

## **6.0 RELATIONS WITH INTERGOVERNMENTAL ORGANIZATIONS**

- 6.1 Intergovernmental Oceanographic Commission, p. 6-1** *Sundby*
  - 6.1.1 Global Ocean Observing System, p. 6-4 *Hong, Sundby*
- 6.2 North Pacific Marine Science Organization (PICES), p. 6-7** *Akulichev*
- 6.3 Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)** *Duce*

## 6.0 RELATIONS WITH INTERGOVERNMENTAL ORGANIZATIONS

### 6.1 Intergovernmental Oceanographic Commission

Bjørn Sundby and Ed Urban attended the IOC Executive Council meeting in June 2006 to represent SCOR. Sundby and Urban made the following interventions at the IOC meeting:

#### IOC Science Program – by Urban

Thank you, Mr. Chairman. I should note first that SCOR is also representing our parent, the International Council for Science, ICSU, at this meeting. SCOR is a major scientific partner with IOC, and we are pleased to see that the four activities that we carry out with IOC are contained within the proposed new priority areas. These include the GEOHAB program, the GLOBEC project, the International Ocean Carbon Coordination Project, and The Ocean in a High-CO<sub>2</sub> World Symposia. It is vital that SCOR and IOC work together on these projects and we look forward to continued cooperation with IOC in these and other areas of marine science.

#### IOC 50<sup>th</sup> Anniversary – by Sundby

Thank you, Mr. Chairman. I wish to make the point that IOC and SCOR can look back on almost half a century of successful collaboration in marine science. The Scientific Committee on Oceanic Research, SCOR, was created in 1957 to promote international cooperation in ocean science. It soon became apparent, however, that SCOR could not carry out its work successfully without effective interactions among national governments. Thus, IOC was created as an intergovernmental counterpart to the non-governmental SCOR. Many of the same individuals, for example Roger Revelle and Anton Bruun, were involved in the creation of both organizations, and we owe much to their vision. SCOR still depends on IOC to complement SCOR's role in the international ocean science community and we look forward to continue the collaboration with IOC into the future. SCOR will be celebrating its 50<sup>th</sup> Anniversary with a symposium on 20-21 October 2008, in Woods Hole, Massachusetts, USA, where SCOR held its first meeting in 1957. We invite IOC members to participate in the SCOR anniversary symposium and we wish IOC the very best for its own 50<sup>th</sup> Anniversary celebration. Thank you, Mr. Chairman.

#### GEOHAB – by Urban

Thank you, Mr. Chairman. We commend the report of IPHAB on IOC activities related to harmful algal blooms. We would like to note our continued productive cooperation with IOC on the Global Ecology and Oceanography of Harmful Algal Blooms project, GEOHAB. GEOHAB continues to make progress, although this progress is slowed by funding constraints and the lack of an International Project Office. In addition to annual support from IOC, GEOHAB is supported by annual contributions from the United States. A few other nations—notably China, France, Japan, and Mexico—have hosted GEOHAB meetings. We encourage other nations, particularly those affected by harmful algal blooms, to contribute support for GEOHAB, without decreasing other support to IOC or SCOR, to provide better understanding of harmful algal

## 6-2

blooms so that managers can prevent and/or mitigate these events that seriously impact humankind. Thank you, Mr. Chairman.

### Implementation of IOC Programs in Regions – by Sundby

Thank you, Mr. Chairman. As a representative of the International Council for Science, I bring to your attention that ICSU is in the process of creating regional centers. There are now ICSU regional offices in the African, Asia and Pacific and Latin America/Caribbean regions. In addition, an office is planned for the Arab Region. The goals of ICSU regional centers are two-fold. First, they should enhance the participation of scientists and scientific organizations from the region in the research and policy activities of ICSU. Second, the centers should enable ICSU to be more effective in strengthening science and building capacity through South-South and North-South collaboration within the context of regional priorities. We suggest that IOC and ICSU work together, on a regional basis, on issues of mutual interest. Thank you.

### On WCRP – by Sundby

Thank you Mr. Chairman,

ICSU is delighted with the accomplishments and progress of WCRP. This is a very important program. As you heard from Dr. Church, ICSU is trying to increase its support for WCRP.

ICSU appreciates the continued cooperation of IOC in funding and overseeing the World Climate Research Programme. ICSU is looking forward to IOC maintaining the agreed upon level of its financial support of WCRP.

Thank you.

### On Revision of Document on UNCLOS – by Urban

If the document “*Marine Scientific Research: A Guide for the Implementation of Relevant Provisions of UNCLOS*” is updated, SCOR suggests that IOC and ABE-LOS involve SCOR and other non-governmental bodies related to ocean research and observations to obtain broad input from the ocean science community worldwide.

Thank you.

### On IOC Strategic Plan for Oceanographic Data and Information Management – by Sundby

Thank you, Mr. Chairman,

SCOR agrees with Dr. Rickards’ emphasis on the importance of the human element in data management. The best data management systems are doomed to failure if scientists do not contribute their data to data banks.

The issue was discussed in a meeting, held in London last September, about problems common to the various international ocean programs that SCOR sponsors or is associated with, including

IOC GOOS and Coastal GOOS. The concensus among the participants was this: It is urgent that we **develop incentives** for those who produce data sets in order that they contribute their data to data centers. These incentives should include mechanisms to protect the interests of those who produce the data while recognizing that the data are produced with the support of public funds. In other words, the balance between the rights of individuals and the needs to bring data into the public domain, which we heard discussed so eloquently in today's Panikaar lecture, is at the heart of the problem. SCOR is prepared to work with IOC in developing such incentives.

Thank you.

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The two organizations have a variety of joint projects that have been discussed under previous agenda items, including

- Global Ocean Ecosystem Dynamics (GLOBEC) Project
- Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) Program
- International Ocean Carbon Coordination Project (IOCCP)
- Symposium on the Ocean in a High-CO<sub>2</sub> World

Capt. Javier Armando Valladeres (Argentina) will become the new IOC Chairman at the end of 2007, replacing David Pugh (UK). Patricio Bernal will continue as the IOC Executive Secretary into 2009. IOC has advertised for the replacement of Umit Unluata, but the position has not yet been filled.

# 6-4

## 6.1.1 Global Ocean Observing System (GOOS)

**Report  
Of  
The Tenth Session of the Global Ocean Observing System  
Scientific Steering Committee (GSSC-X)  
March 13-16, 2007, Seoul**

By Huasheng Hong

I was glad to represent SCOR and ICSU (ICSU invited SCOR to send someone to the meeting for both organizations) at the GSSC-X meeting, since it was the first time for me to attend a GOOS meeting; it provided me a good opportunity to learn about GOOS activities.

**The first day of the meeting was devoted to a scientific workshop emphasizing the scientific focus of the GSSC. I was told that it was the first time the GSSC had a special scientific workshop in conjunction with their meeting. The workshop theme was to review Global and Regional Issues in Application of the Open Ocean and Coastal Observations. (See attachment for details.) My understanding and suggestions are as follows:**

*I. Summary from the Scientific Workshop, including my comments on how SCOR could help with GOOS*

The emphases from the three workshops are summarized:

### **Workshop 1 Coastal Observations**

It was stressed that coastal oceanography is connected with land/ rivers/atmosphere/oceans, and GOOS needs scientifically and technically sound implementation of its Coastal Module.

The IGOS Coastal Theme and the Joint JCOMM-GSSC-GRA Task Team both recommended the establishment of a Joint GOOS-GTOS Panel for Integrated Coastal Observations [across the land-sea interface]. It was suggested that GSSC (or the new GOOS coastal panel: PICO) should work with the GEO Coastal Zone Community of Practice to help integrate coastal components of GOOS into GEOSS.

### **Workshop 2 Regional Marine Environment and Ecosystem Modeling**

The need to develop regional oceanographic forecast systems in support of safe and efficient navigation; emergency response to hazards, including sea level rise; and environmentally sound management of the coastal zone is highly recommended.

There is increasing emphasis on GOOS as a source of data for forecasting and on initialization of coupled models, requiring research communities to help in model evaluation and improving results, using forecasting skills of coupled models, bridging the gaps between models and remote sensing.

### **Workshop 3 Data Management and Assimilation**

The data management discussion highlighted the status and problems of regional and coastal GOOS. The data management for regional activities as part of GOOS is not a solved problem. Free and open data exchange especially seems to be an issue for regional/coastal waters. The NEAR-GOOS experience provides important lessons for the implementation of Coastal GOOS.

Ocean data assimilation in models is important for obtaining a complete picture of the ocean for the purpose of climate research. Ocean data re-analyses have suggested the need for reprocessing historical data in support of climate research. Increasing emphasis needs to be devoted to using such historical data for initialization of coupled models for operations and research. Using forecast skills of coupled models as a test of ocean synthesis results is a useful framework for demonstrating the importance of ocean data sets, but depends fundamentally on models and methods.

In general, the workshop suggested that a comprehensive sustainable operational ocean observing system simply cannot exist without the full engagement of the oceanographic research community.

Improving observing capacities of GOOS should have strong support from innovative science and technology, functional partnerships between GOOS and IGBP/SCOR research programs (LOICZ, GEOHAB, and IMBER). Other relevant bodies (PICES, ICES) are also needed to ensure the development of scientifically sound operational capabilities.

## **II. Promoting interactions between SCOR-related research projects and GOOS**

### **1. Four pilot projects were proposed:**

- Chl a ocean global integrated network (CHl or OGIN)
- Land-based sources of marine pollution and run-off;
- Wind-wave-current interaction;
- Multi-hazard early warning system

It is feasible to build functional partnerships between GOOS and IGBP/SCOR research projects (LOICZ, GEOHAB, and IMBER) and joint implementation of Pilot projects.

2. The GEOHAB program could work with CHl or OGIN for harmful algal bloom research and operational purposes such as early warning system. Could we have a joint GEOHAB-GOOS

# 6-6

working group related to red tides?? [Note from Ed Urban: GEOHAB is already working with GOOS (Tom Malone) on developing a pilot project for harmful algal blooms with the GOOS Regional Alliances.]

3. The GOOS SSC suggested to establish a Joint Panel for integrated coastal observations (JPICo) in order to promote scientific and technical guidance for implementing the coastal modules, with due consideration of land-based input to coastal and marine environments. The LOICZ program should have a link with JPICo. There is a requirement for a coastal scientific advisory committee.

4. GLOBEC, CoML and GOOS could develop a project for global-scale monitoring of mid-trophic organisms, marine biology and physical parameters, bringing experts on these areas to work together to look at the data. The SCOR Panel on “New Technologies for Observing Marine Life” could have a role in promoting SCOR-CoML-GOOS for “non-physical” observations. One member (Dr. John Gunn) is a member of both the GSSC and the SCOR Panel.

## III. Enhance Capacity building

It is necessary to build partnerships between research and operational communities to develop the capacity for routine and sustained observations, data management, analysis and modeling and, to sustain the provision of quality-controlled data in forms and at rates specified by user groups for both research and applied purposes relevant to achieving the six societal goals of GOOS:

1. Monitor, understand and predict weather and climate
2. Describe and forecast the state of the ocean, including living resources
3. Improve management of marine and coastal ecosystems and resources
4. Mitigate damage from natural hazards and pollution
5. Protect life and property on coasts and at sea
6. Enable scientific research

IOC has identified the following as high priorities during the formulation of the initial implementation plan for IOC Capacity-building:

- Water and sediment analysis
- Models for coastal management systems
- Coastal zone vulnerability indices and mapping
- Applications of remote sensing (ocean circulation, living resources, water quality, coastal erosion)
- Forecasting ocean weather/climate

**6.2 North Pacific Marine Science Organization (PICES)**



6-8

**6.3 Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)**