News from CLIVAR

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Welcome to the CLIVAR section of this joint edition of IGBP PAGES News and CLIVAR Exchanges. It has been a great pleasure to work with our colleagues from PAGES on this volume and I am grateful to Valerie Masson-Delmotte and Juerg Beer for acting as guest editors for the joint section on "climate forcings".

This autumn has been a busy one, with several CLIVAR-sponsored meetings taking place. Aspects of some of these are outlined below, namely the joint CLIVAR/OOPC/GOOS/Argo Workshop on the South Pacific, the CLIVAR co-sponsored 2nd International Workshop on Advances in the Use of Historical Marine Climate Data, the 7th CLIVAR Atlantic Panel meeting, which immediately followed a Tropical Atlantic Ocean Dynamics Workshop sponsored by both NOAA and CLIVAR (see picture on page 31), and, more recently, the joint IOCCP/CLIVAR International Repeat Hydrography Workshop. In addition, the joint JSC/CLIVAR Working Group on Coupled Modelling (WGCM) held its 9th session at the Met Office in Exeter, UK, from 3-5 October and CLIVAR's Working Group on Ocean Model Development (WGOMD) met on the 8th and 11th November. The WGOMD meeting took place around a two-day Workshop held on 9th & 10th November on Modelling the Southern Ocean, with both events being hosted by the CSIRO Marine and Atmospheric Research Division in Hobart, Australia.

Key WGCM-9 agenda issues included (i) developments in WCRP, in particular the WCRP Coordinated Observation and Prediction of the Earth System (COPES) Strategy; (ii) progress with regional modelling; (iii) IPCC/CMIP activities, in particular the major international global coupled model experiment and multi-model analysis coordinated by the WGCM Climate Simulation Panel. 14 modelling groups from around the world with 21 models have participated in this experiment, the largest ever involving coupled models. Considerable resources have been devoted to this project with PCMDI, which has played a key role, archiving more than 27 terabytes of data so far. Over 200 papers have been submitted to peer-reviewed journals from the analysis phase which has attracted over 400 analysis projects being registered at PCMDI. Results from the experiment are thus now feeding directly into the IPCC AR4.

Other topics on the WGCM agenda covered scenarios for the 5th IPCC assessment (which are now starting to be discussed), data management, the next CMIP activity, other WGCM activities, links to Earth System Modelling, interactions with THORPEX and recent developments at modelling centres. The last afternoon of the meeting was devoted to a joint session with the new overarching COPES WCRP Modelling Panel at which the concept of seamless prediction of the climate system across timescales was much debated.

The WGOMD Southern Ocean Modelling Workshop attracted a pleasingly large number of attendees and was aimed at reviewing the elements essential for modelling the Southern Ocean in climate scale simulations. Extended presentations were given by 10 invited speakers in two overarching sessions on "observations and dynamics" and "processes and climate change". The workshop demonstrated the key role that Southern Ocean processes and dynamics play in the climate system, both for the present day and in the past. It also identified the importance of testing models against both observed water mass distributions in the region and against the fragmentary but growing observational evidence of change in the Southern Ocean. Key regional processes that need to be represented in climate models include coastal polynya dynamics and ice shelf melt. There is also a critical need to properly represent under-ice vertical mixing processes.

Discussion in the WGOMD sessions themselves centred largely around the group's efforts in developing the concept of Coordinated Ocean Reference Experiments (CORE), results from these to date and the need for metrics to gauge the fidelity of the simulations. Through CORE the working group is looking to develop wider links with the CLIVAR ocean basin panels and regional activities in ocean modelling. The group also discussed its role in assessment of the ocean component of IPCC-class coupled model runs and received updates on progress in ocean modelling at the centres represented at the meeting.

Report of the International Repeat Hydrography Workshop

JAMSTEC, the International Ocean Carbon Coordination Project (IOCCP), and CLIVAR co-hosted an International Repeat Hydrography Workshop at the Shonan Village Conference Center in Kamakura, Japan, November 14-16. The workshop brought together 49 participants from 11 countries, with expertise including ocean carbon and biogeochemistry, physical hydrography, modeling and data assimilation, and the Argo program. The workshop reviewed the science framework and implementation status of post-WOCE hydrography, provided guidance for a more coordinated system of data and information management, and established plans to begin data synthesis activities. Further details about workshop objectives and goals, the agenda, and the participant list can be found at: http://ioc.unesco.org/ioccp/RepeatHydrog2005.htm.

The workshop report is in preparation and will be made available as soon as possible.