

# Instructions

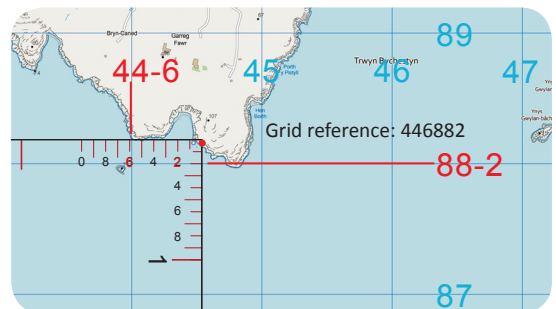
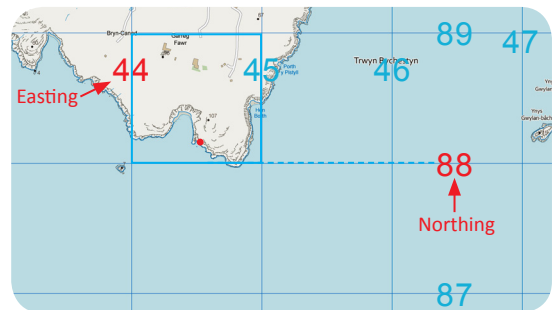
## Getting a grid reference (from OS 1:50,000)

First, identify the grid the location sits in, and then take the Easting (44) and then the Northing (88), to get the 4 figure grid reference - 4488.

To turn this into a 6 figure grid reference, place the tip of the Romer scale on the location.

Align the edges of the plotter with the map grid lines.

Read the numbers off the Romer where the map grid lines intersect the scale to get the 6 figure grid reference - 446882.

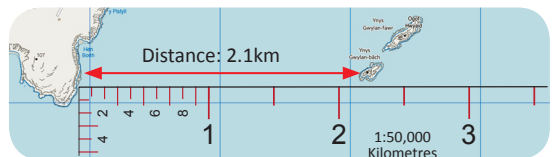


## Measuring distance & speed

### Using the edge of the plotter

The plotter has both a nautical miles scale and a kilometres scale, so distances can be measured on 1:50,000 OS maps and nautical charts.

To measure a straight line distance place the corner of the scale at the start point and align the edge of the scale with the end point. Read off the distance.

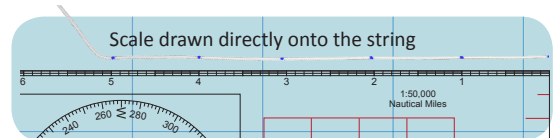
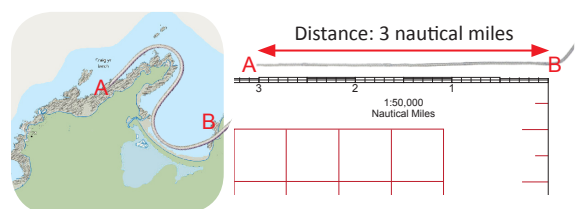


### Using the plotter string

The plotter string can be used to measure a straight line distance; stretch the string between the start and end point and then measure against the appropriate scale.

The string can also be used to measure an indented coastline; align the string with the edge of the coastline (point A to point B) and then measure this against the appropriate scale.

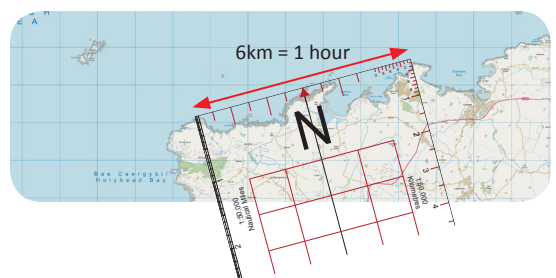
The scale can also be drawn directly onto the plotter string.



### Calculating speed

The top edge of the plotter is 6 kilometres (roughly 3 nautical miles), which is approximately 1 hour of paddling.

Align the top edge of the plotter with the start point and the direction of travel, then measure the distance; 6km (full width of plotter) = 1 hour of paddling.



## Taking a bearing

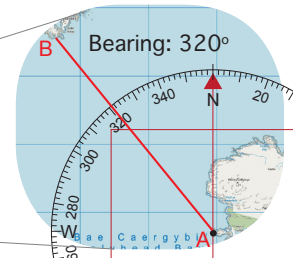
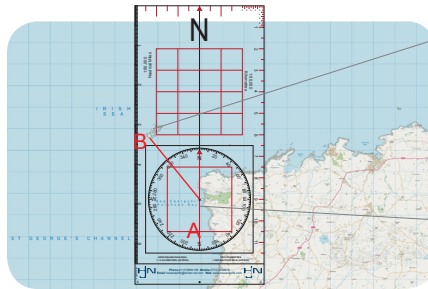
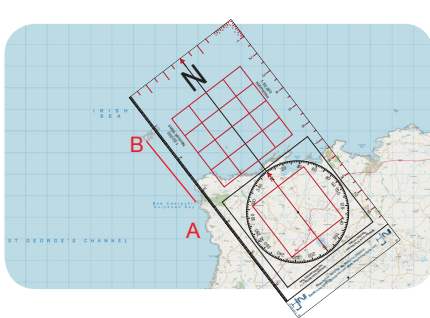
### Using the edge of the plotter

Using the edge of the plotter draw a line between the start (A) and finish (B).

Place the centre of the compass rose on the start point.

Align the edge (or internal grid) of the plotter with the gridlines on the map (or the lat and long on a chart).

Read off the bearing; where the line crosses the compass (320°).



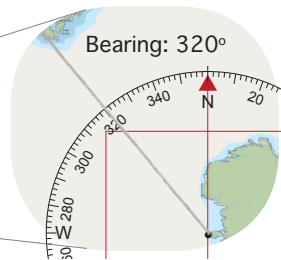
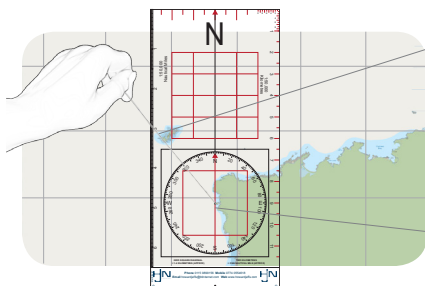
### Using the plotter string

Place the centre of the compass rose on the start point.

Align the edge (or internal grid) of the plotter with the lat and long on the chart (or the gridlines on a map).

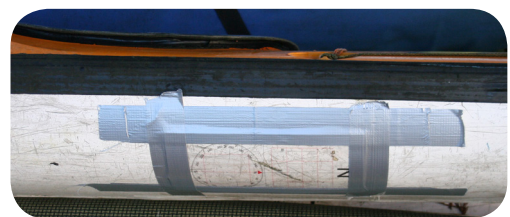
Align the plotter string with the direction you want to travel.

Read off the bearing - where the string crosses the compass (320°).



## Making a boat repair

The plotter is flexible enough to mould to the hull of a boat, and can be used as a temporary repair patch for a damaged hull.



# About the SCANA and its designer

The SCANA has been designed by Howard Jeffs, a BCU Level 5 kayak Coach and holder of the Mountaineering Instructors Certificate.

After years of using sailing and mountaineering navigational instruments I decided that it was about time sea kayakers they had their own specialist instrument, and so the SCANA was born.

If you would like to learn more or develop your navigational skills, be it in the hills, mountains or on the sea, then I run a range of certificated and non-certificated courses for all levels of ability.

Visit [www.howardjeffs.com](http://www.howardjeffs.com) for a video clip on how to use the SCANA, as well as full range of outdoor courses to suit all needs and every level.



*While every effort has been made to ensure the accuracy of this navigation aid, its use and any subsequent calculations rest wholly with the end user.*