

# Following the Long-Range Forecast: The Communication of the 3-Month Outlook at the Met Office



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# What is the 3-Month Outlook?



## Met Office 3-month Outlook Period: June – August 2019 Issue date: 24.05.19

The forecast presented here is for the average of the June-July-August period for the United Kingdom as a whole. This forecast is based on information from observations, several numerical prediction systems and expert judgement.

### SUMMARY – TEMPERATURE:

For June-July-August as a whole, above-average temperatures are more likely than below-average temperatures.

Overall, the probability that the UK-average temperature for June-July-August will fall into the coldest of our five categories is around 5%, and the probability that it will fall into the warmest of our five categories is between 45 and 50% (the 1981-2010 probability for each of these categories is 20%).

### CONTEXT:

Sea surface temperatures close to the El Niño threshold remain present in the Tropical Pacific Ocean, and are likely to continue during this period. Historically, however, El Niño has little impact on the UK at this time of year, so its effect is likely to be small. Current patterns of sea surface temperature across the North Atlantic Ocean increase the probability of higher-than-average pressure across Northern Europe. These patterns are similar to, but not as marked as, those at this time last year. As a result, the influence of these features is likely to be smaller. During summer, high pressure is usually associated with warmer-than-average conditions.

For the June-July-August period overall, predictions are mixed, giving low confidence in the overall theme of a moderate high-

pressure signal. Taken together with the warming of climate, as seen in temperatures in the last 10 years (see figure T2), these factors imply an increased likelihood of warmer-than-average conditions. The relatively high probability of our warmest category does not imply hot weather throughout the 3-month period. The likelihood of a 3-month long heatwave is very small. Heatwaves are part of day-to-day weather and the outlook does not identify weather for a particular day or week. The increased likelihood of a warm summer this year could mean more days with temperatures that are above average to a more modest degree. This outcome can arise from a range of types of weather, not just sunny and dry conditions.

Fig T1

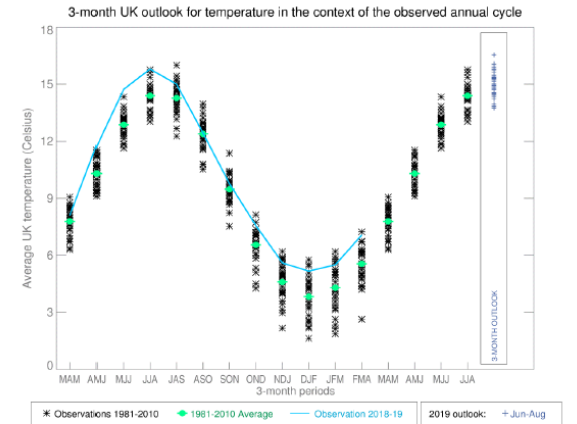


Fig T2

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

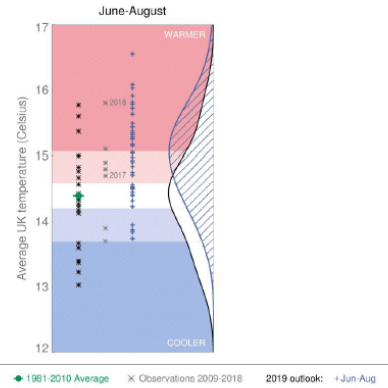
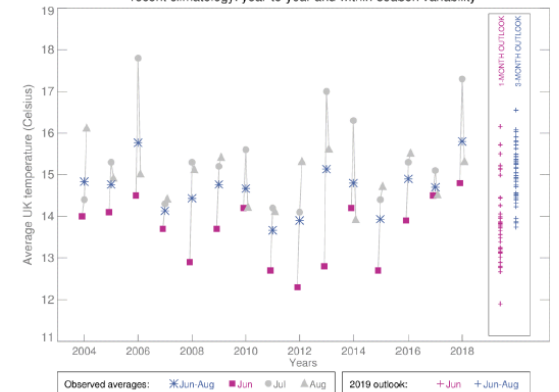


Fig T3

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

Source: Met Office (2019) *Contingency Planners*, <https://www.metoffice.gov.uk/services/government/contingency-planners/index>, accessed 01/07/19.

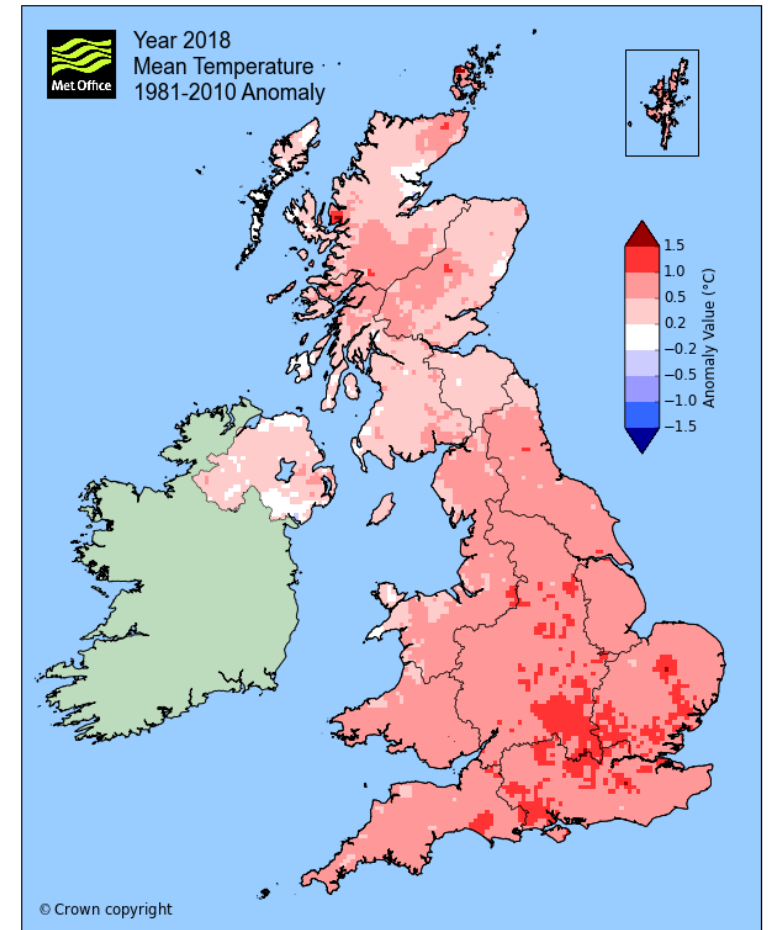
## Best Practice in Communicating Long-Range Forecasts

Beliefs about how science and society  
should relate to each other.

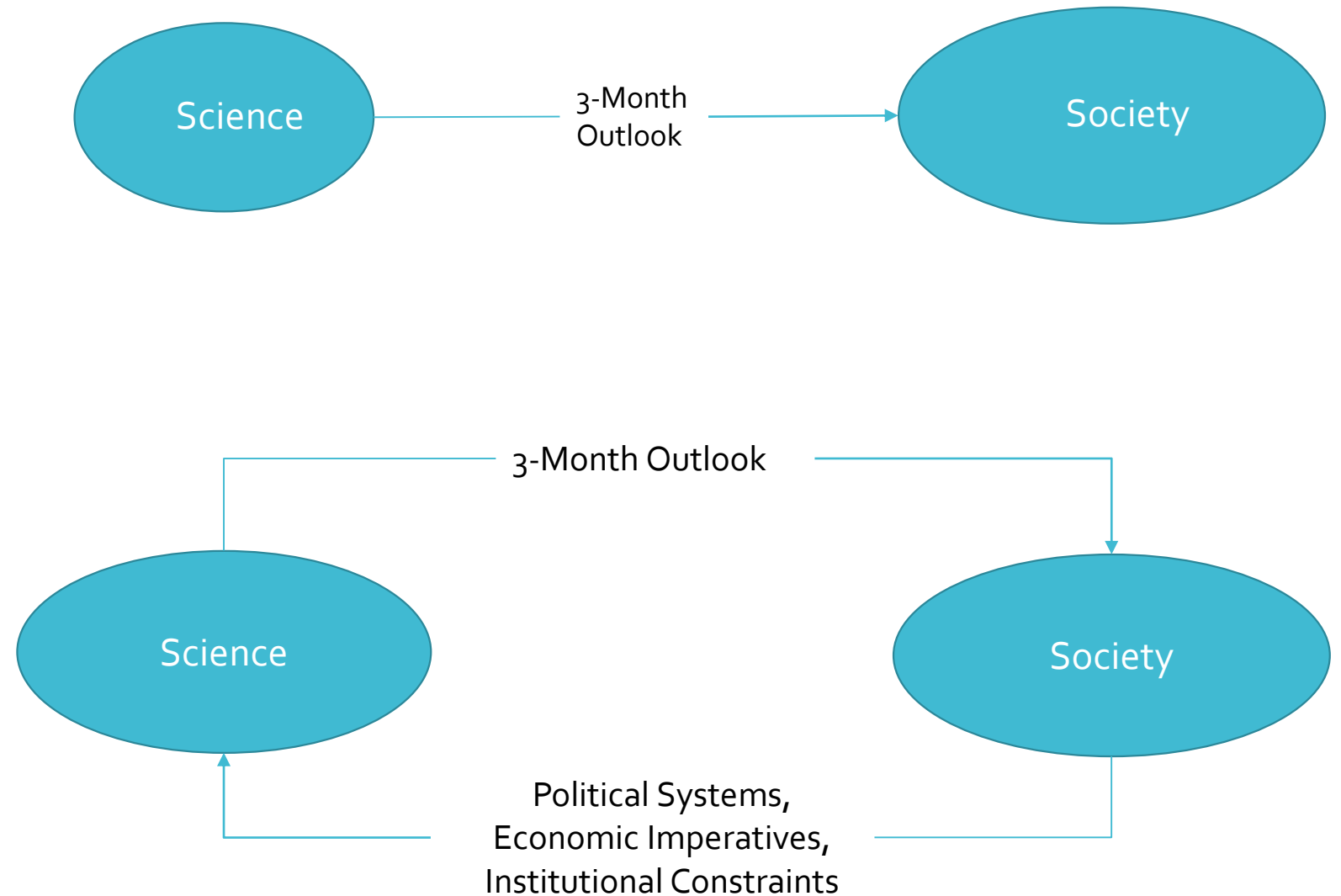


How long-range forecasts are  
communicated.

# What is Climate?



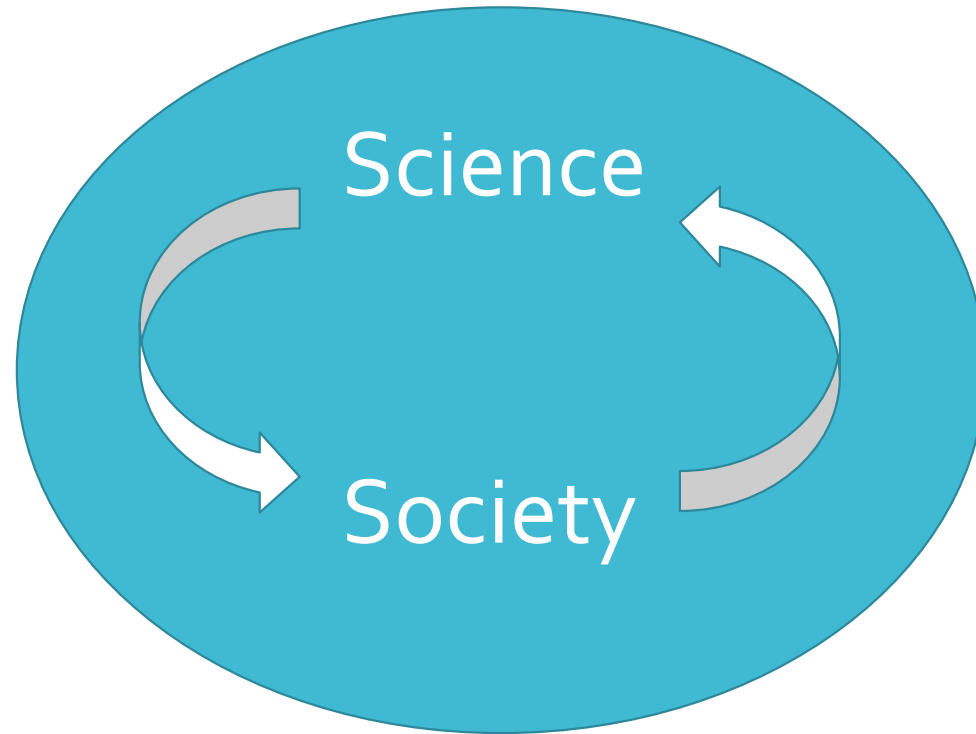
# How Do We Make Knowledge About The Climate?



# Why Should We Communicate Long-Range Forecasts?

- What is the 3-month Outlook usable for?
- Who should use the 3-month outlook?
- Who decides on what makes the 3-month Outlook usable?
- How does the usability of the 3-month outlook relate to its scientific integrity?

# What is Co-Production?



Source: Jasanoff S. (2004) *States of Knowledge: The Co-Production of Science and the Social Order*, Routledge, London

# Research Aim and Objectives

AIM: To understand how the 3-month outlook is communicated, interpreted and used by internal Met Office staff and external stakeholders.

- Objective 1: To use notions of co-production to develop a theoretical framework for analysing the communication, interpretation and use of the 3-month outlook.
- Objective 2: To understand how external stakeholders are engaged with during the communication of the 3-month outlook.
- Objective 3: To understand what constitutes credible knowledge during the communication, interpretation and use of the 3-month outlook.
- Objective 4: To evaluate how the communication of uncertainty in climate science might be informed by studying the communication, interpretation and use of the 3-month outlook.



# Methodology

## STAGE 1: Research at the Met Office

- Interviews with Met Office Staff
- Participant Observation in Stakeholder Briefings/Long-Range Forecasters' Meeting
- Analysis of Relevant Documents

## STAGE 2: Research with External Stakeholders

- Interviews with Stakeholders from the Energy Companies, UK Government, Transport Sector and Journalists

Thank You!

### Contact Details

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