

19TH MEETING OF THE GEWEX SCIENTIFIC STEERING GROUP

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The Nineteenth Session of the GEWEX Scientific Steering Group (SSG) was held at the East-West Center at the University of Hawaii in Honolulu, 22–26 January 2007. The meeting was hosted by Dr. Julian P. McCreary, Jr. of the International Pacific Research Center with excellent support from his assistant, Ms. Jeanie Ho. Approximately 45 experts from 10 countries attended the meeting. The meeting focused on GEWEX activities and on how GEWEX could organize itself to most effectively meet the requirements of the GEWEX Phase II Roadmap, the World Climate Research Programme (WCRP) strategic plan and, more generally, the goals of climate research. As a result of this approach the discussions focused on GEWEX projects and their links with some central projects including the Climate Variability and Predictability (CLIVAR) Project, the Global Water System Project (GWSP), The Observing System Research and Predictability Experiment (THORPEX), and Global Climate Observing System (GCOS).

In addition a number of scientific talks were given, including:

- Dr. Robert Houze on the Tropical Rainfall Measuring Mission (TRMM) data and latent heating estimates.
- Dr. William Rossow on Cloudsat and its implications for global data sets.
- Dr. Bin Wang on monsoon research needs.
- Dr. Martin Werscheck on EUMETSAT's Satellite Applications Facility

Other presentations were given by Drs Riko Oki, Jared Entin, and Eileen Shea. The following paragraphs summarize some of the main conclusions and actions arising from the programmatic discussions at the meeting.

The most significant and far reaching decision at this meeting was the SSG's approval of a proposal to merge the Coordinated Enhanced Observing Period (CEOP) and the GEWEX Hydrometeorology Panel (GHP) into a single entity known as the Coordinated Energy and Water Cycle Observations Project (CEOP). A background paper describing the rationale for this decision is given at <http://www.gewex.org>. In addition it was agreed that the GEWEX Continental-Scale Experiments (CSEs) will be known as GEWEX Regional Hydro-climate Projects (RHPs) within this new structure. The GEWEX SSG believes that the new panel will provide a global framework for the RHP activities and that the CEOP data services will benefit the full range of science being undertaken in the RHPs. The technical and scientific criteria used as terms of reference for CSEs will be updated for the RHPs to better reflect current WCRP and GEWEX objectives. The restructured CEOP will be meeting in Washington, DC in March to address some of the issues related to the merger and to discuss ways to clarify and strengthen CEOP's contributions to the GEWEX Roadmap.

Assessments of global data products have been carried out under the leadership of GEWEX Radiation Panel (GRP). All four principal sets of data products [International Satellite Cloud Climatology Project (ISCCP), Global Aerosol Climatology Project (GACP), Global Precipitation Climatology Project (GPCP), and the Surface Radiation Budget (SRB) Project] now cover periods longer than 20 years



*Participants at the
GEWEX SSG-19 Meeting.*

and are increasingly being used in climate studies. The projects continue working towards a coordinated reprocessing activity so that these products can have even broader application. GRP is proposing to make ISCCP an operational product. The precipitation assessment is complete and the report is in review. Other assessment reports are also nearing completion. GPCP is now collaborating with the International Precipitation Working Group concerning improved measurements of snowfall and with a consortium for quantitative precipitation estimation under the WCRP/THORPEX activity.

The GEWEX Modelling and Prediction Panel (GMPP) outlined its new approach to model evaluation and parameterization development. The SSG welcomed this structured approach and supports the ambitious GMPP agenda. GMPP will lead the GEWEX coordination of the Aerosol Cloud Precipitation Climate Initiative with the international Land Ecosystem-Atmospheric Processes Study (iLEAPS) and with the international Global Atmospheric Chemistry Program. GMPP will also investigate collaboration with the Task Force on Seasonal Prediction through the Global Land Atmospheric Coupling Experiment-2 (GLACE-2) and how the effects of snow and vegetation initialization on predictive skill at intraseasonal to seasonal time scales can be assessed. The GEWEX SSG encouraged GMPP to advance a proposal for a joint GEWEX Cloud System Study (GCSS)/WCRP Working Group on a Coupled Modelling collaboration on the Cloud Feedback Model Intercomparison Project (CFMIP) to assess climate change cloud feedbacks and to potentially use the Data Integration for the Model Evaluation (DIME) web site to host model and observational data to facilitate this enterprise. CFMIP will encourage the systematic comparisons of cloud feedbacks among GCMs and comparisons of model clouds with observations.

The SSG approved the Northern Eurasia Earth Science Partnership Initiative (NEESPI) as a Regional Hydroclimate Project. NEESPI seeks to understand how the land ecosystems and continental water dynamics in northern Eurasia interact with and alter the climatic system, biosphere, atmosphere, and hydrosphere of the Earth. In addition, the draft strategic plan of the Hydrology Applications Project (HAP) was reviewed. This project, which succeeds the Water Resources Application Project (WRAP), will be the primary GEWEX link with the Global Water System Project (GWSP). After some modifications to the plan and some broadening of the level of participation GEWEX should be ready to launch this new initiative in the summer of 2007.

Given the WCRP crosscuts and the responsibility that GEWEX has for leading the monsoon crosscut, the research priorities for this topic received significant attention at the meeting. A key overarching issue for monsoon prediction is the fundamental need for improved representation of tropical convection. The SSG endorsed the concept for the THORPEX/WCRP Year of Tropical Convection (YOTC), a coordinated observing, modelling and forecasting tropical convection activity. YOTC will exploit the vast amounts of existing and emerging observational and computational resources now available in conjunction with the development of new high resolution modelling frameworks to advance the characterization, diagnosis, modelling and prediction of multiscale convective/dynamic interactions and processes, including the two-way interaction between tropical and extra-tropical weather/climate.

The Asian Monsoon Year (AMY) also gained GEWEX support as a joint GEWEX/CLIVAR [plus the Climate and Cryosphere (CliC) Project and Stratospheric Processes And their Role in Climate (SPARC)] activity designed to provide improved observations, analyses, and modelling in the Asian monsoon regions. AMY would focus on the 2008 time period and cover the full annual cycle of boreal summer monsoon thus contributing to the YOTC initiative. AMY would bring together the GEWEX and CLIVAR monsoon efforts in the Asian-Australian region, and in particular, the Monsoon Asian Hydro-Atmosphere Scientific Research and prediction Initiative (MAHASRI). The idea of extending this effort to the global perspective for an International Monsoon Year was discussed.

Concern was expressed about the status of the European GEWEX Coordinator function beyond 2007. The SSG recognized the valuable contribution of the European GEWEX Coordinator (Dr. Peter van Oevelen) in supporting GEWEX activities over the past 2½ years and asked the SSG Chair to request that the European Space Agency (ESA) continue to support this function.

On behalf of GEWEX, the International GEWEX Project Office expresses its appreciation to those agencies (ESA, EUMETSAT, Japan Aerospace Exploration Agency, National Aeronautics and Space Administration, National Oceanic and Atmospheric Administration) that sent representatives to the meeting. Although there were no formal presentations on agency activities these representatives enriched the discussion about GEWEX goals and brought new perspectives to be considered in GEWEX strategies.