

Wave measurement Evaluation and Test from moored buoys (WET)

In October 2008, the Data Buoy Cooperation Panel and the Expert Team on Wind Waves and Storm Surge, organized a Technical Workshop on Wave Measurements from Buoys (<http://www.jcomm.info/wavebuoys>). This workshop recognized and supported the recent work carried out in the development of the US IOOS Operational Wave Observation Plan, and recommended that appropriate elements of that plan be adapted and extended to an international context to enhance global wave observation programs.

One of the key recommendations of the workshop was that continuous testing and evaluation of wave measurement systems is an essential programme activity, of equal importance to the deployment of new assets; multiple locations are required to appropriately evaluate the performance of wave measurement systems given the wide spectrum of wave regimes that are of interest. A Pilot Project on Wave measurement Evaluation and Test (PP-WET) was proposed and subsequently endorsed and supported by the 24th Session of the DBCP (<http://www.jcomm.info/DBCP24>) for an initial period of two years. The objectives of the Pilot Project included the development of the basis for an international framework for the continuous testing and evaluation of existing and planned wave buoy measurements, coordination of buoy inter-comparison activities, development of technical documentation on wave measurement systems, training material and contribution of appropriate material to the JCOMM Standards and Best Practice Guide. A Steering Committee comprised of a wide representation from end-users, wave experts, buoy manufacturers, and buoy operators was established, co-chaired by Robert Jensen (US) and Val Swail (Canada).

In May 2009 the PP-WET Steering Committee established the protocols for intercomparison activities, and developed a contribution to the Community White Paper on wave measurement for the OceanObs09 conference in Venice. The work plan and schedule presented to DBCP-XXIV were reviewed and updated as appropriate.

Several national agencies (Canada, US, UK, Australia) have already commenced activities for intercomparison projects, and development of metadata bases (the latter coordinated with the DBCP TT on Moored Buoys). A centre for the intercomparison results has been set up at the Coastal Data Information Program (CDIP) at the Scripps Institution of Oceanography, and the preliminary results including the intercomparison methodology, web site and metadata criteria have been developed and presented at the DBCP Technical Workshop preceding the 25th Session of the DBCP.

A special session on wave measurement has been organized, chaired by Dr. Boram Lee, as part of the 11th International Workshop on Wave Hindcasting and Forecasting to be held in Halifax, Canada 18-23 October 2009 to further develop guidelines and participation in the Pilot Project (<http://www.waveworkshop.org>). The next meeting of the Steering Committee is scheduled for April 2010.

The Pilot Project is progressing well after its first year, and it is recommended that DBCP continue its support at the same level for the second year, particularly to assist Members who wish to participate in the intercomparison activities but do not have the technical resources available.