weather to fly

From the moment you start hang gliding or paragliding you must begin to take notice of the weather; it dictates whether you can fly or not. Strong or gusty winds and deteriorating visibility are among the conditions you'll learn to avoid. Meteorology is a complex subject, but there are a few simple rules you can start with.

Firstly, find a reliable source of weather forecast. These range from those specifically aimed at aviation (including those found on the internet) to the recorded BT Weathercall type. In between are radio and television and newspaper forecasts. Strangely, they all come from the same source (the London Weather Centre) but they all interpret or select the information to suit their customers' particular requirements.

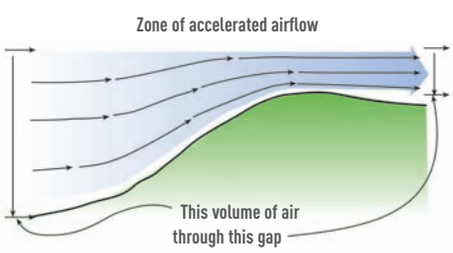
You should be able to scan a TV or newspaper chart (they are usually accurate) and get a general idea of the expected weather for your region over the next twelve hours or so. Do you know, for example, what kind of weather a 'low pressure' area will bring, or what closely packed 'isobars' mean in terms of wind speed? As you progress through your training course you will learn about the wind gradient and about localised turbulence (see also Flying in Moving Air on page 42).

When visiting a site you will need to ask about local conditions and be able to assess take-off and landing areas. Specifically, you must know what the wind speed is. The best way to do that is to carry your own wind meter (ventimeter), a small, light and inexpensive device that gives give a fairly accurate indication of wind strength. Your Instructor will teach you how to recognise dangerous conditions and how the behaviour of your wing while on the ground can be used to double check whether it is within your capabilities to launch.

Later on you will need to know how 'thermals' are produced, and how you can use them to fly cross-country. All this information on the site and its associated weather patterns forms the environment in which you want to fly - study it, ask about it, think about it - and learn.

measuring wind strength and direction on a hill

Hand-held wind strength meters are reasonably accurate, but they can only measure the wind close to the hill and consequently they can be susceptible to localised effects. Wind gradient can result in the pilot measuring a totally misleading wind speed, and not holding the instrument parallel to the airflow may make it under-read badly. Furthermore, a phenomenon known as the venturi effect - created by all hills to a greater or lesser effect - causes the airflow to be accelerated as it passes over the hill (just as it does to generate lift over a wing) This can result in a much altered measurement of windspeed at ground level compared with at a realistic flying height.



A strategically placed windsock which inflates at a known velocity is a useful tool, but it is worth remembering that the windsock will only demonstrate what is happening in its immediate vicinity. The illustration below shows a typical situation where a pilot with only one windsock could become confused if he or she had not taken into account the shape of the site.

Flying meteorology is a rich and interesting area for study. As you progress through the Pilot Rating Scheme your need for a greater understanding of weather will increase. Initially your instructor will help you; later on your club will usually offer meteorology lectures, and you may choose to study one of the wide range of weather books available from schools, dealers and the BHPA shop.