

Sea level rise and coastal flooding – understanding the risk

NTSLF-Challenger Symposium 2-3 November 2009

Day 1 Monday 2 November 2009

09.30 Coffee and registration

10.00 **Introduction to the workshop.**

Chris de Grouchy

Head of Flood Management Division, Defra

10.10 **Introduction to NERC and NTSLF.**

Professor Alan Thorpe

NERC Chief Executive

Session 1 – Impacts of sea level rise

10.20 **Alison Baptiste**

Environment Agency

Defra/EA strategy for flood risk to the UK

10.40 **Rowan Douglas**

Willis Research Network

Sea level, storm surges and the insurance industry

11.00 **Professor Robert Nicholls**

University of Southampton

Global consequences of sea level change

Coffee: 11.20-11.50

Session 2 – Sea level variability and observations of sea and ice (I)

- 11.50 **Professor Philip Woodworth**
Proudman Oceanographic Laboratory
Recent changes in UK sea levels and comparisons to elsewhere
- 12.10 **Professor Christopher Hughes**
Proudman Oceanographic Laboratory
The character of sea level variability: Spatial variations in spectra and statistics
- 12.30 **Professor Anthony Long**
University of Durham
Long term changes in the Greenland ice sheet
- 12.50 **Professor Eelco Rohling**
National Oceanography Centre Southampton
Sea level variability in continuous records of the past 500,000 years and implications for the future

Lunch: 13.10-14.30

Session 3 – Modelling future sea levels

- 14.30 **Professor Detlef Stammer**
University of Hamburg
Keynote talk:
Processes contributing to future sea level change
- 15.00 **Professor Jonathan Gregory**
University of Reading
Modelling sea level change using AOGCMs
- 15.20 **Professor Martin Vermeer**
Helsinki University of Technology
Semi-empirical modelling of the sea level-temperature relationship
- 15.40 **Dr Svetlana Jevrejeva**
Proudman Oceanographic Laboratory
Anthropogenic forcing dominates sea level rise since the 1800s

Tea: 16.00-16.30

Session 4 – Vertical land movement

16.30 **Dr Matt King**

Newcastle University

Measuring vertical land movement at global tide gauges using GPS

16.50 **Dr Richard Bingley**

University of Nottingham

Monitoring the vertical motion of the UK using GPS and absolute gravity

17.10 **Dr Simon Williams**

Proudman Oceanographic Laboratory

The November 9 Storm Surge: a geodetic perspective

17.30 **Vicki Smith**

NERC Space Geodesy Facility

Vertical motion in the SE of England from SLR, GPS and AG

Poster and wine reception: 18.00

Day 2 Tuesday 3 November 2009

Session 5 – Sea level variability and observations of sea and ice (II)

09.00 **Professor Anny Cazenave**

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Keynote talk:

Contemporary sea level change at global and regional scales

09.30 **Dr Simon Holgate**

Proudman Oceanographic Laboratory

What drives sea level variability around Europe?

09.50 **Professor David Vaughan**
British Antarctic Survey
Contributions from Antarctic ice sheets

10.10 **Professor Tavi Murray**
University of Wales Swansea
Past and future contributions from glaciers and ice sheets to sea level rise

Coffee: 10.30 - 11.00

11.00 **Dr Mark Tamisiea**
Proudman Oceanographic Laboratory
The impacts of self-attraction and loading on sea level change and bottom pressure

11.20 **Professor Mikis Tsimplis**
National Oceanography Centre Southampton
Aspects of sea level variability in marginal seas

11.40 **Dr Robin Edwards**
Trinity College Dublin
Clues to future sea level rise: linking geological and instrumental records of change

Lunch: 12.00 – 13.30

Session 6 – Risk management and operational forecasting

13.30 **Dr Kevin Horsburgh**
Proudman Oceanographic Laboratory
Best practice for extreme sea level estimations

13.50 **Dr Jonathan Flowerdew**
UK Meteorological Office
Operational ensemble forecasting of coastal storm surges

- 14.10 **Dr Jason Lowe**
UK Meteorological Office
Storm surge climatology for European seas in 2100
- 14.30 **Dr Judith Wolf**
Proudman Oceanographic Laboratory
Waves in an ensemble future climate
- 14.50 **Sarah Lavery**
Environment Agency
Managing the risk for the Thames Estuary: the TE2100 project
- 15.10 **Closing remarks.**
Professor Andrew Willmott
Director, Proudman Oceanographic Laboratory