



How to draw your own weather charts

Simon Keeling shows how to transfer what you hear on the Shipping Forecast to paper

Last month we began looking at the process of drawing up your own weather charts. This month, we will put pencil to paper. So far, you will have listened to the Shipping and Inshore Waters forecast, jotted down the information given and have it in front of you.

For day sailing, in a single sea area with a settled weather situation, this may be all that you need. But if you are planning a longer trip or have not had recent access to the weather charts, it's vital that you draw up your own chart to get an appreciation of the overall situation. The question is, where to start? The most useful of the Shipping and Inshore Waters forecasts have traditionally been those broadcast at 0048 and 0520. These forecasts contain reports from coastal stations, as well as the area forecast.

You will need:

- A Met Map. I have placed a link to the Met Map on my website www.sailingweather.co.uk. You might like to print one of these charts and laminate it for use on board.
- A sharp pencil (and an eraser for those inevitable mistakes!)
- Patience and time to practise.



Practise at home so you can quickly draw up the day's chart on board



'Low south-east Bailey 1001'

General synopsis

1 You can use the General Synopsis of the forecast to mark on any highs, lows or fronts which have already been mentioned. Because of time, the General Synopsis is sometimes curtailed and only includes the major features, but it is a useful starting point for our chart.

Wind

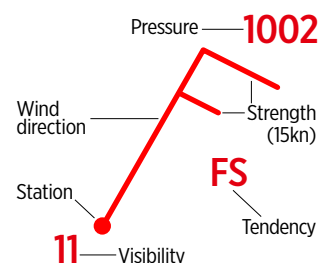
2 Using information from the coastal stations, first draw a wind 'stick' from the relevant station. The stations are conveniently marked by circles on the Met Maps.

The stick should point in the direction the wind is coming from. Now add wind speed. The convention for wind speed is to use one 'barb' for each 10 knots of wind speed. So use 1 barb for a Force 2, or 2½ bars for a Force 6, or 3½ bars for a Force 8. Being able to convert the Beaufort Scale to knots becomes useful here.



Anatomy of a wind stick

'Greenwich LV Automatic north-east or north poor 11 miles 1002 falling slowly'



Pressure

3 Mark this at the top right of the station circle. You can also mark here whether pressure is rising or falling. Use your own shorthand – perhaps ‘RMS’ to signify ‘rising more slowly’.



Weather abroad

4 You will have noticed that we only have coastal reports for the British Isles and Ireland, so we need to cheat a little to fill up our chart. Go through each of the shipping forecast areas and draw on the wind direction and speed given for each. The initial wind direction and speed forecasts given are essentially ‘now’. These will mostly tie in with the coastal reports.



‘Humber Thames variable or northerly 3 or 4 wintery showers. Good occasionally poor’

Isobars

5 Remember that winds flow with the isobars, and the closer the isobars, the stronger the wind. The accepted interval between isobars is 4mb and they are usually drawn in even numbers starting from 1000. So 1000, then 996, 992, etc, or 1004, 1008, etc. However, with strong winds, you can start by drawing them at 8mb intervals.

In a west or south-west wind, start by using the pressure at Valencia. Let's say it is 1000. Draw with the wind, left to right across the chart, to the next point that also has a pressure of 1000. This point may fall between two stations. If it does, estimate where this point might be. Once you are to the east of the country, take your pencil off the chart.

...and more isobars!

6 Now draw the next isobar, the correct interval away from your first one, and so on, until the chart is filled. With practice it may be possible to estimate where the isobars may be over the sea areas. This is easier in more distinctive wind flows. Isobars tend to flow in smooth lines, so see if you can keep them as neat as possible. The best time to practice drawing isobars is when you are not on board and can compare your chart with the ‘official’ surface weather chart.



Using the 4mb scale on the Met Map to plot the 996 isobar $f7 = 10\text{mm}$



Next month

What we've done here will tell you a lot about the conditions for sailing. Next month we will tackle the final piece of the puzzle – fronts. I will show you how to draw fronts on your chart, estimate their speed and draw in other information. ▲



Dr Simon Keeling's latest CD-ROM, GRIB for Sailors, explains how to plot your own forecast charts using free online data.

