SYMONS MEMORIAL LECTURE
PROGRESS AND CHALLENGES OF METEOROLOGY IN SCIENCE AND SOCIETY

WEDNESDAY 17 MAY 2006

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How scientific developments are changing the way forecasters work with NWP models – Dr Keith Groves, Group Head of Forecasting, Met Office
keith.groves- at -metoffice.gov.uk
Significant developments in both science and technology, and the availability of high performance computing, mean that Numerical Weather Prediction (NWP) models form the basis of much of today's weather forecasts, with operational resolutions of 4km over the UK. More recent developments on the sophistication of data assimilation tools (4DVAR) and the ability to produce ensemble-based probability forecasts are again changing the types of products and the information content we are able to provide to customers. Since the introduction of NWP the role of the forecaster has changed. Although it is now possible to provide some automated services direct from NWP, forecasters are still central to creating weather forecasts and are needed to add value to the NWP output. Where and how they add value is being driven by science and technology.
www.metoffice.gov.uk

The Thames estuary 2100 project: a coming together of science, engineering and public policy – Mr Tim Reeder, CSci, FCIWEM, Thames Estuary 2100 Project Manager, Environment Agency
tim.reeder- at -environment-agency.gov.uk
The talk is centred around the Thames Estuary 2100 Project (TE2100). This is a high profile far reaching project aimed at protecting London and the people living in the Thames Estuary from flooding now and into the next century. The resulting plan has to tackle increasing flood risk from Teddington in the west to Sheerness in the east. Climate change is a key issue driving changes in river flow, sea level and storm surge. The project is addressing this in the context of the many other pressures affecting the Thames

Estuary.
www.environment-agency.gov.uk

What role will recent developments in climate science play in post Kyoto agreements – Mr Henry Derwent, Director of Climate, Energy and Environmental Risk, DEFRA, and the UK's G8 representative on Climate Change
henry.derwent- at -defra.gsi.gov.uk
Despite its urgency and the potentially devastating political and social consequences of its impacts, climate change poses a uniquely difficult set of communication needs between scientists and policy makers, and between scientists and economists. Issues of certainty, timescale and localisation of impacts arise and can dilute or obscure the need for action. The situation is improving but will still bedevil the debates on the post-2012 international framework. Drawing upon seven years' experience of national and international negotiation and policy-making, the author sets out why scientists don't speak the right language and policy-makers don't listen, and searches for ways to bridge the gap for post-2012.
www.defra.gsi.gov.uk

The Symons Memorial Lecture: Progress and challenges of meteorology in science and society – Professor/Lord Julian Hunt, CB, FRS, University College London
julian.hunt- at -cpom.ucl.ac.uk
The science, technology and practice of meteorology have not only made great progress but the ideas, techniques and public role that meteorologists and their institutions have developed have influenced and been an example to many other fields of applied science and public organizations. Meteorology is now having to meet even more formidable challenges as it addresses the enormous issues facing science and human society of not only understanding and predicting ever more serious effects of natural hazards and climate change, but also how best to mitigate and adapt to these potentially disastrous trends through new science and through informed guidance to governments, businesses and communities world wide.
www.es.ucl.ac.uk