



Survey Report- LiDAR Check Points

Mobile County, AL

Submitted To:
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I, H. Alan Kimbrough, hereby state that this document was prepared by me or under my direct supervision. This volume contains 83 pages beginning with a title sheet and ends with a sheet intentionally left blank. Any additions or deletions of this volume will void this certification.



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6/22/2015

Date



1 Narrative

1.1 Introduction

A survey was performed to support the acquisition of Light Detection and Ranging (LiDAR) data for Mobile County in the State of Alabama.

1.2 Applicable Standards

This Geodetic Control Survey was conducted so as to support Light Detection and Ranging (LiDAR) data in accordance with the National Digital Elevation Program (NDEP) and the American Society for Photogrammetry and Remote Sensing (ASPRS) guidelines.

2 Ground Network Survey

2.1 Field Control Points

A GPS control network was performed for the purposes of establishing a three-dimensional coordinates on each of the base station locations. The control network included a combination of a National Geodetic Survey (NGS) Control Monument (**MOB AP STA A1**), National Geodetic Survey (NGS) CORS (**AL84, AL90, AL92, ALDI, ALM**), Mobile Control Monuments (**MCC1062, MCC1067, MCC1070, MCC1072, MCC1073, MOB1000, MOB1008, MOB1009, MOB1011, MOB1023, MOB1031, MOB1034**) and a capped iron found (**CIPF**).

A graphical representation of all the control points is provided in figure 1:

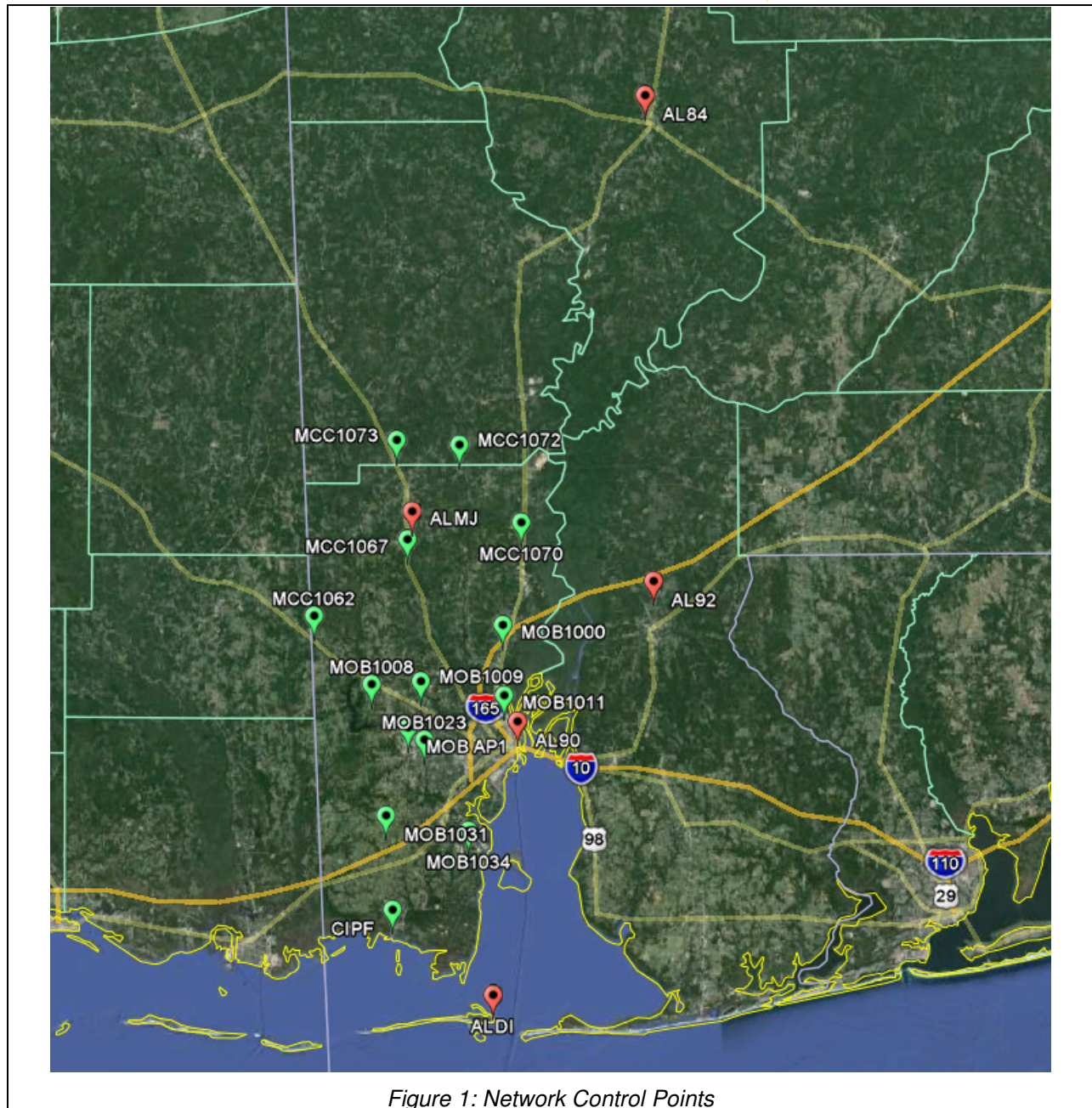


Figure 1: Network Control Points

2.2 Ground Station Collection

GPS observations at all ground control points in the network were made with Leica System 500 dual-frequency GPS-receivers w/ Leica AT502 antenna and a NovAtel DL 4=L1L2 receiver w/ NovAtel NOV702 3.00 antenna between April 30, 2014 and May 2, 2014. Session lengths were based upon the distance between points and were set for a minimum of one hour per every 10 km. Some baselines were collected during LiDAR acquisition, and therefore, are much longer than typically required.



2.3 Data Processing and Analysis

Data collected during each GPS session was processed using GrafNet 8.30.2105 with their respective GPS antenna type, and antenna height reading. The RMS values for the latitude, longitude and ellipsoid heights for all results were reviewed to ensure that they are within acceptable limits.

Two adjustments were made during the network development. Each adjustment reports baseline RMSE and residual values at the control points.

The network development involved performing a minimally constrained adjustment, holding NGS CORS (**ALDI**) as a horizontal and vertical control point. This minimally constrained adjustment allowed for blunders and errors to appear within the network. These blunders were analyzed and the baselines were rejected if they had high residuals against other redundant baselines. In all, a total of ninety (90) baselines were kept in the minimally constrained adjustment.

Five (5) control points within the network were then fully constrained for a final network adjustment, holding NGS CORS (**AL84, AL90, AL92, ALDI, ALMJ**) as horizontal and vertical control. Mobile Control Monuments (**MCC1062, MCC1067, MCC1070, MCC1072, MCC1073, MOB1000, MOB1008, MOB1009, MOB1011, MOB1023, MOB1031, MOB1034**) and NGS monument **MOB AP STA A1** were held as check points. Geoid12A was utilized during GPS processing. In all, eighty eight (88) baselines were kept in the fully constrained adjustment after the final network analyses. Final network control values were then assigned to control points **MOB AP STA A1, MCC1062, MCC1067, MCC1070, MCC1072, MCC1073, MOB1000, MOB1008, MOB1009, MOB1011, MOB1023, MOB1031, MOB1034, and CIPF**.

A tabulated summary of the final coordinates resulting from the network survey are listed in section 2.3.1 and section 2.3.2.

2.3.1 Network Survey Output Station Geographic Coordinates

Geographic (NAD83), Ellipsoidal (GRS80) meters

| Ground Control Points | | | |
|-----------------------|----------------|----------------|-------------------------|
| Point ID | Latitude | Longitude | Ellipsoid Height meters |
| AL84 | 31 42 01.32765 | 87 47 20.98252 | 112.864 |
| AL90 | 30 41 26.96906 | 88 01 54.13718 | -15.994 |
| AL92 | 30 54 58.98597 | 87 46 32.46231 | 62.350 |
| ALDI | 30 14 56.98778 | 88 04 40.68847 | -17.795 |
| ALMJ | 31 01 44.31301 | 88 13 47.06832 | 71.501 |
| MOB1000 | 30 50 46.22754 | 88 03 32.61383 | -23.051 |
| MOB1008 | 30 45 01.86875 | 88 18 20.12843 | 39.861 |



| Point ID | Latitude | Longitude | Ellipsoid Height meters |
|---------------|------------------|------------------|-------------------------|
| MOB1009 | 30 45 19.24597 | 88 12 46.82664 | 39.057 |
| MOB1011 | 30 43 57.95308 | 88 03 23.67063 | -20.109 |
| MOB1023 | 30 39 40.79363 | 88 12 23.21421 | 7.381 |
| MOB1031 | 30 32 20.68780 | 88 16 41.77824 | 16.538 |
| MOB1034 | 30 30 52.47294 | 88 07 25.25505 | -19.580 |
| MCC1062 | 30 51 37.87852 | 88 24 50.65756 | -2.831 |
| MCC1067 | 30 59 01.99492 | 88 14 18.54174 | 10.807 |
| MCC1069 | 30° 59' 56.56494 | 88° 25' 15.99791 | 20.930 |
| MCC1070 | 31 00 40.21711 | 88 01 27.80949 | -13.659 |
| MCC1072 | 31 08 10.34802 | 88 08 26.80339 | 63.446 |
| MCC1073 | 31 08 37.72724 | 88 15 32.03723 | 37.798 |
| CIPF | 30 23 12.32153 | 88 15 58.21904 | -27.255 |
| MOB AP STA A1 | 30 40 50.96020 | 88 14 12.44591 | 35.405 |

2.3.2 Network Survey Output Station Coordinates in State Plane Coordinate System

Alabama West State Plane Coordinate System (SPCS) US survey feet, NAVD88
(Geoid12A) US survey feet

| Ground Control Points | | | |
|-----------------------|-------------------------------|--------------------------------|--------------------------------|
| Point ID | Easting (x) US Survey Feet | Northing (y) US Survey Feet | Ortho Height US Survey Feet |
| AL84 | 1878570.664 | 618563.233 | 461.204 |
| AL90 | 1801373.949 | 251637.249 | 40.921 |
| AL92 | 1882049.282 | 333386.579 | 297.509 |
| ALDI | 1786010.195 | 91077.154 | 32.481 |
| ALMJ | 1739929.075 | 374981.424 | 327.240 |
| MOB1000 | 1793057.733 | 308182.039 | 17.979 |
| MOB1008 | 1715439.334 | 273862.198 | 224.560 |
| MOB1009 | 1744534.667 | 275420.792 | 221.875 |
| MOB1011 | 1793632.22 | 266929.229 | 27.588 |
| MOB1023 | 1746379.675 | 241213.062 | 117.797 |
| MOB1031 | 1723488.987 | 196897.684 | 147.378 |
| MOB1034 | 1772107.821 | 187682.871 | 28.610 |
| MCC1062 | 1681687.996 | 314135.123 | 84.305 |
| MCC1067 | 1737081.728 | 358599.314 | 128.380 |
| MCC1070 | 1804219.559 | 368142.57 | 48.520 |
| MCC1072 | 1768019.871 | 413813.672 | 300.531 |



| Point ID | Easting (x) US Survey Feet | Northing (y) US Survey Feet | Ortho Height US Survey Feet |
|----------|-------------------------------|--------------------------------|--------------------------------|
| MCC1073 | 1731081.579 | 416813.486 | 215.886 |
| CIPF | 1726922.669 | 141470.489 | 2.723 |
| MOB AP1 | 1736885.806 | 248363.427 | 209.803 |

2.4 Real Time Kinematic (RTK) Test Point Collection

GPS observations at each Real Time Kinematic (RTK) ground control point were made with a Leica SR530 dual-frequency GPS-receivers w/ Leica AT502 antenna. The GPS units were configured to log data at 1 Hz, and at 10 degrees mask. RTK test points collected represent differing types of ground cover. All observations were conducted between March 20, 2014 and May 2, 2014.

Test Point Final Solutions may be found in Appendix C. A graphical representation of all the RTK Test Points is provided in figure 2:

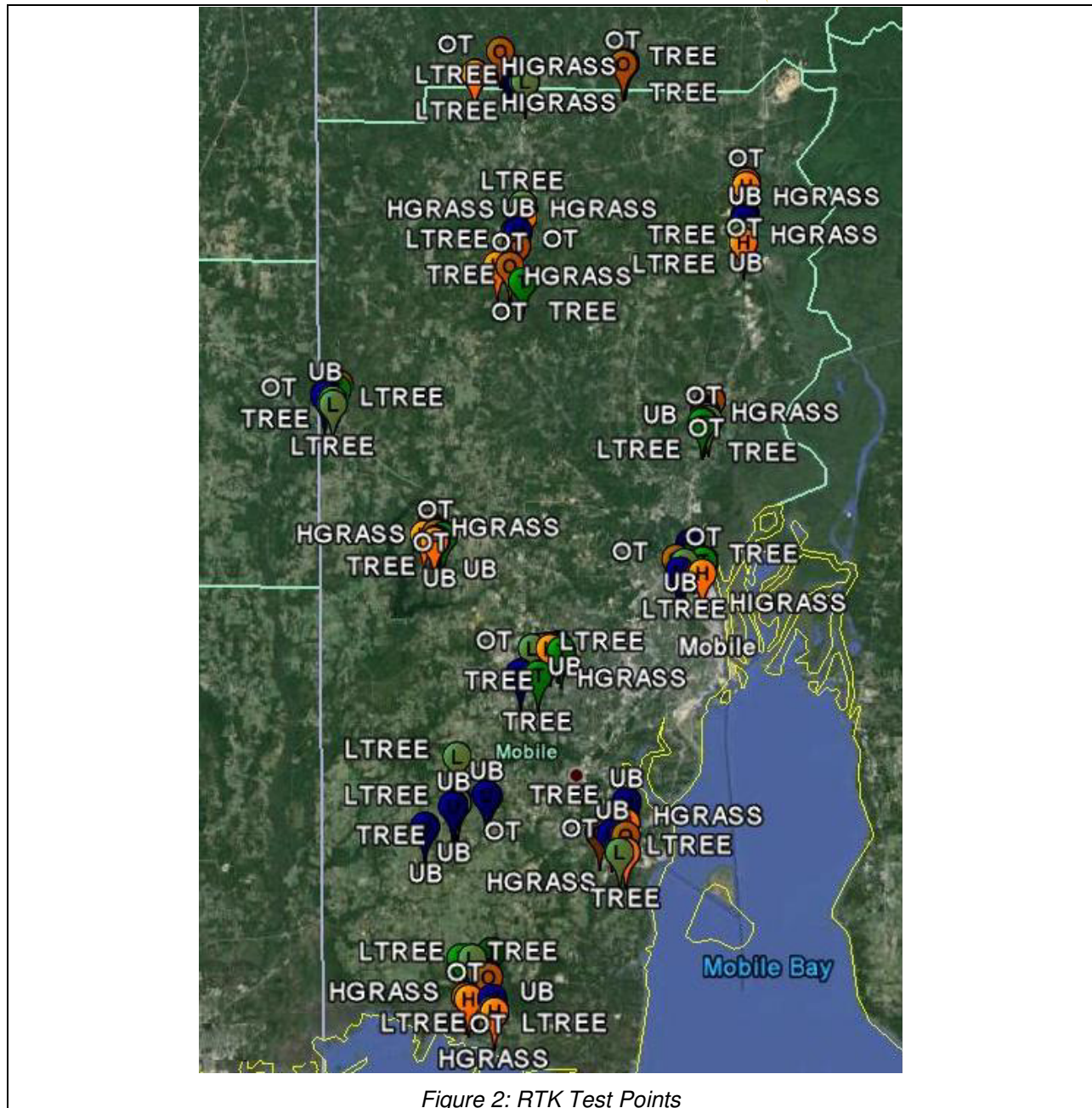


Figure 2: RTK Test Points

2.5 Real Time Kinematic (RTK) Test Point Data Processing and Analysis

Data collected was processed using Leica Geosystems SKI-Pro Version 3.0 with their respective GPS antenna type, and antenna height reading. Final coordinates were output in Alabama West State Plane Coordinate System (SPCS), NAVD88, Orthometric and may be found in Section 2.5.1 through 2.5.5.



2.5.1 RTK Test Points (Open Terrain)

NAD83 (NSRS2007) State Plane Alabama West (FIPS 0102) NAVD88 (Geoid12A) U.S. Survey Feet

| Ground Points | | | | |
|---------------|-------------|------------|--------------|--------------|
| Field Code | Easting | Northing | Ortho Height | Description |
| OT01 | 1764576.850 | 188471.706 | 46.726 | Open Terrain |
| OT02 | 1748558.634 | 241328.309 | 115.941 | Open Terrain |
| OT03 | 1733350.188 | 147041.675 | 6.616 | Open Terrain |
| OT04 | 1714069.210 | 274604.695 | 226.421 | Open Terrain |
| OT05 | 1793852.778 | 308910.742 | 17.014 | Open Terrain |
| OT06 | 1804571.265 | 378510.371 | 42.734 | Open Terrain |
| OT07 | 1735281.291 | 352697.178 | 187.269 | Open Terrain |
| OT08 | 1767796.289 | 413977.544 | 299.452 | Open Terrain |
| OT09 | 1767601.643 | 413447.494 | 291.039 | Open Terrain |
| OT10 | 1733725.674 | 411821.136 | 281.775 | Open Terrain |
| OT11 | 1733727.499 | 411812.909 | 281.761 | Open Terrain |
| OT12 | 1785395.945 | 267440.861 | 31.302 | Open Terrain |
| OT13 | 1793057.733 | 308182.039 | 17.980 | Open Terrain |
| OT14 | 1715439.334 | 273862.198 | 224.560 | Open Terrain |
| OT15 | 1793632.220 | 266929.229 | 27.588 | Open Terrain |
| OT16 | 1746379.675 | 241213.062 | 117.797 | Open Terrain |
| OT17 | 1772107.821 | 187682.871 | 28.612 | Open Terrain |
| OT18 | 1681687.996 | 314135.123 | 84.308 | Open Terrain |
| OT19 | 1737081.728 | 358599.314 | 128.378 | Open Terrain |
| OT20 | 1804219.559 | 368142.570 | 48.822 | Open Terrain |
| OT21 | 1768019.871 | 413813.672 | 300.531 | Open Terrain |
| OT22 | 1731081.579 | 416813.486 | 215.885 | Open Terrain |
| OT23 | 1726922.669 | 141470.489 | 2.722 | Open Terrain |



2.5.2 RTK Test Points (High Grass)

NAD83 (NSRS2007) State Plane Alabama West (FIPS 0102) NAVD88 (Geoid12A) U.S. Survey Feet

| Ground Points | | | | |
|---------------|-------------|------------|--------------|-------------|
| Field Code | Easting | Northing | Ortho Height | Description |
| HG01 | 1772176.518 | 183012.970 | 21.484 | High Grass |
| HG02 | 1772034.365 | 191265.258 | 26.187 | High Grass |
| HG03 | 1723338.491 | 196583.410 | 147.328 | High Grass |
| HG04 | 1749246.284 | 241060.304 | 134.944 | High Grass |
| HG05 | 1735272.130 | 137296.629 | 3.649 | High Grass |
| HG06 | 1730132.944 | 143155.717 | 6.648 | High Grass |
| HG07 | 1711936.043 | 273535.289 | 200.246 | High Grass |
| HG08 | 1714948.235 | 271685.736 | 202.189 | High Grass |
| HG09 | 1793064.243 | 308099.746 | 17.380 | High Grass |
| HG10 | 1794993.299 | 313680.130 | 19.760 | High Grass |
| HG11 | 1685861.651 | 317210.092 | 190.719 | High Grass |
| HG12 | 1804459.376 | 377353.255 | 46.637 | High Grass |
| HG13 | 1803871.011 | 360581.543 | 42.595 | High Grass |
| HG14 | 1738877.073 | 367535.023 | 197.601 | High Grass |
| HG15 | 1738885.478 | 367526.172 | 197.661 | High Grass |
| HG16 | 1731551.529 | 352906.286 | 273.735 | High Grass |
| HG17 | 1767994.856 | 413837.516 | 300.874 | High Grass |
| HG18 | 1767948.252 | 413944.689 | 300.771 | High Grass |
| HG19 | 1723638.973 | 410056.011 | 179.302 | High Grass |
| HG20 | 1723639.089 | 410056.170 | 179.392 | High Grass |
| HG21 | 1723642.615 | 410050.466 | 179.863 | High Grass |



2.5.3 RTK Test Points (Urban)

NAD83 (NSRS2007) State Plane Alabama West (FIPS 0102) NAVD88 (Geoid12A) U.S. Survey Feet

| Ground Points | | | | |
|---------------|-------------|------------|--------------|---------------|
| Field Code | Easting | Northing | Ortho Height | Description |
| UB01 | 1768036.519 | 187953.799 | 26.329 | Urban Terrain |
| UB02 | 1772014.792 | 197122.237 | 16.571 | Urban Terrain |
| UB03 | 1714177.325 | 189525.178 | 125.220 | Urban Terrain |
| UB04 | 1731678.112 | 198826.328 | 150.166 | Urban Terrain |
| UB05 | 1722181.222 | 195580.508 | 151.369 | Urban Terrain |
| UB06 | 1722233.069 | 195615.133 | 150.995 | Urban Terrain |
| UB07 | 1740885.494 | 233675.949 | 151.050 | Urban Terrain |
| UB08 | 1751569.230 | 241855.796 | 156.529 | Urban Terrain |
| UB09 | 1734569.326 | 140936.525 | 13.823 | Urban Terrain |
| UB10 | 1732885.192 | 148017.360 | 6.522 | Urban Terrain |
| UB11 | 1715467.016 | 272233.000 | 219.792 | Urban Terrain |
| UB12 | 1716309.247 | 274390.546 | 215.433 | Urban Terrain |
| UB13 | 1793264.551 | 310910.233 | 19.280 | Urban Terrain |
| UB14 | 1792712.966 | 307408.235 | 23.408 | Urban Terrain |
| UB15 | 1681841.758 | 313884.088 | 76.994 | Urban Terrain |
| UB16 | 1804097.841 | 367200.895 | 45.485 | Urban Terrain |
| UB17 | 1804336.667 | 368094.263 | 49.707 | Urban Terrain |
| UB18 | 1737434.980 | 362944.877 | 148.200 | Urban Terrain |
| UB19 | 1737440.491 | 362944.352 | 147.843 | Urban Terrain |
| UB20 | 1739170.402 | 368578.772 | 201.496 | Urban Terrain |
| UB21 | 1739144.071 | 368586.141 | 201.334 | Urban Terrain |
| UB22 | 1733440.395 | 411137.336 | 313.650 | Urban Terrain |
| UB23 | 1733435.463 | 411129.753 | 313.914 | Urban Terrain |
| UB24 | 1767881.460 | 413984.363 | 301.245 | Urban Terrain |
| UB25 | 1786572.638 | 263812.280 | 33.557 | Urban Terrain |
| UB26 | 1789502.518 | 271846.632 | 30.996 | Urban Terrain |



2.5.4 RTK Test Points (Low Trees-Brush)

NAD83 (NSRS2007) State Plane Alabama West (FIPS 0102) NAVD88 (Geoid12A) U.S. Survey Feet

| Ground Points | | | | |
|---------------|-------------|------------|--------------|-------------|
| Field Code | Easting | Northing | Ortho Height | Description |
| LT01 | 1771873.482 | 192858.781 | 25.202 | Low Trees |
| LT02 | 1722981.451 | 209712.468 | 163.783 | Low Trees |
| LT03 | 1723187.050 | 196521.871 | 146.302 | Low Trees |
| LT04 | 1744135.850 | 241032.401 | 161.289 | Low Trees |
| LT05 | 1748511.703 | 241610.973 | 113.421 | Low Trees |
| LT06 | 1713808.113 | 274939.751 | 225.452 | Low Trees |
| LT07 | 1713730.683 | 275982.882 | 226.552 | Low Trees |
| LT08 | 1794257.049 | 308089.102 | 20.248 | Low Trees |
| LT09 | 1684189.550 | 312599.765 | 110.459 | Low Trees |
| LT10 | 1804341.473 | 368606.986 | 49.049 | Low Trees |
| LT11 | 1803689.701 | 362749.427 | 34.292 | Low Trees |
| LT12 | 1736995.263 | 358609.895 | 129.856 | Low Trees |
| LT13 | 1736994.964 | 358610.167 | 129.830 | Low Trees |
| LT14 | 1738645.017 | 371052.320 | 250.038 | Low Trees |
| LT15 | 1738645.156 | 371052.556 | 250.005 | Low Trees |
| LT16 | 1767832.076 | 413906.832 | 301.375 | Low Trees |
| LT17 | 1767984.001 | 413786.752 | 303.800 | Low Trees |
| LT18 | 1738637.270 | 407731.304 | 325.781 | Low Trees |
| LT19 | 1738639.400 | 407731.058 | 325.293 | Low Trees |
| LT20 | 1787863.886 | 266284.666 | 24.600 | Low Trees |



2.5.4 RTK Test Points (Trees)

NAD83 (NSRS2007) State Plane Alabama West (FIPS 0102) NAVD88 (Geoid12A) U.S. Survey Feet

| Ground Points | | | | |
|---------------|-------------|------------|--------------|-------------|
| Field Code | Easting | Northing | Ortho Height | Description |
| TR01 | 1772298.965 | 197265.091 | 13.883 | Trees |
| TR02 | 1772178.928 | 183241.288 | 20.178 | Trees |
| TR03 | 1722291.266 | 195720.674 | 149.995 | Trees |
| TR04 | 1732160.187 | 198410.236 | 134.905 | Trees |
| TR05 | 1752551.345 | 240383.448 | 187.143 | Trees |
| TR06 | 1745958.049 | 233328.410 | 101.091 | Trees |
| TR07 | 1734064.315 | 154193.787 | 18.298 | Trees |
| TR08 | 1725375.636 | 152226.150 | 14.429 | Trees |
| TR09 | 1713813.214 | 275904.576 | 226.745 | Trees |
| TR10 | 1717515.525 | 273089.663 | 208.561 | Trees |
| TR11 | 1795005.698 | 313727.376 | 19.510 | Trees |
| TR12 | 1792447.884 | 307252.379 | 20.980 | Trees |
| TR13 | 1685356.018 | 315758.657 | 162.619 | Trees |
| TR14 | 1803855.763 | 360659.731 | 43.220 | Trees |
| TR15 | 1739087.420 | 348015.112 | 109.460 | Trees |
| TR16 | 1739091.806 | 348015.327 | 109.381 | Trees |
| TR17 | 1767665.976 | 413846.666 | 297.355 | Trees |
| TR18 | 1767578.592 | 413685.358 | 292.929 | Trees |
| TR19 | 1767621.303 | 413674.766 | 295.189 | Trees |
| TR20 | 1793275.078 | 266858.612 | 26.373 | Trees |
| TR21 | 1790696.024 | 268301.866 | 32.782 | Trees |

3 Client Provided Data

3.1 Client Provided Coordinates Processing and Analysis

The Client Provided Coordinates used were converted using Corpscon 6.0.1 to provide orthometric heights in Geoid model 12A and coordinates in Alabama West State Plane and Geographic formats. A tabulated summary of the Client Provided Data used is listed in section 3.1.1. A tabulated summary of the final coordinates resulting from the data conversion are listed in section 3.1.2 through section 3.1.3.



3.1.1 Client Provided Coordinates

Alabama West State Plane Coordinate System (SPCS) US survey feet, NAVD88 (Geoid99/09) US survey feet

| Ground Control Points | | | | | | | |
|-----------------------|----------------------------|----|-----------------------------|----|-----------------------------|----|----------------|
| Point ID | Easting (x) Survey Feet | US | Northing (y) Survey Feet | US | Ortho Height Survey Feet | US | Geoid Model |
| MOB1000 | 308181.859 | | 1793057.899 | | 18.570 | | GEOID 99 |
| MOB1008 | 273862.189 | | 1715439.409 | | 224.957 | | GEOID 99 |
| MOB1009 | 275420.679 | | 1744534.919 | | 222.462 | | GEOID 99 |
| MOB1011 | 266929.120 | | 1793632.330 | | 28.143 | | GEOID 99 |
| MOB1023 | 241213.106 | | 1746379.730 | | 118.155 | | GEOID 99 |
| MOB1031 | 196897.684 | | 1723488.987 | | 147.378 | | GEOID 99 |
| MOB1034 | 187682.820 | | 1772107.860 | | 29.145 | | GEOID 99 |
| MCC1062 | 314135.190 | | 1681687.977 | | 84.522 | | GEOID 09 |
| MCC1067 | 358599.384 | | 1737081.764 | | 128.646 | | GEOID 09 |
| MCC1069 | 364539.765 | | 1679895.638 | | 161.361 | | GEOID 09 |
| MCC1070 | 368142.653 | | 1804219.496 | | 48.828 | | GEOID 09 |
| MCC1072 | 413813.719 | | 1768019.857 | | 300.662 | | GEOID 09 |
| MCC1073 | 416813.570 | | 1731081.575 | | 216.050 | | GEOID 09 |

3.1.2 Client Provided Coordinates Converted Geographic

Geographic (NAD83), Ellipsoidal (GRS80) meters

| Ground Control Points | | | |
|-----------------------|------------------|------------------|----------------------------|
| Point ID | Latitude | Longitude | Ellipsoid Height meters |
| MOB1000 | 30 50 46.22754 | 88 03 32.61383 | -23.051 |
| MOB1008 | 30 45 01.86875 | 88 18 20.12843 | 39.861 |
| MOB1009 | 30 45 19.24597 | 88 12 46.82664 | 39.057 |
| MOB1011 | 30 43 57.95308 | 88 03 23.67063 | -20.109 |
| MOB1023 | 30 39 40.79363 | 88 12 23.21421 | 7.381 |
| MOB1031 | 30 32 20.68780 | 88 16 41.77824 | 16.538 |
| MOB1034 | 30 30 52.47294 | 88 07 25.25505 | -19.580 |
| MCC1062 | 30 51 37.87852 | 88 24 50.65756 | -2.831 |
| MCC1067 | 30 59 01.99492 | 88 14 18.54174 | 10.807 |
| MCC1069 | 30° 59' 56.56494 | 88° 25' 15.99791 | 20.930 |
| MCC1070 | 31 00 40.21711 | 88 01 27.80949 | -13.659 |
| MCC1072 | 31 08 10.34802 | 88 08 26.80339 | 63.446 |
| MCC1073 | 31 08 37.72724 | 88 15 32.03723 | 37.798 |



Appendix A: GPS Session Forms



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Friday, March 21, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MCC1054 | | | | | MCC1054 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670800.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.184 | | | 5.184 | 1.580 | | | 1.580 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.184 | | | 5.184 | 1.580 | | | 1.580 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.220 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 21-Mar-2014 | | | 14:24 | | | N | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 21-Mar-2014 | | | 16:39 | | | W | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|---|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Wednesday, April 30, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MCC1054 | | | | | MCC1054 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44671200.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.115 | | | 5.115 | 1.559 | | | 1.559 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.115 | | | 5.115 | 1.559 | | | 1.559 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.199 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 13:22 | | | N 30 23 12.38 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 16:47 | | | W 88 15 58.16 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Saturday, March 22, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MCC1062 | | | | | MCC1062 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670810.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.509 | | | 5.509 | 1.679 | | | 1.679 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.509 | | | 5.509 | 1.679 | | | 1.679 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.319 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 22-Mar-2014 | | | 17:14 | | | N | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 22-Mar-2014 | | | 18:32 | | | W | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Thursday, May 01, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MCC1062 | | | | | MCC1062 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44671210.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input checked="" type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.640 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 14:23 | | | N 30 51 37.88 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 23:03 | | | W 88 24 50.66 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|---|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Thursday, May 01, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | GPS System Operator | | | | | |
| 13-165 | | The Atlantic Group, LLC | | Ben Kimbrough | | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1067 | | | | | MOB1067 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 01921210.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input checked="" type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.131 | | | 5.131 | 1.564 | | | 1.564 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.131 | | | 5.131 | 1.564 | | | 1.564 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.204 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 16:21 | | | N 30 59 02.00 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 23:43 | | | W 88 14 18.54 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|---|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Friday, May 02, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1067 | | | | | MOB1067 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | DMBP1220.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input checked="" type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.640 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 15:45 | | | N 30 59 02.00 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 17:31 | | | W 88 14 18.54 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Thursday, May 01, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1070 | | | | | MOB1070 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 00021211.pdc | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input checked="" type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.560 | | | 6.560 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.560 | | | 6.560 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 2.042 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 20:50 | | | N 31 00 40.22 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 0:33 | | | W 88 01 27.81 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Saturday, March 29, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MCC1070 | | | | | MCC1070 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670880.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.184 | | | 5.184 | 1.580 | | | 1.580 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.184 | | | 5.184 | 1.580 | | | 1.580 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.220 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 29-Mar-2014 | | | 14:28 | | | N | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 29-Mar-2014 | | | 17:24 | | | W | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Friday, May 02, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | GPS System Operator | | | | | |
| 13-165 | | The Atlantic Group, LLC | | Ben Kimbrough | | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1070 | | | | | MOB1070 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 00021220.pdc | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input checked="" type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.560 | | | 6.560 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.560 | | | 6.560 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 2.042 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 13:01 | | | N 31 00 40.22 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 17:45 | | | W 88 01 27.81 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|---|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Friday, May 02, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MCC1072 | | | | | MCC1072 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | DMBP1210.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.640 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 13:28 | | | N 31 08 10.35 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 19:15 | | | W 88 08 26.80 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|---|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Friday, May 02, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MCC1073 | | | | | MCC1073 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 01921220.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input checked="" type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.299 | | | 5.299 | 1.615 | | | 1.615 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.299 | | | 5.299 | 1.615 | | | 1.615 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.255 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 14:06 | | | N 31 08 37.73 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 2-May-2014 | | | 18:43 | | | W 88 15 32.04 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|---|-------|--|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | | |
| | | Mobile County | | | Thursday, May 01, 2014 | | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | | |
| MOB1000 | | | | | MOB1000 | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 00001210.000 | | | | | | |
| GPS Receiver Information | | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | | |
| <input checked="" type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | | |
| <input type="checkbox"/> Other | | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | | |
| 4.957 | | | 4.957 | 1.511 | | | 1.511 | | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | | |
| 4.957 | | | 4.957 | 1.511 | | | 1.511 | | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | | |
| Leica Height Hook Measurement | | 1.151 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | | |
| 1-May-2014 | | | 15:32 | | | N 30 51 37.88 | | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | | |
| 2-May-2014 | | | 0:14 | | | W 88 24 50.66 | | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|--|-------|--|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | | |
| | | Mobile County | | | Saturday, March 22, 2014 | | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | | |
| MOB1000 | | | | | MOB1000 | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670810.000 | | | | | | |
| GPS Receiver Information | | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | | |
| 5.262 | | | 5.262 | 1.604 | | | 1.604 | | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | | |
| 5.262 | | | 5.262 | 1.604 | | | 1.604 | | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.244 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | | |
| 22-Mar-2014 | | | 19:55 | | | N | | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | | |
| 22-Mar-2014 | | | 21:39 | | | W | | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|--|-------|--|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | | |
| | | Mobile County | | | Wednesday, April 30, 2014 | | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | | |
| MOB1000 | | | | | MOB1000 | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 01921200.000 | | | | | | |
| GPS Receiver Information | | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | | |
| <input checked="" type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | | |
| <input type="checkbox"/> Other | | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.640 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | | |
| 30-Apr-2014 | | | 20:06 | | | N 30 50 46.23 | | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | | |
| 30-Apr-2014 | | | 23:06 | | | W 88 03 32.61 | | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Saturday, March 22, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1008 | | | | | MOB1008 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670810.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.331 | | | 5.331 | 1.625 | | | 1.625 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.331 | | | 5.331 | 1.625 | | | 1.625 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.265 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 22-Mar-2014 | | | 14:03 | | | N | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 22-Mar-2014 | | | 16:20 | | | W | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Thursday, May 01, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1008 | | | | | MOB1008 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | DMBP1210.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input checked="" type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.640 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 19:01 | | | N 30 45 01.87 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 22:31 | | | W 88 18 20.13 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Thursday, May 01, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1009 | | | | | MOB1009 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 00021210.pdc | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input checked="" type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.560 | | | 6.560 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.560 | | | 6.560 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 2.042 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 13:55 | | | N 30 45 19.25 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 20:01 | | | W 88 12 46.82 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Wednesday, April 30, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | GPS System Operator | | | | | |
| 13-165 | | The Atlantic Group, LLC | | Ben Kimbrough | | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1009 | | | | | MOB1009 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | DMP1200.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input checked="" type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.410 | | | 5.410 | 1.649 | | | 1.649 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.410 | | | 5.410 | 1.649 | | | 1.649 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.289 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 20:39 | | | N 30 45 19.25 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 22:35 | | | W 88 12 46.82 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Monday, February 17, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1010 | | | | | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input checked="" type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 2.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 17-Feb-2014 | | | 19:53 | | | N 30 45 10.3 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 17-Feb-2014 | | | 20:13 | | | W 88 07 19.6 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Saturday, March 29, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1011 | | | | | MOB1011 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670880.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.118 | | | 5.118 | 1.560 | | | 1.560 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.118 | | | 5.118 | 1.560 | | | 1.560 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.200 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 29-Mar-2014 | | | 18:45 | | | N | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 29-Mar-2014 | | | 20:15 | | | W | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Wednesday, April 30, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1011 | | | | | MOB1011 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 00021200.pdc | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input checked="" type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.560 | | | 6.560 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.560 | | | 6.560 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 2.042 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 15:54 | | | N 30 43 57.95 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 22:06 | | | W 88 03 23.67 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Friday, March 21, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1023 | | | | | MOB1023 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670800.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 4.925 | | | 4.925 | 1.501 | | | 1.501 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 4.925 | | | 4.925 | 1.501 | | | 1.501 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.141 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 21-Mar-2014 | | | 20:49 | | | N | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 21-Mar-2014 | | | 22:49 | | | W | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Wednesday, April 30, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1023 | | | | | MOB1023 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 00001200.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input checked="" type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q01QSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 4.646 | | | 4.646 | 1.416 | | | 1.416 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 4.646 | | | 4.646 | 1.416 | | | 1.416 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.056 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 15:09 | | | N 30 39 40.79 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 21:14 | | | W 88 12 23.21 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Friday, March 21, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1031 | | | | | MOB1031 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670800.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.433 | | | 5.433 | 1.656 | | | 1.656 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.433 | | | 5.433 | 1.656 | | | 1.656 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.296 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 21-Mar-2014 | | | 17:46 | | | N | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 21-Mar-2014 | | | 19:42 | | | W | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |




| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|---|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Wednesday, April 30, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1031 | | | | | MOB1031 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | DMBP1200.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input checked="" type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 4.941 | | | 4.941 | 1.506 | | | 1.506 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 4.941 | | | 4.941 | 1.506 | | | 1.506 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.146 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 14:38 | | | N 30 32 20.69 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 18:54 | | | W 88 16 41.78 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |





| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Thursday, March 20, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Alan Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1034 | | | | | MOB1034 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input checked="" type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44670790.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.184 | | | 5.184 | 1.580 | | | 1.580 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.184 | | | 5.184 | 1.580 | | | 1.580 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.220 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 20-Mar-2014 | | | 18:35 | | | N | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 20-Mar-2014 | | | 21:31 | | | W | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |





| GPS Station Session Form | | | | | | | | | |
|---|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Wednesday, April 30, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| 13-165 | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB1034 | | | | | MOB1034 | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 01921200.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input checked="" type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | _____ | _____ | _____ | _____ | _____ | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.562 | | | 6.562 | 2.000 | | | 2.000 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.640 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 14:06 | | | N 30 30 52.47 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 19:21 | | | W 88 07 25.26 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |


| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Saturday, February 15, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB_01 | | | | | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input checked="" type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 2.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 15-Feb-2014 | | | 20:51 | | | N 30 38 06.4 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 15-Feb-2014 | | | 21:18 | | | W 88 19 44.9 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
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| | | | | | | | | | |

| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Sunday, February 16, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB_02 | | | | | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input checked="" type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 2.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 16-Feb-2014 | | | 15:07 | | | N 30 14 55.9 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 16-Feb-2014 | | | 15:27 | | | W 88 11 30.3 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
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| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Sunday, February 16, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB_03 | | | | | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input checked="" type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 2.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 16-Feb-2014 | | | 19:05 | | | N 30 32 34.5 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 16-Feb-2014 | | | 19:25 | | | W 88 04 58.3 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
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| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Monday, February 17, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB_04 | | | | | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input checked="" type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 2.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 17-Feb-2014 | | | 15:46 | | | N 31 09 16.9 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 17-Feb-2014 | | | 16:06 | | | W 88 00 35.2 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
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| GPS Station Session Form | | | | | | | | | |
|--|-------------------|------------------------------------|--|--|-------------|---|-------|--|--|
| Contract # / TO # | | Client / Project Name | | Date | | | | | |
| | | Mobile County | | Monday, February 17, 2014 | | | | | |
| Atlantic Project No. | | Survey Firm | | GPS System Operator | | | | | |
| | | The Atlantic Group, LLC | | Ben Kimbrough | | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | Exact Stamping (photo in survey report) | | | | | |
| MOB_05 | | | | | | | | | |
| Collection Type (check all that apply) | | | File Name (receiver generated) | | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input checked="" type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | Beginning Antenna Height in Meters | | Type of Measurement (check one) | | | | | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Ending Antenna Height in Feet | | Ending Antenna Height in Meters | | Type of Measurement (check one) | | | | | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | NOTE: True Vertical = ARP Height | | | | | |
| Leica Height Hook Measurement | 0.000 | NovAtel Slope Measurement | 0.000 | Topcon Slope Measurement | 2.000 | | | | |
| Start Date (UTC) | | Start Time (UTC) | | Approx. Lat. (if available) | | | | | |
| 17-Feb-2014 | | 20:56 | | N 30 36 03.7 | | | | | |
| End Date (UTC) | | End Time (UTC) | | Approx. Lat. (if available) | | | | | |
| 17-Feb-2014 | | 21:16 | | W 88 04 17.9 | | | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | Site Diagram or Control Point Photograph | | | | | | |
| | | |  | | | | | | |
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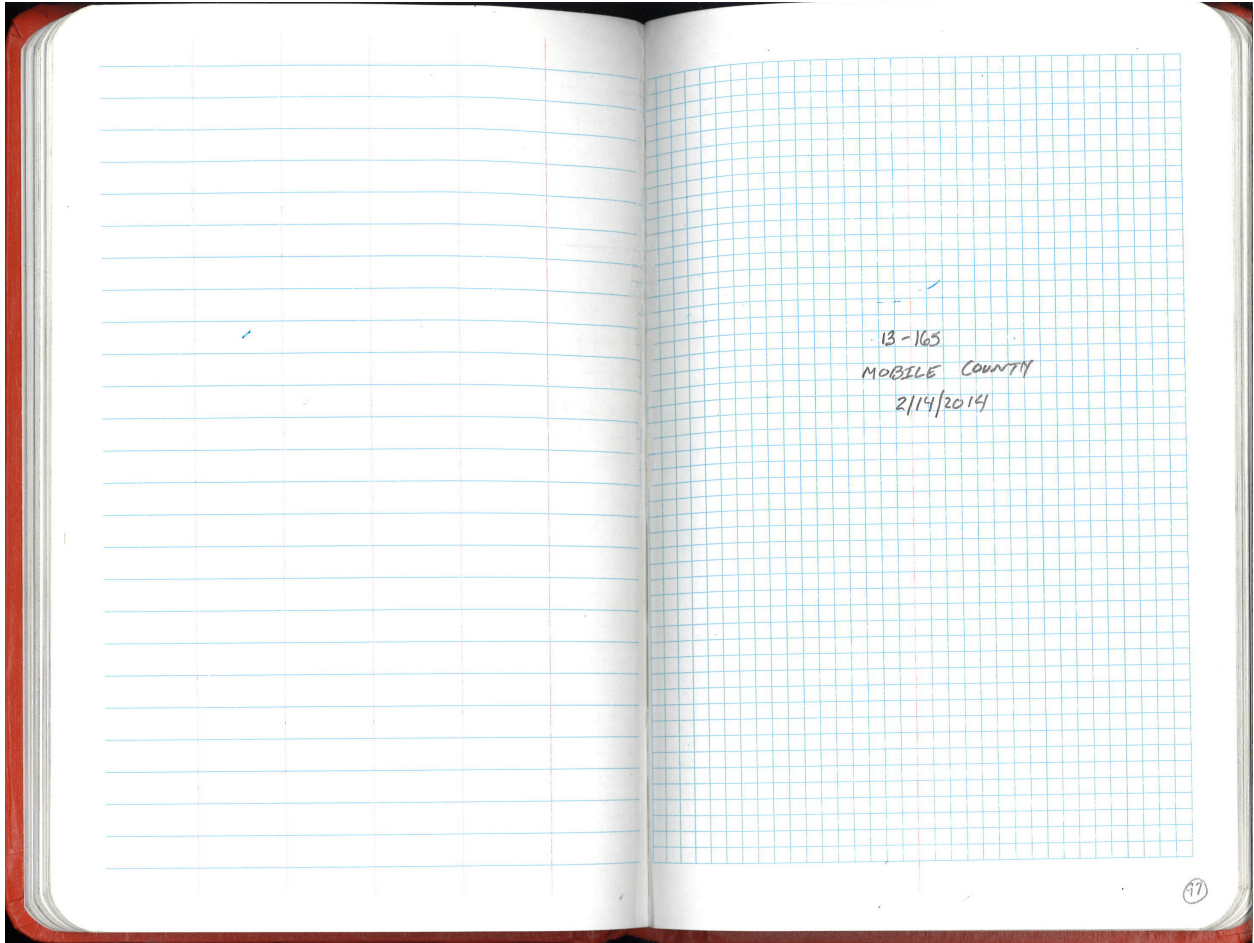
| GPS Station Session Form | | | | | | | | | |
|--|-------------------|---------------------------------|---------------------------|---------------------------------------|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Tuesday, February 18, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | | GPS System Operator | | | | |
| | | The Atlantic Group, LLC | | | Ben Kimbrough | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | | Exact Stamping (photo in survey report) | | | | |
| MOB_06 | | | | | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input checked="" type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 6.374 | | | 6.374 | 1.943 | | | 1.943 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 0.000 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 2.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 18-Feb-2014 | | | 14:54 | | | N 30 55 48.9 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 18-Feb-2014 | | | 15:14 | | | W 88 01 37.6 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | |  | | | | |
| | | | | | | | | | |



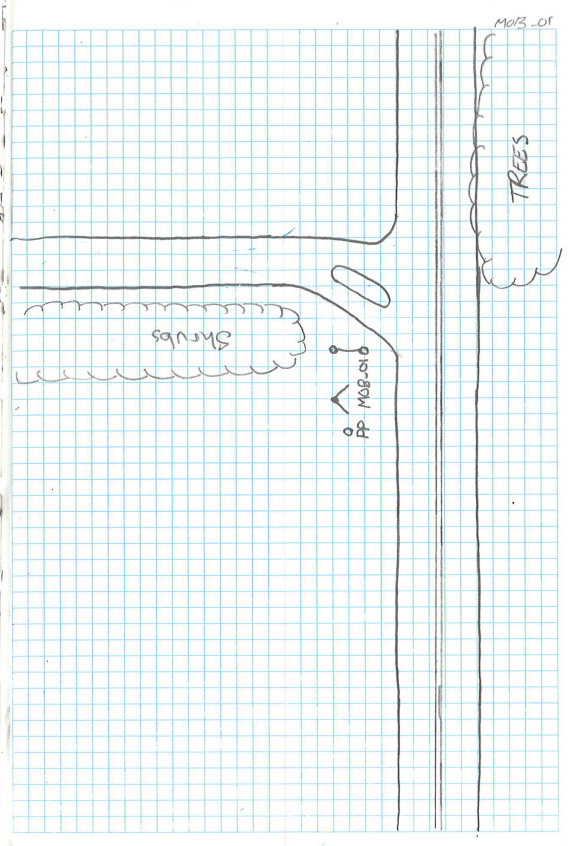
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|--|-------------------|---------------------------------|---------------------------|--|--|-----------------------------|-------|--|--|
| Contract # / TO # | | Client / Project Name | | | Date | | | | |
| | | Mobile County | | | Wednesday, April 30, 2014 | | | | |
| Atlantic Project No. | | Survey Firm | | GPS System Operator | | | | | |
| 13-165 | | The Atlantic Group, LLC | | Ben Kimbrough | | | | | |
| Monument Name/Designation | | NGS Permanent ID # (PID) | | Exact Stamping (photo in survey report) | | | | | |
| MOB AP STA A1 | | | | MOB AP STA A1 | | | | | |
| Collection Type (check all that apply) | | | | File Name (receiver generated) | | | | | |
| <input type="checkbox"/> ABGPS <input checked="" type="checkbox"/> STATIC <input type="checkbox"/> RTK <input type="checkbox"/> OPUS-RS <input type="checkbox"/> OPUS-STATIC | | | | 44671200.000 | | | | | |
| GPS Receiver Information | | | | | | | | | |
| Unit No. | Receiver Model | Receiver S/N | Antenna P/N | Antenna Model | Antenna S/N | | | | |
| <input type="checkbox"/> B1 | Leica SR530 | 30192 | 667126 | LEIAT502 | 11319 | | | | |
| <input type="checkbox"/> R1 | Leica SR530 | 130521 | 667126 | LEIAT502 | 12609 | | | | |
| <input checked="" type="checkbox"/> B2 | Leica SR530 | 34467 | 667126 | LEIAT502 | 8376 | | | | |
| <input type="checkbox"/> R2 | Leica SR530 | 136534 | 667126 | LEIAT502 | 5151 | | | | |
| <input type="checkbox"/> B3 | Leica SR530 | 136512 | 667126 | LEIAT502 | 7526 | | | | |
| <input type="checkbox"/> R3 | Leica SR530 | 136496 | 667126 | LEIAT502 | 15894 | | | | |
| <input type="checkbox"/> NOV1 | NovAtel DL-4=L1L2 | SVA06250545 | 1017187 | NOV702_3.00 | NVH05510048 | | | | |
| <input type="checkbox"/> TOP1 | Topcon 1001137-xx | Q0IQSN28B2O | | HiPerV | 1132-10002 | | | | |
| <input type="checkbox"/> TOP2 | Topcon 1001137-xx | Q0362CYEP00 | | HiPerV | 1132-10004 | | | | |
| <input type="checkbox"/> Other | | | | | | | | | |
| Beginning Antenna Height in Feet | | | | Beginning Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.056 | | | 5.056 | 1.541 | | | 1.541 | | |
| Ending Antenna Height in Feet | | | | Ending Antenna Height in Meters | | | | Type of Measurement (check one) | |
| 1 | 2 | 3 | AVG | 1 | 2 | 3 | AVG | <input checked="" type="checkbox"/> True Vertical <input type="checkbox"/> Slant | |
| 5.056 | | | 5.056 | 1.541 | | | 1.541 | | |
| Antenna Reference Point Measurement (diagram in survey report) | | | | | NOTE: True Vertical = ARP Height | | | | |
| Leica Height Hook Measurement | | 1.181 | NovAtel Slope Measurement | | 0.000 | Topcon Slope Measurement | | 0.000 | |
| Start Date (UTC) | | | Start Time (UTC) | | | Approx. Lat. (if available) | | | |
| 30-Apr-2014 | | | 18:21 | | | N 30 40 50.96 | | | |
| End Date (UTC) | | | End Time (UTC) | | | Approx. Lat. (if available) | | | |
| 1-May-2014 | | | 5:09 | | | W 88 14 12.45 | | | |
| Describe any abnormalities and/or problems encountered during the session, include time of occurrence and duration. | | | | | Site Diagram or Control Point Photograph | | | | |
| | | | | | | | | | |



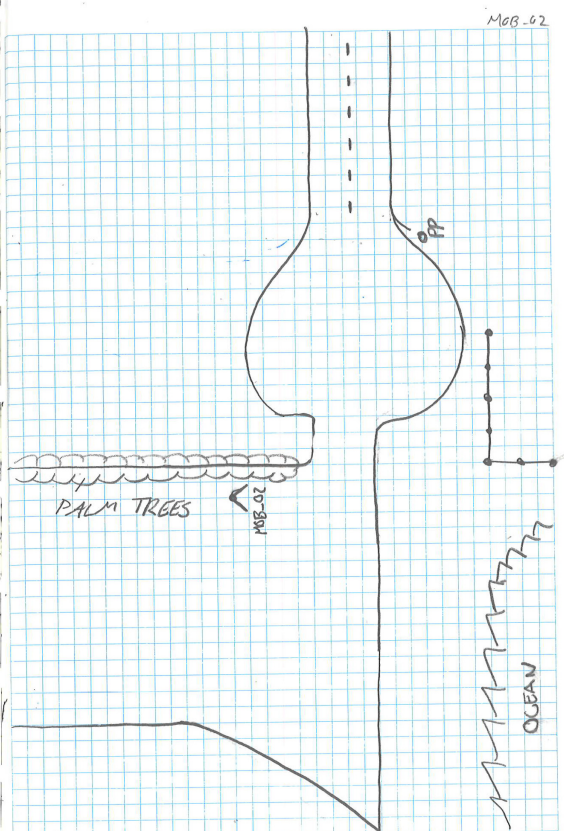
Appendix B: Field Notes



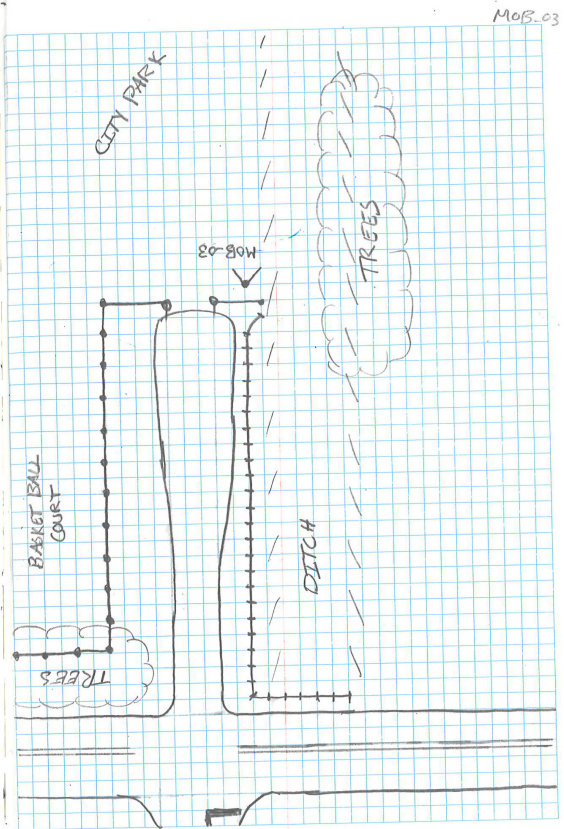
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| 2/14/2014 | MCC1054 | Yes | — | — | |
| 2/14/2014 | MCC1058 | Yes | — | — | |
| 2/14/2014 | MOB1031 | Yes | — | — | |
| 2/14/2014 | MCC1060 | Yes | — | — | |
| 2/14/2014 | MOB1008 | Yes | — | — | |
| 2/15/2014 | MCC1073 | Yes | — | — | |
| 2/15/2014 | MCC1071 | Yes | — | — | |
| 2/15/2014 | MCC1069 | Yes | — | — | |
| 2/15/2014 | MCC1063 | Yes | — | — | |
| 2/15/2014 | MCC1062 | Yes | — | — | |
| 2/15/2014 | MOB1025 | No | Yes | MOB_01 | |
| 2/15/2014 | MOB1023 | Yes | — | — | |
| 2/15/2014 | MOB1008 | Yes | — | — | |
| 2/16/2014 | MCC1051 | No | Yes | MOB_02 | |
| 2/16/2014 | MCC1050 | Yes | — | — | |
| 2/16/2014 | MOB1034 | Yes | — | — | |
| 2/16/2014 | MCC1053 | Yes | — | — | |
| 2/16/2014 | MOB1032 | No | Yes | MOB_03 | |
| 2/16/2014 | 03-42-12 | Yes | — | — | |
| 2/16/2014 | MOB1011 | Yes | — | — | |
| 2/17/2014 | MCC1072 | Yes | — | — | |
| 2/17/2014 | MCC1074 | No | Yes | MOB_04 | |
| 2/17/2014 | MCC1070 | Yes | — | — | |
| 2/17/2014 | MCC1066 | Yes | — | — | |
| 2/17/2014 | MCC1064 | Yes | — | — | |



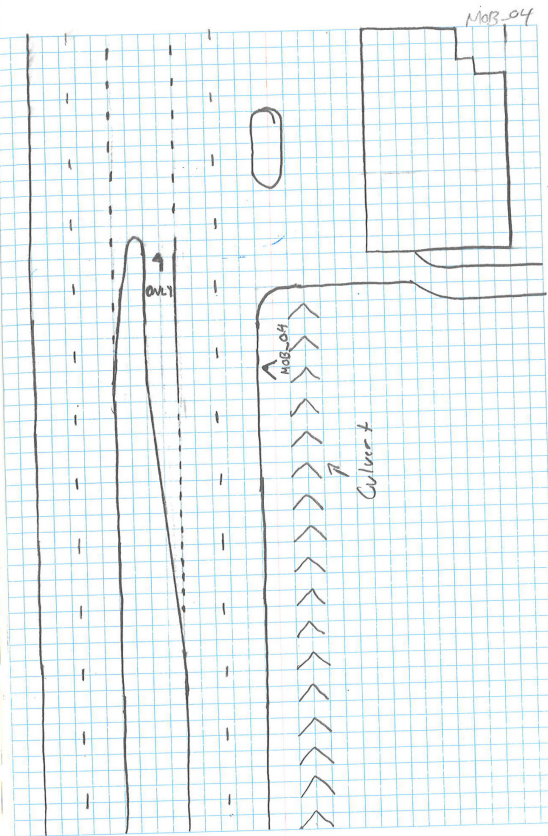
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|----------|-----------|-----------|-----------|-----------|-----------|
| Date | 2/15/2014 | 2/16/2014 | 2/16/2014 | 2/17/2014 | 2/17/2014 |
| Station | MOB-01 | MOB-02 | MOB-03 | MOB-04 | MOB-010 |
| Ant Type | H:PerV | H:PerV | H:PerV | H:PerV | H:PerV |
| Ant HT | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Off Set | — | — | — | — | — |
| Ant ARP | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Start | 20:51 | 15:07 | 19:05 | 15:46 | 19:53 |
| Stop | 21:18 | 15:27 | 19:25 | 16:06 | 20:13 |
| Notes | | | | | |

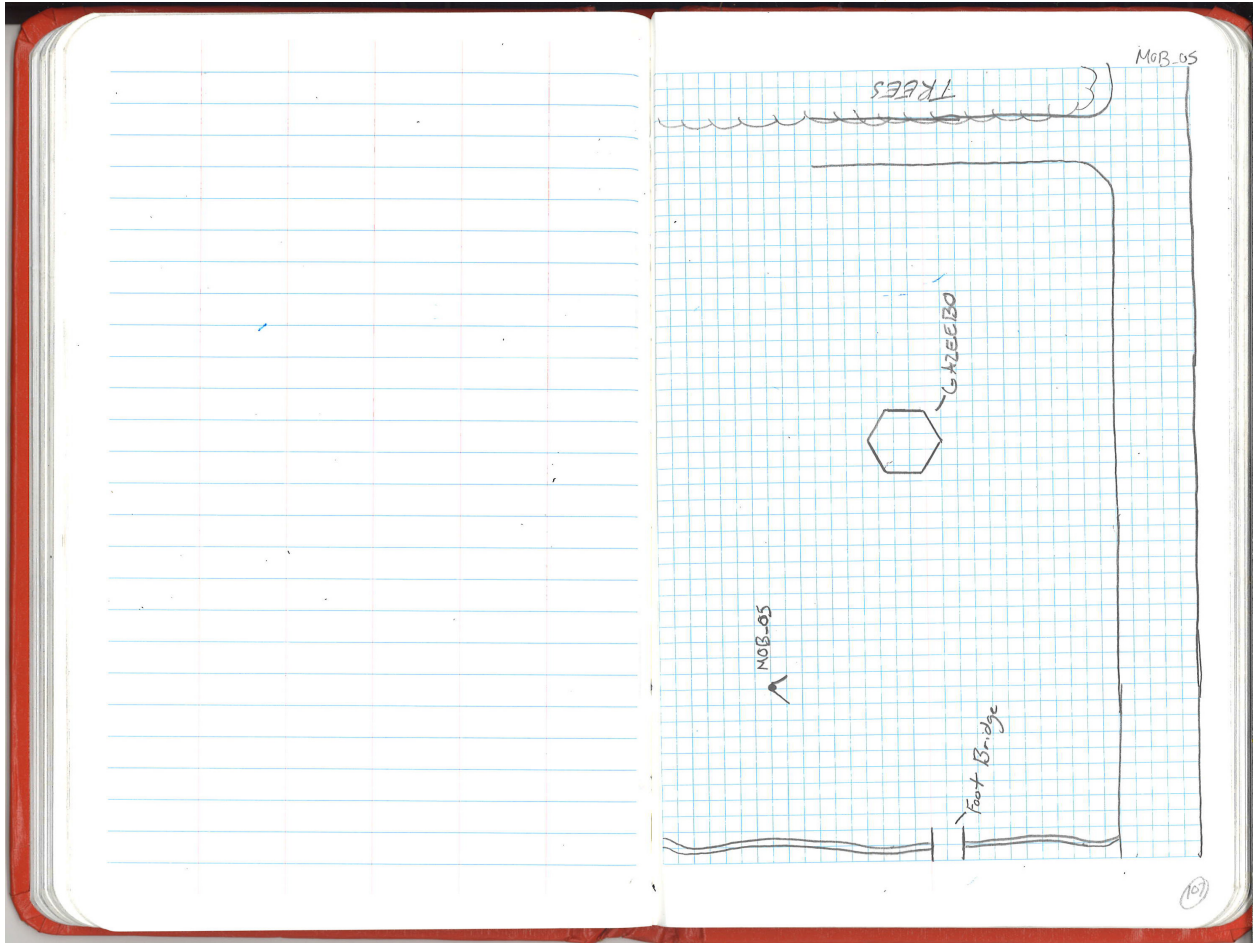


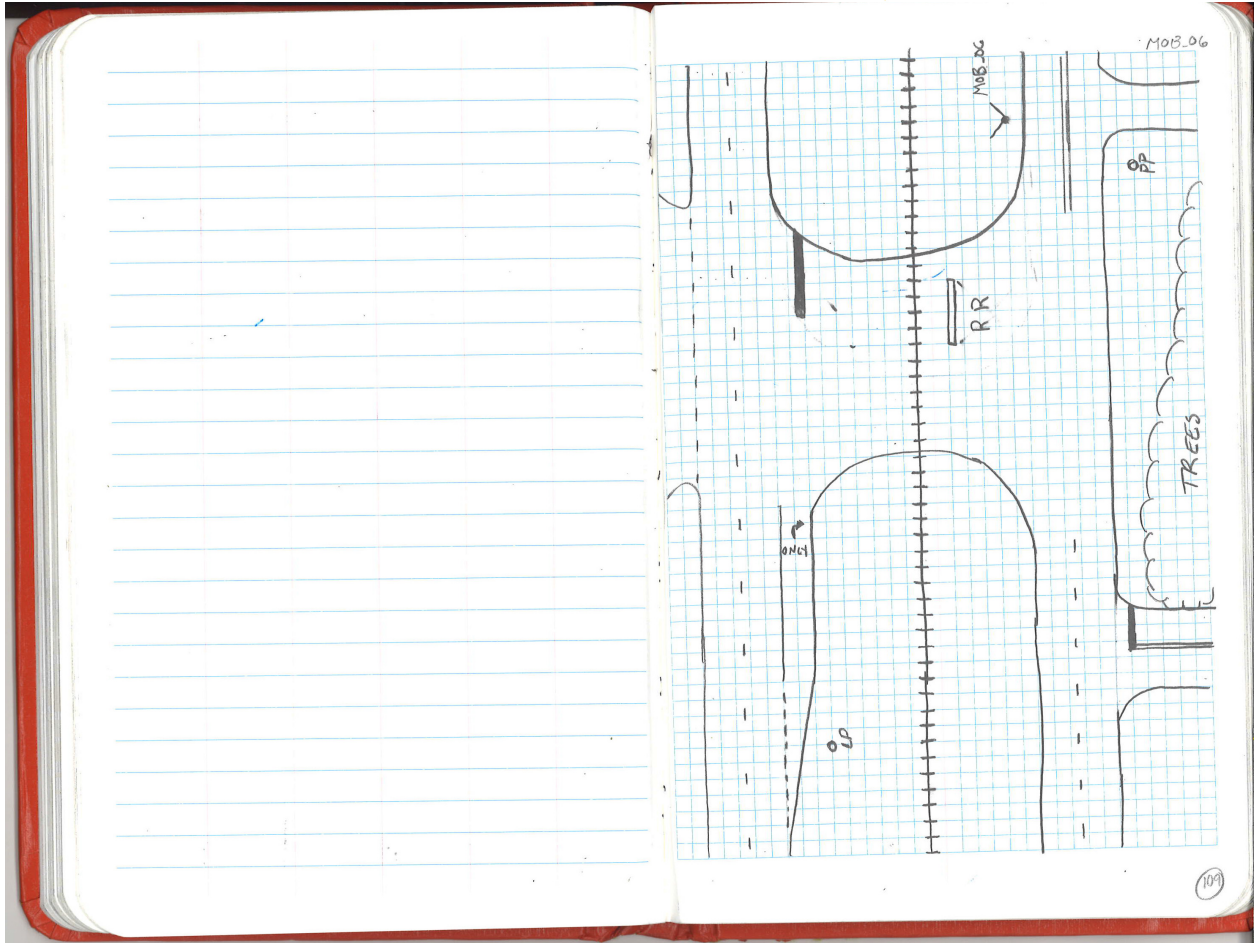
| Date | Name | Rec | ACT | Aff. Name |
|-----------|---------|-----|-----|-----------|
| 2/12/2014 | MOB1065 | NO | — | MOB-06 |
| 2/11/2014 | MOB1000 | Yes | — | — |
| 2/12/2014 | MOB1010 | Yes | — | — |
| 2/17/2014 | MOB1027 | No | Yes | MOB-05 |



| Unit | T3 | T3 |
|----------|-----------|-----------|
| Date | 2/17/2014 | 2/18/2014 |
| Station | MOB.05 | MOB.06 |
| Ant Type | Hi Per V | Hi Per V |
| Ant HT | 2.00 | 2.00 |
| Off Set | — | — |
| Ant ARP | 2.00 | 2.00 |
| Start | 20:56 | 14:54 |
| Stop | 21:16 | 15:14 |
| Notes: | | |







| Unit | B2 | B2 | R2 | R2 | Notes |
|----------|-----------|-----------|-----------|-----------|-----------|
| Date | 4/30/2014 | 4/30/2014 | 4/30/2014 | 4/30/2014 | 4/30/2014 |
| Station | MoB1054 | MoB1034 | MoB1031 | MoB1023 | MoB1011 |
| Ant Type | LeiATS12 | LeiATS02 | LeiATS02 | LeiATS02 | |
| Ant HT | 1.199 | 2.00 | 1.146 | 1.056 | 2.00 |
| Off Set | 0.36 | — | 0.36 | 0.36 | — |
| Ant APP | 1.559 | 2.00 | 1.506 | 1.416 | 2.00 |
| Start | 13:22 | 14:06 | 14:38 | 15:09 | 15:34 |
| Stop | 16:47 | 19:21 | 18:54 | 21:14 | 22:06 |
| Total | 3:25 | 5:15 | 4:16 | 6:05 | 6:12 |
| Notes | — | — | — | — | — |

| Unit | B2 | BZ | RZ | Navate 1 | B2 |
|----------|-----------|-----------|-----------|----------|----------|
| Date | 4/30/2014 | 4/30/2014 | 4/30/2014 | 5/1/2014 | 5/1/2014 |
| Station | MOBAPSTA2 | MOB1000 | MOB1009 | MOB1009 | MOB1002 |
| Act Type | Li:AT502 | Li:AT502 | Li:AT502 | | Li:AT502 |
| Arr HT | 1.181 | 2.00 | 1.289 | 2.00 | 2.00 |
| Off Set | 0.36 | — | 0.36 | — | — |
| Arr ARP | 1.541 | 2.00 | 1.649 | 2.00 | 2.00 |
| Start | 18:21 | 20:06 | 20:39 | 13:55 | 14:23 |
| Stop | 05:09 | 23:06 | 22:35 | 20:01 | 23:03 |
| Total | | 3:00 | 1:55 | 6:06 | 8:39 |
| Notes | — | — | — | 18:05 | 19:00 |

| Unit | R2 | BZ | Novatel | R2 | Novatel |
|----------|----------|----------|----------|----------|----------|
| Date | 5/1/2014 | 5/1/2014 | 5/1/2014 | 5/1/2014 | 5/2/2014 |
| Station | MoB1000 | MCC1067 | MCC1070 | MoB1008 | MCC1070 |
| Ant Type | LeiATS02 | LeiATS02 | | LeiATS02 | |
| Ant HT | 1.151 | 1.204 | 2.00 | 2.00 | 2.00 |
| Off Set | 0.36 | 0.36 | — | — | — |
| Ant ARP | 1.511 | 1.564 | 2.00 | 2.00 | 2.00 |
| Start | 15:32 | 16:21 | 20:50 | 19:01 | 13:01 |
| Stop | 00:19 | 23:43 | 00:33 | 22:31 | 17:45 |
| Total | 8:42 | 7:22 | | 3:30 | |
| Notes | — | RTK | — | — | — |

6:30

| Unit | BZ | BZ | RZ |
|----------|----------|----------|----------|
| Date | 5/2/2014 | 5/2/2014 | 5/2/2014 |
| Station | MIC1072 | MIC1073 | MIC1067 |
| Ant Type | 6.1ATS02 | 6.1ATS02 | 6.1ATS02 |
| Ant HT | 2.00 | 1.255 | 2.00 |
| Off Set | — | 0.36 | — |
| Ant ARP | 2.00 | 1.615 | 2.00 |
| Start | 13:28 | 14:00 | 15:45 |
| Stop | 14:15 | 18:43 | 17:31 |
| Total | 8: | 4:37 | 1:46 |
| Notes | RTK | RTK | — |

| UNIT | B2 | B2 | B2 | B2 |
|-----------|----------|----------|----------|----------|
| DATE | 3-20-14 | 3-21-14 | 3-21-14 | 3-21-14 |
| STATION | MOB1034 | MCC1054 | MOB1031 | MOB1023 |
| COLL TYPE | RTK | RTK | RTK | RTK |
| ANT TYPE | LEIATS02 | LEIATS02 | LEIATS02 | LEIATS02 |
| ANT HGT | 1.220m | 1.220m | 1.296m | 1.141m |
| OFFSET | 0.36m | 0.36m | 0.36m | 0.36m |
| ANT ARP | 1.580m | 1.580m | 1.658m | 1.501m |
| START | 18:35 | 14:24 | 17:46 | 20:49 |
| STOP | 21:31 | 16:39 | 19:42 | 22:49 |
| LOCK | 2664 | — | — | — |

DATE: 3-20-14
 STATION: MOB1034
 POINTS COLLECTED: LT05, HG05, OT15, U04
 T06, U03, LT06, HG06
 T05

DATE: 3-21-14
 STATION: MCC1054
 POINTS COLLECTED: HG02, LT01, U2
 OT13, U01, T02
 LT02, T01, HG01

DATE: 3-21-14
 STATION: MOB1031
 POINTS COLLECTED: U6, OT14, LT04
 T03, U05, T04
 HG04, LT03

DATE: 3-21-14
 STATION: MOB1023
 POINTS COLLECTED: T08, U7, LT07
 T07, U8, OT16
 LT08, HG07

38 Pts

38%

| | ✓ | ✓ | ✓ |
|----------|---------|-----------|-----------|
| UNIT | BZ | BZ | BZ |
| DATE | 3-22-14 | 3-22-14 | 3-22-14 |
| STATION | MOB1008 | MCC1062 | MOB1000 |
| COL TYPE | RTK | RTK | RTK |
| ANT TYPE | LE1A502 | LE1A502 | LE1A507 |
| ANT MEAS | 1.265m | 1.319m | 1.244m |
| OFFSET | 0.36m | 0.36m | 0.36m |
| ANT ARP | 1.625m | 1.679m | 1.604m |
| START | 14:03 | 17:14 | 19:55 |
| STOP | 16:20 | 18:32 | 21:39 |
| LOCK | — | +0.60m | +0.65m |
| | | TO TARGET | TO TARGET |

| | |
|------------------|--|
| DATE: | 3-22-14 |
| STATION | MOB1008 |
| POINTS COLLECTED | HG09, LT09, T10 LT10, OT18, HG10 U10, T09, U09 |
| DATE: | |
| STATION | |
| POINTS COLLECTED | HG11, T11, LT11 LT20, UB20 |
| DATE: | |
| STATION | |
| POINTS COLLECTED | T18, HG18, U14 T17, U13, LT18 OT19, HG19 |

24 PTS
62%

| | | | |
|----------|---------|---------|---------|
| UNIT | | | |
| DATE | 3-29-13 | 3-29-14 | 3-30-14 |
| STATION | MOB1011 | MCC1070 | MCC1072 |
| COLLTYPE | RTK | RTK | RTK |
| ANT TYPE | LEATS02 | LEATS02 | LEATS02 |
| ANT MEAS | 1.220m | 1.200m | 1.286m |
| OFFSET | 0.36m | 0.36m | 0.36m |
| ANT ARP | 1.560m | 1.560m | 1.646m |
| START | 14:28 | 18:45 | 13:02 |
| STOP | 17:24 | 20:15 | 14:12 |
| LOCK 1 | 4623 | — | — |
| LOCK 2 | 2664 | — | — |

GPS ROVER
MAGNETOMETER

| | |
|------------------|--|
| DATE | 3-29-14 |
| STATION | MOB1011 |
| POINTS COLLECTED | HG20, T13, UB11 LT19, OT17, UB12 T14 |

| | |
|------------------|--|
| DATE | 3-29-14 |
| STATION | MCC1070 |
| POINTS COLLECTED | LT16, HG16, OT20 HG17, T16, U15 LT17 |

| | |
|------------------|---------|
| DATE | |
| STATION | MCC1072 |
| POINTS COLLECTED | |

| | |
|------------------|---------|
| DATE | |
| STATION | MCC1073 |
| POINTS COLLECTED | |

| | |
|------------------|---------|
| DATE | |
| STATION | MCC1067 |
| POINTS COLLECTED | |

16 PTS
78%



Appendix C: Real Time Kinematic Test Point Solutions



File Name: MOB1034_20MARCH2014

| | | | |
|-------------------------|---------|-----------|------------------|
| 1772108.1318187683.3760 | 29.2568 | BASECHEC | 0001 |
| 1772108.1507187683.3860 | 29.2473 | BASECHEC | 0002 |
| 1772108.1419187683.3880 | 29.2727 | BASECHEC | 0003 |
| 1770361.7006182907.8944 | 10.2409 | LTREE0004 | |
| 1770354.0637182935.8370 | 25.8038 | EP | 0005 |
| 1770302.9123182936.3689 | 25.7675 | EP | 0006 |
| 1770270.7355182936.5539 | 25.7611 | EP | 0007 |
| 1770218.1221182937.0777 | 25.8762 | EP | 0008 |
| 1770176.6230182937.5981 | 25.8733 | EP | 0009 |
| 1770138.6111182937.7366 | 25.9185 | EP | 0010 |
| 1770088.0508182938.3119 | 25.9876 | EP | 0011 |
| 1772176.5773183012.9240 | 22.0196 | HGRASS | 0012 |
| 1764576.9096188471.6606 | 47.2611 | OT | 0013 |
| 1768036.5781187953.7527 | 26.8645 | UB | 0014 |
| 1772299.0245197265.0449 | 14.4184 | TREE | 0015 |
| 1772014.8515197122.1911 | 17.1061 | UB | 0016 |
| 1771873.5416192858.7354 | 25.7368 | LTREE0017 | |
| 1772034.4246191265.2125 | 26.7224 | HGRASS | 0018 |
| 1772178.9870183241.2424 | 20.7132 | TREE | 0019 |
| 1772108.2035187683.2315 | 29.2740 | BASECHEC | 0020 |
| 1772108.2162187683.2391 | 29.2947 | BASECHEC | 0021 |
| 1772108.2137187683.2427 | 29.2935 | BASECHEC | 0022 |
| 1772106.7246187687.5099 | 14.1532 | | 00000320_1907168 |
| 1772107.8806187682.8256 | 29.1469 | | MOB1034 |
| 1772299.6141197264.6890 | 15.4307 | | TEMP0320_2014586 |
| 1772297.5042197259.0551 | 14.3919 | | TEMP0320_2016403 |
| 1771871.7765192859.7992 | 20.3805 | | TEMP0320_2053488 |
| 1771874.5948192858.1119 | 25.1767 | | TEMP0320_2054205 |
| 1771875.1930192857.1602 | 30.1653 | | TEMP0320_2055294 |



File Name: CIPF_21MARCH2014

| | | | | |
|--------------|-------------|---------|------------------|------|
| 1726923.4571 | 141470.5351 | 3.2390 | BASECHEC | 0001 |
| 1726923.4701 | 141470.4991 | 3.2396 | BASECHEC | 0002 |
| 1726923.4889 | 141470.5201 | 3.2233 | BASECHEC | 0003 |
| 1726878.5702 | 141436.9983 | 4.5650 | EP | 0004 |
| 1726862.3112 | 141378.0959 | 4.6464 | EP | 0005 |
| 1726848.1252 | 141324.0262 | 4.7922 | EP | 0006 |
| 1726839.3828 | 141291.6099 | 4.8689 | EP | 0007 |
| 1726827.9353 | 141249.2515 | 4.9540 | EP | 0008 |
| 1727795.6827 | 140796.5397 | 2.0728 | HGRASS | 0009 |
| 1735124.8117 | 137415.3859 | 1.9645 | LTREE0010 | |
| 1735153.4458 | 137400.5483 | 2.2991 | LTREE0011 | |
| 1735272.2547 | 137296.6486 | 4.2172 | HGRASS | 0012 |
| 1734569.4503 | 140936.5445 | 14.3913 | UB | 0013 |
| 1733350.3127 | 147041.6937 | 7.1841 | OT | 0014 |
| 1732885.3166 | 148017.3795 | 7.0905 | UB | 0015 |
| 1734064.4395 | 154193.8058 | 18.8664 | TREE | 0016 |
| 1728542.8528 | 152211.4420 | 12.9875 | LTREE0017 | |
| 1725375.7600 | 152226.1694 | 14.9973 | TREE | 0018 |
| 1730133.0680 | 143155.7363 | 7.2163 | HGRASS | 0019 |
| 1726922.7931 | 141470.5085 | 3.2907 | MCC1054 | |
| 1726848.3915 | 141322.0106 | 3.3826 | TEMP0321_1432170 | |
| 1734066.4761 | 154195.8381 | 18.7208 | TEMP0321_1530526 | |
| 1734065.7013 | 154195.1230 | 18.9418 | TEMP0321_1532194 | |
| 1734065.7393 | 154195.2152 | 18.8802 | TEMP0321_1533202 | |
| 1734065.4297 | 154194.4842 | 22.3208 | TEMP0321_1533353 | |
| 1728566.0625 | 152214.3046 | 13.6081 | TEMP0321_1547072 | |



File Name: MOB1023_21MARCH2014

| | | | |
|--------------------------|----------|----------|------------------|
| 1746379.3481 241213.4673 | 118.0673 | BASECHEC | 0001 |
| 1746379.3408 241213.4857 | 118.0126 | BASECHEC | 0002 |
| 1746379.3683 241213.4879 | 118.0787 | BASECHEC | 0003 |
| 1746315.3218 241200.7053 | 117.5054 | EC | 0004 |
| 1746297.6159 241200.8728 | 117.6128 | EC | 0005 |
| 1746279.9072 241201.2277 | 117.6451 | EC | 0006 |
| 1746262.4308 241201.2956 | 117.6489 | EC | 0007 |
| 1746244.1609 241201.4753 | 117.8148 | EC | 0008 |
| 1746227.6163 241201.6171 | 118.0319 | EC | 0009 |
| 1746215.6407 241201.8783 | 117.9042 | EC | 0010 |
| 1745958.1422 233328.4057 | 101.4635 | TREE | 0011 |
| 1740885.5871 233675.9441 | 151.4220 | UB | 0012 |
| 1744135.9438 241032.3962 | 161.6615 | LTREE | 0013 |
| 1752551.4387 240383.4433 | 187.5152 | TREE | 0014 |
| 1751569.3232 241855.7918 | 156.9016 | UB | 0015 |
| 1748558.7269 241328.3039 | 116.3137 | OT | 0016 |
| 1748511.7963 241610.9681 | 113.7929 | LTREE | 0017 |
| 1749246.3778 241060.2988 | 135.3159 | HGRASS | 0018 |
| 1746379.2286 241213.4659 | 118.1445 | BASECHEC | 0019 |
| 1746379.2483 241213.4754 | 118.1669 | BASECHEC | 0020 |
| 1746379.2530 241213.4727 | 118.1864 | BASECHEC | 0021 |
| 1746379.7684 241213.0581 | 118.1691 | | MOB1023 |
| 1745957.6727 233328.2387 | 101.6902 | | TEMP0321_2107063 |



File Name: MOB1031_21March2014

| | | | | |
|--------------|-------------|----------|------------------|------|
| 1723488.6788 | 196897.3165 | 147.8862 | BASECHEC | 0001 |
| 1723488.6619 | 196897.2993 | 147.8776 | BASECHEC | 0002 |
| 1723488.6530 | 196897.2926 | 147.8670 | BASECHEC | 0003 |
| 1714177.5164 | 189525.2893 | 125.7653 | UB | 0004 |
| 1731678.3030 | 198826.4391 | 150.7109 | UB | 0005 |
| 1722981.6429 | 209712.5781 | 164.3279 | LTREE0006 | |
| 1722291.4575 | 195720.7851 | 150.5401 | TREE | 0007 |
| 1722181.4134 | 195580.6193 | 151.9139 | UB | 0008 |
| 1722233.2602 | 195615.2438 | 151.5406 | UB | 0009 |
| 1722233.3137 | 195615.2263 | 151.5547 | EC | 0010 |
| 1722233.3036 | 195647.9051 | 152.1685 | EC | 0011 |
| 1722231.2097 | 195679.9991 | 152.6540 | EC | 0012 |
| 1722229.3244 | 195714.3812 | 152.8093 | EC | 0013 |
| 1722227.6304 | 195745.8949 | 153.0546 | EC | 0014 |
| 1722226.1822 | 195768.7793 | 153.2431 | EC | 0015 |
| 1722224.7639 | 195795.8107 | 153.2088 | EC | 0016 |
| 1732160.3779 | 198410.3468 | 135.4505 | TREE | 0017 |
| 1723338.6824 | 196583.5205 | 147.8736 | HGRASS | 0018 |
| 1723187.2414 | 196521.9814 | 146.8474 | LTREE0019 | |
| 1723488.6597 | 196897.5439 | 147.9251 | BASECHEC | 0020 |
| 1723488.6573 | 196897.5534 | 147.9056 | BASECHEC | 0021 |
| 1723488.6738 | 196897.5415 | 147.9047 | BASECHEC | 0022 |
| 1723489.1784 | 196897.7952 | 147.9229 | MOB1031 | |
| 1722297.1872 | 195704.8946 | 150.4578 | TEMP0321_1904056 | |
| 1722297.0682 | 195705.0413 | 150.6214 | TEMP0321_1904126 | |



File Name: MCC1062_22MARCH2014

| | | | |
|-------------------------|----------|-----------|------------------|
| 1681688.5382314135.0020 | 84.4677 | BASECHEC | 0001 |
| 1681688.5416314134.9926 | 84.4502 | BASECHEC | 0002 |
| 1681688.5550314134.9819 | 84.4367 | BASECHEC | 0003 |
| 1685861.6350317210.1520 | 190.9390 | HGRASS | 0004 |
| 1685356.0021315758.7164 | 162.8389 | TREE | 0005 |
| 1684189.5341312599.8249 | 110.6788 | LTREE0006 | |
| 1684321.2732311337.9843 | 153.8004 | LTREE0007 | |
| 1681841.7415313884.1475 | 77.2142 | UB | 0008 |
| 1681872.2766314040.9245 | 85.5768 | EP | 0009 |
| 1681854.3924314054.5842 | 85.4271 | EP | 0010 |
| 1681838.5862314066.8194 | 85.3865 | EP | 0011 |
| 1681821.5599314079.7173 | 85.3004 | EP | 0012 |
| 1681806.5532314091.1890 | 85.2714 | EP | 0013 |
| 1681786.0103314106.5238 | 85.0932 | EP | 0014 |
| 1681739.4002314141.1033 | 85.1166 | EP | 0015 |
| 1681716.6637314158.1990 | 85.1532 | EP | 0016 |
| 1681697.6333314172.3027 | 85.1875 | EP | 0017 |
| 1681680.4024314184.7738 | 85.2156 | EP | 0018 |
| 1681659.0792314200.8194 | 85.2121 | EP | 0019 |
| 1681688.6039314135.0420 | 84.5430 | BASECHEC | 0020 |
| 1681688.5626314135.0469 | 84.5525 | BASECHEC | 0021 |
| 1681688.5764314135.0561 | 84.5318 | BASECHEC | 0022 |
| 1681687.9800314135.1830 | 84.5274 | | MCC1062 |
| 1685361.2234315759.8270 | 163.1080 | | TEMP0322_1751040 |
| 1685357.9543315759.8896 | 162.7741 | | TEMP0322_1751217 |
| 1684189.6144312599.9625 | 110.8392 | | TEMP0322_1804123 |



File Name: MOB1000_22MARCH2014

| | | | |
|-------------------------|---------|------------------|------|
| 1793057.5352308181.5986 | 18.7097 | BASECHEC | 0001 |
| 1793057.5137308181.6280 | 18.7830 | BASECHEC | 0002 |
| 1793057.5430308181.6300 | 18.7594 | BASECHEC | 0003 |
| 1794993.4502313680.0091 | 20.3470 | HGRASS | 0004 |
| 1795005.8494313727.2544 | 20.0963 | TREE | 0005 |
| 1793264.7016310910.1118 | 19.8663 | UB | 0006 |
| 1792448.0354307252.2575 | 21.5661 | TREE | 0007 |
| 1792713.1166307408.1138 | 23.9950 | UB | 0008 |
| 1794257.2000308088.9808 | 20.8343 | LTREE | 0009 |
| 1793852.9288308910.6210 | 17.6004 | OT | 0010 |
| 1794126.0578308940.9227 | 17.2002 | EP | 0011 |
| 1794103.3360308941.3428 | 17.4770 | EP | 0012 |
| 1794077.2001308941.6846 | 17.7317 | EP | 0013 |
| 1794055.1777308942.1466 | 17.9260 | EP | 0014 |
| 1794029.3970308942.3474 | 17.9030 | EP | 0015 |
| 1794004.2976308942.7460 | 17.8493 | EP | 0016 |
| 1793979.2655308942.6439 | 17.9807 | EP | 0017 |
| 1793957.7681308942.7483 | 18.0111 | EP | 0018 |
| 1793938.9993308943.0962 | 17.4397 | EP | 0019 |
| 1793937.0458308941.0384 | 17.3671 | EP | 0020 |
| 1793935.9050308939.1487 | 17.3914 | EP | 0021 |
| 1793936.0415308915.4484 | 17.7767 | EP | 0022 |
| 1793935.7495308891.5123 | 17.9865 | EP | 0023 |
| 1793935.5644308869.8086 | 18.1570 | EP | 0024 |
| 1793935.2645308847.9175 | 18.3305 | EP | 0025 |
| 1793935.0120308819.8604 | 18.6046 | EP | 0026 |
| 1793933.5621308799.2347 | 19.0025 | EP | 0027 |
| 1793932.2559308784.4661 | 19.4422 | EP | 0028 |
| 1793931.2455308775.4769 | 19.8986 | EP | 0029 |
| 1793929.3983308764.2892 | 20.1869 | EP | 0030 |
| 1793929.1291308764.2943 | 20.1155 | EP | 0031 |
| 1793931.1044308760.6551 | 20.1924 | EP | 0032 |
| 1793934.5768308754.9717 | 20.1543 | EP | 0033 |
| 1793064.3939308099.6247 | 17.9662 | HGRASS | 0034 |
| 1793057.4211308181.6662 | 18.5814 | BASECHEC | 0035 |
| 1793057.4286308181.6790 | 18.5633 | BASECHEC | 0036 |
| 1793057.4216308181.6895 | 18.5848 | BASECHEC | 0037 |
| 1793057.8843308181.9181 | 18.5662 | MOB1000 | |
| 1795006.1155313727.1020 | 20.1748 | TEMP0322_2016426 | |
| 1795005.9610313727.2355 | 20.3749 | TEMP0322_2016492 | |
| 1795005.8103313727.2229 | 20.3073 | TEMP0322_2017018 | |
| 1793265.0488310909.8236 | 19.4513 | TEMP0322_2026258 | |
| 1793264.9580310909.7602 | 19.4817 | TEMP0322_2026579 | |
| 1793264.8489310910.2068 | 19.7182 | TEMP0322_2040166 | |
| 1793264.6880310910.1195 | 19.7998 | TEMP0322_2041002 | |
| 1793264.8912310909.9607 | 20.1852 | TEMP0322_2041130 | |



1793264.7618310910.1233 19.7087
1793264.8064310910.1565 19.6729
1793264.8235310910.1864 19.7837
1793264.8179310910.1462 19.6011
1793264.8036310910.1550 19.5864
1793264.8867310910.1760 19.5107
1792443.4148307248.7866 21.6589
1792443.3792307248.8011 21.6271

TEMP0322_2041579
TEMP0322_2042297
TEMP0322_2042367
TEMP0322_2042406
TEMP0322_2042517
TEMP0322_2043236
TEMP0322_2055363
TEMP0322_2055426



File Name: MOB1008_22MARCH2014

| | | | |
|-------------------------|----------|-----------|------------------|
| 1715438.8408273862.3063 | 224.9216 | BASECHEC | 0001 |
| 1715438.8473273862.3012 | 224.9182 | BASECHEC | 0002 |
| 1715438.8522273862.3230 | 224.9240 | BASECHEC | 0003 |
| 1711936.1210273535.2809 | 200.6431 | HGRASS | 0004 |
| 1713808.1917274939.7436 | 225.8491 | LTREE0005 | |
| 1713813.2926275904.5687 | 227.1427 | TREE | 0006 |
| 1713730.7611275982.8743 | 226.9490 | LT-A | 0007 |
| 1714069.2882274604.6872 | 226.8181 | OT | 0008 |
| 1714030.8637274536.8935 | 228.6361 | EP | 0009 |
| 1714014.5035274554.8253 | 228.4478 | EP | 0010 |
| 1713997.4584274575.1966 | 228.2944 | EP | 0011 |
| 1713982.0181274595.7370 | 228.0986 | EP | 0012 |
| 1713967.9812274615.0239 | 228.0129 | EP | 0013 |
| 1713955.3652274634.5175 | 227.9262 | EP | 0014 |
| 1713941.2777274657.1400 | 227.8112 | EP | 0015 |
| 1713928.8103274679.6967 | 227.7143 | EP | 0016 |
| 1714948.3135271685.7287 | 202.5862 | HGRASS | 0017 |
| 1715467.0943272232.9928 | 220.1895 | UB | 0018 |
| 1717515.6033273089.6554 | 208.9582 | TREE | 0019 |
| 1716309.3252274390.5382 | 215.8304 | UB | 0020 |
| 1715439.6721273861.6306 | 225.0041 | BASECHEC | 0021 |
| 1715439.6618273861.6374 | 225.0045 | BASECHEC | 0022 |
| 1715439.6680273861.6194 | 225.0130 | BASECHEC | 0023 |
| 1715439.4122273862.1911 | 224.9569 | | MOB1008 |
| 1713814.6900275904.6579 | 227.2721 | | TEMP0322_1532497 |
| 1713813.2332275904.6094 | 227.0961 | | TEMP0322_1533050 |



File Name: MOB1011_29MARCH2014

| | | | |
|-------------------------|---------|------------------|------|
| 1793632.0177266928.7099 | 28.0889 | BASECHEC | 0001 |
| 1793632.0196266928.6942 | 28.1210 | BASECHEC | 0002 |
| 1793632.0063266928.6981 | 28.1417 | BASECHEC | 0003 |
| 1793097.4416263323.3237 | 4.0567 | HGRASS | 0004 |
| 1793562.0322266921.5541 | 27.7334 | TEST | 0005 |
| 1793562.0346266921.5781 | 27.7223 | TEST | 0006 |
| 1793562.0575266921.4446 | 27.9489 | TEST | 0007 |
| 1793275.1862266858.5233 | 26.9223 | TREE | 0008 |
| 1793562.0962266921.4005 | 27.9595 | TEST | 0009 |
| 1788586.7595265356.9153 | 26.9644 | TEST | 0010 |
| 1786619.6197263760.7362 | 33.1777 | TEST | 0011 |
| 1786572.7460263812.1913 | 34.1057 | UB | 0012 |
| 1787967.4767266265.1207 | 24.7660 | TEST | 0013 |
| 1787863.9940266284.5774 | 25.1493 | LTREE | 0014 |
| 1785335.5231267422.2287 | 30.8115 | TEST | 0015 |
| 1785396.0530267440.7725 | 31.8505 | OT | 0016 |
| 1789502.6258271846.5434 | 31.5449 | UB | 0017 |
| 1790633.5660268215.7098 | 34.9866 | TEST | 0018 |
| 1790696.1323268301.7773 | 33.3308 | TREE | 0019 |
| 1793632.2131266929.7310 | 28.0521 | BASECHEC | 0020 |
| 1793632.2218266929.7221 | 28.0889 | BASECHEC | 0021 |
| 1793632.2188266929.7231 | 28.0748 | BASECHEC | 0022 |
| 1793632.3274266929.1411 | 28.1364 | MOB1011 | |
| 1793275.1614266858.8227 | 26.6946 | TEMP0329_1607117 | |
| 1793275.1816266858.6015 | 26.8898 | TEMP0329_1607155 | |
| 1793562.6793266923.0737 | 25.9742 | TEMP0329_1609048 | |



File Name: MCC1070_29MARCH2014

| | | | |
|-------------------------|---------|------------------|------|
| 1804219.5904368143.2389 | 48.8375 | BASECHEC | 0001 |
| 1804219.5957368143.2628 | 48.8465 | BASECHEC | 0002 |
| 1804219.5813368143.2602 | 48.8249 | BASECHEC | 0003 |
| 1804341.4297368607.0568 | 49.3514 | LTREE0004 | |
| 1804459.3332377353.3255 | 46.9397 | HGRASS | 0005 |
| 1804571.2217378510.4413 | 43.0366 | OT | 0006 |
| 1803870.9679360581.6142 | 42.8976 | HGRASS | 0007 |
| 1803855.7194360659.8018 | 43.5227 | TREE | 0008 |
| 1803689.6579362749.4976 | 34.5950 | LTREE0009 | |
| 1804097.7982367200.9662 | 45.7879 | UB | 0010 |
| 1804336.6234368094.3339 | 50.0097 | UB | 0011 |
| 1804219.5808368143.2401 | 48.8094 | BASECHEC | 0012 |
| 1804219.5805368143.2595 | 48.8035 | BASECHEC | 0013 |
| 1804219.6160368143.2479 | 48.7749 | BASECHEC | 0014 |
| 1804219.5158368142.6415 | 48.8221 | MCC1070 | |
| 1803854.7992360667.6008 | 43.6315 | TEMP0329_1936417 | |
| 1804341.2451367948.4596 | 49.7386 | TEMP0329_2004265 | |
| 1804341.0991367948.8080 | 49.8431 | TEMP0329_2004578 | |
| 1804341.2880367948.6524 | 49.3313 | TEMP0329_2005042 | |
| 1804340.3767367948.4114 | 49.9115 | TEMP0329_2005249 | |
| 1804336.6678368094.3490 | 49.9677 | TEMP0329_2008048 | |
| 1804219.5215368143.3281 | 48.7259 | TEMP0329_2009467 | |



File Name: MCC1067_1MAY2014

| | | | |
|-------------------------|----------|----------|---------|
| 1737081.3419358599.5204 | 128.7424 | BASECHEK | 001 |
| 1737081.3401358599.5432 | 128.6852 | BASECHEK | 002 |
| 1737081.3578358599.5468 | 128.7049 | BASECHEK | 003 |
| 1737075.2956358615.3639 | 129.4897 | | 004 |
| 1737435.0144362944.9295 | 148.4699 | URBAN | 005 |
| 1737440.5256362944.4044 | 148.1125 | URBAN | 006 |
| 1738877.1076367535.0752 | 197.8706 | HIGRASS | 007 |
| 1738885.5123367526.2246 | 197.9312 | HIGRASS | 008 |
| 1739170.4361368578.8244 | 201.7662 | URBAN | 009 |
| 1739144.1051368586.1936 | 201.6043 | URBAN | 010 |
| 1738645.0509371052.3724 | 250.3081 | LOTREES | 011 |
| 1738645.1904371052.6078 | 250.2749 | LOTREES | 012 |
| 1736613.2491363032.2914 | 189.5533 | TREES | 013 |
| 1731551.5636352906.3381 | 274.0047 | HIGRASS | 014 |
| 1735281.0149352697.2501 | 187.7425 | TOE | 015 |
| 1735281.3250352697.2299 | 187.5390 | TOE | 016 |
| 1739087.4545348015.1640 | 109.7302 | TREES | 017 |
| 1739091.8397348015.3790 | 109.6514 | TREES | 018 |
| 1736995.2968358609.9475 | 130.1258 | LOTREES | 019 |
| 1736994.9983358610.2195 | 130.0999 | LOTREES | 020 |
| 1737081.7628358599.3662 | 128.6480 | | MCC1067 |



File Name: MCC1072_2MAY2014

| | | | |
|-------------------------|----------|----------|---------|
| 1768019.9750413814.2799 | 300.6647 | BASECHEC | 1 |
| 1768019.9869413814.2802 | 300.6787 | BASECHEC | 2 |
| 1768019.9332413814.2706 | 300.6339 | BASECHEC | 3 |
| 1767994.8386413837.5645 | 301.0083 | HG-A | 4 |
| 1767948.2348413944.7376 | 300.9051 | HG-A | 5 |
| 1767881.4433413984.4117 | 301.3794 | URBAN | 6 |
| 1767796.2719413977.5930 | 299.5864 | OT | 7 |
| 1767665.9589413846.7144 | 297.4891 | TREE | 8 |
| 1767578.5748413685.4064 | 293.0628 | TREE | 9 |
| 1767621.2857413674.8146 | 295.3230 | TREE | 10 |
| 1767601.6257413447.5426 | 291.1736 | OT | 11 |
| 1767832.0587413906.8807 | 301.5087 | LT-A | 12 |
| 1767983.9837413786.8003 | 303.9339 | LT-A | 13 |
| 1768162.1167413702.3503 | 298.7138 | URBAN | 14 |
| 1768019.8542413813.7210 | 300.6654 | | MCC1072 |



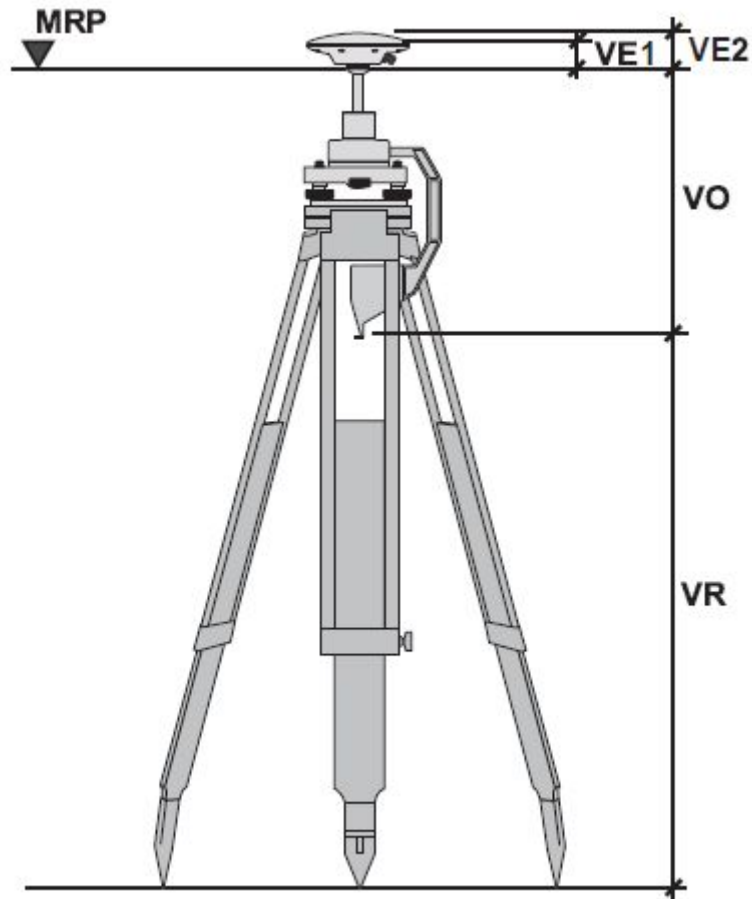
File Name: MCC1073_2MAY2014

| | | | |
|-------------------------|----------|----------|---------|
| 1731081.5207416814.1477 | 216.0751 | BASECHEK | 001 |
| 1731081.5397416814.1516 | 216.0399 | BASECHEK | 002 |
| 1731081.5510416814.1625 | 216.0659 | BASECHEK | 003 |
| 1733440.3883411137.4160 | 313.8143 | URBAN | 004 |
| 1733435.4560411129.8331 | 314.0786 | URBAN | 005 |
| 1738637.2636407731.3842 | 325.9459 | LOTREES | 006 |
| 1738639.3933407731.1383 | 325.4576 | LOTREES | 007 |
| 1733725.6675411821.2158 | 281.9397 | GS | 008 |
| 1733727.4925411812.9885 | 281.9258 | GS | 009 |
| 1723638.9668410056.0906 | 179.4666 | HIGRASS | 010 |
| 1723639.0826410056.2503 | 179.5568 | HIGRASS | 011 |
| 1723642.6089410050.5457 | 180.0281 | HIGRASS | 012 |
| 1731081.5728416813.5664 | 216.0494 | | MCC1073 |



Appendix D: GPS System Vertical Height Diagrams

Leica Tripod Setup



VO Vertical Offset

VR Vertical Height Reading

VE1 Vertical Phase Center Eccentricity for L1.

VE2 Vertical Phase Center Eccentricity for L2

MRP Mechanical Reference Plane

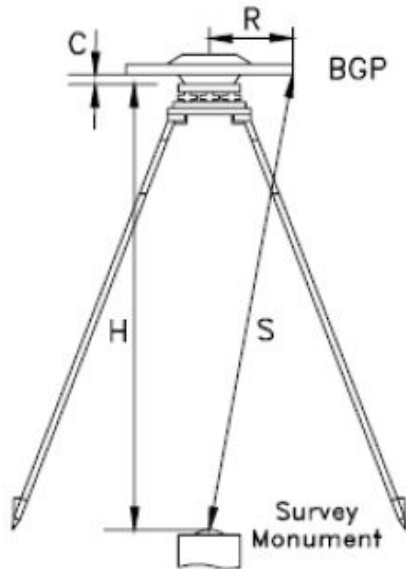
Although an AT502 Antenna is shown, the same principles apply to the AX1202 and SR399 Antennas.

The Vertical Height Reading (VR) value is measured using the Height Hook.

The Vertical Offset (VO) value is stored in the Antenna Setup record and for a Tripod Setup with the Height Hook as shown is 0.36m for AT502 and AX1202 Antennas. For the SR399 Antenna, an offset of 0.441m was added to the Height Hook bringing the true height to the VE1.

The Vertical Phase Center Eccentricities are stored in the Receiver for all Leica System Antennas.

NovAtel DL-4+L1 L2 receiver w/ NovAtel NOV702_3.00 Antenna
and Topcon HiPerV receiver



H = True height of fixed height tripod rod

S = Slant height field measurement

C = Distance for addition of ground plane

R = Radius from antenna phase center to edge of ground plane

BGP = Bottom of ground plane (or antenna)

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