INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (OF UNESCO) _____	WORLD METEOROLOGICAL ORGANIZATION _____
DATA BUOY COOPERATION PANEL	DBCP-XXVI/Doc. 8.2 (2.IX.2010) _____
TWENTY-SIXTH SESSION	ITEM: 8.2
OBAN, UNITED KINGDOM 27 – 30 SEPTEMBER 2010	ENGLISH ONLY

PROGRESS REPORT ON THE PILOT PROJECT FOR THE EVALUATION OF ARGOS-3 TECHNOLOGY

(Submitted by Luca Centurioni, SIO, USA)

Summary and purpose of the document

This document provides information on the development and current status of the Argos-3 pilot project implementation.

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.   Progress report on the Pilot Project for the Evaluation of Argos-3 Technology

-A-   DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT

8.2.1   Dr Luca Centurioni reported on the development and current status of the Argos-3 pilot project implementation. Developments are being conducted in collaboration with the manufacturers (Pacific Gyre, Clearwater, Metocean, and Marlin-Yug). The Panel noted that some units had been deployed with limited success. There are plans underway to deploy new units. Some PPT/system evaluations were done at CLS. Most of such compiled statistics are in the process of being verified by AOML (Mayra Pazos).

8.2.2   The Panel agreed that it is crucial to have an independent assessment of the new Argos-3 technology through the Pilot Project Steering Team. The Panel thanked the Steering team ofr its efforts, agreed that the evaluation of the Argos-3 technology should continue, the Pilot Project kept alive, and requested the Steering team to continue its evaluation and report on its findings at the next Panel Session (***action; Argos-3 PP; DBCP-27***).

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Appendices: 1

APPENDIX A

PROGRESS REPORT ON THE PILOT PROJECT FOR THE EVALUATION OF ARGOS-3 TECHNOLOGY

Technology development and deployments

Michel Guigue (CLS) kept in contact with, and visited, most of the manufacturers of Argos 3 drifters during 2010.

Pacific Gyre: They seem to have achieved a stable Argos 3 SVP-B system. Ten units will soon be available for deployment;

Clearwater: the attempt to build Argos 3 SVP-BG was unsuccessful. However, the ten newly produced SVP-B models passed the dry test and are now performing well after the antenna was replaced with a different and inexpensive model. Five drifters have been shipped to be deployed in the Pacific Ocean (coordinated by Shaun Dolk, AOML) and the remaining five should be deployed in the North Atlantic (ESURFMAR region). For this latter deployment we seeking the assistance of Météo France.

Metocean: the seven drifters deployed in '09 stopped sending sensors data after 2 weeks. A problem at the controller level was identified. The manufacturer's suggested workaround consists of rebooting the system after failed communication with the PMT. However, a more elegant solution is being sought, but not yet available as of May 2010. The deployed PMTs were still working as of May 2010 and producing accurate fixes. No new order for Argos-3 units has been placed.

Marlin-Yug: ten SVP-B's were produced and passed the dry test. Two units were deployed in the Black Sea. Two were sent to Dr. Pierre Poulain to be deployed in the Mediterranean Sea. The remaining six units were shipped to Dr. Julie Fletcher, to be deployed in the waters around New Zealand.

Data analysis and evaluation

Some PPT/system evaluations were done at CLS. Most of such compiled statistics are in the process of being verified by AOML (Mayra Pazos). **The Argos-3 steering team recognizes it is crucial to have an independent assessment of the new Argos-3 technology and remains committed to such objective.**

Miscellaneous

CLS used two-way communication at transmitter level to change the output power and increase the number of good messages with correct observations in the eastern Mediterranean off Sicily/Tunisia and Libya. An auto-tuning routine at PMT firmware level is being considered for Argos 3 and will most likely be implemented for Argos 4.

CLS is implementing a new filtering method (a Kalman filter , based on previous fixes, velocity model and actual Doppler frequency measurements) for localization which will produce a cleaner and more accurate position dataset.