



Weather Logistics
Seasonal Forecast



Summer weather FAQs 2010

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The art of weather forecasting extracts all the possible evidence from key predictors in the atmosphere and oceans from an array of observations. Forecasters then project the likely cause of events that will impact upon the public in the future. Diagnosing the developing weather conditions in the coming months is very difficult and subject to large uncertainties, since a range of atmospheric states can lead to quite different future scenarios. At OnlineWeather.org.uk we rely on the use of a complex network of holistic methods, to decipher the preferred states of the atmospheric flow and jet-stream, so that we are more able to inform users about the coming seasons. When forecasting months ahead, we describe the general course of the weather patterns rather than identifying specific events. By examining all the fundamental parts that drive the weather it is hoped that we can gain a clearer picture of the dominating weather that is likely to impact upon different regions of the UK.

Q&A's [Seasonal weather forecast for summer 2010]

-The seasonal forecast for the summer is valid for three months during the period from 18th June to 31st August

Question...

Is it more likely to be sunny in the UK during 2010 than 2009?

Answer...

[2010]: The domination of high pressure during summer 2010 will make it more likely that the weather will be rather dry for much of the UK. The Azores high is more likely to dominate the weather during summer 2010 than 2009, because of patterns in the sea surface temperature (SST) anomalies over the North Atlantic Ocean. In general the sea temperatures indicate a weakened N-S gradient in temperature, and so a tendency towards a weak mid-latitude jet. The SST anomalies now indicate that storms approaching from the south-west are likely to be an out-side risk for central-southern England (down-graded from the initial forecast). A blocking high is now more likely to maintain hold, than initial forecasting would suggest, though the risk of thundery rain approaching from the European continent is a continuing risk reducing the chance of drought conditions in much of the south. The elongated blocking high is still dominating the UK's weather, though the feature is rather weak. We now fore-see that a north-easterly flow may have a cooling effect on the summer weather bringing more cloud and showers to the east during the early summer. The south and east will tend to experience the hottest and driest weather. The present signal tends to indicate a settled and mostly dry and hot end to the summer.

Q. What is the risk of flooding during summer 2010?

A. Extreme flooding events during summer 2010 are likely to be in the form of localised mesoscale rainfall, clustered within severe thunderstorms. Large-scale flooding as a result of Atlantic synoptic low pressure systems is low, due to a lower storm activity and a tendency towards anticyclonic conditions. An omega-blocking pattern over central and Western Europe, is likely to increase the risk of thunder-storms approaching from France. A large amount of wet weather will be associated with a stagnant trough forming at times ahead of the Azores ridge. This will lead to overcast and damp conditions for periods, particularly later in June and early in July. The activity of weather systems in the North Atlantic Ocean is low, and we expect little large-scale heavy rainfall to reach the UK. It is more likely that showery weather will dominate the UK in the north and Scotland, whilst drier conditions dominate the weather south of the borders. It is likely that hot weather will affect the south of England for extended periods later in the summer, particularly August.

Q. Where will the jet stream be positioned during summer 2010?

A. The general upper level air-flow will direct weather systems from the north-west into the UK, so large-scale rainfall will tend to affect the north-western regions. The strength of the jet is now expected to be weaker than previous forecasts would suggest, leading to cloudy and damp conditions rather than intense and heavy rainfall in the north. Systems moving from the north-west are likely to carry less intense rainfall than those circulating the blocking high from the south or south-west, so in general it is likely that summer 2010 will be drier than 2009. The general signal is that there will be a clear north-south divide in temperatures, with rather cool conditions in the north and west.

Q. Will it be a hot summer during 2010 in the UK?

A. It is likely that the domination of high pressure during summer 2010 will mean that temperatures will exceed 30C (86F) in the south-east of England on several occasions. Since our initial forecast, we now think that a cooler north-east to north-westerly air-stream will lead to fresher conditions in the early part of the summer. High pressure is likely to build directly over the UK later in the summer, perhaps leading to prolonged periods of hot and dry weather for most regions. The developing La Nina conditions in the tropical Pacific, and the north-easterly flow across the coasts of France and Spain tend to indicate that the summer will be less hot than previously thought in the south. We now think that summer 2010 will be slightly above average in the south-east, whilst sunshine totals are expected to remain above average for most regions. The current polar maritime flow trajectory is bringing fresh and less moist air into the UK from the north-east. Early in the summer, extreme highs of temperature are less likely than later in the summer during 2010. The north-sea is likely to dominate our weather in the early summer, bringing cloudy and showery conditions.

Q. Will we have water shortages or a drought during summer 2010?

A. It is likely that summer 2010 will see very dry conditions for many parts of the UK at times. The synoptic scale rainfall will be irregular and regional. Parts of the south may experience some extremes of heavy rainfall, as thunder-storms track from the continent. It is unlikely to be dry for extended periods of time, as the blocking high is relatively weak, allowing some synoptic weather to pass

from the west. An omega-blocking system will lead to a trough and stagnant low pressures developing over the UK and Western Europe. Later in the summer it is more likely that high pressure, hot and dry conditions will dominate.

Update: Seasonal forecast FAQs (18th June, 2010)

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