

The forecast presented here is for December and the average of the December-January-February period for the United Kingdom as a whole.

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

SUMMARY - TEMPERATURE:

For both December and December-January-February, the balance of probabilities favours UK-mean temperatures below the 1981-2010 average.

The probability that the UK-mean temperature for December-January-February will fall into the coldest of our five categories is around 25% whilst the probability that it will fall into the warmest of our five categories is between 10 and 15% (the 1981-2010 probability for each of these categories is 20%).

CONTEXT:

In recent weeks sea surface temperatures in the tropical Pacific have remained near average and predictions now favour the neutral phase of the El Niño Southern Oscillation (ENSO) over the next three months. Its influence is weak and not expected to have predictive value for conditions over Europe over the forecast period. Sea surface temperature off the coast of Newfoundland has been well-above average for some months and the anomaly now extends to deeper parts of the ocean. Snow cover over Eurasia is increasing faster than normal, and existing snow cover is a little above average. These two factors favour the negative phase of the North Atlantic Oscillation, increasing the probability of colder conditions over northern Europe.

Indications from forecasting models favour slightly higher-than-average pressure over northwestern Europe and slightly lower pressure over eastern Europe. This would suggest a weakened westerly tendency which could allow a greater-than-average

incidence of cold, blocking patterns. This is more marked in the forecast for December than for the December-January-February period.

The curves in Figure T2 show a shift towards colder-than-average values for December and December-January-February, increasing the probability of well-below-average temperatures from the climatological level. These graphs show that this year is more likely than not to be colder than the same period last year (labelled grey points).

In both panels of figure T2 the curve representing the forecast probabilities encloses a larger area below normal than the curve describing the climatology, illustrating the increase in probability for cold or very cold conditions. However, the probability of a repeat of the prolonged cold conditions observed in December 2010 remains very low.

Fig T2 1-month and 3-month UK outlook for temperature in the context of observed climatology

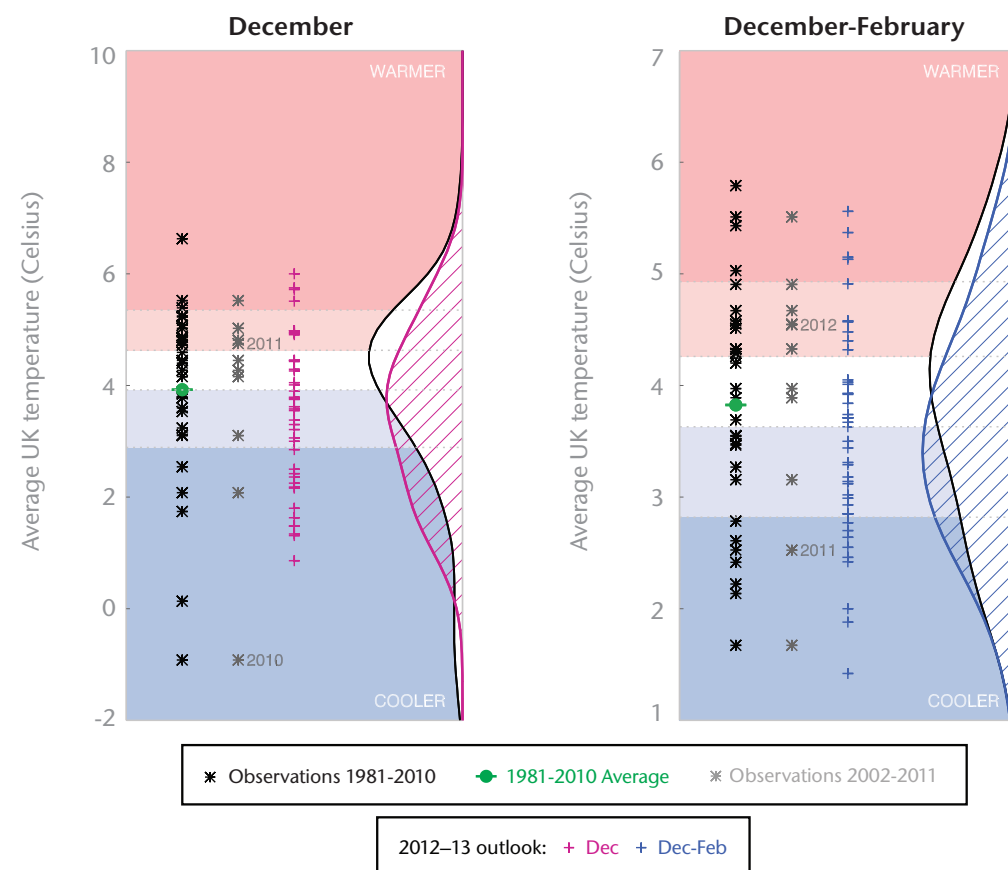


Fig T1

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

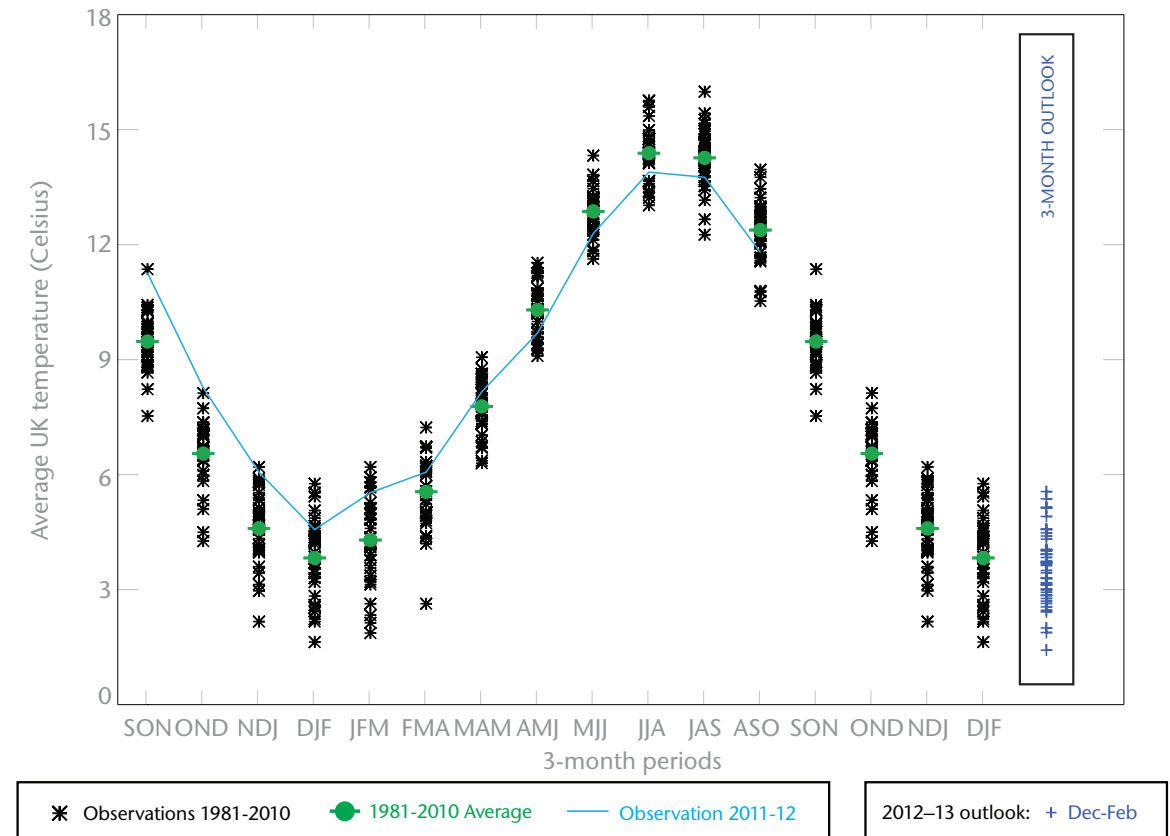


Fig T3

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

