

Map contours, grids & symbols

Maps are two dimensional representations of three dimensional features. They are drawn to a scale, which is printed on the map. A scale of 1:50,000 means that an object measuring 1 cm on the map will be 50,000 times that in real life, or 0.5km.

Contour Lines

To understand the shape of the mountain it is helpful to use the contour lines to build up an image of the feature, either in your mind or to draft out a profile on paper. Here is a profile of Mt. Wronagagin.

A contour line is a continuous line of the same elevation (or height) around the edge of a feature. Think of it as the edging trim along each layer of a wedding cake.

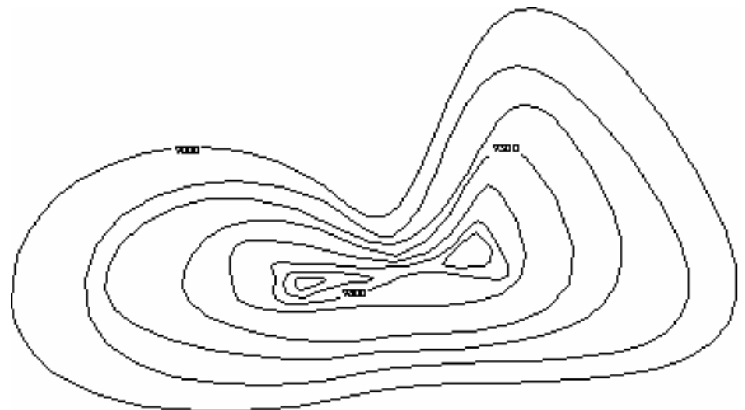
Each line gives an outline of what a feature looks like at regular intervals of elevation. The closer together the lines are, the steeper the slope.

For example the close gathering of contour lines on the north side of Mt. Wronagagin represents a steep slope. The more spread out contour lines to the east indicate a gentler slope.

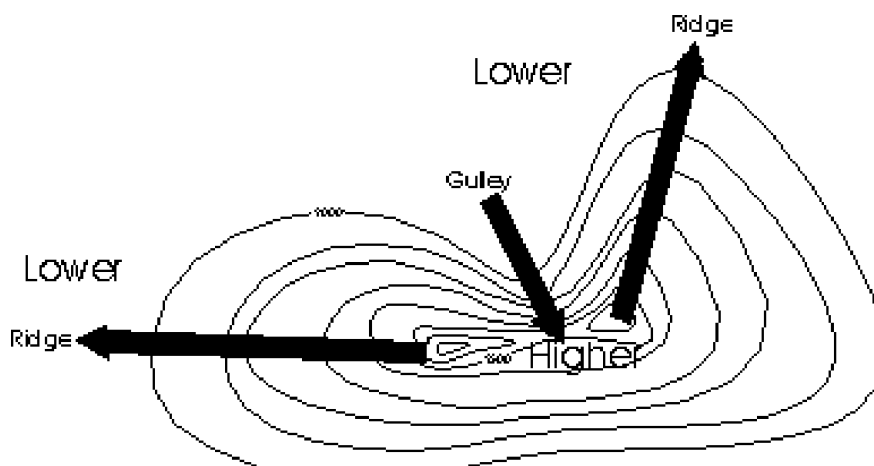
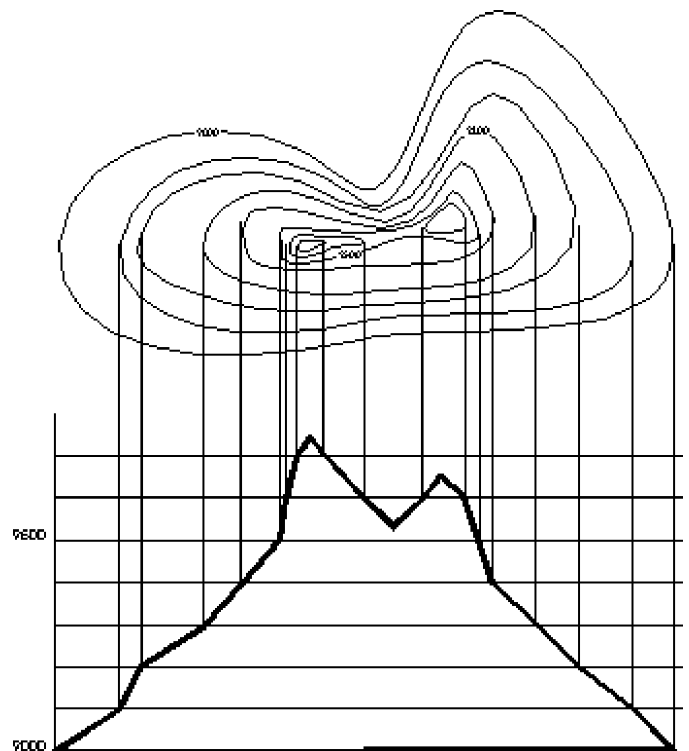
Depending on which map you are using the contour lines are at different intervals. For example, on 1:50,000 maps the contour lines are at 10 metre intervals (i.e. each line represents an outline of the mountain 10 metres higher than the line below it).

As contour intervals will vary with different maps, it is important to check the interval specified on the map you are using.

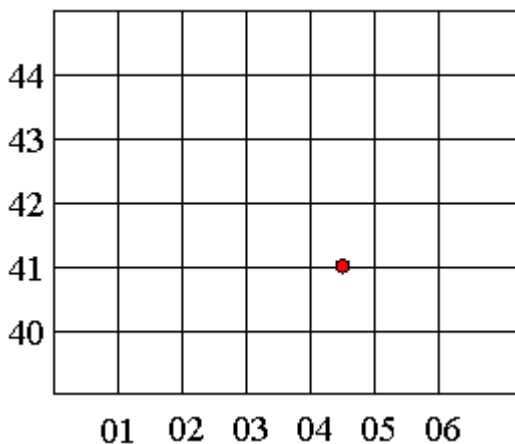
Contour lines are usually printed in brown, with every 5th line thicker. This thicker line will carry a number somewhere along its length telling you the height. The intermediate lines you will have to work out for yourself.



Mt Wronagagin



Grid Lines and Grid References



On Topographic maps there are two sets of parallel lines which mark the grid lines. These lines are in black and run vertically and horizontally on the map. They represent 1 km squares and enable people to accurately give a position of a place. On the side of the map are a set of numbers (known as Northings) which number each of the horizontal grid lines. On the top and bottom of the map are another set of numbers (known as Eastings), which number each of the vertical grid lines.

To make a grid reference, follow the vertical line to the left of the chosen location down to the foot of the map to

read it's Easting - for example 04. Then estimate the number of tenths from the grid line to the location - in this case 5. Therefore the first part of the grid reference is 045. Repeat this with the horizontal grid line just below the location (410). The full six figure grid reference is therefore 045410.

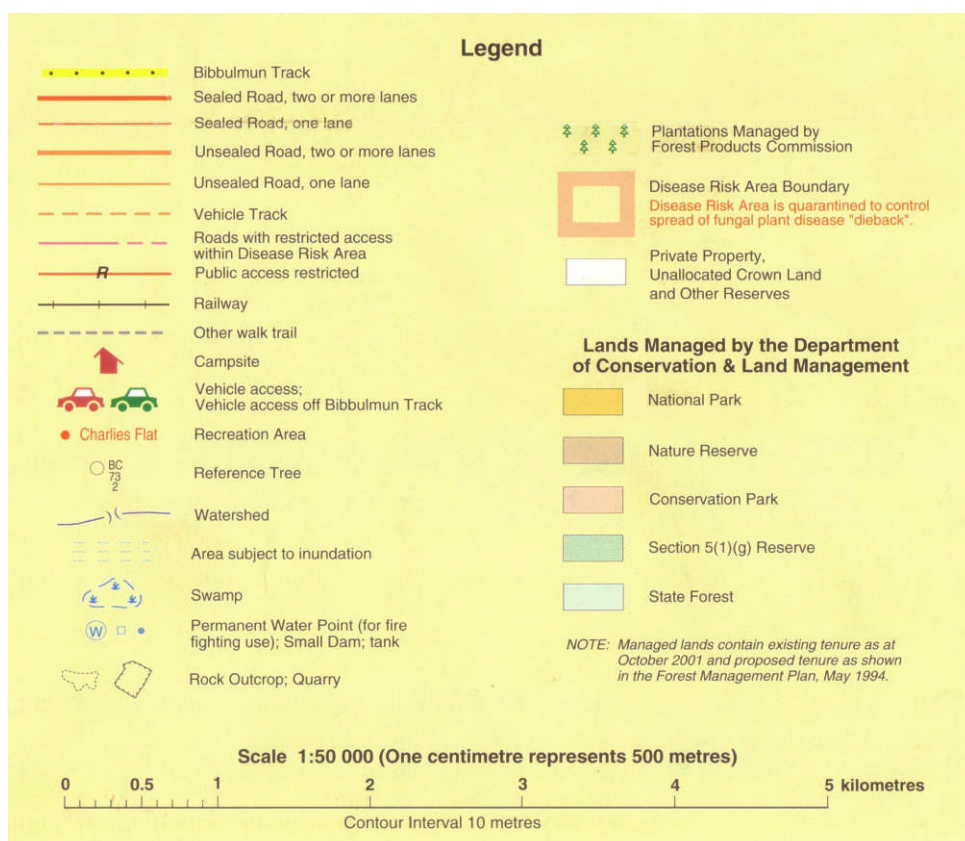
TIP. How to remember which numbers go first. There are loads of saying and methods, but here are three

- Just learn that the Eastings go first followed by the Northings
- "along the corridor and up the stairs"
- "walk along the flat before you fly upwards"

Symbols

Maps are diagrammatic they also use symbols to represent items.

These symbols are not to scale. Thus if the symbol for a church is a + . The size of the cross does not represent how big the church is, only that it is there. The symbols vary with different types, or makes, of map and what they are meant to show. Usually the symbols are printed on the map as a legend.



Did you know?

- The word MAP comes from the Latin word, Mappa and means napkin, cloth or sheet.
- The First map to represent the known world was created by Anaximander, a Greek philosopher in the 6th century BC.
- A cartographer is a person who creates maps.
- A map on a spherical surface is called a globe