



Met Office

Met Office 3-month Outlook

Period: February – April 2018 Issue date: 26.01.18

The forecast presented here is for February and the average of the February-March-April period for the United Kingdom as a whole. The forecast for February will be superseded by the long-range information on the public weather forecast web page (www.metoffice.gov.uk/public/weather/forecast/#?tab=regionalForecast), starting from 2 February 2018.

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

SUMMARY – TEMPERATURE:

For February, below-average temperatures are more likely than above-average temperatures. The likelihood of impacts from cold weather during February is greater than normal. For February-March-April as a whole, above-average temperatures are more likely than below-average temperatures.

Overall, the probability that the UK-average temperature for February-March-April will fall into the coldest of our five categories is around 20% and the probability that it will fall into the warmest of our five categories is 25% (the 1981-2010 probability for each of these categories is 20%).

CONTEXT:

La Niña conditions continue in the Tropical Pacific. While this event is likely to be close to its peak, it will still influence global weather patterns over the coming months. In late winter La Niña increases the chances of the positive phase of the North Atlantic Oscillation (NAO), which in turn increases the likelihood of milder-than-average conditions. Conversely, predicted patterns of rainfall in the Tropical Atlantic Ocean increase the likelihood of a negative phase of the NAO. The negative phase of the NAO usually brings colder-than-average conditions to the UK.

The Madden-Julian Oscillation (MJO) is an area of enhanced thundery activity that moves eastwards through the tropics over a period of several weeks. It has recently been active and is forecast to enter a phase that frequently leads to negative NAO. This implies an increased chance of colder-than-average temperatures in early- to mid-February.

The Stratospheric Polar Vortex (SPV) is currently stronger than usual and forecasting systems show little likelihood of a sudden stratospheric warming (SSW) in February. This supports a positive phase of the NAO

and an increased likelihood of milder-than-usual conditions, at least in the first half of the 3-month period. For February, long-range forecasting systems show moderate agreement on expected weather patterns, consistent with the competing influences on UK weather listed above. Overall, however, there is an increased likelihood of patterns that reduce the usual flow of mild air from the Atlantic Ocean, leading to a greater likelihood of colder-than-average conditions (see left-hand graph of figure T2). The chances of impacts from cold weather are greater than usual during February. For the February-March-April period overall, predictions from long-range forecasting systems show a more usual spread of potential weather patterns, and the chances of above-average temperatures are slightly greater than the chances of below-average temperatures. The small shift towards above-average conditions (see right-hand graph of figure T2) is consistent with the observed increase in UK temperatures compared to the long-term average.

Fig T1

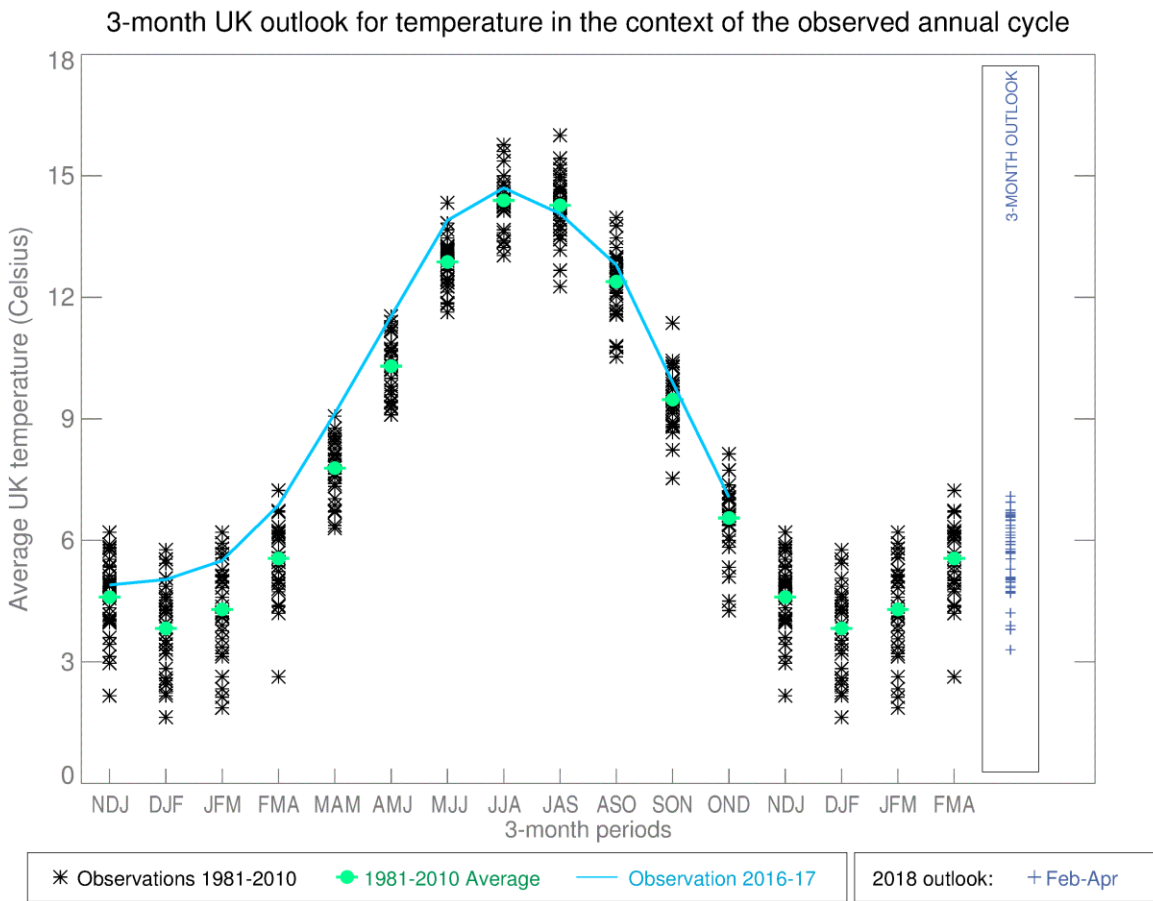


Fig T2

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

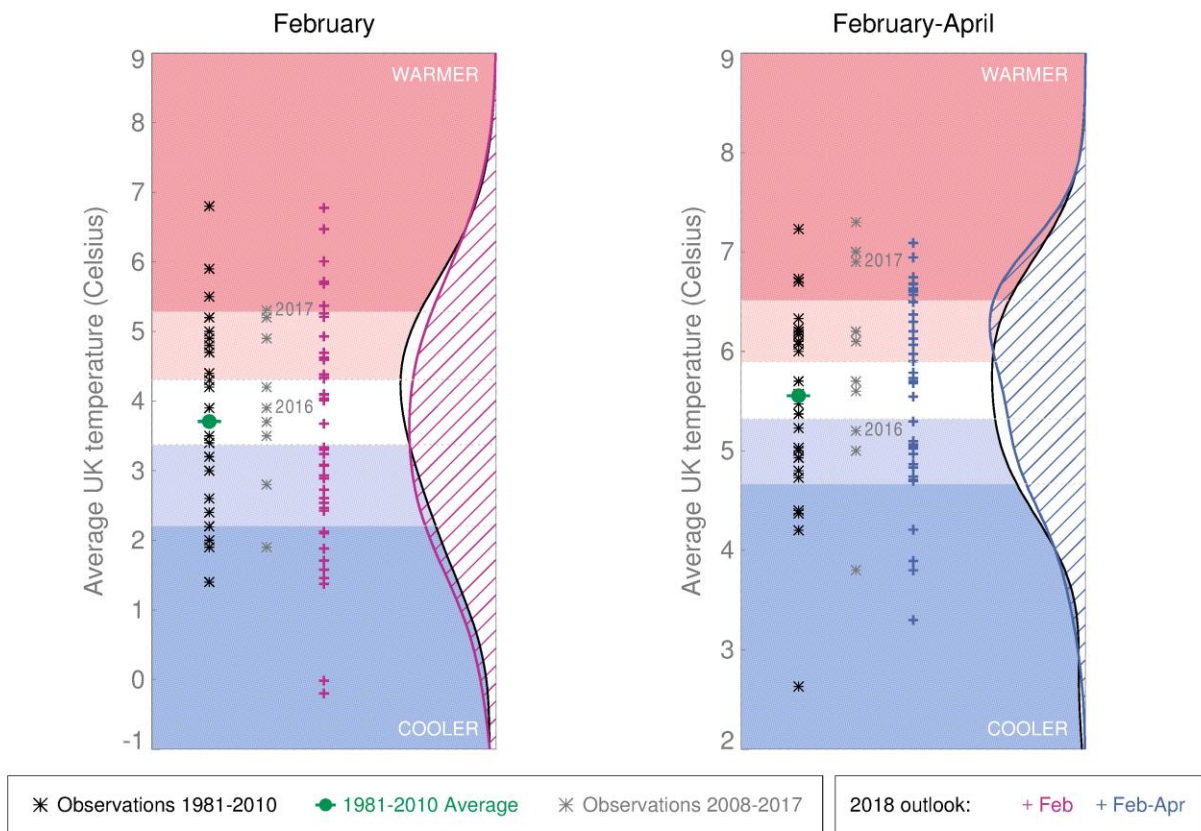
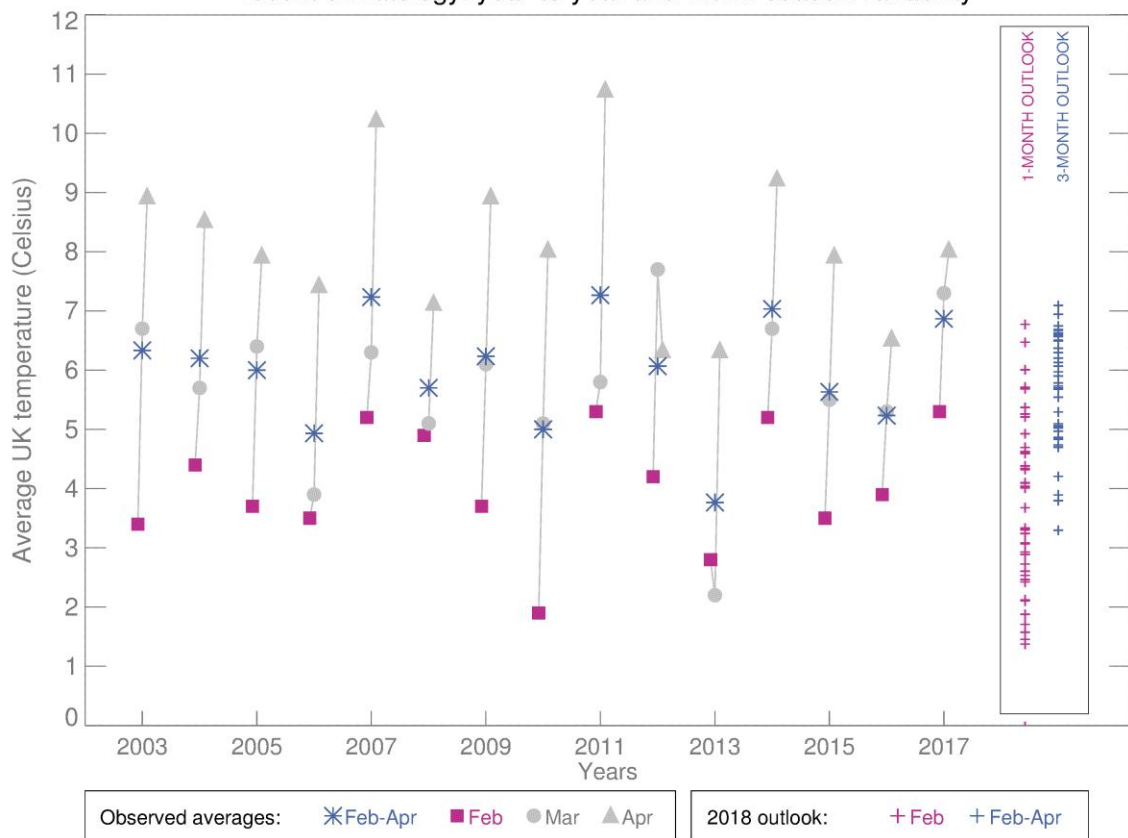


Fig T3

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.