

# Introduction to Practical Land Navigation: A Primer

**Land Navigation** consists of two sets of skills:

ORIENTEERING	TERRAIN ASSOCIATION
Using map and compass to plot precise, usually linear, routes from one point to another. If you walked from Scott Stadium to U-Hall by walking a bearing of 0° without ever deviating from course, you'd be orienteering.	Using map to identify land features and navigating based on those land features. If you walked from Scott Stadium to U-Hall by walking along the streets, you'd be practicing terrain association.
<ul style="list-style-type: none"> <li>• Taking compass bearings in reality</li> <li>• Plotting compass bearings on a map</li> <li>• Pacing an accurate distance</li> <li>• Following bearings (leapfrogging)</li> <li>• Resection</li> <li>• Modified Resection (using a linear feature)</li> <li>• Triangulation</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying map features</li> <li>• Northing your map</li> <li>• Finding courses of least resistance</li> <li>• Using roads and trails for efficient travel</li> <li>• Identifying attack points</li> <li>• Aiming Off</li> <li>• Using catching features</li> <li>• Practicing a terrain check</li> </ul>

If our style of Land Nav existed on a spectrum between these two sets of skills it would be about

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Though everyone practices land nav differently, mostly people predominantly navigate off of terrain features and use their compass just enough to check where they are going. And here, dear friends, is the great IRONY: We can teach you in the classroom all of the orienteering techniques, which are confusing but eventually learnable. Sadly though, it is difficult to teach terrain association; much of it you will have to learn on your own through lots of practice. Land Nav is a life skill. And that's fun.

That said, let me offer you a guideline for how to go about the BRMRG style of land navigation:

#### BEFORE YOU GO:

1. **North** your map. Jon Kittredge told me I have to do this, and he was right. You **MUST** north your map or you will get needlessly confused.
2. **Make a Plan.** Put a route together and practice walking through it in your mind. What prominent features will you walk by? Where is your attack point? What will it look like when you go from your attack point to your destination? Run through the route with your team.

#### TO GET THERE:

1. Use Course Navigation to get to an **attack point**. Find a very obvious, easy to get to location near your destination and get there first. For instance, if you are going to Elsa's room at 19 West Lawn, go to the Rotunda first, then get your bearings and go to her room. Same in the woods, go to where the road crosses the drainage first, then go down the drainage.
2. Use Fine Navigation to get to your **destination**. Slowly and meticulously proceed from your attack point to your destination. Break out your compass and make sure you are going the right way. Stay close to your map, by which I mean don't get even a little disoriented. If you do stop and re-orient.

#### WHEN YOU ARE THERE (or when you are totally lost):

Practice what I call a **Terrain Check** to make sure you are where you think you are:

1. Face North. Describe the terrain in front of you in detail to your team leader or partner. (Work together, two brains much better than one. Ask Emily to tell you the one about Justin on Graylock with the wrong map.)
2. Repeat for East, West and South
3. Clear your mind. Empty all thought of reality.
4. Identify where you **THINK** you are on the map. Be Skeptical
5. Ask yourself (and your partner): "If I am where I think I am, what should it look like to the North." Repeat for East, West and South.
6. Clear Your Mind.
7. Ask yourself and your partner: "Did the descriptions I gave for where I **SHOULD BE** match **EXACTLY** the descriptions for **WHERE I AM**."
8. If the answer is yes, you are where you think you are. Move on.
9. If the answer is no you are not where you think you are. Find Yourself.
10. **NEVER MANIPULATE REALITY TO FIT YOUR EXPECTATIONS!**

Some of you will get this in a day. Some of you will spend years waiting for the big "Aha!" Be patient with yourself and your team. And have fun and enjoy a beautiful day on the hill!



## LAND NAVIGATION

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A few exercises to begin with. See if you can find on the map:

- ☐ Two drainages and two ridges
- ☐ A saddle
- ☐ A Residential neighborhood
- ☐ The Lawn
- ☐ Where you are

Next, North your Map and see if reality matches up to what the map shows. Practice taking a bearing to the stadium lights (under which your chair recently scored the winning goal in the Hardee's Ultimate Challenge). Draw the bearing on your map. Then Off to the Points!

**Point A:** Go down the fire road. Sometime along the way, take a bearing to the water tower. If you are up for it, use a modified resection to find your position. (See where the reciprocal of your bearing crosses the fire road.)

The point is flagged at the junction of a trail with the fire road at T2434. At Point A are a series of flags at 10m intervals. Use this course to determine the length of your pace. You can base this one one step or two. Just be consistent. (Two steps=One pace. Two Pace=One Chain). Pace both up and down and average the two. Then walk from the first tree flagged to the last tree flagged and test your skills by guessing the distance.

From the end of the pacing course, follow a bearing of either  $286^{\circ}\text{M}$  or  $294^{\circ}$  and read the numbers on the nearest flag up the hill to see how close you were. Try leapfrogging to the point with a partner for greater accuracy.

**Point B:** Is located at T2135. From where a trail crosses the drainage (on a rickety bridge near some downed logs) we have flagged four ten-foot contour intervals up the hill. You'll have to use a little clue awareness to find them on the ground, but you should walk up and down along the lines to see what a contour feels like. See how close the lines are on the map relatively to the steepness on the ground.

**Point C:** Is located at 2237 and is not flagged. This is probably the toughest point on the course, and should be a good challenge for the advance groups. (ie. Your instructors probably won't even be sure if you are right...)

**Point D:** A "subject" is located in the woods in the area indicated on the map. Sweep search the area to find said subjects. Advanced groups can organize the team on there own. Be sure to be VERY clue aware. Previous subjects in this area have been walked by many times.

**Point E:** Is located at T2341 and may still be flagged from last year. Jared and I got tired.

**Point F:** Some "services" are showing their UVa spirit at T2543. Be sure to investigate. Have a seat and have everyone come up with one thing they have learned and one thing that still confuses them.

Have Fun!

9/19/99 BSFR



