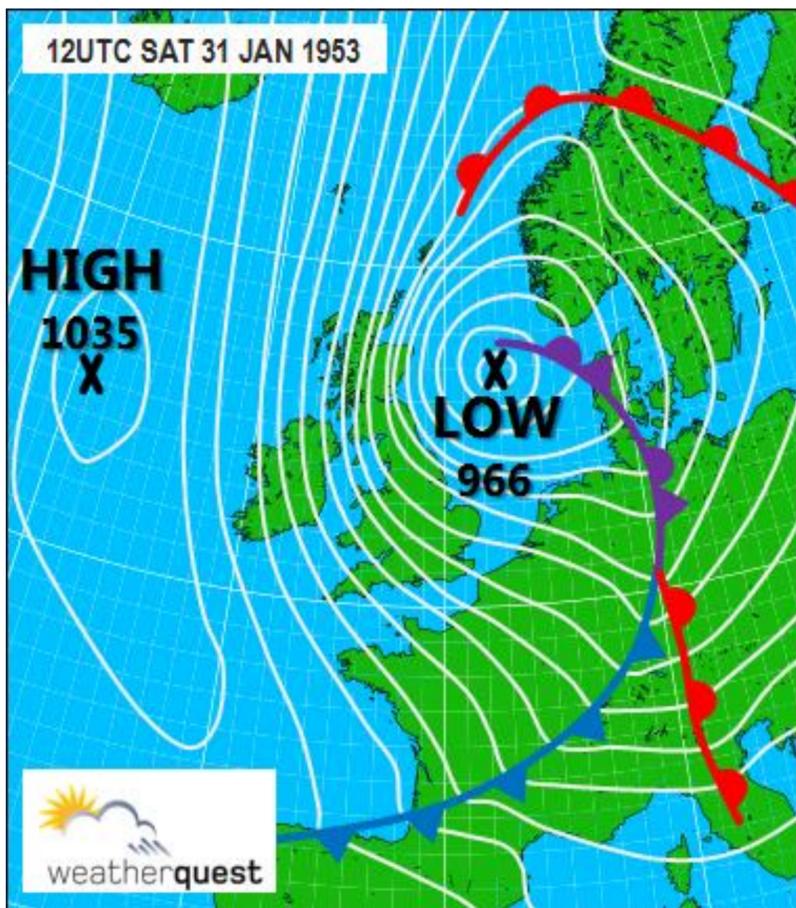


# Did you know?

## You are living at the bottom of the sea

We are living at the bottom of a sea of air. It is very heavy and presses down on us all the time, but we are used to it, so we don't notice it. Birds have learned to use it, by floating through its layers on their wings. We use currents of air to push propellers on wind generators or to go on holiday ... in aeroplanes. Air currents also move up and down making hills and valleys. A hill of air pushes down on the sea, creating **high** pressure. A valley of air is lighter in weight, allowing the sea to lift as the pressure is **lower**. A map of hills and valleys can be drawn just like hills and valleys are mapped in land with contour lines called **isobars**.



You can see the white lines on the isobar map. The point X above the **LOW** is the bottom of a valley with very light pressure. Another X below the **HIGH** is the top of a hill of air creating a lot of pressure onto the water below it.

The white lines are numbered in **millibars** which is a pressure measurement. 966 millibars is very light and 1035 is very heavy.

1 millibar of pressure can make a difference of up to 1cm in the height of the water. The atmospheric pressure of air from very high to very low, could make a difference of almost a metre in the height of the water.

**Wow! That's a lot.**

**BUT - there's something else ...**

The isobars also show the **wind direction**.

The closer the lines are, the higher the wind speed.

The wind blows along between the lines and in the **LOW** valleys goes in an **anticlockwise** direction.

### Question about isobar lines

*Is the wind blowing from East Anglia towards Scotland? OR  
Is it blowing from Scotland southwards towards Woodbridge?  
Is the wind stronger in Scotland or in France?*

The wind is blowing from north to south.

It is windy in Scotland, but less windy in France.

Also ...The date on the map is important **31 January 1953**. Why?