

## REPORT

### First Meeting of the Regional Alliance in Oceanography for the Upper Southwest and Tropical Atlantic

#### 1. OPENING

The Director of Hydrography and Navigation of the Brazilian Navy, Vice-Admiral Lucio Franco de Sá Fernandes welcomed participants from Argentina, Brazil and Uruguay, and called the First Meeting of the Regional Alliance in Oceanography for the Upper Southwest and Tropical Atlantic to order at 1400 hours on Monday 14 March 2005.

The following representatives joined him at the podium:

Dr. ANTONIO DIVINO MOURA, Director of the National Institute of Meteorology, INMET (Brazil);

Rear Admiral LUIZ FERNANDO PALMER FONSECA, Head of the Institute of Research “Alte. Paulo Moreira”, IEAPM (Brazil);

Rear Admiral JOSÉ EDUARDO BORGES DE SOUZA, Secretary for the Interministerial Commission of Sea Resources, SECIRM (Brazil)

Captain RAÚL EDUARDO BENMUYAL, Head of Navy Hydrographic Service, SHN (Argentina);

Captain HUGO ROLDÓS DE LA SOVERA, Head of Oceanographic, Hydrographic and Meteorological Service of the Navy, SOHMA (Uruguay);

Dr. PAULO ROGÉRIO GONÇALVES, International Advisory Board of the Ministry of Science and Technology (Brazil); and

Ms. JANICE ROMAGUERA TROTTE, Officer in Charge of the IOC/UNESCO Rio GOOS Office (IOC/UNESCO, Brazil).

Vice-Admiral Lucio expressed his appreciation in hosting this long awaited meeting and highlighted the importance of this Regional Alliance for the future of oceanography in the region, emphasis to GOOS, and its relevance within the IOC structure. He pointed out that the Regional Alliance will allow for a better integration of projects in operational oceanography in the Upper Southwest and Tropical Atlantic, one of the last regions yet to be formally shown in the IOC/UNESCO map of regional alliances.

He also mentioned the importance of the work that has been performed by the IOC/UNESCO GOOS Programme Office, hosted by Brazil, in getting the engagement of institutions and people under a Letter of Intent that formalizes the Regional Alliance, soon to be officially forwarded to UNESCO, via he appropriate and official channels of participating nations.

Following on, participants from the main institutions presented at the table also addressed the meeting.

Dr. Divino Moura, Director of INMET, in particular, mentioned the long lasting cooperation among institutions in the region and the need to formally accept the importance of operational oceanography to improve climate and weather forecasts in the region.

Captain BENMUYAL thanked Vice-Admiral Lucio and the Brazilian Navy for hosting the meeting. He highlighted the importance of the establishment of such an alliance in our region as a clear example of a shared vision and common goals.

Captain ROLDÓS expressed his gratitude to Vice-Admiral Lucio and the Brazilian Navy for hosting the meeting. He also thanked IOC for supporting the meeting. He stressed

the relevance of the participation of the scientific community as well as that of the leading programs in the region.

## **2. ADMINISTRATIVE ARRANGEMENTS**

### **2.1 ADOPTION OF THE AGENDA**

The Group adopted the Agenda in Annex I for the session. The list of participants is provided in Annex II.

### **2.2 DESIGNATION OF THE RAPPORTEUR**

It was agreed that the report would be produced in both Spanish and English.

Lieutenant Commander Ariel Troisi (Argentina) and Lieutenant Commander Marcelo Fricks Cavalcante (Brazil) were designated Rapporteurs for the session.

### **2.3 CONDUCT OF THE SESSION**

The Group agreed on the working hours of the session.

The Technical Secretary, Ms. Janice Trotte, introduced the Agenda and other relevant documents.

## **3. PRESENTATION OF THE LETTER OF INTENT**

Vice-Admiral Lucio presented the Letter of Intent to participants and announced the procedure for signing it on 15 March 2005, the official date for the Regional Alliance, which acronym, as proposed, is OCEATLAN.

## **4. PRESENTATION ON IOC/UNESCO ACTIVITIES IN THE REGION RELATING TO GOOS AND OPERATIONAL OCEANOGRAPHY**

The Chairman started the presentations period. The summary of each presentation and comments are presented below. Together with this report, a CD-ROM containing all the presentations was made available to participants.

### **4.1 GOOS IMPLEMENTATION IN BRAZIL - STATUS OF ONGOING PROJECTS AND ITS RELEVANCE TO THE REGION**

Captain Fernando Costa presented the current status of Brazilian activities potentially contributing to GOOS,

Following on, Ms. Janice Trotte presented the prospects for regional implementation of ongoing activities, together with the main reasons for establishing and supporting a Regional Alliance in operational oceanography.

The motivation for setting up a regional alliance derives mainly from the need to improve:

- weather and climate prediction, essential to safety at sea and protection of life at sea;
- our understanding of climate change and its related effects;
- detection and evaluation of climate change for oceanic conditions, especially SST;
- extreme phenomena forecasting, such as storm surges, extra-tropical cyclones, hurricanes etc; and
- management of water resources reservoirs; and many others.

Studies of relevant local processes, such as the La Plata River Plumb, its cold core spin eddies, etc are also important elements of the Regional Alliance.

The Alliance will also serve to promote further interactions among several regional institutions linked to oceanography and environmental studies in those three neighboring countries.

It was also mentioned that several initiatives were already in due course, such as ISABP/PNBOIA, PIRATA, GLOSS, ARGO, FREPLATA, ARGAN and GEF-PATAGONIA.

She finally presented the web page project under construction, under the aegis of the IOC/UNESCO Regional Programme Office for GOOS in Rio de Janeiro, to be enhanced further with a closer participation from other institutions in the region. It was noted that the web site not only provides a description of activities in the region but also allows for near real time data downloads from the several operational activities in course.

#### 4.2 GLOSS

LTC Marcelo Cavalcante that has attended the 9<sup>th</sup> Meeting of the Global Sea Level Observing System (GLOSS) Group of Experts (GE-9) made a presentation on the main outcomes of the session.

The Current status of the GLOSS activities in Brazil and Argentina was also presented.

#### 4.3 ISABP

LTC Ariel Troisi, Chairperson of ISABP, has introduced the status of implementation of the drifting buoy programme in the region, as well as plans for 2005.

Of the issues to be resolved, he highlighted the need to recognize efforts from those countries providing launching platforms at the same level than those providing instrumentation. The costs to operate a vessel at sea accounts much higher than those for buying drifting buoys.

He also reported on the enhancement of the number of buoys being deployed in the South Atlantic over the past two years and the support being provided by the NOAA Global Drifter Programme to the region.

Finally, he reported on the arrangements under way for the next ISABP meeting, to be held in Argentina, May 2006.

#### 4.4 IODE

LTC Ariel Troisi presented data exchange procedures and practices among existing NODC in the region, as well as the possibility of developing joint actions in the short term.

It was noted that ODINCARSA encompasses countries from South America and the Caribbean at different levels of development on oceanographic data exchange and information.

Regarding data availability in the region, it has been noted that researchers should contribute more with providing data to their respective national data centers, a matter that is common to the three countries in the region and likely to be object of further discussion on how to improve the present status.

It was agreed that data for operational use should be made available immediately, and according to IOC data policy and strategy.

#### 4.5 PIRATA

Dr. Paulo Nobre gave an overview of progress with the Pilot Research Moored Array in the Tropical Atlantic (PIRATA), a project co-sponsored and jointly conducted by Brazil, France and the USA.

He explained the main goals of the project as well as the scientific rationale for the recently approved SW Extension, led by Brazil.

PIRATA data has been extensively used by weather prediction centers worldwide, and particularly in Germany and the UK (ECMWF). In Brazil, CPTEC models for weather prediction utilize PIRATA data as well.

It was also mentioned that DHN (Brazilian Navy) is offering two oceanographic ships to support PIRATA operations in 2005.

Additionally, INPE intends to establish a national center in Natal to support PIRATA operations in the northeast Brazilian coast.

Following on, Ms. Janice Trotte provided an overview of the main outcomes from the Tenth Session of PIRATA, held in Fortaleza, Brazil, 14-16 December 2004.

She highlighted that Dr. Antonio Divino Moura has been elected PIRATA Chairperson for the next two years.

#### 4.6 The La Plata Project

Dr. Edmo Campos has presented the main goal and objectives of this project, also reporting on past and present activities. The project is currently under review for its continuation.

#### 4.7 ARGO

LTC Ariel Troisi introduced the Project concept, as well as its characteristics in terms of data collection, storage and transmission and capacity building. The current ARGO coverage was shown as well as the future plans.

It was mentioned the intention of implementing a Regional ARGO Center in the South Atlantic Ocean. A detail of expected contributions was brought up.

The participants expressed the need to establish appropriate links in support to operational oceanography projects. They stressed the fact that some forecast projects need timely access to data, but these criteria is not always met.

#### 4.8 GODAE

Project objectives were presented together with current structure, benefits and integration with other projects. The involved Modeling and Data Assimilation Centers were

mentioned as well as actual data assimilation techniques and applications areas. Project needs and recommendations were also shown.

#### 4.9 FREPLATA, ARGAU and GEF-PATAGONIA

LTC Ariel Troisi gave a general overview of the objectives, activities, current status and future plans of the FREPLATA (a binational initiative between Argentina and Uruguay); ARGAU (a binational initiative between Argentina and France), and GEF-PATAGONIA (Argentina) projects was presented.

#### 4.10 MOVAR

This project related to the monitoring of the upper ocean thermal variability between Rio de Janeiro and Trindade Island was introduced. It is a joint effort between diverse Brazilian institutions and NOAA. The Brazilian Navy provides support through its ships during their scheduled cruises.

#### 4.11 CONAE

An overview of the Argentine National Spatial Activities Commission was presented, including the National Spatial Plan, its lines of action, the description of a ground station and the potential interaction between this plan and other related scientific projects.

### **5. DEFINITION OF THE MANAGING STRUCTURE AND A STRATEGIC ACTION PLAN FOR THE PERIOD 2005-2007**

An Action Plan for the period 2005-2007 was proposed and discussed during the session, taking into consideration those aspects that are likely to improve faster, as well as those requiring further attention from the institutions involved, and possible other sponsoring institutions under IOC/UNESCO.

The draft text is contained in Annex III.

### **6. ANY OTHER BUSINESS**

Dr. Paulo Rogerio Gonçalves, from the International Advisory Board of the Ministry of Science and Technology (MCT) presented an update of the actions being taken under the aegis of the current Governmental agreements involving the three countries of the region.

He mentioned the work of the Management Committee for Bilateral Cooperation between Argentina and Brazil, in particular the Minutes of its Second Meeting, held in Buenos Aires, 02 November 2004.

The Committee coordinates a range of initiatives especially in areas of applied research, in particular with regard to Climate, and Climate change, in Biodiversity and in Coastal Management, recognized areas for possible intersection with the activities expected to be held under the Regional Alliance.

He also presented information with regard to the "First Meeting of Science and Technology Ministers from India, Brazil and South Africa, held in New Delhi, 25 October 2004.

The Minutes of the meeting expressed that more emphasis should be given to Oceanographic Sciences, to which the Brazilian Minister, Mr. Eduardo Campos, has added with the consideration that operational oceanography should be placed even higher priority. A trilateral workshop on the subject will be convened in Brazil, first semester of 2005, for further elaborating on the trilateral cooperation in oceanography among participating countries.

Dr. Paulo Rogerio finally reinforced his understanding that the future work of the Regional Alliance, with regard to the Brazilian contribution to this trilateral cooperation, should be considered.

The Group welcomed the presentation made by Dr. Paulo Rogerio, and the Director of Hydrography and Navigation has expressed his willingness to collaborate to the extent possible to the initiatives under this trilateral cooperation with regard to operational oceanography.

## **7. OFFICIAL CEREMONY FOR SIGNATURE OF THE LETTER OF INTENT**

The Letter of Intent provided in Annex IV has been signed by several participating institutions and will be open for further signatures until the end of April 2005, after which Governments from the three countries shall consider its formal submission to IOC/UNESCO, via the appropriate channels (Permanent Delegations to UNESCO).

## **8. REVIEW AND APPROVAL OF THE REPORT OF THE MEETING**

The draft summary report, as prepared by the Rapporteurs, was approved by the Group, subject to minor modifications for clarifications and removal of factual errors, before its formal submission to national Permanent Delegations to UNESCO.

## **9. DATE AND PLACE FOR THE NEXT SESSION**

By the kind invitation of the Head of Oceanographic, Hydrographic and Meteorological Service of the Navy, SOHMA (Uruguay), pending confirmation, the next meeting of the Regional Alliance will be held in Montevideo, tentatively on the second half of November of 2005.

## **10. CLOSURE**

Vice-Admiral Lucio thanked all participants for their very active participation in the discussions and expressed his satisfaction with the progress made during the meeting that has allowed for immediate action with regard to the implementation of some programmes and projects under IOC/UNESCO under the regional banner.

Vice-Admiral Lucio adjourned the 1<sup>st</sup> Meeting for the Regional Alliance in Oceanography for the Upper Southwest and Tropical Atlantic at 1200 hours on 16 March 2005.

Annexes:

- I. Agenda;
- II. List of Participants;
- III. Action Plan;
- IV. Letter of Intent for the Regional Alliance in Oceanography in the Upper Southwest and Tropical Atlantic; and
- V. List of Acronyms.