



Met Office



**CabinetOffice**

# 2007 floods: a forerun of climate change implications?

**Steve Barnes**

**Murcia, 26-28 October**

**Making  
government  
work better**



# A typical UK summer





## The messages the UK public get about climate change

### Mail Online

**Top French champagne makers may soon produce their bubbly from Sussex vineyards**

January 2008



### Comment in the Sun

*OUR weather has always been rubbish - so a few extra degrees would be fine, right? After all, how many times have you heard people say: "If only it was like Spain here." But if Britain looks like Spain, what will Spain be like? A few degrees could turn southern Europe into a desert and make the most populous parts of the world uninhabitable.*



**UK to be 'like the Sahara'**



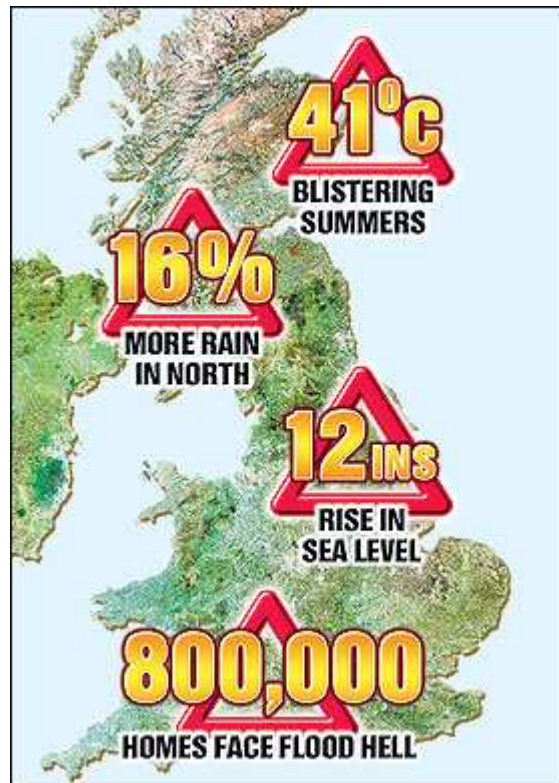
*BRITISH summers will get as hot as the Sahara before the end of the century, the Government's top climate adviser warned yesterday.*

Dr Geoff Jenkins said thermometers would rise to 46°C. Even if everybody stopped driving cars and flying in planes today we would still be looking at peak summer temperatures of 42°C by the middle of the century.”



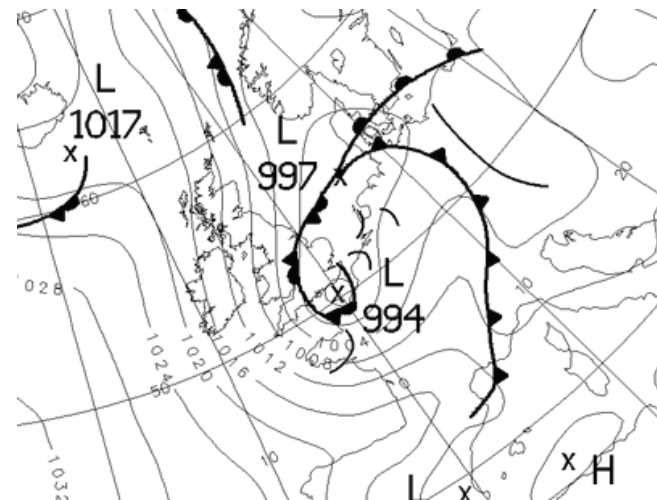
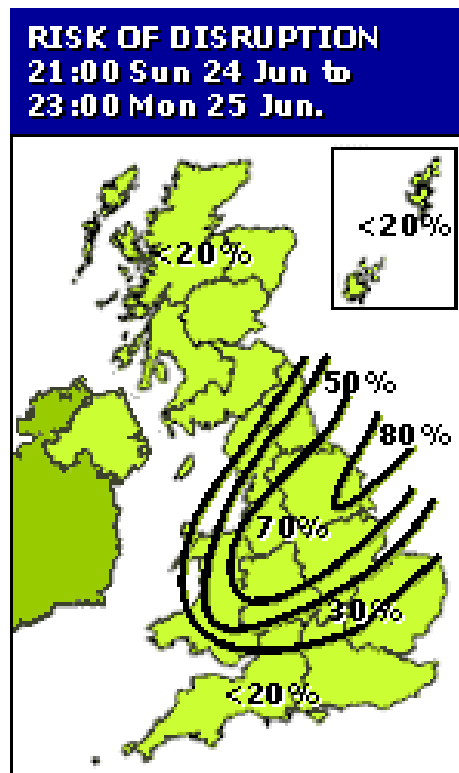
# DAILY EXPRESS

THE WORLD'S GREATEST NEWSPAPER



# Summer 2007

## Early warning of disruptive weather

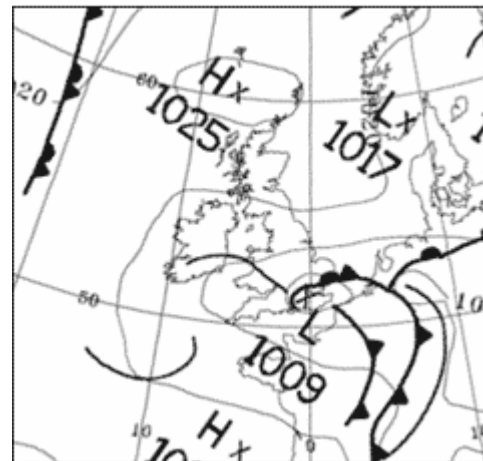
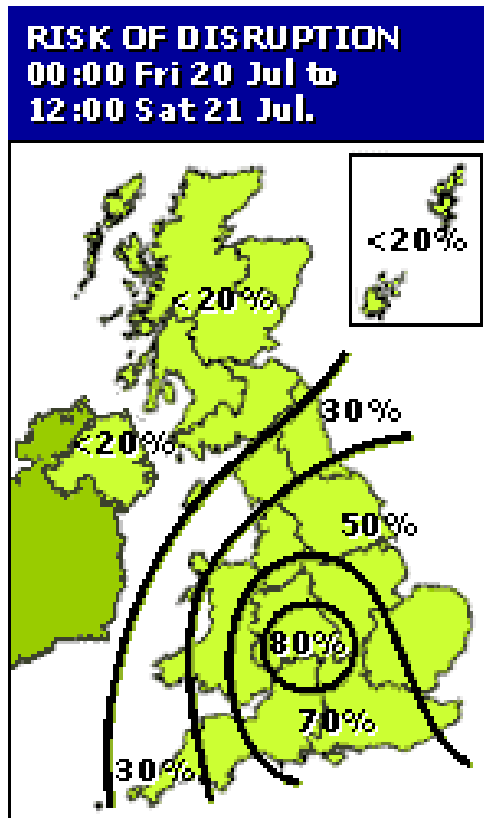




**Monday 25 June 2007**



# Second Early Warning for disruptive weather





# 20 - 24 July 2007







## Walham

Gloucestershire's main electricity sub-station, at Walham near Gloucester, was flooded.

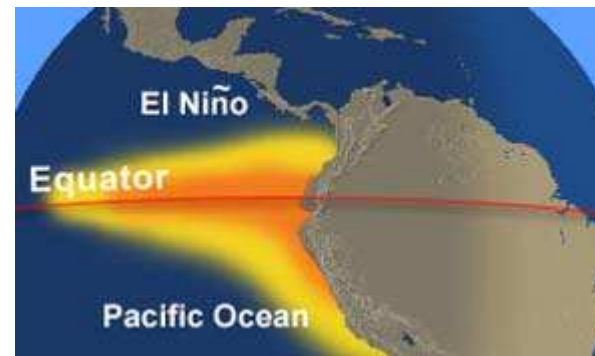
As water lapped around the transformers and switchgear, a hundred and fifty people battled to save Walham from catastrophe and to save the county from total blackout



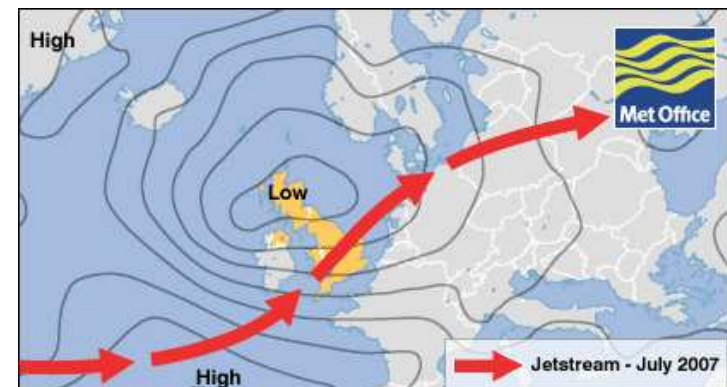
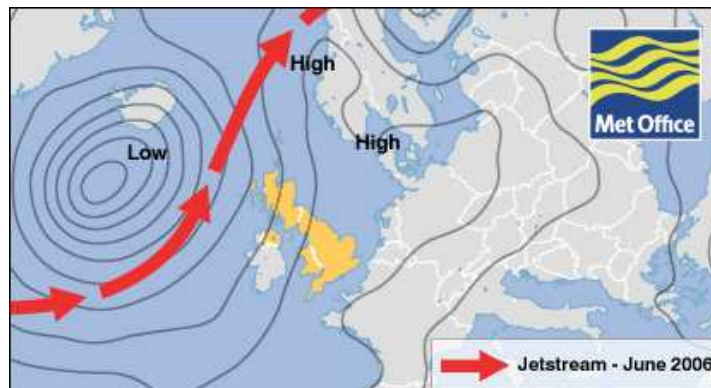
Mythe Water Treatment Works was flooded, resulting in the loss of supply to around 350,000 people for over two weeks. In emergencies 10 litres/person/day of water is supplied. In 2007 average consumption was 150 litres/person/day.

## What affects the UK weather?

### 1. El Niño/La Niña

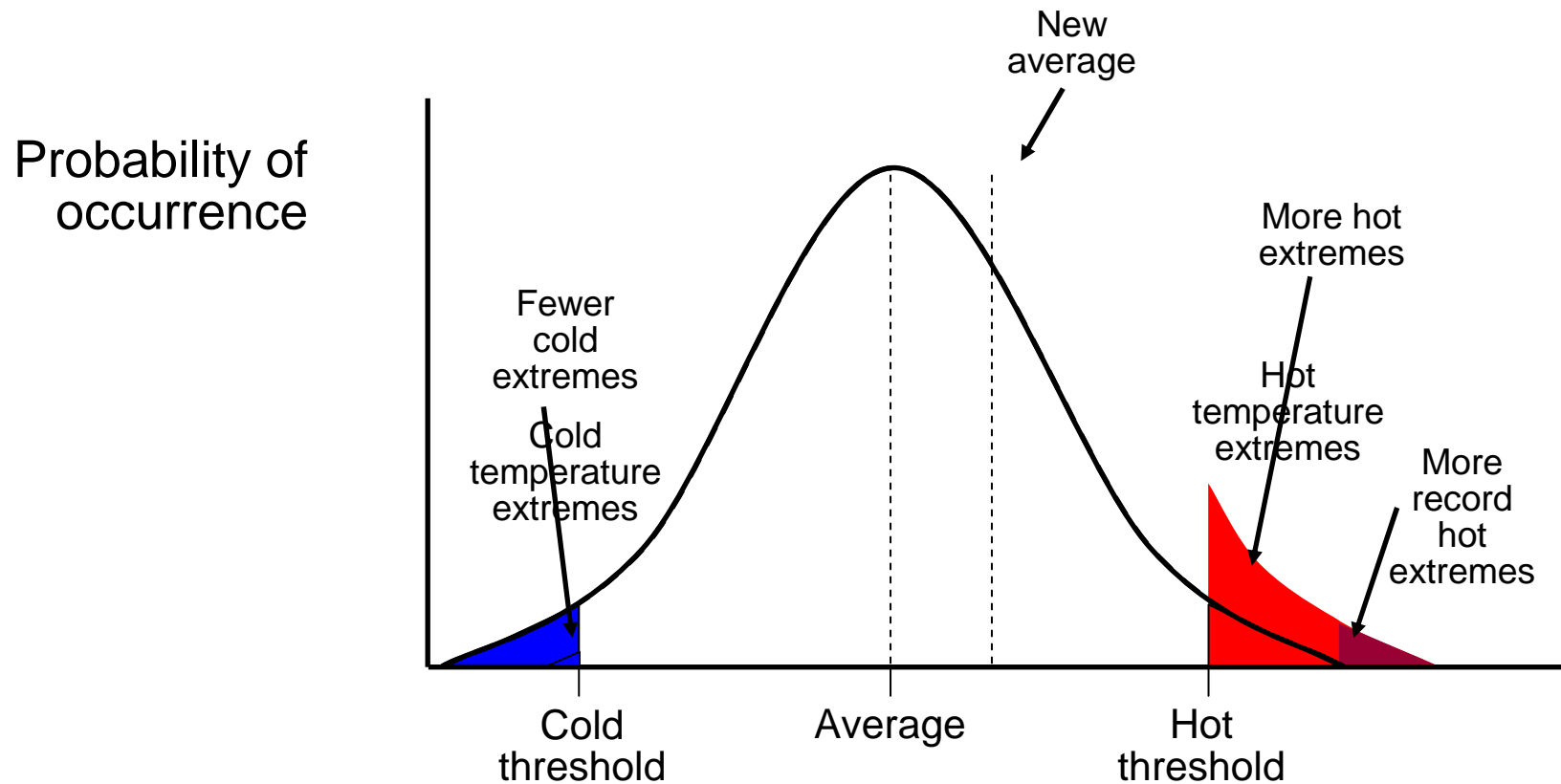


### 2. The Jetstream



# Increase in probability of extremes in a warmer climate

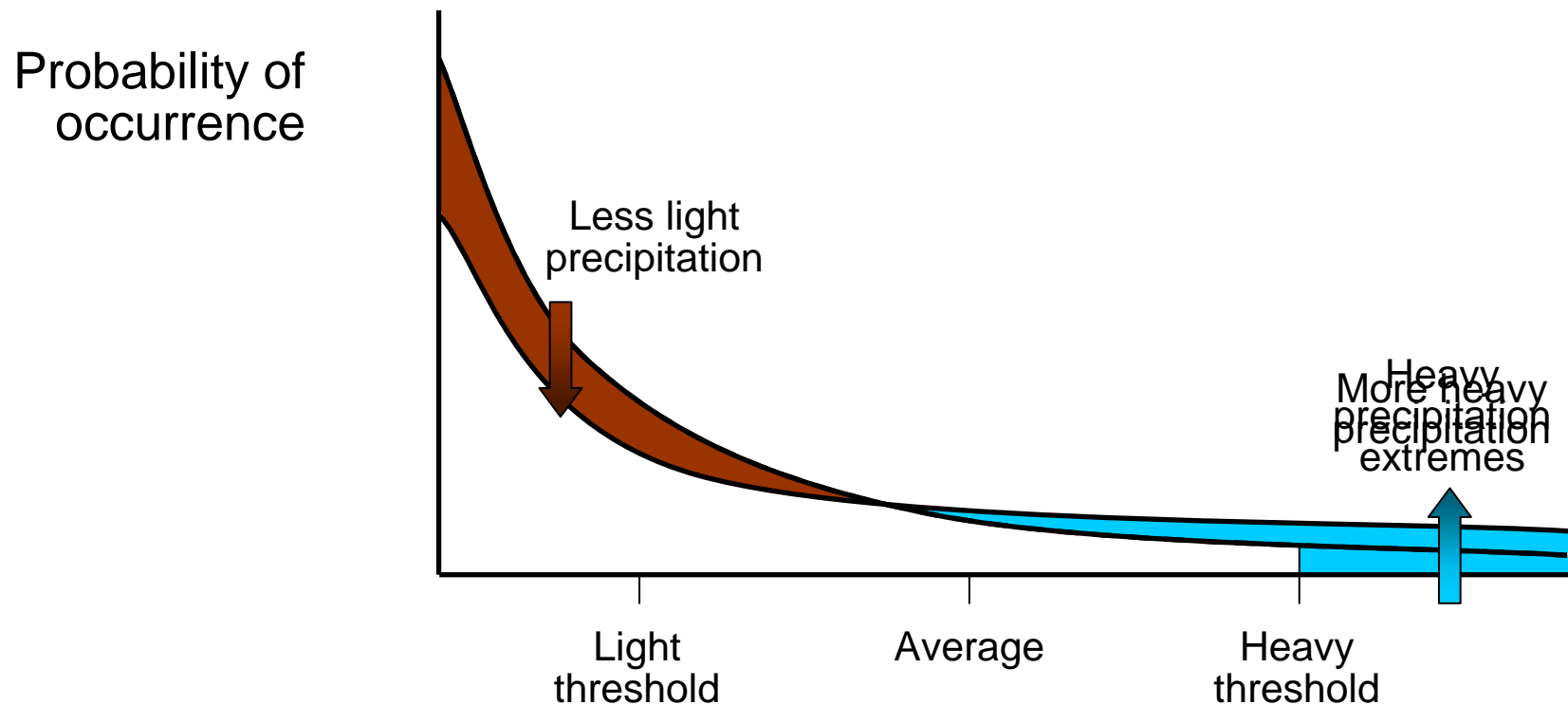
- Temperature ~~in~~ future



(After IPCC 2007 & Karl et al. 2008)

# Increase in probability of extremes in a warmer climate

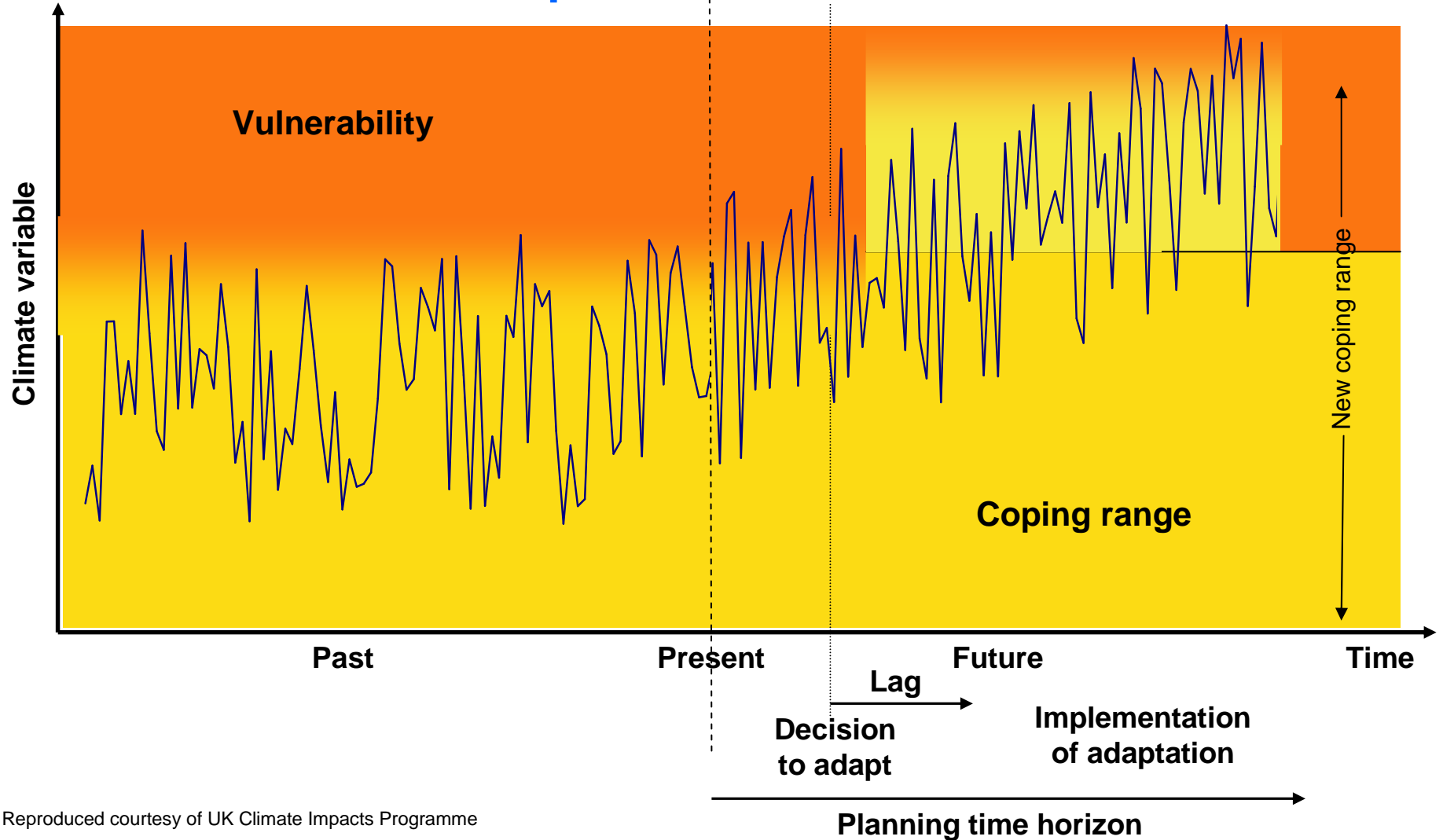
- Precipitation in future



(After Karl et al. 2008)



# Climate sensitivity, vulnerability and adaptation



Reproduced courtesy of UK Climate Impacts Programme



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In summary;

It is not possible to make a simple link between the 2007 floods and climate change.

The frequency of heavy rainfall events has increased over most land areas, consistent with a warming atmosphere containing more moisture.

Climate models predict the flooding observed in the UK in 2007 is set to become less frequent in future.

But the UK infrastructure is designed for a different climate.



Gracias

and any questions

[steven.barnes@cabinet-office.x.gsi.gov.uk](mailto:steven.barnes@cabinet-office.x.gsi.gov.uk)