

## THE NAVIGATION CORNER: USING LOCAL BEARINGS

By Bob Myers, LTC Navigation Chair

The use of local bearings is an important tool in staying found. When hiking along a known line of travel which shows on your map, develop the habit of being aware of the bearings you are actually traveling and the bearing you should be traveling. Major mistakes in route finding can often be caught early this way (such as heading down the wrong canyon or ridge line). This procedure can be especially valuable in poor visibility.

Your location can be pinpointed at those points where your known line of travel changes bearing significantly. By keeping close track of these changes, you can navigate without seeing any landmarks. Bearings are taken in the direction of travel along a ridge line or in a gully.

For example, if you are hiking in a meandering gully or dry stream bed, you can easily keep track of your position. Starting at point A (Figure 1), you are going due east ( $90^\circ$ ) for short distance. Soon you find you are heading at a bearing of  $120^\circ$ . When your compass next shows you are heading at  $90^\circ$ , you know you are at point B. If you were not paying attention along the way, you might wonder whether you are between points B and C or between points D and E. Take a bearing in the direction of travel. If the bearing is  $30^\circ$ , you know you are between points B and C. By contrast, if the bearing is  $45^\circ$ , you know you are between points D and E.

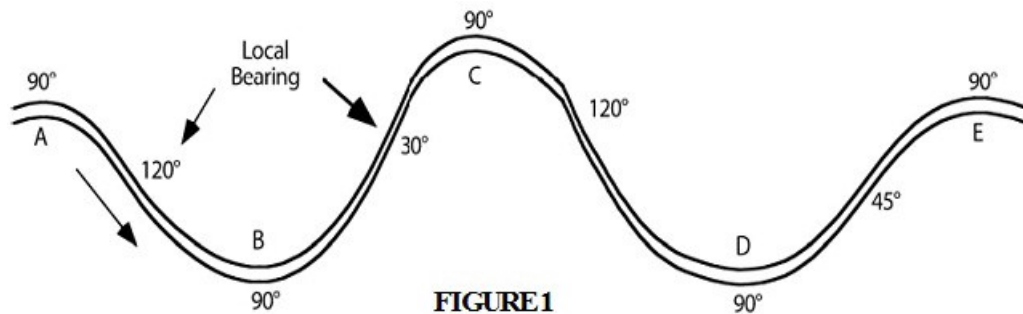
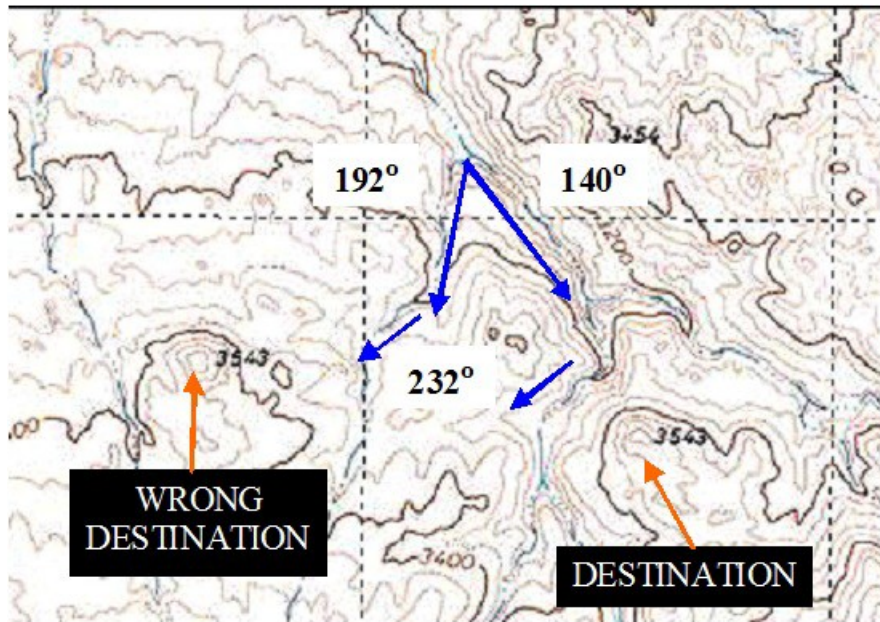


Figure 2 below illustrates that you can end up in confusing situations if you don't keep track of your bearing as you travel. On the Indian Cove Quad, there are two peaks with the designation Peak 3543 in close proximity to one another. As you head for the easterly Peak 3543, making a wrong turn at the intersection of two gullies can send you in the wrong direction. The right and wrong gullies eventually share the same bearing and you might wonder why Peak 3543 looks like its to your west when it should be to your east. This type of error can be avoided by always taking local bearings, particularly when gullies or ridges diverge.



**FIGURE 2**

You can also use local bearings when you are following a trail (assuming the trail is shown correctly on the map). Before you start your trip, look at the map and determine if there are any locations on the map that can be easily identified by the bearing of travel. For example, there may be only one location where the trail turns in a particular direction.

In my opinion, the use of local bearings is one of the most important tools available in land navigation.