Met Office 3-month Outlook

Period: March – May 2019 Issue date: 21.02.19

The forecast presented here is for March and the average of the March-April-May period for the United Kingdom as a whole. The forecast for March will be superseded by the long-range information on the public weather forecast web page (www.metoffice.gov.uk/public/weather/forecast/#?tab=regionalForecast), starting from 1st March 2019.

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

SUMMARY – TEMPERATURE:

For March and March-April-May as a whole, above-average temperatures are more likely than below-average temperatures.

Overall, the probability that the UK-average temperature for March-April-May will fall into the coldest of our five categories is around 10%, and the probability that it will fall into the warmest of our five categories is around 50% (the 1981-2010 probability for each of these categories is 20%).

CONTEXT:

Sea surface temperatures across the central Tropical Pacific are close to El Niño thresholds, and are likely to remain so in the coming months. Nevertheless, any influence of this on UK weather patterns during the Outlook period is likely to be small.

A Sudden Stratospheric Warming (SSW) event occurred in early January which led to disruption to normal westerly wind patterns. The stratosphere is now recovering, however, and stratospheric winds are expected to become stronger than usual. This increases the chances of a positive phase of the North Atlantic Oscillation (NAO) in March, leading to an increased likelihood of mild westerly winds from the Atlantic.

Sea surface temperatures close to the UK are currently higher than normal. This increases the chances of above-average temperatures in the early part of the Outlook period.

The Madden-Julian Oscillation (MJO) is an area of thundery activity that moves eastwards through the tropics over a period of several weeks. In early March it is expected to move into a phase that increases the likelihood of positive North Atlantic Oscillation later in the month.

For March, the Met Office long-range prediction system, along with systems from other centres around the world, shows that the chances of westerly winds from the Atlantic are moderately increased compared to normal. Together with high levels of warmth globally, this implies that above-average temperatures are more likely than below-average temperatures for the month as a whole (see left-hand graph of figure T2).

For March-April-May overall, predictions from long-range forecasting systems show an increased chance of the UK being influenced by a positive phase of the North Atlantic Oscillation. This, along with current high levels of warmth globally, suggests above-average temperatures are more probable than below-average temperatures. This shift is consistent with the warmer conditions seen in the last 10 years compared to the 1981-2010 climatological period (see right-hand graph of figure T2)

Fig T1

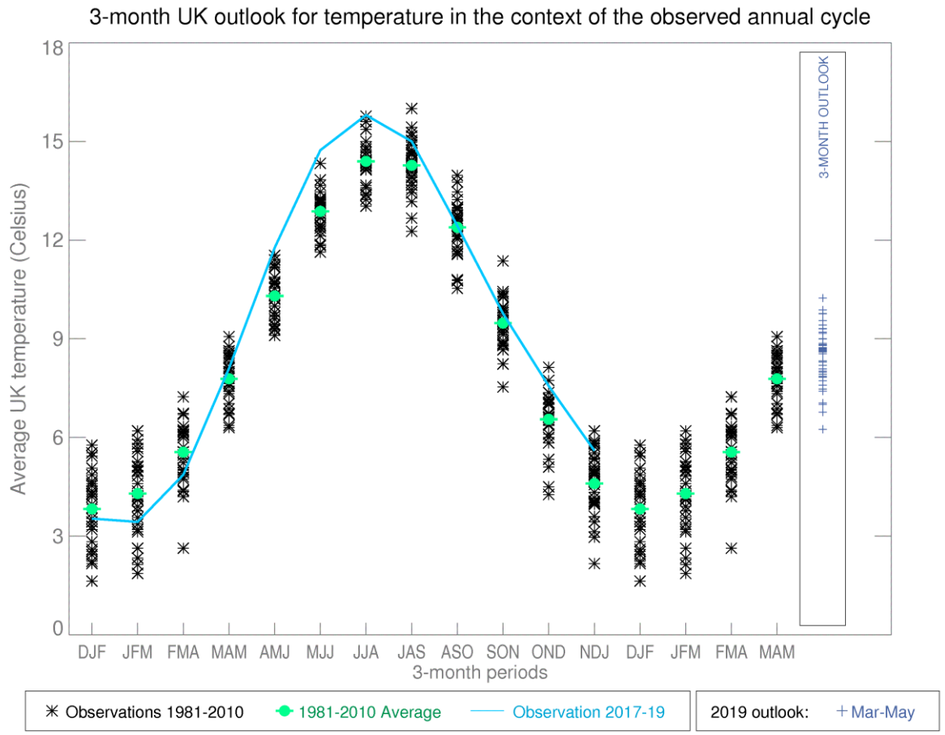


Fig T2

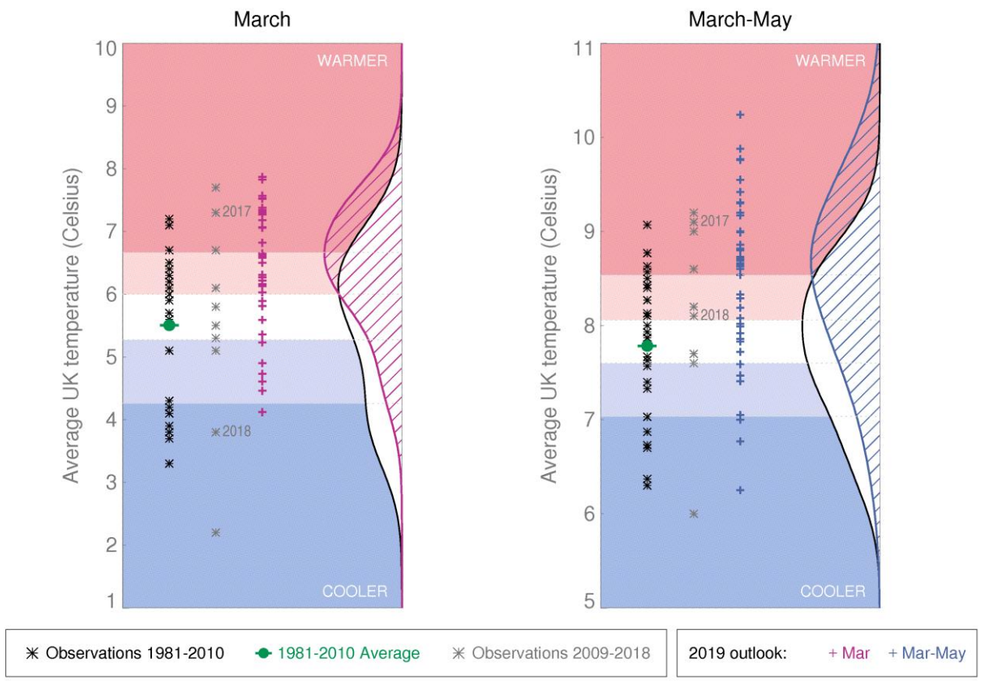
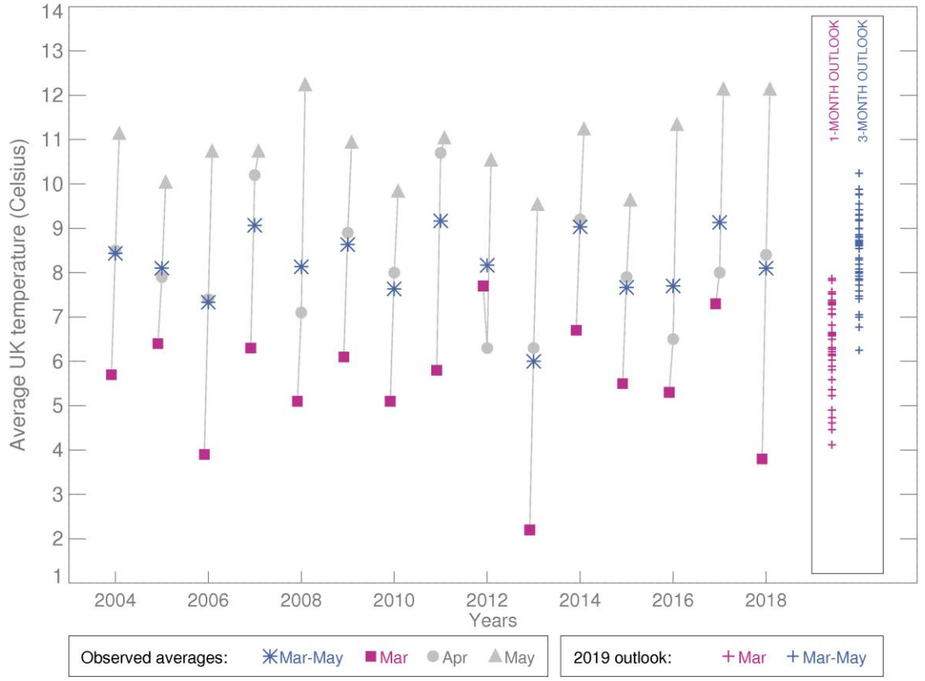


Fig T3



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-7-day) forecasts and warnings available to the contingency planning community from the Met Office.