
AEROoffice V5.5 2017-01-17
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Dongle-ID: 3-3541217

Boresight Misalignment Calculations
07/05/2019 12:03:02

Project: 040519
Projectfile: C:\AEROofficeV51\PROYECTOS\07_PROYECTOS_EAGLE80\040519.aop

Used input data:

Platform Solution: C:\AEROofficeV51\PROYECTOS\07_PROYECTOS_EAGLE80\040519.aps
Event Mark File : C:\AEROofficeV51\PROYECTOS\07_PROYECTOS_EAGLE80\040519_C.aom
AT Result File : C:\AEROofficeV51\PROYECTOS\07_PROYECTOS_EAGLE80\POLCAL\at\xyzopk.txt
Importformat File: C:\AEROofficeV51\FORMATOS\PTOFORMAT

Coordinate system scalefactor correction for height applied
Using DTM

Local Coordinate System:
UTM - WGS84 SPH - ellipsoidal Altitude
System defined in: built-in coordinate system
Selected Zone: 30N
Meridian Convergence corrected

Loading INS Data
694 usable events found

Loading AT Data
AT input: angles found
48 AT Data Sets imported

48 events with matching eventnumbers found.

Postion offset for the single events [m]:

| | number | time | east | north | alt | d east | d north | d alt |
|-----------|--------|-----------|--------|--------|--------|--------|---------|--------|
| position: | 669 | 574377.68 | -0.016 | -0.032 | 0.057 | -0.016 | -0.031 | 0.048 |
| position: | 670 | 574380.18 | -0.021 | 0.006 | 0.051 | -0.021 | 0.006 | 0.042 |
| position: | 671 | 574382.58 | -0.008 | 0.046 | 0.041 | -0.008 | 0.046 | 0.032 |
| position: | 672 | 574384.99 | 0.020 | 0.049 | 0.022 | 0.020 | 0.049 | 0.013 |
| position: | 673 | 574387.49 | 0.015 | 0.072 | 0.017 | 0.015 | 0.072 | 0.008 |
| position: | 674 | 574389.88 | -0.001 | 0.038 | 0.025 | -0.001 | 0.038 | 0.015 |
| position: | 675 | 574392.28 | 0.018 | -0.003 | 0.023 | 0.018 | -0.003 | 0.013 |
| position: | 676 | 574394.78 | 0.027 | -0.003 | 0.018 | 0.027 | -0.003 | 0.008 |
| position: | 677 | 574397.19 | 0.026 | 0.026 | 0.011 | 0.026 | 0.026 | 0.001 |
| position: | 678 | 574399.57 | 0.069 | 0.005 | 0.017 | 0.069 | 0.005 | 0.008 |
| position: | 679 | 574401.98 | 0.044 | 0.055 | 0.022 | 0.044 | 0.055 | 0.013 |
| position: | 680 | 574404.38 | -0.088 | -0.015 | 0.009 | -0.088 | -0.015 | -0.001 |
| position: | 651 | 574219.52 | 0.006 | -0.020 | -0.028 | 0.006 | -0.020 | -0.037 |
| position: | 652 | 574222.31 | -0.030 | -0.011 | -0.024 | -0.031 | -0.011 | -0.034 |
| position: | 653 | 574225.11 | -0.011 | -0.021 | -0.034 | -0.011 | -0.021 | -0.044 |
| position: | 654 | 574227.90 | -0.003 | 0.010 | -0.029 | -0.003 | 0.010 | -0.039 |
| position: | 655 | 574230.60 | 0.025 | -0.040 | -0.022 | 0.025 | -0.040 | -0.031 |
| position: | 656 | 574233.46 | -0.008 | -0.033 | -0.021 | -0.008 | -0.033 | -0.031 |
| position: | 657 | 574236.30 | -0.004 | -0.026 | -0.020 | -0.004 | -0.026 | -0.030 |
| position: | 658 | 574239.10 | -0.011 | -0.071 | -0.022 | -0.011 | -0.071 | -0.031 |
| position: | 659 | 574241.91 | 0.011 | -0.082 | -0.015 | 0.011 | -0.082 | -0.025 |
| position: | 660 | 574244.61 | -0.005 | -0.078 | -0.017 | -0.005 | -0.078 | -0.026 |
| position: | 661 | 574247.45 | -0.015 | -0.043 | -0.013 | -0.015 | -0.043 | -0.022 |
| position: | 662 | 574250.11 | -0.024 | -0.045 | -0.012 | -0.024 | -0.044 | -0.022 |
| position: | 619 | 574003.54 | -0.043 | 0.026 | -0.012 | -0.043 | 0.026 | -0.021 |
| position: | 620 | 574006.04 | -0.051 | 0.024 | -0.028 | -0.051 | 0.024 | -0.037 |
| position: | 621 | 574008.55 | -0.036 | 0.058 | -0.031 | -0.036 | 0.058 | -0.041 |
| position: | 622 | 574010.94 | -0.021 | 0.094 | -0.035 | -0.021 | 0.094 | -0.044 |
| position: | 623 | 574013.55 | -0.013 | 0.058 | -0.046 | -0.013 | 0.058 | -0.055 |
| position: | 624 | 574015.94 | -0.022 | 0.071 | -0.054 | -0.022 | 0.071 | -0.063 |
| position: | 625 | 574018.55 | -0.006 | 0.031 | -0.055 | -0.006 | 0.031 | -0.065 |
| position: | 626 | 574020.93 | -0.015 | 0.053 | -0.046 | -0.015 | 0.053 | -0.056 |
| position: | 627 | 574023.54 | 0.021 | 0.057 | -0.064 | 0.021 | 0.057 | -0.074 |
| position: | 628 | 574025.95 | 0.005 | 0.034 | -0.055 | 0.005 | 0.034 | -0.065 |
| position: | 629 | 574028.46 | 0.016 | 0.070 | -0.072 | 0.016 | 0.070 | -0.081 |
| position: | 630 | 574030.94 | 0.033 | 0.045 | -0.063 | 0.033 | 0.045 | -0.073 |
| position: | 134 | 570874.55 | 0.025 | -0.058 | 0.067 | 0.025 | -0.058 | 0.058 |
| position: | 135 | 570877.05 | 0.022 | -0.058 | 0.077 | 0.022 | -0.058 | 0.068 |
| position: | 136 | 570879.64 | 0.008 | -0.054 | 0.076 | 0.008 | -0.054 | 0.067 |
| position: | 137 | 570882.25 | 0.027 | -0.043 | 0.069 | 0.027 | -0.042 | 0.059 |
| position: | 138 | 570884.75 | 0.007 | -0.053 | 0.073 | 0.007 | -0.053 | 0.064 |
| position: | 139 | 570887.45 | -0.028 | -0.042 | 0.086 | -0.028 | -0.042 | 0.076 |
| position: | 140 | 570890.04 | 0.016 | -0.026 | 0.084 | 0.016 | -0.026 | 0.074 |
| position: | 141 | 570892.75 | -0.006 | -0.002 | 0.100 | -0.006 | -0.002 | 0.091 |
| position: | 142 | 570895.34 | 0.016 | -0.035 | 0.082 | 0.016 | -0.035 | 0.072 |
| position: | 143 | 570897.94 | 0.019 | -0.010 | 0.077 | 0.019 | -0.010 | 0.067 |

| | | | | | | | | |
|-----------|-----|-----------|--------|--------|-------|--------|--------|-------|
| position: | 144 | 570900.65 | -0.005 | -0.023 | 0.089 | -0.005 | -0.023 | 0.079 |
| position: | 145 | 570903.24 | 0.014 | -0.004 | 0.079 | 0.014 | -0.004 | 0.069 |

Average position offset:
 East: 0.000 m
 North: 0.000 m
 Alt: 0.009 m
 Position offset RMS:
 East: 0.026 m
 North: 0.045 m
 Alt: 0.050 m

Misalignment angles for the single events [deg]:

| | number | time | roll | pitch | yaw | d roll | d pitch | d yaw |
|--------|--------|-----------|--------|--------|---------|---------|---------|---------|
| angle: | 669 | 574377.68 | 0.1277 | 0.2913 | -0.3008 | -0.0002 | -0.0029 | -0.0009 |
| angle: | 670 | 574380.18 | 0.1284 | 0.2932 | -0.3009 | 0.0004 | -0.0009 | -0.0010 |
| angle: | 671 | 574382.58 | 0.1291 | 0.2947 | -0.3007 | 0.0011 | 0.0006 | -0.0008 |
| angle: | 672 | 574384.99 | 0.1287 | 0.2949 | -0.3006 | 0.0007 | 0.0008 | -0.0008 |
| angle: | 673 | 574387.49 | 0.1291 | 0.2955 | -0.3005 | 0.0011 | 0.0014 | -0.0006 |
| angle: | 674 | 574389.88 | 0.1298 | 0.2950 | -0.3004 | 0.0018 | 0.0009 | -0.0005 |
| angle: | 675 | 574392.28 | 0.1283 | 0.2942 | -0.3006 | 0.0003 | 0.0001 | -0.0007 |
| angle: | 676 | 574394.78 | 0.1284 | 0.2941 | -0.2999 | 0.0004 | -0.0001 | 0.0000 |
| angle: | 677 | 574397.19 | 0.1284 | 0.2954 | -0.2997 | 0.0004 | 0.0013 | 0.0002 |
| angle: | 678 | 574399.57 | 0.1274 | 0.2945 | -0.2994 | -0.0006 | 0.0003 | 0.0005 |
| angle: | 679 | 574401.98 | 0.1262 | 0.2963 | -0.2995 | -0.0018 | 0.0022 | 0.0004 |
| angle: | 680 | 574404.38 | 0.1303 | 0.2949 | -0.2995 | 0.0023 | 0.0008 | 0.0004 |
| angle: | 651 | 574219.52 | 0.1301 | 0.2928 | -0.2997 | 0.0022 | -0.0013 | 0.0001 |
| angle: | 652 | 574222.31 | 0.1292 | 0.2933 | -0.2997 | 0.0012 | -0.0008 | 0.0002 |
| angle: | 653 | 574225.11 | 0.1294 | 0.2934 | -0.3002 | 0.0014 | -0.0007 | -0.0003 |
| angle: | 654 | 574227.90 | 0.1295 | 0.2925 | -0.3005 | 0.0015 | -0.0017 | -0.0007 |
| angle: | 655 | 574230.60 | 0.1307 | 0.2937 | -0.3008 | 0.0028 | -0.0005 | -0.0009 |
| angle: | 656 | 574233.46 | 0.1296 | 0.2940 | -0.3008 | 0.0017 | -0.0001 | -0.0009 |
| angle: | 657 | 574236.30 | 0.1293 | 0.2942 | -0.3006 | 0.0013 | 0.0000 | -0.0008 |
| angle: | 658 | 574239.10 | 0.1284 | 0.2960 | -0.3010 | 0.0005 | 0.0019 | -0.0011 |
| angle: | 659 | 574241.91 | 0.1297 | 0.2966 | -0.3010 | 0.0017 | 0.0025 | -0.0011 |
| angle: | 660 | 574244.61 | 0.1288 | 0.2965 | -0.3007 | 0.0008 | 0.0024 | -0.0008 |
| angle: | 661 | 574247.45 | 0.1291 | 0.2951 | -0.3009 | 0.0011 | 0.0010 | -0.0010 |
| angle: | 662 | 574250.11 | 0.1288 | 0.2949 | -0.3009 | 0.0008 | 0.0008 | -0.0010 |
| angle: | 619 | 574003.54 | 0.1264 | 0.2916 | -0.3006 | -0.0016 | -0.0026 | -0.0007 |
| angle: | 620 | 574006.04 | 0.1269 | 0.2925 | -0.2996 | -0.0010 | -0.0016 | 0.0003 |
| angle: | 621 | 574008.55 | 0.1275 | 0.2934 | -0.3001 | -0.0005 | -0.0008 | -0.0002 |
| angle: | 622 | 574010.94 | 0.1270 | 0.2952 | -0.2999 | -0.0010 | 0.0011 | -0.0001 |
| angle: | 623 | 574013.55 | 0.1269 | 0.2944 | -0.2995 | -0.0011 | 0.0003 | 0.0004 |
| angle: | 624 | 574015.94 | 0.1270 | 0.2952 | -0.2991 | -0.0010 | 0.0010 | 0.0008 |
| angle: | 625 | 574018.55 | 0.1266 | 0.2940 | -0.2990 | -0.0014 | -0.0002 | 0.0009 |
| angle: | 626 | 574020.93 | 0.1277 | 0.2942 | -0.2986 | -0.0003 | 0.0001 | 0.0013 |
| angle: | 627 | 574023.54 | 0.1264 | 0.2942 | -0.2985 | -0.0016 | 0.0001 | 0.0014 |
| angle: | 628 | 574025.95 | 0.1269 | 0.2940 | -0.2985 | -0.0011 | -0.0001 | 0.0014 |
| angle: | 629 | 574028.46 | 0.1280 | 0.2960 | -0.2982 | 0.0000 | 0.0019 | 0.0016 |
| angle: | 630 | 574030.94 | 0.1268 | 0.2952 | -0.2979 | -0.0011 | 0.0011 | 0.0020 |
| angle: | 134 | 570874.55 | 0.1279 | 0.2929 | -0.3001 | 0.0000 | -0.0013 | -0.0002 |
| angle: | 135 | 570877.05 | 0.1275 | 0.2929 | -0.2999 | -0.0005 | -0.0013 | 0.0000 |
| angle: | 136 | 570879.64 | 0.1269 | 0.2929 | -0.2997 | -0.0011 | -0.0012 | 0.0001 |
| angle: | 137 | 570882.25 | 0.1270 | 0.2933 | -0.2994 | -0.0010 | -0.0009 | 0.0004 |
| angle: | 138 | 570884.75 | 0.1275 | 0.2936 | -0.2993 | -0.0004 | -0.0005 | 0.0005 |
| angle: | 139 | 570887.45 | 0.1259 | 0.2945 | -0.2992 | -0.0021 | 0.0004 | 0.0006 |
| angle: | 140 | 570890.04 | 0.1274 | 0.2939 | -0.2993 | -0.0006 | -0.0002 | 0.0005 |
| angle: | 141 | 570892.75 | 0.1266 | 0.2931 | -0.2995 | -0.0014 | -0.0011 | 0.0003 |
| angle: | 142 | 570895.34 | 0.1274 | 0.2939 | -0.2993 | -0.0006 | -0.0002 | 0.0005 |
| angle: | 143 | 570897.94 | 0.1269 | 0.2936 | -0.2994 | -0.0011 | -0.0005 | 0.0005 |
| angle: | 144 | 570900.65 | 0.1267 | 0.2941 | -0.2998 | -0.0013 | -0.0001 | 0.0000 |
| angle: | 145 | 570903.24 | 0.1269 | 0.2929 | -0.2999 | -0.0011 | -0.0013 | -0.0001 |

Average Boresight Angles:

Roll: 0.1280 deg
 Pitch: 0.2941 deg
 Yaw: -0.2999 deg

Boresight Angle RMS:

Roll: 0.0012 deg
 Pitch: 0.0012 deg
 Yaw: 0.0008 deg

Success!!
 Boresight Calculation finished