THE NEED FOR OCEAN DATA STANDARDS

The value of standards is clearly demonstrable. In oceanography, there have been many discussions for processing data and information. Many useful ideas have been developed and put into practice, but there have been few successful attempts to develop and implement international standards in managing data.

COOPERATION BETWEEN IODE AND JCOMM ON STANDARDS

The First Session of the IOC’s International Oceanographic Data and Information Exchange (IODE)/WMO Joint Commission for Oceanography and Marine Meteorology (JCOMM) Forum on Oceanographic Data Management and Exchange Standards was held January 21-25, 2008 at the IOC Project Office for IODE in Ostende, Belgium. The objective of this meeting was to get general agreement and commitment to adopt key standards related to ocean data management thereby facilitating exchange between oceanographic institutions. This event was co-sponsored between the United States of America (NOAA Integrated Ocean Observing System (IOOS) Program Office) and the Government of Flanders (through the IOC Project Office for IODE) and was chaired by Robert Keeley of Canada and Greg Reed of Australia.

The meeting brought together representatives of organizations that are extensively involved in ocean data management, possess strong technical expertise in one or more data management areas and able to influence other organizations to adopt the agreed upon standards.

DISCUSSIONS AND SETTING A PROCESS

The meeting discussed what process would be needed to adopt a proposed standard. Attendees agreed that it should include (as a minimum):

i. Scope of the standard
ii. Limitations (suitability of purpose)
iii. Required tools or applications for effective support
iv. Rules for information conversion from legacy systems
v. Technical obstacles (and recommendations to resolve them)

Topics of discussion included marine metadata (at the discovery level), vocabularies, code lists and ontologies, quality control of physical oceanographic parameters (including surface waves, sea level, currents, temperature and salinity), and use of quality control flags.

THE WAY FORWARD

The meeting emphasized the need for a process to manage the development of standards and broad communication of both the process and results. In this regard the meeting made the following decisions:

• Establish a pilot project organized under the IODE/JCOMM ETDMP that will further refine the process and apply it to the standard candidates recommended by the Forum
• Document the standards process and promote it at national and international meetings where appropriate
• Establish close collaboration with other organizations such as GEOSS, Ocean.US, and World Data Centers immediately to widely advertise and promote the adopted standards
• Create a new web site (www.oceandatastandards.org) with a clear identity related to ocean data standards and undertake other communication to further promote the process and adopted standards

The summary report of the First Session of the Forum is available from the Ocean Data Standards website (www.oceandatastandards.org) and describes specific actions agreed to at the meeting.