

# **Dartmoor Weather**

**Andy Waters    Revised September 2015**

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Westerly and South-Westerly winds predominate over Dartmoor. These winds bringing Atlantic air masses release their rain on the first high ground they encounter; Dartmoor and Bodmin Moor. As a result, Dartmoor has a climate which is **wetter, cloudier, foggier, colder and windier** than the surrounding lowlands. The North Moor, with its higher tracts of land, is generally the hardest hit.

If we take Princetown (altitude 420m) as an example, the average temperature is **around 3 degrees Celsius colder** than on the fringes of the moor, with **over twice the annual rainfall**. Wind-speeds above an altitude of 400m average twice that at sea-level during the summer months, rising to 3 times during November to March. The combination of colder air and stronger winds, as well as increasing the wind-chill factor, makes snowfall more common; sleet at 2°C with a 10 mph wind on the edge of the moor, can be a minus 2°C blizzard with 30 mph gusts on the high North Moor.

As a general rule, **temperatures fall by one degree Celsius for every 100m of height**, combined with the heavier rain and stronger winds likely to be encountered on higher ground,

quality waterproofs, hats and gloves, and warm spare clothes are essential. Clothing is dealt with fully in other parts of this Guidance Booklet. Similarly, good quality tents, insulating mats and sleeping bags are essential for overnight trips in all seasons; camp sites should offer some shelter, and should be at least 4m above any streams or watercourses; **Dartmoor's rivers rise spectacularly, and dangerously**, both during and following periods of heavy rain, and route-planning must take this into account. Mist or fog can seriously hamper navigation, and teams should be competent in compass use, timing and pacing as well as having straightforward escape routes; heading downhill towards a road is often the simplest contingency plan!

As well as choosing appropriate equipment, teams and team managers can prepare themselves for the weather in a number of ways. **Hourly weather-watching** is a key skill; look out for winds 'backing' (shifting anti-clockwise) and gaining in strength, accompanied by thickening cloud; this is a sign of the onset of worsening weather. If the wind 'veers' (shifts clockwise) and dies down, this signals the passage of a front and usually an

improvement in the weather. Watch the clouds for level and thickness, particularly to the West and South West where impending changes may be seen first. Similarly, watch for the towering black 'anvil' clouds, especially in warm or close weather, which may precede violent thunderstorms. If you have a watch with a barometric pressure sensor, which will need to be re-set at known heights, **rapidly falling pressure inevitably means a change for the worse** in the weather.

**Weather forecasts are crucial**, and should be checked immediately before setting out: do not be afraid to change your routes or your day-plan if the weather makes it potentially beyond your team's capacity. I recommend the following links:

[www.metoffice.gov.uk](http://www.metoffice.gov.uk) and search/save Two Bridges, Rough Tor, Yelverton, Bellever or Dartmeet, for which there are specific forecasts:

[www.bbc.co.uk/weather/2636174](http://www.bbc.co.uk/weather/2636174) for a Tavistock forecast:

[www.bbc.co.uk/weather/2639885](http://www.bbc.co.uk/weather/2639885) for a Princetown forecast.

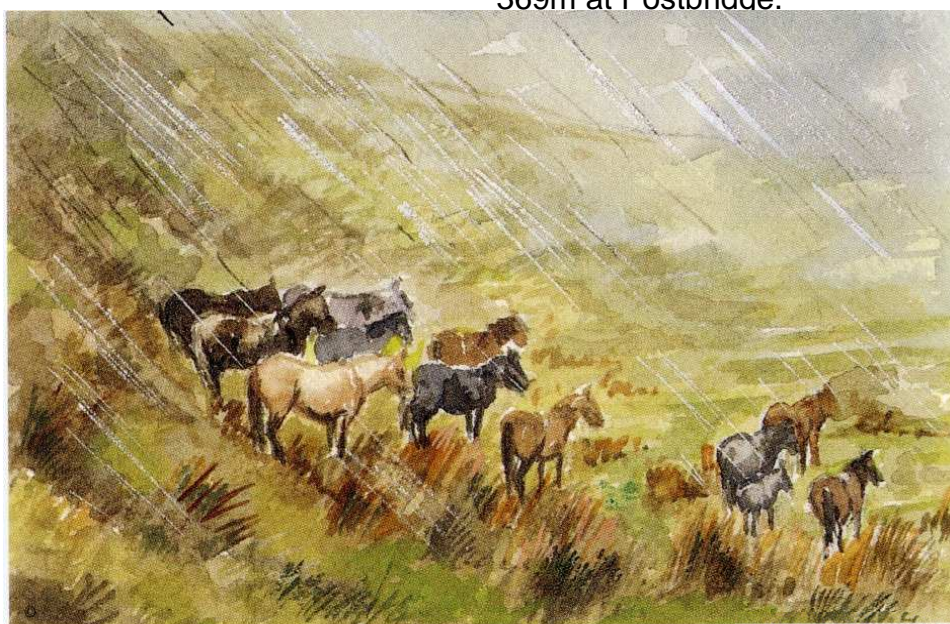
For those interested in more detailed meteorological forecasting and records – or maybe as a project for your team members during the training phase, perhaps in conjunction with a school's Geography or Science departments - the following sites are both of value and interest:

<http://www.lyneside.demon.co.uk/Haytor/automatic/Current Vantage Pro.htm>

This site is at 310m on Haytor and gives actual weather readings at 30 minute intervals including temperature, rainfall, humidity, wind speed and direction, and barometric pressure as well as graphs showing recent patterns.

<http://www.dartcom.co.uk/weather/index.php>

This site gives the same information as above, but recorded from an altitude of 369m at Postbridge.



4. Ponies in the rain

Elizabeth Kitson