Met Office 3-month Outlook

Period: September-November 2014 Issue date: 28.08.14

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 The forecast for September will be superseded by the long-range information on the public weather forecast web page (www.metoffice.gov.uk/public/weather/forecast/#?tab=regionalForecast), starting from 5 September 2014.

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

SUMMARY - TEMPERATURE:

The latest predictions for UK-mean temperature favour above-average temperatures for both September and September-October-November as a whole.

Overall, the probability that the UK-mean temperature for September-October-November will fall into the warmest of our five categories is around 35% and the probability of falling into the coldest of our five categories is between 10 and 15% (the 1981-2010 probability for each of these categories is 20%).

CONTEXT:

After several months of warming, sea surface temperatures across much of the central and eastern tropical Pacific Ocean have now returned to nearer normal values. However, computer models and expert opinion suggest that temperatures over the central tropical Pacific Ocean may warm again during the coming months. There remains a chance that El Niño conditions may reinvigorate during the autumn with a weak event then considered most likely. A moderate strength El Niño cannot be discounted, but equally there is also a chance that El Niño conditions will fade completely. Either way, with El Niño conditions not yet established this factor is not expected to exert an influence on weather patterns in Europe during the next three months.

Of other potential drivers of large-scale seasonal variability at this time of year it is worth noting that whilst Arctic Sea ice extent by September is likely to be substantially lower than climatology, there are no clear indications of its influence on UK weather.

Meanwhile, whilst the recently high sea surface temperatures around the UK have waned as a result of the cooler spell of weather in August, temperatures remain above average across the western side of the North Atlantic. Such conditions would typically lead to a decreased intensity of jet streams over the Atlantic and a southward shift in their average position. This may favour a greater incidence of blocked weather patterns over the Atlantic Ocean, perhaps leaving the UK a little more likely than usual under the influence of areas of high pressure and thus of episodes of settled weather.

This signal for a greater incidence of blocking, with slightly higher than average pressure over Europe, is present in the computer models. Whilst differing in some aspects of likely atmospheric circulation patterns, these show good agreement in favouring above-average temperatures over below-average (Figure T2), particularly during the first part of the autumn.

It is worth noting that as autumn is a transitional time of year, a given circulation pattern can result in very different temperature outcomes between the beginning and end of the season. For example, a settled weather pattern in September would usually lead to above-average temperatures and warm daytime conditions but a similar pattern in November would likely result in colder than average conditions.

Fig T1 3-month UK outlook for temperature in the context of the observed annual cycle

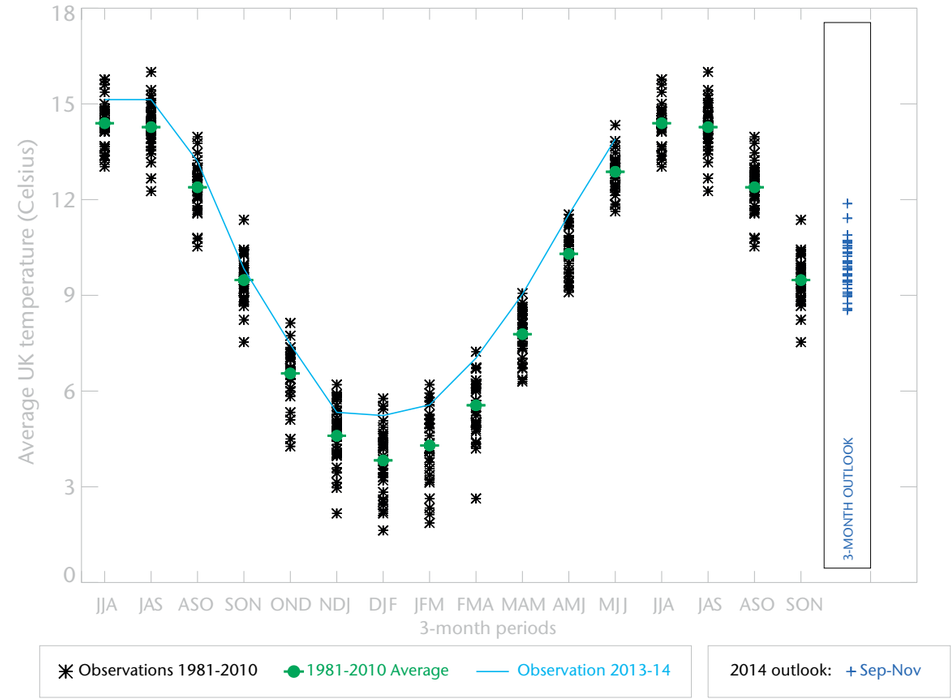


Fig T2

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

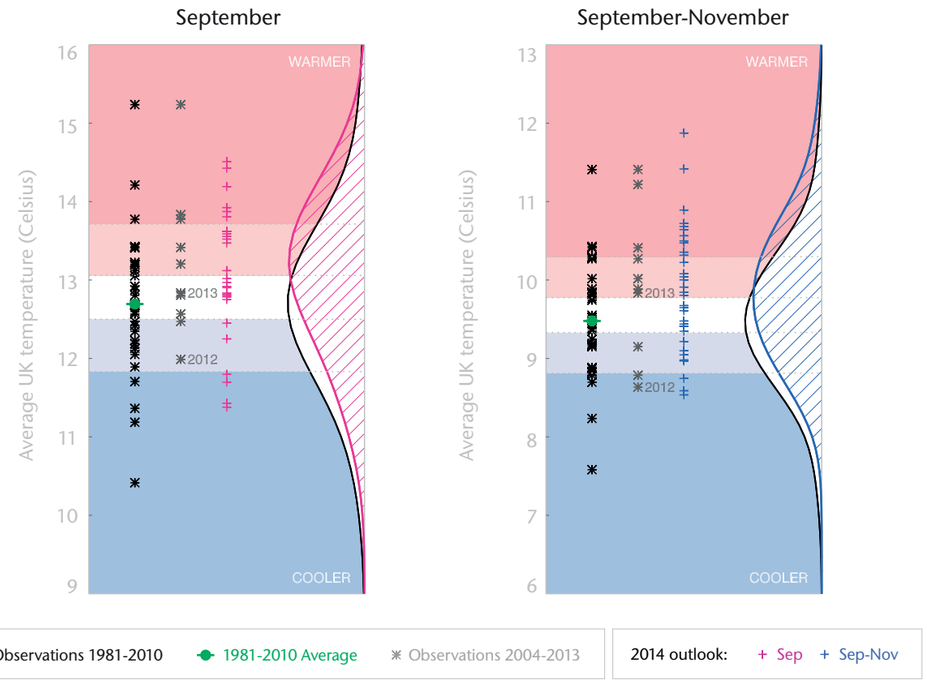
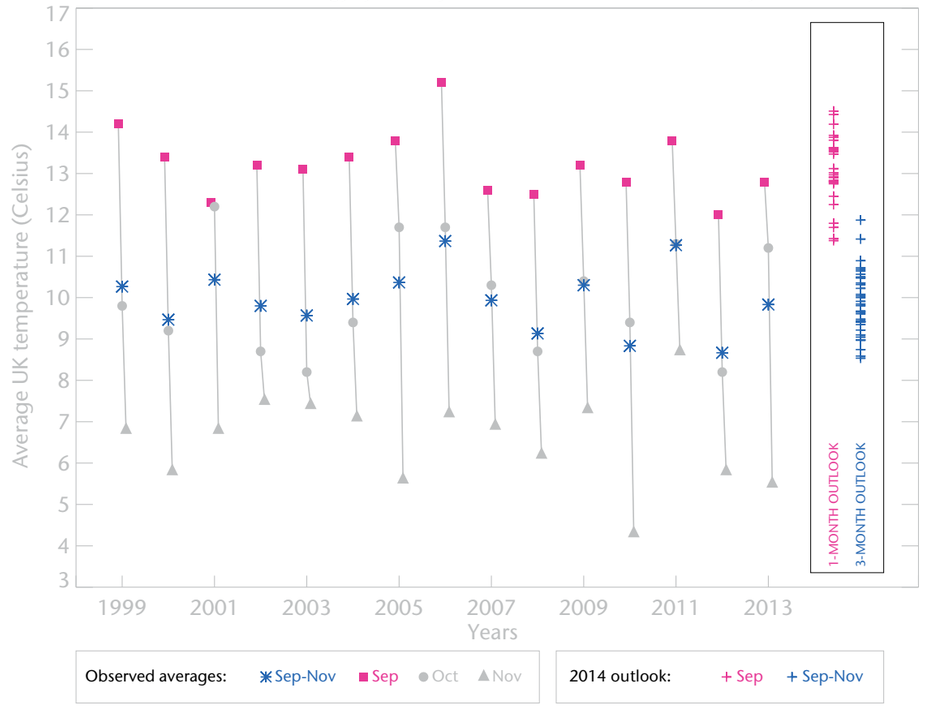


Fig T3 1-month and 3-month UK outlook for temperature in the context of recent climatology: year-to-year and within-season variability



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.