



Met Office 3-month Outlook

Period: October-December 2016 Issue date: 23.09.16

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 The forecast for October will be superseded by the long-range information on the public weather forecast web page (www.metoffice.gov.uk/public/weather/forecast/#?tab=regionalForecast), starting from 2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

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

SUMMARY – TEMPERATURE:

For October, higher-than-average temperatures are more probable than lower-than-average values. For October-November-December there are equal chances of higher-than-average temperatures and lower-than-average temperatures.

Overall, the probability that the UK-mean temperature for October-November-December as a whole will fall into the coldest of our five categories is around 25% and the probability that it will fall into the warmest of our five categories is also around 25% (the 1981-2010 probability for each of these categories is 20%).

CONTEXT:

The tropical Pacific Ocean is currently in a neutral to slightly negative El Niño-Southern Oscillation (ENSO) state. Sea surface temperatures in the central tropical Pacific Ocean are slightly cooler than average. There is still potential for La Niña to emerge in the remaining months of the year, but if an event does develop it is unlikely to be strong. A weak-to-moderate La Niña, coupled with a strong Indian Ocean Dipole, would continue to affect tropical rainfall, with probable enhancement of seasonal precipitation across the tropical western Pacific and eastern Indian Ocean.

North Atlantic sea surface temperatures are above normal through the Labrador Sea and also around the Grand Banks. Conversely, the area of ocean between these two positive anomalies extending from the waters around Newfoundland southeast into the western Atlantic exhibits below-normal sea surface temperatures.

These and other factors are reflected in the strong agreement between long-range prediction systems from global forecast centres, including the Met Office, for an increased chance for the period to start off with westerly winds from the Atlantic. These westerly winds are likely to bring unsettled conditions and above-average temperatures to the UK.

Agreement is also good for the October-November-December period, with climate prediction systems all showing an increased risk of higher-than-average sea level pressure anomalies developing to the west or north of the UK through November and into December. Signals from the long-range prediction systems from global forecast centres all show this development, with a weakening of westerly winds through November and December a common theme. Such an atmospheric pattern would result in an increased incidence of winds from a northerly or easterly direction.

As a result, atmospheric circulation patterns would favour colder-than-average temperatures, particularly through November and into December as the polar regions begin to cool.

Therefore, October has a greater-than-average chance of being warmer-than-average; however, the period as a whole has equal chances of being warmer-than-average and colder-than-average due to the increased likelihood of winds from the north or east through November and into December bringing colder-than-average conditions, these balancing out the relative warmth expected through October.

Fig T1

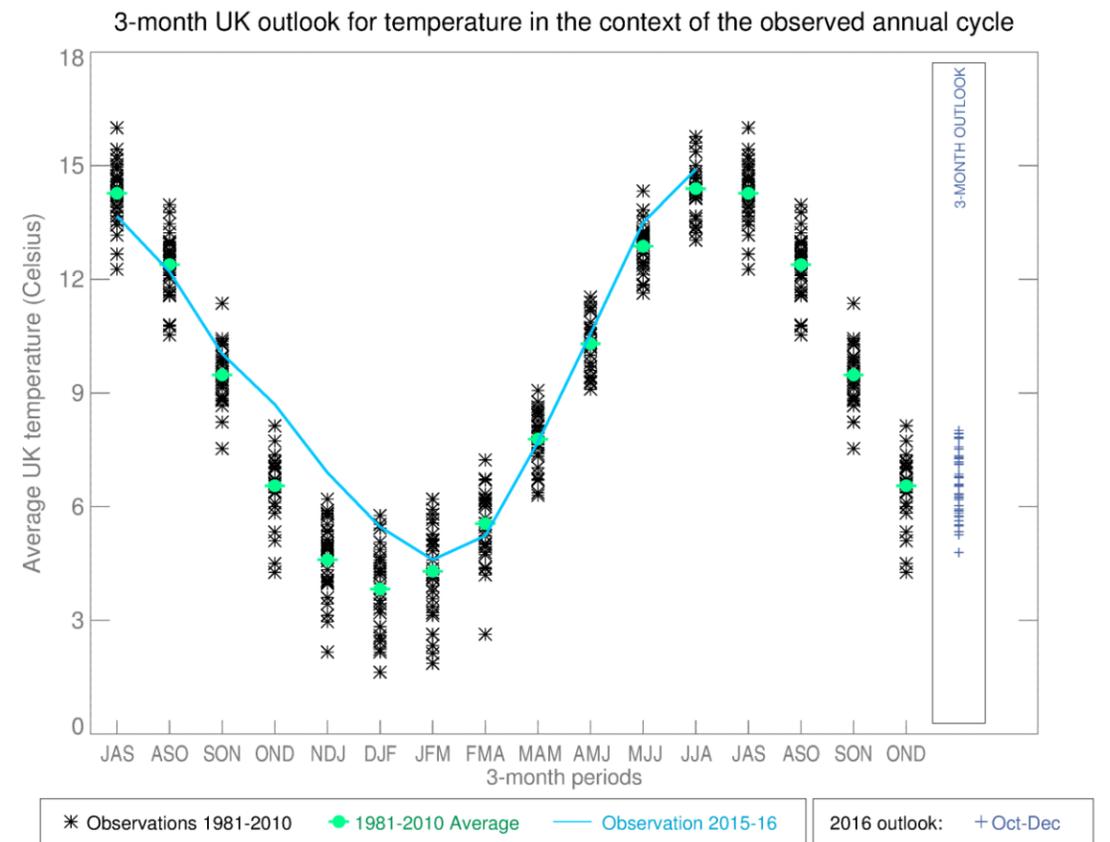


Fig T2

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

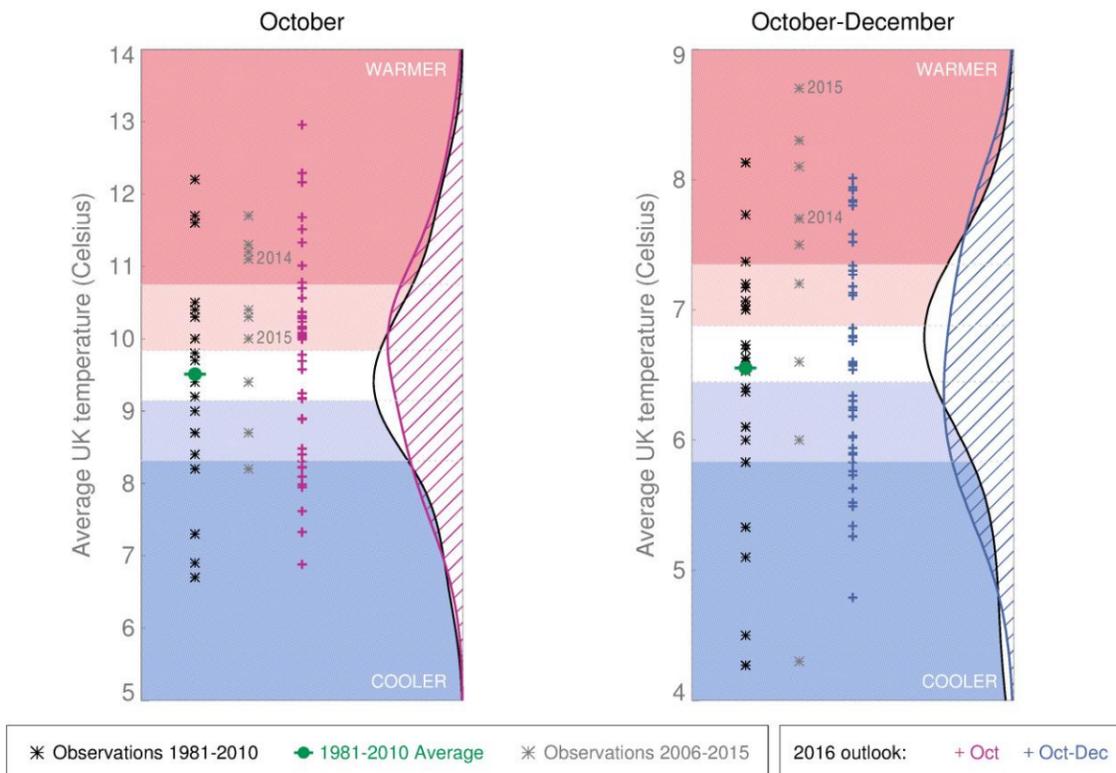
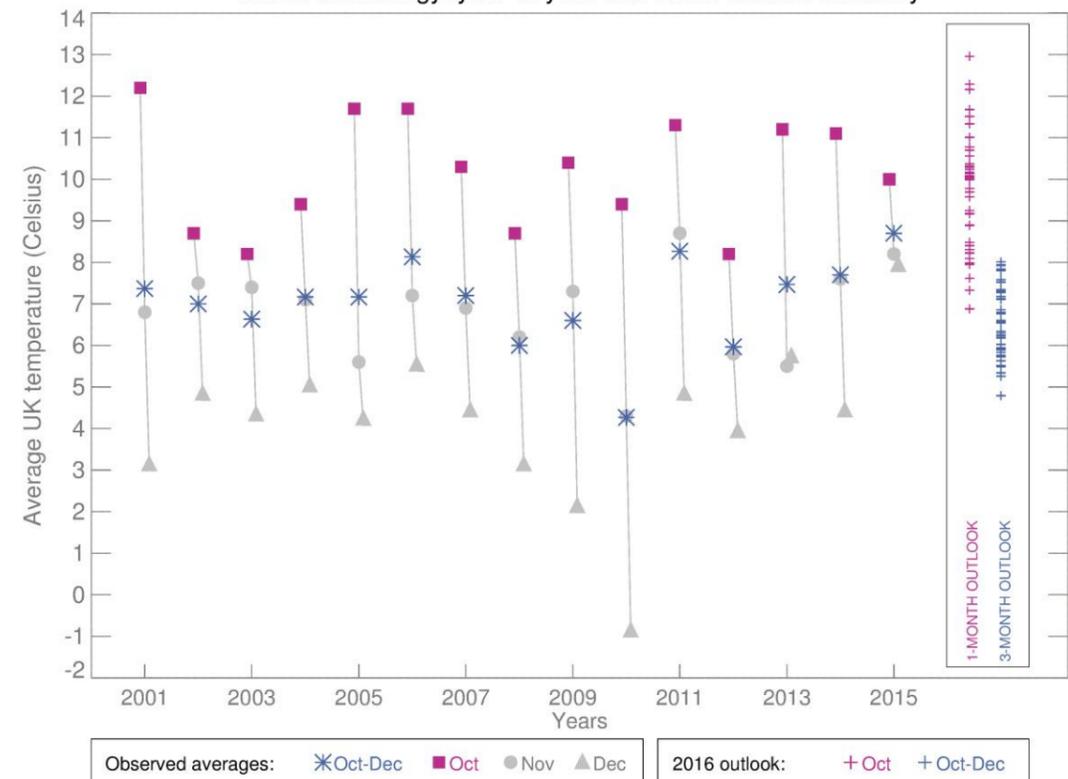


Fig T3

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.