

**INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION (OF UNESCO)**

DATA BUOY COOPERATION PANEL

TWENTY-SIXTH SESSION

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WORLD METEOROLOGICAL ORGANIZATION

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ITEM: 8.4

ENGLISH ONLY

**PROGRESS REPORT ON THE PILOT PROJECT ON WAVE MEASUREMENT EVALUATION
AND TEST FROM MOORED BUOYS**

(Submitted by Val Swail, Co-chair PP-WET Steering Committee)

Summary and purpose of the document

This document provides information on the development and current status of the Pilot Project on wave measurement evaluation and test from moored buoys, and the workplan as agreed at the second meeting of the PP Steering Team (27 February 2010, Portland, United States).

ACTION PROPOSED

The Panel is invited to make recommendations to the Pilot Project Steering Team, as appropriate, on the workplan for the next intersessional period. See part A for the details of recommended actions.

Appendices: A. PP-WET WORKPLAN

-A- DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT

8.2.1 Mr Val Swail (Canada) reported on the development and current status of the Pilot Project on wave measurement evaluation and test from moored buoys. The full report is included as a presentation in the CD-ROM for the DBCP-XXVI meeting report.

8.2.2. Mr Swail reported that the PP-WET Steering Committee held the second meeting of the PP Steering Team (27 February 2010, Portland, United States), at which the work plan and schedule presented to DBCP-XXV were reviewed and updated as appropriate; the latest version is given in Appendix A, and is available at the pilot project website: <http://www.jcomm.info/wet>.

8.2.3 Mr Swail also noted that a special session on wave measurement and a side meeting had been organized as part of the Eleventh International Workshop on Wave Hindcasting and Forecasting (October 2009, Halifax, Canada) to further develop guidelines and participation in the Pilot Project (<http://www.waveworkshop.org>).

8.2.4 The Panel expressed its appreciation to several national agencies and international programmes for their participation in the intercomparison projects, and in the development of metadata bases in coordination with the Task Team on Moored Buoys. In particular, the Panel welcomed the contribution from Canada in providing financial support for the Coastal Data Information Program (CDIP) at the Scripps Institution of Oceanography, in setting up the intercomparison methodology, web site and metadata criteria, and in carrying out individual intercomparisons. The Panel encouraged its member countries to participate in the intercomparison activities that were led by this pilot project (**recommendation**).

8.2.5 The Panel noted that the first two directional waverider buoy deployments had been made by Canada, one on the east coast co-located with a 6m NOMAD, and one on the west coast co-located with a 3m discus with both a standard strapdown accelerometer and a TriAxys directional sensor. The initial comparison data are displayed on the intercomparison web site.

8.2.6 The Panel recognized that the pilot project would contribute to JCOMM in developing standards and best practice, as well as to the relevant WIGOS exercise, and encouraged the co-chairs and SC members to actively outreach these relevant activities with the progress in the intercomparison exercise (**recommendation**).

8.2.7 The Panel agreed that this pilot project was progressing well, and decided to retain its financial support from the trust fund for another year (see Agenda Item 12.4). The Panel thanked the PP-WET SC co-chairs, Mr Val Swail and Dr. Robert Jensen, and SC members for their work to make progress.

8.2.8 The meeting made the following recommendations:

- (i.) Continue to support the Pilot Project for the next year;
- (ii.) Encourage the co-chairs and SC members to contribute the results of the intercomparison exercise to JCOMM and WIGOS in developing standards and best practice;
- (iii.) Encourage its member countries to participate in the Pilot Project intercomparison activities.

8.2.9 The meeting decided on the following action items:

- (i.) A third meeting of the Steering Committee will be organized in early 2011 (**action; PP-WET co-chairs & Secretariat; ASAP**).

APPENDIX A

PP-WET WORKPLAN

The Pilot Project will run for an initial two-year period from November 2008 and will report to the DBCP on progress at its annual sessions. The Steering Team will guide the Pilot Project through the following actions:

Year 1 -

1. Expand and extend the relevant parts of the US experience from the IOOS Wave Plan test and evaluation activities to an international context within JCOMM;
2. Develop or adapt, as necessary, test and evaluation standards and the methodology for the inter-comparisons for both directional and non-directional data;
3. Establish protocols for field tests of wave measurement systems, including:
 - o how the first set of system tests will be conducted, and;
 - o how results will be presented;
4. Document metadata relevant to each intercomparison carried out under the Pilot Project, to be posted with each intercomparison results;
5. Develop metadata list for existing wave measurement systems, as contribution to existing marine metadata projects (e.g. ODAS, IODE, WIS, Meta-T PP, DBCP Task Team on Moored Buoys);
6. Develop or adapt as necessary standard wave quality control guidelines;
7. Contribute, as appropriate, to the JCOMM Standards and Best Practice Guides;
8. Present results to DBCP-XXV and other scientific fora.

Year 2 -

1. Coordinate intercomparisons of wave measurements from different platforms, on an opportunistic basis;
 2. Develop a plan for a continuous testing and evaluation program;
 3. Identify approaches to evaluating the performance (e.g comparisons to a currently accepted technology/approach) of current operational and pre-operational (including nautical and HF radar, ADCP, GPS sensors, and ASIS buoys) *in situ* and remote sensing technologies;
 4. Investigate the possibility of an alternative testing site if an ocean platform, were to be available through an industry partnership agreement; the evaluation framework would remain the same irrespective of the actual site;
 5. Contribute to training material to educate users about how to deploy and operate wave sensors appropriately;
 6. Decide if a case can be made to continue the pilot project for a further year and investigate follow-on mechanisms;
 7. Contribute, as appropriate, to the JCOMM Standards and Best Practice Guides;
 8. Present results to DBCP-XXVI and other scientific fora.
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