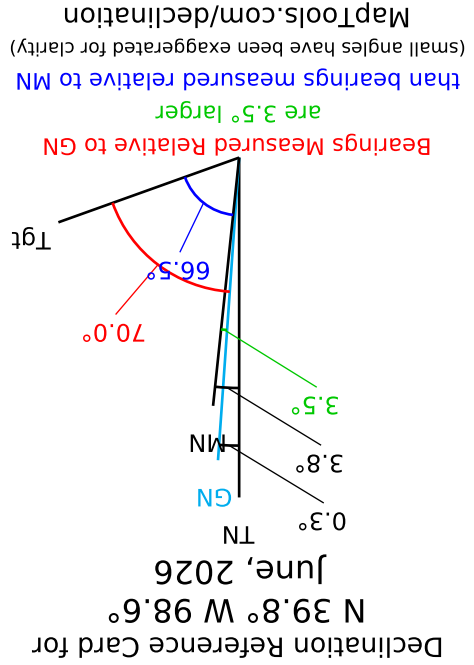
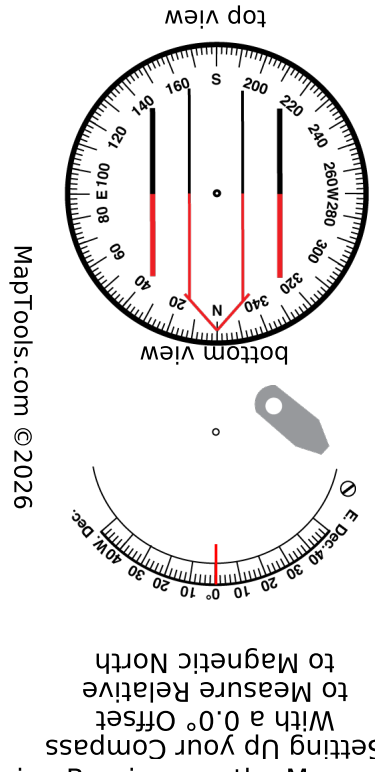
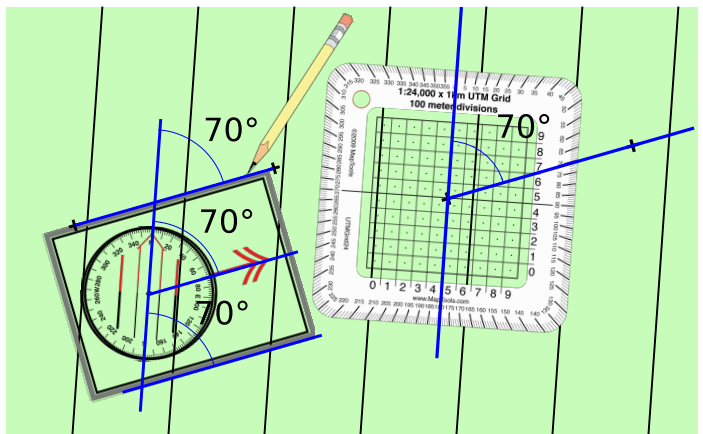


Tell a friend about...
 MapTools.com/declination
 Custom Declination Reference Cards
 "everything you need to know about North References"

MapTools.com
 Tools for plotting coordinates
 Information for learning to be a better navigator



Example of Plotting or Measuring Bearings on the Map Using Grid North as the North Reference
 In this example the bearing is 70° Grid



- Rotate the compass dial so that 70° is at the index line.
- We're not using the magnetic needle in our compass.
- Instead we are aligning the parallel lines, in the compass capsule, with the Grid North reference lines on the map.

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p4

#3 cut
 #4 cut
 from MapTools.com/declination
 Free Customized Declination Reference Sheet
 N 39.8° W 98.6° North Refs: Up=T, Plot=G, Compass=M

B

B

Folding and cutting instructions

- #1 Turn the sheet over, fold in half on the dotted line, so the letter "A's" touch.
- #2 Fold the sheet in half again on the #2 fold line, so the letter "B's" touch.
- #3 Cut the sheet using the marks at the #3 cut line.
- #4 Cut the sheet using the marks at the #4 cut line.

#2 fold

Compass and Map Plotting use different north references. Conversion is required.

Compass (M) to Map (G)
 $\text{Grid} = \text{Compass (M)} + 3.5^\circ$

Map (G) to Compass (M)
 $\text{Compass (M)} = \text{Grid} - 3.5^\circ$

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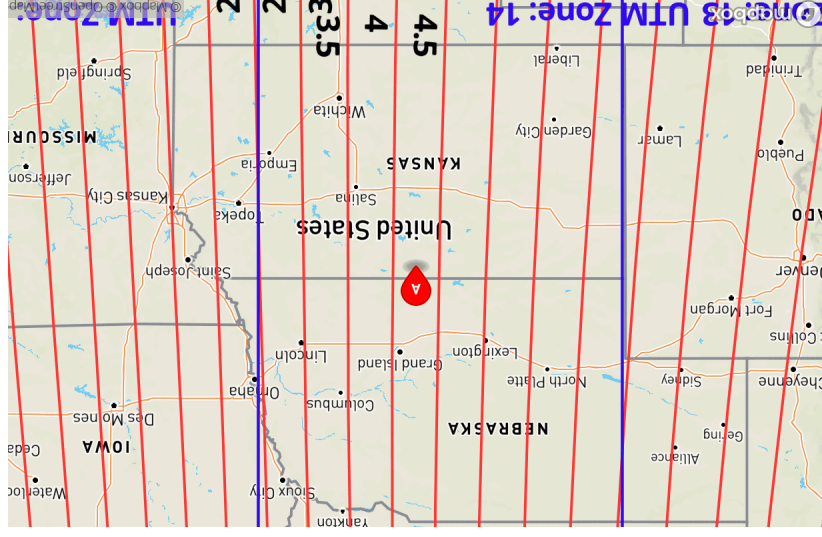
Local Magnetic Anomalies

In some areas there may be significant localized magnetic fields typically caused by magnetic rock deposits such as iron ore or lava flows. 3-4 degrees of anomalous declination is common near these areas. In extreme cases a compass may be rendered useless.

It is a good idea to confirm the local declination by comparing compass sighted and map plotted bearings between two known points.

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Red lines show Magnetic -> Grid variation



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