

Contour Lines Lecture

Topographic Map – A map is a representation of the surface of the earth, or a part of it. The distinctive characteristic of a topographic map is the 3-dimensional shape of the earth's surface is defined - by contour lines.

Contour Line- are imaginary lines that join points of equal elevation on the earth's surface and are referenced from mean sea level. Contour lines always close on themselves (Sometimes on other maps) and never cross.

Essential feature is that they are the means used to represent three-dimensional features (elevation change) on a two dimensional map.

Contour lines are represented as brown lines on topographic maps

The difference between contour lines are called **contour intervals**. Not all topo maps have the same intervals. Can also be different from map to adjacent map.

The interval can be found at the bottom center of most topo maps under the horizontal distance scale (miles & kilometers).

Every fifth contour line is called the **Index contour**, which is darker and has the actual elevation written on it (somewhere). You may have to follow it to find the elevation.

Some Index contours are in feet and some in meters. Be careful!!

What do contour lines tell us? (Have someone point to easel and show items)

- 1) Elevation
- 2) Ascending or descending points of travel-Slope of terrain.
- 3) Steep terrain/slopes –Contours are closer
- 4) Gentle slope-Contours wider apart
- 5) Shows high points/peaks-Generally smaller/fully closed circular contour line.
- 6) Shows gullies, canyons and ridges
- 7) Saddles between peaks

Law of the V's-Assume where the two lines intersect to be the point of uphill or downhill- (show fingers)

- Contours across streams & gullies have the V intersection pointing "uphill"
- Contours across ridgelines have the V intersection pointing "downhill"

Also, note that if you have 40', 50' or 75' contour lines features of up to 39', 49' and 74' may not show up on the map but you may encounter in the field such as cliffs, boulders, etc.