DEVELOPMENTS IN BUOY TECHNOLOGY, COMMUNICATIONS AND DATA APPLICATIONS

PRESENTATIONS AT THE DBCP SCIENTIFIC AND TECHNICAL WORKSHOP

(Victoria, Canada, October 2000)
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NOTE

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FOREWORD

The success of the technical workshops, beginning at the eleventh session of the Data Buoy Cooperation Panel (DBCP), encouraged the panel to make such workshops a regular feature of its annual session, as a practical means of promoting cooperation and information exchange amongst all sections of the global buoy community, including buoy deployers, data users and communication systems providers.

Consequently, a technical workshop on Developments in Buoy Technology, Communications and Data Applications took place during the first day and a half of the sixteenth session of the panel, held in Victoria, British Columbia, Canada, October 2000. A total of twenty-five papers were presented to more than sixty participants during the workshop. The texts of seventeen papers and four abstracts, and slides of four presentations are included in this DBCP technical publication. In all cases the papers and slides have been reprinted as received, without additional editorial intervention.
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OF THE DATA BUOY COOPERATION PANEL, SIXTEENTH SESSION

VENUE: Victoria, British Columbia, Canada
DATE: 16th-17th October 2000

THEME: DEVELOPMENTS IN BUOY TECHNOLOGY, COMMUNICATIONS
AND DATA APPLICATIONS

WORKSHOP CHAIR: Wynn Jones, The Met. Office, UK

Monday, October 16, 2000

Session 1  Developments in moored and drifting buoy design, sub-surface floats, sensors, communications, and operational programs
Chair: Julie Fletcher, Metservice, NZ

Developments in the Technocean SVP-Barometer Drifter
Jeffrey Wingenroth, Henry White, Technocean, Inc., Cape Coral, Florida, USA

Calibrated Minimet Technology
Andy Sybrandy, Pacific Gyre
Peter Niiler, Scripps Institution of Oceanography, USA

Marlin SVP-B drifters evaluation after one-year operation in situ
Sergey Motyzhev, Marlin Scientific Manufacturing Company, Ukraine
Elizabeth Horton, Naval Oceanographic Office, USA

New generation of Argos-2(3) SVP buoy series as instrument for DBCP Implementation Strategy. Matter for discussing
Sergey Motyzhev, Marine Hydrophysical Institute NASU, Ukraine
Elizabeth Horton, Naval Oceanographic Office, USA

An update to results on SVP-B performance and cost analysis presented at DBCP XII, Henley 1996
Eric Meindl, NOAA/NDBC, Stennis, USA

Autonomous Ocean Observing System (ADOS)
W. Gary Williams, Clearwater Instrumentation, Inc. Watertown, MA, USA

Getting ready for the Argos Downlink
Michel Taillade, CLS General Manager, Toulouse France

Drifting Wave Buoy using ORBCOMM Data Transmission
Tetsuya Uwai, Japan Meteorological Agency, Japan

ORBCOMM Performance - results of an Antarctic evaluation
D T Meldrum, D J L Mercer and O C Peppe, Dunstaffnage Marine Laboratory, UK

A New High Data Rate GOES Satellite Transmitter for Buoy Applications
Jim Hanlon, President, Seimac Limited
Brian Day, General Manager, Campbell Scientific Corp., Canada
Preliminary results from a Met. Office Open Ocean Buoy fitted with a TRIAXYS Wave Sensor
D W Jones and S J Keogh, The Met. Office, UK

Neptune- METOCEAN Data Systems Limited ’s Deep diving profiling floats
Bernard G. Petolas, P. Eng, METOCEAN data Systems Ltd., Dartmouth, NS, Canada

Session 2
Data requirements relating to operational oceanography and meteorology, including, in particular, case studies related to weather forecasting
Chair: Jean Rolland, Météo-France, France

Project Argo, moving towards the implementation phase.
Howard Freeland, Institute of Ocean Sciences, Sidney, B.C., Canada

Specific Contributions to the Observing System: Sea Surface Temperatures
Richard W. Reynolds, D.E. Harrison, and Diane C. Stokes, NOAA/OGP, USA

The potential of data buoys in support of numerical weather prediction: The EUCOS initiative
François Gerard, EUCOS Programme manager, Météo-France, France

World Ocean Surface Circulation
Peter Niiler, Scripps Institution of Oceanography, USA

SEA SURFACE TEMPERATURE MEASUREMENT from ODAS Buoys
Jim Gower, Institute of Ocean Sciences, Sidney, BC, Canada
Simon Skey and Mark Blaseckie, Axys Environmental Systems, Sidney, BC, Canada
Val Swail, Meteorological Service of Canada, Downview, ON, Canada

Tuesday, October 17, 2000

Session 3
Buoy data applications in oceanographic and meteorological modelling, global climate studies, and as a complement to remote sensing.
Chair: Louis Vermaak, SAWB, South Africa

New Argos User interface on the Web
Christian Ortega, CLS, Toulouse, France

Inter comparison of sea surface meteorological data from two different buoys and with ship observations
M. Ravichandran, M. Harikrishnan, Tata Sudhakar, M. Muralidhar and K. Premkumar National Institute of Ocean Technology, IIT Campus, Chennai, India

Use of GPS drifters for measurement of near surface currents in a wide strait
Dario Stucchi, Institute of Ocean Sciences, Sidney, B.C., Canada

A full buoy network for complex mesoscale weather
Owen S. Lange, Environment Canada, MSC, Vancouver, BC, Canada

Physical and biological monitoring with the western Canadian ODAS marine buoy network
Jim Gower, Institute of Ocean Sciences, Sidney, BC, Canada

Status of the global drifter array, and the Hurricane array deployments
Craig Engler, AOML, Miami, FL, USA
The Global Drifter Array- New Data products and the Year 2000 Hurricane Drifter Array
Mayra Pazos, AOML, Miami, FL, USA

Observed Changes in Arctic Climate
Ignatius Rigor, Department of Atmospheric Science, University of Washington, Seattle, USA
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