



ofgem Winter outlook consultation

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Ferrybridge, 20th July 2006



**Communicating seasonal and climate risks
to the energy industry & markets**

Met Office winter forecast 2005/6:

Prediction based on influence of North Atlantic ocean temperatures



The forecast

A two in three chance of a colder-than-average winter for much of Europe. If this holds true, parts of the UK – especially southern regions – are expected to have temperatures below normal

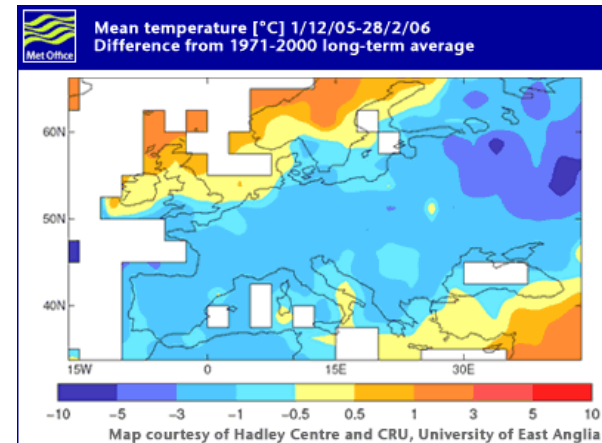
There is also an indication for a drier-than-average winter over much of the UK.

Customers:

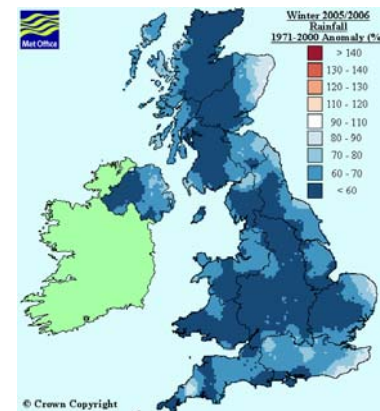
- public
- government (Cabinet office)
- planners in utilities, transport, finance & insurance, defence, aviation, local authorities
- 71% of public aware, 14% took action

The outcome, DJF 2005/06

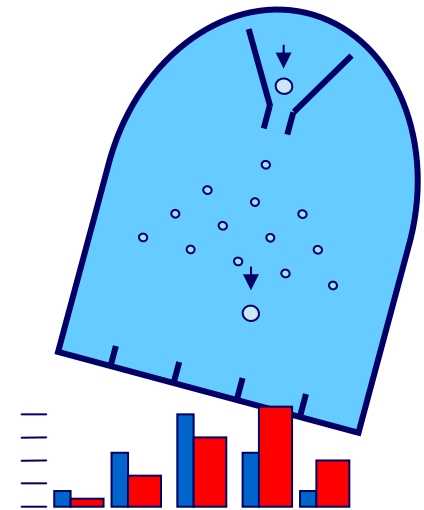
Observed Europe temperature anomalies



Observed UK rainfall anomalies



- **Categorical forecasts**
 - **2:** Above / Below; **3:** Above / Normal / Below
 - Need defining in terms of a climatology – but which?
 - Climate is changing
 - Few categories due to short observation record and chaotic nature of climate
 - Not always the most useful way to communicate to experts
- **Probability distributions**
 - More detail is wanted by users
 - Can provide only what is scientifically credible



In mid-latitudes internal seasonal variability is much larger than external signals. Even with improved models, seasonal forecasts for these regions will be probabilistic and have lower skill than shorter-range forecasts.

■ Working with industry & the markets

- Met Office contribution to *ofgem* winter 2006/07 consultation document both regarding long-range forecasts and climate change impacts.
- Met with key DTI officials to improve links and communication

■ Workshop in July for a representative group of energy industry

- Establish communication between forecast producers and users
- Identify forecast desirables from the energy industry and energy markets
- Clarify the communication issues over long-range forecasts
- Attended by ECMWF, DTI, ofgem, and a number of industry representatives.
- Workshop now fully booked.

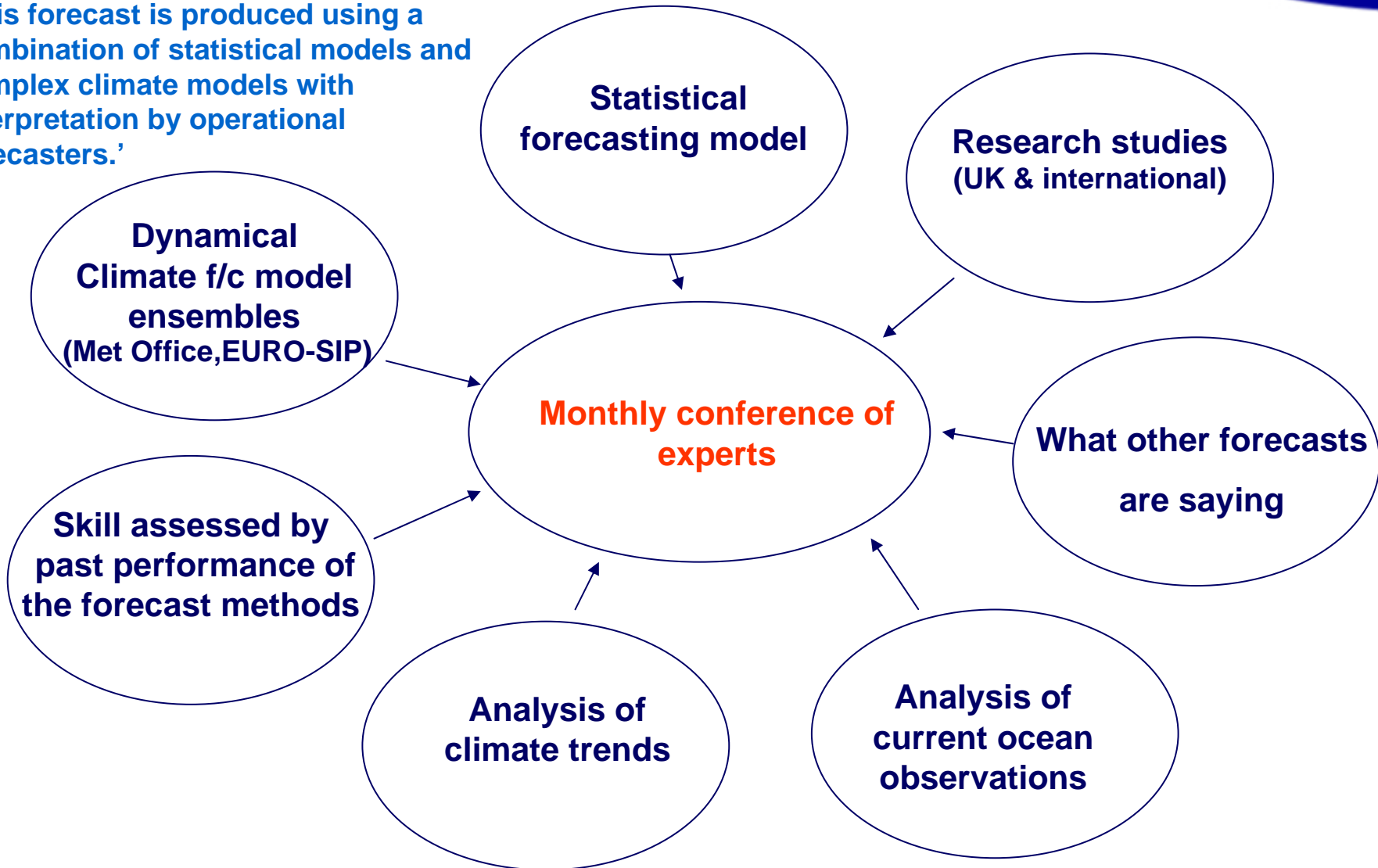


**First winter signal for
Dec 2006 to Feb 2007**

How the seasonal winter forecast is produced

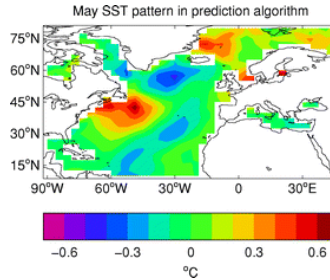
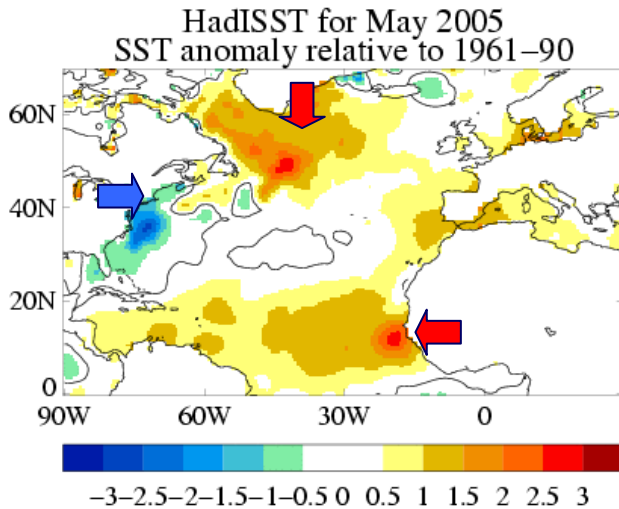


'This forecast is produced using a combination of statistical models and complex climate models with interpretation by operational forecasters.'



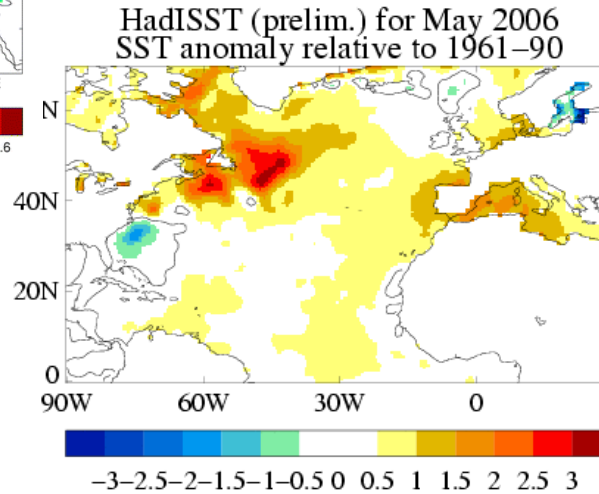
Role of N. Atlantic surface temperature projection on predictor pattern is different this year

2005

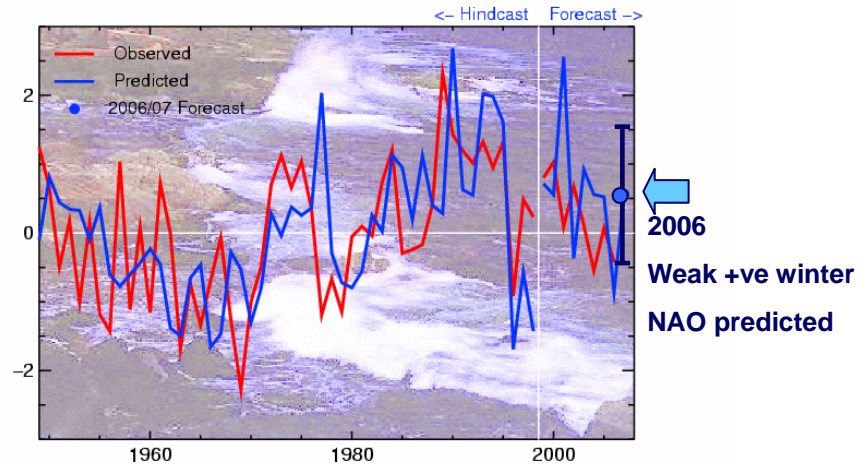
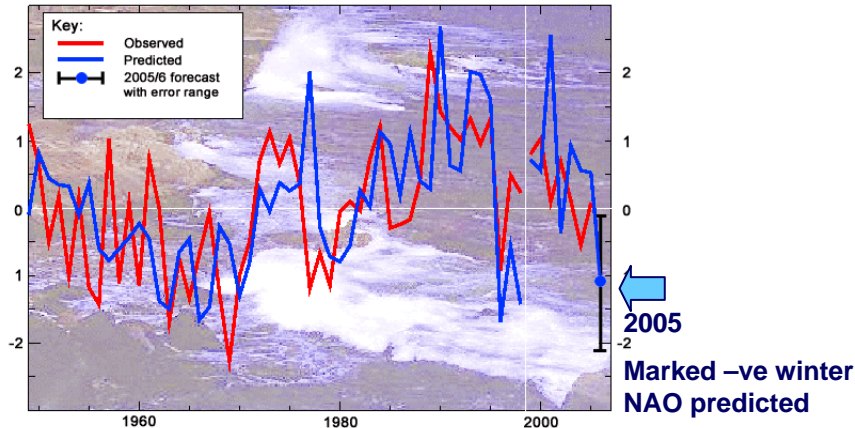


'tripole'
predictor
pattern

2006



North Atlantic Oscillation



▪ **Temperature**

- The signal from the statistical method is for **near- or above-normal temperatures across Europe this winter.**
- The signal is not particularly strong but statistically this method offers good advice on two out of three occasions in predicting whether the temperature will lie above, or below, the long term average.
- This implies that southern areas of the UK, (where last year it was coldest relative to the long-term average), are likely to experience a somewhat milder season than last winter, although of course this does not rule out occasional cold snaps and snow.
- For northern Britain, a mild winter is more likely.

▪ **Rainfall**

- Last winter saw much drier-than-average conditions across nearly all parts of the UK – much as last autumn's forecast had suggested. In the southeast this was the continuation of a long period of dry weather starting in November 2004.
- Early indications are that this winter is likely to be wetter over the UK than last year.

- First signal for winter publicly released 10th July 2006
- Next operational forecast will be released in September and this will be updated monthly thereafter
- Will be working with our customers on continuous basis to inform & update
- Contact us for more information

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