

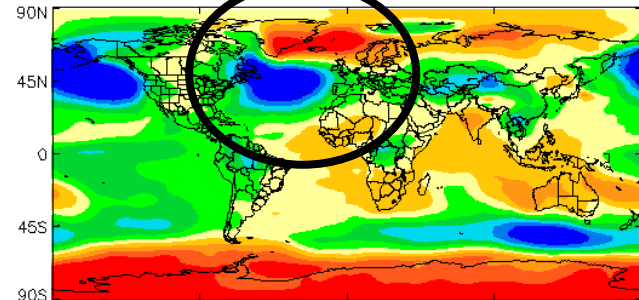
# UKMO Activities

**Adam Scaife**, Alberto Arribas, Doug Smith,  
Richard Graham, Anca Brookshaw and Jeff Knight

# How well have we been doing?

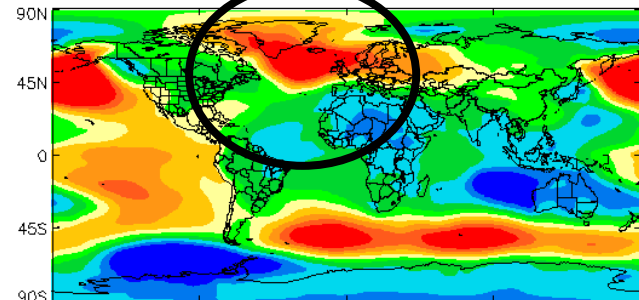
## Winter Forecast

Ensemble mean anomaly : mean sea level pressure : Dec/Jan/Feb  
Issued November 2009



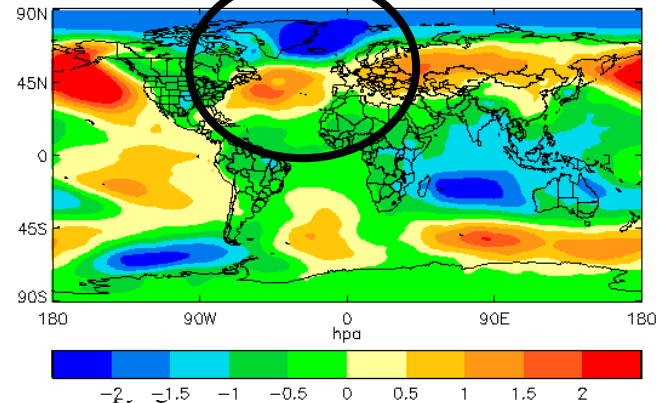
2009/10

Ensemble mean anomaly : mean sea level pressure : Dec/Jan/Feb  
Issued November 2010



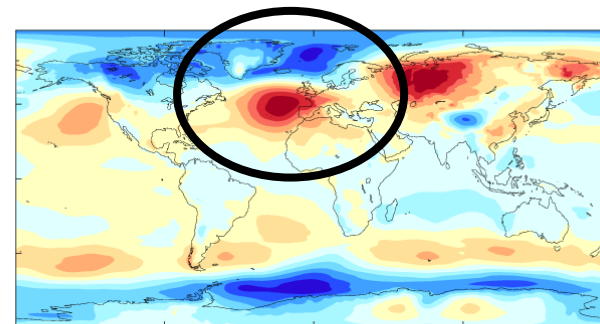
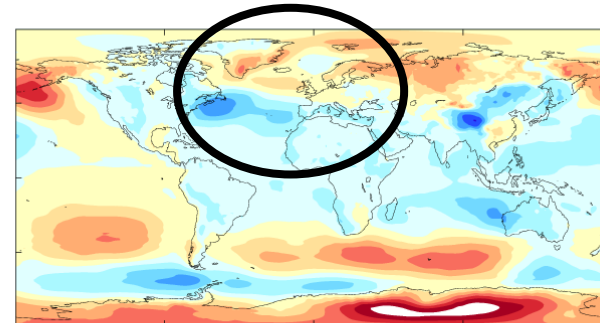
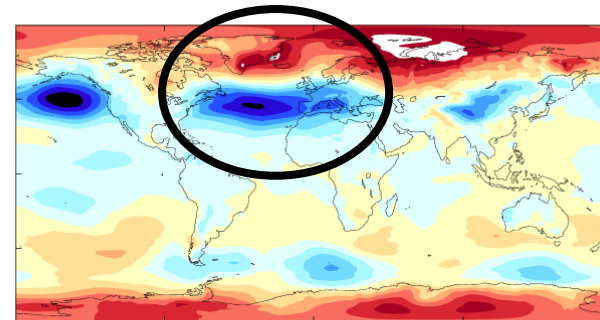
2010/11

Ensemble mean anomaly : mean sea level pressure : Dec/Jan/Feb  
Issued November 2011



2011/12

## Observations



Daily average pressure anomaly (operational analysis wrt 1961-90) December 1st 2011 to February 29  
-12 -10 -8 -6 -4 -2 0 2 4 6 8 10 12

# Improved UKMO Systems

## Seasonal GloSea5

Range: 7months

Model: **HadGEM3**

Resolution: **N216L85O(0.25)**

Initialisation: **daily, NWP  
analysis + ocean analysis**

Method: **Full field + bias  
correction**

Sea-ice, stratosphere

**Nov 2012**

## Decadal DePreSys

Range: 10 years

Model: **HadGEM3**

Resolution: **N96L85O(1)**

Initialisation: **Annual, O-A  
relaxation**

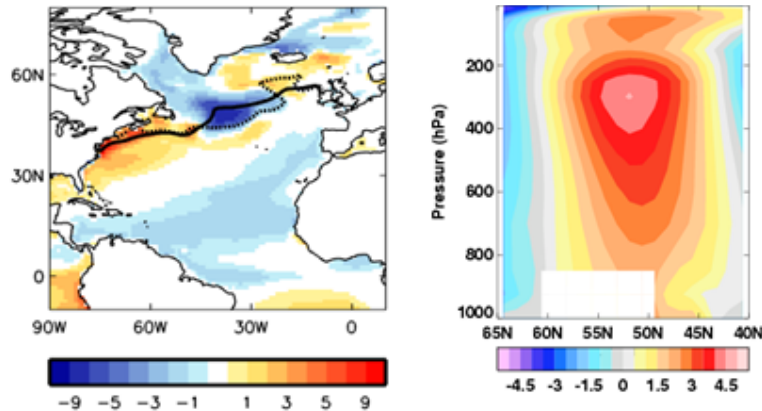
Method: **Anomaly  
Initialisation**

Sea-ice, **stratosphere**

**Dec 2012**

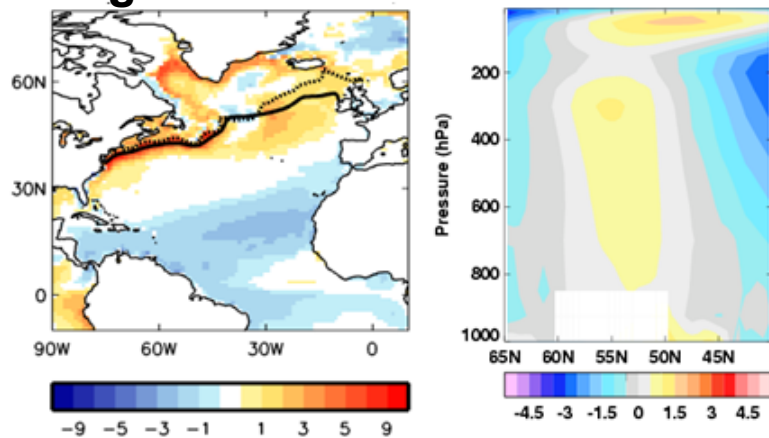
# Improved Atlantic Blocking

## Low Res Model



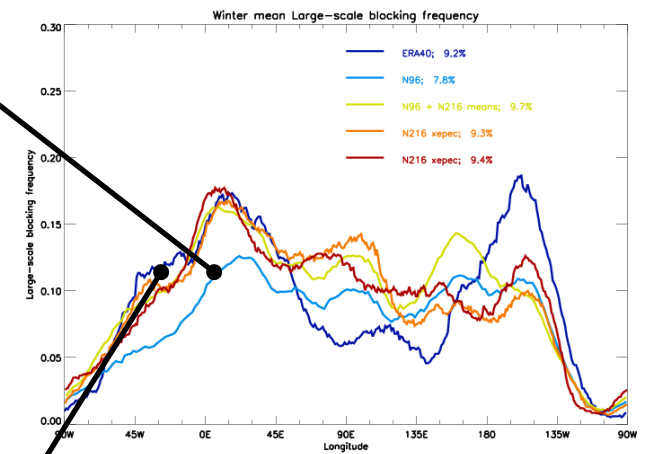
Gulf Stream Bias  
Wly wind bias  
=> Blocking Deficit

## High Res Model

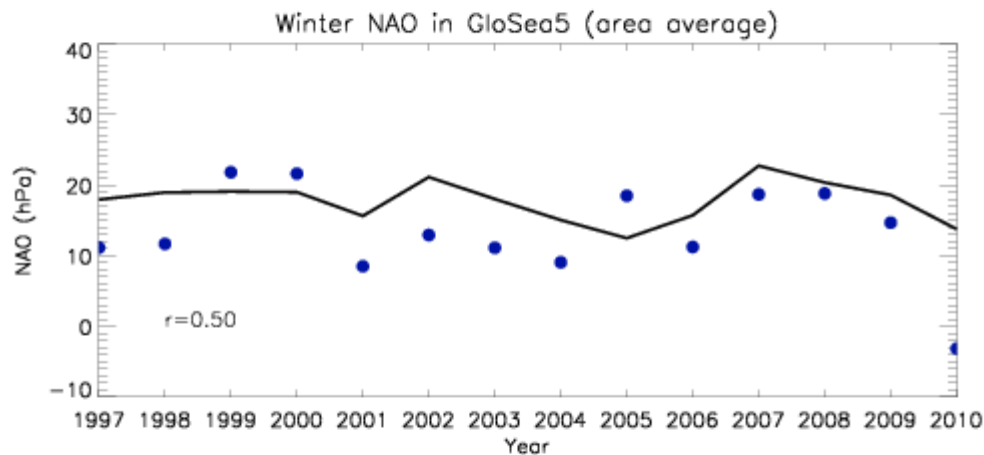


No Gulf Stream Bias  
No Wly wind bias  
=> Good Blocking

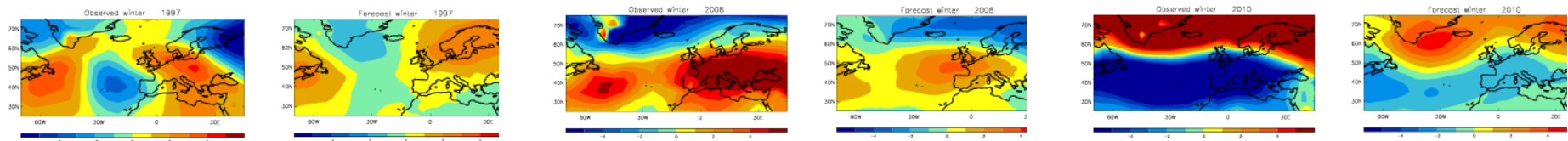
## Blocking Frequency



# Long range prediction skill of the NAO has been low but...



Seasonal predictions of the NAO in latest UKMO system



Seasonal Predictions of individual winter pressure patterns

Many winters show similarity between ensemble mean and observed anomalies!