

Redline GUIDING

Redline Guiding Wilderness Navigation Course - Handout

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ANATOMY OF A COMPASS

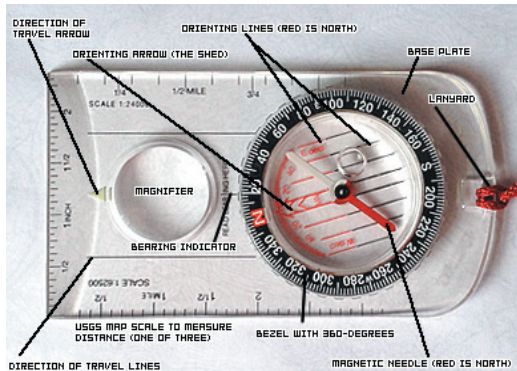
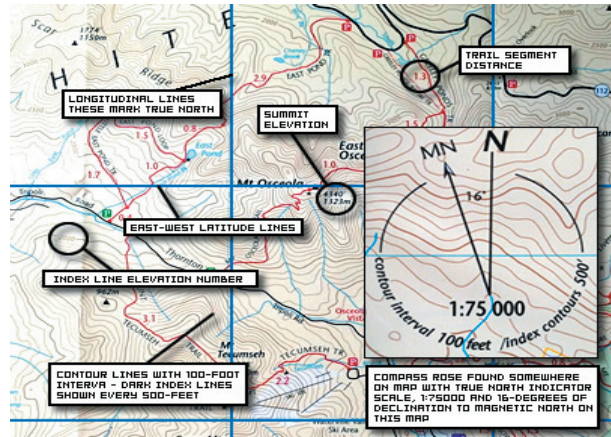


Image source:

nhtramper.wordpress.com/2013/03/31/wilderness-compass-navigation-primer/

ANATOMY OF A MAP



HOW-TO OVERVIEW

CREATE A BEARING ON A MAP

- 1) Copy the relevant map section and mark it with your end points (start and finish).
- 2) Connect these points with a direction of travel line and note the line's direction with an arrow.
- 3) Align compass to this line then turn the compass's orienting lines (red up) to match the longitude lines (N-S).
- 4) Note the azimuth or bearing number and add in the declination for the magnetic bearing. Subtract in the west.

FOLLOW A BEARING WITH A COMPASS

- 1) Turn bezel so that the bearing number is aligned with the azimuth or bearing indicator.
- 2) Hold compass directly in front of you and turn your body until "red" is in the "shed."
- 3) Follow this course using landscape features, team members, rope (in fog), etc.
- 4) Keep track of time (distance), elevation, and any other reliable features. Be aware of your surroundings.
- 5) To follow the bearing in reverse, add or subtract 180-degrees for a back bearing or just put black/white in the shed.

HOW TO SHOOT A BEARING AT A LANDMARK

- 1) Hold the compass in front of you and turn your body toward a landmark you want to walk to.
- 2) Turn the bezel until "red" is in the "shed." The number indicated is the magnetic bearing, ready to follow.
- 3) To transfer this bearing onto a map, making it true, you will have to subtract the declination. See next...

HOW TO TRIANGULATE YOUR POSITION

- 1) Shoot at least two bearings at known landmarks such as surrounding mountains. Be as precise as possible.
- 2) Subtract the declination from these magnetic bearings. Add when in the west. (Just the opposite as before.)
- 3) With the new number on the compass dial, start a line at the landmark with the edge of the compass.
- 4) The direction of travel line will match the sight line, the arrow toward the landmark.
- 5) The other end of the line will be found by turning the compass until the orienting lines line up with the map, north up.
- 6) Repeat the process for each landmark and where the lines converge will be your approximate location.

OTHER CONSIDERATIONS

- 1) Consider terrain when creating a course; try to not make it too technical or difficult.
- 2) Help avoid direction confusion via deviation by purposely off-setting your course.
- 3) Figure time (3 mins per 0.1 mile plus 3 mins per 100' of gain, then double it — at the very least... up to 8x).
- 4) Always try to allow confirmation of your location en route. Know where you are. Don't lose the bearing line.
- 5) Use all the tools you can: your team, terrain, and Bearing-Elevation-Distance-Time (BEDTime).
- 6) Trailfind with cairns, corridor identification, packed foot bed in snow, root/rock wear in summer, etc.
- 7) Identify trail corridors by checking their general direction, then compare to the map. Red end of the arrow is north.
- 8) Take note blazes, terrain such as valleys and ridges, waterways, landmarks, even sounds like rivers and highways.

FOLLOW THE BEARINGS BELOW FROM POINT TO POINT

The numbers below are magnetic bearings. Use them to find your next waypoint across and write the corresponding letter in the box moving to that position. Repeat until a **ROW** is complete.

<i>A</i>	305		025		096		161	
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<i>B</i>	252		316		036		112	
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<i>C</i>	178		236		305		025	
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<i>D</i>	096		161		220		287	
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<i>E</i>	351		062		138		195	
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<i>F</i>	220		287		351		062	
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<i>G</i>	138		195		252		316	
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<i>H</i>	036		112		178		236	
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