## Initial GNSS Tablet Training

<table>
<thead>
<tr>
<th>START</th>
<th>TOPIC</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Introductions/Agenda Review</td>
</tr>
<tr>
<td>8:15</td>
<td>GPS Theory &amp; Coordinate System Basics</td>
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<tr>
<td>9:15</td>
<td>Surveying or Inspecting?</td>
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<tr>
<td>9:45</td>
<td>BREAK (15 min)</td>
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<tr>
<td>10:00</td>
<td>Equipment Overview – Tablet handout – Operation Rules</td>
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<tr>
<td>10:30</td>
<td>FieldGenius Creating a Project and adding Data</td>
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<tr>
<td>11:30</td>
<td>FieldGenius GNSS/ORGN Setup</td>
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<tr>
<td>12:00</td>
<td>LUNCH (60 min)</td>
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<tr>
<td>13:00</td>
<td>Field Genius Staking/Data Collection Intro</td>
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<tr>
<td>13:30</td>
<td>Equipment setup GNSS/ORGN connect</td>
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<tr>
<td>13:45</td>
<td>Field Exercise #1 – Stake/Check known point</td>
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<tr>
<td>14:15</td>
<td>Field Exercise #2 – Data Collection</td>
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<td>14:45</td>
<td>Back to the classroom/Break/Re-group</td>
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<tr>
<td>15:00</td>
<td>Equipment setup on the Rod</td>
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<tr>
<td>15:15</td>
<td>Field Exercise #1 – Stake/Check known point</td>
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<tr>
<td>15:20</td>
<td>Field Exercise #2 – Data Collection</td>
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<tr>
<td>15:40</td>
<td>Field Exercise #3 – Check and alignment – Find Station and Offset</td>
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<tr>
<td>16:00</td>
<td>Field Exercise #4 – Check a surface model – Find Cut/Fill</td>
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<tr>
<td>16:15</td>
<td>Field Exercise #5 – Work with a .dxf file – Find a CAD feature</td>
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<td>16:30</td>
<td>Equipment Check-out</td>
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<tr>
<td>17:00</td>
<td>END OF THE DAY</td>
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Instructor Directions – Extended Outline

Introductions/Agenda Review
   Instructor intro
   Super-fast class intro – Ask: Have you used GPS? Have you surveyed in the past?
   Cover the agenda and days plan

GPS Theory & Coordinate System Basics
   Cover basic GPS theory and how it works
   Draw the base/rover picture with the ‘corrector’ being sent and positions moving
   Discuss why we need coordinate systems and datums to take 3D to 2D paper/plans/computer screen
   Show how it all ties together – Start big, work your way down to the point on the plan set

Surveying or Inspecting?
   I’m not here to make you a surveyor!
   Discuss what licensed surveyors can measure – what everyone else can measure
   Tools are here to help do regular job – not add to duties

BREAK (15 min)

Equipment Overview – Tablet handout – Operation Rules
   Pass out equipment
   Cover the basics, what is in the box
   Keep it clean, dry it off when you are done
   Charge the batteries, etc.

FieldGenius Creating a Project and adding Data
   Power up the tablets
   Walk them through opening FieldGenius
   Start building a new project
   Add reference data

FieldGenius GNSS/ORGN Setup
   Work through connecting equipment and checking settings
   Discuss need for internet connection
   Show the errors you get if you are missing something

LUNCH (60 min)
   Phew – take a break!

Field Genius Staking/Data Collection Intro
   Cover data collection basics
   Discuss staking – not actually pounding hubs, but going to a known point
   Show how to make points, lines, areas
   All based on points! Collect data – get a point!

Equipment setup GNSS/ORGN connect
   Physically setup the equipment to go to work in the handheld mode
   Get internet setup and checked on the tablets

Field Exercise #1 – Stake/Check known point
   Connect to the ORGN – check your accuracies values
   Find an check a known control point – repeat!
Field Exercise #2 – Data Collection
   Collect data for a point, line, area

Back to the classroom
   It will be obvious when all students have completed #1 & #2. They will start moving on to other exercises
   Gathering together to discuss ideas, milling about, etc.
   Circle them up and take them back to the classroom

Equipment setup on the Rod
   Build the equipment out on the rod like a full survey rover

Field Exercise #1 – Stake/Check known point
   Repeat #1 – notice how much faster they are the 2nd time

Field Exercise #2 – Data Collection
   Repeat #2

Field Exercise #3 – Check and alignment – Find Station and Offset
   Work with the alignment file, follow the CL, find a specific Station and Offset

Field Exercise #4 – Check a surface model – Find Cut/Fill
   Stake out one or both of the surface models in the project and find your cut/fill at multiple locations
Field Exercise #5 – Work with a .dxf file – Find a CAD feature
   Stake out one or more of the CAD features in the project

Equipment Check-out
   It will be obvious when all students have completed all the tasks. Light bulbs will have gone off over heads,
   a-ha moments will have occurred.
   Circle them up and take them back to the classroom
   Sign out equipment to correct people.
   Give any last tips
   Thanks everyone!

END OF THE DAY
   DONE! Go home and relax.