



Science Highlights

Celebrating the Key Successes of WCRP/TOGA

The [September issue of "Oceanography"](#), the official magazine of [The Oceanography Society](#), features an article on the TOGA programme co-authored by A.J. Busalacchi, Chair of [WCRP JSC](#). The article highlights the key successes of TOGA and assesses its legacy from a perspective of progress over the past 15 years... [read the article](#).

Release of Community Earth System Model (CESM 1.0)

[CESM](#) is a fully-coupled, global climate model that provides state-of-the-art computer simulations of the Earth's past, present and future climate states. The improvements in the [new software release](#) "gives a better representation of the real world" says NCAR scientist James Hurrell, [CLIVAR](#) co-chair and chair of the scientific committee that developed the model.

Surface Temperature Datasets for the 21st Century

The UK MetOffice in partnership with WMO, GCOS and WCRP, is leading an initiative to produce a new suite of [surface temperature datasets](#) that will characterize changes at finer space and time scales than available previously. A workshop was held in Exeter UK and several [white papers](#) have been solicited for broad input through a [moderated blog](#).... [more](#).

State of the Climate in 2009 - NOAA Report

This 20th annual report evaluates 10 key indicators of the Earth's climate including air and sea temperatures, sea level, sea-ice extent, ice and snow cover on land. The document has been published in [BAMS \(vol. 91\), June 2010](#).

Regional Variability of Sea-Level Change in the Indian Ocean

The warming of the Indo-Pacific warm pool in the past 50 years seems to be the cause of a geographically varying rise in the Indian Ocean sea levels affecting some densely populated coastal areas. The study, published in [Nature Geosciences](#), is co-authored by scientists from U. Colorado at Boulder and NCAR: among those is G. Meehl, Co-chair of [WCRP WGCM](#).

Special JGR issue on Global Dimming and Brightening

Recent evidence indicates that solar radiation incident at the Earth's surface is not stable over time, but undergoes significant decadal variations. The papers in this [special issue of JGR](#) discuss several aspects of global dimming and brightening including their representation in climate models and their impacts on the global climate system.

Atmospheric Aerosols and Precipitation

Aerosols affect precipitation in opposing ways. To find out the net effect, the scientists at the Geophysical Fluid Dynamics Lab., Princeton NJ, USA, including [WCRP JSC](#) member V. Ramaswamy, simulated the response to increased black carbon levels. Their results, published in [GRL](#), show a small reduction in global mean precipitation... [read more](#).

WCRP Coordinated Effort to Understand Low Cloud Feedback in Climate Models

The [WGCM](#) Cloud Feedback Model Intercomparison Project ([CFMIP](#)) and the GEWEX Cloud System Study ([GCSS](#)) have initiated a joint project on the intercomparison of Large Eddy Models and Single Column Models (CGILS) to understand the physical mechanisms of low cloud feedback in climate models... [read more](#).

MJO Dynamical Forecast Intercomparison Web Resource

NCEP has established an experimental quasi-operational MJO forecast intercomparison activity that was initiated by the [US CLIVAR MJO working group](#). The group is continuing their activities under a new [MJO Task Force](#). For more information [visit the website](#).

Science Special issue on Changing Oceans

The "Science" magazine published a series of [review articles](#) on the changes that are affecting the oceans. The articles provide an overview of recent discoveries as well as identify some of the challenges for preserving the oceans' resources. The editorial of the current Science issue features [an introduction](#) by John Church, former WCRP/JSC Chair.

News

Young Scientists Lunch at Pan-GEWEX meeting

The [GEWEX](#) IPO hosted a box lunch [for students and early career scientists](#) to meet with some of the more senior participants during [the pan-GEWEX meeting](#) that took place on 23-27 August 2010. About 110 GEWEX scientists, representing all aspects of the project, addressed cross-panel interactions and discussed on how the project should evolve over the next few years.

Independent Review Confirms Solid Science Foundation and Recommends Improving Management of IPCC Assessments

Last week the [InterAcademy Council](#) released their report on the U.N.'s [Intergovernmental Panel on Climate Change](#). The independent investigation found no evidence of wrongdoing by the scientists involved in the process. The main recommendations concern changes in the management structure and suggest IPCC to completely refresh its top leadership and limit the time for people to hold top positions... [read the report](#).

Release of Updated GCOS Implementation Plan

The [Global Climate Observing System](#) has released the updated version of its [Implementation Plan](#). This is the result of a two-month web-based open review by the scientific community between November 2009 and January 2010, to which many of WCRP-affiliated scientists contributed, and it includes the revised list of GCOS Essential Climate Variables (ECVs)... [read more](#).

Recent Natural Disasters in the News

In an interview recently published in ClimateWire, Dr Ghassem Asrar, WCRP Director, points to a combination of higher-than-usual Atlantic Ocean temperatures together with an abnormal upper-atmosphere airflow, caused by La Nina, as the main driver of the record drought in Russia and the extreme flooding in South Asia. [Read the article](#).

Call for Tenders to Host the ICSU World Data System IPO

The ICSU [World Data System](#), established in 2008, is now inviting tenders to host its International Programme Office (IPO). The IPO will be charged to manage and coordinate the establishment and operations of the ICSU World Data System, and take responsibility for outreach and promotional activities. [Read more](#)..... the form for submission is available [click here](#).

Outcome of the WCRP Workshop on Modelling Monsoon Intraseasonal Variability

The [WCRP/CLIVAR Asian-Australian Monsoon Panel](#), in conjunction with a newly formed [MJO Task Force](#), held a Workshop on Modelling Monsoon Intraseasonal Variability (ISV) in June 2010 in Busan, Korea. The workshop assessed the current capability to predict and simulate ISV and prioritized the future research needs and directions to improve simulation and prediction of ISV. Details of the workshop, including the presentations, are available [click here](#).

WCRP's Commitment to Polar Research

The [IPY Oslo Science Conference](#), held in June 2010, celebrated the IPY's science accomplishments as the programme came to an end. WCRP played a major role in the planning and implementation of IPY... [more](#).

Many WCRP-Affiliated Scientists will participate in the next IPCC Assessment

Six members of the [WCRP Joint Scientific Committee](#) have been nominated as lead authors for the next [IPCC Assessment \(AR5\)](#). Several of them are coordinating lead authors including the former WCRP JSC Chair John Church. [See the entire lists](#).

Chinese Translation of "WCRP Achievements" Report Presented at High-Level Climate Research Meeting

The [Chinese version of the WCRP Achievements Report](#) was presented at the kick-off meeting of the Chinese National Key Basic Research Programme of Global Change. Officials of the Ministry of Science and Technology (MOST), National Development and Reform Commission (NDRC), Ministry of Finance (MOF) and Chinese Academy of Science (CAS), and more than two hundred scientists attended the meeting.... [read more](#).

The Ocean Circulation and the Gulf of Mexico Oil Slick

Understanding the ocean circulation and modelling the world oceans has been one of the main objectives of WCRP thus contributing to a large range of research and operational marine activities. Prof. Martin Visbeck, WCRP/CLIVAR Co-chair, and his colleagues at [NCAR](#) recently performed high resolution ocean general circulation model simulations to understand the potential spreading of the oil slick across the Atlantic Ocean towards Europe. [Read more](#).

SBSTA Research Dialogue: Meeting the Needs of the Convention

In June 2010 WCRP was invited to attend the 32nd Session of the UNFCCC Subsidiary Body for Scientific and Technological Advice (Bonn, Germany). The final SBSTA conclusions on research and systematic observations, as adopted, can be found [here](#). [Presentations and related information](#) from the research dialogue are available. See [webcast of presentations](#).

People

Farewell to Ann Alturo and Welcome to Teresa Alcober

The [WCRP Joint Planning Staff](#) said farewell to Mrs Ann Alturo, historically known as Ann Salini, as she retired officially on 1 July 2010 after 32 years of service at WMO. Ms Teresa Alcober is now our WCRP Administrative Assistant. She joined WCRP on 1 September 2010. Ms Alcober has worked with several WMO programmes including the [Atmospheric Research and Environment Programme](#).

Dr Robert Molinari is the new Director of CLIVAR International Project Office

Robert "Bob" Molinari has been appointed as the ICPO Director to succeed Dr. Howard Cattle, who retired on 1 of September 2010 after serving WCRP for 10 years. Bob served 34 years in both management and research positions at NOAA's [Atlantic Oceanographic and Meteorological Laboratory \(AOML\)](#) in sunny Miami, USA... [read more](#).

Publications

Sea-level Rise and its Impacts on Society

The book on Understanding Sea-Level Rise and Variability by J. Church, former WCRP/JSC Chair, P. Woodworth, former GLOSS Chair, T. Aarup, UNESCO/IOC, and W.S. Wilson, NOAA NESDIS, is now published. The book provides a concise summary of past, present and future sea-level rise and its impacts on society. Download the [order form](#).

Outcome of the 31st Session of the WCRP Joint Scientific Committee

The 31st session of the Joint Scientific Committee for WCRP took place in Antalya, Turkey, on 15-19 February 2010. The [final report of the meeting](#) is available on-line.

WMO Update on Atmospheric Ozone Layer

The Secretariat of the [World Meteorological Organization](#) issues bulletins containing information on the [state of the ozone layer in the Antarctic](#). The information is based on the data provided by WMO Members which operate ozone monitoring stations in the southern hemisphere, and satellites that measure ozone concentration globally. [Download the 2010 Bulletin](#).

Upcoming WCRP Events

Workshop on Decadal Variability, Predictability and Prediction: Understanding the Role of the Ocean, 20-23 September 2010, Boulder, CO, USA. [More](#)

Workshop on Metrics and Methodologies of Estimation of Extreme Events, 27-29 September 2010, UNESCO Headquarter, Paris, FRANCE. [More](#)

14th Session of the Working Group on Coupled Modelling (WGCM), 4-6 October 2010, Exeter, UK. [More](#)

Workshop on ENSO, Decadal Variability and Climate Change in South America: Trends, Teleconnections, and Potential Impacts, 12-14 October 2010, Guayaquil, ECUADOR. [More](#)

26th Session of CAS/JSC Working Group on Numerical Experimentation, 18-22 October 2010, Tokyo, JAPAN. [More](#)

Workshop on Seasonal to Multi-decadal Predictability of Polar Climate, 25-29 October 2010, Bergen, NORWAY. [More](#)

Workshop on New Strategies for Evaluating ENSO Processes in Climate Models, 17-19 November 2010, Paris, FRANCE. [More](#)

Workshop on Sub-seasonal to Seasonal Prediction, 1-3 December 2010, Exeter, UK.