

☑ The Ten Essentials

Updated "Systems" Approach

1. Navigation (map and compass)
2. Sun protection (hat, sunglasses, sunscreen)
3. Insulation (extra clothing)
4. Illumination (headlamp/flashlight)
5. First-aid supplies
6. Fire (lighter/waterproof matches)
7. Repair kit and tools (knife, saw, pliers, trowel, scissors, duct tape, etc.)
8. Nutrition (extra food)
9. Hydration (extra water)
10. Emergency shelter

Classic Ten Essentials

1. Map
2. Compass
3. Sunglasses and sunscreen
4. Extra clothing
5. Headlamp/flashlight
6. First-aid supplies
7. Firestarter
8. Matches
9. Knife
10. Extra food (often replaced by or supplemented with "extra water")

Other Items: water purification; GPS; signaling device(s)

🚑 In Case of Emergency...

Blood type (circle one)

O- O+ A- A+ B- B+ AB- AB+

Allergies

Medications (include dosages)

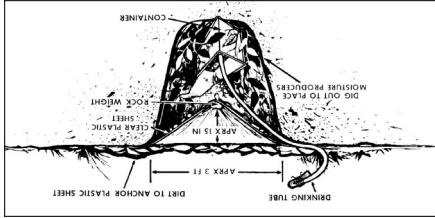
Vaccines (include dates)

Current medical conditions – As of \_\_\_\_\_

Primary care doctor (name and phone)



1. Place a **clear plastic bag** over a leafy branch of a *non-poisonous* tree or plant. (If none available, place loose vegetation in a bag.)
2. Tightly close the bag's open end around the branch.
3. Remove the bag, or tap it, to access the water that has concentrated in the lowest part of the bag approx. every two hours.



1. Dig a 1-2-foot hole in an area that receives direct sunlight.
2. Fill the hole with vegetation, if available
3. Place an open **cup** or **mug** in the center of the hole.
4. Lay a piece of **clear plastic** tautly across the top of the hole.
5. Seal the hole by covering the edges of the plastic around the hole with rocks and dirt.
6. plastic dips to a point above the cup without touching the cup and without piercing the plastic.

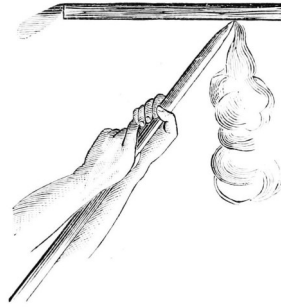
The main goal of both methods below is to *trap water condensation*.

👉 How to "Make" Water

**Important Considerations:** Humans require a minimum of approximately one liter of water per day to survive (more if exerting oneself). These methods are only meant to supplement other efforts to find/collect more substantial amounts of water. The effort to dig pits for solar stills requires work that might yield less water output than spent perspiring from the effort. Use common sense.

🔥 How to Start a Fire (w/o matches)

**Fire Plow Method**  
The typical fire plow consists of a stick cut to a dull point, and a long piece of wood with a groove cut down its length. The point of the first piece is rubbed quickly against the groove of the second piece in a "plowing" motion, to produce hot dust that then becomes a coal. A split is often made down the length of the grooved piece, so that oxygen can flow freely to the coal/ember. Once hot enough, the coal is introduced to the tinder, more oxygen is added by blowing, and the result is ignition.



1. Place the compass on the map so that one edge creates an imaginary line between two points of interest (e.g., current position and destination)
  2. Rotate the housing to align the compass' orienting lines with the North-South lines on the map
  3. Read the bearing at the index line
- Take (measure) a bearing on a map**
1. Set the desired bearing at the index line
  2. Place the compass on the map with an edge of the baseplate on the location from which you wish to plot the bearing
  3. Turn the entire compass to align the compass' orienting lines with the map's North-South lines. The edge of the baseplate is the bearing line.
- Take (measure) a bearing in the field**
1. Hold the compass level and point the direction-of-travel arrow at a landmark
  2. Rotate the housing to align the orienting arrow with the magnetic needle
  3. Read the bearing at the index line
- Plot (follow) a bearing on a map**
1. Set the desired bearing at the index line
  2. Place the compass on the map with an edge of the baseplate on the location from which you wish to plot the bearing
  3. Turn the entire compass to align the compass' orienting lines with the map's North-South lines. The edge of the baseplate is the bearing line.
- Plot (follow) a bearing in the field**
1. Hold the compass level and turn your body until the magnetic needle is aligned with the orienting arrow
  2. Set the desired bearing at the index line
  3. Travel in the direction shown by the direction-of-travel arrow

A magnetic declination map and common USGS map scale conversions are on the reverse

# Backpacking Reference

Your name and contact info

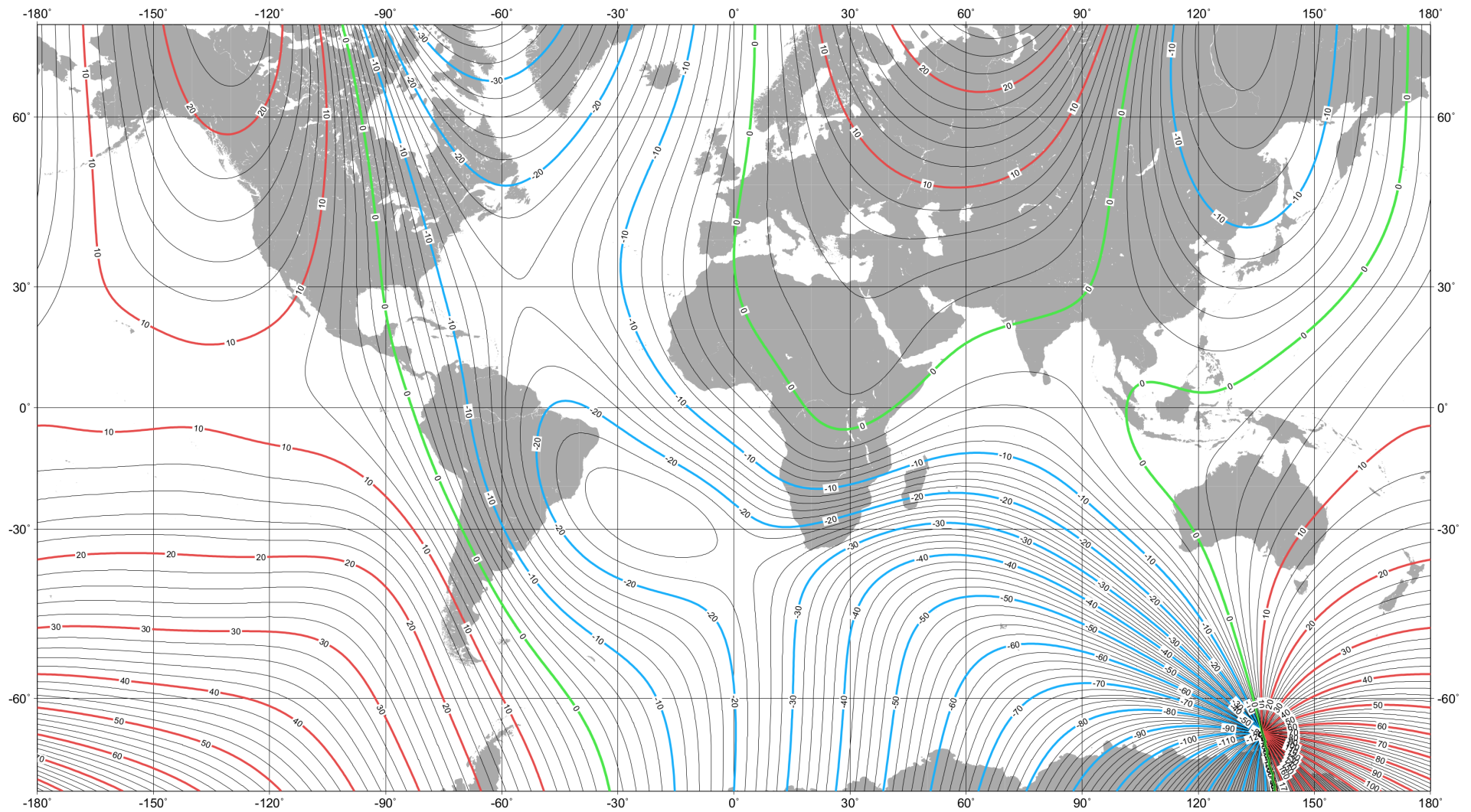
## Emergency Contacts

More emergency info (allergies, medications, etc.) is enclosed

Name, relationship, and contact info

# International Geomagnetic Reference Field Model -- Epoch 2015

## Main Field Declination (D)



Map Date : 2015  
 Units (Declination) : degrees (red contours positive (east) blue negative (west))  
 Contour Interval : 2 degrees  
 Map Projection : Mercator

### USGS Map Scales

| Scale    | 1in equals      | 1cm equals | Scale    | 1in equals  | 1cm equals | Scale     | 1in equals | 1cm equals | Scale       | 1in equals | 1cm equals |
|----------|-----------------|------------|----------|-------------|------------|-----------|------------|------------|-------------|------------|------------|
| 1:20,000 | ~1,667ft        | 200m       | 1:50,000 | ~4,166ft    | 500m       | 1:100,000 | ~1.6mi     | 1km        | 1:500,000   | ~8mi       | 5km        |
| 1:24,000 | 2,000ft (exact) | 240m       | 1:62,500 | ~1mi        | 625m       | 1:125,000 | ~2mi       | 1.25km     | 1:1,000,000 | ~16mi      | 10km       |
| 1:25,000 | ~2,083ft        | 250m       | 1:63,360 | 1mi (exact) | 633.6m     | 1:250,000 | ~4mi       | 2.5km      | 1:2,000,000 | ~32mi      | 20km       |