

WORLD METEOROLOGICAL ORGANIZATION

**INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION (OF UNESCO)**

DATA BUOY COOPERATION PANEL

DBCP-XXVII/Doc. 8.1
(26-Sep-11)

TWENTY-SEVENTH SESSION

ITEM: 8.1

GENEVA, SWITZERLAND
26-30 SEPTEMBER 2011

ENGLISH ONLY

PROGRESS REPORT ON DRIFTER IRIDIUM PILOT PROJECT

(Submitted by David Meldrum, United Kingdom)

Summary and purpose of the document

This document provides information on the development and current status of the Iridium Pilot Project.

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.

-A- DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT

8.1.1 The Iridium Pilot Project (IPP) had been initiated by the Panel in 2007 with the objective of deploying and evaluating up to 50 Iridium equipped SVP-Bs throughout the global oceans. In fact nearly 300 Iridium SVP-Bs had been deployed within the context of the IPP, largely as a result of the active participation and in-kind support of a number of meteorological agencies, notably ESURFMAR, Météo France and the Australian Bureau of Meteorology. The Panel thanked these agencies for their involvement, which had done much to evaluate the performance of Iridium drifters and to ensure the success of the IPP.

8.1.2 The Panel noted with approval that residual IPP funds were to be used to help Météo France to target the central S Pacific with Iridium drifters, an area that continued to suffer from appreciable timeliness issues for data being transmitted by Argos. It thanked Météo France for its efforts in this regard, and also with respect to further deployments already being made in the Indian Ocean.

8.1.3 The Panel noted that timeliness issues were to be further discussed under item 9.3, but agreed that Iridium drifters did apparently offer a number of advantages, not only in timeliness, but also with regard to eventual life-cycle costs.

8.1.4 The Panel, in recognizing that the IPP had long outlived its initial two-year lifespan, agreed that it should formally be disbanded, but that a small number of legacy actions should be followed up by its chair, D Meldrum, aided by the TC and others as required.

8.1.5 The Panel closed this item by thanking the IPP, participating agencies and manufacturers for leading the way in establishing Pilot Projects as a key component of the Panel's activities, and for greatly assisting the rollout of Iridium technology in the data buoy community.

8.1.6 The meeting decided on the following action items:

- (i.) The Panel agreed that the IPP steering team should now disband, but that its chair, D Meldrum, in consultation with the TC and other experts, be tasked with completing the analysis, the publication of a final report, and the compilation of a best-practices guide for the use of Iridium in drifters. (**Action; D Meldrum & TC; DBCP-28**)

-B- BACKGROUND INFORMATION

1. The Iridium Pilot Project (IPP) was initiated by the Panel in 2007 with the objective of deploying and evaluating up to 50 Iridium equipped SVP-Bs throughout the global oceans. This was to be achieved cost-effectively by paying buoy manufacturers a nominal USD500 upgrade cost to convert conventional Argos equipped drifters, already being procured by buoy operators, to Iridium. In fact a number of buoy operators, notably ESURFMAR, Météo France and the Australian Bureau of Meteorology, elected to move to Iridium for their operational buoy fleets and did not call upon this upgrade offer, although they did remain participants within the IPP, in terms of notifying deployments and making data available to JCOMMOPS. As a result, more than 300 deployments have been made, although the original aim of a global distribution has not been fully achieved. Currently nearly 100 buoys report via the GTS, a number that has grown steadily over the lifetime of the project.

2. It was agreed at the last Panel session that remaining IPP funds should be used to upgrade drifters for deployment in those areas (Indian Ocean, S Atlantic and S Pacific) which continued to suffer from appreciable delays for data being transmitted by Argos. As a result, Météo France will use IPP upgrade funds to deploy a number of Iridium drifters in the S Pacific, whereas they have

already deployed a number in the Indian Ocean entirely at their own expense.

3. Overall, as the trend towards longer buoy lifetimes continues, costs per observation for Iridium equipped drifters will tend to fall with respect to those for Argos SVP-Bs, especially for those users that are unable to benefit from the Argos large-user tariff. Typical yearly Iridium costs for an SVP-B are USD200, compared to approximately 2000 euro for a European Argos user.

4. The IPP should now have completed its analysis phase but this has not been achieved for a number of reasons, including lack of available effort, lack of a TC and the fact that a number of IPP platforms are still operational. Thanks must go to Météo France in this regard for their efforts to continue deployments and to keep the IPP database updated.

5. Nonetheless, early analyses have clearly indicated the timeliness benefit that accrues from using Iridium, with the vast majority of data being delivered to agency processing centres within 30s of the time of transmission, and typically then being published on the GTS within 10 minutes or so. Further information and analysis on this important topic is presented under item 9.3.

6. It is recommended to the Panel that the IPP steering team should now disband, but that its chair, D Meldrum, in consultation with the TC and other experts, be tasked with completing the analysis, the publication of a final report, and the compilation of a best-practices guide for the use of Iridium in drifters.
