

Reading a Weather Chart

Met Éireann, the Irish National Meteorological Service, is the main provider of weather information in Ireland. To help us visualise what type of weather is on the way, forecasters create weather charts by using satellite imagery, radar information, maps and local knowledge. These charts are shown during weather forecasts on telly, in newspapers and online (www.met.ie). Here is information to help you understand them:

Isobars

Isobars are the lines on a weather chart and these join points of equal pressure. When the lines are close together, the wind is strong. When the lines are far apart, the wind is light. The wind blows almost parallel to the isobars.

Charts showing isobars are useful because they identify features such as **anticyclones** and **depressions**, which are associated with particular kinds of weather.

L = centre of a low pressure area/depression

This is usually associated with unsettled weather.

It brings strong winds, rain belts and perhaps snow in winter.

In the northern hemisphere, wind around a low pressure system blows anticlockwise.

H = centre of a high pressure area/anticyclone

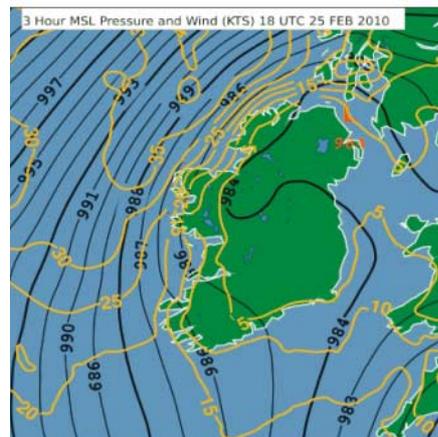
This is usually associated with settled weather.

It brings cloudless skies.

In winter clear skies and light winds can mean frost and fog.

Wind around a high pressure system blows clockwise.





Weather chart with isobars, 25 Feb 2010

What are fronts?

A **warm front** is the edge of a warm air mass. It looks like this on a weather chart:



Ahead of a warm front there is usually a wide belt of rain.

Behind the warm front the temperatures increase and the rain gradually eases.

A **cold front** is the edge of a cold air mass. It can move twice as fast as a warm front. It looks like this on a weather chart:



Ahead of a cold front there is a narrow rain belt.

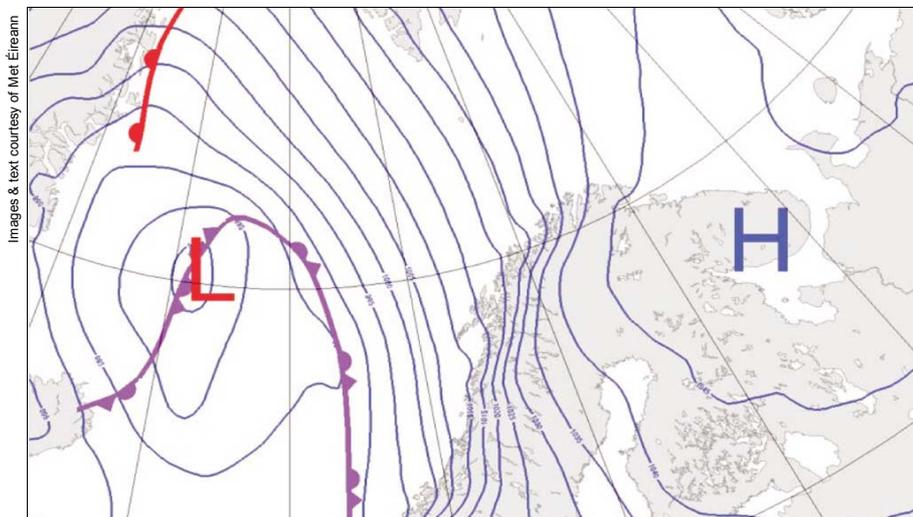
Behind a cold front the weather is brighter but the temperature is cooler.

An **occlusion** brings weather similar to a warm front. It looks like this on a weather chart:



It usually forms when a cold front catches up with a warm front.

Can you read this weather chart?



Images & text courtesy of Met Éireann

The information on this page is from Met Éireann's Primary School Resources page on www.met.ie/education, where parents, teachers and children will find resources on weather-related topics that have been designed for use in primary schools in Ireland.