

DATA BUOY COOPERATION PANEL

DBCP-28/ Doc. 6.4 rev. 2  
(24-Sep-12)

TWENTY-EIGHTH SESSION

ITEM: 6.4

FREMANTLE, AUSTRALIA  
2-6 OCTOBER 2012

ENGLISH ONLY

**REPORT BY THE TASK TEAM ON CAPACITY-BUILDING (TT-CB)**

*(Submitted by Sid Thurston, TT-CB Chair, USA)*

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**Summary and purpose of the document**

This document contains the report by the chairperson of the DBCP Task Team on Capacity Building, and provides details on the outcome of DBCP Capacity Building activities during the last intersessional period, including: 1) outcome of the Third in-region Capacity Building Workshop for Countries of the Western Indian Ocean Region, Mombasa, Kenya, 16-20 April 2012, 2) "North Pacific Ocean and Marginal Seas" (NPOMS) Capacity Building Workshop in Jeju South Korea 9-13 July 2012 and 3) preparations underway for the DBCP "Regional Workshop on Best Practices for Instruments and Methods of Ocean Observation" scheduled for Chennai, India 19-21 November 2012.

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**ACTION PROPOSED**

The Panel will review the information contained in this report and comment and make decisions or recommendations as appropriate. See part A for the details of recommended actions.

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- Appendices:**
- A. Report by the Task Team on PANGEA Capacity Building Activities for 2012
  - B. Terms of Reference of the DBCP Task Team on Capacity Building
  - C. Goals for the Fourth DBCP in Region Western Indian Ocean Capacity Building Workshop, Zanzibar, Tanzania, May 2013
  - D. Proposed Goals for Second in Region "North Pacific Ocean and Marginal Seas" (NPOMS-2) Capacity Building Workshop, July 2013
  - E. Proposed Goals for Second "Regional Workshop on Best Practices for Instruments and Methods of Ocean Observation", November 2013

**-A- DRAFT TEXT FOR INCLUSION IN THE FINAL**

6.4.1 Sid Thurston, Chairperson of the Task Team on Capacity Building reported on the progress during the intersessional period. In particular, he provided comprehensive information on: 1) the preparation and outcome of the Third in-region Capacity Building workshop for Countries of the Western Indian Ocean Region, Mombasa, Kenya; 16-20 April 2012, 2) Capacity Building Workshop for the “North Pacific Ocean and Marginal Seas (NPOMS)”, Jeju South Korea 9-13 July 2012 and 3) preparations underway for the “Regional Workshop on Best Practices for Instruments and Methods of Ocean Observation”, Chennai India 19-21 November 2012. (See Appendix A).

6.4.2 After discussion, the Panel agreed with the following action items:

- To convene the Fourth "DBCP In-Region Western Indian Ocean Capacity Building Workshop" (WIO-4), May 2013, Zanzibar, Tanzania. The goals for the workshop are detailed in Appendix C (**action; TT-CB; Spring 2013**);
- To coordinate WIO-4 preparations with the DBCP, Tanzania Meteorological Agency, the NOAA Office of Climate Observation (OCO), the Agulhas-Somali Current Large Marine Ecosystem (ASCLME), and Western Indian Ocean Marine Science Association (WIOMSA) (**action; S. Thurston & Secretariat; until WIO-4**);
- To continue to build Observation Development Team (ODT) and Modelling Development Team (MDT) with Met/Ocean Institutes in the Western Indian Ocean Region (**action; TT-CB; WIO-4**);
- To Assemble a Team to explore recent advances in Information and Communication Technology (ICT) to help facilitate more effective DBCP TT-CB Outreach and Capacity Building Activities on a larger scale (**action; TT-CB; until DBCP-29**);
- To Enhance Coordination and Cooperation between TT-CB and WMO Regional Associations (**action; TT-CB; DBCP-29**);
- To endorse and provide coordination support, through TT-CB, for the organization of the Second “North Pacific Ocean and Marginal Seas” (NPOMS-2) Workshop likely in Qingdao China or Okinawa Japan, and the Second “Regional Workshop on Best Practices for Instruments and Methods of Ocean Observation” in Chennai India. The Panel emphasized that the regional activities should create synergies and avoid duplication, at all cost, therefore requested to develop specialized activities that meet the interest of the respective regions, preferably with the identified resources within the regions. To ensure this and for smooth coordination among regional activities, the Panel decided to invite the leaders of the regional workshop organization to become members of the TT-CB. (**action; TT-CB; continuous**).

## APPENDIX A

### A REPORT BY THE TASK TEAM ON PANGEA CAPACITY BUILDING ACTIVITIES FOR 2012

#### **Partnerships for New GEOSS Applications (PANGEA)**

During November 4-11 2009, the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) Third Session held in Marrakesh Morocco endorsed the Partnership for New GEOSS Applications (PANGEA [www.jcomm.info/pangea-concept](http://www.jcomm.info/pangea-concept)) concept. PANGEA provides for in-country practical applications training of ocean data to large and diverse groups of regional participants and fostering partnerships between developed and developing countries to realize the socio-economic benefits of ocean observing systems. A series of workshops has been convened by the DBCP as part of their contribution to the PANGEA concept.

#### **In-Region Western Indian Ocean, East Africa**

As contributions to the PANGEA concept, the First DBCP In-Region Western Indian Ocean Capacity Building Workshop (WIO-1) was kindly hosted by the South African Weather Service (SAWS) in Cape Town in April 2010. Presentations from the first workshop can be found on [www.jcomm.info/wio-dbcpl](http://www.jcomm.info/wio-dbcpl). The DBCP continued its Western Indian Ocean PANGEA Capacity building activities with the Second training Workshop (WIO-2), hosted by the Mauritius Oceanography Institute ([www.jcomm.info/wio-dbcpl2](http://www.jcomm.info/wio-dbcpl2)).

The Third and most recent Western Indian Ocean Capacity Building Workshop (WIO-3), *“Implementation and Operation of Western Indian Ocean and Greater Agulhas Current Observing System: Building Links and Predictive Capacity for East African Participation”*, was generously hosted by the Kenya Meteorological Department with forty-six participants in Mombasa Kenya 16-20 April 2012 ([www.jcomm.info/wio-dbcpl3](http://www.jcomm.info/wio-dbcpl3)). The overall goal was to continue to build practical observation, modelling and application capacity for the Region. The Goals of the Workshop were successfully achieved including building capacity within Regional Institutes to apply new Indian Ocean Observing System (IndOOS) Data, such as from The *Research Moored Array for African–Asian–Australian Monsoon Analysis and Prediction* (RAMA) and others, for enhanced predictive Capability for the Region. Five Principal Recommendations emerged from the Workshop:

1. Establish a Western Indian Ocean Science Alliance to be led by the Agulhas-Somali Current Large Marine Ecosystem (ASCLME),
2. The Observation Development Team (ODT) recommends that appropriate glider technology be used in a pilot project to assess whether real-time weather observations can be collected within this data sparse area,
3. Recognizing the importance of links between remote sensing and in-situ observations, the ASCLME Project and the Mauritius Oceanography Institute (MOI) will pursue a collaborative agreement building on the proposed AMESD follow-on projects,
4. Recognizing the fact that Regional members indicated willingness to become part of the International Buoys Deployment community, the ODT recommends that drifting weather buoys be supplied to African countries as a pilot project and results be provided during the next Capacity Building Workshop,
5. Representatives of Regional Met/Ocean Institutes put forward a Resolution at WIO-1 to enhance ocean observations off the East coast of Africa to include five (5) Ocean Moored Buoys. This resolution carried forward in Mombasa. Scientific justification for these additional in-situ observations off the East coast of Africa includes a better understand of the Somali Jet, upwelling and other met/ocean phenomena of the Region.

The Tanzania Meteorological Agency has offered to host the Fourth Western Indian Ocean Capacity Building Workshop (WIO-4) in Zanzibar, Tanzania May 2013.

### **East and South Asia**

The DBCP contributed to two additional 2012 Capacity Building Workshops for East and South Asia. The first was held in Jeju South Korea, "North Pacific Ocean and Marginal Seas", July 9-13 and the second in Chennai India November 19-21 "Regional Workshop on Best Practices for Instruments and Methods of Ocean Observation". The former was organized and sponsored by Jeju Sea Grant Programme / Jeju University, with partnership and sponsorship of several regional institutions. The latter is being organized by the India National Institute of Ocean Technology (NIOT), with partial contribution from the Panel's Trust Fund. During DBCP-28 the Executive Board will assess each of these Workshops and explore funding sources for possible continuation in 2013.

### **Central and Eastern Indian Ocean**

As additional PANGEA contributions to the Indian Ocean Observing System (IndOOS) and RAMA implementation with Japan, China and other Regional Partners, the United States National Oceanic and Atmospheric Administration (NOAA) has been working with India and Indonesia to implement the Central/Eastern IndOOS for the past six years. Now the agency is also working with the Agulhas-Somali Current Large Marine Ecosystem (ASCLME) Project to implement the Western Indian Ocean RAMA Array. NOAA's partners contribute ship time while NOAA provides instruments and moorings. NOAA also contributes other benefits to its partners under "Resource Sharing" PANGEA agreements which include capacity building workshops, training and education opportunities.

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## APPENDIX B

### TERMS OF REFERENCE FOR THE DBCP TASK TEAM ON CAPACITY-BUILDING

(As adopted at DBCP-XXIV)

#### **The DBCP Task Team on Capacity-Building shall:**

1. Initiate, plan and coordinate the implementation of the Training and Capacity-Building work programme including, in particular, the regular Training Course on Buoy Programme Implementation and Data Management;
2. Keep under review existing training material (paper and electronic) and advise on updating as well as for the development of new material;
3. Review and assess national, regional, and global requirements for capacity-building and develop / improve programmes as appropriate;
4. Liaise with other capacity-building programmes in relevant areas to develop and implement integrated activities, to explore potential synergies and opportunities for efficiently using resources available; liaise in particular with the JCOMM cross-cutting Team on Capacity-Building;
5. Endeavour to mobilize the resources required for DBCP capacity-building, including those needed for the implementation of the Training Courses;
6. Make recommendations to the DBCP Executive Board and / or the DBCP for addressing the issues above; and
7. Report to the DBCP Executive Board and the DBCP at its Annual Sessions.

#### **Membership:**

The membership is open to all Panel members. The Chairperson<sup>1</sup>, appointed by the Panel, has selected the following team members:

Dr Sidney THURSTON, NOAA/OCO (TT Chairperson)	TT Vice-Chairperson [to be appointed]
DBCP Executive Board members, including DBCP Chairperson, Vice-chairpersons (or their respective deputies)	DBCP Technical Coordinator
Hamad Mohammed AL GHEILANI (Oman)	Mathieu BELBEOCH (JCOMMOPS)
Rick LUMPKIN (USA)	Walter FLORES SERVAT (Peru)
Djoko HARTOYO (Indonesia)	Dr G. LATHA (India)
Byung-Gul LEE (Republic of Korea)	Kwan-Chang LIM (Republic of Korea)
Rick LUMPKIN (USA)	Ali MAFIMBO (Kenya)
David MELDRUM (UK)	Lucy SCOTT (South Africa)
R. VENKATESAN (India)	Jean ROLLAND (France)
Representative of the IOC Secretariat	Representative of the WMO Secretariat

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<sup>1</sup> The Chair and Co-Chair of the Task Team should not be in a situation of conflict of interest.

## **APPENDIX C**

### **GOALS FOR THE FOURTH DBCP IN-REGION WESTERN INDIAN OCEAN CAPACITY BUILDING WORKSHOP (Zanzibar, Tanzania, May 2013)**

- Continue to Build Capacity Within Regional Institutes to Apply Indian Ocean Observing System (IndOOS) Data, such as from RAMA and others, for Enhanced Predictive Capability for the Region as for Extreme Events, Fisheries and Ecosystem Management, and other applications,
  - Enhance Coordination and Cooperation between TT-CB and WMO Regional Association (RA-I), the IOC Sub Commission for Africa and the Adjacent Island States, Agulhas-Somali Current Large Marine Ecosystem (ASCLME) and Western Indian Ocean Marine Science Association (WIOMSA),
  - Demonstrate the Crucial Role of Ocean Observations for Understanding and Predicting Regional Weather, Ocean and climate,
  - Discuss ways to mitigate implementation constraints by Regional Piracy,
  - Continue to Build In-Region Modelling Development Teams (MDT) and Observation Development Teams (ODT), including for the implementation of buoy programmes,
  - Learn practical implementation aspects for the deployment of operational data buoys at sea, the collection of buoy data, and related data management,
  - Learn Practical Application of Regional Ocean, Met and Climate Models for Addressing Impacts from Climate Change in the Coastal and Marine Environment,
  - Utilize advances in Information and Communication Technology (ICT) to facilitate more effective Outreach and Capacity Building Activities on a larger scale.
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## APPENDIX D

### GOALS OF THE PROPOSED SECOND DBCP CAPACITY BUILDING WORKSHOP FOR THE “NORTH PACIFIC OCEAN AND MARGINAL SEAS (NPOMS) WORKSHOP” (*East Asia, July 2013*)

- Continue to Open the dialogue among regional scientists, ocean observers, operators and system developers in Japan, China, Korea and other countries in the North Pacific Ocean and Marginal Seas, from research institutes, universities, government agencies and non-governmental organizations (NGOs),
  - Continue to Build Capacity for operating, maintaining and developing data buoy networks to share data and information of the critical North Pacific Ocean and its Marginal Seas to include East Sea/Sea of Japan, East China Sea and South China Sea,
  - Continue to engage interests of regional community of ocean and atmospheric scientists into the wider buoy community, to validate and improve the quality of data buoy and observed data for weather and ocean forecasts based on various operational models,
  - Providing a systematic, community-based framework to exchange best practice and up-to-date knowledge in the development of buoy observing technology, application of ocean observing information to inter-disciplinary research and services of regional interest, such as mesoscale convection, typhoon and coastal surges, fisheries, and energy.
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## APPENDIX E

### **GOALS OF THE PROPOSED SECOND DBCP CAPACITY BUILDING WORKSHOP ON “REGIONAL WORKSHOP ON BEST PRACTICES FOR INSTRUMENTS AND METHODS OF OCEAN OBSERVATION” (*South Asia, November 2013*)**

- Continue to build upon the fruitful first workshop ([www.jcomm.info/dbcp-cb-asia1](http://www.jcomm.info/dbcp-cb-asia1)) and help implement capacity for Asian developing countries to include working with Industry,
  - The Workshop is primarily designed for scientists, researchers, engineers and managers of Asian Countries to receive information on current best practices regarding calibration and testing instruments for ocean observation systems.
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