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Science Highlights

El Niño in a Changing Climate

The WCRP/CLIVAR Panel on the Pacific Ocean concludes, in a review article in *Nature Geosciences*, that the changes in the Pacific region due to the rising of global temperatures will affect the character of ENSO and its impacts on the Pacific countries. However, it remains difficult to determine whether ENSO variability will be enhanced or moderated, or how the frequency of the events will change. [Read the article.](#)

SPARC Chemistry-Climate Model Validation (CCMVal) Report is now available

The CCMVal activity of the WCRP SPARC project has just completed a comprehensive assessment of stratosphere-resolving chemistry-climate models, using process-oriented performance metrics. This assessment is the result of the efforts of many scientists over the last two years, and has been extensively peer-reviewed. The final version of the report is now [available to download.](#)

Is Upper Ocean Warming?

A recent article in *Science* reports on a major international effort in comparing upper-ocean heat content datasets and identifying the sources of uncertainties attached to them. The study shows a robust evidence for a warming trend in the last decade. Read the [article](#) and [news&views](#) by K. Trenberth (GEWEX Chair).

Where has the Energy from Global Warming Gone?

In a recent article in *Science*, Kevin Trenberth, former WOAP Chair and newly appointed GEWEX Chair, addresses the challenges of obtaining a closure of the Earth's energy budget. They suggest that state-of-the-art observations are unable to fully account for recent energy variability. [Read more.](#)

Environmental Research Letters, 2009 Highlights

A collection of highlights from volume 4 of [Environmental Research Letters](#) includes contributions on sea-level rise, climate and energy, geoengineering. The collection will be free to read throughout 2010. ERL has also recently launched its latest focus issue, "[Anticipated changes in the global atmospheric water cycle](#)".

AMS Special Issues on Drought and Western Boundary Currents

Two special collections of papers published in selected AMS peer-reviewed journals are drawn from research coordinated by WCRP/CLIVAR and US CLIVAR. The [list of papers on Drought](#) and the [list on Western Boundary Currents](#) can be accessed through the AMS webpage.

Cloud Feedback in Current Climate Models

An analysis by Prof. Graeme Stephens published in the latest issue of [GEWEX News](#) suggests that solar radiation reflected by low clouds is significantly enhanced in models compared to real cloud observations. This finding has major implications for the cloud-climate feedback problem in model.

Discovery of Strong Deep Current in the Southern Ocean

In a paper published in Nature Geoscience, Japanese and Australian scientists including Dr J. Church, former WCRP JSC Chair, show evidence of a deep ocean current with a volume equivalent to 40 Amazon Rivers. This is an important pathway in the global network of ocean currents that influence climate patterns. [Read more.](#)

News

A Call for Intercomparison and Documentation of Climate Records

In a joint letter, the Directors of the Global Climate Observing System and the World Climate Research Programme (GCOS/WCRP) are asking the relevant organizations to support the international expert groups involved in scientific analysis, intercomparison and review of climate data records. Such effort is essential for world-class climate science and sound decision-making. [Read the letter.](#)

Meeting the Needs of the UN Climate Change Convention

WCRP Director, Dr Ghassem R. Asrar, was invited to attend the UNFCCC 32nd Session of the Subsidiary Body for Scientific and Technological Advice in Bonn, Germany. The SBSTA dialogue on developments in research activities relevant to the needs of the Convention included, in addition to WCRP, presentations from ESSP, IGBP and IPCC. [Read more](#) and see the [webcast of presentations](#).

Survey: Media Reporting of Climate Change Study

Arising from the ESSP session at the [Global Media Forum](#), this study aims to understand how climate science is transmitted through the media and how this transmission influences policy. In particular, emphasis is put on studying the period (November 2009 - February 2010) encompassing the COP-15 in Copenhagen, and the journalistic coverage of the IPCC process and other issues of alleged research misconduct. To take part in this study, please complete the [online survey](#).

The Importance of the Agulhas Current in the Climate System

The study of the variability and change of the major western boundary current that flows along the east coast of Africa is important for improving understanding of the Agulhas interocean leakage and its regional and global climate impacts. The newly established [SCOR Working Group 136](#), co-sponsored by WCRP, had its first meeting in February 2010 to discuss recent developments in understanding the greater Agulhas Current system and future research directions. [Read more](#) in a recent article published in EOS.

Reprocessing and Reanalysis of Climate Data: a WCRP contribution to GEOSS

In an article that recently appeared in [GEO News](#), Kevin Trenberth, WCRP point of contact for the [GEO Task on Reanalysis](#), highlights the importance of international cooperation in the ongoing reanalysis of atmospheric data and summarizes how this effort is supporting current national and international developments of climate services. [Download and read the article.](#)

IGBP Global-Change Conference in 2012

The UK has successfully bid to host the IGBP open science conference: Planet under Pressure: new Knowledge, new Solutions. The four-day conference will bring together natural, physical and social scientists with economists and policy-makers. [More information.](#)

The Global Environmental Change and Human Health (GECHH) Project Office is Established

The GECHH is the newest Joint Project of the [Earth System Science Partnership](#) responding to the growing need to understand better the multi-faceted and complex linkages between global environmental change and human health. The GECHH website is now live and the first [GECHH News Note](#) has just been issued.

Awards and Recognitions

WCRP Affiliated Scientists Receiving AGU Fellows in 2010

Our congratulations to Drs. Jim Hurrell, CLIVAR SSG Co-chair, and Ted Shepherd, SPARC SSG Co-chair, for being elected new AGU fellows this year. AGU fellows are recognized for their exceptional scientific contribution in Earth and space sciences. [Read more.](#)

WCRP Affiliated Scientists Elected as the AGU Section Presidents

We congratulate Professors Peter Webster and Eric Wood for becoming AGU president-elect for Atmospheric Sciences and Hydrology Sections respectively. Prof. Webster, Georgia Tech, has served on many WCRP panels and chaired the TOGA SSG. Prof. Wood, Princeton University, leads the Hydrological Application WG within the GEWEX-CEOP Project. [Read more.](#)

Publications

CLIVAR Report: Earth System Initialization for Decadal Predictions

In November 2009, an international group of 50 scientists gathered to address the technical challenges of decadal prediction. The workshop, sponsored by WCRP/CLIVAR, aimed at making an inventory of initialization and perturbation techniques in earth system models and providing a roadmap to make skilful decadal predictions. More details on the [recently published report.](#)

Meeting report: WOAP-4

The WCRP Observation and Assimilation Panel (WOAP) held its fourth meeting 29-31 March 2010, at the KlimaCampus of the University of Hamburg in Germany. The agenda with linked presentations is available on the [meeting website](#) as well as the report of the meeting.

Meeting Report: WGNE-25

The report of the 25th session of the Working group on Numerical Experimentation (WGNE) that was held in November 2009 in Offenbach, Germany, is now [available for download.](#)

Upcoming Events

IPY Science Conference in Oslo, Norway

The International Polar Year Science Conference will take place on 8-12 June 2010. [More.](#)

62nd WMO EC in Geneva, Switzerland and 43rd IOC EC in Paris, France

Both Sessions of WMO and IOC Executive Council will take place on the two weeks spanning 7-18 June 2010 in their respective headquarters.

A Regional Climate Modelling Workshop in Lille, France

The WCRP Workshop on Regional Climate: Impacts, Adaptation and Vulnerabilities will take place on 14-16 June 2010. [More.](#)

Global Media Forum: Climate Change and the Media

ESSP Special Session on Media-ting Change: the effective use of media to creating societal awareness of climate change will take place in Bonn, Germany, on 21 June 2010. [More.](#)

Workshop on Sea Level Rise and Ice Sheet Instabilities

This IPCC workshop will take place in Kuala Lumpur, Malaysia, 21-24 June 2010. [More.](#)

2nd Pan-GEWEX meeting

The 2nd Pan-GEWEX meeting will take place in Seattle, Washington, USA, 23-27 August 2010. [More.](#)

Extreme Climate Events Workshop in Paris, France

This WCRP/UNESCO workshop on metrics and methodologies of estimation of extreme events will take place on 27-29 September 2010 at the UNESCO Headquarters. [More.](#)