

FREE PRINTABLE RESOURCE

LAND NAVIGATION FIELD CARD

Map, compass, bearing, pace count. Four skills that still work after the battery dies.

BEFORE YOU LEAVE

- ☐ **Paper topo map of the actual area**
USGS 7.5-minute quads are 1:24,000 — 1 inch = 2,000 feet
- ☐ **Find the contour interval in the margin**
It changes map to map with the terrain
- ☐ **Baseplate compass + pencil**
- ☐ **Look up current declination for the area**
NOAA geomagnetic calculator; the value moves over time
- ☐ **Set the declination screw, or write it on the map**
Adjustable beats a number you have to remember
- ☐ **Tell someone your route and return time**

READING THE GROUND

- ☐ **Tight lines = steep. Wide lines = gentle.**
- ☐ **Closed rings = summit**
Inward tick marks instead = depression
- ☐ **V pointing uphill = drainage**
- ☐ **V pointing downhill = ridge**
- ☐ **Orient the map to the ground at the trailhead**
Line up a ridge, a drainage, a lake you can actually see

Declination is not optional. Magnetic north and true north differ by location and drift over time. Ten degrees of error puts you roughly 900 feet off your line per mile walked.

TAKING & WALKING A BEARING

- ☐ **1. Compass edge from you to destination**
Direction-of-travel arrow pointing at the target
- ☐ **2. Rotate housing parallel to map north lines**
Read the bearing at the index line
- ☐ **3. Apply declination if not already set**
Map bearing to magnetic: SUBTRACT declination (west = negative)
- ☐ **4. Turn your body until needle sits in the arrow**
- ☐ **5. Sight a landmark and walk to it**
Eyes up. Watching the dial makes you wander
- ☐ **Aim off toward a known side of small targets**
Hit the creek, then follow it to the bridge
- ☐ **Use handrails: ridge, river, road, fence**
- ☐ **Pick a catching feature past the target**
Cross it and you know instantly you overshot

MY PACE COUNT

- ☐ **Flat ground, 100 m: _____ paces**
Count right foot only, at normal loaded stride
- ☐ **Uphill, 100 m: _____ paces**
- ☐ **Track with a bead on cord or a pocket pebble**

IF THE MAP STOPS MATCHING

- ☐ **STOP WALKING. Sit down.**
- ☐ **Work back to your last certain position**
- ☐ **Positively identify two big features**
Drainage, ridge, lake, road, powerline cut
- ☐ **Backtrack beats guessing forward**

Full guide: tacticalbox.com/blogs/tacticalbox-blog/basic-land-navigation-without-gps

Sources: NPS, Ten Essentials; USGS, Topographic Map FAQs; NOAA NCEI, Magnetic Declination.