



**7<sup>th</sup> Conference of the Eastern Atlantic Hydrographic  
Commission**

Lisbon, 15-17 OCTOBER 2002

## List of Abbreviations

CaCAO	Cartographie des Côtes d’Afrique de l’Ouest
CTD	Conductivity Temperature and Depth
EAthC	Eastern Atlantic Hydrographic Commission
DGPS	Differential Global Positioning System
ECDIS	Electronic Chart Display and Information System
EEZ	Exclusive Economic Zone
ENC	Electronic Navigational Chart
FIG	Fédération Internationale des Geomètres
GMDSS	Global Maritime Distress and Safety System
IBC	International Bathymetric Chart
IBCEA	International Bathymetric Chart of the Central and Eastern Atlantic
IC-ENC	International Centre for ENCs
IHB	International Hydrographic Bureau
IHMES	Instituto Hidrográfico de La Marina de España
IHO	International Hydrographic Organization
IHPT	Instituto Hidrográfico de Portugal
IMO	International Maritime Organization
INT	International (chart)
IOC/UNESCO	Intergovernmental Oceanographic Commission / United Nations Educational, Scientific and Cultural Organization
MBES	Multibeam Echo Sounder
MSI	Maritime Safety Information
NAVAREA	NAVigational AREA
OTF	On-The-Fly
PRIMAR-S	PRIMAR – Stavanger
REA	Rapid Environmental Assessment
RENC	Regional Electronic Navigational Chart Coordination Centre
RHC	Regional Hydrographic Commission
RTK	Real Time Kinematic
SAR	Synthetic Aperture Radar
SHOM	Service Hydrographique et Océanographique de la Marine (France)
SIGAMAR	Sistema de Informação Geográfica do Ambiente Marinho (Geographical Information System of the Marine Environment)
SOLAS	Safety of Life At Sea (convention)
SPWG	Strategic Planning Working Group
ToR	Terms of Reference
NAVOCEANO	United States Naval Oceanographic Office
UKHO	United Kingdom Hydrographic Office
UNCLOS	United Nations Convention on the Law of the Sea
WAAT	West Africa Action Team
WEND	Worldwide Electronic Navigational Data Base
WP	Work Programme

# 7<sup>th</sup> Conference of the Eastern Atlantic Hydrographic Commission

Clube Militar Naval, Lisbon, 15-17 October 2002

Conference Chair Group:	Captain Quirós Cébria (Director of the IHMES and Chairman of EAthC) Vice Admiral Silva Cardoso (General Director of the IHPT and Vice-Chairman of EAthC ) Captain Hugo Gorziglia (Director of the IHB)
Rapporteur:	Lieutenant Brandão Correia (IHPT)

## 1 Opening Session

### 1.1 Opening of the Conference

The Chairman of the Commission, Captain Quirós Cébria, Director of the Spanish Hydrographic Office, opened the 7th Conference of the Eastern Atlantic Hydrographic Commission. He addressed the delegates thanking them for their participation and highlighted the fact that the actual nautical coverage of Western Africa is not adequate for safe navigation. He also referred to the fact that this situation motivated at last year's meeting the establishing of a programme of actions to be carried out by the more developed countries, which included the creation of an Action Team.

Vice Admiral Silva Cardoso, General Director of the Portuguese Hydrographic Office, gave a welcoming address.

A list of participants is presented at APPENDIX 1 to this report.

### 1.2 Approval of the Agenda

France proposed that the Report on Actions Following the Meeting in Lisbon (March 2001), included in the point 2.2., should be carried out by the UKHO, instead of SHOM. France also proposed the inclusion of its own report about the project CaCAO (Cartographie des Côtes d'Afrique de l'Ouest) in the point 2.3. These changes were approved.

The agenda was then approved and is presented at APPENDIX 2 to this report.

### 1.3 Chairman's Report (Spain)

The Chairman referred to the fact that this Commission held a meeting (Lisbon, March 2001) with the sole aim of starting a schedule of visits to Western African countries and that France has already advanced a plan for visits starting in October including a total of 10 countries.

The Chairman reviewed then the actions relating to the conclusions adopted by the previous Conference - 6<sup>th</sup> Conference, held in Cadiz:

Conclusion No 1: invited Members States of this Commission to exchange reproduction material for INT charts under bilateral arrangements.

Conclusion No 2: invited Member states to inform affected Member States of apparent copyright violations by private editors and IHB to consider the possibility, avoiding legal troubles, of not inviting to IHO activities editors that do not respect the copyright of Member States.

Conclusion No 3: adopted an amended medium scale INT chart scheme covering the Iberian Peninsula.

Conclusion No 4: invited Members States to join the RENC in existence known as PRIMAR.

Conclusion No 5: *did not call for any action by member states.*

Conclusion No 6: invited to study the possibility to allow access to hydrographic data by other organizations.

Conclusion No 7: tasked Spain, as the chair of this Commission, with the representation to the SPWG.

Conclusion No 8: invited all countries to answer the questionnaire sent by the NAVAREA II Co-ordinator and return it.

Conclusion No 9: invited all members to prepare proposals on "Public Relations" for this Conference.

Conclusion No 10: invited countries without hydrographic capabilities to establish formal arrangements with countries with established hydrographic offices.

### 1.5 Report by the IHB Director (Captain Hugo Gorziglia)

Captain Hugo Gorziglia made a report summarized as follows:

- One of the more important roles of the IHB Directing Committee is to promote the communication between Member States, acting as IHO secretariat.

- The UNCLOS, the United Nations Resolution A 53/32 1998 and the changes done to the SOLAS Convention correspond to key documents that invite States to cooperate in hydrographic and nautical matters. These documents reinforce the Directing Committee role of working closely with Member States, as well as the importance of the participation of the latter within the organization.
- The IHO approved a Strategic Plan for the Organization and a 5 year rolling Work Programme. These two documents together with the Organization Basic Documents, the Status of the Regional Hydrographic Commissions and the Terms of Reference of the existing committees and Working Groups are the documents that provide guidance of the organization business. Nevertheless, it is necessary to be receptive to the changes that might be necessary to adopt in the light of the improvements to technology and the new requirement and needs of service requested by the user of hydrographic products. Under this scenario, Hydrographic Offices strongly need to participate actively in the debates organized within the IHO bodies. The IHB has the opinion that Regional Hydrographic Commissions constitute bodies that could act as centres of development for new ideas.
- Brief references to the 2003 – 2007 Work Programmes 1, 2 and 3:
  - Programme 1: it recommends the implementation of schemes of INT charts and encouragement of co-operation and participation in IHO subsidiary bodies. It was stressed that there is a wide participation of France, Portugal, and Spain; on the contrary, Morocco and Nigeria have not directly participated in any of the working groups or Committees. Captain Gorziglia took the opportunity to invite these two countries to review this situation.
  - Programme 2: The Regional Hydrographic Commissions are identified as playing an important role in Technical Cooperation. It was stressed that technical visits are very important as the initial step to develop concrete projects.
  - Programme 3: The Regional Hydrographic Commissions are expected to support and encourage the production of ENC (Electronic Navigational Charts) data sets and international paper charts series where none currently exist at an appropriate scale. Also, RHCs (Regional Hydrographic Commissions) should contribute to the establishment of standards and to share the experience in acquisition, processing and management of hydrographic data sets. Reference was also made to the necessity of having better coordination between RHCs and the Editorial Boards of the Ocean Mapping Projects.
- The IHB has not yet received any report from the Member States about copyright violations, in spite of the conclusion 2 of the 6<sup>th</sup> conference of the EAthC. Therefore, it should be considered if it is necessary to keep in force this conclusion for the next period.

## **2 Working Sessions**

### **2.1 Co-operation between Member States and with International Organizations**

Captain Augusto Ezequiel (IHPT-Portugal) stated that IHPT participates regularly in the IHO meetings. In particular he referred to the meeting of March of 2001, in Lisbon, as

well as the NAVTEX meeting, held last September, also in Lisbon. The Portuguese Lighthouse Authority also participates in IALA work.

Mr. Mamadou Thioub (Autonomous Port of Dakar - Senegal) mentioned Senegal's financial request to SHOM, in November 2001, regarding hydrographic and cartographic matters, but without answer until now. The establishment of cooperation tasks with Gambia and Guinea-Bissau authorities to carry out some hydrographic operations was also referred to.

Mrs Rosemary Tuhey (UKHO – United Kingdom) referred to the very active UK contribution in IMO through the Maritime Safety Committee. UKHO has made several international contacts in connection with the preparation of the West Africa Action Team (WAAT). There is also in progress a full bilateral programme with other Member States. An international training program, open to foreign countries, has already been established.

Mr Paul Cooper (NAVOCEANO - United States) stated that the National Oceanographic Office has been actively participating in bilateral arrangements with Western African countries, as for example Morocco. It has been conducting hydrographic surveys in Senegal, Gabon, Cabo Verde and Ghana. He also referred to the United States direct participation on the WAAT.

Mr Alberto Tipote (Ports Administration of Guinea-Bissau) read Guinea-Bissau's report about hydrographic and cartographic actual status of the country.

ICETA Bouet-Leboeuf (SHOM-France) informed that France has already signed bilateral arrangements with UK and Turkey. He also referred to the signature of other bilateral arrangements, like the one with Spain, which is delayed due to the bureaucratic process in French Administration. He expressed the hope that future agreements concerning Western Africa will unlock the available hydrographic data, allowing the updating of cartography covering the area.

Commander Güimil Ferreiro (IHMES-Spain) referred to the Spanish bilateral arrangements with UK and Germany. He also expects that the bilateral agreement with Portugal will be signed towards the end of this year. The production of two charts jointly with Morocco is reaching completion.

Dr Dimitri Travin (IOC /UNESCO) stated that, in respect to the Bathymetric Chart project, France has almost completed its commitments and Portugal has already printed one sheet. He also took the opportunity to urge the Spanish Hydrographic Office to join IBCEA (International Bathymetric Chart of Central and Eastern Atlantic).

## **2.2 Technical Assistance and Training (WP2)**

### **UKHO report on Actions following the Meeting in Lisbon (2001)**

Mrs Rosemary Tuhey (UKHO) introduced a presentation on the issue of the WAAT. This Team has a similar concept to the Caribbean study team visit, whose mission was to raise public awareness of hydrography. She also stated that a planning meeting took place in Lisbon (March 2001) to decide the ToR (Terms of Reference) of the visits. UK

informed the conference that the WAAT has already been established and is composed of representatives from three countries, one from France, one from UK and a third one from United States. The schedule of the visits embraces nine Western Africa Countries and will start on 20 October of this year.

Captain Ian Turner from UKHO then made a presentation about the WAAT, which was shortly to deploy to West Africa, on the following topics:

- The background of the WAAT;
- The WAAT Terms of Reference;
- The responses to invitations;
- The visit programme during the current year;
- The objectives during the visits;
- The practical outcomes;
- Final remarks about how to measure the success of this initiative.

Seventeen African nations gave a positive response to the invitation; however, three states did not respond - Liberia, Cameroon and S.Tomé and Príncipe. The visit programme for this year has the following schedule: Gabon (19-23October); Nigeria (23-26October), Ghana (26-29 October), Mauritania (1-4 Nov), Senegal (4-7Nov), Cabo Verde (7-9Nov), Guinea (9-12Nov) and Sierra Leone (12-14Nov). Morocco was also included in the schedule of this year, more specifically in December. Ivory Coast visit, initially foreseen for the period 29Oct-01Nov, was postponed due to local problems. The program for next year will embrace seven more countries: Gambia, Benin, Congo, Togo, Democratic Republic of Congo, Guinea-Bissau and Equatorial Guinea.

The expected outcomes of the WAAT are the following:

- The start of a long term process;
- Better awareness and focus in hydrographic and navigation domains;
- Improved use and exchange of existing hydrographic information;
- Improvement in circulation of MSI (Maritime Safety Information);
- Identification of priority needs for surveys, training and equipment;
- Identification of solutions including funded projects.

Captain Bermejo Baró from IHB stated that this presentation made by United Kingdom corresponded to a first step, aimed at information gathering, but is not yet a concrete project of regional development. The IHB also stressed such a project has to be submitted to a funding agency either by an African leader country or by an organization from the region.

Captain Ian Turner (UKHO) further stated that he has already had several meetings with IMO, discussing the visit and dealing with the regional coordinators. He expects to contact or identify the real operators and organizations that may correspond to the potential proponents of a future regional project to be submitted to a funding agency.

Captain Augusto Ezequiel (IHPT) agreed with Captain Bermejo Baró, stating that one of the results of the Action Team should be a regional project with active participation of the countries that asked for assistance. The request for financial support should only be done by African countries or African organizations.

Captain Ian Turner (UKHO) expressed his opinion that it is not possible to set up a totally regional wide and comprehensive project. Instead, he suggested that the best way forward in the short time would be to strengthen bilateral relations with the countries that really wish technical assistance and training.

Mr Paul Cooper (NAVOCEANO) stressed that one of the keys is to convince the proper authorities in the countries to adopt and embrace hydrography and nautical charts as a national need and a national resource that they have to develop. He also expressed his own awareness about what will be the next step after the visits of the Action Team.

Captain Hugo Gorziglia (IHB) stated that it is not possible to move to or establish a second step before the visit of the Action Team and the identification of the key responsible people that would help to take the follow up actions.

Captain Augusto Ezequiel (IHPT) expressed once again that the strength of the project should correspond to a joint, common and conjugated effort, and not to bilateral arrangements.

Captain Bermejo Baró (IHB) stated that the biggest funding agencies only support regional projects and not bilateral arrangements.

Mr Erwan L'Arvor from NAVFCO stated that the funding agencies also support bilateral projects, mentioning as example a project in progress with Guinea financed by a world bank. He further explained that this project is aimed at the local harbour trade development and includes a resurvey of the area as a first step.

Captain Hugo Gorziglia (IHB) then asked for information about the visit programme for 2003, namely the dates and who will participate in the visit team.

ICETA Bouet-Leboeuf (SHOM) stated that France does not presently have concrete information to give about this matter; but noticed that there are some tasks in hand to get personnel to engage in the project for the next year.

Mrs Rosemary Tuhey (UKHO) stated that almost all the English speaking countries included in the Action Team programme belong to the first stage of this programme; therefore, she admits UK is not expecting to participate in the second step that includes mainly French speaking countries.

Mr Alberto Tipote (Guinea-Bissau) expressed its desire to be included in the visit programme of this year suggesting the period initially allocated to Ivory Coast for that purpose.

Captain Ian Turner (UKHO) remarked that there is more survey information in existence than appears on the published charts; therefore, it will be desirable to unlock that information for cartographic update purposes and to the benefit of chart users.

Commander Maia Pimentel (IHPT) stated that Portugal has been engaged in cooperation actions with some countries from Africa namely with Mozambique, Guinea-Bissau and Angola. IHPT has a specialization course in hydrography (FIG/IHO Category A), which has been attended by several students from Africa, specially

Guinea-Bissau, Angola and Mozambique. In the current school year, the course is being attended by one student from Mozambique and two students from Morocco. IHPT continues to publish Tide Tables for the Portuguese Speaking African Countries. The IHPT had to cancel five official nautical charts of Cabo Verde due to the fact that this country published its own hydrographic plans of five harbours. IHPT is also taking part in a feasible study for the implementation of a lighthouse and hydrographic service in Angola.

Mrs Rosemary Tuhey (UKHO) briefly explained the International Training Courses offered by UKHO, which details are provided in Circular Letter 40/2002. She also stated that sponsorship is now available to assist nations that are trying to build real capabilities in this domain. It was stressed the two week course can be tailored to the needs of the assisted nation and developed to deliver anywhere, if provided with the sufficient and adequate facilities.

Mr Paul Cooper (NAVOCEANO) did a brief presentation about Naval Oceanographic Office, summarized as follows:

- This office gives joint support to different nations through bilateral agreements in the EAthC area, as well as technical support to all United States agencies dealing with hydrographic and oceanographic domains.
- There are eight ships working around the world, two dedicated to EAthC region at the moment, conducting surveys in Gabon, Senegal, Cabo Verde and Ghana, as well as in international waters. In particular the ships of the class T-AGS 60 are equipped to collect all kinds of data, having for instance multibeam echo sounder, geophysical data devices, side scan sonar and CTD.
- The Naval Oceanographic Office provides two kinds of courses: one with category “A”, open to foreign students, most recently from Peru, Tunisia, Norway and Mexico, and the other with category “B” only open to foreign students.

Captain Bermejo Baró (IHB) stated that there are also two free international courses in hydrographic and cartographic domains: one provided by International Maritime Academy, in Trieste, which is an IMO agency, and the other by the Indian National Hydrographic Office.

ICETA Boeut–Leboeuf (SHOM) stated that France has several courses for training purposes, one with category “A” and others with category “B”. Those of category “B” are open to foreign students speaking French. Actually, there are five places for foreign people, which, in this year, are reserved to students from Kuwait and Bangladesh. France will also organize in April of the next year a course, open to foreign students speaking French, about the delimitation of the continental shelf.

Commander Güimil Ferreiro (IHMES) stated that Spain has two courses, one “A” level and the other “B” level. These courses are taught in the Spanish language and are open for foreign students under the Cooperation Programme. Currently, there are students from Tunisia and Central and South America, but in previous years, there have been people from Mauritania and Morocco.

Captain Hugo Gorziglia (IHB) stated that the final draft of the standards of competence for nautical cartographers has been published on the IHO web page. Comments are

needed before the end of the year as the intention is to prepare a very final version in order to be approved at the next Advisory Board meeting scheduled to take place in next June in UK. He invited the countries and institutions willing to start organising courses within the nautical cartographic domain to take note of this final draft. He also informed of the possibility of reviewing cartographic courses for accreditation purposes if they were provided to the members of the Advisory Board before next March.

Mr Soulemane Bah (Autonomous Port of Conacry – Guinea) stressed the necessity and importance to establish cooperation programmes between African countries and European countries at education and training levels. He informed the conference that Guinea has only two technicians with category “B” qualification and stressed the need to have personnel with category “A”.

Mr Mamadou Thioub from Senegal expressed the hope that the cooperation with African countries will comprise education and training of local personnel.

Captain Augusto Ezequiel (IHPT) stressed that one of the objectives of the Action Team should be the identification of the education and training needs in the region. He also expressed that the training/education issue should be not only be restricted to the instruction of “A” or “B” courses but also on-the-job training.

### **2.3 New techniques, equipments and standards (WP3)** **Report on project CaCAO**

Commander Güimil Ferreiro (IHMES) referred to the information contained in the Spanish report about this issue with emphasis on the new survey boat, corresponding to a portable 12 meters length launch, equipped with multibeam echo sounder and suitable for shallow waters survey. It was also mentioned that the new multibeam equipment is to be used by small boats in channels and harbours.

ICETA Boeut–Leboeuf (SHOM) referred to the information contained in the French report with emphasis on the following aspects:

- The new and unique system for paper and ENC chart production, based on CARIS software;
- The large use of multibeam echo sounder technology;
- The new survey ship scheduled to be operational in the next year;
- The software named CARAIBES;
- The two new ships conceived to do works for SHOM as well as for Ifremer (Institut français pour le recherché en mer).

Mr Alberto Tipote (Guinea-Bissau) stated that Guinea-Bissau has no equipment.

Mr Paul Cooper (NAVOCEANO) referred to the following equipment and techniques:

- Thirty multibeam systems in use around the world;
- Laser Airborne detection and ranging, which collect data with a travel speed of 110knots;
- New techniques and software, both enabling to process and validate data with a 1:5 ratio (i.e., 1 hour of processing for five hours of collection);
- Use of RTK tide corrections;

- Software to do DNC (Digital Nautical Charts) / ENC (Electronic navigational Charts) conversion.

Mr Paul Cooper (NAVOCEANO) explained that the hydrographic service expects to improve the abovementioned ratio of 1:5 to a ratio of 1:10, i.e., 1 hour of processing for ten hours of data collection. He also informed that, for direct support of naval operations, United States can get a near real time product.

Captain Ian Turner (UKHO) made a brief presentation about the two new survey ships, which are also fitted to be employed with UK surface fleet in REA (Rapid Environment Assessment), Amphibious and Mine Countermeasures operations. Both these ships are equipped with multibeam echo sounder, besides two single echo sounders, and with a 9.5 meters length survey motor boat. They will become operational next year.

Mrs Rosemary Tuhey (UKHO) reported on the new improvements in Notice to Mariners service, which include the on-line service and a comprehensive search facility on the web site. She also made a brief reference about the digital tidal and light list products.

Mr Mamadou Thioub (Senegal) stated that Senegal is now in a capacity building phase and referred to the acquisition of new software for automatic processing of hydrographic and geographical data.

Mr. Soulemane Bah (Guinea) referred to the existing equipment at Guinea: one echo sounder LAZ 4100, one echo sounder DESO 20, one DGPS positioning Trimble system, and, for data collection and processing purposes, the HYPACK system. He also stated that no new equipment was purchased since the last conference in Cadiz and expressed the wish to cooperate with Portugal, since the same survey software is employed (HYPACK).

Commander Maia Pimentel (IHPT) stated that the hydrographic surveys within the IHPT are done with both singlebeam and multibeam echo sounders, using the GPS (Differential or OTF) for positioning. The IHPT is renewing the singlebeam echo sounders, using MARIMATECH and KNUDSEN echo sounders, besides the ATLAS DESO 20/22/25 series. Data processing is done with the system used for the data acquisition (HYPACK MAX). For presentation and archive purposes, the data is transferred to the CARIS GIS format. The IHPT is presently operating two multibeam echo sounder systems (MBES): SIMRAD EM 3000, for shallow waters, and SIMRAD EM 950 for medium/shallow waters. All multibeam data processing is done with the Hydrographic Information Processing System (CARIS HIPS). A deep-water MBES (SIMRAD EM 120) was already purchased and will be installed soon on board of the Hydrographic Ship "D. Carlos I". For coastal topography and horizontal control, GPS methods (static, kinematic) are used most of the time (with TRIMBLE 4000 series and TRIMBLE 5700). Nevertheless, topographic total stations are also employed. The use of GPS RTK/OTF techniques for tide measurements is under evaluation. A new side scan sonar system was also acquired, including a full digital processing software (TRITON ELICS). In cartography, the system is also based on CARIS software and the main recent development corresponded to the progressive transfer from UNIX workstations to WINDOWS computers, running the new versions of CARIS GIS. The IHPT has a web site ([WWW.hidrografico.pt](http://WWW.hidrografico.pt)), which includes general information about

the office, Notices to Mariners and some data on line (information related to tides and sea state). The IHPT web system is now connected to the SIGAMAR, which is a geographic information system involving all digital data, designated to be explored internally as well as via web in the near future.

Captain Hugo Gorzigia (IHB) stressed the importance of standardization of hydrographic data management, which is also an issue that has been dealt with by the Working Group of the Standardization of the Hydrographic Surveys. He stated that each Regional Hydrographic Commission could task itself to provide information to the IHB, based on the experience and knowledge of its own members, in order to establish a common solution or a common standardization regarding hydrographic data management.

ICETA Bouet-Leboeuf (SHOM) stated, in respect of data processing, that the best that France can achieve is one hour of data collected per ten hours of processing, which is in inverse ratio to the American near future goal. He also suggested that the major interest of most of the members is not to know which is the software used but the methods (like the algorithms) that reduce the data sets.

Captain Augusto Ezequiel (IHPT) stated that, in respect to the assistance request of Guinea about HYPACK, the IHPT is open to receive personnel from Guinea to do training.

ICETA Bouet-Leboeuf (SHOM) stated that, in respect of the new products, the French Notices to Mariners have been available on the net for three years. He also stated that an experimental list of lights in digital format was published in July of this year. This publication constitutes the first step of a project of digital light lists, and updates would be automatically done by applying the notices to mariners from the net. However, it was noticed that, in France, these products in digital form have not yet been legally approved by the maritime authorities as they have been in UK.

France made a presentation about CaCAO – Cartographie des Côtes d’Afrique de L’Ouest, which corresponds to a project specially designed to collect data mainly from shallow waters, coastal areas or inter-tidal areas (where in most of the cases the survey or the access is difficult), using remote sensing information/images as SPOT or SAR (Synthetic Aperture Radar). The region of interest of this project embraces in particular the coastline from Mauritania to Congo. The products obtained by these means may correspond, for example, to a nautical chart or a digital elevation model. The project was addressed to the European Space Agency to be included in the Data User Programme, which is an optional programme aimed to support Servicing Industry, Research Laboratories, User Communities and Governmental Policy. France has also contacted UK in order to join this project.

Captain Ian Turner (UKHO) stated that the European Space Agency, when visiting the UKHO, informed that they were founding the abovementioned project (CaCAO) with one million euros of their own money. The purpose is to demonstrate the technology involved (in this case applied to the West Africa region), and then to obtain profits in other projects elsewhere. Captain Ian Turner expressed his thoughts that a lot of the products concerning this project would be initially free for the purposes of benefiting the region as well as demonstrating satellite imagery technology capabilities. He also

expressed that it is an excellent timing for a philanthropic project in an area where the EAHC is looking to help and to improve the quality of geographical information.

#### **2.4 Information Management and public relations (WP4)**

The Chairman, Captain Quirós Cébria, opened this item by reminding the delegates that last year's conclusion number 9 invited member states to make proposals about this topic.

Commander Güimil Ferreiro (IHMES) stated that presently Spain does not have any input to this issue and the Spanish Hydrographic Office has neither personnel nor any specific work dedicated to the public relations.

ICETA Bouet-Leboeuf (SHOM) stated that the French office has one person dedicated to marketing work since a year ago and it was verified in the current year that there has been an increase of the products sales. He also stated that they are working hard to pick up a feedback from the product users. In this sense, a page will be placed in the small French catalogue for any recommendation or remarks from the users. Whenever there is a new product, the media is also provided with brief information related to the subject. There has also been some work with private companies but not with the desired success, since they continue to sell a lot of nautical documentation with SHOM data without any royalty payment.

Mr Alberto Tipote (Guinea-Bissau) stated that Guinea-Bissau does not have any service related to this issue.

Mr Paul Cooper (NAVOCEANO) stated the Naval Oceanographic Office does not provide any products or information to the public, interacting only with the U.S. Navy fleet.

Mrs Rosemary Tuhey (UKHO) stated that the UKHO has full time public relations and takes seriously the public awareness of its products as well as the importance of hydrography in the world. There are campaigns where the local community is invited to visit the Office. There are also many articles and information in the maritime press and the distributors are supported by advertisement and information campaigns. There is also a good working relationship with other governmental departments, ensuring that the hydrographic aspect is taken into account when new legislation is being formulated. This relationship is particularly notable with the Maritime and Coast Guard Agency, with whom the UKHO works together in several committees. Whenever there is a maritime accident or tragedy that attracts public attention, any subsequent statement highlights the importance of hydrography.

Mr Mamadou Thioub (Senegal) stated that Senegal does not have any activity in this area.

Captain Augusto Ezequiel (IHPT) stated the IHPT does not have any person especially dedicated to promote or do any marketing about its activity. However, there has been a concrete participation in several meetings and conferences related to the sea activity. In respect to the media, the IHPT work was highly commended during the river operations that were developed after the fall of a bridge in Douro River, in last year. There are also

several IHPT papers published in magazines and journals dedicated to hydrographic, oceanographic or maritime safety issues. The IHPT activity is also reported through its web site.

Captain Bemejo Baró (IHB) stated that the Work Programme for 2003 /2007 considers the public relations issue mainly directed towards enlarging IHO membership and, in this sense, the study team for West Africa corresponds to a very effective campaign, representing an excellent opportunity to promote IHO.

Captain Gorziglia (IHB) stressed that, in respect of information management, the development of the IHB web site is in progress and will comprise conditions relating to the communication between member states, as well as to the exercise of the public relations. The aim of IHB is also to maximize the publications in digital format, enabling their access to Member States either by a download through the web or by CD. In respect to the Public Relations, Captain Gorziglia referred to the visit carried out this year by foreign ambassadors in France to the IHB. He also stressed the existence of good relations between the IHB and the Monaco Government.

## **2.5 Report by the Strategic Planning Working Group Report. Report of this commission to the SPWG (WP5)**

The Chairman, Captain Quirós Cébria, opened this item referring to the related conclusion of the last International Hydrographic Conference, as well as the fact that Portugal was designated to be the EAthC representative in this Working Group.

Captain Augusto Ezequiel (IHPT) began to report the results of the work developed by this Working Group, regarding the future of the IHO. Therefore, he stressed that the discussion of this item, which is going to take place in every Regional Commission, is very important and aims to get the comments and inputs to be later forwarded to the Chair Group. He then made a presentation of the SPWG summarized as follows:

- The background of this Planning Group, which was initially composed by a group of Hydrographic Office directors tasked to formulate annually a plan to be submitted to the Directing Committee. However, as a result of a great number of the Member States proposals, appointing changes to the basic documents, as well as to the structure of the organization, the 2002 International Hydrographic Conference created a new Strategic Planning Group, with new Terms of Reference and a new task. This task comprised the analysis and the reflection on those proposals received from the member states.
- The SPWG comprises a fixed chair group. All the regional commissions are represented (in the case of EAthC, this commission is represented by Portugal). Some member states are also represented individually like Spain, Monaco, Bangladesh and Morocco.
- As working methodology, the chair group makes the reports to be submitted to each member for analysis and comment. All different ideas or opinions are taken into account. There is also a meeting schedule, which already comprises a meeting in next January, in Goa. There was created a SPWG web forum at the SHOM web site with all necessary information.

- The IHPT has a double role: it not only participates in the studies and the proposals of the Working Group but, as EAthC representative, communicates all contributions and comments of members of this regional Commission.
- The SPWG set up the following steps:
  - The establishment of an image of the future IHO through Vision, Purpose, and Mission;
  - The definition of the IHO objectives;
  - The definition of the overall strategic plan, with goals, priorities and pertinent Work Programme;
  - The appreciation of the necessary changes to apply to the organization structure, organization convention and organization Basic Documents levels.
- The SPWG defined the Vision of the IHO as “The recognised international hydrographic authority advancing maritime safety and efficiency and marine environmental sustainability”.
- The SPWG defined the following Mission of the IHO: “Create a global environment in which states provide adequate and timely hydrographic data, products and services and ensure their widest possible use”.
- The SPWG established the following draft objectives:
  - “To improve global coverage, availability and access to hydrographic data, information, products and services”;
  - “To advance global hydrographic capability and capacity and improvements in science and techniques”;
  - “To establish standards for the quality and formats of hydrographic data, information, products, services and techniques”;
  - “To give authoritative guidance on all hydrographic matters to governments and international organizations”;
  - “To coordinate hydrographic activities of Member States”;
  - “To foster cooperation amongst States on a regional basis”;
  - “To manage central or joint services for the Member States”.

ICETA Bouet-Leboeuf (SHOM) commented on the draft objective 3, suggesting that the objective of IHO should be to promote standards, if they exist, and only establish new ones when necessary.

Captain Bermejo Baró (IHB) expressed his doubts about the intentions of having this draft objectives discussion, since SPWG had requested comments with 27 September as closing date. He also stated that the chair group will discuss the received comments on 31 of October and so urged the EAthC to leave its own comments until that day.

Captain Augusto Ezequiel (IHPT) stated that milestones referred to by Captain Bermejo are correct, but stressed that the discussion is still open since the objectives were only discussed by SPWG. Therefore, it is also expected to have a feedback from the Regional Commissions.

Mrs Rosemary Tuhey (UKHO) explained that, in respect to the second draft objective, there is a big meaning difference between “capacity” and “capability”: capability corresponds to our ability to do something, whether we can do it or not; capacity is more used in terms of volume, i.e., how many ships or people, for instance, which are

necessary to do something. She suggested the adoption of the word “improve” instead of “advance” at the beginning of the sentence of the second draft objective. She informed later that, in respect of the meanings of advance / improve, it is more difficult to establish the boundary than “capacity” *versus* “capability”: advance is to move forward, to make progress; improve may have the same meaning as advance, but normally is meant to be “doing better”.

Commander Güimil Ferreiro (IHMES) stated that Spain does not have any problem in understanding the draft objectives, as well as in translating them into Spanish, on opposition to the concept of “Vision” of IHO - “the recognised international hydrographic authority advancing maritime safety and efficiency and marine environmental sustainability”. He stressed it is very difficult to translate and understand this “Vision of the IHO” in Spanish. For him, this concept should be expressed in a much more simple and clear way, in order to be well understood and translated into Spanish language. He also expressed that the Mission of the IHO was put in a more clear way and there are no problems about its understanding. He noticed, in respect of the second draft objective, that the terms “capacity” and “capability” are redundant for the Spanish.

Captain Bermejo Baró (IHB) agreed with Captain Güimil Ferreiro about the redundancy of capability and capacity in Spanish language, and noticed that the same situation occurs with “advance” and “improvement”.

ICETA Bouet-Leboeuf (SHOM) stated that, as for the Spanish, it is very difficult to translate the SPWG definition of “The Vision of IHO” into French. In respect to the Mission of IHO, there are no problems in translation. Regarding the second draft objective, the meaning of “to advance” may be not very clear, so he suggested “to improve” as alternative. He also proposed the adoption of “profits of the science and techniques improvements in order to be applied to hydrography” (*“bénéfices des améliorations en science et technique pour la application en hydrographie”*) instead of “improvements in science and techniques”.

Captain Augusto Ezequiel (IHPT) put on consideration the split of the second draft objective: “to advance global hydrographic capability and capacity; to make improvements in science and techniques”.

Mrs Rosemary Tuhey (UKHO) stated that it is important to link the “improvements in science and techniques” to the hydrography.

Mr Paul Cooper (NAVOCEANO) stated that the second draft objective comprises two distinct points: one meaning the development of the global hydrographic capability and capacity and another to advance and improve hydrographic science and hydrographic techniques.

Mrs Rosemary Tuhey (UKHO) stated that more important than the translation of the definitions or concepts is the understanding of their intent. She also informed that, after the SPWG meeting, it was explained that the vision is something internal to the organization (“like the bright star where the people are looking to be”), while the mission corresponded to the definition, which is suitable to be explained to another organizations what the IHO is doing.

Commander Güimil Ferreira (IHMES) stated that he can distinguish the difference between Vision and Mission, but noticed that the problem remains the same: Spain does not understand the aforementioned definition of Vision of the IHO. He also expressed his doubts about the inclusion of the word “science” in the second draft objective, since he does not recognize the hydrographers as scientists but as technical experts.

Captain Augusto Ezequiel (IHPT) remembered that it had been decided (at the SPWG meetings) to not include the definition of Vision in the official documents. He also stated that Vision definition embraces two main ideas: one corresponds to the maritime safety, and the other is related to the efficiency and marine environmental sustainability.

Dr Dimitri Travin from IOC/UNESCO stated his disagreement on the use of the word “authority” in the Vision definition. He does not consider the IHO as an authority and, in this sense, an organization that gives orders, but as an institution that only gives recommendations. He finally suggested the use of the “agency” term instead of the “authority”.

Mrs Rosemary Tuhey (UKHO) stated that the “authority” word had already originated a lot of discussion (at SPWG meetings): there were people who defended that the organization should be part of UN and have a strong mandate to make decisions; others thought that the organization should remain in an advisory and technical capacity level. She explained that authority does not just mean someone who gives orders but also means the best person to give advice, in this case, on hydrographic matters.

Captain Augusto Ezequiel (IHPT) stated that in Portugal, authority has also a double meaning as the one explained by Mrs Rosemary Tuhey. Therefore, IHO as an authority corresponded to an institution, expert in hydrographic matters, which should be addressed and be asked to give legal advice by governments or international organizations in their legislation.

Dr Dimitri Travin (IOC/UNESCO) stated that normally we should try to avoid double meanings or interpretations in the international documents.

Captain Augusto Ezequiel (IHPT) expressed his receptivity to consider the change of “authority” to “agency”.

Captain Gorziglia (IHB) read, with respect with this discussion, part of a text of the IMO web page: “IMO is the United Nations specialized agency responsible for improving maritime safety and preventing pollution from the ships.” He emphasised in this sentence the following key words: “agency”, “maritime safety”, “improving”, representing similarities to those used in the definitions under discussion.

Commander Güimil Ferreira (IHMES) stated that it is also necessary, in respect of the Vision definition, to clarify who recognizes the IHO as an international hydrographic authority. He also stated that, in complement of Captain Gorziglia’s intervention, it should be avoided the same definition or the same terms as those belonging to the

aforementioned IMO definition, stressing the likeness of this to the second part of IHO Vision concept.

Commander Güimil Ferreiro (IHMES) proposed for the Vision definition the expression “an international agency recognised by the governments as an hydrographic authority” instead of “the recognized international hydrographic authority”.

Mrs Rosemary Tuhey (UKHO) stressed that, although the accorded close date for the reception of comments about Vision, Mission and Objectives was 27 of September, the outcome of this meeting should reflect in a future stage the points that this commission wishes to make.

Captain Augusto Ezequiel (IHPT) invited delegates to answer the questionnaire “Weaknesses and Strengths of the IHO” until 26 of October. As EAtHC representative at SPWG, he will address to the SPWG chair group a synthesis of the delegates’ concerns and comments. He also invited the latter to send their contribution in order to be discussed at the SPWG next meeting, in Goa. He expects to obtain a final document, containing terminology that will not bring misunderstanding or translation problems. He then briefly explained the proposed institutional diagram for the IHB.

A discussion was then held about the diagram with the following topics: the relative hierarchy of General Assembly and Regional Commissions; how the decision-making process works, how the IHB secretariat and the three directors’ assistants are fixed into the structure.

Captain Gorziglia (IHB) stated that, in according with the agenda item number ten of the first SPWG meeting, SPWG should only consider structural aspects of IHO after the outcome of the regional commissions about the List of Strengths and Weaknesses. Therefore, he expressed his opinion that such a proposed diagram presentation, like its discussion, was premature since the analysis/examination of the aforementioned list has not yet been done.

Captain Augusto Ezequiel (IHPT) stated that this meeting represents an opportunity, probably the only one, to discuss amongst EAtHC members such a diagram, as well as other SPWG outcomes, since the next conference will be held two years from now, i.e., six months before the IHB conference, when the SPWG work would be concluded.

Captain Bermejo Baró (IHB) clarified that the questionnaire of strengths / weaknesses was built up by the Bureau under SPWG proposal. It was based on a similar questionnaire, which was distributed and filled in by IHB Member States in 1998, when the first SPWG began. The preparation of the questionnaire was made since then taking into account the comments from the Member States, from the Extraordinary Conference and the 2001 SPWG Meeting, held in Norfolk.

There followed a brief discussion about some aspects of the questionnaire, in which some details were clarified.

## 2.6 Status of Hydrographic Surveys in the Area

Captain Güimil Ferreiro referred to the Spanish contribution regarding this item, stating that Spain has been carrying on with surveys of areas of its responsibility in accordance with S-44 IHB publication. These surveys were summarized as follows:

- Galicia: sounding with single beam echo sounder up to 2000 meters depth contour, and multibeam echo sounder in the Spanish Exclusive Economic Zone
- Gulf of Cádiz: surveys with multibeam echo sounders in approaches to Cádiz, Naval Base of Rota, Huelva, Algeciras and Málaga.
- Canary Islands: surveys with single beam echo sounder in Gran Canaria, Lanzarote, Fuerteventure and Tenerife.

ICETA (SHOM) Bouet-Leboeuf stated that France has been carrying out hydrographic surveys namely off the west coast of France, with the focus in the following areas: access and harbour of Concarneau, Baie de Quiberon and approaches of Brest. In respect of West Africa, France has a survey programme for three years, which has already started in the current year. The goal of this programme is to carry out cartographic updates, since almost all available data in the region is very old. ICETA Bouet-Leboeuf made a brief presentation of this programme, which is summarized as follows:

- The scheduled surveys in Gabon, which have already started, embrace Port Gentil, Pointe Lopez (Cap Lopez) and Libreville approaches. It was remarked that in this country, there are in course American surveys; therefore cooperation actions, if materialized, would be very useful and avoid resurveying the same areas. It was stressed that France does not know where the Americans are surveying;
- The scheduled surveys in Ivory Coast were cancelled due to local problems;
- The scheduled surveys also embrace Congo, as well as the approaches of Lomé harbour, in Togo.

ICETA Bouet-Leboeuf (SHOM) also informed that the new French survey ship, *Beautemps-Beaupré*, is going to be engaged in this survey programme next year. This ship will make some oceanographic surveys, namely at doubtful seamounts. It was stressed that all inputs and information about the hydrography of this region is welcomed; therefore, SHOM is open to introduce adjustments to its programme concerning new data provided by other countries.

Mr Paul Cooper (NAVOCEANO) stated that he has no information to give about this item.

Mrs Rosemary Tuhey (UKHO) referred to the source data diagram shown in the West Africa Action Team presentation. She also stated that presently United Kingdom has no survey ships in West Africa nor has any immediate survey plan in the area.

Mr Mamadou Thioub (Senegal) stated that Senegal made this year a survey at Saloum River, which is located 100 nautical miles south from Dakar. It has also made some surveys in Dakar harbour access, from Gorée Island to the Port's entrance, whose depth information has been requested by maritime traffic.

Mr. Soulemane Bah (Guinea) stated that Guinea made surveys in April of the current year at the access channels and harbour basin of Port of Conakry, aimed to assess the local sedimentation and to prepare dredging works predicted for the next year. He also referred to the hydrographic operations at Port of Benty, with the cooperation of Hamburg Port, under the financing of the World Bank and control of NAVFCO.

Captain Augusto Ezequiel (IHPT) stated that the Portuguese Hydrographic Office neither has made any hydrographic survey in Africa in the last years nor has any survey plans for this region. IHPT has been surveying Portuguese waters with modern equipments; in particular, the main ports have been resurveyed with multibeam echo sounders for shallow waters.

## **2.7 INT Chart Scheme. Report of CHATINTCHART (France)**

ICETA Bouet-Leboeuf (SHOM) stated that the report of the coordinator of CHATINTCHART had already been sent to the members through the circular letter 366 of 16 of September, which contains the most recent information at SHOM. He asked for further information or comments to this catalogue.

Commander Chans Ferreiro (IHMES) referred to the corrections to be applied to the CHATINTCHART concerning the INT charts numbers 1929 and 1936. He also stated that Spain agrees with the report of the coordinator of CHATINTCHART. Spain is presently studying new limits for the chart INT 1819 and is coordinating with Portugal the coverage of the overlapping between the two joint international charts. The solution to this overlapping will be then provided to France for approval.

Commander Maia Pimentel (IHPT) stated that Portugal also approves the coordinator report. He also reported the Portuguese additional corrections to be applied to the CHATINTCHART:

- The INT chart 1081: this INT chart with national number 10 was cancelled and replaced by the national chart number 21101, published under the same INT number.
- The INT Charts 1813 to 1818: these six charts will correspond to the national charts 24201 to 24206, already published and whose new editions will be issued as INT charts.
- INT chart 1871: the title of this chart in the catalogue should be corrected in order to be read as “Porto de Leixões e Barra do Rio Douro”.
- INT chart 1890: the corresponding national chart 160 was cancelled and replaced by the national chart 46406. Although the limits of this chart are different from those of the 160, Portugal is going to propose the inclusion of the chart in the CHATINTCHART with the same number – INT 1890.
- INT chart 1891: the title of this chart should be read as “Horta” instead of “Orta”.
- INT chart 1921: the correspondent national chart 101, covering the islands of Madeira, Porto Santo and Desertas, is about to be cancelled. The national charts 36201, comprising Madeira Island and Desertas islands, not yet published, and 36401, covering Porto Santo Island, already published, will replace that chart. Portugal is therefore going to propose the inclusion of

these last two charts in the CHATINTCHART respectively under the INT numbers 1921 and 1922.

- INT chart 1964: it corresponds to the Portuguese official charts 254 and 267, which were cancelled.

Captain Augusto Ezequiel (IHPT) explained that the reason behind the cancelling of the Portuguese charts 254 and 267, covering Cabo Verde harbours, relates to the publication of equivalent hydrographic plans by Cabo Verde Government without the IHPT knowledge. He stressed the fact that IHPT was only informed about these plans when the United Kingdom Hydrographic Office sent copies of them to Portugal. This situation occurred although there is in force a bilateral agreement between Portugal and Cabo Verde about exchange of hydrographic data. He also stated that there is in course a formal process aimed to clarify this situation.

ICETA Bouet-Leboeuf (SHOM) stated that, in addition to his statement about this item, INT charts of Western Africa Coast, namely with coverage of Guinea, are under publication by France.

## **2.8 Production of Electronic Navigational Chart (ENC). Implementation of the WEND scheme in the area**

Commander Maia Pimentel (IHPT) summarized the information contained on the Portuguese report as follows:

- The production of ENC cells by Portuguese Hydrographic Office is presently at a good rate, having at the moment 23 ENC cells to be provided by the International Centre for ENCs (IC-ENC).
- The main part of the work at the moment concerns the creation of ENCs updates. This situation is well illustrated by the graphic attached to the Portuguese report. This graphic also shows the Portuguese nautical chart production, both ENC and in paper form.
- The ENC production starts with CARIS files obtained from the production of paper charts. These files are initially transformed within the CARIS system but the main work is done using software produced by 7-C's (ENC Tools). This software is not only employed at production, but also in control quality. In terms of control quality HydroServices software (dKart Inspector) is also used. The new cells as well as the updates are tested and validated by the ECDIS software NAVISAILOR 2400. Whenever possible, the Portuguese Navy hydrographic ships equipped with ECDIS also do a final check in real navigation conditions.
- The IHPT joined initially RENC/PRIMAR. After the split of this organization, the IHPT adhered to the IC-ENC.
- The IHPT predicts that 35 ENC cells would be available for distribution until the end of the current year.
- The IHPT tries to achieve a simultaneous distribution of the ENC CDs and the Notice to Mariners, affecting the ENCs.
- The IHPT continues to agree with Spain about the limits of the joining cells.

Mr Mamadou Thioub (Senegal) stated that Senegal does not have any activity related to this issue.

Mrs Rosemary Tuhey (UKHO) stated that United Kingdom expects to complete its ENC coverage of its home waters by the first half of the next year, by which time it anticipated having some spare capacity to assist other nations by lateral arrangements. She stressed that UKHO welcomes any country to cooperate at this level using the aforementioned spare capacity. Outside its home waters, UK prioritised key SOLAS areas. In respect to the EAHC area, United Kingdom has no immediate plan for production in this region, although it is willing to cooperate with other countries to coordinate production plans in order to achieve contiguous route coverage. She also linked the fact that less than 15% of world SOLAS shipping is ECDIS compliant, owing partly to the system prices and also to the incomplete ENC coverage of sea routes. Therefore, UKHO sees as one the most important roles of the Hydrographic Offices the improving of the ENC coverage. Regarding to this matter, reference was made to a concept designated as “dual fuel” (vector / raster), in which raster is used to fill in the lack of ENC areas. She mentioned finally the HELCOM agreement, established between North Sea Commission and the Baltic Commission, which corresponds to a commitment to complete the ENC coverage of the shipping routes of the Baltic before the end of 2004. She expressed that this agreement could be seen as a good example of a practice to be copied elsewhere.

Mr Paul Cooper (NAVOCEANO) stated that the Naval Oceanographic Office is not a charting agency; thus, the production of DNCs (Digital Nautical Charts) is carried out by National Imagery and Mapping Agency. However, the Naval Oceanographic Office has a small capability to make and update DNCs in order to meet the requests of US fleet in immediate situations. He also stated that United States Hydrographic Office - National Oceanic and Atmospheric Administration, NOAA, maintains a portfolio of DNCs for United States waters. In respect to the EAHC region, the maintenance of a DNC folio is not practised.

Mr Alberto Tipote (Guinea-Bissau) stated that Guinea-Bissau has no activity related to this issue.

Captain Samson Adenote (Nigerian Navy Hydrographic Office) stated that Nigeria is about to start an ENC production process.

ICETA Bouet-Leboeuf (SHOM) stated that France has about ninety ENC cells in the metropolitan areas and fifteen cells in G area. Nowadays, the most important work corresponds to the ENC update. A lot of new editions have resulted from the conversion of version 3.0 to version 3.1 of S-57. Presently, France is studying a way to improve the production capacity by subcontract, which would be in force at the end of the next year. The distribution of the French cells is carried out by PRIMAR-S. For G area, France expects to produce about fifty cells in the next year, which will be, in most of the cases, published under subcontract. France is also studying a small-scale scheme for area G comprising the participation of Hydrographic Offices with ENC production capacity. Therefore, it would be necessary to establish an agreement about this scheme and the responsibility of each producer country involved.

Commander Chans Ferreiro (IHMES) stated that Spain has already produced 64 ENC cells and expects to cover the main Spanish Ports with ENC by the end of the next year. The final stage of ENC production is made with CARIS/HOM. Dkart Inspector and 7 C's Analyser are used for quality control purposes. Spain has only simulators but intends to purchase an ECDIS. The rising of production is closely related to the update demands, as well as to the necessary conversion of the version 3.0 to the version 3.1 of S-57. The distribution of the Spanish ENCs has been carried out by IC-ENC since July of this year. He stressed the necessity to provide official data to mariners, which is the task of the Hydrographic Offices, but may not correspond to the perspective of the private producers of Electronic Charts. Therefore, in order to avoid misunderstandings amongst mariners, he expressed that Hydrographic Offices have to discuss this matter and also need to establish the ENC production boundaries, as soon as possible. Therefore, Spain agrees with France about the necessity of implementing the limits for the responsibilities of ENC production, especially regarding the small-scale scheme (navigational purposes one and two). He expressed the opinion that production of such charts should be assigned based on INT chart production.

Mr Paul Cooper (NAVOCEANO) congratulated this commission by taking initiatives such as the Action Team visits or the coordination of ENC production in West Africa.

Mrs Rosemary Tuhey (UKHO) stated that, although the basis of the French initiative regarding the adoption of small-scale scheme for ENC is a good one, it is necessary to be slightly careful of the WEND principles, since such scheme clearly does not quite fit with them. Therefore, contrary to INT chart schemes, in which there are no problems to the Hydrographic Offices establishing lateral arrangements among themselves, the small-scale ENC charts include much more data from other organizations or institutions. She noticed, as example, the problem related to the responsibility to provide the updating data.

Commander Maia Pimentel (IHPT) stated that it is necessary to define some kind of programme for these ENC cells. He expressed the opinion that the update should be done in close cooperation between the producer of the original data for paper charts and the eventual different producer of the ENC chart. He also stated that this coordination for small-scale charts for navigational purposes does not represent a great difficulty since they do not require a great need of update.

The Chairman stated that it is possible to draft a conclusion as result of this discussion with following contents:

- Any country may join one of the two existent RENCs;
- Both RENCs should further cooperate in order to provide the best service to the mariners;
- The ENC production for purposes 1 and 2, regarding the small-scale charts, should be assigned to the countries that have the responsibility to produce the corresponding INT chart.

ICETA Bouet-Leboeuf (SHOM) stressed the importance of the availability of the ENC for the users, which is only entirely achieved when the user addresses the request for ENCs to both RENCs. Therefore, he expressed the opinion that it should be the possibility that only one RENC, when addressed by the users, may provide all ENCs concerning a specific area.

Captain Augusto Ezequiel (IHPT) stressed the necessity of achieving a good cooperation between both RENCs, in order to solve the problems that had arisen with the split of RENC / PRIMAR. Therefore, he expressed the opinion that the countries should persuade their own RENCs to cooperate together. He also stated that the problem referred to by France also applies with paper charts, i.e., the user travelling through different parts of the world must address to several suppliers in order to obtain all information.

Mrs Rosemary Tuhey (UKHO) stressed that the main problem neither is directly due to the fact that there are two RENCs as distributors of ENC, nor is motivated by the subsequent necessity of the user to address both RENCs or different agents in order to obtain all cells. She stated that the major problem related to the potential incompatibility of the data from two RENCs in the same system. In this sense, she agrees with Portugal for the necessity of a close cooperation between the two RENCs, but mainly to achieve the data compatibility.

ICETA Bouet-Leboeuf (SHOM) expresses his doubts that the necessity to address to different agents applies in the same way either to paper charts, or to ENC charts. In this sense, Hydrographic Offices, like UKHO, not only has charts covering national waters, but also provides cartographic world coverage. This does not happen to ENC since the producer countries only provide charts concerning their only national waters.

Captain Augusto Ezequiel (IHPT) stated his disagreement with French position, in which the ENC problem is related to the necessity felt by the users to address both ENC distributors in order to achieve complete region ENC coverage. The problem with the ENC situation is due to the fact that the RENCs have not yet established cooperation actions. Therefore, he once again stressed the necessity of the data producers, i.e. the hydrographic offices, to persuade the RENCs to cooperate with each other. In this sense, he proposed that this Hydrographic Commission should adopt a conclusion inviting member states to task their representatives in the respective RENC committees in order to foster the dialogue and communication between RENC directing committees.

Commander Chans Ferreiro (IHMES) stated that the French and Portuguese positions are basically the same. He also stressed the urgent necessity to achieve good relationship between the two existent RENCs, but also in order to give mariners the official data.

IAETA Bouet-Leboeuf (SHOM) stated that France agrees totally with Spain and also referred to the necessity to have both RENCs aware of the WEND principles.

The Chairman repeated once again that this commission feels the necessity to achieve cooperation between the two RENCs in order to provide mariners with the best possible service.

## **2.9 Maritime Safety Information. Report of Navarea II Co-ordinator (France)**

ICETA Bouet-Leboeuf (SHOM) stated that France as Navarea II co-ordinator receives considerable nautical information relating to the northern part of G area; by contrast, it has received very little feedback from the south part. He stated that the Action Team corresponds to a great opportunity to raise the awareness of the western Africa countries about the importance of providing nautical information.

Captain Augusto Ezequiel (IHPT) also complained that the Portuguese Speaking African Countries, where Portugal maintains cartographic coverage, has been sending very little information. As a consequence, the Portuguese nautical documents have not been updated. In this sense, he invited the cartographic producers countries to forward all pertinent data that they had access to or receive in order to allow the updating of Portuguese documents. For an example he referred to the example of UKHO, which forwarded to Portugal the harbour plans recently published by Cabo Verde.

In respect to the Maritime Safety Information of NAVAREA, ICETA Bouet-Leboeuf (SHOM) reported that in the last two years, only three countries sent nautical information to NAVAREA II: Spain (with 54 communications), Portugal (with 18 communications) and Morocco (with 80 communications). He congratulated particularly the effort of Morocco, which became the major supplier of nautical information in the region (NAVAREA II). Besides these three countries, and regarding to the period of the last three years, only Senegal provided information to the co-ordinator, with one communication. He stressed that actually there are means allowing an easy and rapid communication with the co-ordinator like the NET. Therefore, France as NAVAREA II co-ordinator invites specially the African countries to take advantage of the modern means of communication, like NET or even FAX, in order to start sending information concerning navigation safety. It was also stressed the importance of providing France with information related to the national NAVTEX stations status and, in this scope, it is expected that the Action Team would give a significant contribution to clarify the situation and the needs.

Mr Mamadou Thioub (Senegal) stated that Senegal is aware about the necessity to provide nautical information regarding to the safety of navigation.

Mr Soulemane Bah (Guinea) stated that he took account of the French statement with much interest. He also stated that in the last meeting, held in Lisbon last year, it was discussed a possible regional project in West Africa regarding the NAVTEX system.

ICETA Bouet-Leboeuf (SHOM) stated that, regarding the project referred to on the previous statement, France has no information about the prediction of NAVTEX implementation and expects that the Action Team, after doing the visits, would discuss the matter with France.

## 2.9 AOB

Two issues were included in this item: the International Bathymetric Charts (IBC), by France, and the copyright problem, by Portugal.

### IBC

France made a presentation about the International Bathymetric Charts (Ocean Mapping Program), summarized as follows:

- SHOM is actually engaged in four of eight regional programs: IBCEA (International Bathymetric Charts of the Central and Eastern Atlantic), IBCCA (International Bathymetric Charts of the Caribbean), IBCWIO (International Bathymetric Charts of the West Indian Ocean) and IBCM (International Bathymetric Charts of Mediterranean).
- The main target of the Ocean Mapping Program corresponds to the world coverage with bathymetric and geological charts in order to provide information about submarine relief and geological parameters of sea bottom (high sea and EEZ).
- The IBCEA programme comprises twelve charts of 1: 1000 000 scale, covering coast of EAthC region, from northwest of Iberian Peninsula to north of Angola. Seven of these were already published: six by France and one by Portugal.
- The IBCWIO programme comprises twenty-one charts of 1: 1000 000 scale, covering African coast from Somalia to South Africa, including Madagascar. Five of these were already published: 2 by Germany and 3 by Russia. Under this programme, France is giving technical support to Madagascar, which was co assigned to compile two sheets.
- The IBCCA programme comprises seventeen charts of 1: 1000 000 scale, covering mainly Caribbean Sea and Mexico Gulf, but also Colombian and Equator coasts as well as the western coast of Central America. Only three charts have not yet been published.
- The IBCM programme comprises ten charts of 1: 1000 000, in which the second edition will be published in numeric form.

### COPYRIGHT

Captain Augusto Ezequiel (IHPT) remembered that from the last EAthC conference resulted an outcome inviting the members to provide the Bureau a list of the companies that were using official data without a copyright licence. Since none of the members has yet supplied any information or report and therefore the situation remains the same as two years ago, he suggested to keep the conclusion but with a little change: to furnish the Bureau with a list containing the companies that have an agreement with Hydrographic Offices and the companies using data from the latter but remaining unlicensed.

Commander Güimil Ferreiro (IHMES) stated his agreement with Portugal; however he asked if the Bureau has any policy about copyright, which, as instance, may supply the proceedings to be applied to the private companies.

Captain Gorziglia (IHB) stated that, in response to Spain, Bureau should do what the Member States would like the Bureau to do. Therefore, any conclusion to be taken by this commission should be very clear on what the Bureau should do with the information provided; in the case of the latter be faced with some difficulties at the implementation of the Regional Commission intentions, it will have to ask for legal advice.

Captain Augusto Ezequiel (IHPT) stated there are cases of Regional Commissions, like the North Sea Hydrographic Commission, that have established a standard contract to be used with private companies. He stressed once again the necessity to have a list of the companies using official data in order to be provided to all member states. Therefore, the Hydrographic Offices became more able to check or research the provenance of information eventually supplied by private sources, and foster these, if the case, to respect the copyright and sign a contract.

Captain Gorziglia (IHB) stressed that the copyright is not an easy matter namely due to the fact that each country has his own policy about it. He also stated that it is a very complicated task to make a document containing a list of all companies dealing with hydrographic data and with the indication of which have accomplished copyright agreements. He invites the members to consider other approaches to the problem or to improve the adopted strategy.

Captain Augusto Ezequiel (IHPT) suggested the adoption of a conclusion with a little change: an outcome that invited the countries to provide information to the chairman of this commission (instead of the Bureau), who will then spread it to all members. In this sense, all the data would be available when a final solution was achieved.

Mrs Rosemary Tuhey (UKHO) stated the following:

- Persuading private companies to acknowledge that they must respect copyright and pay royalties to the Hydrographic Offices is a long running and historical problem. The Hydrographic Offices generally are resourceless and their legal support is not quick. However, if hydrographic offices do not do anything about it, effectively they are by default supporting the private companies activities and losing money, which can be a great amount in some cases.
- She stressed, as Captain Gorziglia informed, that copyright corresponds to a national law, and therefore there must be the individual will to take on private companies or, in some cases, to delegate the authority to another country to collect the fees, which cannot be applied to all situations due to the different national laws. The IHB cannot also have the responsibility to take forward the actions since copyright is dependant on national law.
- One move that might be taken is to facilitate the companies to come into an agreement. For instance, in the North Sea area, this move was translated into the adoption of a standard form of application and a standard structure of licences (at the Bureau, there will be the report of the last Copyright Working Group of the North Sea Hydrographic Commission, which gave details of those applications forms and licence agreements). Regarding the work done by North Sea Commission, it was necessary to work together and to visit the private companies. This visit has in many cases to be expanded to several countries in order to contact

the national delegations of only one private company. Also, it is necessary to show in the visit a serious and determined attitude.

- The UK has now licences with all major companies, but it is the result of six years effort.
- There is a huge danger in producing “black lists”. For instance, the same company may have an agreement with one or more countries but not have it with other countries. There is also the risk of a Hydrographic Office to be accused of defamation.

ICETA Bouet-Leboeuf (SHOM) stated that France has also several bilateral arrangements with different companies. He also referred to the difficulties in establishing an agreement embracing the whole of a big company.

## 2.9 Conclusions

There were discussed and approved the following conclusions:

- |                 |   |
|-----------------|---|
| CONCLUSION No 1 | The EAthC, during its 7th Conference in Lisbon, October 2002,   |
| Noting:         | the lack of training in hydrography in some countries within the EAthC and the importance of this issue to their development and to the safety of maritime navigation in their waters,  |
| Invites:        | all the countries within the EAthC Area not having trained personnel in hydrography, to apply for hydrographic courses offered internationally, especially those offered by several HOs of IHO Member States and by the International Maritime Academy. |
| CONCLUSION No 2 | The EAthC, during its 7th Conference in Lisbon, October 2002,   |
| Noting:         | the state of hydrographic surveys in Western Africa and the urgent need to improve the situation,   |
| Invites:        | the Members, the Associate Members and the IHB to support and participate in the activities of the Western Africa Action Team.  |
| CONCLUSION No 3 | The EAthC, during its 7th Conference in Lisbon, October 2002,   |
| Noting:         | the future implementation of the WEND concept in the EAthC Area and taking into account the existence of two RENCs covering this Area,  |

- Decides: to amend the CONCLUSION No 4 of the 6th EAthC Conference and
- Invites: Members and Associate Members to foster ENC production and services and, if they have not already done so, to join one of the existing RENCs in order to distribute their products.
- CONCLUSION No 4 The EAthC, during its 7th Conference in Lisbon, October 2002,
- Noting: the importance of public relations and the impact of the new technologies,
- Decides: to reinforce CONCLUSION No 9 from the 6th EAthC Conference and to recommend the use of Internet and other Information Technologies, whenever possible.
- CONCLUSION No 5 The EAthC, during its 7th Conference in Lisbon, October 2002,
- Noting: the importance of the achievements of the IHO Strategic Planning Working Group in the future of the IHO,
- Invites: all Members and Associate Members to participate actively in the works of the IHO Strategic Planning Working Group, through the EAthC representative in that Working Group.
- CONCLUSION No 6 The EAthC, during its 7th Conference in Lisbon, October 2002,
- Noting: the problems that some definitions and wording in English present for translation into other languages,
- Decides: to transmit, through the EAthC representative in the Strategic Planning Working Group, that any changes to the Basic Documents of the IHO, or any new documents that may complement or substitute them, should have in mind that their initial wording in English has to be translated within each IHO Member State language, in order to reach governmental approval.
- CONCLUSION No 7 The EAthC, during its 7th Conference in Lisbon, October 2002,

- Noting: the contents of the objective O.3.4.1 of the IHO Working Plan for the period 2003-2007,
- Invites: all Members and Associate Members to provide data, products and services other than those related to the safety of maritime navigation, for instance, products and services related to environmental protection, coastal management and economical activities.
- CONCLUSION No 8 The EAthC, during its 7th Conference in Lisbon, October 2002,
- Noting: the importance of paragraph 21 of the United Nations Resolution A/53/32/1998 and the Chapter V of the revised SOLAS Convention,
- Decides: to reiterate the CONCLUSION No 10 of the 6th EAthC Conference, and so
- Invites: countries not having hydrographic capabilities to establish formal arrangements with countries currently producing charts and nautical documents.
- CONCLUSION No 9 The EAthC, during its 7th Conference in Lisbon, October 2002,
- Noting: the need to protect Member States copyright and considering the CONCLUSION No 2 of the 6th EAthC Conference,
- Invites: Members and Associate Members to provide the Chairman of the EAthC with a list of the companies with whom they have reached some kind of agreement and a list of companies that use their data without any agreement, and
- Decides: to request the Chairman of the EAthC to circulate the available information, among the Members and Associate Members of the EAthC.
- CONCLUSION No 10 The EAthC, during its 7th Conference in Lisbon, October 2002,
- Noting: the lack of small scale ENC cells in the EAthC Area and taking into consideration previous studies about this issue,

carried out within the WEND Committee and the former European RENC-PRIMAR,

Decides: to task France, the INTCHART Coordinator for Area G, to carry out a project to establish the production of ENC cells for Navigational Purposes 1 and 2 in accordance with the existing INTCHART Scheme.

CONCLUSION No 11 The EAthC, during its 7th Conference in Lisbon, October 2002,

Noting: the existence of two RENCs in the EAthC Area,

Decides: to mandate the Members of the EAthC to promote the need for the cooperation of the existing RENCs, namely, through their representatives in the decision and consultative bodies of those RENCs.

CONCLUSION No 12 The EAthC, during its 7th Conference in Lisbon, October 2002,

Noting: the urgent need to improve the dissemination of nautical information within the EAthC Area,

Decides: to urge the Members and Associate Members to cooperate with the NAVAREA II Coordinator and to set up the necessary means to manage and disseminate nautical information, whenever possible within the framework of GMDSS.

### **3. CLOSING SESSION**

The Chairman forwarded the organization of the next conference to the Member States that had not yet organized a meeting and wish to do it.

ICETA Bouet-Leboeuf (SHOM) stated that at the beginning of next December France is going to discuss with Morocco, which is not present in this meeting, about the date and venue of the next conference and then report the result to the Chairman. He also stated that by any means France is receptive to host the next meeting.

It was then appointed the year of 2004 for the next conference.

The Chairman made a brief closing address, thanking Portugal for the hospitality of conference.

Vice Admiral Cardoso expressed his appreciation to all delegates for their active contribution for this Commission. As the next Chairman, he expressed his determination to continue the great work of the Spanish Hydrographic Service; to assure that the

Action Team achieves progress in cooperation project; to assure a dynamical EAthC representation in the SPWG. He finally thanked all delegates and wished a safe return journey to the countries.

The Chairman, Captain Quirós Cébria, closed the conference and transferred the Chairmanship to Vice Admiral Silva Cardoso, Director General of the Portuguese Hydrographic Institute.

## APPENDIX 1

**List of Participants****Organization**

CHAIRMAN – SPAIN	CPT Fernando Quirós CEBRIA – Director, IHMES
VICE-CHAIRMAN – PORTUGAL	VADM Silva CARDOSO – General Director, IHPT
IHB	CPT Hugo GORZIGLIA – Director, IHB

**Member States**

Delegation	Delegates
FRANCE	ICETA Jean-Louis BOUET-LEBOEUF – SHOM
	ASP. Olivier ROHAS – SHOM
NIGERIA	CPT Samson ADENOTE, Director, Nigerian Navy Hydrographic Office
PORTUGAL	CPT Augusto EZEQUIEL - IHPT
	CDR Maia PIMENTEL - IHPT
	LT Brandão CORREIA – IHPT (RAPPORTEUR)
SPAIN	CDR Fernando GUILMIL FERREIRO, IHMES
	CDR Angel CHANS FERREIRO, IHMES

**Associate Members**

BENIN	Mr Célistin NOUMON –Cotonou Autonomous Port
GUINEA	Mr Soulemane BAH –Conacry Autonomous Port
GUINEA-BISSAU	Mr. Alberto TIPOTE – Ports Administration of Guinea-Bissau
SENEGAL	Mr. Mamadou THIOUB – Dakar Autonomous Port

**Observers**

IHB	CPT Frederico BERMEJO BARÓ
NAVFCO	Mr Erwan L'ARVOR
IOC/UNESCO	Dr Dimitri TRAVIN
Portuguese Lighthouse Authority DGPDN – PORTUGAL	LTCDR Proença MENDES
	CDR Paiva e PONA
UKHO - UK	Mrs Rosemary TUHEY
	CPT Ian TURNER
US Naval Oceanographic Office USA	Mr. Paul COOPER

## Contacts

### **Captain Fernando Quirós Cébria**

Director, IHMES

ADDRESS: Instituto Hidrográfico de la Marina,

Plaza San Severiano, 3,

11 007 Cadiz, Spain

TELEPHONE: +34 956 59 93 91

EMAIL: [ihmesp@retemail.es](mailto:ihmesp@retemail.es)

FAX: +34 956 27 53 58

### **Vice Admiral Carlos António David da Silva Cardoso**

General Director, IHPT

ADDRESS: Instituto Hidrográfico,

Rua das Trinas, 49,

1249-093 Lisboa, Portugal

TELEPHONE: +351 210 943000

EMAIL: [dirgeral@hidrografico.pt](mailto:dirgeral@hidrografico.pt)

FAX: +351 210 943299

### **Captain Hugo Gorziglia**

Director, IHB

ADDRESS: 4, Quai Antoine-1er , BP 445,

MC 98011 Monaco CEDEX,

Principauté de Monaco

TELEPHONE: +377 93 10 81 00

EMAIL: [dir2@ihb.mc](mailto:dir2@ihb.mc)

FAX: +377 93 10 81 40

### **ICETA Jean-Louis Bouet-Leboeuf**

Hydrographic Center Chief, EPSHOM

ADDRESS: 13, Rue du Chatellier

BP 30316 – 29603 Brest cedex

France

TELEPHONE: +33 (0)2 98 22 15 51

EMAIL: [bouet@shom.fr](mailto:bouet@shom.fr)

FAX: +33 (0)2 98 22 08 72

### **ASP. Olivier Rohas**

SHOM

ADDRESS: 3, Avenue Octave Gréard 75007 Paris

France

TELEPHONE: +33 (0)144 38 4337

EMAIL: [rohas@shom.fr](mailto:rohas@shom.fr)

**Captain Samson Adenote**

Director, Nigerian Navy Hydrographic Office  
ADDRESS: Nigerian Navy Hydrographic Office, No. 5  
Point Road  
Apapa  
Lagos, Nigeria  
TELEPHONE: + 234 001 5875715  
EMAIL: [nnho@linkserve.com](mailto:nnho@linkserve.com)  
FAX: + 234 001 5875715

**Captain Augusto Ezequiel**

Technical Director, IHPT  
ADDRESS: Instituto Hidrográfico,  
Rua das Trinas, 49,  
1249-093 Lisboa, Portugal  
TELEPHONE: +351 210 943000  
EMAIL: [dirtecnica@hidrografico.pt](mailto:dirtecnica@hidrografico.pt)  
FAX: +351 210 943299

**Commander Maia Pimentel**

Hydrographic Division, head  
ADDRESS: Instituto Hidrográfico,  
Rua das Trinas, 49,  
1249-093 Lisboa, Portugal  
TELEPHONE: +351 210 943000  
EMAIL: [hidrografia@hidrografico.pt](mailto:hidrografia@hidrografico.pt)  
FAX: +351 210 943299

**Lieutenant Brandão Correia**

Hydrographic Division  
ADDRESS: Instituto Hidrográfico,  
Rua das Trinas, 49,  
1249-093 Lisboa, Portugal  
TELEPHONE: +351 210 943000  
EMAIL: [hidrografia@hidrografico.pt](mailto:hidrografia@hidrografico.pt)  
FAX: +351 210 943299

**Commander Fernando Güimil Ferreiro**

Head of Navigational Section, IHMES  
ADDRESS: Instituto Hidrográfico de la Marina,  
Plaza San Severiano, 3,  
11 007 Cadiz, Spain  
TELEPHONE: + 34 956 59 93 99  
EMAIL: [ihmesp@retemail.es](mailto:ihmesp@retemail.es)  
FAX: +34 956 27 53 58

**Commader Angel Chans Ferreiro**

Head of the cartographic section, IHMES  
ADDRESS: Instituto Hidrográfico de la Marina  
Plaza San Severiano, 3, 11 007 Cadiz, Spain  
TELEPHONE: + 34 956 59 94 05  
EMAIL: [ihmesp@retemail.es](mailto:ihmesp@retemail.es)  
FAX: +34 956 27 53 58

**Mr. Célestin Noumon**

Port Autonome de Cotonou, BENIN  
ADDRESS : Direction Generale du Port Autonome de Cotonou  
B.P. 927 Cotonou  
Benin  
TELEPHONE : + 229 31 28 90 / 31 52 80  
EMAIL: [pac@leland.bj](mailto:pac@leland.bj)  
FAX : + 229 31 28 91

**Mr. Soulemayne Bah**

Port Autonome de Conakry, Guinée  
ADDRESS: P.A.C. BP 805  
Conakry, Guinée  
TELEPHONE: + 224 291364  
EMAIL: [Souleymane.bahl@voila.fr](mailto:Souleymane.bahl@voila.fr)

**Mr. Alberto Tipote**

Ports Administration of Guinea-Bissau, Guinea-Bissau  
ADDRESS: Av. 3 de Agosto  
Cx.P. 693 – Bissau  
Guinea-Bissau  
TELEPHONE: + 245 20 41 10  
FAX: +246 20 41 14

**Mr. Mamadou Thioub**

Directeur de phares et balises, Port Autonome de Dakar,  
Senegal  
ADDRESS: Bd Felix Eboné, B.P. 3195 Dur  
Senegal  
TELEPHONE: + 221 822 05 56  
EMAIL: [mthioub@hotmail.com](mailto:mthioub@hotmail.com)  
FAX: + 221 823 52 63

**Captain Frederico Bermejo Baró**

Technical Assistance, Training, Publications, IHB  
ADDRESS: 4, Quai Antoine-1er , BP 445,  
MC 98011 Monaco CEDEX,  
Principauté de Monaco  
TELEPHONE: +377 93 10 81 00  
EMAIL: patp@ihb.mc  
FAX: +377 93 10 81 40

**Mr. Erwan L'Arvor**

Project Manager in Hydrography, DCI/NAVFCO  
ADDRESS: 2, Place Rio de Janeiro  
75008 PARIS  
TELEPHONE: 331 44 95 28 29  
EMAIL: Erwan.LARVOR@navfco.groupedci.com  
FAX: +33 1 44 95 28 99

**Dr. Dimitri Travin**

UNESCO  
ADDRESS: 1 Rue Miollis IOC/OM  
75015 Paris, France  
TELEPHONE: + 33 1 45 68 40 44  
EMAIL: [d.travin@unesco.org](mailto:d.travin@unesco.org)  
FAX: + 33 1 45 68 58 12

**Lieutenant Commander Proença Mendes**

ADDRESS: Direcção de Faróis, Estrada Marginal,  
2780-657 Paço d'Arcos, Portugal  
TELEPHONE: + 351 21 446 16 60  
EMAIL: [dirfar@mail.telepac.pt](mailto:dirfar@mail.telepac.pt)  
FAX: + 351 21 441 01 93

**Commander Paiva e Pona**

ADDRESS: DGPDN – MDN, Av. Ilha da Madeira,  
1400 Lisboa, Portugal  
TELEPHONE: + 351 21 302 18 93  
EMAIL: [pona@dgpdn.mdn.gov.pt](mailto:pona@dgpdn.mdn.gov.pt)  
FAX+ 351 21 302 12 14

**Mrs. Rosemary Tuhey**

External Relations, UKHO  
ADDRESS: UKHO.ADMIRALTY WAY – TAUNTON  
SOMERSET – TA1 2DN UK  
TELEPHONE: + 44 1823 337 900  
EMAIL: [rosemary.tuhey@ukho.gov.uk](mailto:rosemary.tuhey@ukho.gov.uk)  
FAX: + 44 1823 351945

**Captain Ian Turner**

Captain, Royal Navy. West Africa Action Team Representing UKHO

ADDRESS: UKHO - ADMIRALTY WAY- TAUTON

SOMERSET – TA1 2DN UK

TELEPHONE: + 44 1823 337 900 Ext. 3363

EMAIL: [ian.turner@ukho.gov.uk](mailto:ian.turner@ukho.gov.uk)

FAX: + 44 1823 352 509

**Mr Paul Cooper**

Chief of the International Division, NAVOCEANO

ADDRESS: 1001 Balch Blvd – Stennis Space Center,

MS – 39522

TELEPHONE: + 228 688 41 25

EMAIL: [cooperp@navo.navy.mil](mailto:cooperp@navo.navy.mil)

FAX: + 1 228 688 41 24

## APPENDIX 2

7<sup>th</sup> CONFERENCE OF THE EASTERN ATLANTIC HYDROGRAPHIC  
COMMISSION (LISBON, 15 - 17 OCTOBER 2002)

## AGENDA

**1. OPENING SESSING****15 - AM**

- 1.1 Opening of the Conference
  - a) Opening address of the Chairman - CPT Quirós Cébria.
  - b) Welcoming address by the Portuguese Hydrographer - VADM Silva Cardoso.
- 1.2 Approval of the Agenda.
- 1.3 Chairman's Report.
- 1.4 Report by the IHB Director.

**2. WORKING SESSIONS****15 – PM**

- 2.1 Co-operation between Member States and with International Organisations (WP1).
- 2.2 Technical Assistance and Training (WP2). UKHO Report on Actions following the Meeting in Lisbon (March 2001).

**16 - AM**

- 2.2 Technical Assistance and Training (WP2). UKHO Report on Actions following the Meeting in Lisbon (March 2001) - Cont.

**16 – PM**

- 2.3 New techniques, equipments and standards (WP3). Report on project CaCAO (France)
- 2.4 Information Management and Public Relations (WP4).
- 2.5 Report by the Strategic Planning Working Group. Report of this Commission to the SPWG (WP5).

**17 - AM**

- 2.6 Status of Hydrographic Surveys in the Area.
- 2.7 INT Chart Scheme. Report of CHATINTCHART (France).
- 2.8 Production of Electronic Navigational Chart (ENC). Implementation of the WEND scheme in the area.

**17 - PM**

- 2.9 Maritime Safety Information. Report of Navarea II Co-ordinador (France).
- 2.10 Other subjects.
- 2.11 Conclusions.

**3. CLOSING SESSION: Date and venue for the next Conference.**