

FOREWORD

It is my pleasure to present the twenty-ninth Annual Report of the Data Buoy Co-operation Panel. The Panel was established in 1984 to address the drifting buoy network in the global oceans. In 1993 its Terms of Reference were updated to also address the moored buoys in the high seas. It was re-constituted in 1999 under the auspices of JCOMM. In 2012, per decision from JCOMM, the terms of reference of the Panel were again updated to include coordination for rigs and platforms in the ocean. Membership in the DBCP is voluntary, and its activities are supported by contributions from member countries. The drifting and moored buoy arrays support many international programs such as the GOOS¹, the GCOS², the WCRP³, the WIGOS⁴, and the GFCS⁵. At its twenty-ninth Session (Paris, France, 23-27 September 2013), the Panel recognized again the considerable importance of the implementation of the WMO Integrated Global Observing System (WIGOS) to WMO and UNESCO/IOC, and to their Members/Member State. It updated its implementation strategy to reflect the implication to the DBCP activities of the WIGOS framework Implementation Plan (WIP).

While the Panel is striving to maintain the drifting buoy array at the level of 1250 operational units in the world oceans, efforts remain to be made to address data gaps in certain oceans. DBCP seeks to improve quantity, quality, timeliness and coverage of data, including barometric pressure, for use in prediction and research programs. Other activities include the analysis of requirements and the provision of international liaison and a forum for discussion. The DBCP supports an excellent working relationship with manufacturers, who are attendees at annual meetings, and who work with network operators throughout the year to address issues.

Some of the successes of the DBCP include: (i) the development of data quality control guidelines; (ii) the establishment of actions groups for the world's oceans, e.g. International Buoy Programme for the Indian Ocean (IBPIO); (iii) the creation of task teams to address technical issues, e.g. Capacity Building; (iv) the setting up pilot projects e.g. Argos/Iridium telecommunications; wave measurements; sea level pressure; (v) the coordination of reporting on common issues such as the DBCP Report on Vandalism, technical manuals and guides, standards, and best practices; and (vi) the sponsoring of capacity building workshops.

For example, the Panel has been fostering collaborative activities and deployment opportunities in critical and data-sparse areas. The Panel organized series of Capacity Building workshop, the first of these, directed at key personnel from the African region, was held at Ostend in June 2007; and successive ones in Cape Town, South Africa (2010), Mauritius (2011), and Mombasa, Kenya (2012), Tanzania (2013) targeting implementation of buoy programmes in the Western Indian Ocean region. In addition, The Panel organized a first "North Pacific Ocean and Marginal Seas" (NPOMS-1) Workshop in the Republic of Korea in July 2012, a second NPOMS-2 Workshop in Hangzhou in China in October 2013, and a "Regional Workshop on Best Practices for Instruments and Methods of Ocean Observation" in Chennai, India in November 2012.

1 IOC-WMO-UNEP-ICSU Global Ocean Observing System
2 WMO-IOC-UNEP-ICSU Global Climate Observing System
3 WMO-IOC-ICSU World Climate Research Program
4 WMO Integrated Global Observing System
5 Global Framework for Climate Services

Noting the successful outcome of the fourth "DBCP In-Region Western Indian Ocean Capacity Building Workshop", held in Tanzania, April 2013, the Panel agreed to organize and convene a fifth workshop in 2014. The Panel also endorsed plans to organize the Third "North Pacific Ocean and Marginal Seas" (NPOMS-3) Workshop in 2014.

The number of operational drifters on the GTS for July, 2013 was 1118, with about 40% of those reporting atmospheric pressure. During the year, about ½ the drifting buoys reported to the GTS in less than 60 minutes and 87% reported in less than 120 minutes, a small improvement compared to last year. Efforts remain to be made to improve timeliness through actions such as the increased use of Iridium, and improvements in the Argos network of regional receiving stations.

While we have seen the number of operational drifters go up in late 2013 concerns remain as the drifter lifetimes have continue to be below the goal of a half-life of 450 days. Recent studies by the DBCP Task Team on Instrument Best Practices and Drifter Technology Development (TT-IBP) have shown that the main factors known to affect the drifter lifetime are (i) faulty battery packs; (ii) increased power demand that resulted from the implementation of PMT and strain gauge. The GDP is working to address and remediate the identified problems and tests are being conducted to determine their success and re-establish confidence in the buoy supply chain and to avoid episodes of network degradation in the future. The TAO array, has also experienced a drop in numbers over the year and in July 2013 only 36% of the TAO data were delivered to end users. DBCP-29 expressed it concerns about the limited ship support for the equatorial mooring arrays, the state of the TAO array and data availability. The Panel noted the difficulty of maintaining these sustained observation programmes. One of the main challenges now with the moored buoy array is finding resources to maintain the systems.

As we look forward to the future the DBCP sees opportunities while it will also face some challenges. The Panel welcomes new participants and partners to support the observing arrays and maintain the drifting network at 1250, while addressing gaps and timeliness issues and increasing the number of buoys reporting barometric pressure. The DBCP must remain relevant by meeting client needs (such as high resolution sea surface temperature), integrating emerging technologies (such as gliders), and addressing regional and/or technological requirements through establishment of appropriate task teams or pilot projects. And, of course, we must accomplish this during a time of global fiscal constraint. I invite the readers of this annual report to consider joining the DBCP to advance programs of mutual interest.

A number of actions have been undertaken in 2013 to address the issue of vandalism on data buoys. In particular, the DBCP working group on Vandalism circulated a form for reporting incidents of vandalism on data buoys to member countries. Six countries/programs reported 95 vandalism events during the last intersessional period ranging from cut mooring lines, damaged sensors to complete removal of instruments resulting in thousands of lost days of data. The Panel recognized that vandalism on data buoys is a global menace and concurred with the recommendations of the working group on vandalism, and which discussed the loss of instruments Mooring and Buoy and cost for reinstallation of mooring, ship time availability and associated cost involved. It was strongly felt the need to sensitize this issue through a major educational awareness programme, in line with UN General Assembly and WMO Congress and IOC Assembly resolutions. The Panel agreed with an action plan to address the issue of vandalism.

In February 2013 JCOMMOPS welcome a new technical coordinator dedicated to ship coordination. This third coordinator at JCOMMOPS is acting as a focal point and is working

essentially on the SOT program coordination, GO-SHIP program coordination, metadata management of ship based information (cruise plans in advance), and “JCOMMOPS ship time service” development.

Despite Ms Kelly Stroker’s decision to return to the USA by January 2013, the Panel could continue as a temporary measure to benefit from her services as Technical Coordinator of the DBCP through a Special Service Agreement with WMO. The Panel concurred with the migration of JCOMMOPS from Toulouse, France to Brest, France, and agreed that the successor of Ms Stroker should be recruited in Brest. The Panel agreed that it will be important to avoid a break in service and ensure training of a new Technical Coordinator by keeping Mr Stroker under contract with WMO for a significant period of overlap with the new Technical Coordinator.

Overall, I am confident that the Panel is both well placed and enthusiastic to continue its pivotal role in ensuring the smooth flow of observations and other data from the oceans to a wide user community, and in addressing new observational and organizational challenges. We look forward to welcoming participants at DBCP-30 in China in October 2014.

Al Wallace
(DBCP Chair)