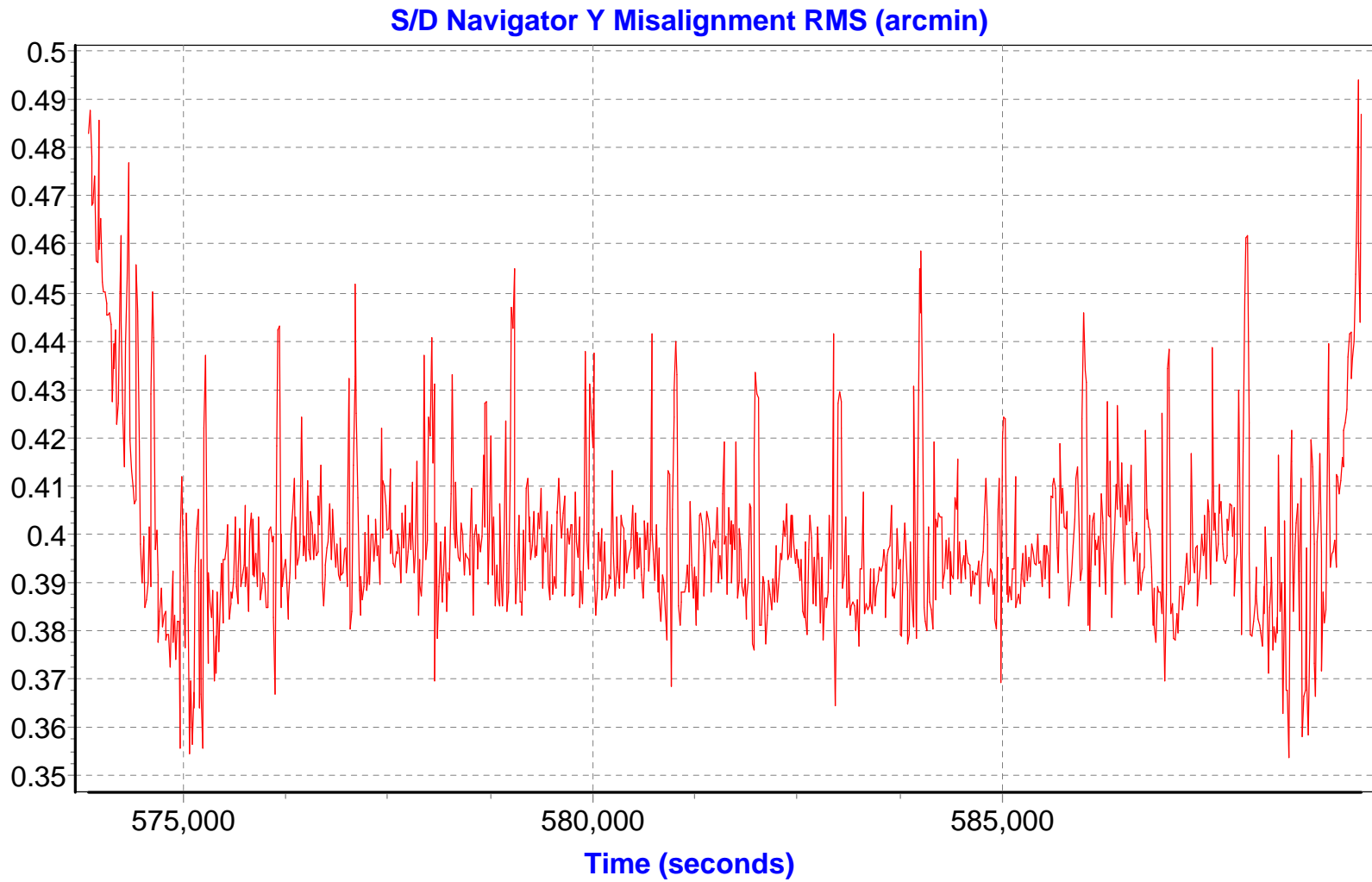


**S/D Navigator Z Velocity RMS Error (meters/seconds)**



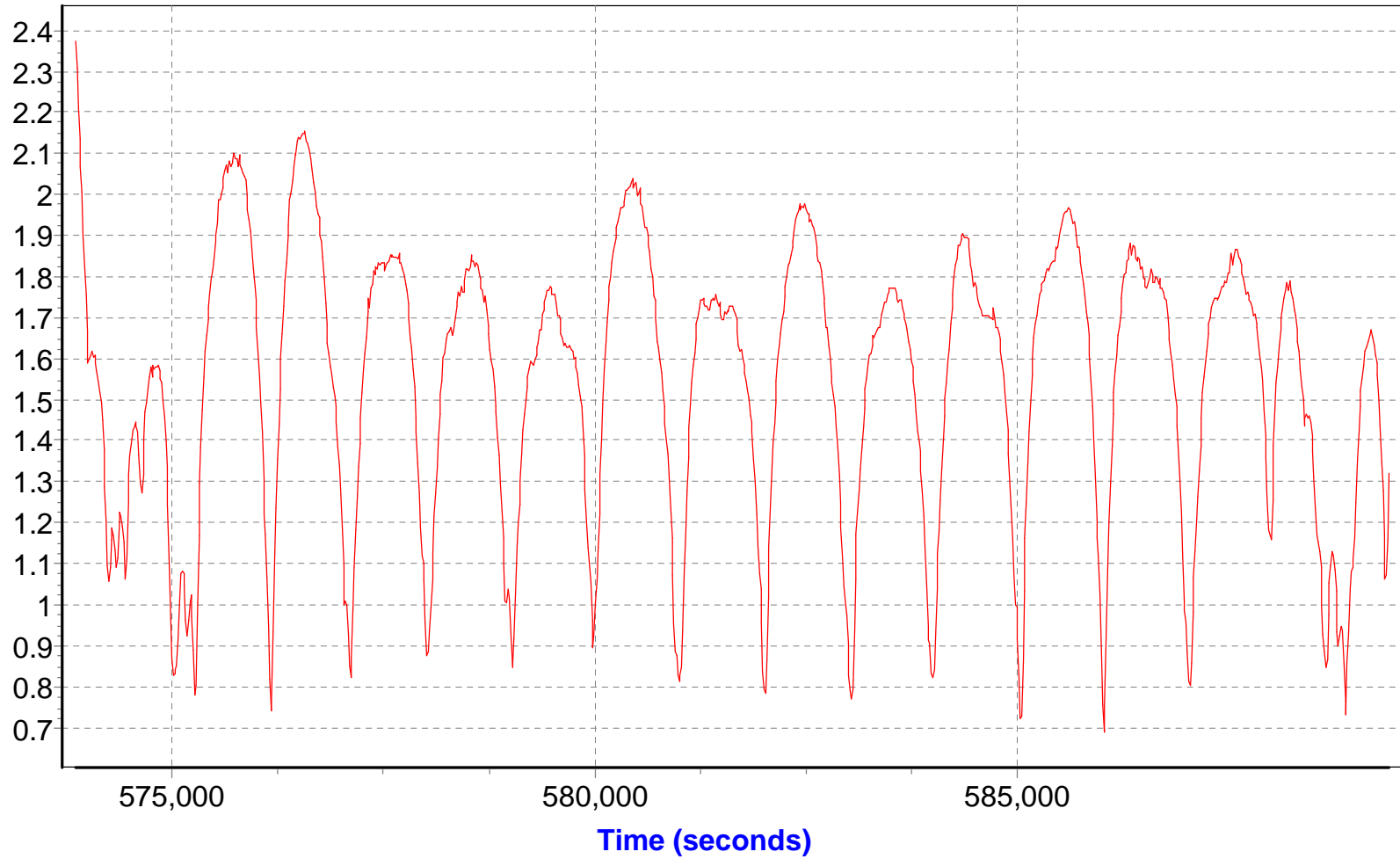
**S/D Navigator X Misalignment RMS (arcmin)**

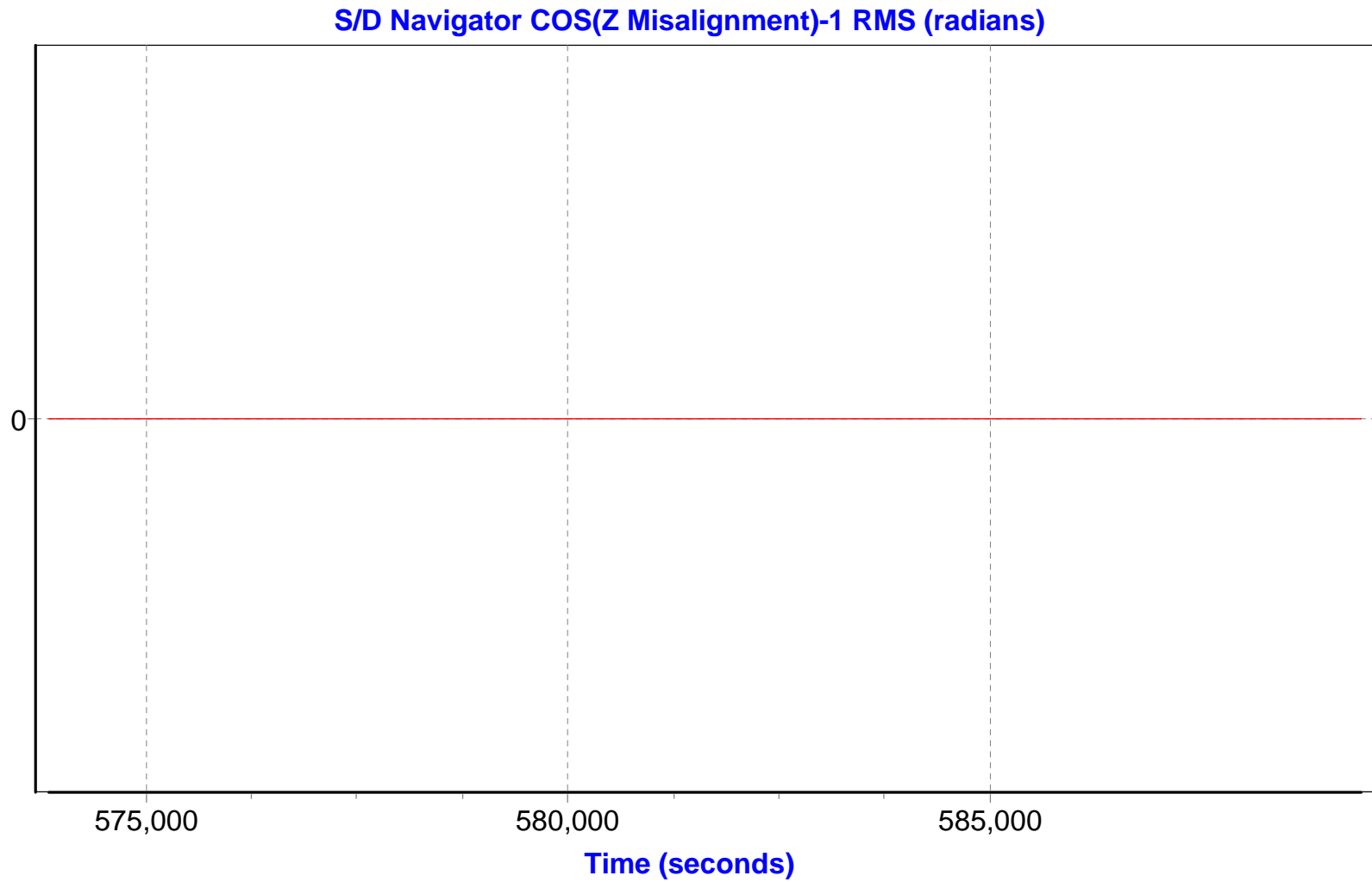




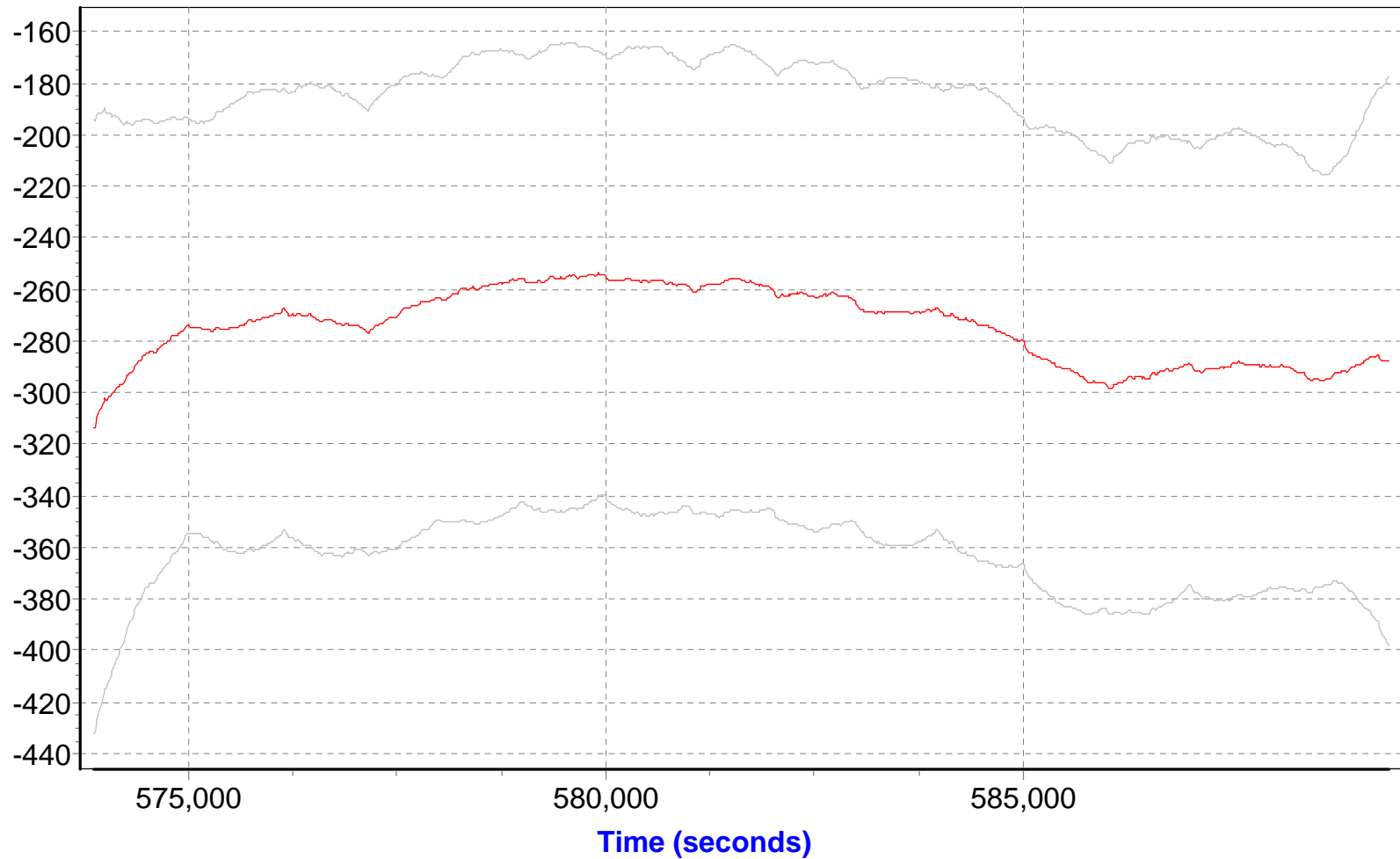


**S/D Navigator Z Misalignment RMS (arcmin)**

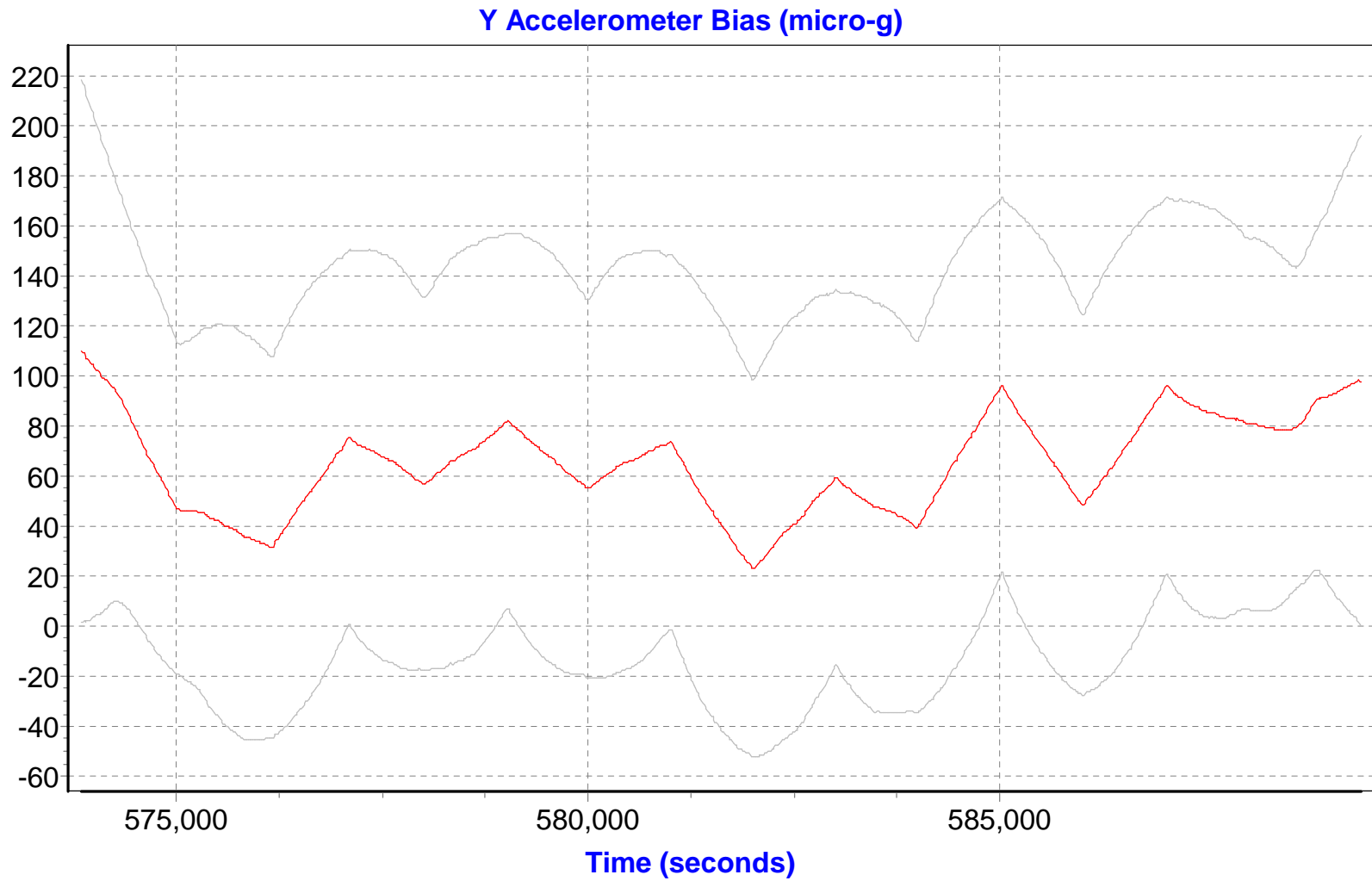




**X Accelerometer Bias (micro-g)**

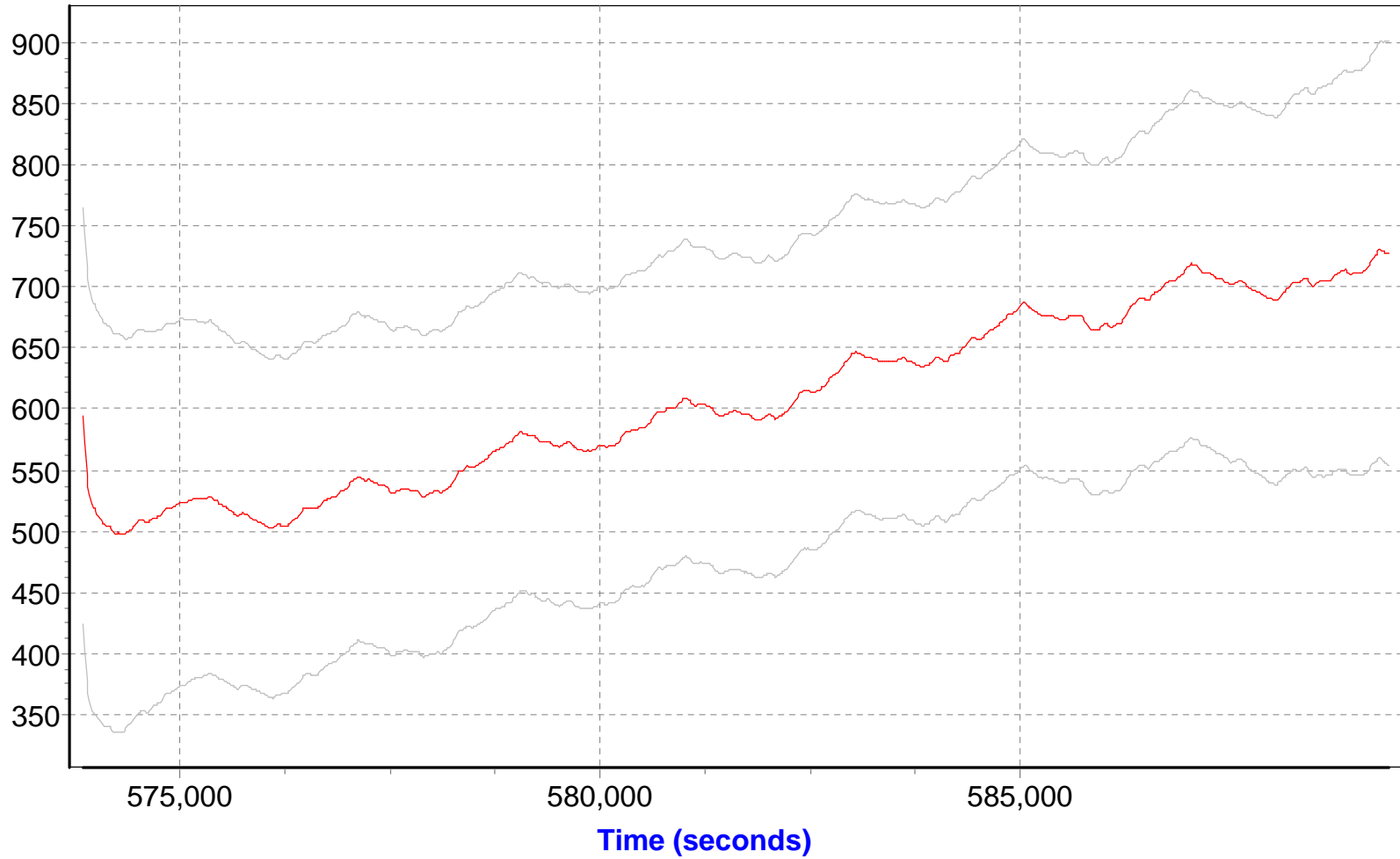


I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

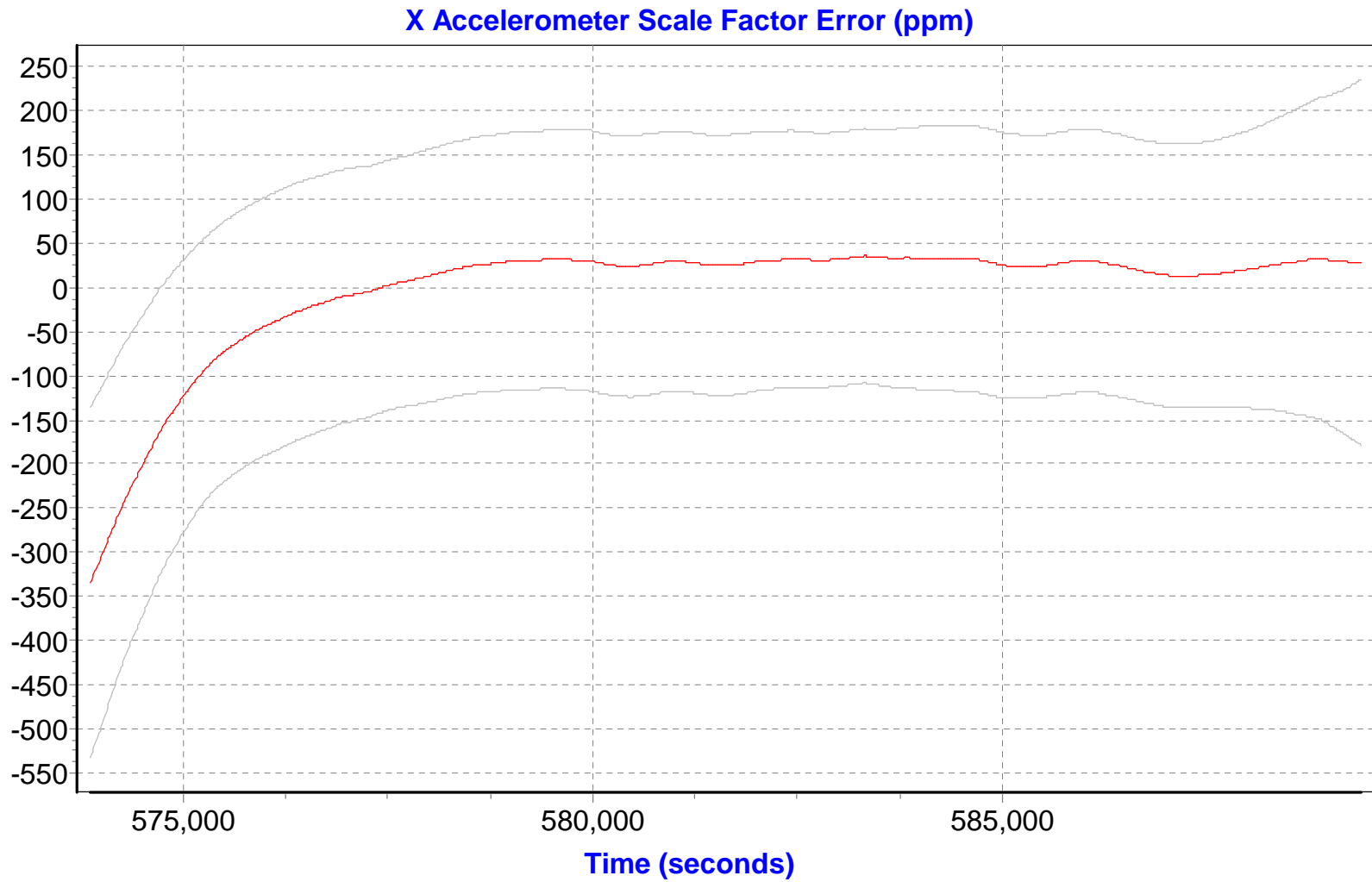


I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

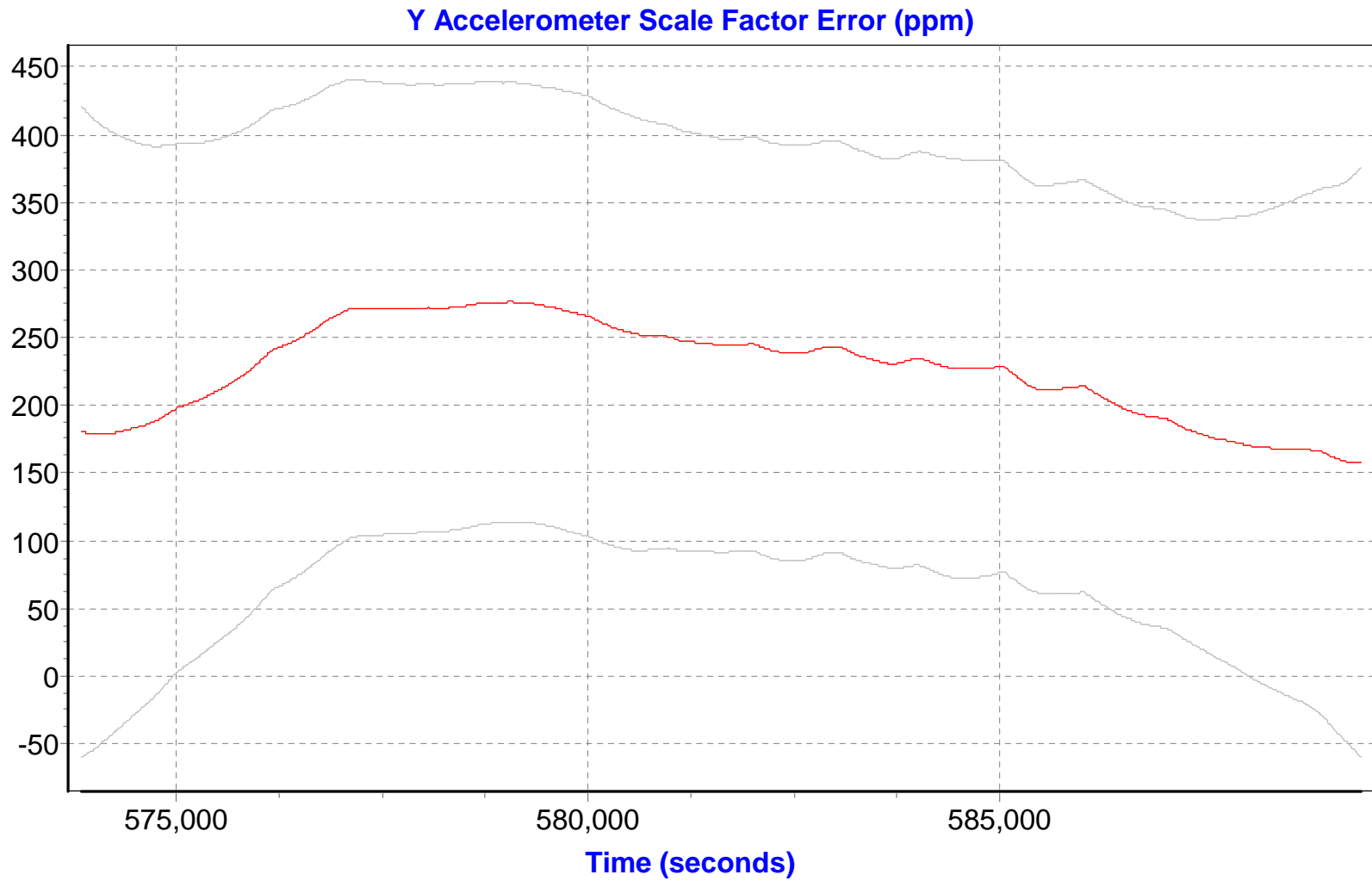
**Z Accelerometer Bias (micro-g)**



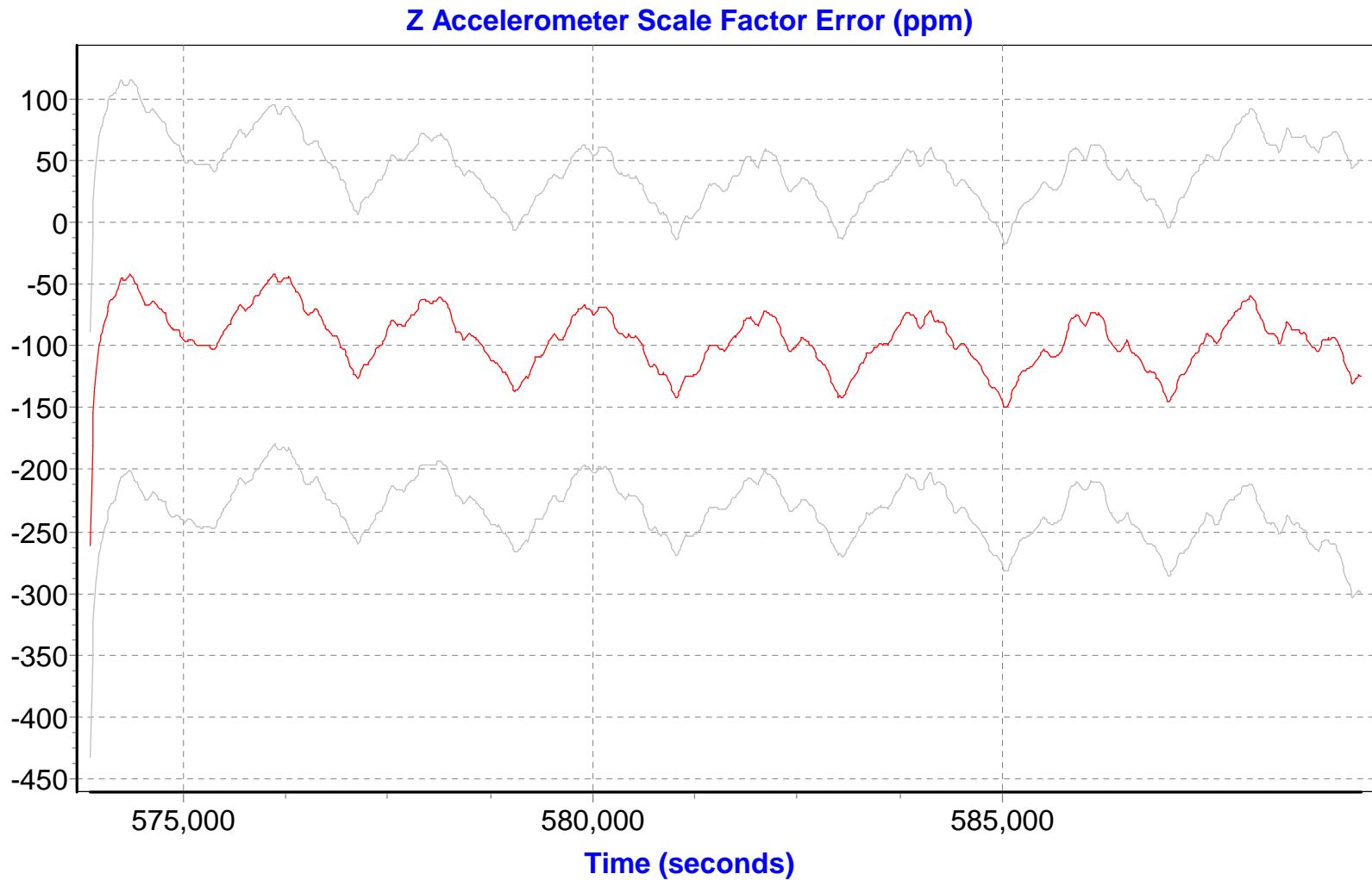
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I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat



I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat



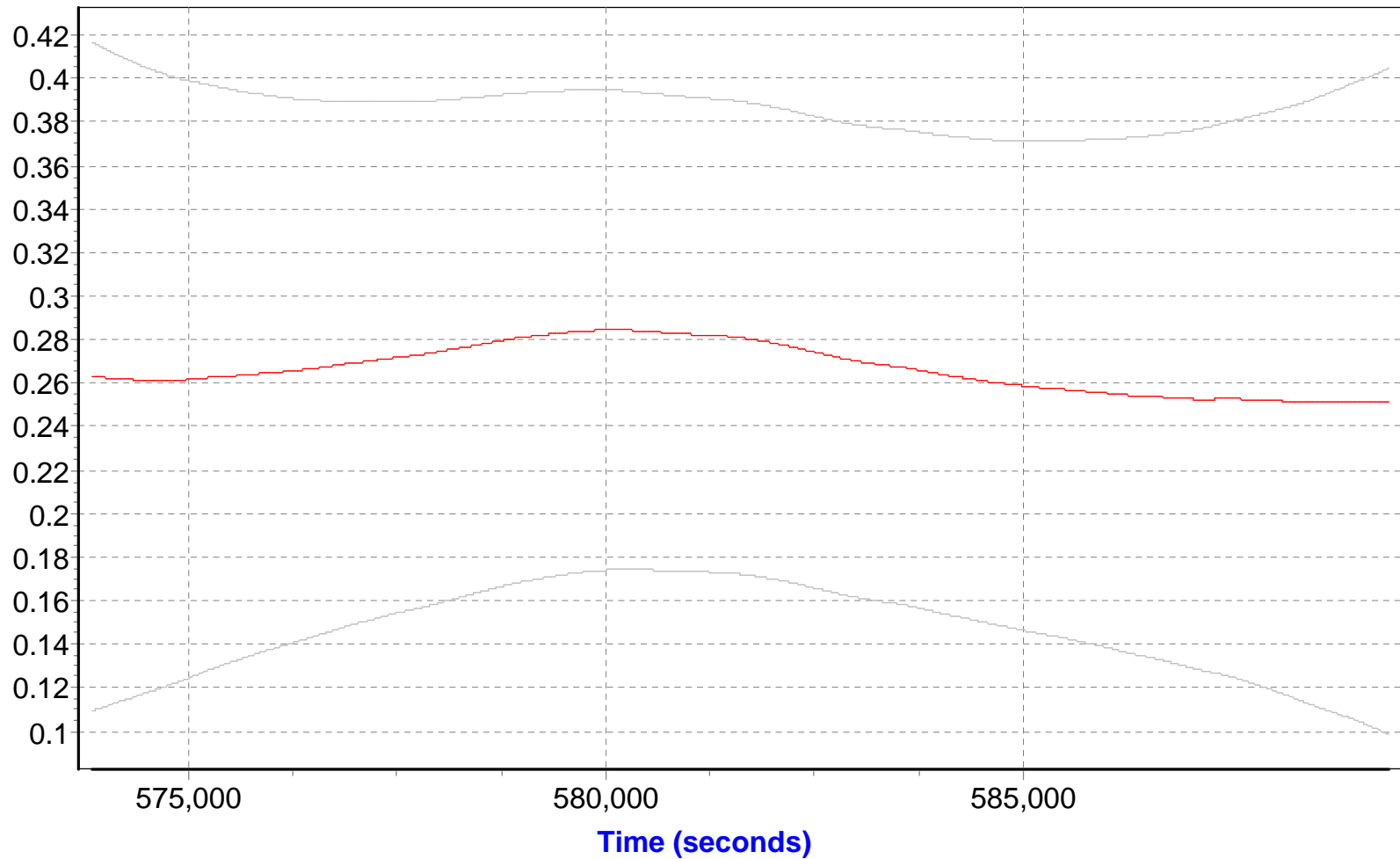
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I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat



I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

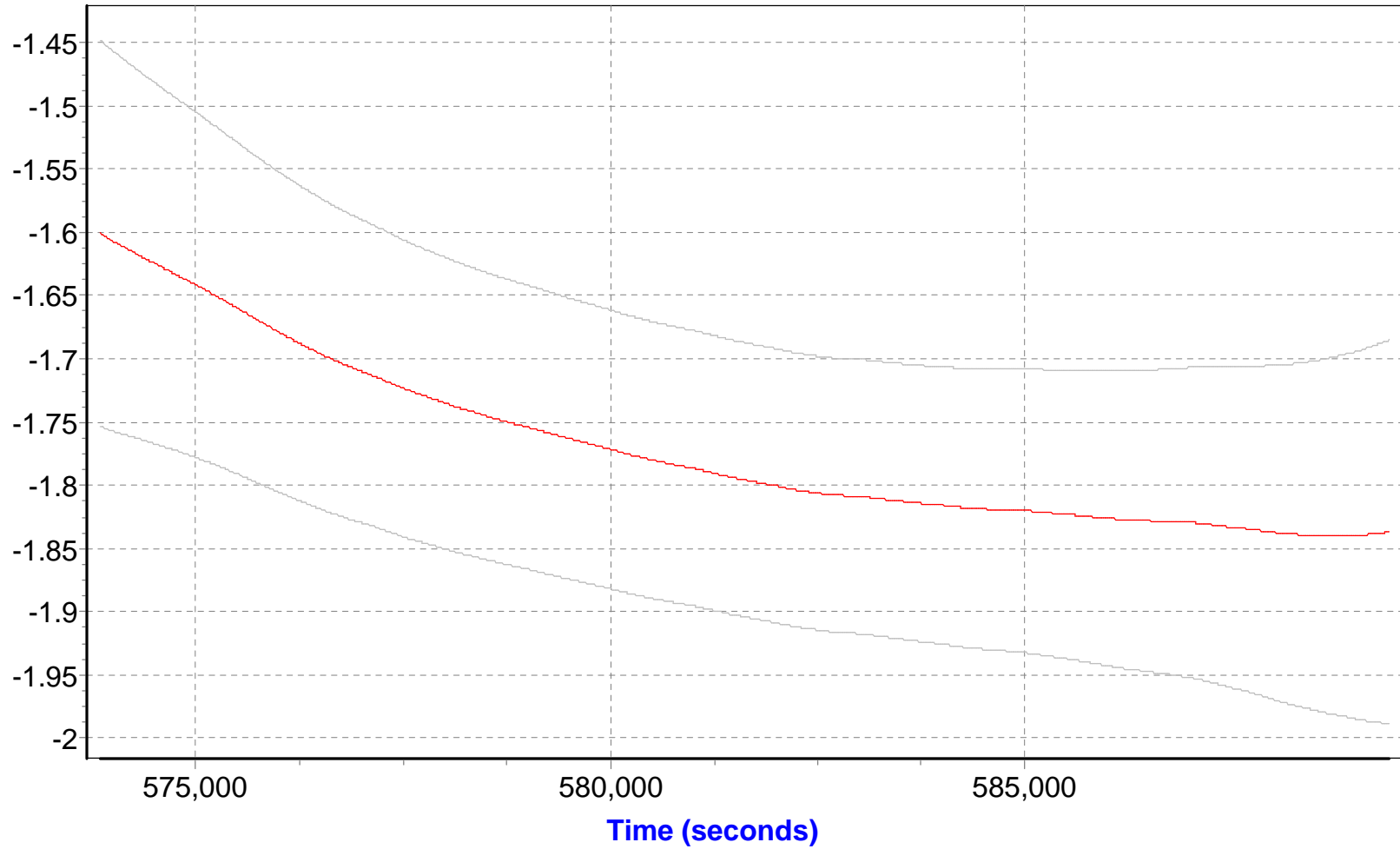


### X Gyro Bias (degrees/hour)

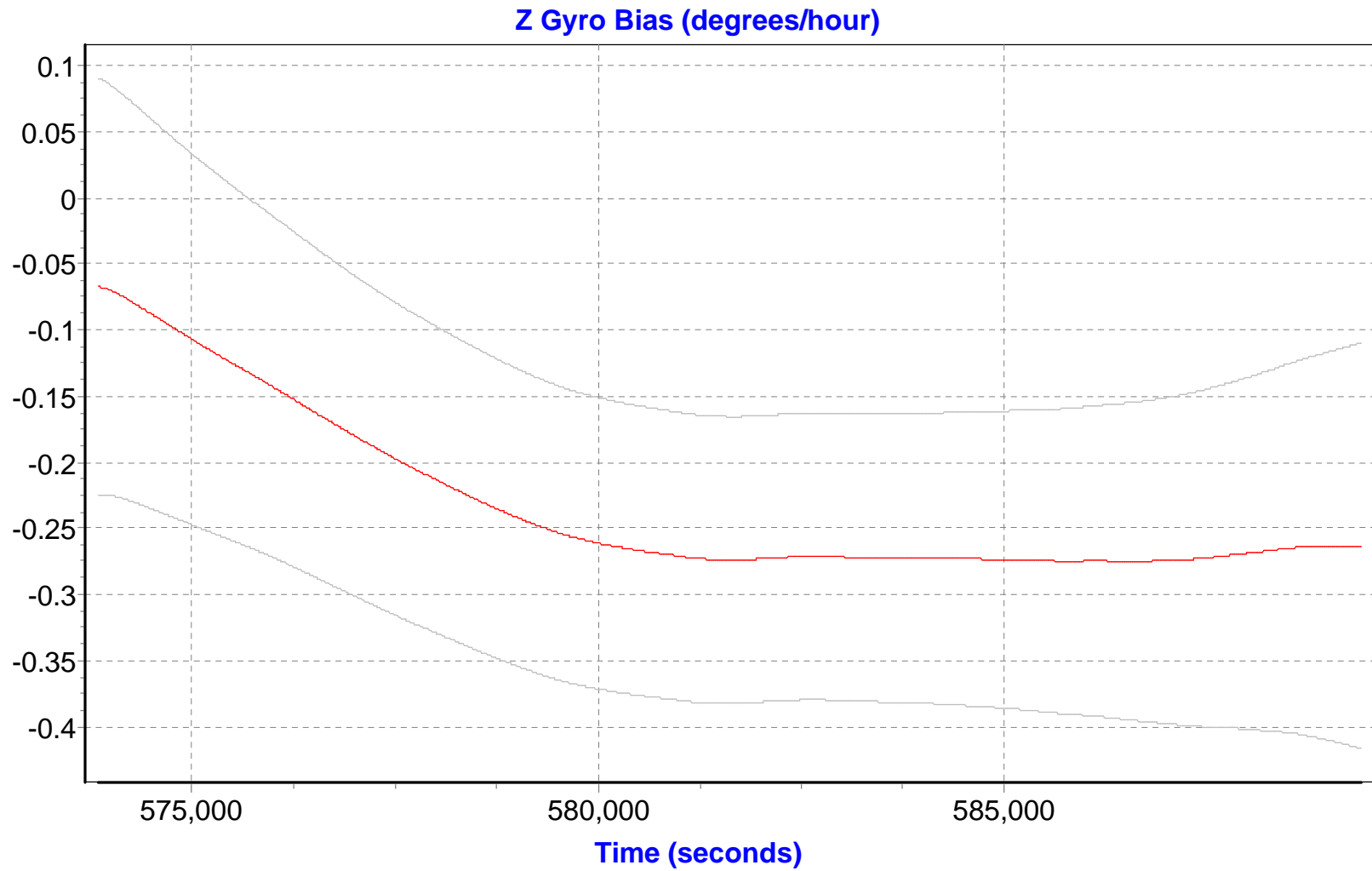


I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

**Y Gyro Bias (degrees/hour)**

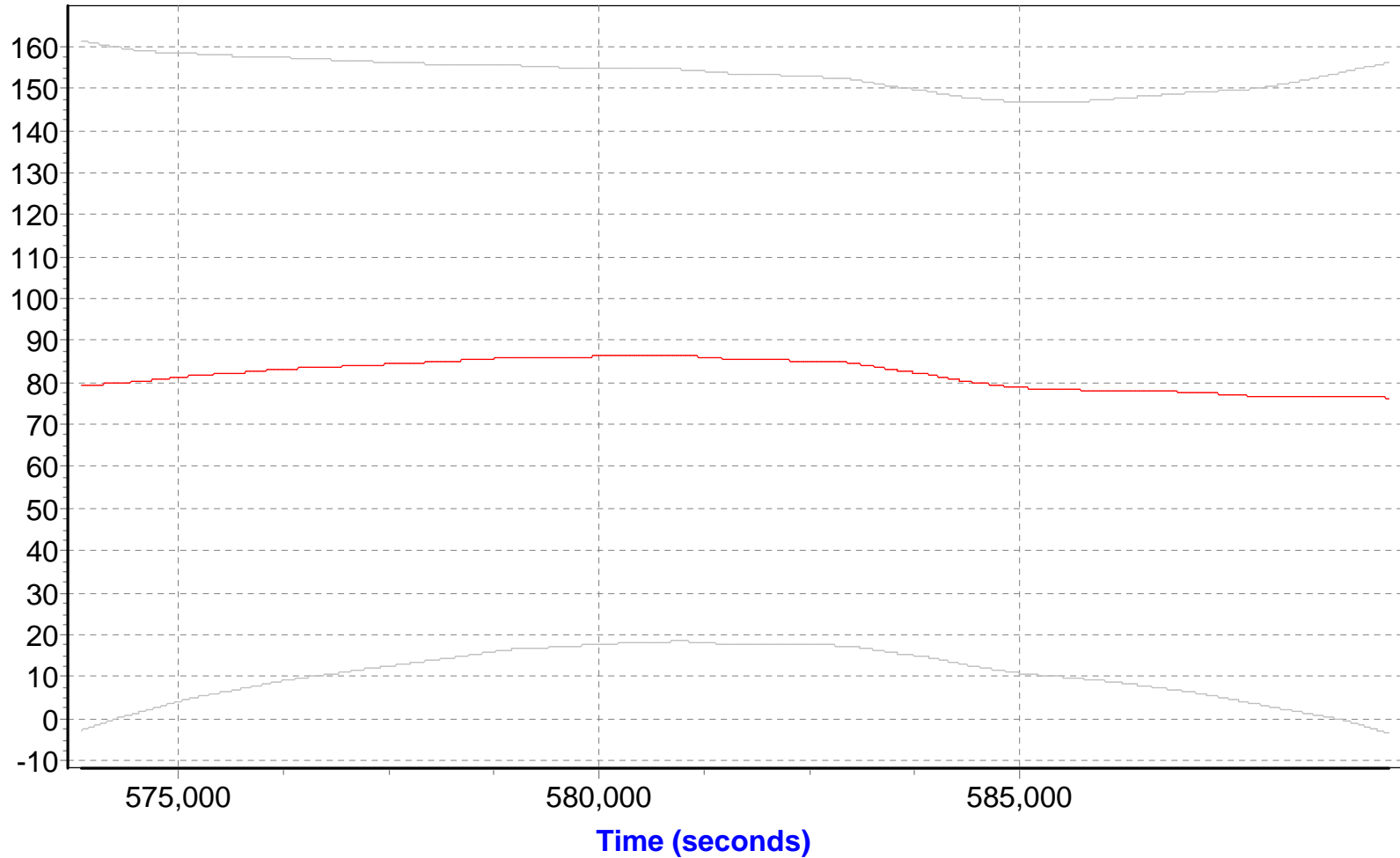


I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat



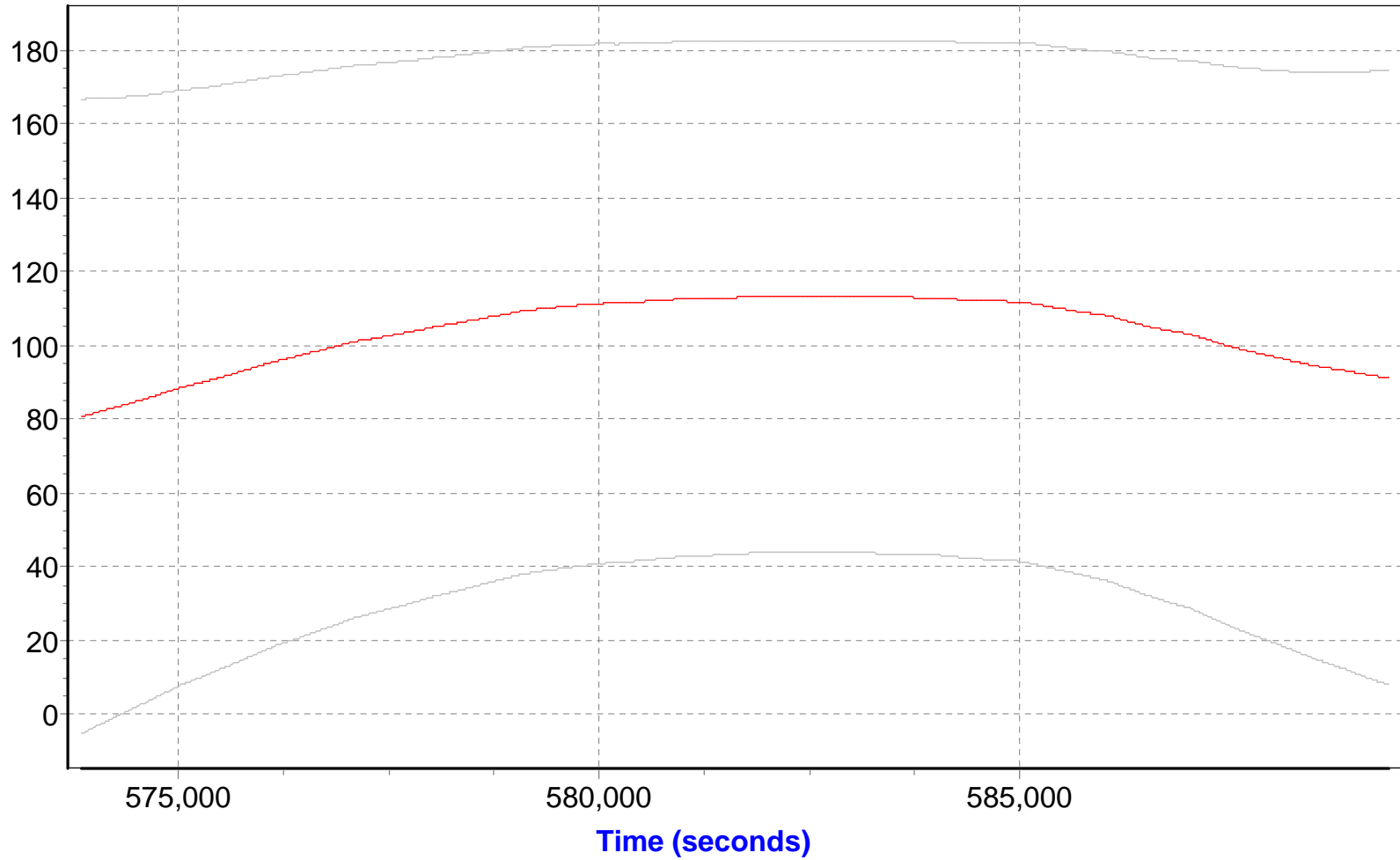
I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

**X Gyro Scale Factor Error (ppm)**

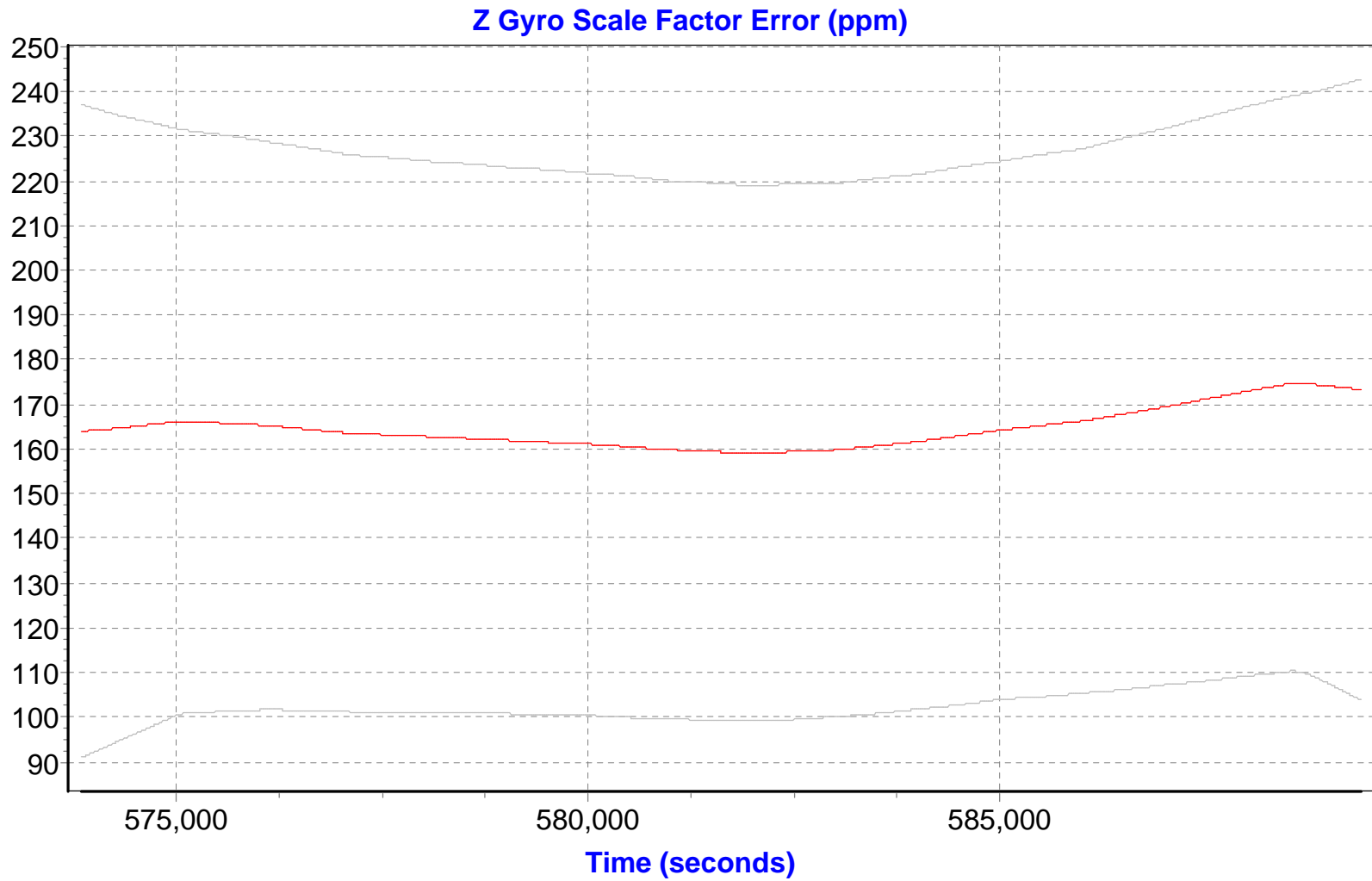


I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

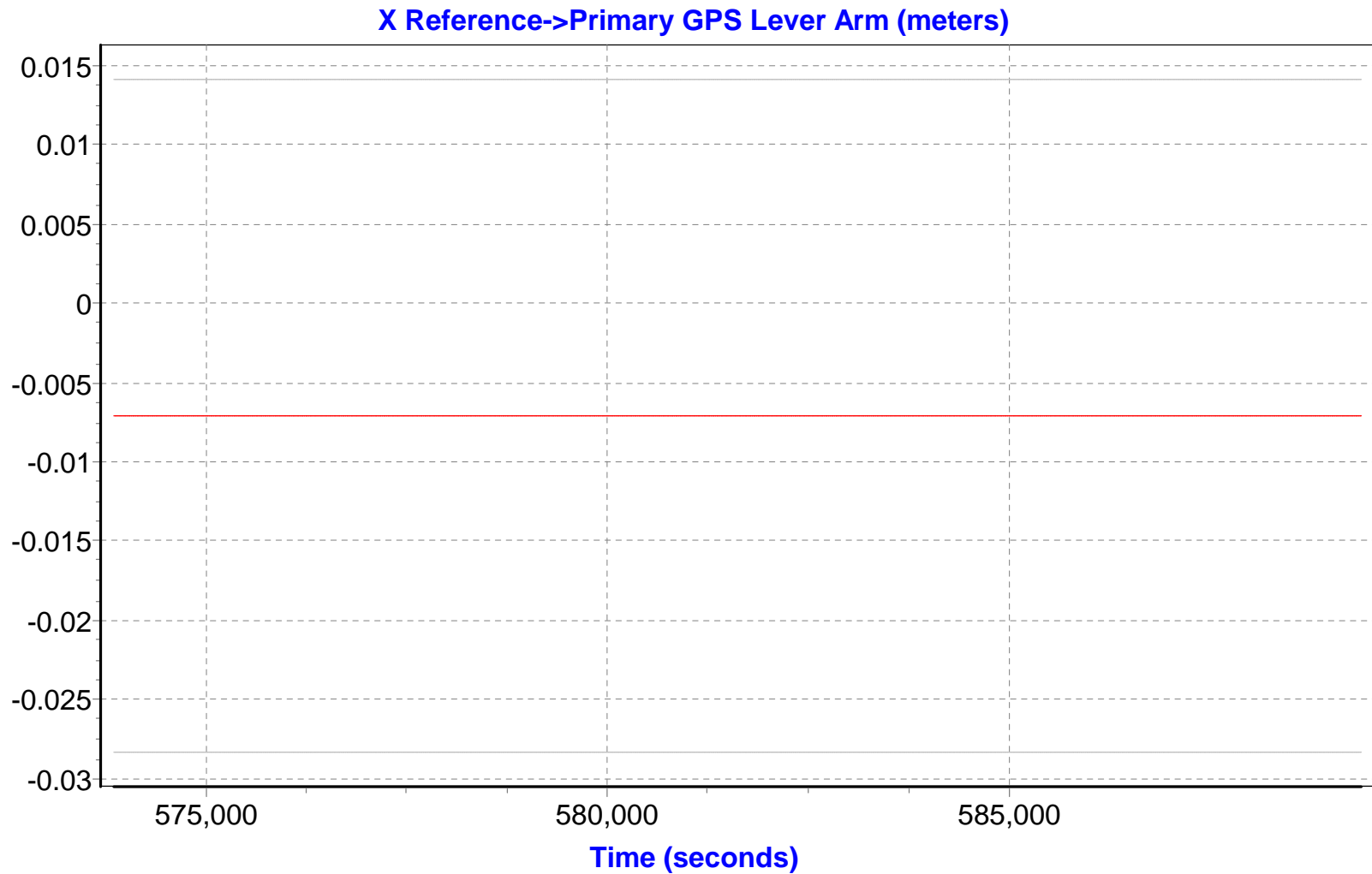
**Y Gyro Scale Factor Error (ppm)**



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I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

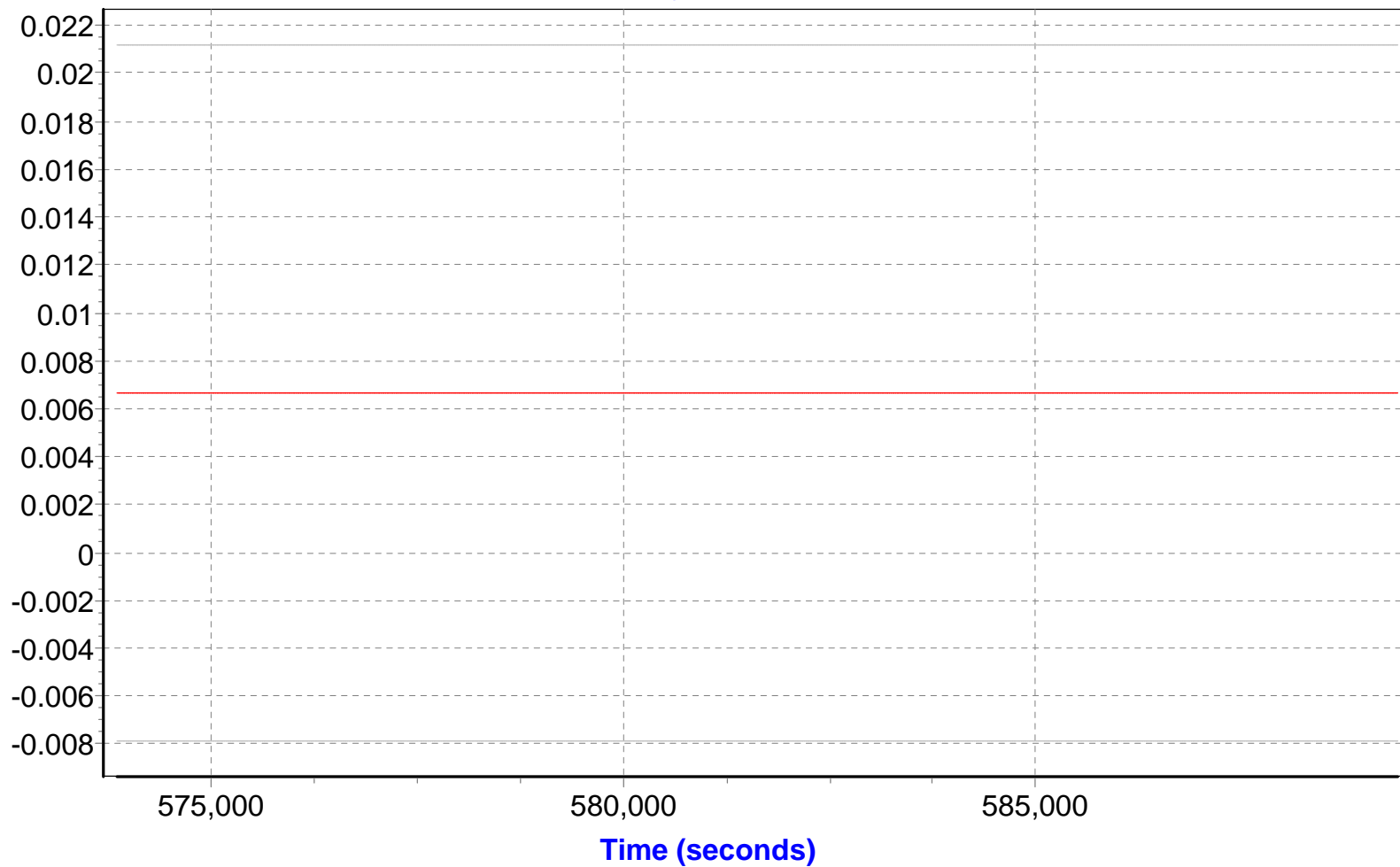


I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat



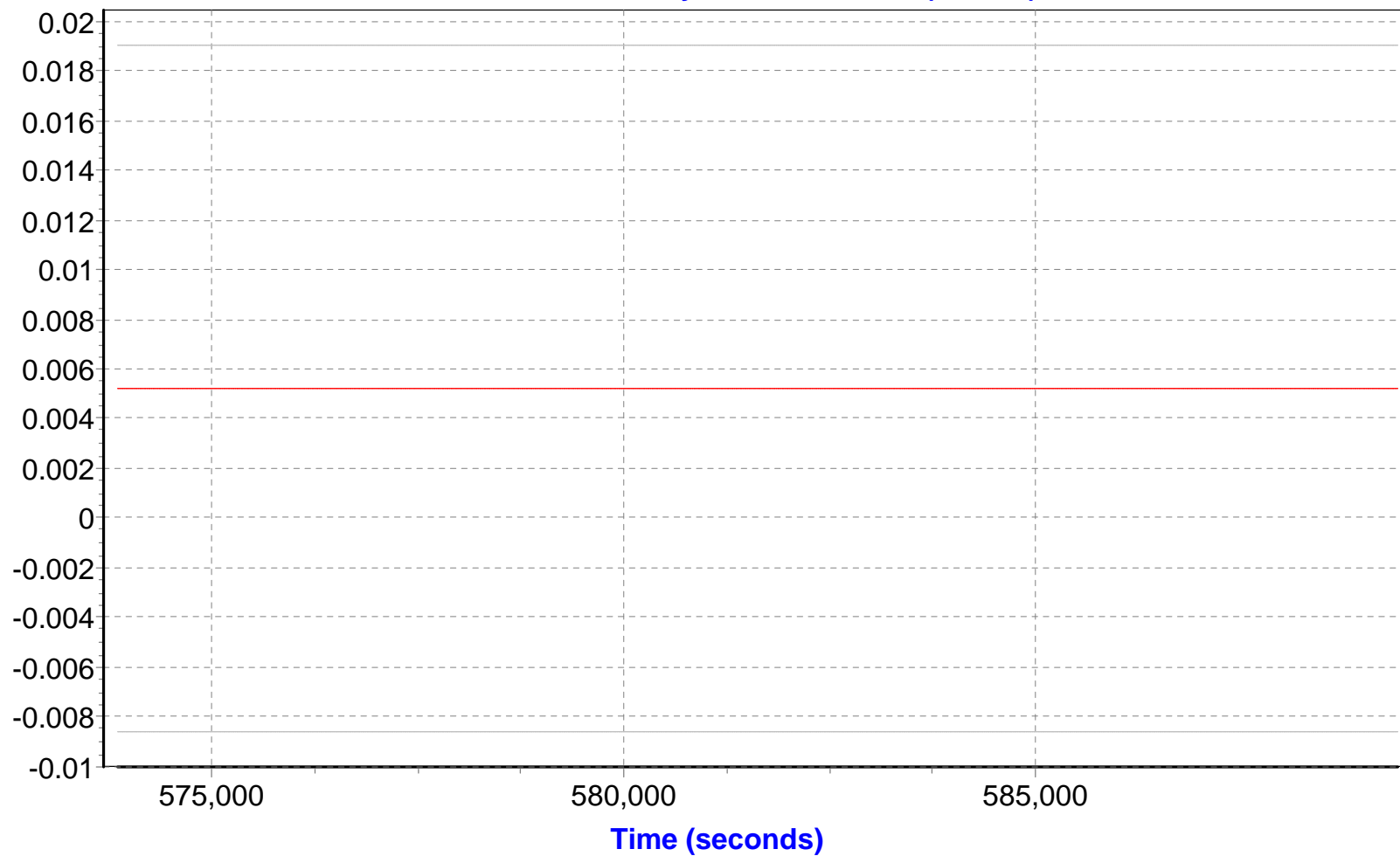
I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

**Y Reference->Primary GPS Lever Arm (meters)**





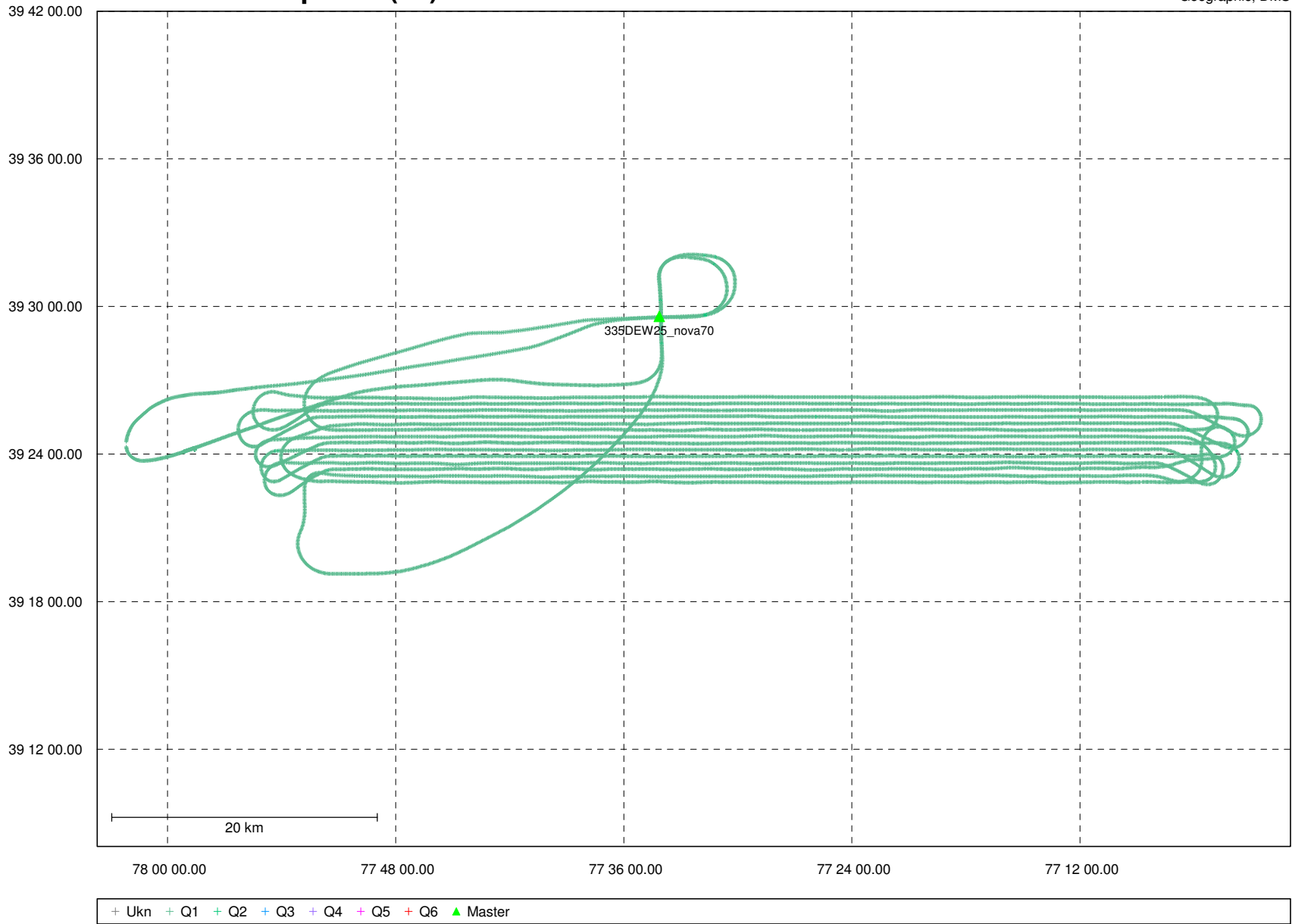
**Z Reference->Primary GPS Lever Arm (meters)**



I:\o112070a\3\_Processed\Extract\smers\_o112070a.dat  
I:\o112070a\3\_Processed\Extract\smrms\_o112070a.dat

### Combined - Map Run (38)

Geographic, DMS



Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: L:\335DEW11  
USGS\_MD\_VA\_lidar\2\_Operations\6\_Missions\o112070b\3\_Processed\GPS\o112070b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:

Total in GPB file: 172420  
No processed position: 155203  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:

L1 Phase: 0.0188 (m)  
C/A Code: 0.69 (m)  
L1 Doppler: 0.027 (m/s)

Fwd/Rev Separation RMS Values:

East: 0.022 (m)  
North: 0.022 (m)  
Height: 0.041 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (17212 occurrences):

East: 0.022 (m)  
North: 0.022 (m)  
Height: 0.040 (m)

Quality Number Percentages:

Q 1: 99.8 %  
Q 2: 0.2 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:

0.00 - 0.10 m: 99.7 %  
0.10 - 0.30 m: 0.3 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

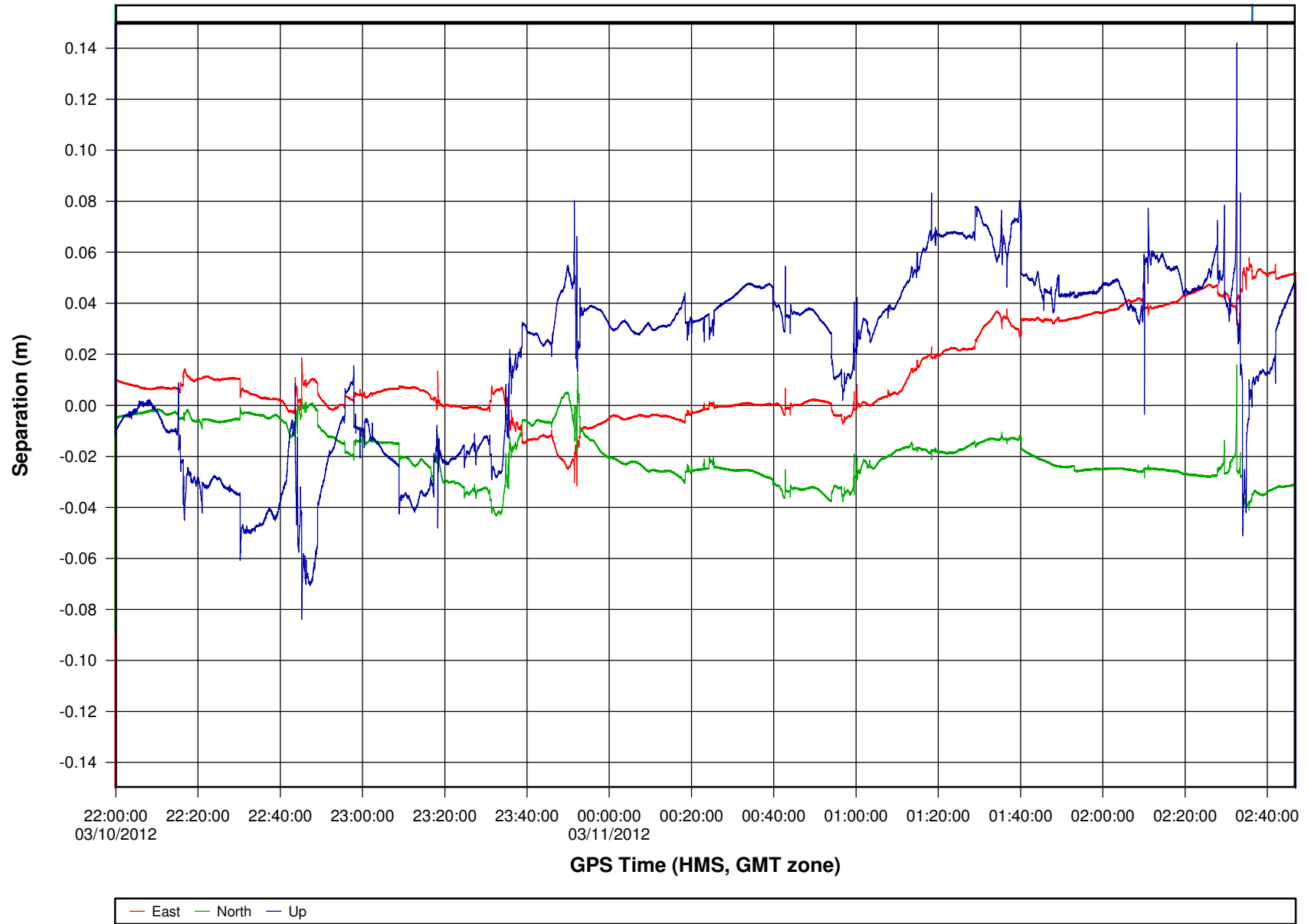
Percentages of epochs with DD\_DOP over 10.00:

DOP over Tol: 0.3 %

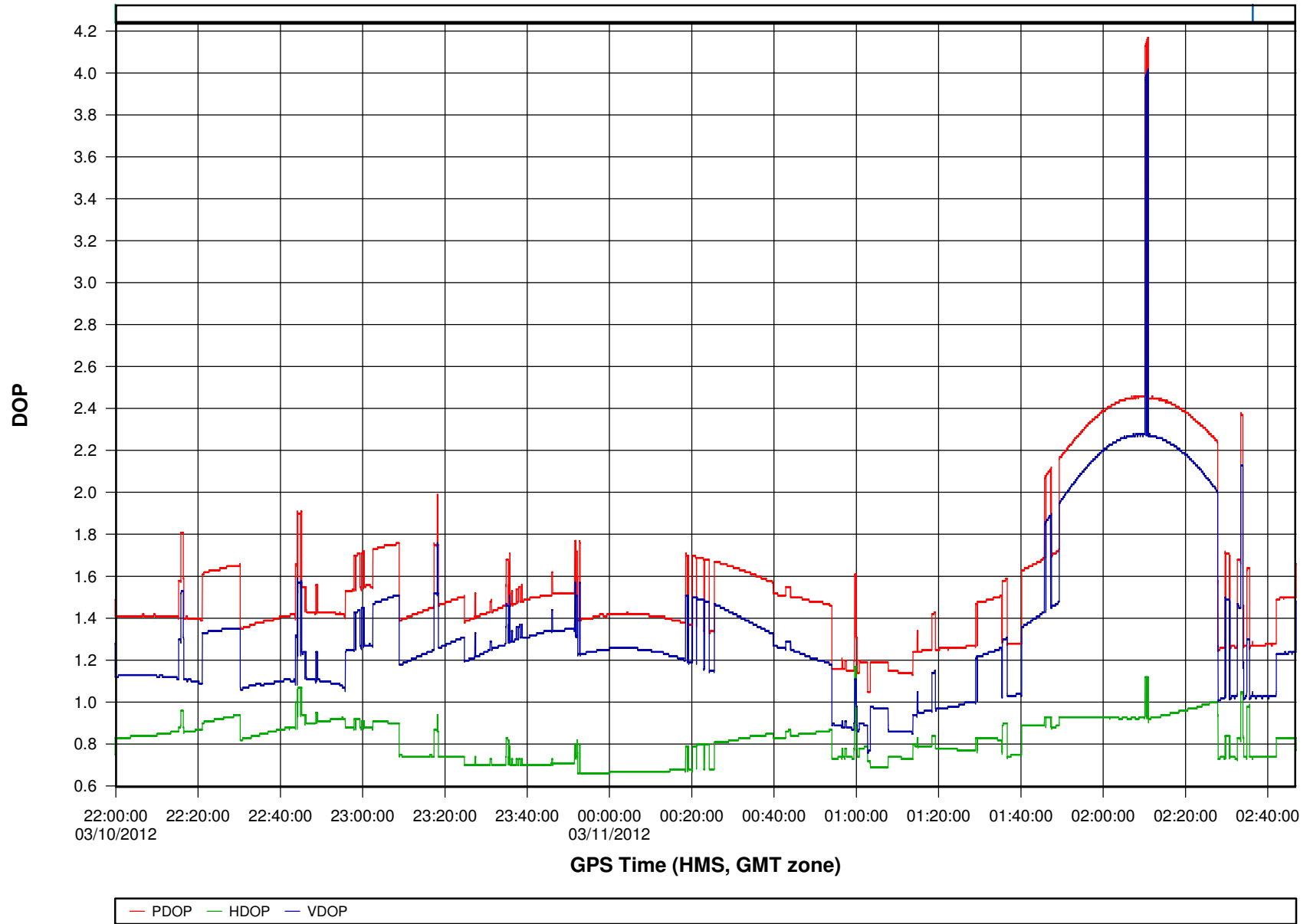
Baseline Distances:

Maximum: 46.096 (km)  
Minimum: 1.112 (km)  
Average: 22.017 (km)  
First Epoch: 36.492 (km)  
Last Epoch: 37.331 (km)

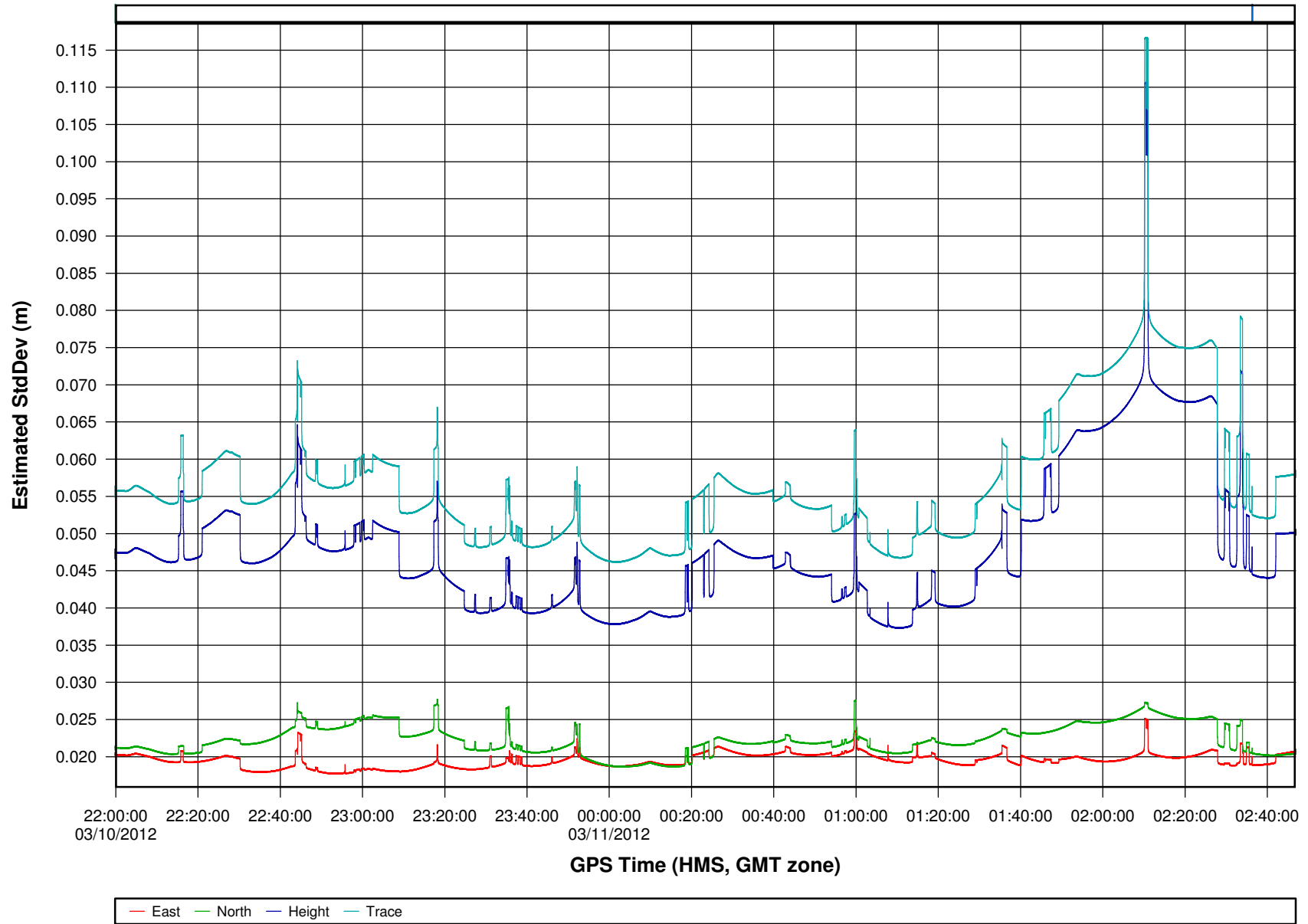
### o112070b [Combined] - Forward/Reverse or Combined Separation Plot



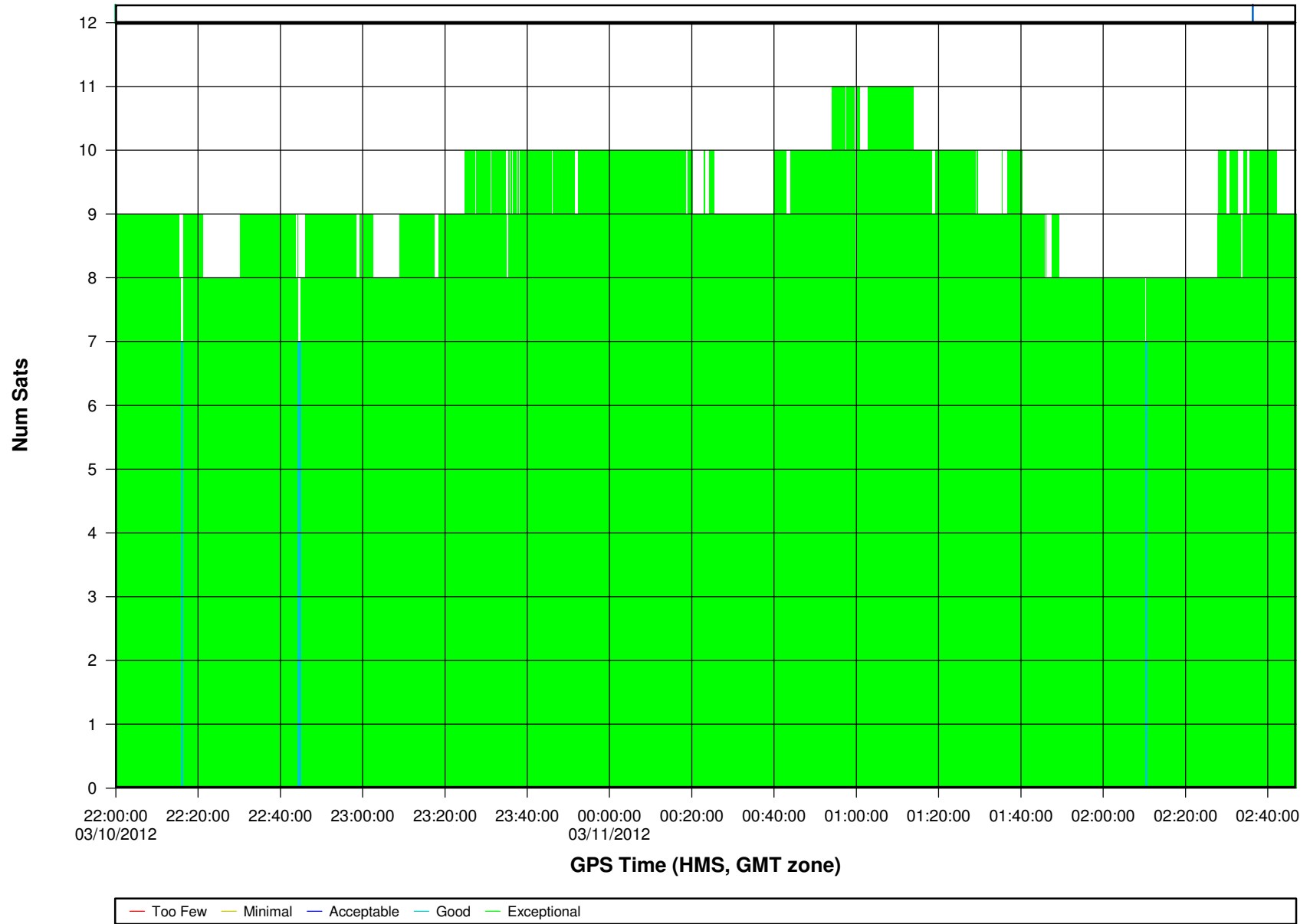
### o112070b [Combined] - PDOP, HDOP, VDOP Plots



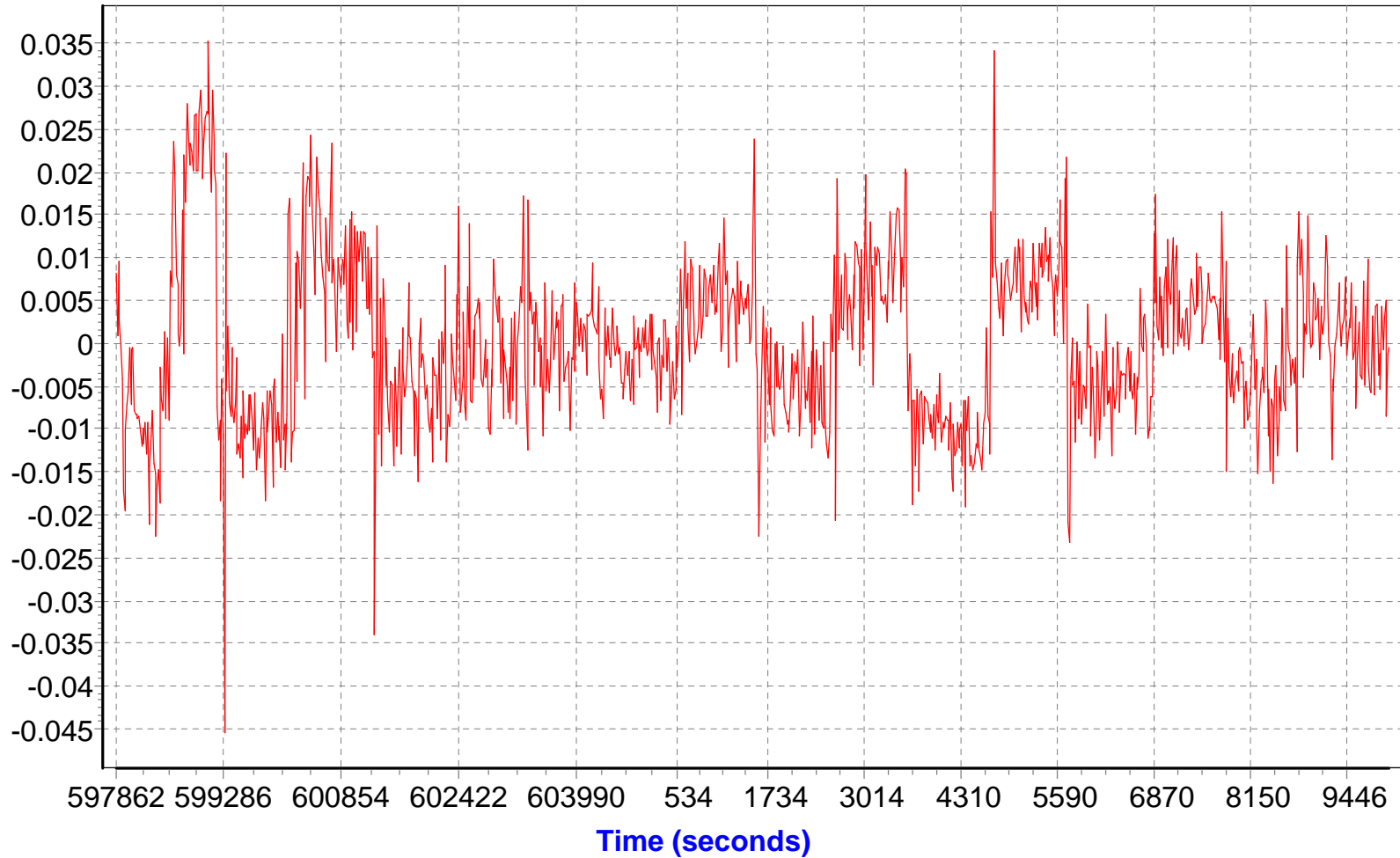
### o112070b [Combined] - Estimated Position Accuracy Plot



### o112070b [Combined] - Number of Satellites Bar Plot

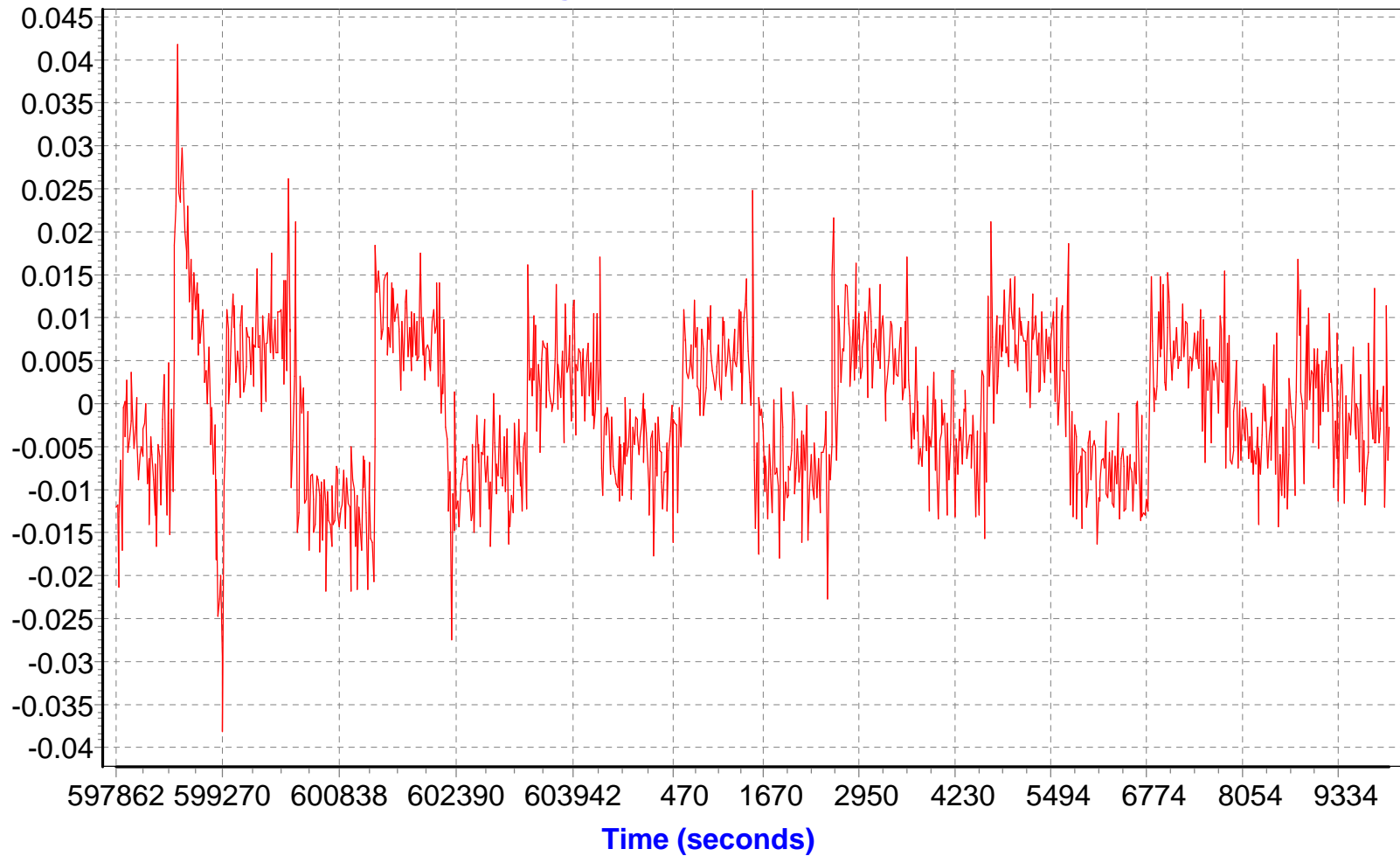


**S/D Navigator X Position Error (meters)**

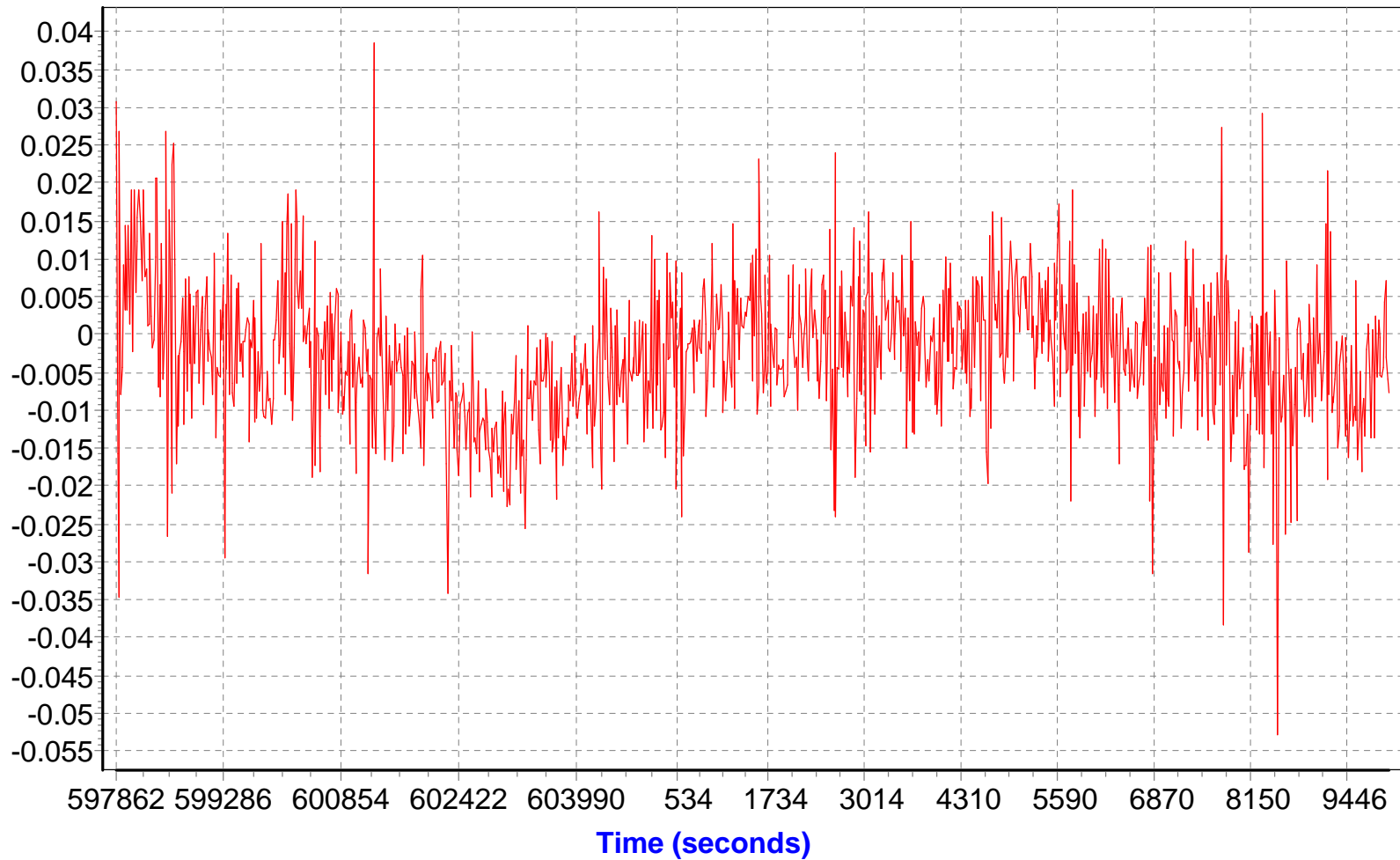




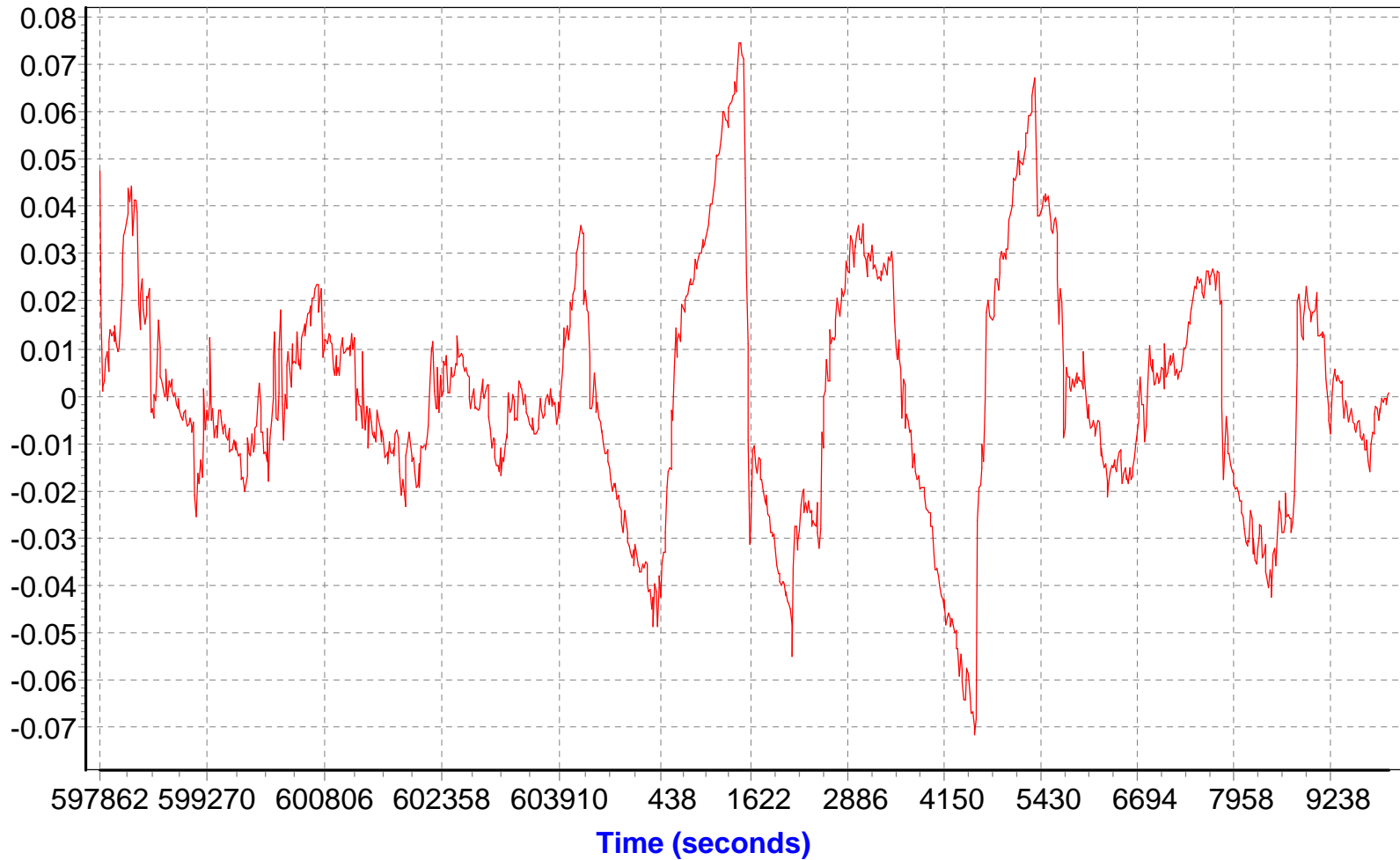
**S/D Navigator Y Position Error (meters)**



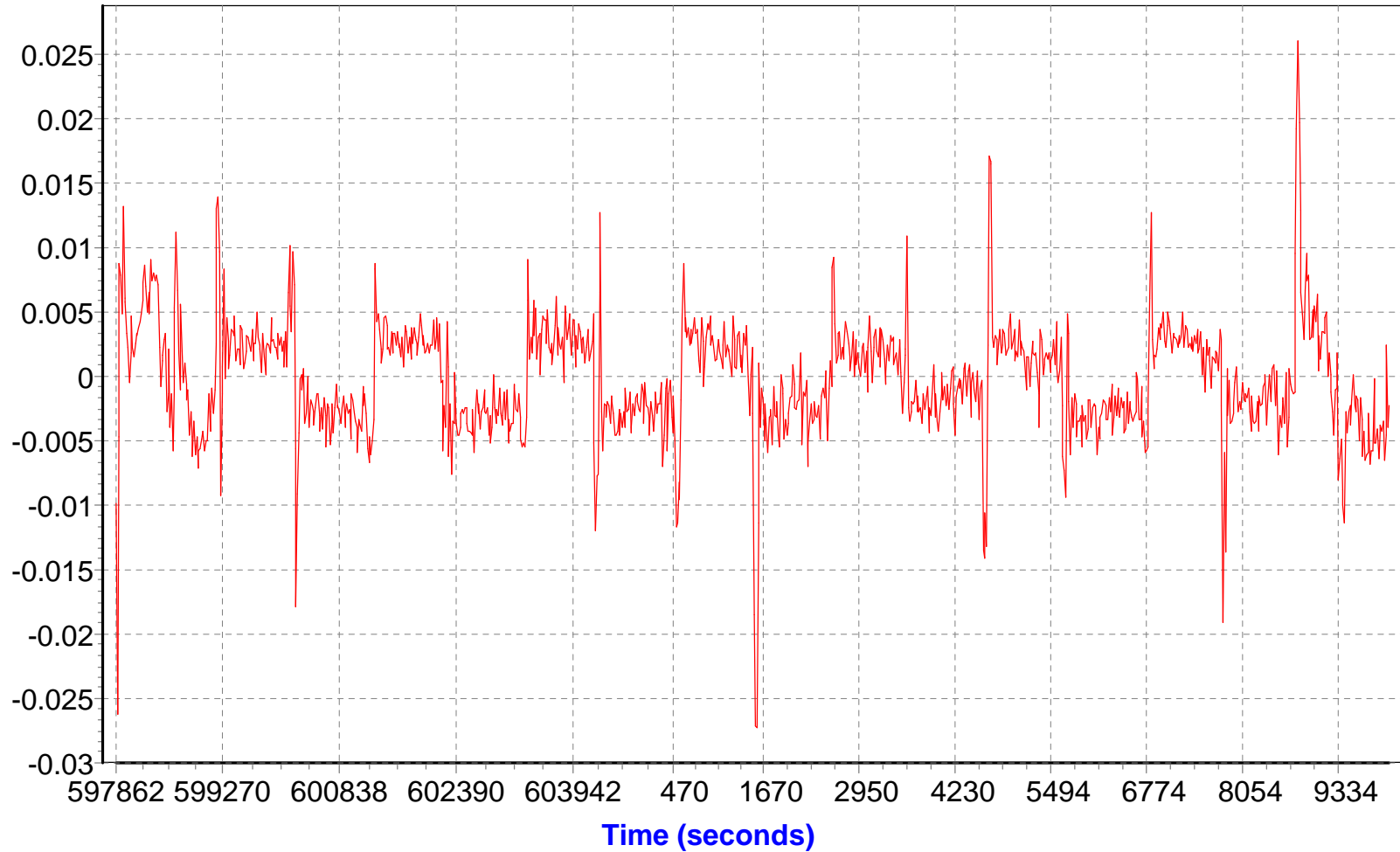
**S/D Navigator Z Position Error (meters)**



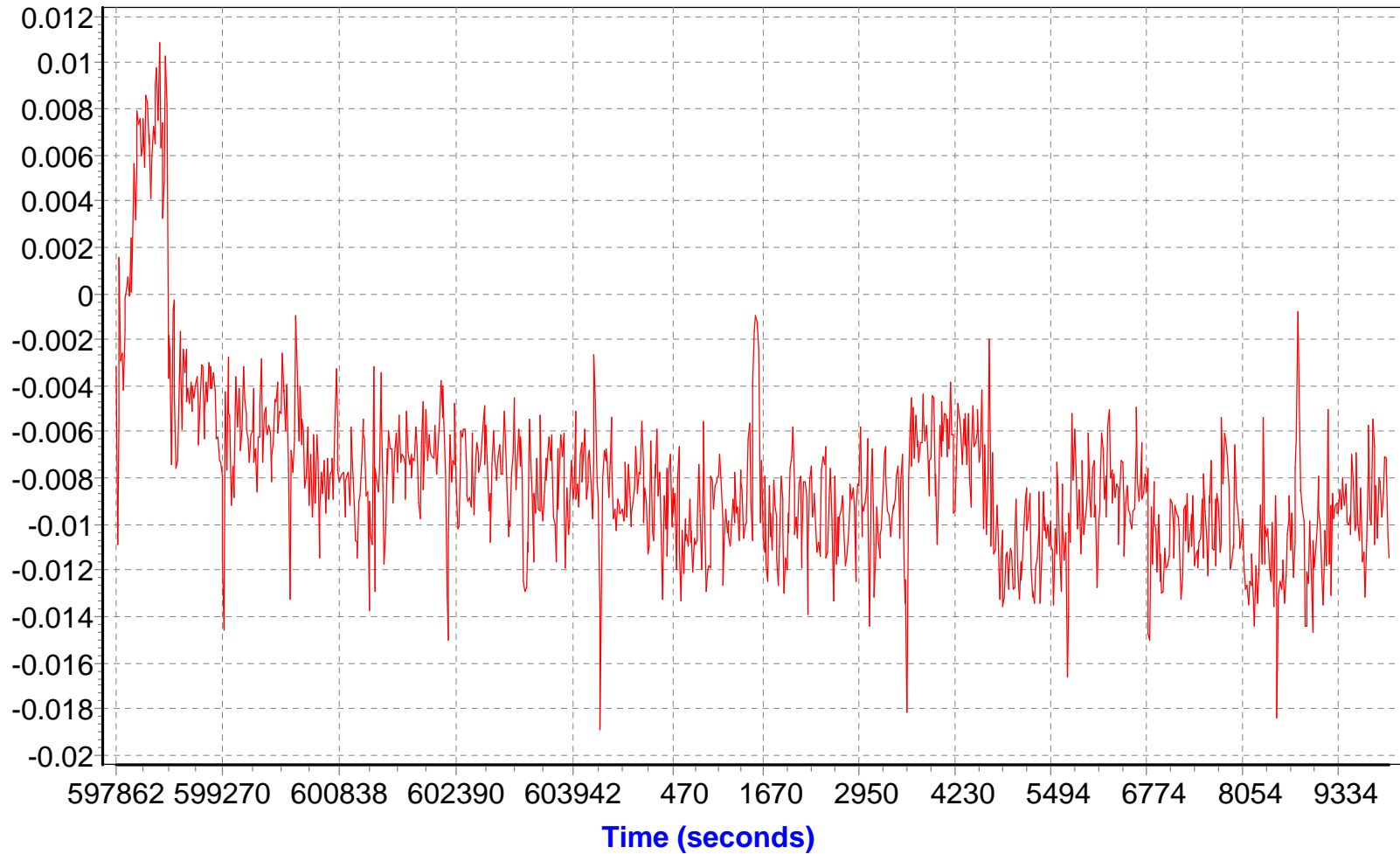
**S/D Navigator X Velocity Error (meters/seconds)**

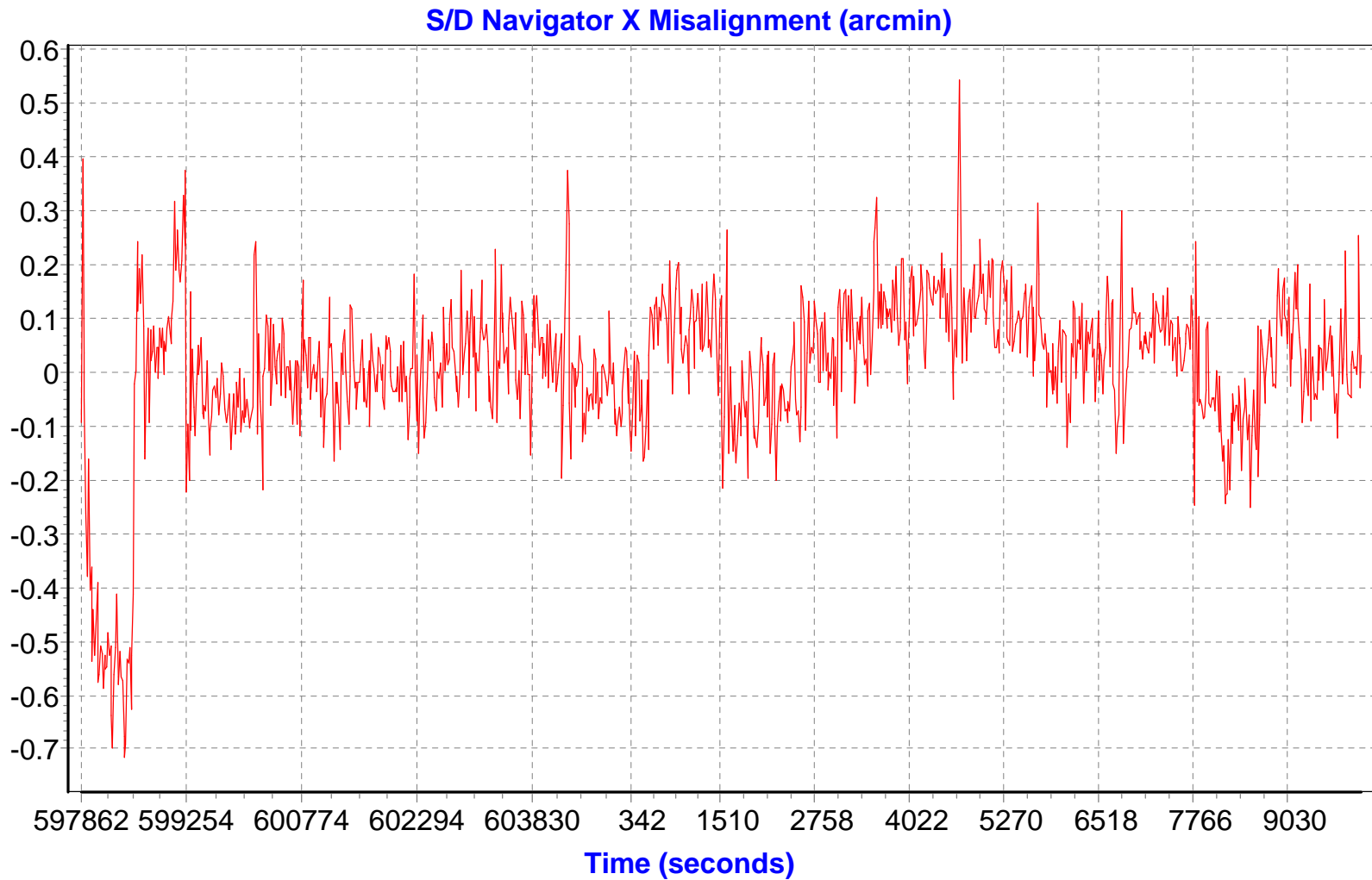


**S/D Navigator Y Velocity Error (meters/seconds)**

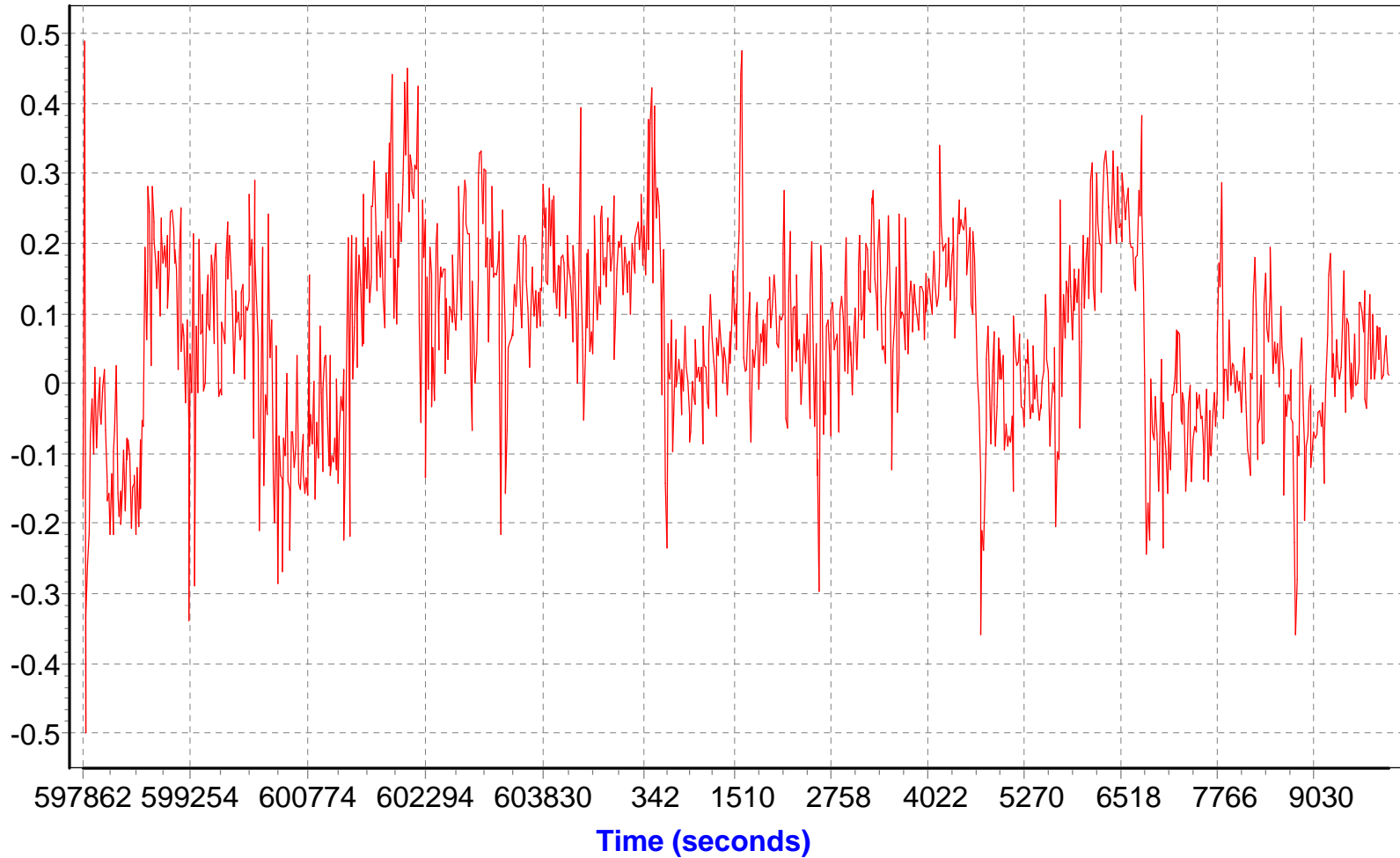


**S/D Navigator Z Velocity Error (meters/seconds)**

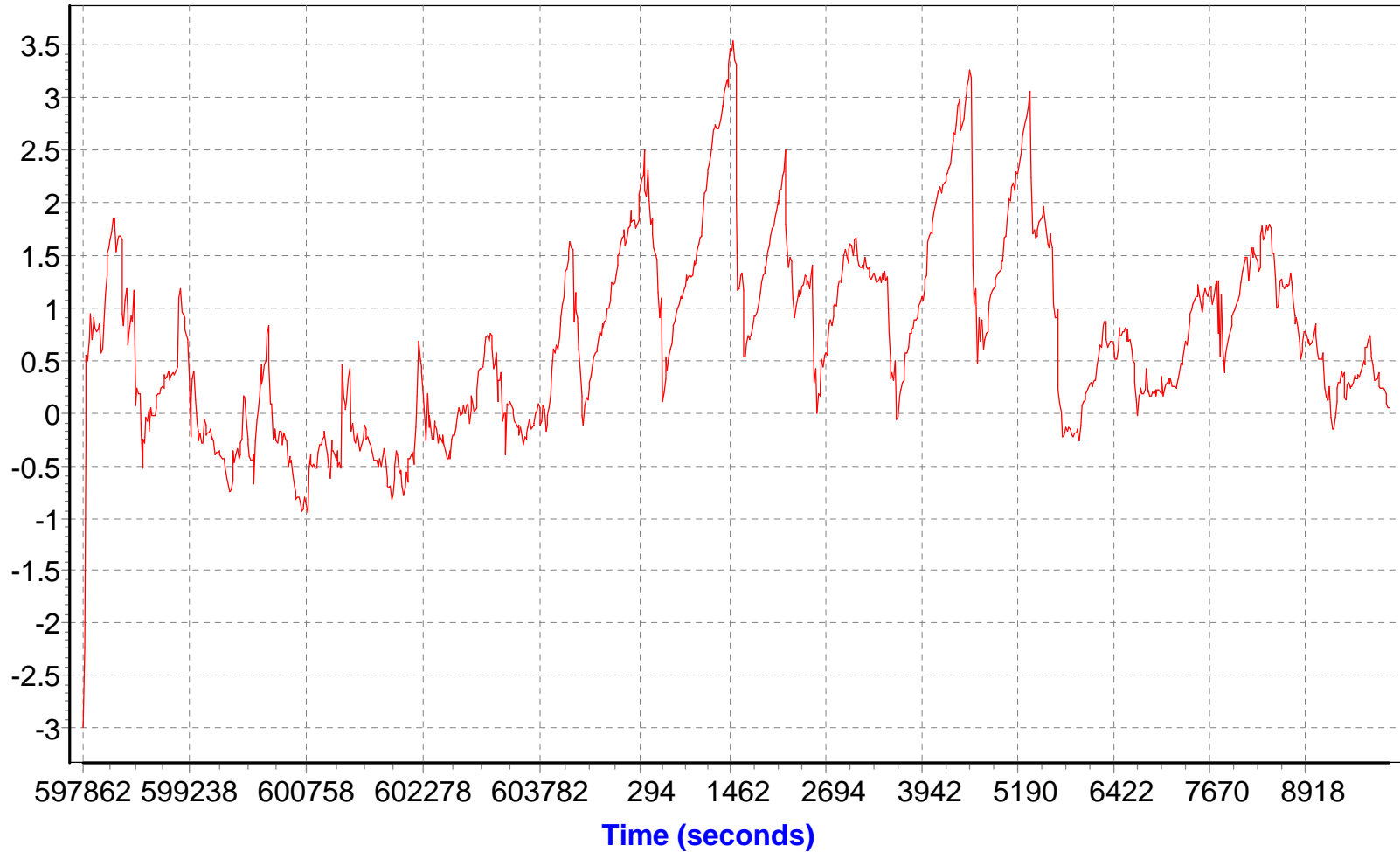




**S/D Navigator Y Misalignment (arcmin)**

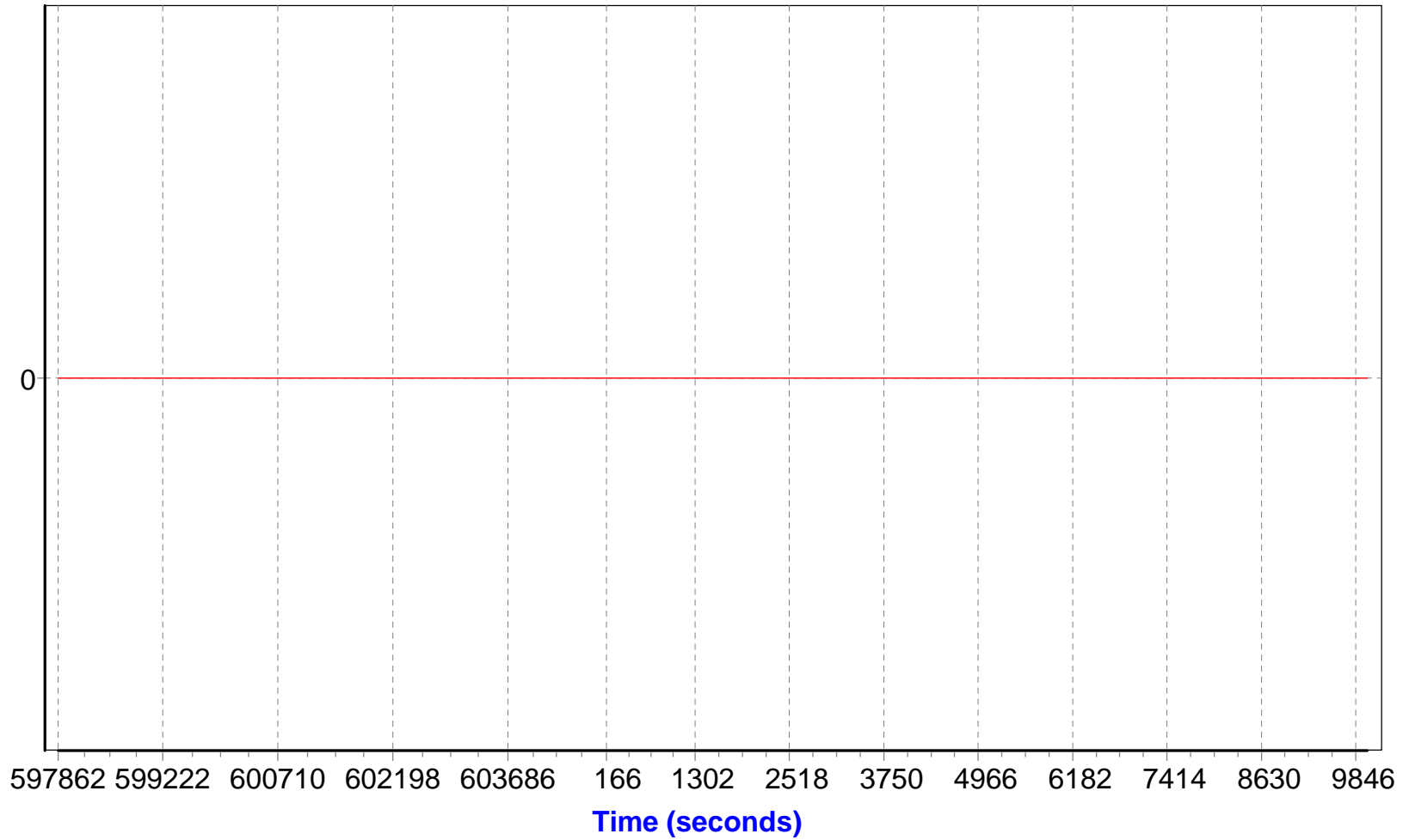


**S/D Navigator Z Misalignment (arcmin)**

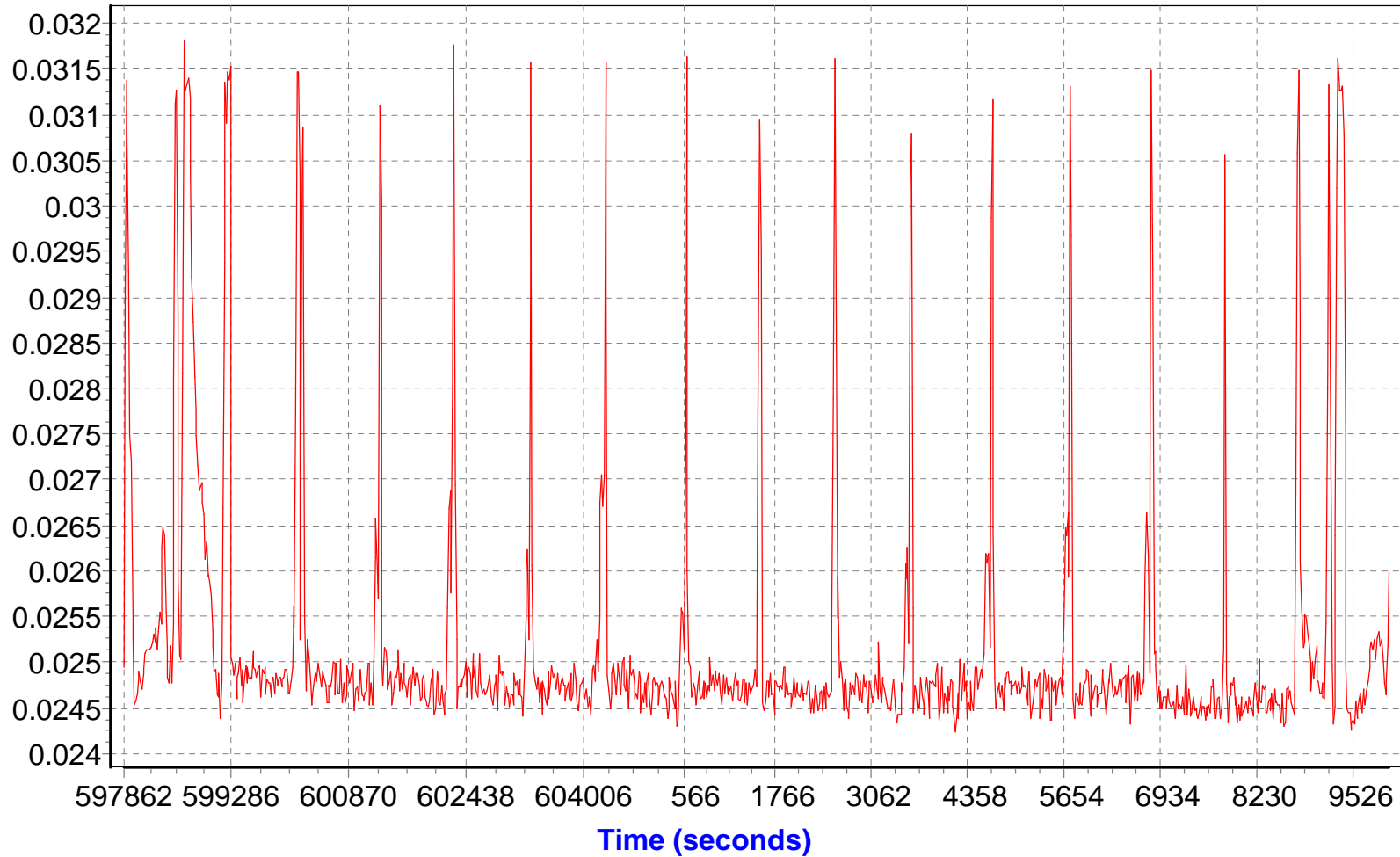




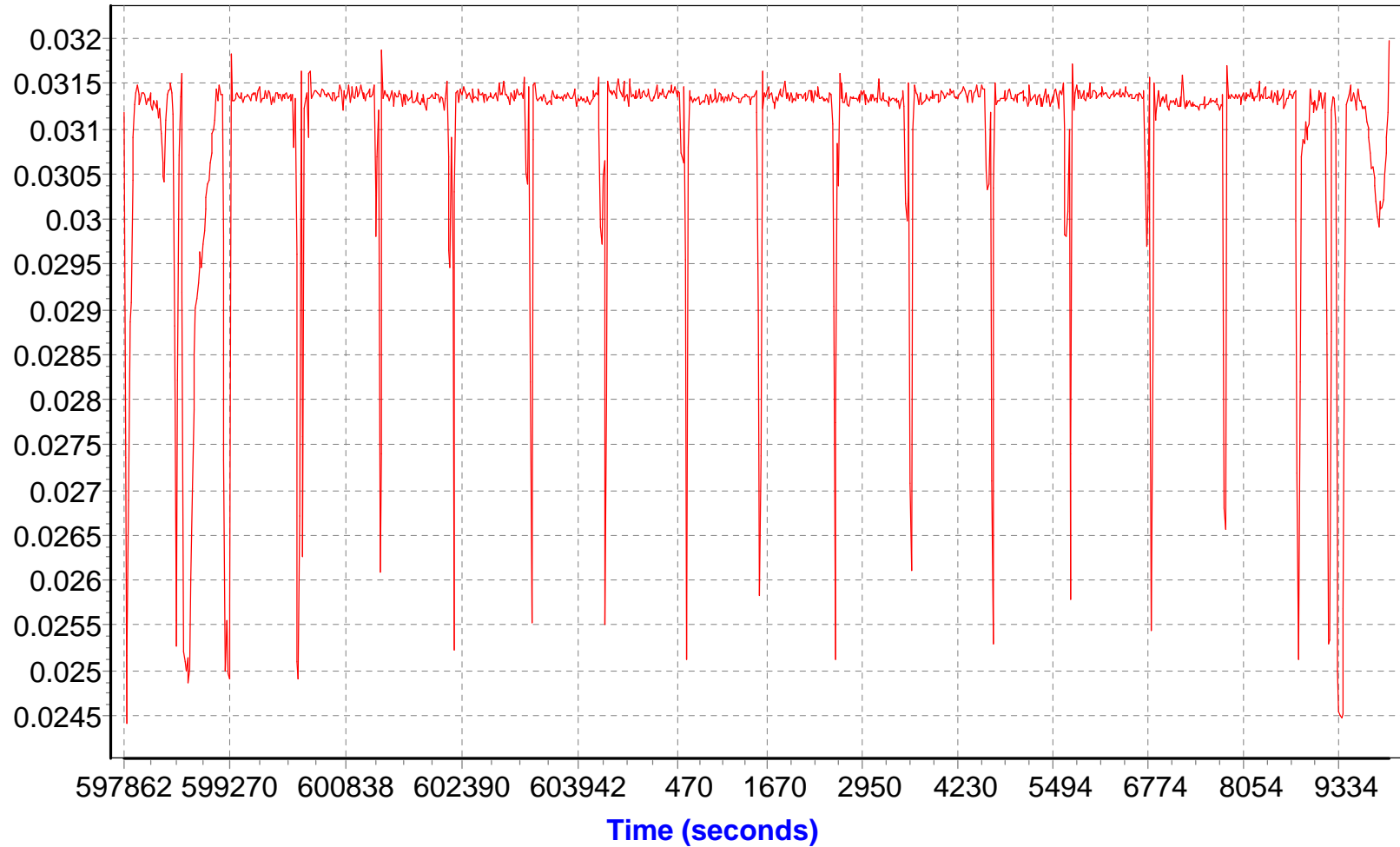
**S/D Navigator COS(Z Misalignment)-1 (radians)**



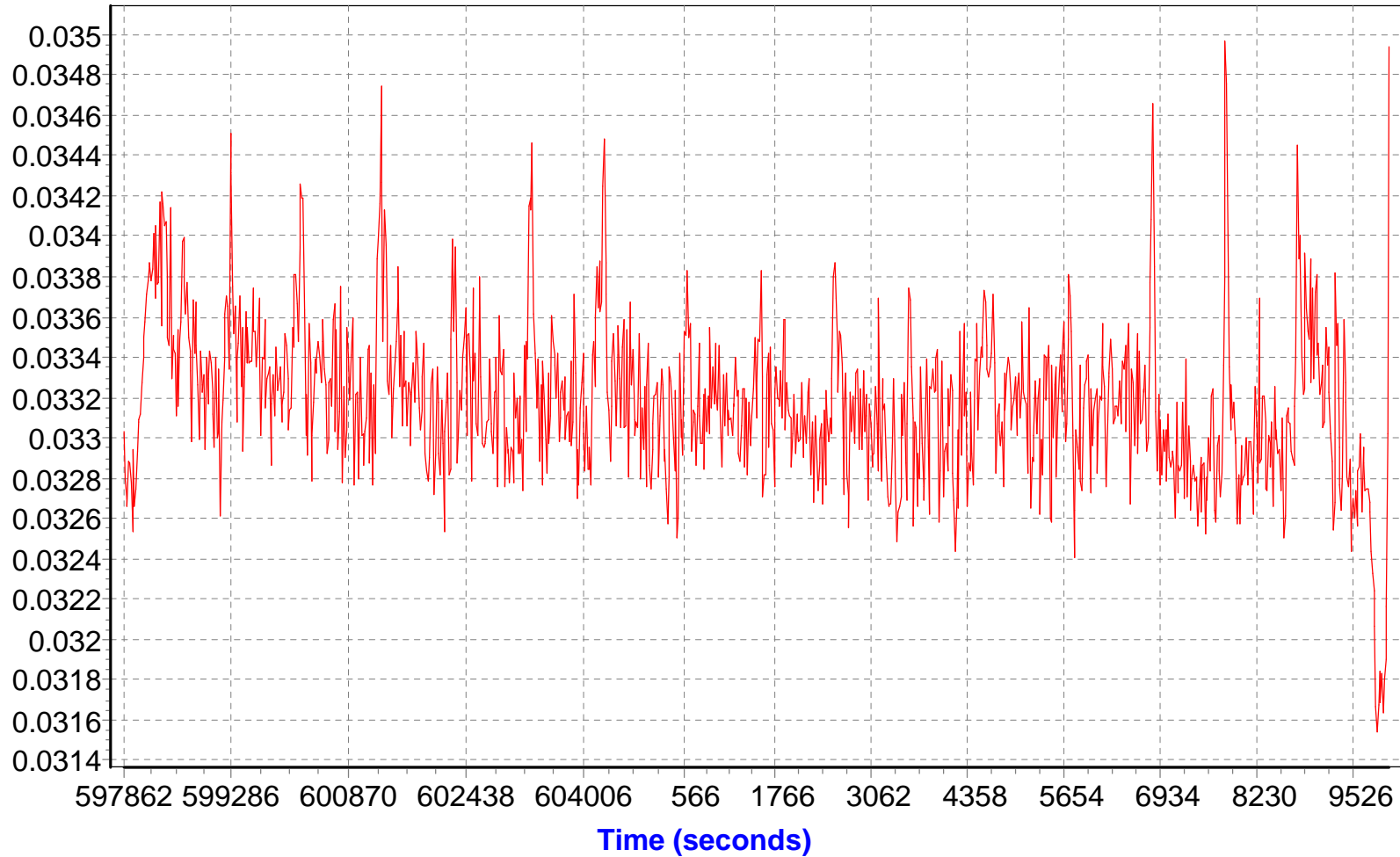
**S/D Navigator X Position RMS Error (meters)**



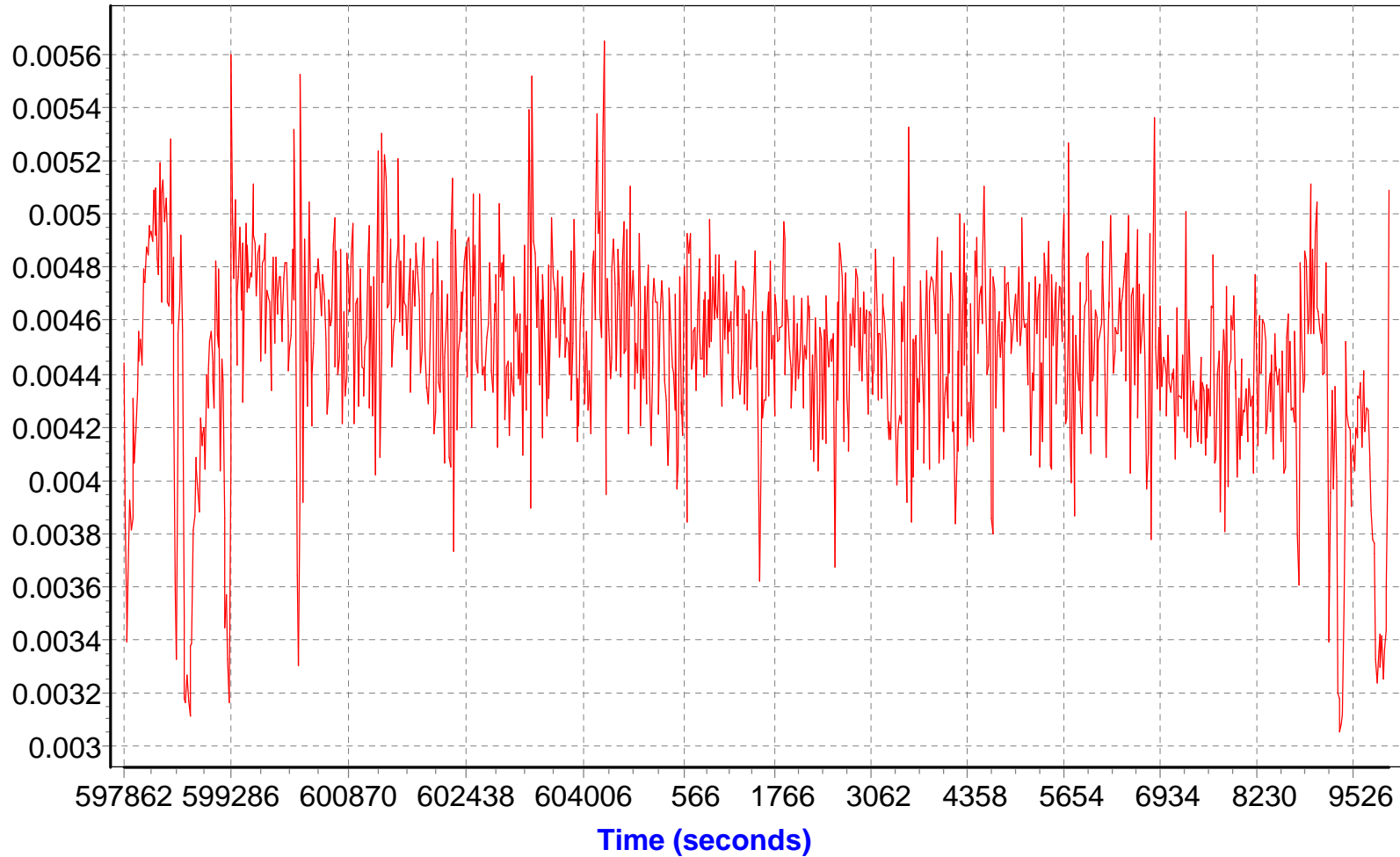
**S/D Navigator Y Position RMS Error (meters)**



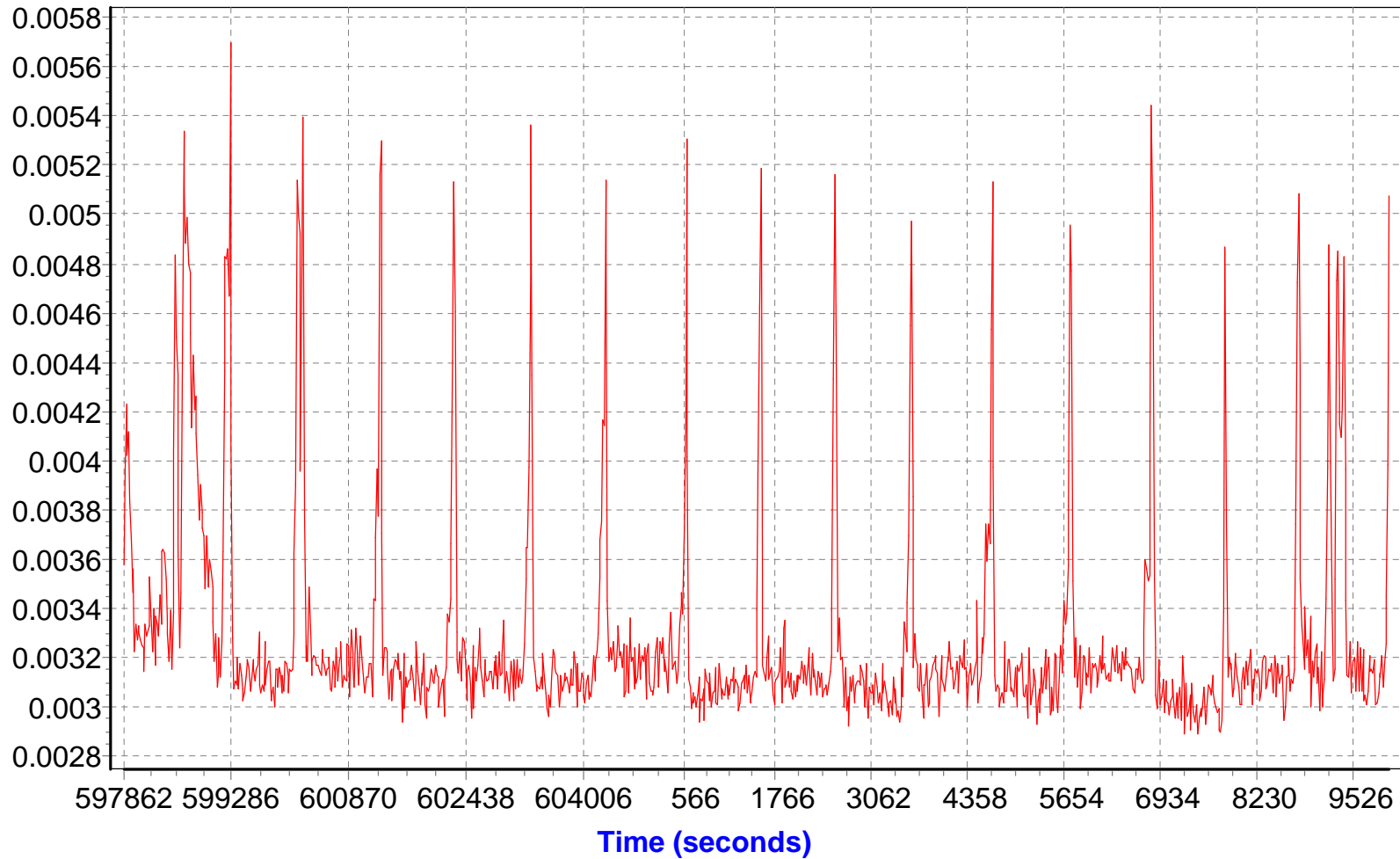
**S/D Navigator Z Position RMS Error (meters)**



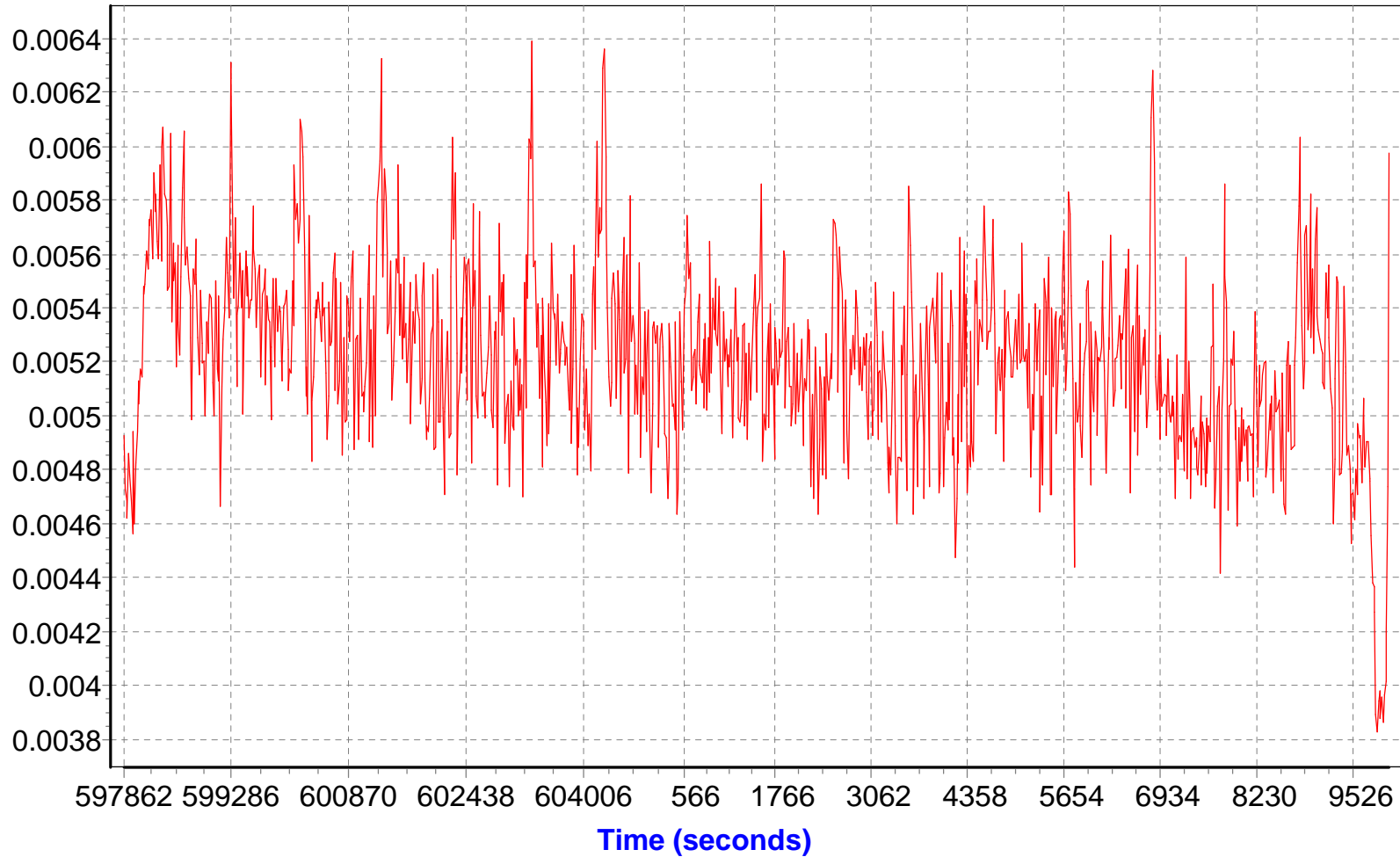
**S/D Navigator X Velocity RMS Error (meters/seconds)**



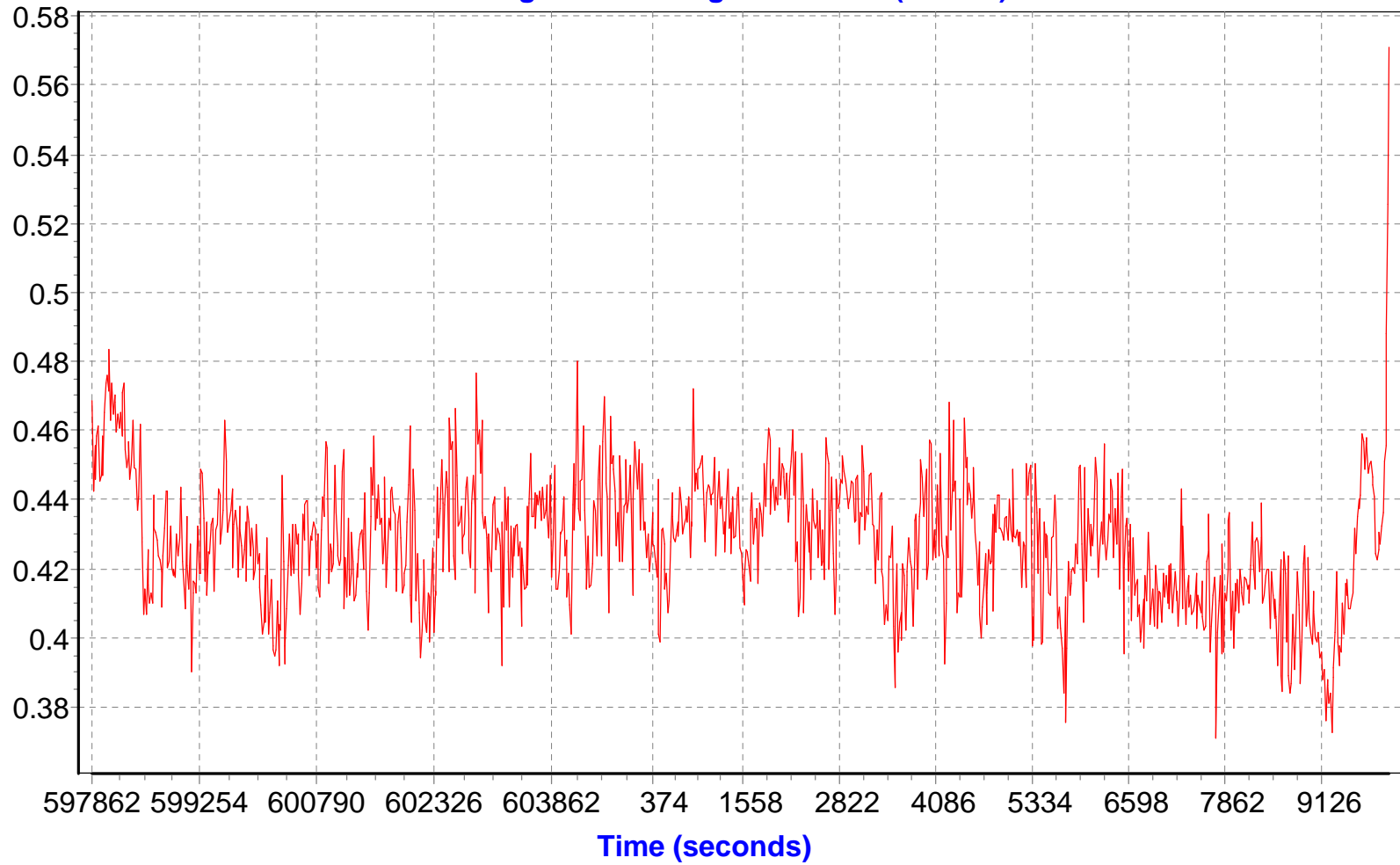
**S/D Navigator Y Velocity RMS Error (meters/seconds)**



**S/D Navigator Z Velocity RMS Error (meters/seconds)**

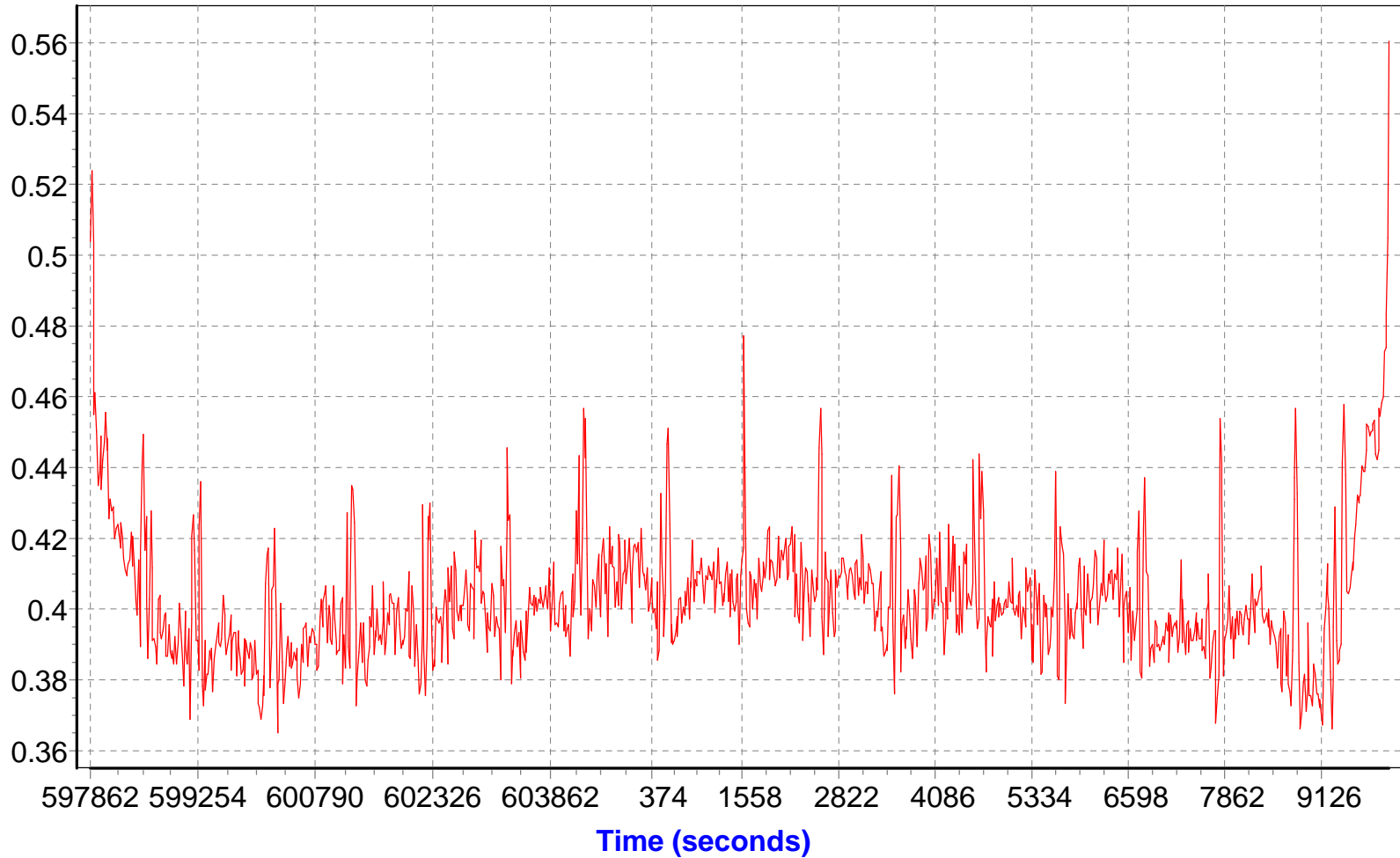


**S/D Navigator X Misalignment RMS (arcmin)**

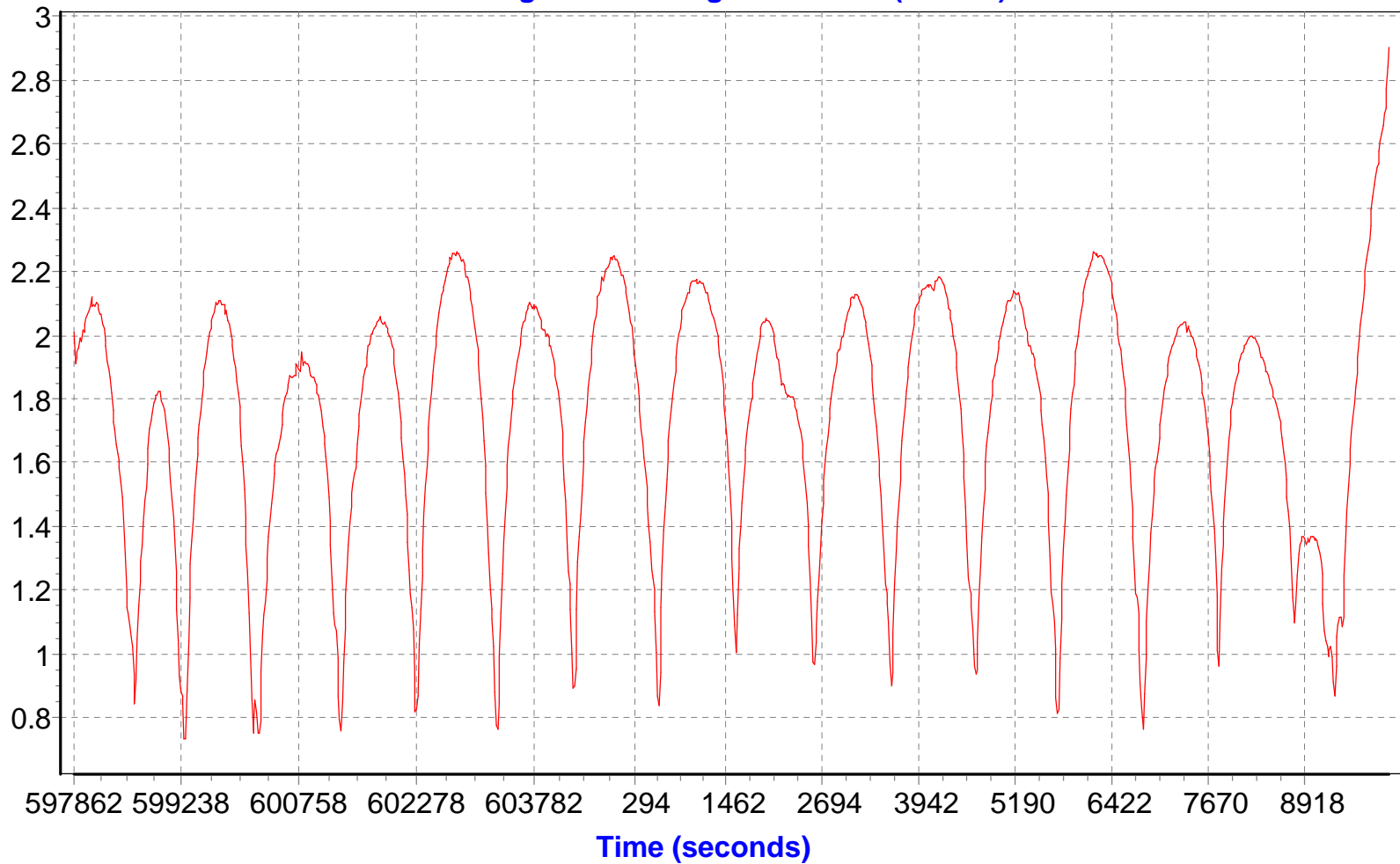


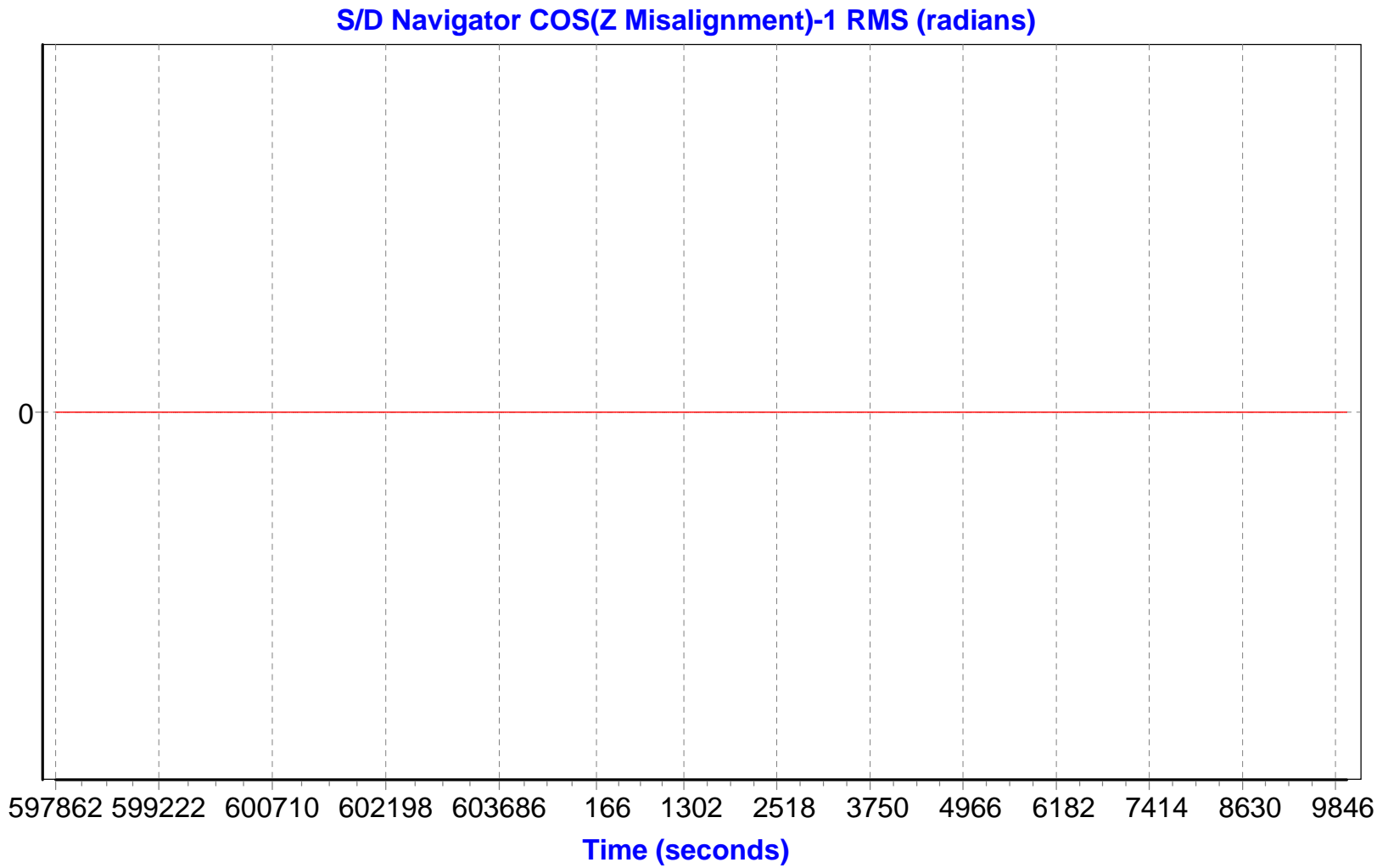


**S/D Navigator Y Misalignment RMS (arcmin)**

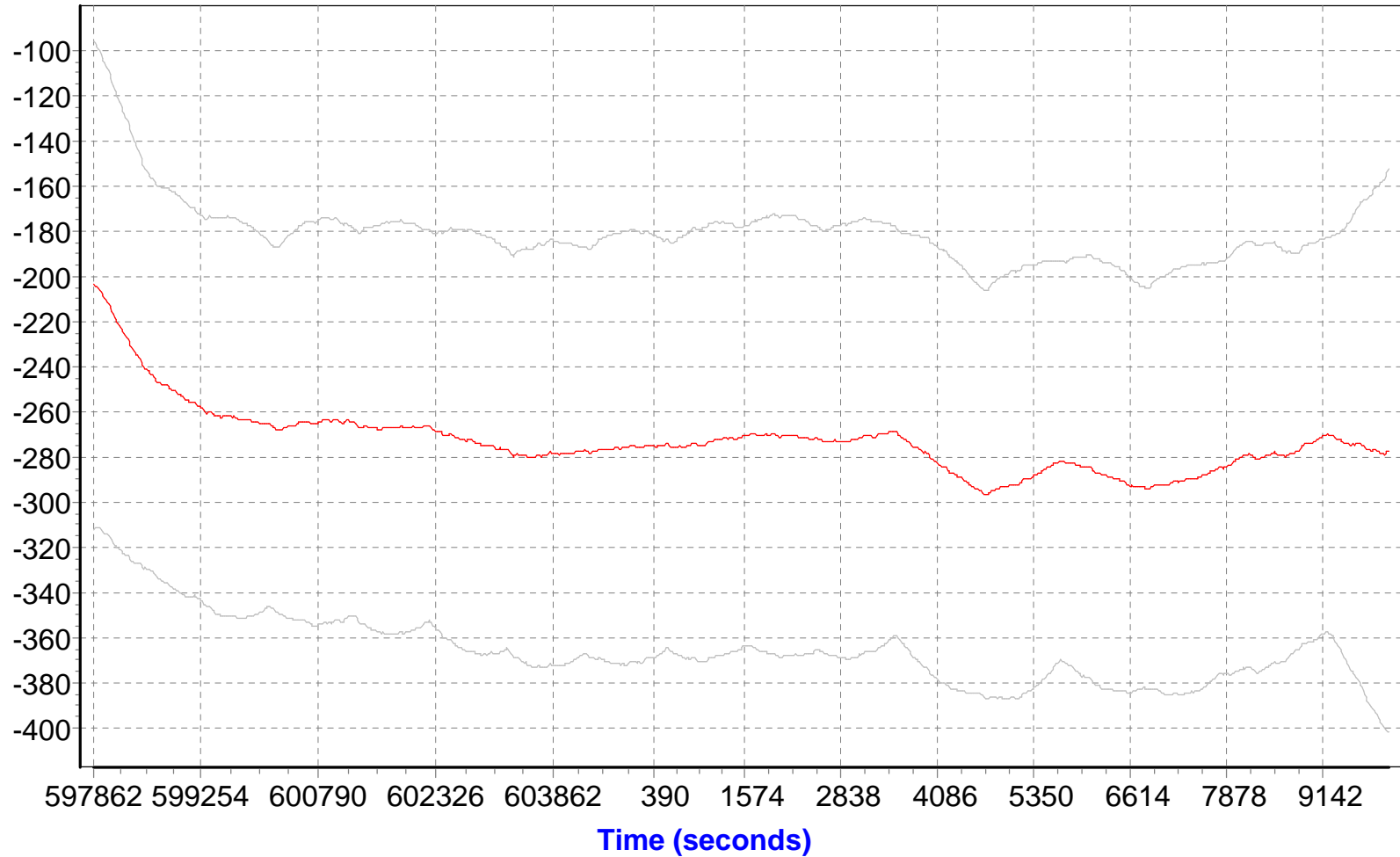


**S/D Navigator Z Misalignment RMS (arcmin)**



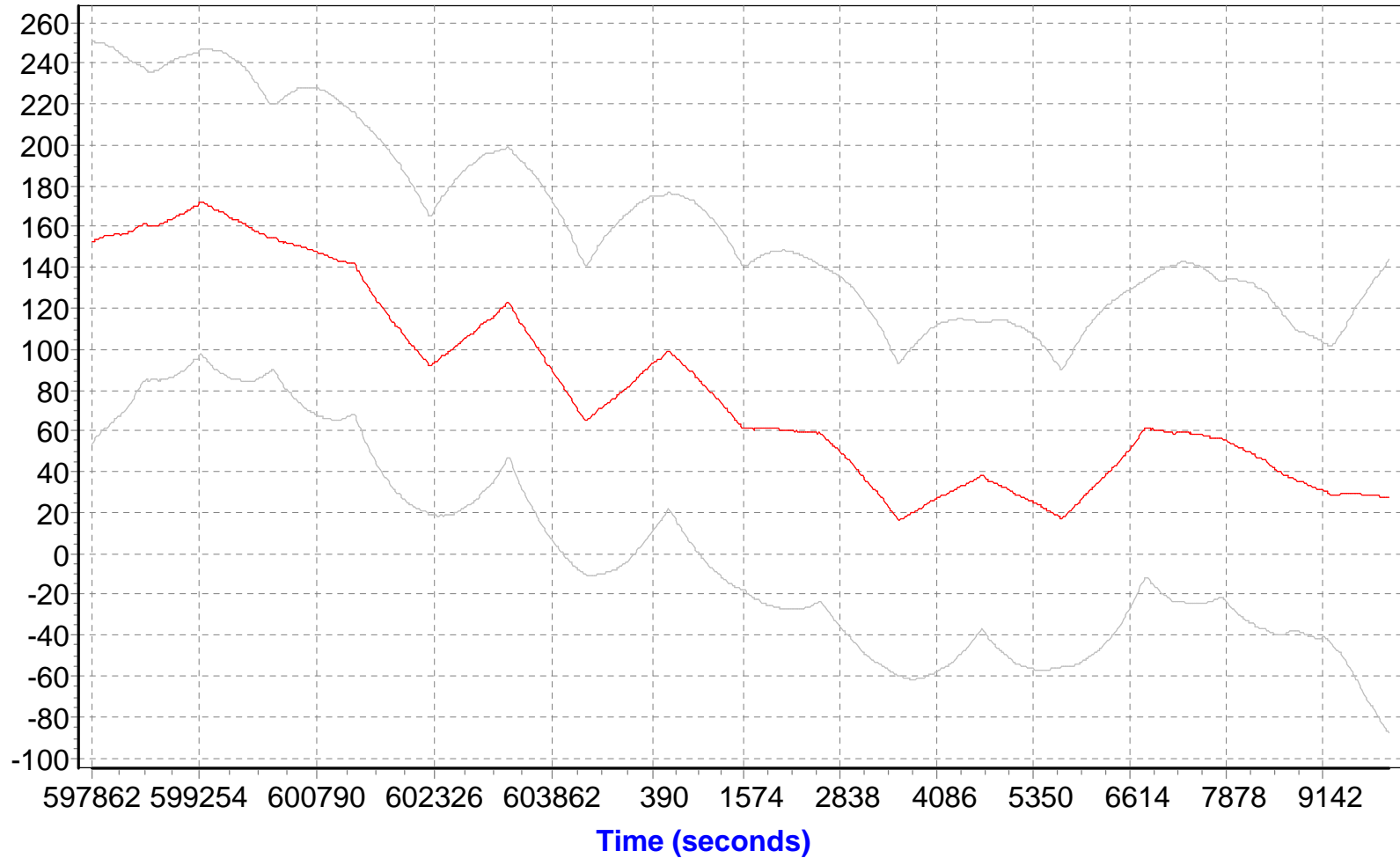


**X Accelerometer Bias (micro-g)**



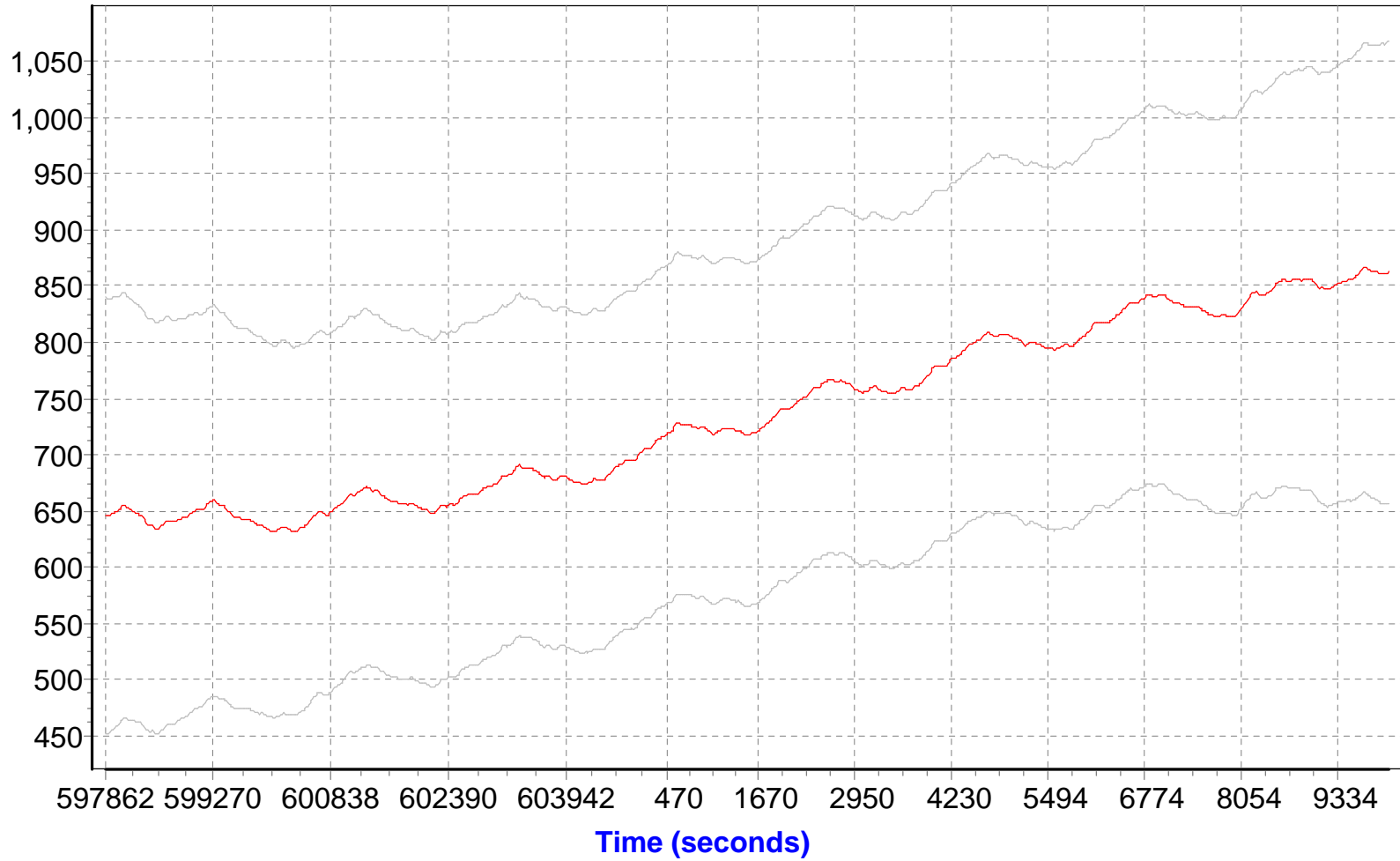
I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

**Y Accelerometer Bias (micro-g)**



I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

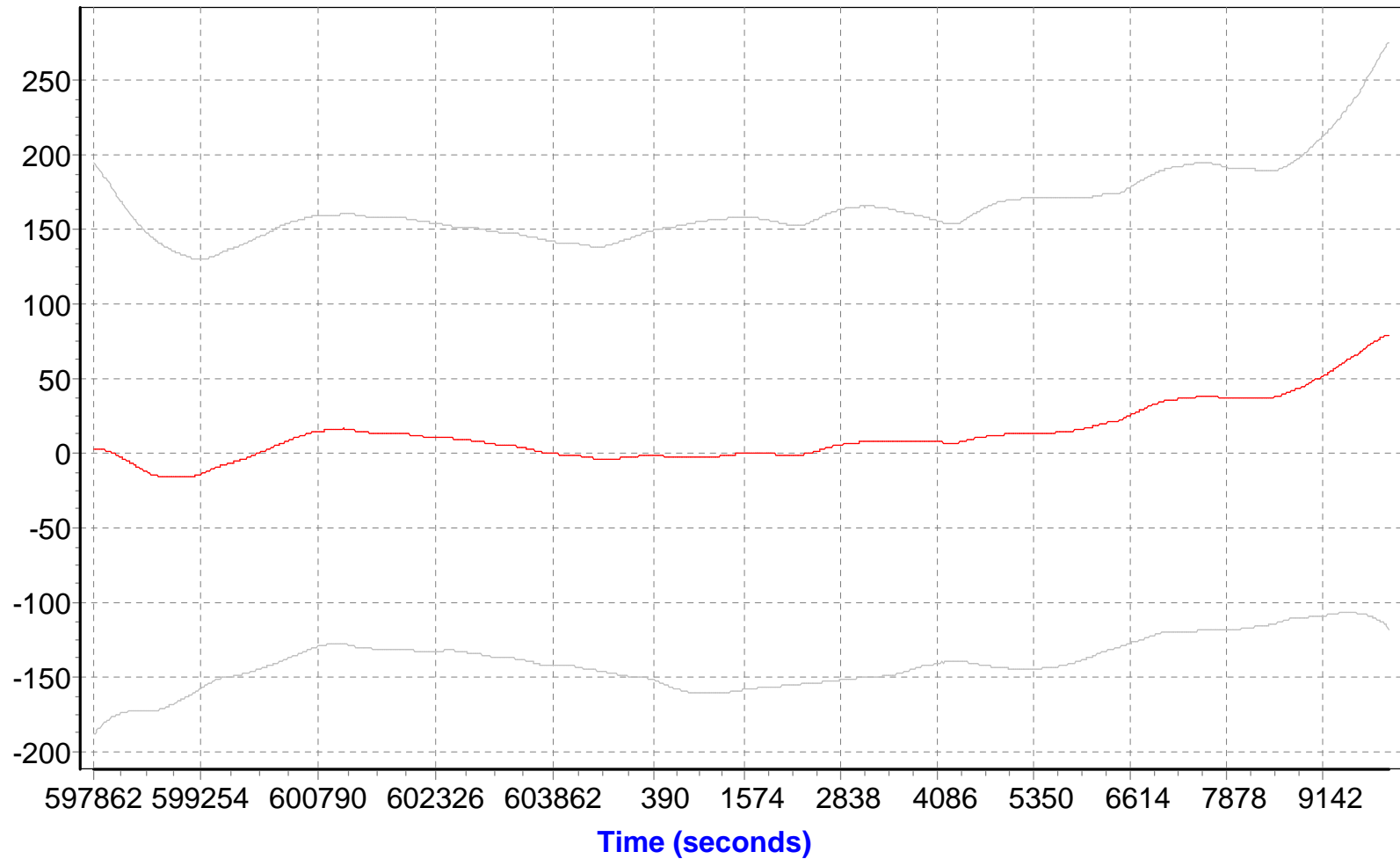
**Z Accelerometer Bias (micro-g)**



I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat

I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

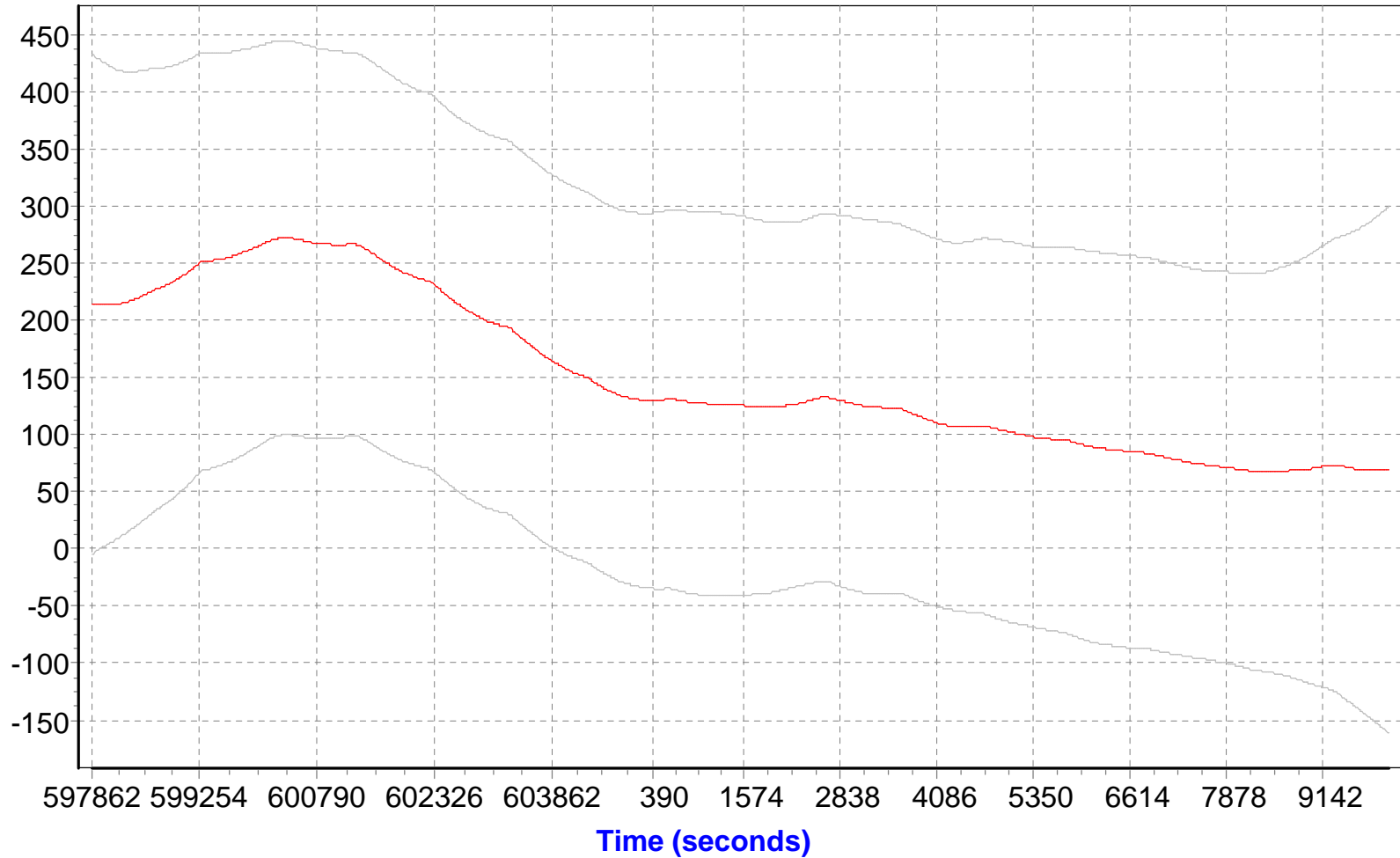
### X Accelerometer Scale Factor Error (ppm)



I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat

I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

**Y Accelerometer Scale Factor Error (ppm)**

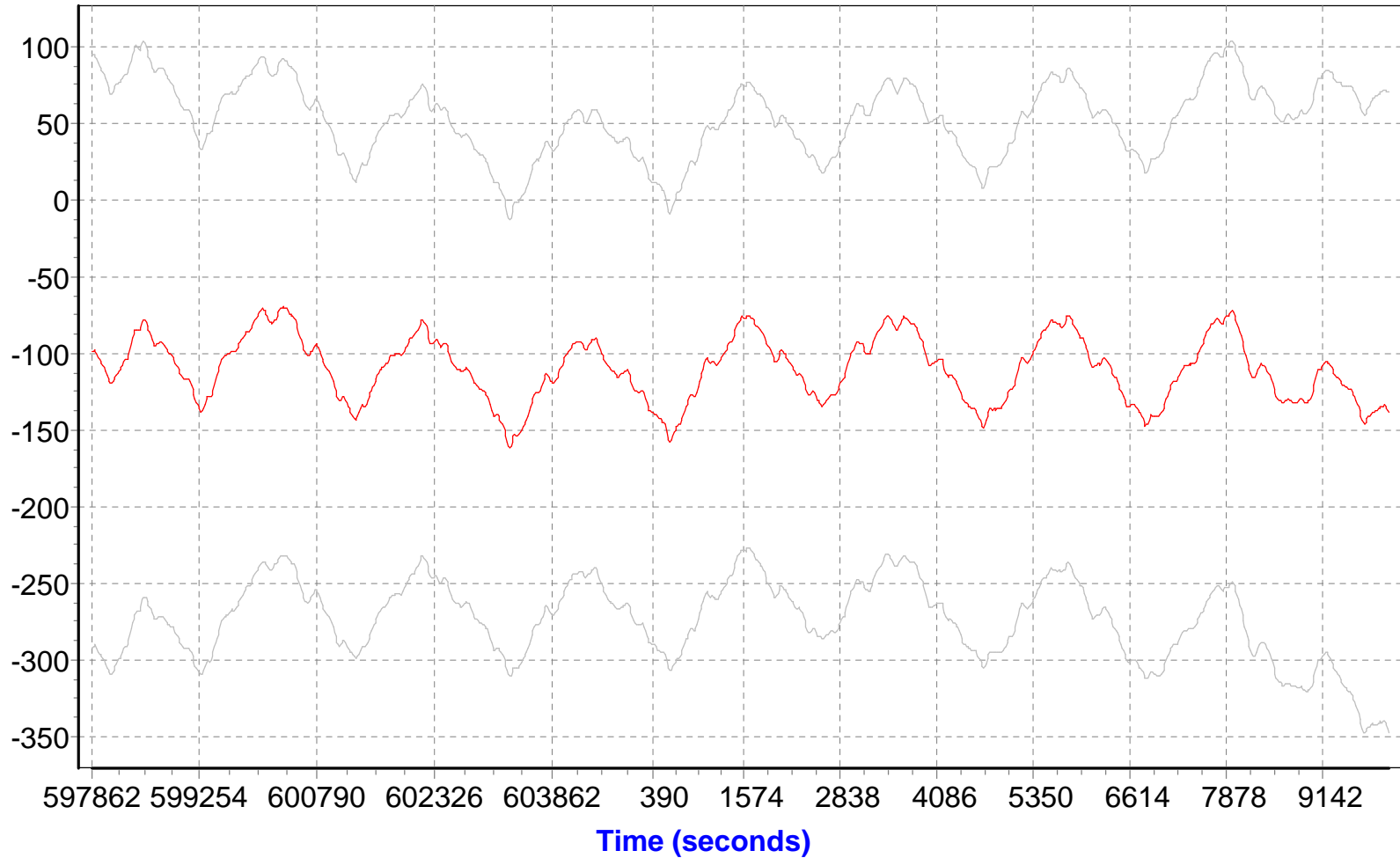


I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat

I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

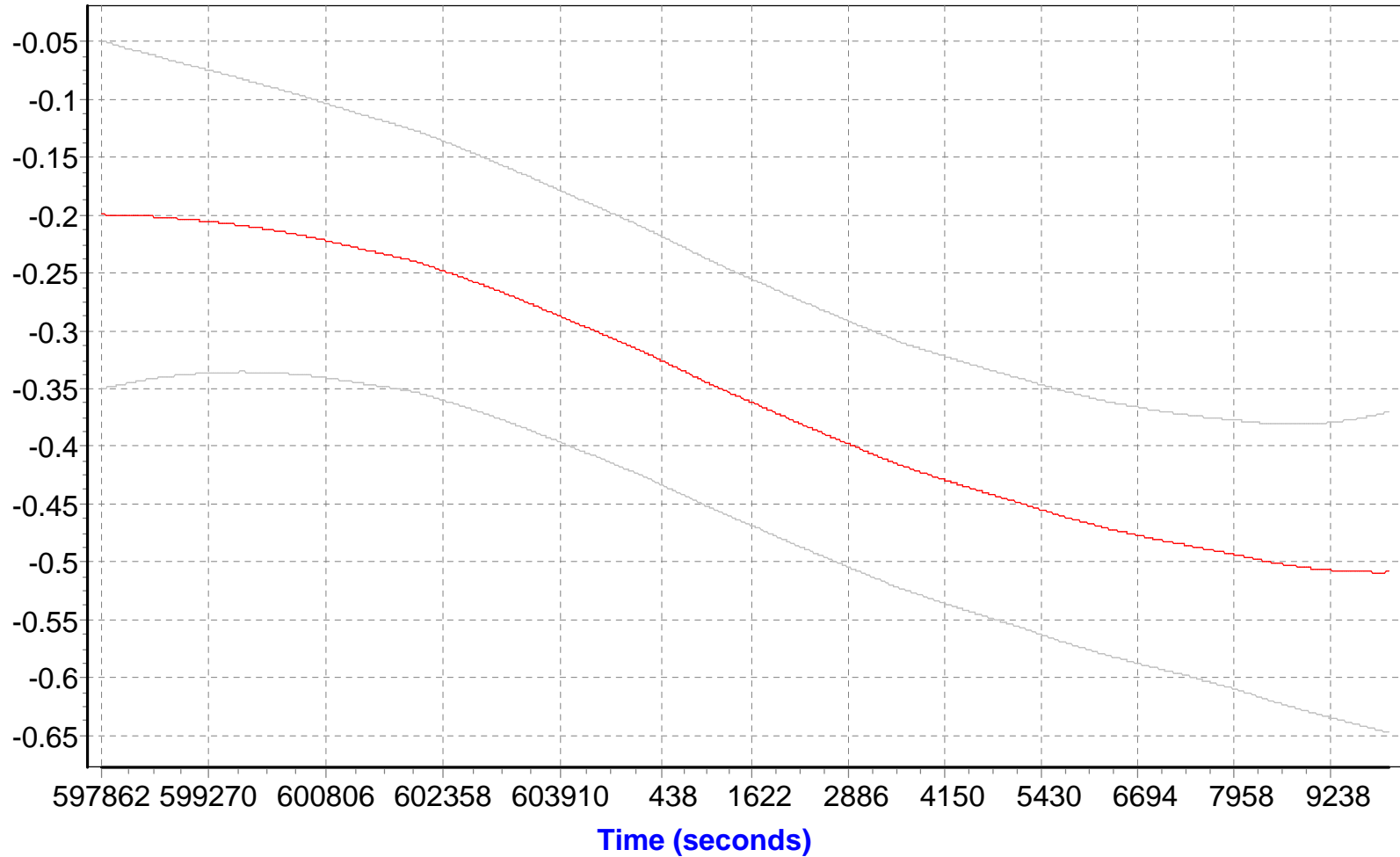


**Z Accelerometer Scale Factor Error (ppm)**



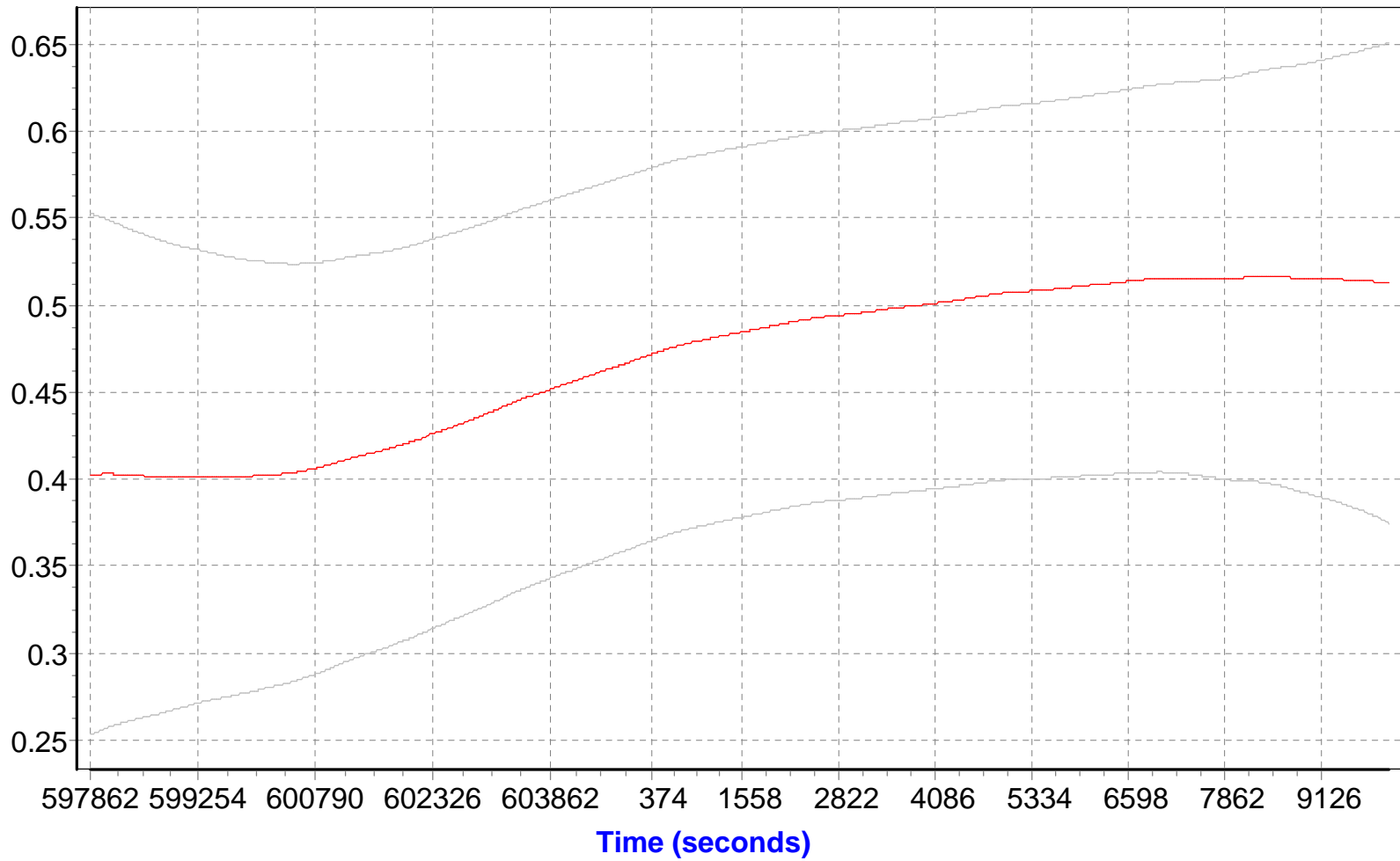
I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

**X Gyro Bias (degrees/hour)**



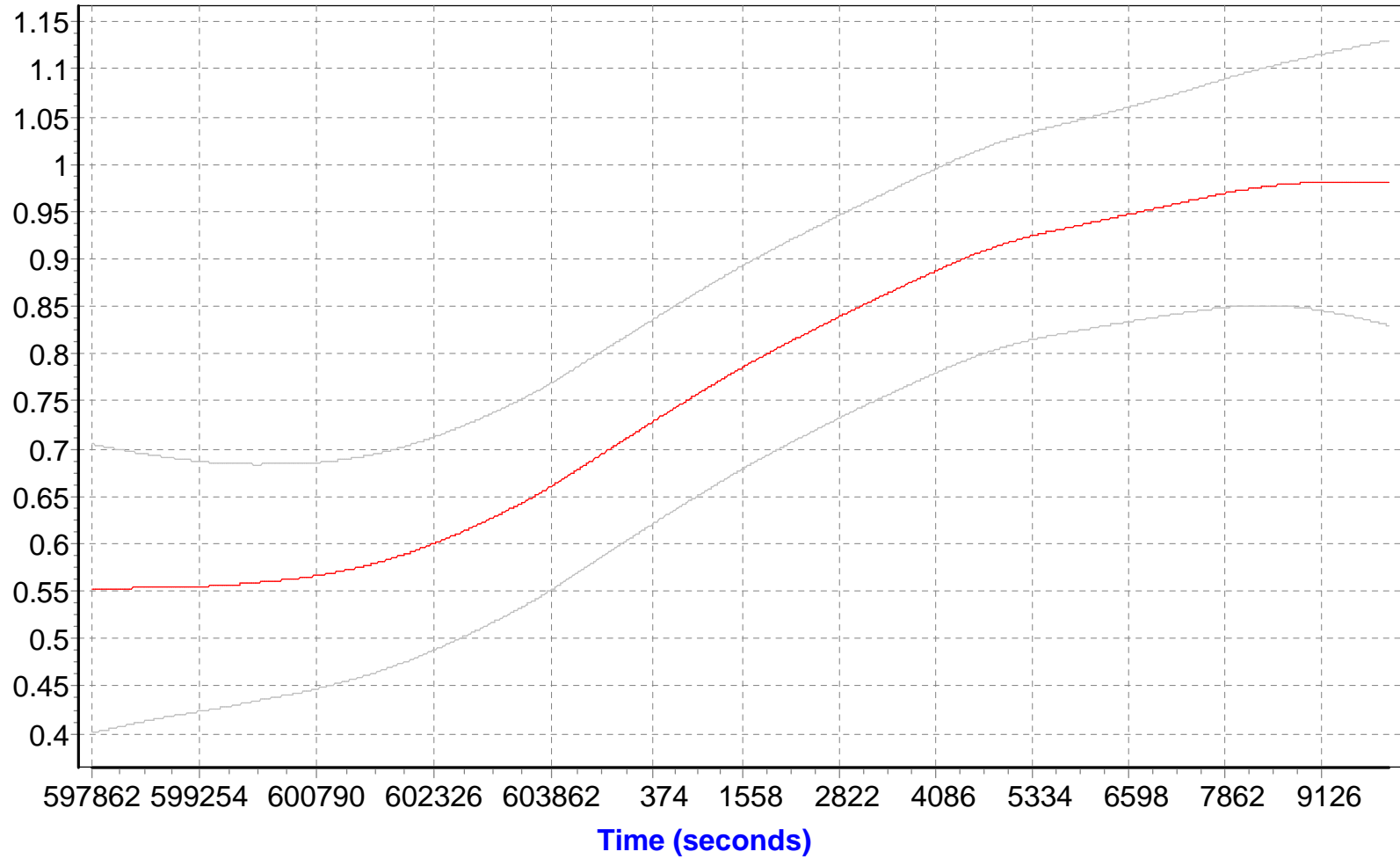
I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

**Y Gyro Bias (degrees/hour)**



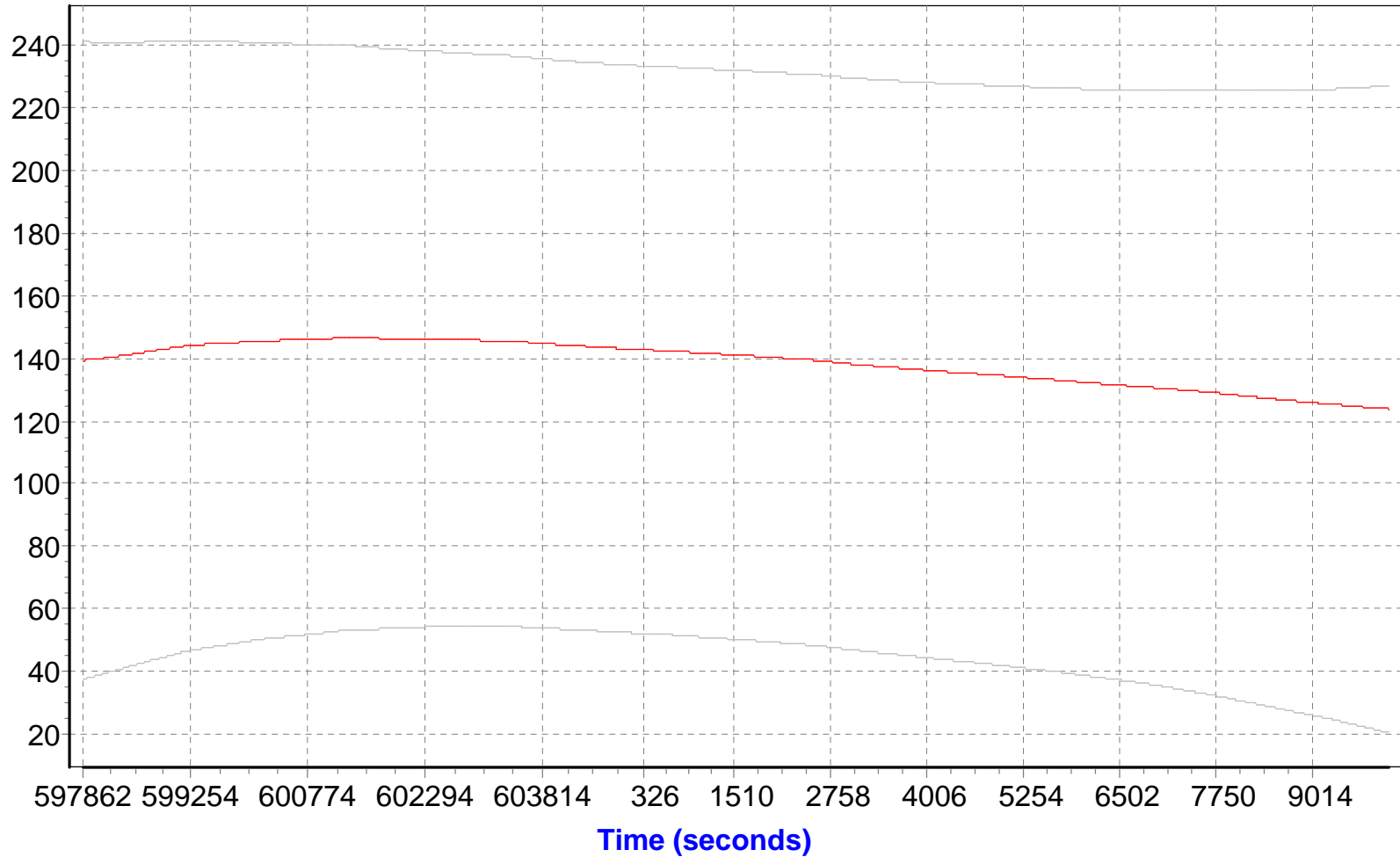
I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

**Z Gyro Bias (degrees/hour)**



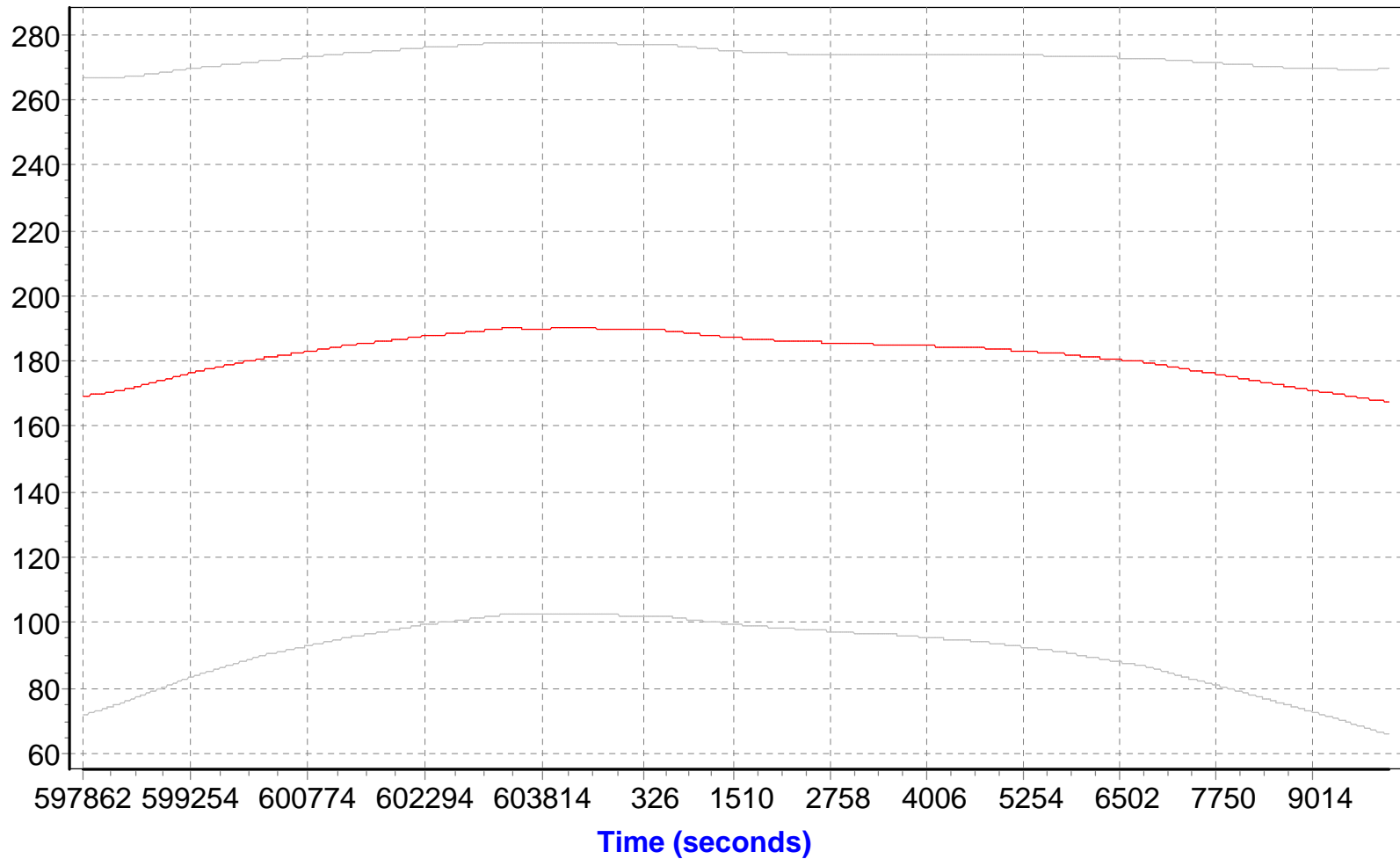
I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

**X Gyro Scale Factor Error (ppm)**



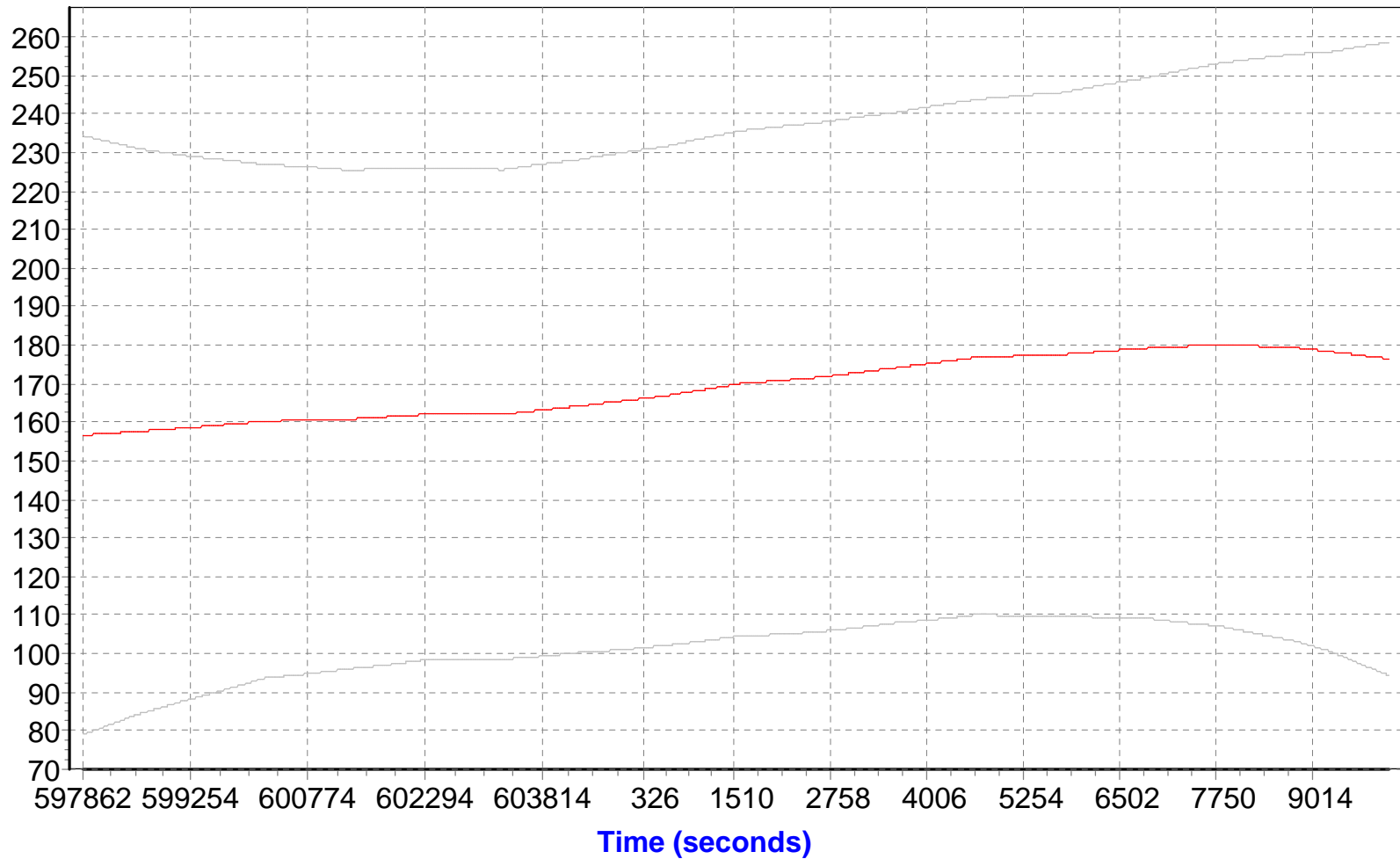
I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

**Y Gyro Scale Factor Error (ppm)**



I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

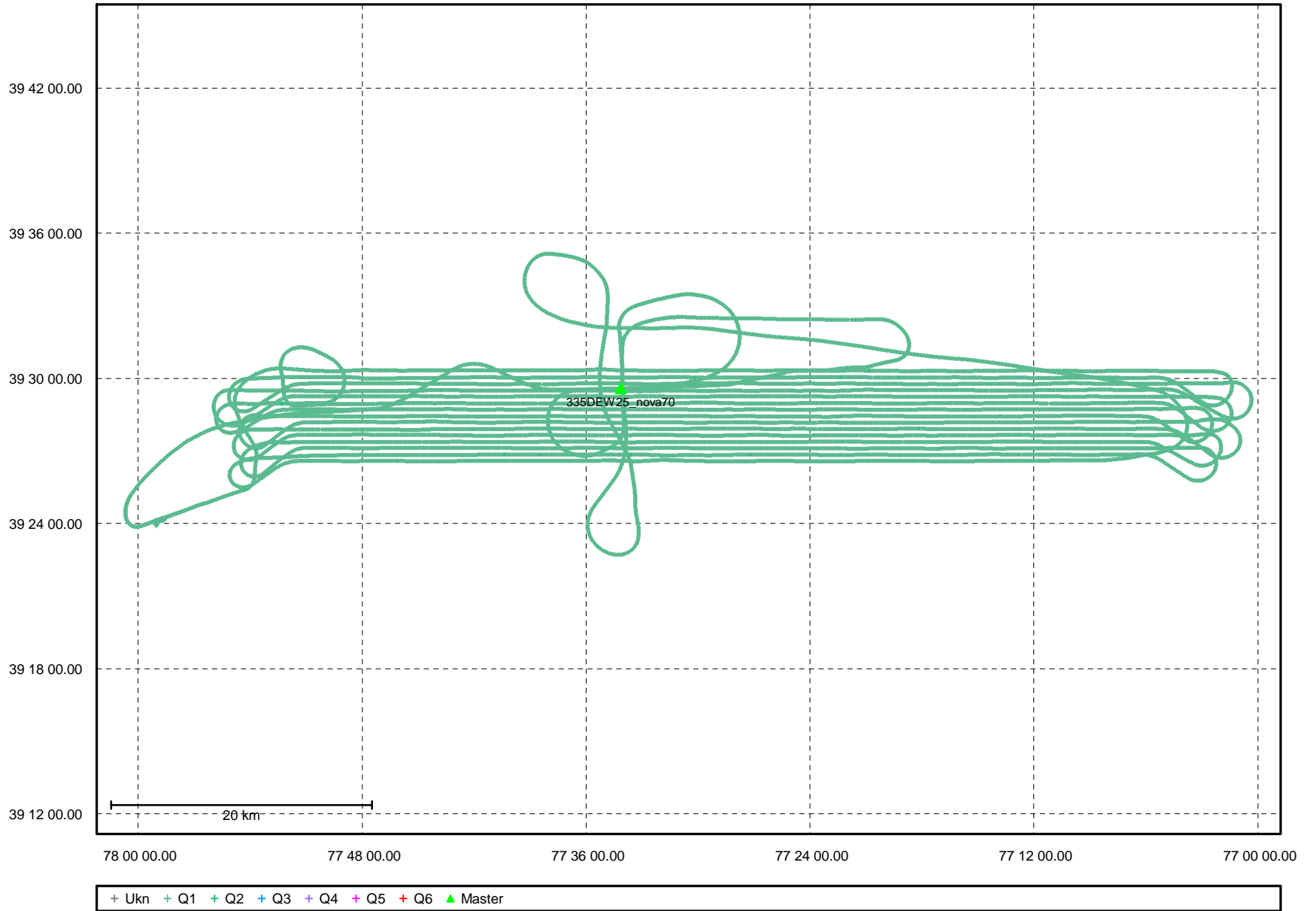
### Z Gyro Scale Factor Error (ppm)



I:\o112070b\3\_Processed\Extract\smers\_o112070b.dat  
I:\o112070b\3\_Processed\Extract\smrms\_o112070b.dat

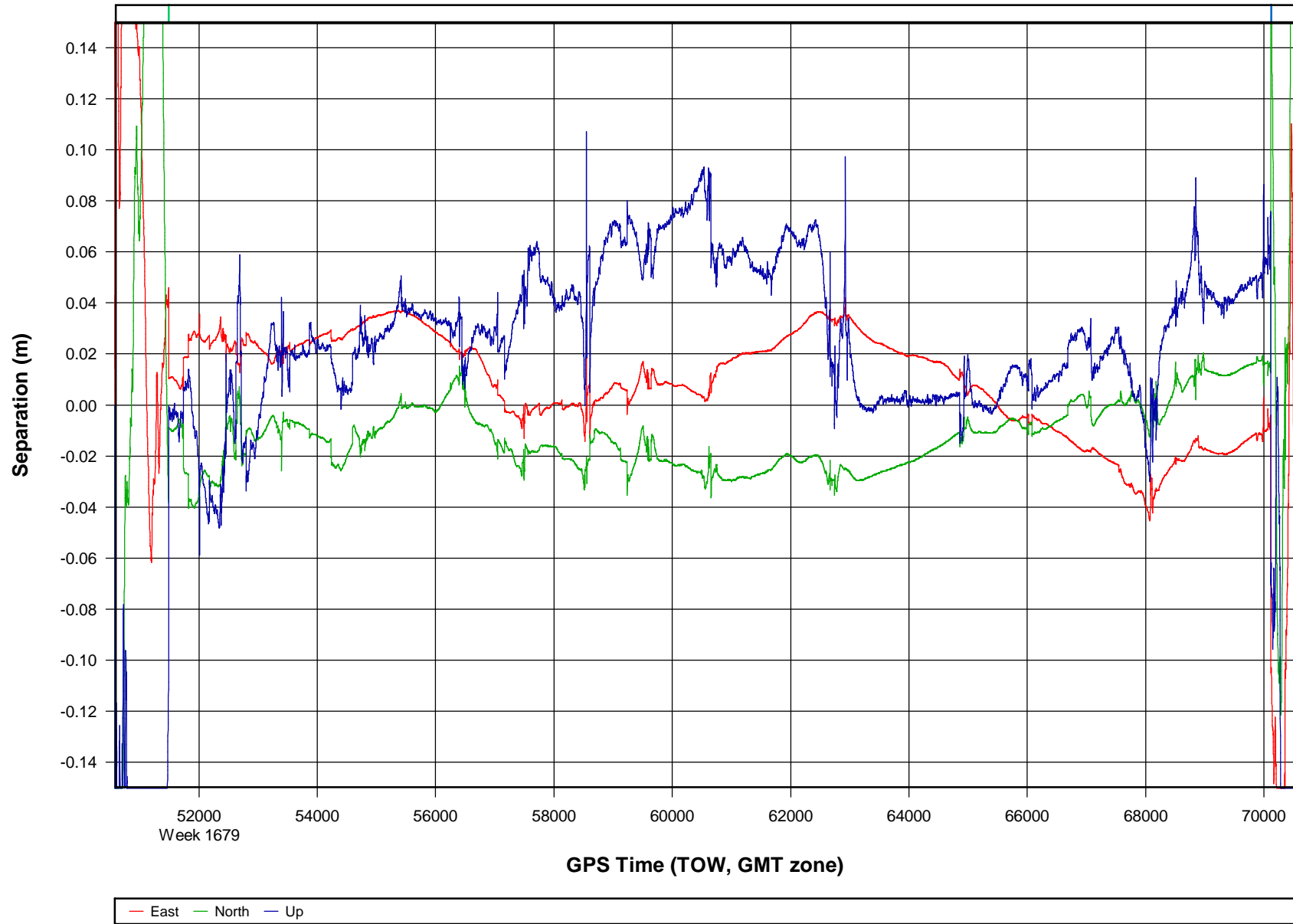
### Combined - Map Run (1)

Geographic, DMS

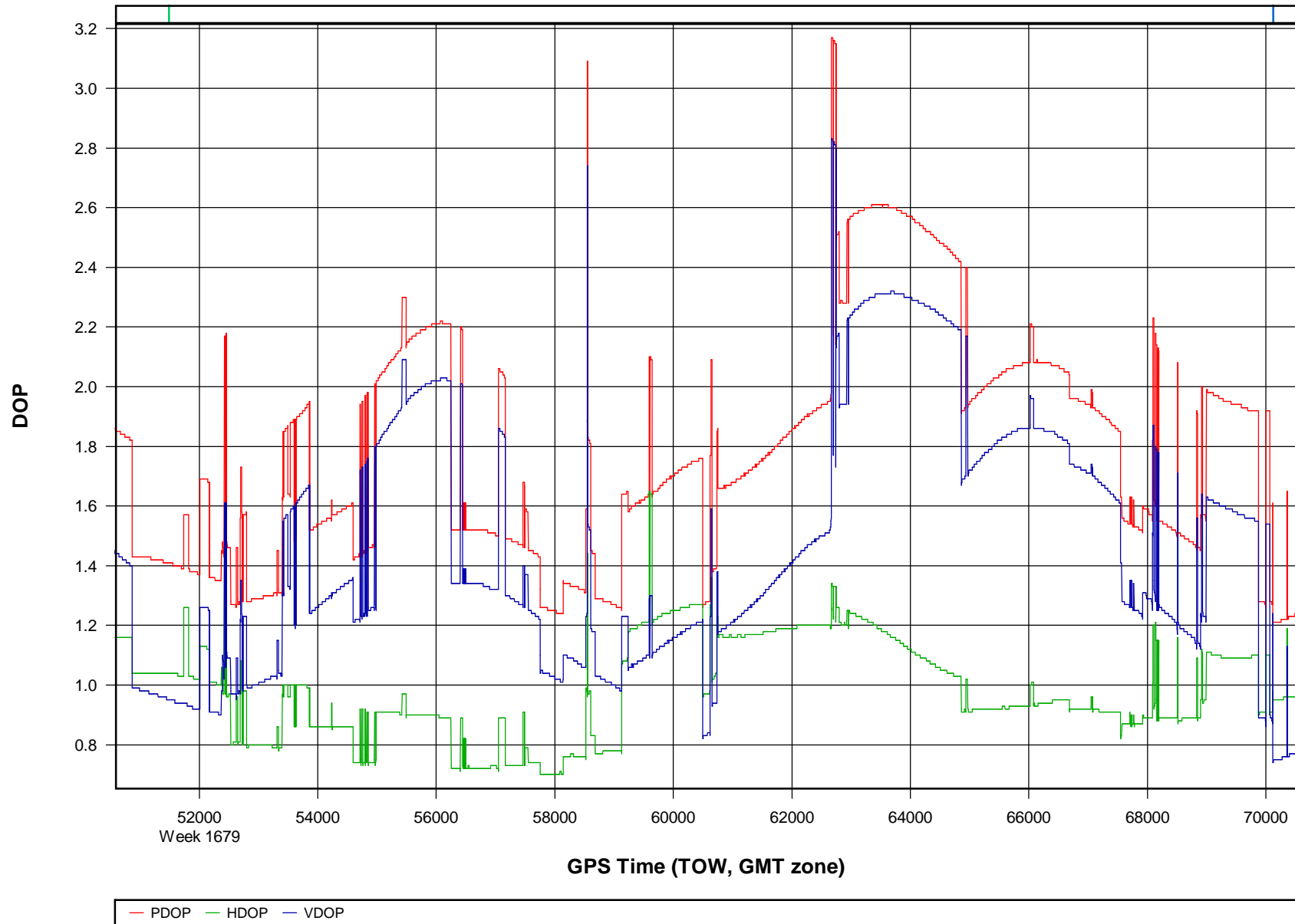




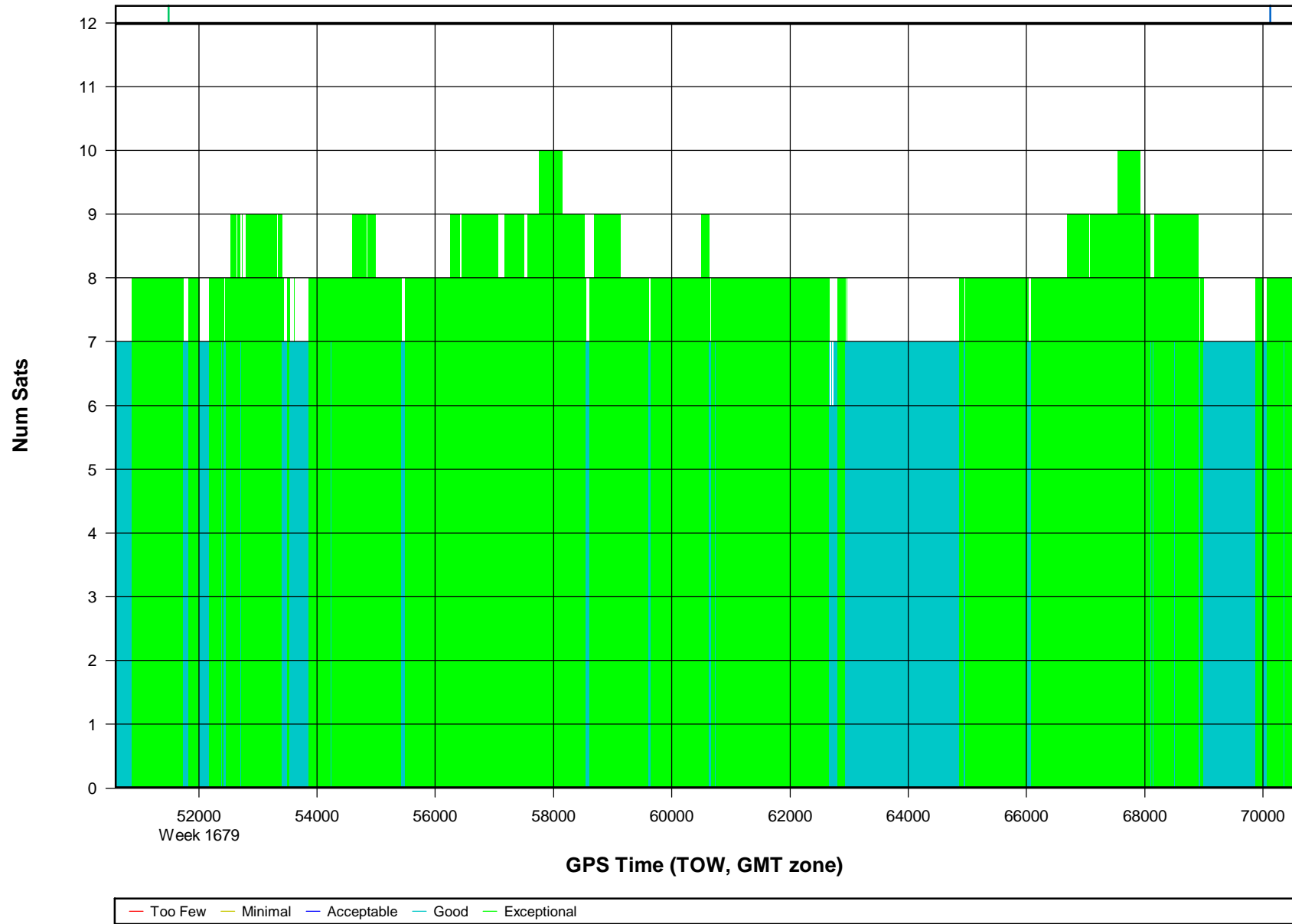
### o112071a [Combined] - Forward/Reverse or Combined Separation Plot



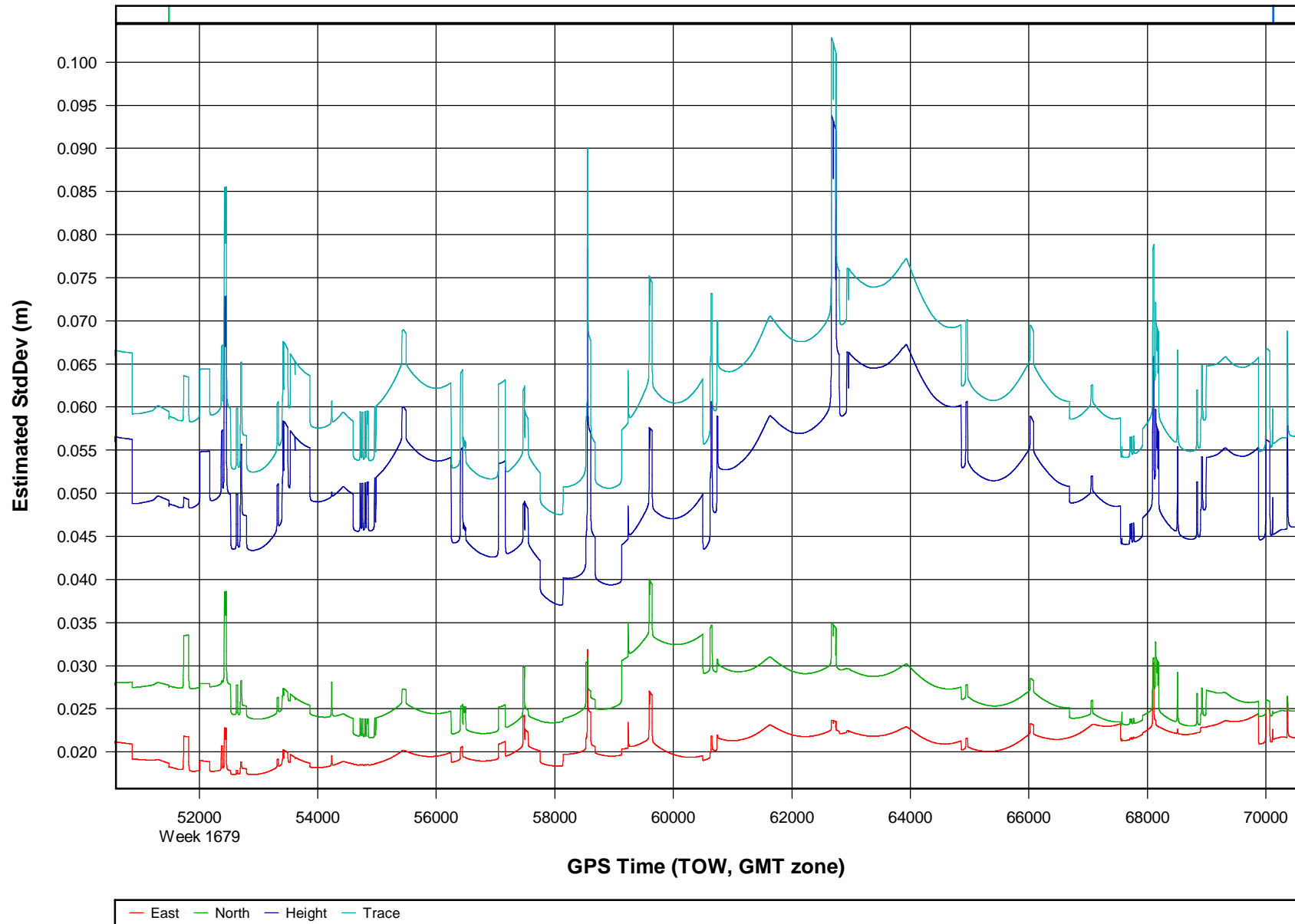
### o112071a [Combined] - PDOP, HDOP, VDOP Plots



**o112071a [Combined] - Number of Satellites Bar Plot**



### o112071a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: E:\Projects\335DEW11\_USGS\_MD\_VA\_cont\2\_Operations\6\_Missions\o112071a\3\_Processed\GPS\o112071a.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file:	199757
No processed position:	179811
Missing Fwd or Rev:	3
With bad C/A code:	0
With bad L1 Phase:	0

## Measurement RMS Values:

L1 Phase:	0.0189 (m)
C/A Code:	0.74 (m)
L1 Doppler:	0.027 (m/s)

## Fwd/Rev Separation RMS Values:

East:	0.038 (m)
North:	0.064 (m)
Height:	0.117 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (18614 occurrences):

East:	0.021 (m)
North:	0.018 (m)
Height:	0.039 (m)

## Quality Number Percentages:

Q 1:	99.9 %
Q 2:	0.1 %
Q 3:	0.0 %
Q 4:	0.0 %
Q 5:	0.0 %
Q 6:	0.0 %

## Position Standard Deviation Percentages:

0.00 - 0.10 m:	99.7 %
0.10 - 0.30 m:	0.3 %
0.30 - 1.00 m:	0.0 %
1.00 - 5.00 m:	0.0 %
5.00 m + over:	0.0 %

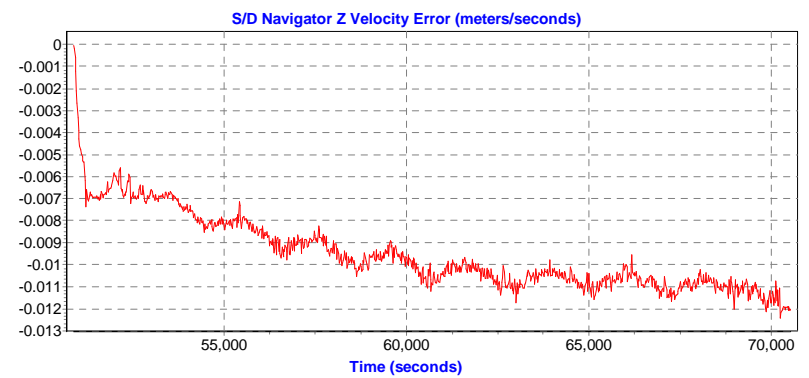
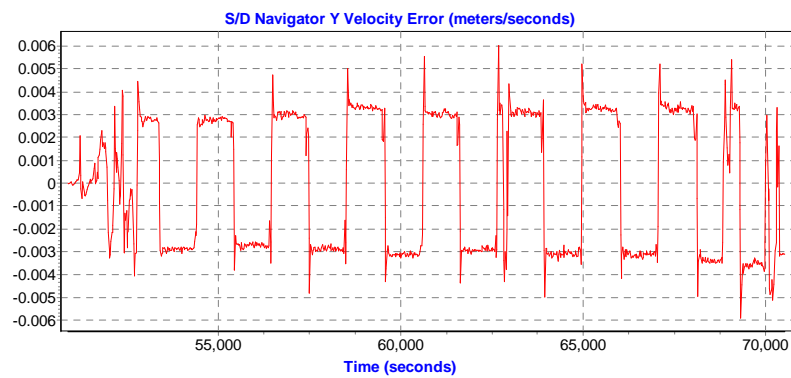
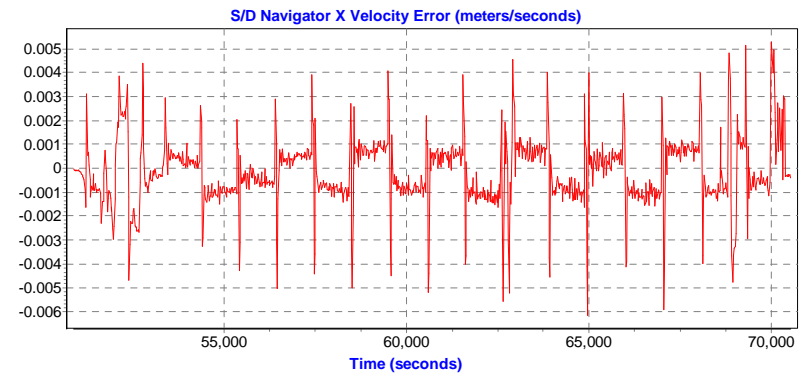
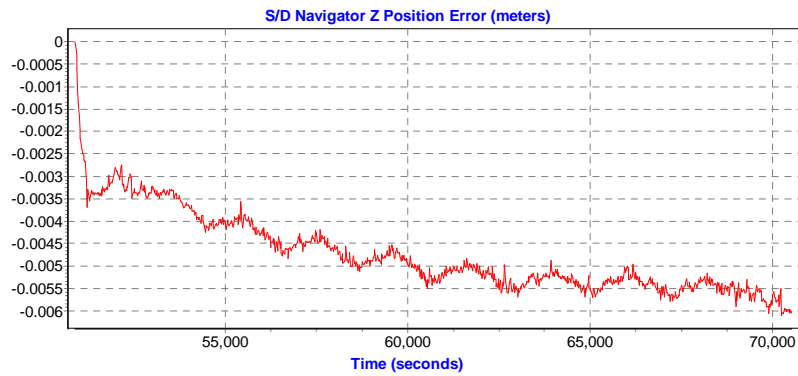
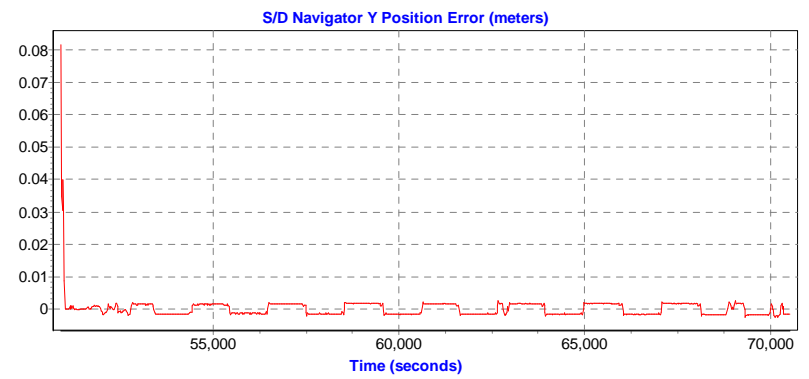
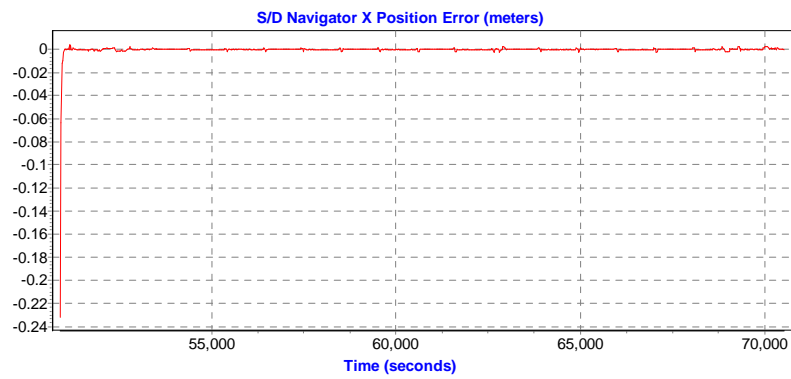
## Percentages of epochs with DD\_DOP over 10.00:

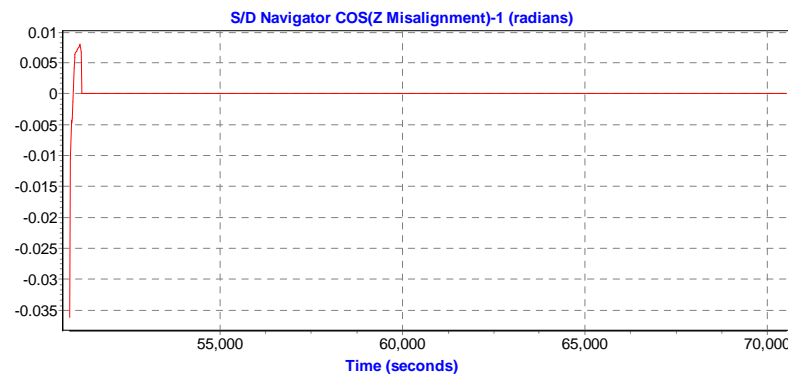
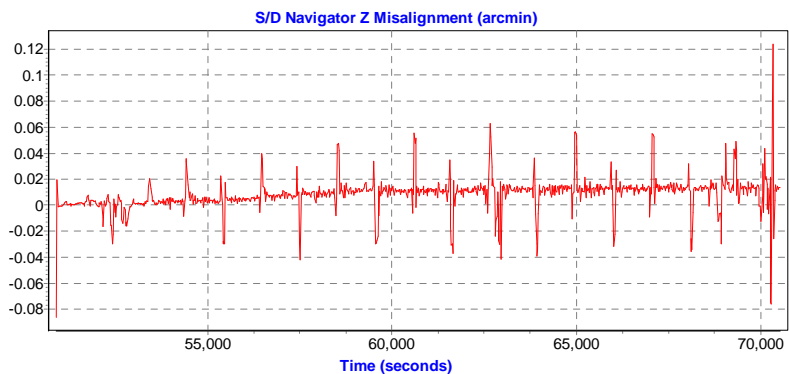
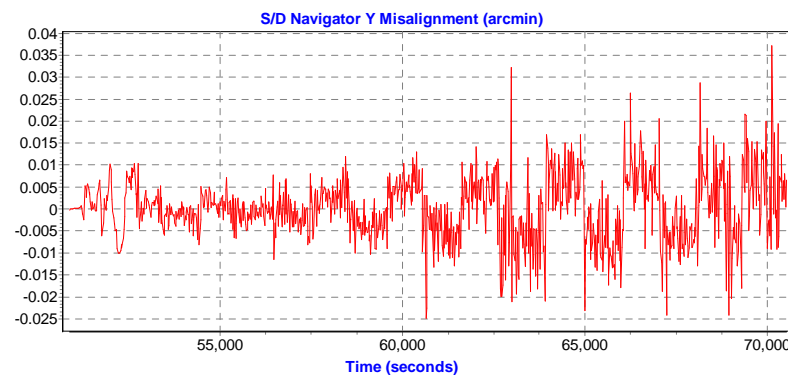
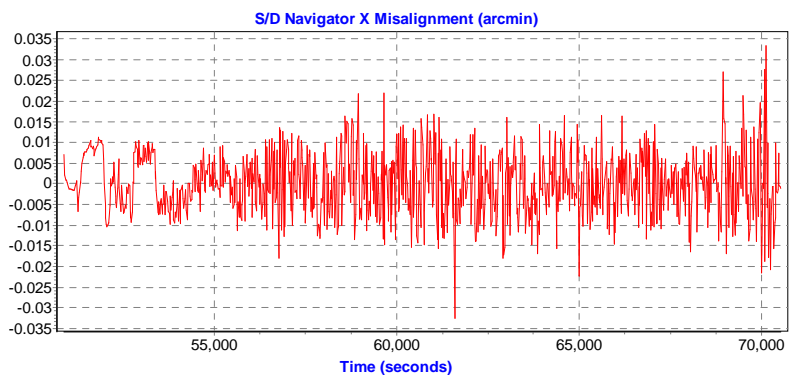
DOP over Tol:	0.0 %
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## Baseline Distances:

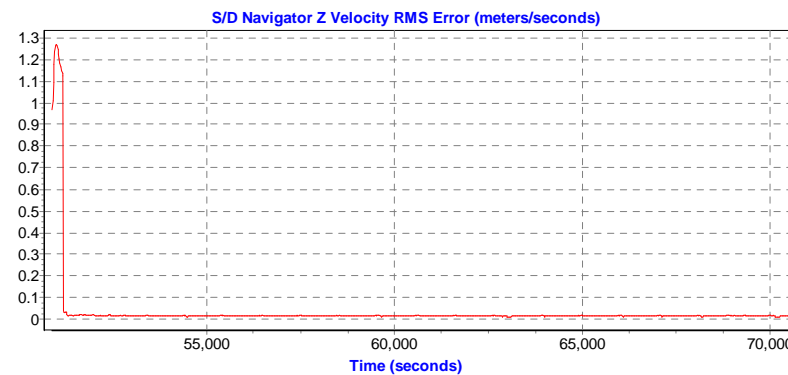
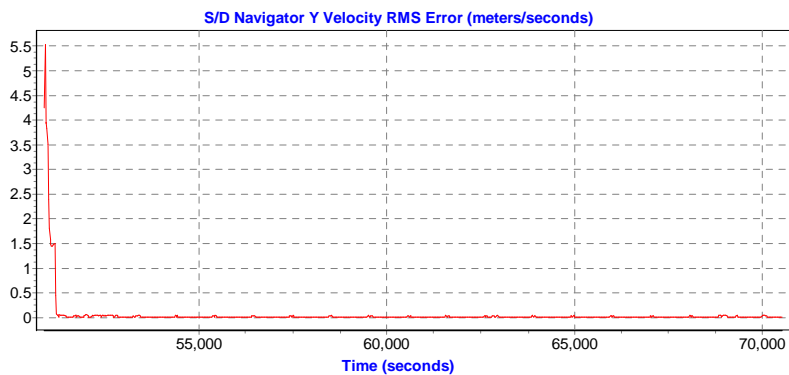
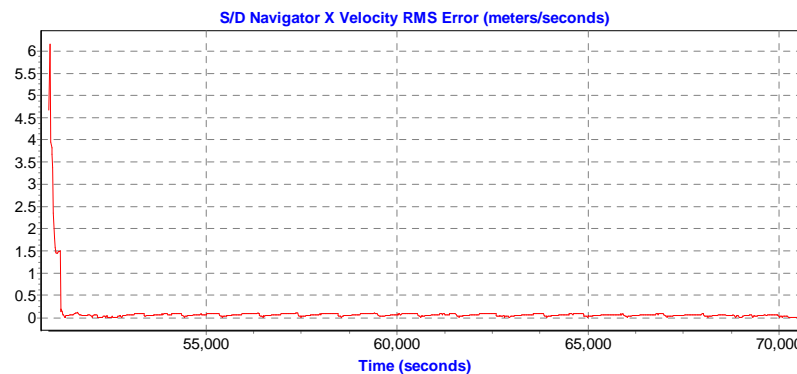
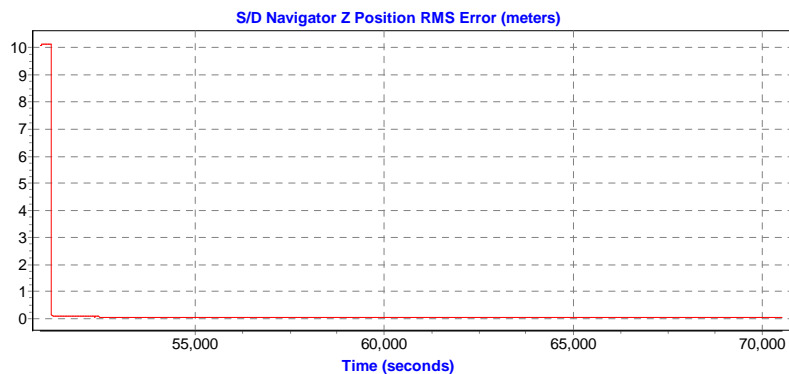
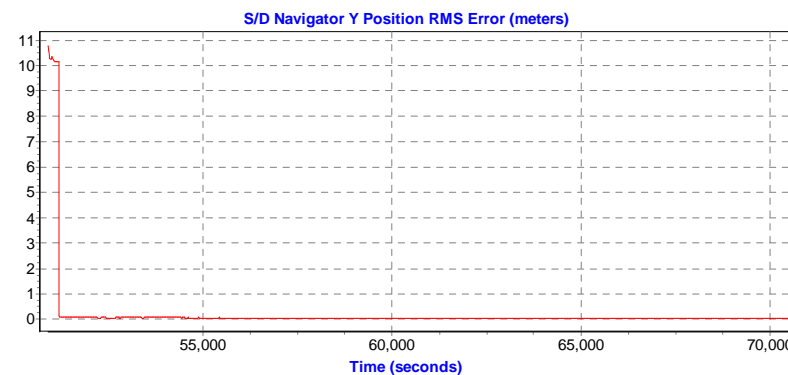
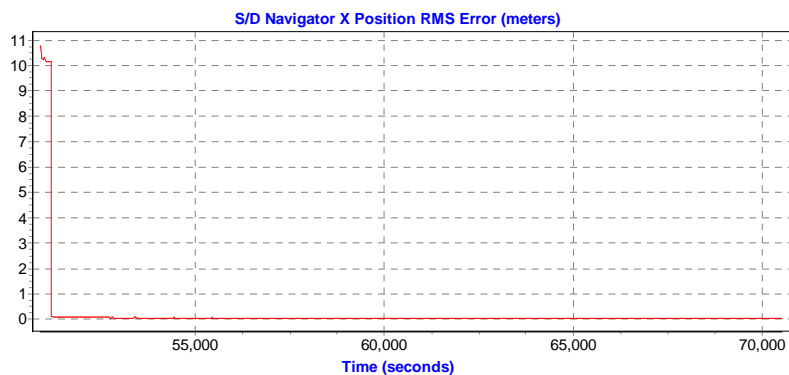
Maximum:	48.471 (km)
Minimum:	1.095 (km)
Average:	20.945 (km)
First Epoch:	37.215 (km)
Last Epoch:	37.207 (km)

Estimated Errors and RMS

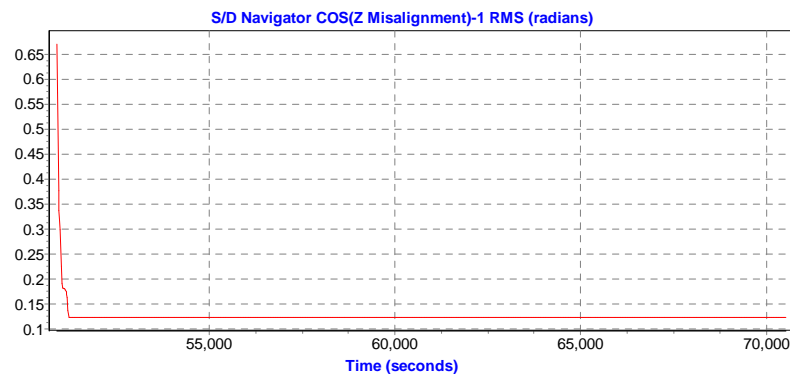
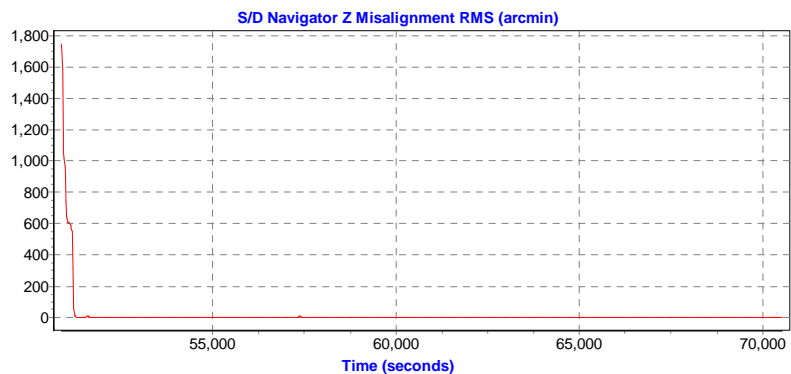
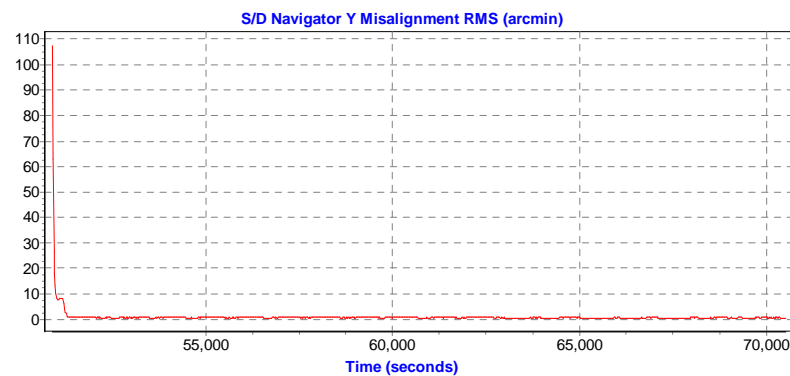
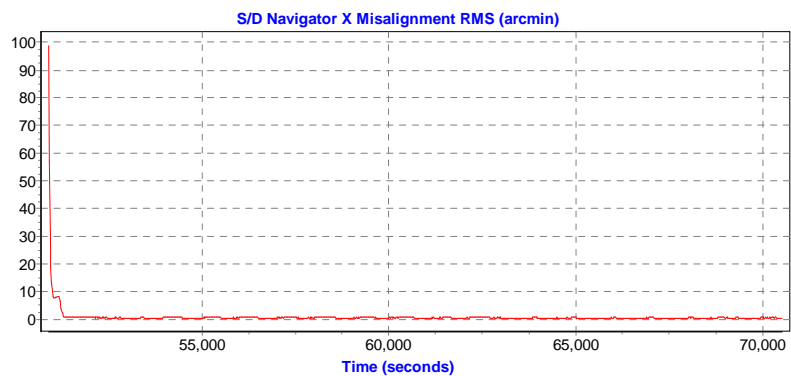


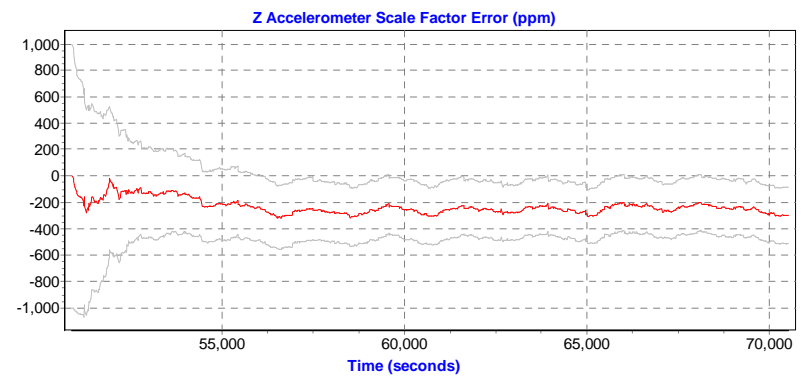
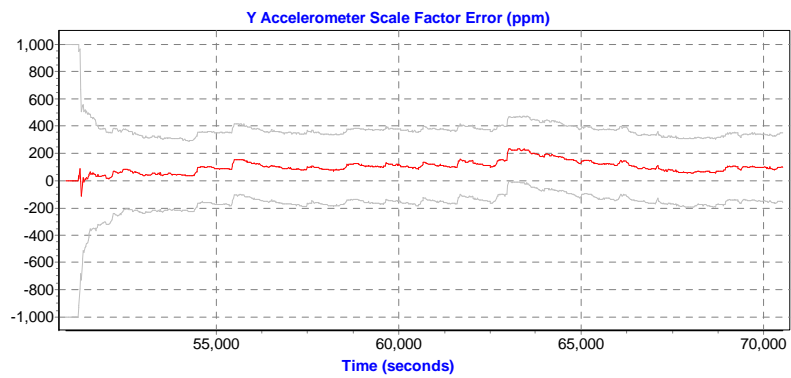
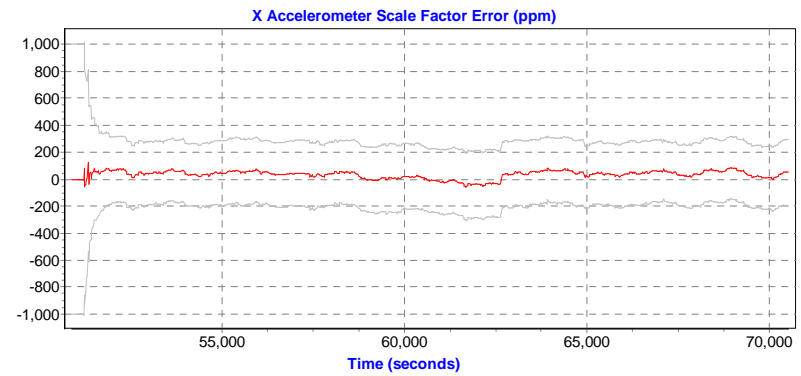
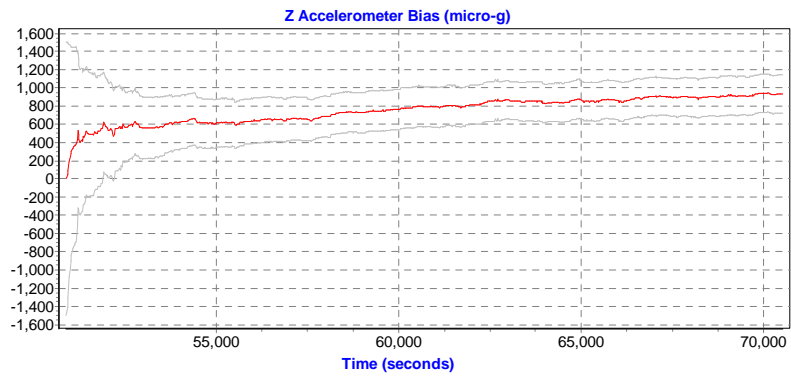
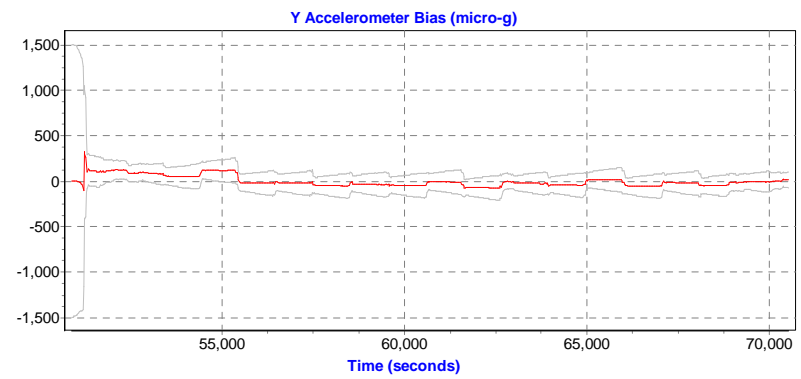
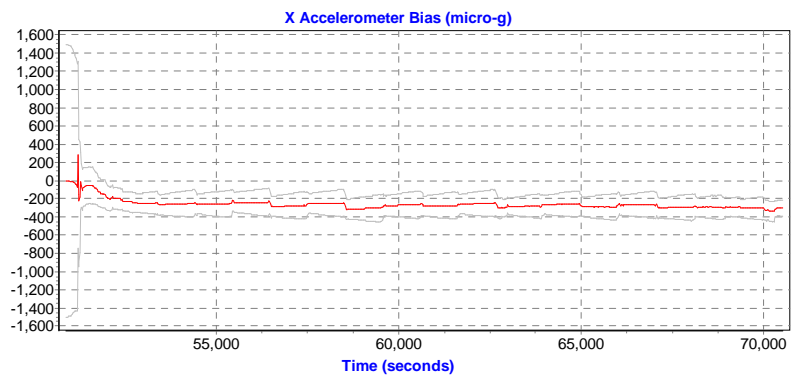


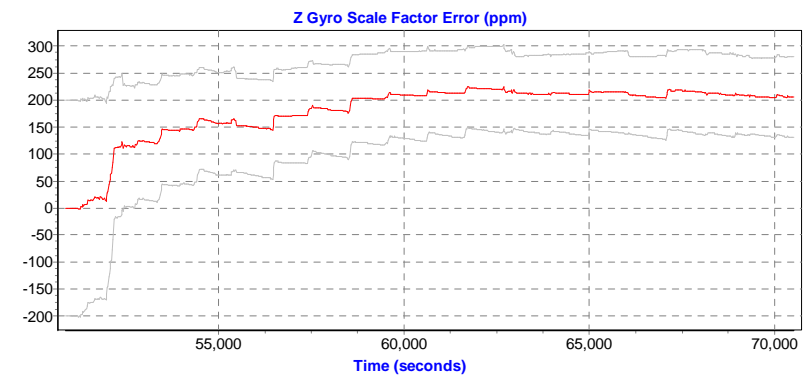
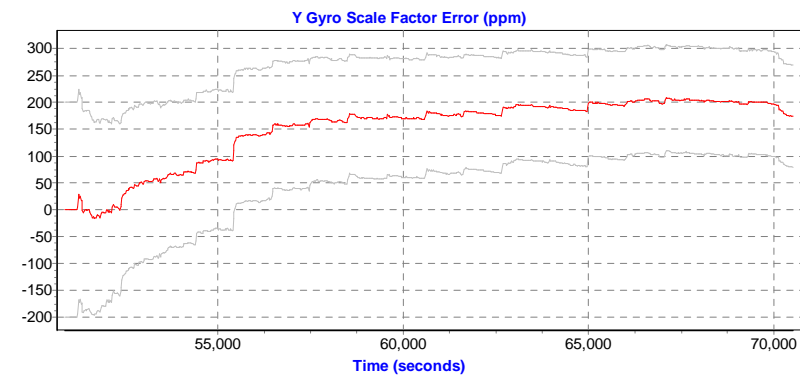
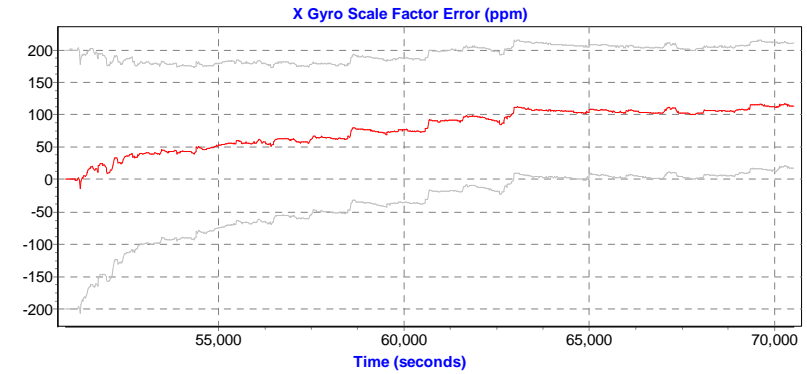
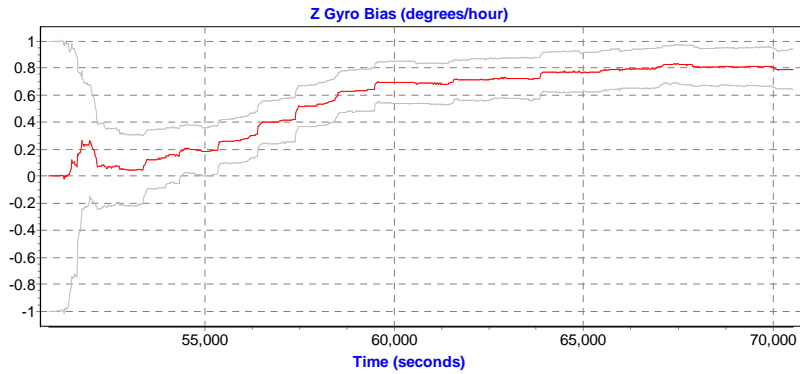
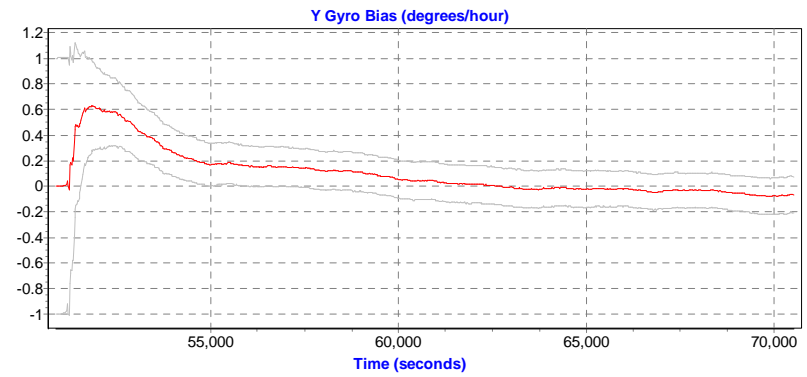
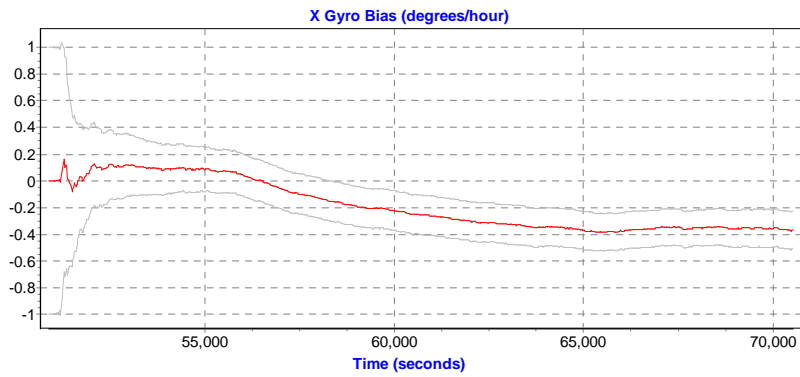
RMS Estimation Uncertainties

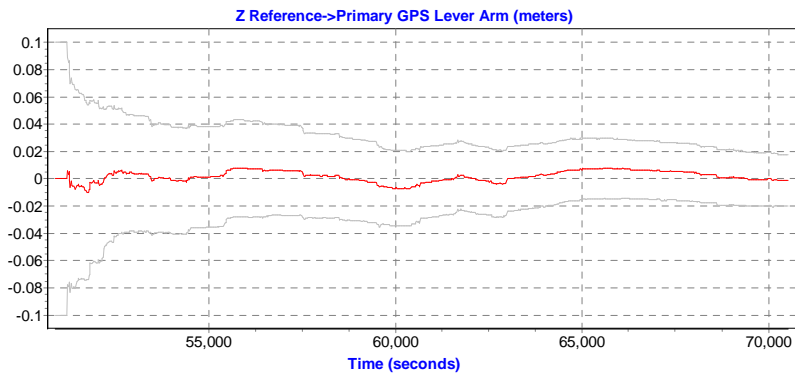
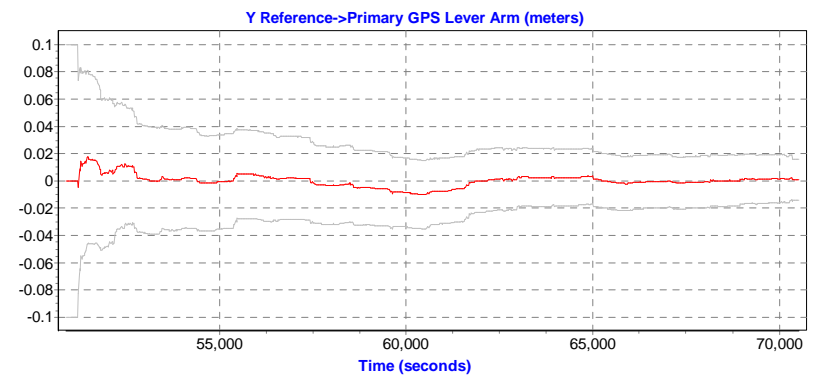
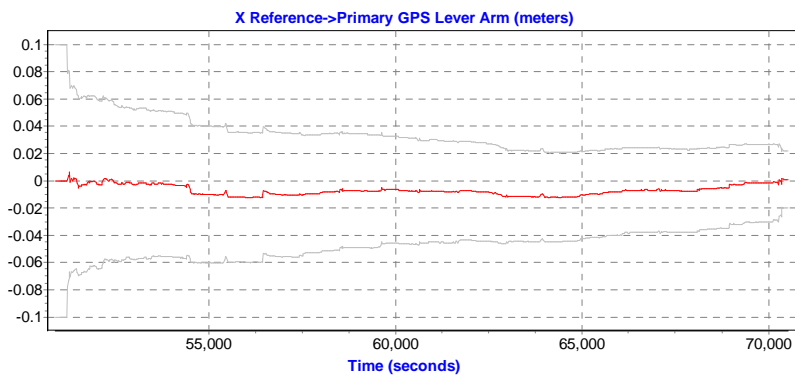






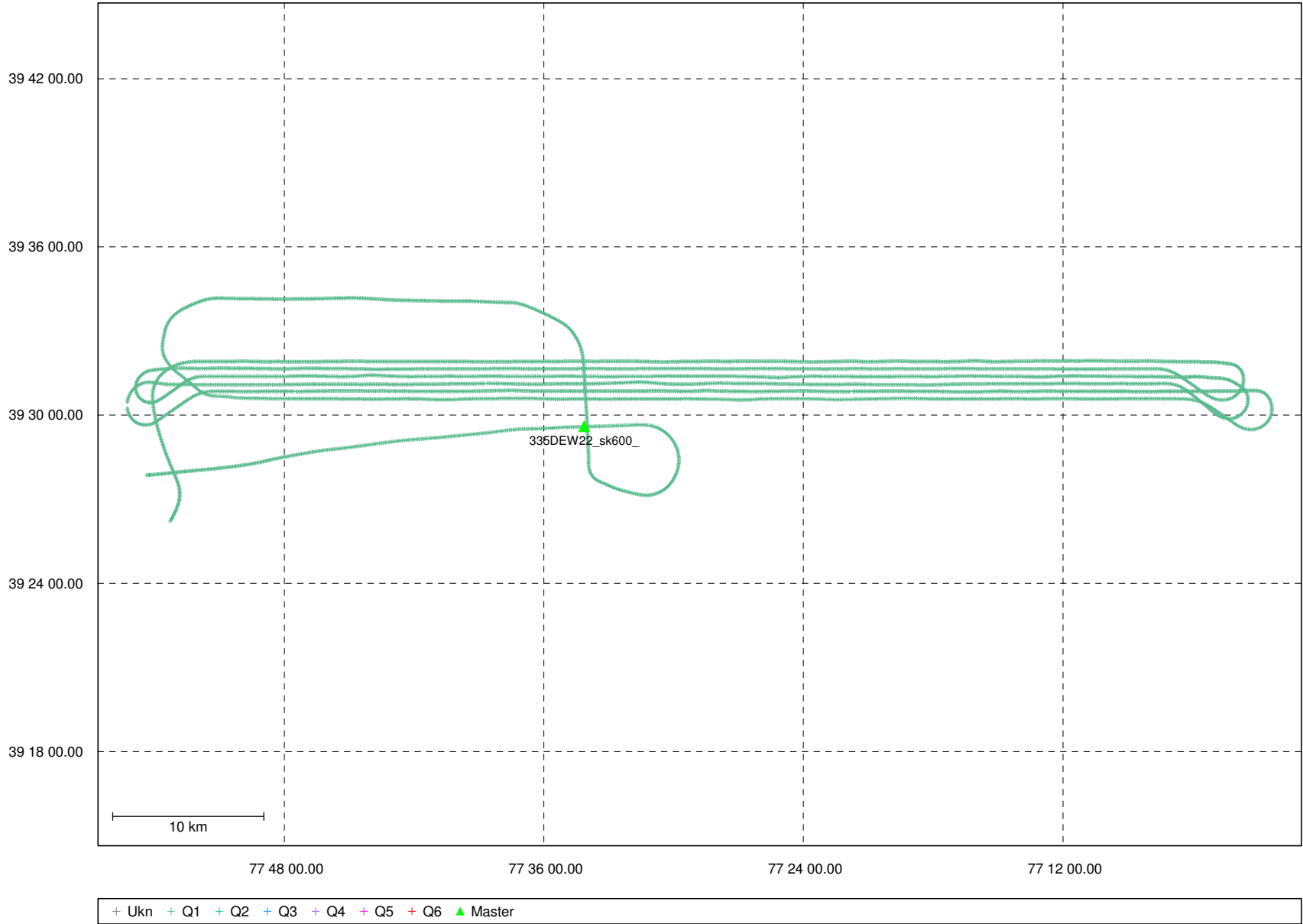






### Combined - Map Run (4)

Geographic, DMS



Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: I:\o112071b\3\_Processed\GPS\o112071b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:

Total in GPB file: 92575  
No processed position: 85276  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:

L1 Phase: 0.0173 (m)  
C/A Code: 0.75 (m)  
L1 Doppler: 0.033 (m/s)

Fwd/Rev Separation RMS Values:

East: 0.013 (m)  
North: 0.017 (m)  
Height: 0.027 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (7293 occurrences):

East: 0.012 (m)  
North: 0.017 (m)  
Height: 0.026 (m)

Quality Number Percentages:

Q 1: 99.9 %  
Q 2: 0.1 %  
Q 3: 0.0 %  
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 %

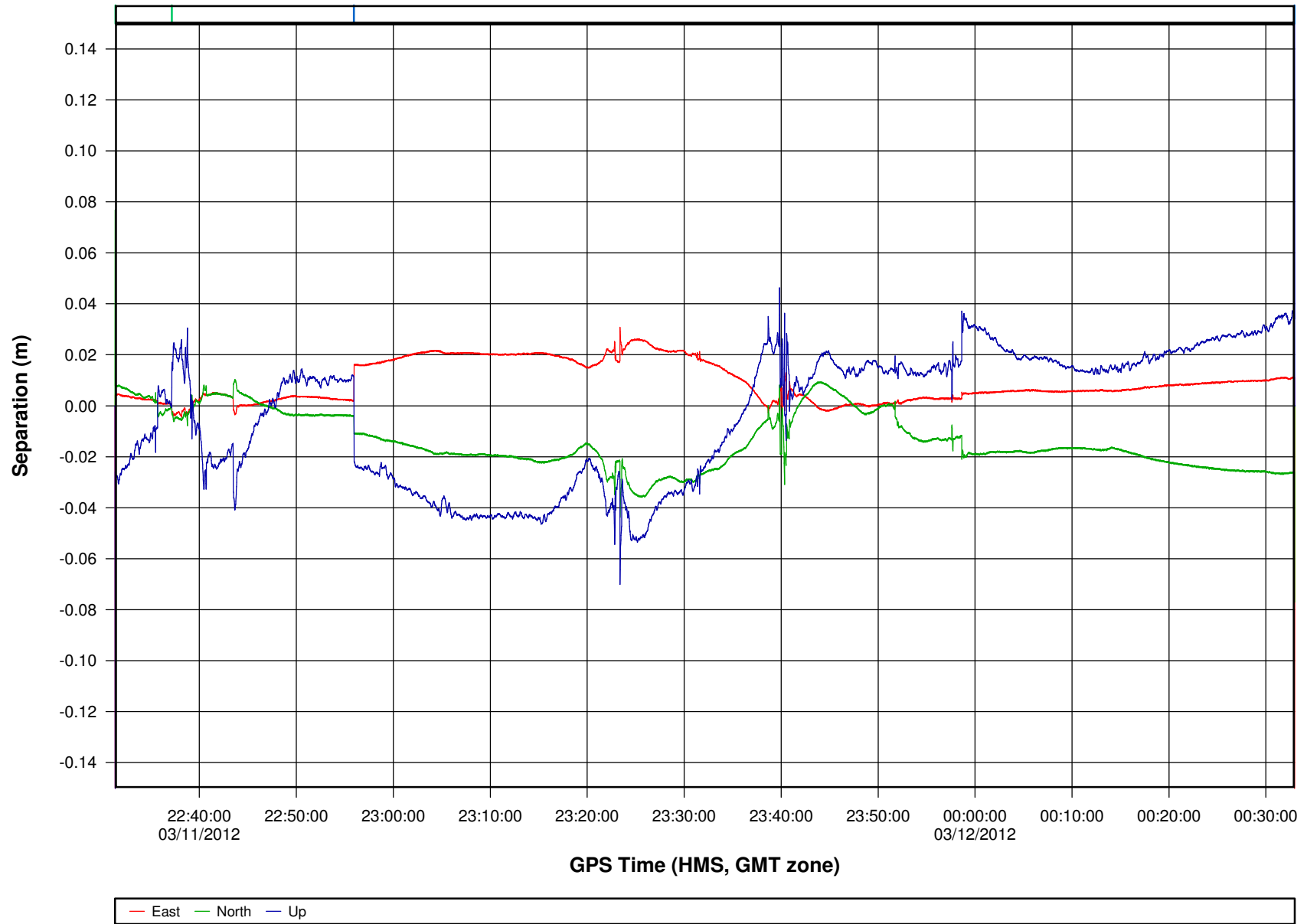
Percentages of epochs with DD\_DOP over 10.00:

DOP over Tol: 0.0 %

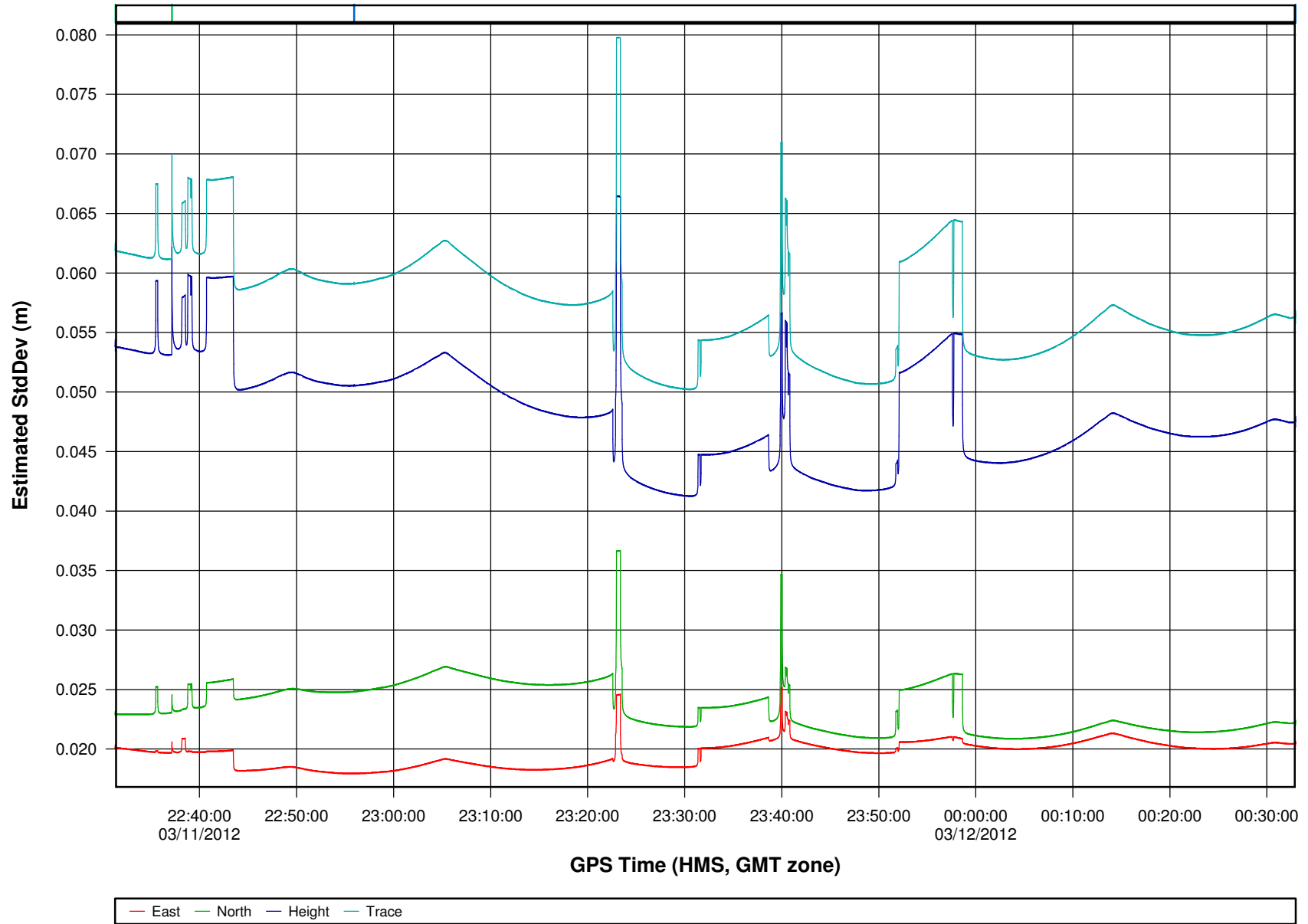
Baseline Distances:

Maximum: 45.608 (km)  
Minimum: 1.160 (km)  
Average: 19.458 (km)  
First Epoch: 29.216 (km)  
Last Epoch: 28.164 (km)

### o112071b [Combined] - Forward/Reverse or Combined Separation Plot

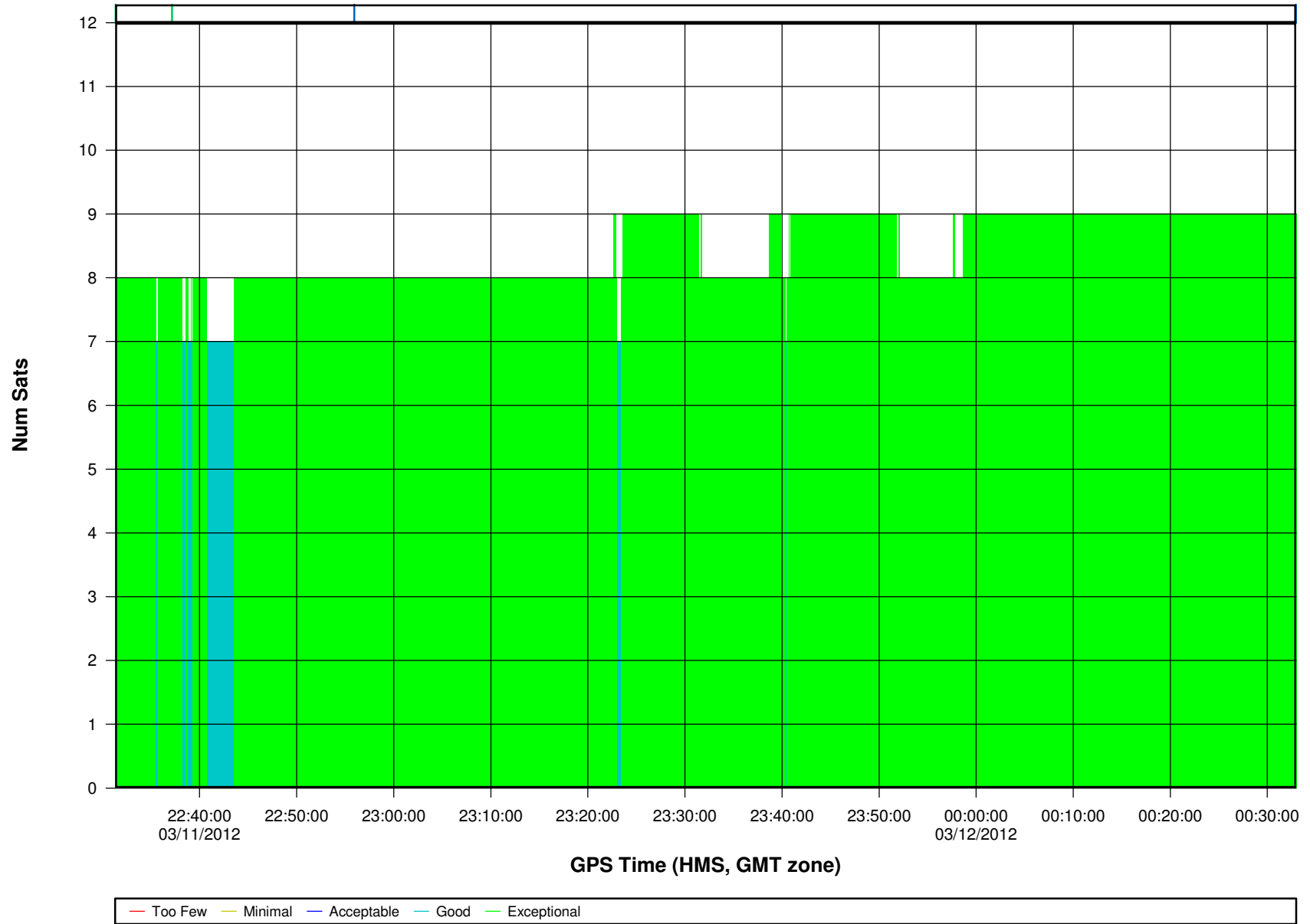


### o112071b [Combined] - Estimated Position Accuracy Plot

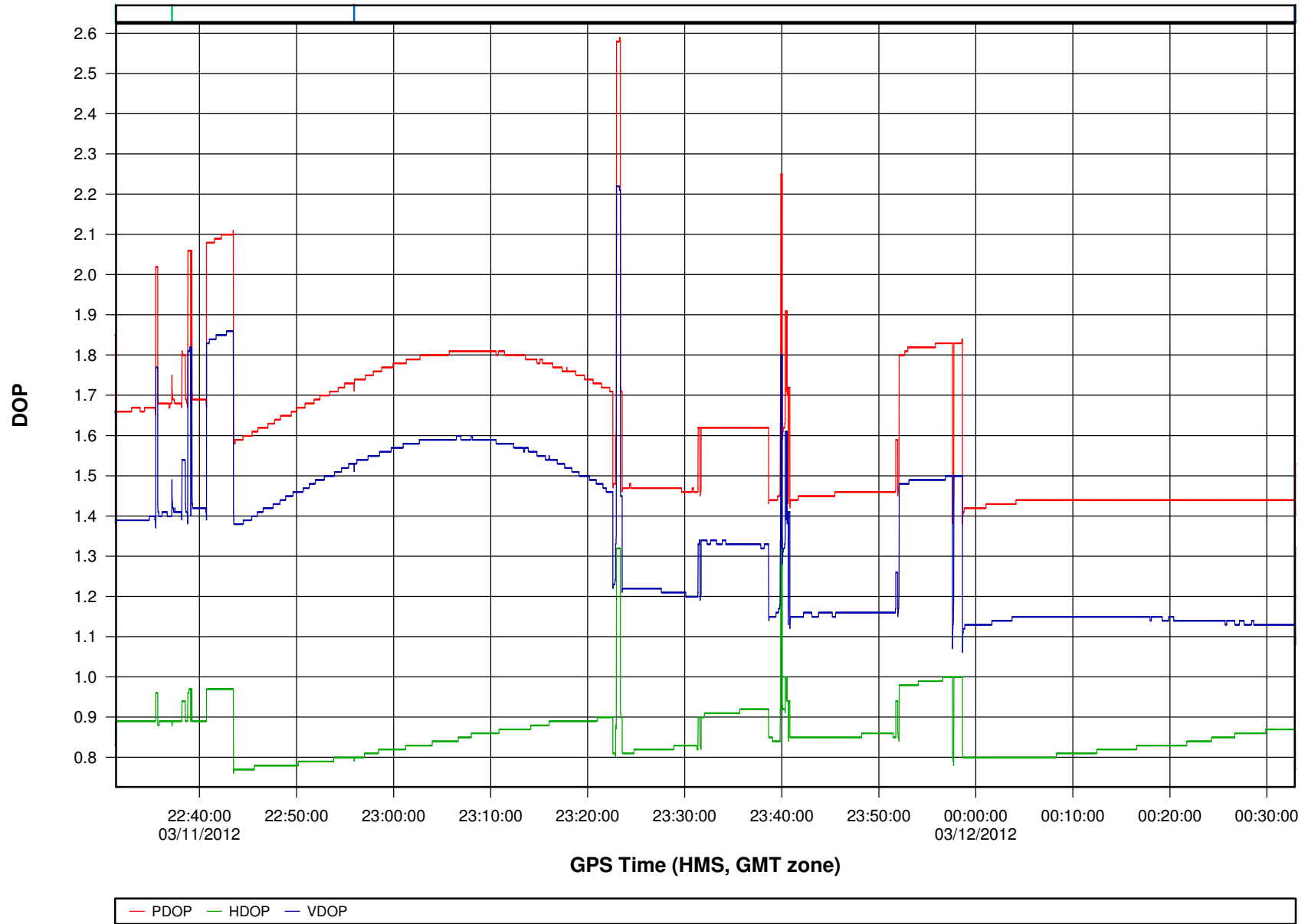


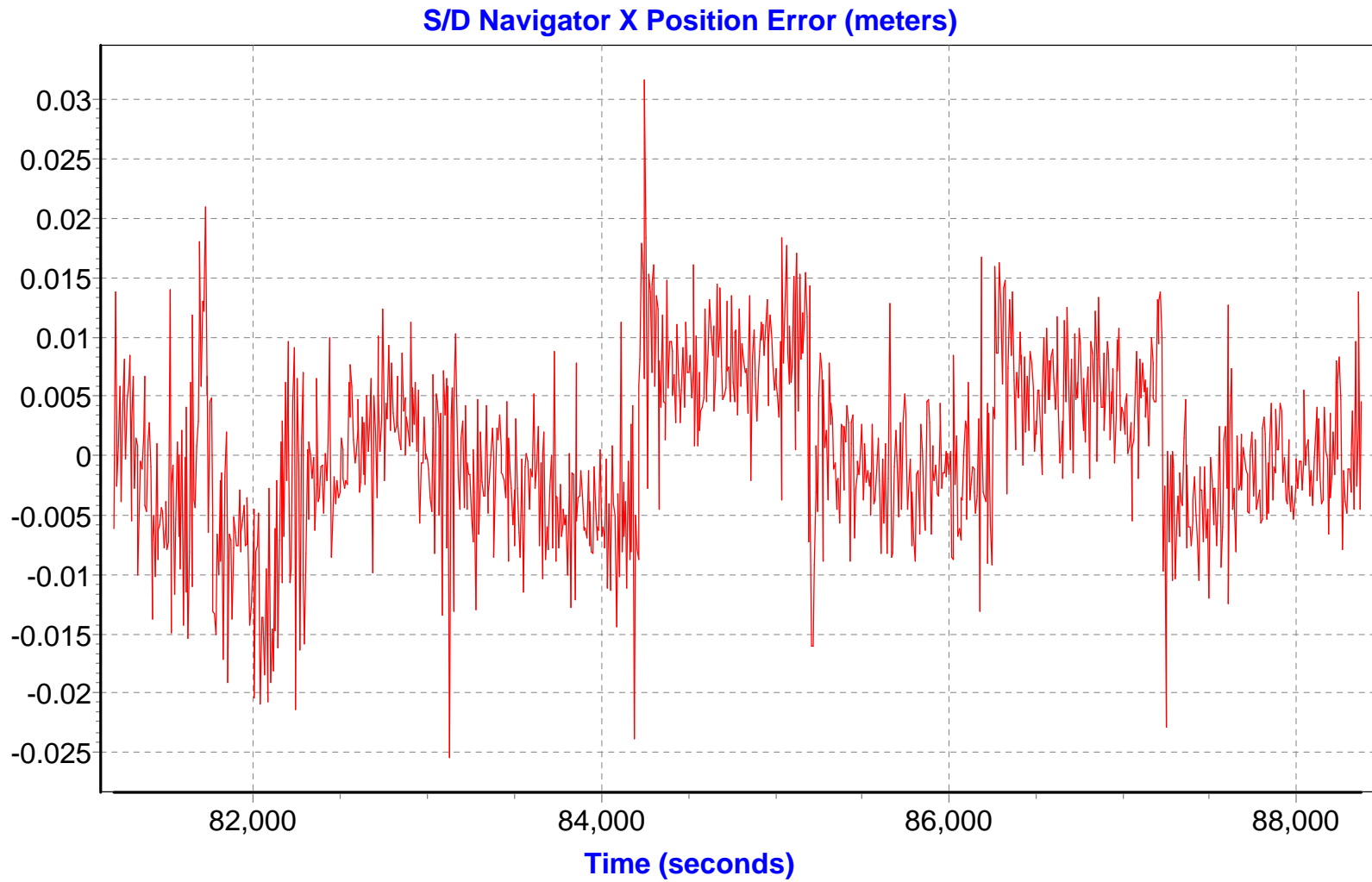


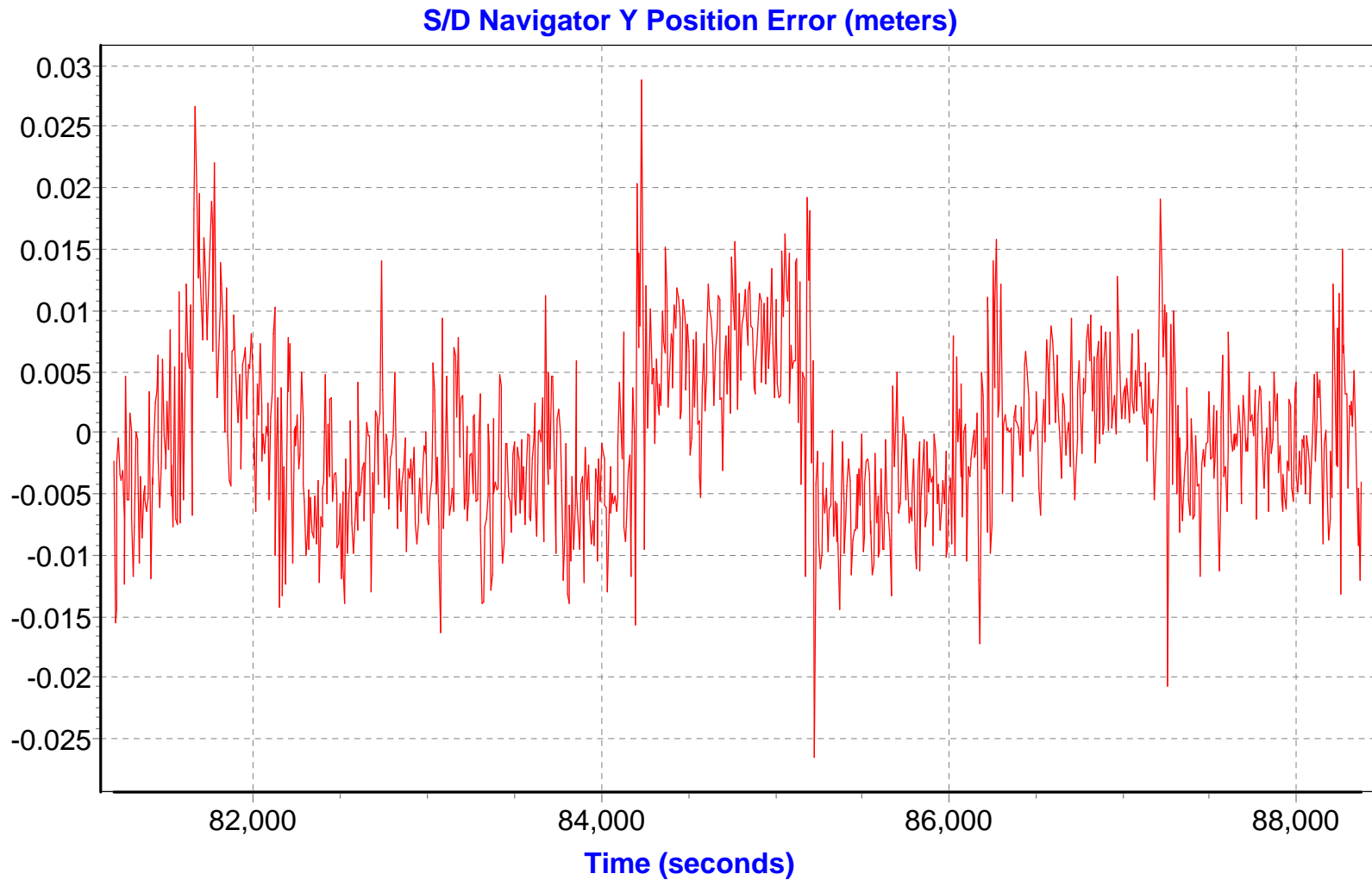
### o112071b [Combined] - Number of Satellites Bar Plot

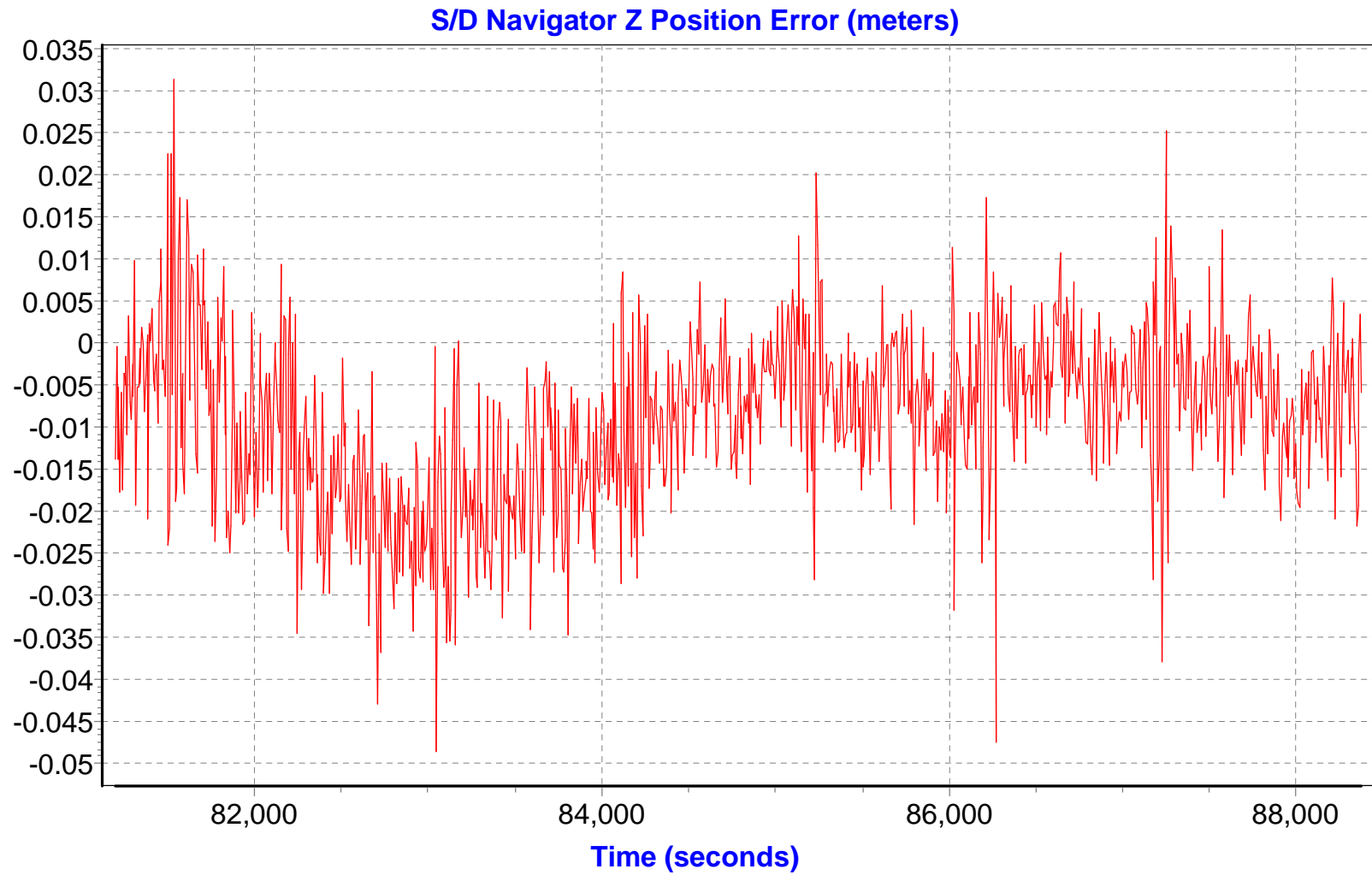


**o112071b [Combined] - PDOP, HDOP, VDOP Plots**

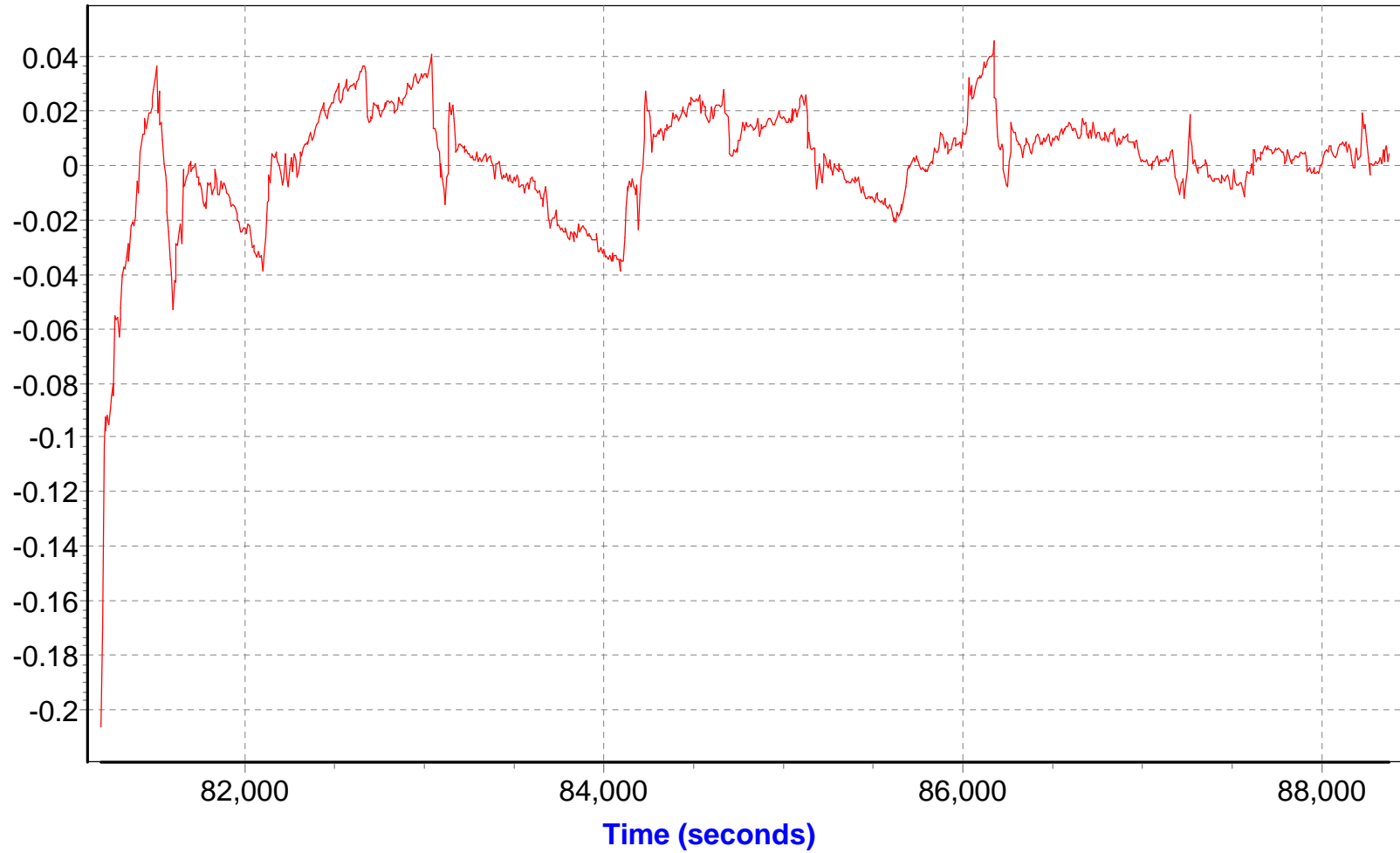




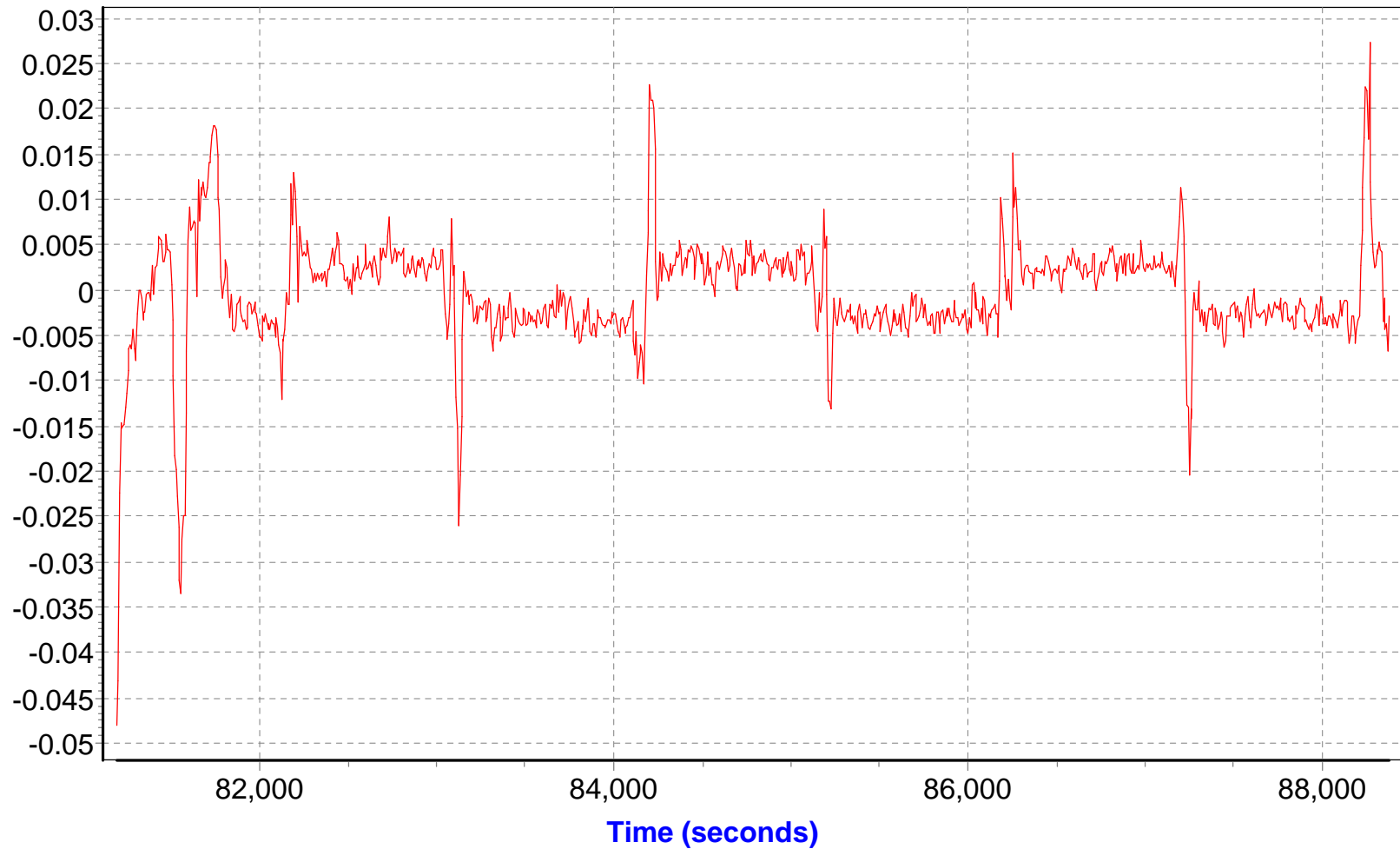




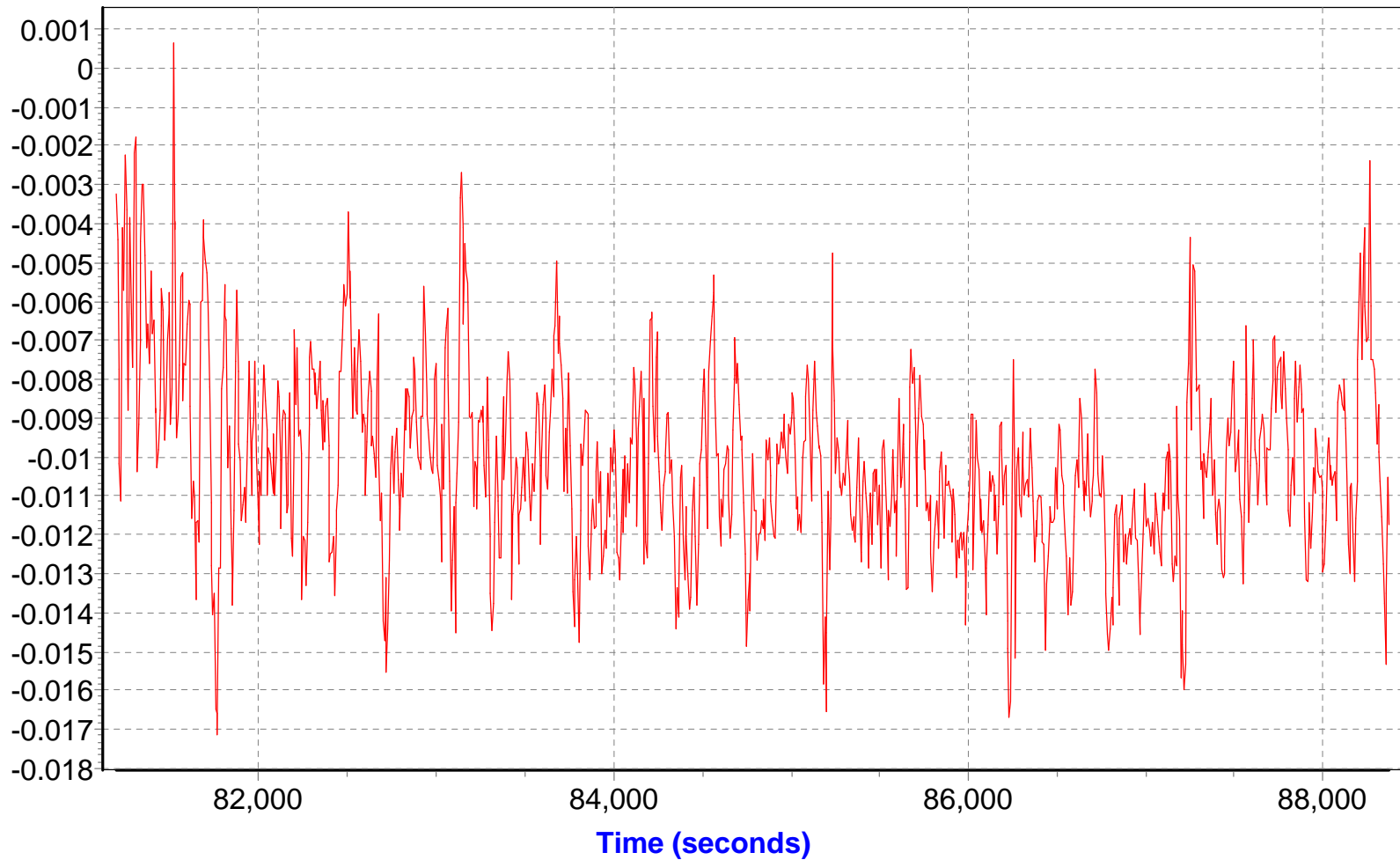
**S/D Navigator X Velocity Error (meters/seconds)**



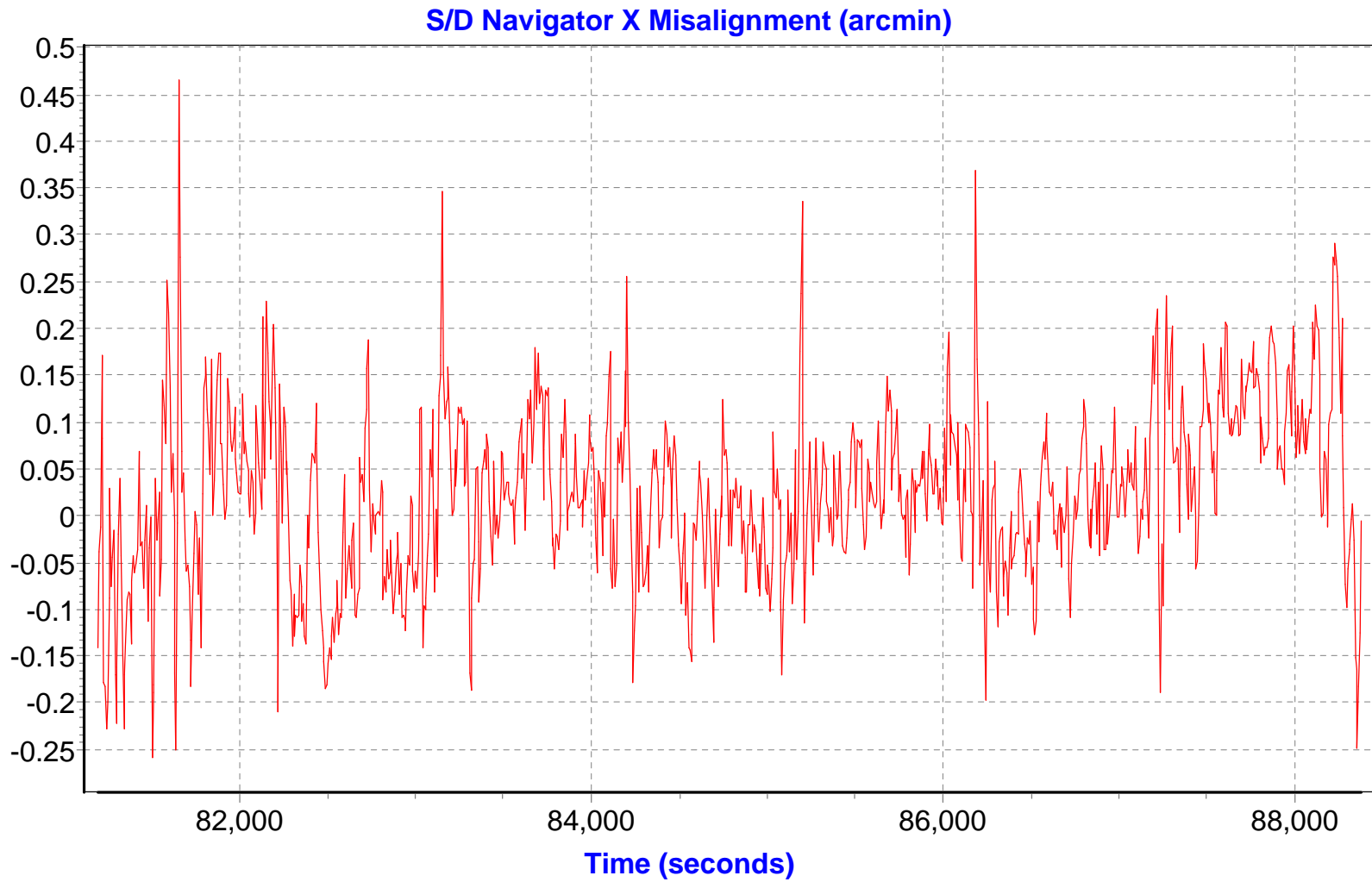
**S/D Navigator Y Velocity Error (meters/seconds)**

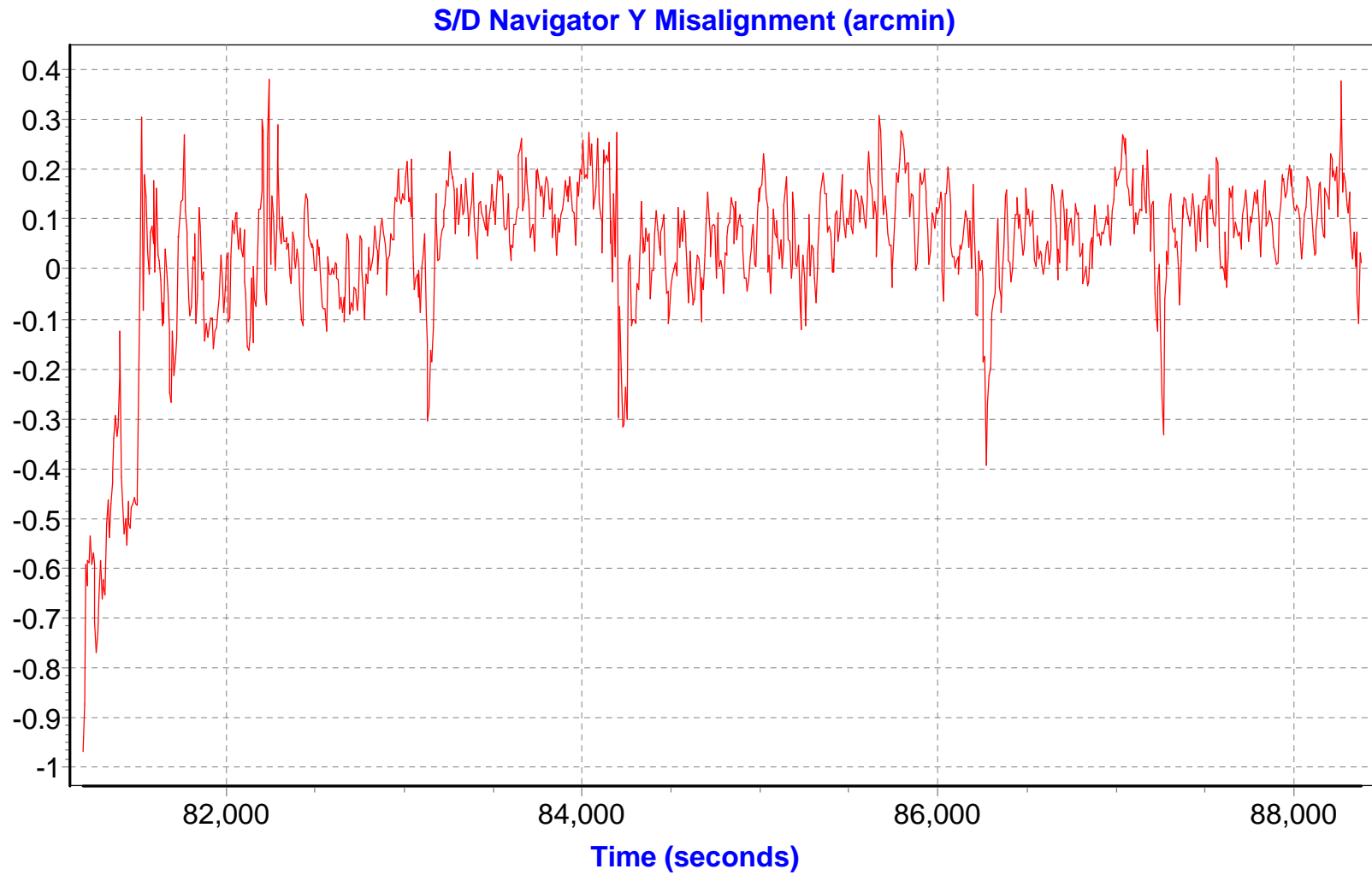


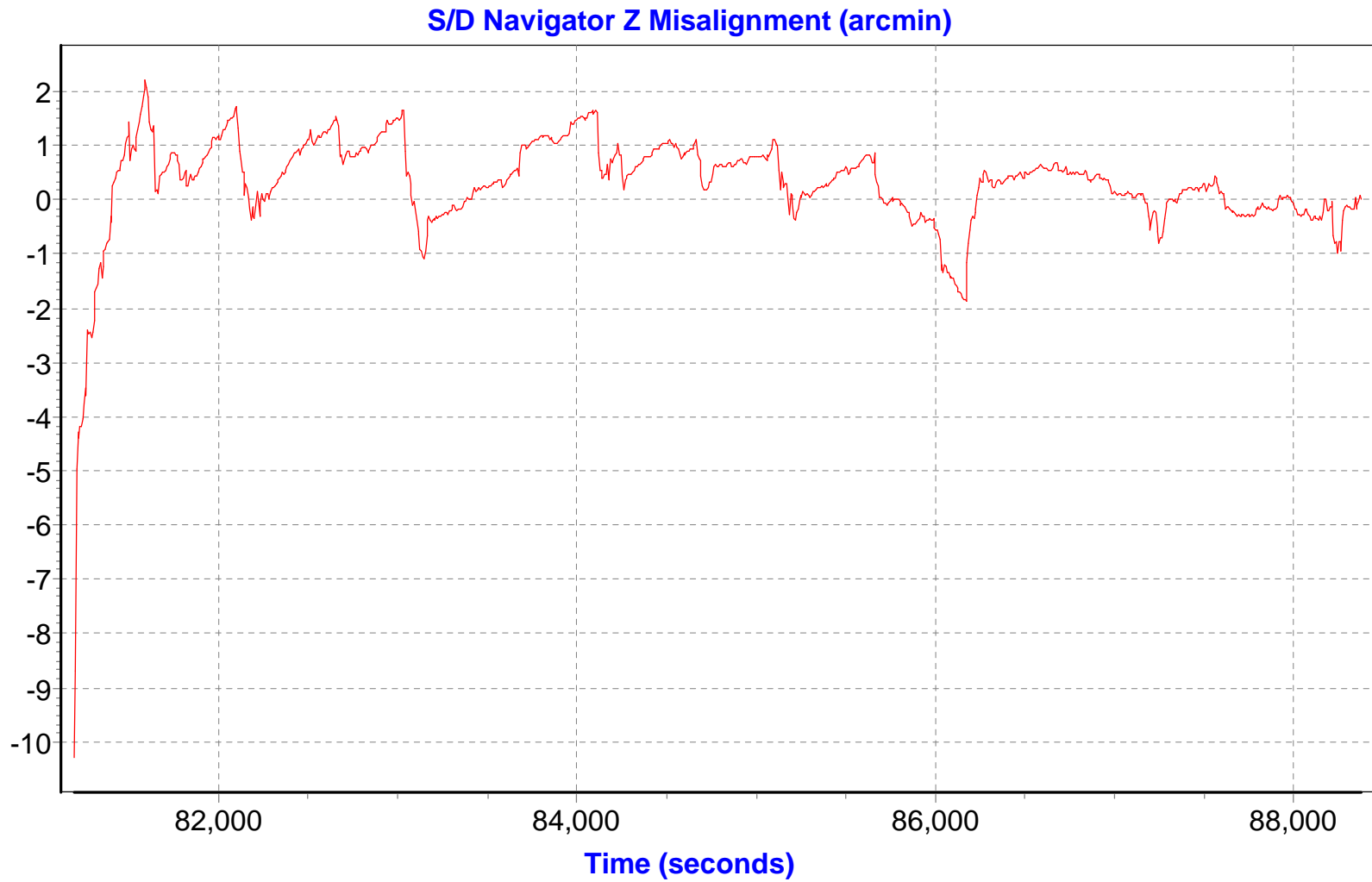
**S/D Navigator Z Velocity Error (meters/seconds)**



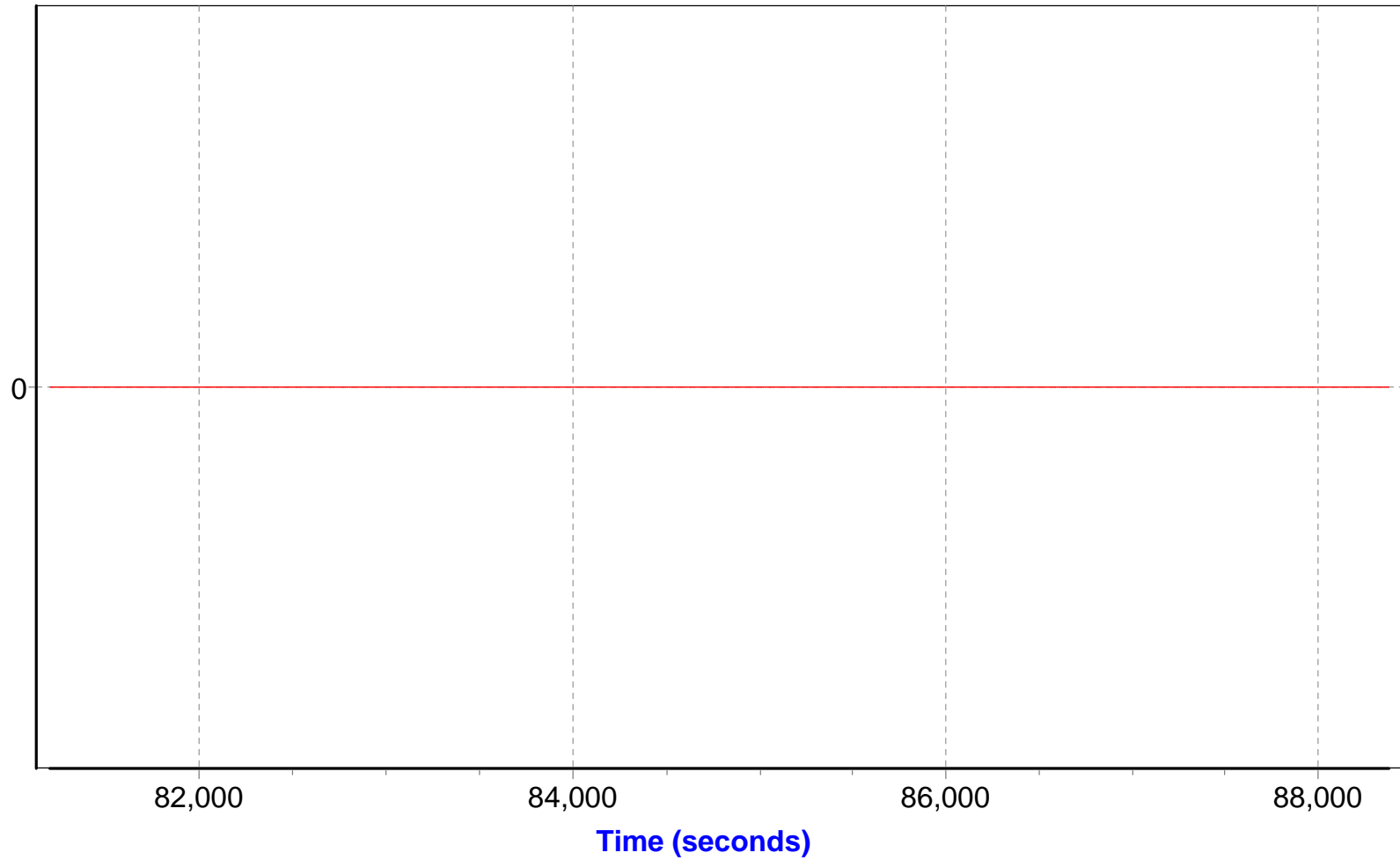




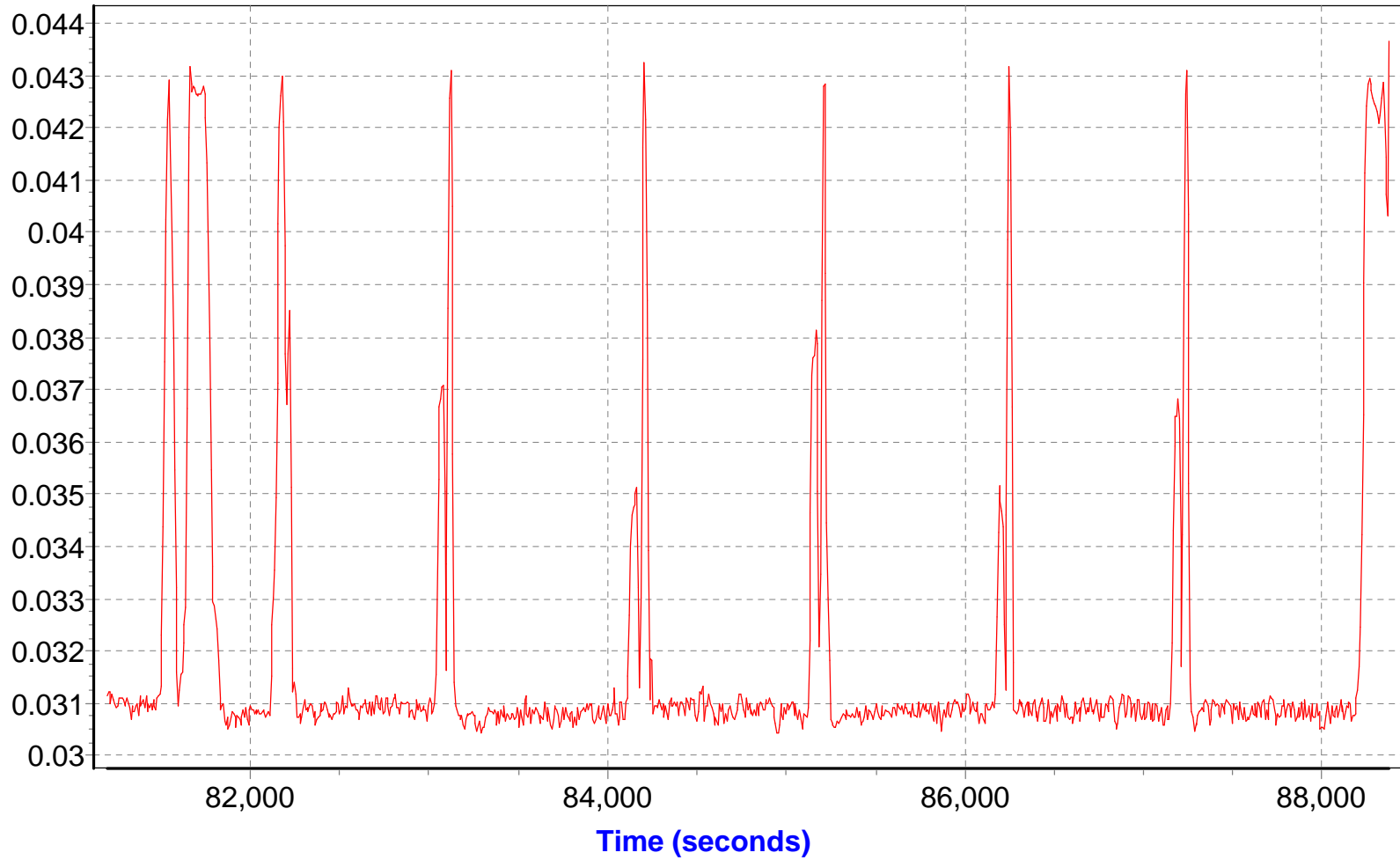




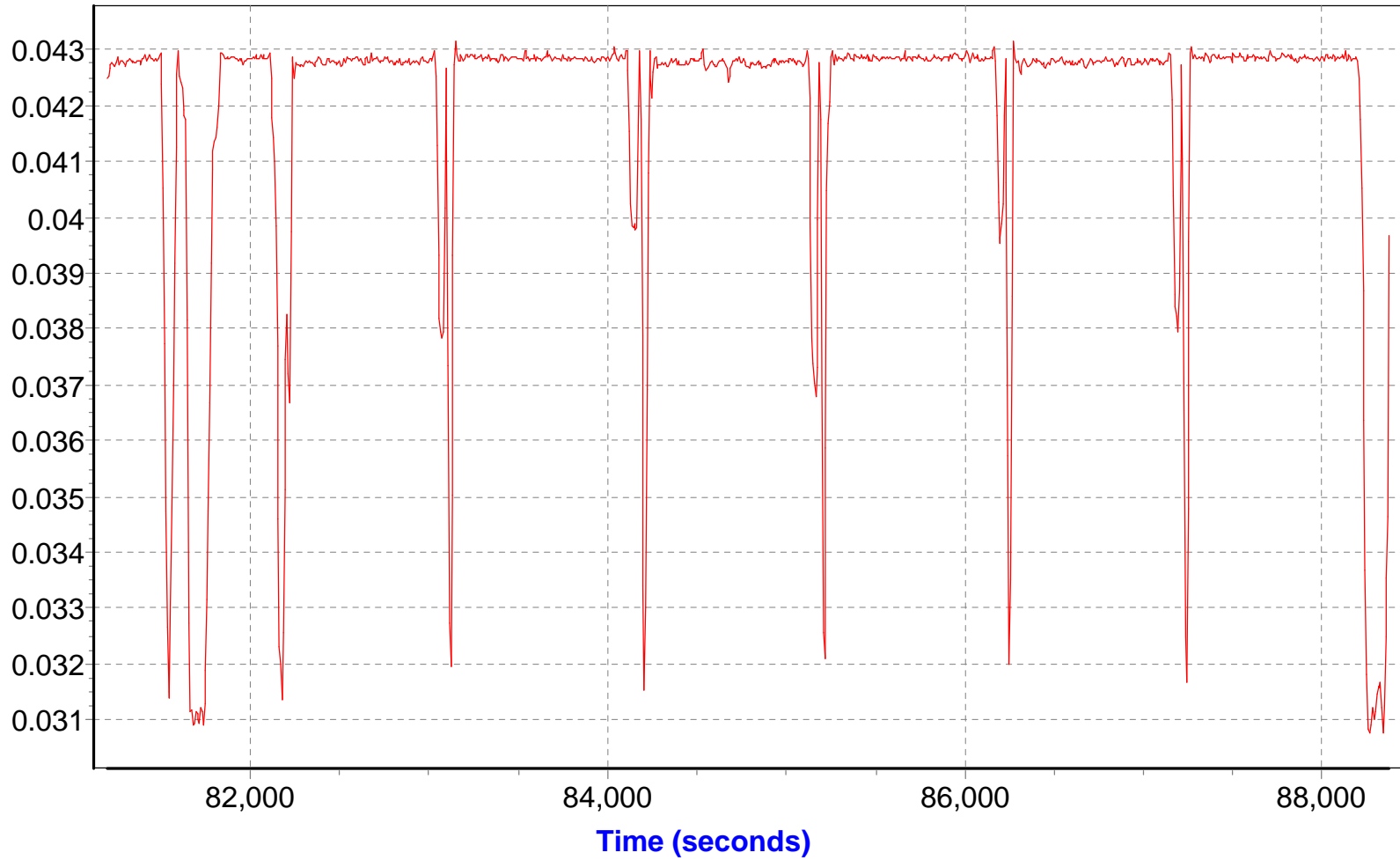
**S/D Navigator COS(Z Misalignment)-1 (radians)**



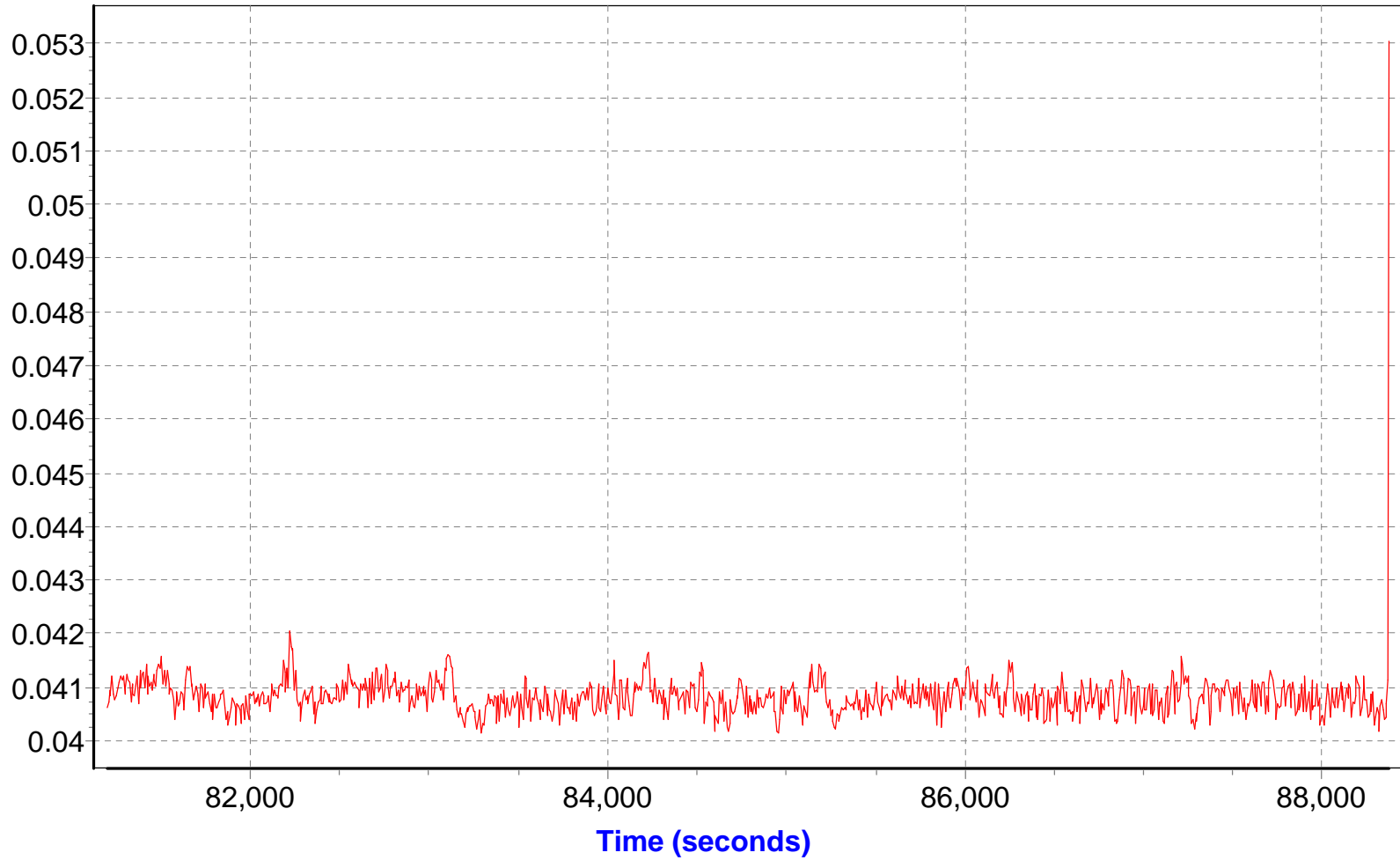
**S/D Navigator X Position RMS Error (meters)**



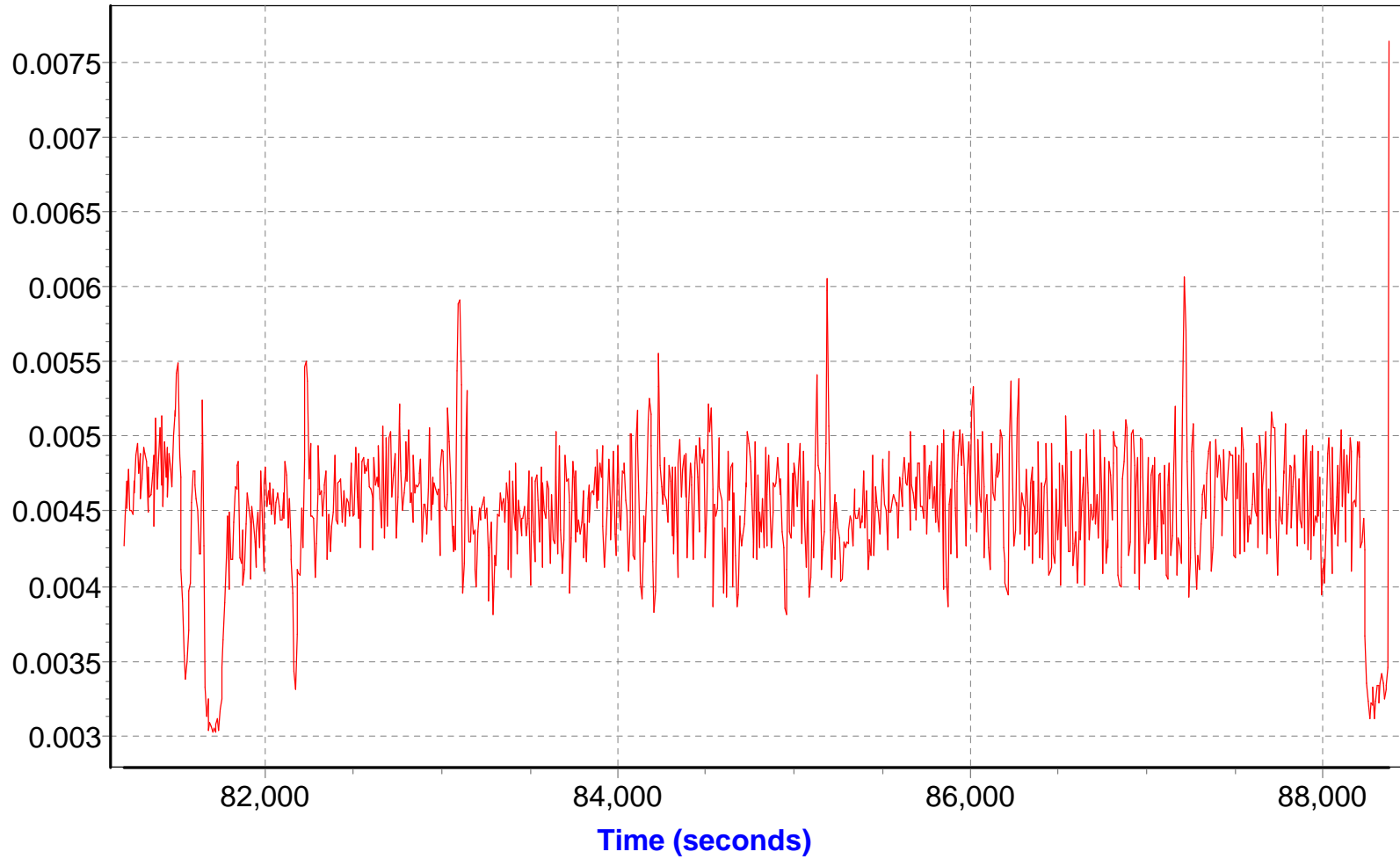
**S/D Navigator Y Position RMS Error (meters)**



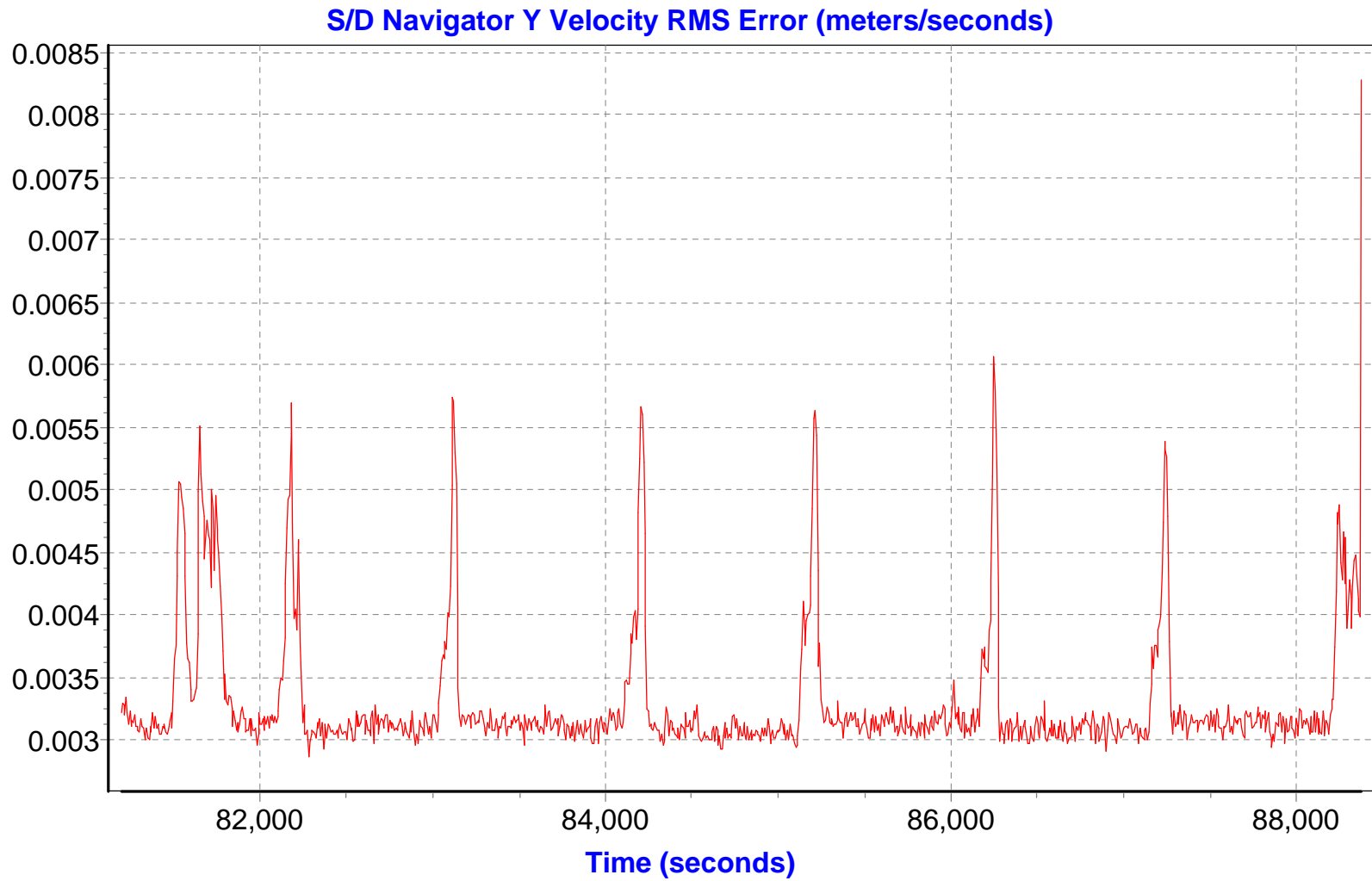
**S/D Navigator Z Position RMS Error (meters)**



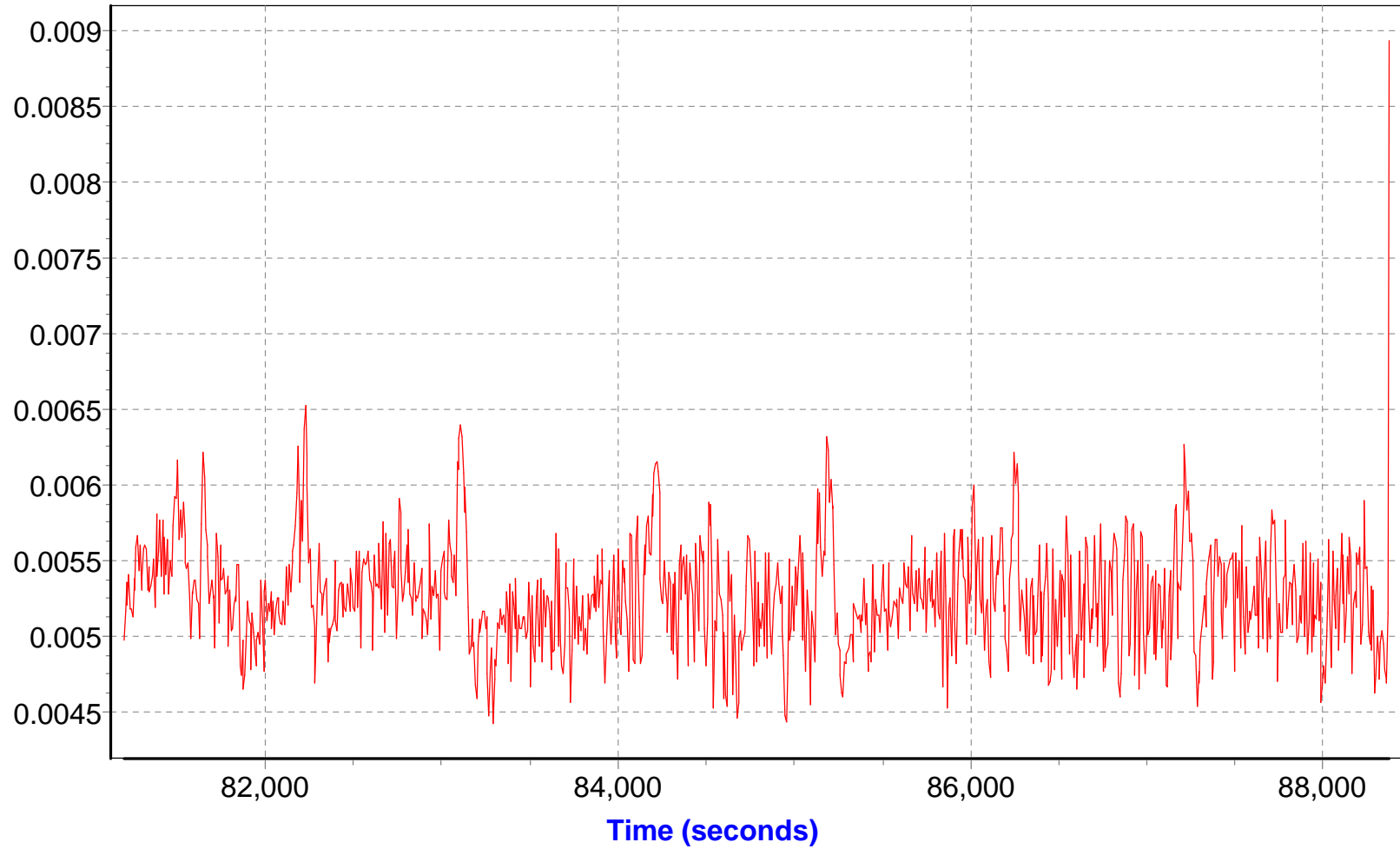
**S/D Navigator X Velocity RMS Error (meters/seconds)**



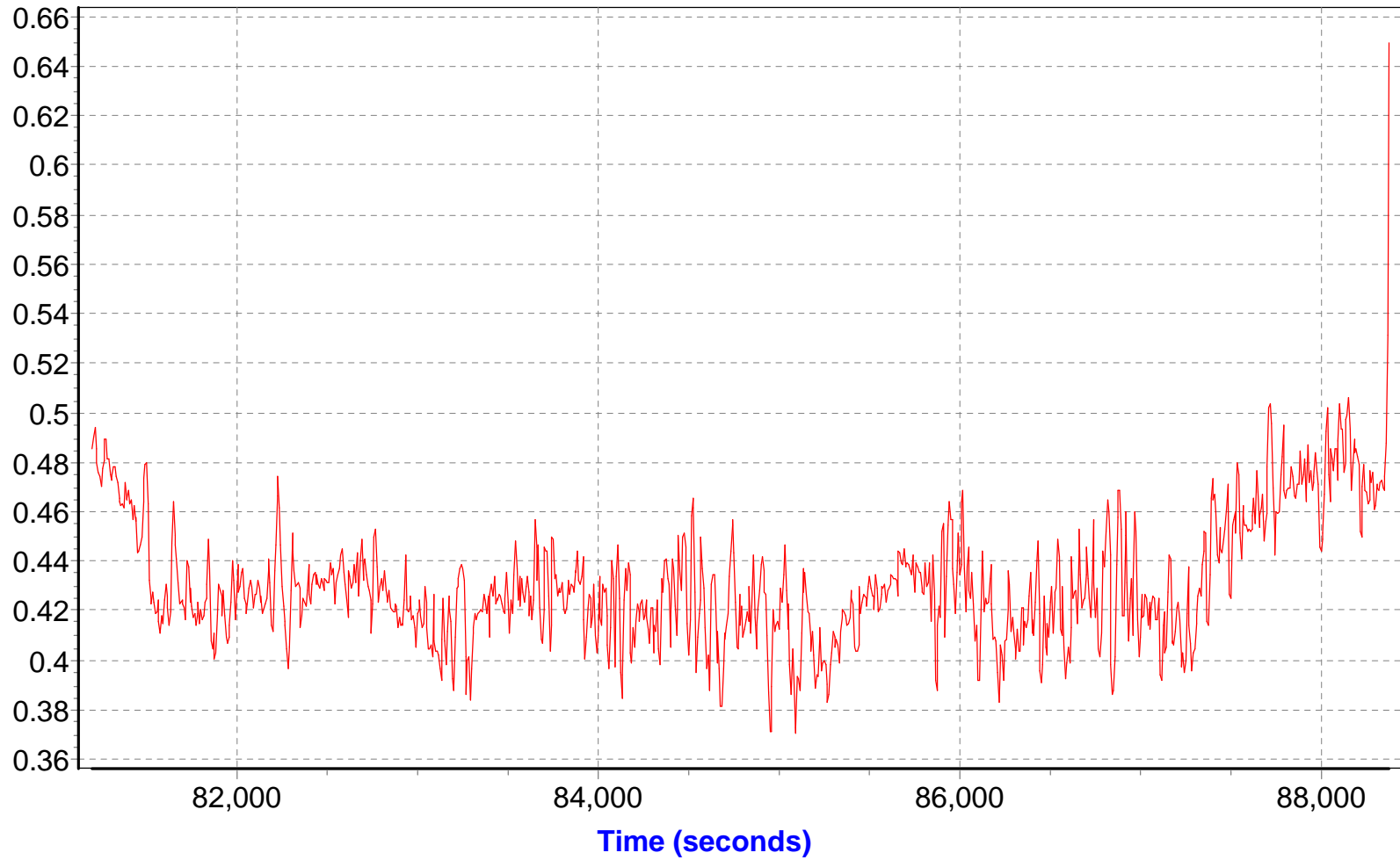




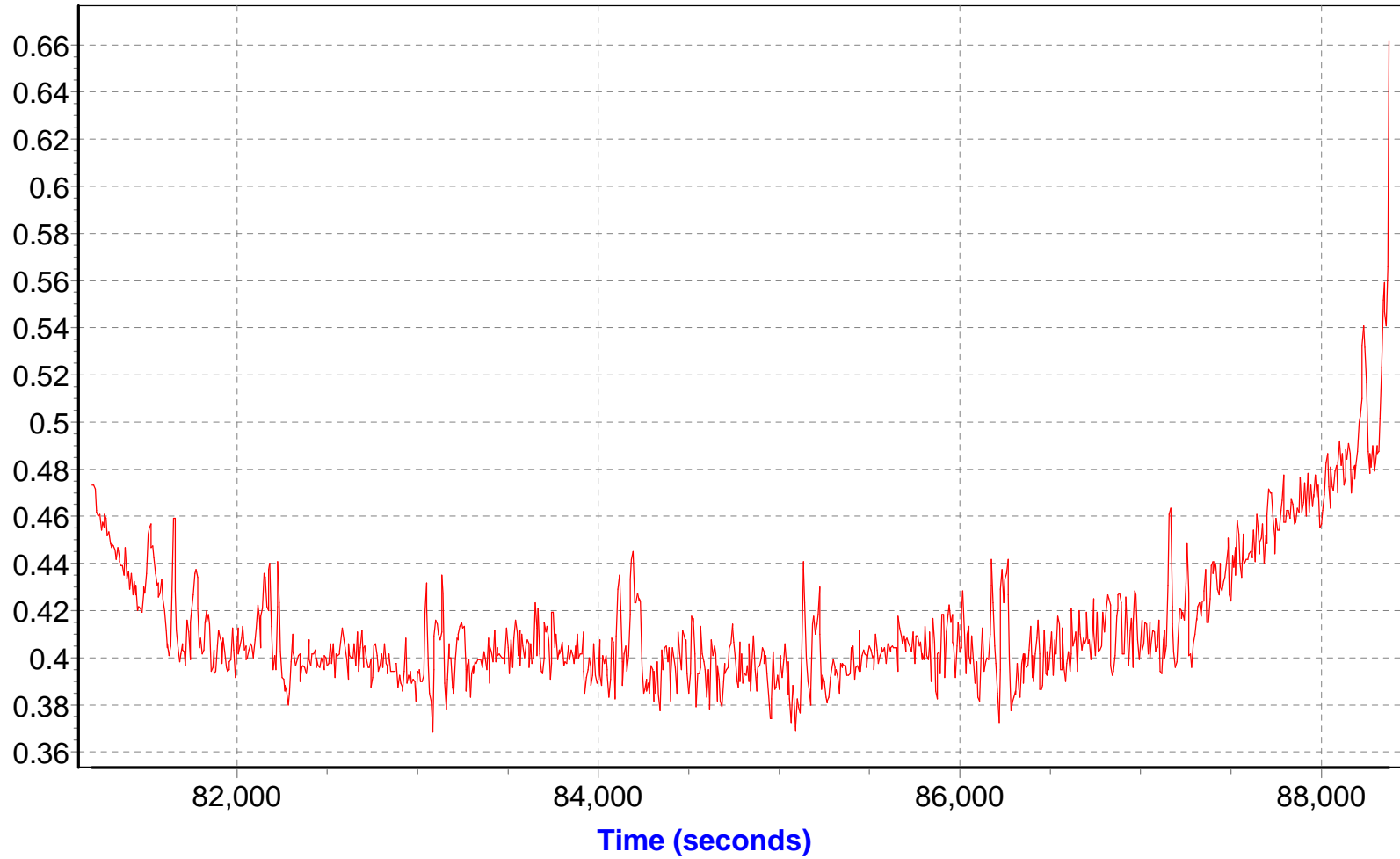
**S/D Navigator Z Velocity RMS Error (meters/seconds)**



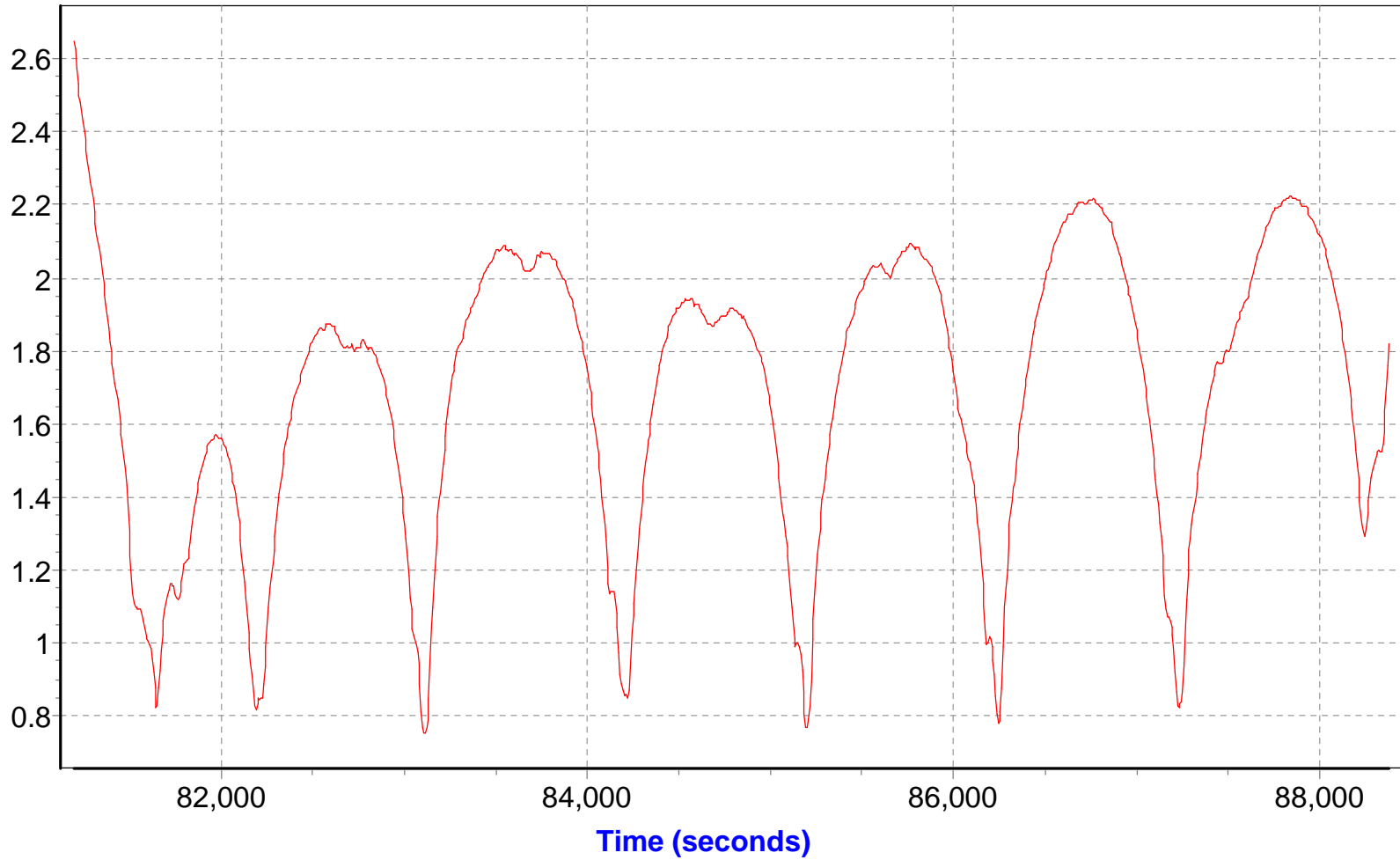
**S/D Navigator X Misalignment RMS (arcmin)**



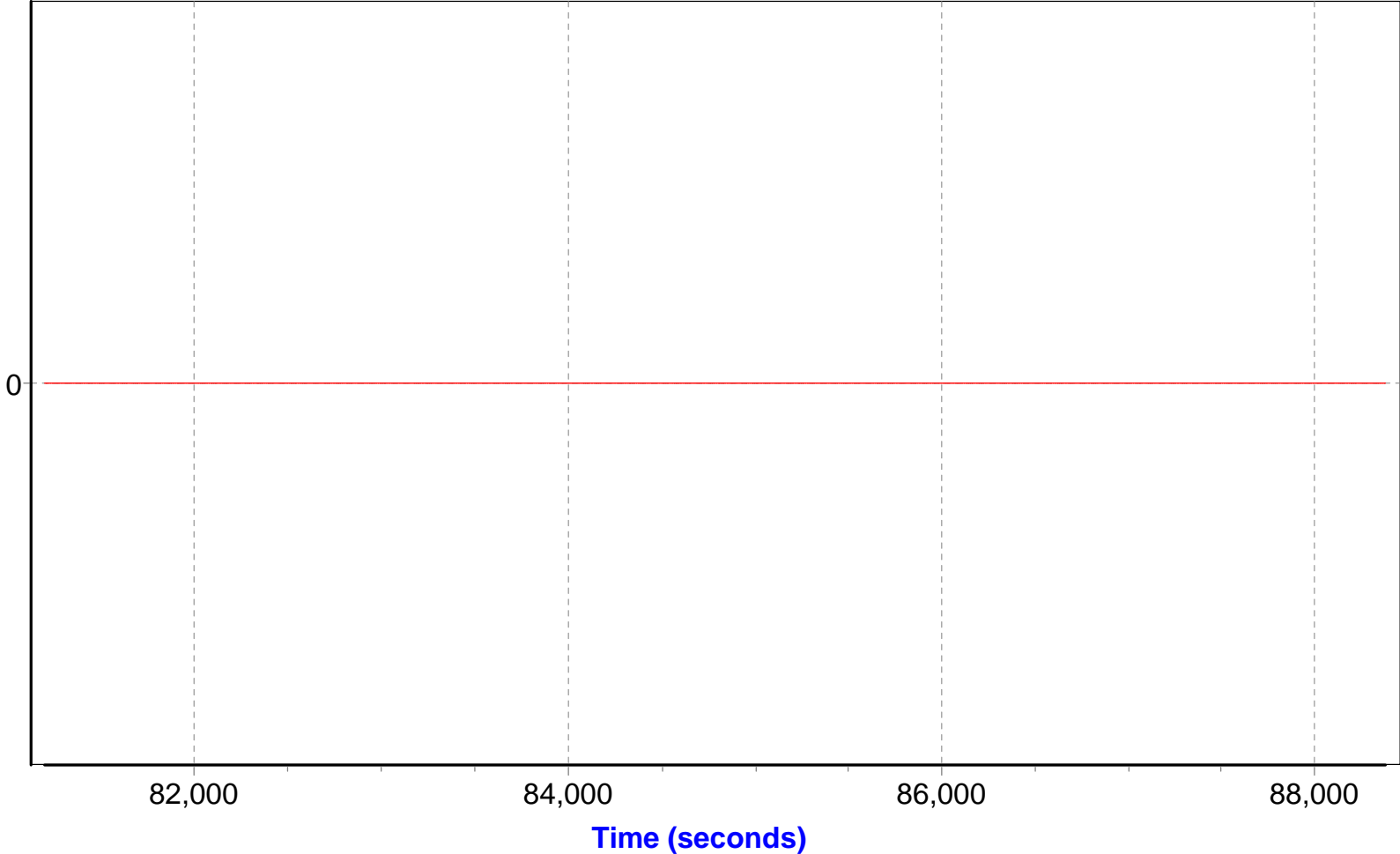
**S/D Navigator Y Misalignment RMS (arcmin)**



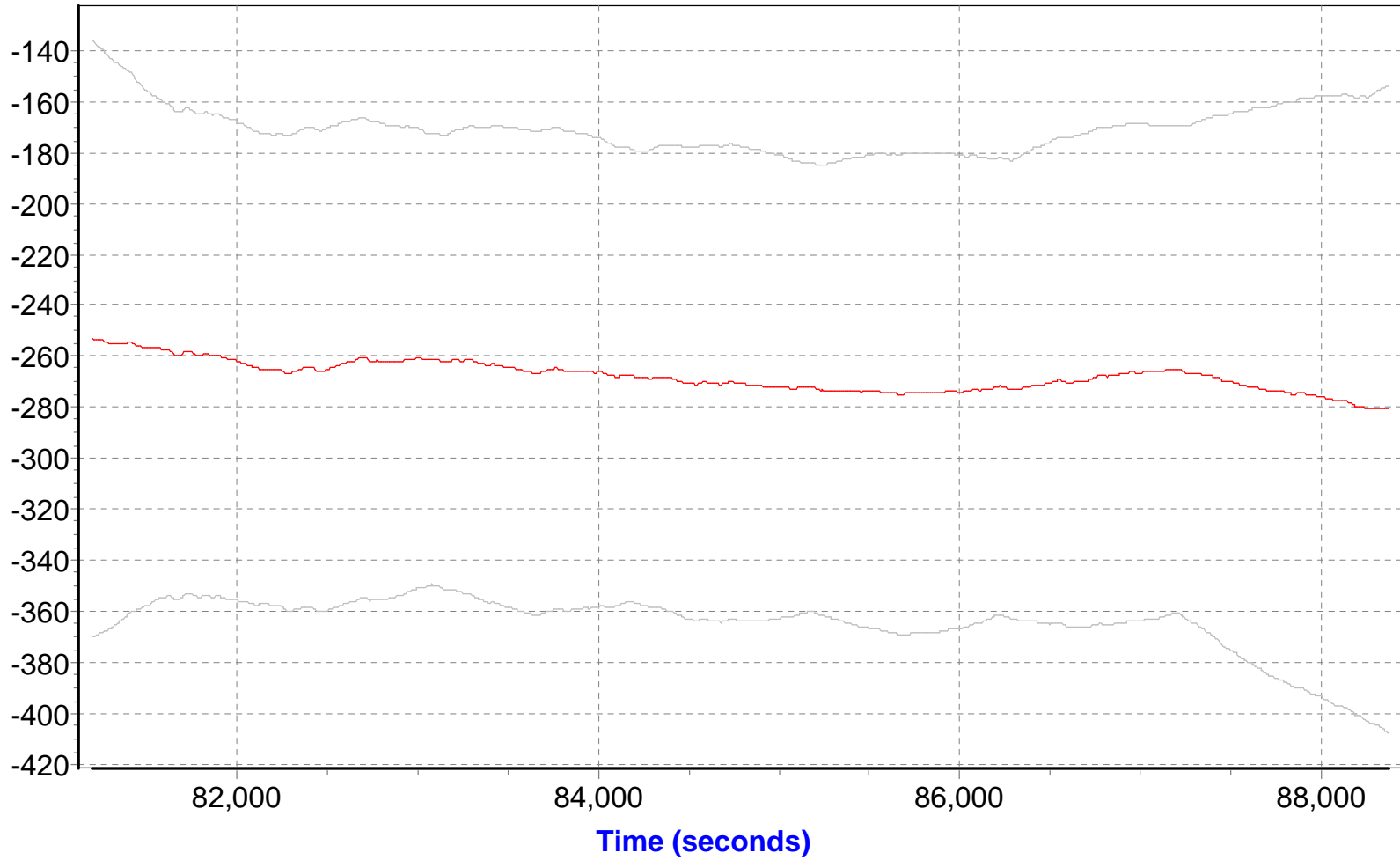
**S/D Navigator Z Misalignment RMS (arcmin)**



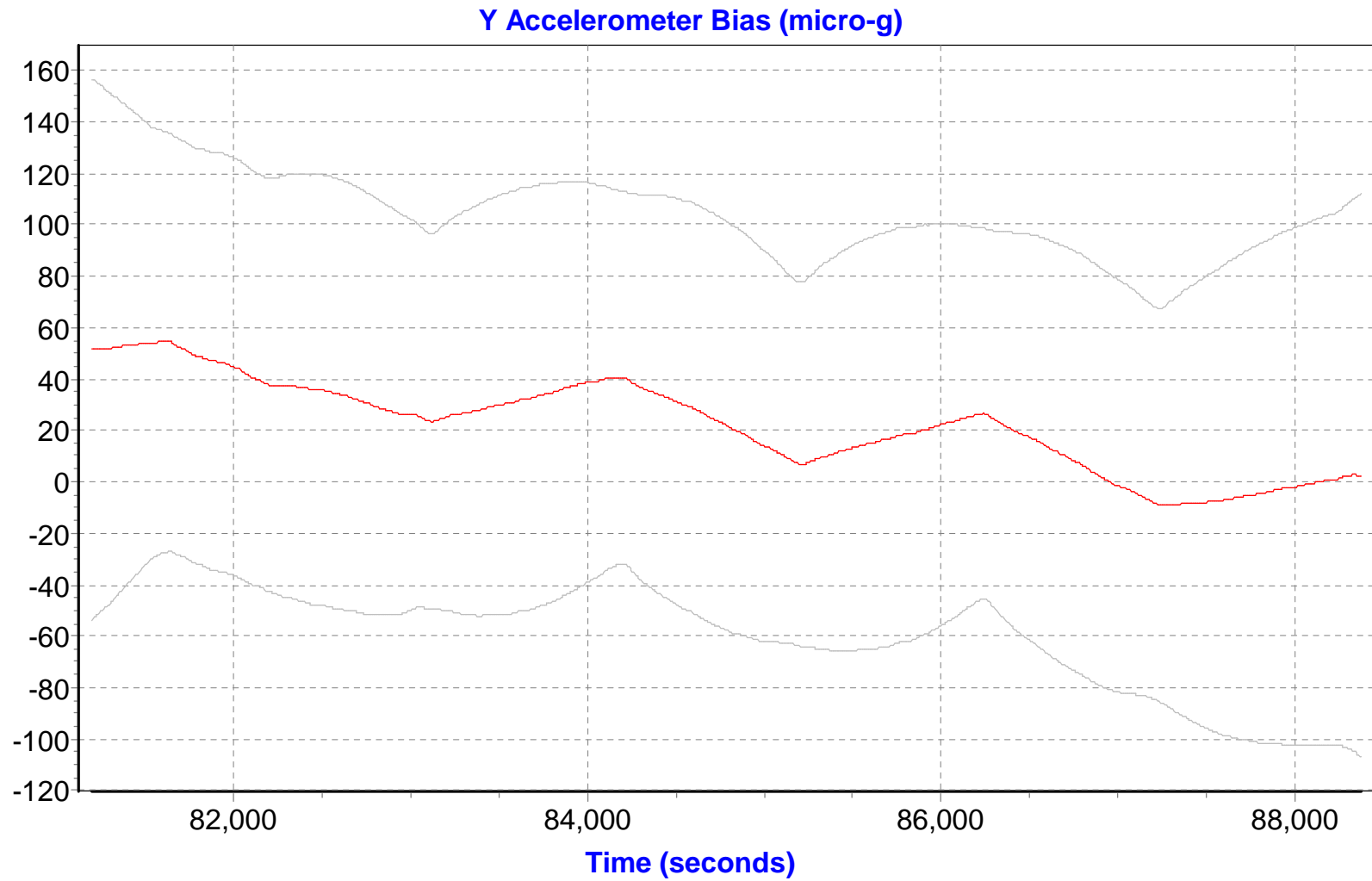
**S/D Navigator COS(Z Misalignment)-1 RMS (radians)**



**X Accelerometer Bias (micro-g)**

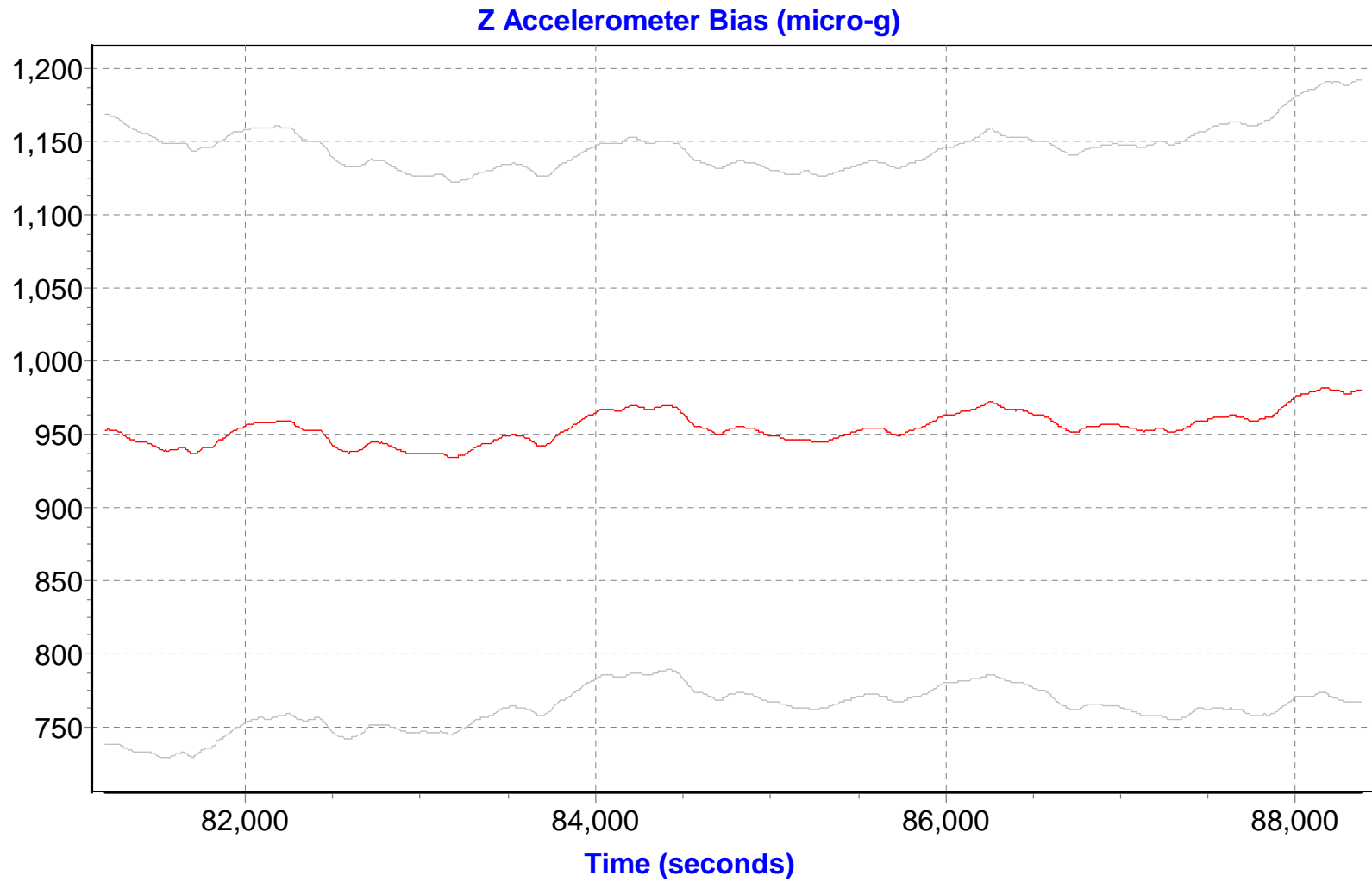


I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat



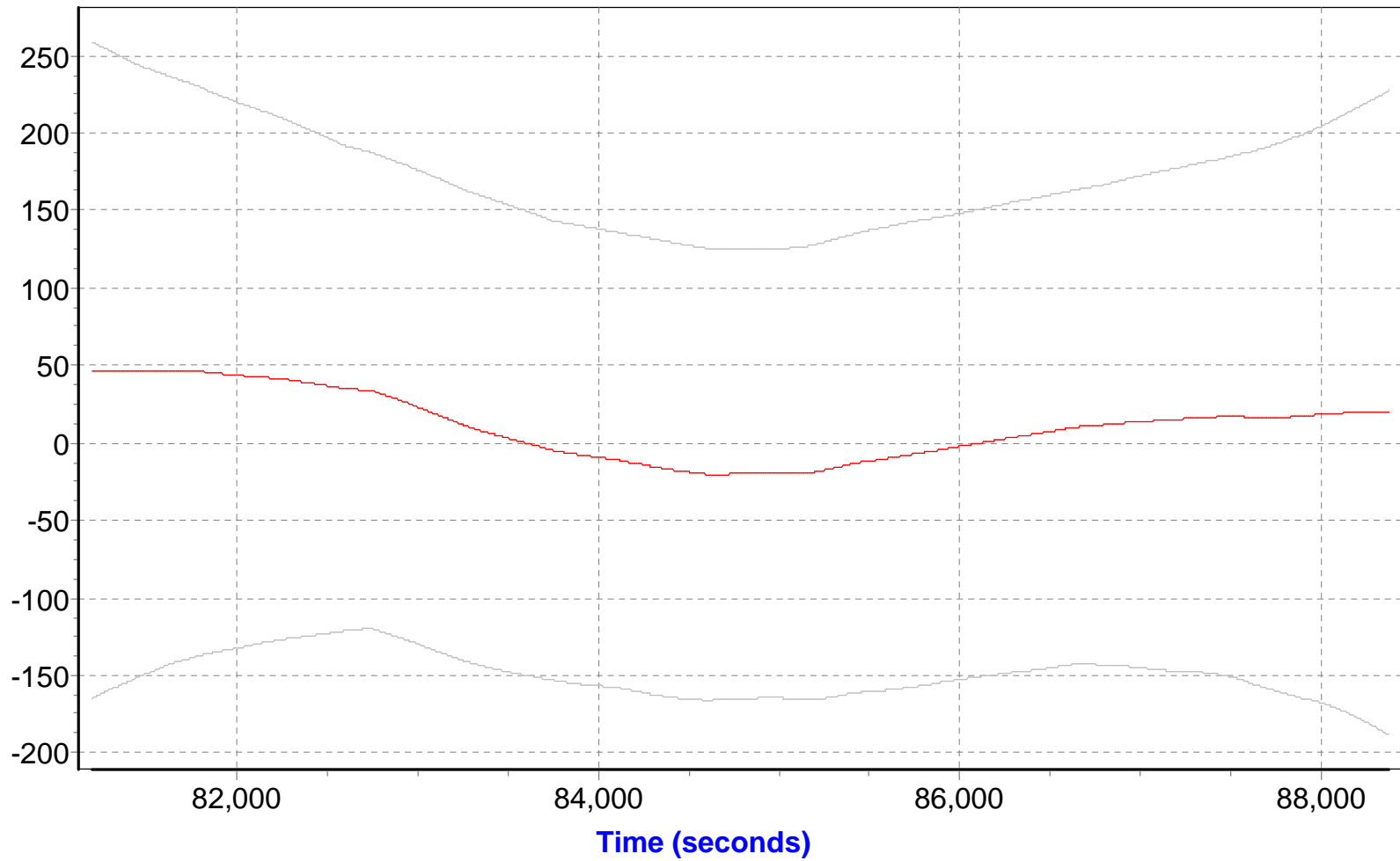
I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat



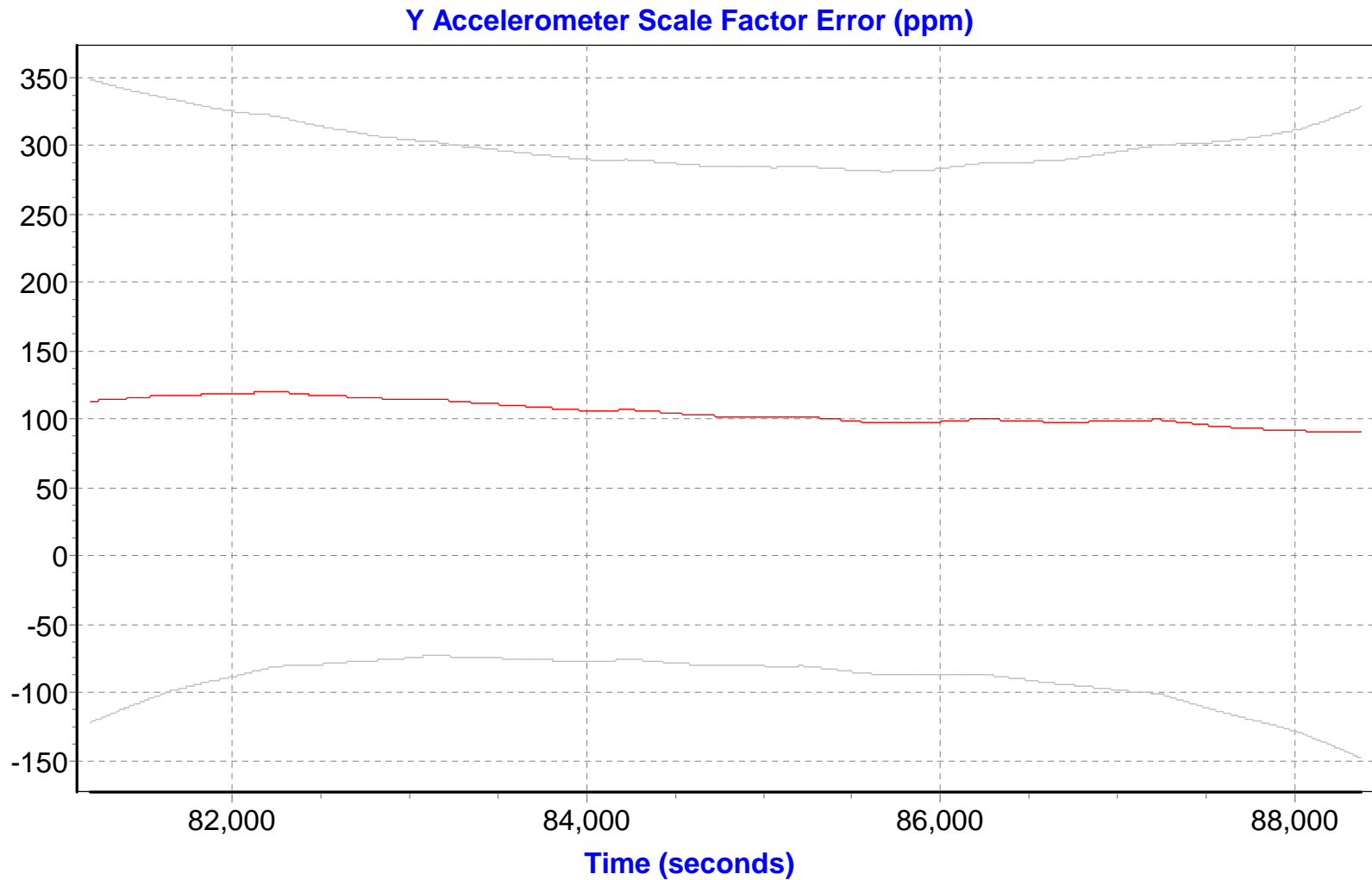


I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat

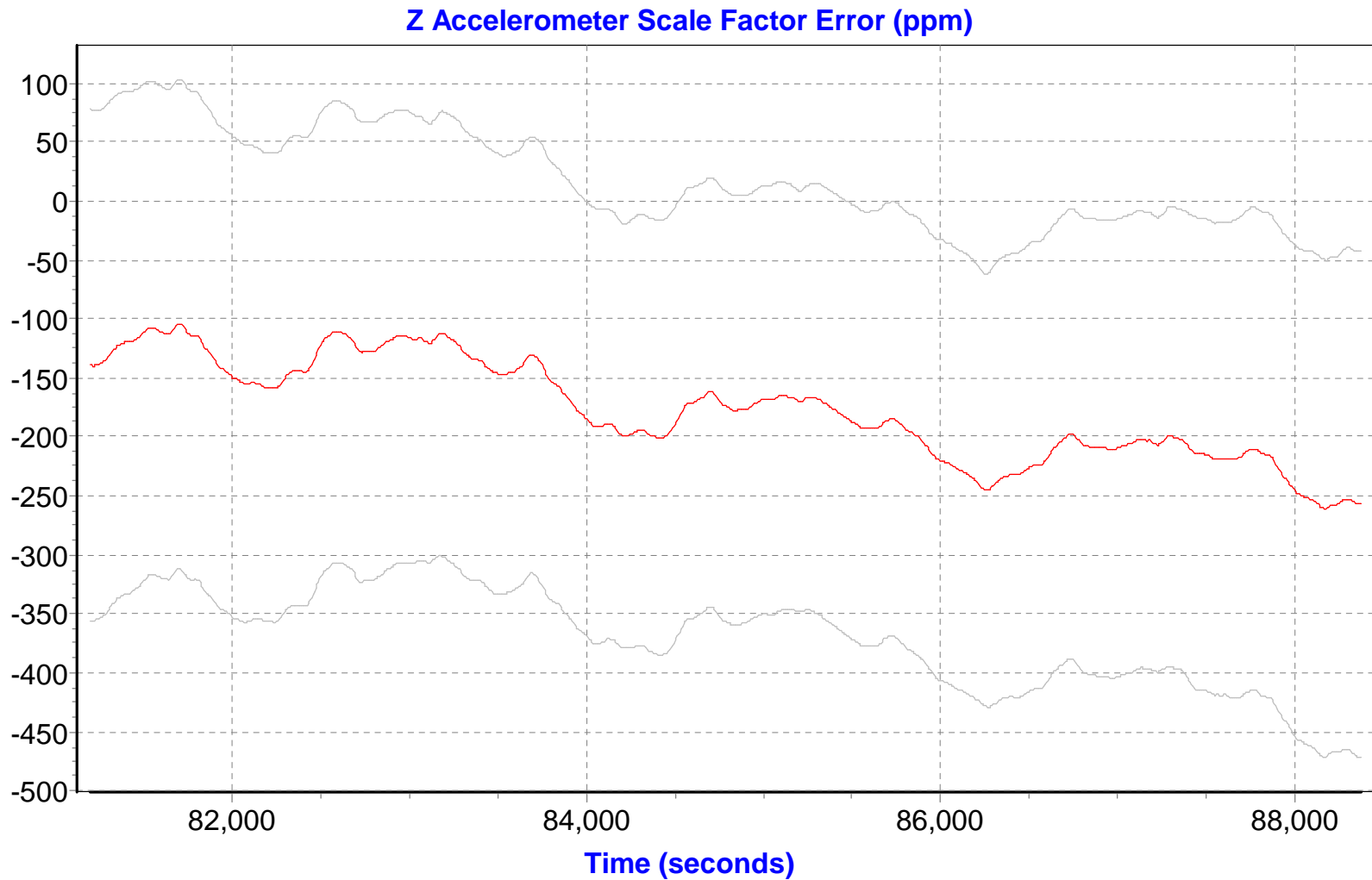
**X Accelerometer Scale Factor Error (ppm)**



I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat

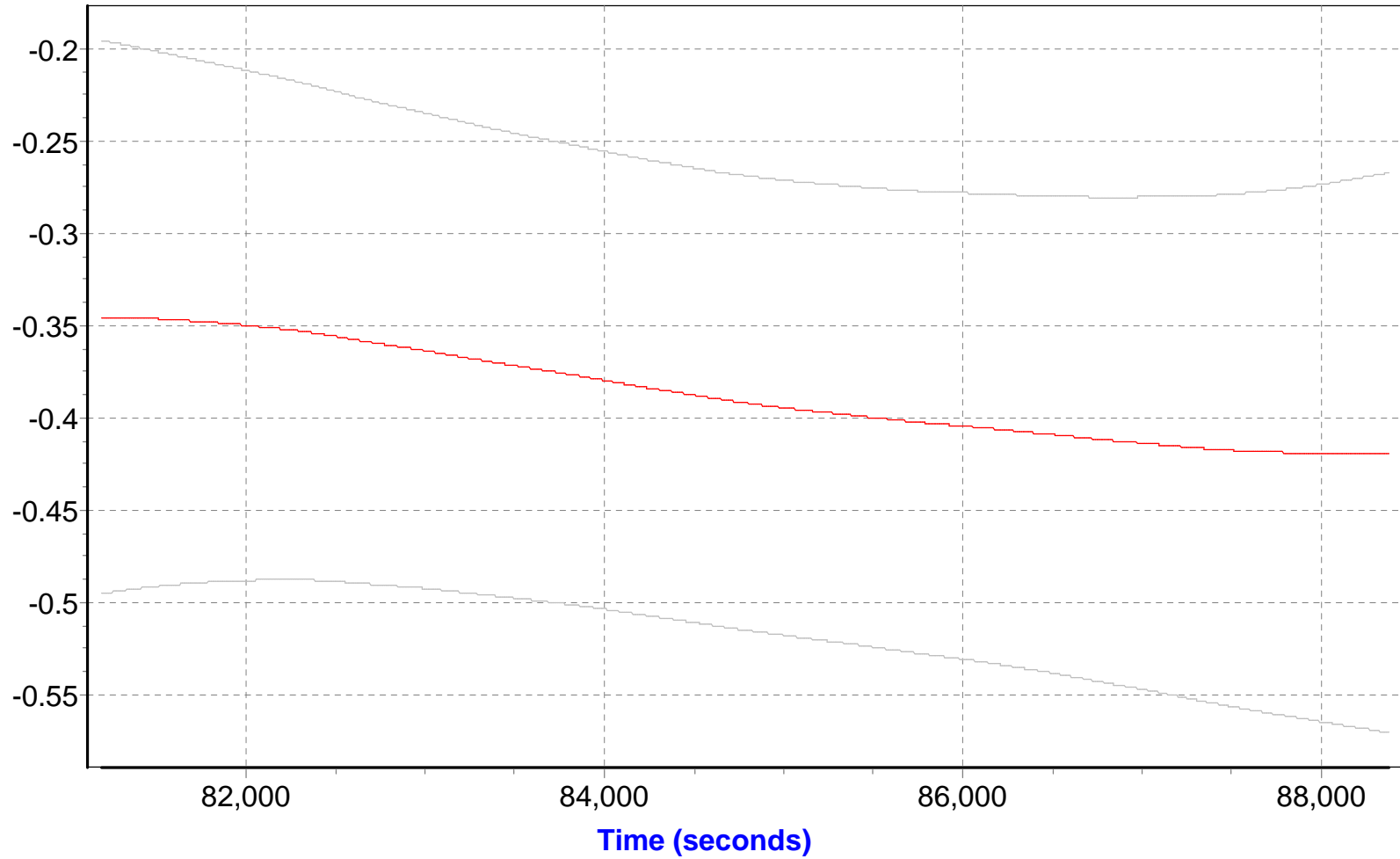


I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat

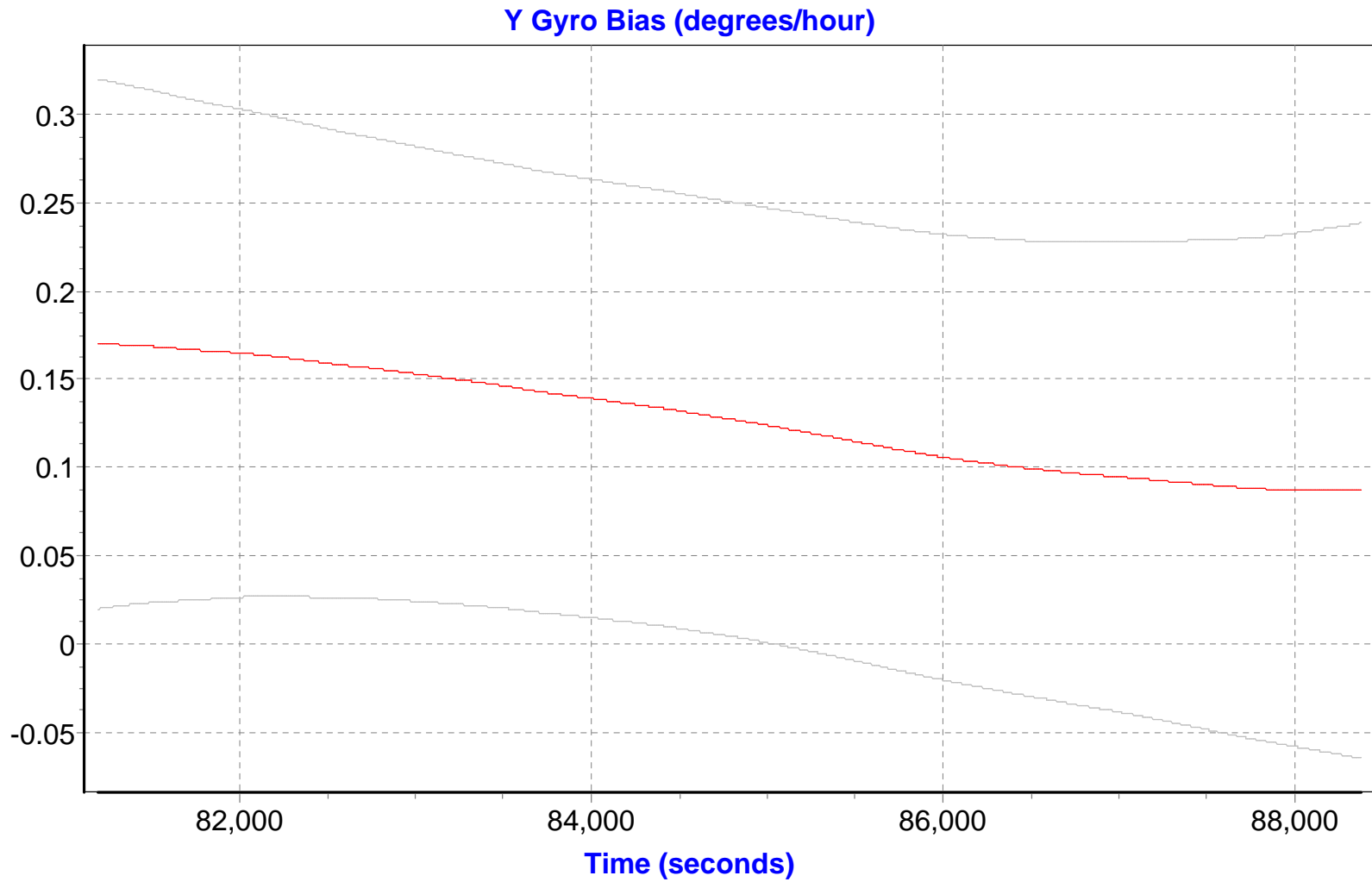


I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat

**X Gyro Bias (degrees/hour)**

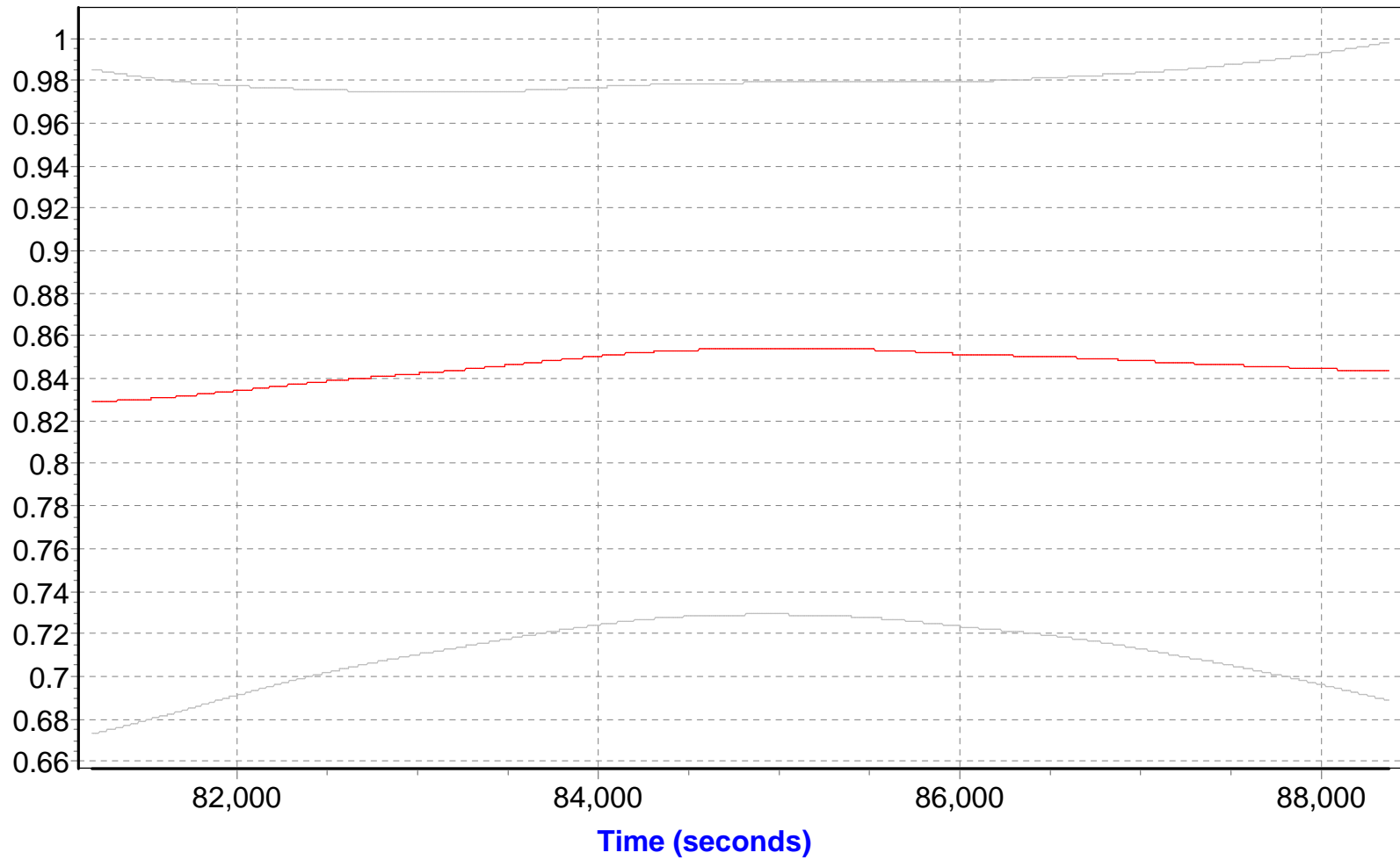


I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat

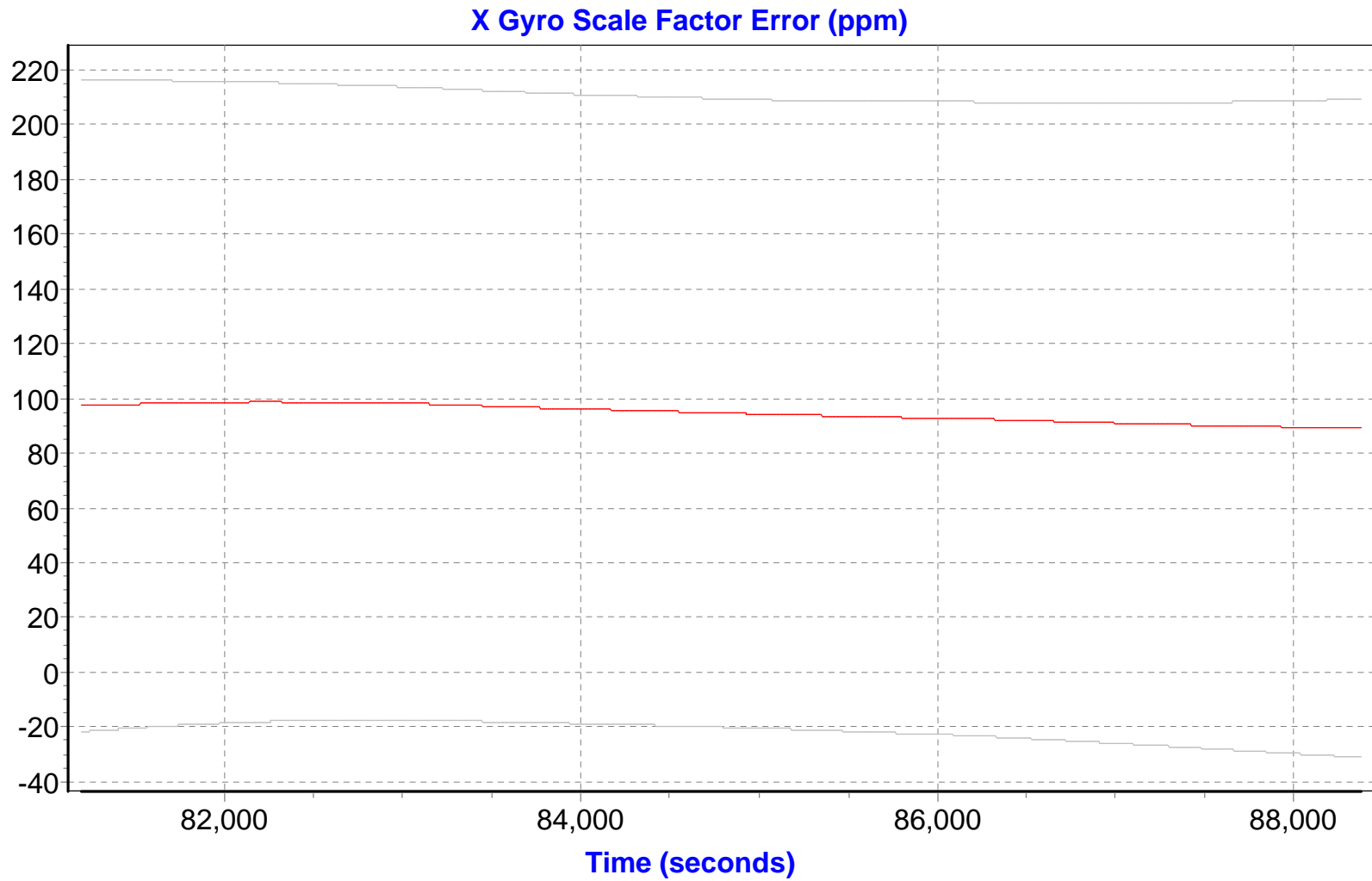


I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat

**Z Gyro Bias (degrees/hour)**



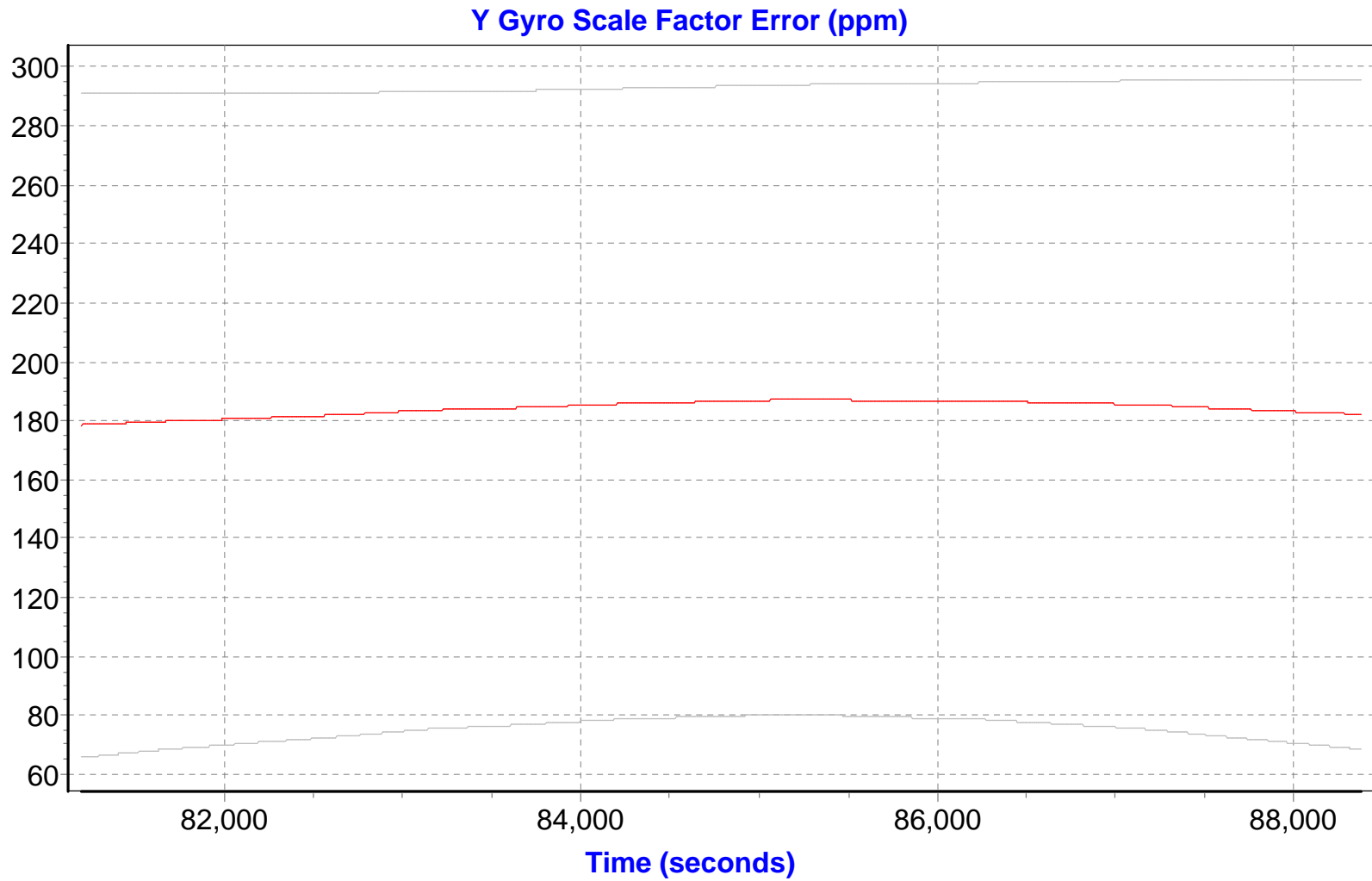
I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat



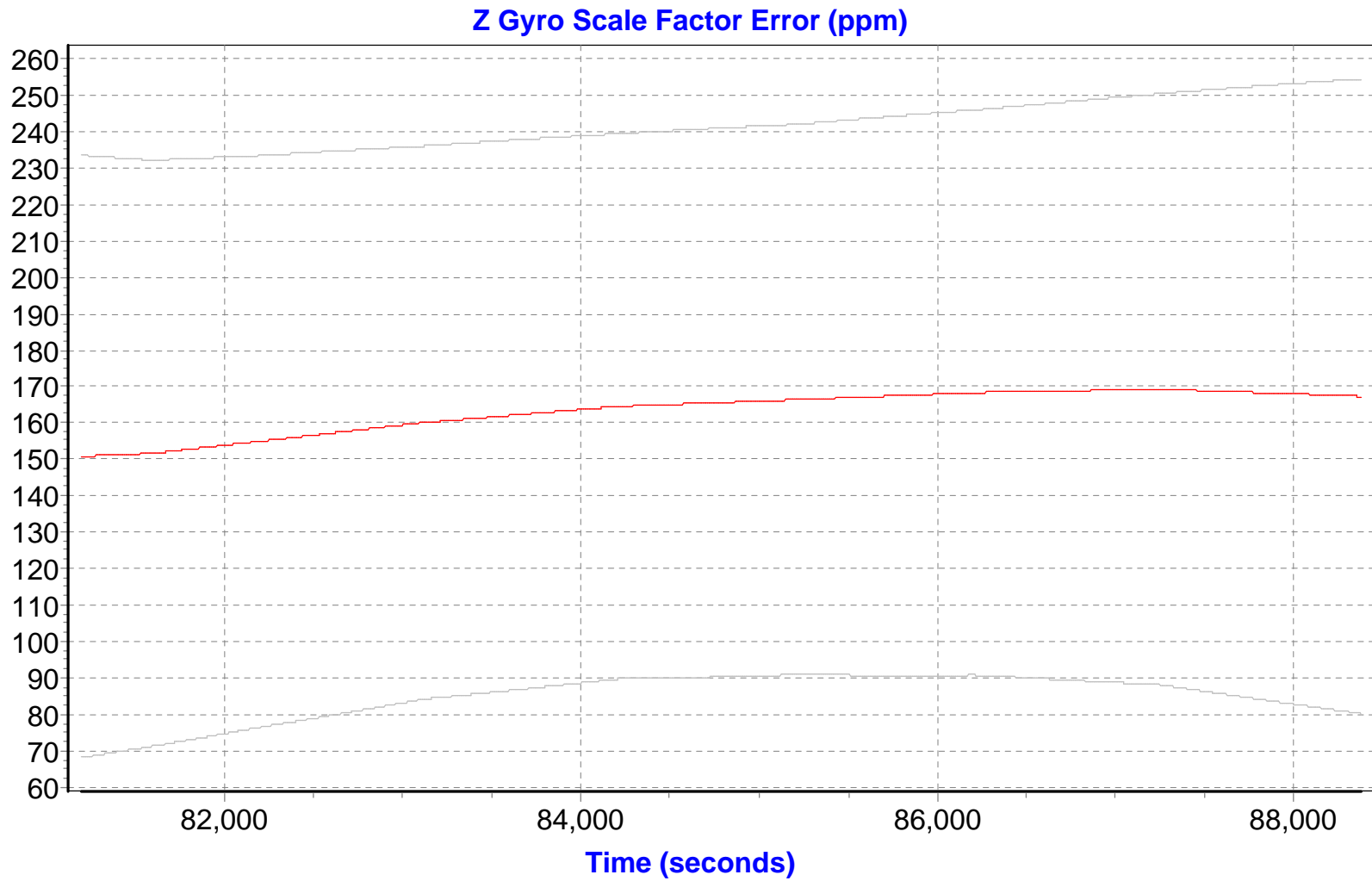
I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat

I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat





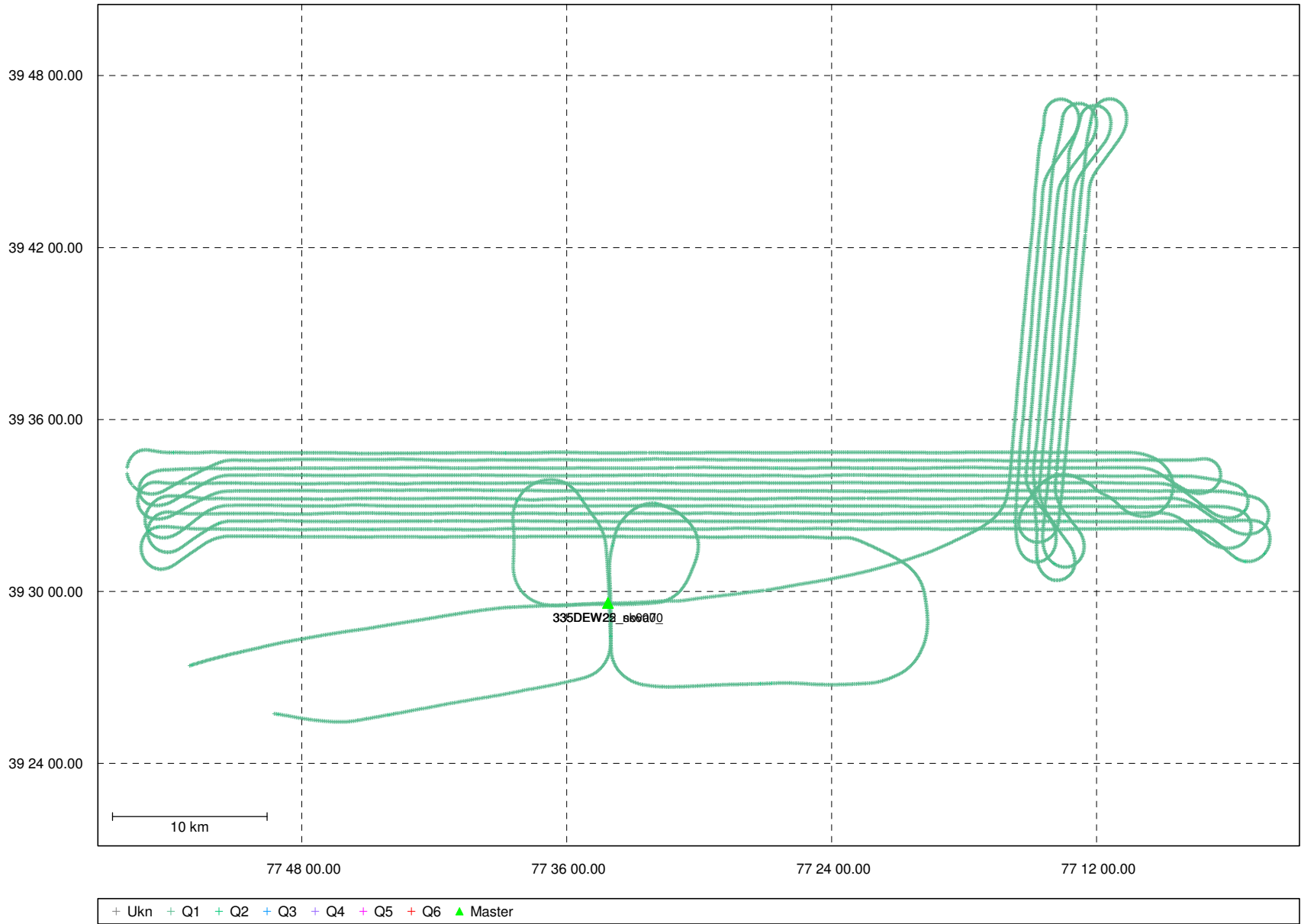
I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat



I:\o112071b\3\_Processed\Extract\smers\_o112071b.dat  
I:\o112071b\3\_Processed\Extract\smrms\_o112071b.dat

### Combined - Map Run (6)

Geographic, DMS



Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project:  
E:\Projects\335DEW11\_USGS\_MD\_VA\_cont\2\_Operations\6\_Missions\o112072a\3\_Processed\GPS\o112072a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 183809  
No processed position: 165457  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0179 (m)  
C/A Code: 0.80 (m)  
L1 Doppler: 0.036 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.032 (m)  
North: 0.067 (m)  
Height: 0.117 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (16985 occurrences):  
East: 0.019 (m)  
North: 0.023 (m)  
Height: 0.045 (m)

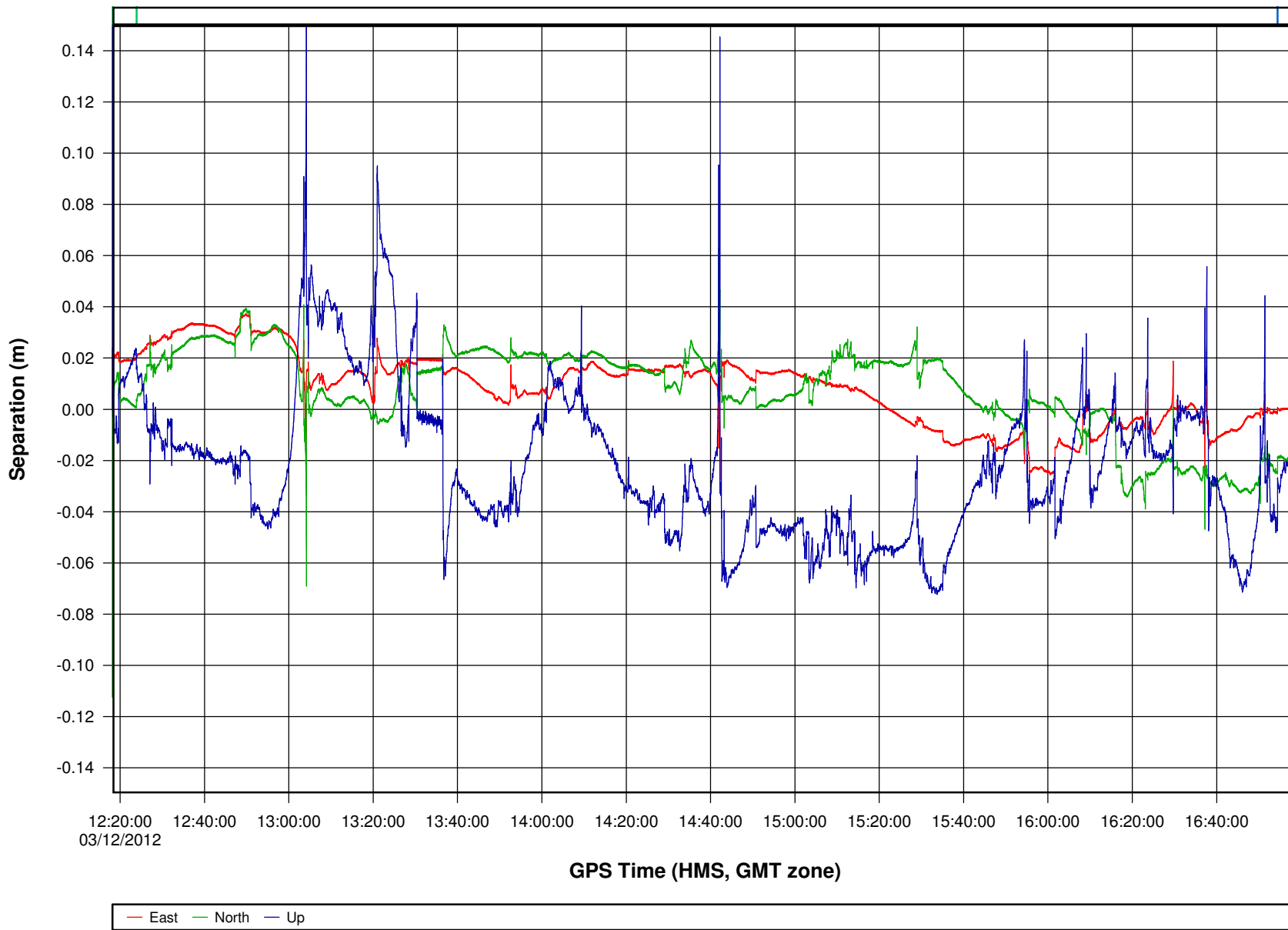
Quality Number Percentages:  
Q 1: 98.0 %  
Q 2: 2.0 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:  
0.00 - 0.10 m: 95.9 %  
0.10 - 0.30 m: 4.1 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

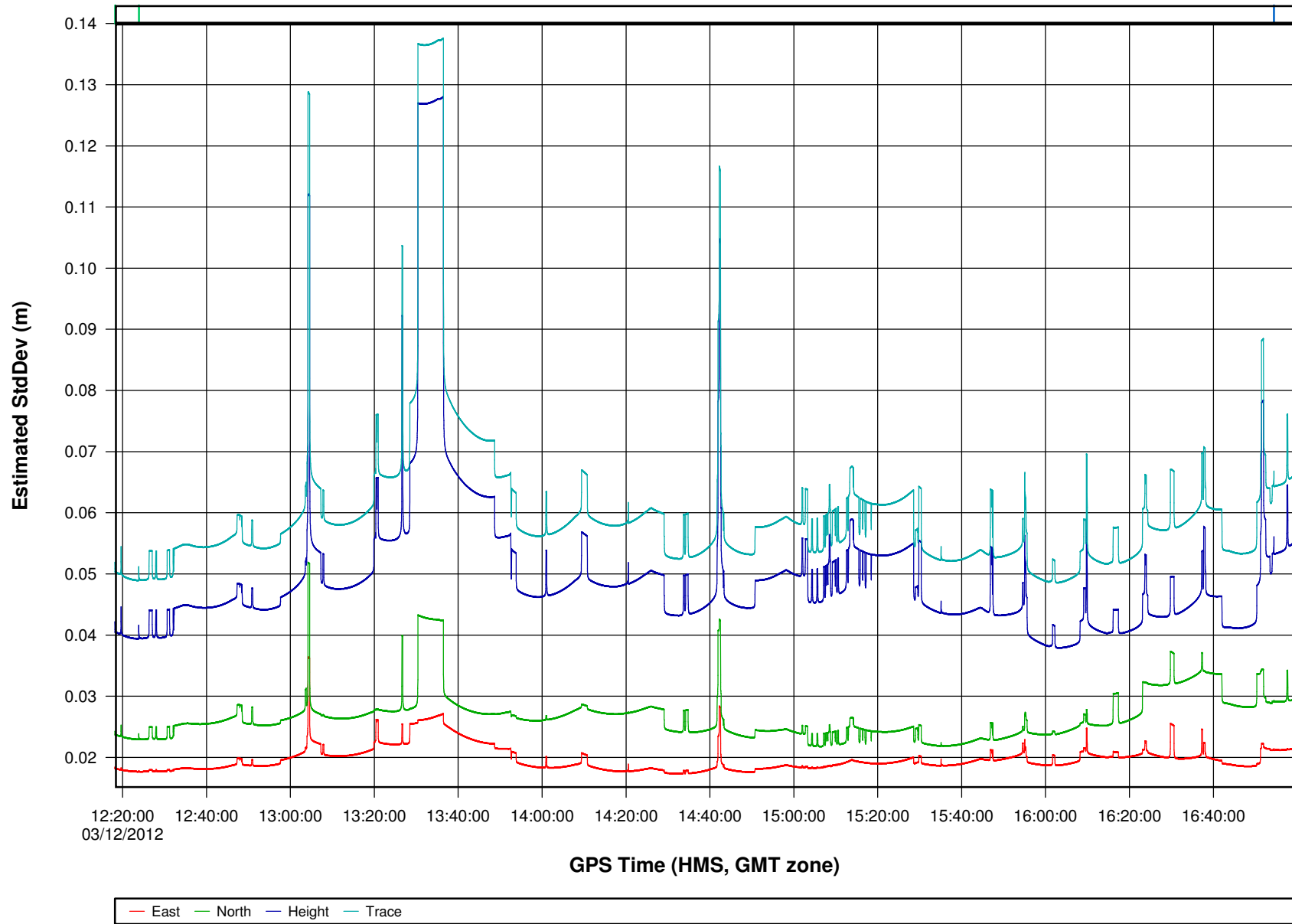
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 3.4 %

Baseline Distances:  
Maximum: 46.329 (km)  
Minimum: 1.029 (km)  
Average: 23.437 (km)  
First Epoch: 37.147 (km)  
Last Epoch: 37.173 (km)

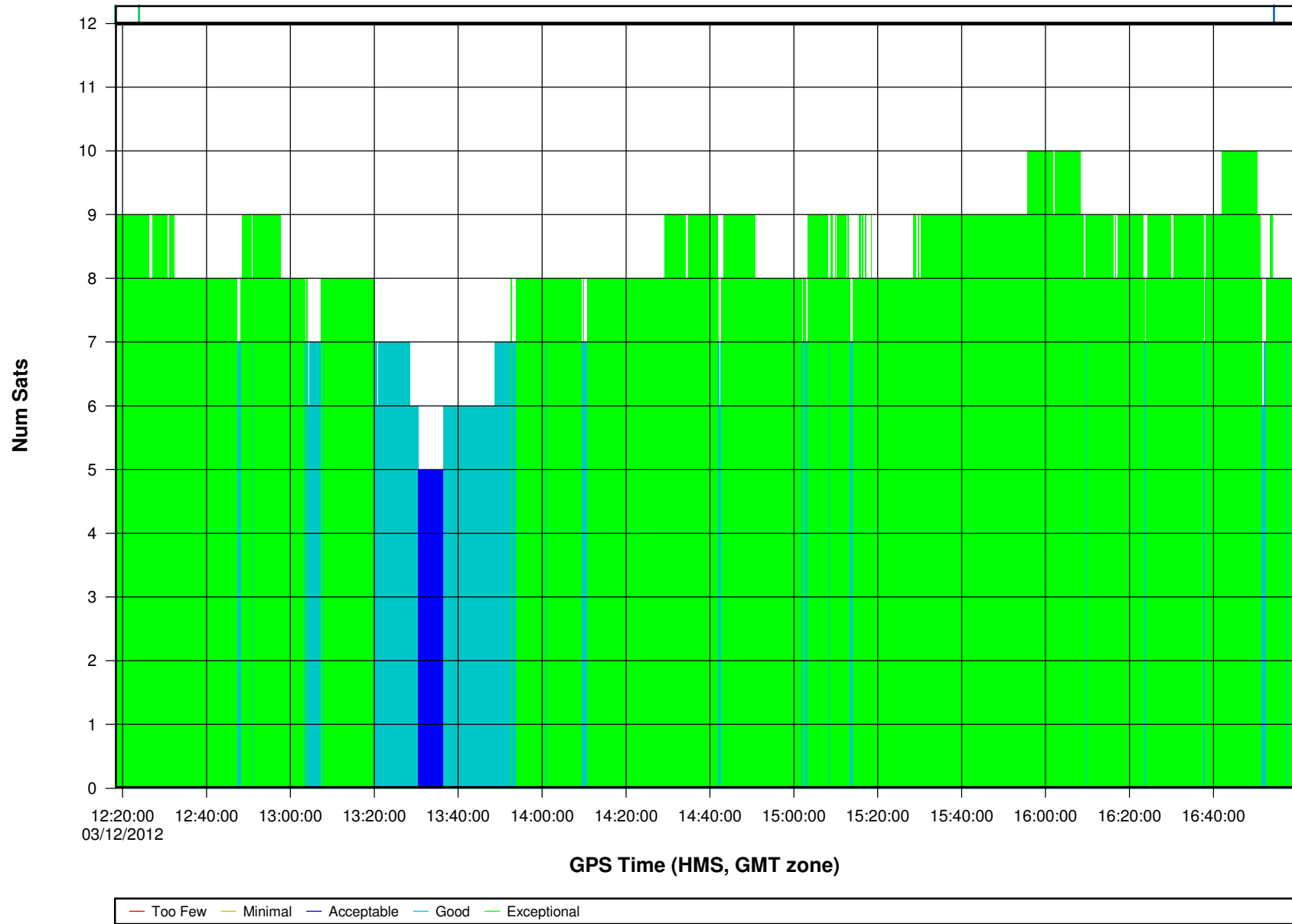
### o112072a [Combined] - Forward/Reverse or Combined Separation Plot



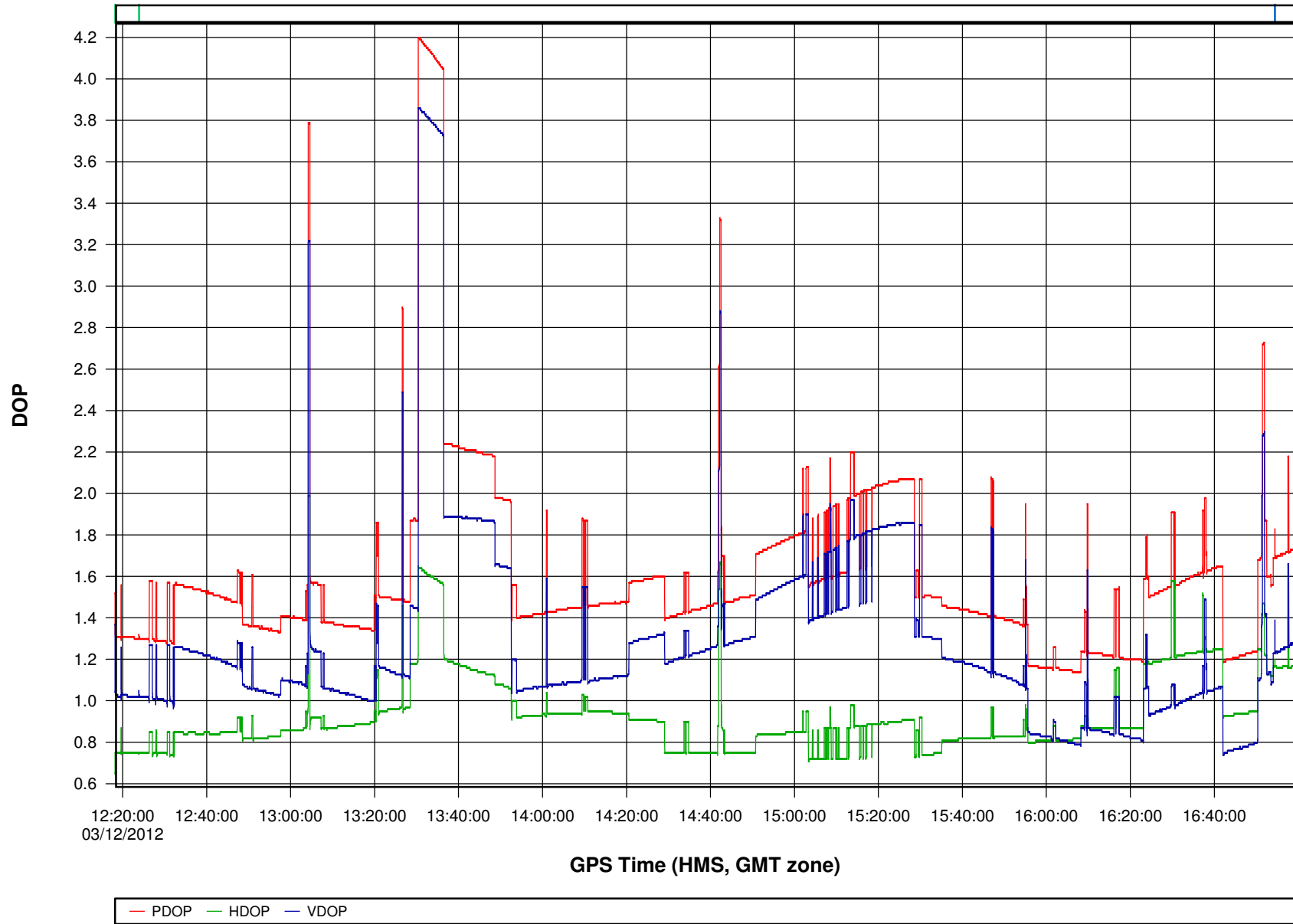
### o112072a [Combined] - Estimated Position Accuracy Plot



### o112072a [Combined] - Number of Satellites Bar Plot

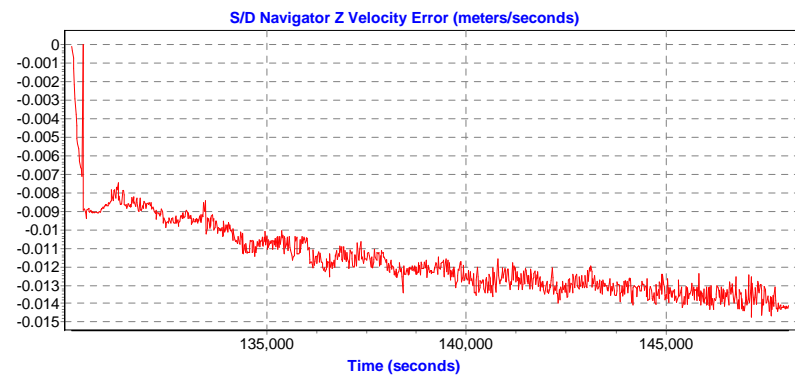
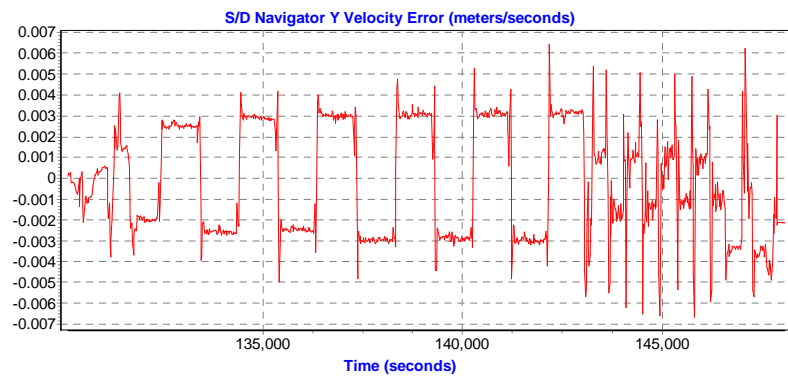
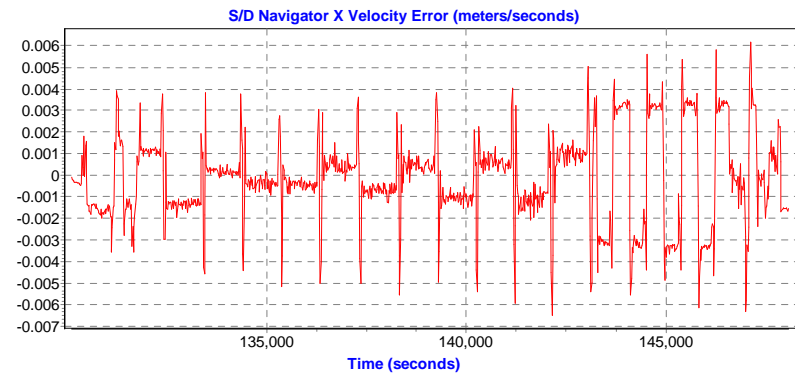
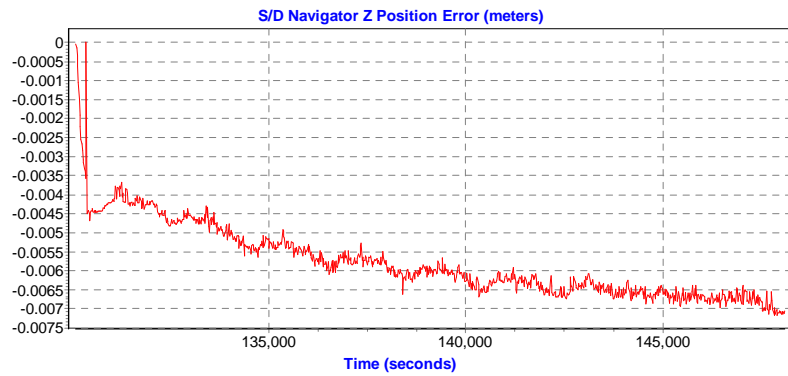
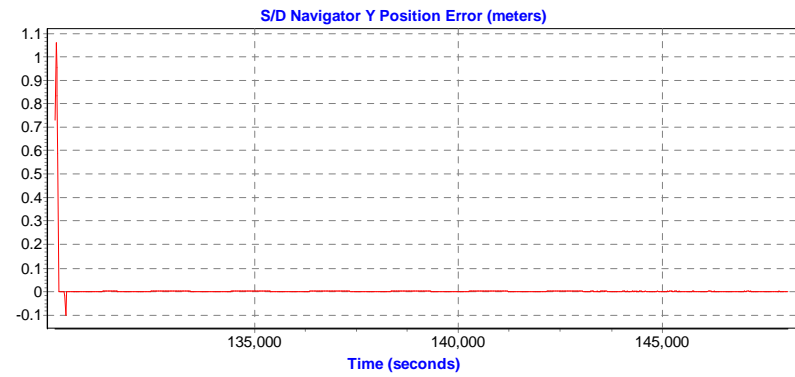
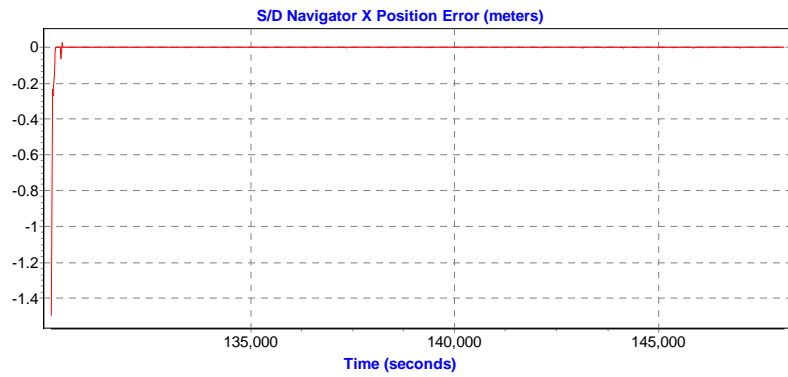


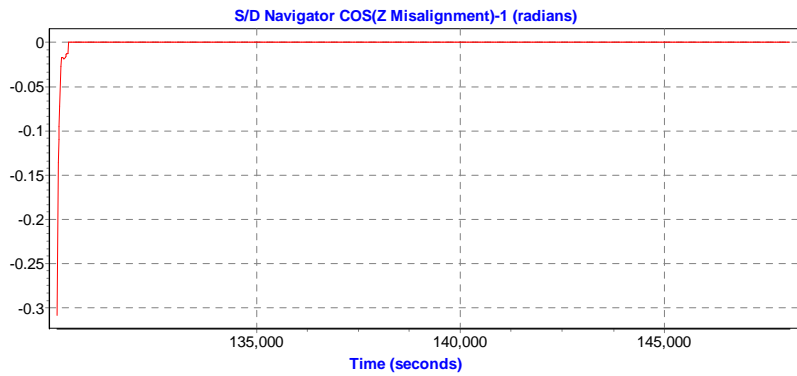
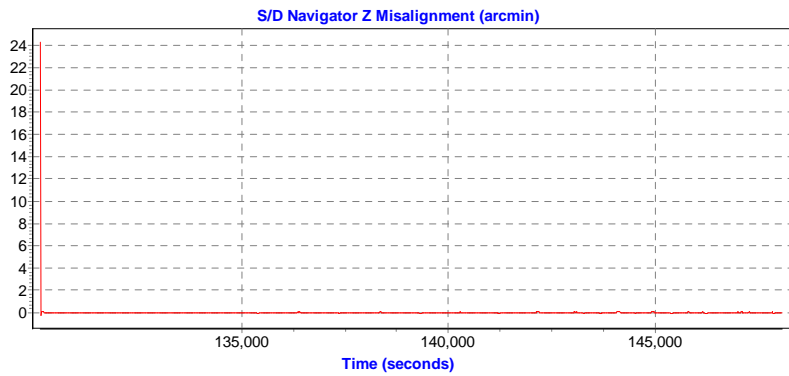
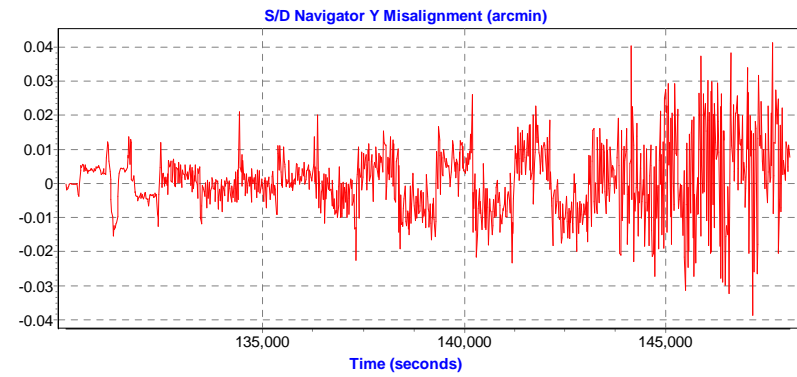
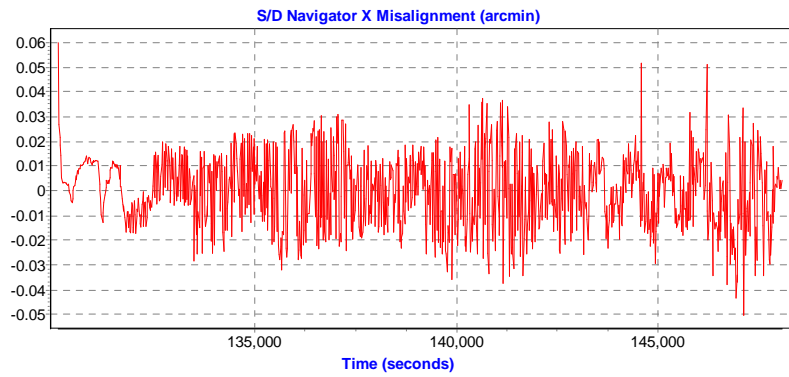
**o112072a [Combined] - PDOP, HDOP, VDOP Plots**

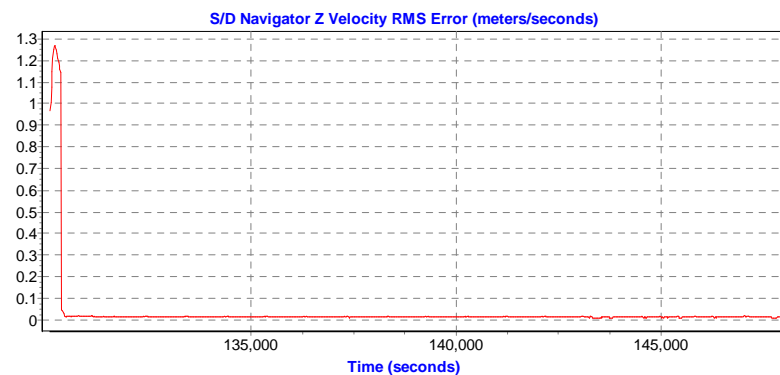
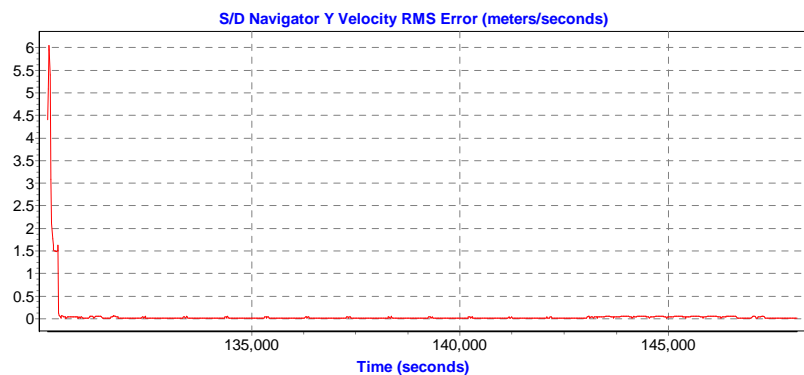
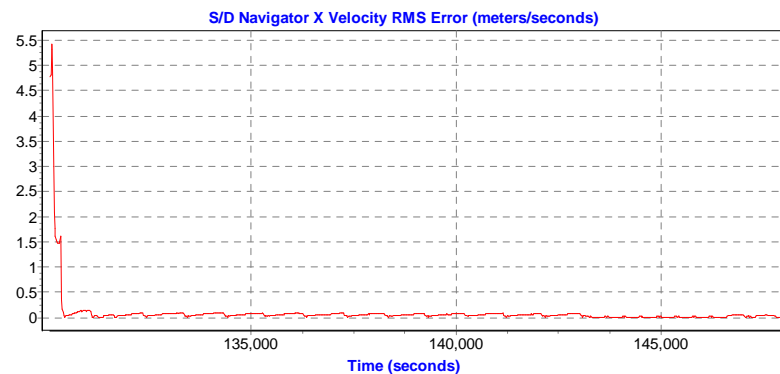
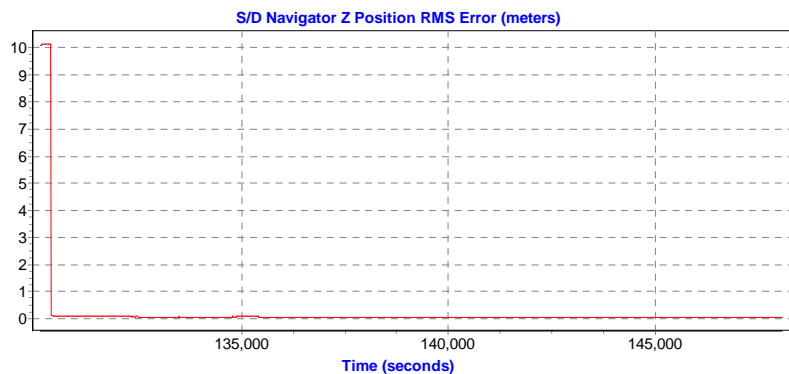
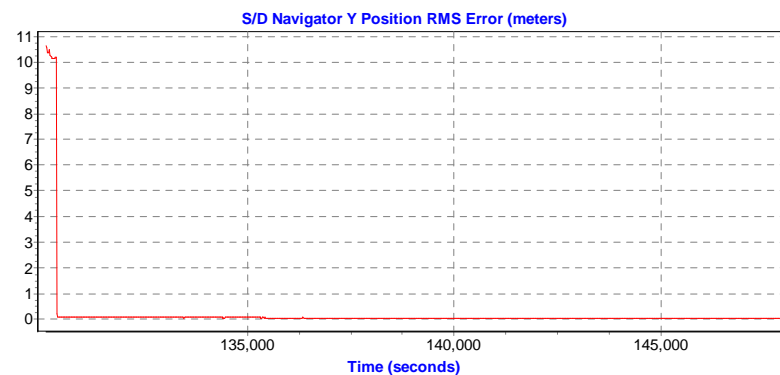
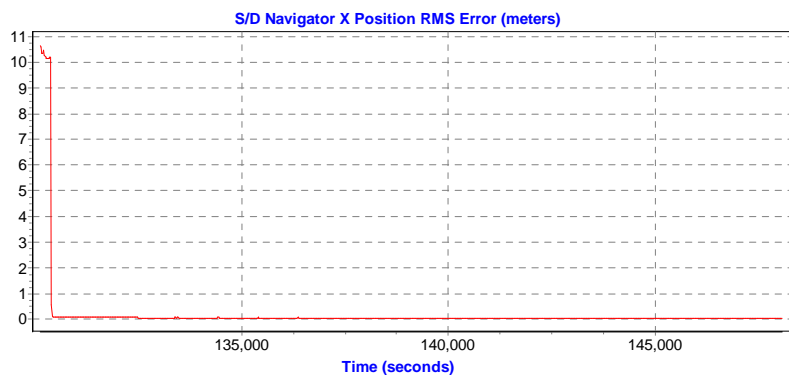


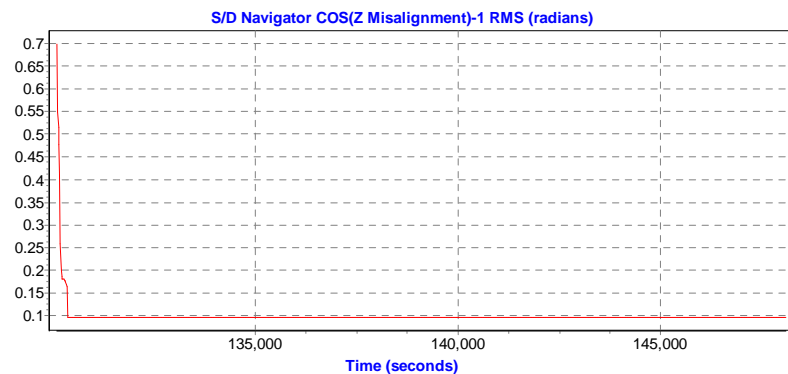
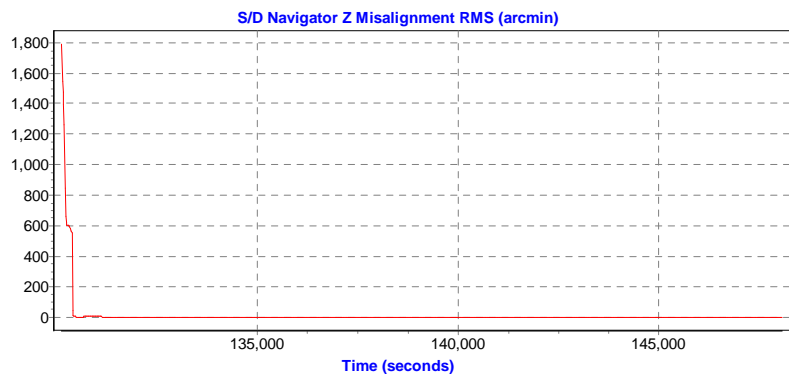
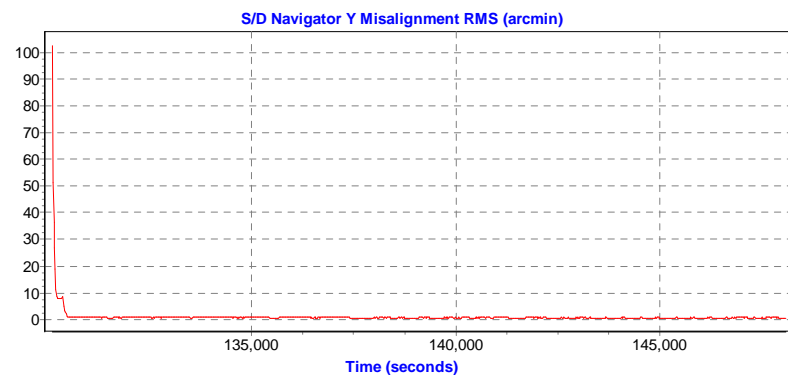
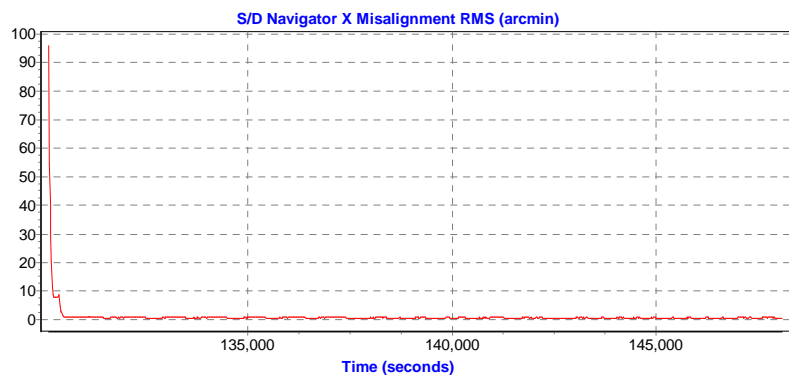


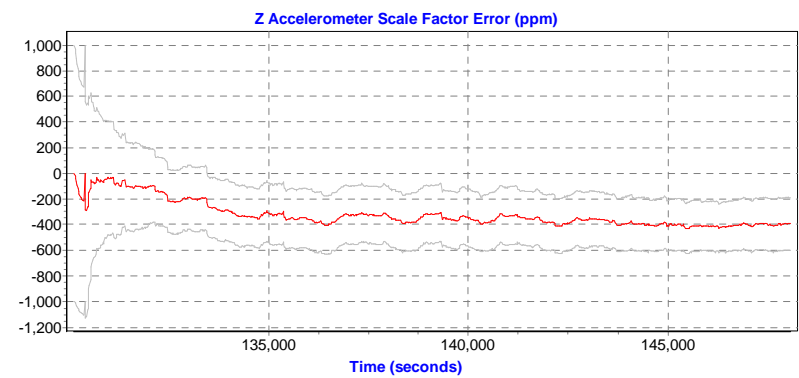
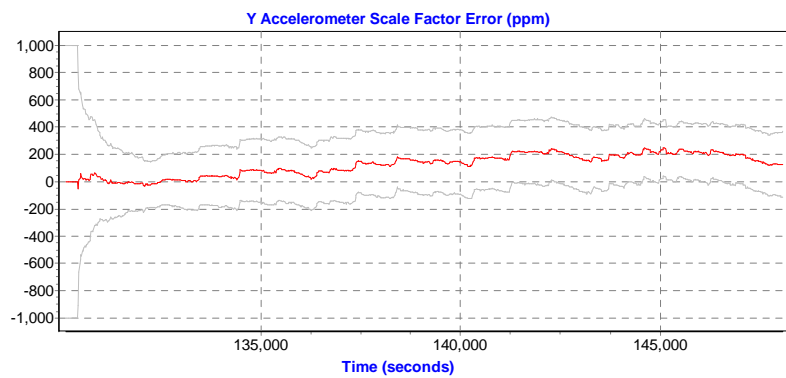
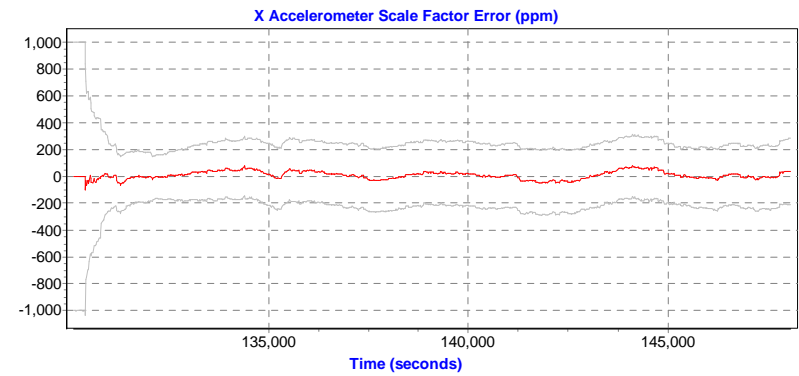
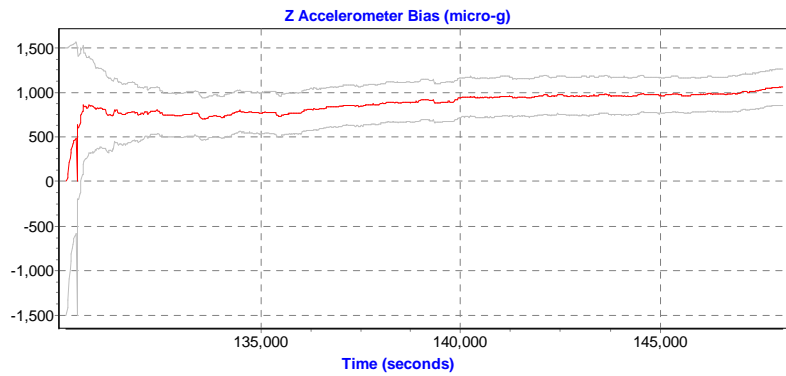
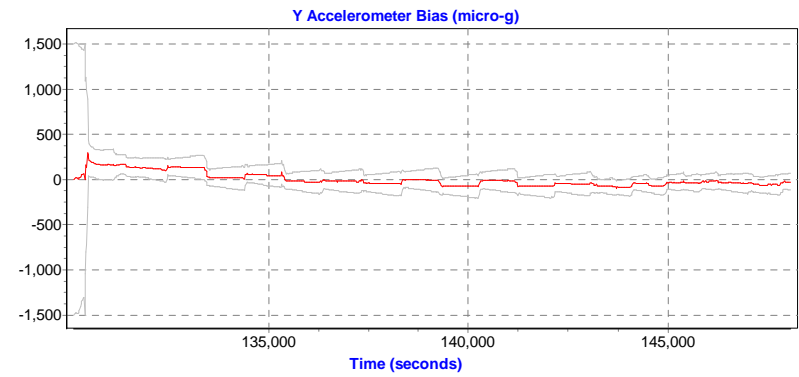
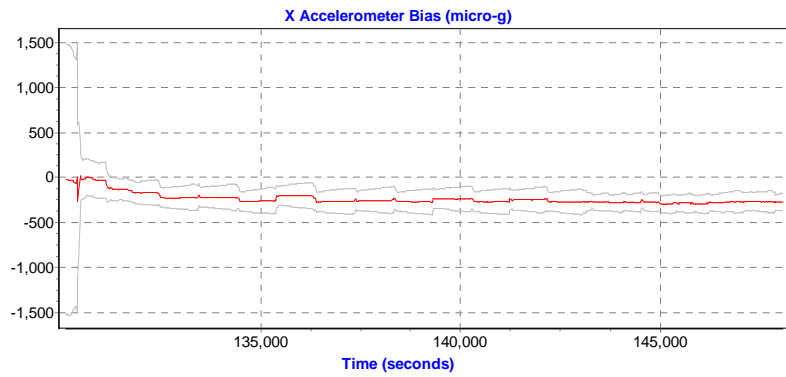
Estimated Errors and RMS

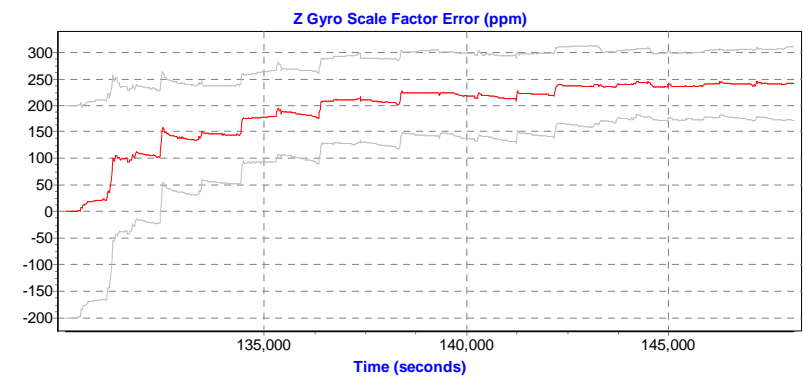
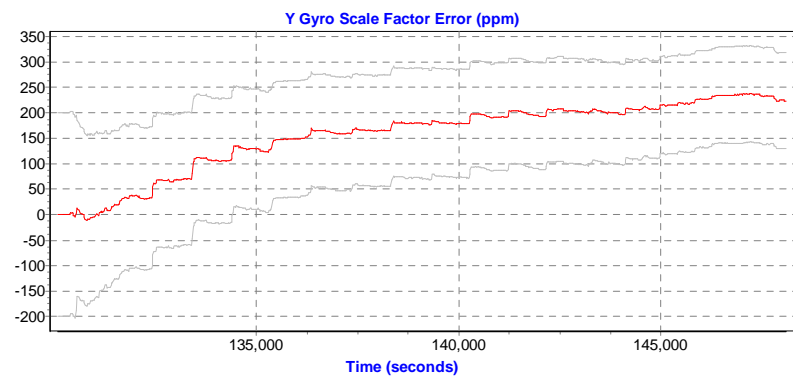
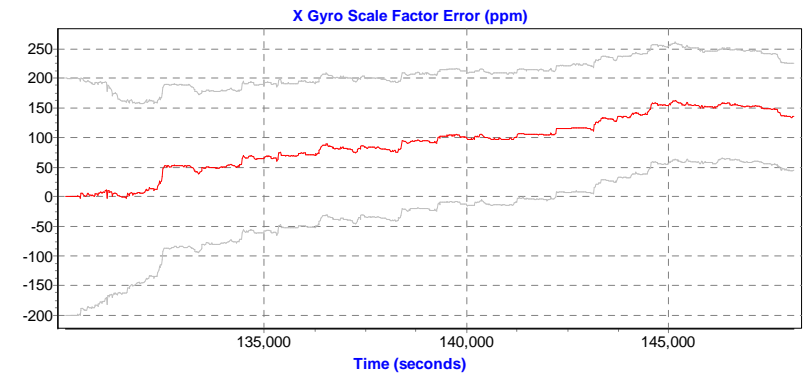
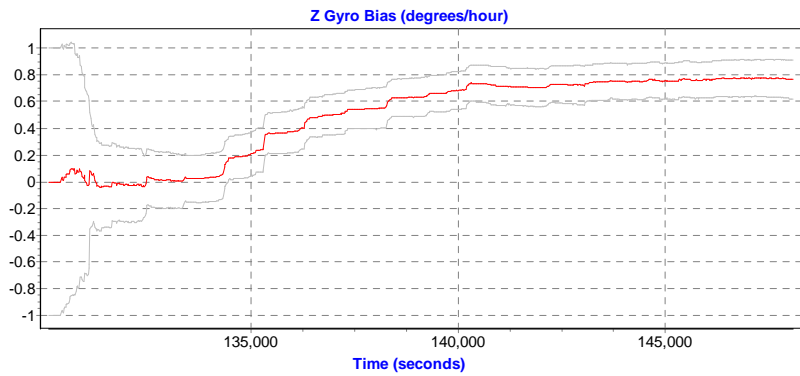
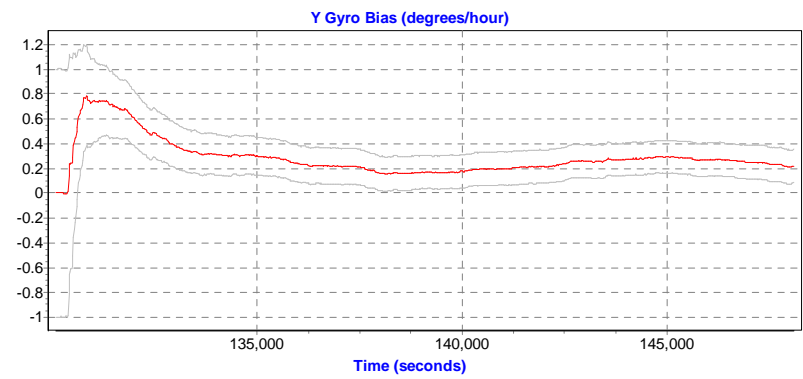
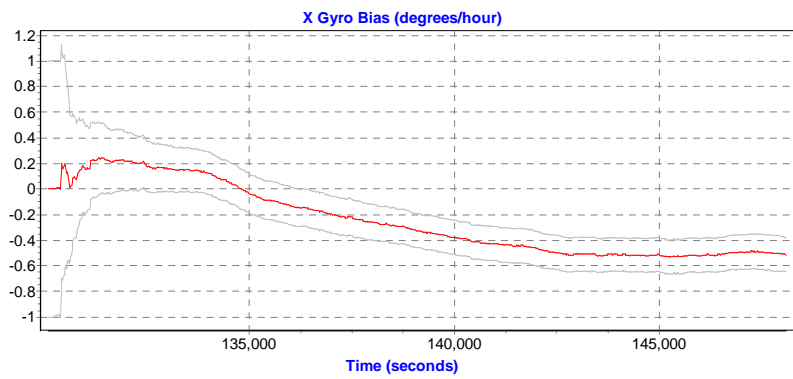


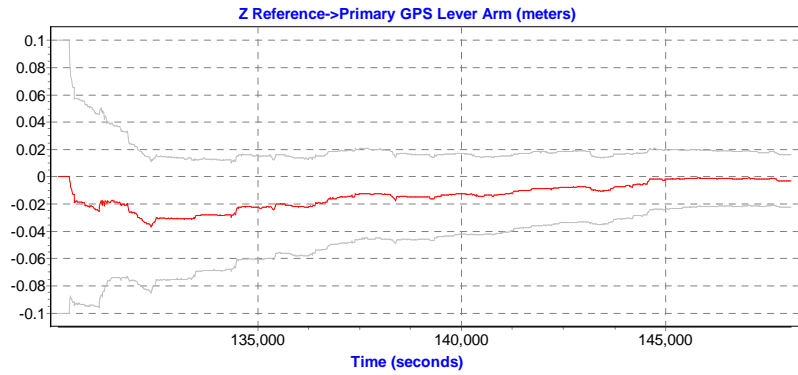
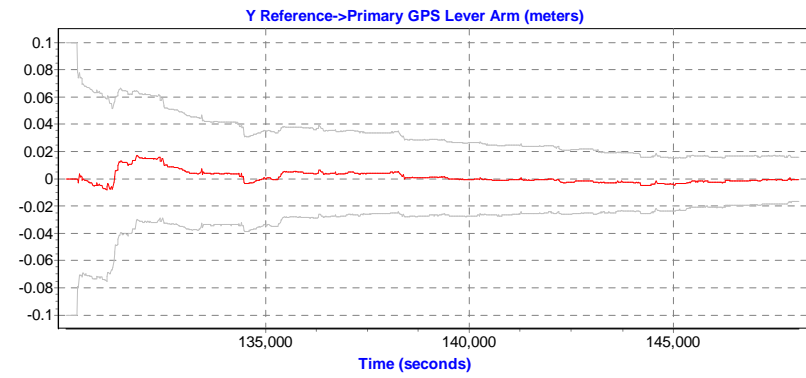
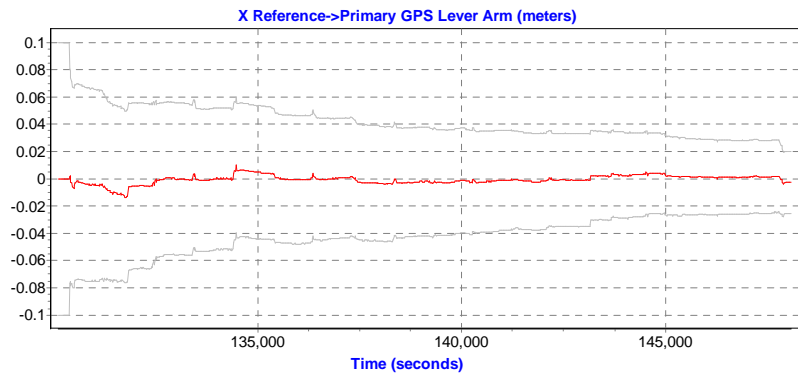






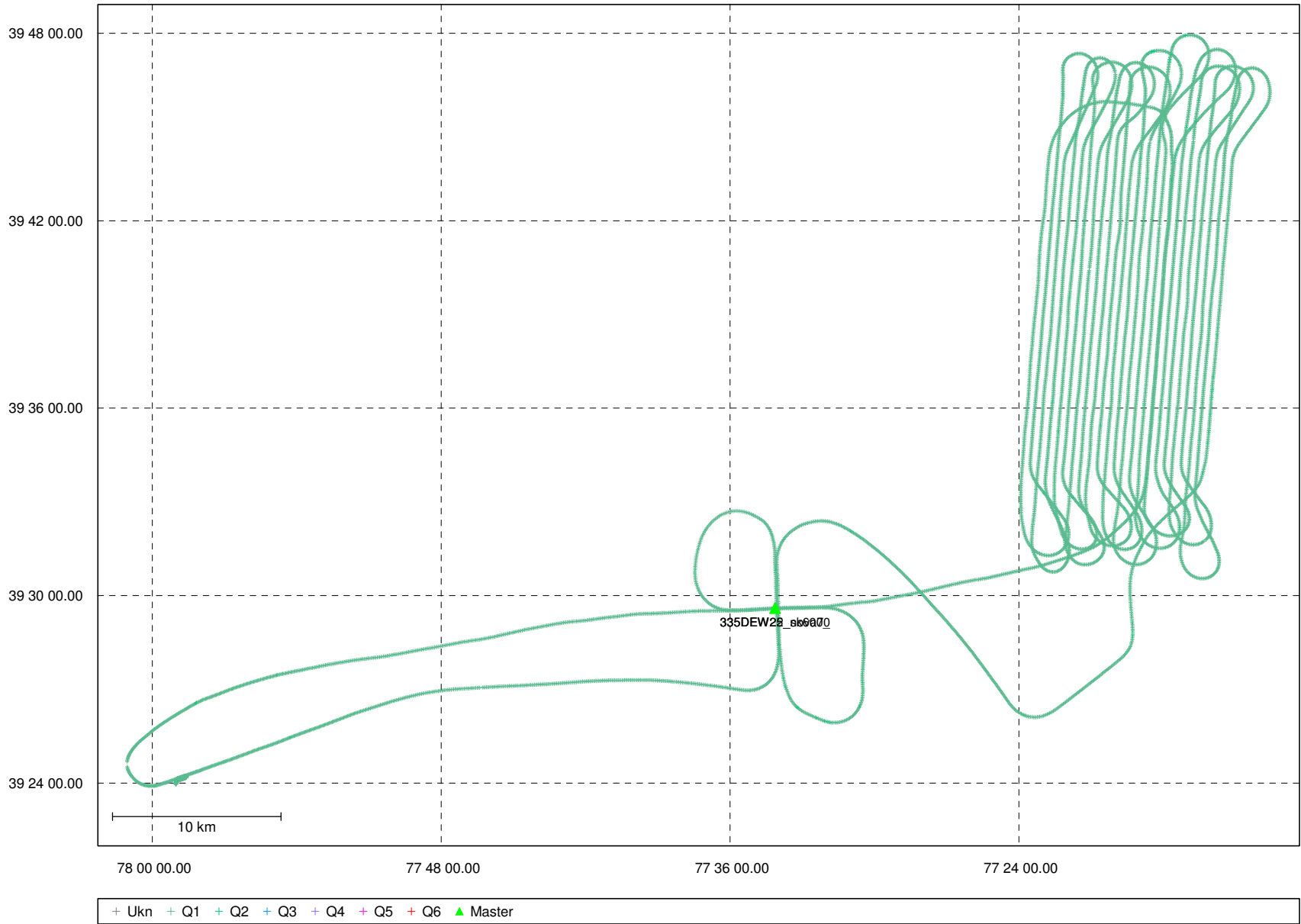






### Combined - Map Run (8)

Geographic, DMS





Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: I:\o112072b\3\_Processed\GPS\o112072b.gnv

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 137450  
No processed position: 123726  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0179 (m)  
C/A Code: 0.82 (m)  
L1 Doppler: 0.036 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.063 (m)  
North: 0.077 (m)  
Height: 0.124 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (12371 occurrences):  
East: 0.019 (m)  
North: 0.009 (m)  
Height: 0.027 (m)

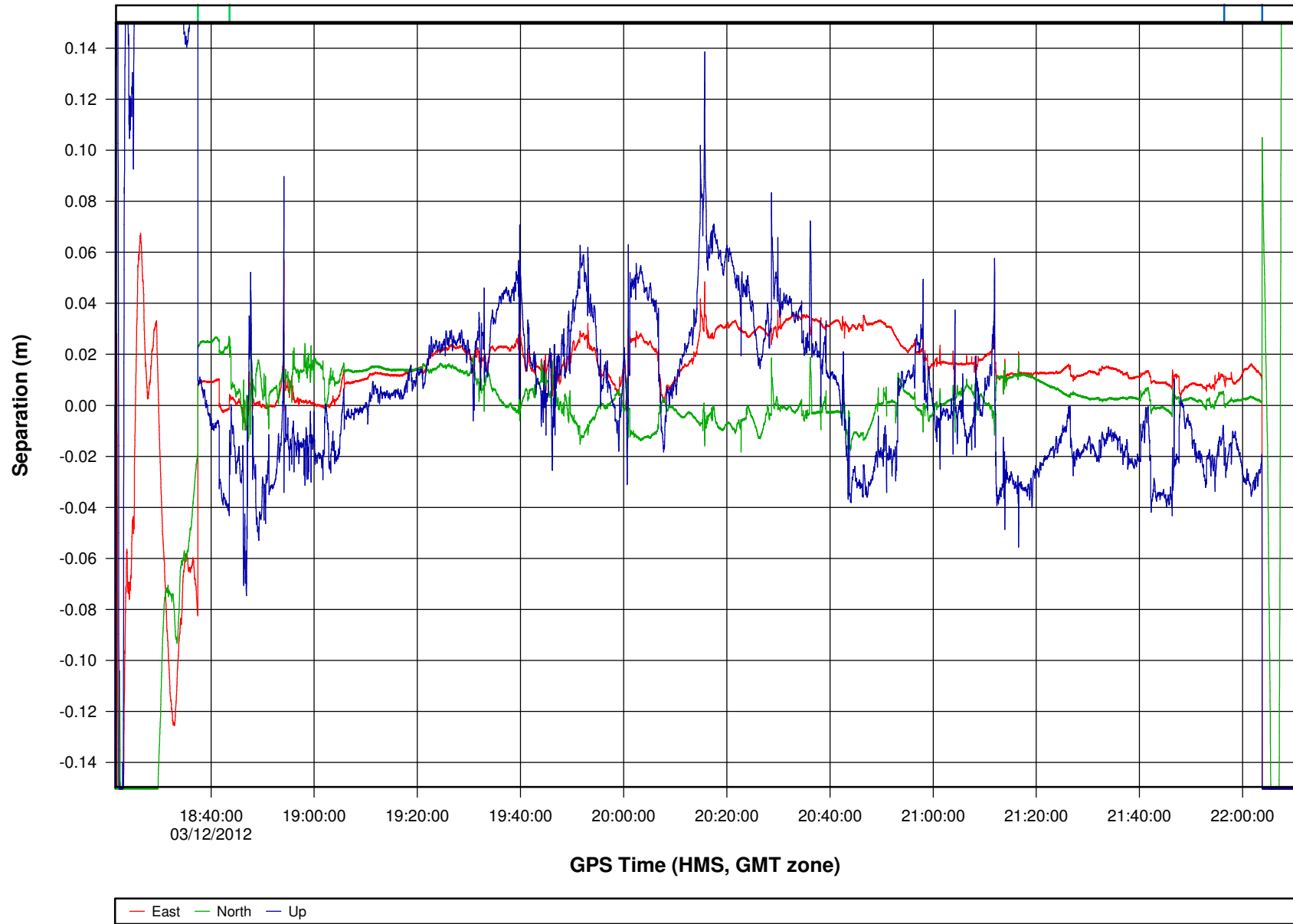
Quality Number Percentages:  
Q 1: 99.3 %  
Q 2: 0.7 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

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 %

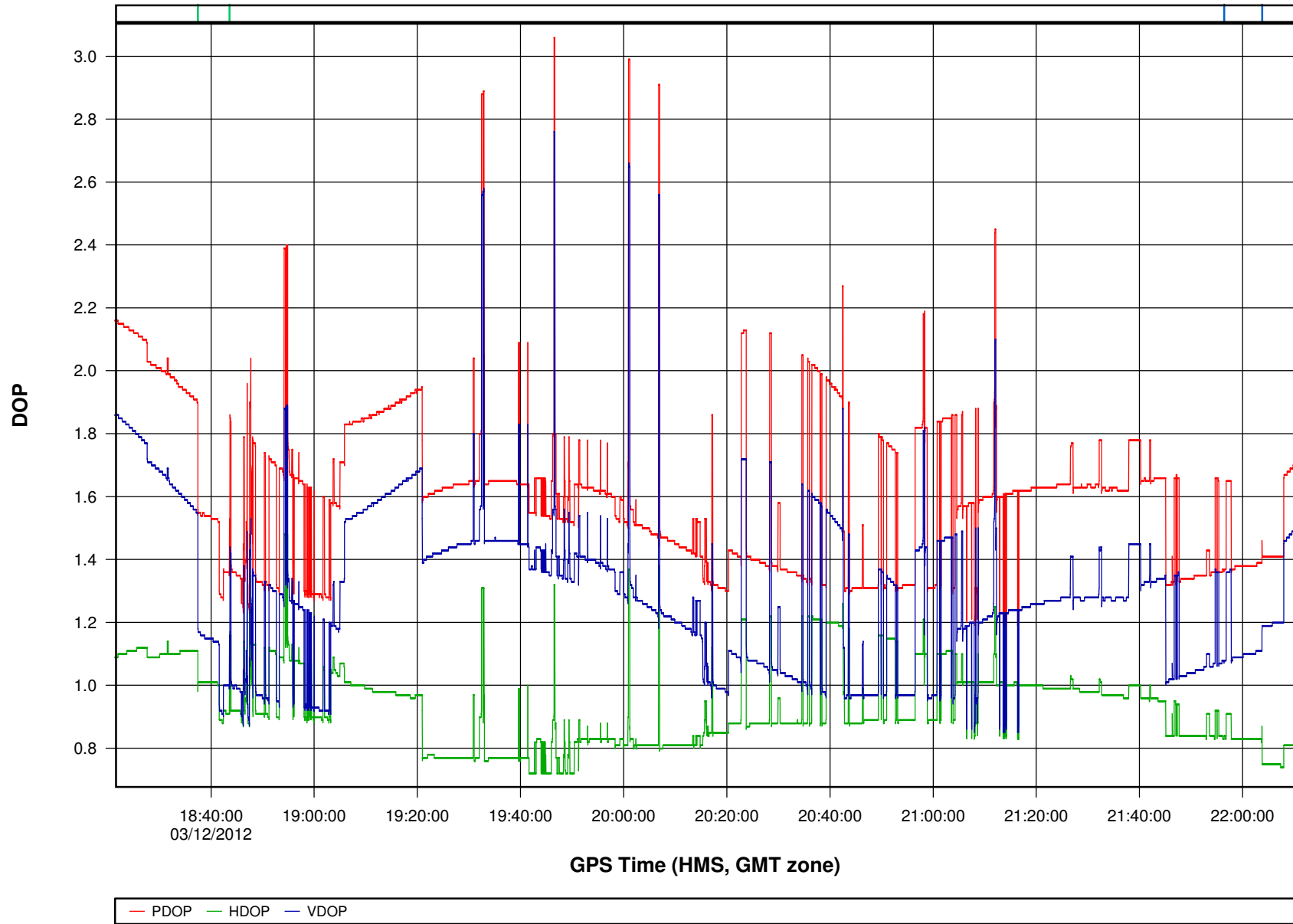
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

Baseline Distances:  
Maximum: 42.993 (km)  
Minimum: 1.011 (km)  
Average: 26.714 (km)  
First Epoch: 37.173 (km)  
Last Epoch: 37.183 (km)

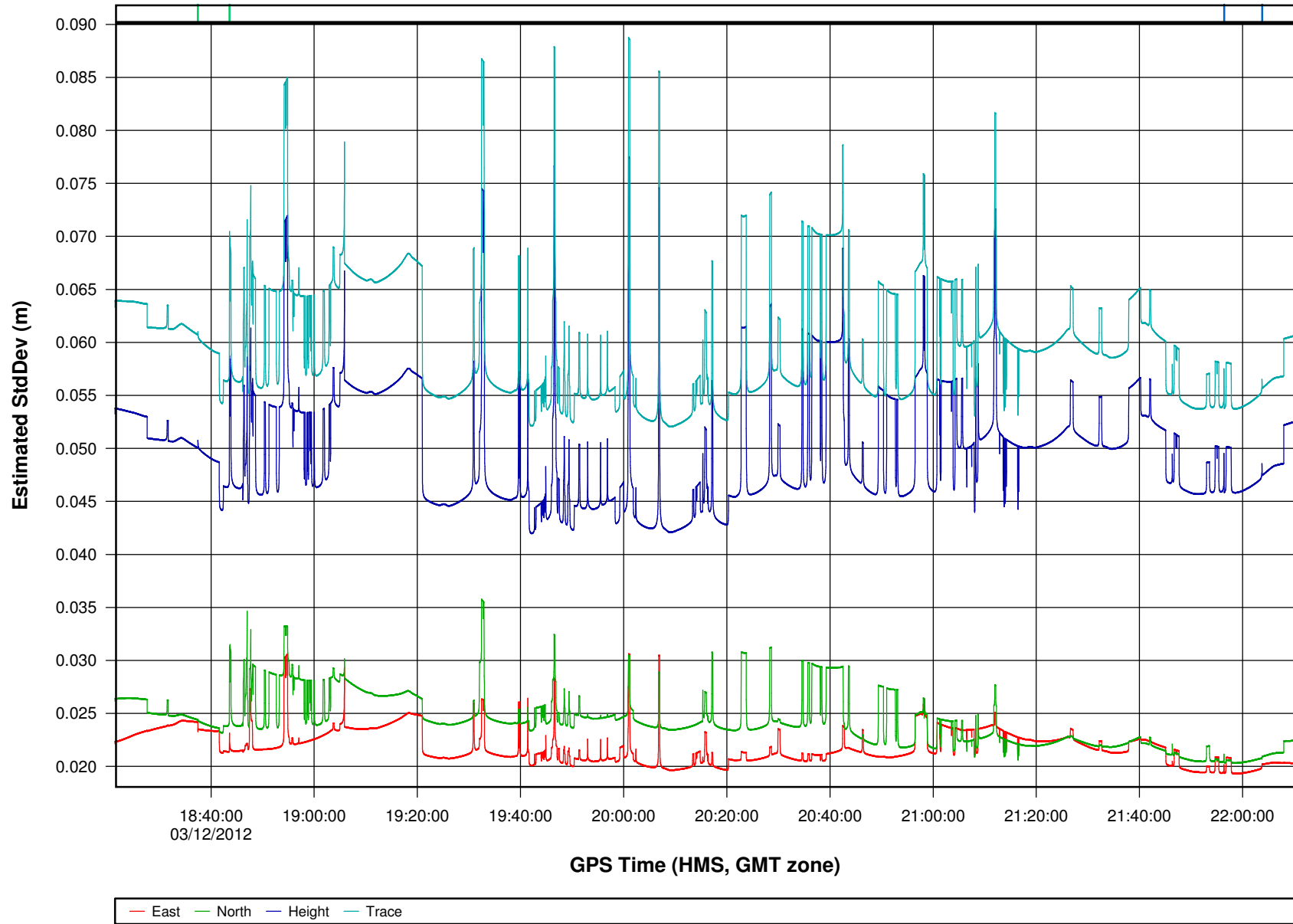
### o112072b [Combined] - Forward/Reverse or Combined Separation Plot



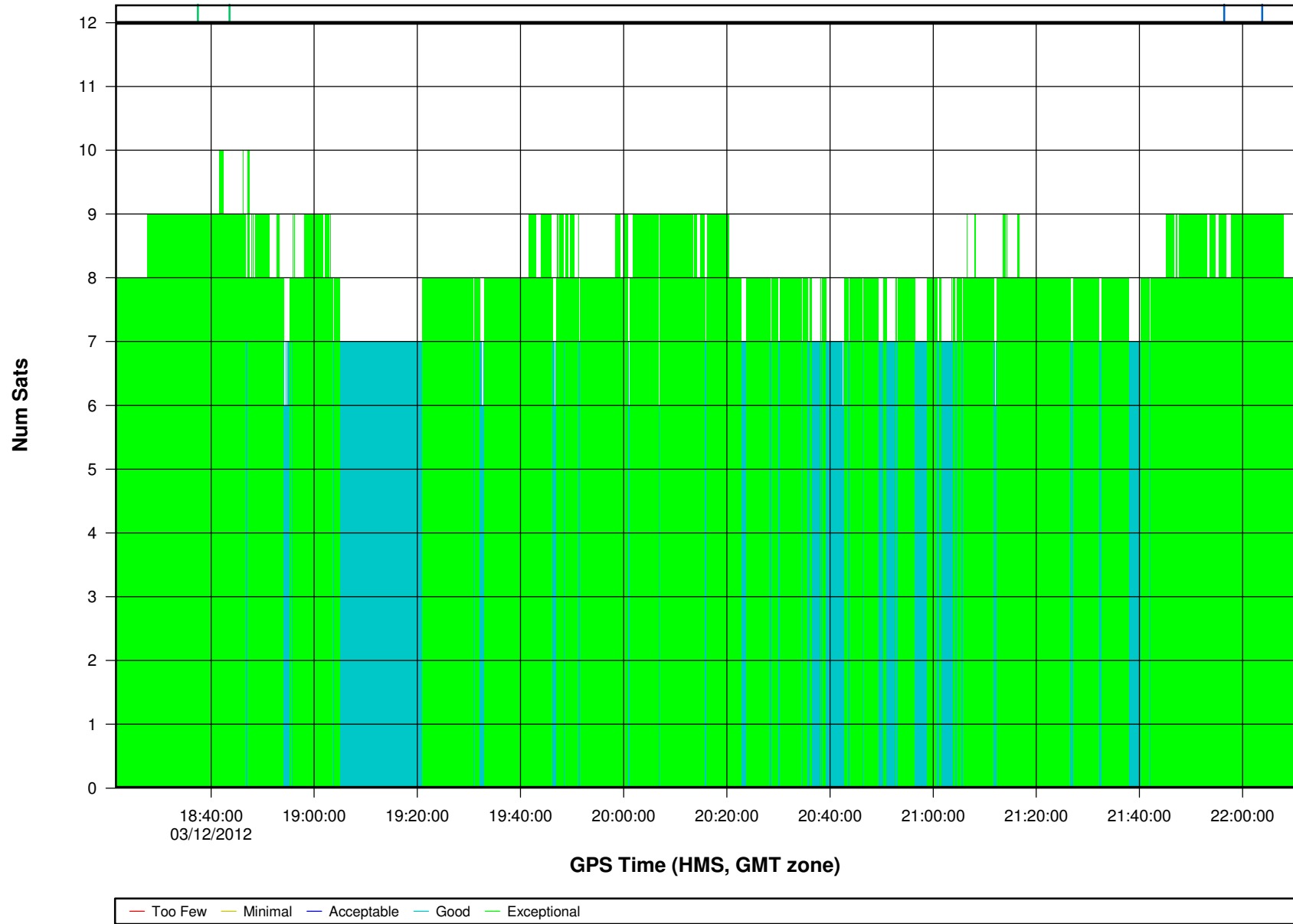
### o112072b [Combined] - PDOP, HDOP, VDOP Plots



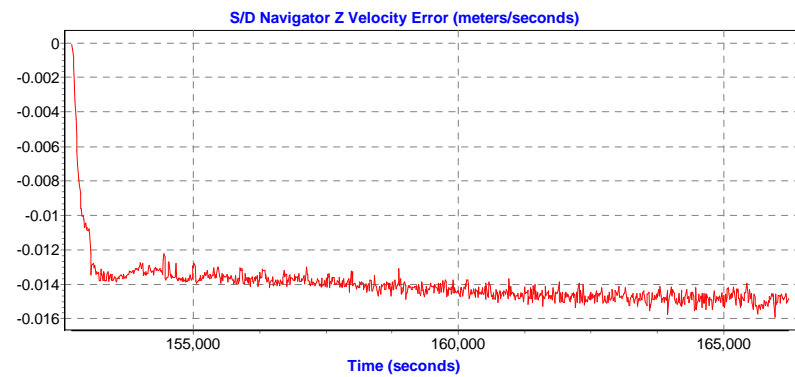
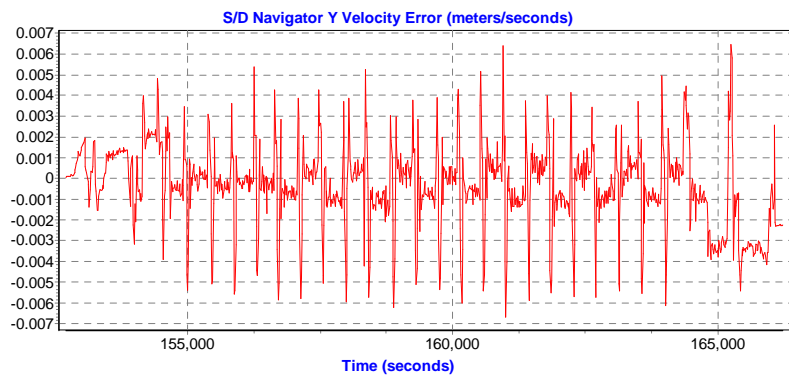
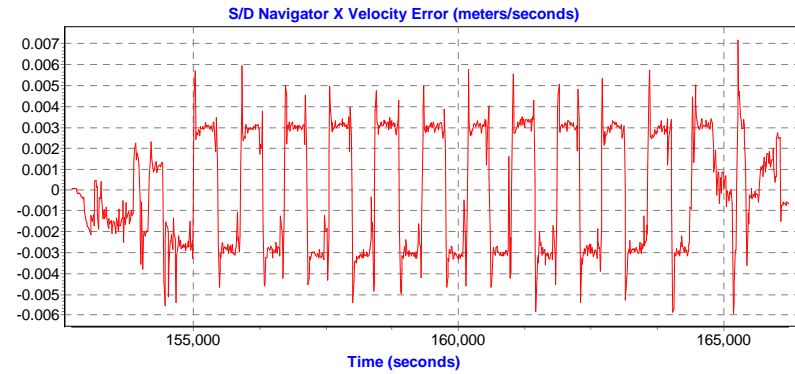
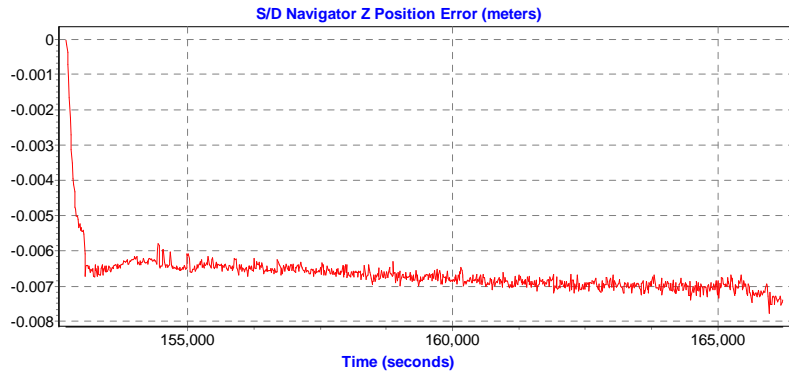
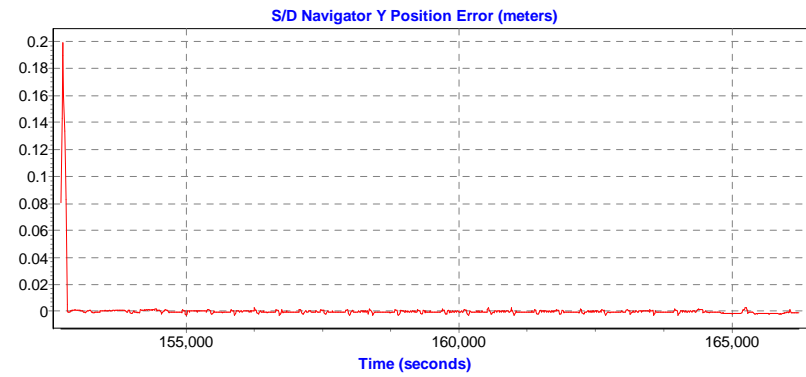
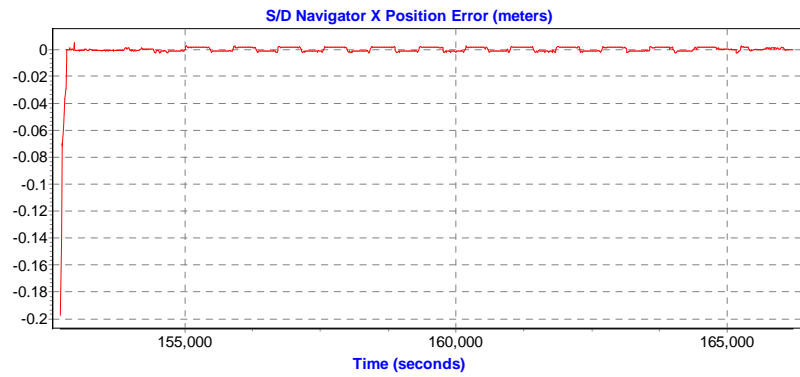
### o112072b [Combined] - Estimated Position Accuracy Plot

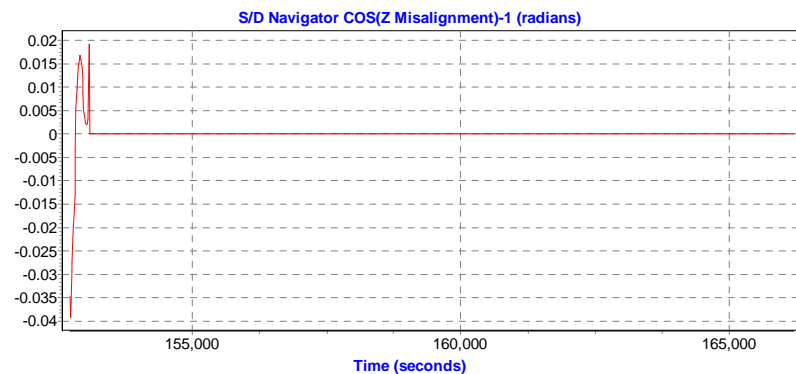
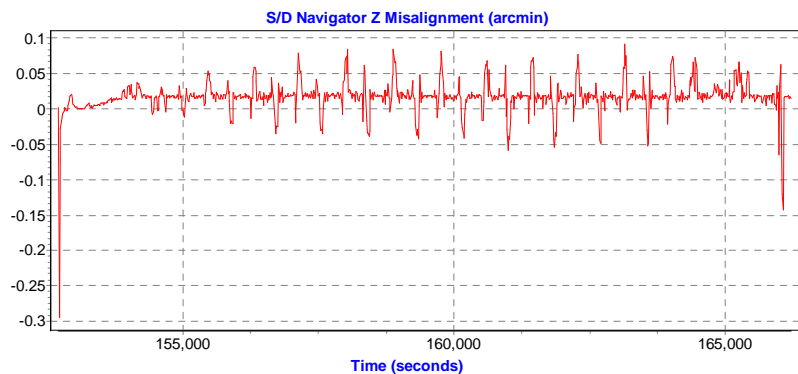
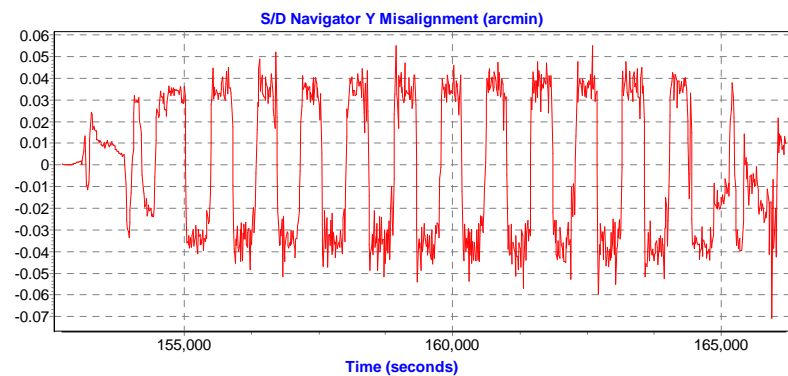
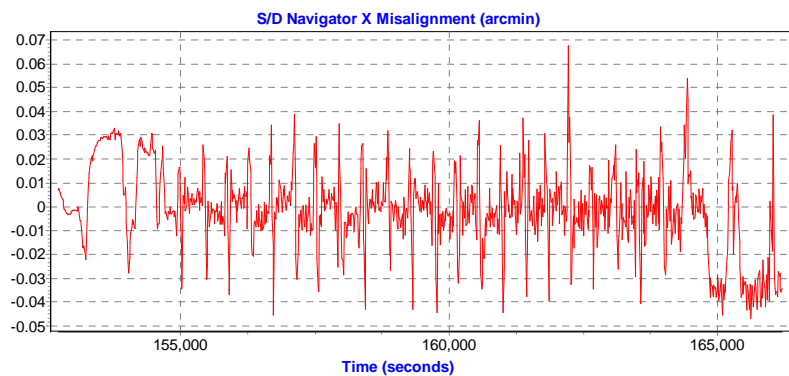


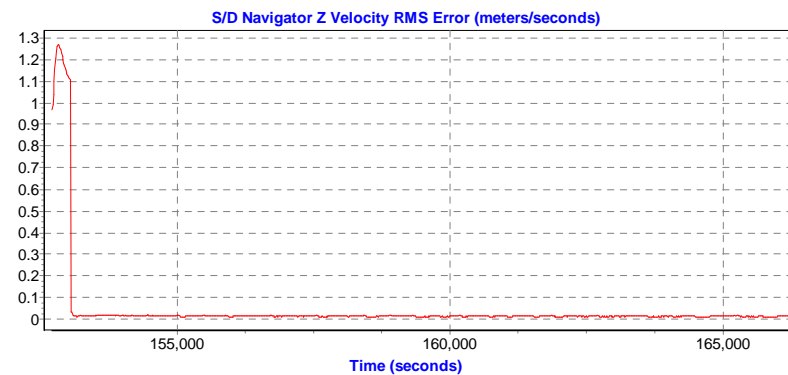
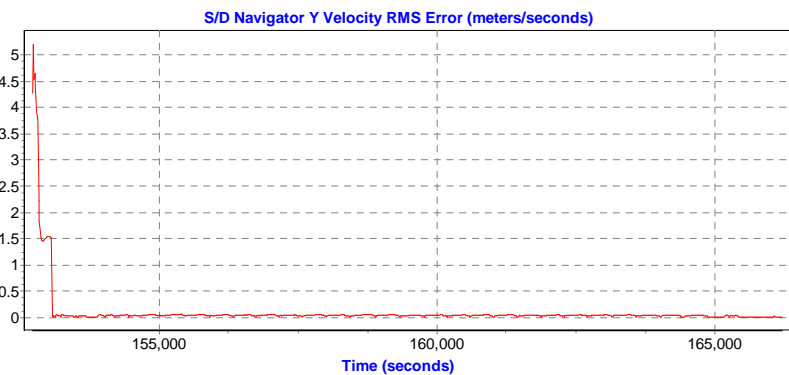
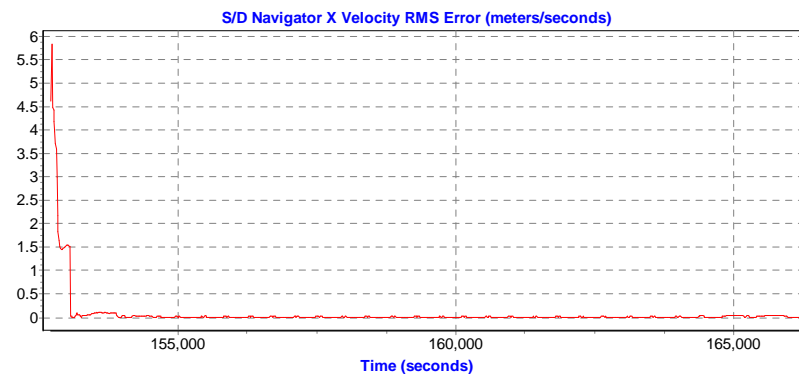
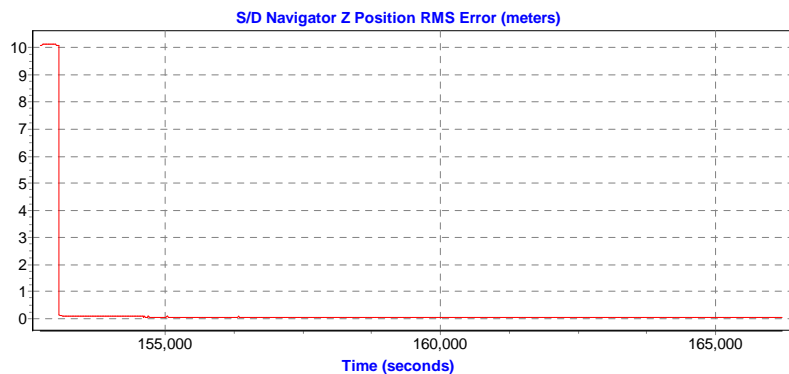
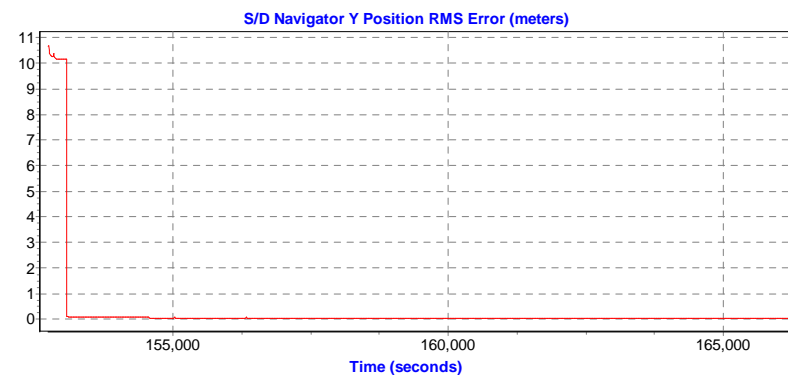
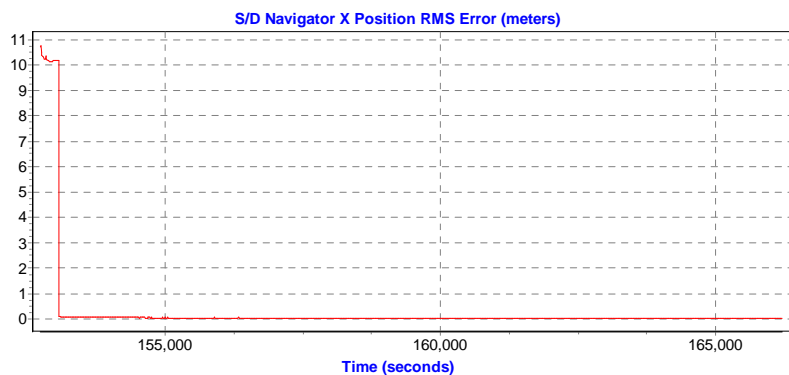
**o112072b [Combined] - Number of Satellites Bar Plot**



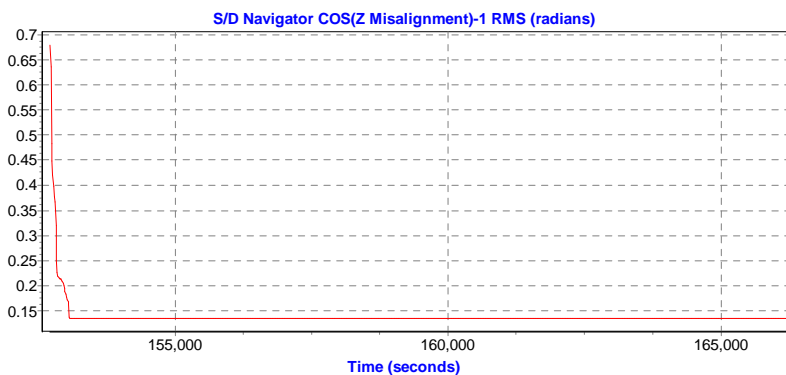
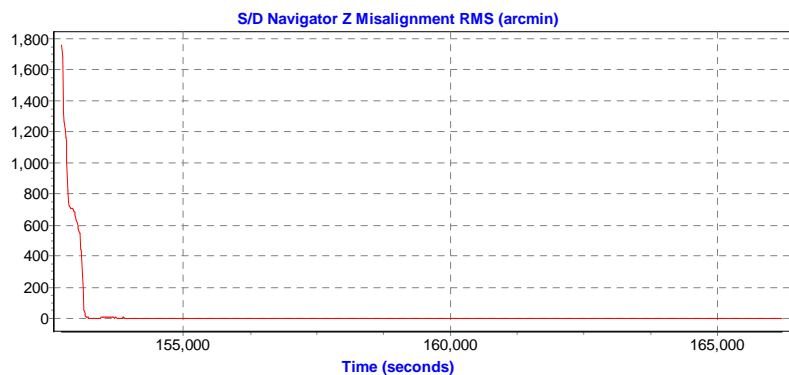
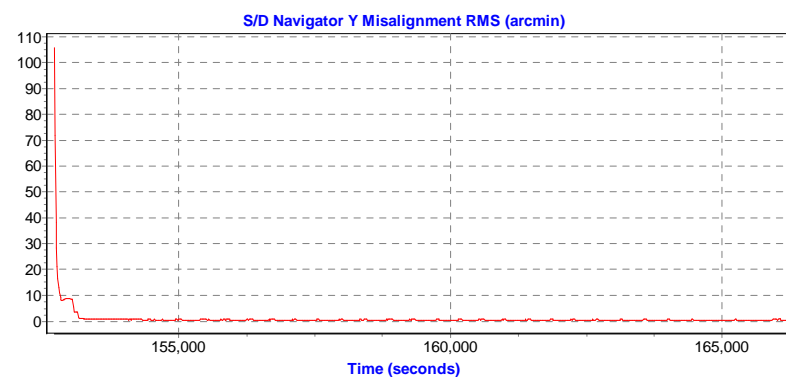
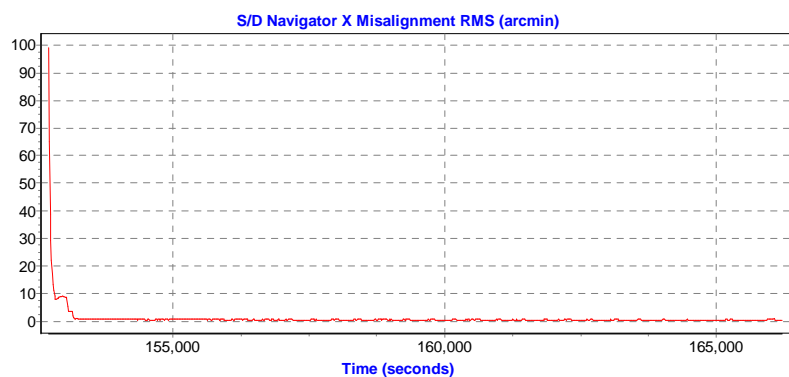
Estimated Errors and RMS

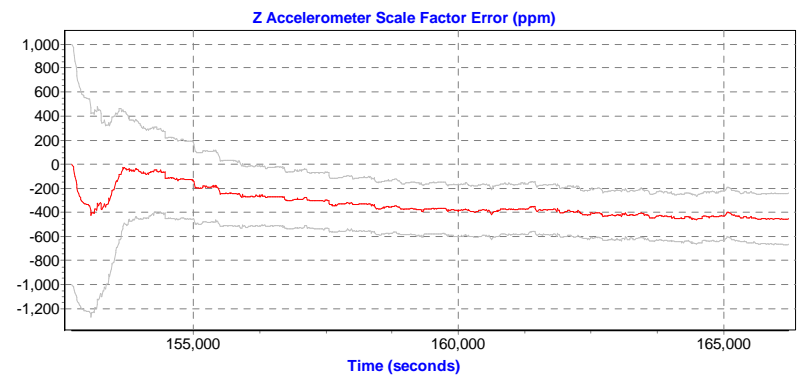
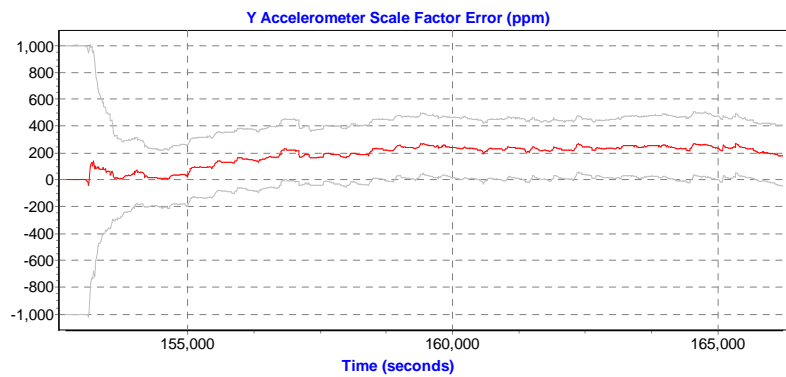
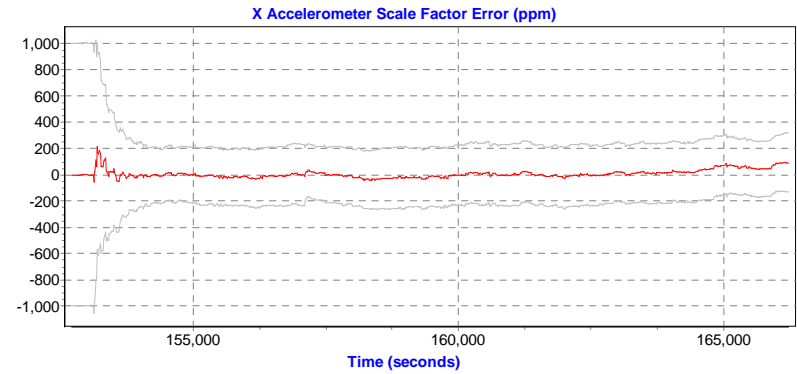
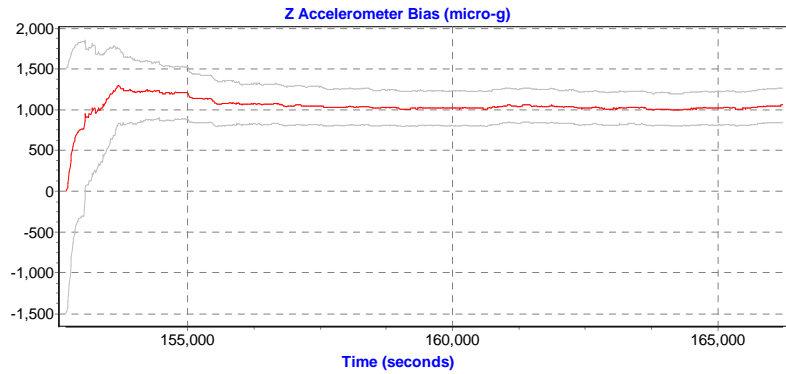
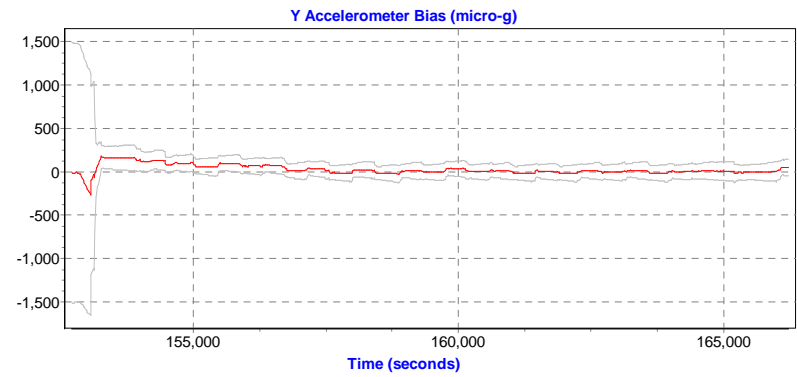
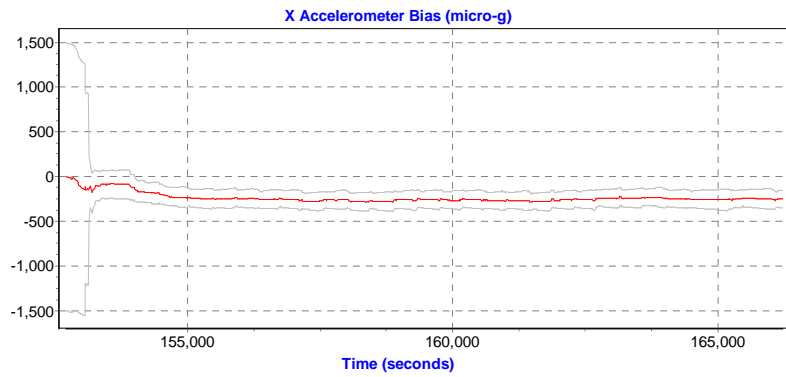


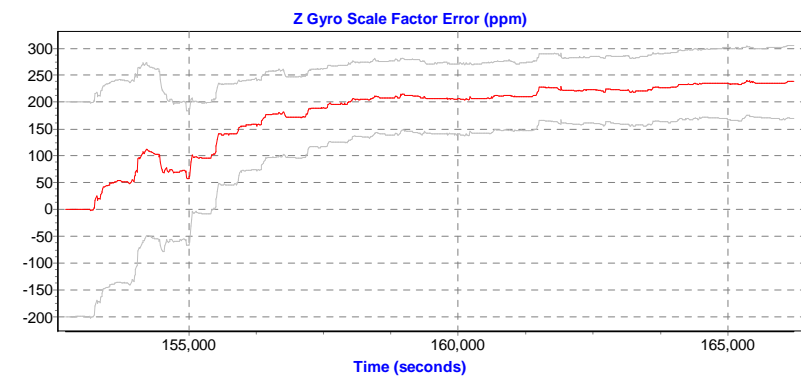
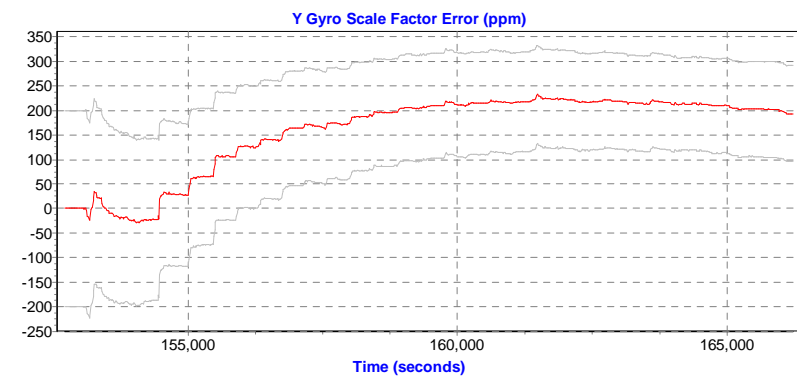
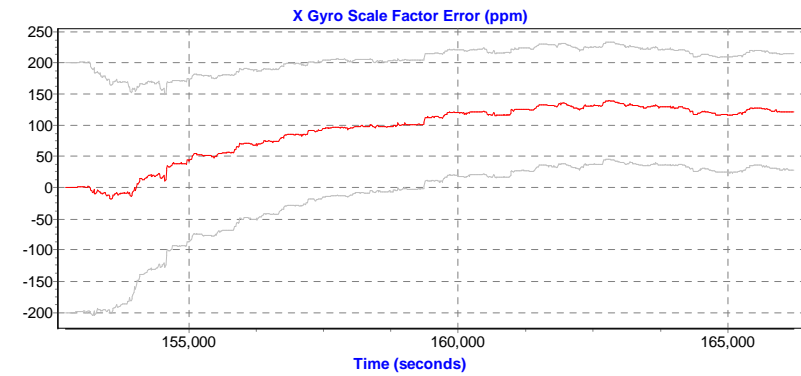
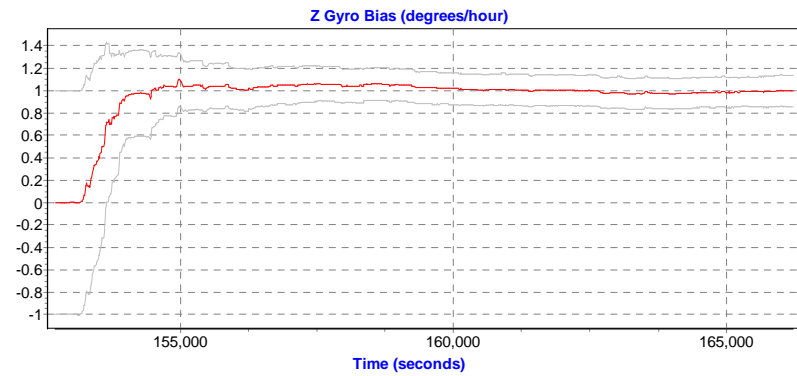
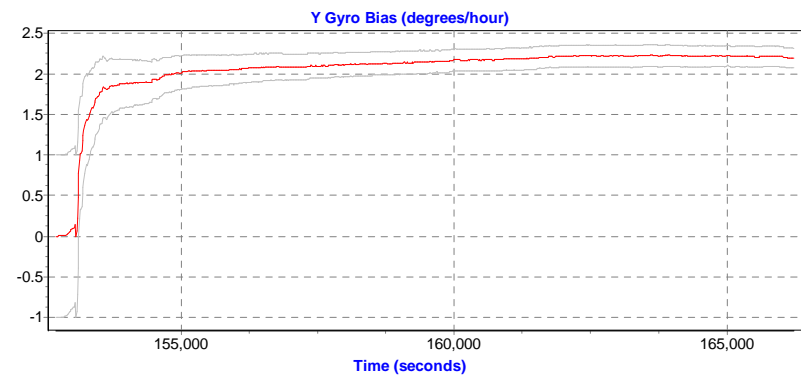
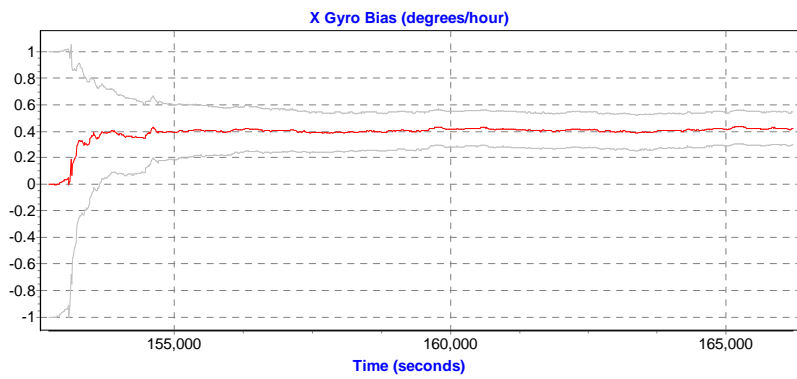


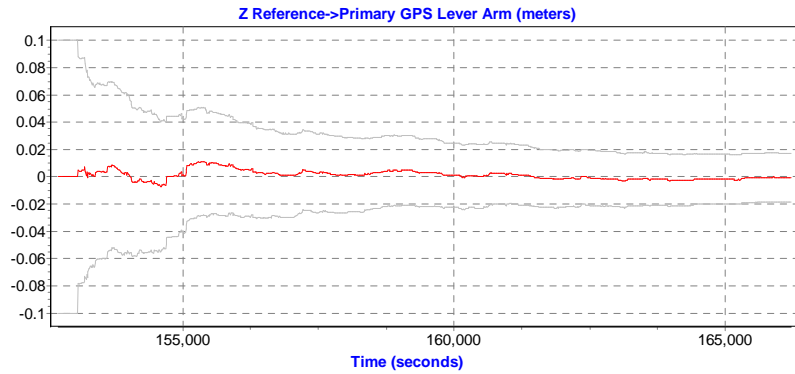
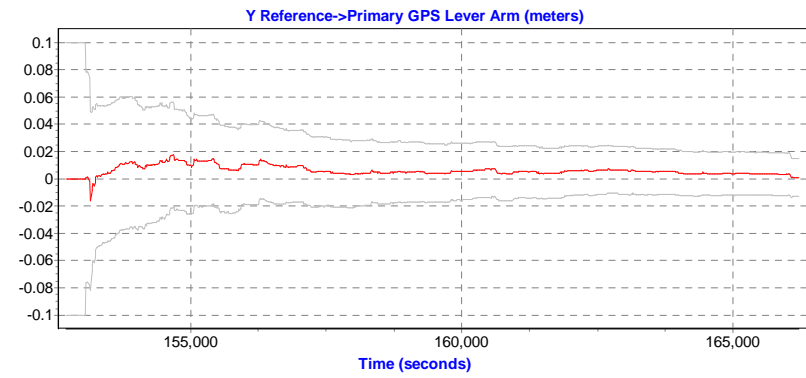
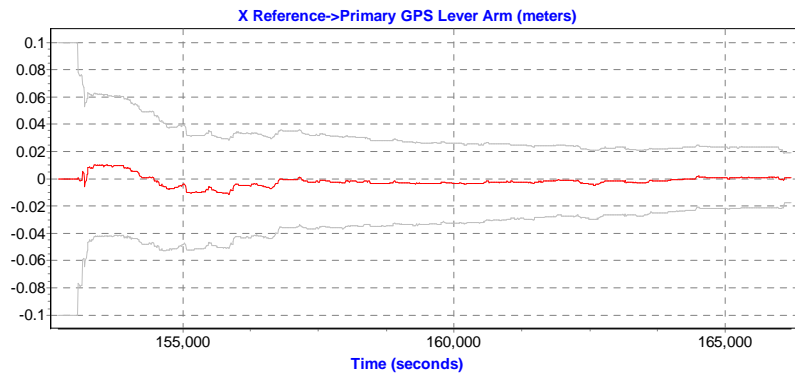






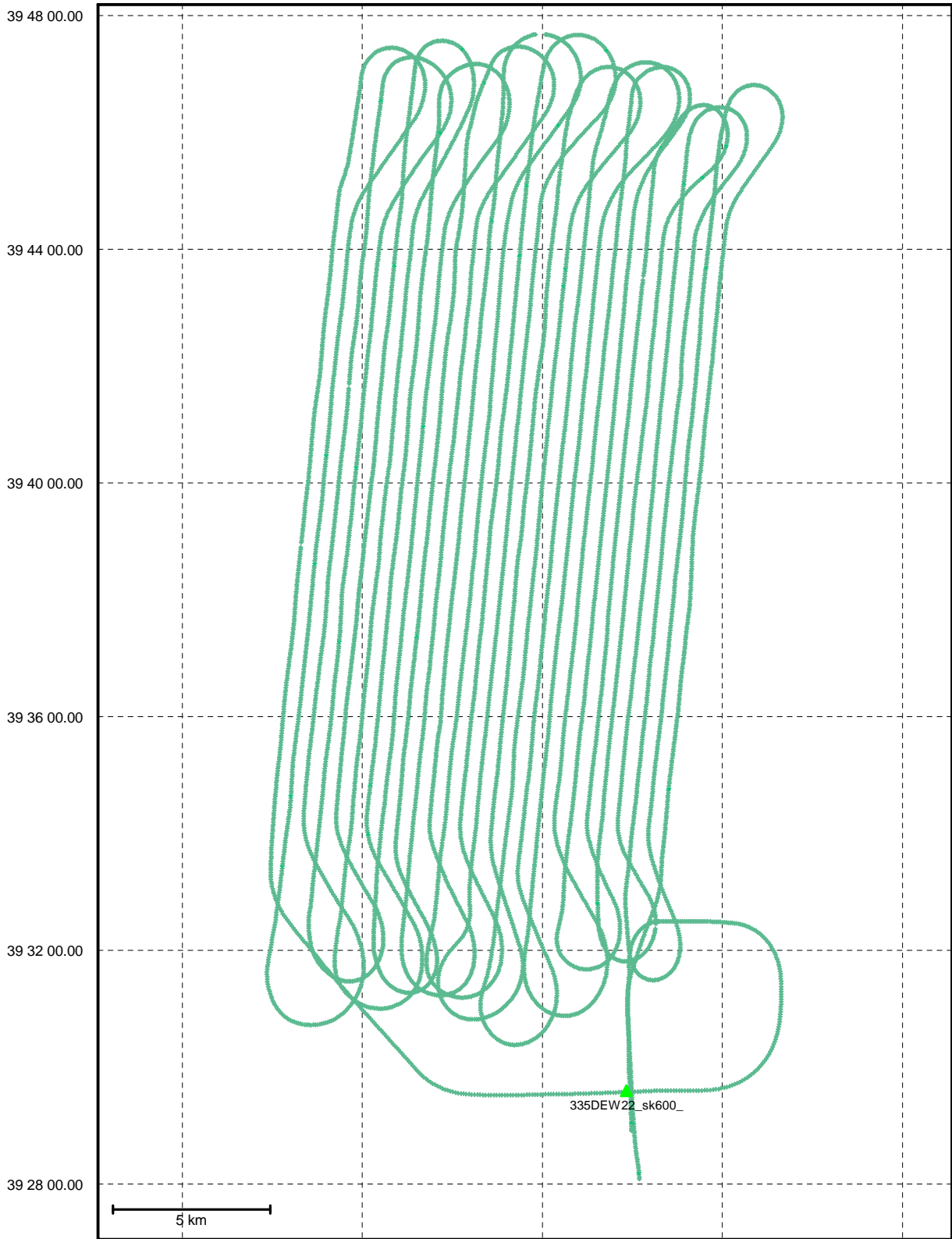






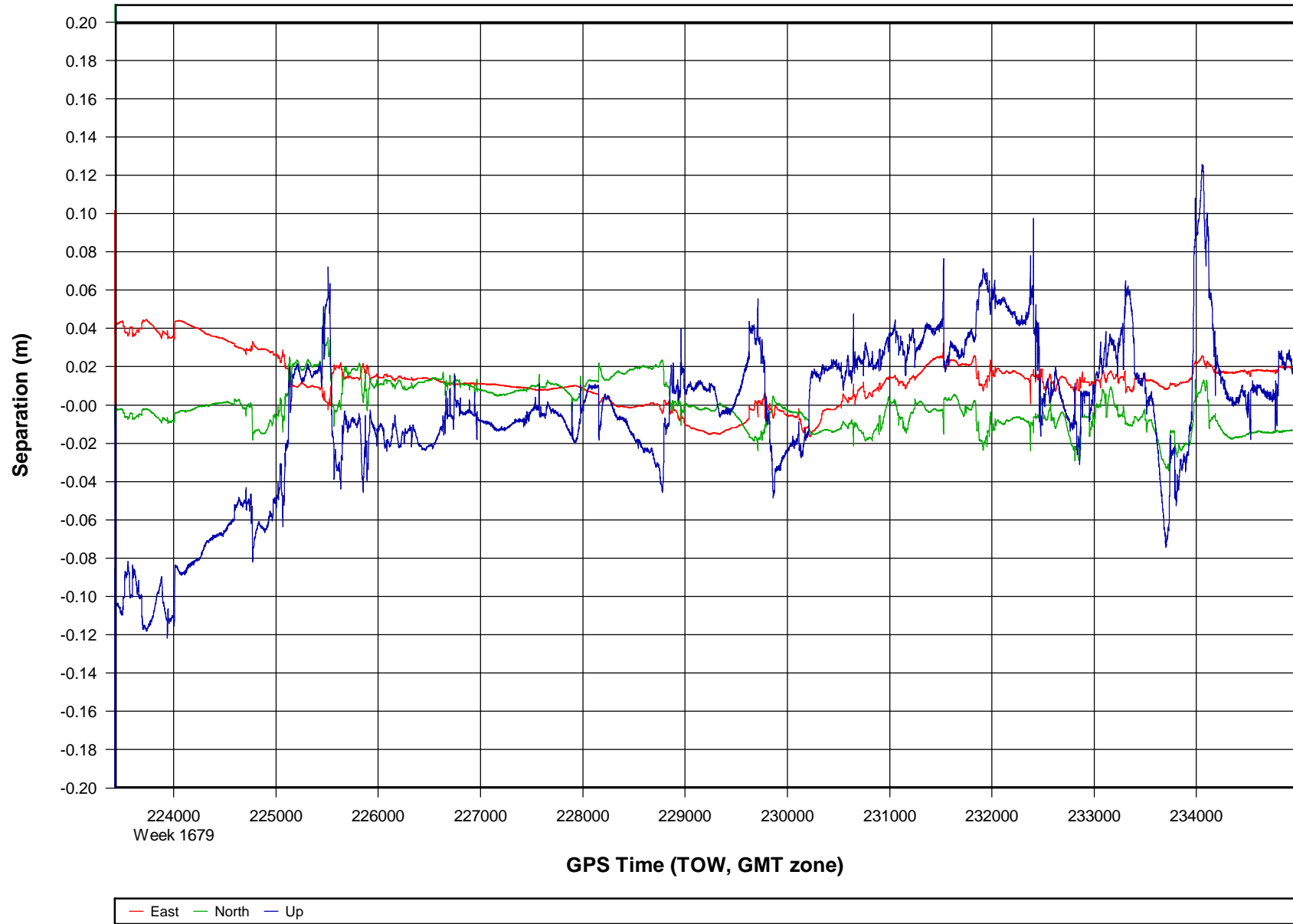
### Combined - Map Run (16)

Geographic, DMS

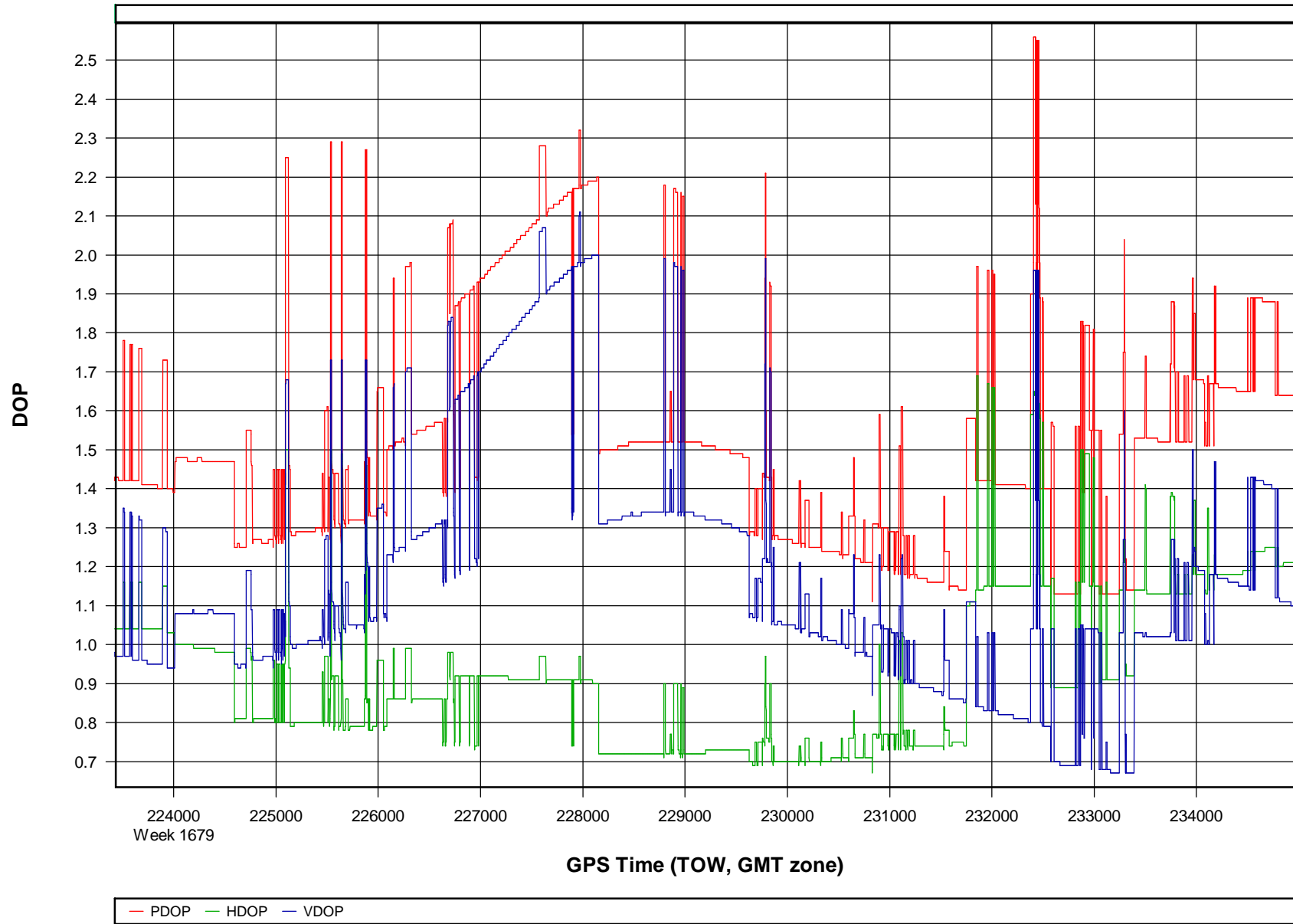


+ Ukn + Q1 + Q2 + Q3 + Q4 + Q5 + Q6 ▲ Master

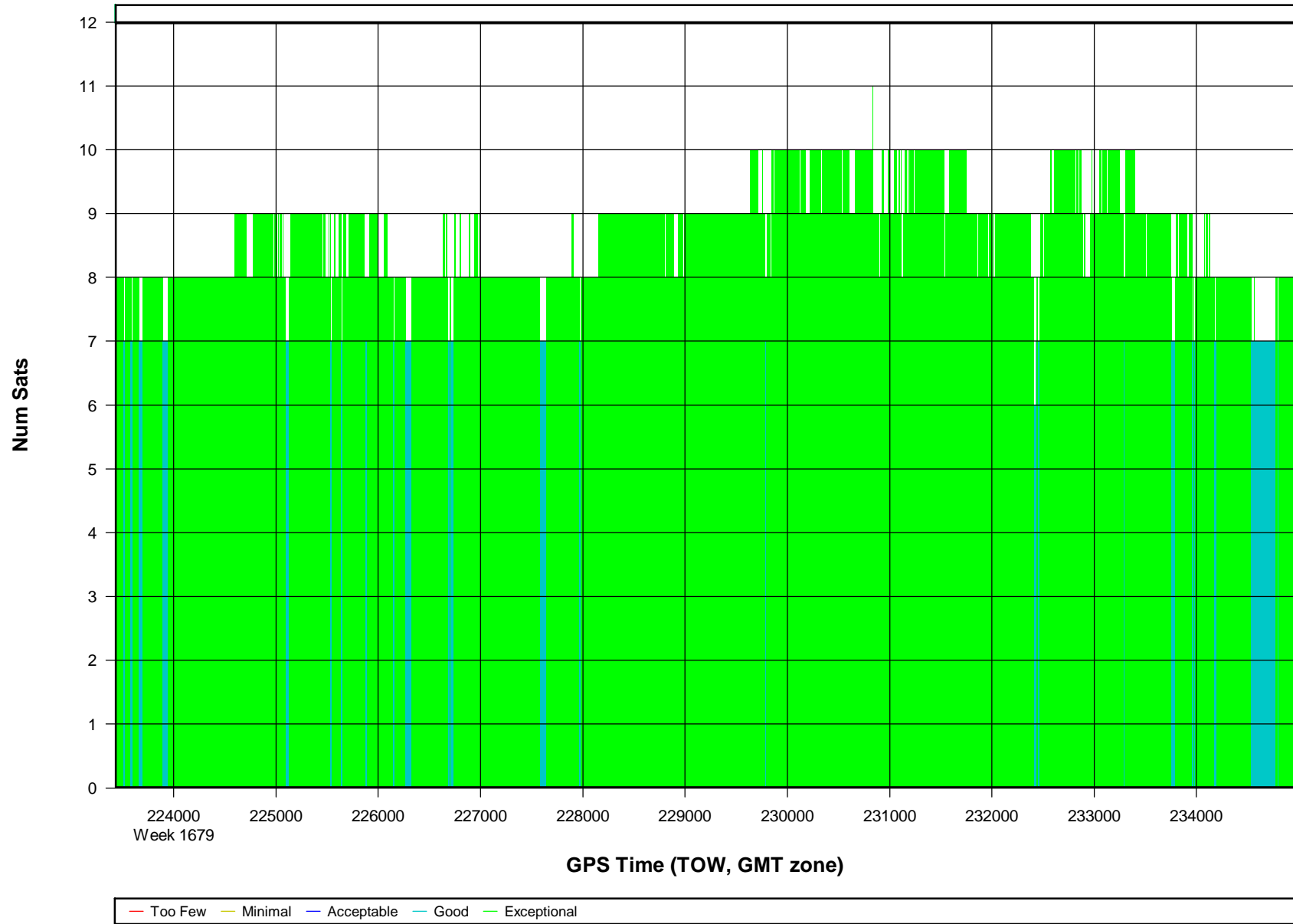
**o112073a [Combined] - Forward/Reverse or Combined Separation Plot**



### o112073a [Combined] - PDOP, HDOP, VDOP Plots

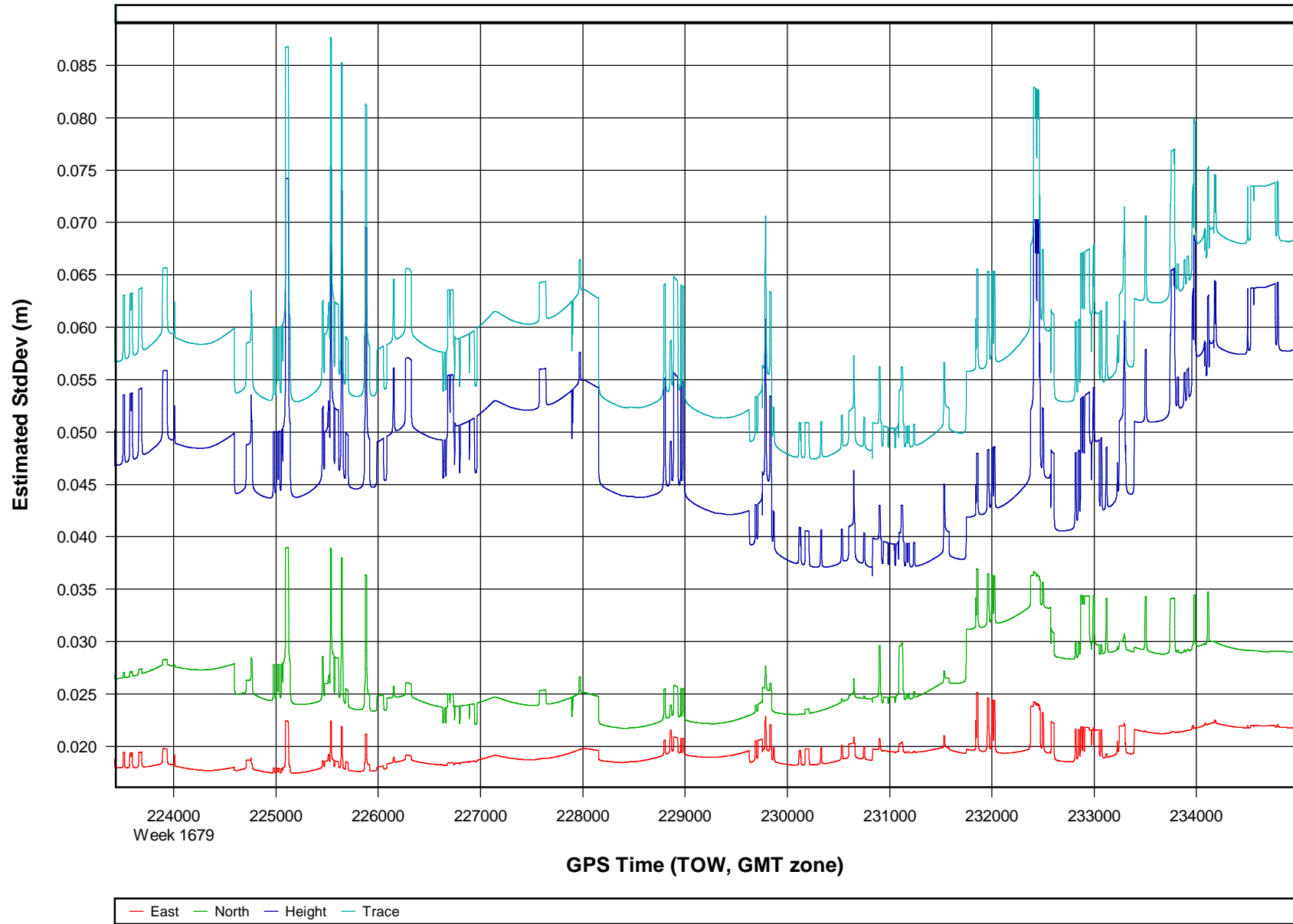


**o112073a [Combined] - Number of Satellites Bar Plot**





### o112073a [Combined] - Estimated Position Accuracy Plot



Processing Summary Information

Program: POSGNSS  
Version: 4.40.2710  
Project: I:\335  
DEW\2\_Operations\6\_Missions\o112073a\3\_Processed\GPS\o112073a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:

Total in GPB file: 143576  
No processed position: 132033  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:

L1 Phase: 0.0214 (m)  
C/A Code: 0.80 (m)  
L1 Doppler: 0.039 (m/s)

Fwd/Rev Separation RMS Values:

East: 0.019 (m)  
North: 0.012 (m)  
Height: 0.041 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (11537 occurrences):

East: 0.018 (m)  
North: 0.012 (m)  
Height: 0.040 (m)

Quality Number Percentages:

Q 1: 99.7 %  
Q 2: 0.3 %  
Q 3: 0.0 %  
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 %

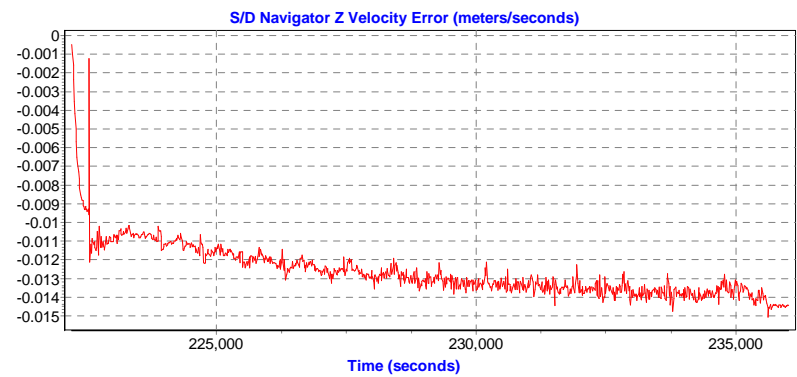
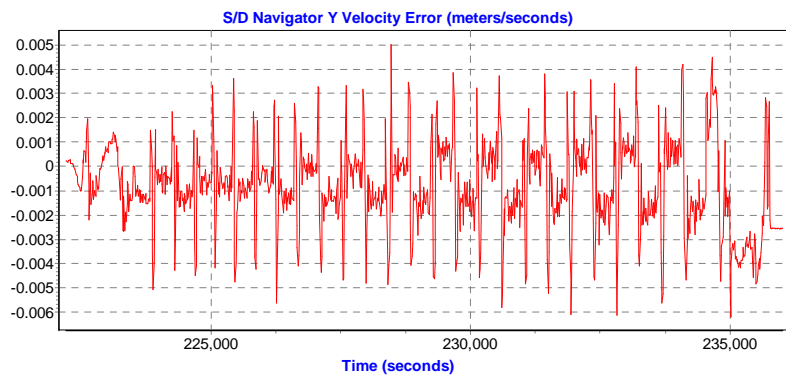
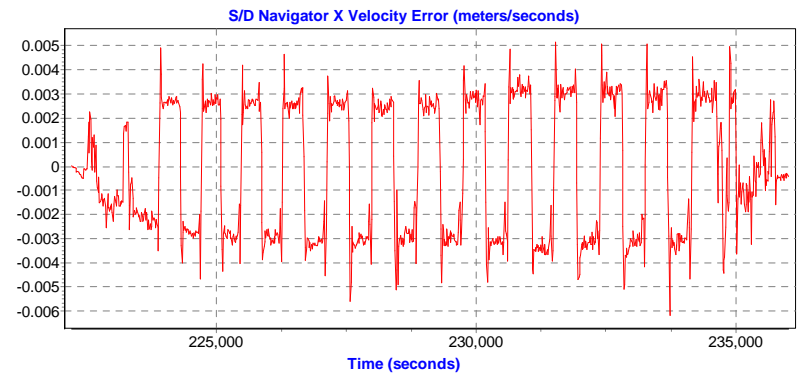
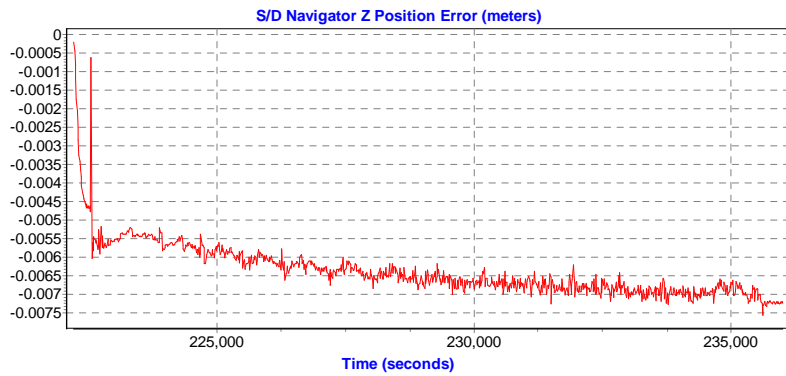
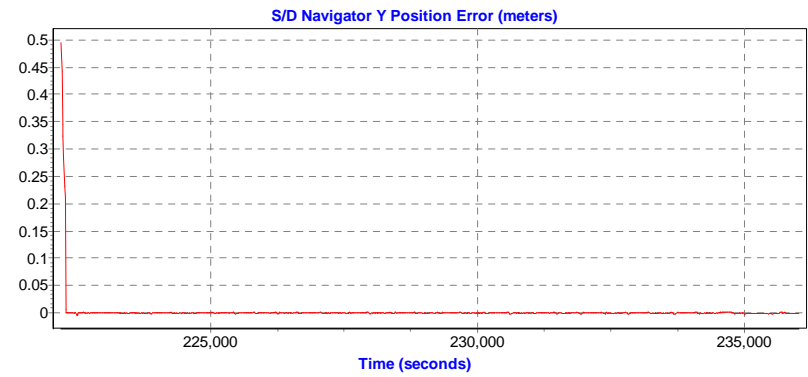
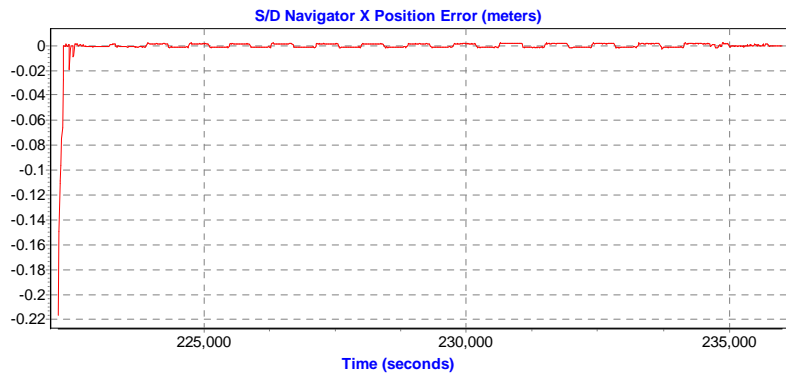
Percentages of epochs with DD\_DOP over 10.00:

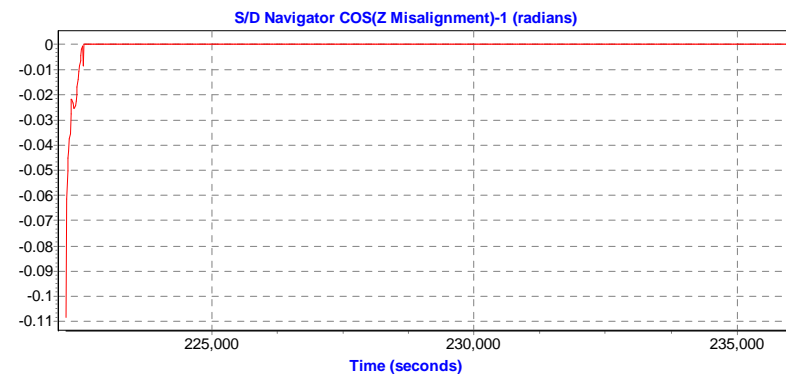
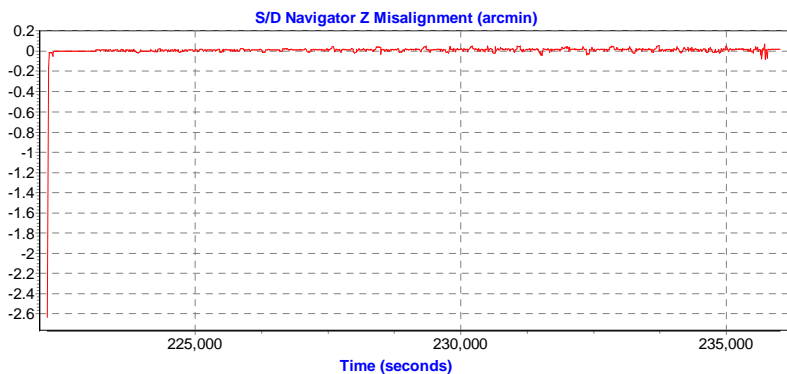
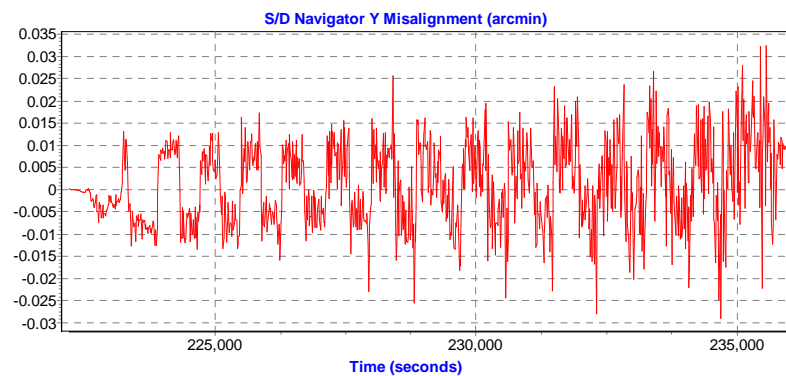
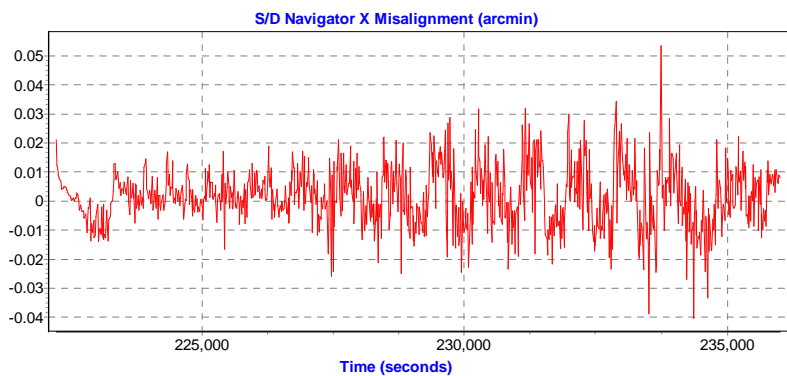
DOP over Tol: 0.0 %

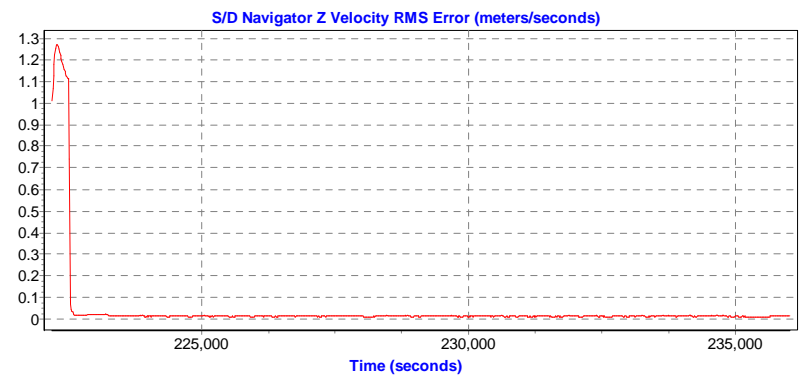
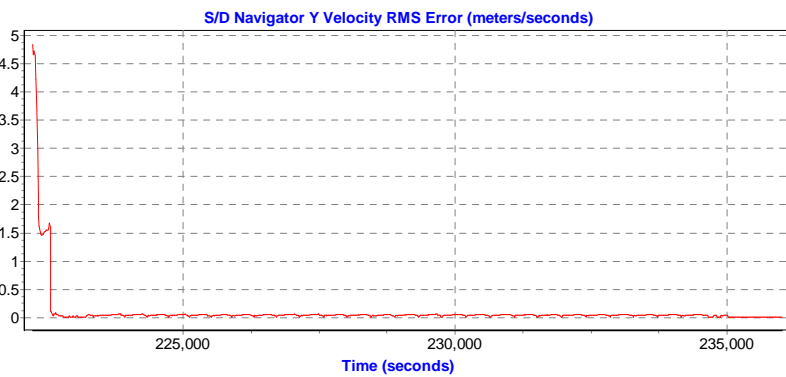
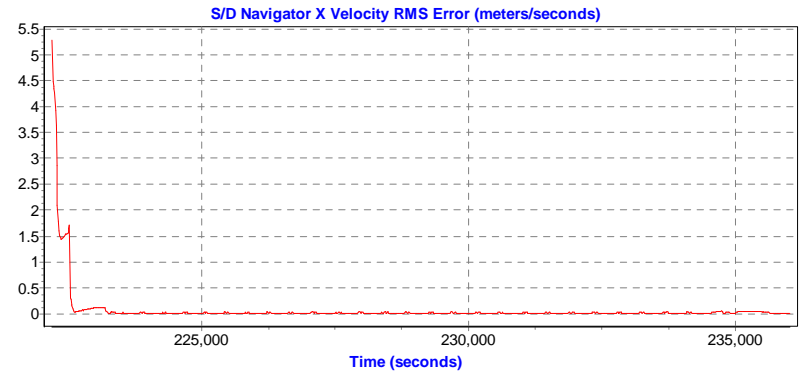
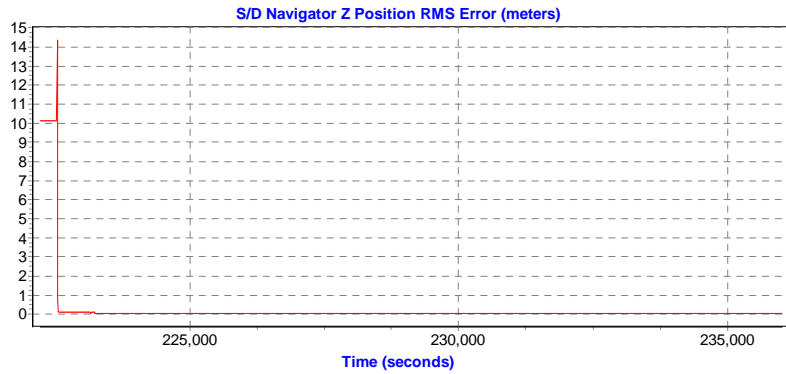
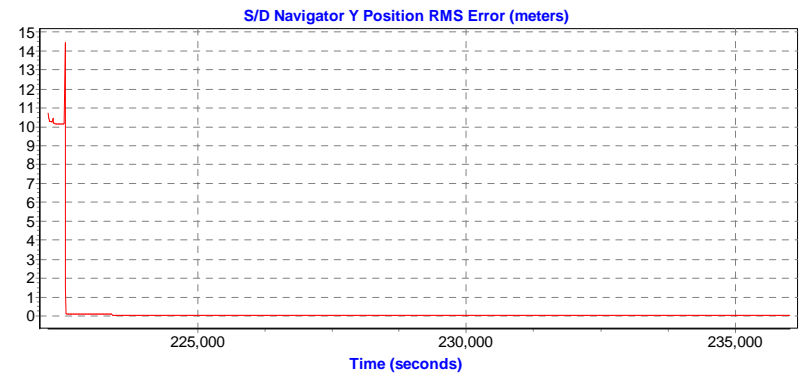
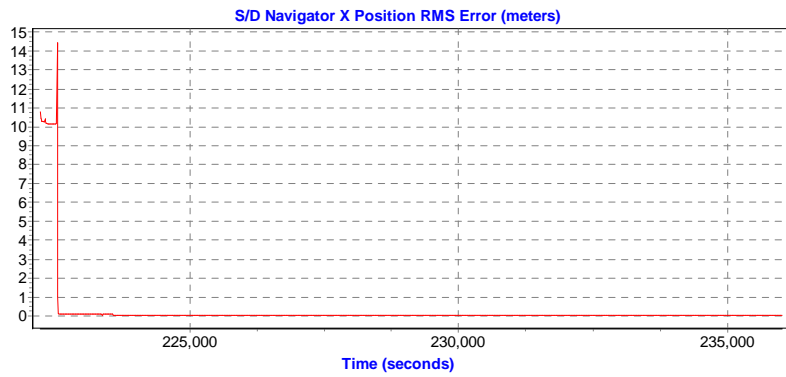
Baseline Distances:

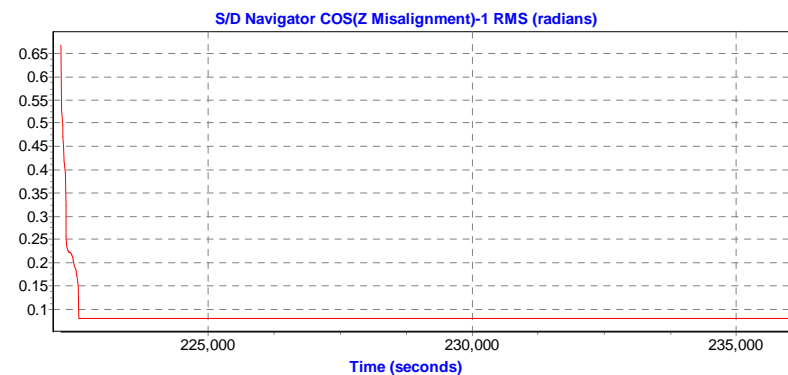
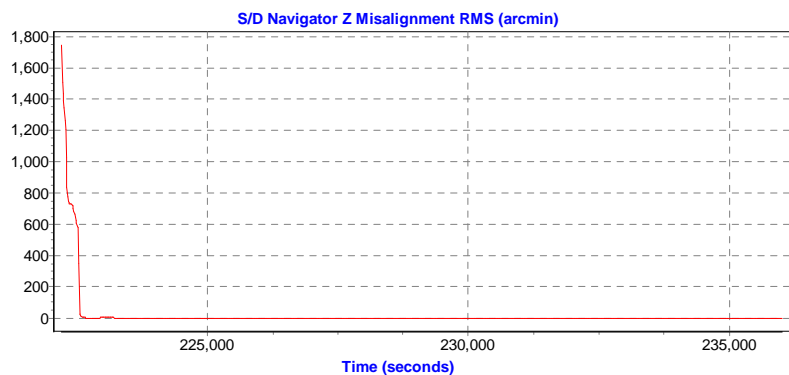
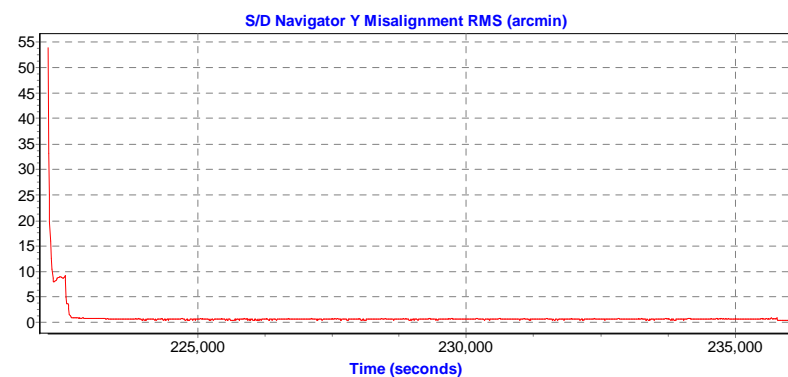
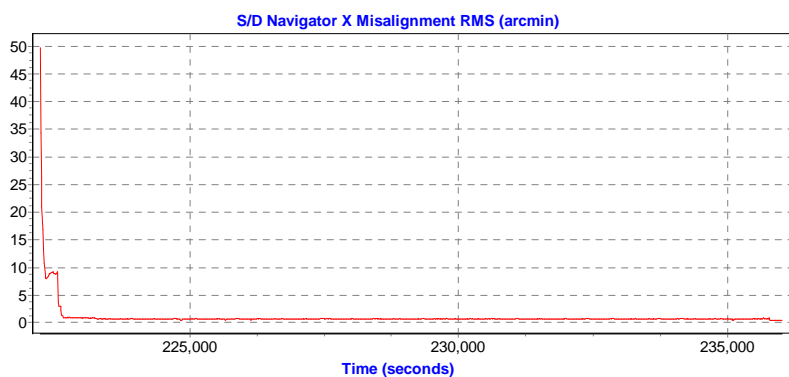
Maximum: 33.896 (km)  
Minimum: 0.959 (km)  
Average: 18.400 (km)  
First Epoch: 2.995 (km)  
Last Epoch: 1.598 (km)

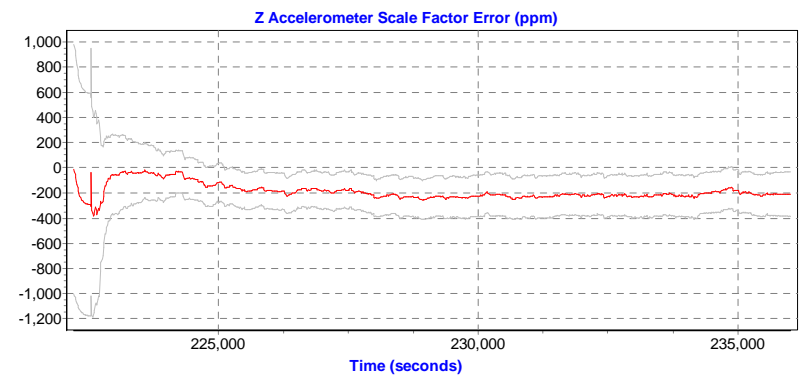
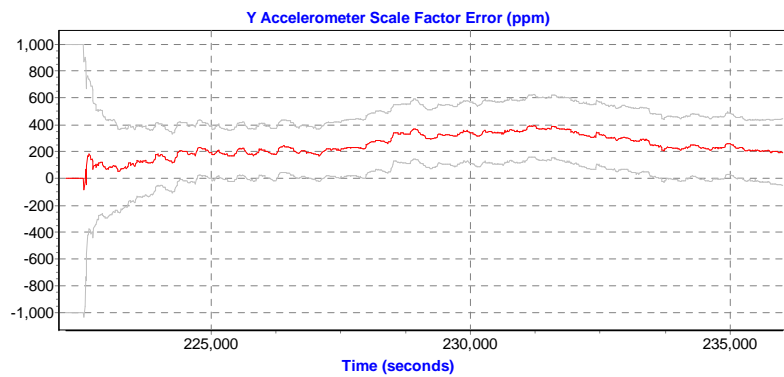
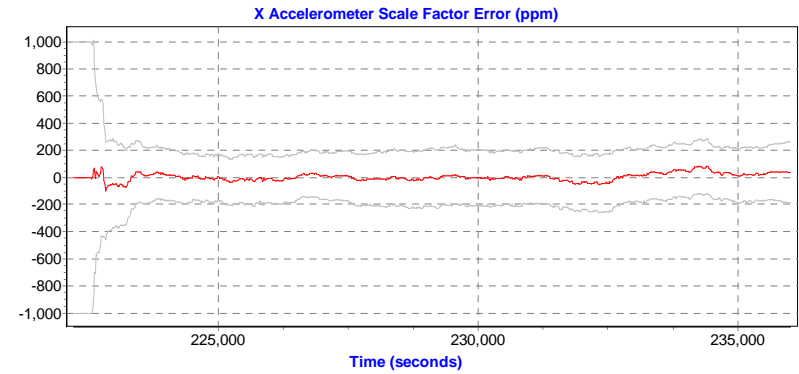
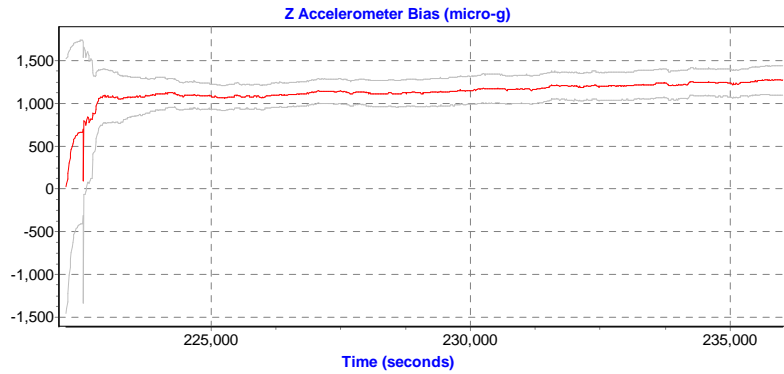
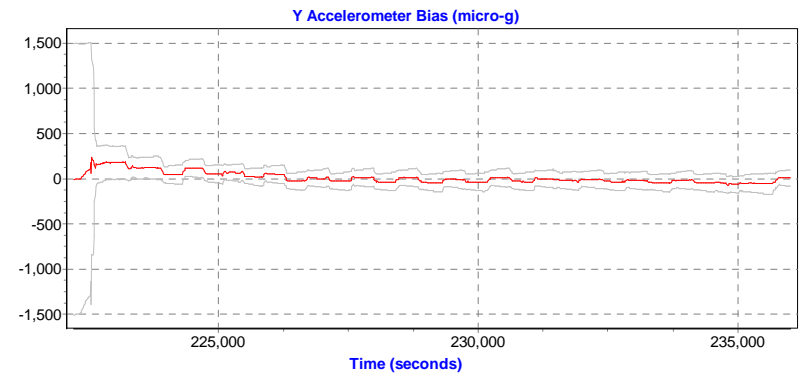
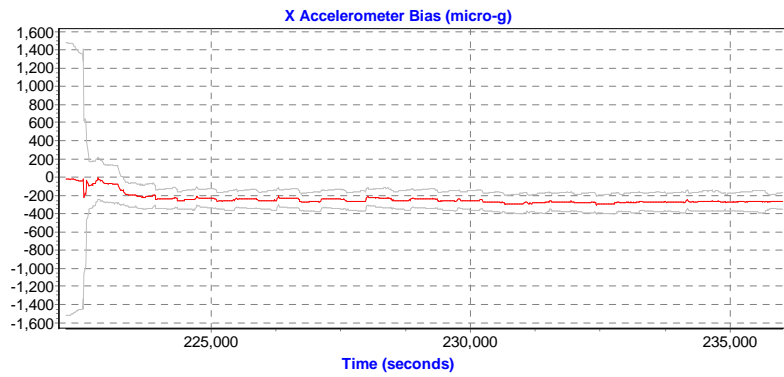
Estimated Errors and RMS

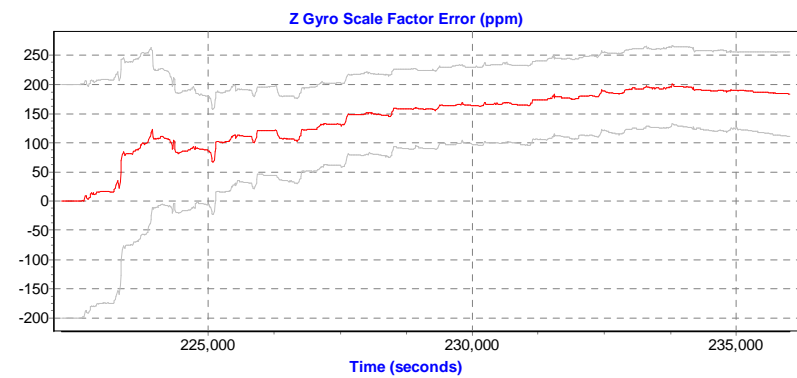
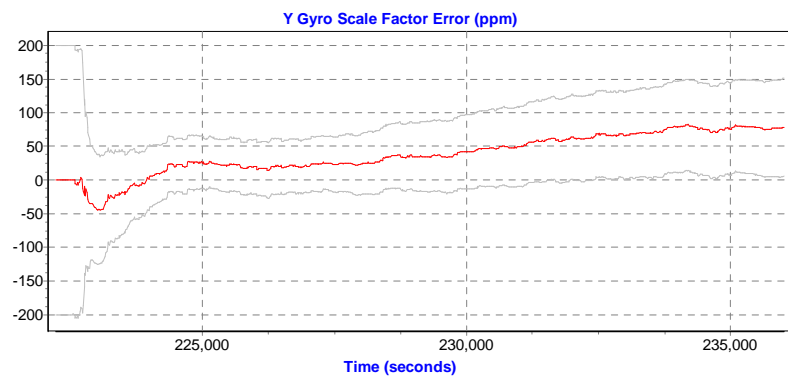
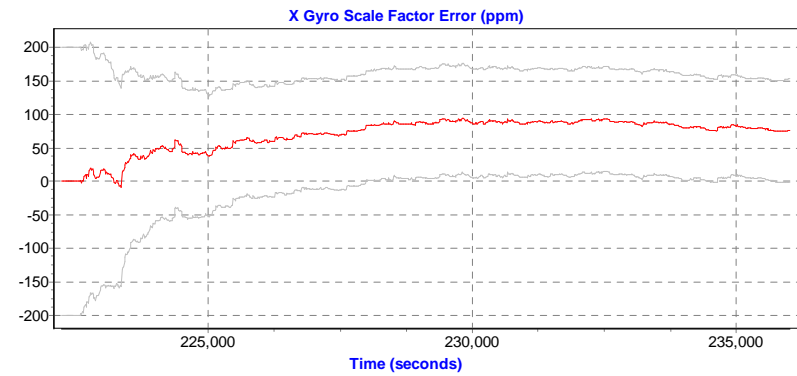
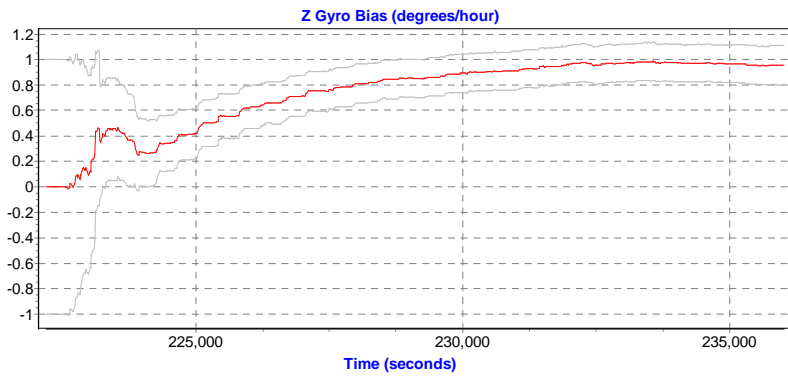
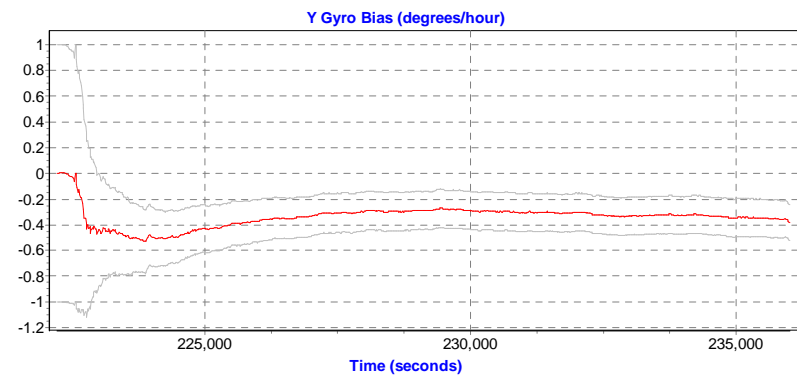
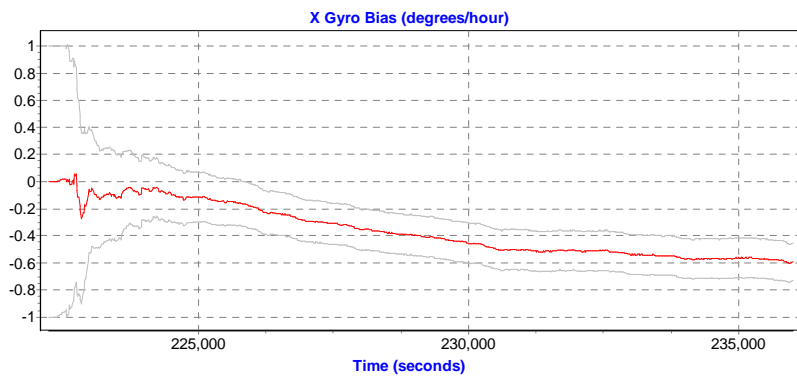




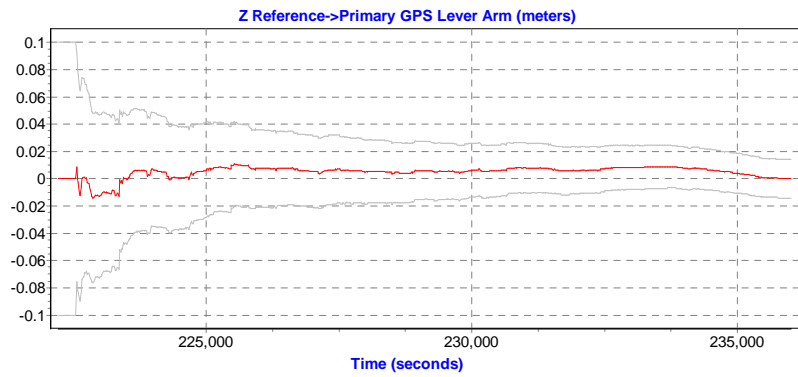
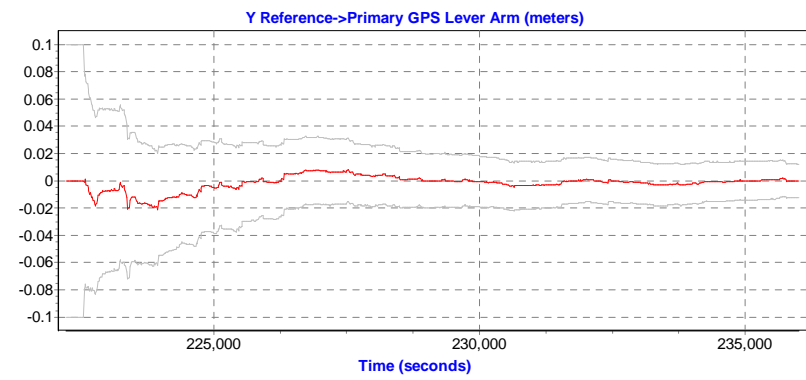
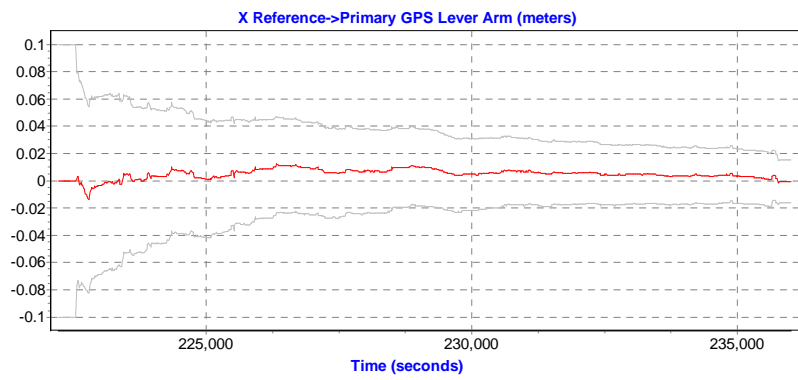






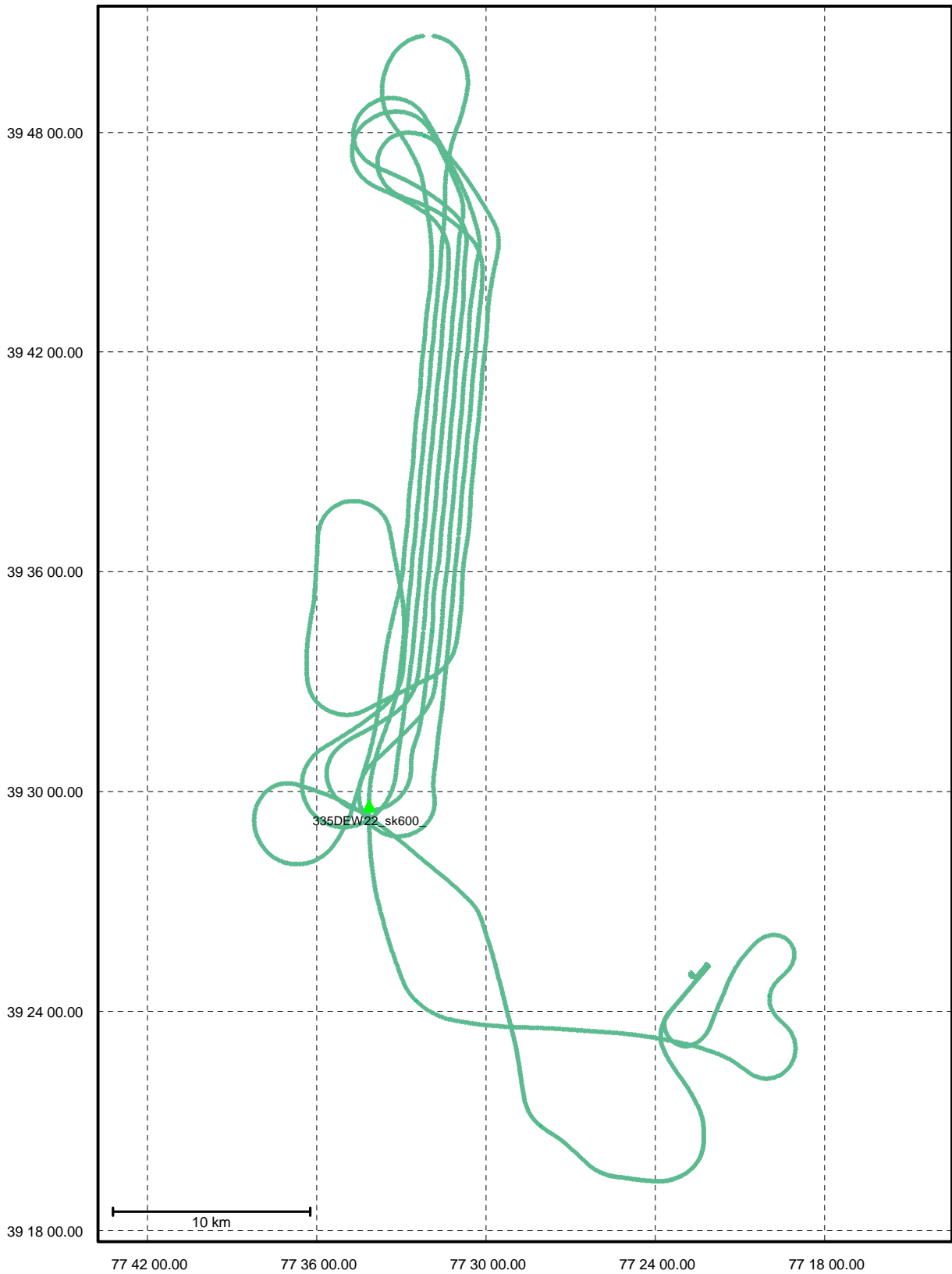






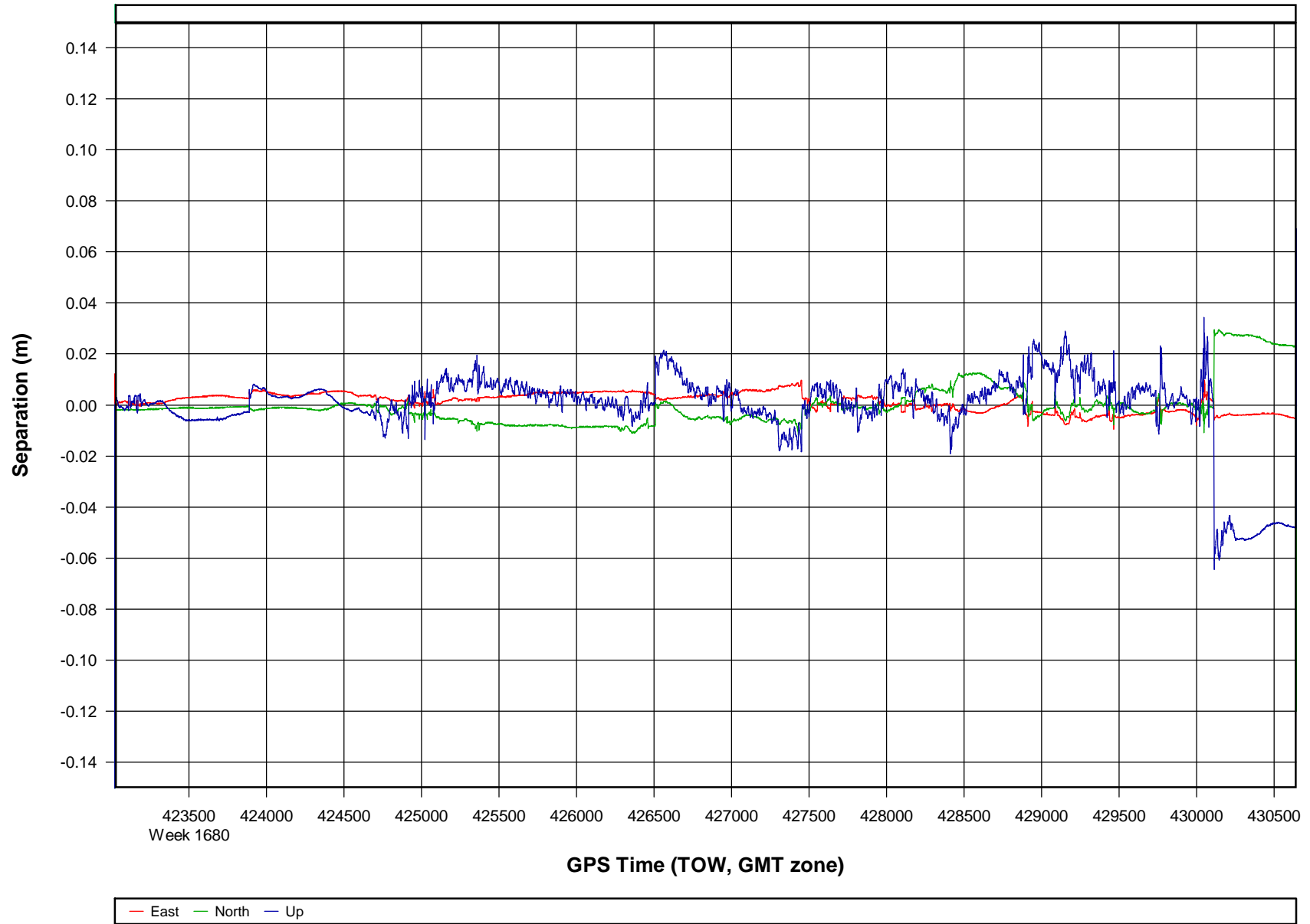
# Combined - Map Run (1)

Geographic, DMS

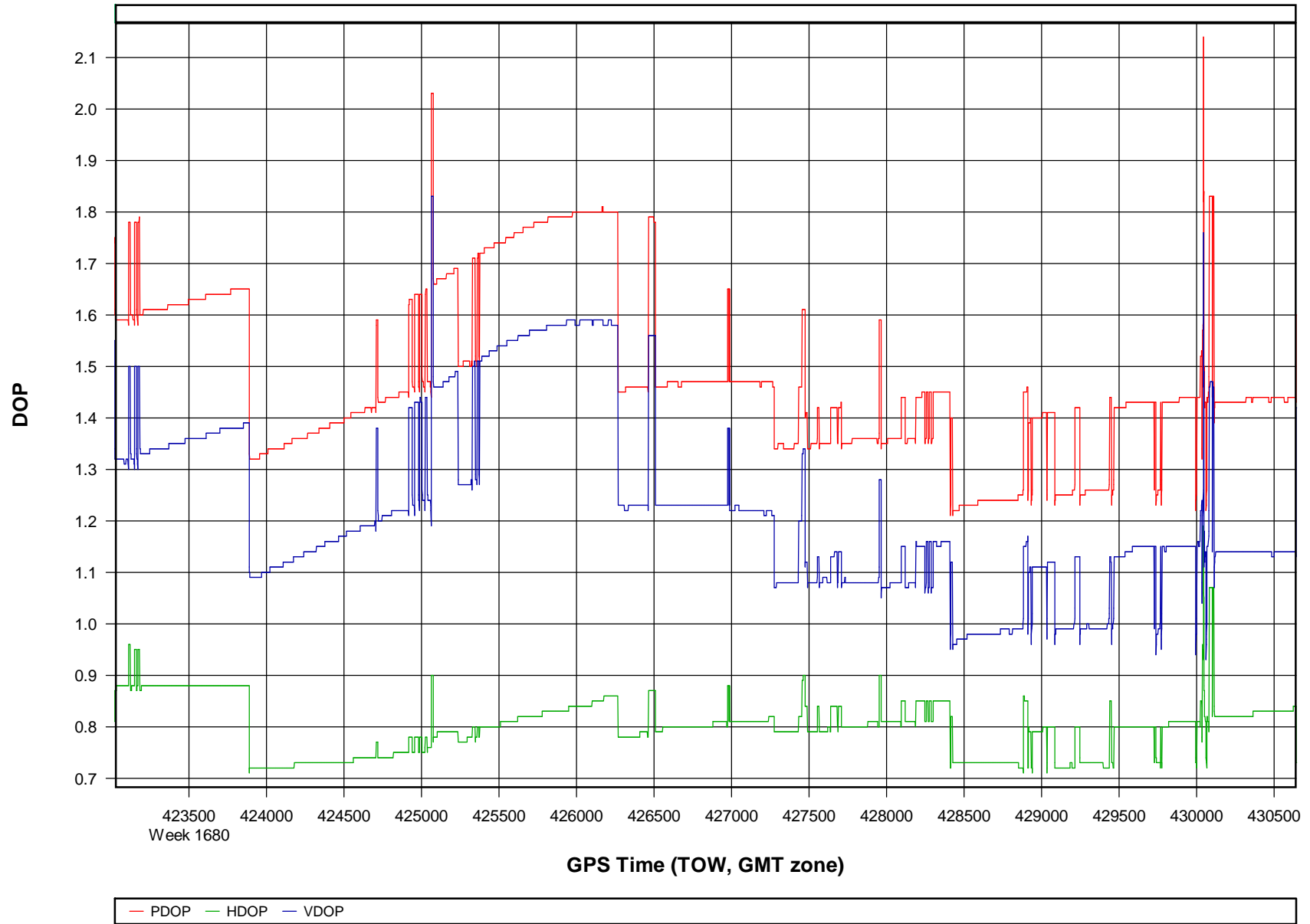


- + Ukn
- + Q1
- + Q2
- + Q3
- + Q4
- + Q5
- + Q6
- ▲ Master

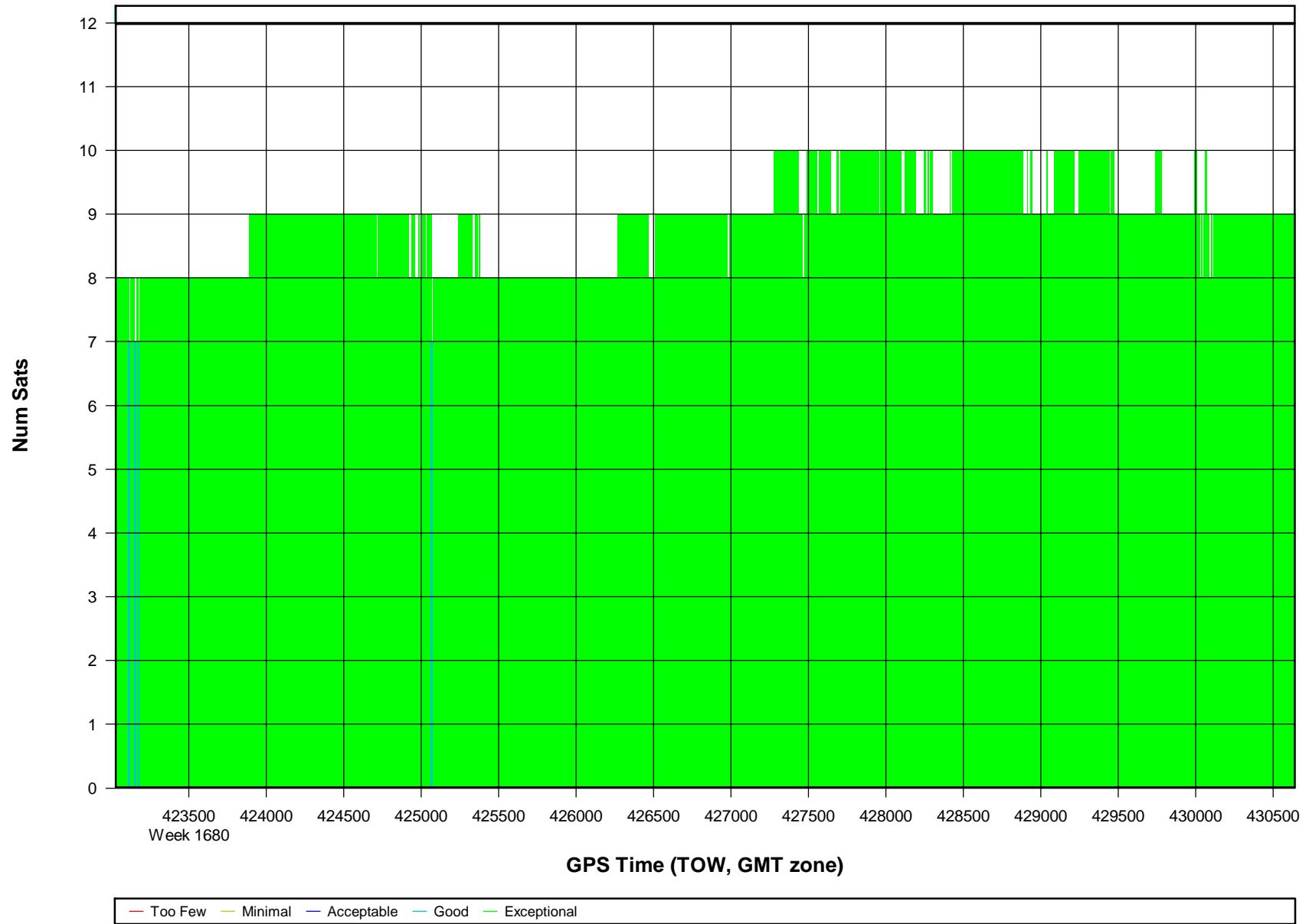
### o112082a [Combined] - Forward/Reverse or Combined Separation Plot



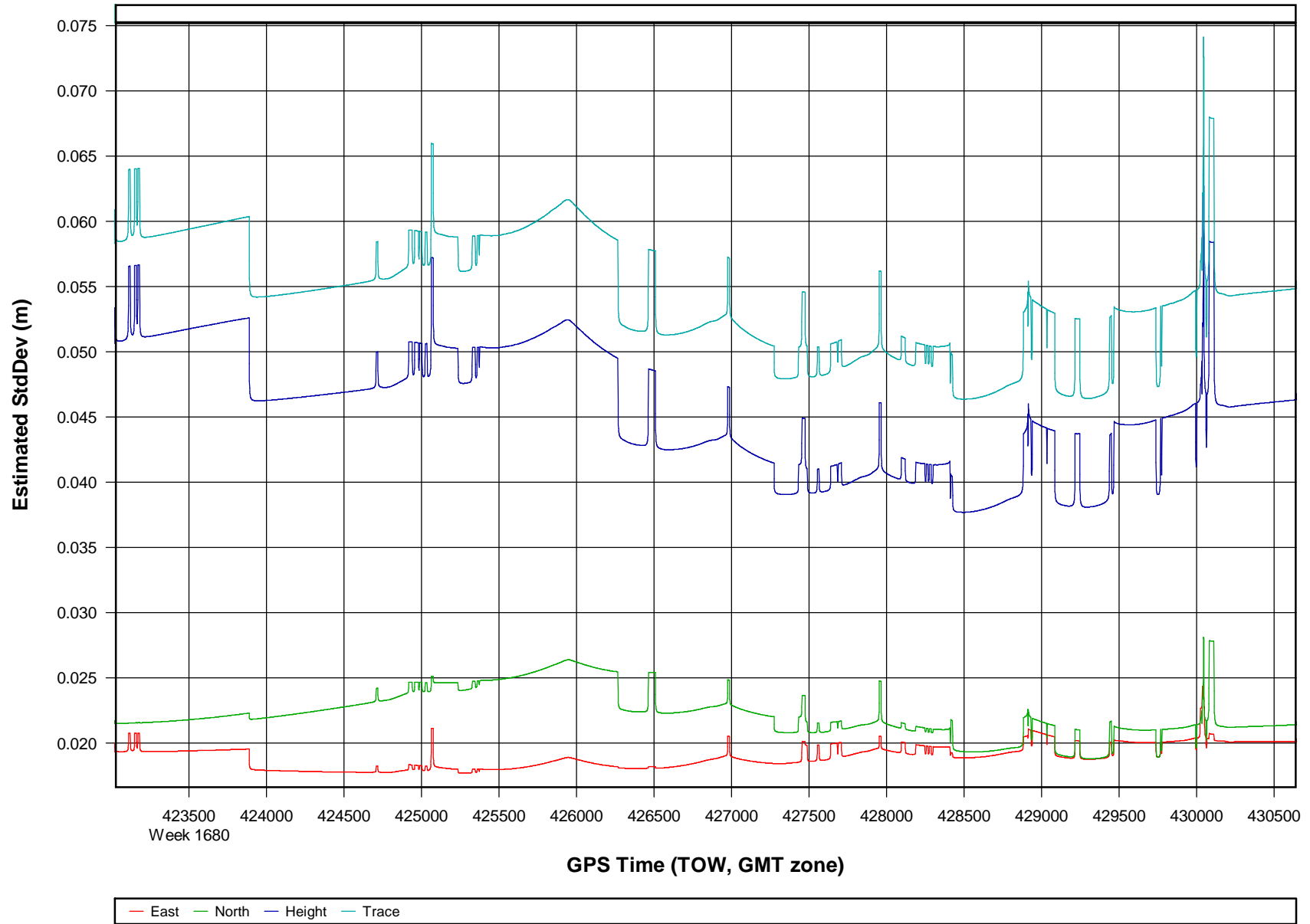
### o112082a [Combined] - PDOP, HDOP, VDOP Plots



**o112082a [Combined] - Number of Satellites Bar Plot**



### o112082a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: E:\Projects\335DEW11\_USGS\_MD\_VA\_cont\2\_Operations\6\_Missions\o112082a\3\_Processed\GPS\o112082a.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file:	76361
No processed position:	68740
Missing Fwd or Rev:	3
With bad C/A code:	0
With bad L1 Phase:	0

## Measurement RMS Values:

L1 Phase:	0.0172 (m)
C/A Code:	0.76 (m)
L1 Doppler:	0.031 (m/s)

## Fwd/Rev Separation RMS Values:

East:	0.004 (m)
North:	0.009 (m)
Height:	0.016 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (7616 occurrences):

East:	0.004 (m)
North:	0.008 (m)
Height:	0.015 (m)

## Quality Number Percentages:

Q 1:	99.9 %
Q 2:	0.1 %
Q 3:	0.0 %
Q 4:	0.0 %
Q 5:	0.0 %
Q 6:	0.0 %

## Position Standard Deviation Percentages:

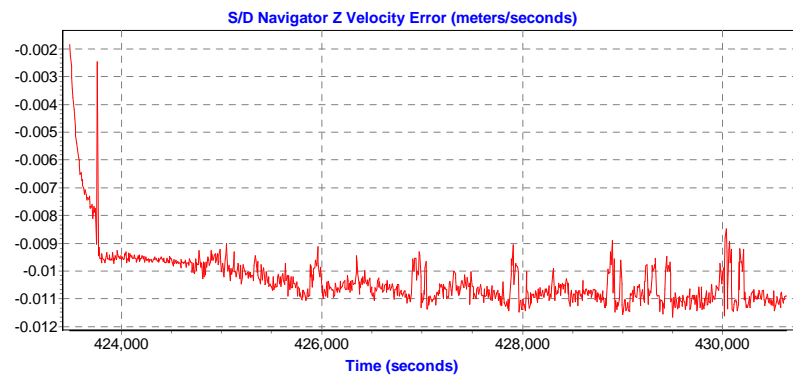
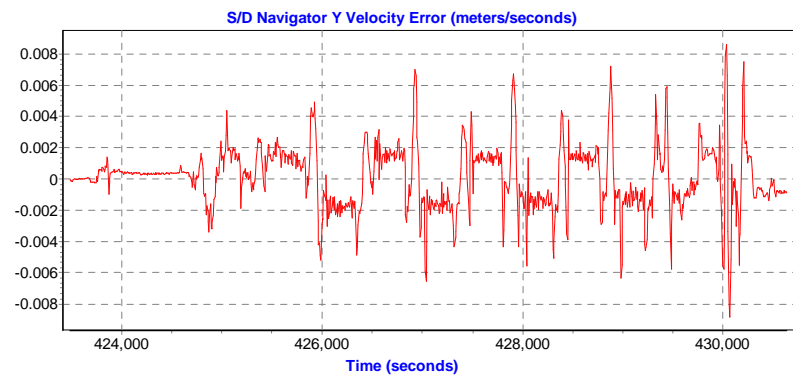
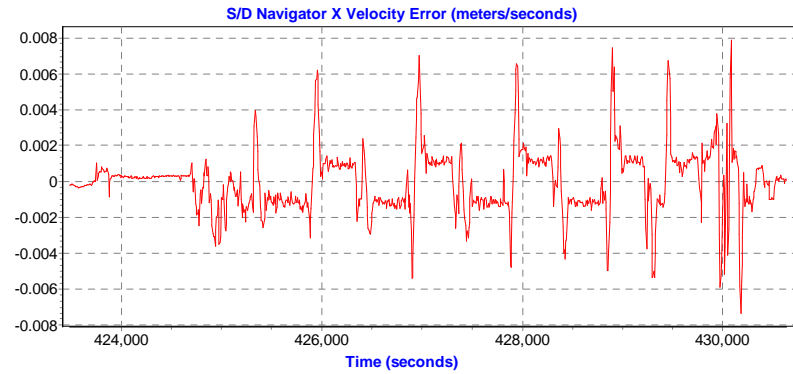
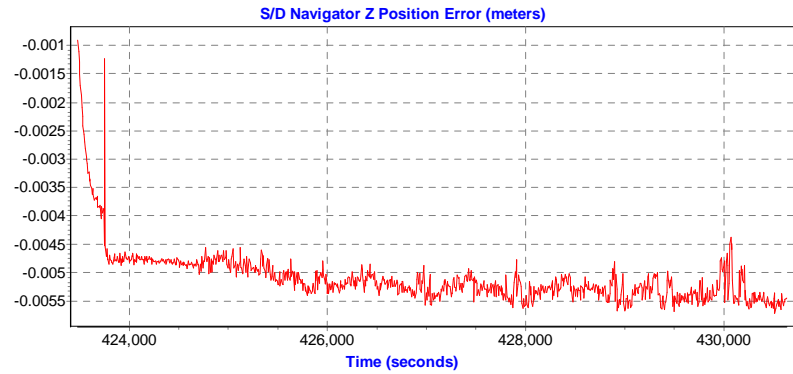
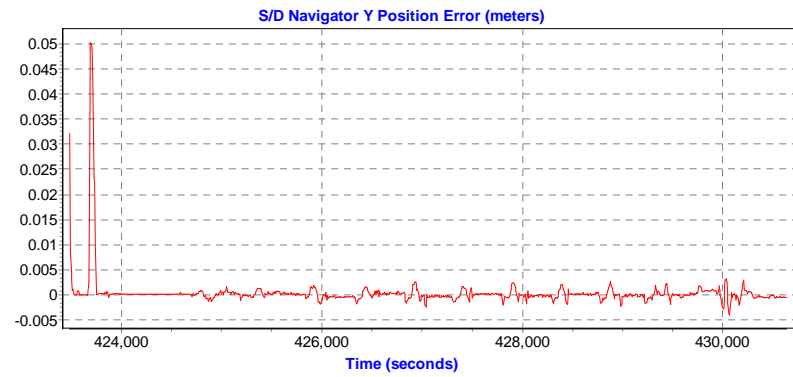
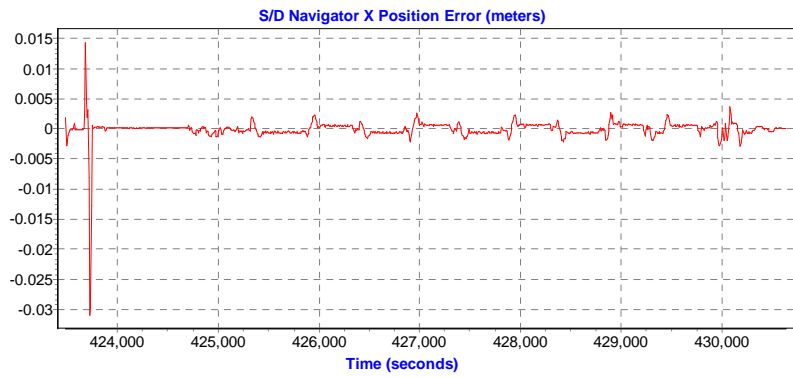
0.00 - 0.10 m:	100.0 %
0.10 - 0.30 m:	0.0 %
0.30 - 1.00 m:	0.0 %
1.00 - 5.00 m:	0.0 %
5.00 m + over:	0.0 %

## Percentages of epochs with DD\_DOP over 10.00:

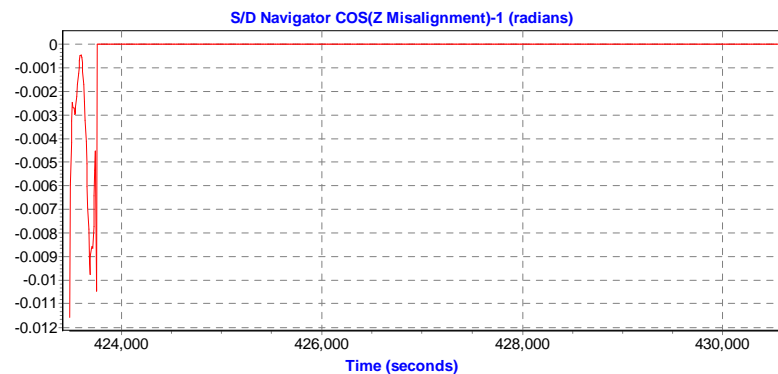
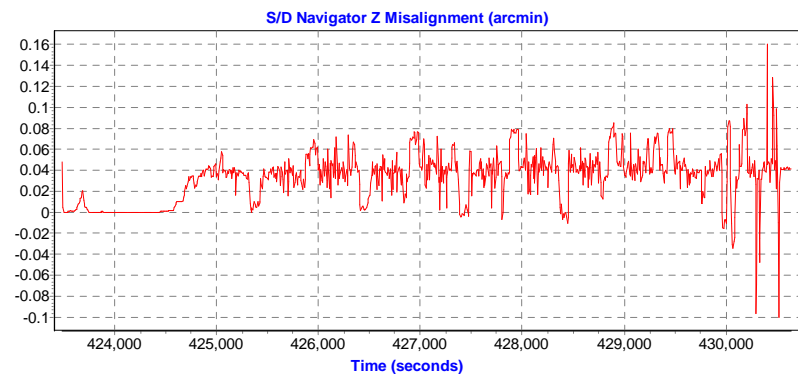
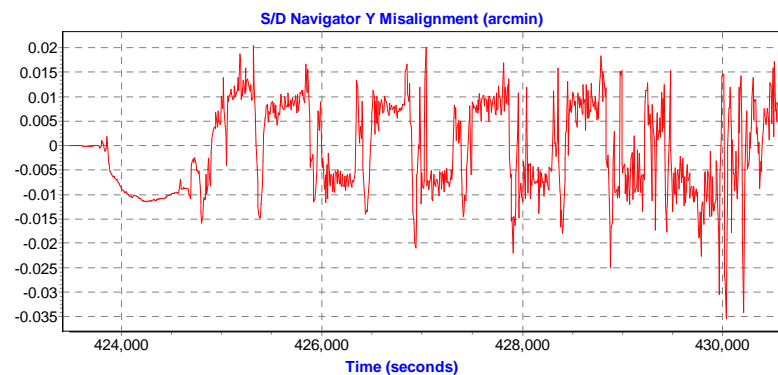
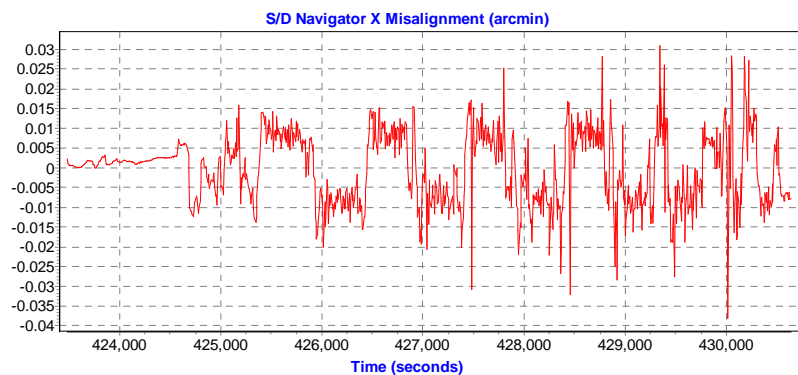
DOP over Tol:	0.0 %
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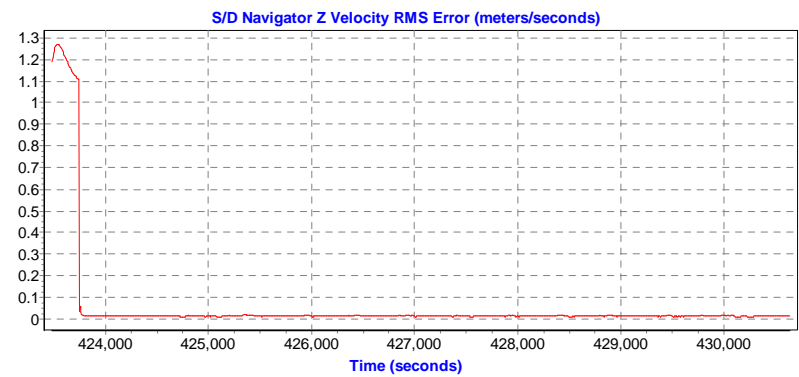
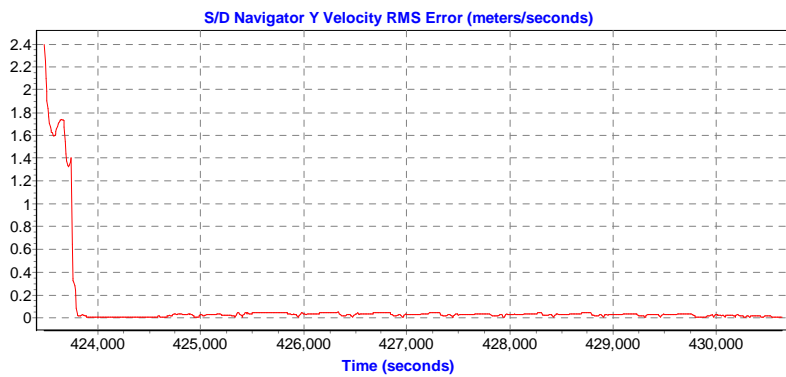
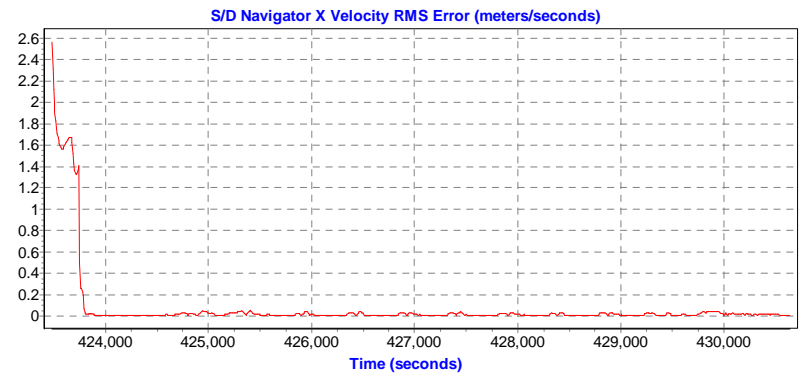
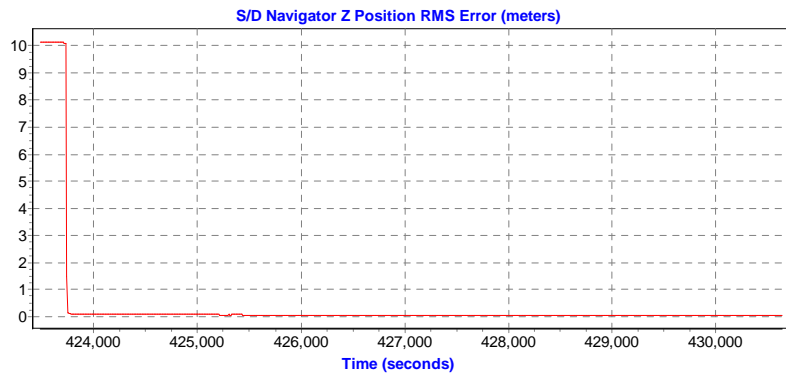
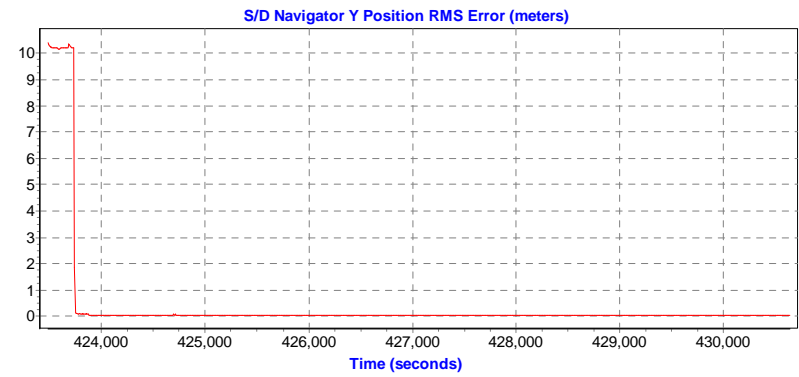
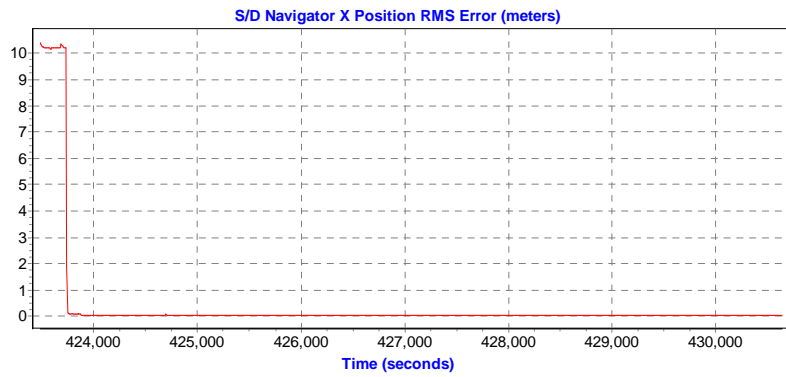
## Baseline Distances:

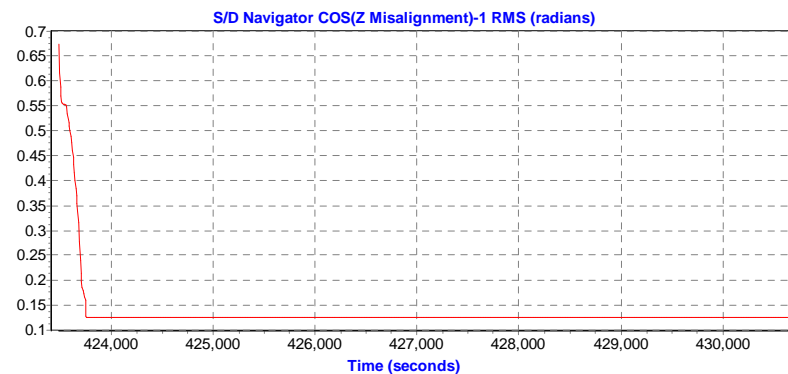
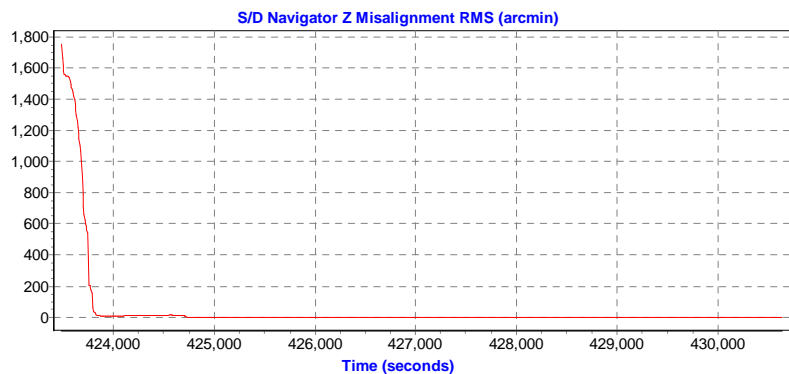
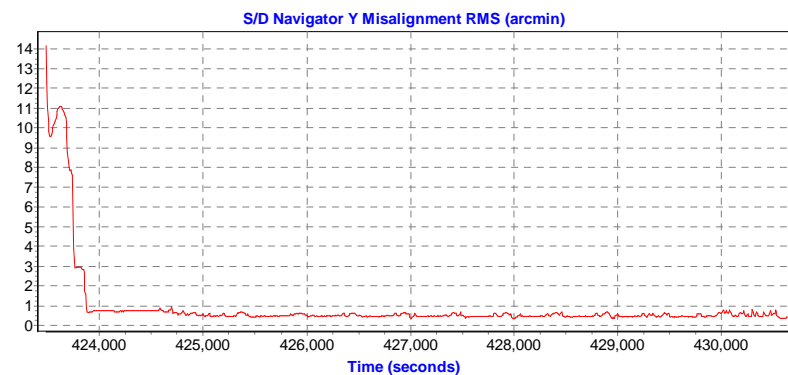
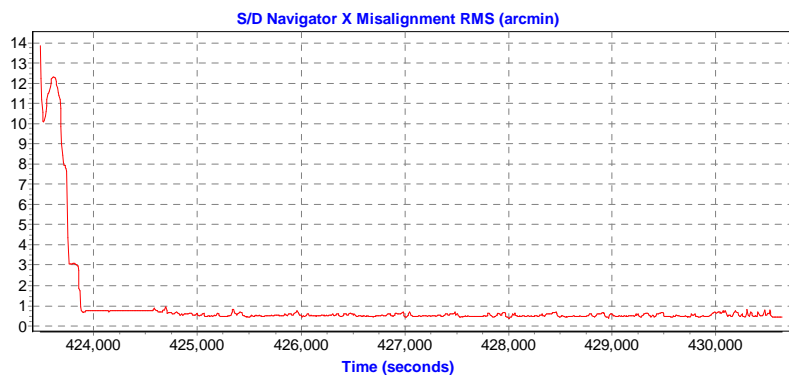
Maximum:	39.072 (km)
Minimum:	1.201 (km)
Average:	17.522 (km)
First Epoch:	18.421 (km)
Last Epoch:	18.392 (km)

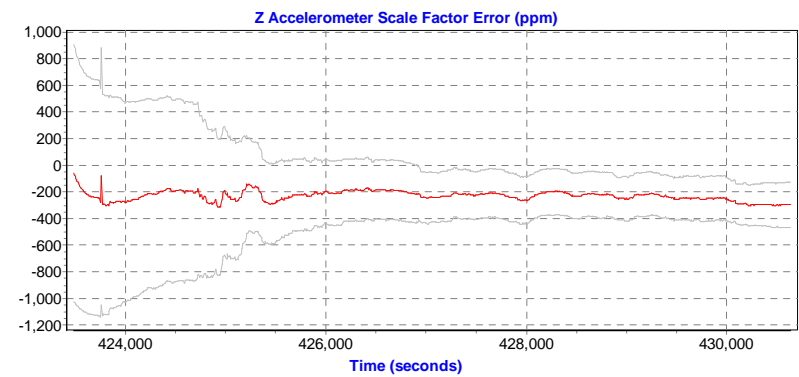
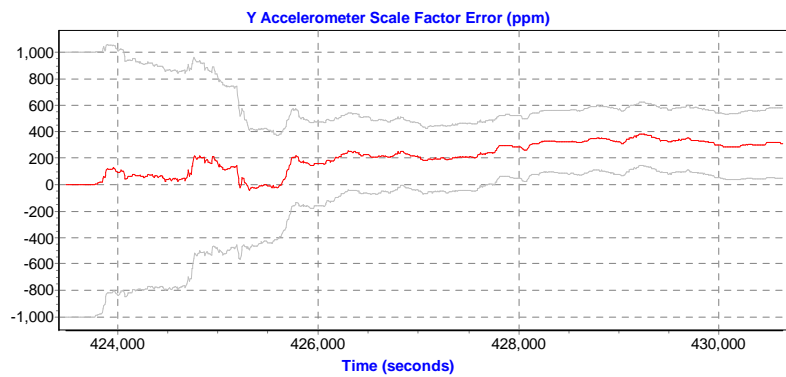
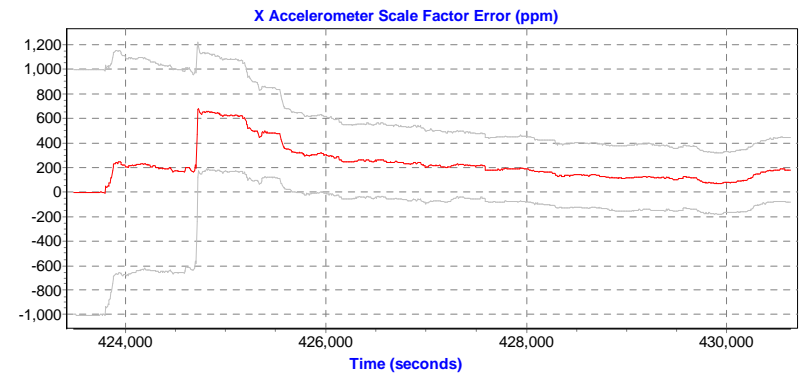
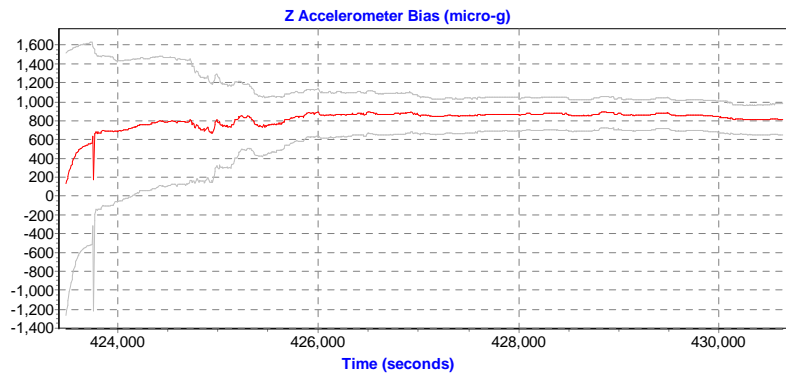
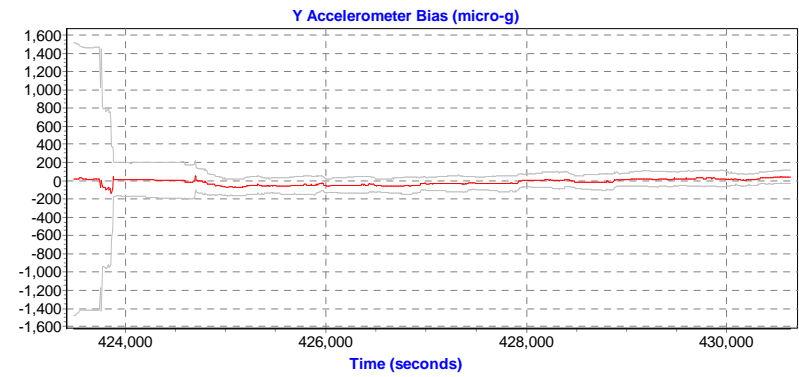
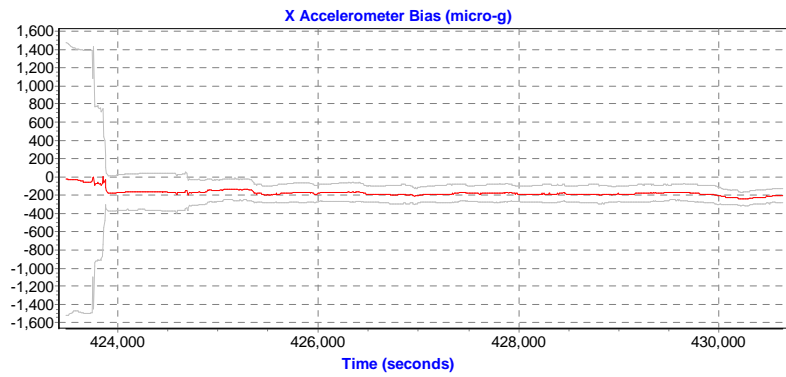


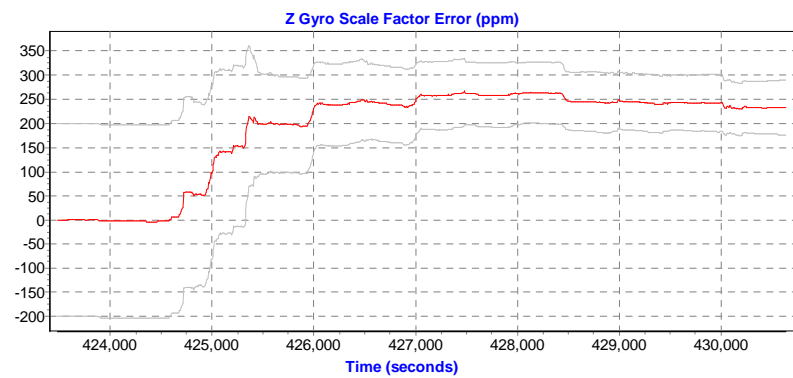
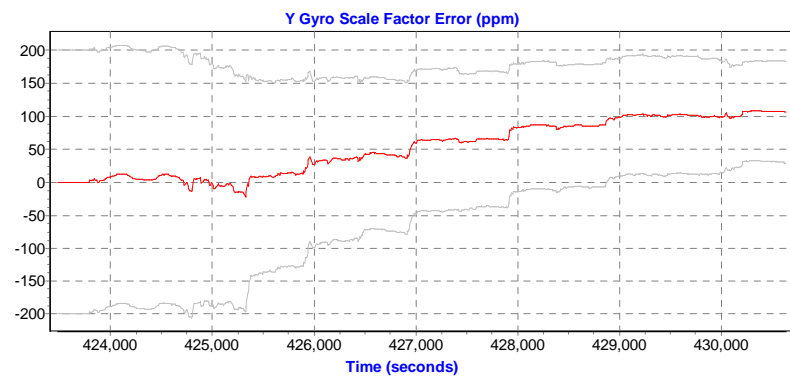
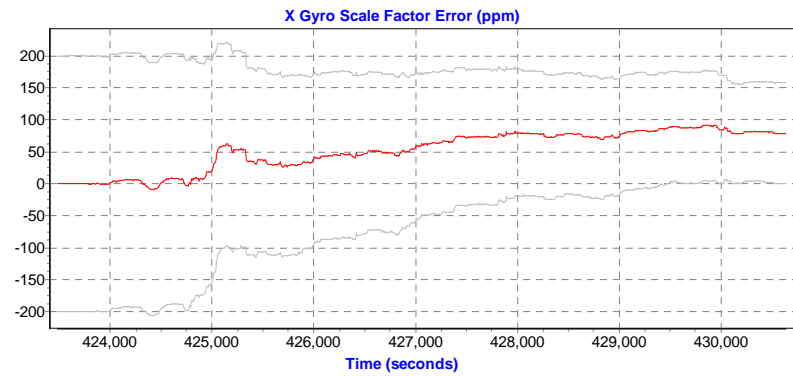
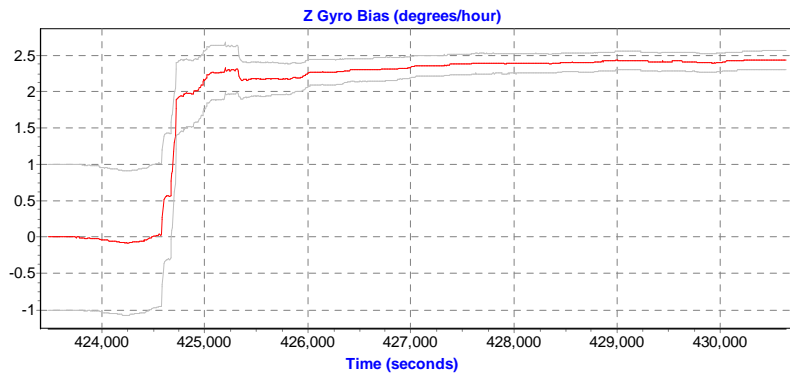
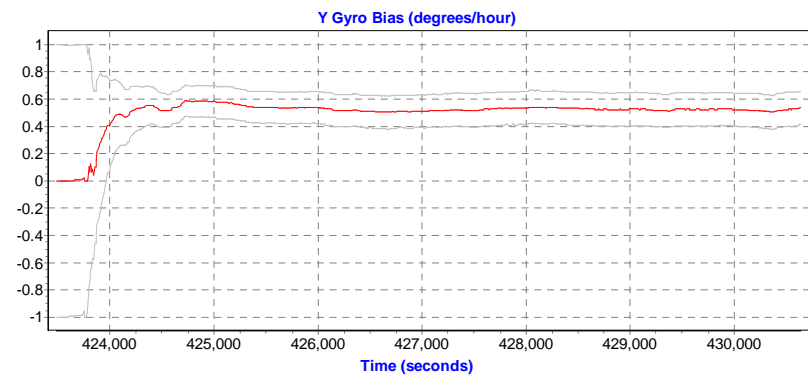
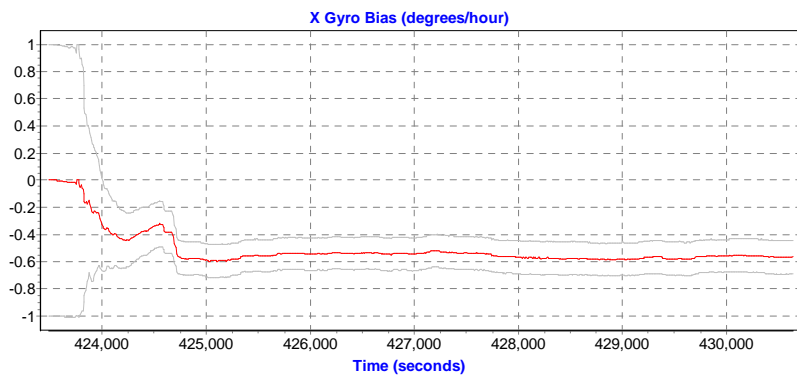


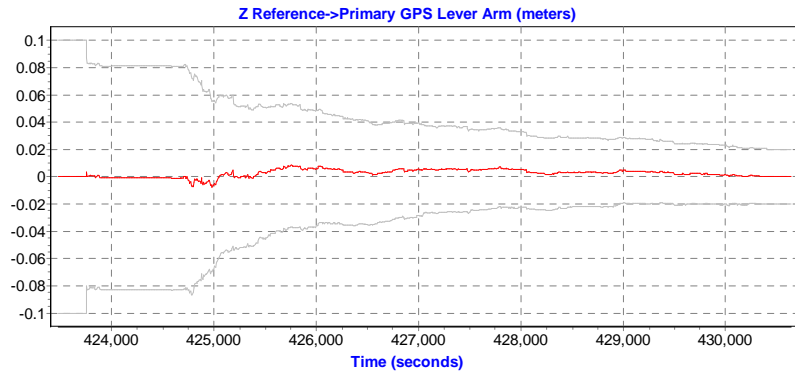
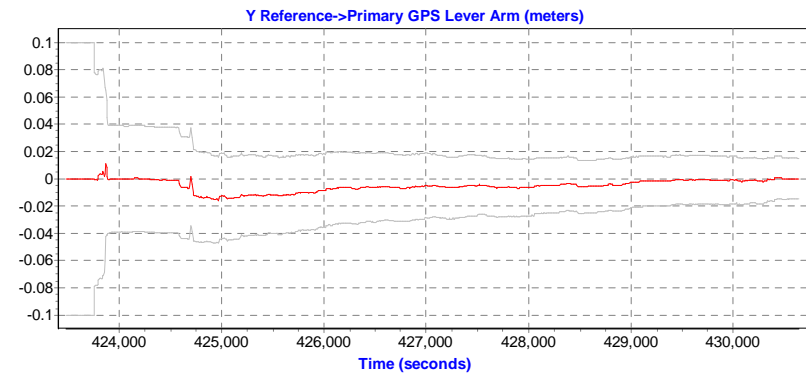
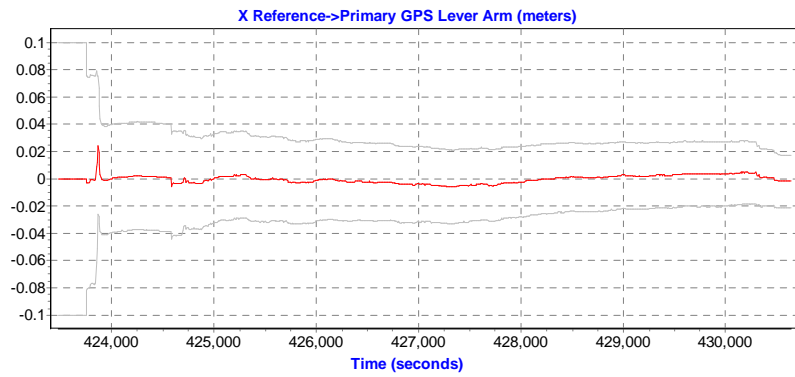






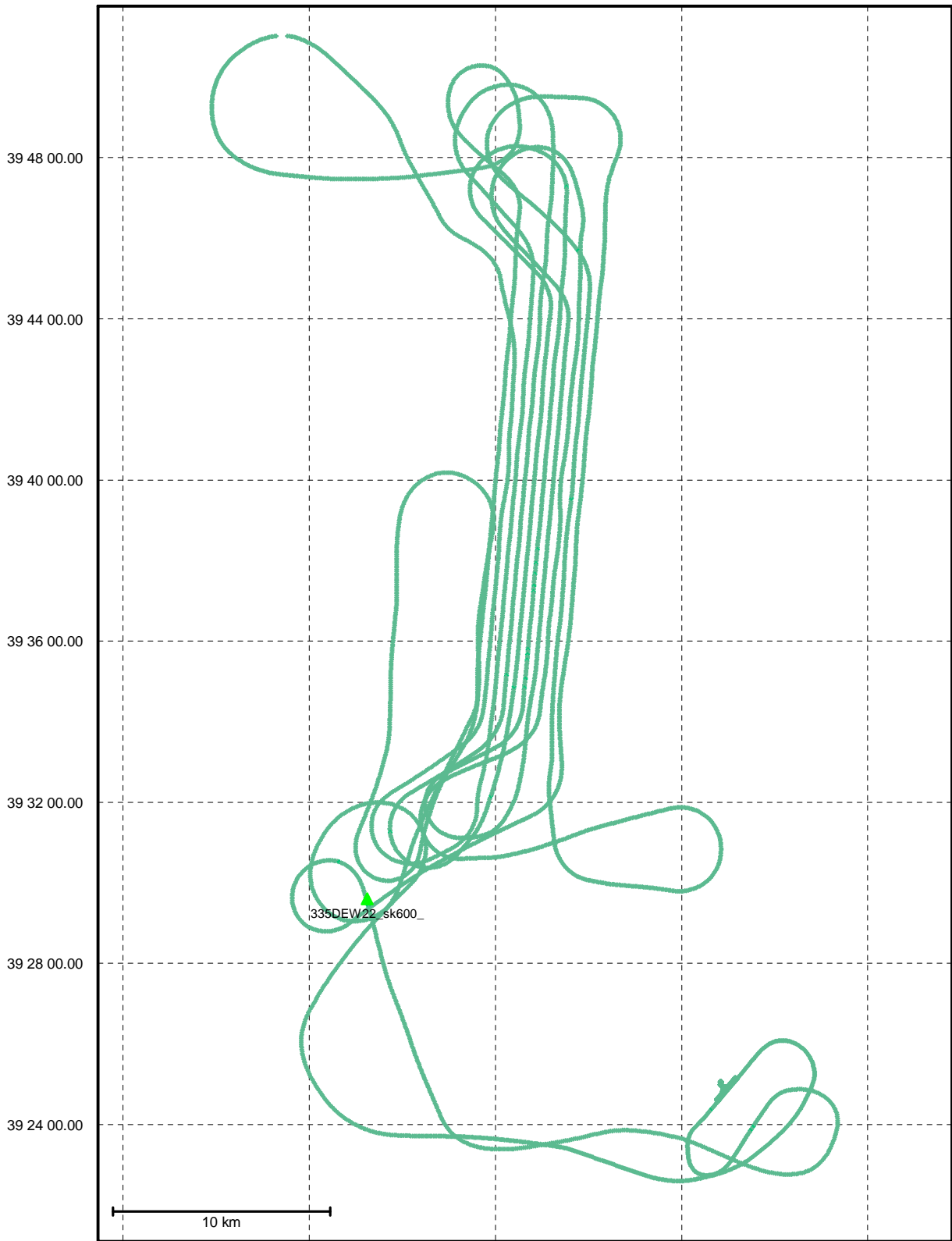






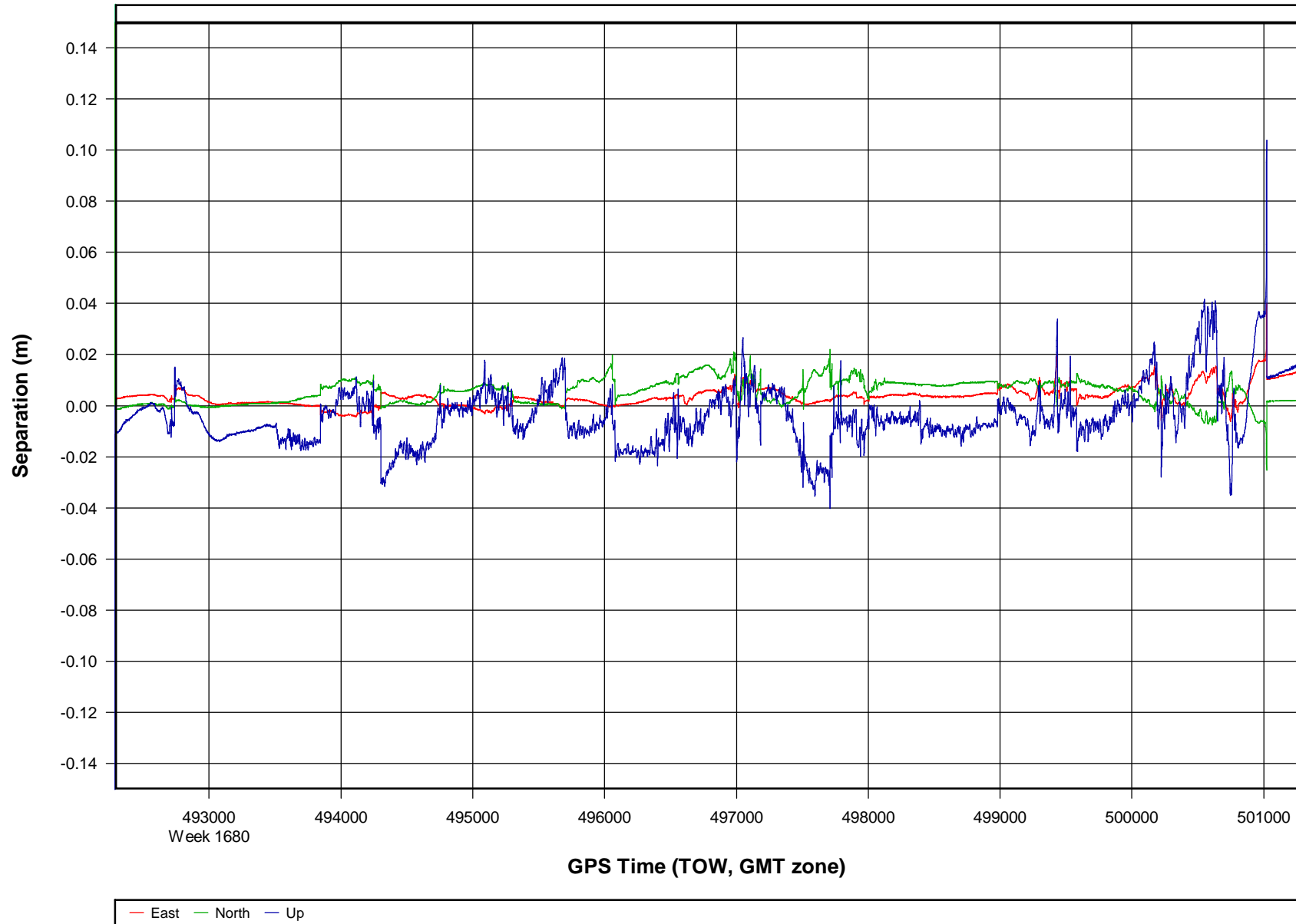
# Combined - Map Run (1)

Geographic, DMS



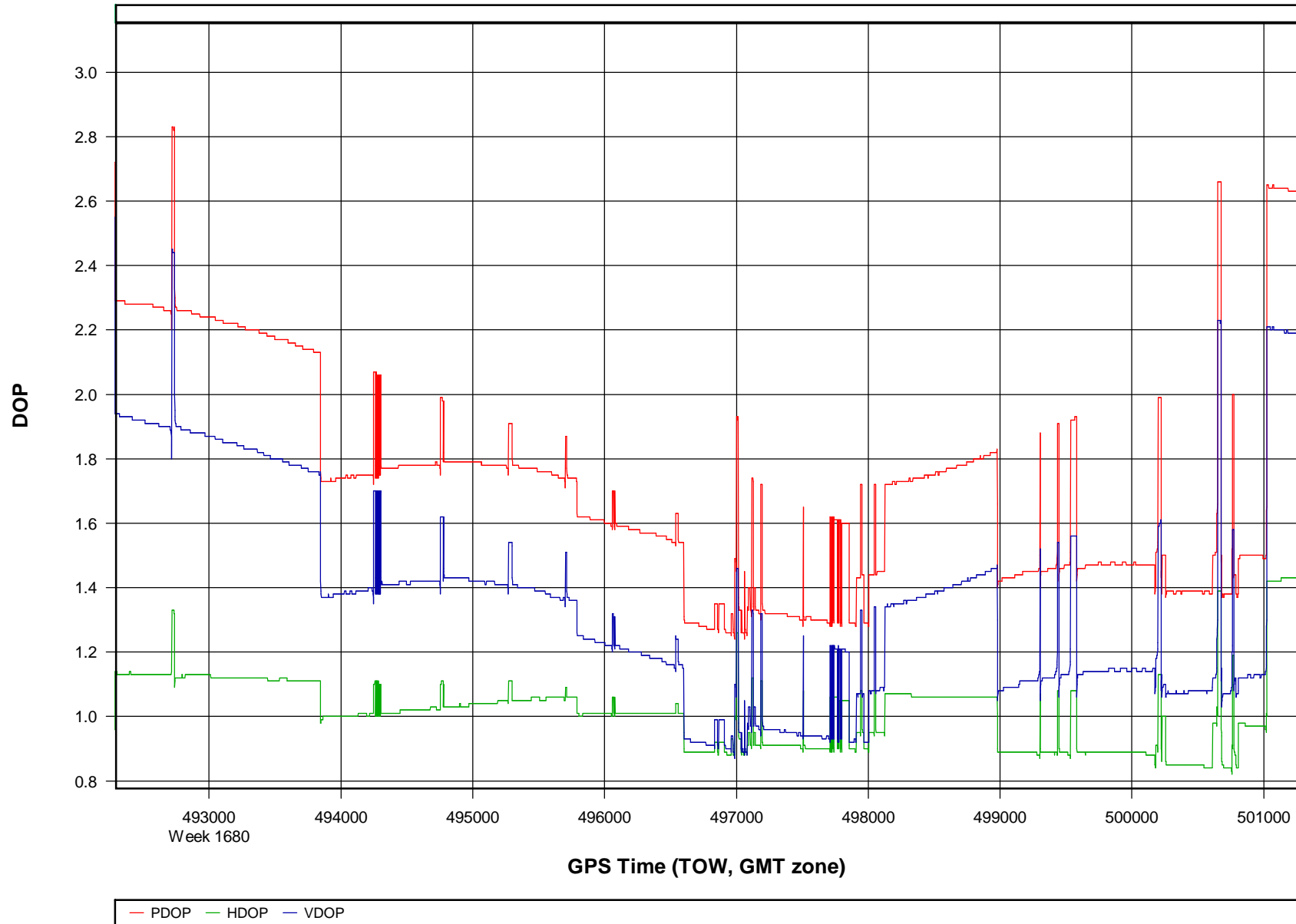
+ Ukn + Q1 + Q2 + Q3 + Q4 + Q5 + Q6 ▲ Master

### o112083a [Combined] - Forward/Reverse or Combined Separation Plot

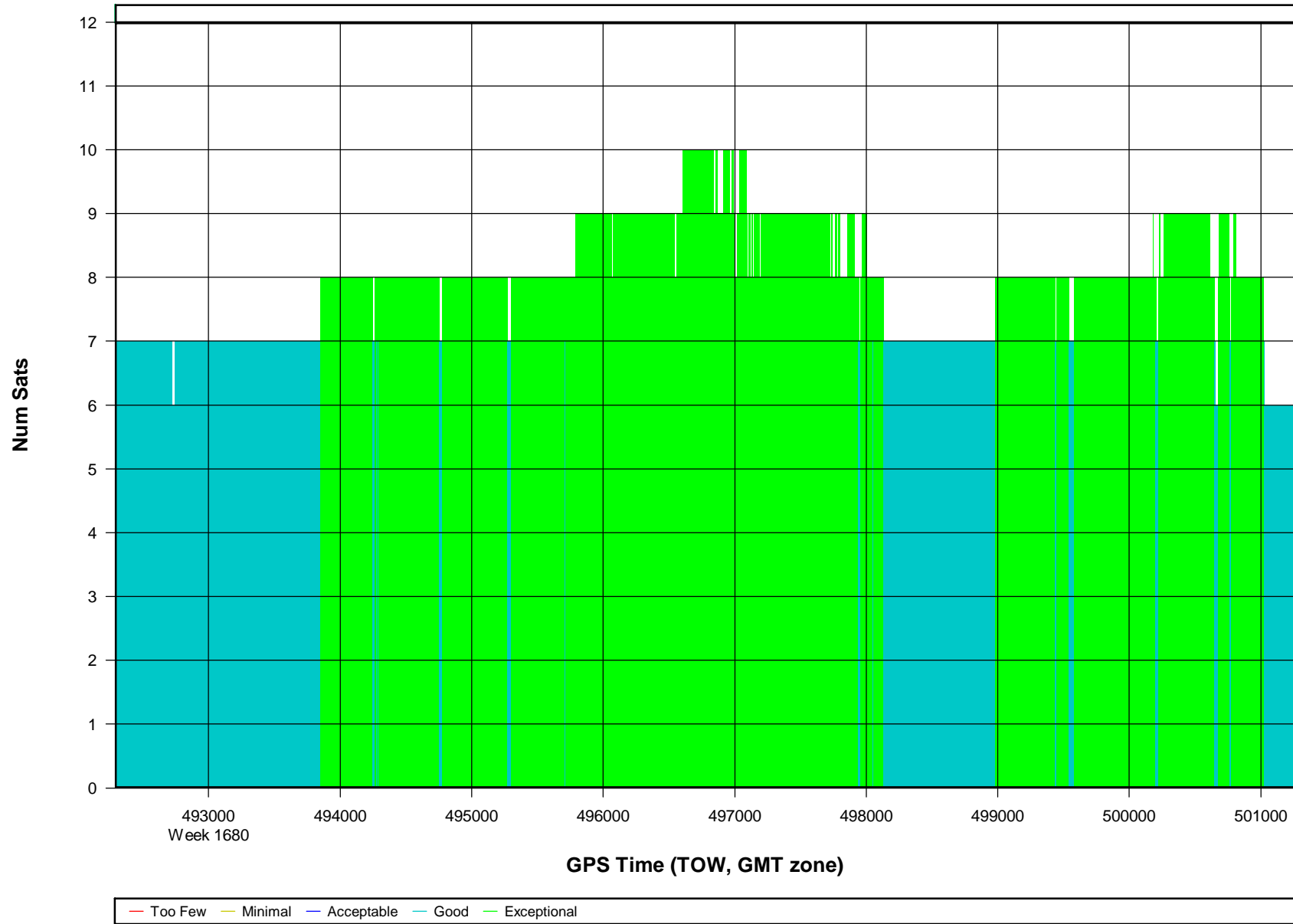




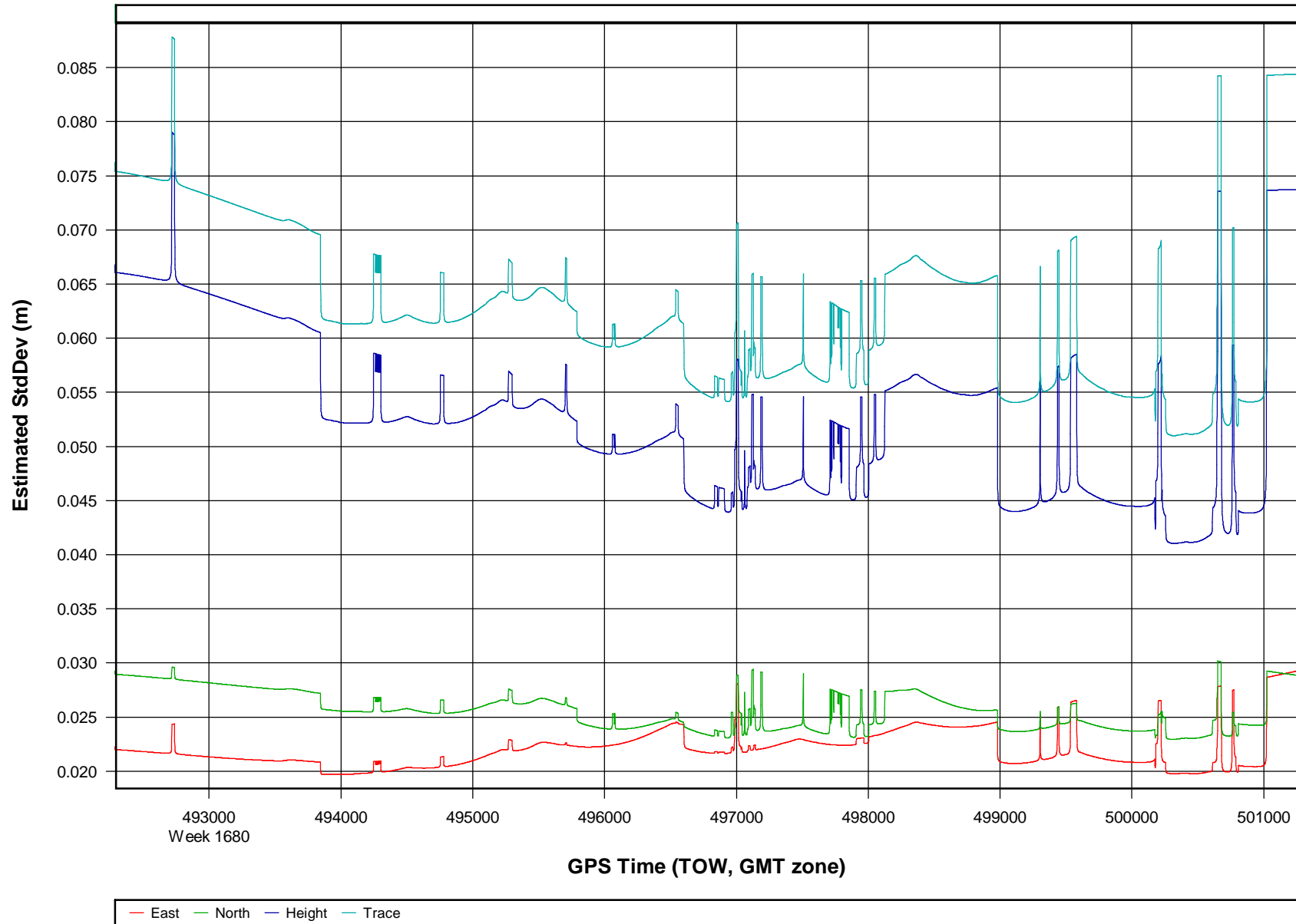
### o112083a [Combined] - PDOP, HDOP, VDOP Plots



### o112083a [Combined] - Number of Satellites Bar Plot



### o112083a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: E:\Projects\335DEW11\_USGS\_MD\_VA\_cont\2\_Operations\6\_Missions\o112083a\3\_Processed\GPS\o112083a.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file:	89925
No processed position:	80945
Missing Fwd or Rev:	3
With bad C/A code:	0
With bad L1 Phase:	0

## Measurement RMS Values:

L1 Phase:	0.0154 (m)
C/A Code:	0.74 (m)
L1 Doppler:	0.030 (m/s)

## Fwd/Rev Separation RMS Values:

East:	0.010 (m)
North:	0.011 (m)
Height:	0.035 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (8975 occurrences):

East:	0.005 (m)
North:	0.007 (m)
Height:	0.012 (m)

## Quality Number Percentages:

Q 1:	99.7 %
Q 2:	0.3 %
Q 3:	0.0 %
Q 4:	0.0 %
Q 5:	0.0 %
Q 6:	0.0 %

## Position Standard Deviation Percentages:

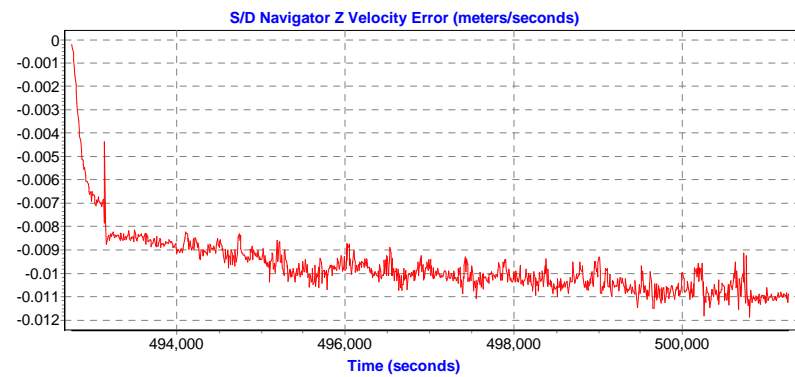
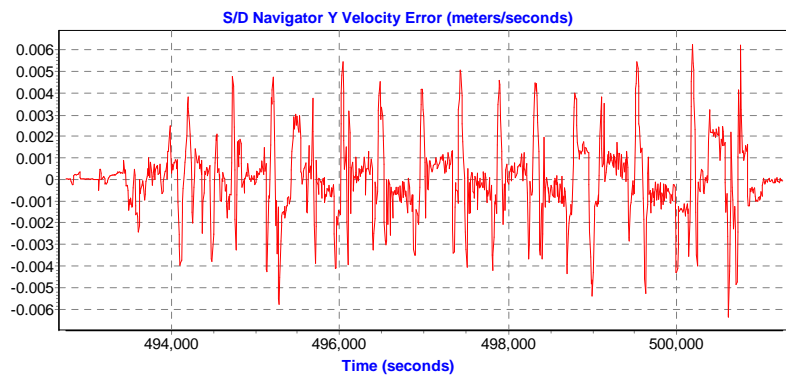
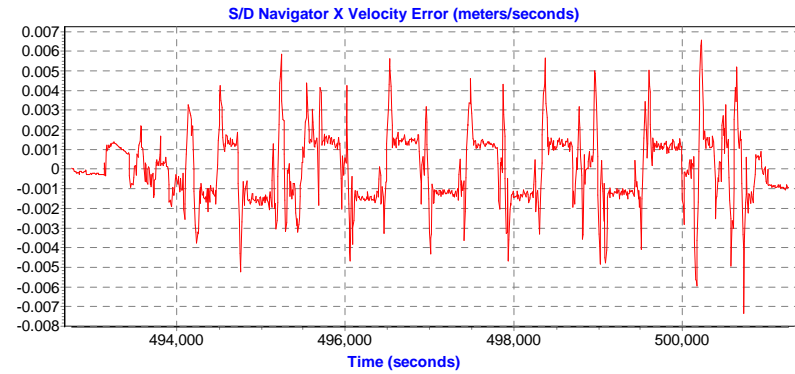
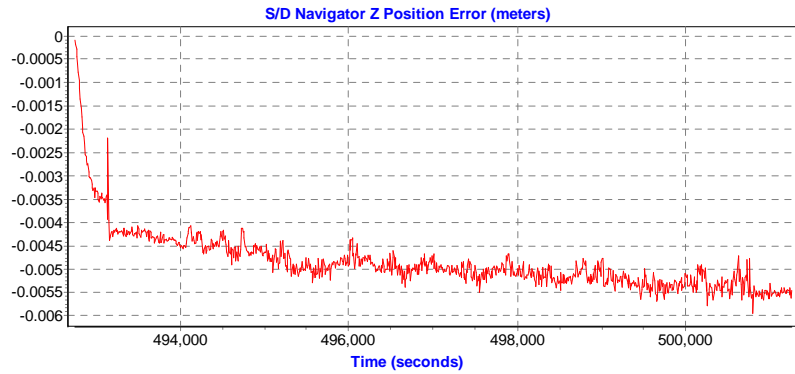
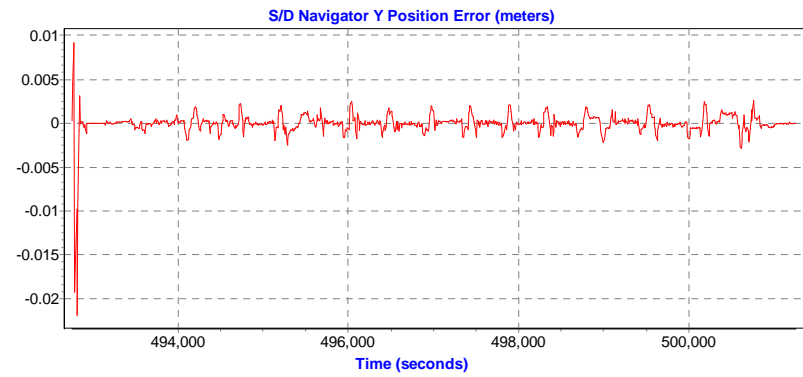
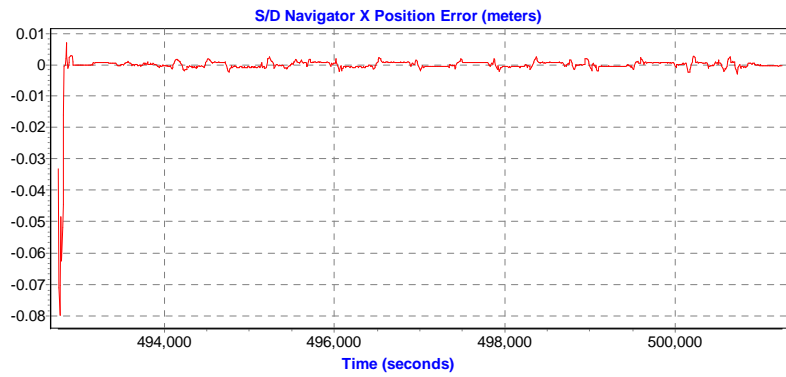
0.00 - 0.10 m:	100.0 %
0.10 - 0.30 m:	0.0 %
0.30 - 1.00 m:	0.0 %
1.00 - 5.00 m:	0.0 %
5.00 m + over:	0.0 %

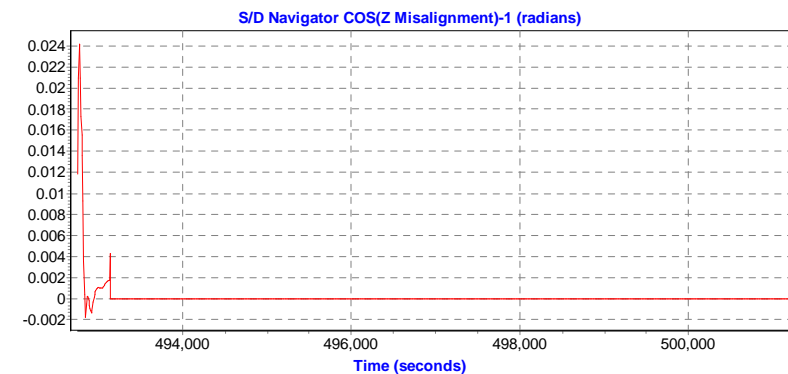
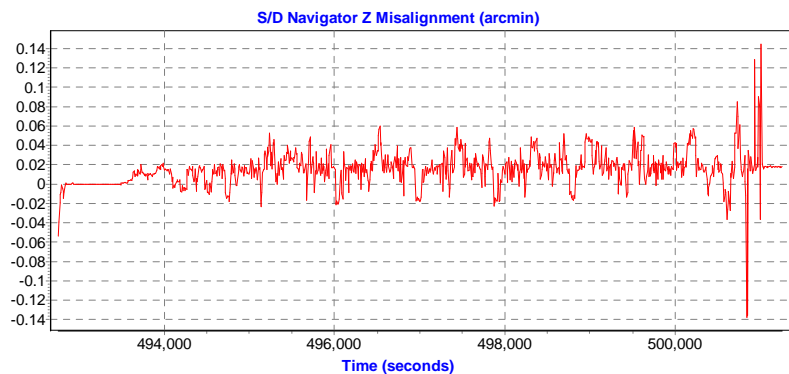
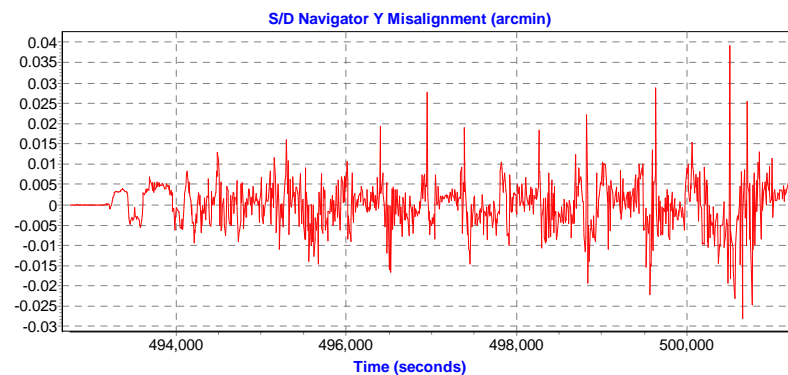
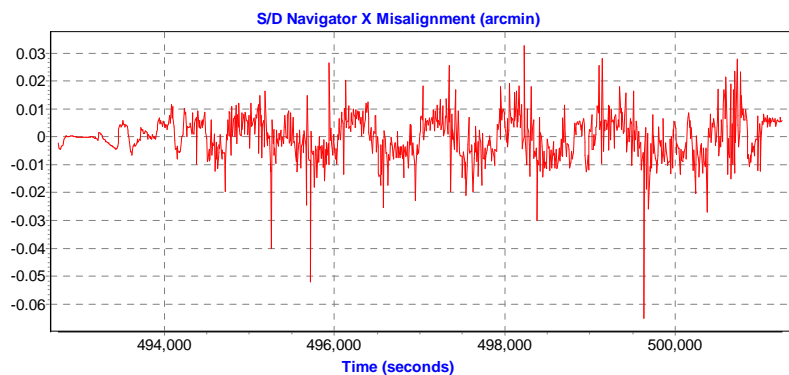
## Percentages of epochs with DD\_DOP over 10.00:

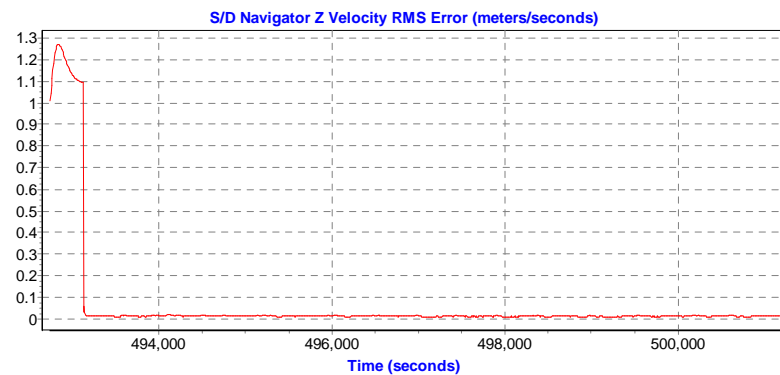
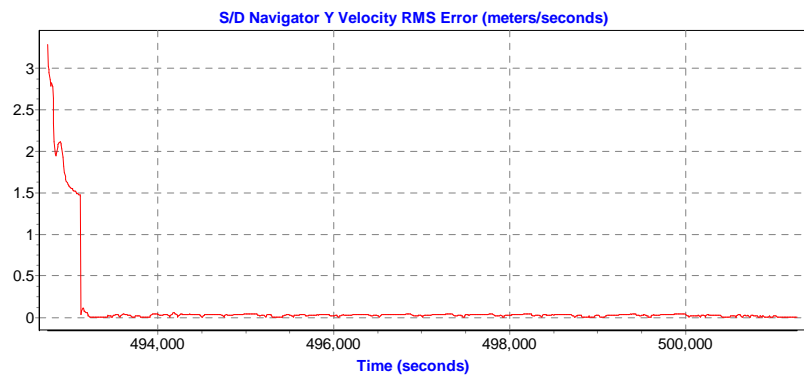
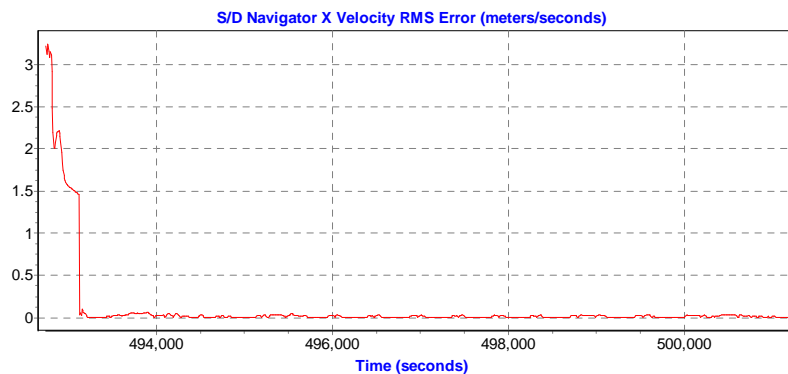
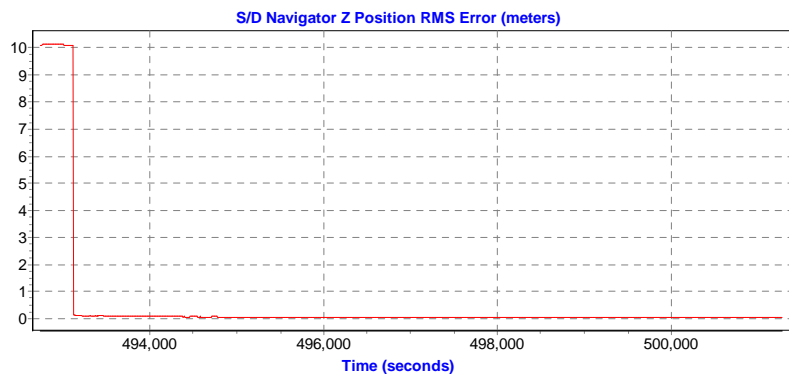
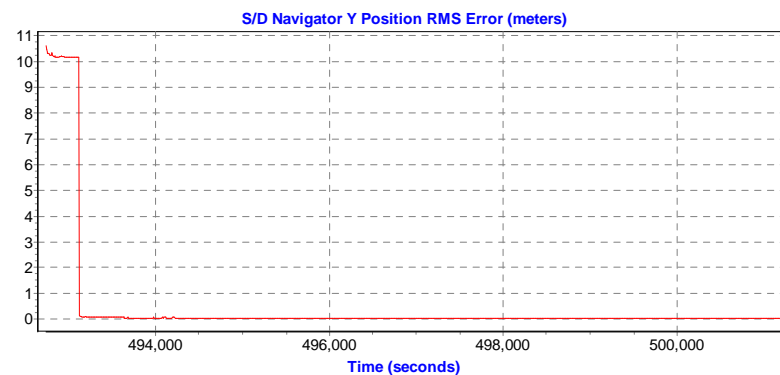
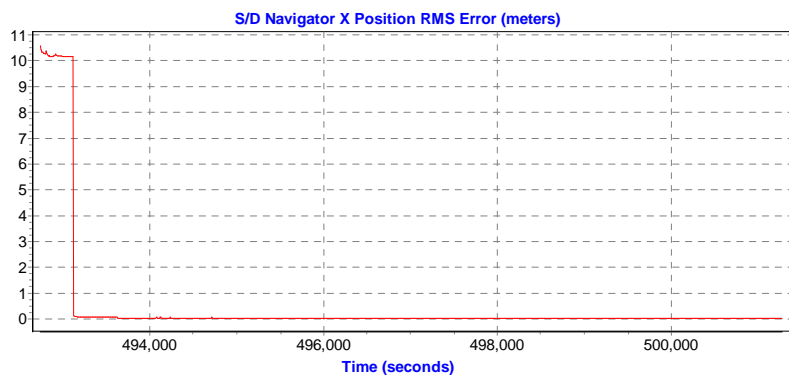
DOP over Tol:	0.0 %
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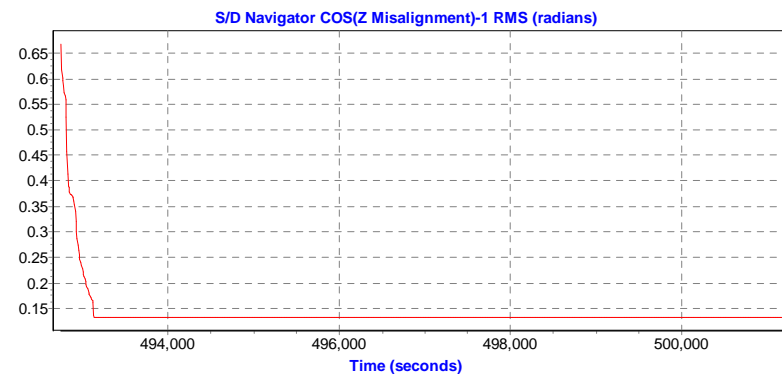
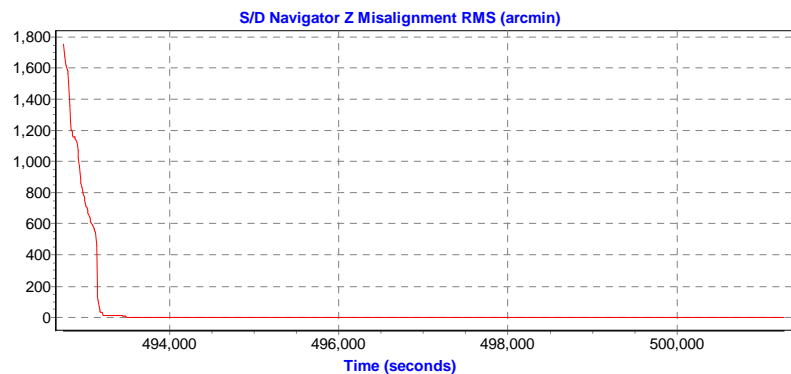
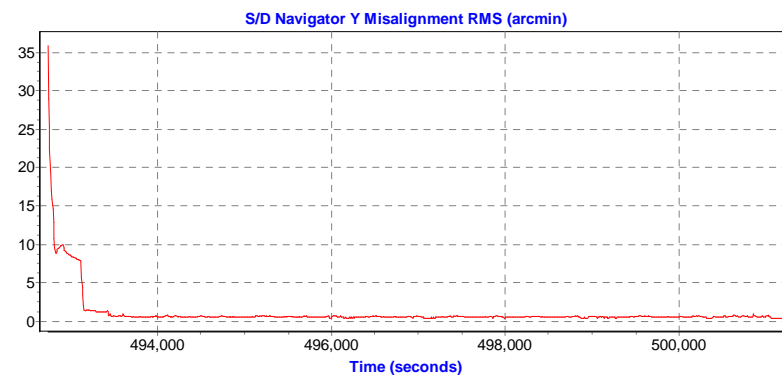
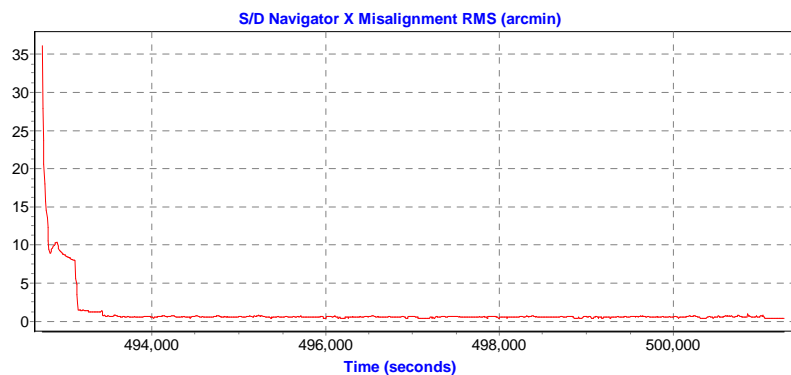
## Baseline Distances:

Maximum:	39.887 (km)
Minimum:	1.378 (km)
Average:	18.665 (km)
First Epoch:	18.392 (km)
Last Epoch:	18.416 (km)

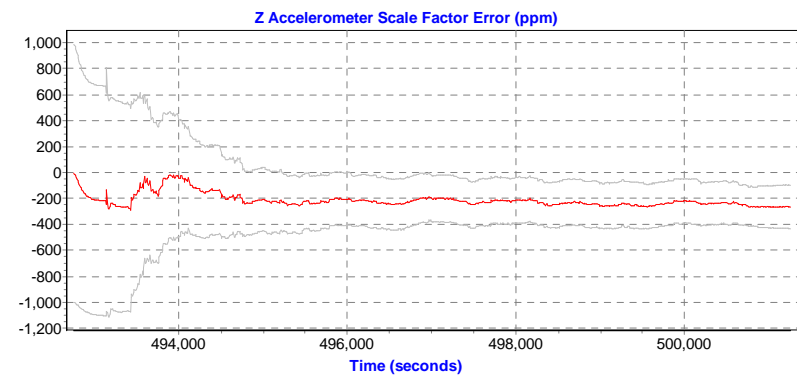
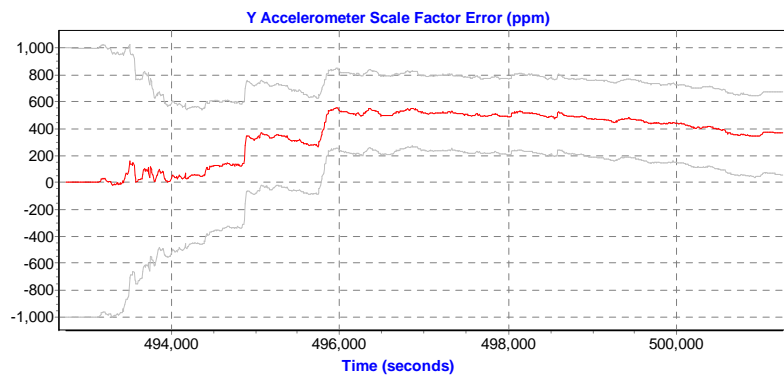
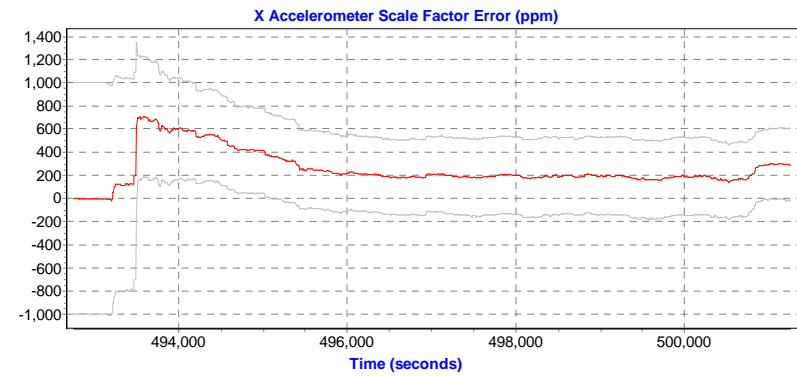
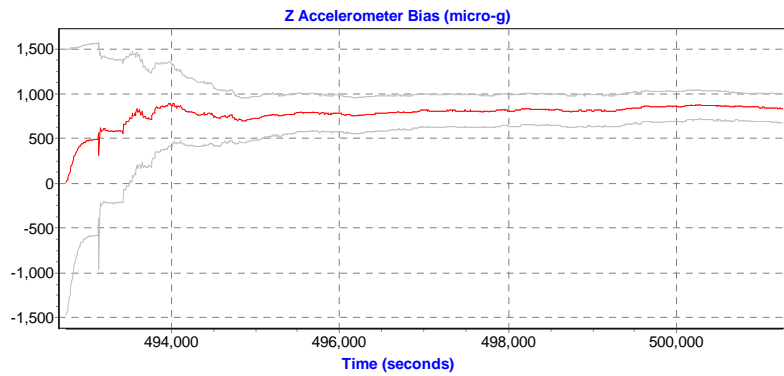
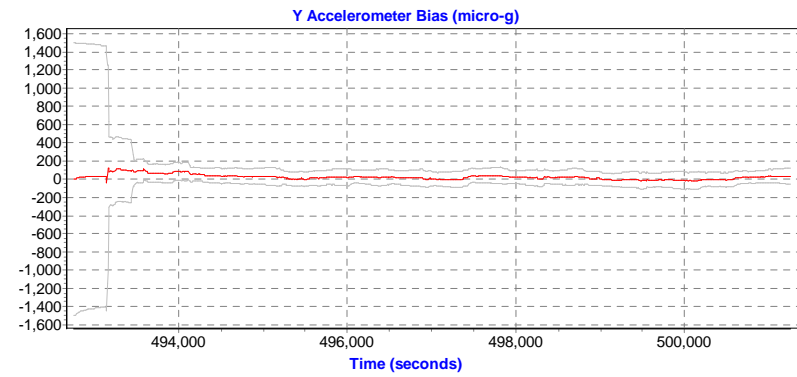
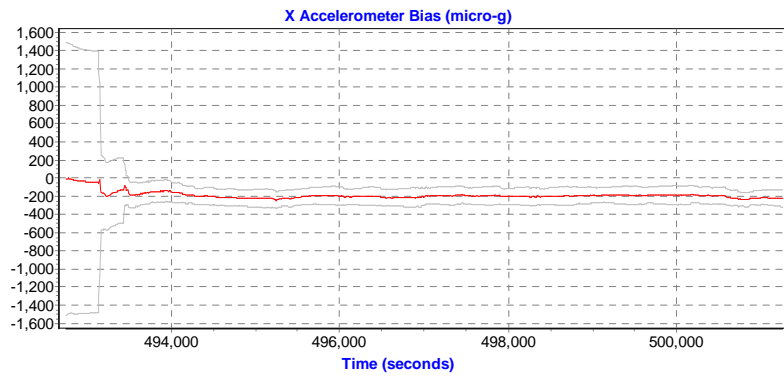


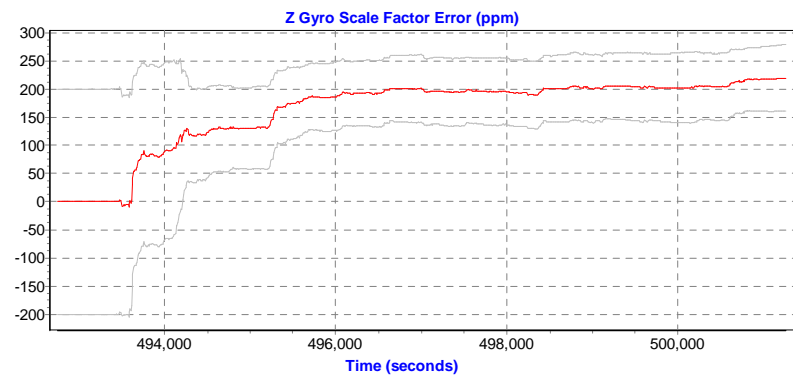
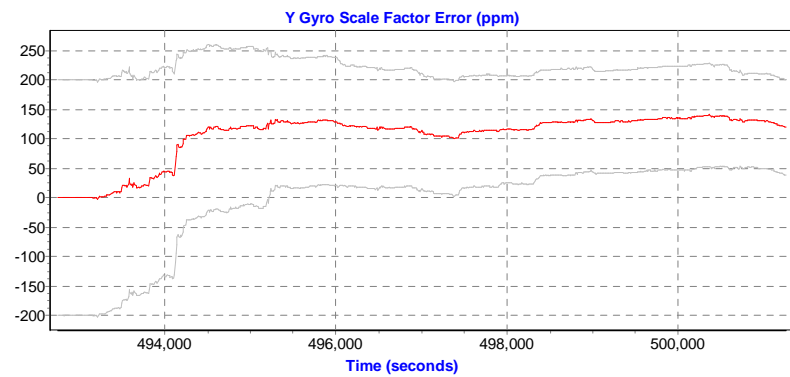
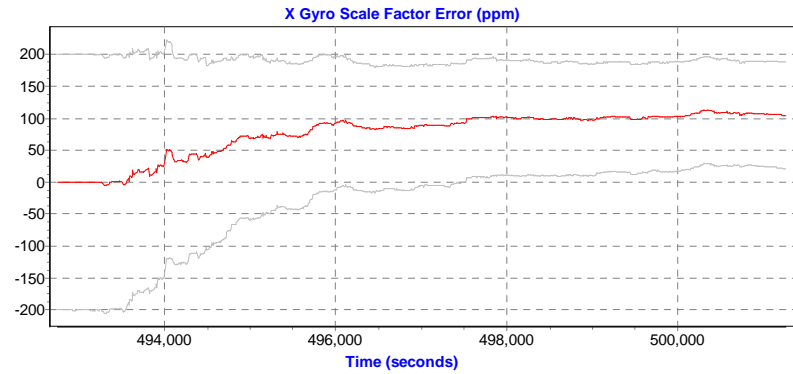
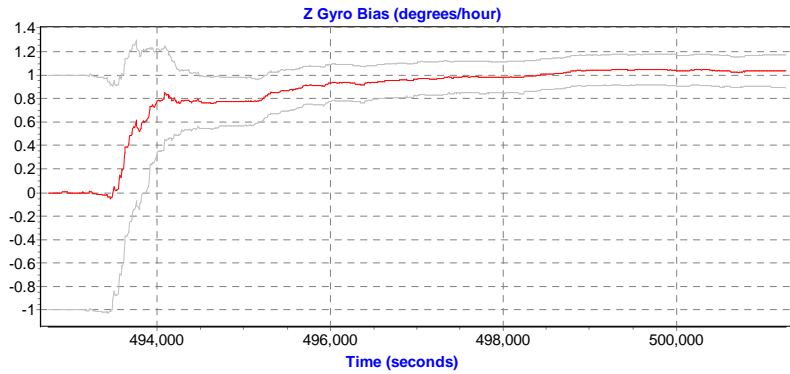
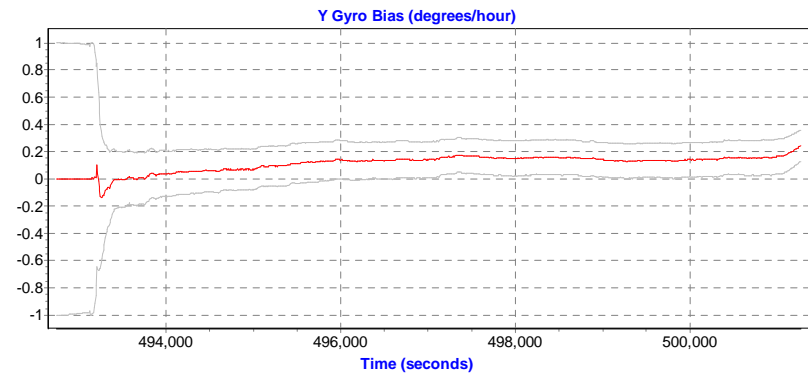
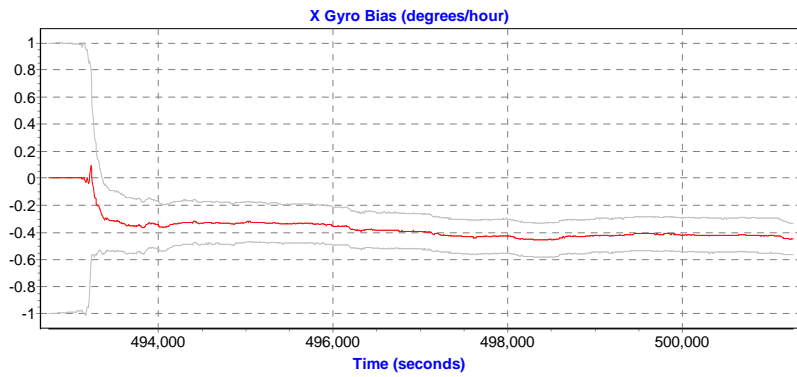


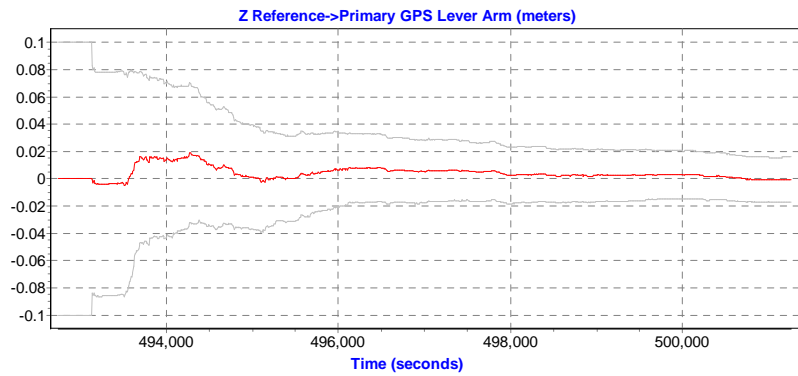
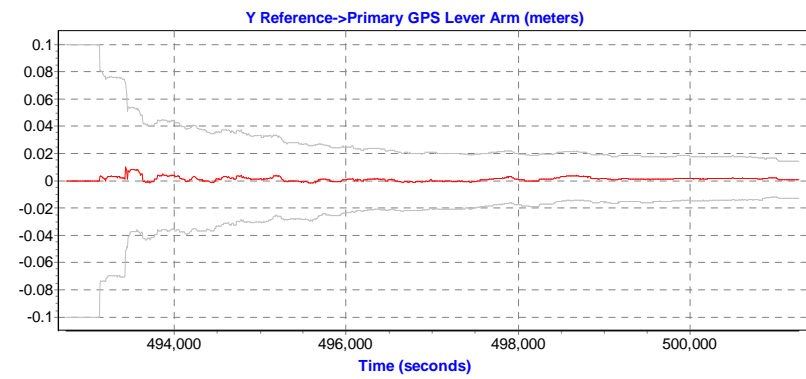
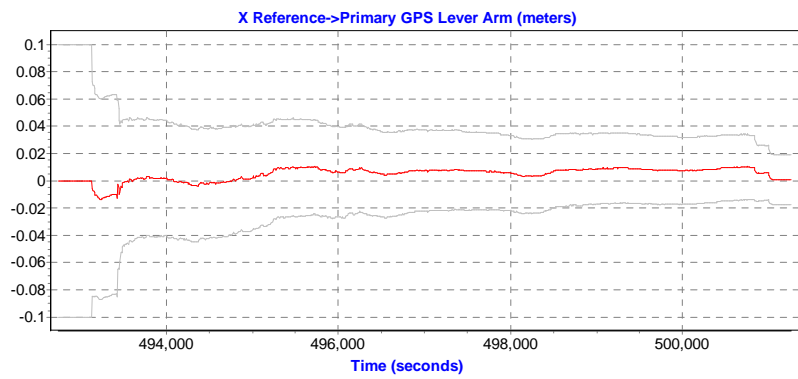






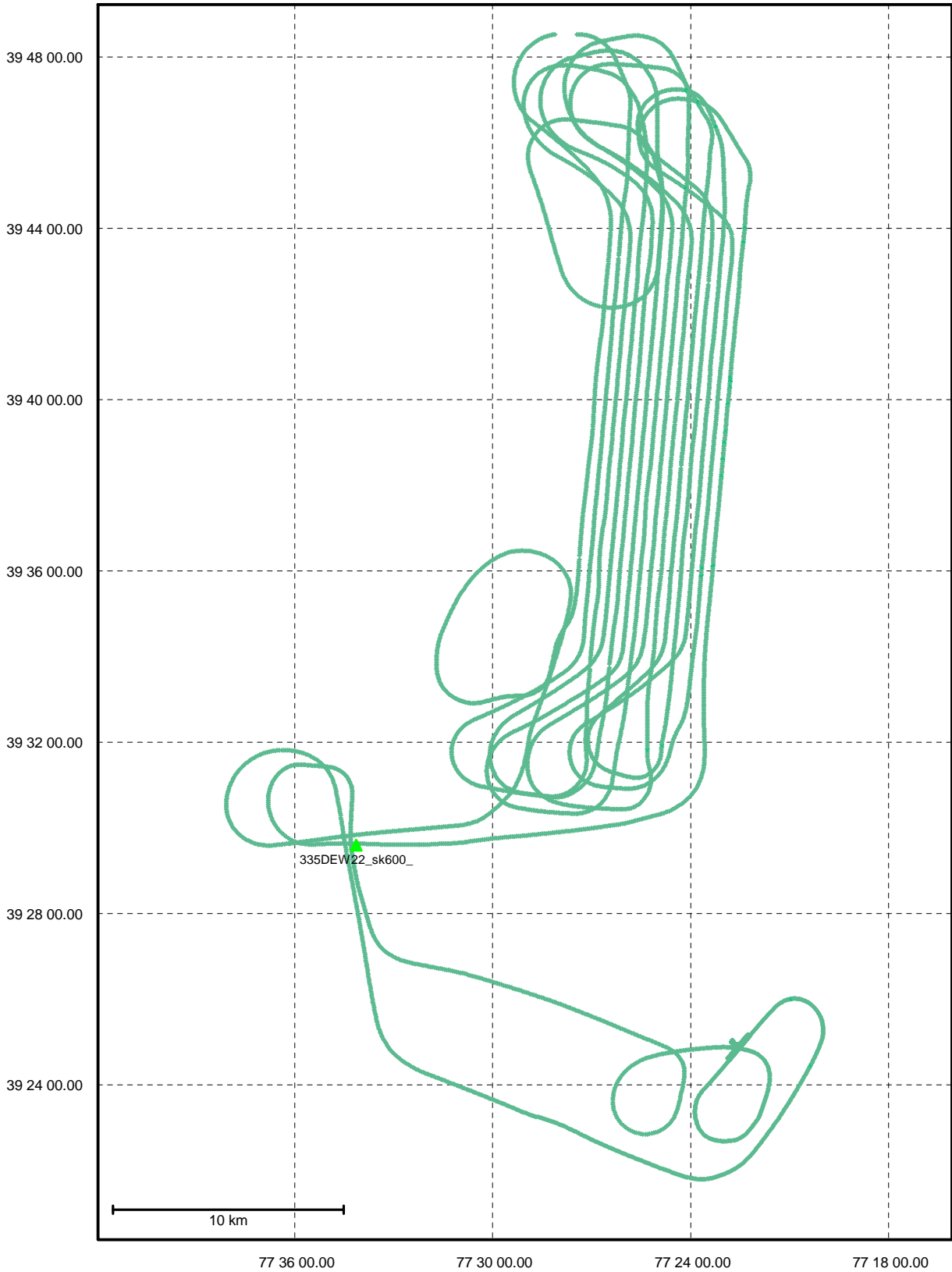






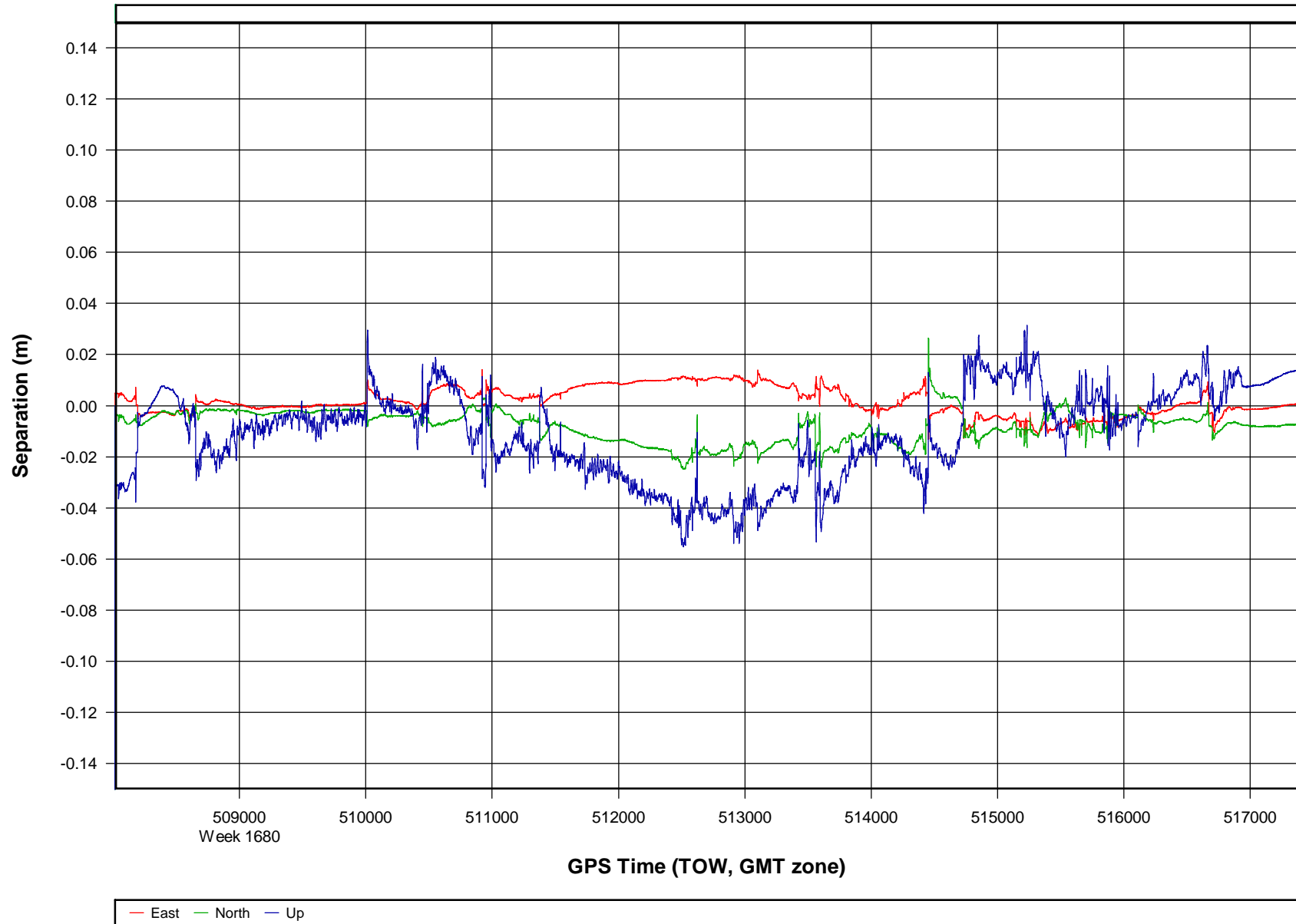
# Combined - Map Run (1)

Geographic, DMS

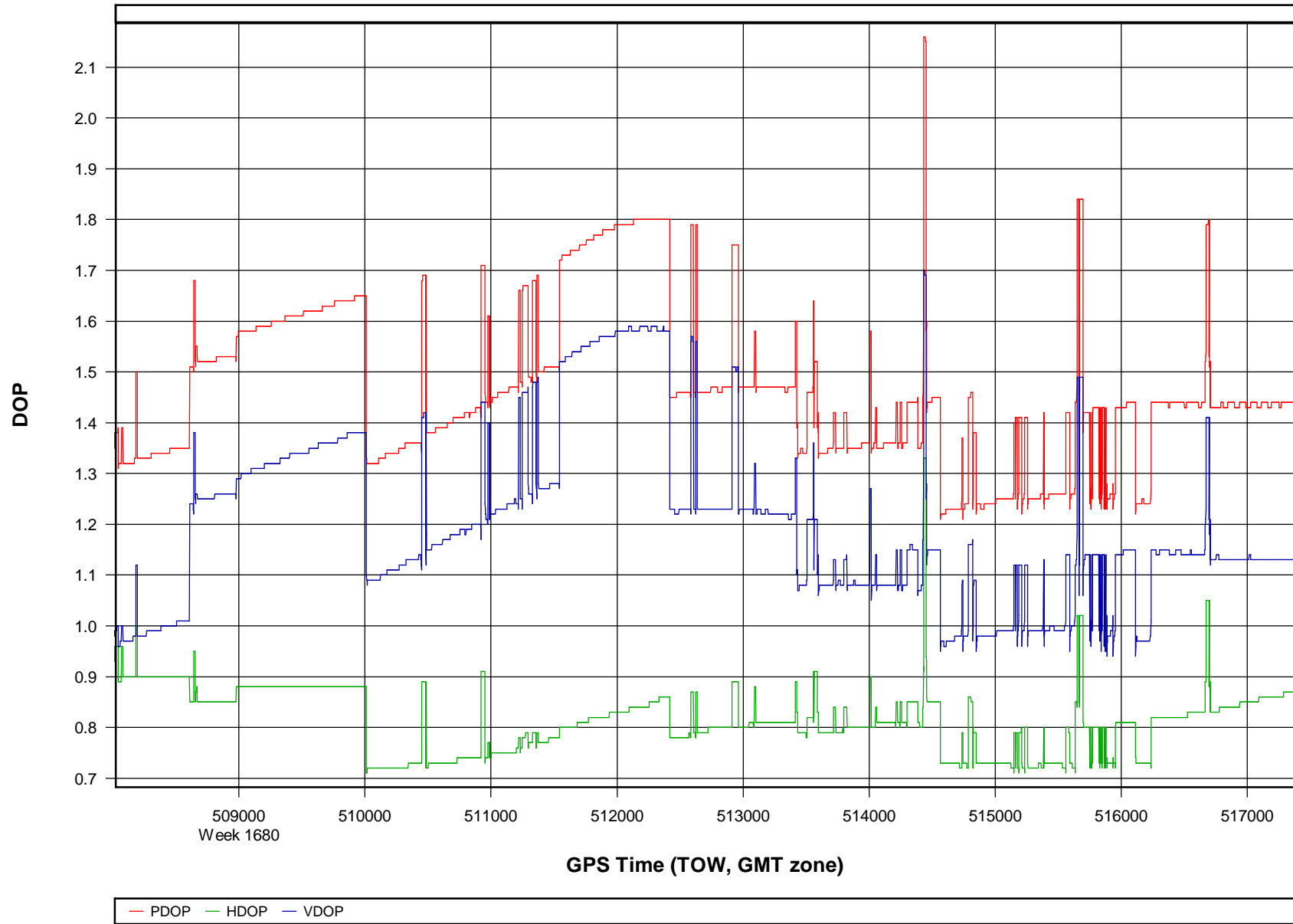


+ Ukn + Q1 + Q2 + Q3 + Q4 + Q5 + Q6 ▲ Master

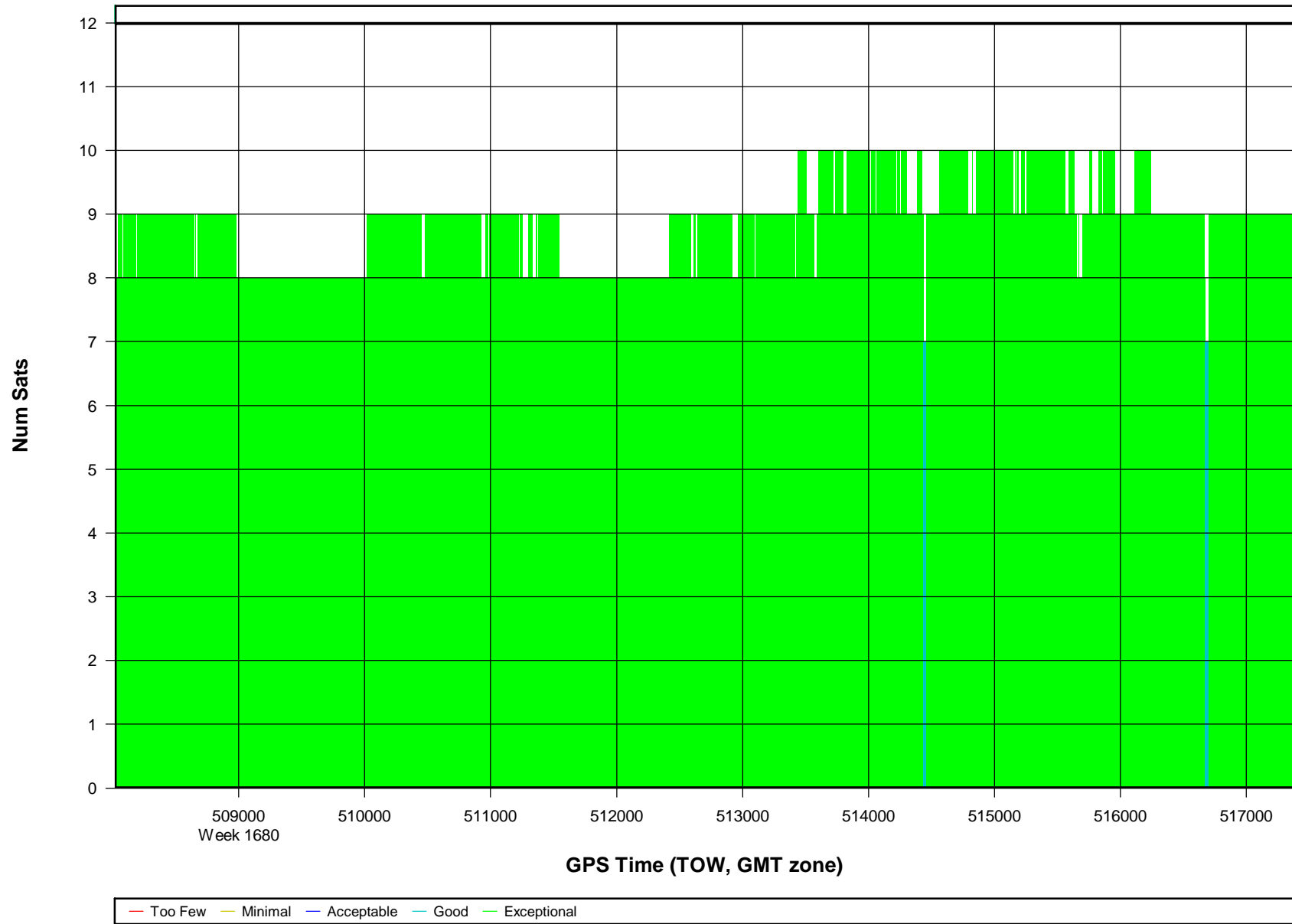
### o112083b [Combined] - Forward/Reverse or Combined Separation Plot



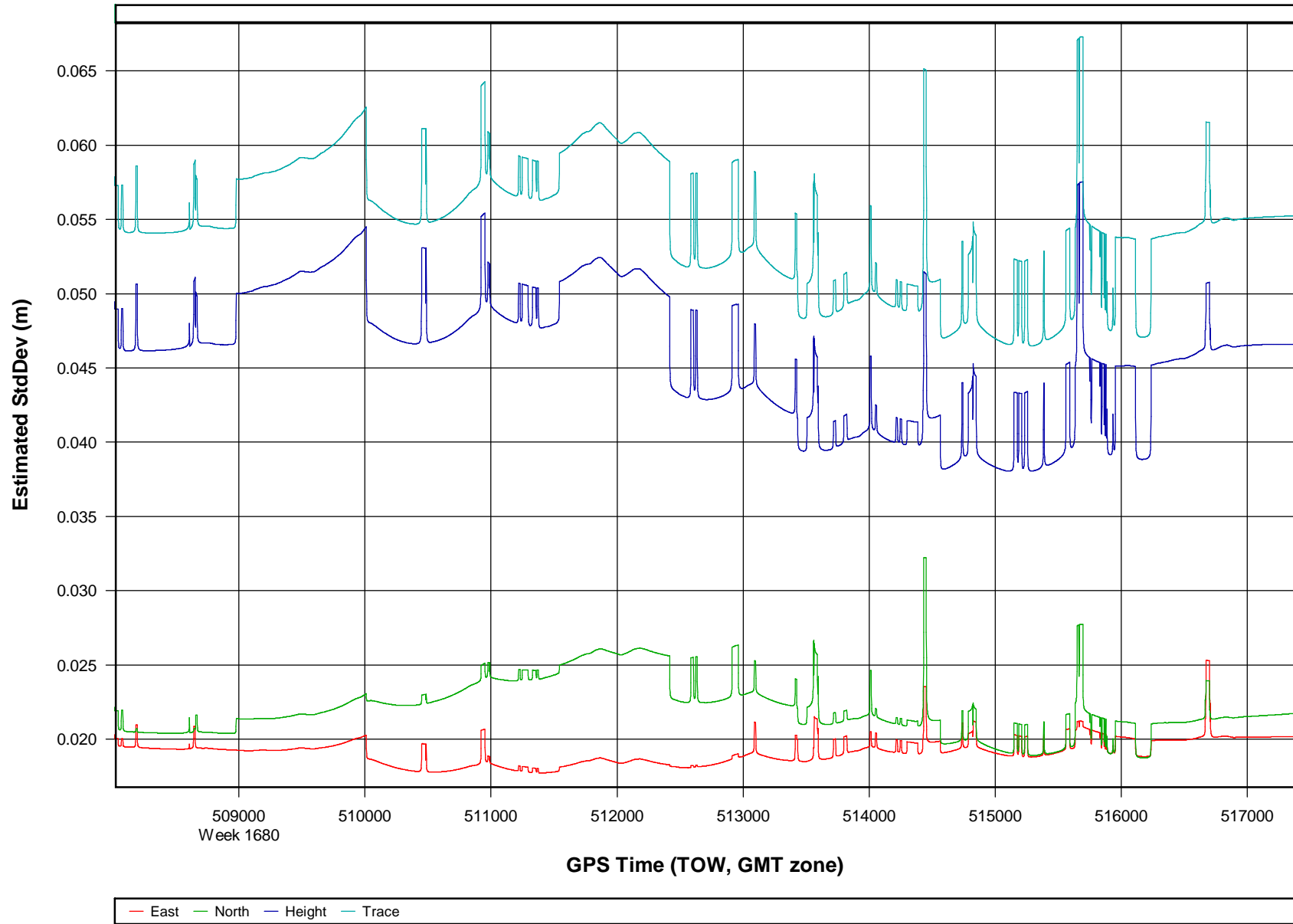
### o112083b [Combined] - PDOP, HDOP, VDOP Plots



**o112083b [Combined] - Number of Satellites Bar Plot**



### o112083b [Combined] - Estimated Position Accuracy Plot





## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: E:\Projects\335DEW11\_USGS\_MD\_VA\_cont\2\_Operations\6\_Missions\o112083b\3\_Processed\GPS\o112083b.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file:	93829
No processed position:	84464
Missing Fwd or Rev:	3
With bad C/A code:	0
With bad L1 Phase:	0

## Measurement RMS Values:

L1 Phase:	0.0161 (m)
C/A Code:	0.75 (m)
L1 Doppler:	0.031 (m/s)

## Fwd/Rev Separation RMS Values:

East:	0.007 (m)
North:	0.010 (m)
Height:	0.027 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (9360 occurrences):

East:	0.006 (m)
North:	0.010 (m)
Height:	0.020 (m)

## Quality Number Percentages:

Q 1:	99.8 %
Q 2:	0.2 %
Q 3:	0.0 %
Q 4:	0.0 %
Q 5:	0.0 %
Q 6:	0.0 %

## Position Standard Deviation Percentages:

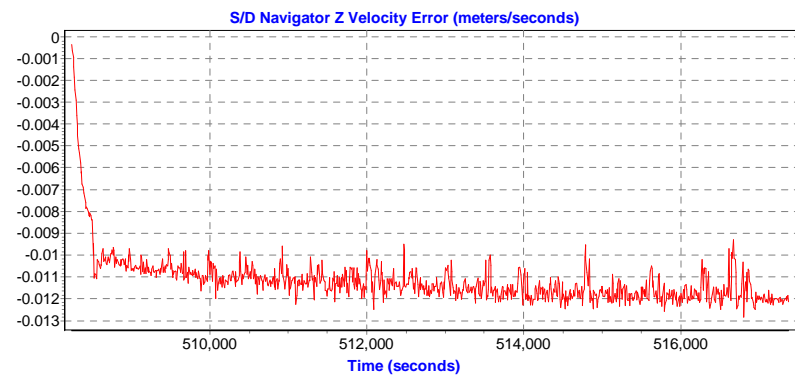
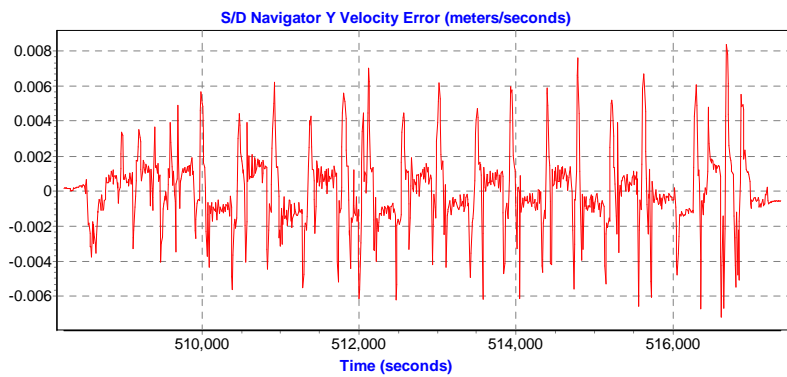
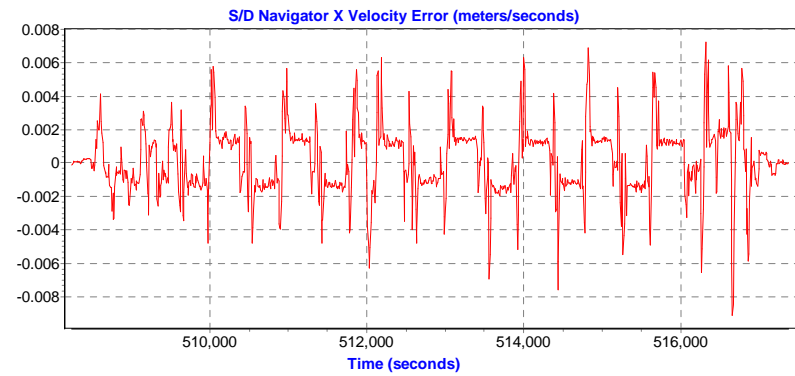
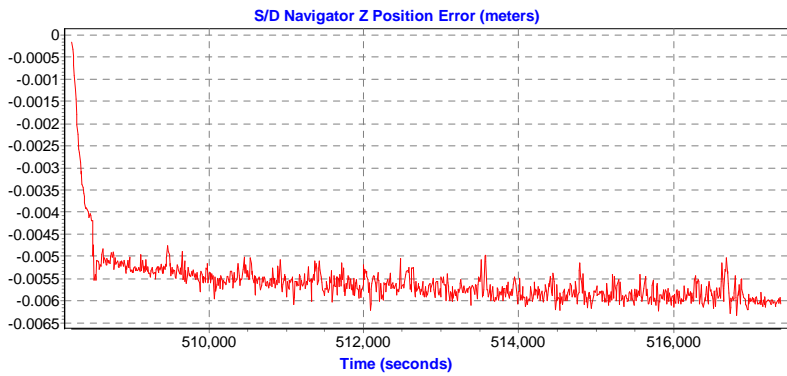
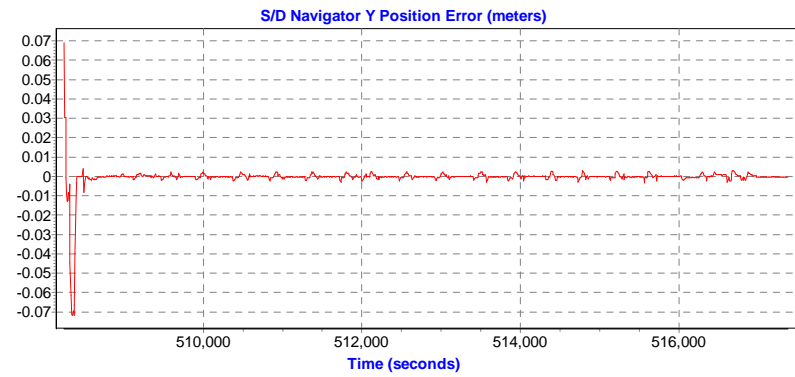
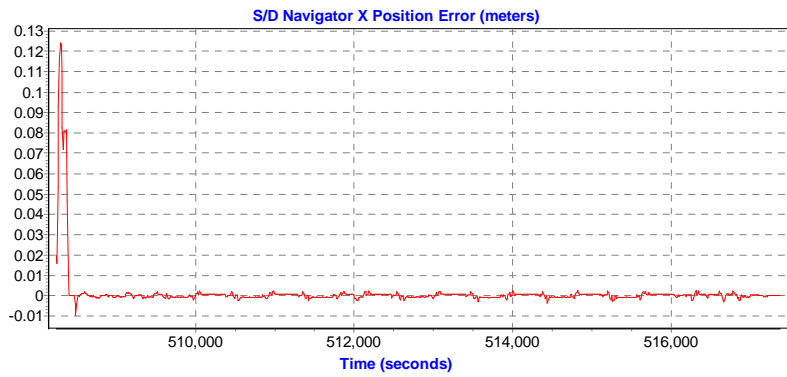
0.00 - 0.10 m:	100.0 %
0.10 - 0.30 m:	0.0 %
0.30 - 1.00 m:	0.0 %
1.00 - 5.00 m:	0.0 %
5.00 m + over:	0.0 %

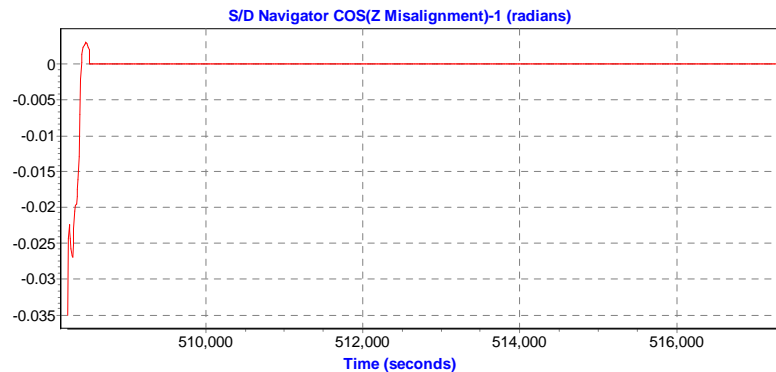
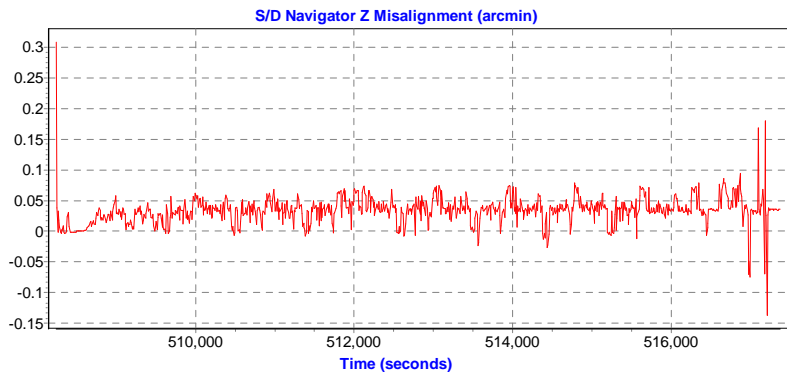
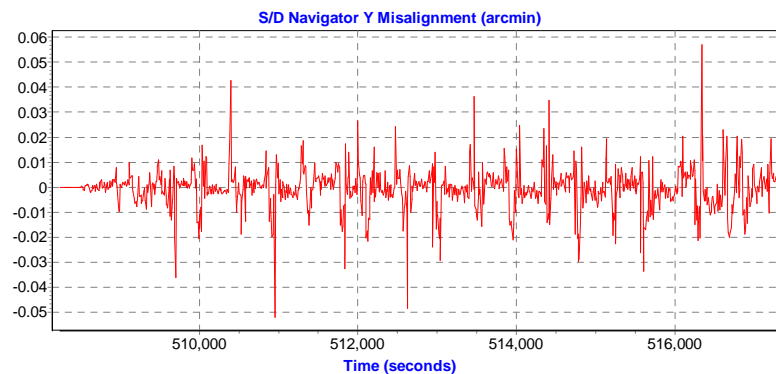
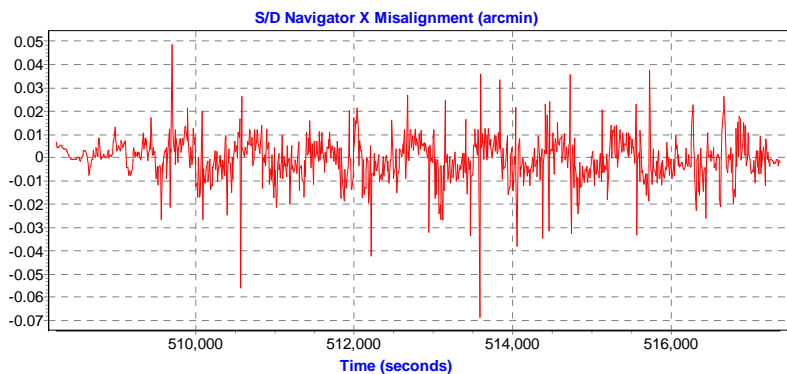
## Percentages of epochs with DD\_DOP over 10.00:

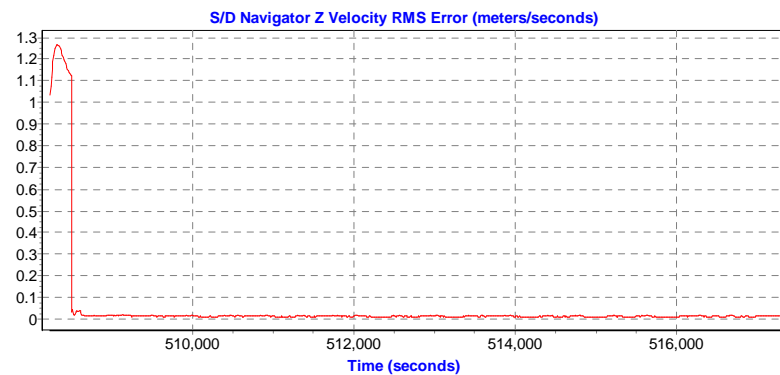
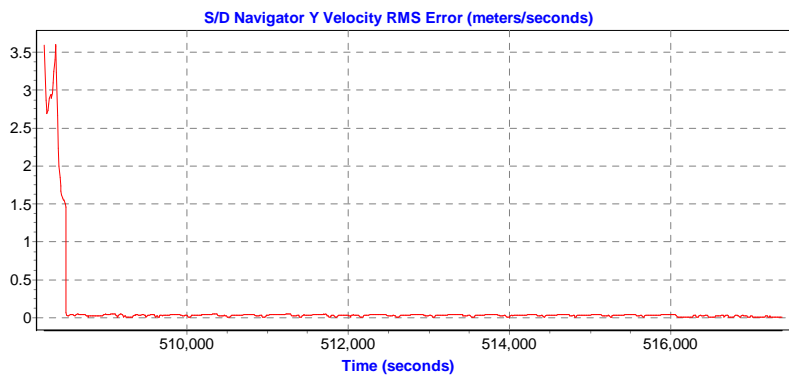
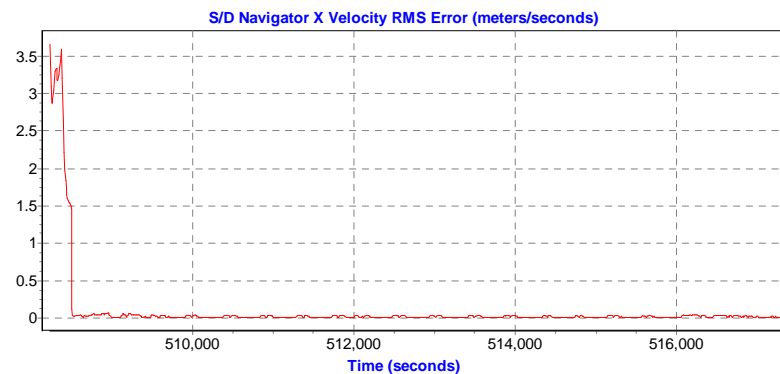
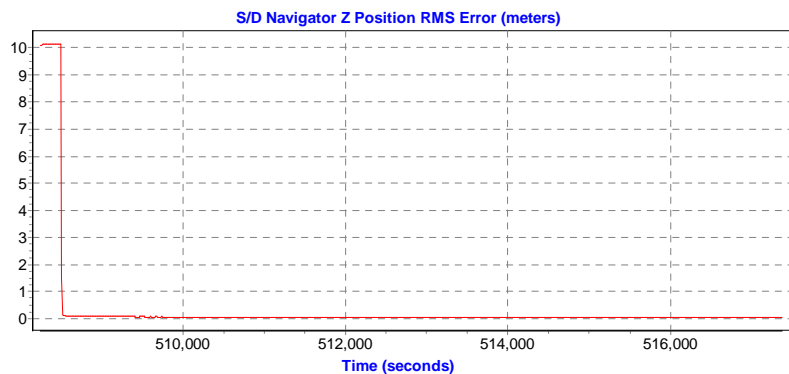
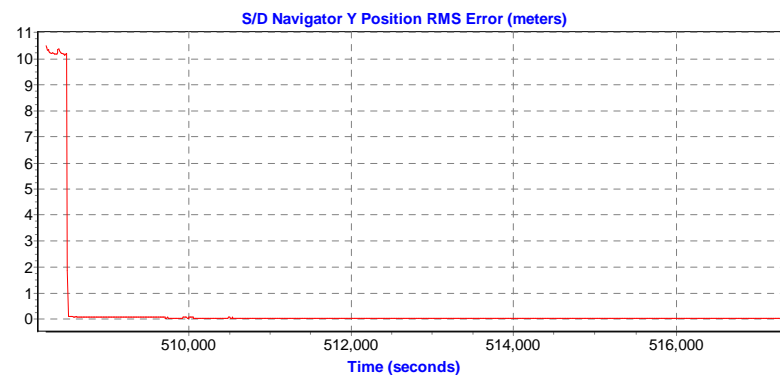
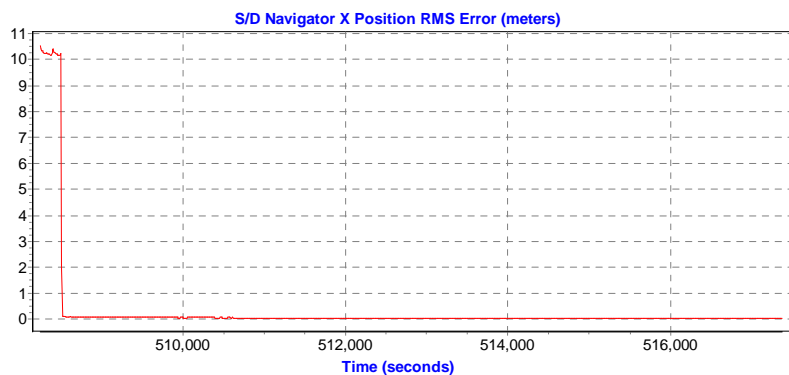
DOP over Tol:	0.0 %
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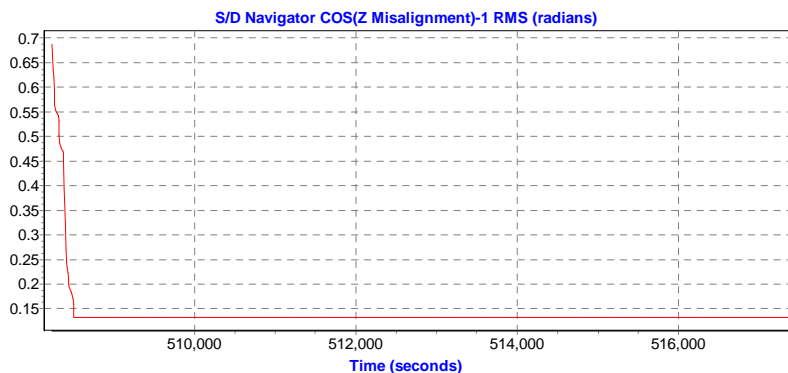
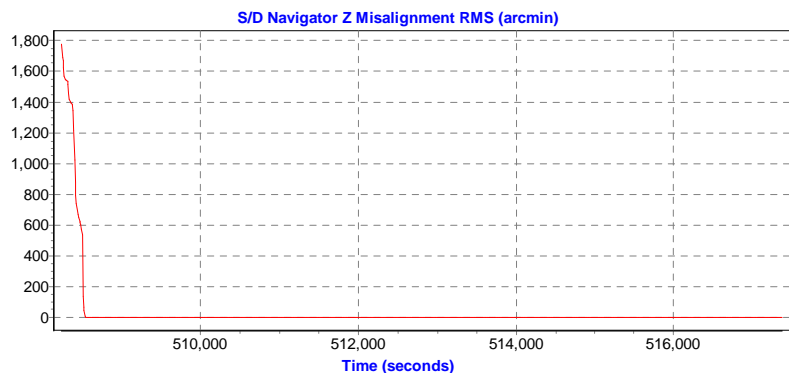
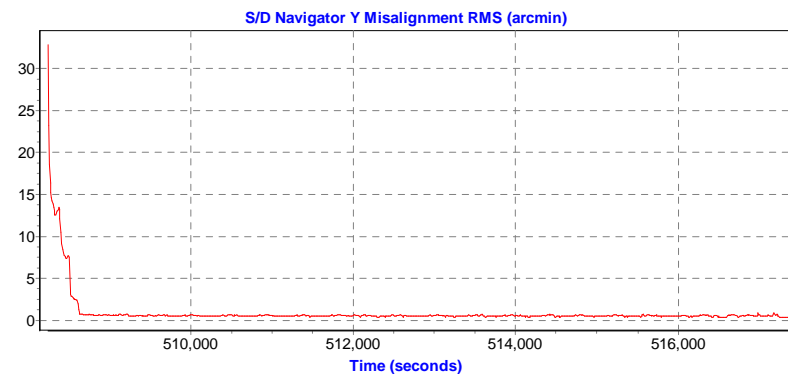
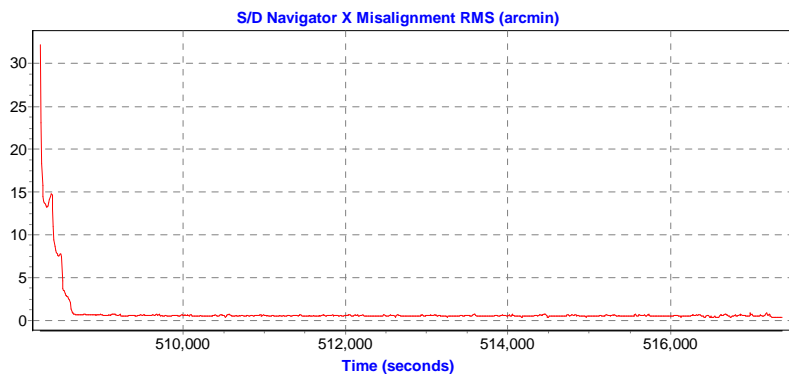
## Baseline Distances:

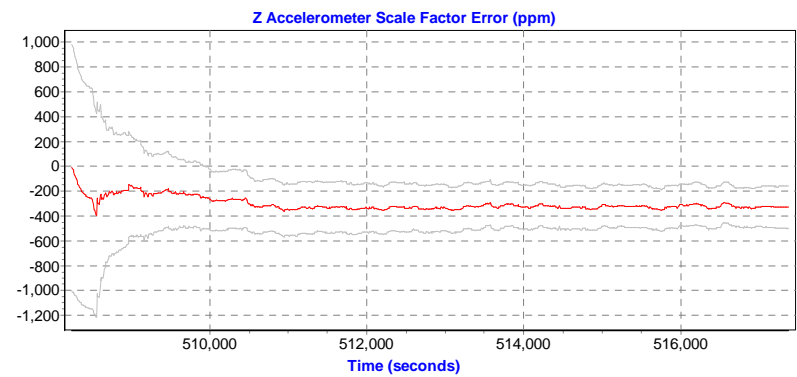
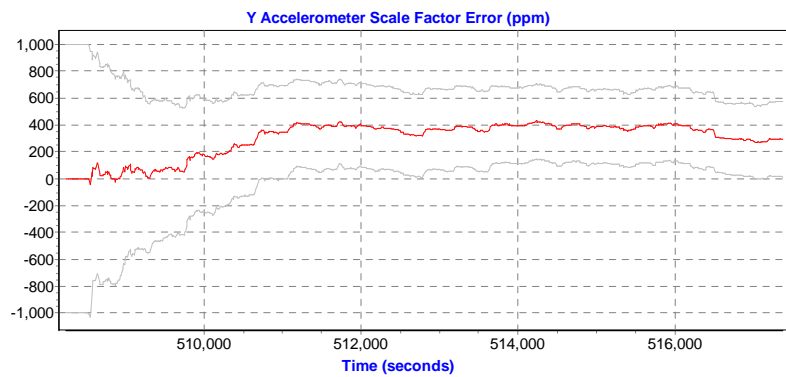
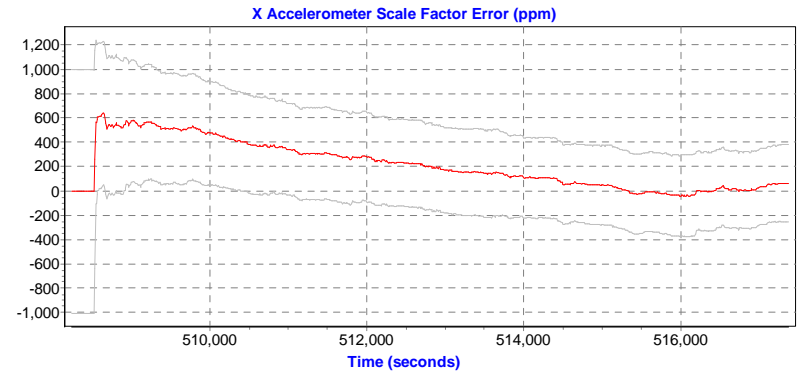
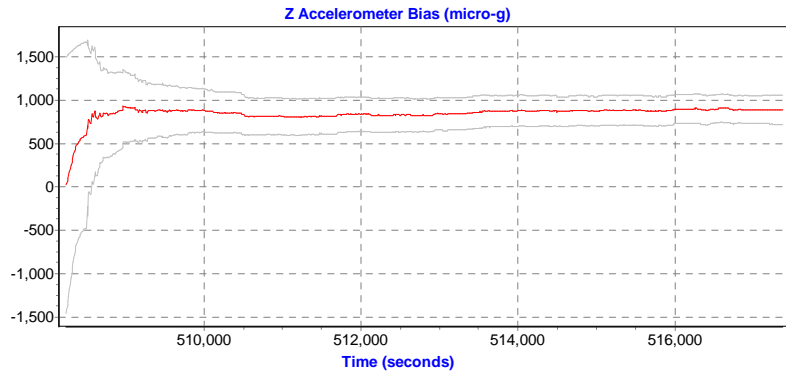
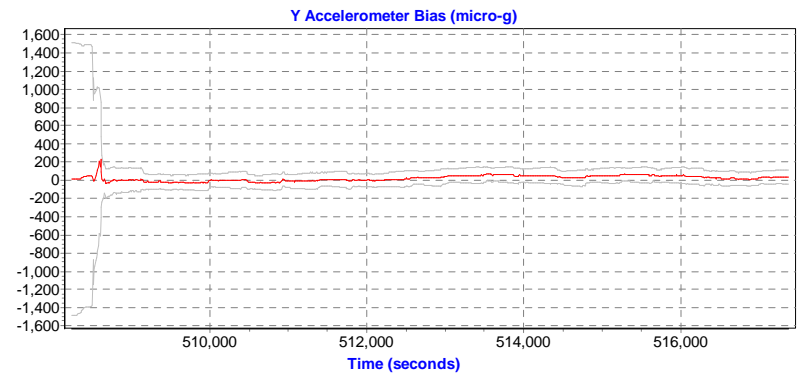
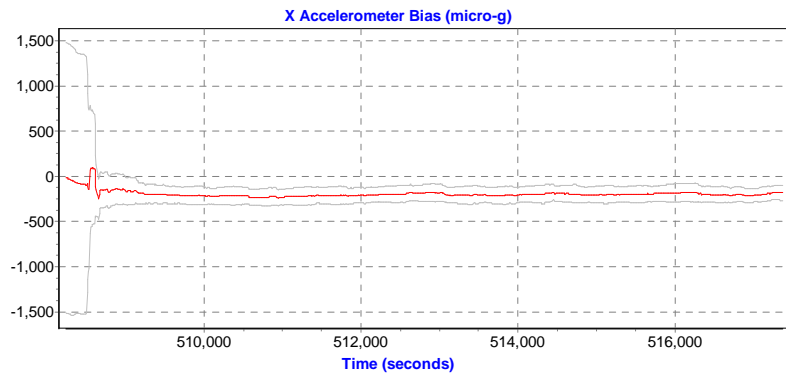
Maximum:	37.155 (km)
Minimum:	1.068 (km)
Average:	19.977 (km)
First Epoch:	18.416 (km)
Last Epoch:	18.397 (km)

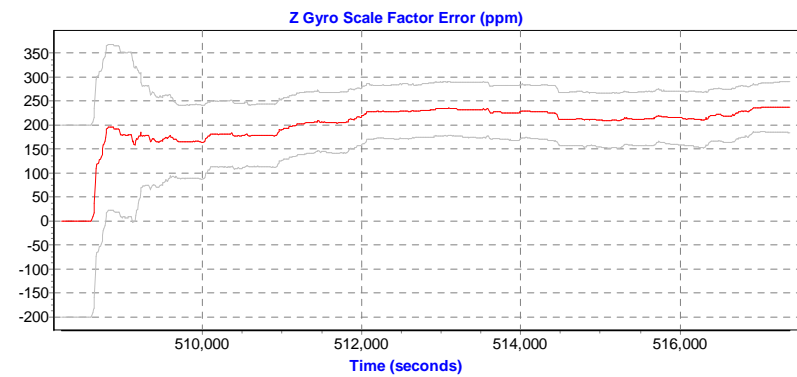
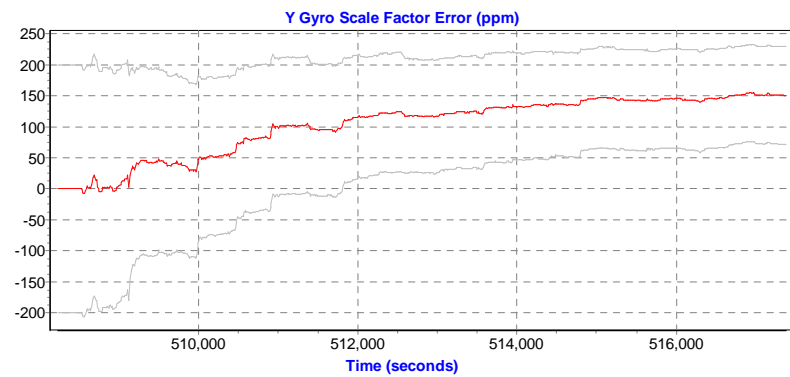
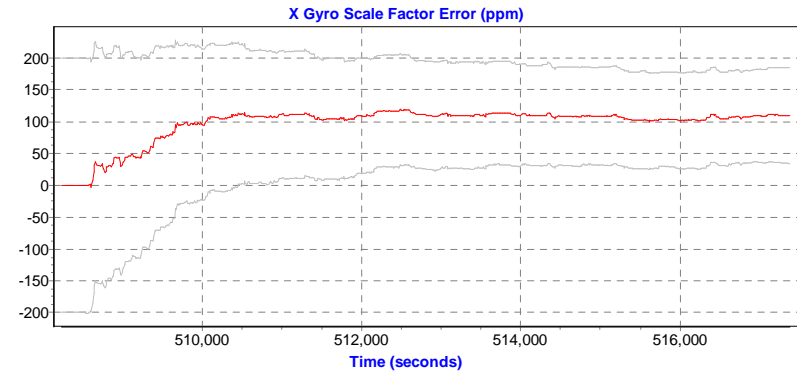
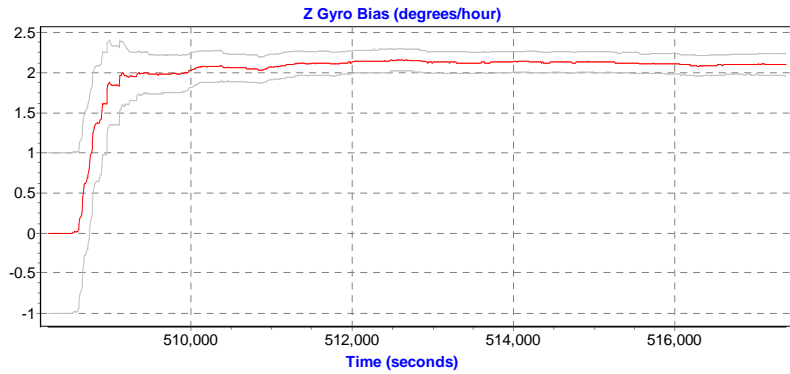
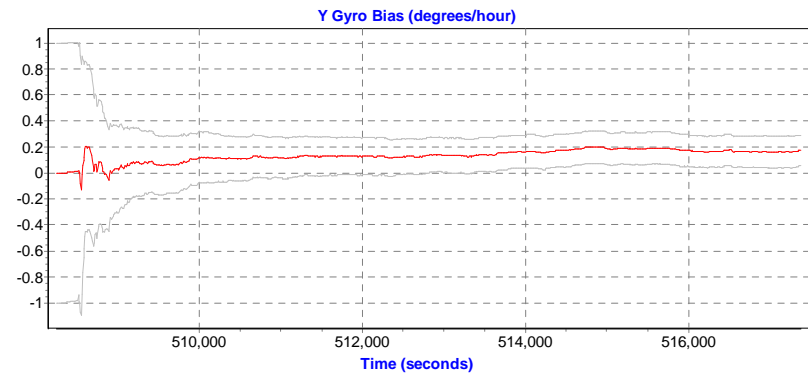
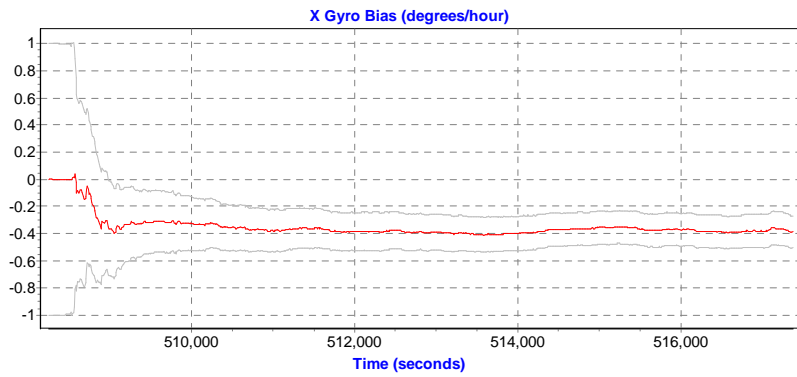


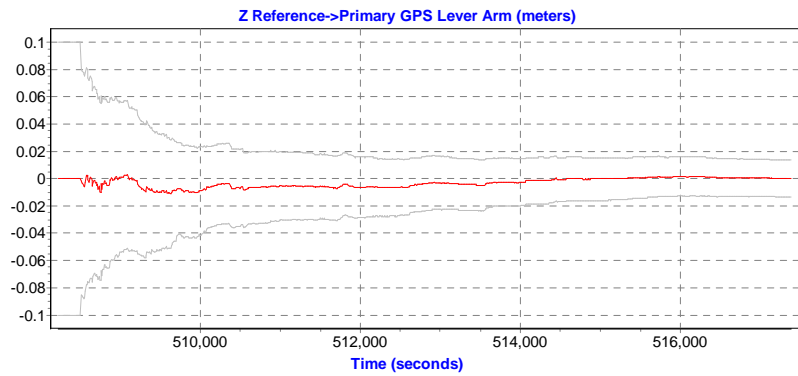
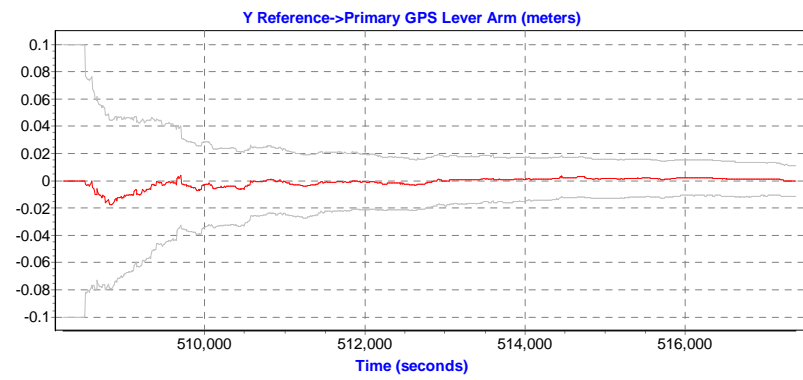
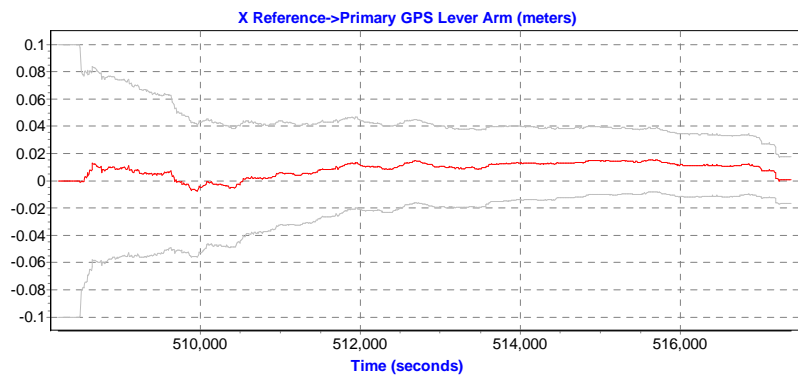








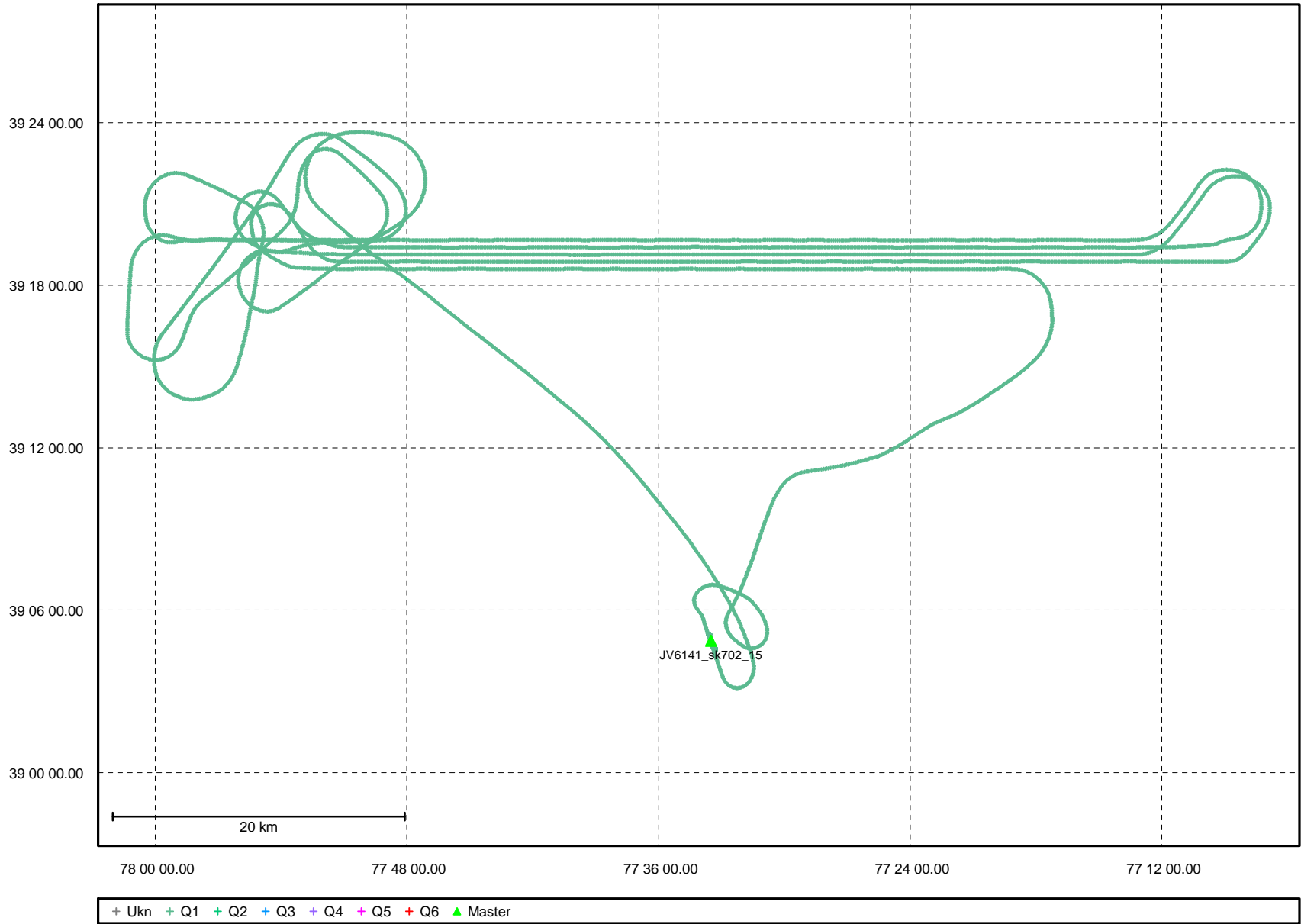




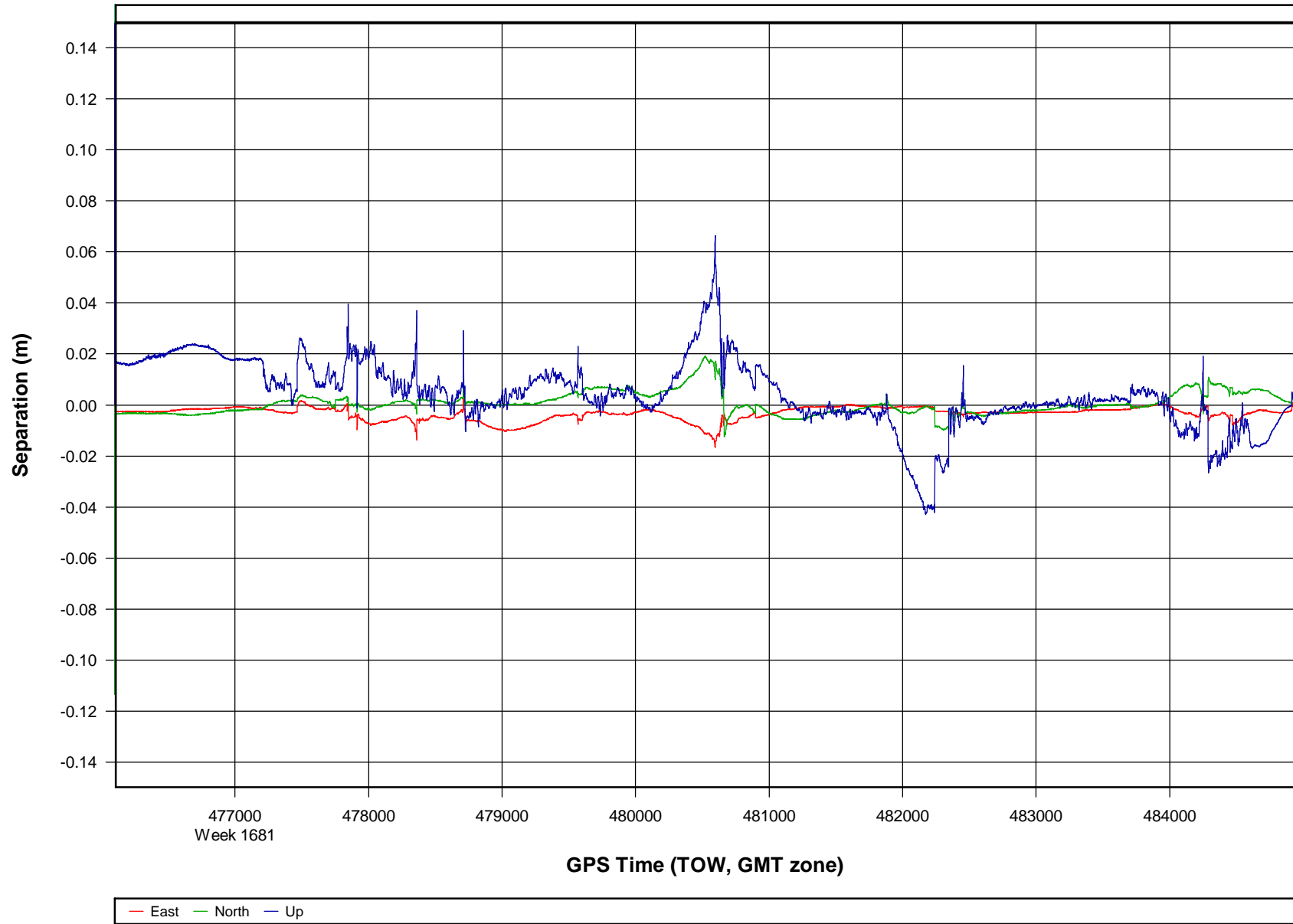


# Combined - Map Run (1)

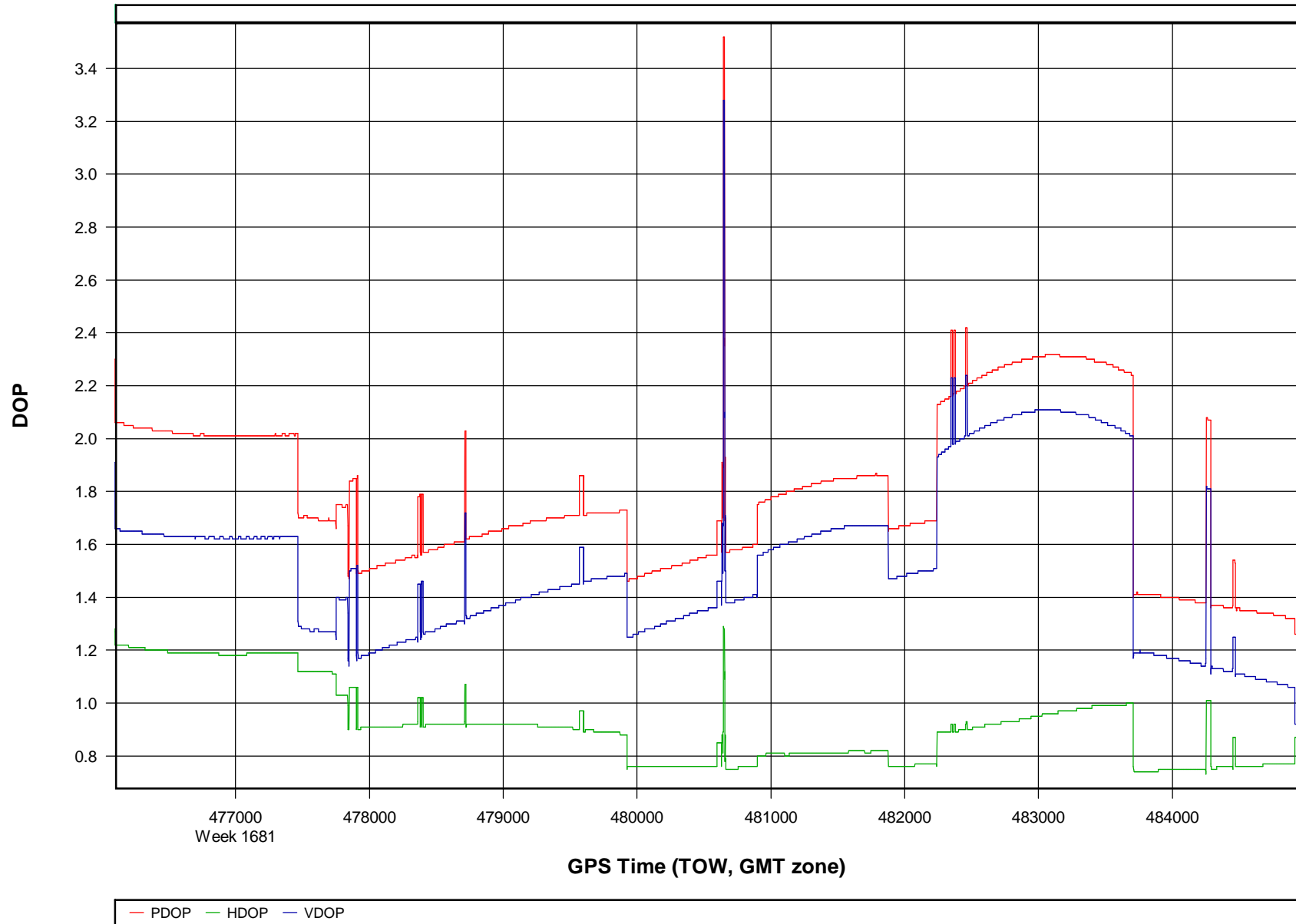
Geographic, DMS



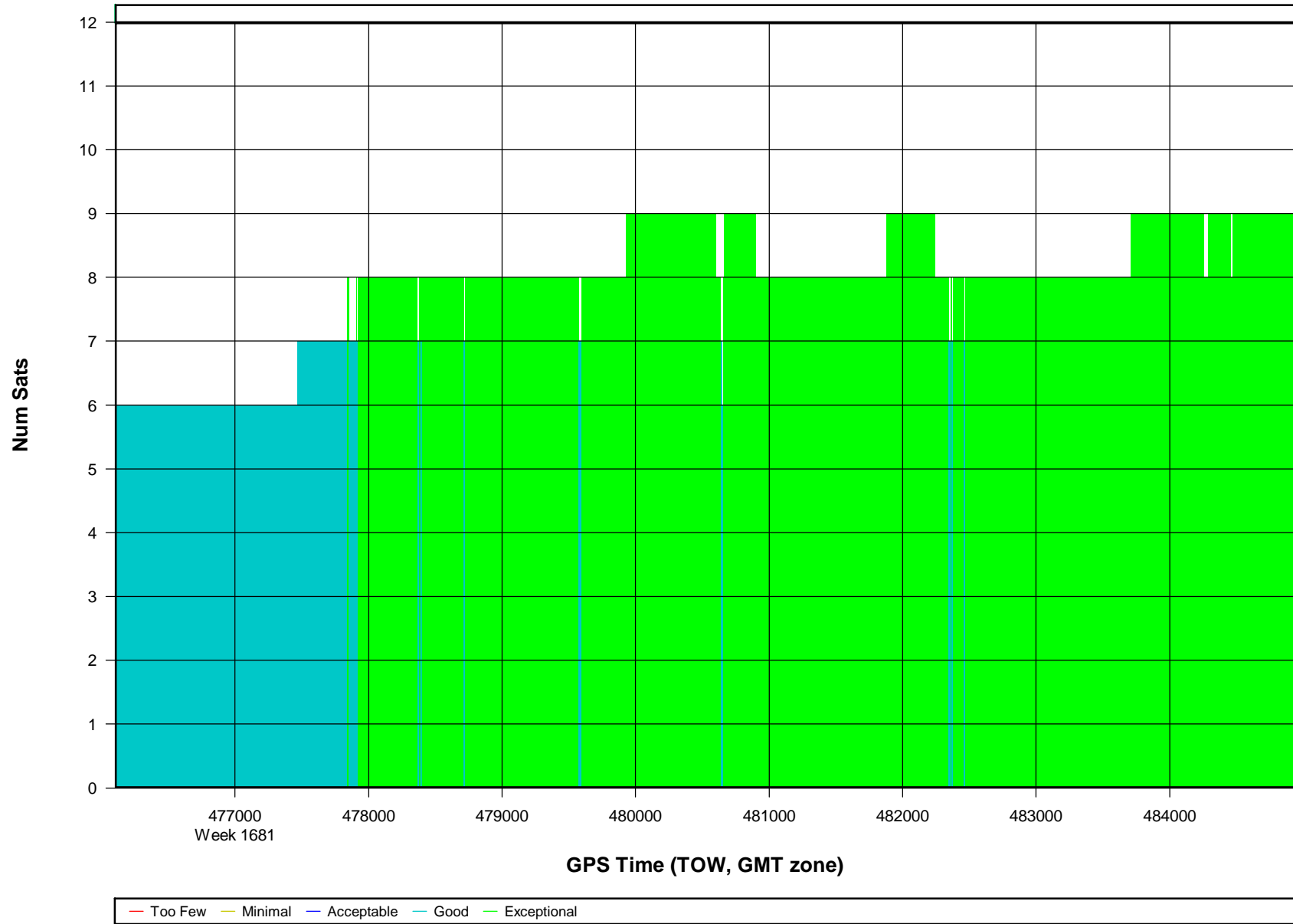
### o112090a [Combined] - Forward/Reverse or Combined Separation Plot



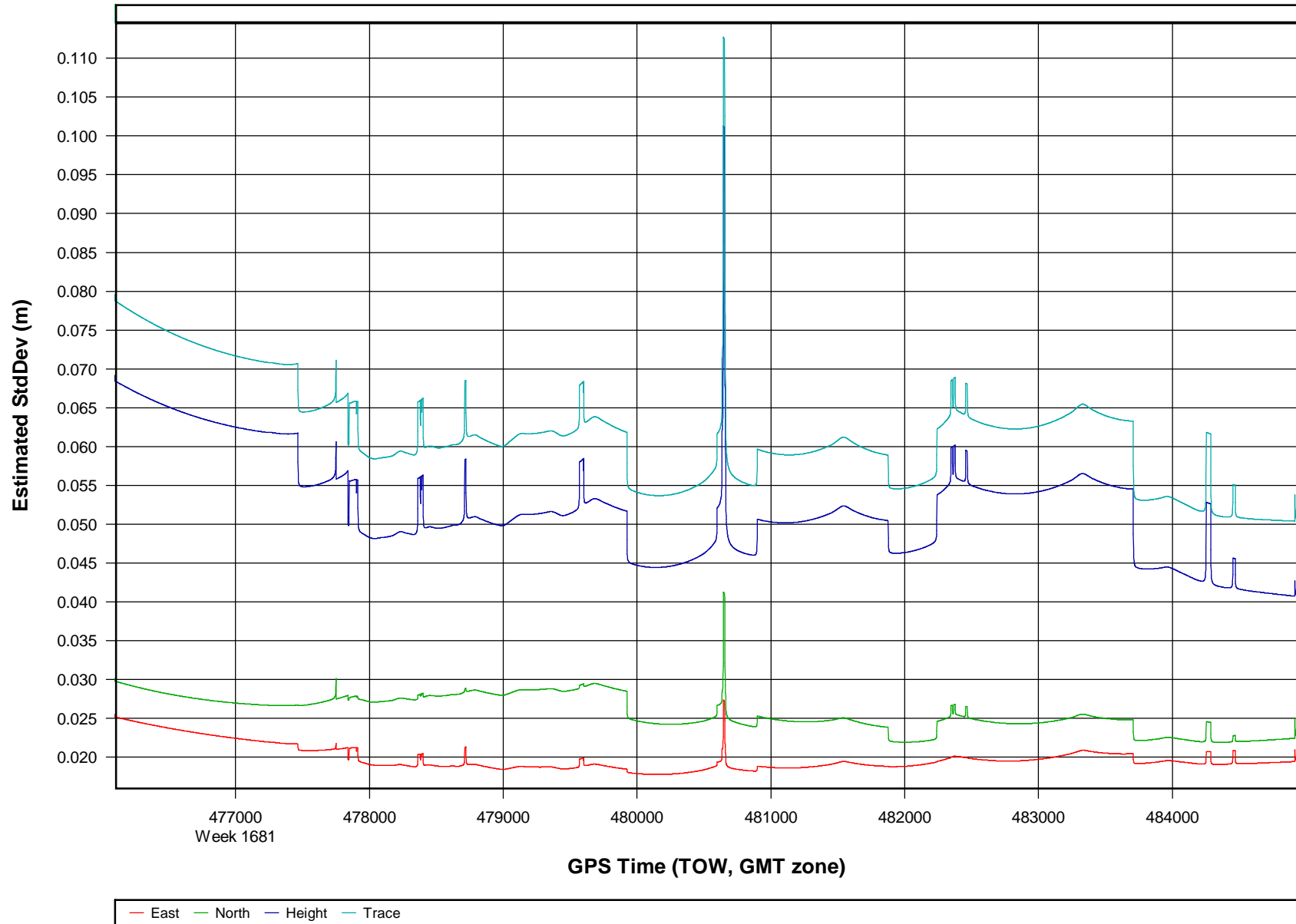
### o112090a [Combined] - PDOP, HDOP, VDOP Plots



### o112090a [Combined] - Number of Satellites Bar Plot



### o112090a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: E:\Projects\335DEW11\_USGS\_MD\_VA\_cont\2\_Operations\6\_Missions\o112090a\3\_Processed\GPS\o112090a.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file:	88577
No processed position:	79731
Missing Fwd or Rev:	4
With bad C/A code:	0
With bad L1 Phase:	0

## Measurement RMS Values:

L1 Phase:	0.0143 (m)
C/A Code:	0.68 (m)
L1 Doppler:	0.027 (m/s)

## Fwd/Rev Separation RMS Values:

East:	0.005 (m)
North:	0.009 (m)
Height:	0.018 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (8840 occurrences):

East:	0.004 (m)
North:	0.004 (m)
Height:	0.014 (m)

## Quality Number Percentages:

Q 1:	100.0 %
Q 2:	0.0 %
Q 3:	0.0 %
Q 4:	0.0 %
Q 5:	0.0 %
Q 6:	0.0 %

## Position Standard Deviation Percentages:

0.00 - 0.10 m:	99.9 %
0.10 - 0.30 m:	0.1 %
0.30 - 1.00 m:	0.0 %
1.00 - 5.00 m:	0.0 %
5.00 m + over:	0.0 %

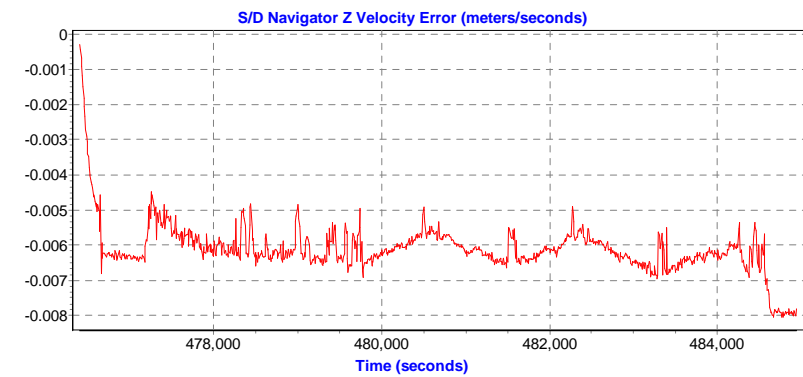
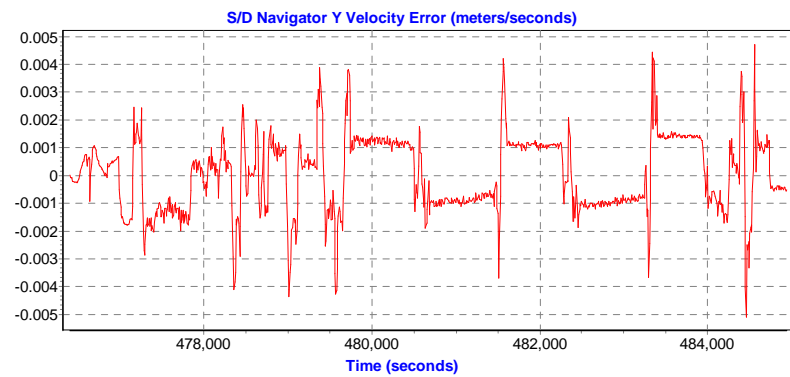
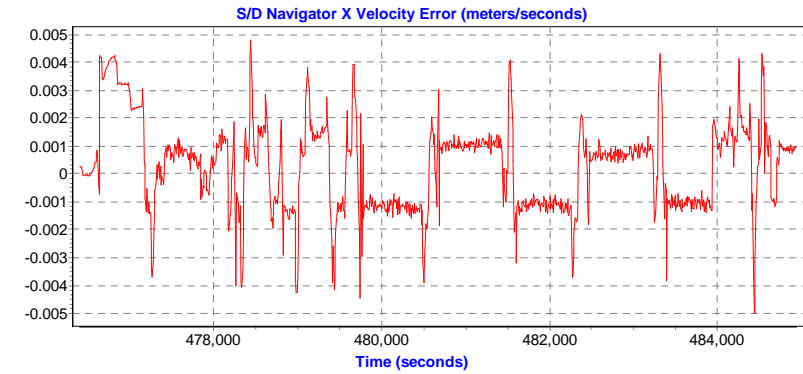
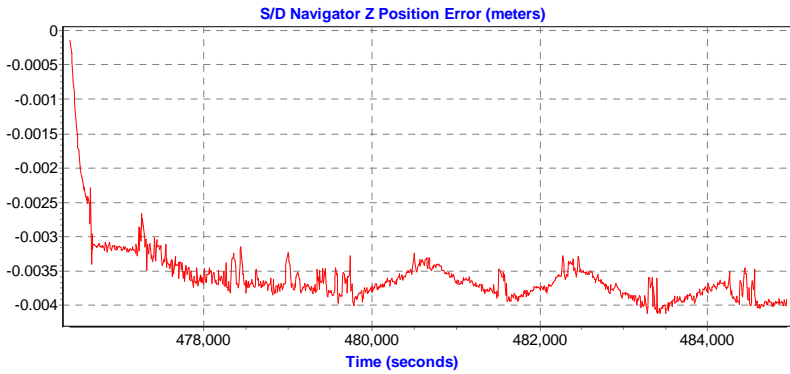
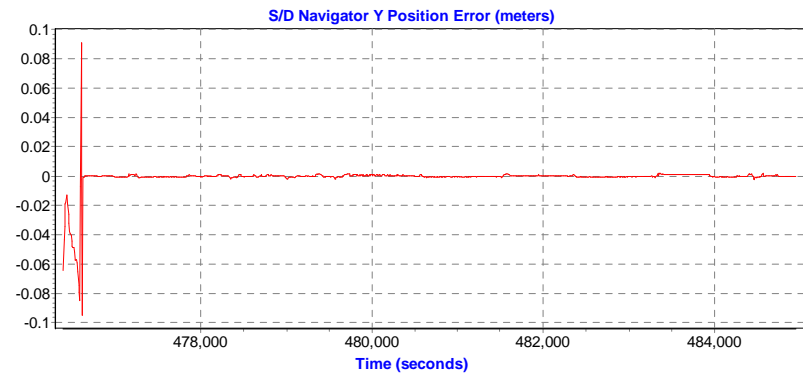
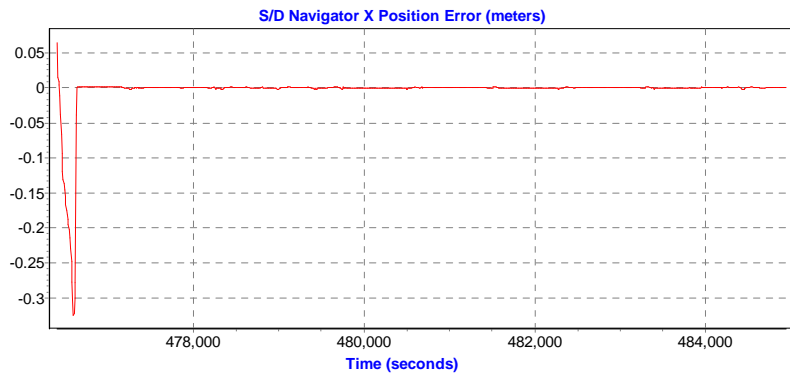
## Percentages of epochs with DD\_DOP over 10.00:

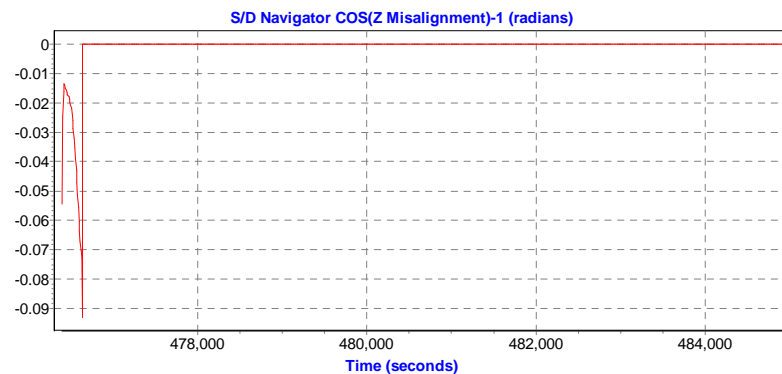
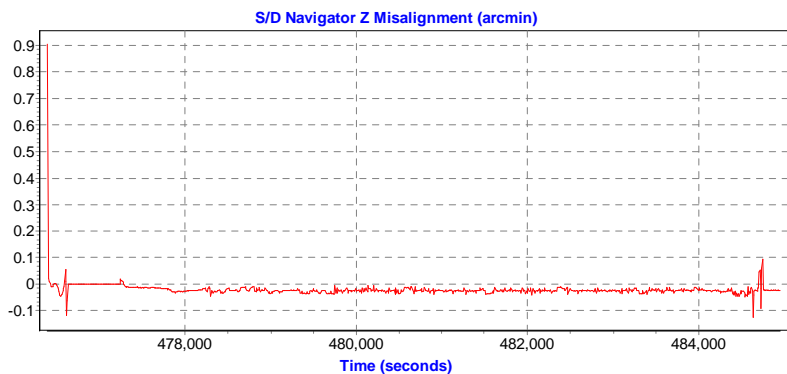
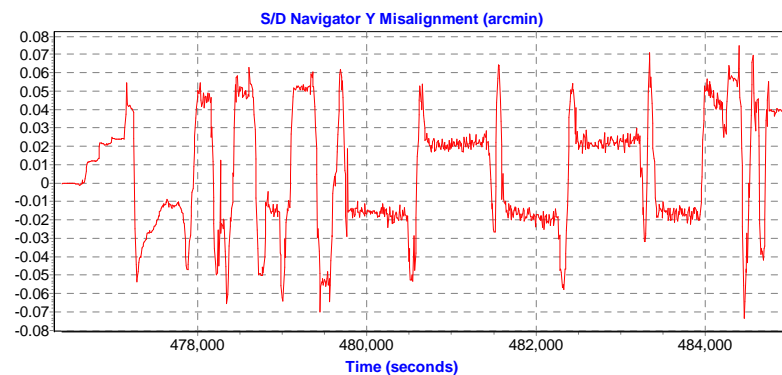
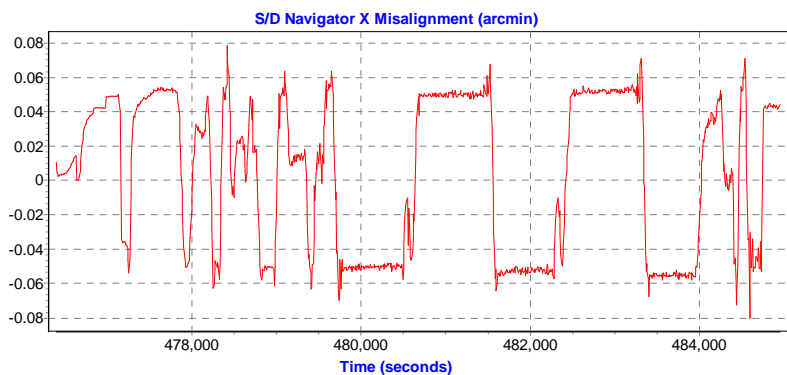
DOP over Tol:	0.0 %
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## Baseline Distances:

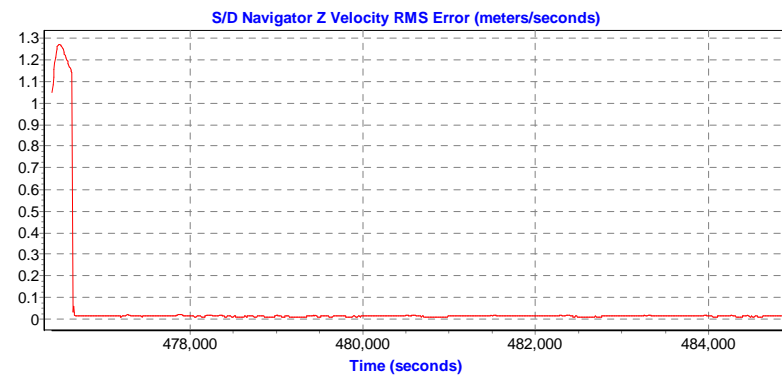
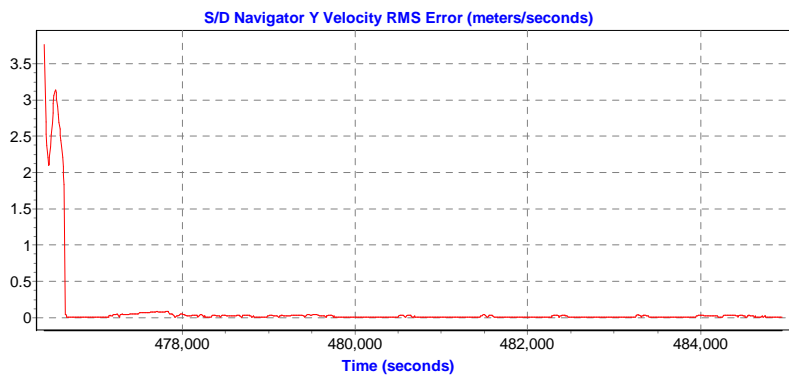
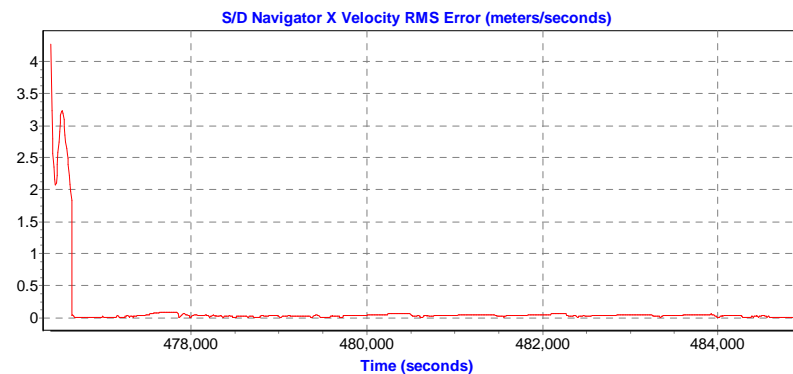
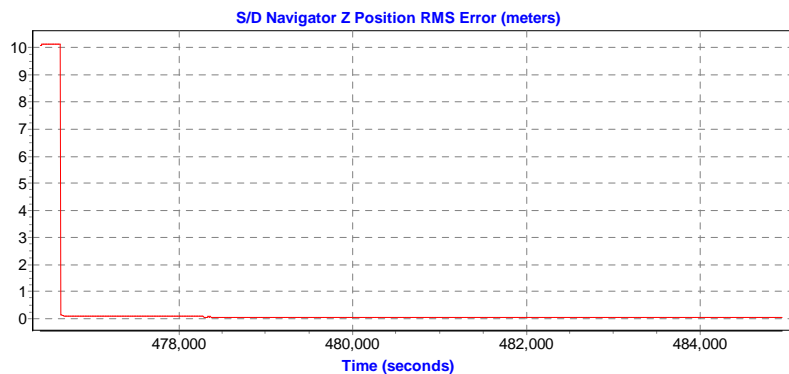
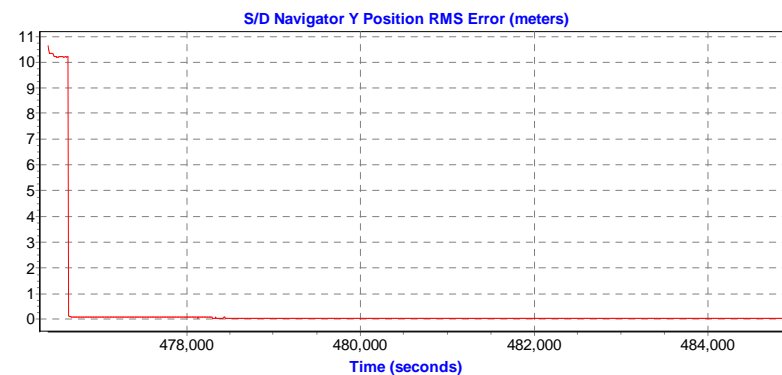
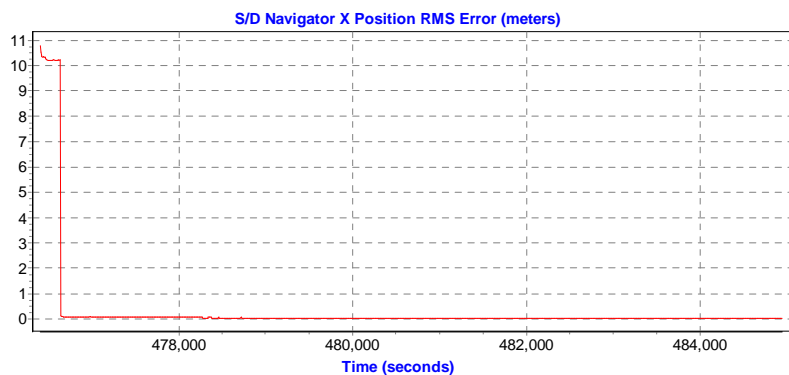
Maximum:	49.412 (km)
Minimum:	0.038 (km)
Average:	27.125 (km)
First Epoch:	0.570 (km)
Last Epoch:	0.595 (km)

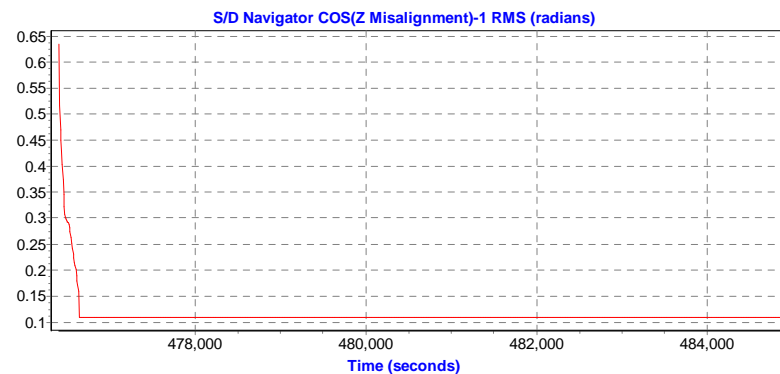
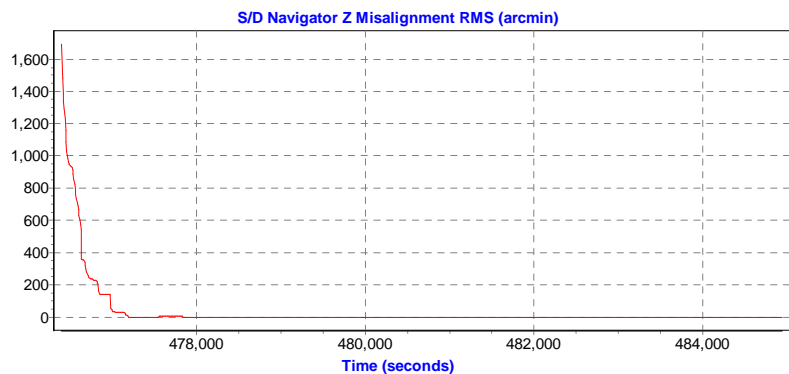
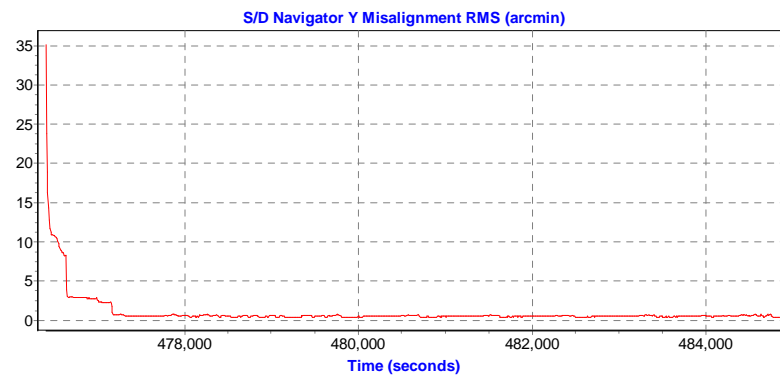
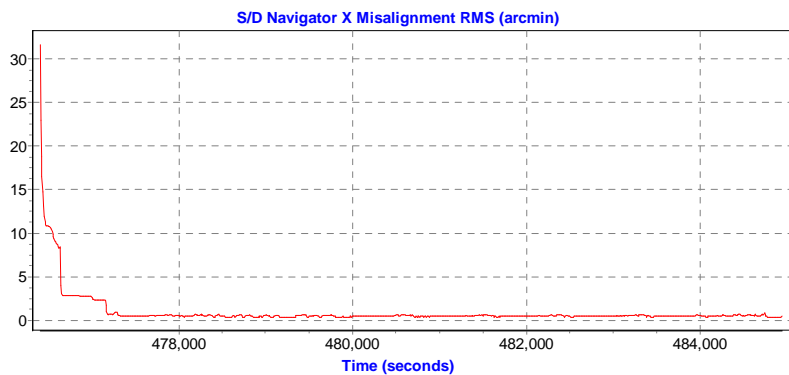
Estimated Errors and RMS

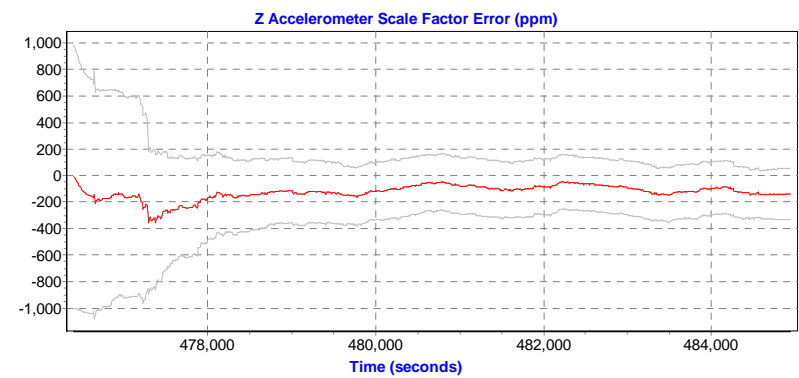
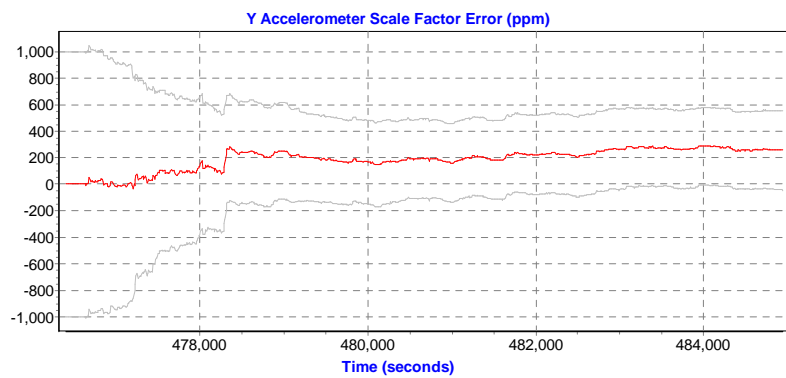
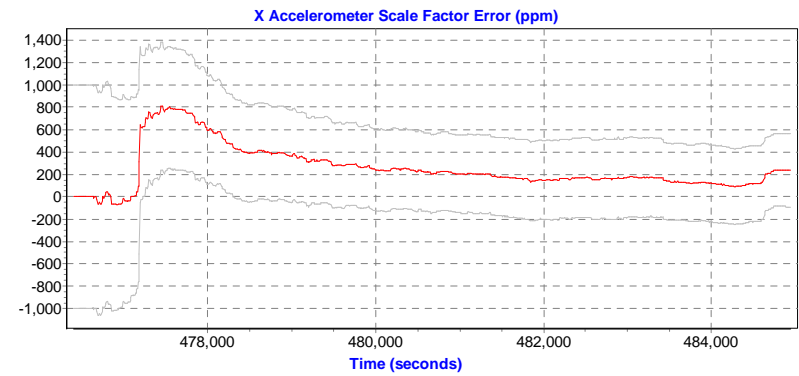
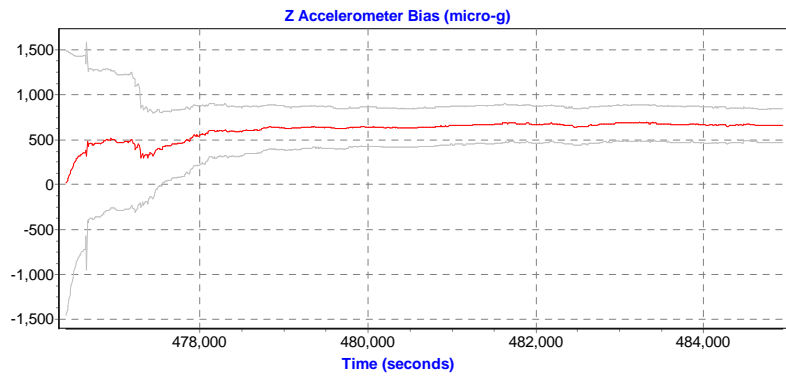
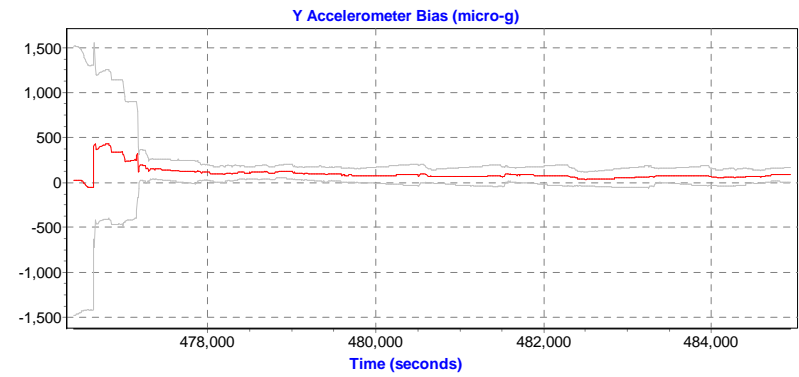
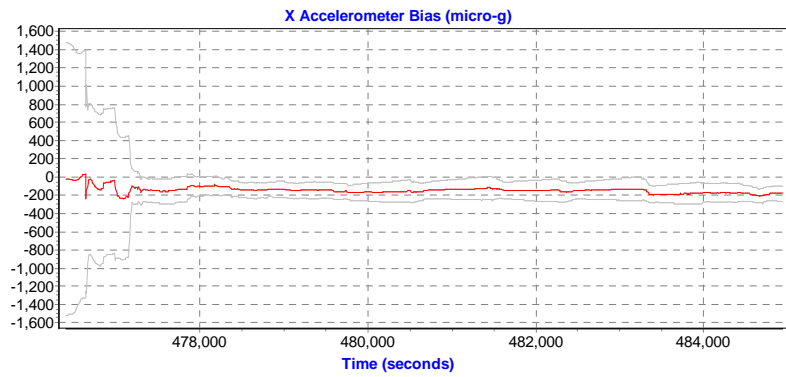


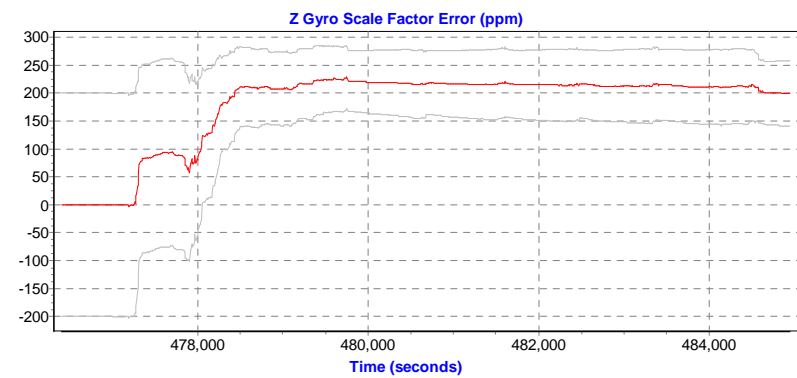
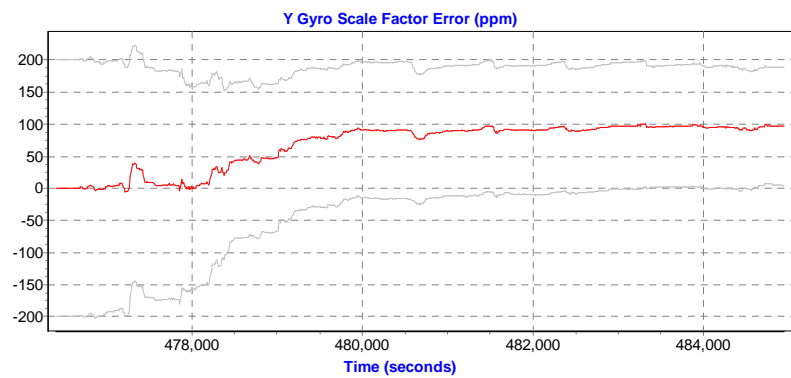
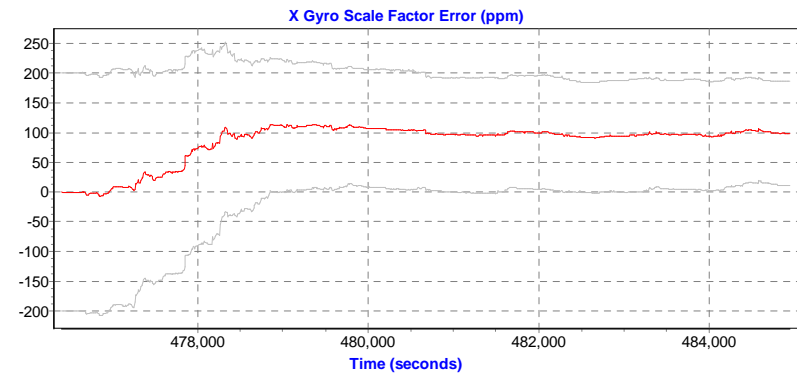
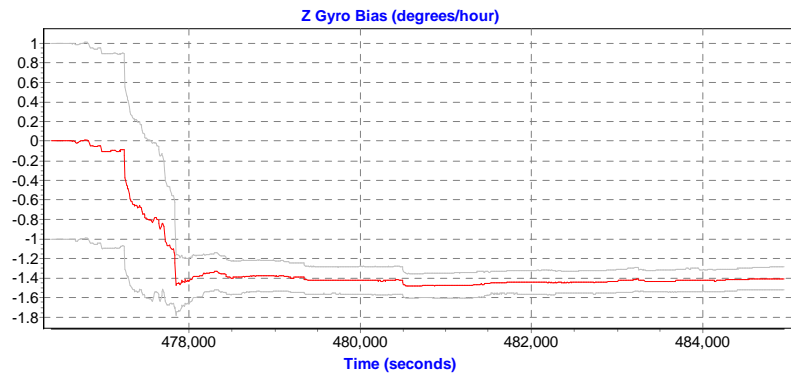
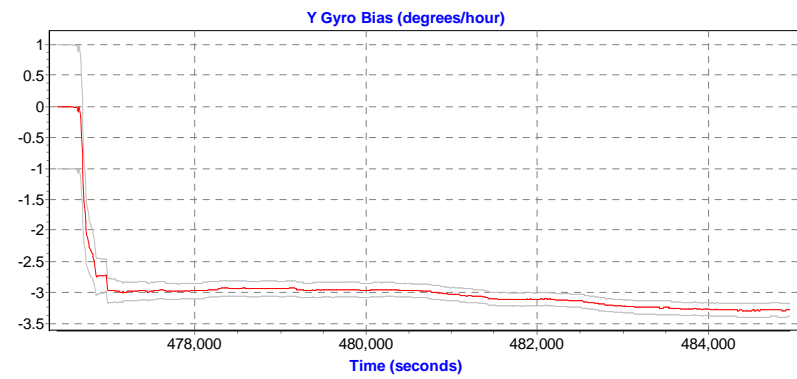
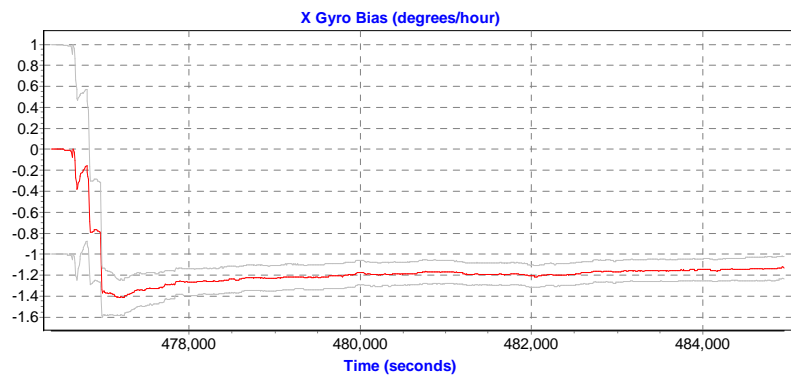


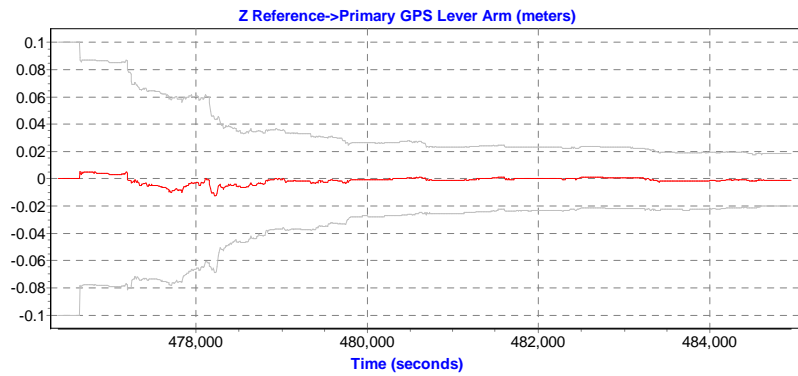
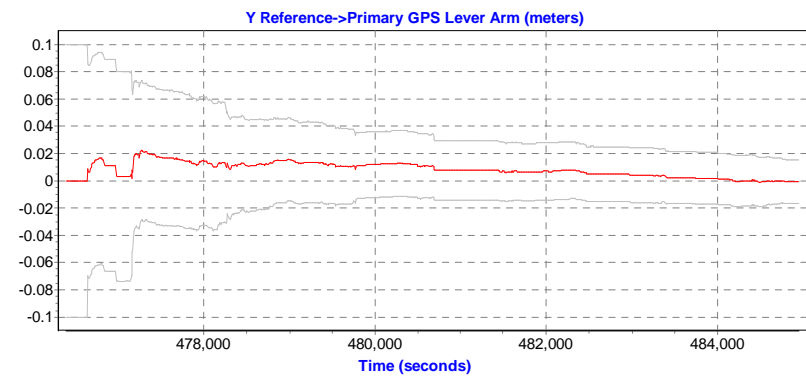
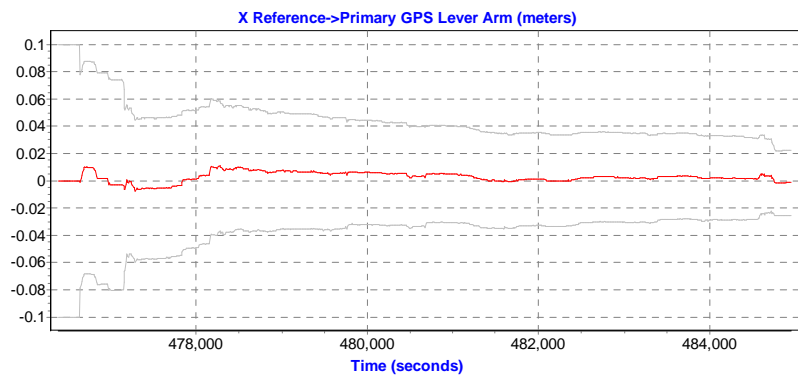






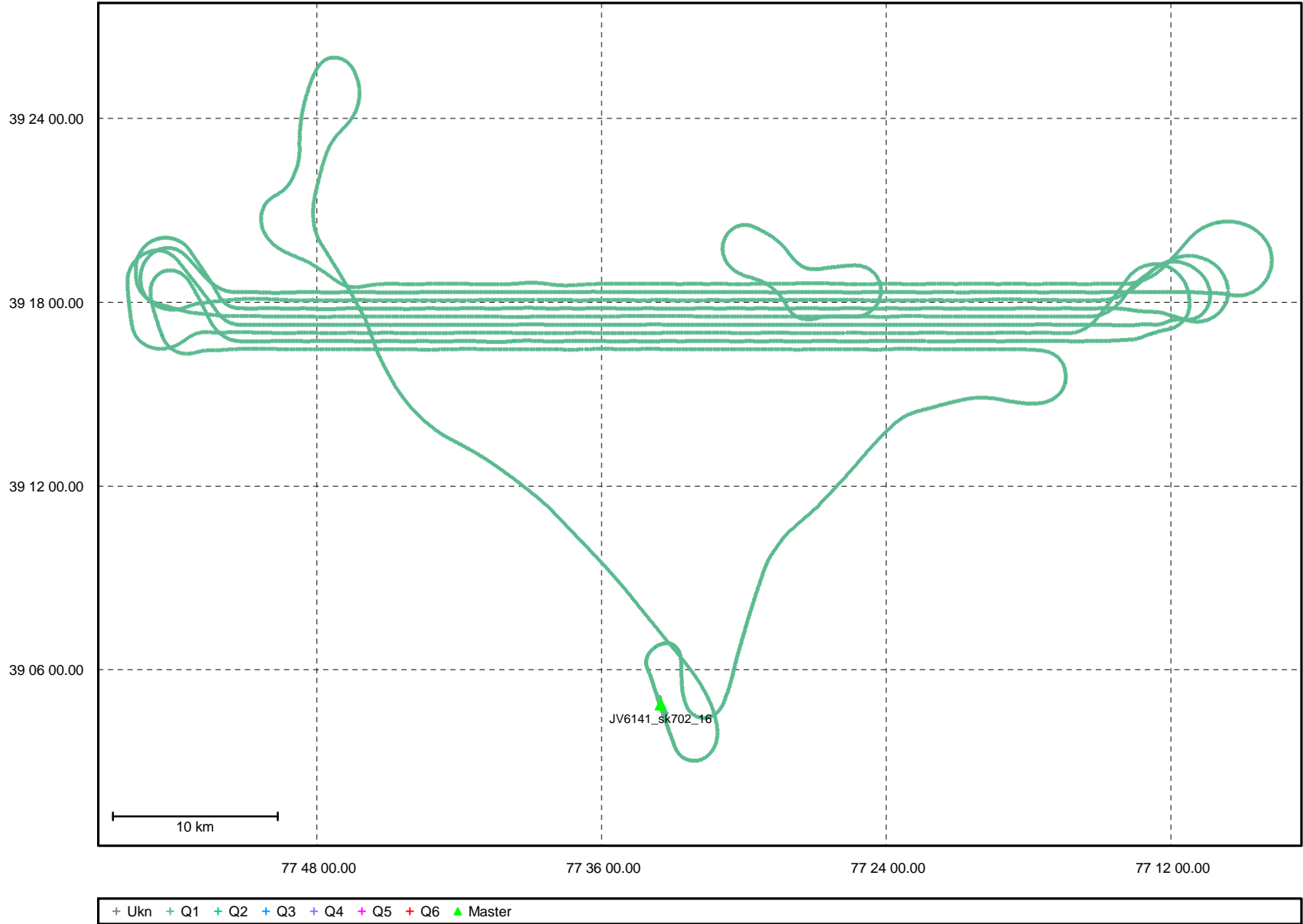




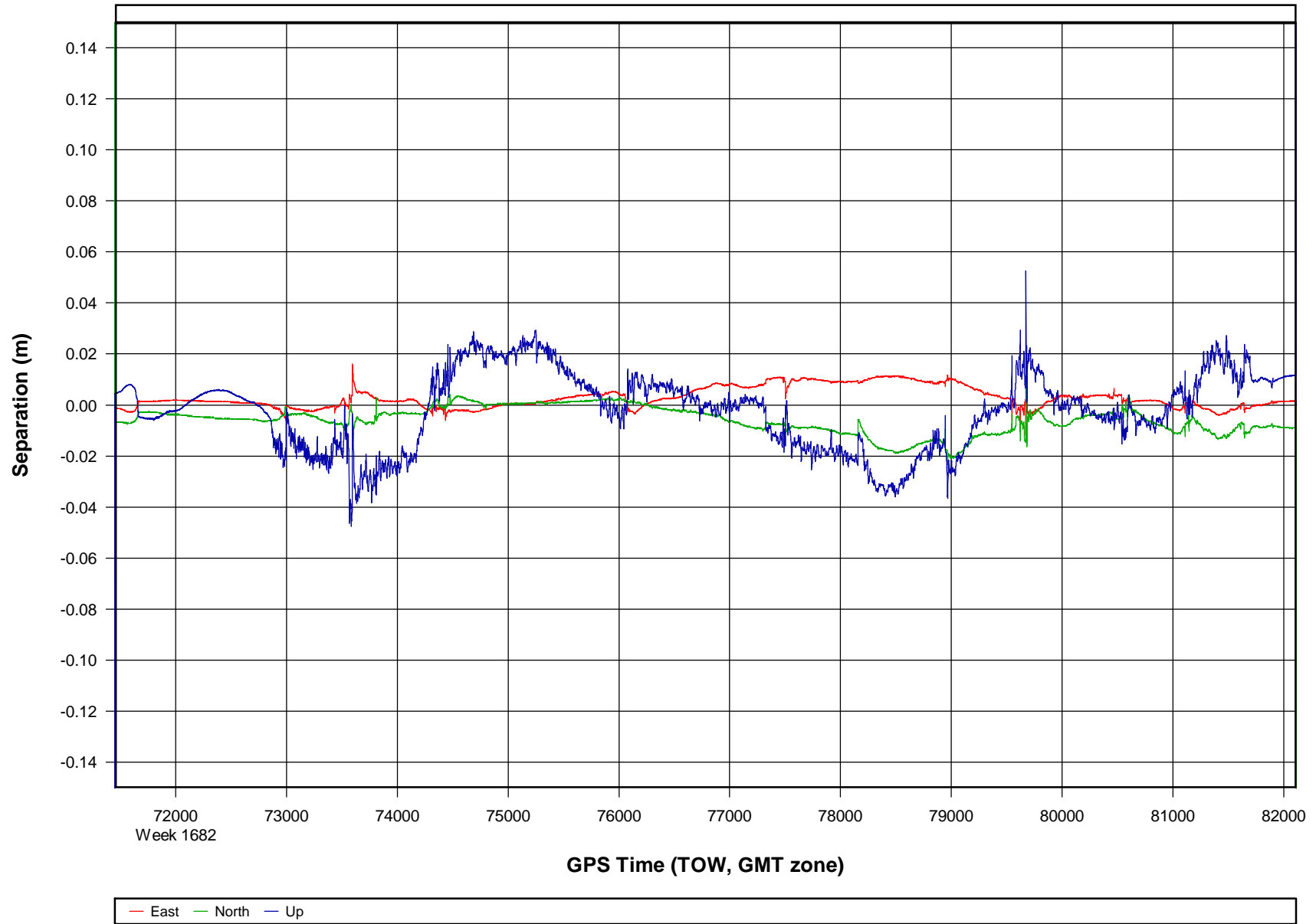


### Combined - Map Run (1)

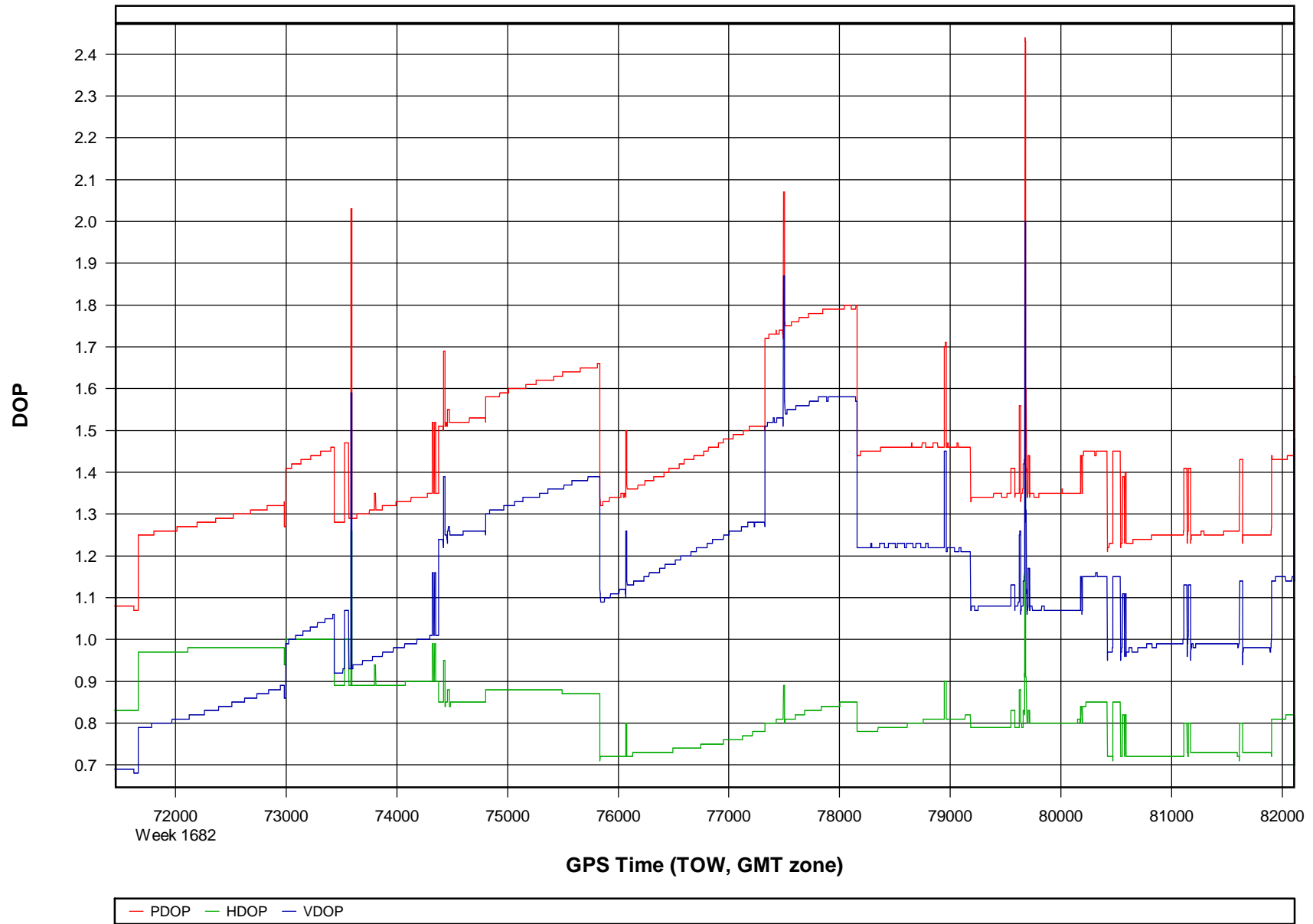
Geographic, DMS



### o112092a [Combined] - Forward/Reverse or Combined Separation Plot

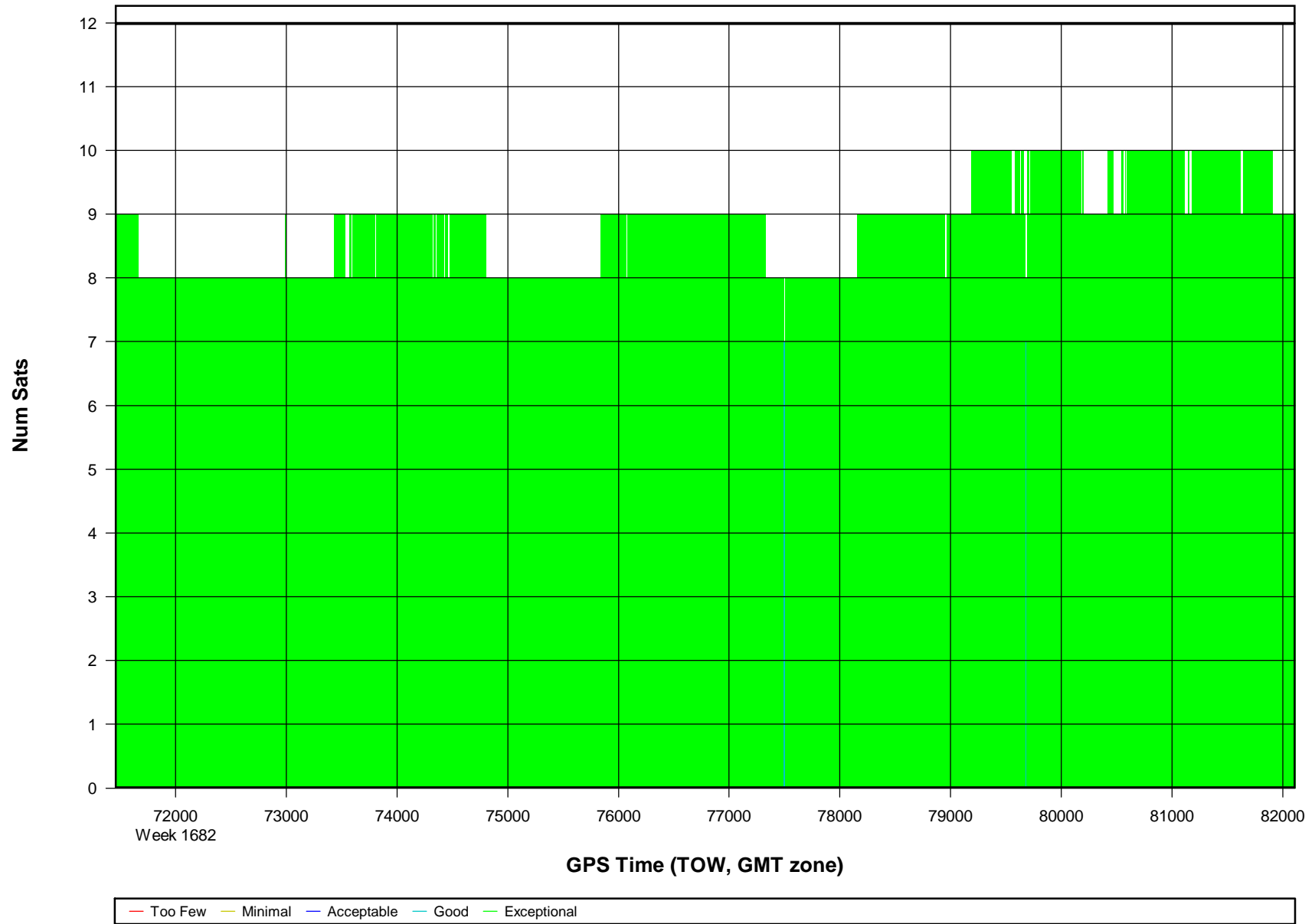


### o112092a [Combined] - PDOP, HDOP, VDOP Plots

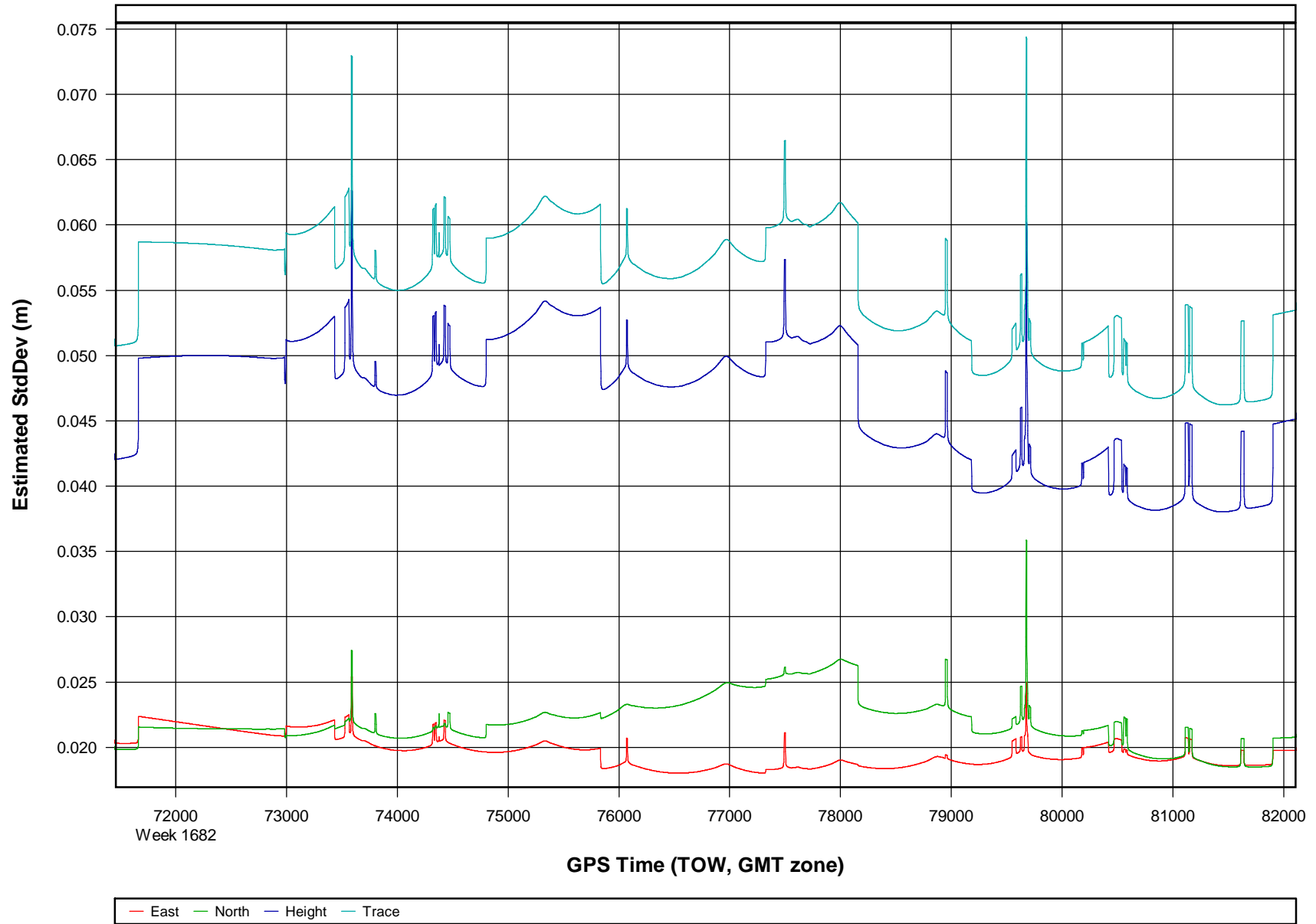




### o112092a [Combined] - Number of Satellites Bar Plot



### o112092a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: E:\Projects\335DEW11\_USGS\_MD\_VA\_cont\2\_Operations\6\_Missions\o112092a\3\_Processed\Gps\o112092a.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file:	106782
No processed position:	96127
Missing Fwd or Rev:	4
With bad C/A code:	0
With bad L1 Phase:	0

## Measurement RMS Values:

L1 Phase:	0.0144 (m)
C/A Code:	0.68 (m)
L1 Doppler:	0.028 (m/s)

## Fwd/Rev Separation RMS Values:

East:	0.006 (m)
North:	0.009 (m)
Height:	0.017 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (10649 occurrences):

East:	0.005 (m)
North:	0.008 (m)
Height:	0.015 (m)

## Quality Number Percentages:

Q 1:	99.9 %
Q 2:	0.1 %
Q 3:	0.0 %
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 %

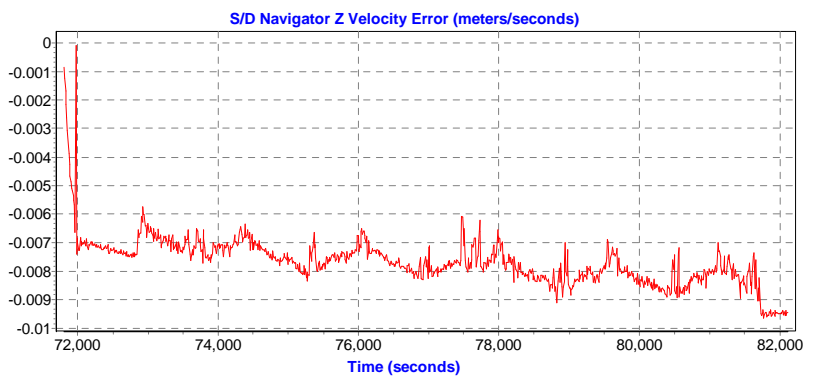
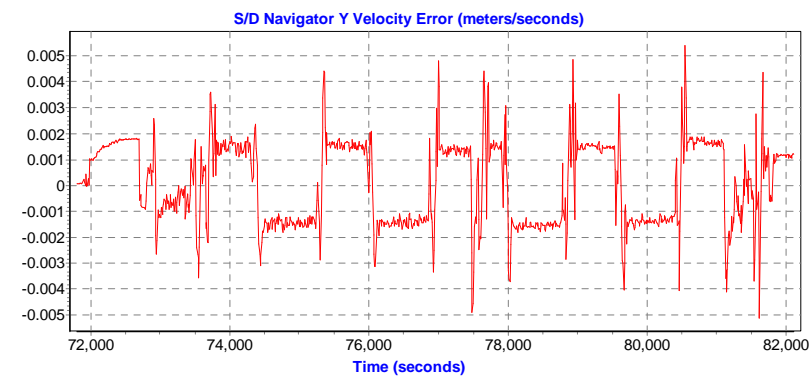
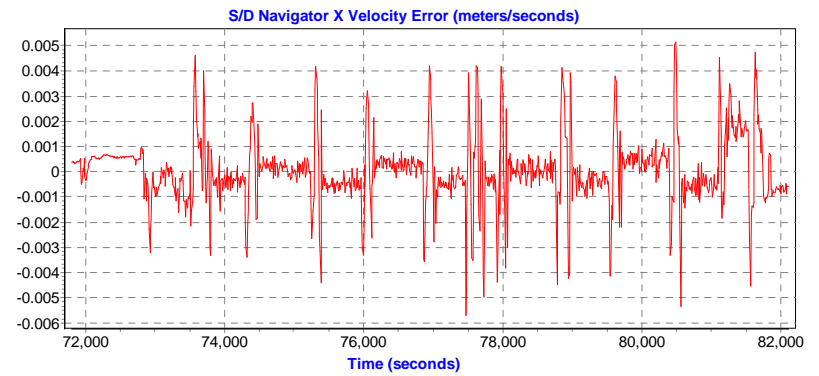
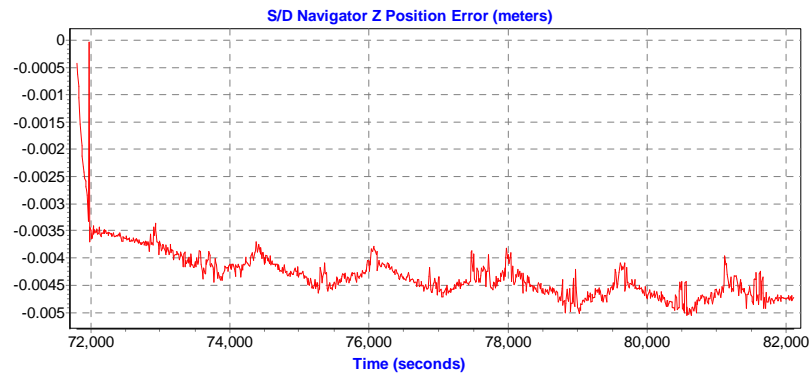
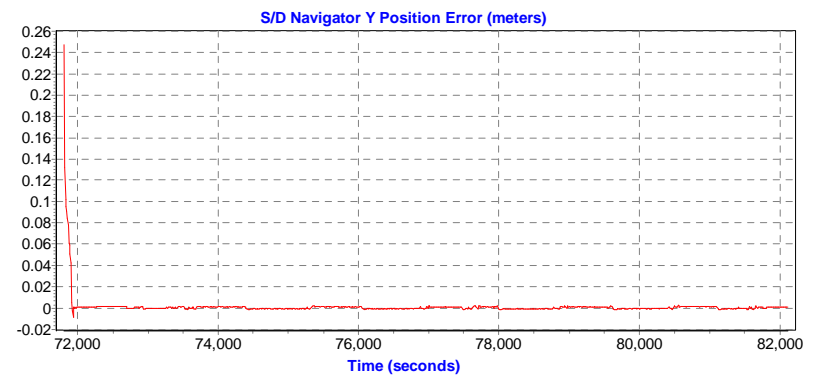
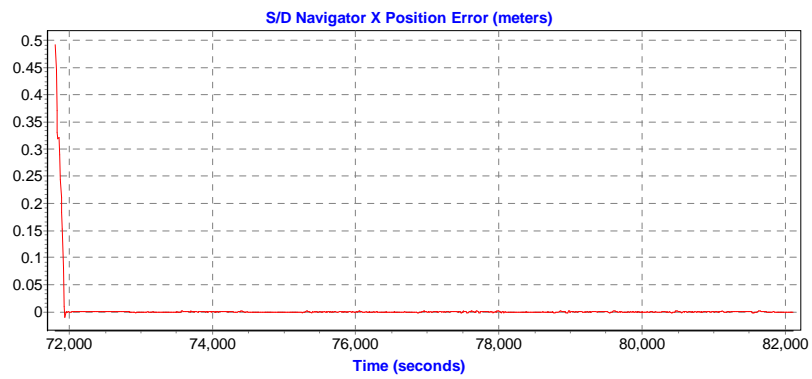
## Percentages of epochs with DD\_DOP over 10.00:

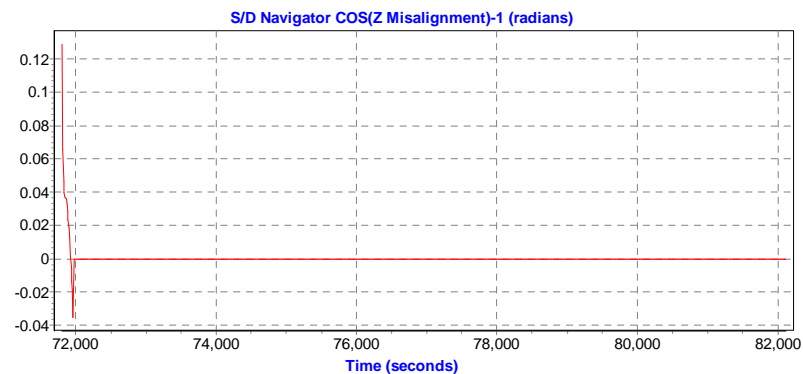
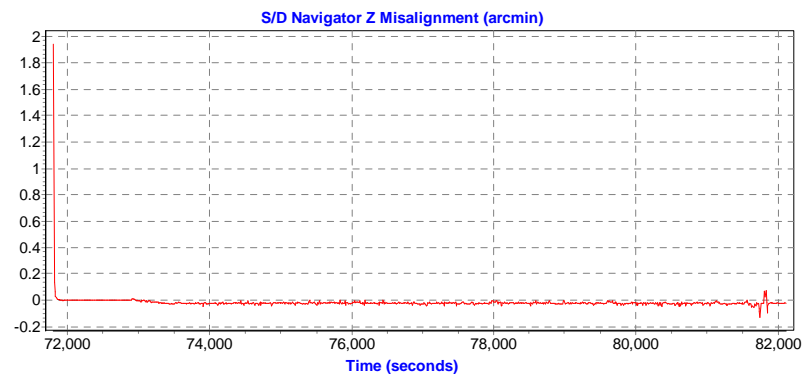
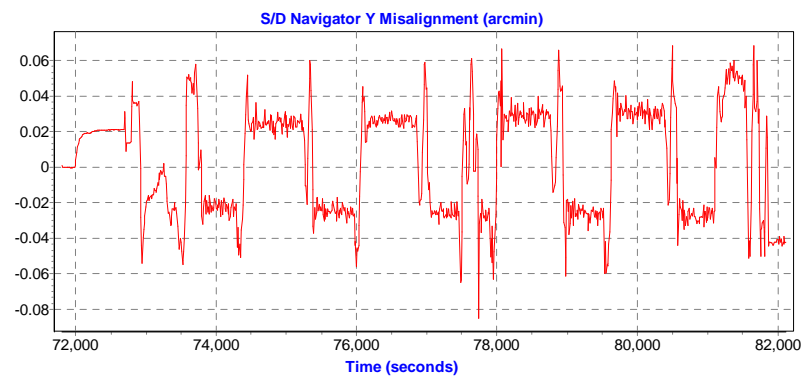
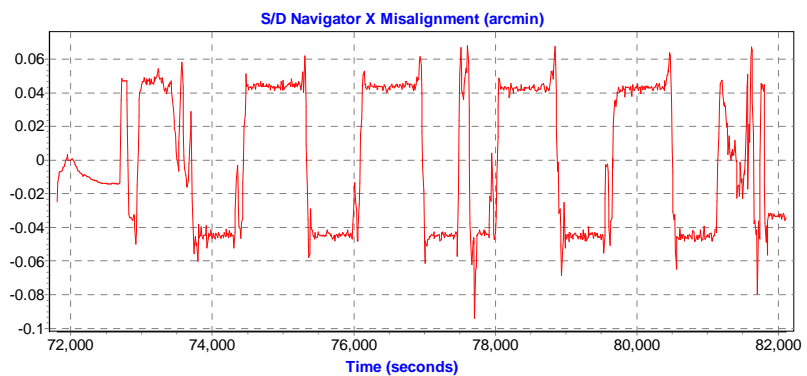
DOP over Tol:	0.0 %
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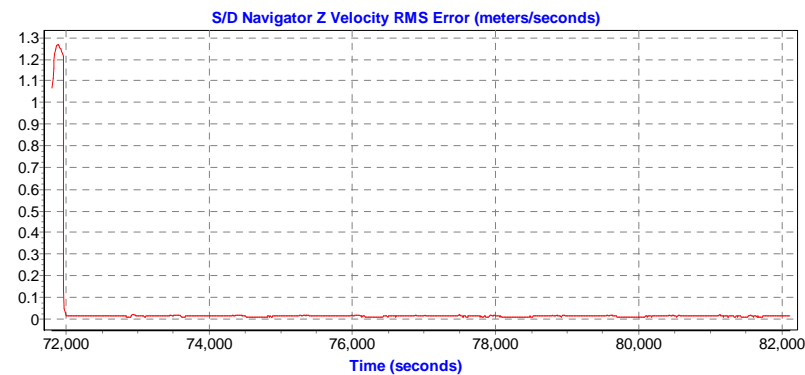
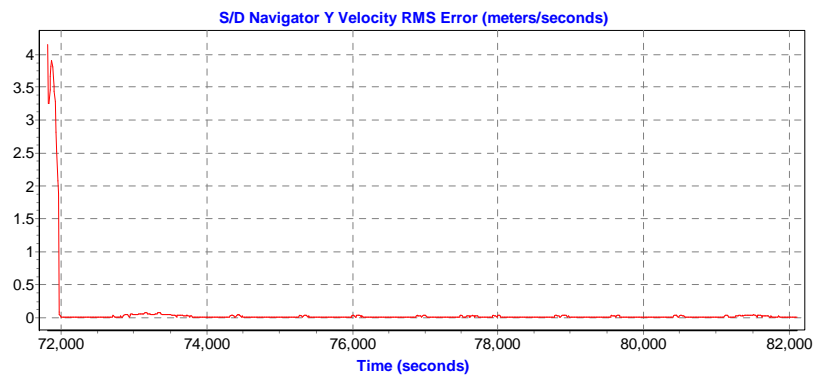
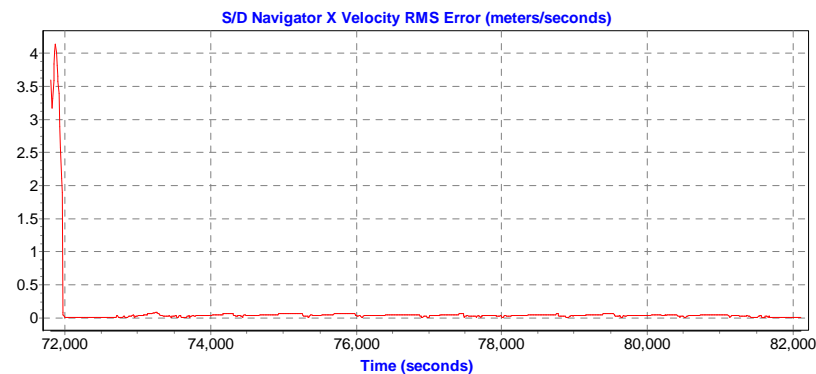
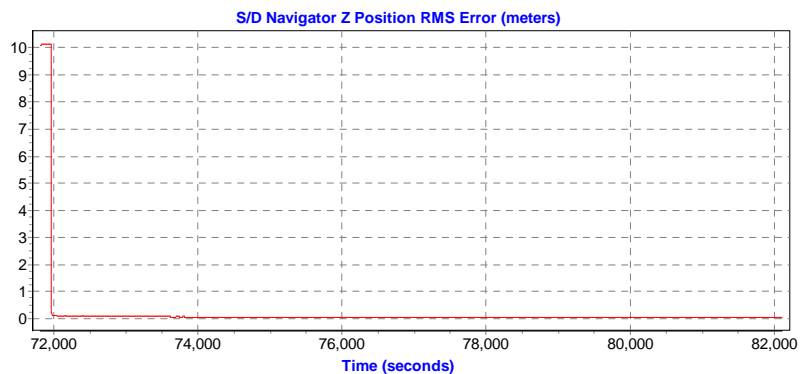
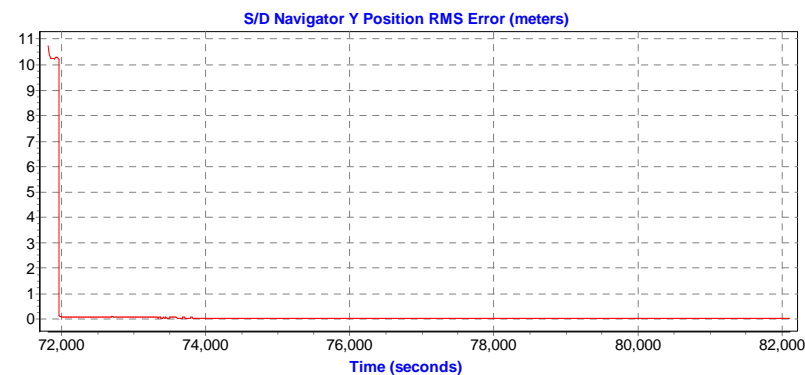
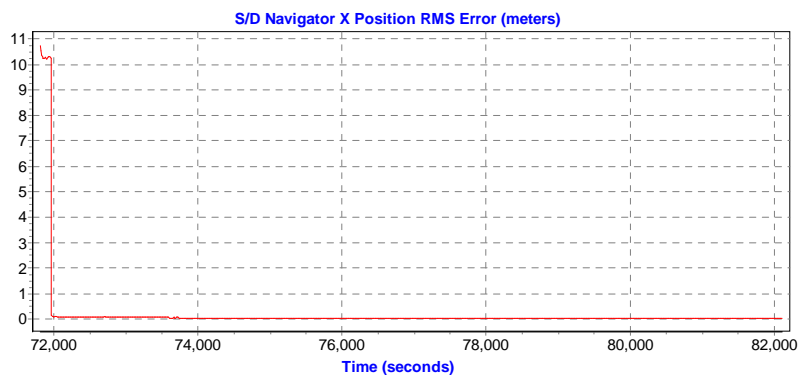
## Baseline Distances:

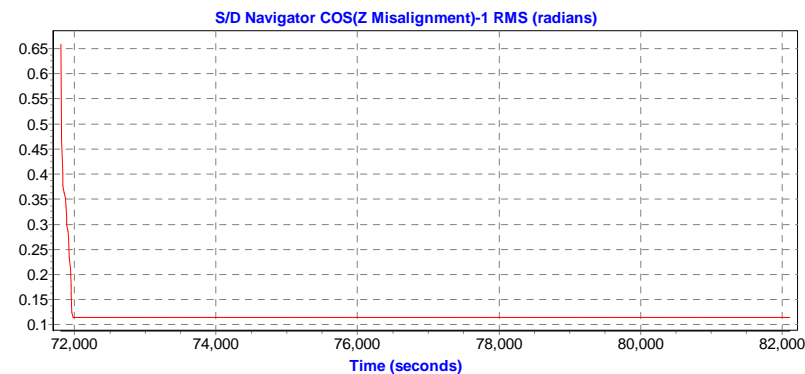
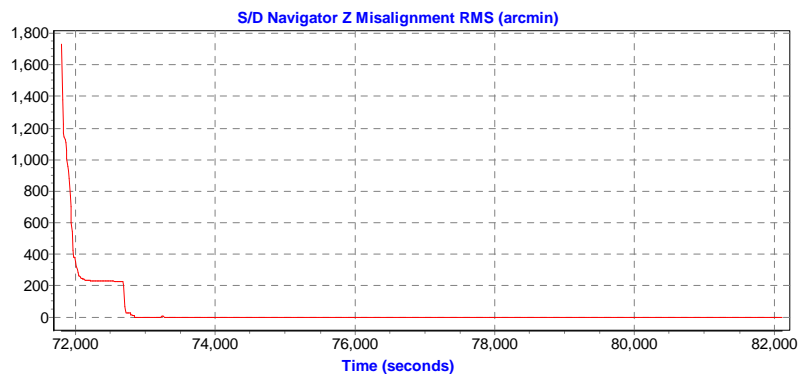
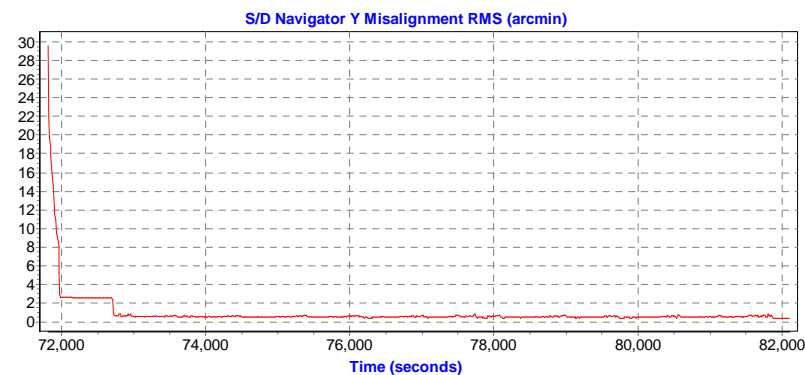
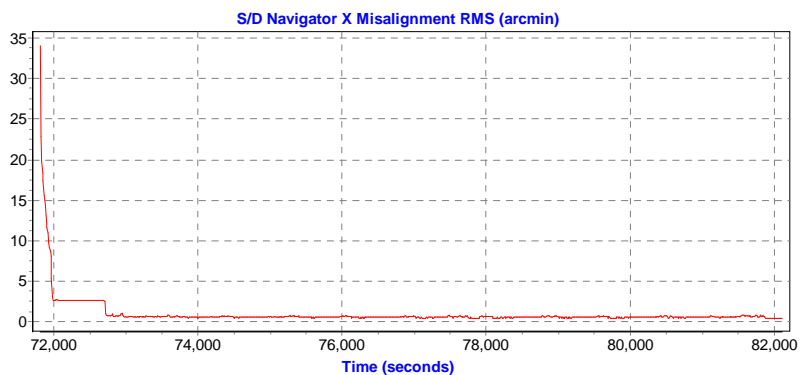
Maximum:	46.220 (km)
Minimum:	0.039 (km)
Average:	23.639 (km)
First Epoch:	0.605 (km)
Last Epoch:	0.604 (km)

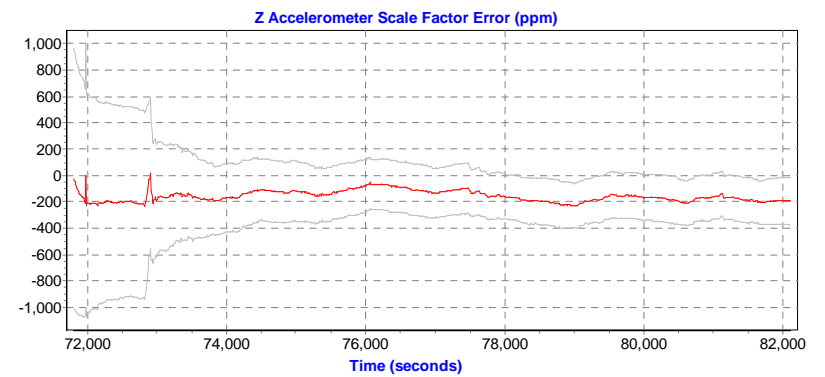
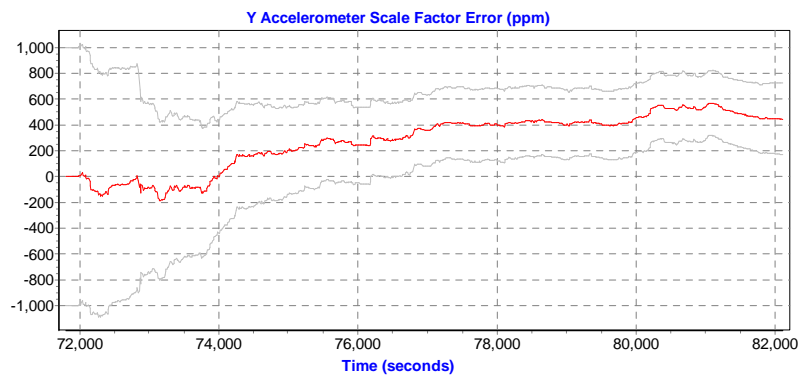
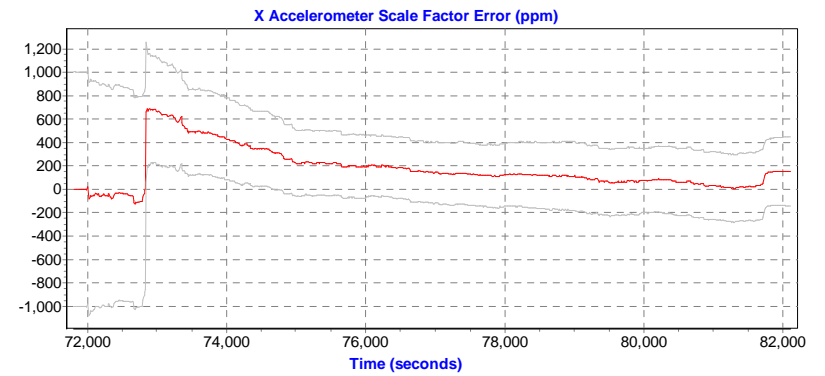
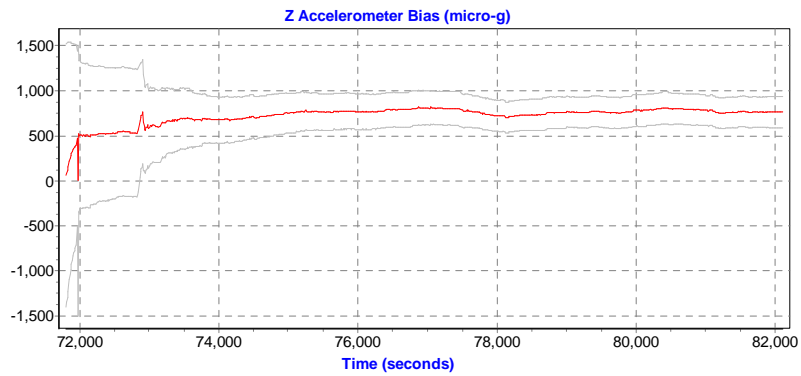
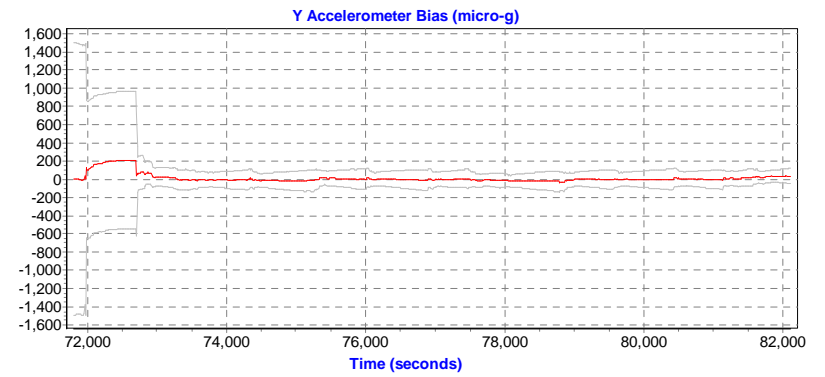
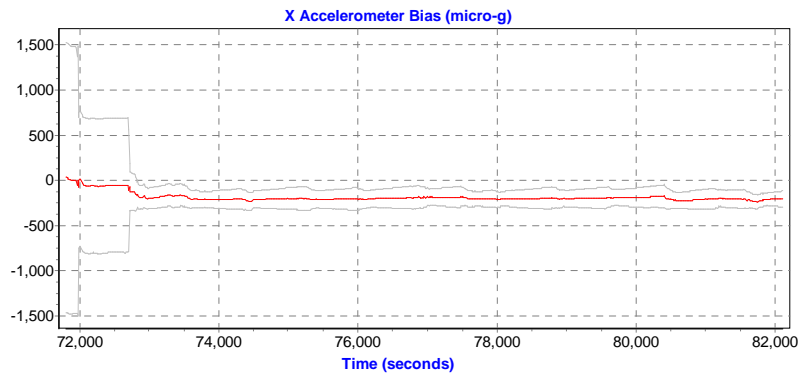
Estimated Errors and RMS



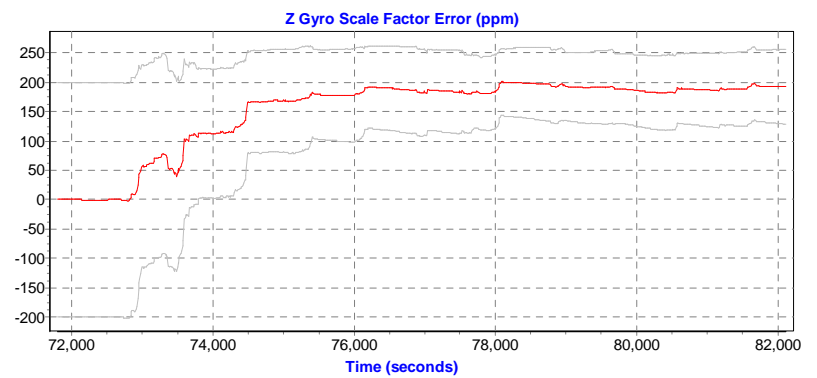
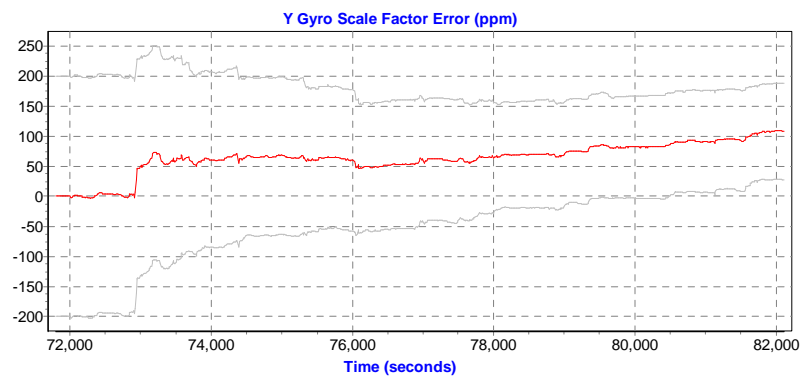
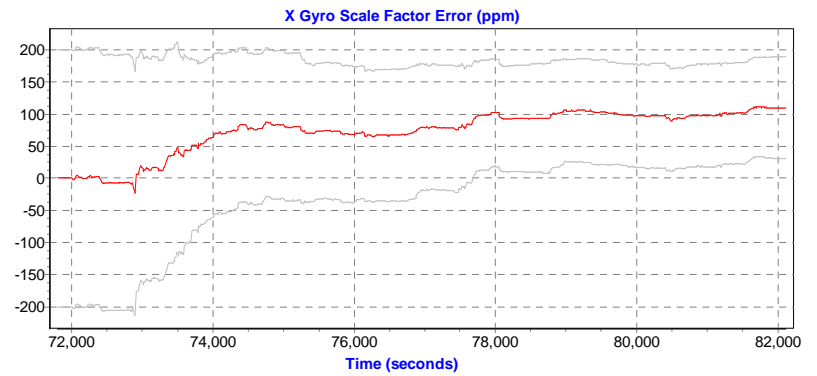
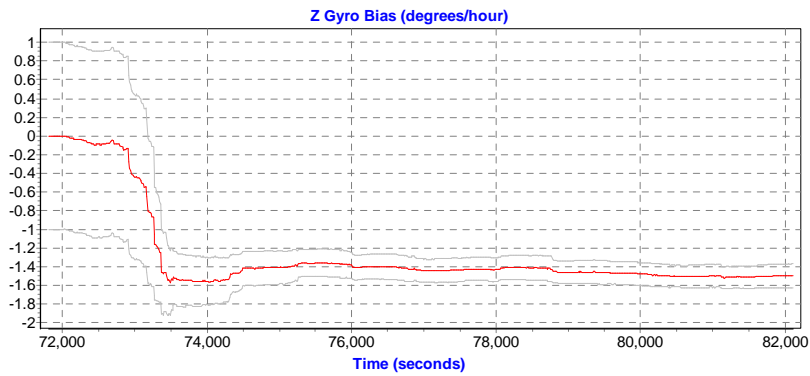
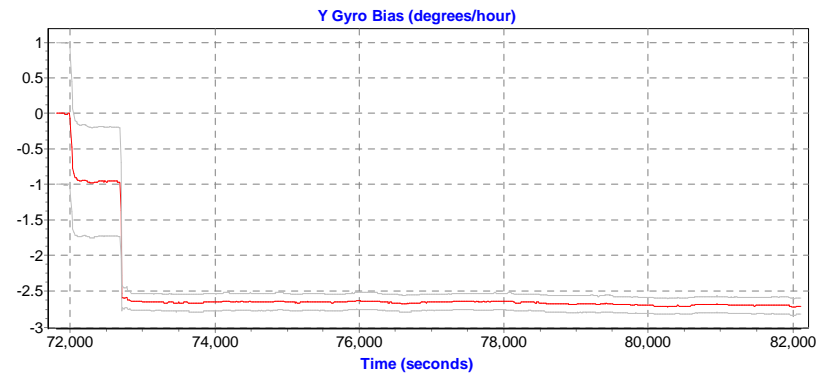
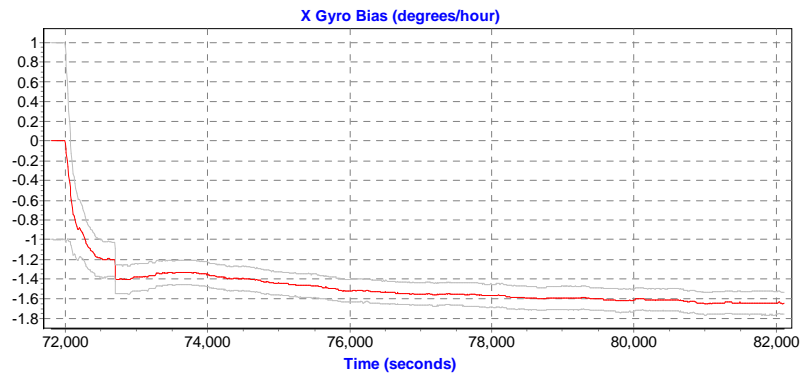


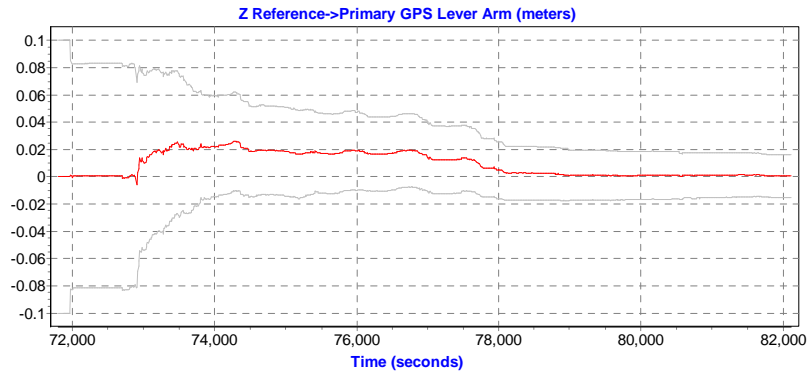
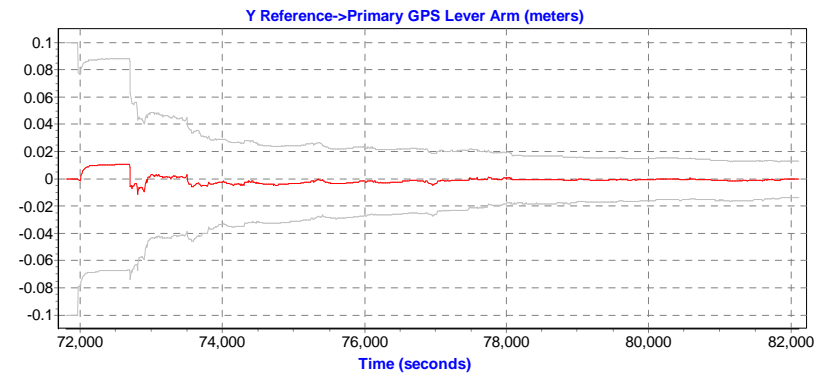
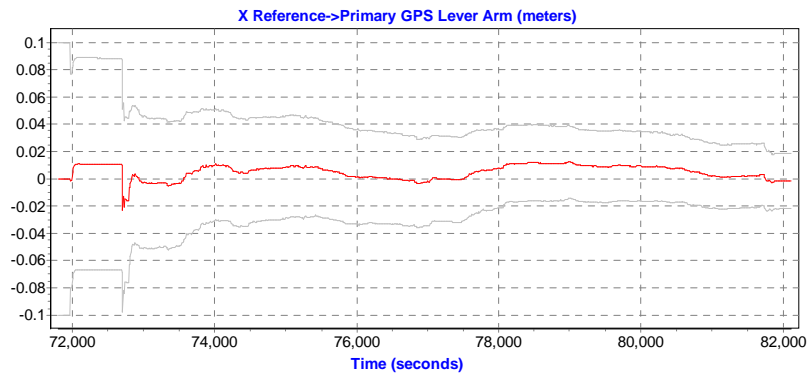






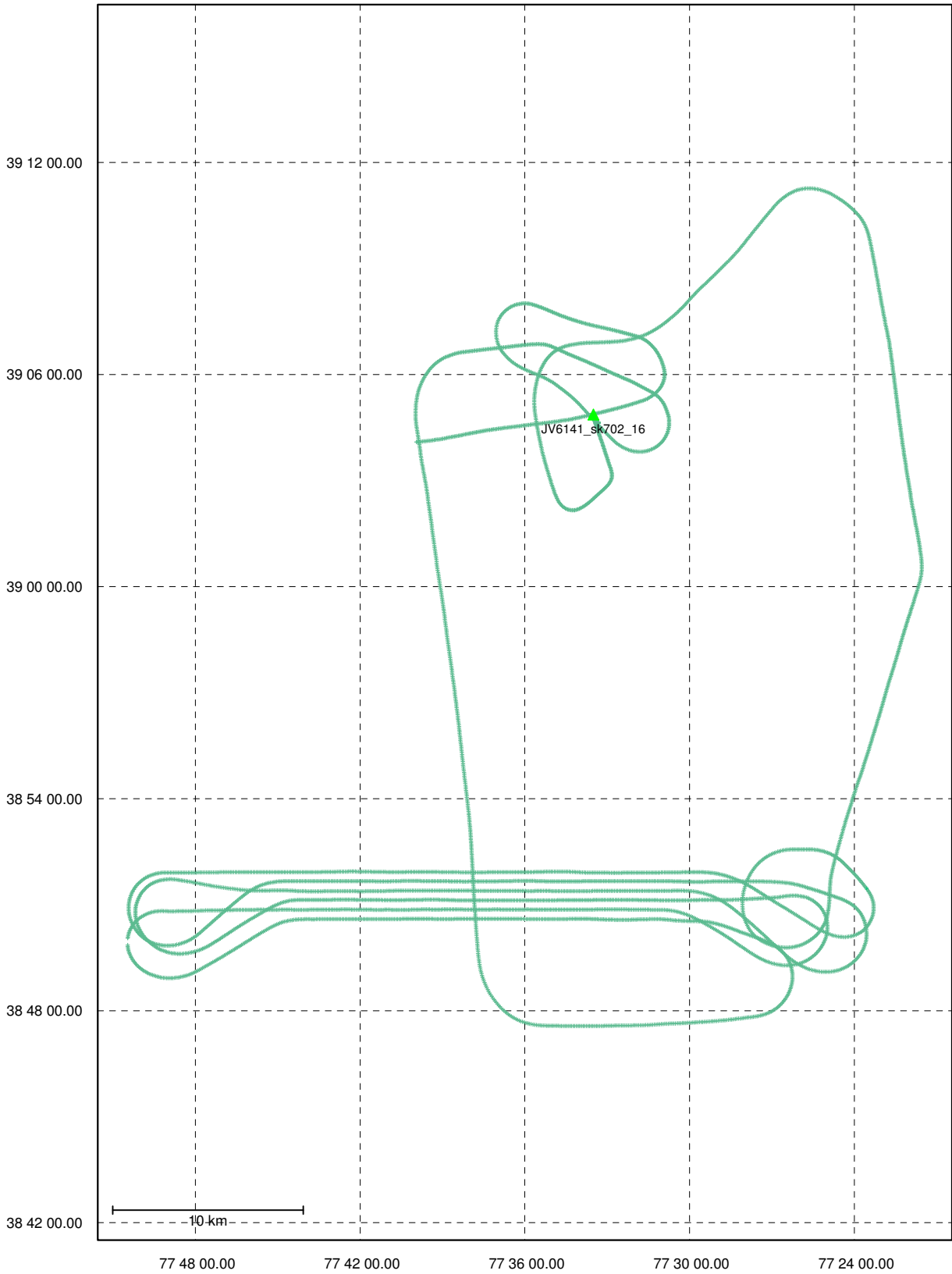






# Combined - Map Run (9)

Geographic, DMS



+ Ukn + Q1 + Q2 + Q3 + Q4 + Q5 + Q6 ▲ Master

Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project:  
M:\335\_DEW\2\_Operations\6\_Missions\o112093a\3\_Processed\GPS\o112093a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:

Total in GPB file: 56866  
No processed position: 51191  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:

L1 Phase: 0.0178 (m)  
C/A Code: 0.68 (m)  
L1 Doppler: 0.025 (m/s)

Fwd/Rev Separation RMS Values:

East: 0.010 (m)  
North: 0.019 (m)  
Height: 0.032 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (5670 occurrences):

East: 0.009 (m)  
North: 0.017 (m)  
Height: 0.032 (m)

Quality Number Percentages:

Q 1: 99.9 %  
Q 2: 0.1 %  
Q 3: 0.0 %  
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 %

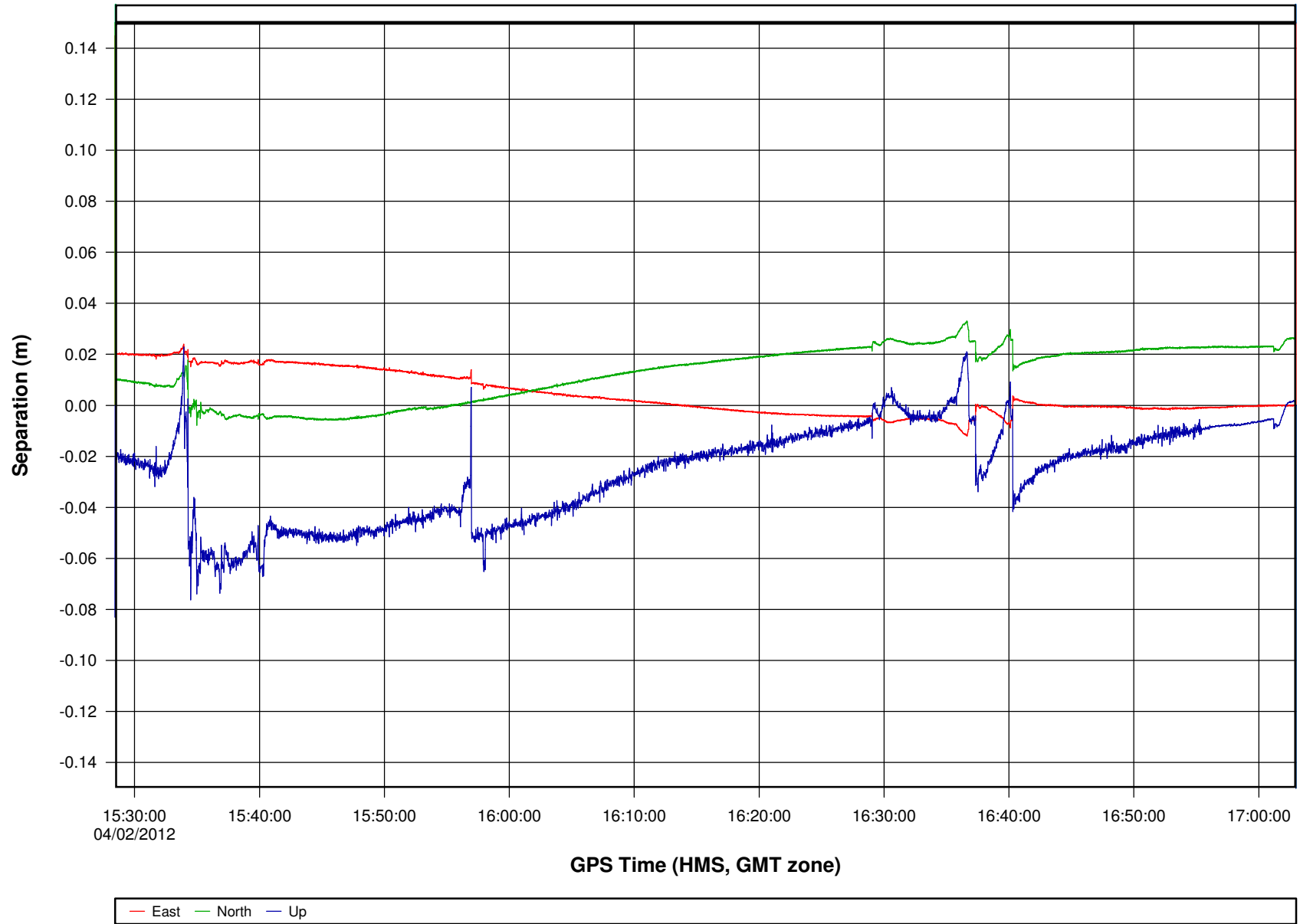
Percentages of epochs with DD\_DOP over 10.00:

DOP over Tol: 0.0 %

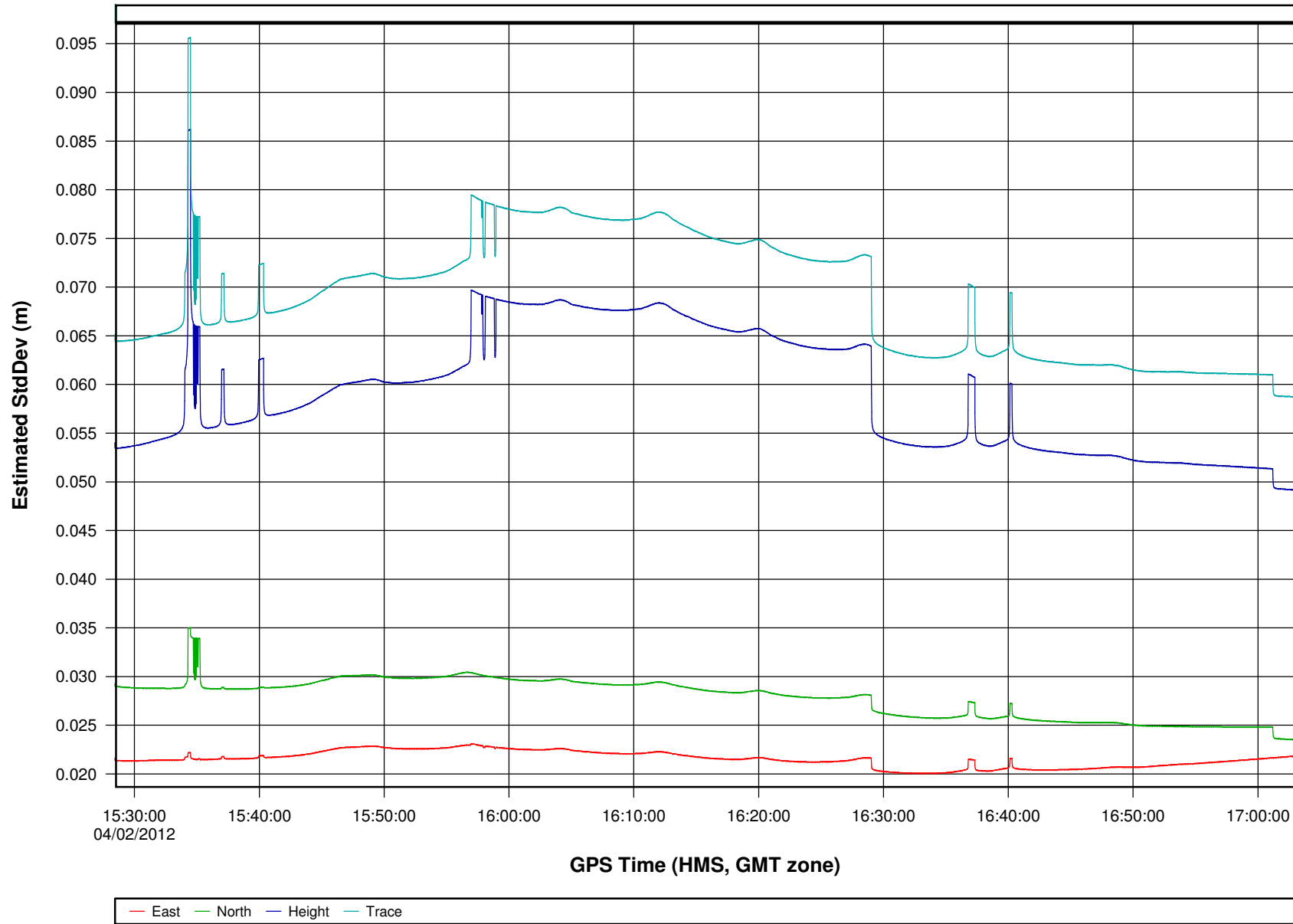
Baseline Distances:

Maximum: 37.544 (km)  
Minimum: 0.109 (km)  
Average: 20.274 (km)  
First Epoch: 9.413 (km)  
Last Epoch: 0.502 (km)

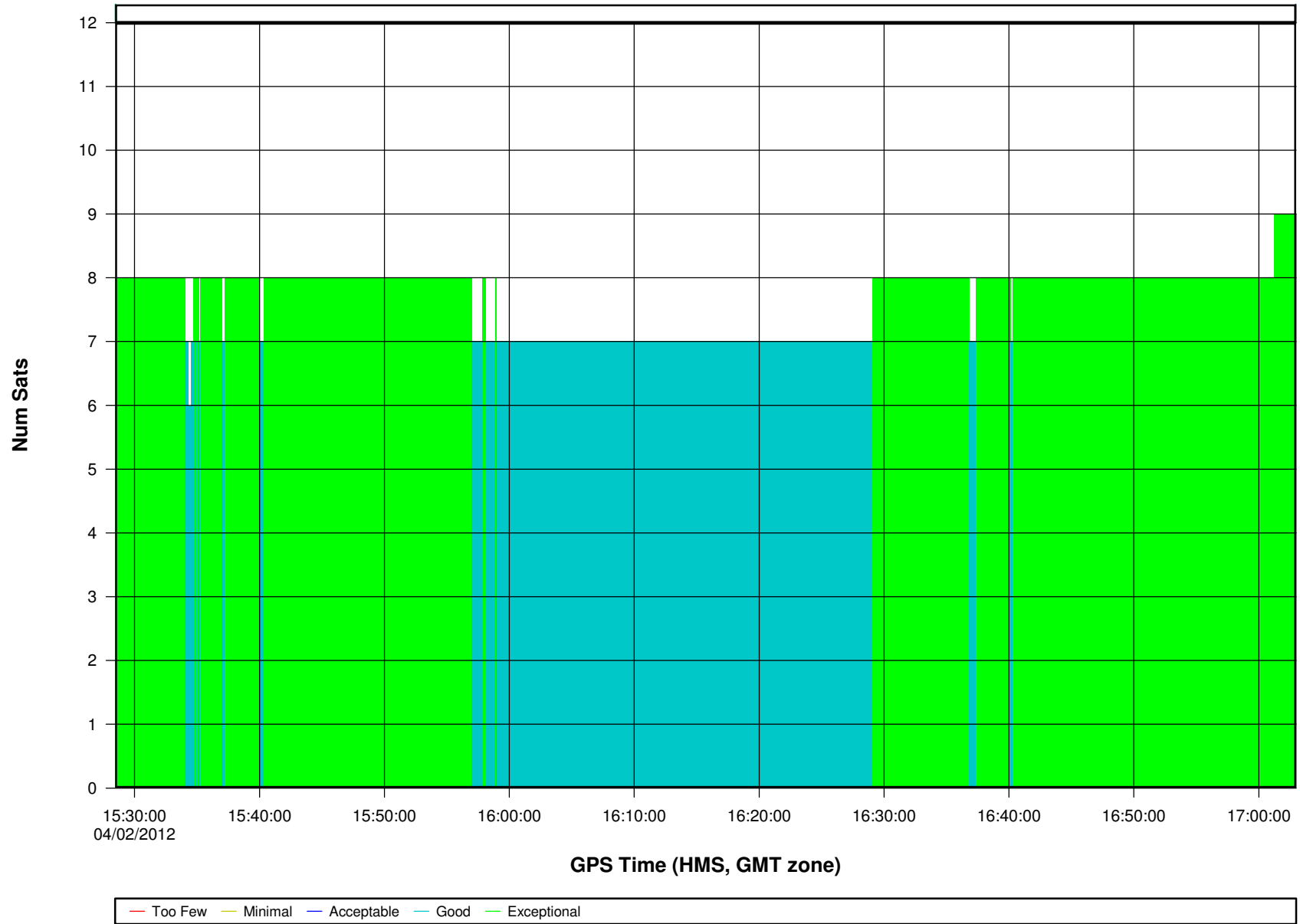
### o112093a [Combined] - Forward/Reverse or Combined Separation Plot



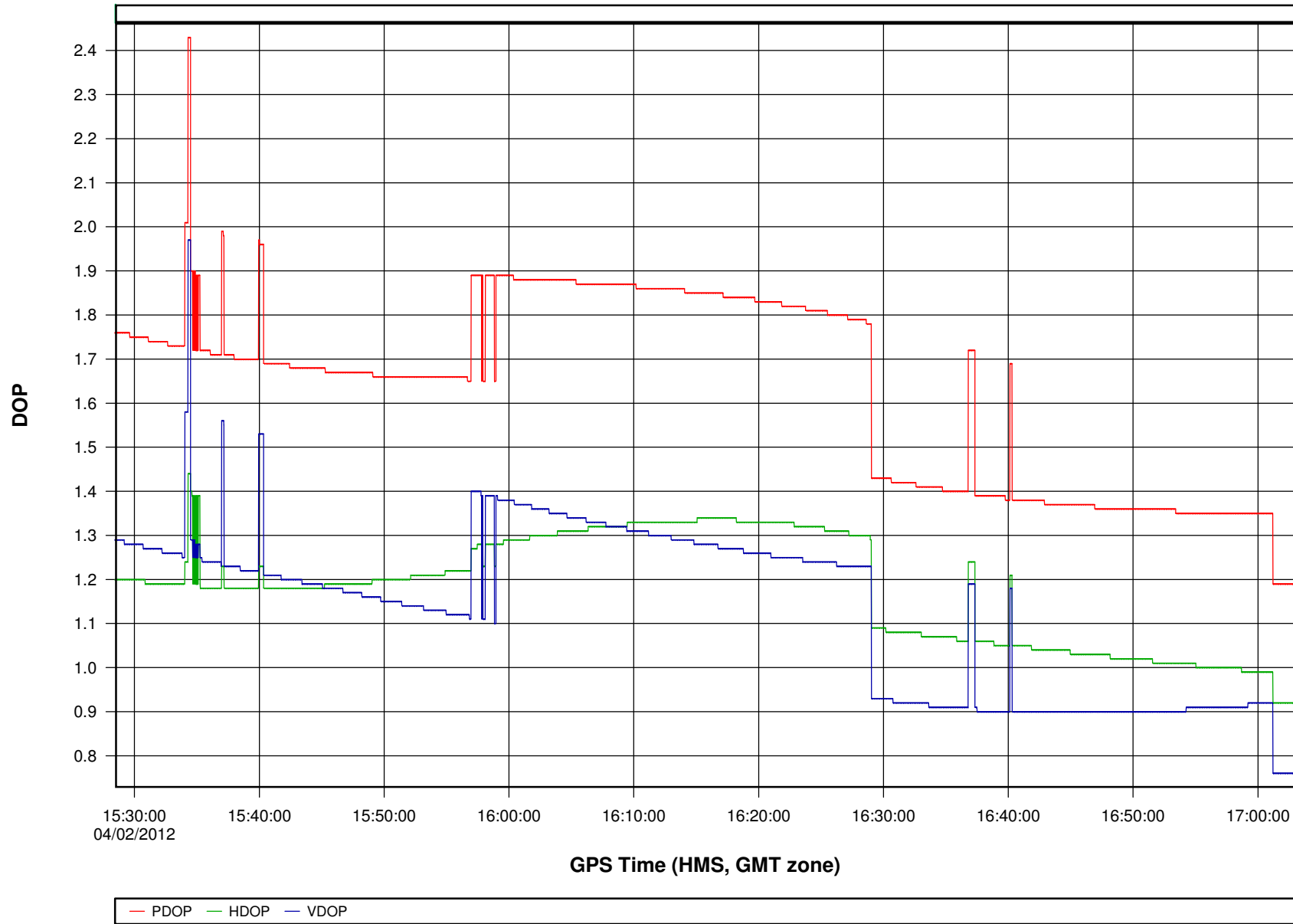
### o112093a [Combined] - Estimated Position Accuracy Plot



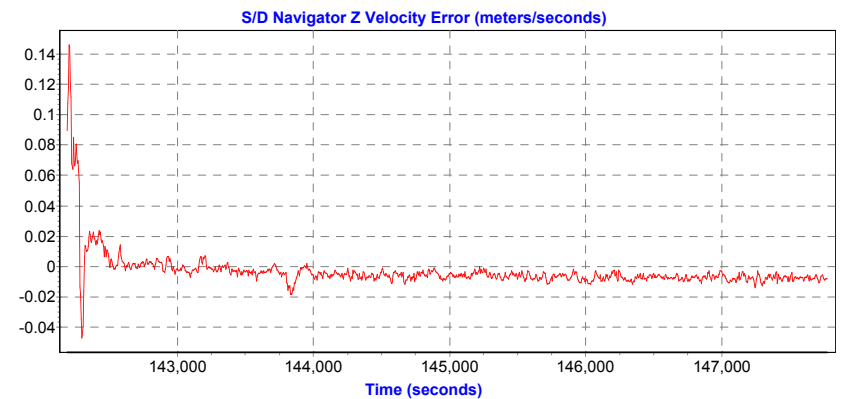
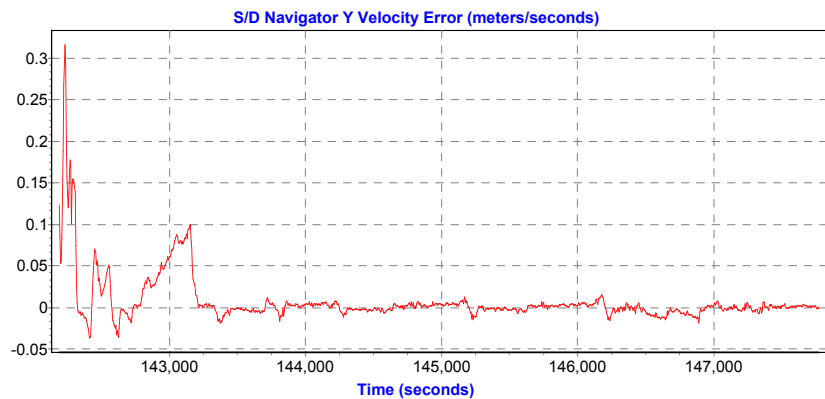
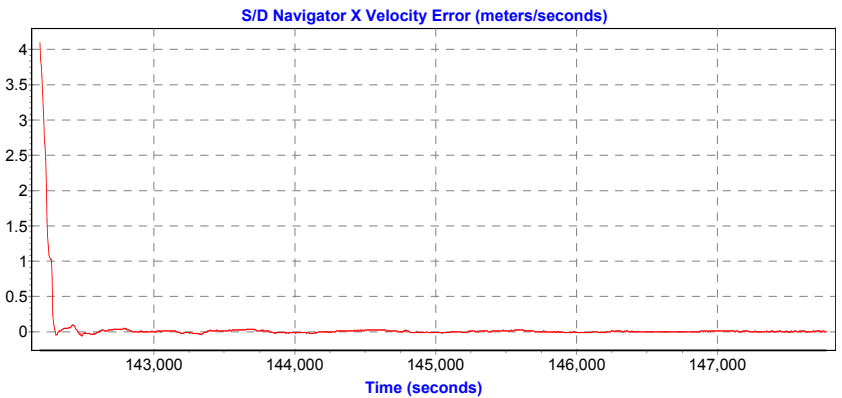
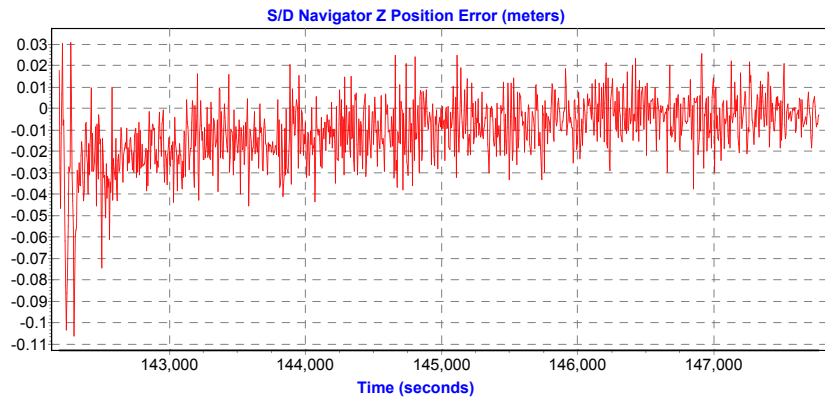
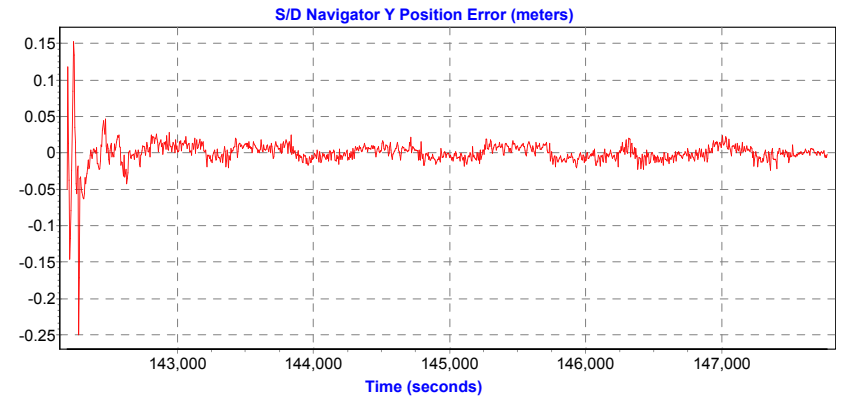
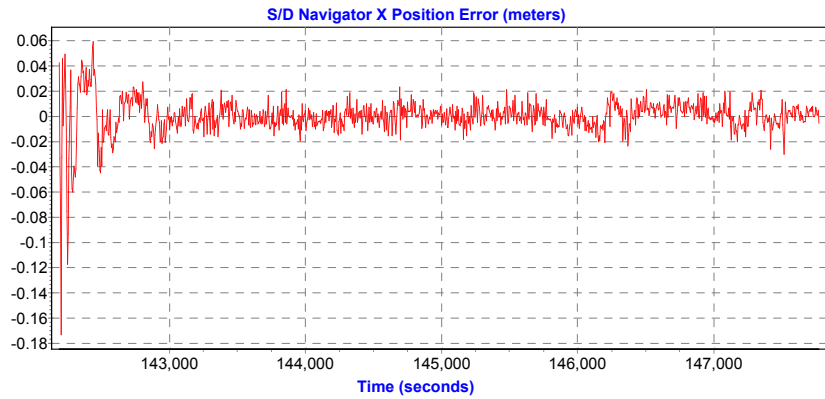
### o112093a [Combined] - Number of Satellites Bar Plot

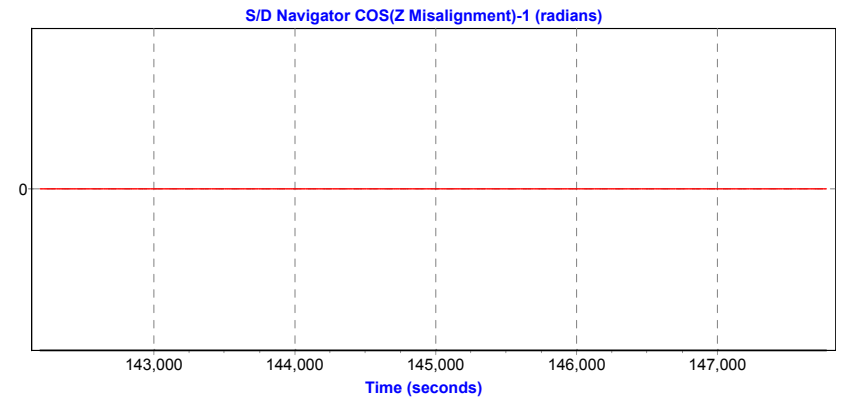
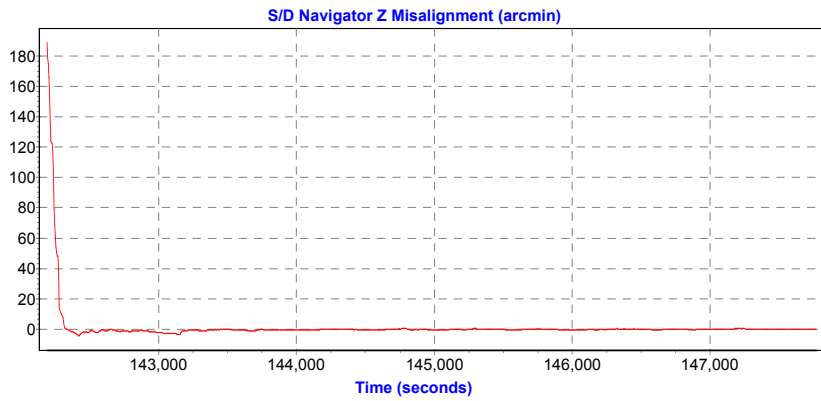
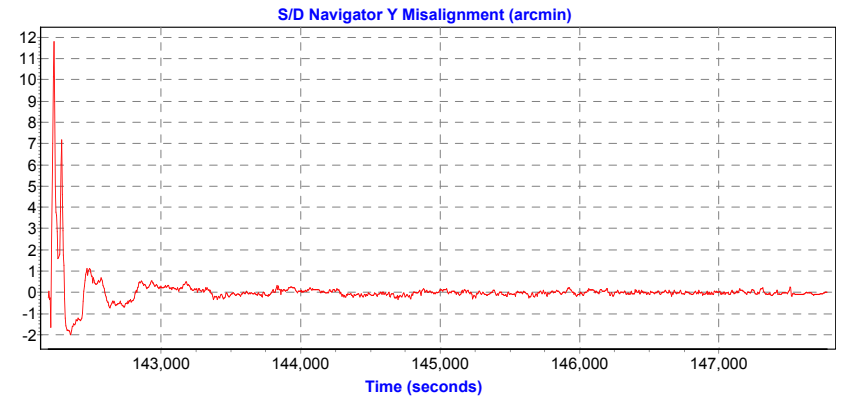
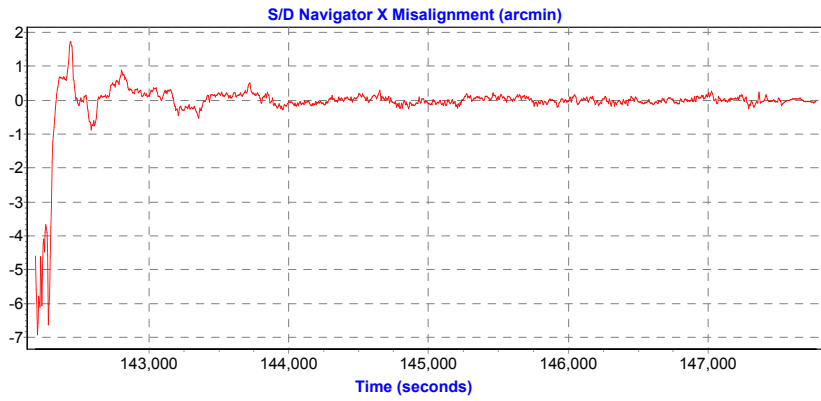


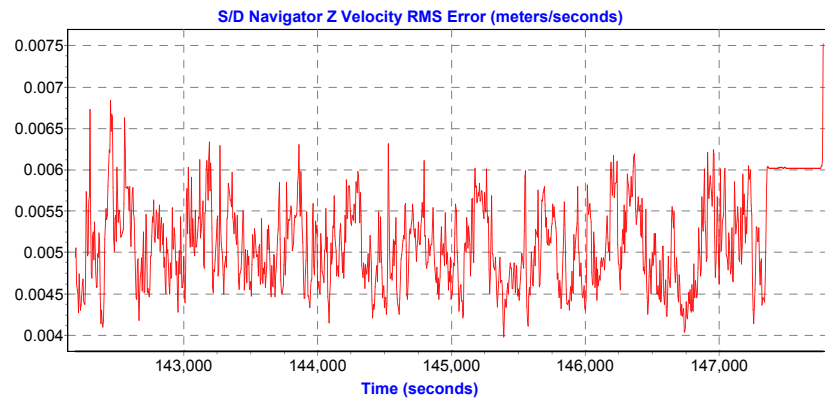
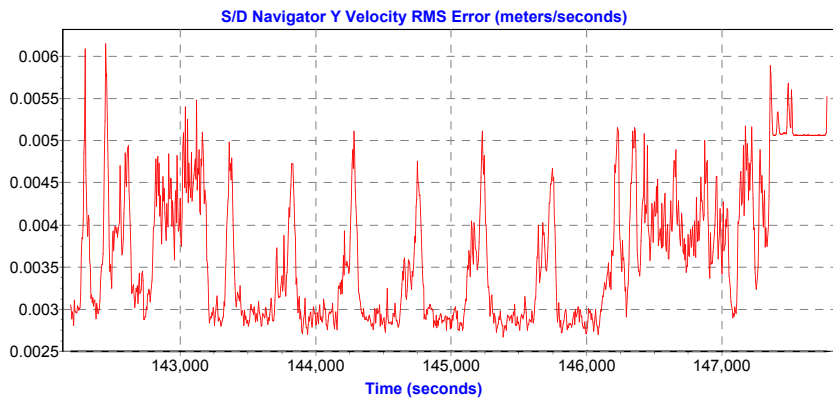
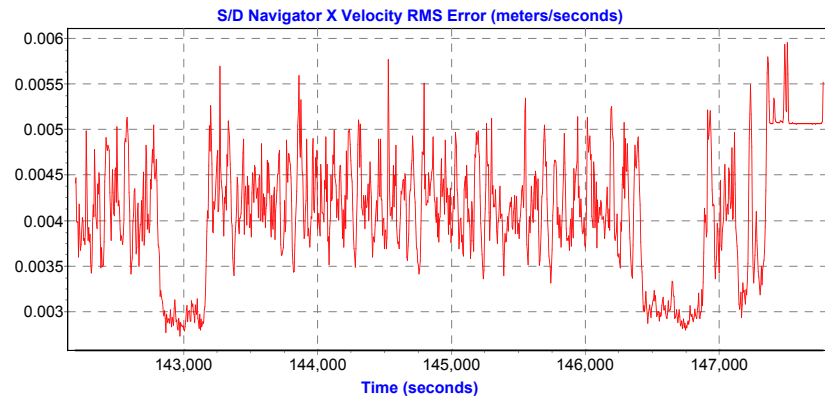
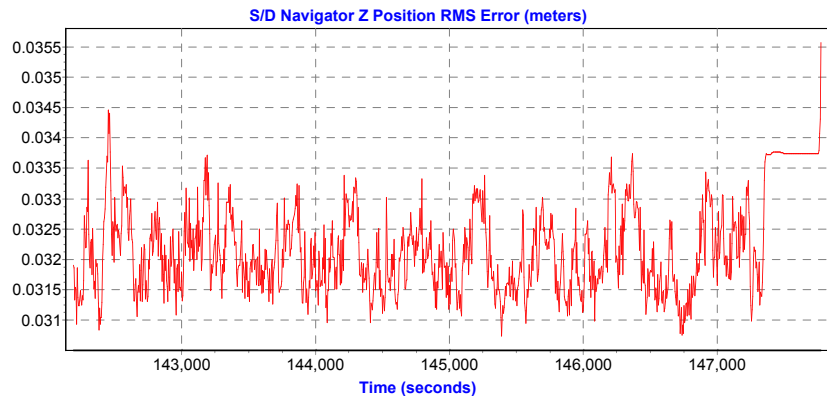
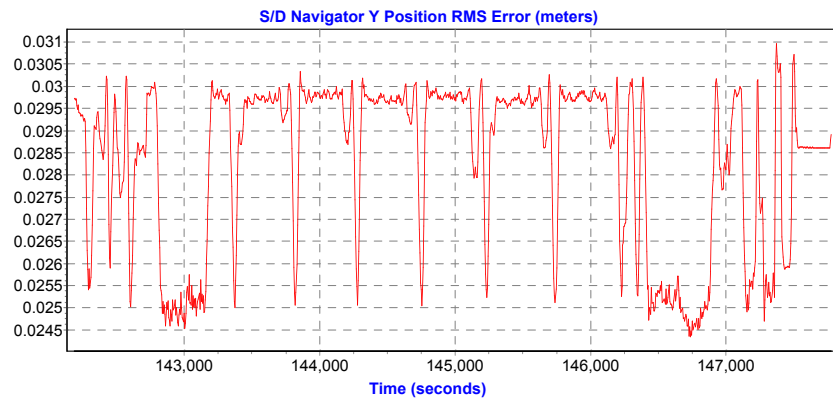
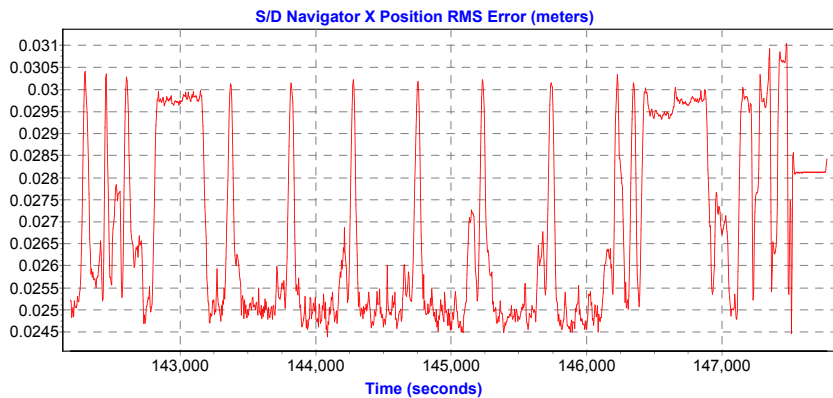
### o112093a [Combined] - PDOP, HDOP, VDOP Plots

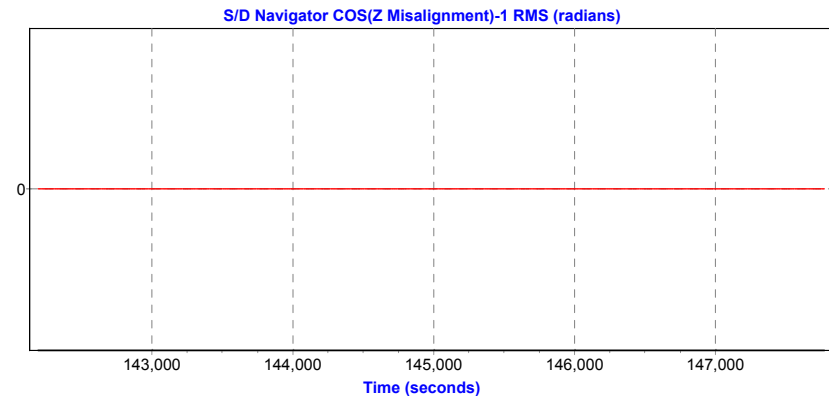
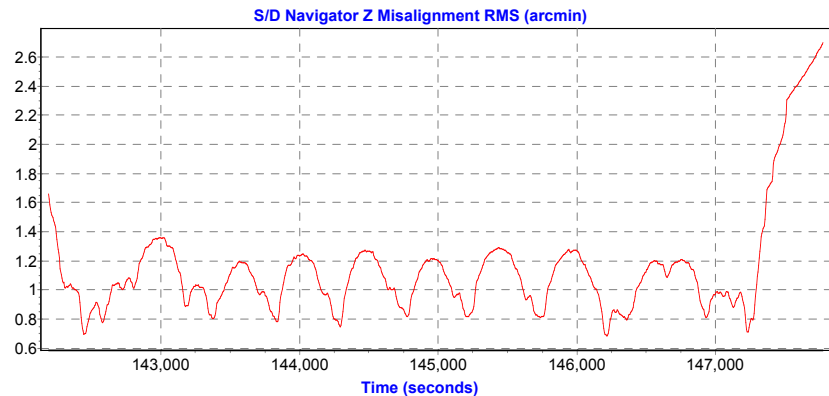
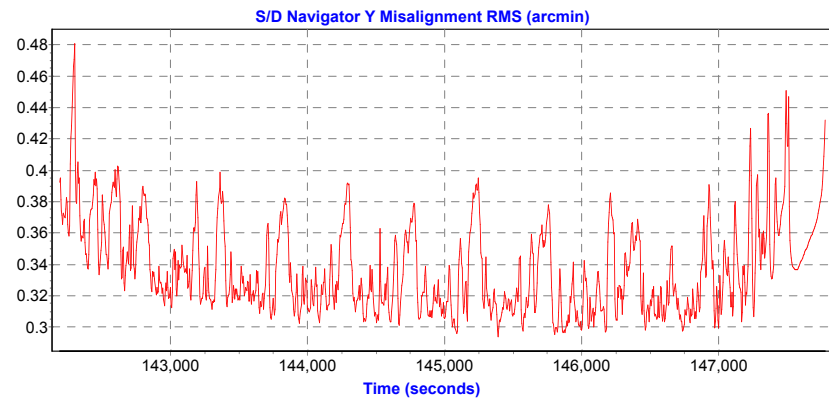
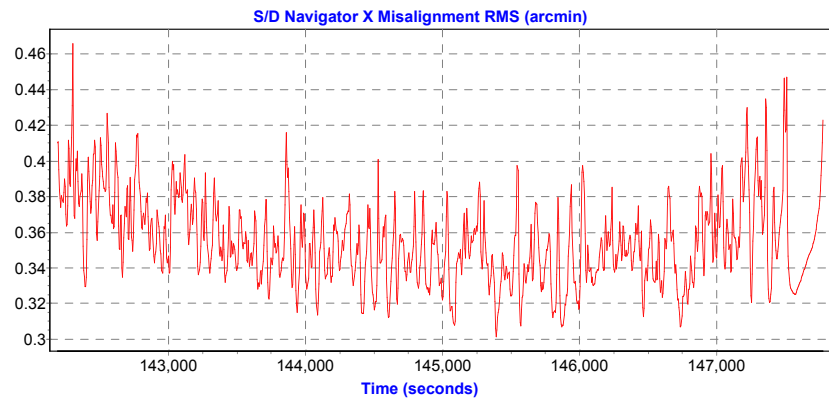


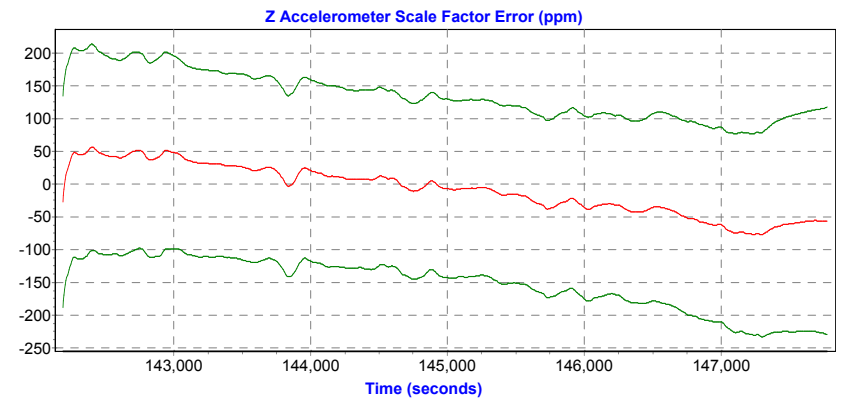
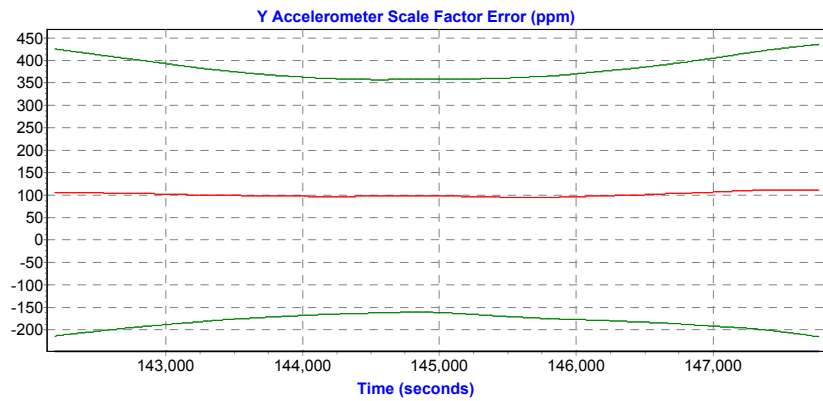
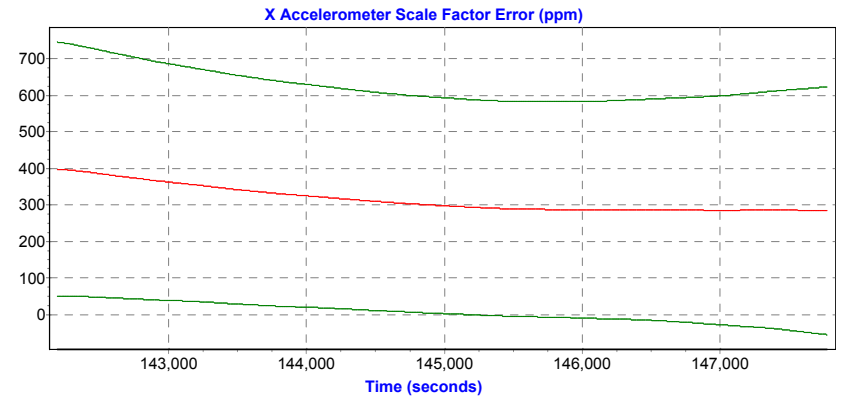
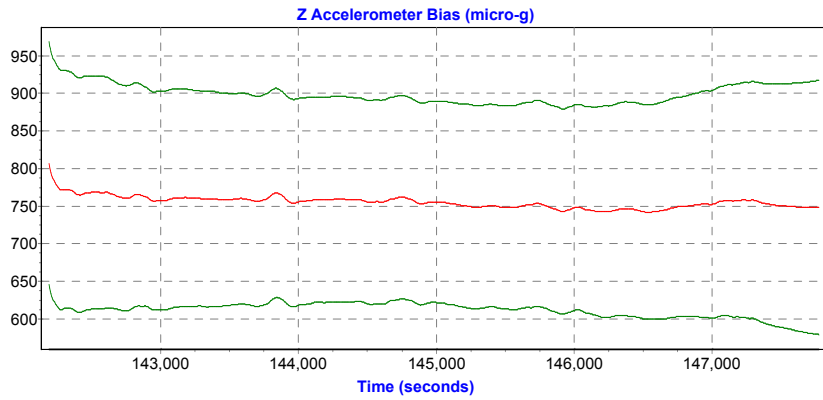
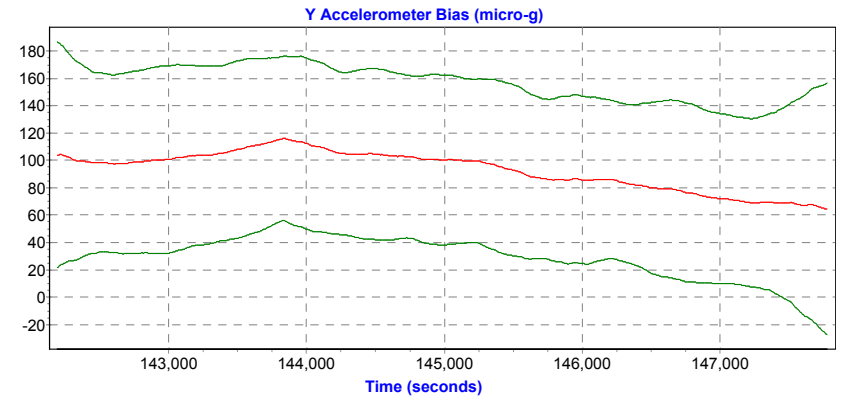
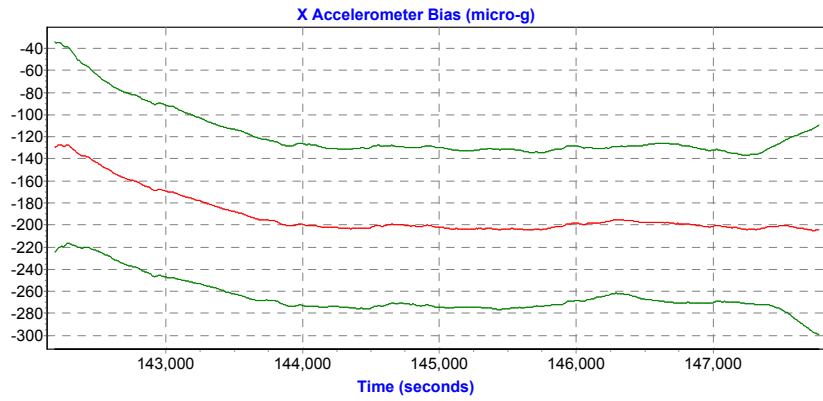


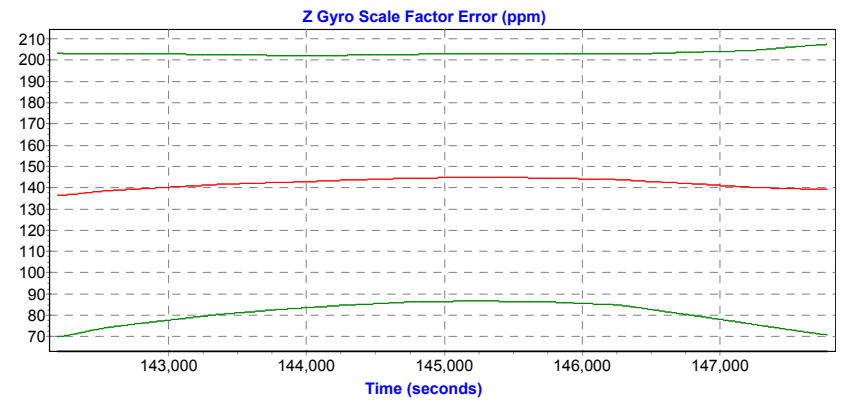
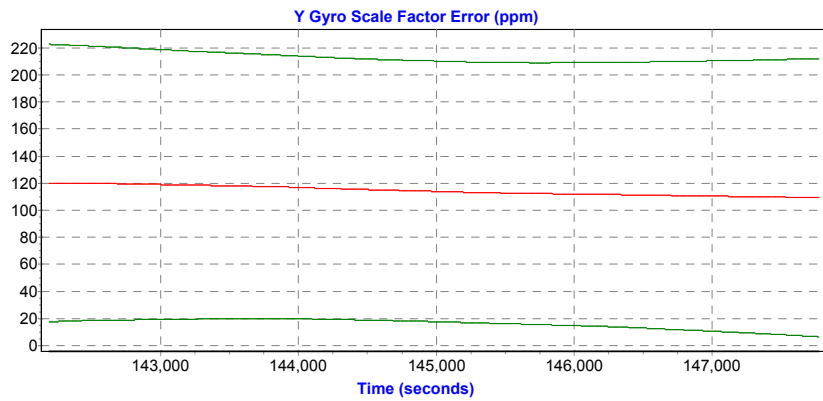
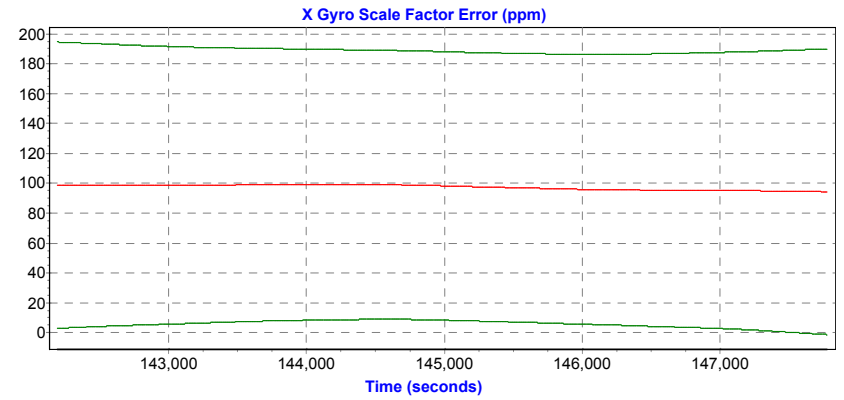
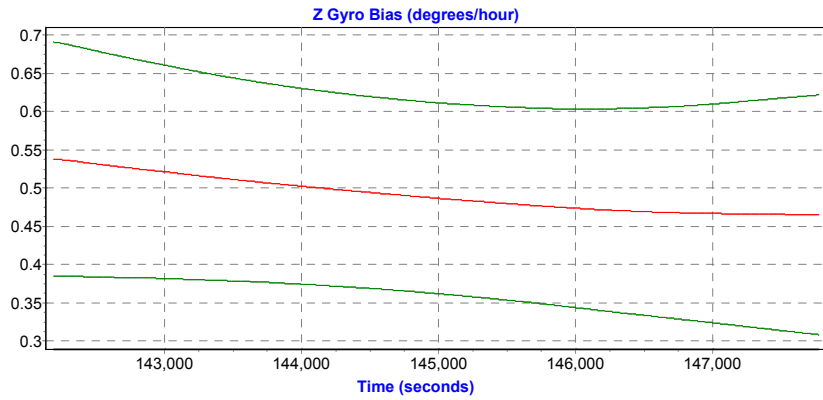
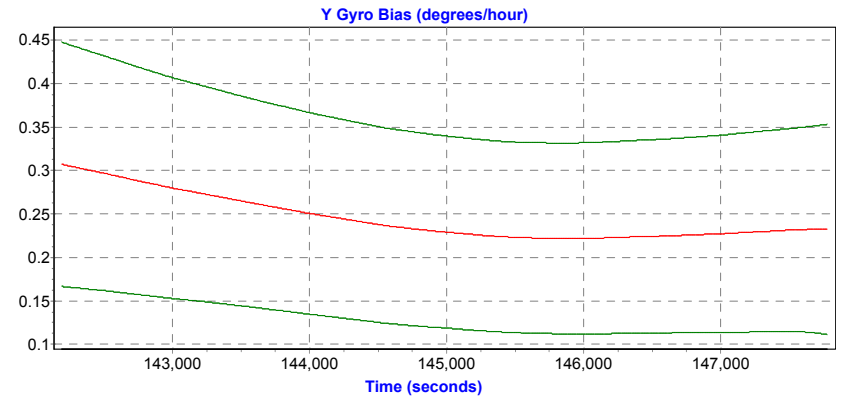
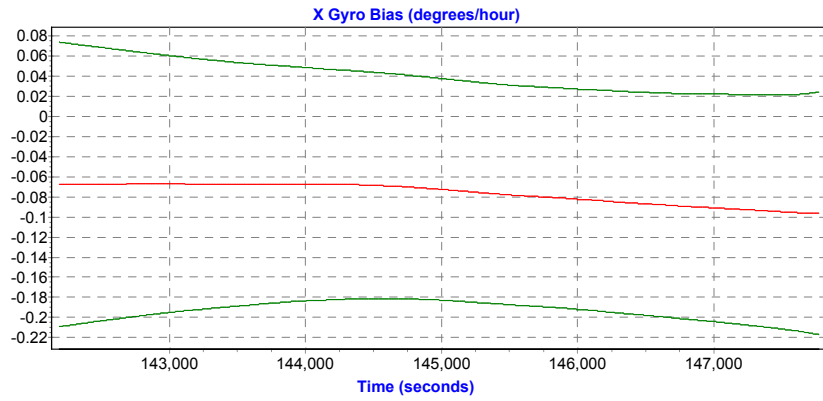






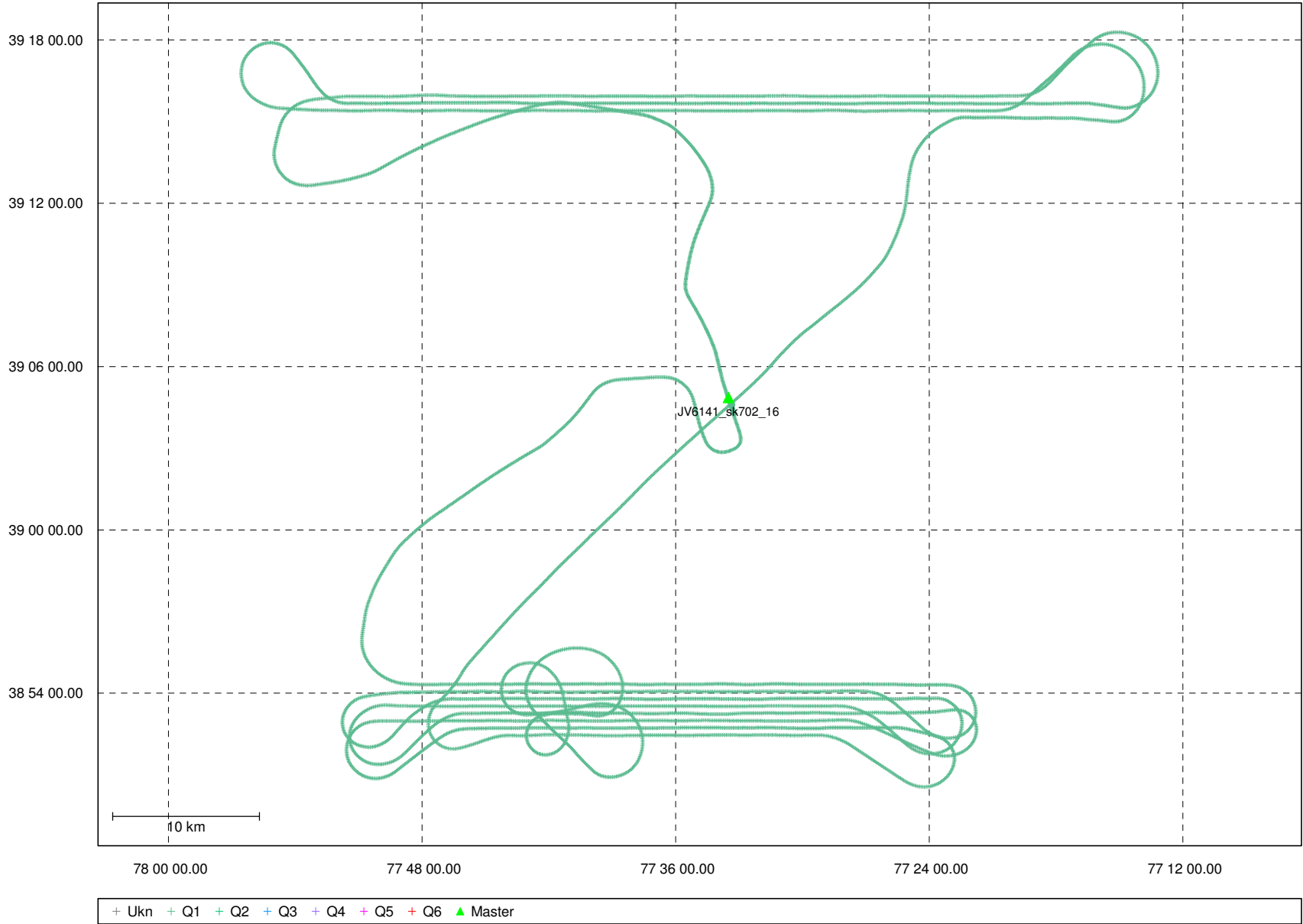






### Combined - Map Run (3)

Geographic, DMS



Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project:  
M:\335\_DEW\2\_Operations\6\_Missions\o112093b\3\_Processed\GPS\o112093b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:

Total in GPB file: 104461  
No processed position: 94027  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:

L1 Phase: 0.0180 (m)  
C/A Code: 0.67 (m)  
L1 Doppler: 0.030 (m/s)

Fwd/Rev Separation RMS Values:

East: 0.009 (m)  
North: 0.016 (m)  
Height: 0.019 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (10429 occurances):

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

Quality Number Percentages:

Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
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:

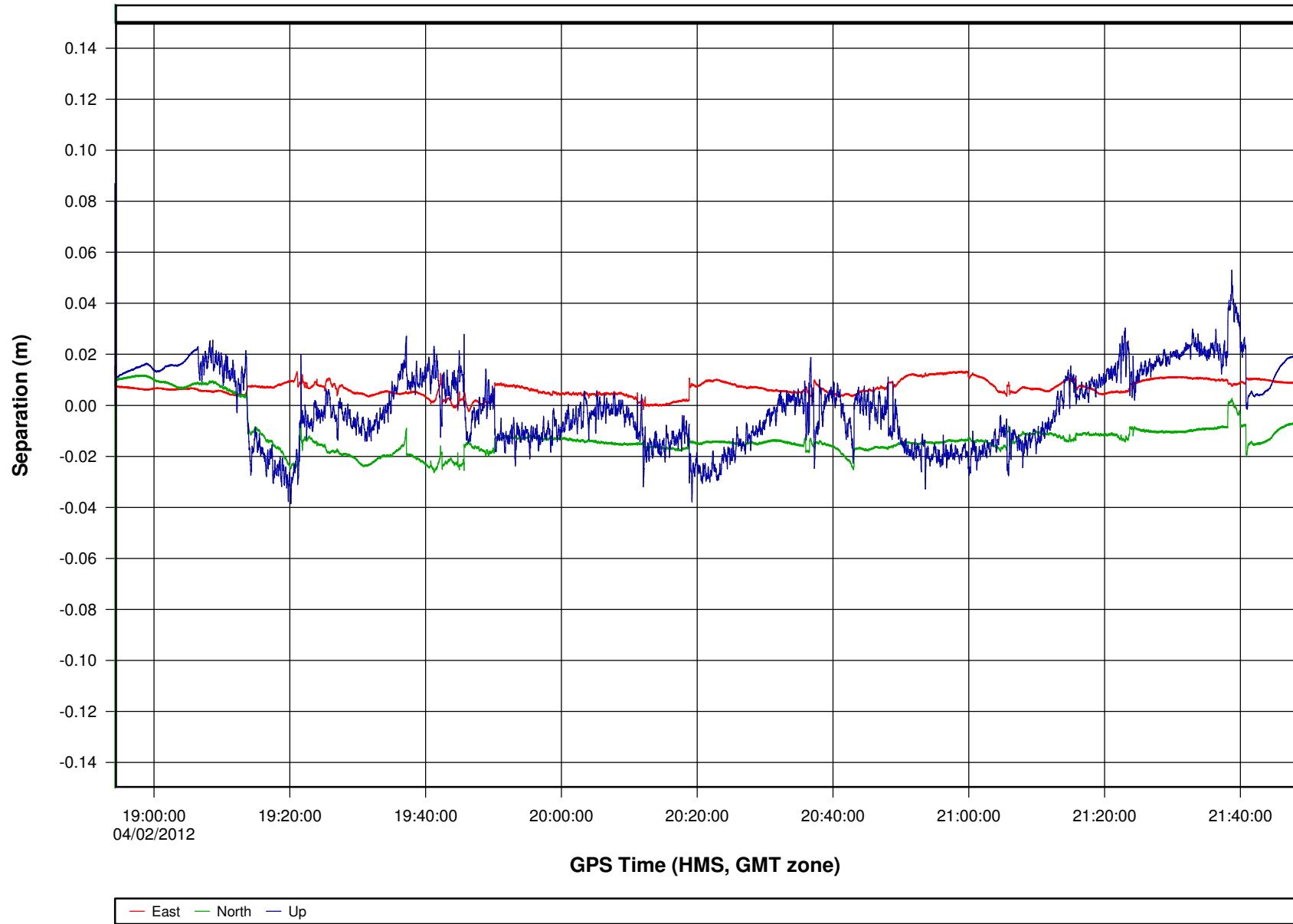
DOP over Tol: 0.0 %

Baseline Distances:

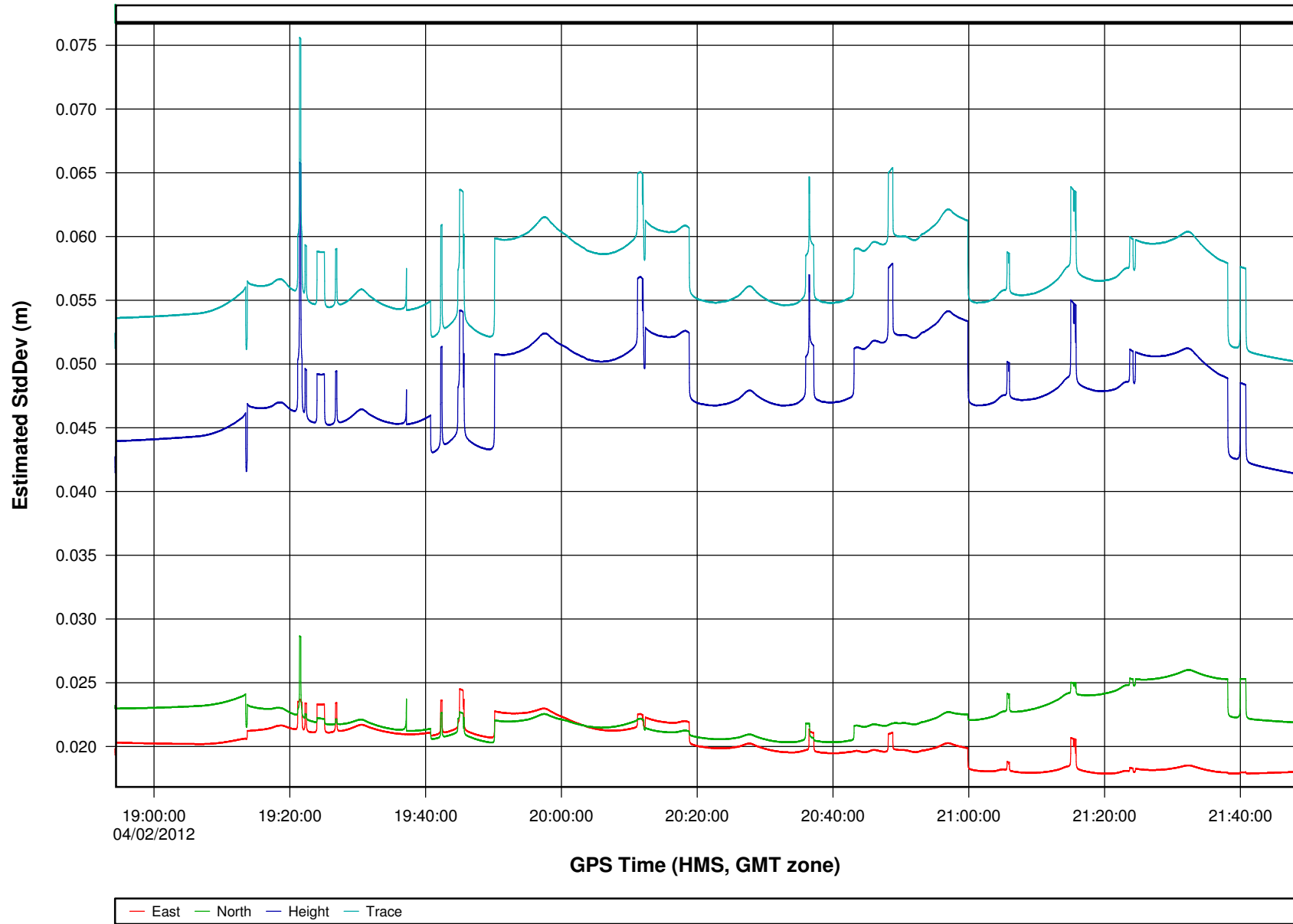
Maximum: 40.236 (km)  
Minimum: 0.050 (km)  
Average: 21.216 (km)  
First Epoch: 0.502 (km)  
Last Epoch: 0.620 (km)



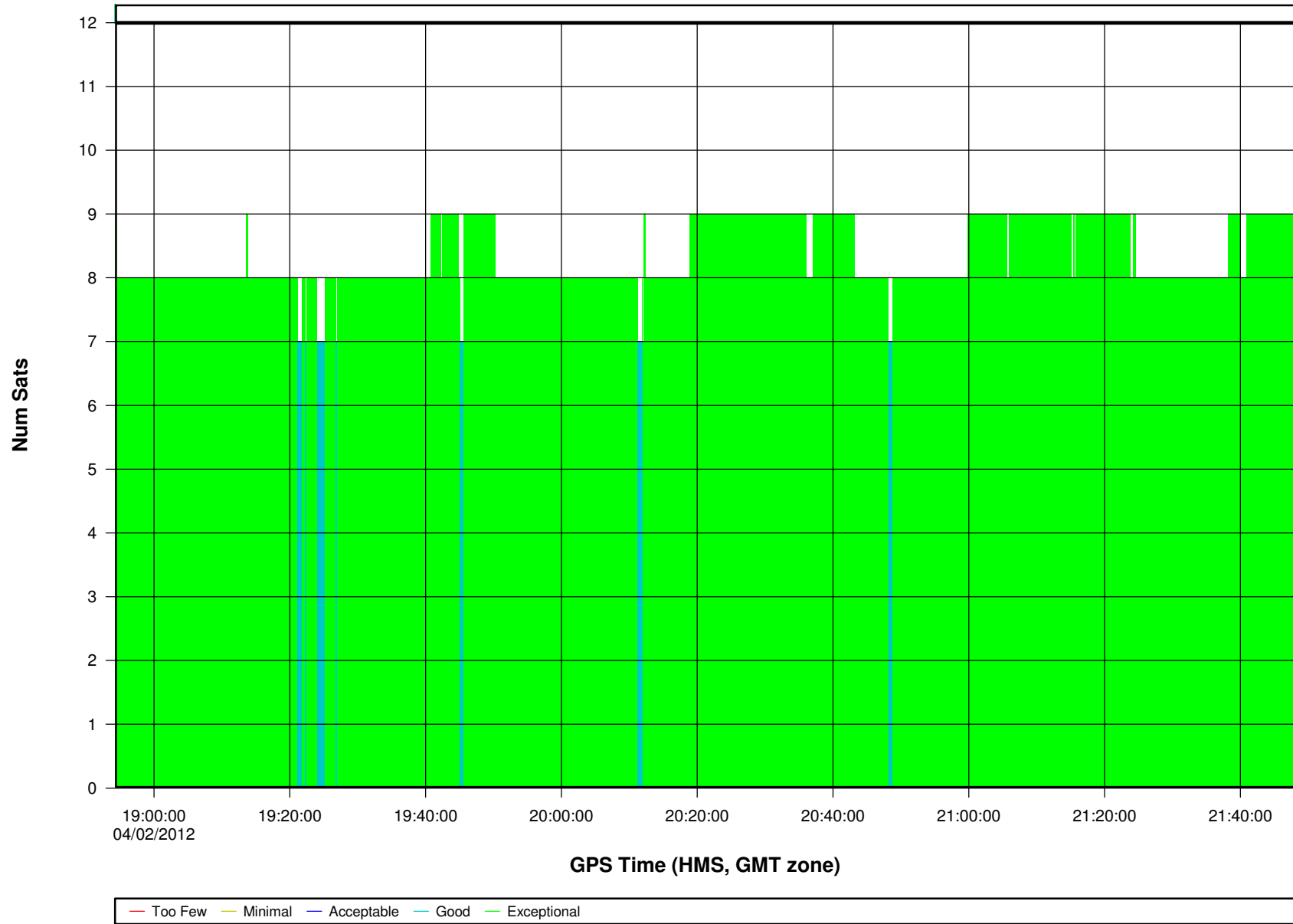
### o112093b [Combined] - Forward/Reverse or Combined Separation Plot



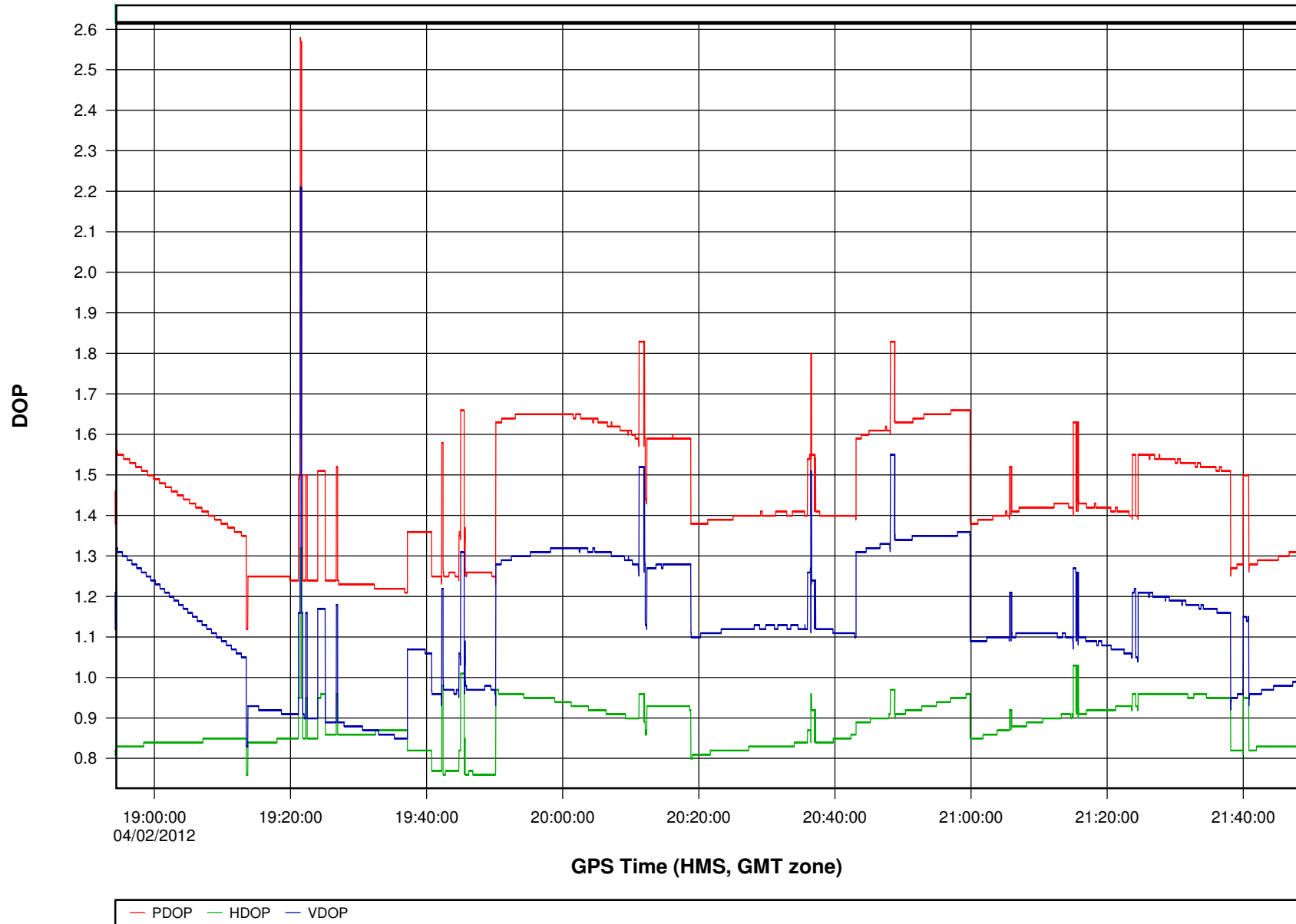
### o112093b [Combined] - Estimated Position Accuracy Plot

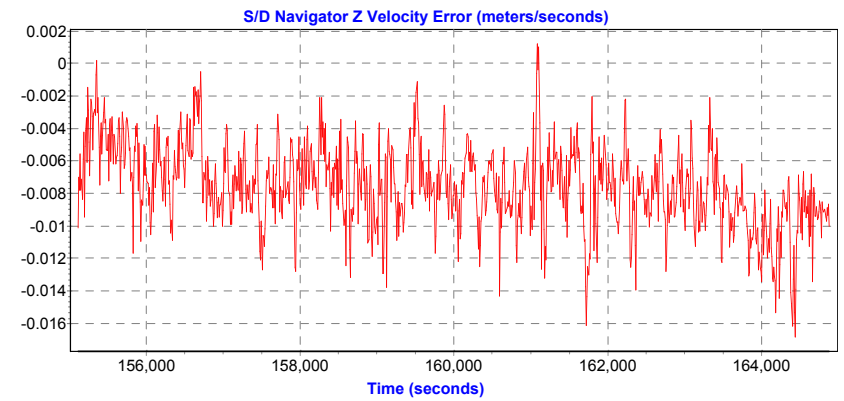
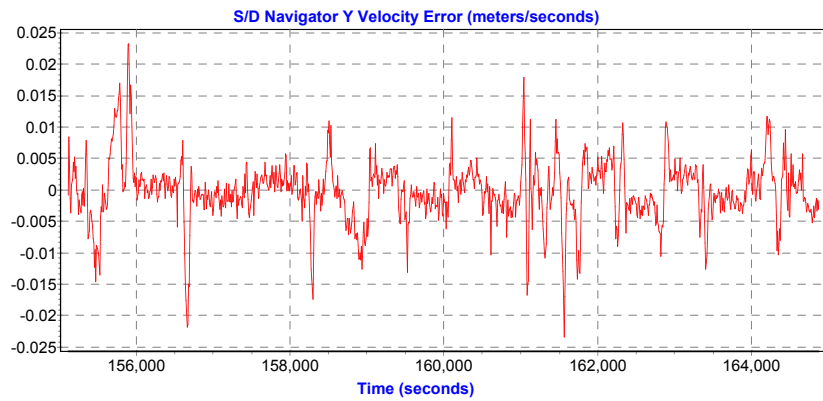
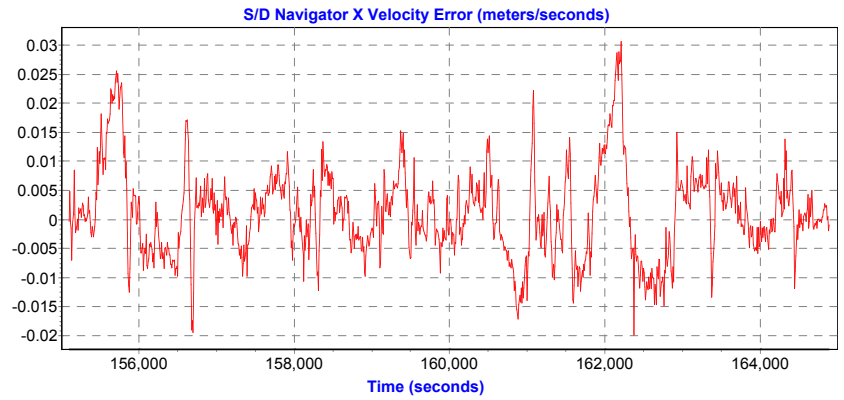
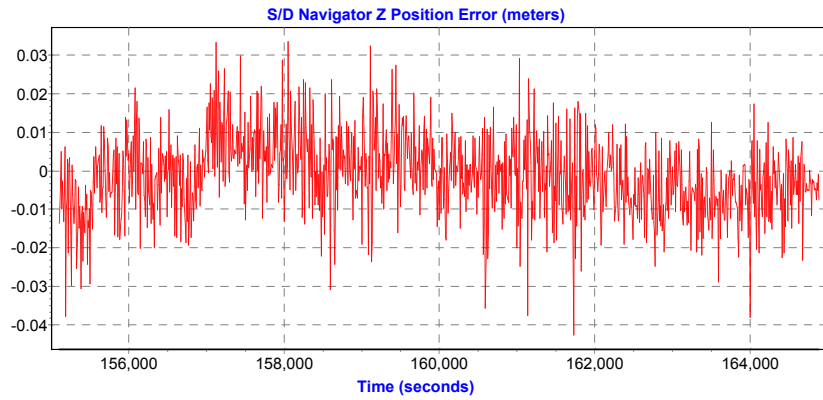
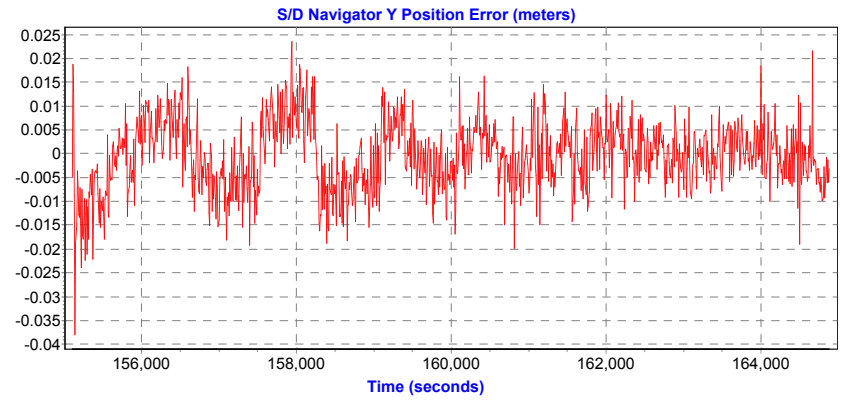
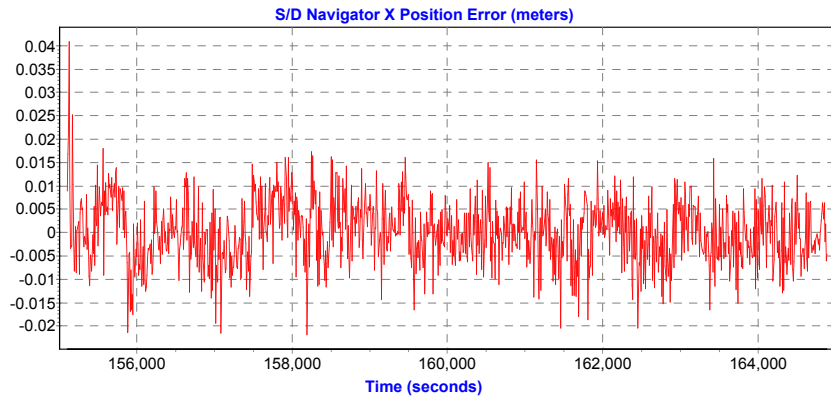


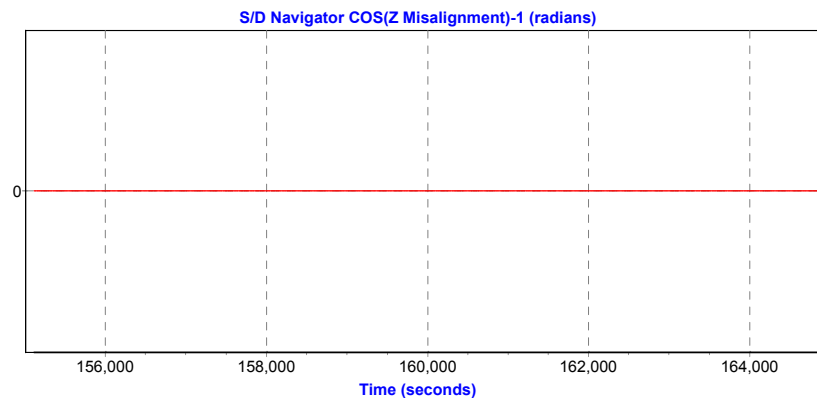
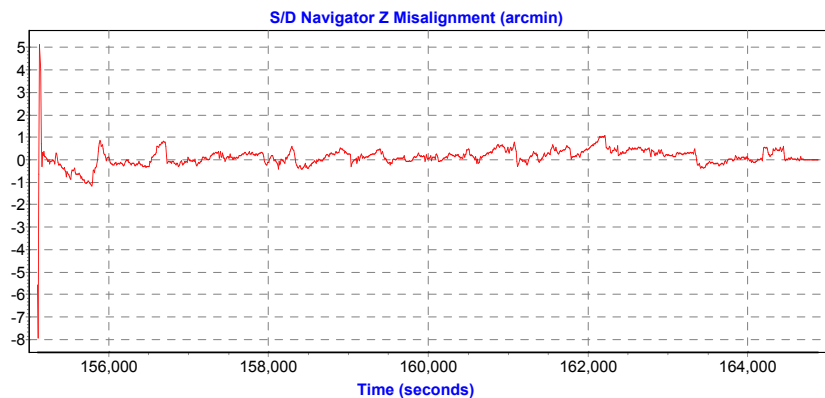
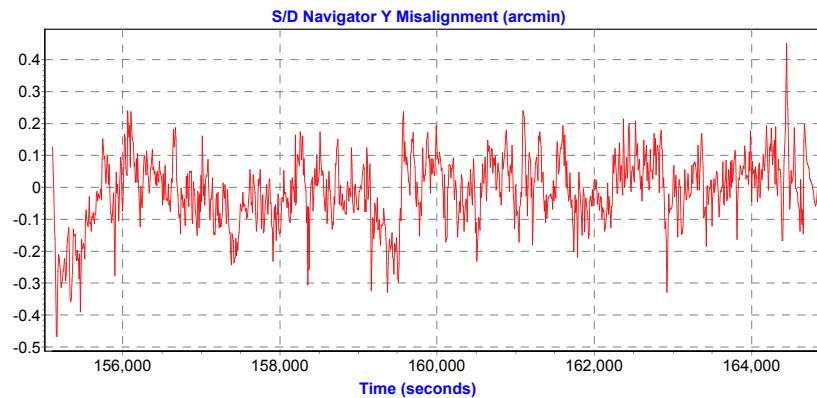
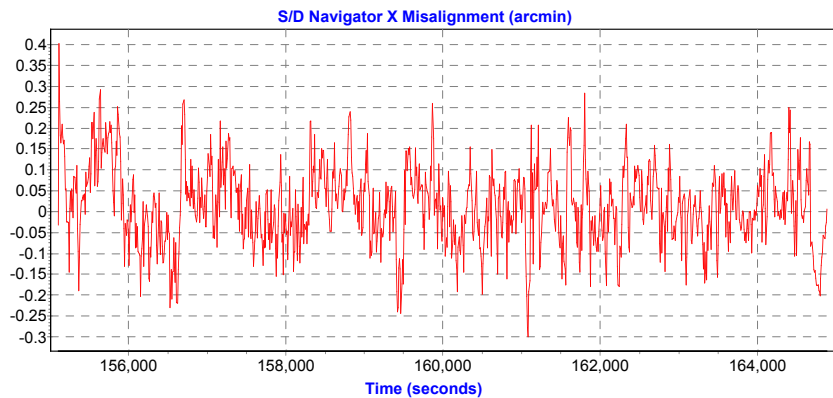
**o112093b [Combined] - Number of Satellites Bar Plot**

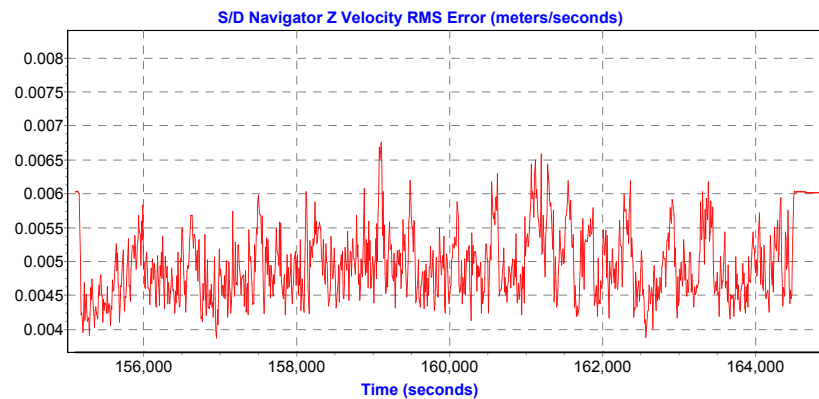
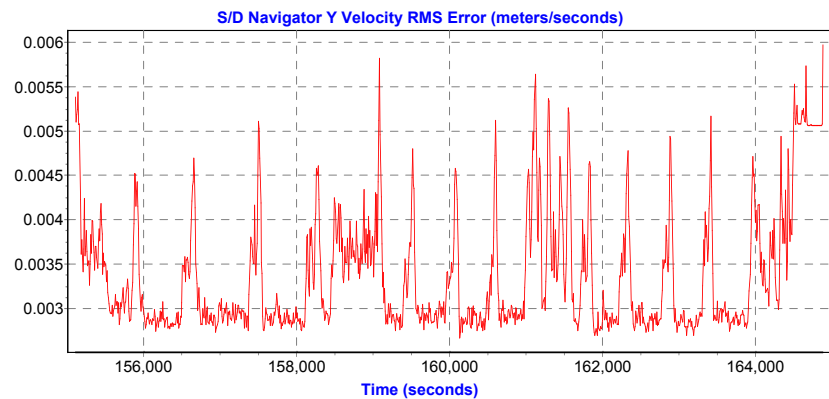
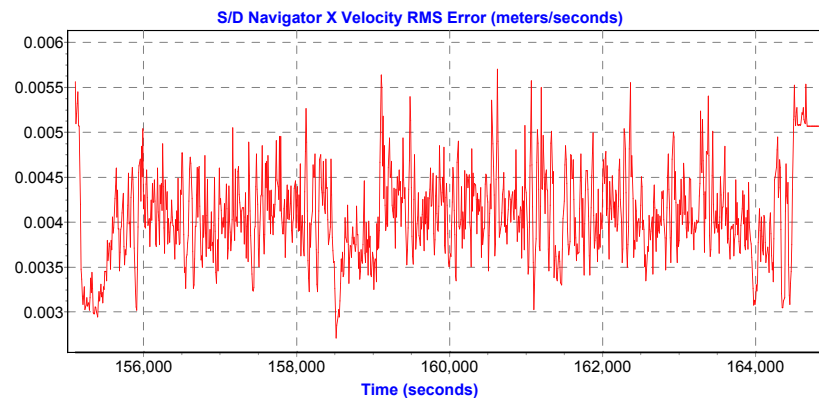
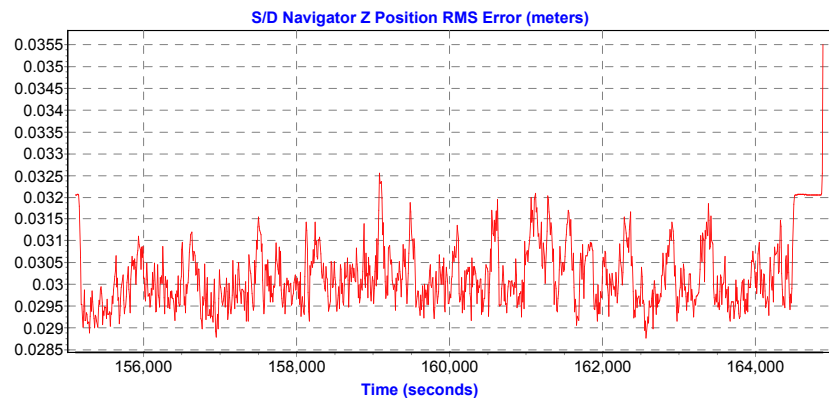
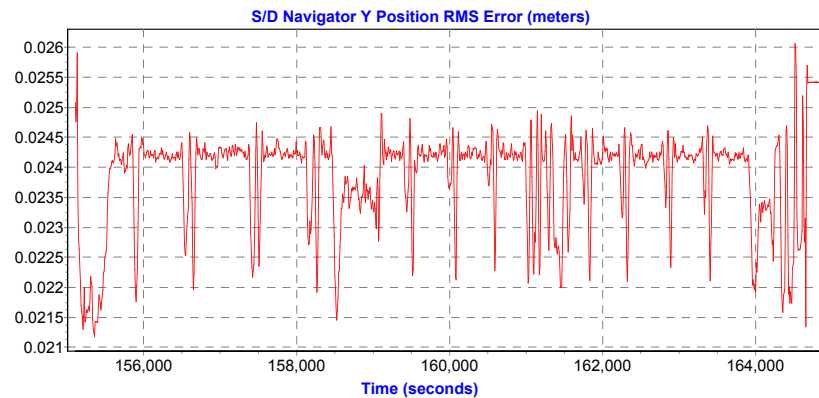
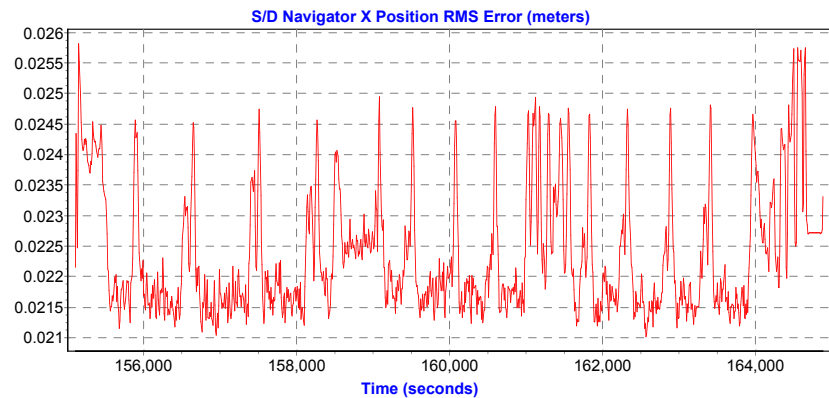


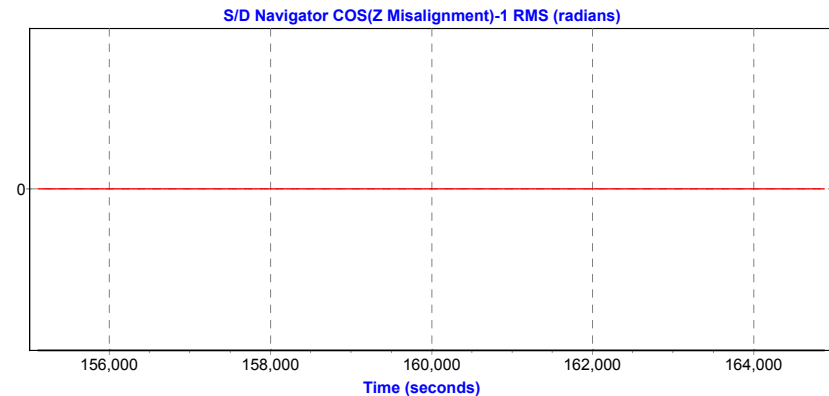
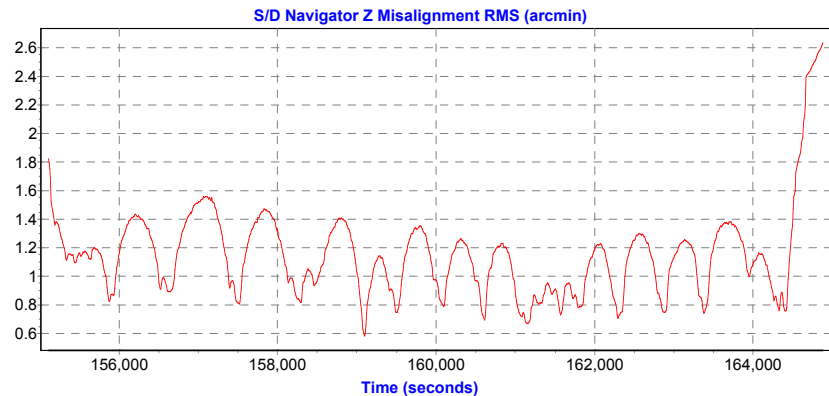
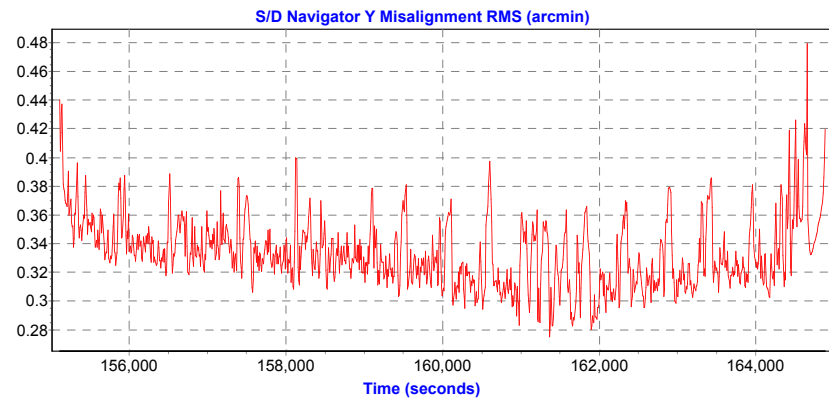
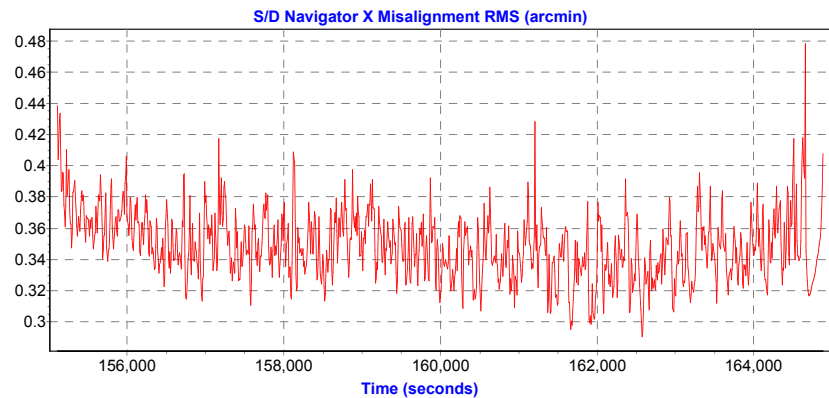
### o112093b [Combined] - PDOP, HDOP, VDOP Plots



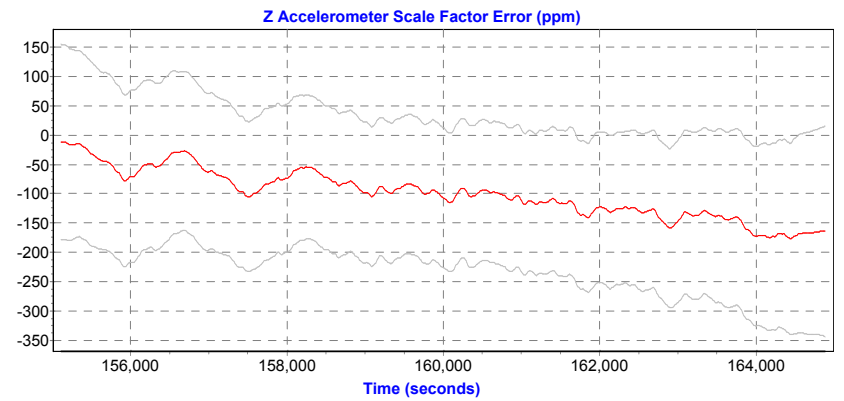
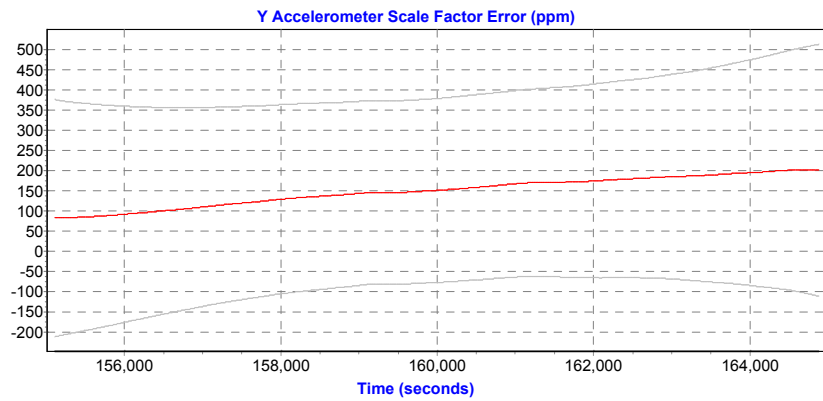
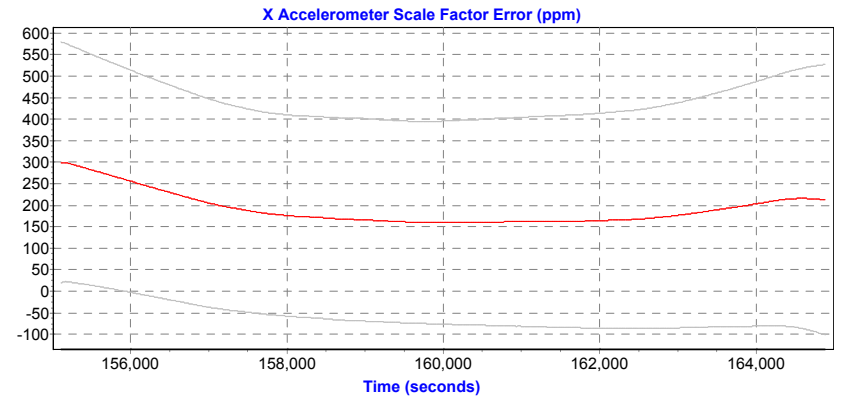
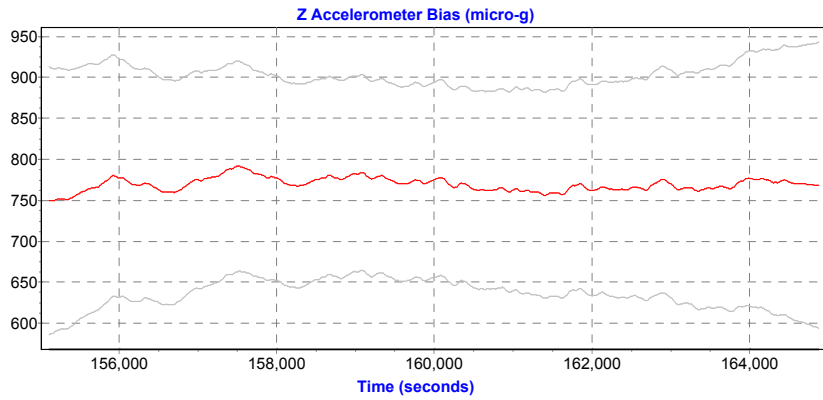
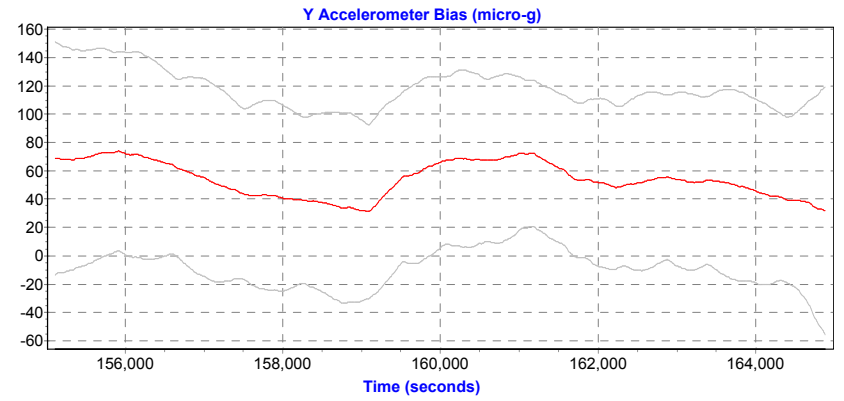
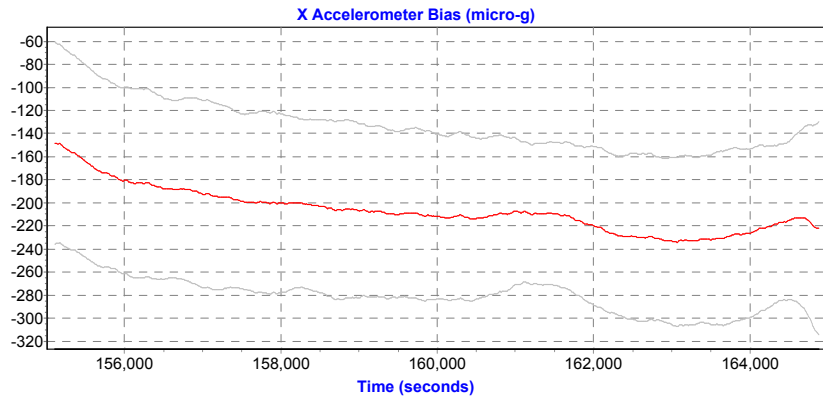


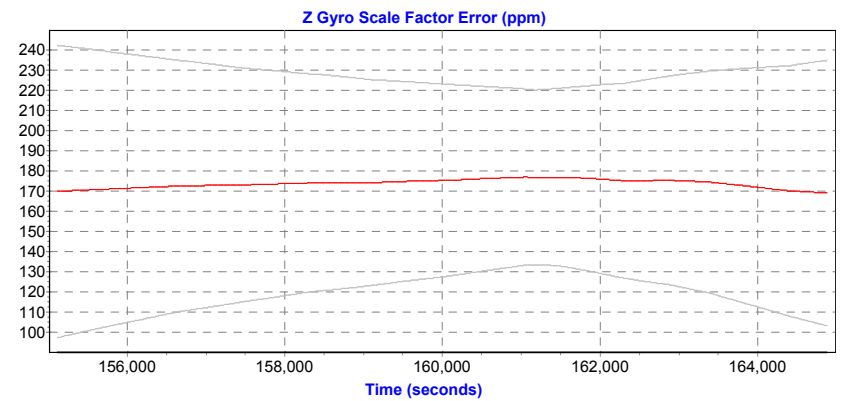
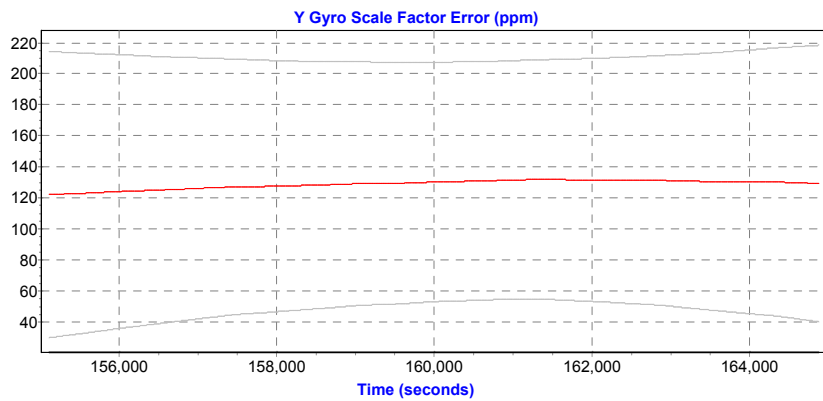
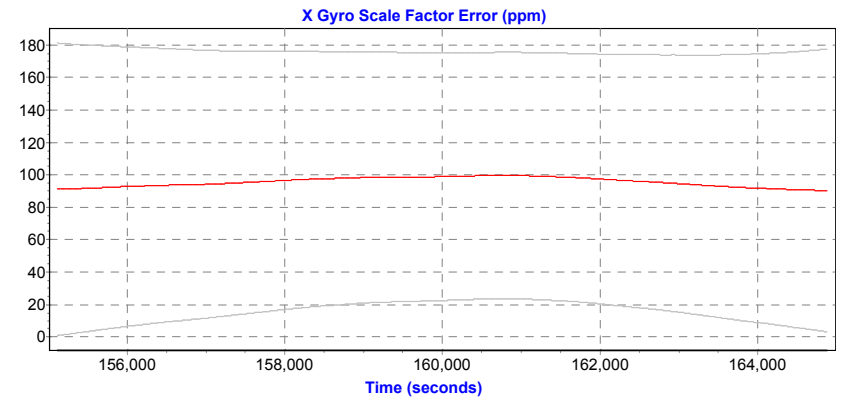
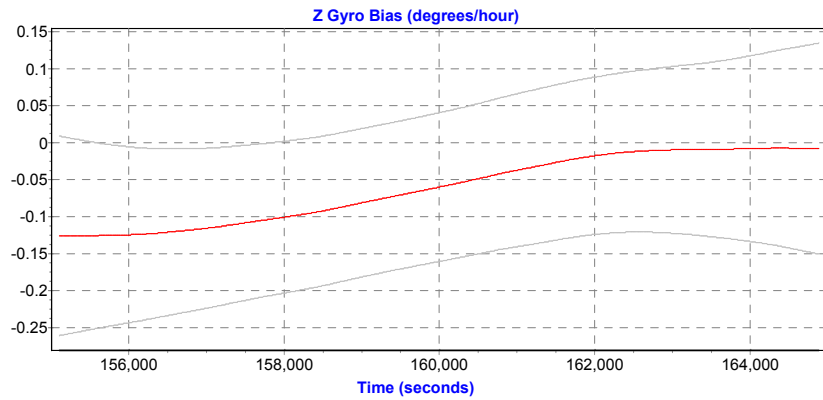
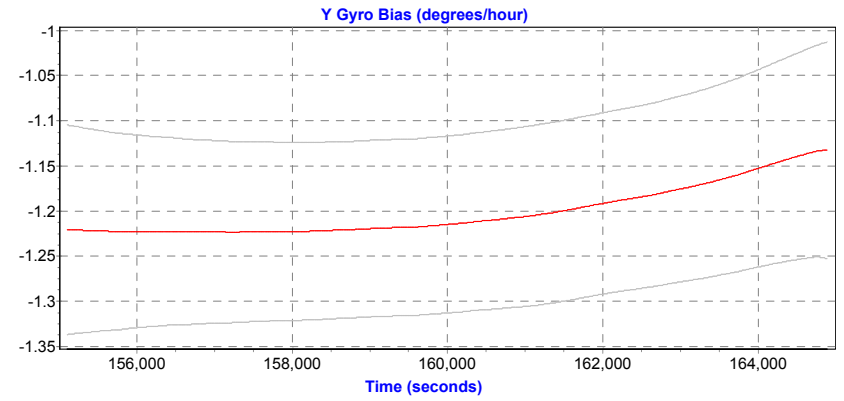
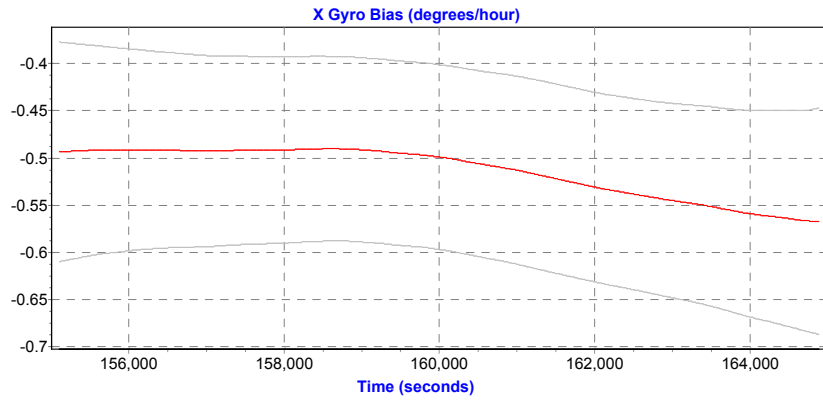






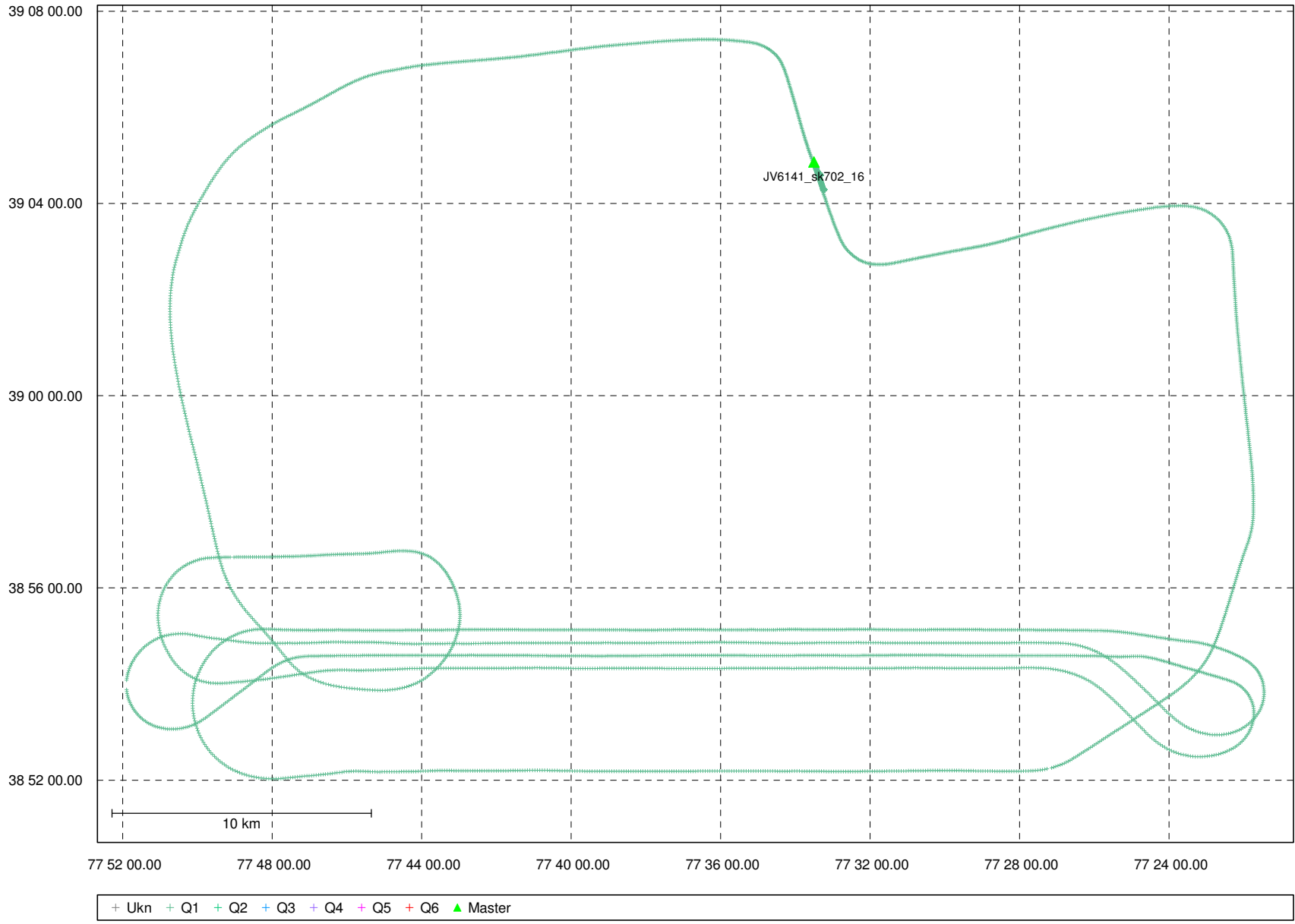






### Combined - Map Run (2)

Geographic, DMS



Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project:  
M:\335\_DEW\2\_Operations\6\_Missions\o112093c\3\_Processed\GPS\o112093c.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:

Total in GPB file: 53257  
No processed position: 47946  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:

L1 Phase: 0.0171 (m)  
C/A Code: 0.64 (m)  
L1 Doppler: 0.026 (m/s)

Fwd/Rev Separation RMS Values:

East: 0.012 (m)  
North: 0.010 (m)  
Height: 0.017 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (5306 occurrences):

East: 0.012 (m)  
North: 0.006 (m)  
Height: 0.016 (m)

Quality Number Percentages:

Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
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 %

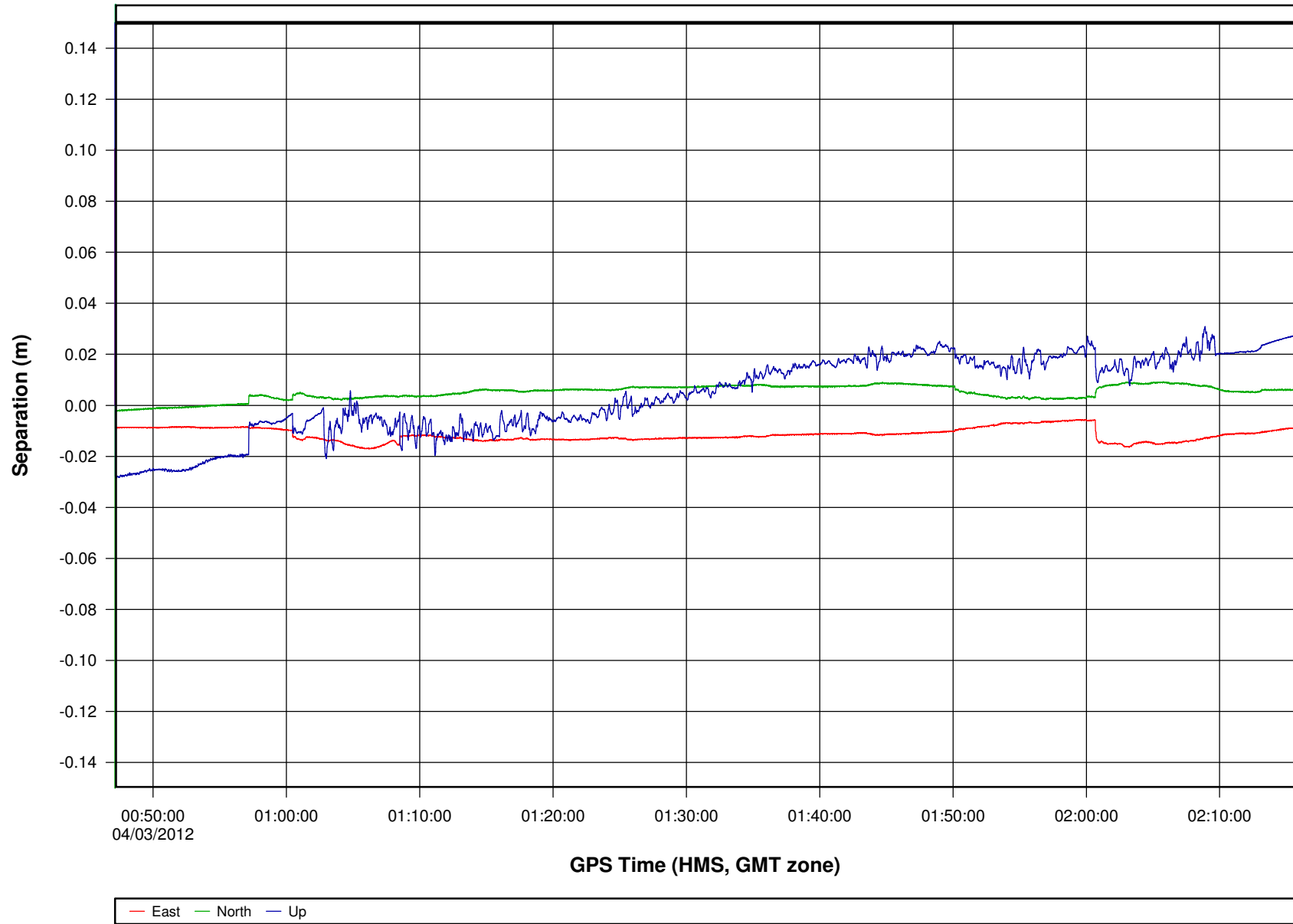
Percentages of epochs with DD\_DOP over 10.00:

DOP over Tol: 0.0 %

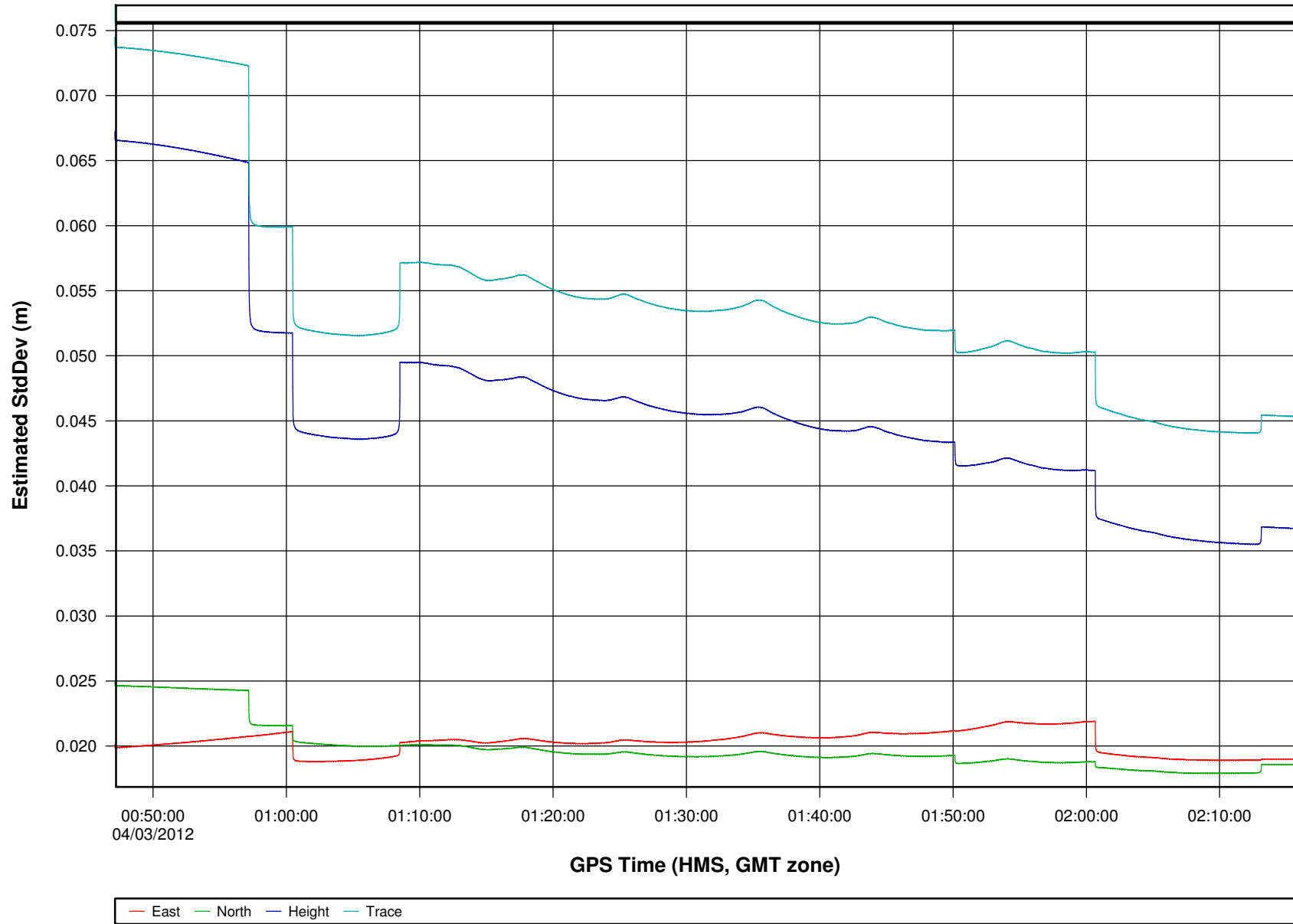
Baseline Distances:

Maximum: 33.717 (km)  
Minimum: 0.046 (km)  
Average: 16.294 (km)  
First Epoch: 0.596 (km)  
Last Epoch: 0.515 (km)

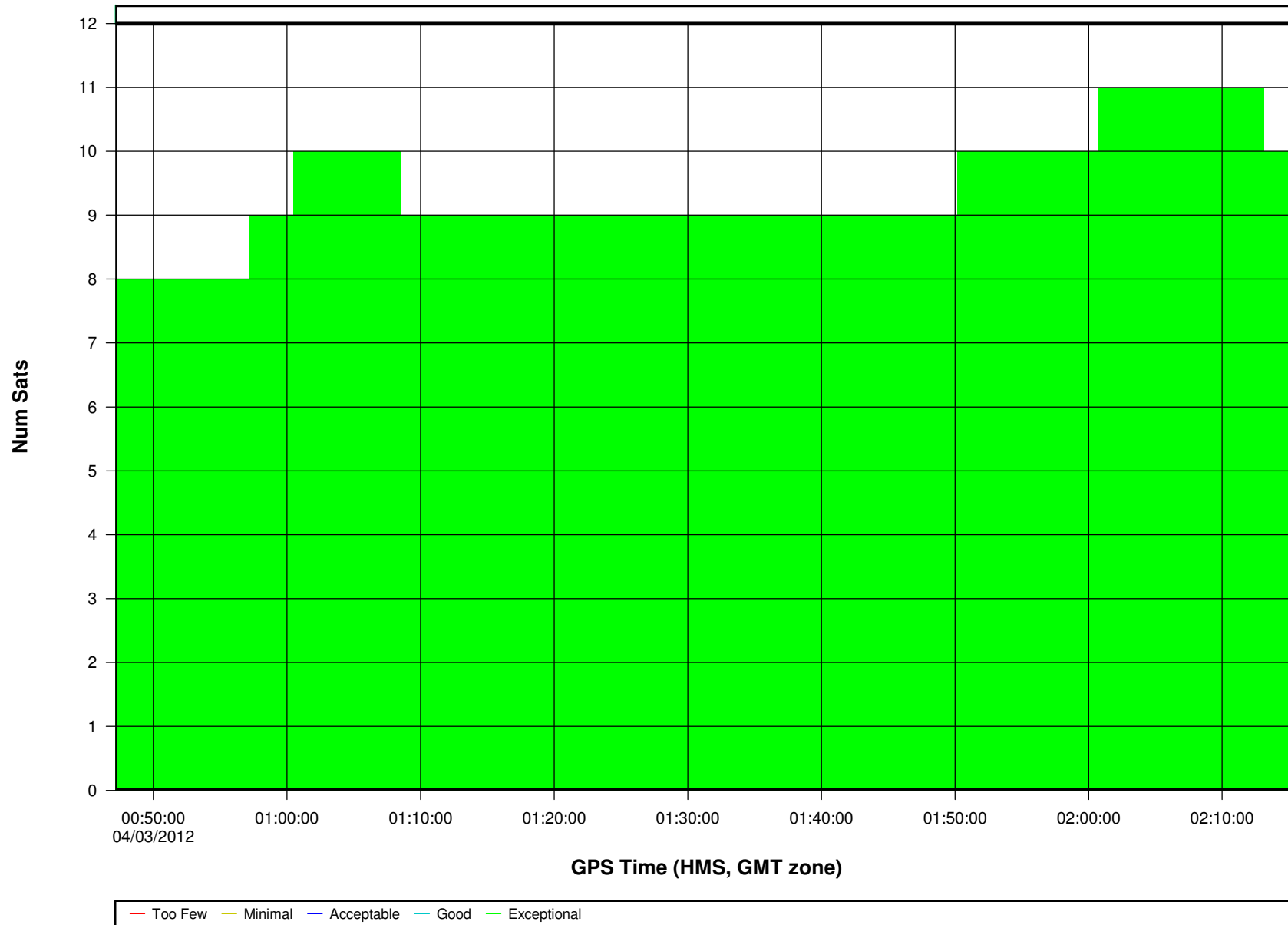
### o112093c [Combined] - Forward/Reverse or Combined Separation Plot



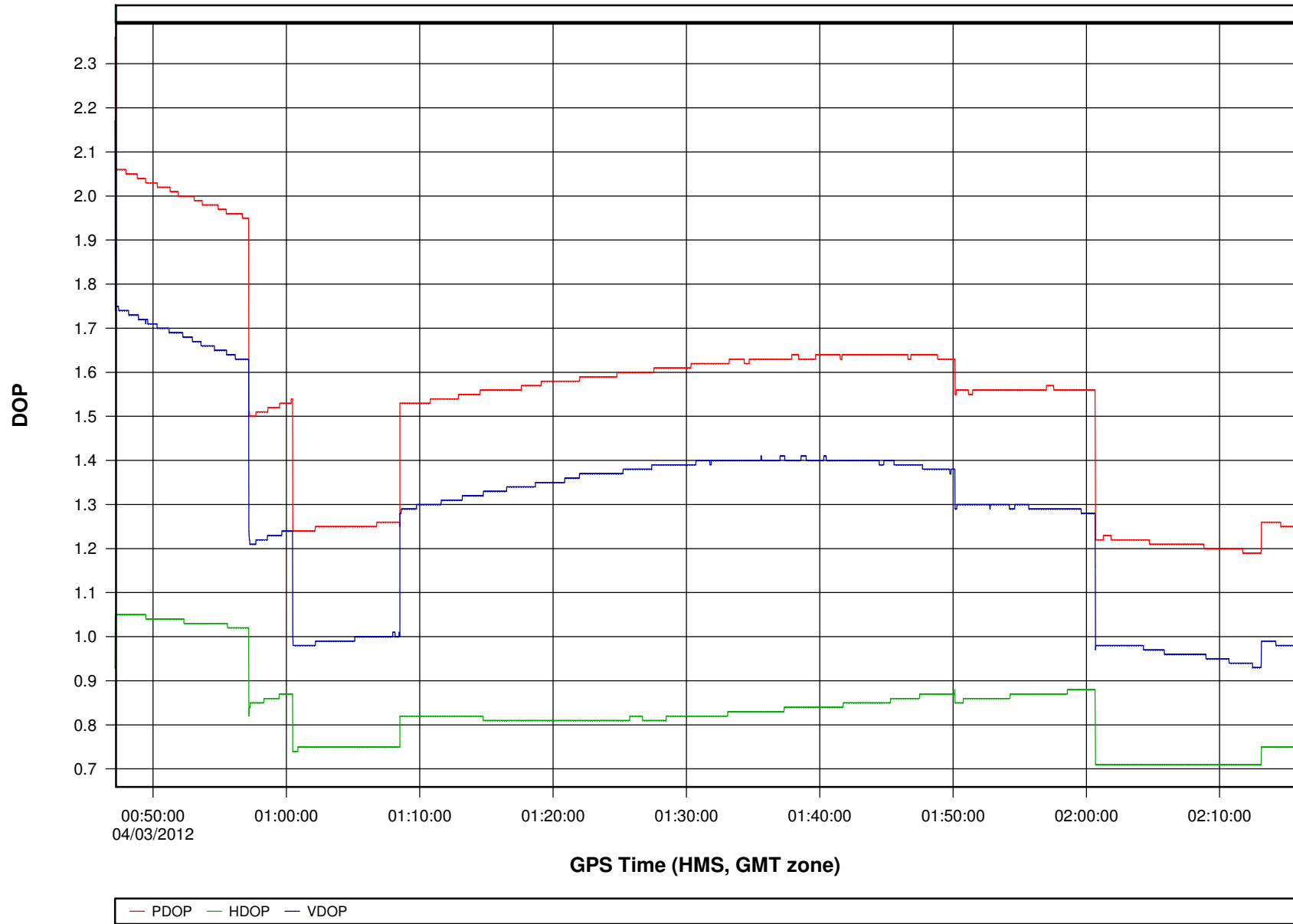
### o112093c [Combined] - Estimated Position Accuracy Plot



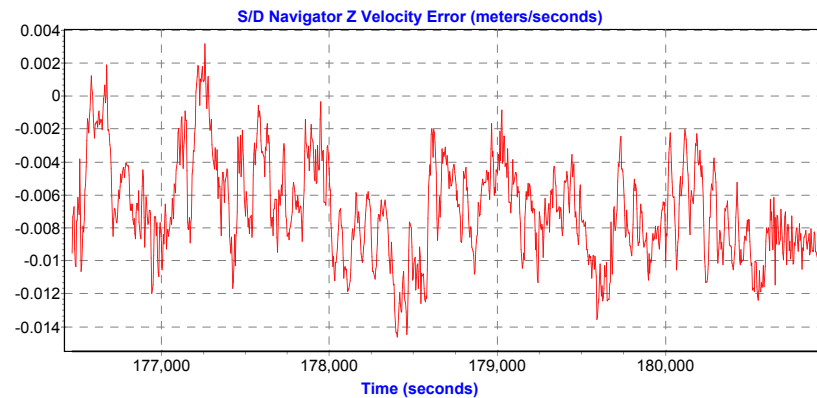
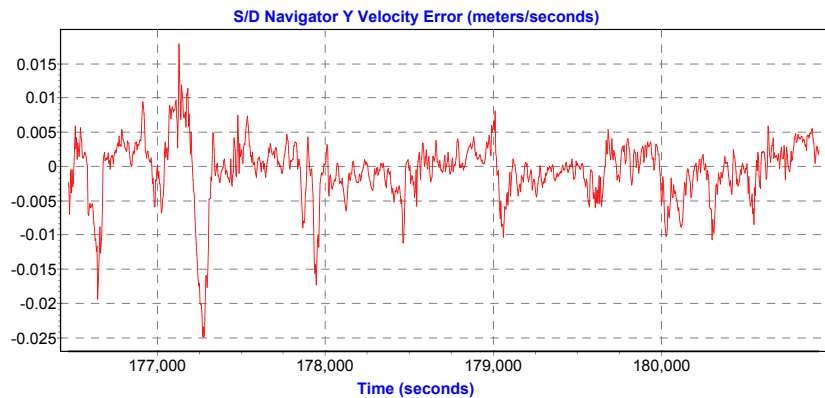
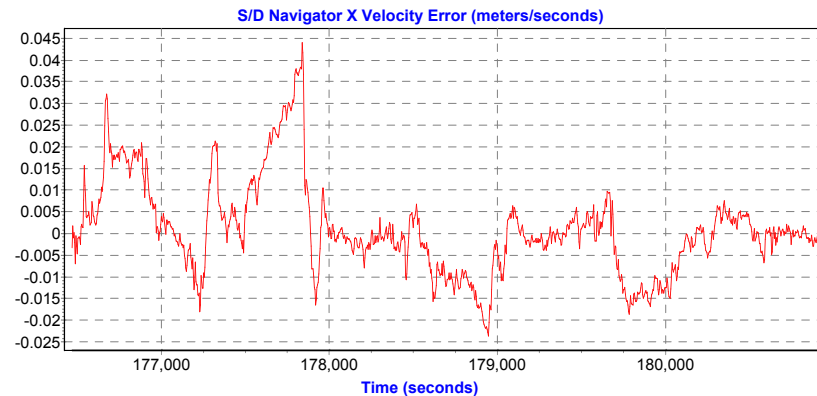
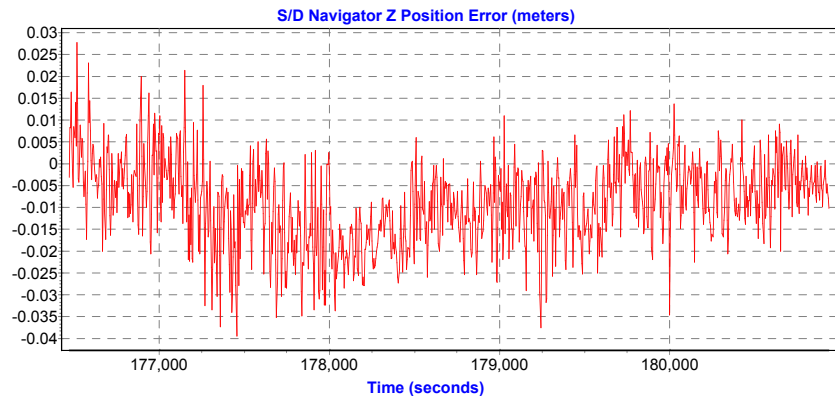
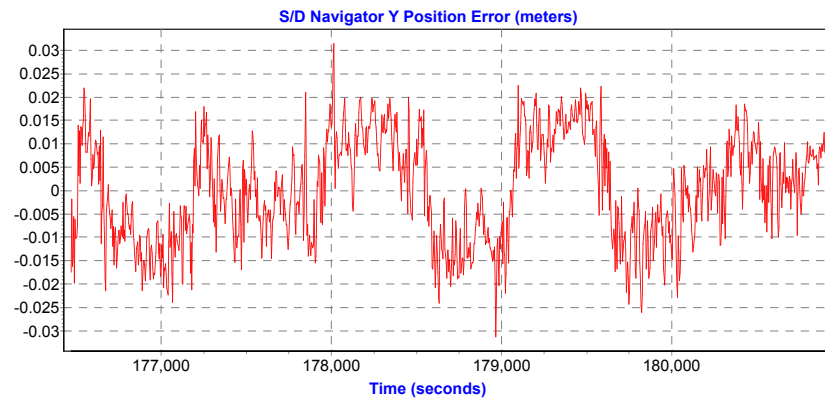
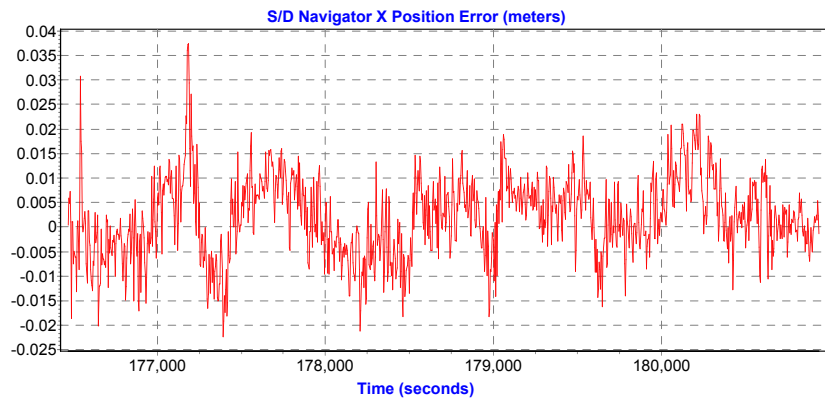
**o112093c [Combined] - Number of Satellites Bar Plot**

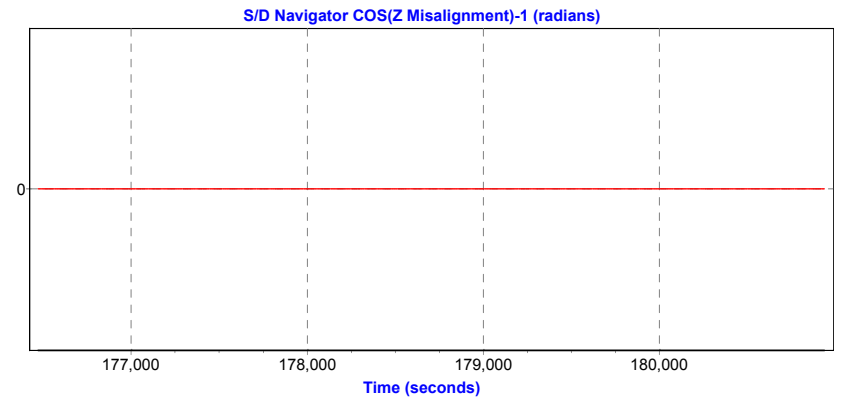
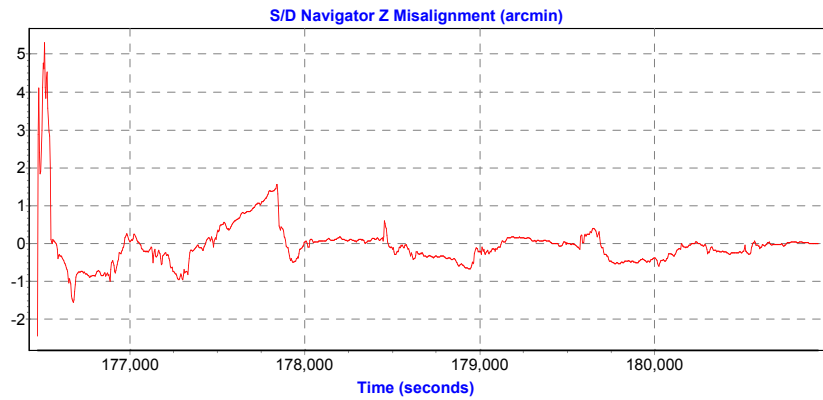
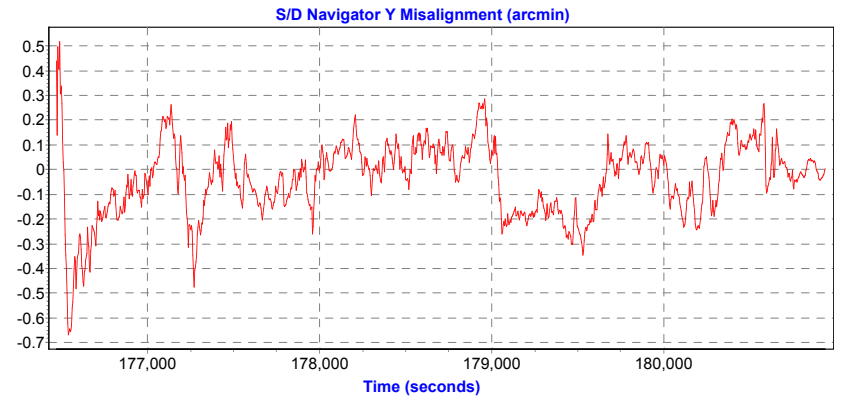
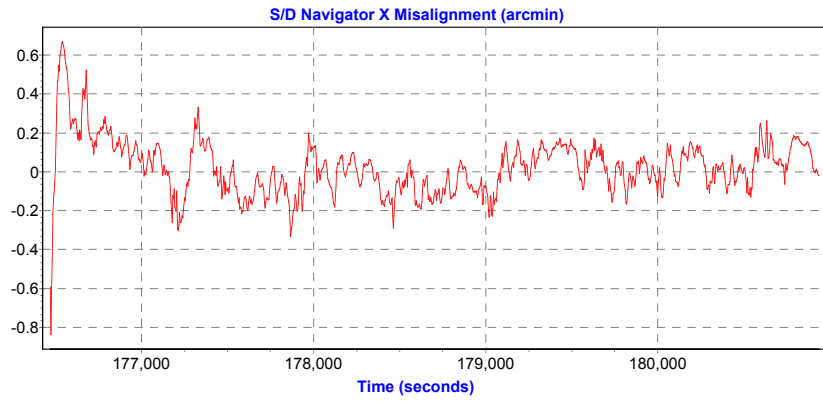


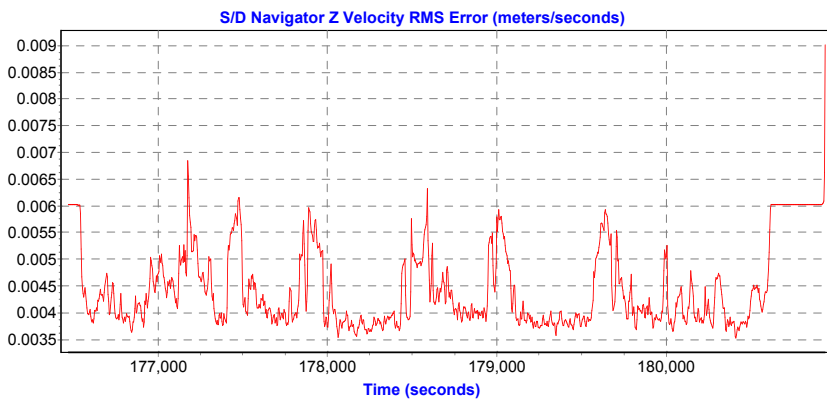
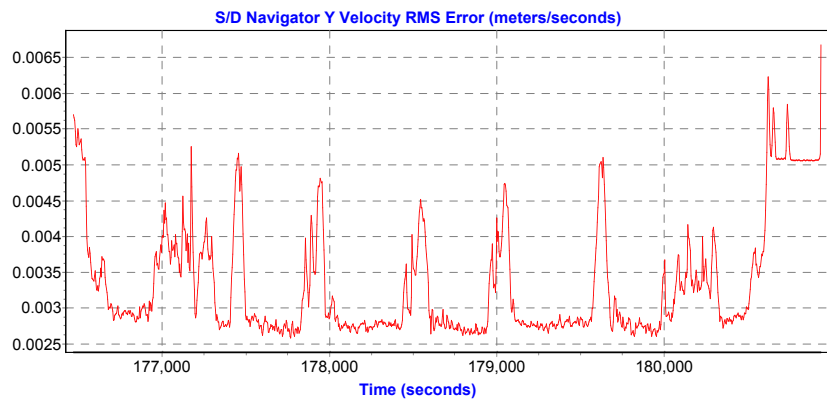
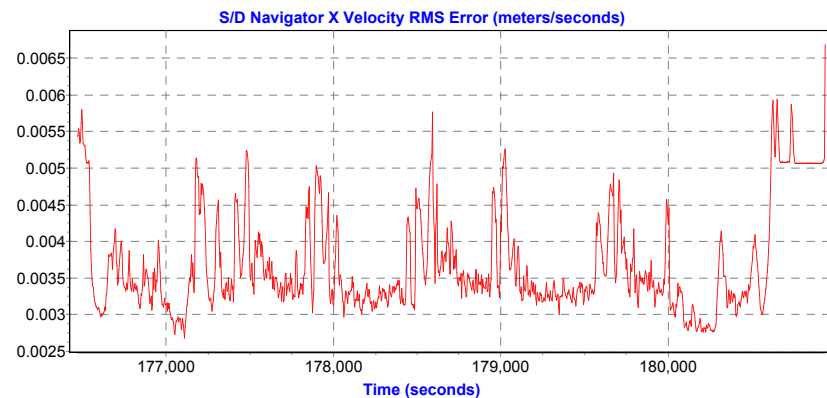
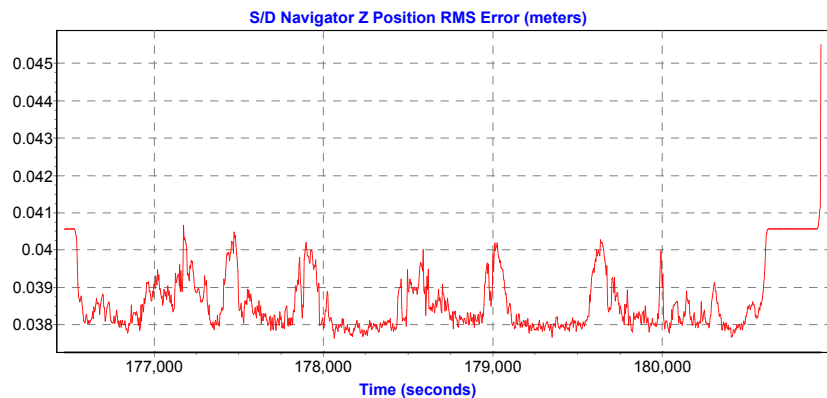
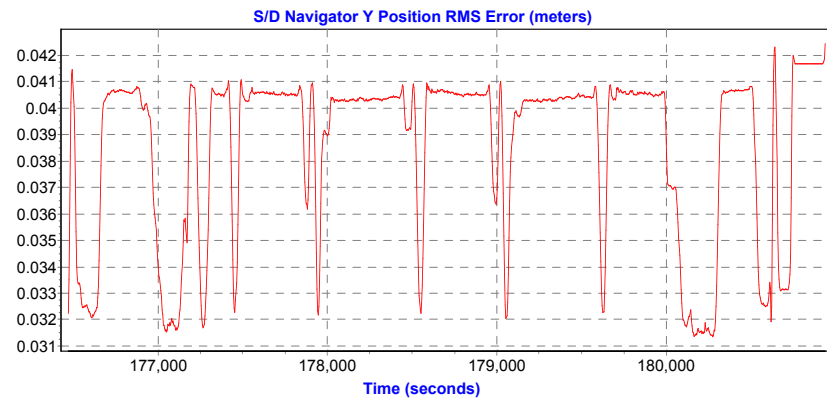
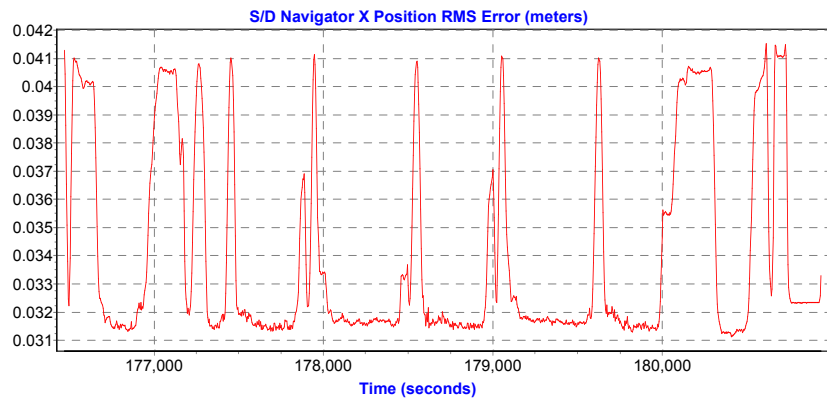
### o112093c [Combined] - PDOP, HDOP, VDOP Plots

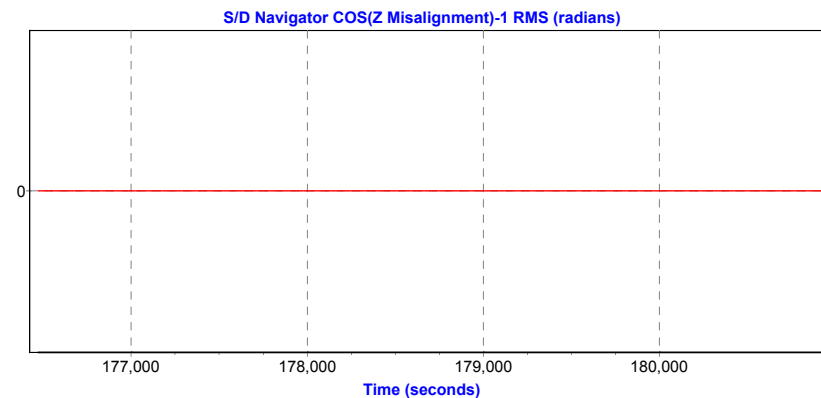
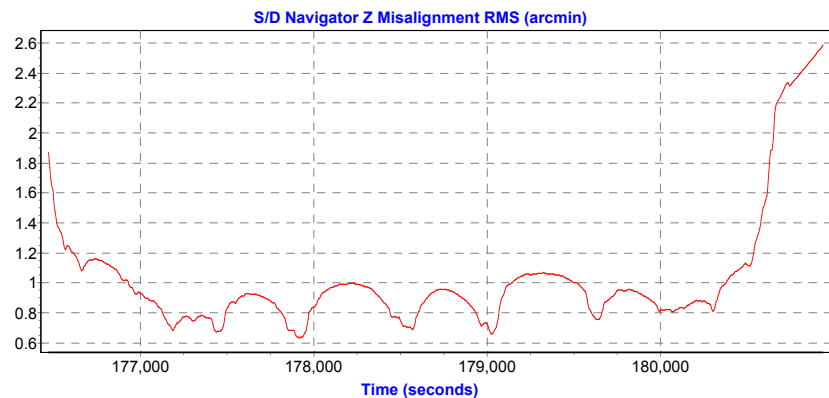
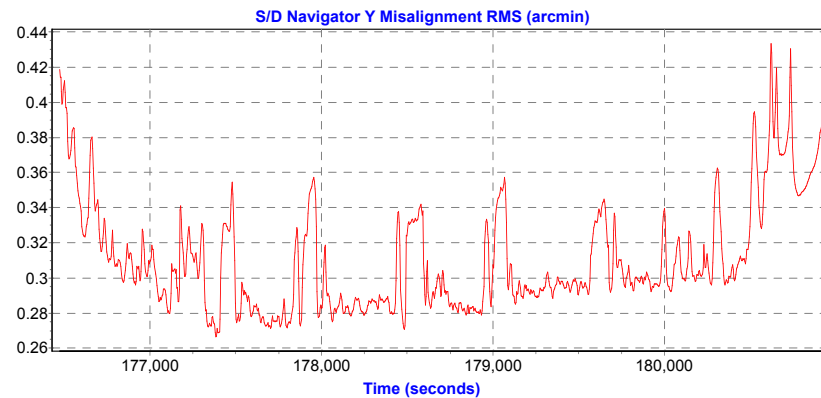
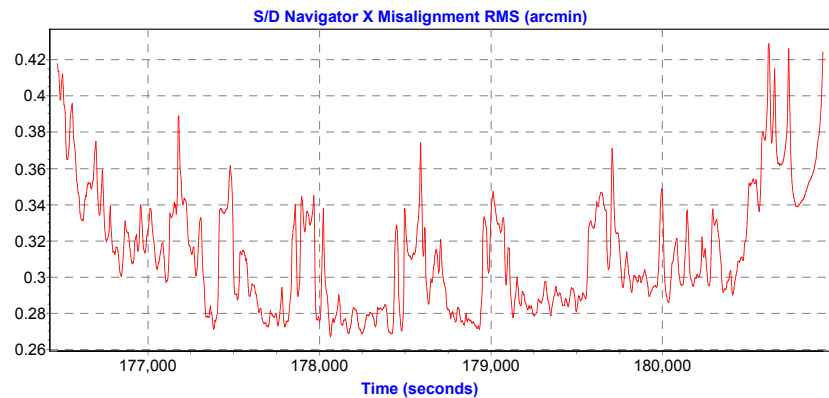


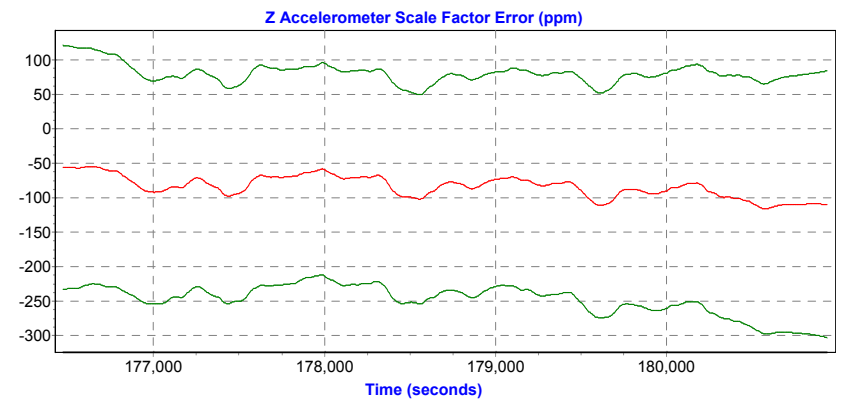
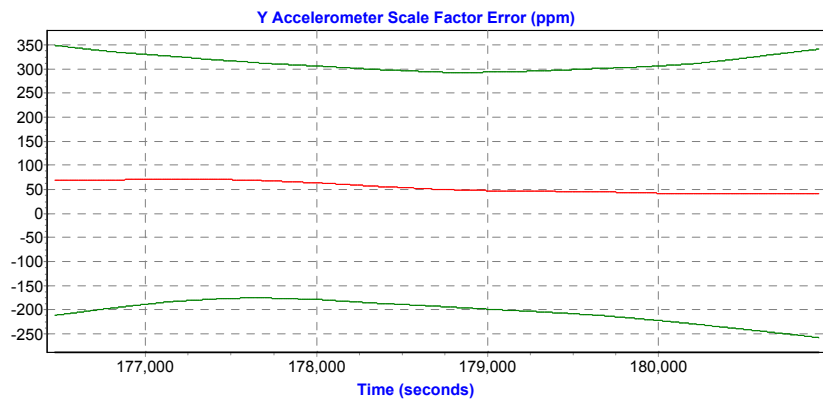
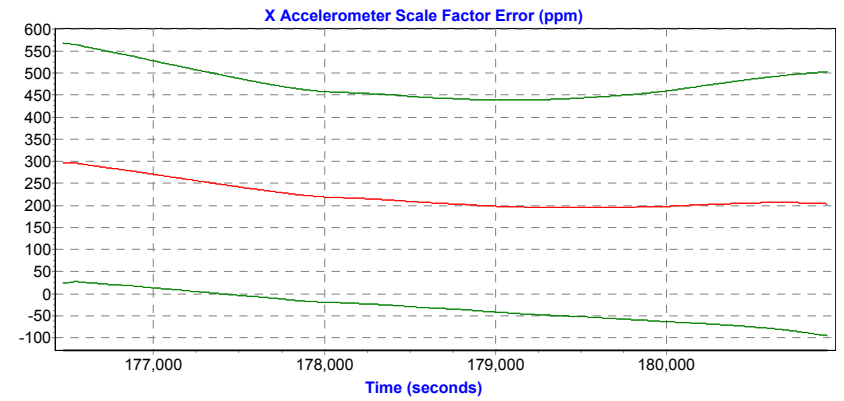
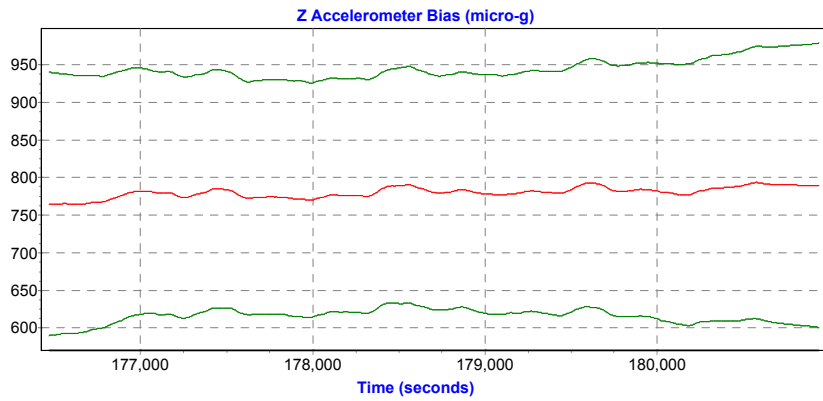
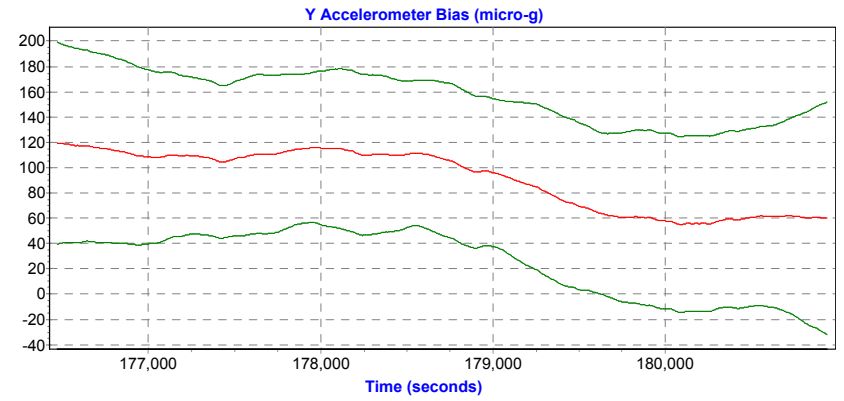
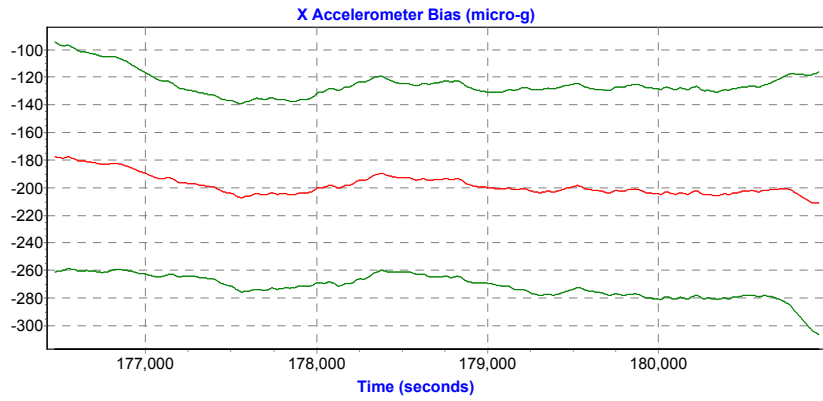


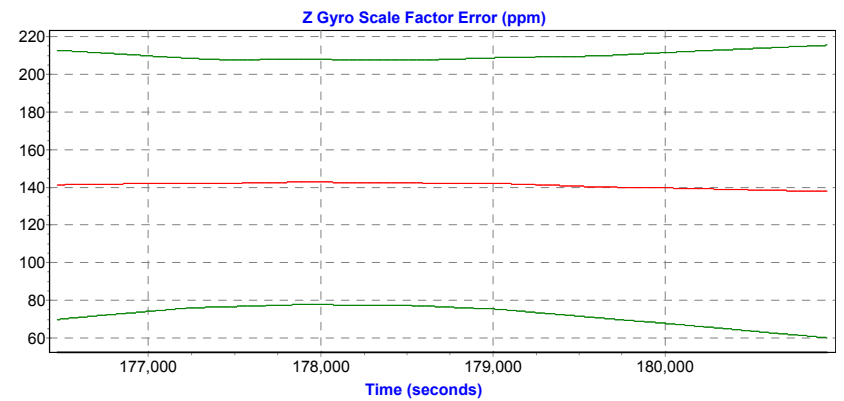
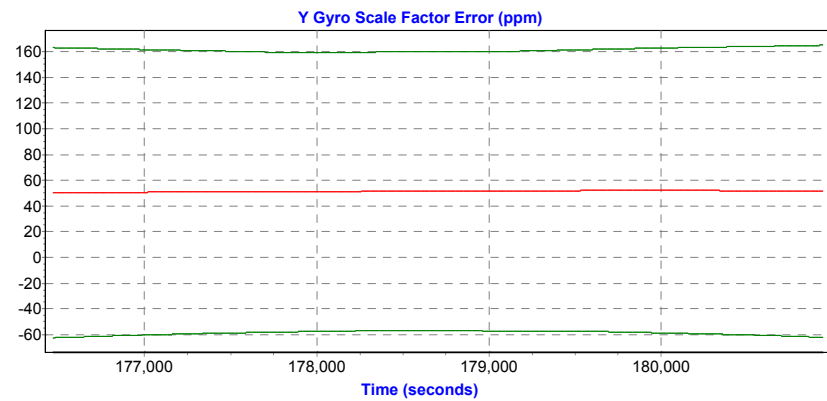
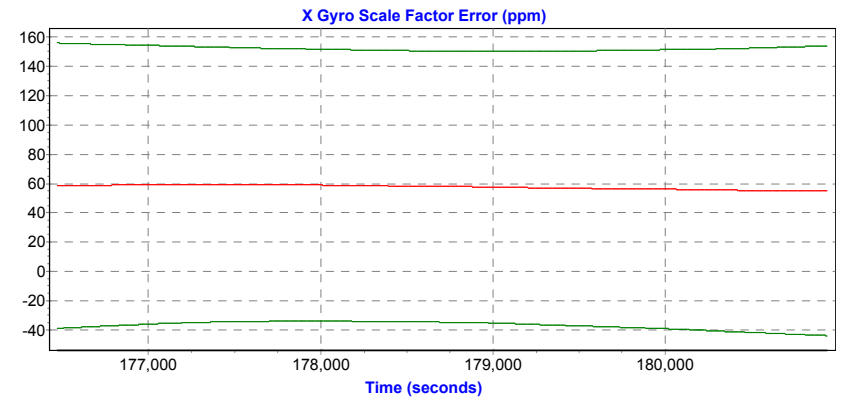
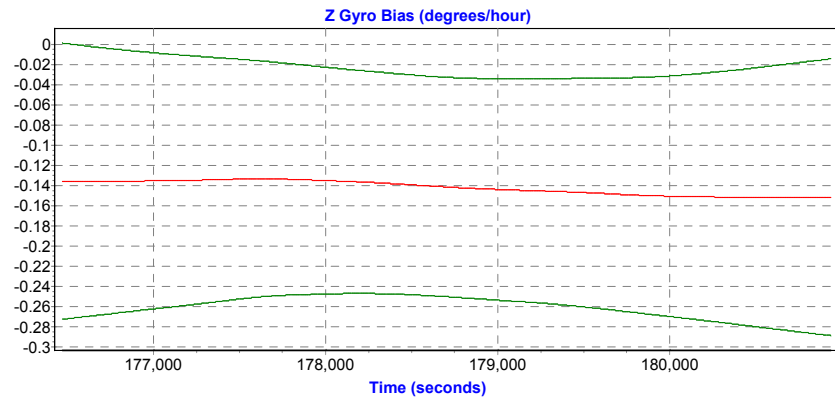
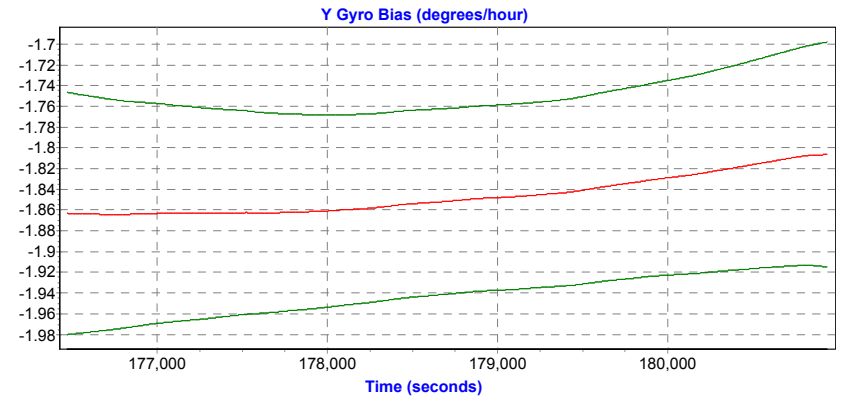
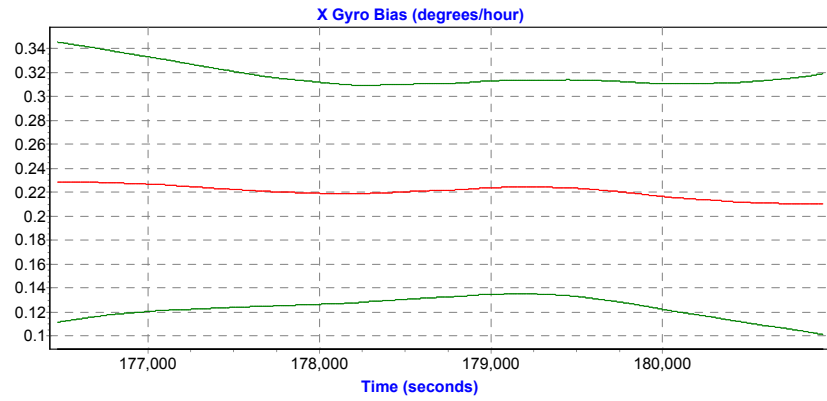






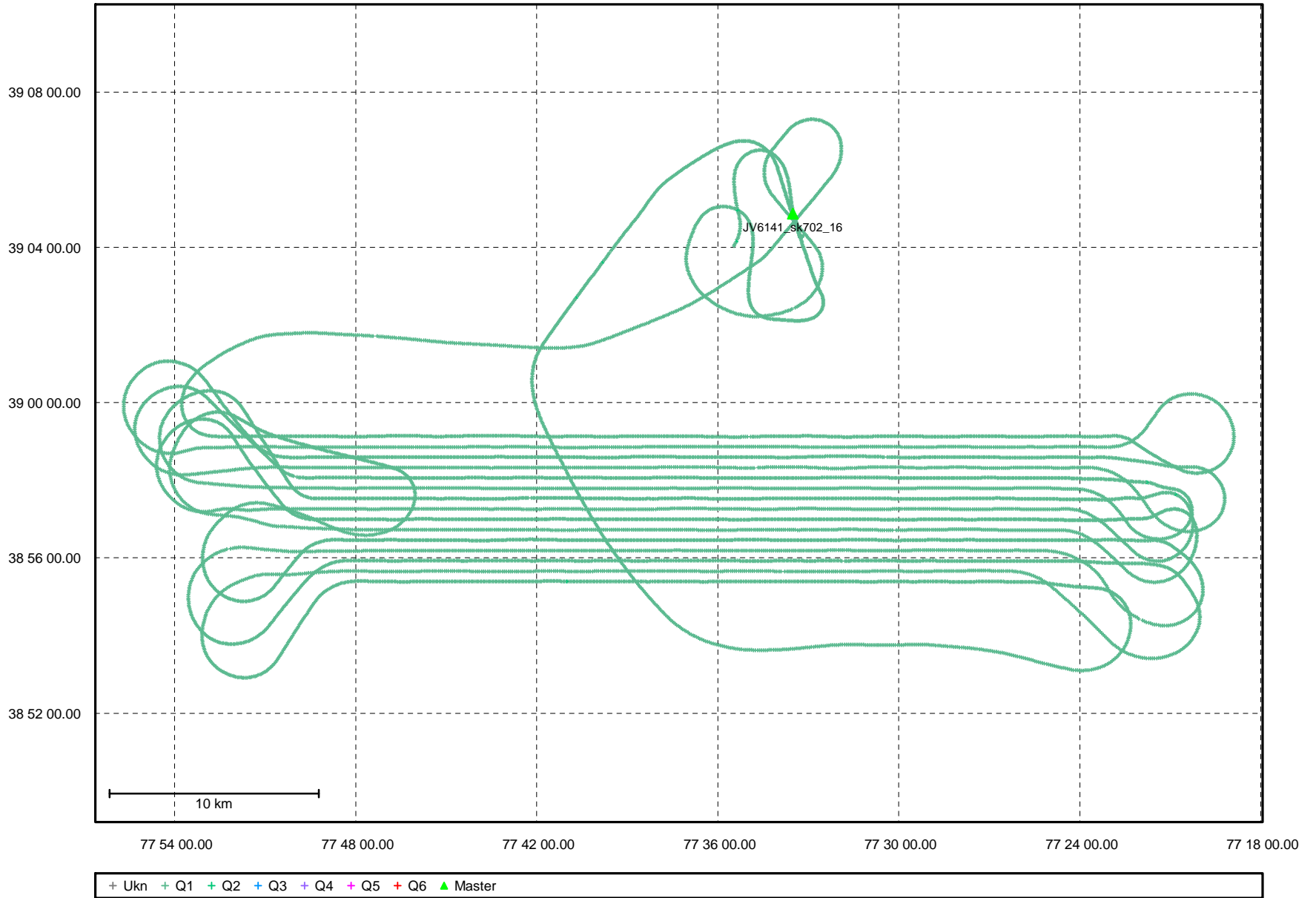




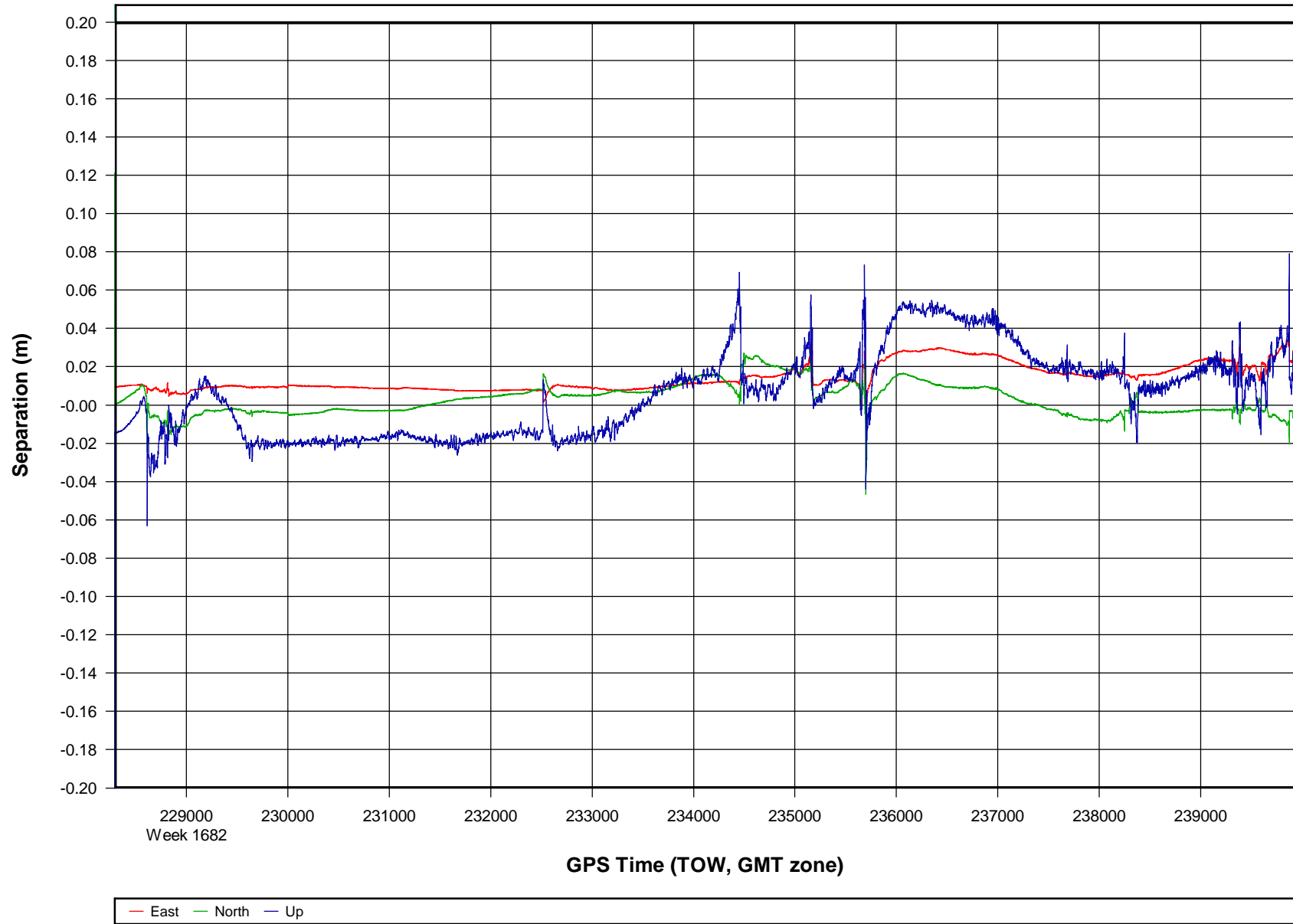


# Combined - Map Run (11)

Geographic, DMS

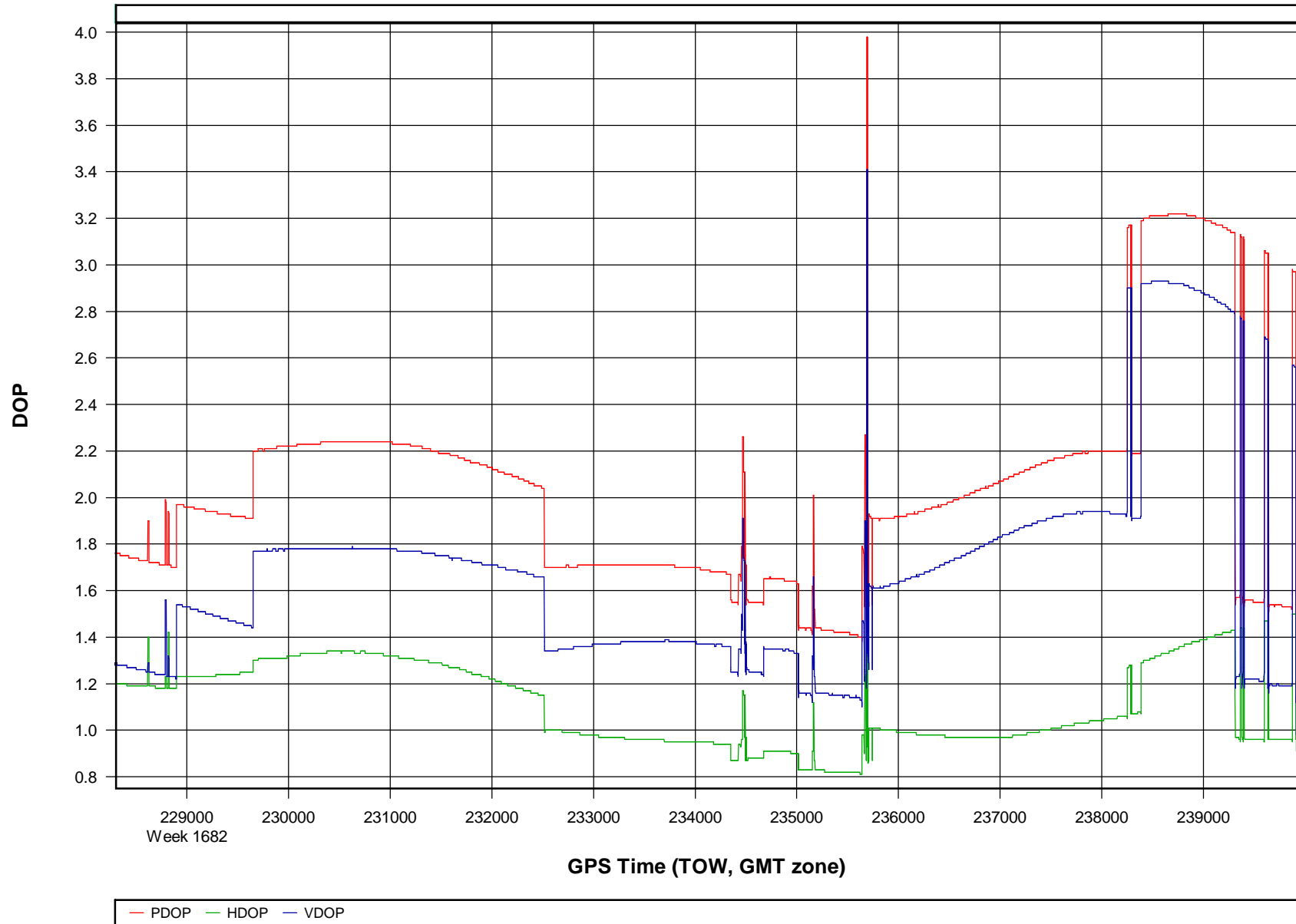


**o112094a [Combined] - Forward/Reverse or Combined Separation Plot**

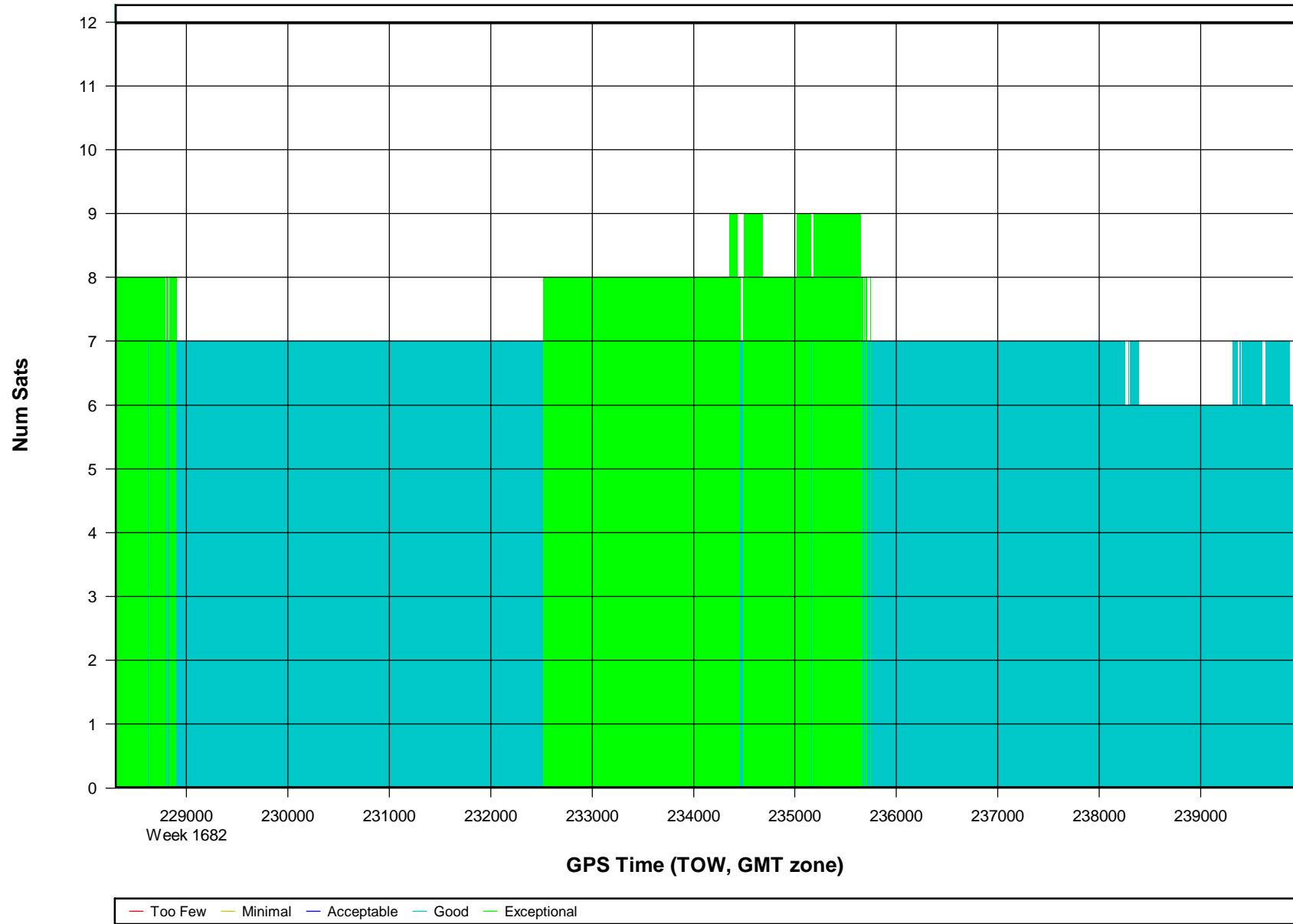




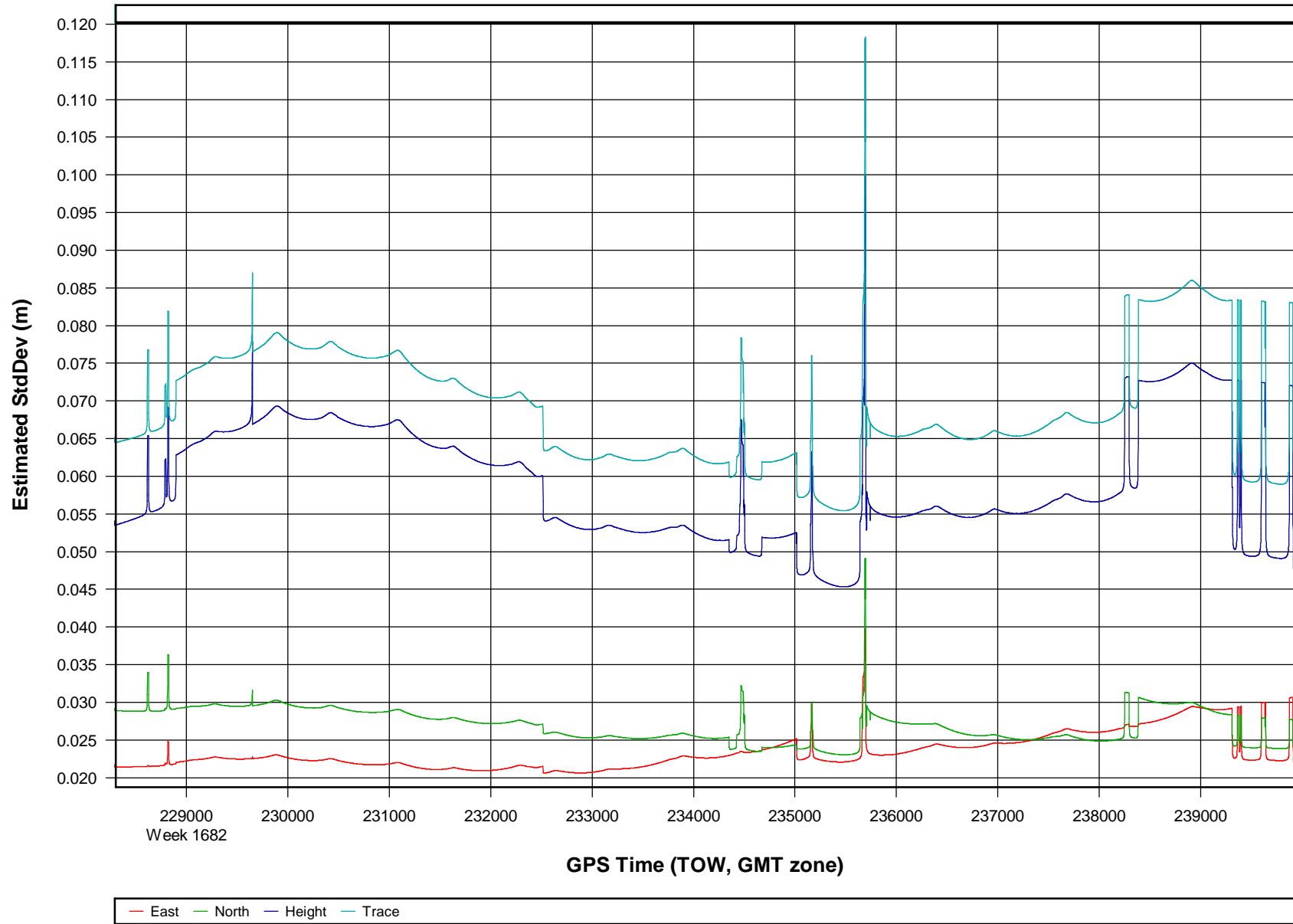
### o112094a [Combined] - PDOP, HDOP, VDOP Plots



### o112094a [Combined] - Number of Satellites Bar Plot



### o112094a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: POSGNSS  
Version: 4.40.2710  
Project: G:\o112094a\3\_Processed\GPS\o112094a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 125084  
No processed position: 113459  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0132 (m)  
C/A Code: 0.70 (m)  
L1 Doppler: 0.025 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.016 (m)  
North: 0.009 (m)  
Height: 0.023 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (11618 occurrences):  
East: 0.016 (m)  
North: 0.009 (m)  
Height: 0.023 (m)

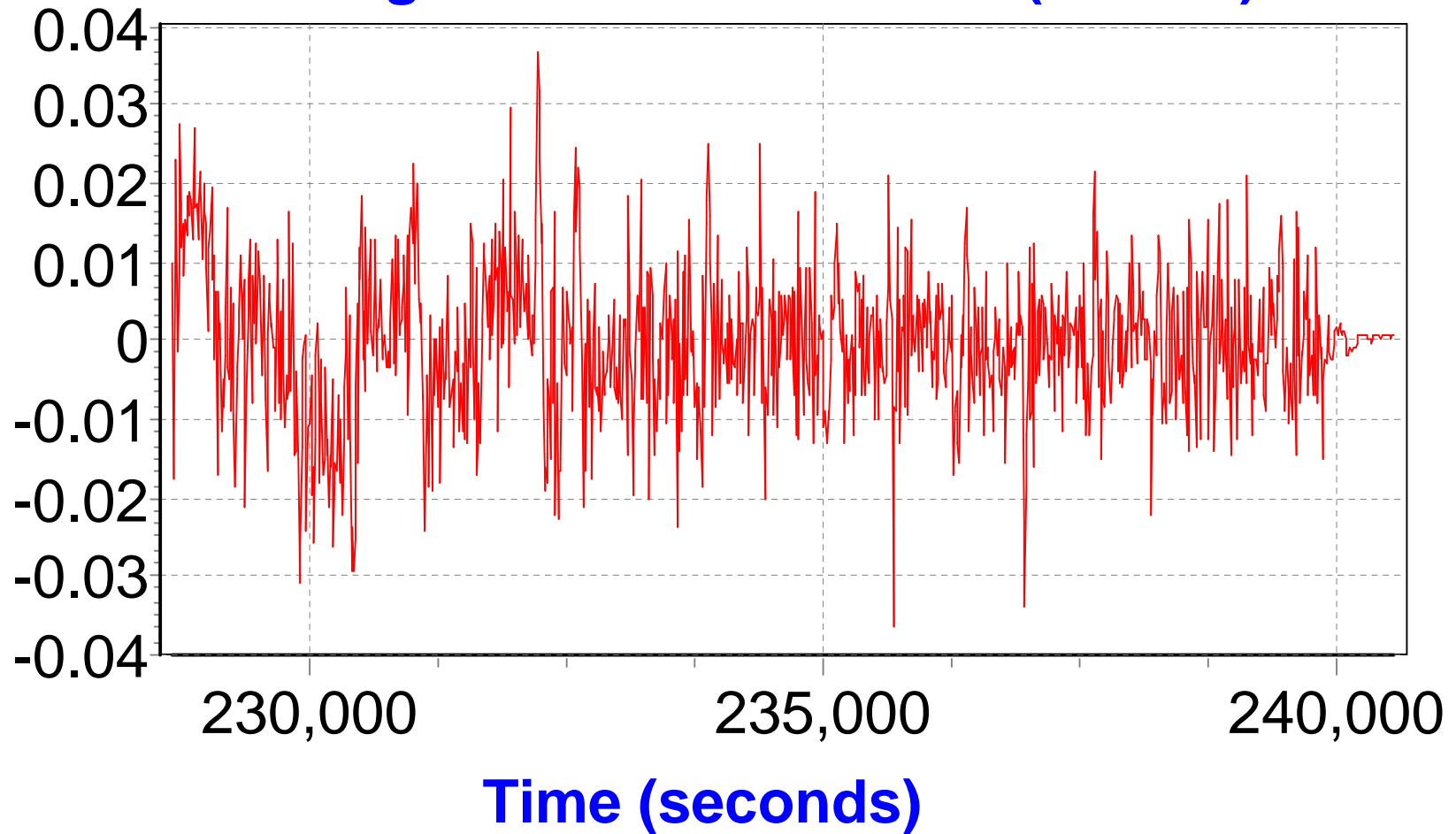
Quality Number Percentages:  
Q 1: 99.9 %  
Q 2: 0.1 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:  
0.00 - 0.10 m: 99.9 %  
0.10 - 0.30 m: 0.1 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

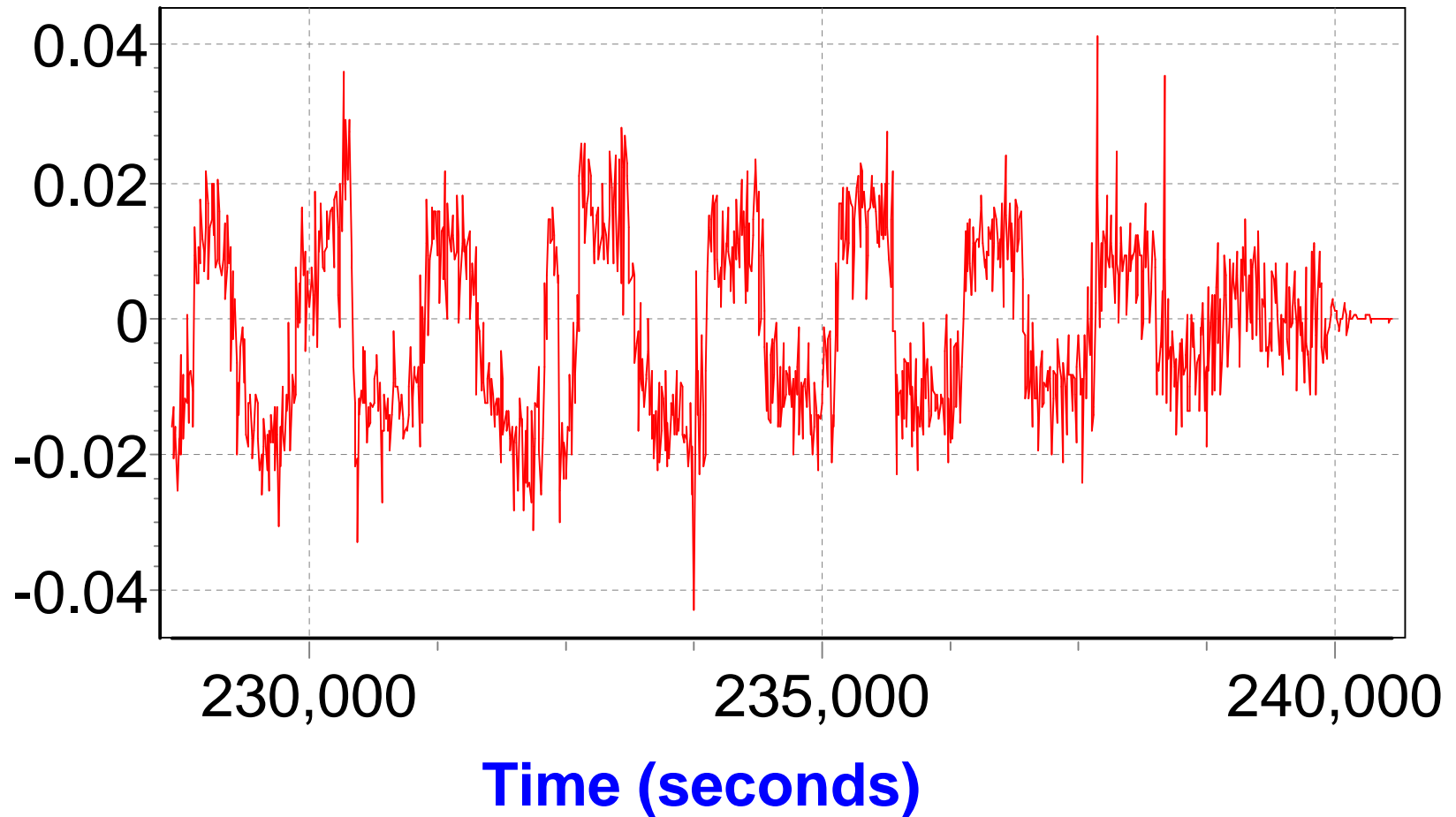
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

Baseline Distances:  
Maximum: 35.109 (km)  
Minimum: 0.048 (km)  
Average: 18.907 (km)  
First Epoch: 1.177 (km)  
Last Epoch: 3.232 (km)

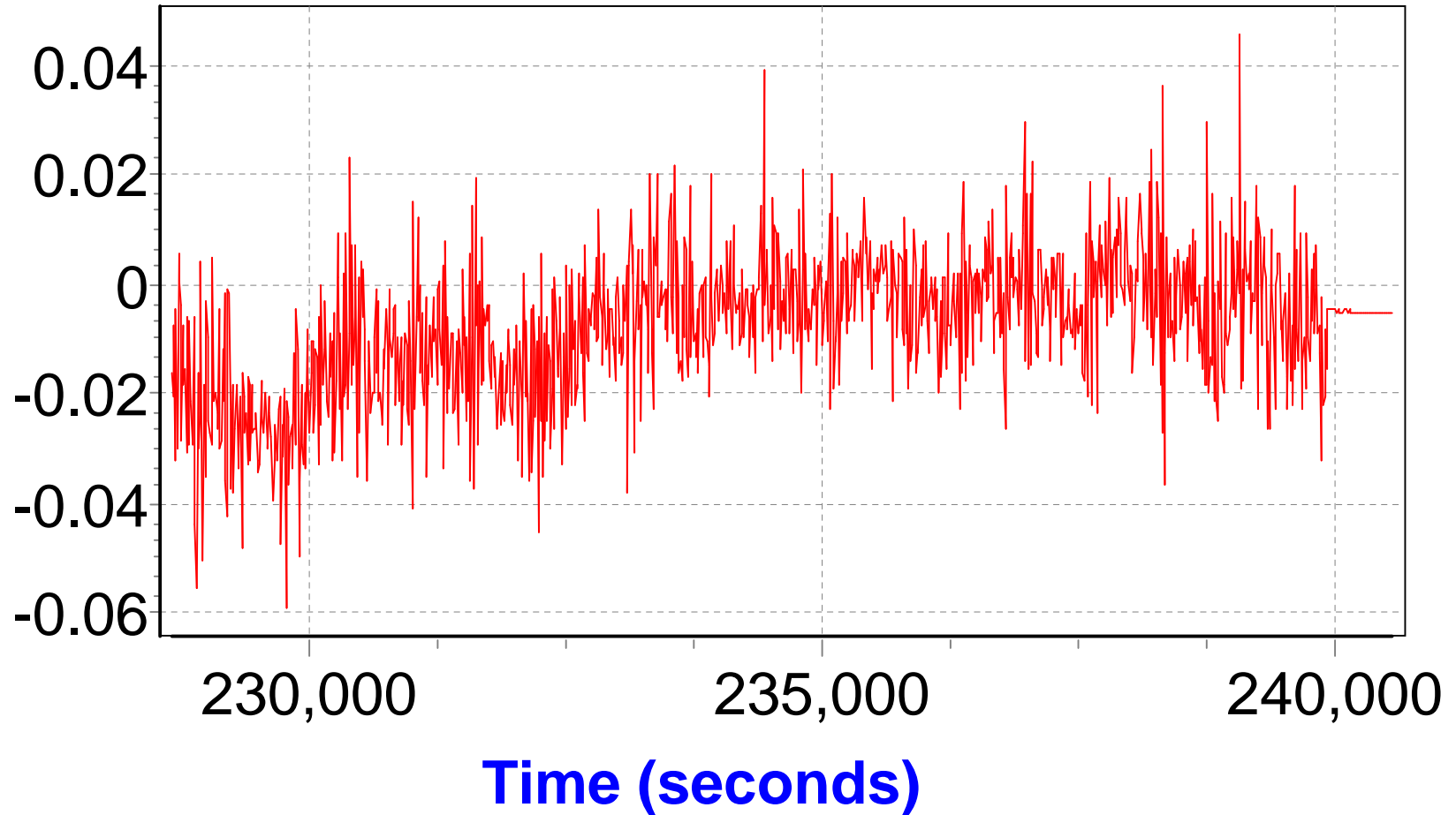
## S/D Navigator X Position Error (meters)



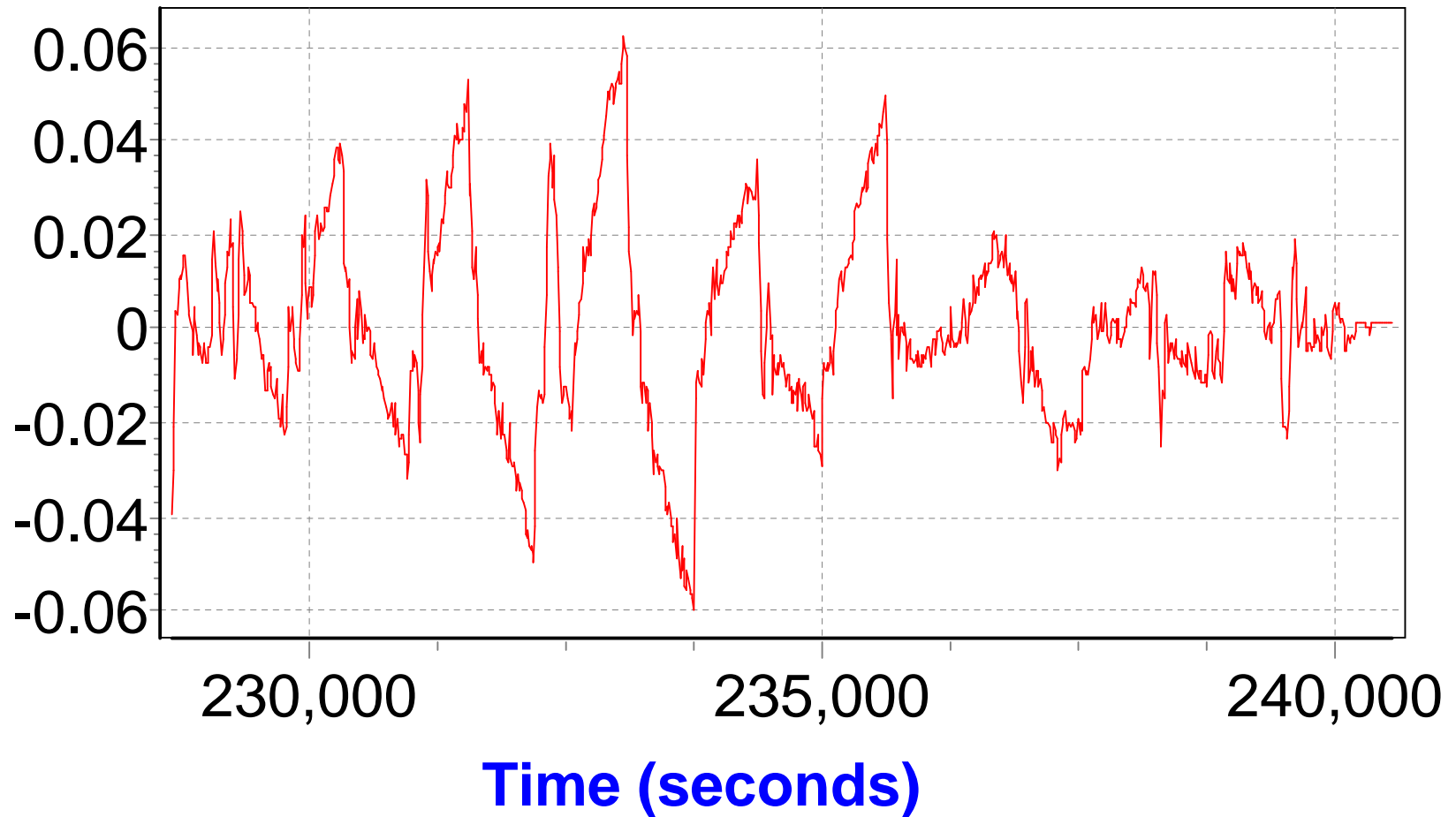
## S/D Navigator Y Position Error (meters)



## S/D Navigator Z Position Error (meters)

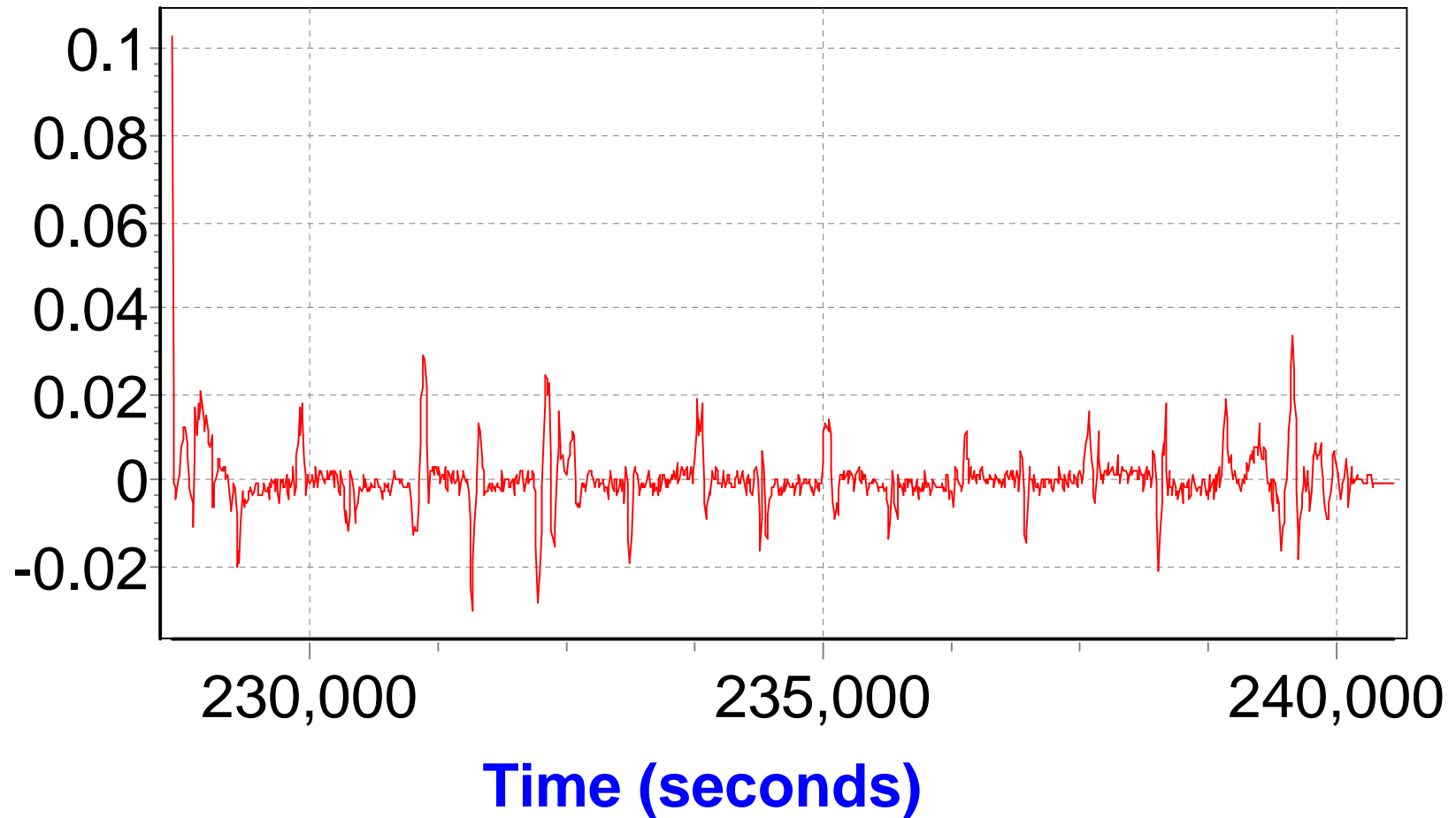


## S/D Navigator X Velocity Error (meters/seconds)

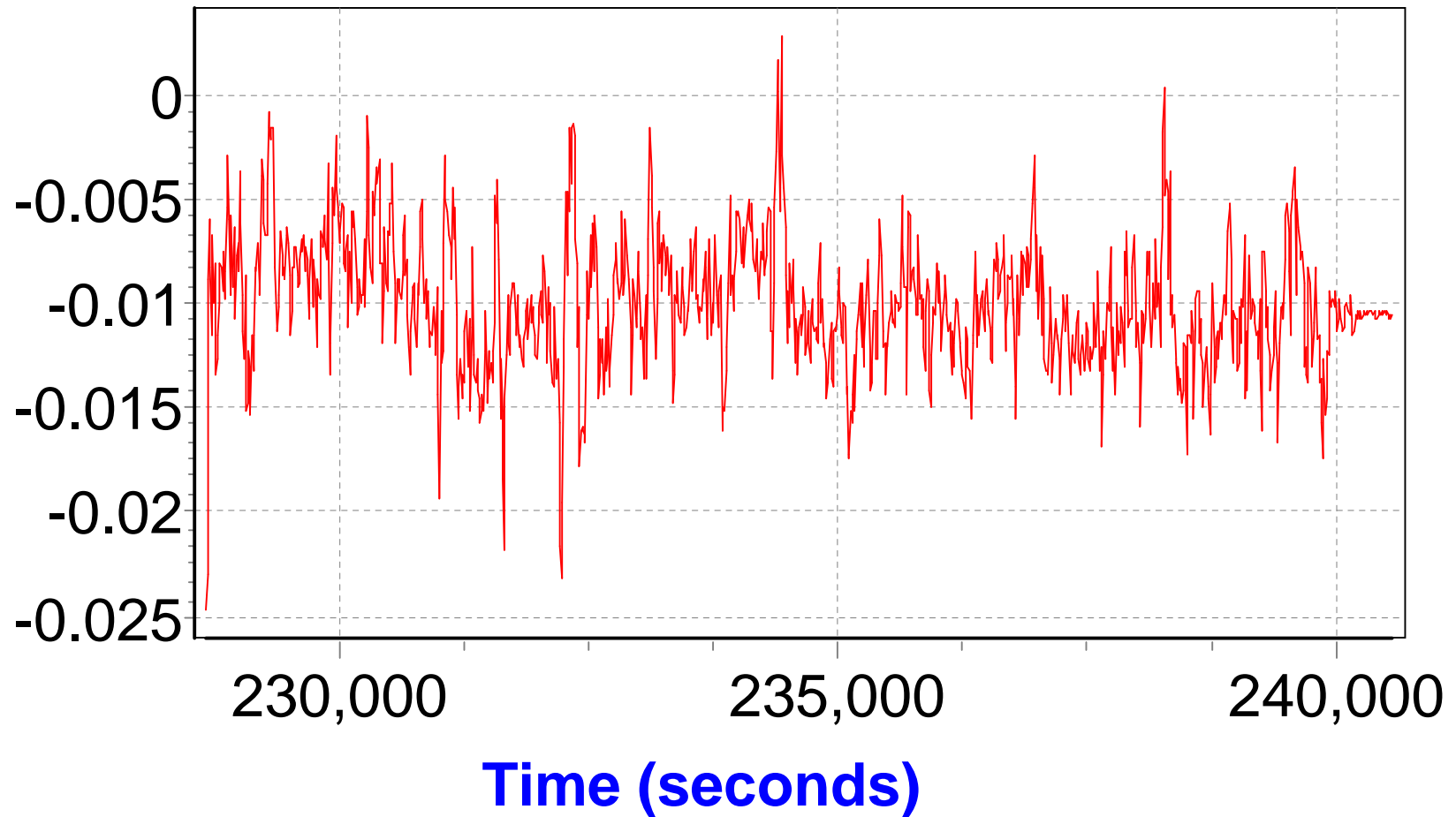




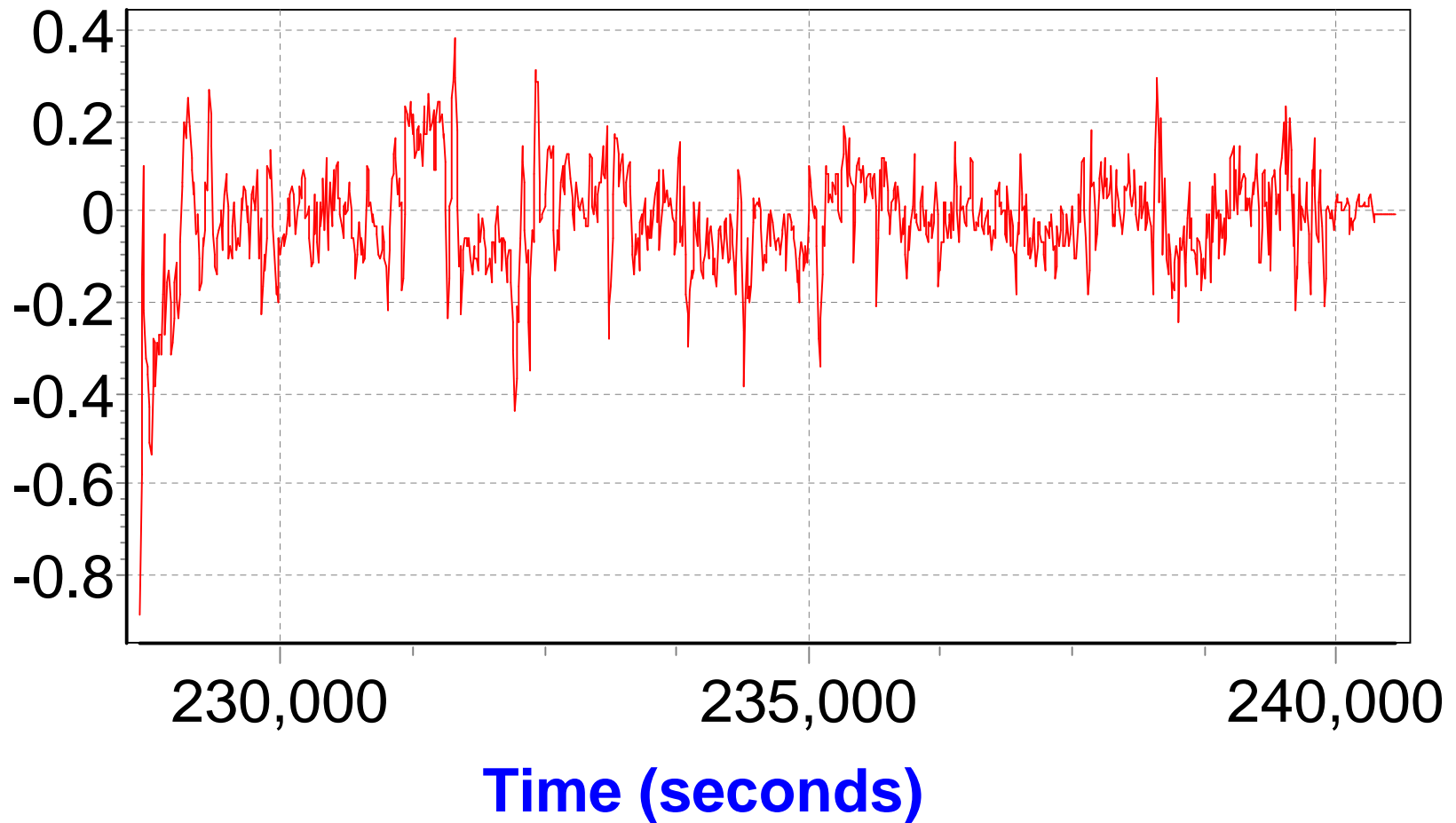
## S/D Navigator Y Velocity Error (meters/seconds)



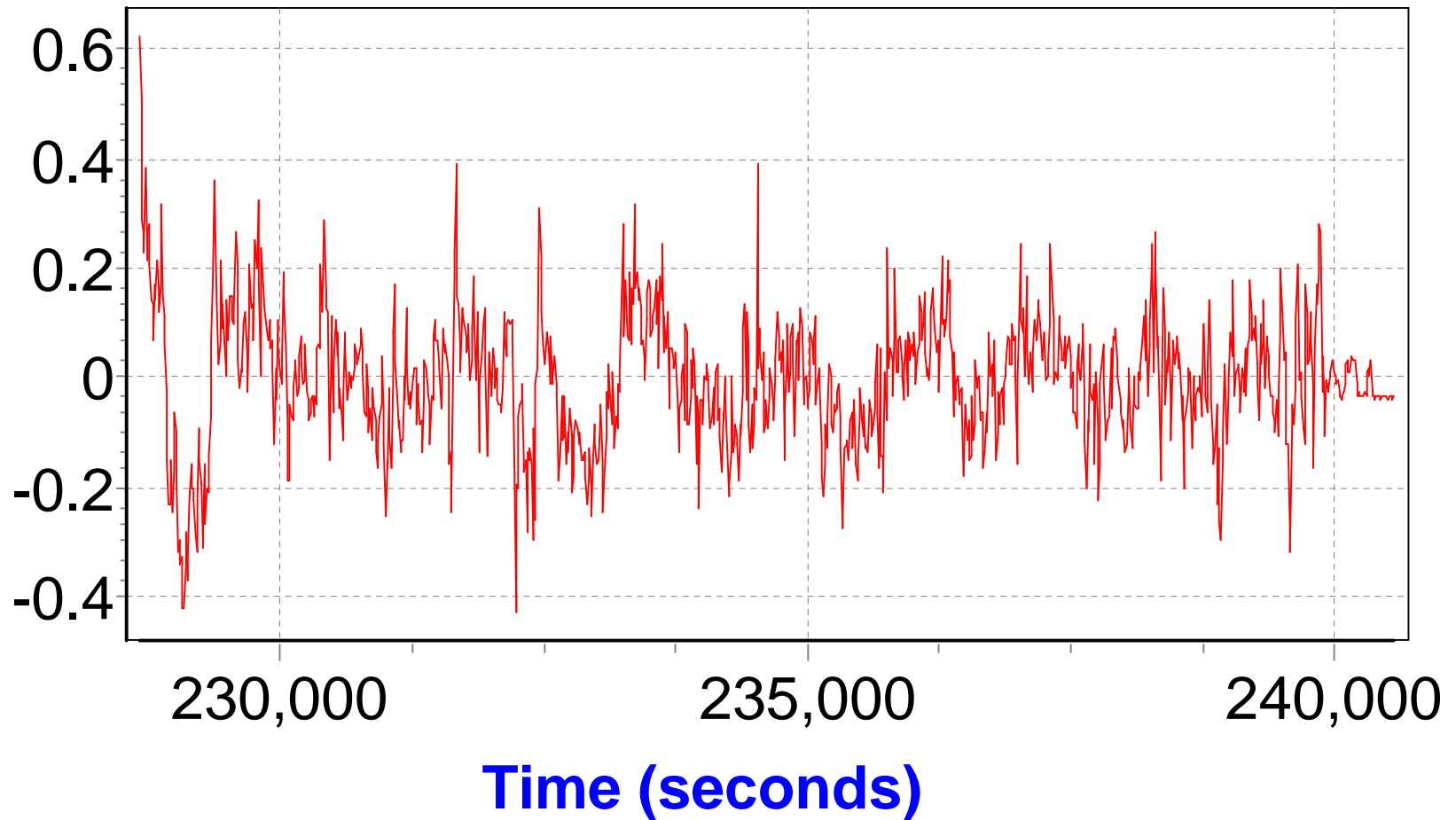
## S/D Navigator Z Velocity Error (meters/seconds)



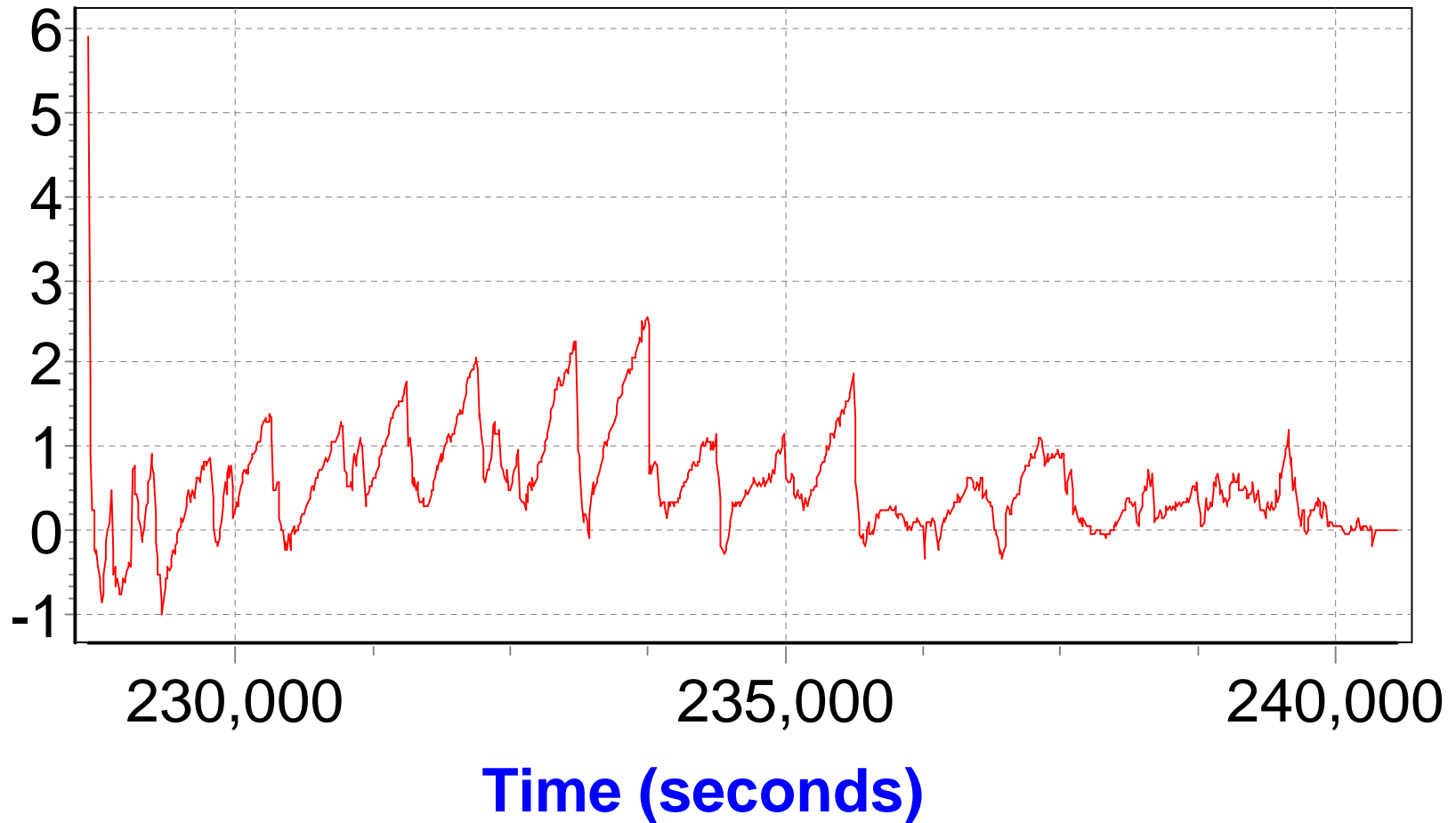
## S/D Navigator X Misalignment (arcmin)



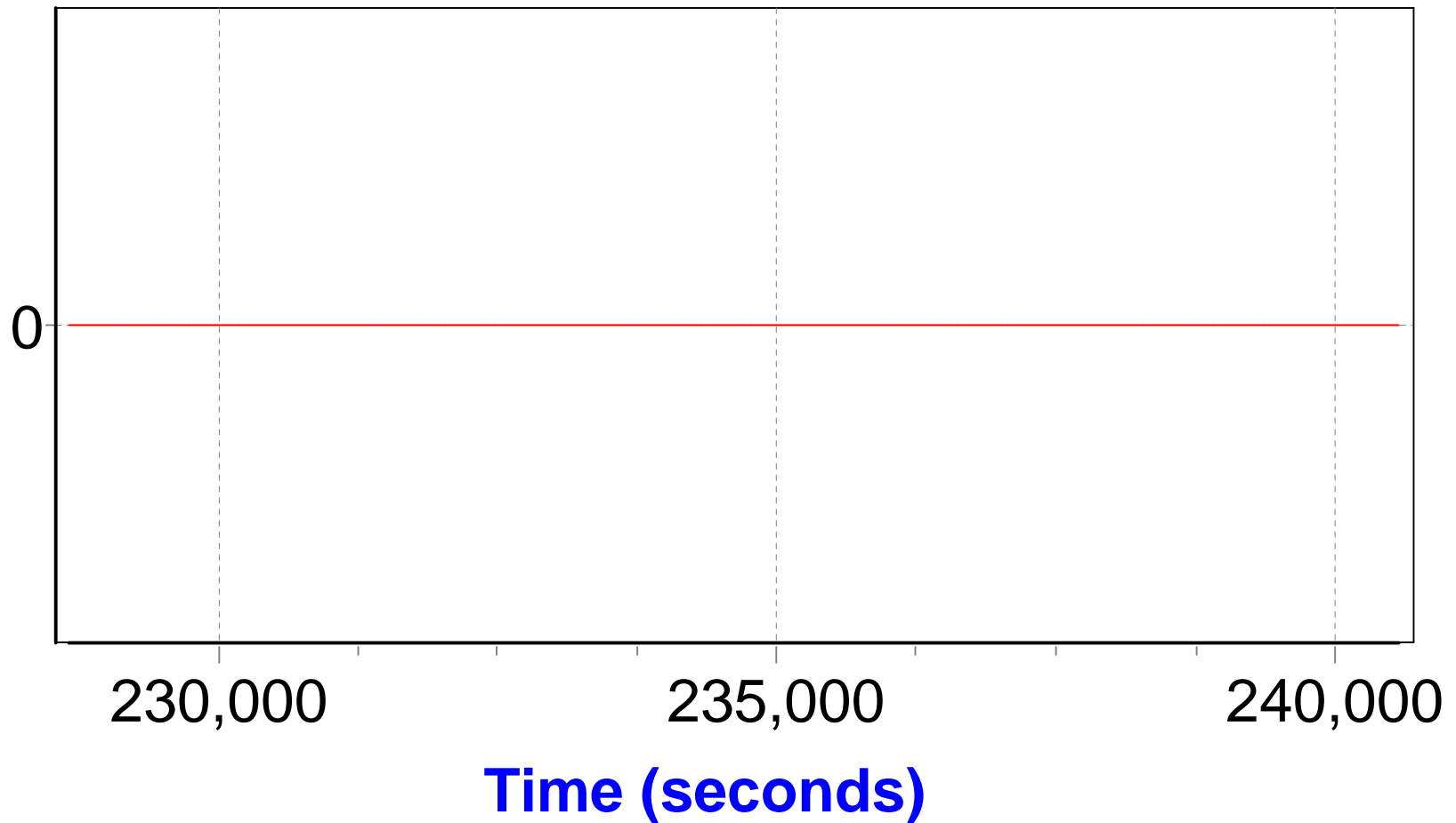
## S/D Navigator Y Misalignment (arcmin)



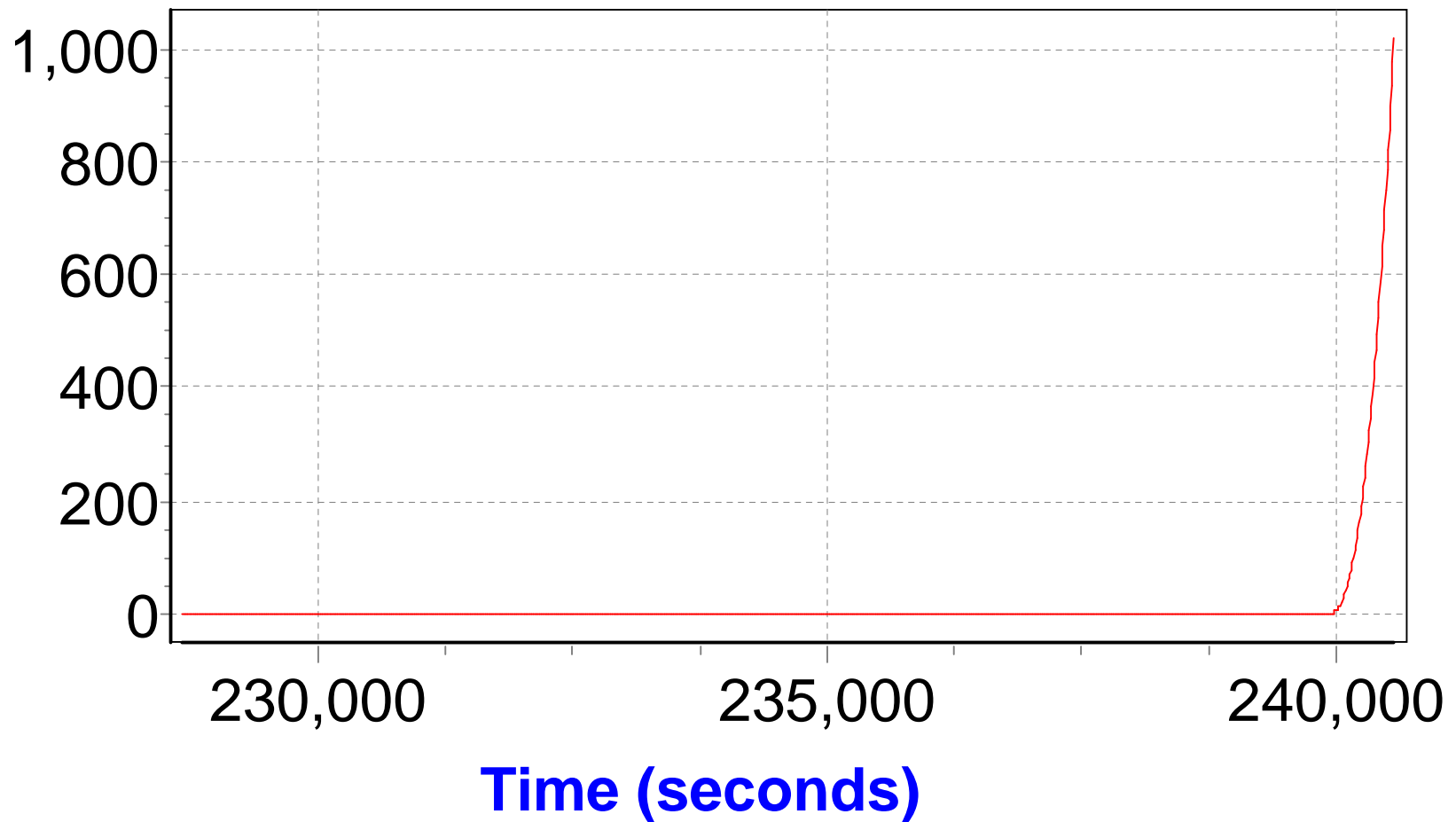
## S/D Navigator Z Misalignment (arcmin)



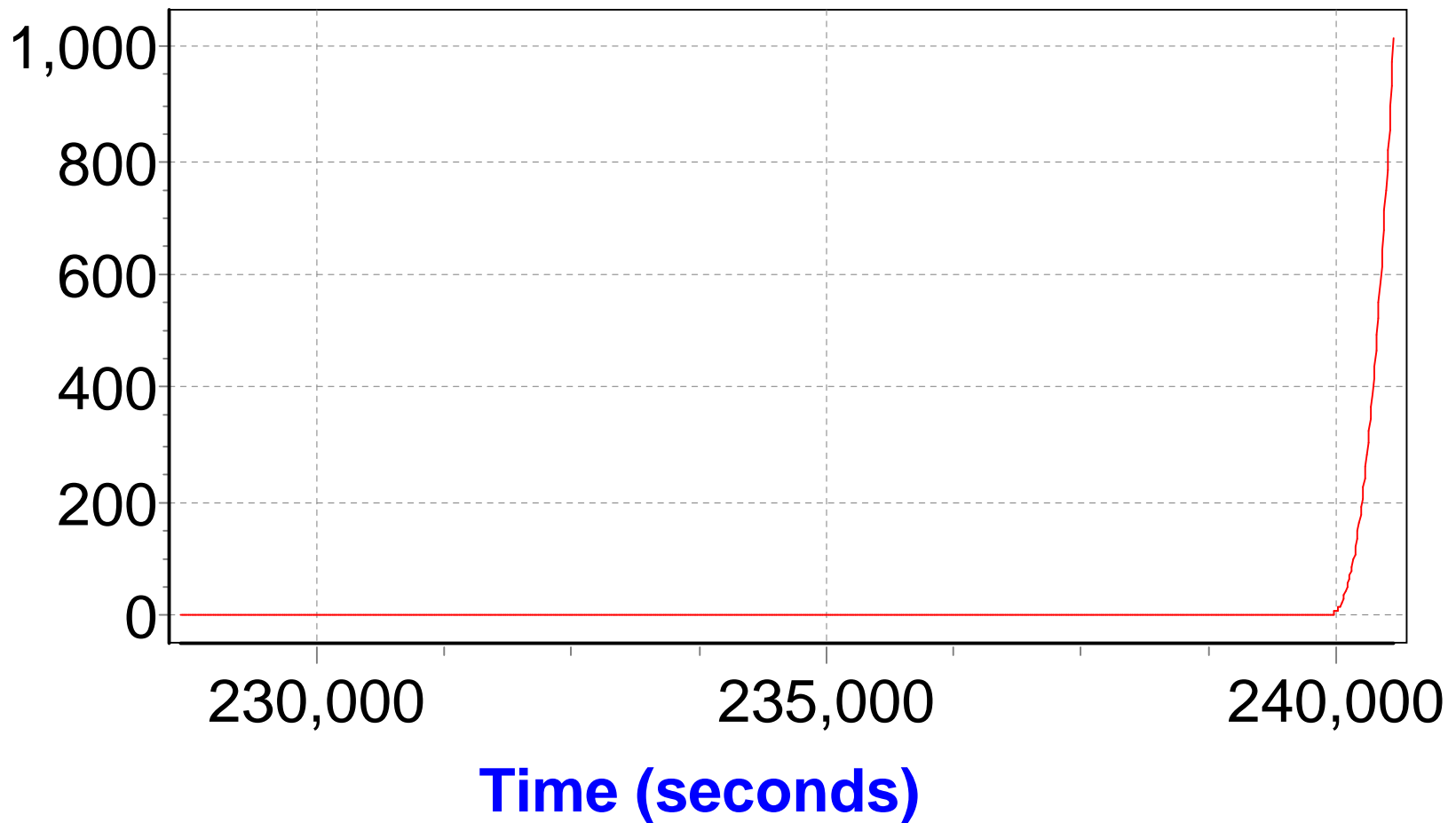
## S/D Navigator COS(Z Misalignment)-1 (radians)



## S/D Navigator X Position RMS Error (meters)

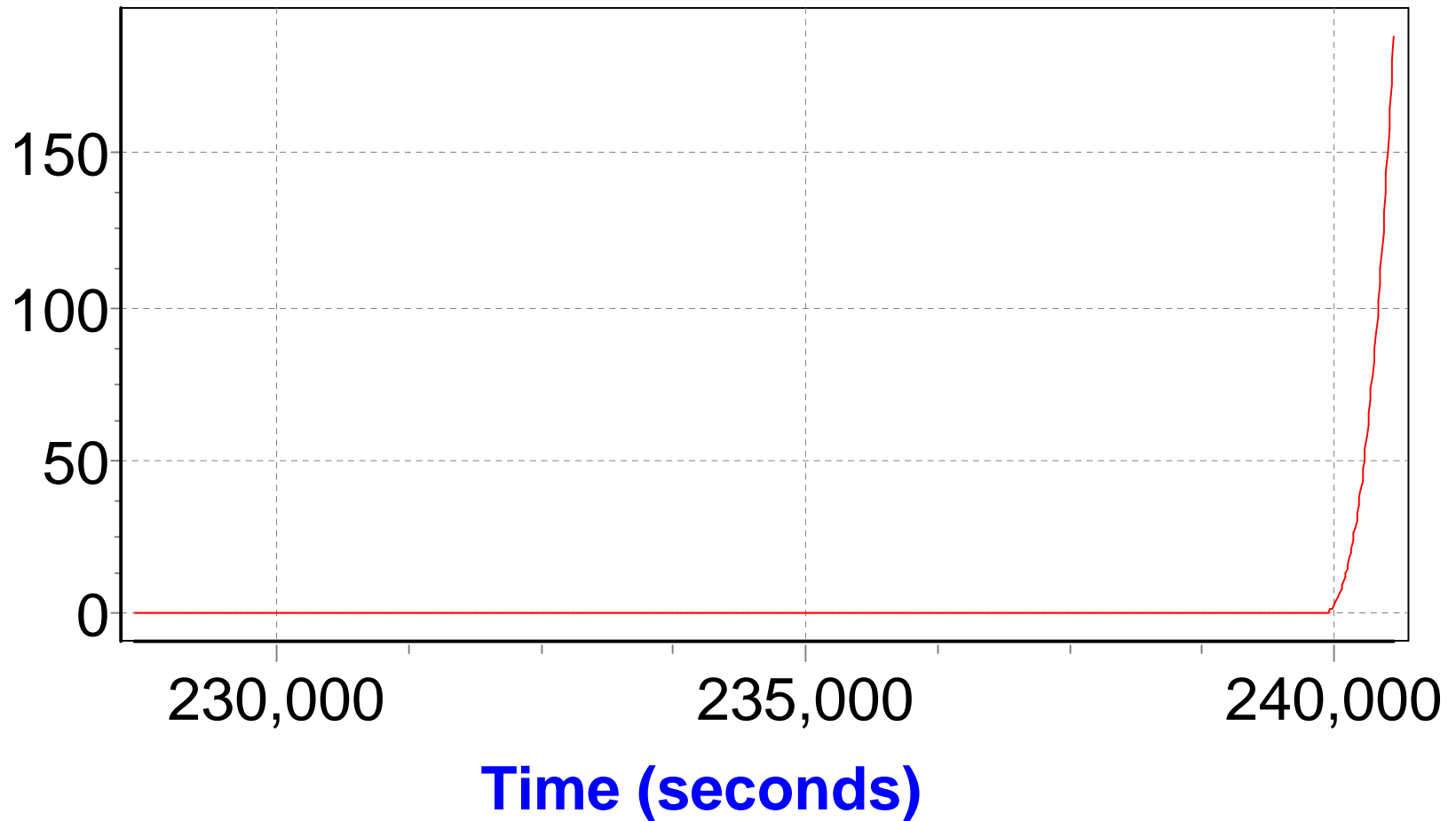


## S/D Navigator Y Position RMS Error (meters)

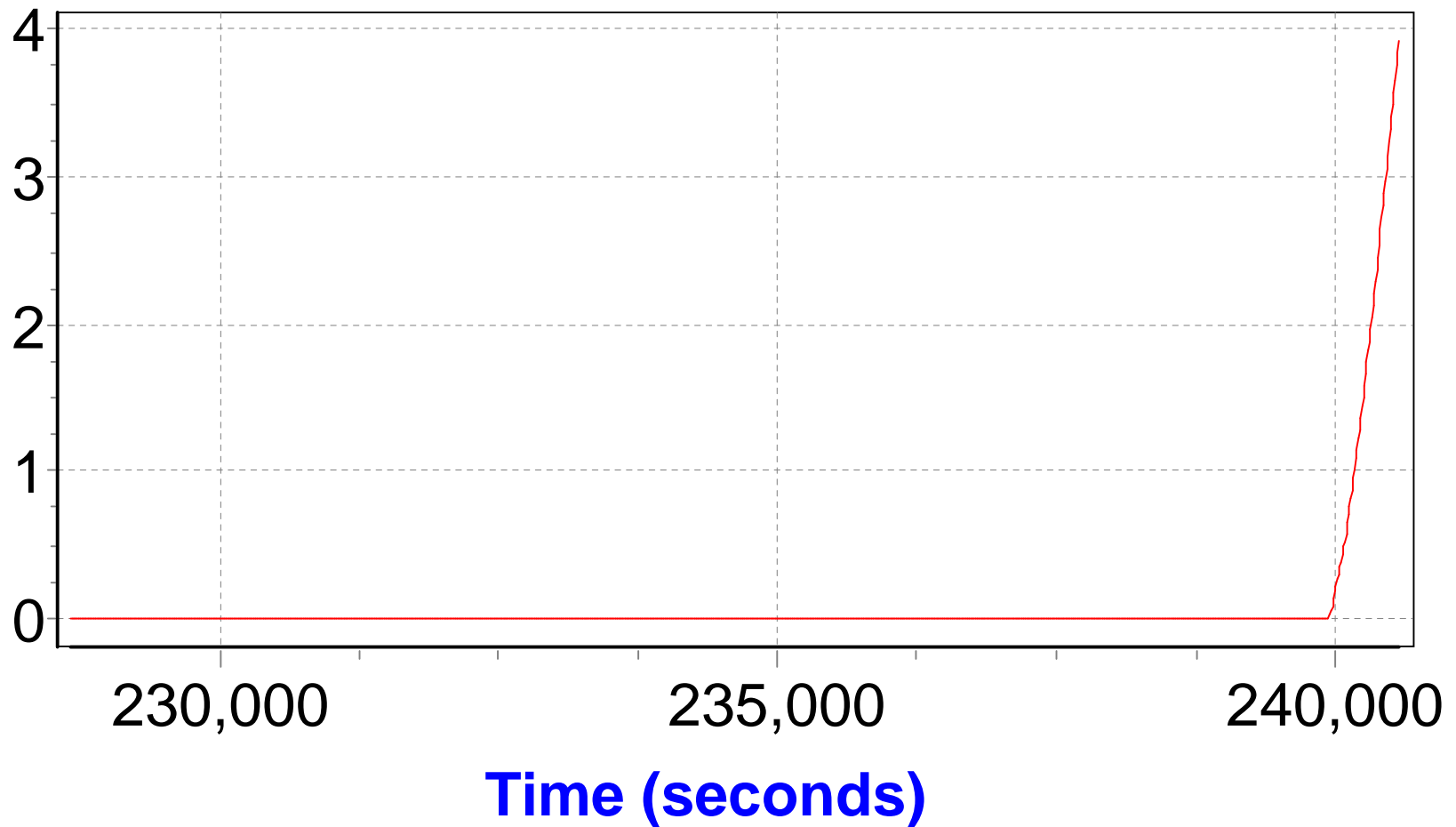




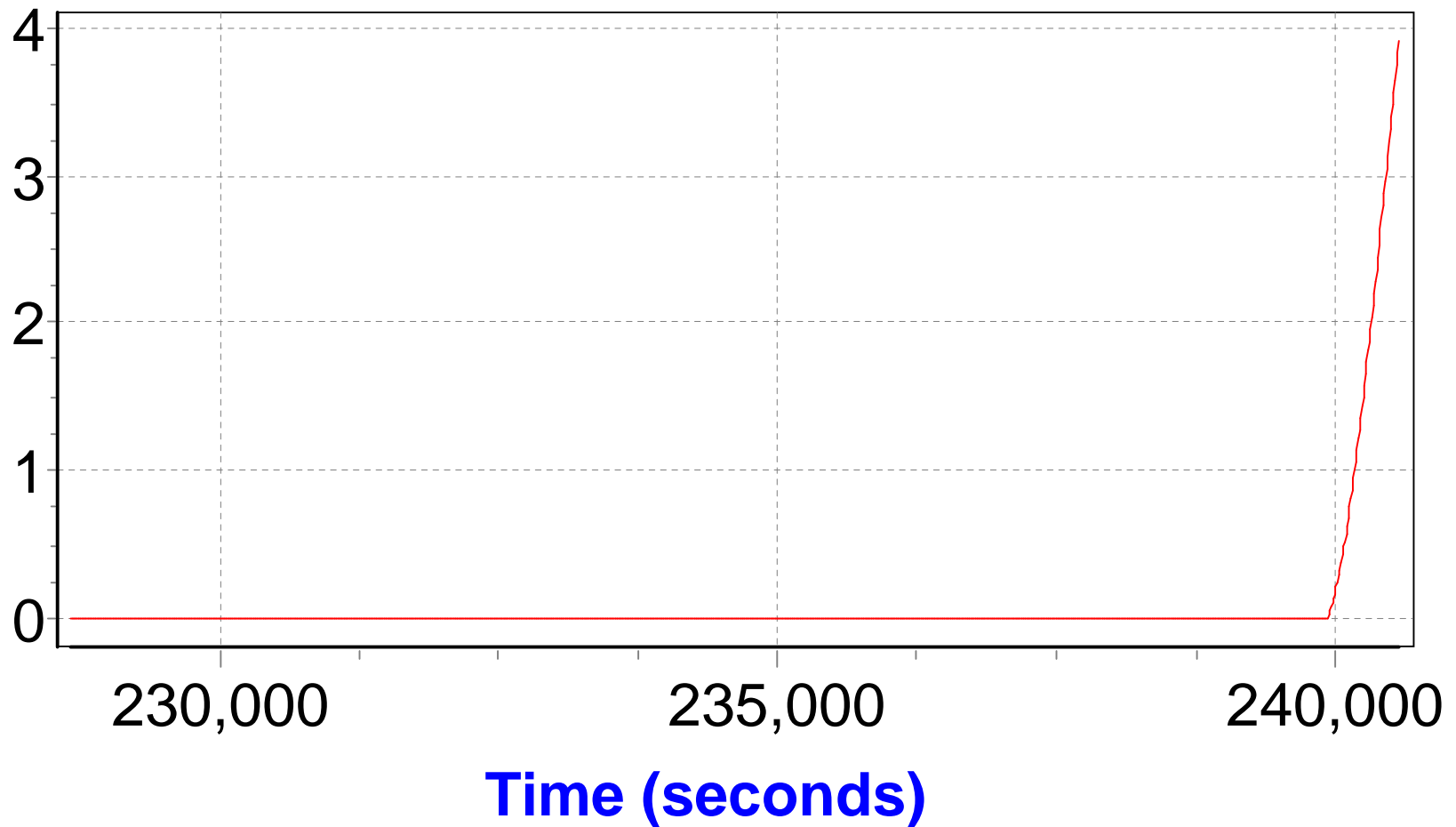
## S/D Navigator Z Position RMS Error (meters)



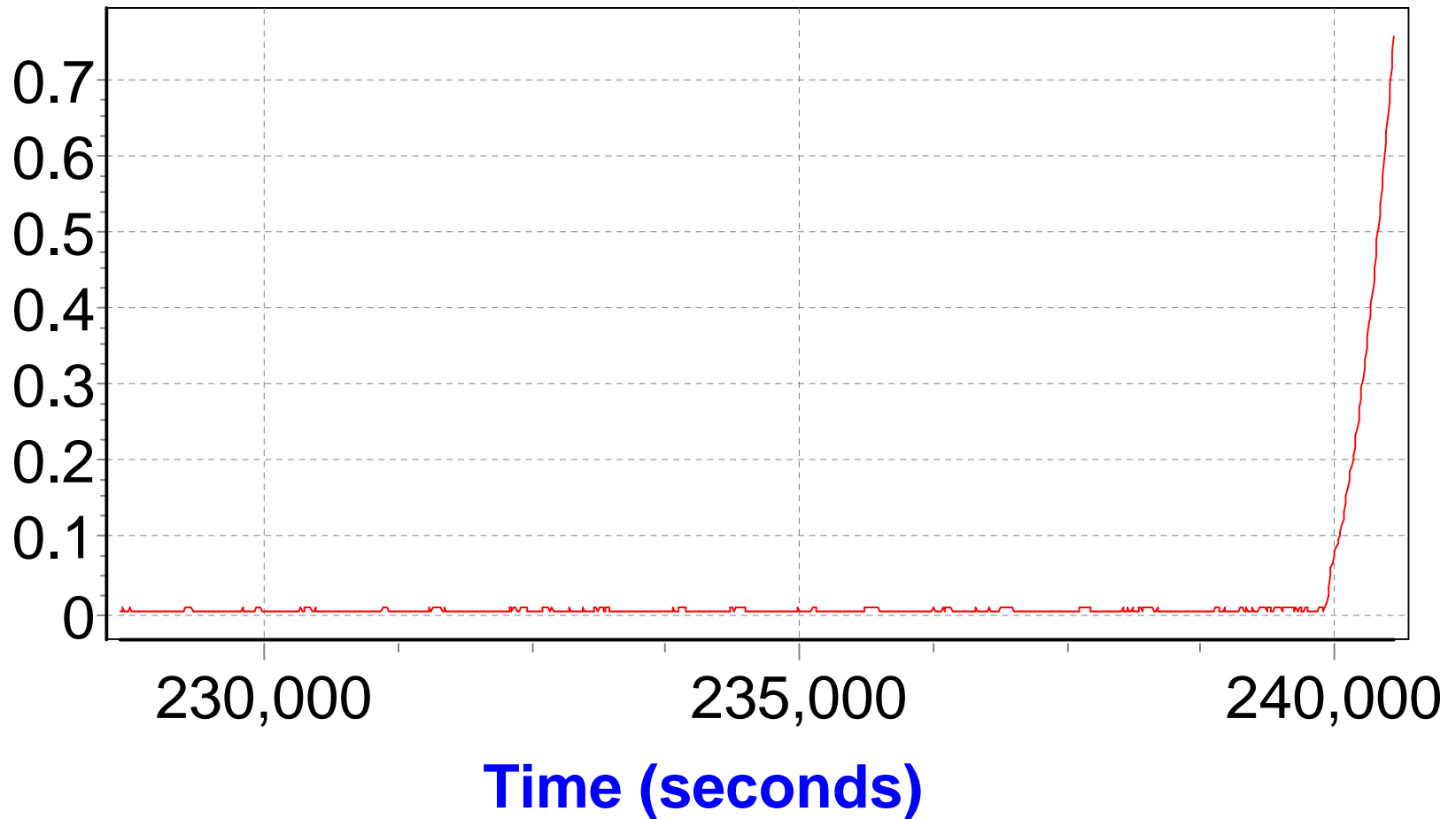
## S/D Navigator X Velocity RMS Error (meters/seconds)



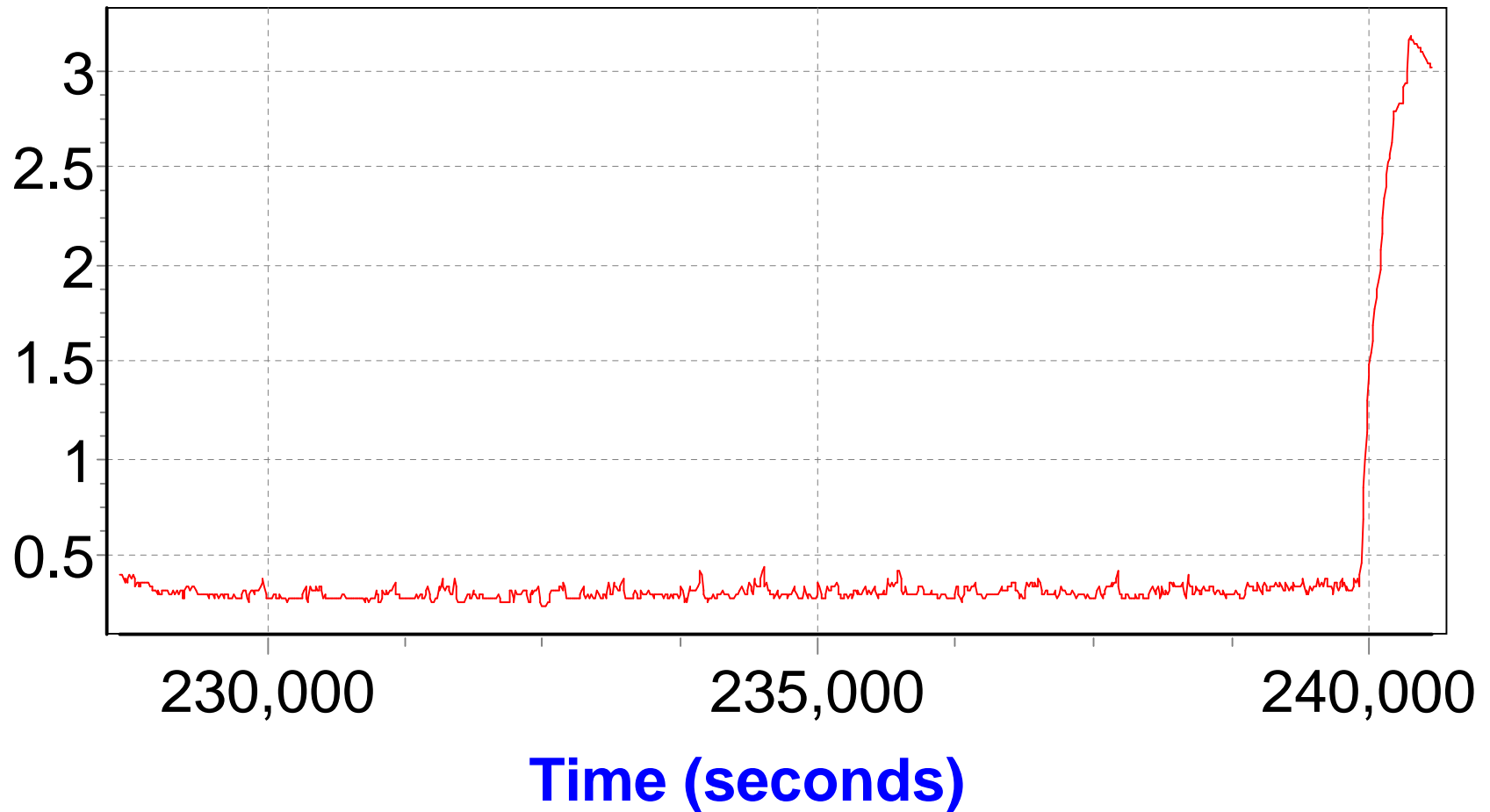
## S/D Navigator Y Velocity RMS Error (meters/seconds)



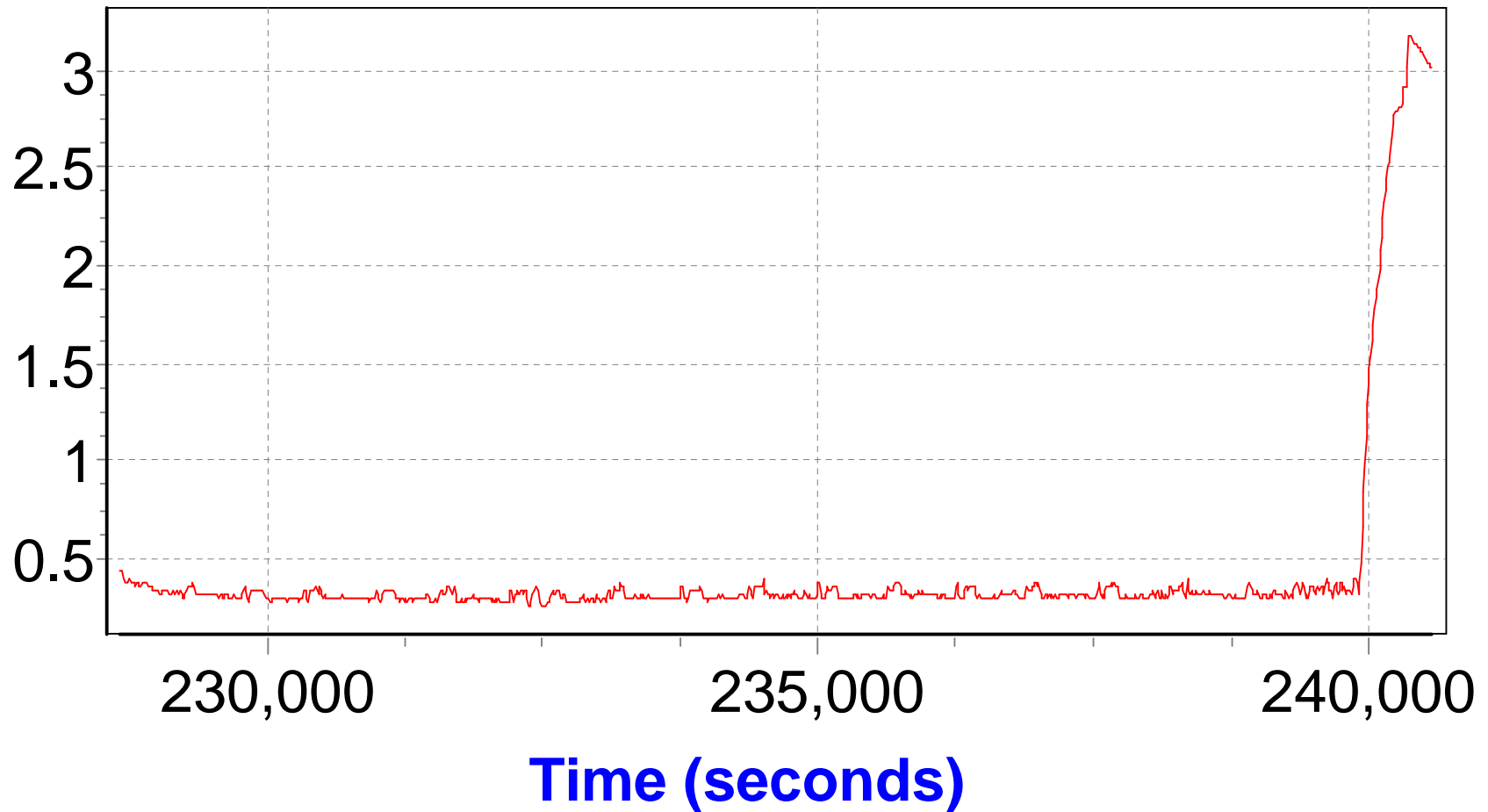
## S/D Navigator Z Velocity RMS Error (meters/seconds)



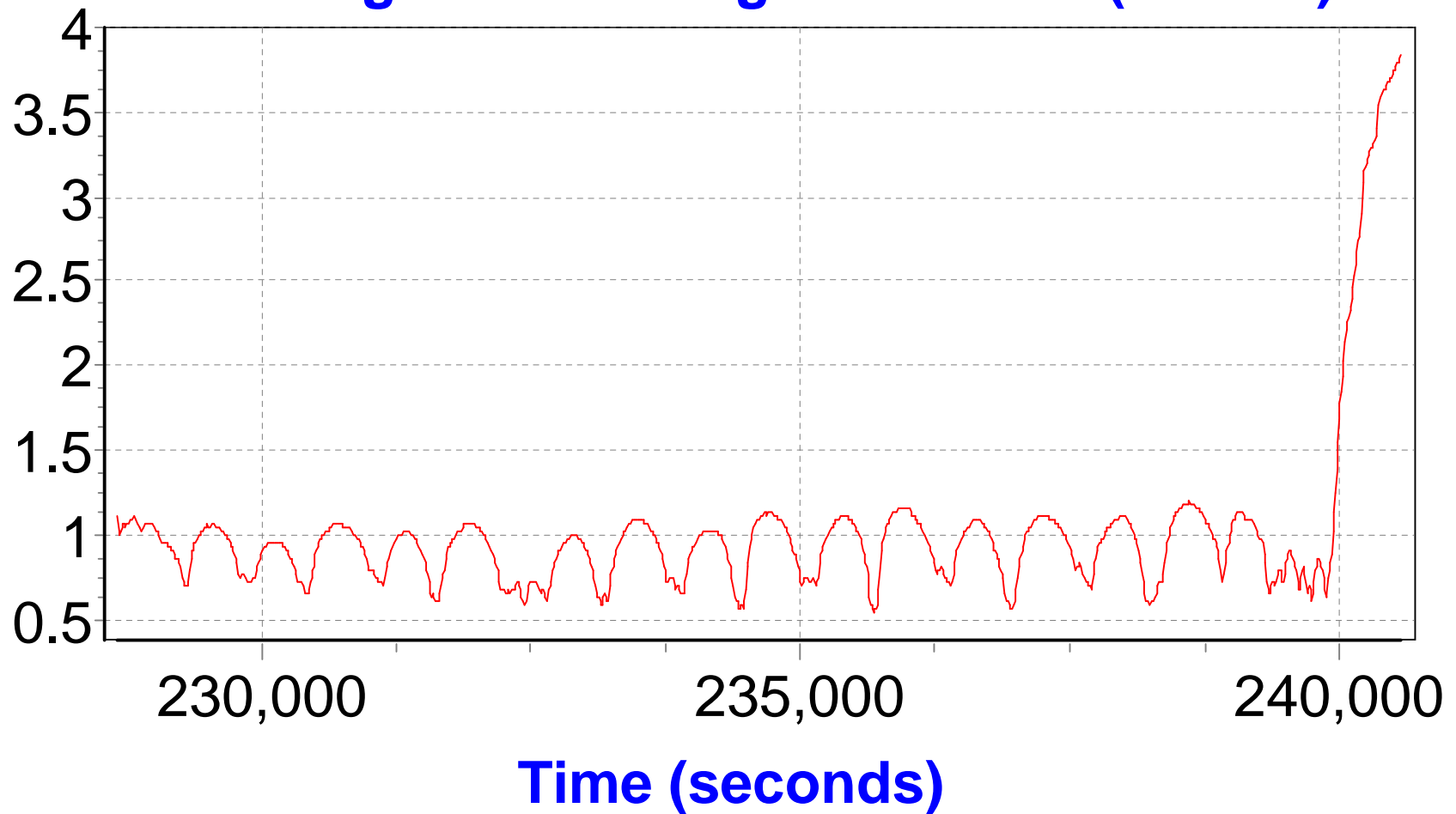
## S/D Navigator X Misalignment RMS (arcmin)



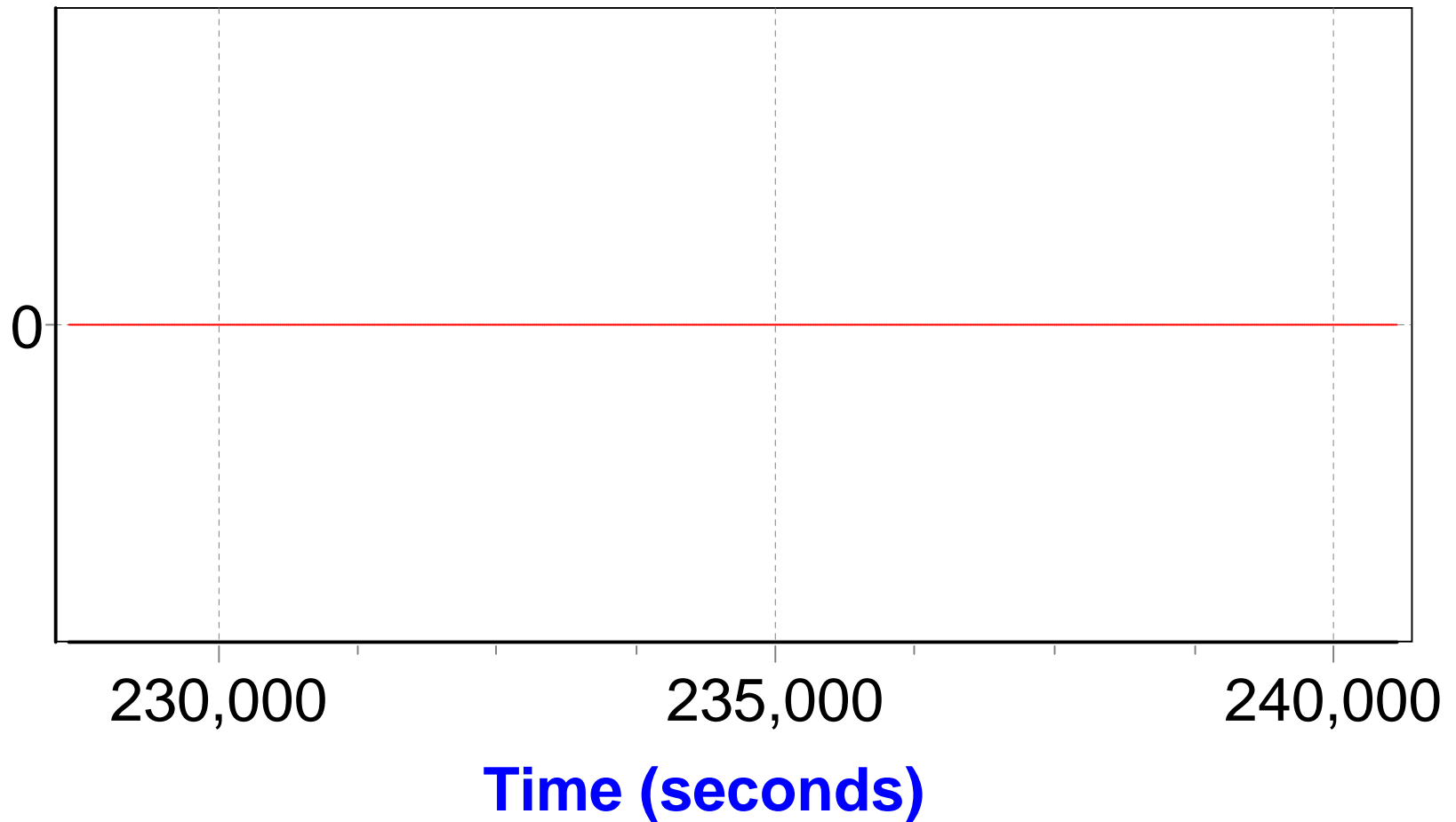
## S/D Navigator Y Misalignment RMS (arcmin)



## S/D Navigator Z Misalignment RMS (arcmin)

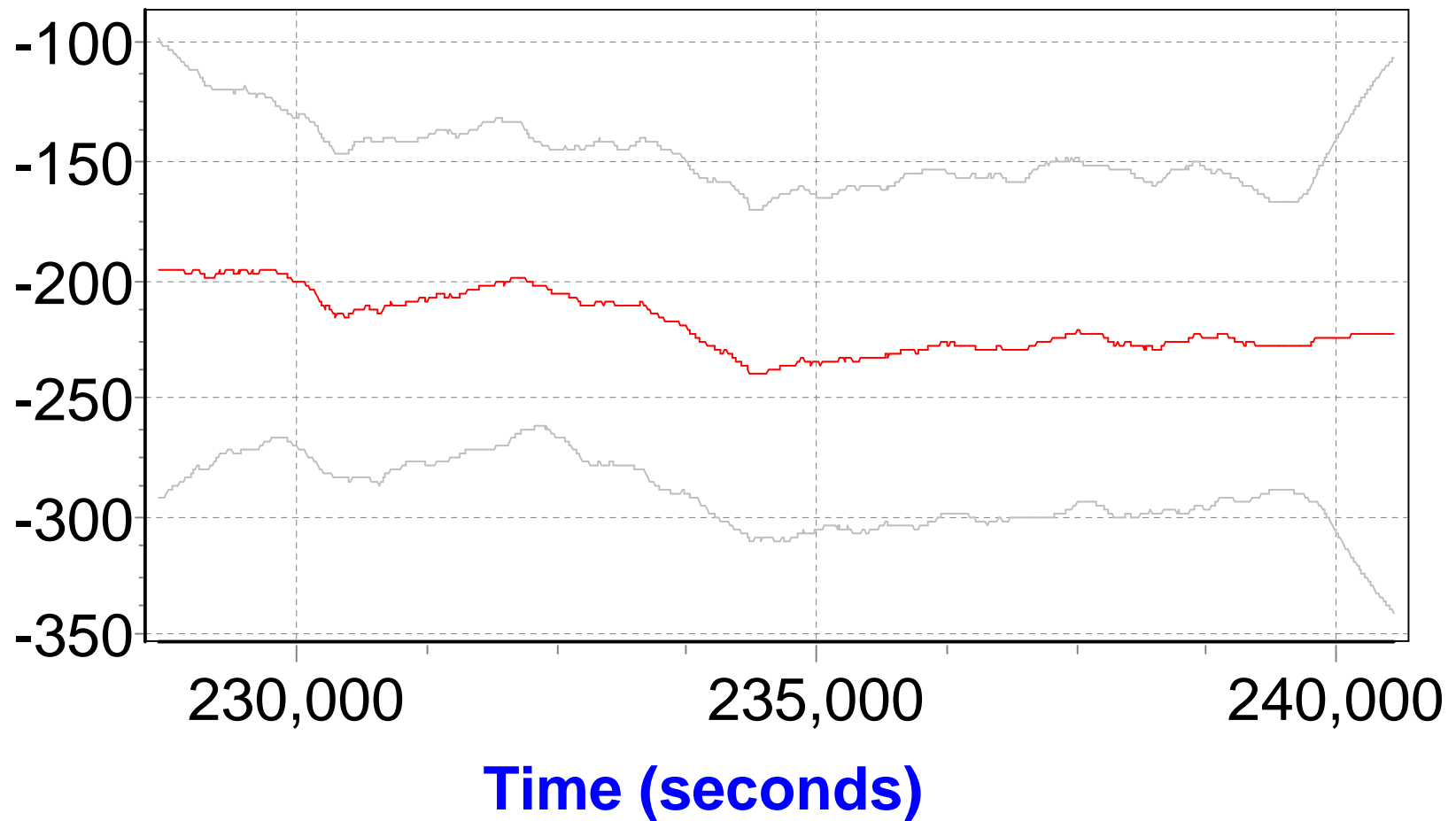


## S/D Navigator COS(Z Misalignment)-1 RMS (radians)





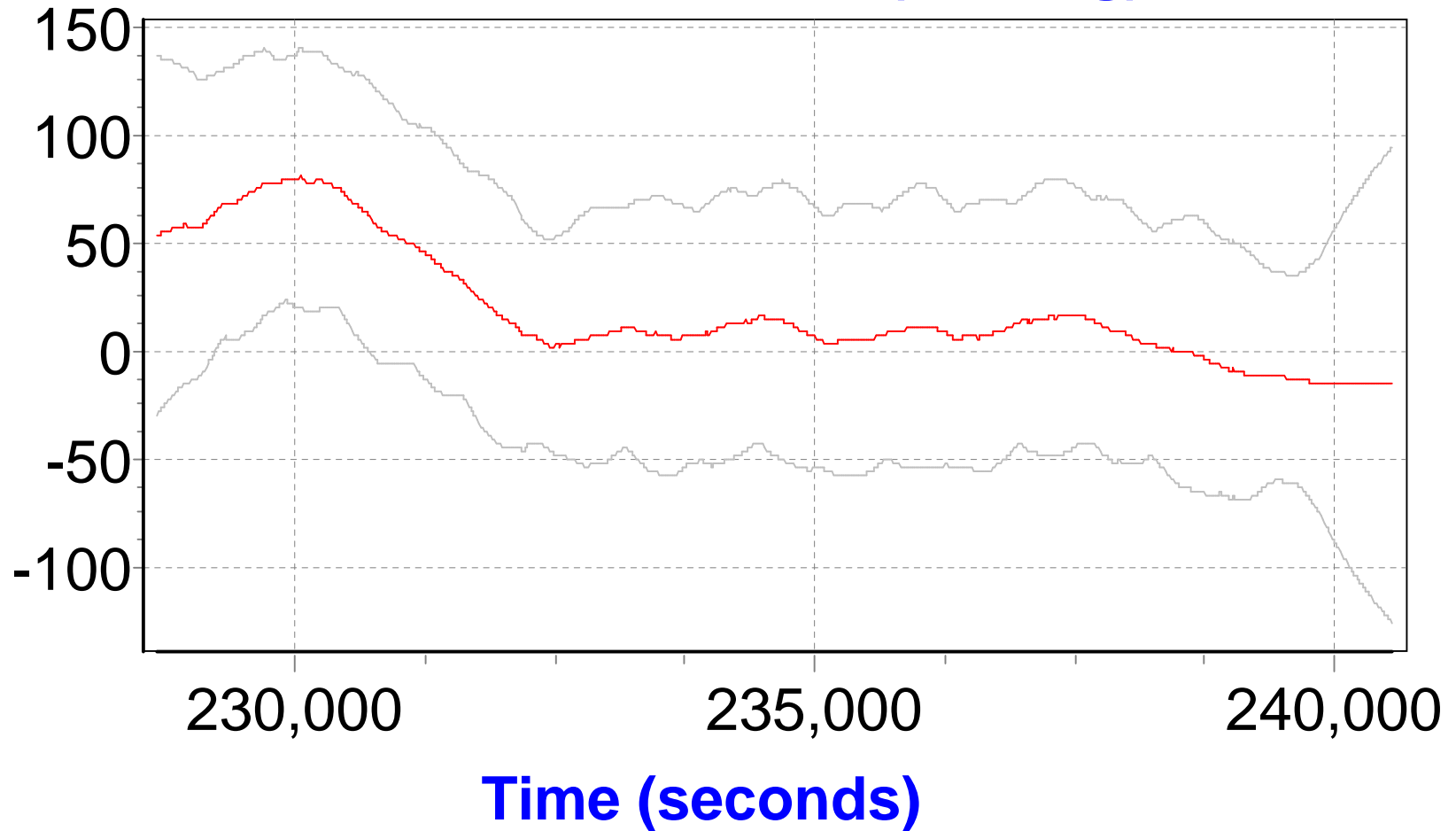
## X Accelerometer Bias (micro-g)



G:\o112094a\3\_Processed\Extract\smers\_o112094a.dat

G:\o112094a\3\_Processed\Extract\smrms\_o112094a.dat

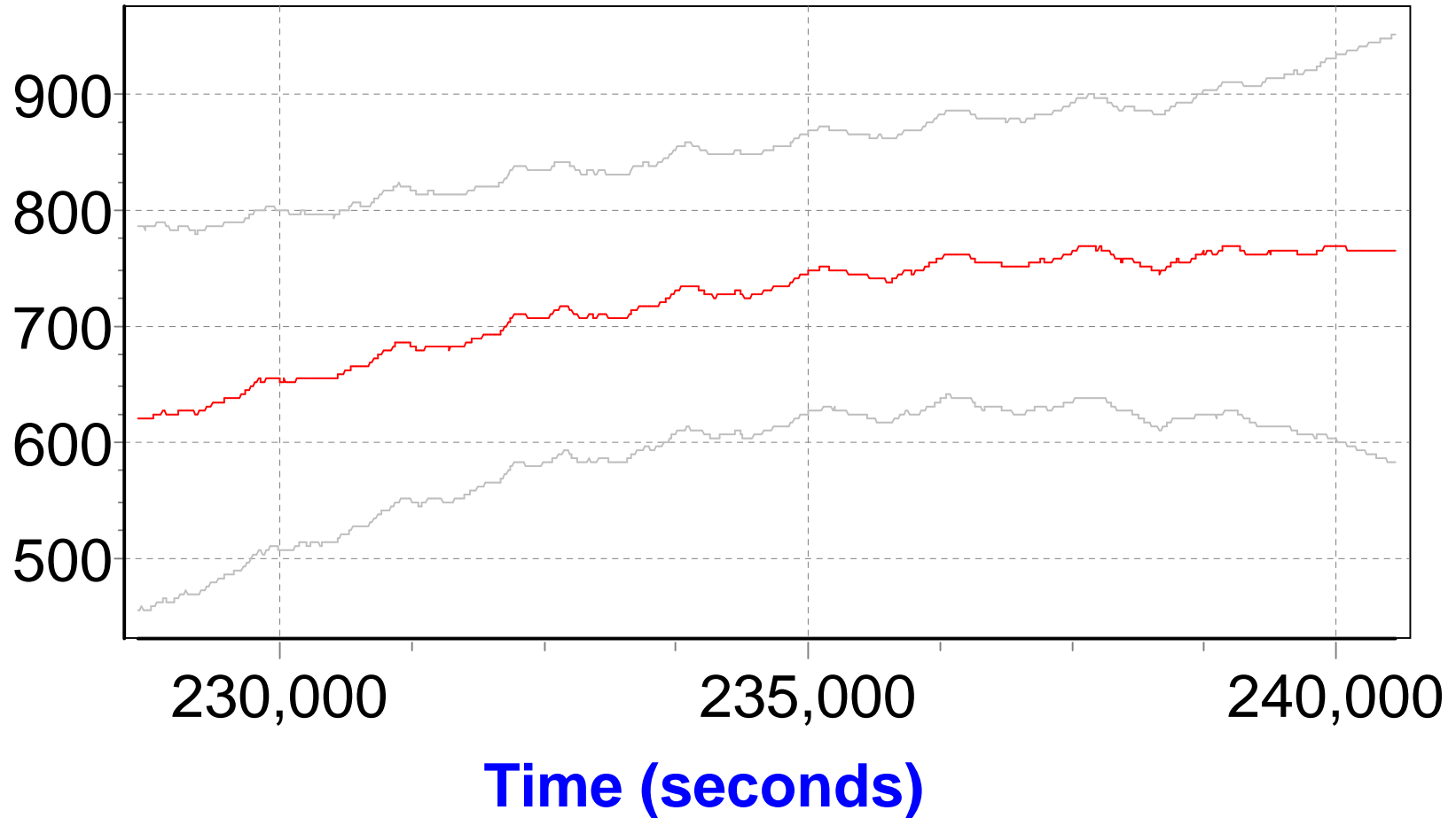
## Y Accelerometer Bias (micro-g)



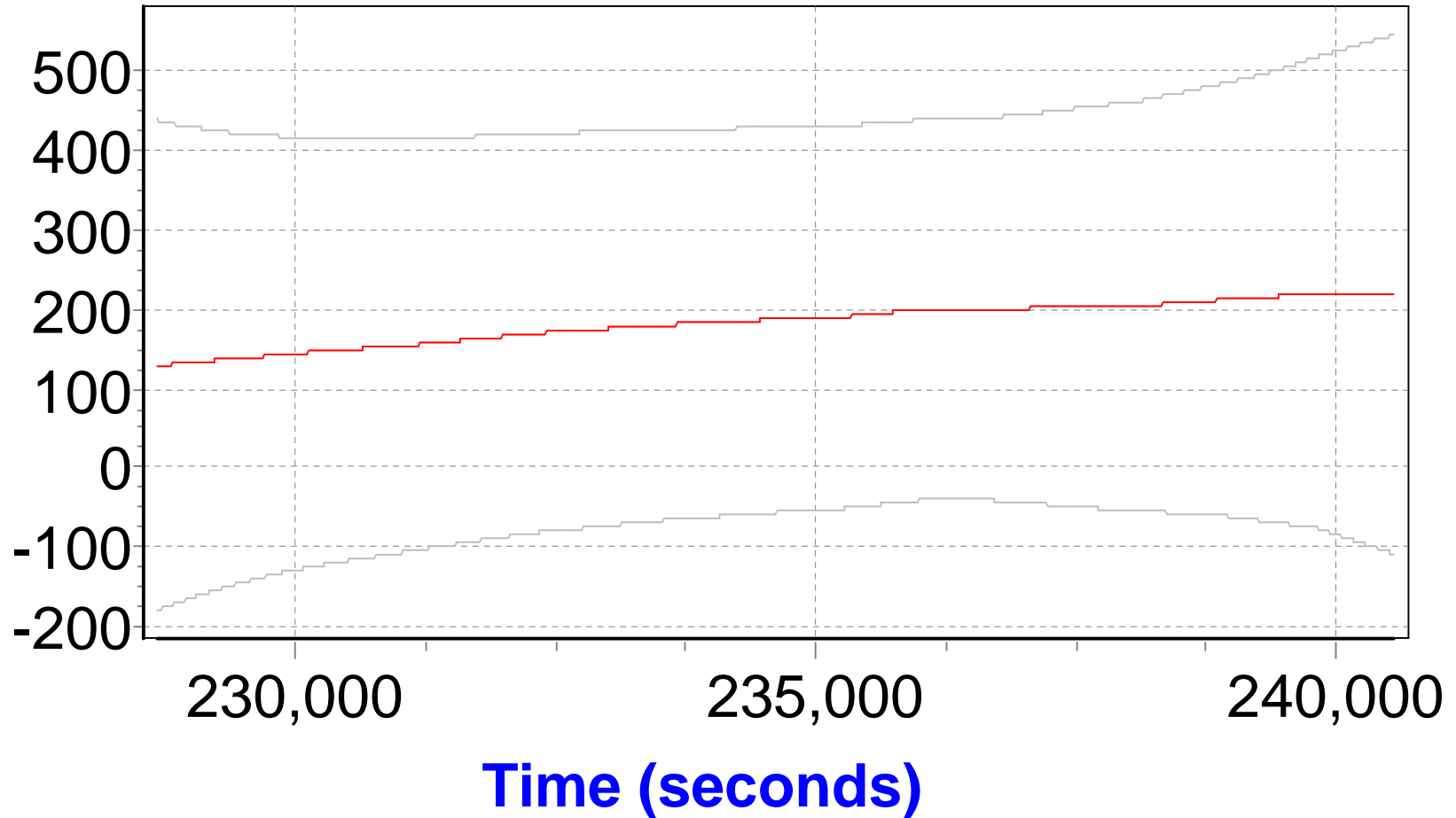
G:\o112094a\3\_Processed\Extract\smers\_o112094a.dat

G:\o112094a\3\_Processed\Extract\smrms\_o112094a.dat

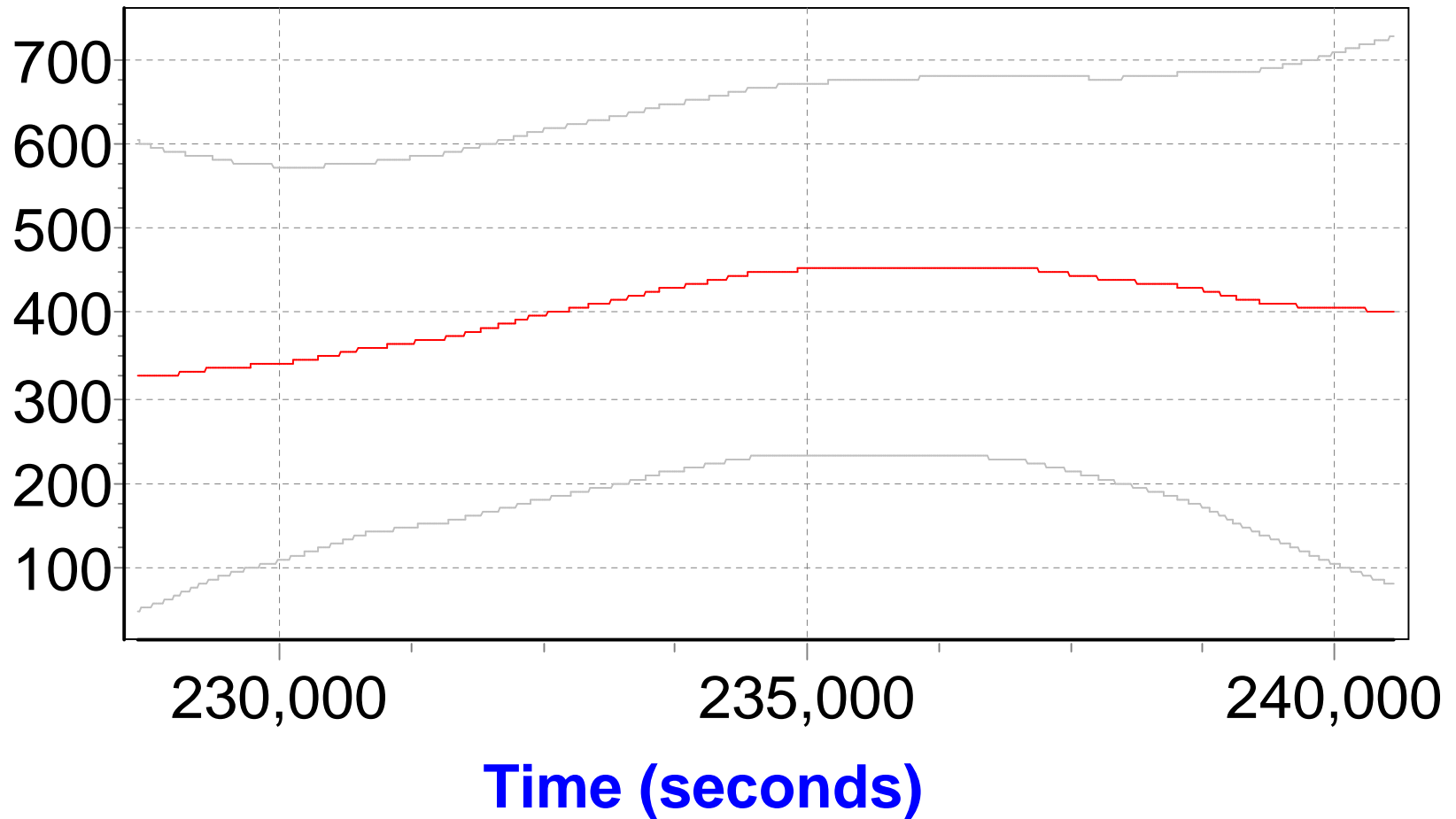
## Z Accelerometer Bias (micro-g)



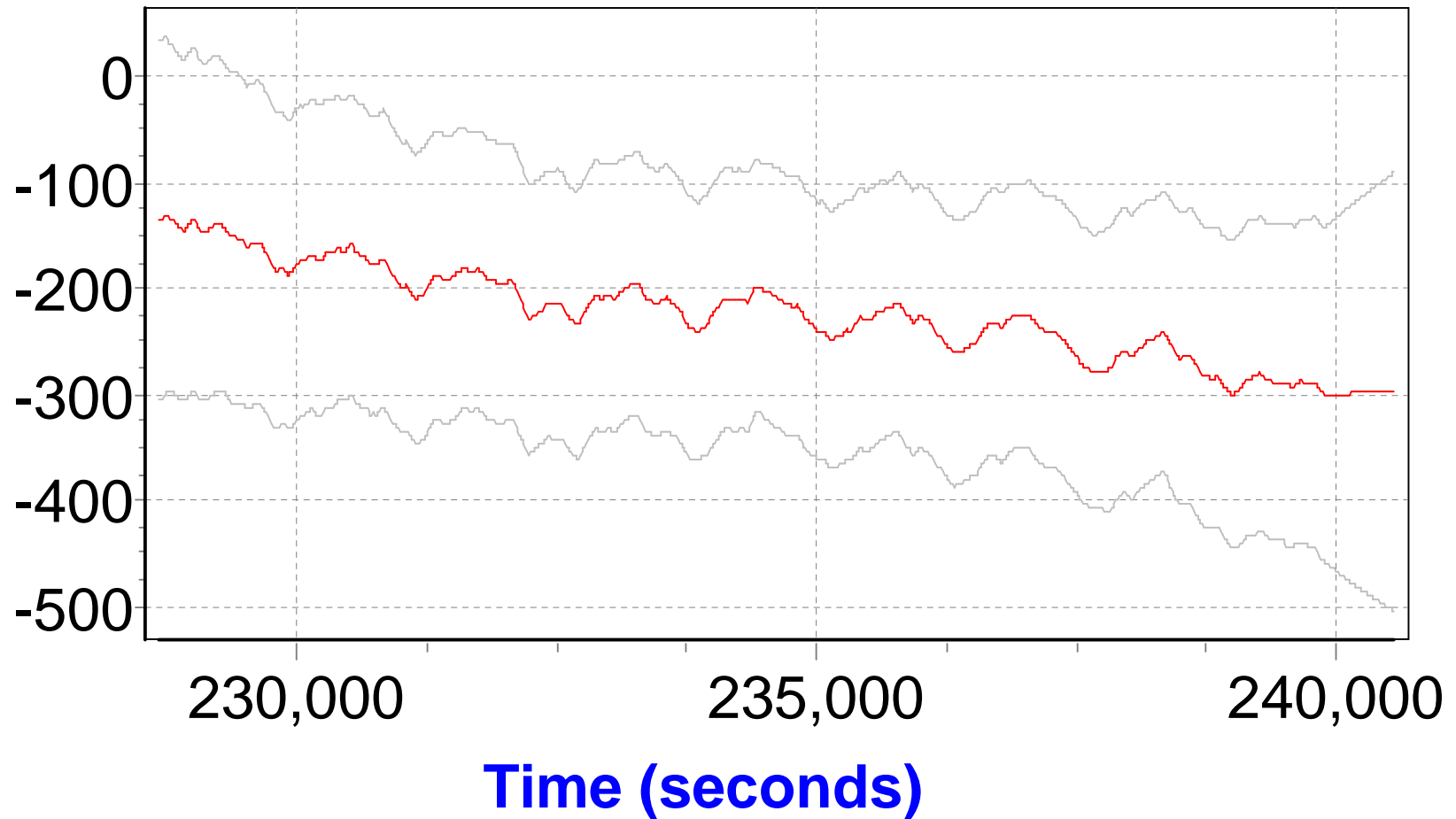
## X Accelerometer Scale Factor Error (ppm)



## Y Accelerometer Scale Factor Error (ppm)



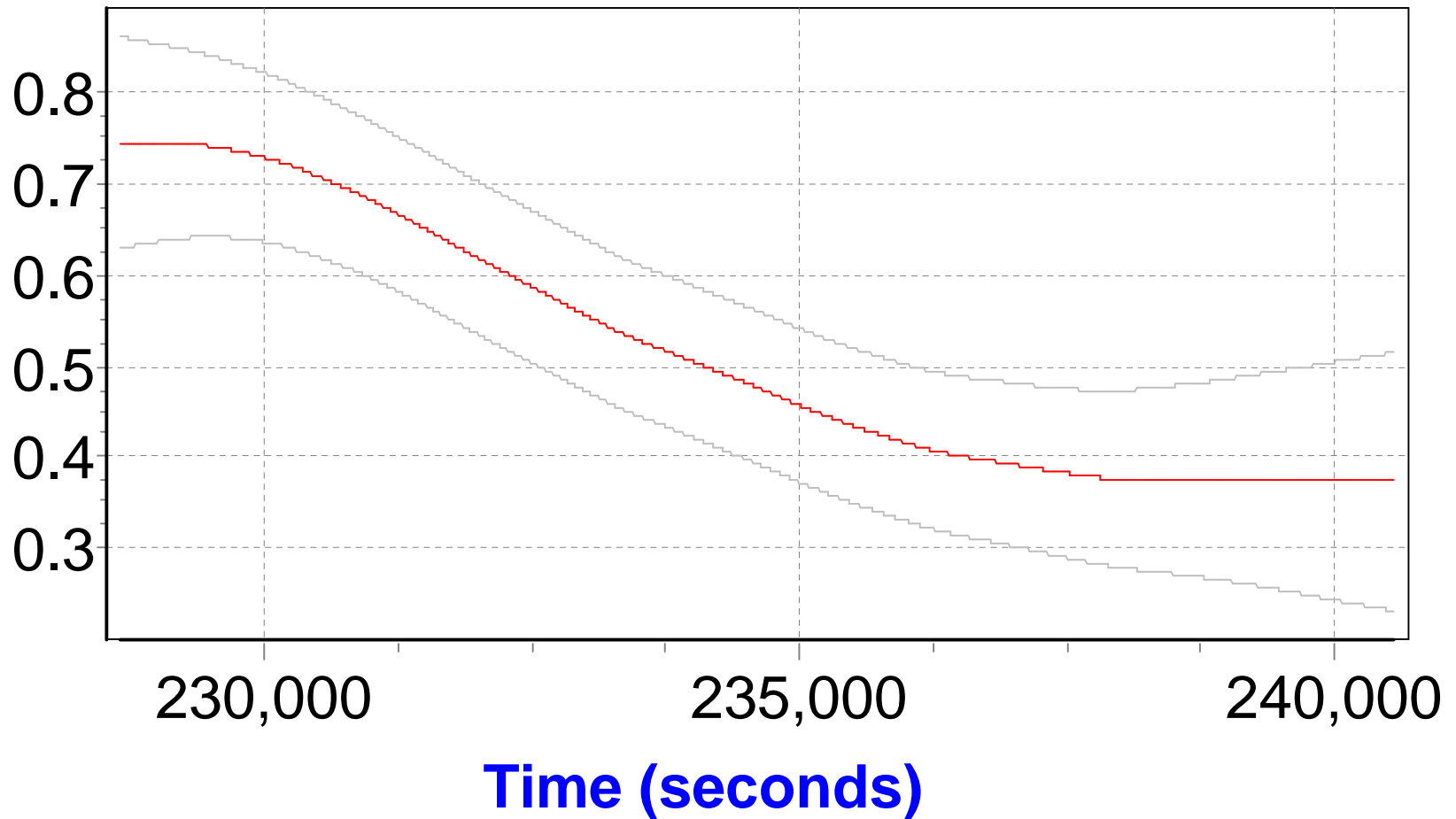
## Z Accelerometer Scale Factor Error (ppm)



G:\o112094a\3\_Processed\Extract\smers\_o112094a.dat

G:\o112094a\3\_Processed\Extract\smrms\_o112094a.dat

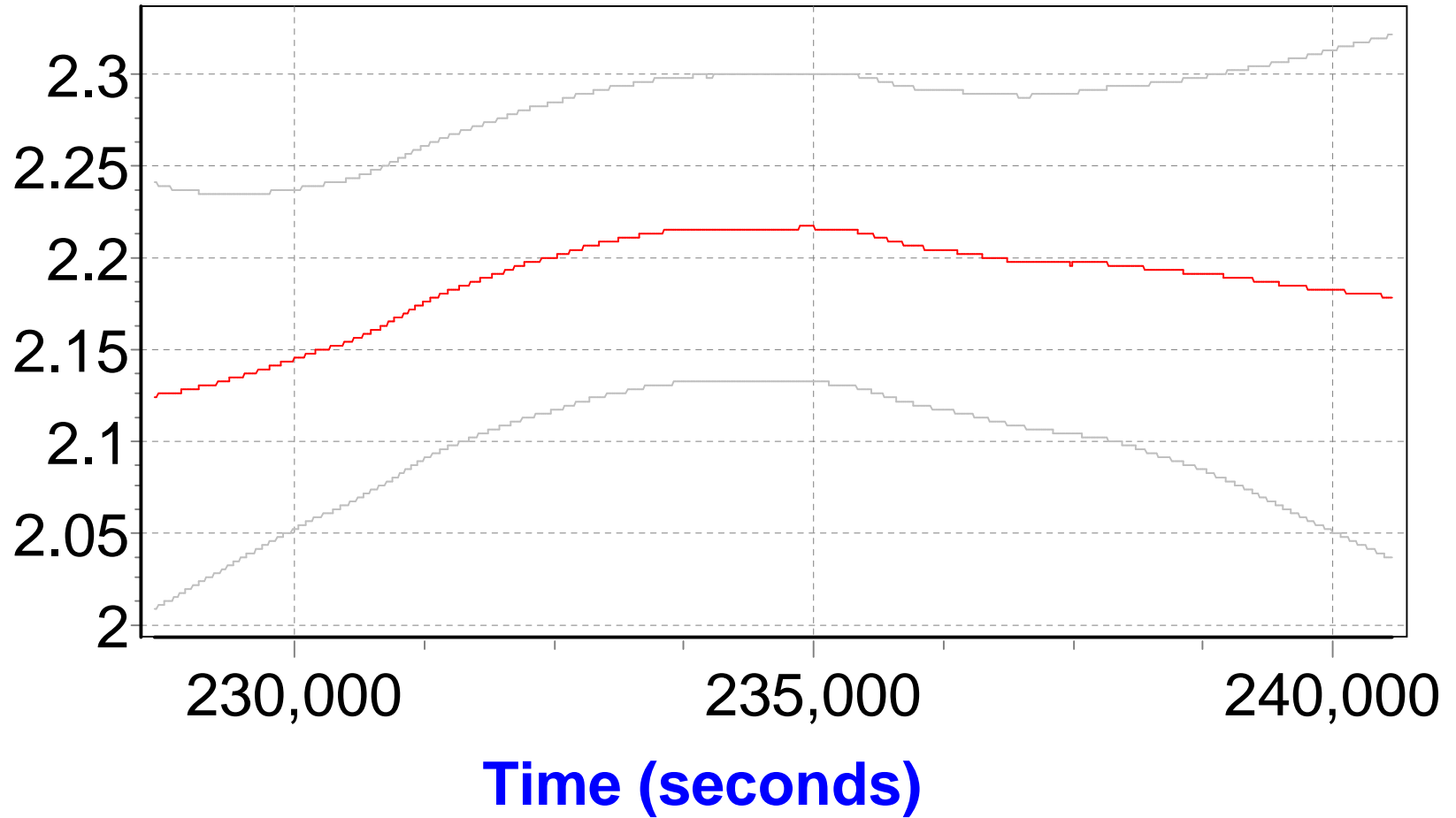
## X Gyro Bias (degrees/hour)



G:\o112094a\3\_Processed\Extract\smers\_o112094a.dat

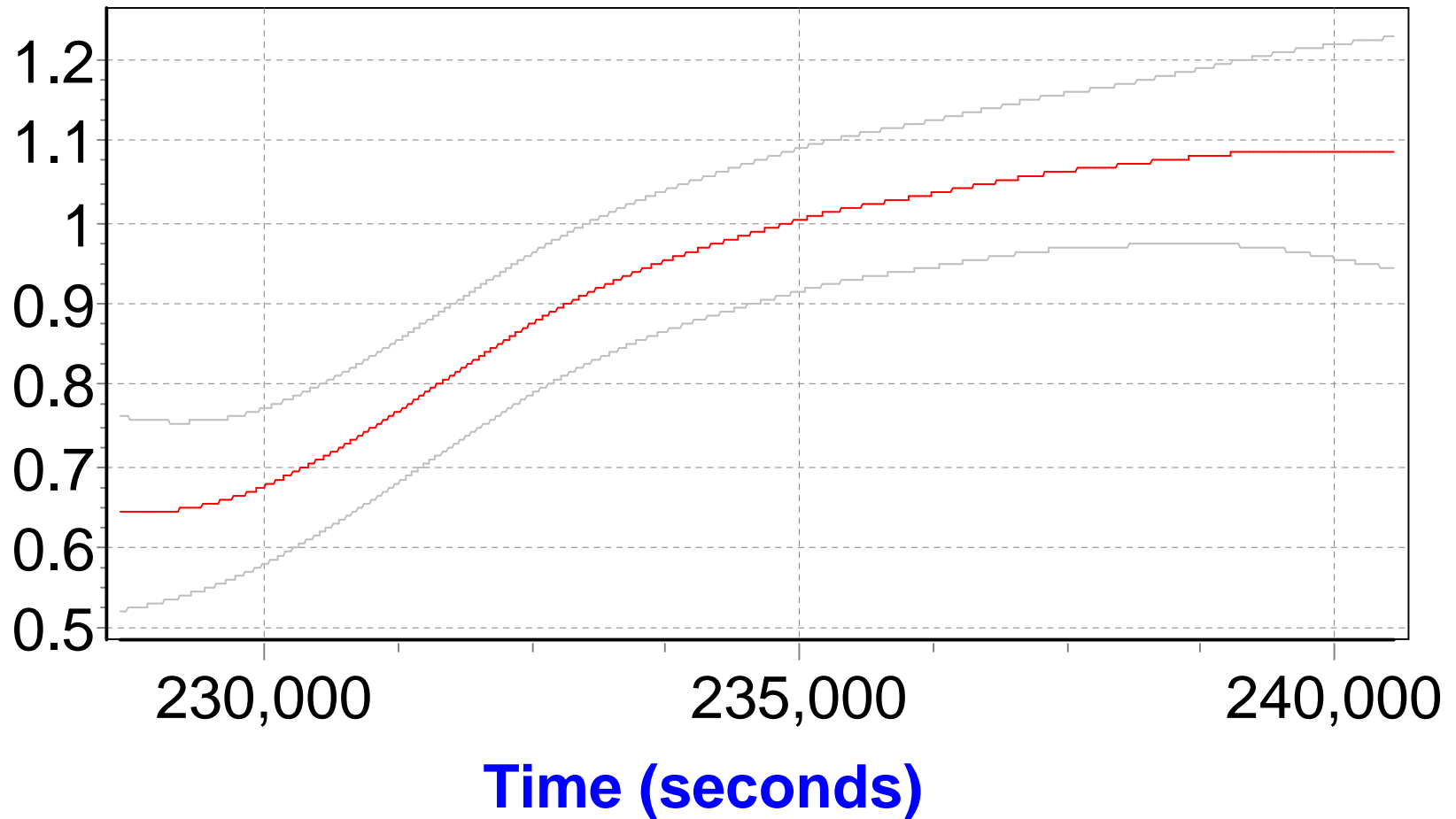
G:\o112094a\3\_Processed\Extract\smrms\_o112094a.dat

## Y Gyro Bias (degrees/hour)

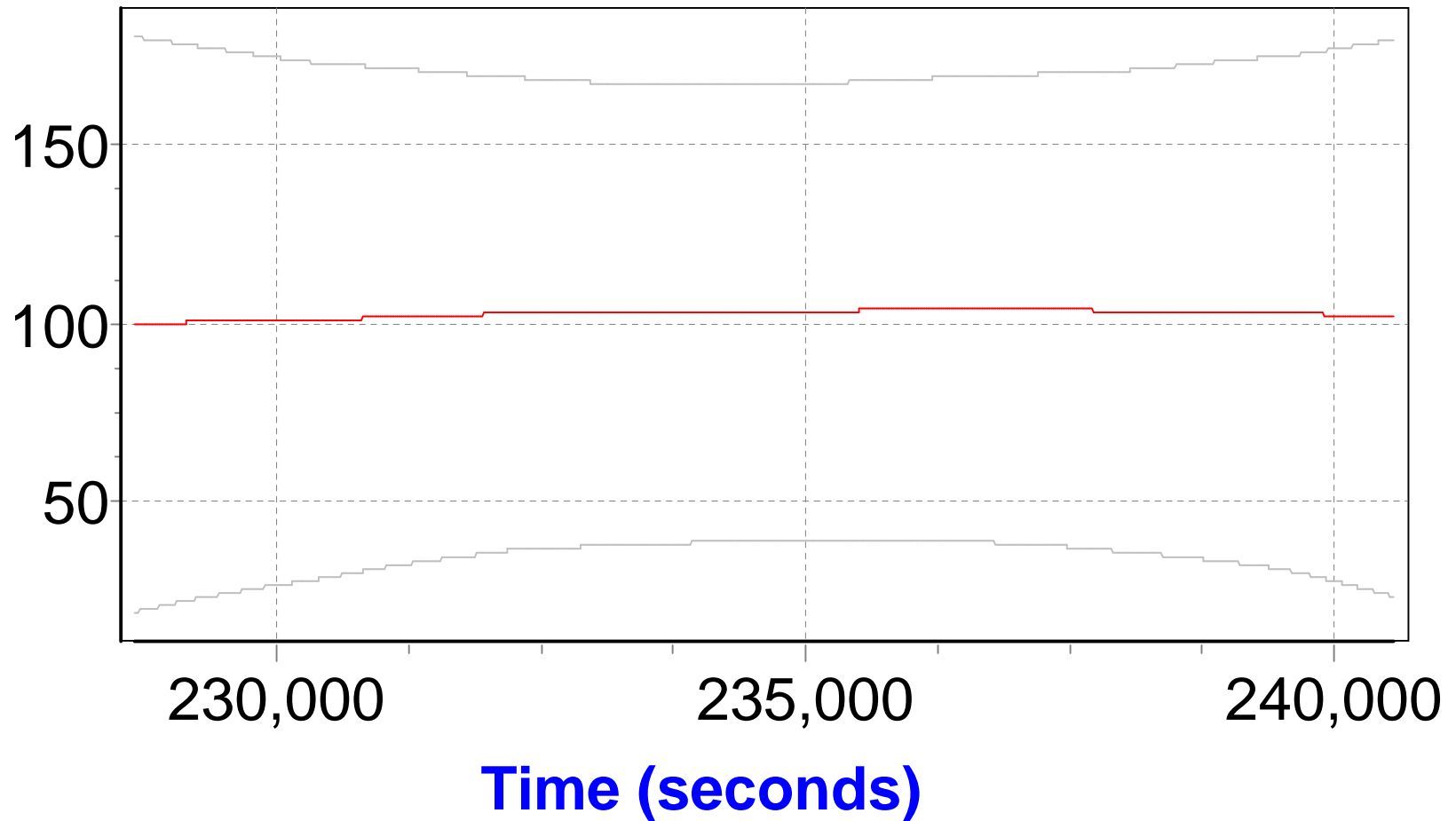




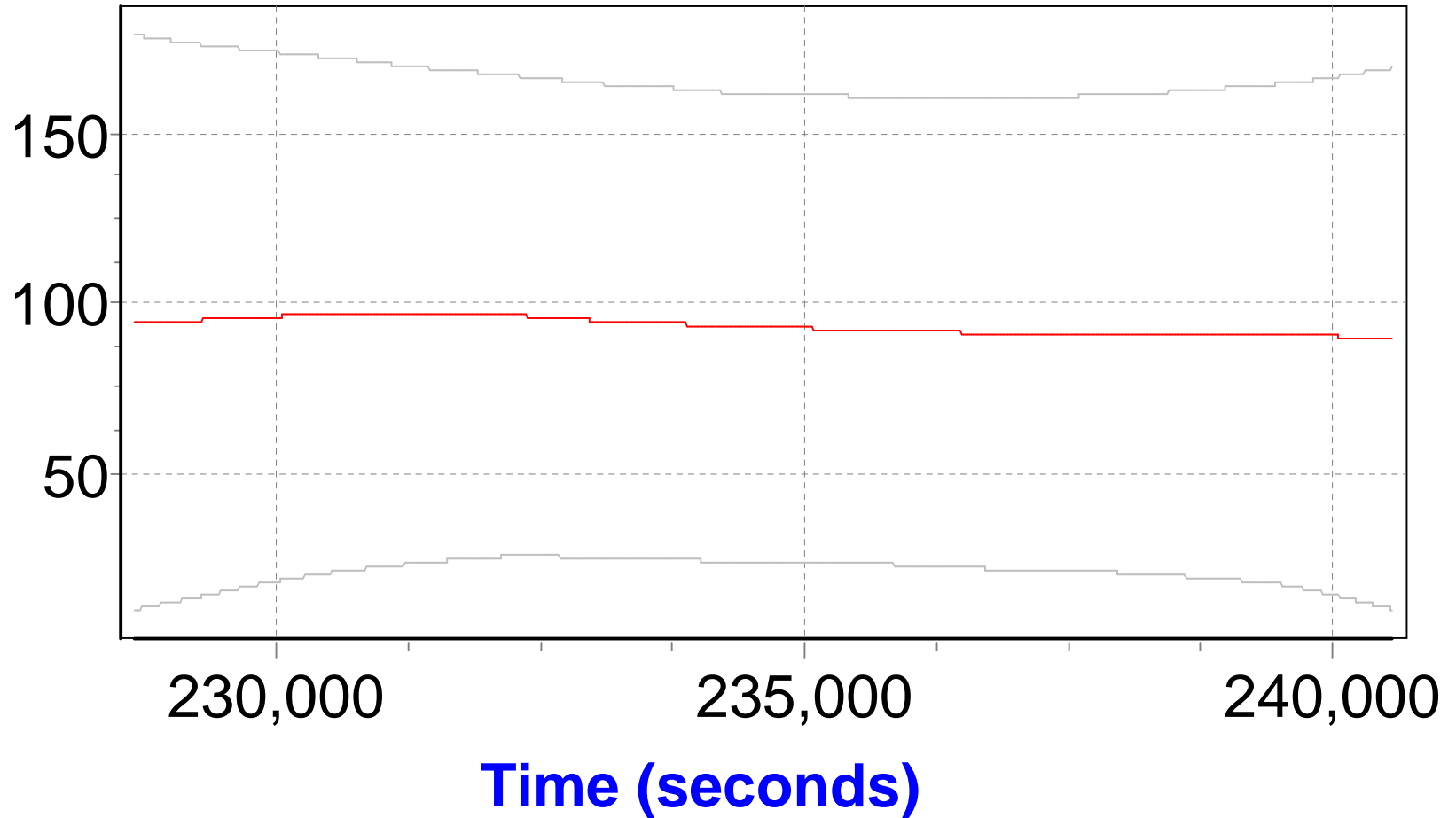
## Z Gyro Bias (degrees/hour)



## X Gyro Scale Factor Error (ppm)



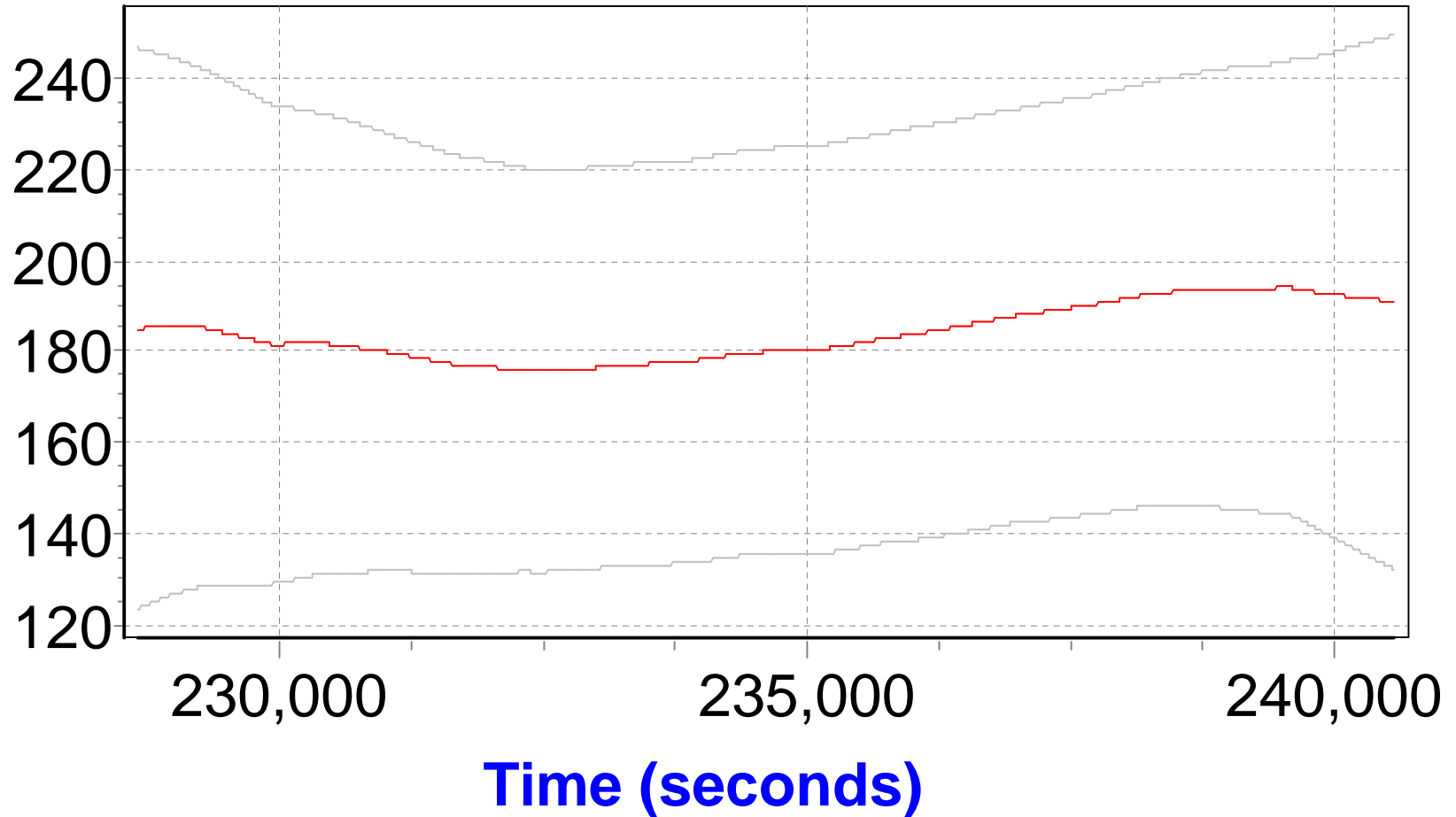
## Y Gyro Scale Factor Error (ppm)



G:\o112094a\3\_Processed\Extract\smers\_o112094a.dat

G:\o112094a\3\_Processed\Extract\smrms\_o112094a.dat

## Z Gyro Scale Factor Error (ppm)

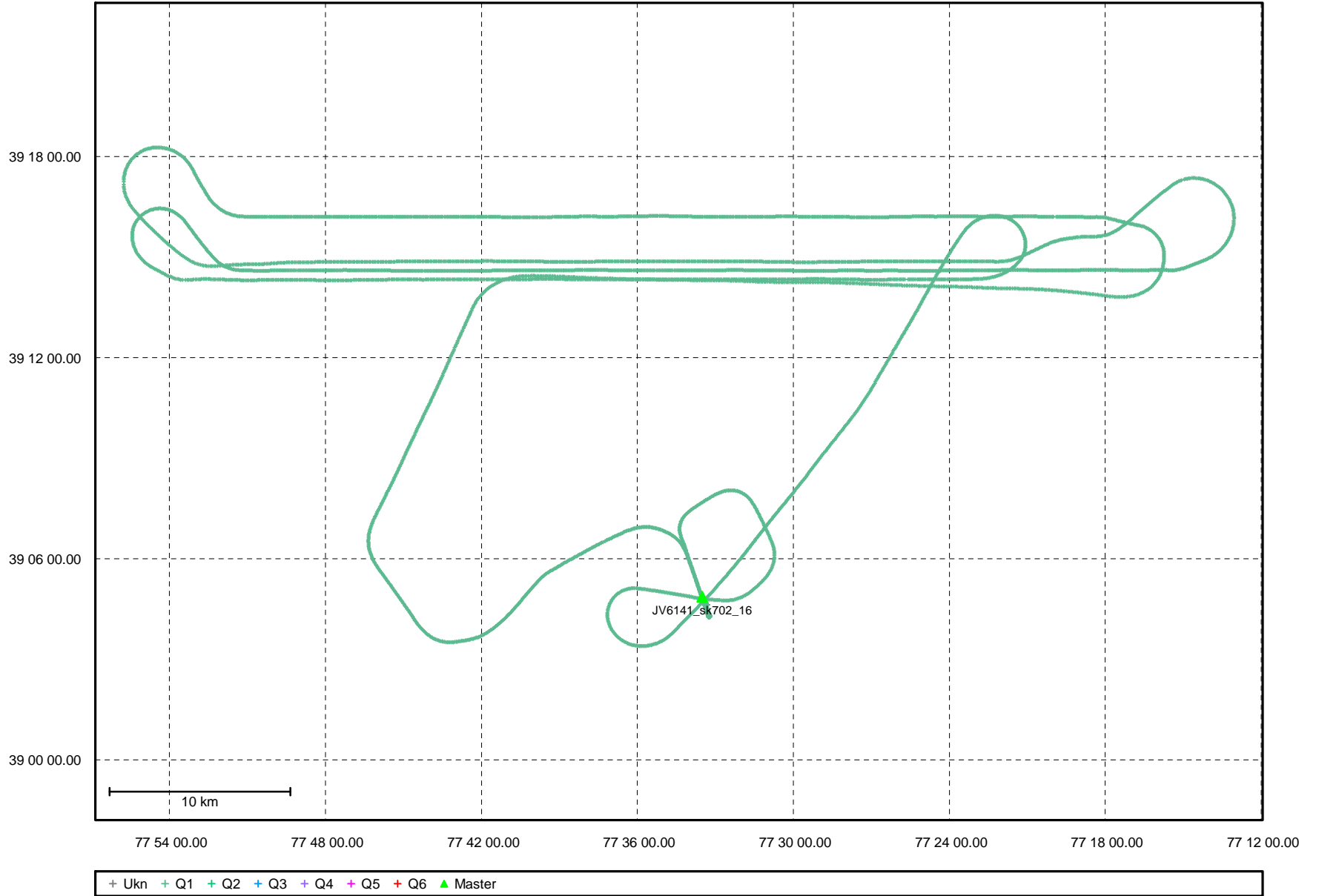


G:\o112094a\3\_Processed\Extract\smers\_o112094a.dat

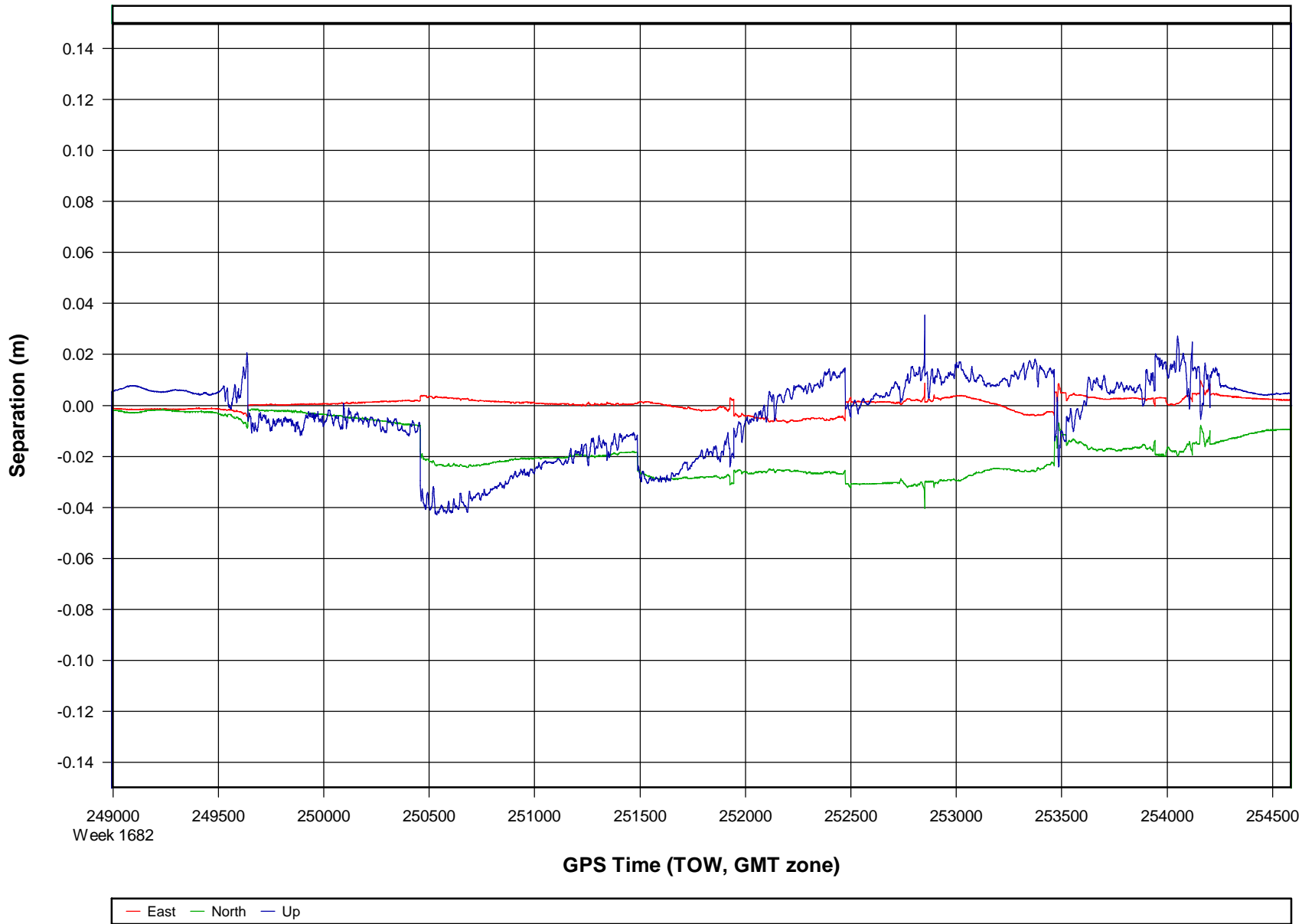
G:\o112094a\3\_Processed\Extract\smrms\_o112094a.dat

# Combined - Map Run (1)

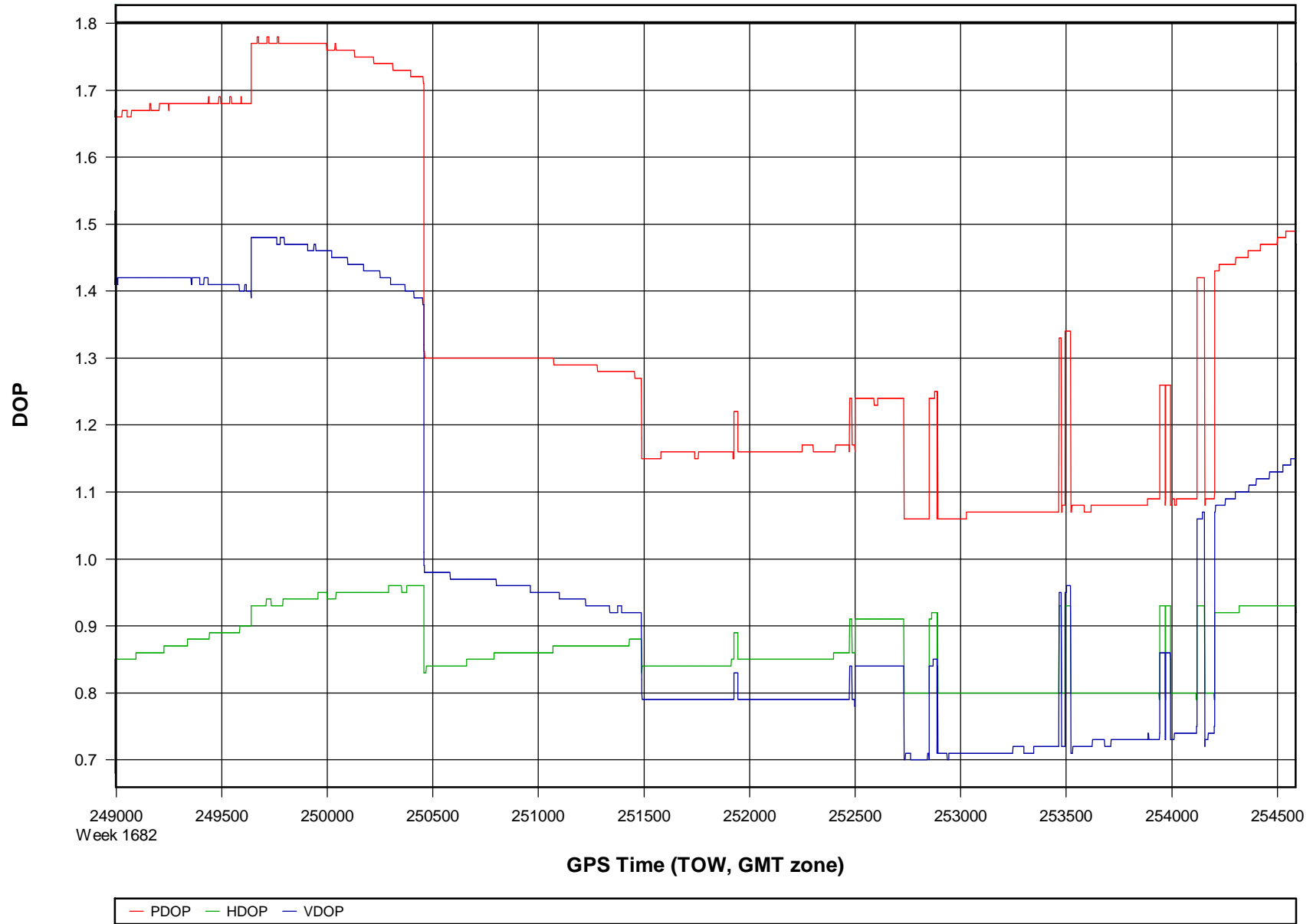
Geographic, DMS



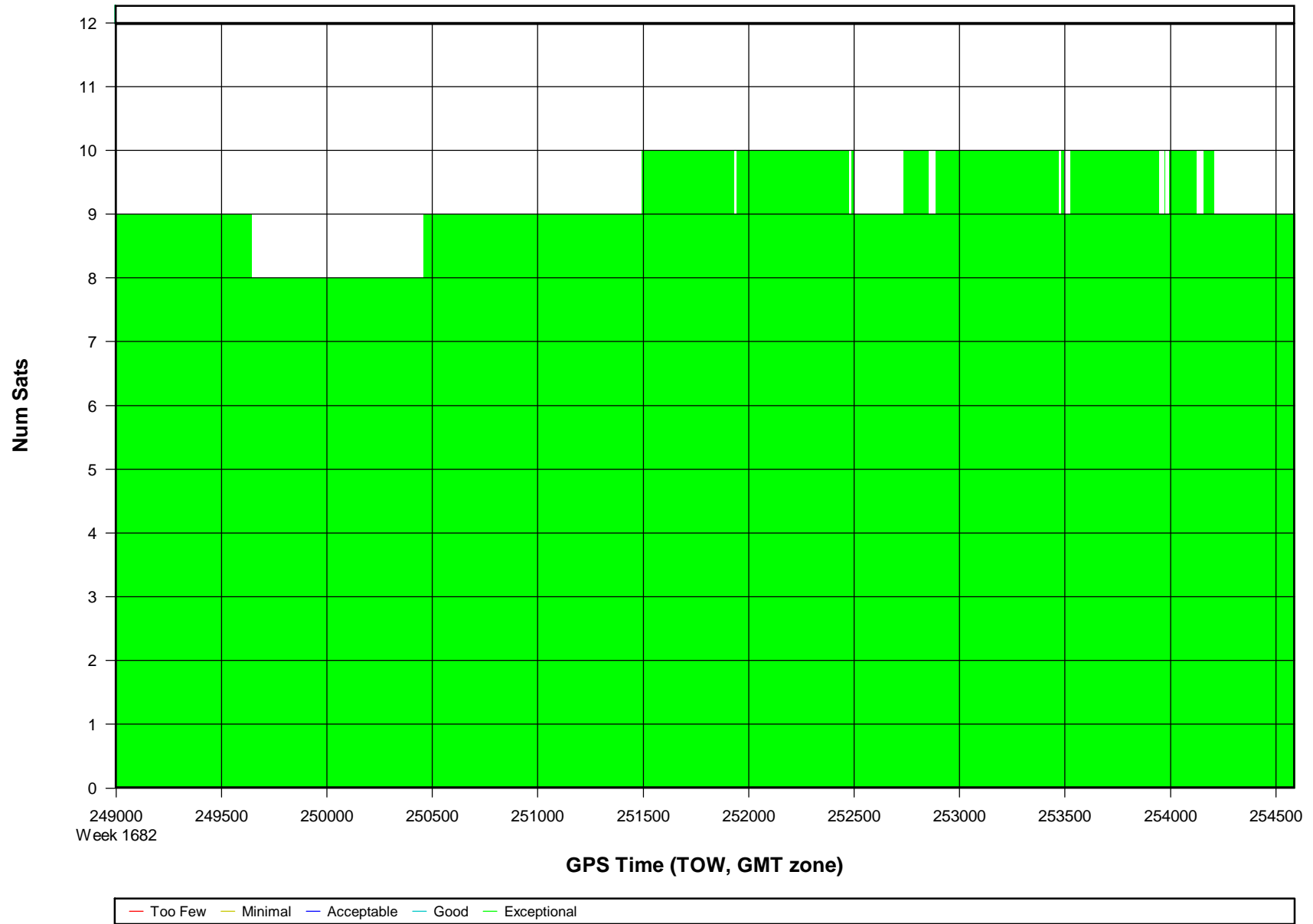
### o112094b [Combined] - Forward/Reverse or Combined Separation Plot



### o112094b [Combined] - PDOP, HDOP, VDOP Plots

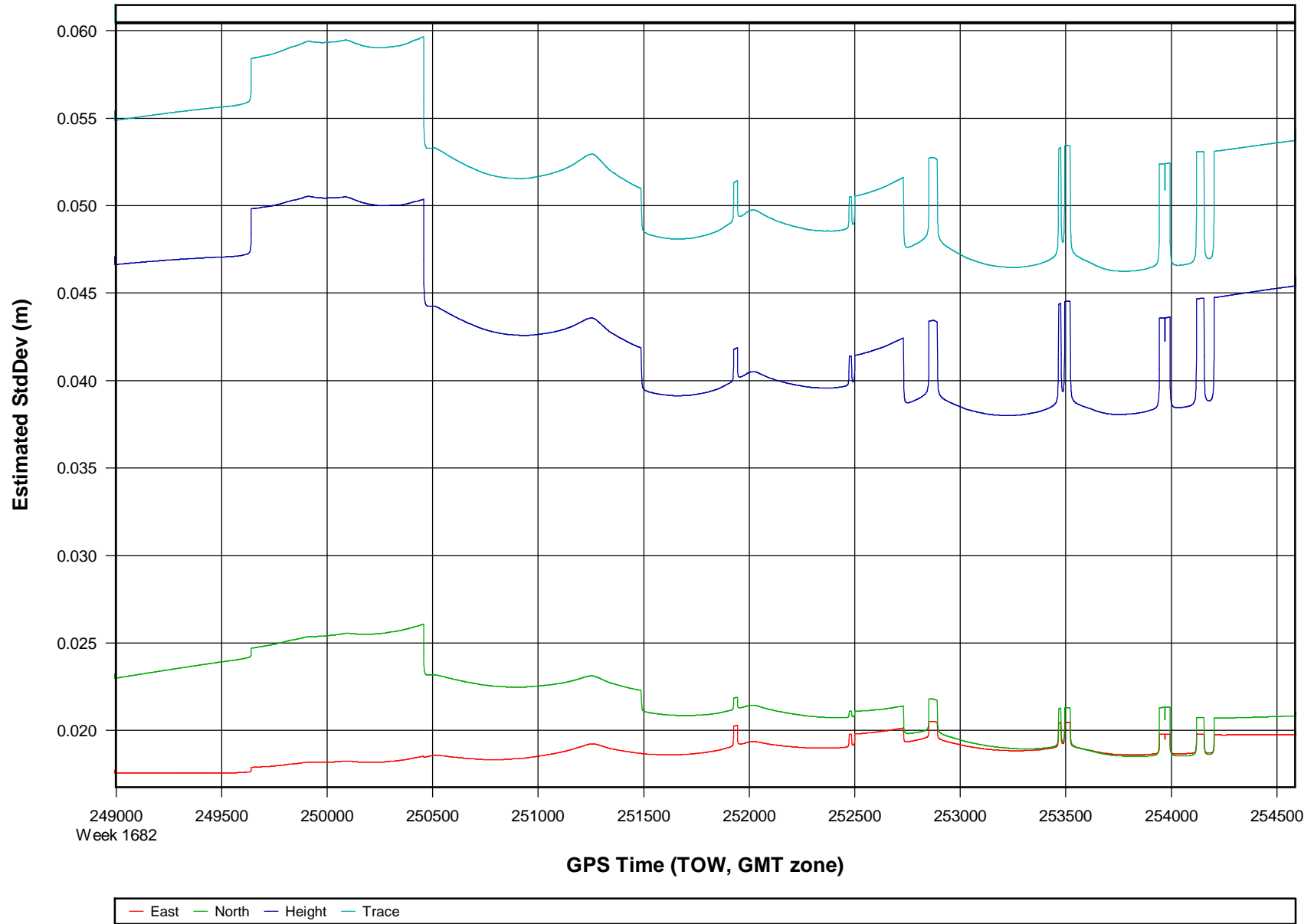


**o112094b [Combined] - Number of Satellites Bar Plot**





### o112094b [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112094b\3\_Processed\GPS\o112094b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 56104  
No processed position: 50511  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0198 (m)  
C/A Code: 0.64 (m)  
L1 Doppler: 0.026 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.003 (m)  
North: 0.022 (m)  
Height: 0.017 (m)

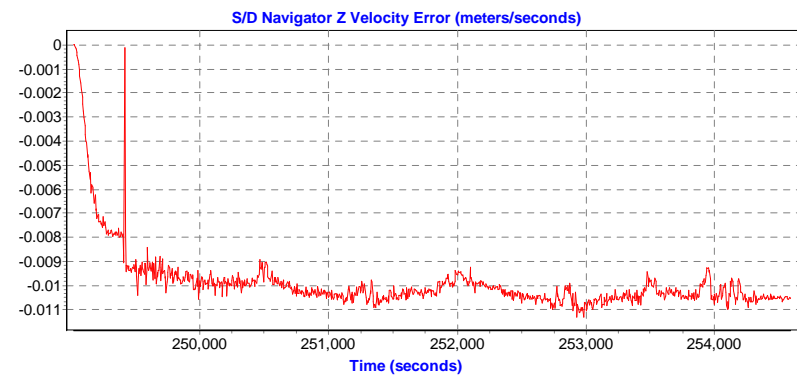
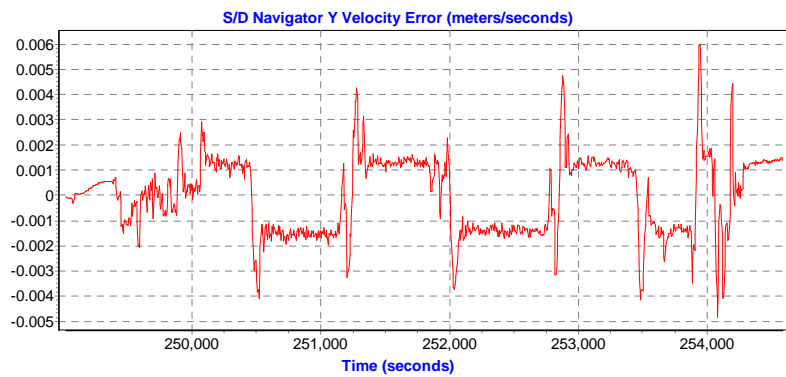
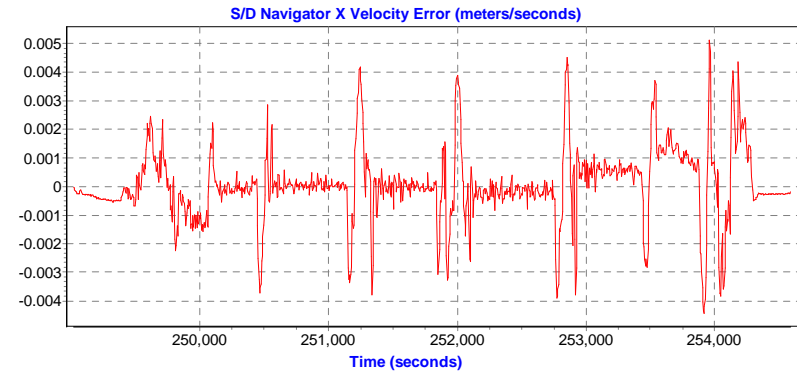
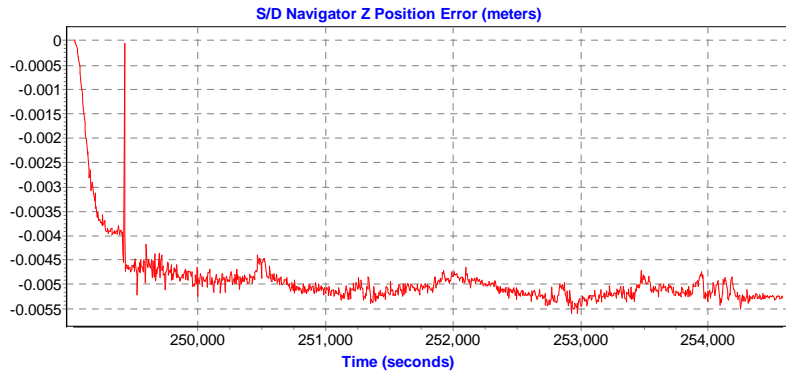
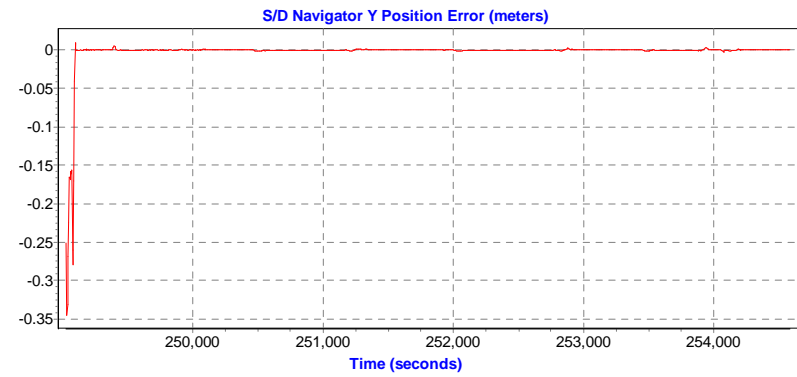
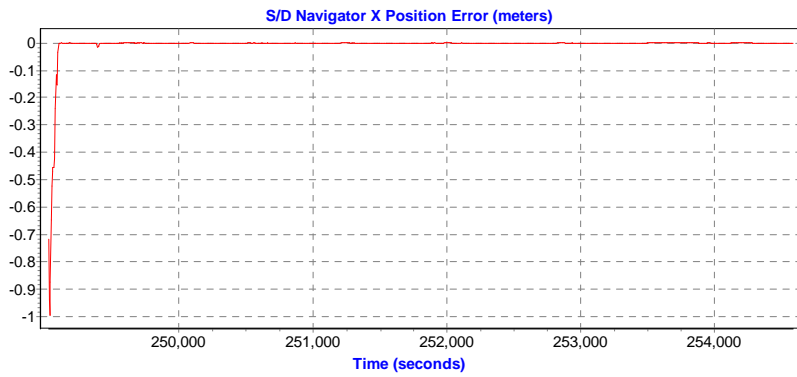
Fwd/Rev Sep. RMS for 25%-75% weighting (5588 occurrences):  
East: 0.003 (m)  
North: 0.020 (m)  
Height: 0.016 (m)

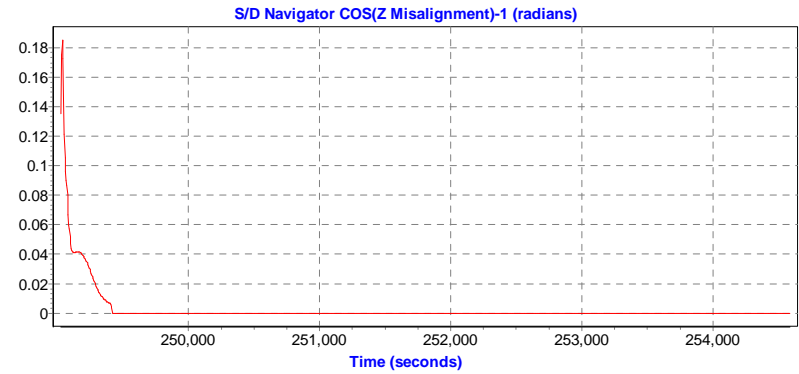
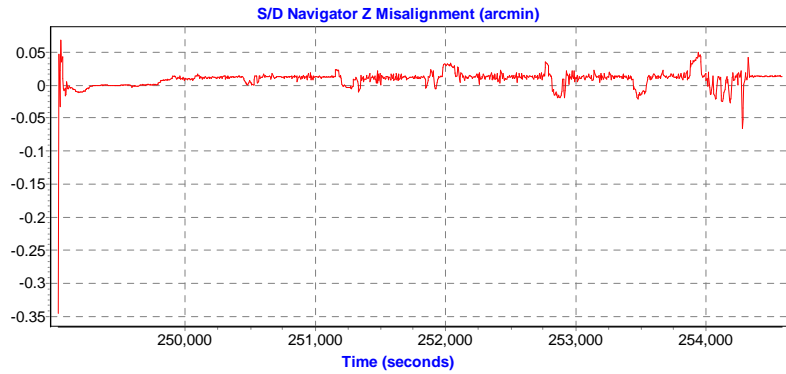
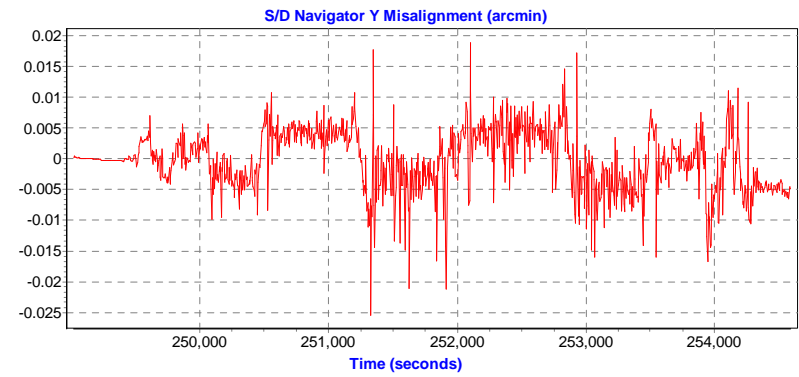
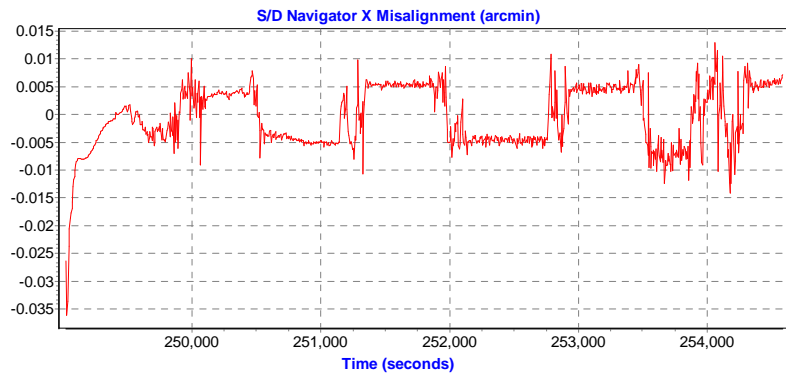
Quality Number Percentages:  
Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

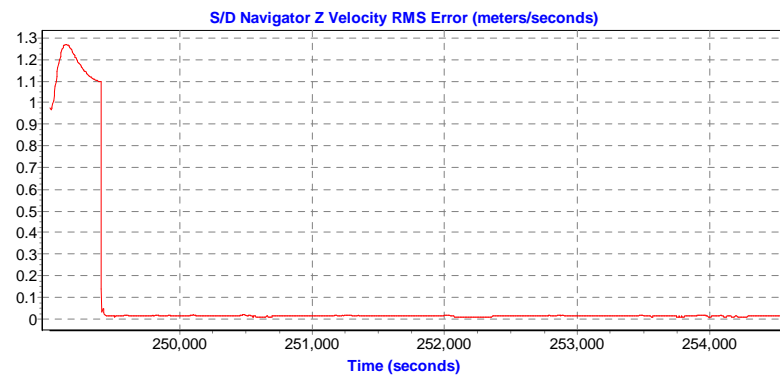
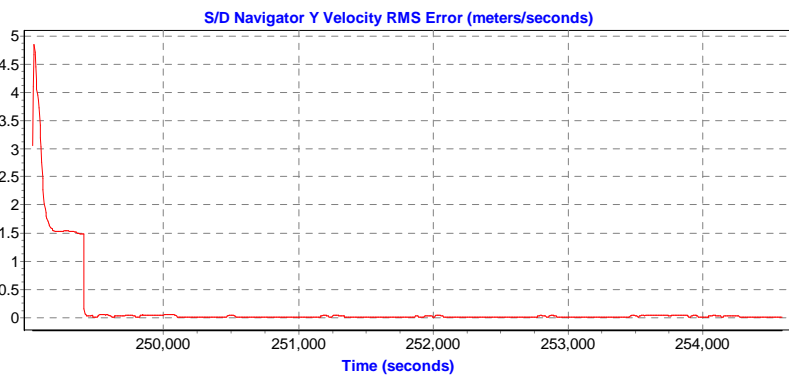
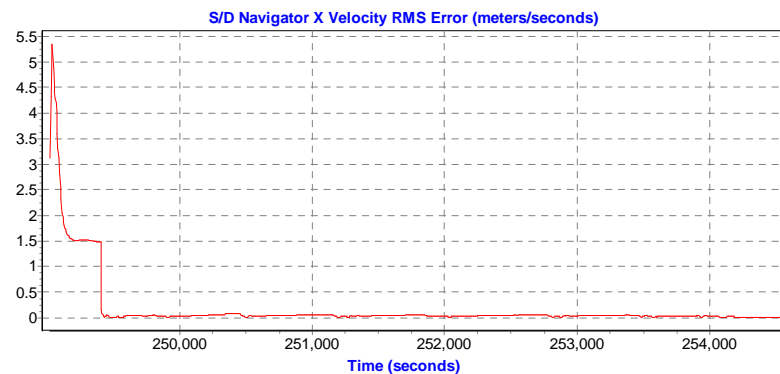
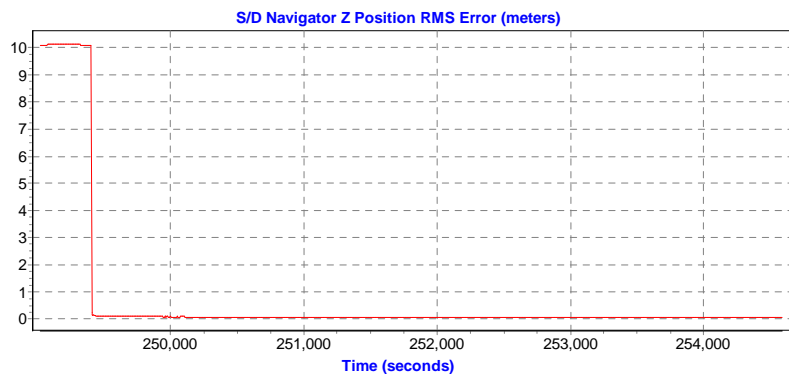
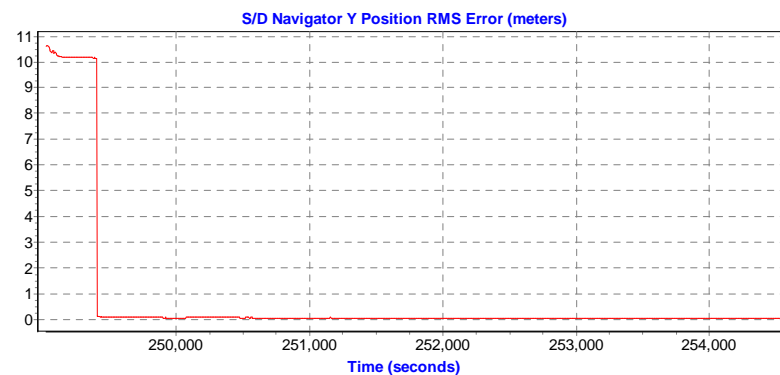
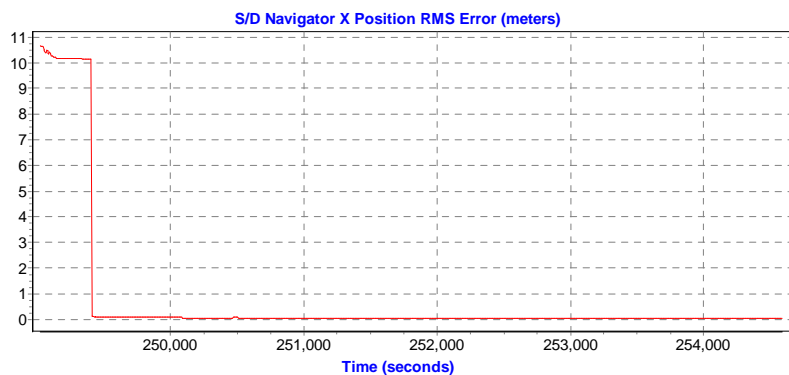
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

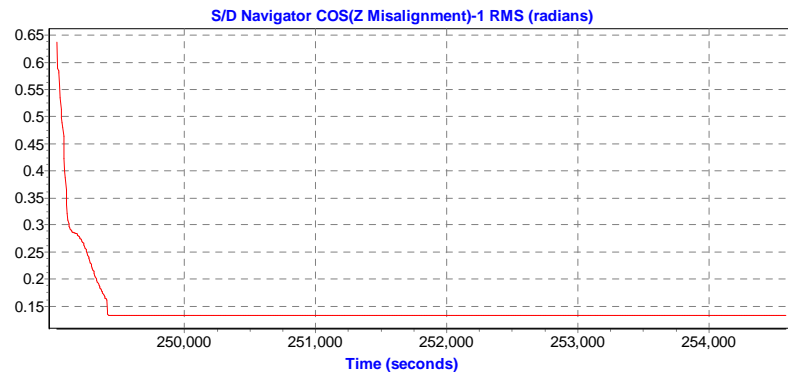
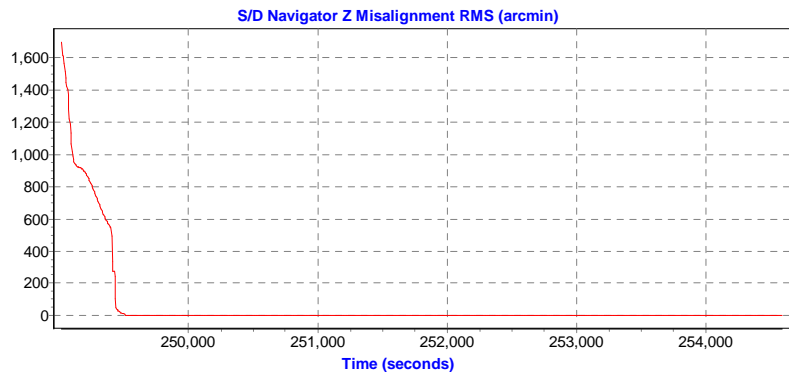
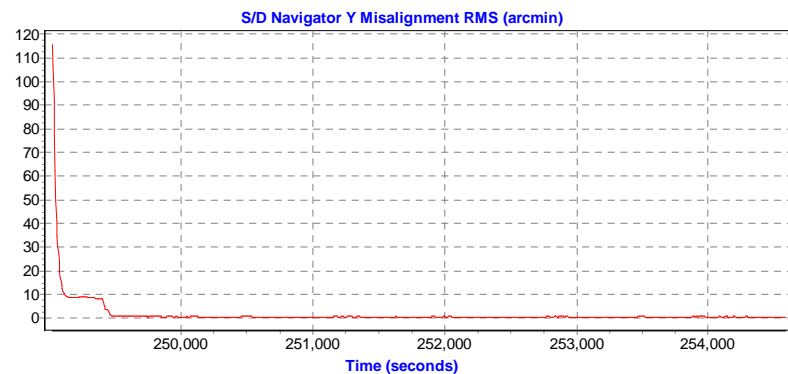
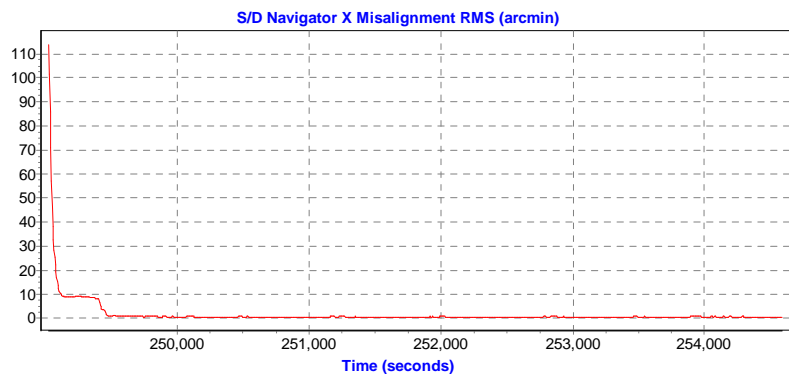
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

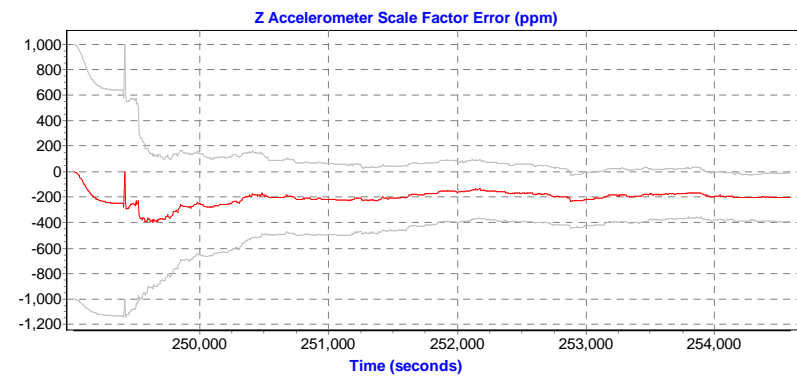
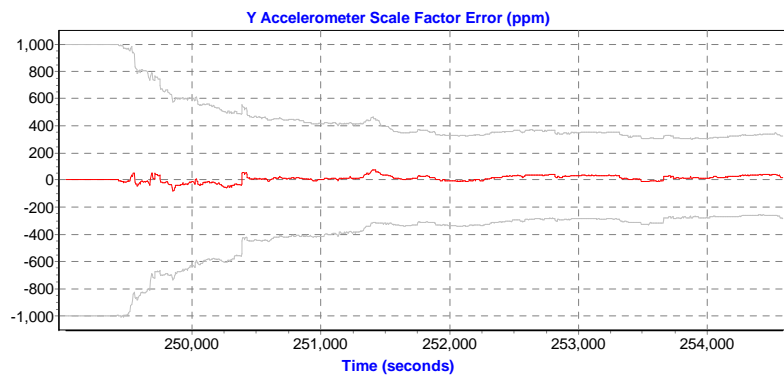
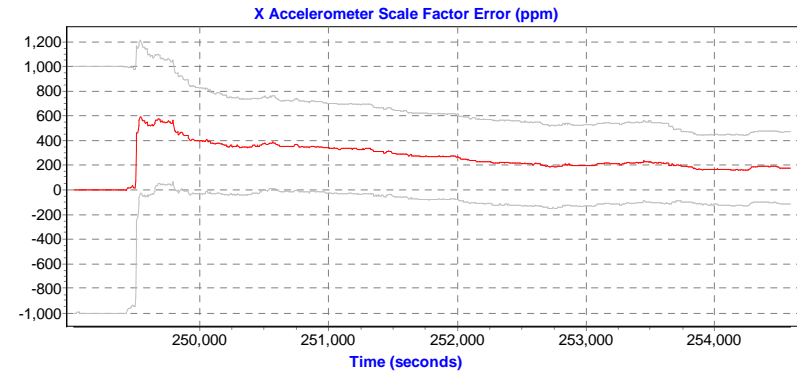
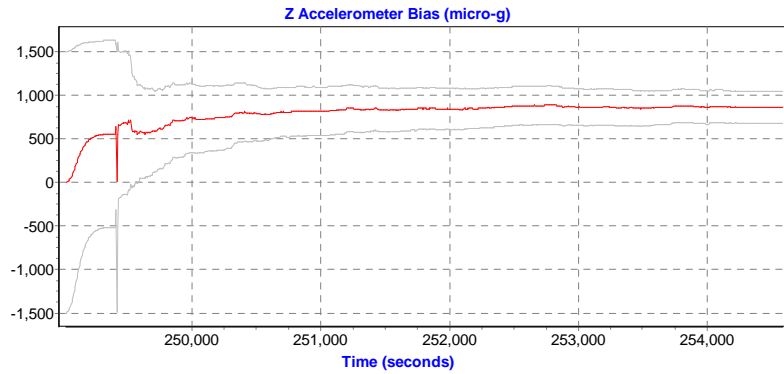
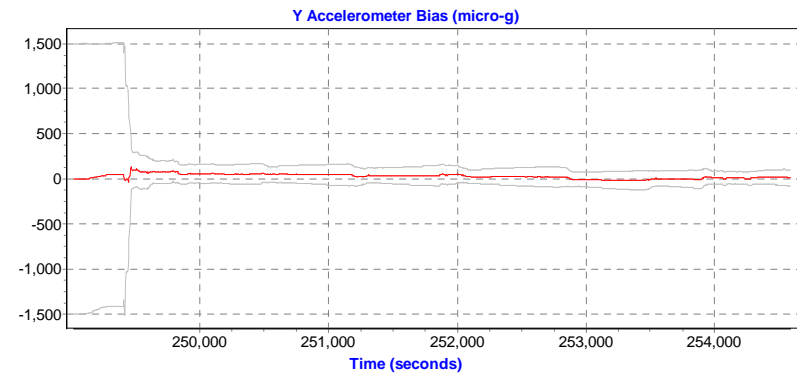
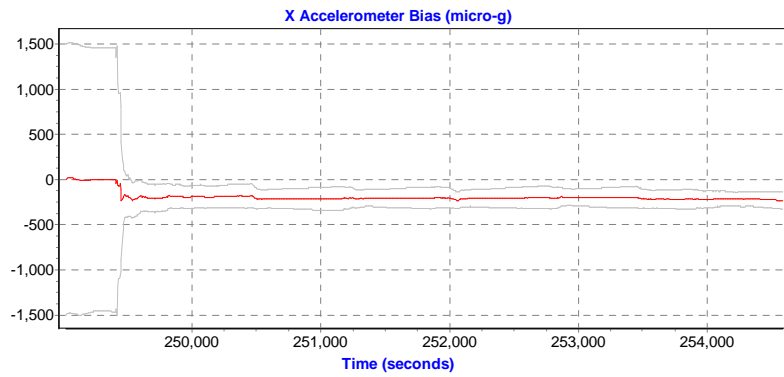
Baseline Distances:  
Maximum: 39.794 (km)  
Minimum: 0.037 (km)  
Average: 17.866 (km)  
First Epoch: 0.659 (km)  
Last Epoch: 0.540 (km)

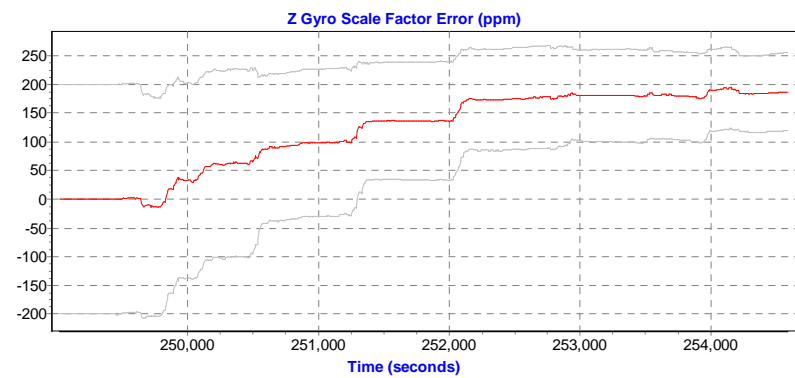
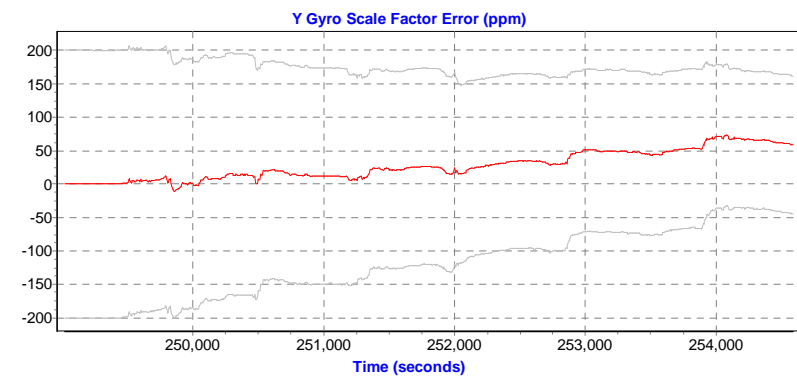
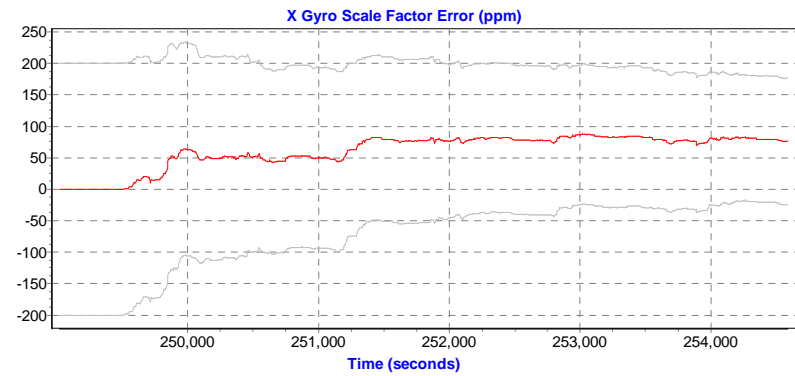
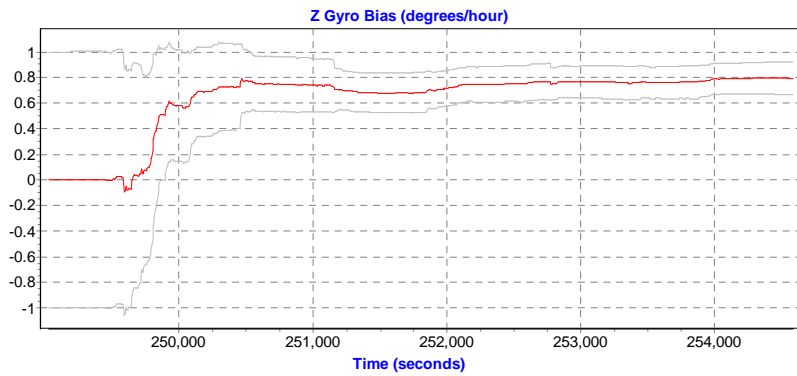
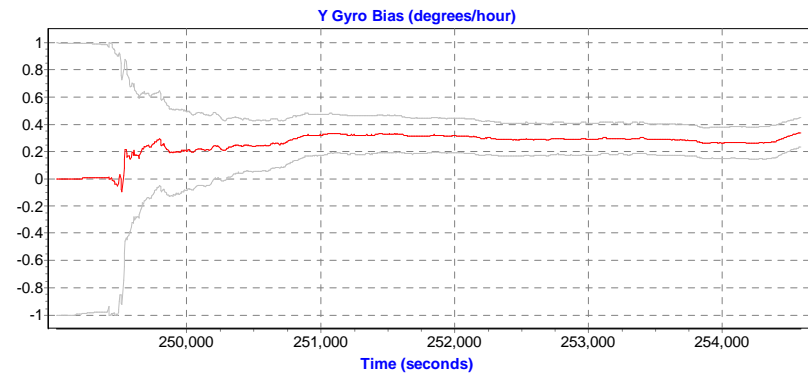
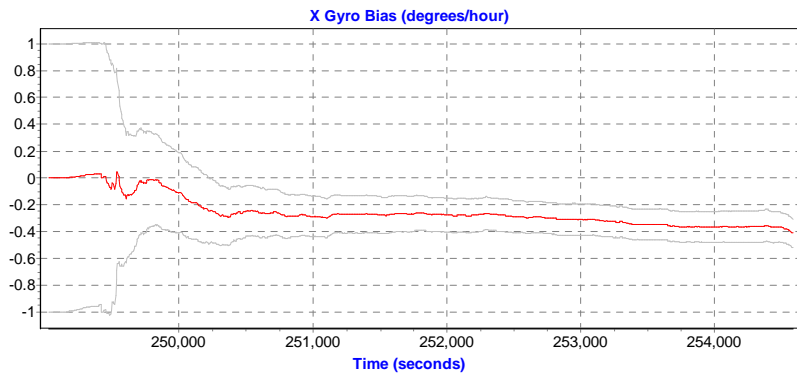




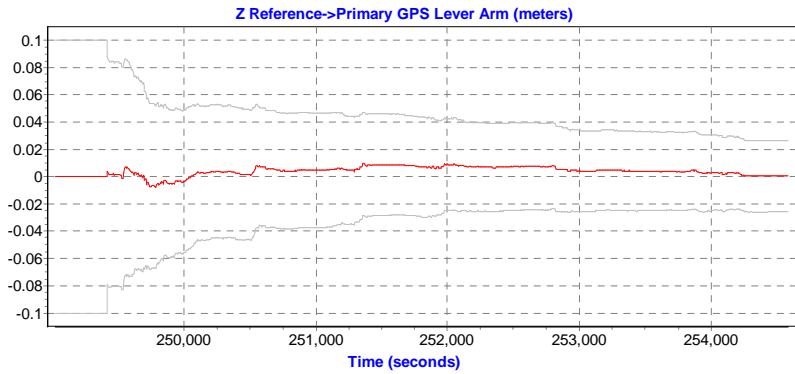
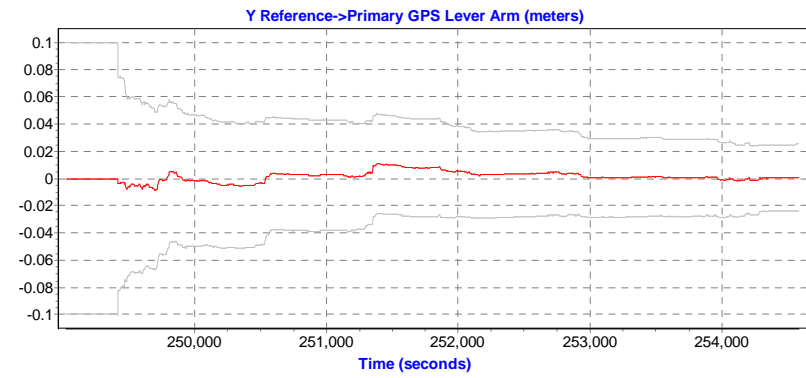
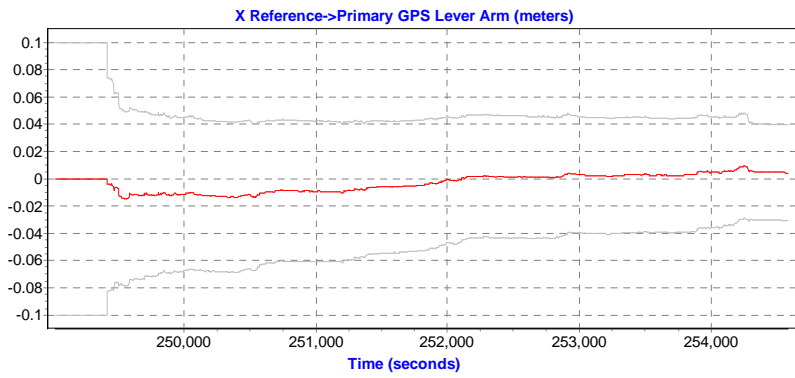






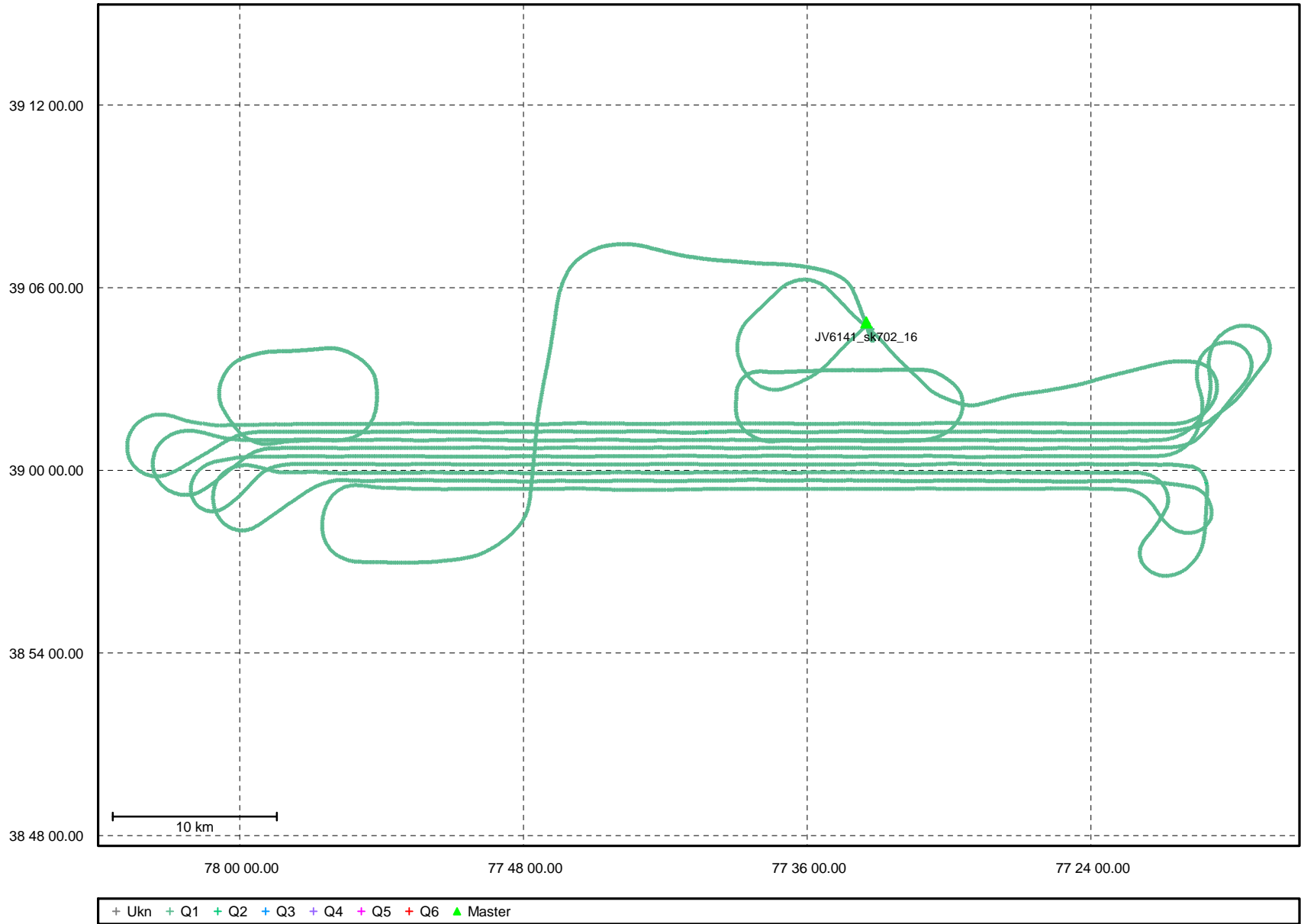




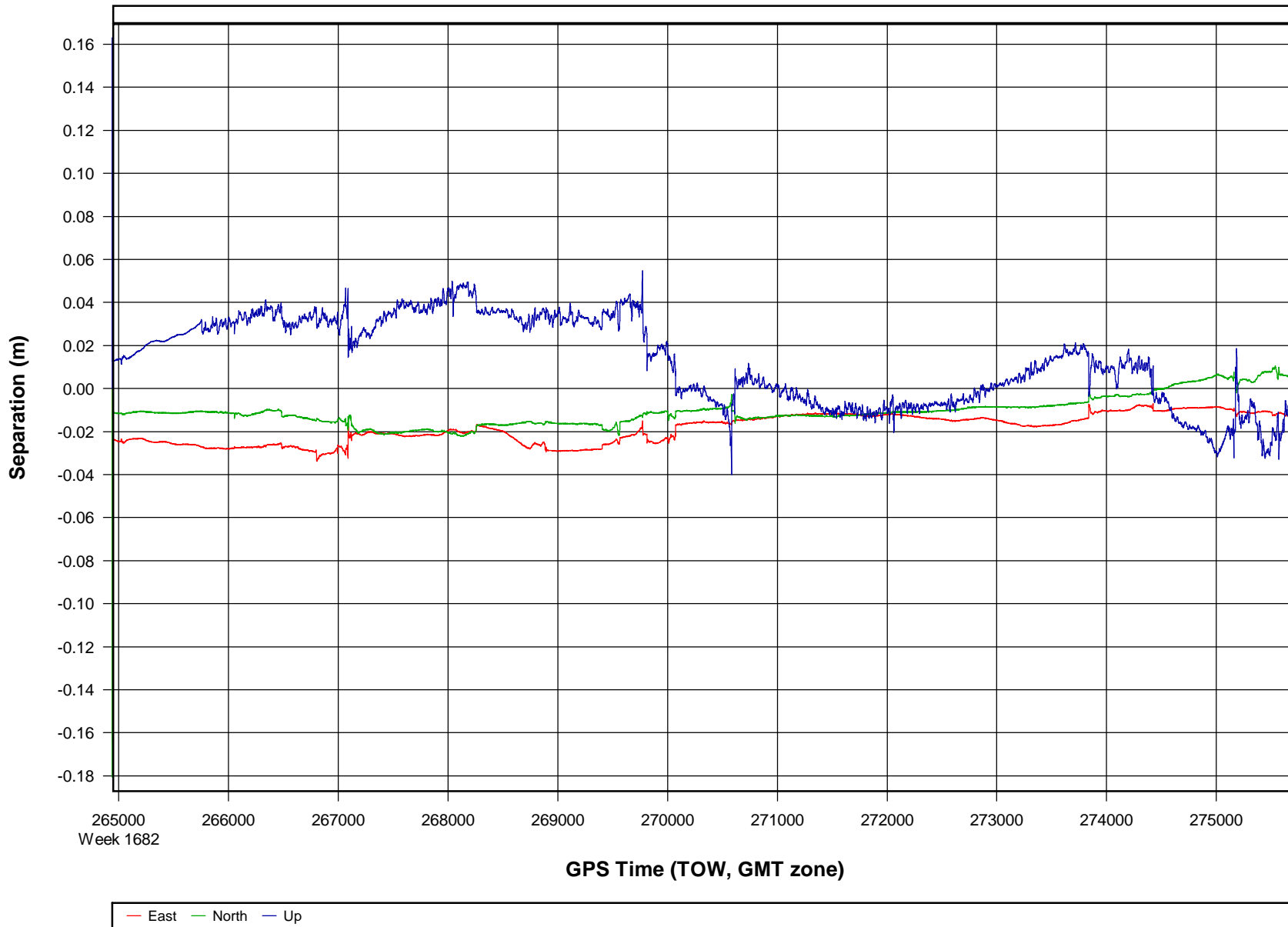


### Combined - Map Run (7)

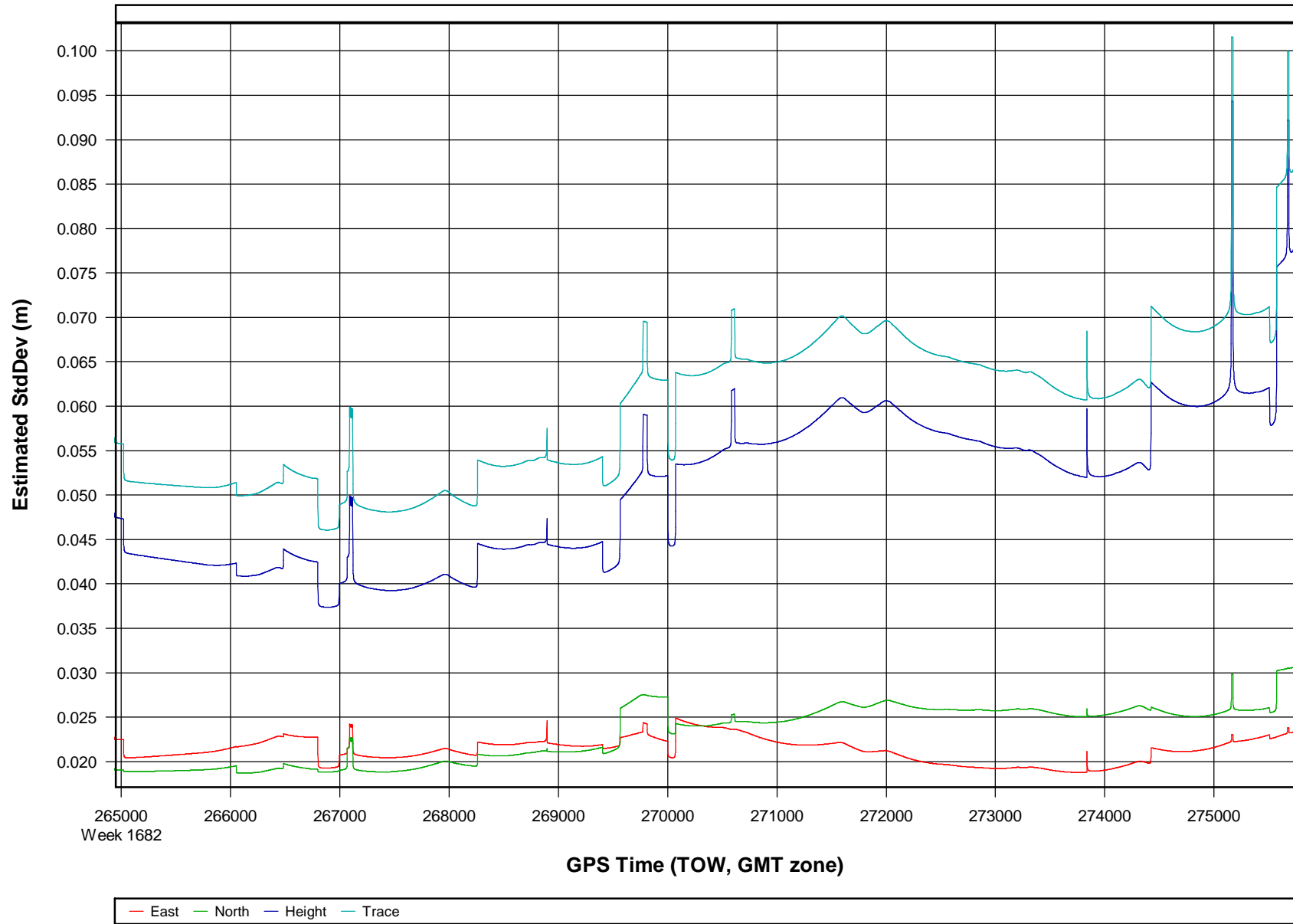
Geographic, DMS



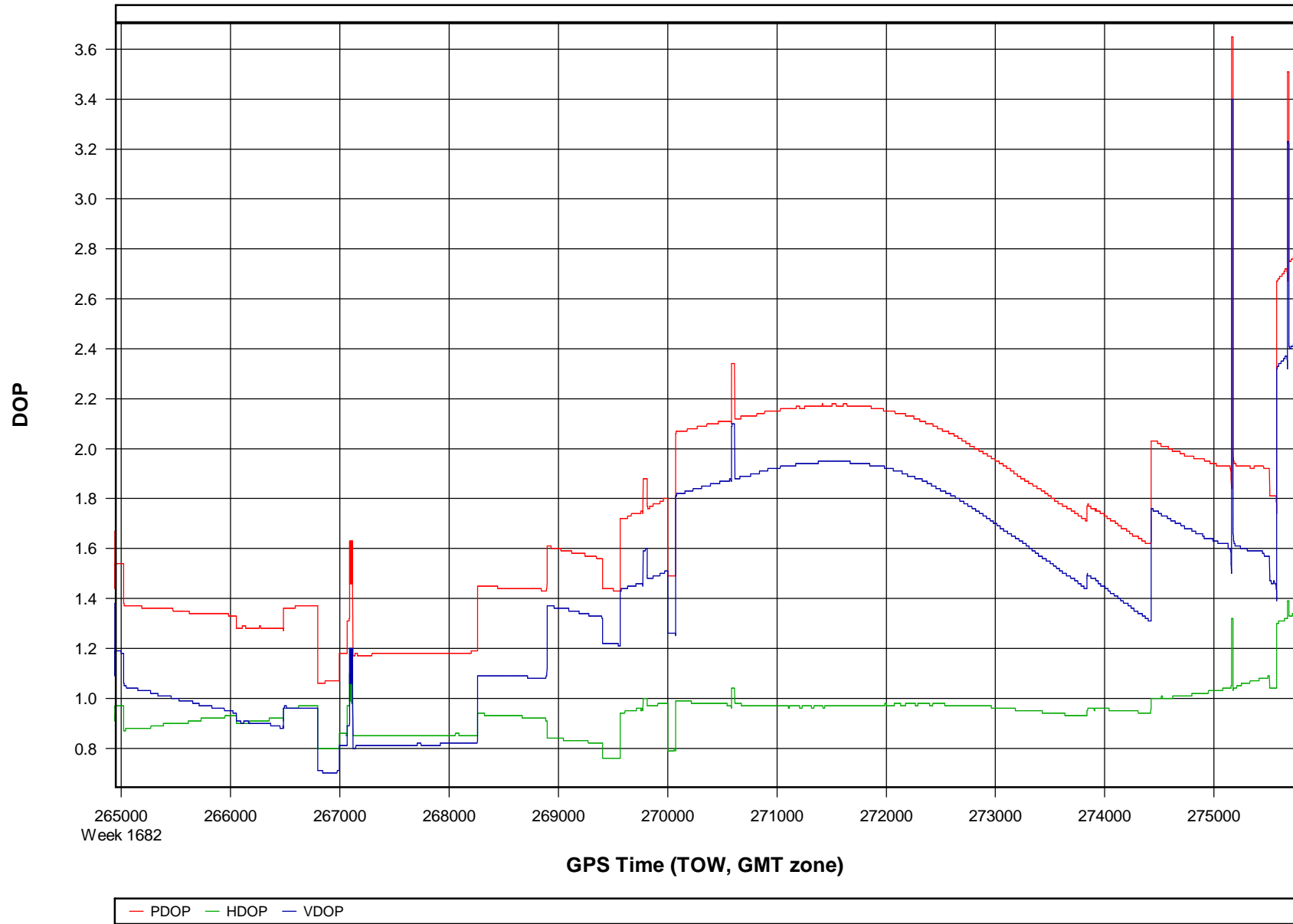
### o112094c [Combined] - Forward/Reverse or Combined Separation Plot



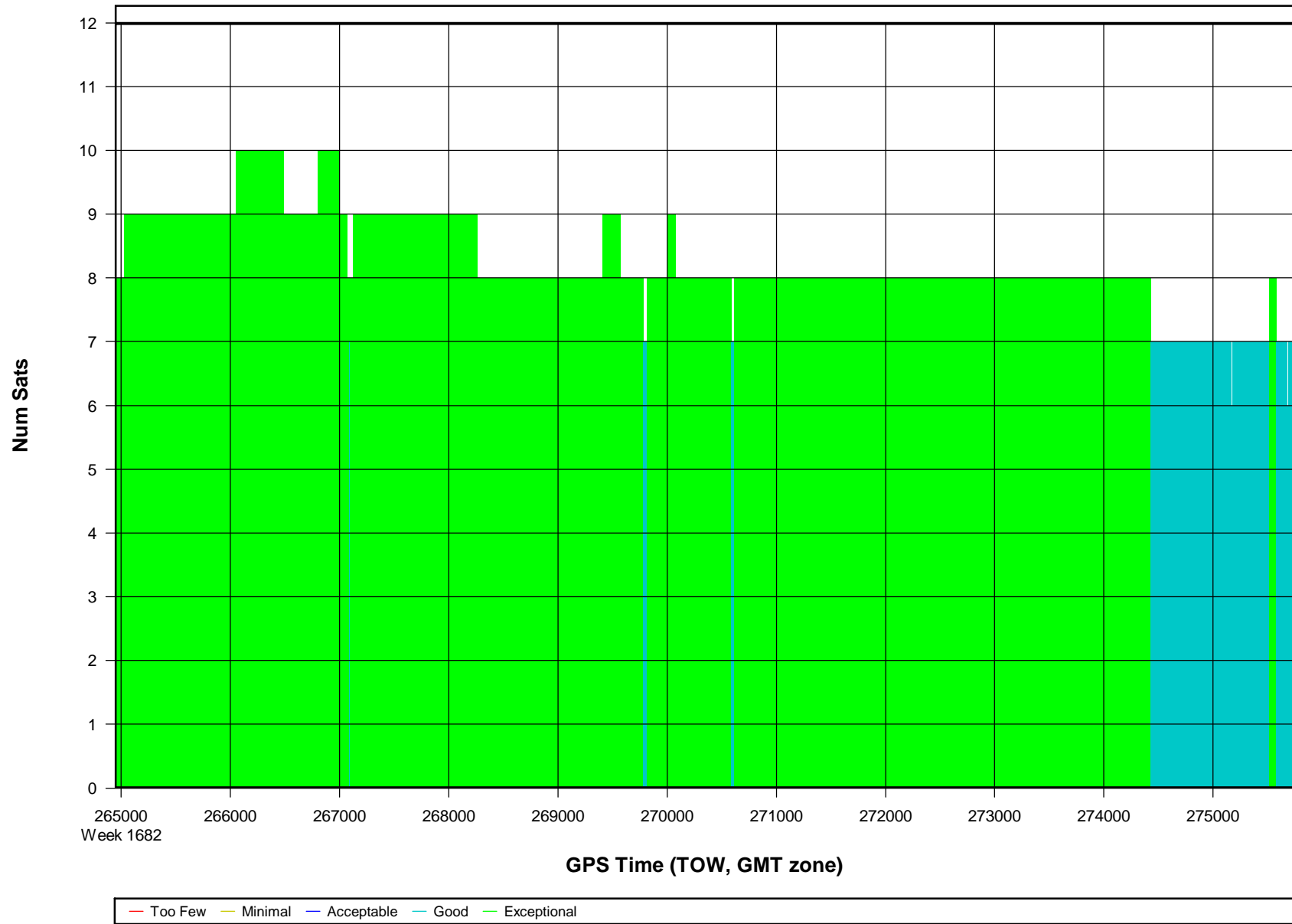
### o112094c [Combined] - Estimated Position Accuracy Plot



### o112094c [Combined] - PDOP, HDOP, VDOP Plots



### o112094c [Combined] - Number of Satellites Bar Plot



## Processing Summary Information

Program: POSGNSS  
Version: 4.40.2710  
Project: G:\o112094c\3\_Processed\GPS\o112094c.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 118686  
No processed position: 107877  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0144 (m)  
C/A Code: 0.66 (m)  
L1 Doppler: 0.026 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.020 (m)  
North: 0.013 (m)  
Height: 0.024 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (10804 occurrences):  
East: 0.020 (m)  
North: 0.013 (m)  
Height: 0.024 (m)

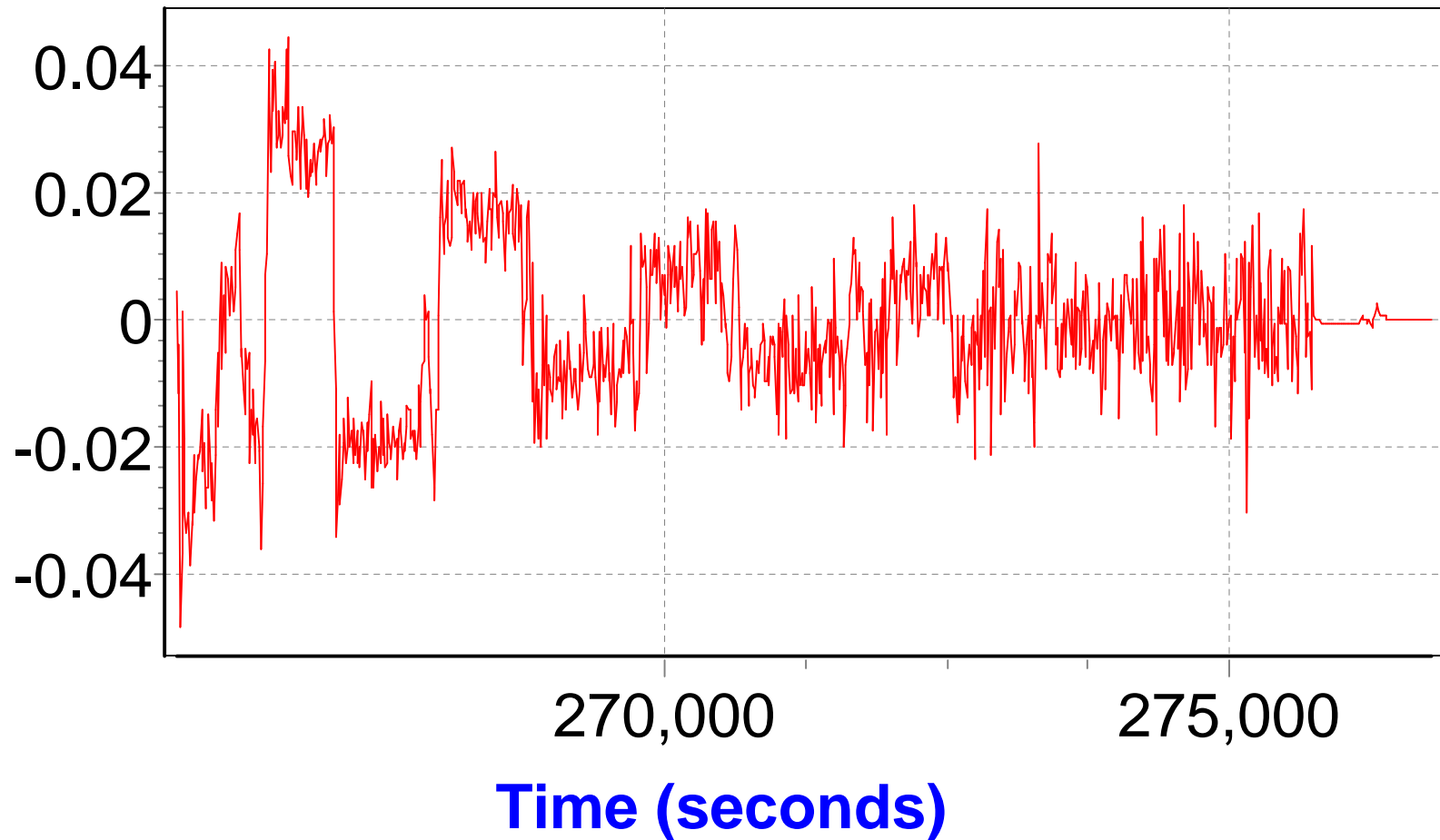
Quality Number Percentages:  
Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:  
0.00 - 0.10 m: 99.8 %  
0.10 - 0.30 m: 0.2 %  
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 %

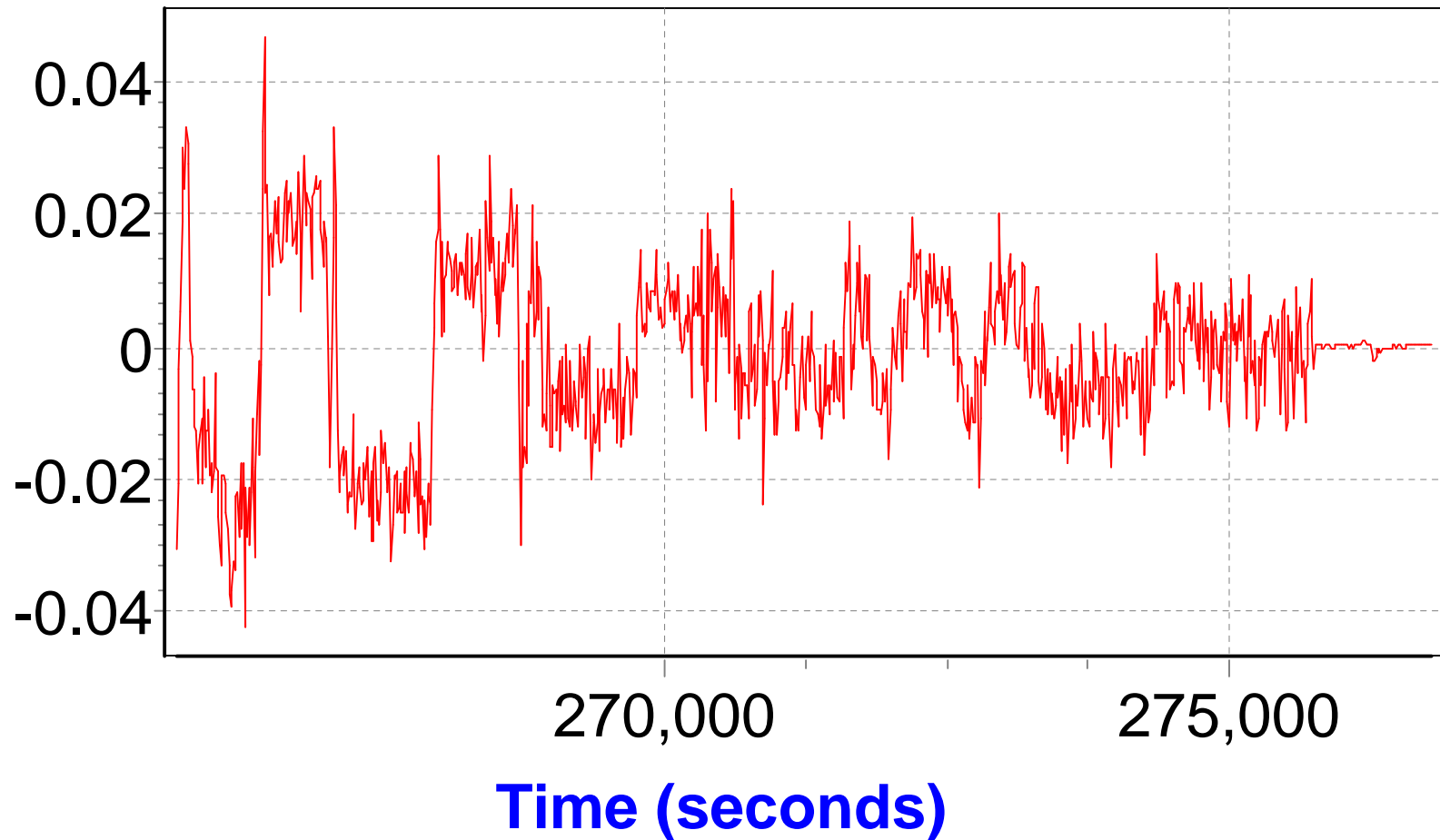
Baseline Distances:  
Maximum: 45.773 (km)  
Minimum: 0.048 (km)  
Average: 18.303 (km)  
First Epoch: 0.565 (km)  
Last Epoch: 1.042 (km)

## S/D Navigator X Position Error (meters)

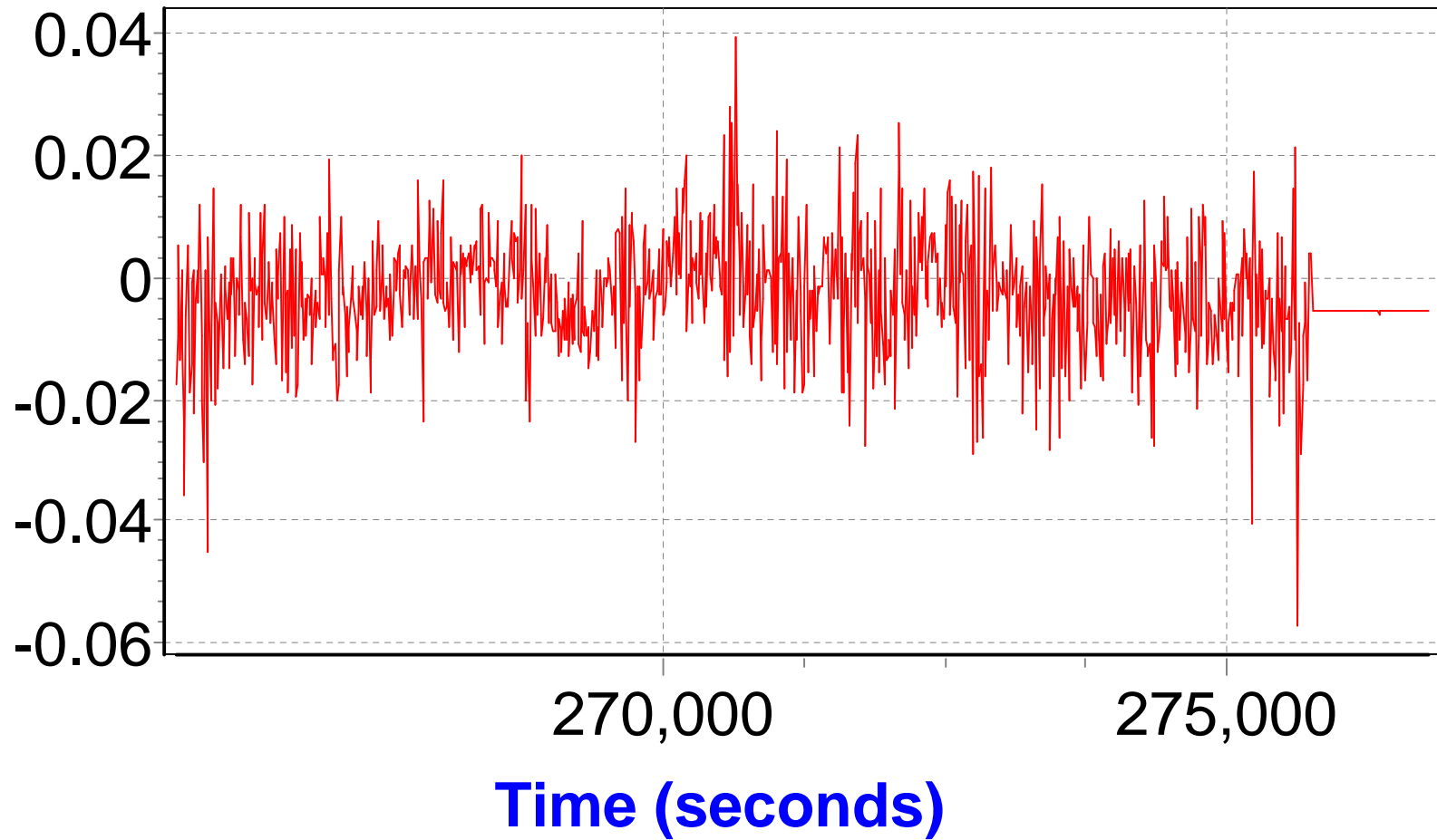




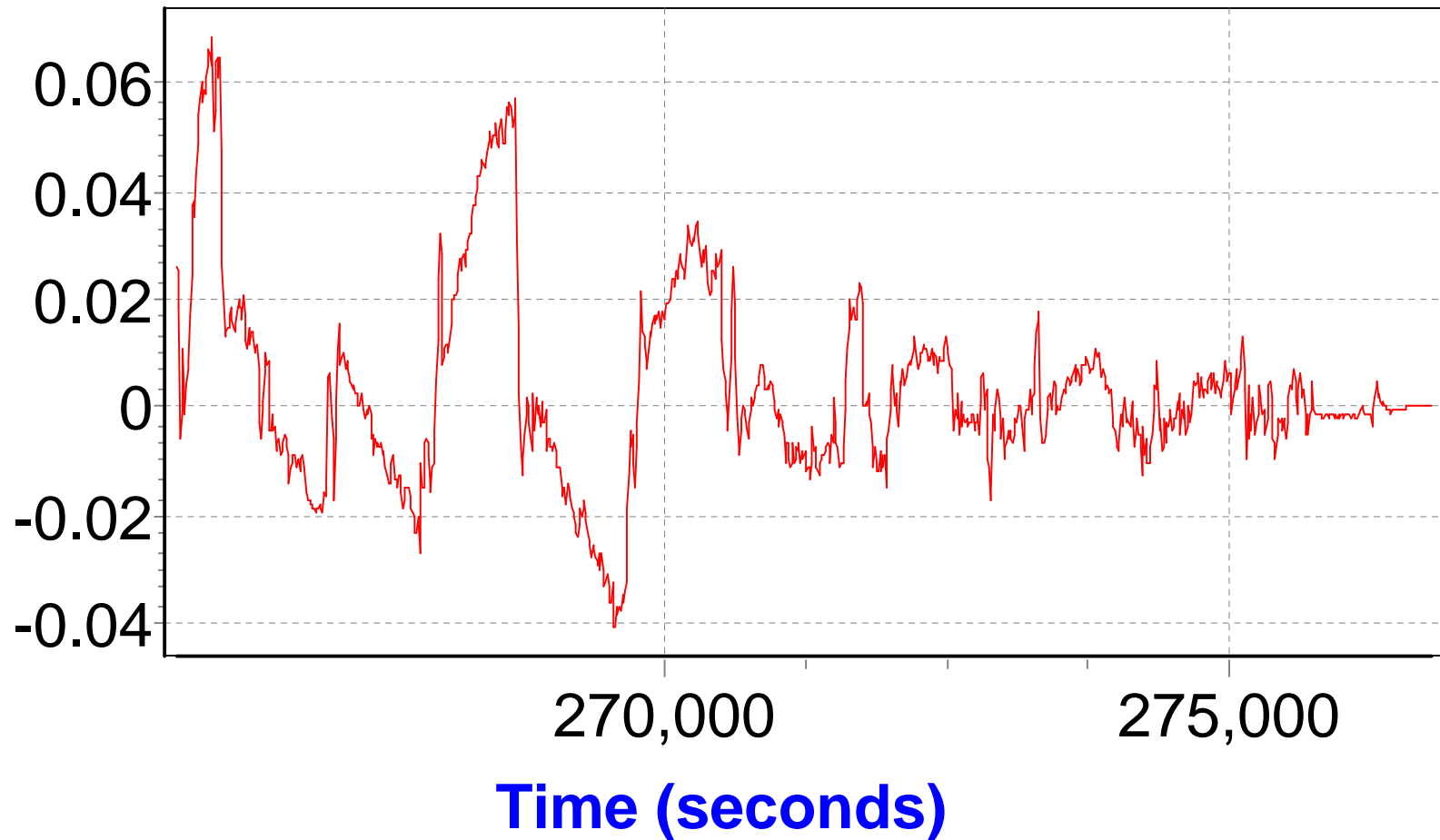
## S/D Navigator Y Position Error (meters)



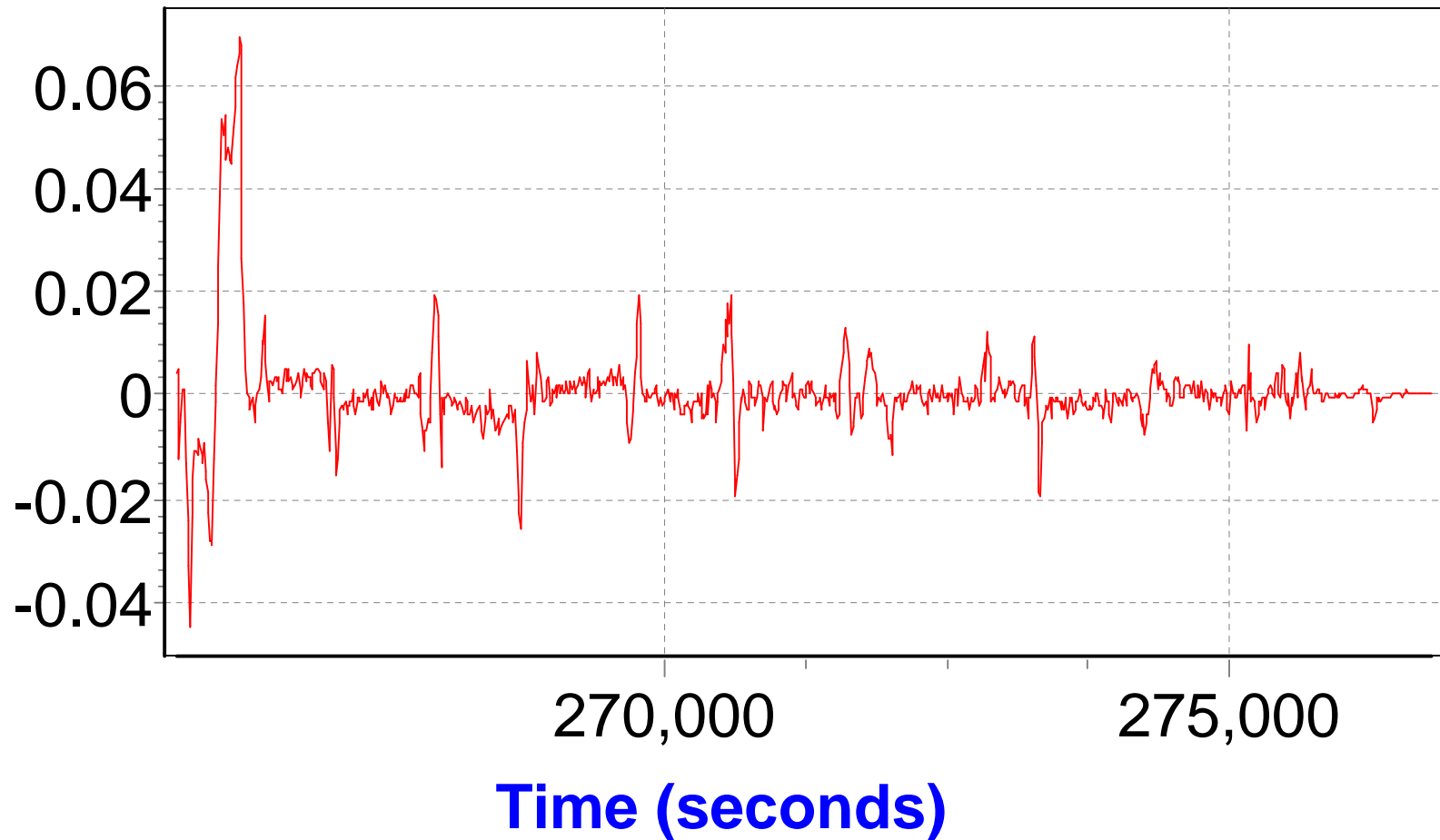
## S/D Navigator Z Position Error (meters)



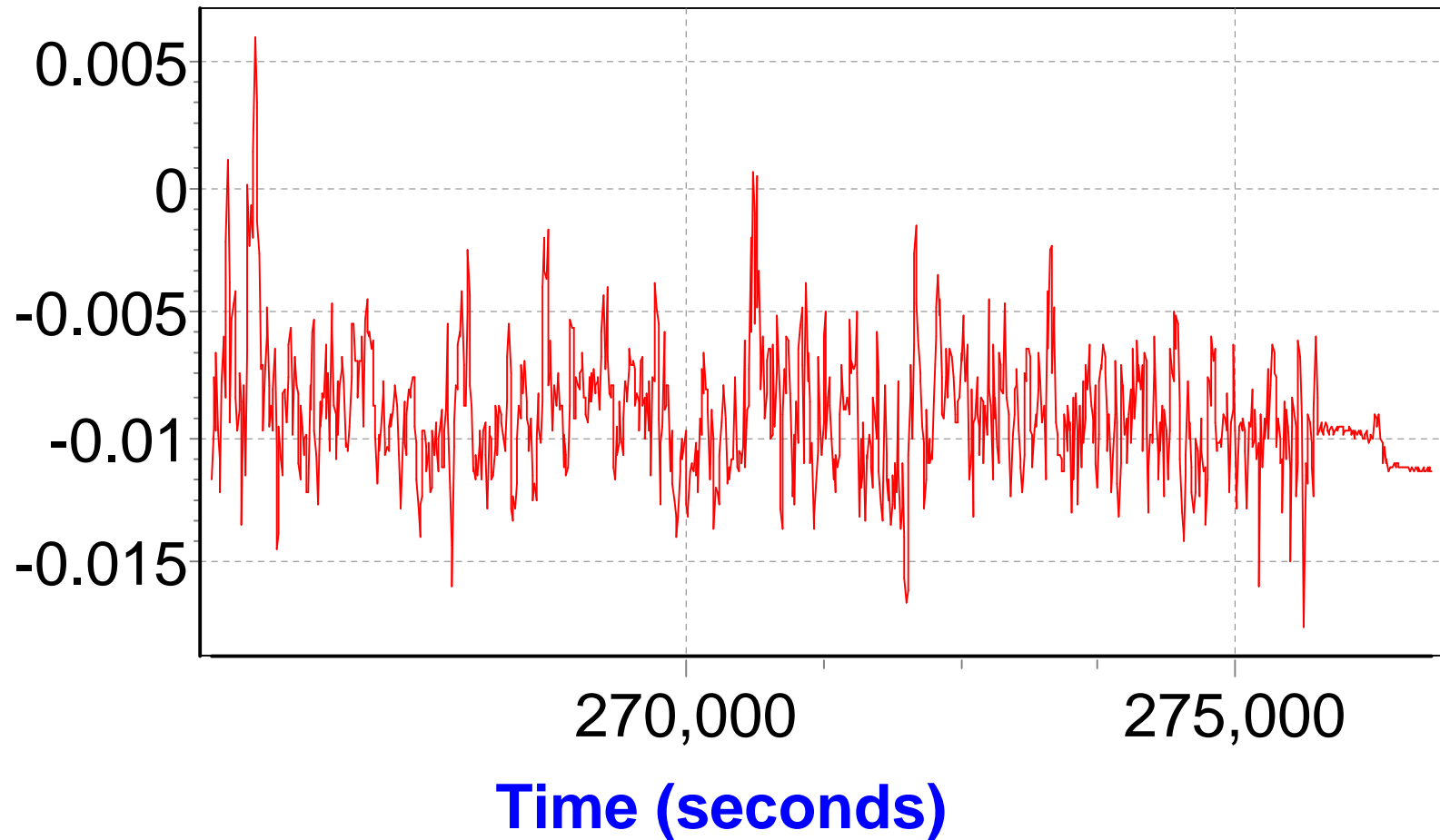
## S/D Navigator X Velocity Error (meters/seconds)



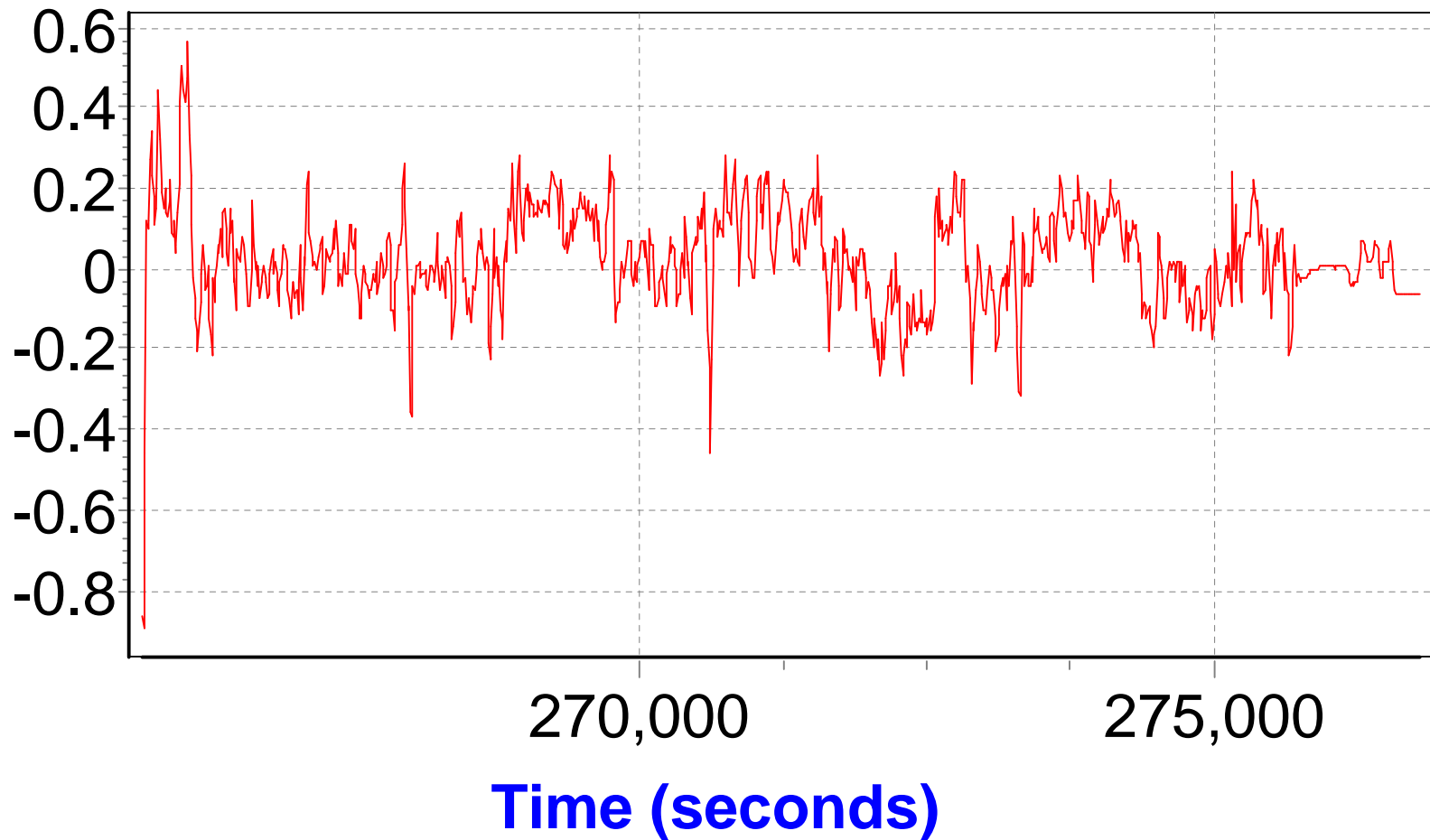
## S/D Navigator Y Velocity Error (meters/seconds)



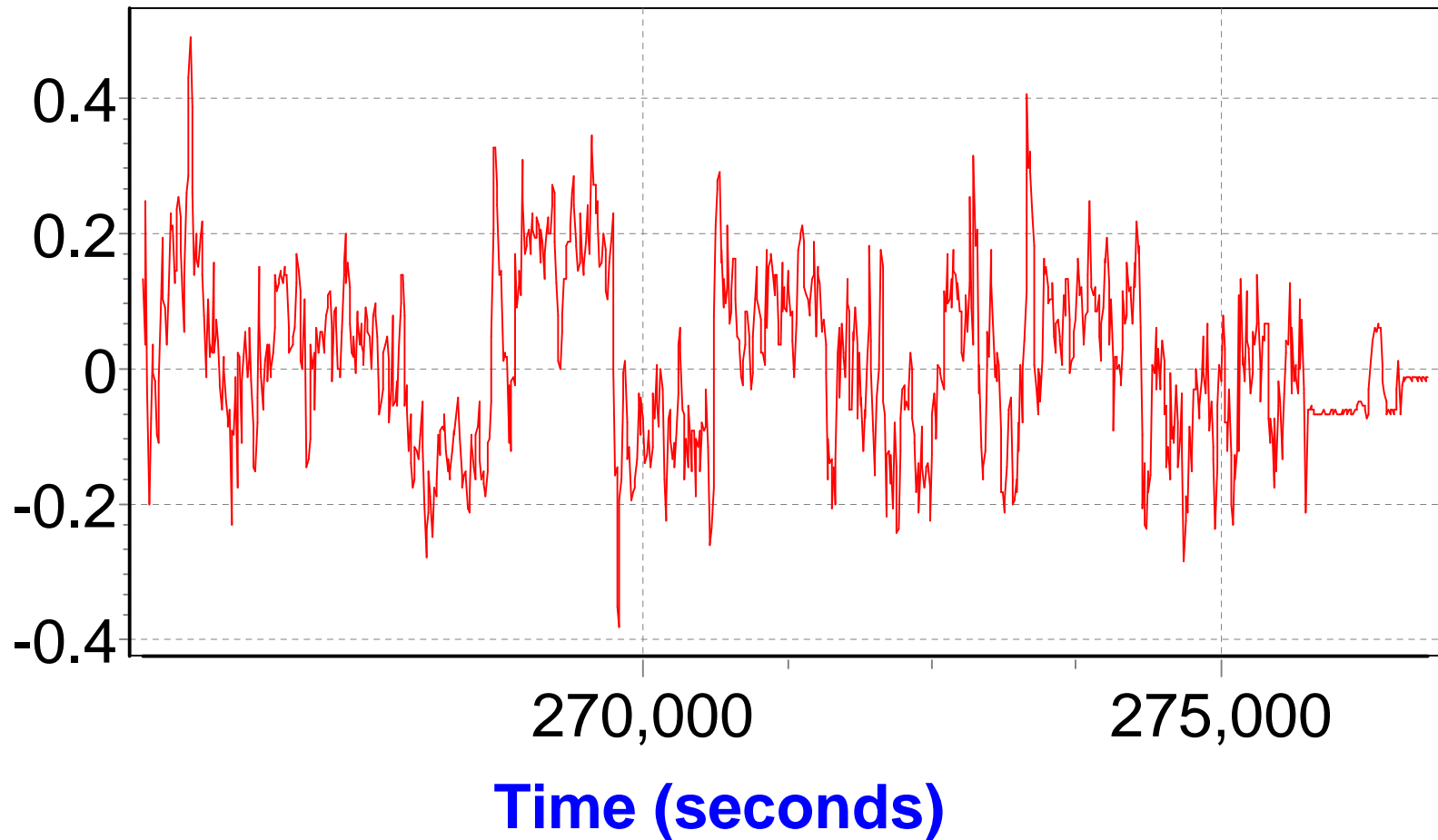
## S/D Navigator Z Velocity Error (meters/seconds)



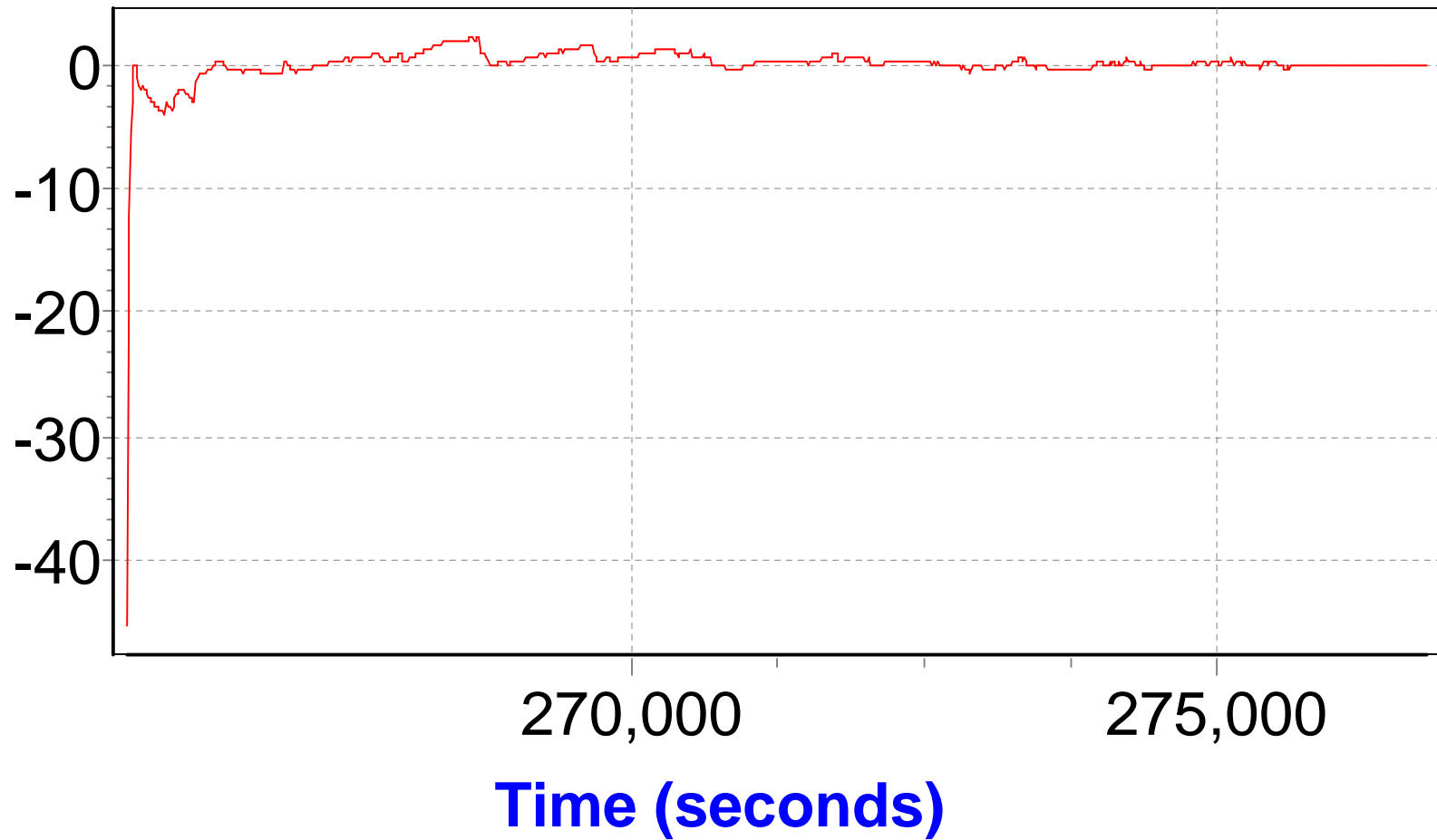
## S/D Navigator X Misalignment (arcmin)



## S/D Navigator Y Misalignment (arcmin)

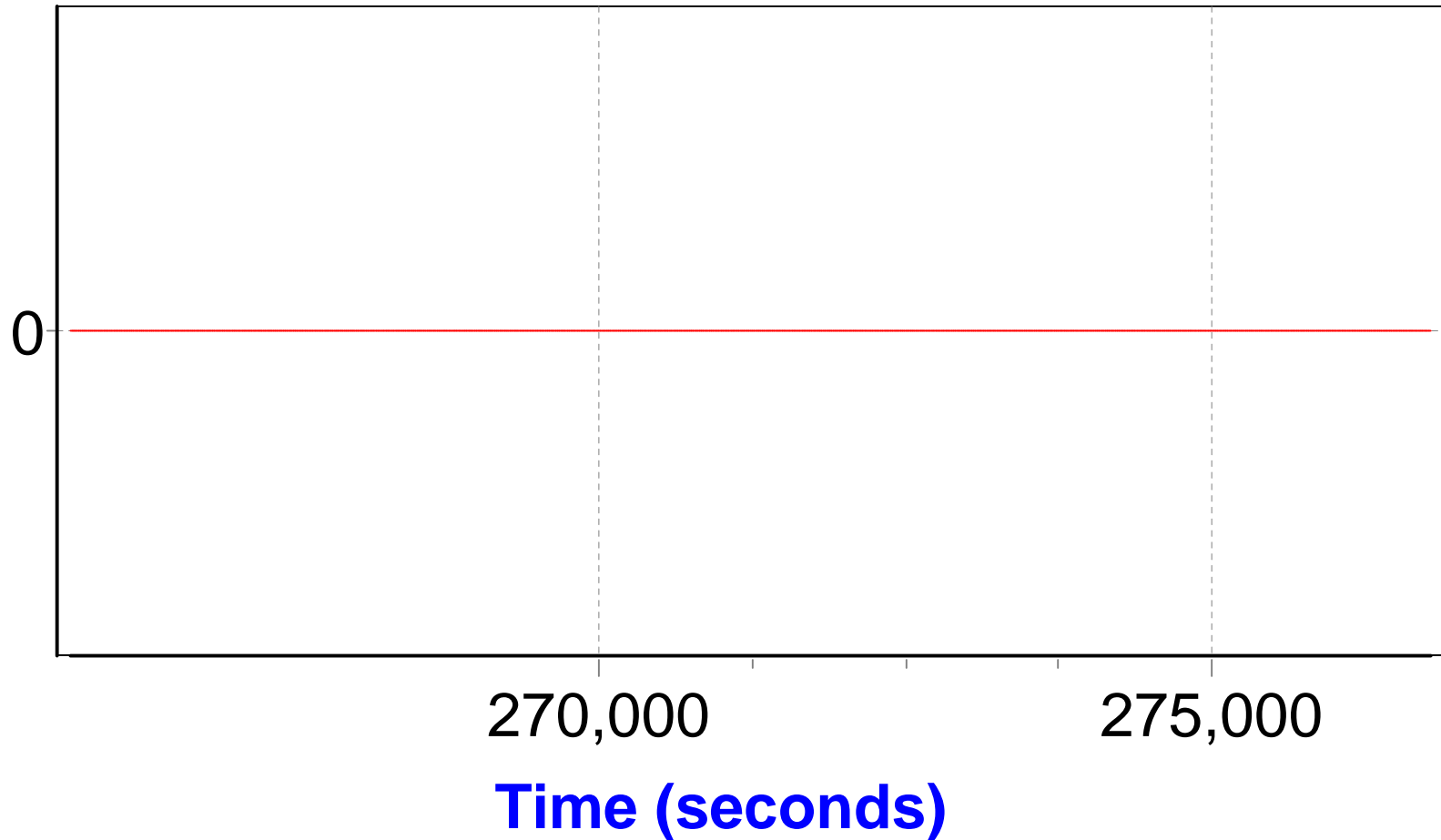


## S/D Navigator Z Misalignment (arcmin)

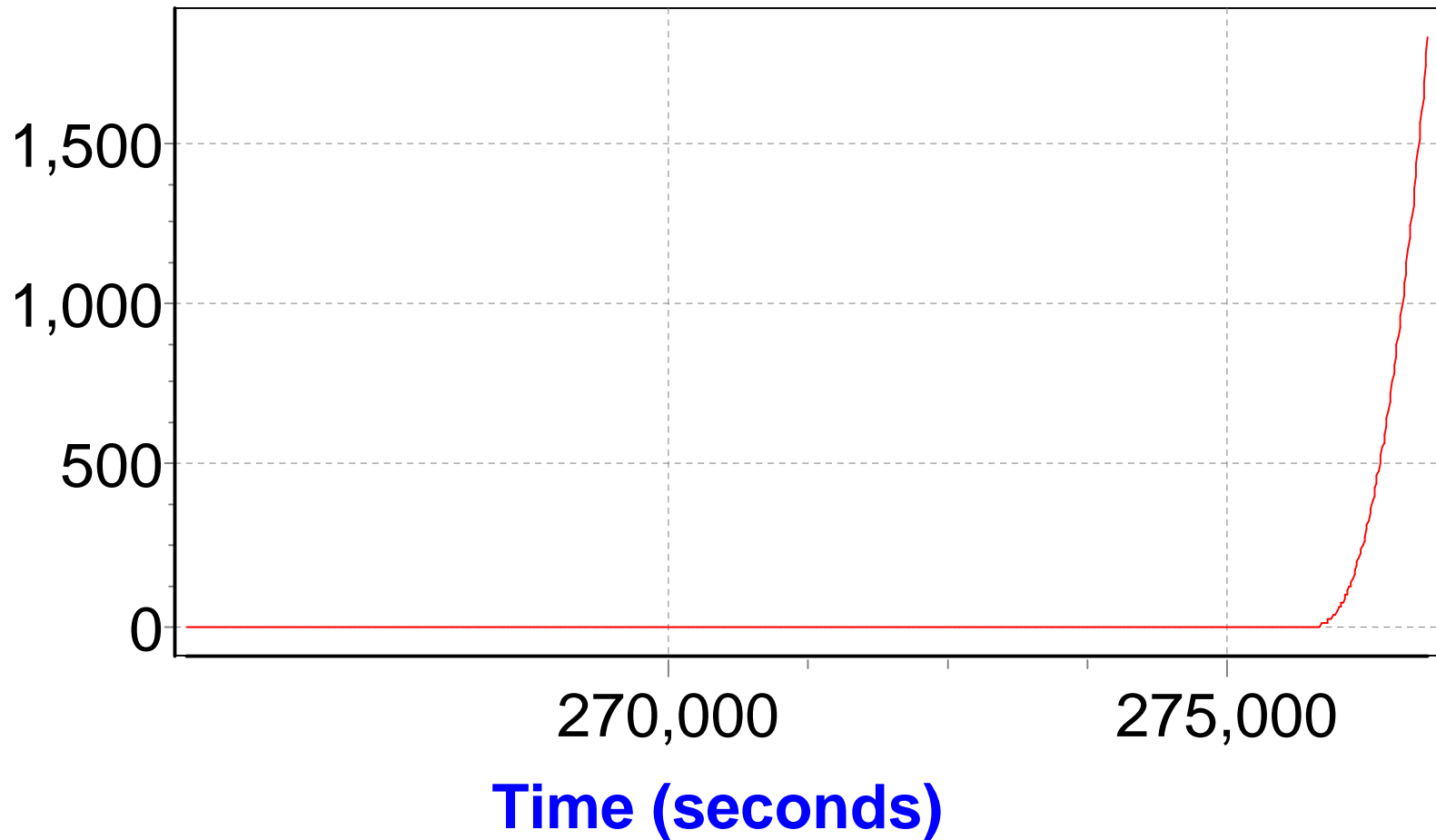




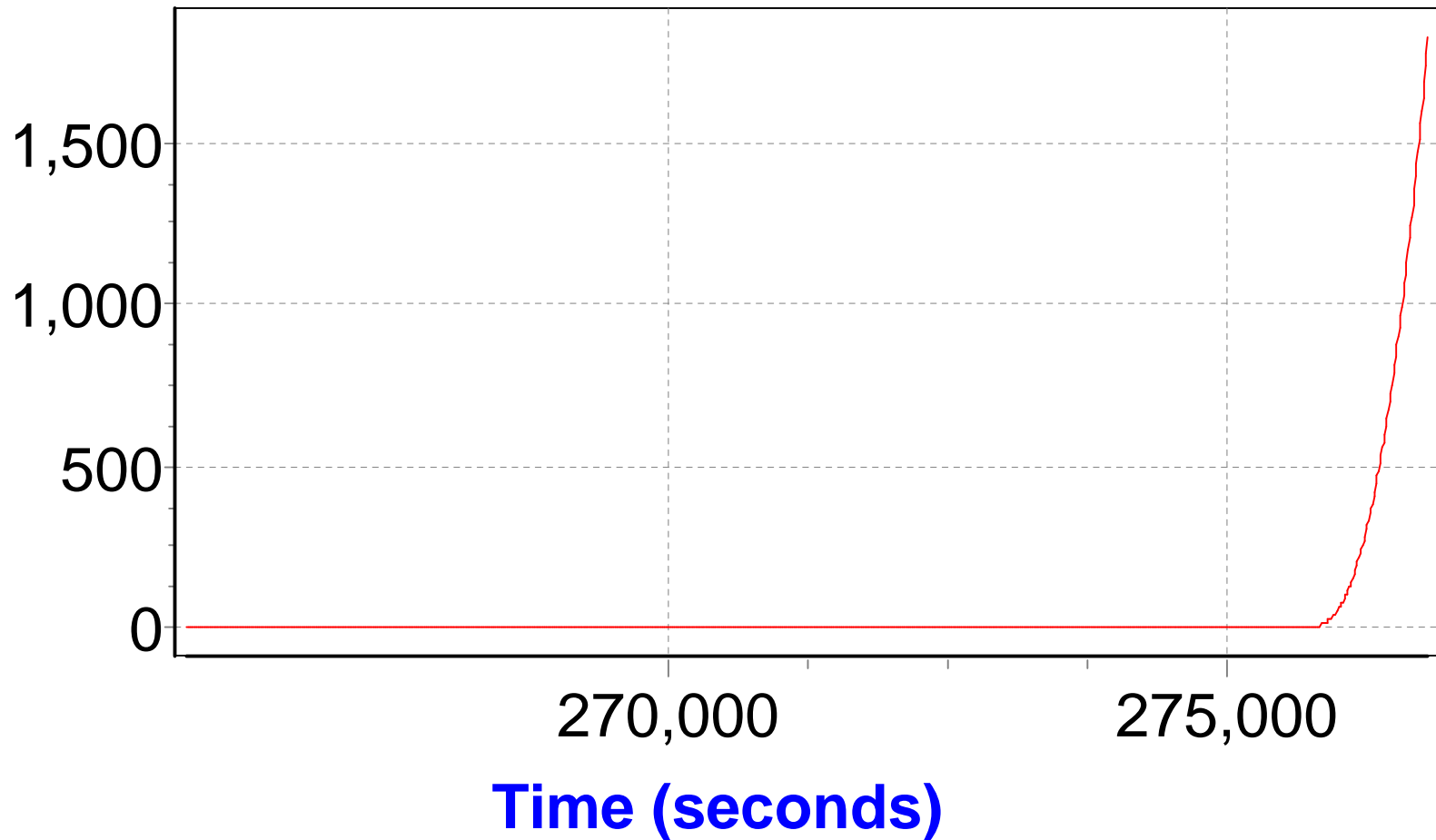
## S/D Navigator COS(Z Misalignment)-1 (radians)



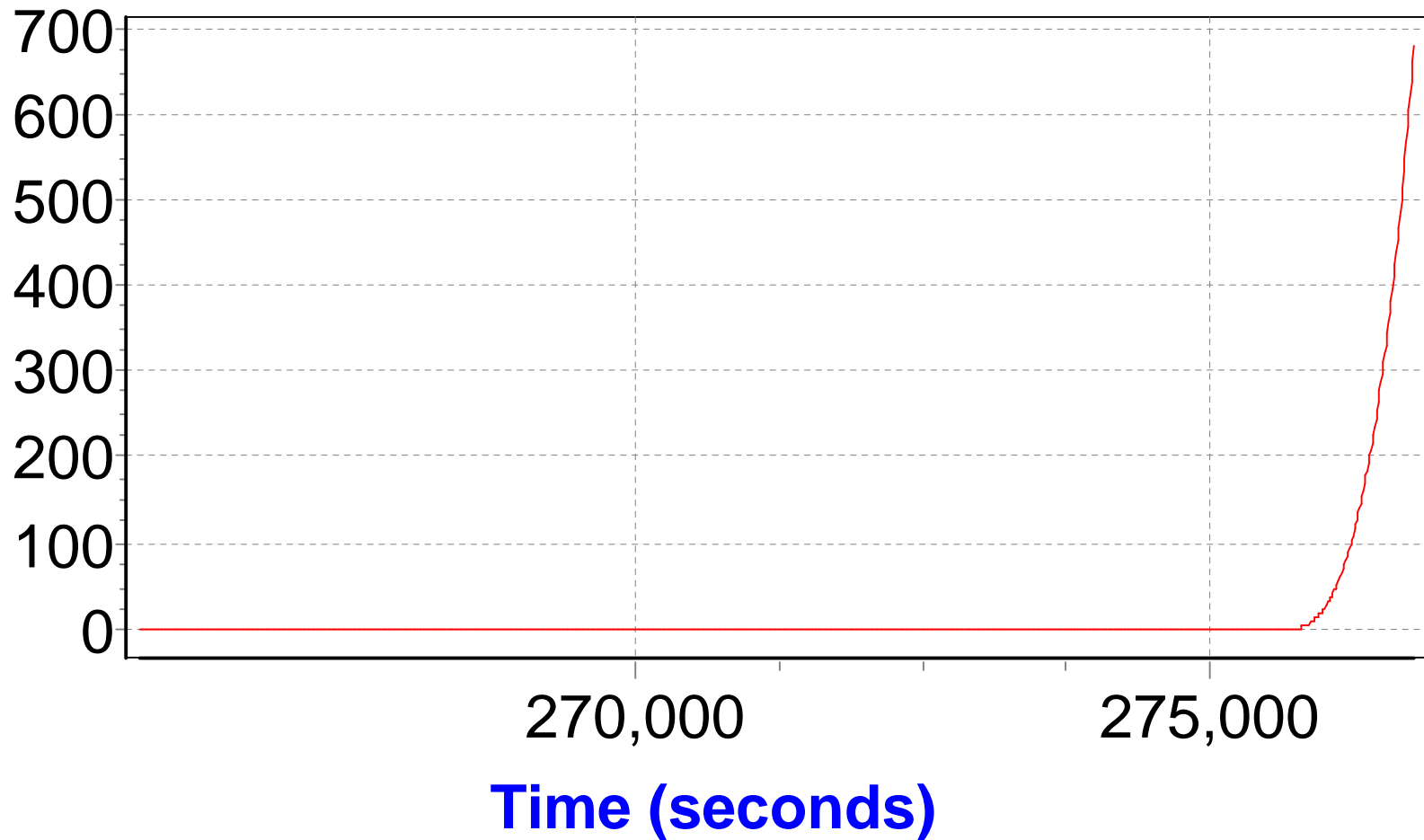
## S/D Navigator X Position RMS Error (meters)



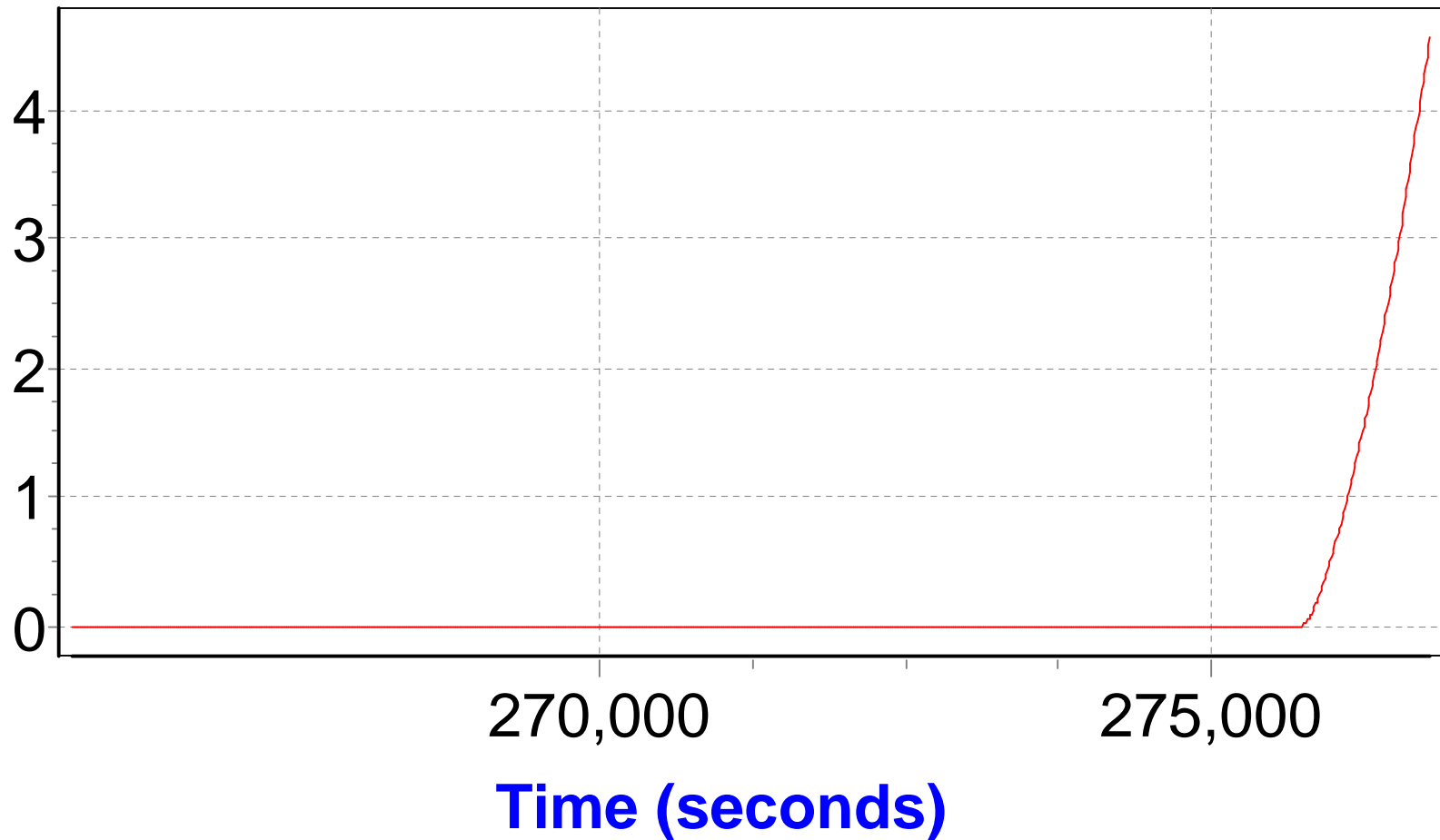
## S/D Navigator Y Position RMS Error (meters)



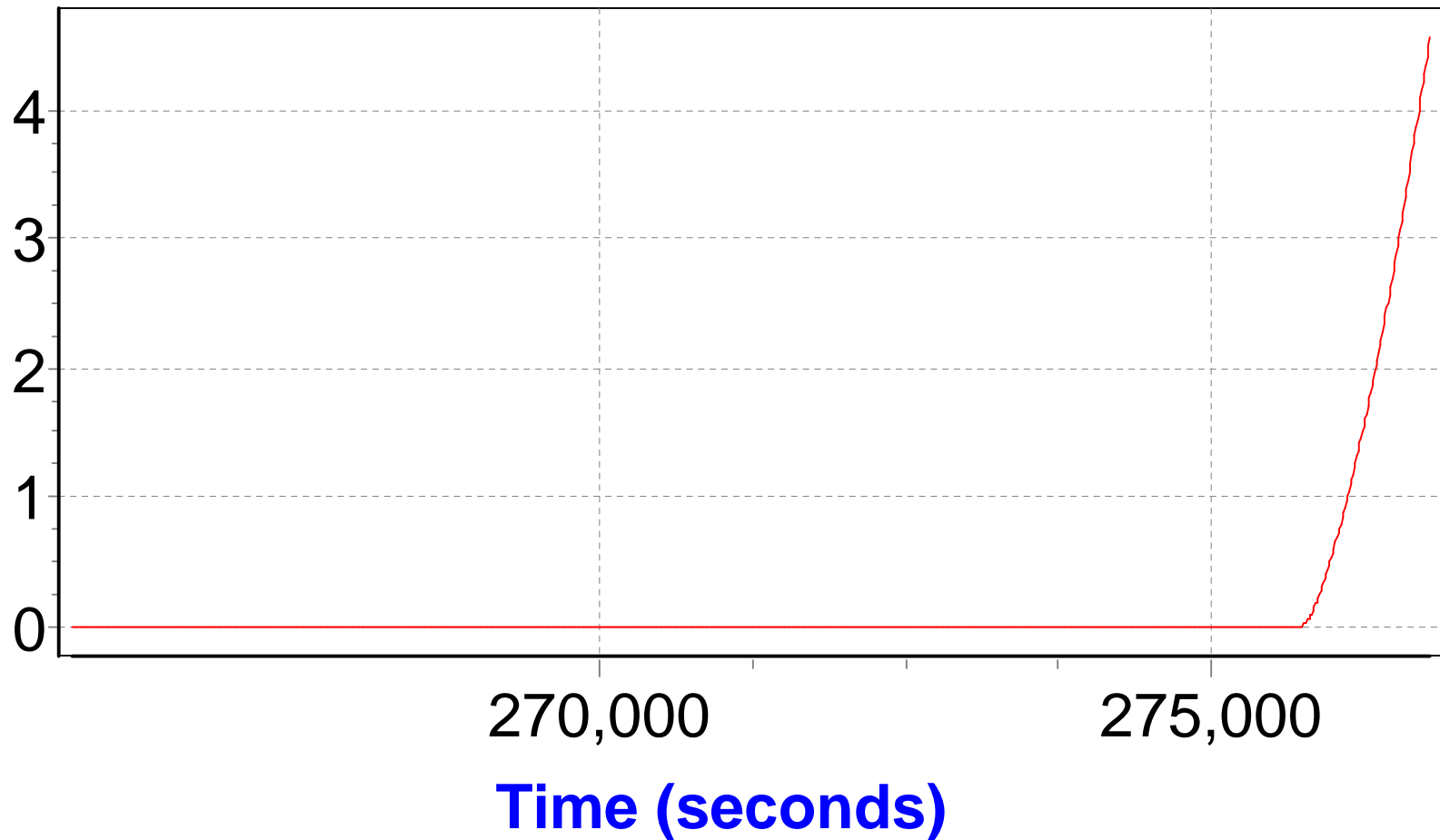
## S/D Navigator Z Position RMS Error (meters)



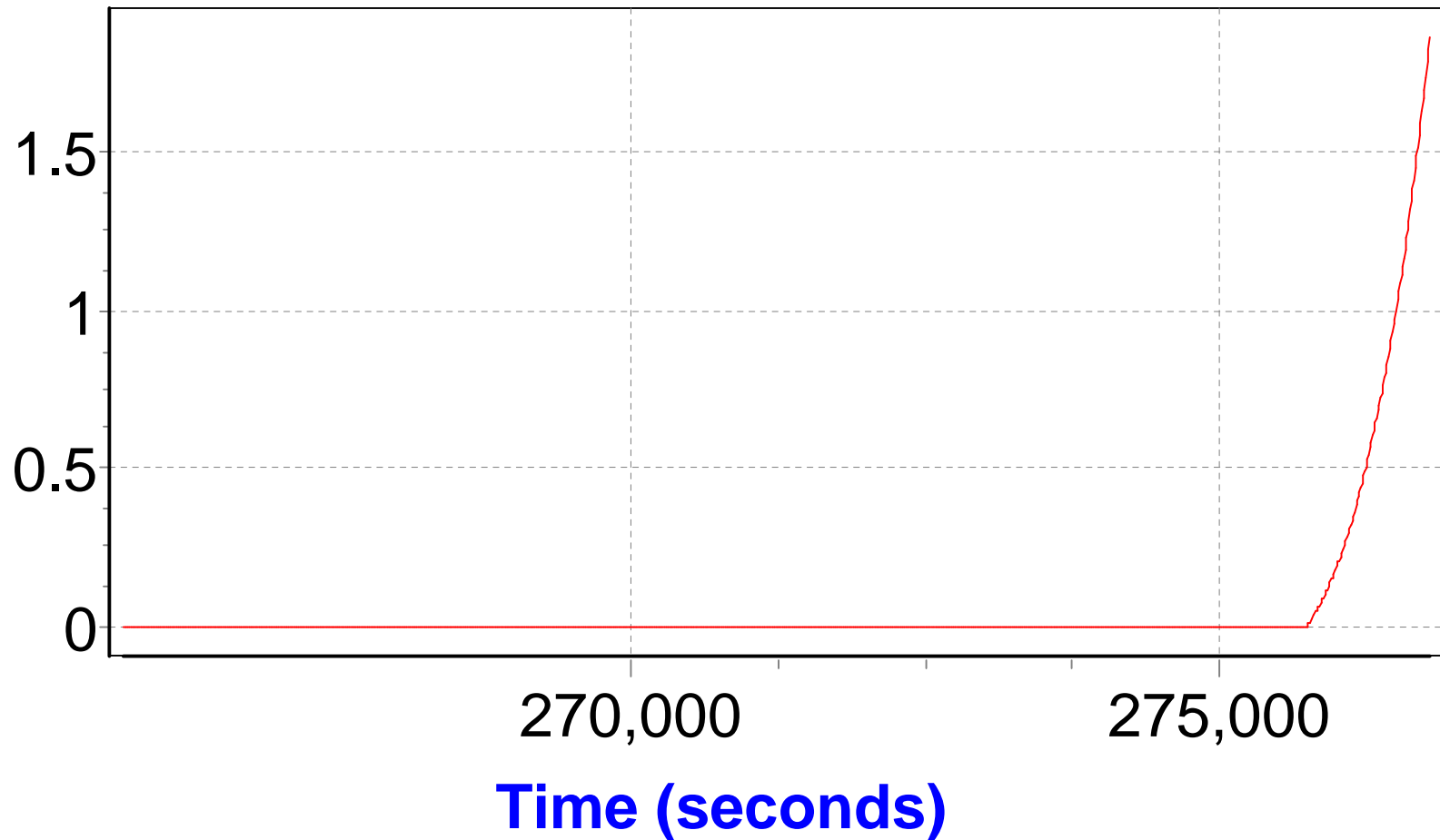
## S/D Navigator X Velocity RMS Error (meters/seconds)



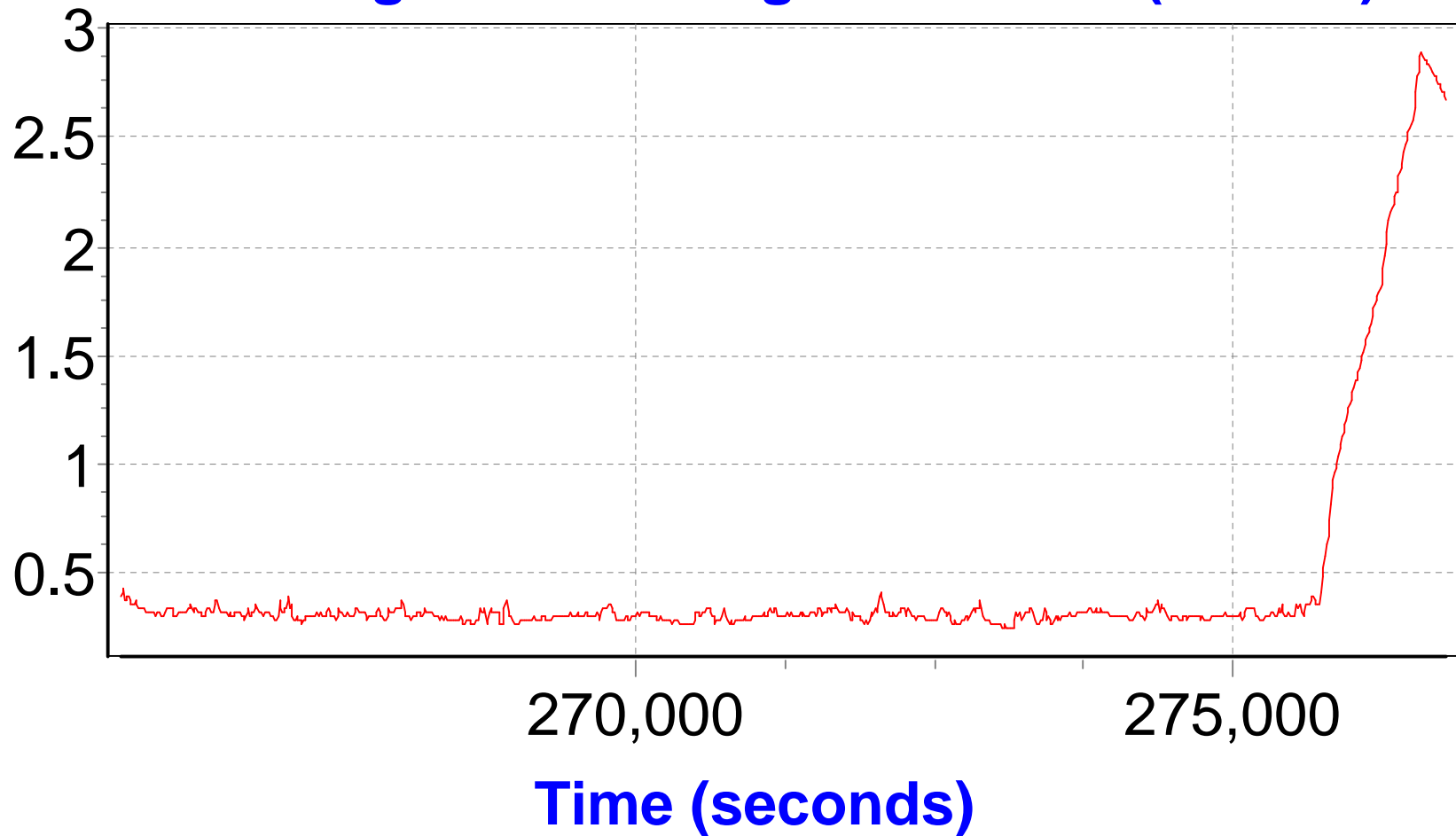
## S/D Navigator Y Velocity RMS Error (meters/seconds)



## S/D Navigator Z Velocity RMS Error (meters/seconds)

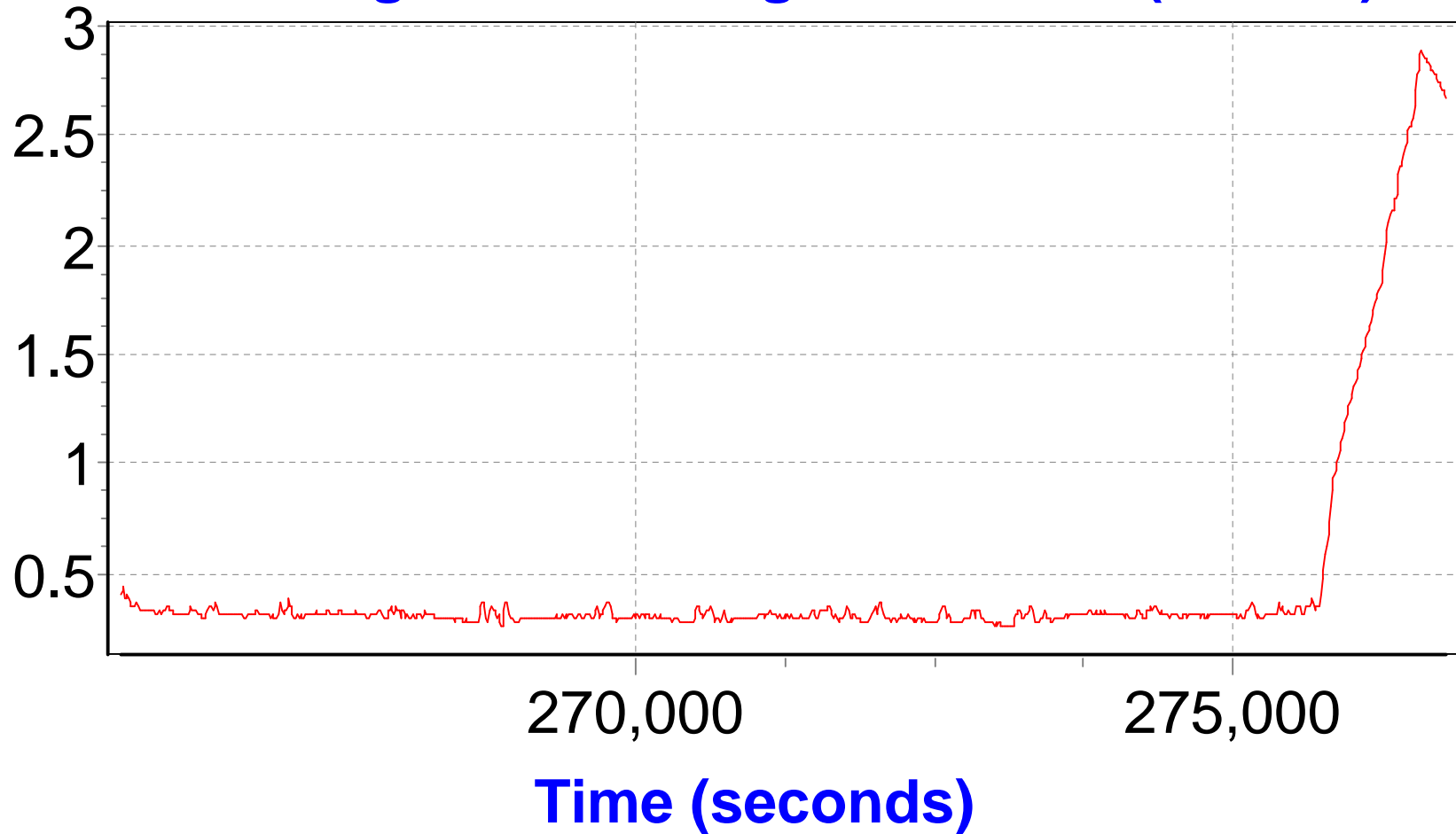


## S/D Navigator X Misalignment RMS (arcmin)

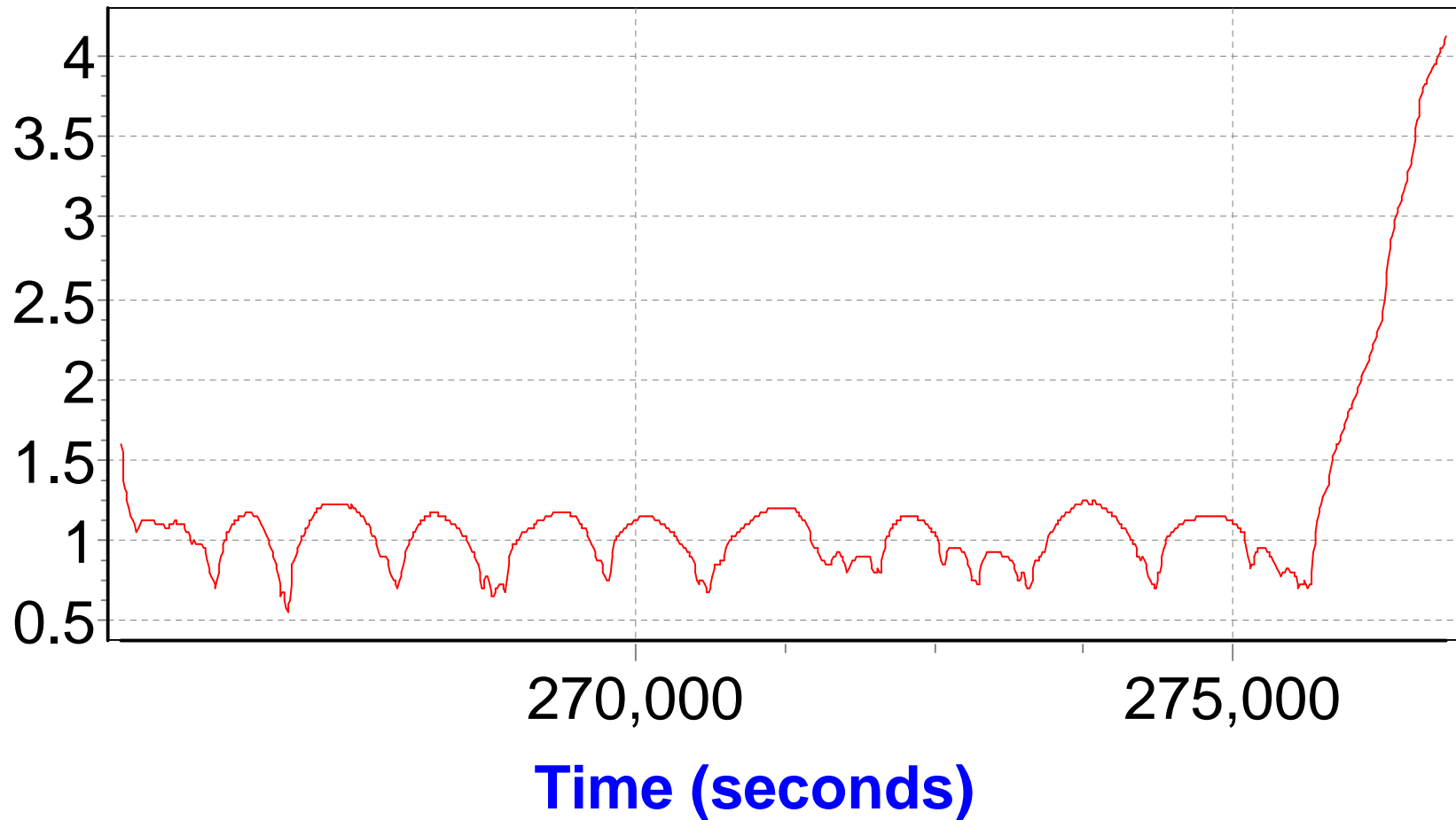




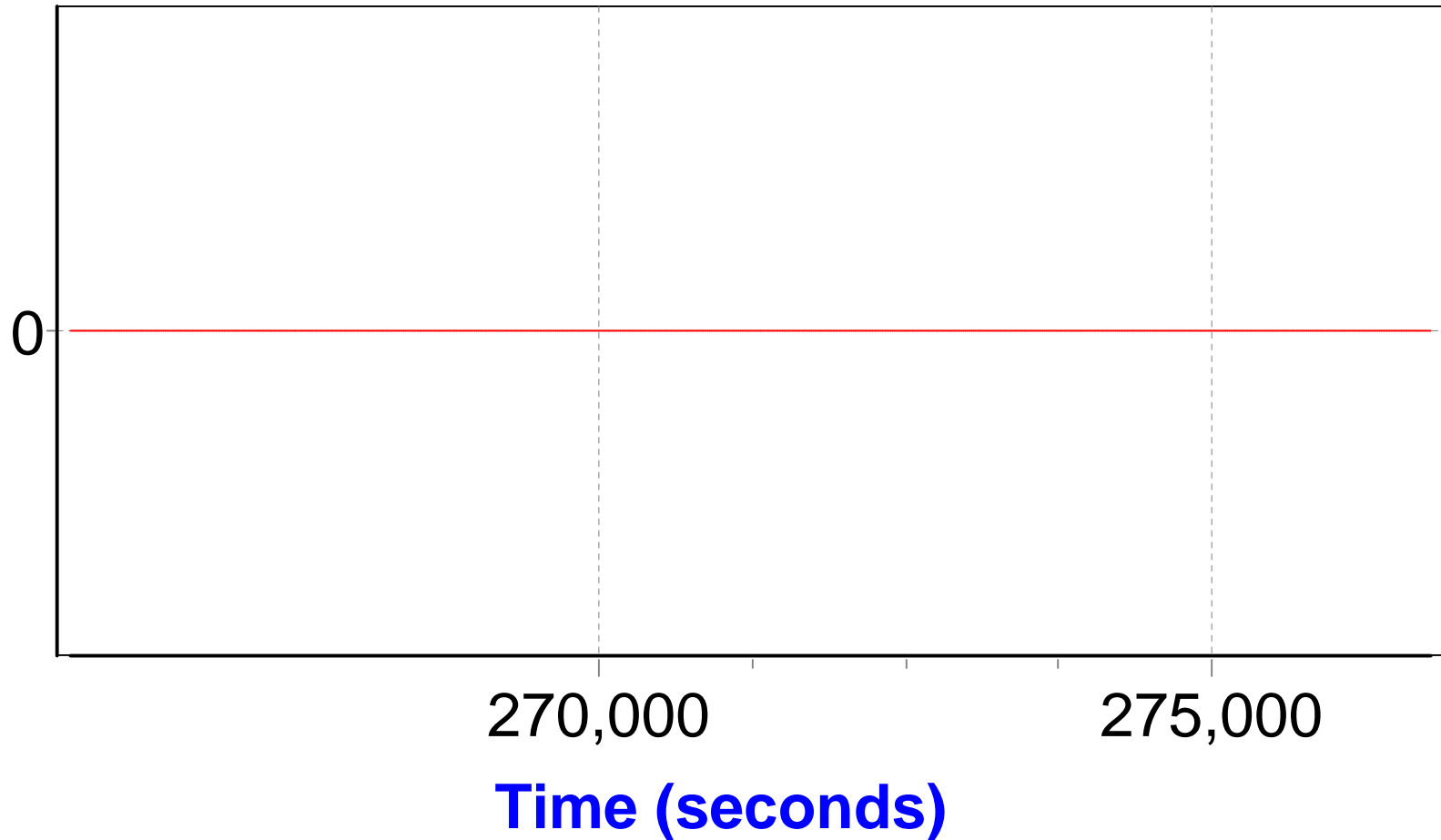
## S/D Navigator Y Misalignment RMS (arcmin)



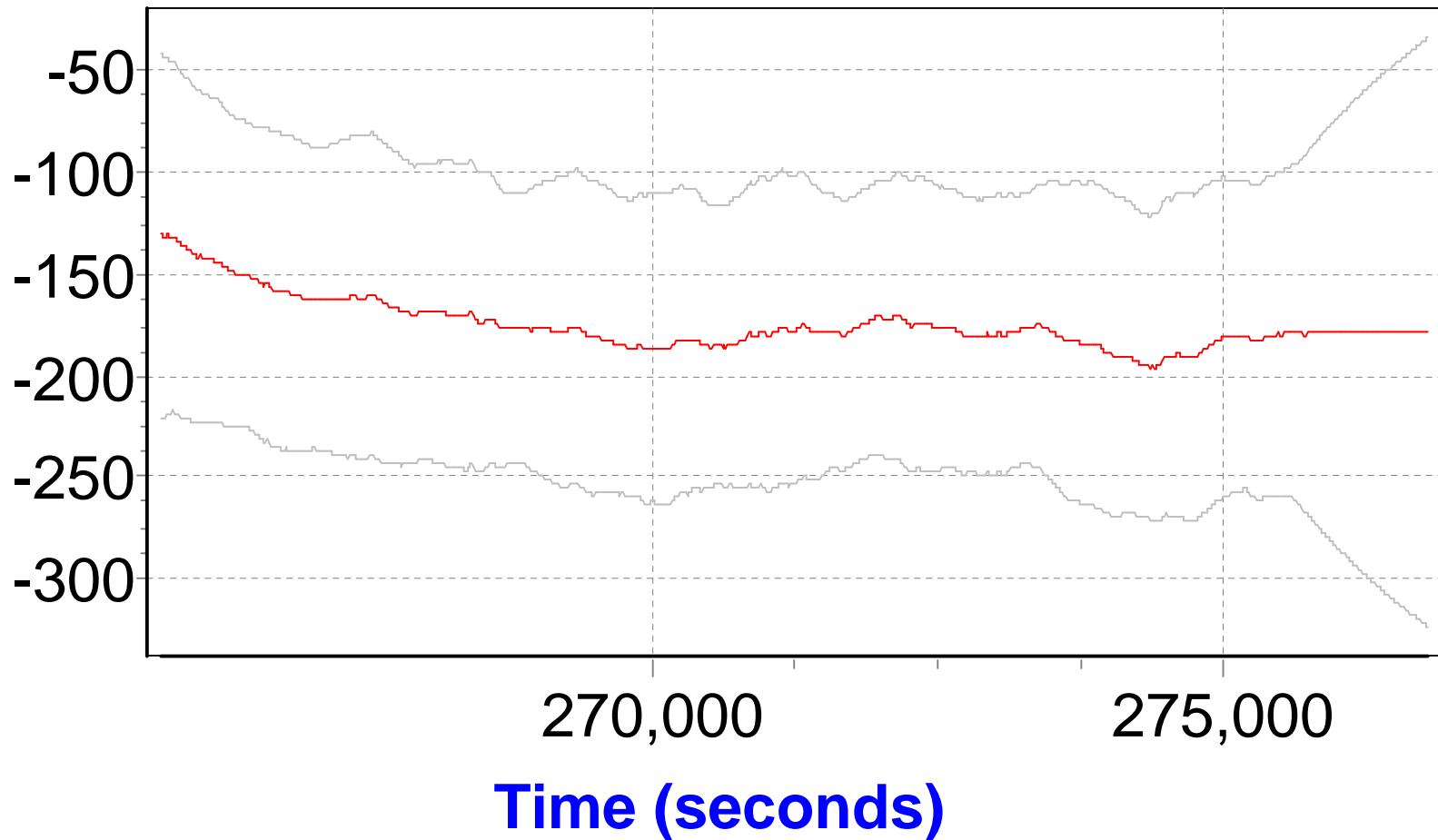
## S/D Navigator Z Misalignment RMS (arcmin)



## S/D Navigator COS(Z Misalignment)-1 RMS (radians)



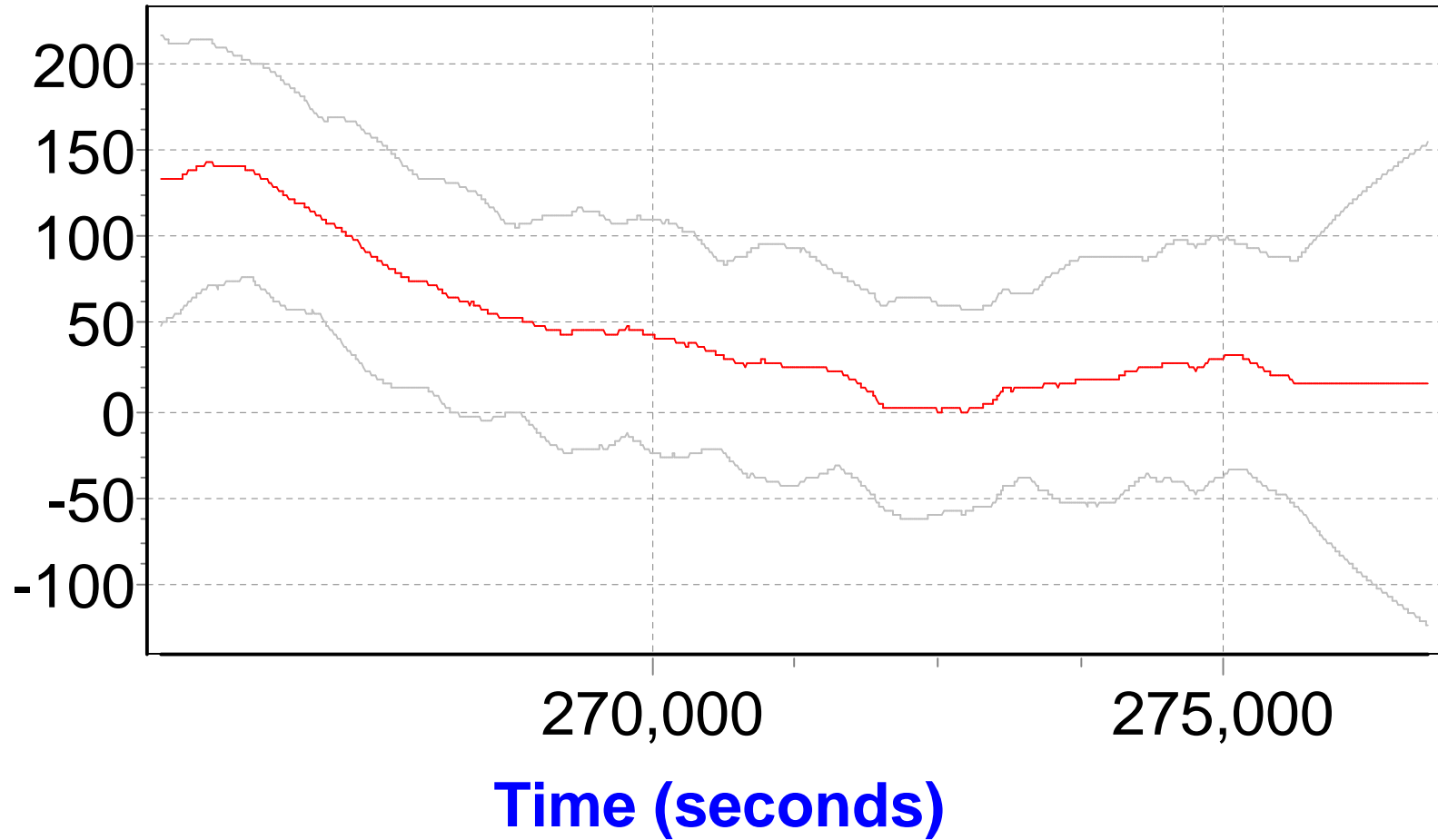
## X Accelerometer Bias (micro-g)



G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

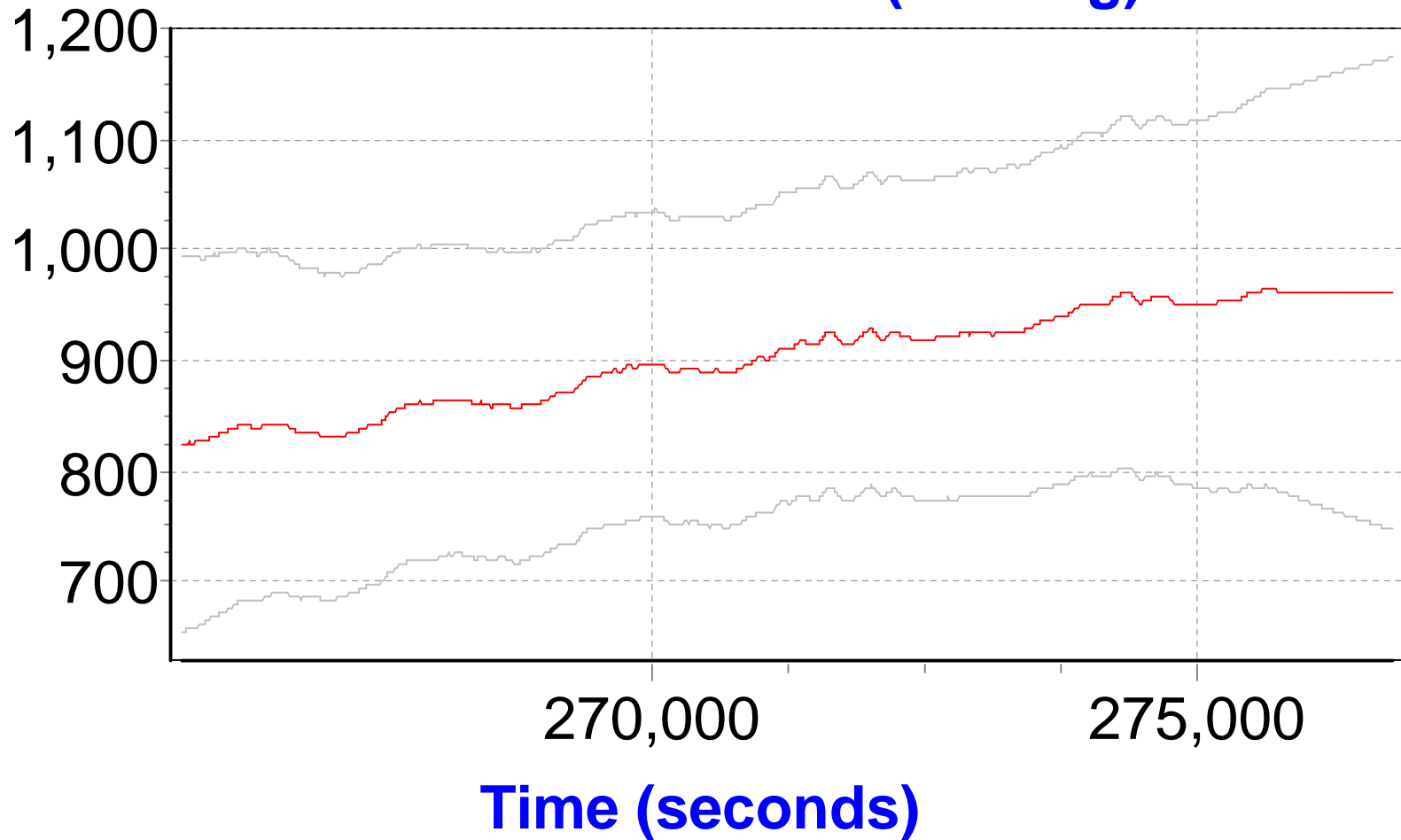
## Y Accelerometer Bias (micro-g)



G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

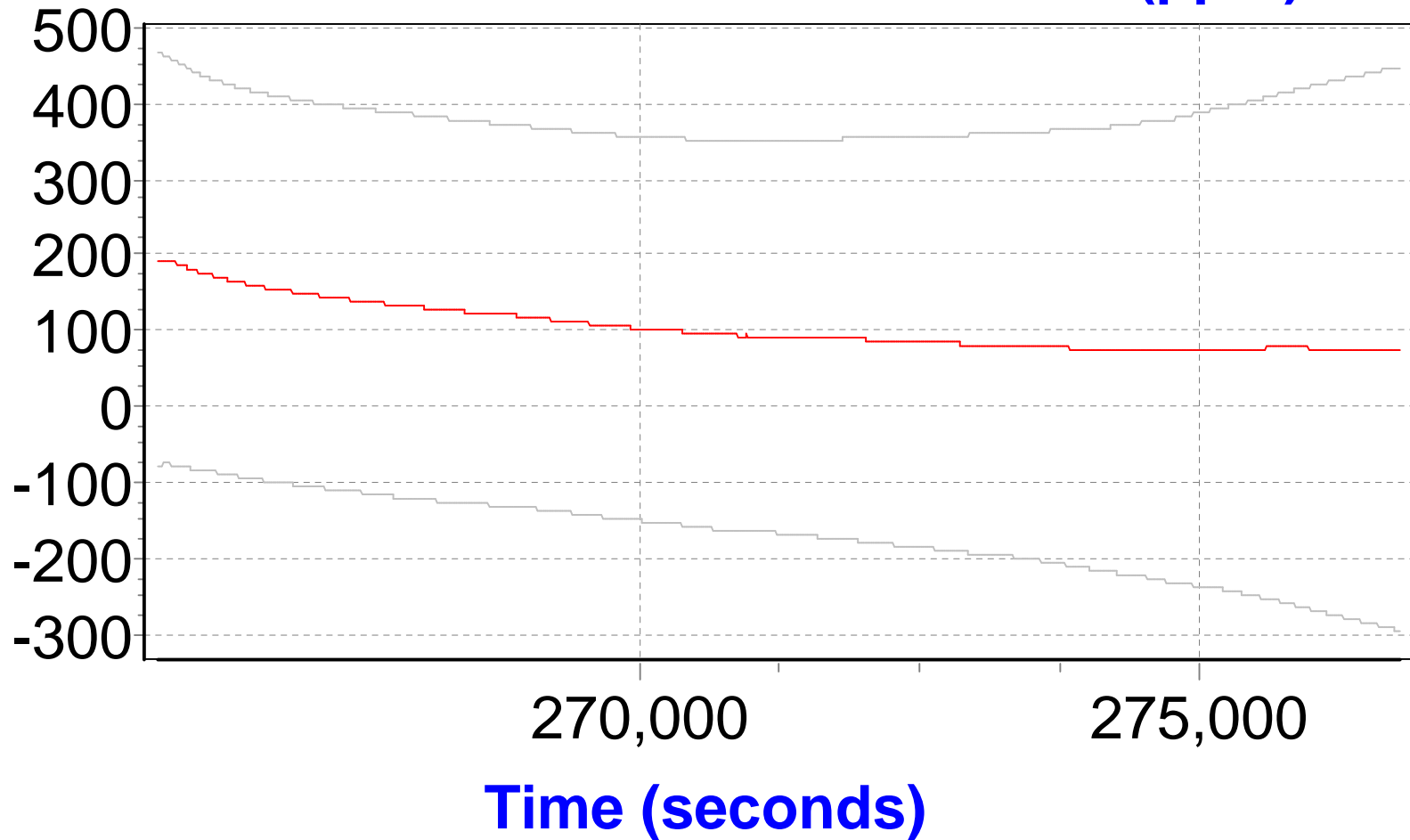
## Z Accelerometer Bias (micro-g)



G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

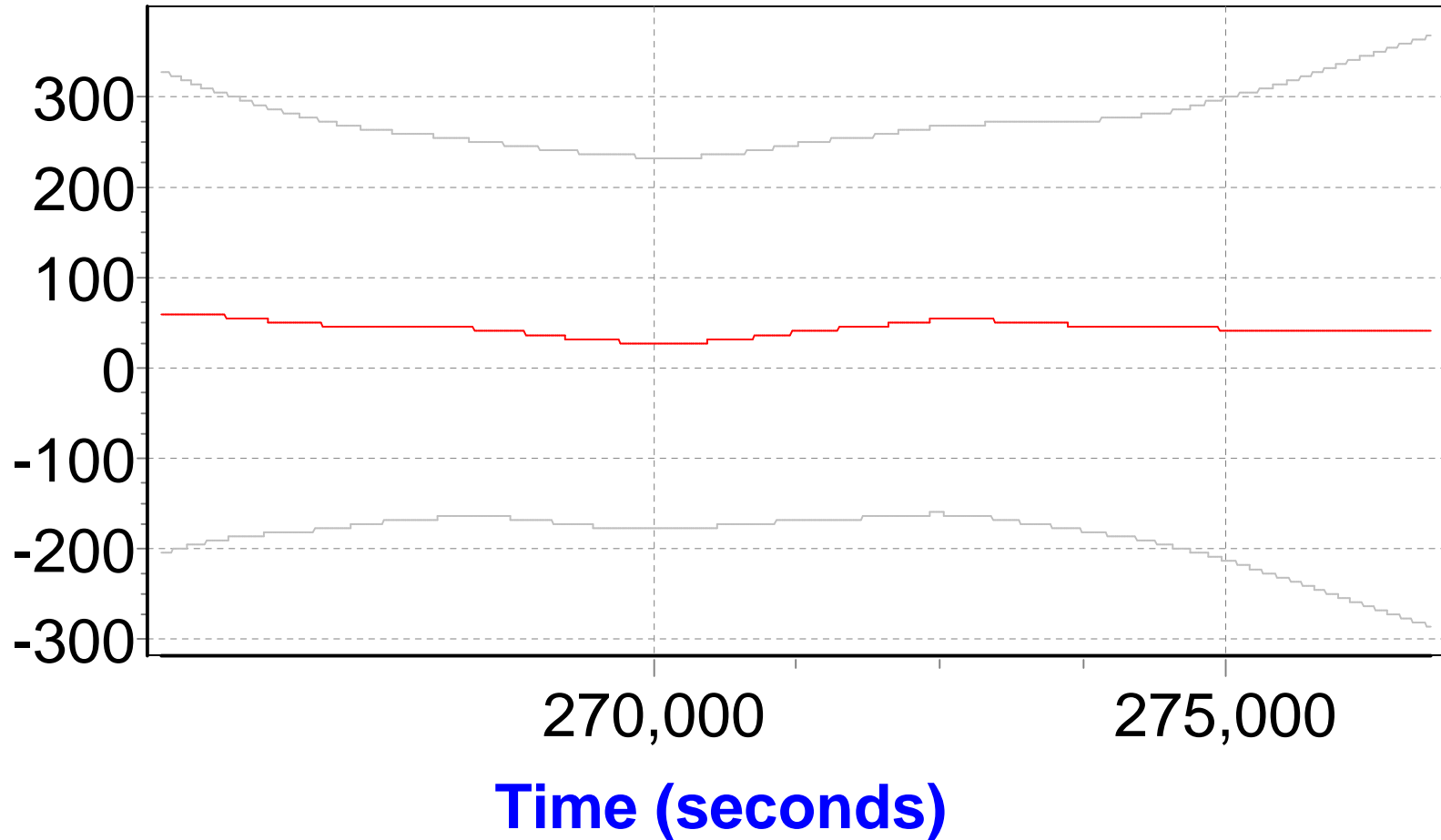
## X Accelerometer Scale Factor Error (ppm)



G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

## Y Accelerometer Scale Factor Error (ppm)

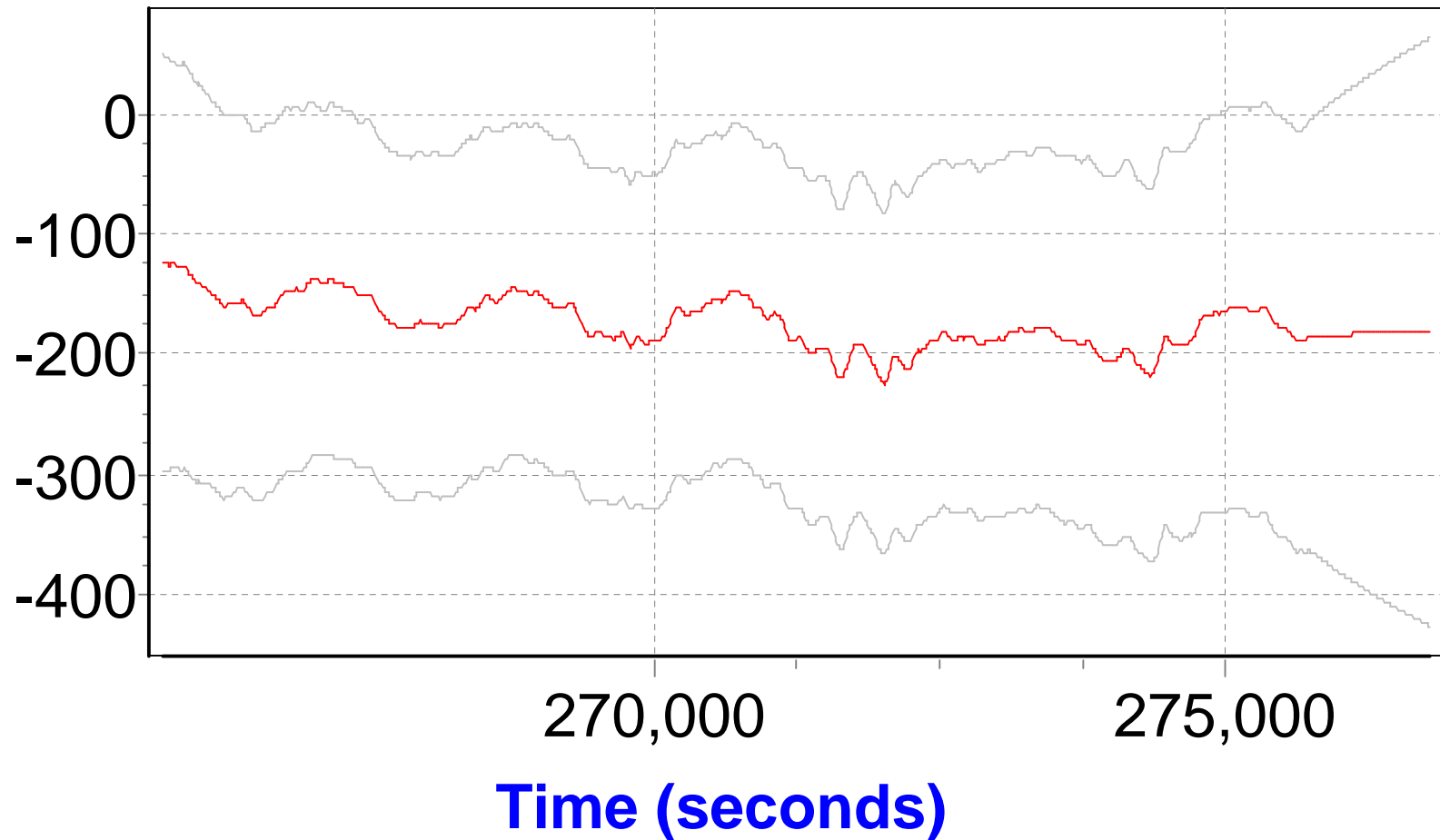


G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat



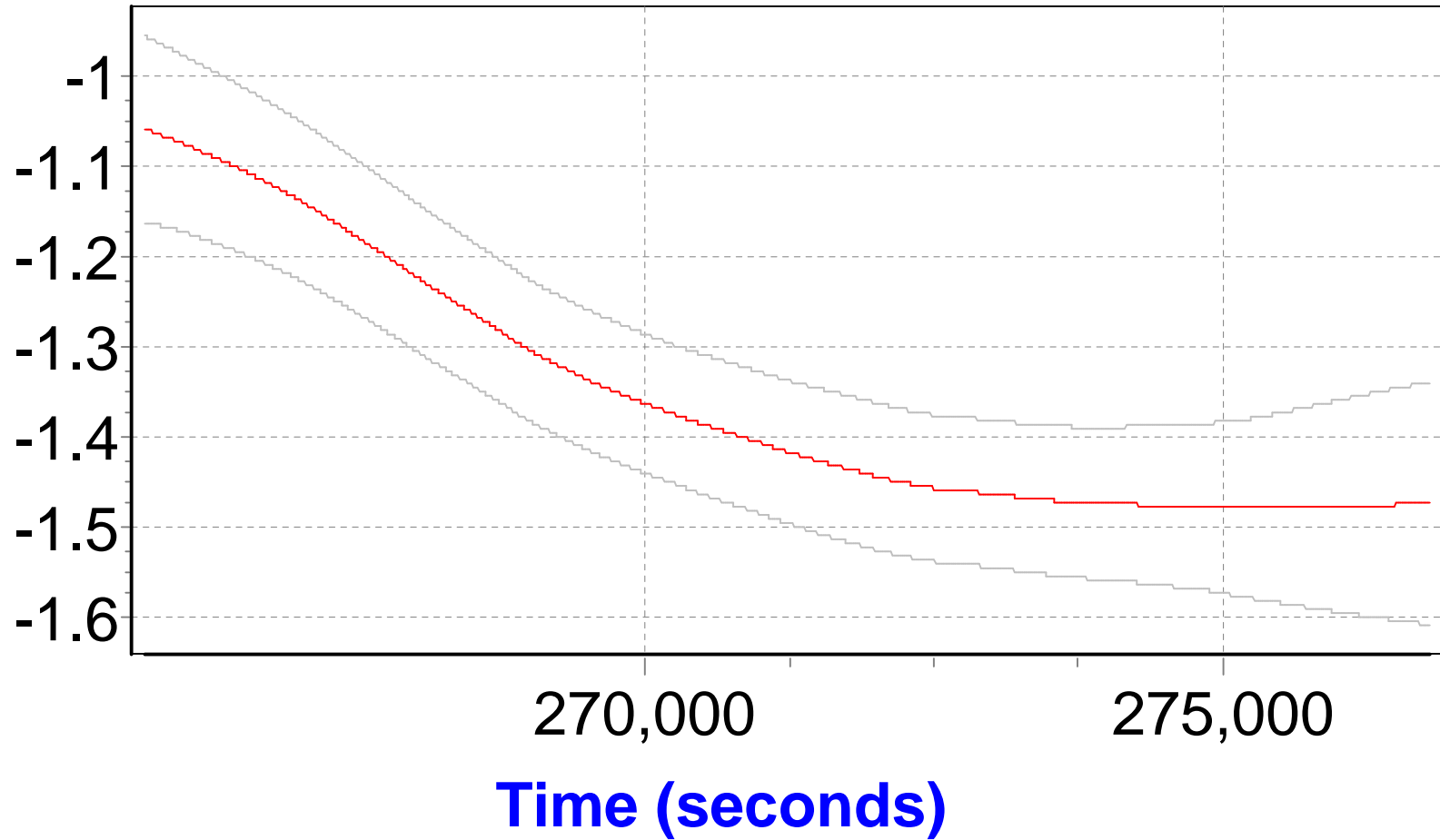
## Z Accelerometer Scale Factor Error (ppm)



G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

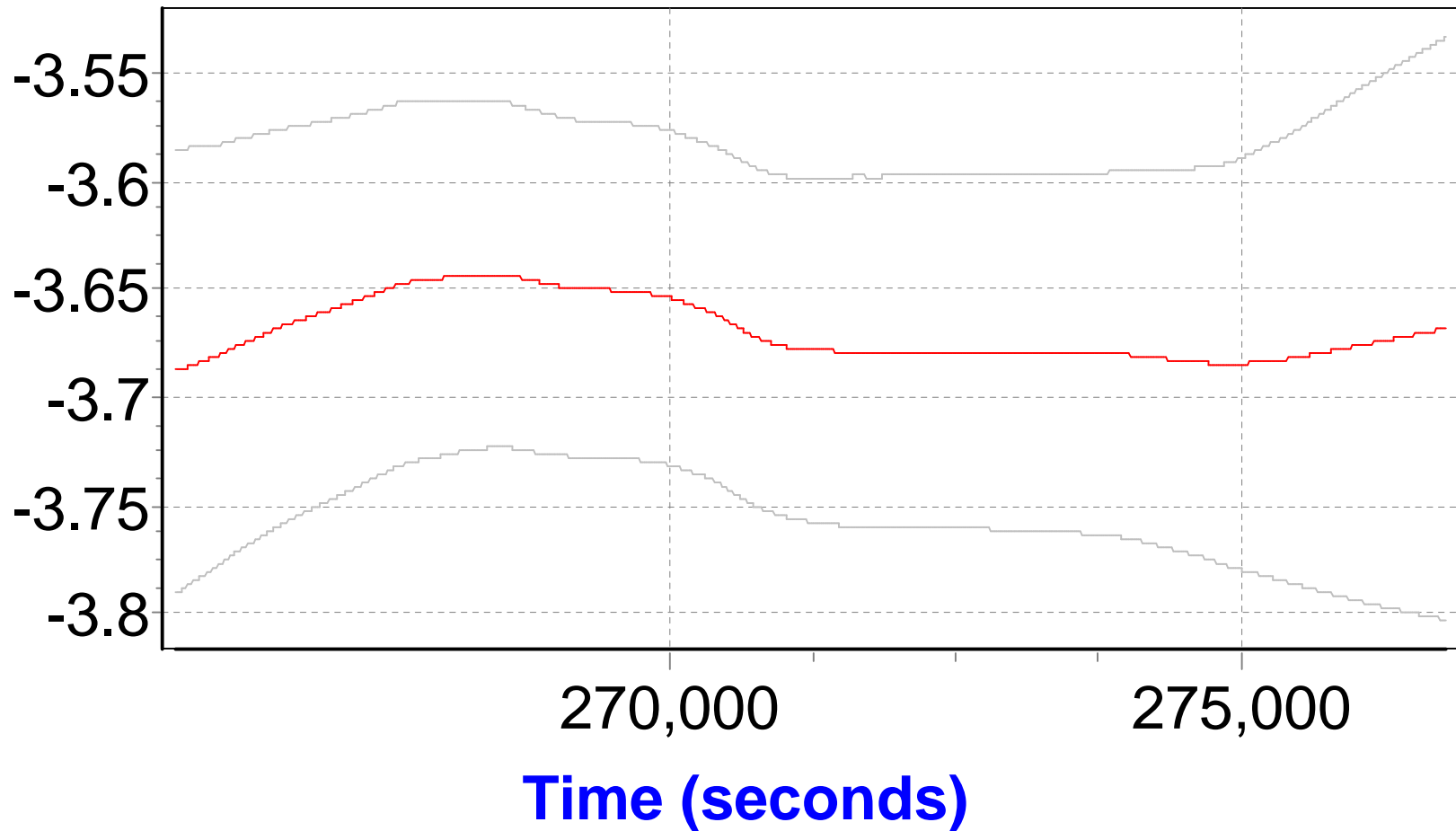
## X Gyro Bias (degrees/hour)



G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

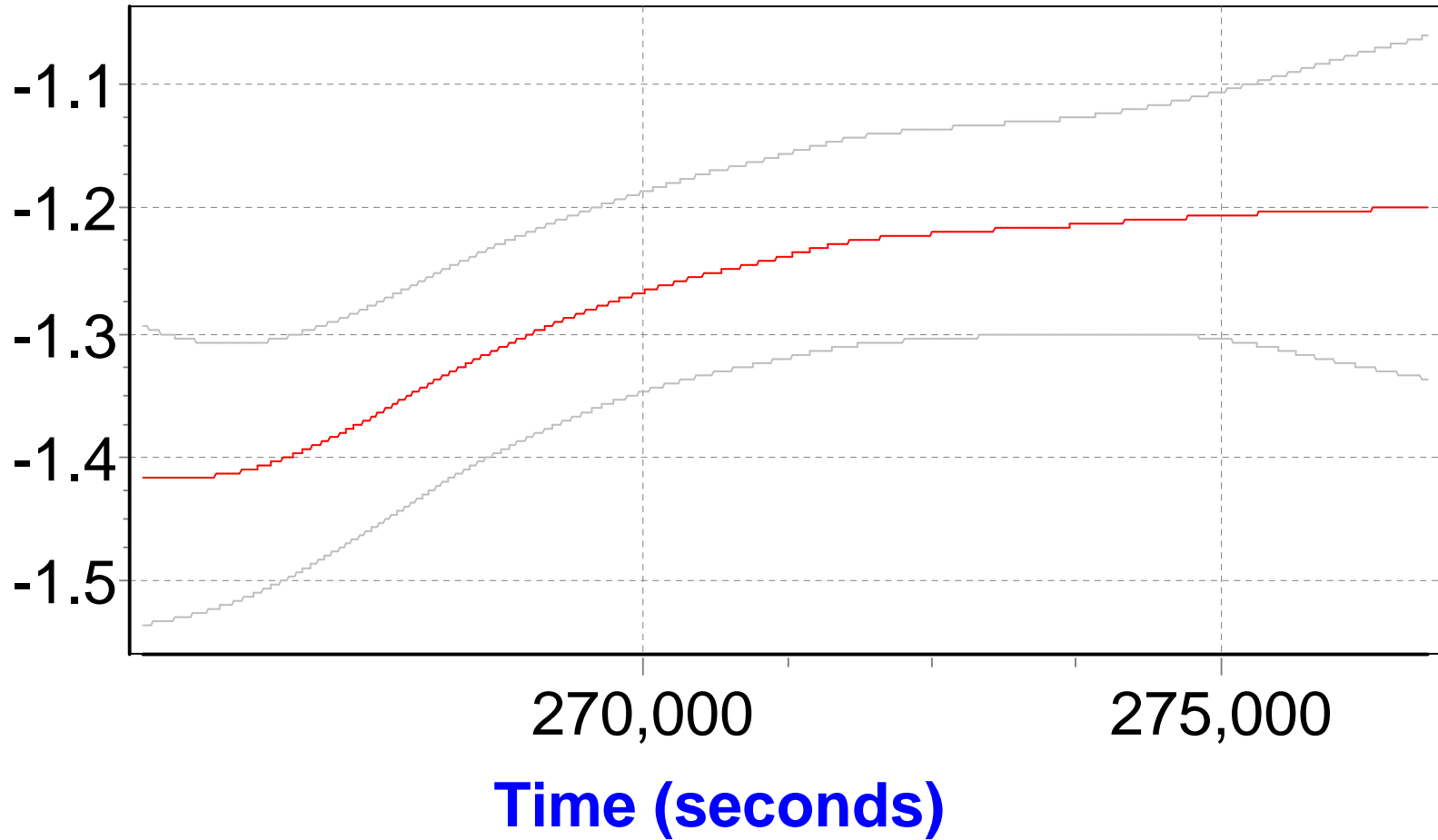
## Y Gyro Bias (degrees/hour)



G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

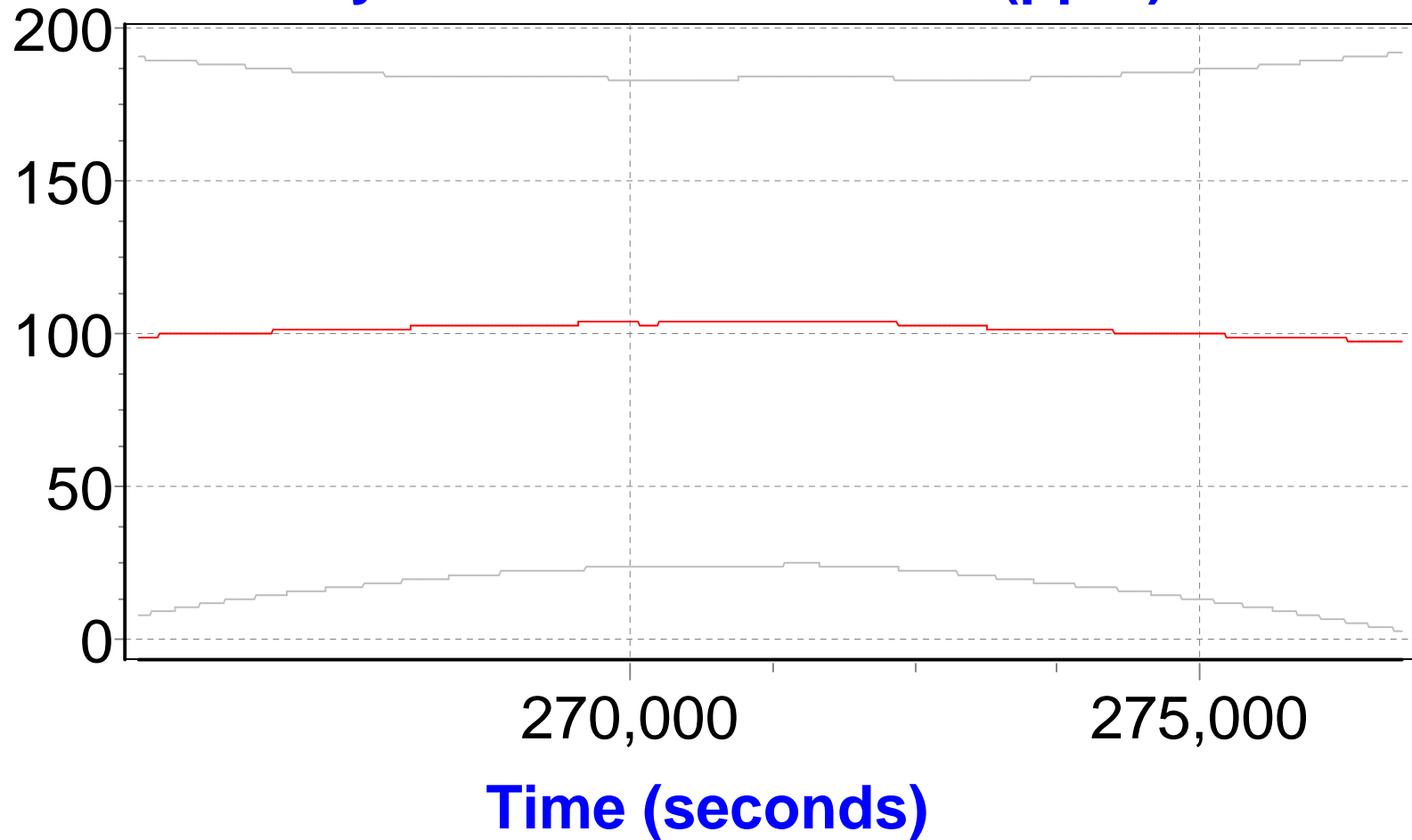
## Z Gyro Bias (degrees/hour)



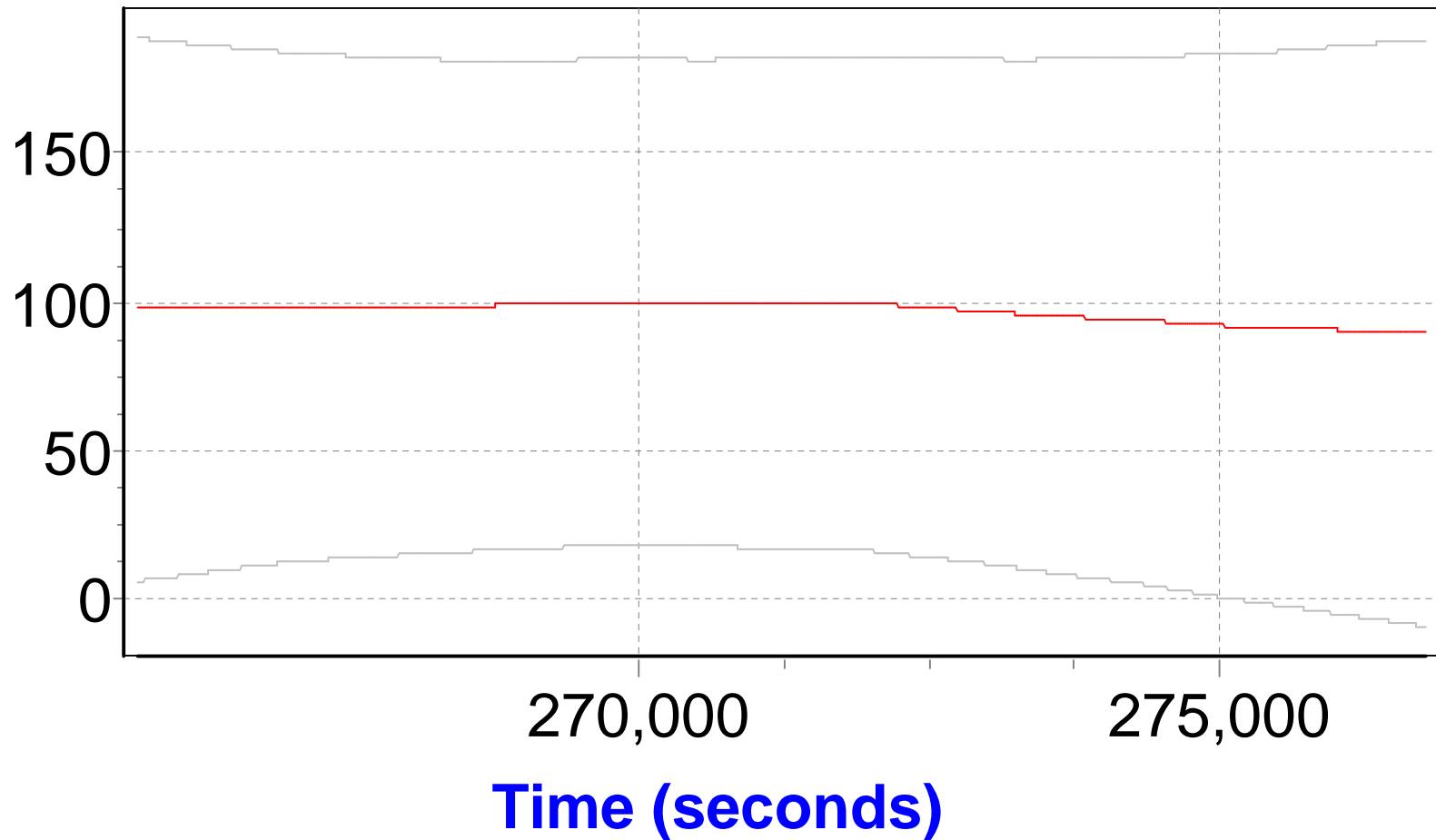
G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

## X Gyro Scale Factor Error (ppm)



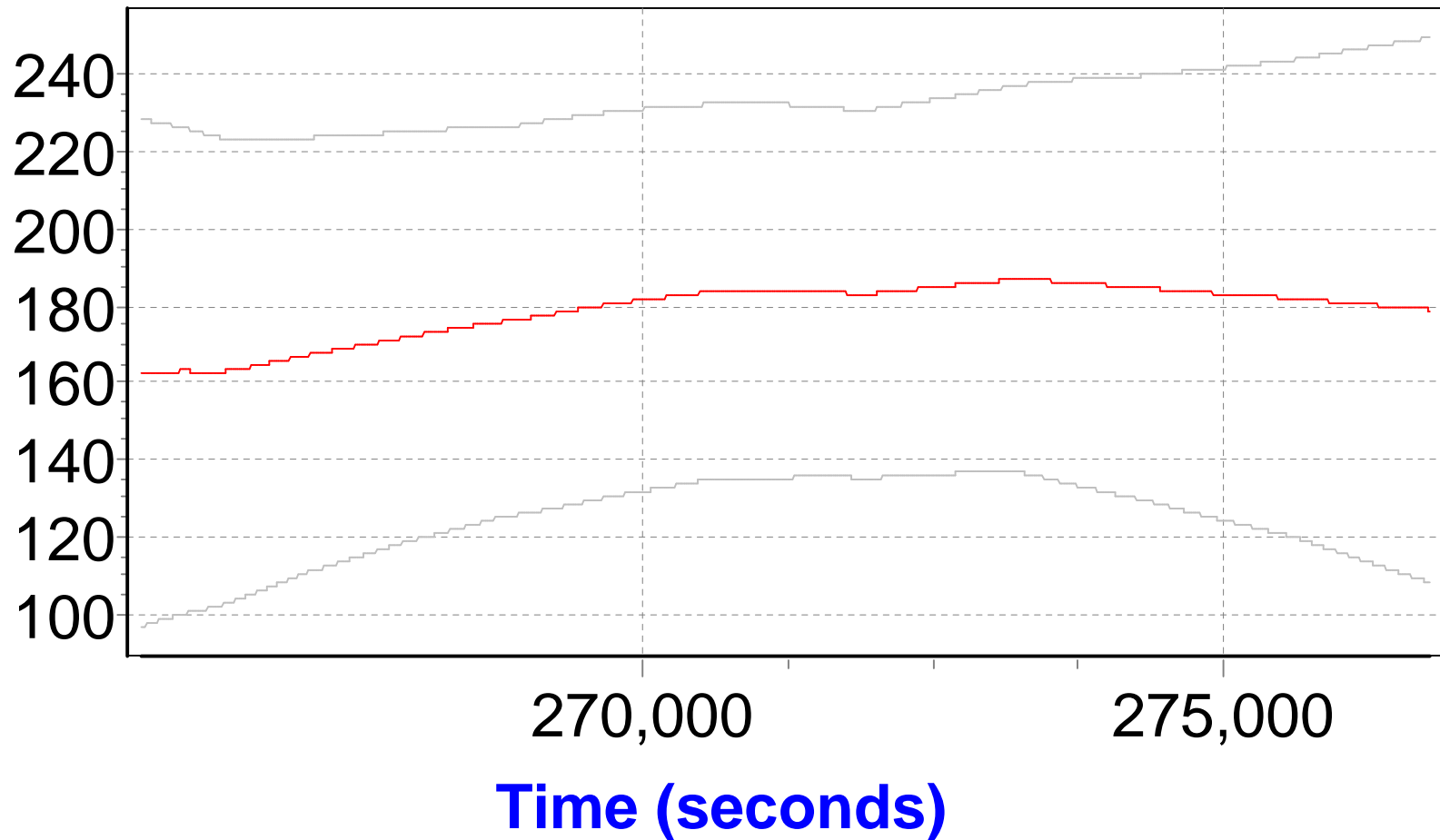
## Y Gyro Scale Factor Error (ppm)



G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

## Z Gyro Scale Factor Error (ppm)

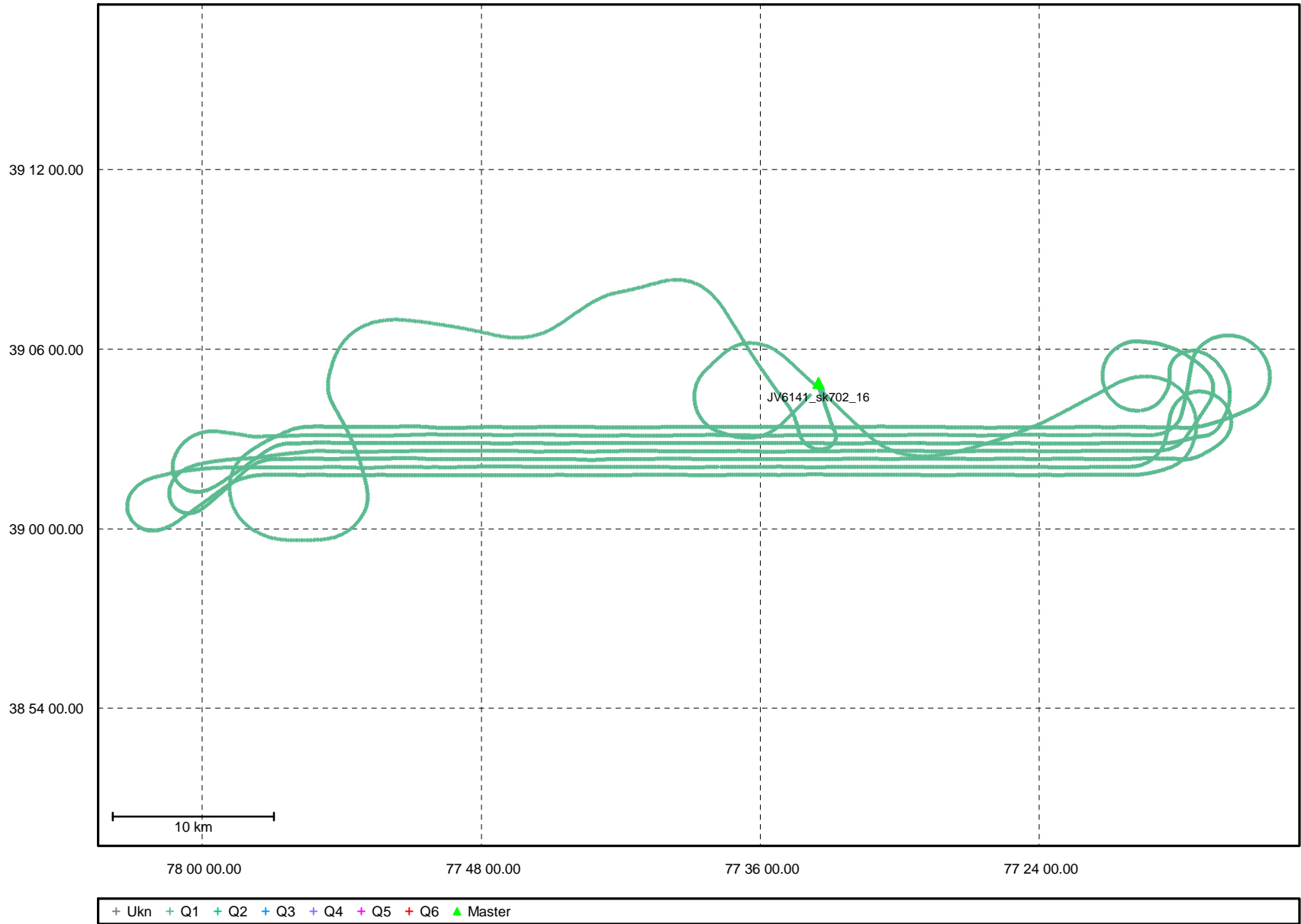


G:\o112094c\3\_Processed\Extract\smers\_o112094c.dat

G:\o112094c\3\_Processed\Extract\smrms\_o112094c.dat

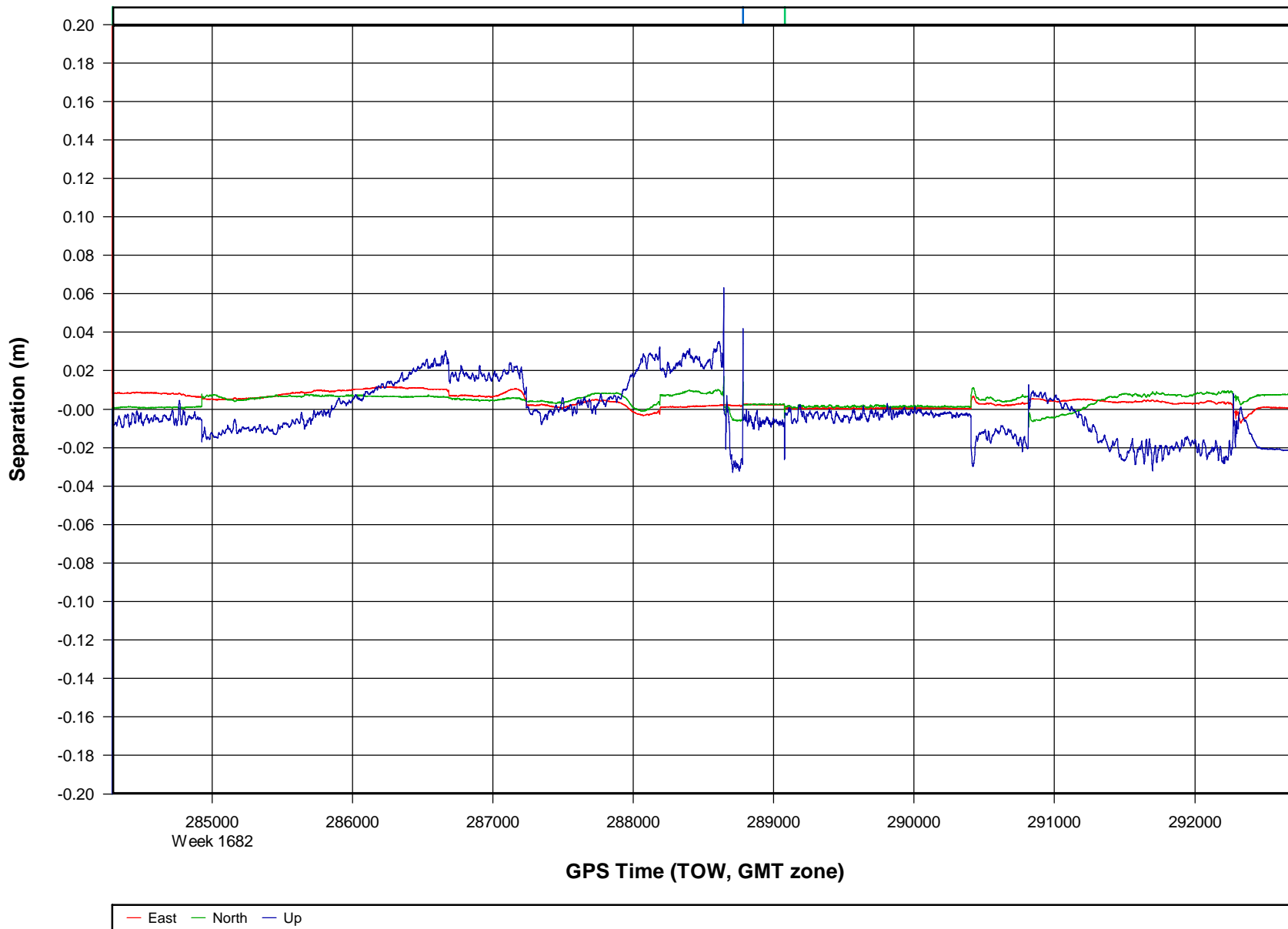
### Combined - Map Run (19)

Geographic, DMS

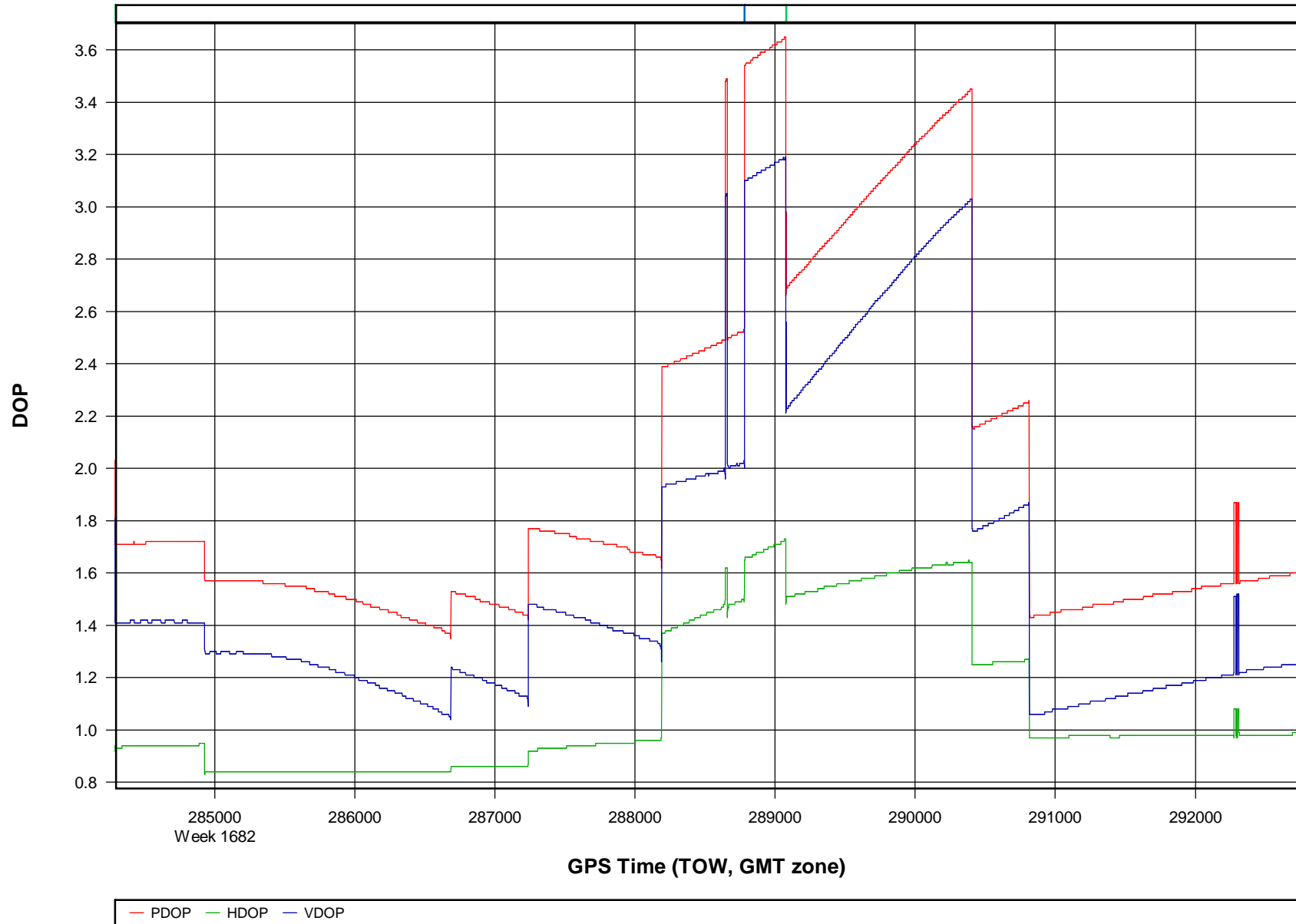




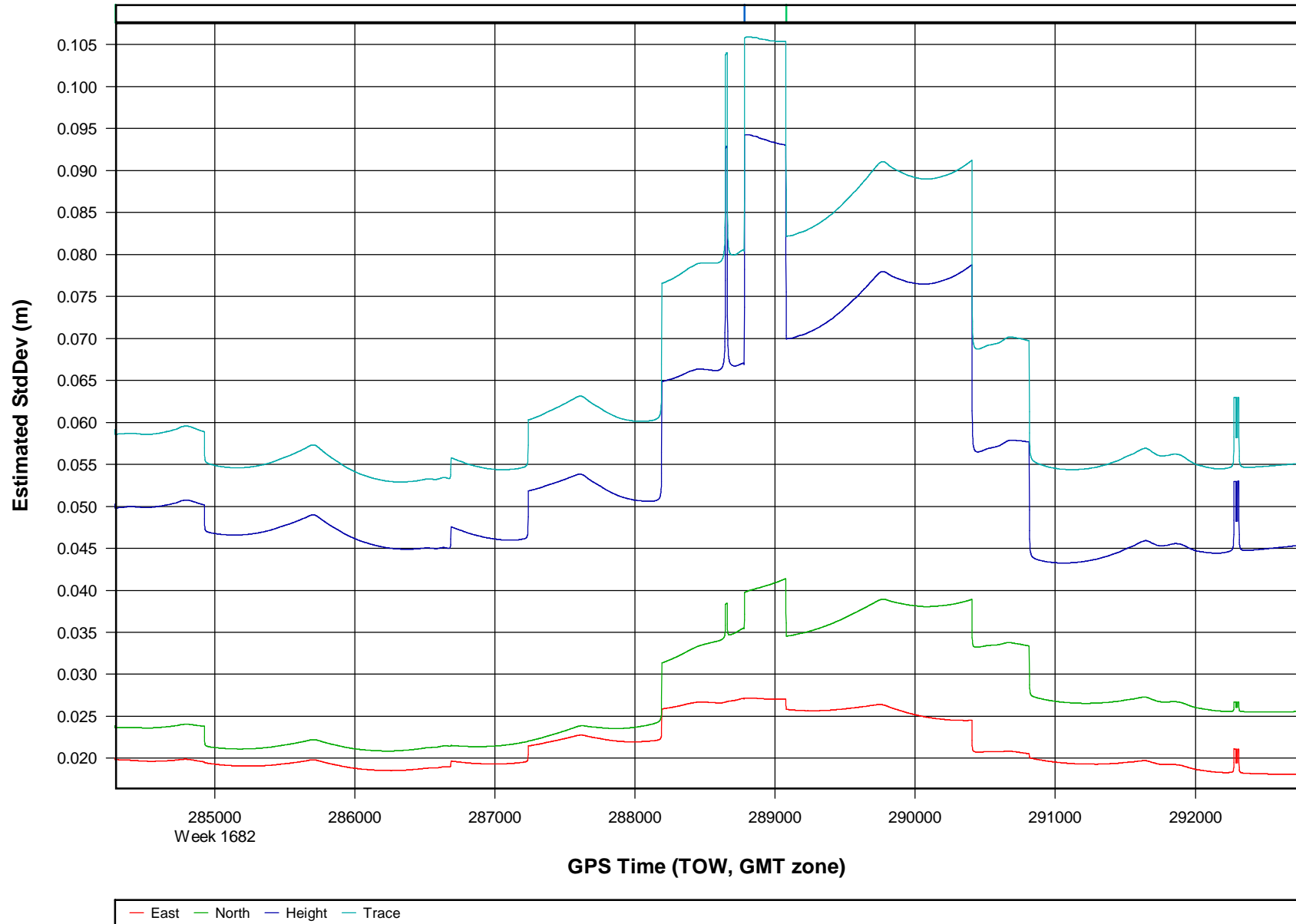
**o112094d [Combined] - Forward/Reverse or Combined Separation Plot**



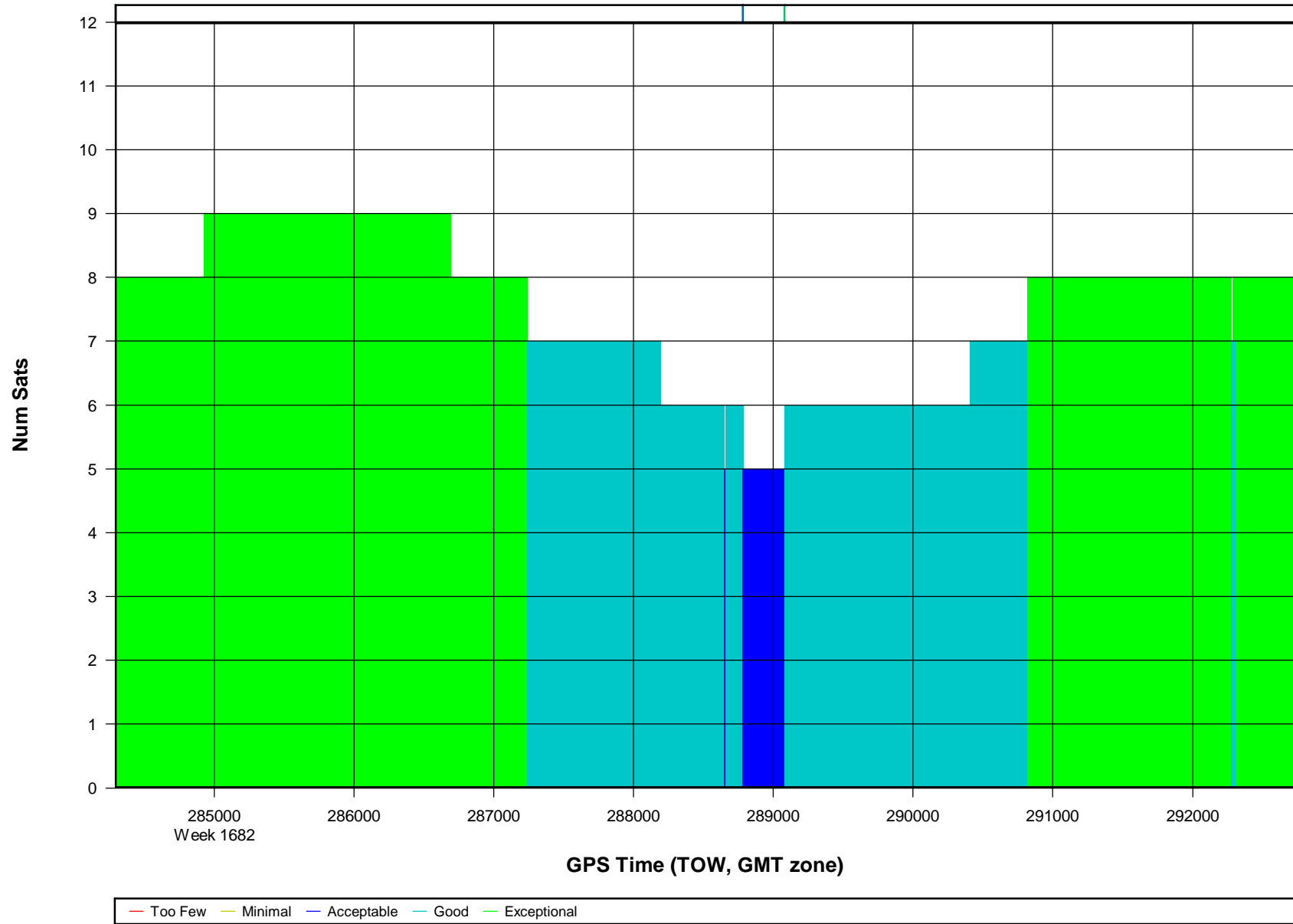
**o112094d [Combined] - PDOP, HDOP, VDOP Plots**



### o112094d [Combined] - Estimated Position Accuracy Plot



### o112094d [Combined] - Number of Satellites Bar Plot



## Processing Summary Information

Program: POSGNSS  
Version: 4.40.2710  
Project: G:\o112094d\3\_Processed\GPS\o112094d.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 102755  
No processed position: 94311  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0161 (m)  
C/A Code: 0.69 (m)  
L1 Doppler: 0.025 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.007 (m)  
North: 0.008 (m)  
Height: 0.019 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (8438 occurrences):  
East: 0.005 (m)  
North: 0.005 (m)  
Height: 0.014 (m)

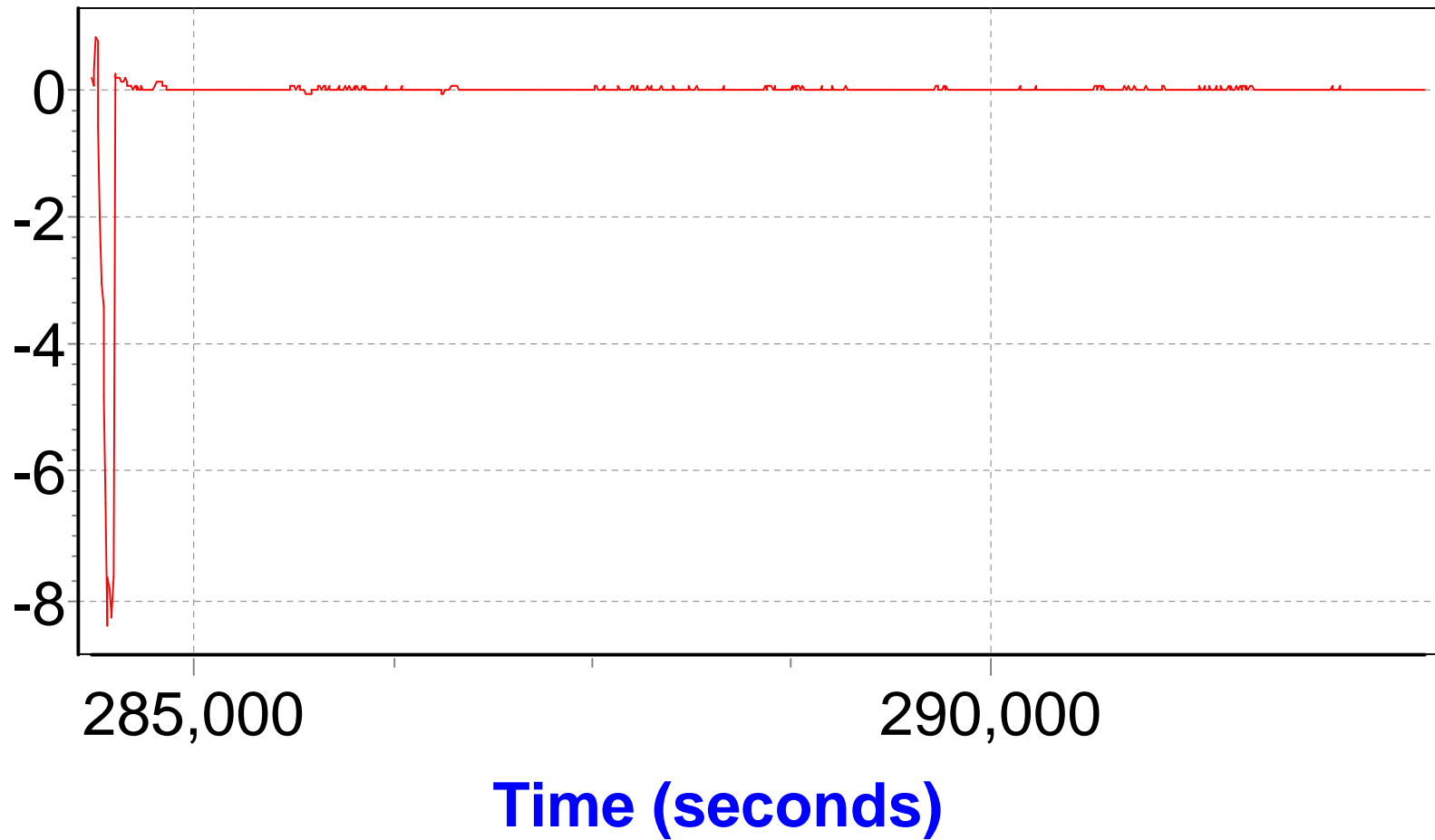
Quality Number Percentages:  
Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:  
0.00 - 0.10 m: 96.4 %  
0.10 - 0.30 m: 3.6 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

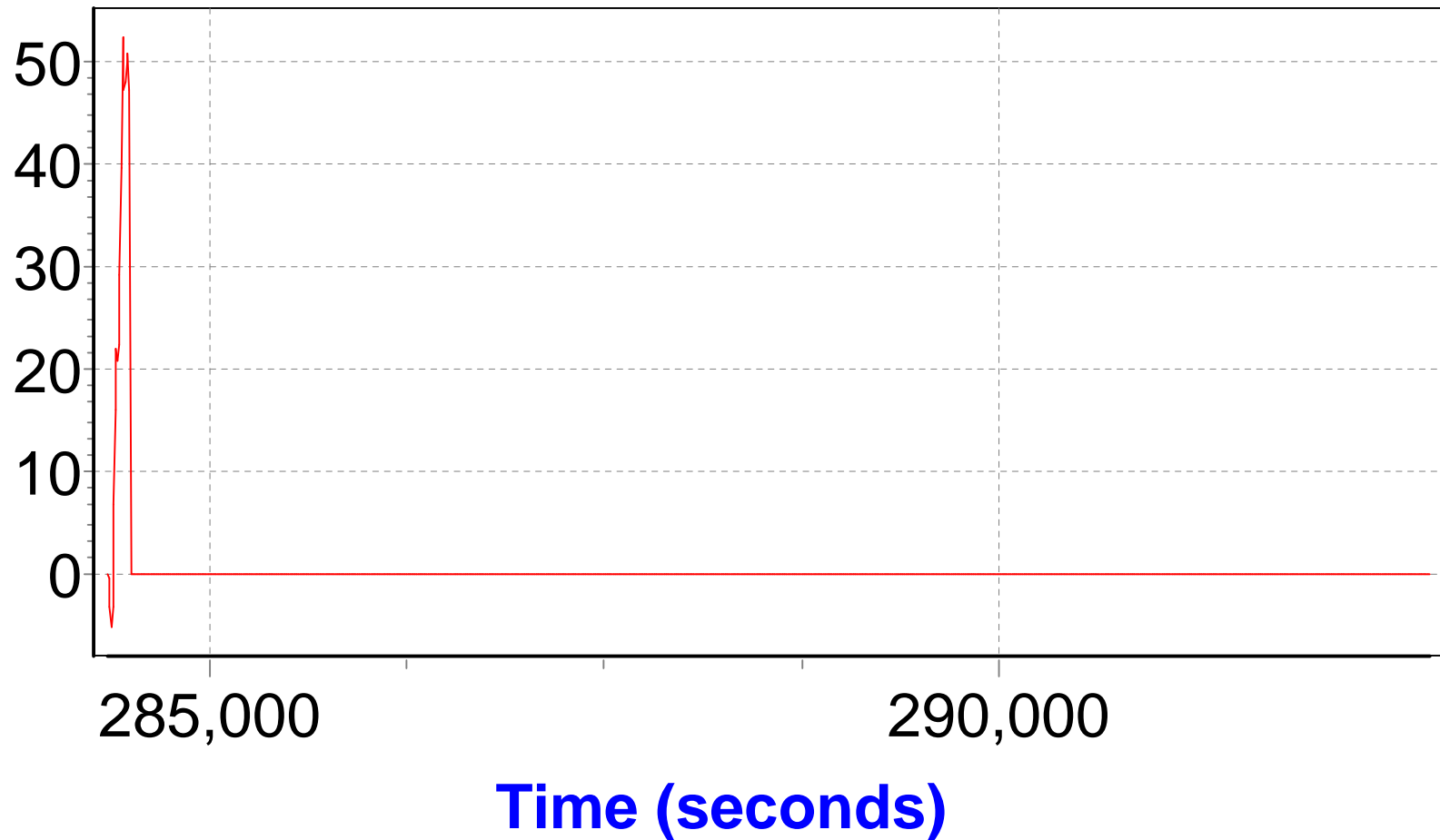
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

Baseline Distances:  
Maximum: 43.610 (km)  
Minimum: 0.109 (km)  
Average: 17.684 (km)  
First Epoch: 1.337 (km)  
Last Epoch: 0.508 (km)

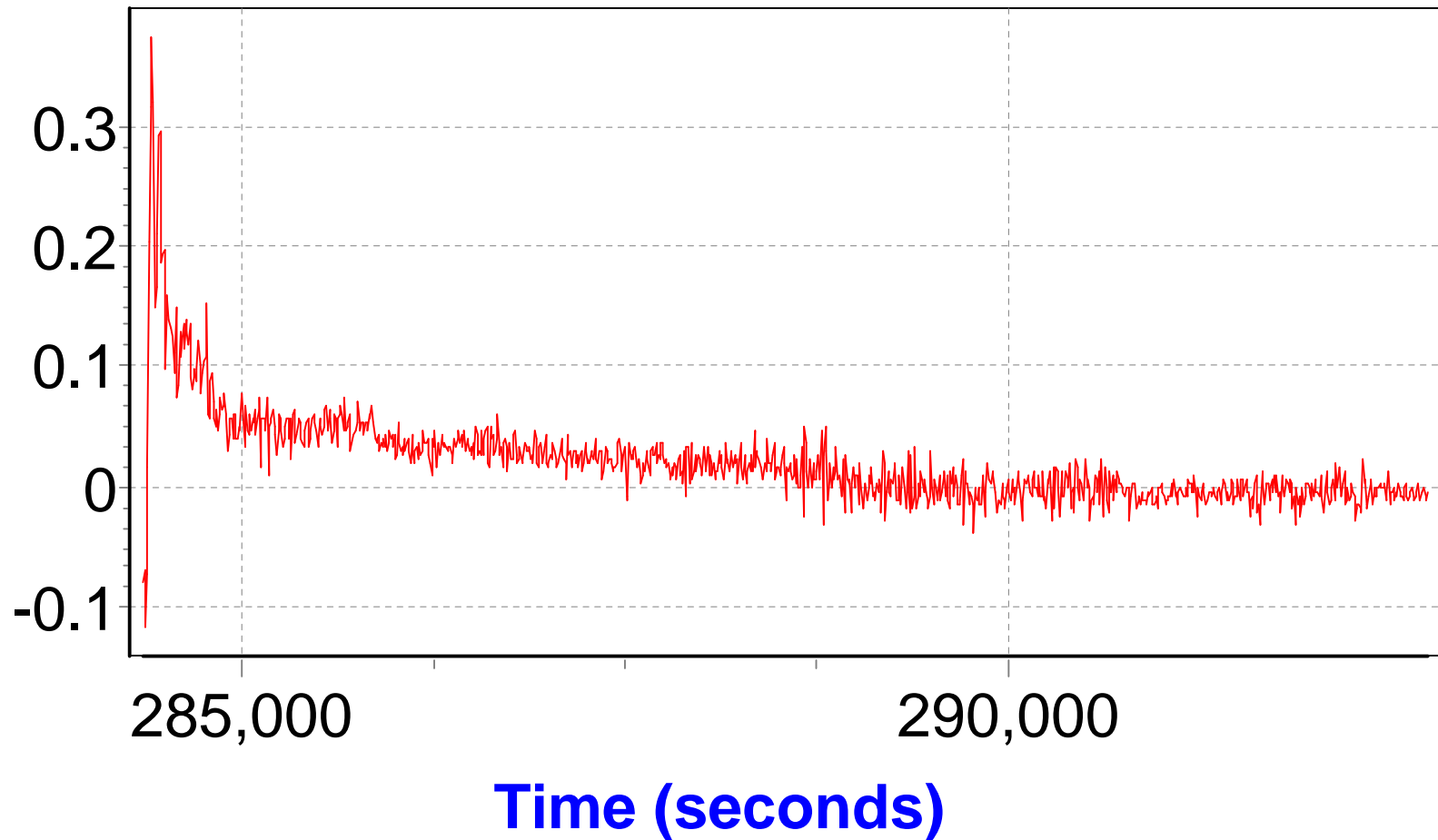
## S/D Navigator X Position Error (meters)



## S/D Navigator Y Position Error (meters)

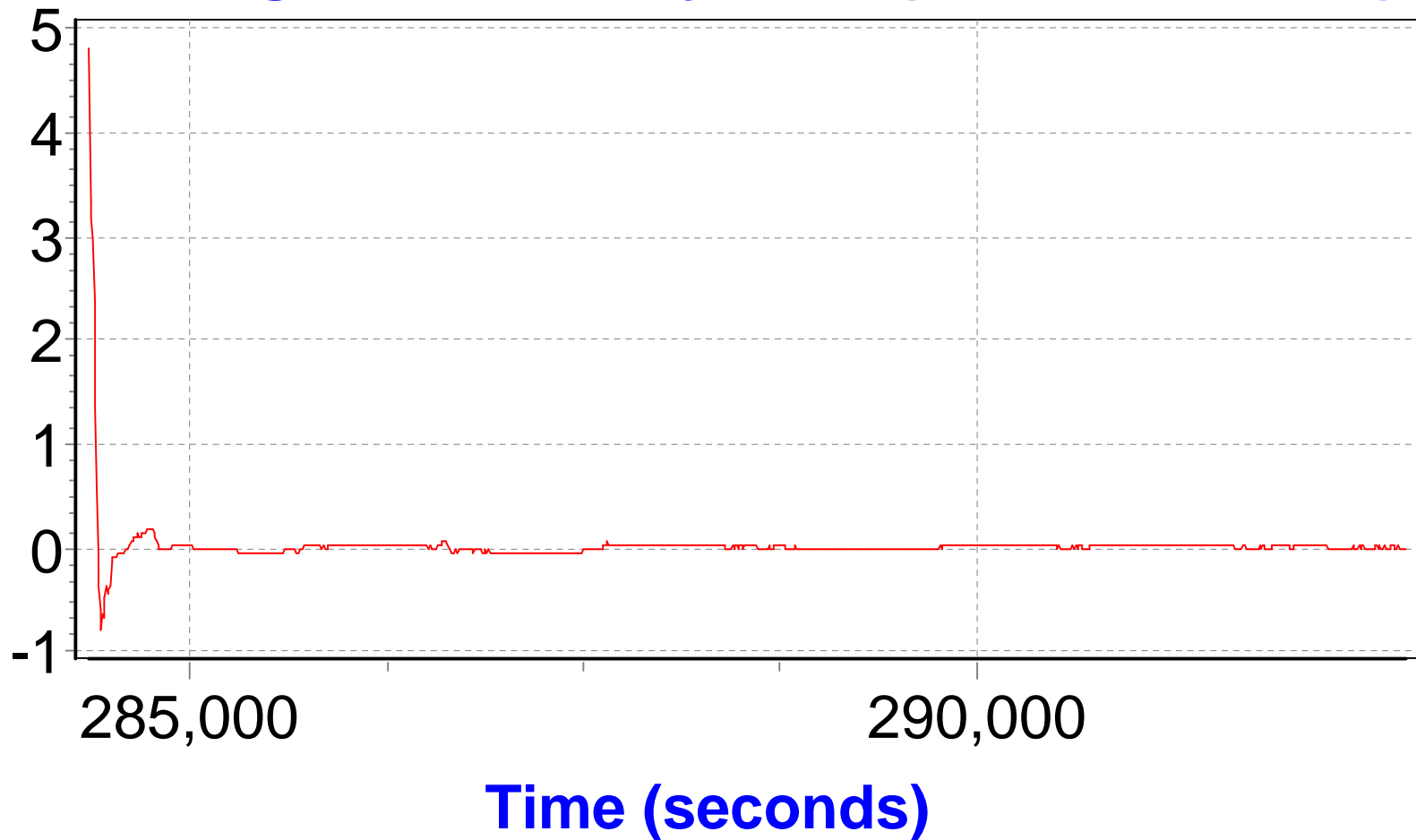


## S/D Navigator Z Position Error (meters)

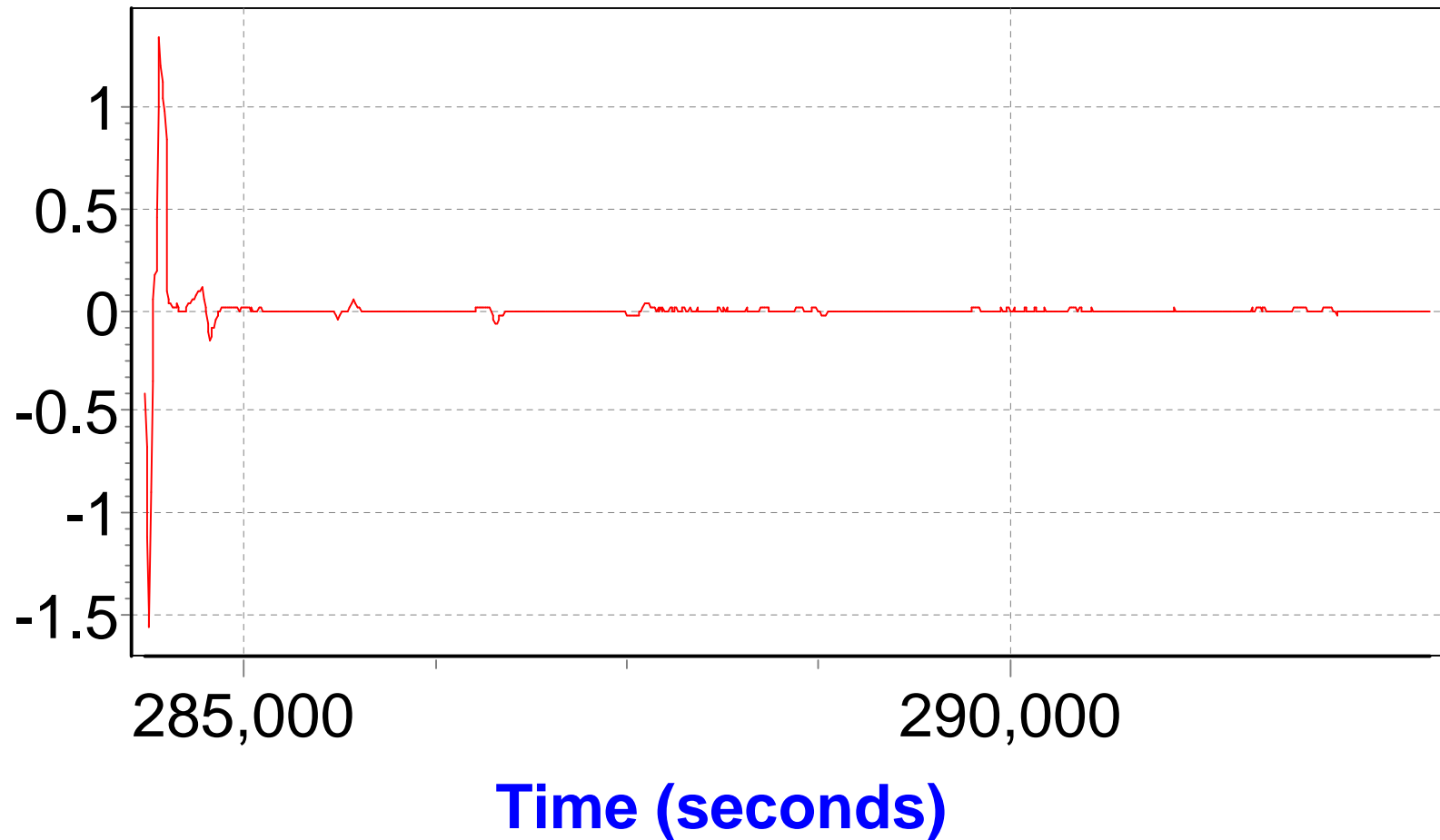




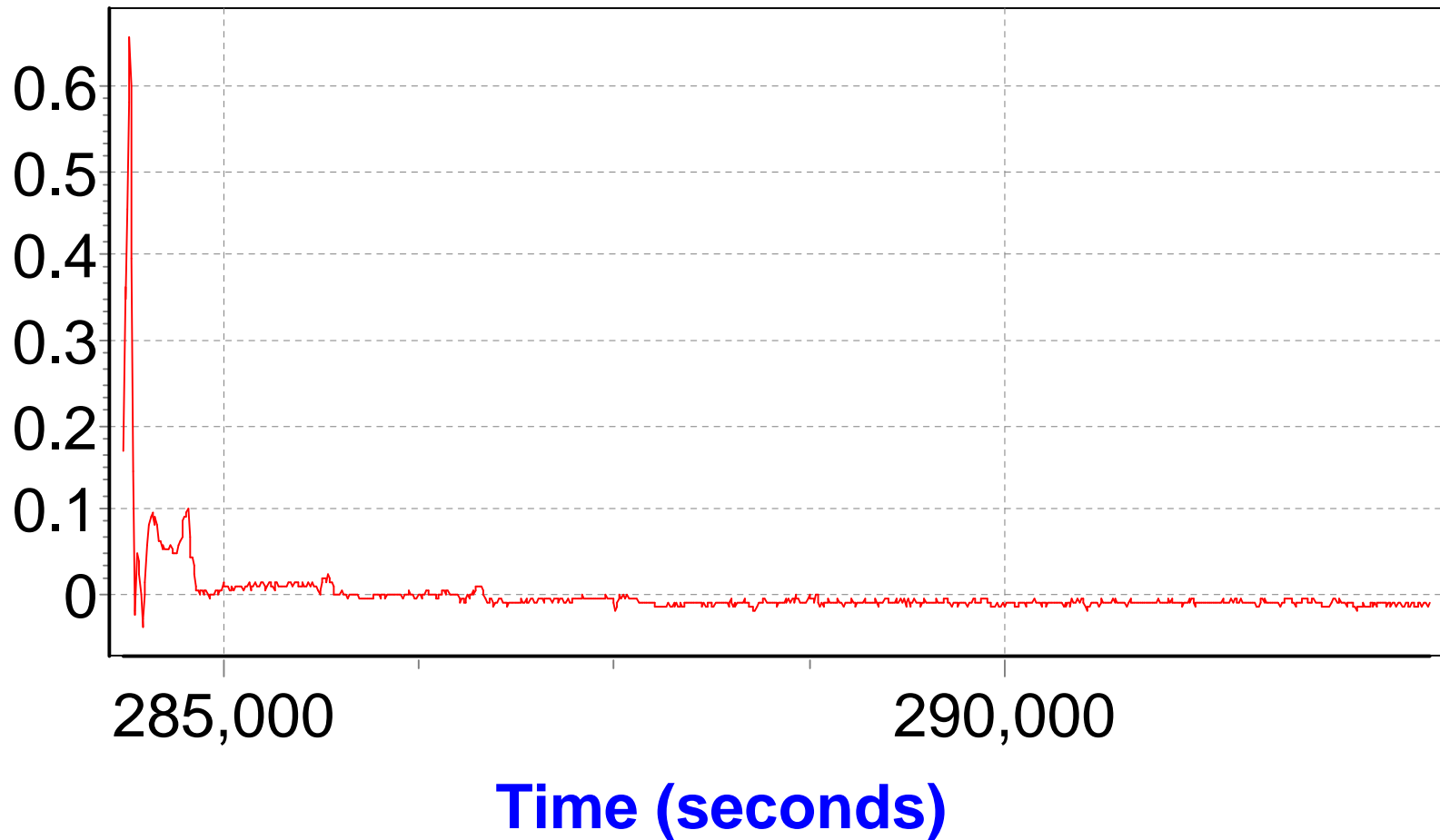
## S/D Navigator X Velocity Error (meters/seconds)



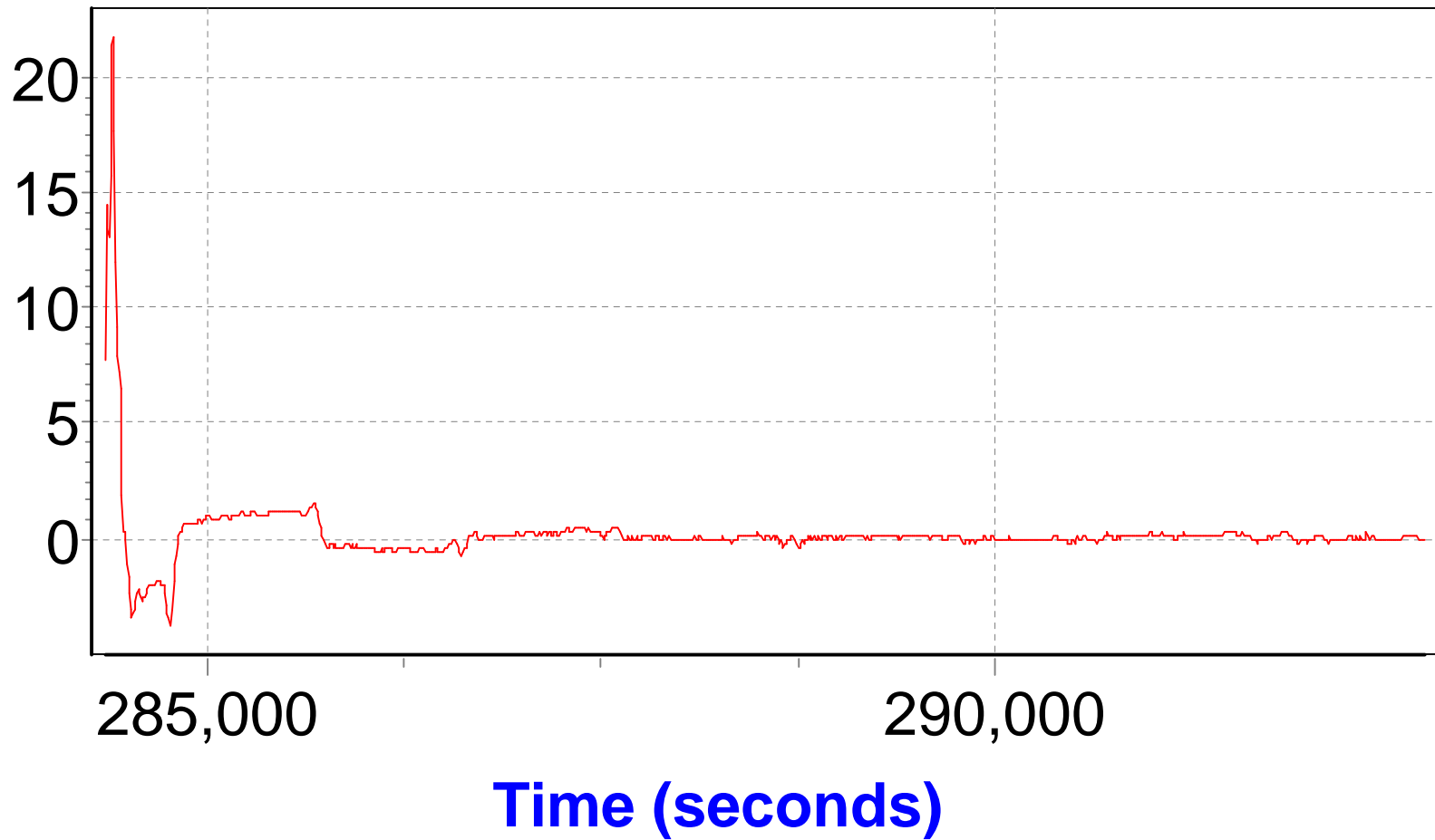
## S/D Navigator Y Velocity Error (meters/seconds)



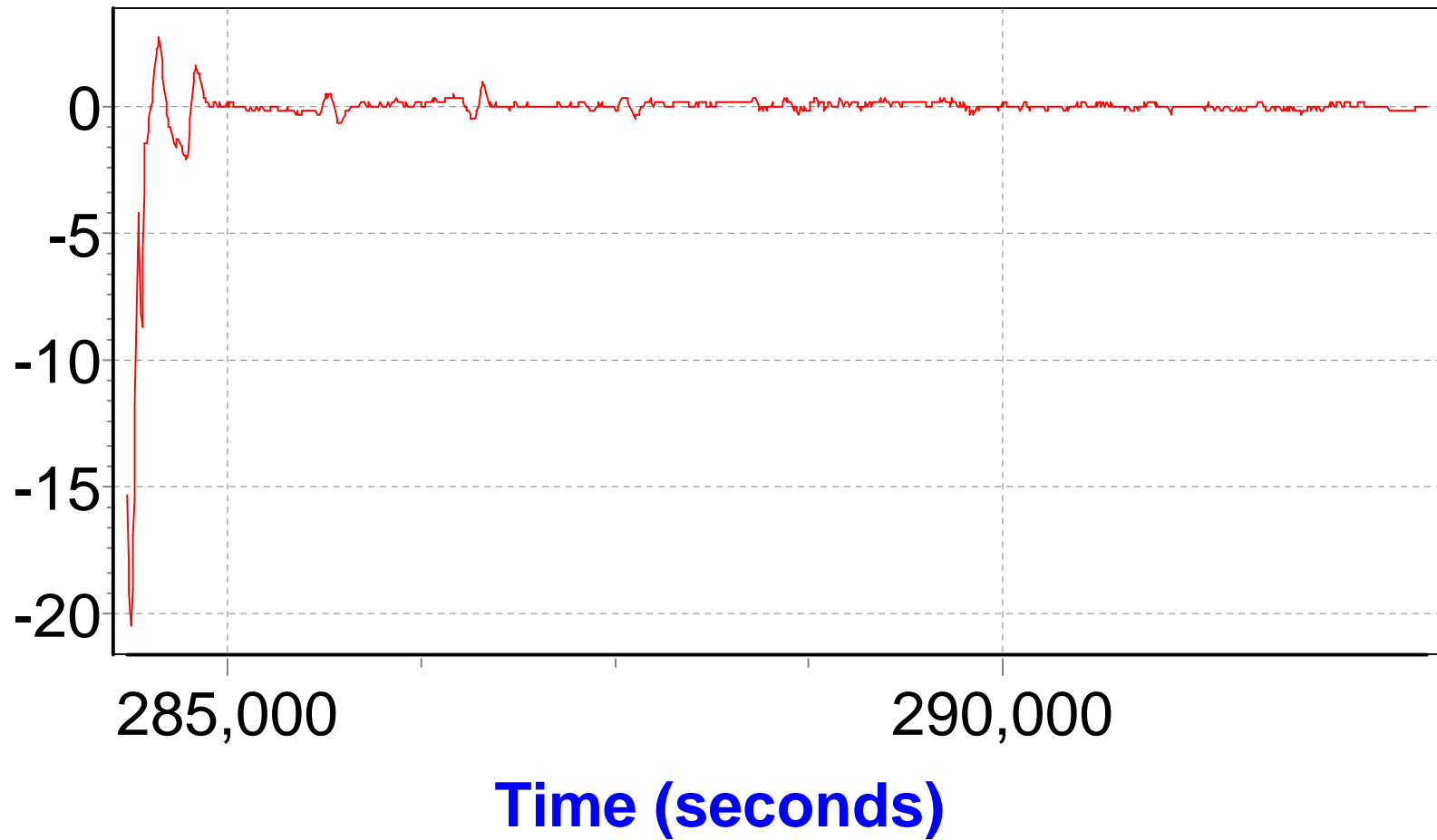
## S/D Navigator Z Velocity Error (meters/seconds)



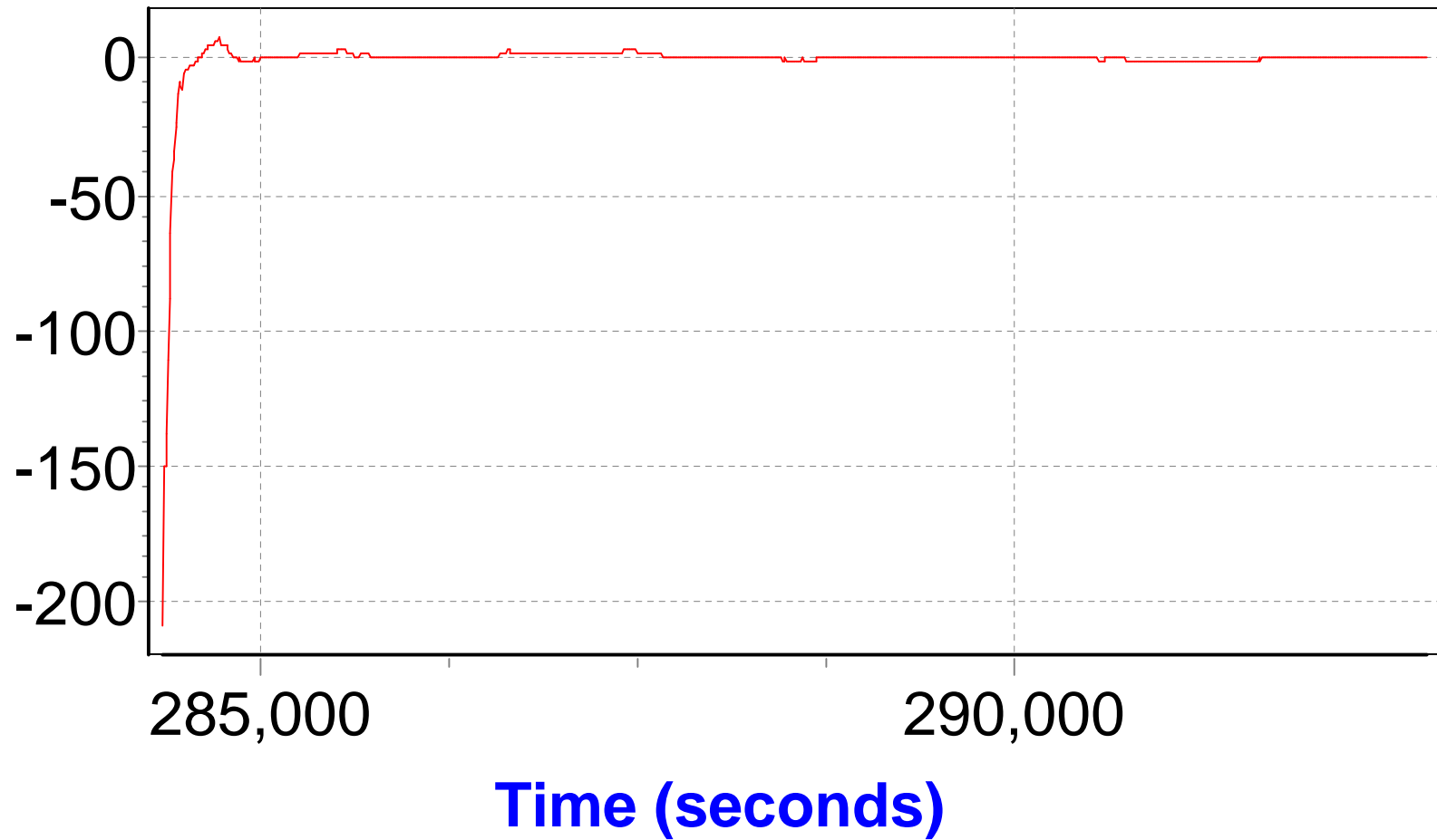
## S/D Navigator X Misalignment (arcmin)



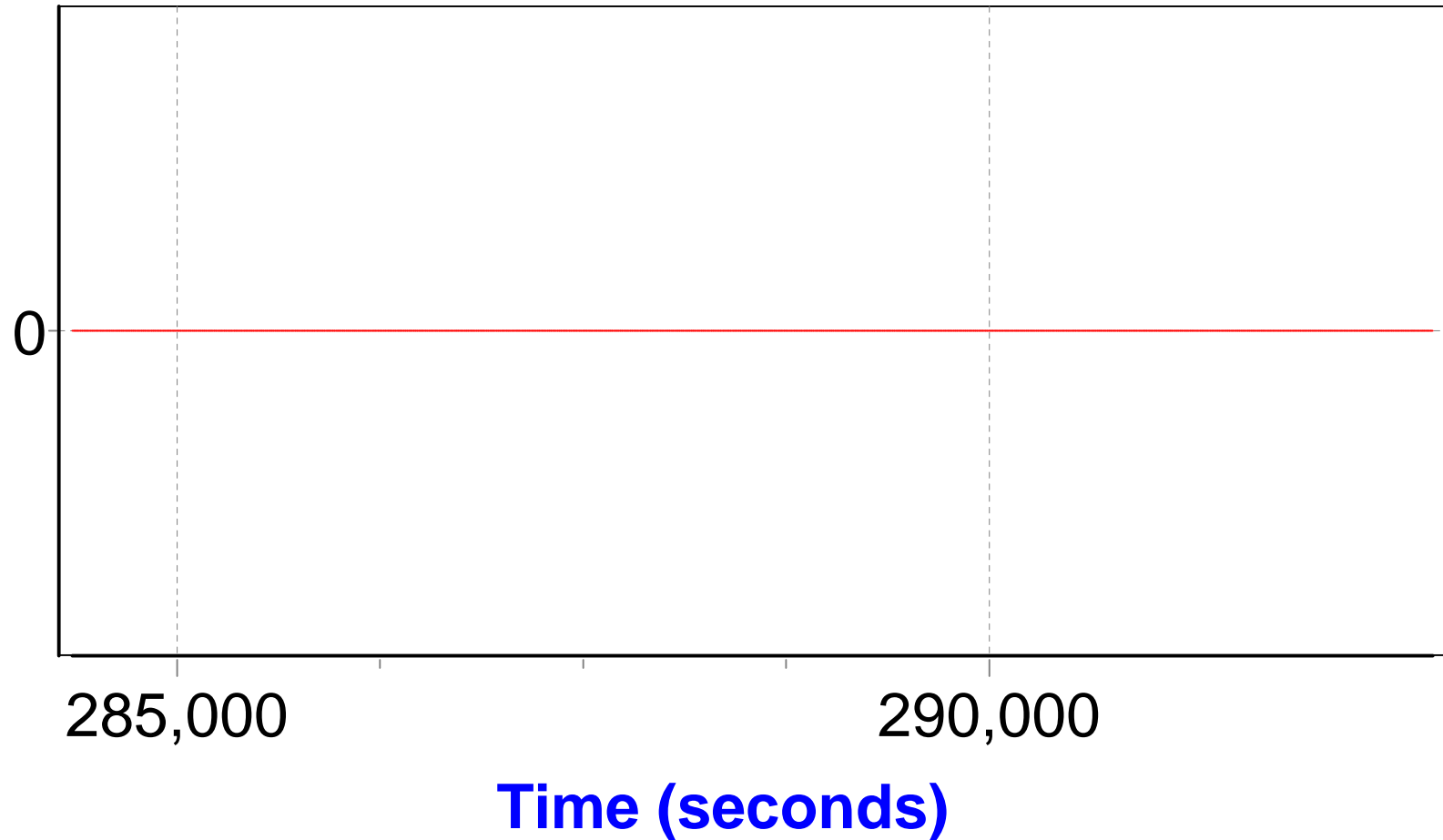
## S/D Navigator Y Misalignment (arcmin)



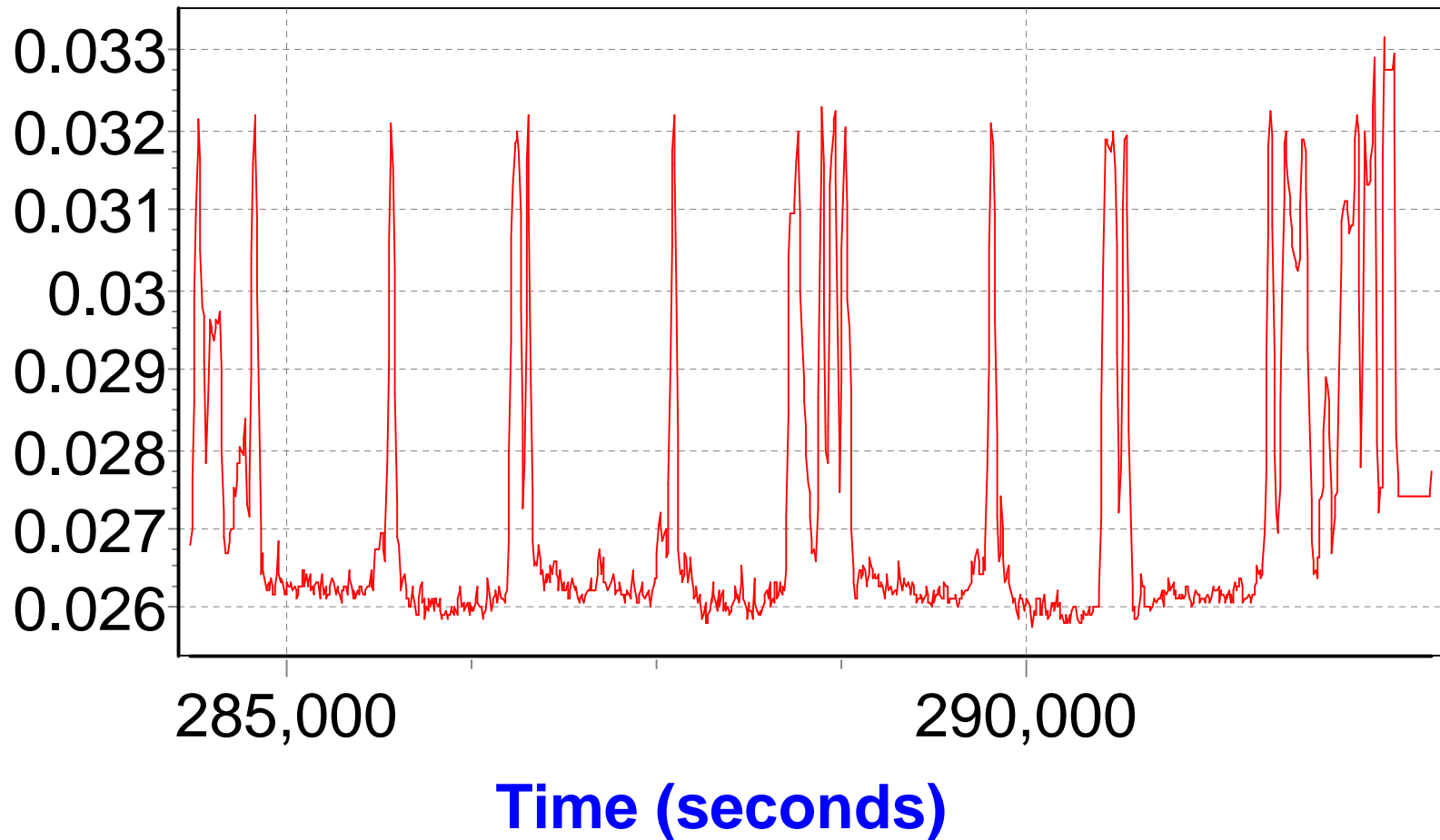
## S/D Navigator Z Misalignment (arcmin)



## S/D Navigator COS(Z Misalignment)-1 (radians)

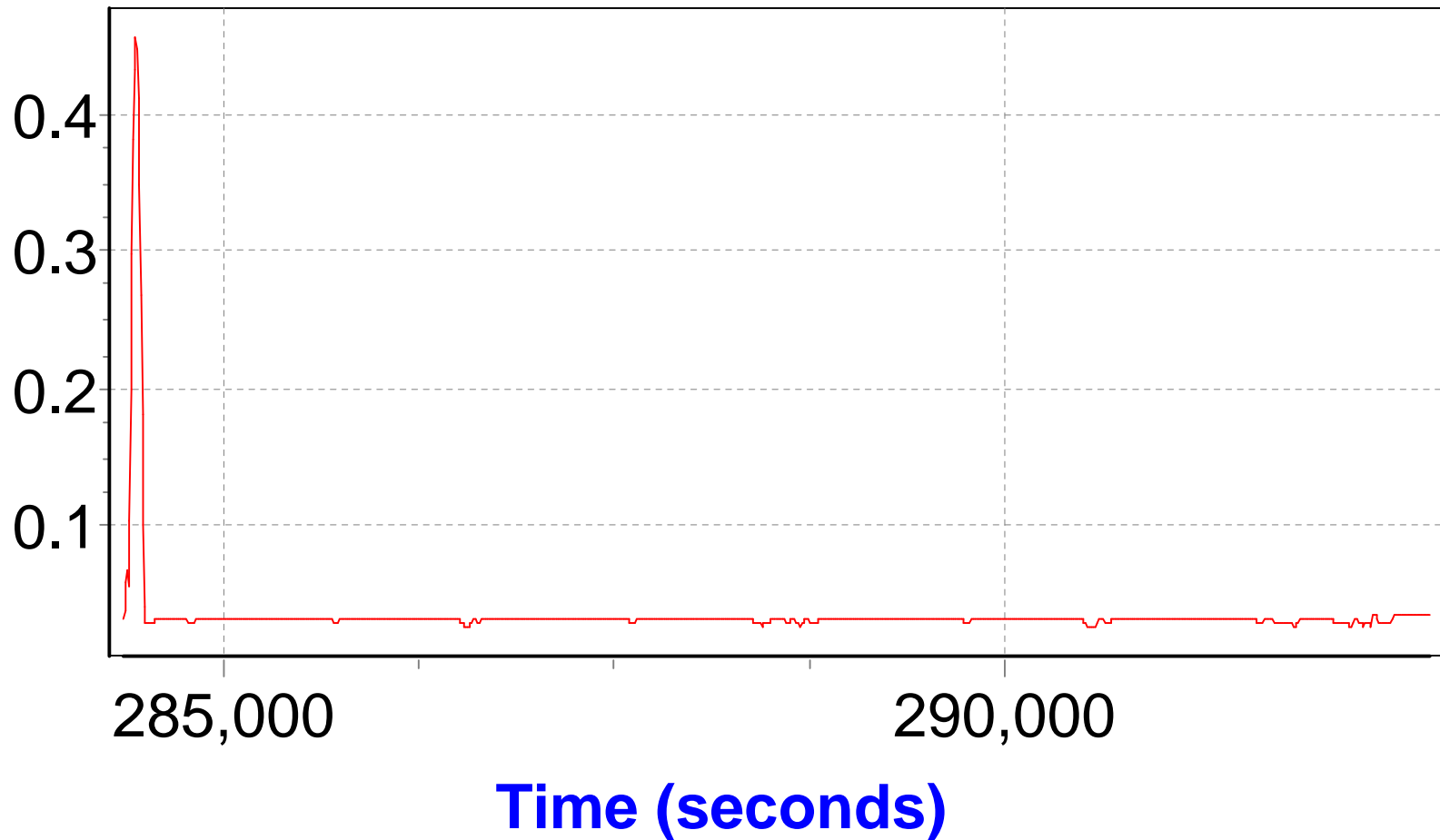


## S/D Navigator X Position RMS Error (meters)

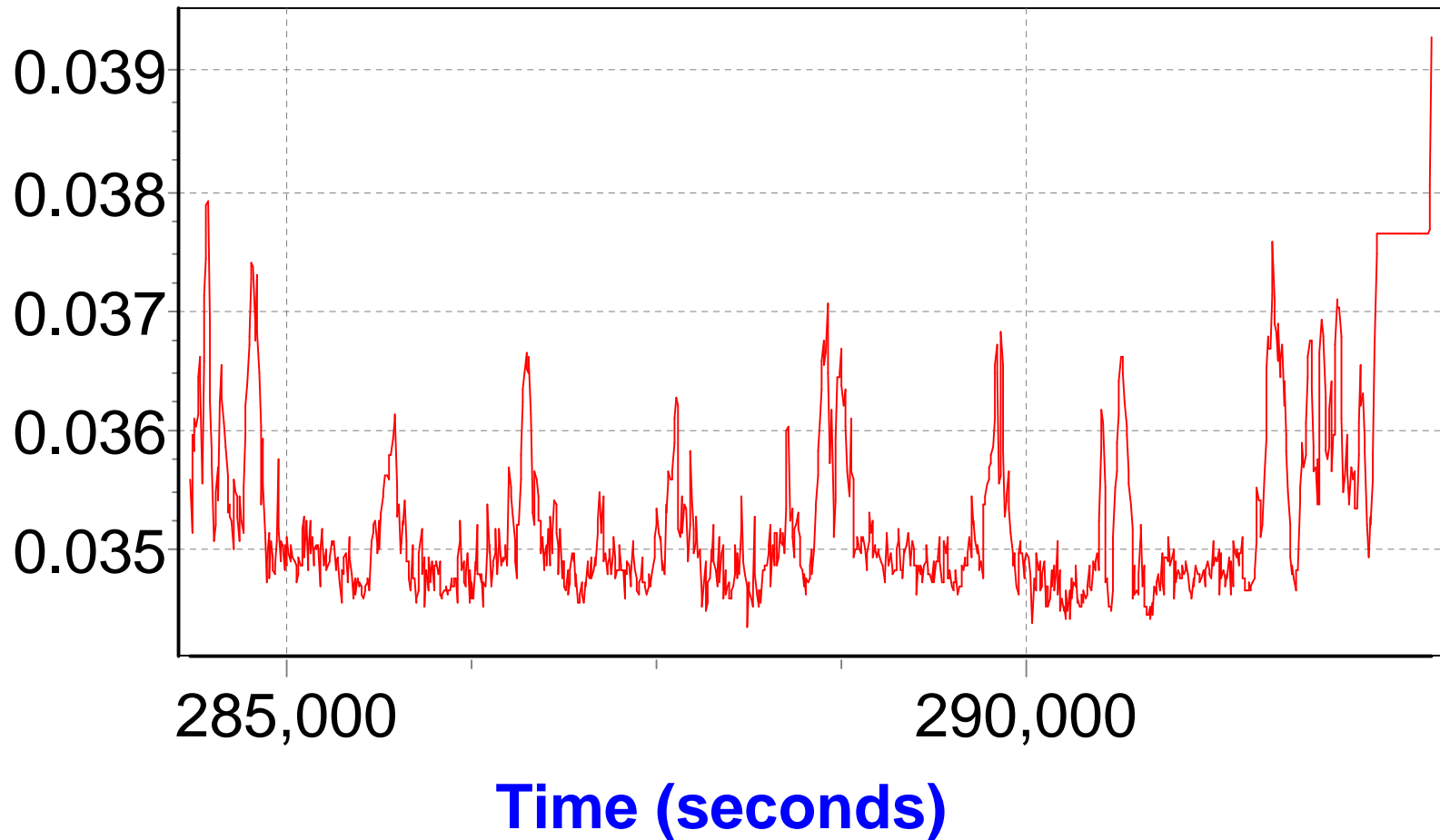




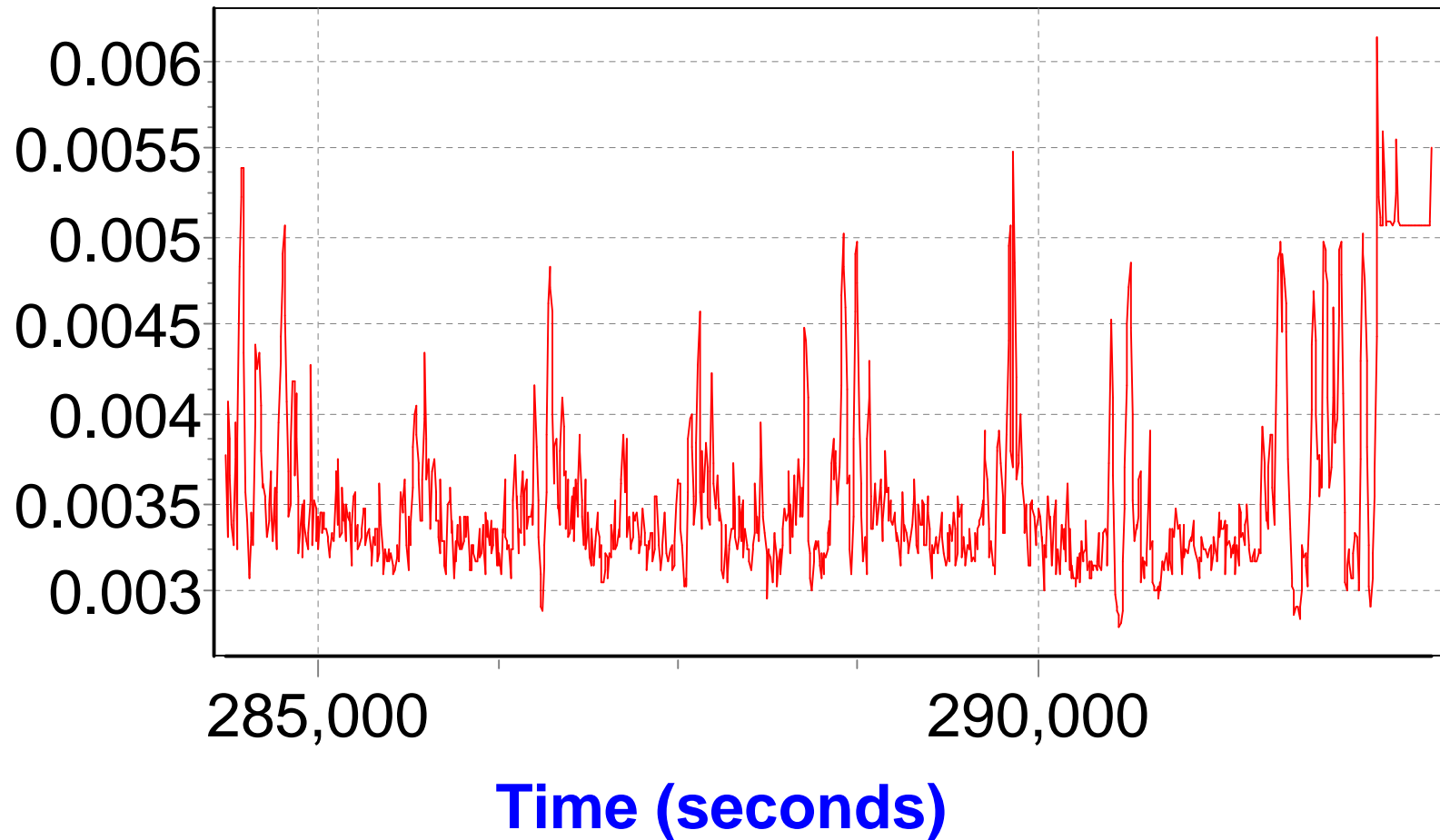
## S/D Navigator Y Position RMS Error (meters)



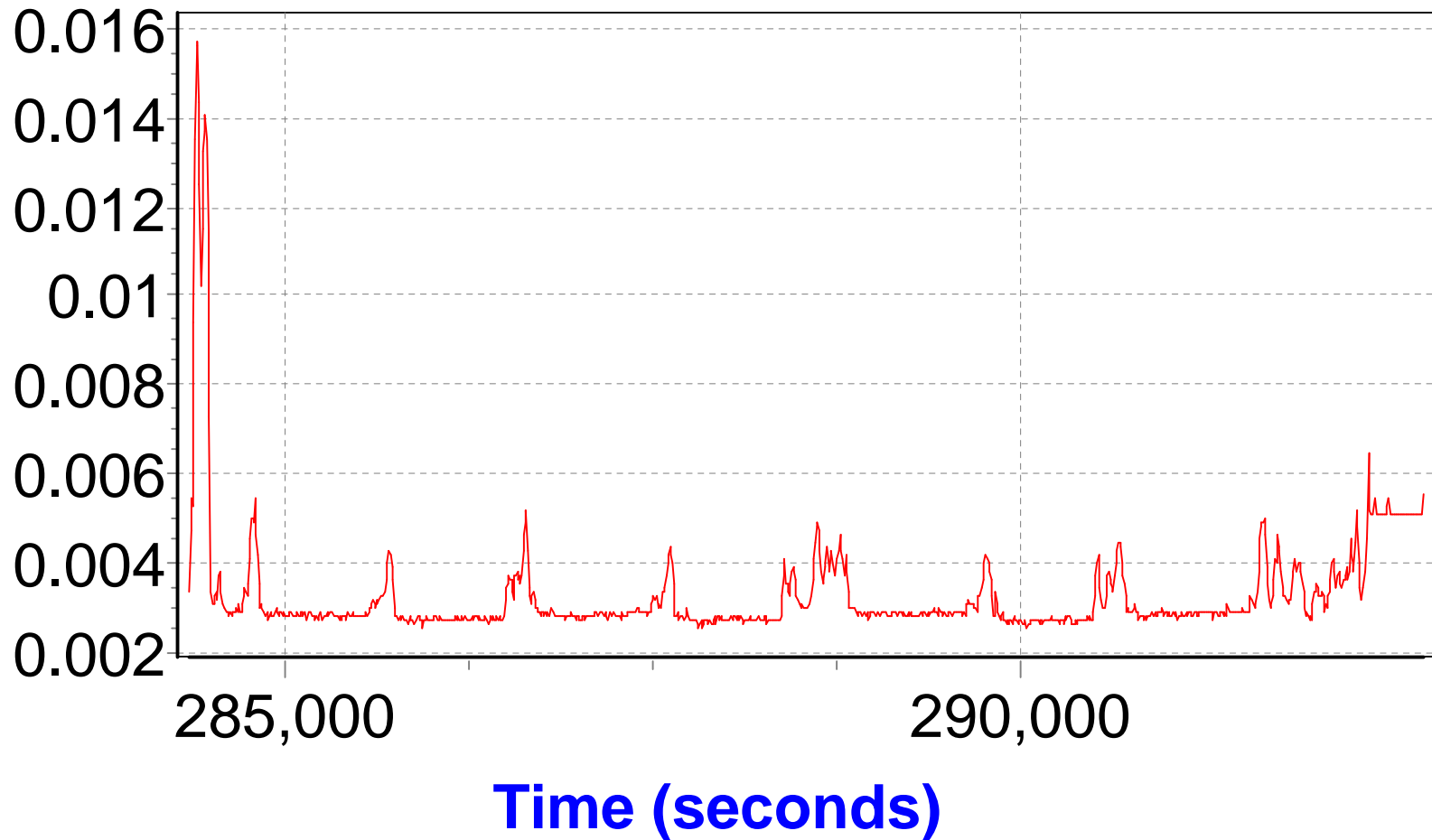
## S/D Navigator Z Position RMS Error (meters)



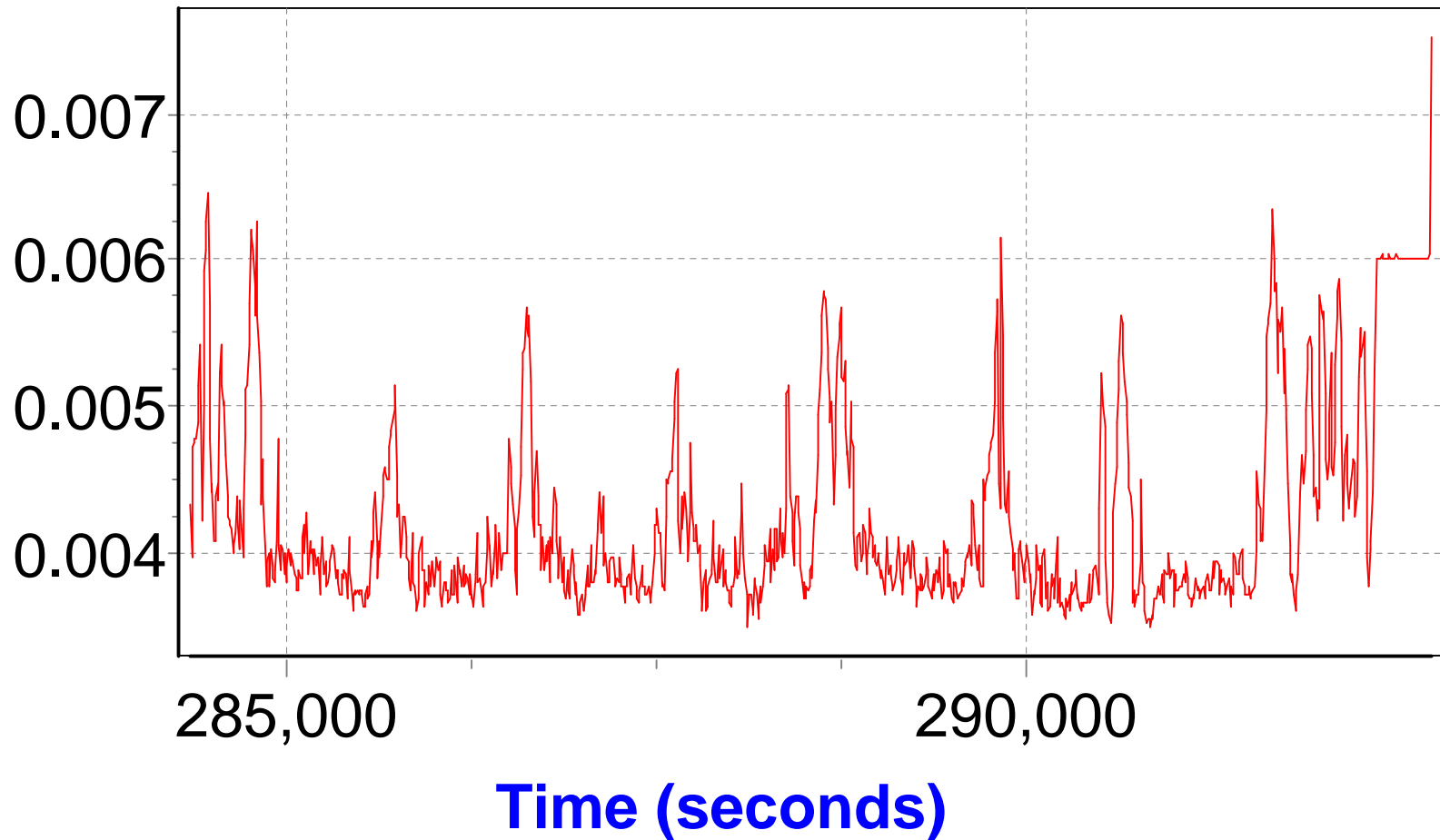
## S/D Navigator X Velocity RMS Error (meters/seconds)



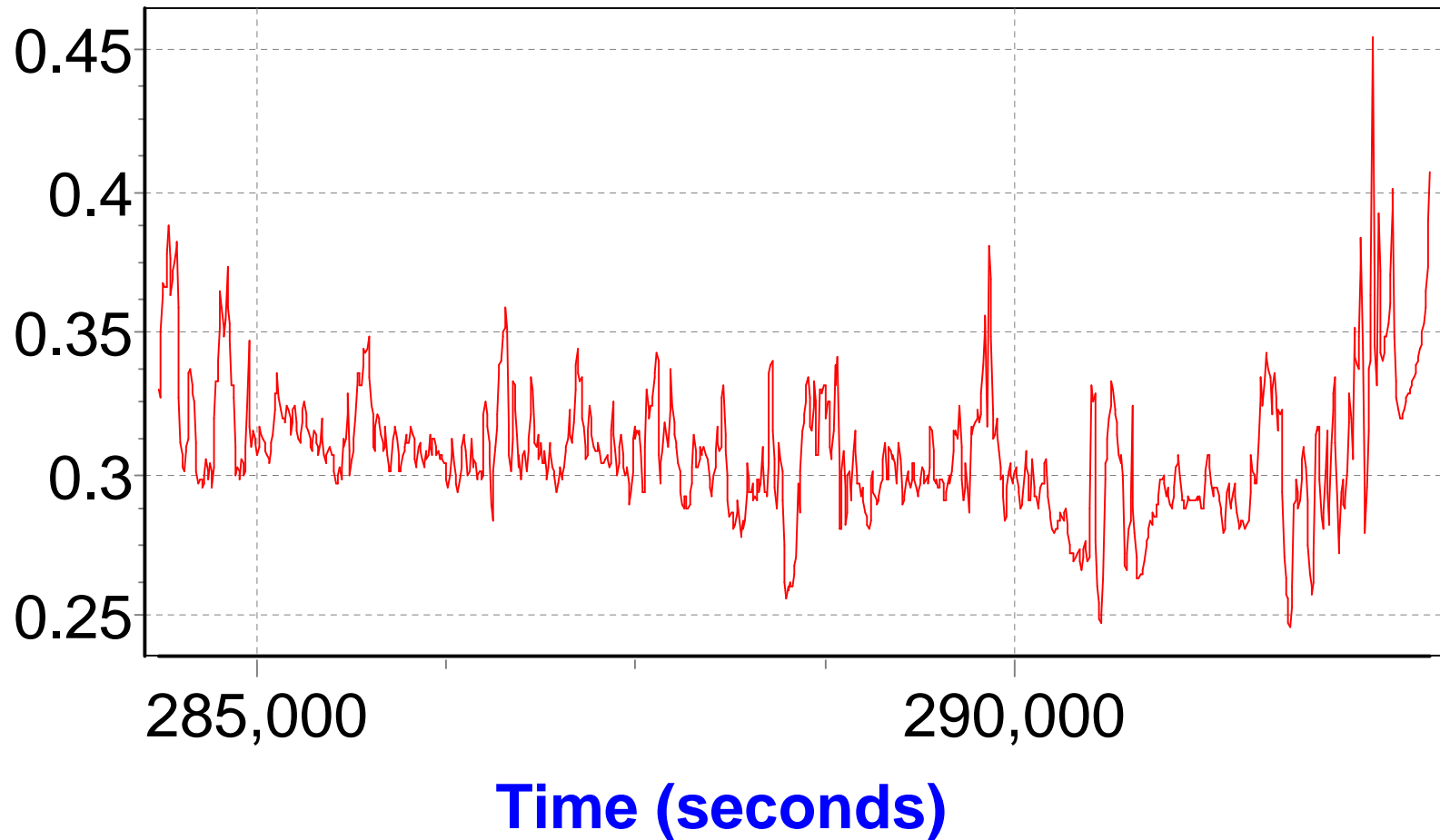
## S/D Navigator Y Velocity RMS Error (meters/seconds)



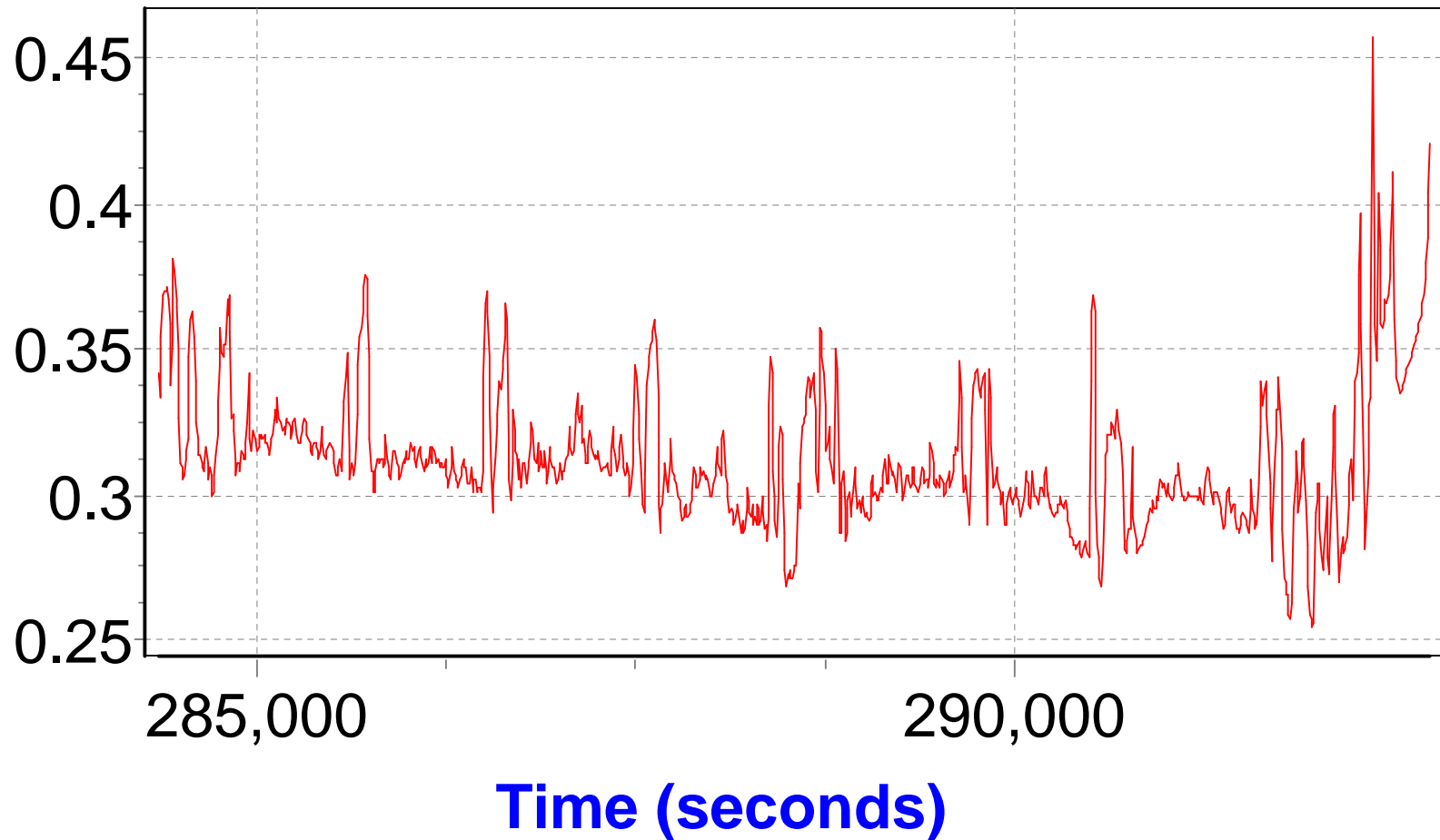
## S/D Navigator Z Velocity RMS Error (meters/seconds)



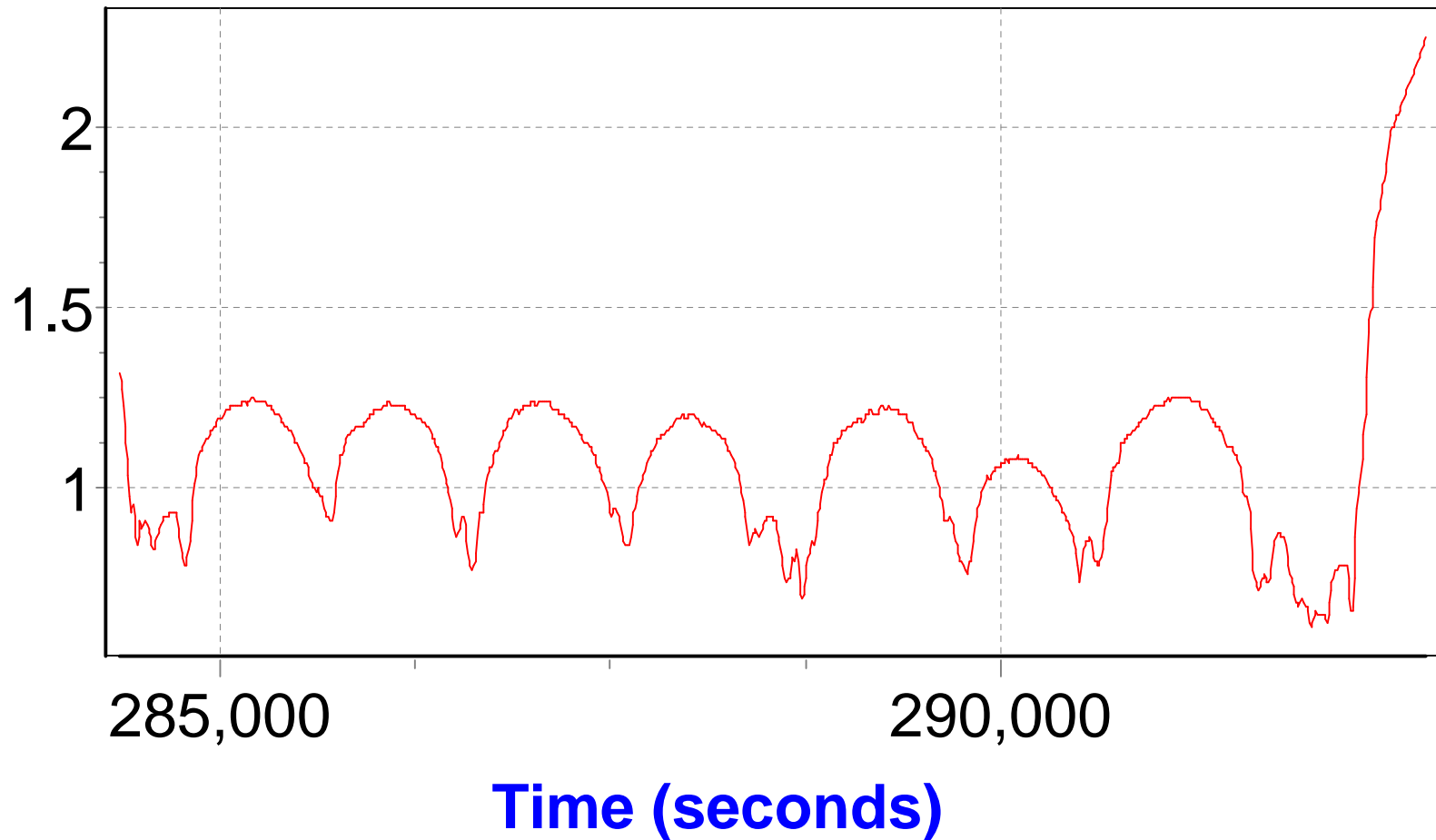
## S/D Navigator X Misalignment RMS (arcmin)



## S/D Navigator Y Misalignment RMS (arcmin)

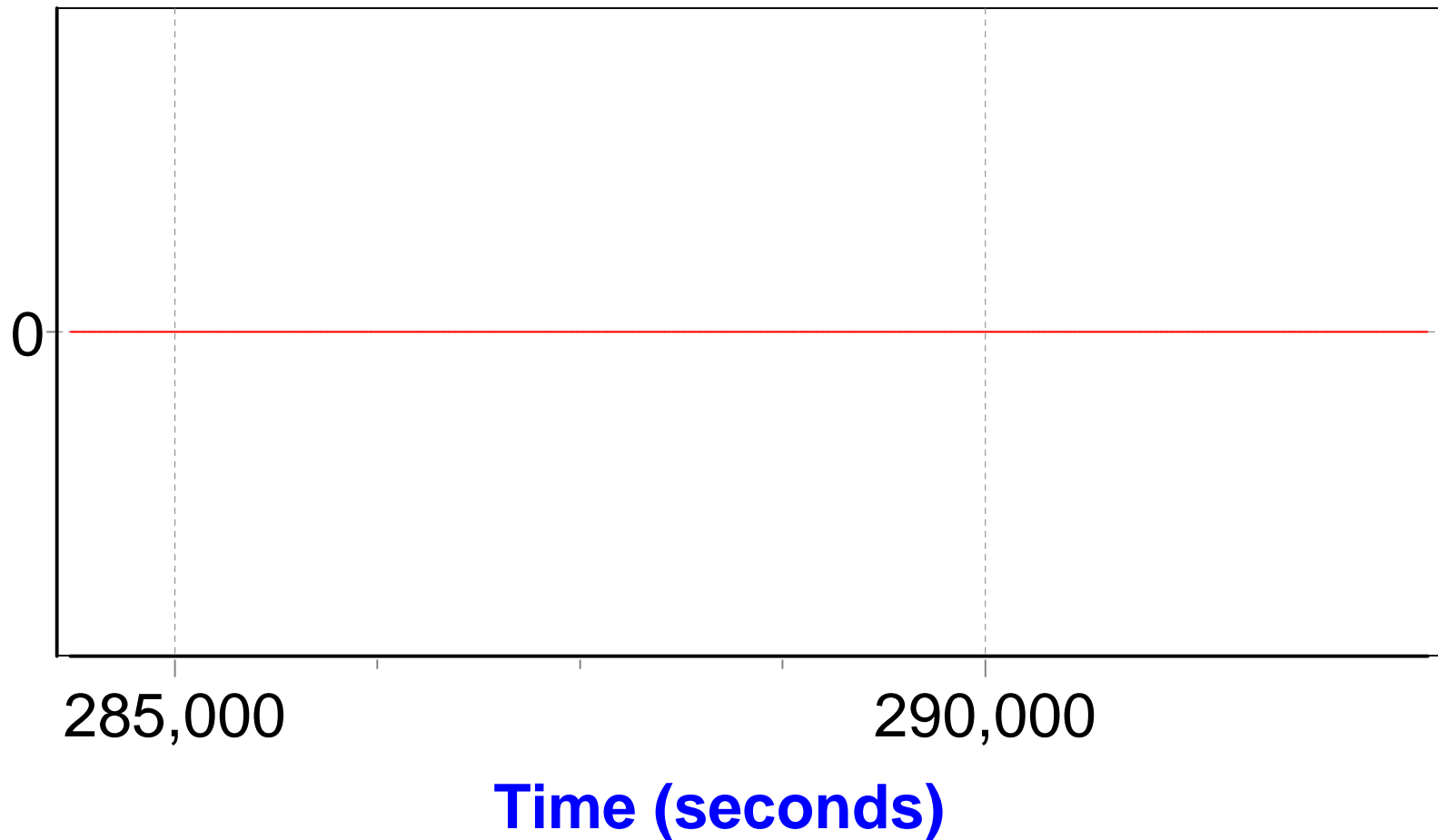


## S/D Navigator Z Misalignment RMS (arcmin)

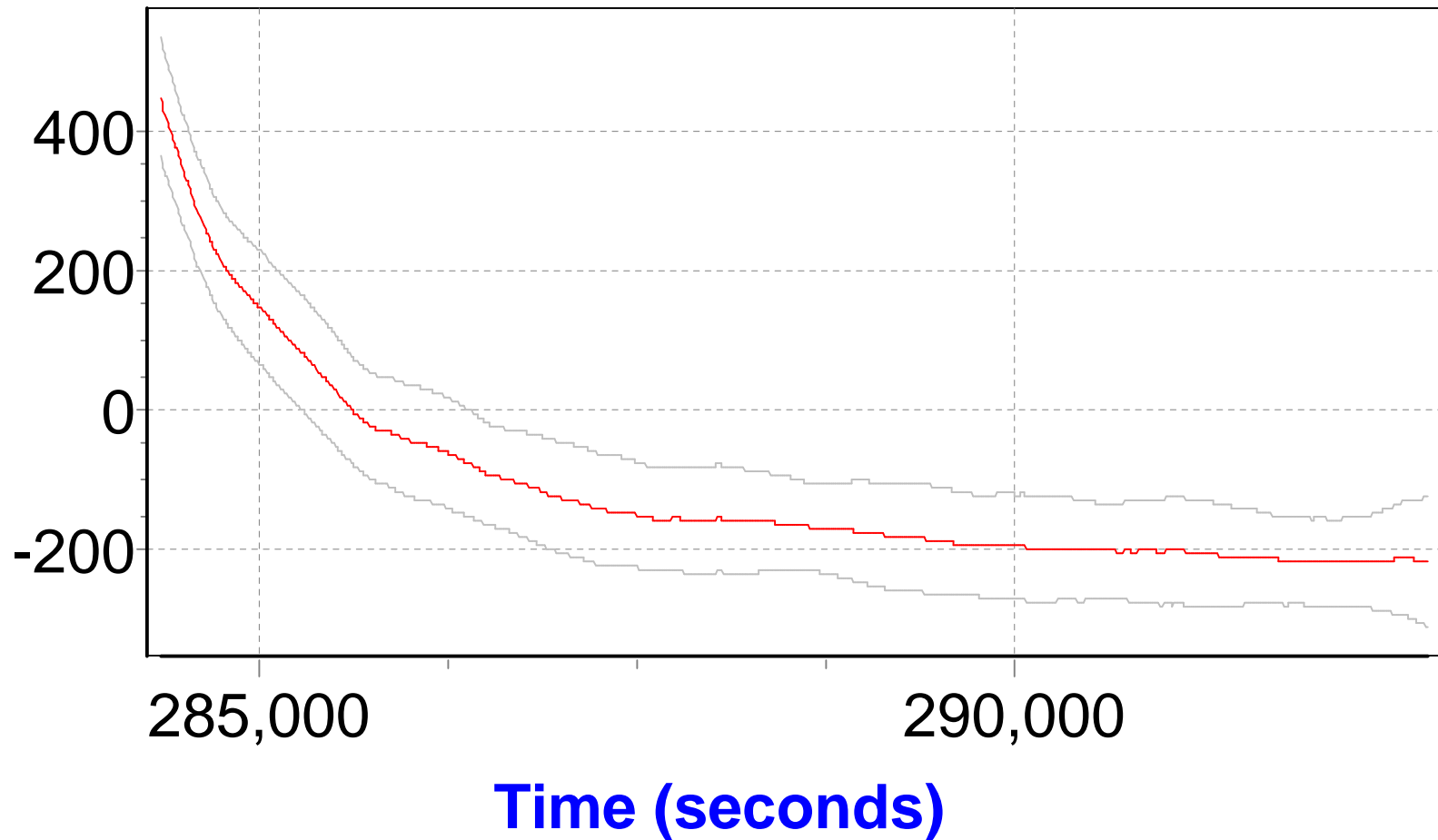




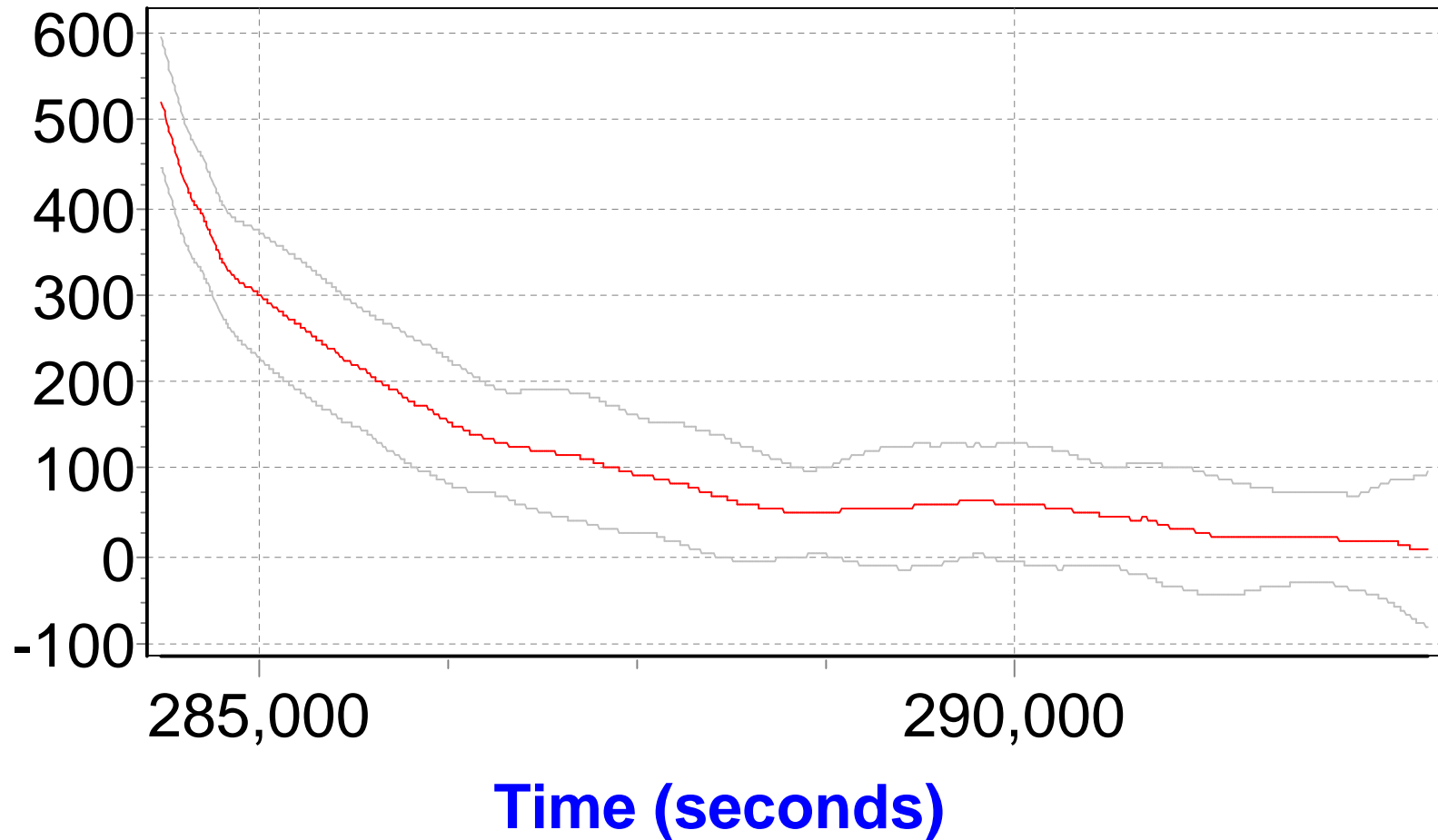
# S/D Navigator COS(Z Misalignment)-1 RMS (radians)



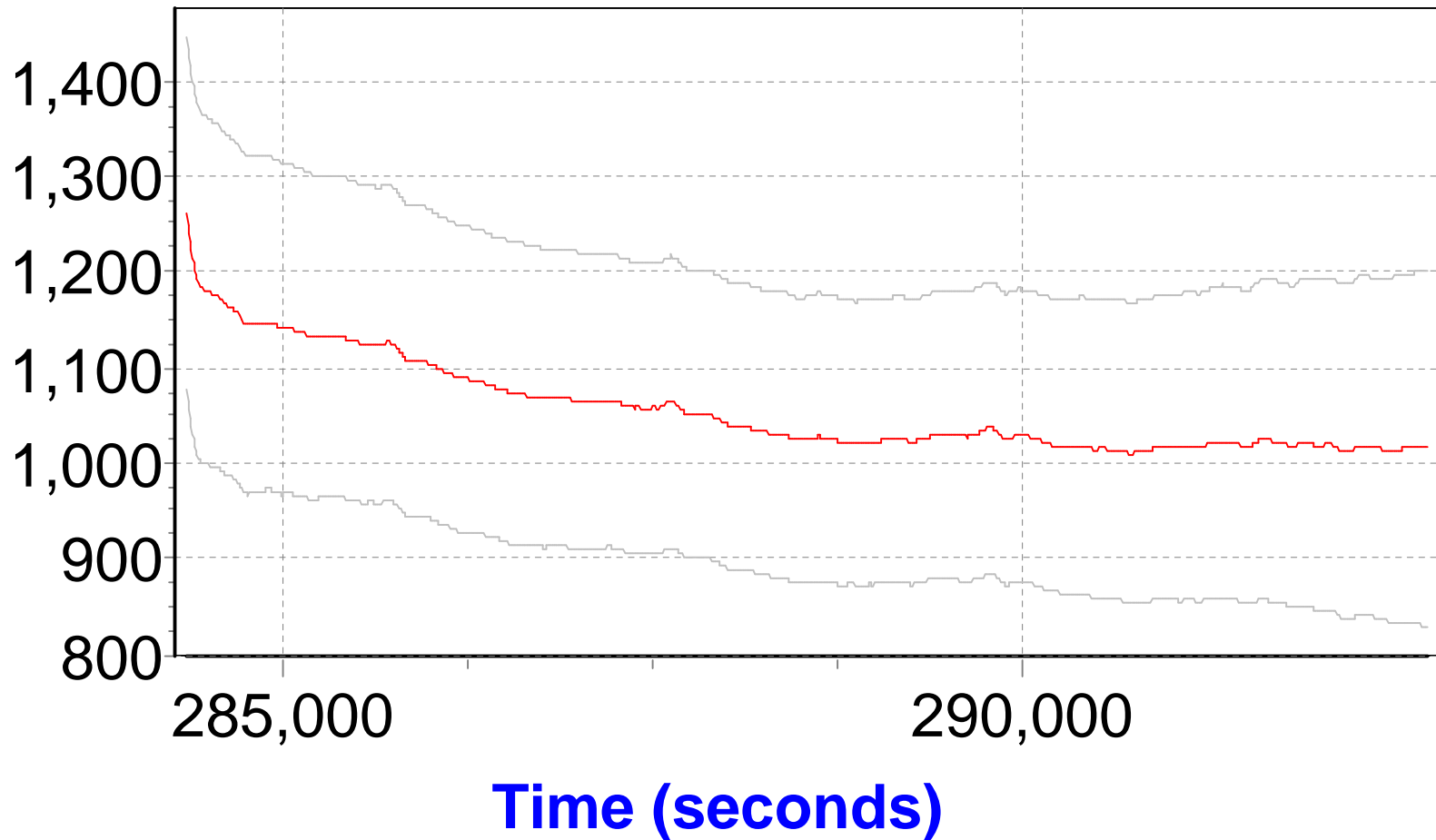
## X Accelerometer Bias (micro-g)



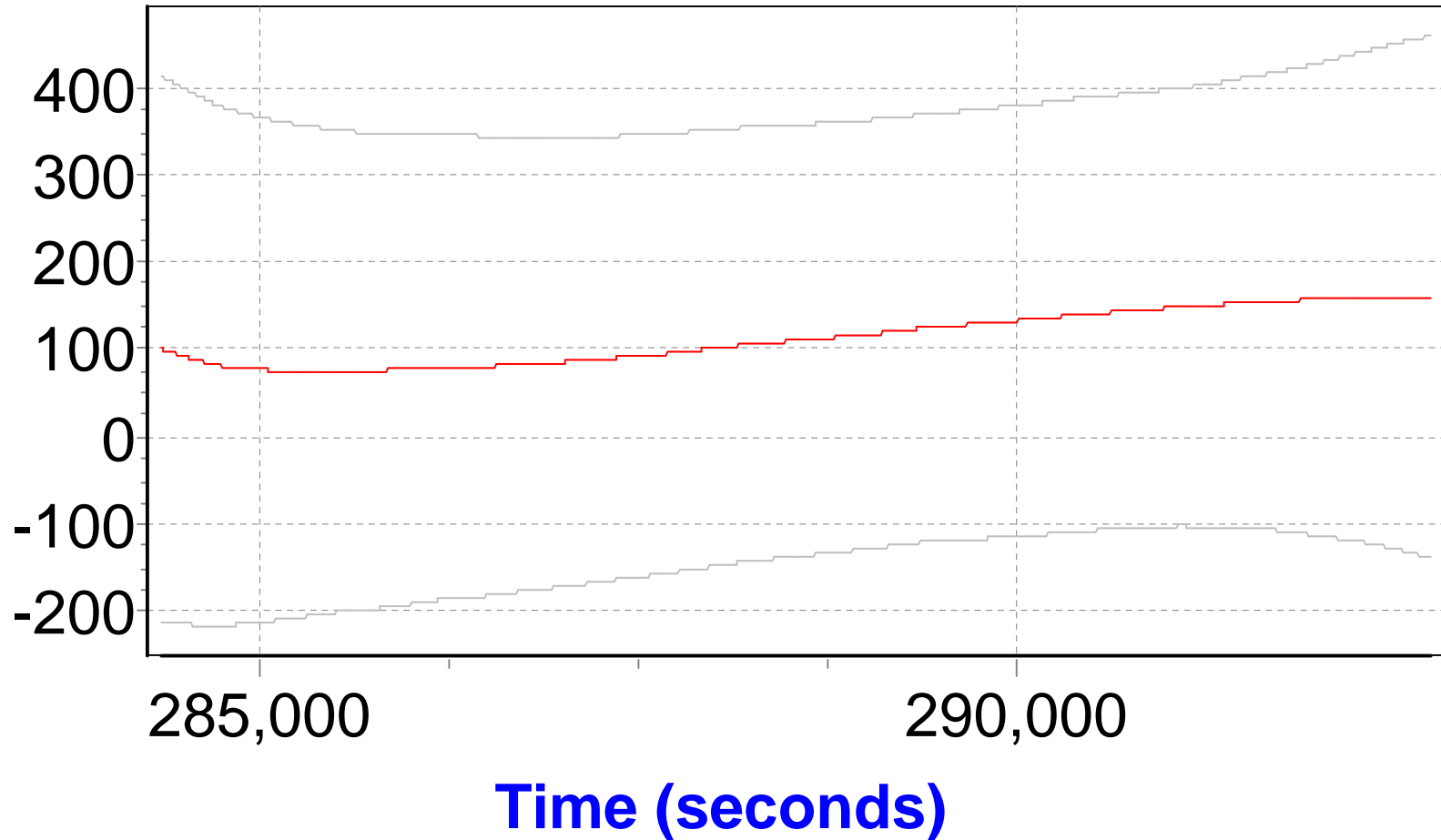
## Y Accelerometer Bias (micro-g)



## Z Accelerometer Bias (micro-g)



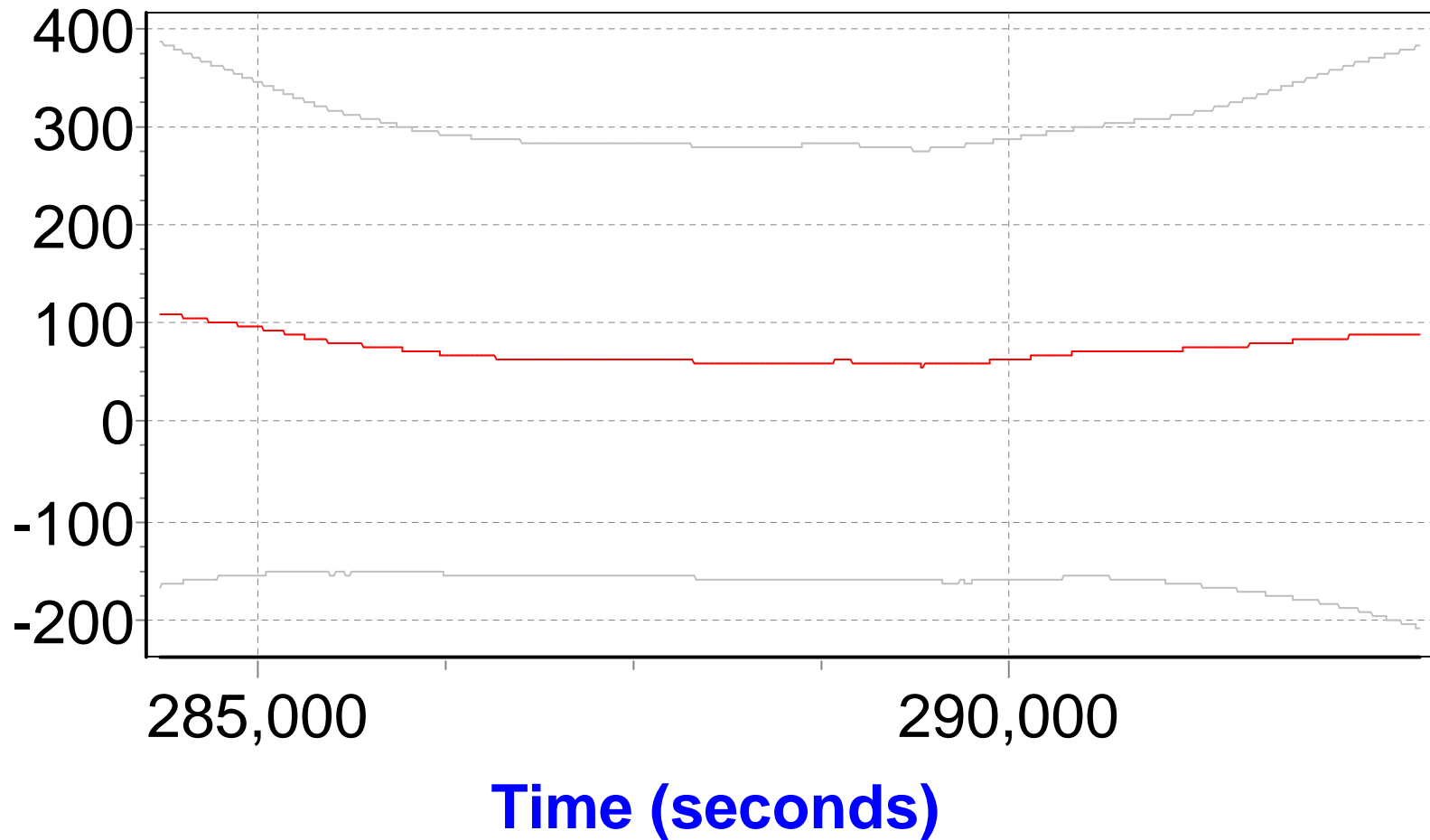
## X Accelerometer Scale Factor Error (ppm)



G:\o112094d\3\_Processed\Extract\smers\_o112094d.dat

G:\o112094d\3\_Processed\Extract\smrms\_o112094d.dat

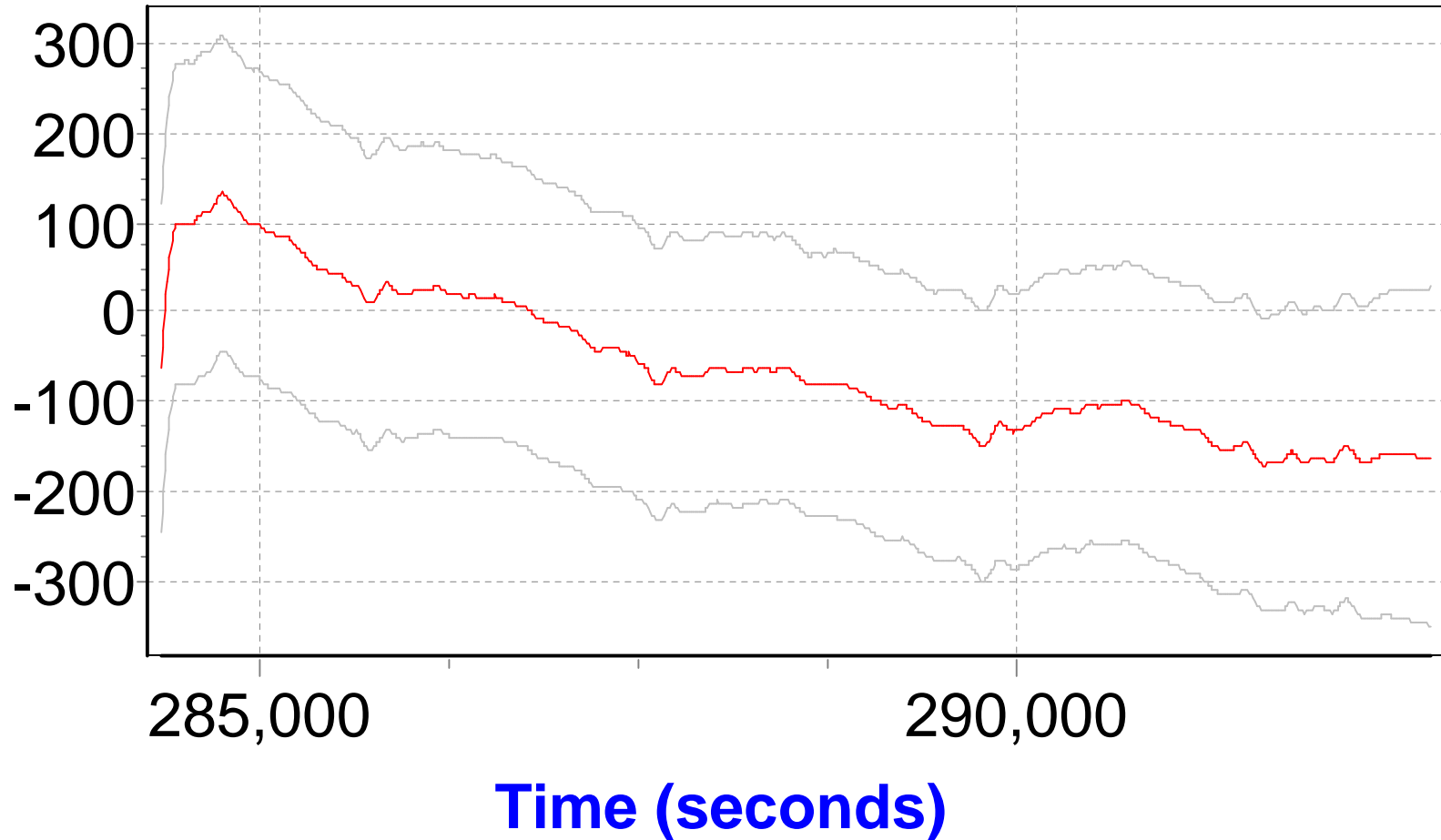
## Y Accelerometer Scale Factor Error (ppm)



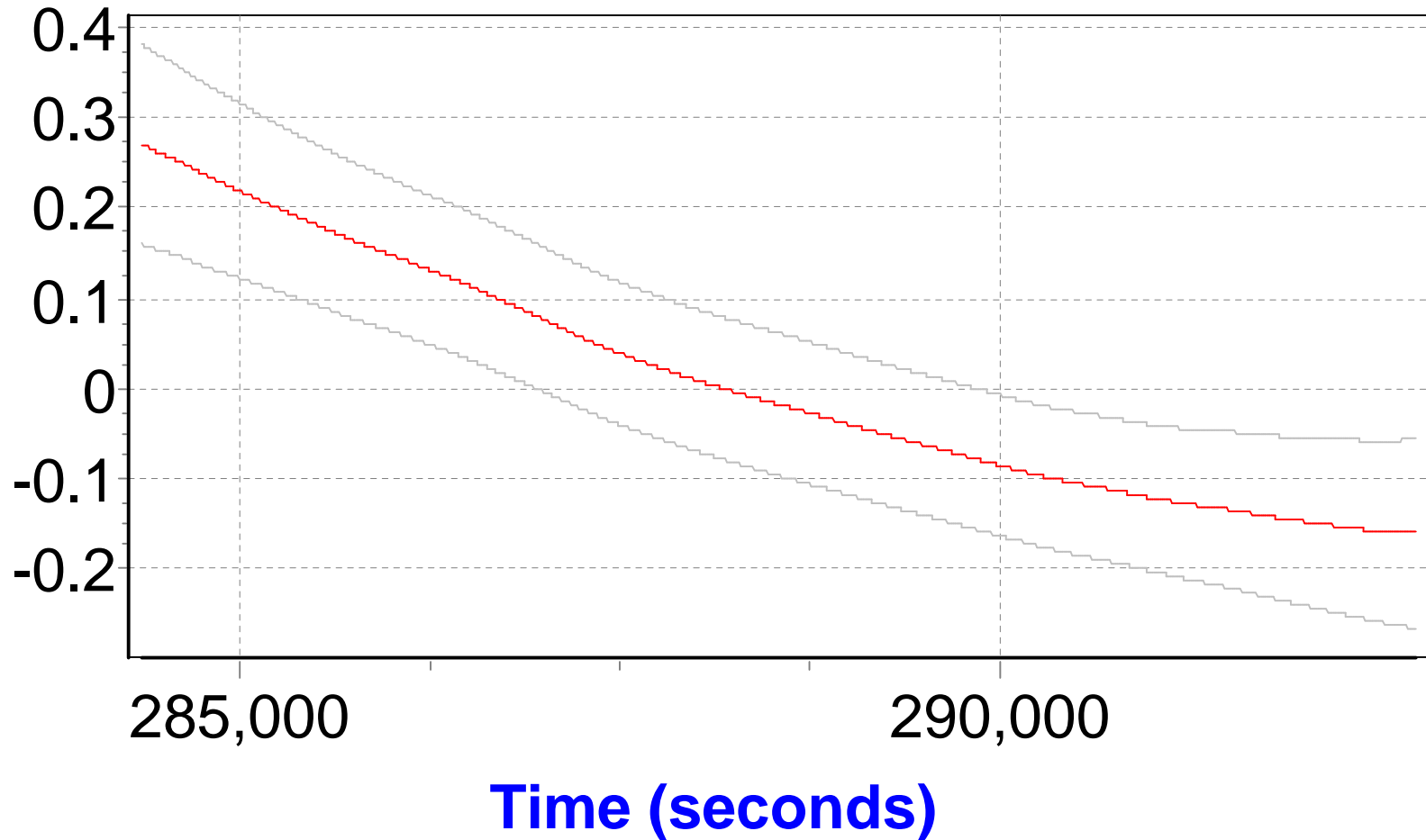
G:\o112094d\3\_Processed\Extract\smers\_o112094d.dat

G:\o112094d\3\_Processed\Extract\smrms\_o112094d.dat

## Z Accelerometer Scale Factor Error (ppm)

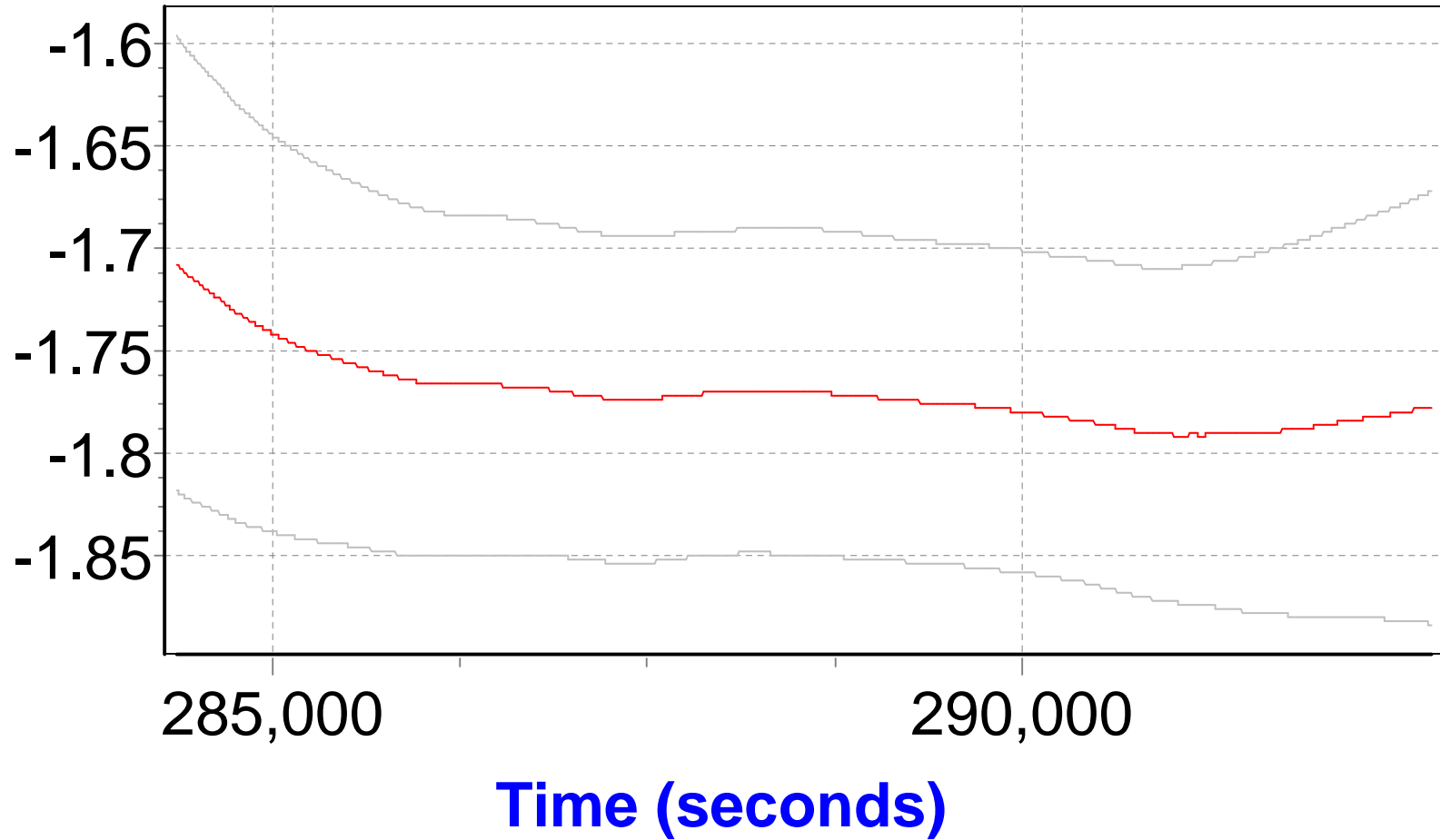


## X Gyro Bias (degrees/hour)

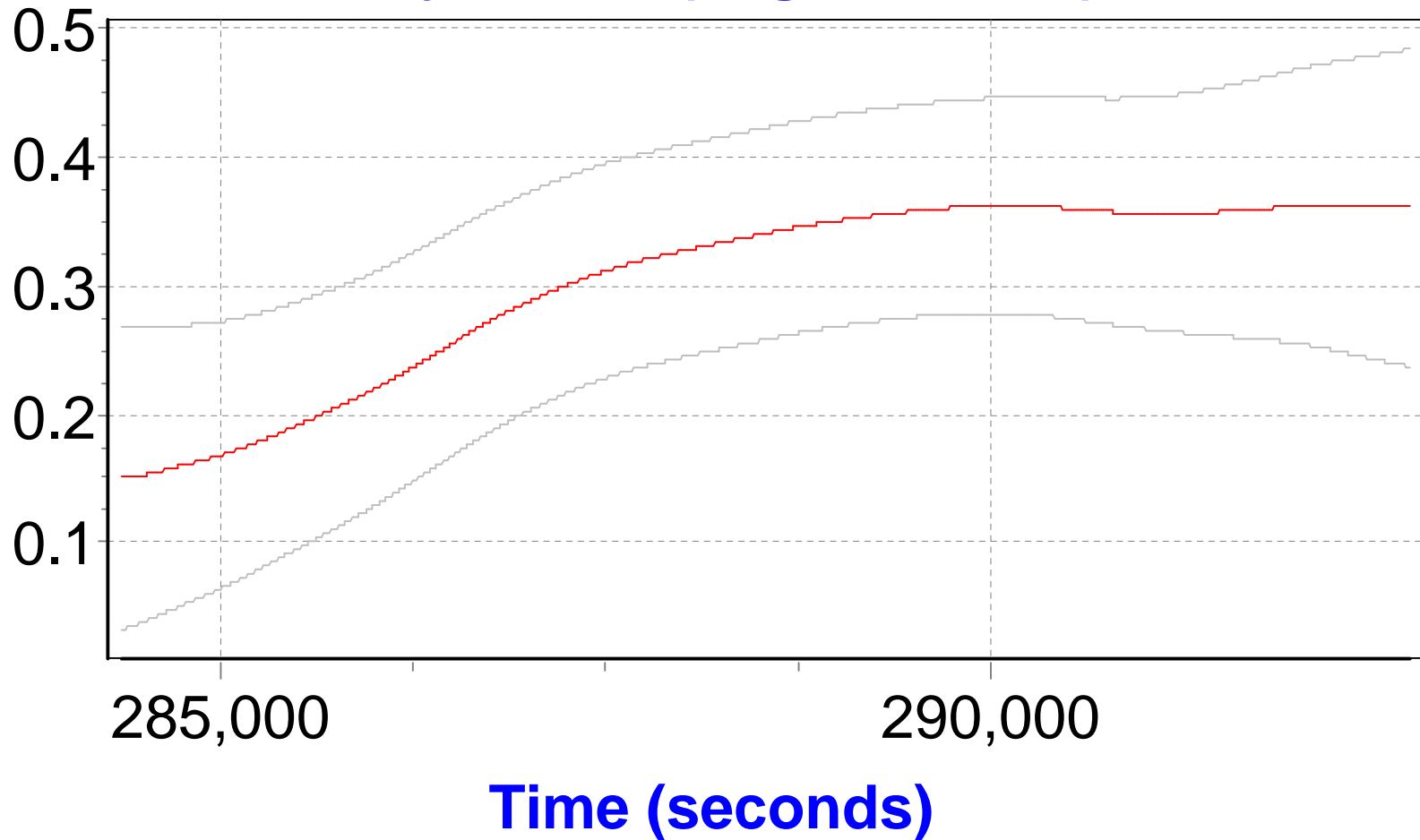




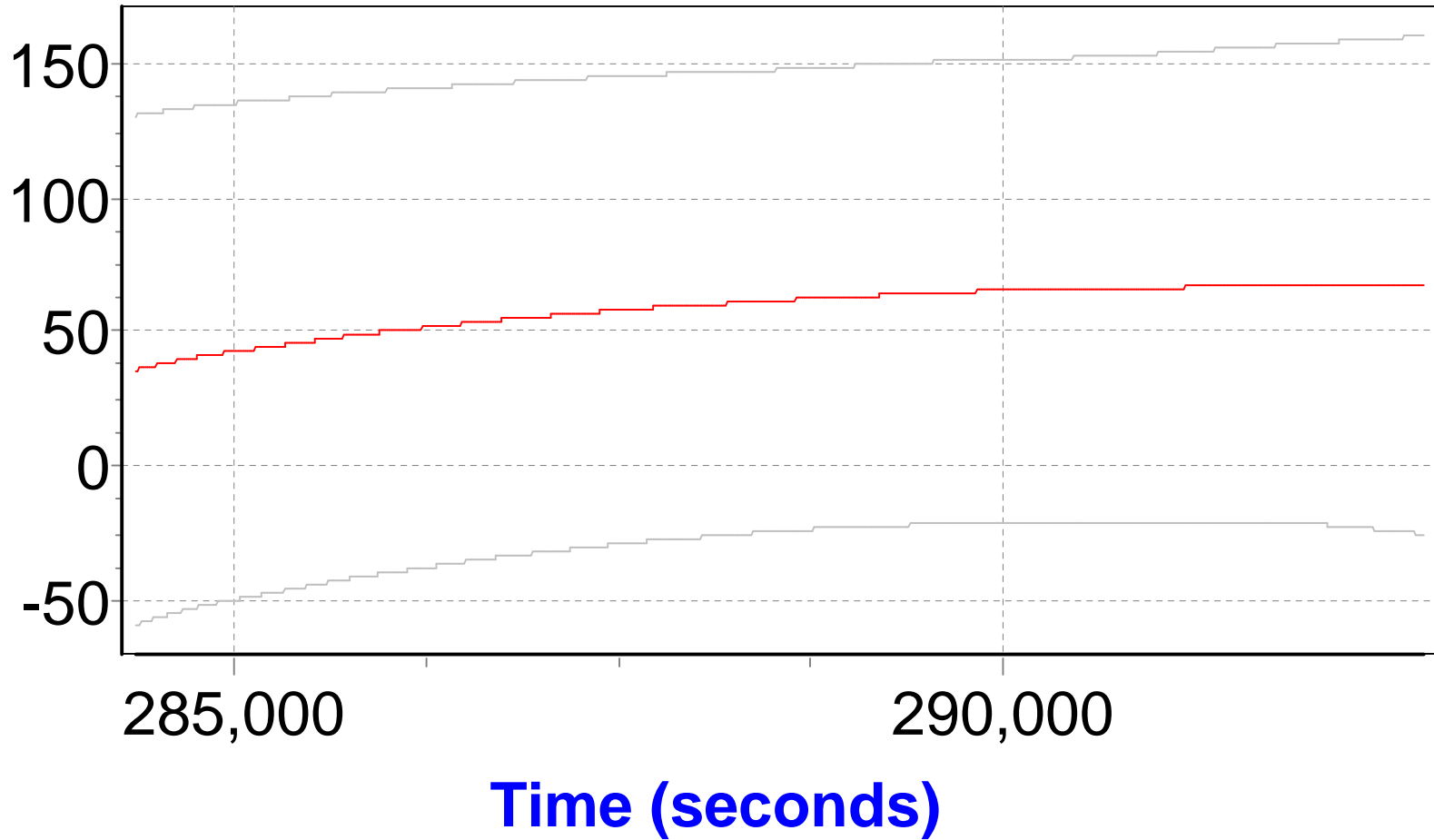
## Y Gyro Bias (degrees/hour)



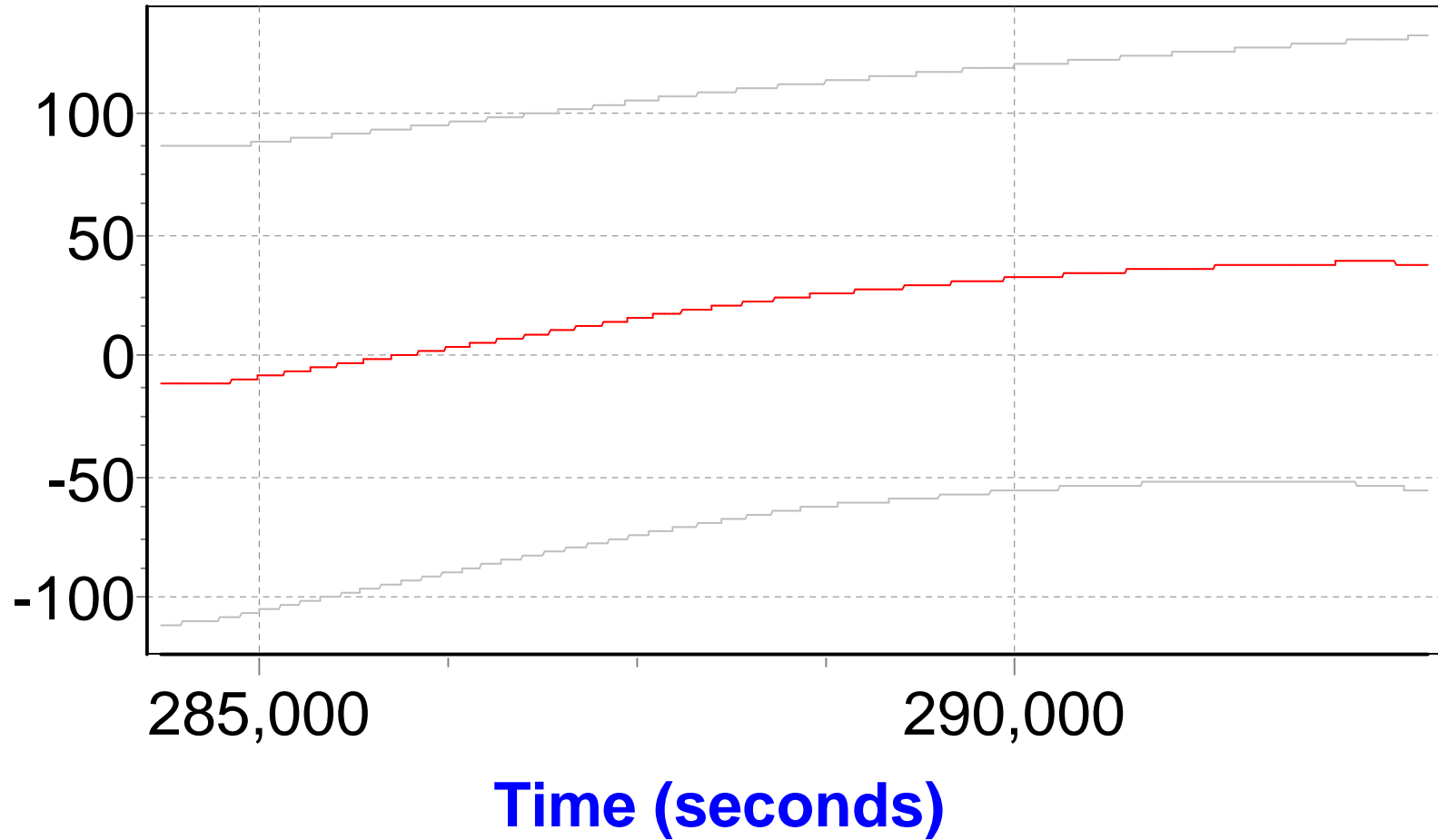
## Z Gyro Bias (degrees/hour)



## X Gyro Scale Factor Error (ppm)



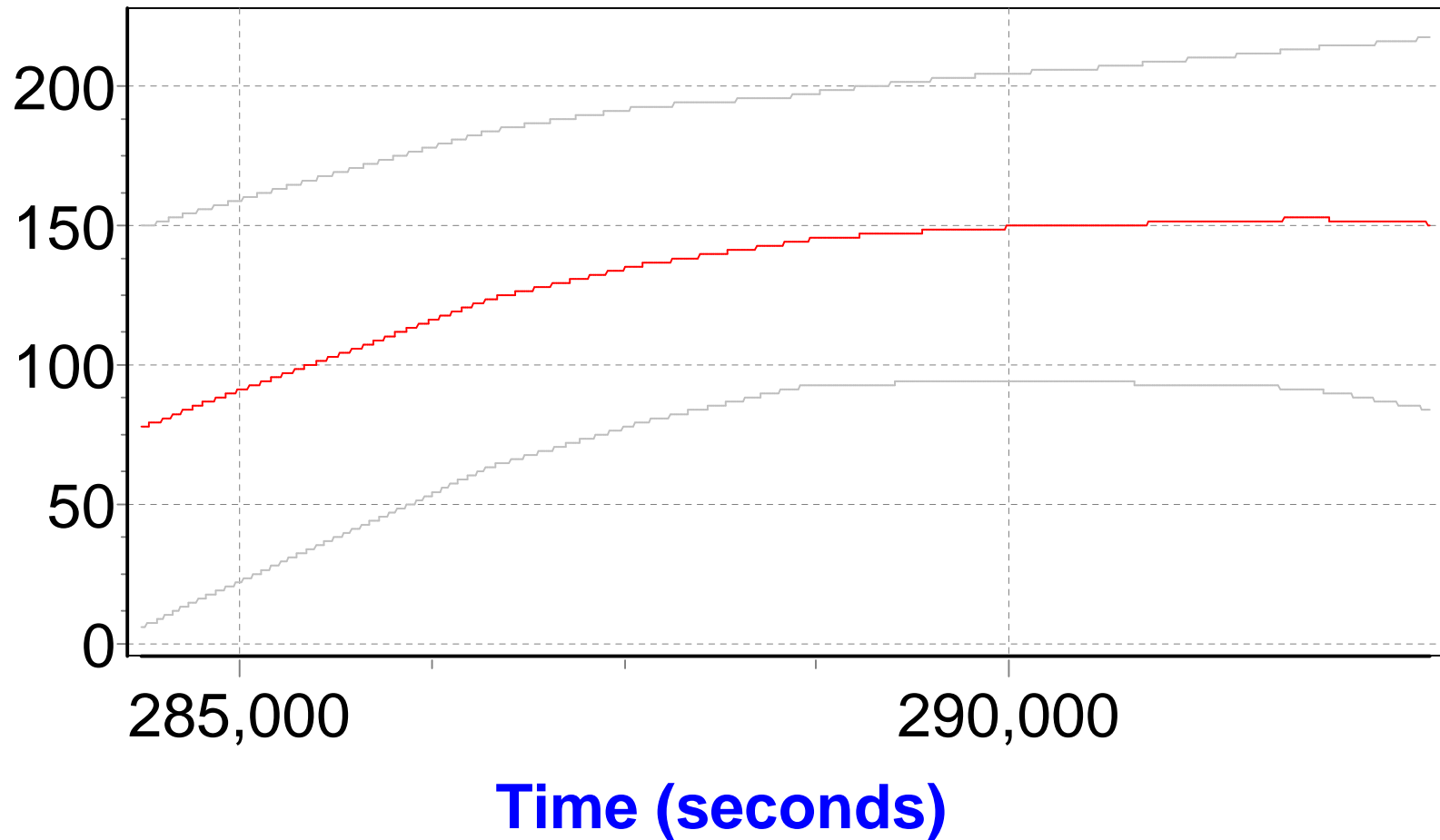
## Y Gyro Scale Factor Error (ppm)



G:\o112094d\3\_Processed\Extract\smers\_o112094d.dat

G:\o112094d\3\_Processed\Extract\smrms\_o112094d.dat

## Z Gyro Scale Factor Error (ppm)

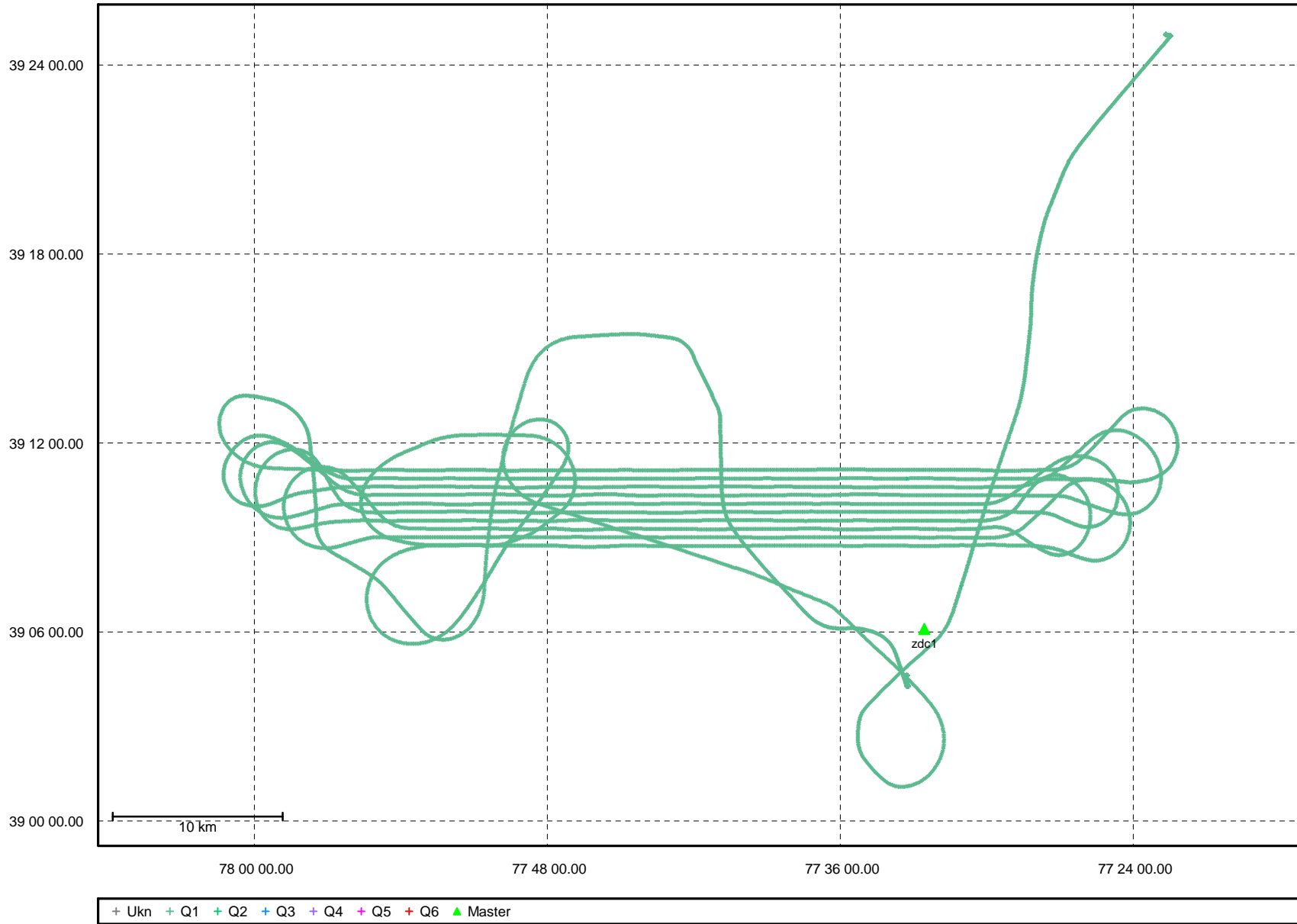


G:\o112094d\3\_Processed\Extract\smers\_o112094d.dat

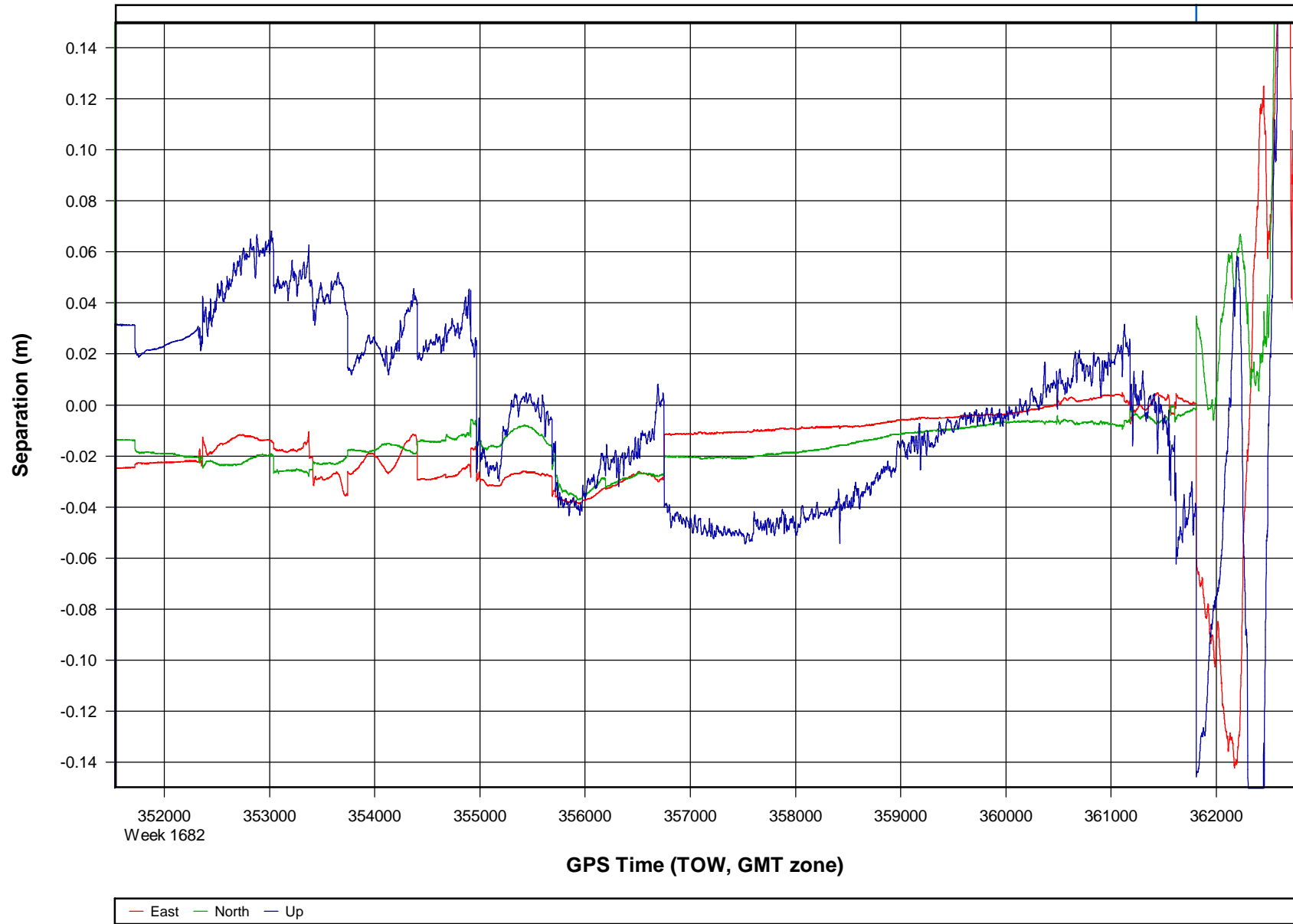
G:\o112094d\3\_Processed\Extract\smrms\_o112094d.dat

### Combined - Map Run (3)

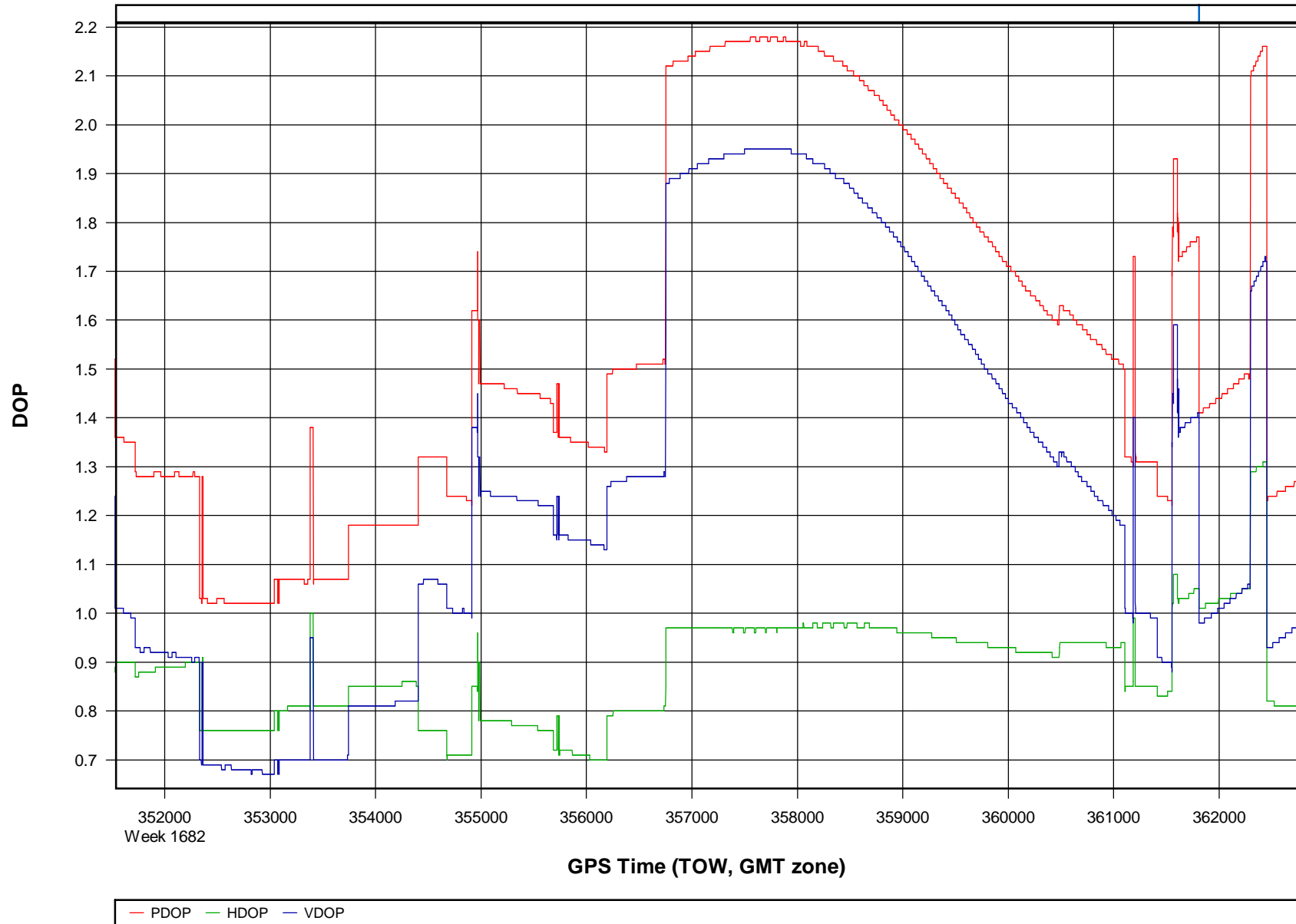
Geographic, DMS



### o112095a [Combined] - Forward/Reverse or Combined Separation Plot

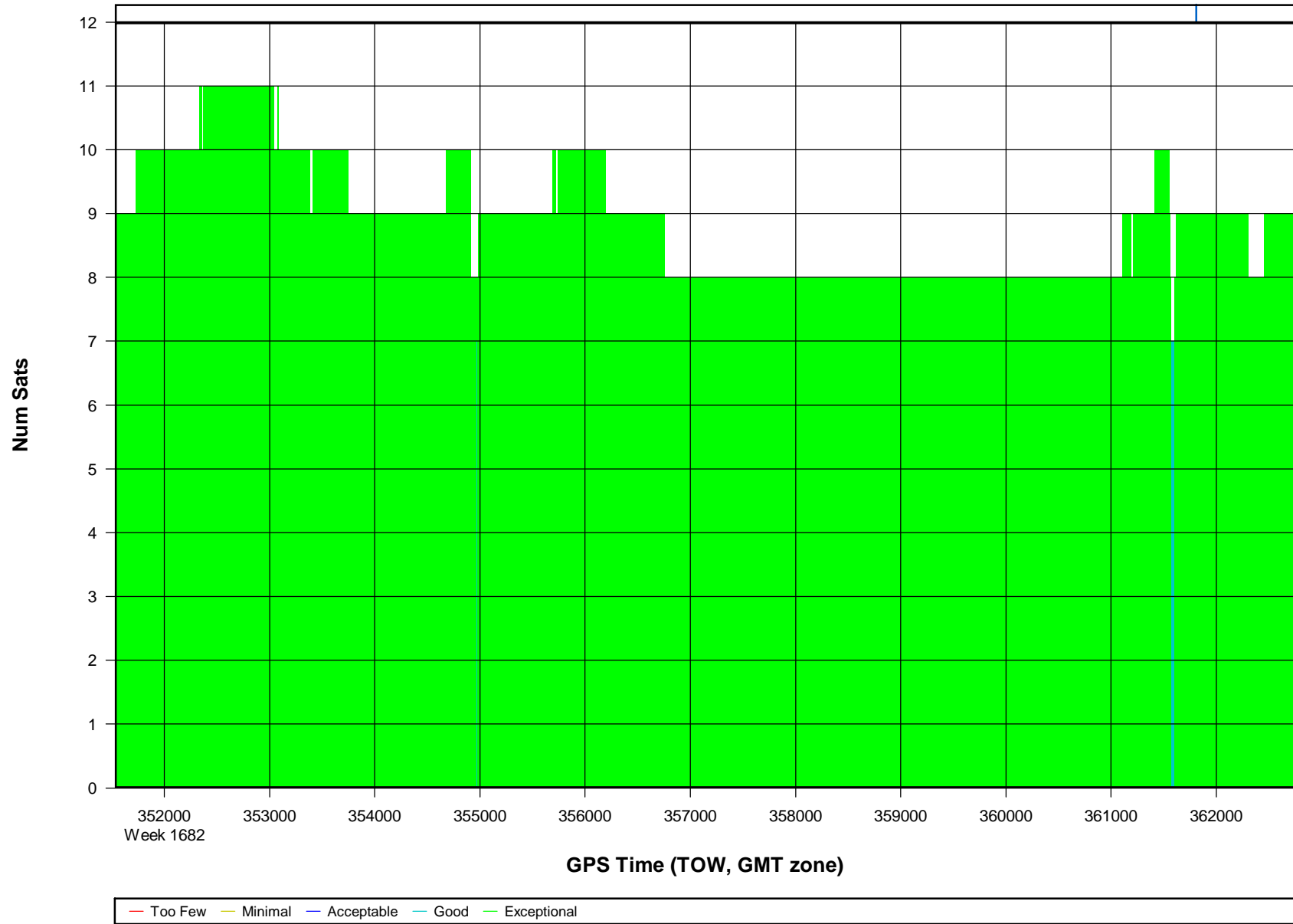


### o112095a [Combined] - PDOP, HDOP, VDOP Plots

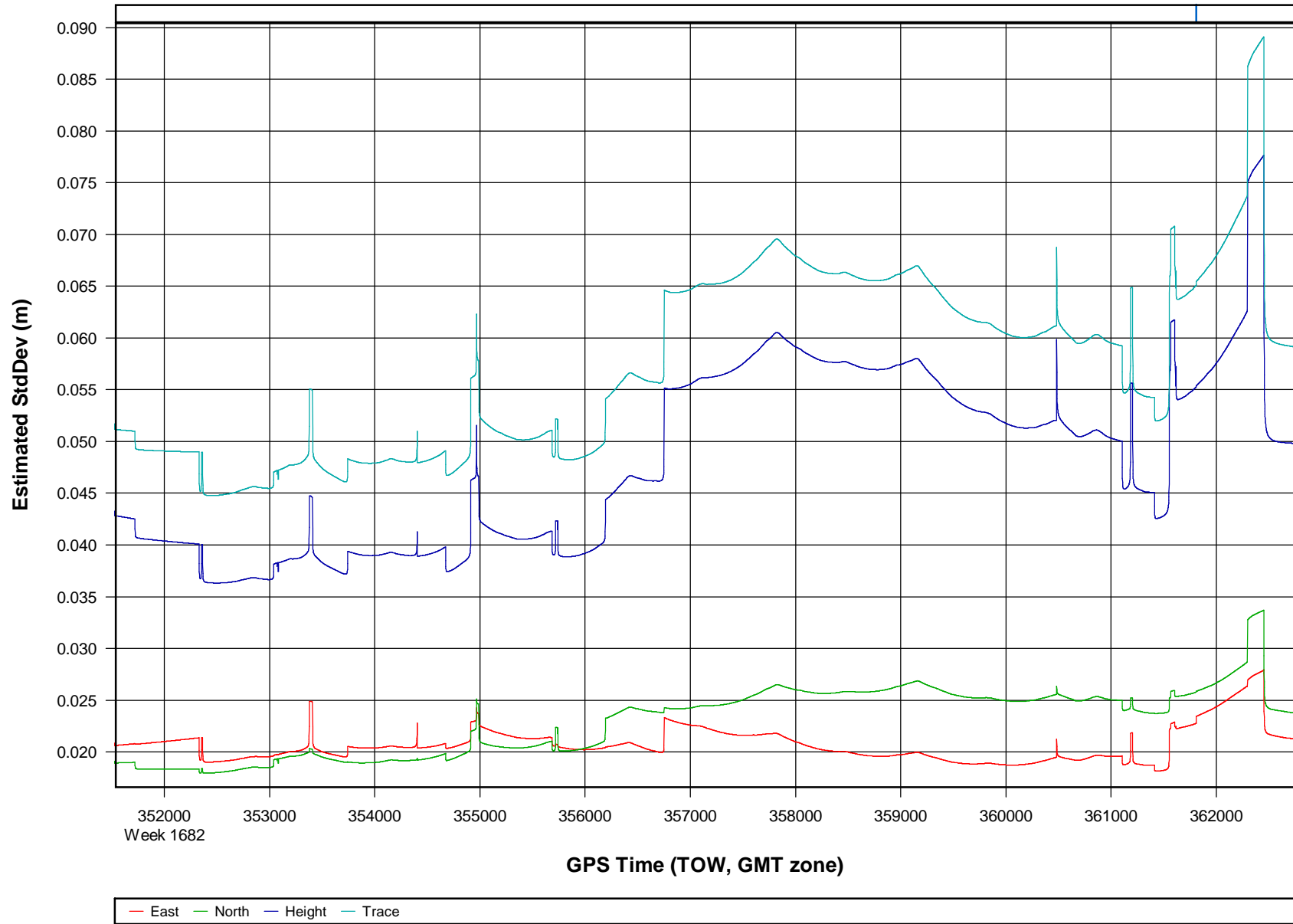




**o112095a [Combined] - Number of Satellites Bar Plot**



### o112095a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112095a\3\_Processed\GPS\o112095a.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file: 112397  
No processed position: 101169  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

## Measurement RMS Values:

L1 Phase: 0.0211 (m)  
C/A Code: 1.45 (m)  
L1 Doppler: 0.017 (m/s)

## Fwd/Rev Separation RMS Values:

East: 0.047 (m)  
North: 0.049 (m)  
Height: 0.099 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (10282 occurrences):

East: 0.019 (m)  
North: 0.018 (m)  
Height: 0.032 (m)

## Quality Number Percentages:

Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
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 %

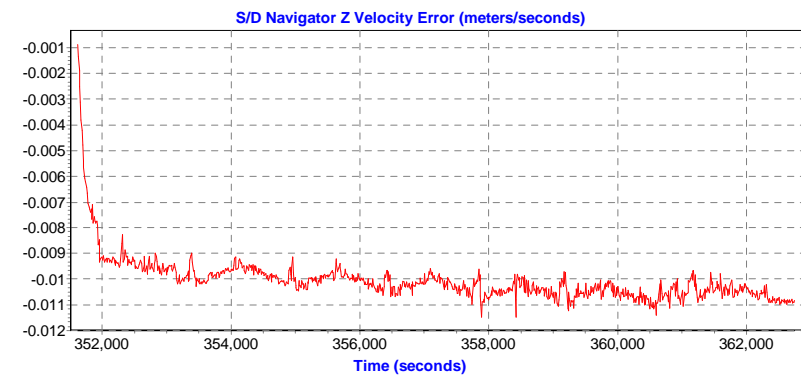
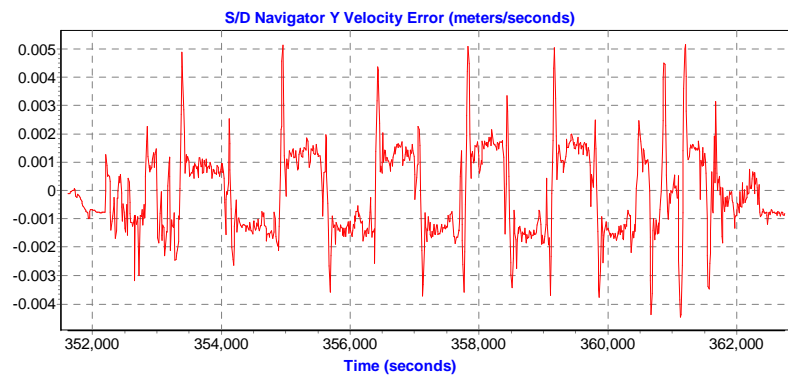
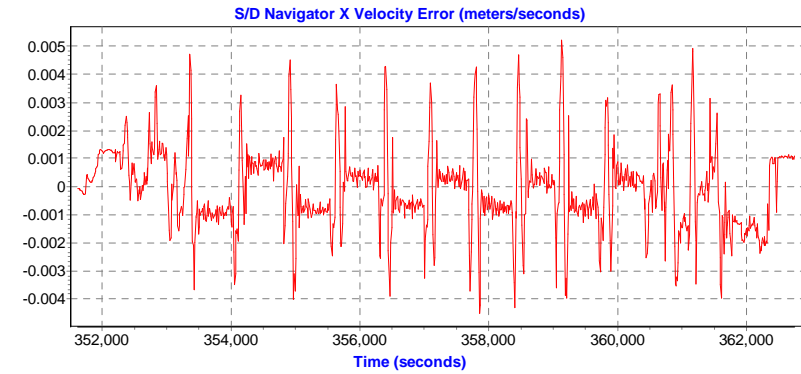
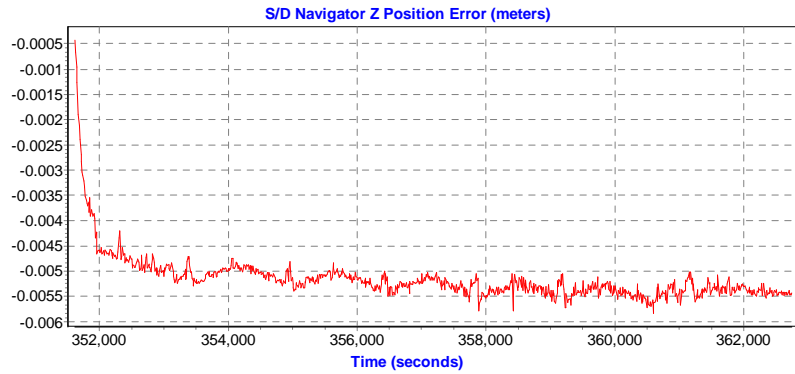
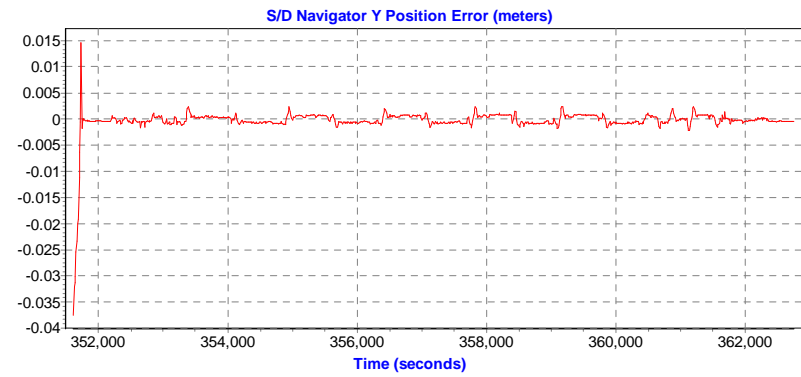
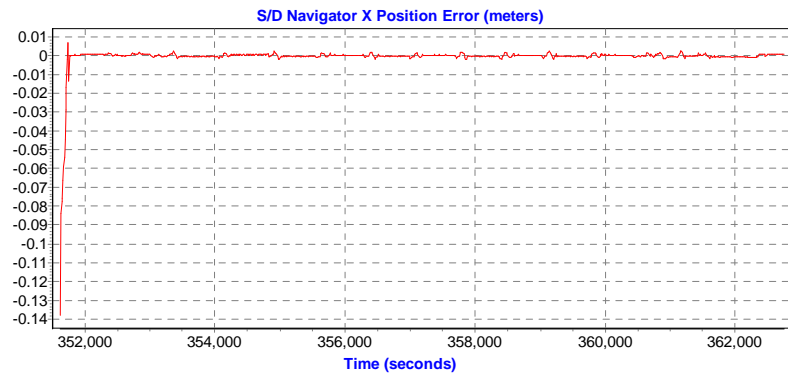
## Percentages of epochs with DD\_DOP over 10.00:

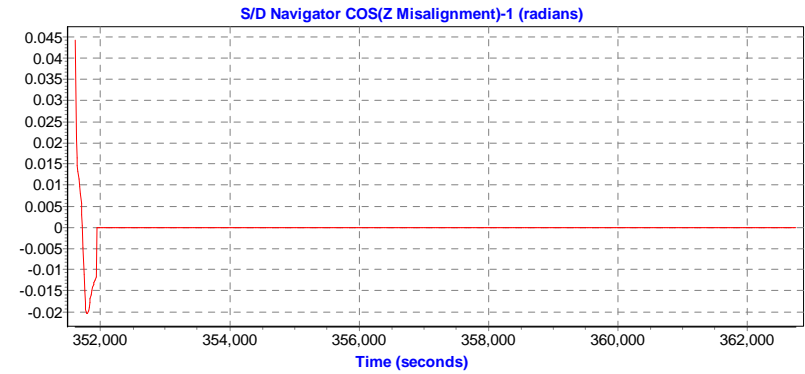
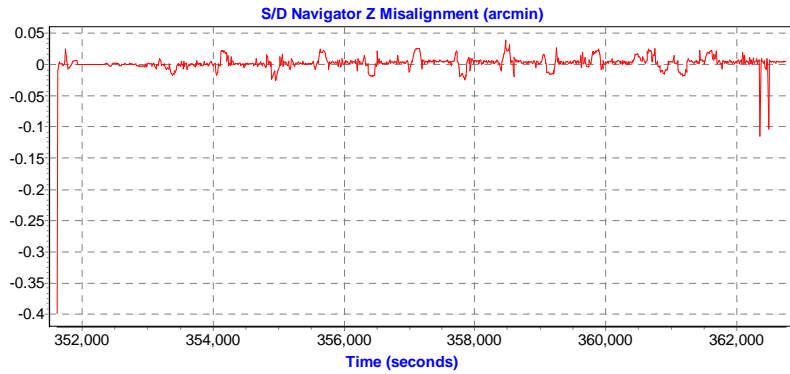
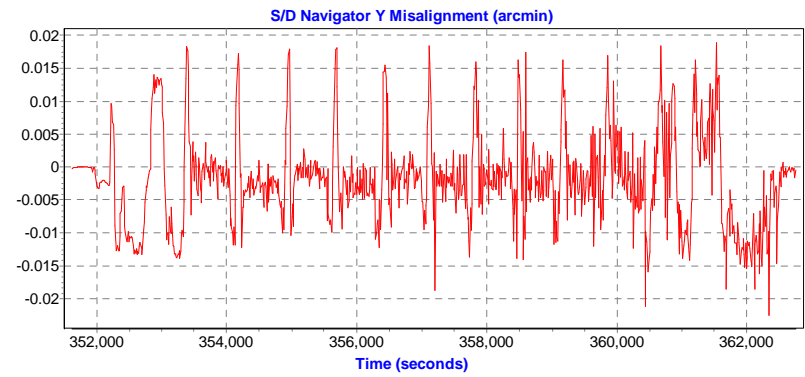
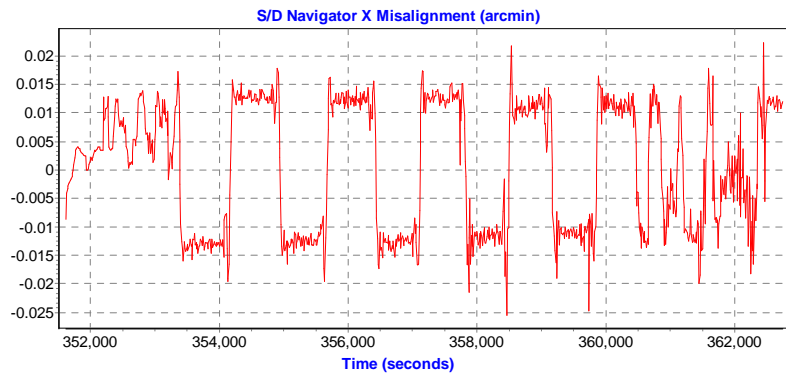
DOP over Tol: 0.0 %

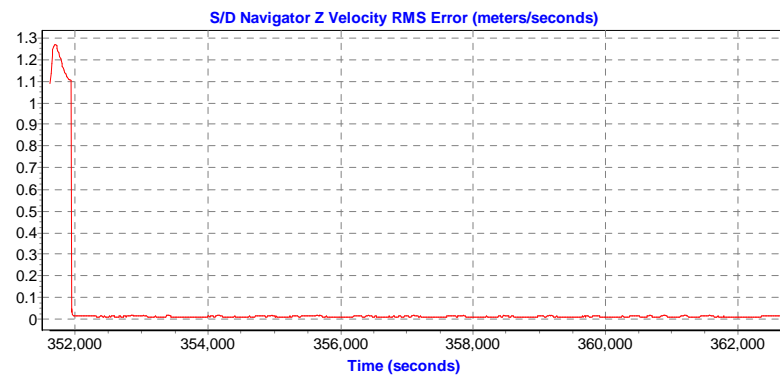
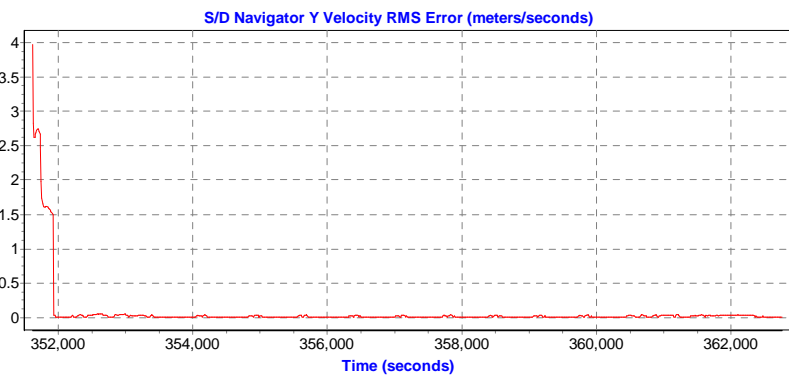
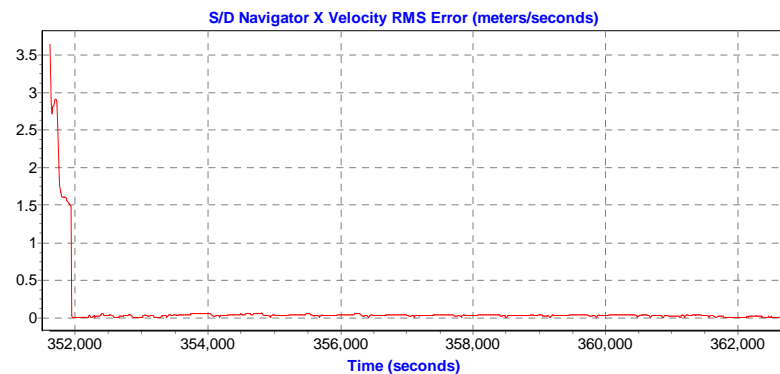
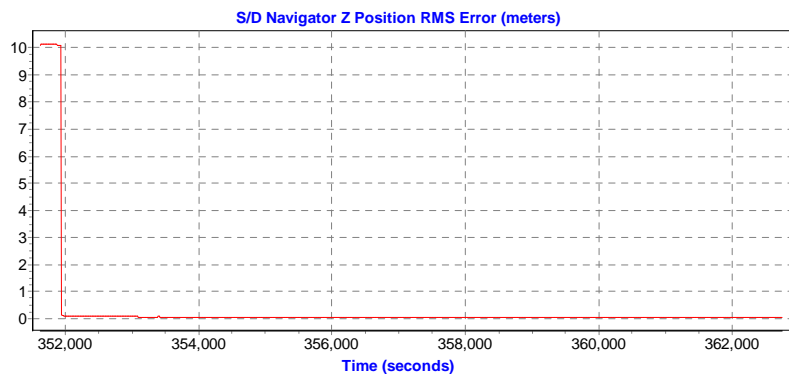
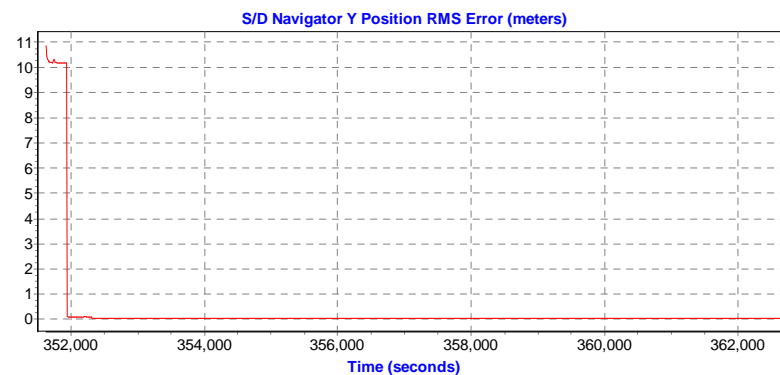
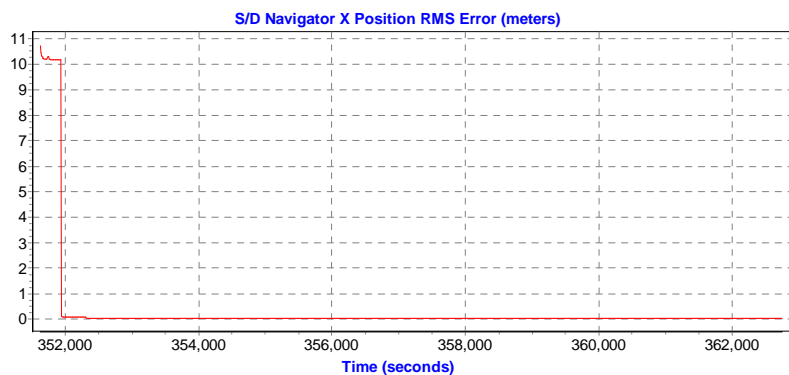
## Baseline Distances:

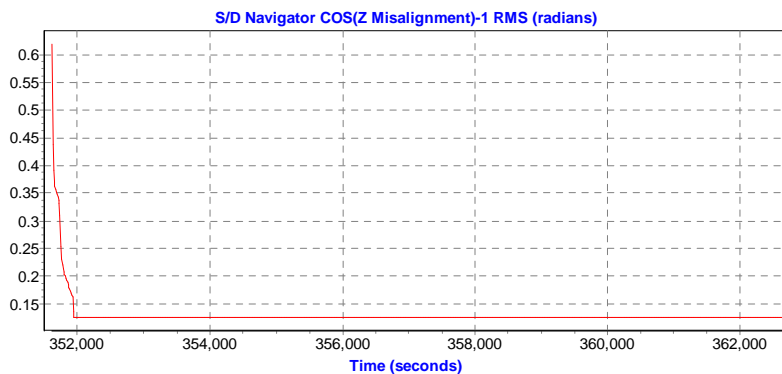
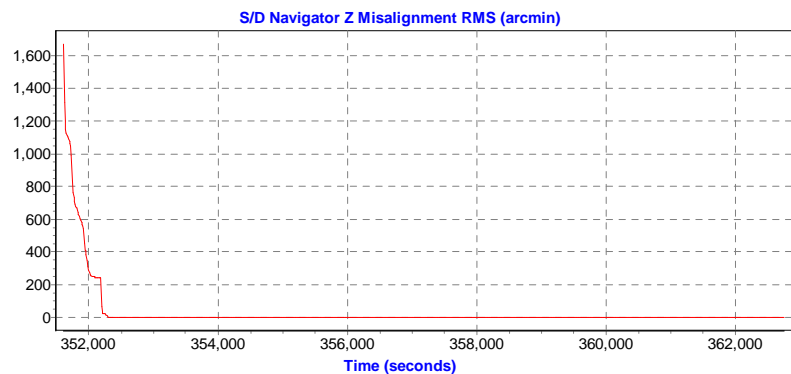
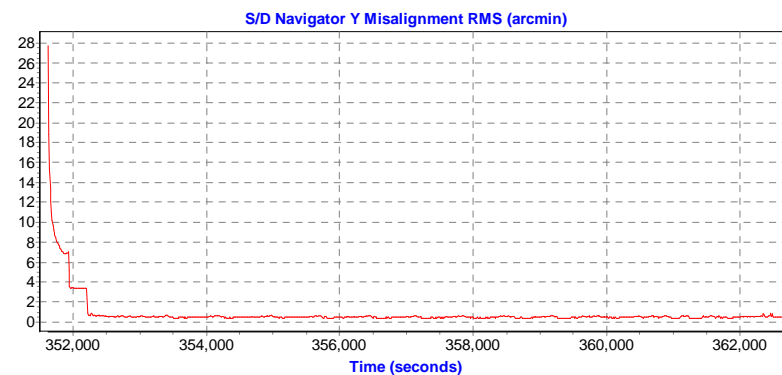
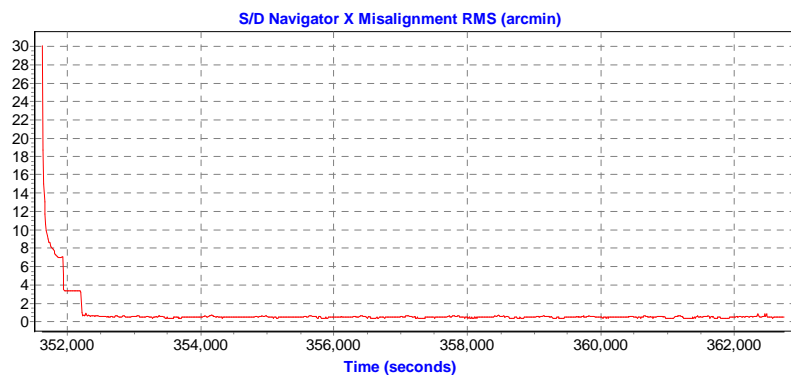
Maximum: 43.410 (km)  
Minimum: 1.378 (km)  
Average: 19.478 (km)  
First Epoch: 2.911 (km)  
Last Epoch: 37.759 (km)

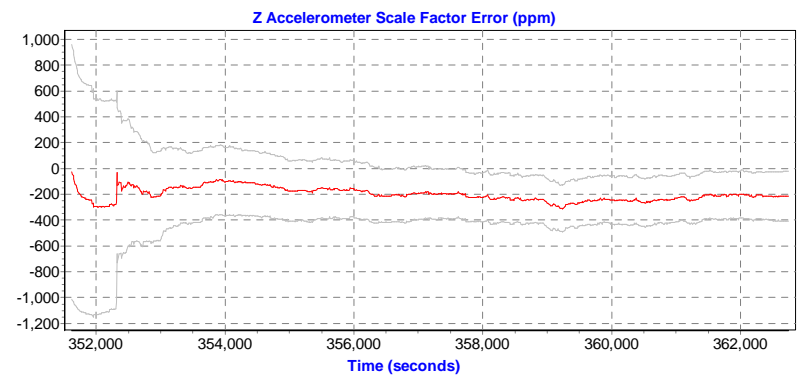
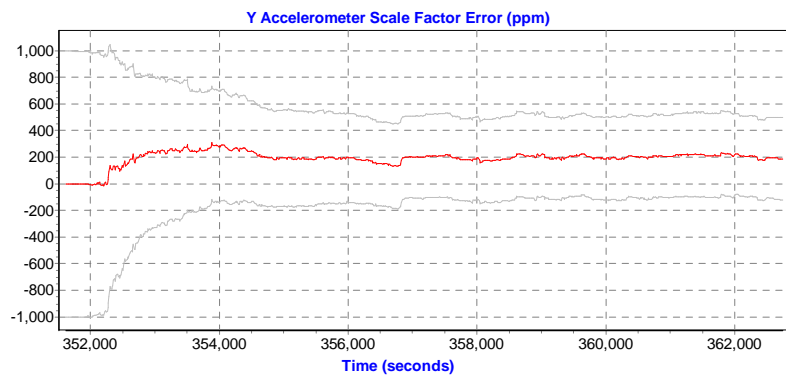
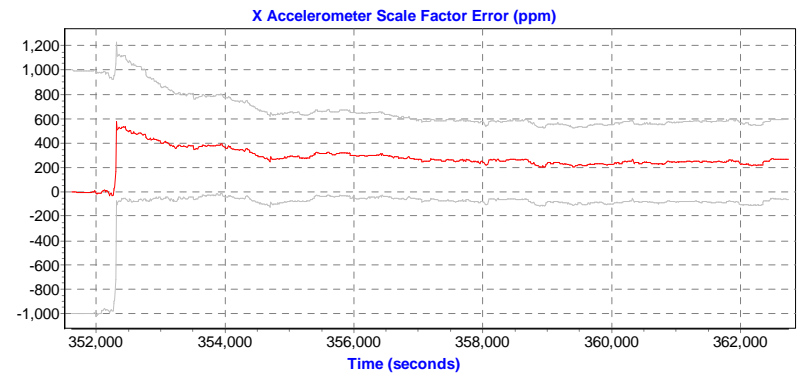
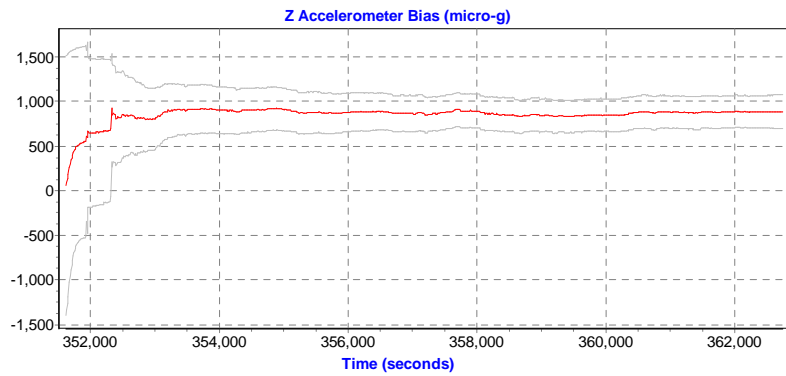
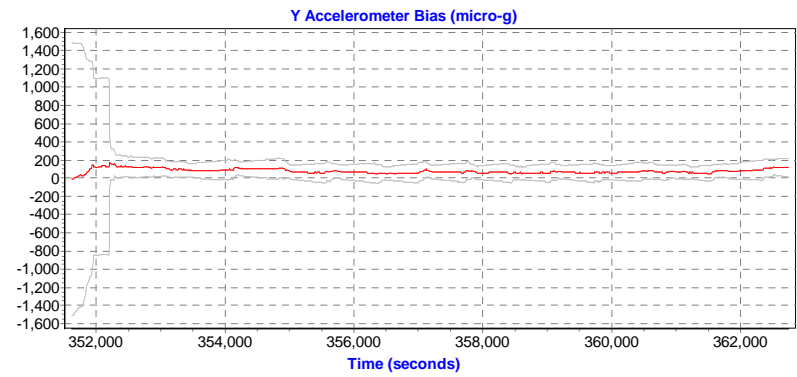
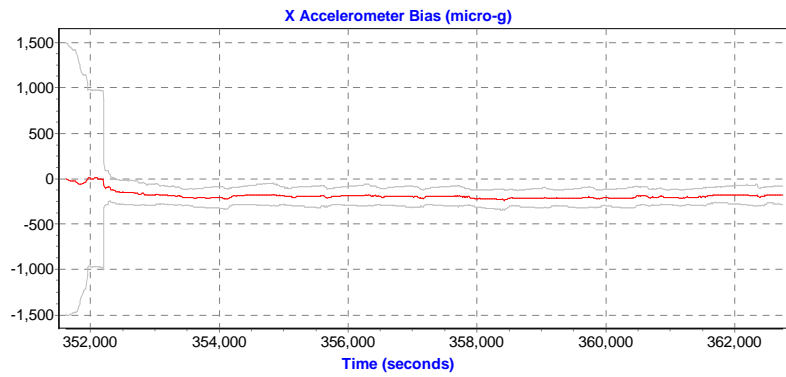
Estimated Errors and RMS



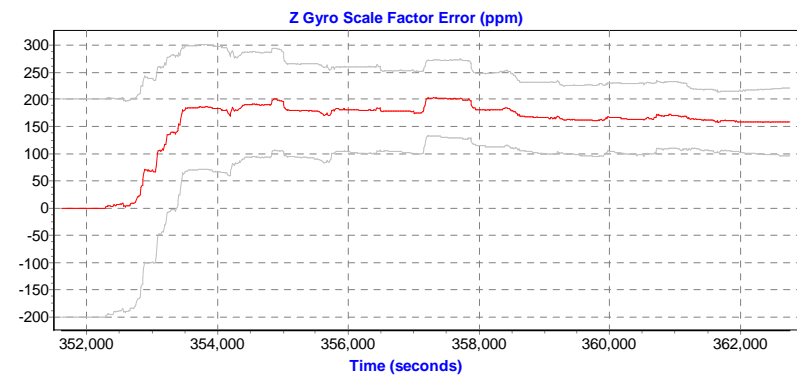
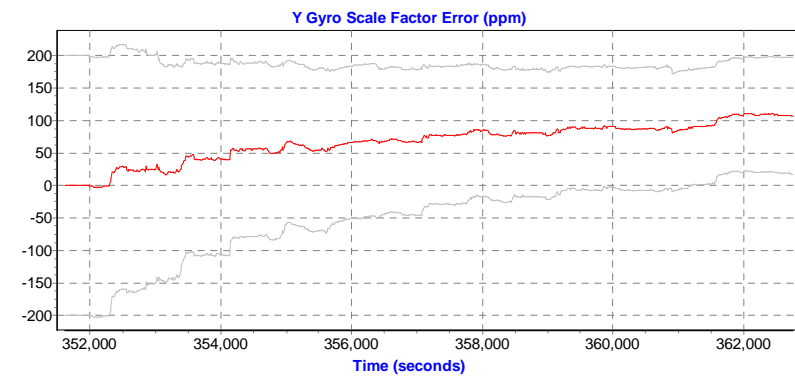
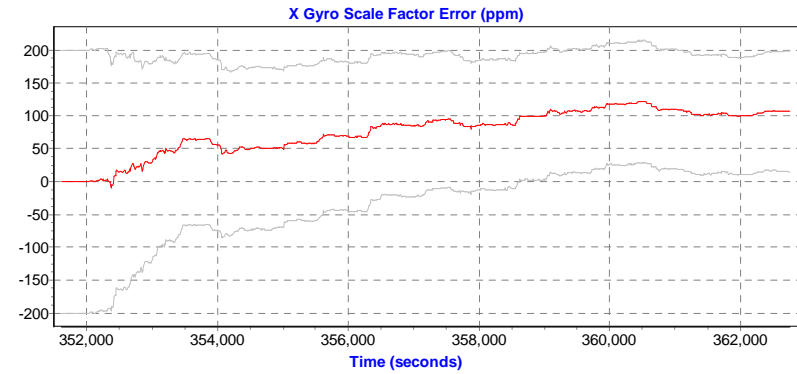
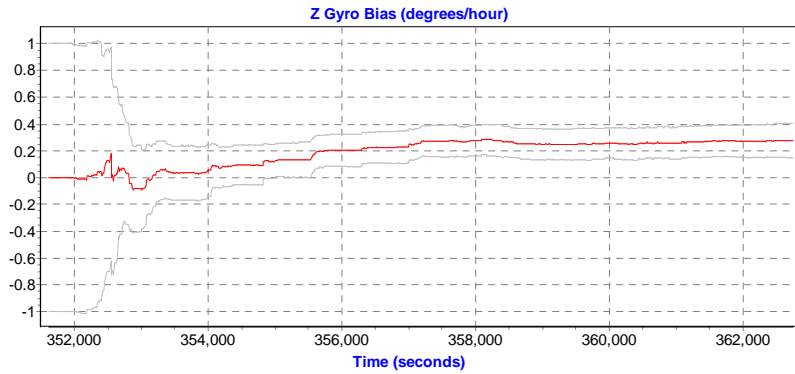
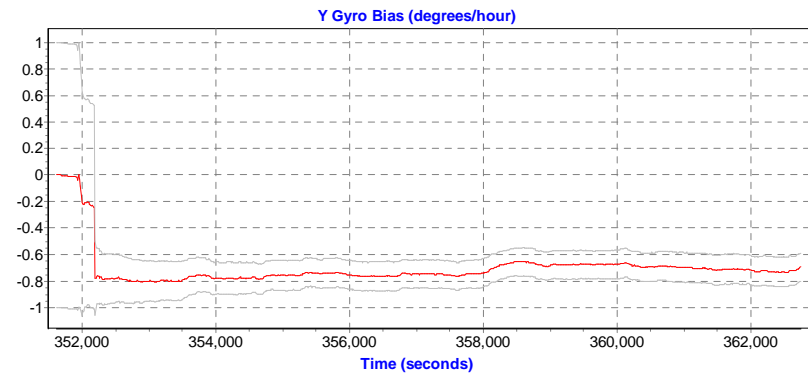
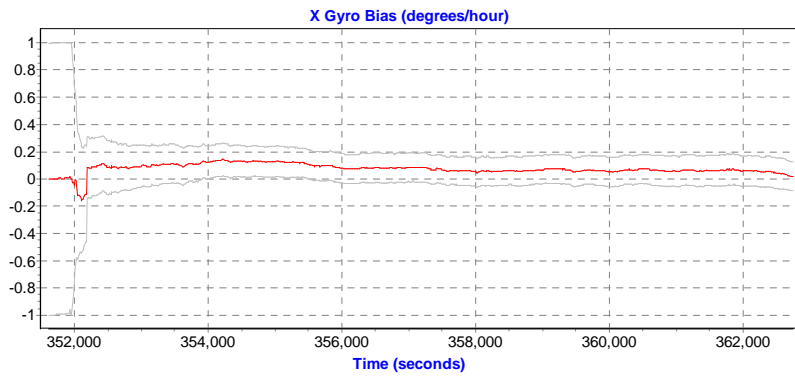


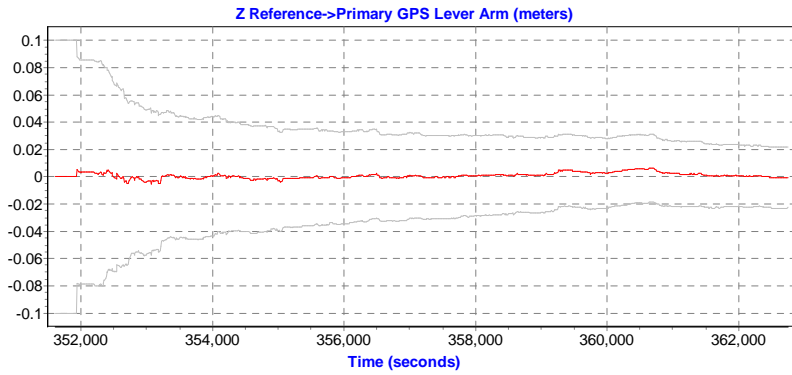
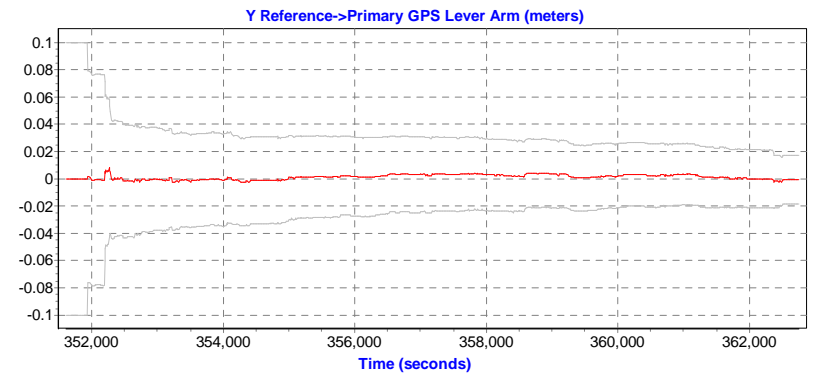
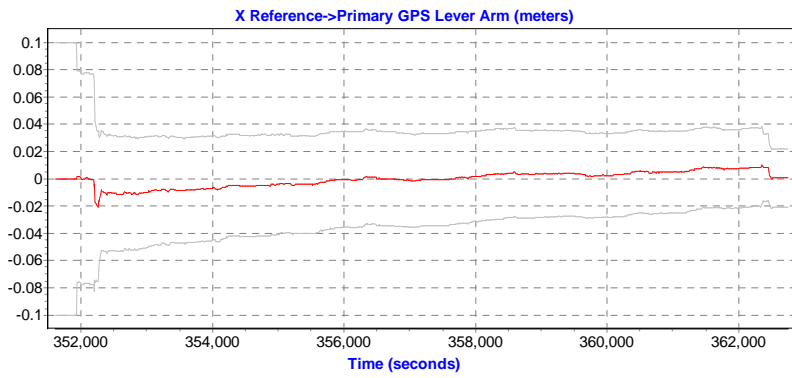






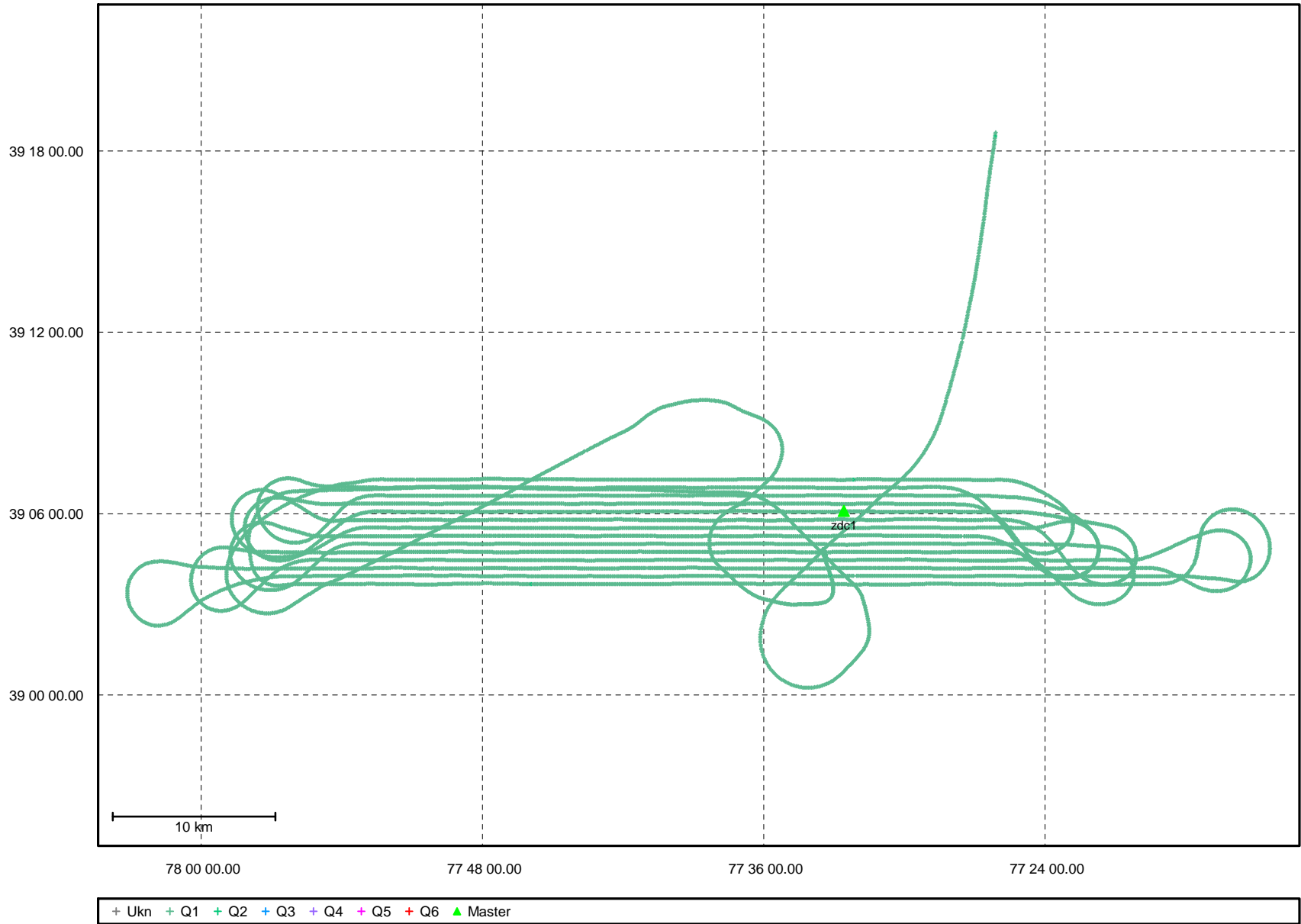




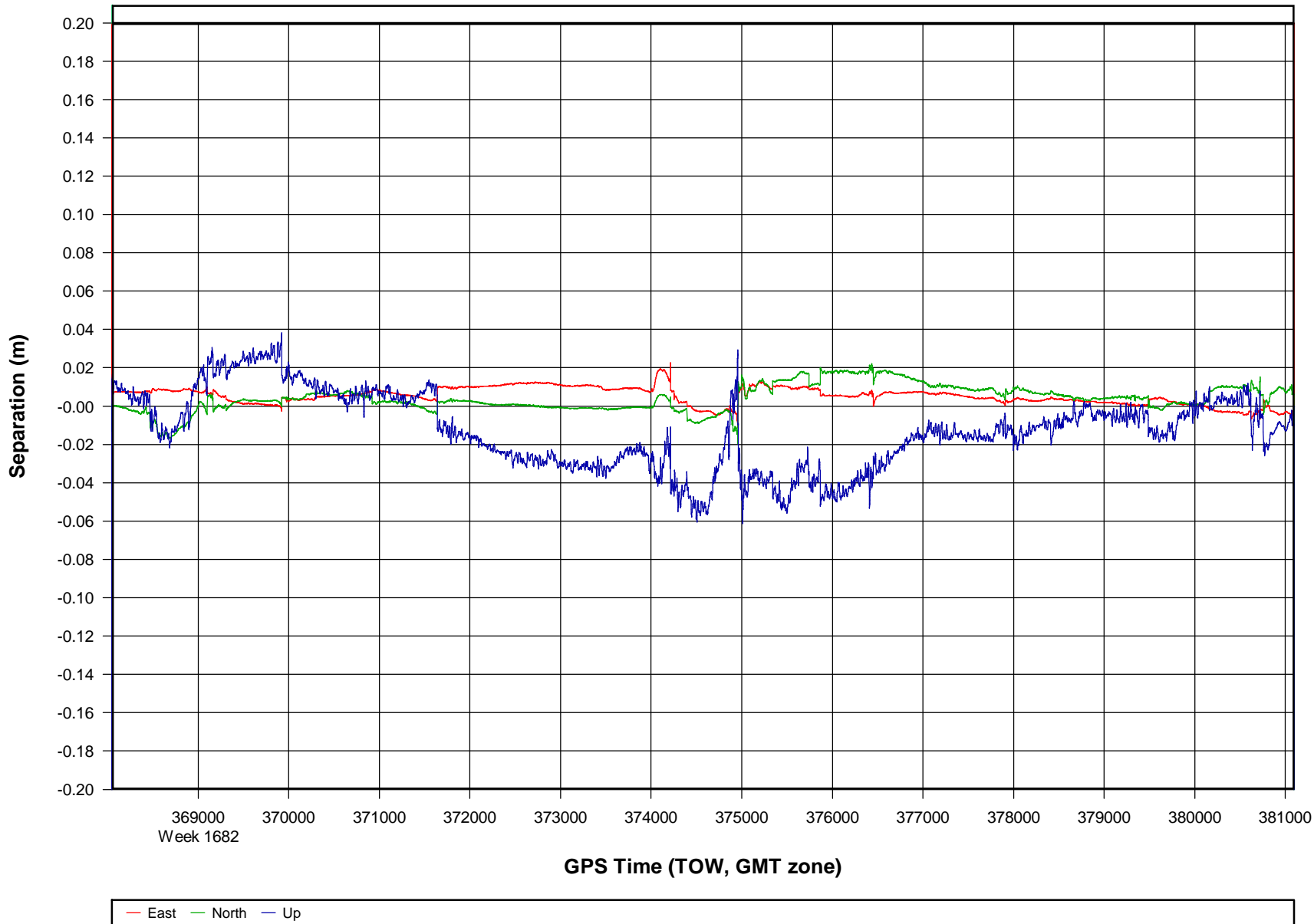


### Combined - Map Run (3)

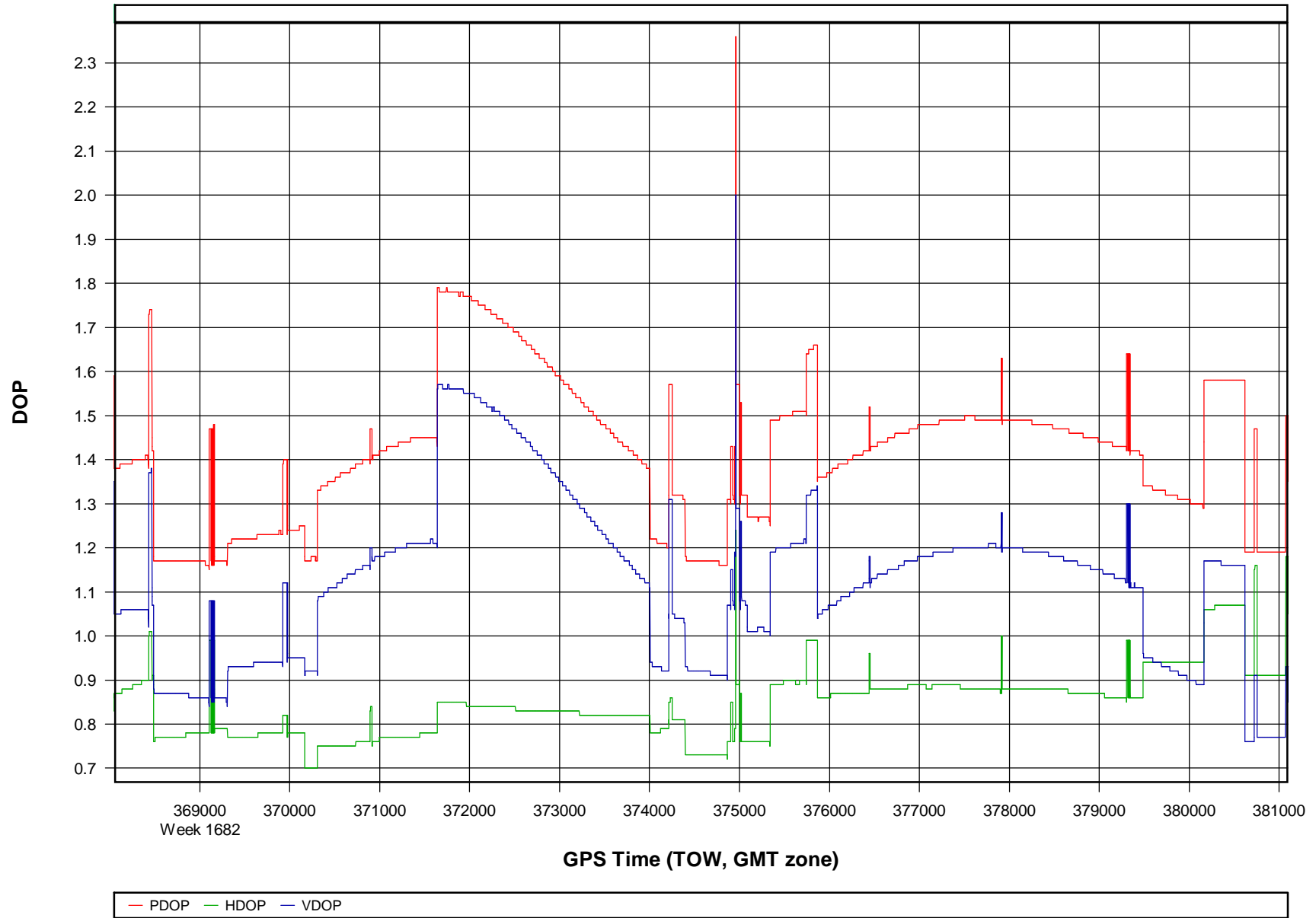
Geographic, DMS



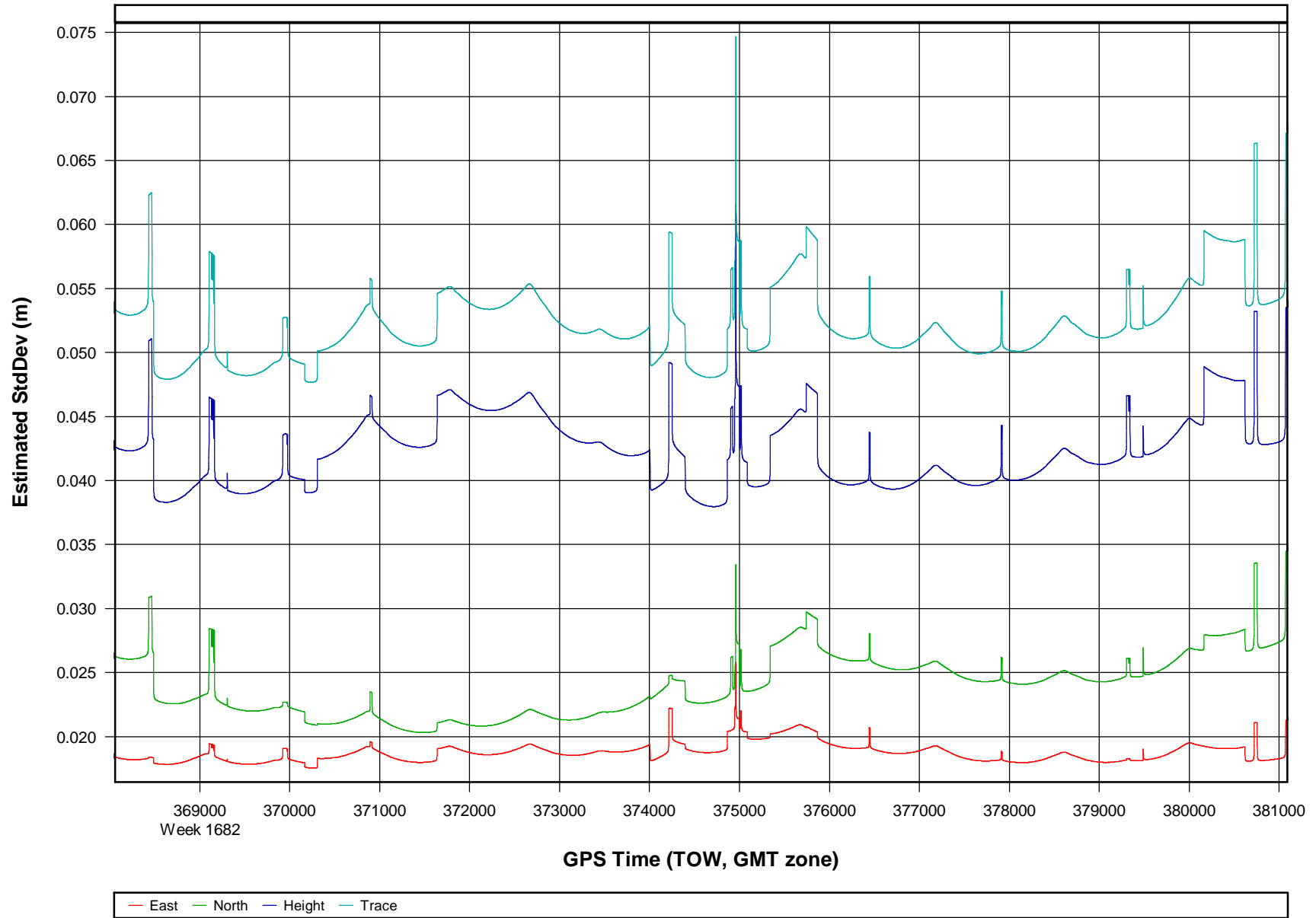
### o112095b [Combined] - Forward/Reverse or Combined Separation Plot



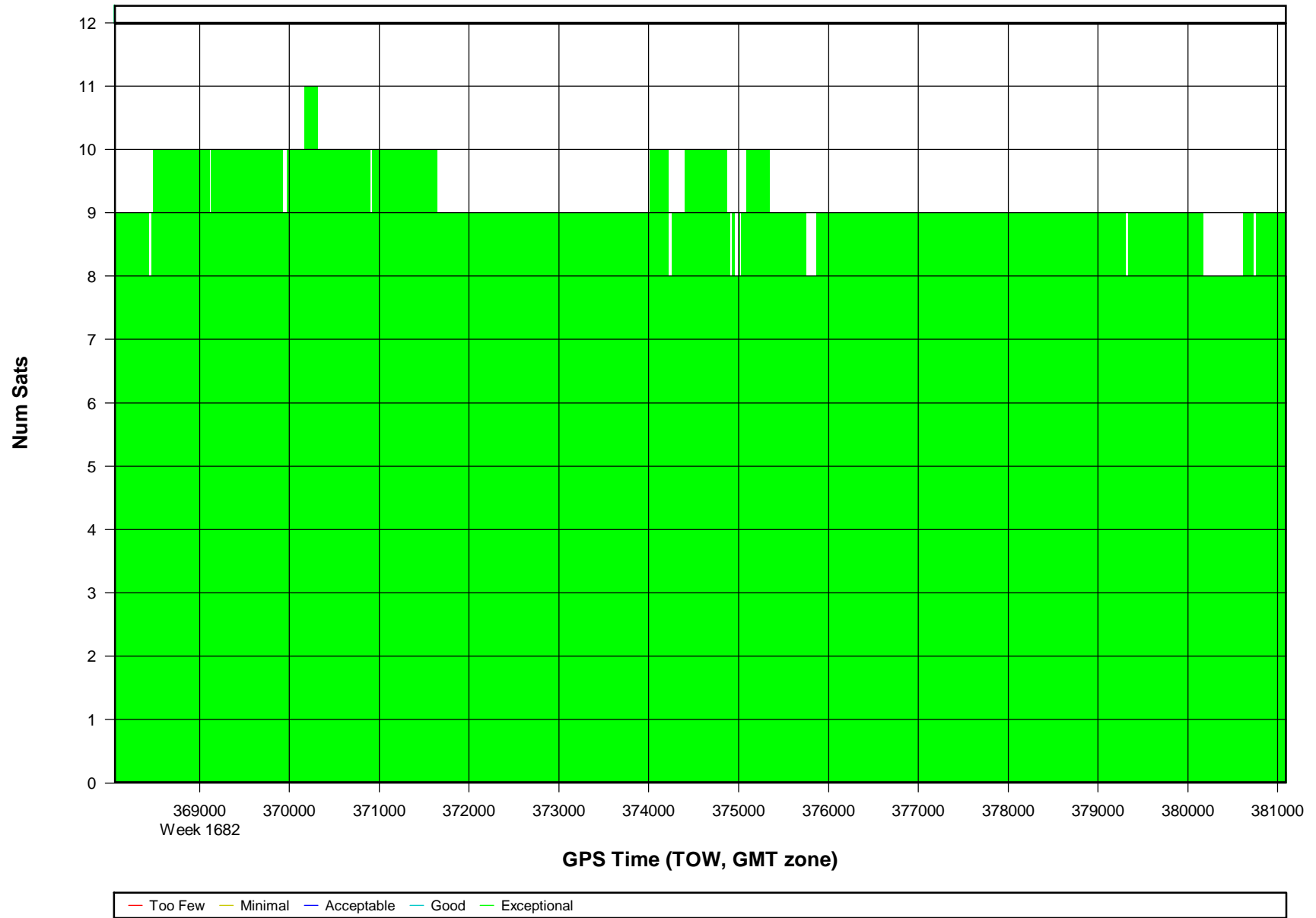
### o112095b [Combined] - PDOP, HDOP, VDOP Plots



### o112095b [Combined] - Estimated Position Accuracy Plot



**o112095b [Combined] - Number of Satellites Bar Plot**



## Processing Summary Information

Program: POSGNSS  
Version: 4.40.2710  
Project: G:\o112095b\3\_Processed\GPS\o112095b.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file: 140937  
No processed position: 127889  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

## Measurement RMS Values:

L1 Phase: 0.0192 (m)  
C/A Code: 1.41 (m)  
L1 Doppler: 0.015 (m/s)

## Fwd/Rev Separation RMS Values:

East: 0.012 (m)  
North: 0.015 (m)  
Height: 0.034 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (13042 occurrences):

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

## Quality Number Percentages:

Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
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:

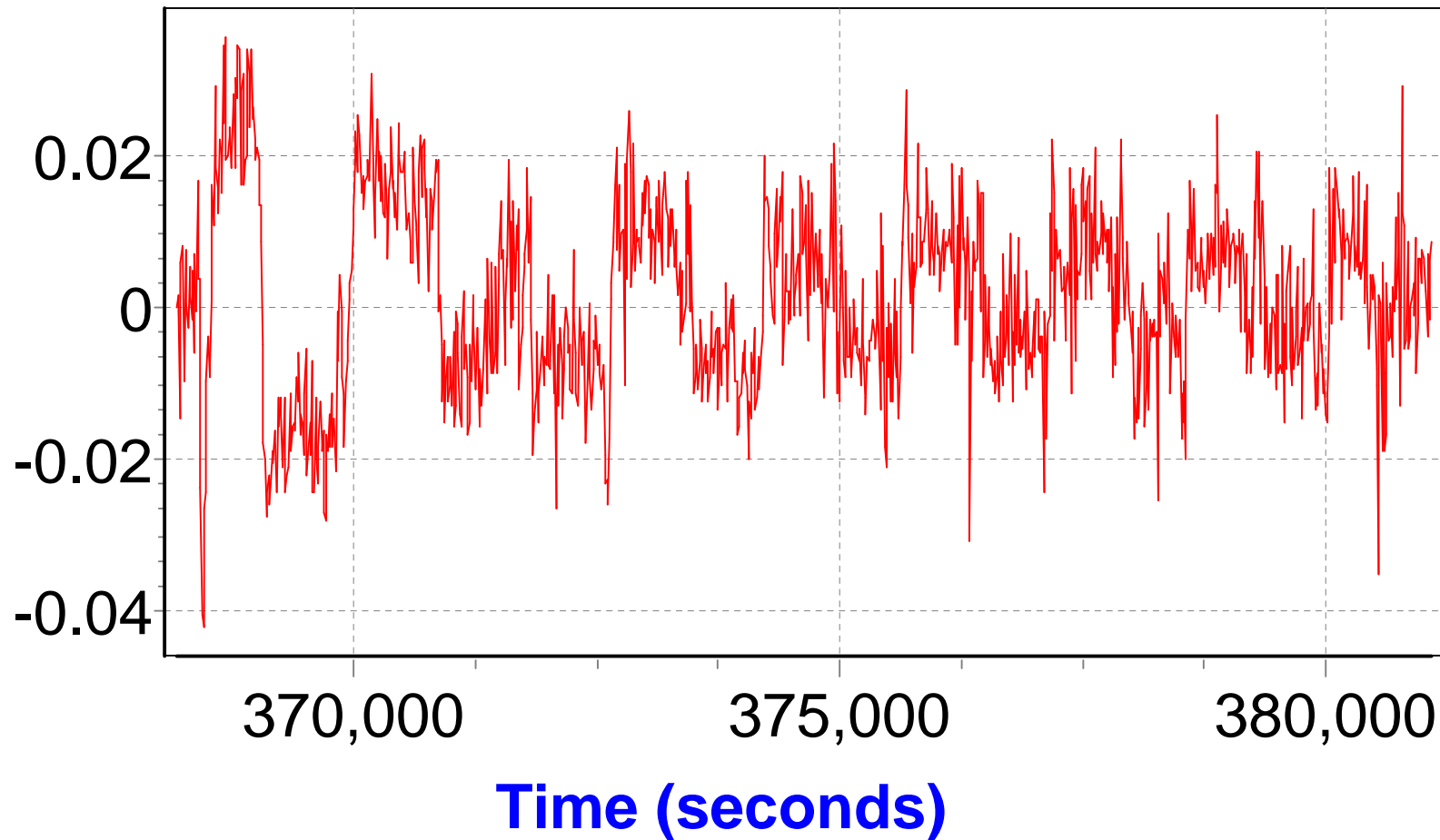
DOP over Tol: 0.0 %

## Baseline Distances:

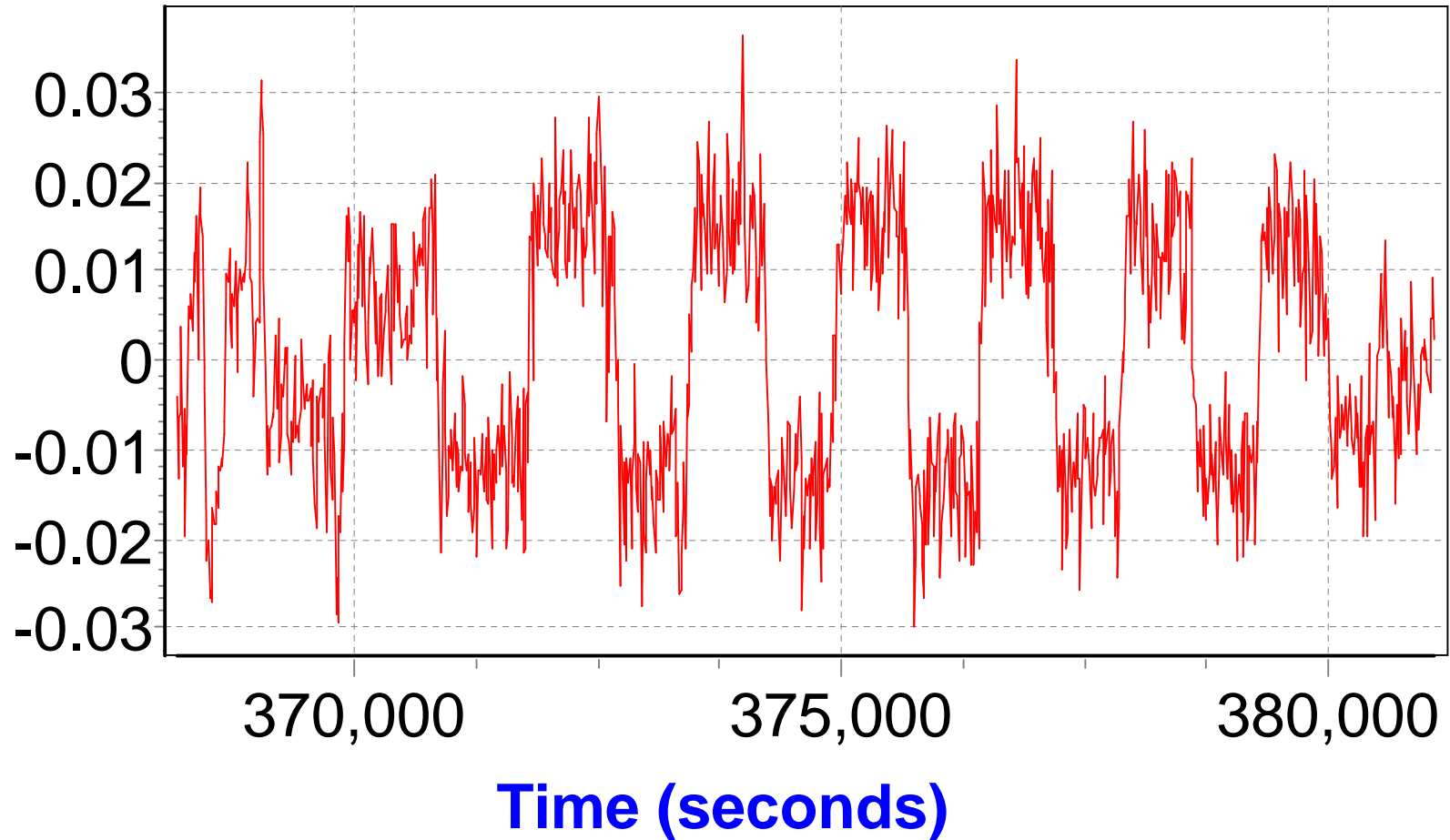
Maximum: 44.425 (km)  
Minimum: 0.975 (km)  
Average: 16.630 (km)  
First Epoch: 24.990 (km)  
Last Epoch: 2.941 (km)



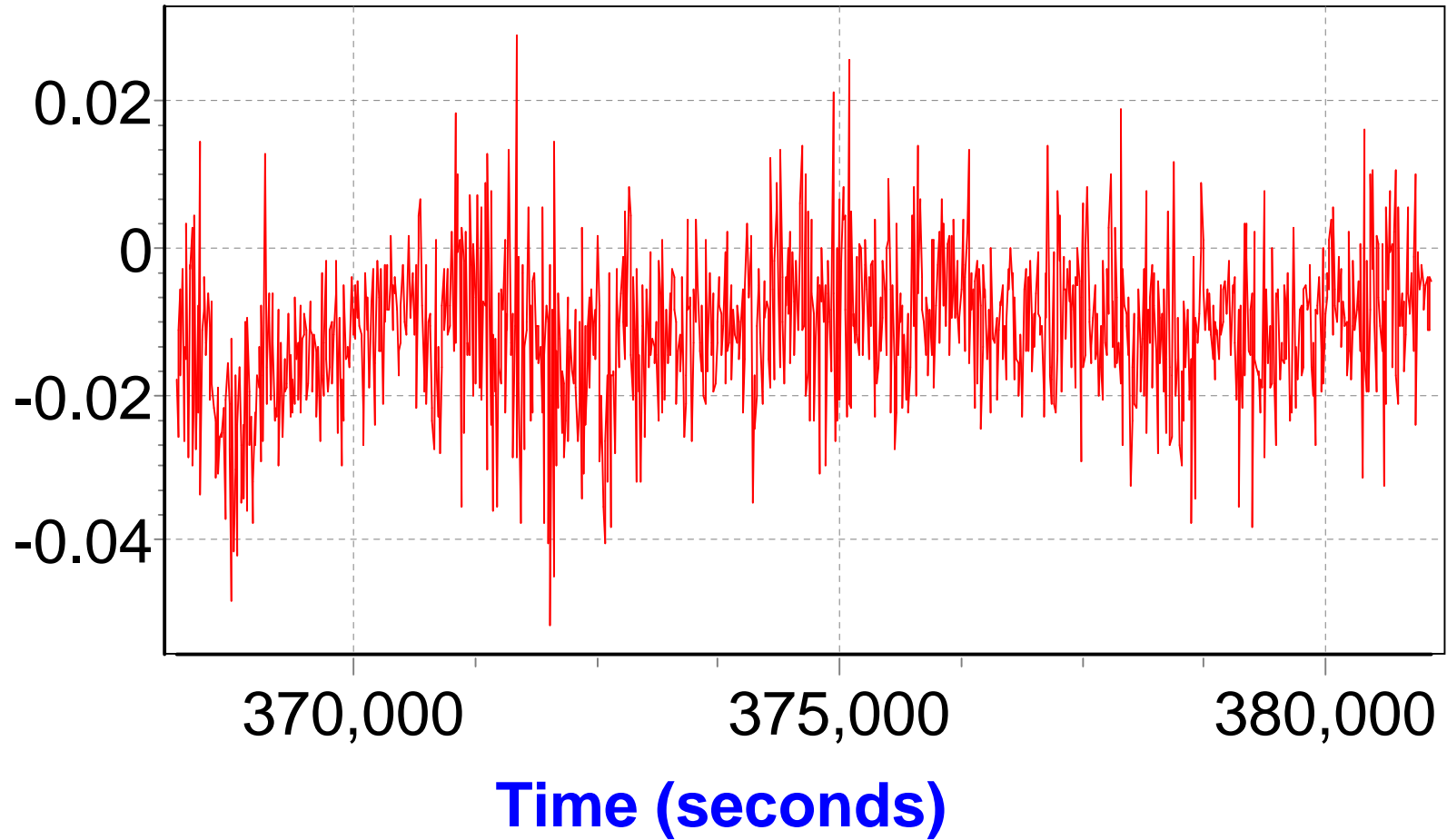
## S/D Navigator X Position Error (meters)



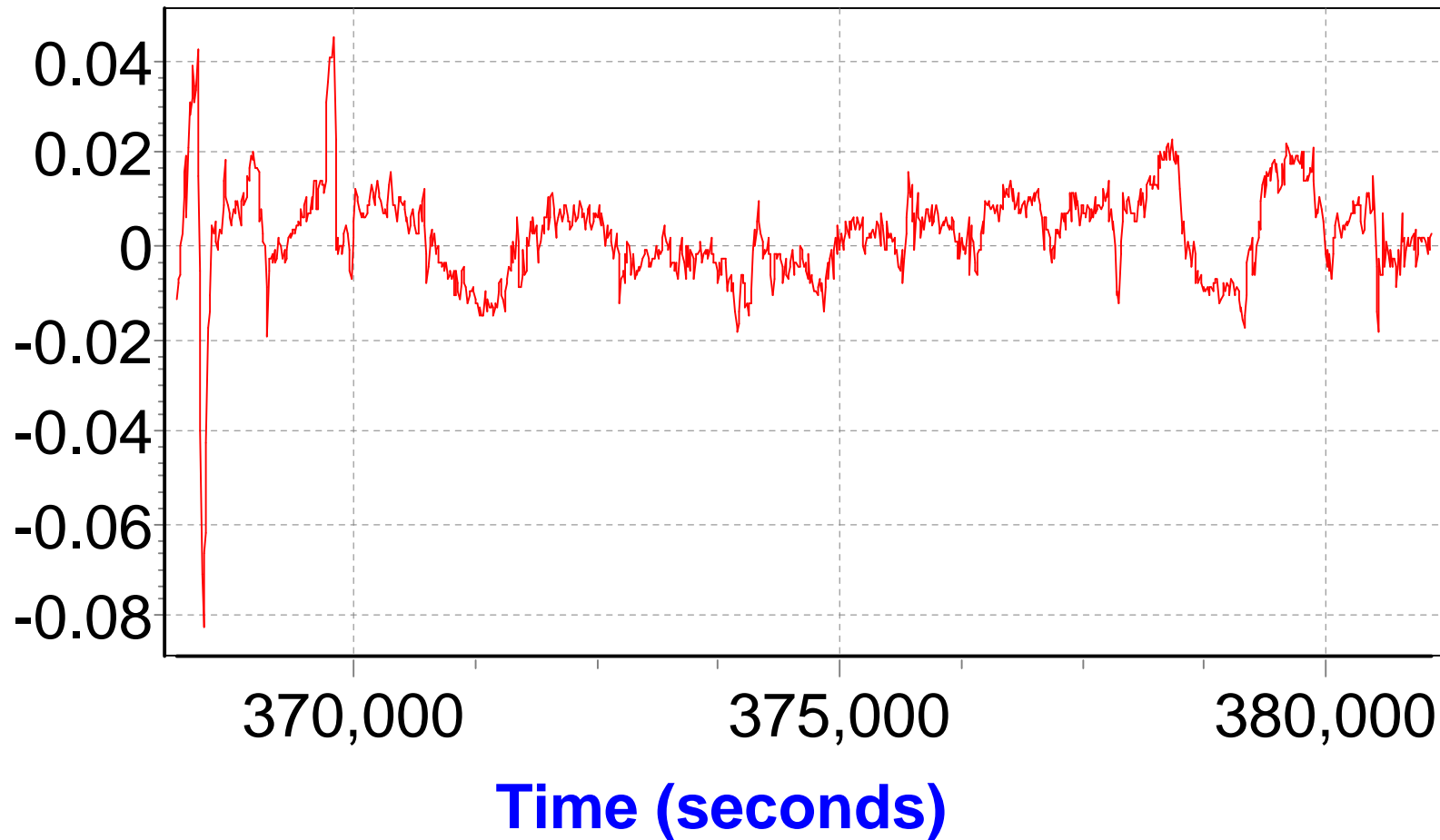
## S/D Navigator Y Position Error (meters)



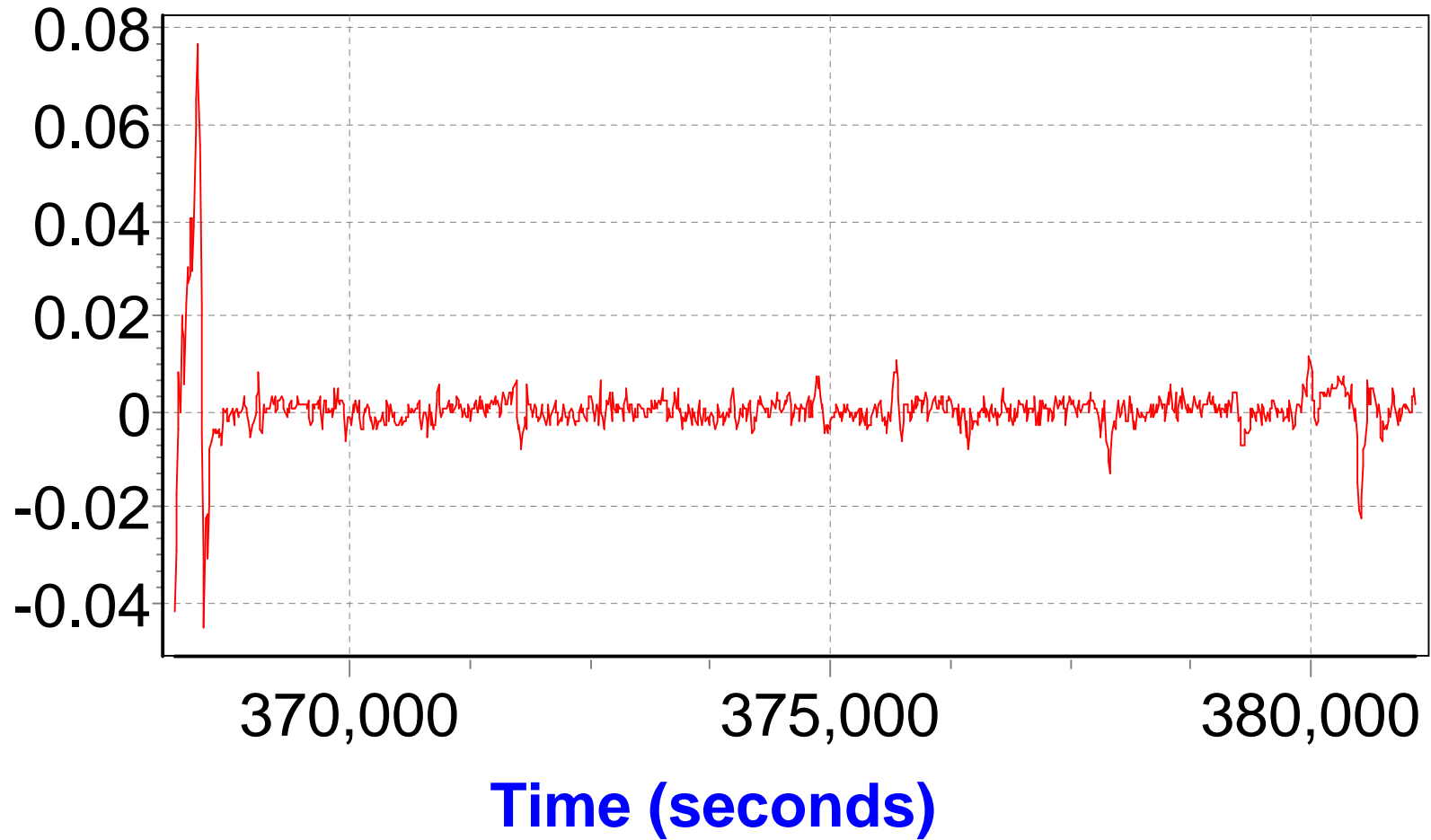
## S/D Navigator Z Position Error (meters)



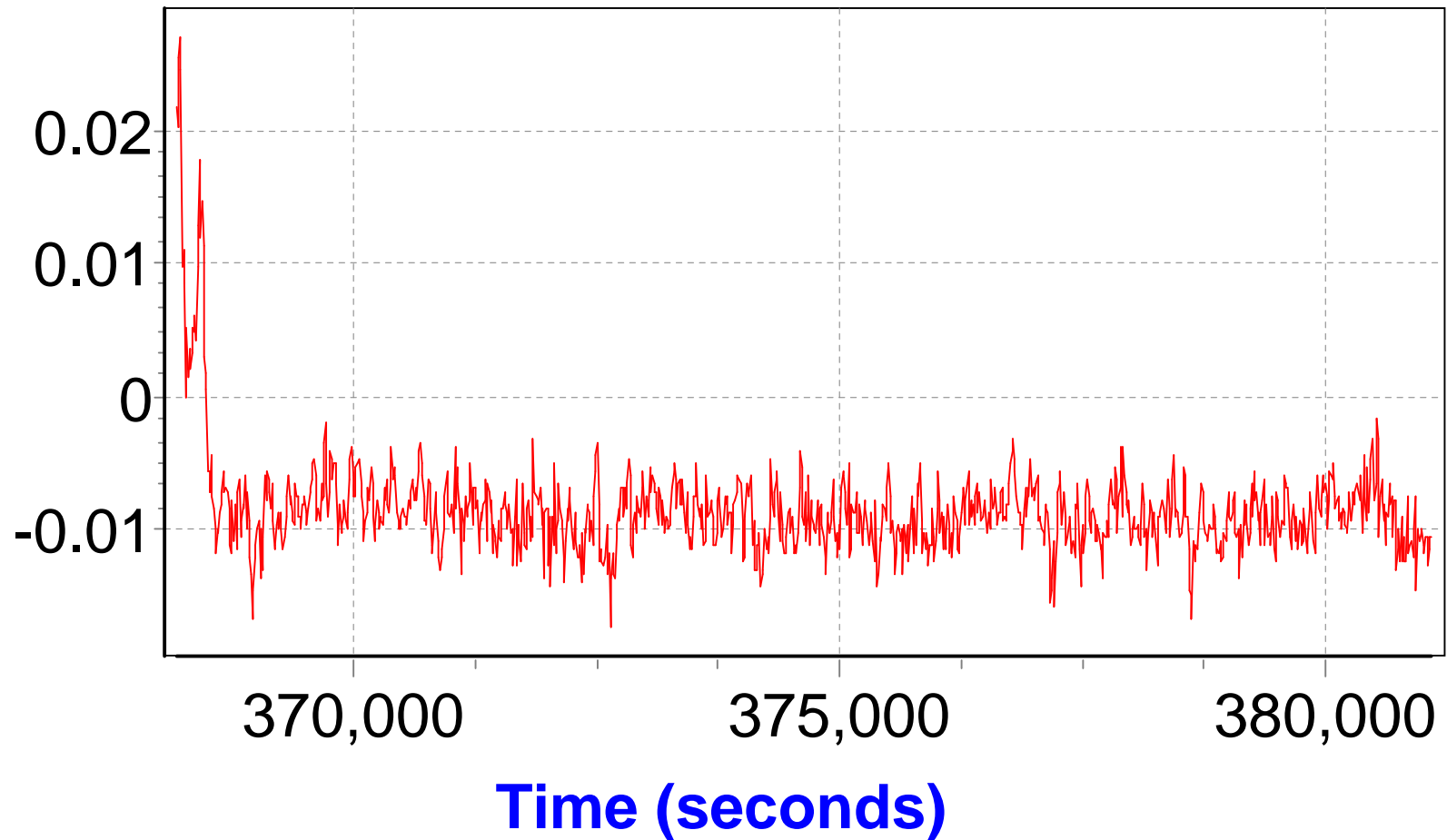
## S/D Navigator X Velocity Error (meters/seconds)



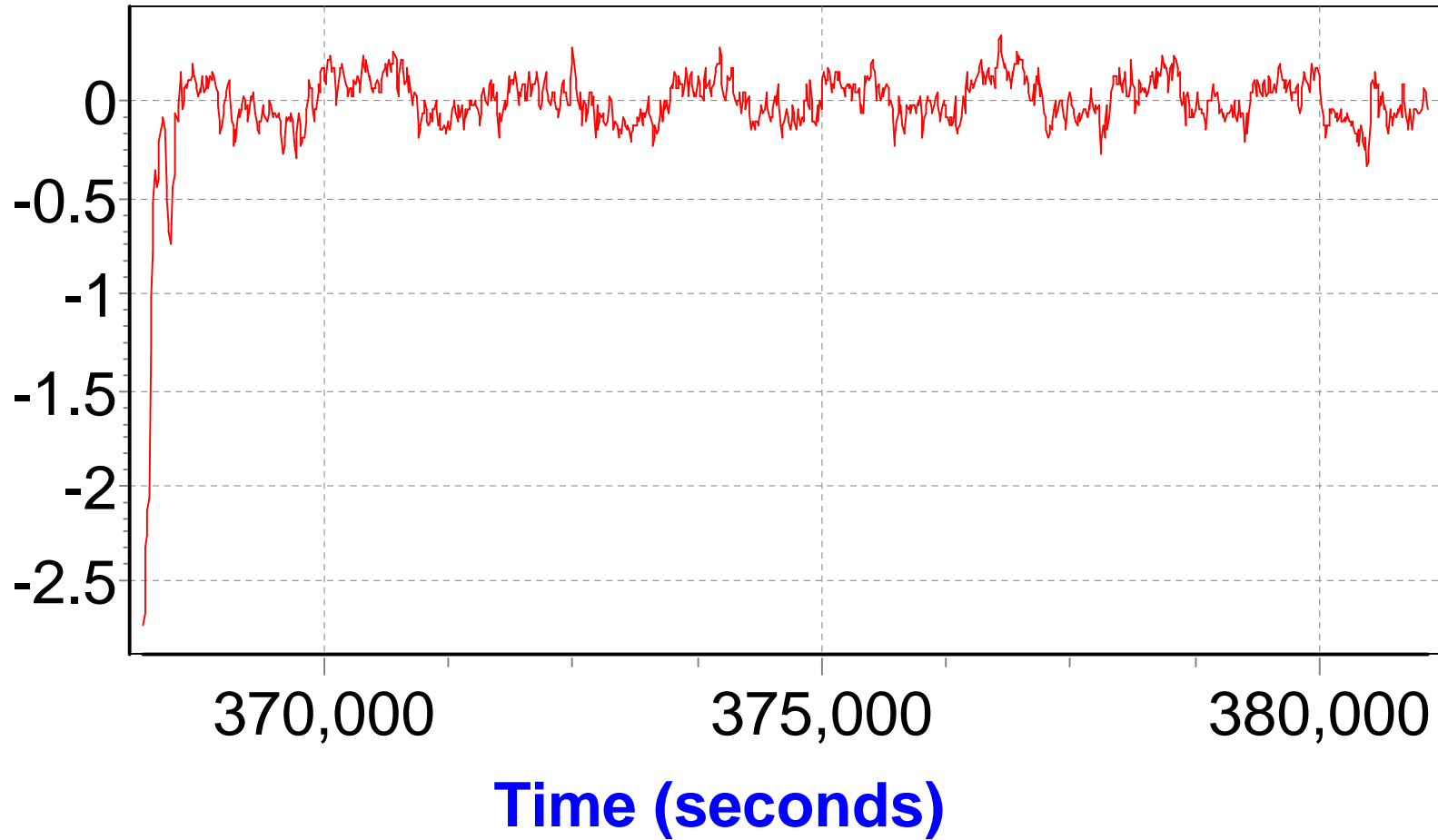
## S/D Navigator Y Velocity Error (meters/seconds)



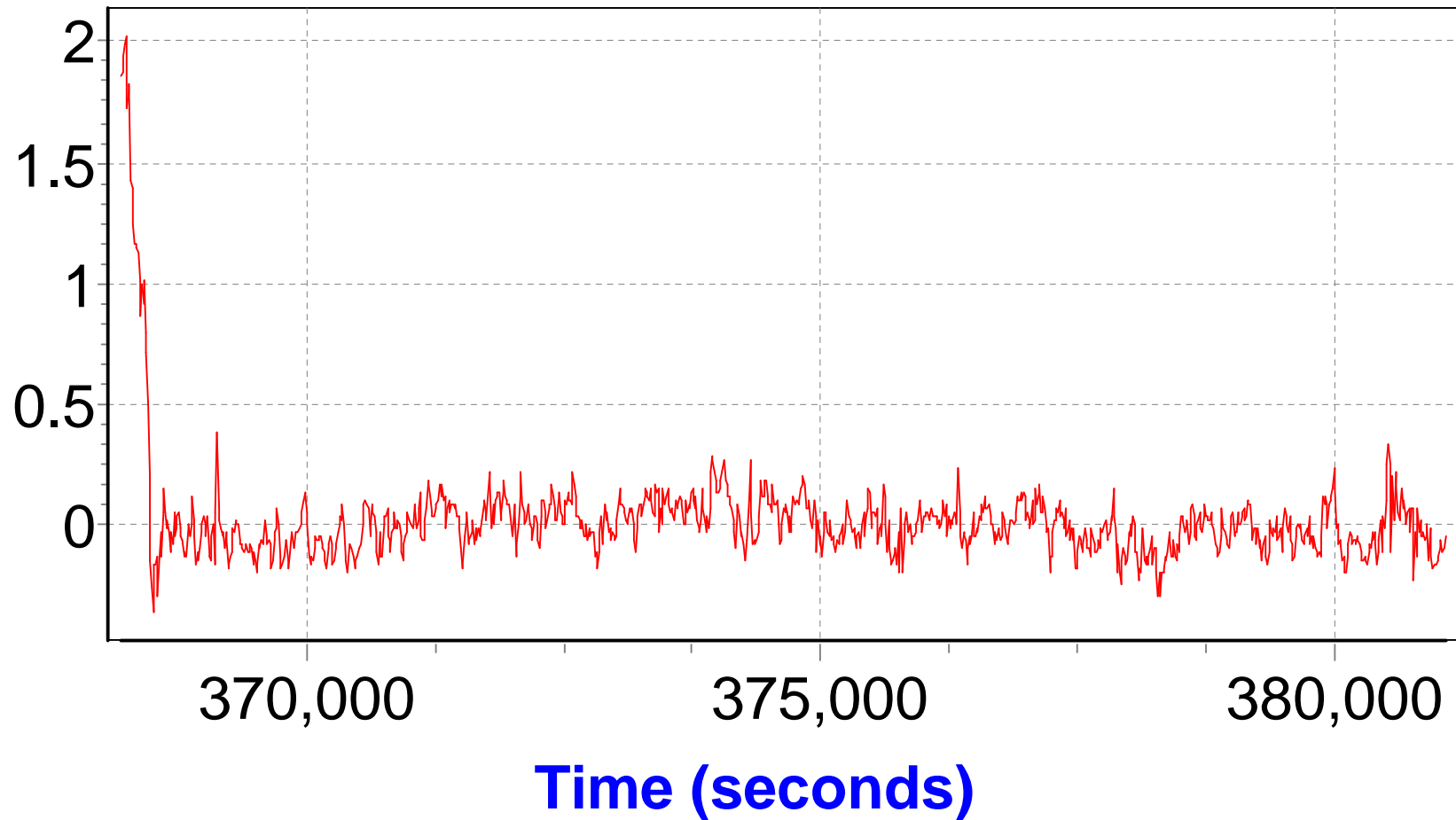
## S/D Navigator Z Velocity Error (meters/seconds)



## S/D Navigator X Misalignment (arcmin)

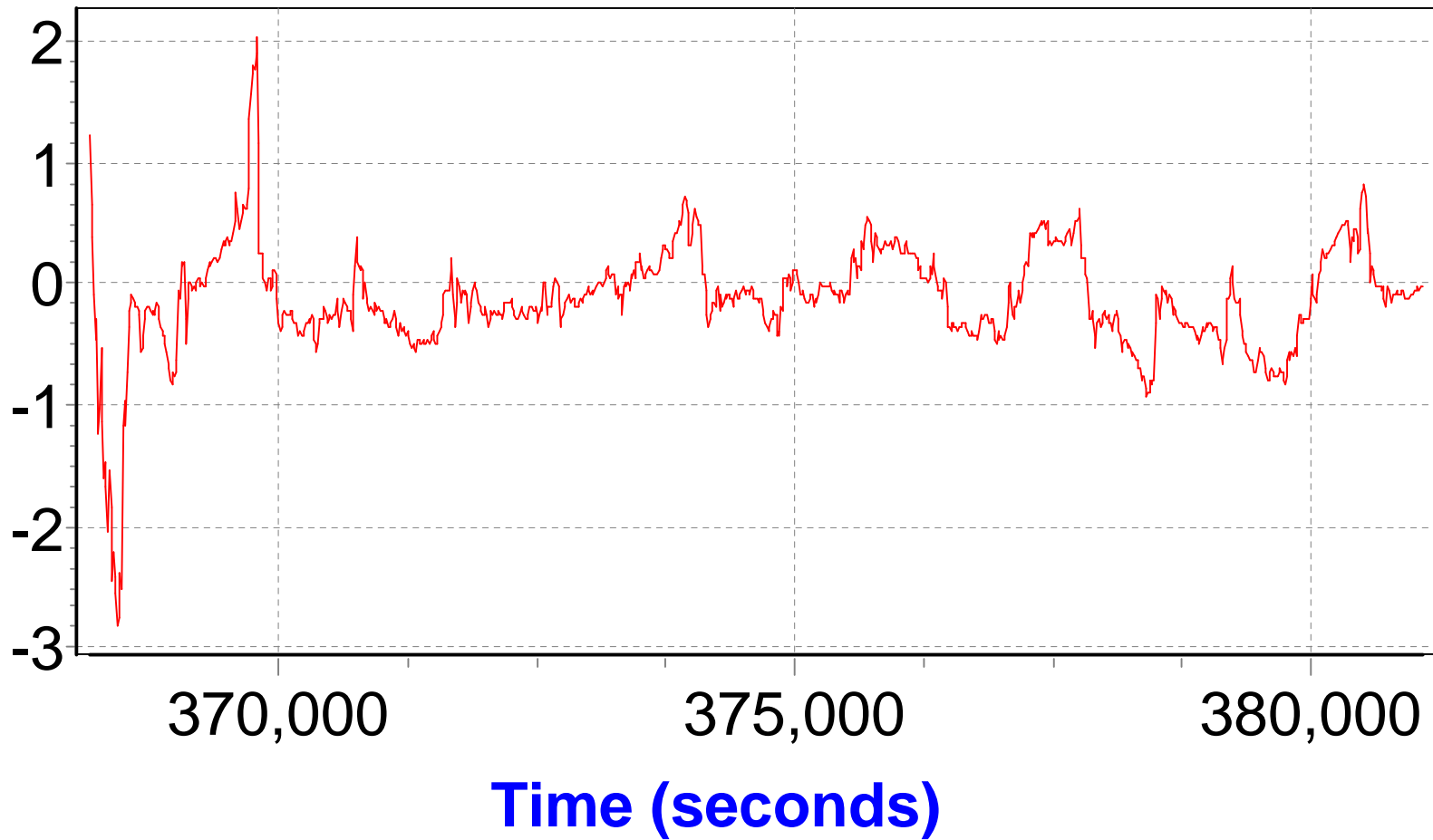


## S/D Navigator Y Misalignment (arcmin)

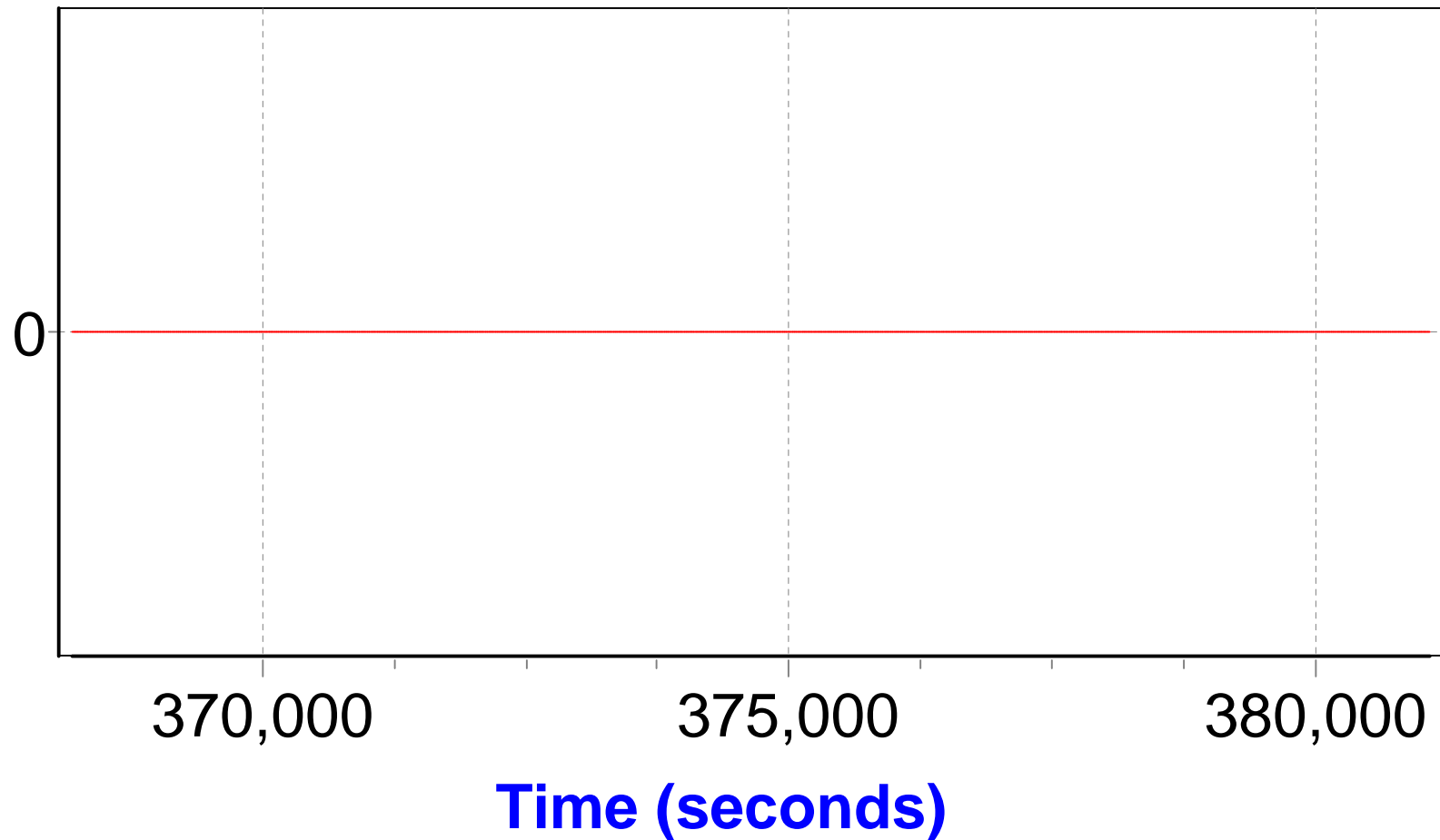




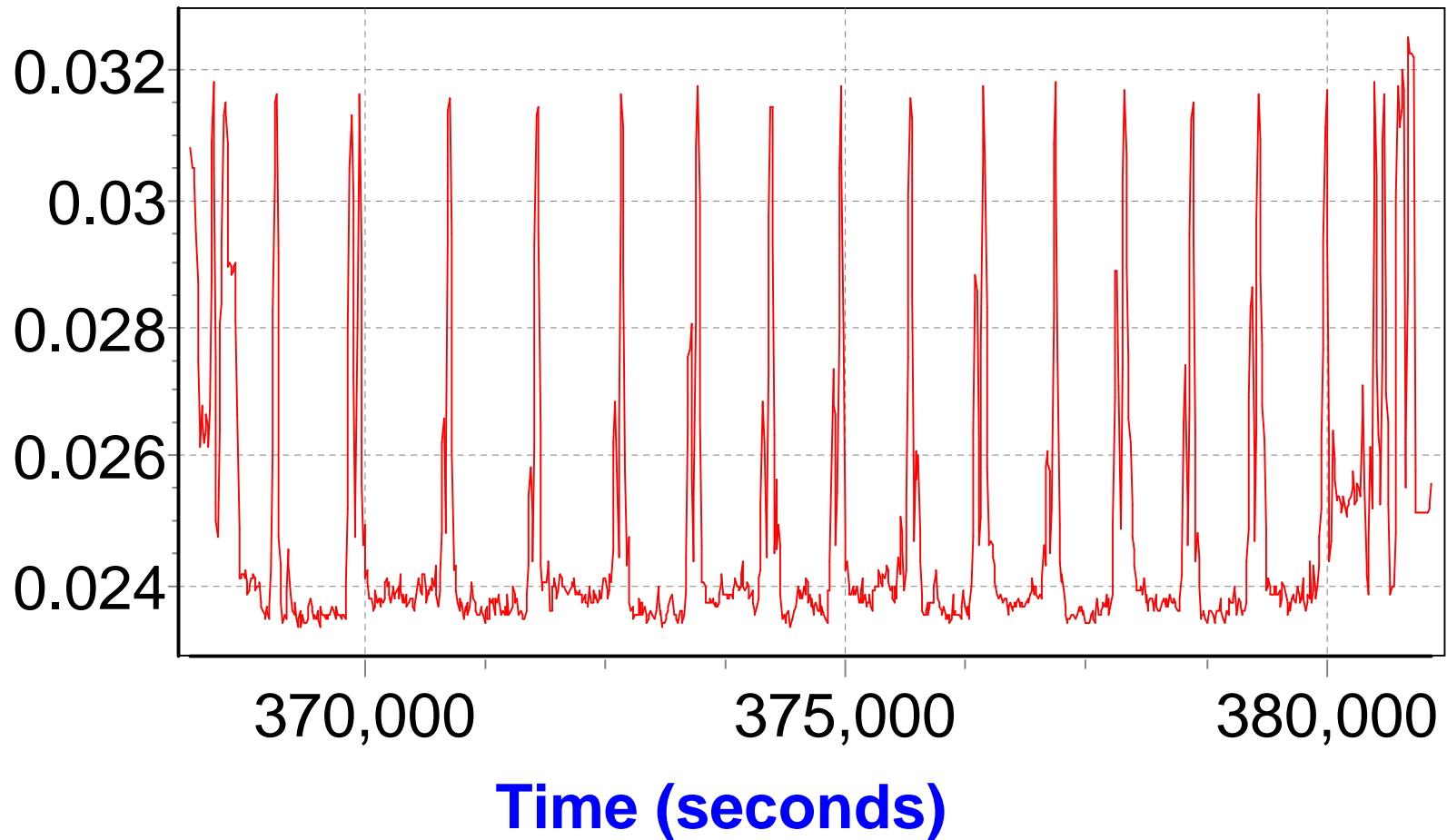
## S/D Navigator Z Misalignment (arcmin)



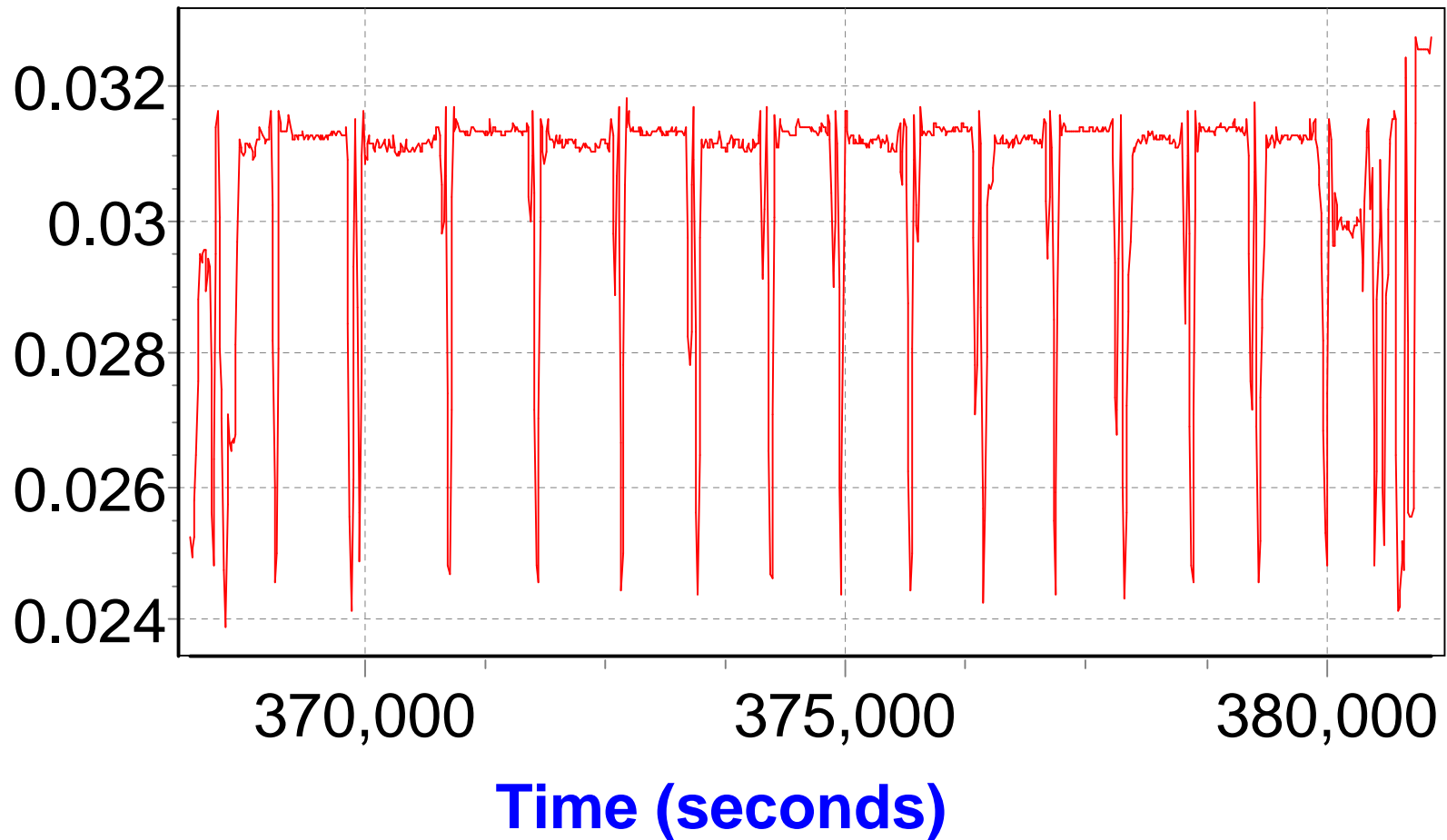
## S/D Navigator COS(Z Misalignment)-1 (radians)



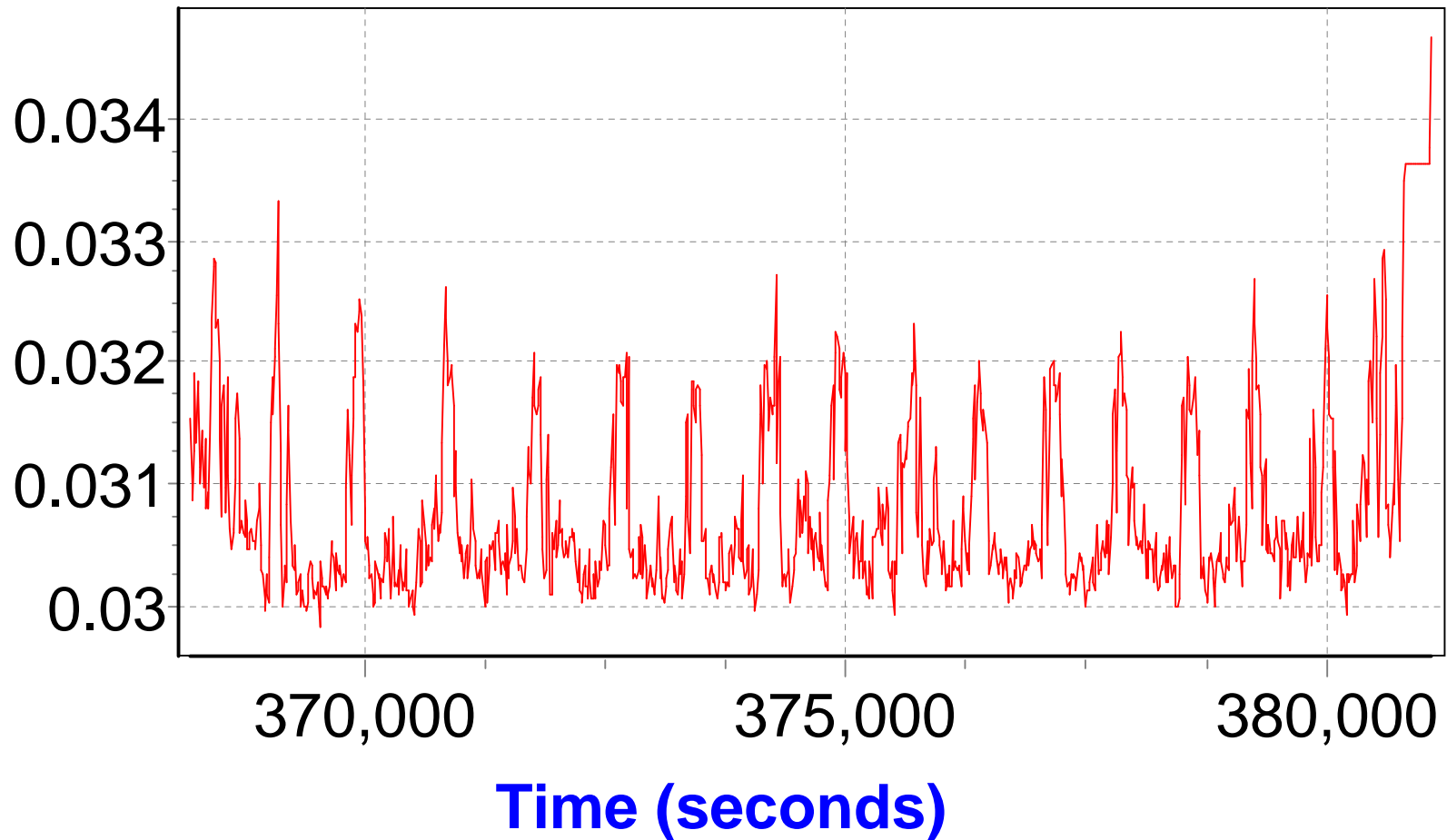
## S/D Navigator X Position RMS Error (meters)



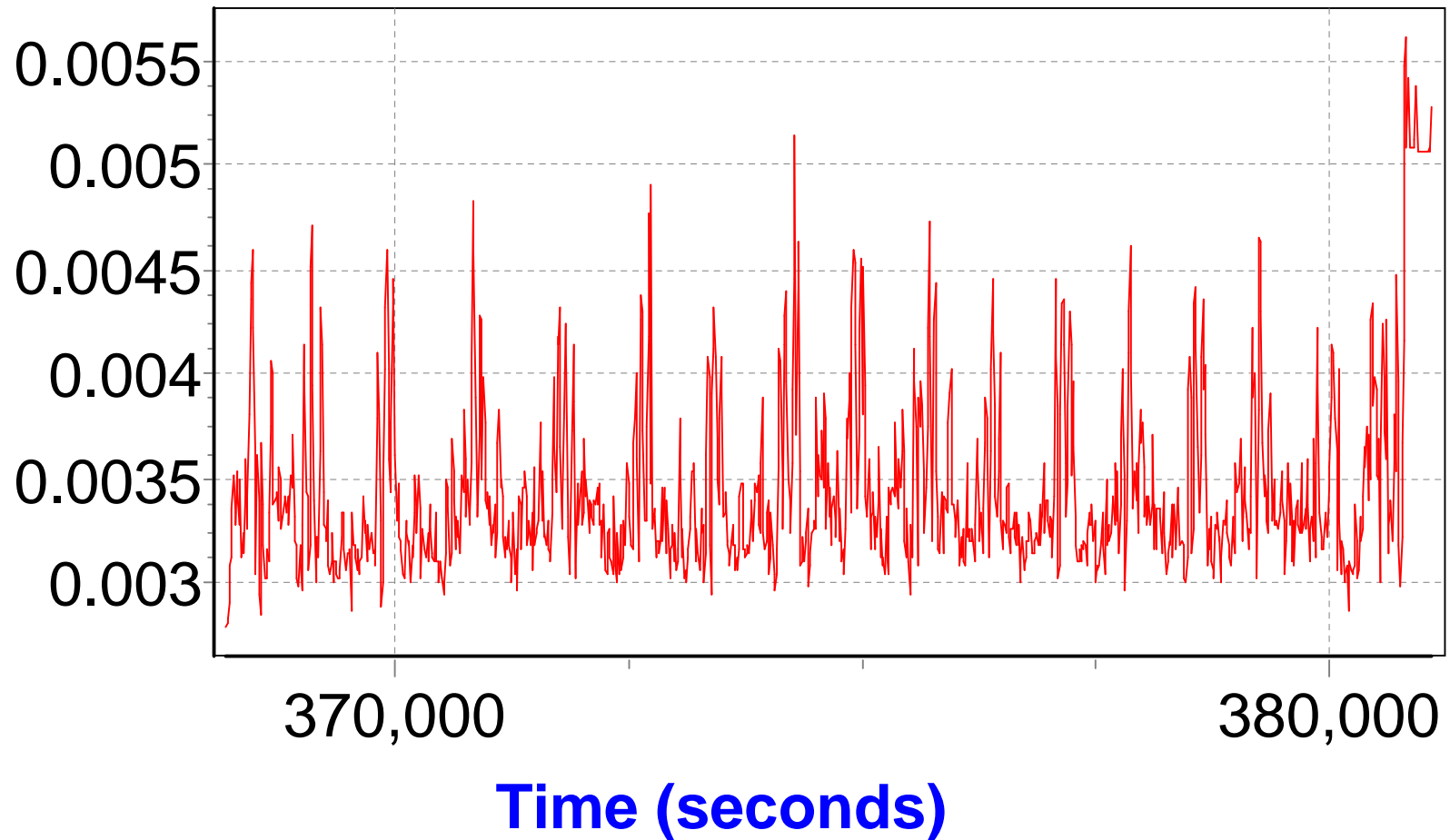
## S/D Navigator Y Position RMS Error (meters)



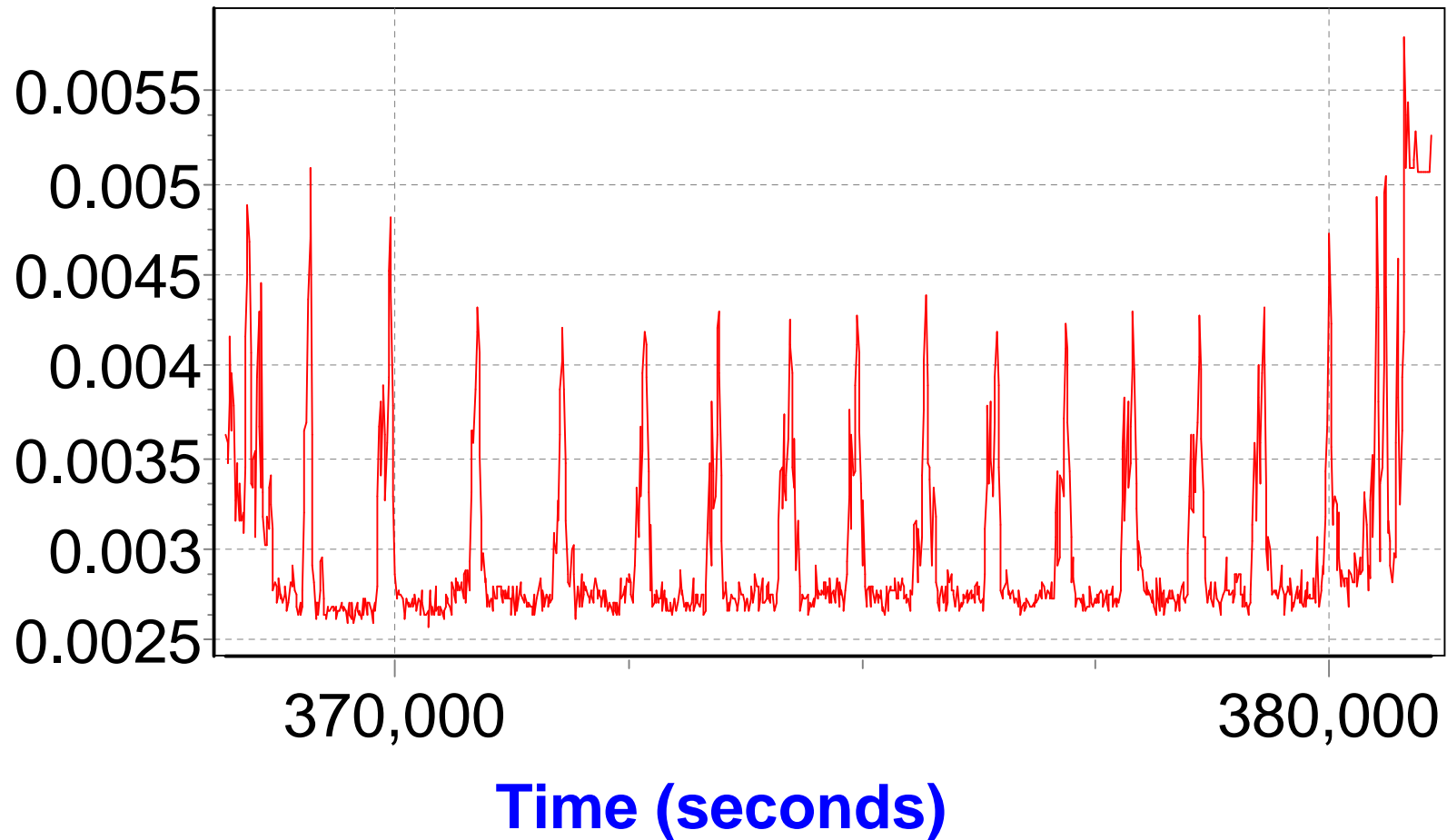
## S/D Navigator Z Position RMS Error (meters)



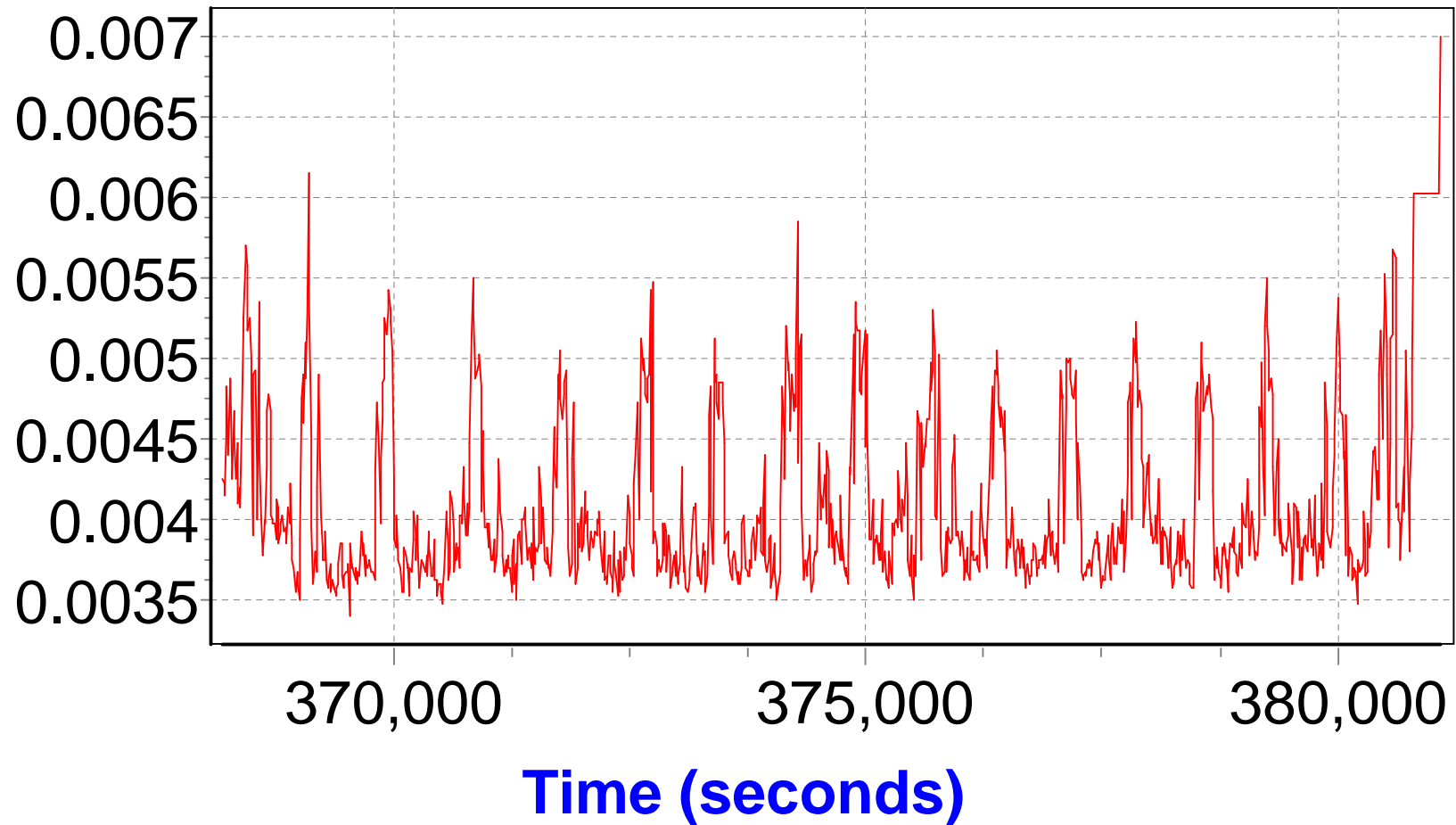
## S/D Navigator X Velocity RMS Error (meters/seconds)



## S/D Navigator Y Velocity RMS Error (meters/seconds)

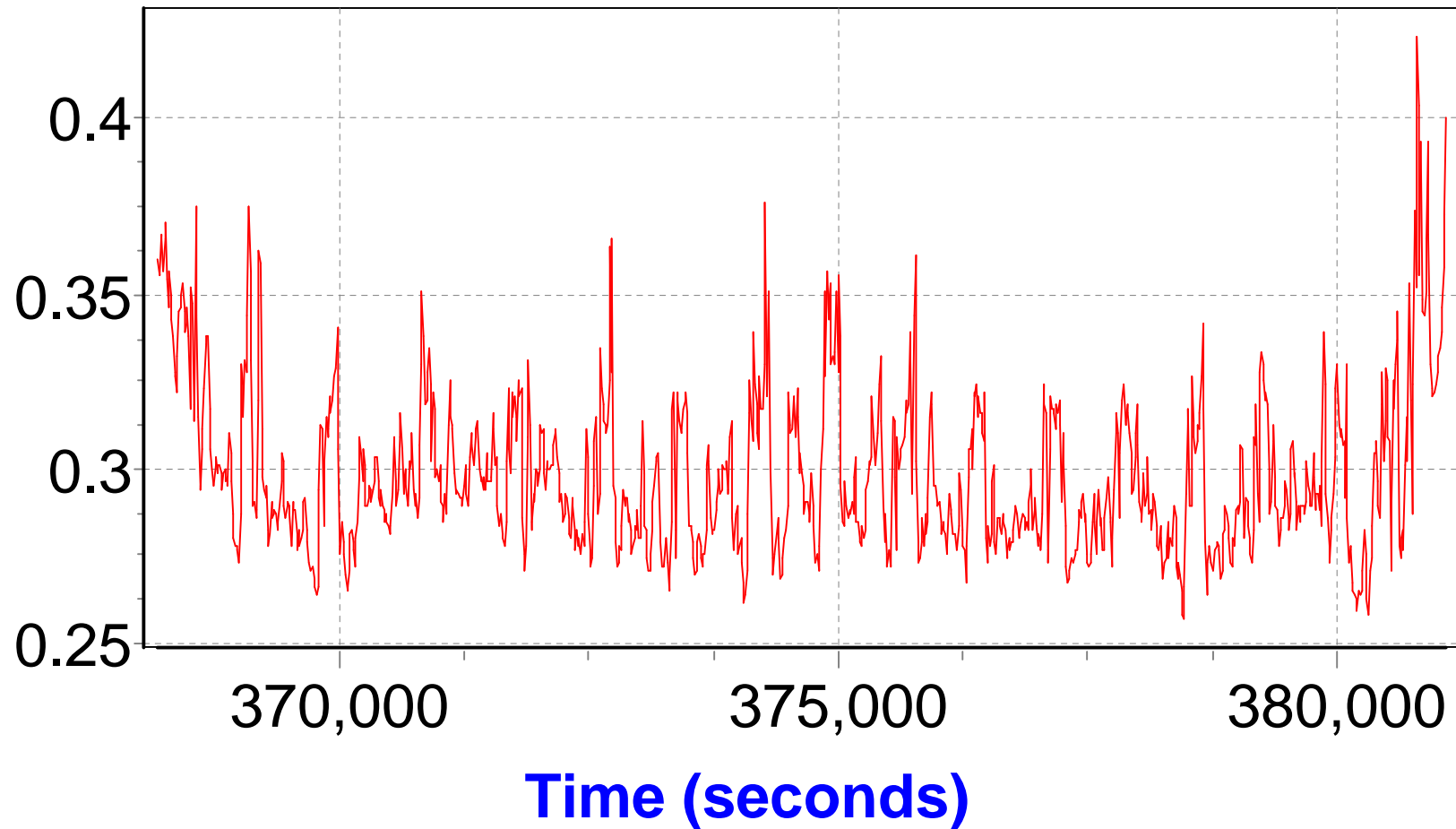


## S/D Navigator Z Velocity RMS Error (meters/seconds)

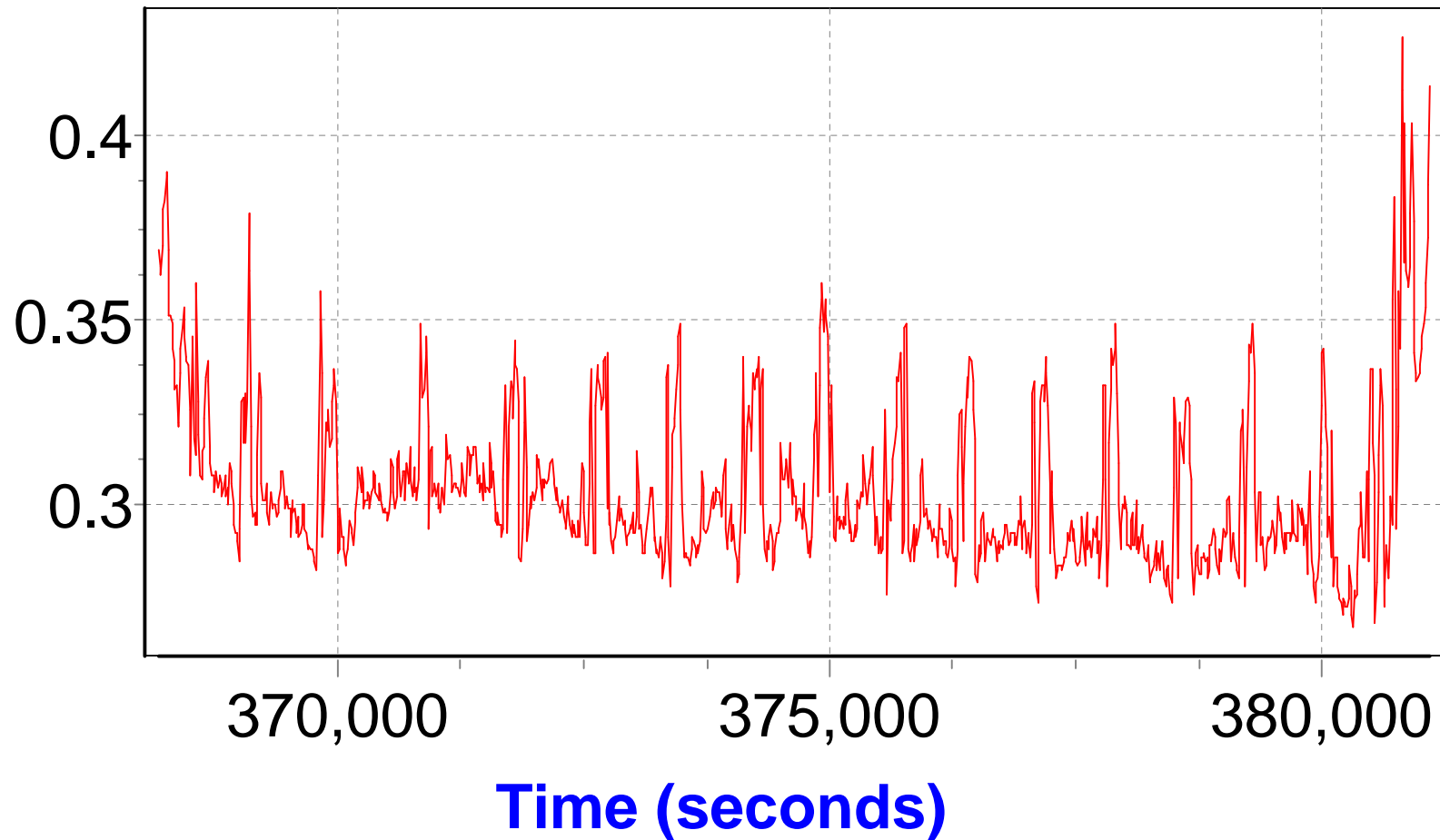




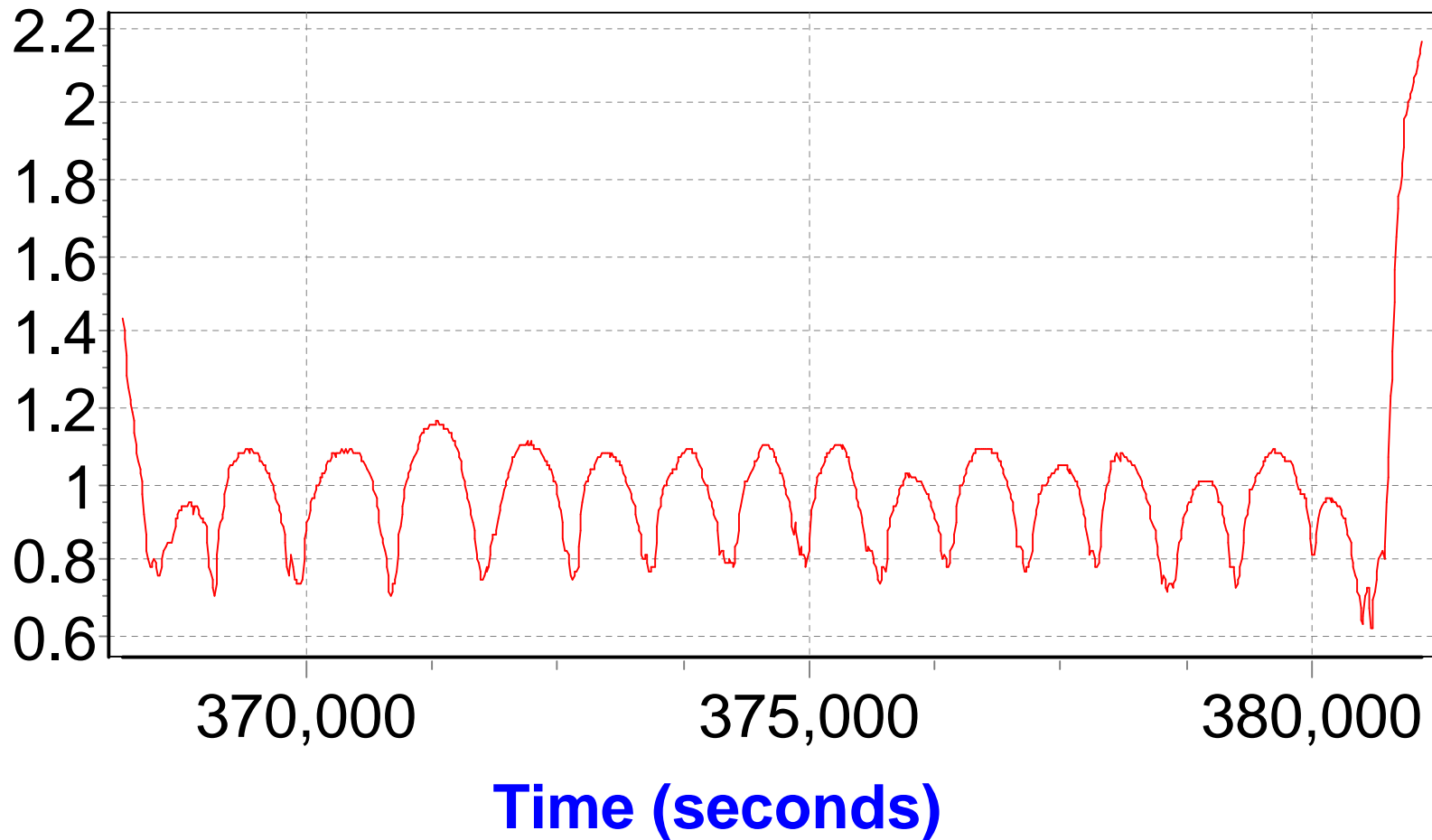
## S/D Navigator X Misalignment RMS (arcmin)



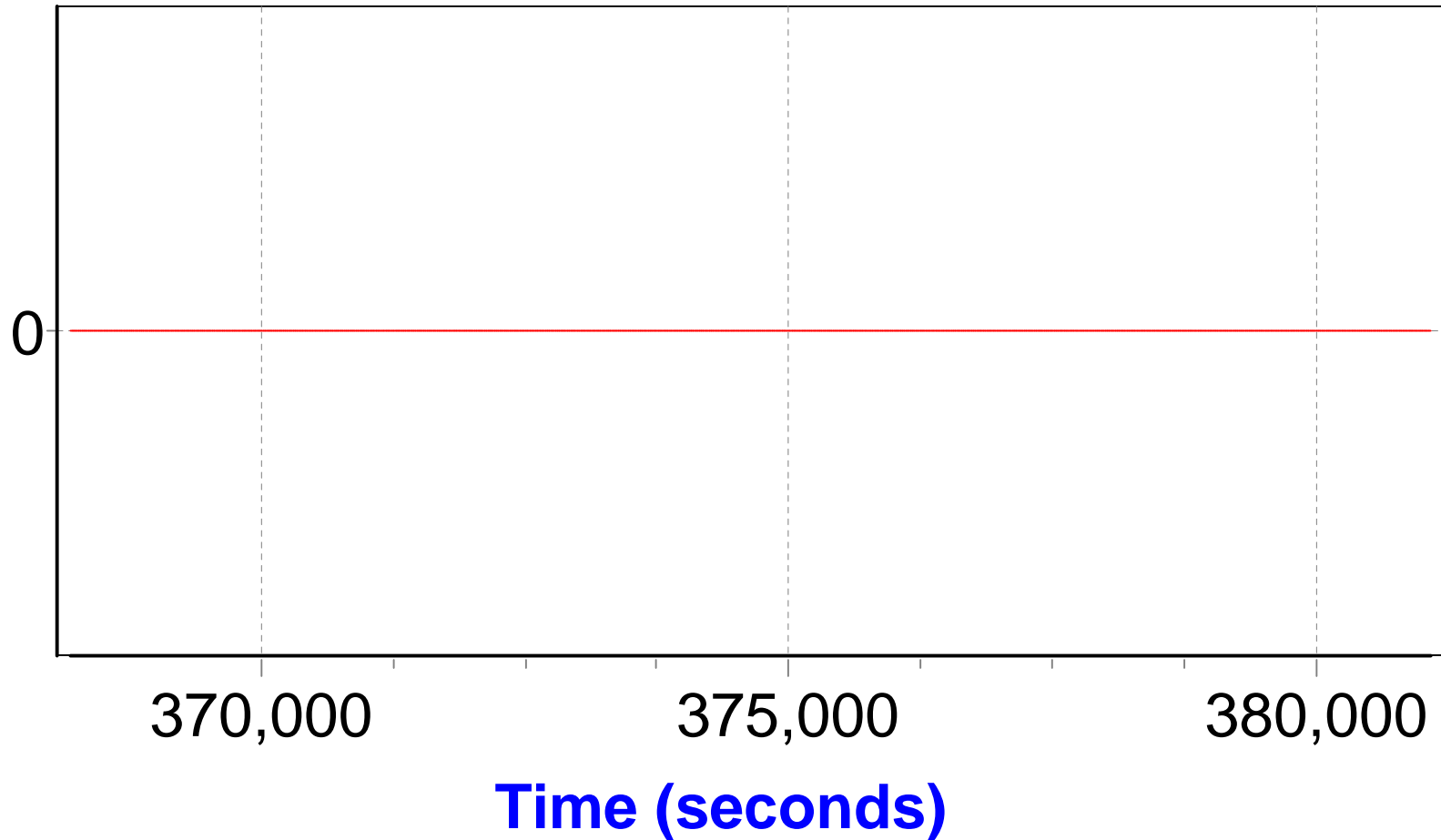
## S/D Navigator Y Misalignment RMS (arcmin)



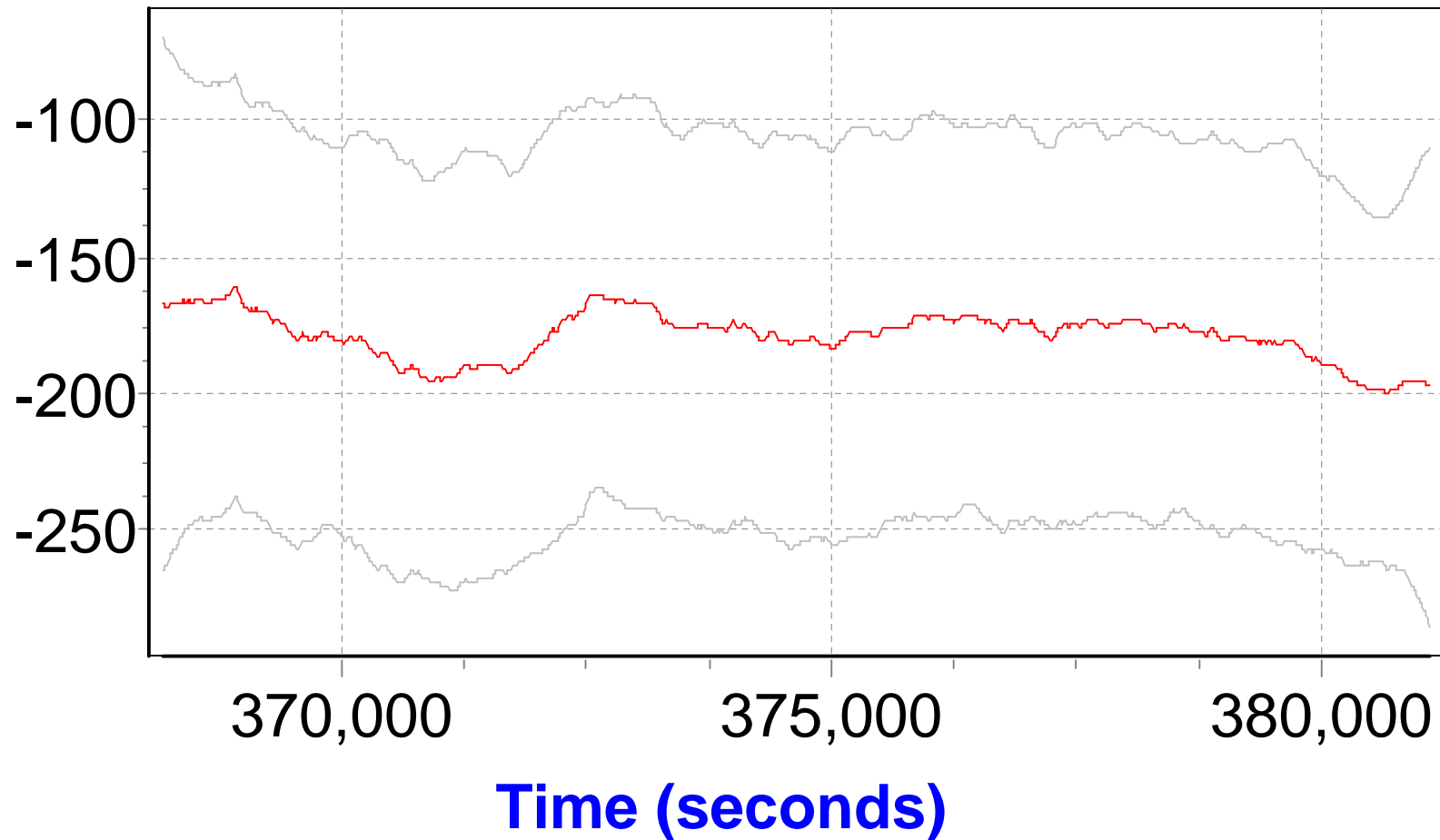
## S/D Navigator Z Misalignment RMS (arcmin)



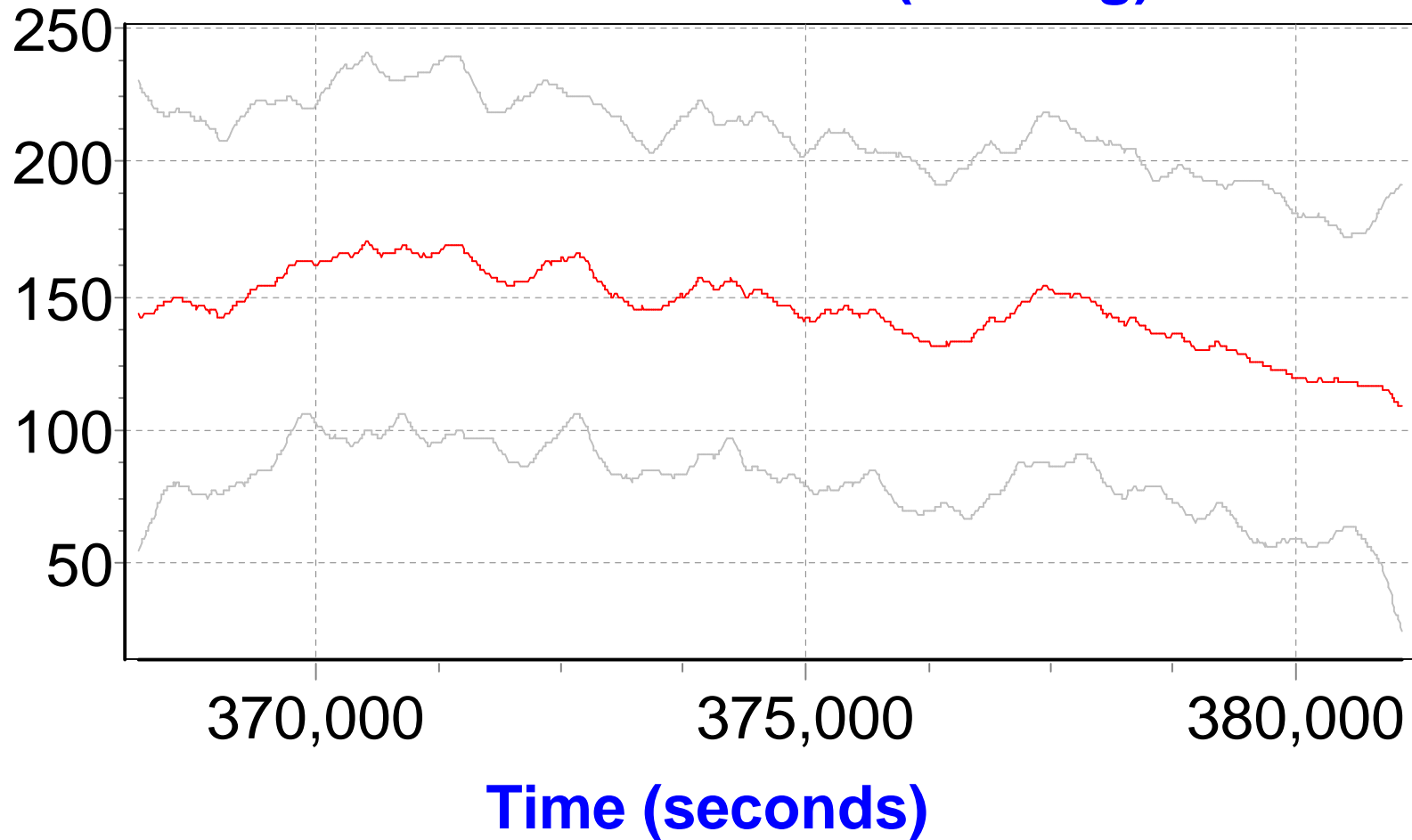
## S/D Navigator COS(Z Misalignment)-1 RMS (radians)



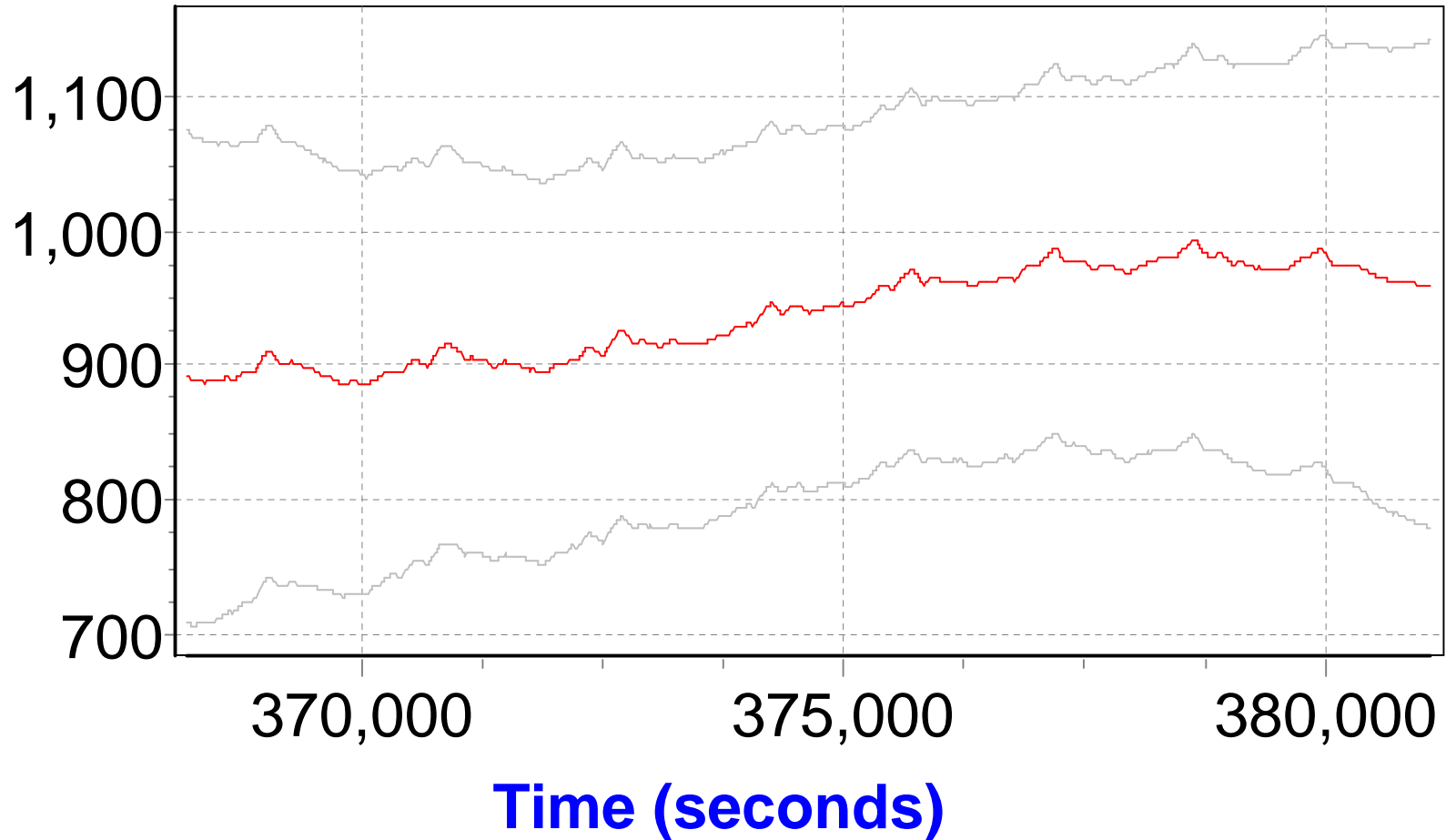
## X Accelerometer Bias (micro-g)



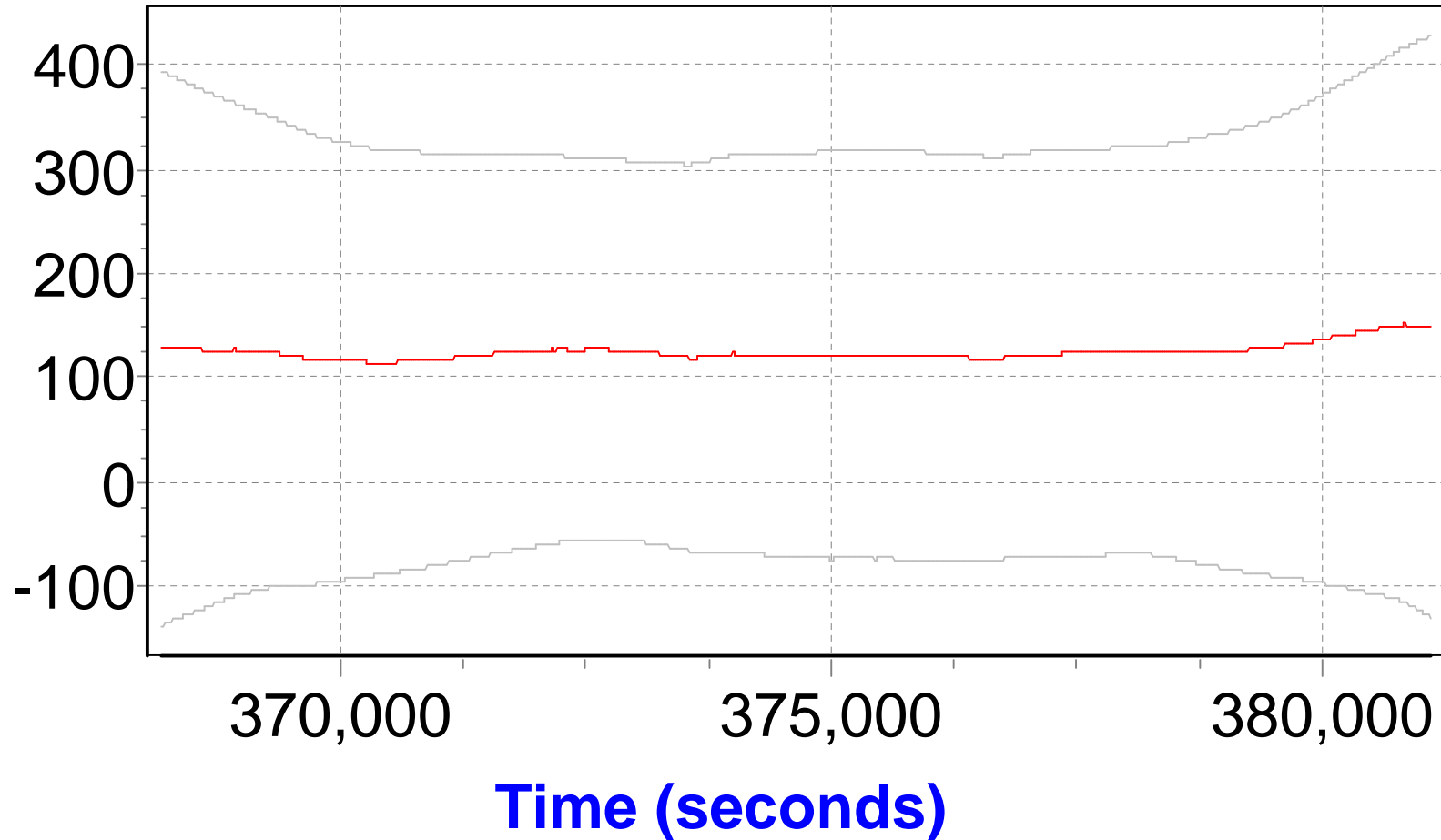
## Y Accelerometer Bias (micro-g)



## Z Accelerometer Bias (micro-g)



## X Accelerometer Scale Factor Error (ppm)

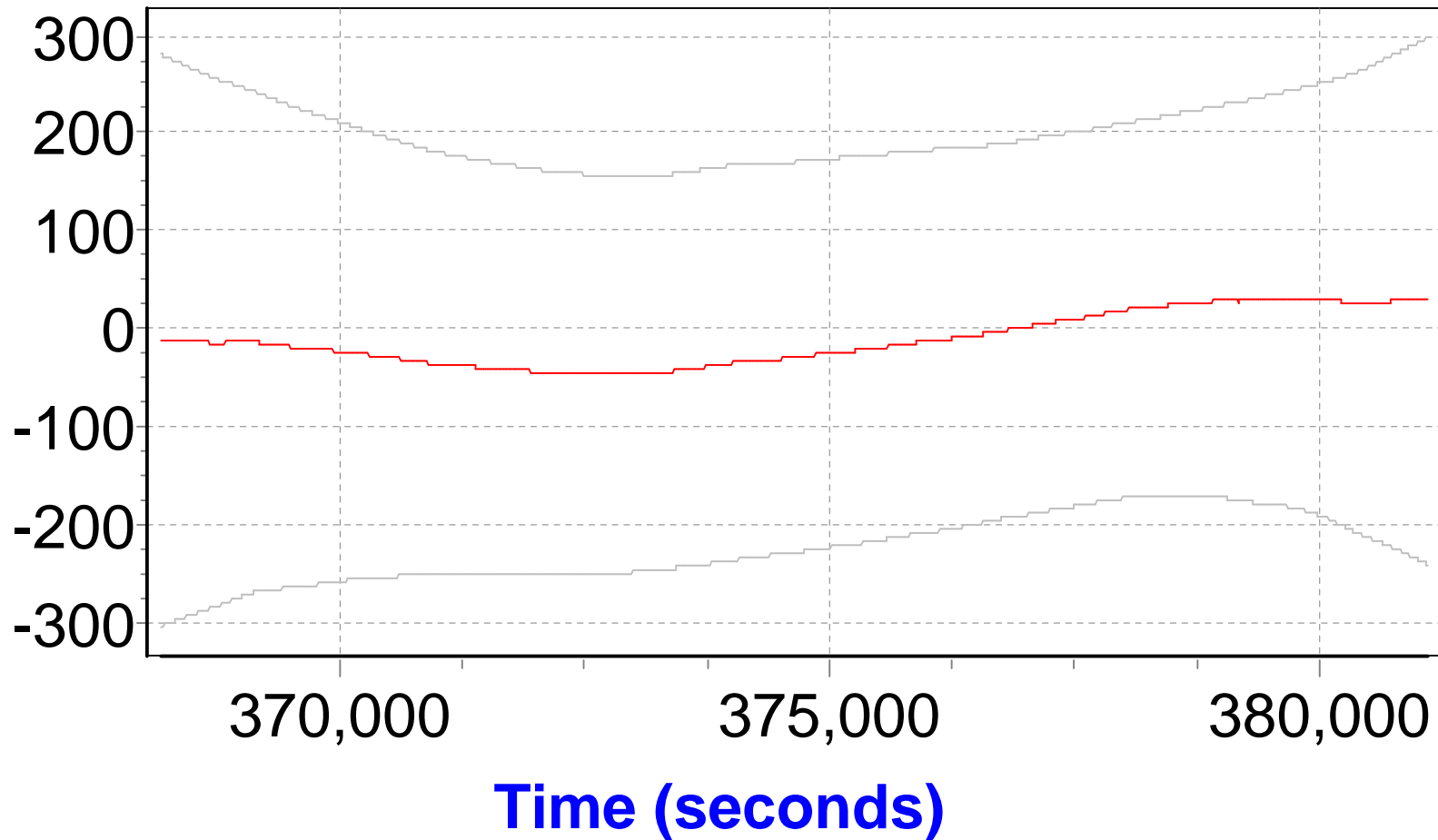


G:\o112095b\3\_Processed\Extract\smers\_o112095b.dat

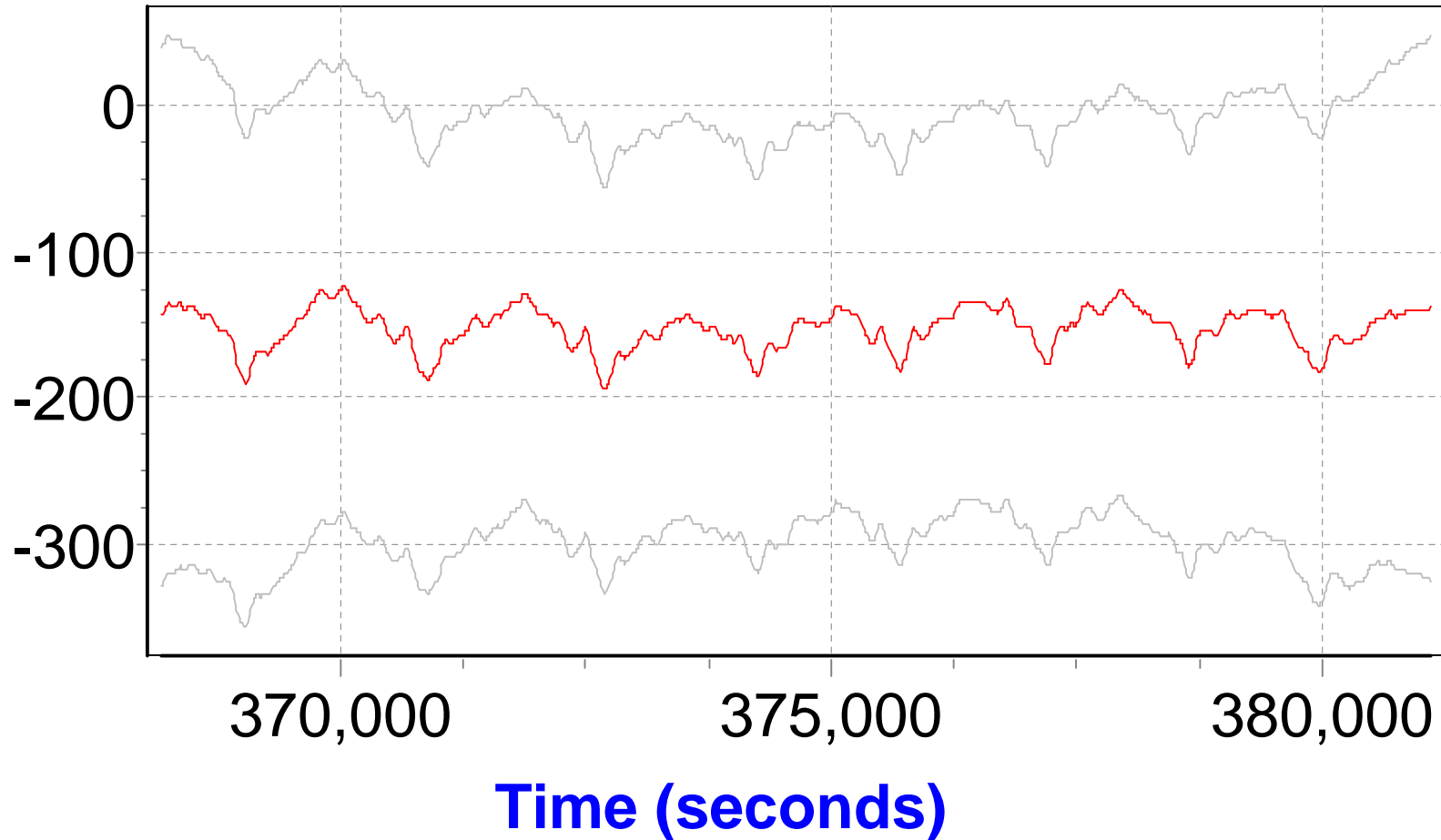
G:\o112095b\3\_Processed\Extract\smrms\_o112095b.dat



## Y Accelerometer Scale Factor Error (ppm)



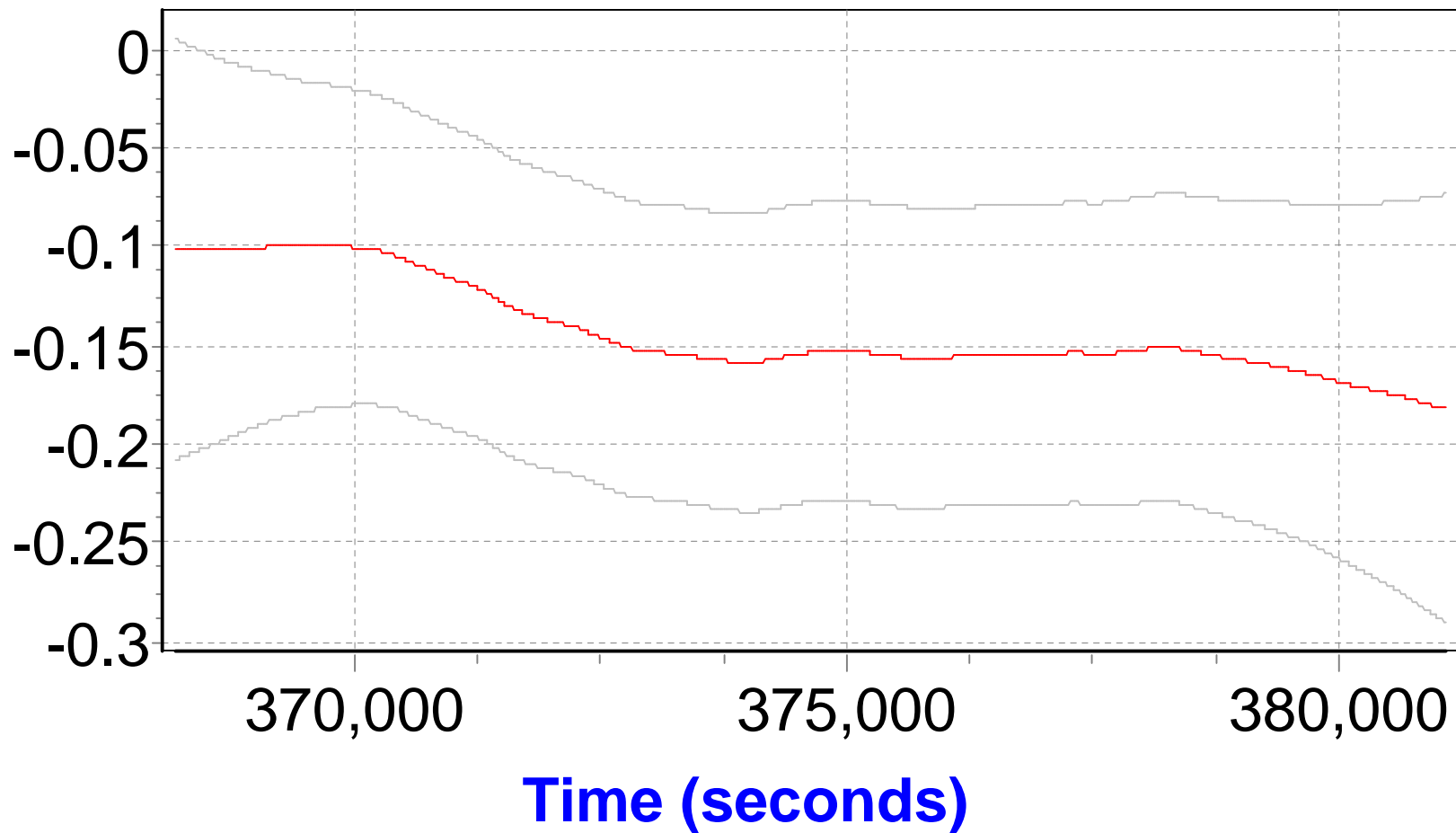
## Z Accelerometer Scale Factor Error (ppm)



G:\o112095b\3\_Processed\Extract\smers\_o112095b.dat

G:\o112095b\3\_Processed\Extract\smrms\_o112095b.dat

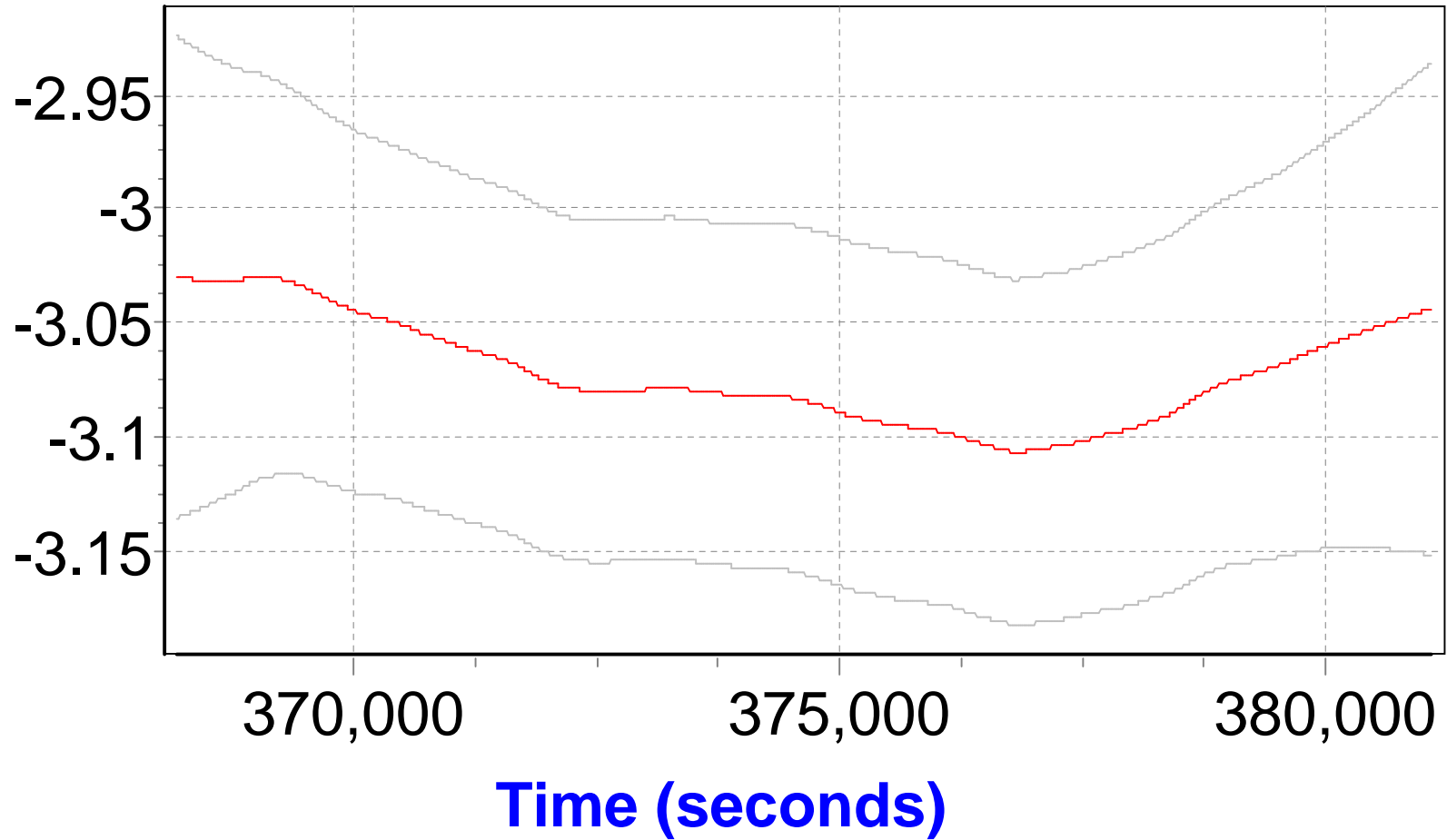
## X Gyro Bias (degrees/hour)



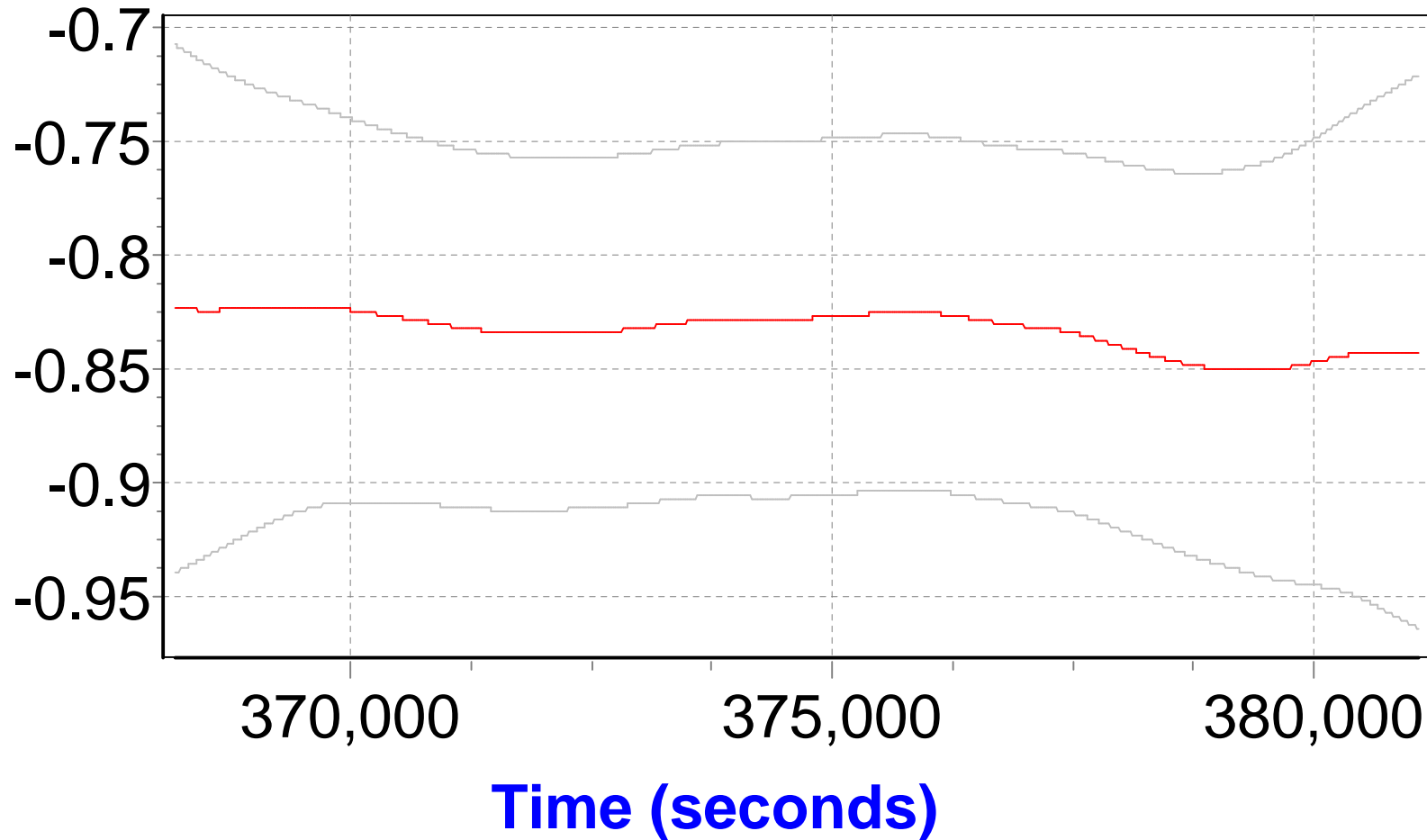
G:\o112095b\3\_Processed\Extract\smers\_o112095b.dat

G:\o112095b\3\_Processed\Extract\smrms\_o112095b.dat

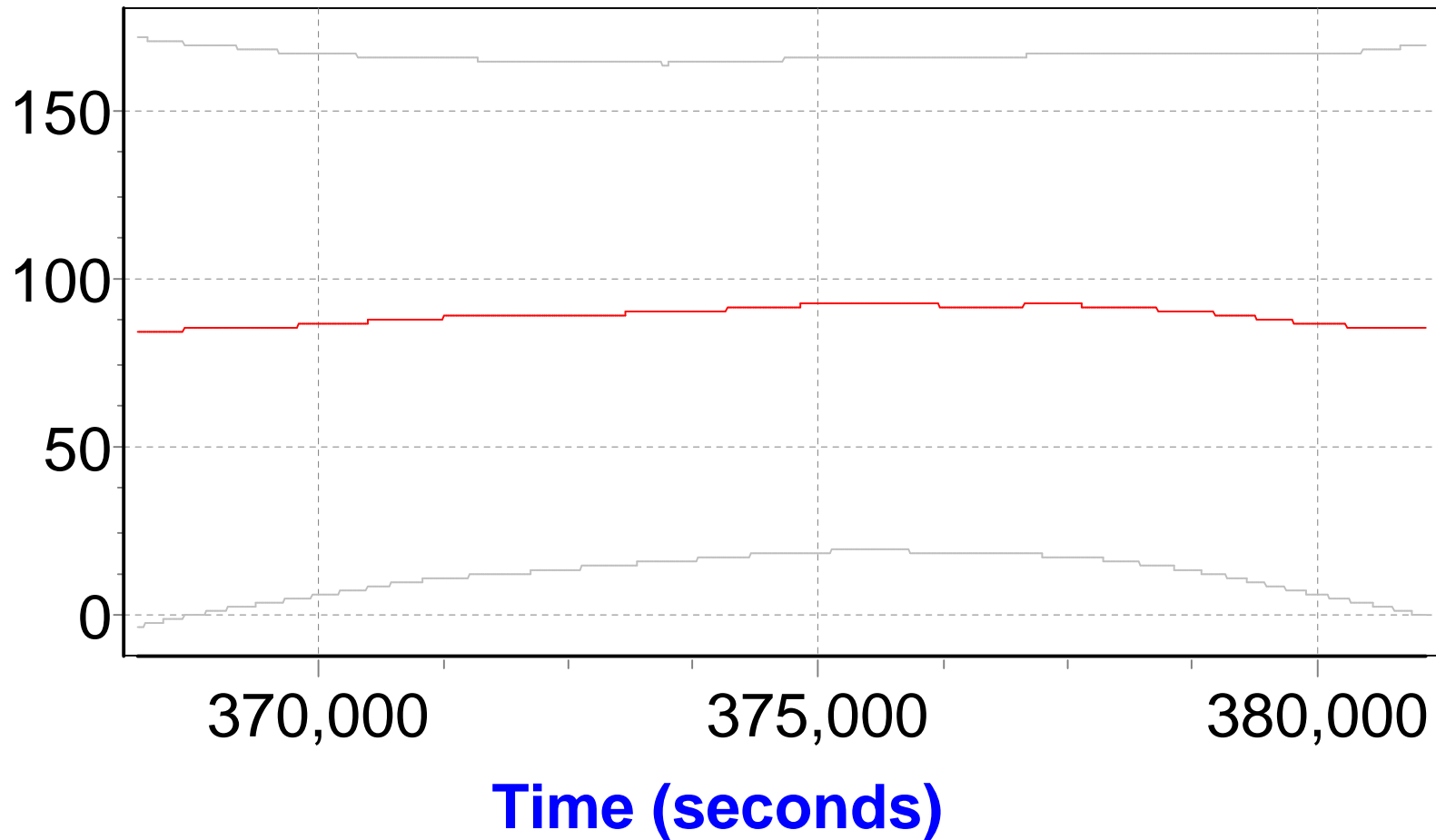
## Y Gyro Bias (degrees/hour)



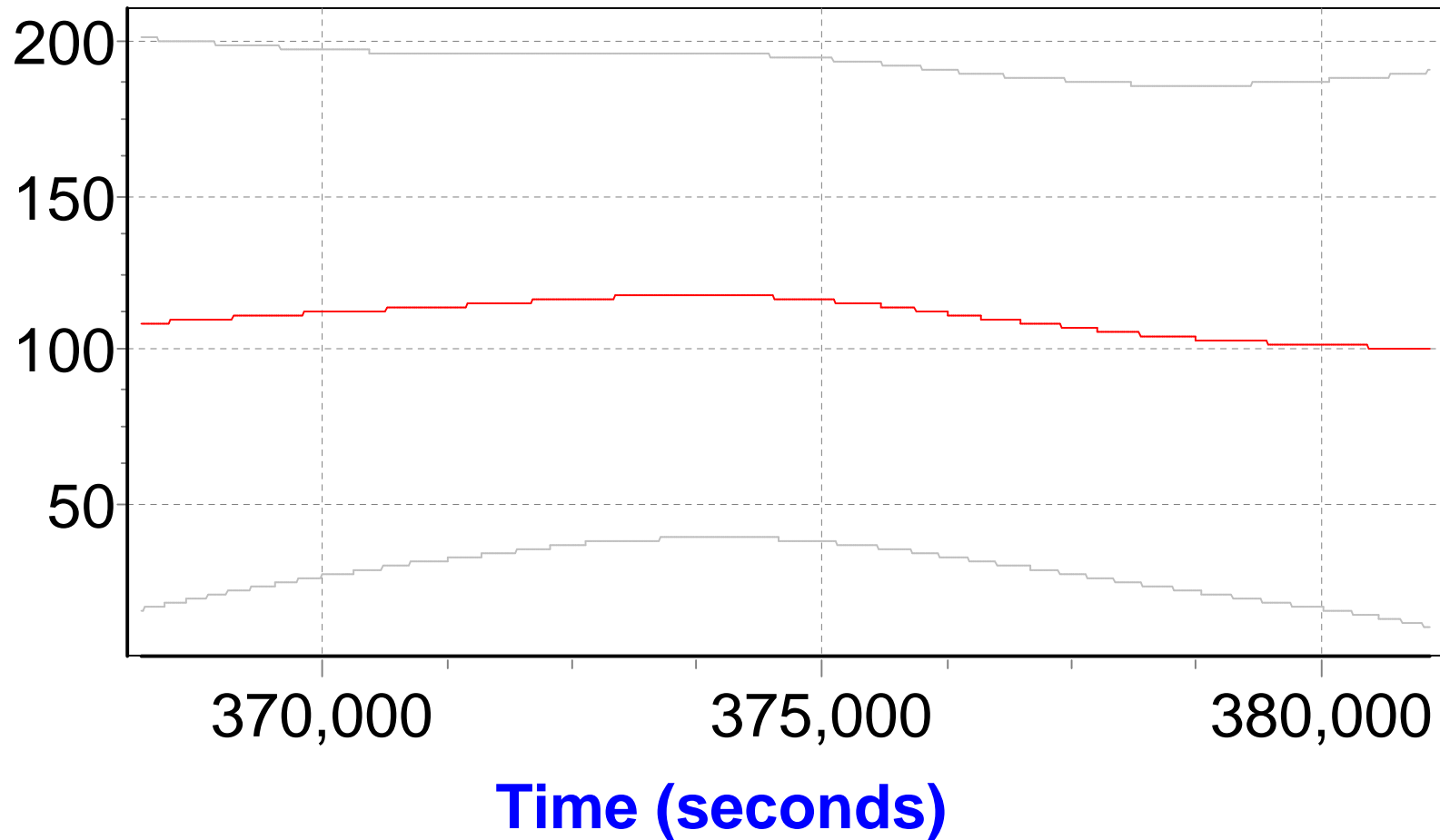
## Z Gyro Bias (degrees/hour)



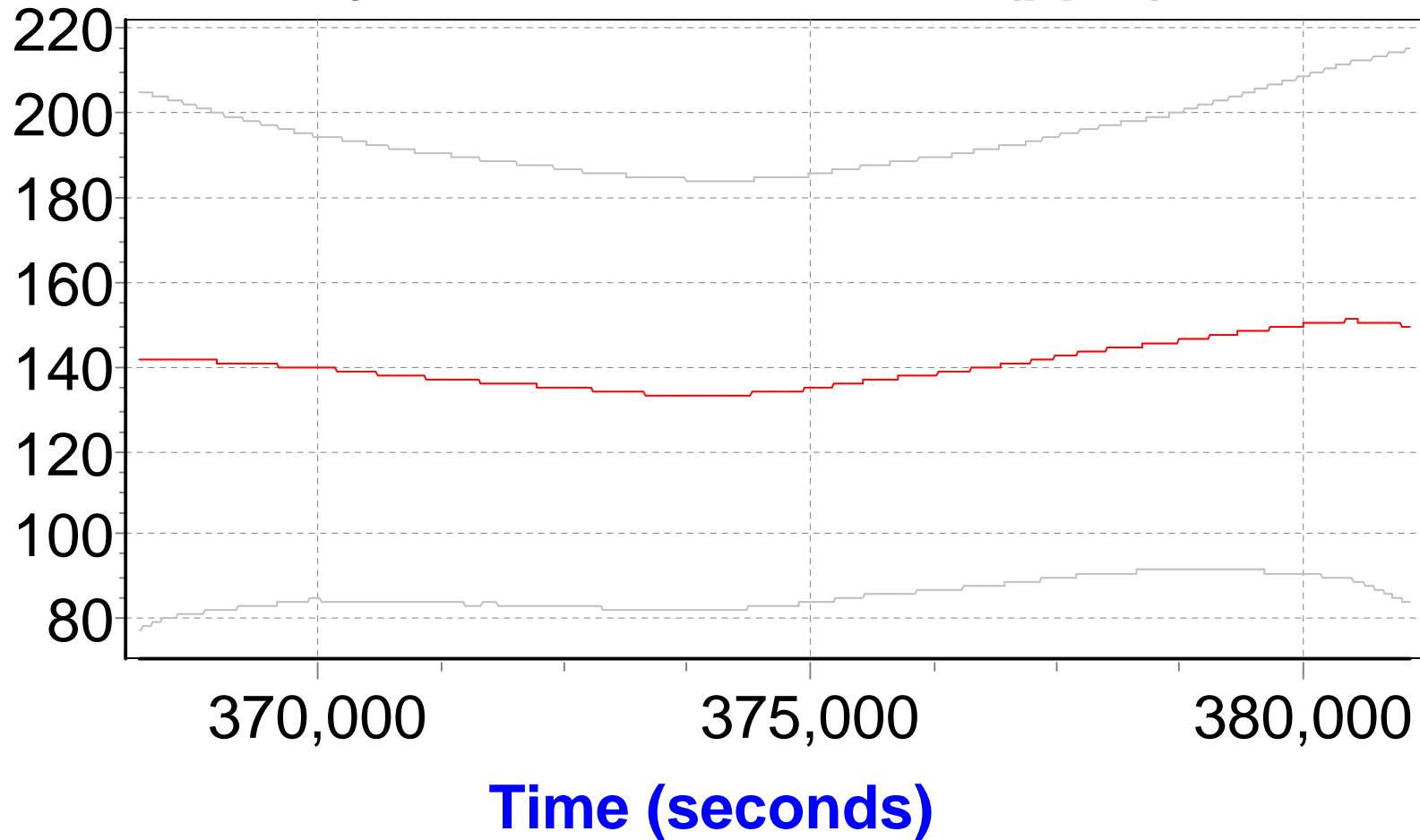
## X Gyro Scale Factor Error (ppm)



## Y Gyro Scale Factor Error (ppm)



## Z Gyro Scale Factor Error (ppm)



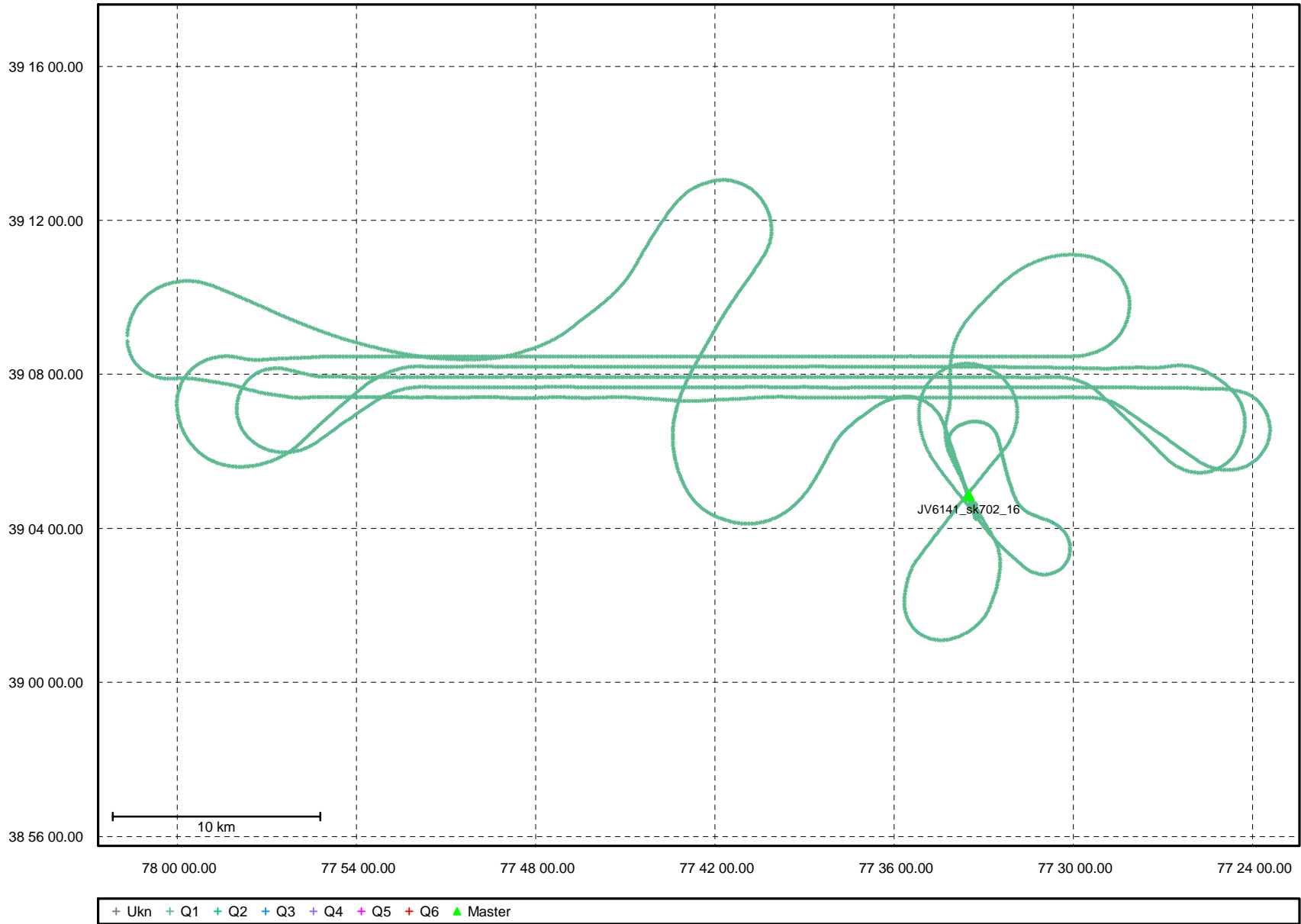
G:\o112095b\3\_Processed\Extract\smers\_o112095b.dat

G:\o112095b\3\_Processed\Extract\smrms\_o112095b.dat

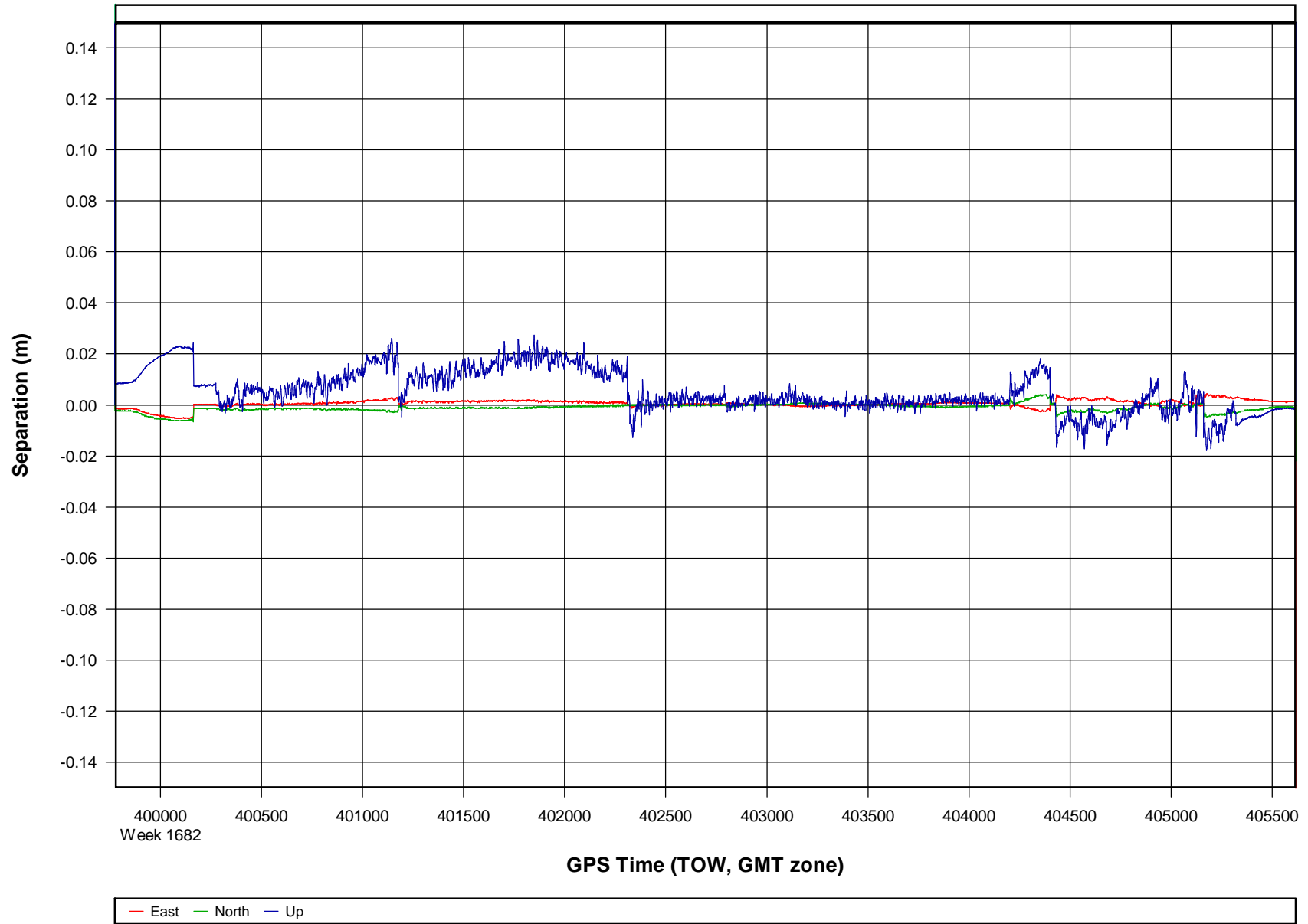


# Combined - Map Run (1)

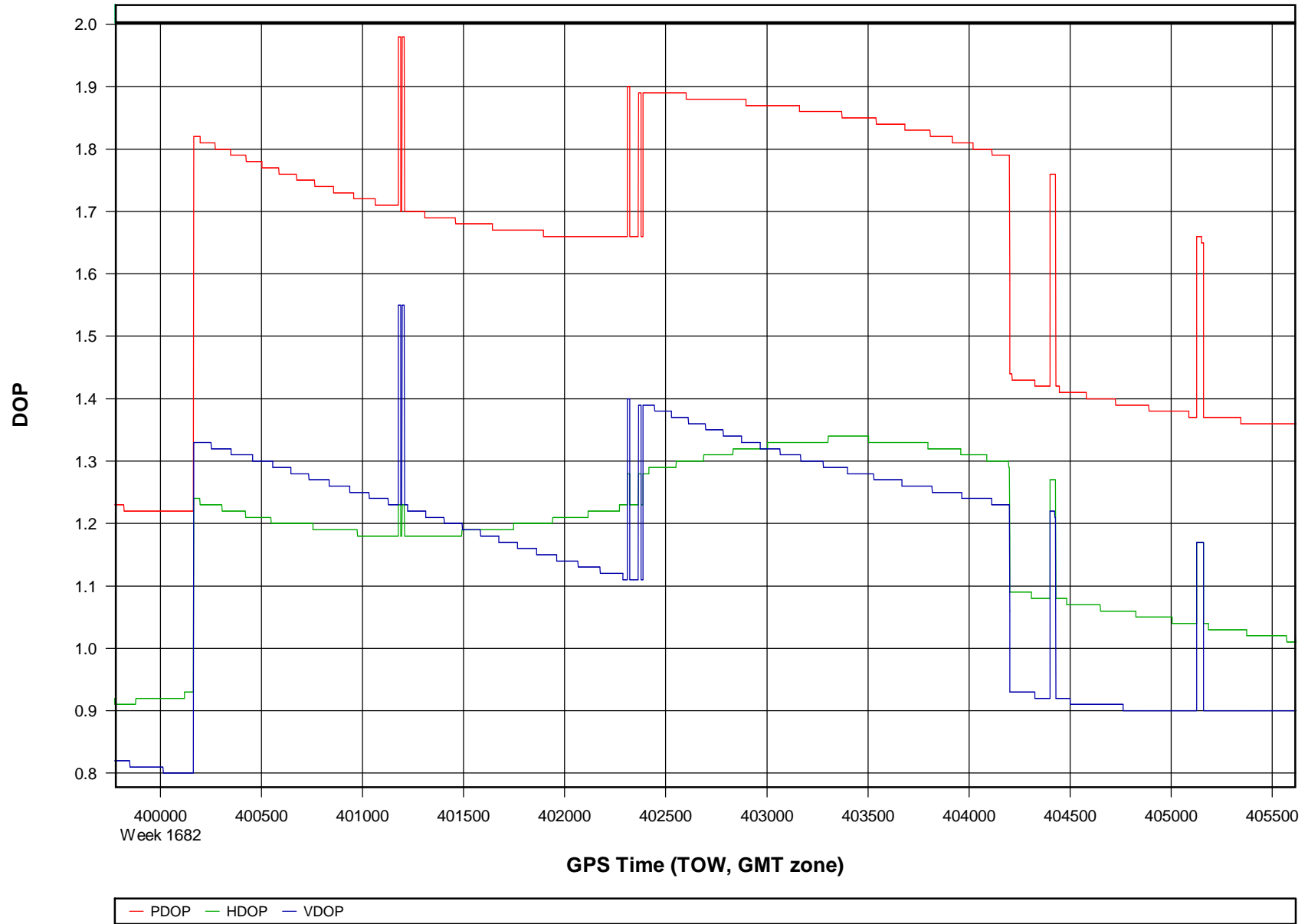
Geographic, DMS



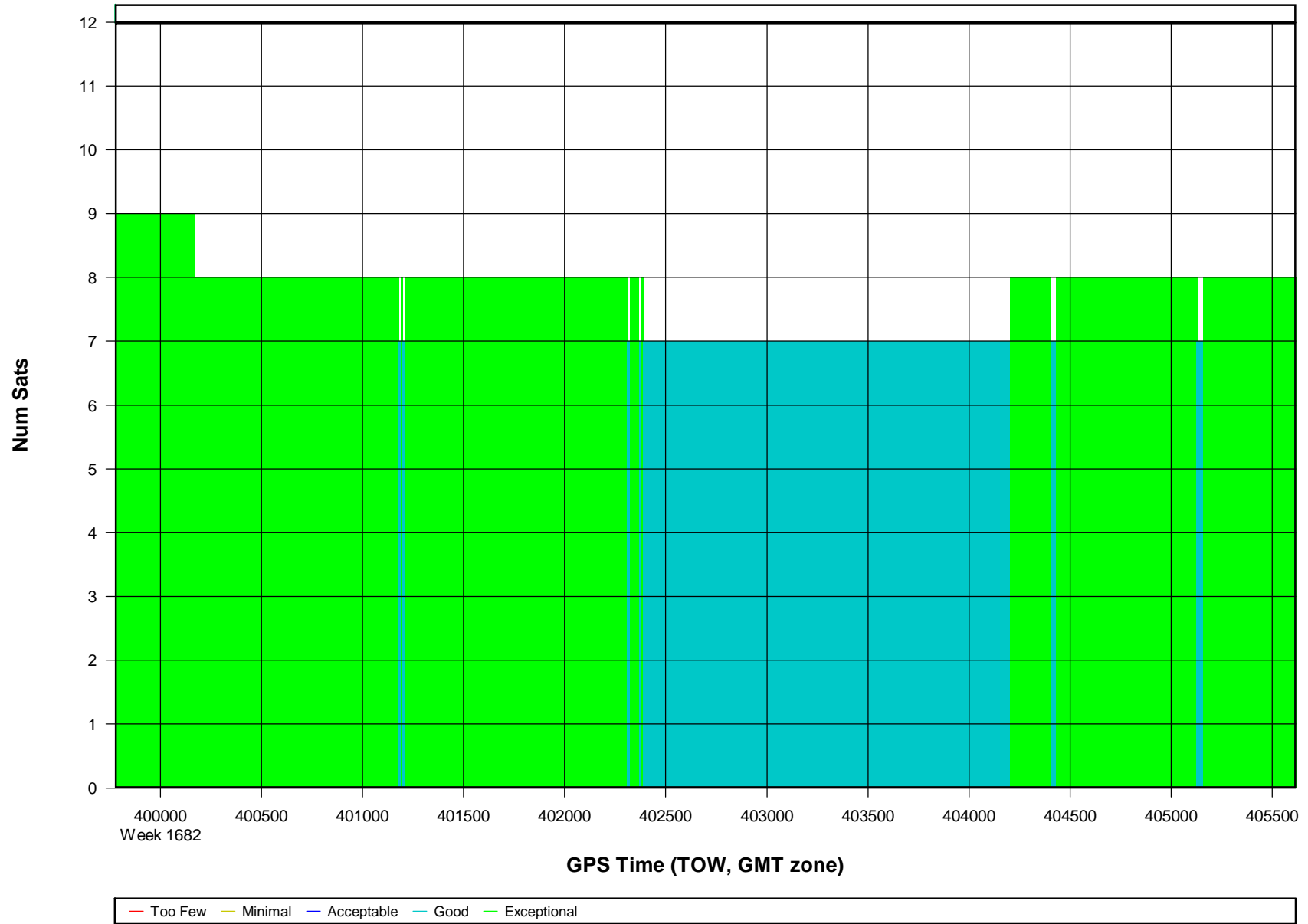
### o112096a [Combined] - Forward/Reverse or Combined Separation Plot



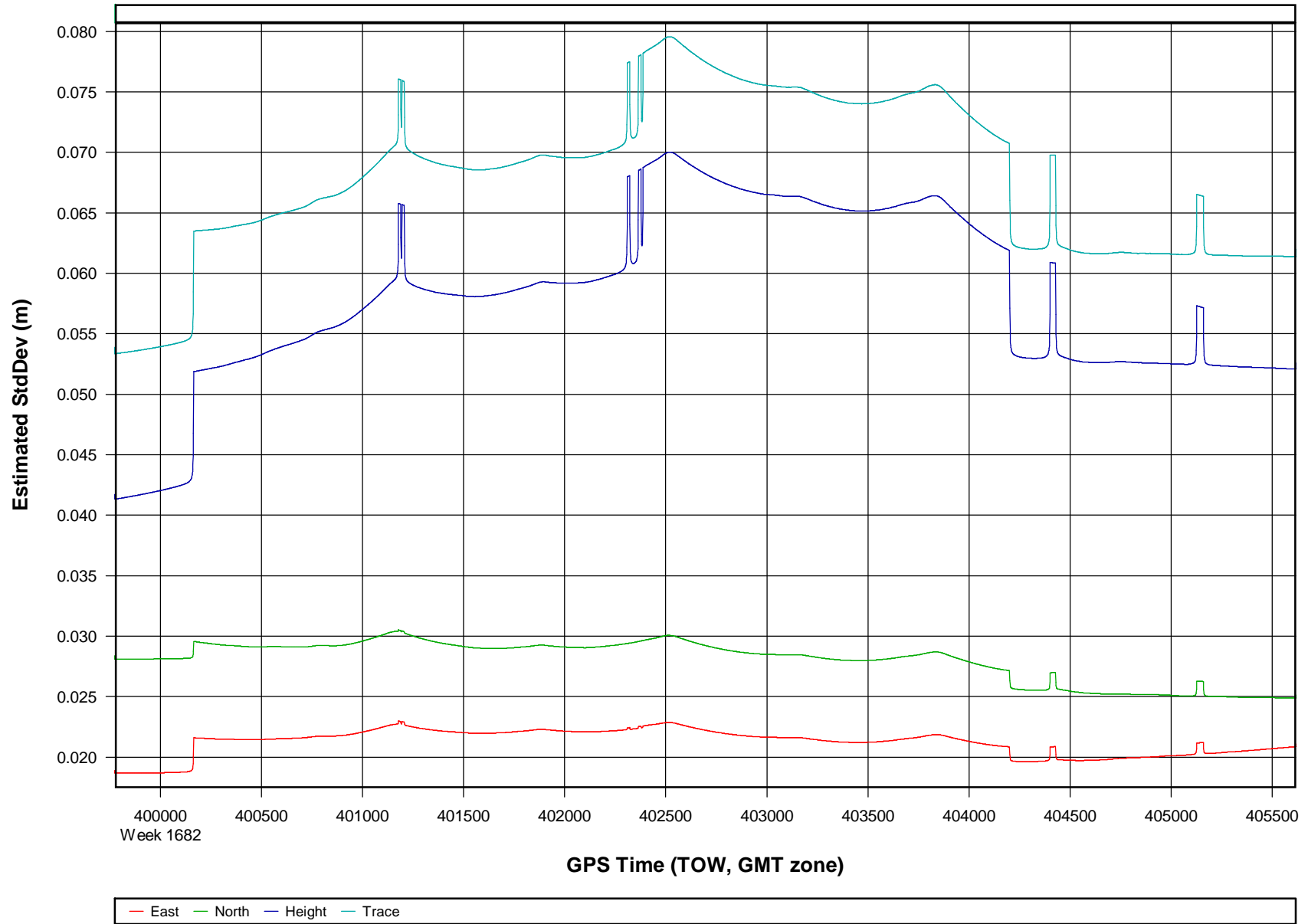
### o112096a [Combined] - PDOP, HDOP, VDOP Plots



### o112096a [Combined] - Number of Satellites Bar Plot



### o112096a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112096a\3\_Processed\GPS\o112096a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 58563  
No processed position: 52719  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0124 (m)  
C/A Code: 0.70 (m)  
L1 Doppler: 0.025 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.006 (m)  
North: 0.002 (m)  
Height: 0.011 (m)

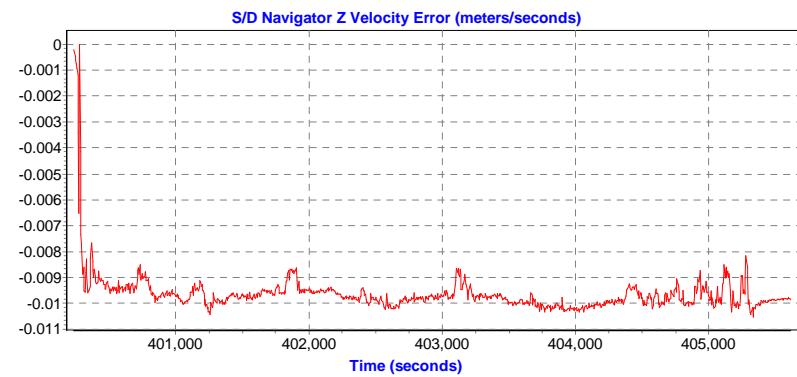
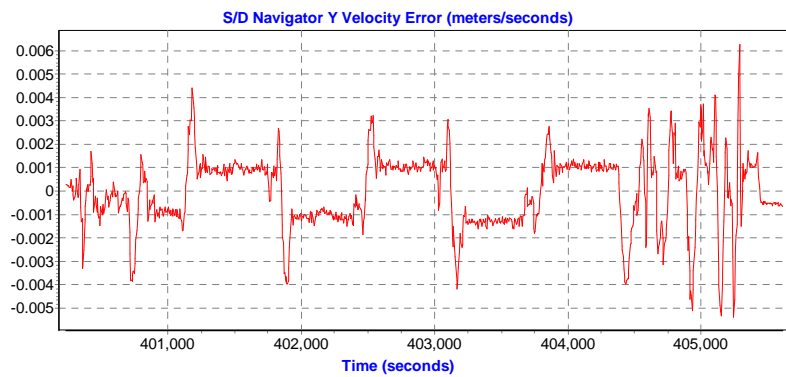
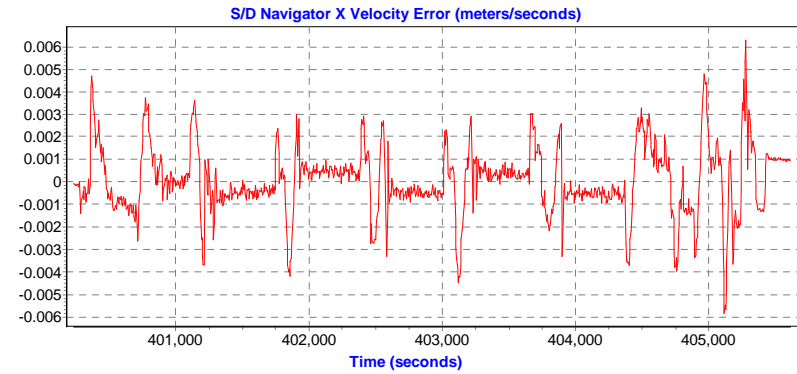
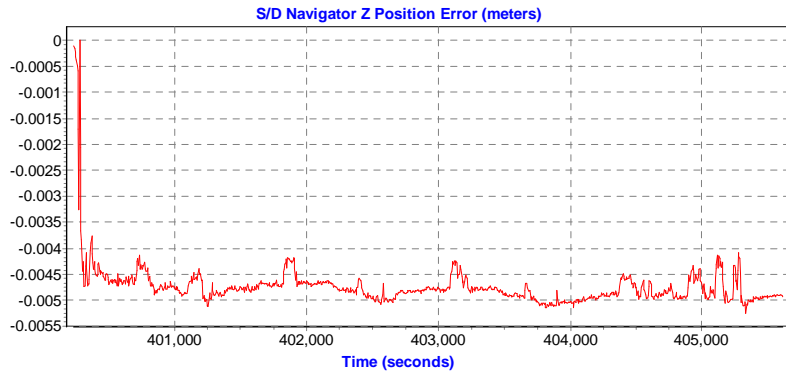
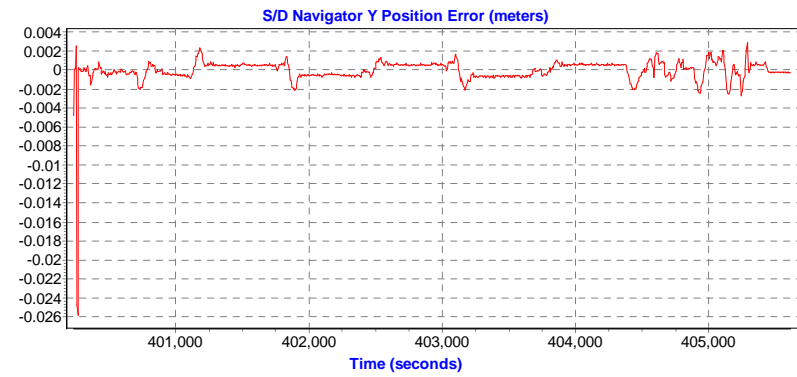
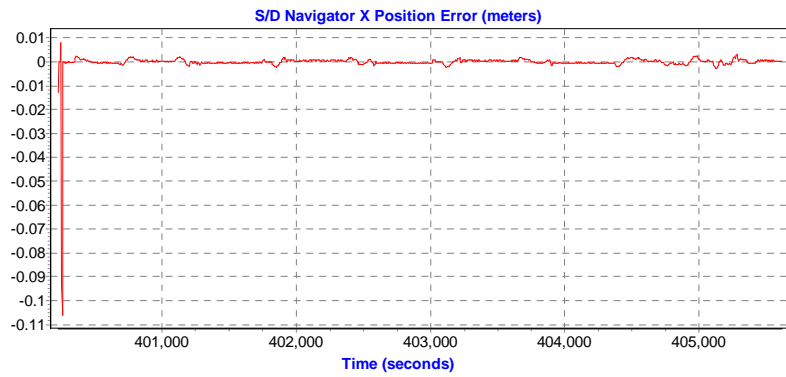
Fwd/Rev Sep. RMS for 25%-75% weighting (5839 occurrences):  
East: 0.002 (m)  
North: 0.002 (m)  
Height: 0.010 (m)

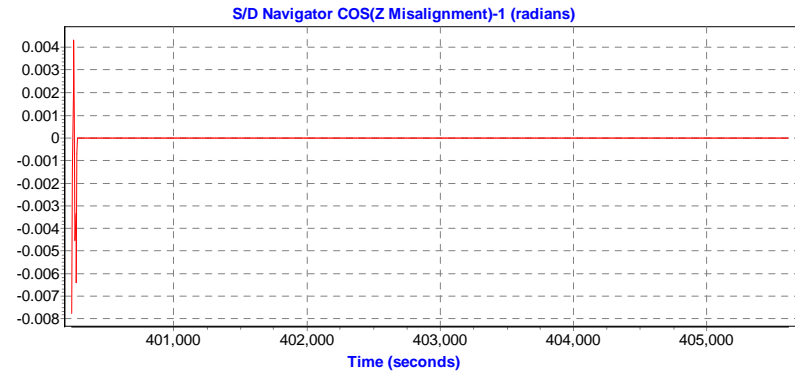
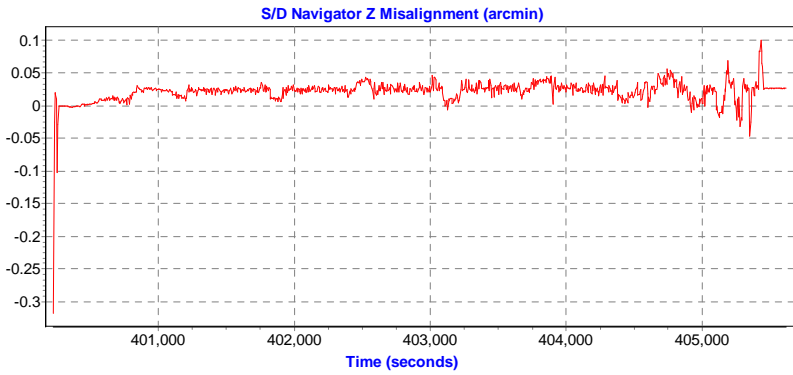
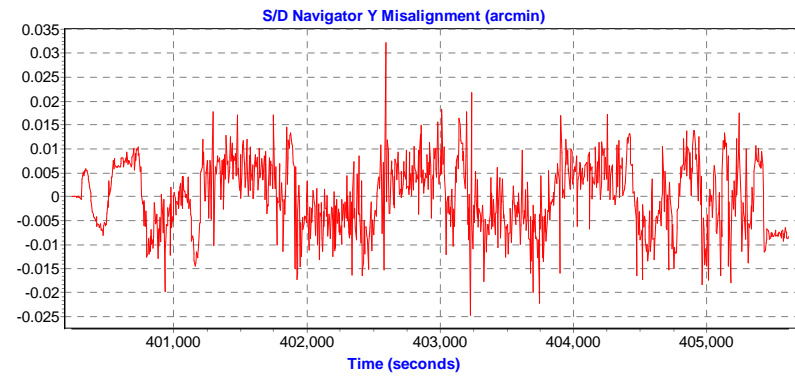
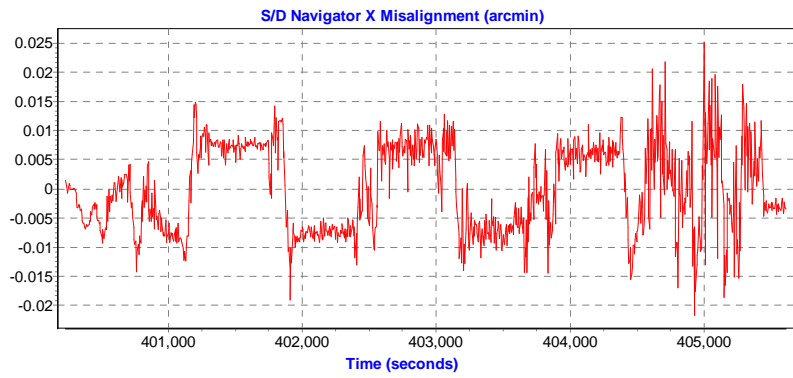
Quality Number Percentages:  
Q 1: 99.9 %  
Q 2: 0.1 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

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 %

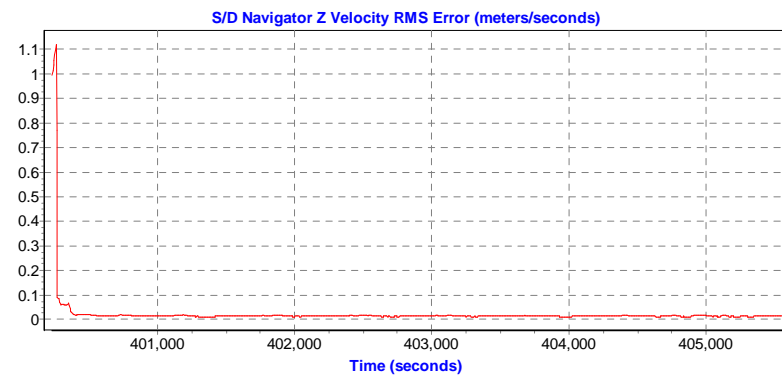
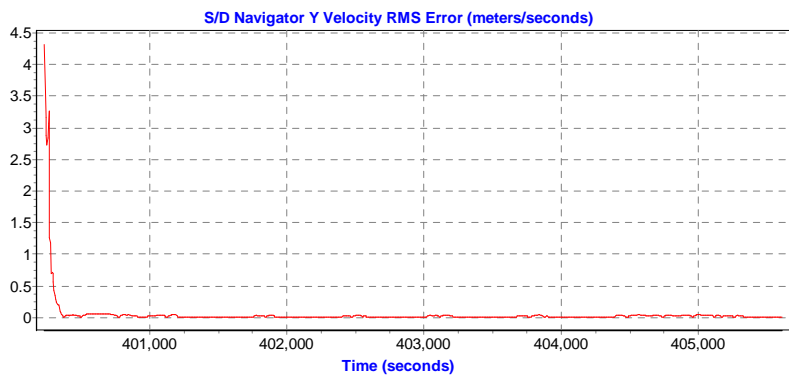
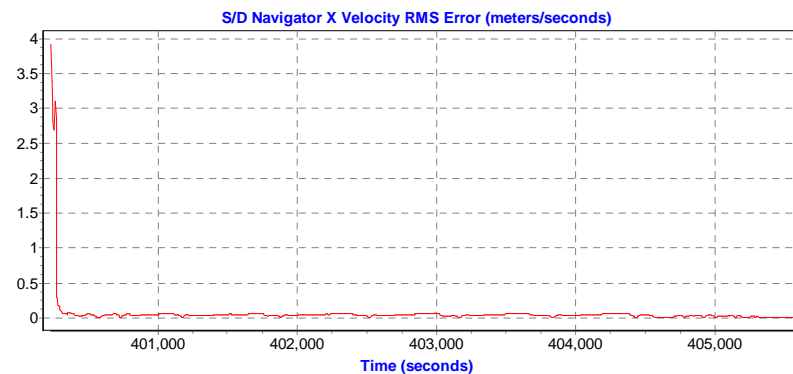
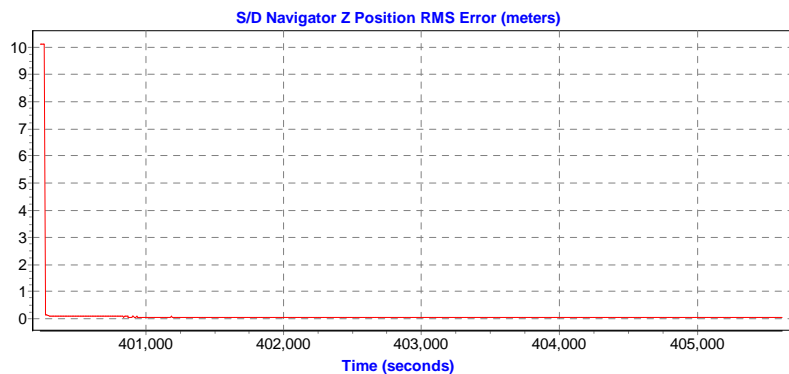
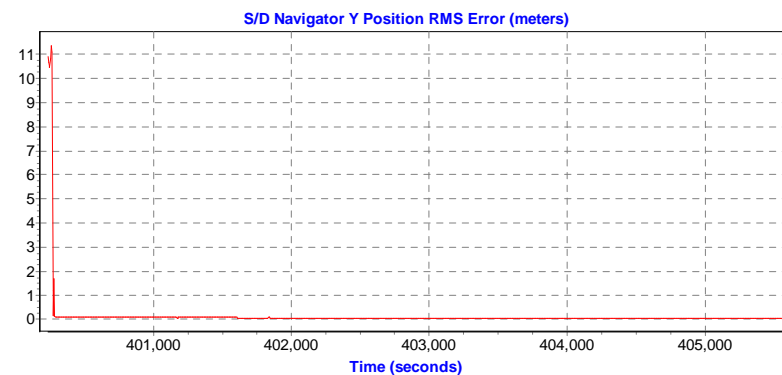
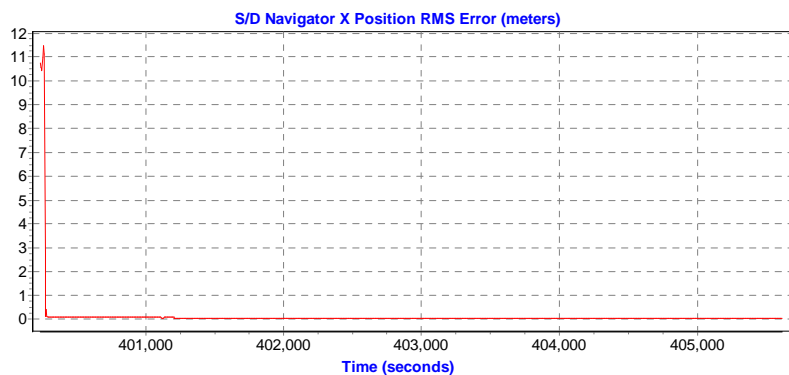
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

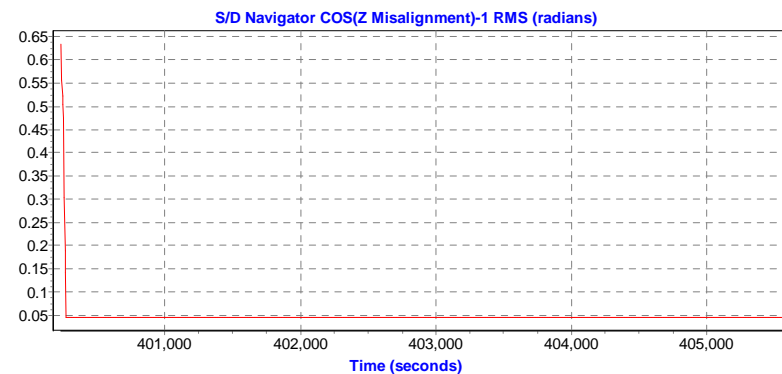
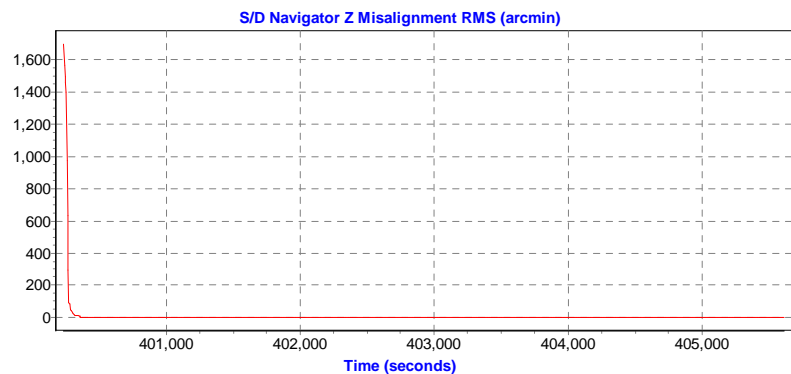
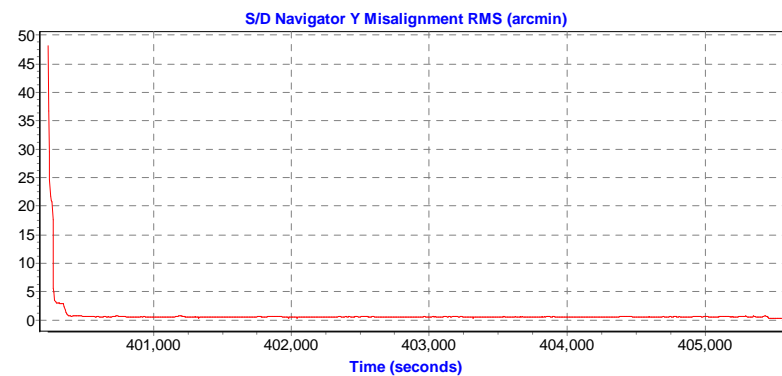
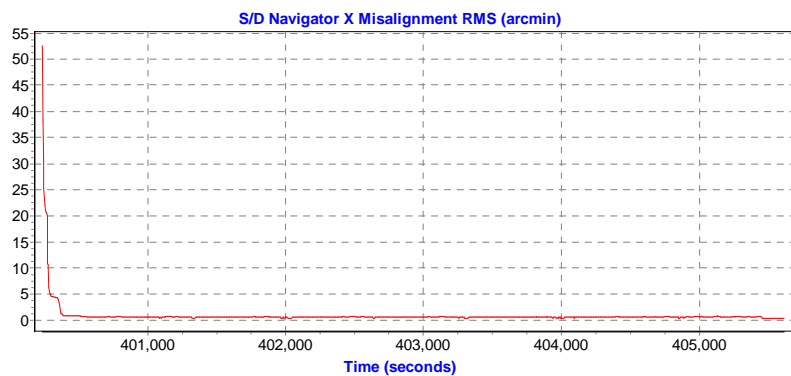
Baseline Distances:  
Maximum: 41.352 (km)  
Minimum: 0.042 (km)  
Average: 13.593 (km)  
First Epoch: 1.007 (km)  
Last Epoch: 0.579 (km)

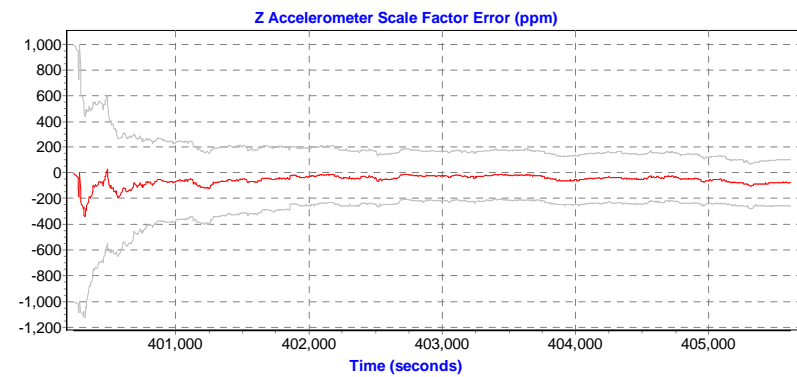
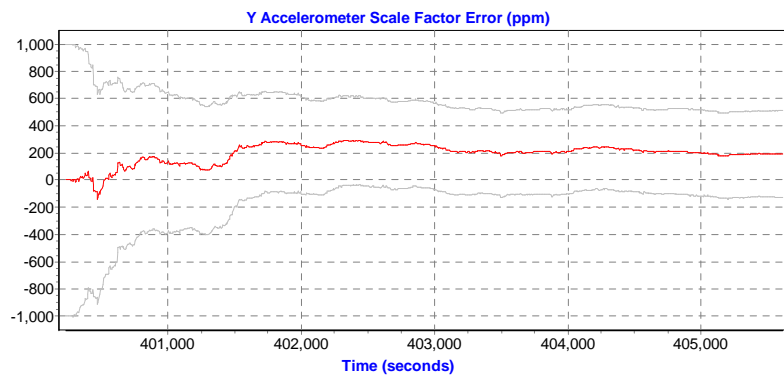
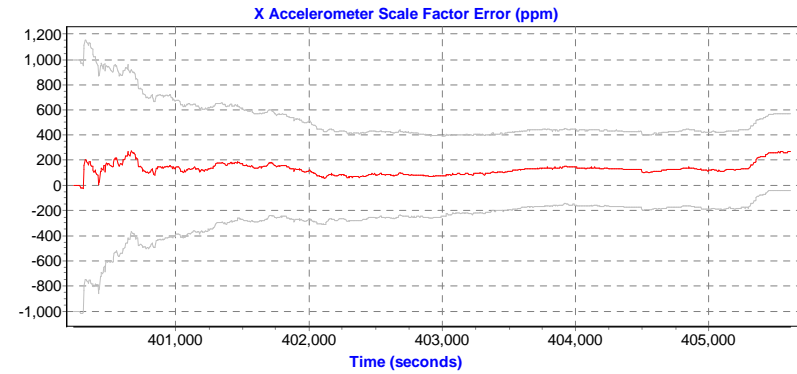
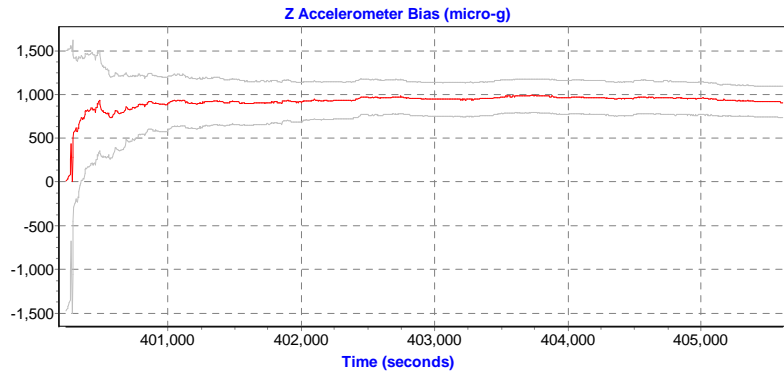
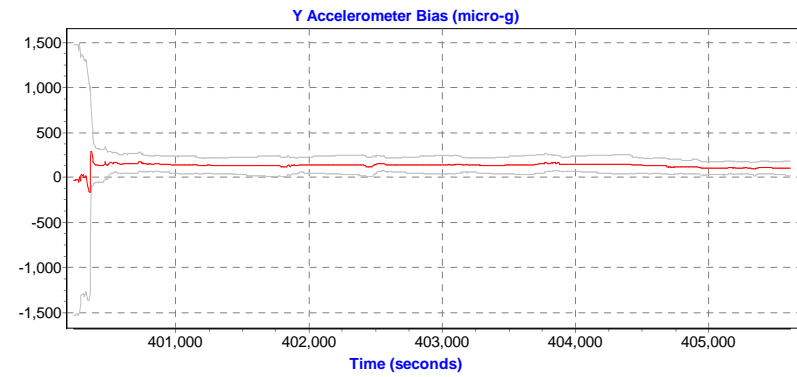
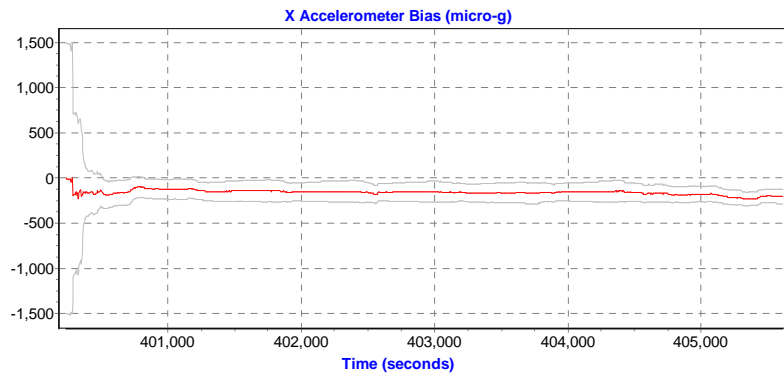


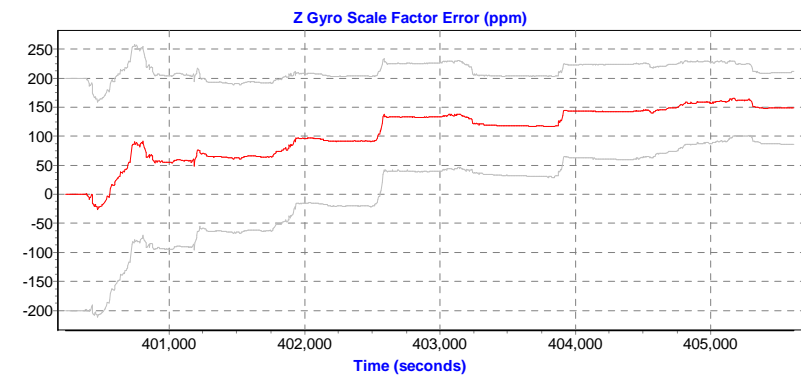
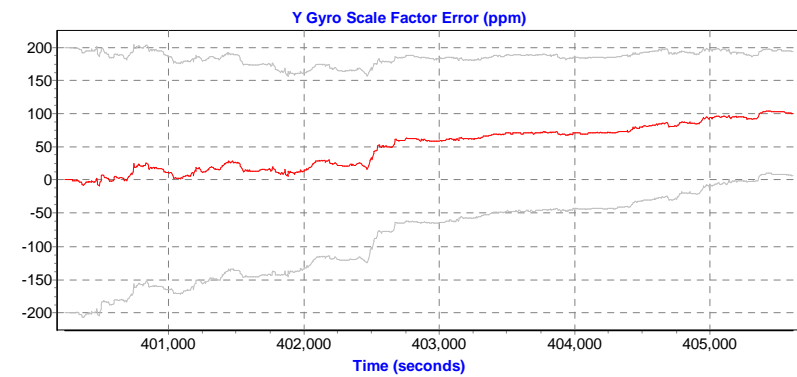
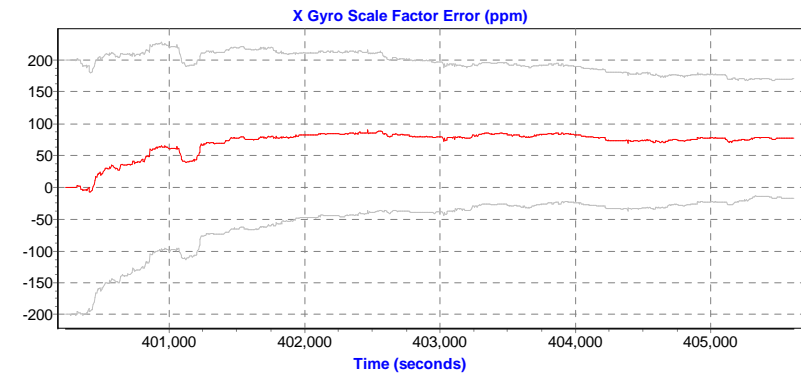
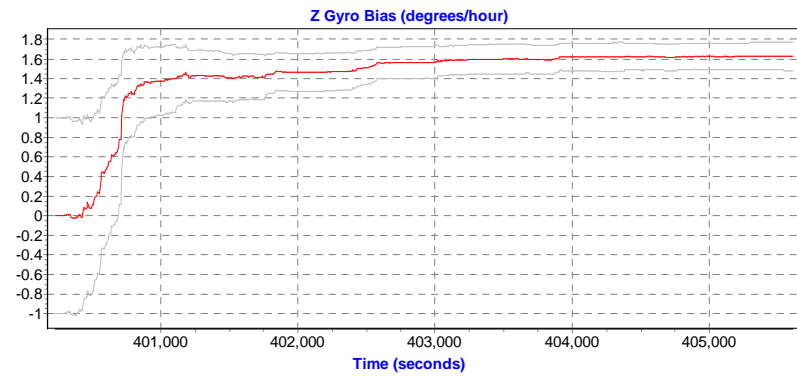
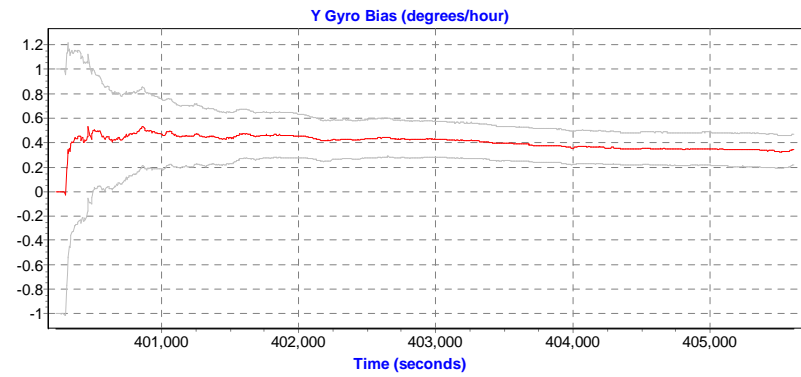
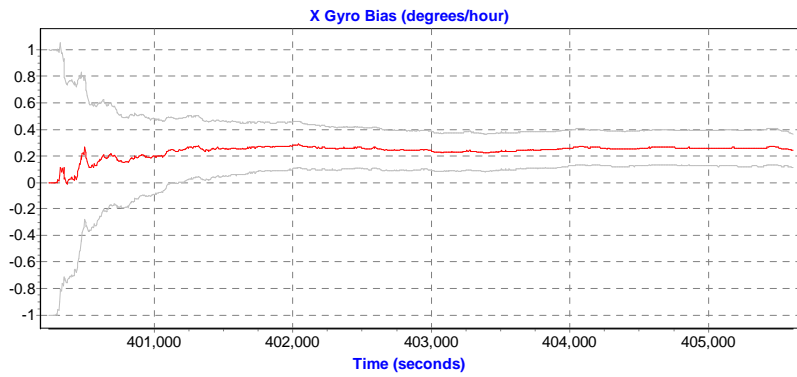


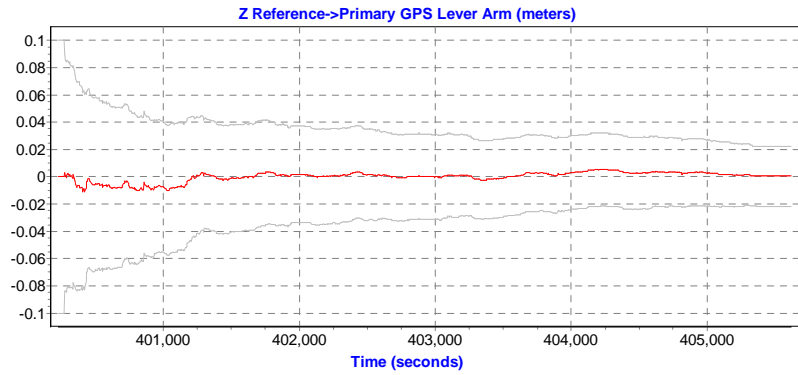
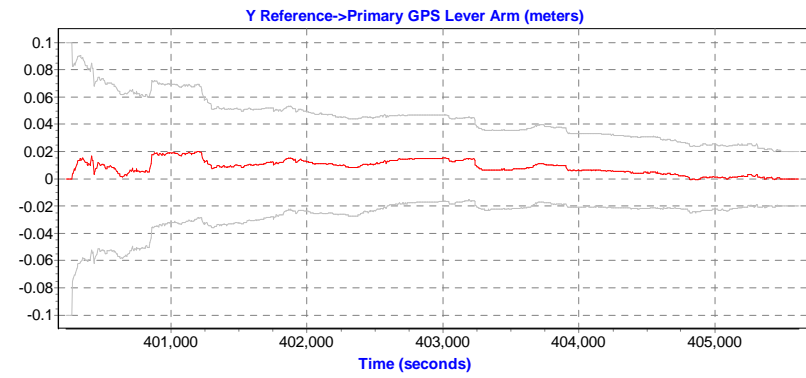
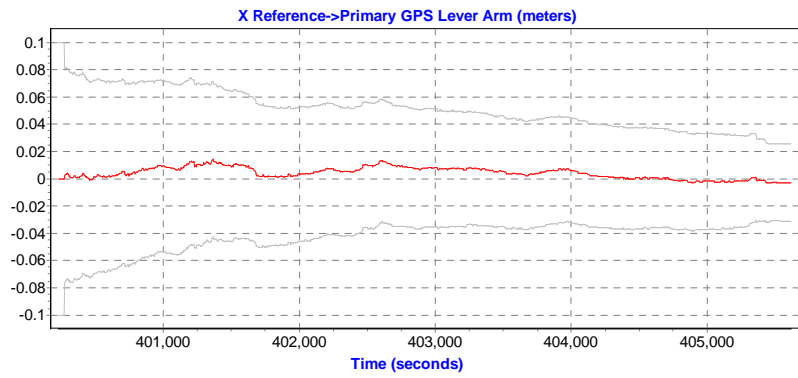






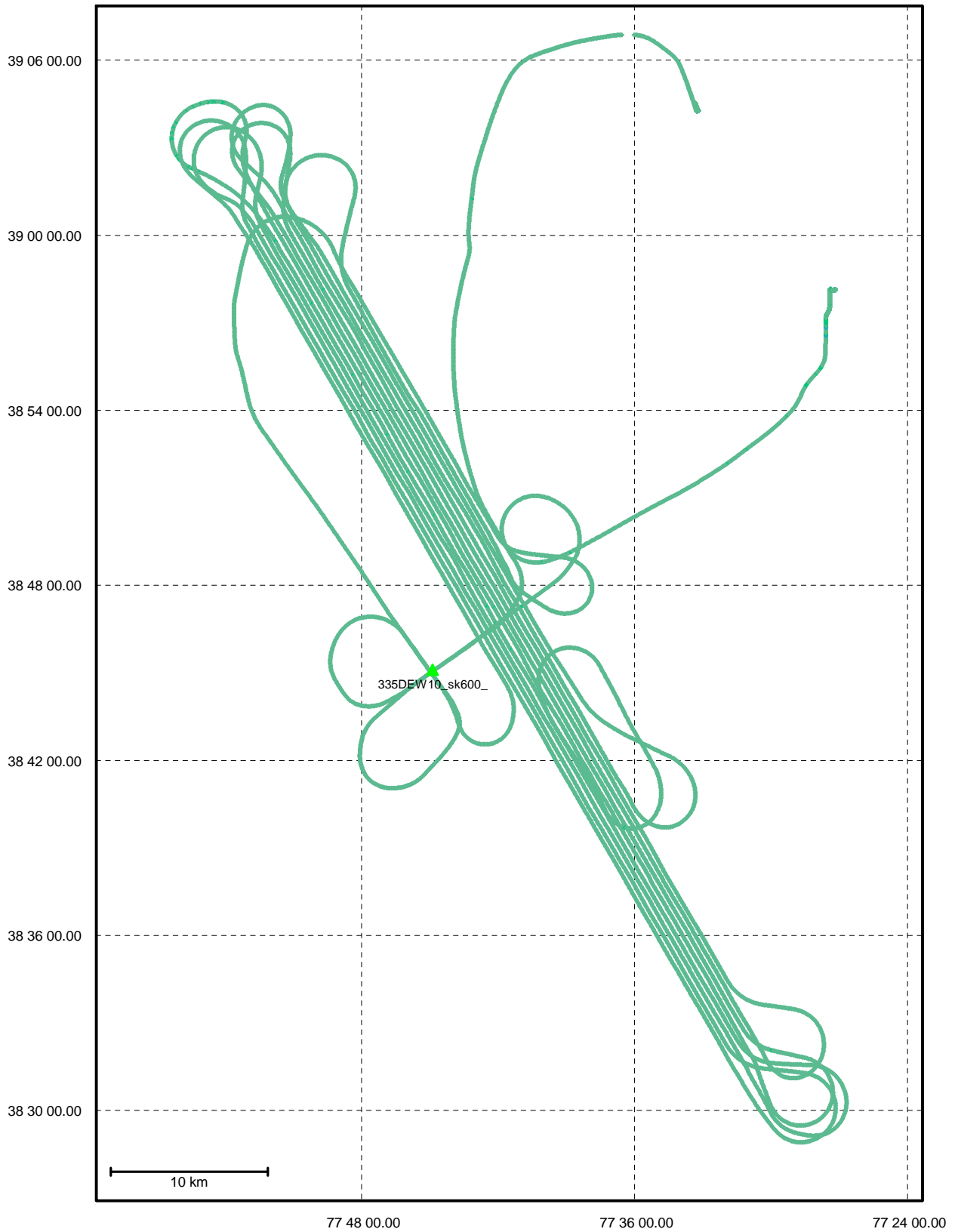






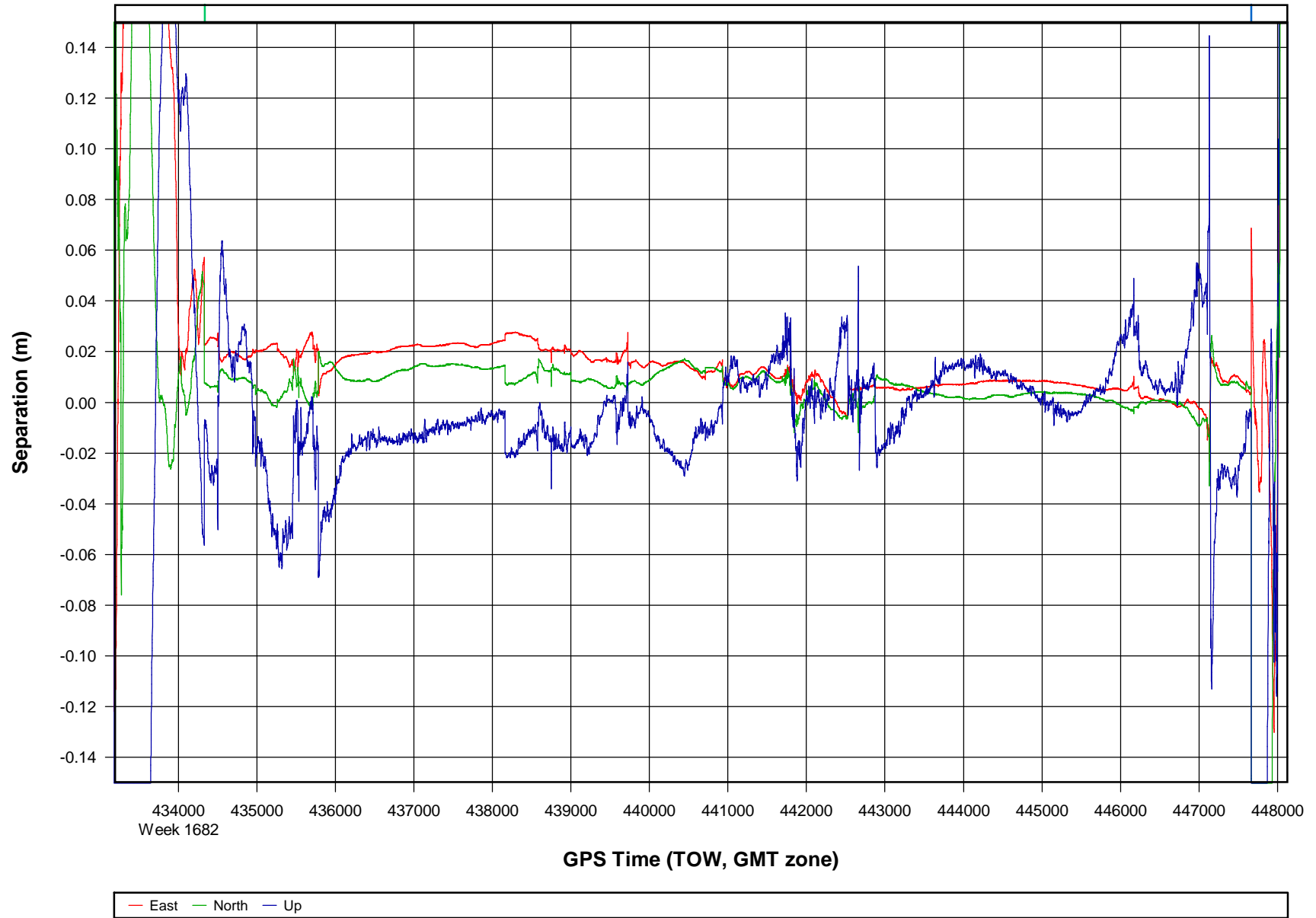
# Combined - Map Run (1)

Geographic, DMS

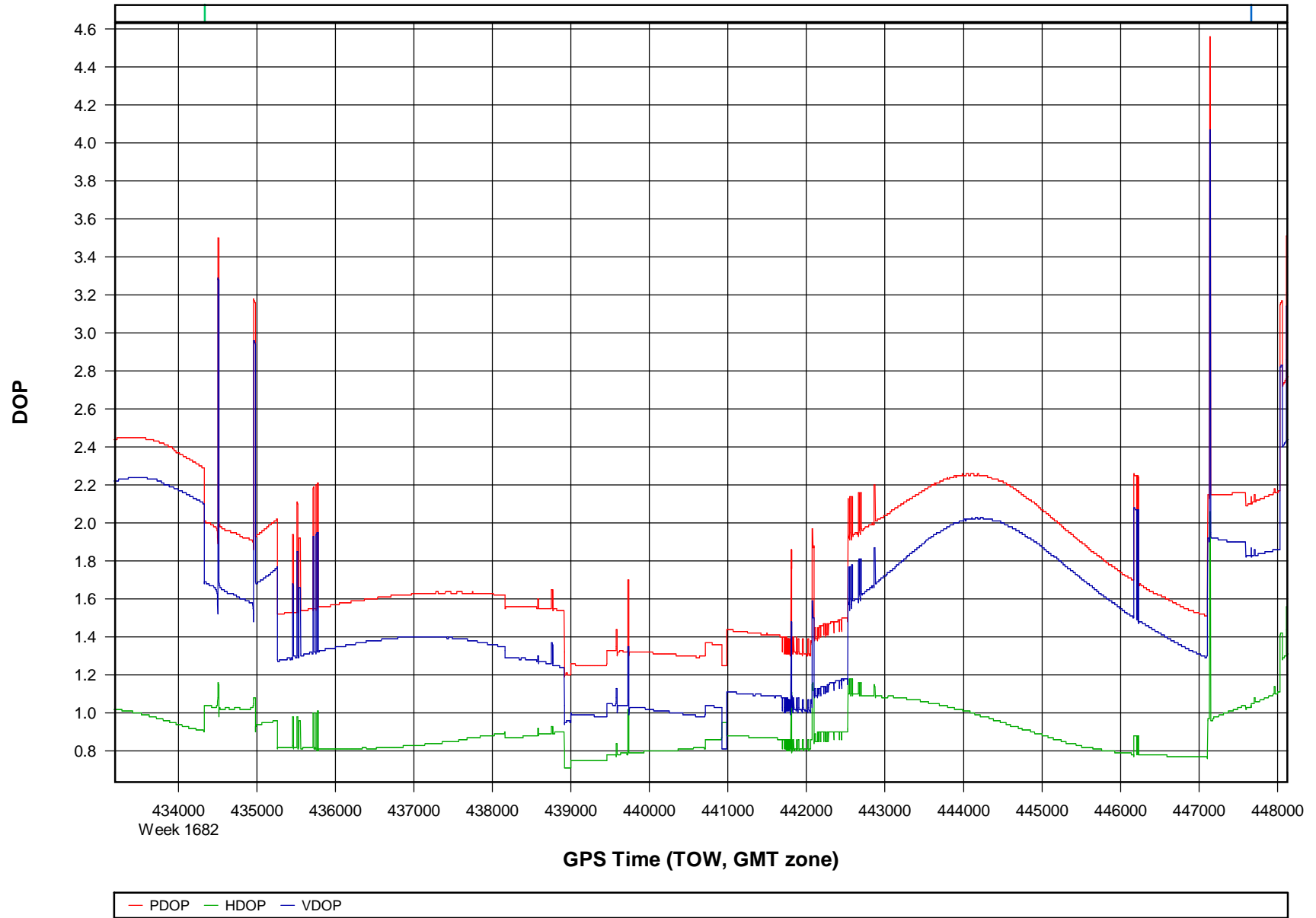


- + Ukn
- + Q1
- + Q2
- + Q3
- + Q4
- + Q5
- + Q6
- ▲ Master

### o112096b [Combined] - Forward/Reverse or Combined Separation Plot

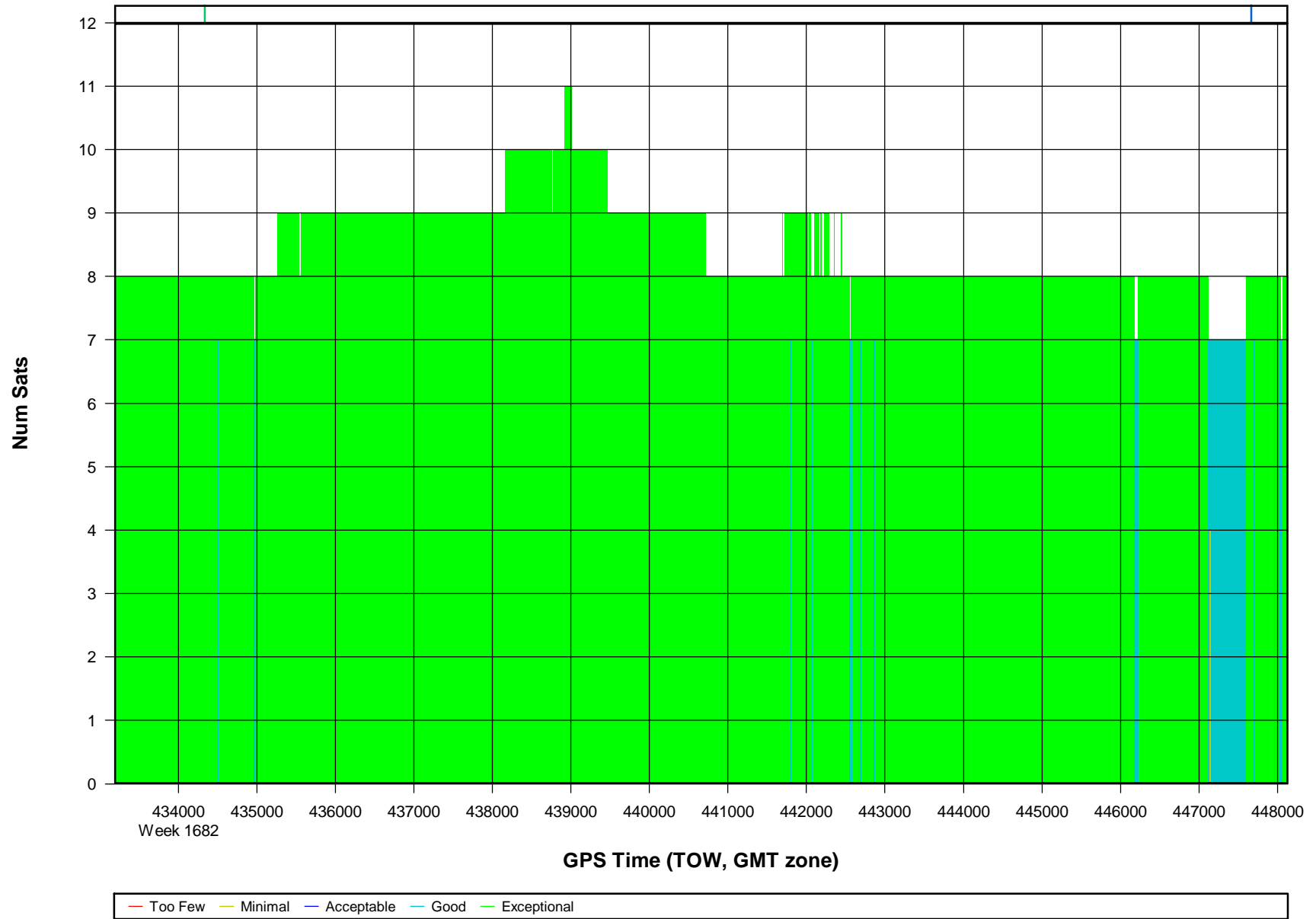


### o112096b [Combined] - PDOP, HDOP, VDOP Plots

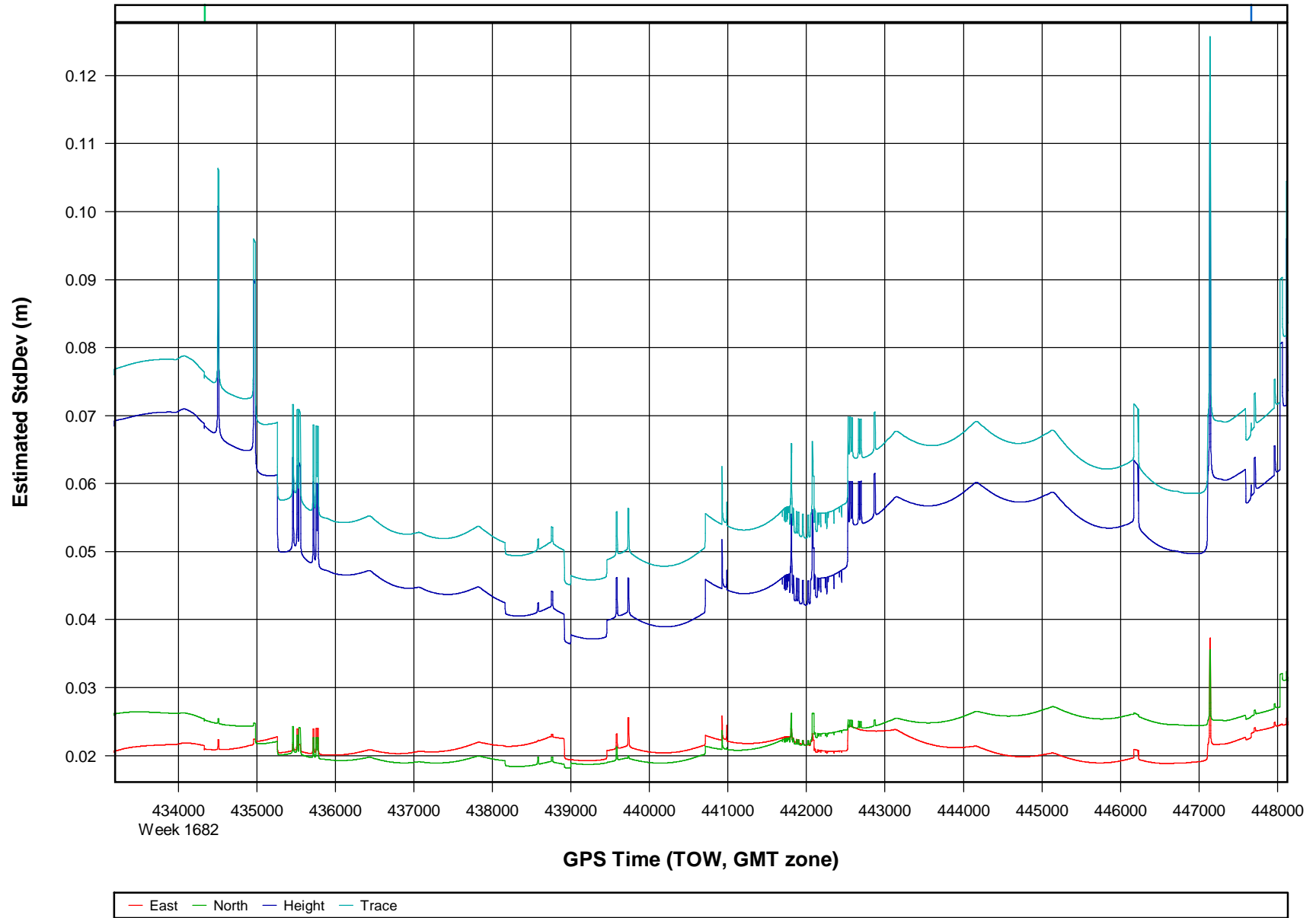




### o112096b [Combined] - Number of Satellites Bar Plot



### o112096b [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112096b\3\_Processed\GPS\o112096b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 149701  
No processed position: 134743  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0174 (m)  
C/A Code: 0.84 (m)  
L1 Doppler: 0.029 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.069 (m)  
North: 0.061 (m)  
Height: 0.127 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (13333 occurrences):  
East: 0.015 (m)  
North: 0.009 (m)  
Height: 0.020 (m)

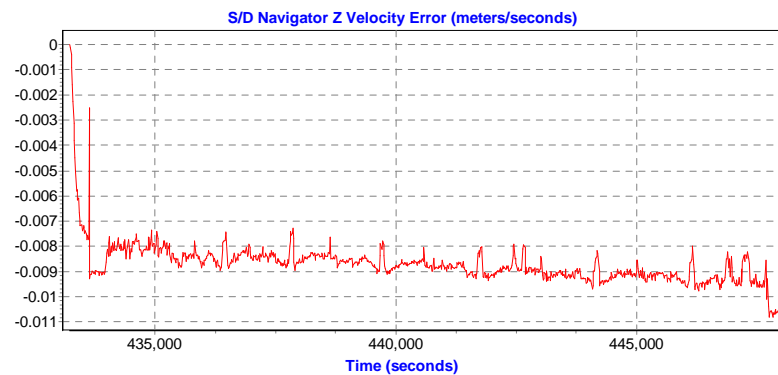
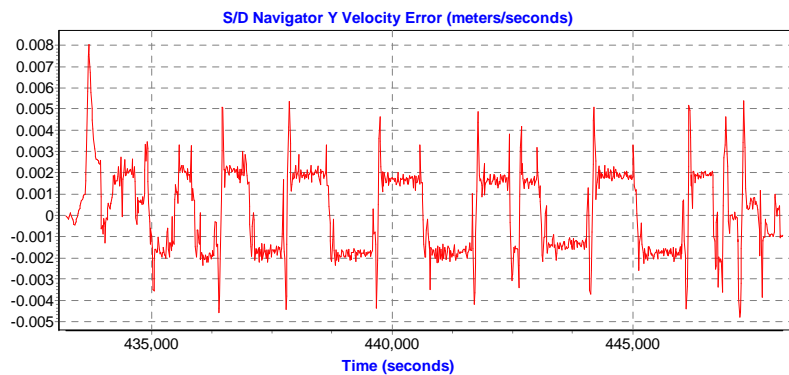
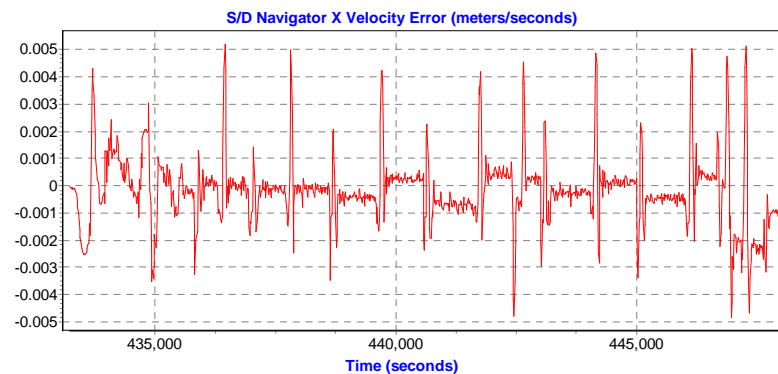
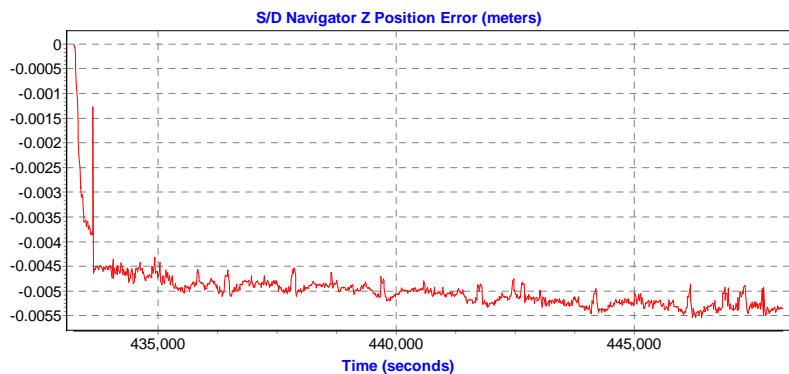
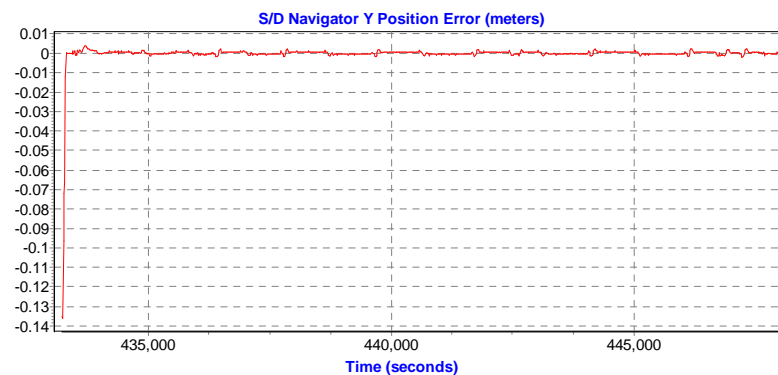
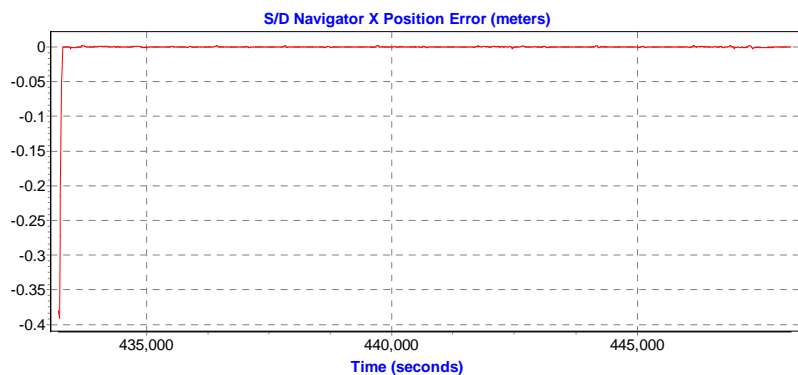
Quality Number Percentages:  
Q 1: 99.4 %  
Q 2: 0.6 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

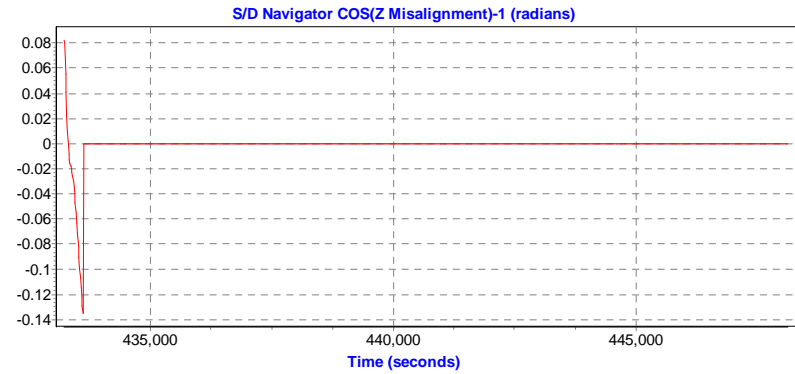
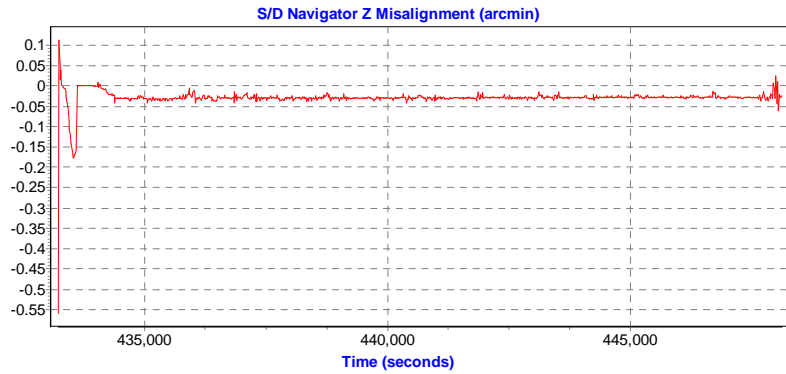
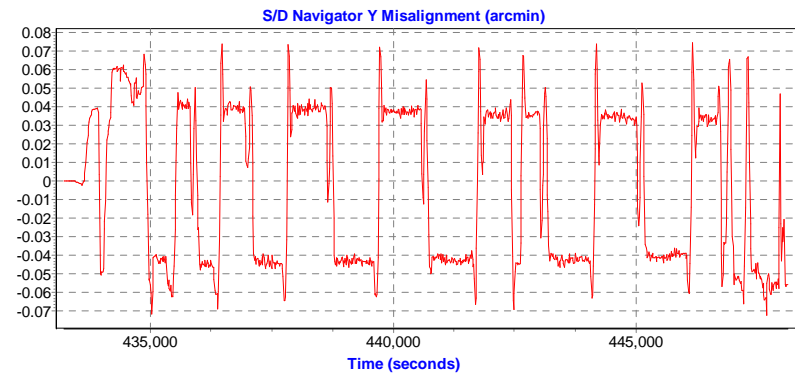
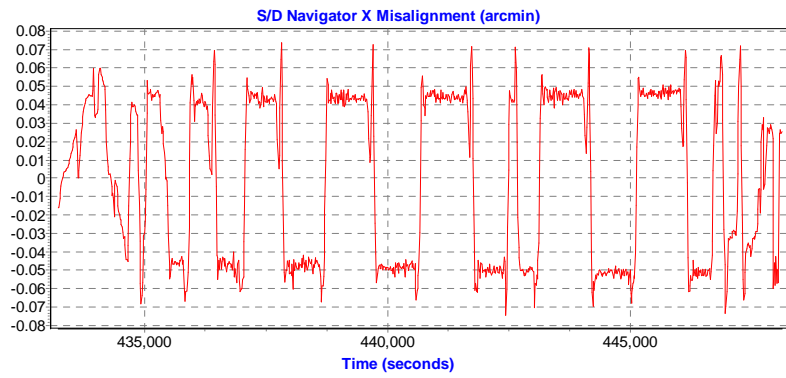
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 99.8 %  
0.10 - 0.30 m: 0.2 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

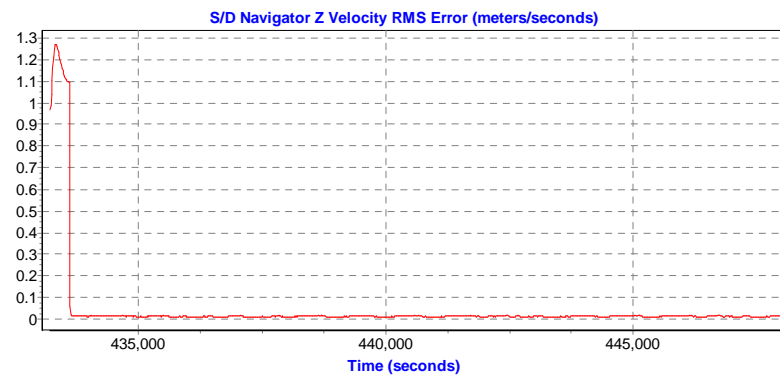
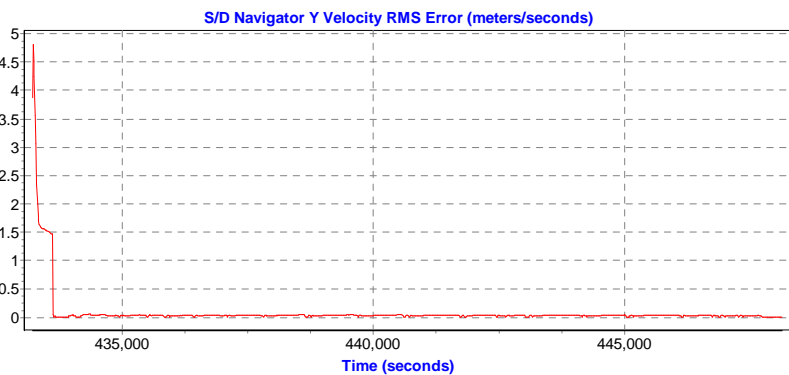
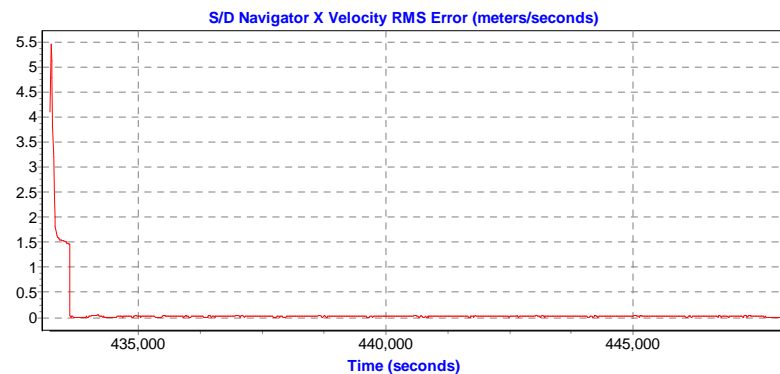
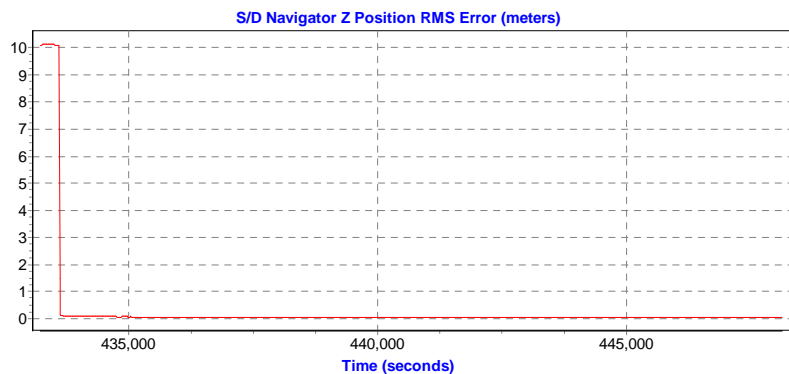
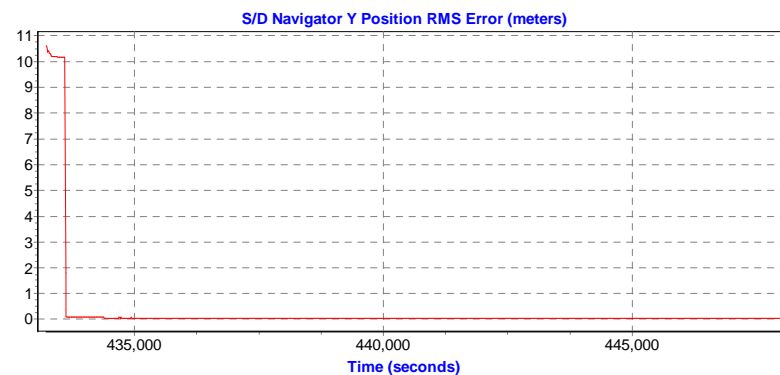
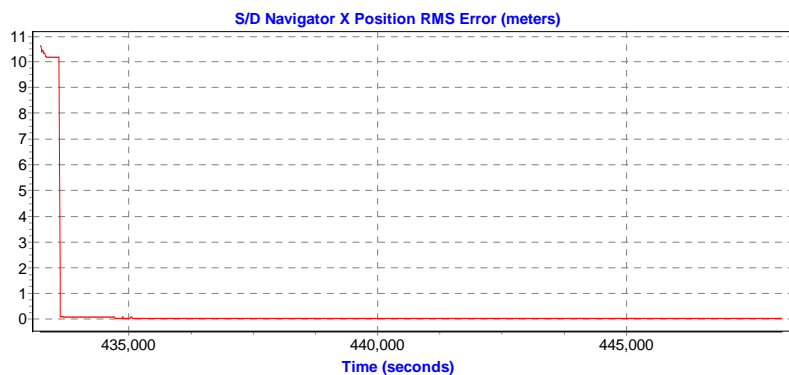
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.1 %

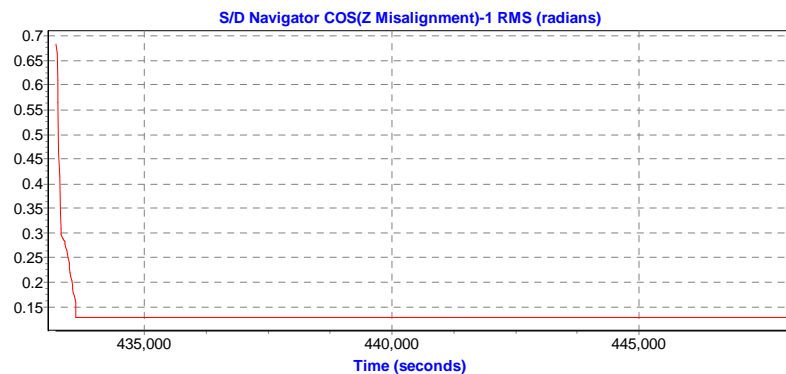
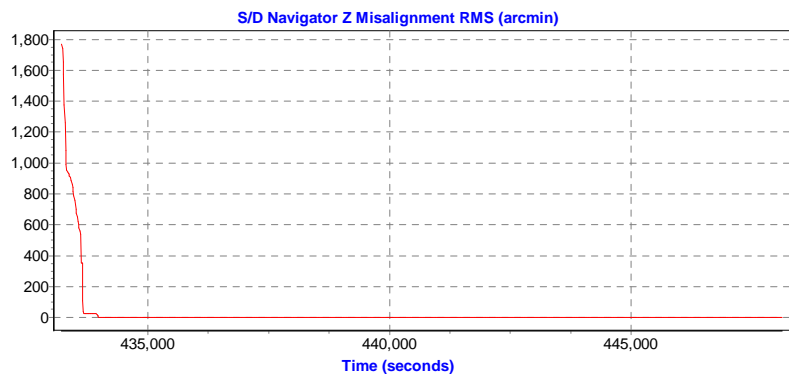
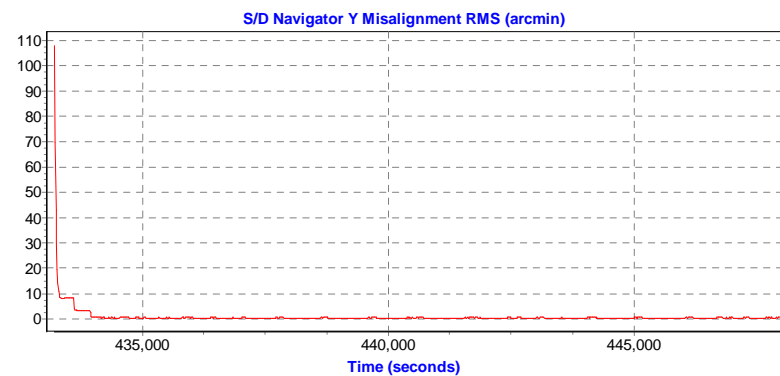
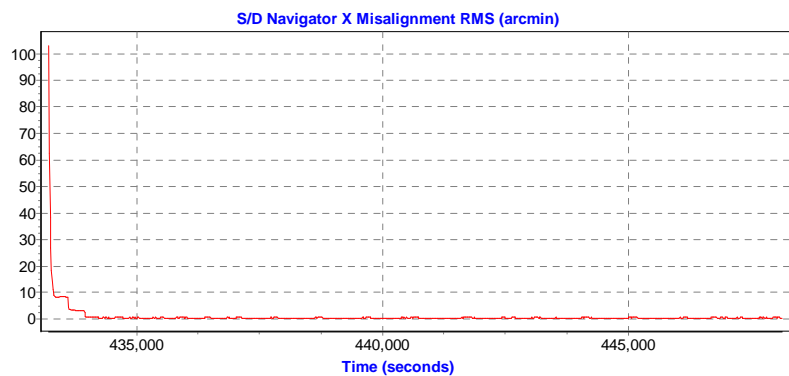
Baseline Distances:  
Maximum: 42.344 (km)  
Minimum: 0.604 (km)  
Average: 20.362 (km)  
First Epoch: 39.624 (km)  
Last Epoch: 35.187 (km)

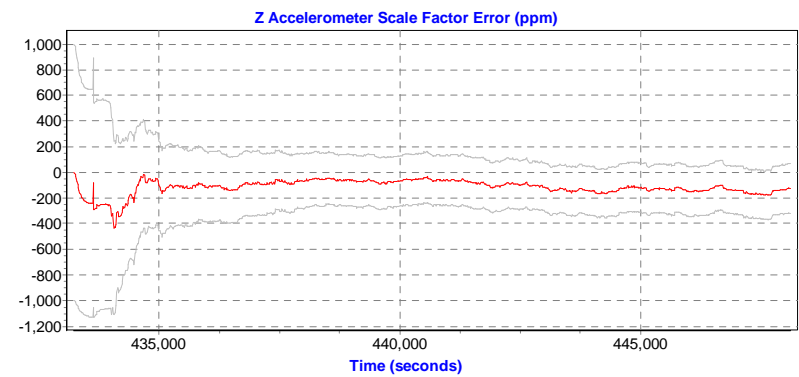
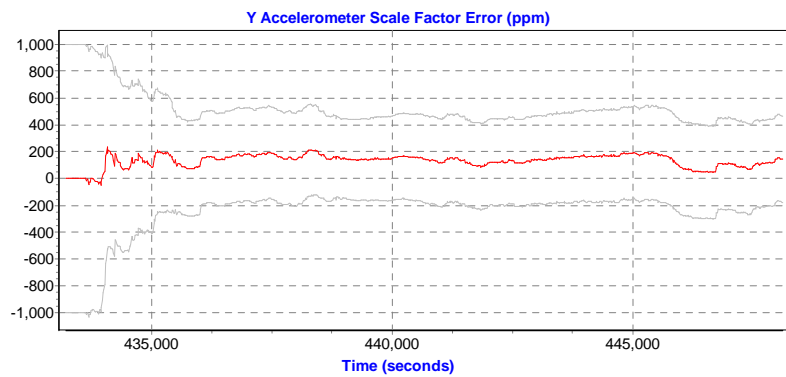
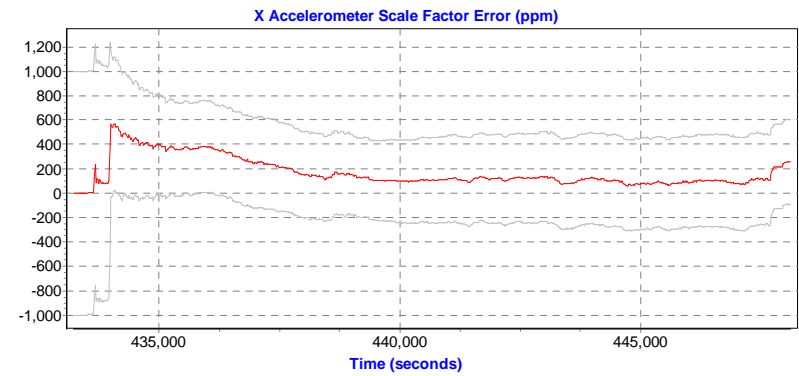
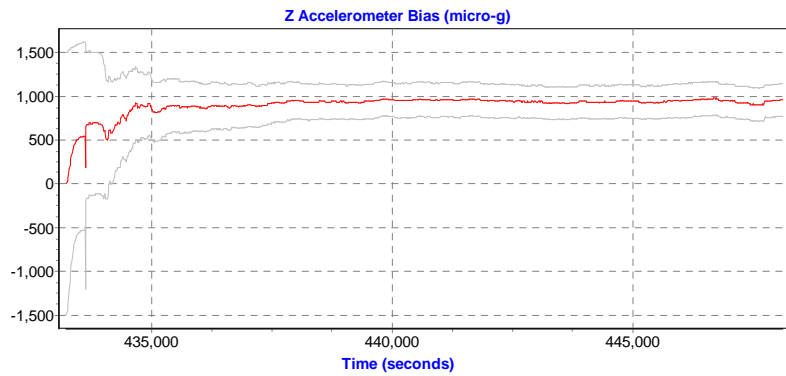
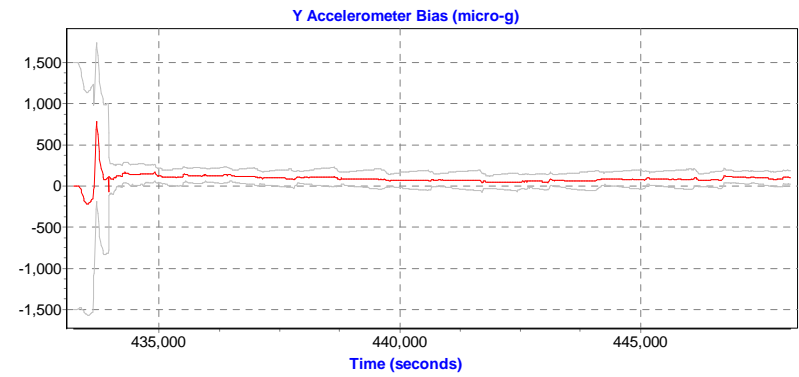
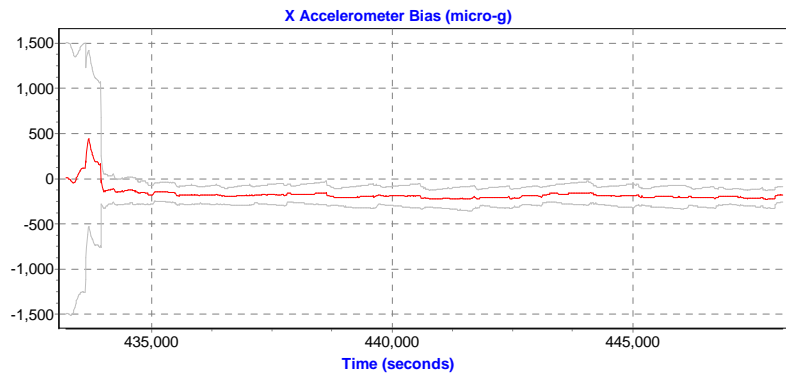
Estimated Errors and RMS



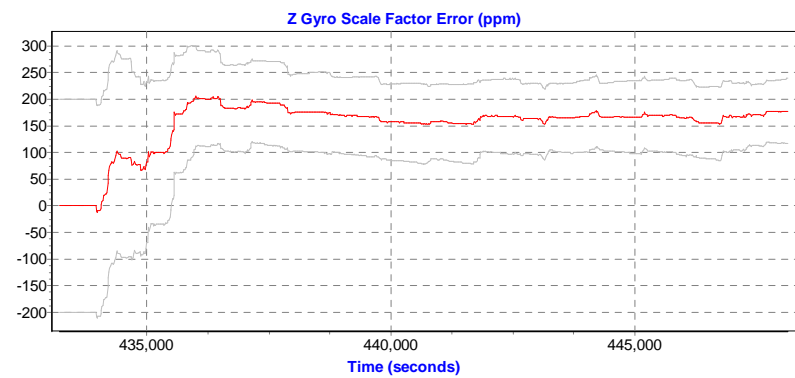
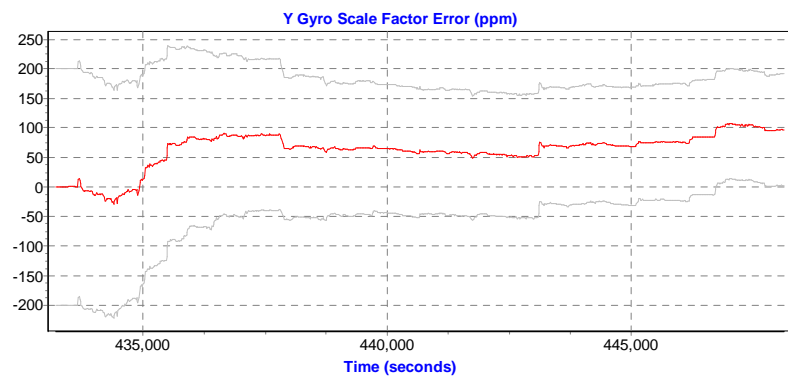
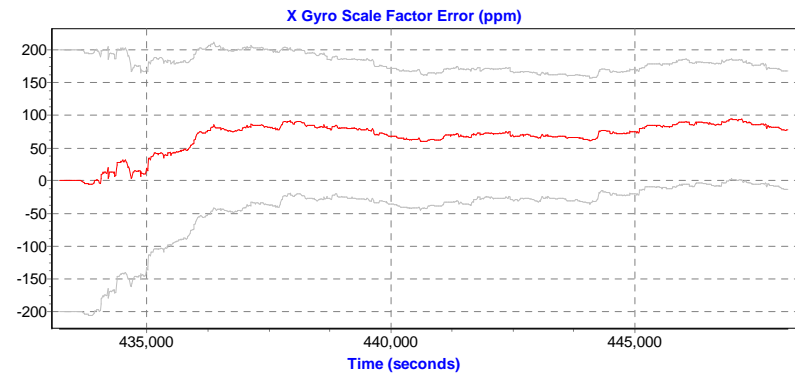
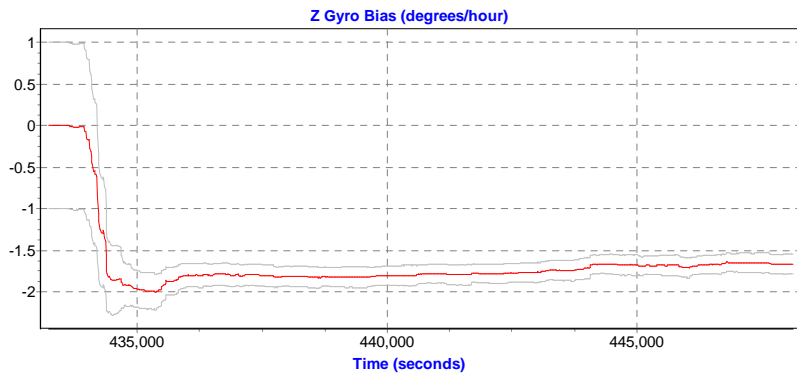
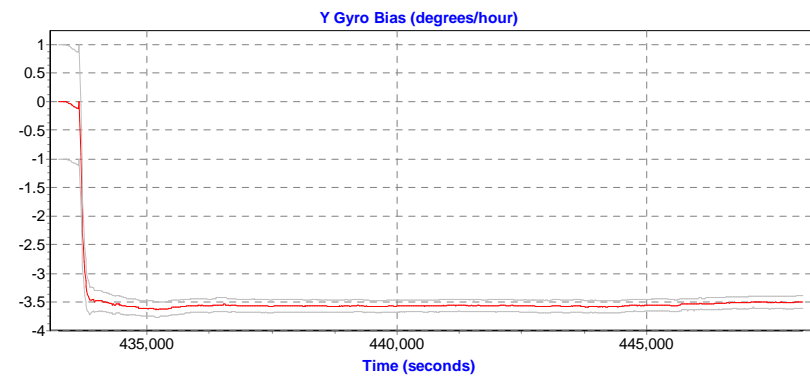
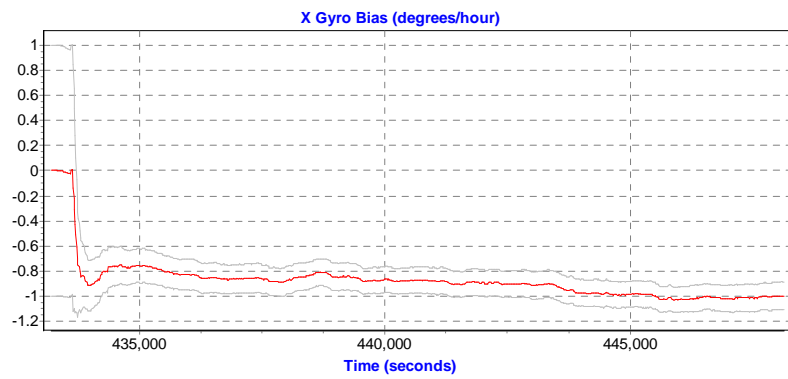


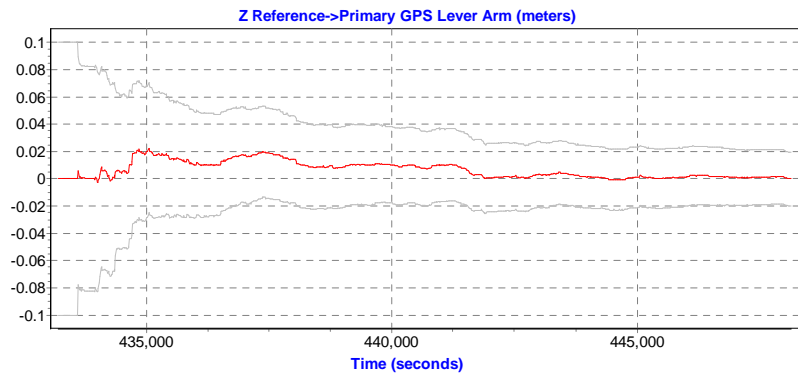
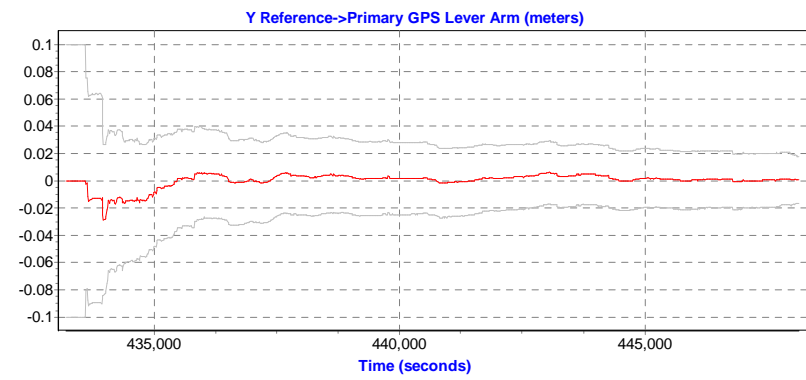
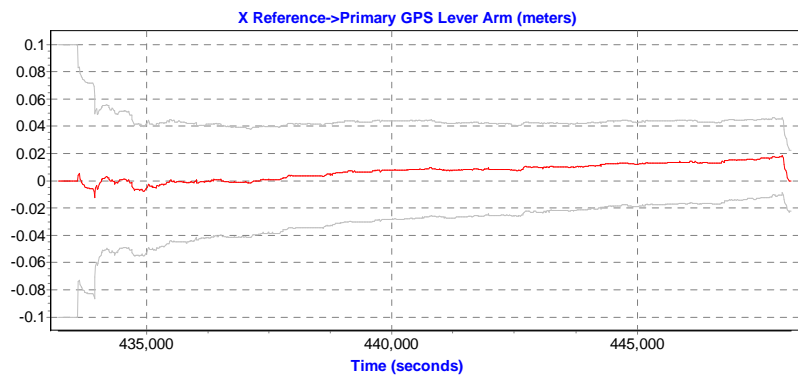






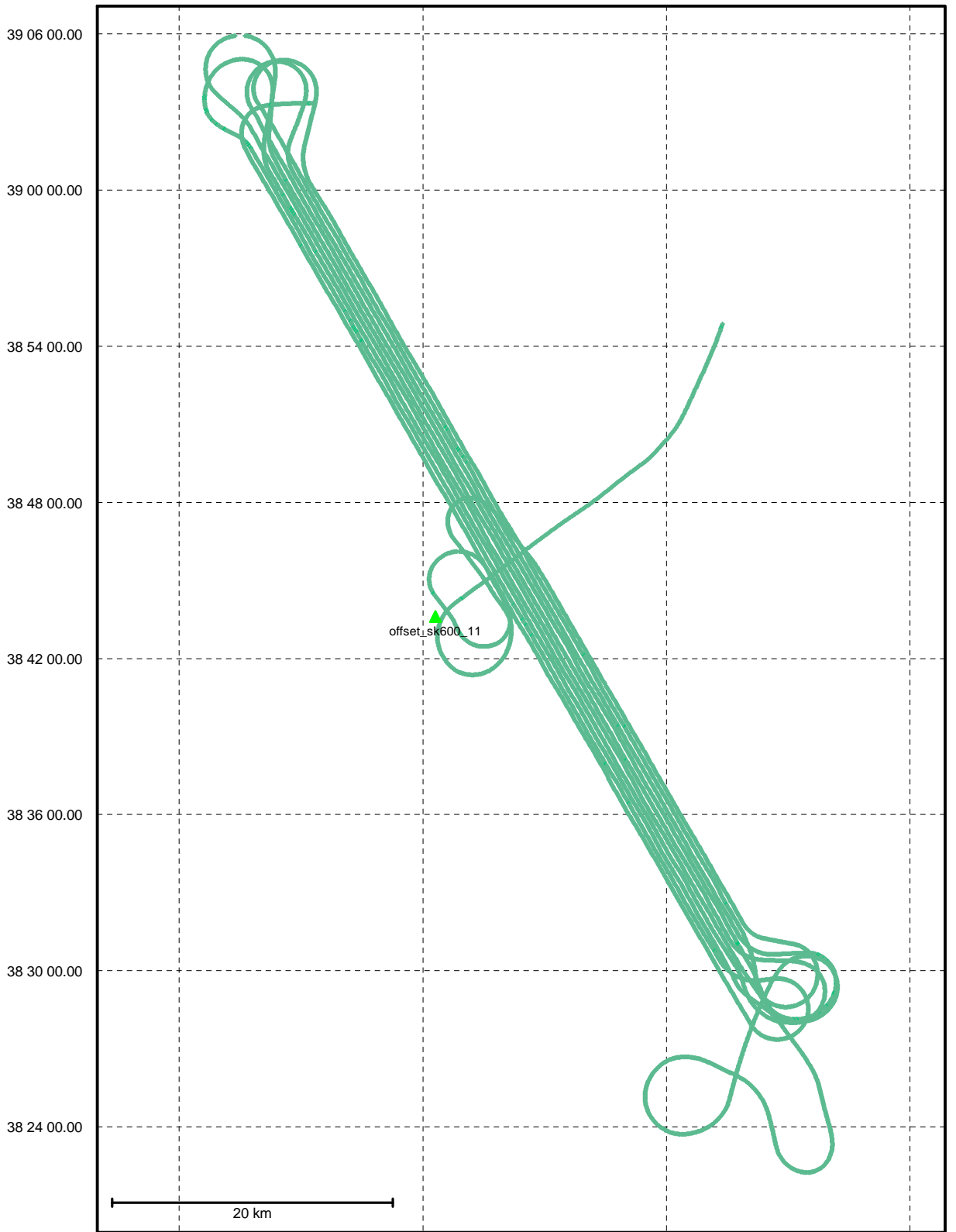






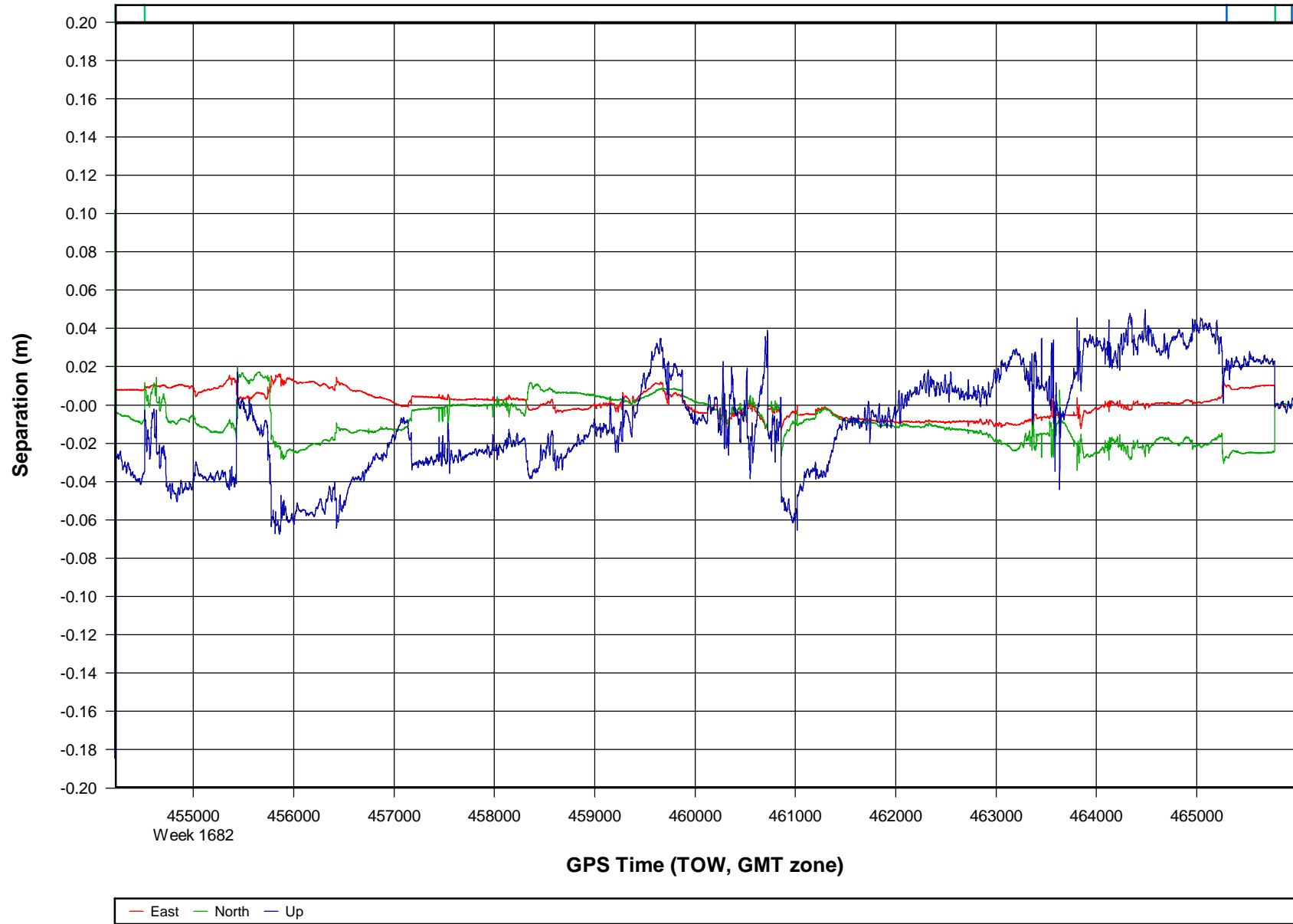
# Combined - Map Run (19)

Geographic, DMS

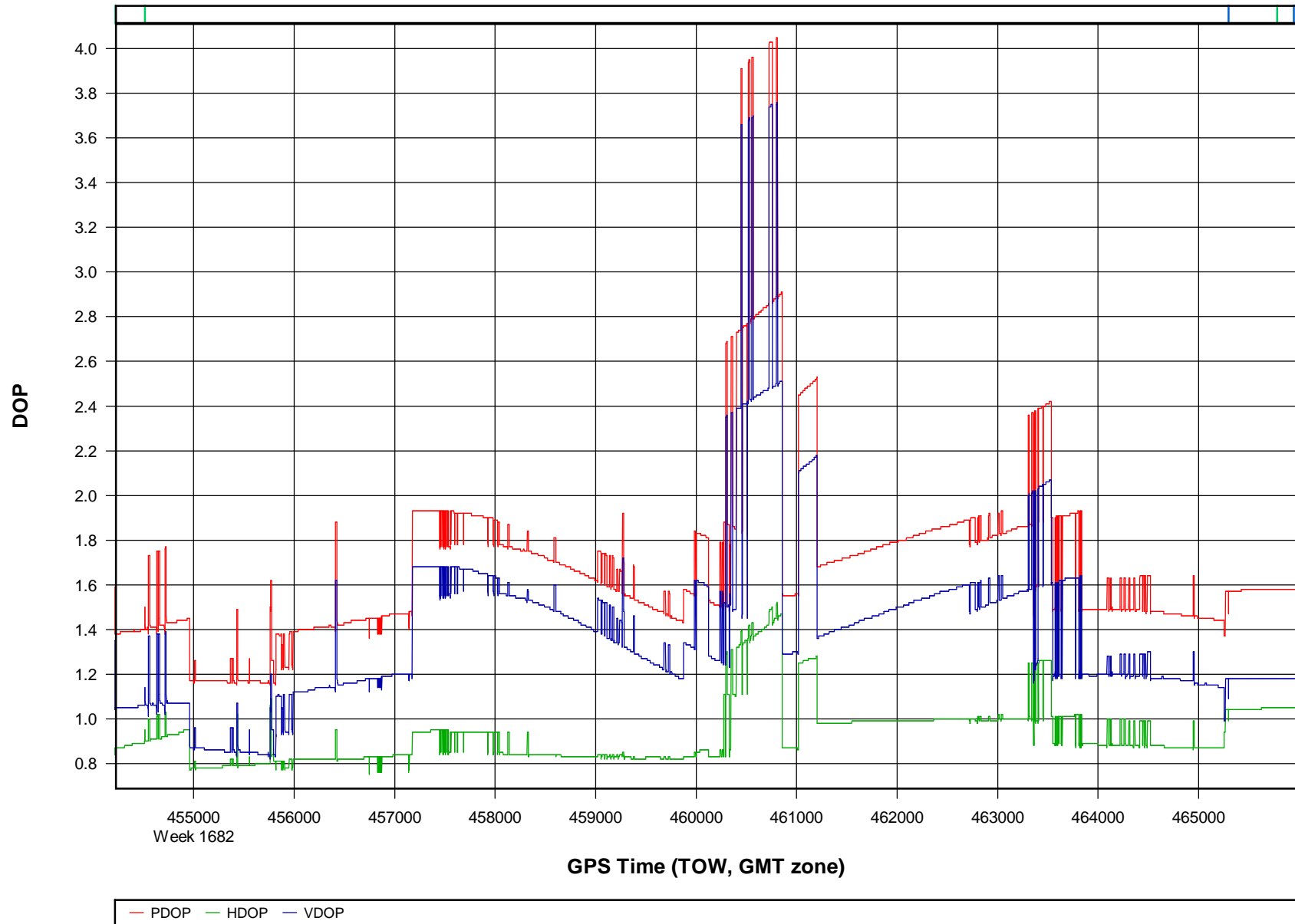


+ Ukn + Q1 + Q2 + Q3 + Q4 + Q5 + Q6 ▲ Master

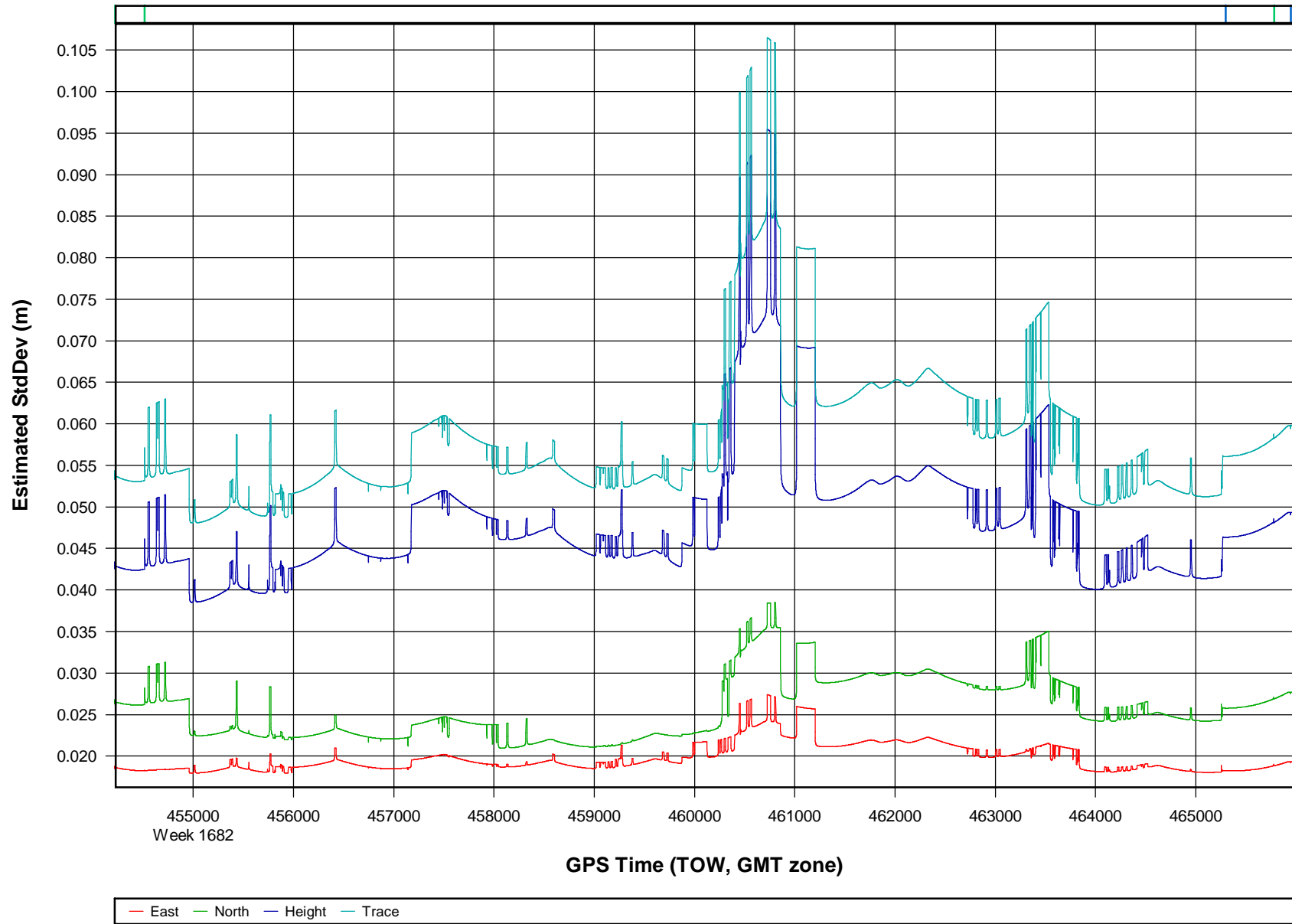
### o112096c [Combined] - Forward/Reverse or Combined Separation Plot



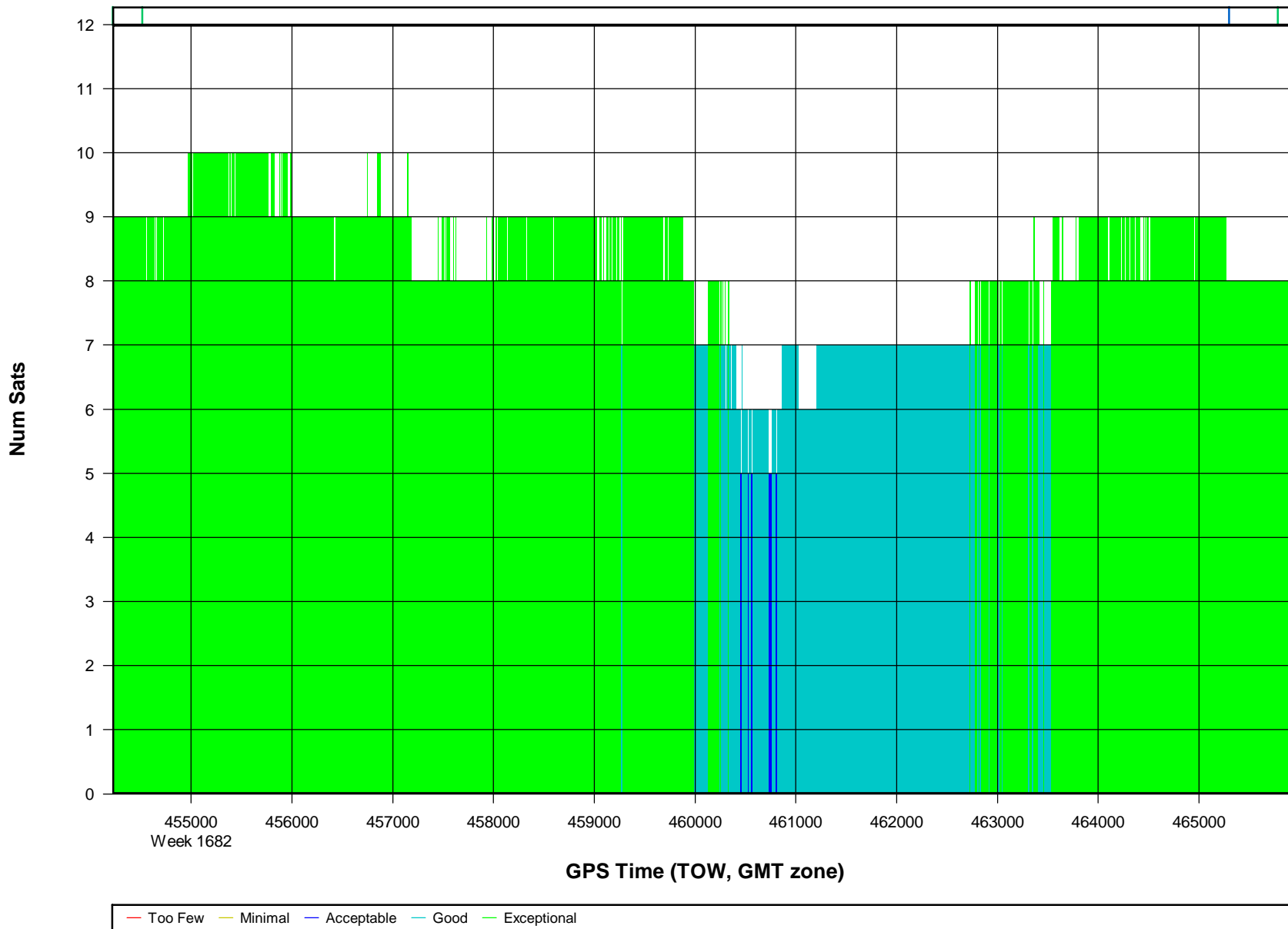
### o112096c [Combined] - PDOP, HDOP, VDOP Plots



### o112096c [Combined] - Estimated Position Accuracy Plot



**o112096c [Combined] - Number of Satellites Bar Plot**



## Processing Summary Information

Program: POSGNSS  
Version: 4.40.2710  
Project: G:\o112096c\3\_Processed\GPS\o112096c.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 145730  
No processed position: 133964  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0183 (m)  
C/A Code: 0.86 (m)  
L1 Doppler: 0.033 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.007 (m)  
North: 0.014 (m)  
Height: 0.028 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (11760 occurrences):  
East: 0.007 (m)  
North: 0.014 (m)  
Height: 0.028 (m)

Quality Number Percentages:  
Q 1: 99.4 %  
Q 2: 0.6 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

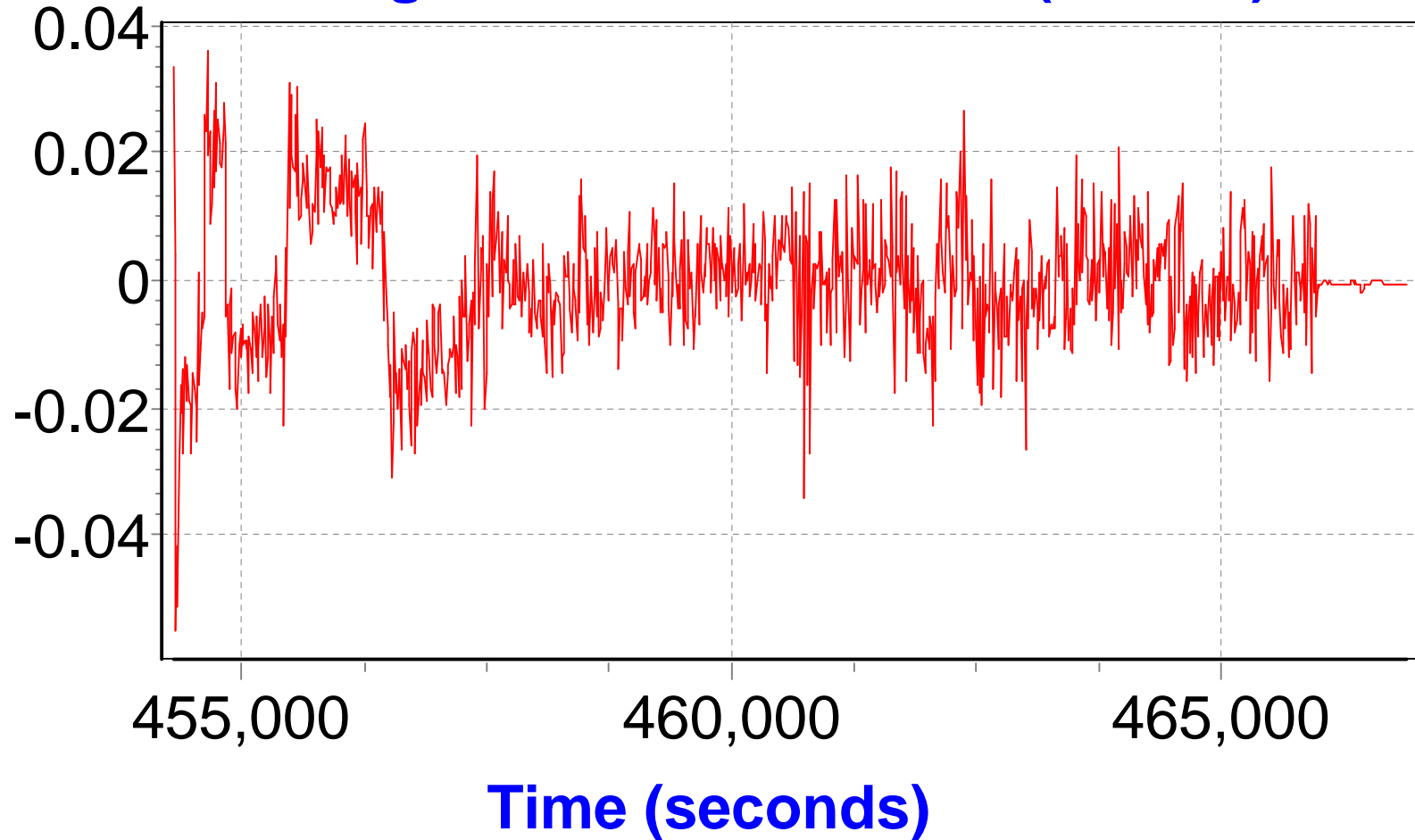
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 99.4 %  
0.10 - 0.30 m: 0.6 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

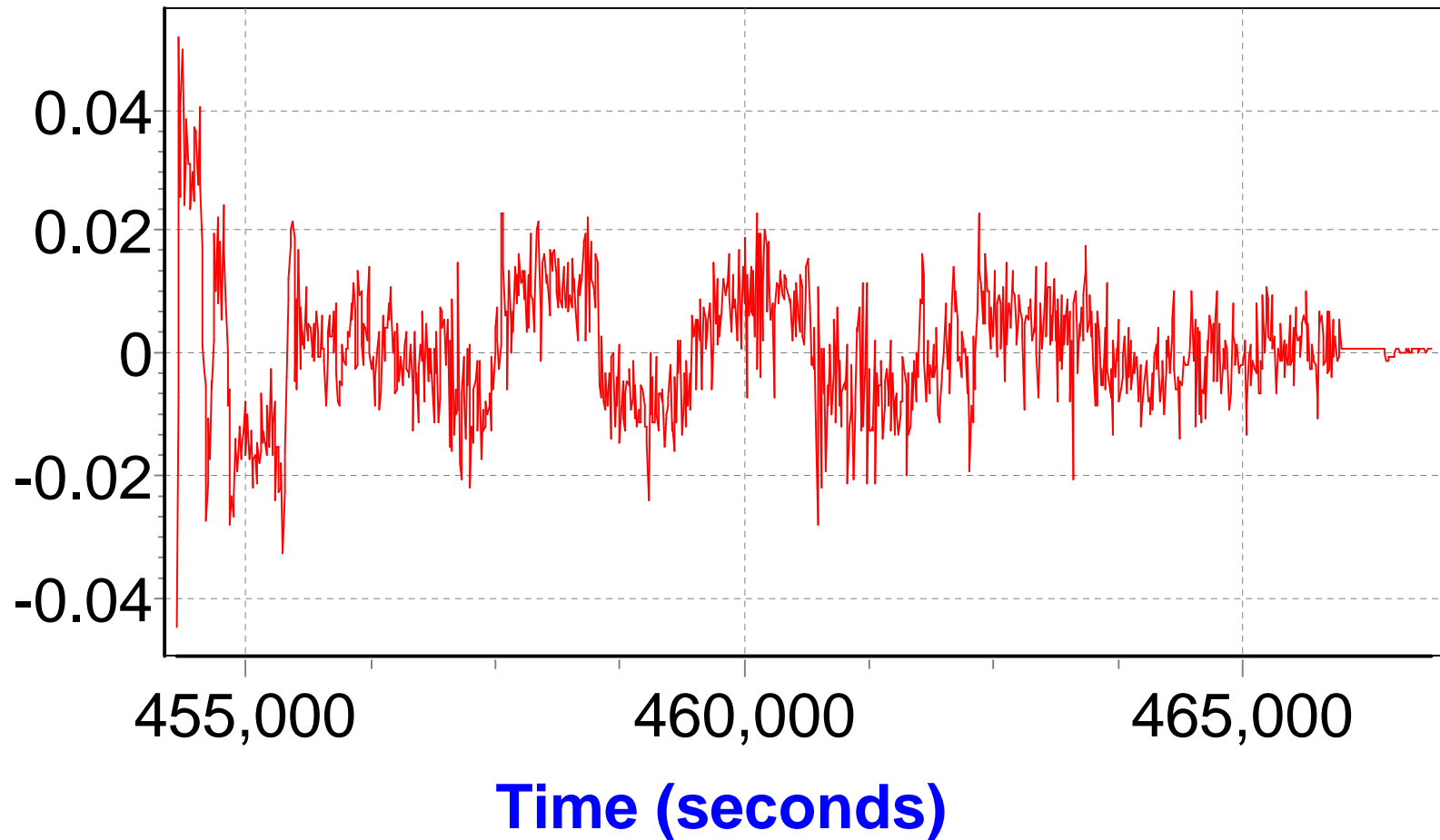
Baseline Distances:  
Maximum: 47.958 (km)  
Minimum: 1.031 (km)  
Average: 22.273 (km)  
First Epoch: 29.190 (km)  
Last Epoch: 37.553 (km)



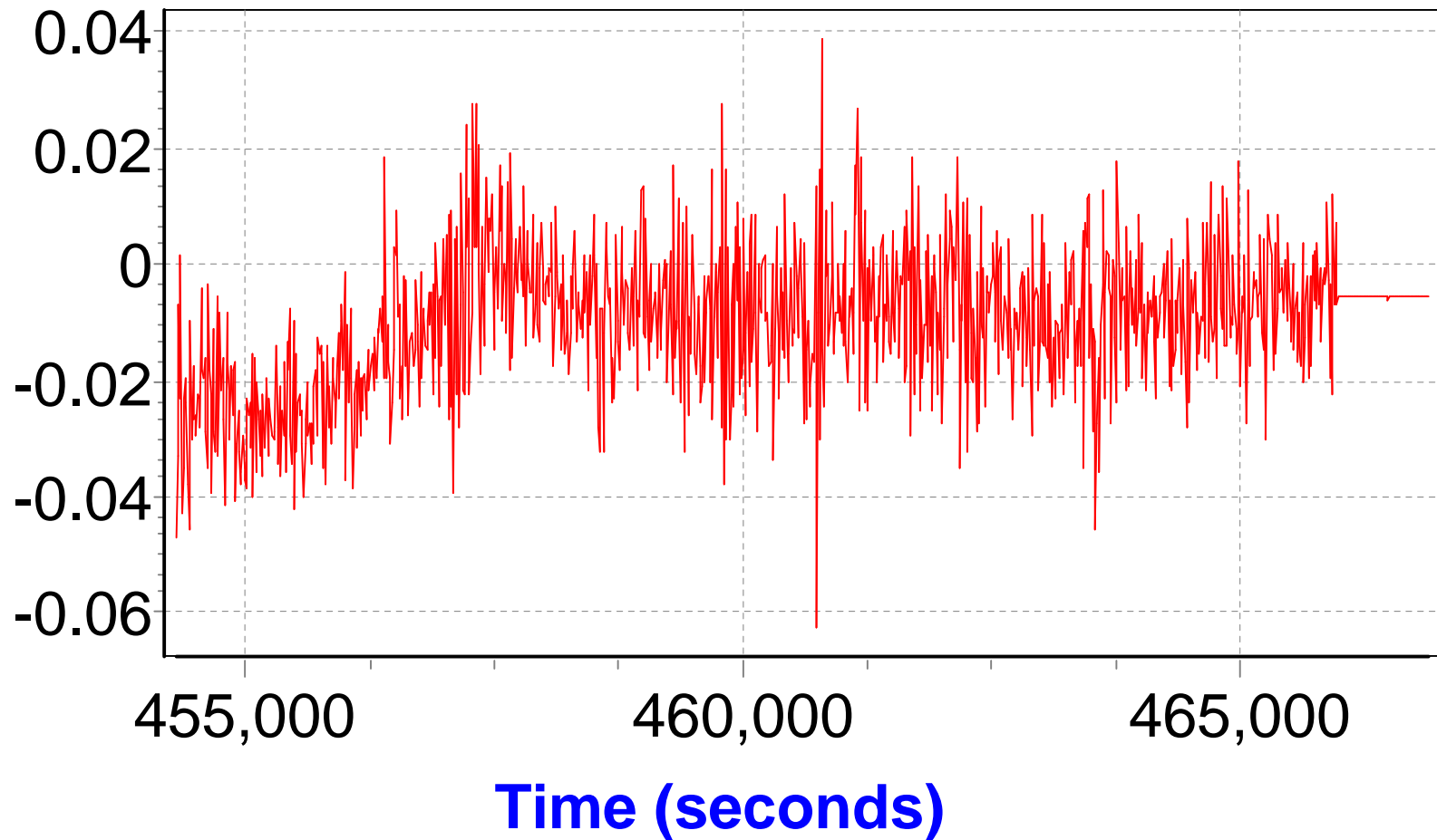
## S/D Navigator X Position Error (meters)



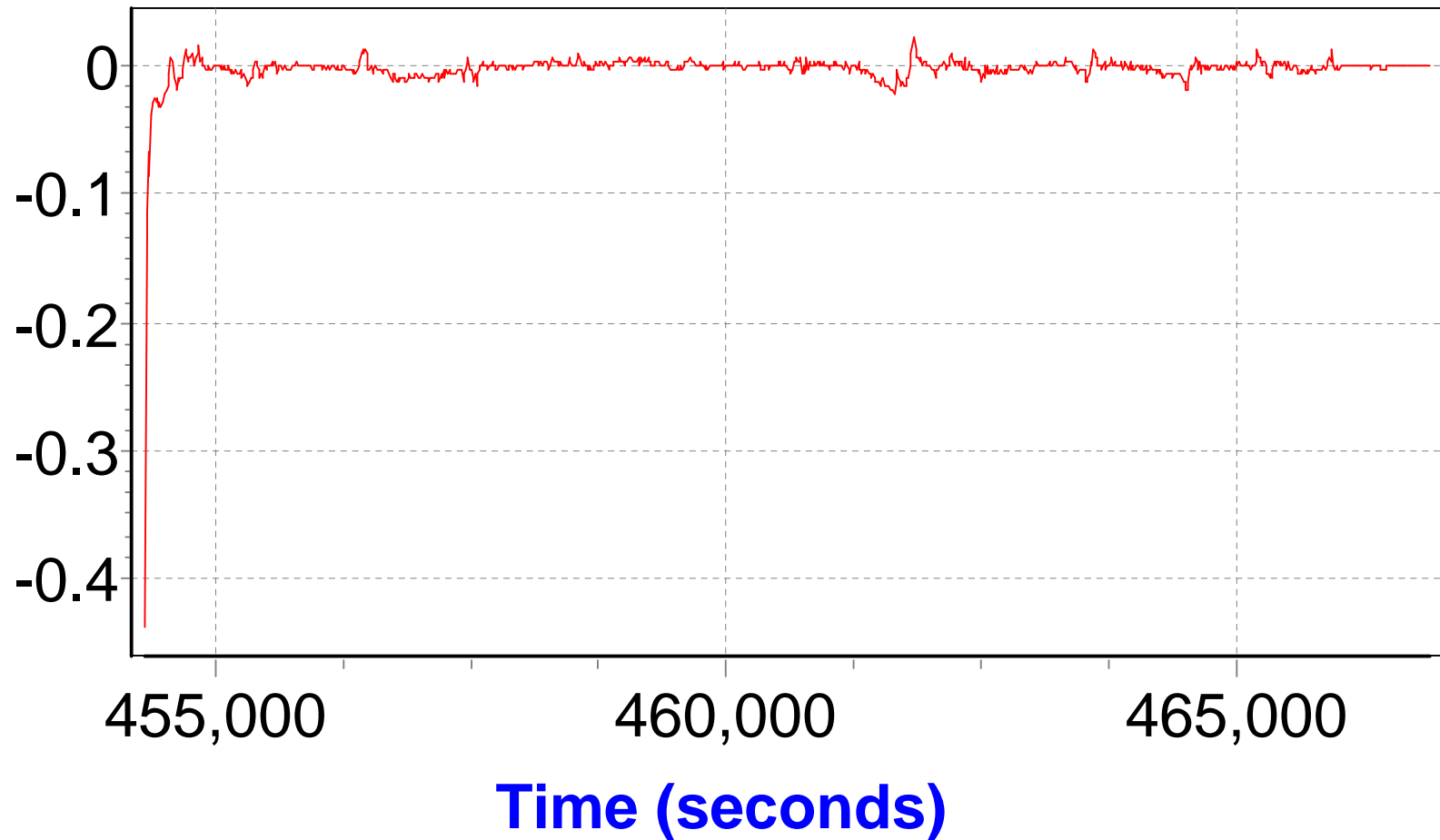
## S/D Navigator Y Position Error (meters)



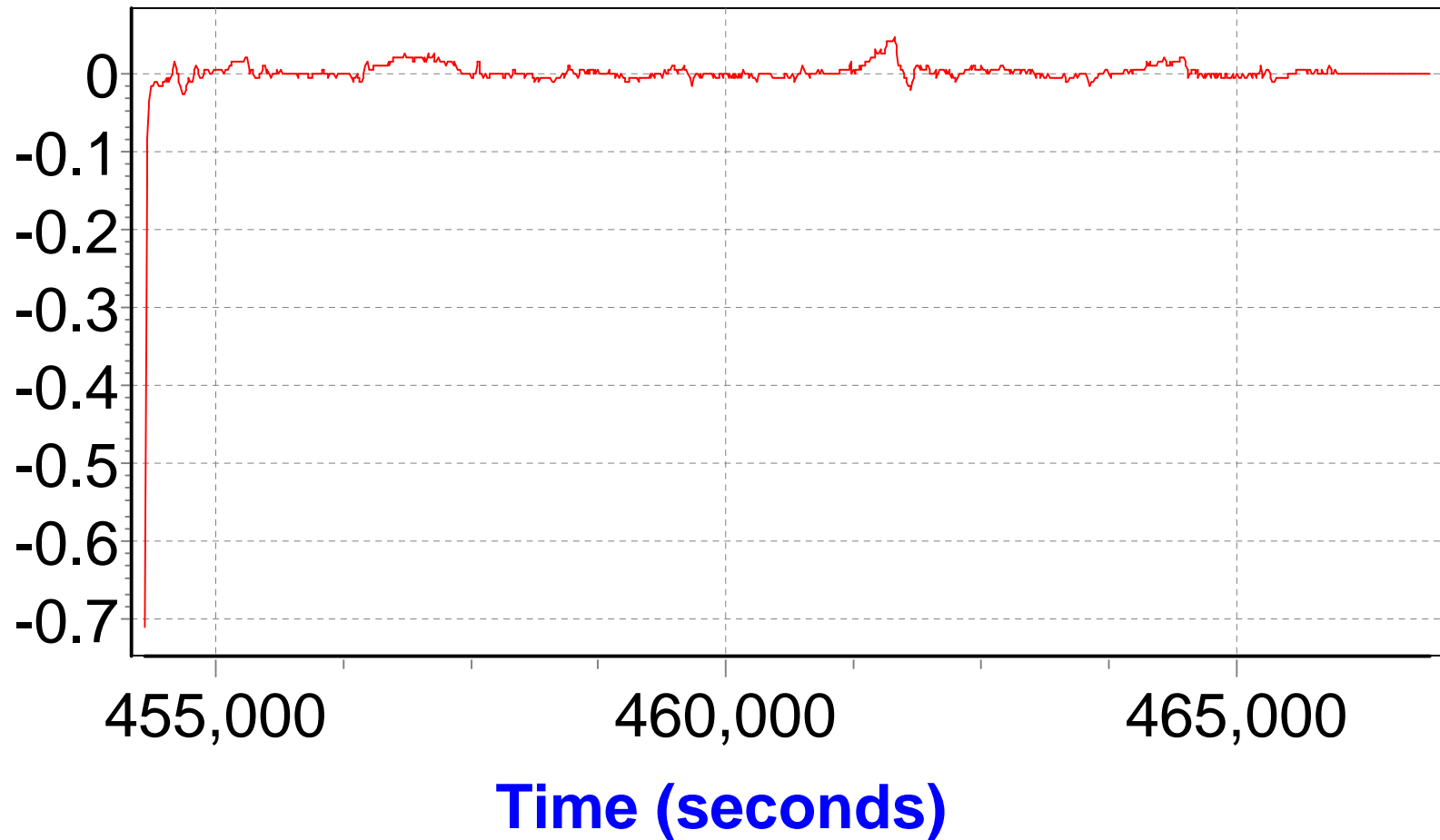
## S/D Navigator Z Position Error (meters)



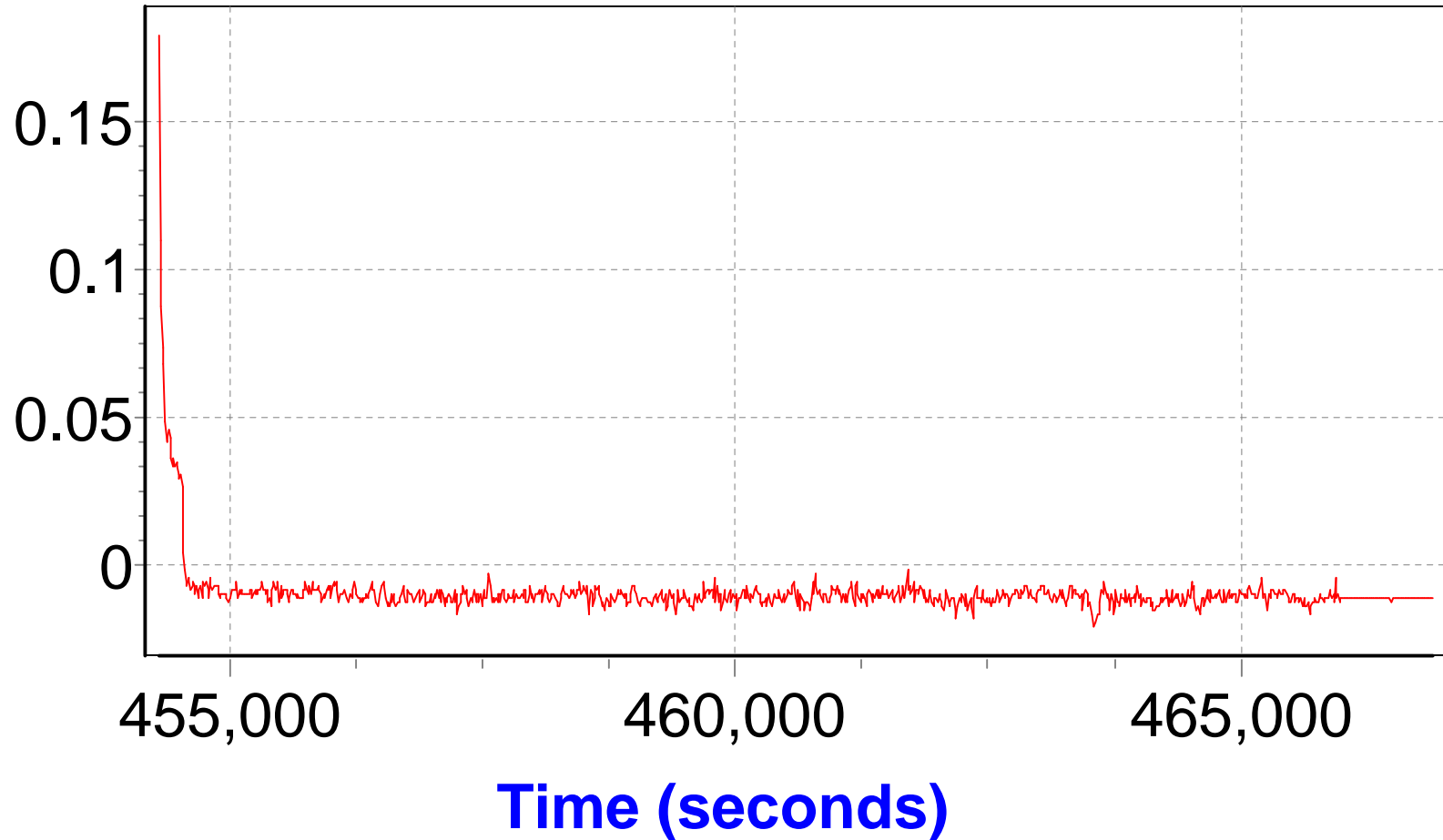
## S/D Navigator X Velocity Error (meters/seconds)



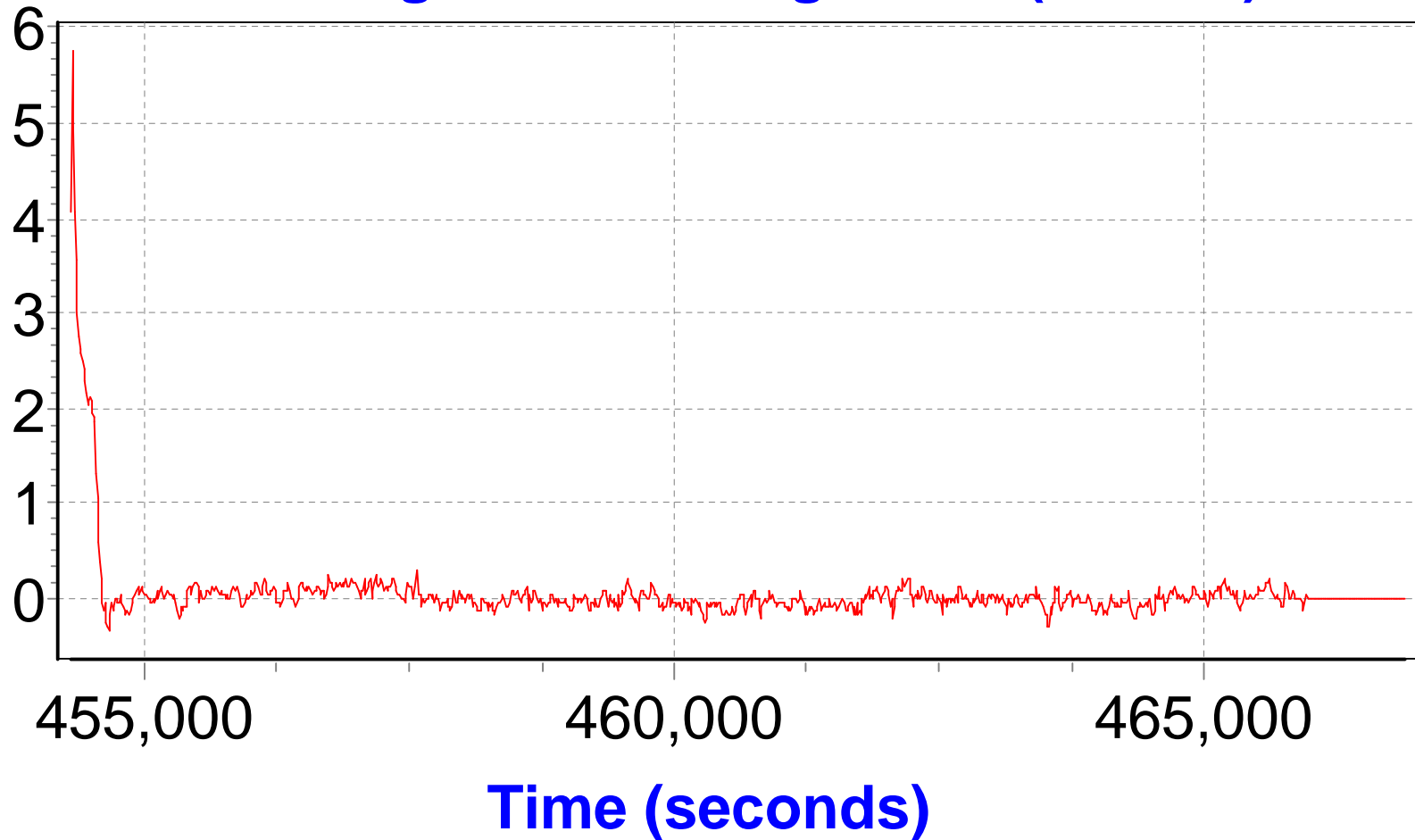
## S/D Navigator Y Velocity Error (meters/seconds)



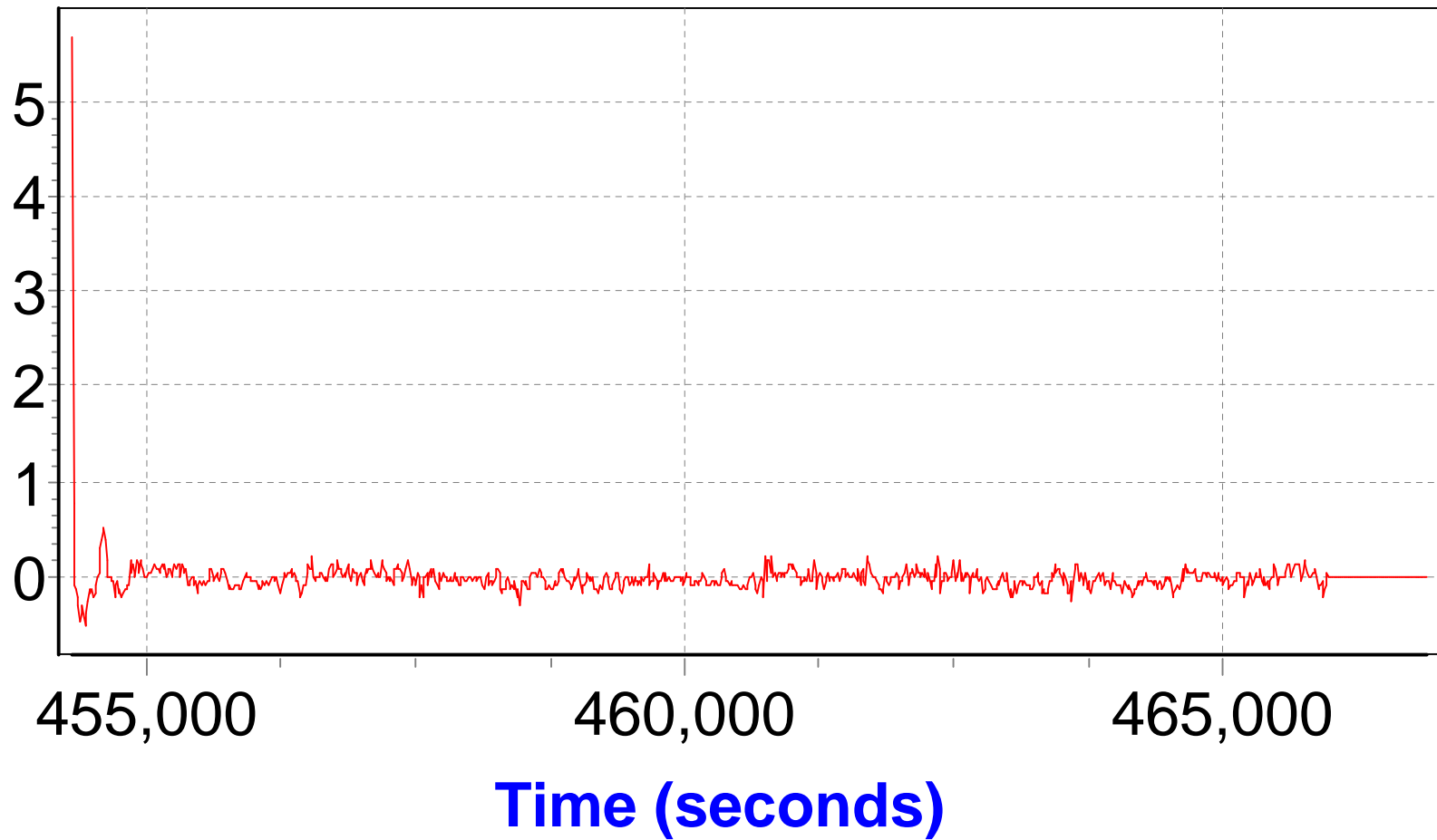
## S/D Navigator Z Velocity Error (meters/seconds)



## S/D Navigator X Misalignment (arcmin)

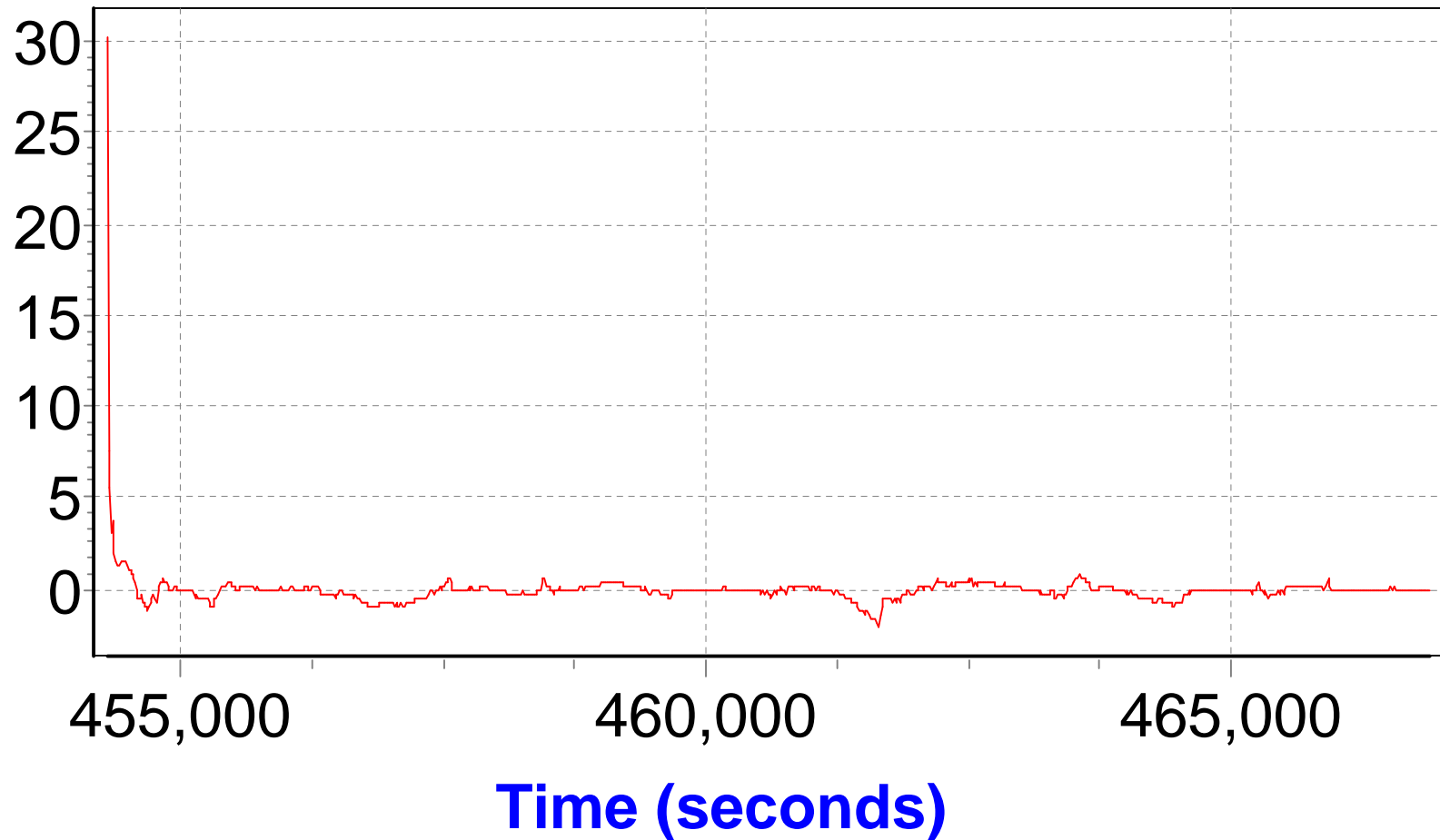


## S/D Navigator Y Misalignment (arcmin)

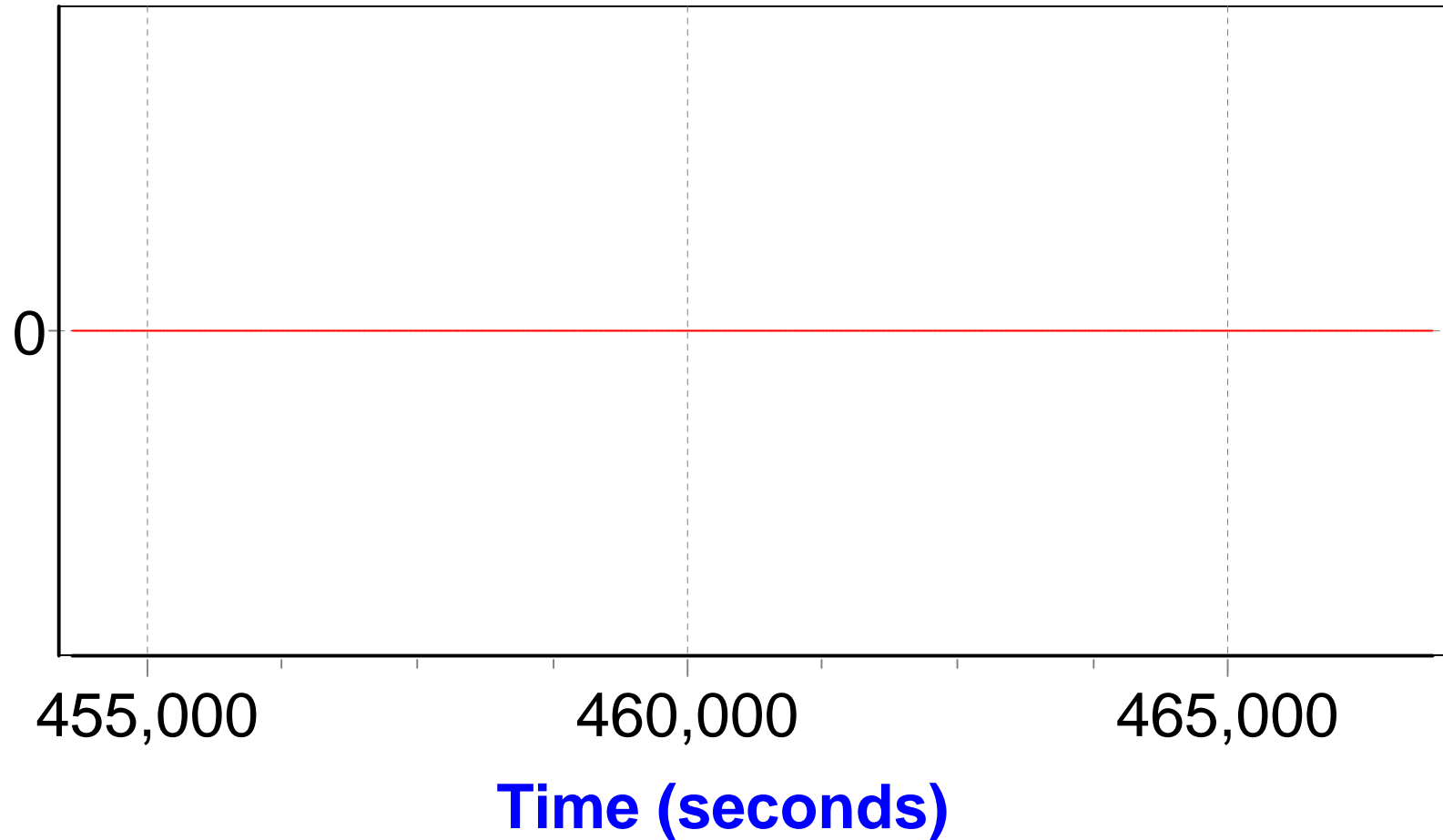




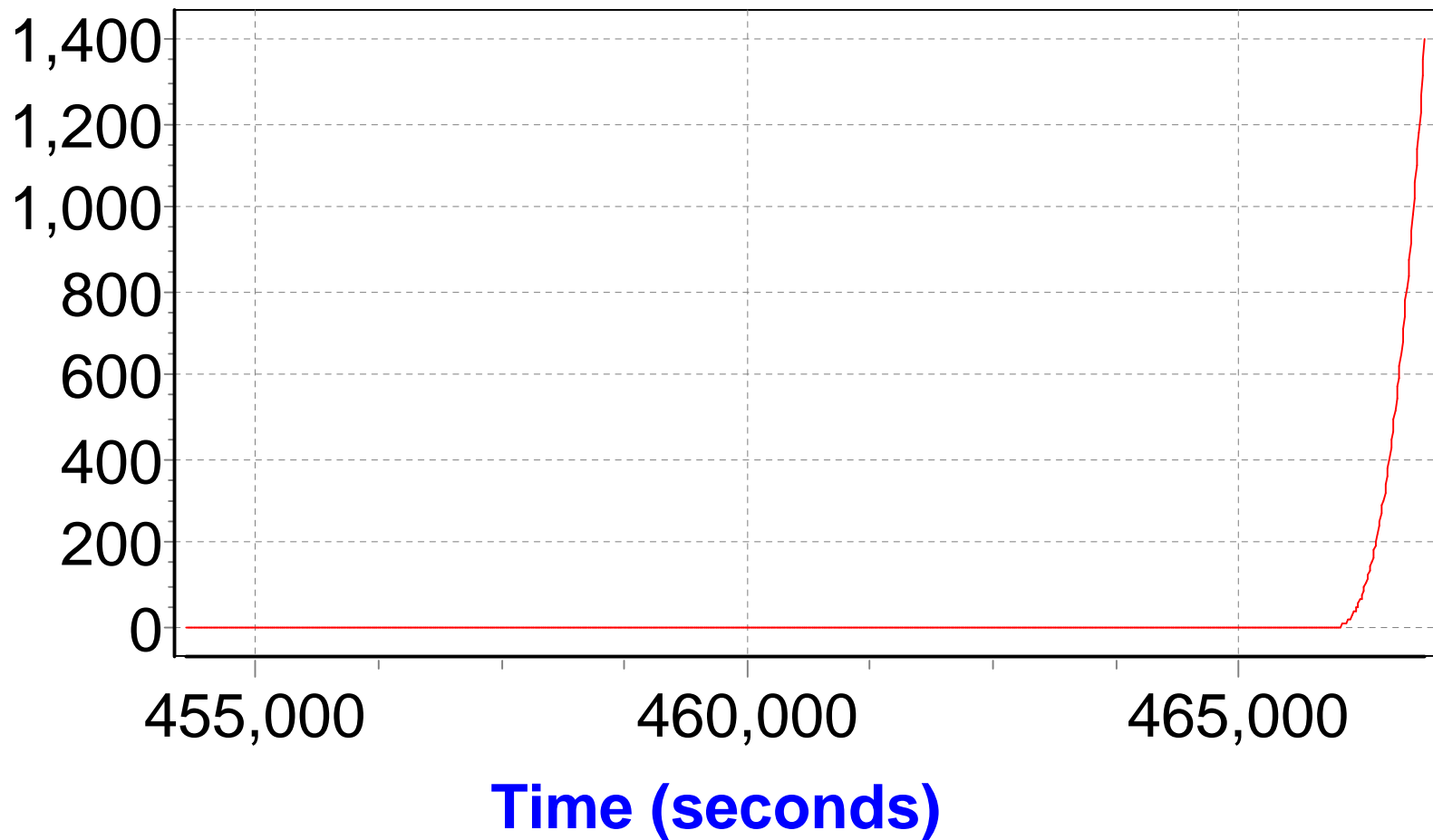
## S/D Navigator Z Misalignment (arcmin)



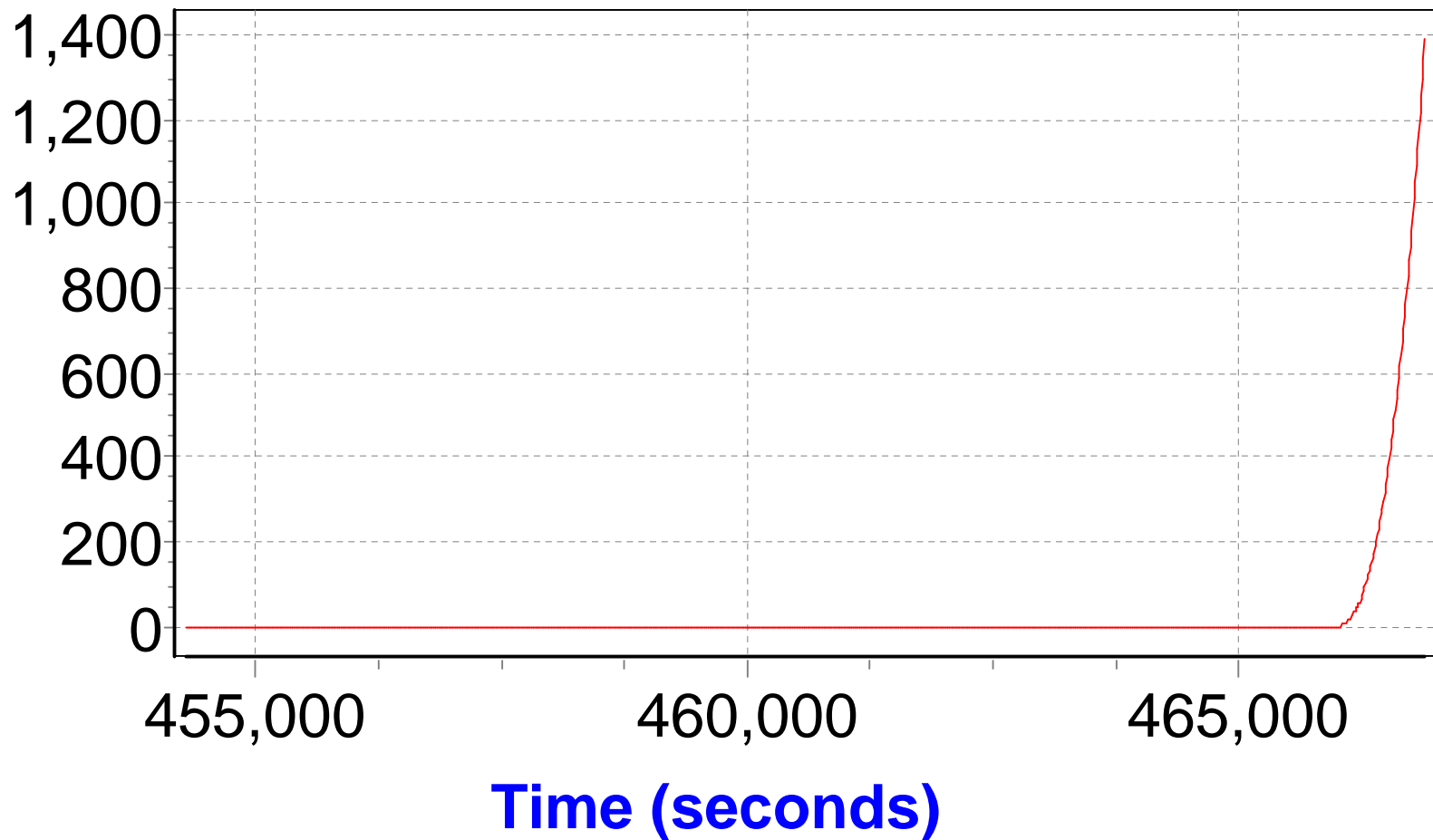
## S/D Navigator COS(Z Misalignment)-1 (radians)



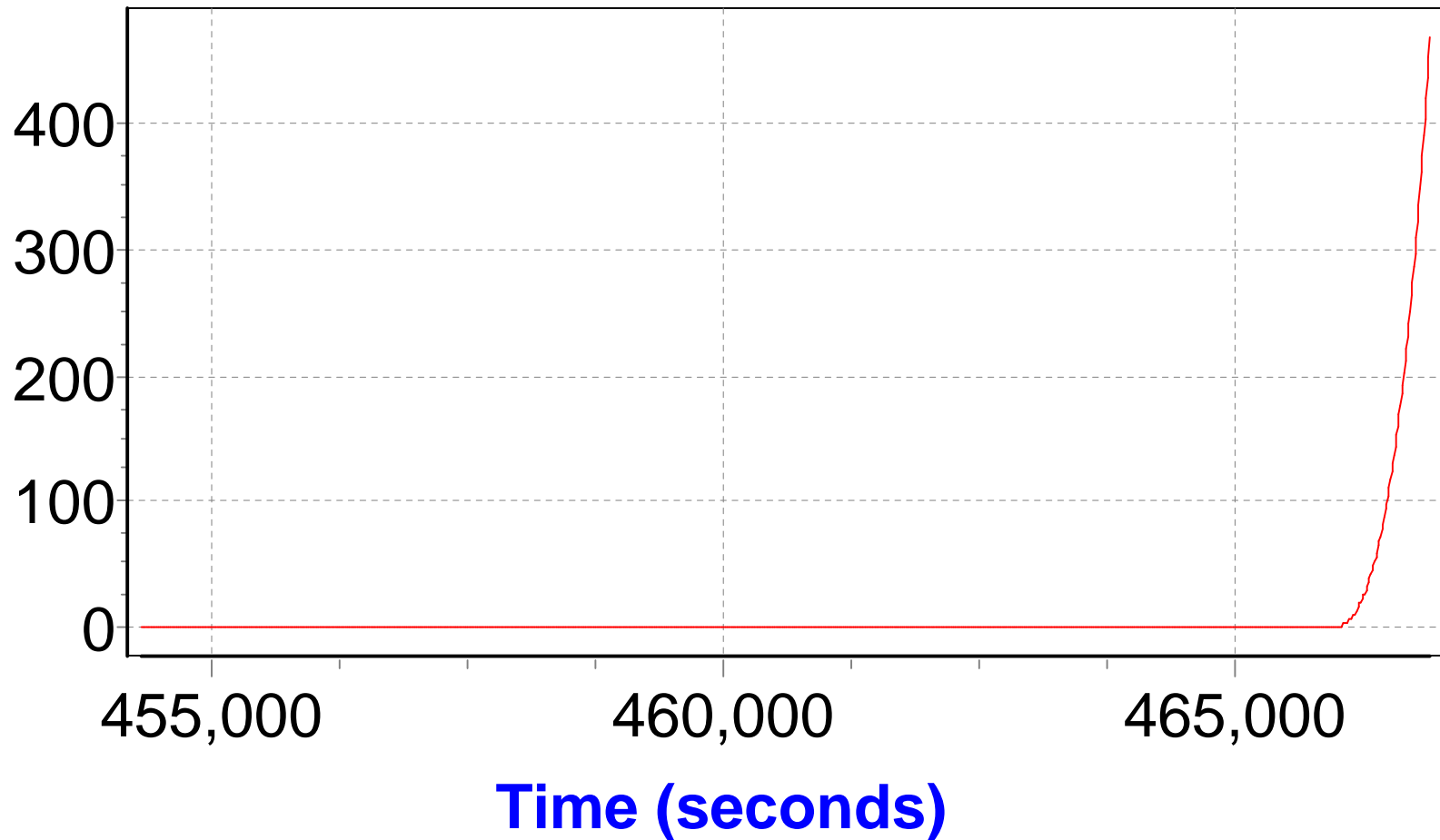
## S/D Navigator X Position RMS Error (meters)



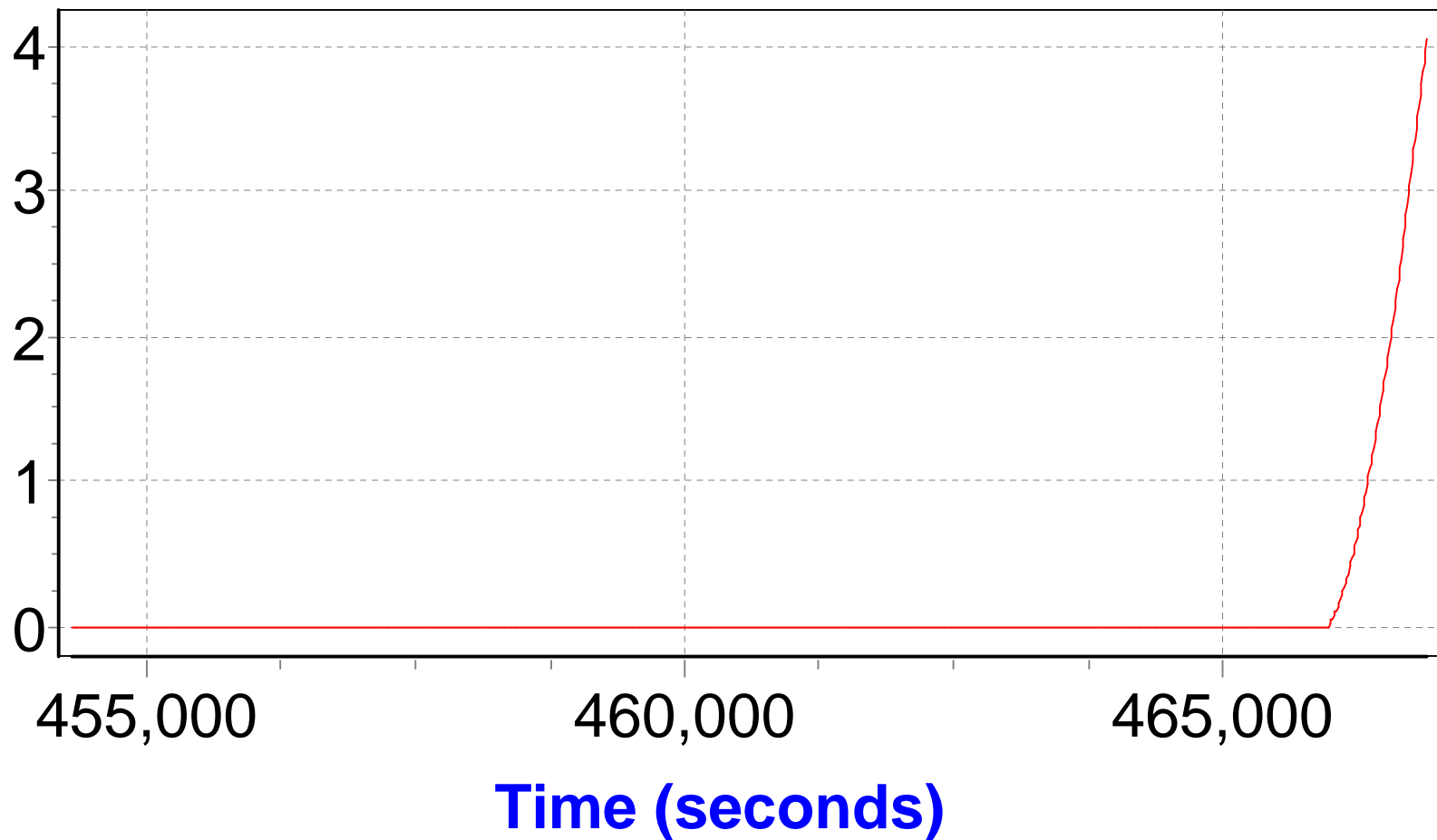
## S/D Navigator Y Position RMS Error (meters)



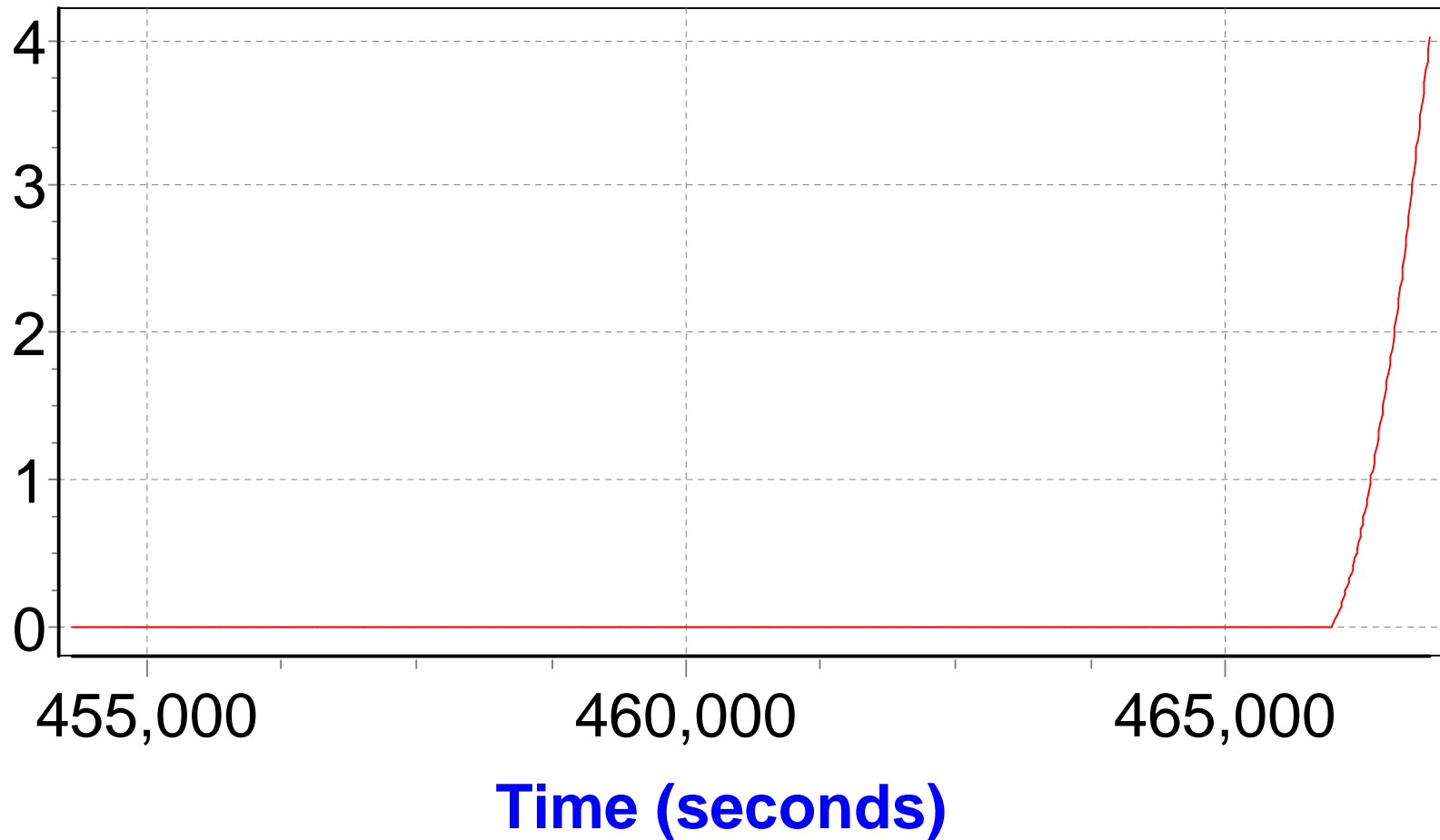
## S/D Navigator Z Position RMS Error (meters)



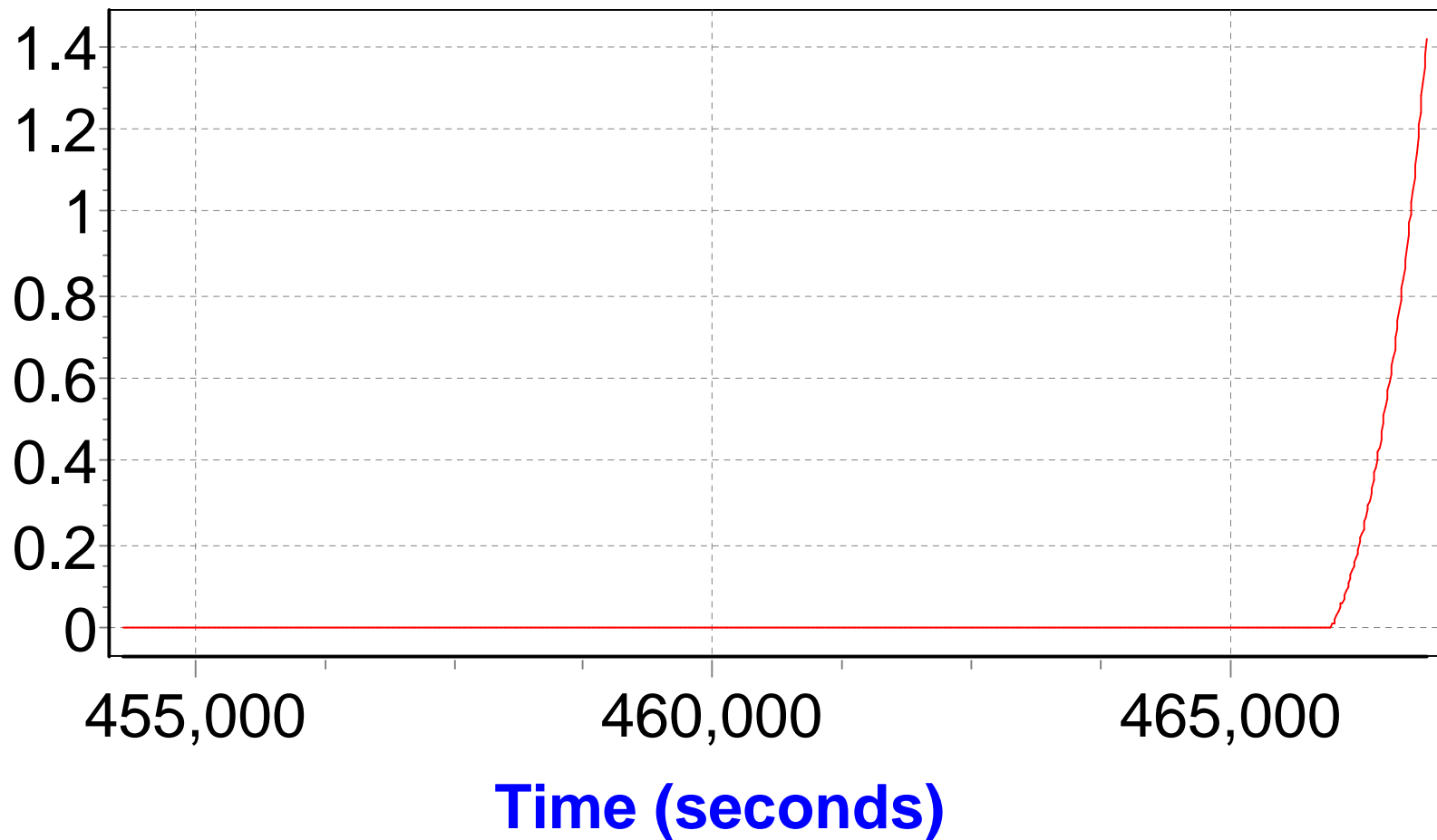
## S/D Navigator X Velocity RMS Error (meters/seconds)



## S/D Navigator Y Velocity RMS Error (meters/seconds)

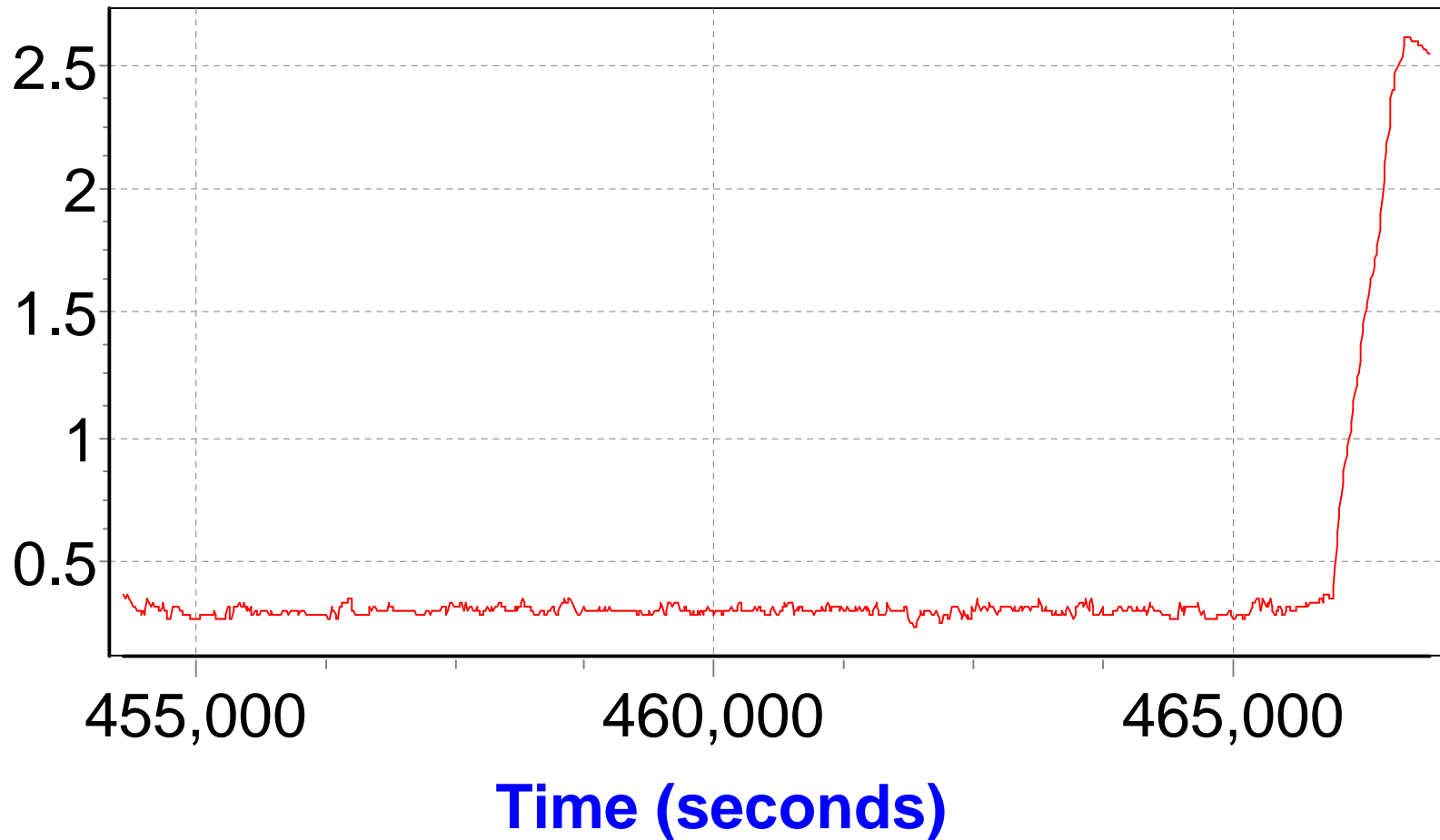


## S/D Navigator Z Velocity RMS Error (meters/seconds)

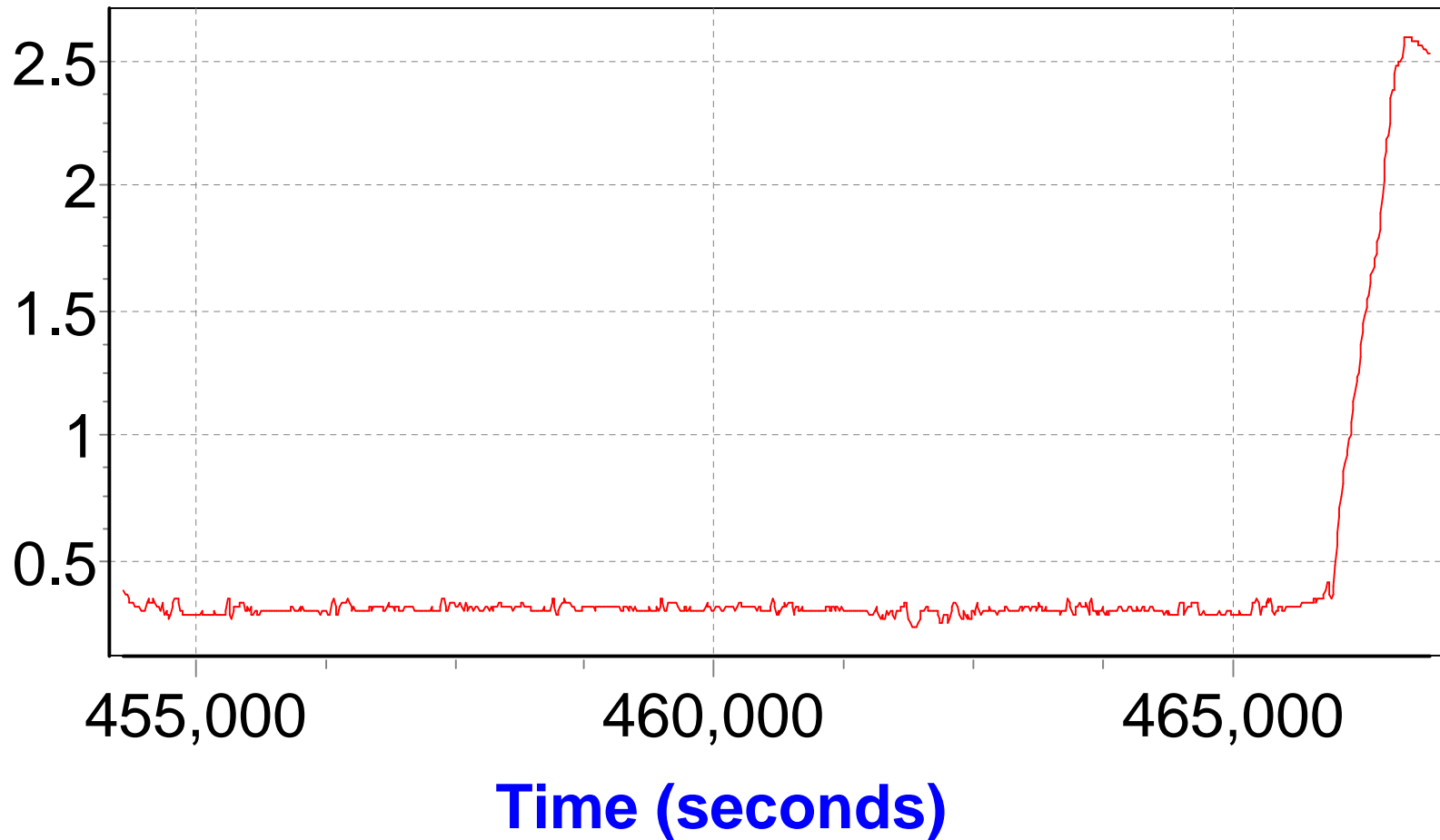




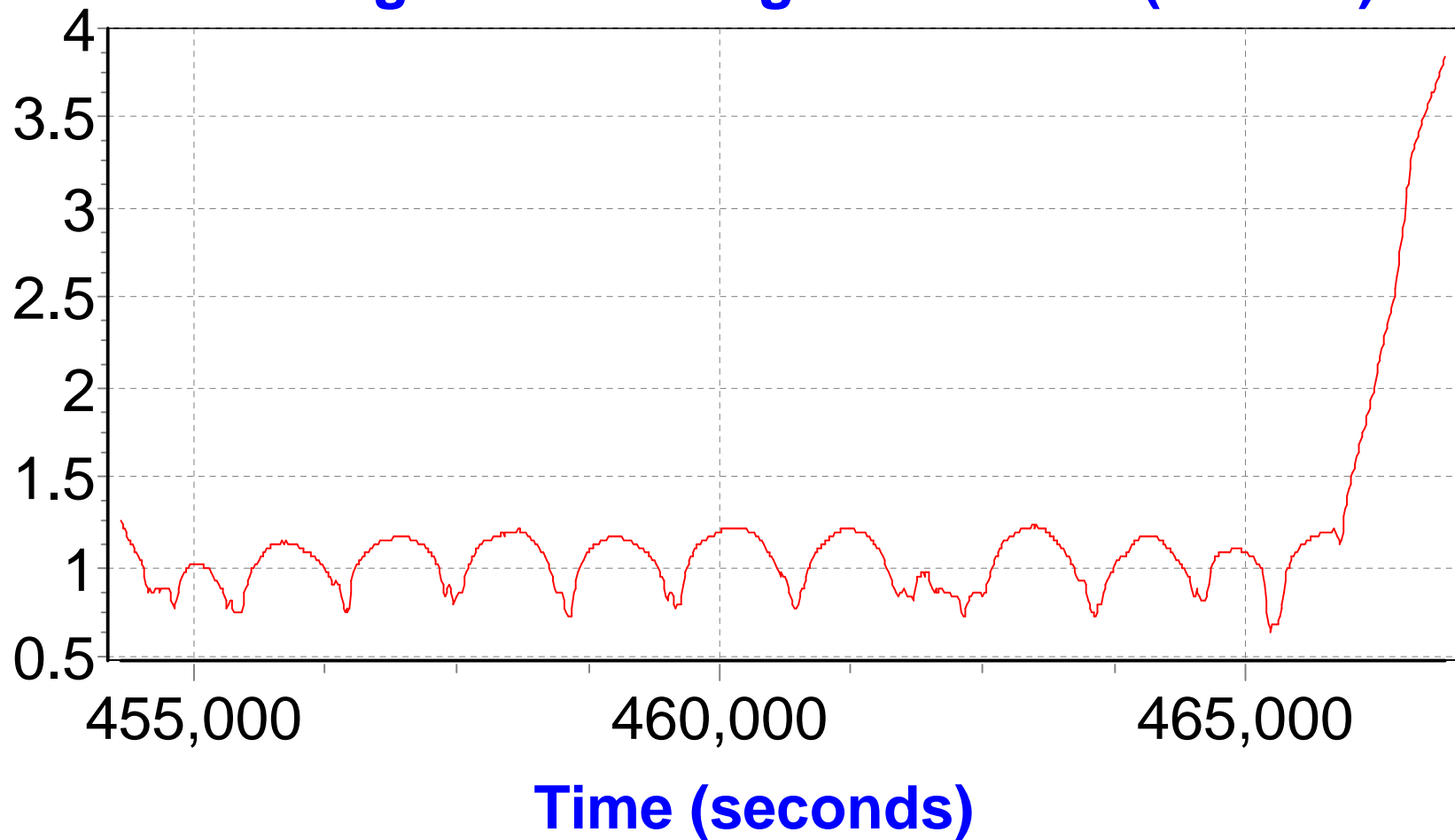
## S/D Navigator X Misalignment RMS (arcmin)



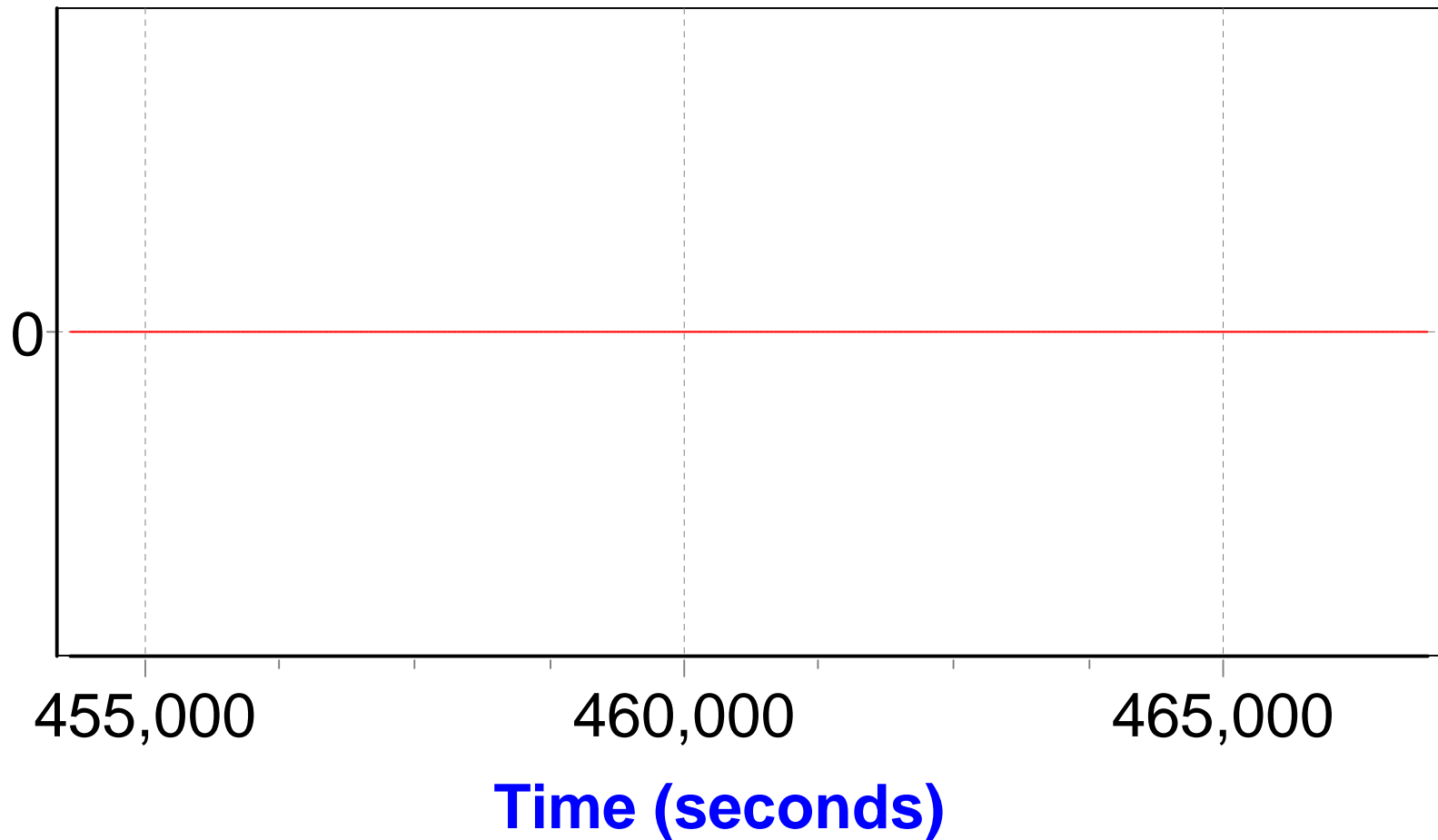
## S/D Navigator Y Misalignment RMS (arcmin)



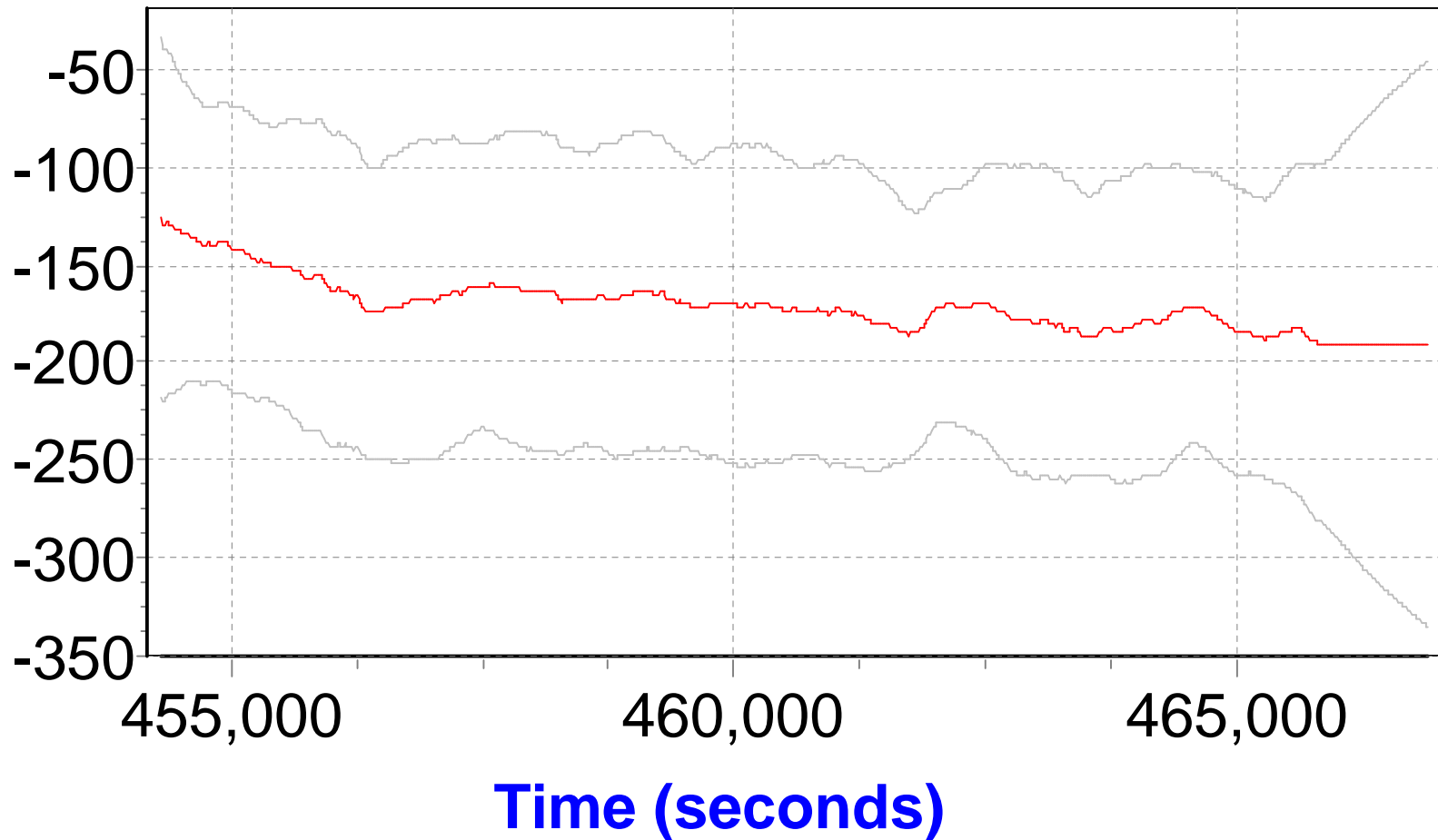
## S/D Navigator Z Misalignment RMS (arcmin)



## S/D Navigator COS(Z Misalignment)-1 RMS (radians)



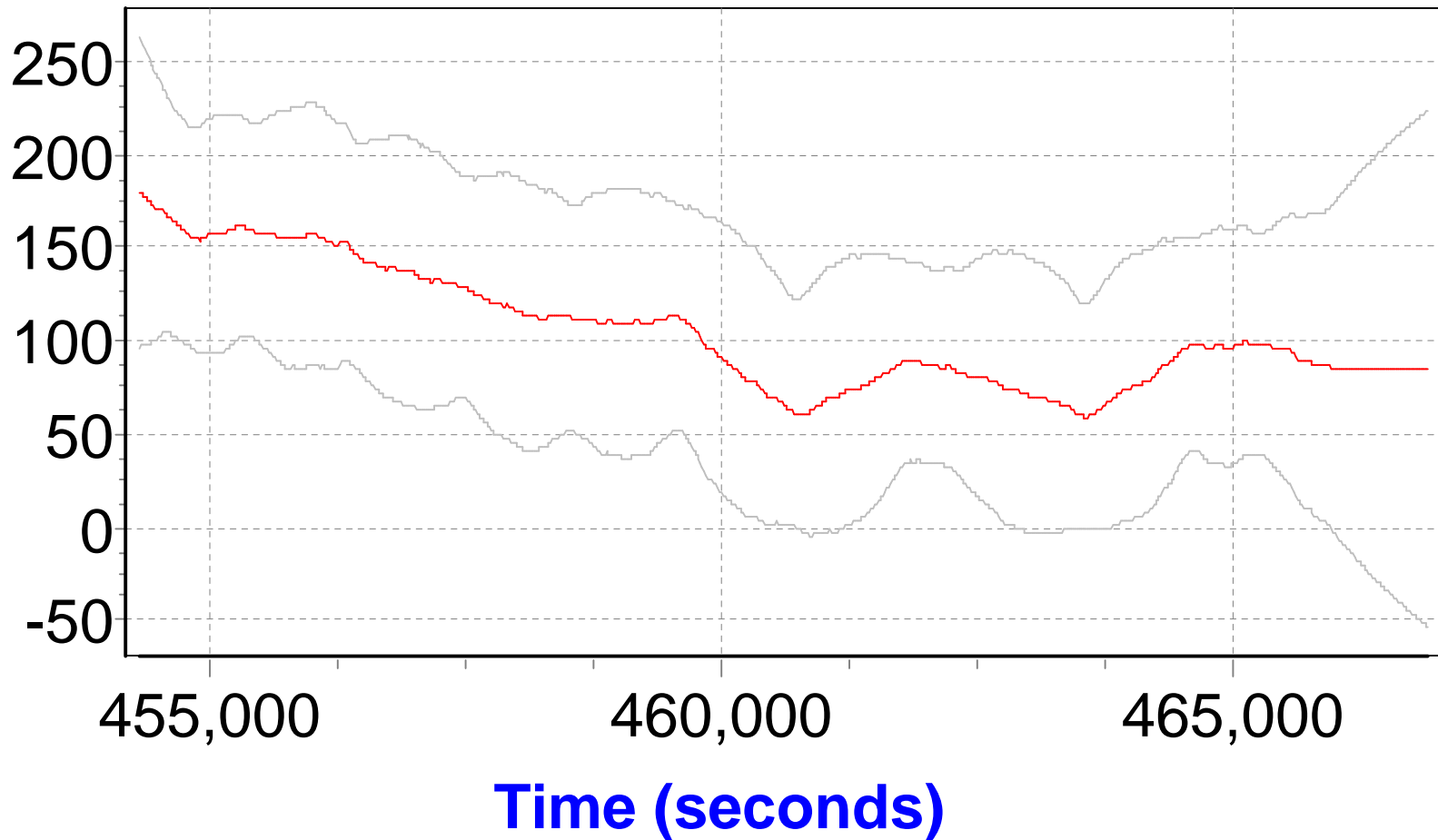
## X Accelerometer Bias (micro-g)



G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat

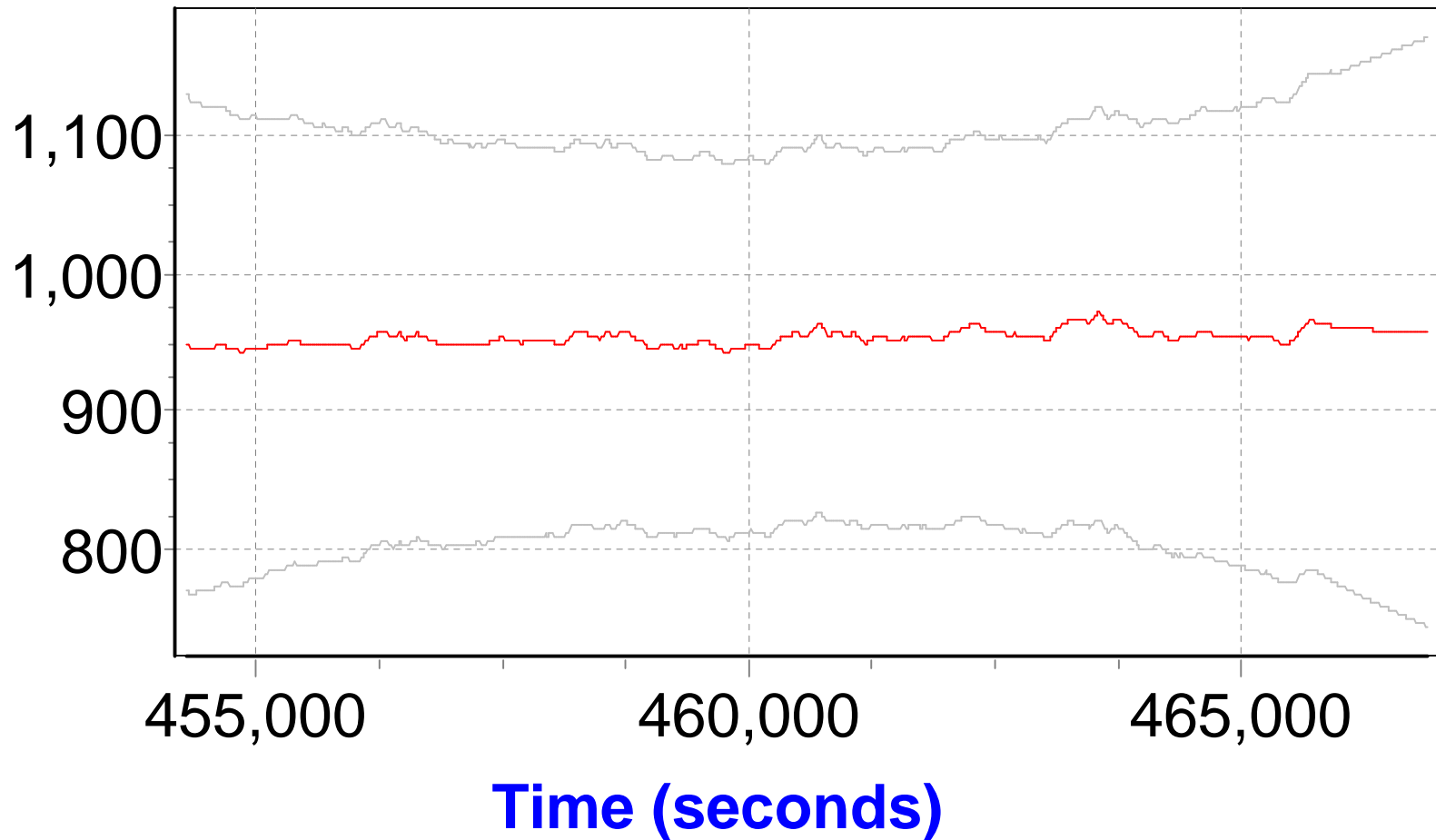
## Y Accelerometer Bias (micro-g)



G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat

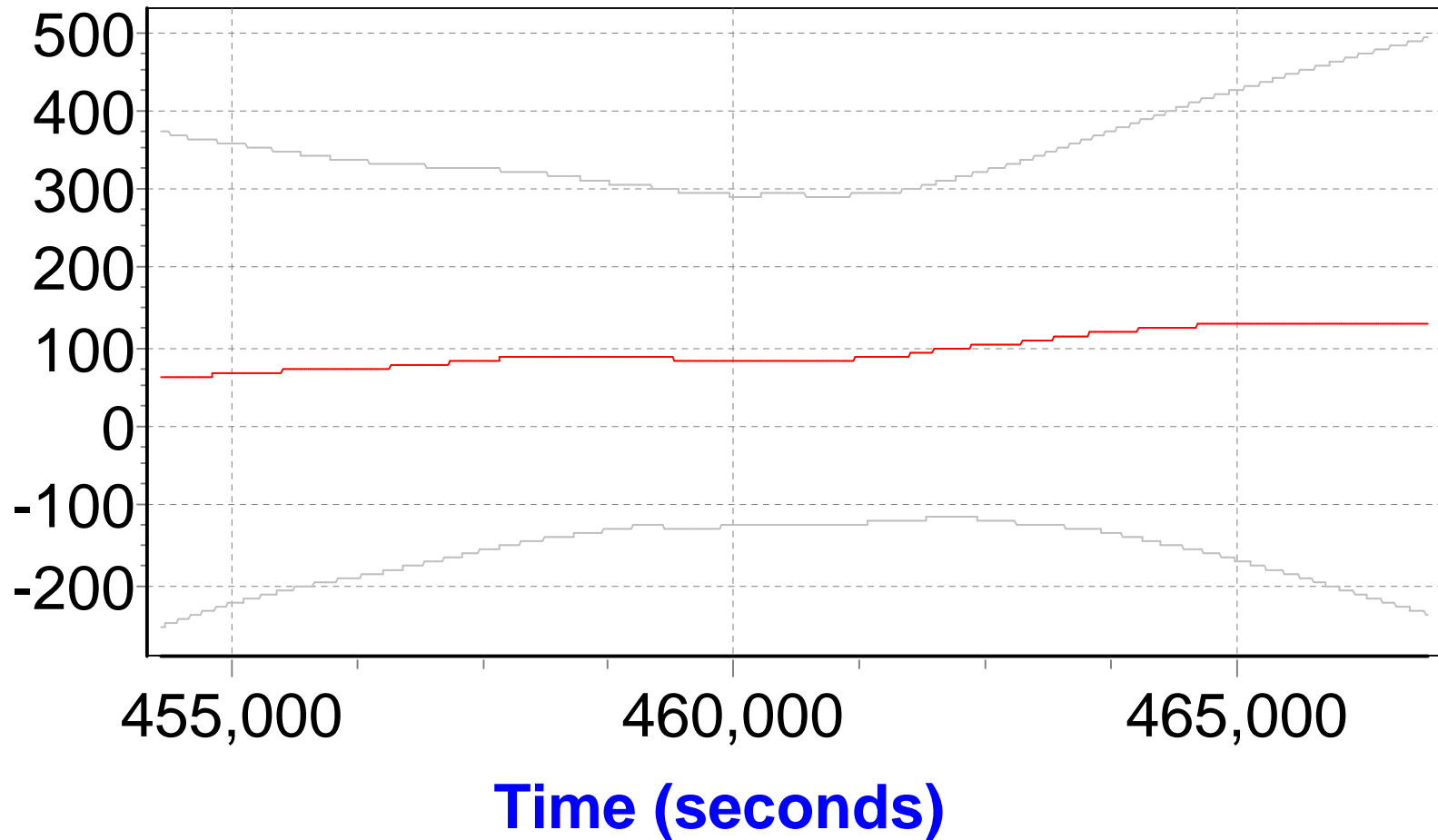
## Z Accelerometer Bias (micro-g)



G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat

## X Accelerometer Scale Factor Error (ppm)

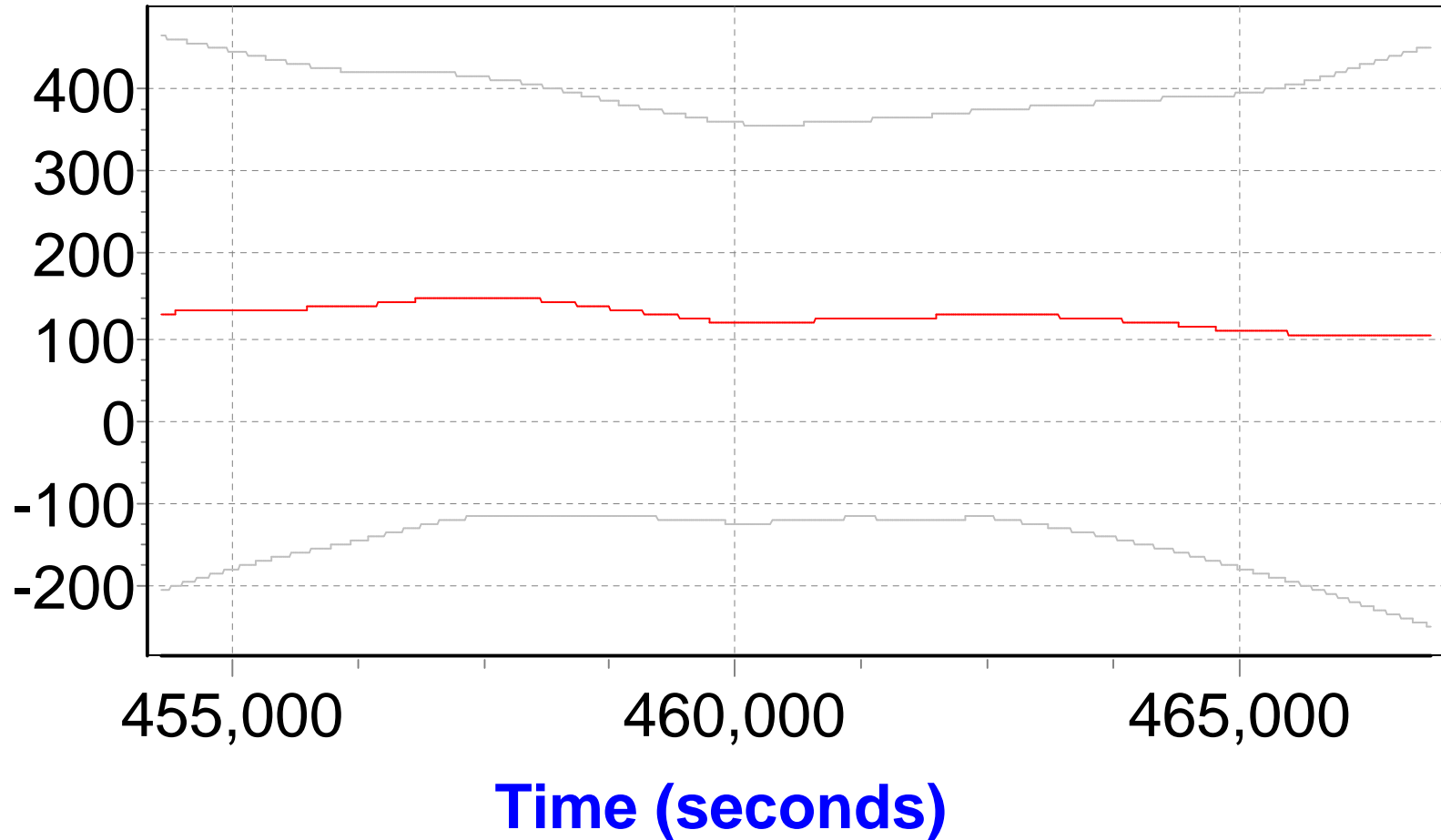


G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat

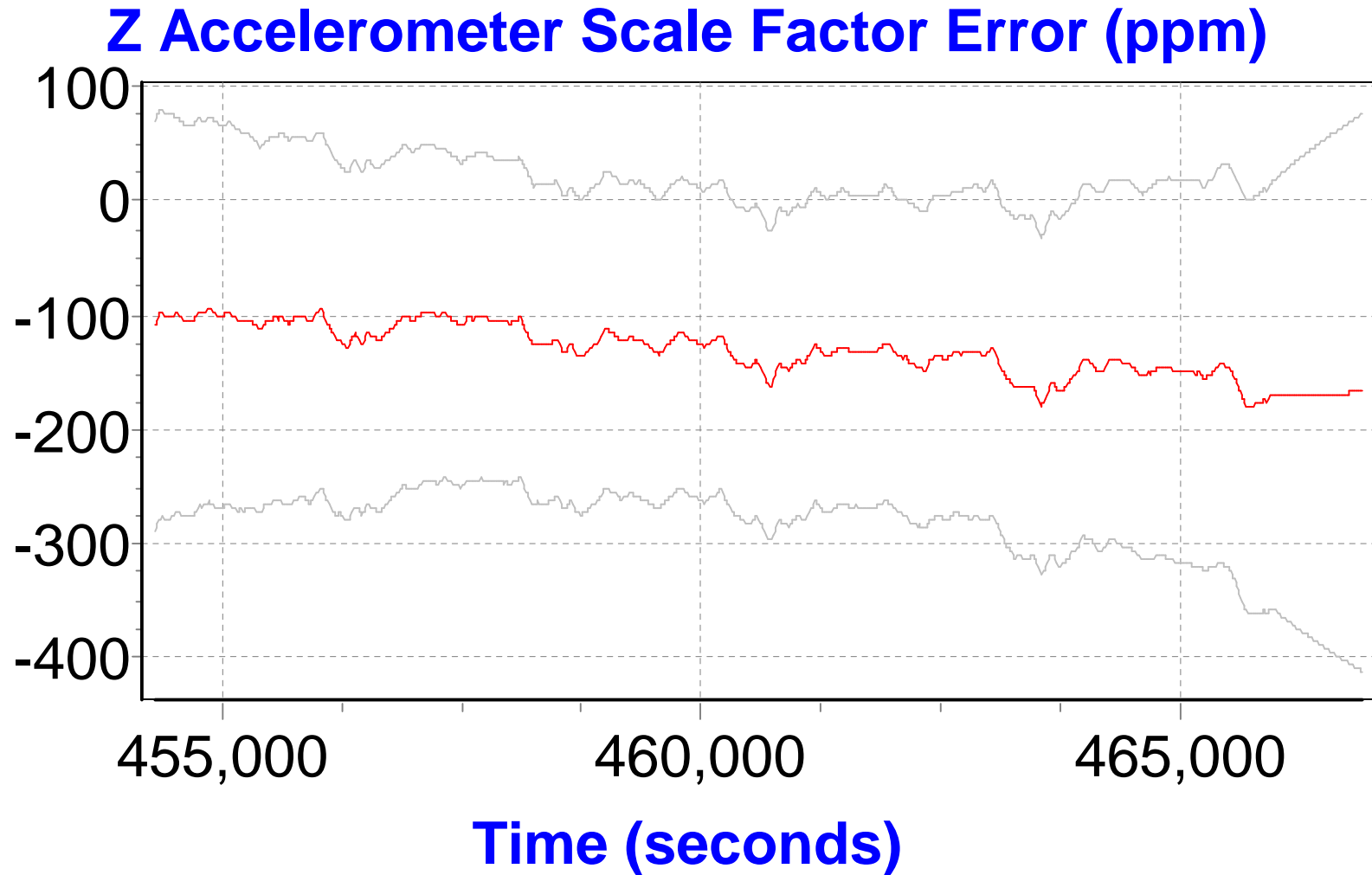


## Y Accelerometer Scale Factor Error (ppm)

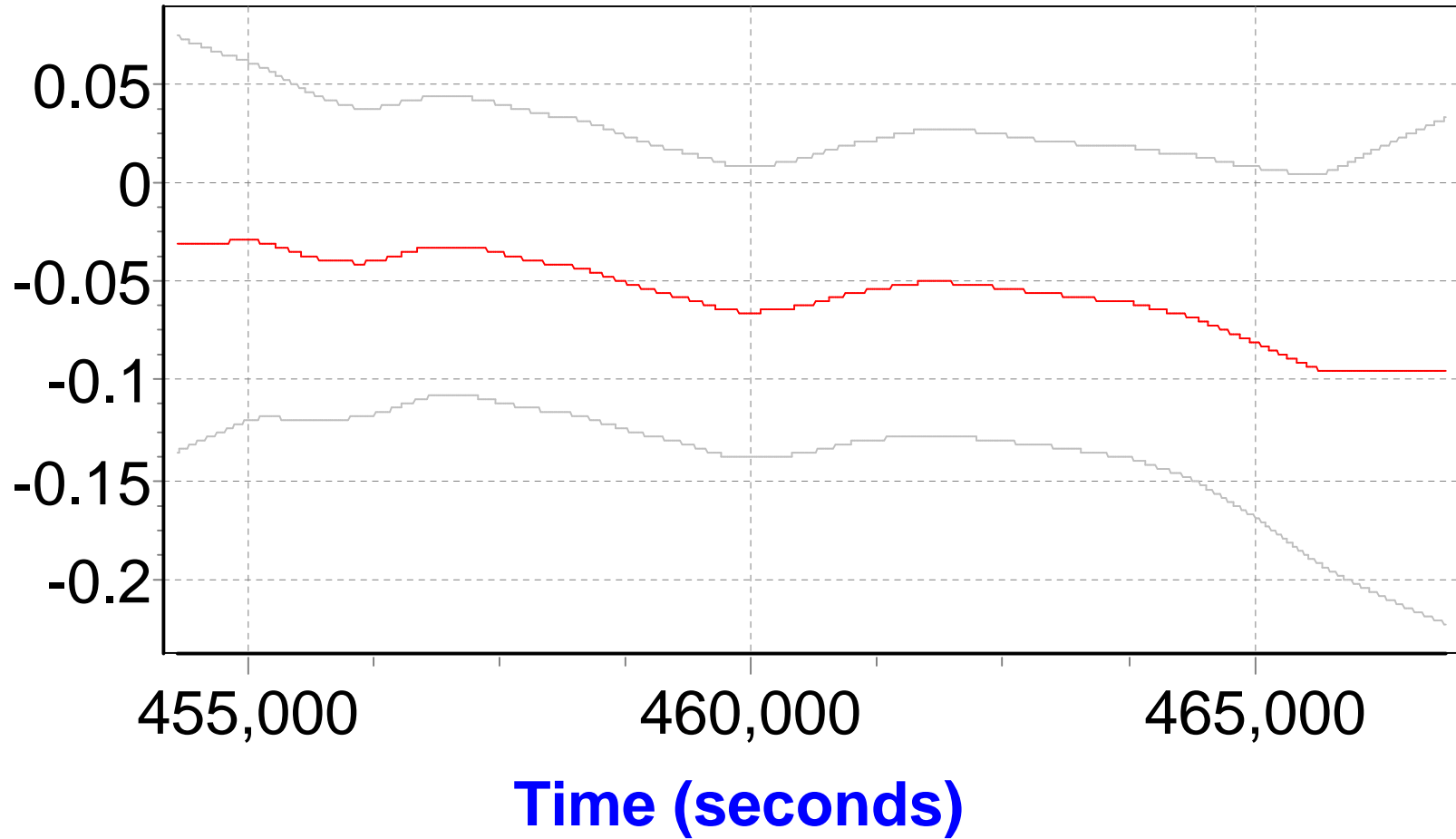


G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

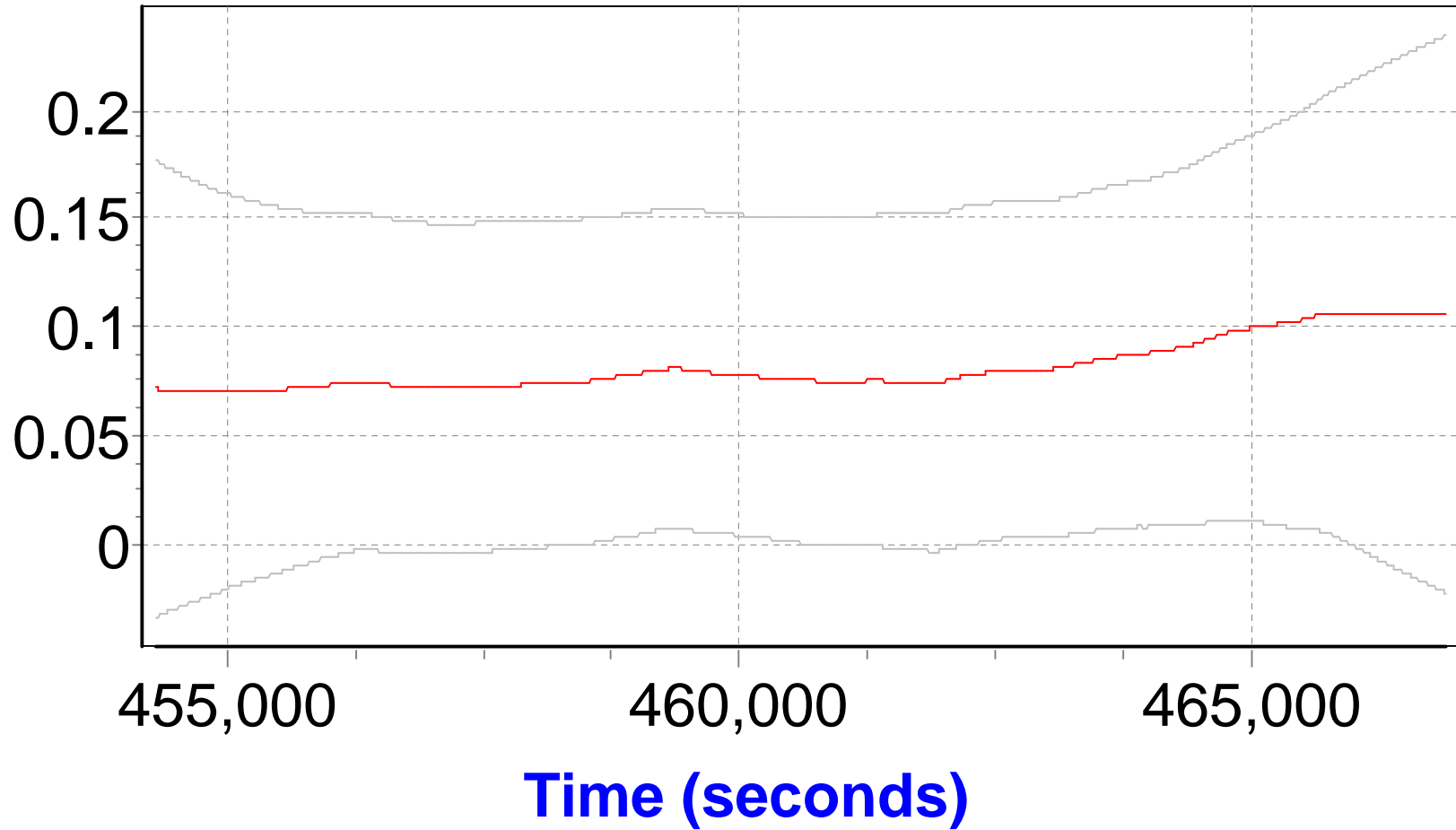
G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat



## X Gyro Bias (degrees/hour)



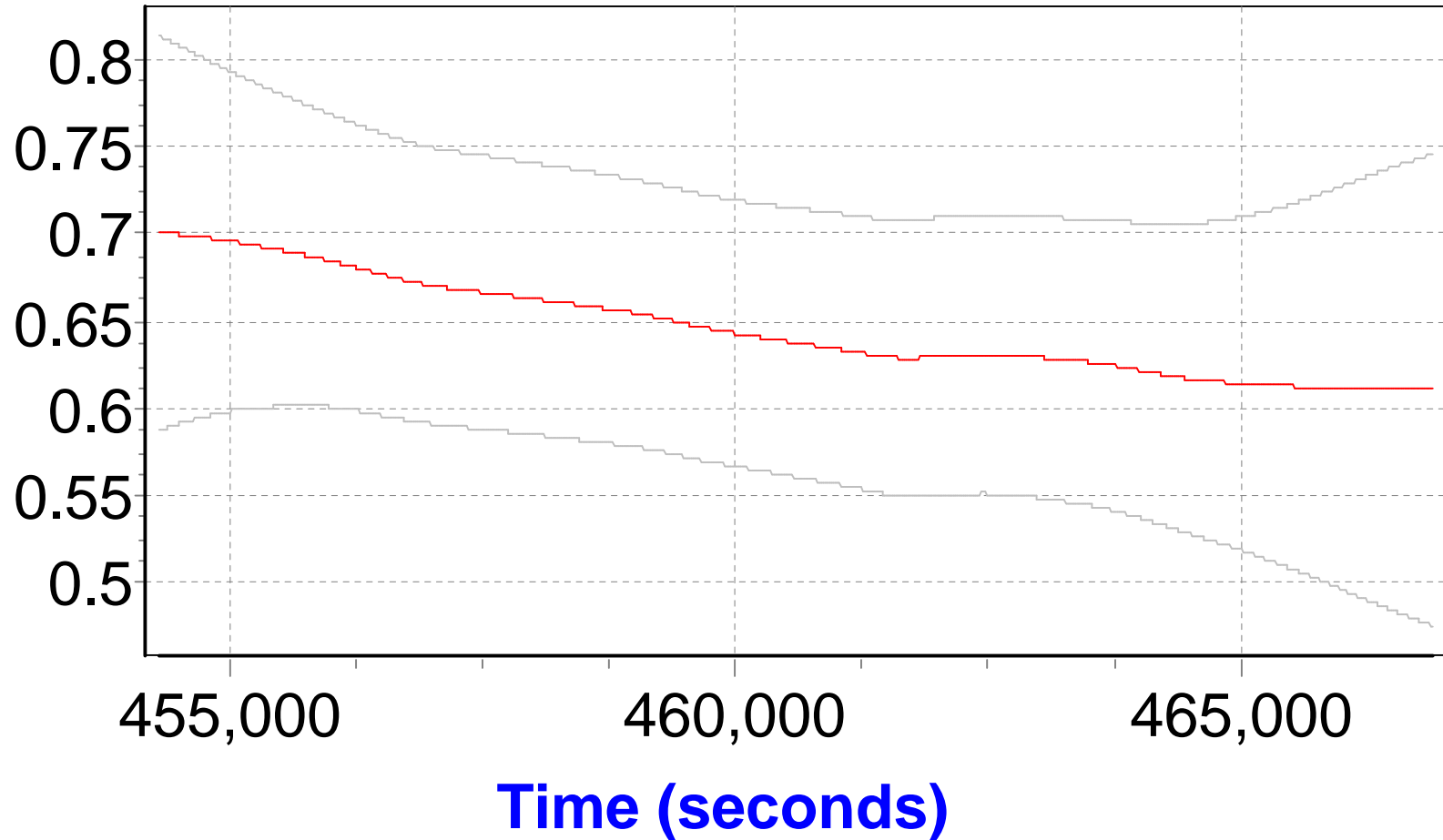
## Y Gyro Bias (degrees/hour)



G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat

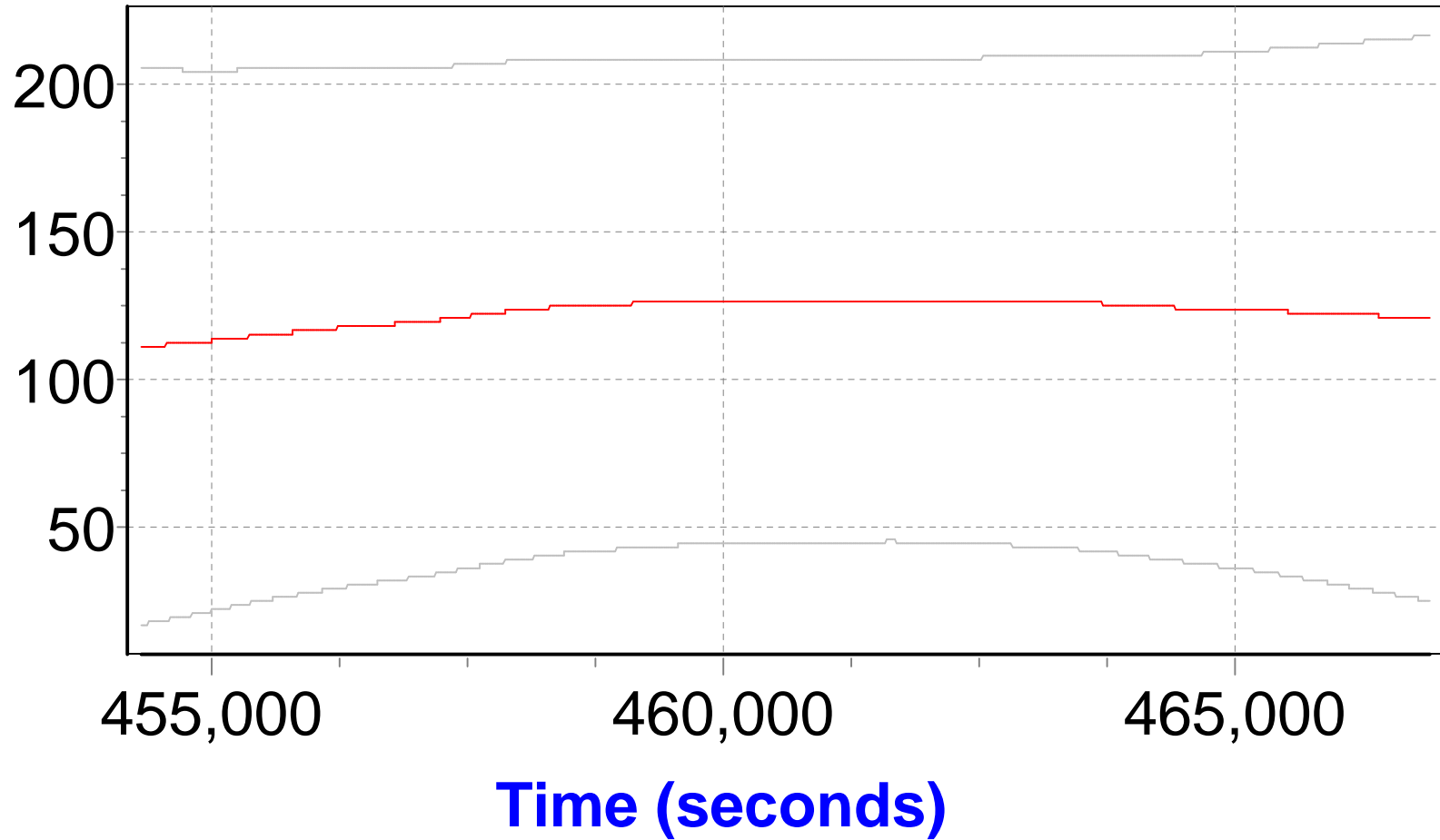
## Z Gyro Bias (degrees/hour)



G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat

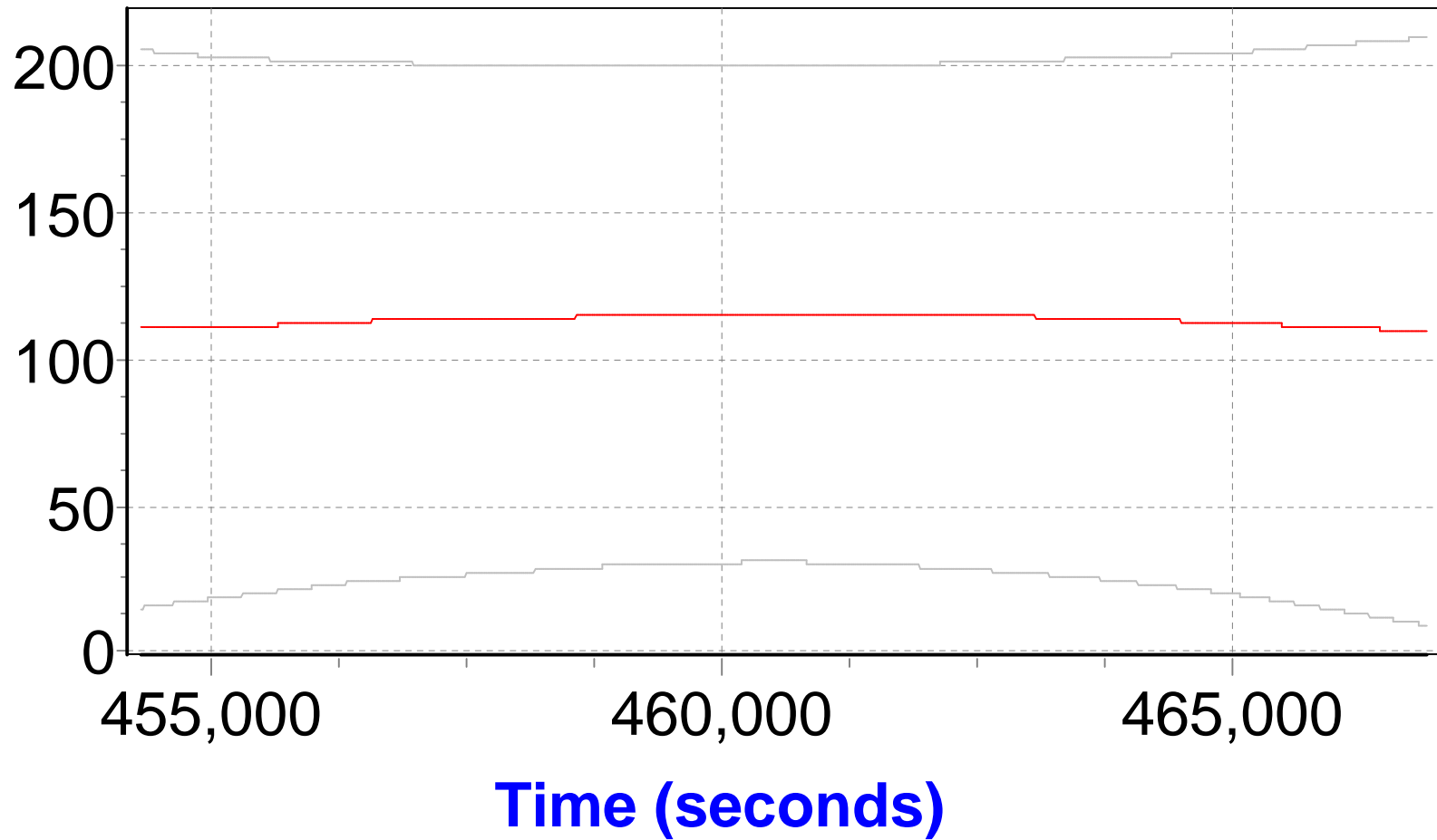
## X Gyro Scale Factor Error (ppm)



G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat

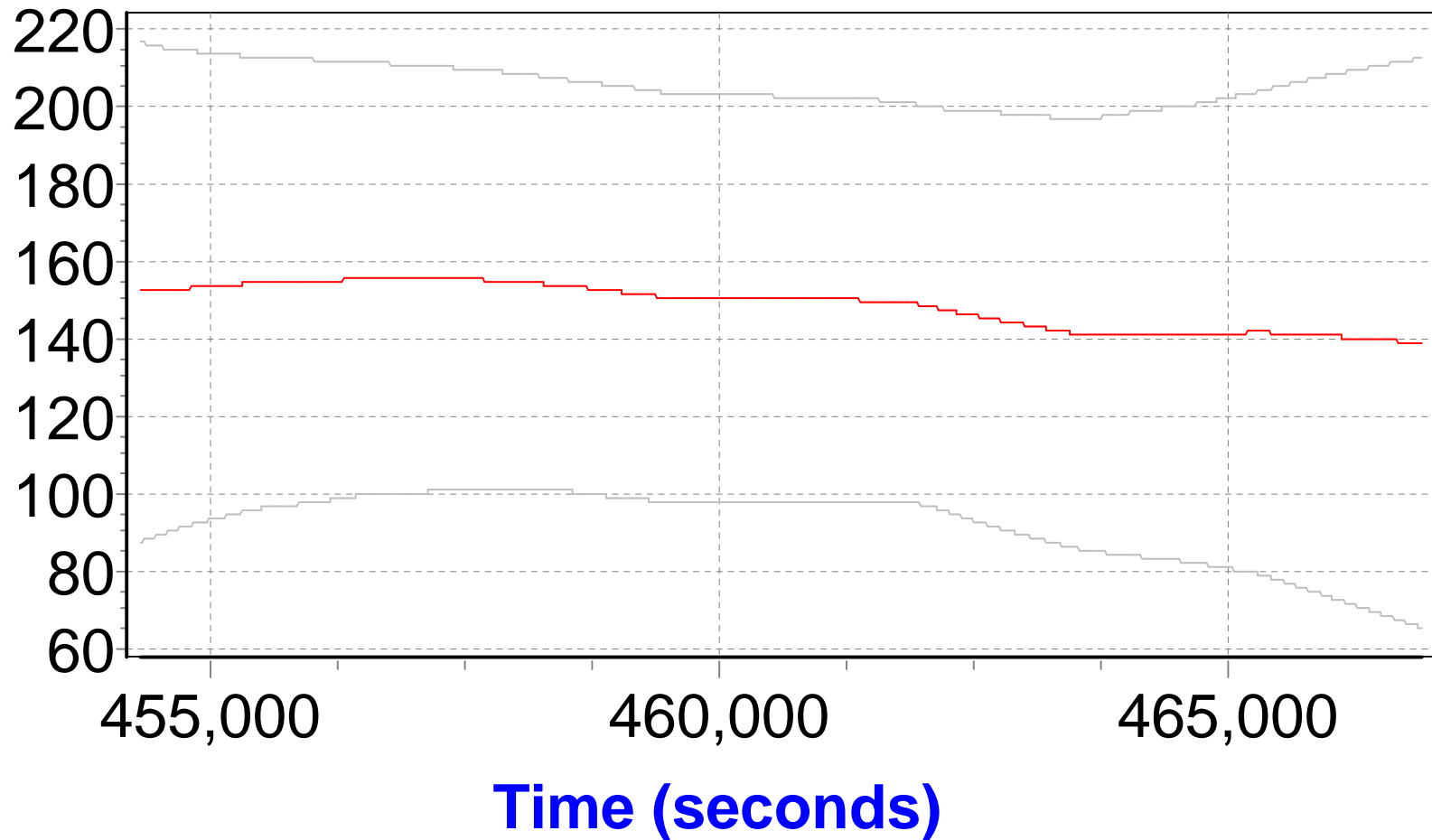
## Y Gyro Scale Factor Error (ppm)



G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat

## Z Gyro Scale Factor Error (ppm)



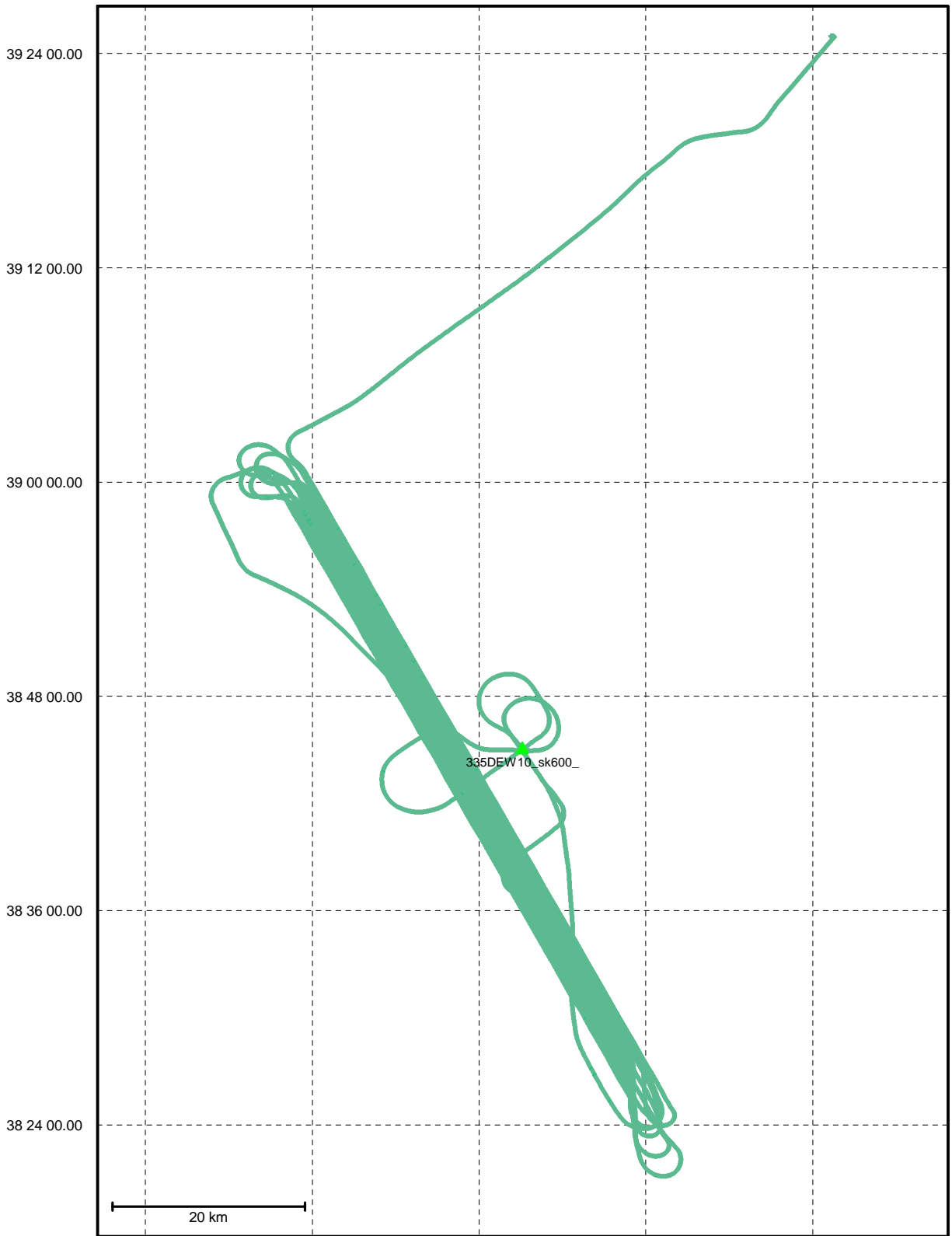
G:\o112096c\3\_Processed\Extract\smers\_o112096c.dat

G:\o112096c\3\_Processed\Extract\smrms\_o112096c.dat



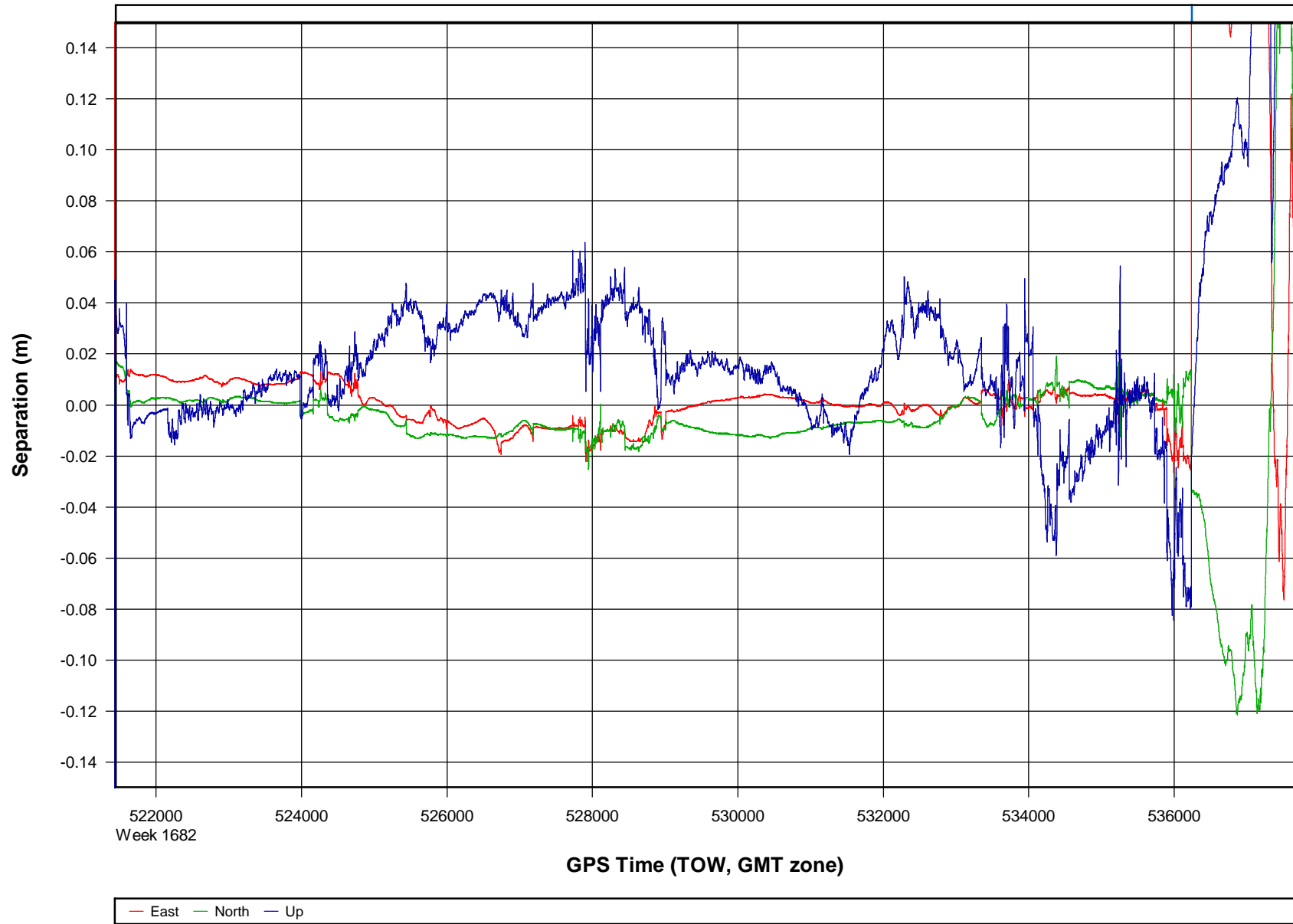
# Combined - Map Run (1)

Geographic, DMS

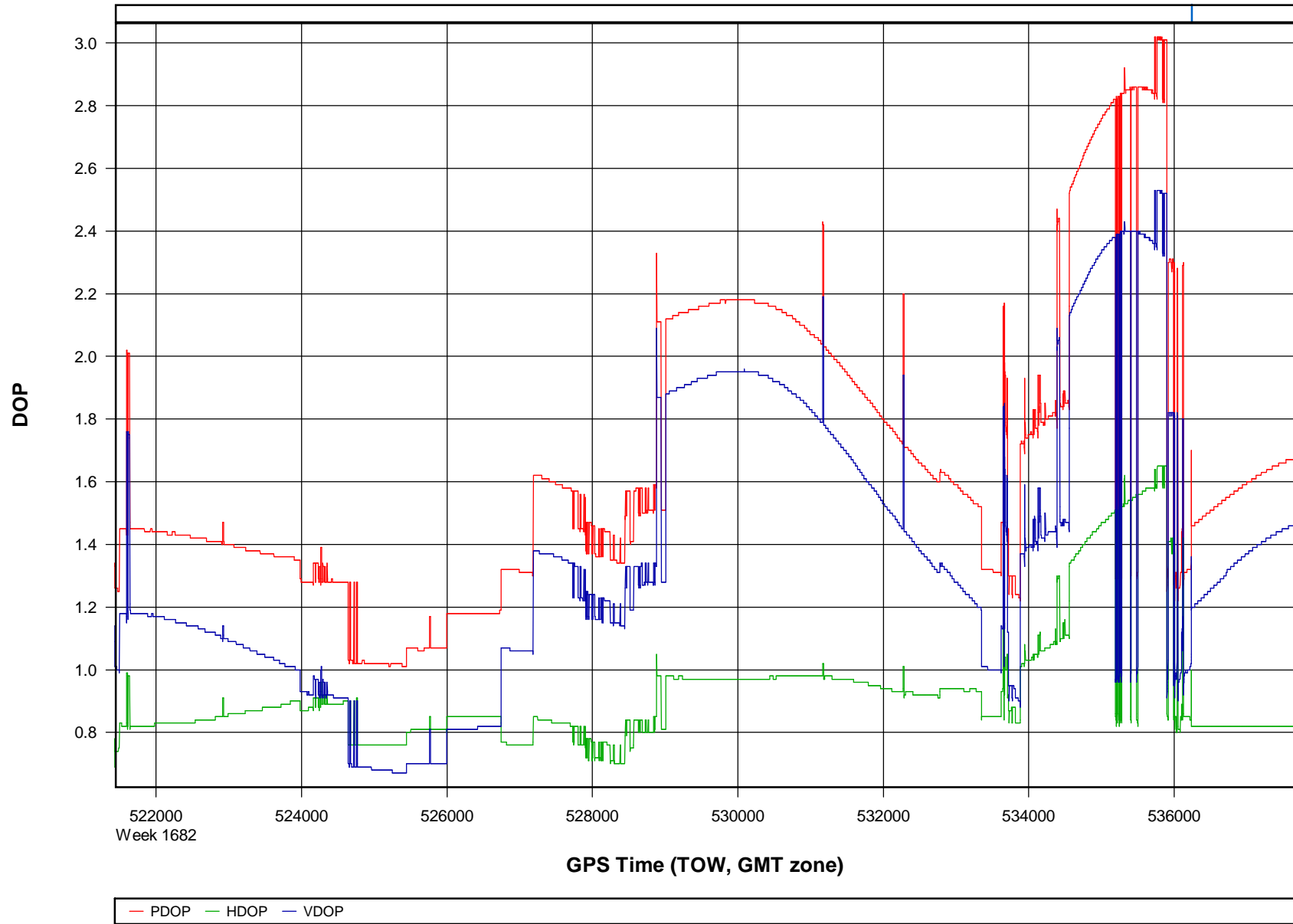


+ Ukn + Q1 + Q2 + Q3 + Q4 + Q5 + Q6 ▲ Master

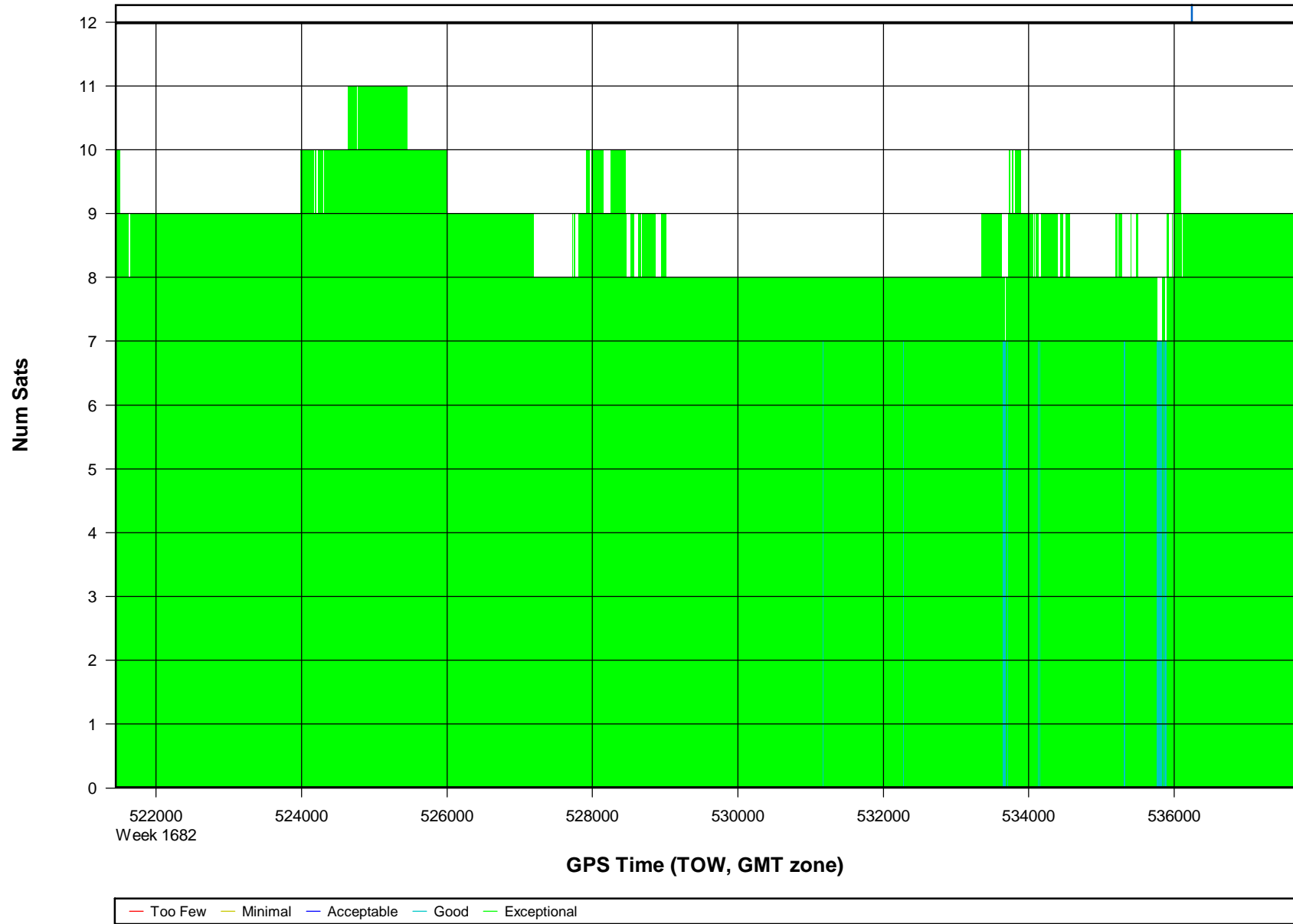
### o112097a [Combined] - Forward/Reverse or Combined Separation Plot



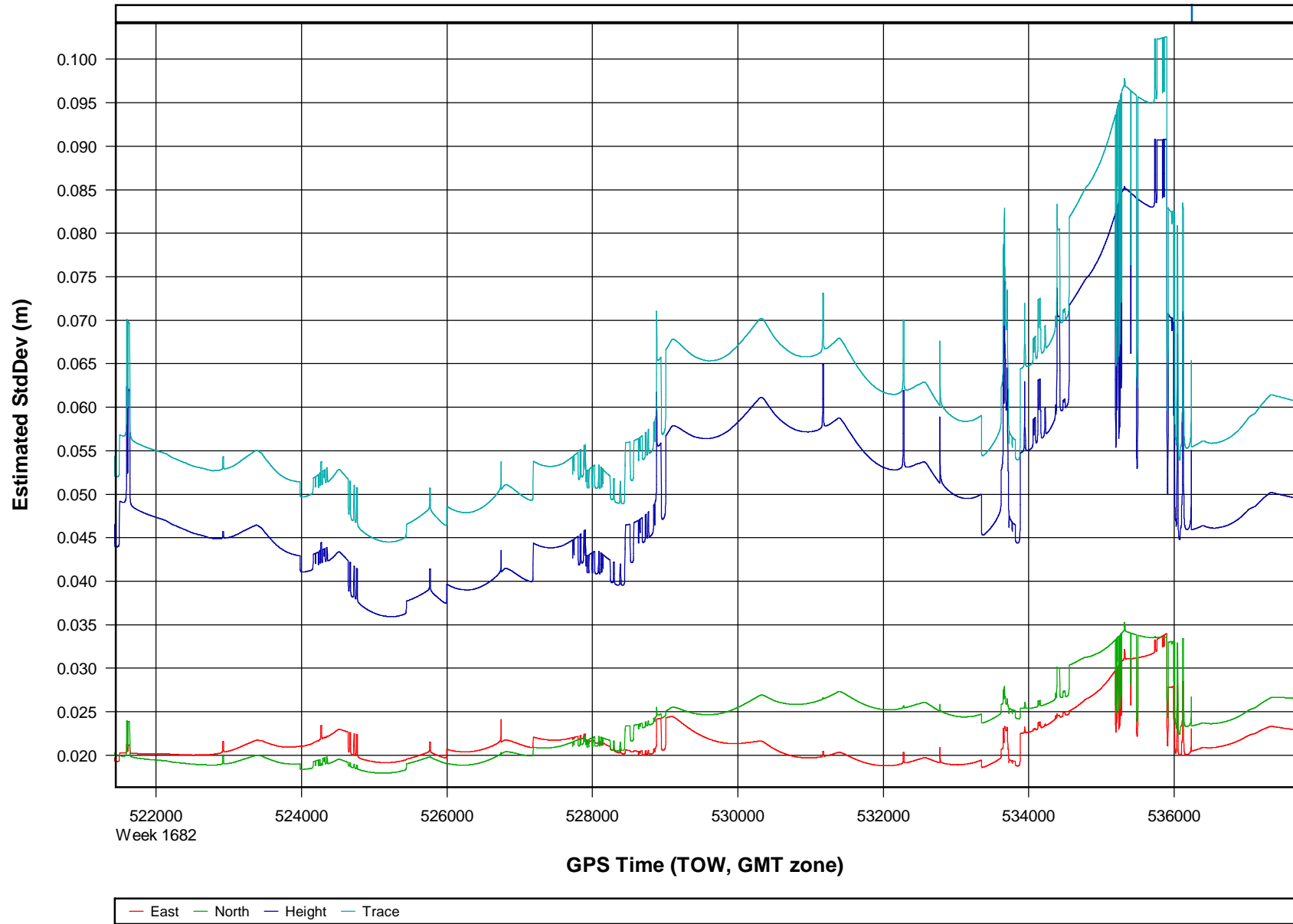
### o112097a [Combined] - PDOP, HDOP, VDOP Plots



**o112097a [Combined] - Number of Satellites Bar Plot**



### o112097a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112097a\3\_Processed\GPS\o112097a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 162512  
No processed position: 146273  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0192 (m)  
C/A Code: 0.88 (m)  
L1 Doppler: 0.030 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.072 (m)  
North: 0.037 (m)  
Height: 0.094 (m)

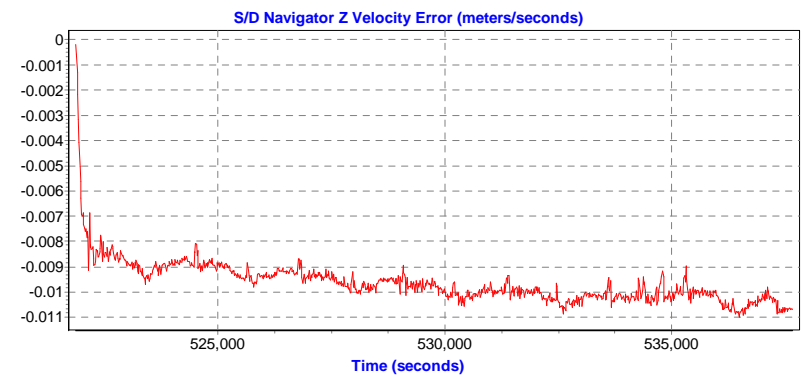
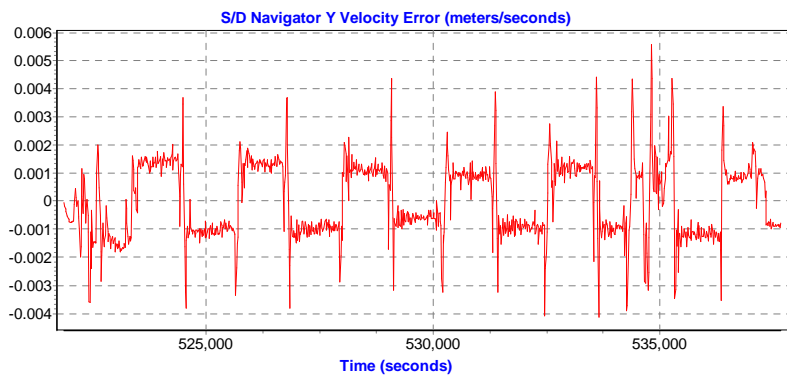
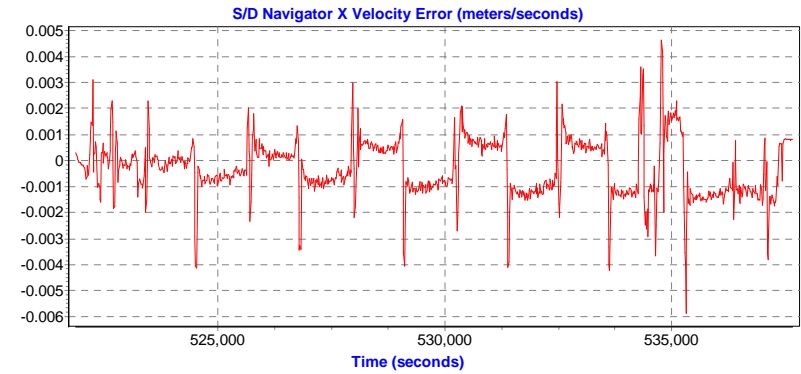
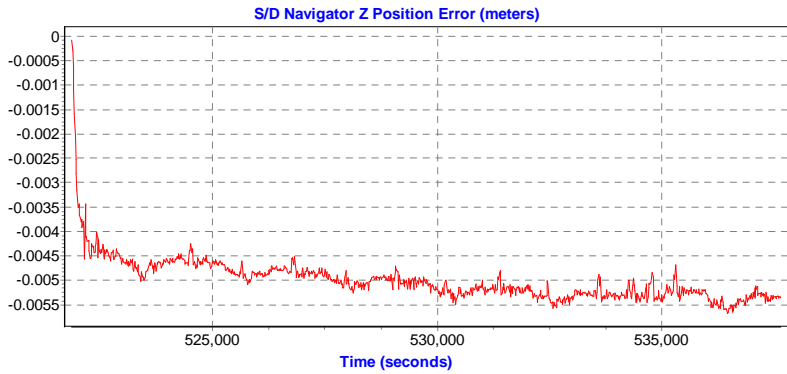
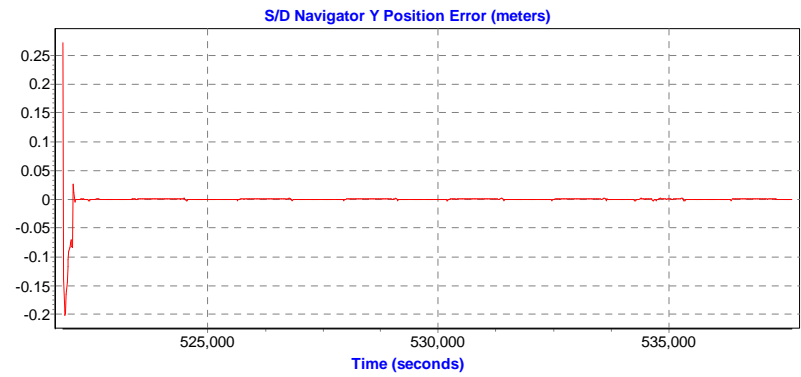
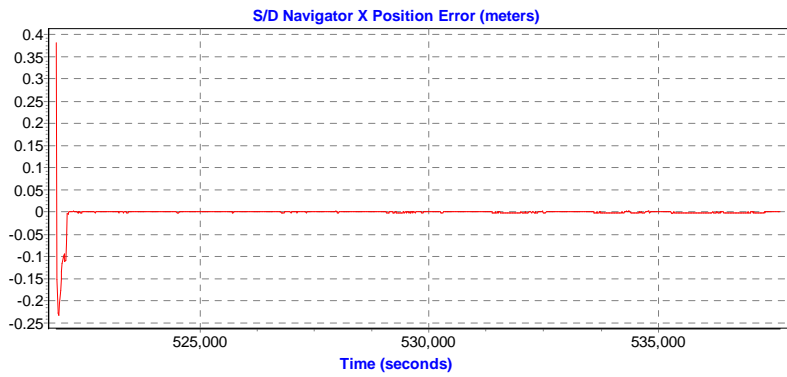
Fwd/Rev Sep. RMS for 25%-75% weighting (14806 occurrences):  
East: 0.008 (m)  
North: 0.008 (m)  
Height: 0.025 (m)

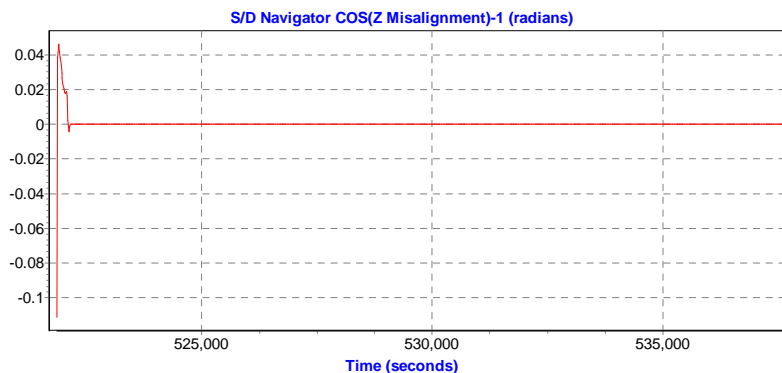
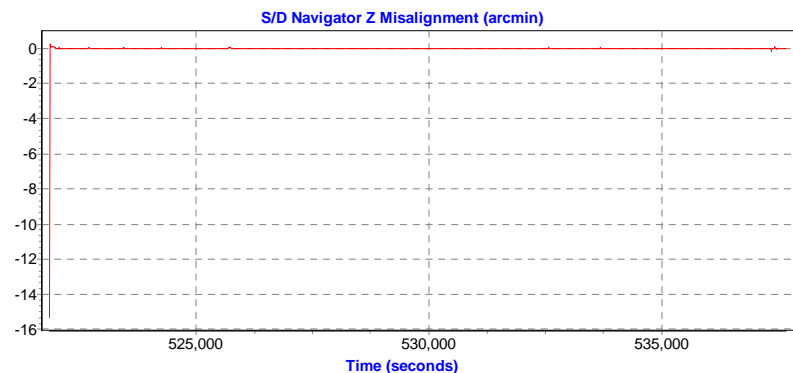
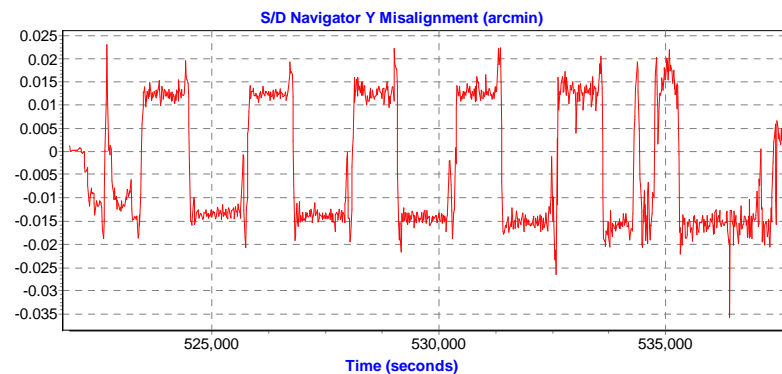
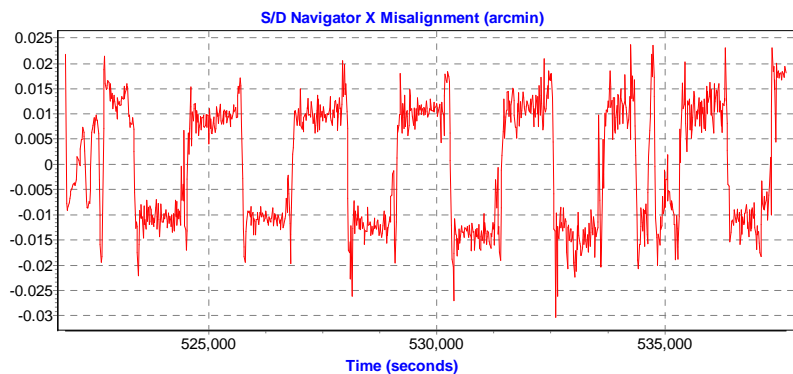
Quality Number Percentages:  
Q 1: 99.8 %  
Q 2: 0.2 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:  
0.00 - 0.10 m: 99.2 %  
0.10 - 0.30 m: 0.8 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

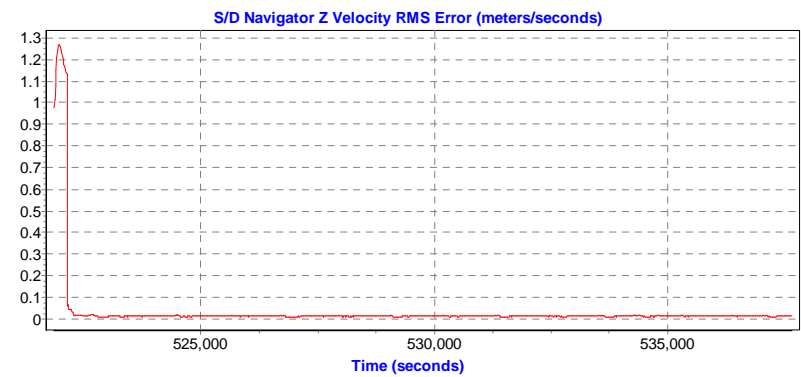
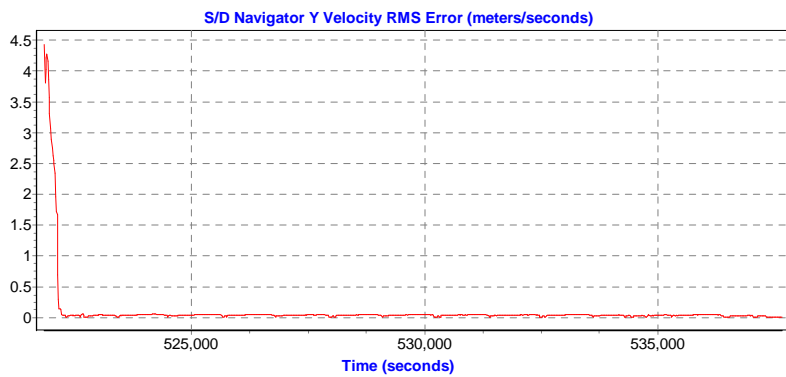
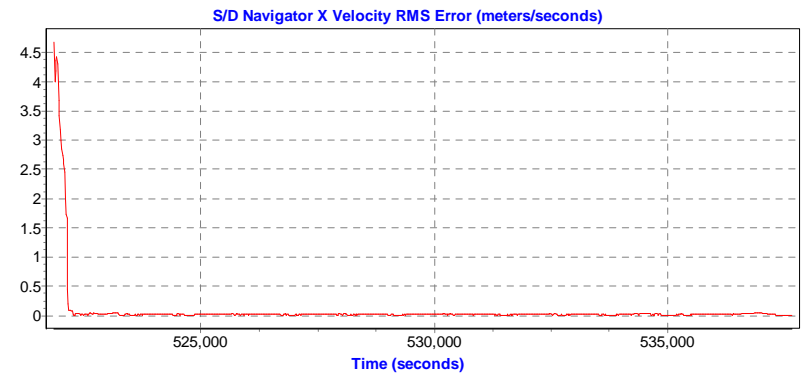
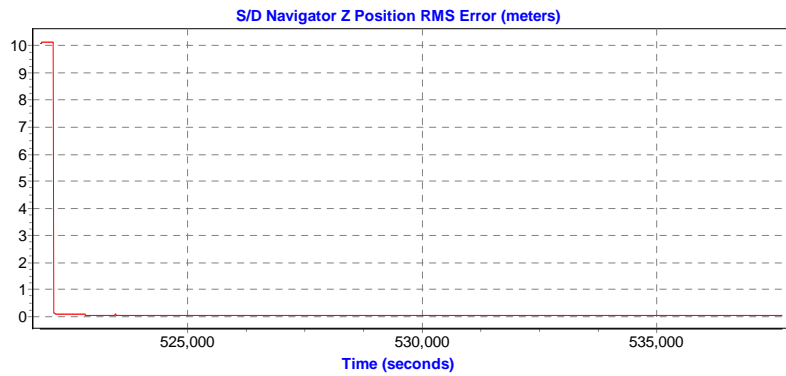
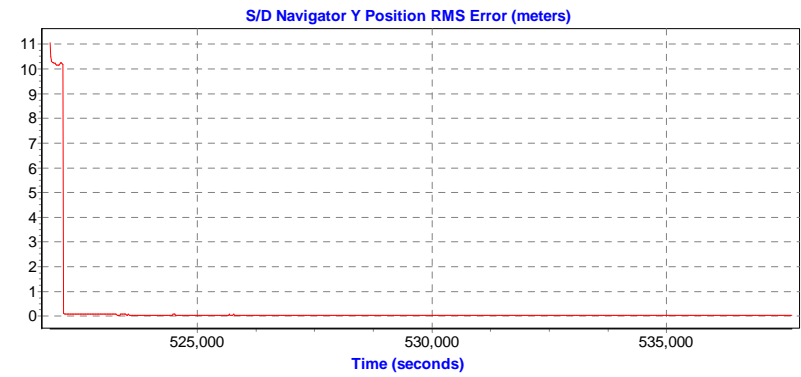
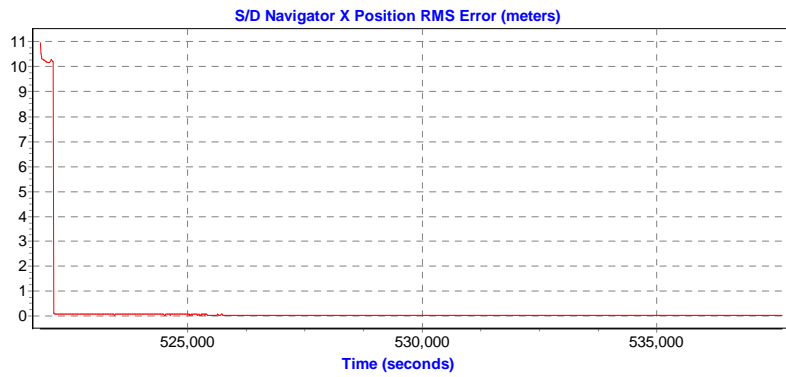
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

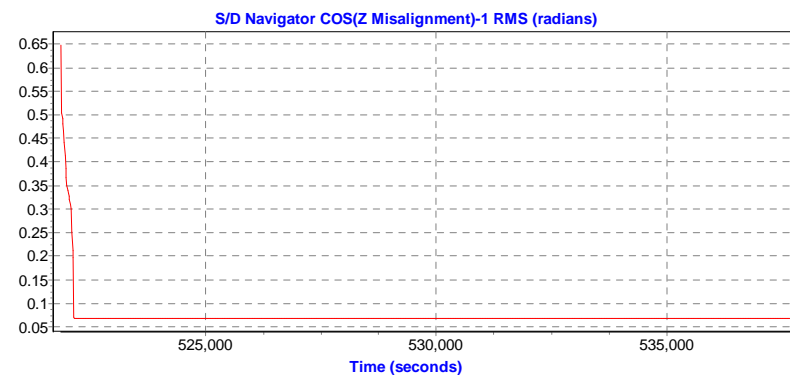
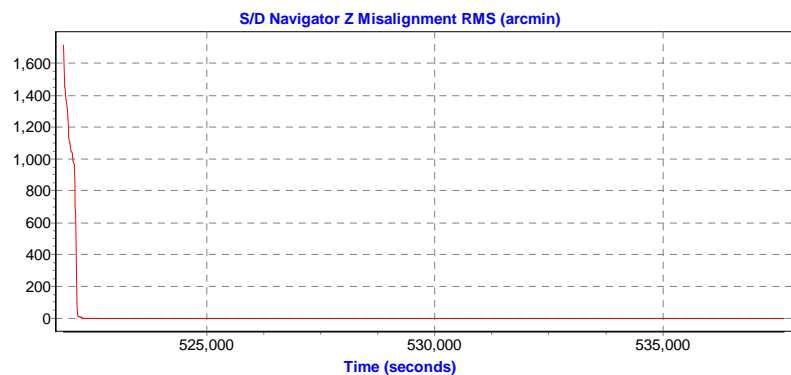
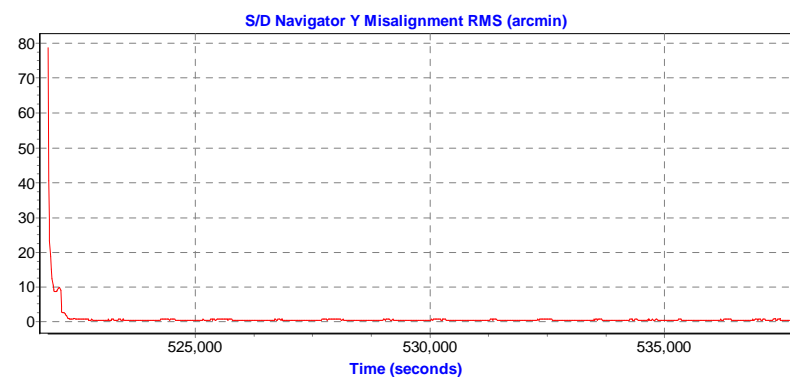
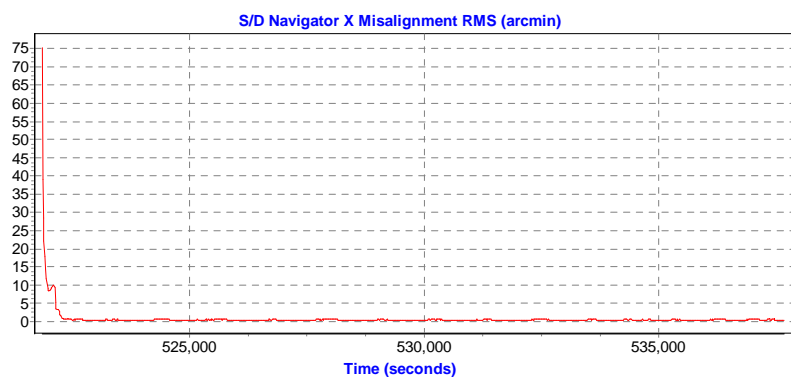
Baseline Distances:  
Maximum: 80.461 (km)  
Minimum: 0.663 (km)  
Average: 24.898 (km)  
First Epoch: 17.933 (km)  
Last Epoch: 80.455 (km)

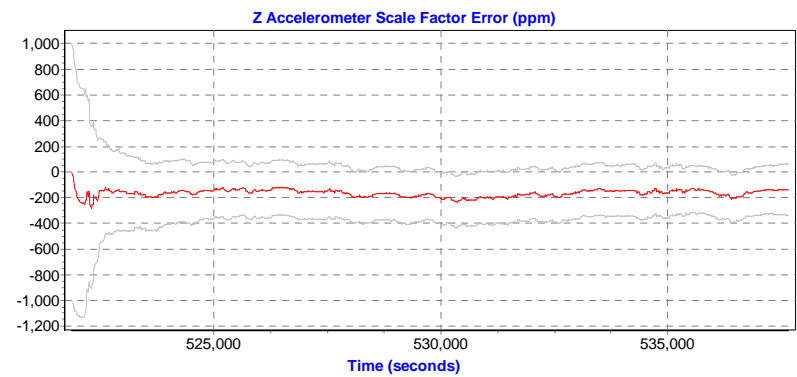
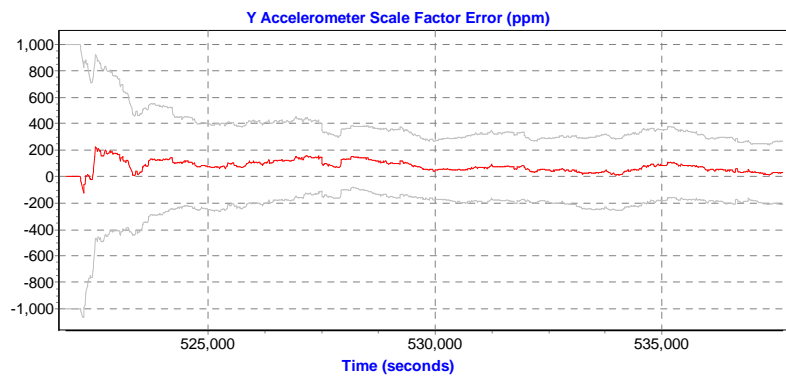
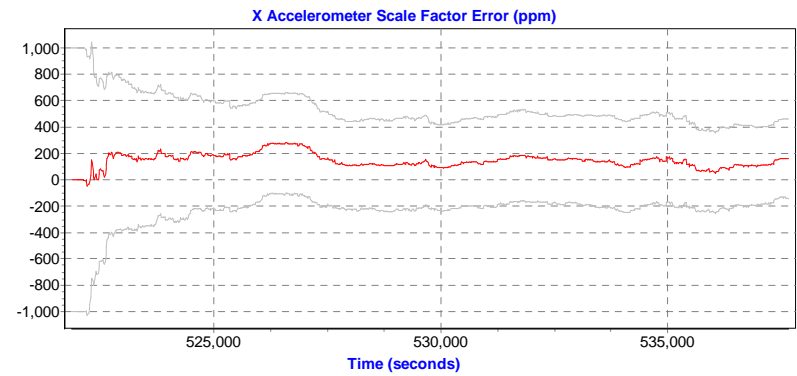
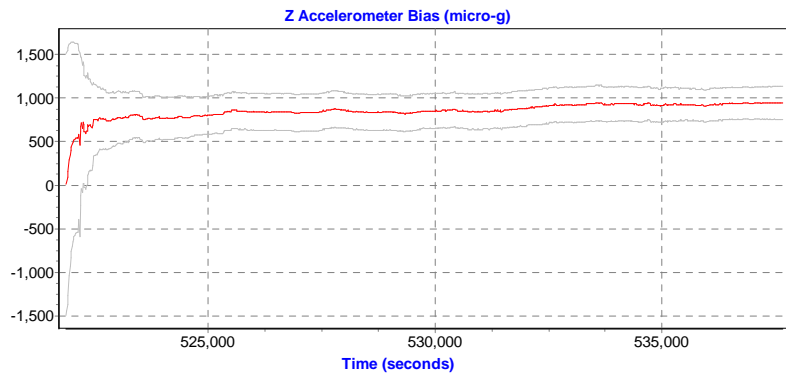
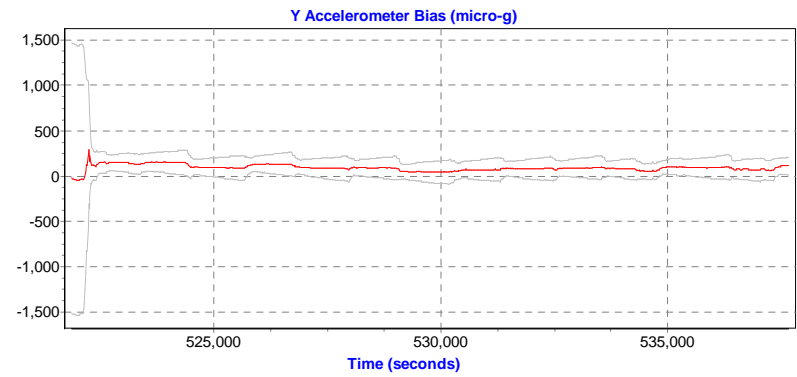
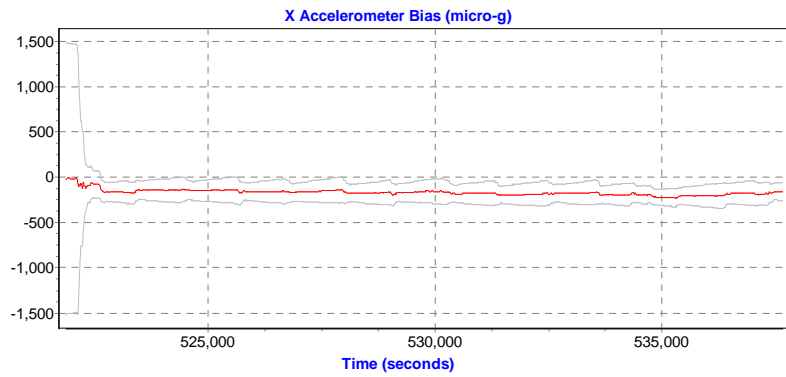


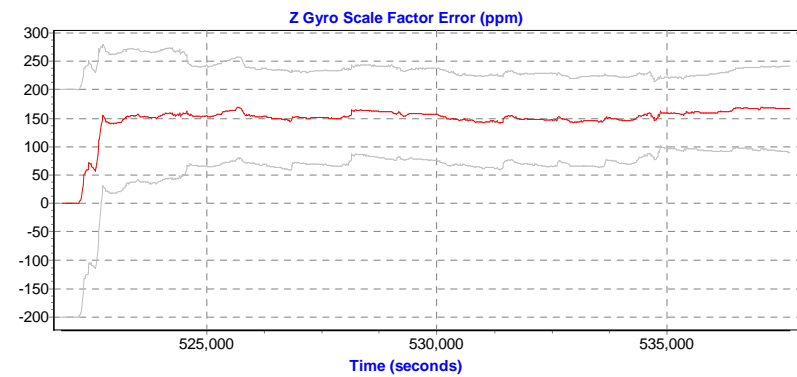
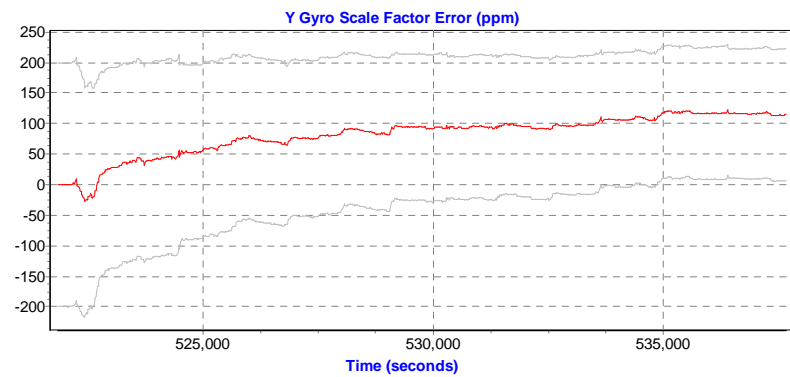
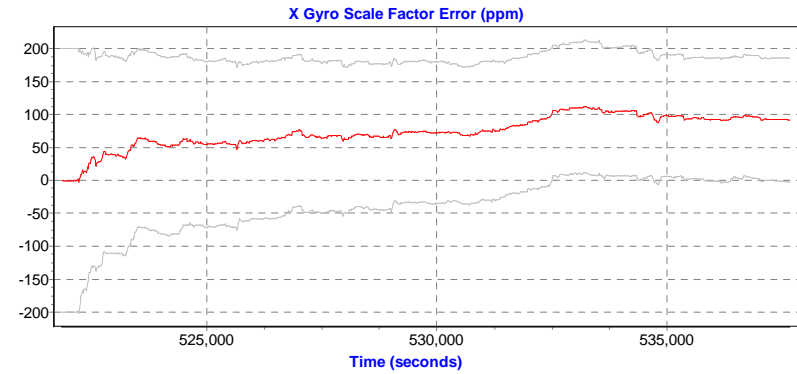
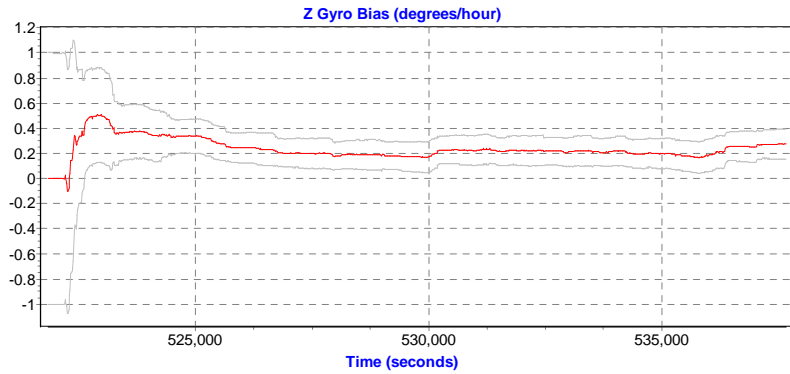
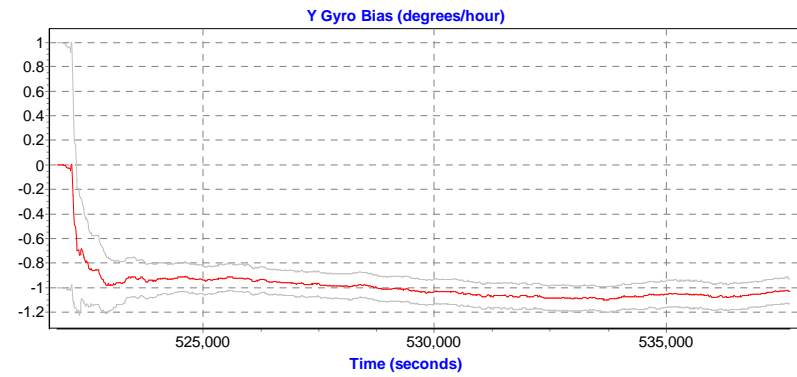
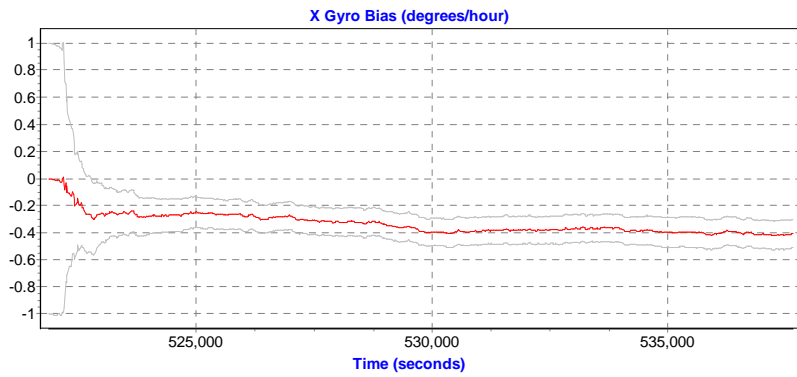


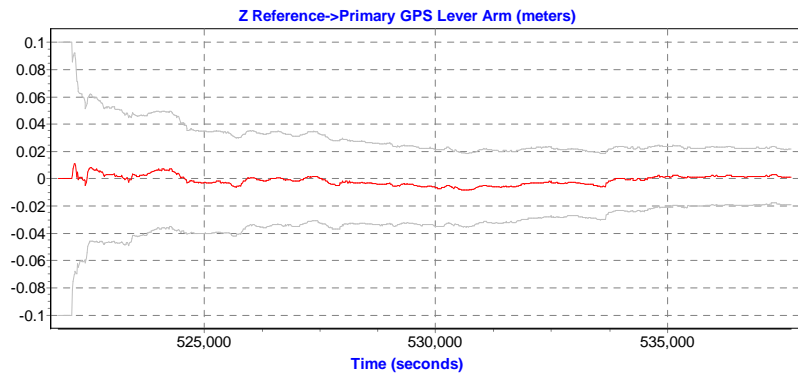
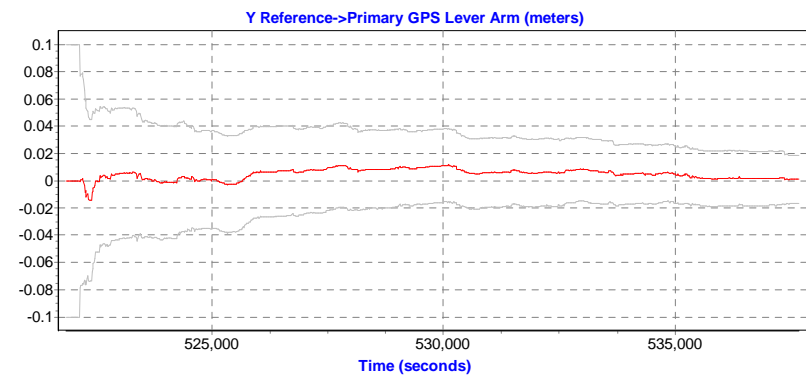
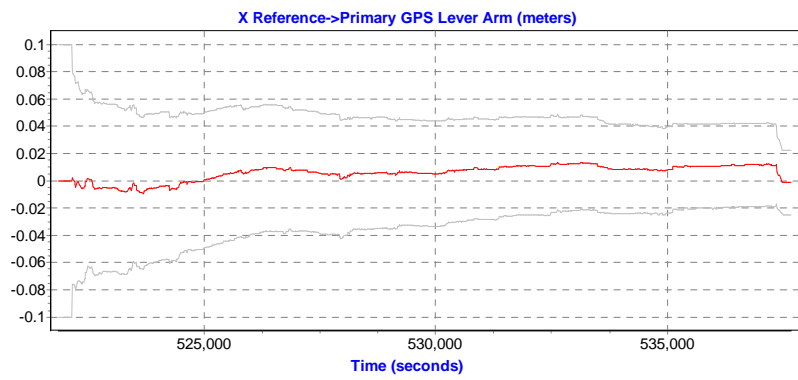






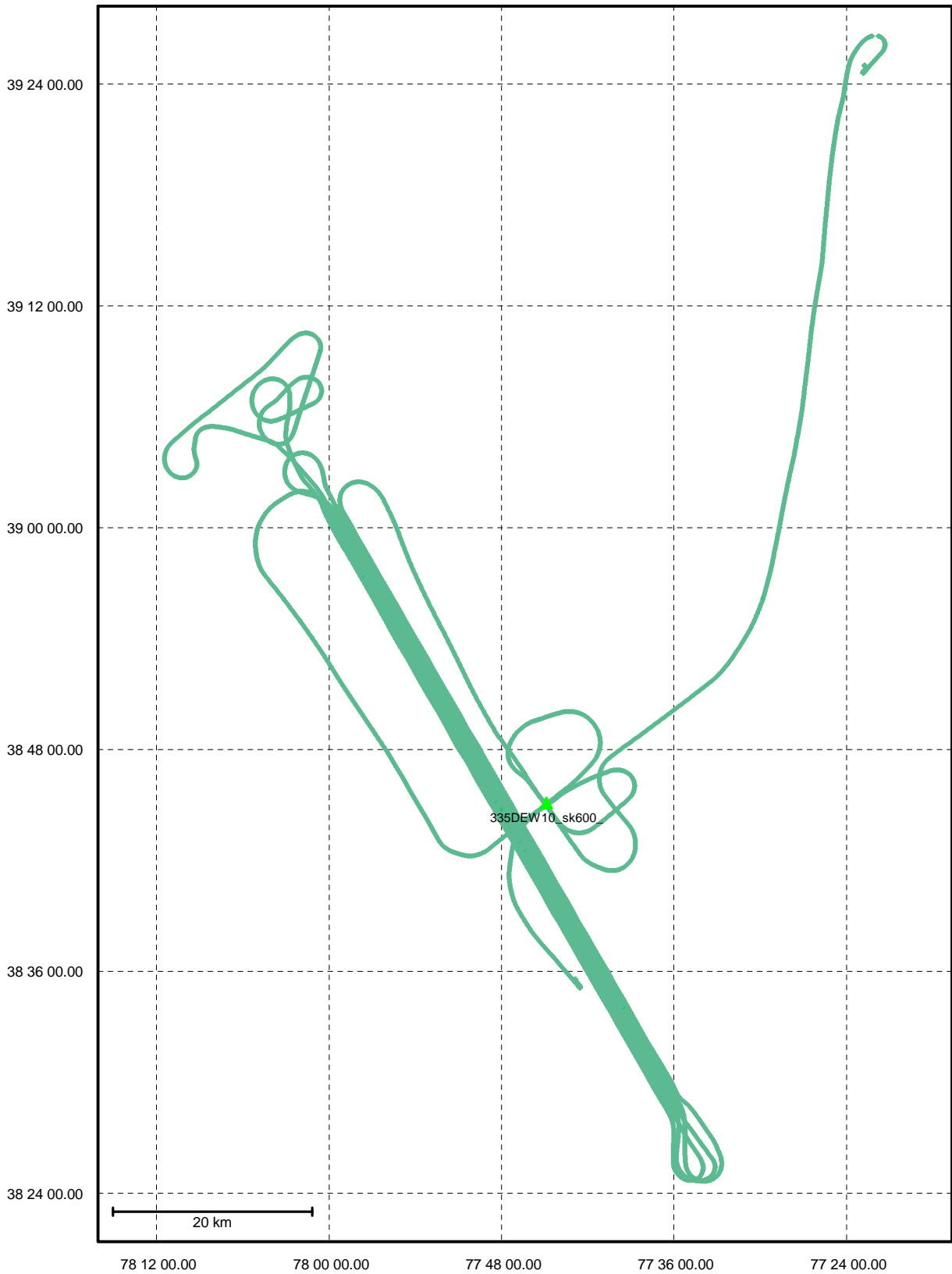






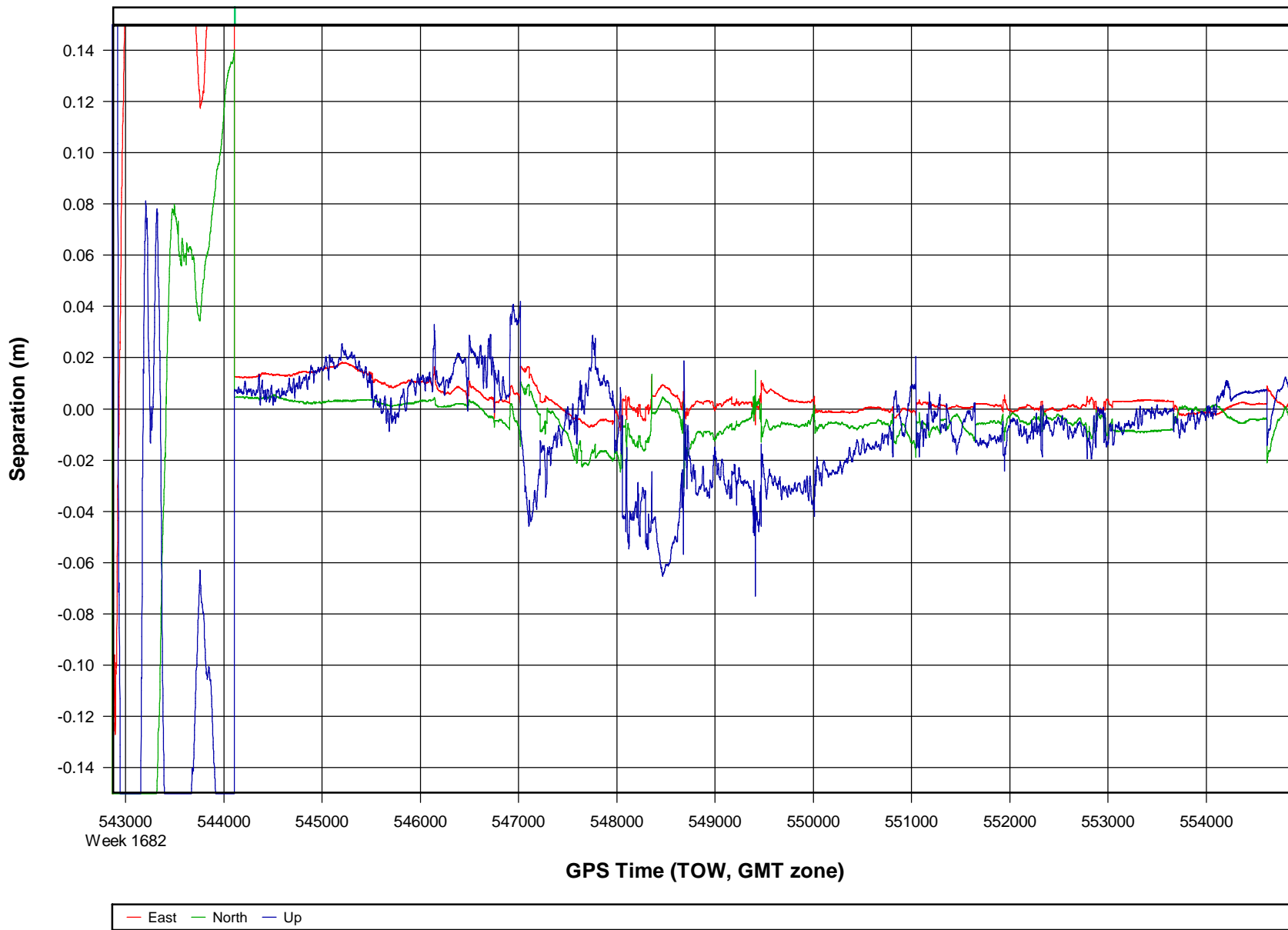
# Combined - Map Run (1)

Geographic, DMS

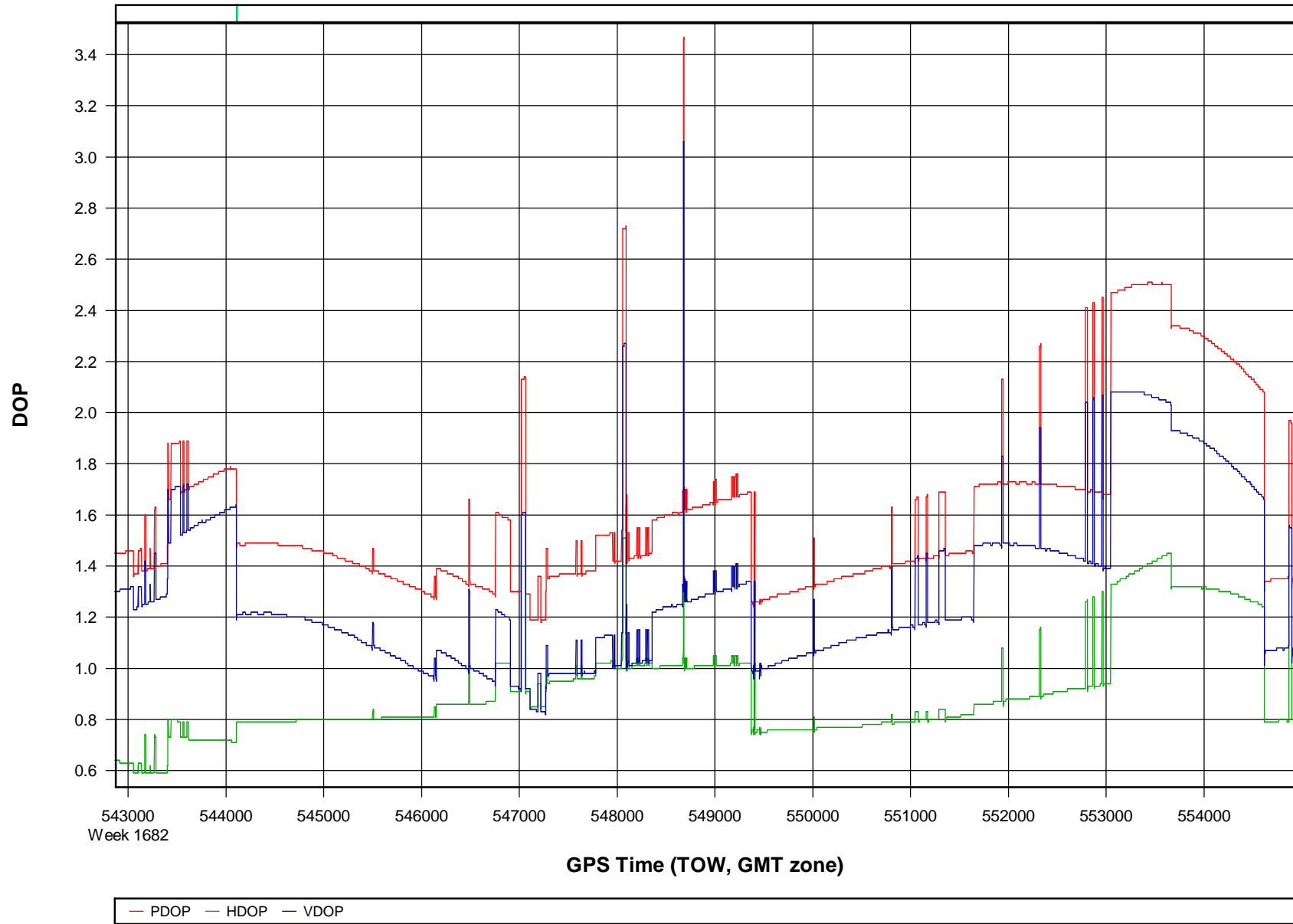


- + Ukn
- + Q1
- + Q2
- + Q3
- + Q4
- + Q5
- + Q6
- ▲ Master

### o112097b [Combined] - Forward/Reverse or Combined Separation Plot

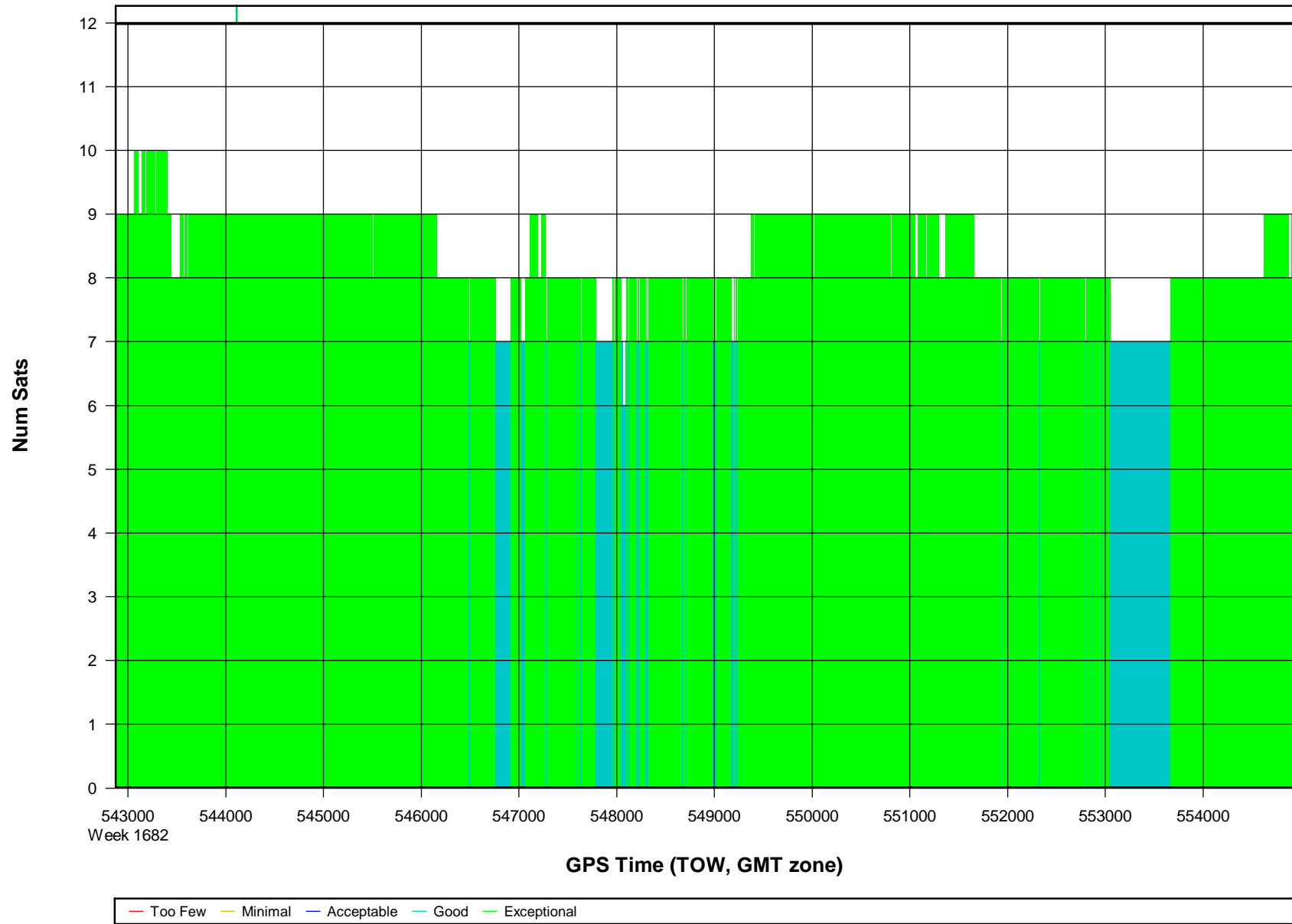


### o112097b [Combined] - PDOP, HDOP, VDOP Plots

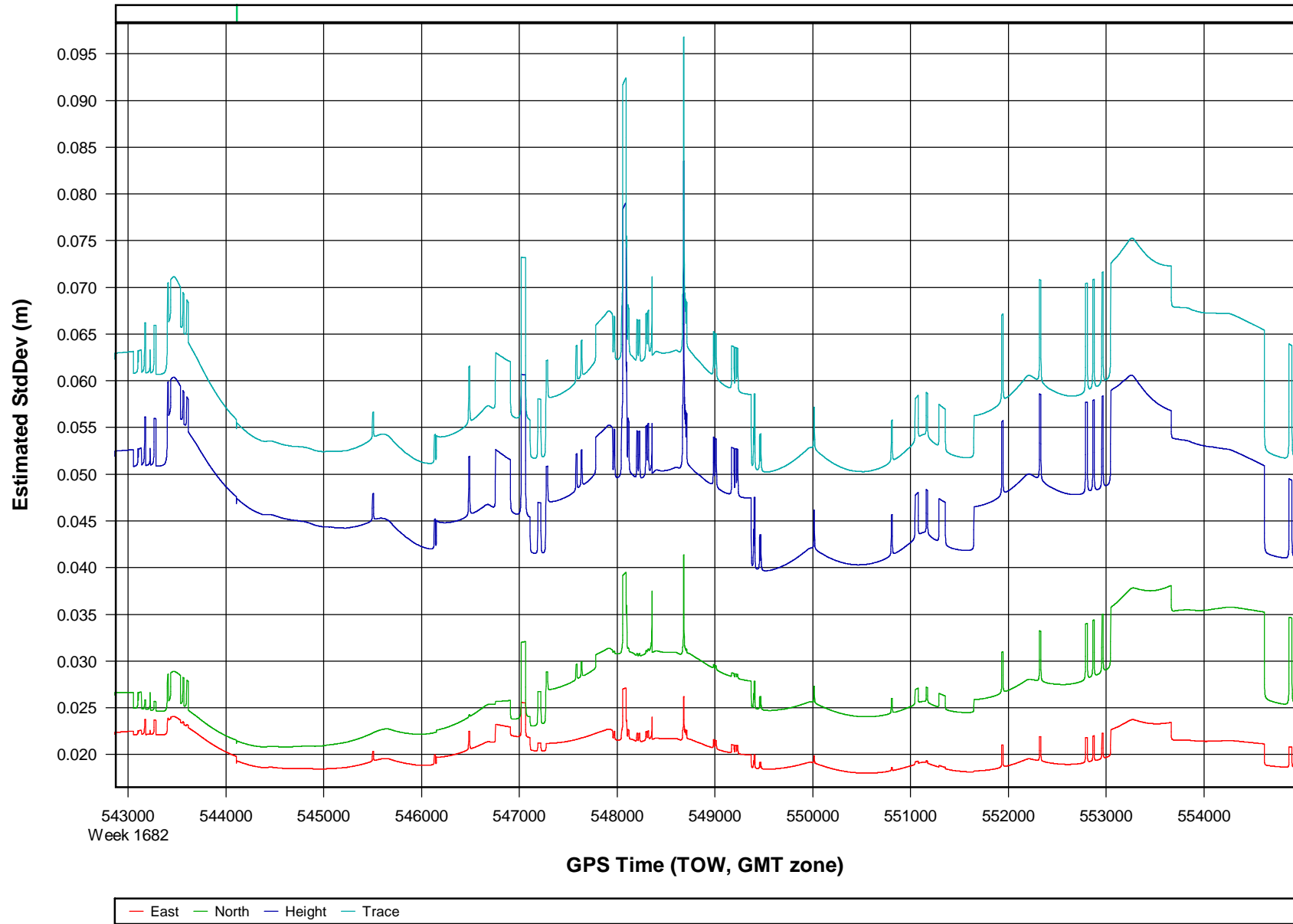




### o112097b [Combined] - Number of Satellites Bar Plot



### o112097b [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112097b\3\_Processed\GPS\o112097b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 120851  
No processed position: 108777  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0179 (m)  
C/A Code: 0.97 (m)  
L1 Doppler: 0.029 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.078 (m)  
North: 0.071 (m)  
Height: 0.087 (m)

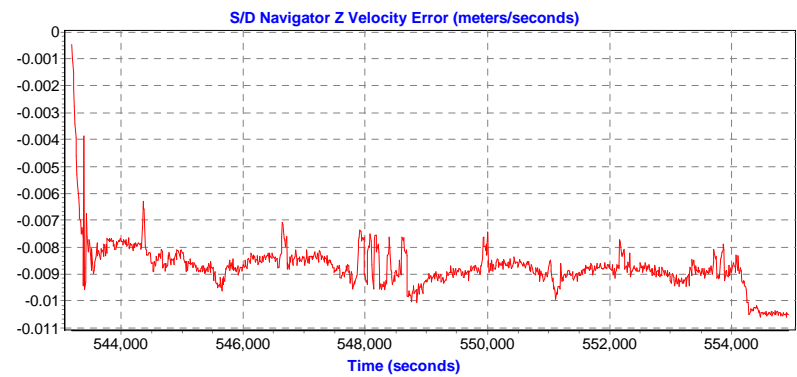
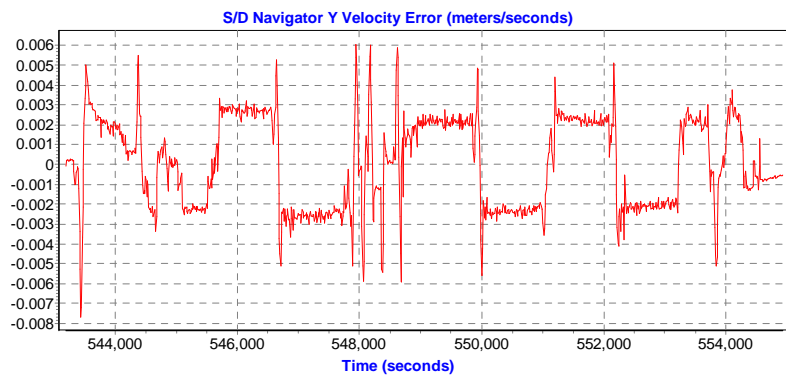
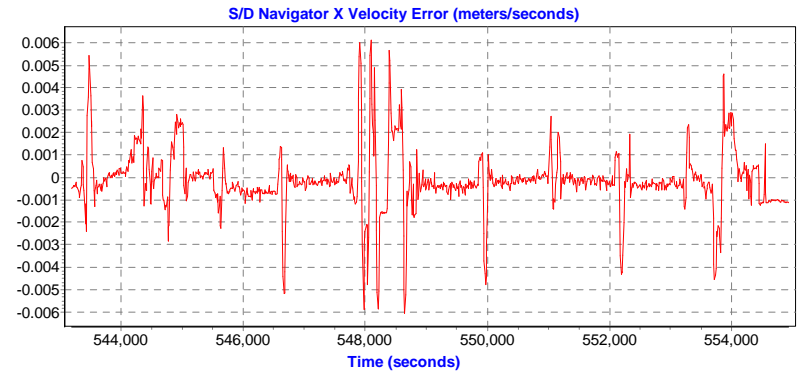
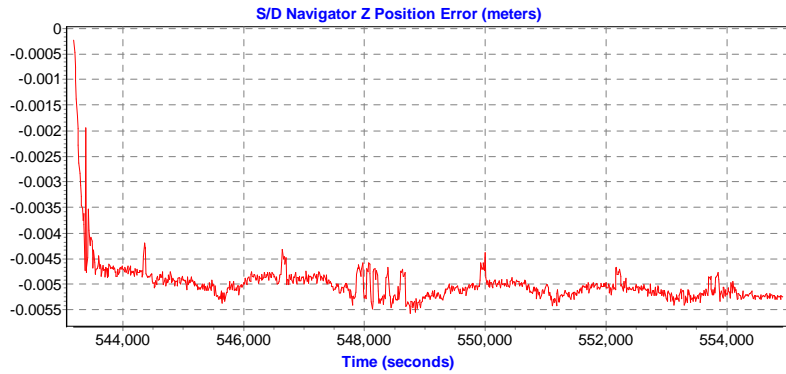
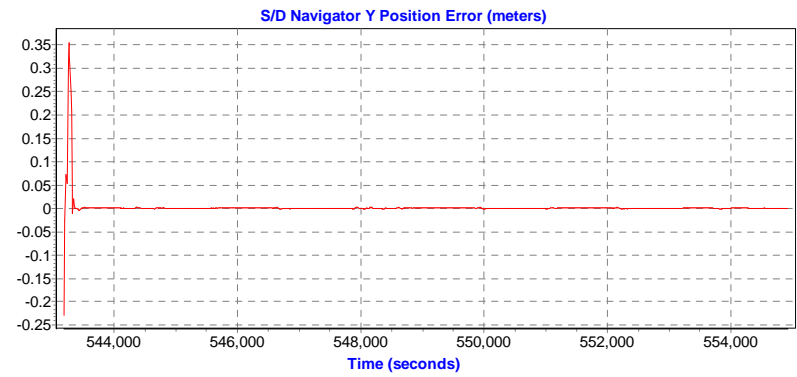
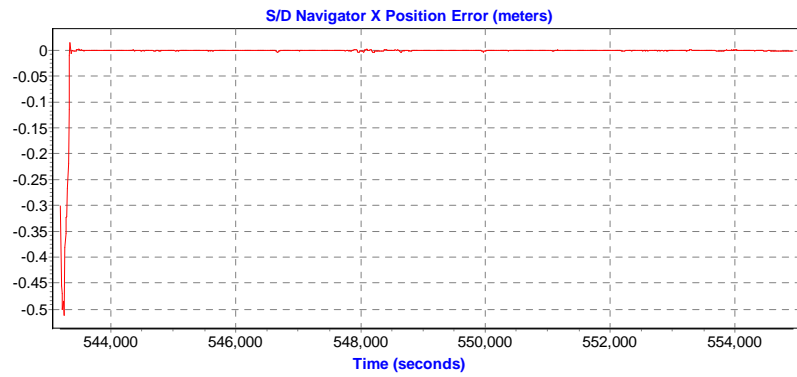
Fwd/Rev Sep. RMS for 25%-75% weighting (10823 occurrences):  
East: 0.007 (m)  
North: 0.007 (m)  
Height: 0.020 (m)

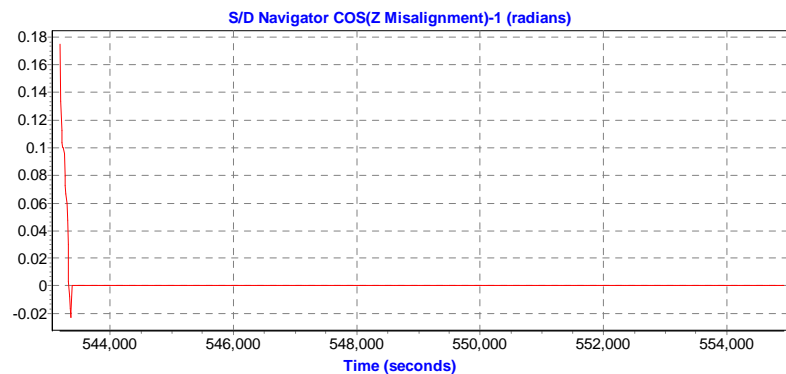
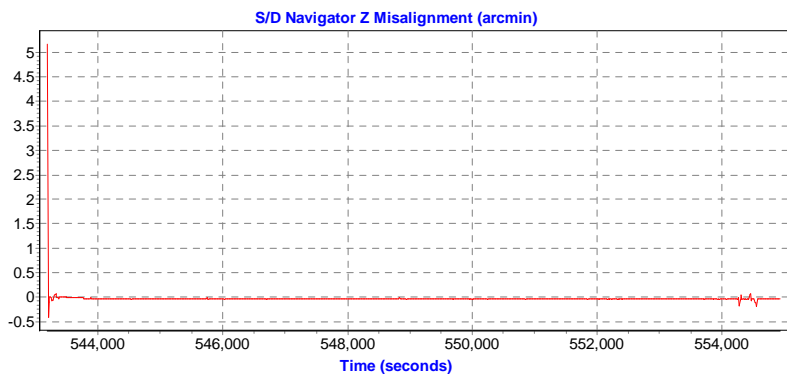
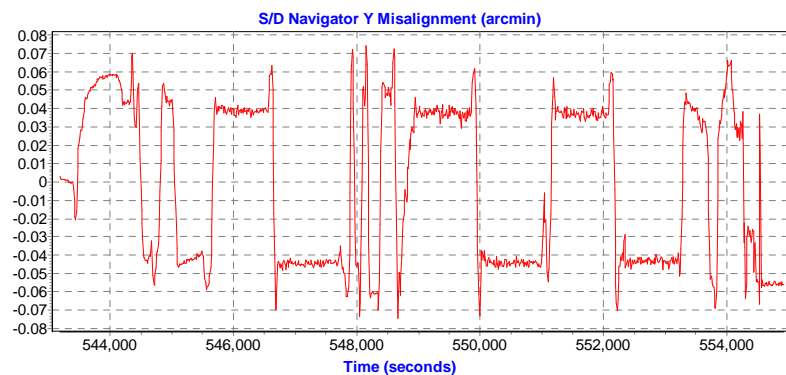
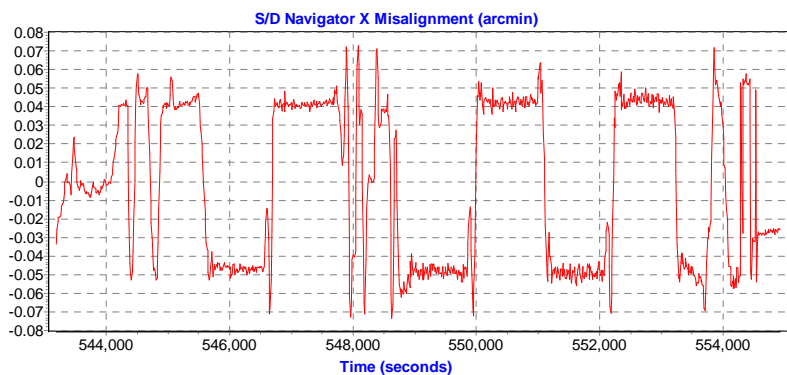
Quality Number Percentages:  
Q 1: 99.9 %  
Q 2: 0.1 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

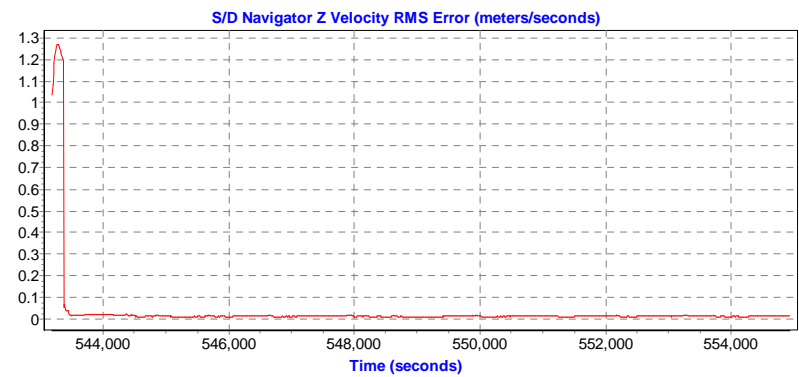
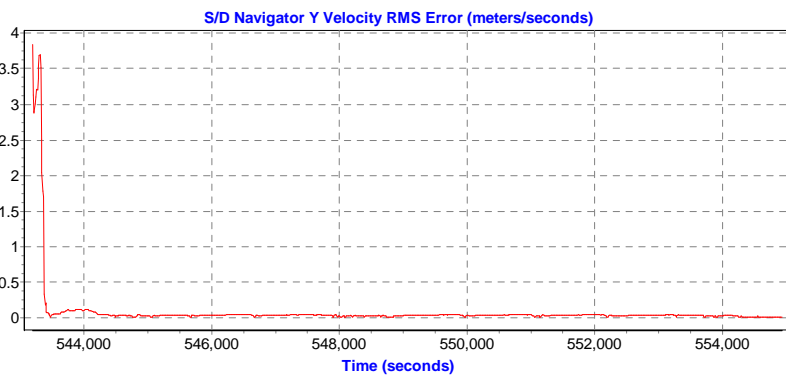
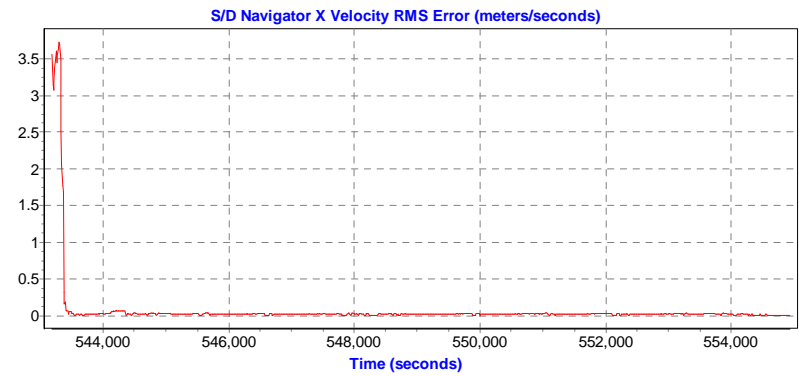
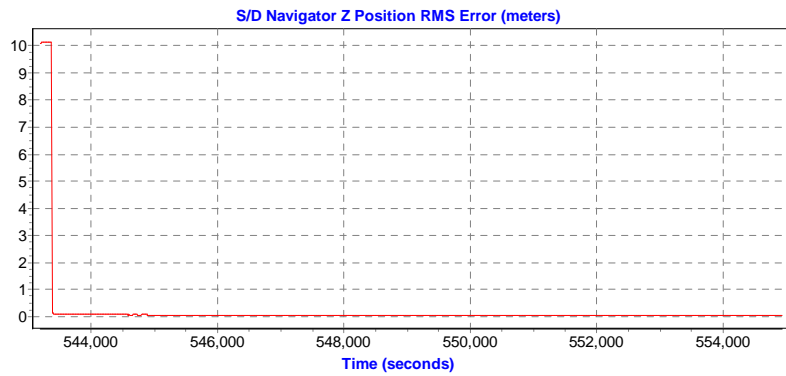
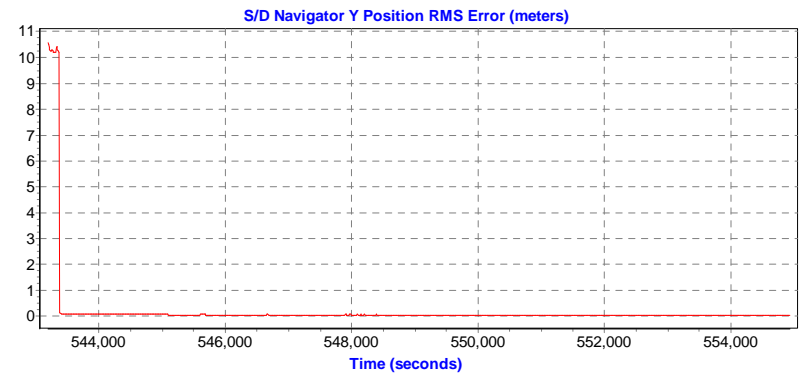
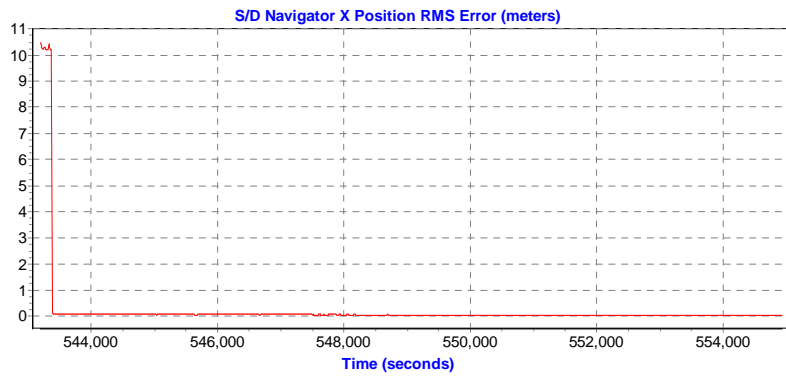
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

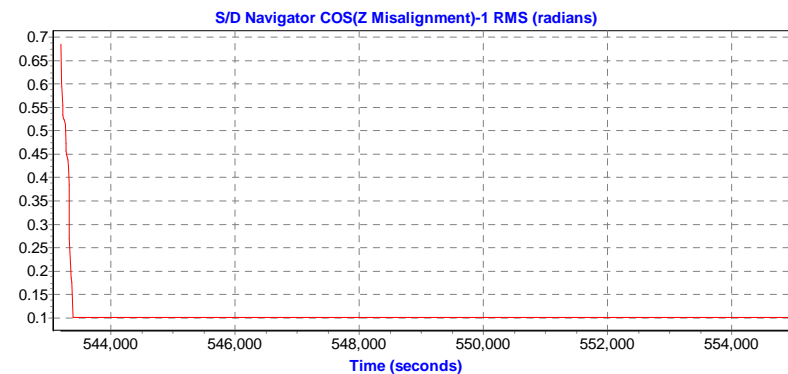
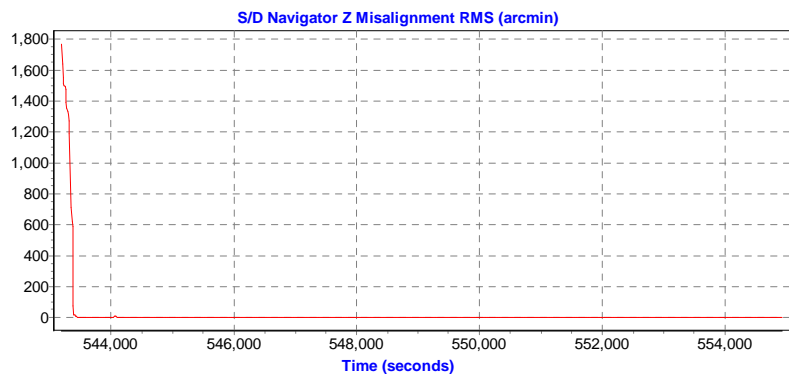
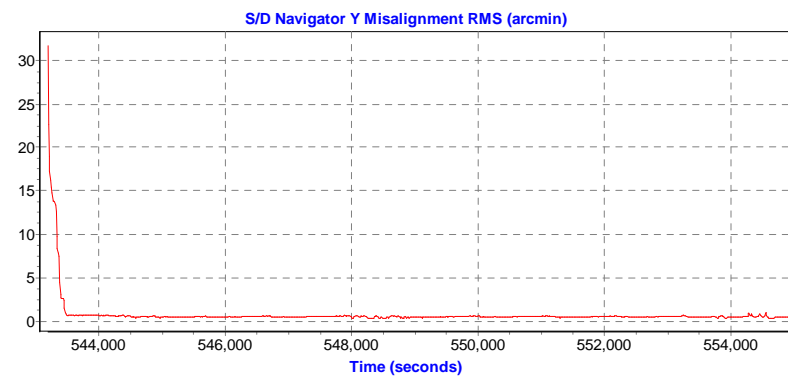
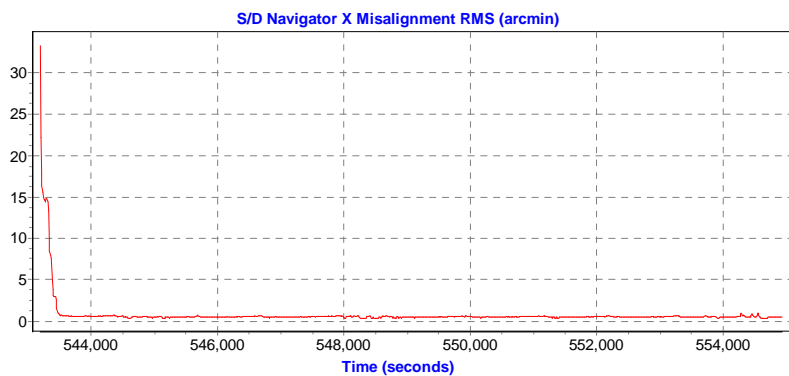
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

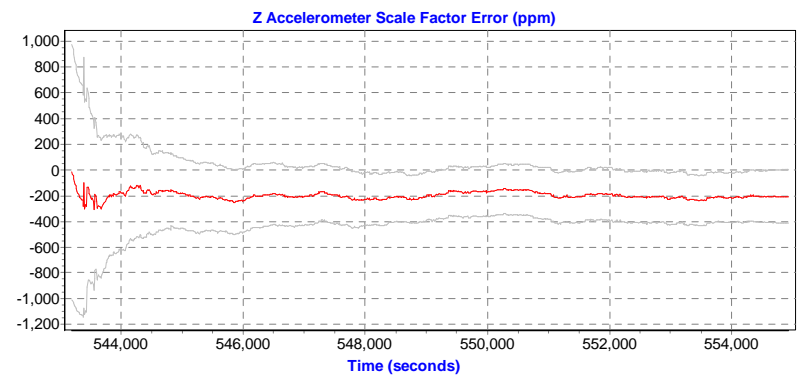
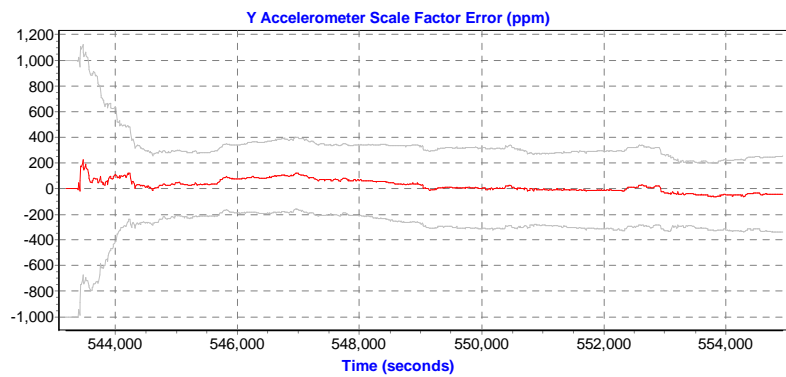
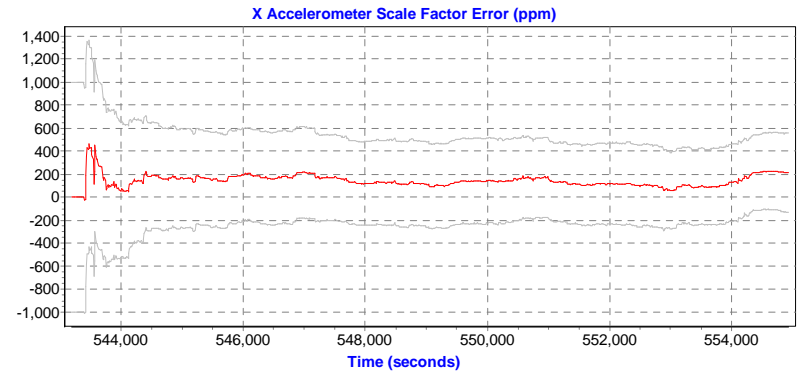
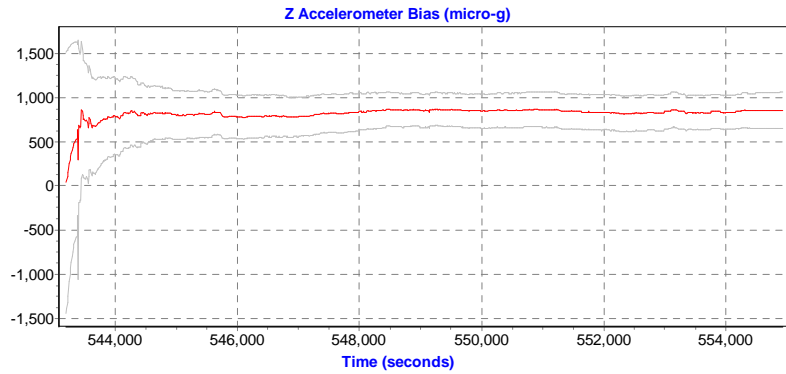
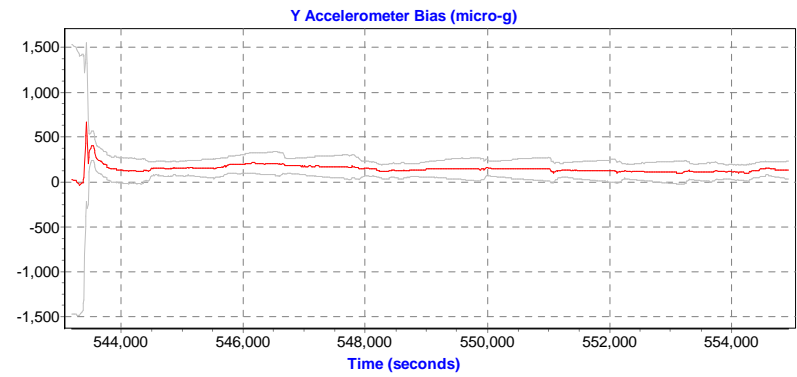
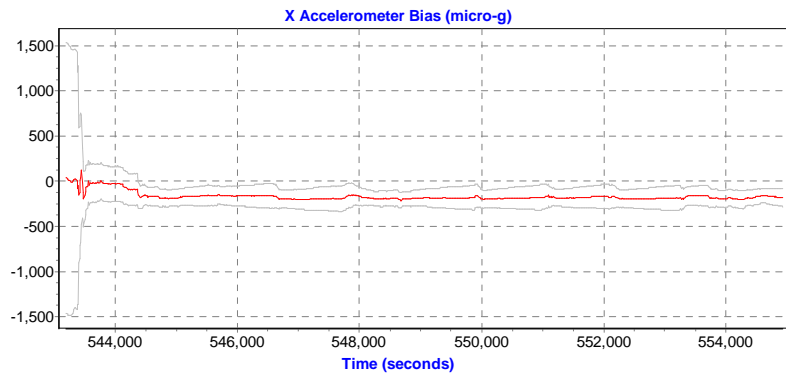
Baseline Distances:  
Maximum: 83.683 (km)  
Minimum: 0.617 (km)  
Average: 27.399 (km)  
First Epoch: 80.397 (km)  
Last Epoch: 17.933 (km)



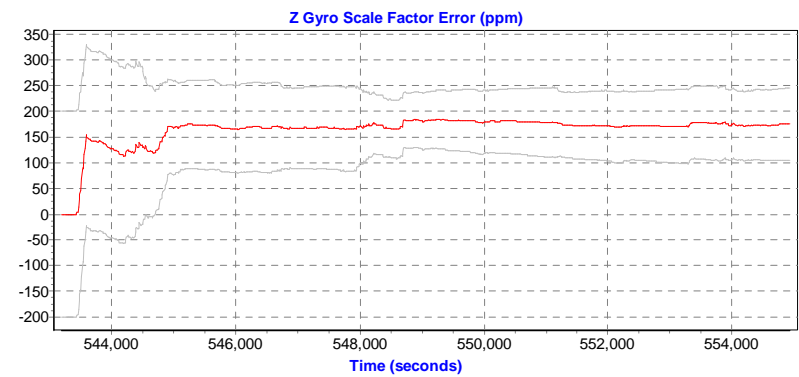
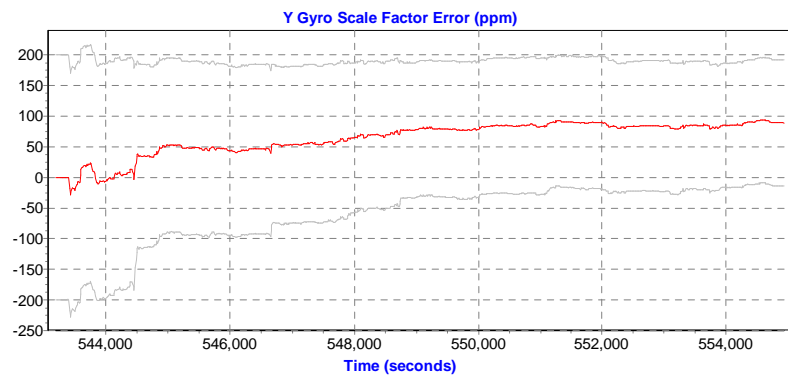
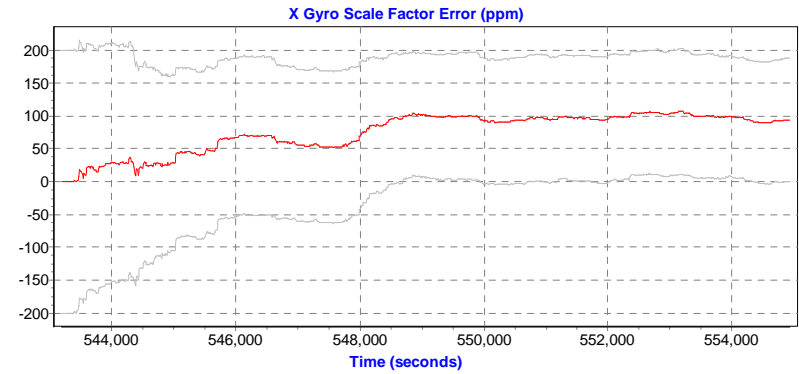
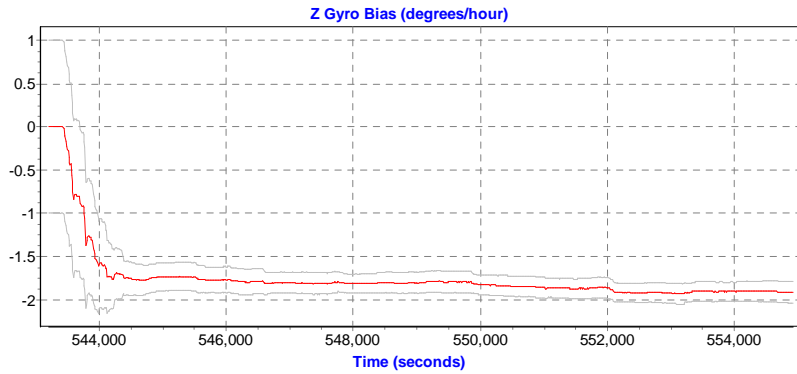
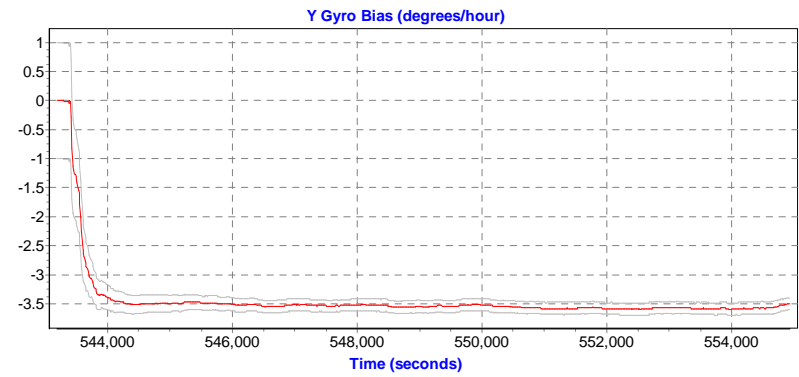
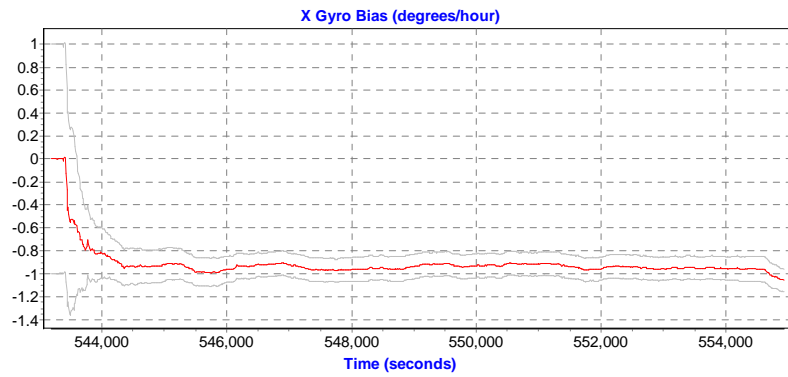


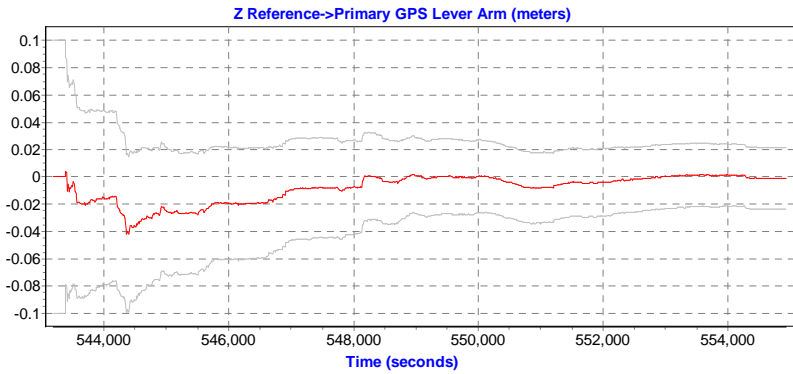
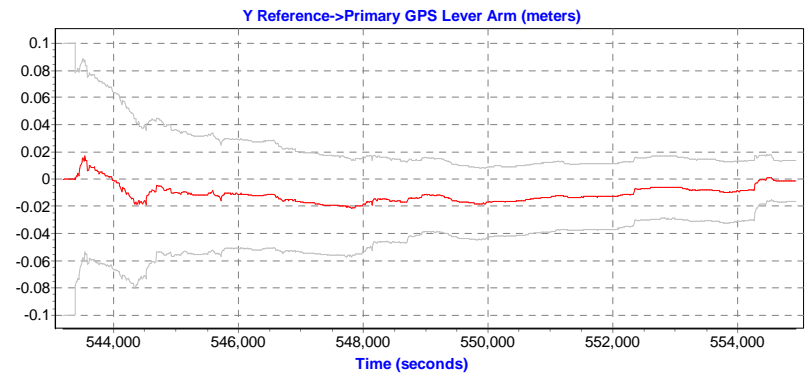
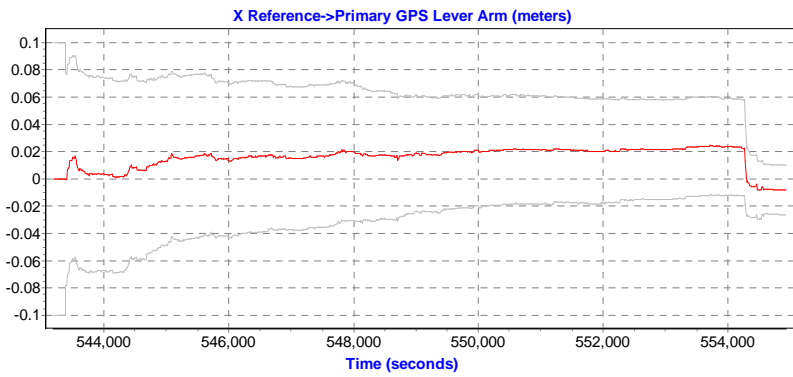






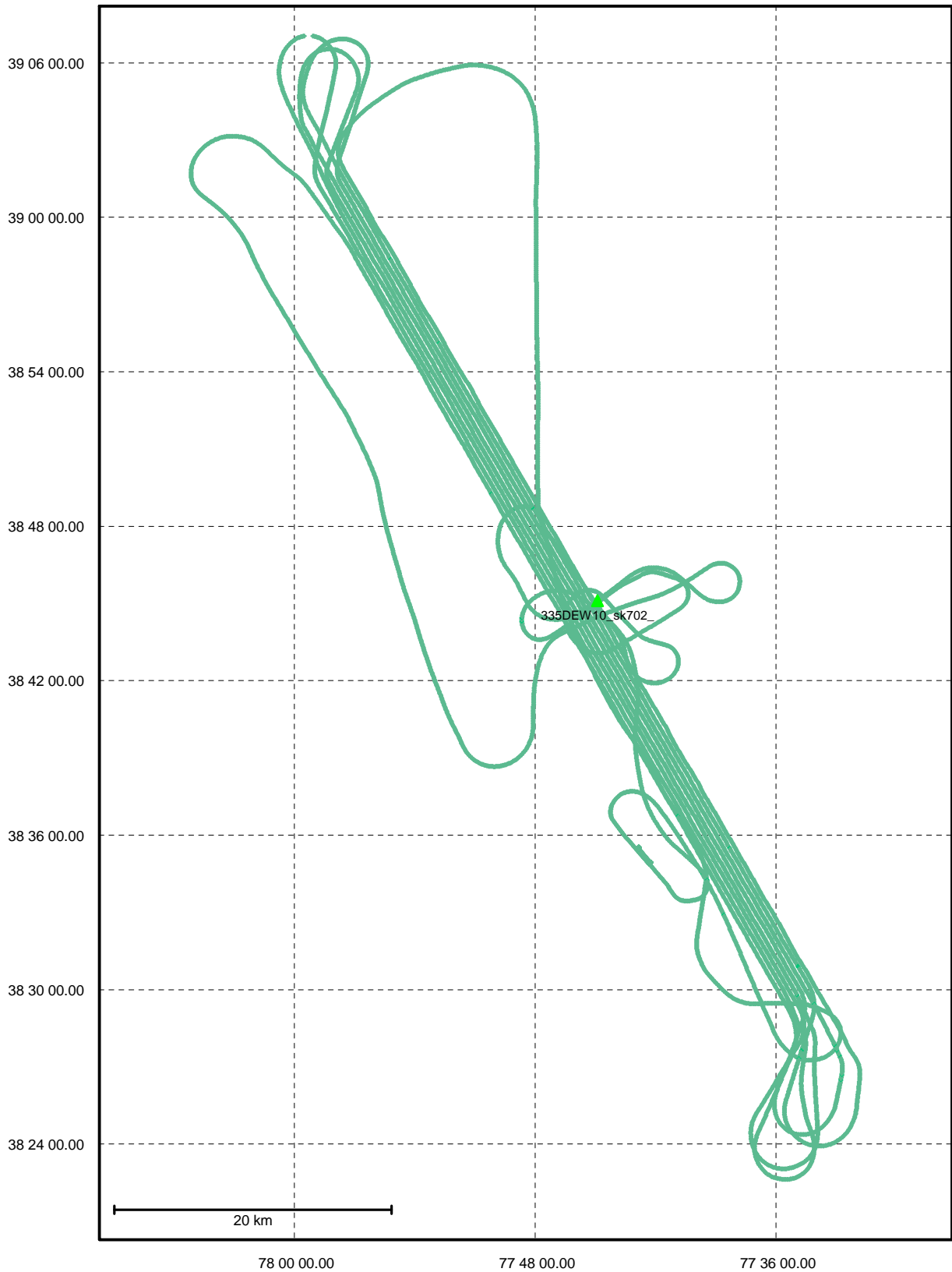






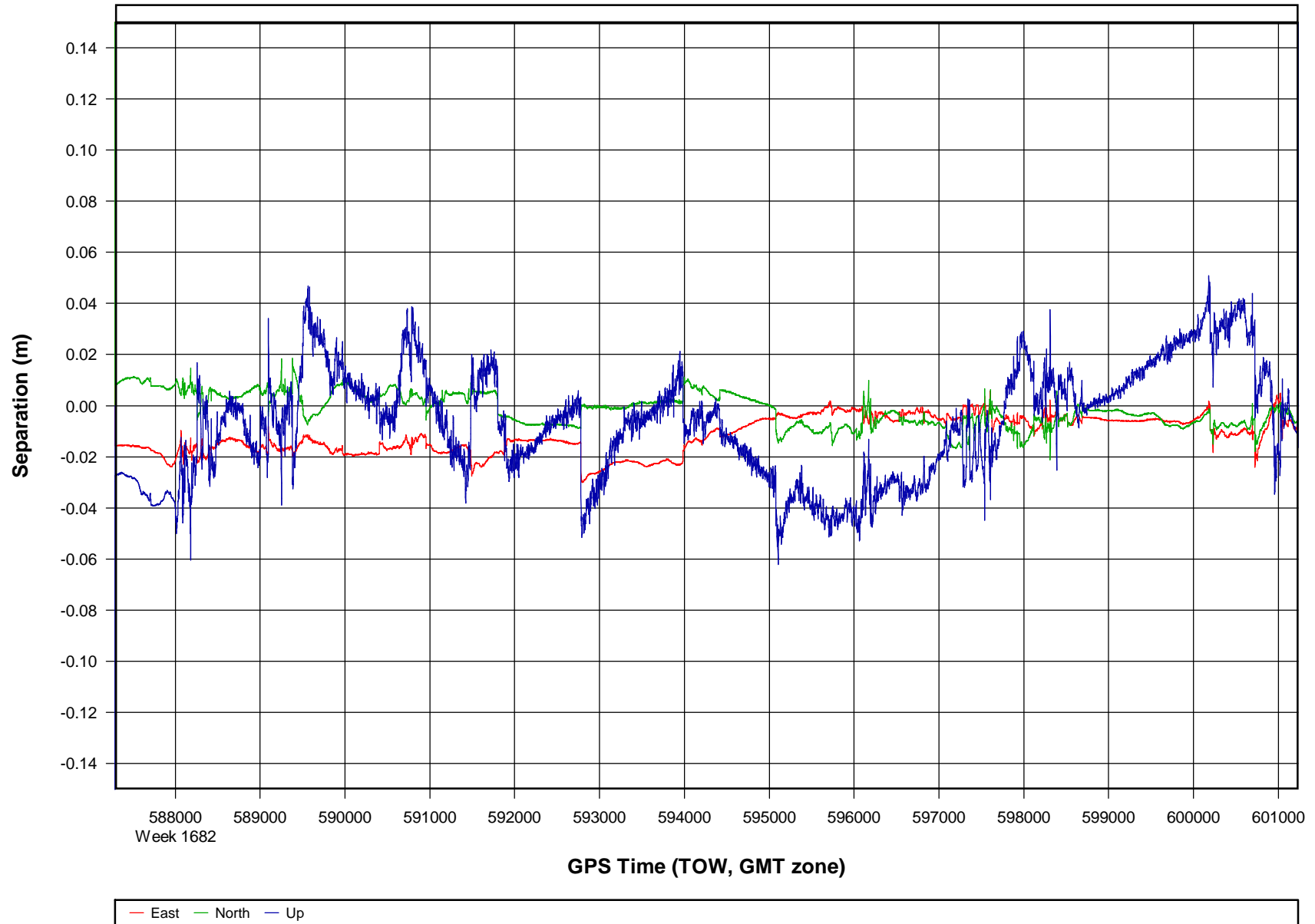
# Combined - Map Run (1)

Geographic, DMS

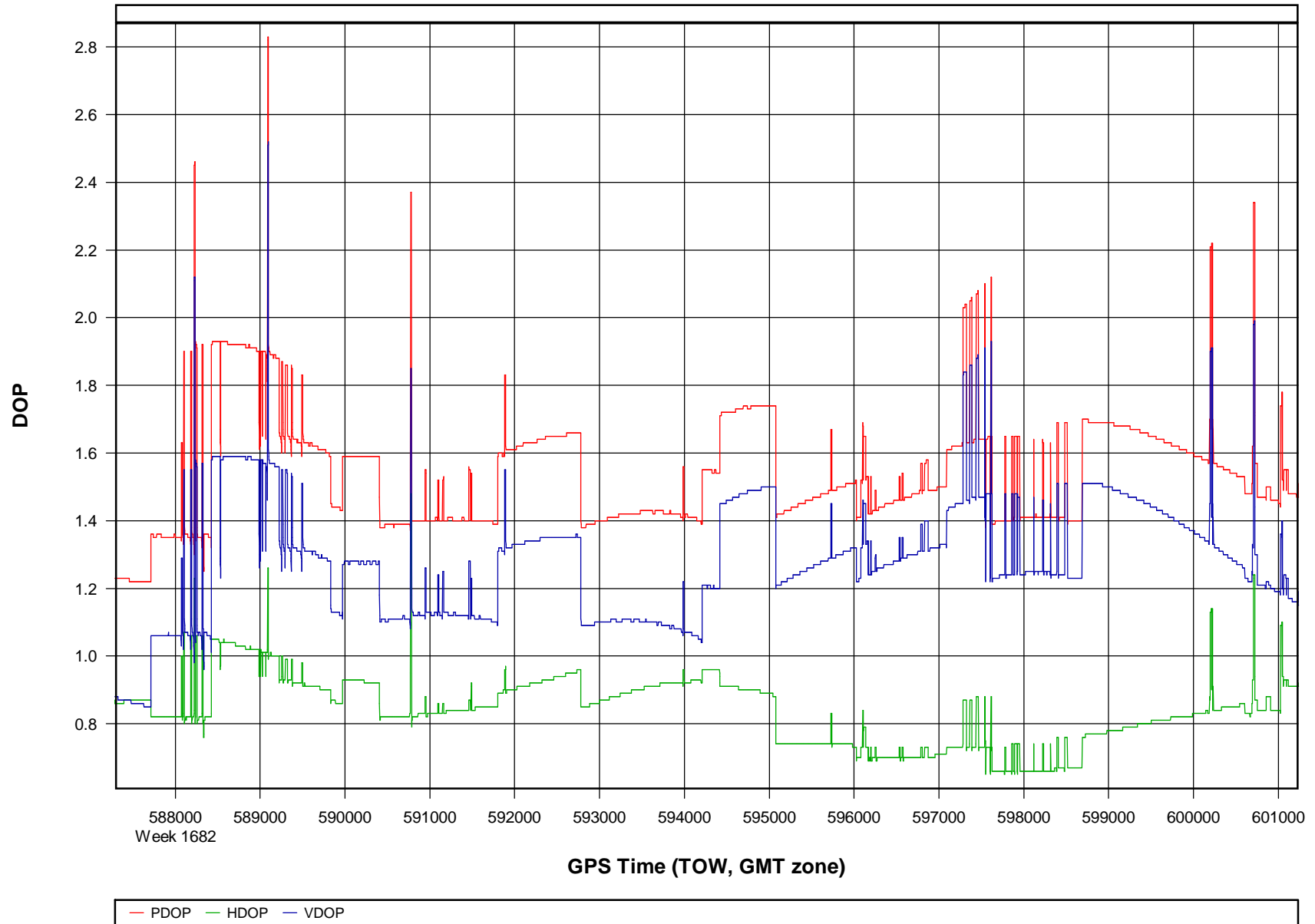


- + Ukn
- + Q1
- + Q2
- + Q3
- + Q4
- + Q5
- + Q6
- ▲ Master

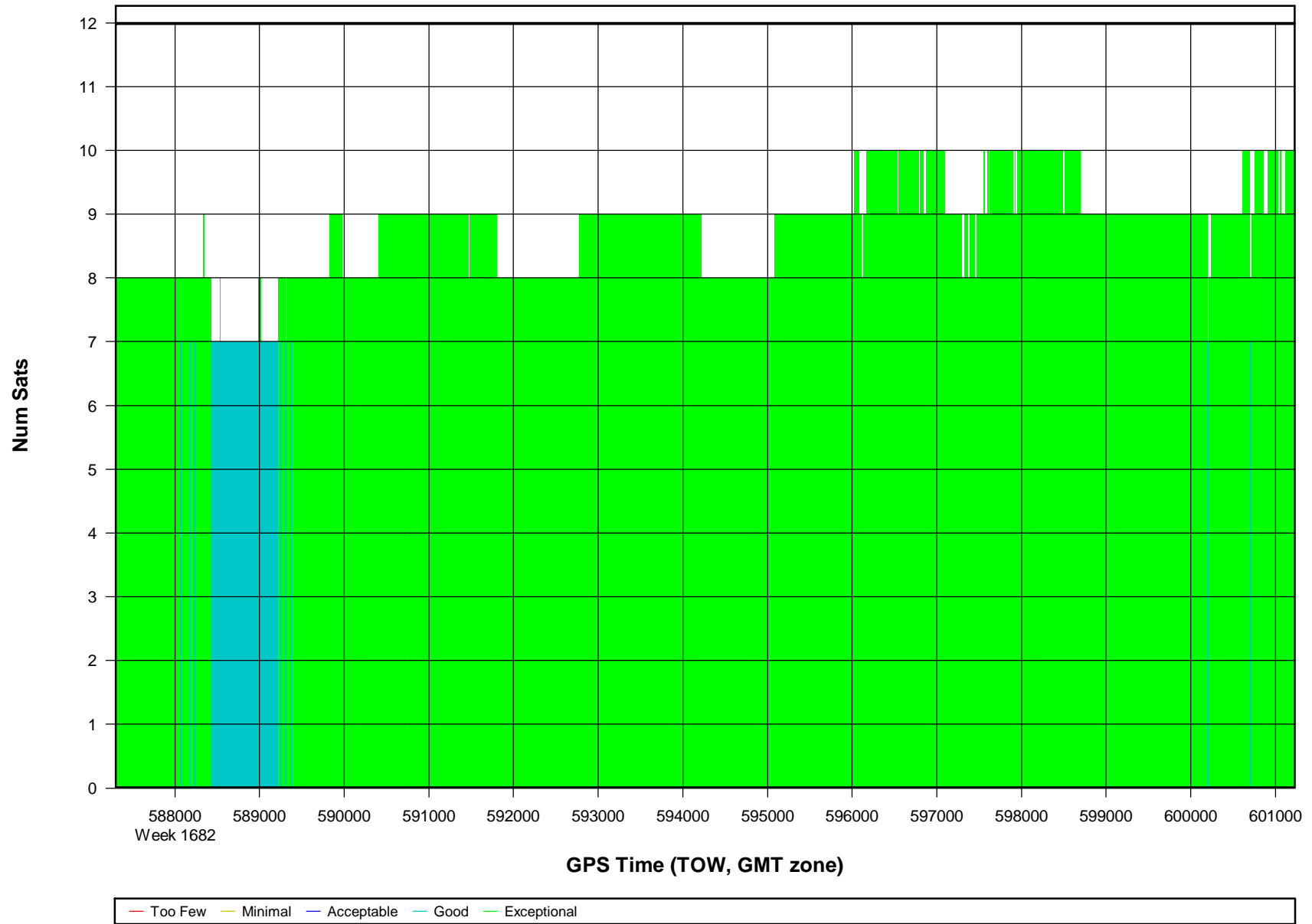
### o112098a [Combined] - Forward/Reverse or Combined Separation Plot



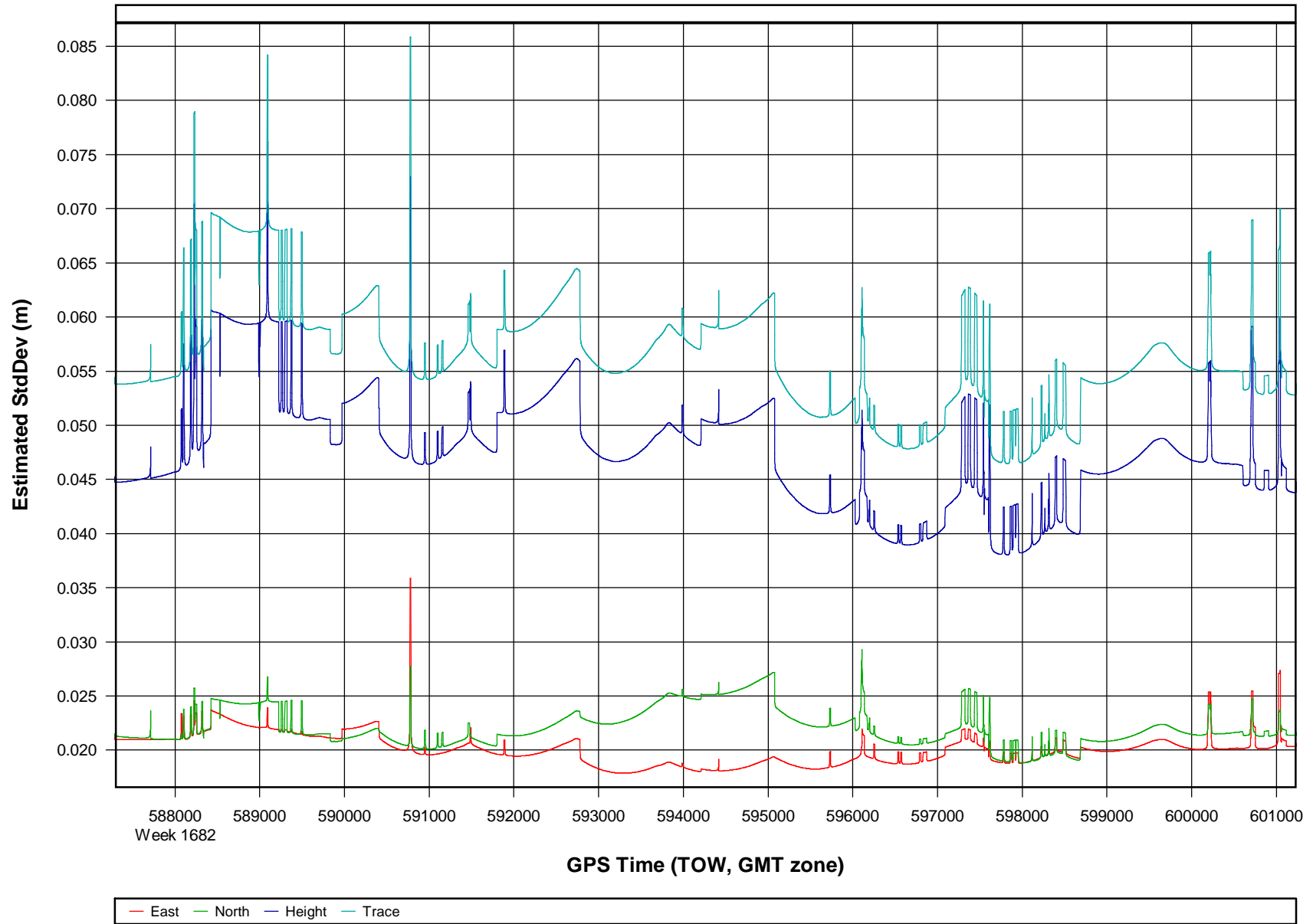
### o112098a [Combined] - PDOP, HDOP, VDOP Plots



**o112098a [Combined] - Number of Satellites Bar Plot**



### o112098a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112098a\3\_Processed\GPS\o112098a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 139619  
No processed position: 125669  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0185 (m)  
C/A Code: 0.81 (m)  
L1 Doppler: 0.031 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.014 (m)  
North: 0.008 (m)  
Height: 0.027 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (13945 occurrences):  
East: 0.014 (m)  
North: 0.007 (m)  
Height: 0.023 (m)

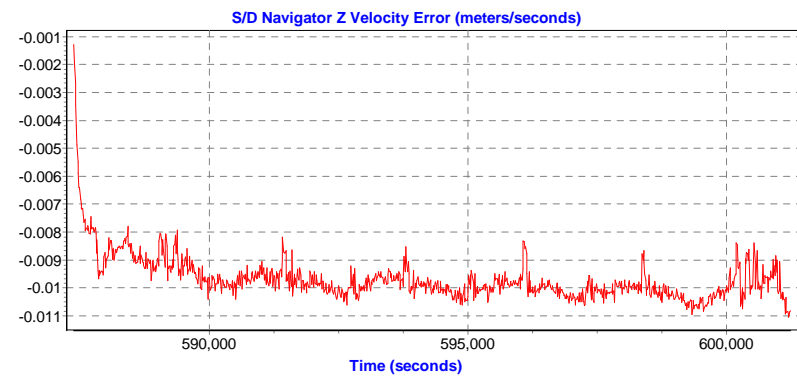
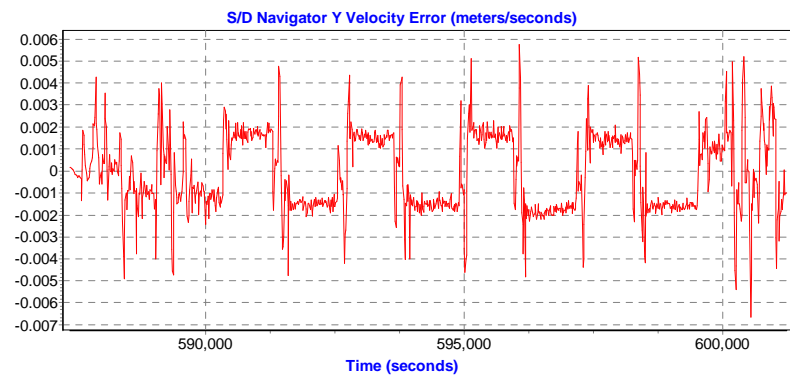
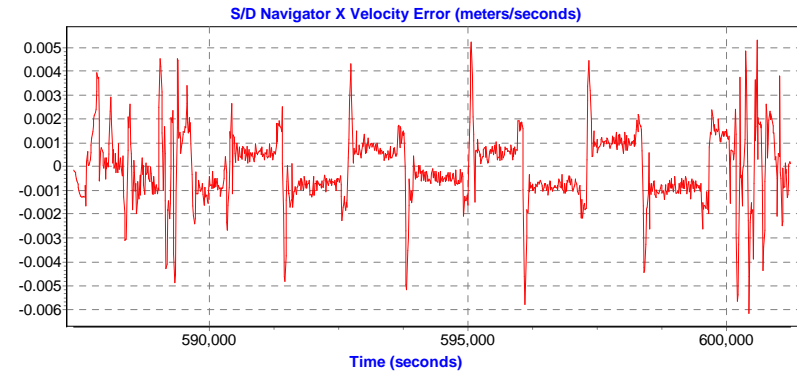
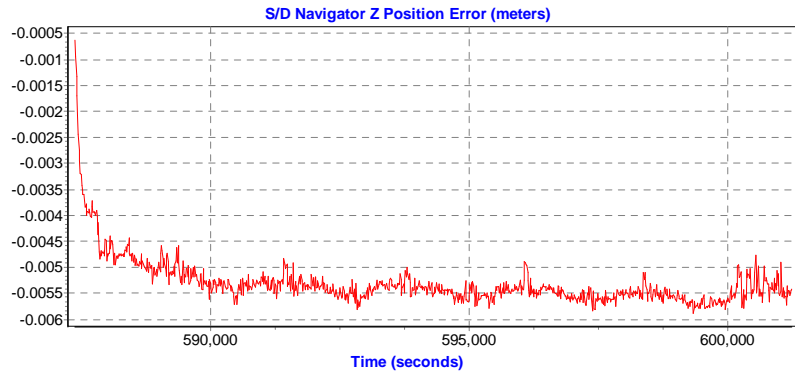
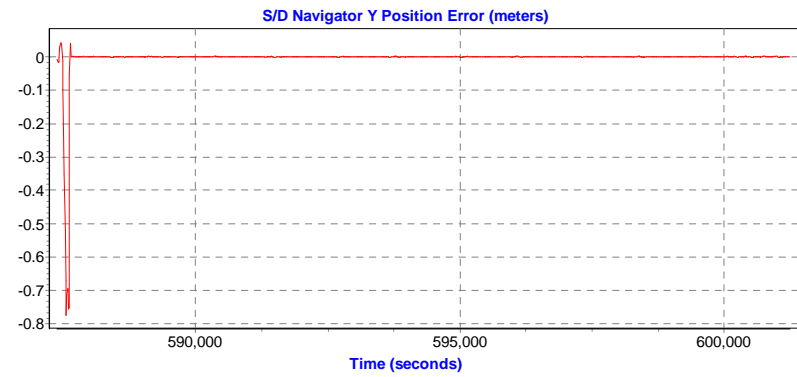
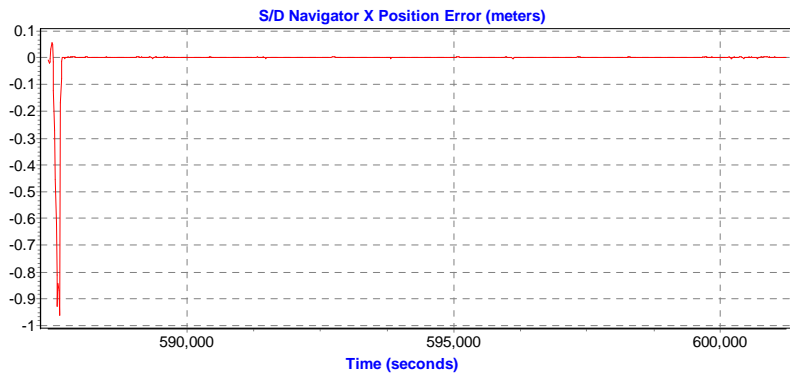
Quality Number Percentages:  
Q 1: 99.8 %  
Q 2: 0.2 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

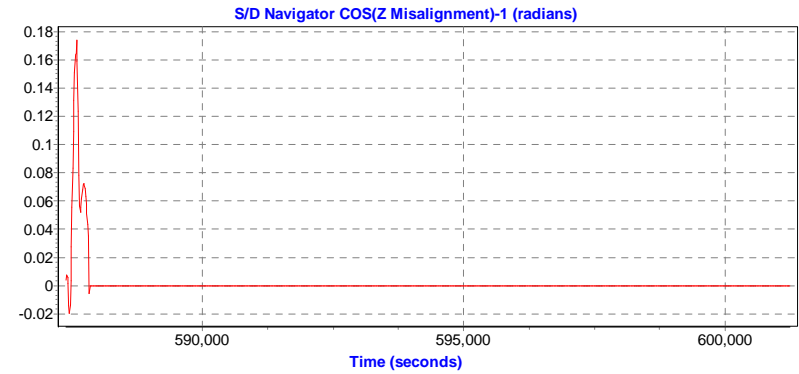
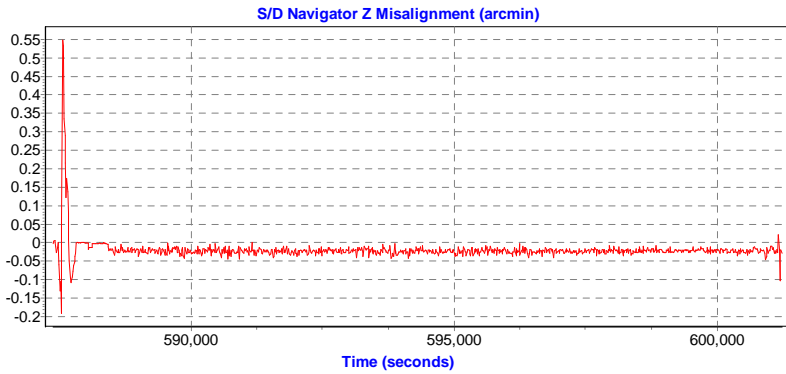
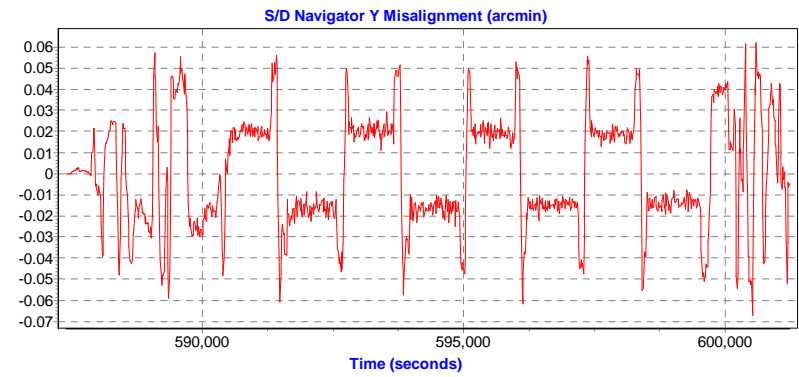
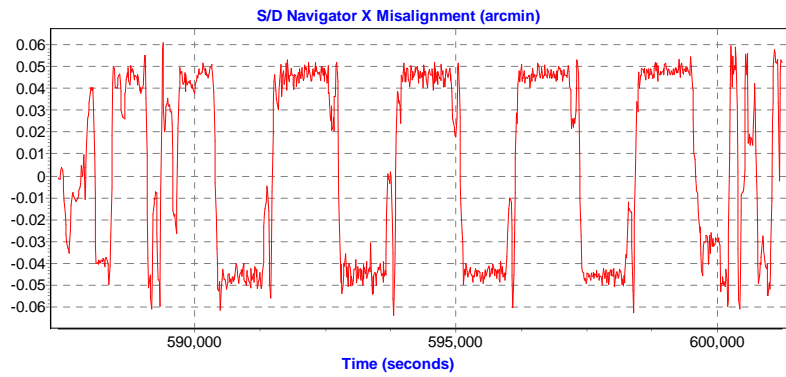
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

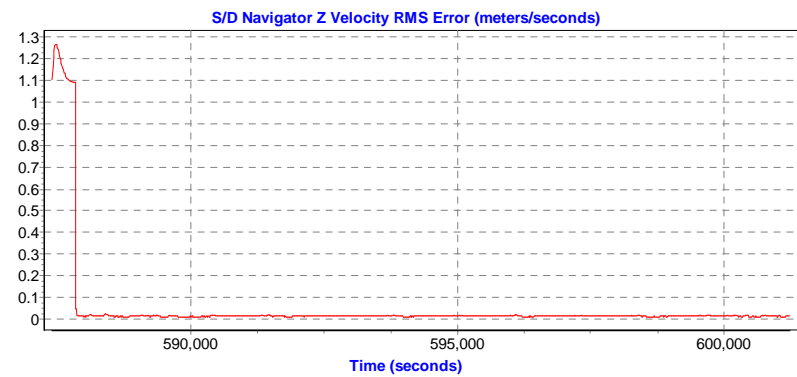
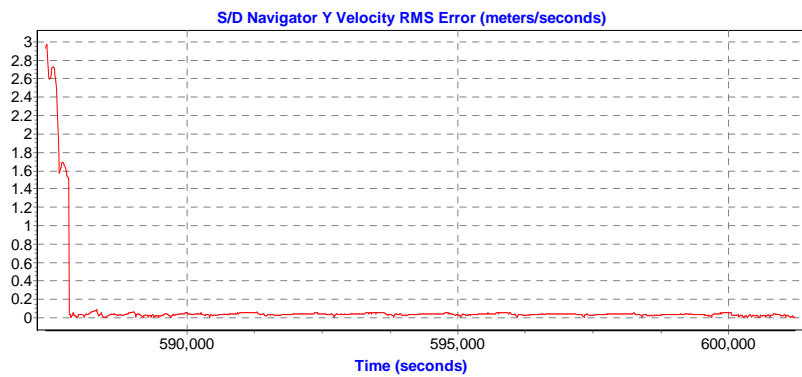
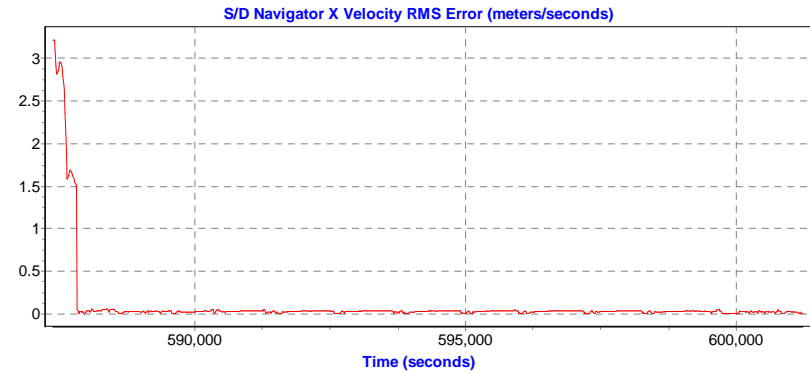
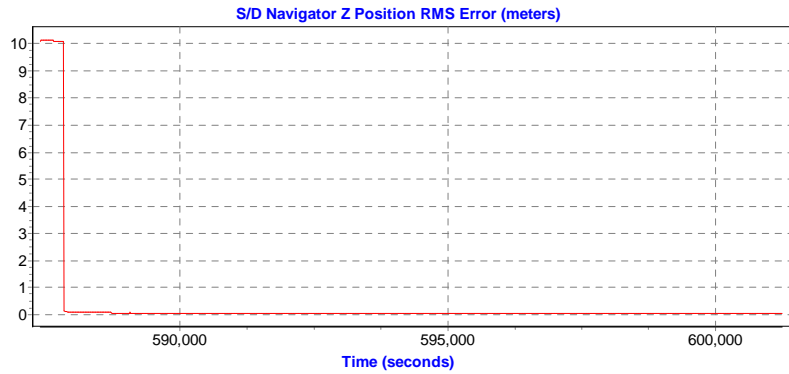
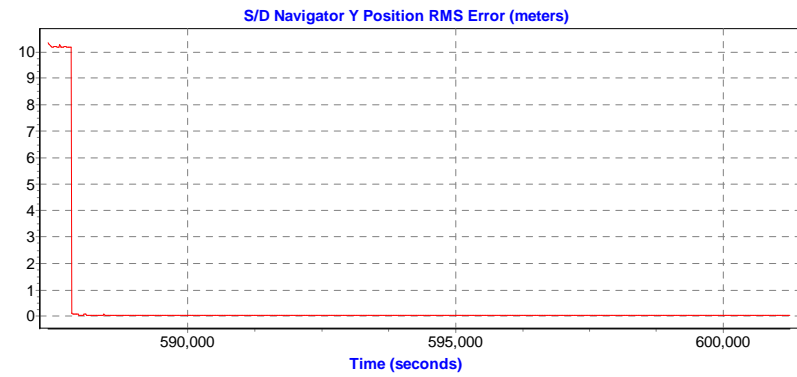
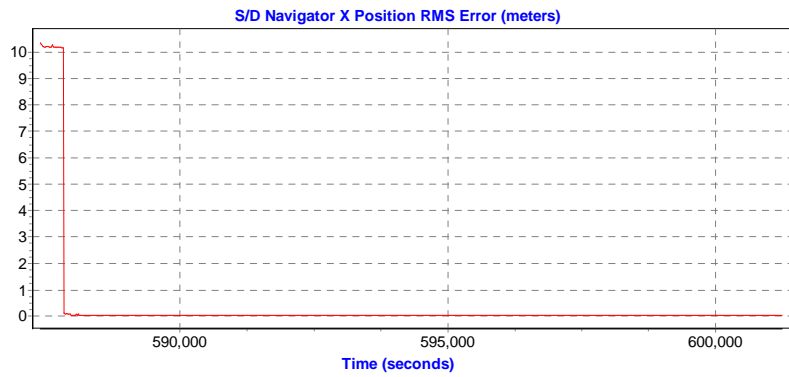
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

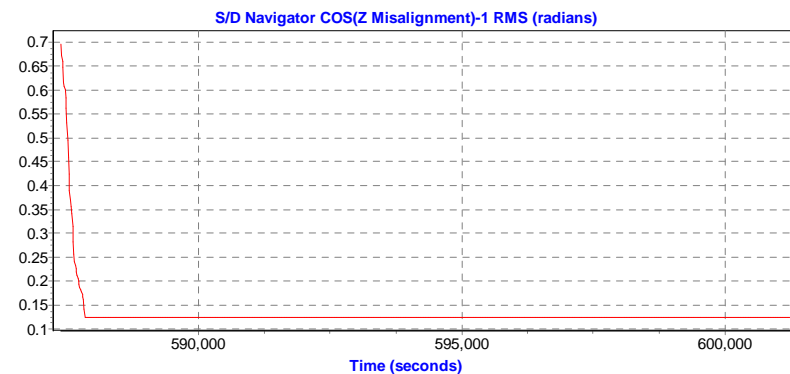
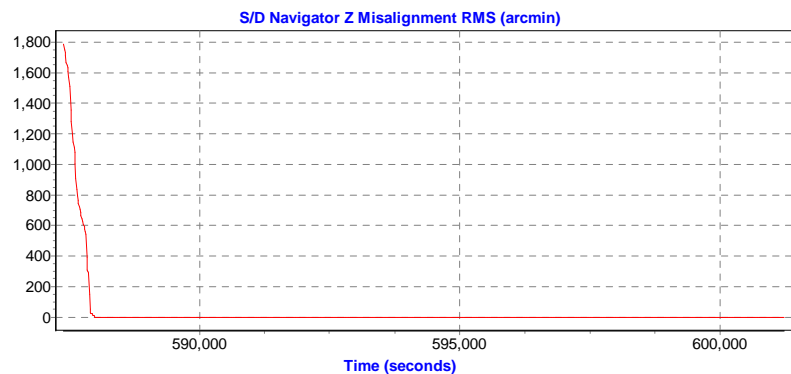
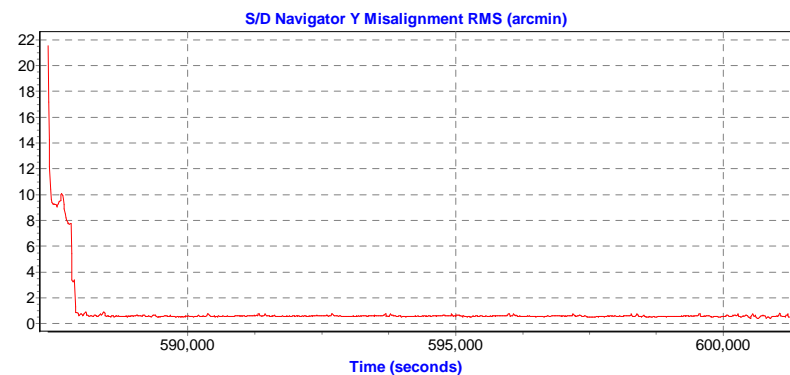
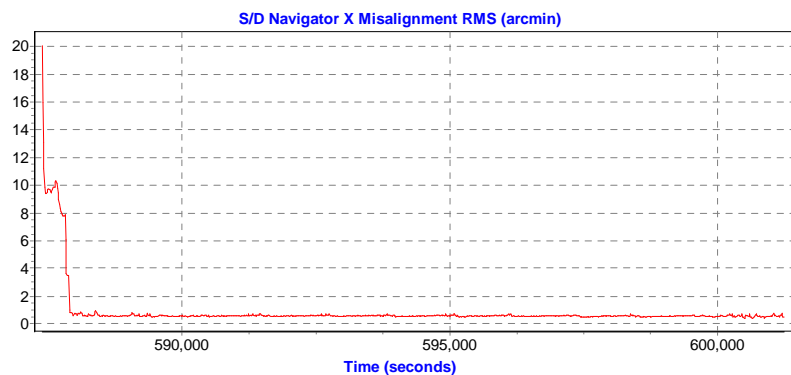
Baseline Distances:  
Maximum: 45.857 (km)  
Minimum: 0.916 (km)  
Average: 20.544 (km)  
First Epoch: 17.956 (km)  
Last Epoch: 18.110 (km)

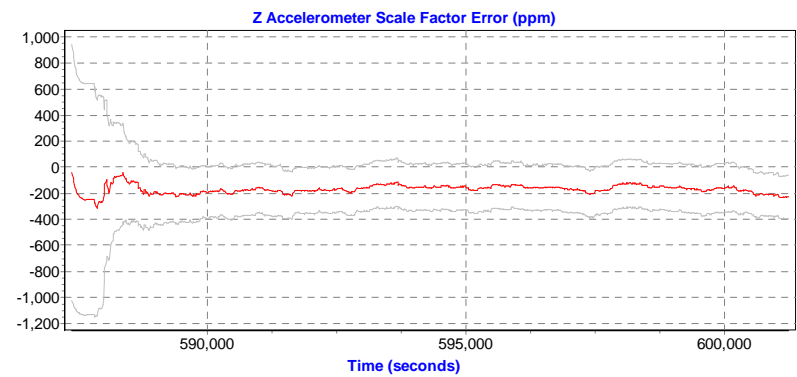
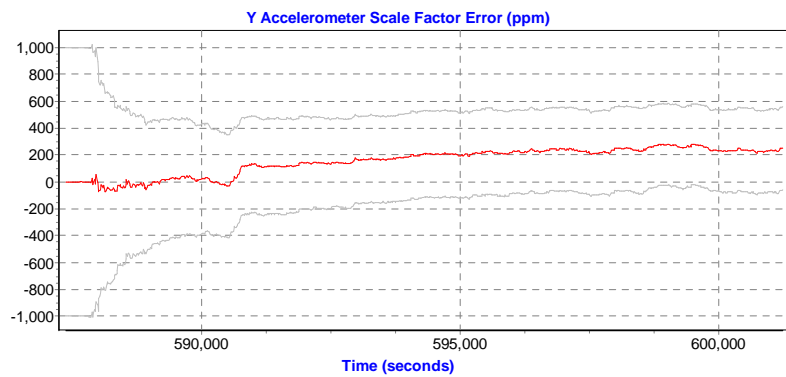
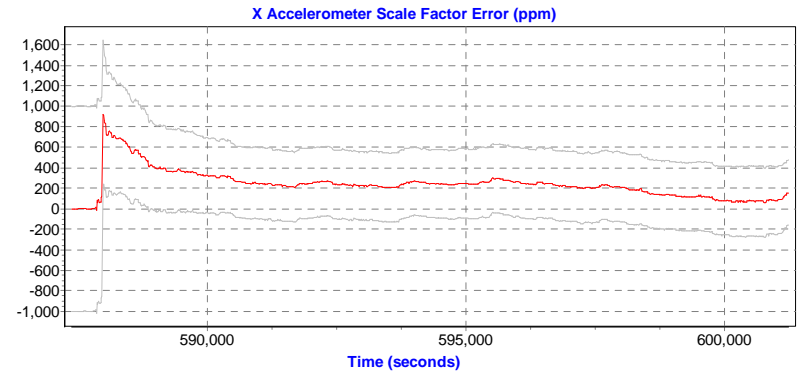
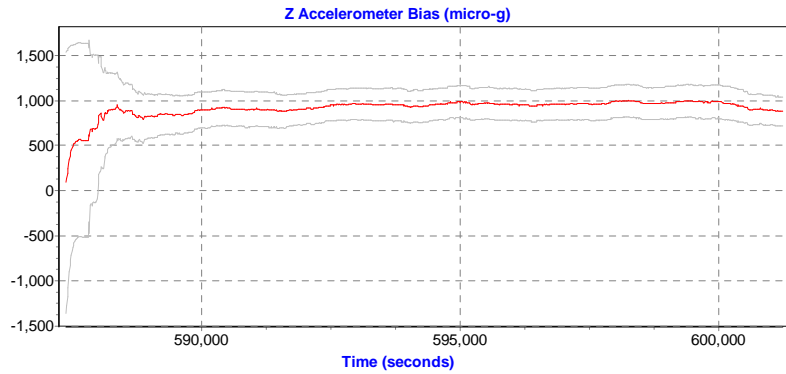
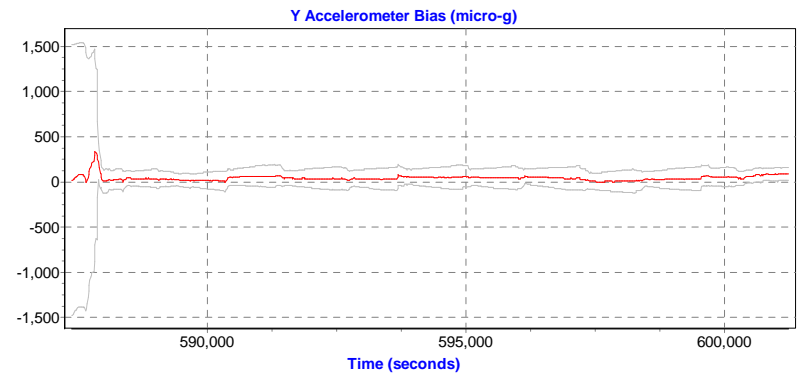
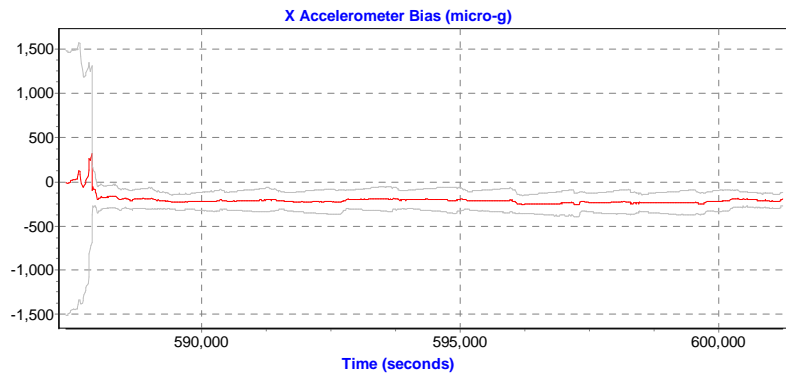


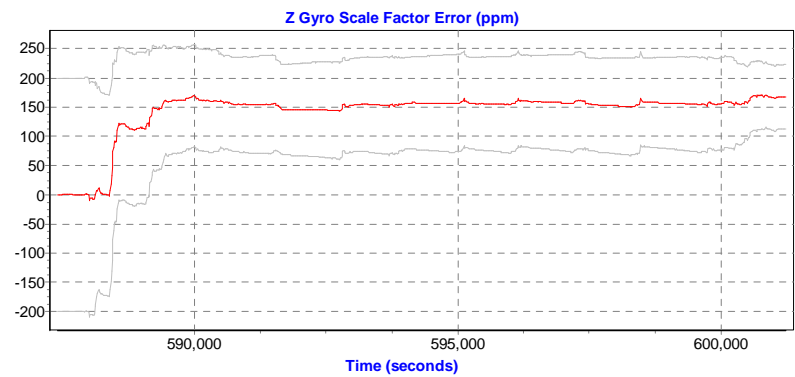
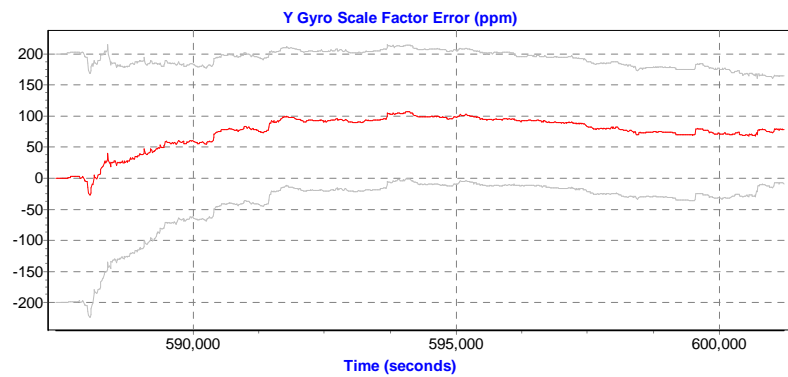
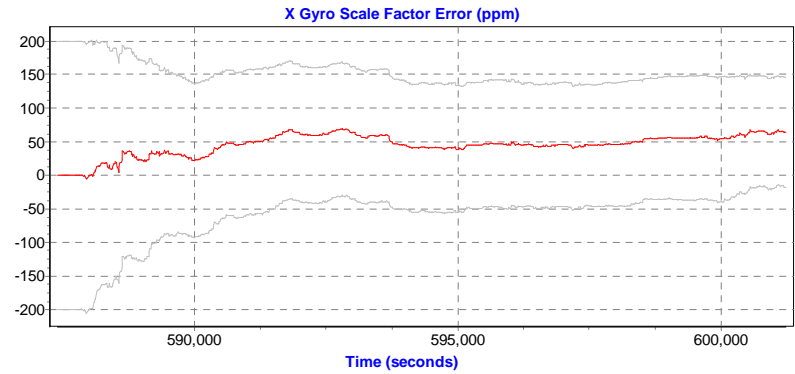
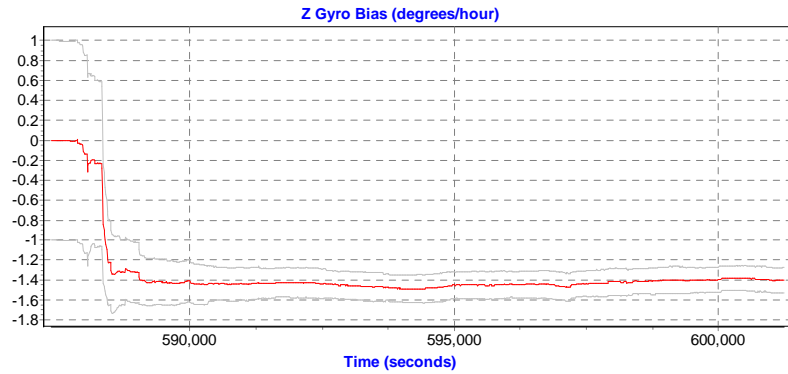
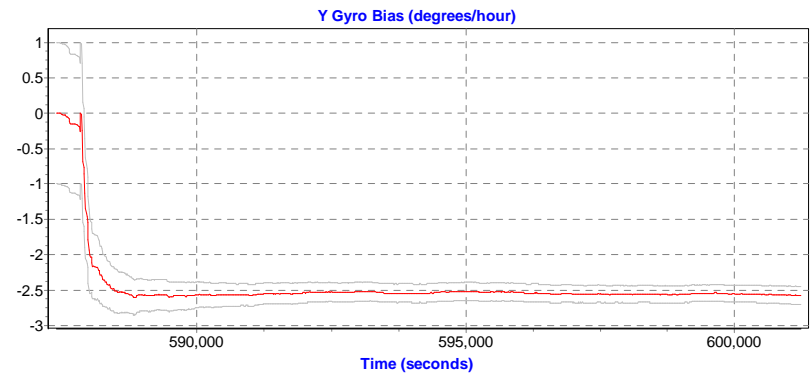
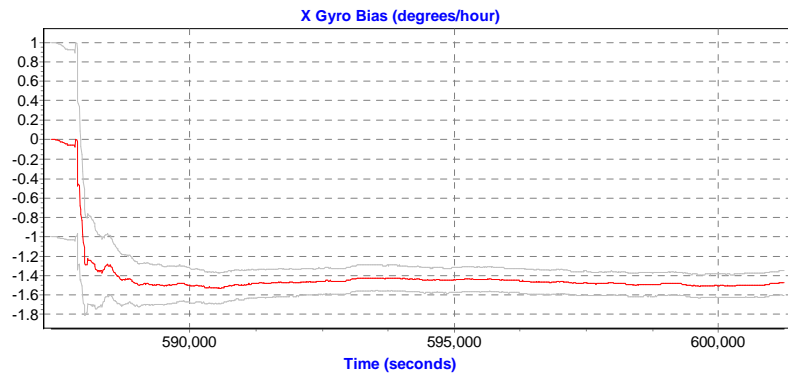


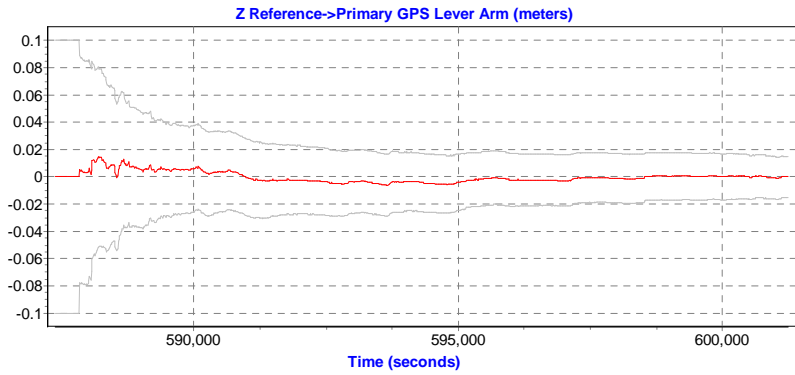
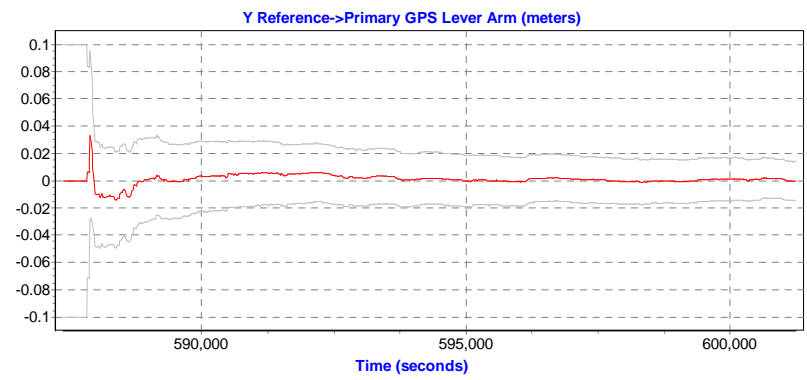
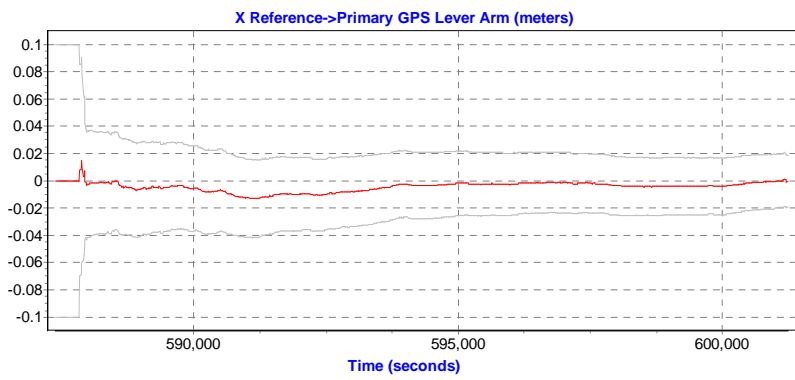






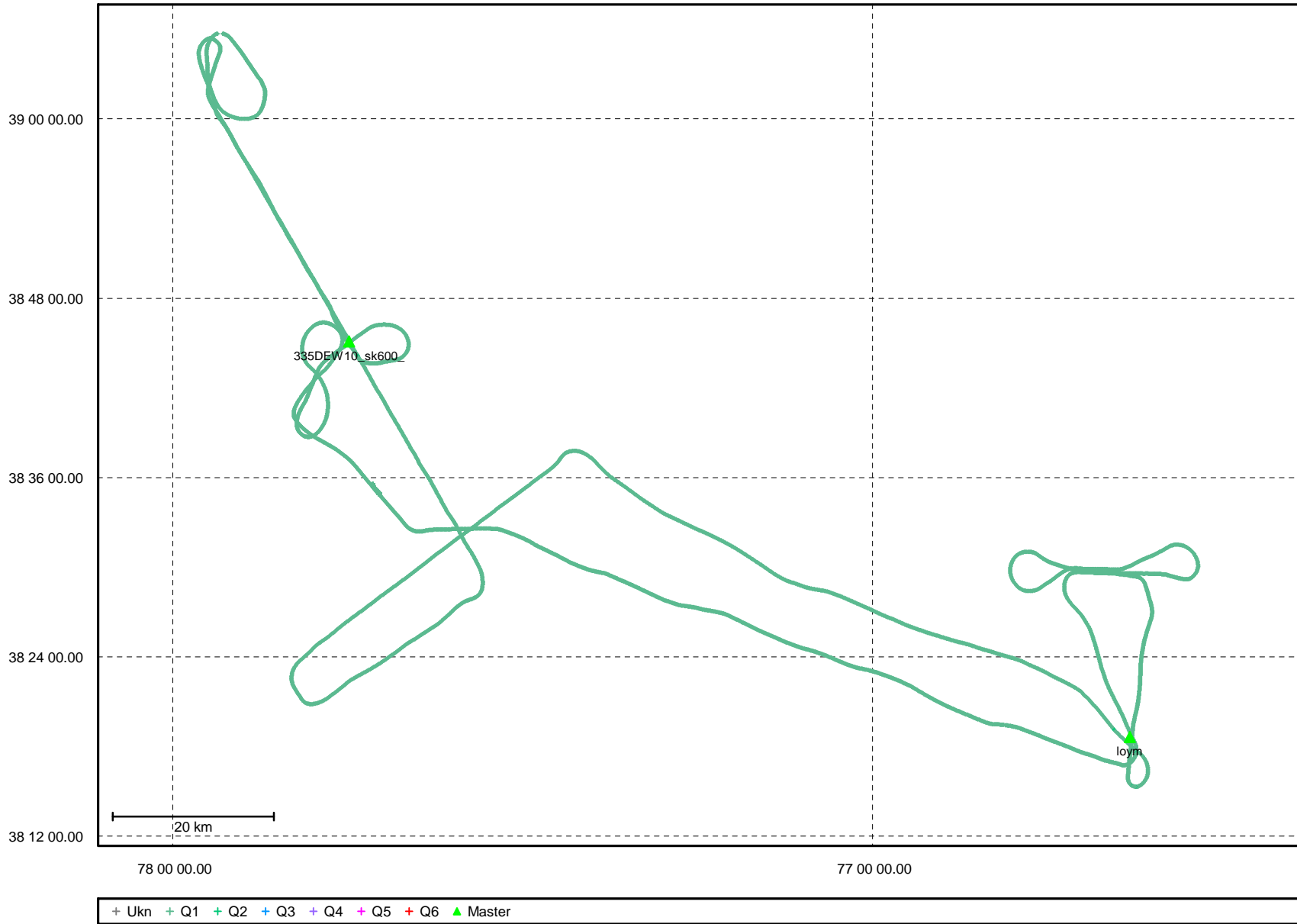






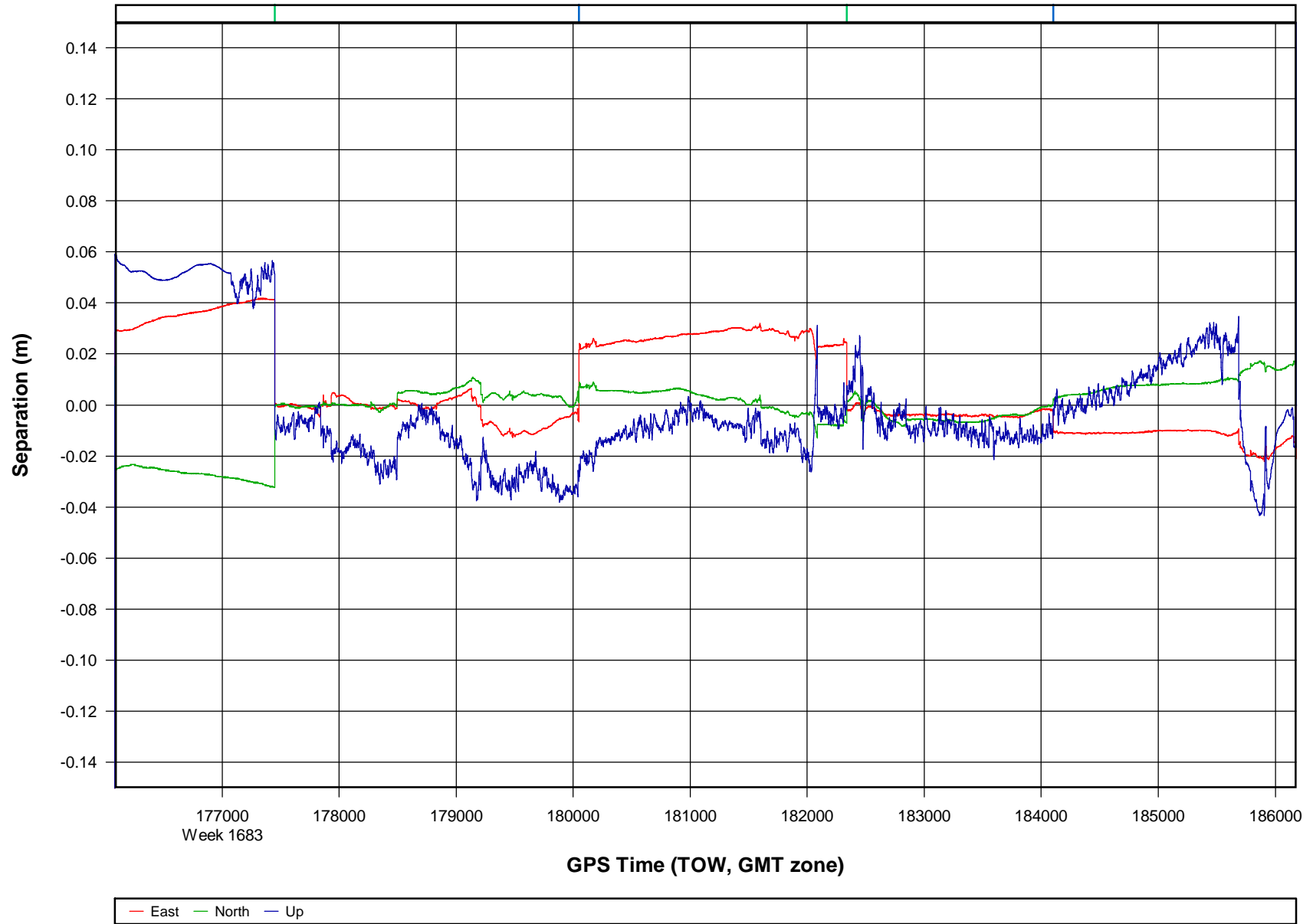
### Combined - Map Run (3)

Geographic, DMS

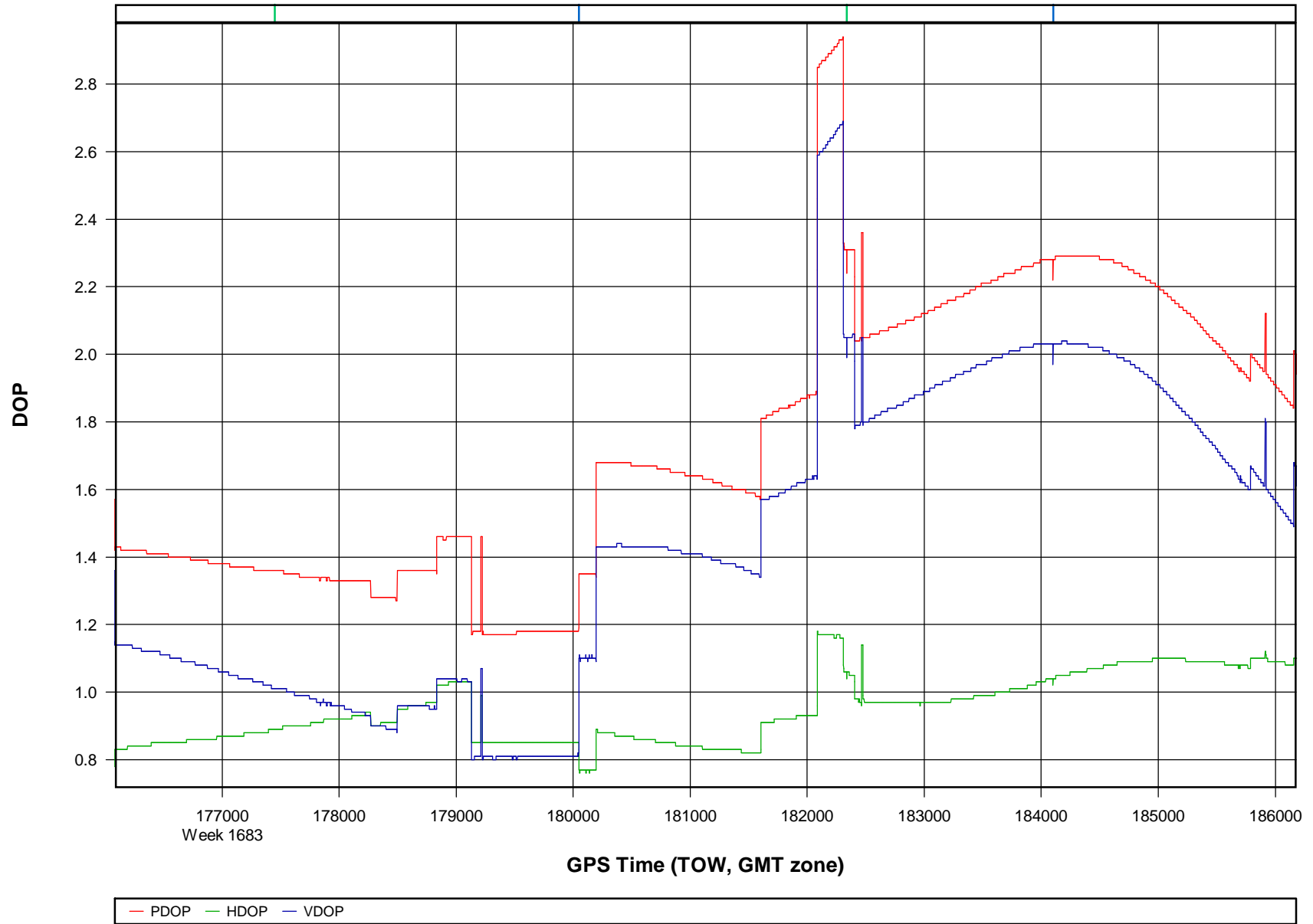




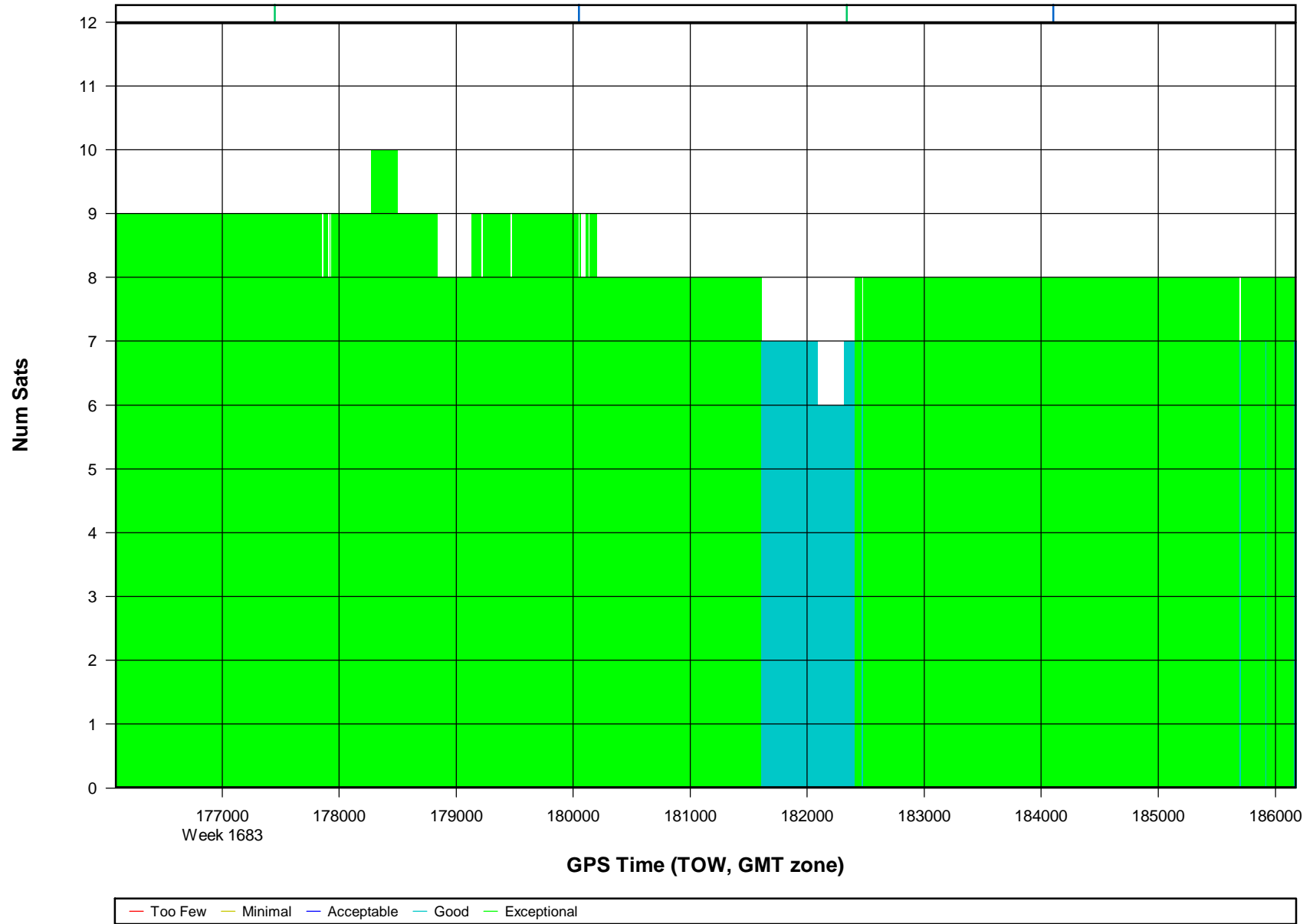
### o112100a [Combined] - Forward/Reverse or Combined Separation Plot



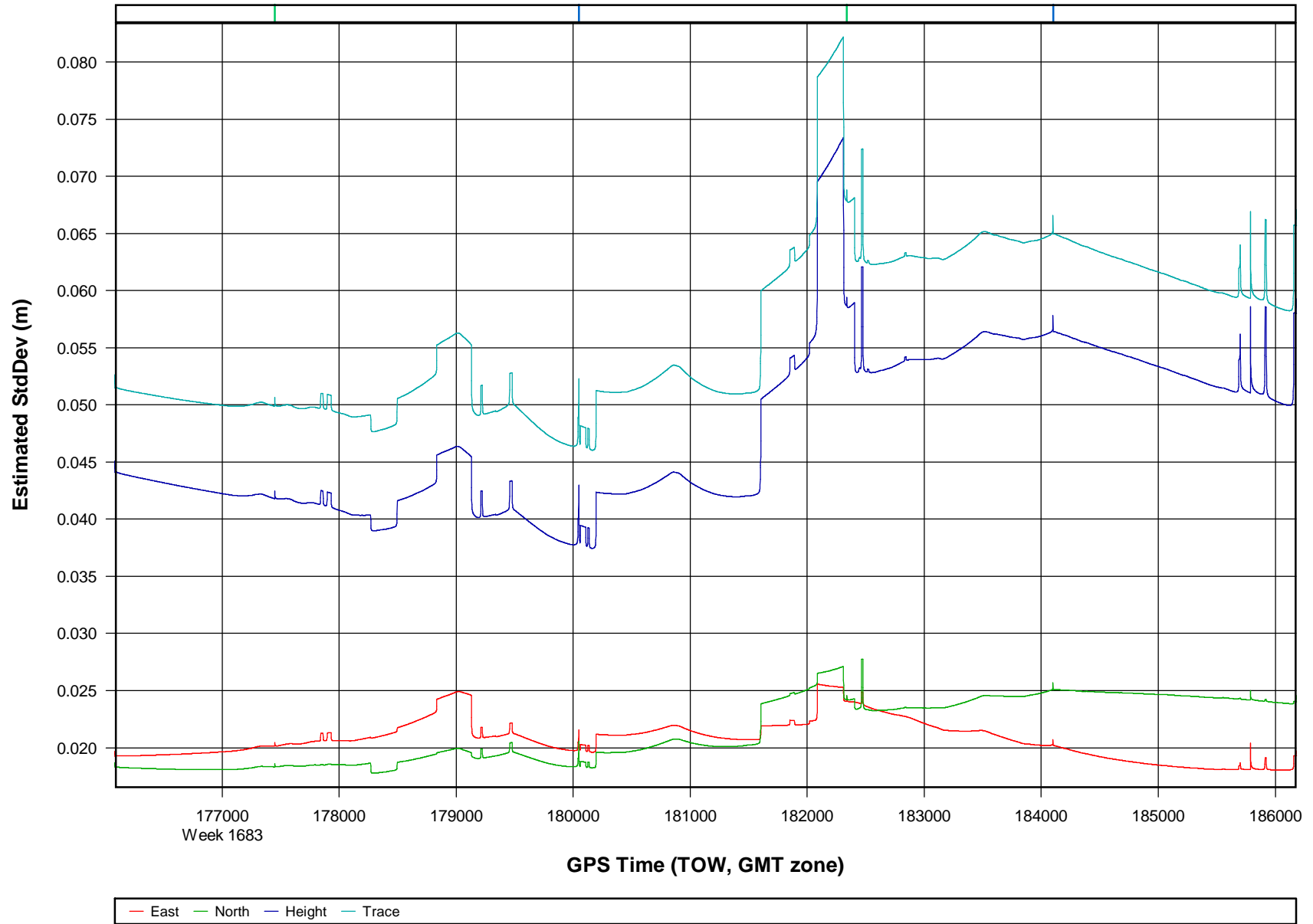
**o112100a [Combined] - PDOP, HDOP, VDOP Plots**



**o112100a [Combined] - Number of Satellites Bar Plot**



### o112100a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112100a\3\_Processed\GPS\o112100a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 101105  
No processed position: 91013  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0172 (m)  
C/A Code: 0.69 (m)  
L1 Doppler: 0.033 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.020 (m)  
North: 0.012 (m)  
Height: 0.026 (m)

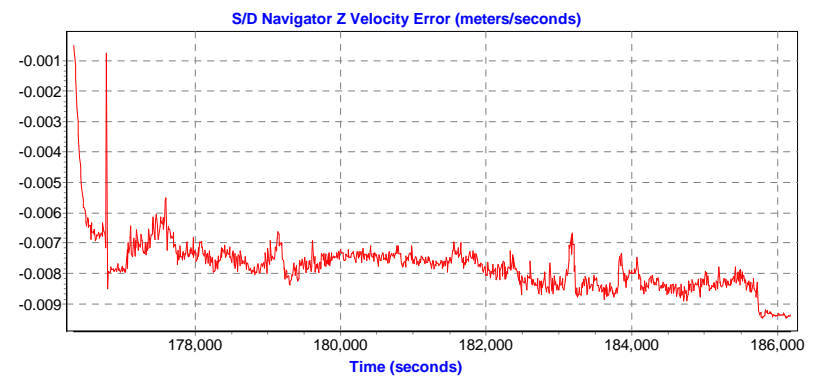
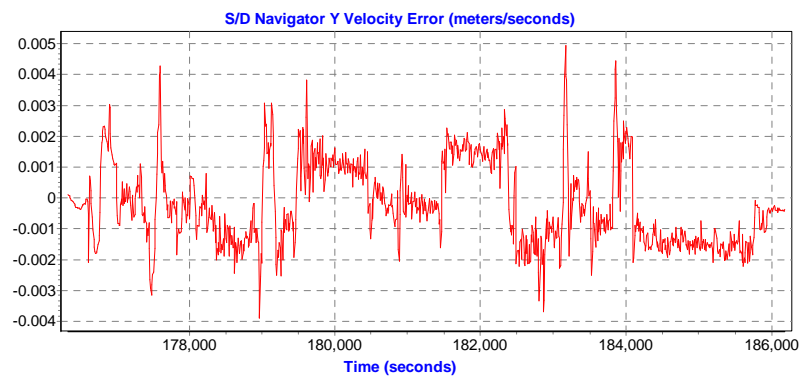
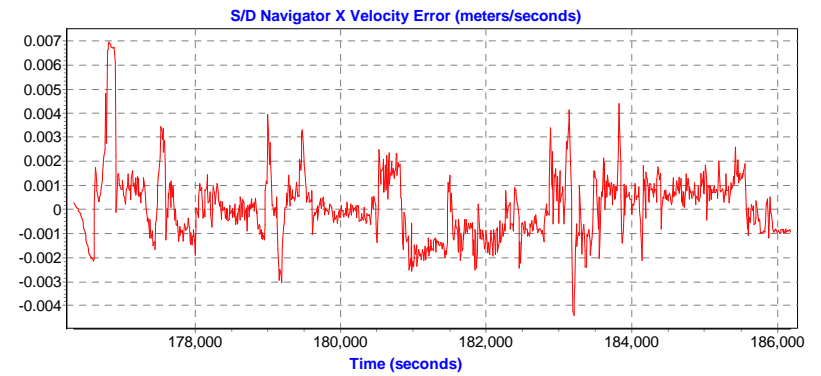
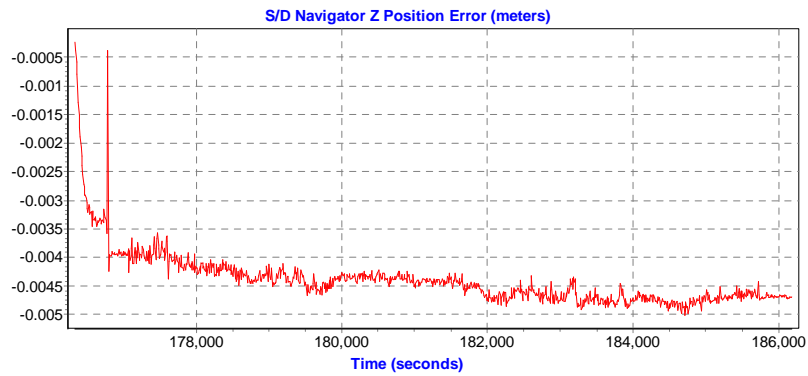
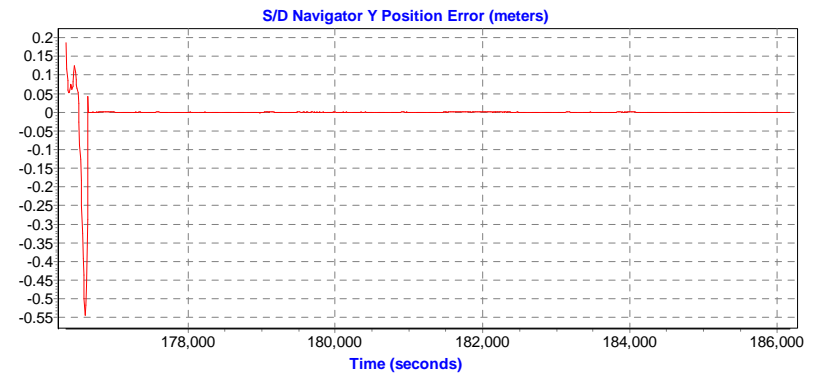
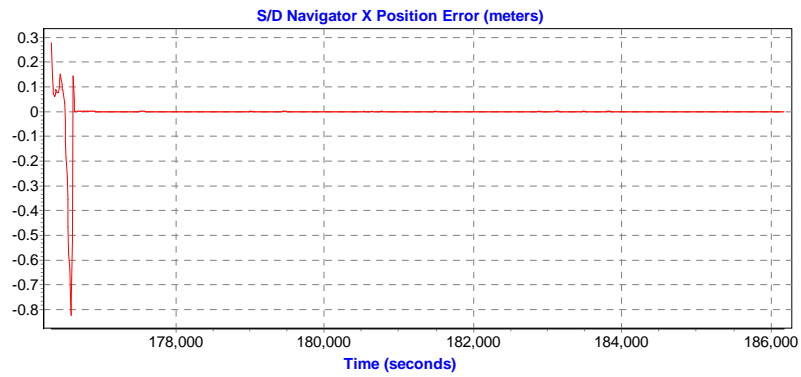
Fwd/Rev Sep. RMS for 25%-75% weighting (10087 occurrences):  
East: 0.020 (m)  
North: 0.012 (m)  
Height: 0.024 (m)

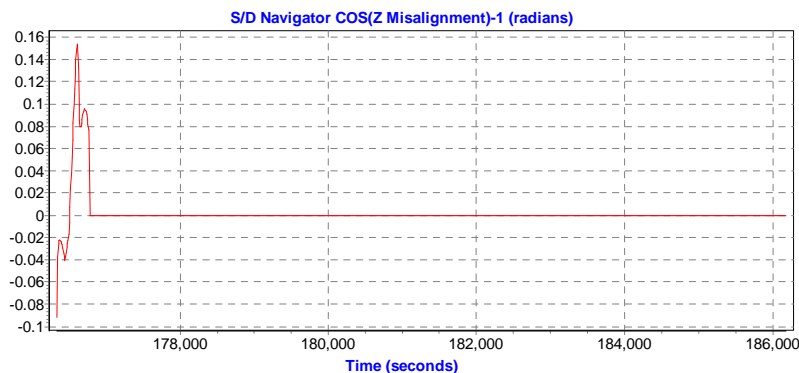
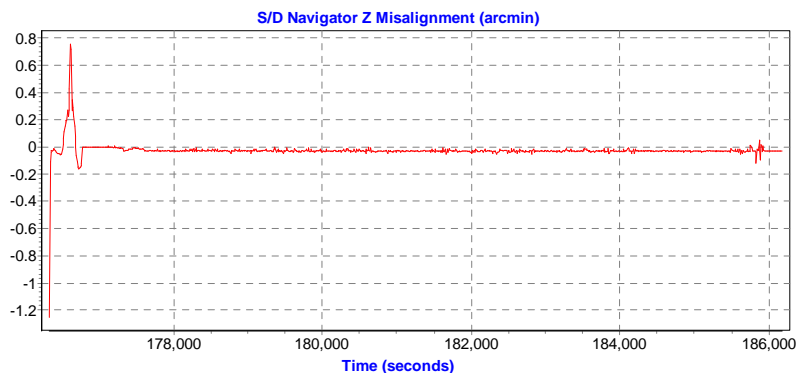
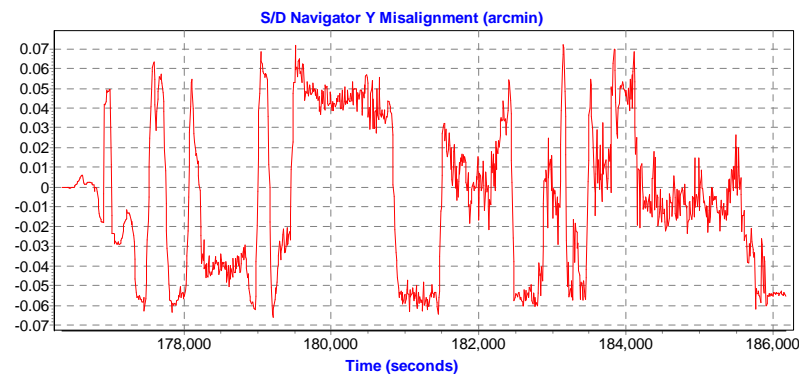
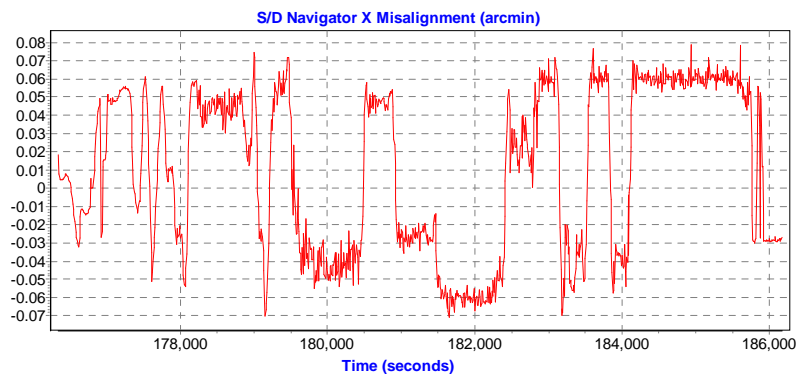
Quality Number Percentages:  
Q 1: 99.8 %  
Q 2: 0.2 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

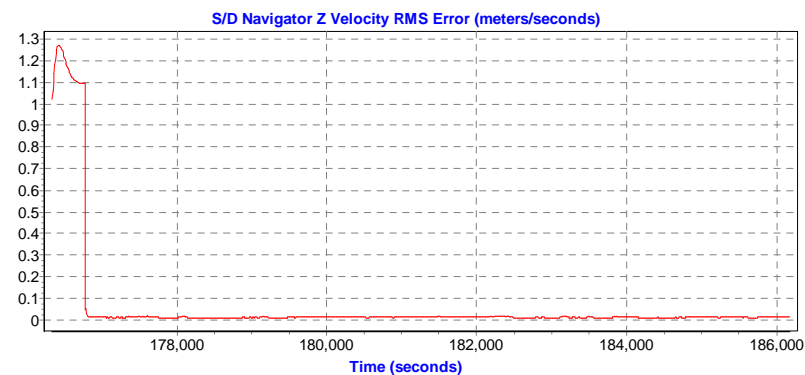
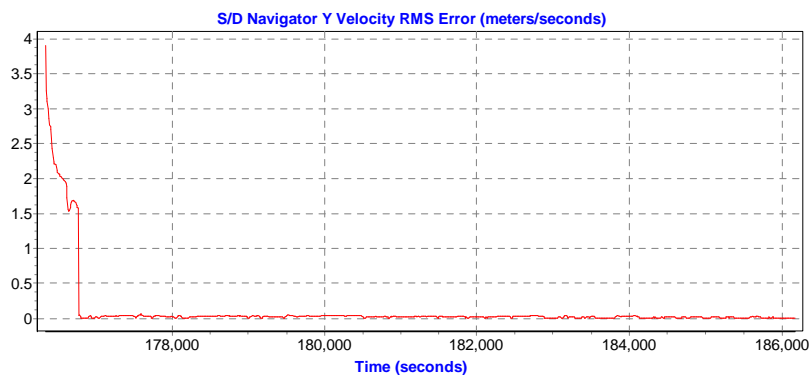
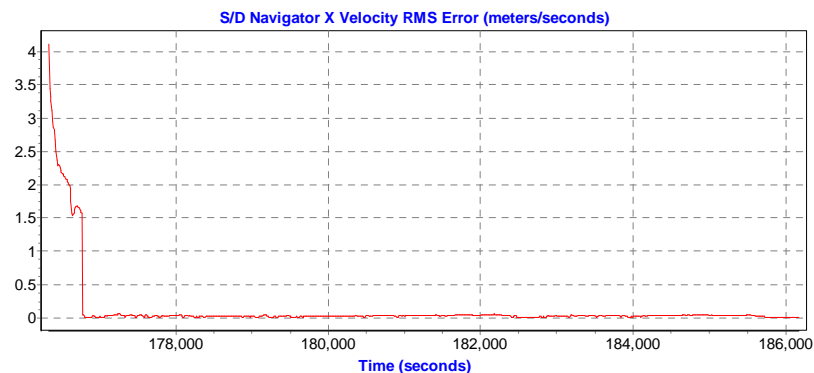
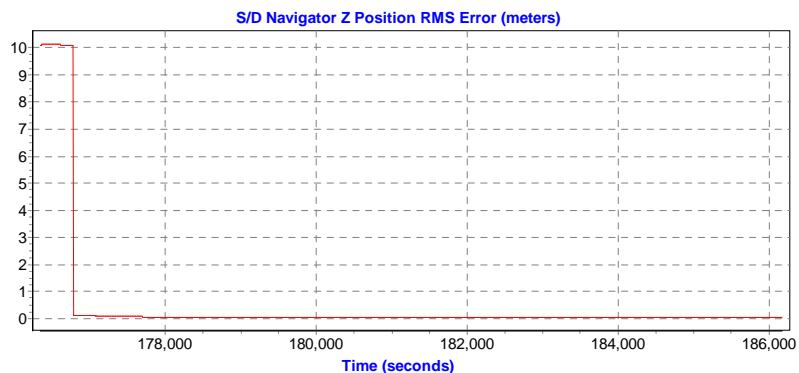
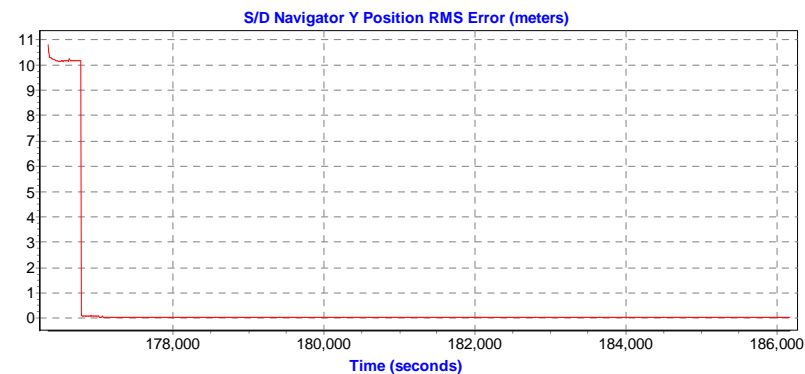
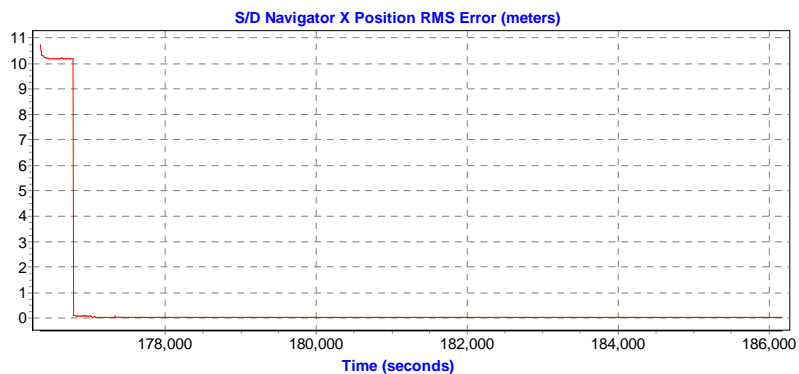
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

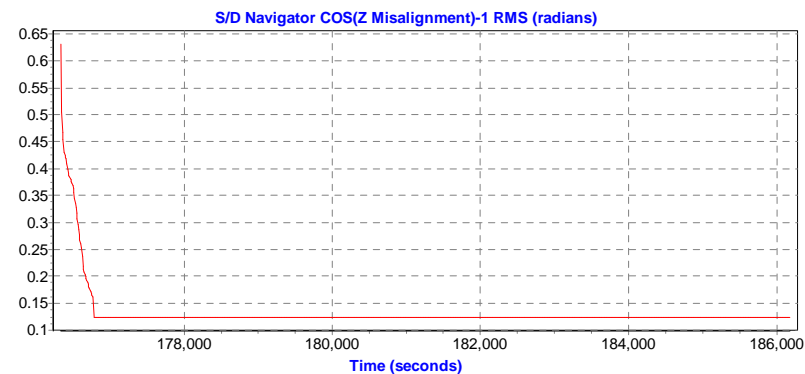
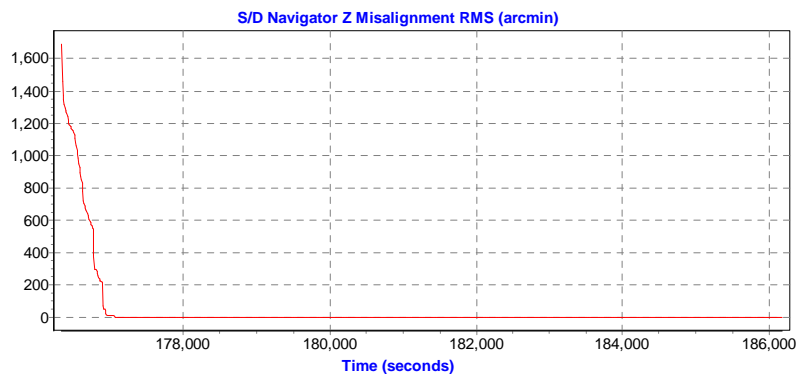
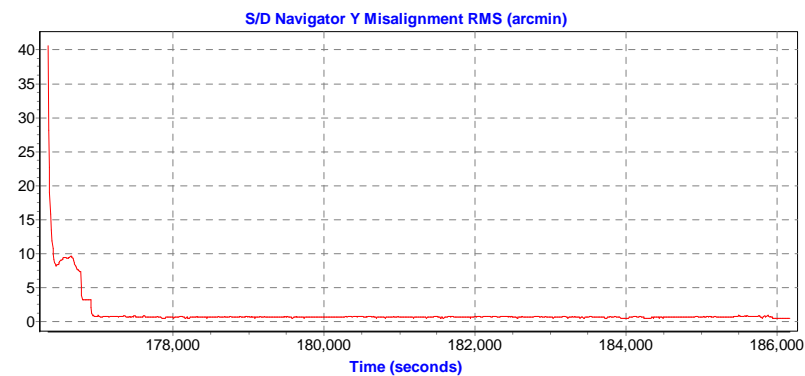
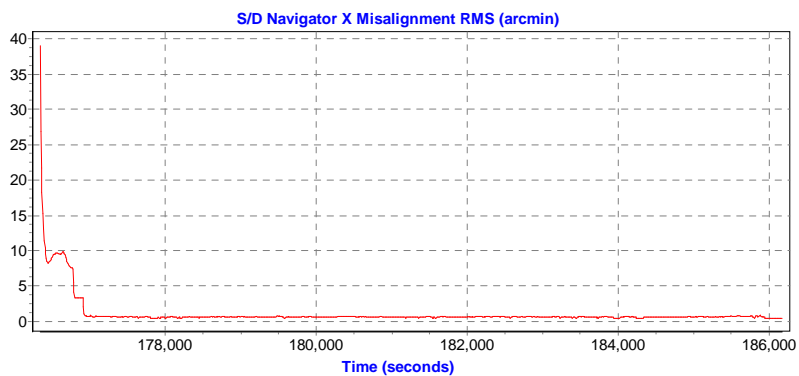
Baseline Distances:  
Maximum: 77.095 (km)  
Minimum: 1.896 (km)  
Average: 34.994 (km)  
First Epoch: 33.798 (km)  
Last Epoch: 33.977 (km)

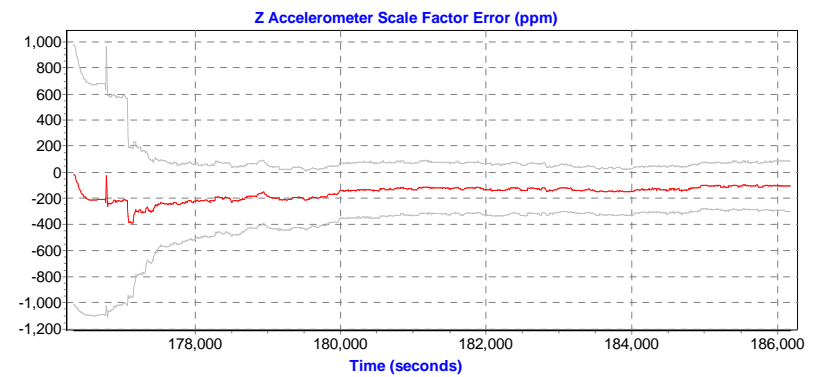
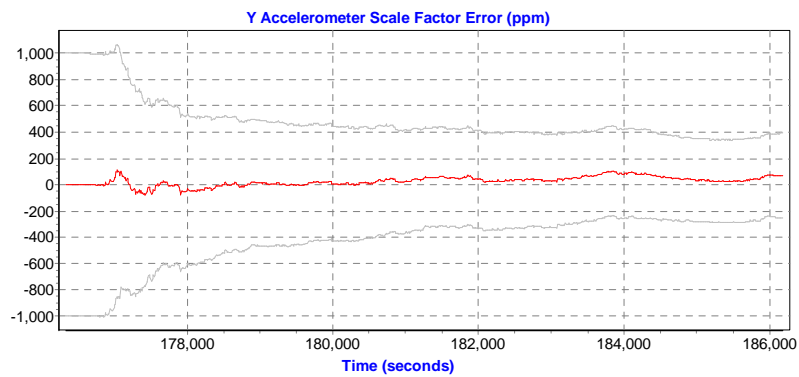
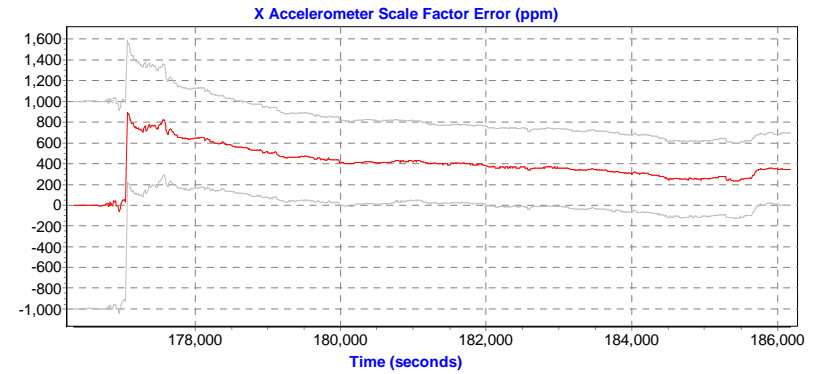
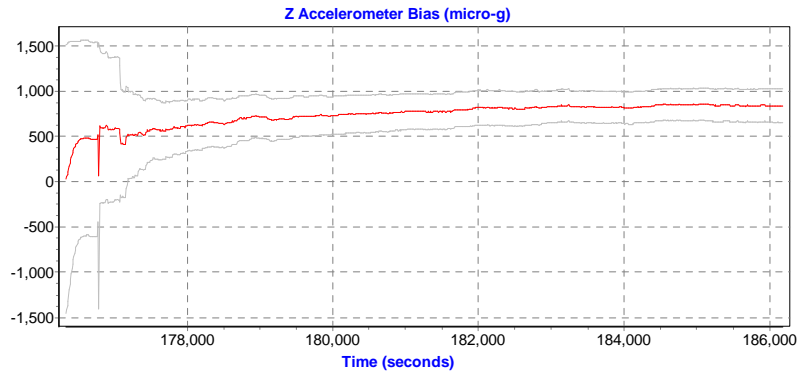
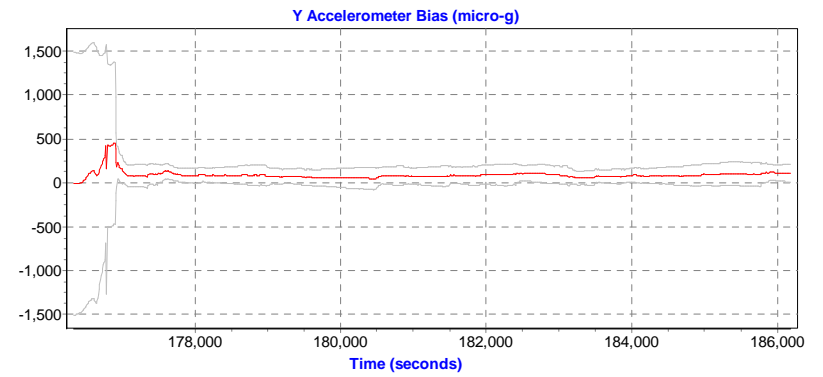
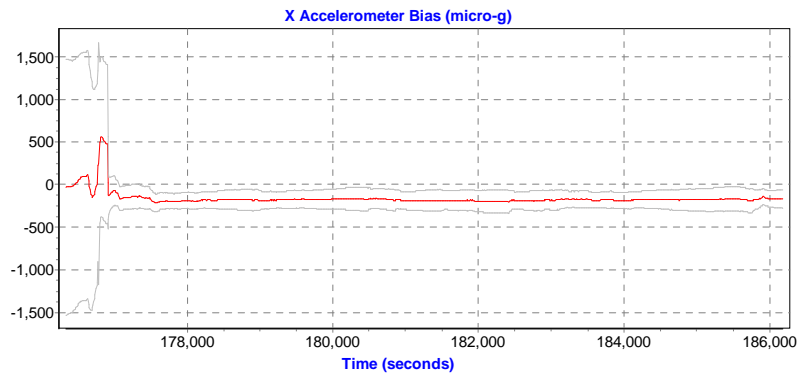


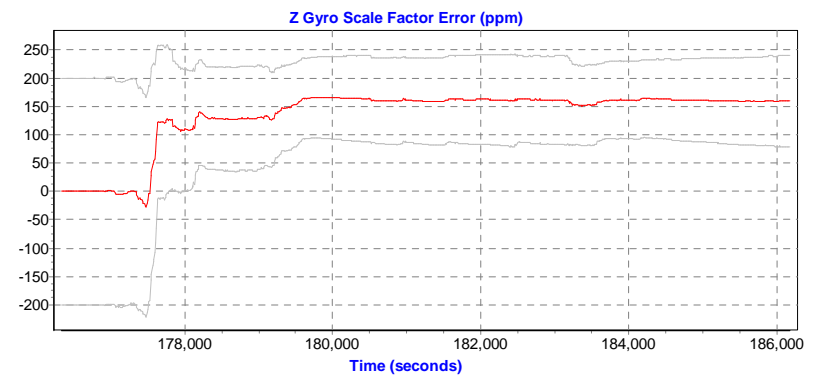
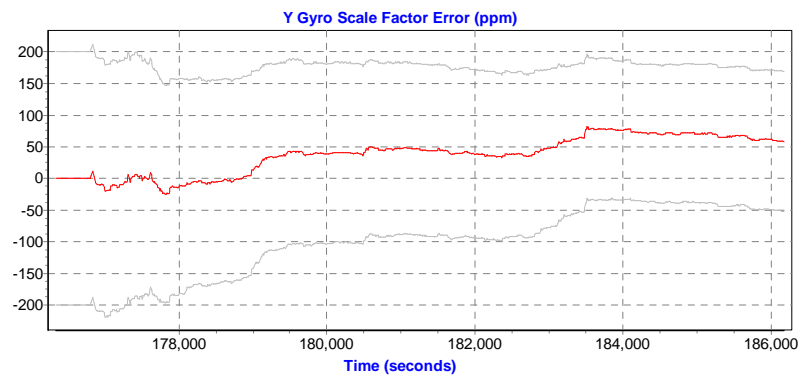
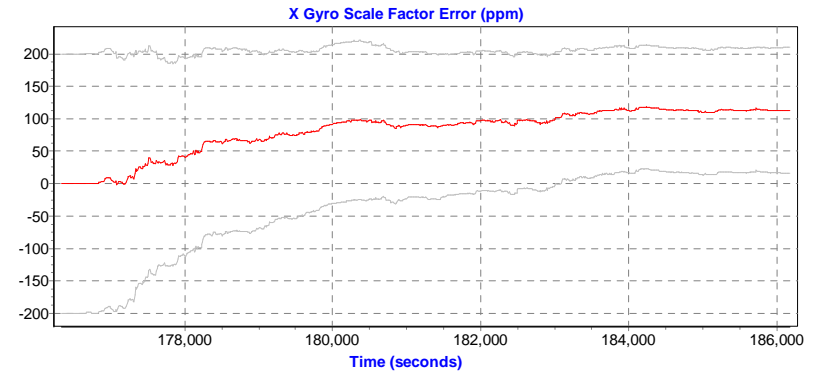
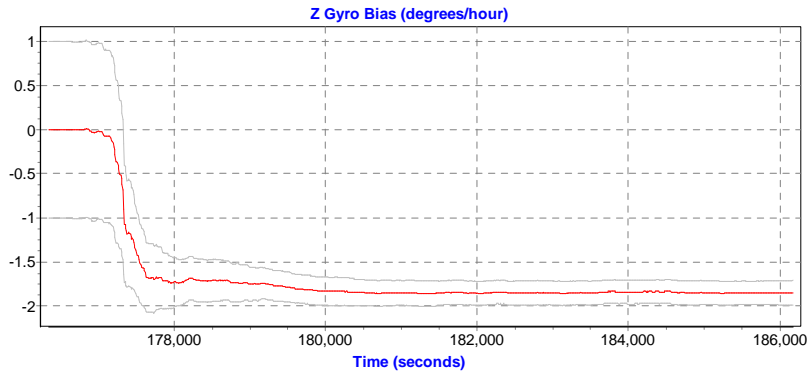
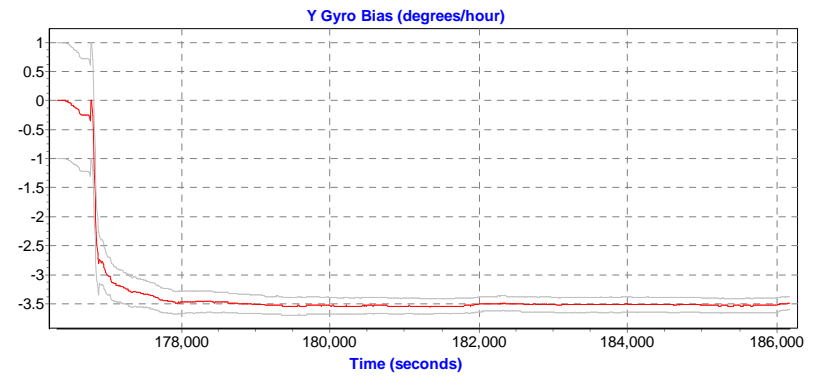
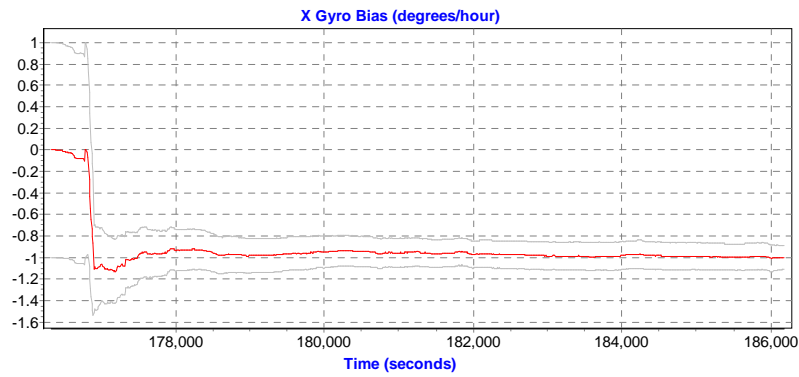


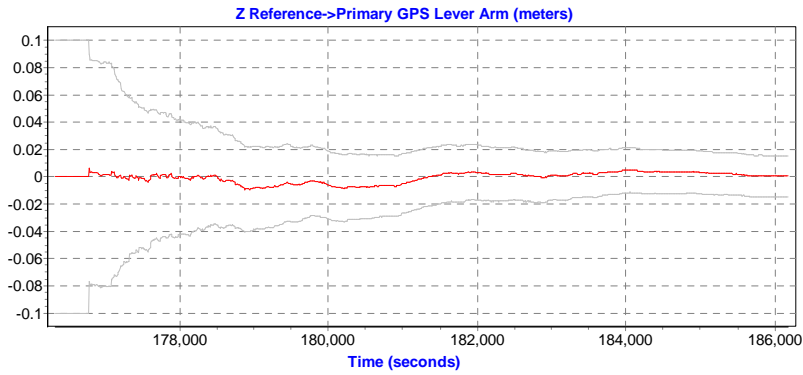
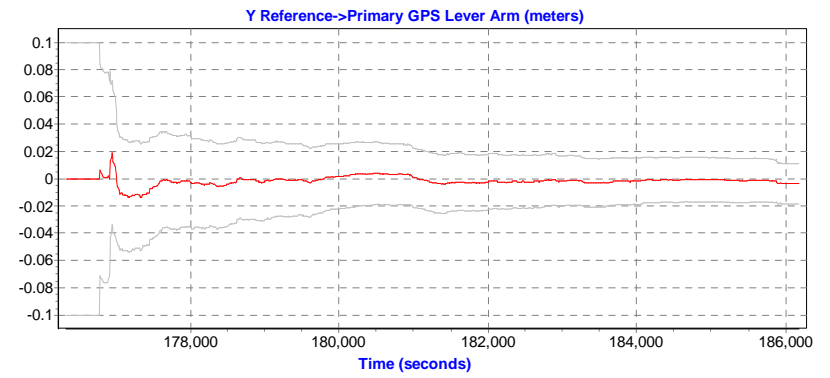
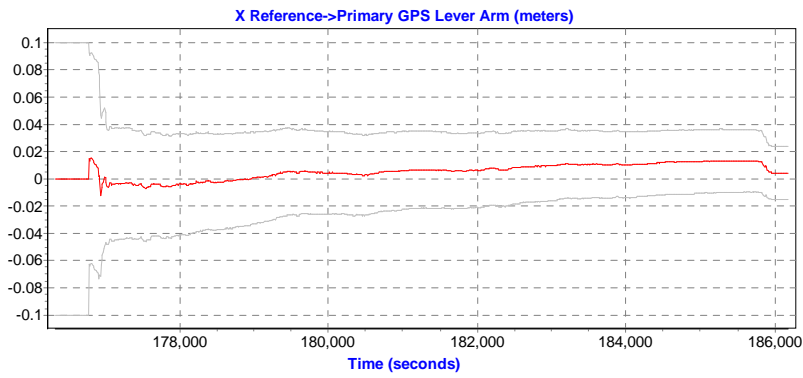






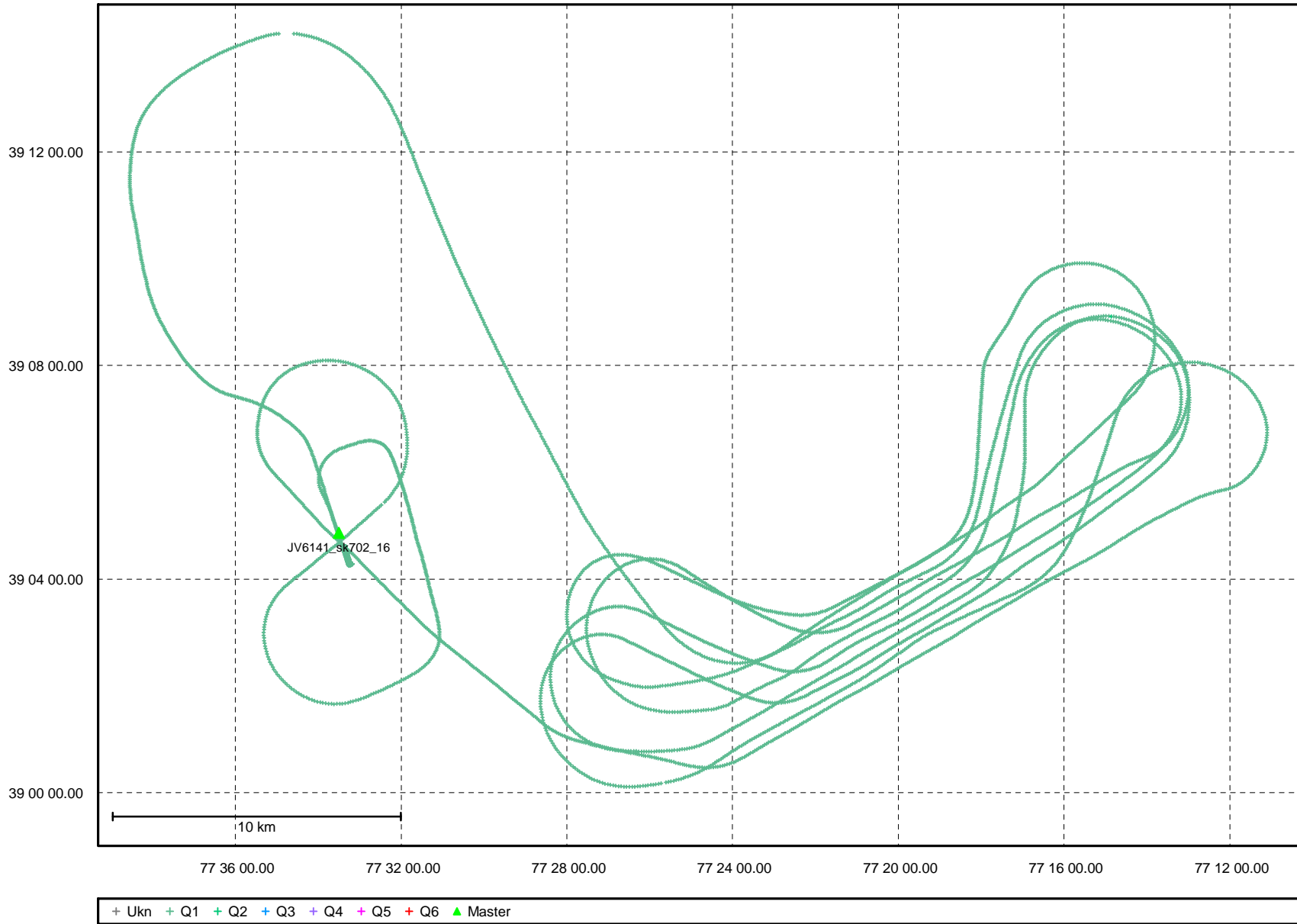




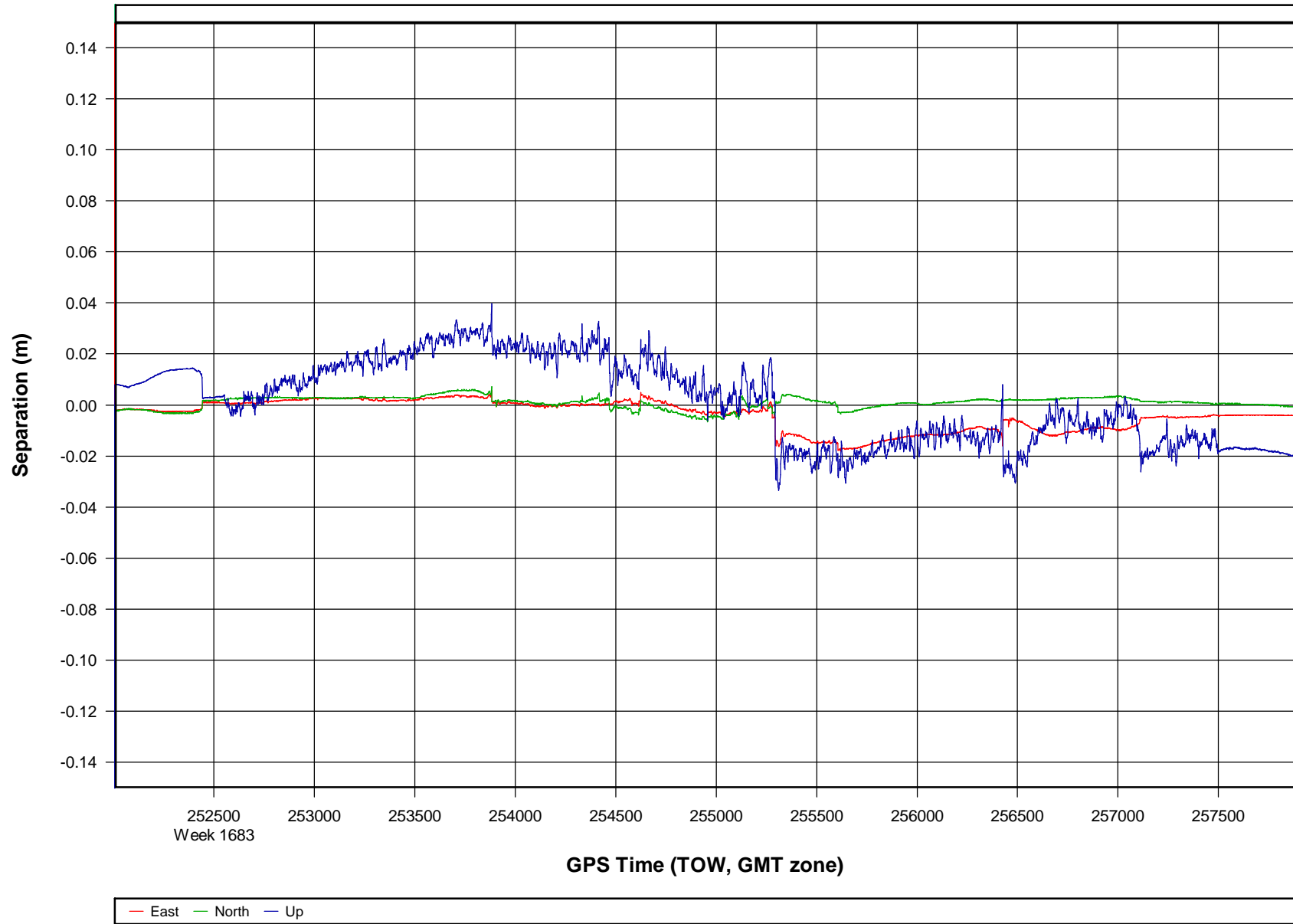


### Combined - Map Run (1)

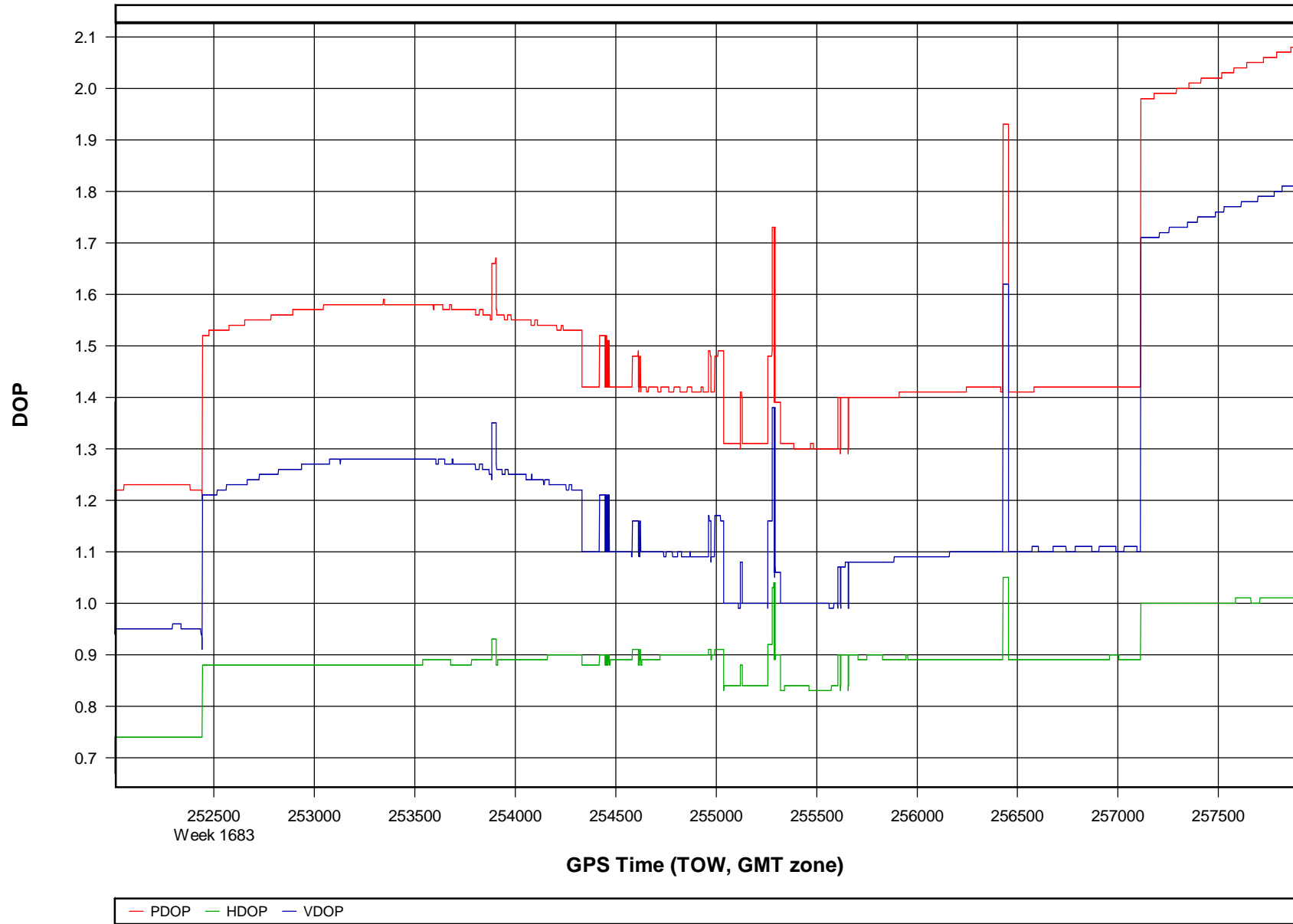
Geographic, DMS



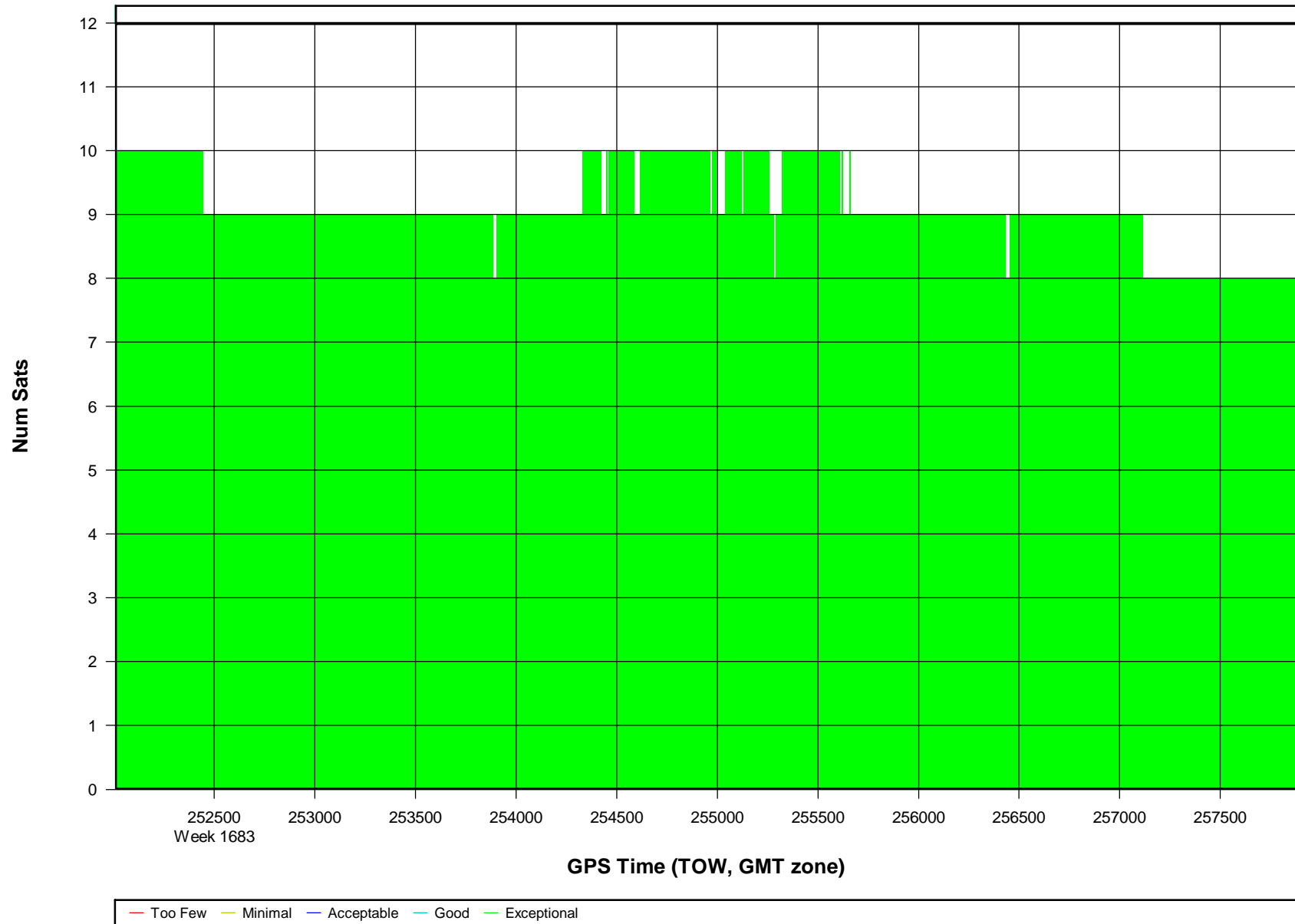
### o112101a [Combined] - Forward/Reverse or Combined Separation Plot



### o112101a [Combined] - PDOP, HDOP, VDOP Plots

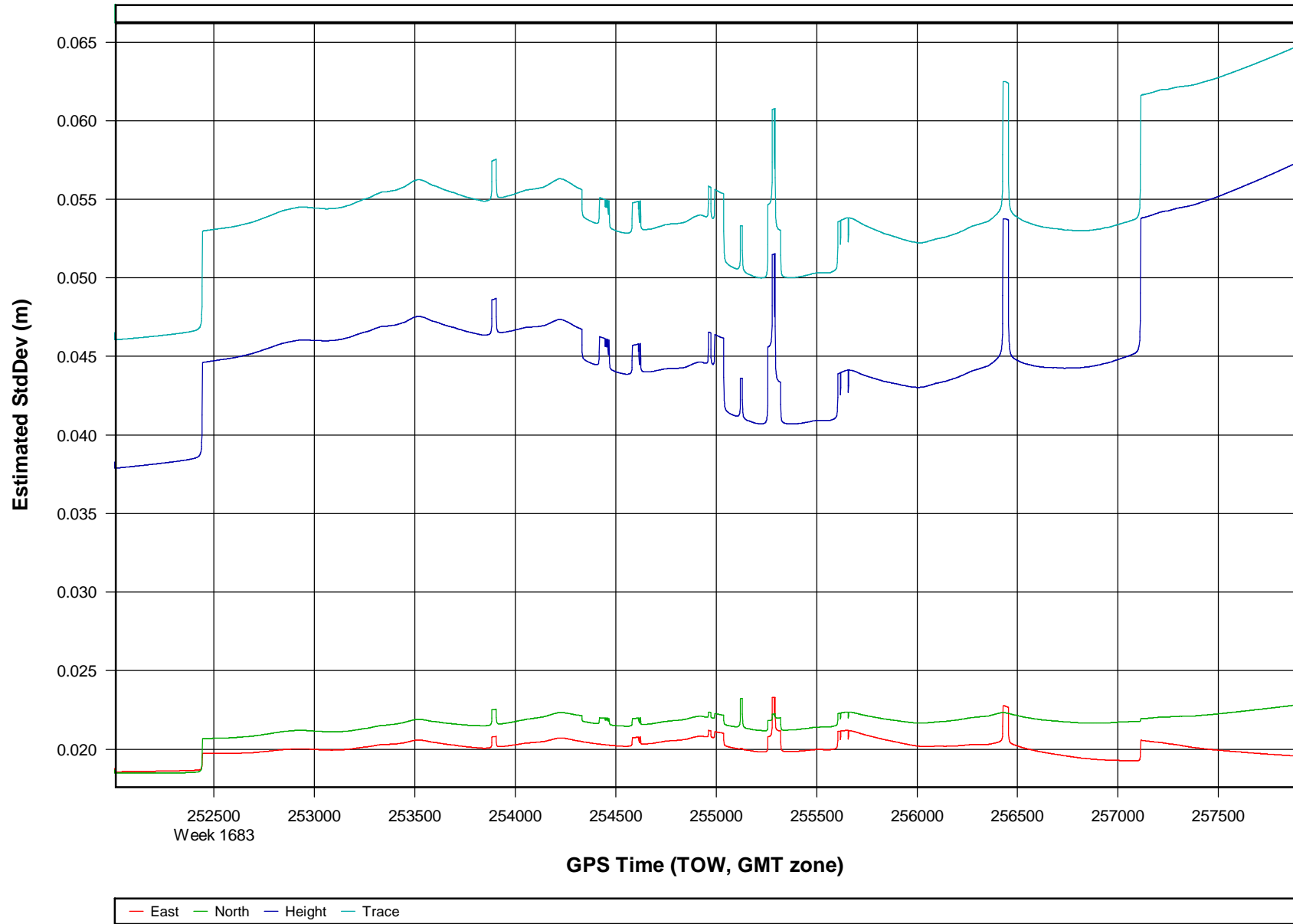


**o112101a [Combined] - Number of Satellites Bar Plot**





### o112101a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112101a\3\_Processed\GPS\o112101a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 58920  
No processed position: 53043  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0164 (m)  
C/A Code: 0.64 (m)  
L1 Doppler: 0.029 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.009 (m)  
North: 0.005 (m)  
Height: 0.018 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (5872 occurrences):  
East: 0.007 (m)  
North: 0.003 (m)  
Height: 0.016 (m)

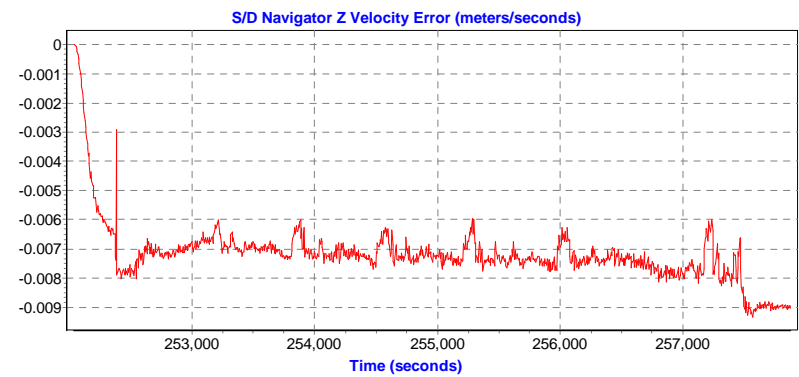
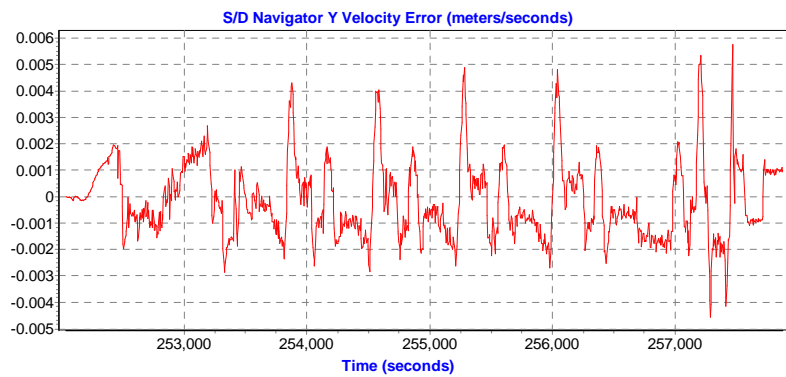
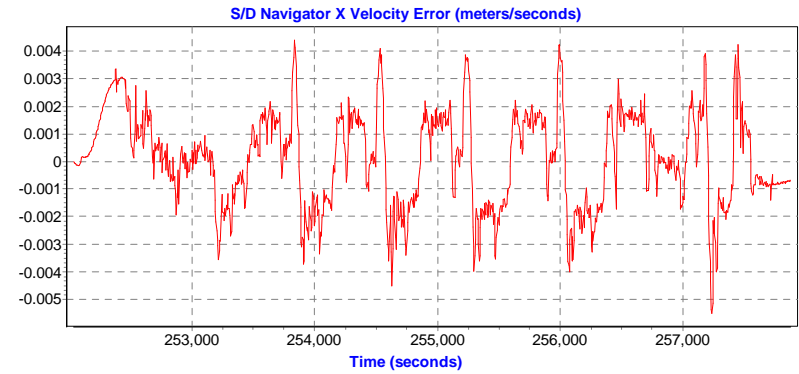
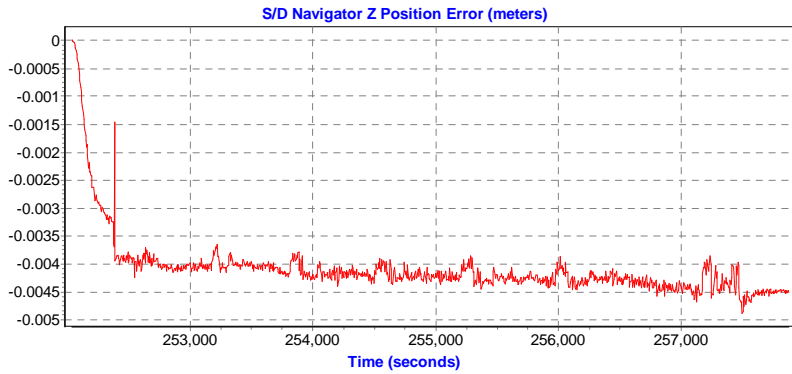
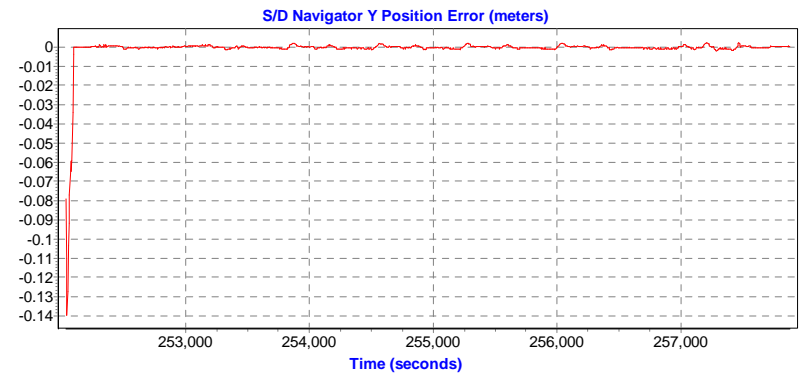
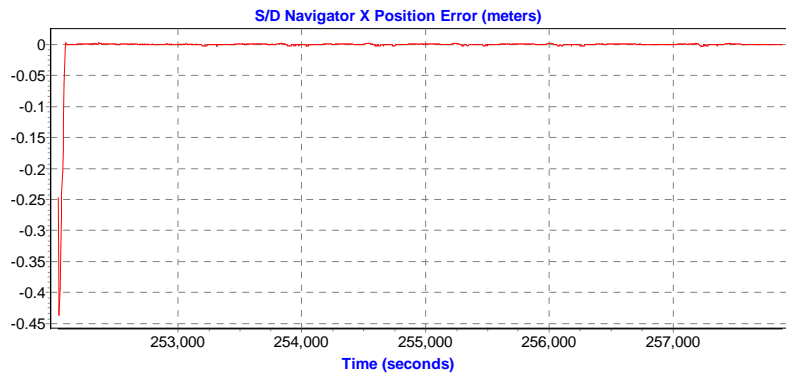
Quality Number Percentages:  
Q 1: 99.9 %  
Q 2: 0.1 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

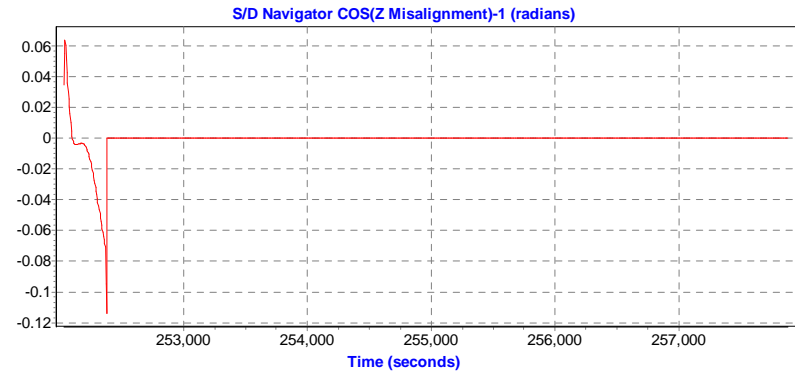
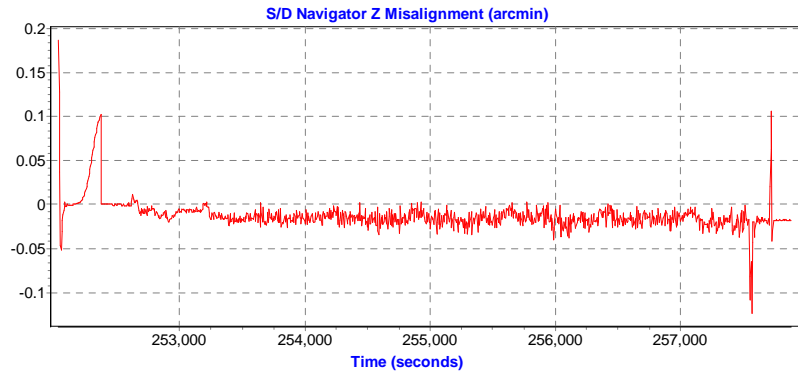
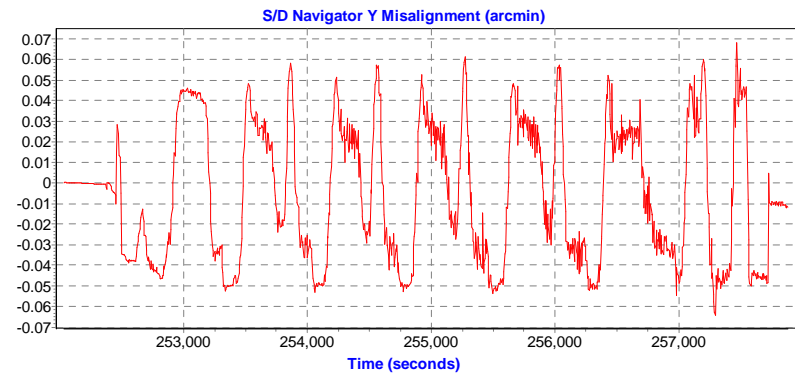
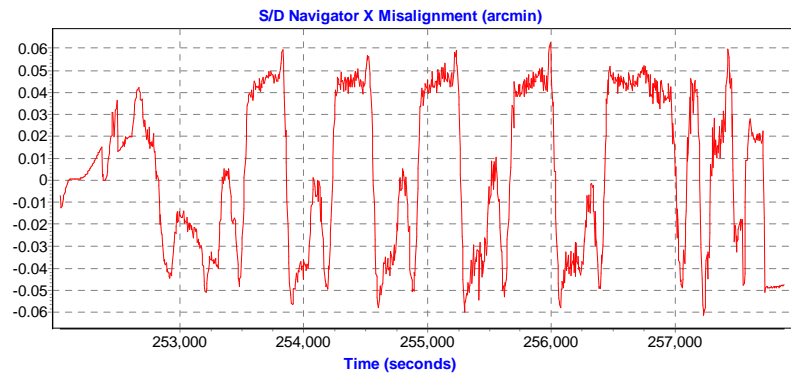
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

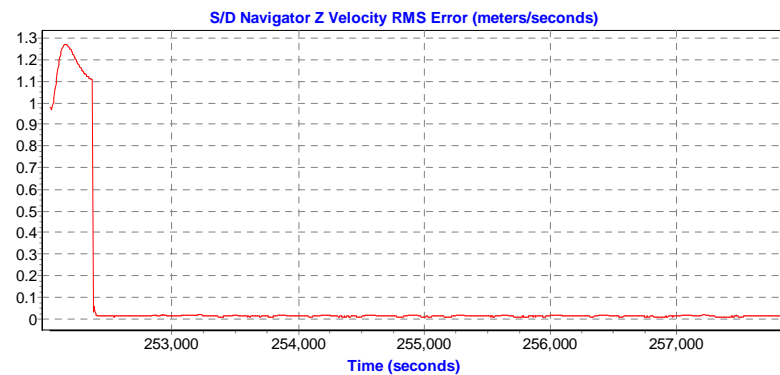
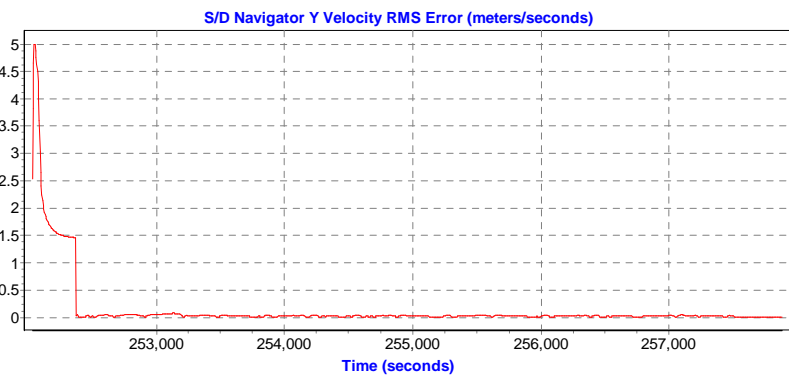
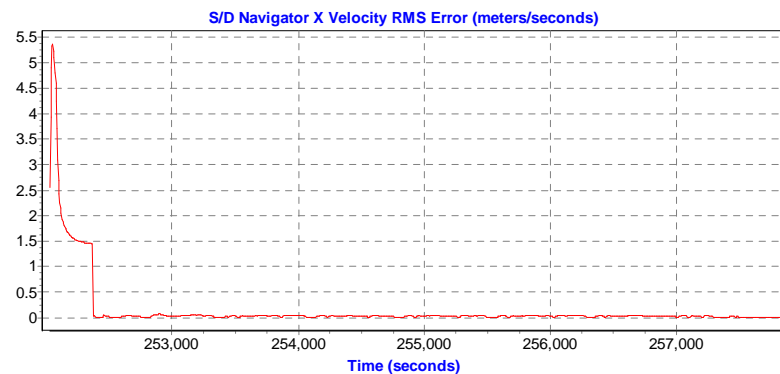
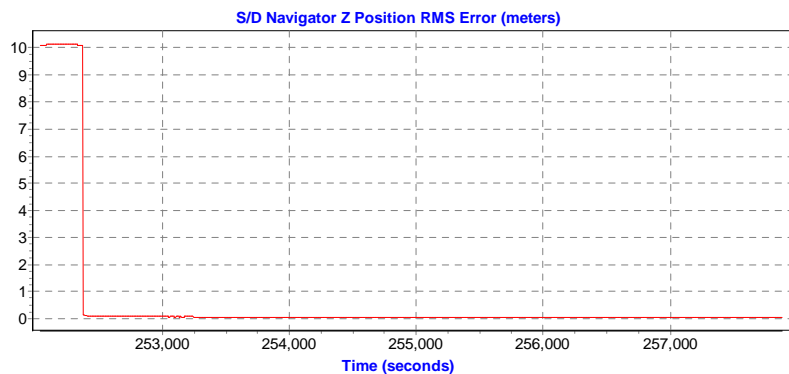
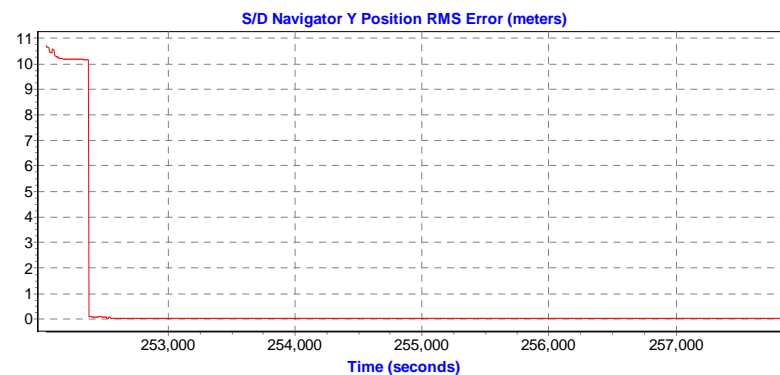
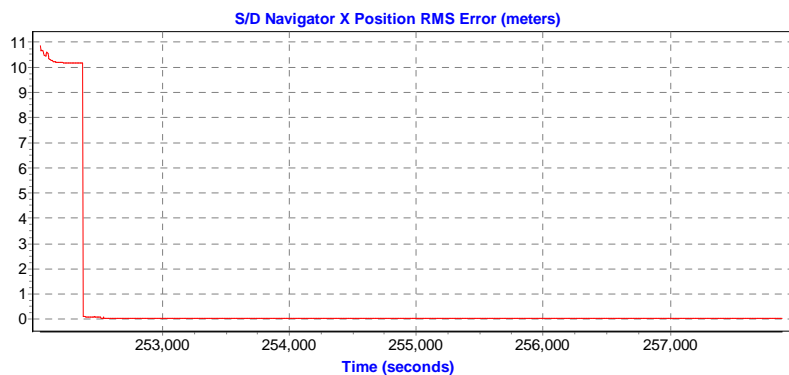
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

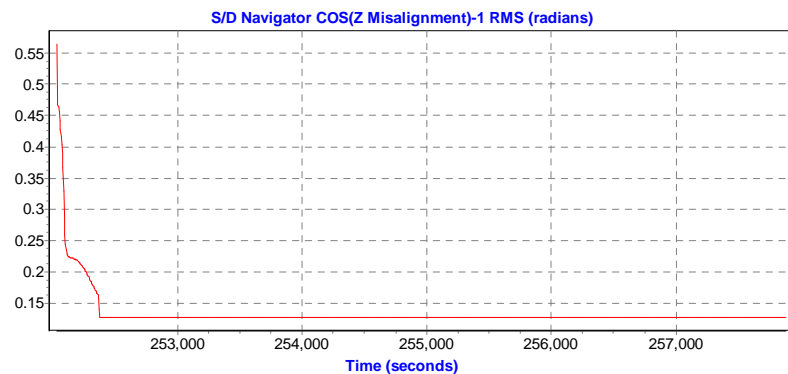
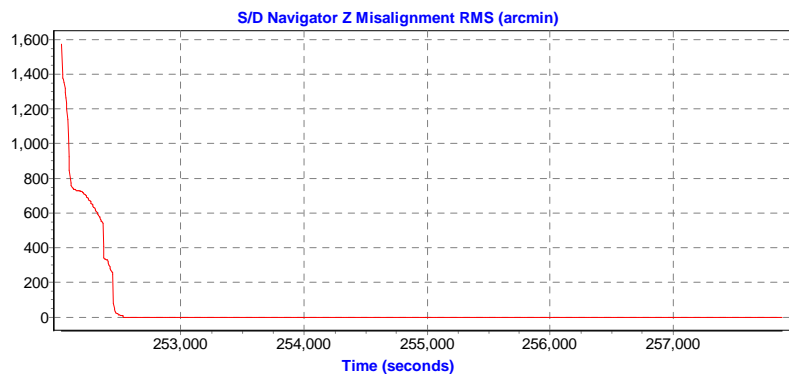
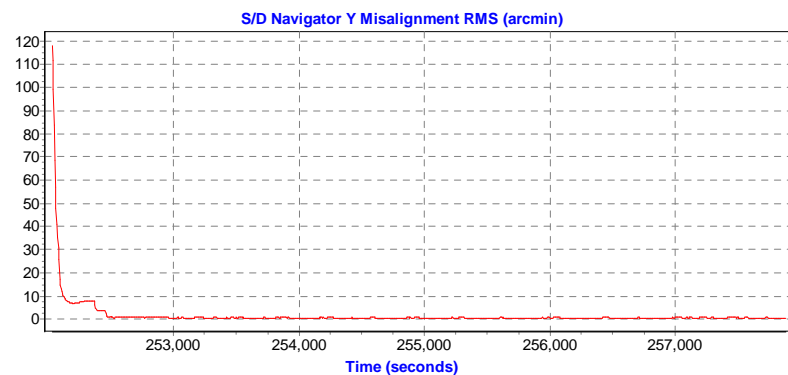
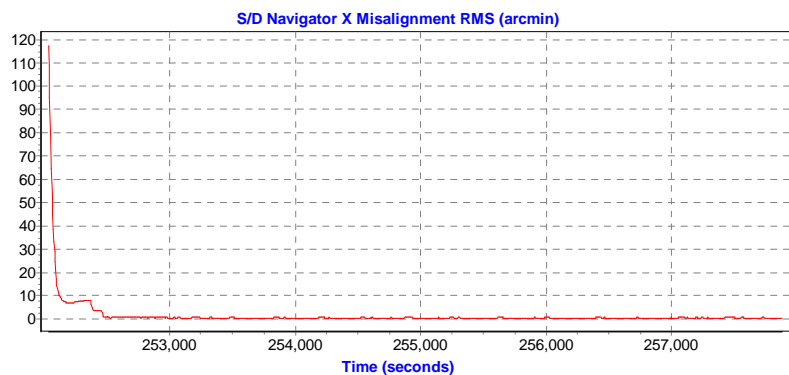
Baseline Distances:  
Maximum: 32.514 (km)  
Minimum: 0.039 (km)  
Average: 14.153 (km)  
First Epoch: 0.616 (km)  
Last Epoch: 0.529 (km)

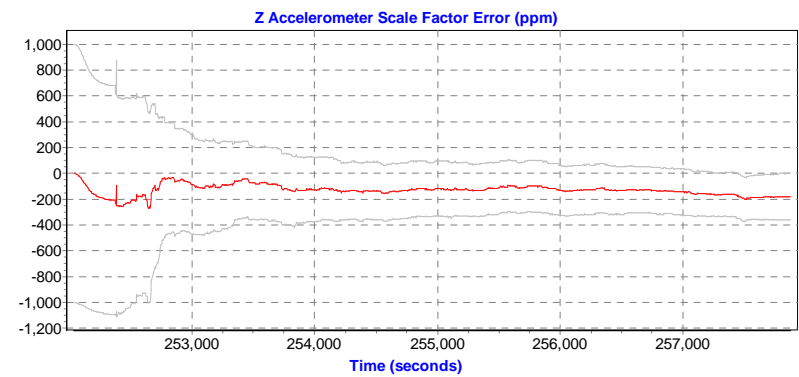
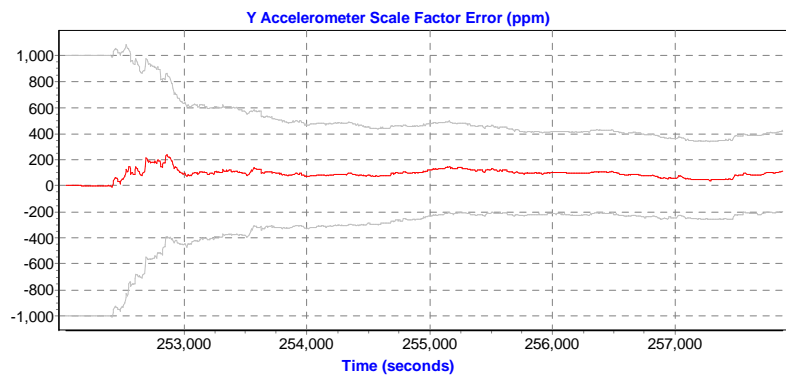
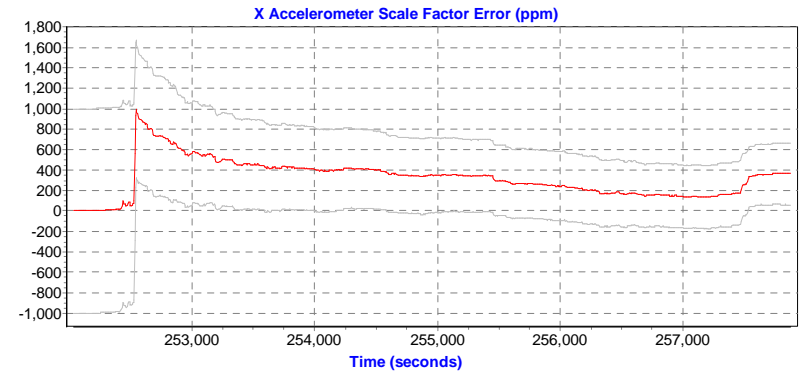
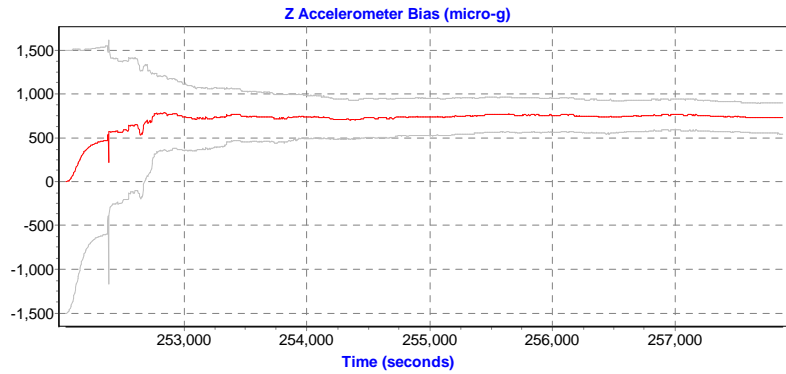
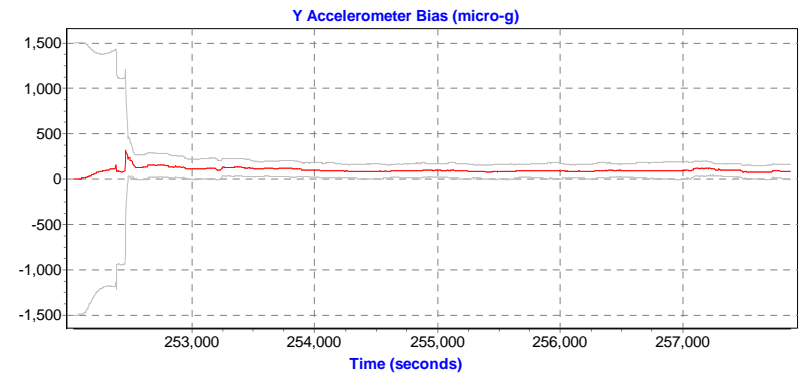
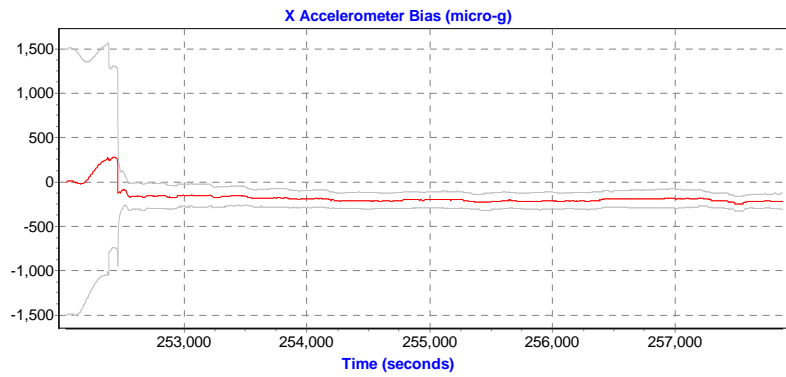
Estimated Errors and RMS

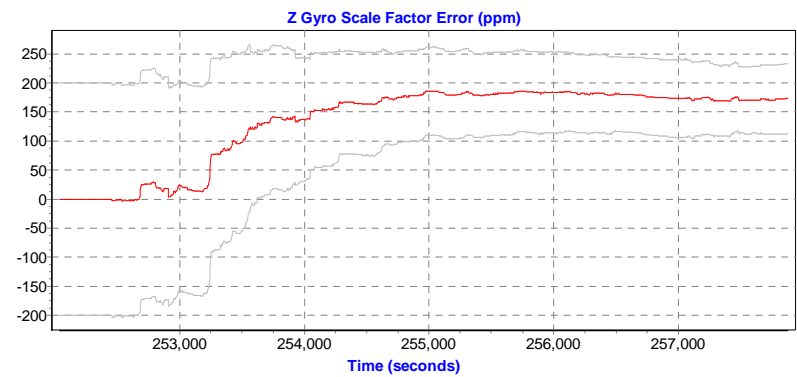
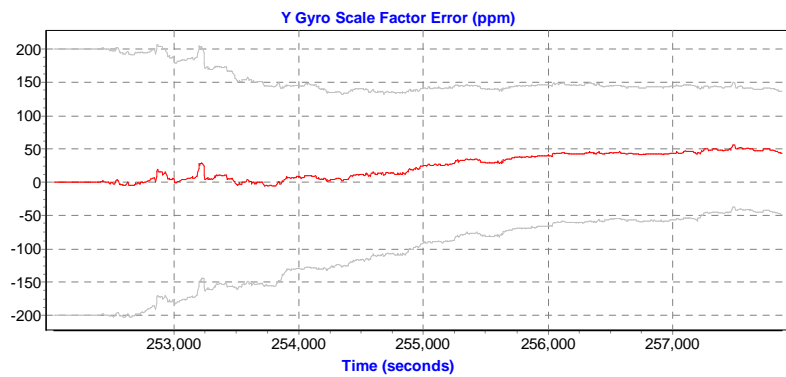
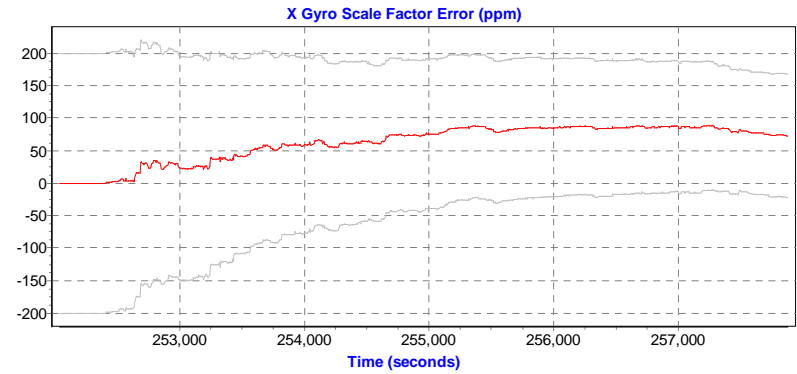
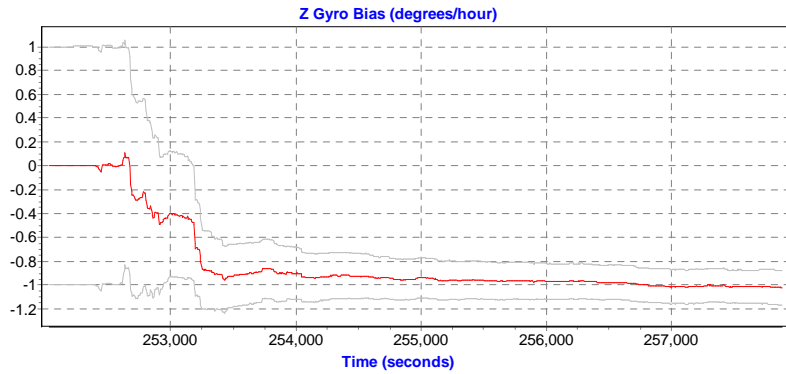
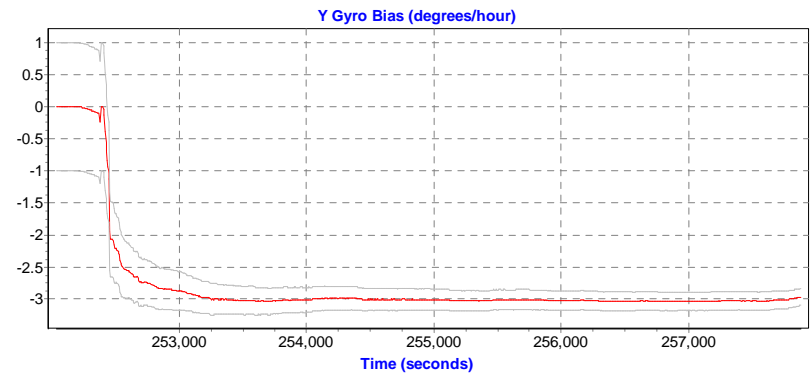
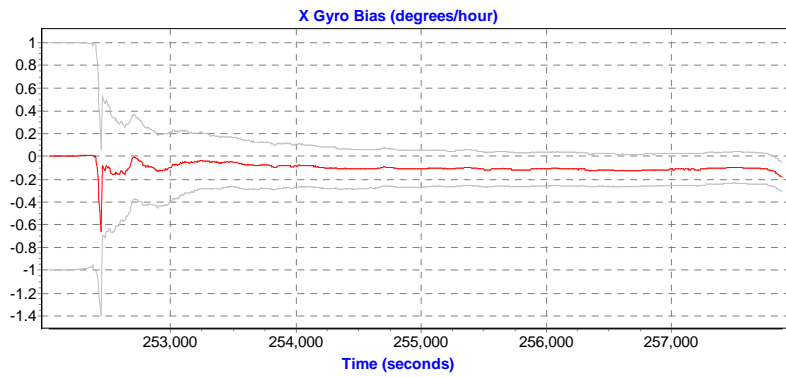




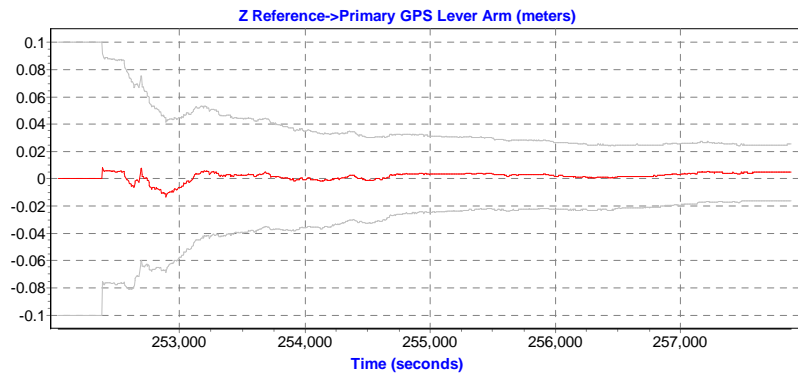
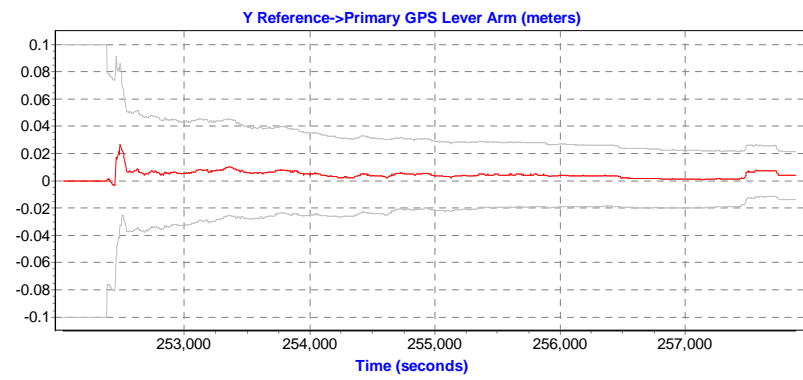
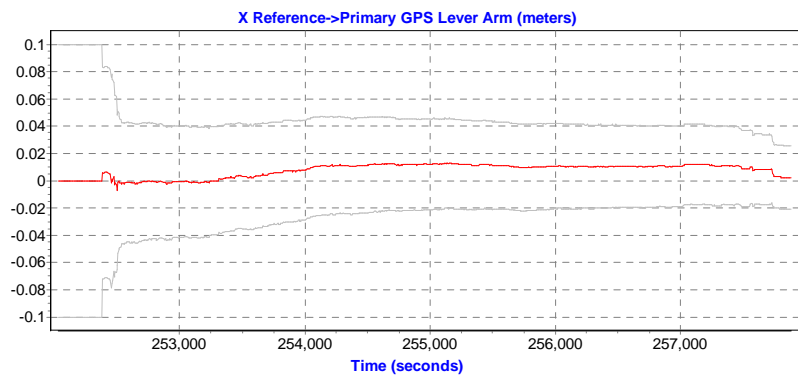






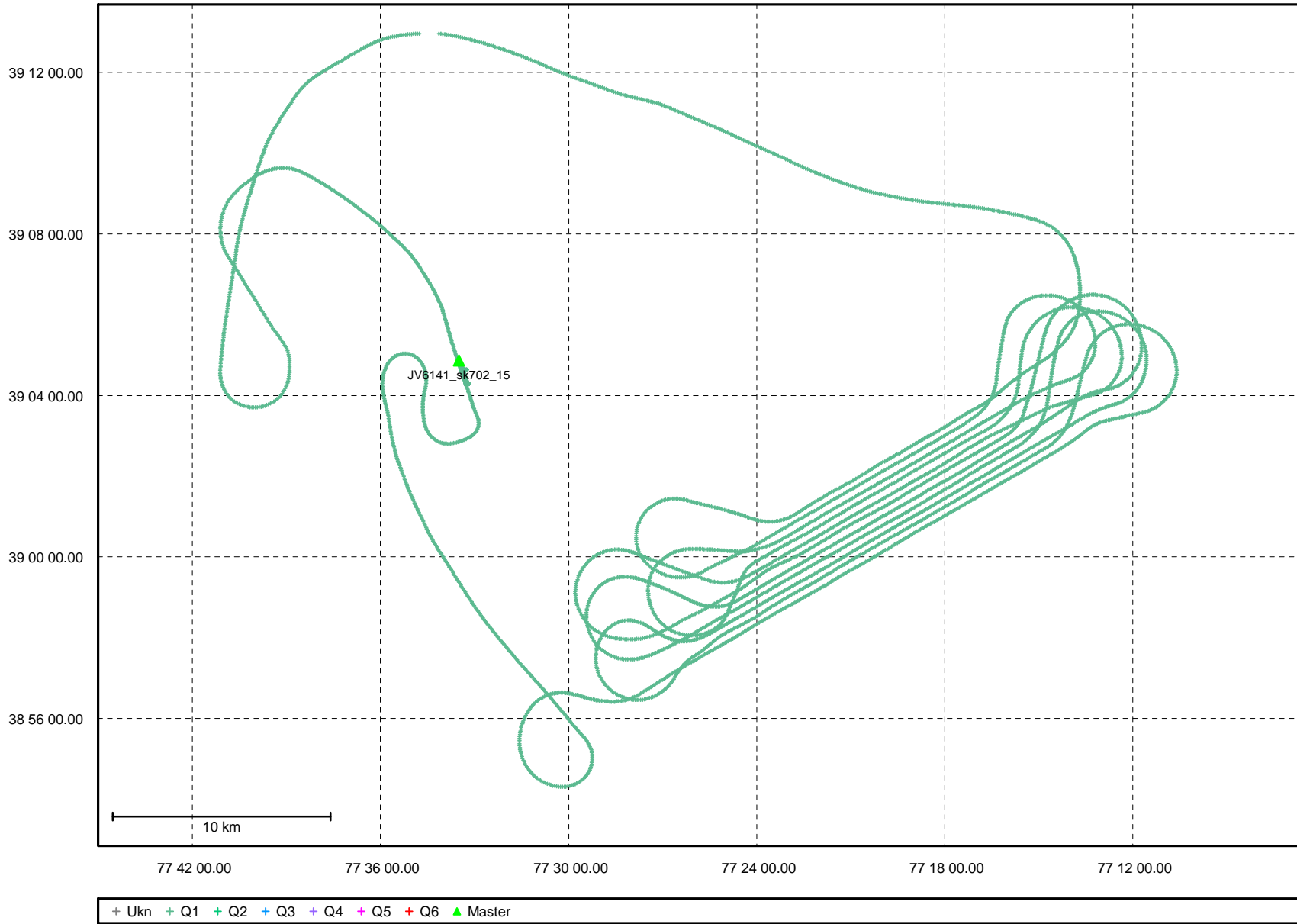




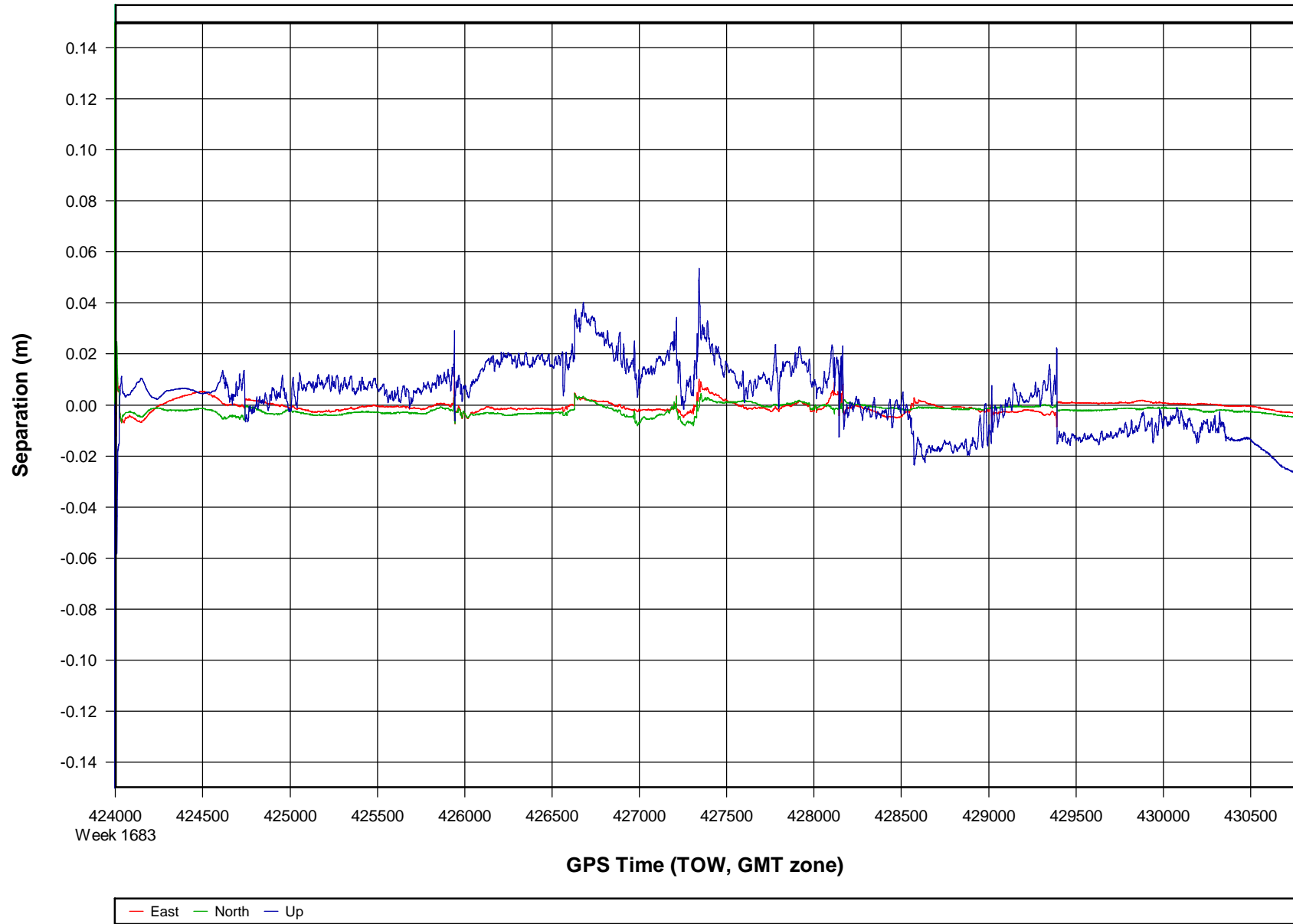


### Combined - Map Run (1)

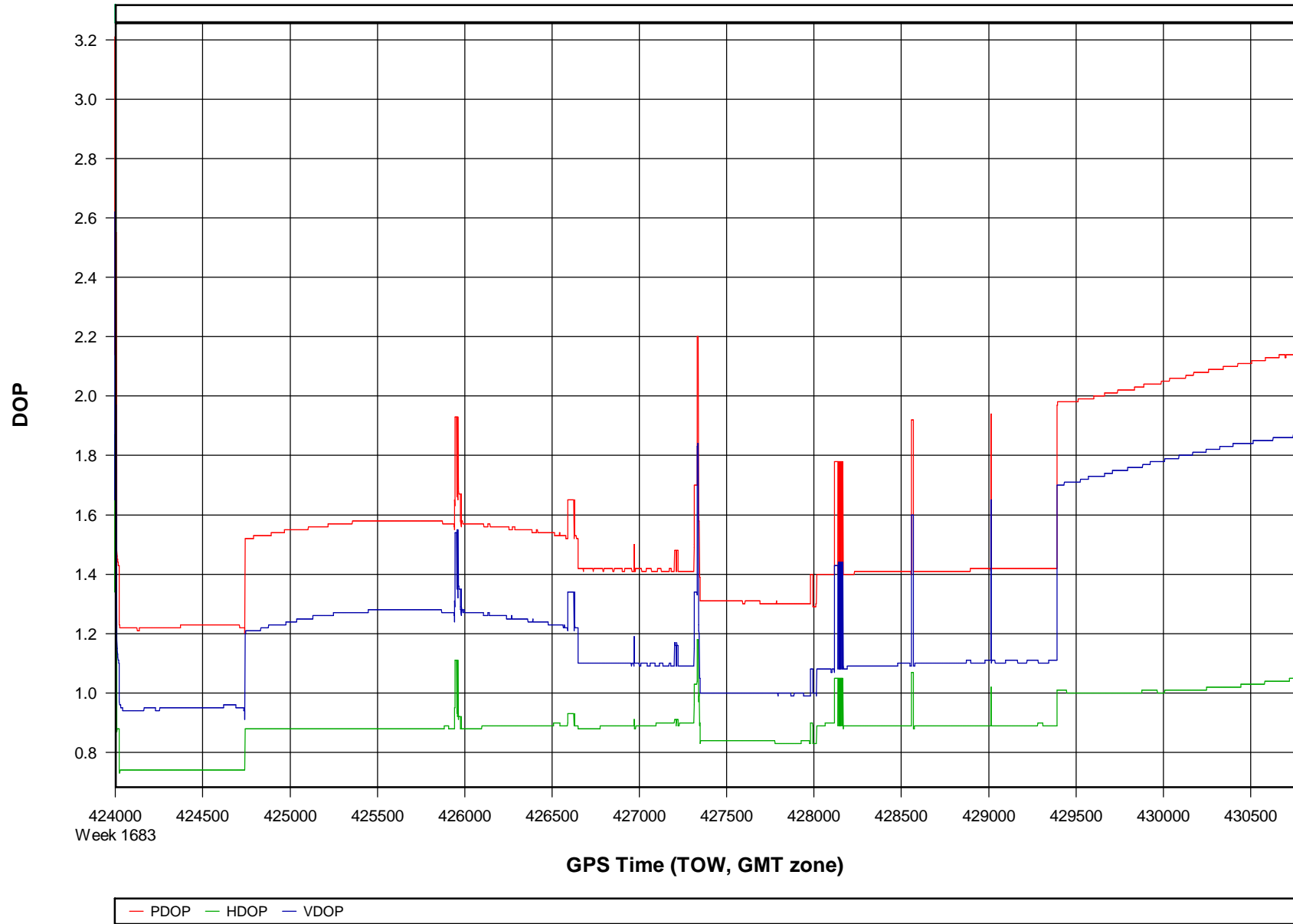
Geographic, DMS



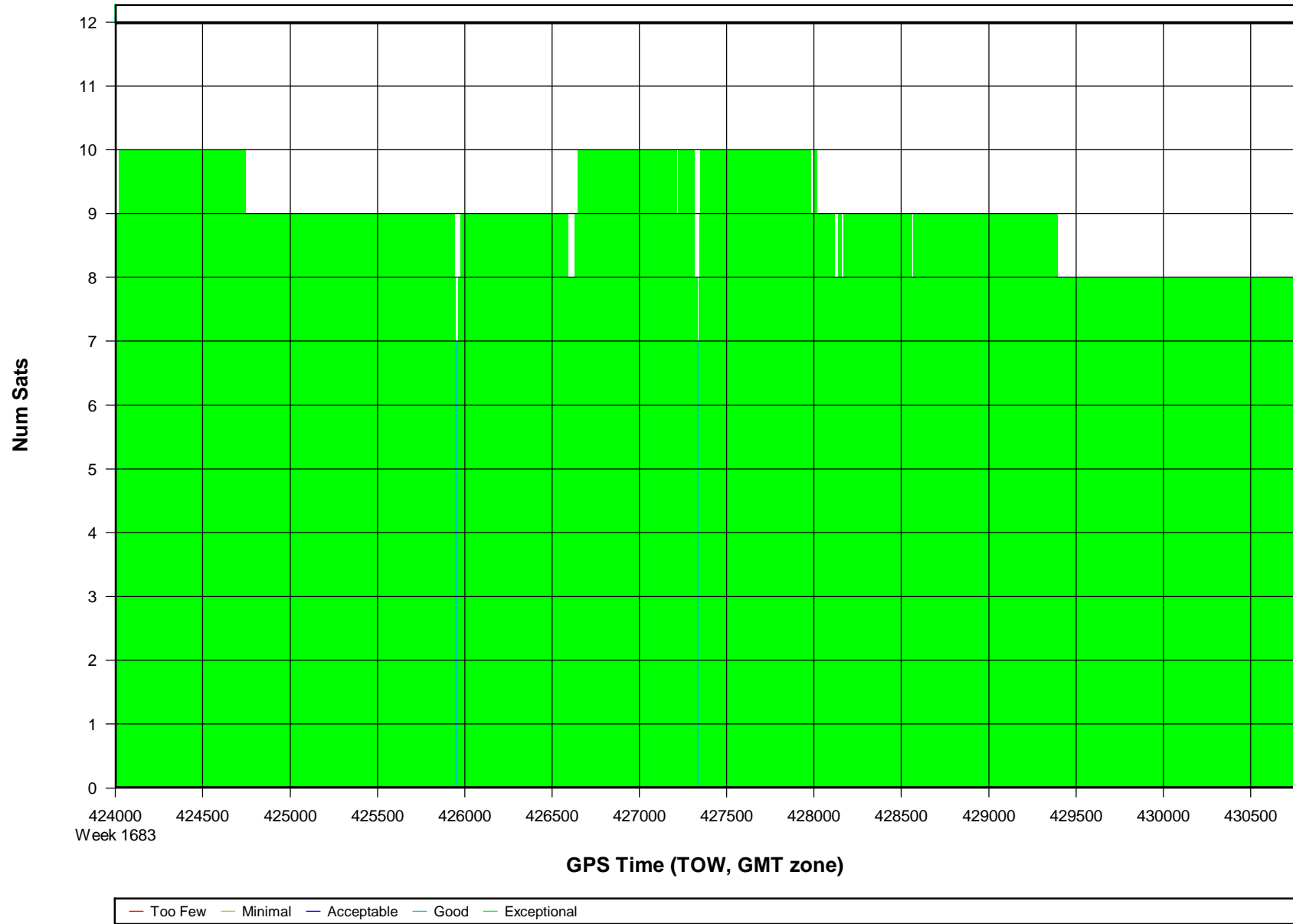
### o112103a [Combined] - Forward/Reverse or Combined Separation Plot



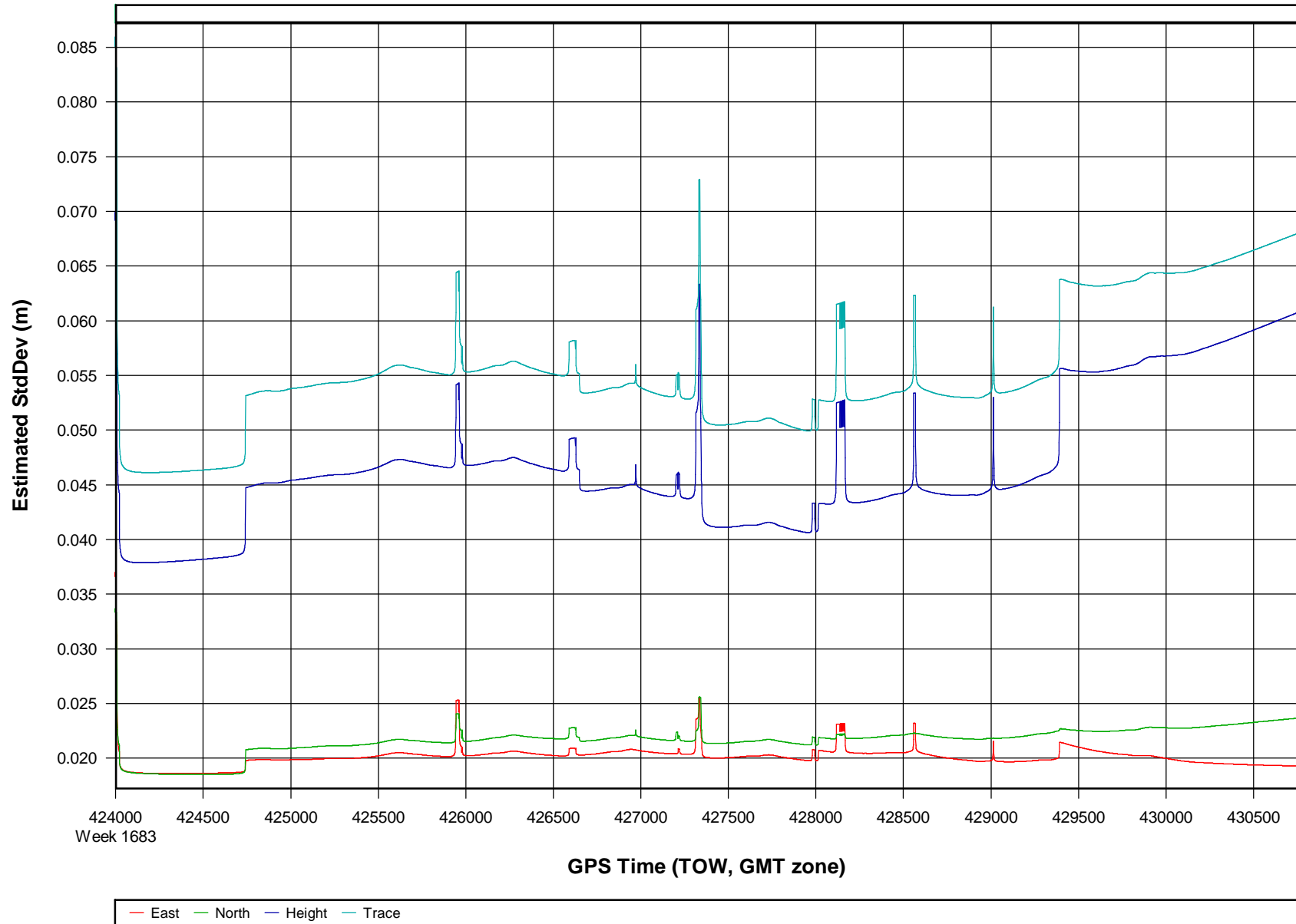
### o112103a [Combined] - PDOP, HDOP, VDOP Plots



### o112103a [Combined] - Number of Satellites Bar Plot



### o112103a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112103a\3\_Processed\GPS\o112103a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 67755  
No processed position: 60992  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0151 (m)  
C/A Code: 0.65 (m)  
L1 Doppler: 0.028 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.012 (m)  
North: 0.007 (m)  
Height: 0.031 (m)

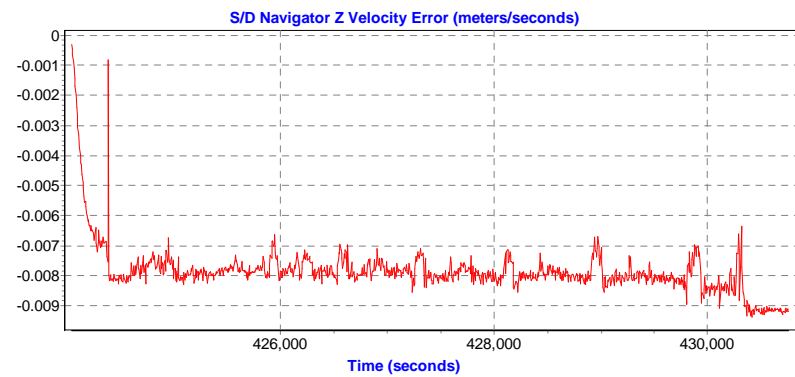
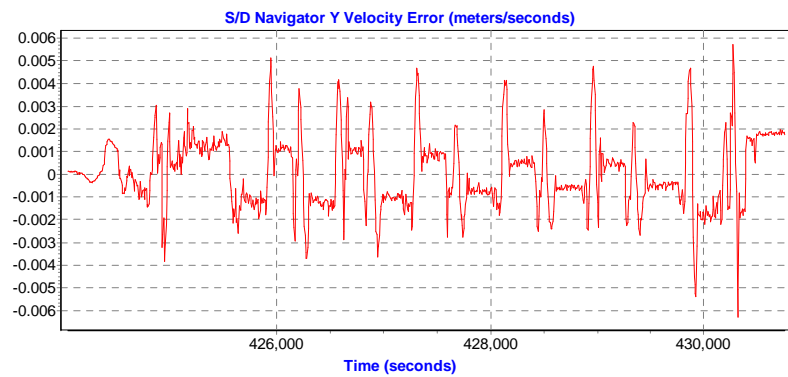
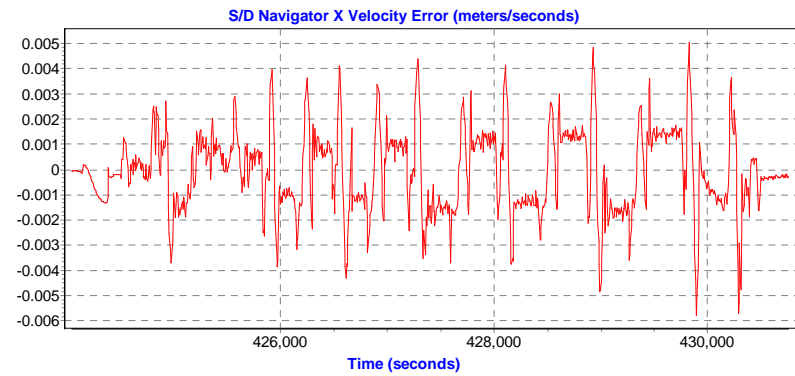
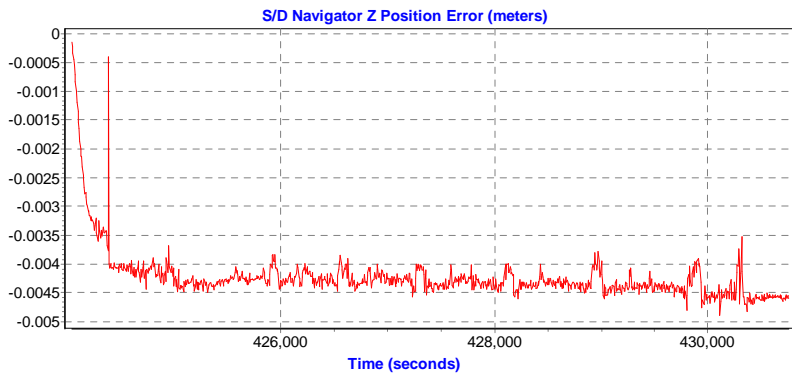
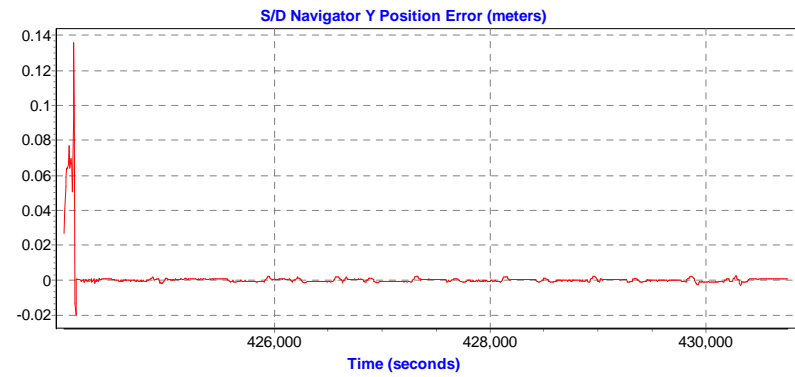
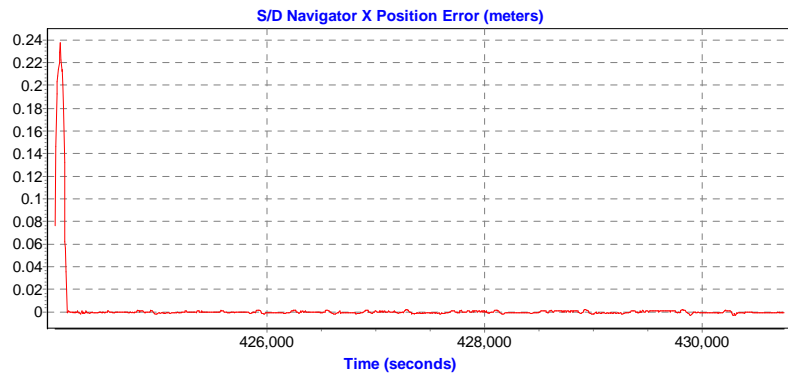
Fwd/Rev Sep. RMS for 25%-75% weighting (6758 occurrences):  
East: 0.002 (m)  
North: 0.003 (m)  
Height: 0.013 (m)

Quality Number Percentages:  
Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

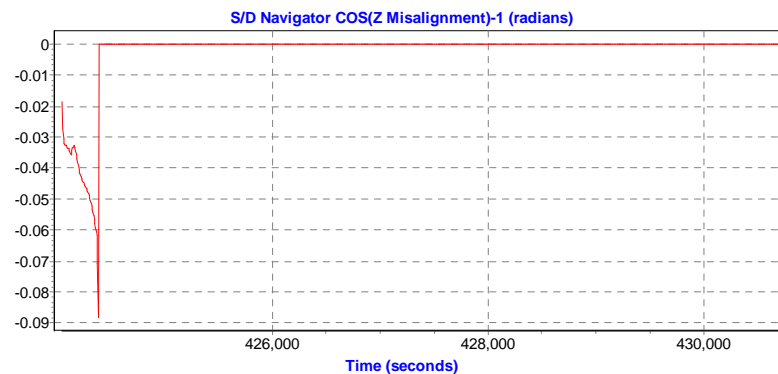
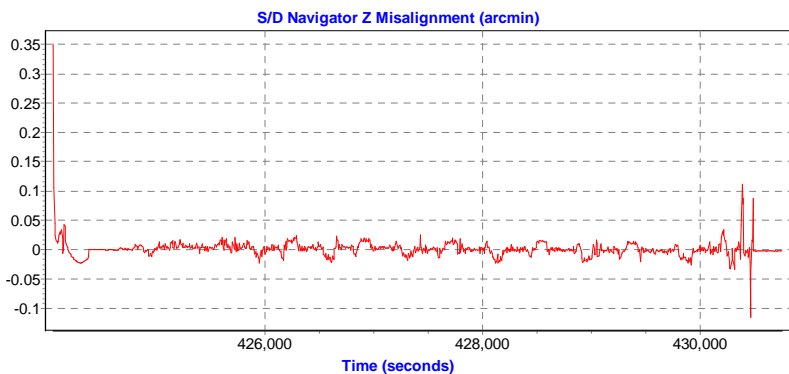
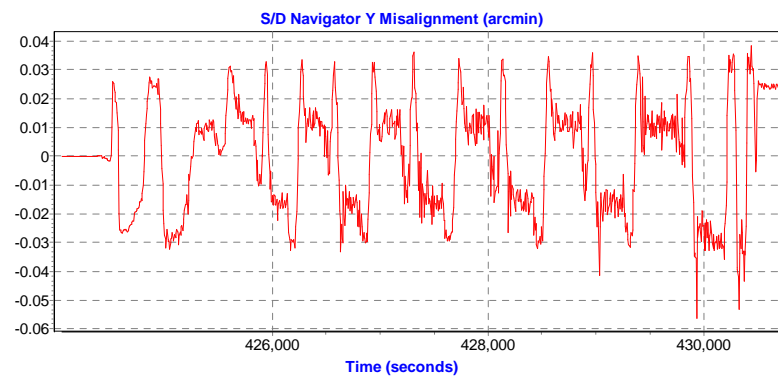
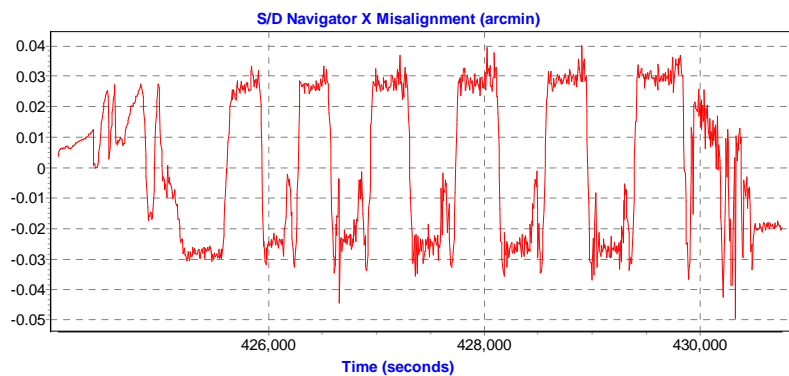
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

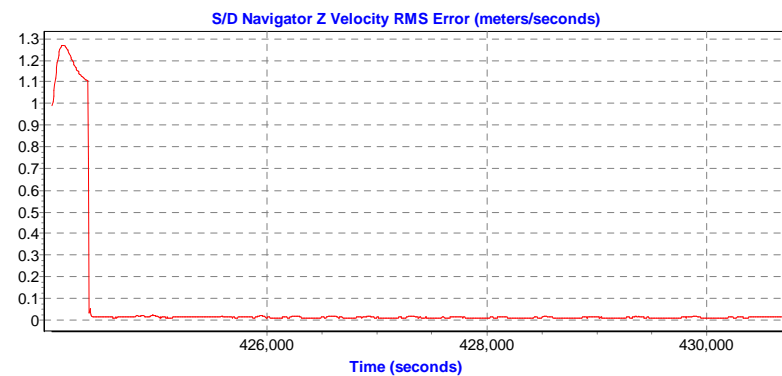
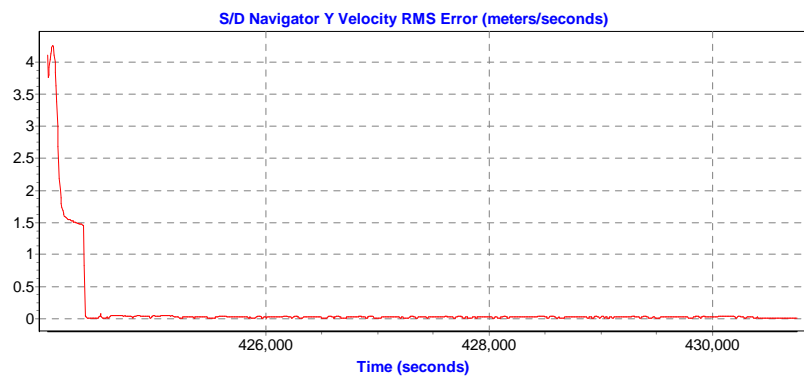
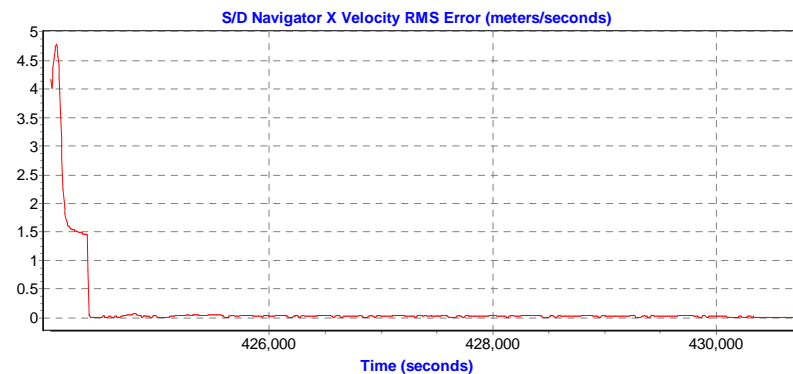
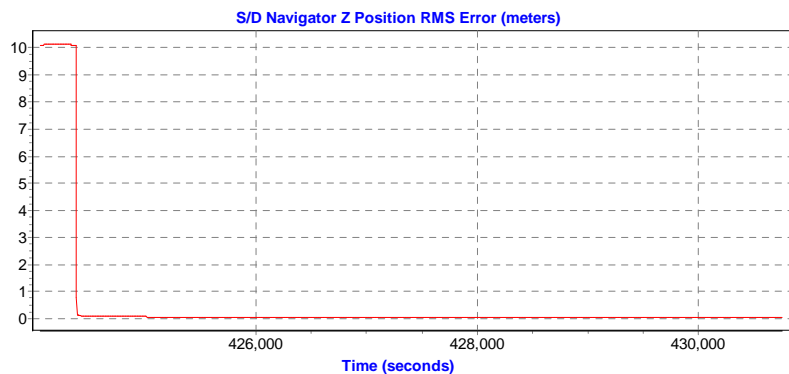
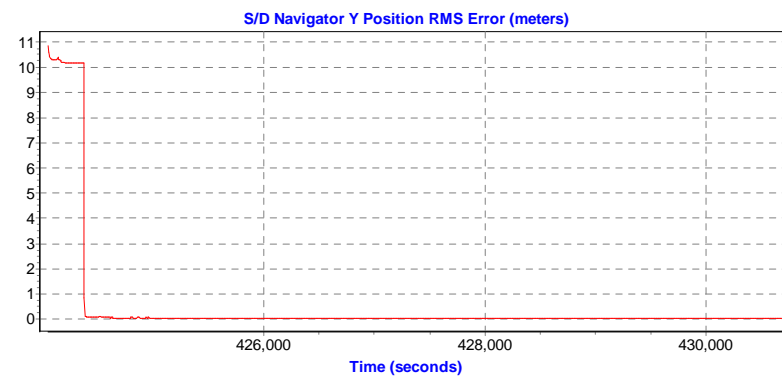
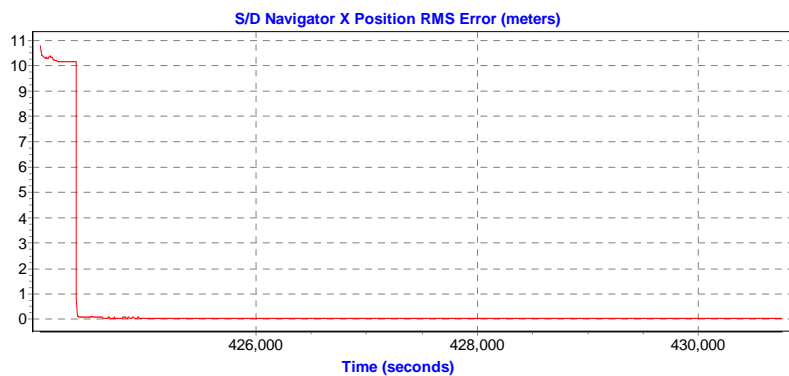
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

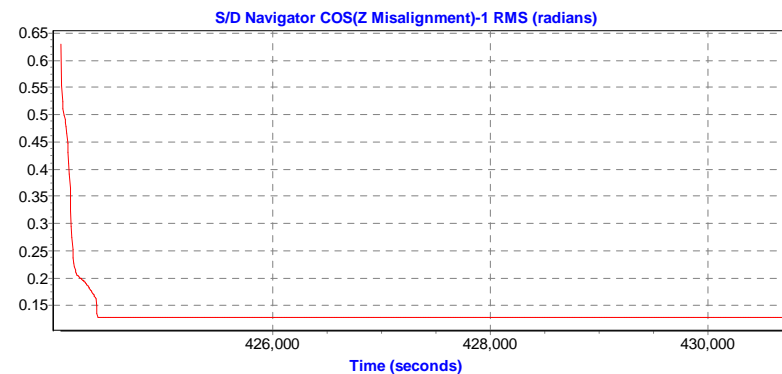
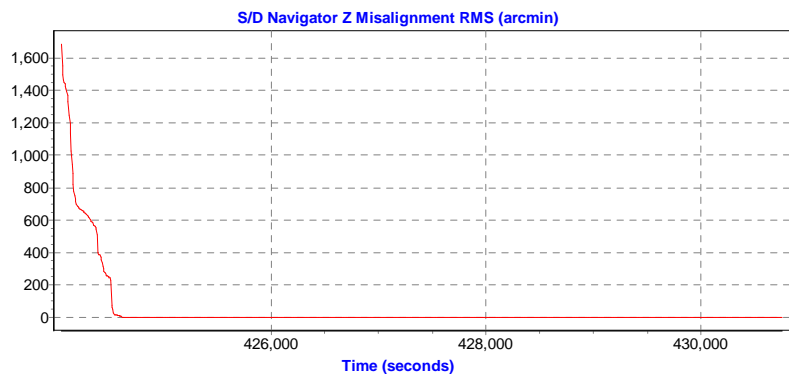
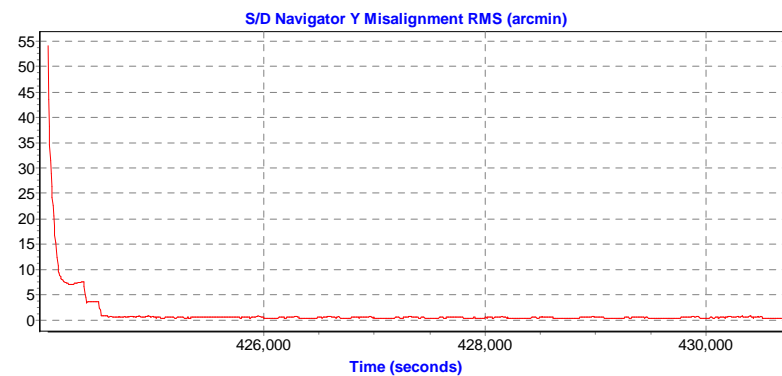
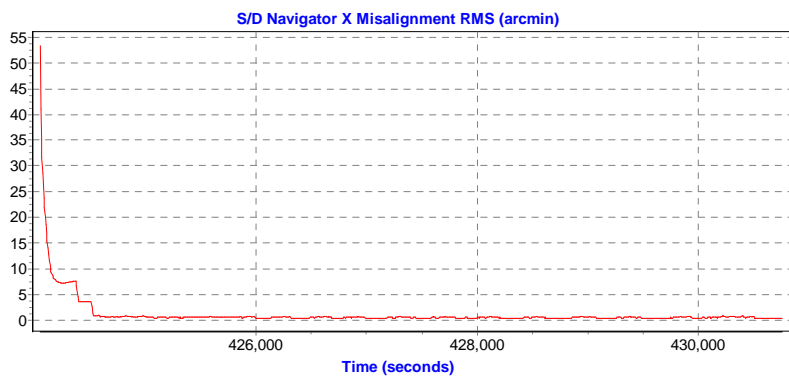
Baseline Distances:  
Maximum: 33.049 (km)  
Minimum: 0.043 (km)  
Average: 16.223 (km)  
First Epoch: 0.556 (km)  
Last Epoch: 0.510 (km)

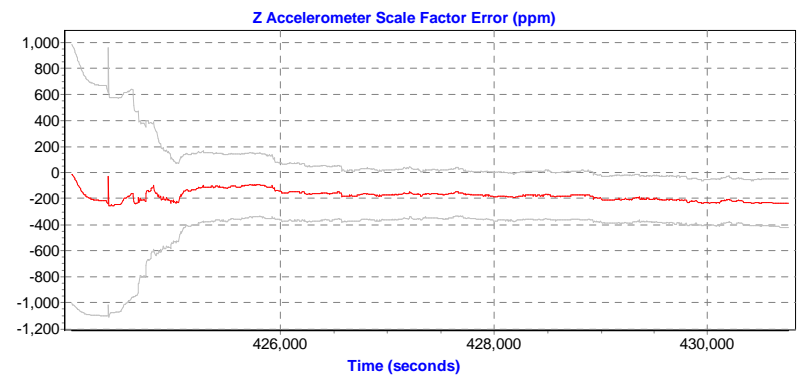
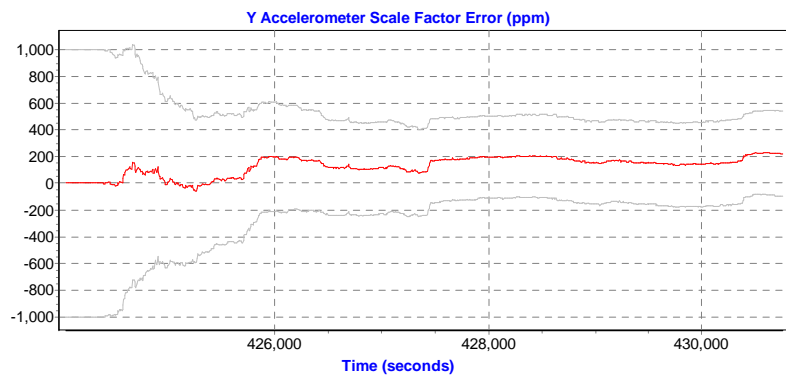
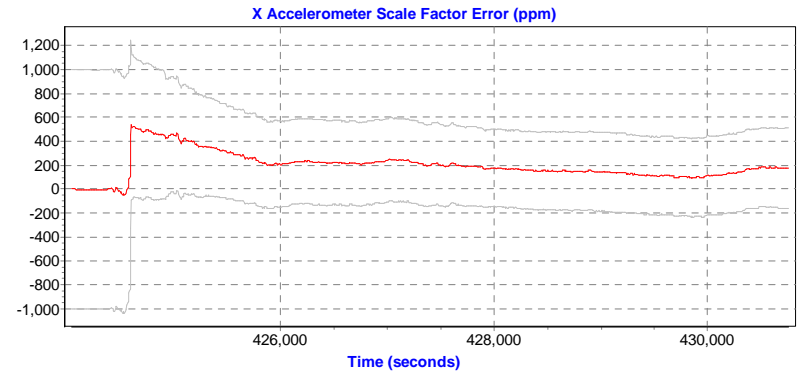
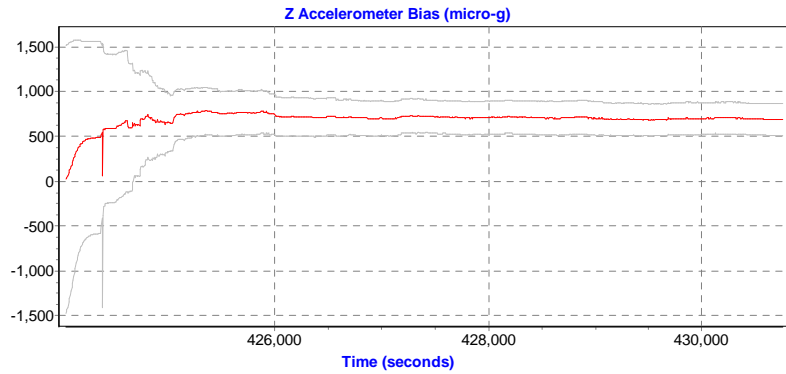
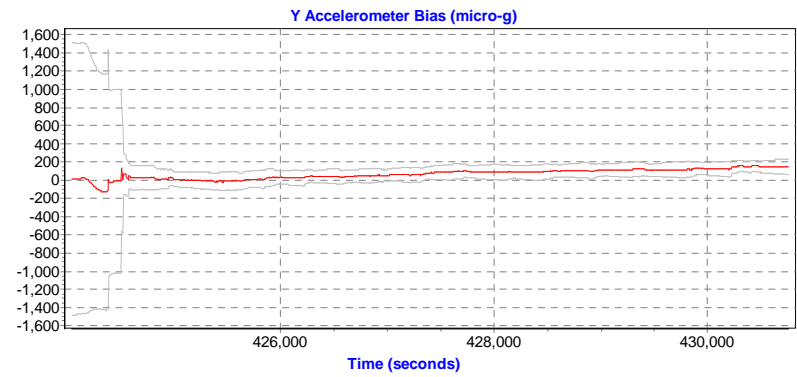
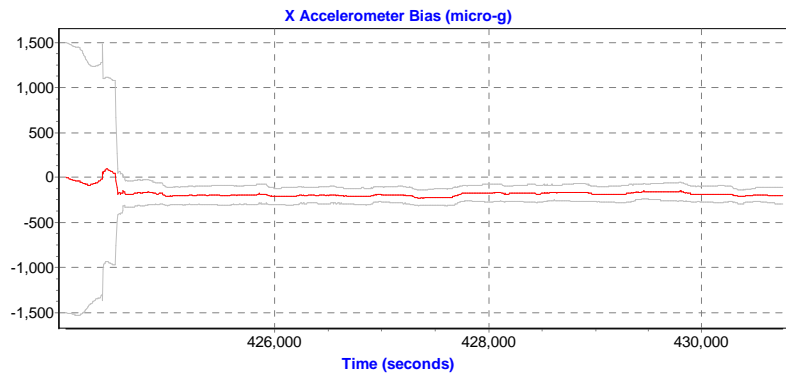


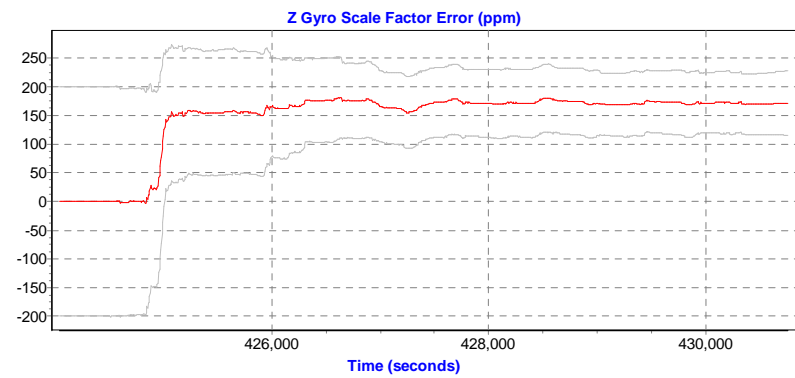
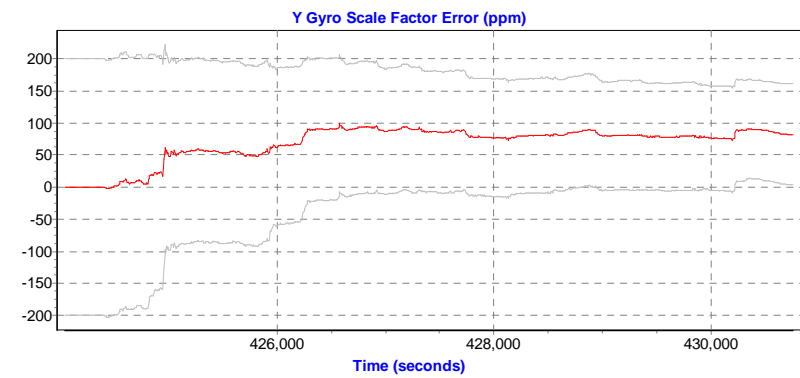
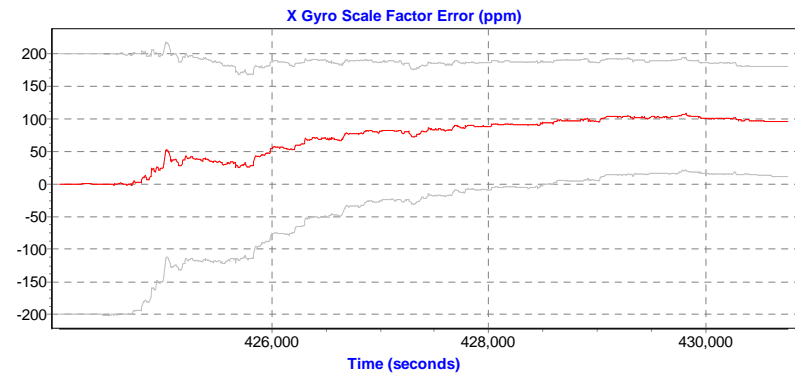
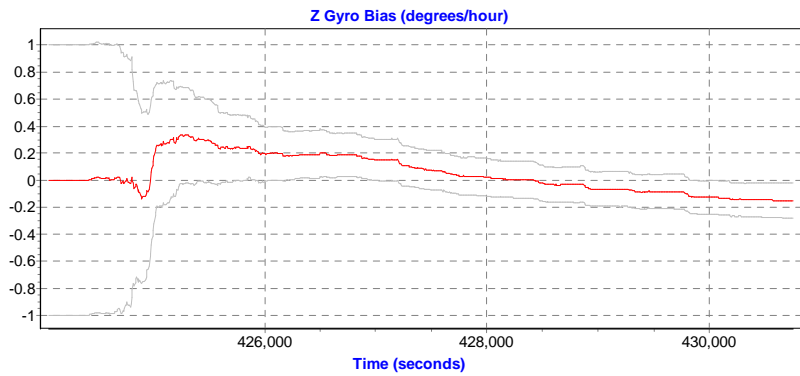
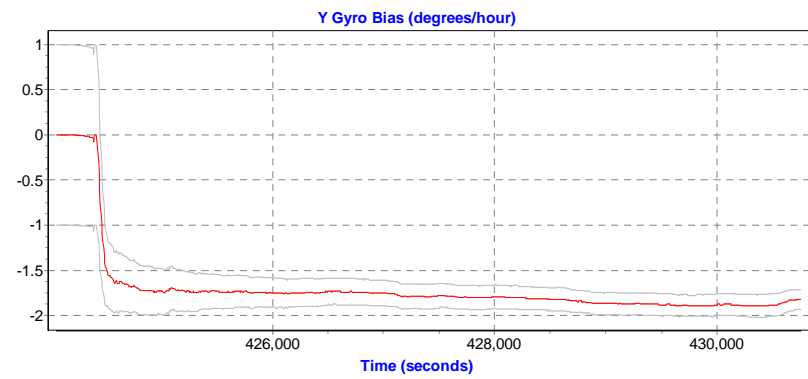
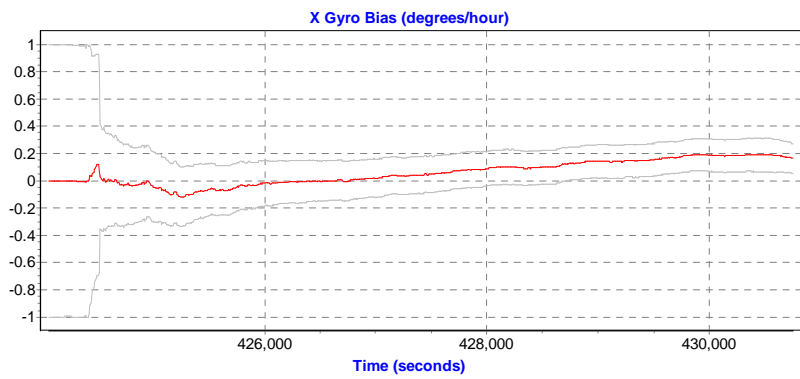


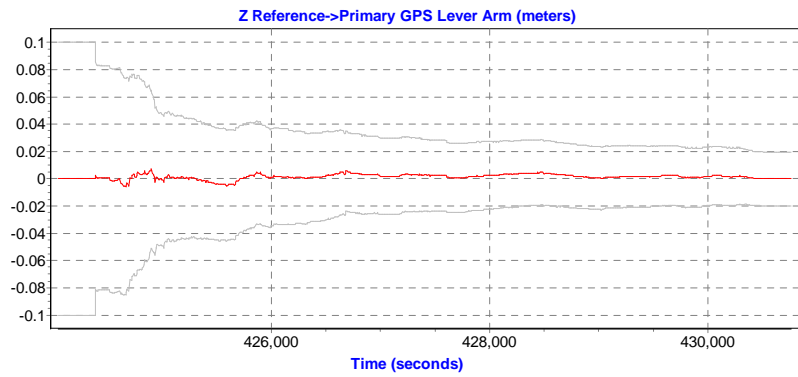
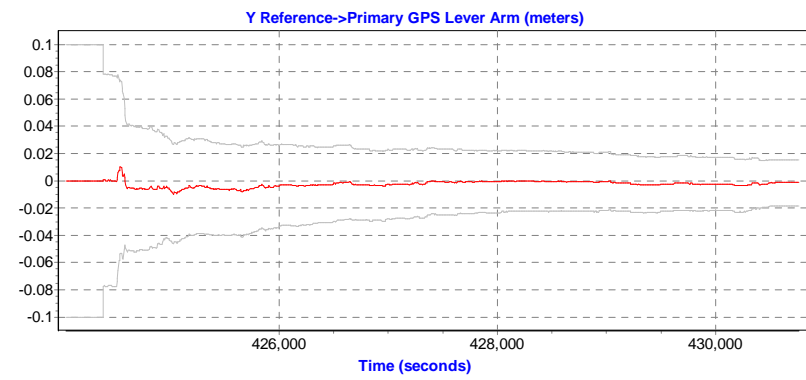
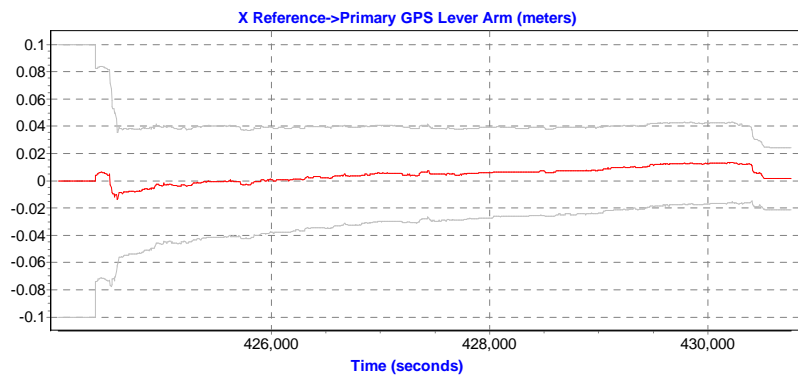






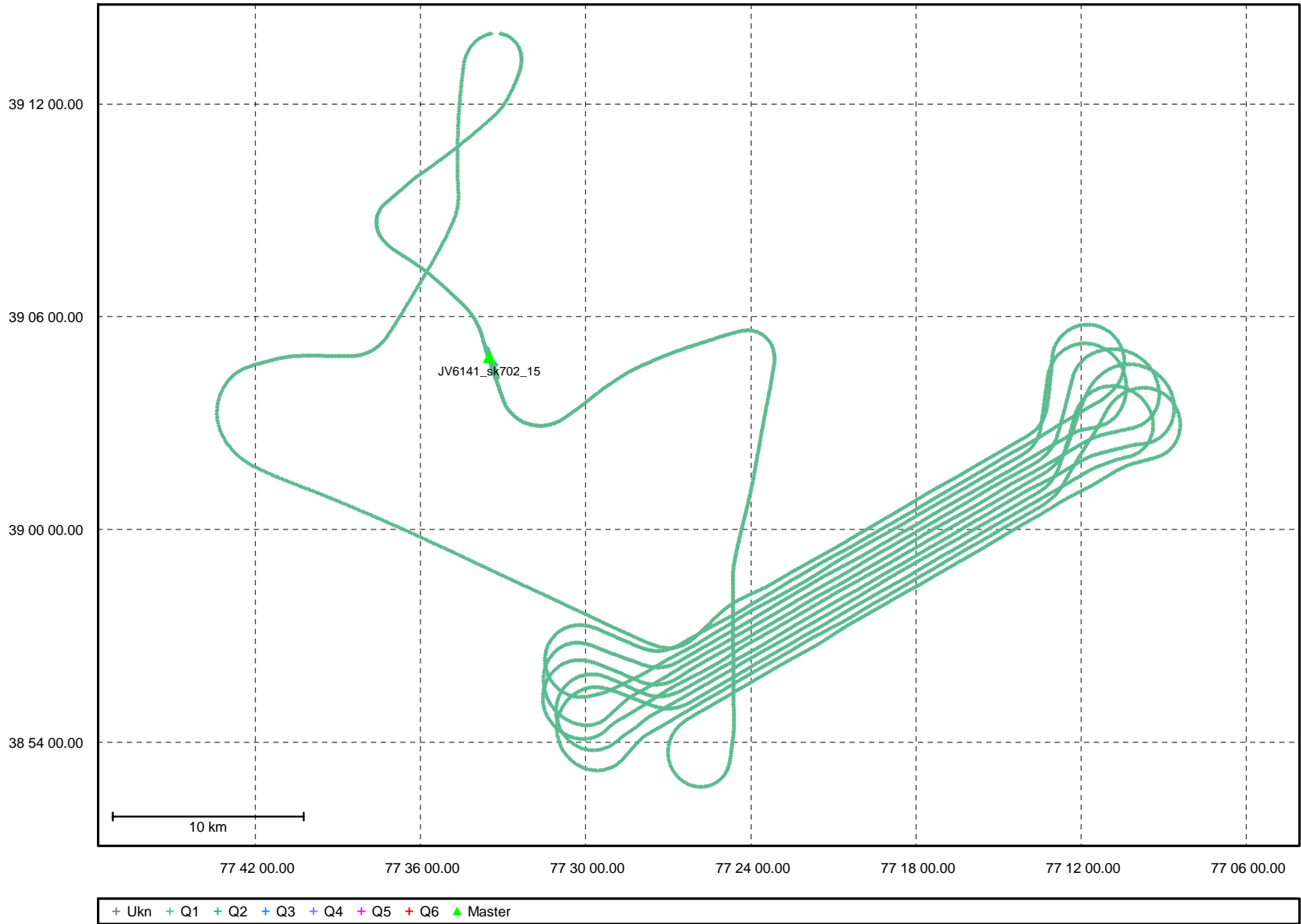




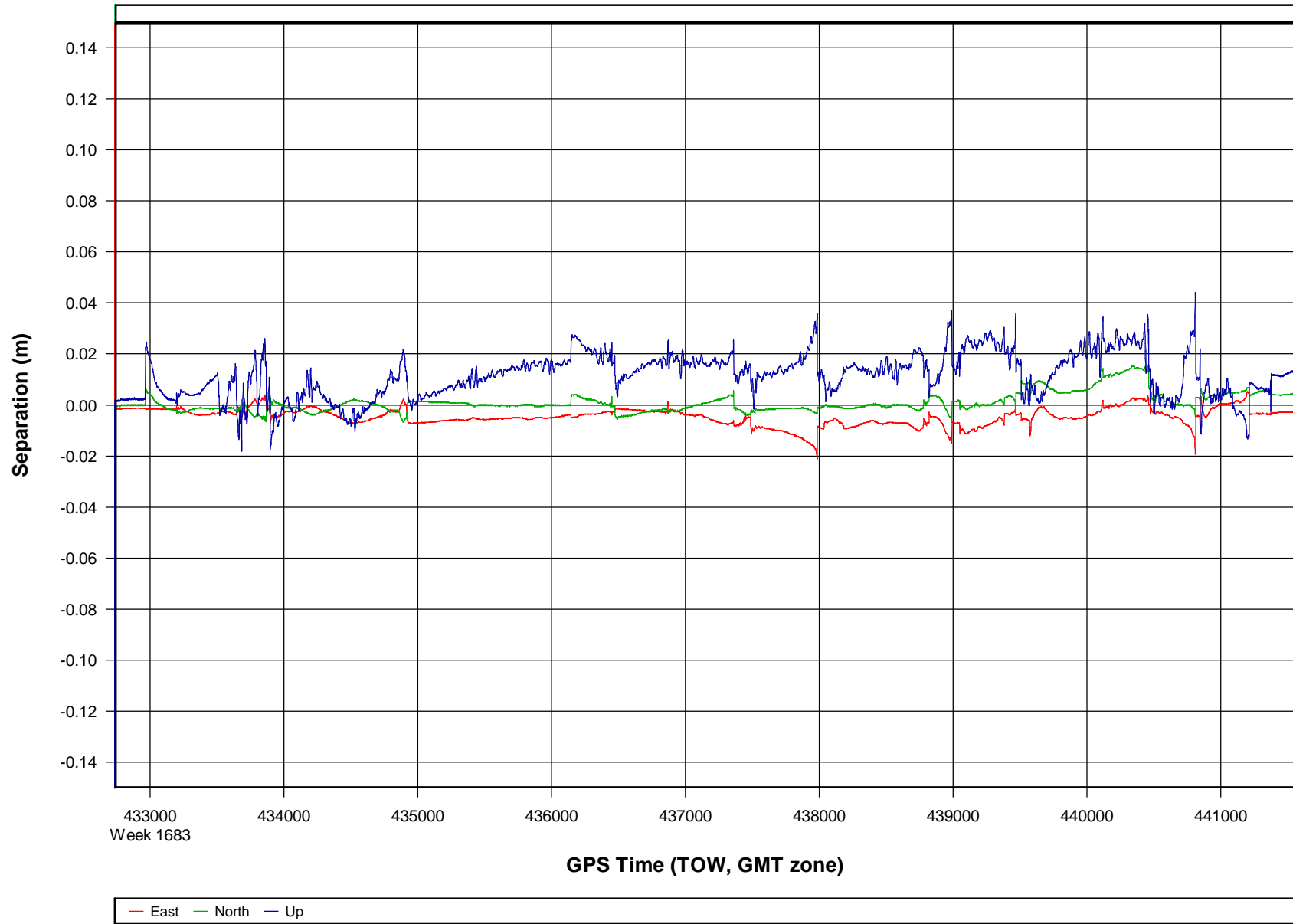


### Combined - Map Run (1)

Geographic, DMS

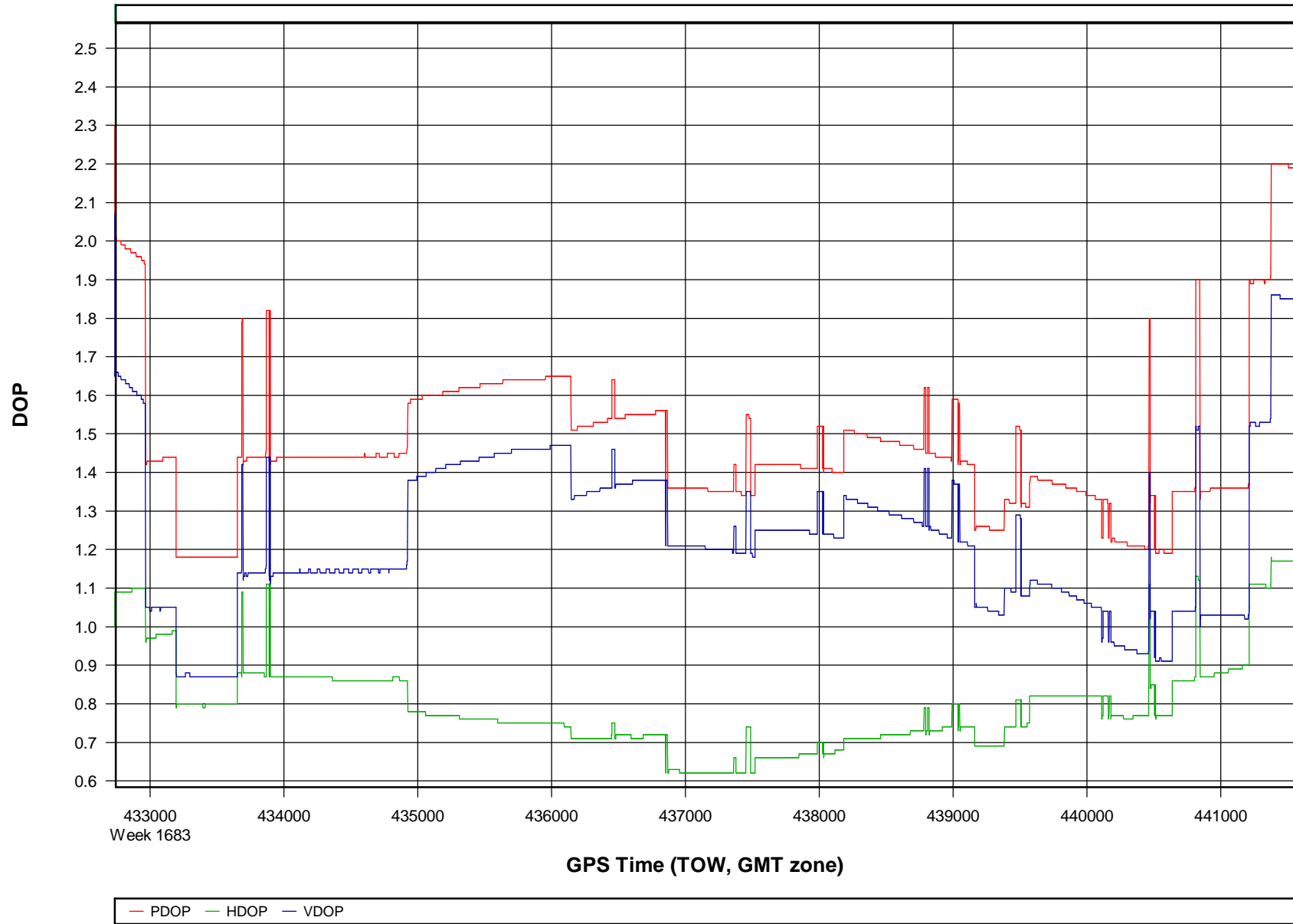


### o112103b [Combined] - Forward/Reverse or Combined Separation Plot

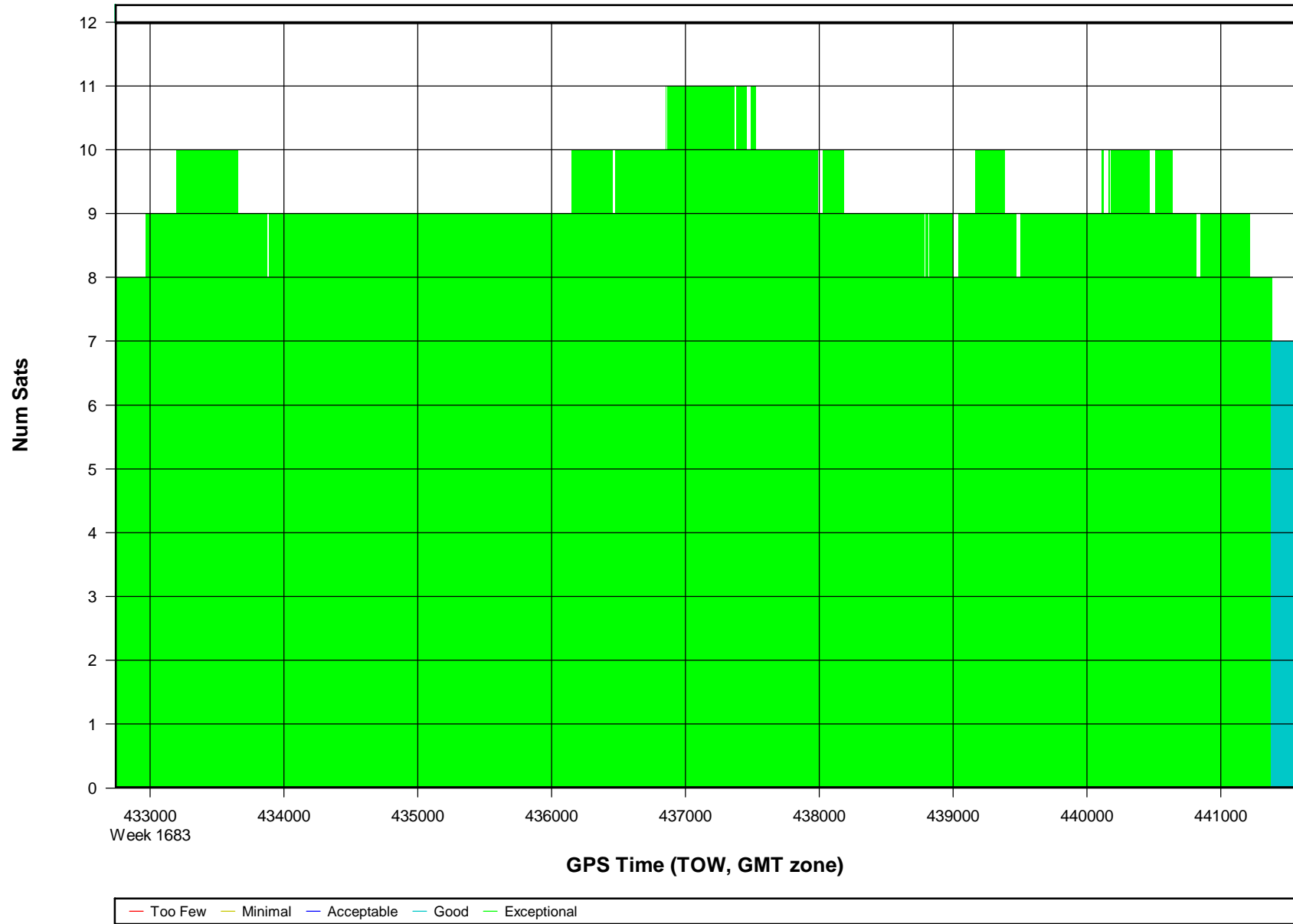




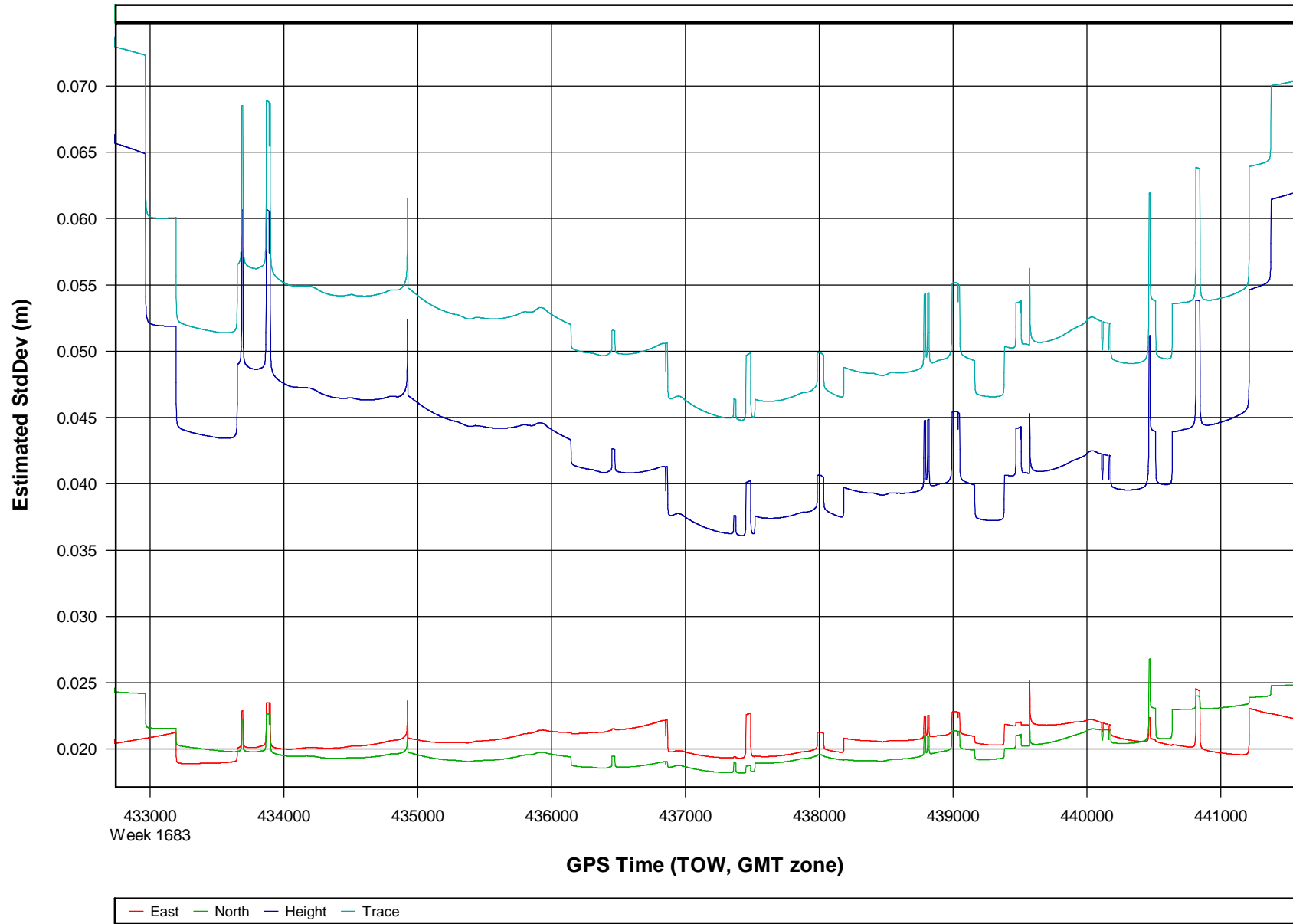
### o112103b [Combined] - PDOP, HDOP, VDOP Plots



**o112103b [Combined] - Number of Satellites Bar Plot**



### o112103b [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112103b\3\_Processed\GPS\o112103b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 88385  
No processed position: 79559  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0150 (m)  
C/A Code: 0.65 (m)  
L1 Doppler: 0.027 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.007 (m)  
North: 0.005 (m)  
Height: 0.018 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (8821 occurrences):  
East: 0.006 (m)  
North: 0.004 (m)  
Height: 0.014 (m)

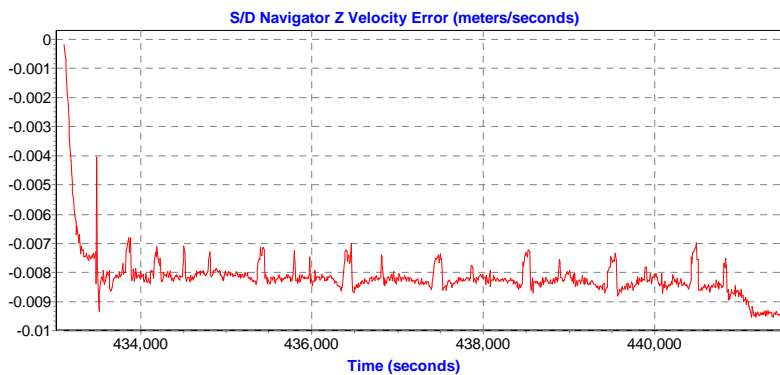
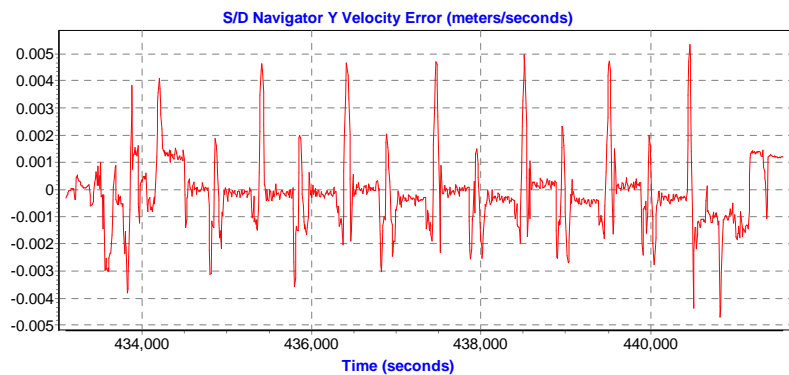
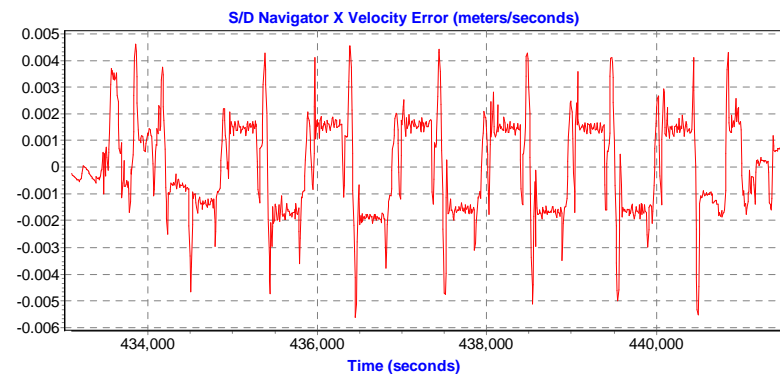
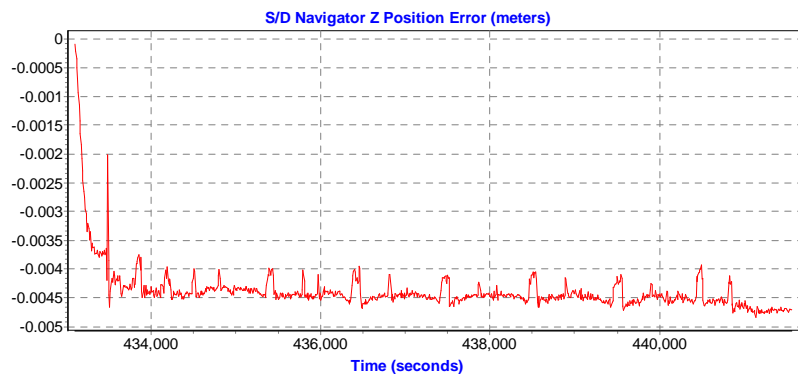
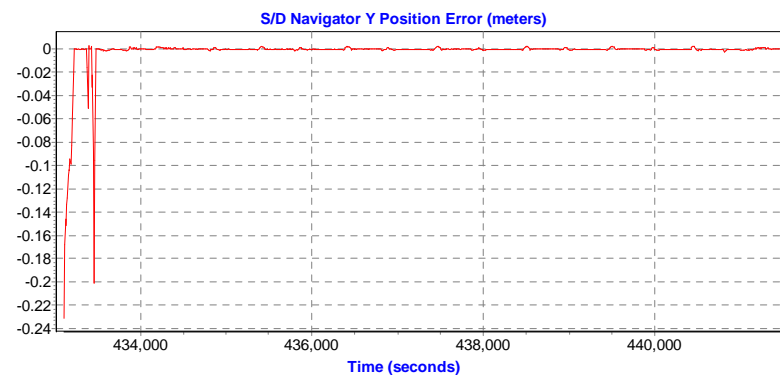
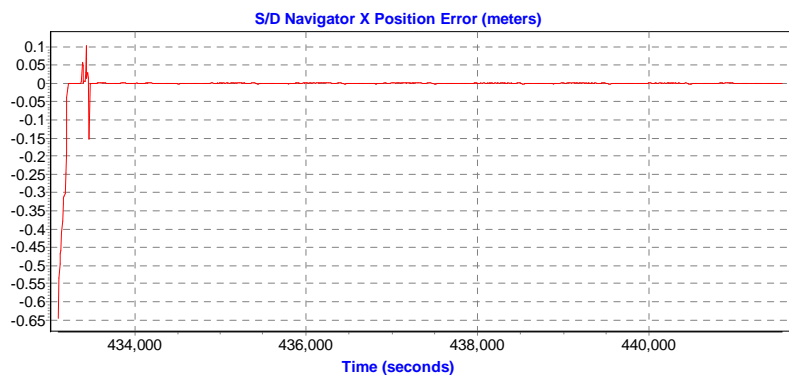
Quality Number Percentages:  
Q 1: 99.9 %  
Q 2: 0.1 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

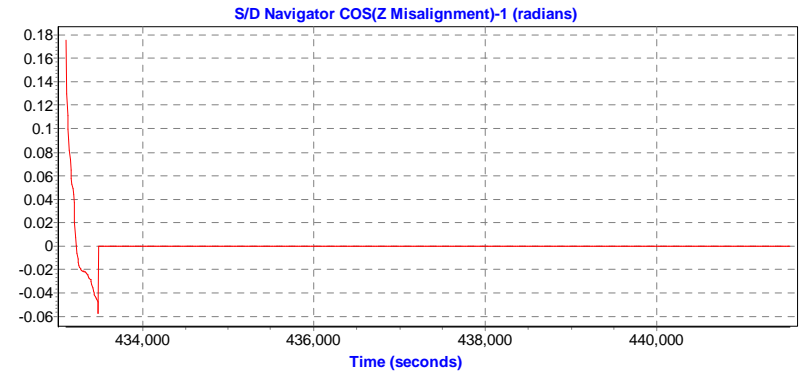
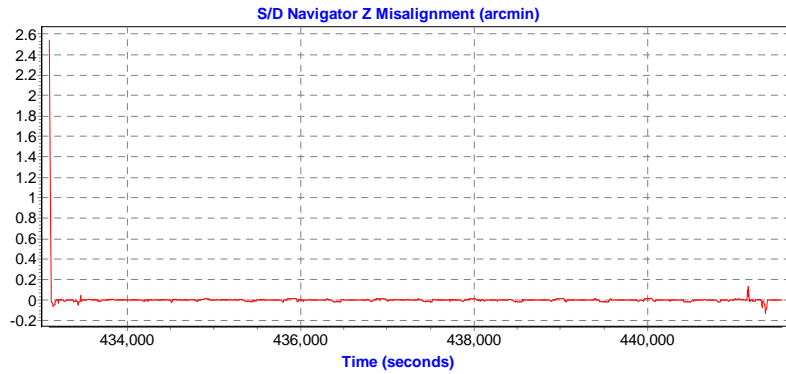
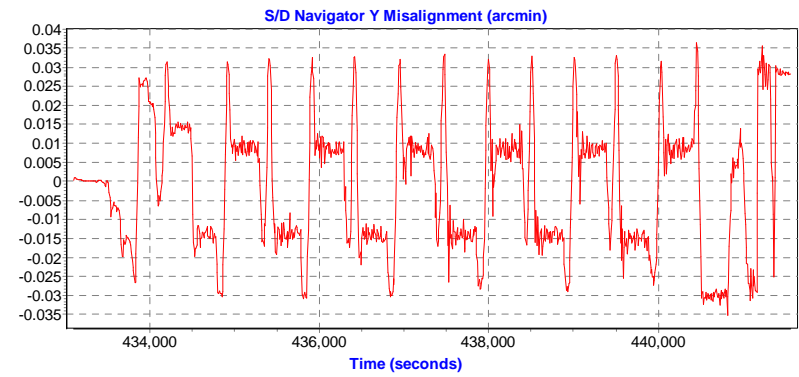
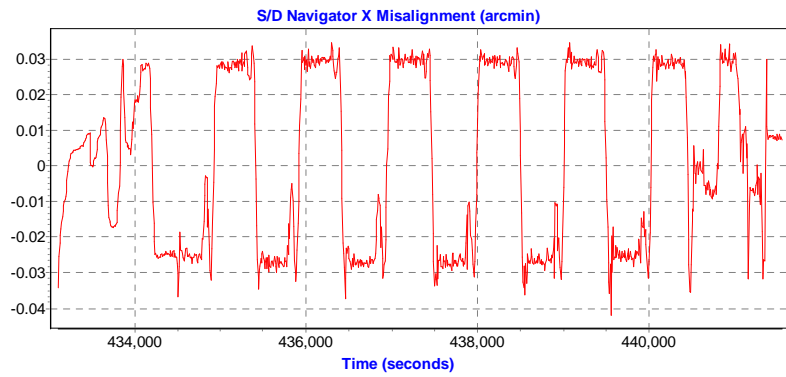
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

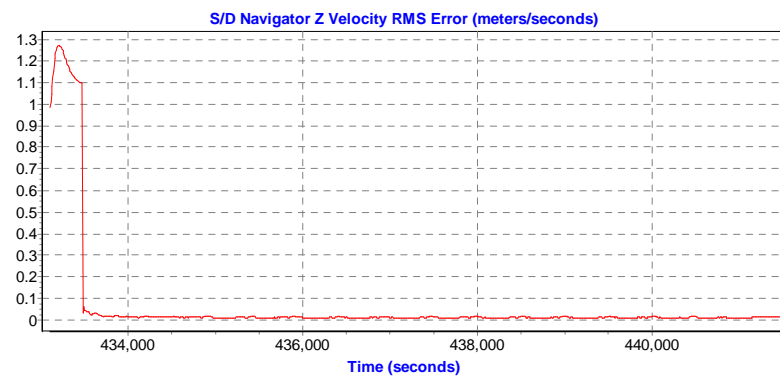
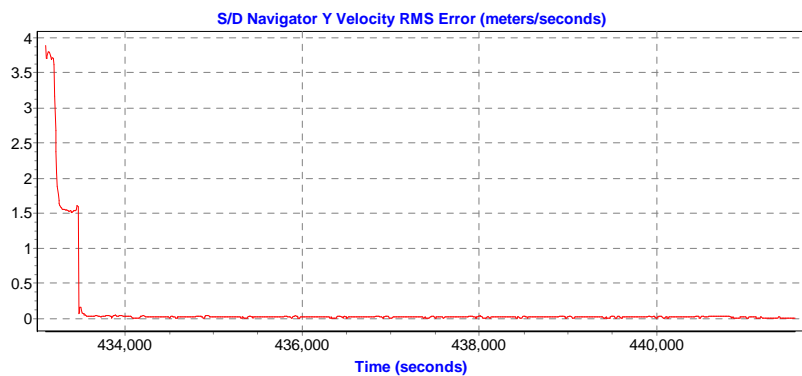
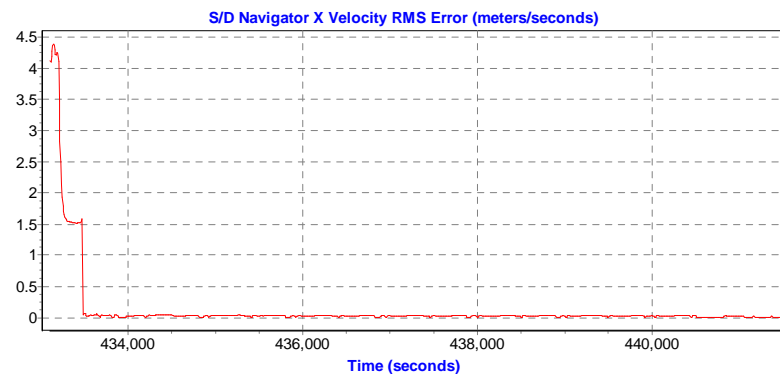
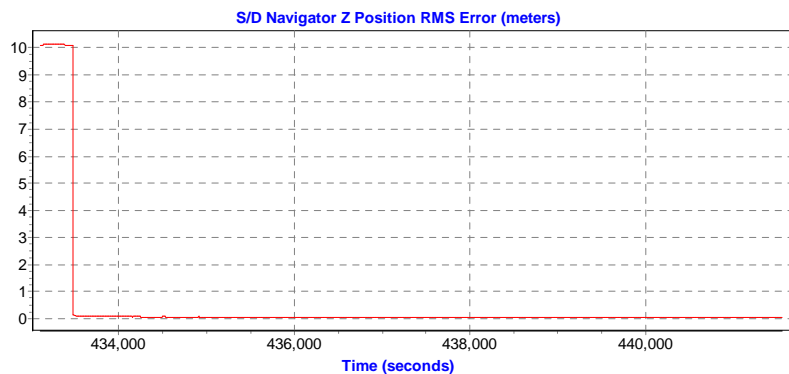
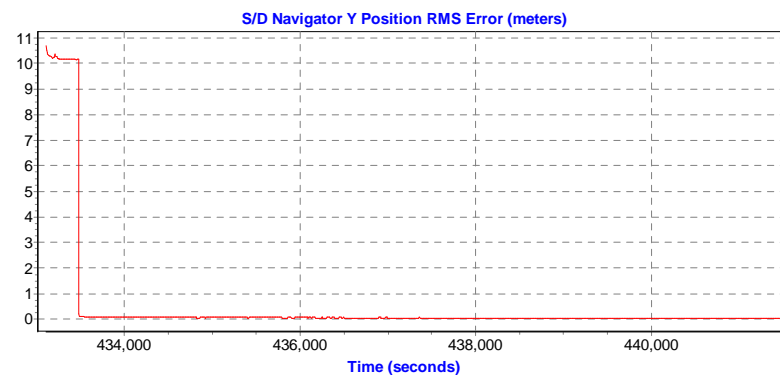
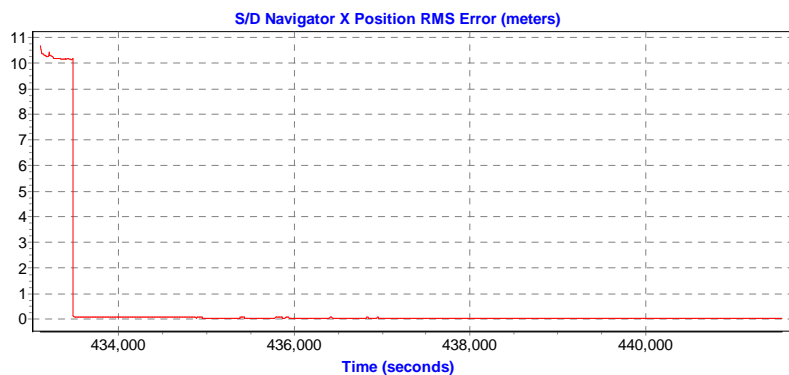
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

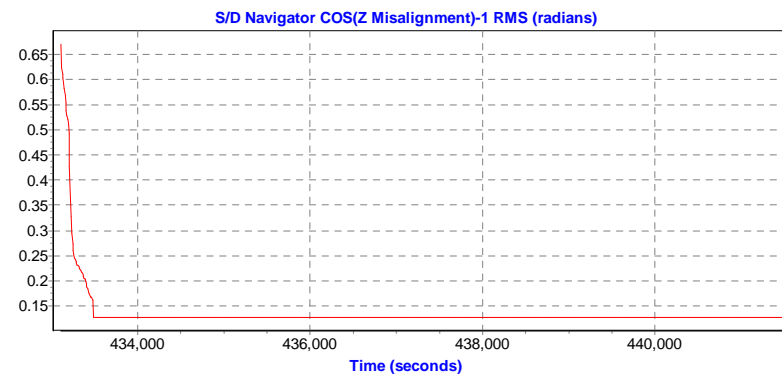
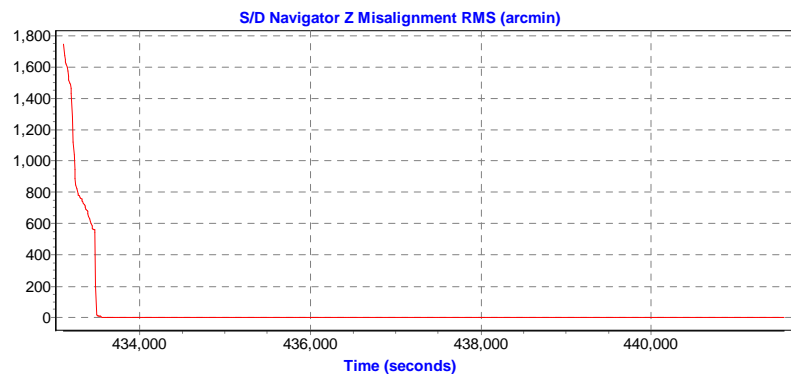
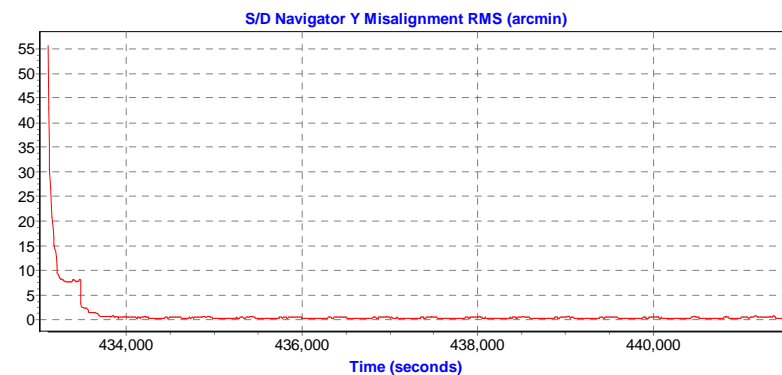
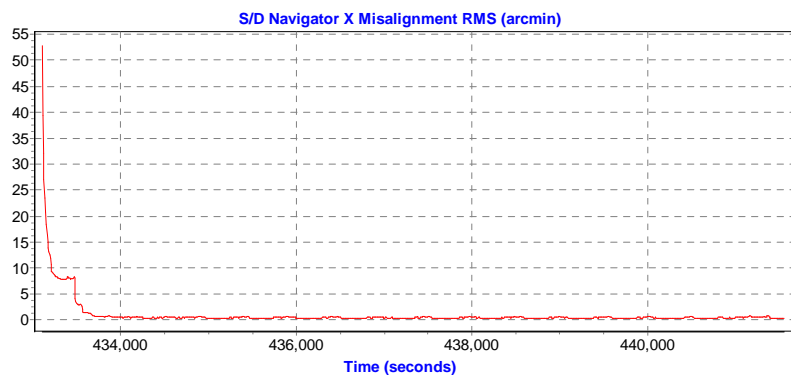
Baseline Distances:  
Maximum: 36.402 (km)  
Minimum: 0.040 (km)  
Average: 18.762 (km)  
First Epoch: 0.510 (km)  
Last Epoch: 0.520 (km)

Estimated Errors and RMS

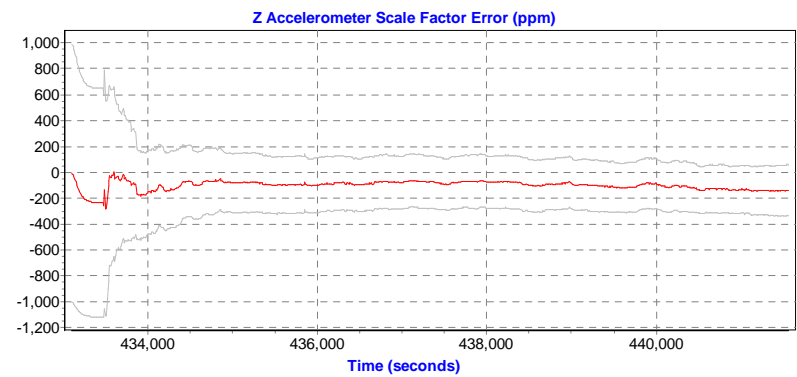
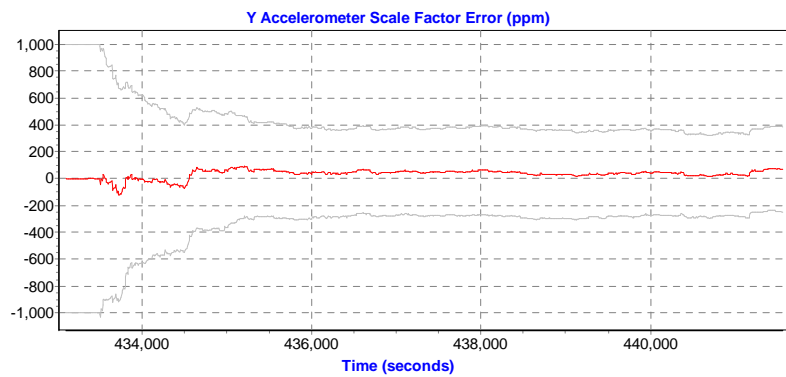
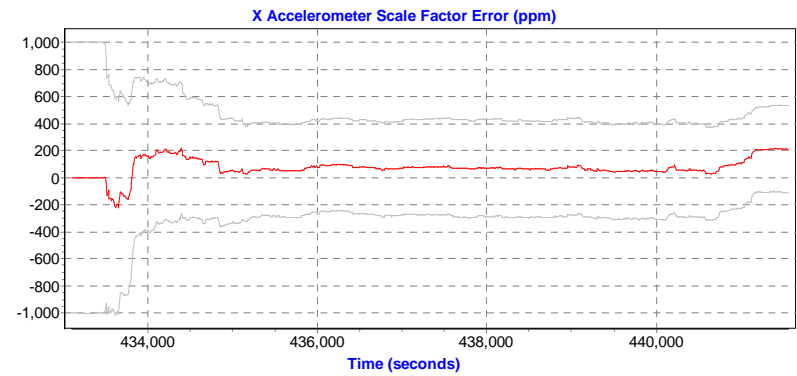
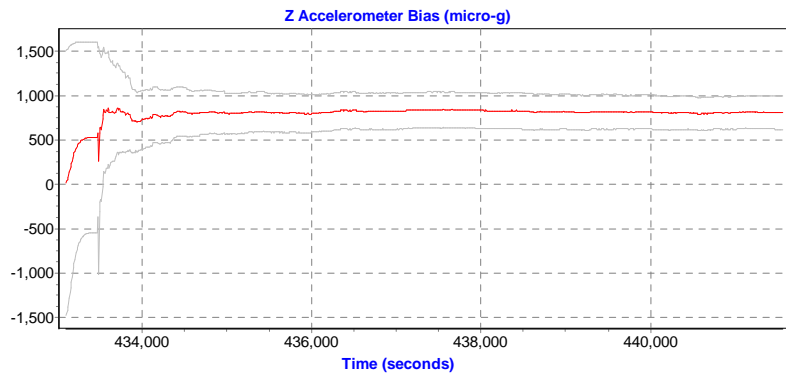
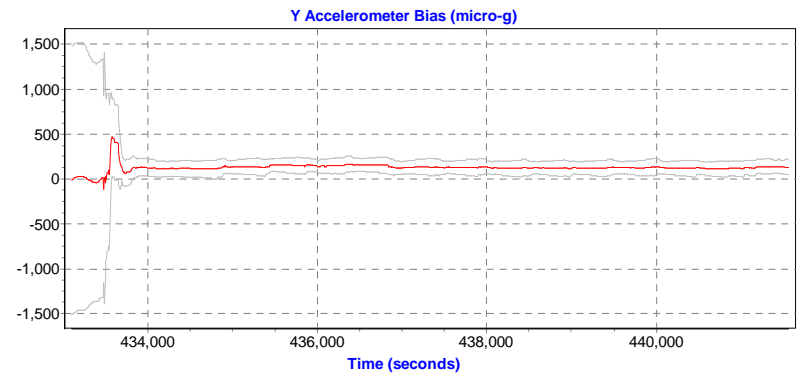
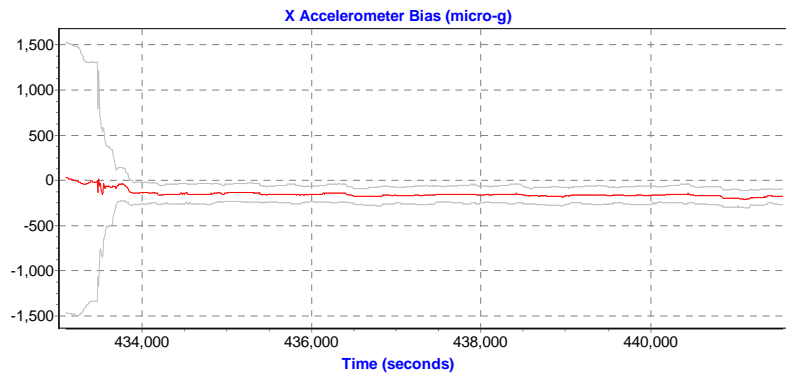


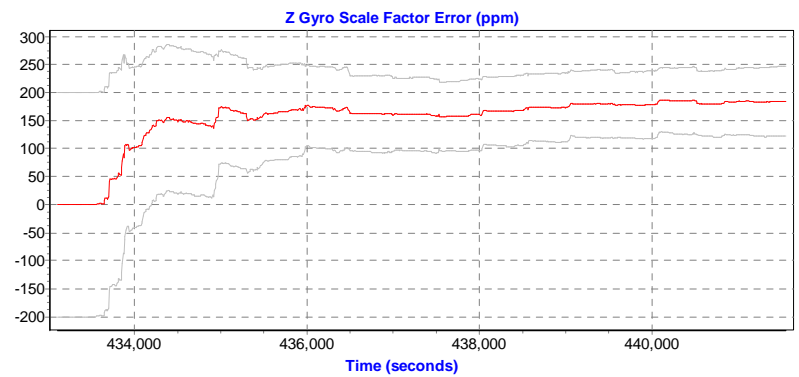
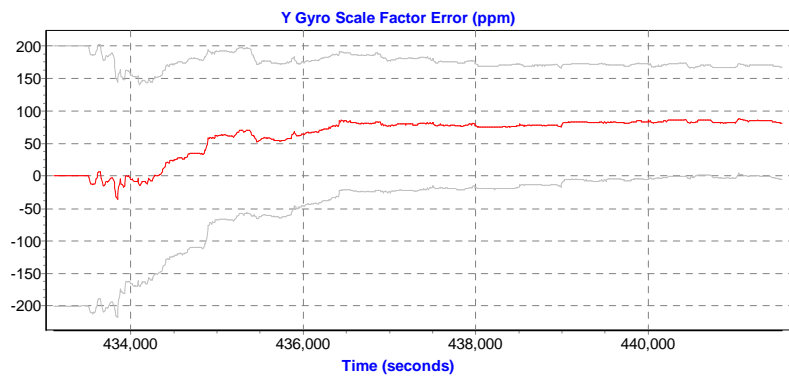
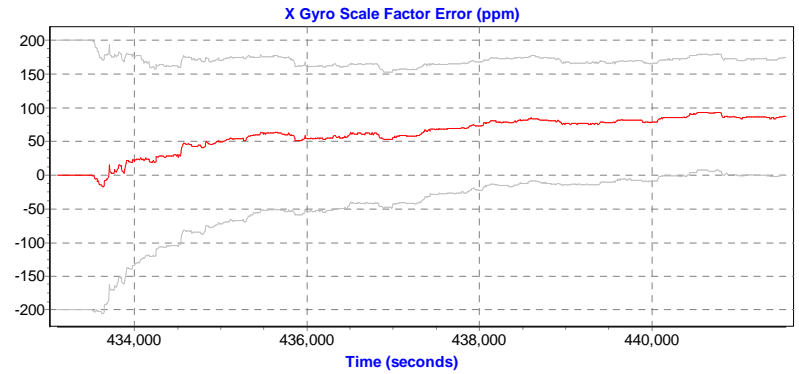
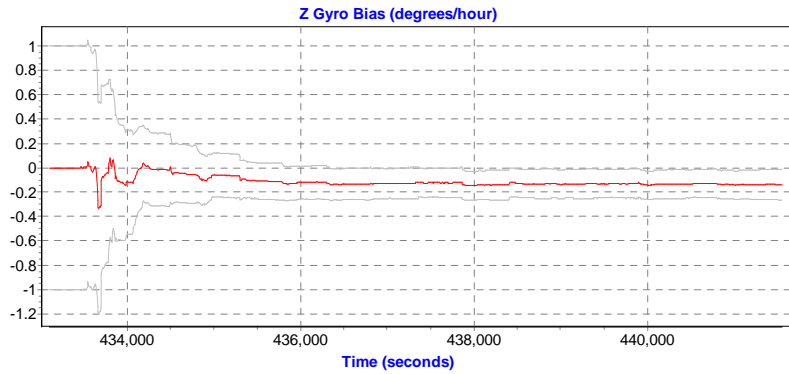
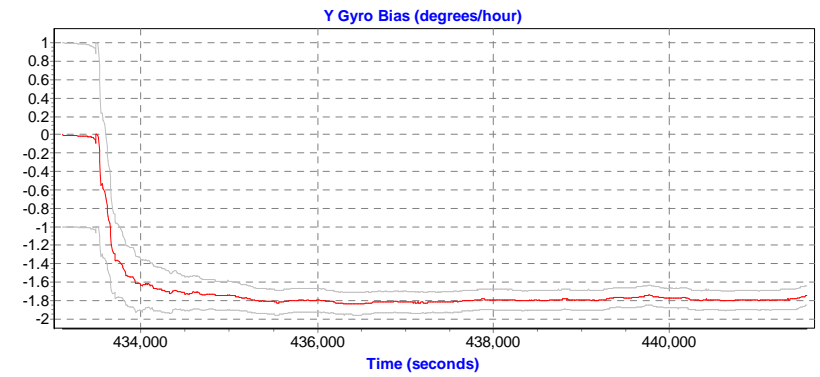
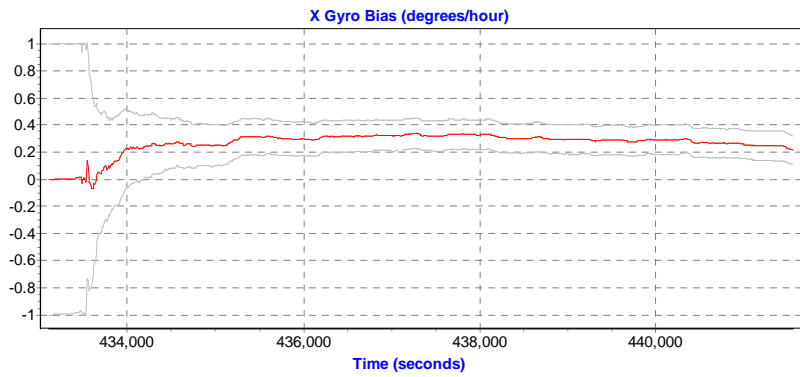


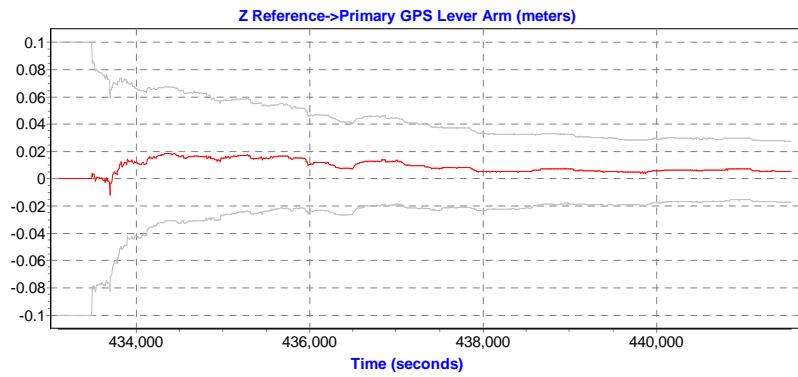
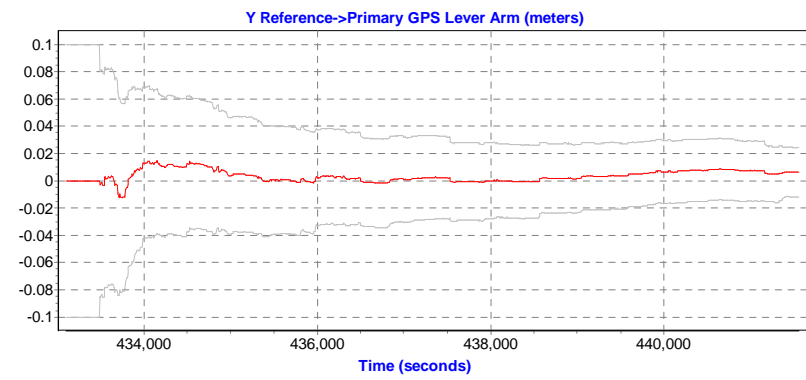
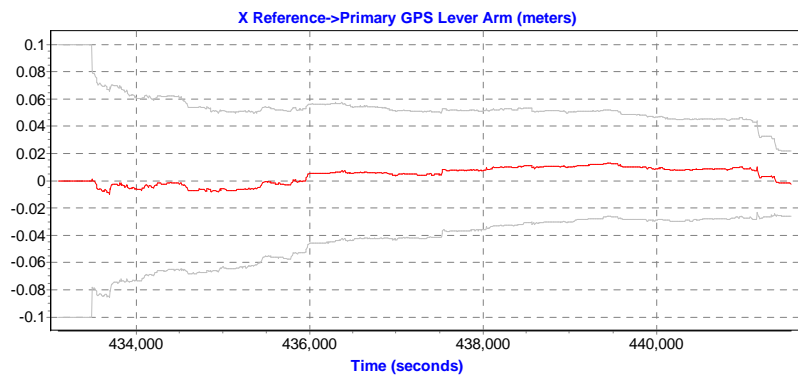






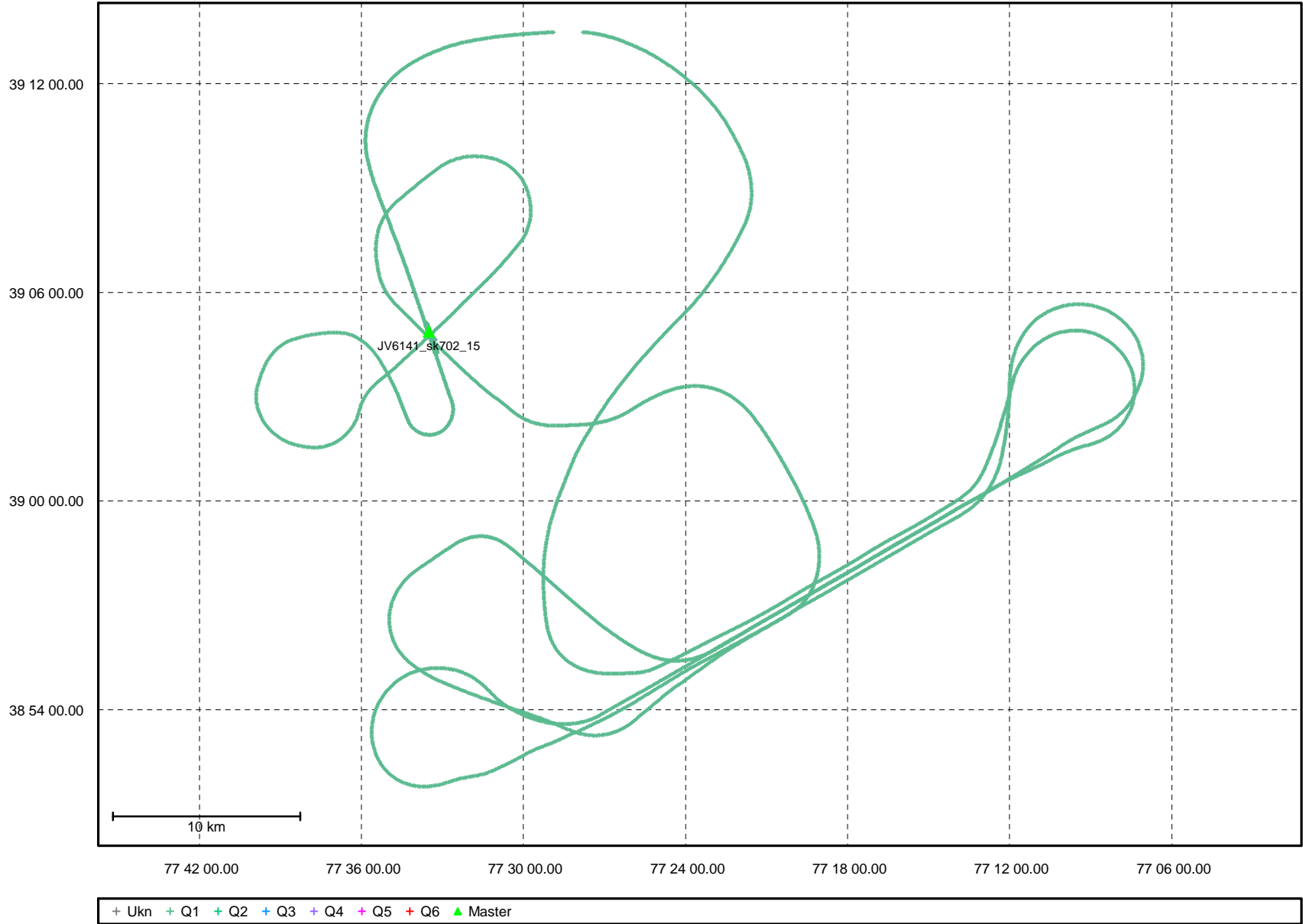




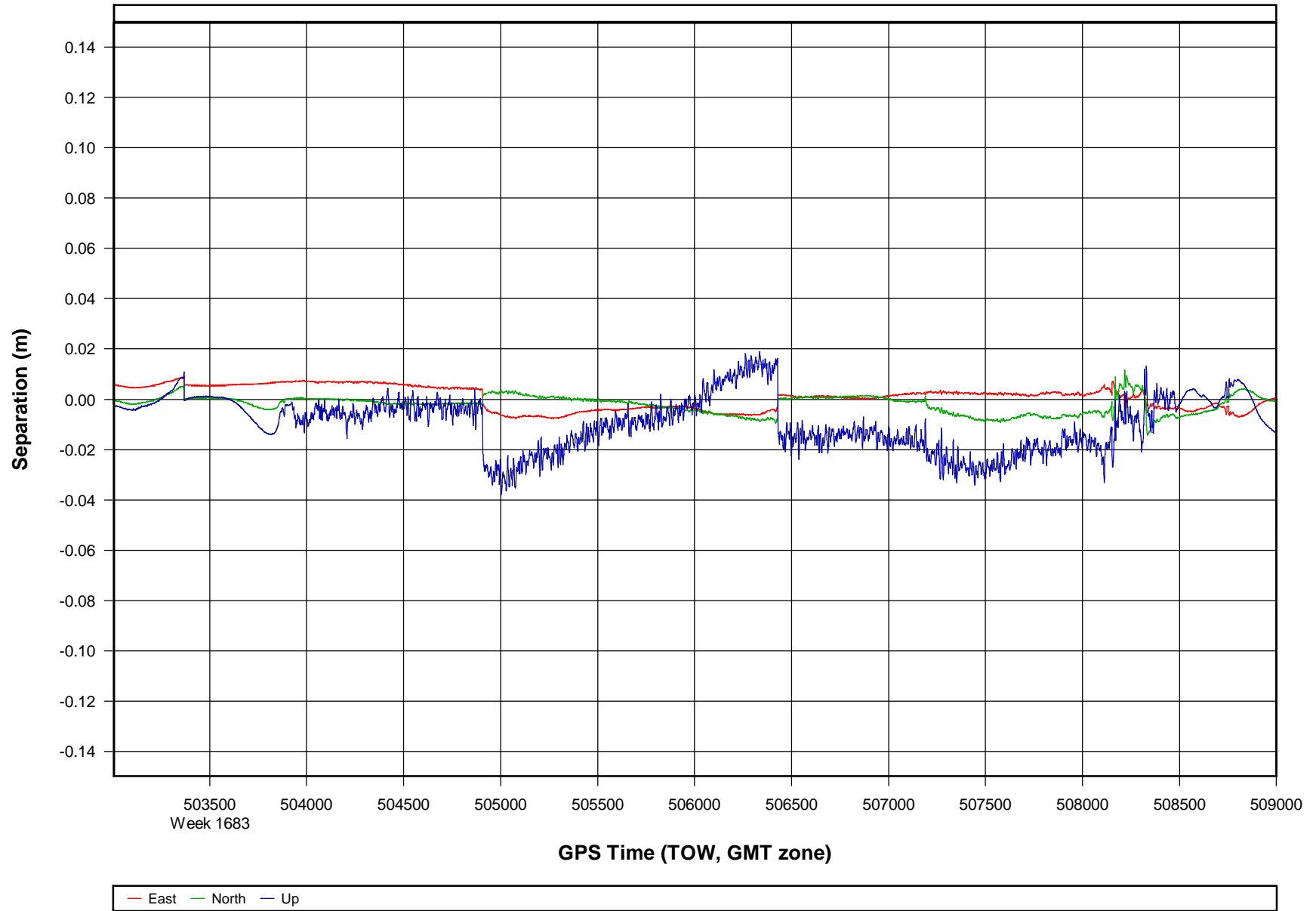


### Combined - Map Run (1)

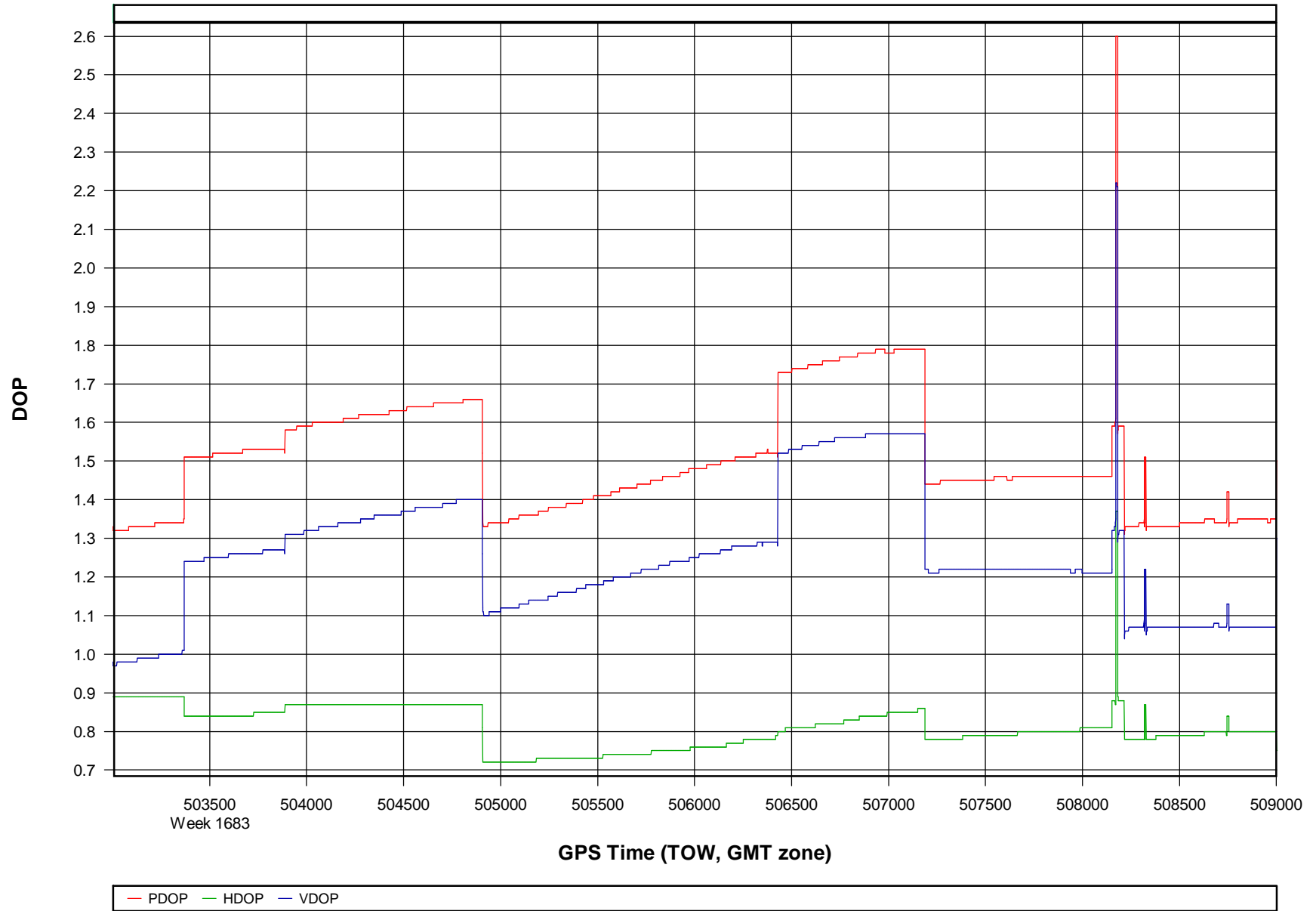
Geographic, DMS



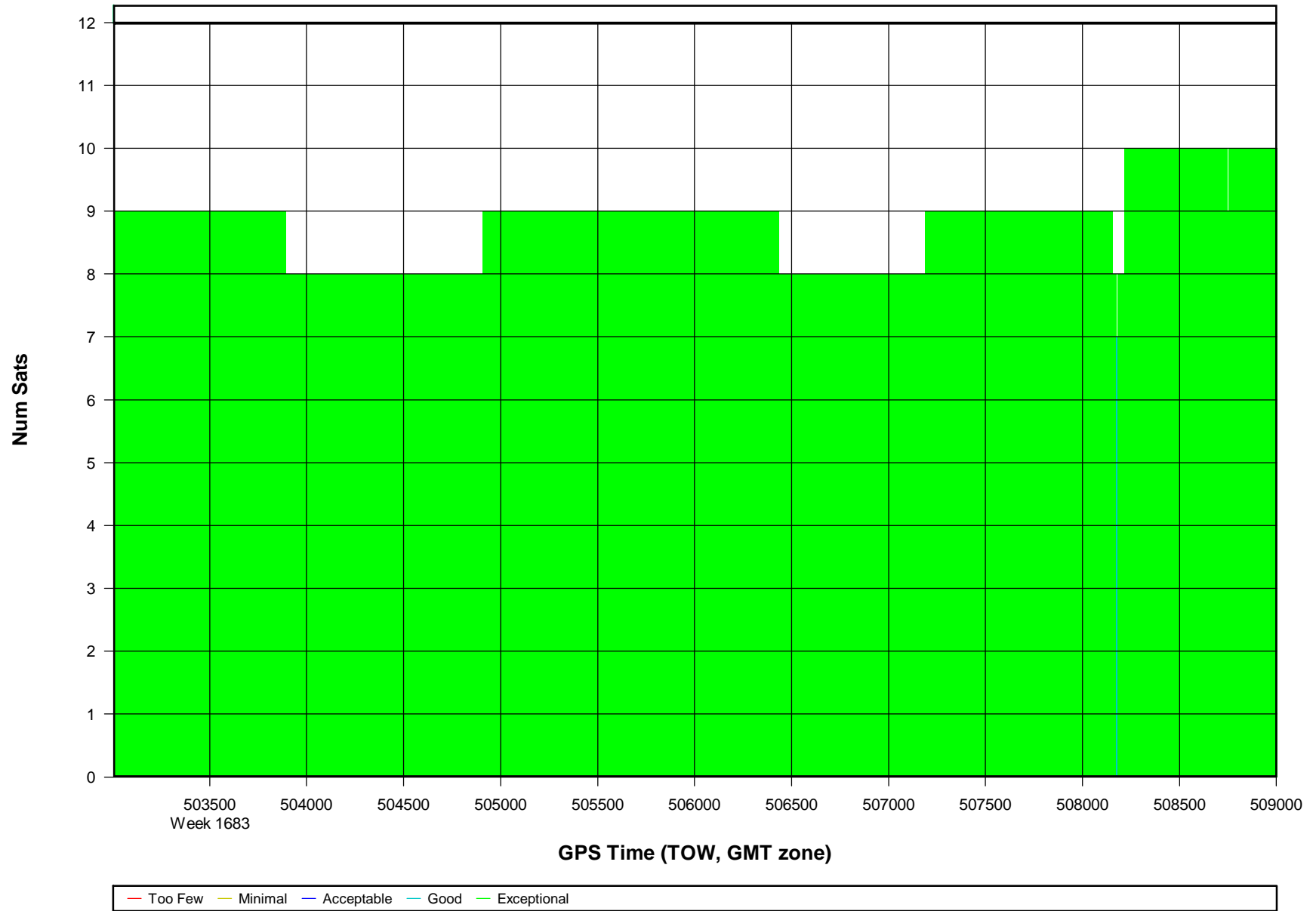
### o112104a [Combined] - Forward/Reverse or Combined Separation Plot



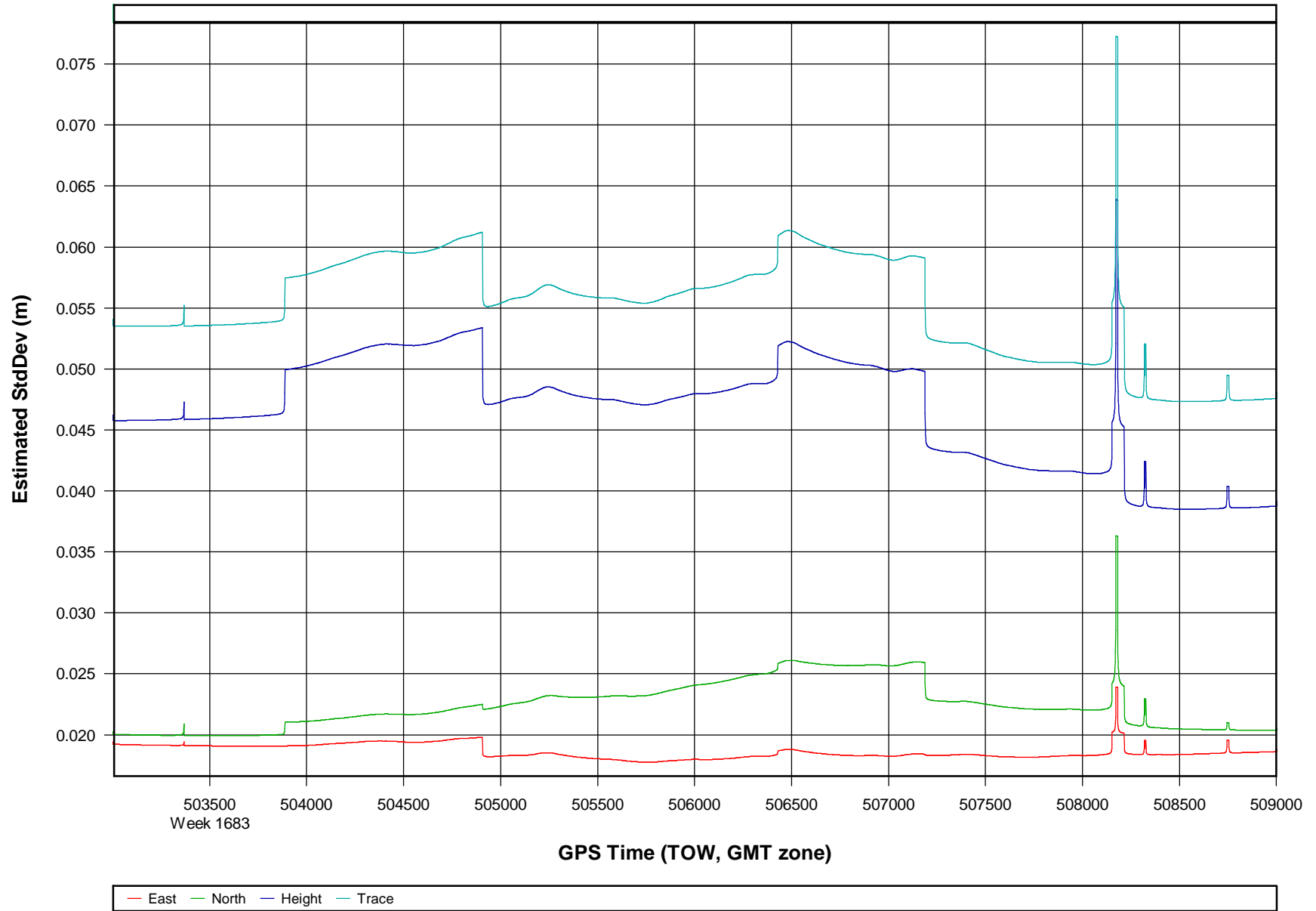
### o112104a [Combined] - PDOP, HDOP, VDOP Plots



### o112104a [Combined] - Number of Satellites Bar Plot



### o112104a [Combined] - Estimated Position Accuracy Plot





## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112104a\3\_Processed\GPS\o112104a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 60148  
No processed position: 54145  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0182 (m)  
C/A Code: 0.64 (m)  
L1 Doppler: 0.028 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.007 (m)  
North: 0.007 (m)  
Height: 0.024 (m)

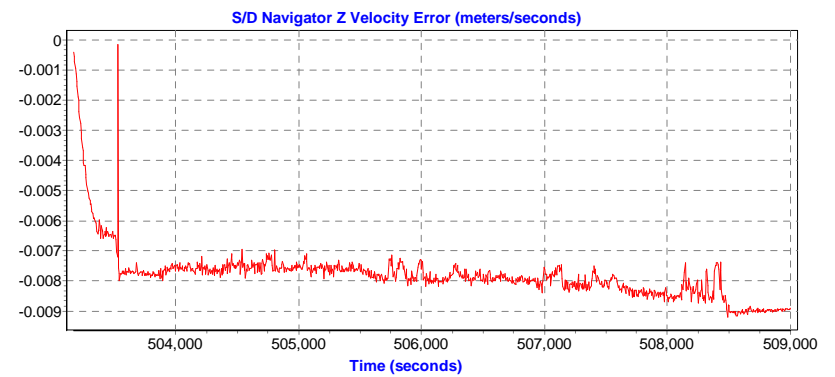
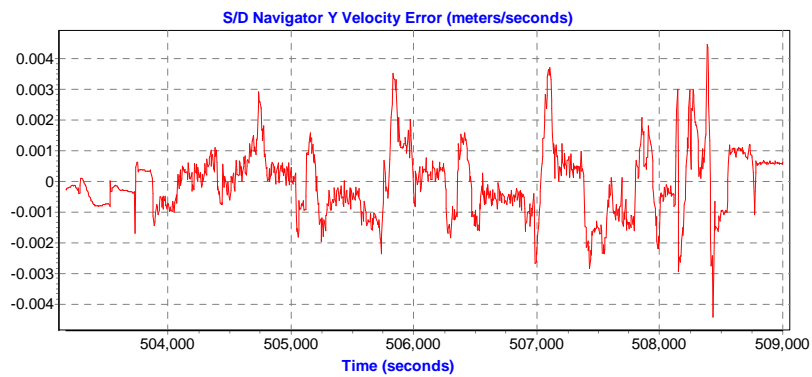
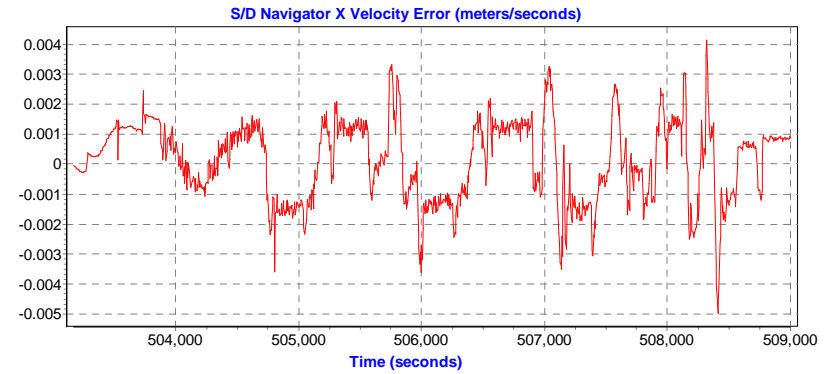
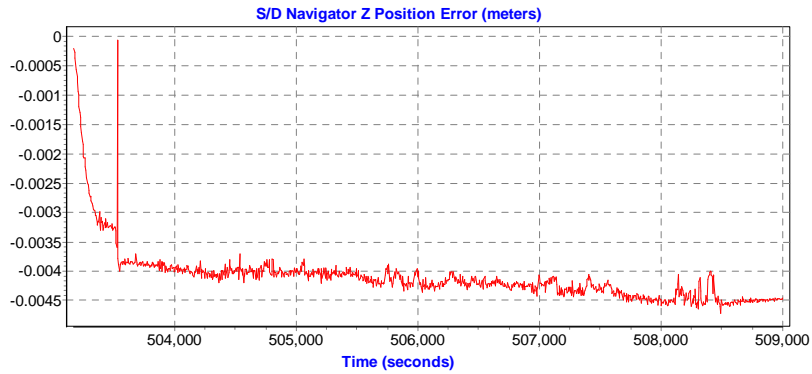
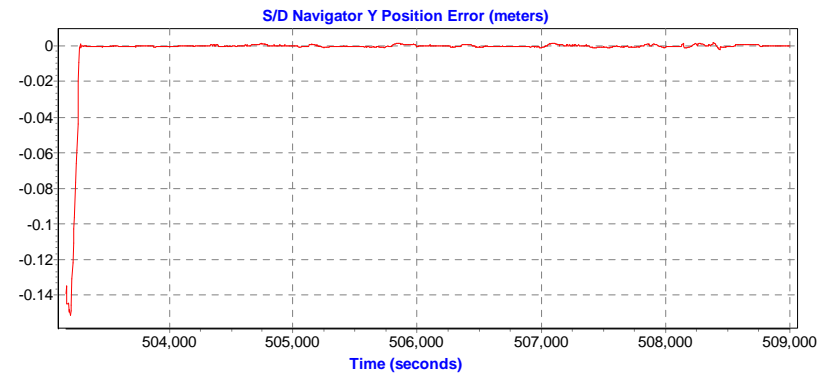
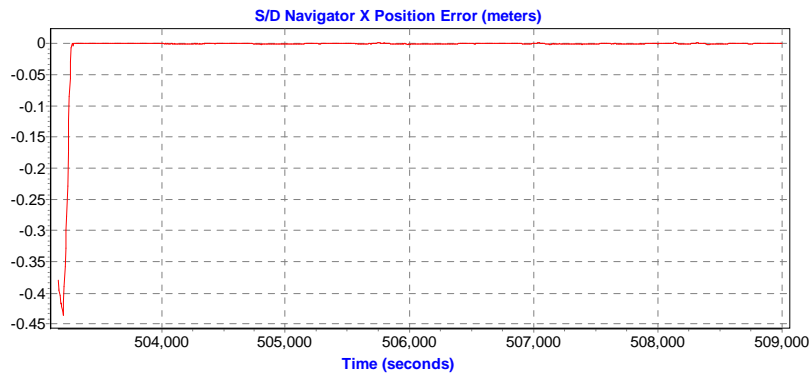
Fwd/Rev Sep. RMS for 25%-75% weighting (5998 occurrences):  
East: 0.005 (m)  
North: 0.004 (m)  
Height: 0.014 (m)

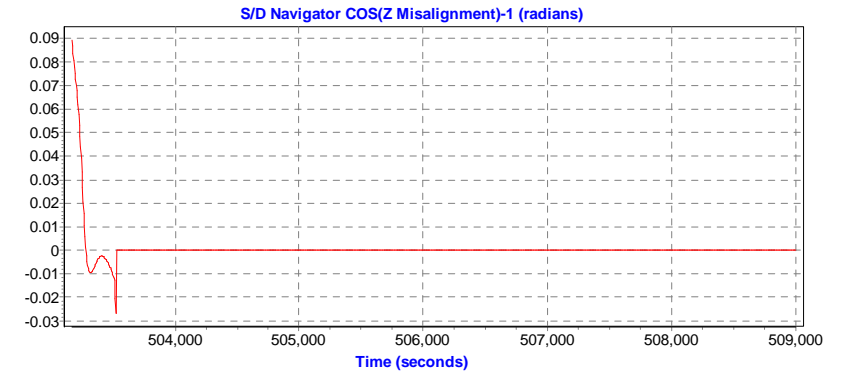
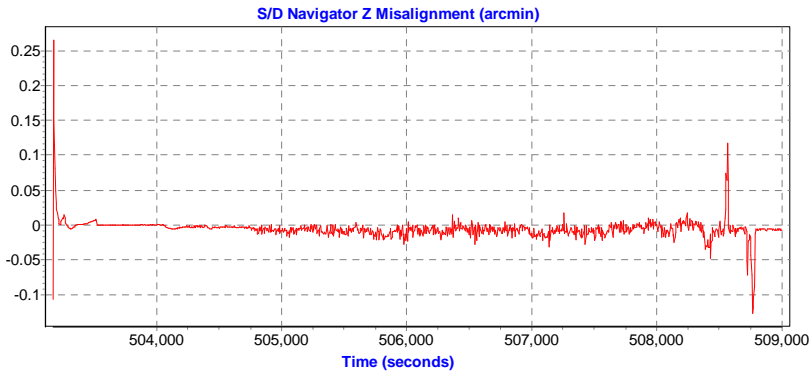
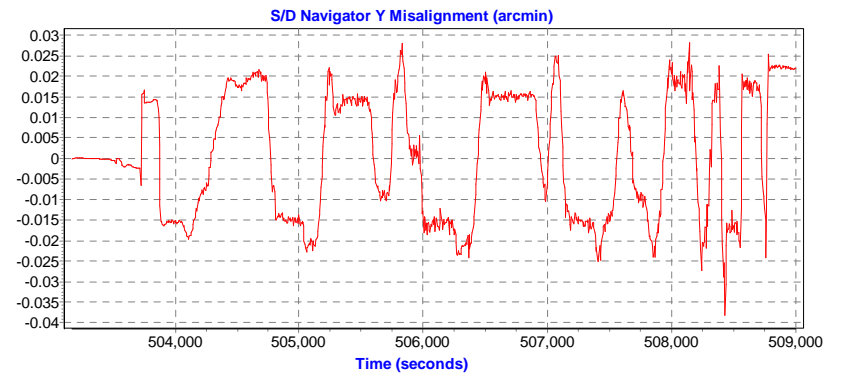
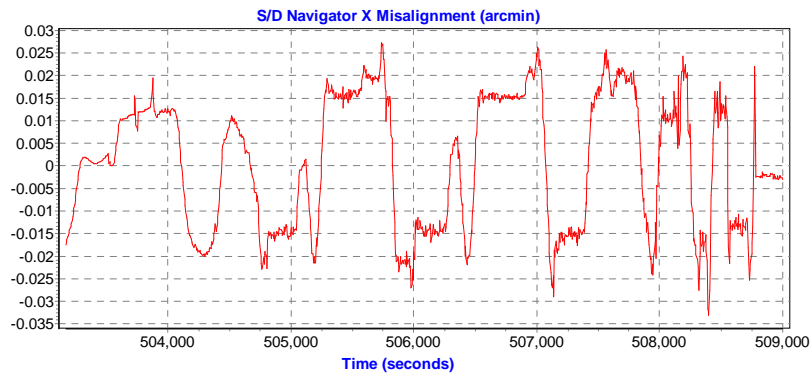
Quality Number Percentages:  
Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

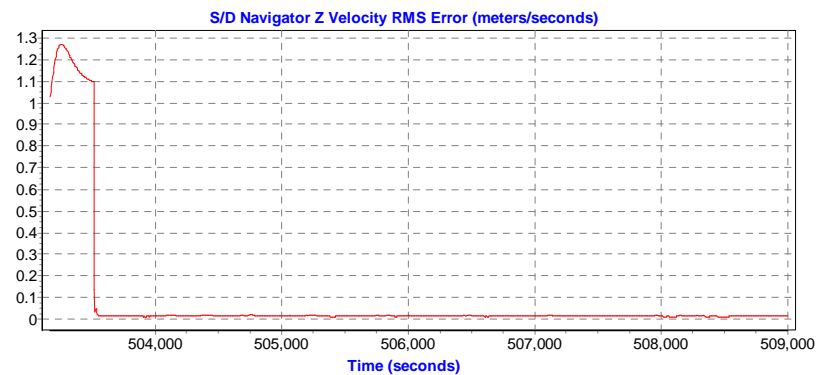
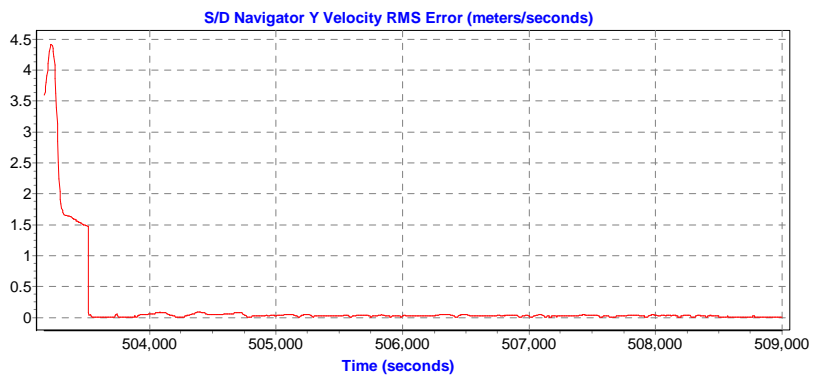
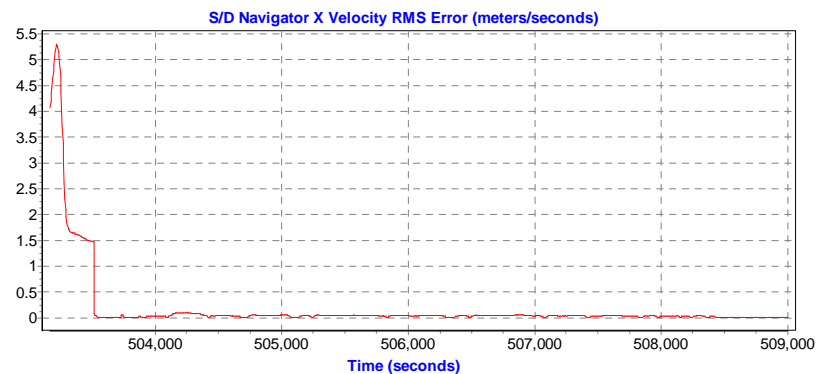
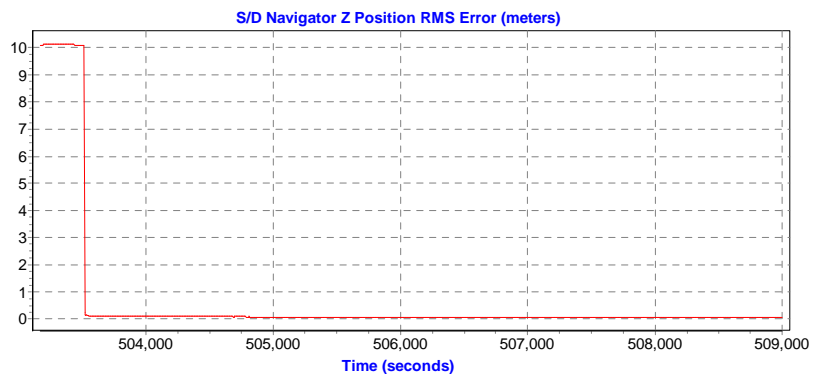
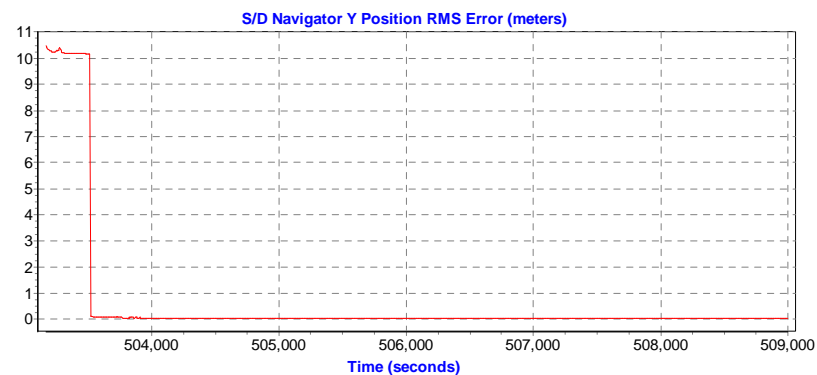
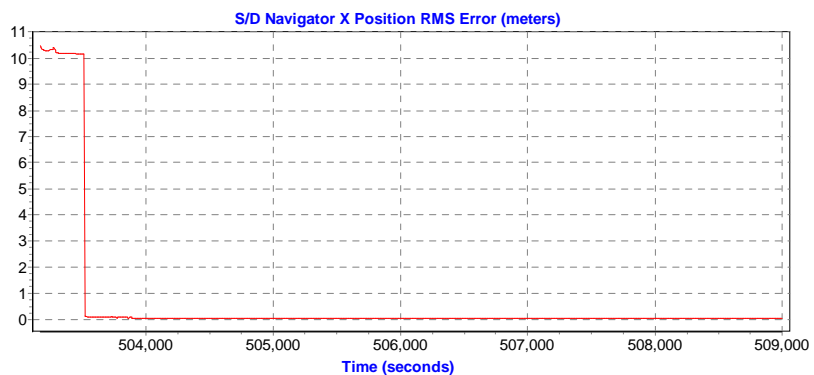
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

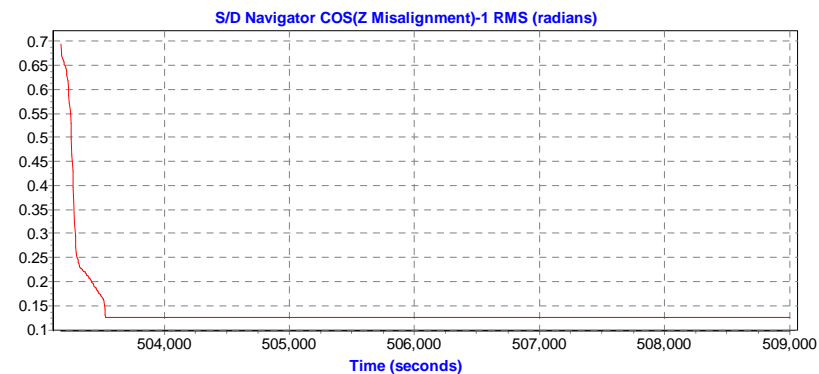
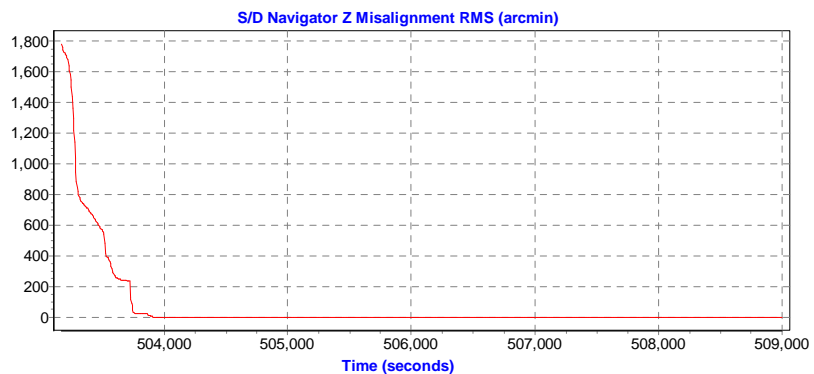
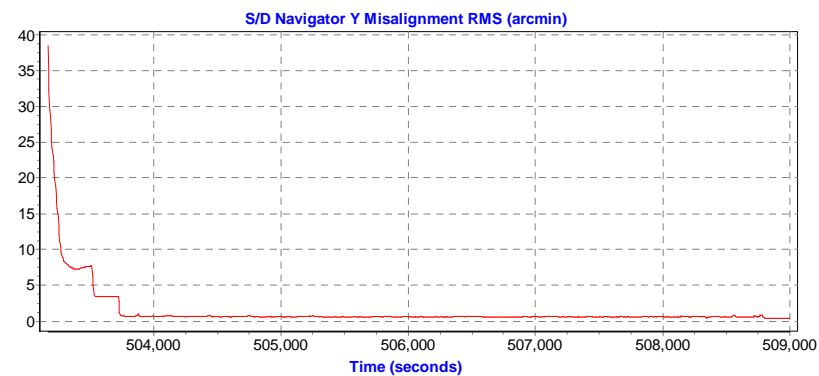
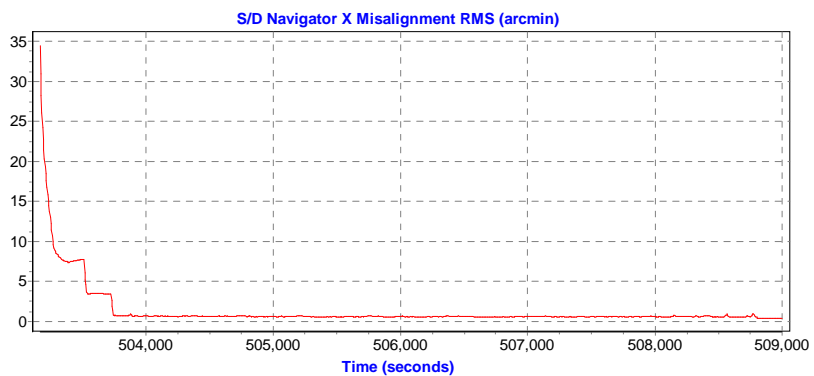
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

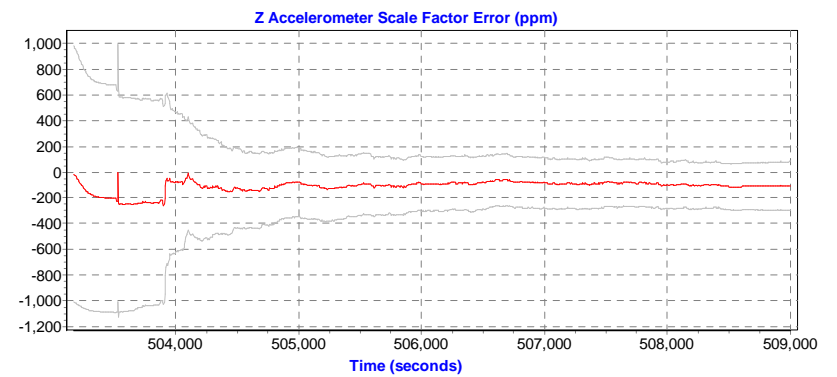
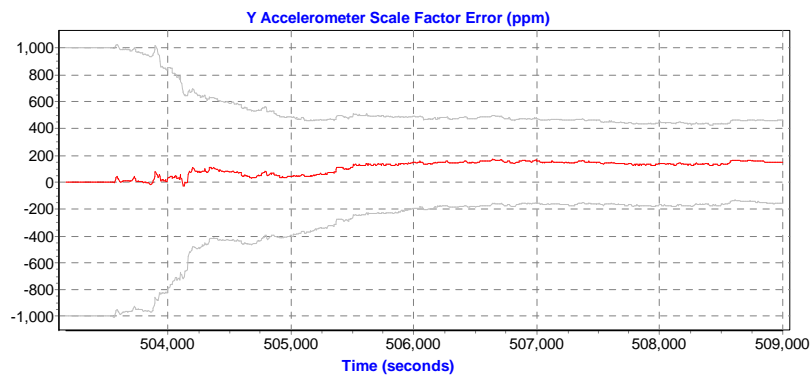
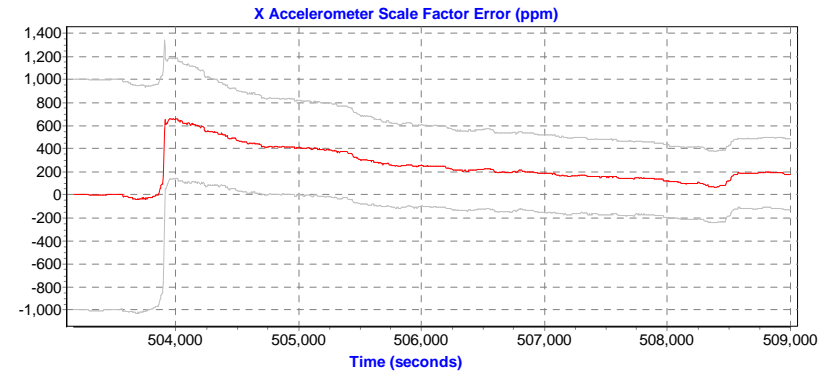
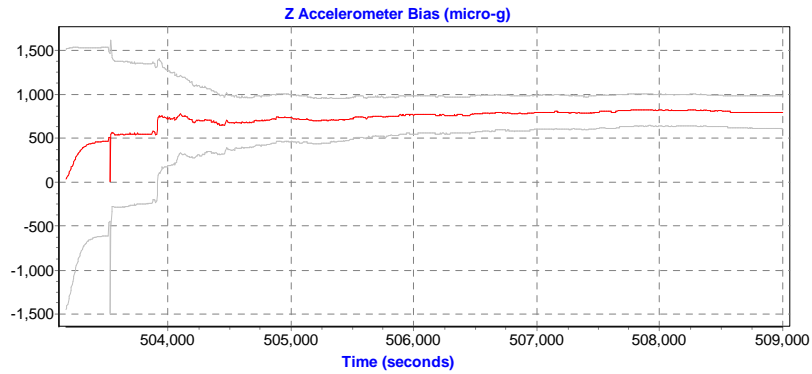
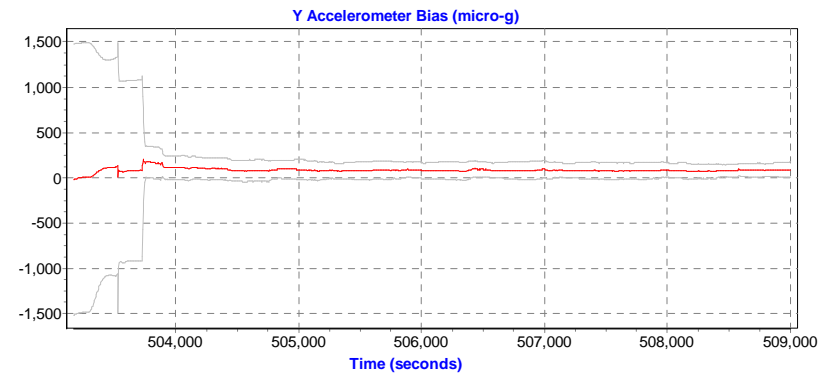
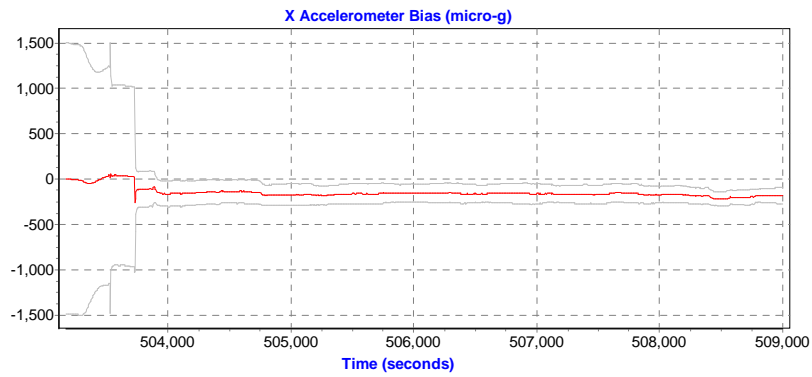
Baseline Distances:  
Maximum: 38.198 (km)  
Minimum: 0.038 (km)  
Average: 14.760 (km)  
First Epoch: 0.511 (km)  
Last Epoch: 0.515 (km)

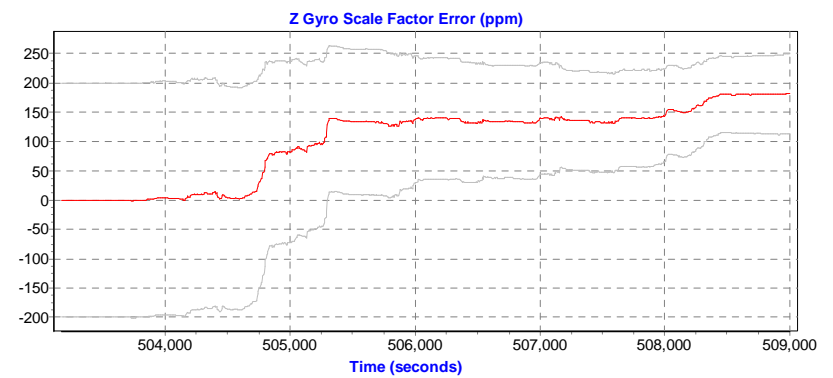
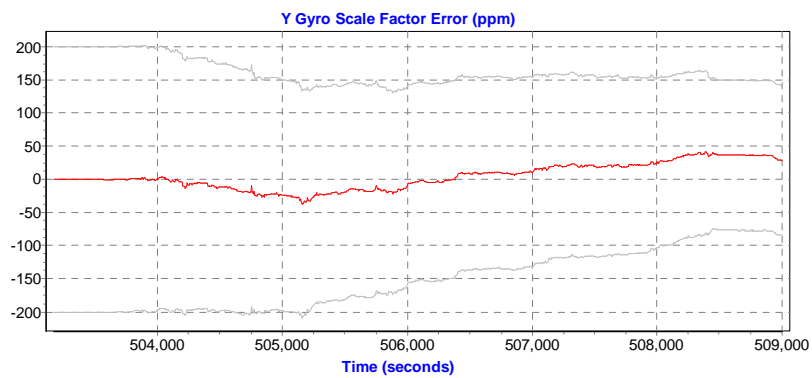
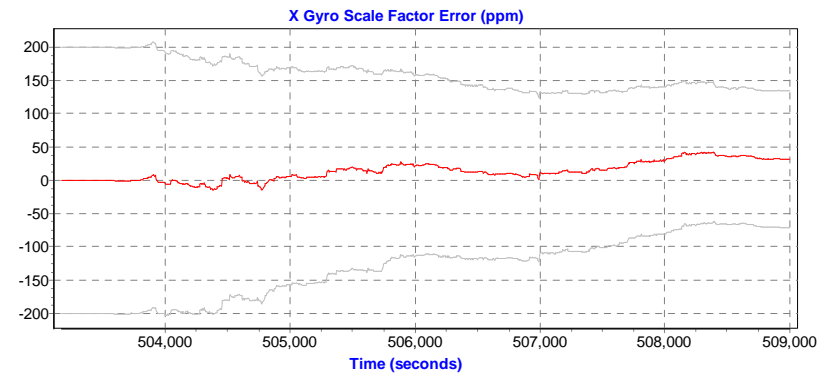
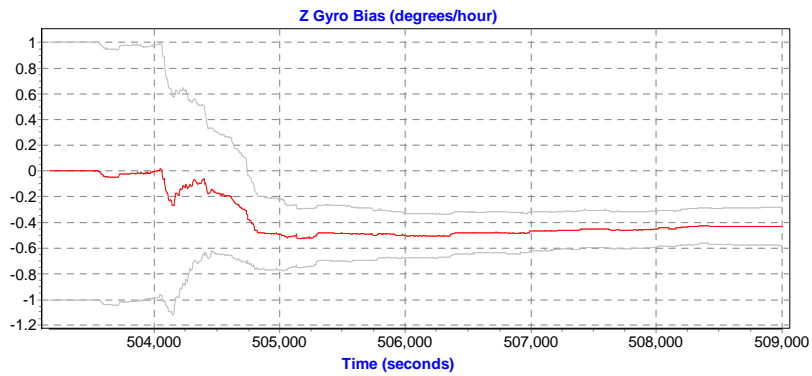
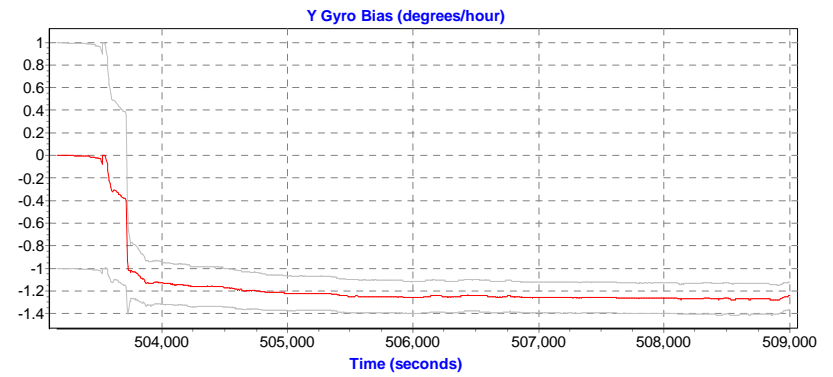
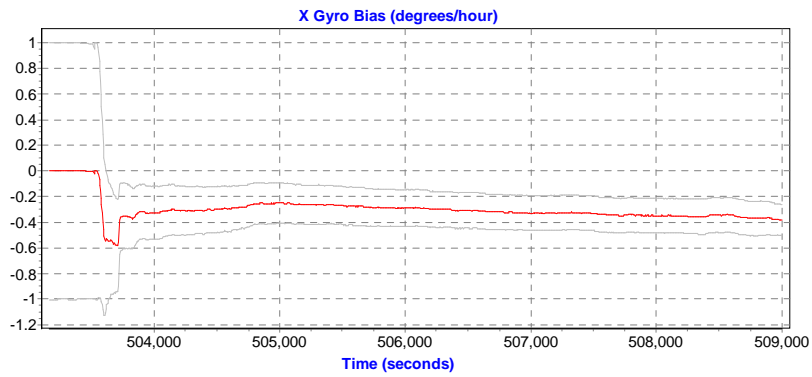


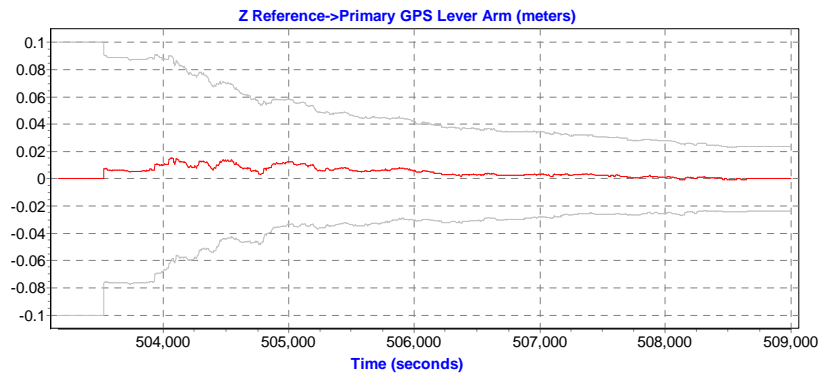
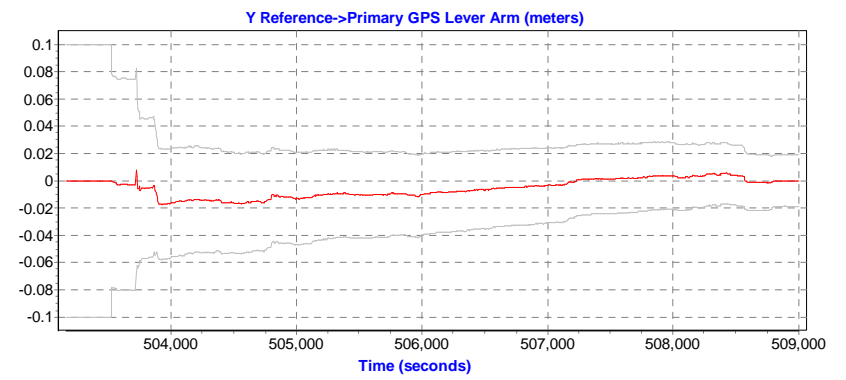
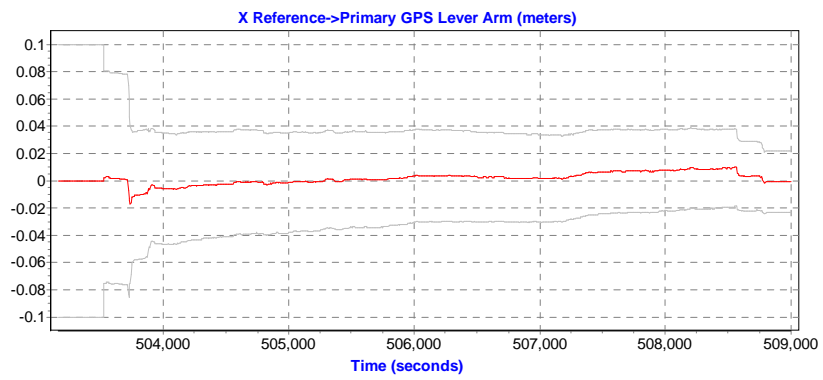








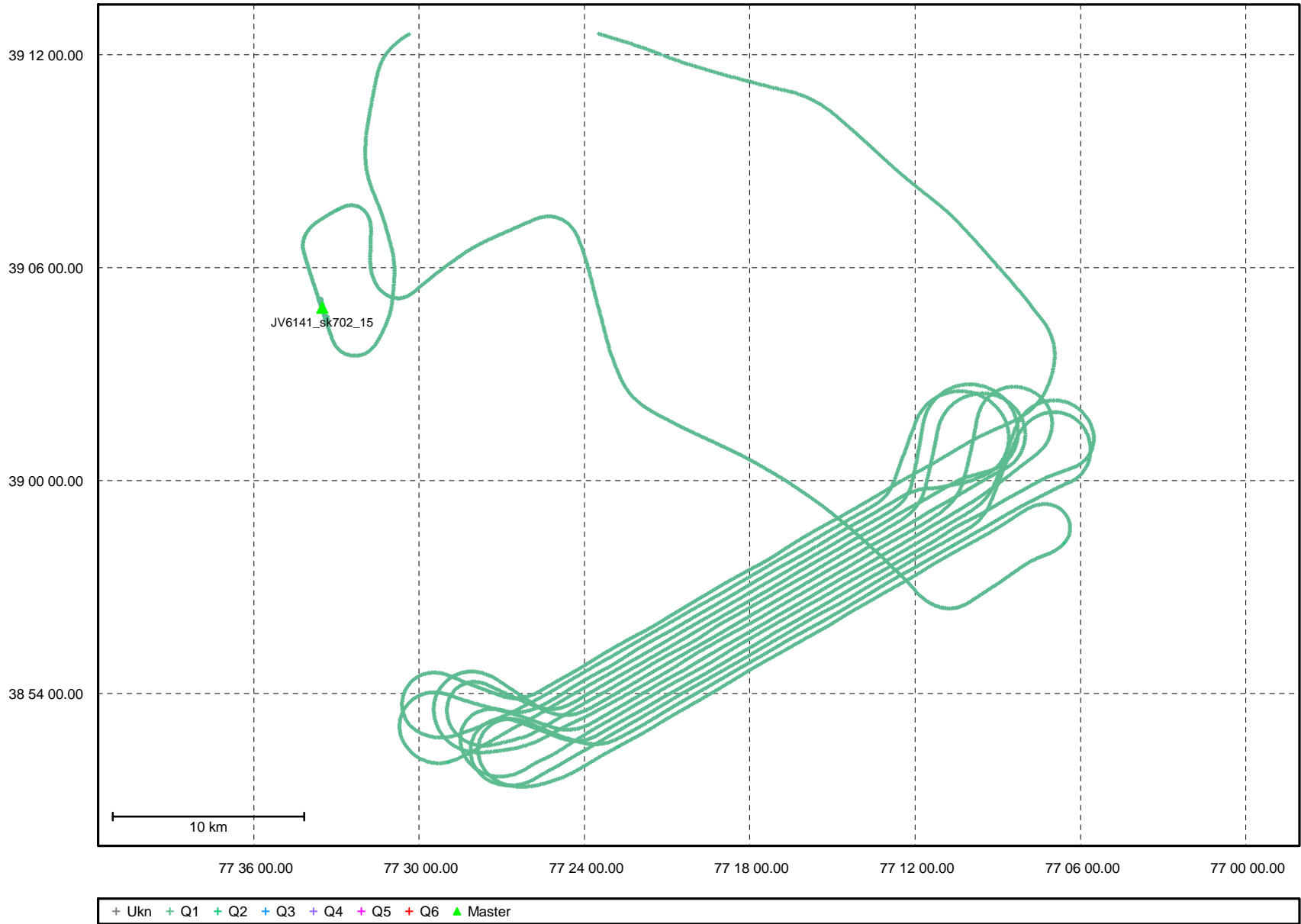




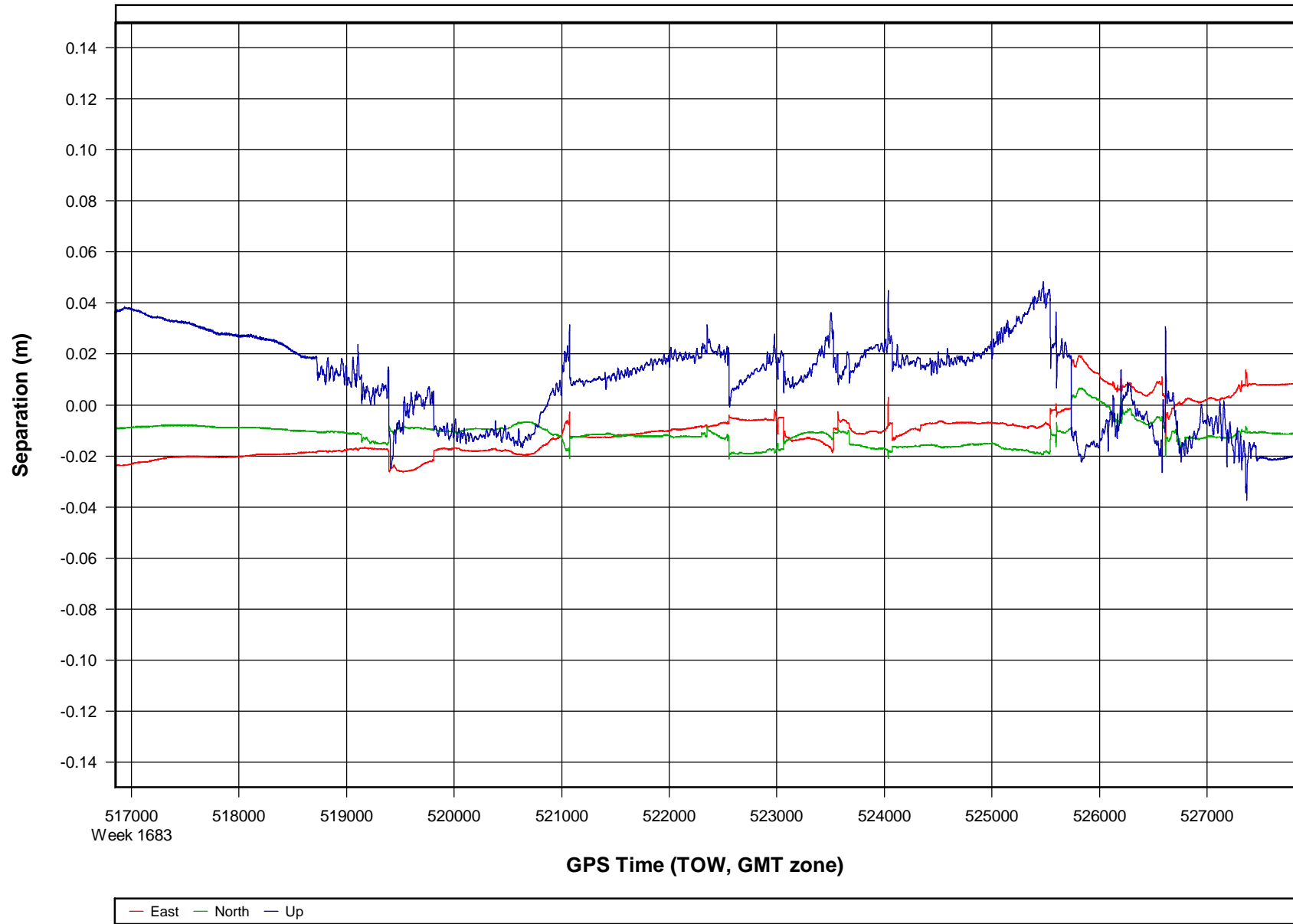


### Combined - Map Run (1)

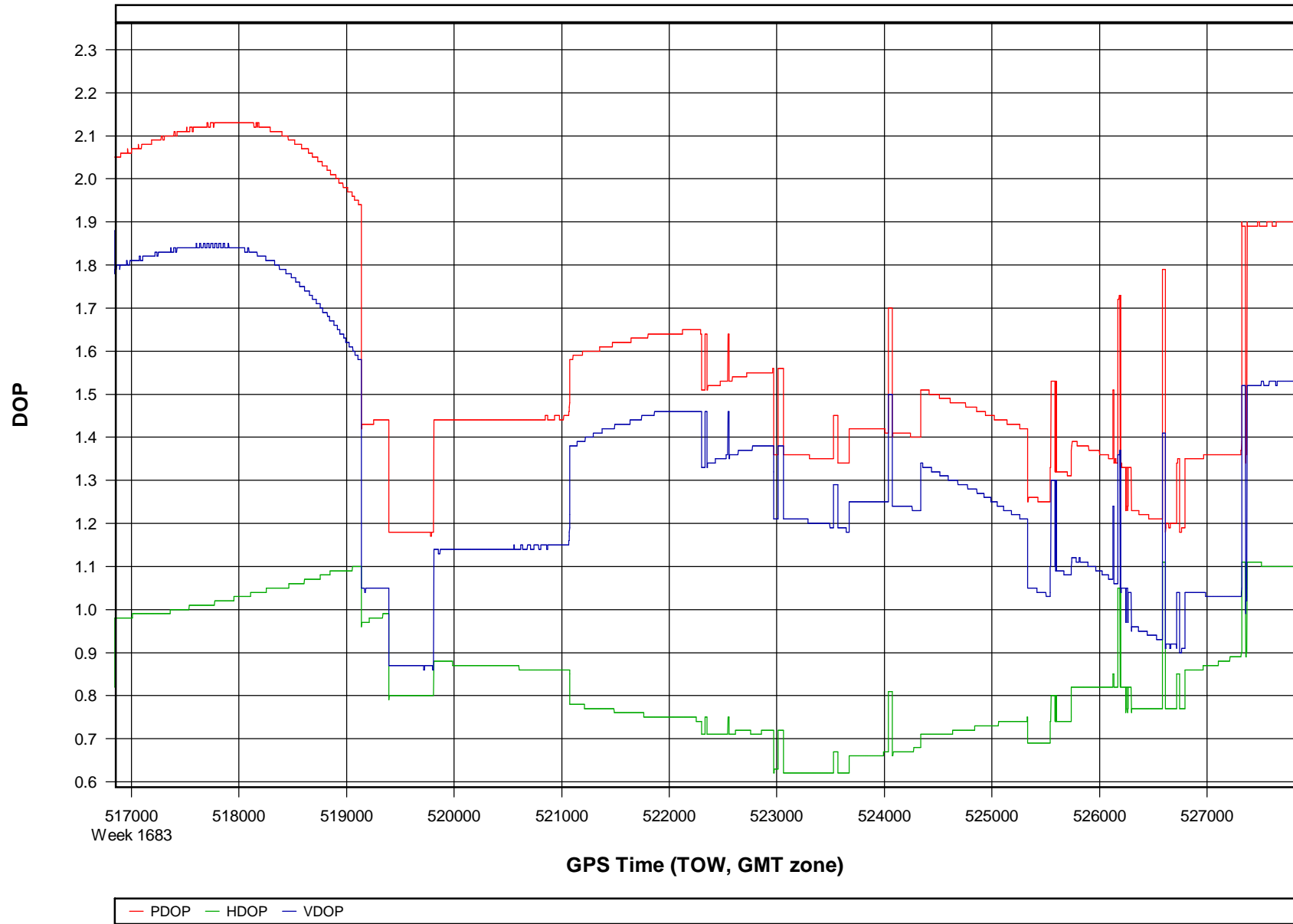
Geographic, DMS



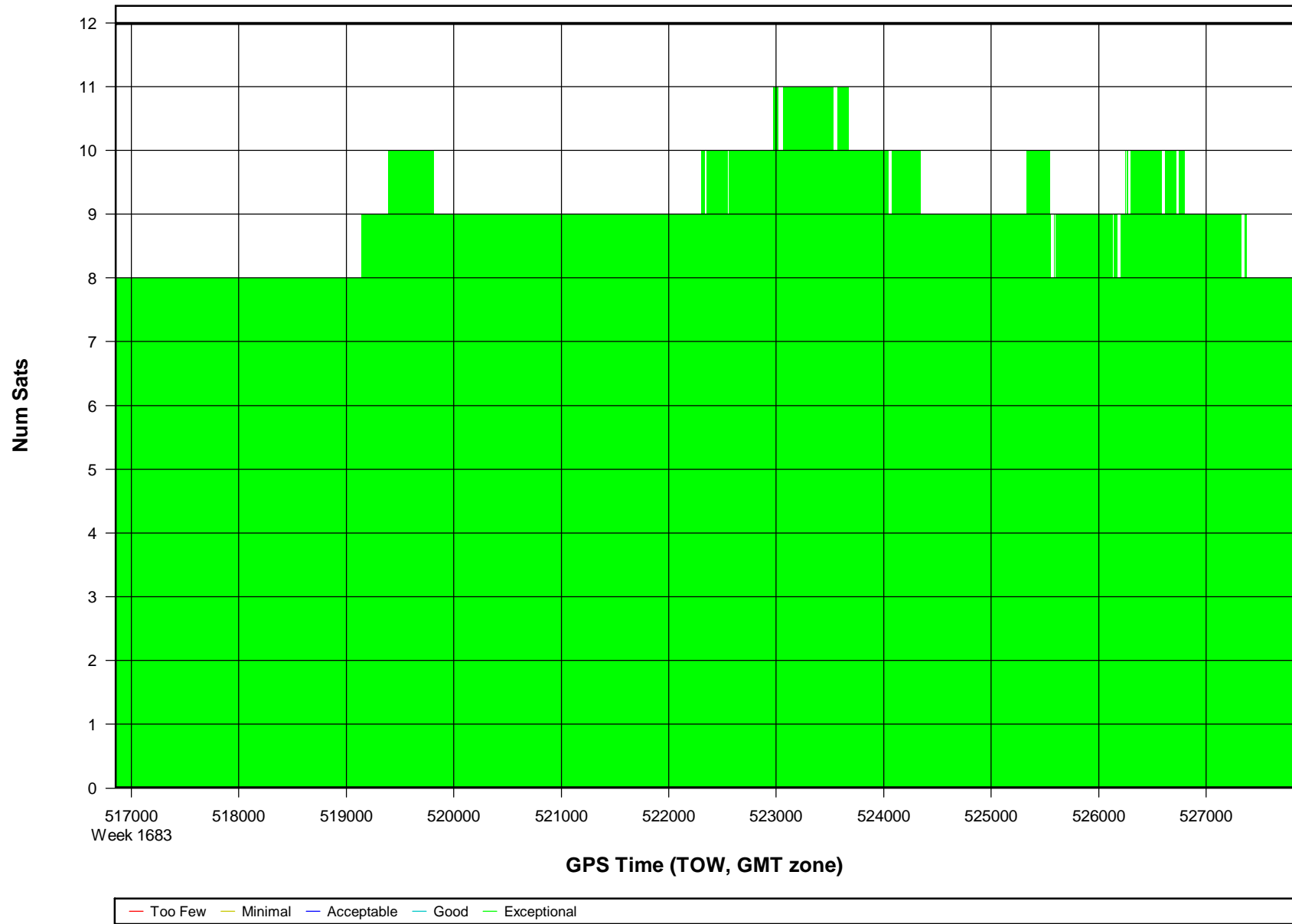
### o112104b [Combined] - Forward/Reverse or Combined Separation Plot



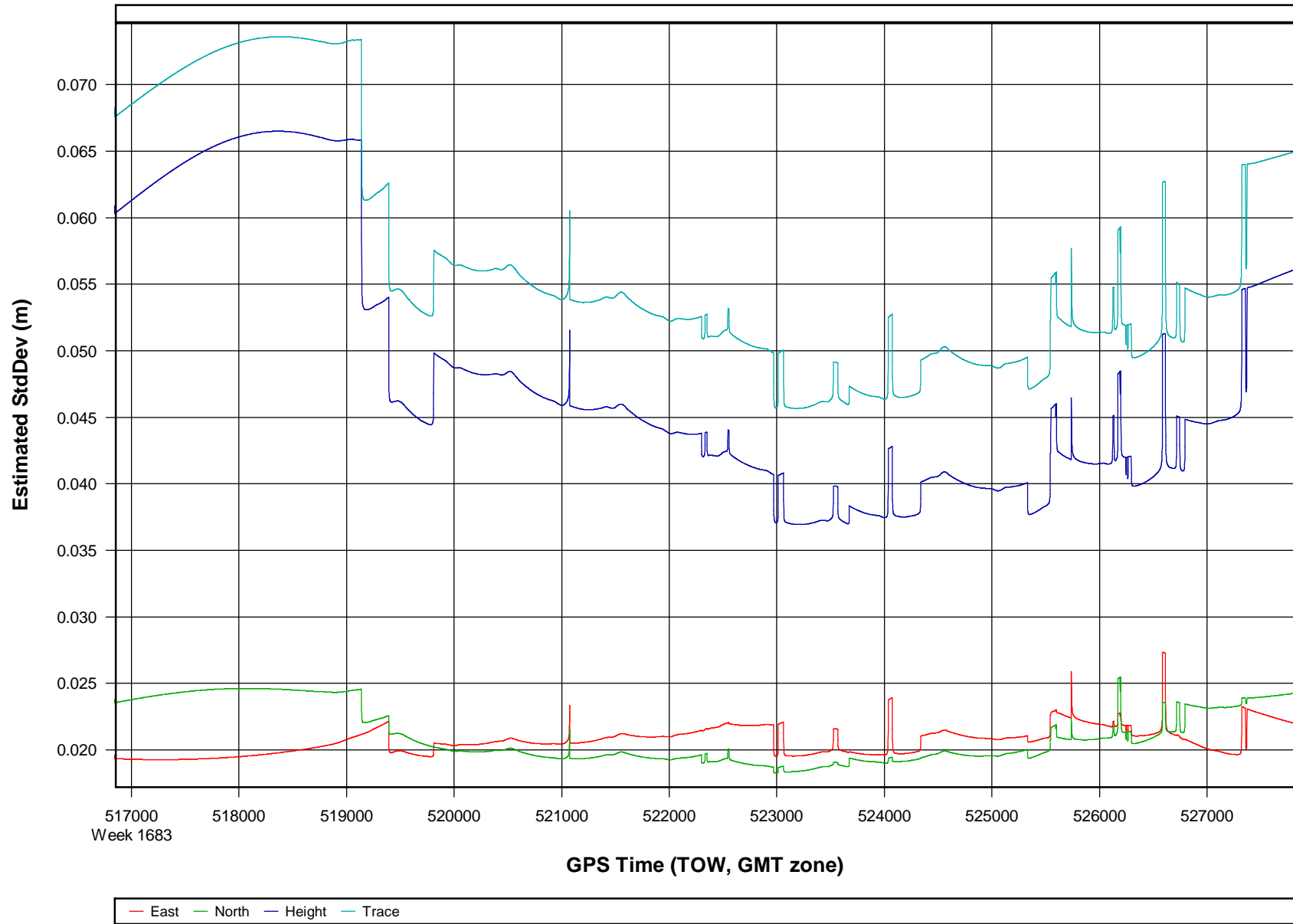
### o112104b [Combined] - PDOP, HDOP, VDOP Plots



**o112104b [Combined] - Number of Satellites Bar Plot**



### o112104b [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112104b\3\_Processed\GPS\o112104b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 109929  
No processed position: 98952  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0157 (m)  
C/A Code: 0.64 (m)  
L1 Doppler: 0.026 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.015 (m)  
North: 0.012 (m)  
Height: 0.020 (m)

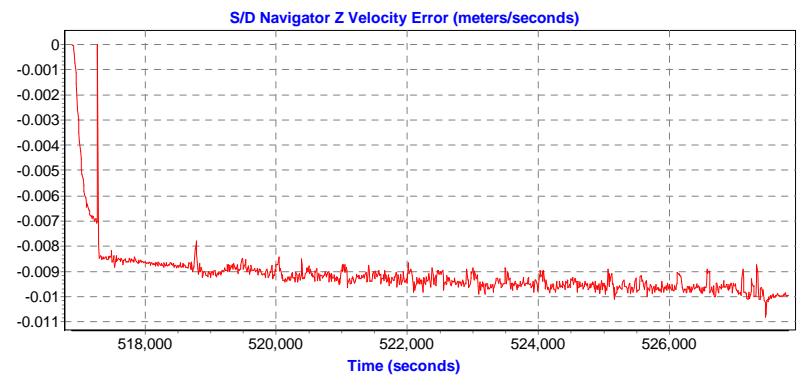
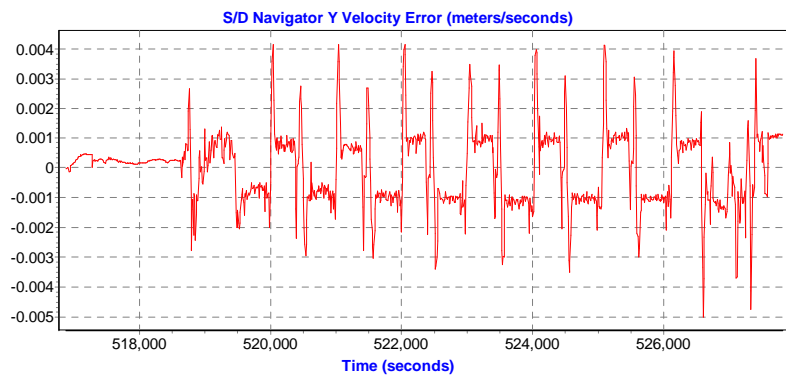
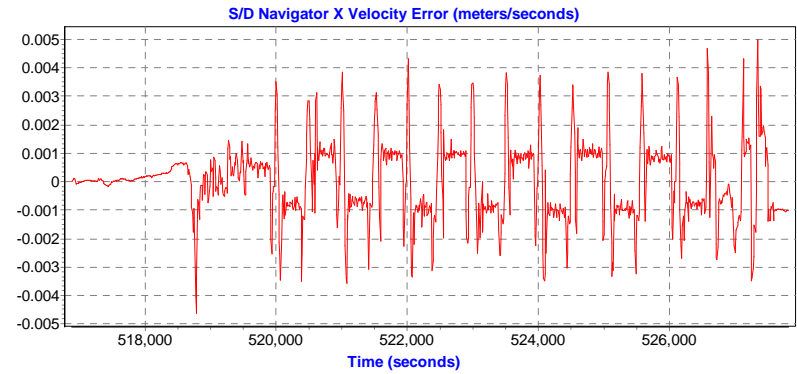
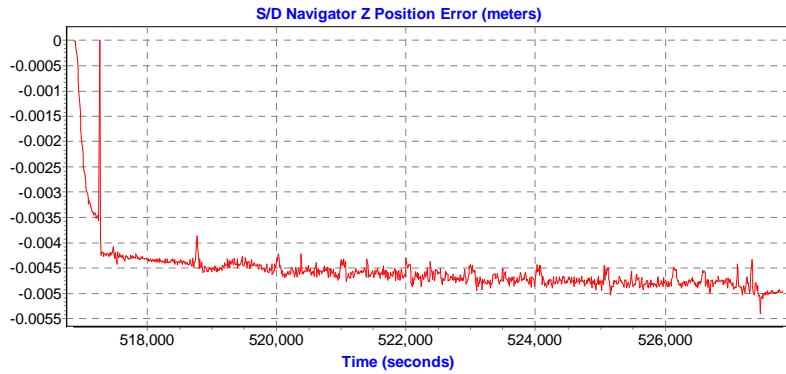
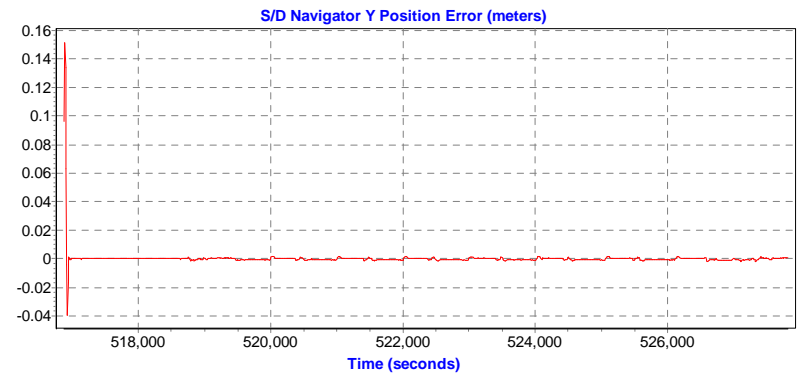
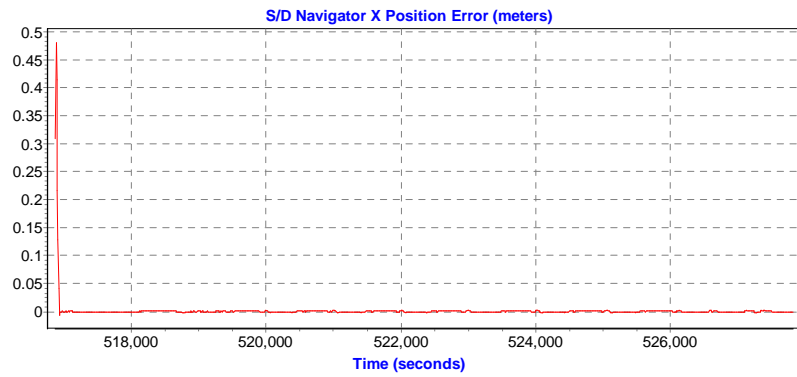
Fwd/Rev Sep. RMS for 25%-75% weighting (10972 occurrences):  
East: 0.014 (m)  
North: 0.012 (m)  
Height: 0.020 (m)

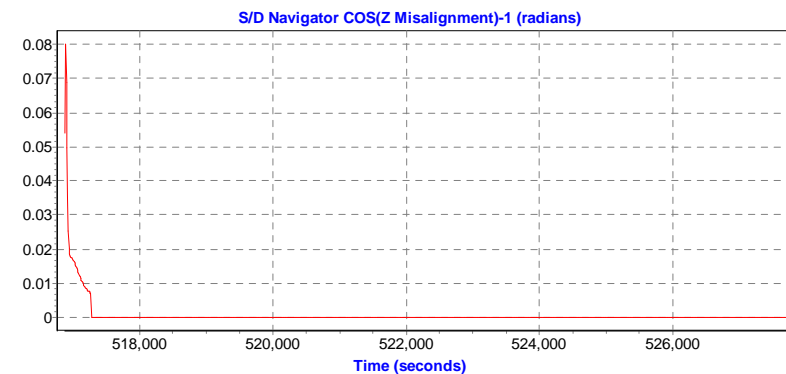
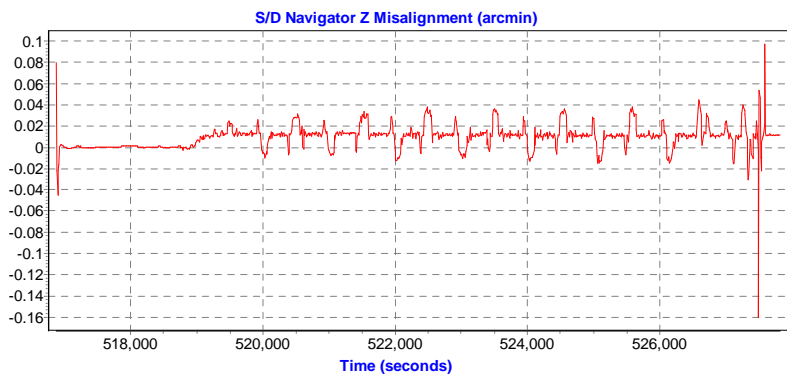
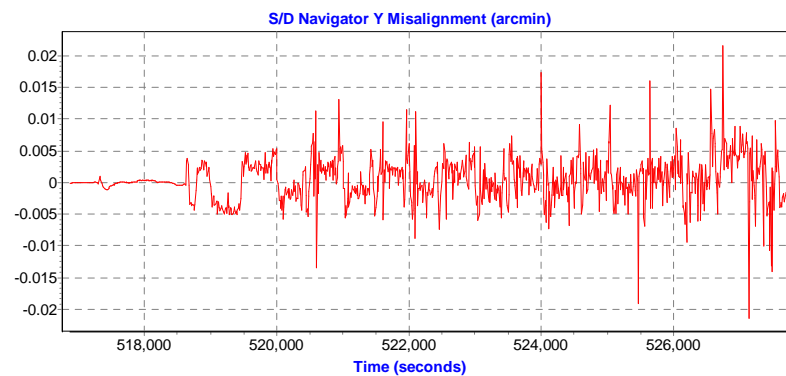
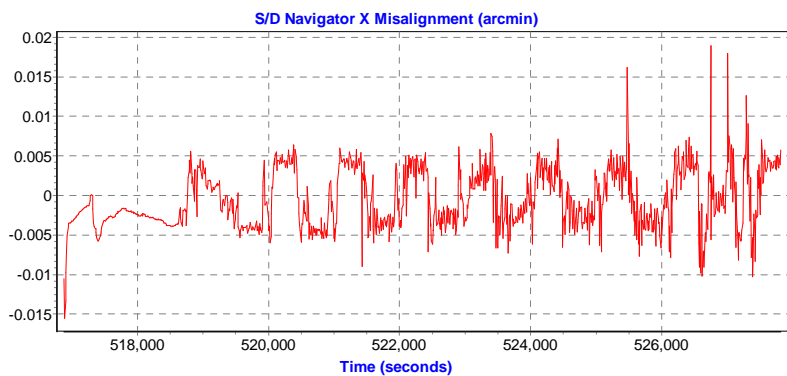
Quality Number Percentages:  
Q 1: 99.9 %  
Q 2: 0.1 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

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 %

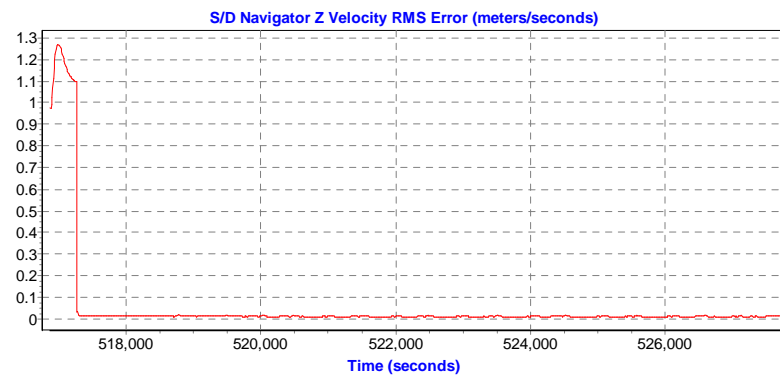
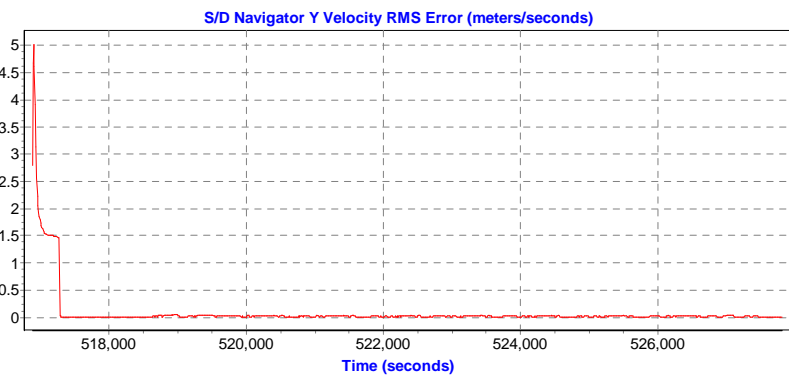
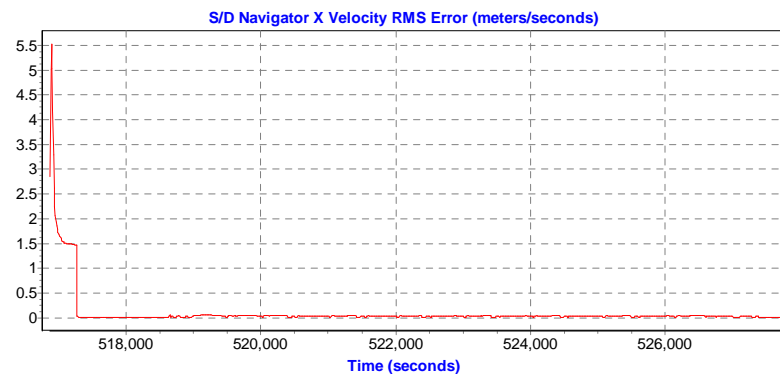
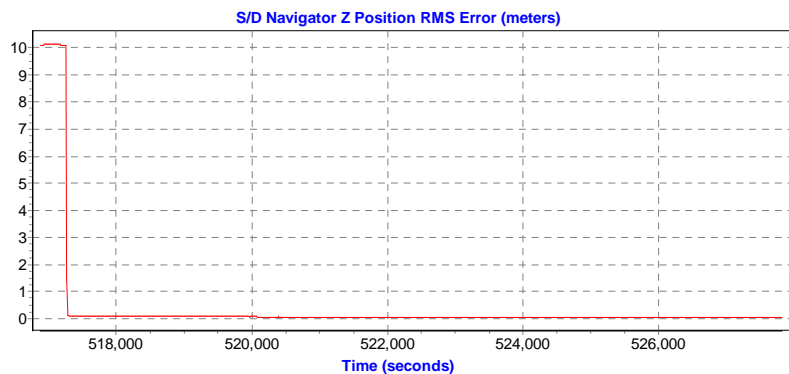
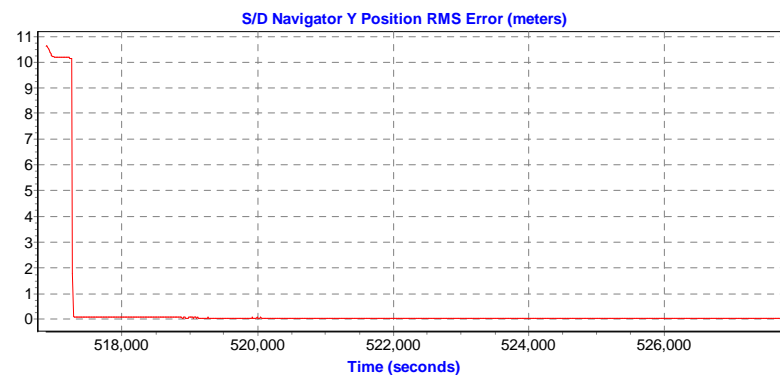
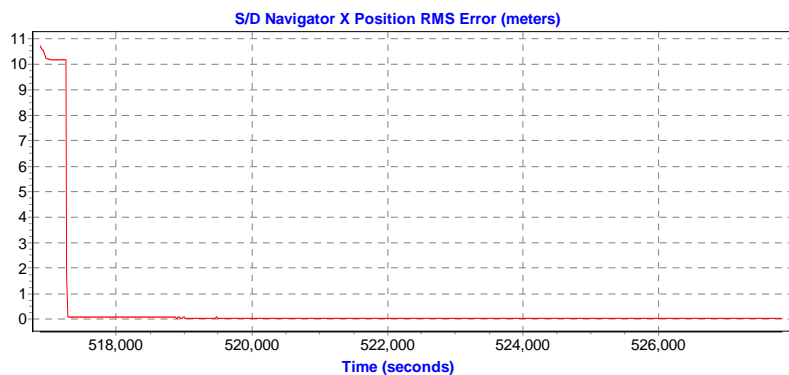
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

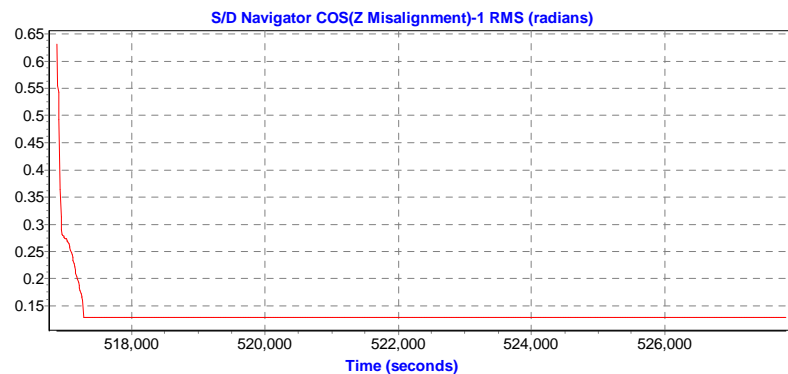
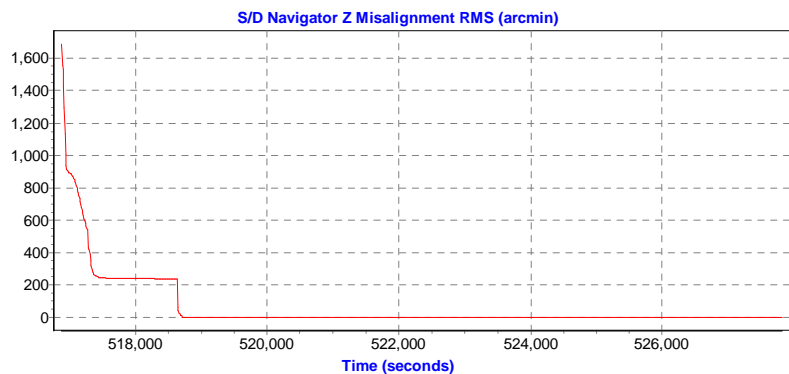
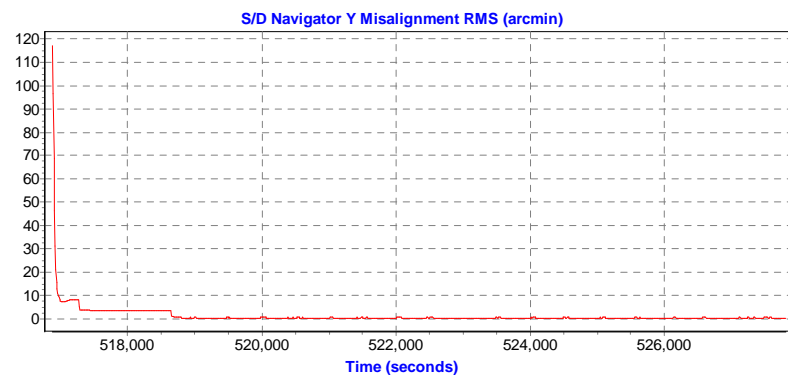
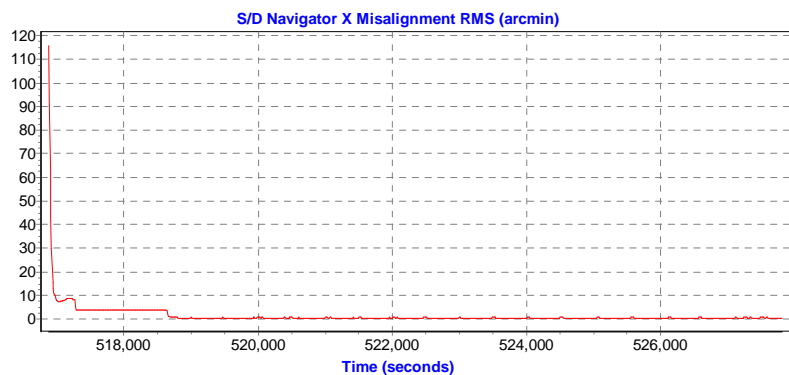
Baseline Distances:  
Maximum: 40.981 (km)  
Minimum: 0.039 (km)  
Average: 21.741 (km)  
First Epoch: 0.047 (km)  
Last Epoch: 0.523 (km)

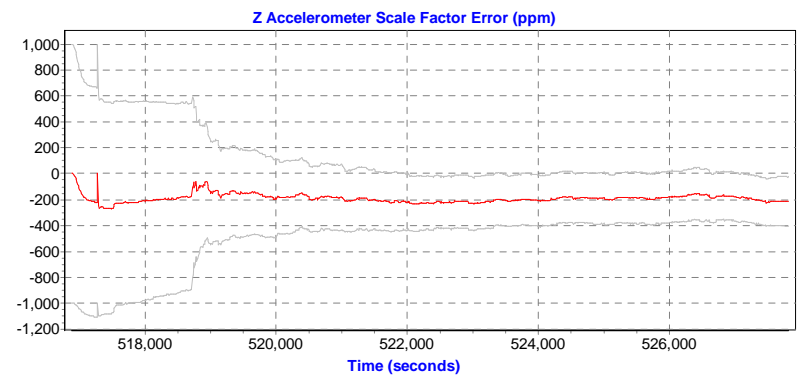
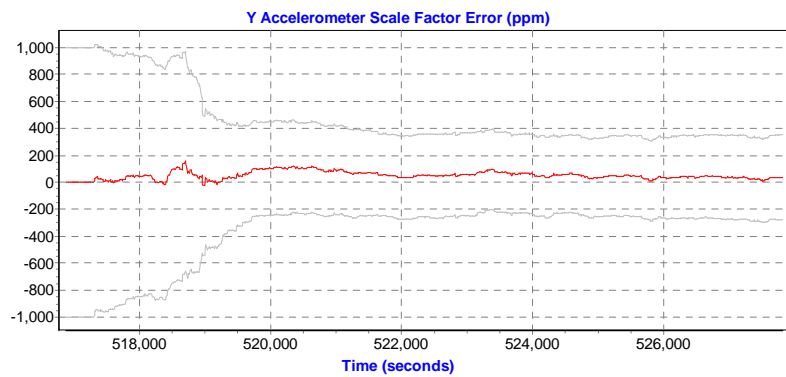
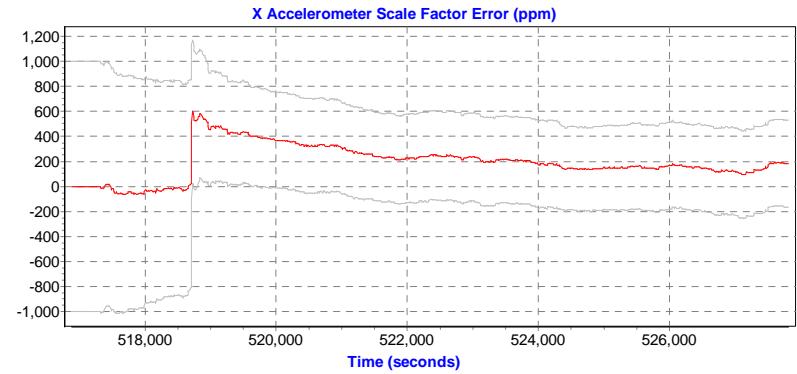
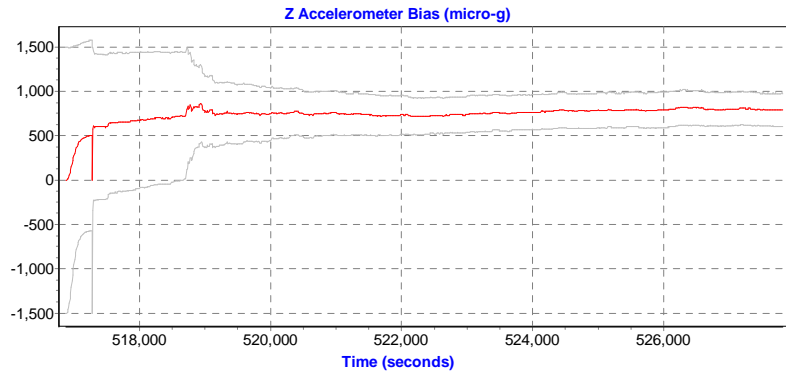
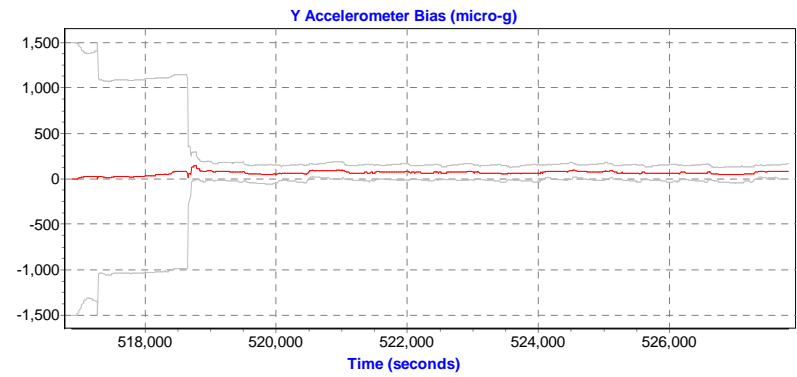
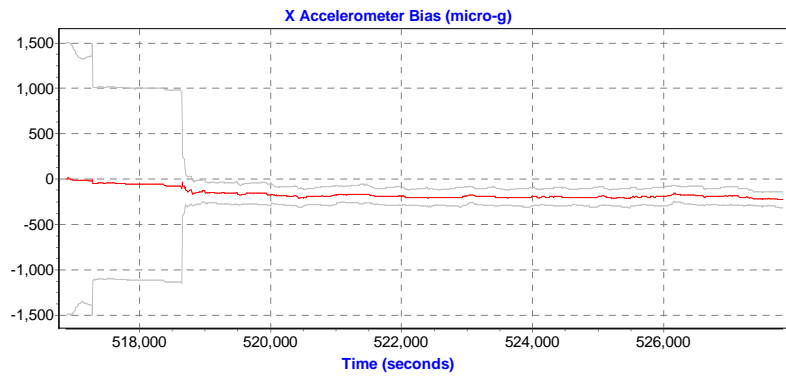


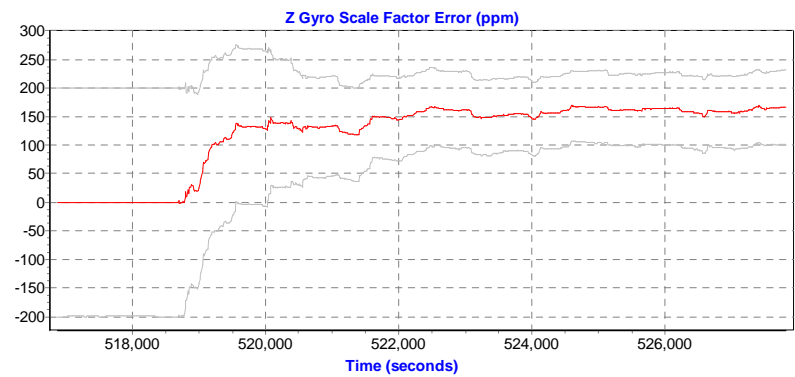
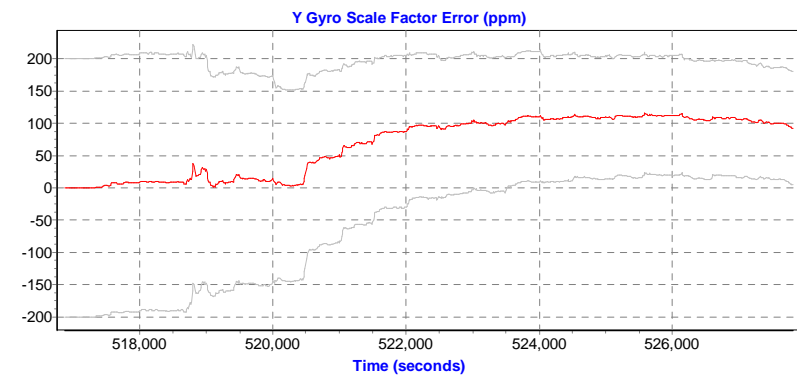
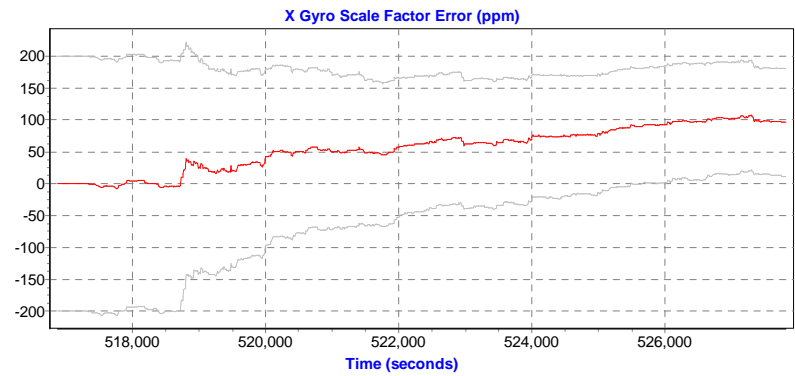
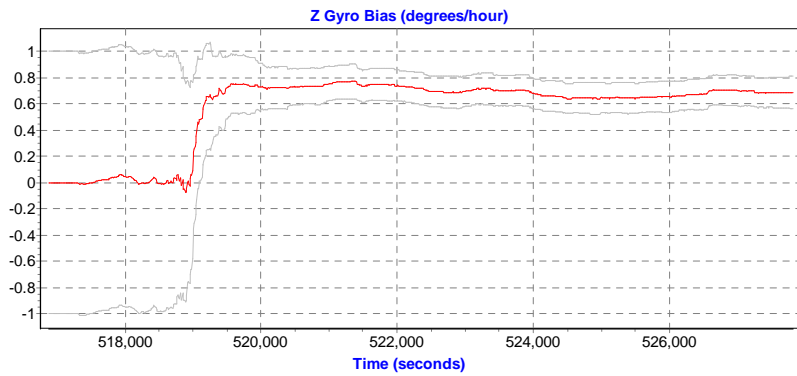
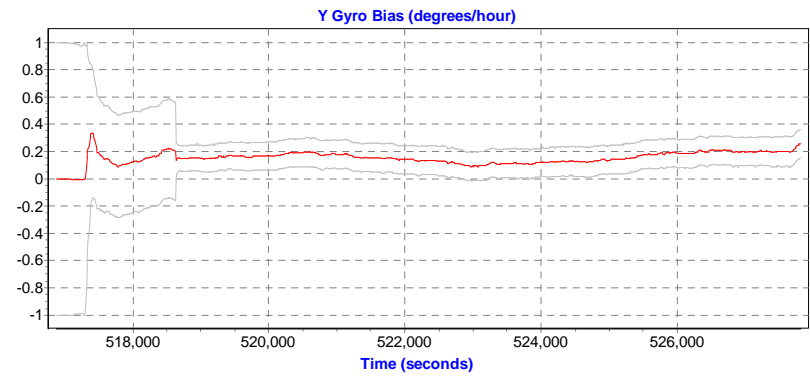
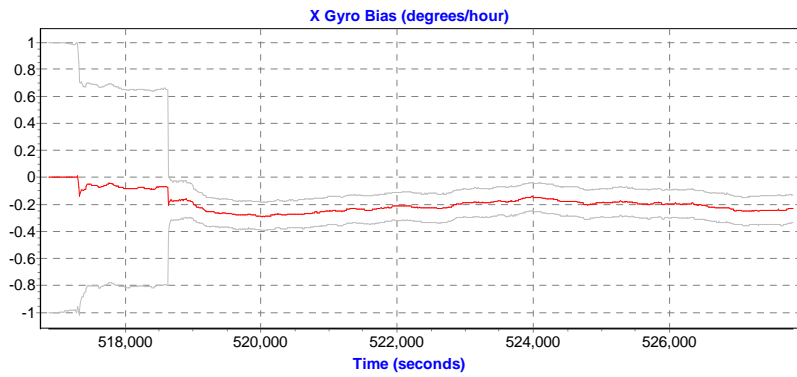


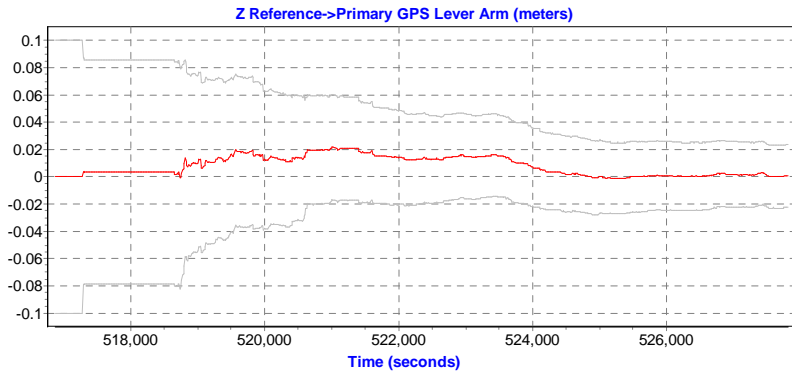
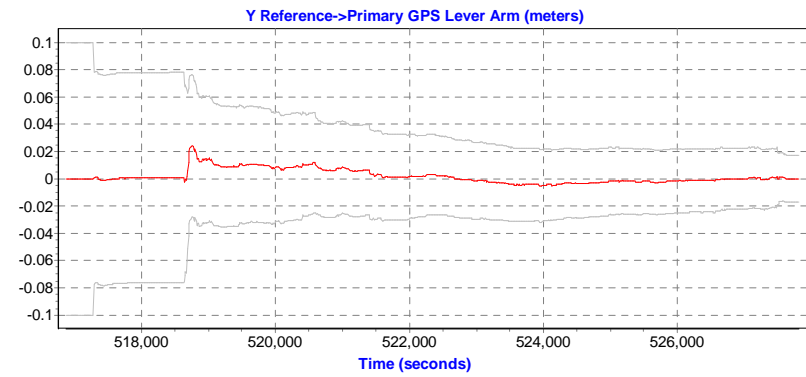
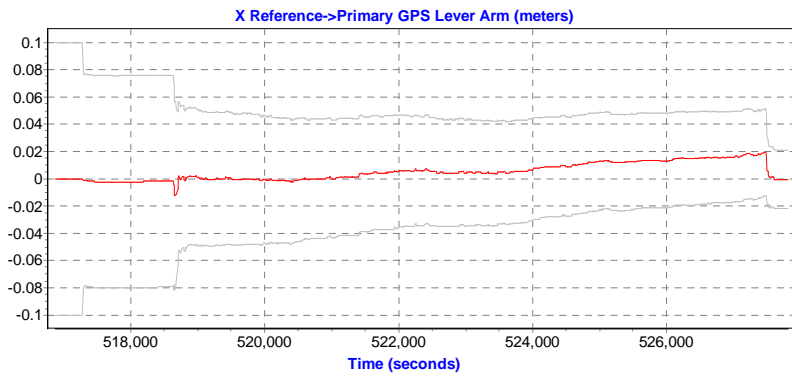






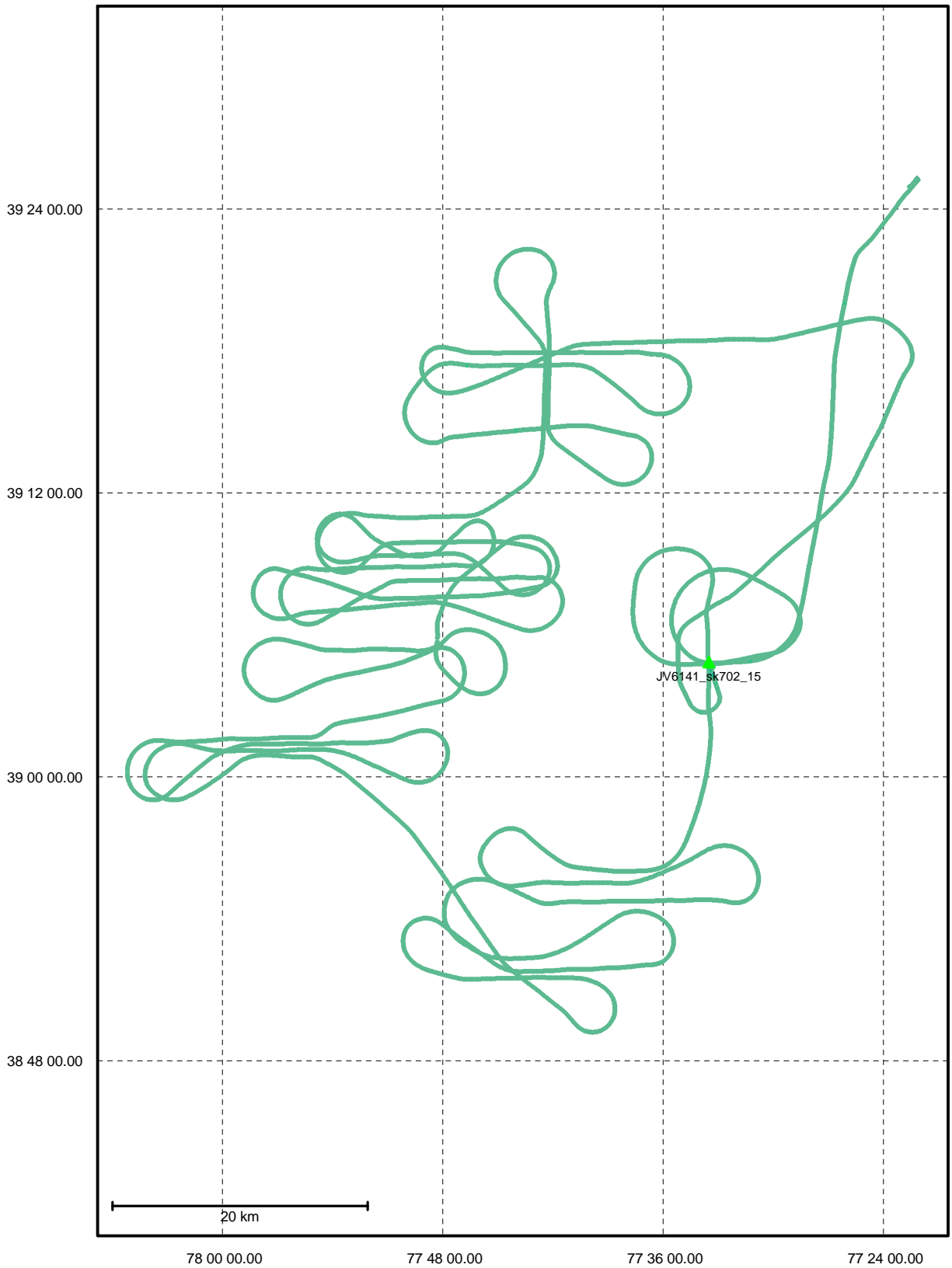






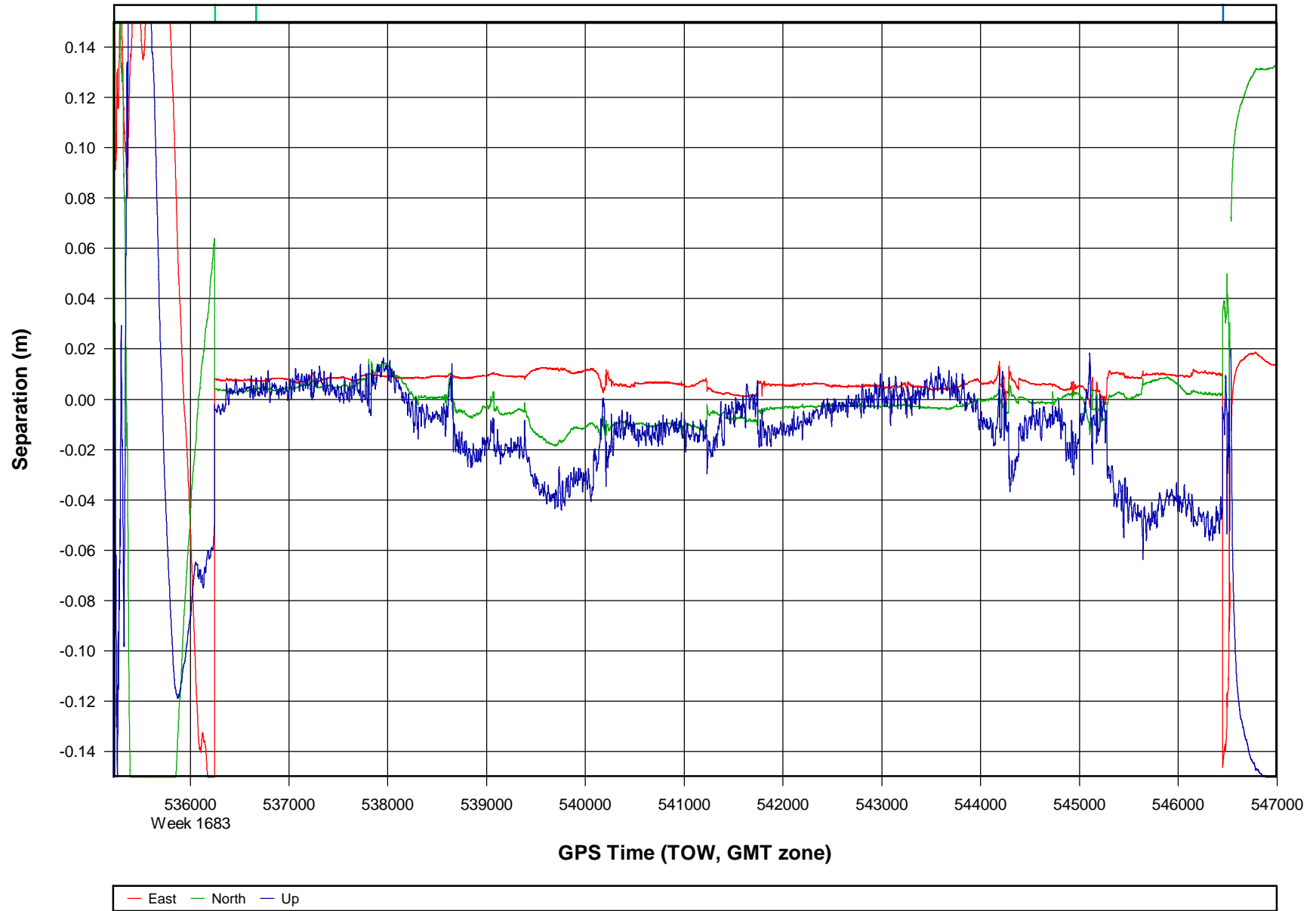
# Combined - Map Run (6)

Geographic, DMS

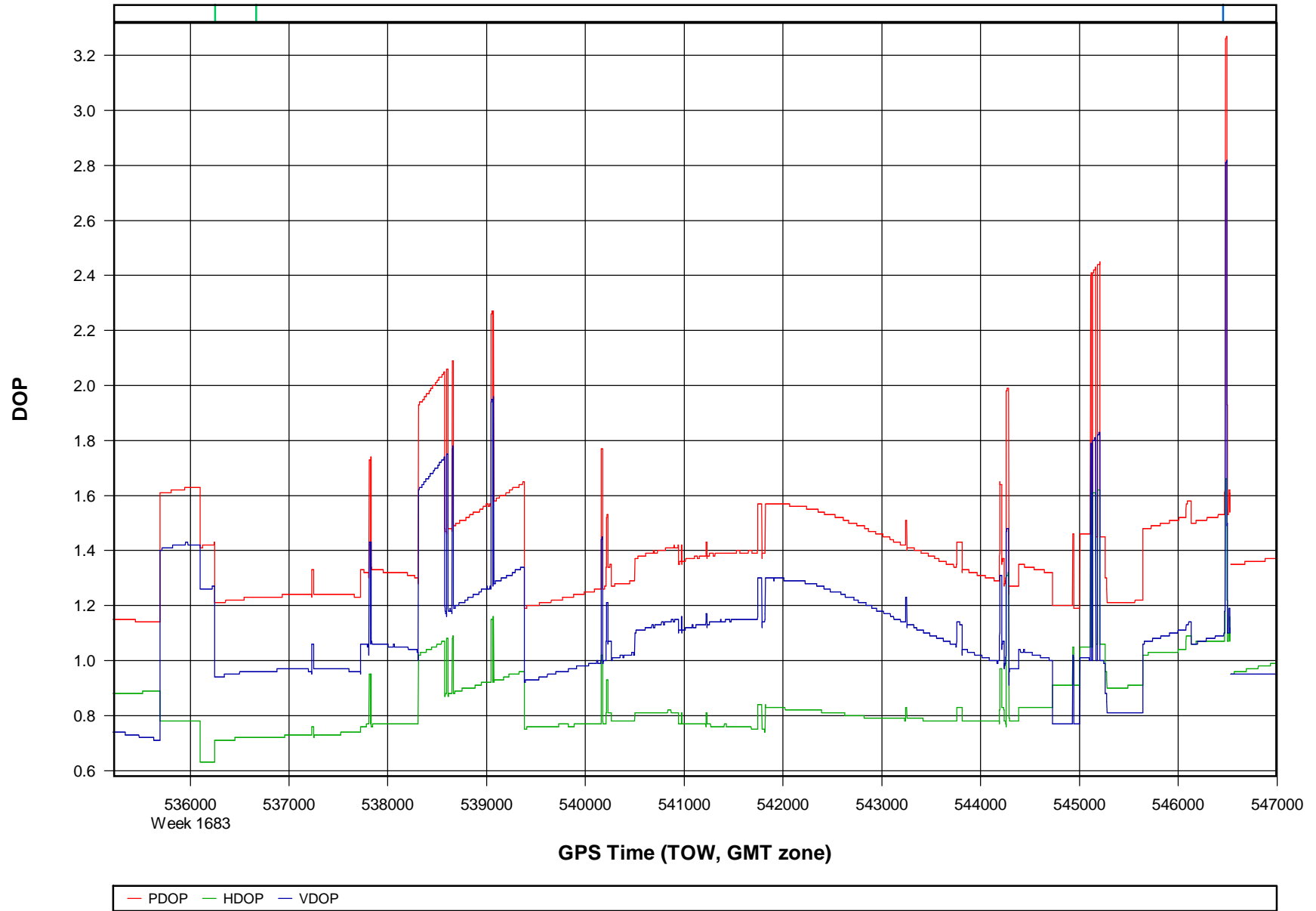


- + Ukn
- + Q1
- + Q2
- + Q3
- + Q4
- + Q5
- + Q6
- ▲ Master

### o112104c [Combined] - Forward/Reverse or Combined Separation Plot

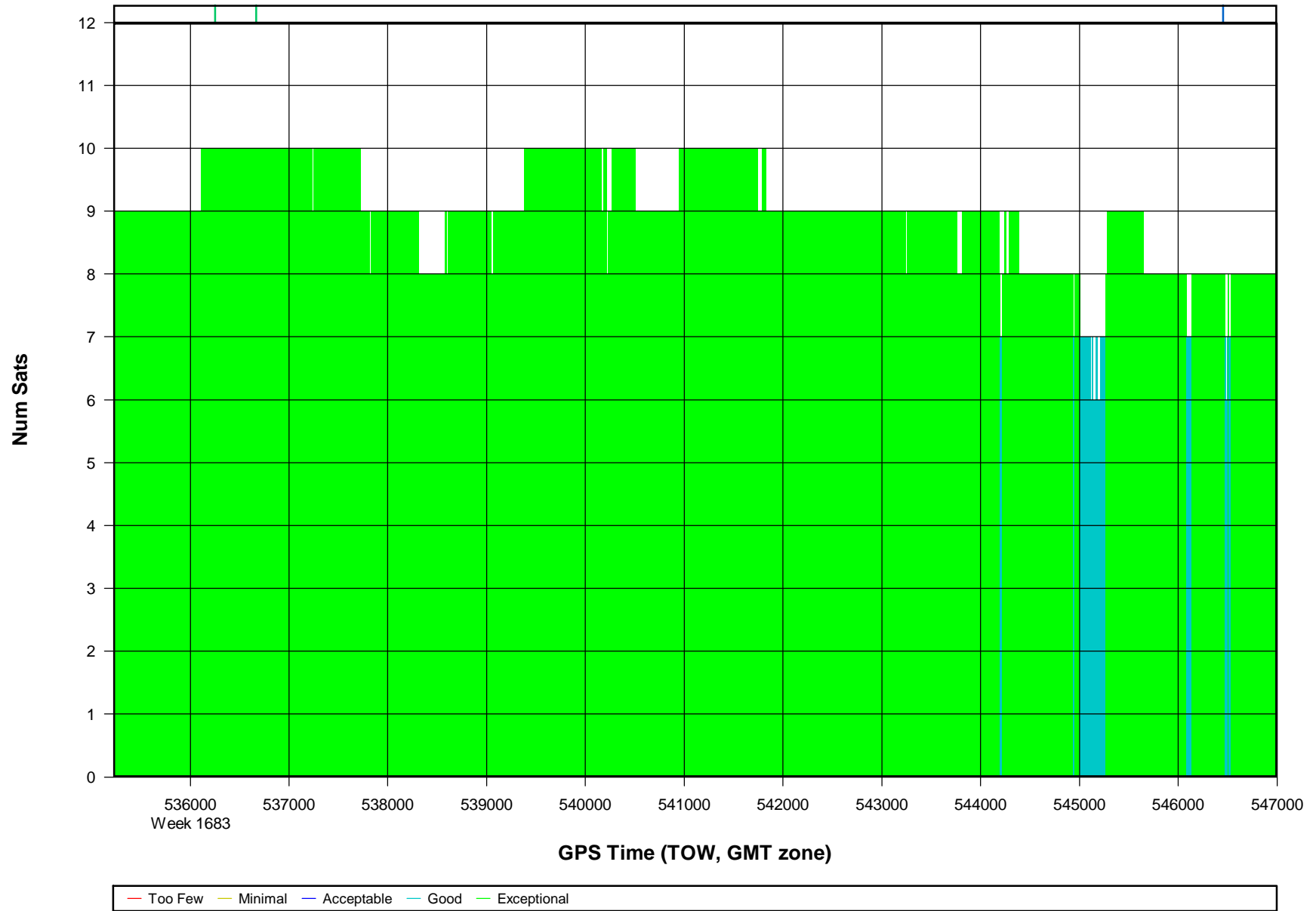


### o112104c [Combined] - PDOP, HDOP, VDOP Plots

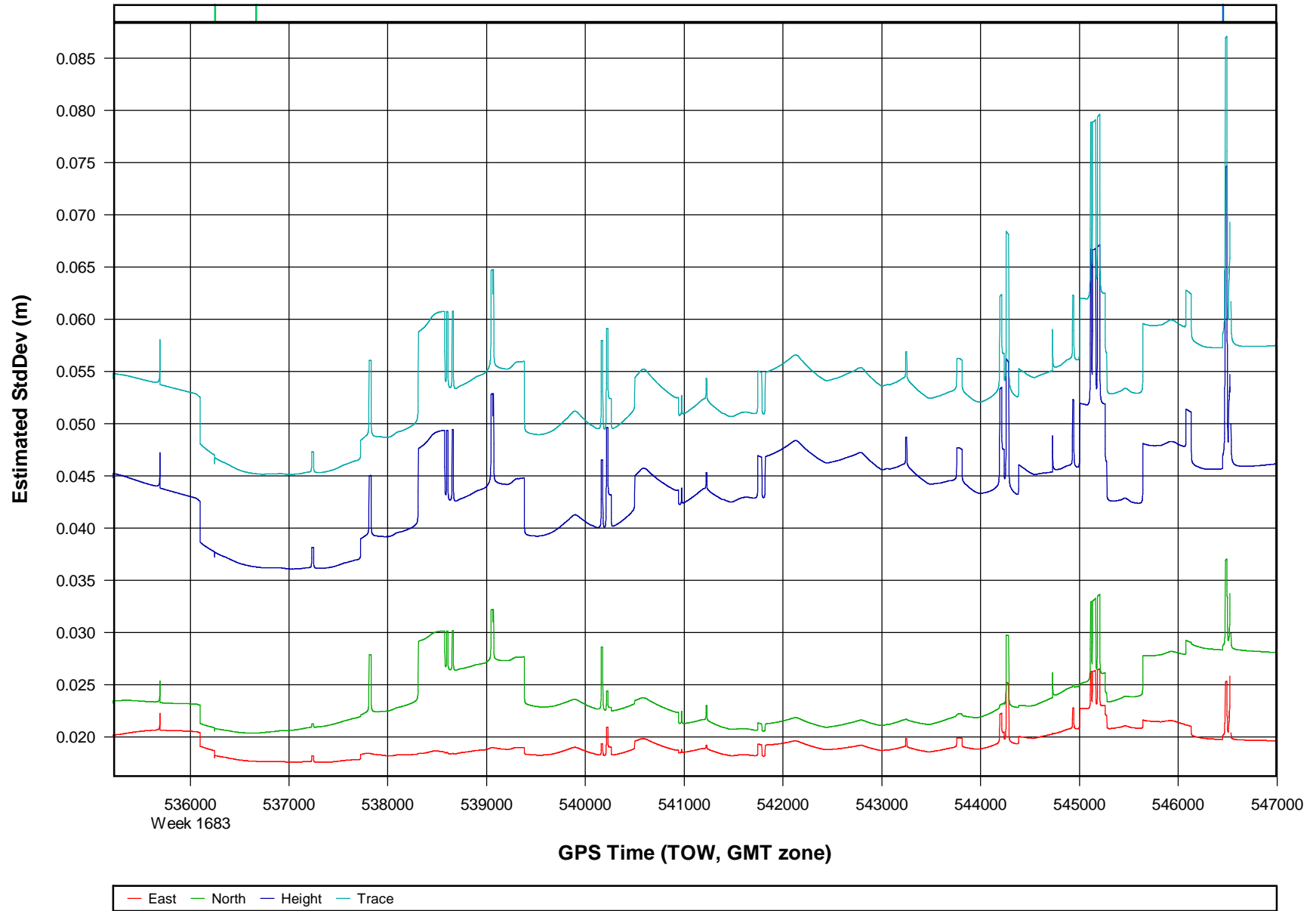




**o112104c [Combined] - Number of Satellites Bar Plot**



### o112104c [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112104c\3\_Processed\GPS\o112104c.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file: 117959  
No processed position: 106195  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

## Measurement RMS Values:

L1 Phase: 0.0166 (m)  
C/A Code: 0.68 (m)  
L1 Doppler: 0.028 (m/s)

## Fwd/Rev Separation RMS Values:

East: 0.043 (m)  
North: 0.061 (m)  
Height: 0.056 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (10730 occurrences):

East: 0.013 (m)  
North: 0.027 (m)  
Height: 0.034 (m)

## Quality Number Percentages:

Q 1: 99.6 %  
Q 2: 0.4 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

## Position Standard Deviation Percentages:

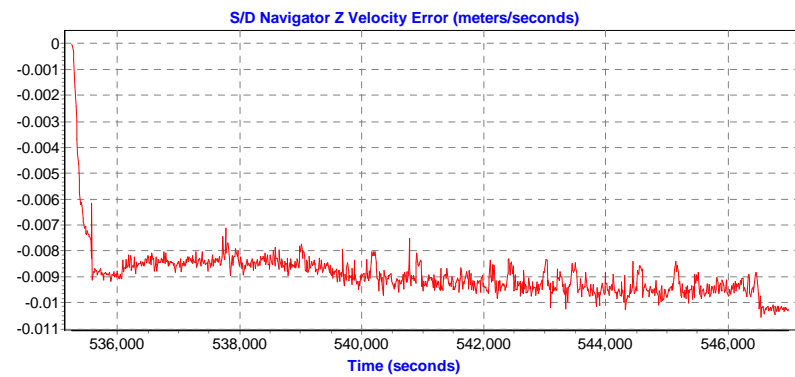
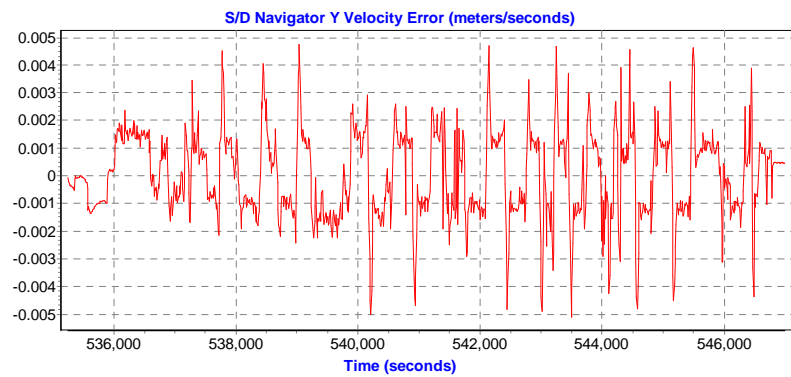
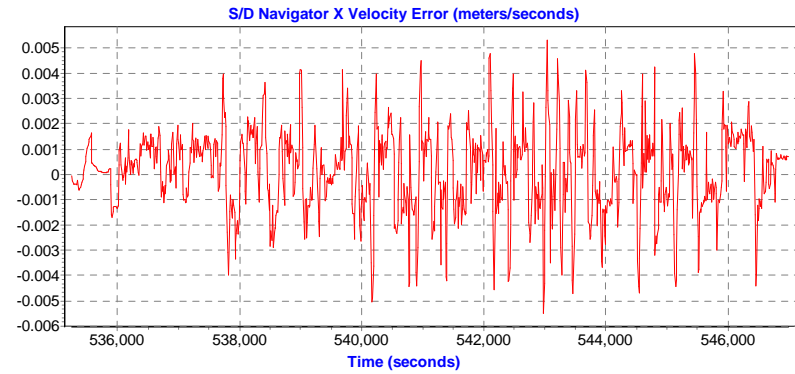
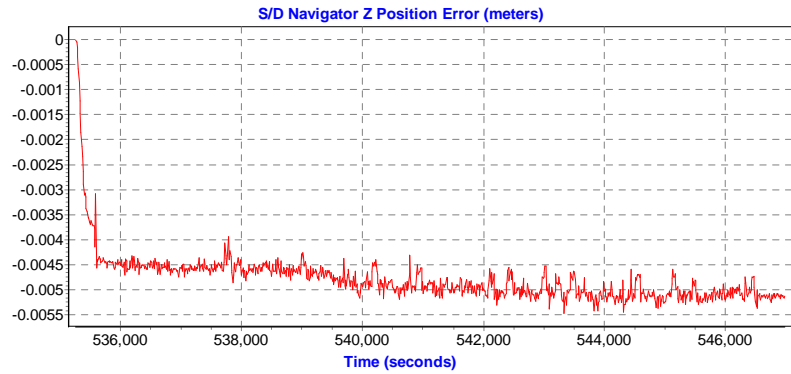
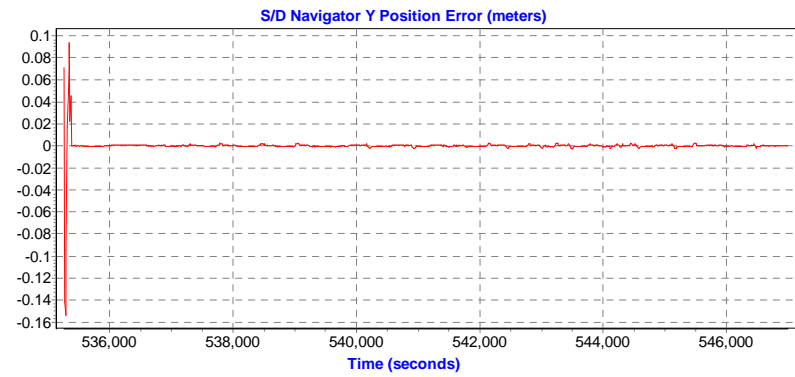
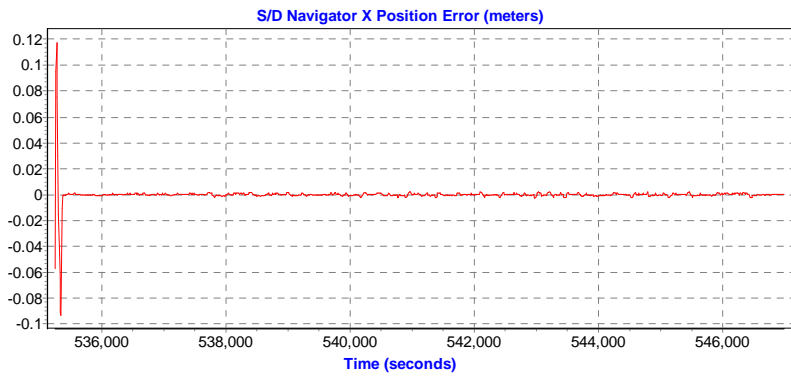
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

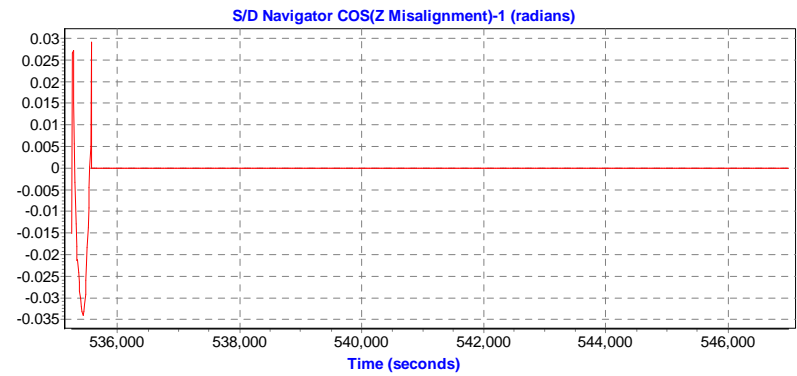
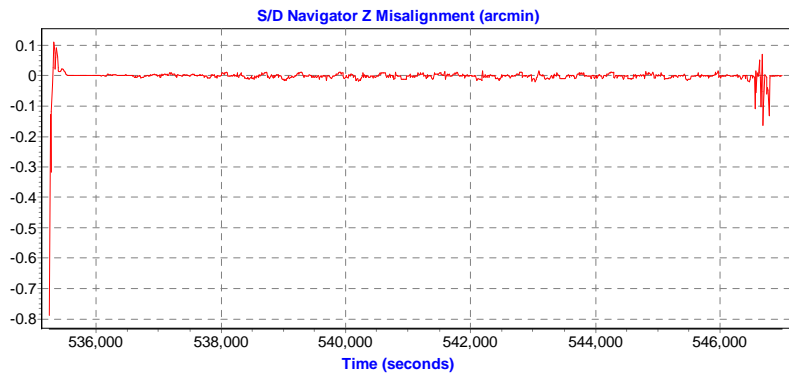
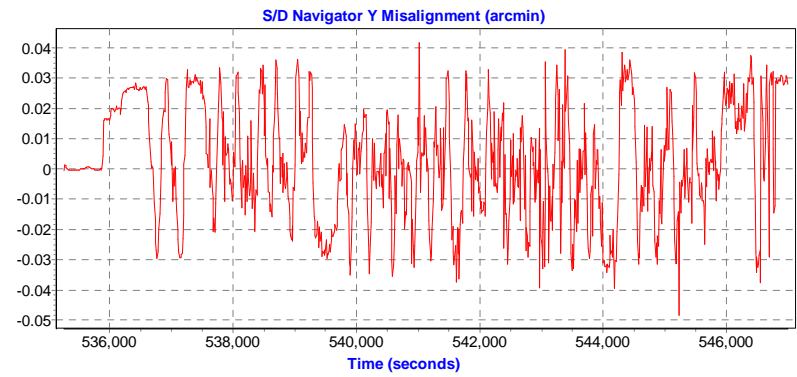
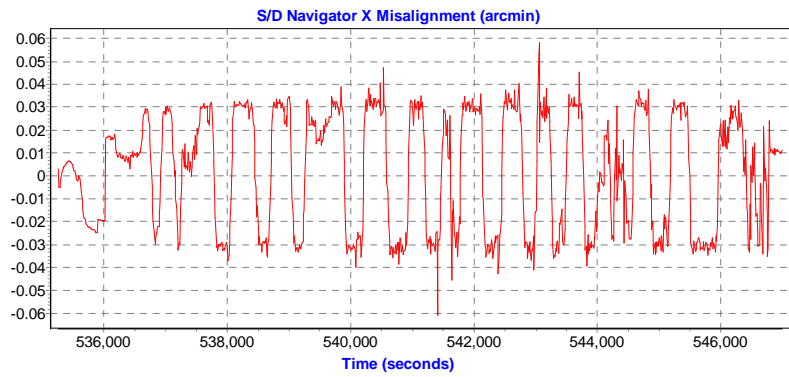
## Percentages of epochs with DD\_DOP over 10.00:

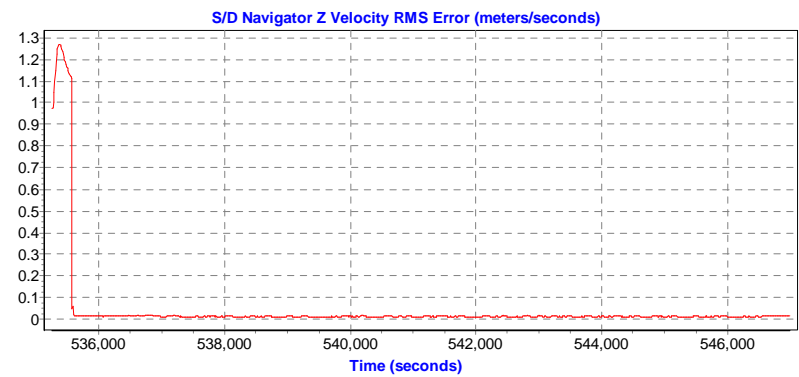
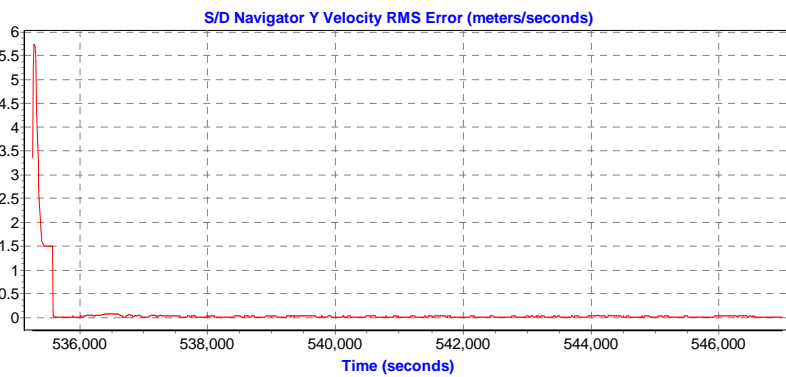
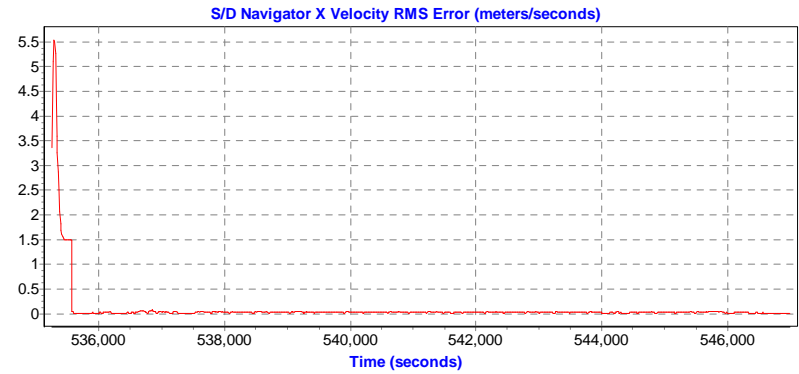
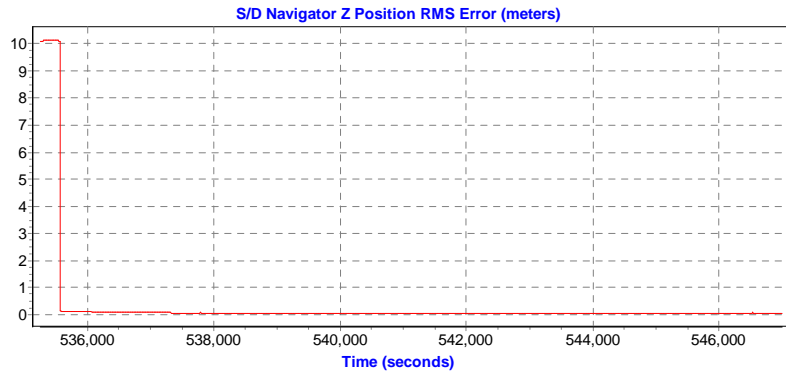
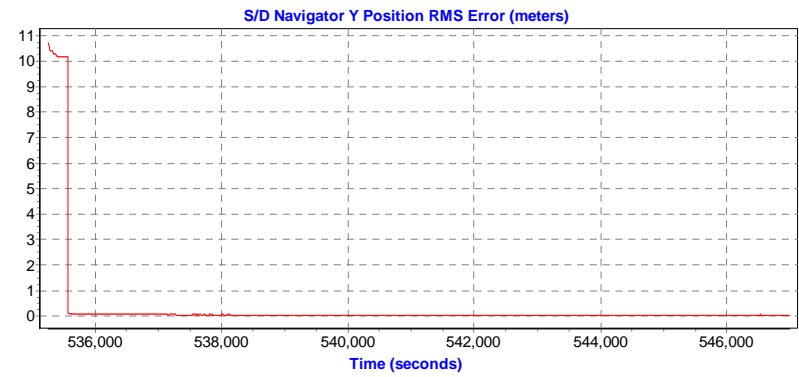
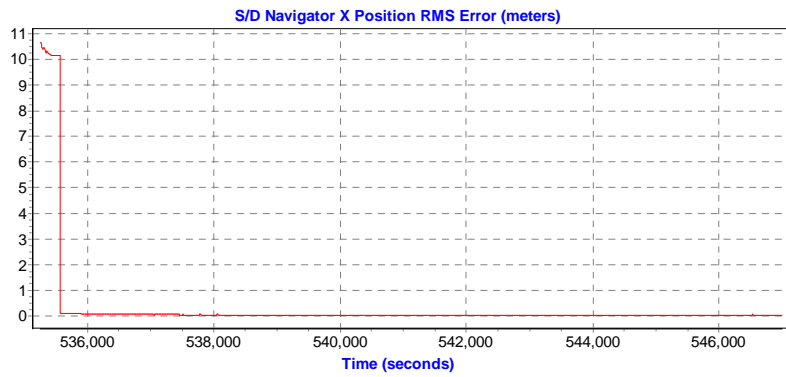
DOP over Tol: 0.0 %

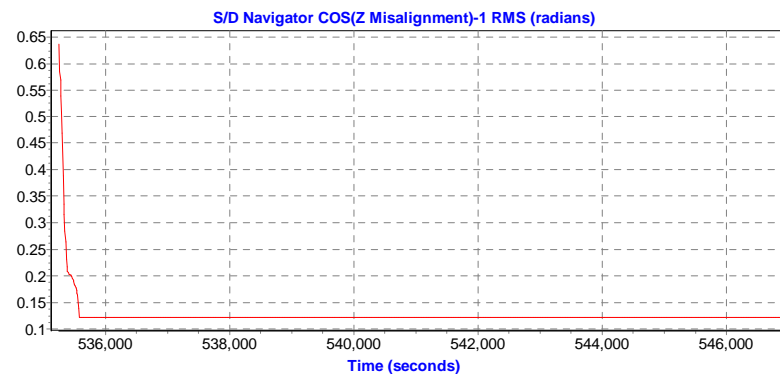
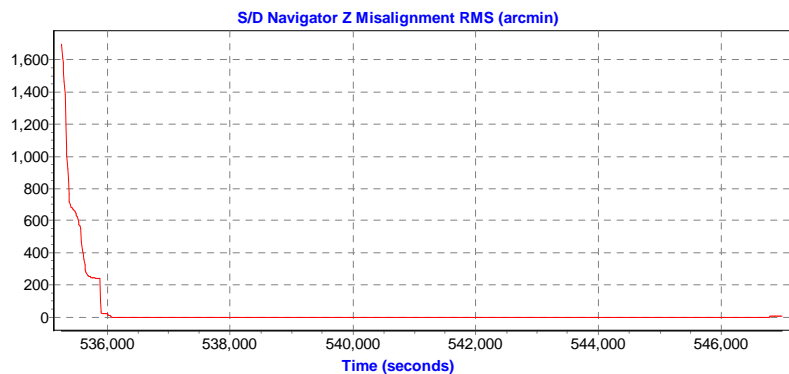
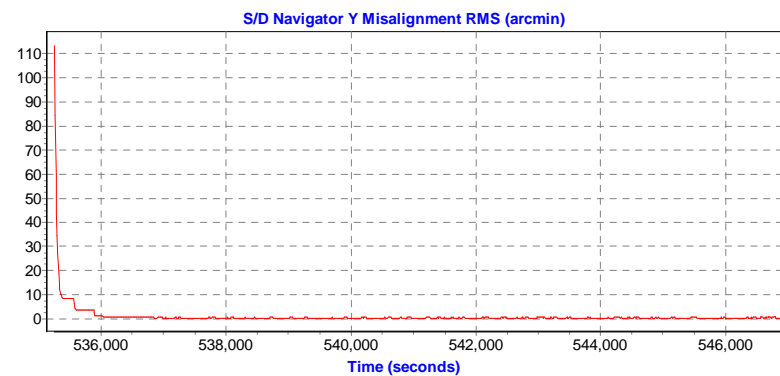
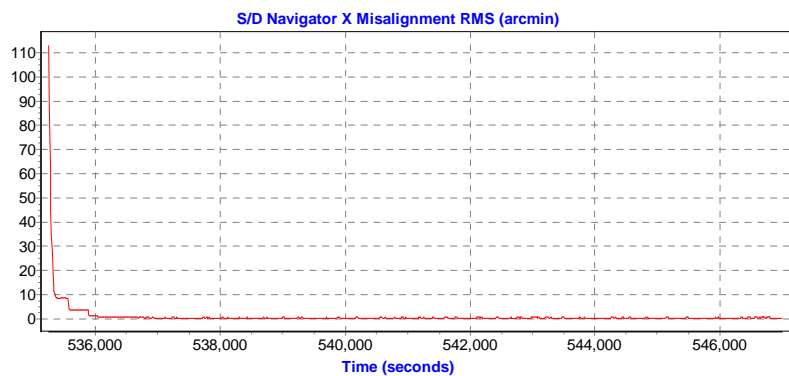
## Baseline Distances:

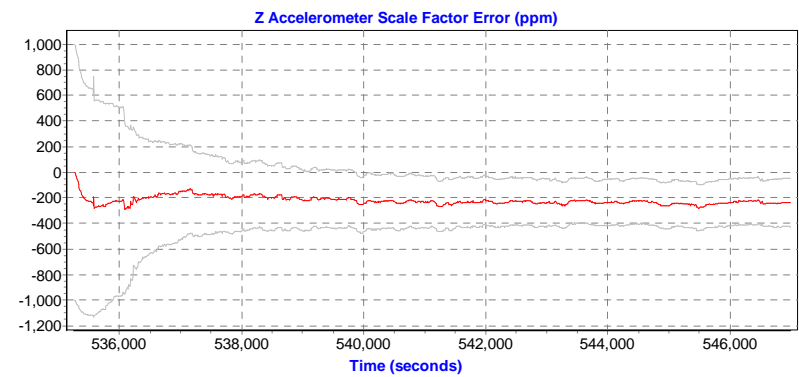
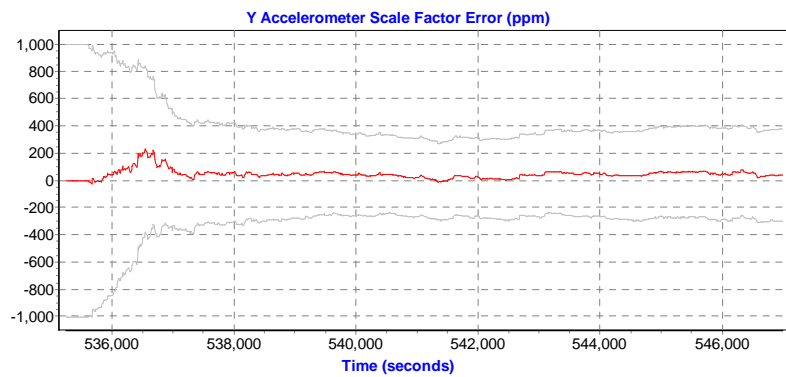
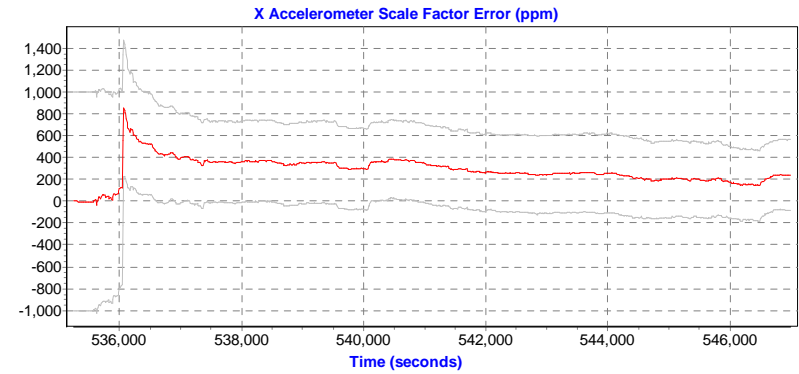
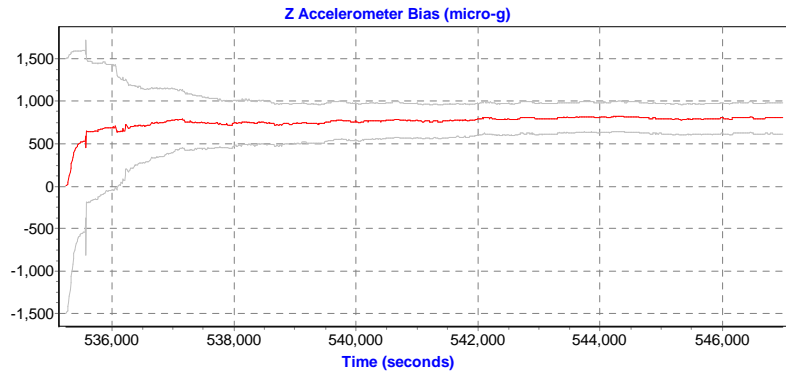
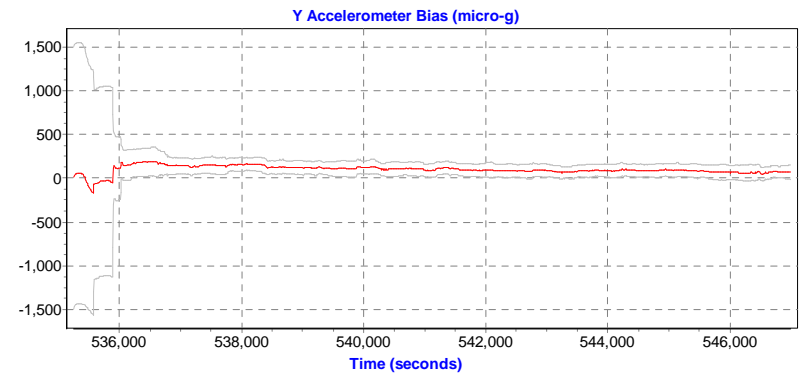
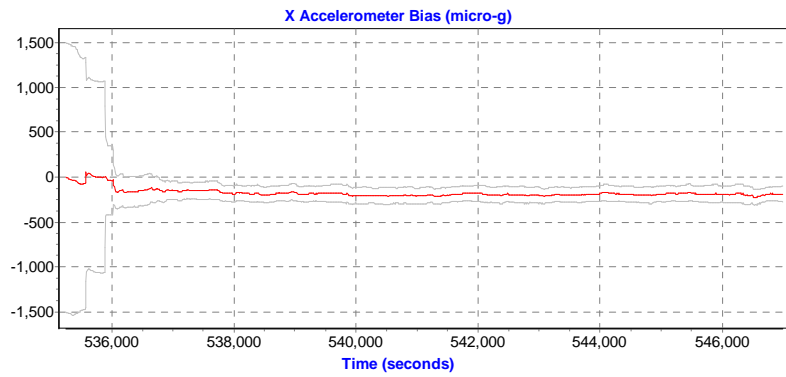
Maximum: 46.561 (km)  
Minimum: 0.037 (km)  
Average: 23.905 (km)  
First Epoch: 40.326 (km)  
Last Epoch: 0.517 (km)



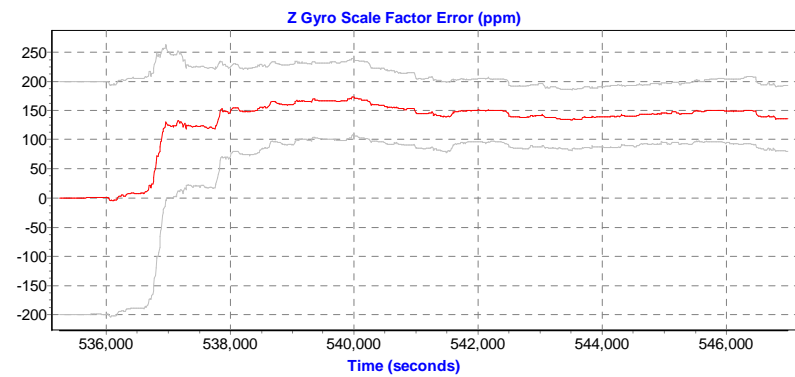
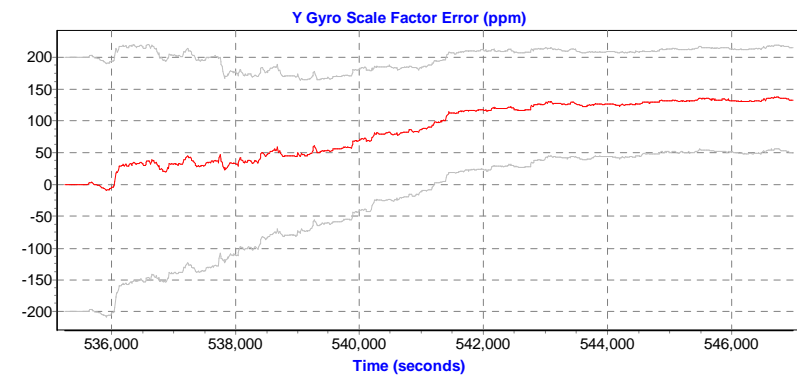
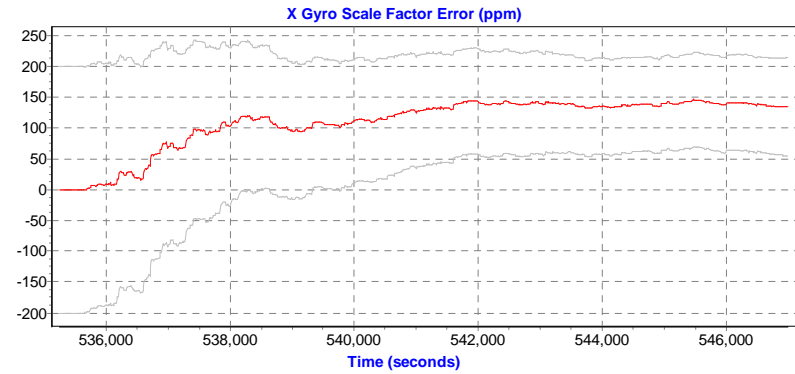
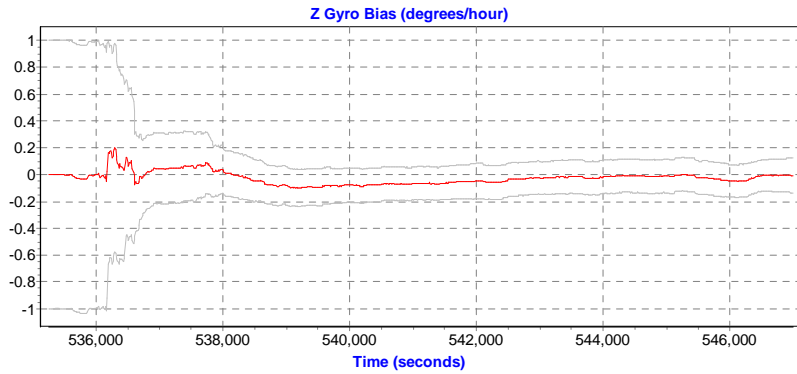
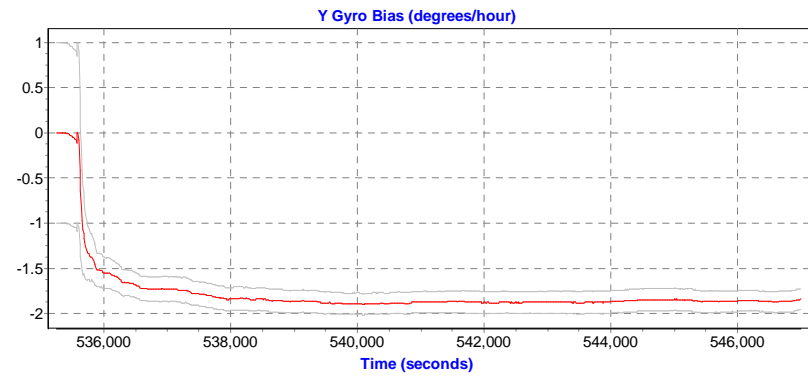
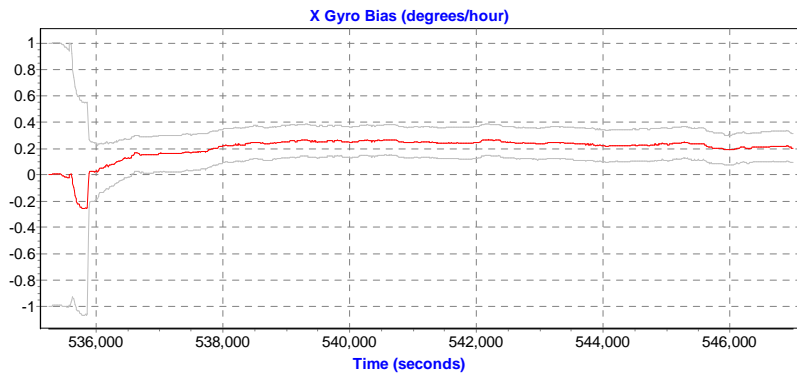


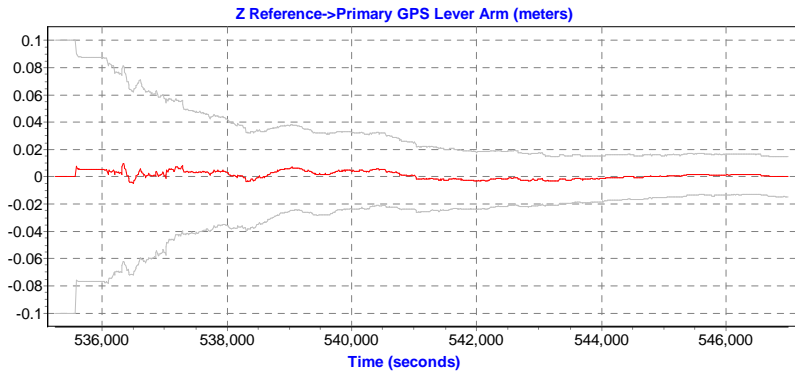
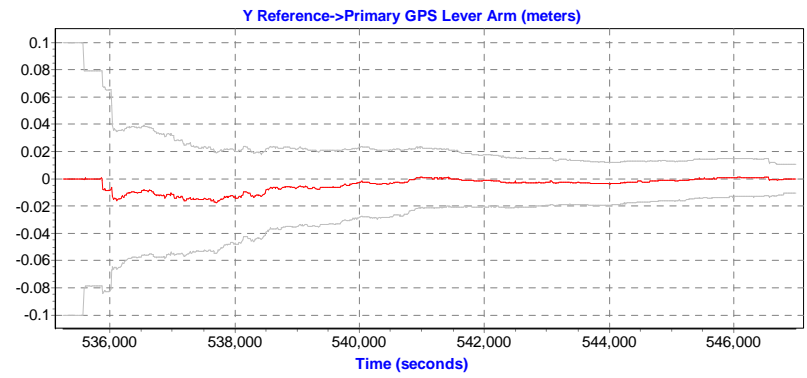
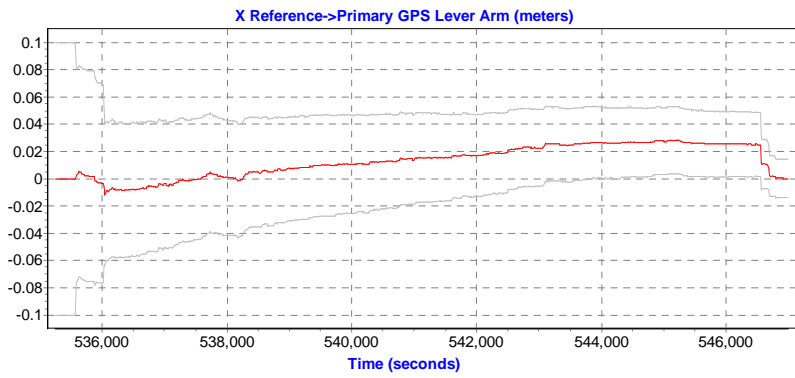






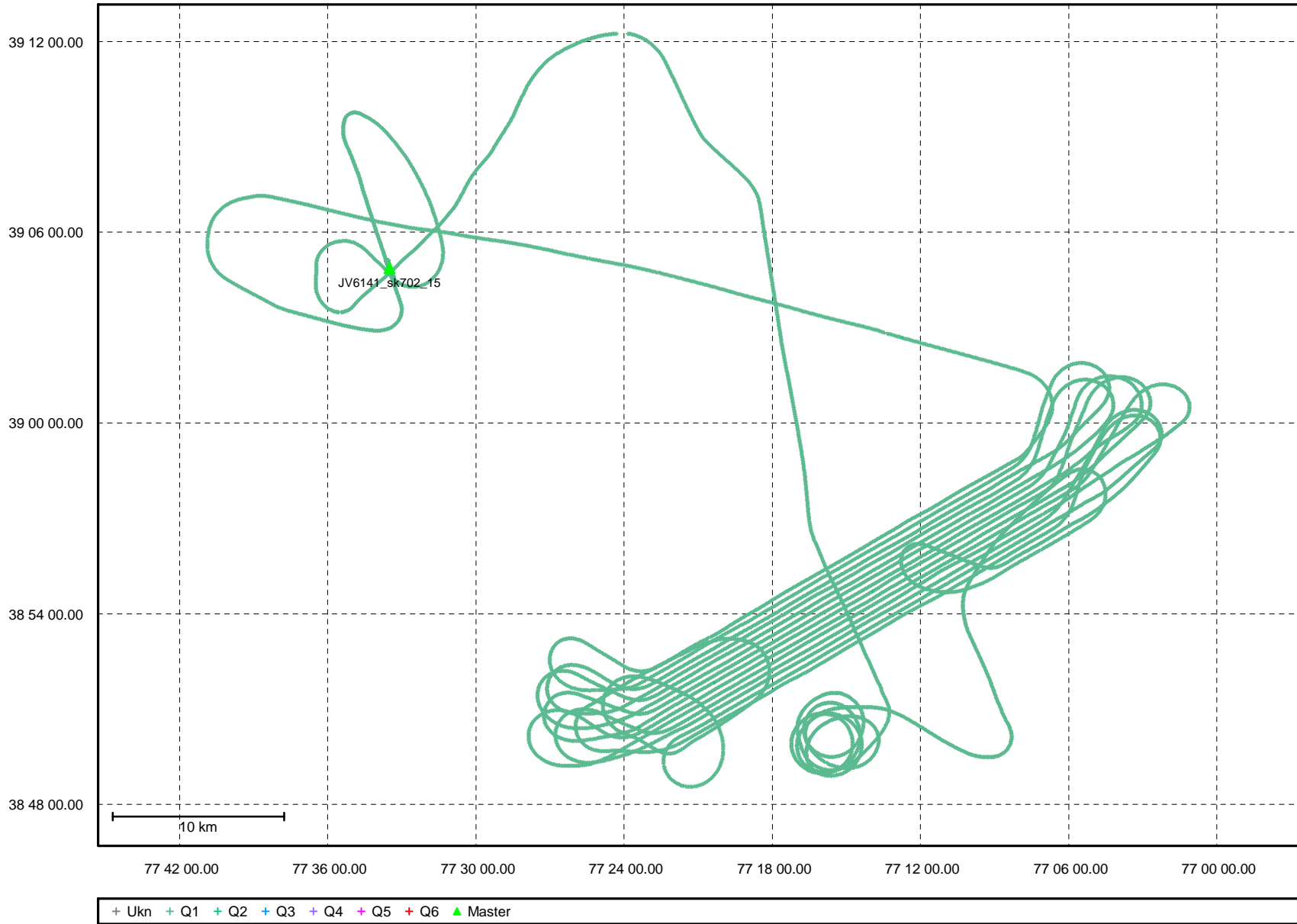




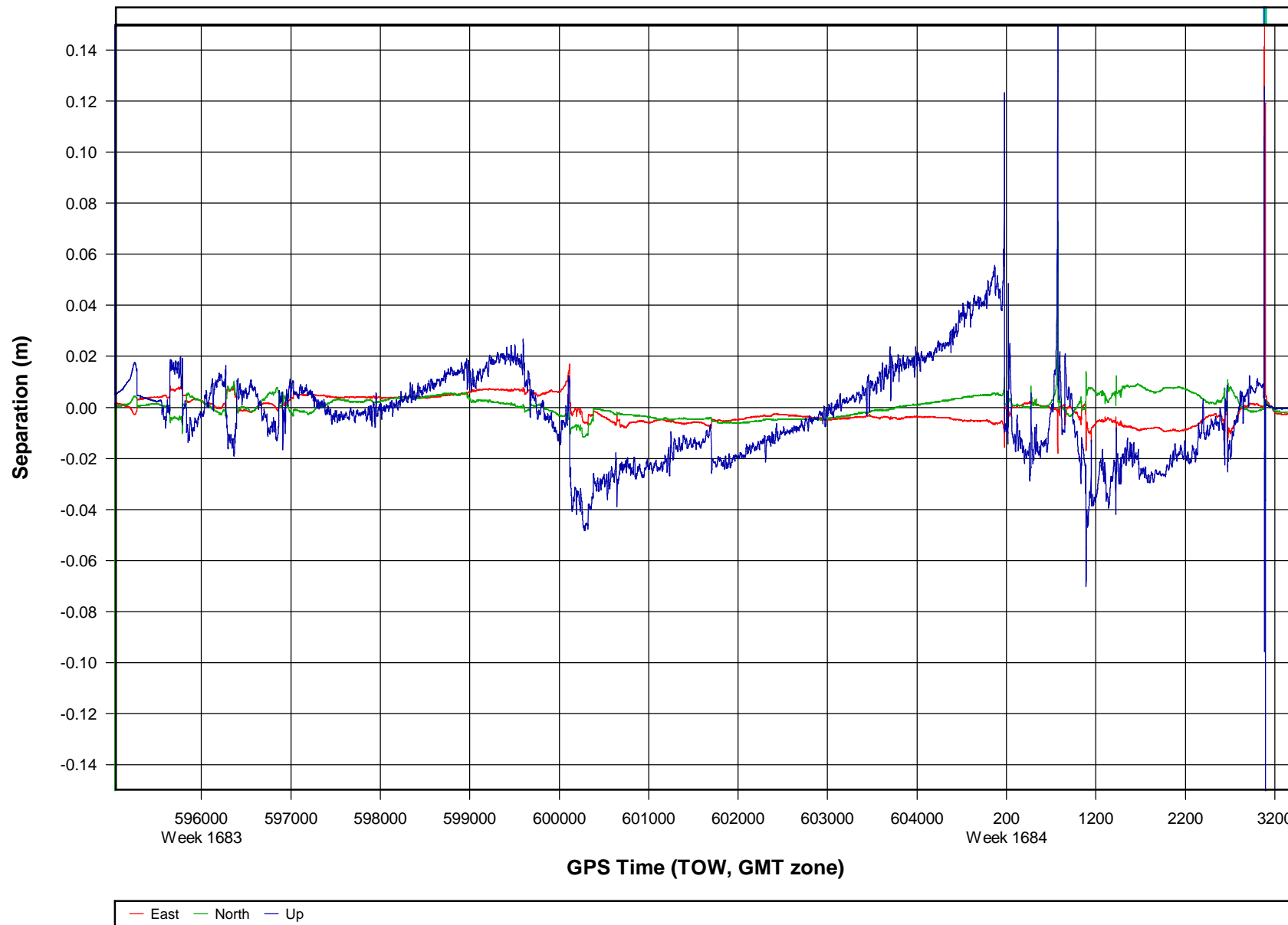


### Combined - Map Run (1)

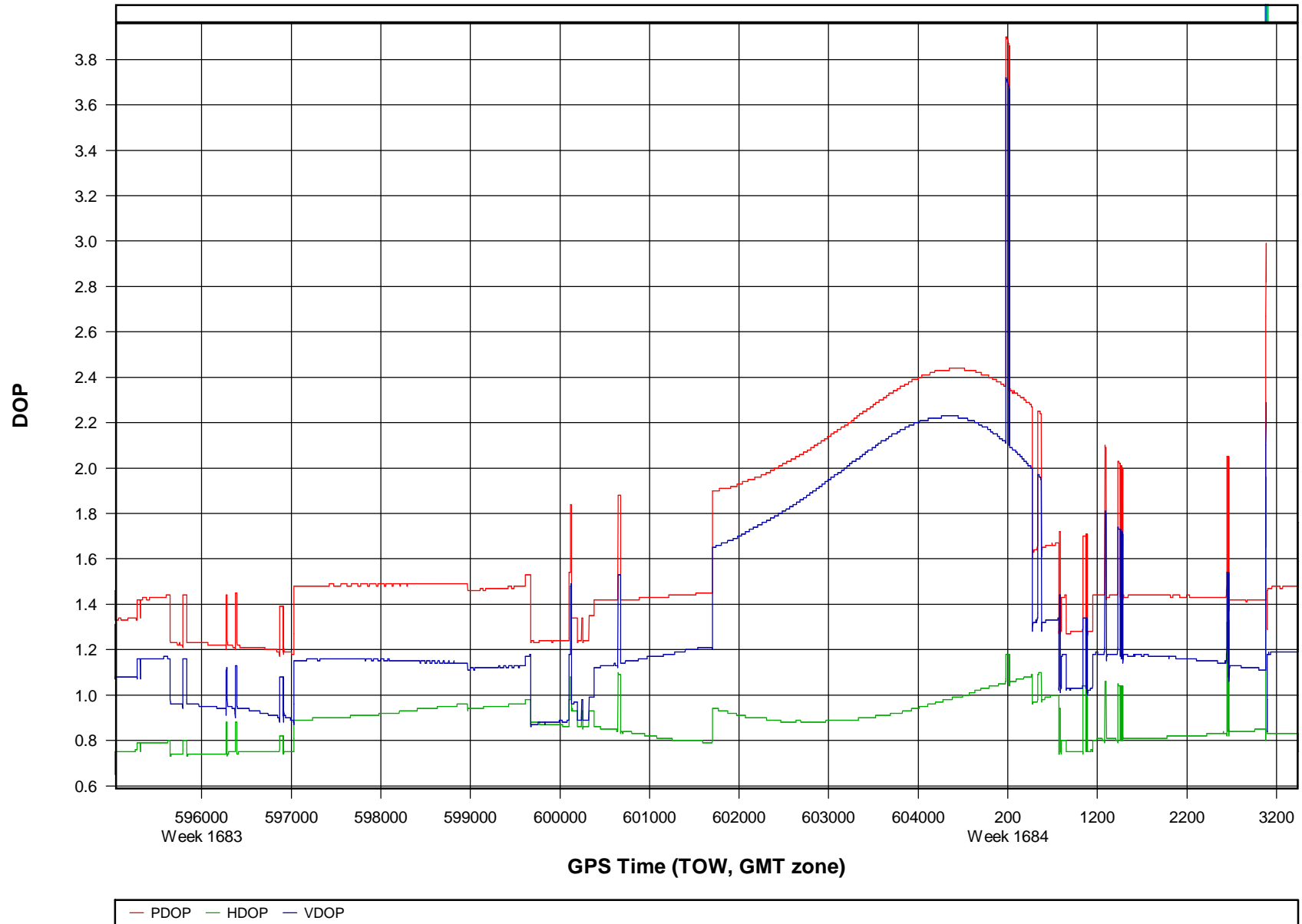
Geographic, DMS



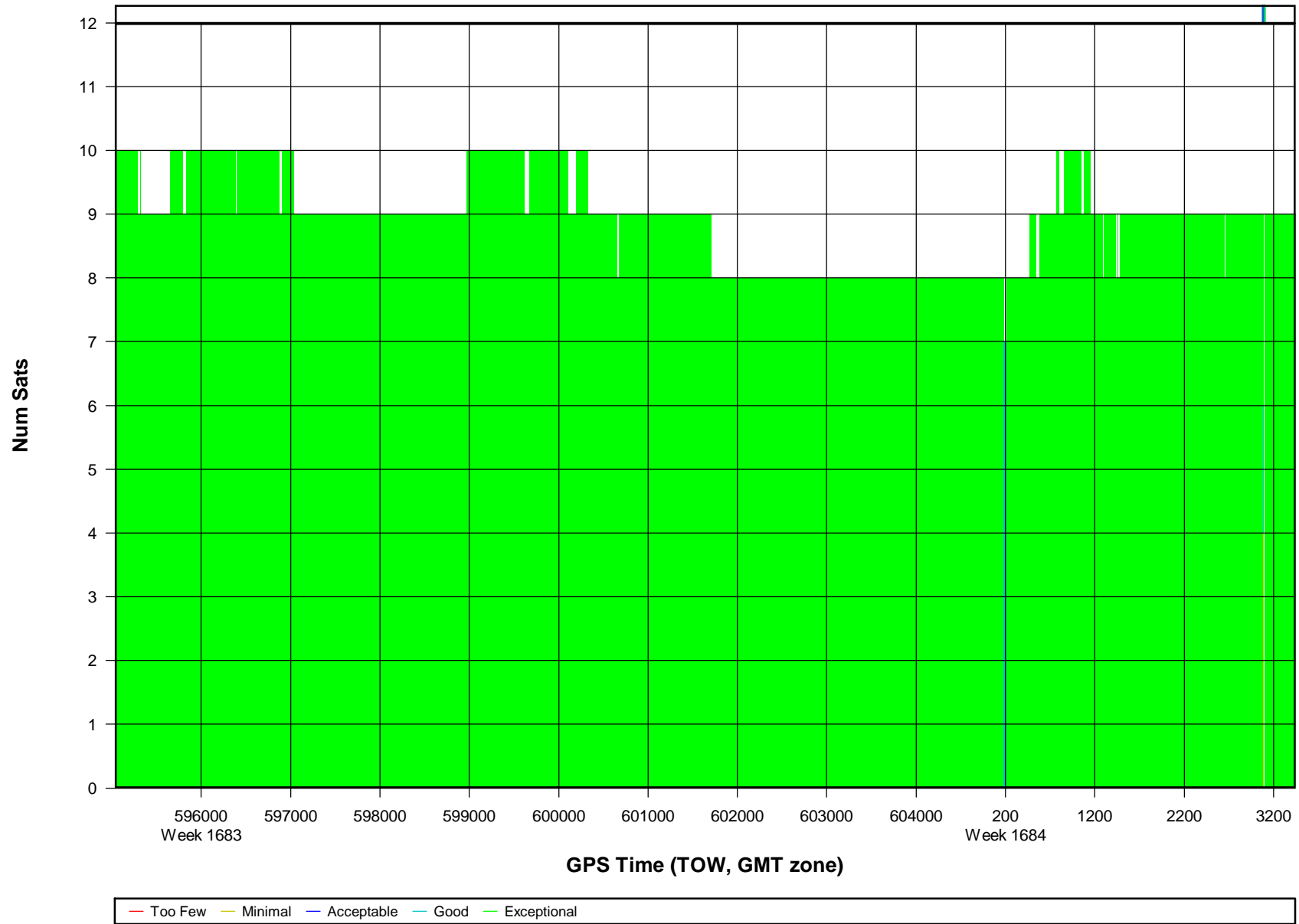
**o112105a [Combined] - Forward/Reverse or Combined Separation Plot**



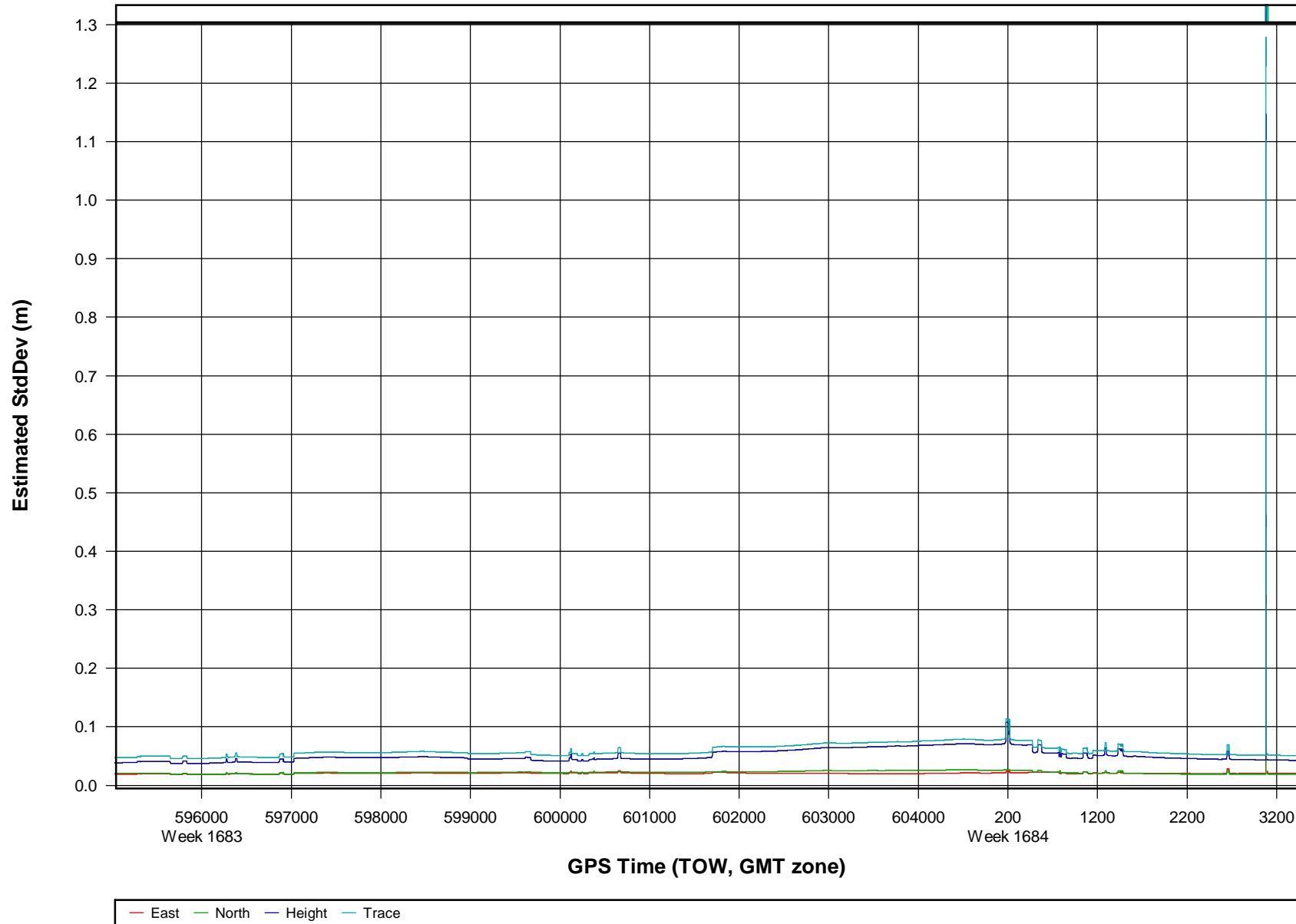
### o112105a [Combined] - PDOP, HDOP, VDOP Plots



**o112105a [Combined] - Number of Satellites Bar Plot**



### o112105a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o112105a\3\_Processed\Gps\o112105a.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file:	132263
No processed position:	119073
Missing Fwd or Rev:	3
With bad C/A code:	0
With bad L1 Phase:	0

## Measurement RMS Values:

L1 Phase:	0.0149 (m)
C/A Code:	0.66 (m)
L1 Doppler:	0.026 (m/s)

## Fwd/Rev Separation RMS Values:

East:	0.006 (m)
North:	0.005 (m)
Height:	0.019 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (13179 occurrences):

East:	0.005 (m)
North:	0.004 (m)
Height:	0.018 (m)

## Quality Number Percentages:

Q 1:	99.9 %
Q 2:	0.1 %
Q 3:	0.0 %
Q 4:	0.0 %
Q 5:	0.0 %
Q 6:	0.0 %

## Position Standard Deviation Percentages:

0.00 - 0.10 m:	99.7 %
0.10 - 0.30 m:	0.3 %
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:

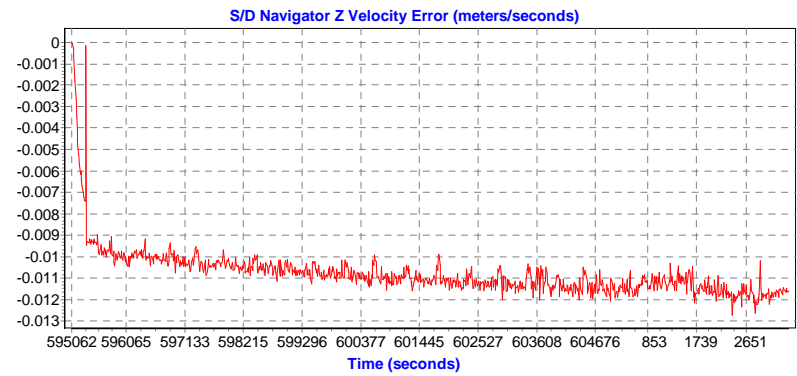
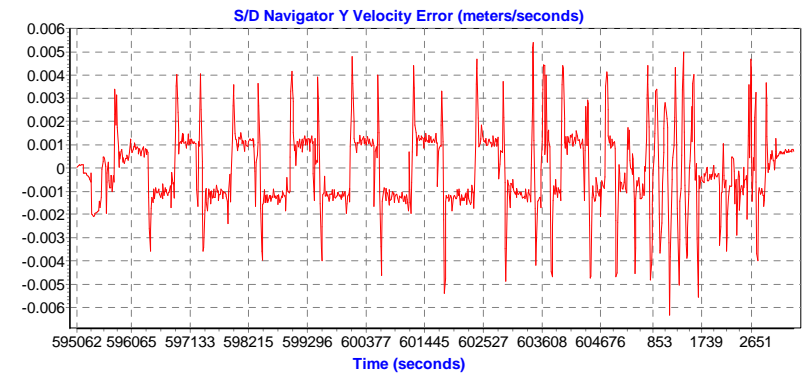
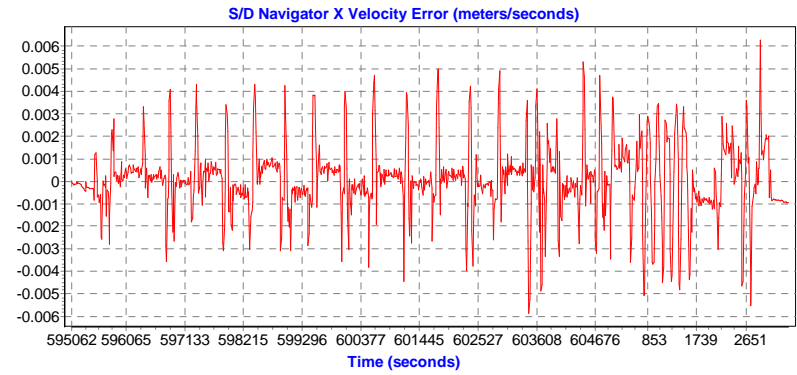
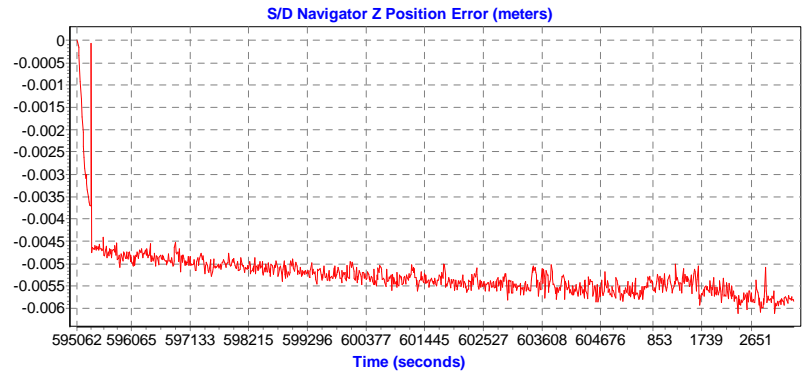
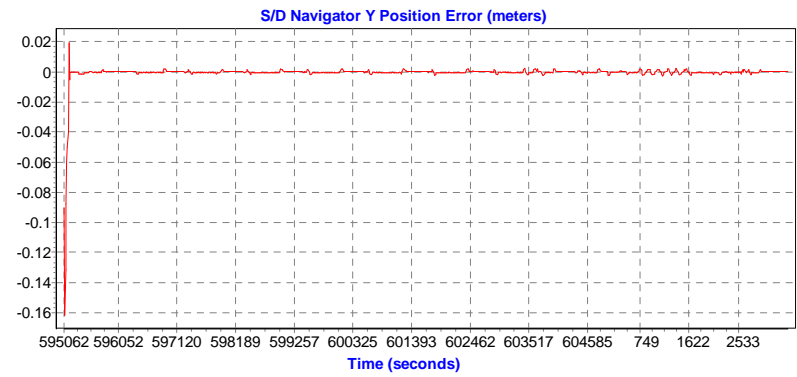
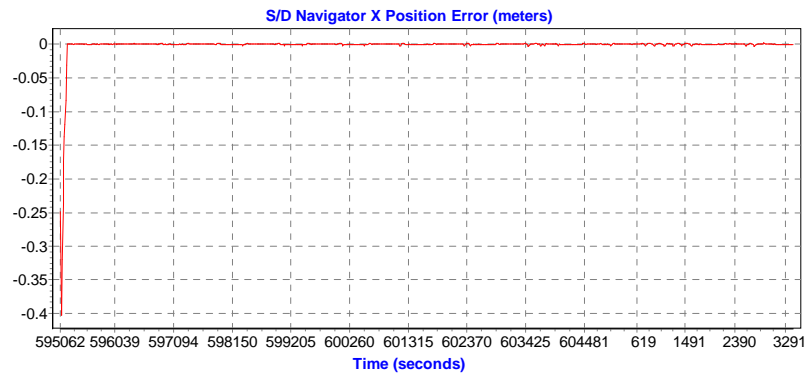
DOP over Tol:	0.0 %
---------------	-------

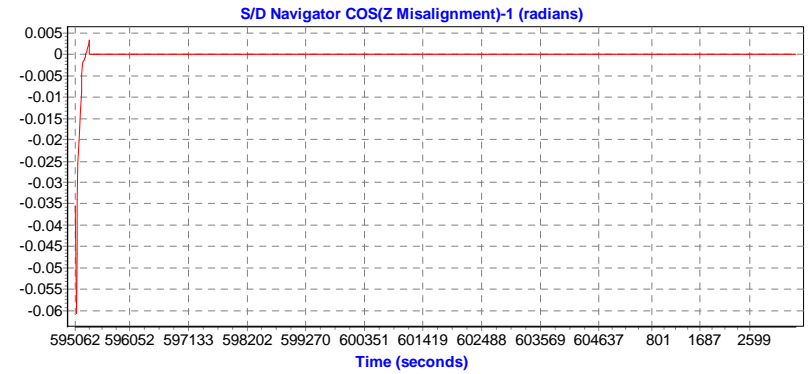
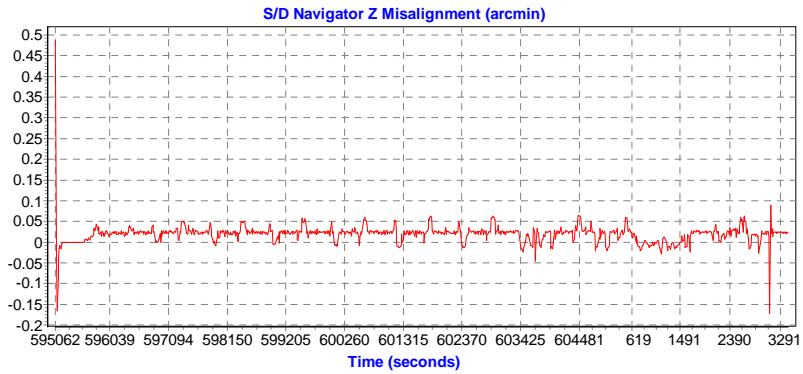
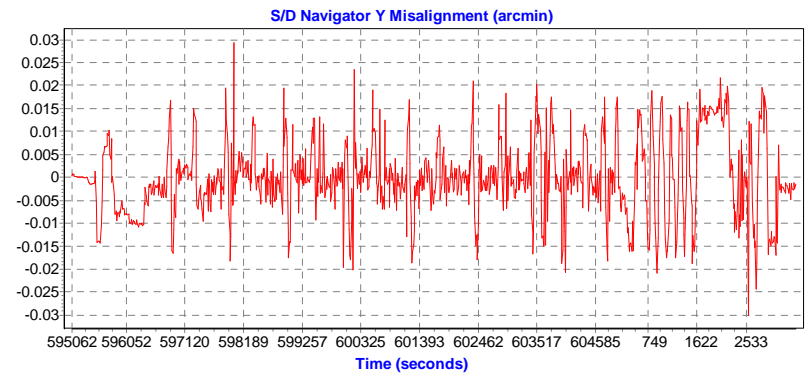
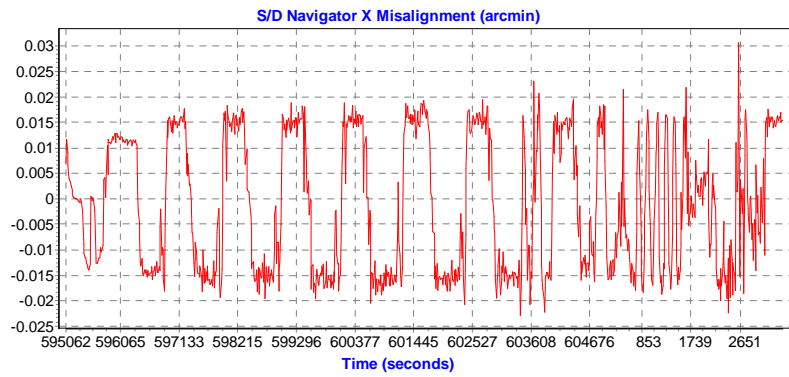
## Baseline Distances:

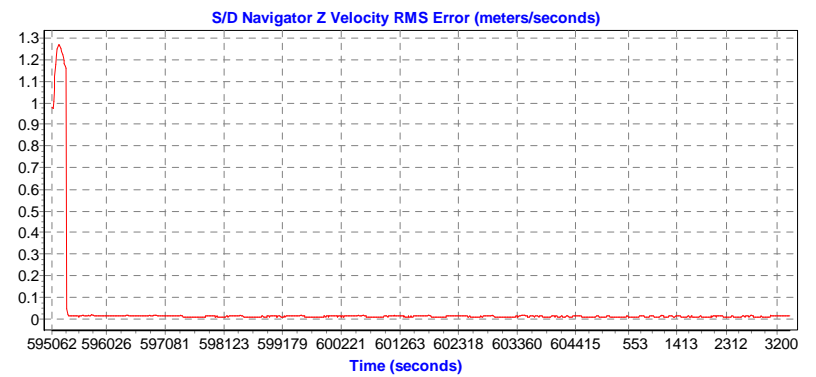
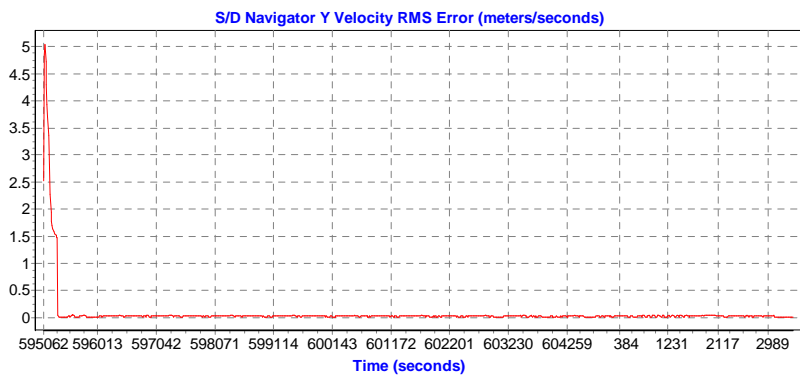
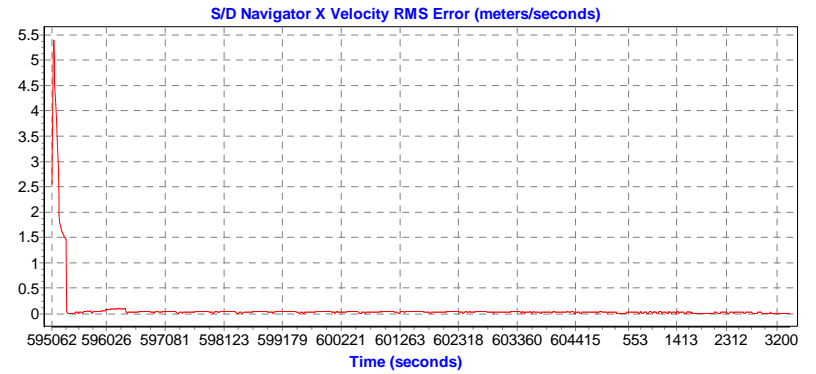
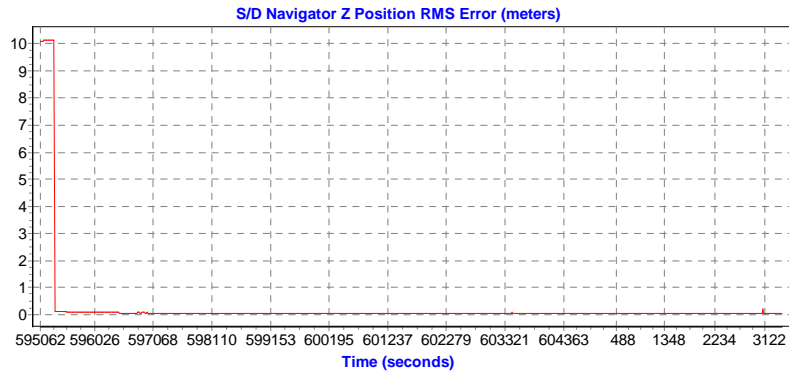
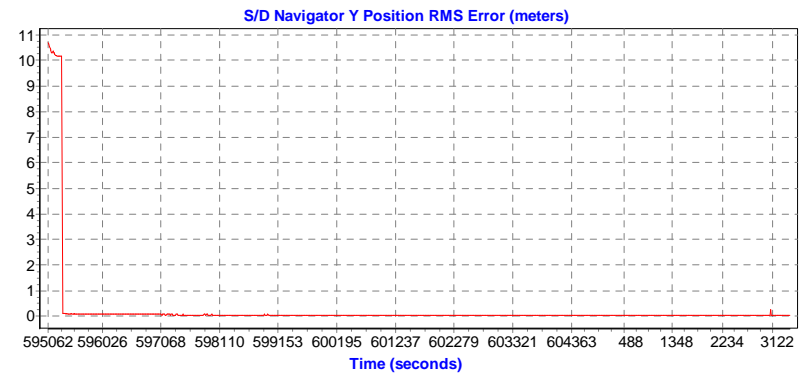
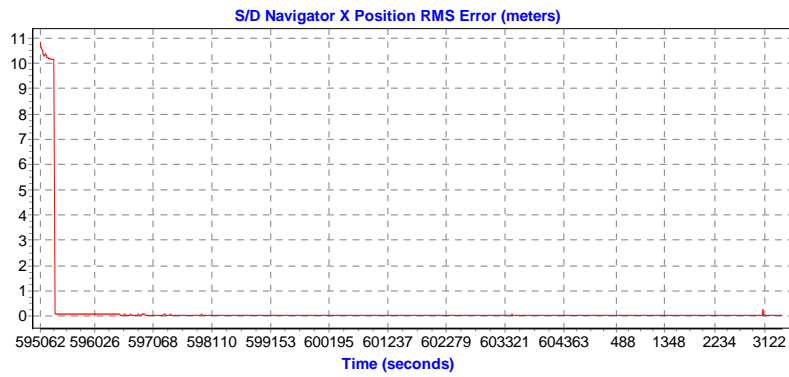
Maximum:	47.465 (km)
Minimum:	0.042 (km)
Average:	29.484 (km)
First Epoch:	0.483 (km)
Last Epoch:	0.524 (km)

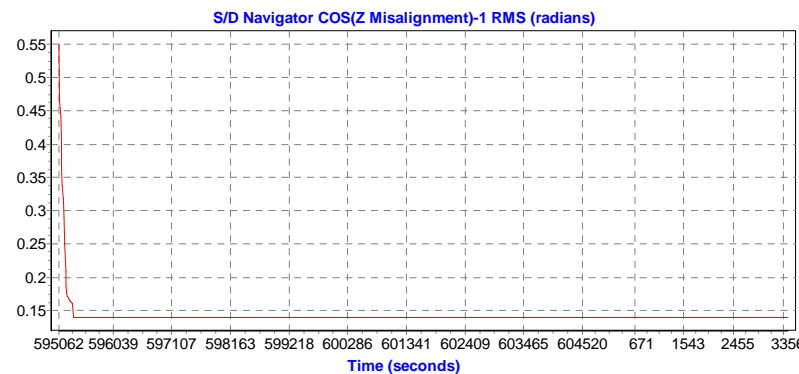
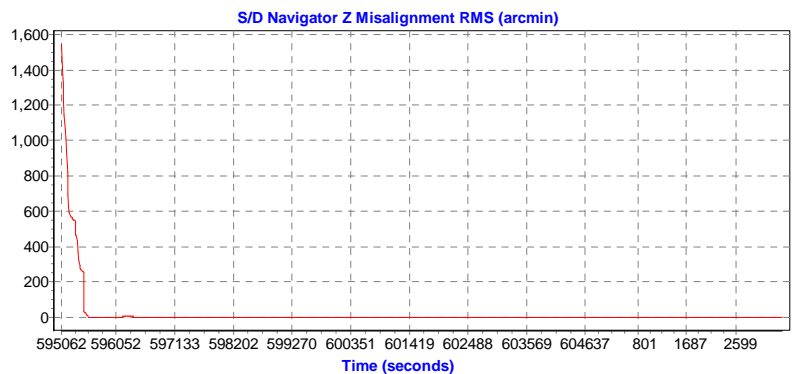
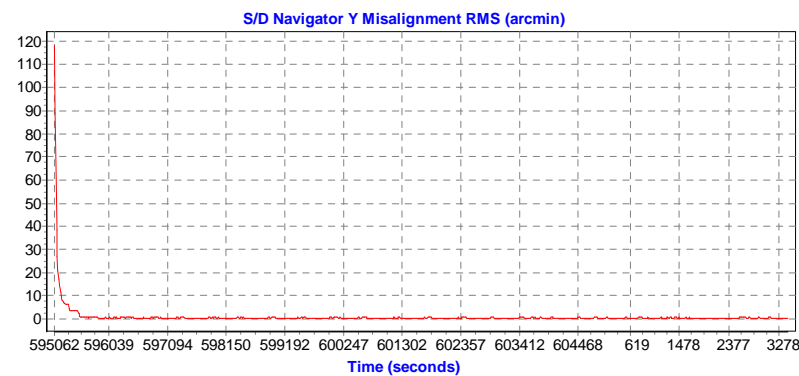
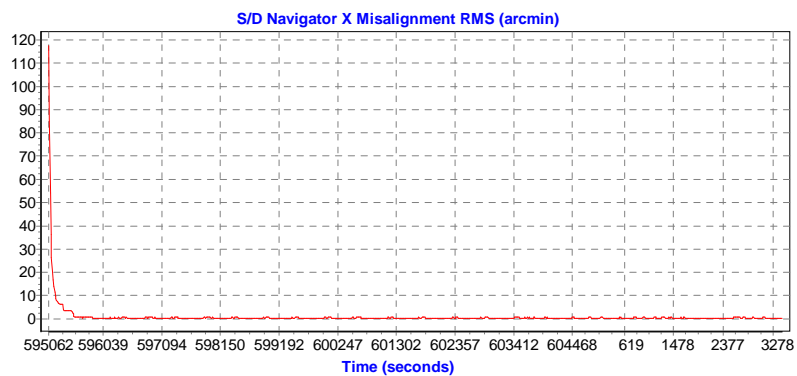


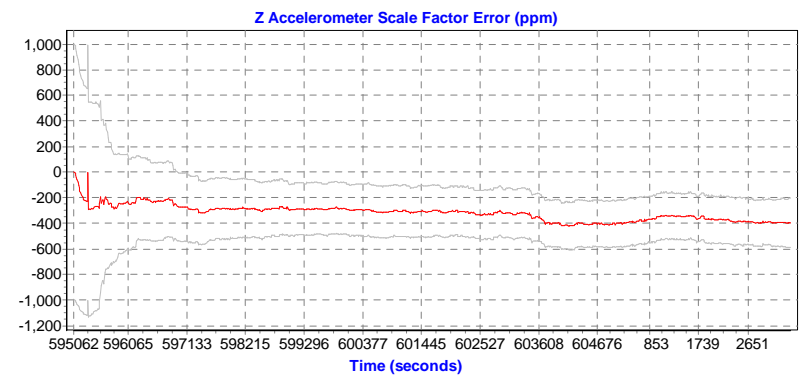
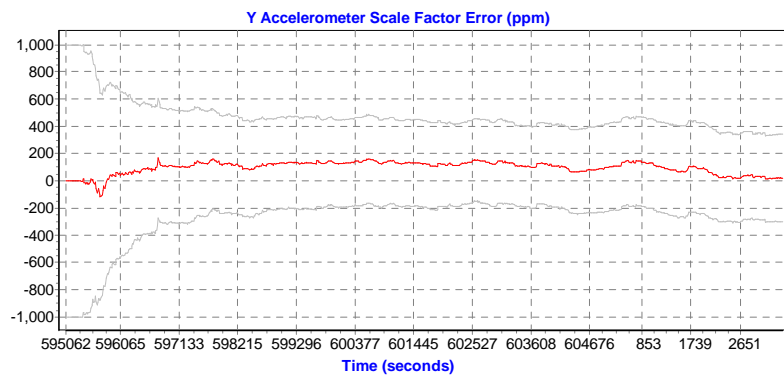
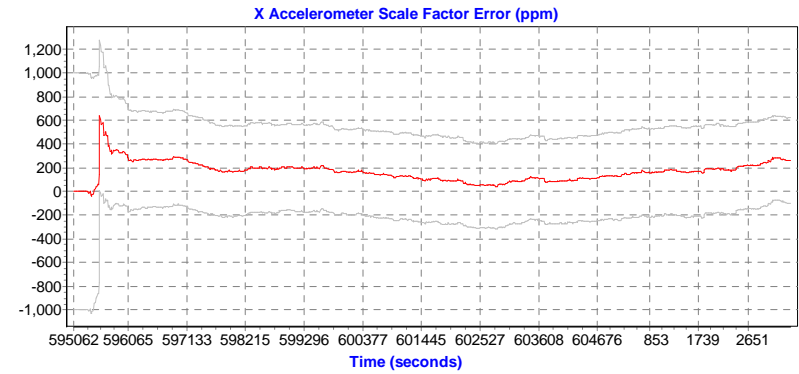
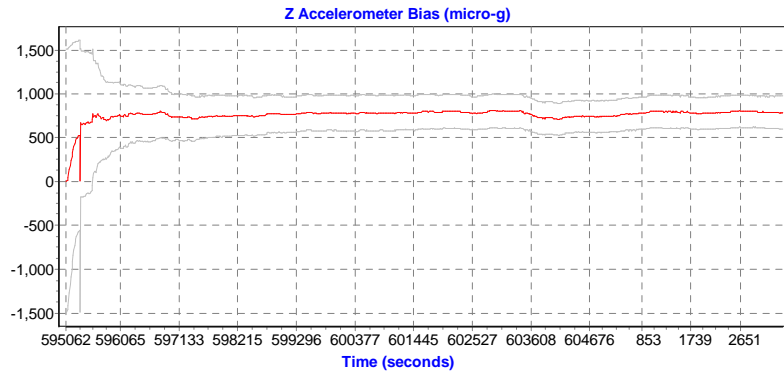
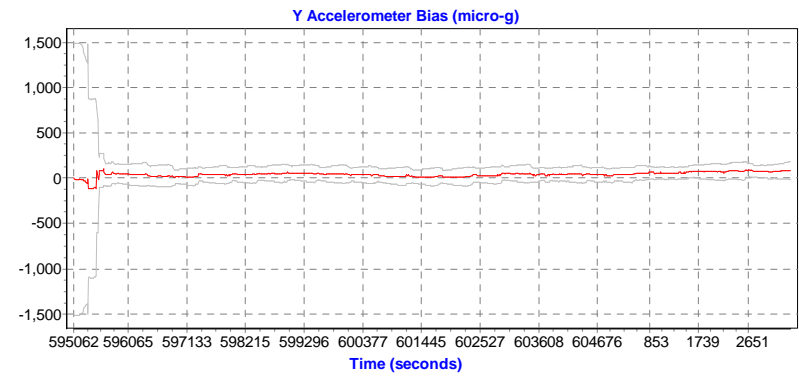
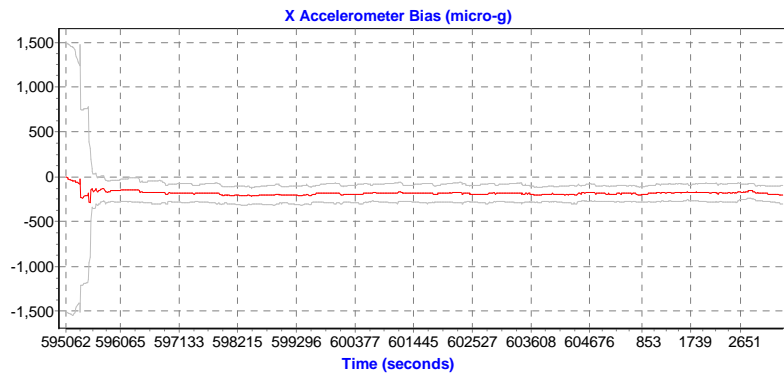
Estimated Errors and RMS

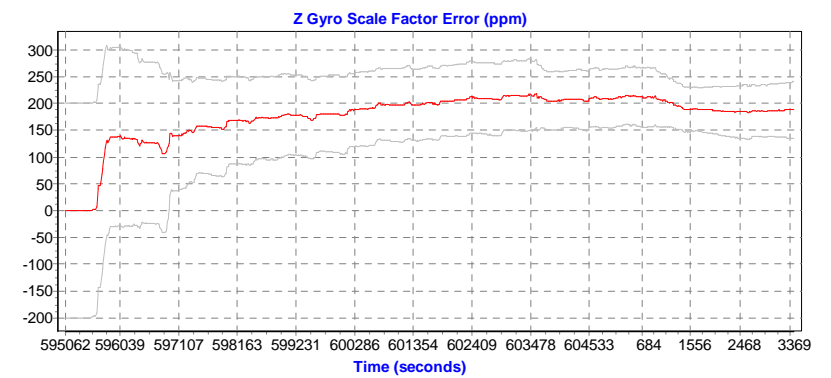
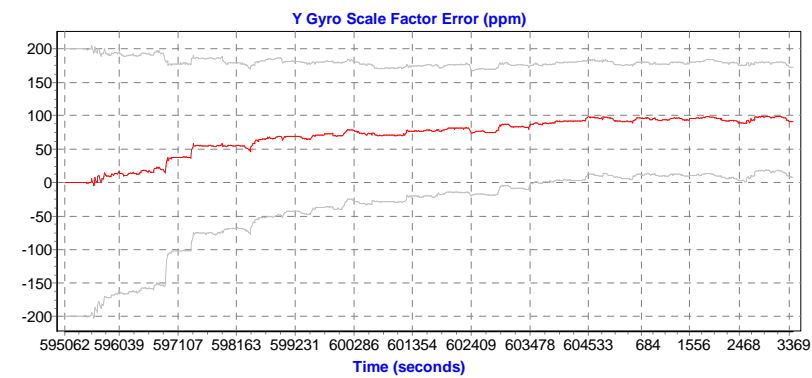
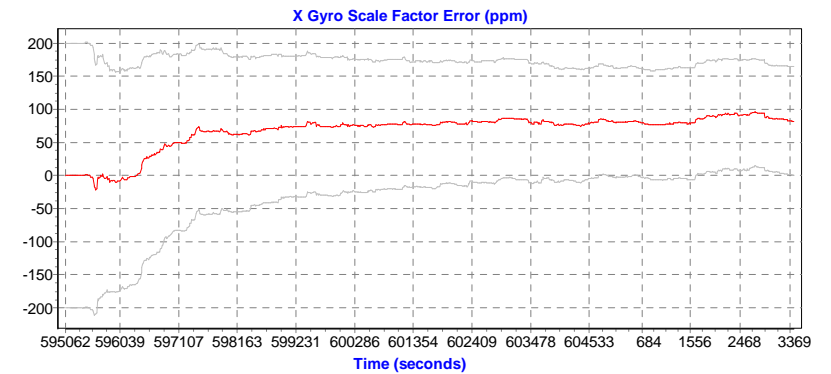
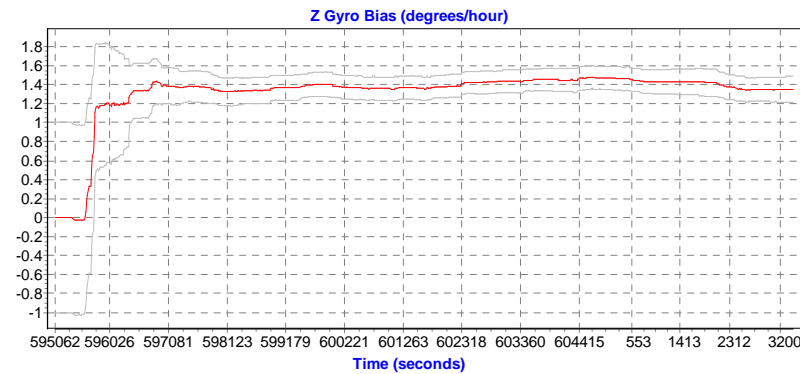
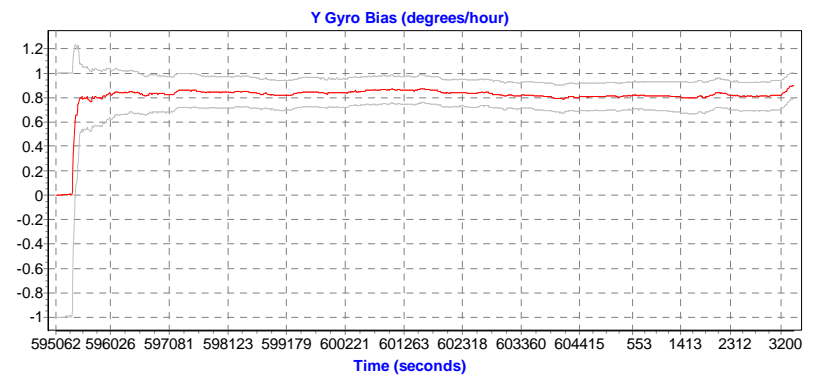
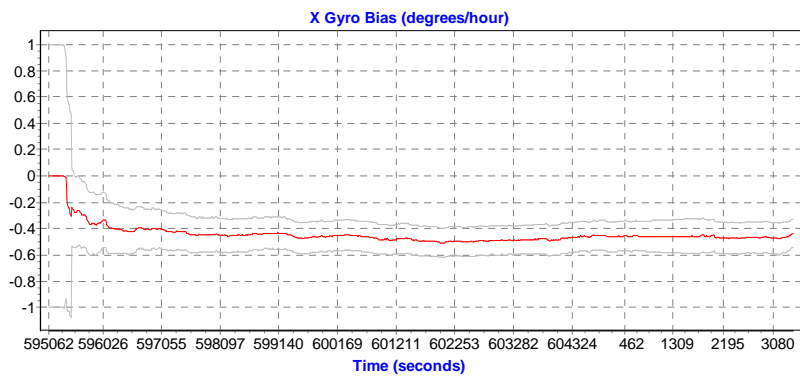


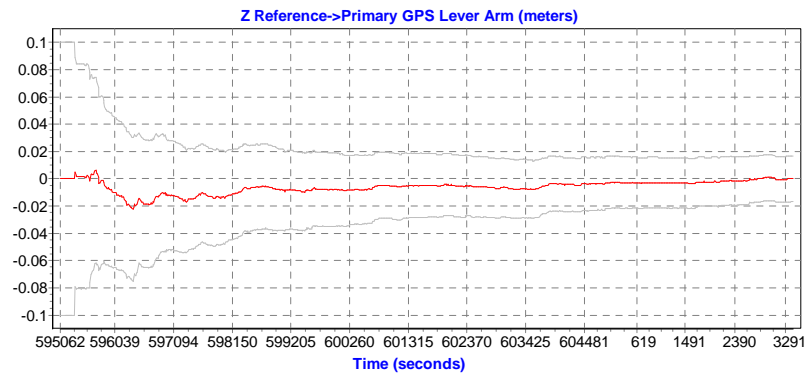
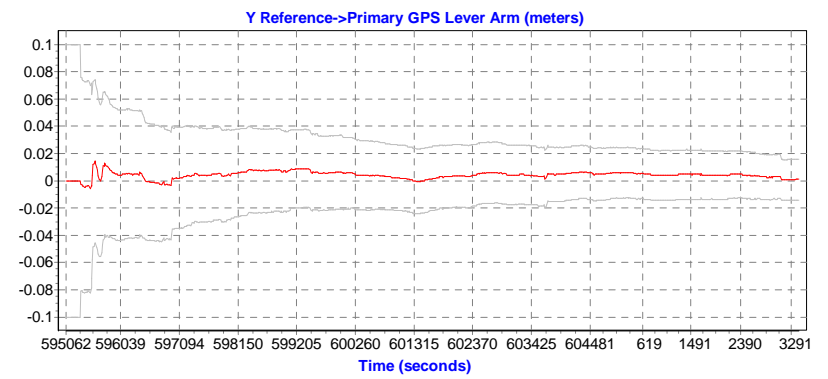
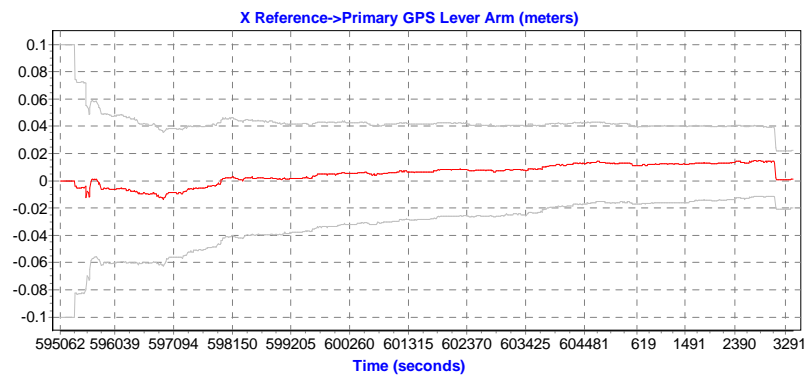






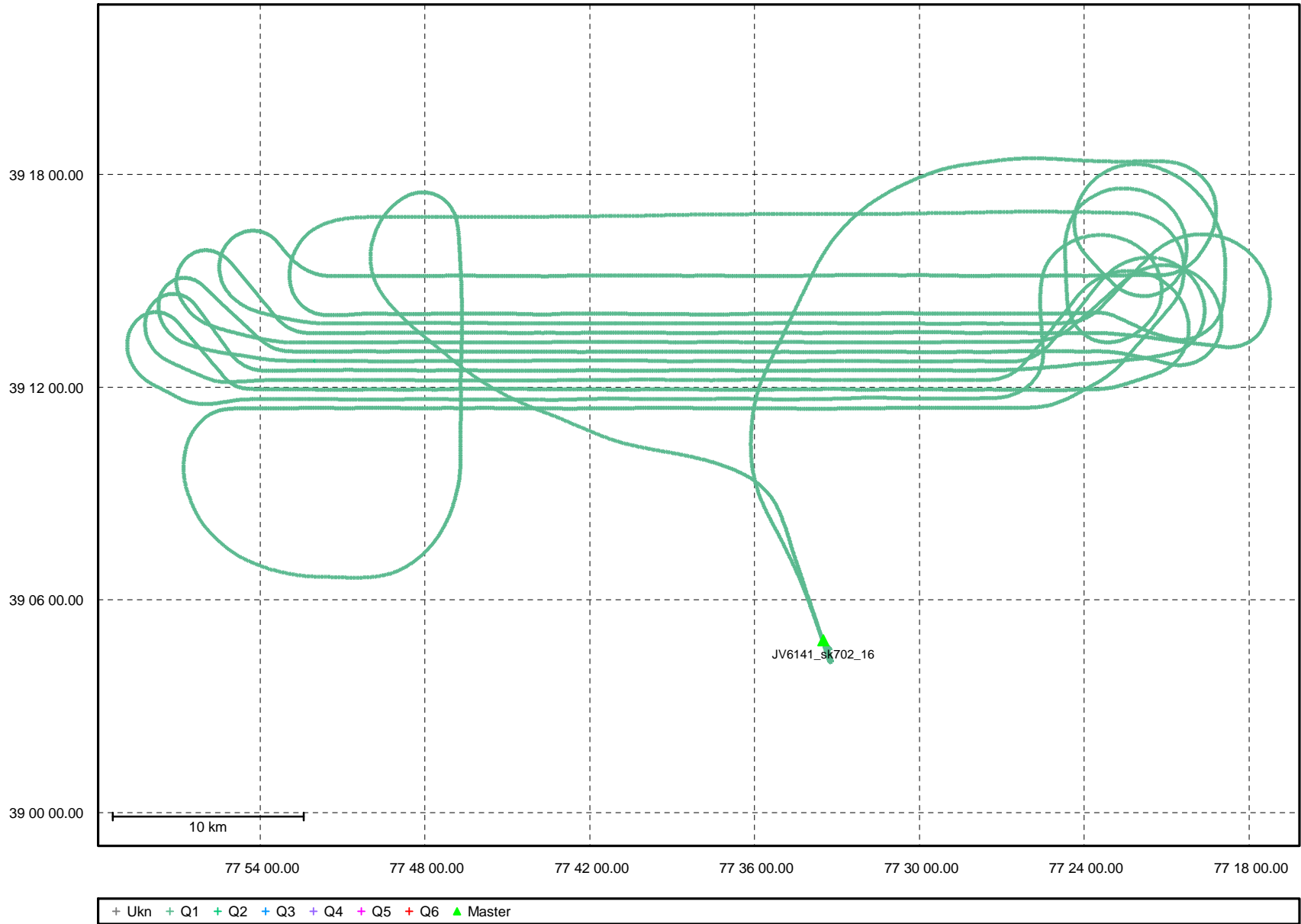






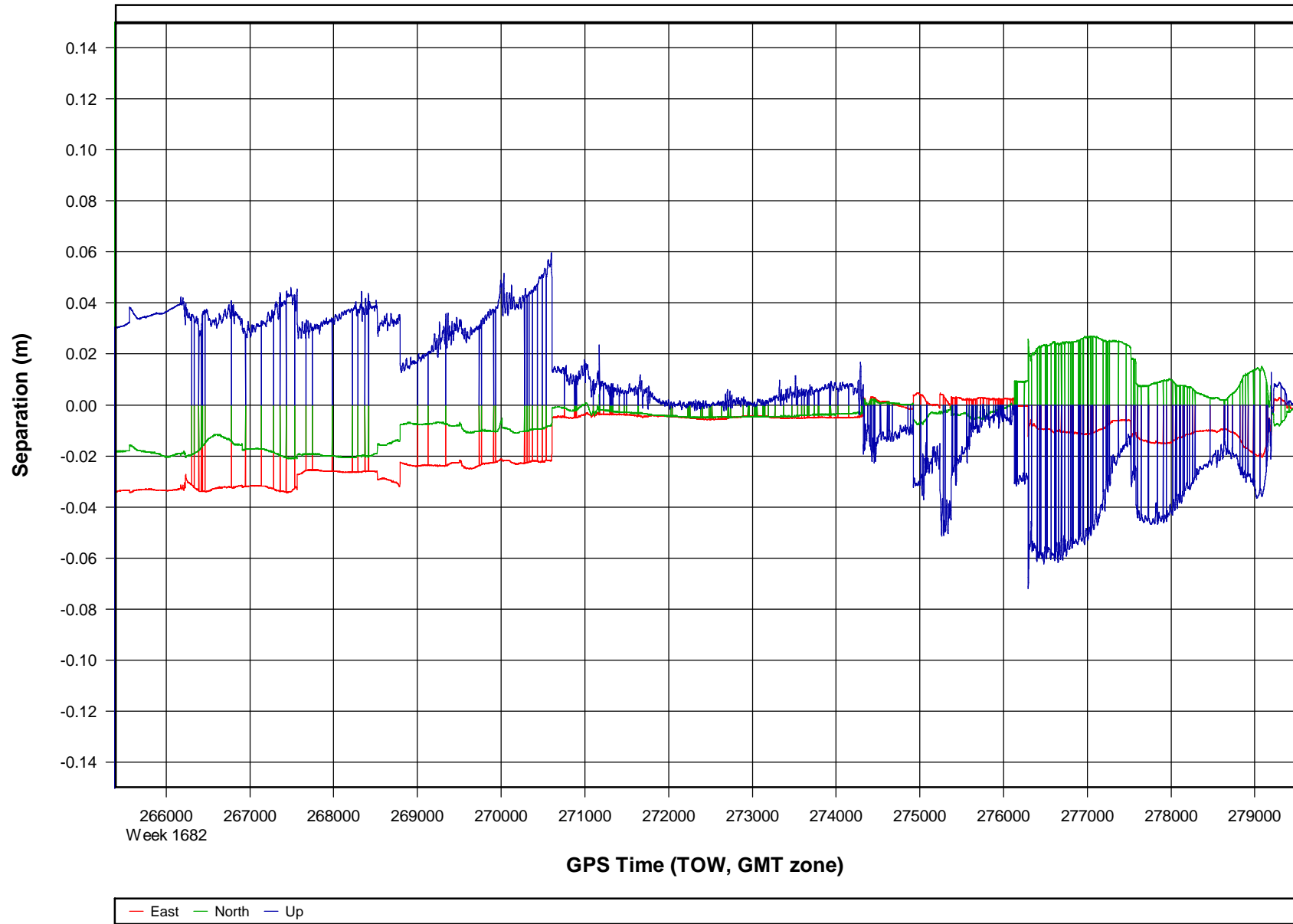
### Combined - Map Run (2)

Geographic, DMS

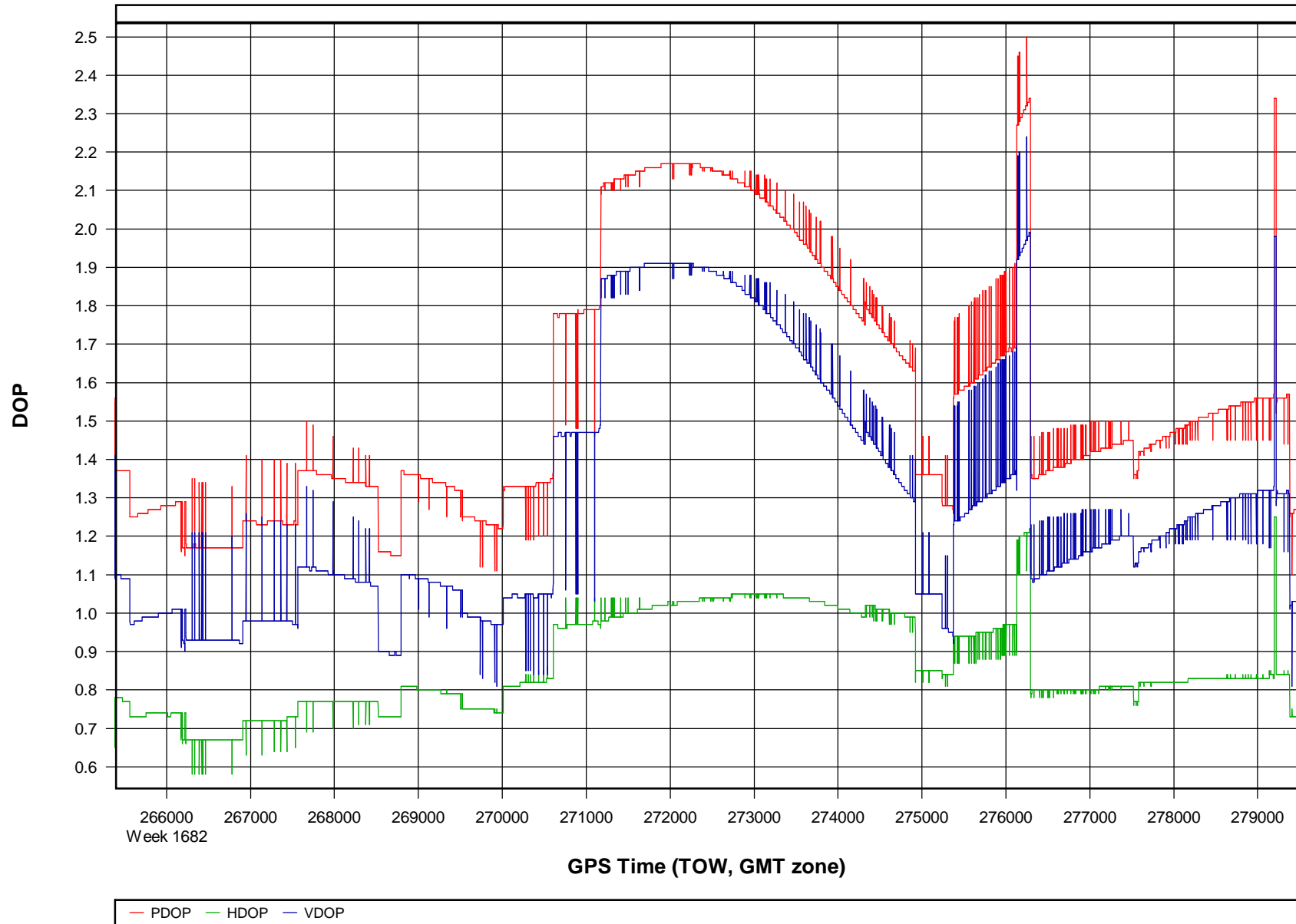




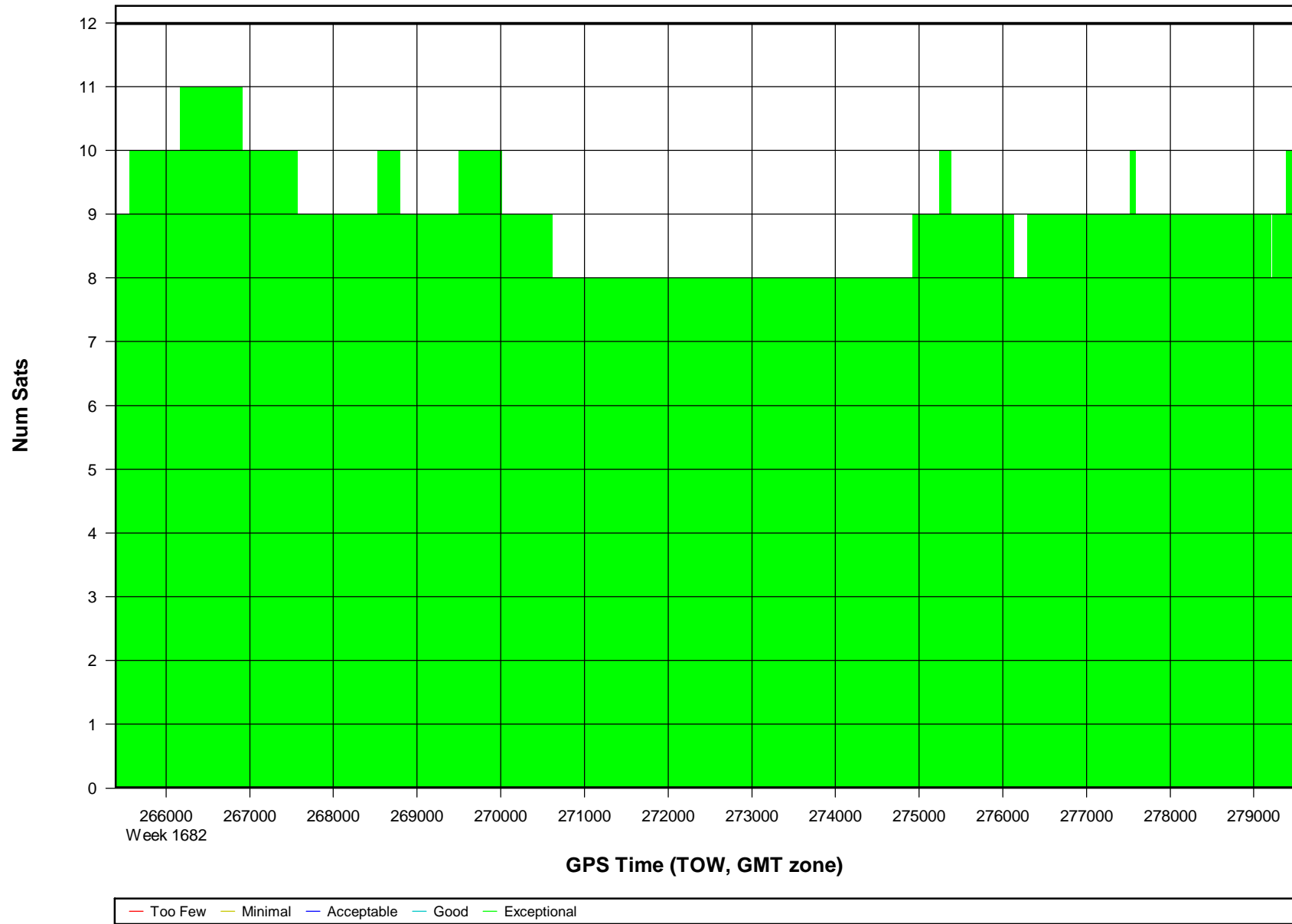
### o212094a [Combined] - Forward/Reverse or Combined Separation Plot



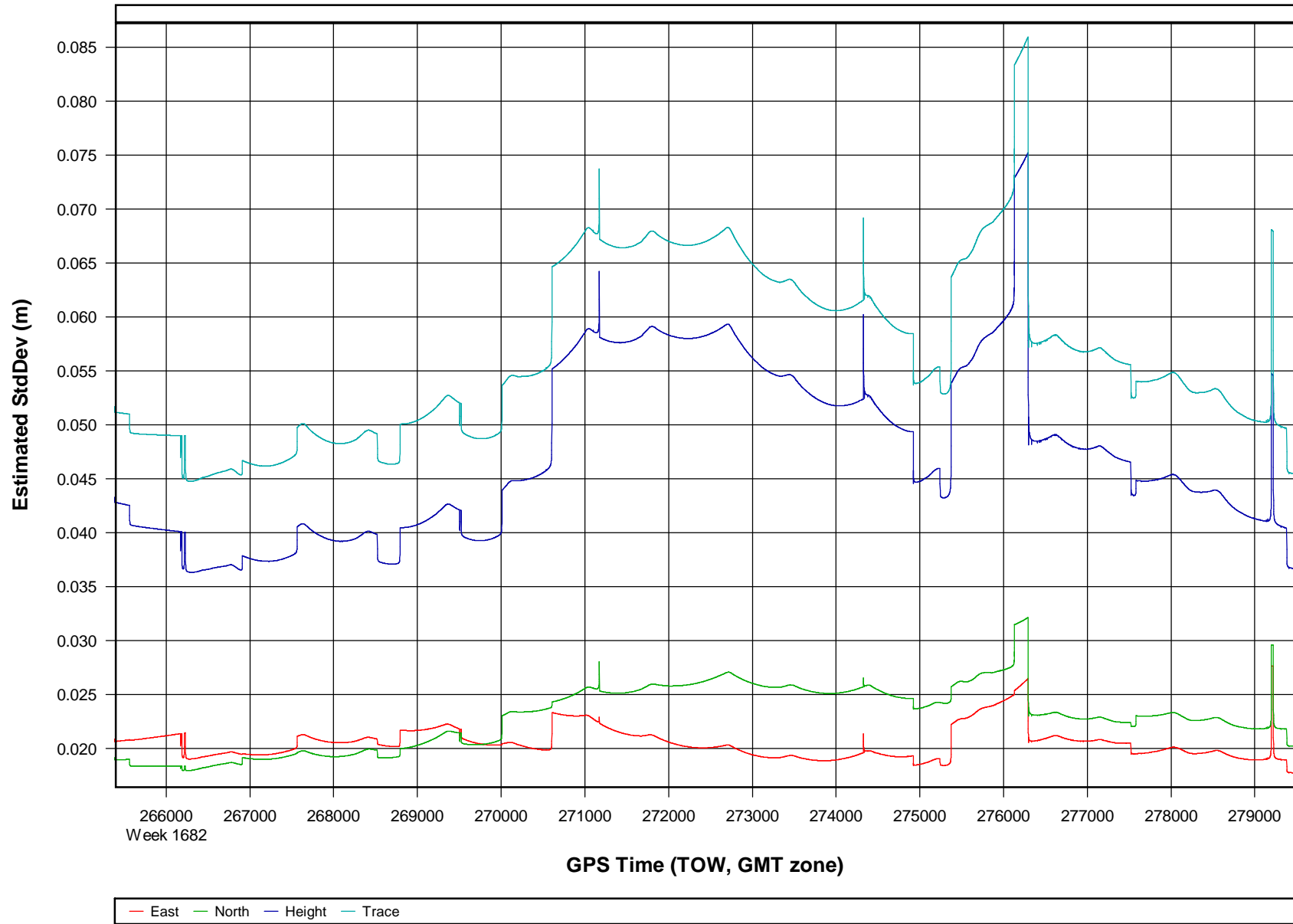
### o212094a [Combined] - PDOP, HDOP, VDOP Plots



**o212094a [Combined] - Number of Satellites Bar Plot**



### o212094a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o212094a\3\_Processed\GPS\o212094a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 141171  
No processed position: 127067  
Missing Fwd or Rev: 248  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0184 (m)  
C/A Code: 0.87 (m)  
L1 Doppler: 0.027 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.018 (m)  
North: 0.013 (m)  
Height: 0.030 (m)

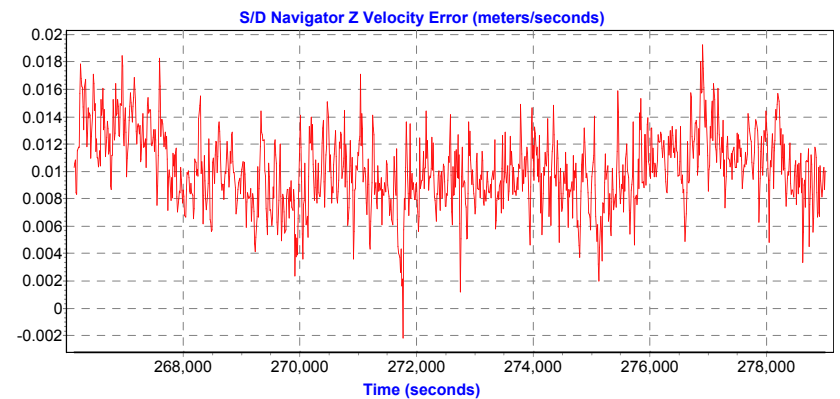
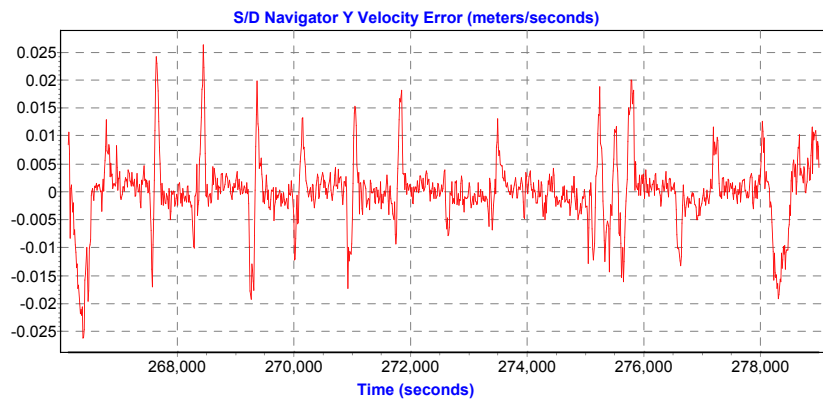
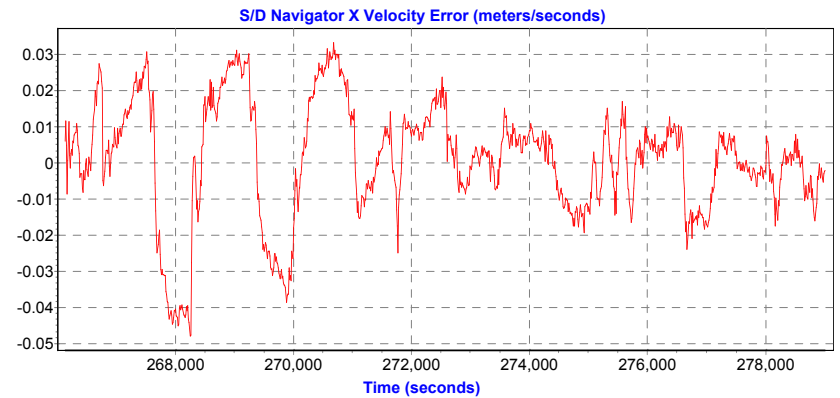
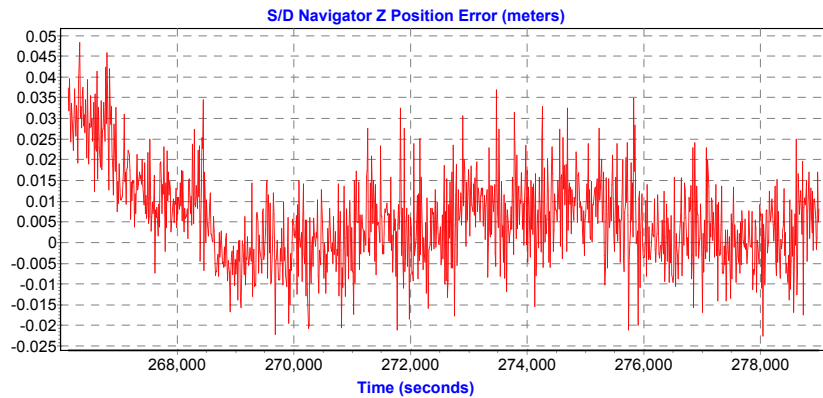
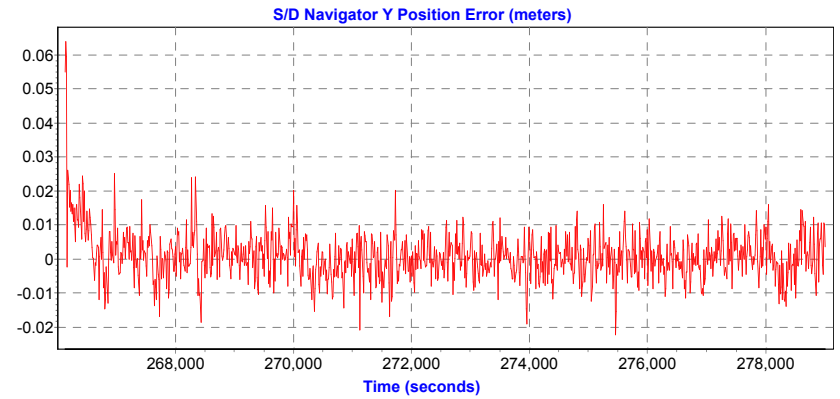
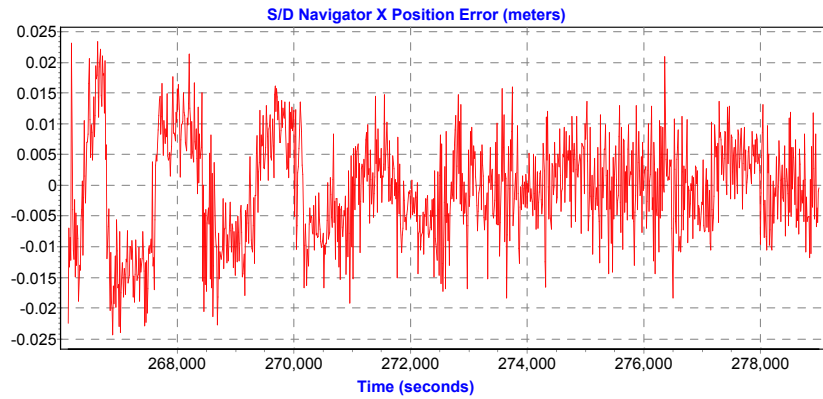
Fwd/Rev Sep. RMS for 25%-75% weighting (13852 occurrences):  
East: 0.018 (m)  
North: 0.013 (m)  
Height: 0.029 (m)

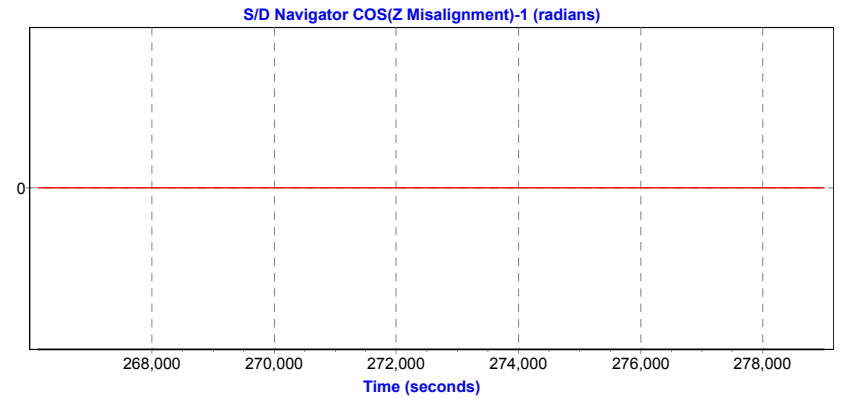
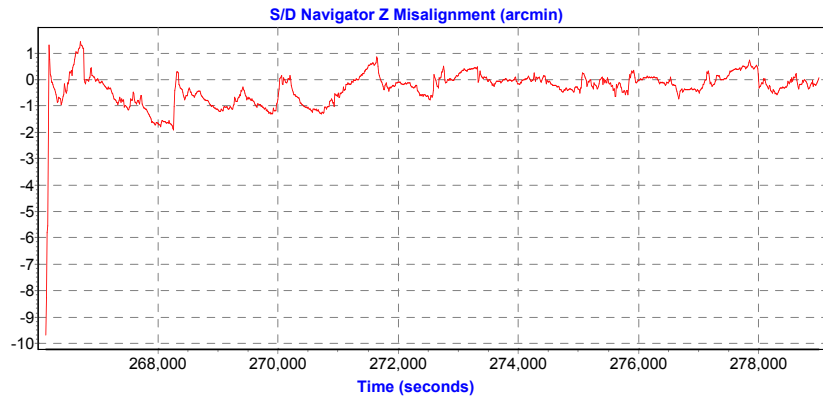
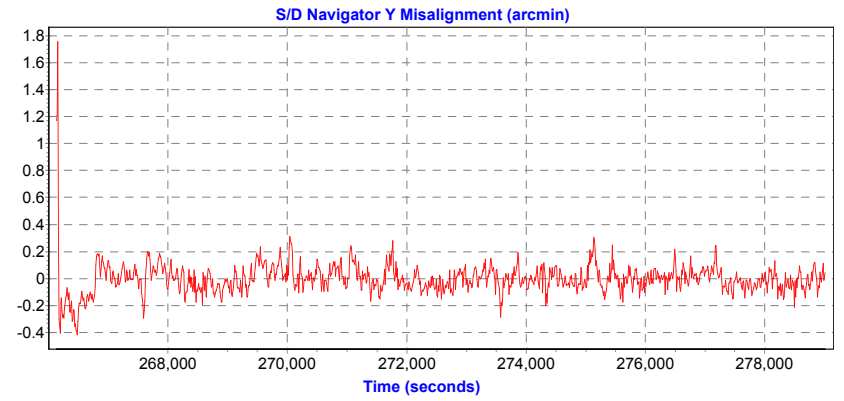
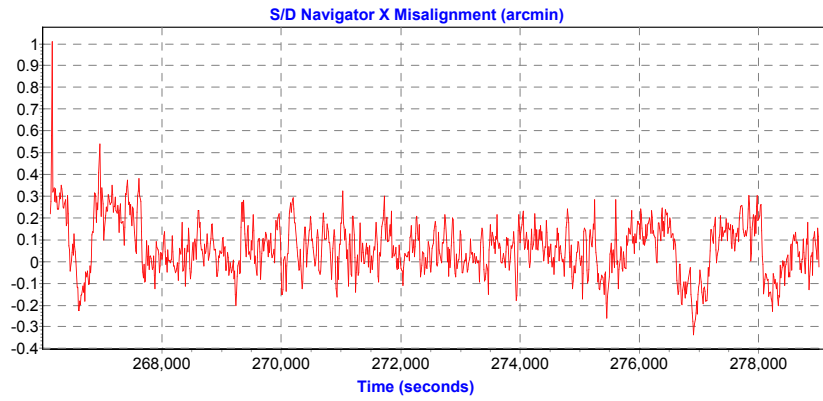
Quality Number Percentages:  
Q 1: 100.0 %  
Q 2: 0.0 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

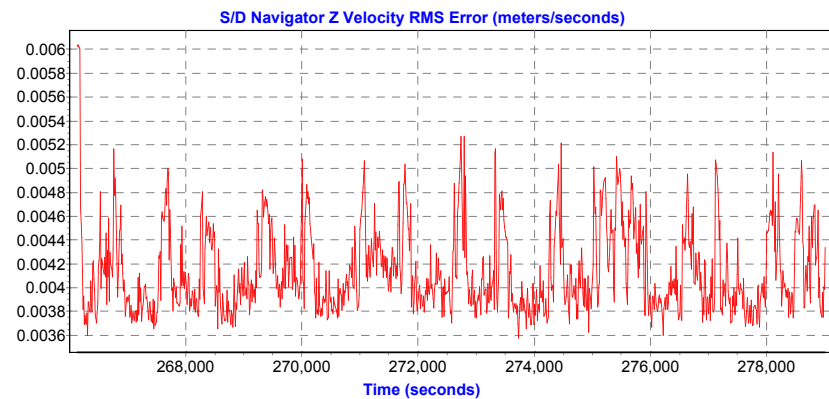
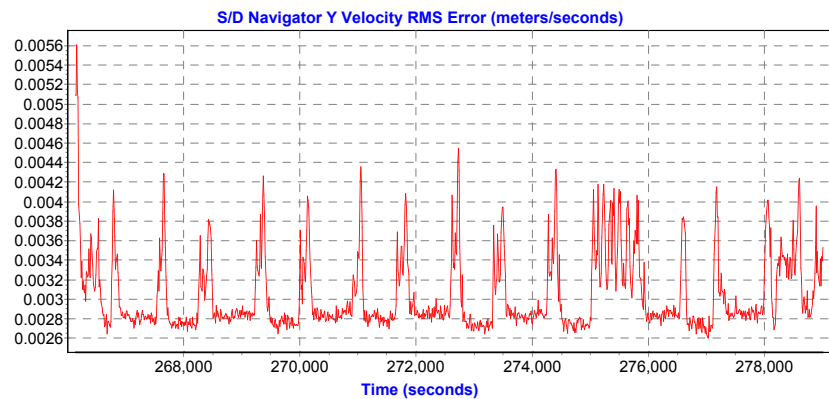
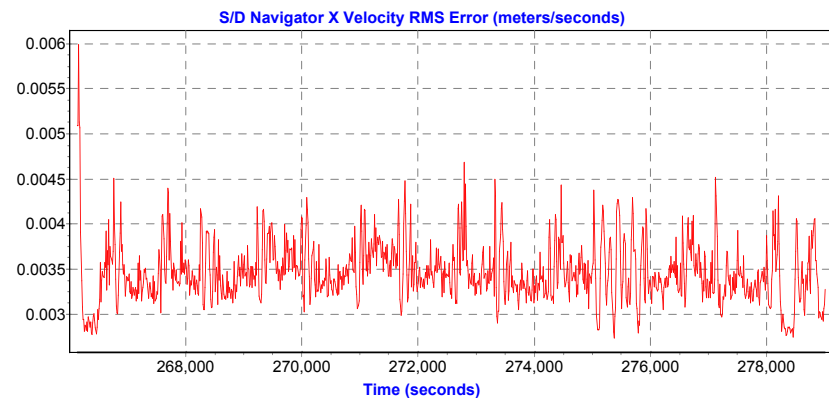
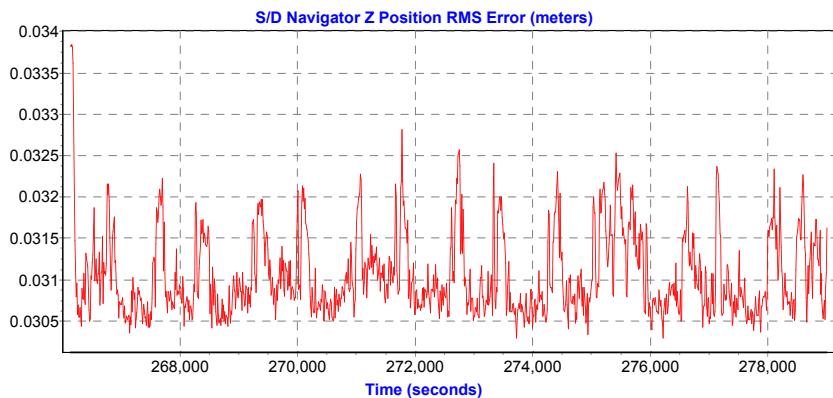
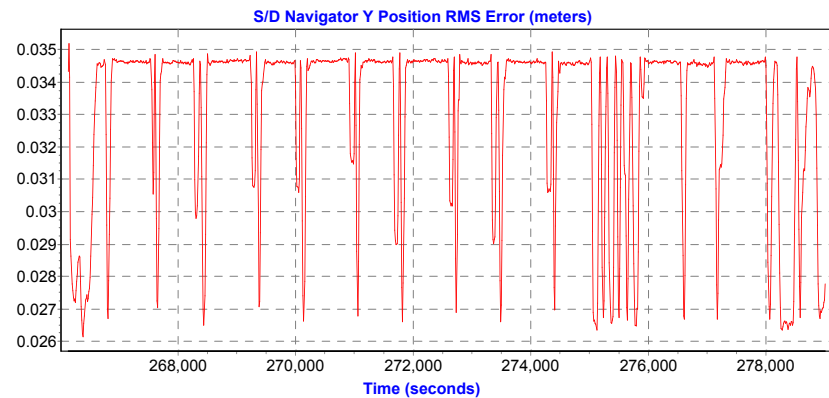
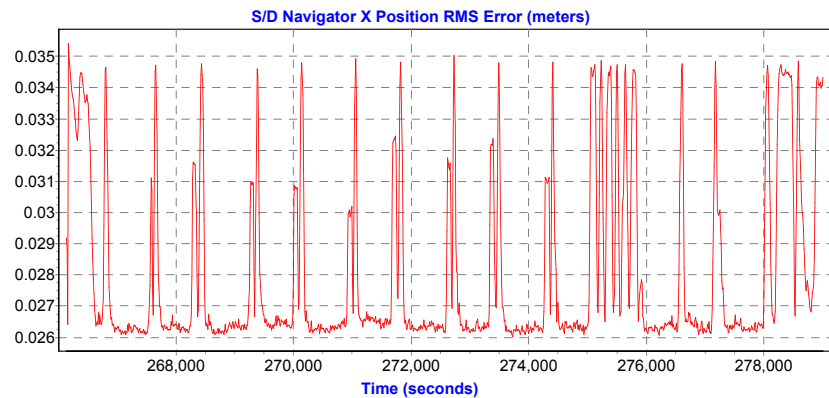
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 100.0 %  
0.10 - 0.30 m: 0.0 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

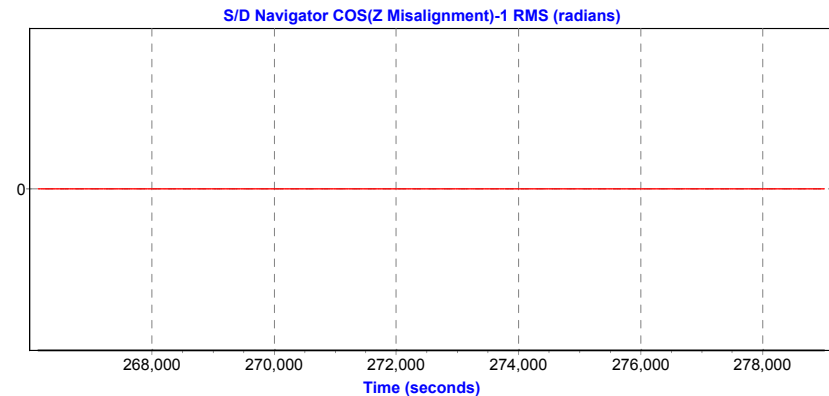
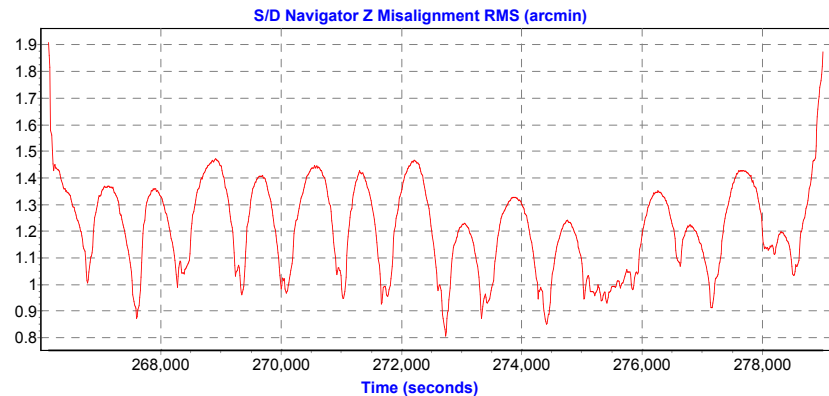
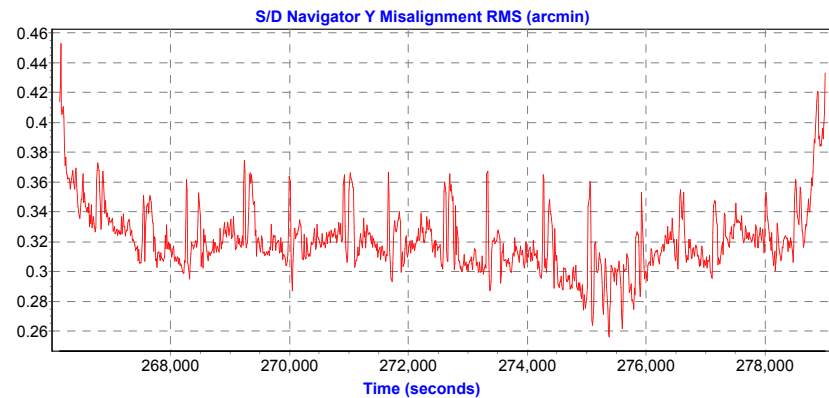
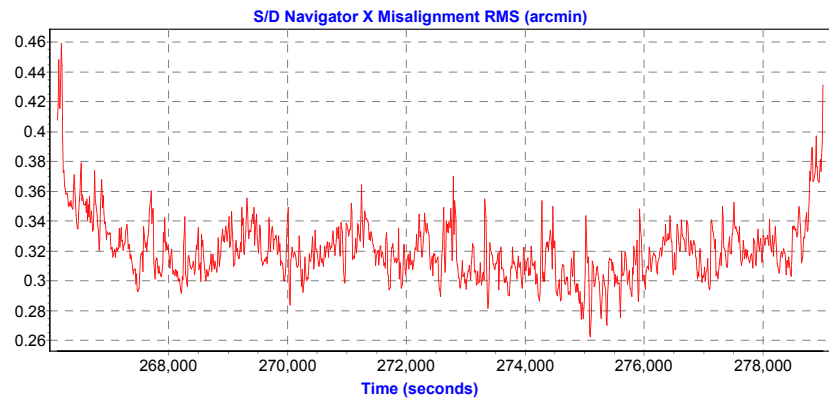
Baseline Distances:  
Maximum: 39.790 (km)  
Minimum: 0.038 (km)  
Average: 20.733 (km)  
First Epoch: 0.575 (km)  
Last Epoch: 0.527 (km)

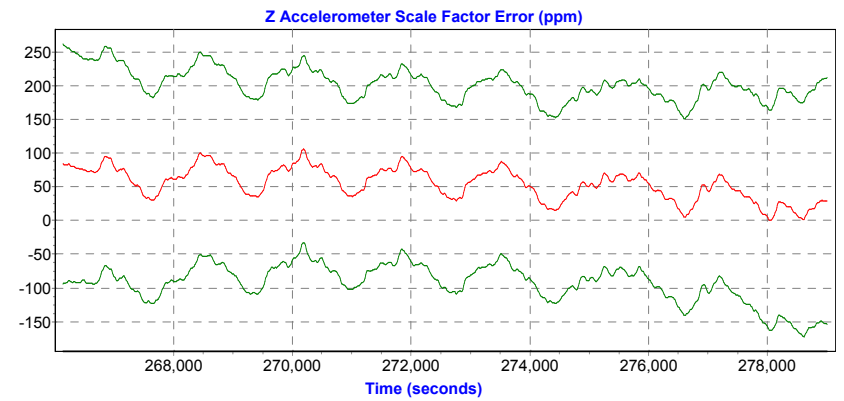
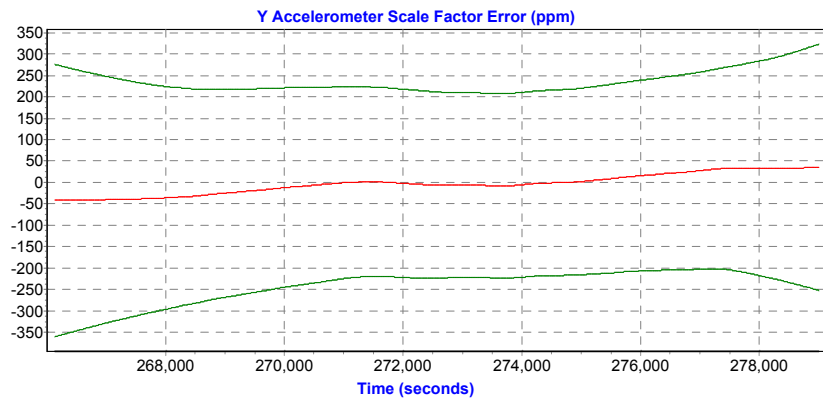
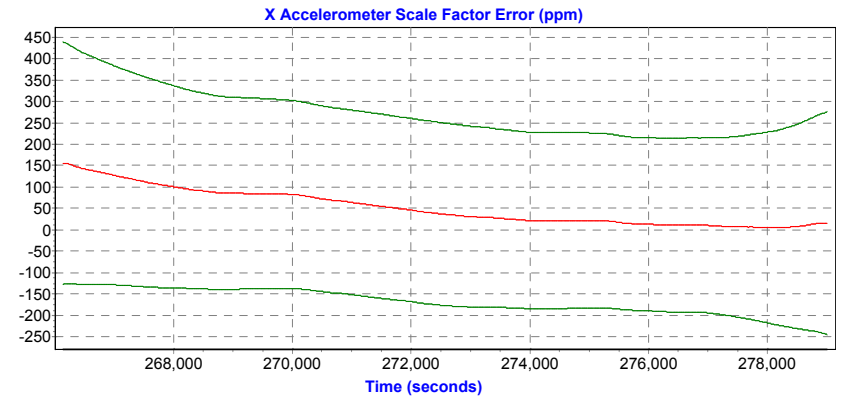
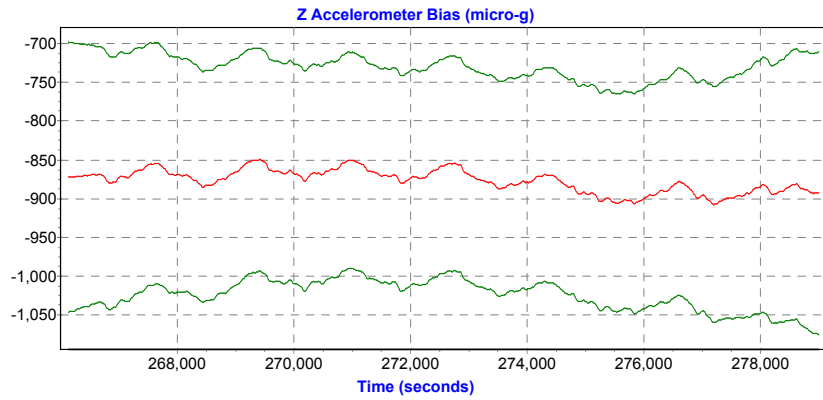
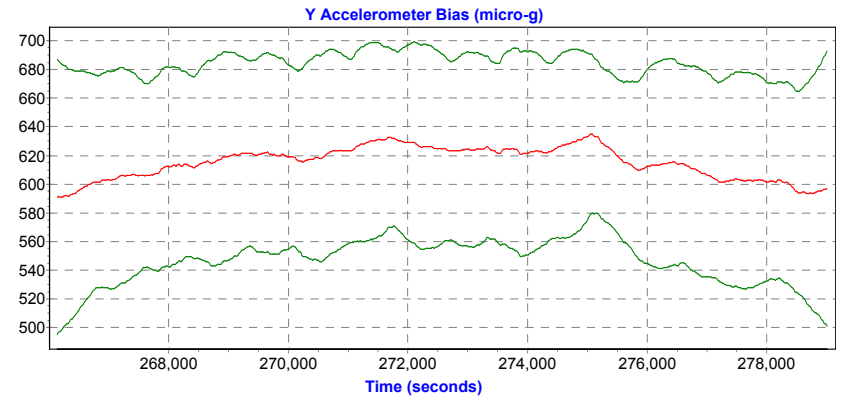
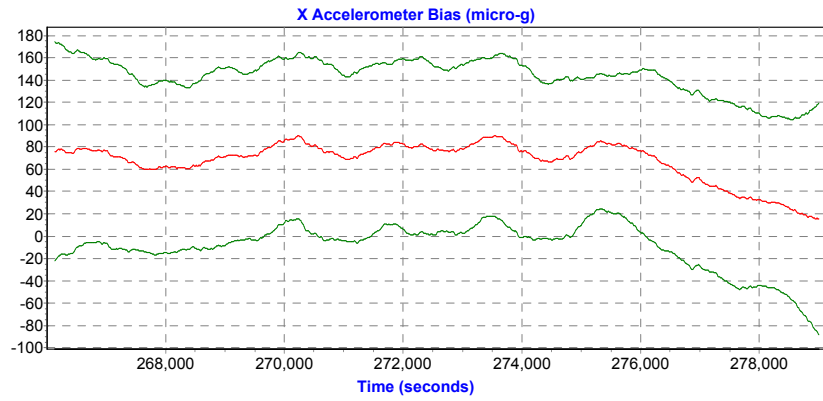


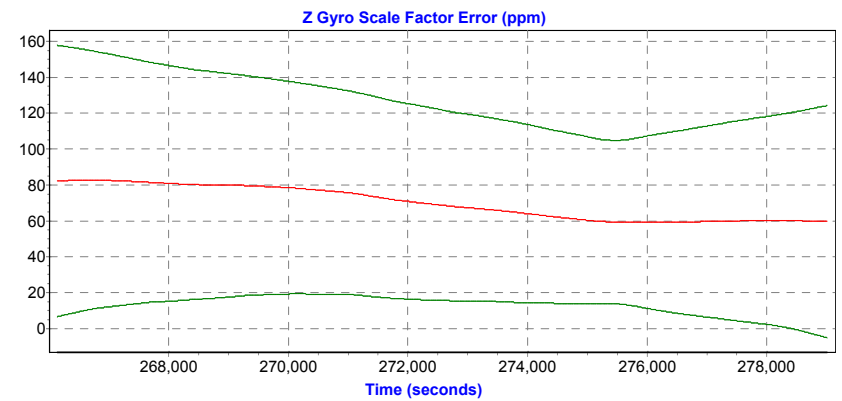
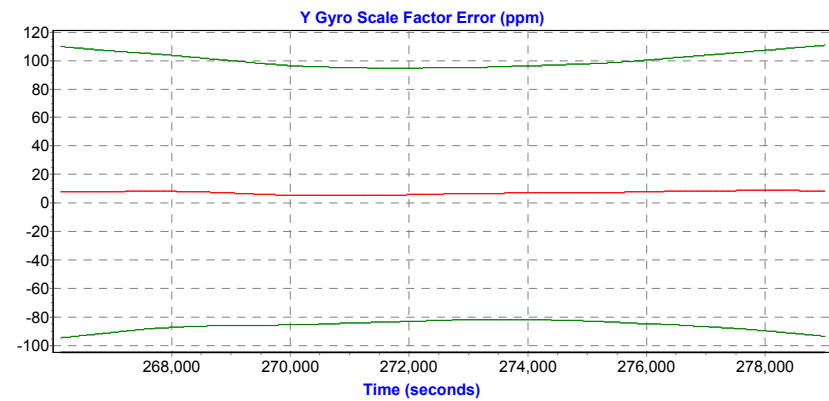
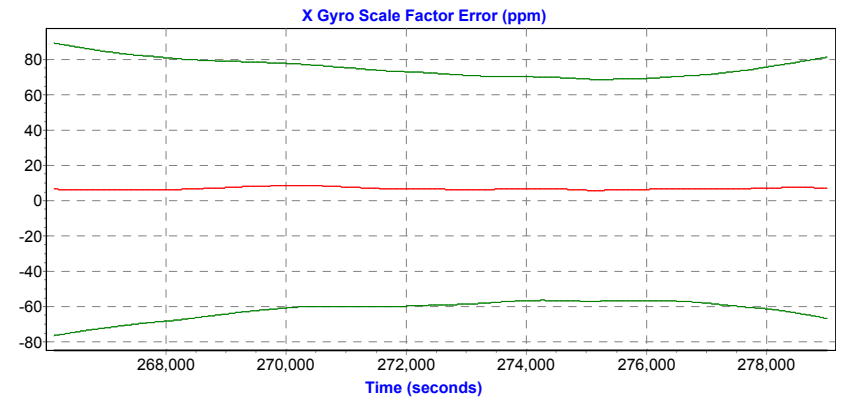
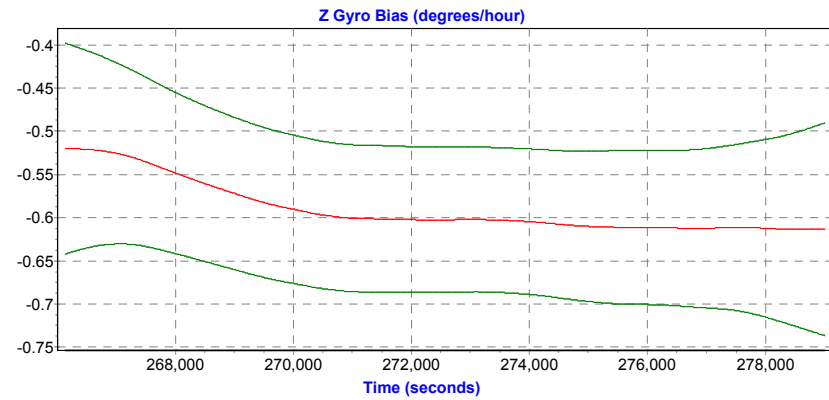
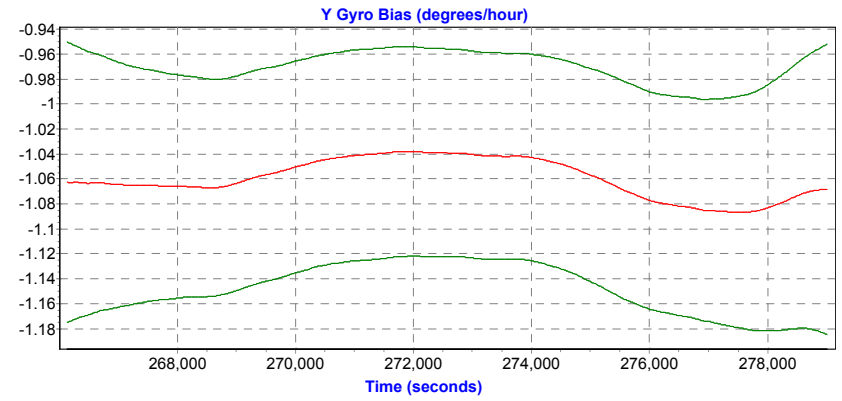
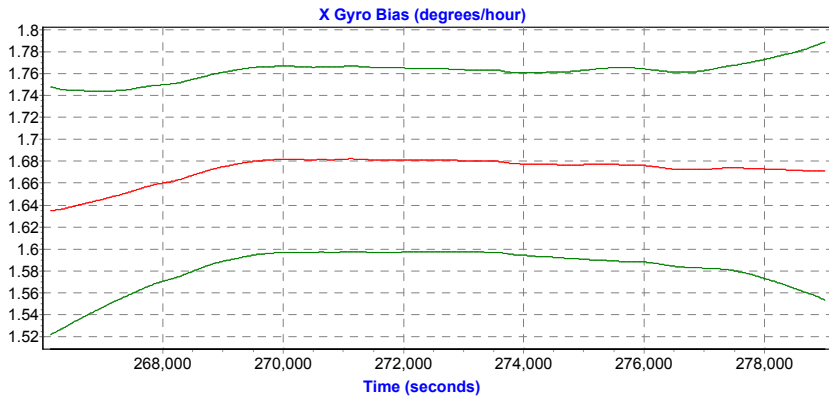






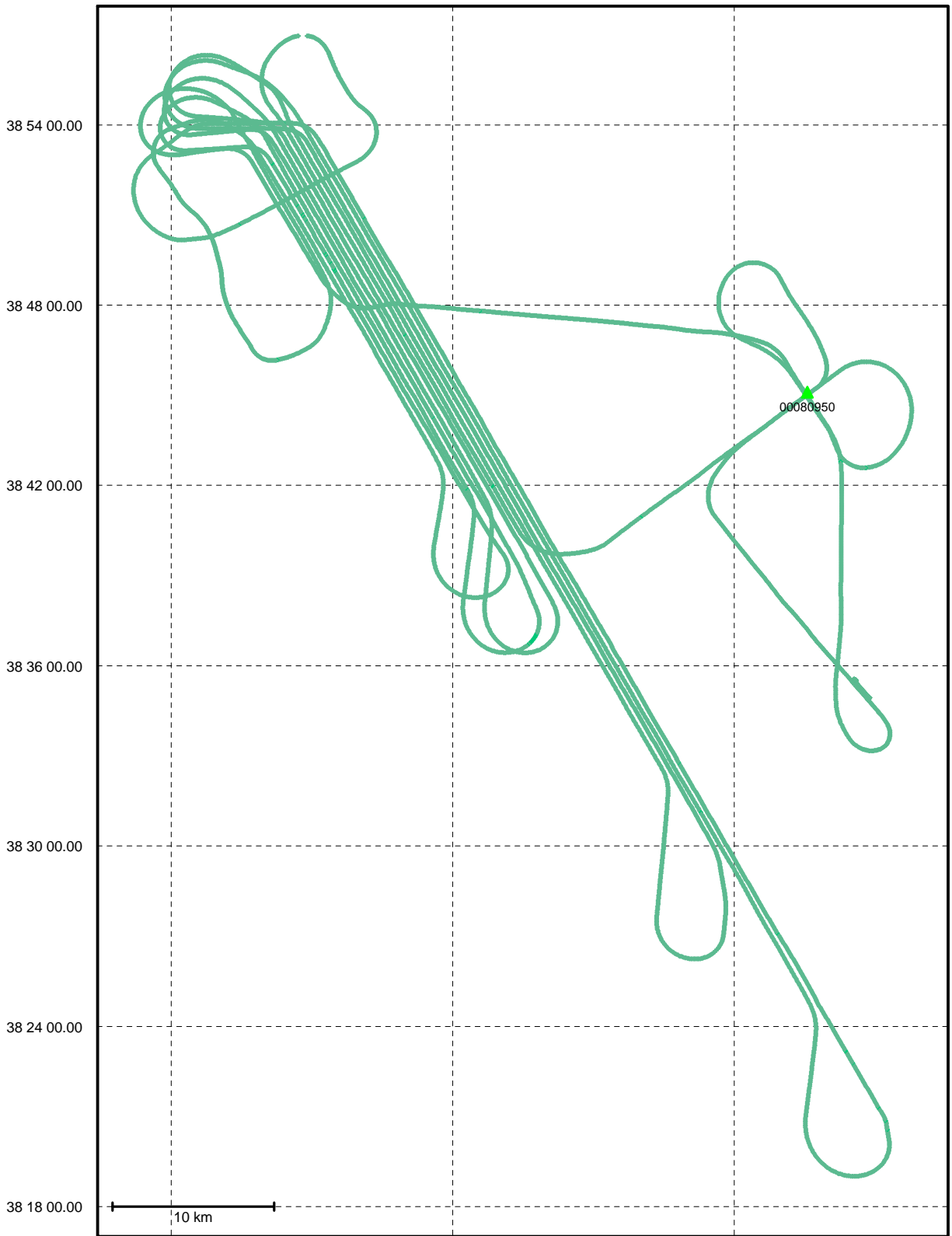






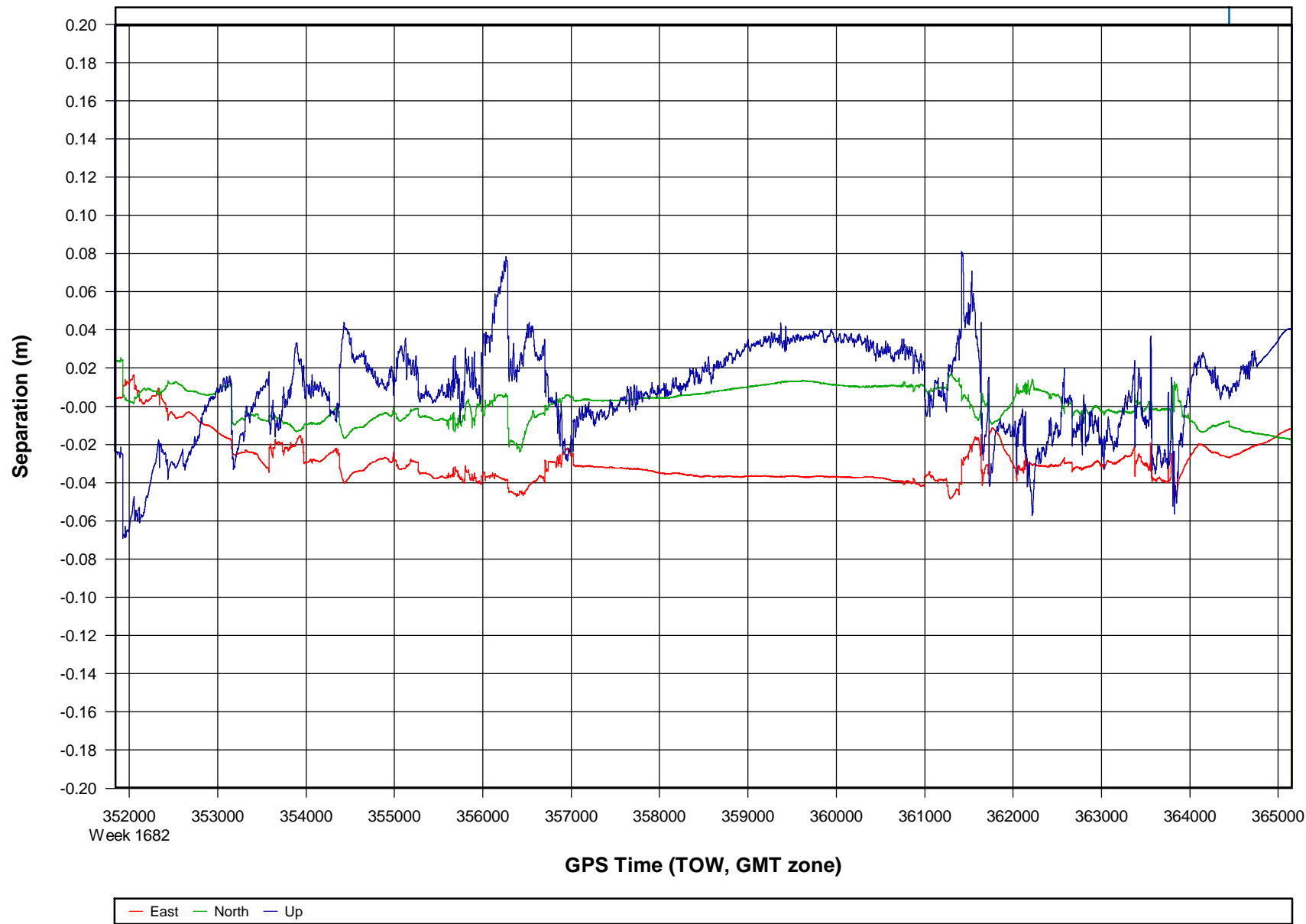
### Combined - Map Run (7)

Geographic, DMS

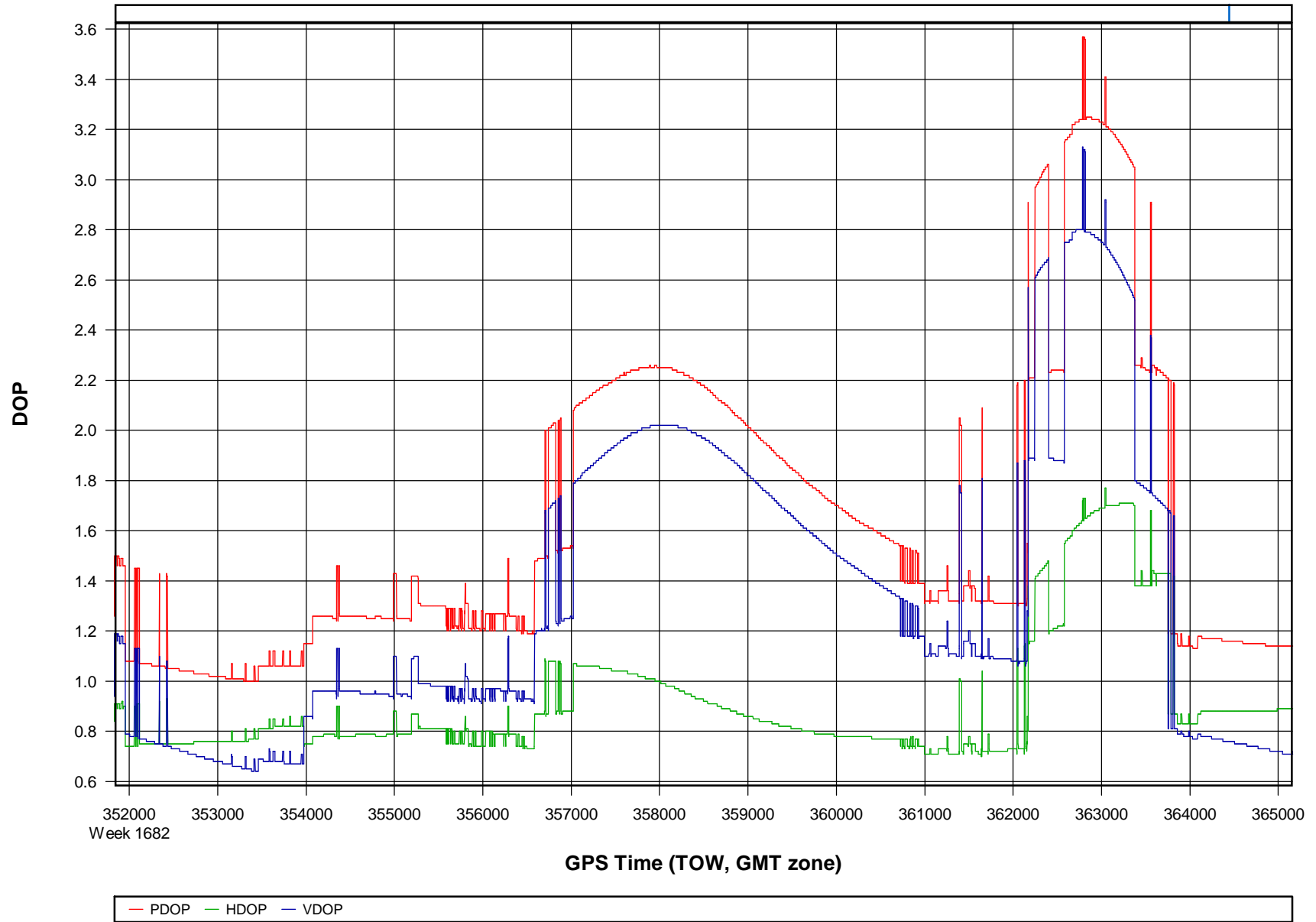


+ Ukn	+ Q1	+ Q2	+ Q3	+ Q4	+ Q5	+ Q6	▲ Master
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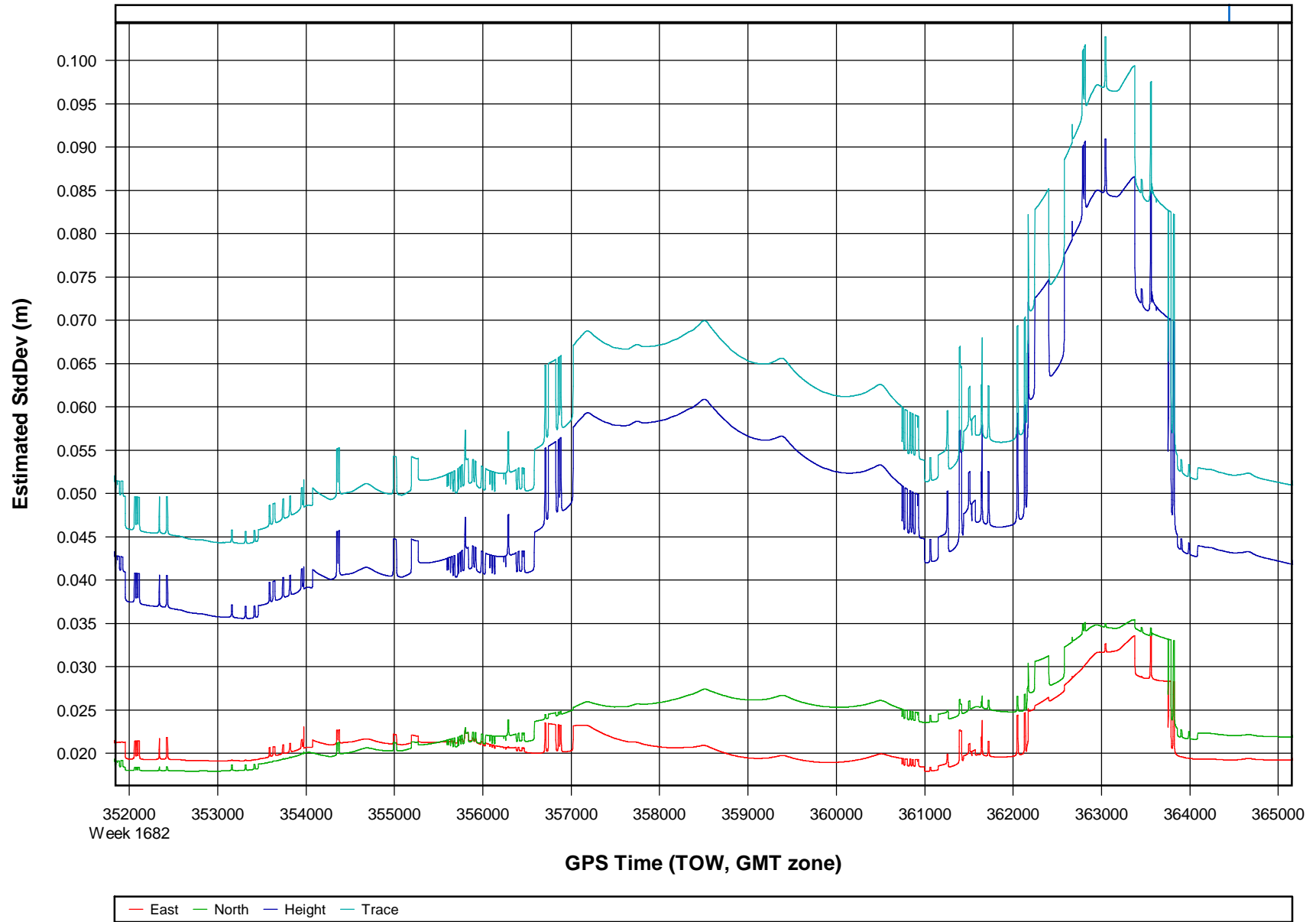
**o212095a [Combined] - Forward/Reverse or Combined Separation Plot**



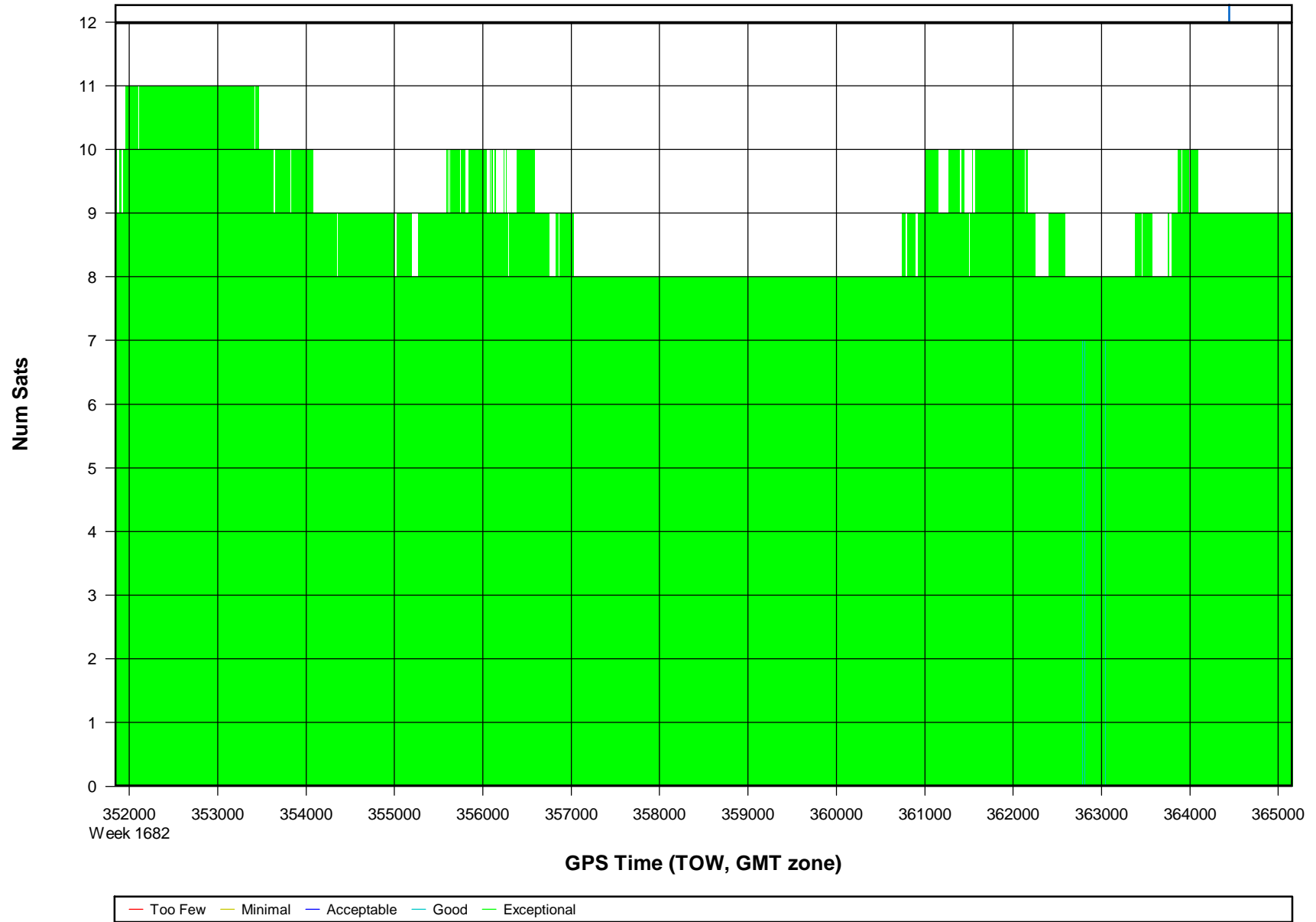
### o212095a [Combined] - PDOP, HDOP, VDOP Plots



### o212095a [Combined] - Estimated Position Accuracy Plot



### o212095a [Combined] - Number of Satellites Bar Plot





## Processing Summary Information

Program: POSGNSS  
Version: 4.40.2710  
Project: G:\o212095a\3\_Processed\GPS\o212095a.gnv

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 133441  
No processed position: 120109  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0240 (m)  
C/A Code: 1.10 (m)  
L1 Doppler: 0.032 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.031 (m)  
North: 0.009 (m)  
Height: 0.026 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (13327 occurrences):  
East: 0.031 (m)  
North: 0.009 (m)  
Height: 0.025 (m)

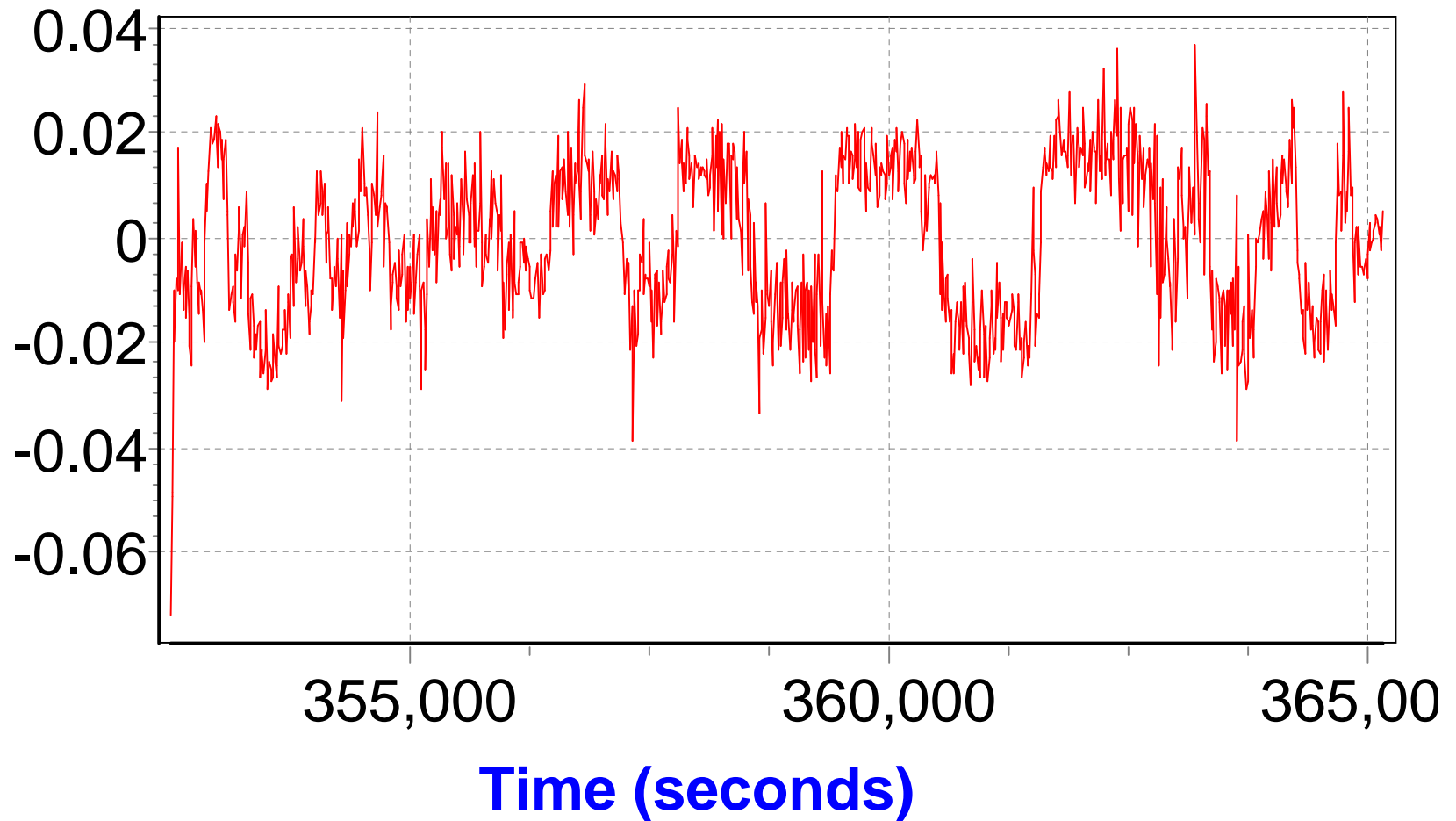
Quality Number Percentages:  
Q 1: 99.6 %  
Q 2: 0.4 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:  
0.00 - 0.10 m: 99.7 %  
0.10 - 0.30 m: 0.3 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

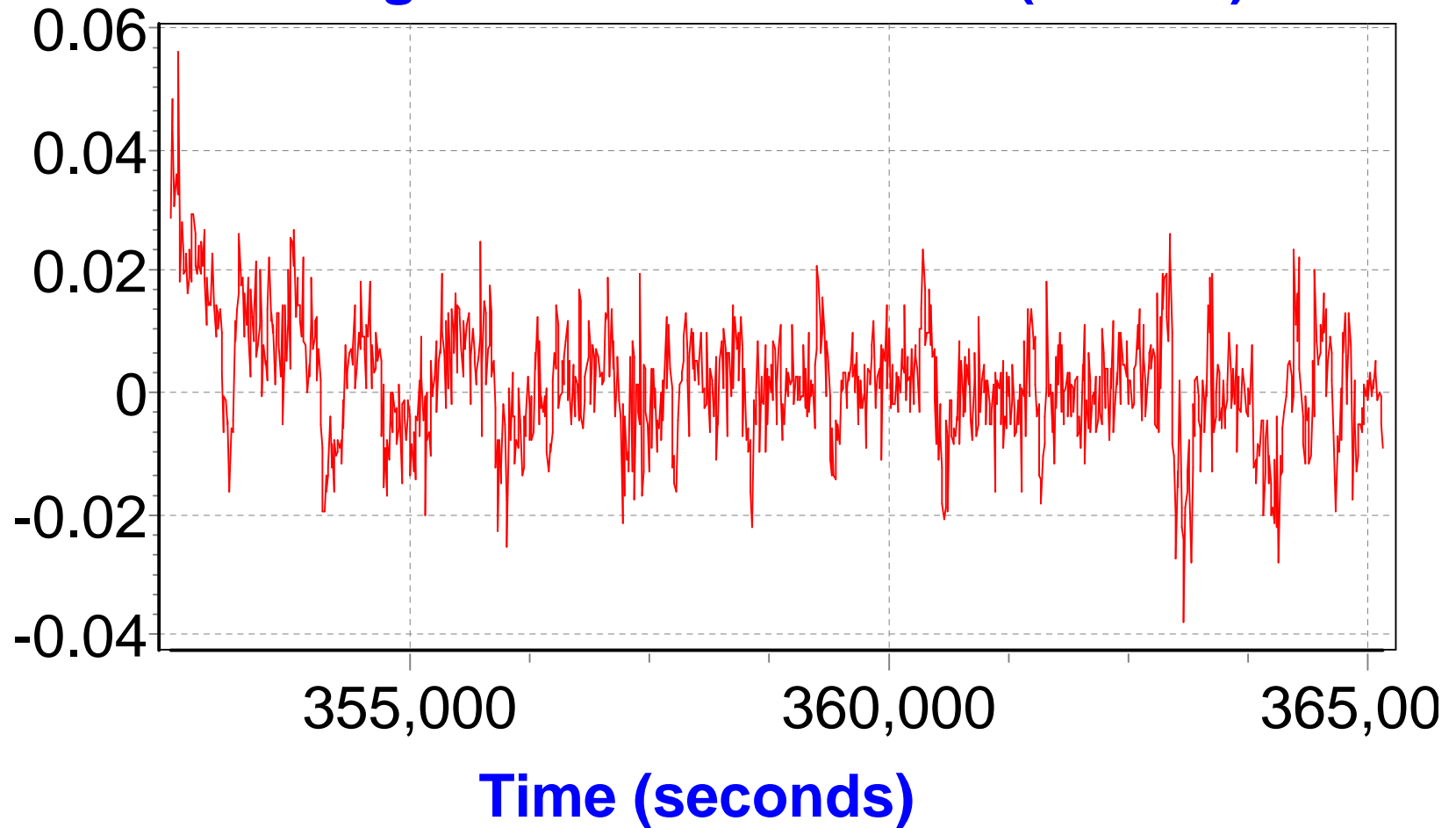
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

Baseline Distances:  
Maximum: 48.398 (km)  
Minimum: 0.953 (km)  
Average: 25.861 (km)  
First Epoch: 17.979 (km)  
Last Epoch: 17.968 (km)

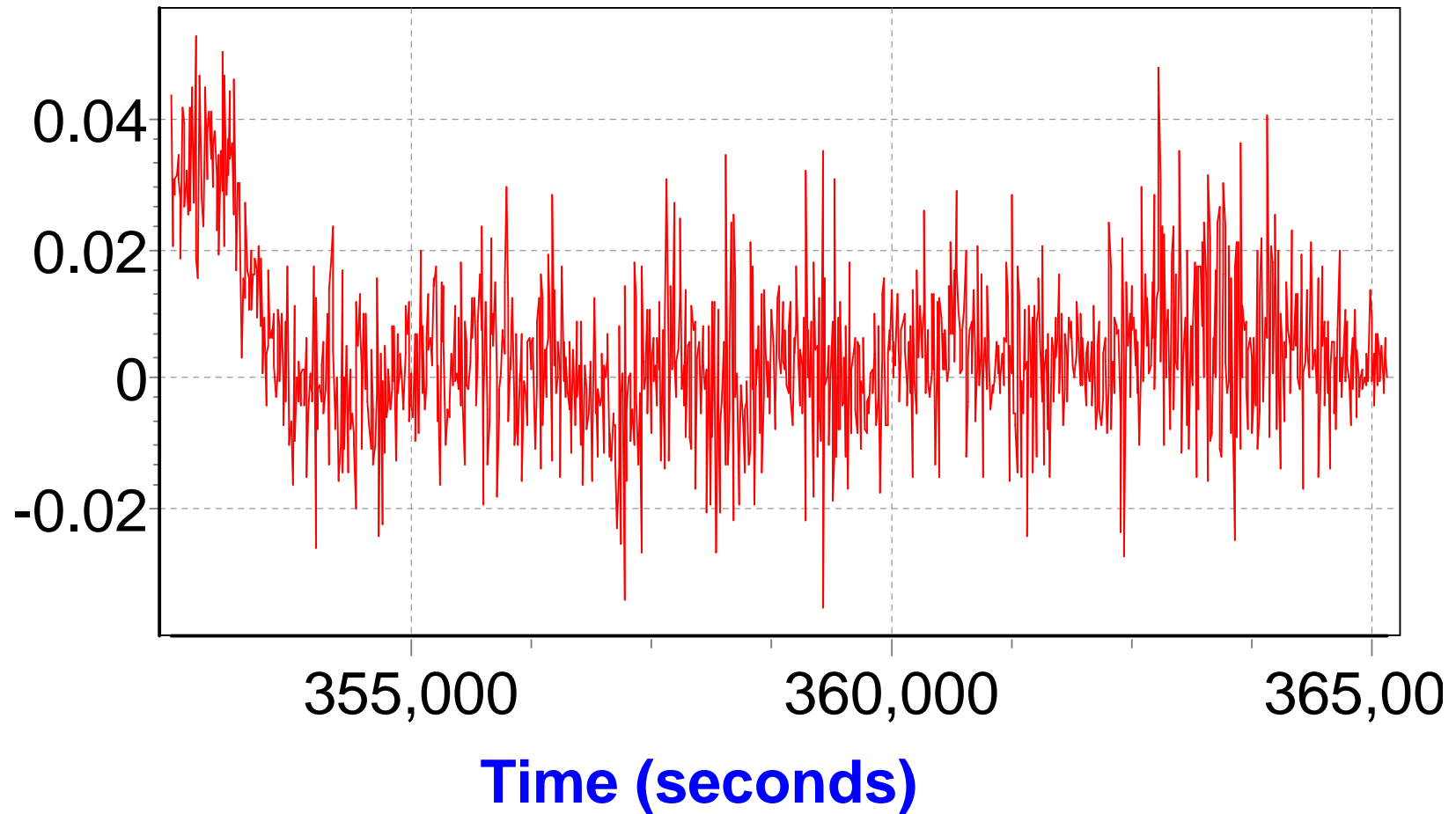
## S/D Navigator X Position Error (meters)



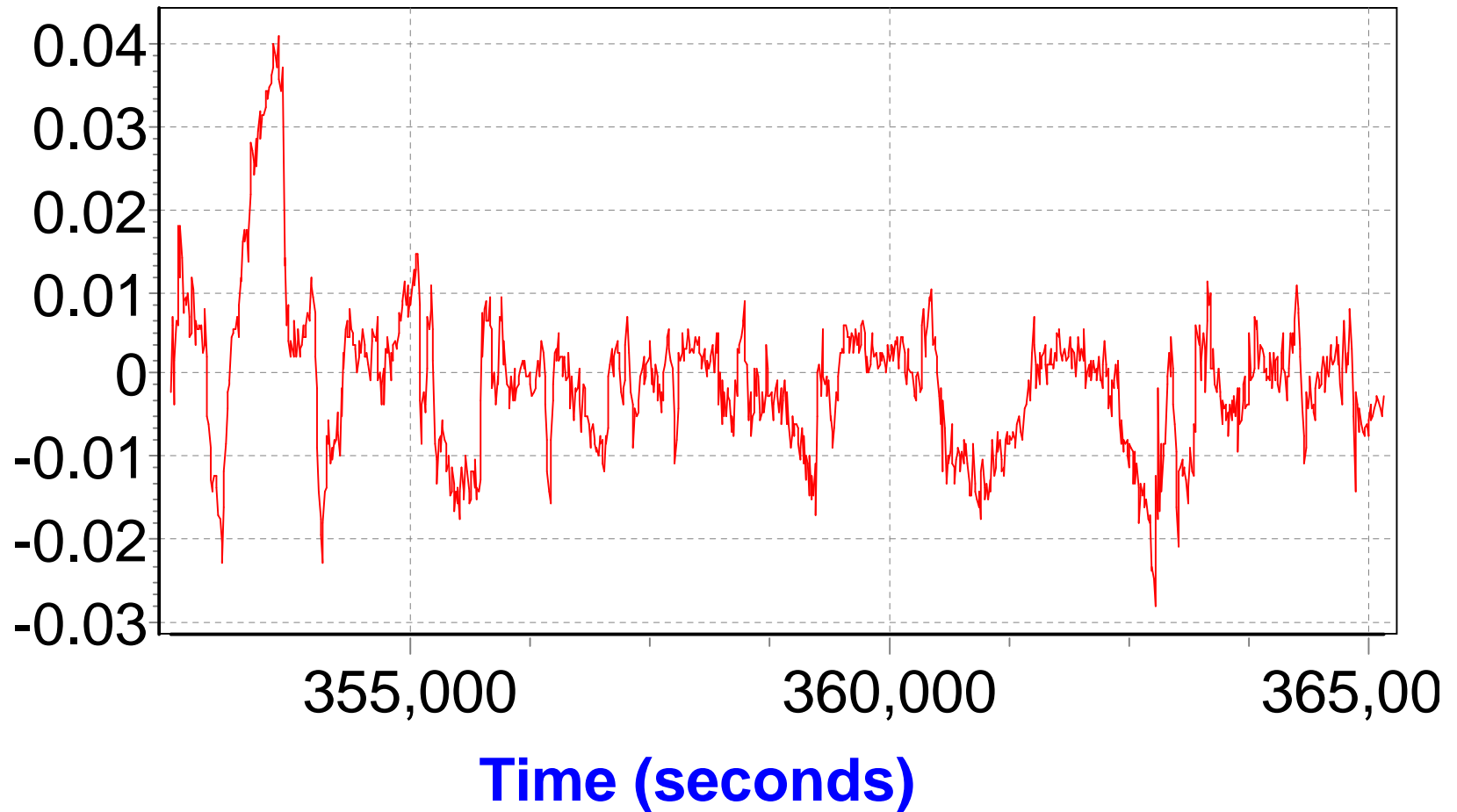
## S/D Navigator Y Position Error (meters)



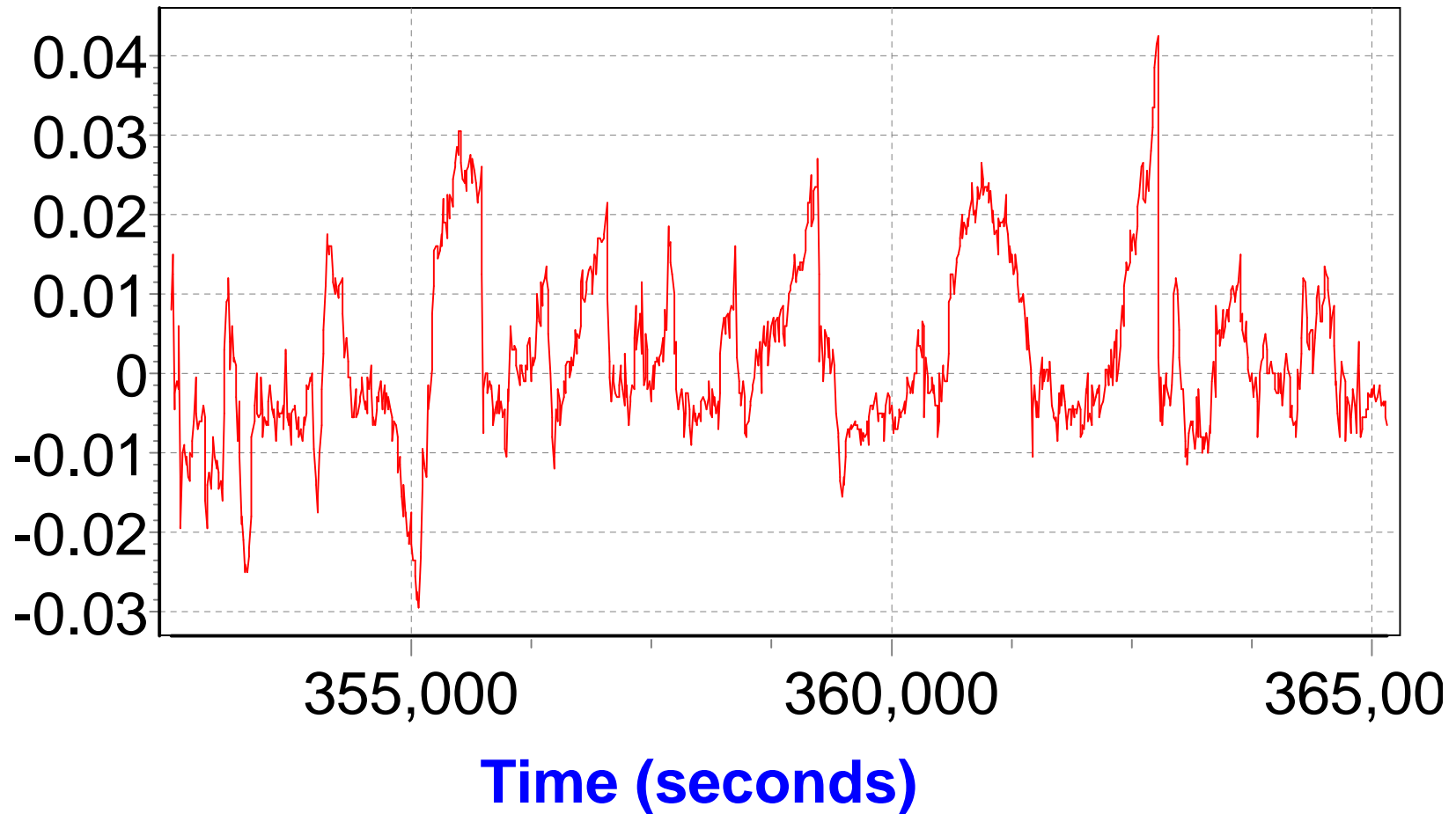
## S/D Navigator Z Position Error (meters)



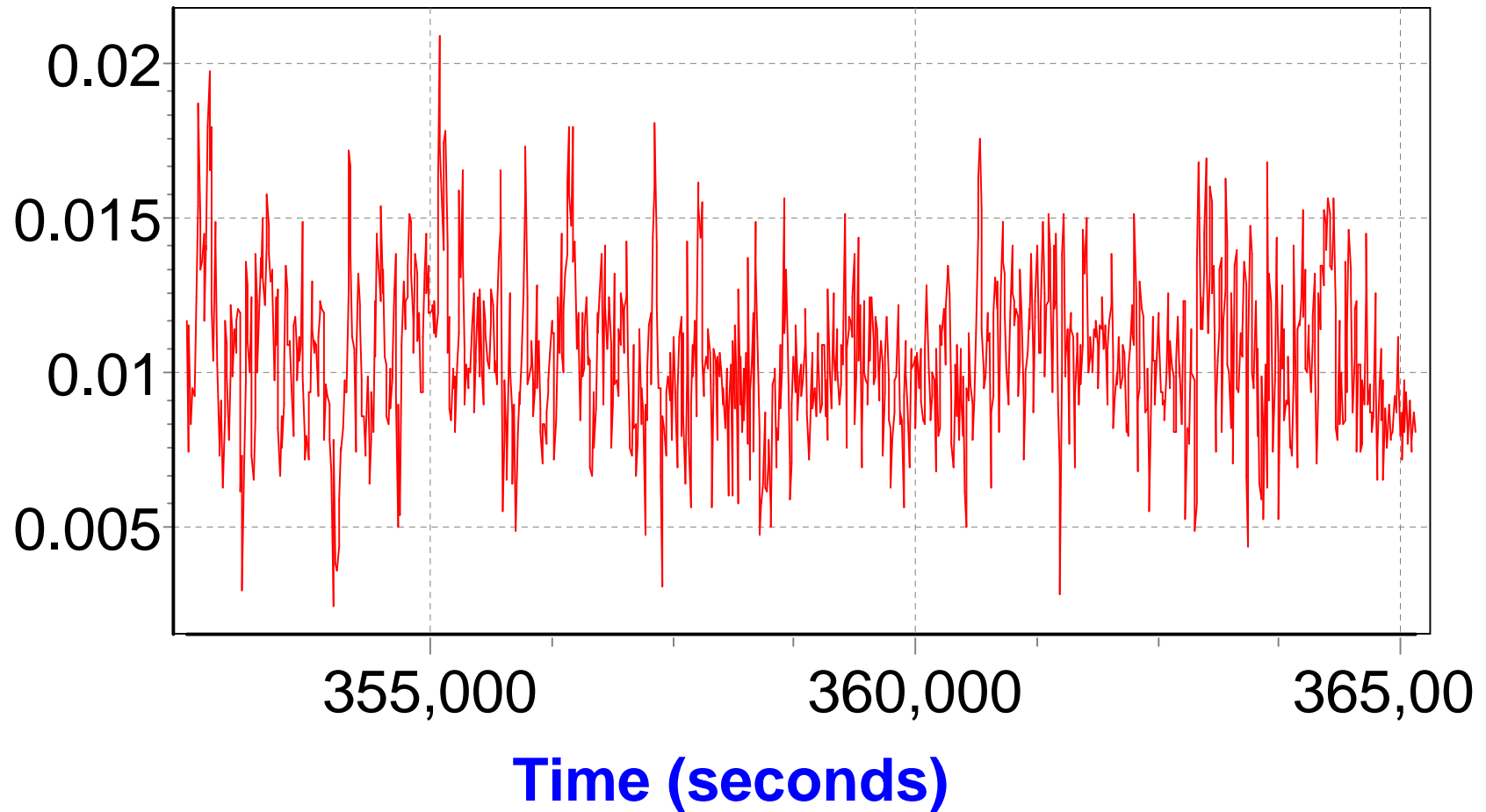
## S/D Navigator X Velocity Error (meters/seconds)



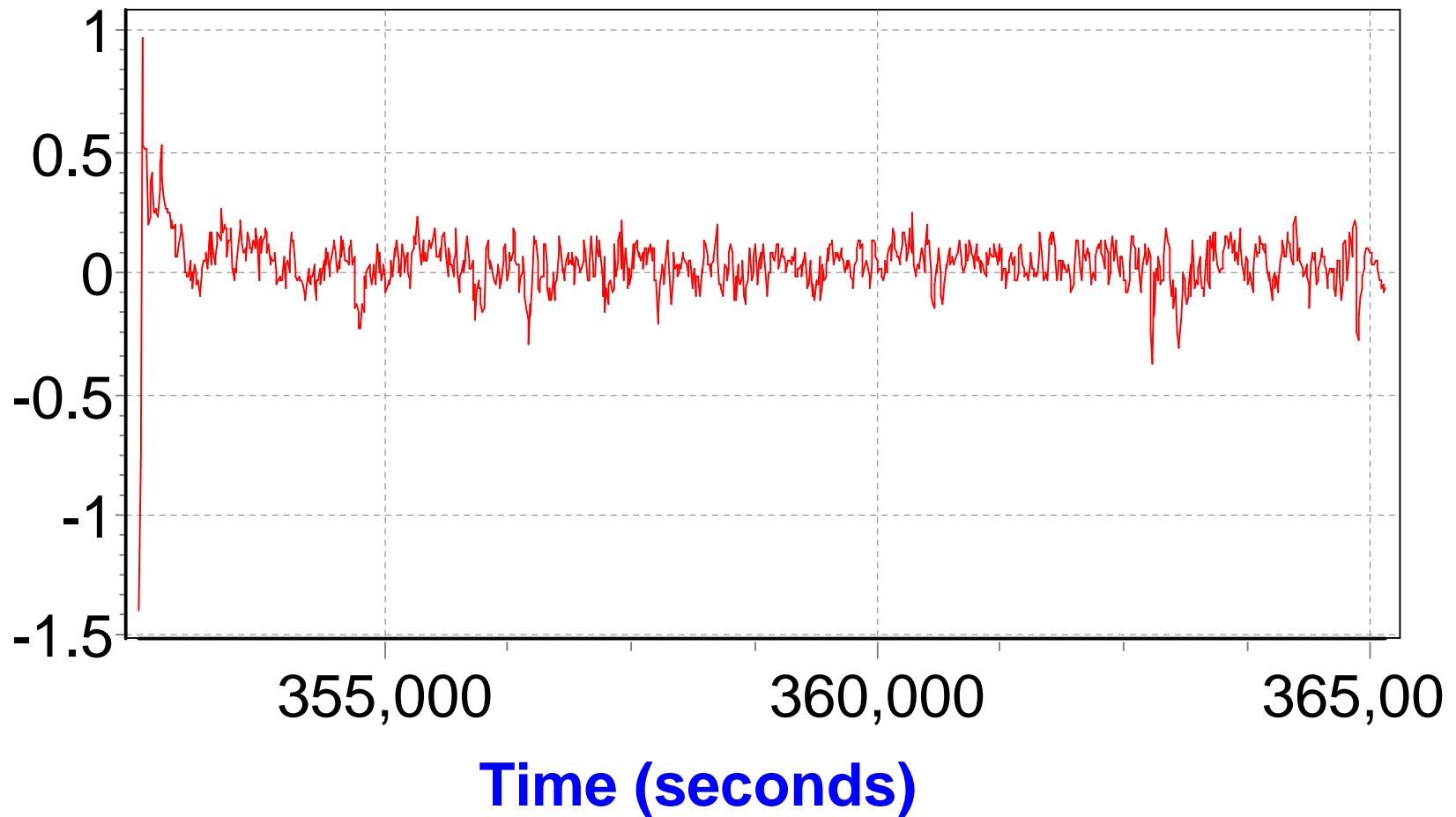
## S/D Navigator Y Velocity Error (meters/seconds)



## S/D Navigator Z Velocity Error (meters/seconds)

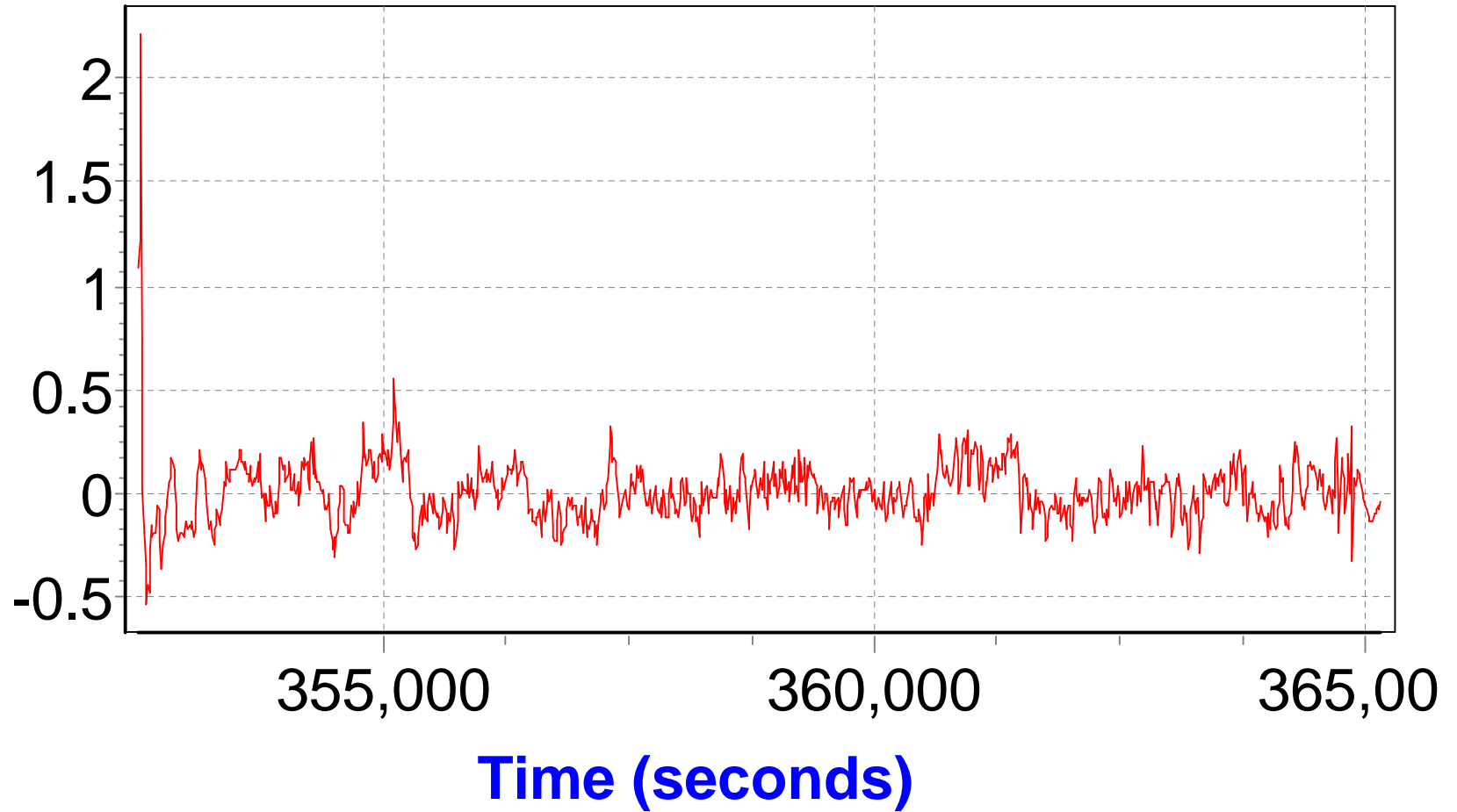


## S/D Navigator X Misalignment (arcmin)

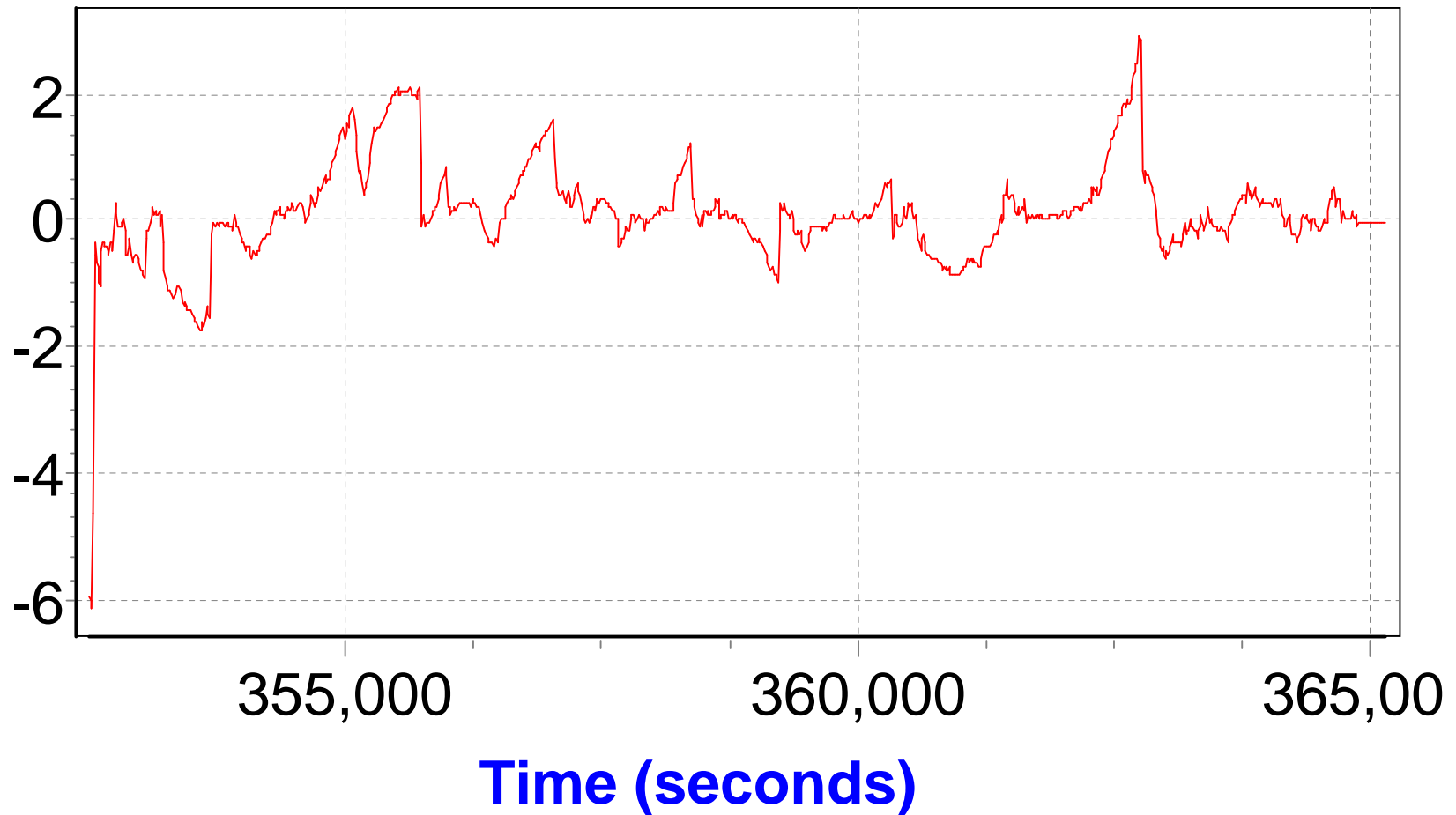




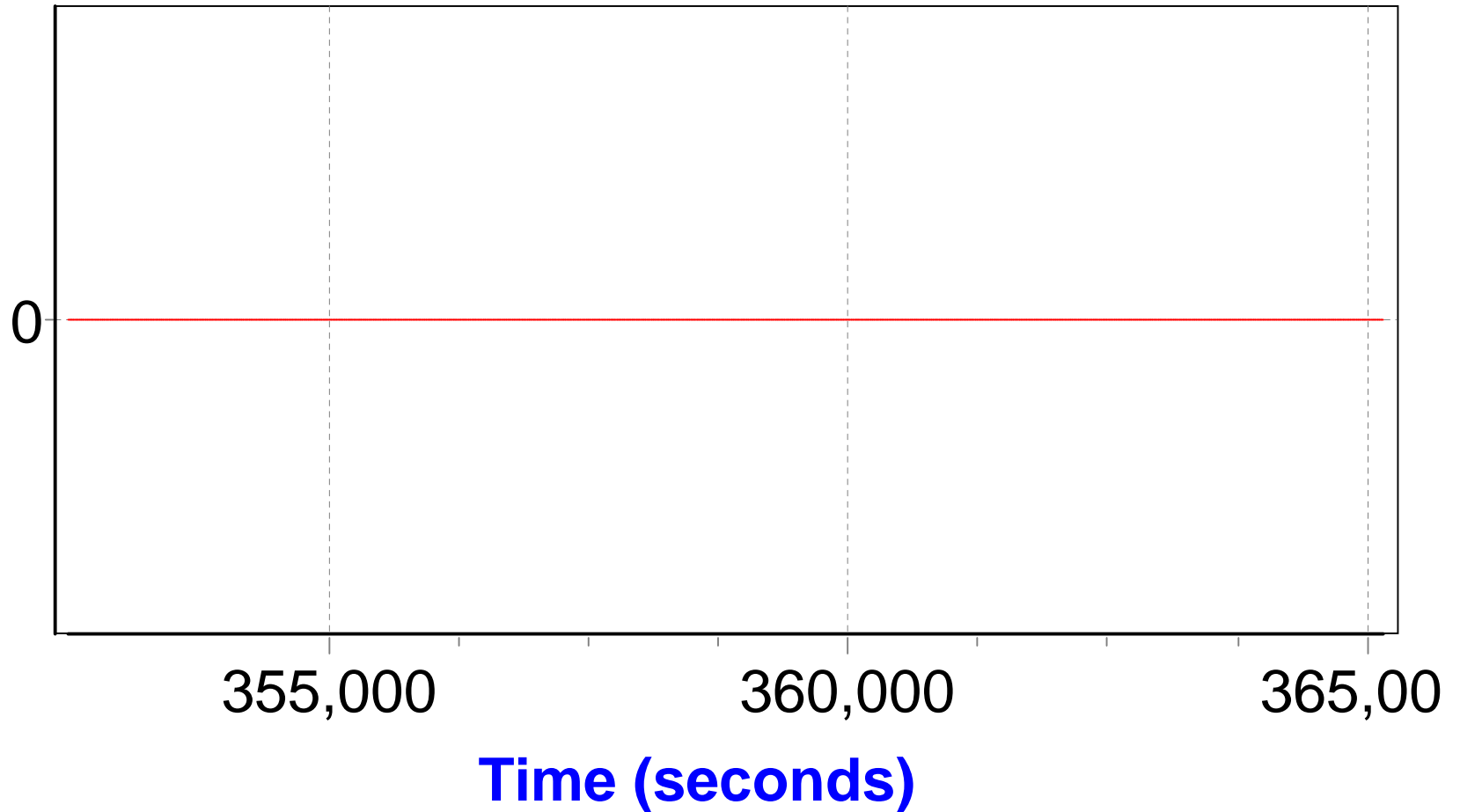
## S/D Navigator Y Misalignment (arcmin)



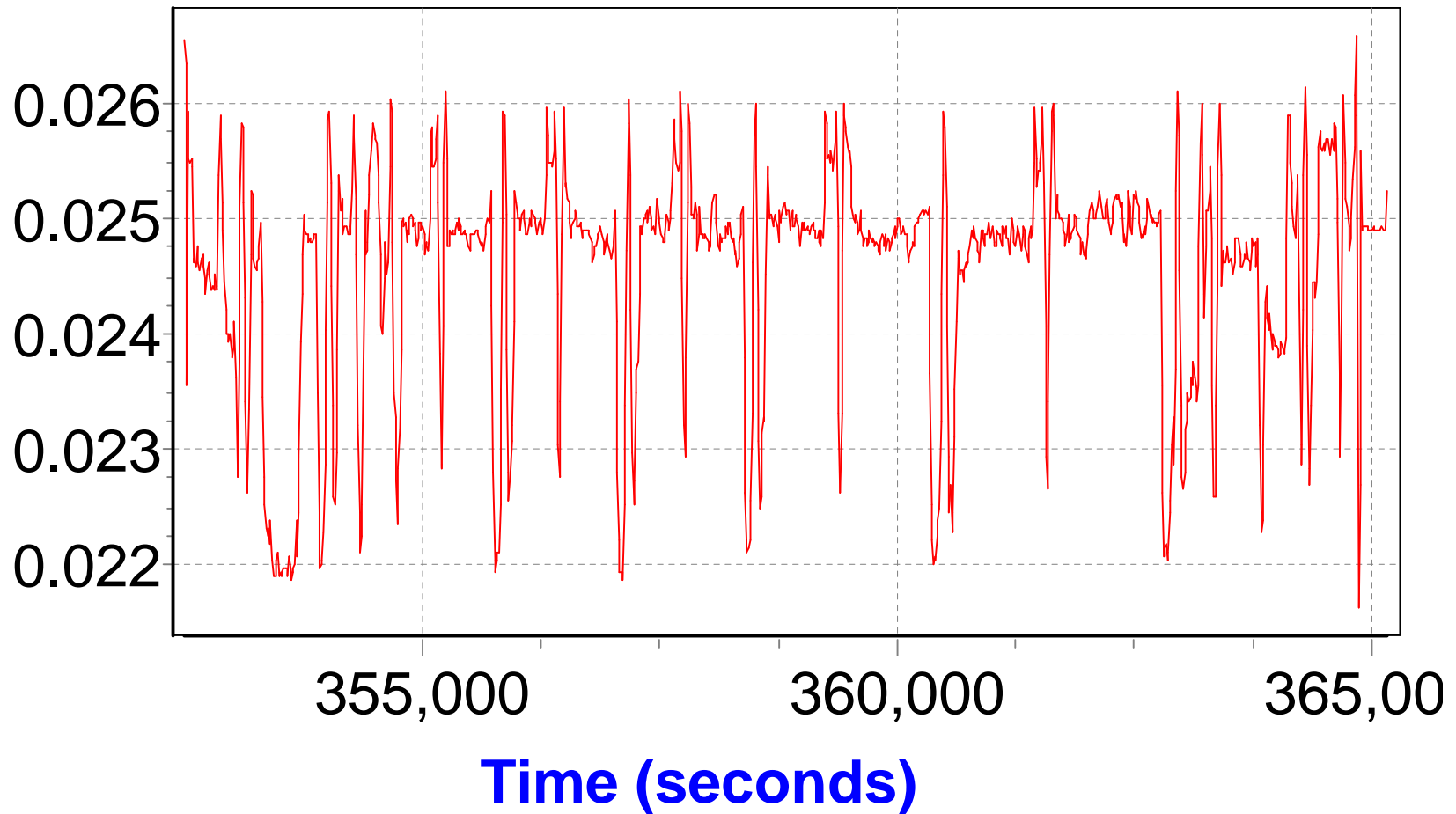
## S/D Navigator Z Misalignment (arcmin)



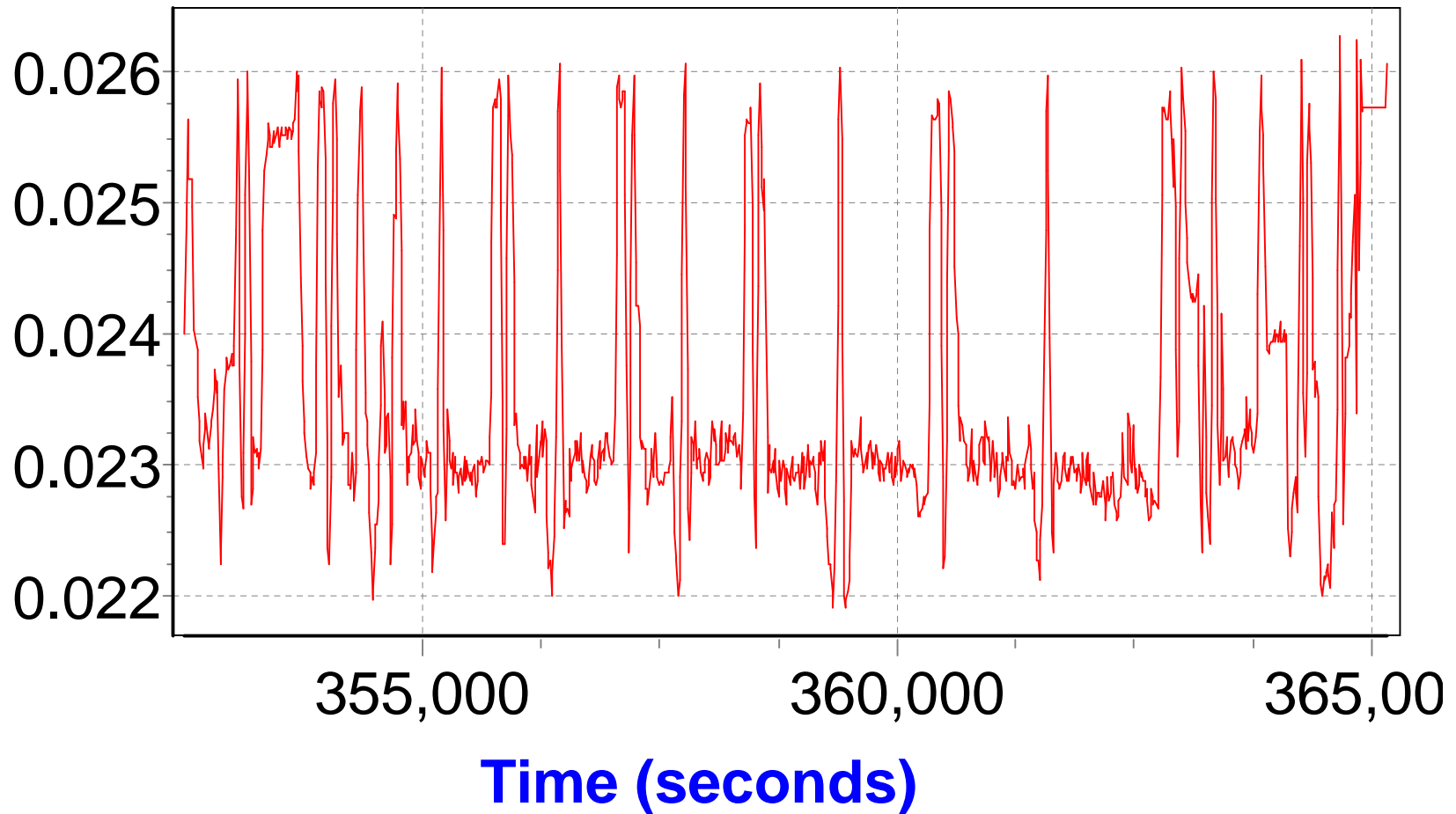
## S/D Navigator COS(Z Misalignment)-1 (radians)



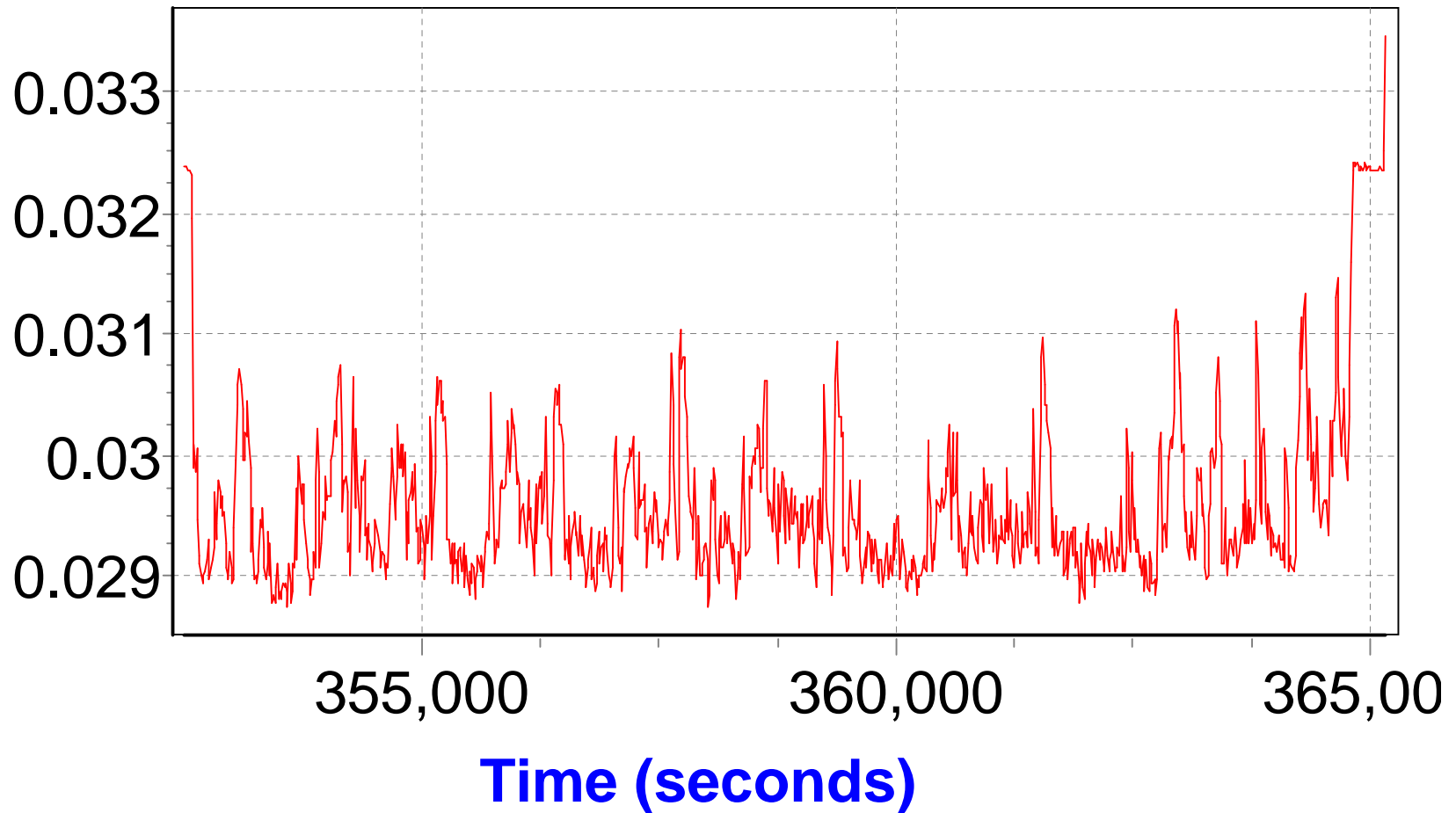
## S/D Navigator X Position RMS Error (meters)



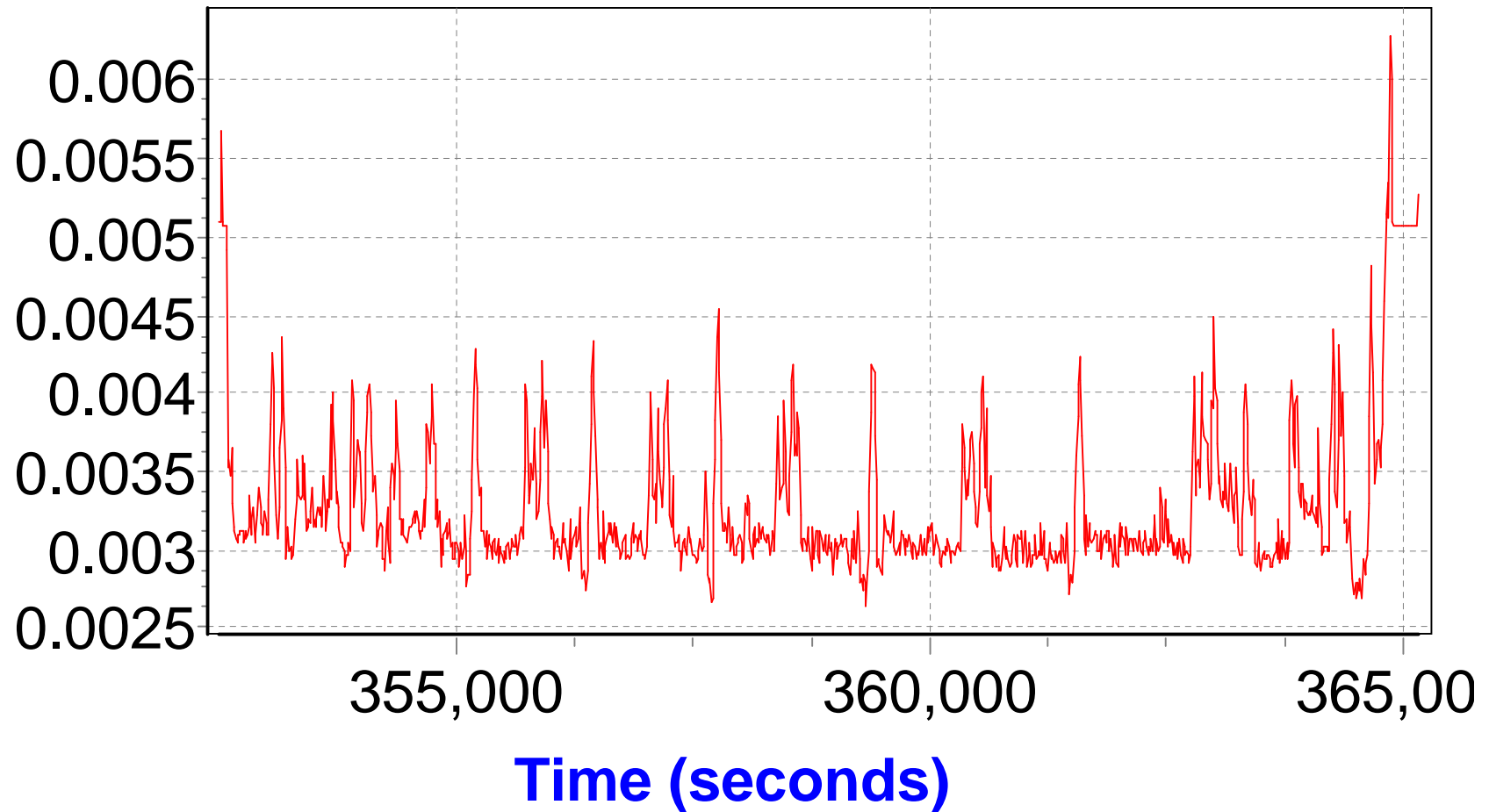
## S/D Navigator Y Position RMS Error (meters)



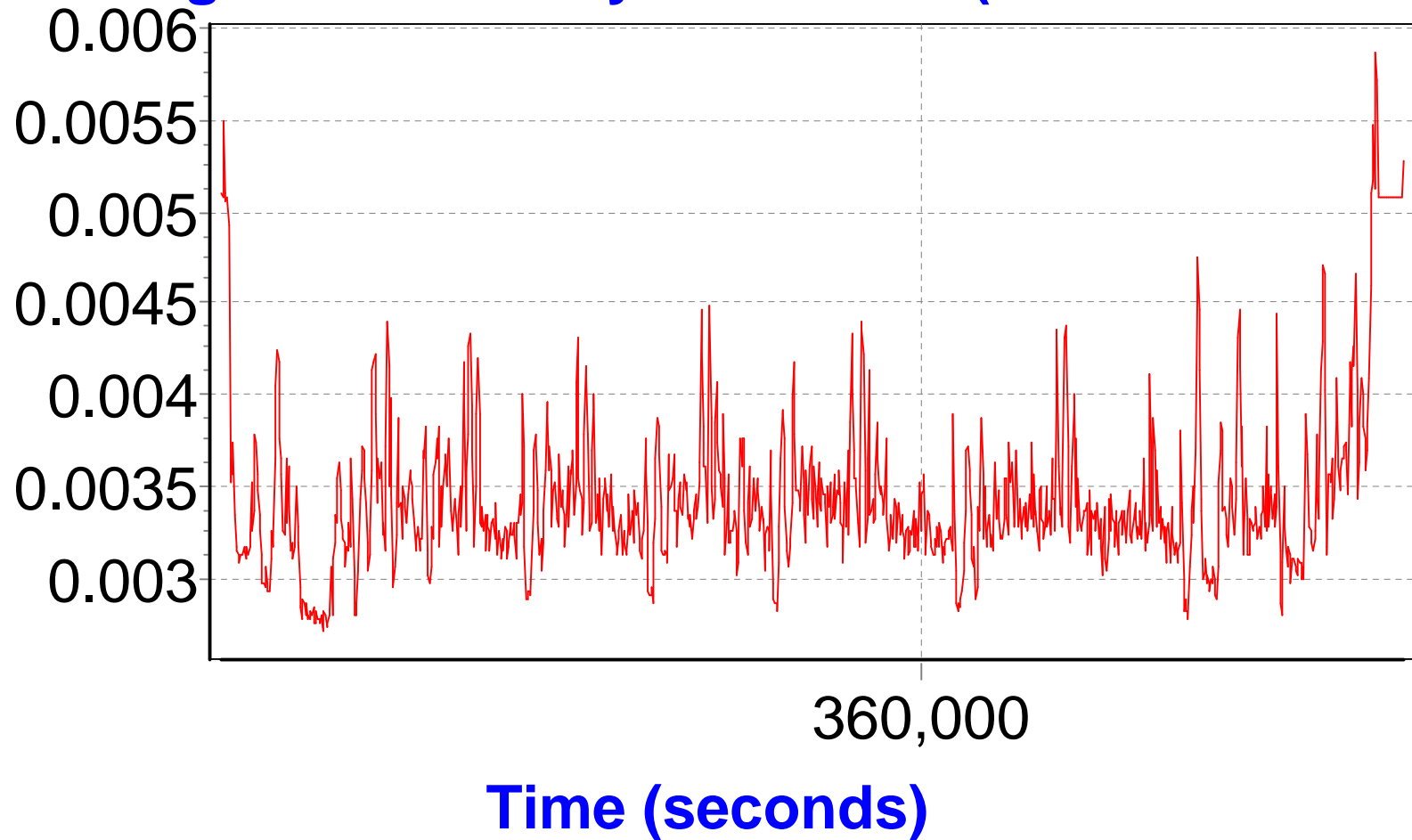
## S/D Navigator Z Position RMS Error (meters)



## S/D Navigator X Velocity RMS Error (meters/seconds)

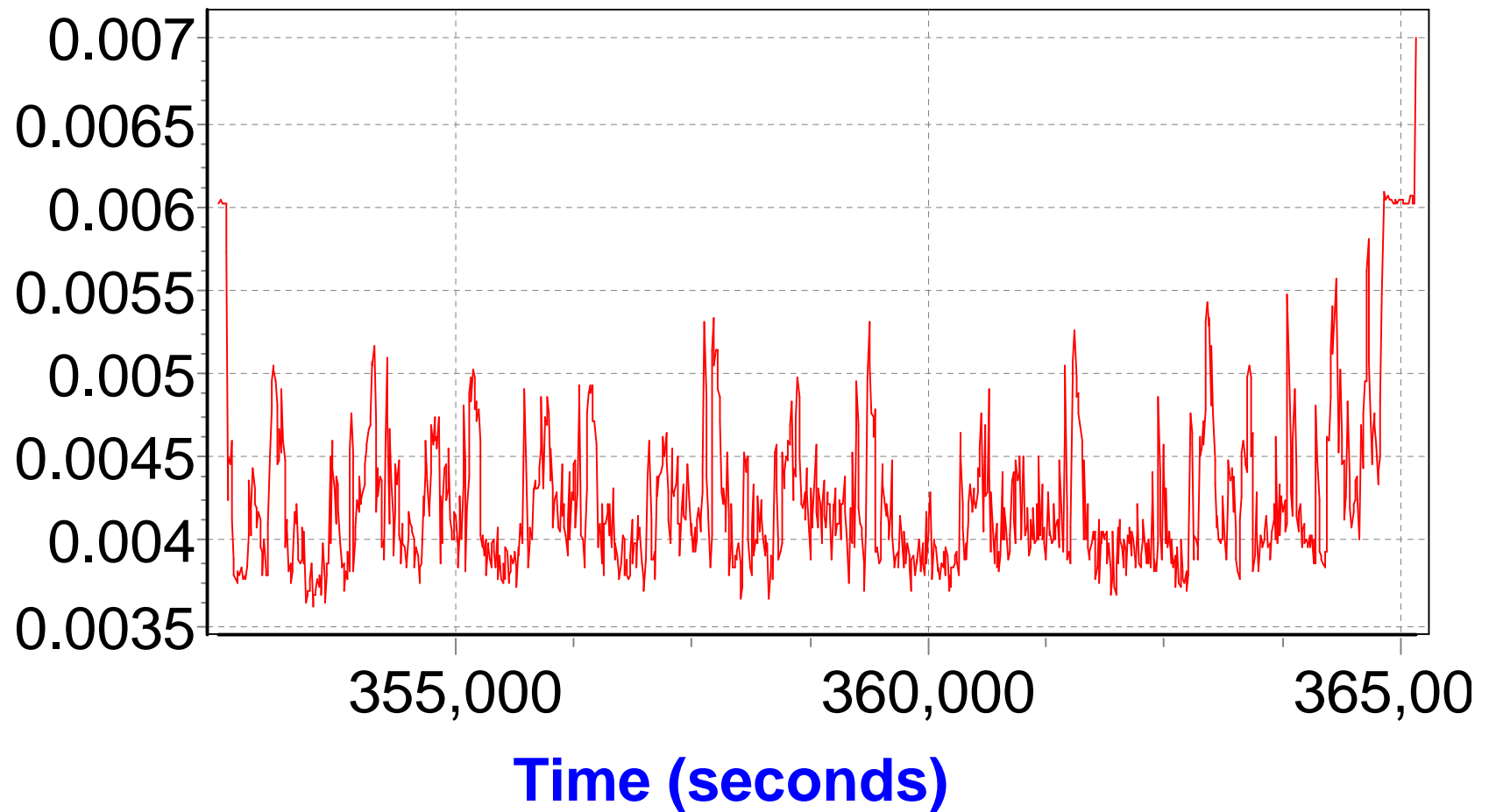


## S/D Navigator Y Velocity RMS Error (meters/seconds)

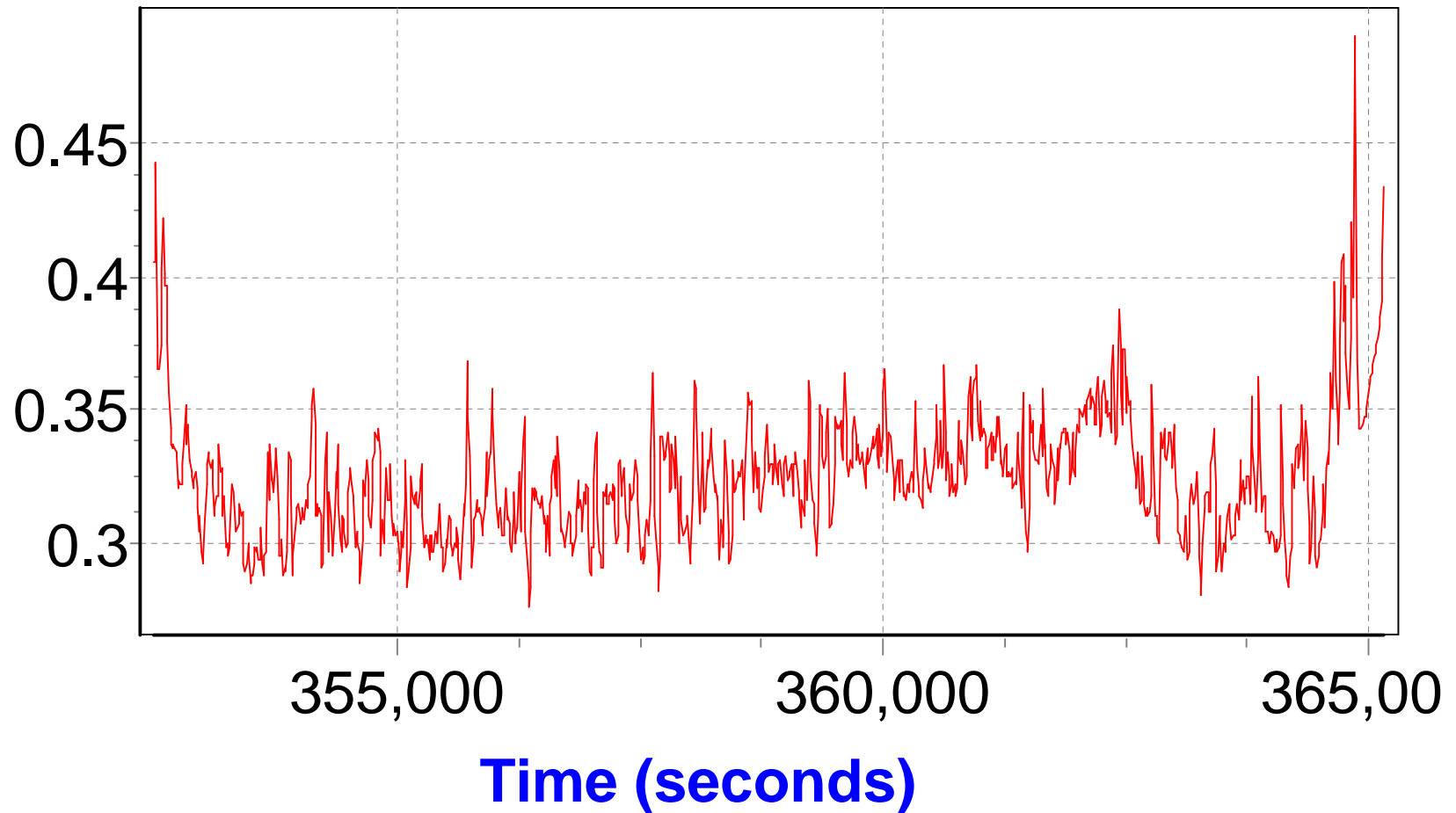




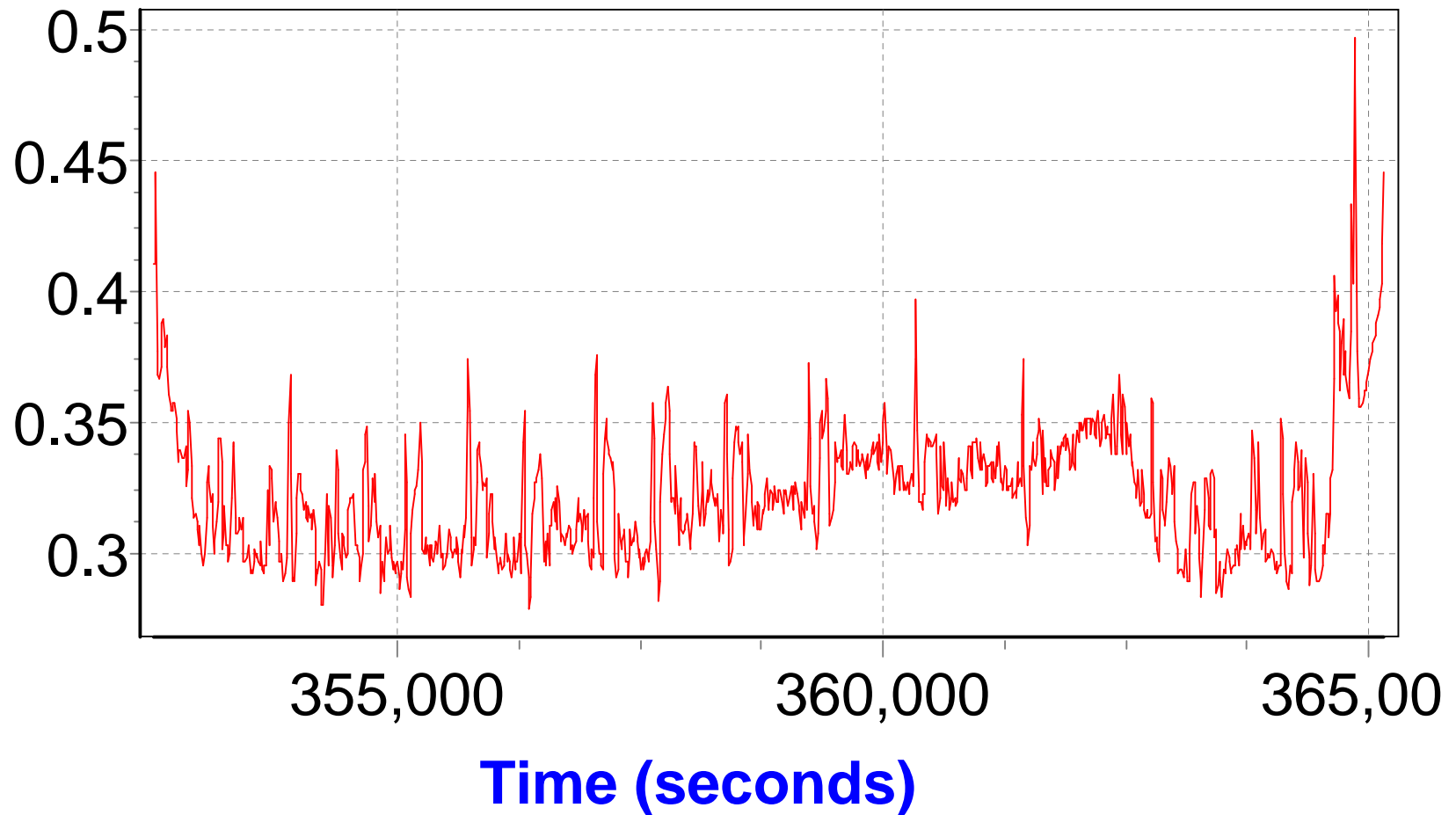
## S/D Navigator Z Velocity RMS Error (meters/seconds)



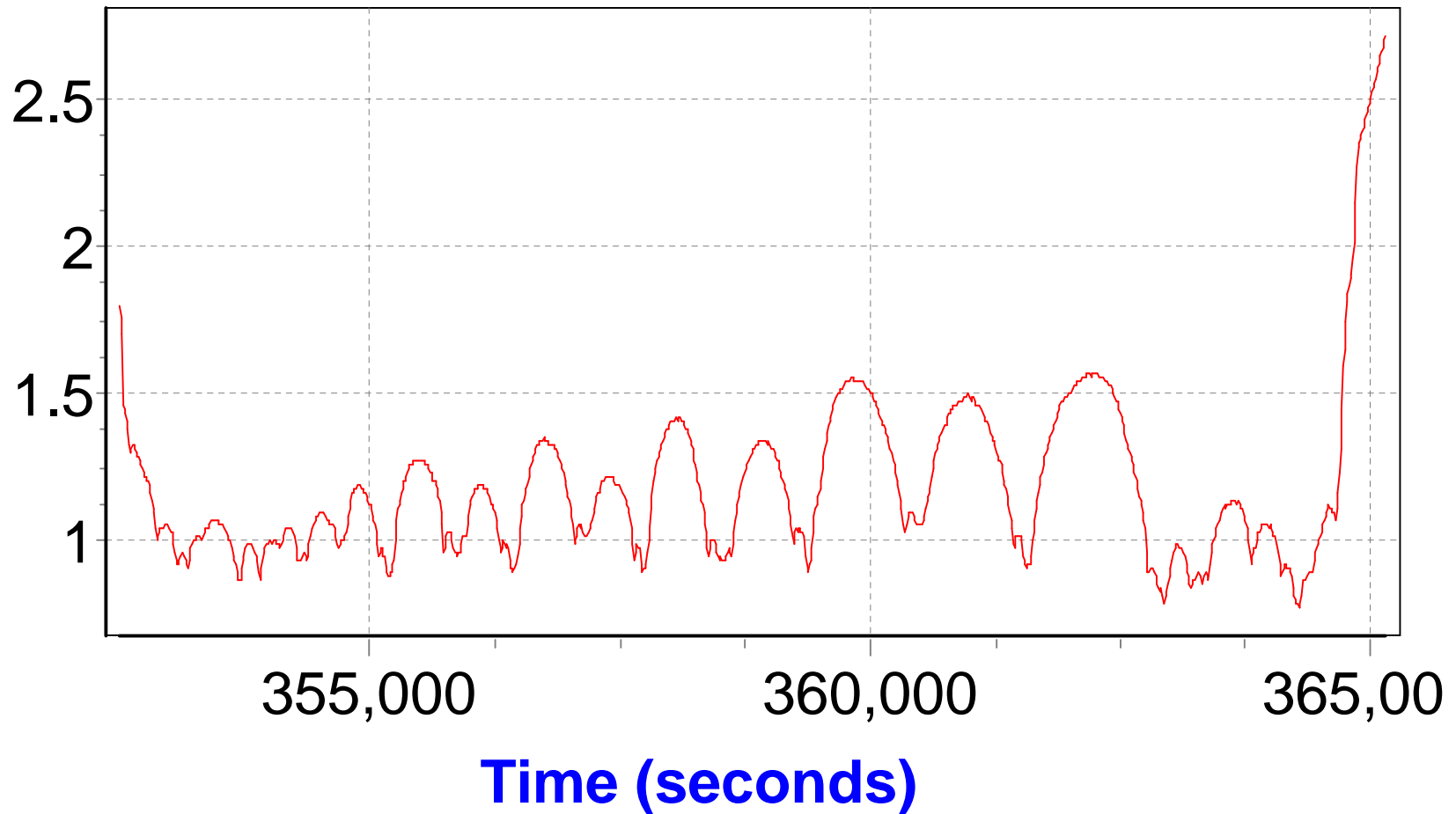
## S/D Navigator X Misalignment RMS (arcmin)



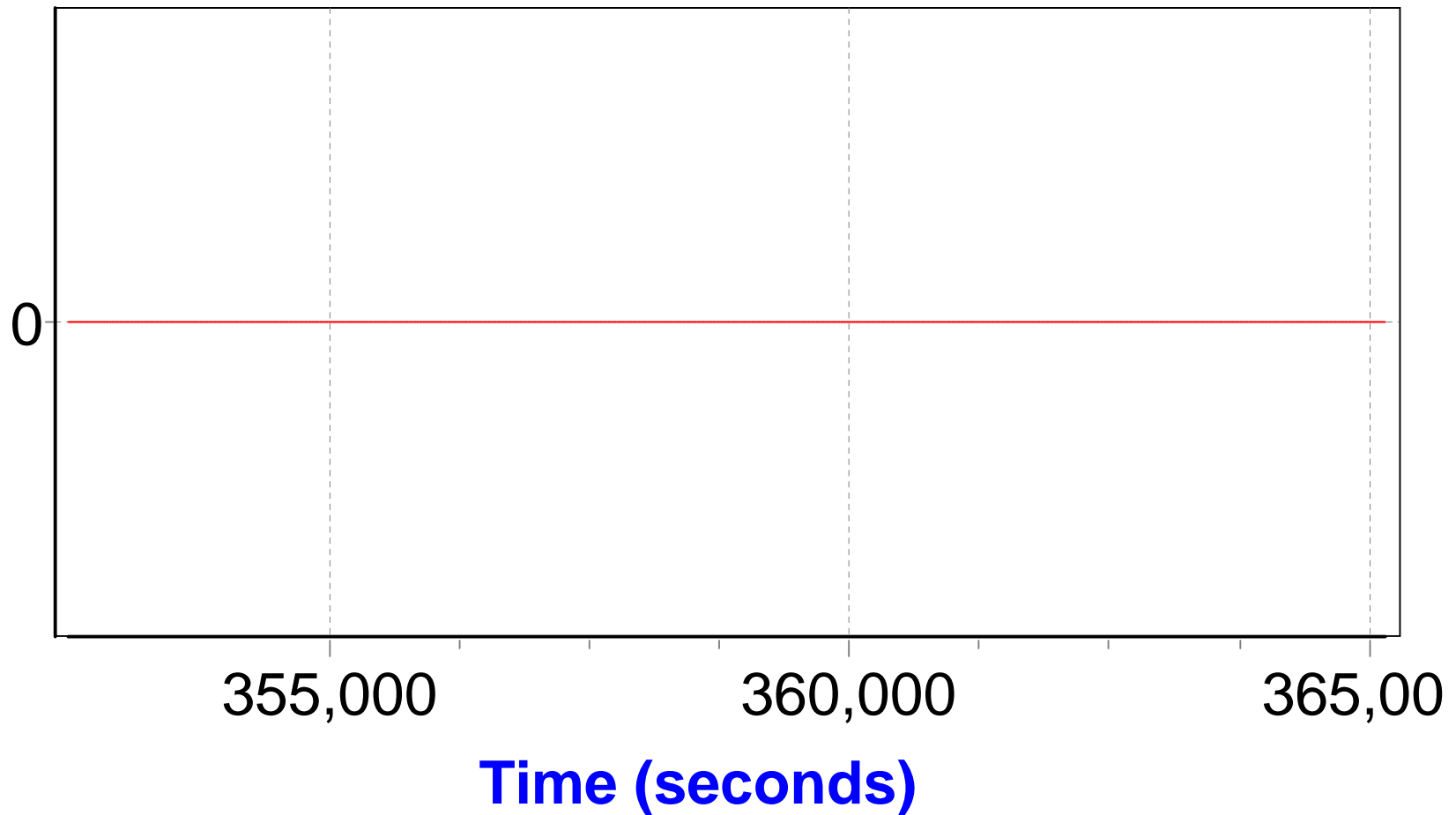
## S/D Navigator Y Misalignment RMS (arcmin)



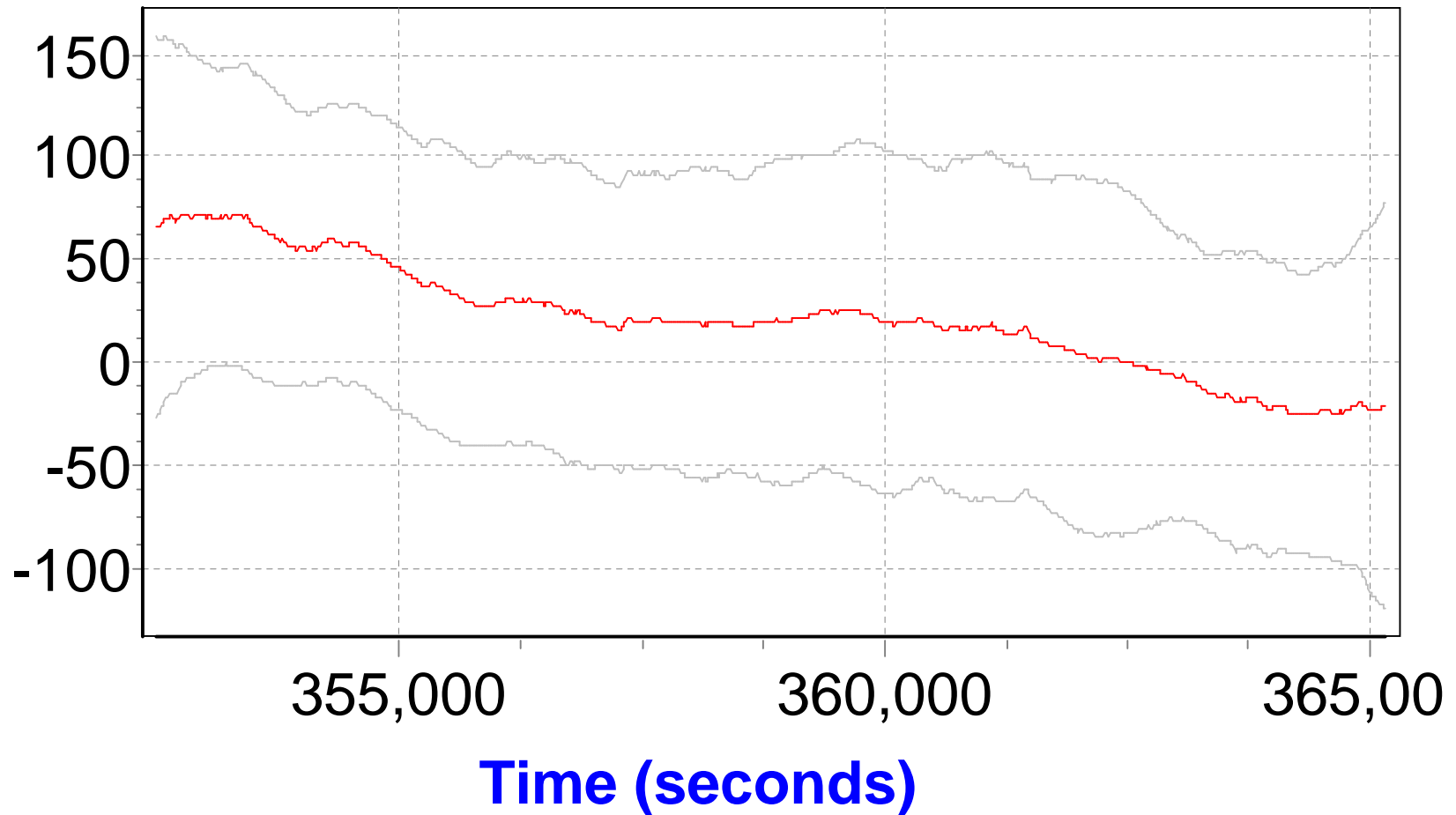
## S/D Navigator Z Misalignment RMS (arcmin)



## S/D Navigator COS(Z Misalignment)-1 RMS (radians)



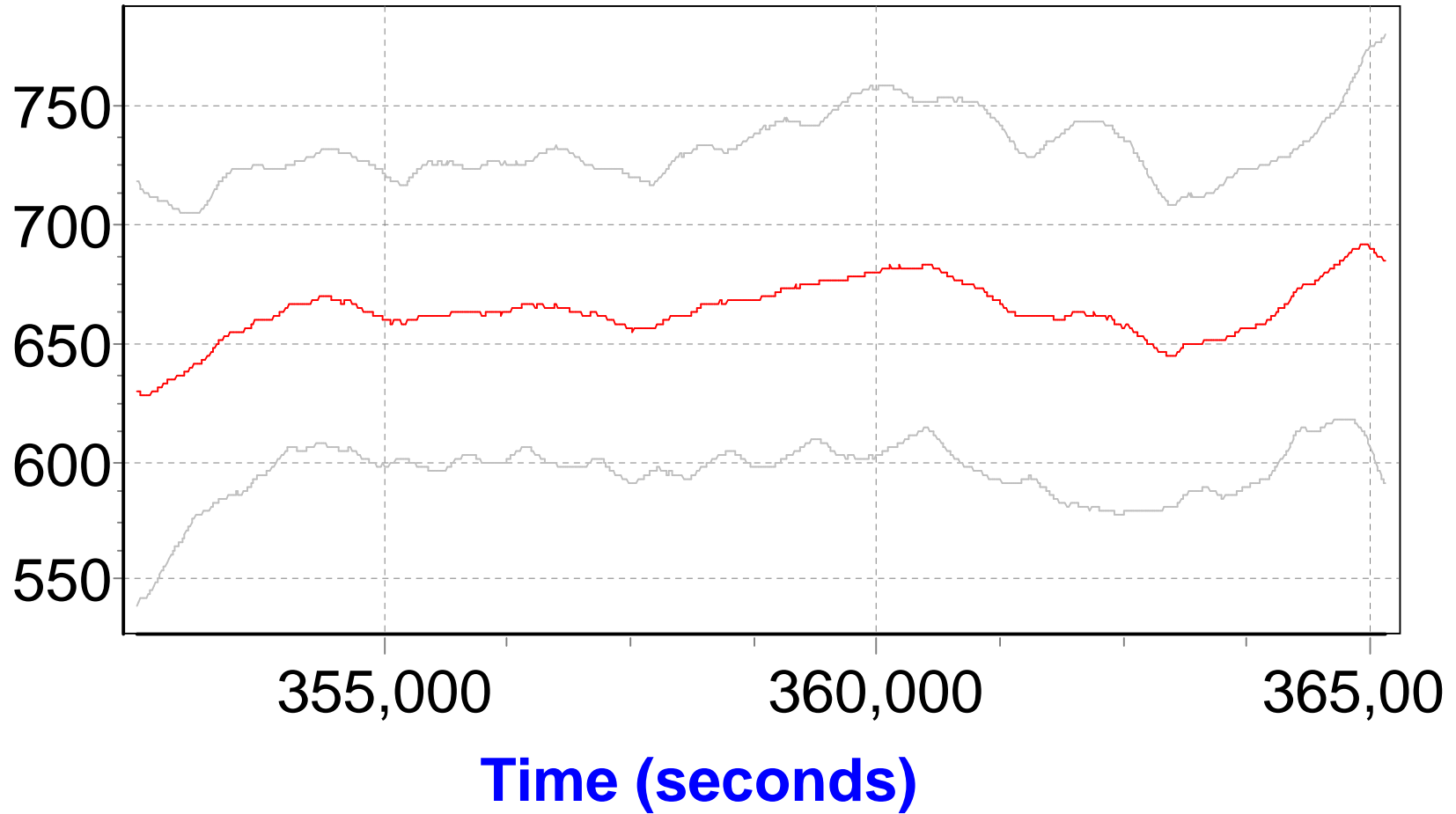
## X Accelerometer Bias (micro-g)



G:\o212095a\3\_Processed\Extract\smers\_o212095a.dat

G:\o212095a\3\_Processed\Extract\smrms\_o212095a.dat

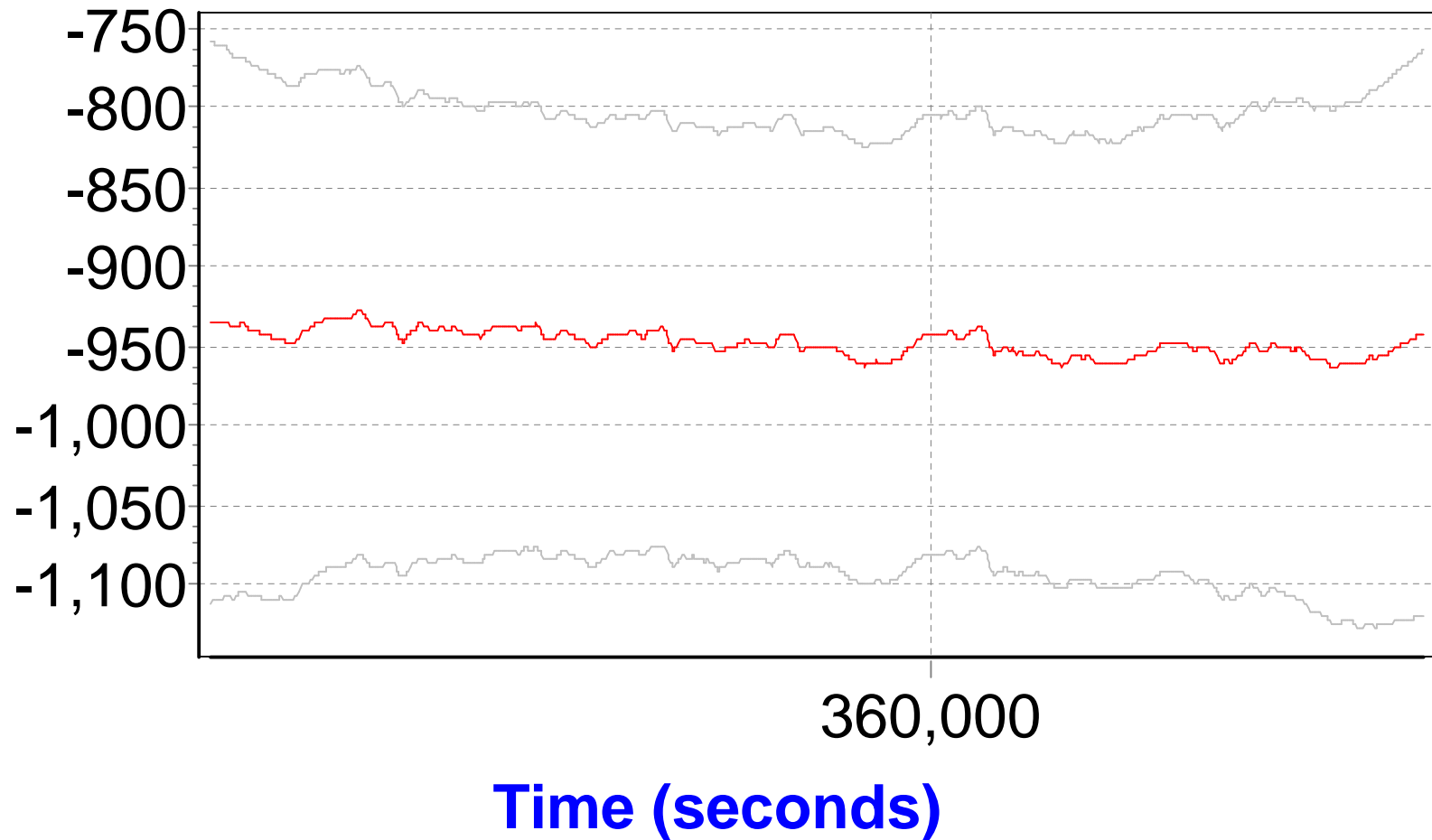
## Y Accelerometer Bias (micro-g)



G:\o212095a\3\_Processed\Extract\smers\_o212095a.dat

G:\o212095a\3\_Processed\Extract\smrms\_o212095a.dat

## Z Accelerometer Bias (micro-g)

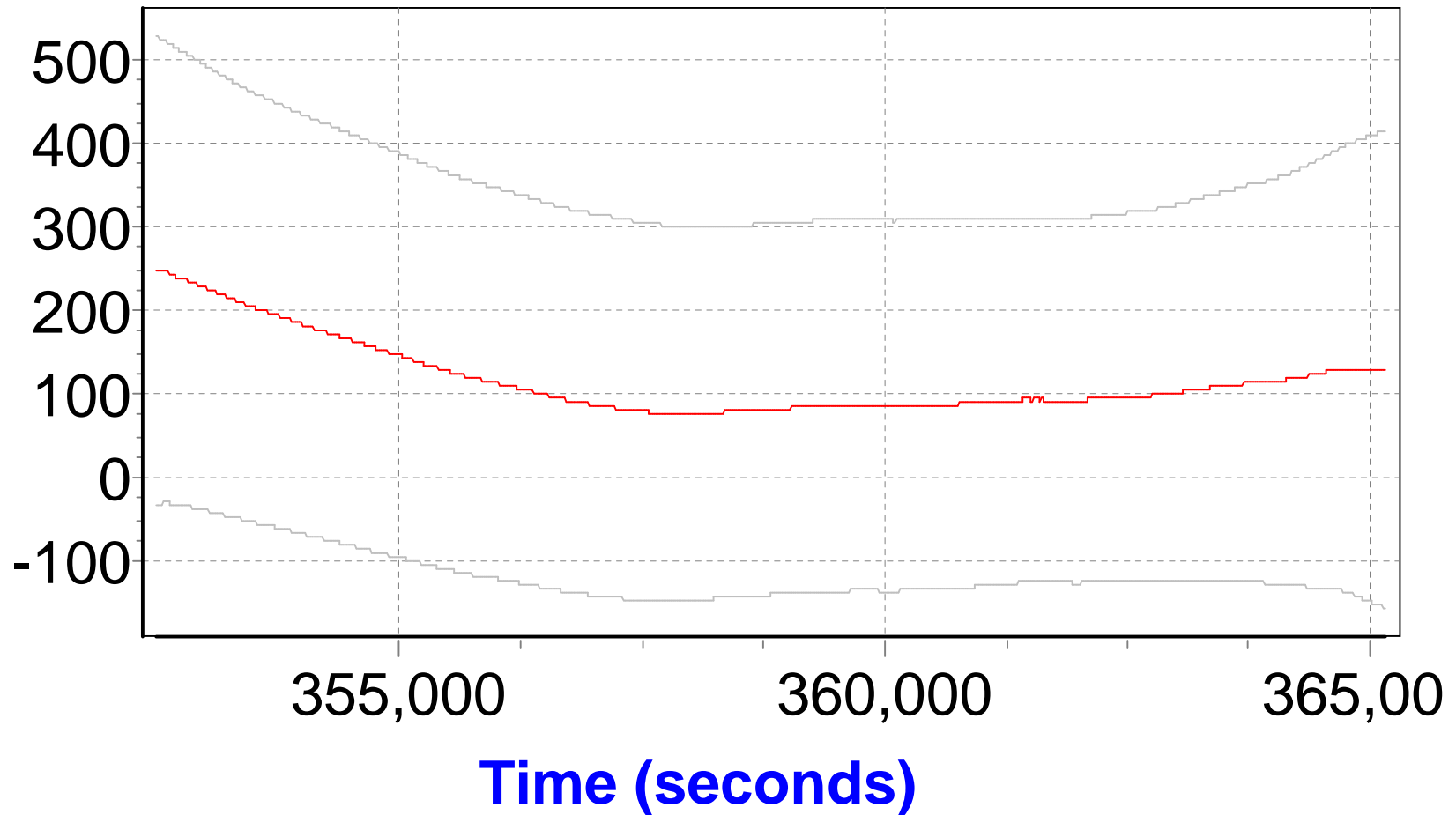


G:\o212095a\3\_Processed\Extract\smers\_o212095a.dat

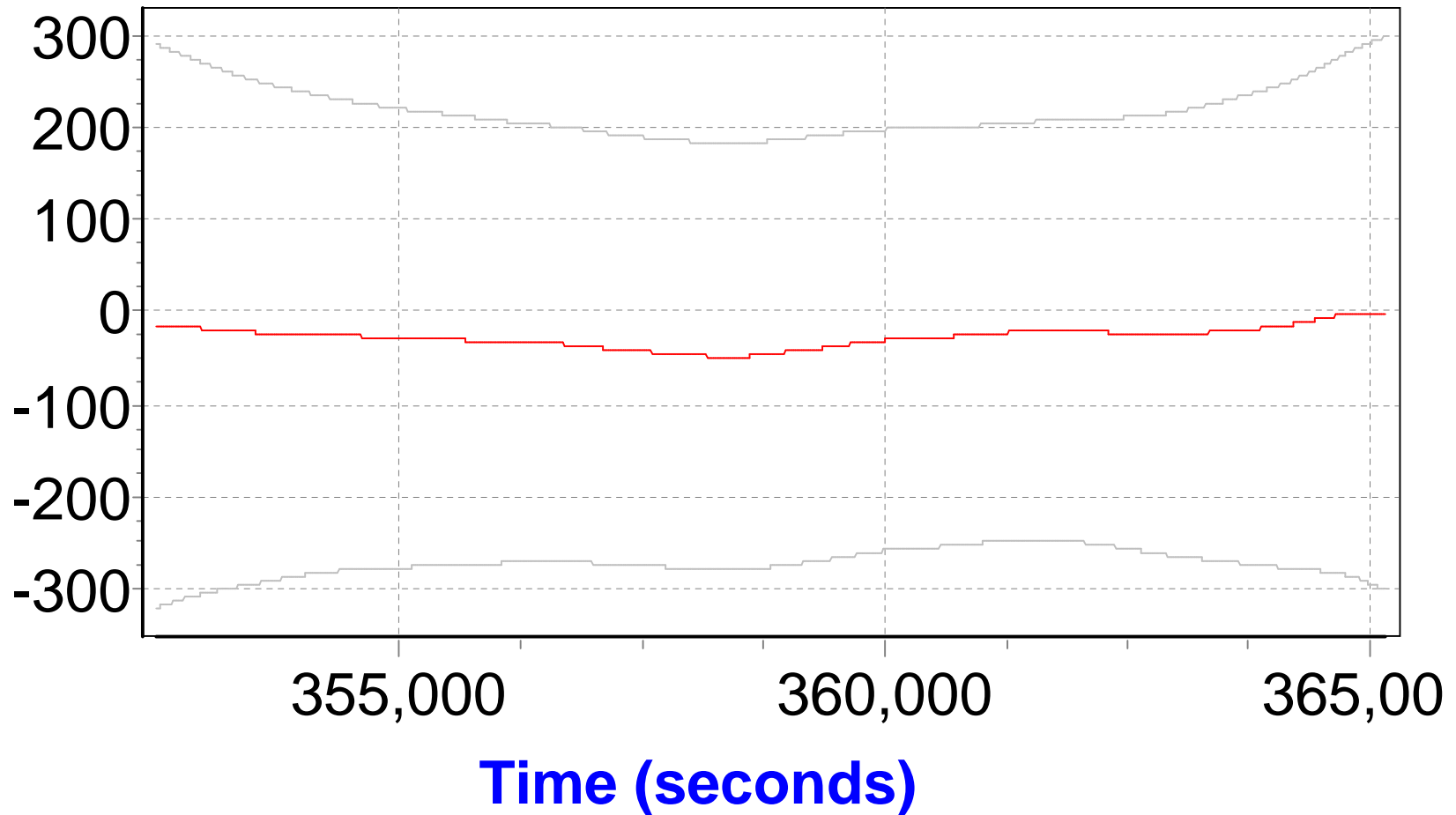
G:\o212095a\3\_Processed\Extract\smrms\_o212095a.dat



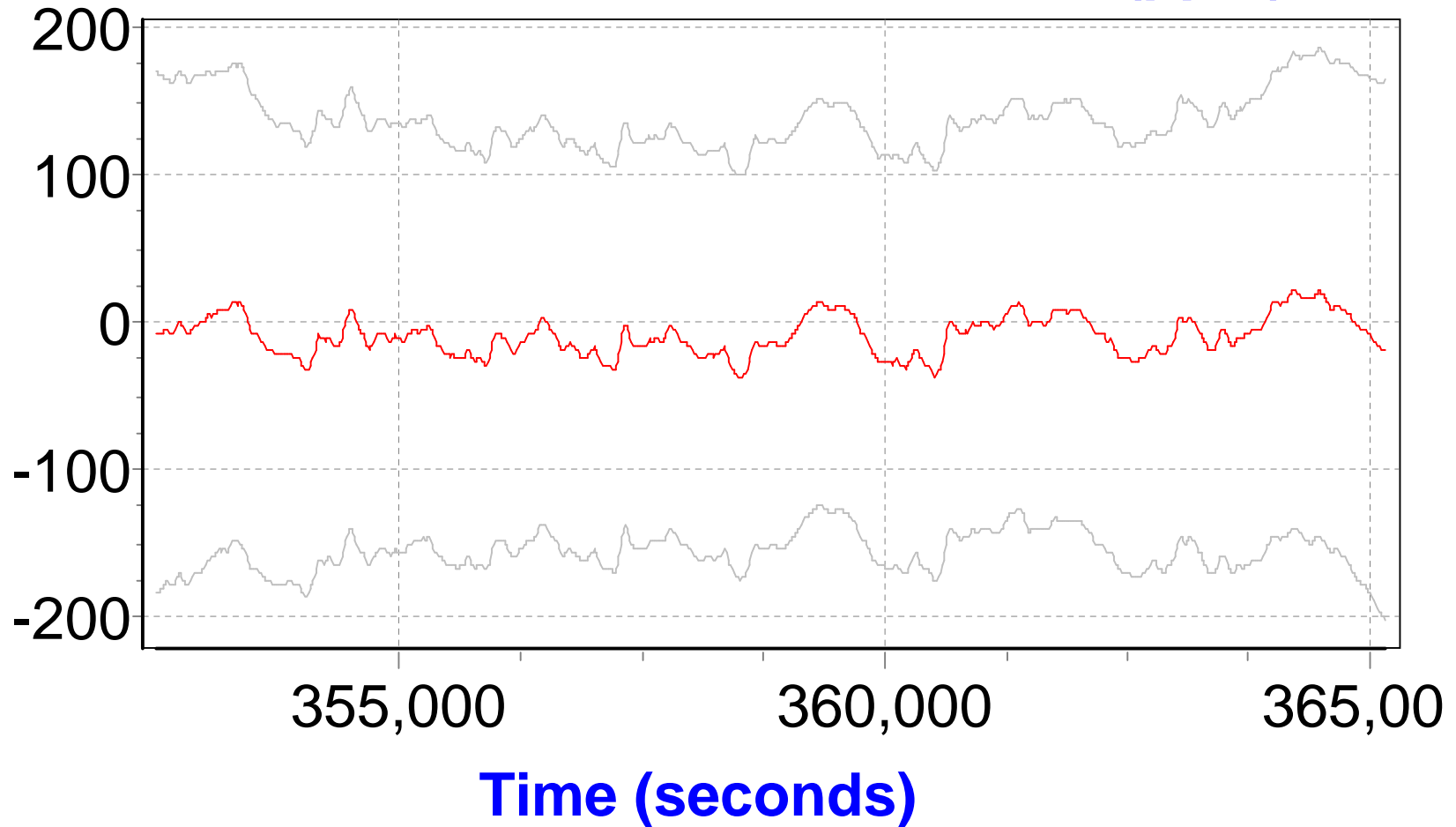
## X Accelerometer Scale Factor Error (ppm)



## Y Accelerometer Scale Factor Error (ppm)



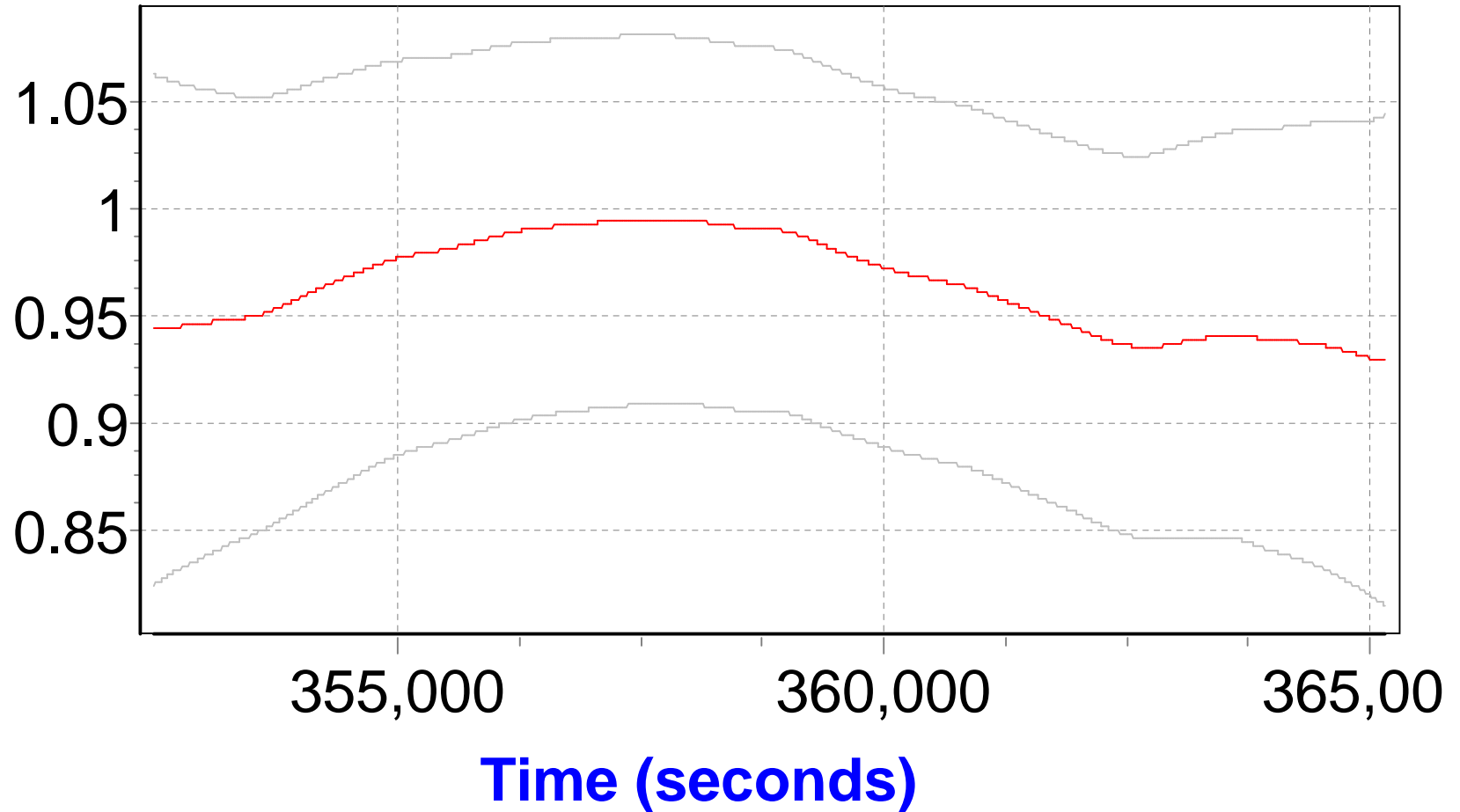
## Z Accelerometer Scale Factor Error (ppm)



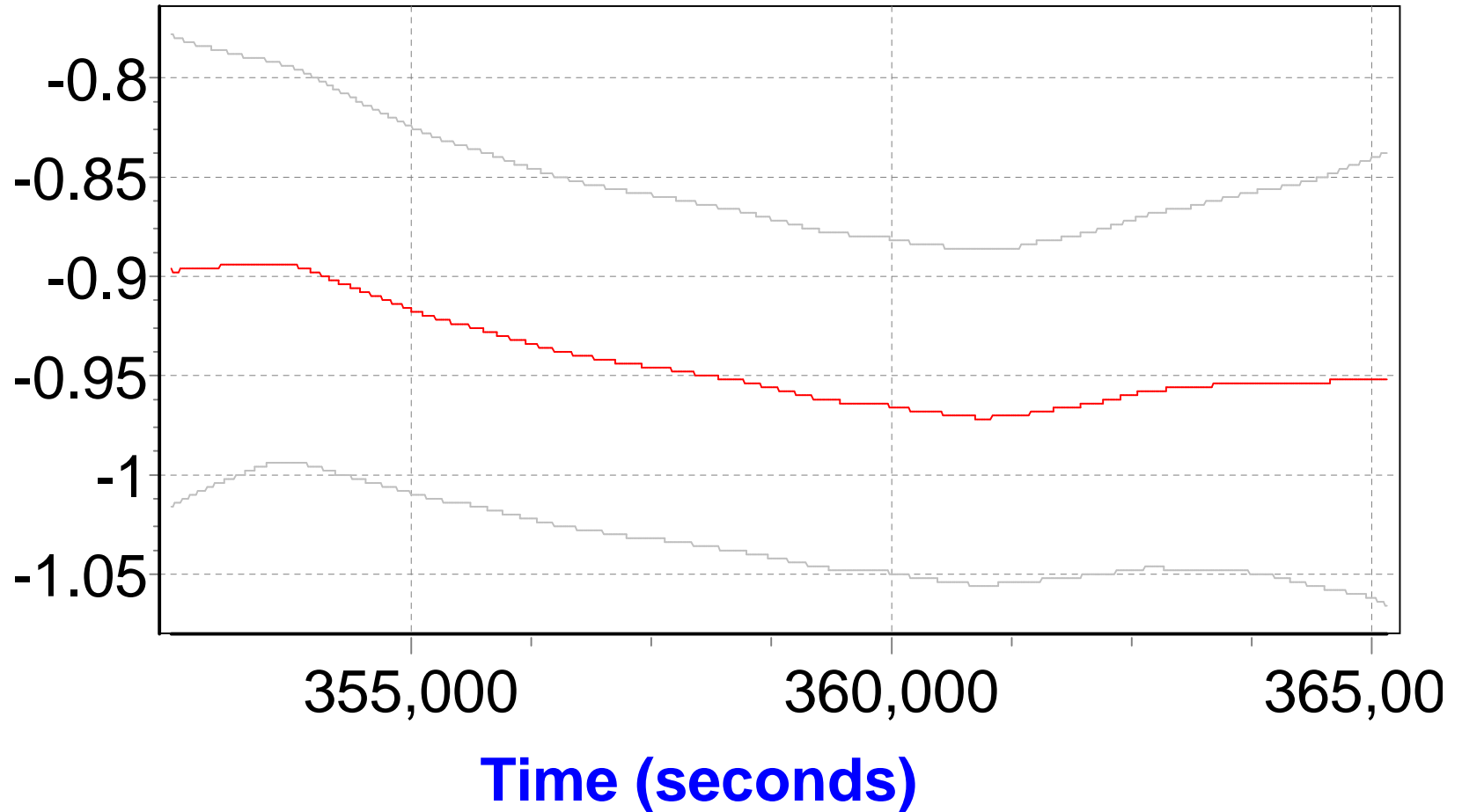
G:\o212095a\3\_Processed\Extract\smers\_o212095a.dat

G:\o212095a\3\_Processed\Extract\smrms\_o212095a.dat

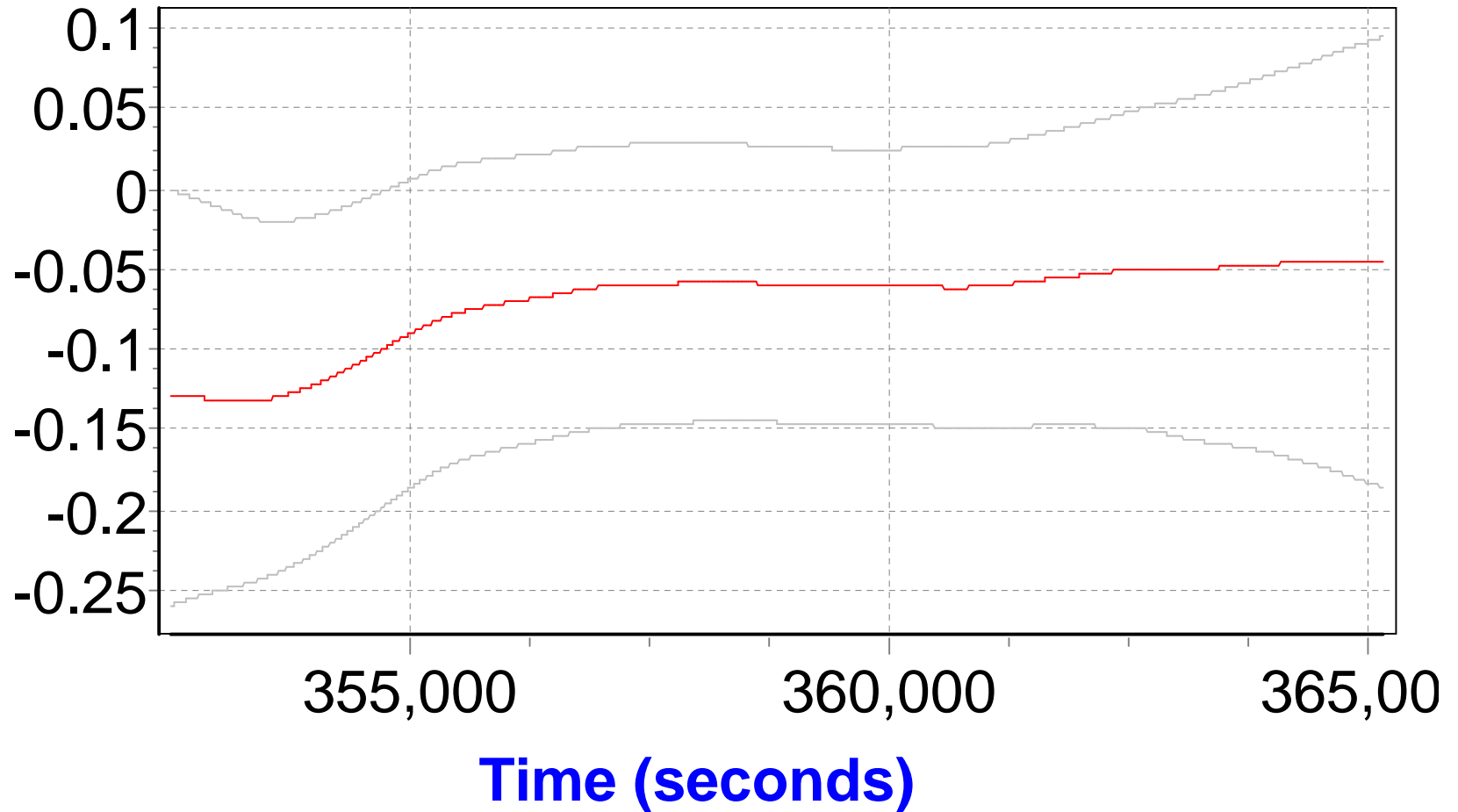
## X Gyro Bias (degrees/hour)



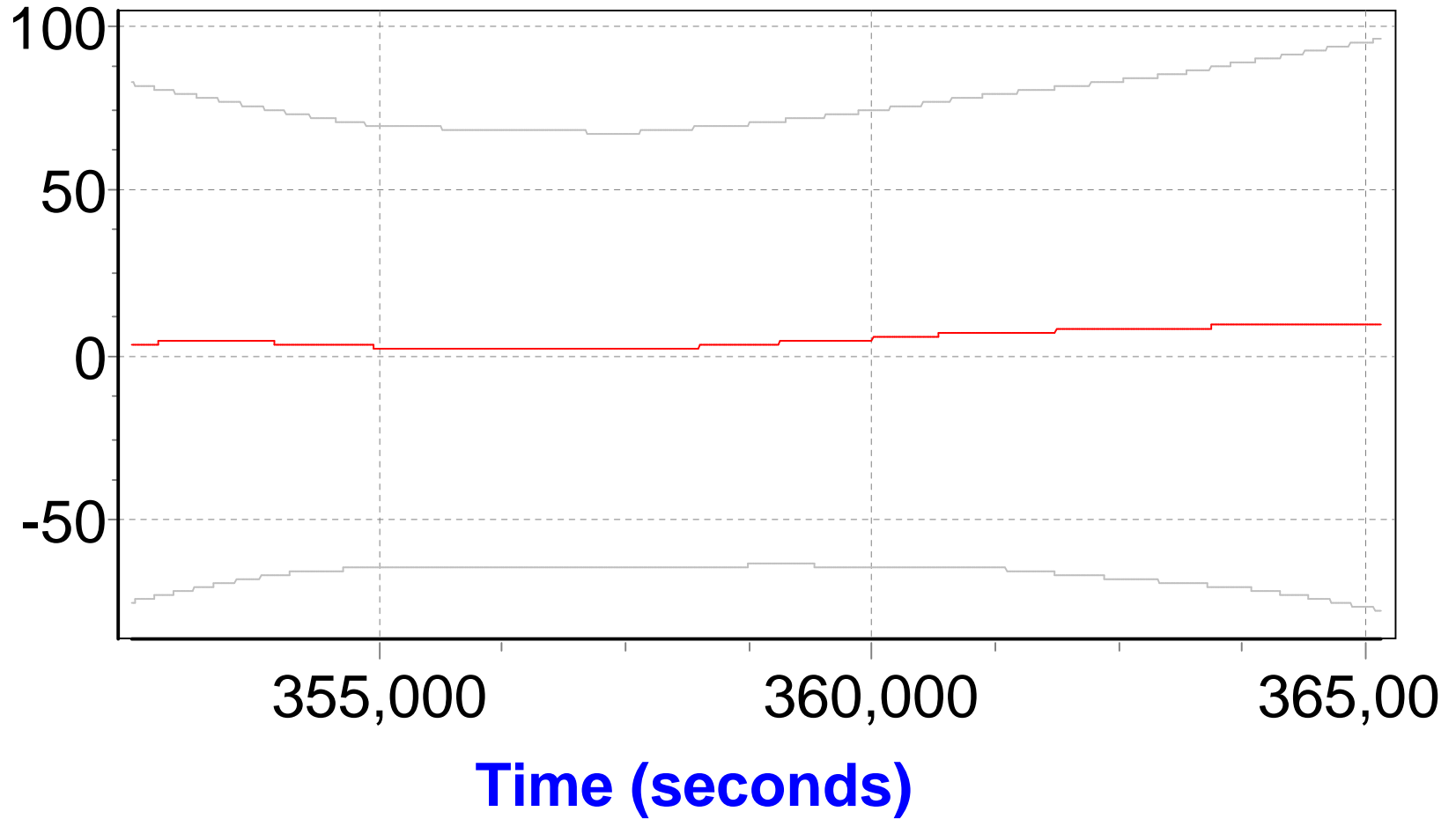
## Y Gyro Bias (degrees/hour)



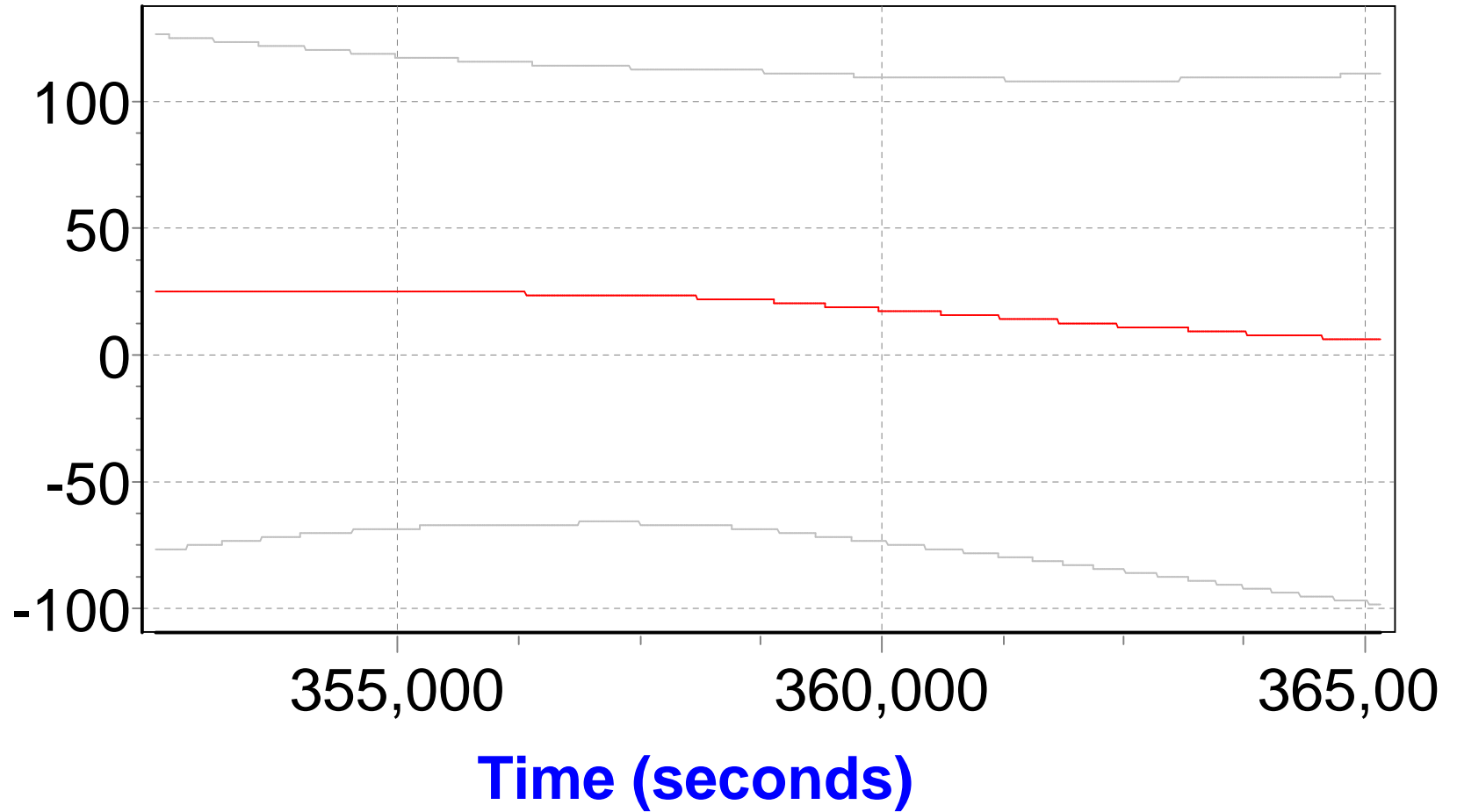
## Z Gyro Bias (degrees/hour)



## X Gyro Scale Factor Error (ppm)



## Y Gyro Scale Factor Error (ppm)

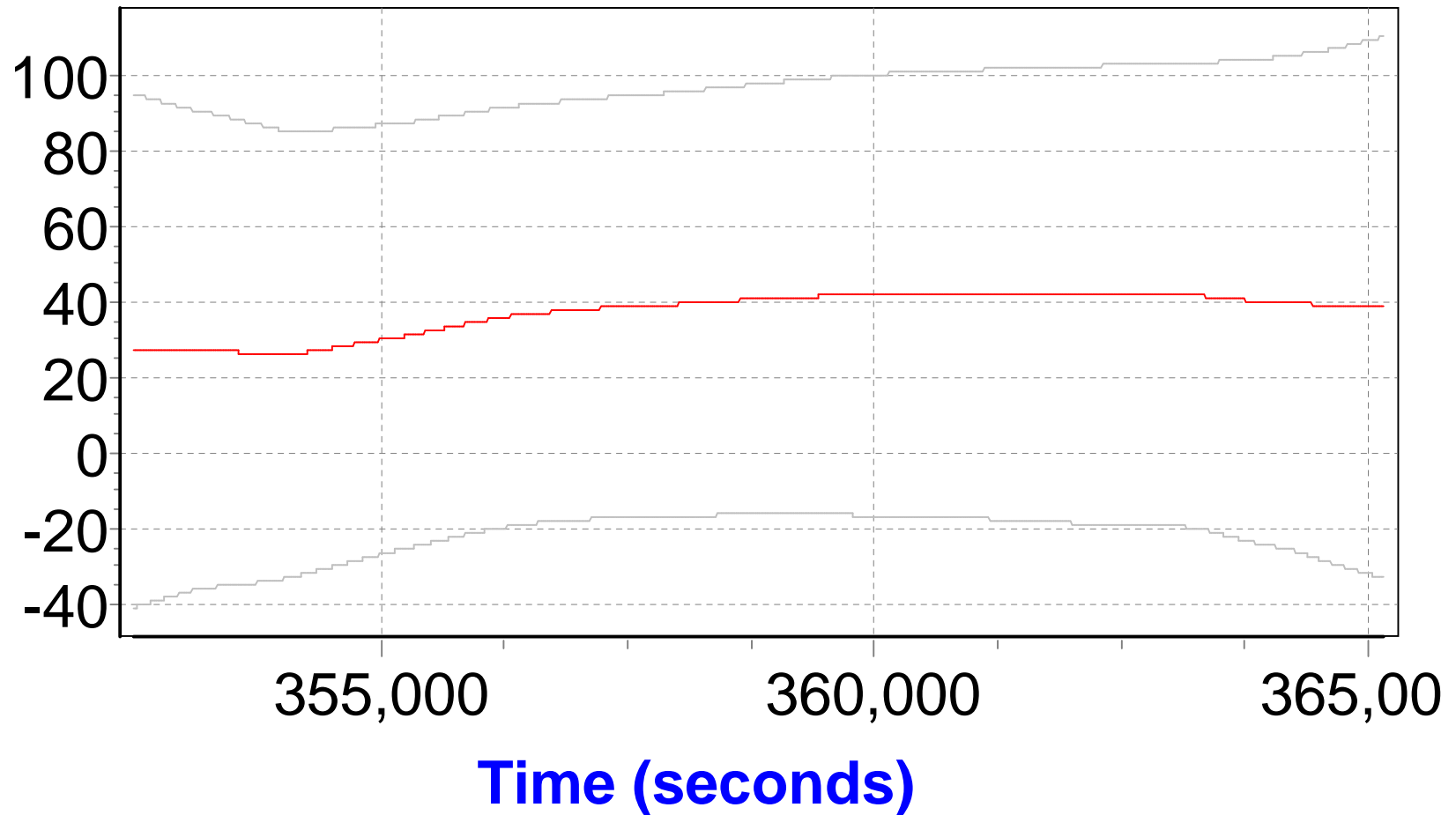


G:\o212095a\3\_Processed\Extract\smers\_o212095a.dat

G:\o212095a\3\_Processed\Extract\smrms\_o212095a.dat

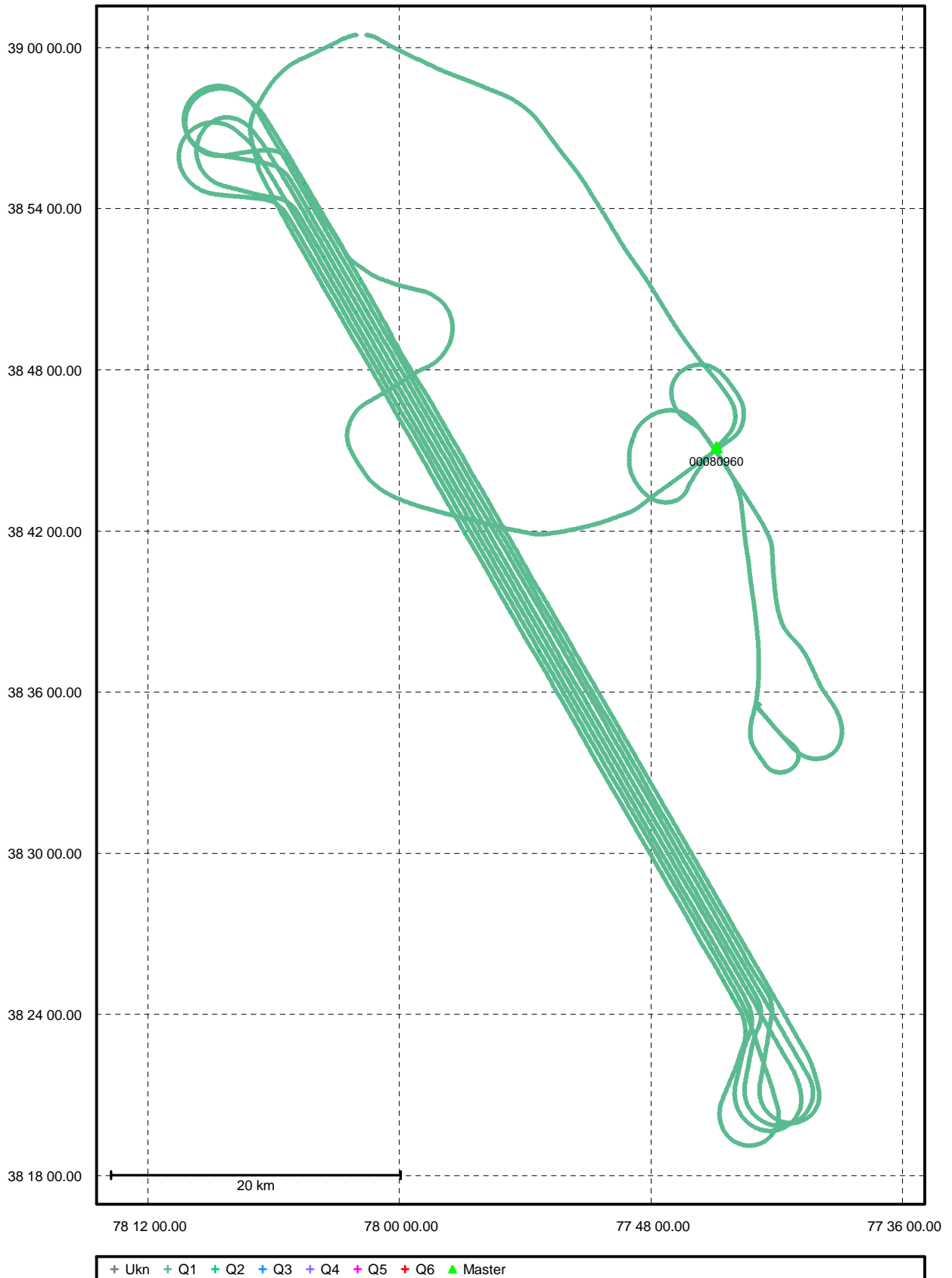


## Z Gyro Scale Factor Error (ppm)

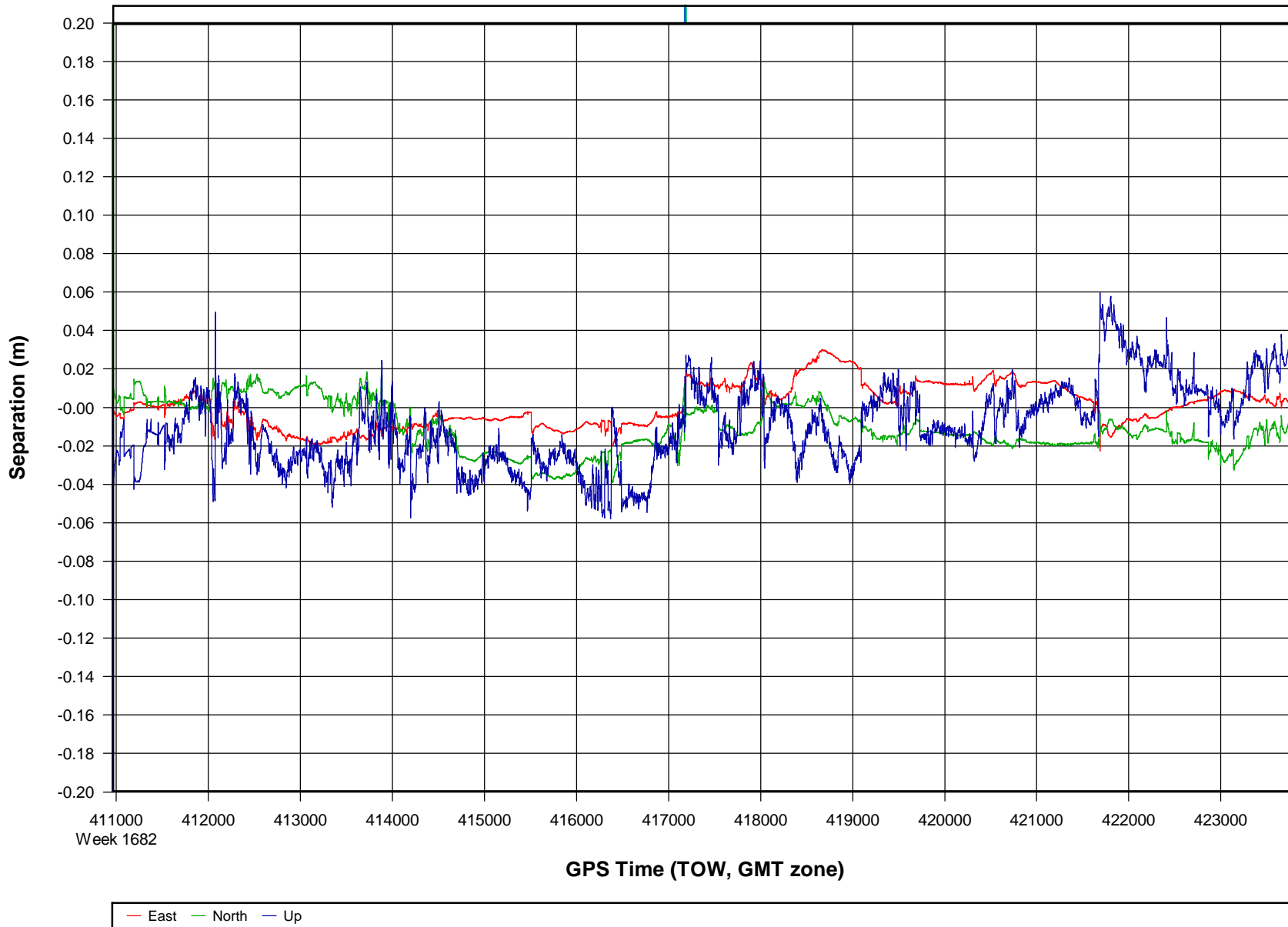


### Combined - Map Run (3)

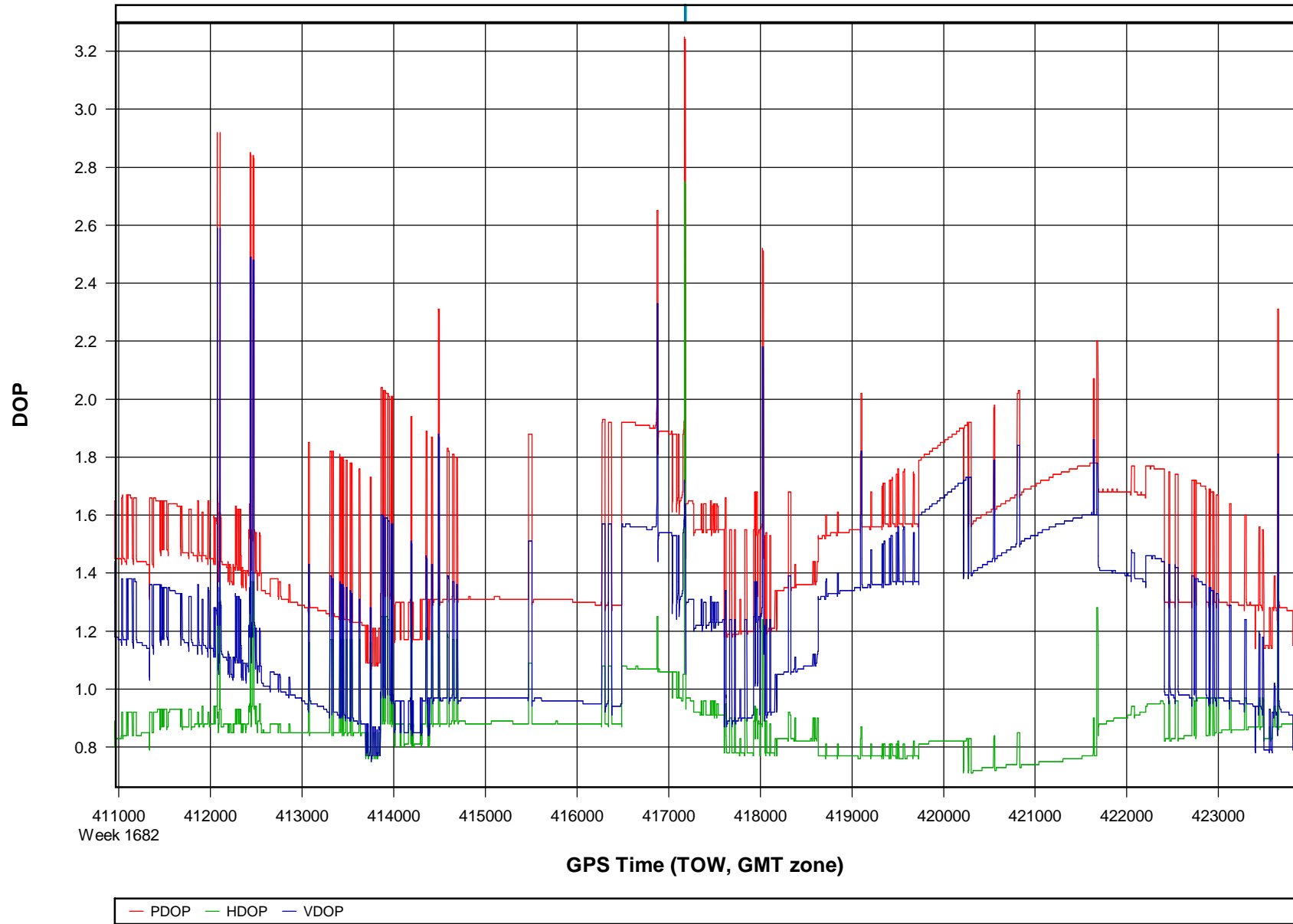
Geographic, DMS



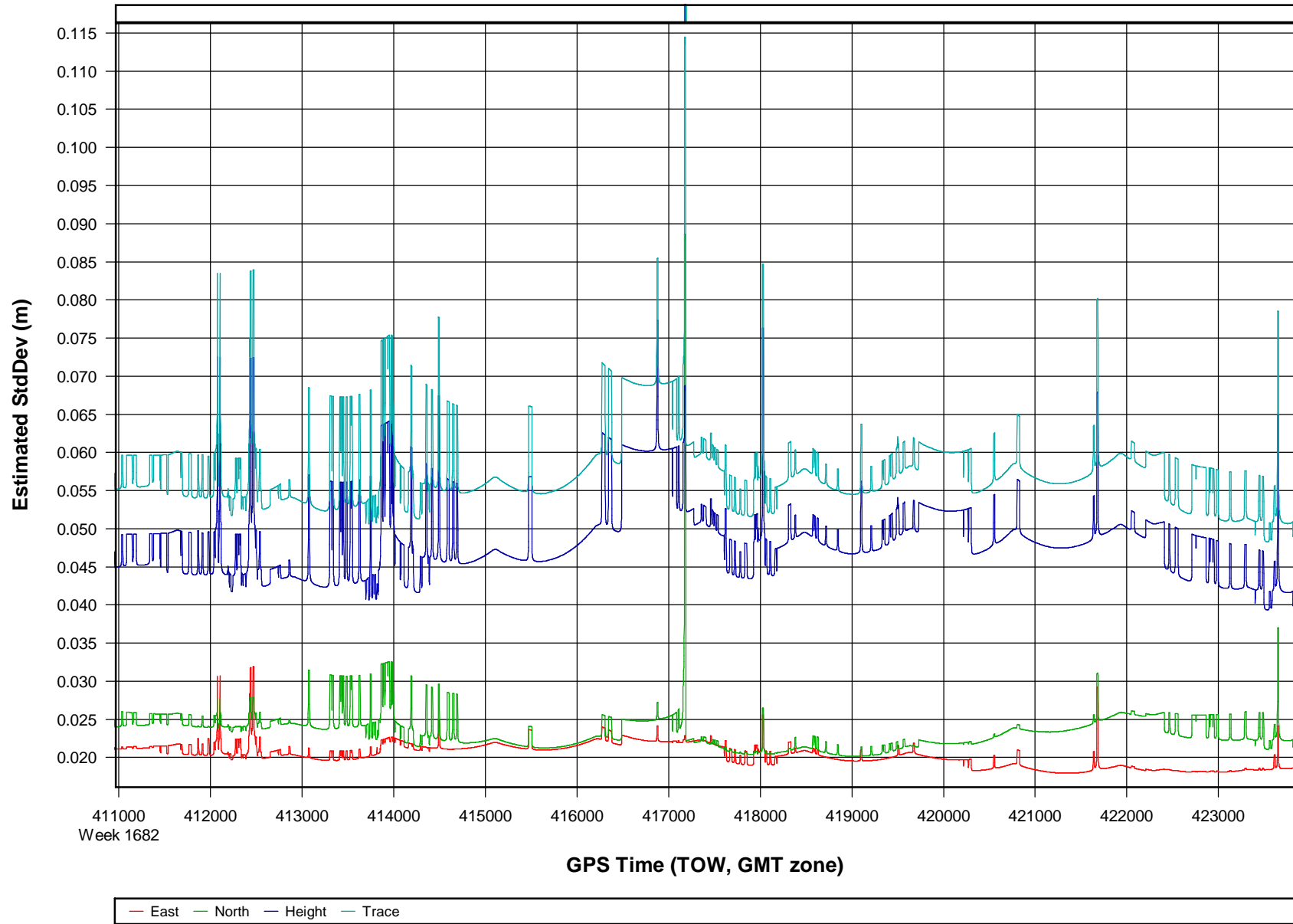
**o212096a [Combined] - Forward/Reverse or Combined Separation Plot**



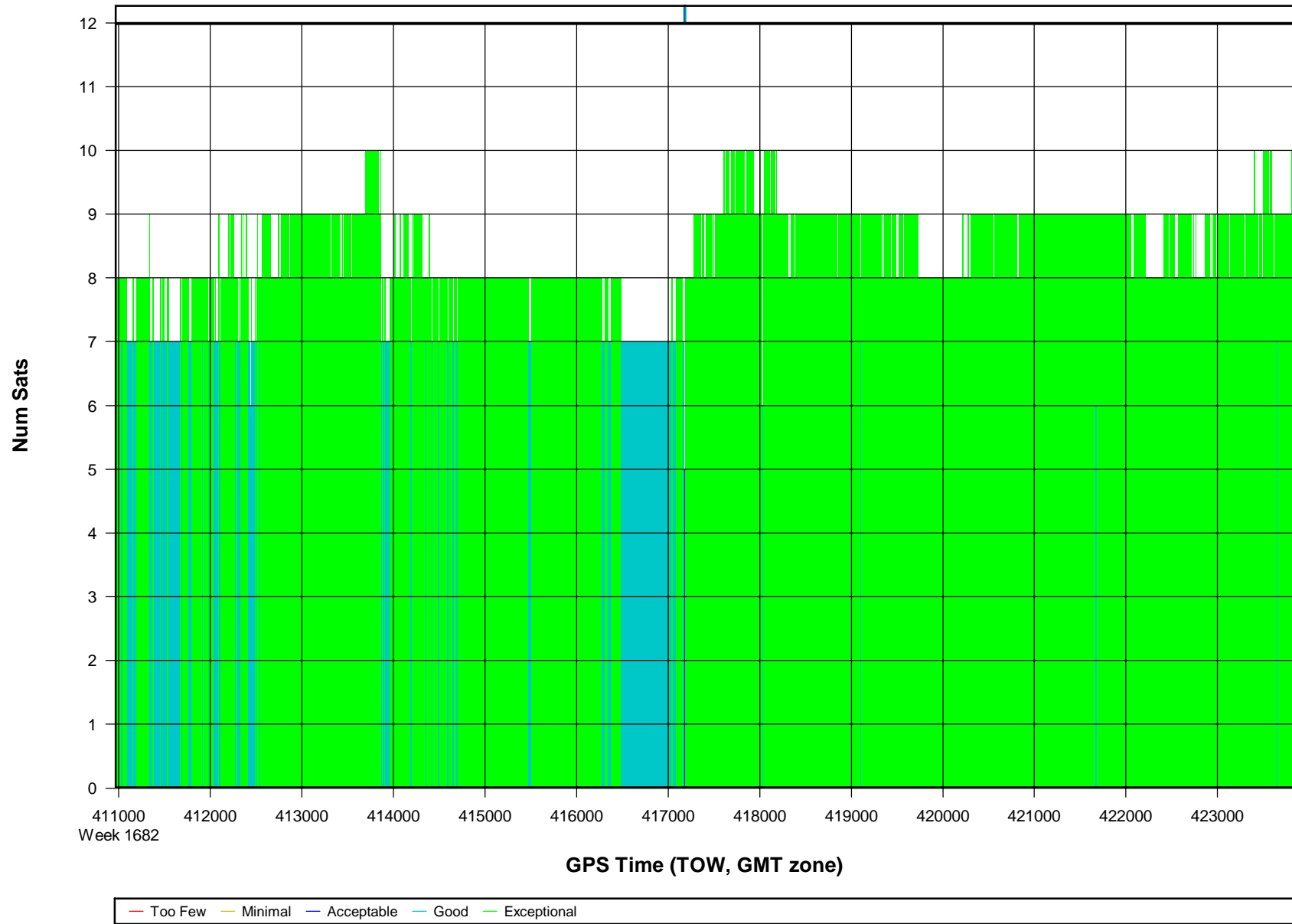
### o212096a [Combined] - PDOP, HDOP, VDOP Plots



### o212096a [Combined] - Estimated Position Accuracy Plot



### o212096a [Combined] - Number of Satellites Bar Plot



## Processing Summary Information

Program: POSGNSS  
Version: 4.40.2710  
Project: G:\o212096a\3\_Processed\GPS\o212096a.gnv

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 129010  
No processed position: 116121  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0183 (m)  
C/A Code: 1.11 (m)  
L1 Doppler: 0.035 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.012 (m)  
North: 0.017 (m)  
Height: 0.026 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (12883 occurrences):  
East: 0.011 (m)  
North: 0.016 (m)  
Height: 0.023 (m)

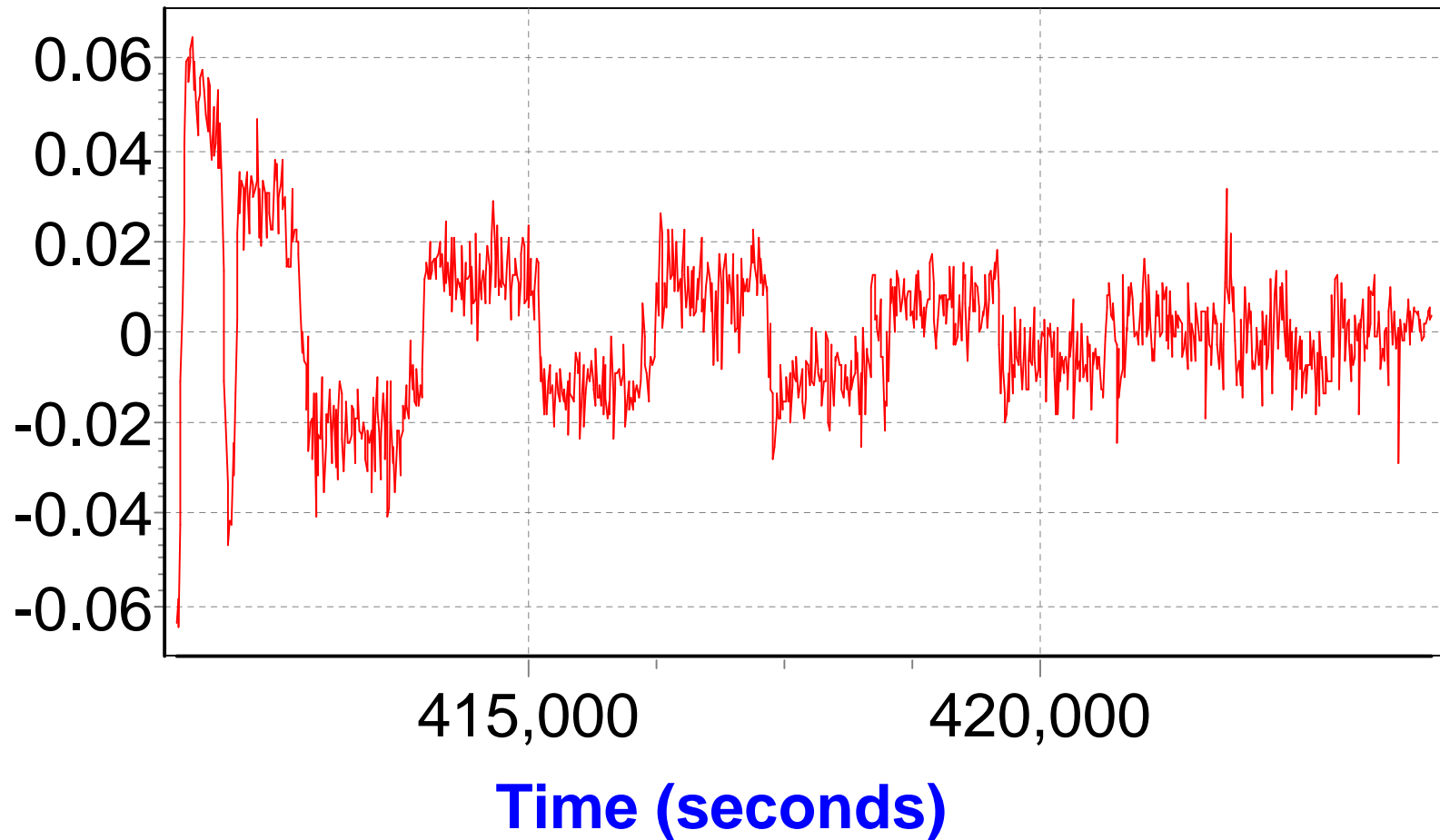
Quality Number Percentages:  
Q 1: 99.7 %  
Q 2: 0.3 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

Position Standard Deviation Percentages:  
0.00 - 0.10 m: 99.9 %  
0.10 - 0.30 m: 0.1 %  
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 %

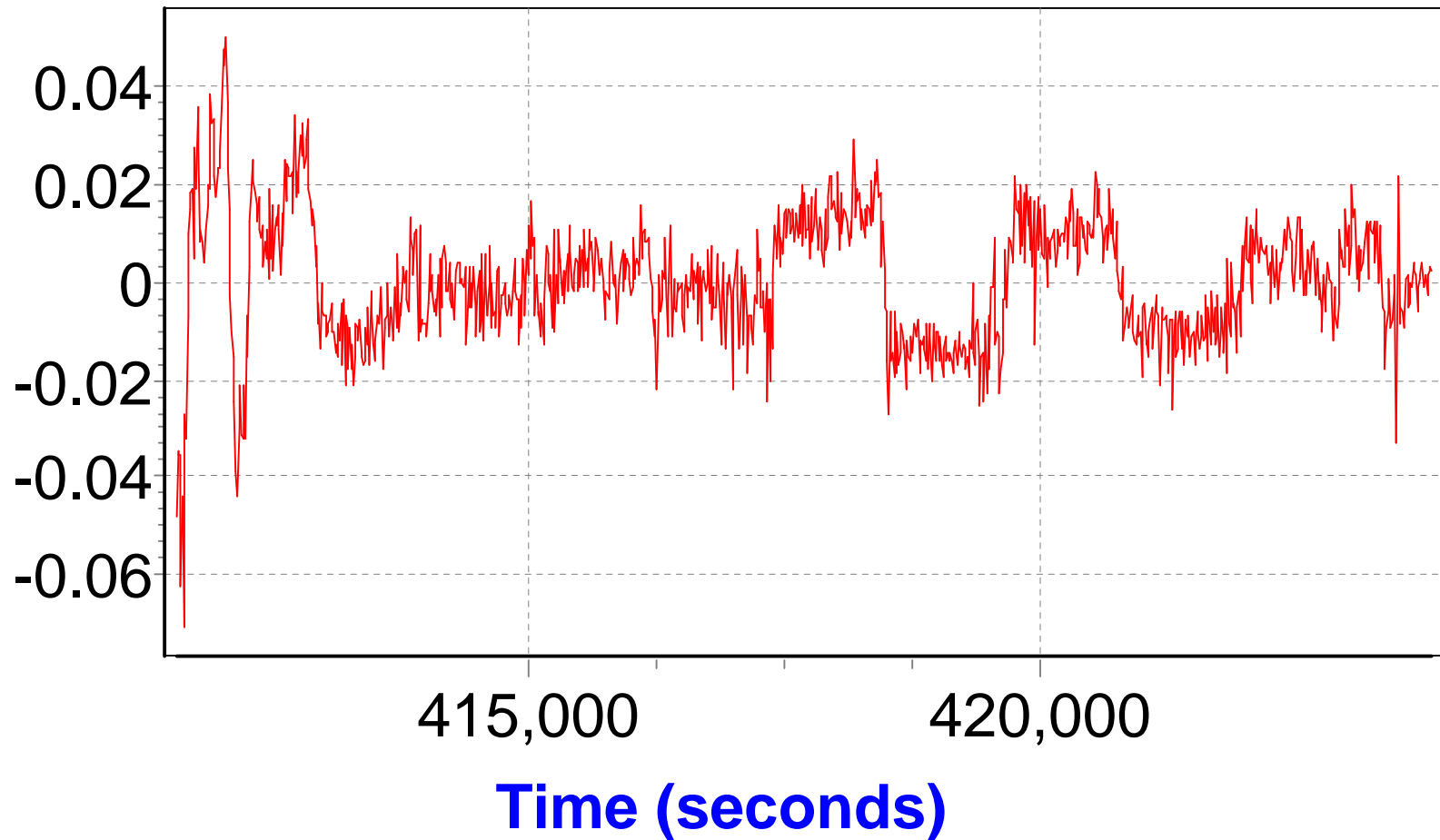
Baseline Distances:  
Maximum: 48.166 (km)  
Minimum: 0.964 (km)  
Average: 25.005 (km)  
First Epoch: 17.968 (km)  
Last Epoch: 17.968 (km)

## S/D Navigator X Position Error (meters)

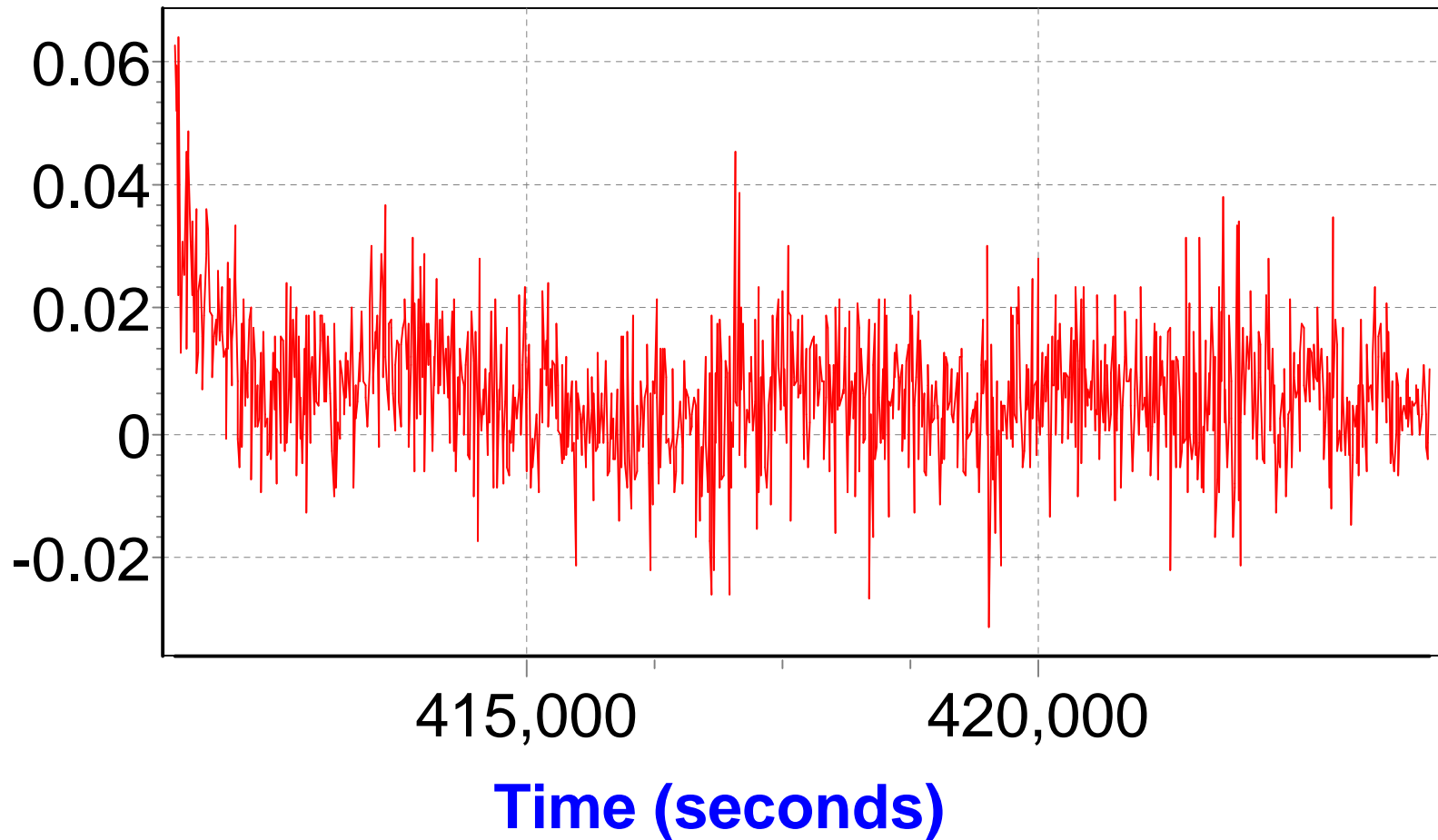




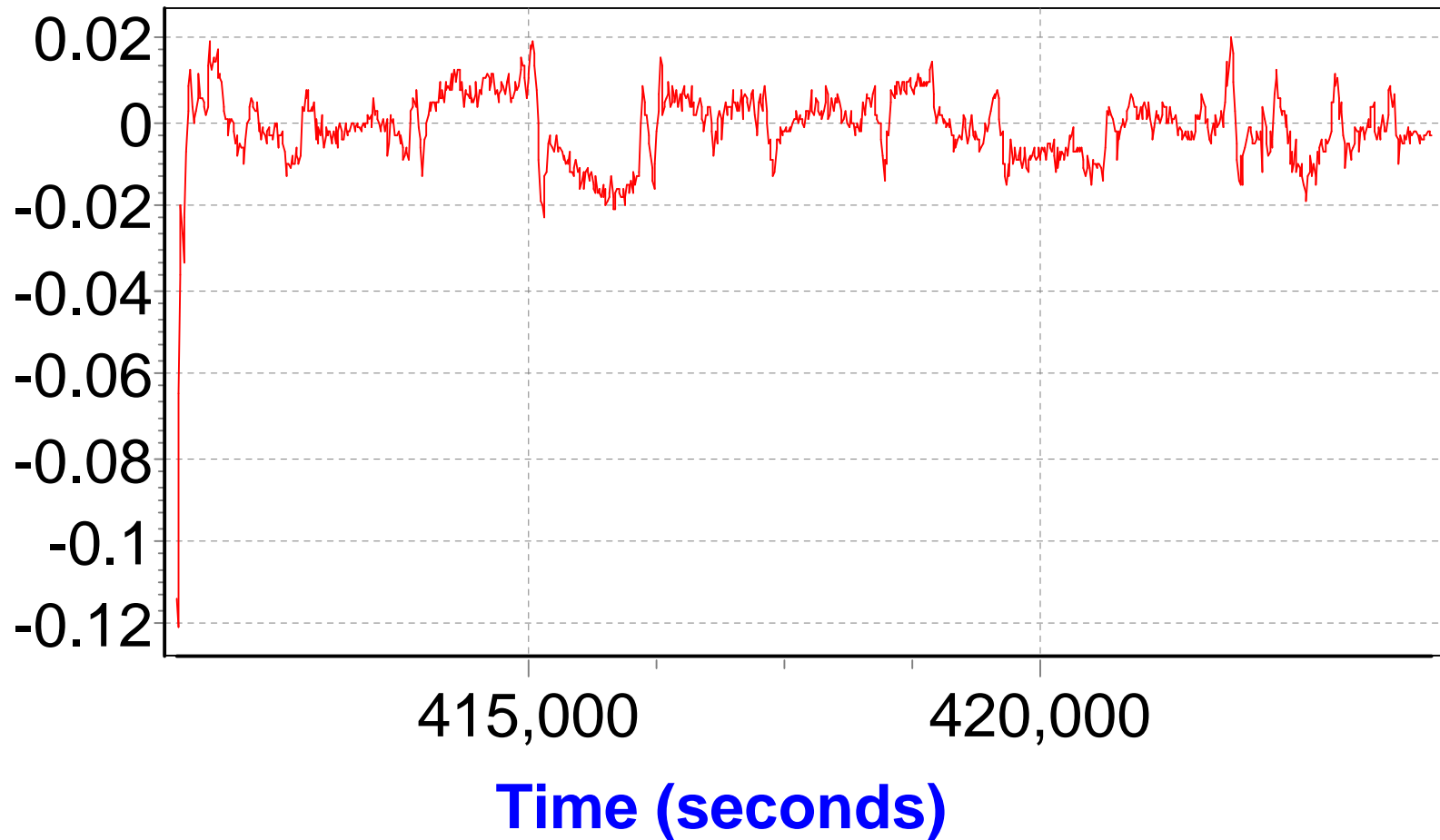
## S/D Navigator Y Position Error (meters)



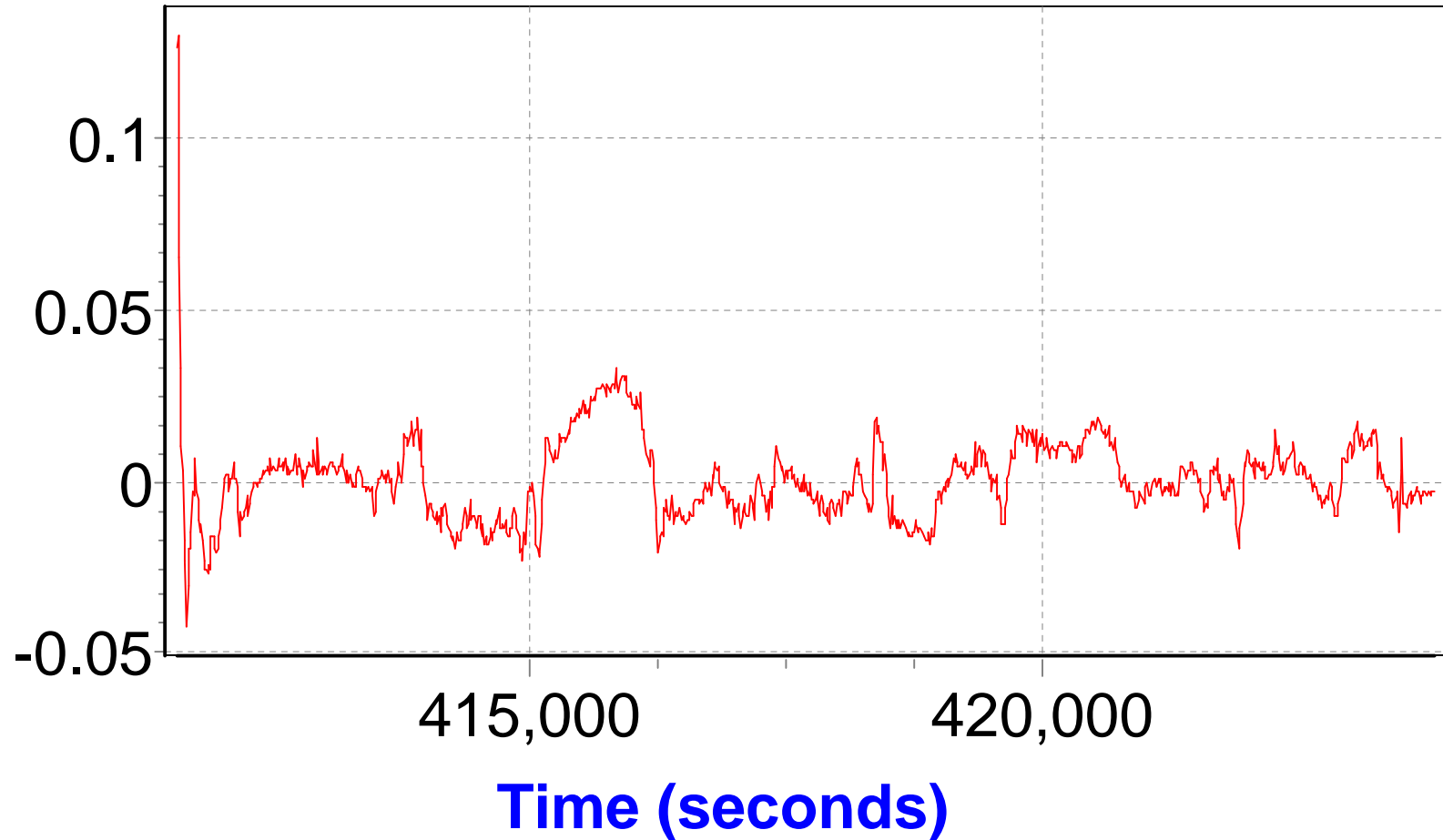
## S/D Navigator Z Position Error (meters)



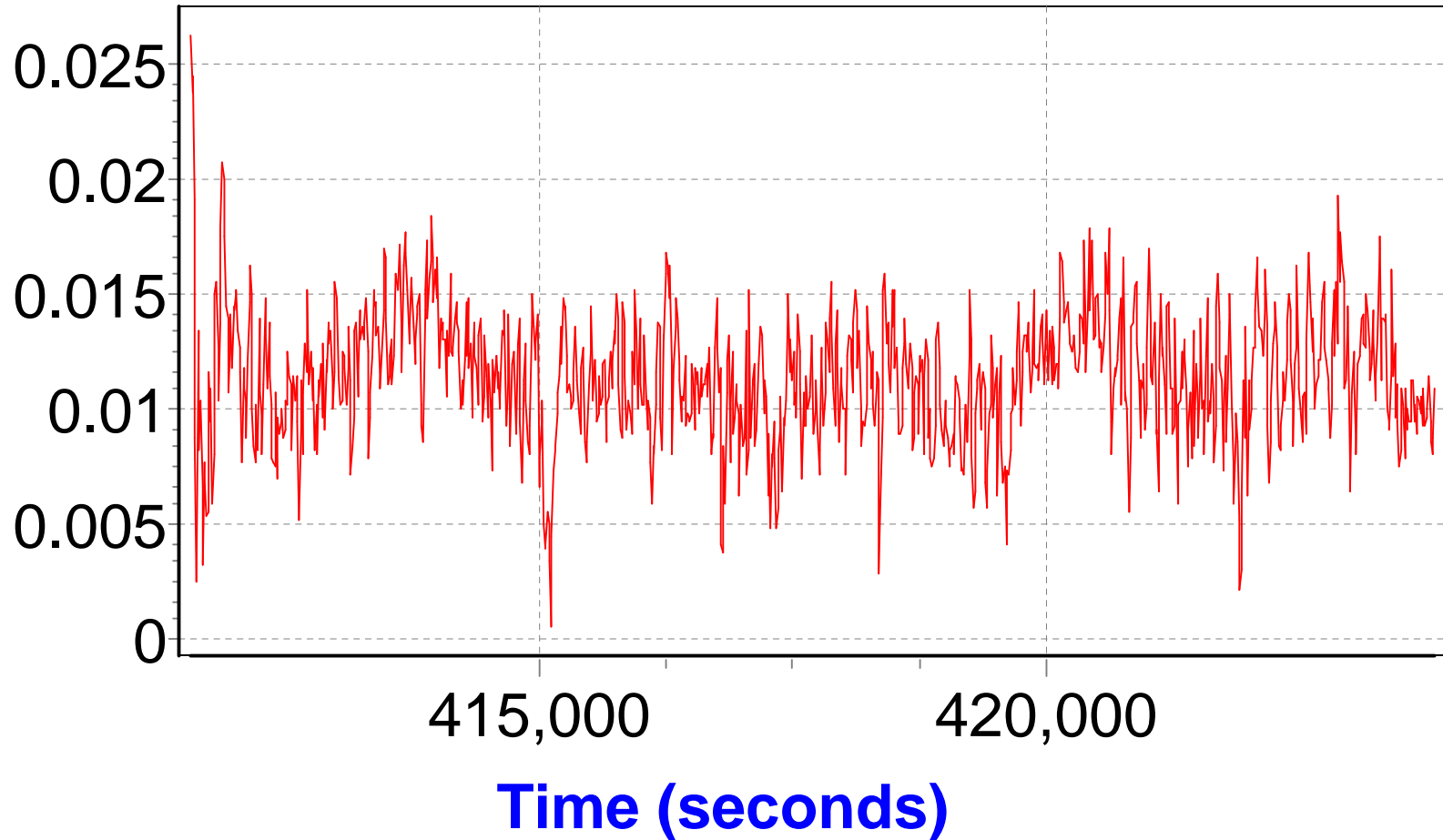
## S/D Navigator X Velocity Error (meters/seconds)



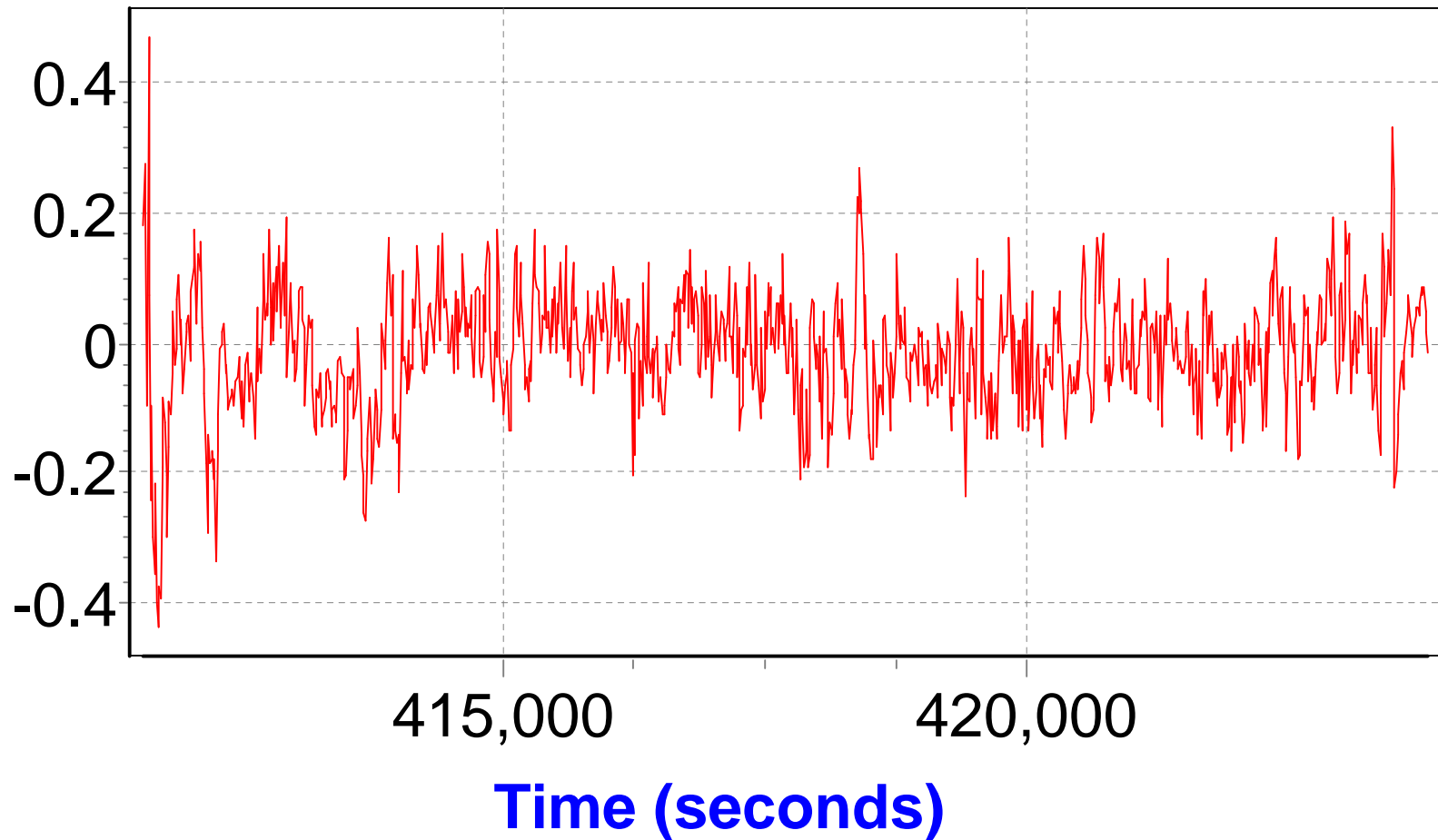
## S/D Navigator Y Velocity Error (meters/seconds)



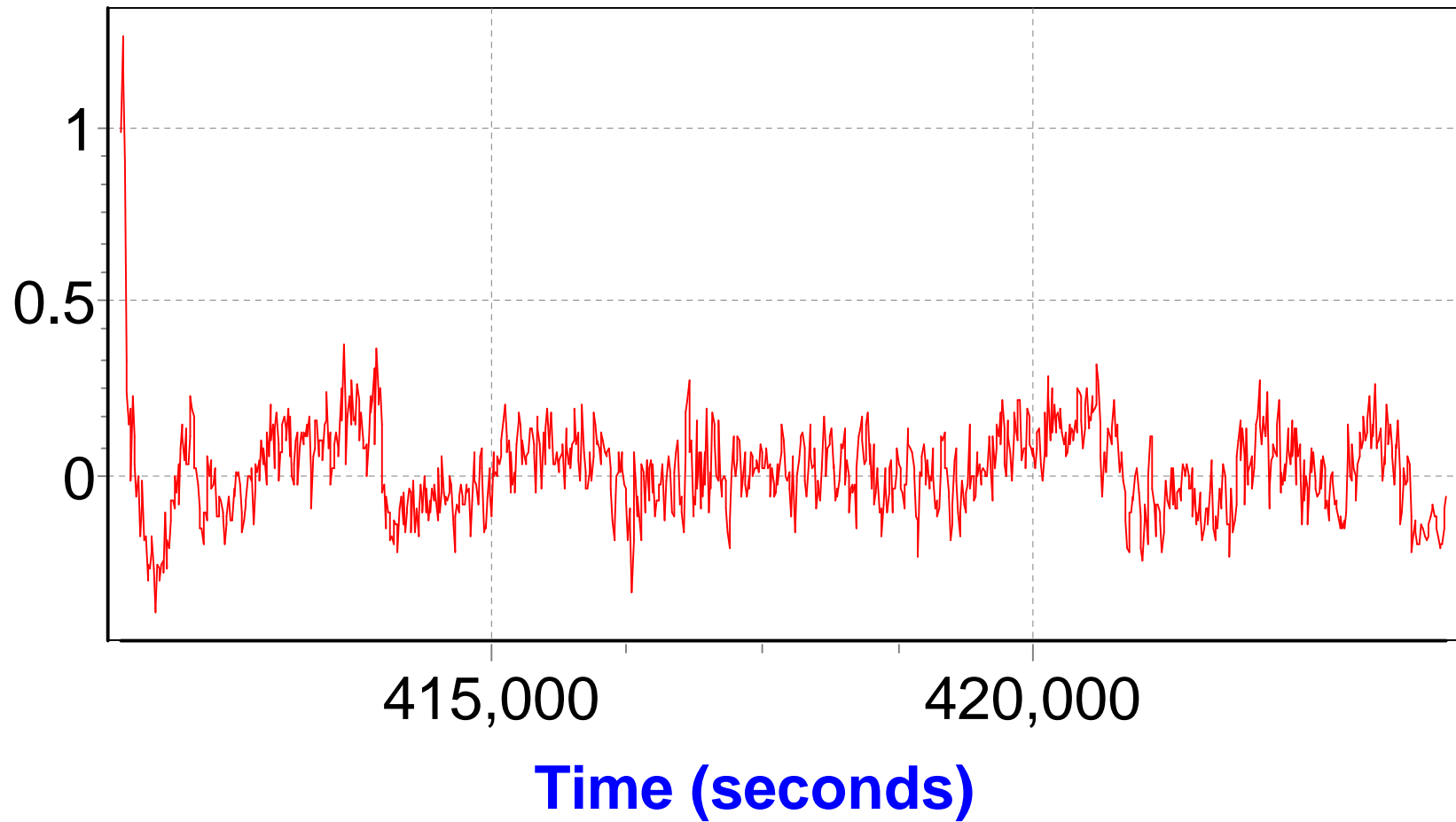
## S/D Navigator Z Velocity Error (meters/seconds)



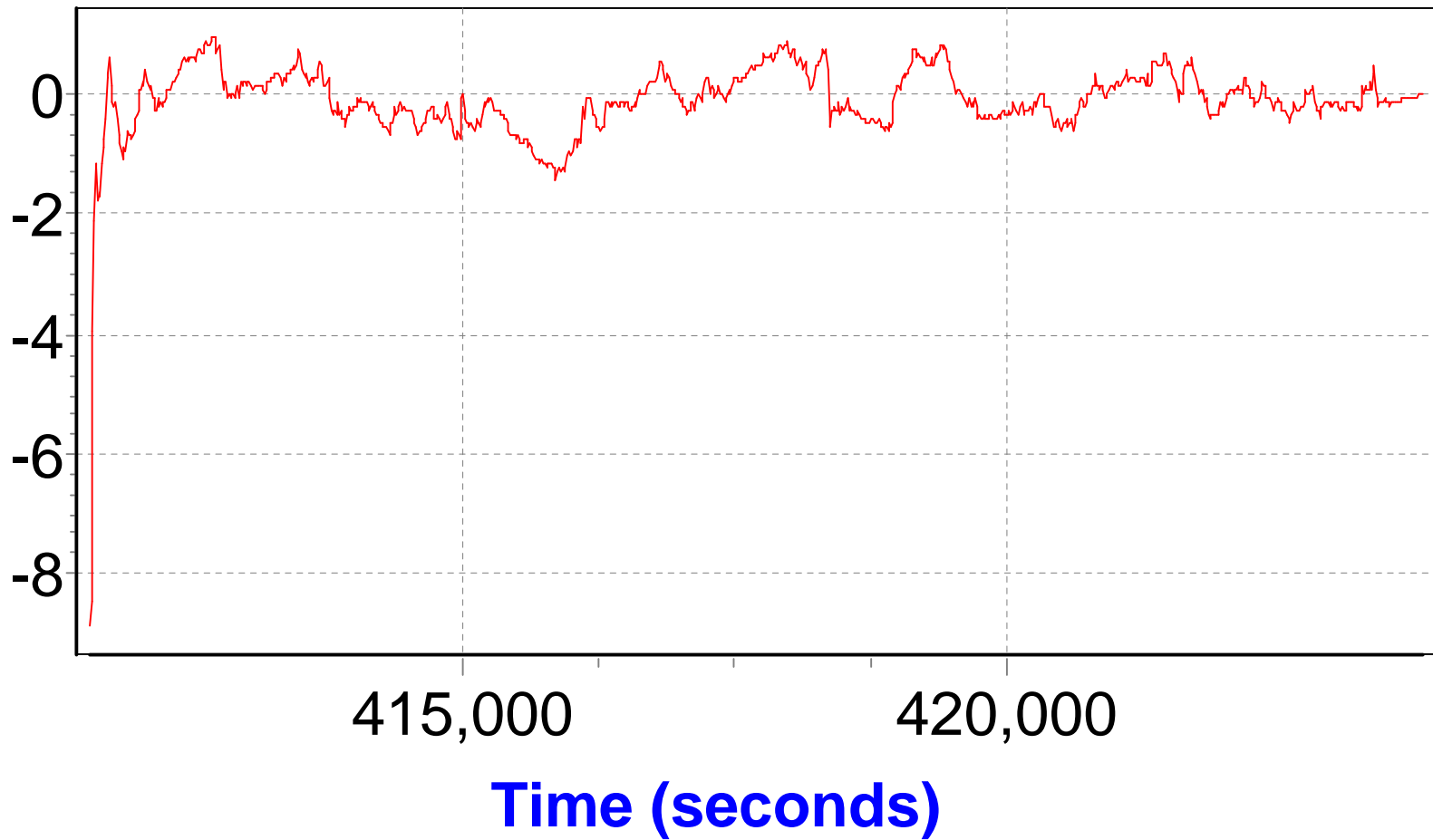
## S/D Navigator X Misalignment (arcmin)



## S/D Navigator Y Misalignment (arcmin)

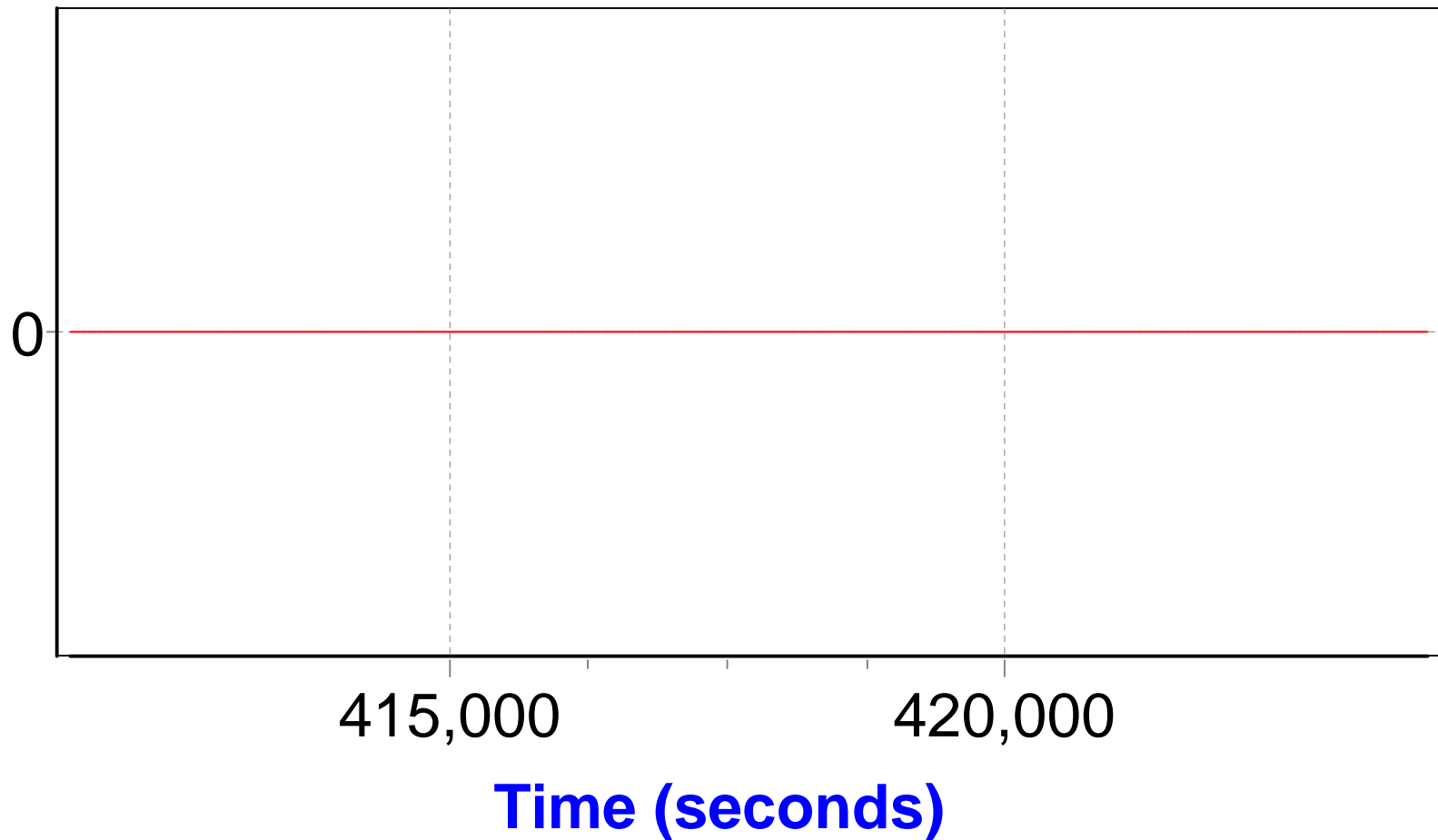


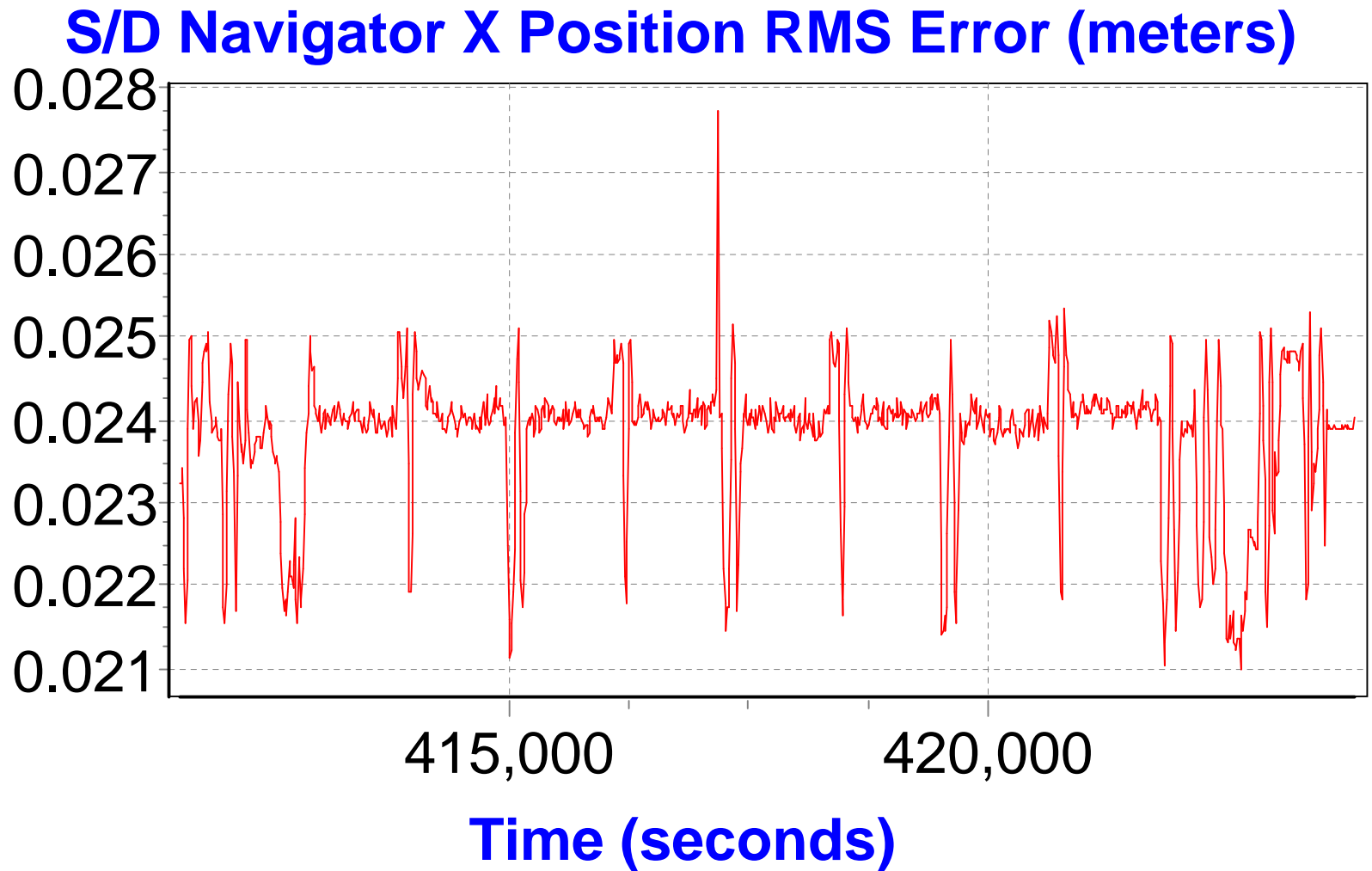
## S/D Navigator Z Misalignment (arcmin)



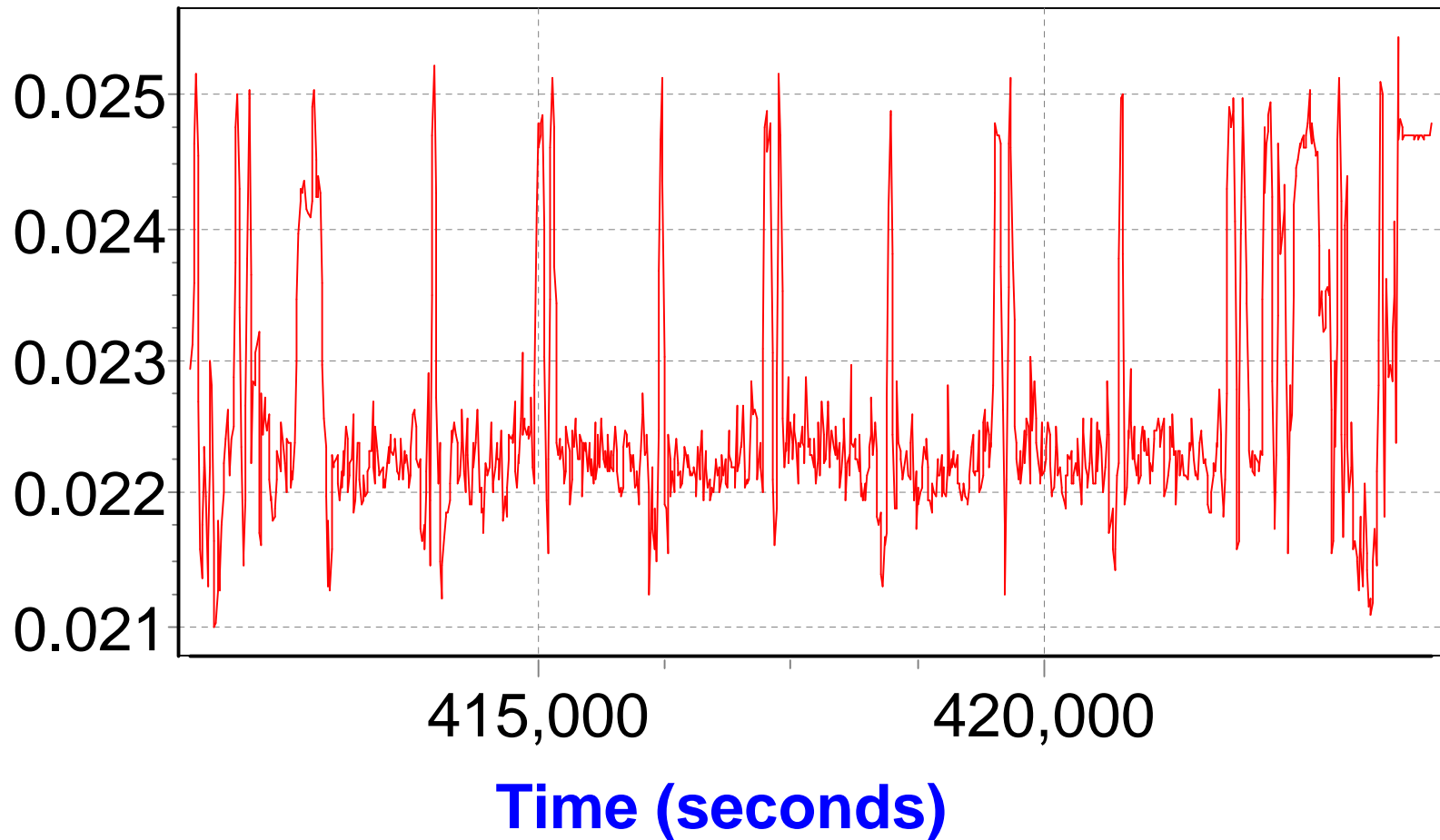


## S/D Navigator COS(Z Misalignment)-1 (radians)

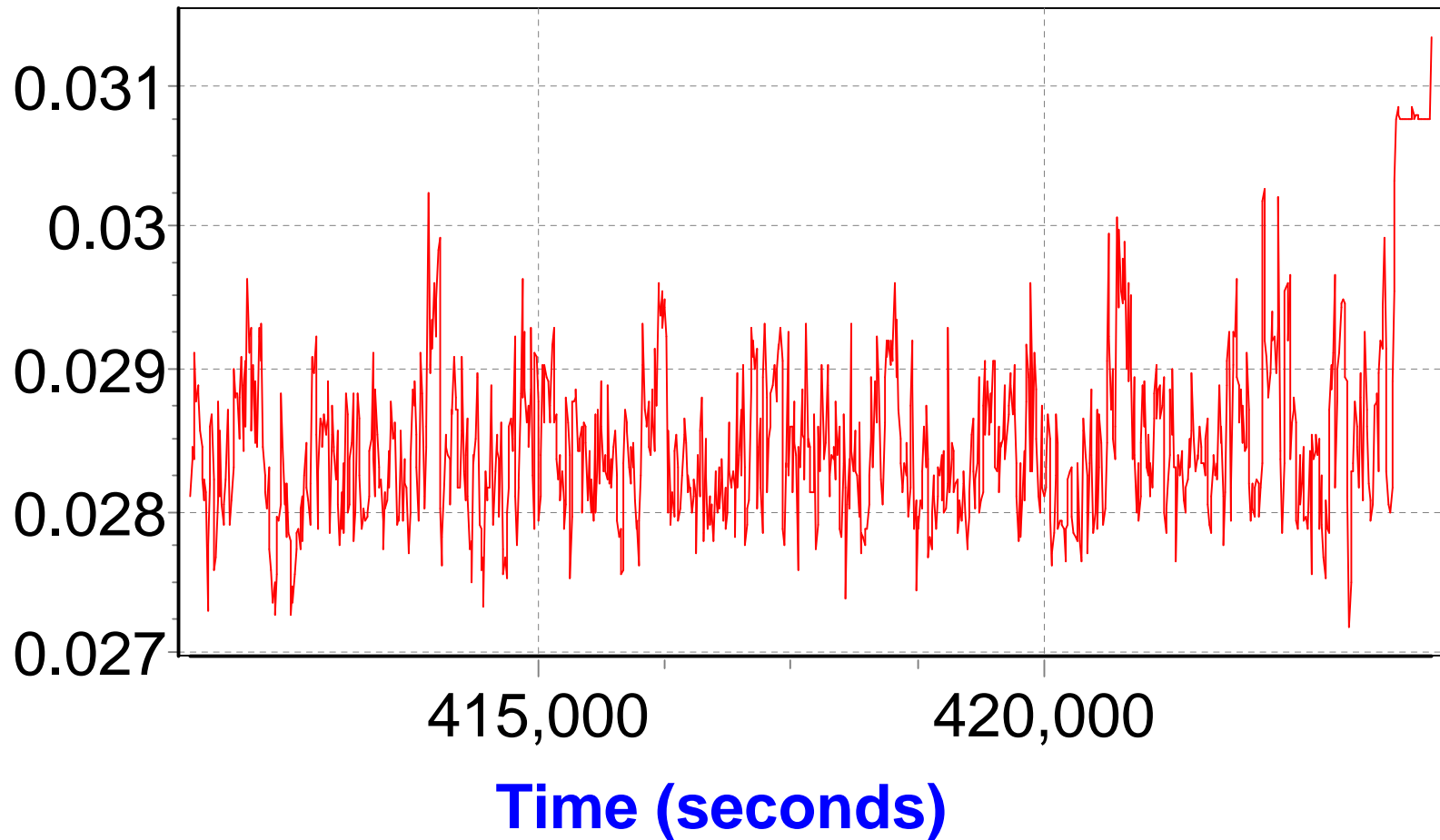




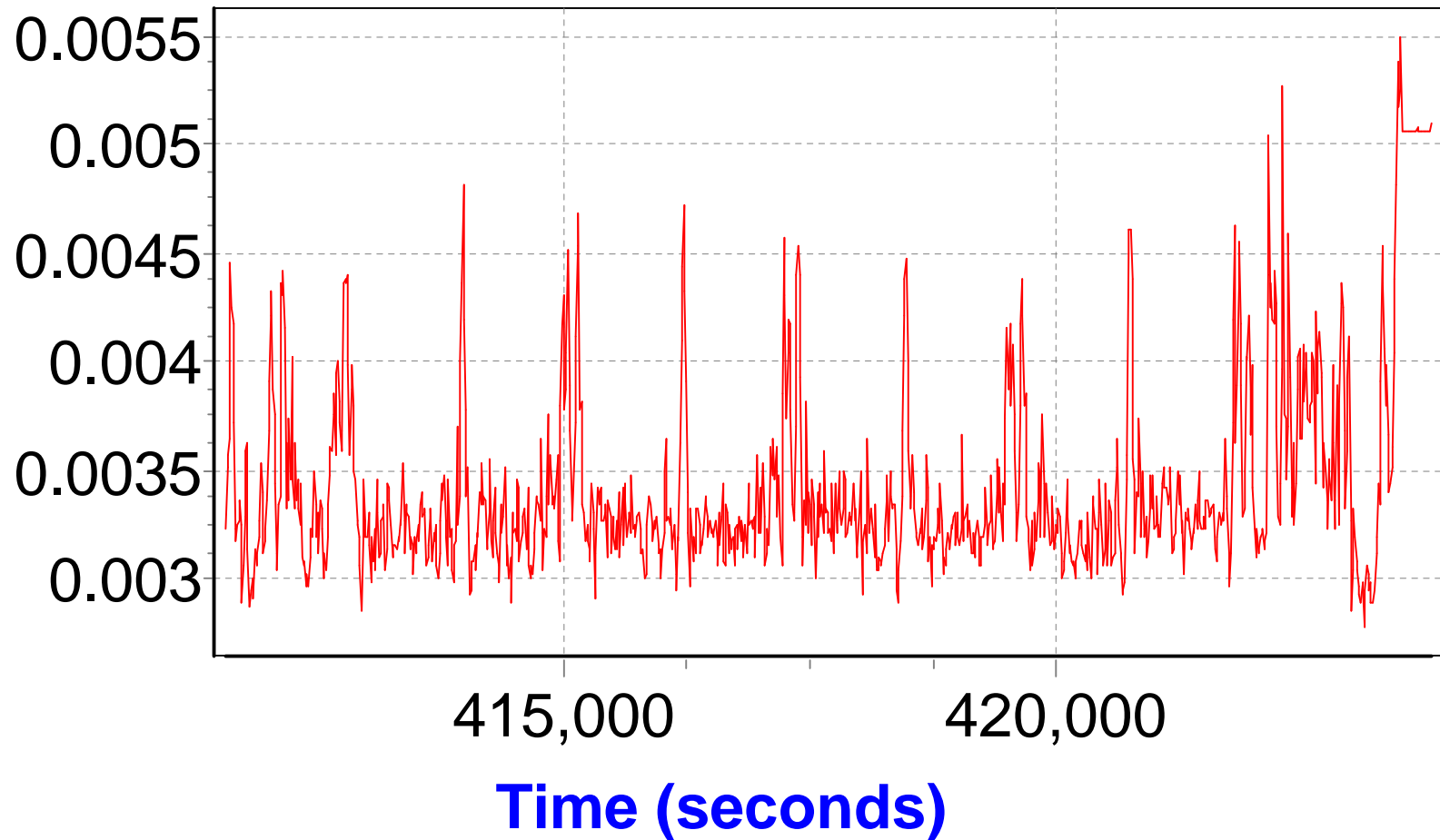
## S/D Navigator Y Position RMS Error (meters)



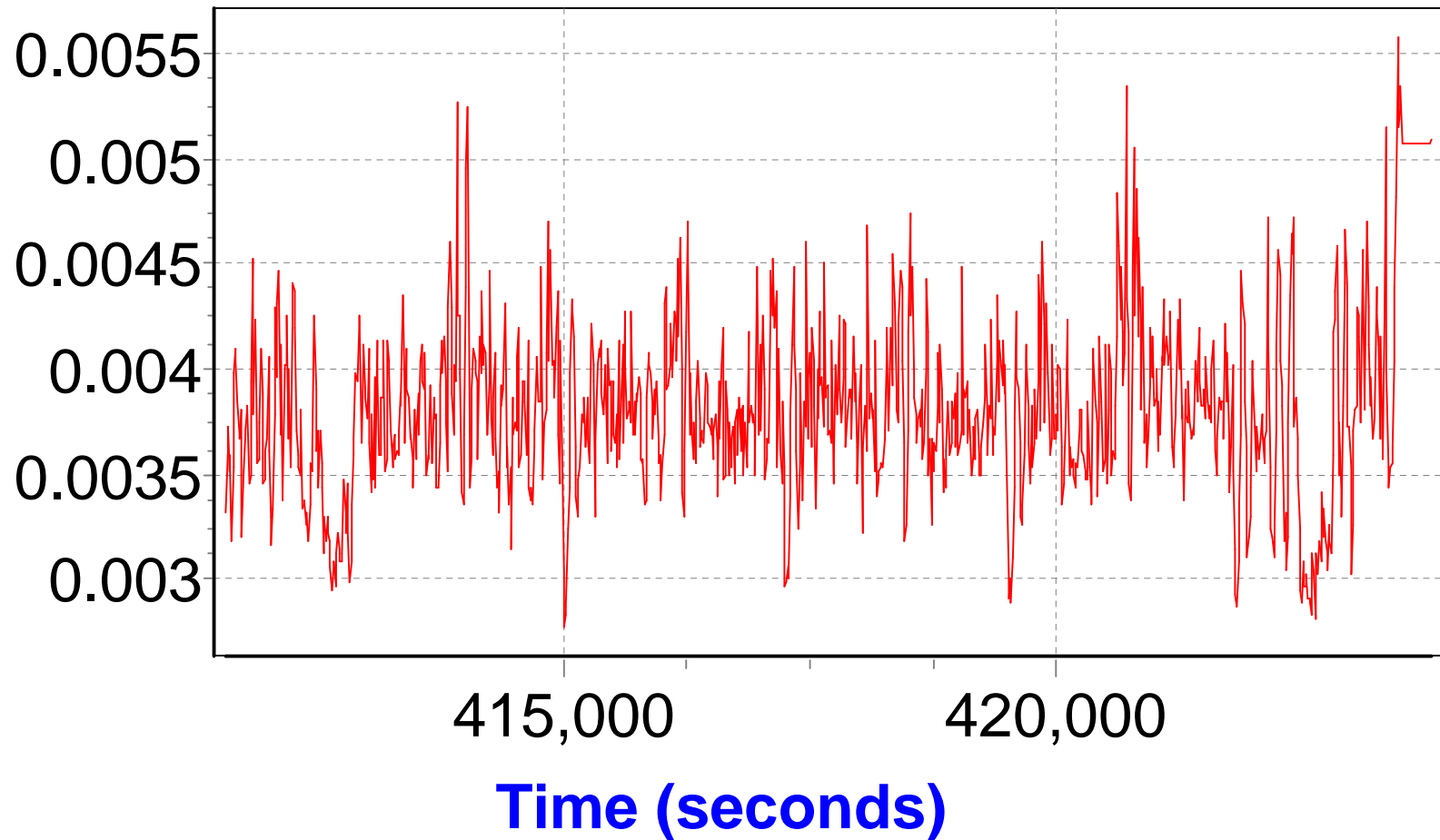
## S/D Navigator Z Position RMS Error (meters)



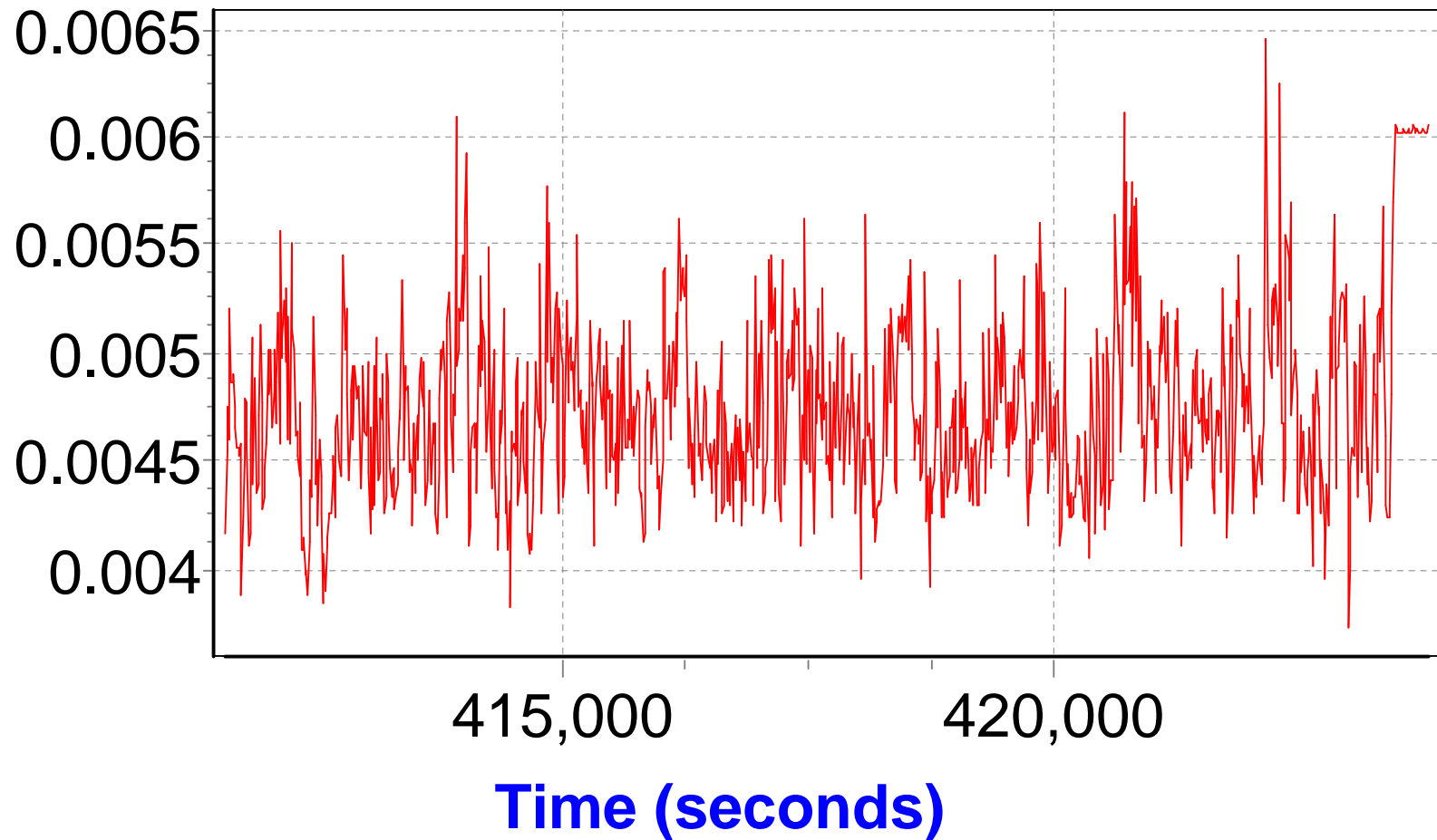
## S/D Navigator X Velocity RMS Error (meters/seconds)



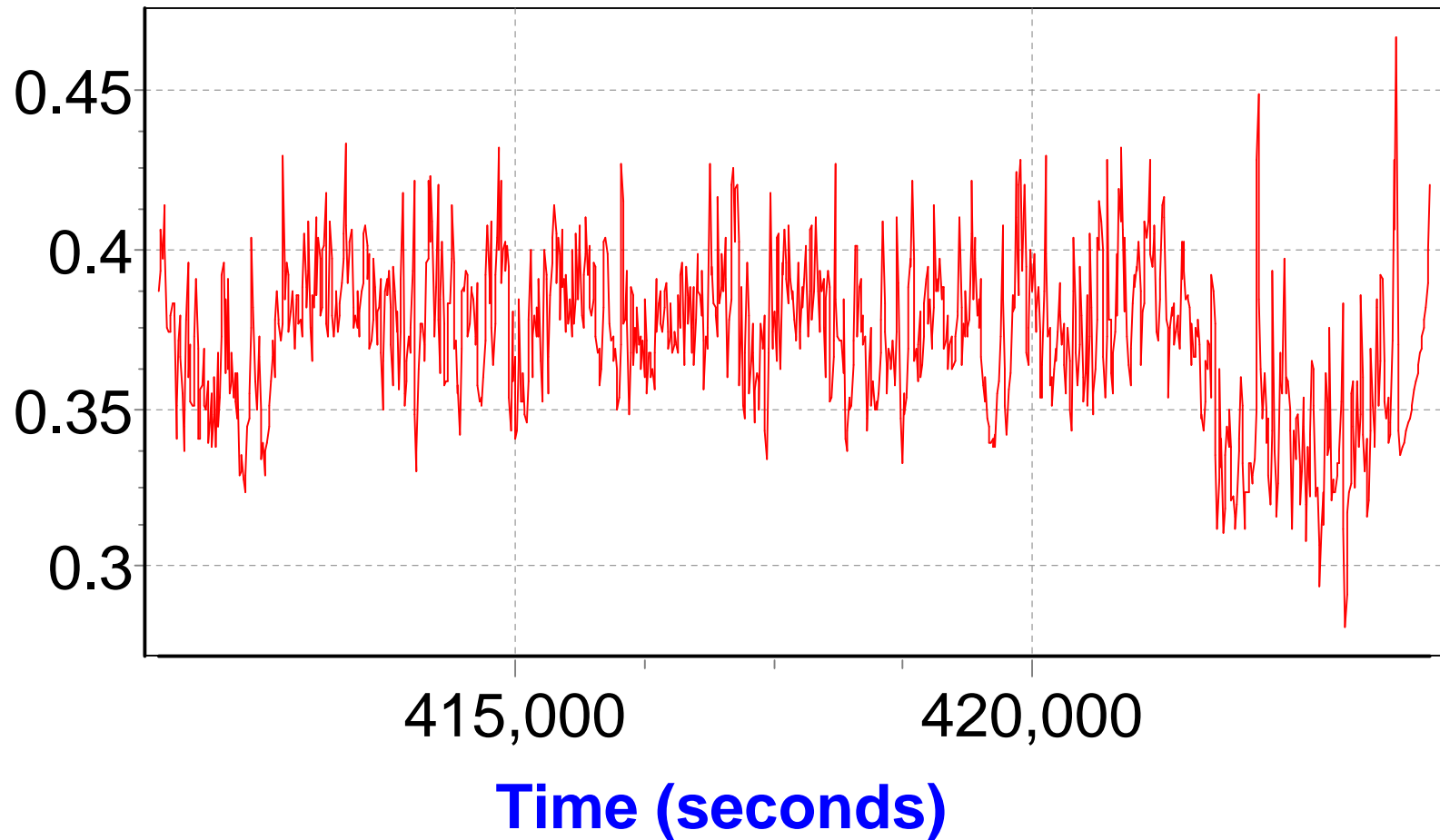
## S/D Navigator Y Velocity RMS Error (meters/seconds)



## S/D Navigator Z Velocity RMS Error (meters/seconds)

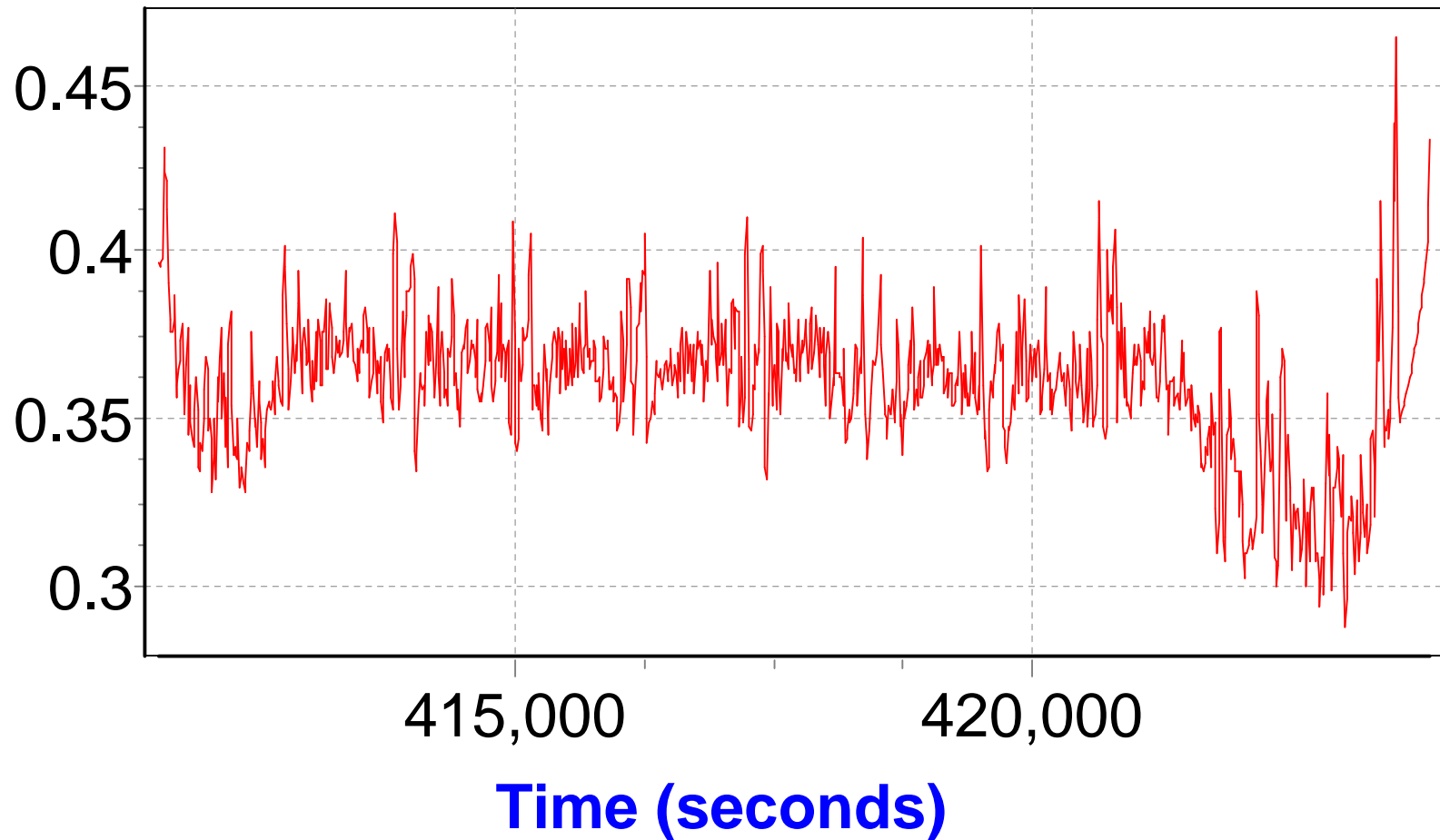


## S/D Navigator X Misalignment RMS (arcmin)

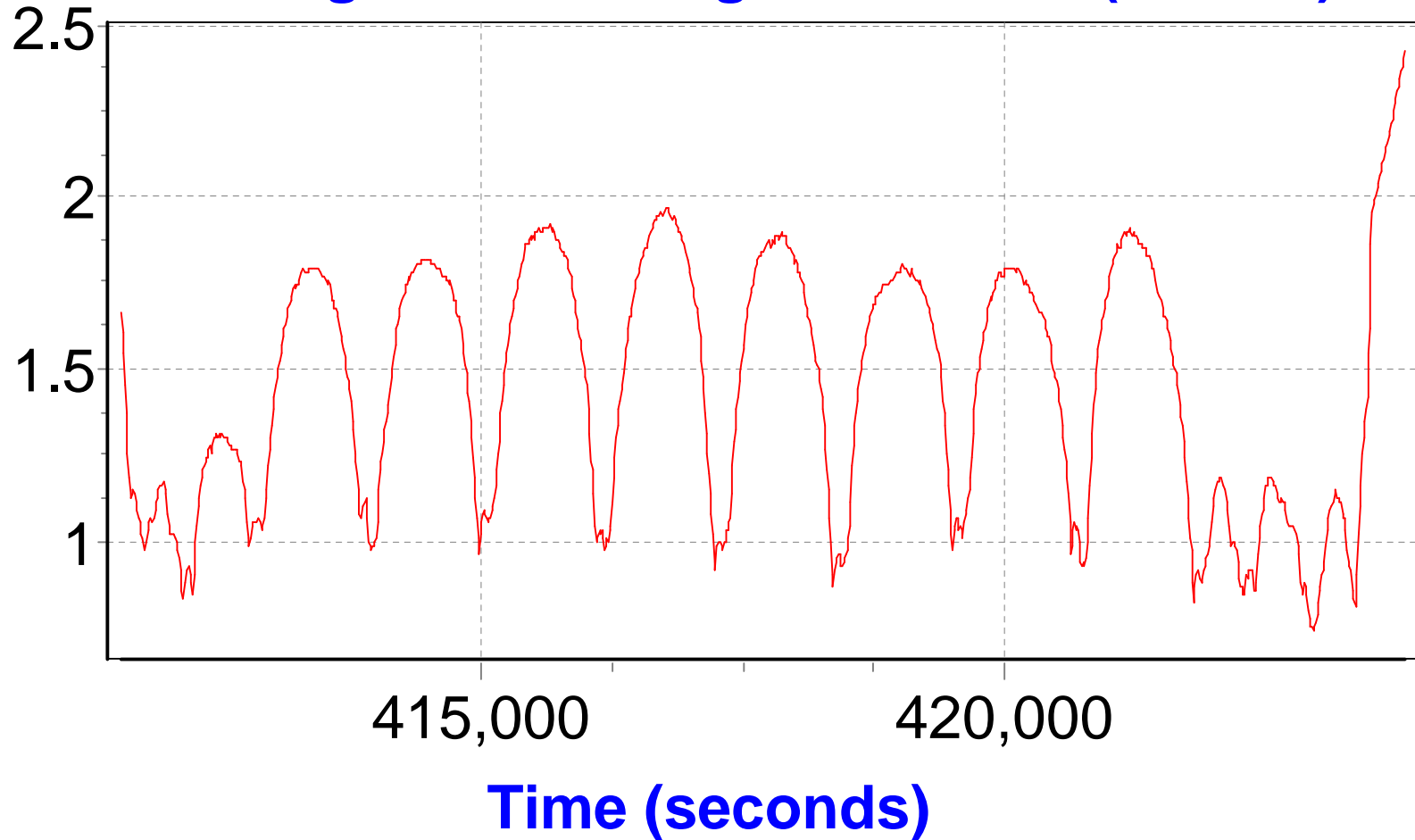




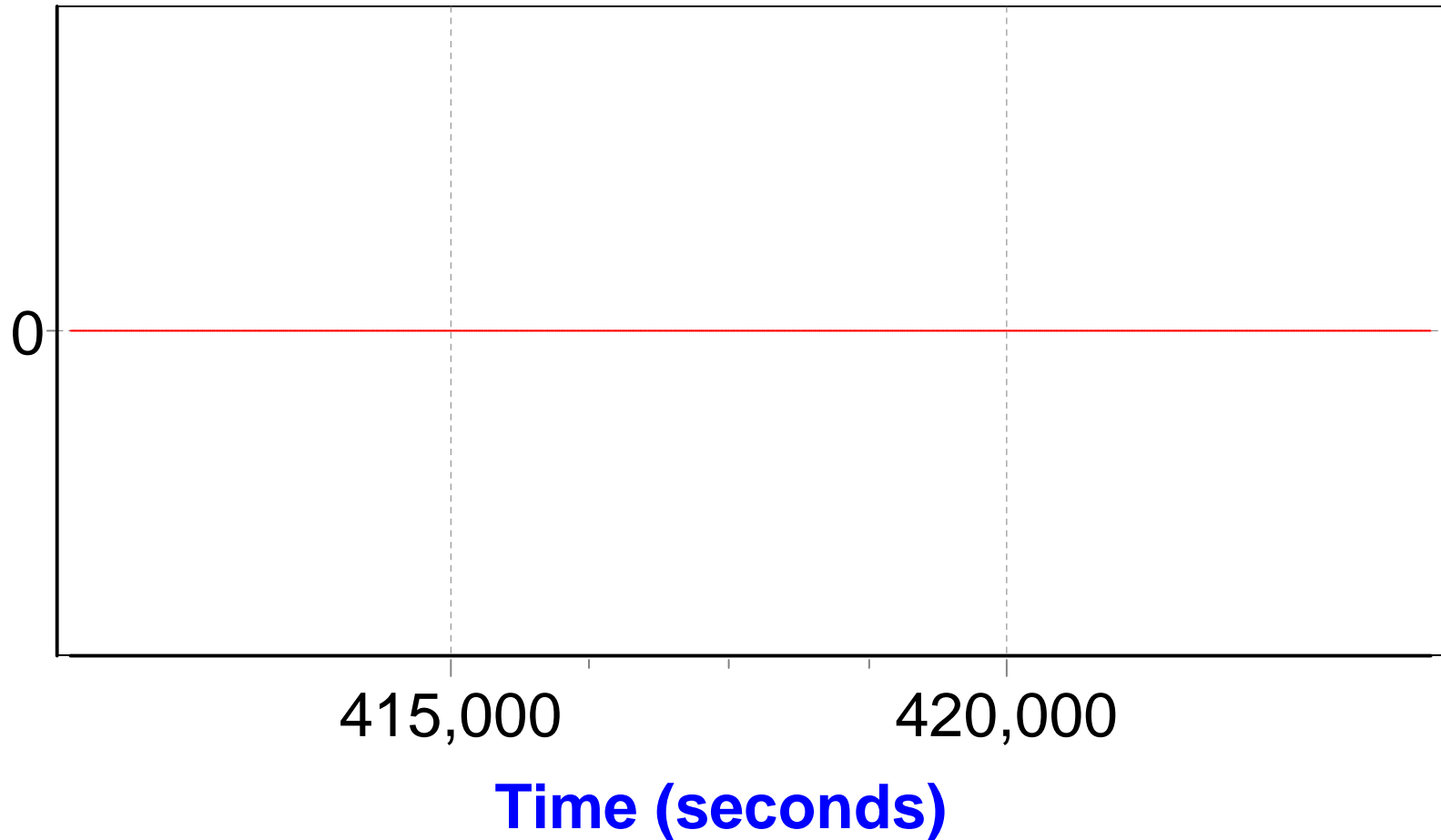
## S/D Navigator Y Misalignment RMS (arcmin)



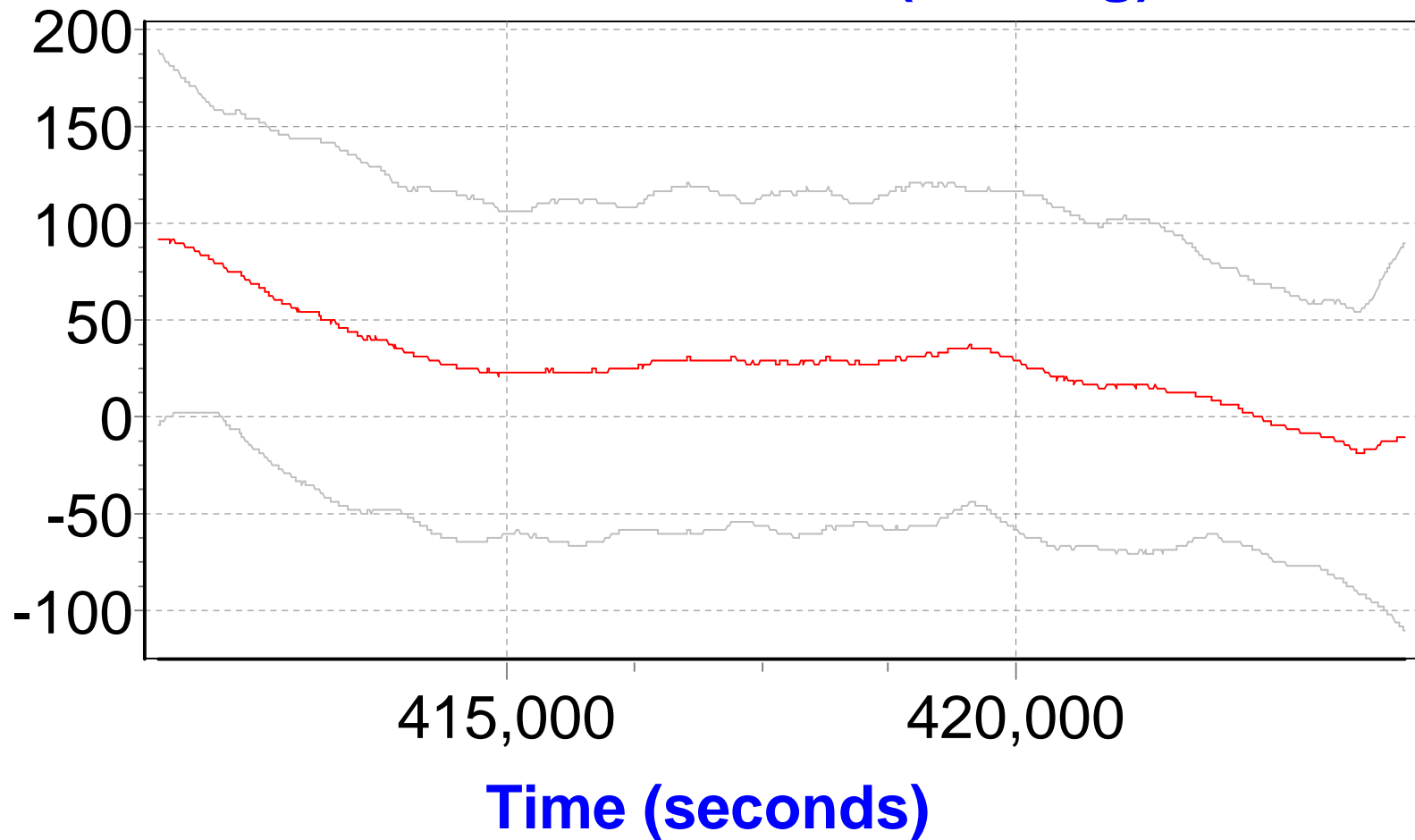
## S/D Navigator Z Misalignment RMS (arcmin)



## S/D Navigator COS(Z Misalignment)-1 RMS (radians)



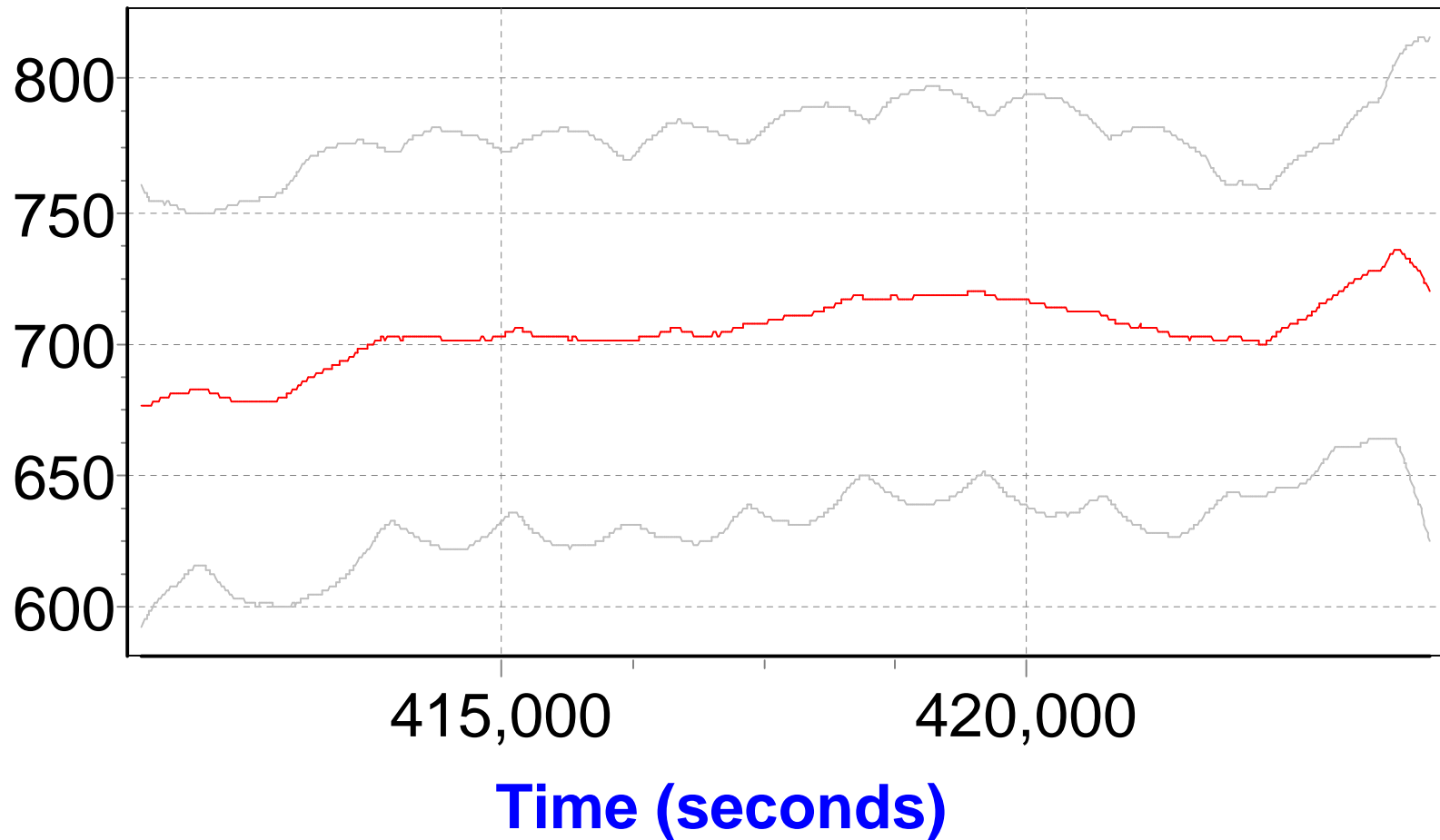
## X Accelerometer Bias (micro-g)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

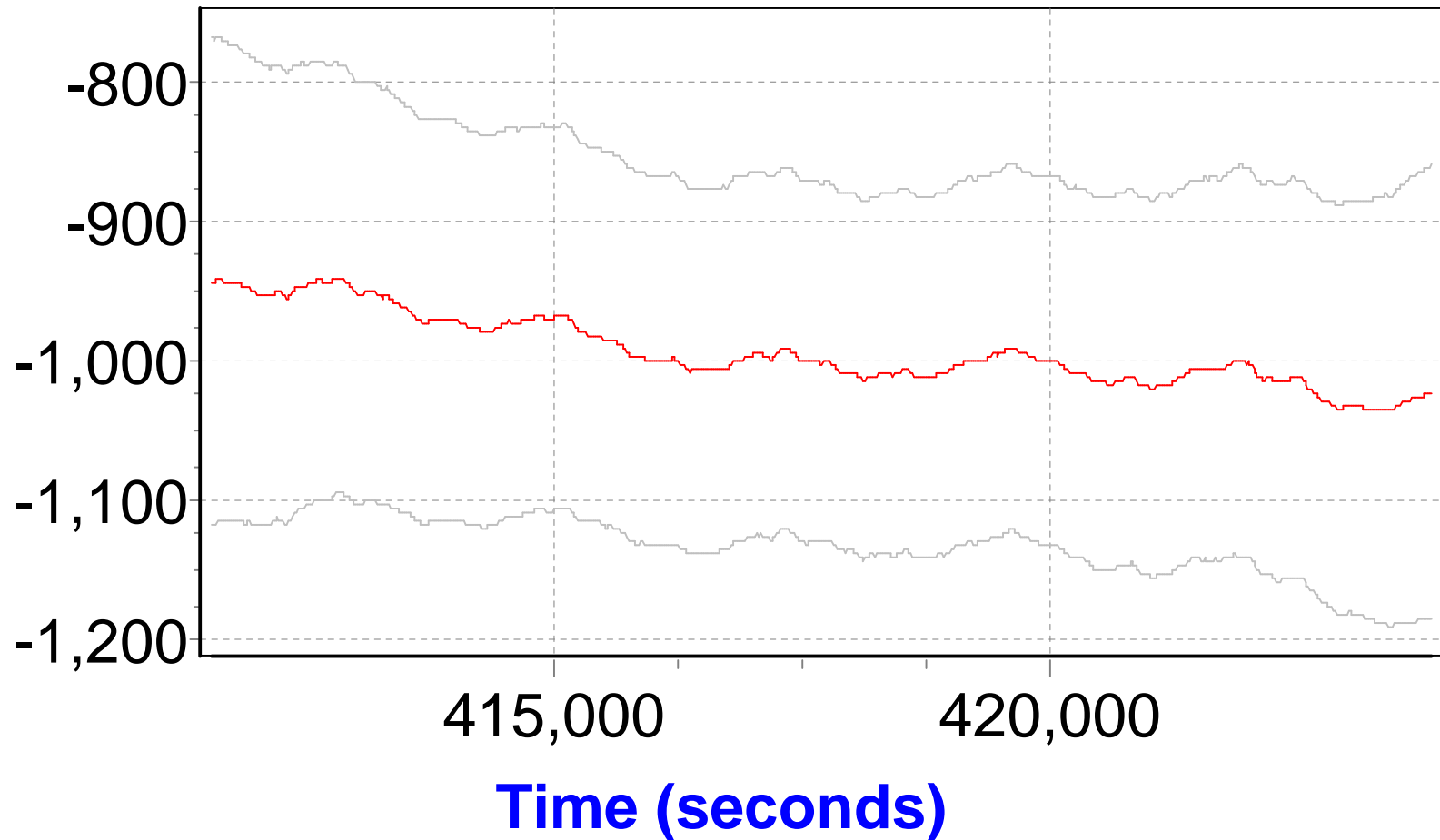
## Y Accelerometer Bias (micro-g)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

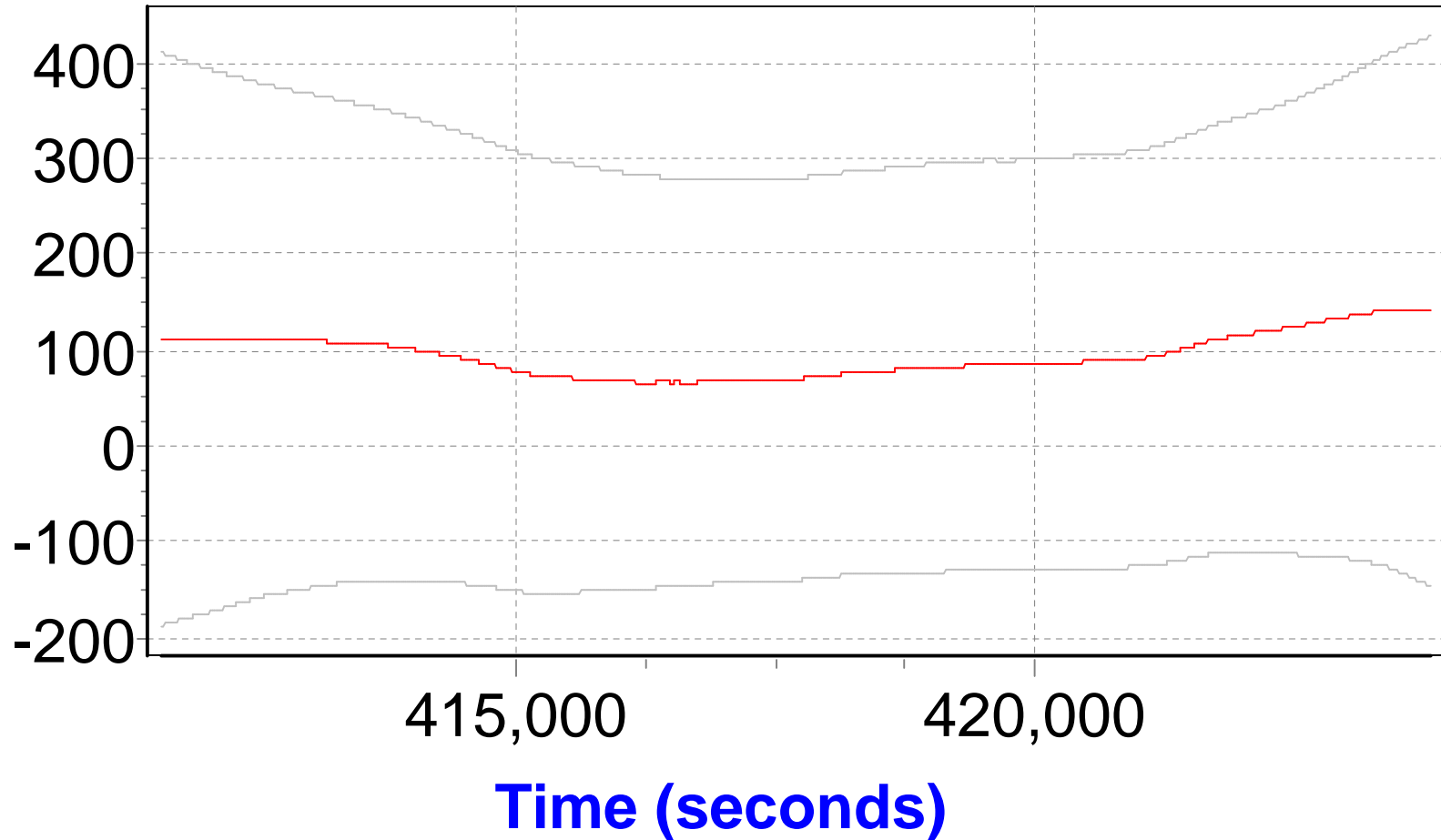
## Z Accelerometer Bias (micro-g)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

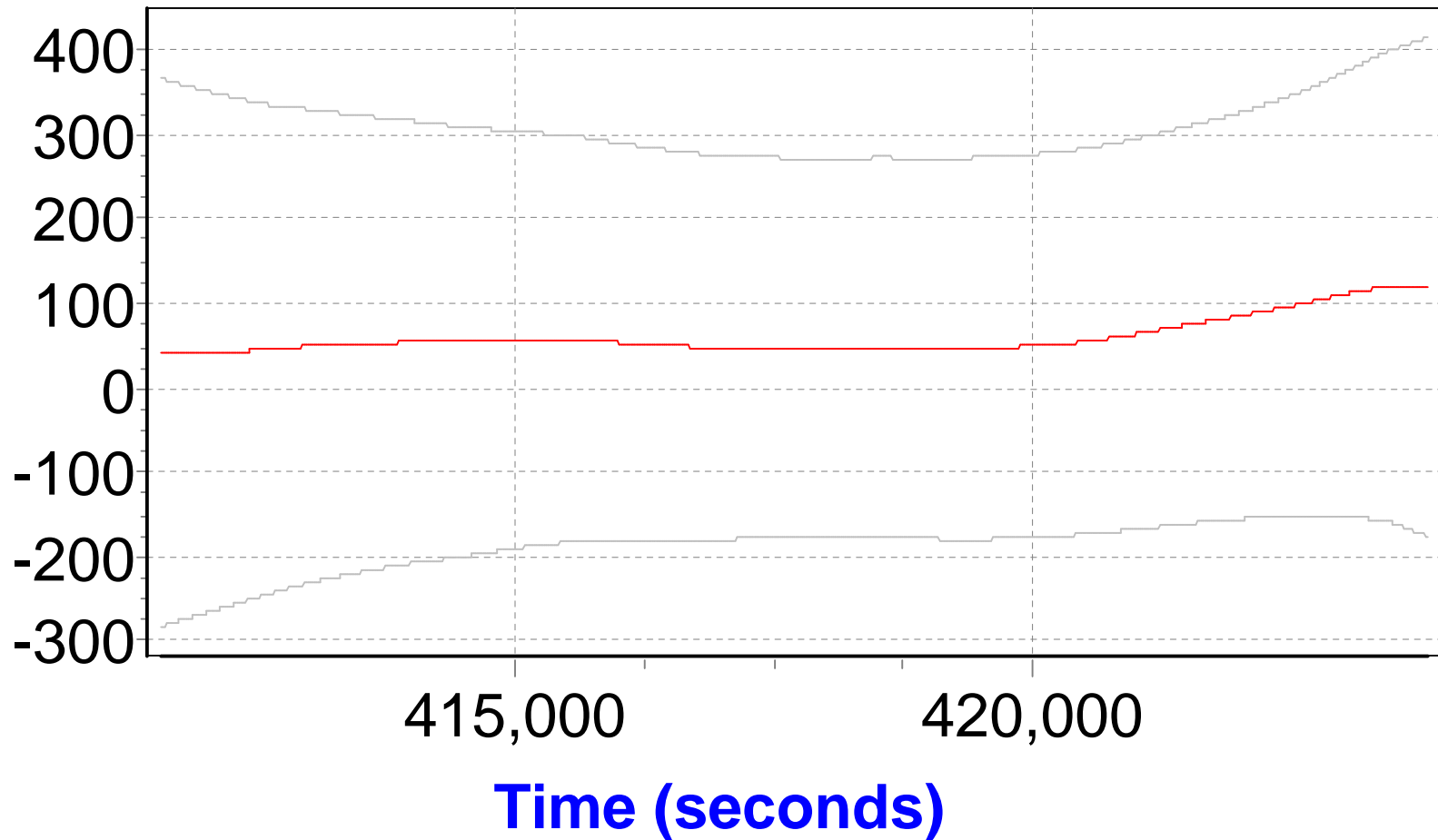
## X Accelerometer Scale Factor Error (ppm)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

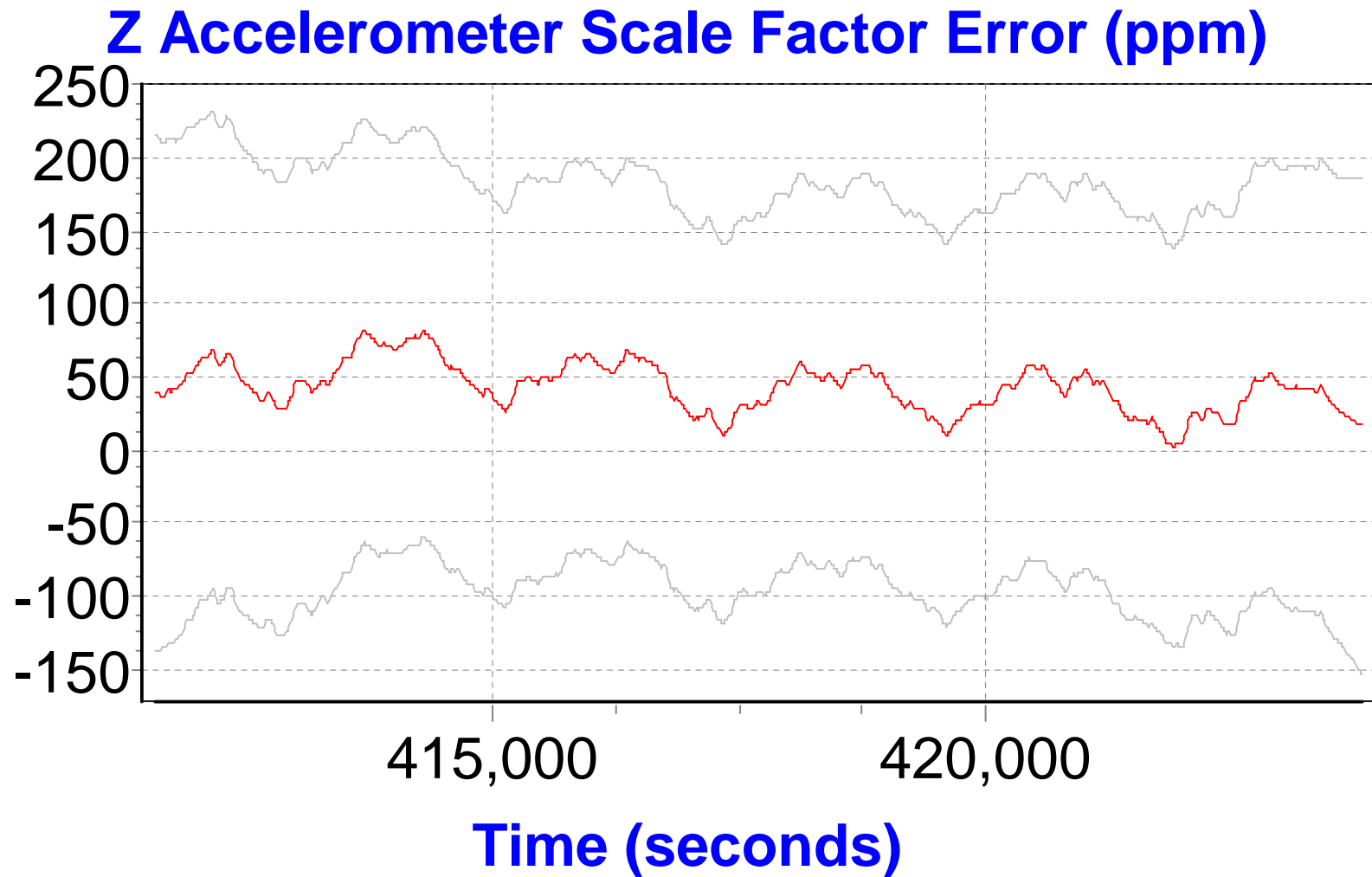
## Y Accelerometer Scale Factor Error (ppm)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

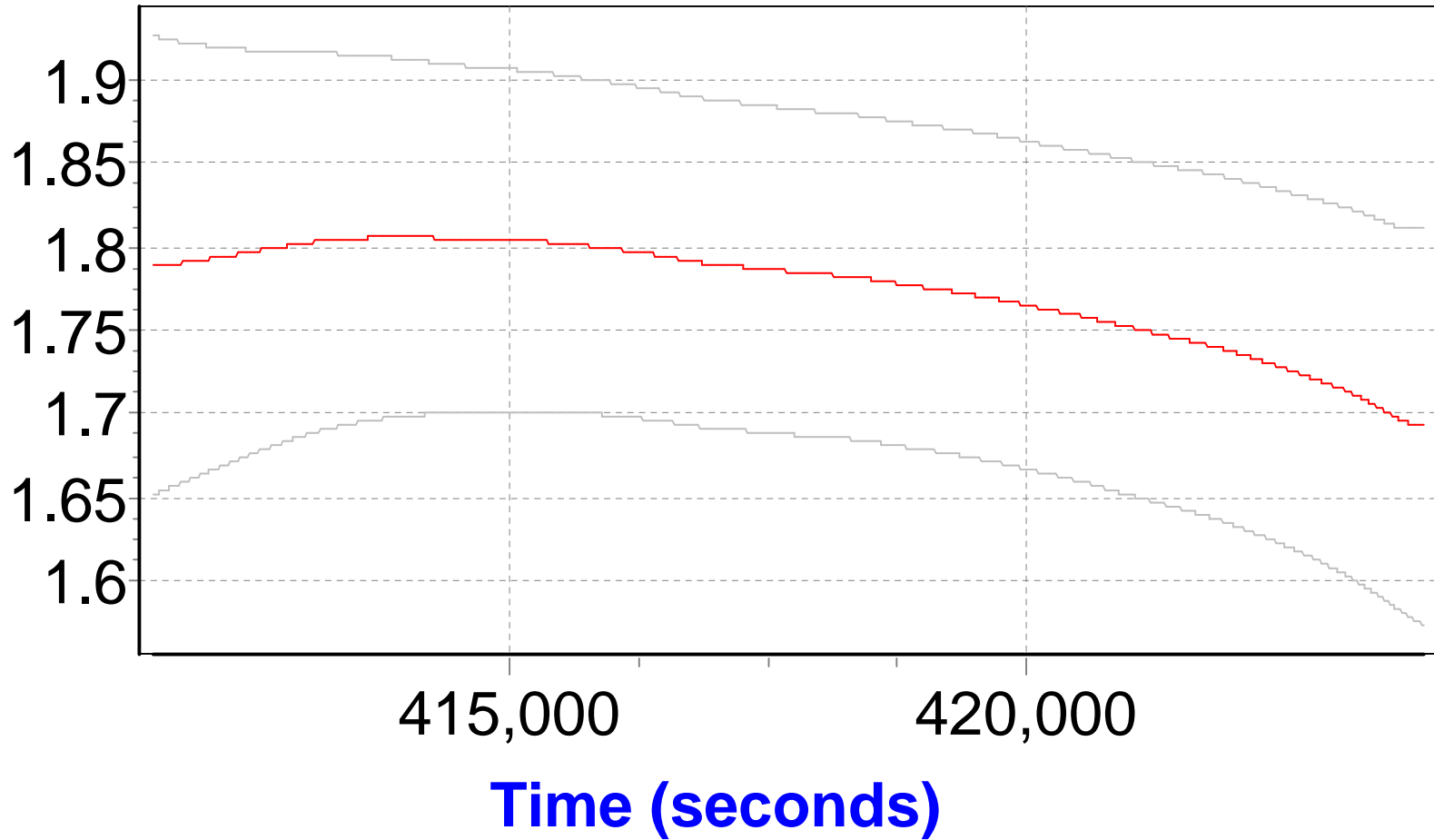




G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

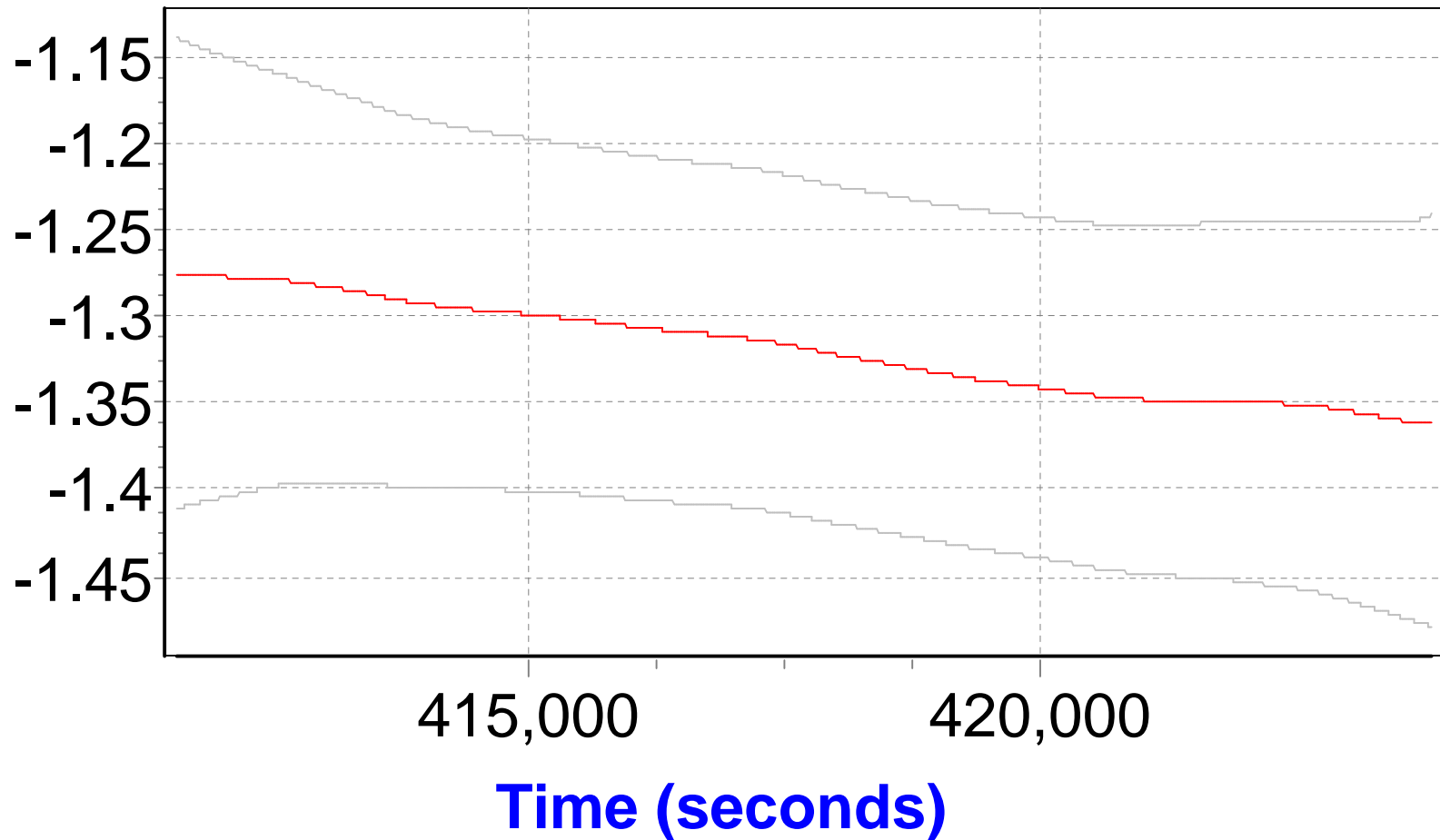
## X Gyro Bias (degrees/hour)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

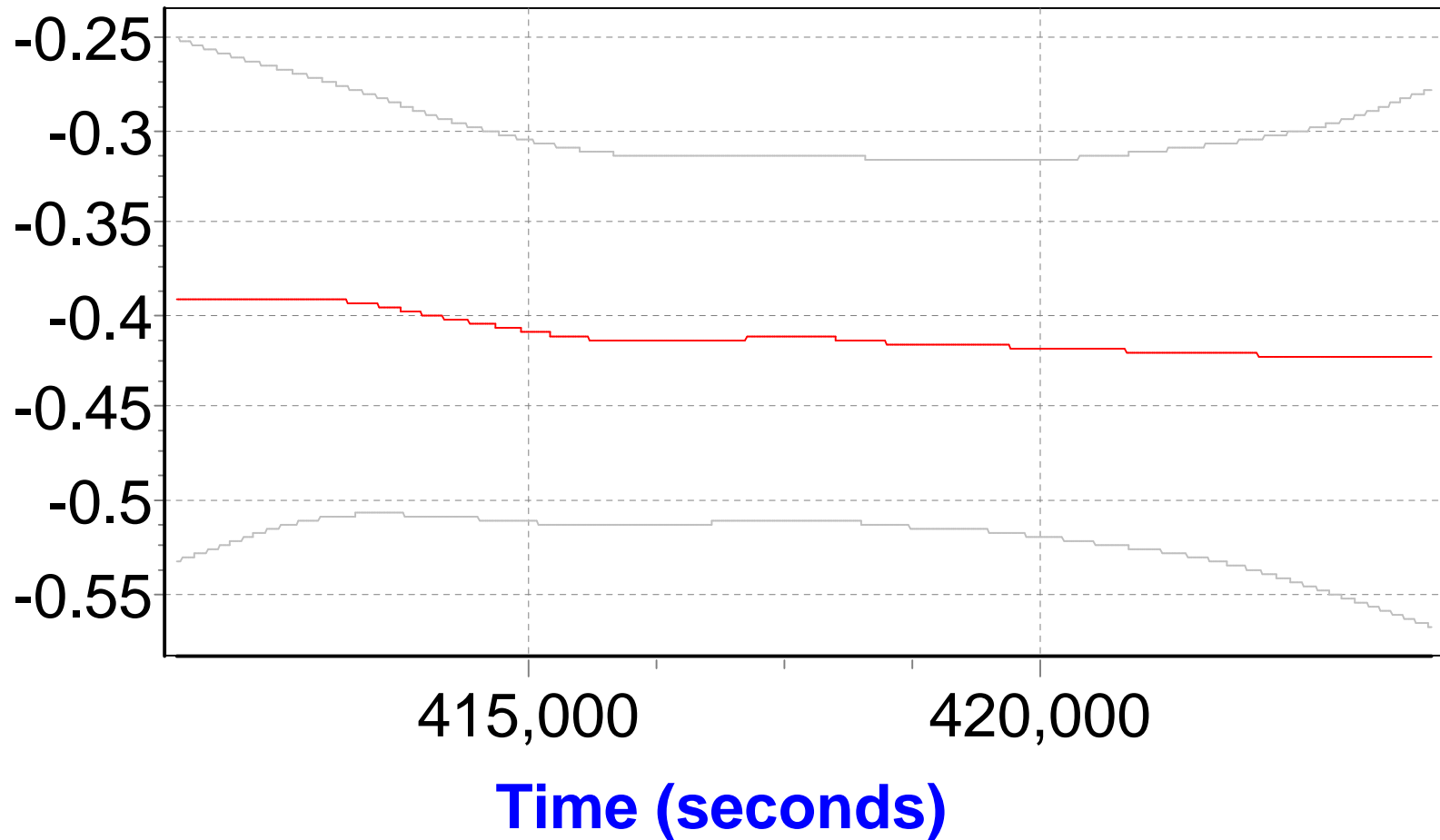
## Y Gyro Bias (degrees/hour)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

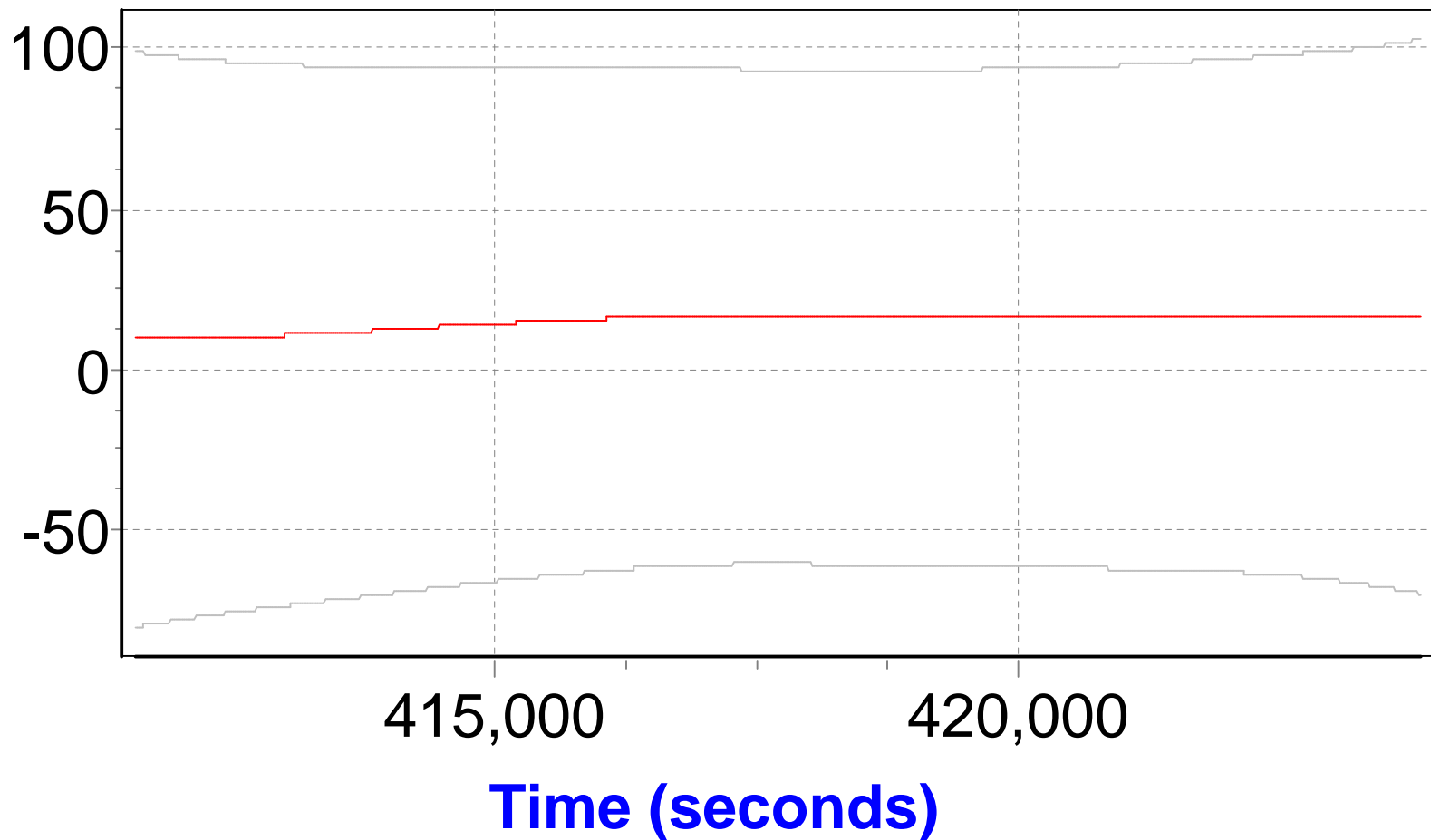
## Z Gyro Bias (degrees/hour)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

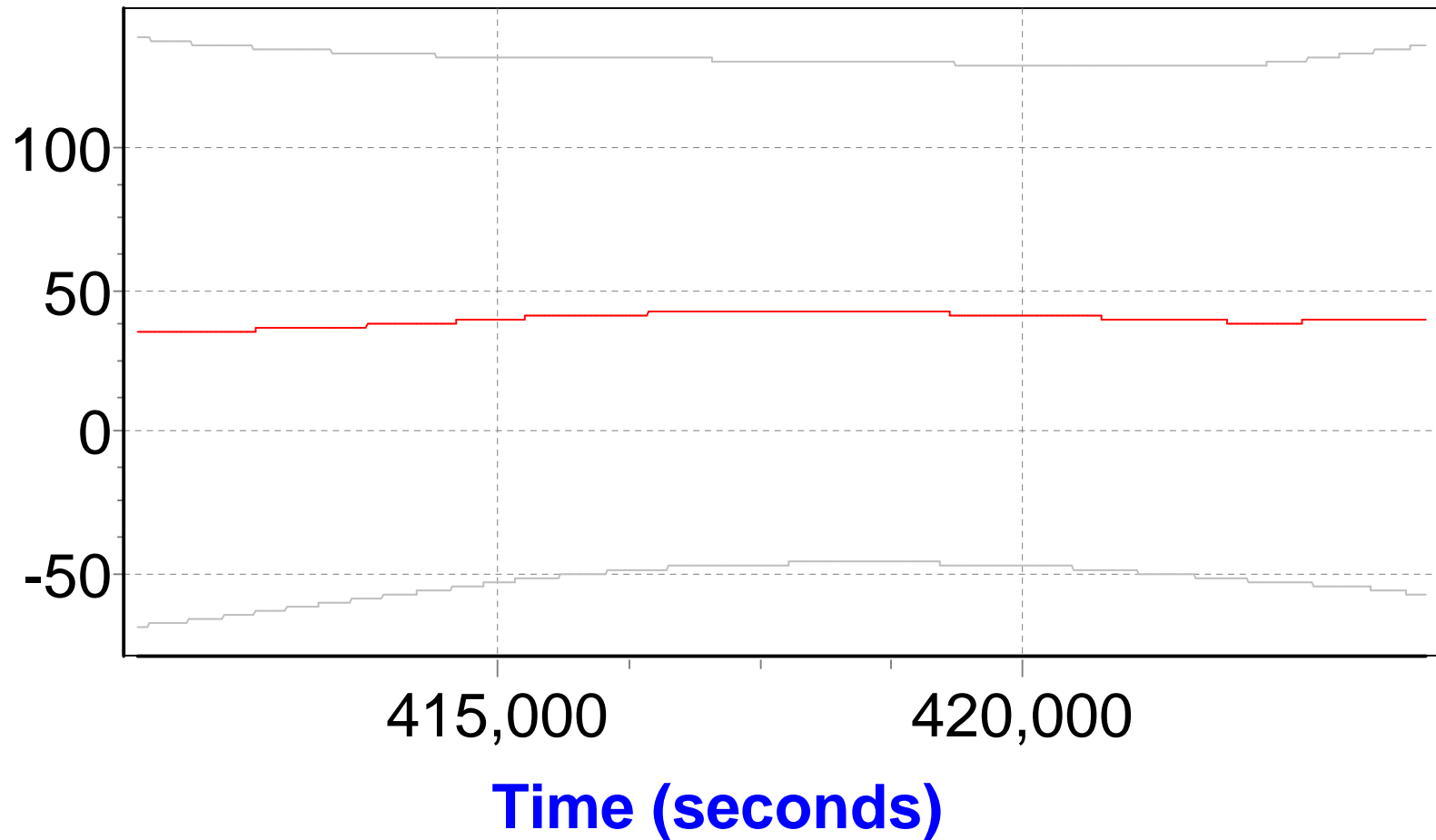
## X Gyro Scale Factor Error (ppm)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

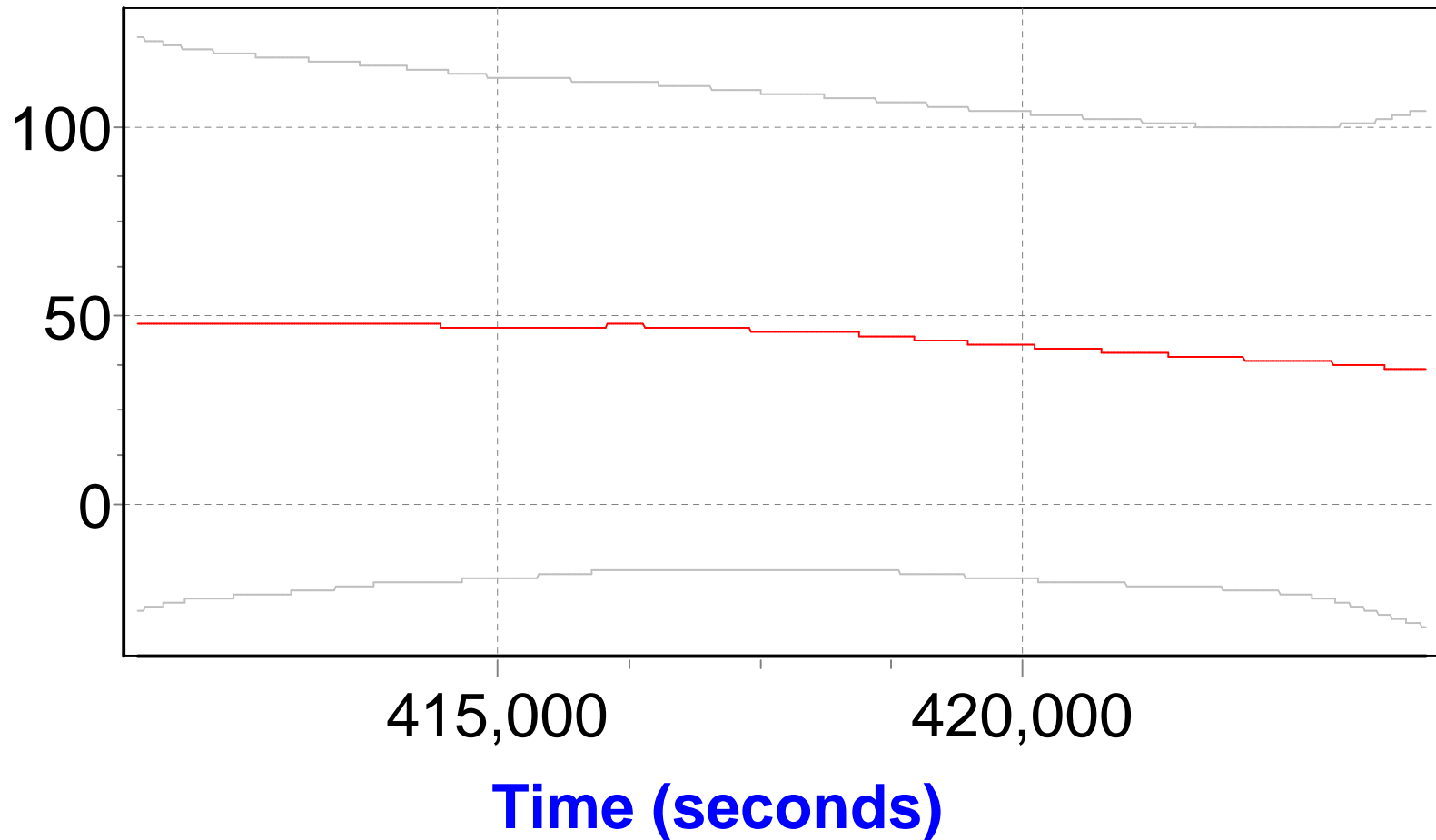
## Y Gyro Scale Factor Error (ppm)



G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

## Z Gyro Scale Factor Error (ppm)

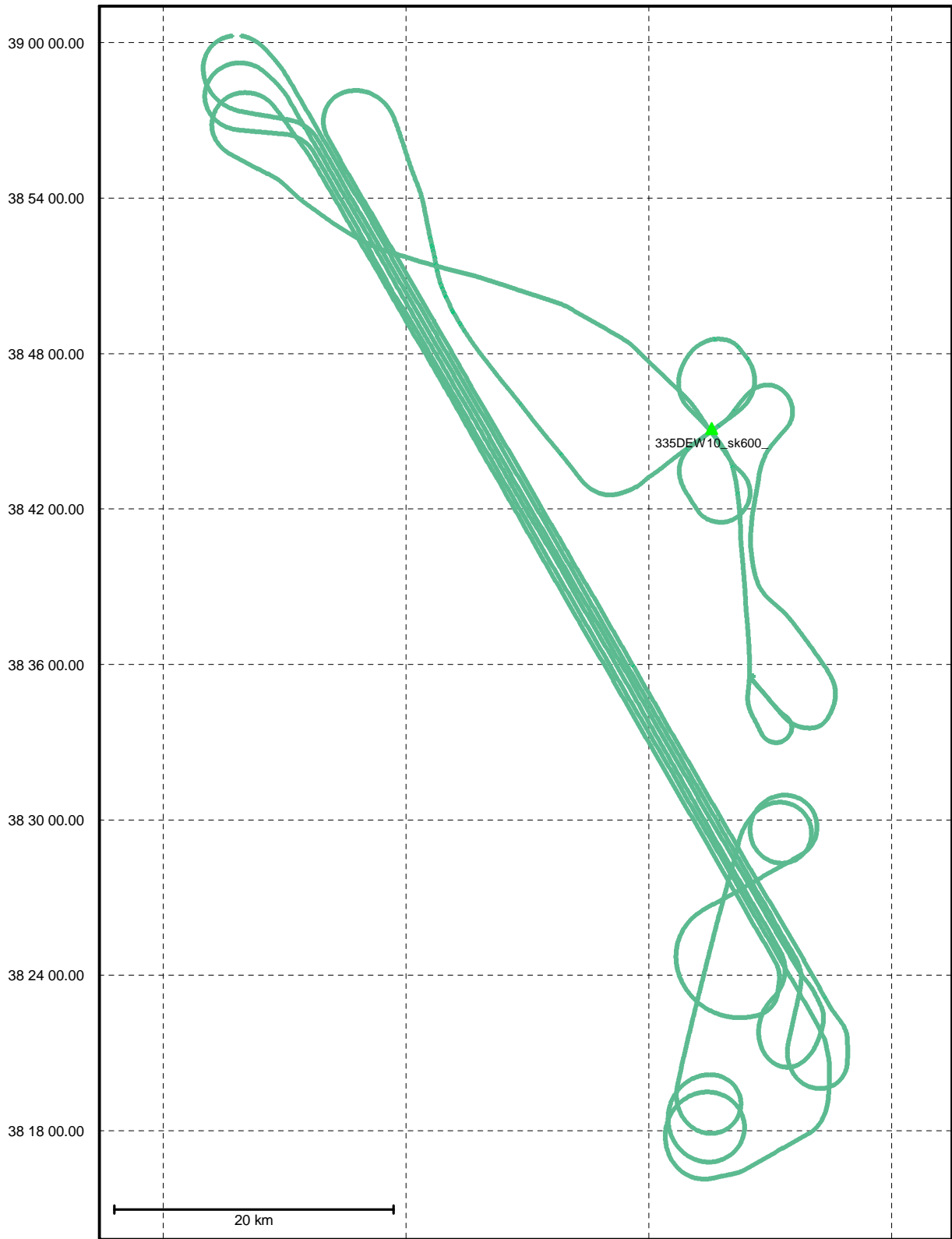


G:\o212096a\3\_Processed\Extract\smers\_o212096a.dat

G:\o212096a\3\_Processed\Extract\smrms\_o212096a.dat

# Combined - Map Run (5)

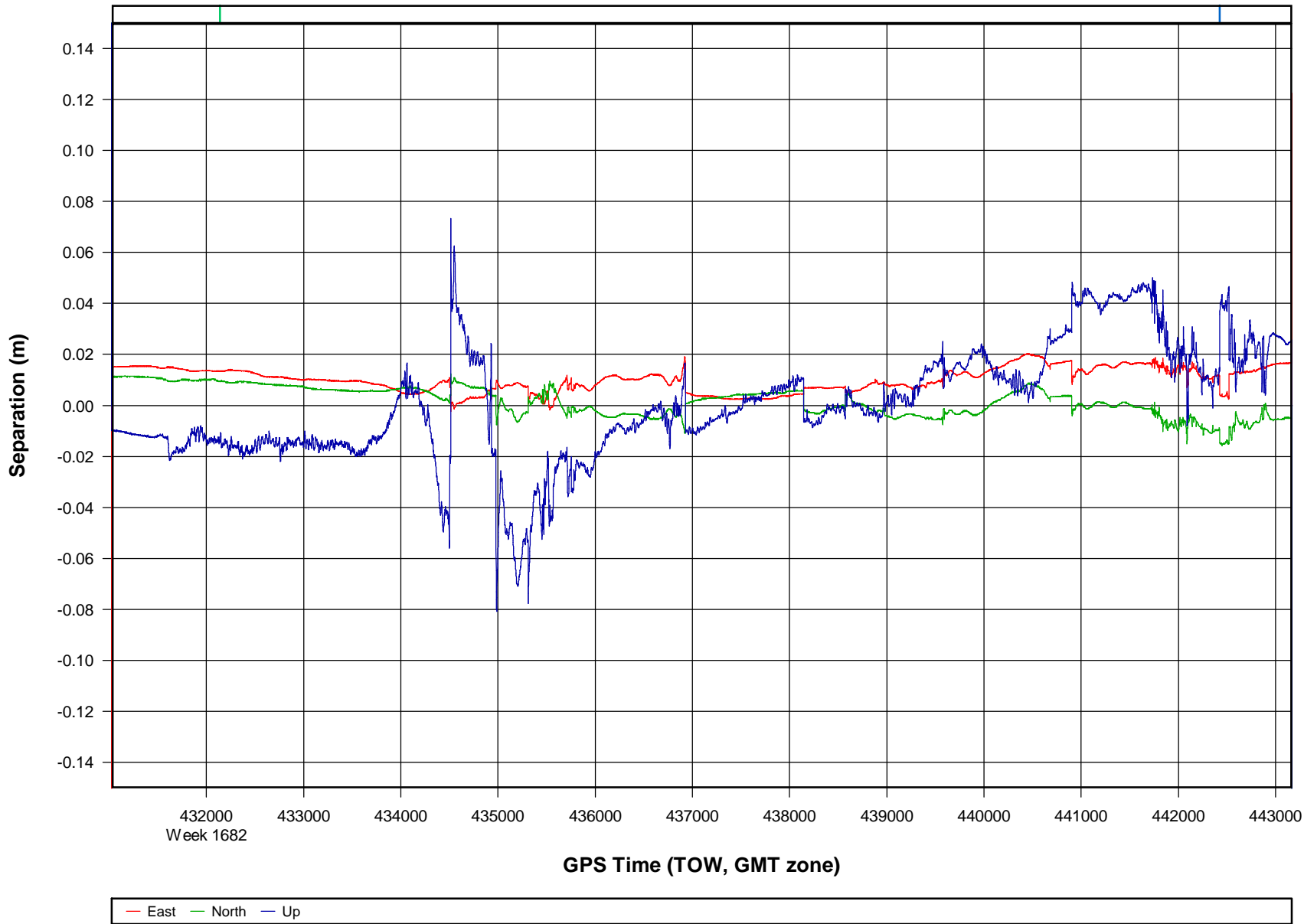
Geographic, DMS



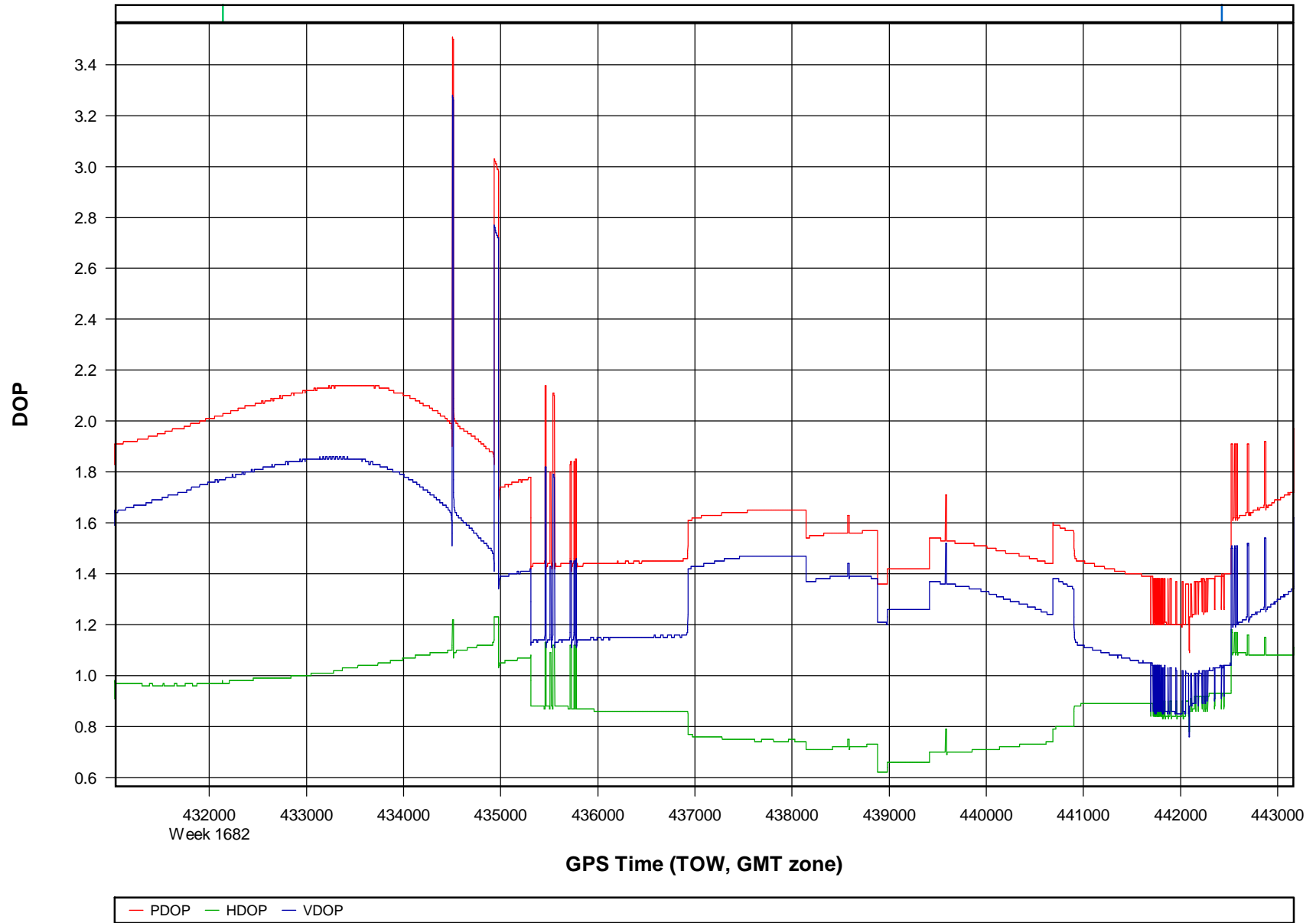
+ Ukn + Q1 + Q2 + Q3 + Q4 + Q5 + Q6 ▲ Master



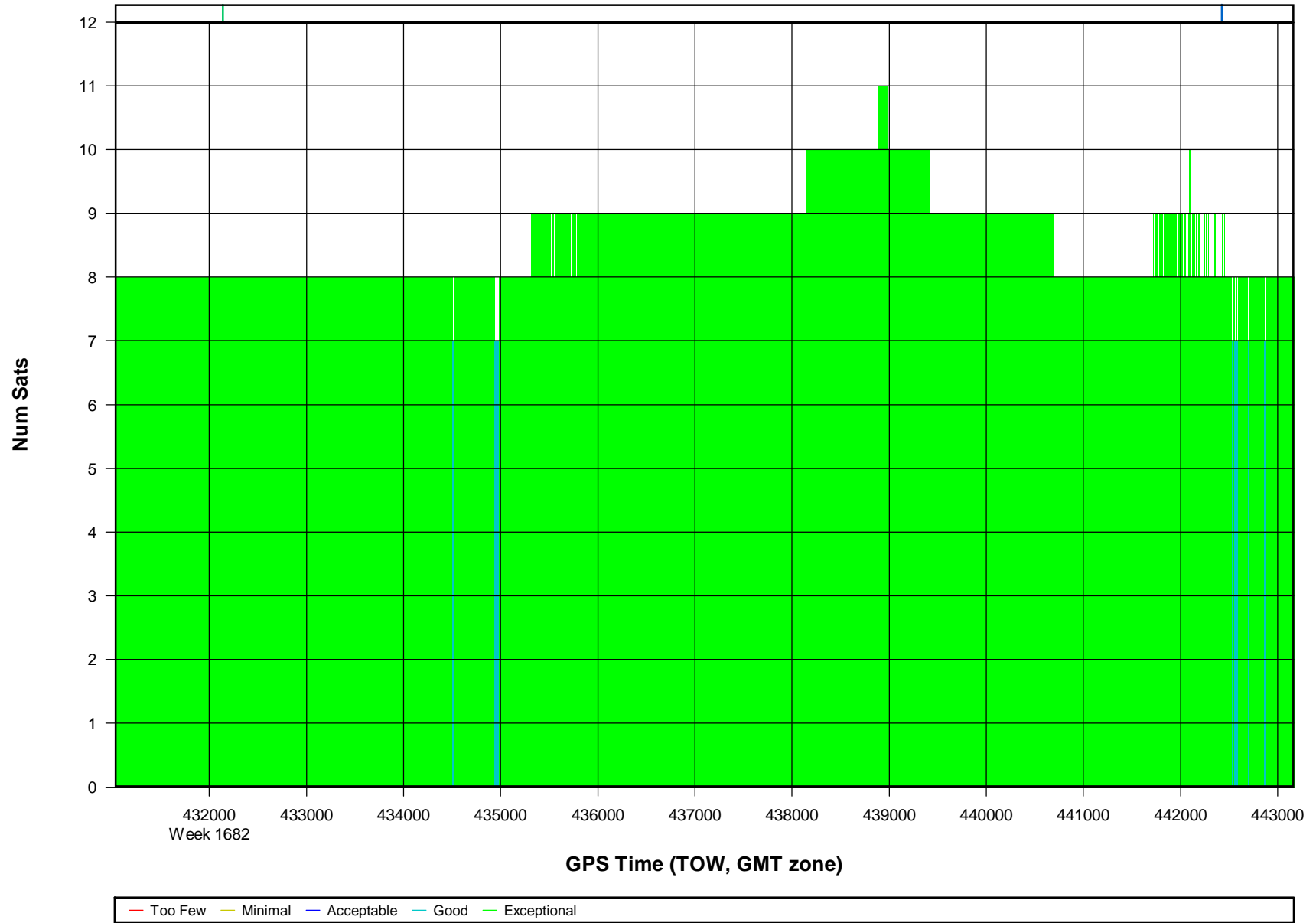
### o212096b [Combined] - Forward/Reverse or Combined Separation Plot



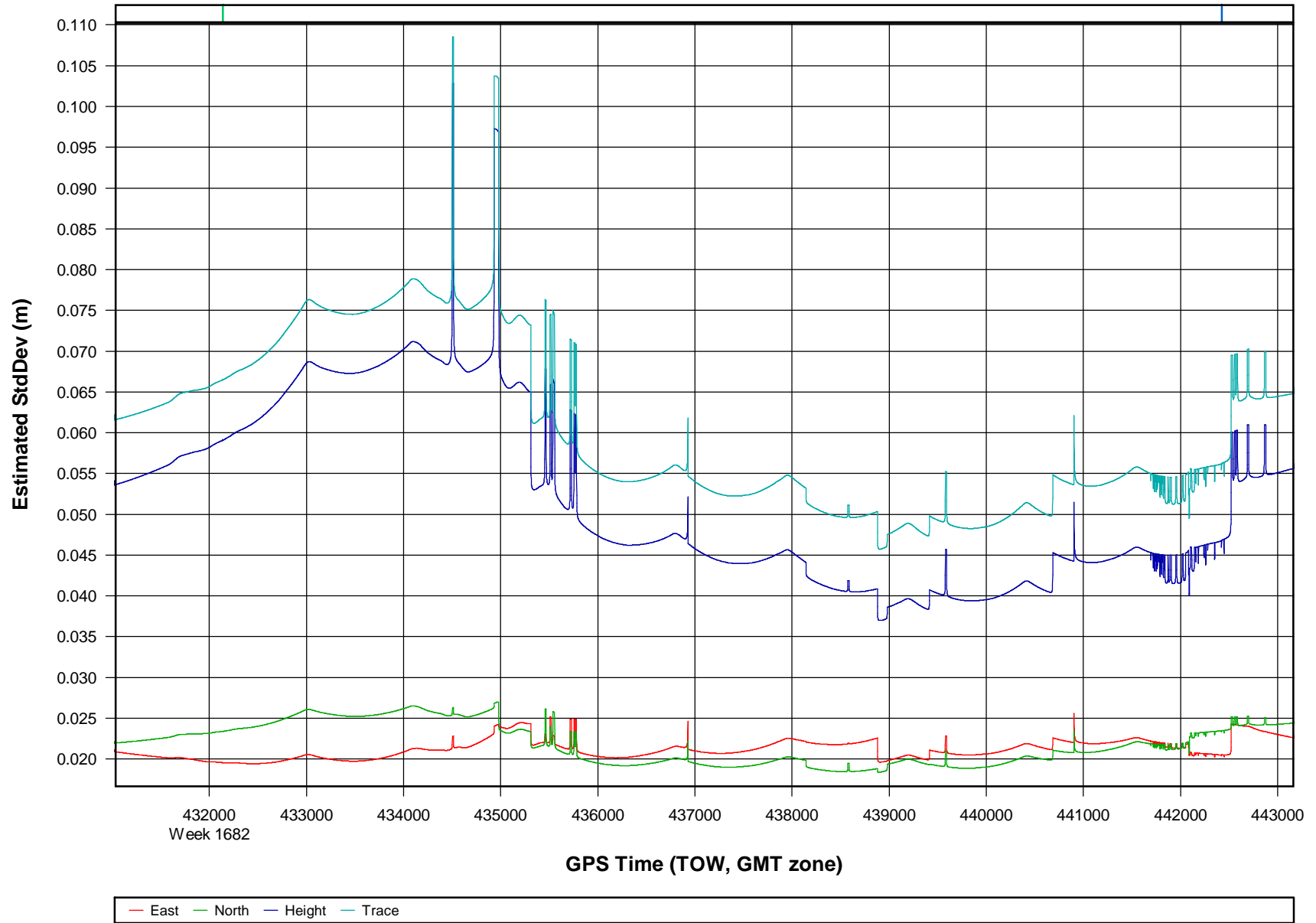
### o212096b [Combined] - PDOP, HDOP, VDOP Plots



### o212096b [Combined] - Number of Satellites Bar Plot



### o212096b [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o212096b\3\_Processed\GPS\o212096b.cfg

Solution Type: Combined Fwd/Rev

## Number of Epochs:

Total in GPB file: 121574  
No processed position: 109428  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

## Measurement RMS Values:

L1 Phase: 0.0177 (m)  
C/A Code: 0.94 (m)  
L1 Doppler: 0.028 (m/s)

## Fwd/Rev Separation RMS Values:

East: 0.012 (m)  
North: 0.009 (m)  
Height: 0.025 (m)

## Fwd/Rev Sep. RMS for 25%-75% weighting (12140 occurrences):

East: 0.011 (m)  
North: 0.006 (m)  
Height: 0.022 (m)

## Quality Number Percentages:

Q 1: 99.7 %  
Q 2: 0.3 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

## Position Standard Deviation Percentages:

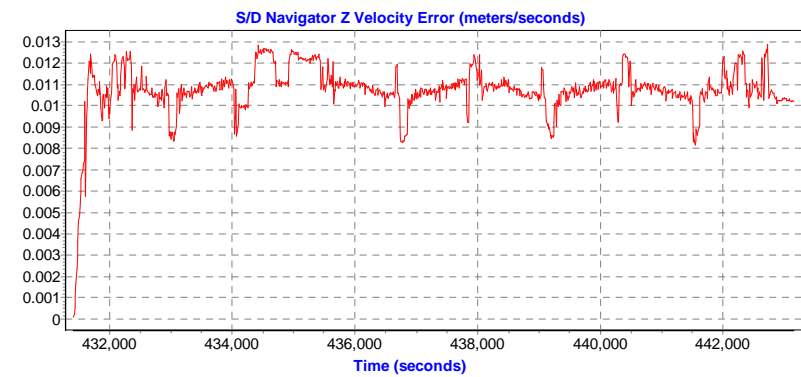
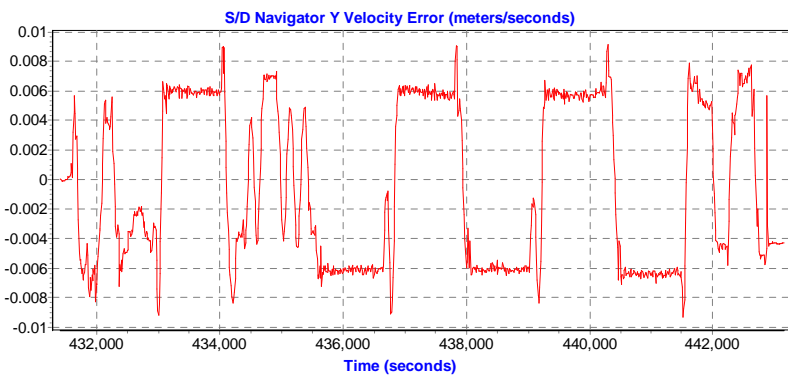
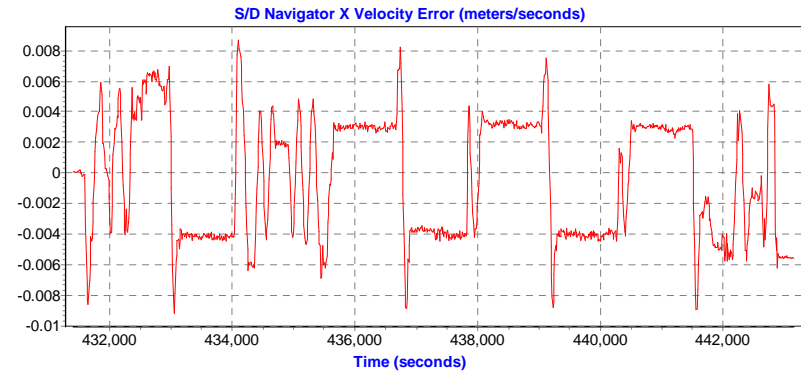
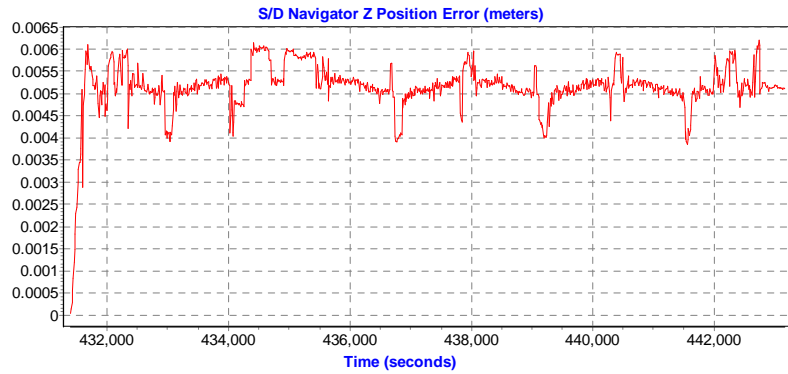
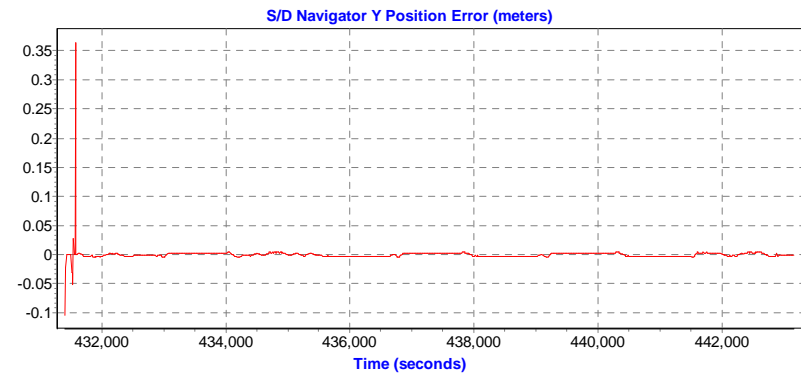
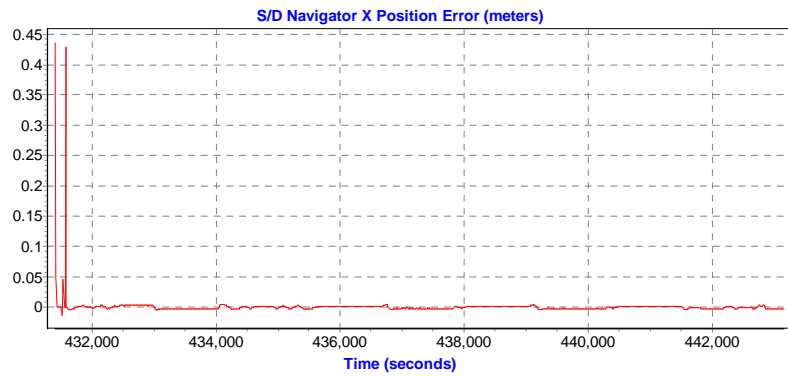
0.00 - 0.10 m: 99.5 %  
0.10 - 0.30 m: 0.5 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

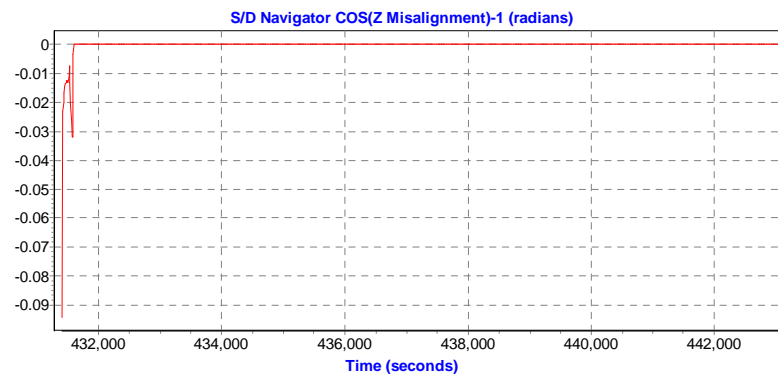
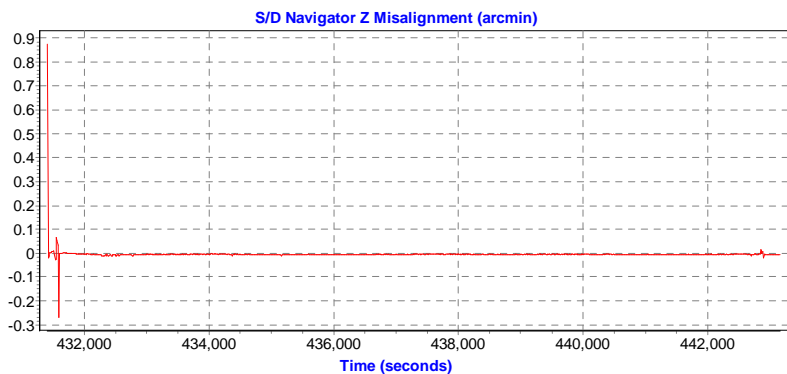
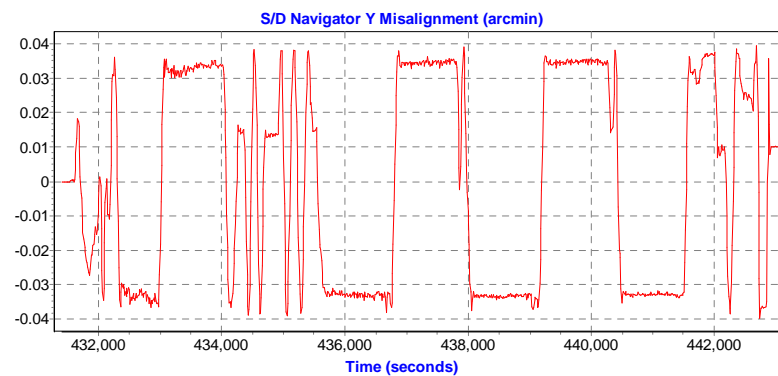
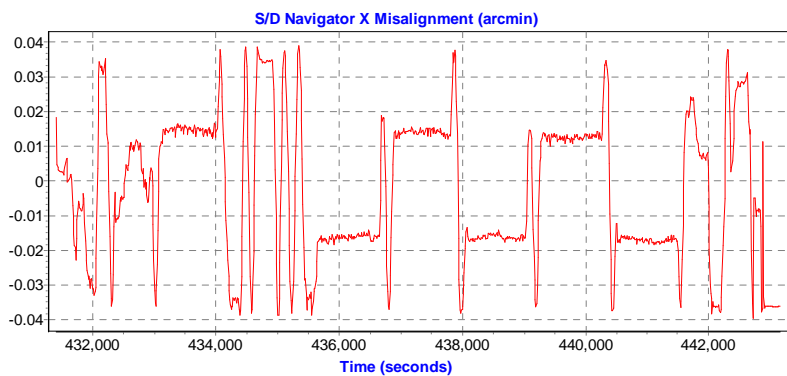
## Percentages of epochs with DD\_DOP over 10.00:

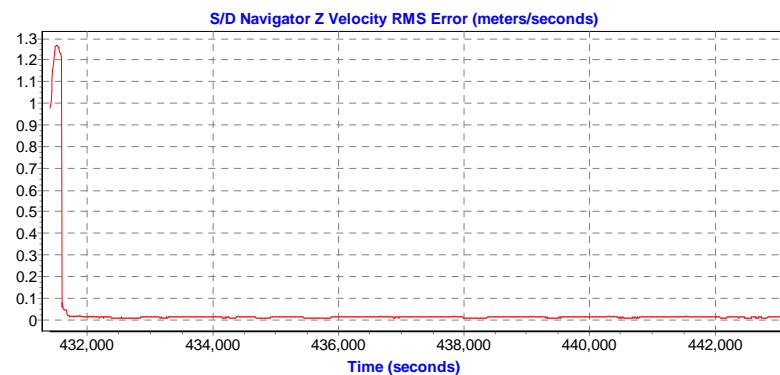
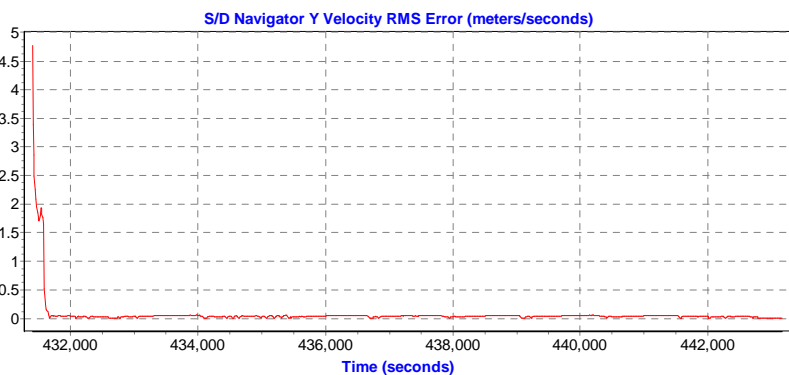
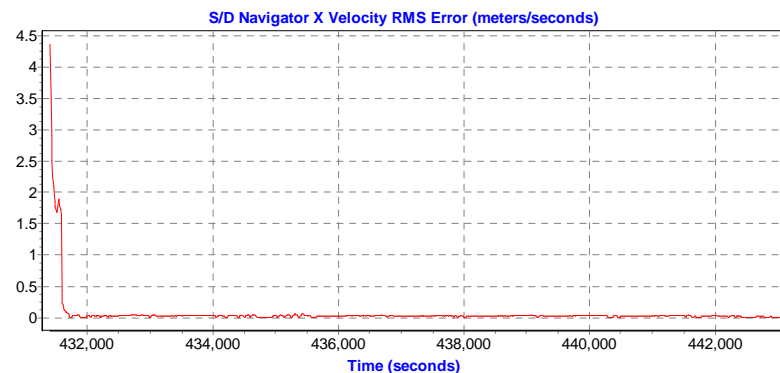
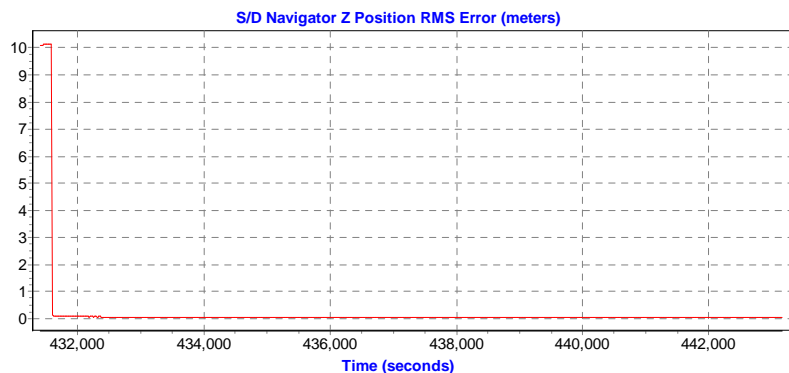
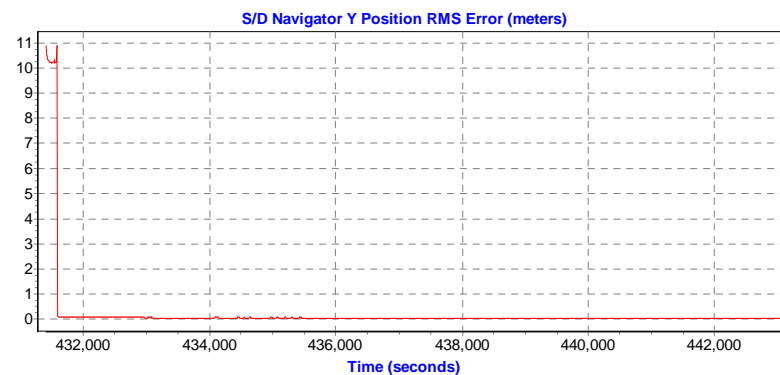
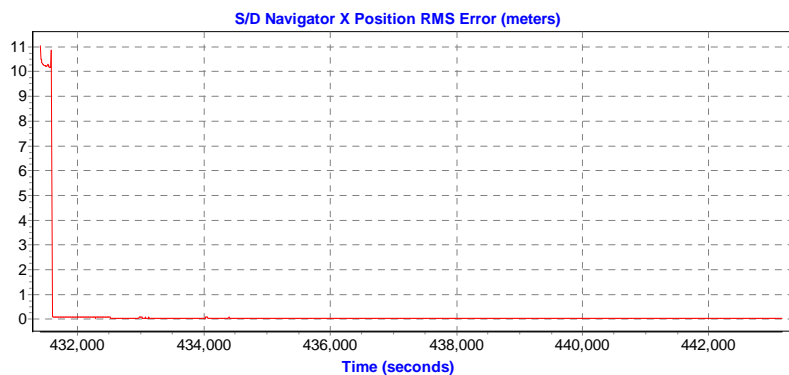
DOP over Tol: 0.0 %

## Baseline Distances:

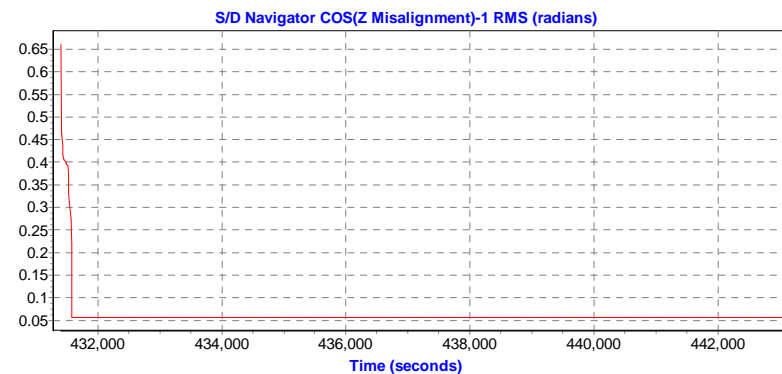
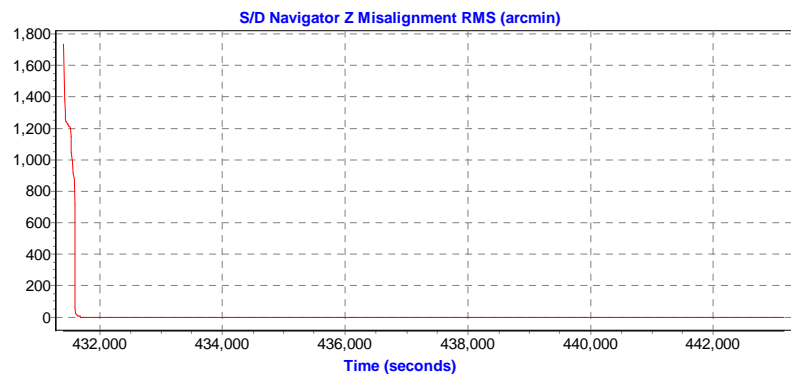
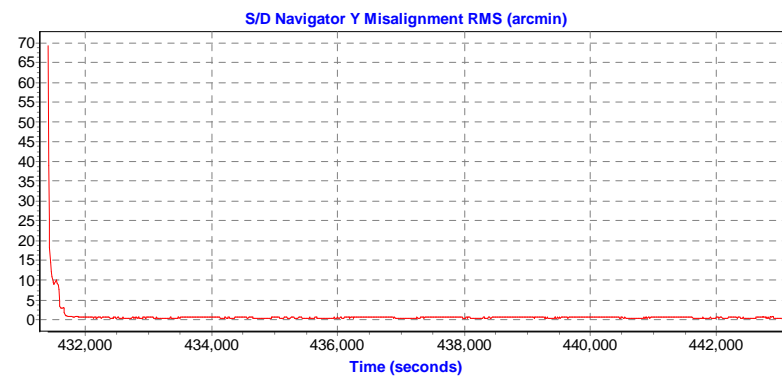
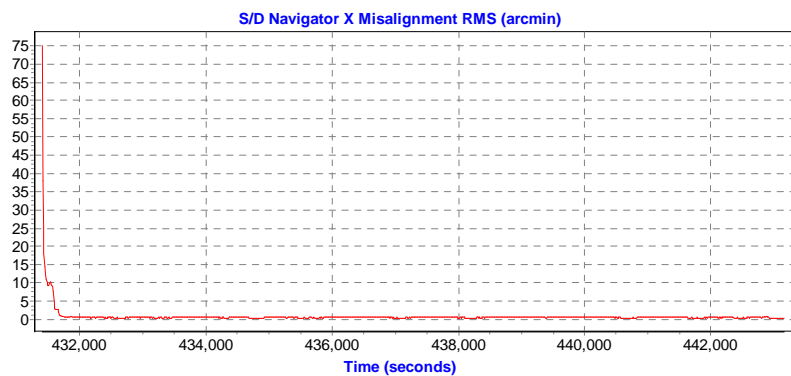
Maximum: 53.623 (km)  
Minimum: 0.953 (km)  
Average: 25.385 (km)  
First Epoch: 17.968 (km)  
Last Epoch: 17.968 (km)

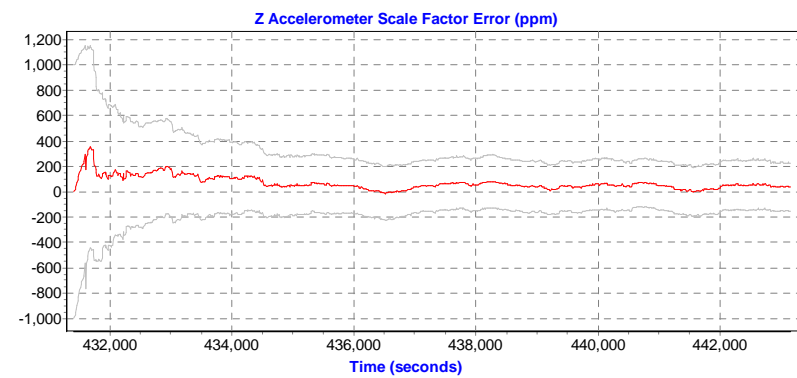
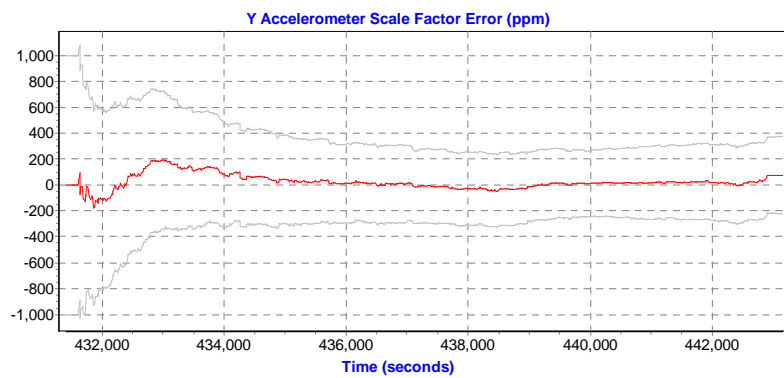
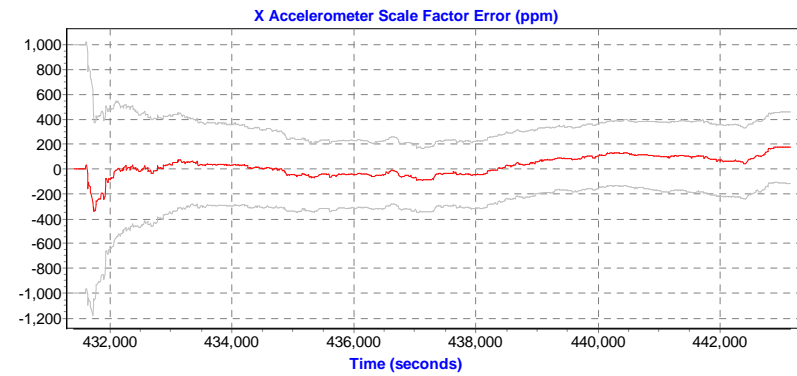
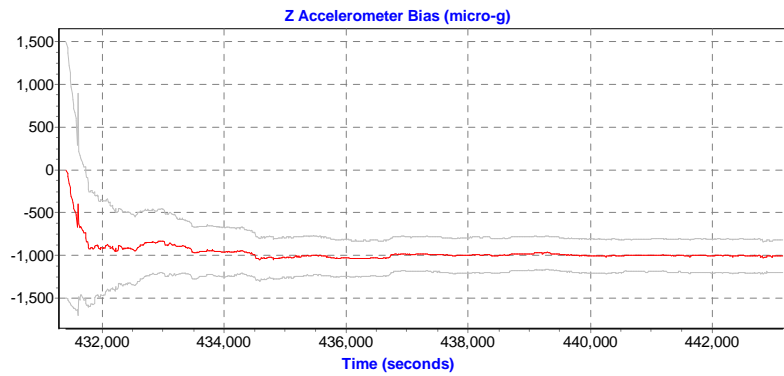
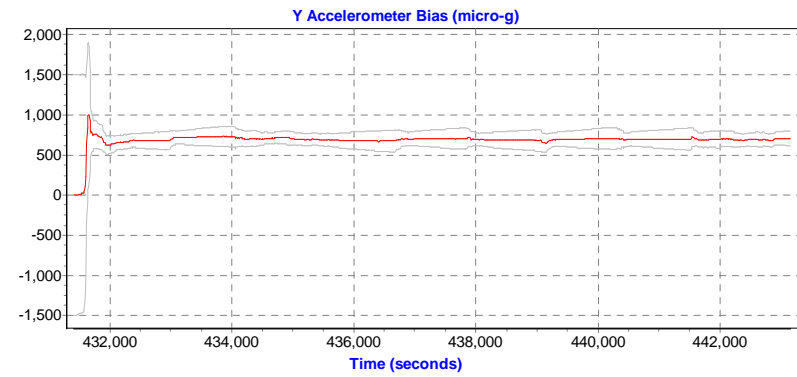
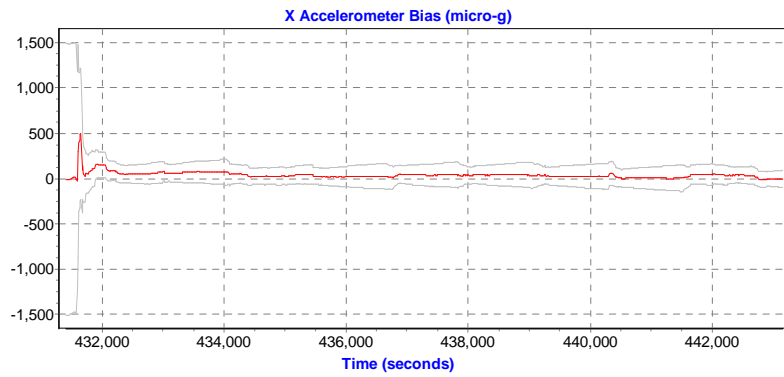


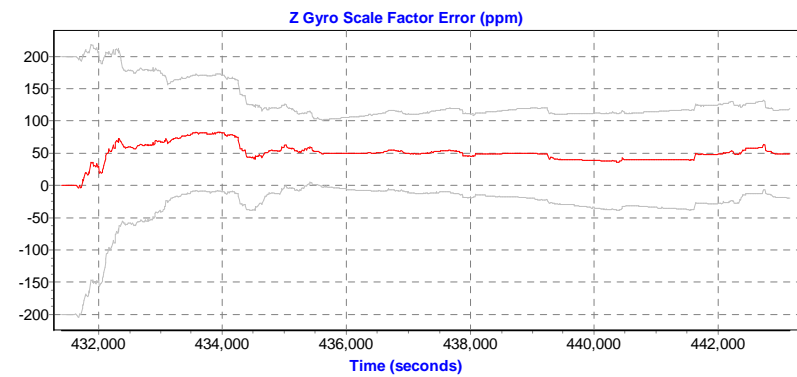
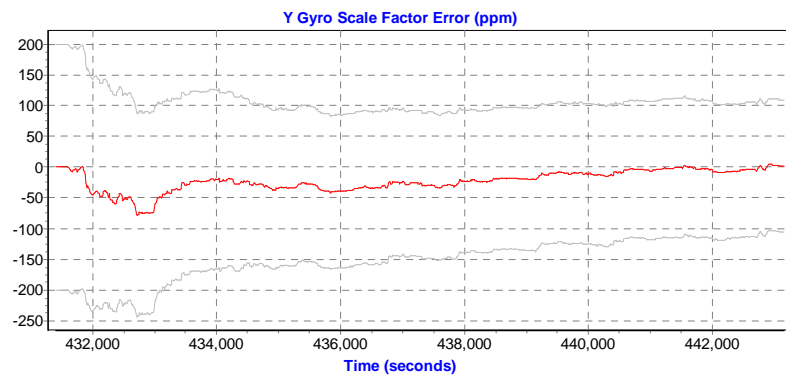
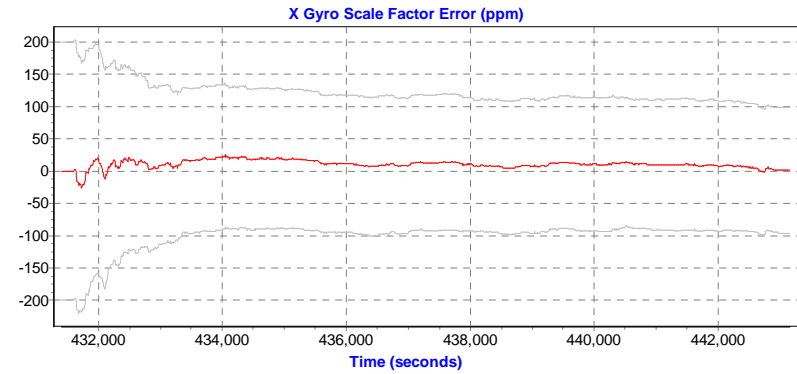
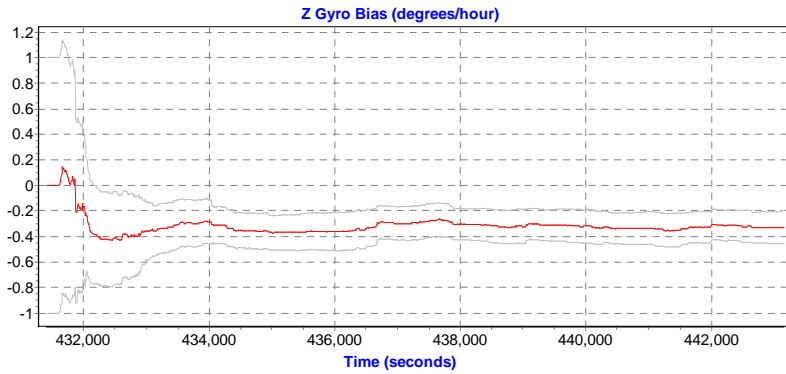
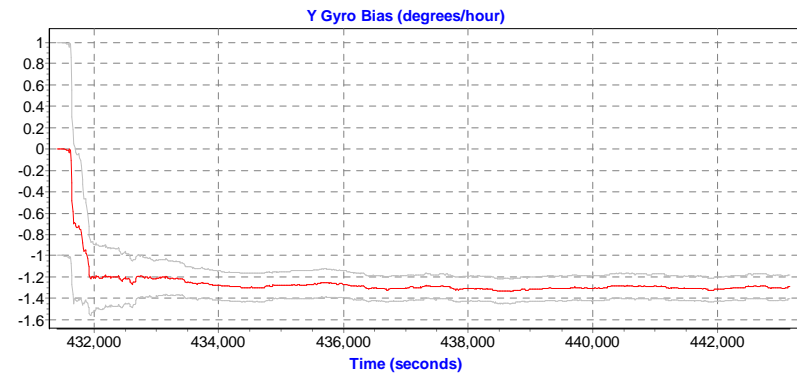
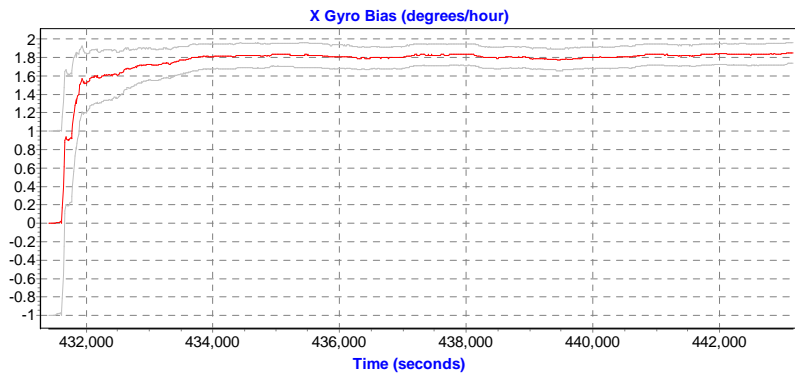


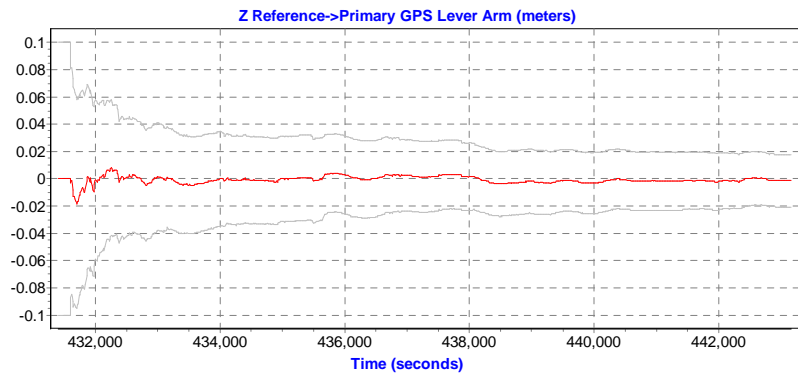
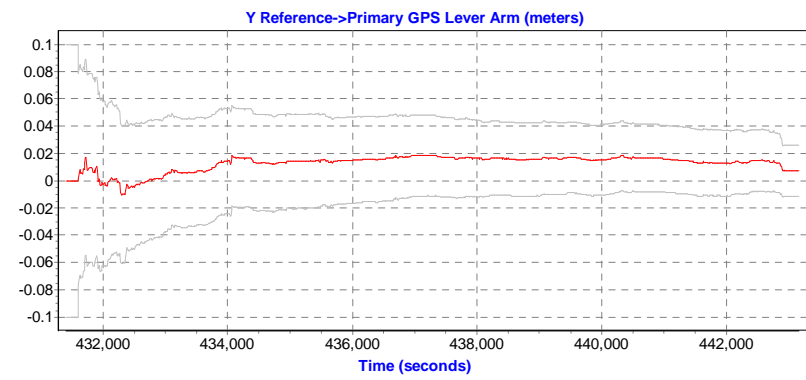
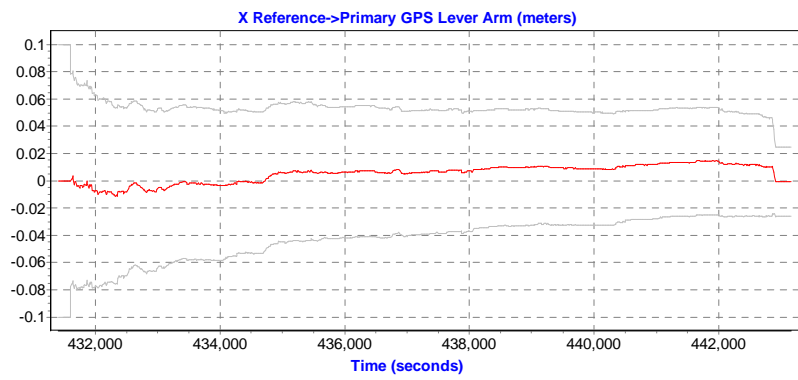






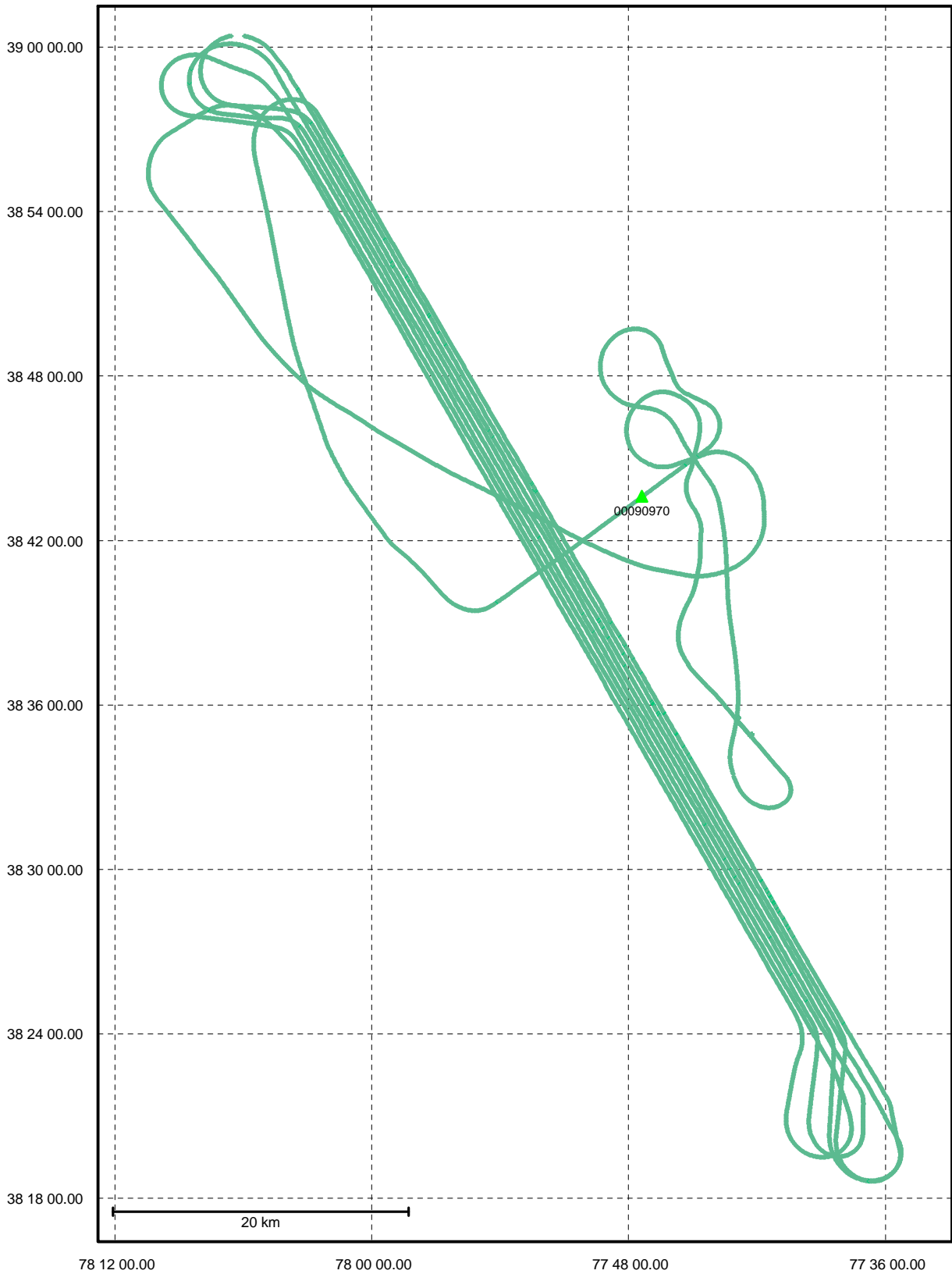






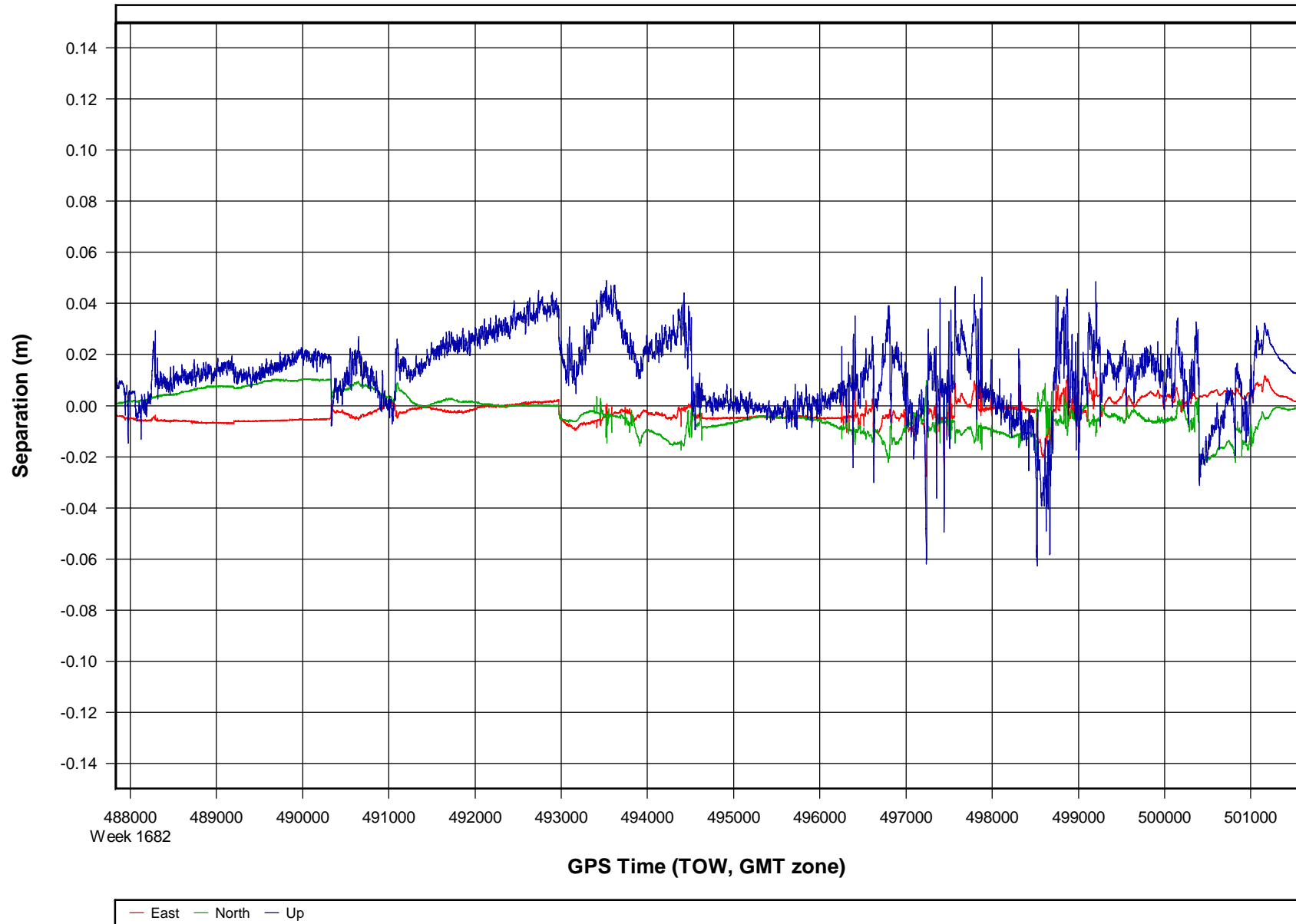
# Combined - Map Run (1)

Geographic, DMS

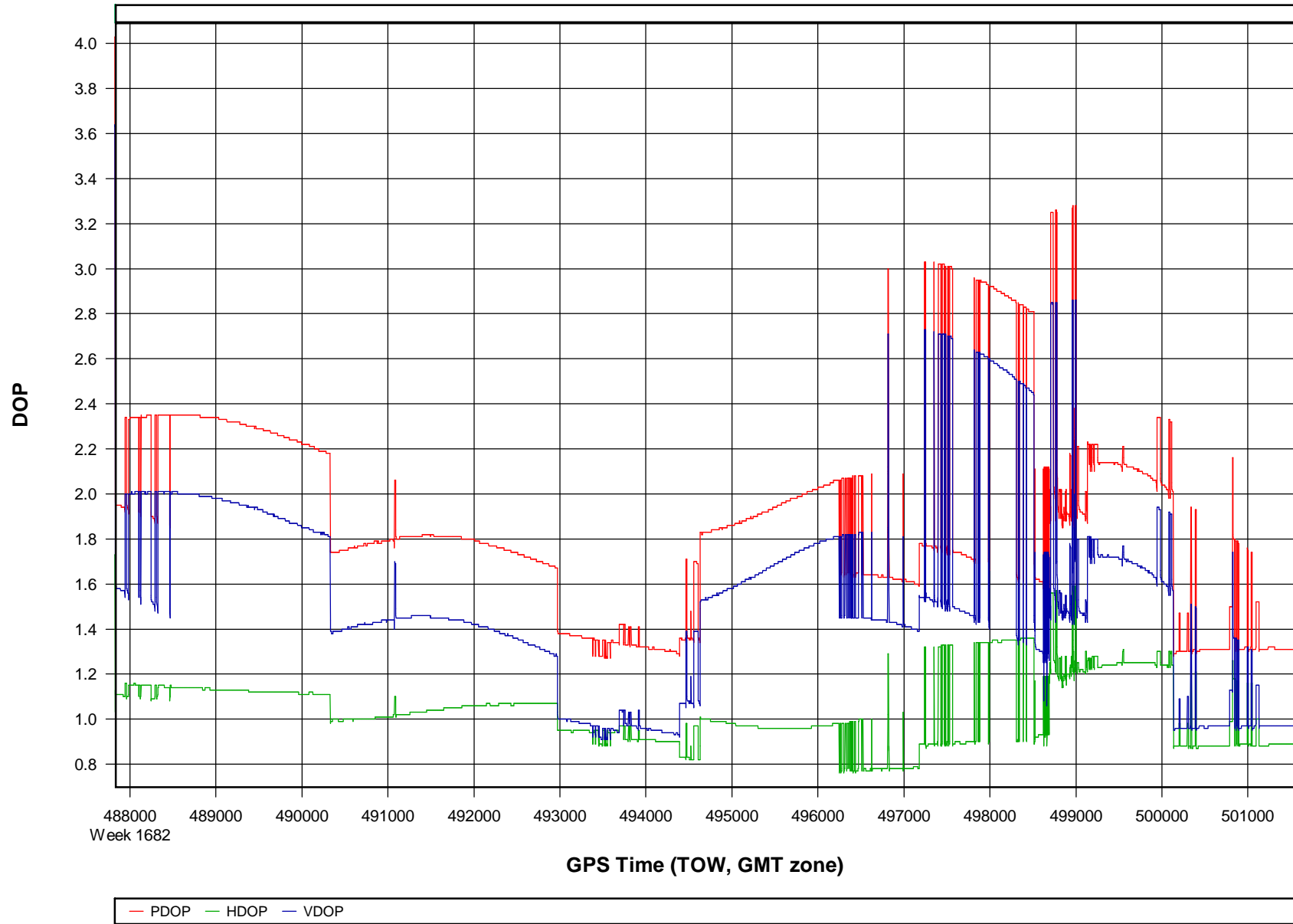


+ Ukn + Q1 + Q2 + Q3 + Q4 + Q5 + Q6 ▲ Master

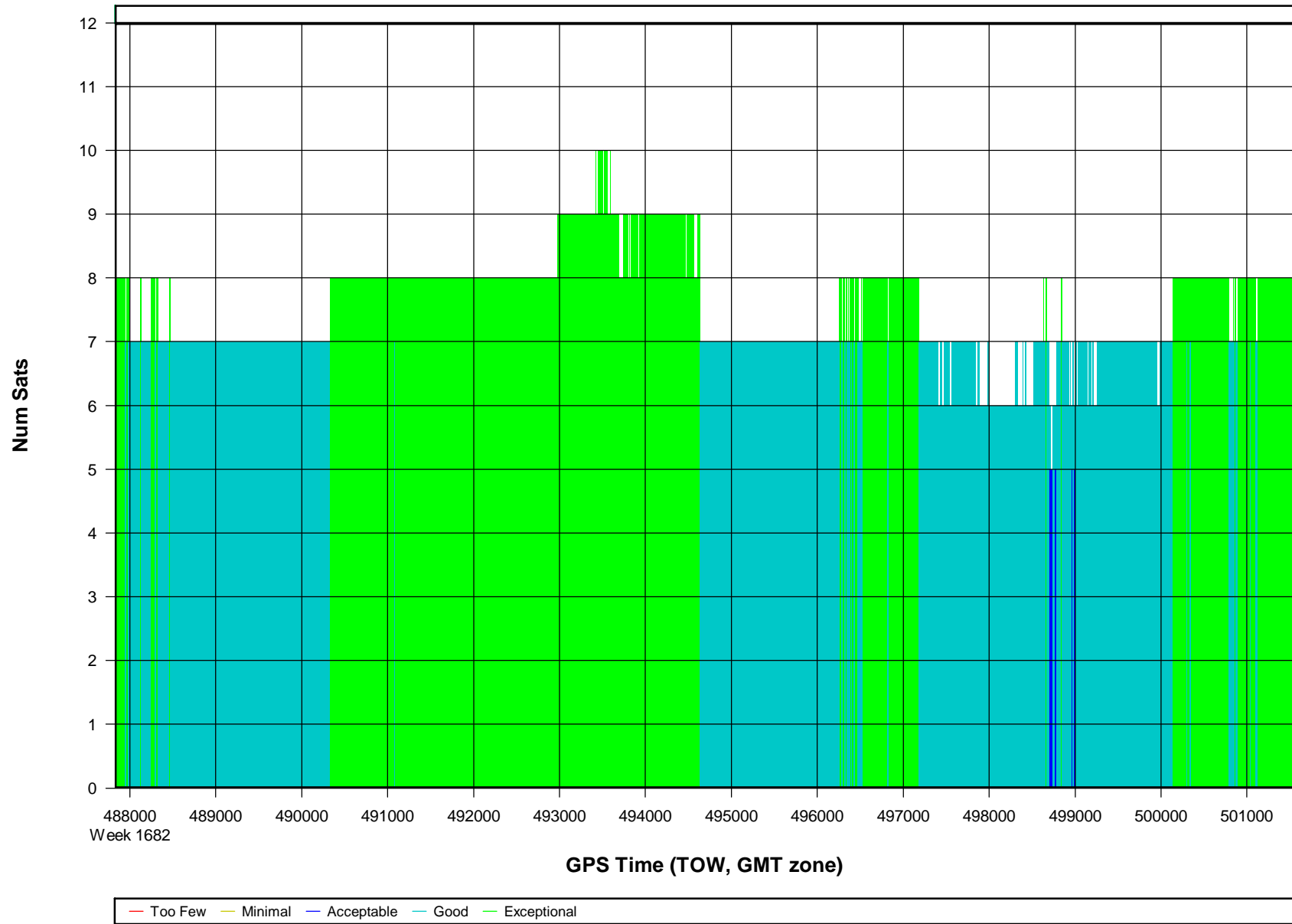
### o212097a [Combined] - Forward/Reverse or Combined Separation Plot



### o212097a [Combined] - PDOP, HDOP, VDOP Plots

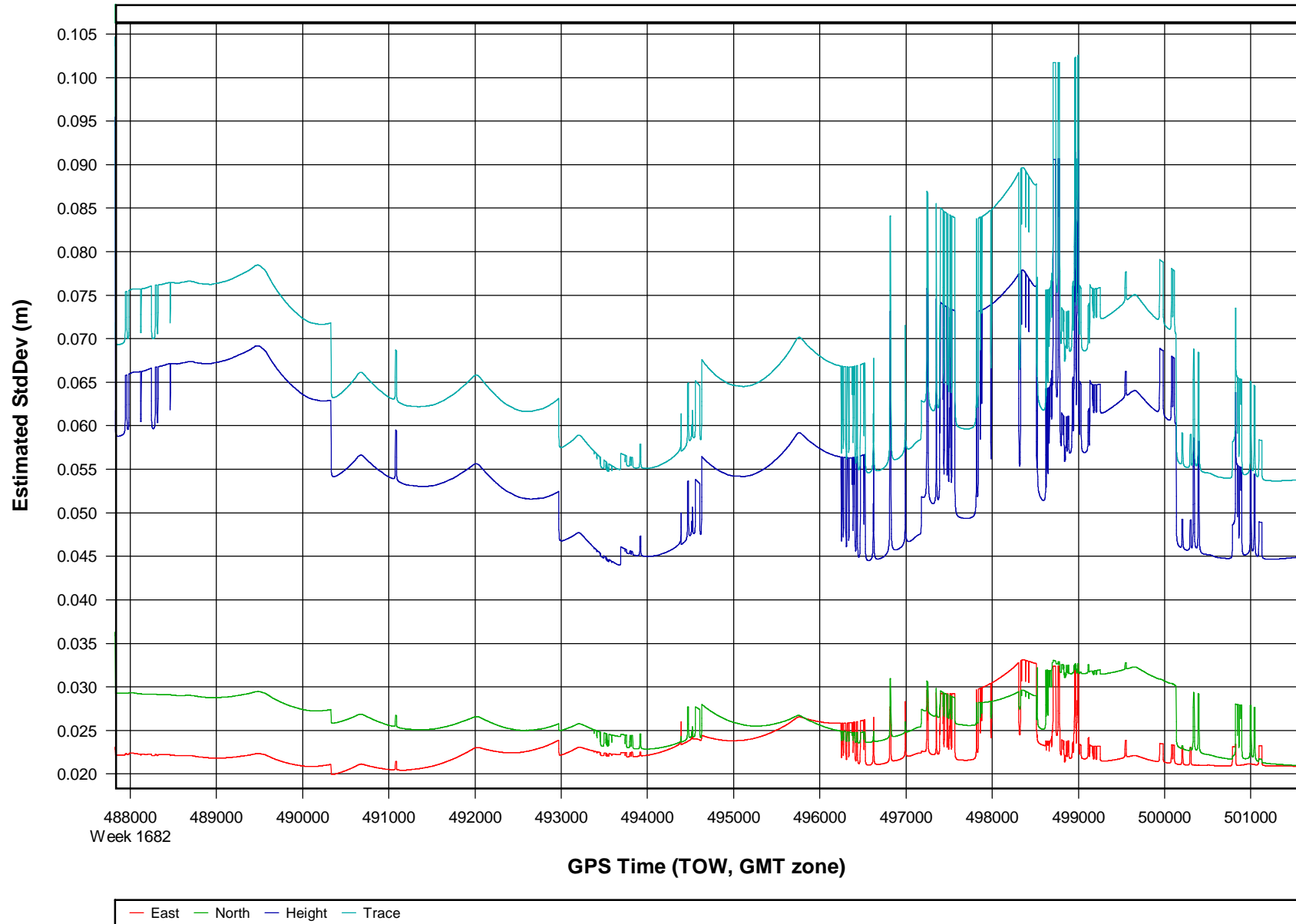


**o212097a [Combined] - Number of Satellites Bar Plot**





### o212097a [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o212097a\3\_Processed\GPS\o212097a.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 146906  
No processed position: 133180  
Missing Fwd or Rev: 4  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0155 (m)  
C/A Code: 1.03 (m)  
L1 Doppler: 0.032 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.009 (m)  
North: 0.013 (m)  
Height: 0.027 (m)

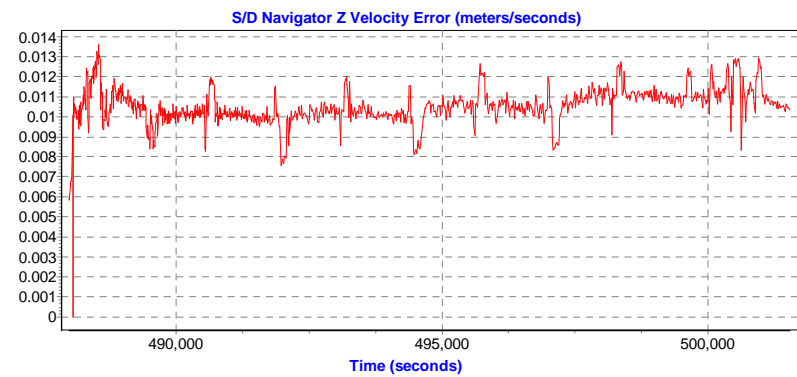
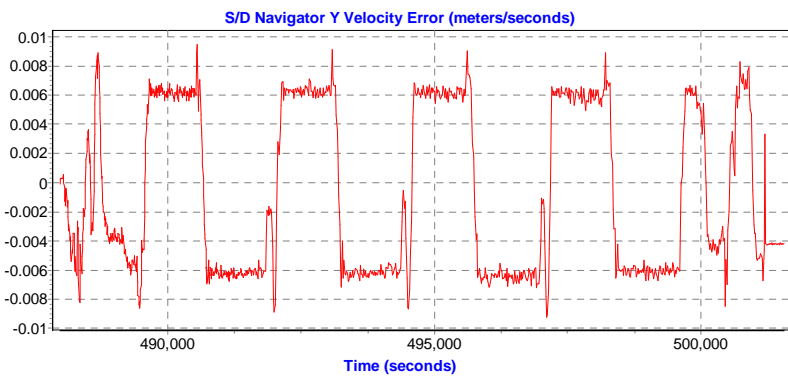
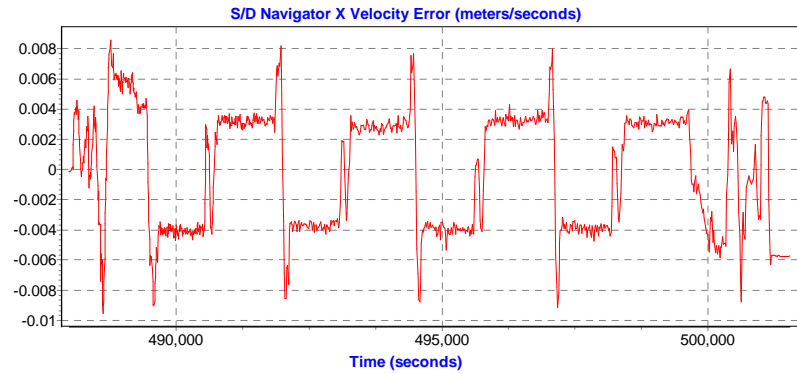
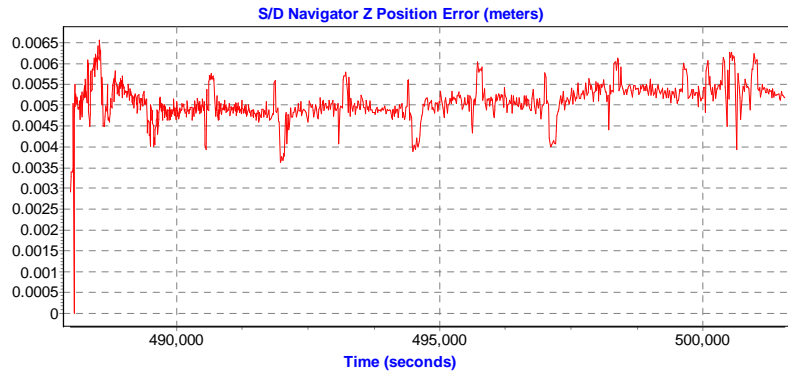
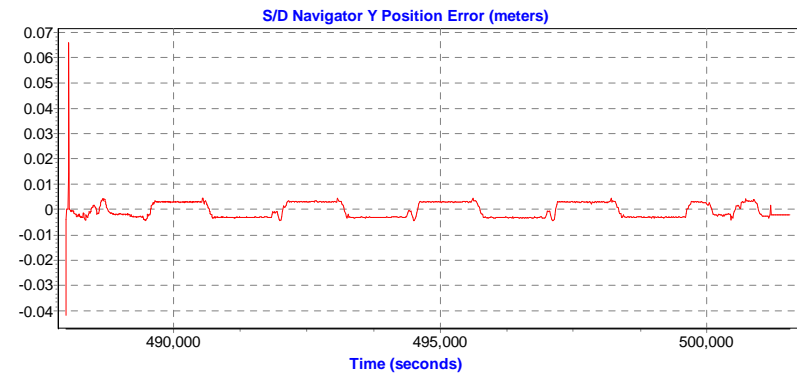
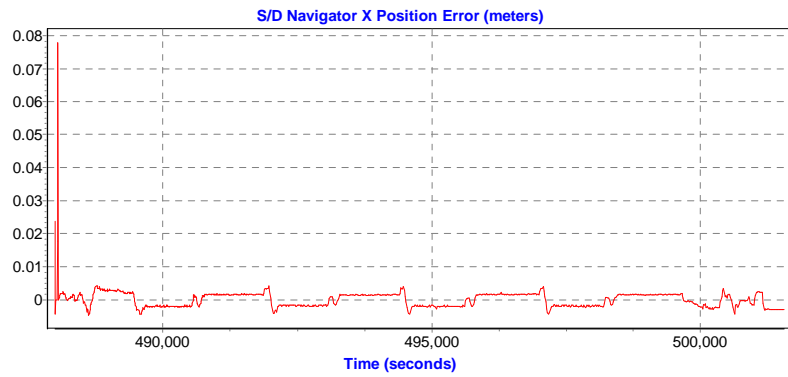
Fwd/Rev Sep. RMS for 25%-75% weighting (13715 occurrences):  
East: 0.005 (m)  
North: 0.008 (m)  
Height: 0.019 (m)

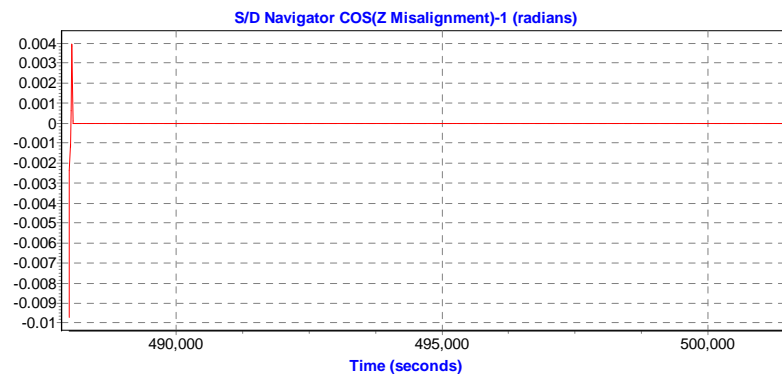
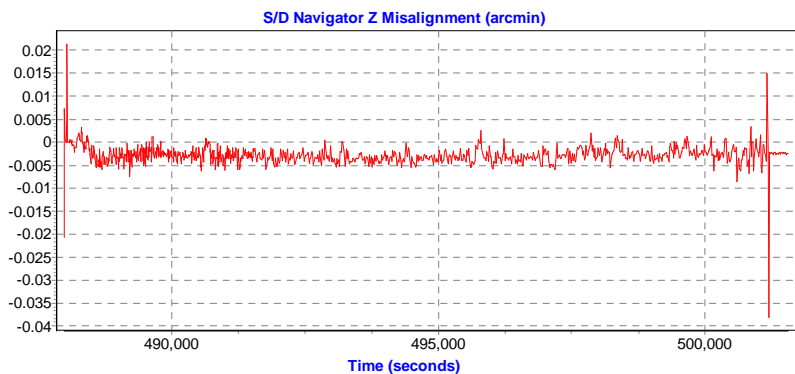
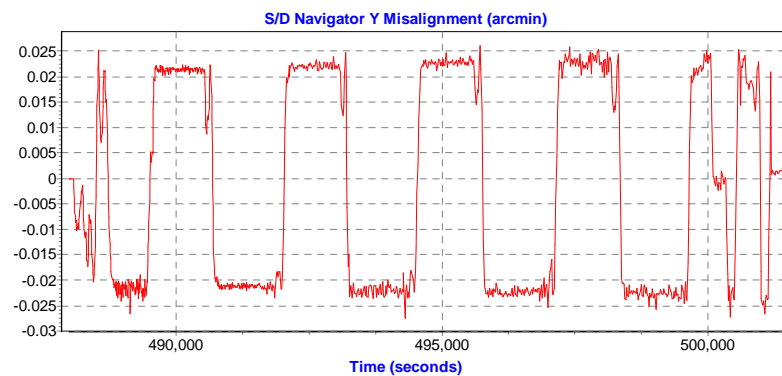
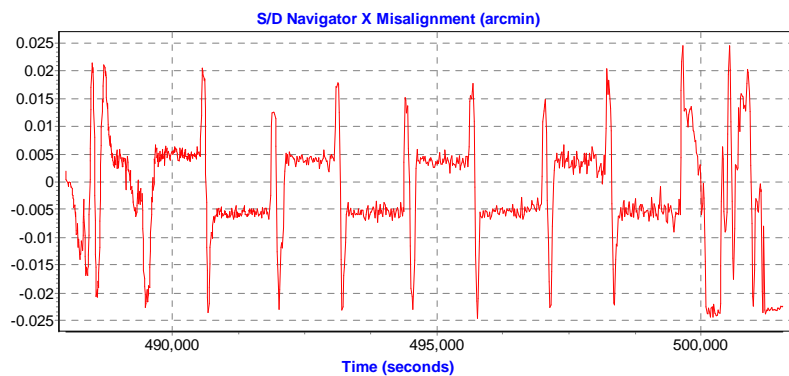
Quality Number Percentages:  
Q 1: 99.4 %  
Q 2: 0.6 %  
Q 3: 0.0 %  
Q 4: 0.0 %  
Q 5: 0.0 %  
Q 6: 0.0 %

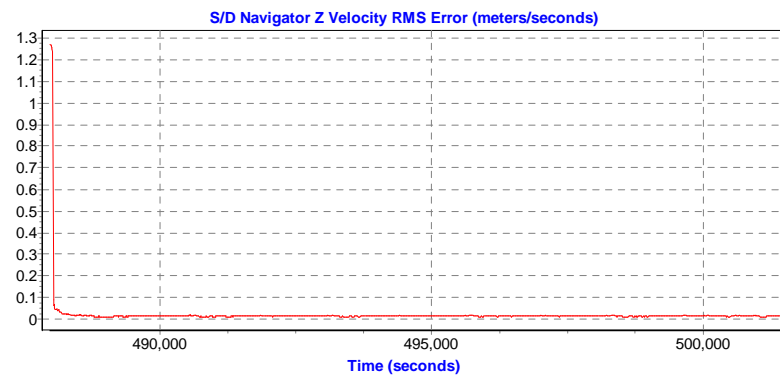
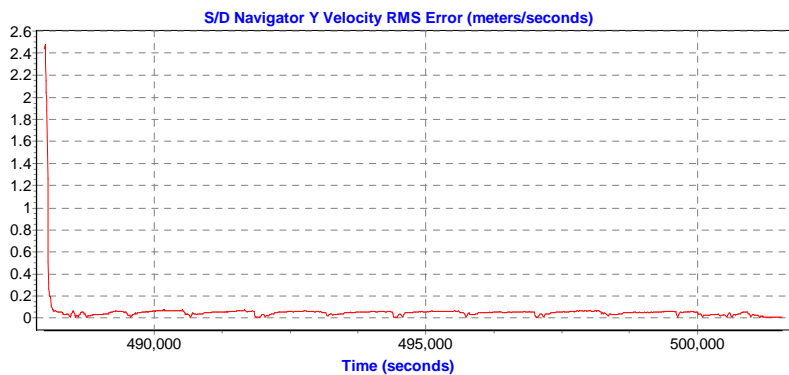
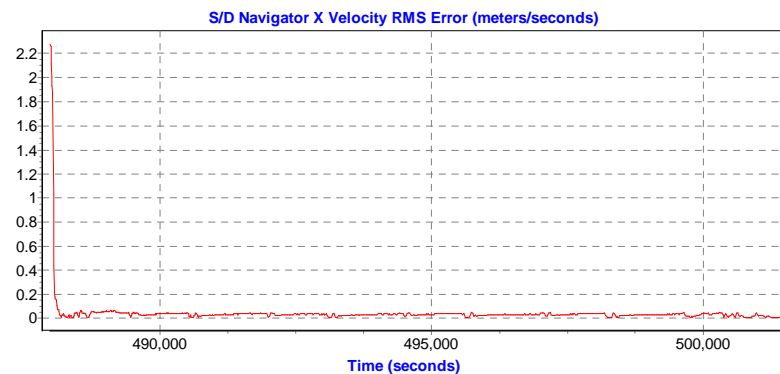
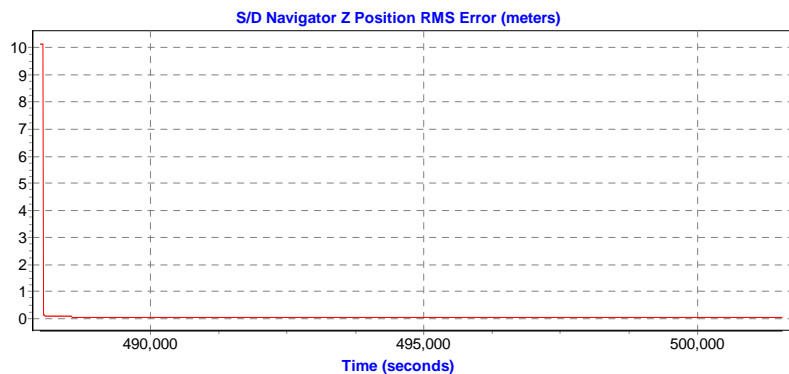
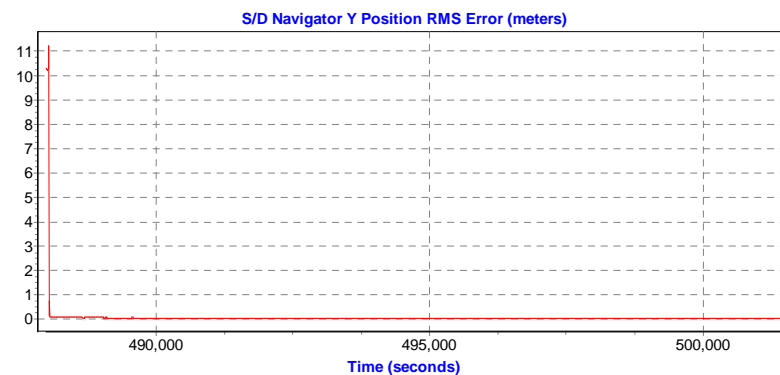
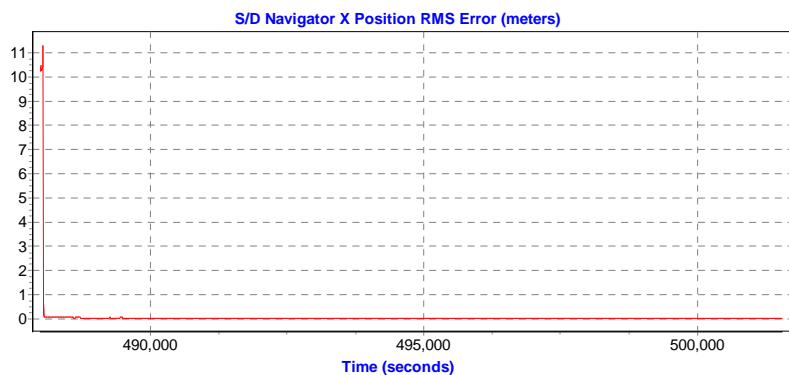
Position Standard Deviation Percentages:  
0.00 - 0.10 m: 99.5 %  
0.10 - 0.30 m: 0.5 %  
0.30 - 1.00 m: 0.0 %  
1.00 - 5.00 m: 0.0 %  
5.00 m + over: 0.0 %

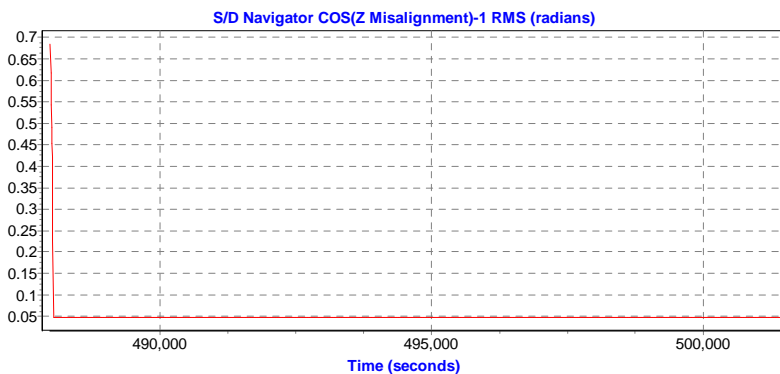
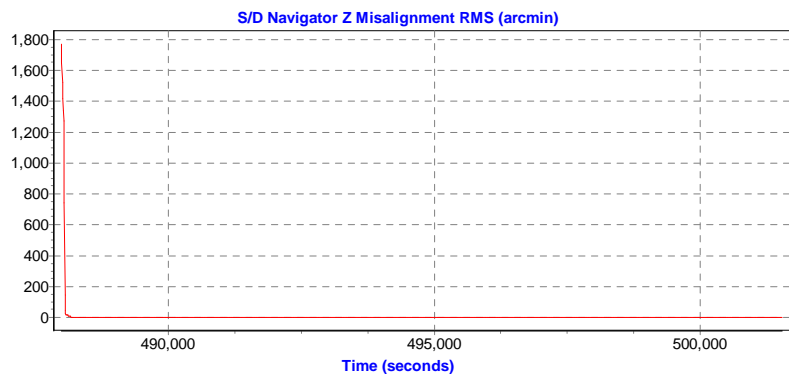
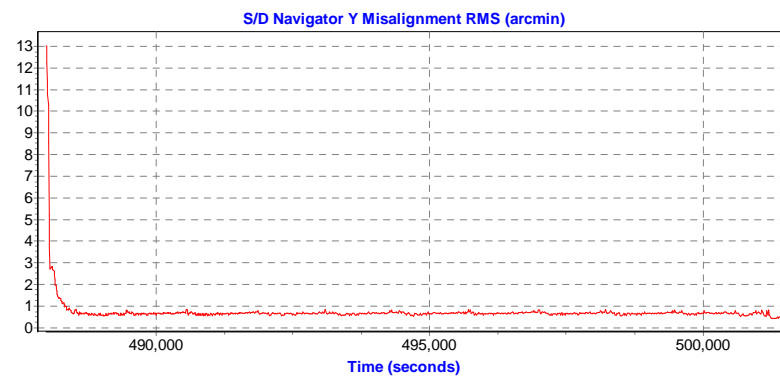
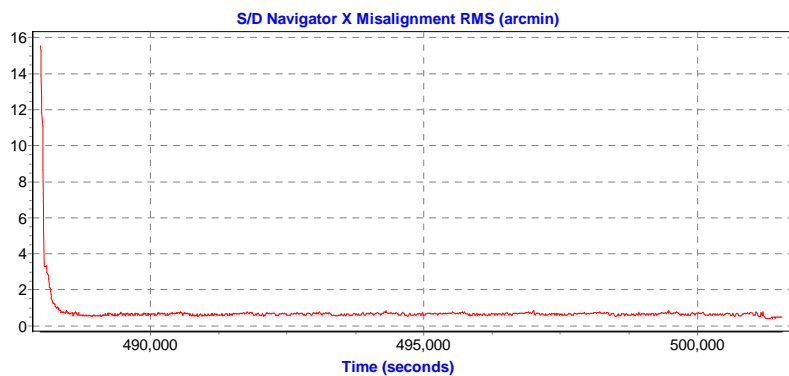
Percentages of epochs with DD\_DOP over 10.00:  
DOP over Tol: 0.0 %

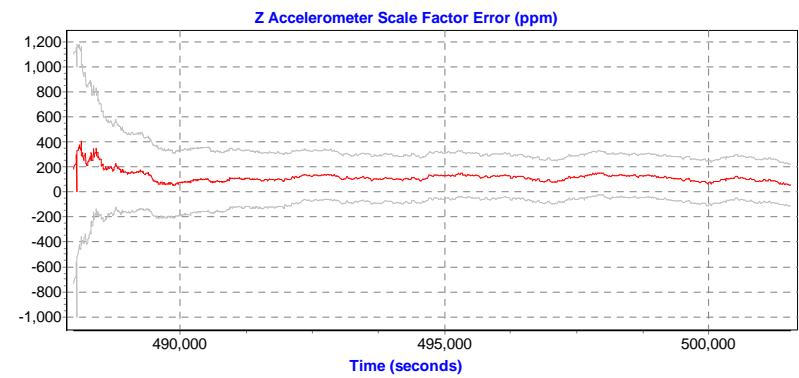
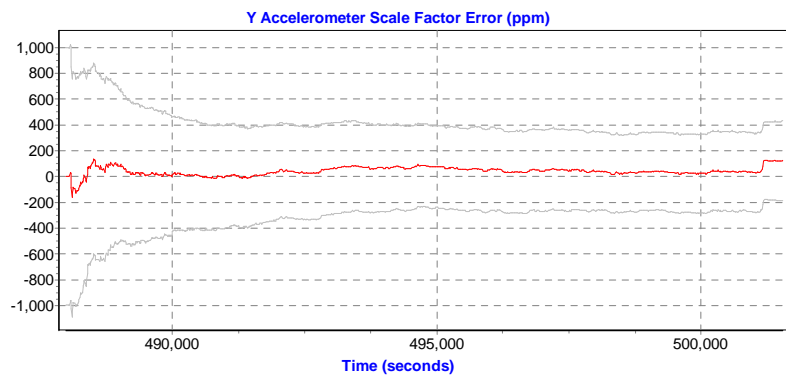
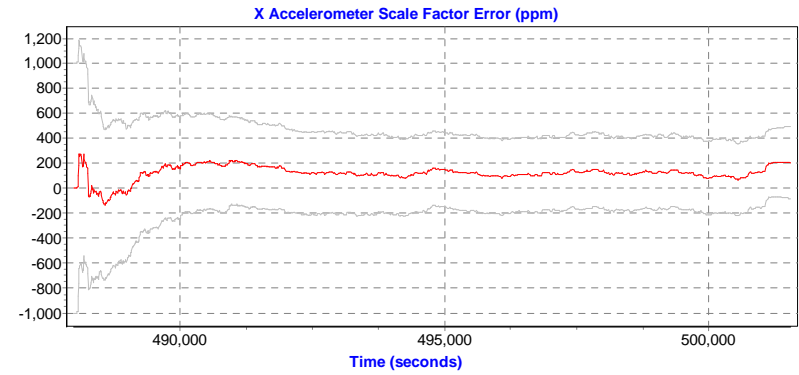
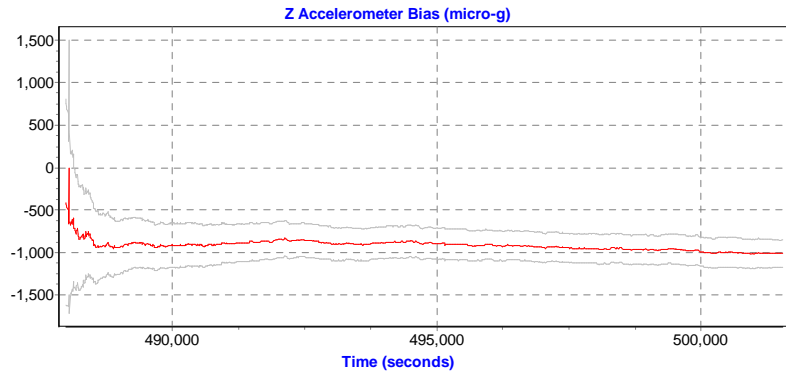
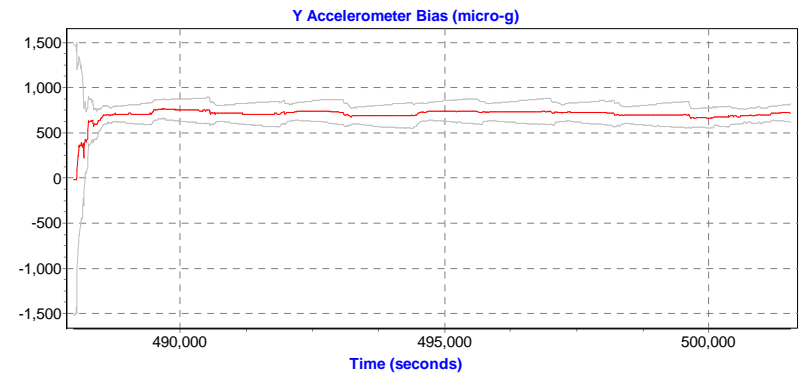
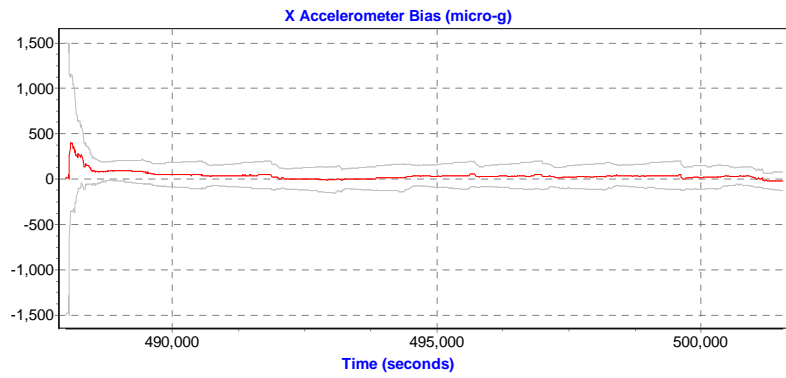
Baseline Distances:  
Maximum: 48.924 (km)  
Minimum: 0.967 (km)  
Average: 21.927 (km)  
First Epoch: 17.704 (km)  
Last Epoch: 16.329 (km)

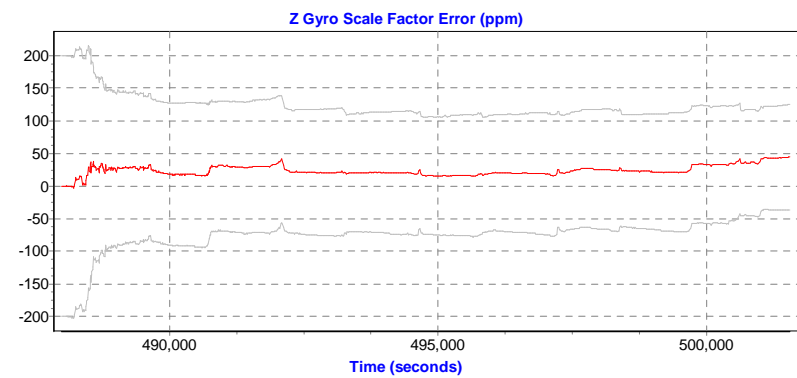
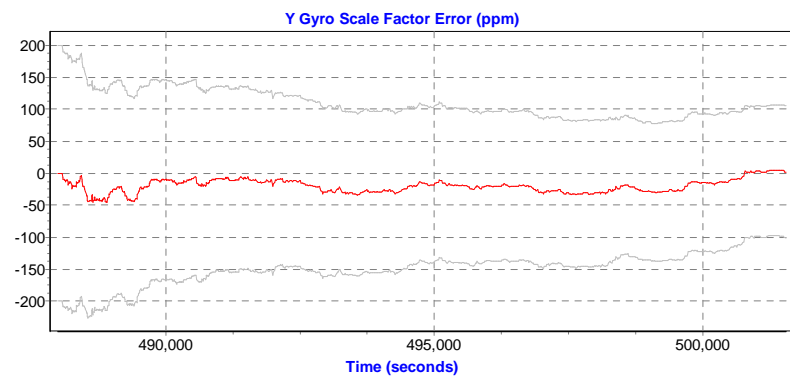
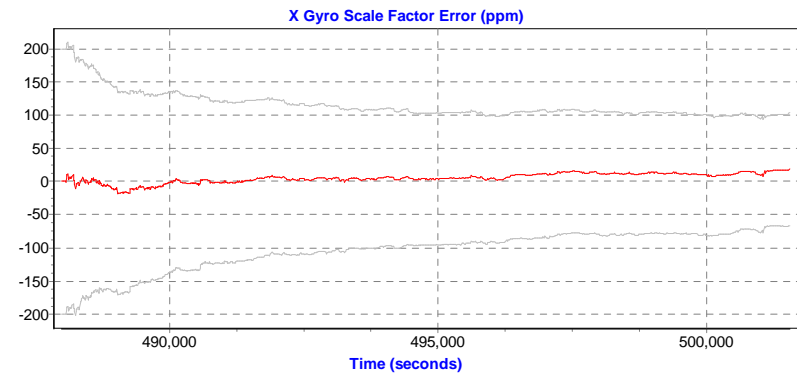
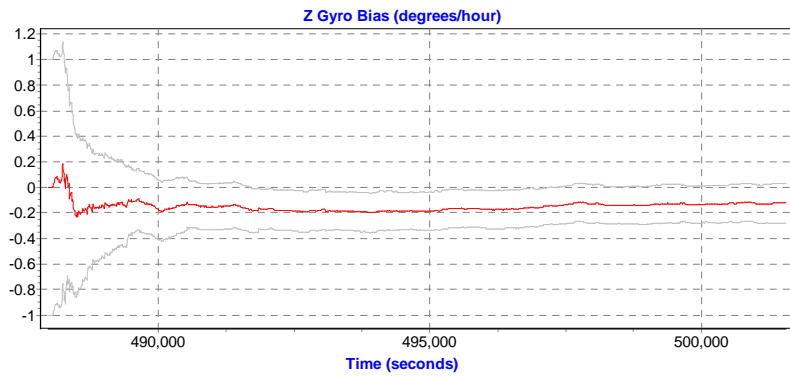
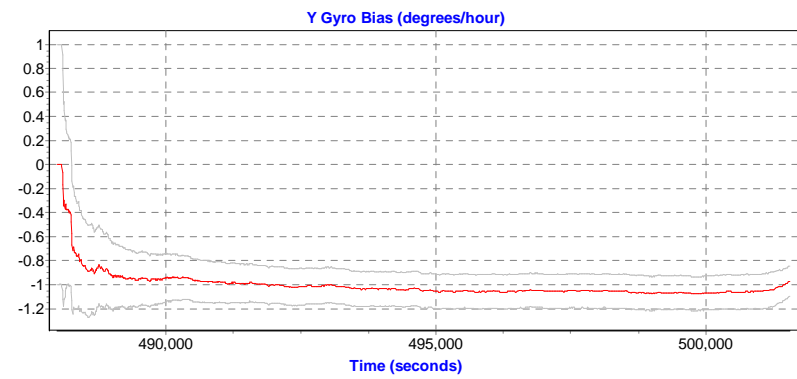
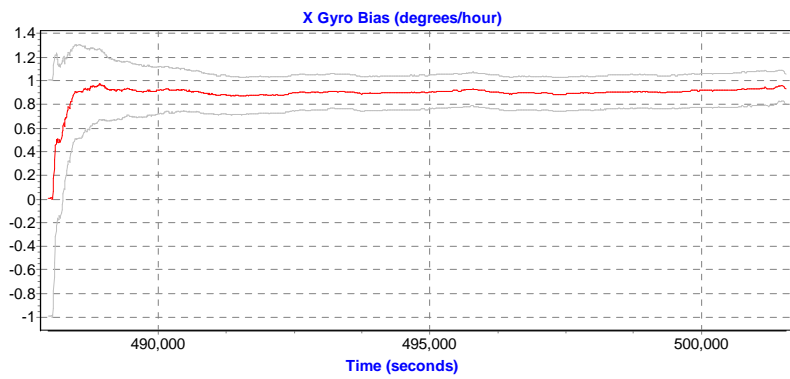




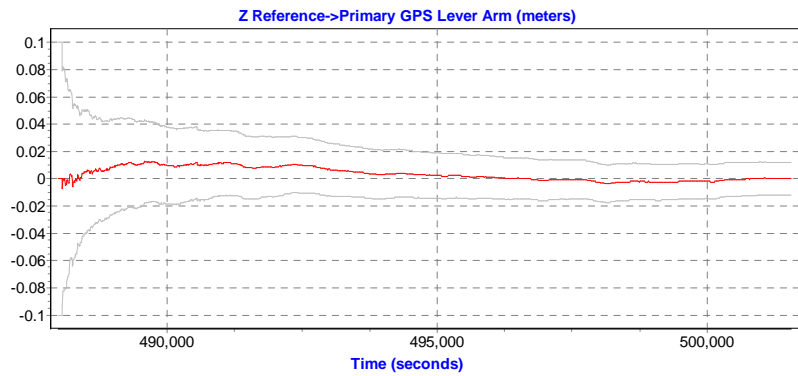
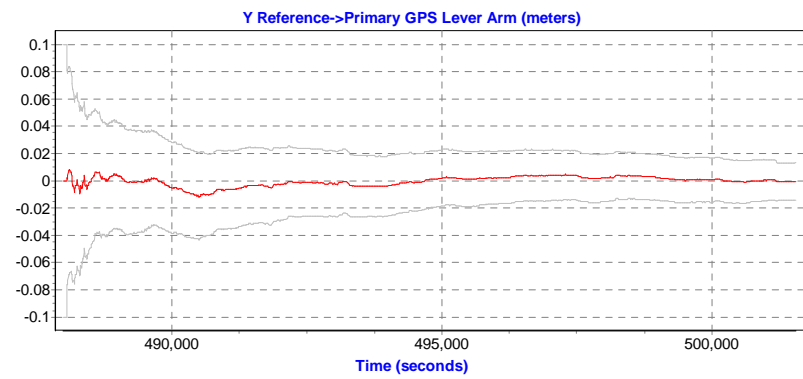
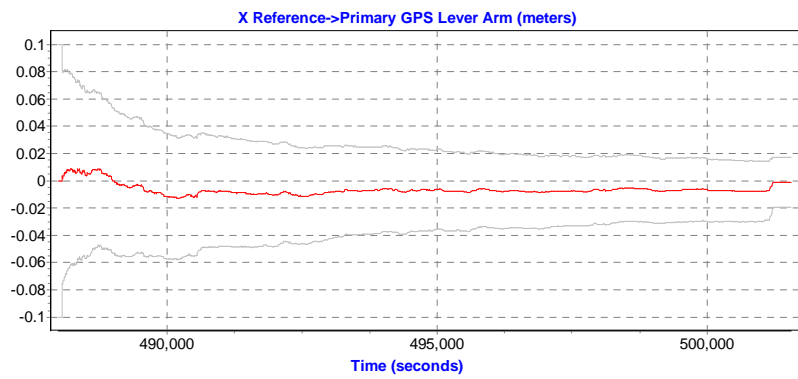






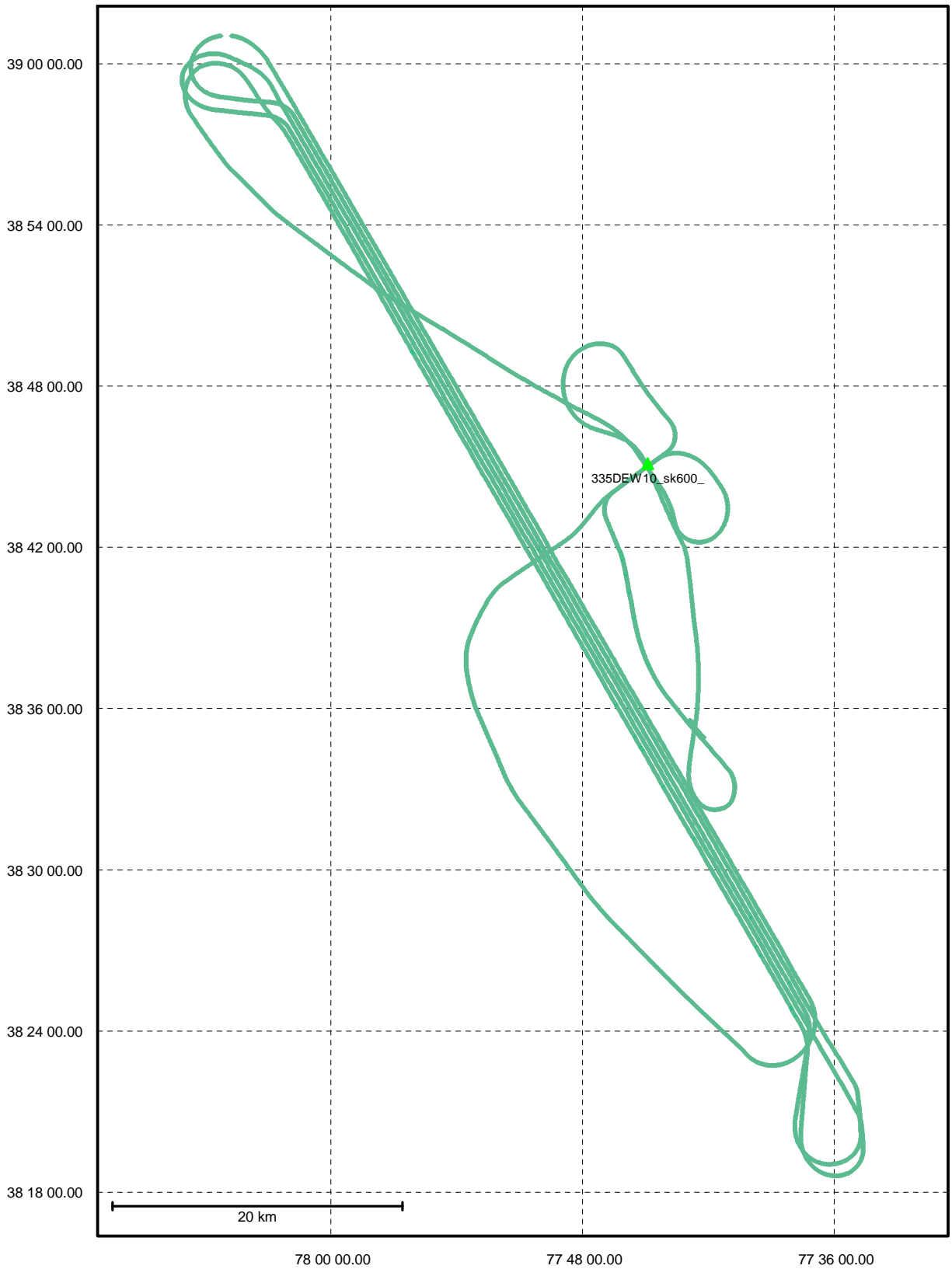






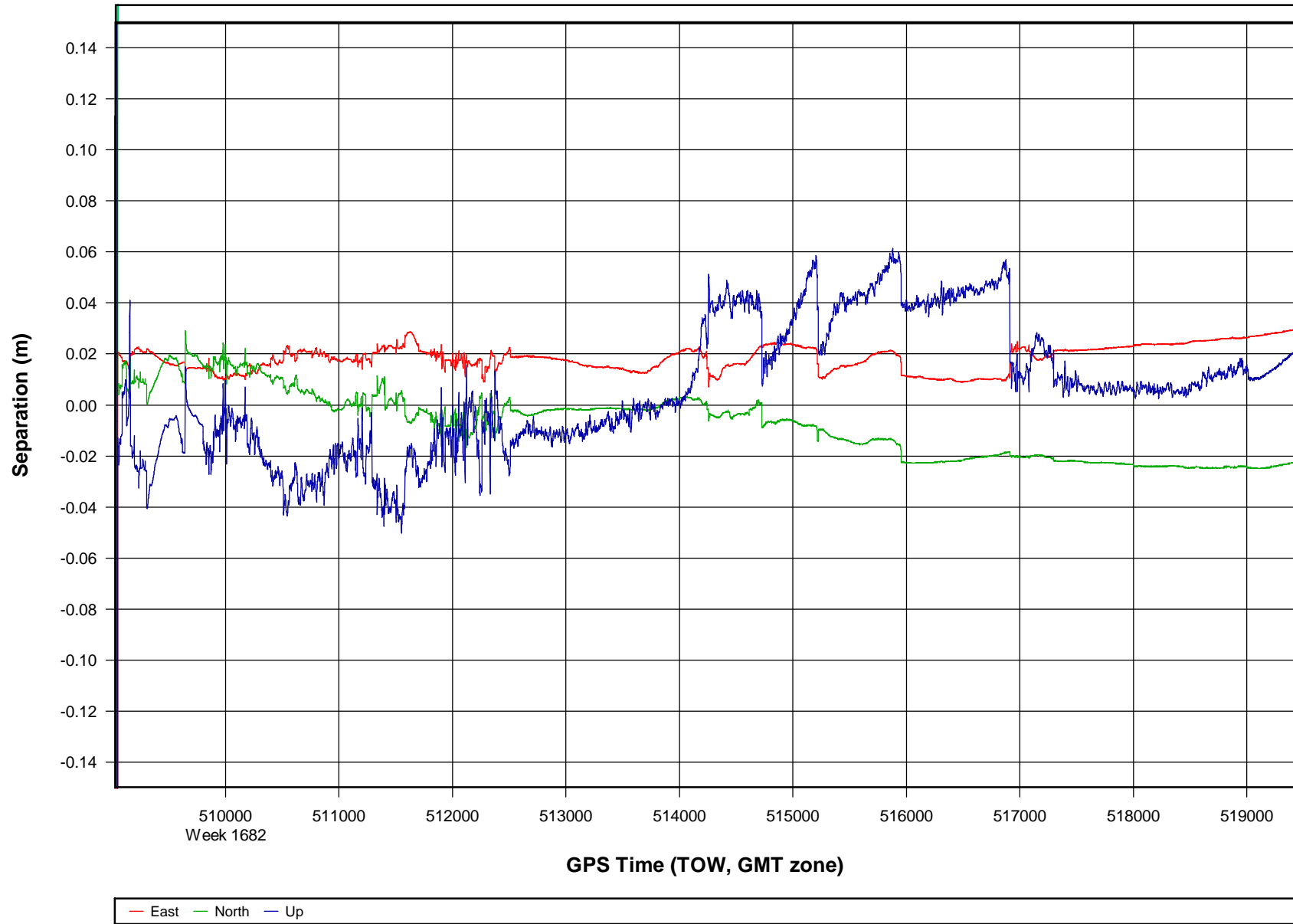
# Combined - Map Run (1)

Geographic, DMS

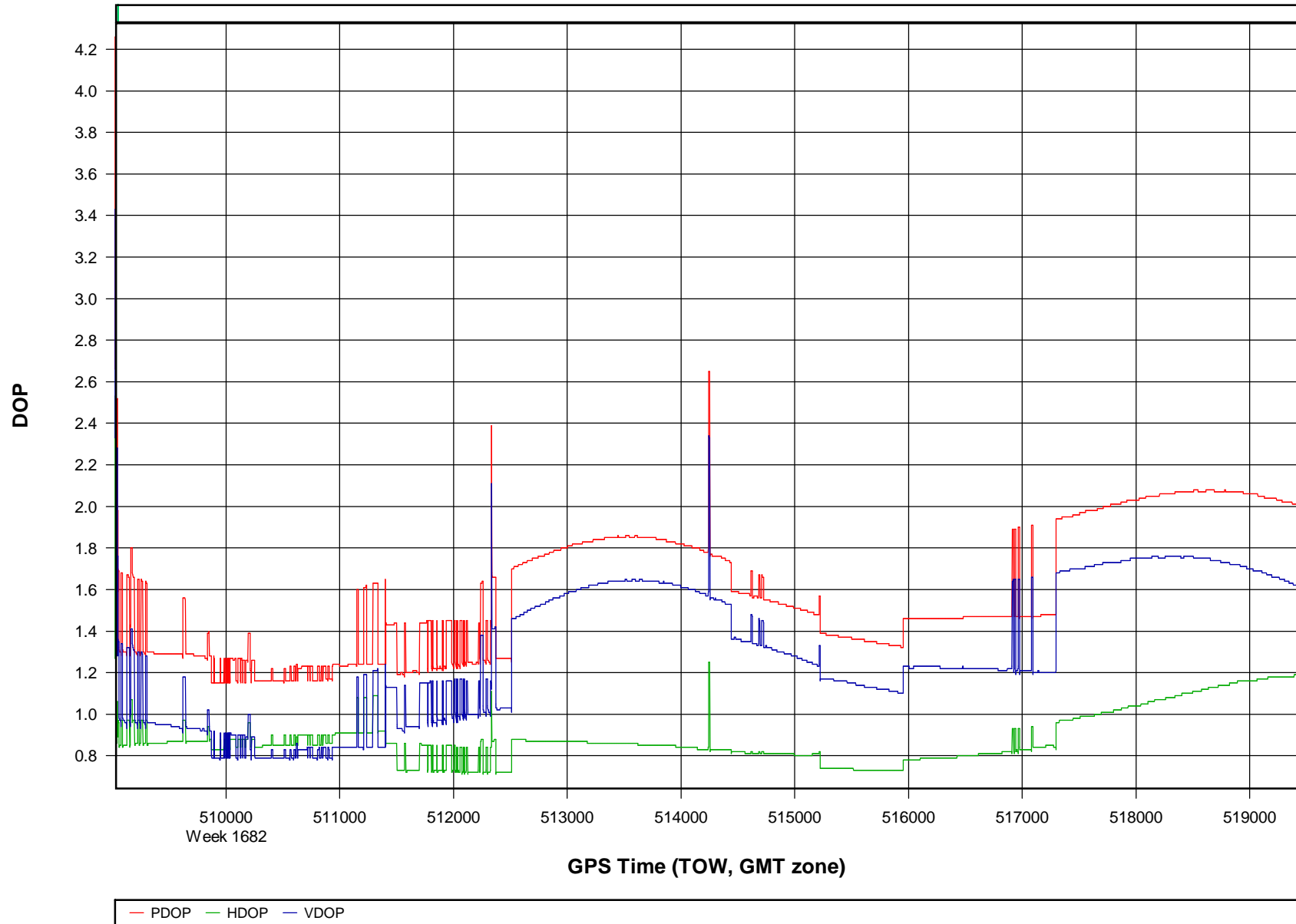


- + Ukn
- + Q1
- + Q2
- + Q3
- + Q4
- + Q5
- + Q6
- ▲ Master

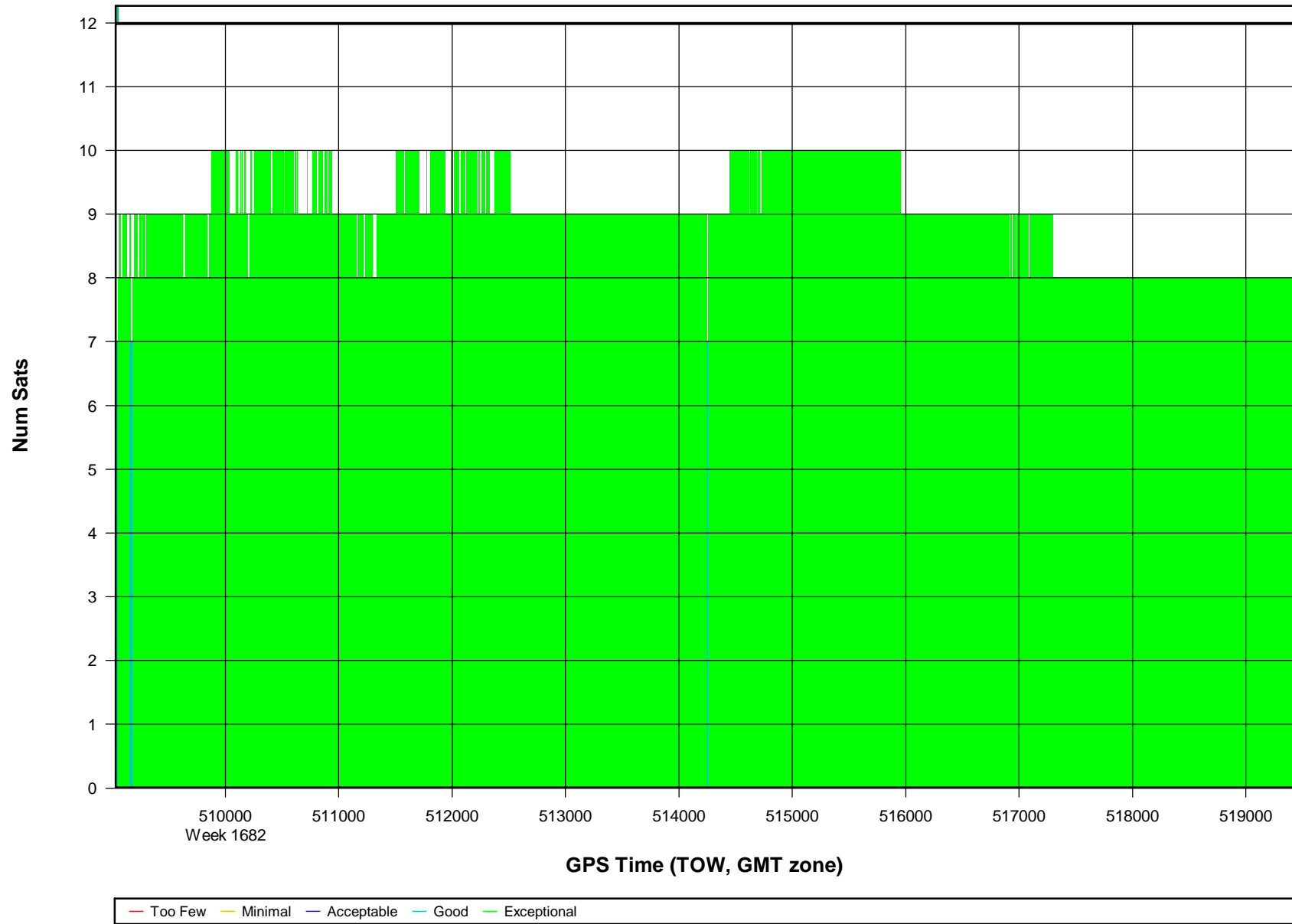
### o212097b [Combined] - Forward/Reverse or Combined Separation Plot



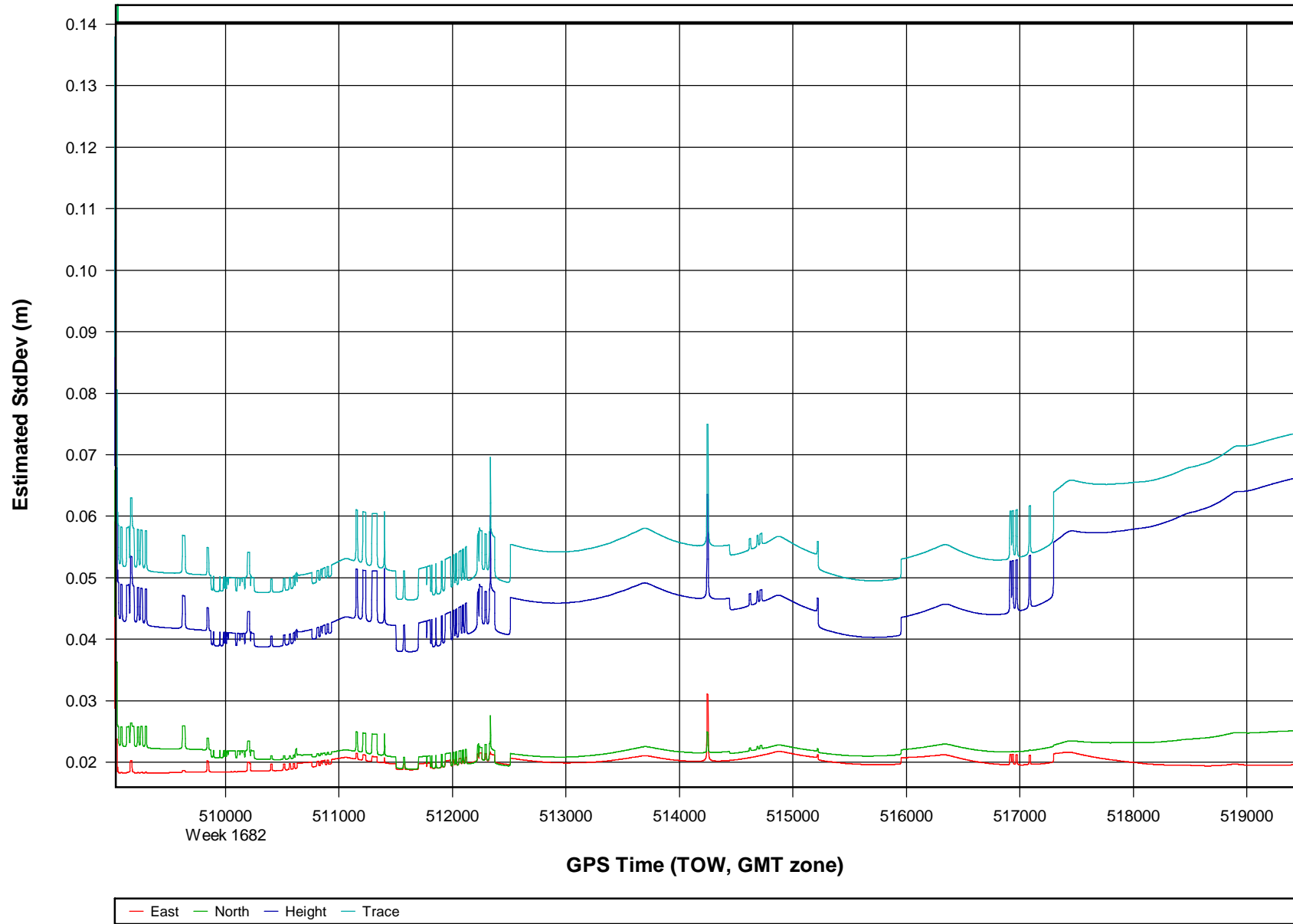
### o212097b [Combined] - PDOP, HDOP, VDOP Plots



**o212097b [Combined] - Number of Satellites Bar Plot**



### o212097b [Combined] - Estimated Position Accuracy Plot



## Processing Summary Information

Program: GrafNav  
Version: 7.80.2517  
Project: H:\o212097b\3\_Processed\GPS\o212097b.cfg

Solution Type: Combined Fwd/Rev

Number of Epochs:  
Total in GPB file: 104777  
No processed position: 94371  
Missing Fwd or Rev: 3  
With bad C/A code: 0  
With bad L1 Phase: 0

Measurement RMS Values:  
L1 Phase: 0.0192 (m)  
C/A Code: 0.91 (m)  
L1 Doppler: 0.032 (m/s)

Fwd/Rev Separation RMS Values:  
East: 0.025 (m)  
North: 0.031 (m)  
Height: 0.027 (m)

Fwd/Rev Sep. RMS for 25%-75% weighting (10376 occurrences):  
East: 0.019 (m)  
North: 0.015 (m)  
Height: 0.026 (m)

Quality Number Percentages:  
Q 1: 99.7 %  
Q 2: 0.3 %  
Q 3: 0.0 %  
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 %

Baseline Distances:  
Maximum: 50.812 (km)  
Minimum: 0.958 (km)  
Average: 22.278 (km)  
First Epoch: 17.968 (km)  
Last Epoch: 17.967 (km)

