

Met Office 3-month Outlook

Period: September-November 2016 Issue date: 25.08.16

The forecast presented here is for September and the average of the September-October-November period for the United Kingdom as a whole. The forecast for September will be superseded by the long-range information on the public weather forecast web page (www.metoffice.gov.uk/public/weather/forecast/#?tab=regionalForecast), starting from 2 September 2016.

This forecast is based on information from observations, several numerical models and expert judgement.

SUMMARY – TEMPERATURE:

For September and September-October-November, above-average temperatures are more probable than below-average.

Overall, the probability that the UK-mean temperature for September-October-November will fall into the coldest of our five categories is between 15% and 20% and the probability that it will fall into the warmest of our five categories is 30% (the 1981-2010 probability for each of these categories is 20%).

CONTEXT:

The El Niño-Southern Oscillation (ENSO) in the tropical Pacific Ocean is currently in a neutral state. Sea surface temperatures in the central tropical Pacific Ocean are slightly cooler than average. There is still potential for La Niña to emerge later this year, but if an event does develop it is likely to be weak. The effects of a developing weak La Niña on UK weather patterns during the coming three months are expected to be relatively small.

The cool ocean surface temperatures previously observed in the North Atlantic west of the UK have largely abated in recent weeks. This suggests that any westerly winds will not be as cool, relative to normal, as before. Warmer-than-average conditions persist along the North American coast all the way to the Labrador Sea. Such widespread warmth, both north and south of the Gulf Stream, does not increase the poleward temperature gradient, so is not expected to produce stronger westerly winds across the North Atlantic. Autumn is a transitional time of year when some patterns of

atmospheric circulation result in different temperature outcomes at the start and end of the season. For example, a pattern of unsettled, westerly weather across the UK would likely result in cooler-than-average conditions in September and milder-than-average in November. Likewise, winds from the east would favour warmer-than-average conditions early on but colder-than-average conditions later. There is currently poor agreement between long-range prediction systems from global forecast centres, including the Met Office, on the preferred types of weather expected over the next three months. As a result, the range of outcomes for temperature for both September and September-October-November as a whole is expected to be very similar to usual, with only a small shift towards warmer-than-average conditions (Fig. T2). This shift is consistent with the warmer conditions seen in the last 10 years compared to the climatological 1981-2010 period.

Fig T1

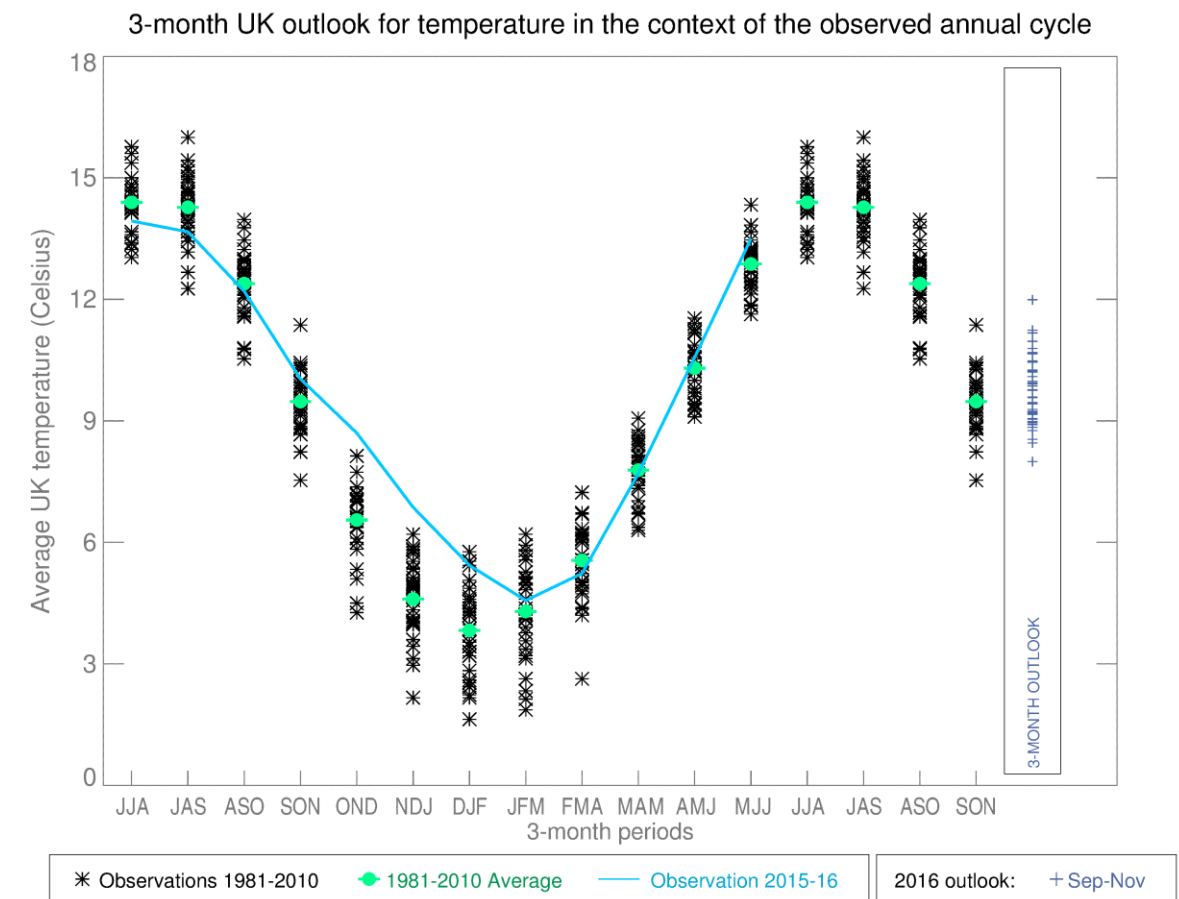


Fig T2

1-month and 3-month UK outlook for temperature in the context of observed climatology

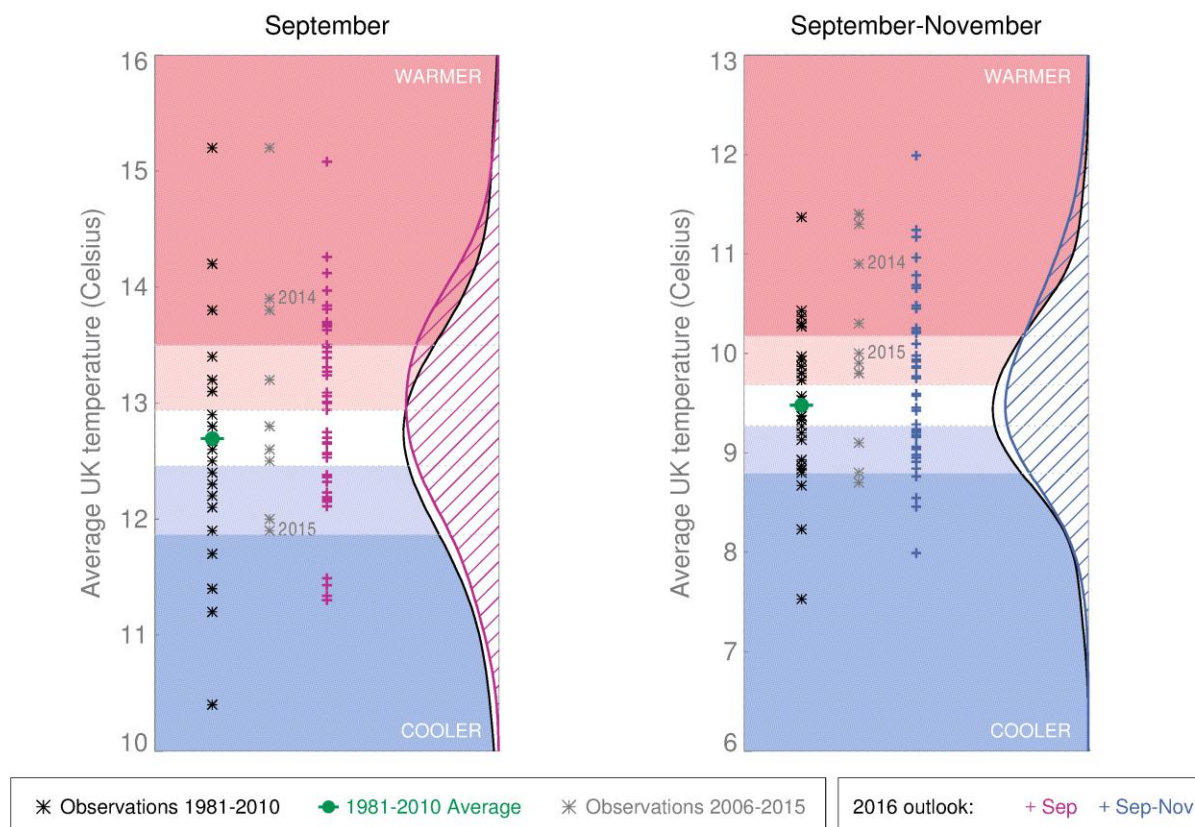
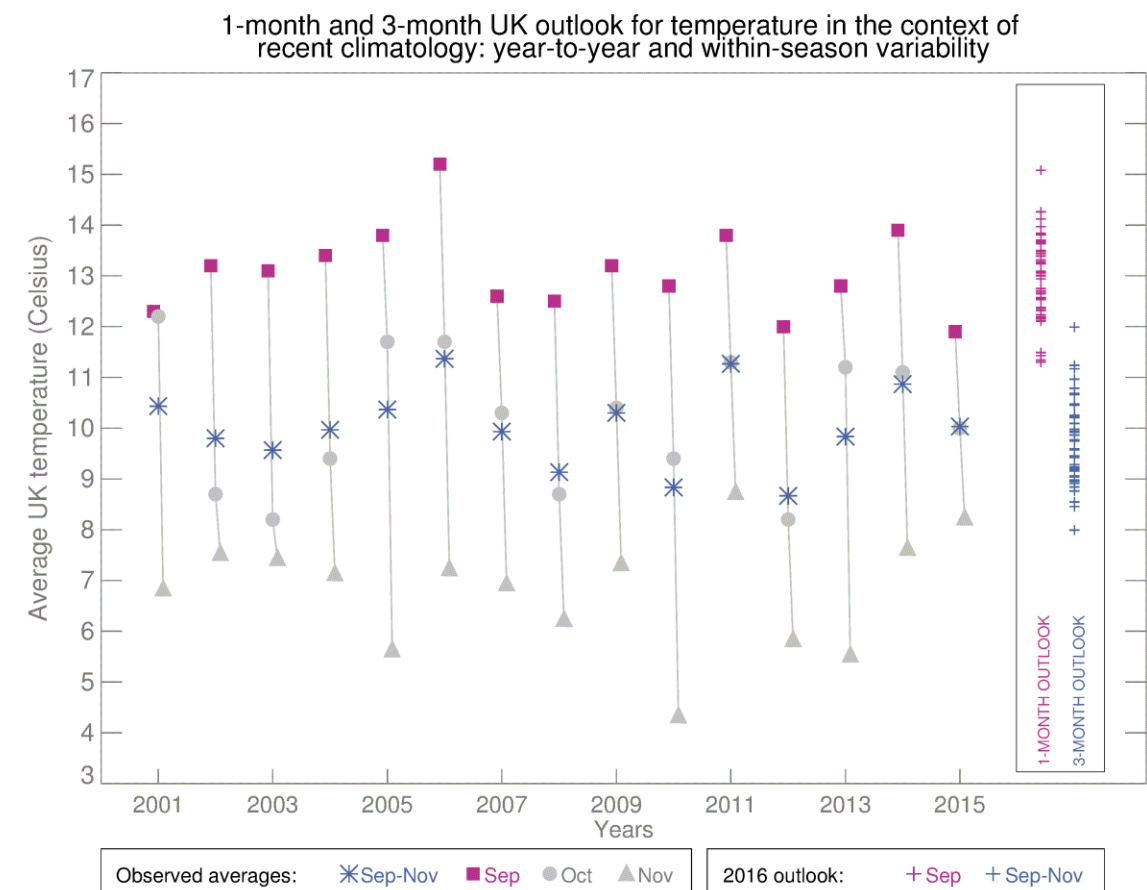


Fig T3



This Outlook provides an indication of possible temperature and rainfall conditions over the next 3 months. It is part of a suite of forecasts designed for contingency planners.

The Outlook should not be used in isolation but should be used with shorter-range and more detailed (30-day, 15-day and 1-to-5-day) forecasts and warnings available to the contingency planning community from the Met Office.