

**1st IHO SEMINAR FOR THE EAHC
NATIONAL HYDROGRAPHIC COMMITTEE CHAIRMEN
Trieste, Italy, 10 – 14 October 2005**

FINAL REPORT

I. General Information

The EAHC, considering the excellent work carried out by its West African Action Team (WAAT), endorsed the IHB initiative to conduct a one-week Seminar for Chairmen of National Hydrographic Committees (or equivalent) of the countries in the region of the EAHC, as a follow-up action. The 8th EAHC Meeting, which was held in Brest, France, 28-29 October 2004, endorsed this idea and the Capacity Building Committee included this activity within the CB Work Programme for 2005, allocating resources to support the attendance of participants.

The Seminar's objective was to raise awareness at governmental level of the importance of hydrography to safety of navigation and national economic development, and to explore initiatives of common regional interest.

This initiative is in line with the efforts of the International Hydrographic Organization to develop and/or to improve the existing hydrographic capabilities in the West and Central African Region, following a special request made by several United Nations Assembly resolutions.

The development of the initiative was worked on jointly by the IHB and the Chairman of the Eastern Atlantic Hydrographic Commission (EAHC), with strong support from some IHO Member States of the Commission and other international organizations.

Arrangements were coordinated with the International Maritime Academy (IMA) and it was agreed that the seminar would be held at the IMA premises in Trieste, Italy, from 10 - 14 October 2005.

Following a coordination meeting held to discuss details of this initiative, invitations to contribute to this seminar were sent to Chile, Croatia, France, Portugal, Spain, UK and USA, as well as to the following organizations: IOC, IMO, IALA, PMAWCA, FIG and the WB.

Invitations to attend the Seminar were sent on 6 May to the official national focal points or those identified during the WAAT technical visit. 19 countries (Benin, Cameroon, Cap-Verde, Congo (Republic of), Congo (Democratic Republic of), Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Equatorial Guinea, Mauritania, Morocco, Nigeria, Senegal, Sao Tome e Principe, Sierra Leone and Togo) were invited to identify "the key national person" to attend the Seminar, ideally the Chairman of the National Hydrographic Committee, National Maritime Safety Committee or equivalent, and if any, the person who will assume the national responsibility to monitor the establishment of the country's hydrographic capabilities. The need to ensure continuity of this effort was highlighted.

Out of the 7 countries invited to support the Seminar, only one was not able to contribute. The organizations that replied positively to participate with speakers were IOC, FIG and PMAWCA, and despite the positive reply received from 12 countries, unfortunately only 6 finally attended.

An Organization Team formed by France, UK and the IHB worked out the details of the program.

The IHB managed the CB Funds allocated by the IHO to partially support participants from the EAHC region attending the Seminar. Each country was requested to fund only the return air ticket of their representatives; the CB Fund covered all the rest. It should be highlighted that IHO Member

States, as well as international organizations, participating in the Seminar kindly funded their representatives.

II. Participants and Program

Representatives from Benin, Ghana, Gambia, Guinea Bissau, Senegal and Togo attended the Seminar. There were Speakers from Chile (1); Croatia (2); France (3); Portugal (1); Spain (1); UK (3); IOC (1); FIG (1); PMAWCA (1) and IHB (1). The List of Participants is provided in Annex A.

The program of the Seminar covered 5 days; the first three days were focused on 6 general aspects, Units 1 to 6:

- Unit 1: Introduction to the Seminar.
- Unit 2: Generalities associated with Hydrography.
- Unit 3: The Organization of a National Hydrographic Office.
- Unit 4: Application of Hydro-Cartographic Products and Services.
- Unit 5: Economic benefits associated with Hydro-Cartographic Products and Services.
- Unit 6: The National Hydrographic Committee or equivalent.

And the next two days were focused on regional aspects, divided into two Units:

- Unit 7: Regional Situation and Opportunities.
- Unit 8: Development of the basis for Regional Project(s).

The complete Program is provided in Annex B.

III. Content of the Seminar

Opening Remarks:

Captain Gorziglia, IHB Director, welcomed the participants and explained the role of the IHO and its main governing bodies. He said that “capacity building” had always been one of the most important activities of the Organization. He provided information on the activities entrusted to the Regional Hydrographic Commissions and the Capacity Building Committee. He indicated that the Seminar had been specifically organized for the countries in the EAHC region, and invited participants to take advantage of this opportunity. The text of his statement is provided in Annex C.

Professor Iginio Marson, President of the IMA, welcomed the participants to the Academy and expressed the Academy’s satisfaction on having been chosen to run such an important event. He explained that a Seminar with such an objective was entirely in line with the aims of the Academy and every effort had been made to provide adequate support for the running of the event. Finally, he wished all participants a nice stay in Trieste and a very productive Seminar. He expressed his regrets that, due to other commitments, he was not able to participate any longer in the opening of the Seminar.

Ing. Gén. Michel Le Gouic, representing the Chairman of the EAHC, reviewed all the work achieved since 2001 by the EAHC Members. The successive steps were as follows: an extraordinary session in Cadiz at the origin of the WAAT experts technical visits, resulting in recommendations including the creation of national committees, then the 8th meeting of the EAHC in October 2004 with, in particular, the development of a major project of maritime routes and now this seminar. The work was progressing and remained consistent with the medium and long term objective for better maritime safety. This can only succeed with persistence and perseverance.

The Seminar followed the Program in Annex B.

Short description of each of the Units

Unit 1: Introduction to the Seminar

Captain Gorziglia, IHB Director and Chairman of the CBC, explained the objective of the Seminar and its origin. He made reference to the UN resolutions requesting the IHO to make a special effort towards improving the situation of Coastal African States. Then he referred to the concept under the definition of Hydrography, in the context of the IHO, with special emphasis on the traditional uses of hydrography, associated with navigation, safety of navigation, both for military purposes as well as for shipping, and the protection of the marine environment.

Afterwards he referred in general terms to other applications of Hydrography; what was the international scenario, in terms of regulations, recommendations and resolutions adopted by several international organizations, such as UN and IMO.

He briefed the participants on the objectives of other international organizations whose work is related to the IHO's work, and with whom a close relationship thus exists. Finally, he devoted some time to highlighting the responsibilities of the States signatories to SOLAS, mainly in respect of Regulation 9 "Hydrographic Services".

Unit 2: Generalities associated with Hydrography

a)A Objective and specifications of hydrographic surveys

- Captain Barritt (UK) referred to this matter making reference to existing publications that provide information, in particular S-44. He highlighted the need for each nation to establish a prioritized national survey plan, defined with the needs of end users, reflecting SOLAS obligations and including routine re-surveys where applicable.
- He explained that some or all parts of the process could be outsourced.
- He pointed out that examples of national survey plans and of survey specifications were freely available on the internet.
- Finally he indicated that the IHO and its RHCs can advise on the best option for a coastal state.

B Phases of a Hydrographic Survey

Captain Barritt (UK) explained the different phases of a Hydrographic Survey, starting from liaison with other national authorities and the calibration of the equipment to be used; he then outlined the phases of area search and investigation, emphasizing the importance of continuous analysis of the survey area. He concluded by noting the importance of ancillary observations. Subsequent discussions centred on the type of the instrumentation to be used, and it was stressed that the selection would be governed by the purpose of the survey and the ultimate use of the end product.

e)C Instrumentation and methodologies used

ICA Guillam (FR) and Mr. Verrier (UK) made a joint presentation. The first one referred to the situation at sea, and the second one discussed the situation ashore. The different criteria in selecting the instrumentation and the methodologies used were highlighted.

D) Data Processing

The concept of data processing was presented by Mr Verrier (UK). He emphasized the importance of assessing new data, as key information discovered during the process could have an effect on safety to navigation. A system should be put in place to issue urgent notices to mariners and to update existing charts and publications.

E) Hydrographic and Cartographic products and services

This matter was presented by Mr Verrier (UK). The presentation provided details on the products that are vital to the mariner. Certainly they should be updated and meet the expectations of safe navigation. Emphasis was put on the fact that the chart is a tool that the mariner's life depends on; therefore the risk cannot be taken to provide a product which might endanger lives.

F) Nautical Publications

Mr Verrier (UK) also presented this topic. The main publications were considered, such as Sailing Directions, List of Radio Signals, Tides and Lists of Lights. An overview of many other publications was also provided.

G) Importance of Updates

Mr Verrier (UK) presented this subject emphasizing the importance of accurate nautical information, the mechanisms that can be used to distribute accurate nautical information and the types of data that are important.

H) Technological Developments

Under this section, both ICA Guillam (FR) and Mr Verrier (UK) referred to the new technologies in use. Mainly a broad description was made of the Multibeam echo-sounder technique and of ENC, but special emphasis was put on the great help that electronic equipment and digital databases provide.

Unit 3: The Organization of a National Hydrographic Office

Both the representative from Chile, Lt Silva, and the representatives from Croatia, Dr. Grzetic and Captain Bradaric, gave presentations on their Hydrographic Offices. A clear picture of the responsibilities assigned by law in each country, as well as the organization, regulations, infrastructure, personnel, technology available, training and funding issues was provided.

Unit 4: Application of Hydro-Cartographic Products and Services

a)A) Shipping

This part was presented by Captain Barritt (UK). He made reference to the importance of safe shipping routes. The service a port provides should be made known to the mariner and it was highlighted that the quality of charted information helps to sell the port as a chosen regional hub.

b)B) Defence

Captain Barritt (UK) emphasized the application of hydrography to standard patrol operations of a maritime country, such as fisheries, customs, immigration, anti-terrorist, etc. Also he

made reference to regional humanitarian operations e.g. in case of evacuation of endangered people.

④C) Maritime Delimitation

IGA Le Gouic (FR) provided a very detailed analysis of UNCLOS and the potential a maritime state has as regards extending its area of interest. He underlined the fact that the establishment of maritime boundaries following UNCLOS and the technical guidance by the Continental Shelf Commission requires hydrographic activities. Also, he emphasized that the delimitation of the maritime borders between countries helps to avoid various types of conflict between States.

④D) Environmental protection

Commander Gamundi (SP) presented this matter. He referred to the MARPOL Convention and the establishment of Special Areas, such as Particularly Sensitive Sea Areas, Restricted Areas and Marine Reservations. He emphasized that only through the proper knowledge of the hydrographic characteristics of any area, its definition, administration and control could be properly made.

④E) Natural hazard mitigation

Captain Gorziglia (IHB), based on the recent tsunami events, made a presentation referring to the importance of ocean and coastal bathymetry in the awareness phases of this natural hazard. He highlighted the importance for local coastal cities to prepare tsunami inundation maps for planning purposes, mainly to establish evacuation routes. The contribution of hydrography to saving lives was made very clear.

④F) Fisheries and Aquaculture

Commander Gamundi (SP) presented this topic, highlighting the economic importance of these two activities and the need to have such areas clearly indicated on charts. The position, as well as the signaling, were considered very important to ensure that the installations are free from collisions. Bathymetry was also indicated to be crucial for the definition of appropriate areas to establish farms.

④G) Tourism

Commander Gamundi (SP) made a presentation highlighting tourism issues with regard to hydrography. Mainly, he pointed out the need to have leisure nautical charts providing different and complete information to ensure safe use of the sea and to facilitate the activity. It was emphasized that it can be the same official nautical chart, but with different other layers of information.

④H) Coastal Zone Management

IGA Le Gouic made a presentation on this topic. He made special reference to the definition of ICZM, as the coastal area hosts several independent activities, all seeking to take advantage of the favourable conditions that might exist. Littoral protection and the management of the coastal land were highlighted as activities of increasing concern. He pointed out that all activities have an economic component and both private and public users need littoral geographic information, where hydrography was a key parameter. Another point raised was the importance of depicting all the coast's characteristics in order to identify the most appropriate use to be assigned to this limited resource.

I) Non-living resources |

Mr. Johnston (FIG) gave a presentation on the activities associated with the exploration and exploitation of sea bottom resources. He described in detail the components of all these activities, where technology, as well as investment, represent a considerable cost. The engineering aspects of these activities require a very detailed description and knowledge of the seafloor. He highlighted the importance of the data gathered during the research operations and the requirement to chart all underwater installations as they could be damaged by surface vessels anchoring or conducting trawling.

J) Marine scientific research |

Mr. Travin (IOC) referred to the efforts IOC is making to improve the MSR capabilities through capacity building. An IOC capacity building strategy has been established to guide this effort. It was emphasized that the degradation of marine resources and the augmentation of the effects of natural hazards have been faster than the capacity to manage and preserve the resources.

Unit 5: Economic benefits associated with Hydro-Cartographic Products and Services

Mr. Johnston (FIG) made this presentation. Firstly, he referred to FIG's efforts in promoting capacity building, and its relation with IHO, concluding that capacity building is possible and also necessary to become aware of the importance of the contribution of hydrography to all activities that take place in the oceans and seas. He highlighted that capacity building should be sustainable otherwise the initial effort is wasted. Afterwards he referred to the organizational structure of the private sector involved in maritime affairs and provided figures on the evolution of different activities. Also he provided a description of the characteristic of both the industry and the government sector. It was made clear that we must identify possible projects that Hydrography could support, such as Environmental, Navigation (SOLAS) and Trade & Commerce (fighting poverty). In this endeavour, the Hydrographic Industry should be considered an important partner and contributor.

Unit 6: The National Hydrographic Committee or equivalent

Captain Gorziglia (IHB) referred to the objectives of a national component that could act as an advisory body to the government in coordinating hydrographic activities. On the one hand, he identified those governmental agencies providing data and on the other all those agencies acting mainly as users of the data. He provided examples on how the constitution of a NHC had taken place recently in some countries and provided some guidance on what have been its priorities in terms of work program.

Unit 7: Regional Situation and Opportunities

A. Situation concerning maritime safety in the region

- Commander Carlos Gamundi from the Spanish Hydrographic Institute presented a report on Spanish national activities; the most interesting point concerns the setting up of two Traffic Separation Schemes in the Canary Islands.
- With respect to GMDSS in particular, Commander Dominique Baggio from SHOM insisted on the measures to take whilst awaiting the establishment of the NAVTEX station. The GMDSS system is essentially a broadcasting system and is used for sea rescue operations. Now the broadcasting of Maritime Safety Information also requires a broadcasting system. In order to be more efficient at lower cost, these two functions should be examined prior to their installation.

- Whilst awaiting the installation of NAVTEX stations on the coasts of Central and Western Africa, it is essential that the national contact points, after having centralized their nautical information, communicate this information by Internet or by fax, for broadcasting, to the NAVAREA II Coordinator in Brest. It is not normal that since the visit of the WAAT Teams, the Coordinator has only received very little information, in spite of the reminder made at the 8th EAtHC.

B. Situation concerning hydrography in the region

Captain Mike Barritt, as Special Advisor to the IHB, described the hydrography situation in the coastal zone stretching from Morocco to the River Congo. The situation is truly worrying, particularly at the following points:

The Nouadhibou Approaches,
Guinea-Bissau,
entrance to Conakry,
offshore from Sierra Leone, Monrovia, to the approaches of Capes Palma and Three Points,
the continental shelf from Accra to Cotonou, and
the whole zone from Nigeria to Equatorial Guinea.

Some encouraging points are to be noted in the approaches to Dakar and the numerous surveys recently carried out by French hydrographic vessels are currently being processed.

C. Projects currently being undertaken

- Commander Dominique Baggio reviewed the work currently in hand taking into account the replies following SHOM letter 196 SHOM/EG/NP of 17 March 2005 (West Africa Maritime Highways) by the countries represented at the Seminar. (See slides in the Presentation). All the participants agreed on the usefulness of this type of inventory in order to improve cooperation. This list seemed to be incomplete, as many other projects of a maritime nature are in hand. Therefore, it would be useful for the national representatives to have full knowledge of projects and this type of inventory, but more complete, could be undertaken by each national committee.
- Furthermore, as this seminar fell half way through France's chairmanship, the conclusions of the 8th EAtHC were quickly reviewed. It would be advisable to rapidly improve the following points both by the countries represented at the Seminar as well as those not represented:
 - a list of reliable Internet email addresses is required for several African countries; the lack of reliable addresses has resulted in a lot of wasted time for IHB, for SHOM (in its capacity as a Hydrographic Service, NAVAREA II Coordinator, and also as Chairman of the EAtHC), the British, Portuguese and Spanish Hydrographic Services (Decision No.11).
 - information concerning the status of hydrographic services needs to be communicated to the IHO (Conclusion No.1) as well as the transmission of nautical information to the NAVAREA II Coordinator (Conclusion n°2);
 - the SHOM, current Chairman of EAtHC, and having been deeply involved in the WAAT team visits reiterates its wish that the countries having received visits report on the follow-up of the actions and the recommendations made in the visit reports (Decision No. 3). This point is particularly important and urgent in the case of the following countries: Gambia, Sierra Leone, Ghana and Nigeria which a team from the UK Hydrographic Office will be visiting in November 2005;

- the IHB also insisted on the importance of setting up a national committee in the countries which do not yet have one; very often the creation of a national committee begins by informal meetings of the organizations or persons involved;
- the participants also recognized the importance that needs to be given to the difficulties of transformation of geodetic coordinates (Conclusion No. 8) without waiting for a workshop to be held.

Moreover, Mrs. Backo, Secretary General of the PMAWCA introduced her association and the current projects. Emphasis was placed on the development of the association, in particular on the objectives which may interest the IHO: the strengthening of relations with other organizations (going back to holding meetings with the IHO was thus underlined), the management of catastrophes, coastal erosion, assistance in the ratification of international texts. In more concrete terms, the association is interested in hydrography (equipment and staff) because of its multiple applications, the development of dredging pools, (means, sedimentology data bases), recuperation of ballast waters, data bank of experts and of domains of expertise.

D. Discussion of new projects

- Maritime project in the Canal of Mozambique : Commander Dominique Baggio explained the advantage of this project for the CHARMER project currently under consideration.

This shows the advantage of considering a big project aimed at maritime security (preventive and corrective) and linked to the protection of the environment.

The organization of the project, run by a port association, along with the assistance of a former Hydrographer and of IMO, in order to present it to the World Bank (GEF), was explained.

In more concrete terms, this project shows also the importance of:

- Producing charts covering sensitive zones (different types of zones that need to be protected);
- The setting up of Traffic Separation Schemes close to certain capes.

Finally, the representatives from African countries completed or confirmed the national reports submitted to the 8th EAHC. In the particular case of Gambia, not present in Brest, current work is concentrated on dredging the access channel because of movements of banks (the last surveys date back to 1995). The elevation of the channel going from 8.2m to 7.9 m. It is planned to replace 6 buoys in the channel. GMDSS coverage (Zones 1 and 2) is under study.

Unit 8: Development of the basis for Regional Project(s)

Commander Dominique Baggio presented a summary of the CHARMER Project before the holding of workshops by sub-regions: on the one hand Senegal, Gambia and Guinea Bissau and on the other: Ghana, Togo, Benin.

A presentation was also made on Traffic Separation Schemes.

The workshop essentially concerned two parts of the project:

- Shipping routes and Traffic Separation Schemes
- Development of regional cooperation and the management of this project.

The first results of the studies are as follows:

The Zone from Mauritania to Sierra Leone :

- The advantage of setting up a TSS at Cap Blanc and also off the Archipel of Bijagos was confirmed (advantage of a TSS off Cap Vert is to be confirmed). The details of this study are given in the annex;
- Confirmation of the need for the project to be piloted by a regional African organization, whilst taking into account that the project necessarily implies national responsibilities. (The IHB reminded the participants that the IHO is not in a position to receive funds, only a country or a group of countries can receive funds). At first sight, the MOWCA would appear to be more suitable than the PMAWCA, as the maritime areas covered by the former are more vast than those covered by the latter, limited to port zones only. (NB: Mrs. Backo, Secretary General of the PMAWCA was already on her way to Nigeria at the time of these discussions).

The Zone from the Ivory Coast to Benin :

- The setting up of a TSS off Cap Palmas and/or at Three Points would be more justified in order to protect the coast rather than for reasons of traffic density;
- On the other hand the representatives from Ghana, Togo and Benin underlined the advantage of having national committees with analogue mandates and the necessary cooperation to set up the GMDSS system as for the broadcasting of the MSI, the studies of continental shelf erosion and the need for training; a “shared” NAVTEX station could be examined;
- The delimitation of the maritime boundaries of these three countries is a matter of high importance.
- No suggestion concerning the piloting of the CHARMER Project was made.

IV. Conclusions of the Seminar

Ing. Gén. Michel LE GOUIC (SHOM) drew up the following general conclusions of the Seminar:

3 regional sub-projects will run simultaneously:

- Mauritania to Sierra Leone;
- Ghana to Benin;
- Nigeria to Equatorial Guinea.

The FIG Commission 4 meeting in Accra in March 2006 and the 9th EAHC meeting in the autumn of 2006 are the future dates for advancing this project, as well as the next meetings of the Ports Management Association of West and Central Africa (PMAWCA) and the Maritime Organization of West and Central Africa (MOWCA).

In the meantime, it is to be hoped that the specific points of this Project can be examined at National Committee meetings, even if these committees only meet informally for the moment.

Captain Hugo GORZIGLIA of the IHB essentially highlighted the following points:

- This training session was initially planned for 12 African countries, but the number of representatives was too low and the last minute cancellations penalized certain countries which were ready to participate; the absence of representatives from Mauritania, Sierra Leone, Nigeria, Cameroon and Equatorial Guinea had a very negative impact;

- The fact that certain participants did not have a global national maritime vision hampered the debates, decision-making and the planning of future action;
- A strong national willingness is absolutely essential; the creation of a national committee on maritime safety and/or hydrography, and establishing reliable Internet addresses, were once again considered as high priority; the drafting of Terms of Reference for the national committee may be greatly facilitated by using the IHO publication M2 “National Maritime Policies and Hydrographic Services” which includes the outline of national plans of action¹;
- The development of the CHARMER Project depends on the proper functioning of these national committees as well as the 3 regional sub-projects (Mauritania to Sierra Leone, Ghana to Benin, Nigeria to Equatorial Guinea);
- The development of maritime safety, in particular through a major project, can only succeed if the African countries concerned take over the management of the Project in order to present it to the “financial backers”. The IHO, like the EAtHC, can only act as “facilitators” and can, in no case, collect funds. MOWCA, which covers a large maritime area, could be contacted by PMAWCA on this subject;
- Serious consideration and decisions are required on a national level between the future meeting opportunities (FIG Commission 4, MOWCA, PMAWCA and the 9th EAtHC). The next visit of experts from the UK Hydrographic Office to English-speaking countries will be an excellent opportunity to promote the importance of maritime safety with the government authorities of these countries; preparation of the meetings by the national representatives is thus required.

V. Evaluation of the Seminar

The following questionnaire was prepared and provided to the participants to be completed at the end of the Seminar. The result of the assessment was as follows:

- 1.- The Seminar has been organized to promote and explain the benefits of hydrography to the Chairmen of National Hydrographic Committees of the EatHC area. Do you think that the seminar objectives were self explanatory and well understood?

ANSWER: *Unanimously the reply was YES.*

- 2.- Hydrography is multi-dimensional. It has been presented through different topics. Do you think these topics were: very interesting, so-so or not interesting?

ANSWER: *Unanimously the reply was Very Interesting.*

- 3.- What other subjects should have been addressed?

ANSWER: *Only one reply indicated that issues such as Geodesy, GMDSS and AIS could have been considered. All other replies were satisfied with the content.*

- 4.- From a general point of view, how would you evaluate the various presentations? Complete, fine or not sufficient?

ANSWER: *Unanimously the reply was that presentations had been complete. One participant commented that an increase of interactivity would benefit the seminar.*

¹ Available in French, English, Spanish on the IHO Internet site: www.ihoshom.fr

- 5.- Do you think that IMA's facilities and support from lecturers were appropriate? What should be improved - documentation, translation, workshop scenarios, etc.?

ANSWER: *Unanimously the reply was that facilities and support from lecturers were appropriate. All participants highlighted the importance of having simultaneous translation.* (Note from the Organizing Group: unfortunately this service could not be provided as the cost of providing such a service was not affordable within the available resources).

- 6.- Finally, did this seminar meet your expectations?

ANSWER: *Unanimously the reply was YES. One participant commented that more examples on how countries have established National Hydrographic Committees would be desirable.*

Monaco, 24 October 2005

Captain Hugo Gorziglia
IHB Director & Chairman of CBC

Annexes:

- A: List of Participants
- B: Program
- C: Opening

ANNEX A

LIST OF PARTICIPANTS

Country	Name	Institution	Position	e-mail	Phone	Fax
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ANNEX B**FINAL TIMETABLE****Monday 10 October 2005**

0900-0930	Pick-up at Hotels and transport to IMA. Installation at IMA facilities.
0930-1030	Opening of the Seminar <ul style="list-style-type: none"> • Remarks by the IHB [Captain Gorziglia (IHB)] • Remarks in representation of the EAtHC Chairman [IGA Le Gouic (FR)] • Remarks by the Director of IMA [Rear Admiral Spanio] • Presentation of each Participant, Observer and Speaker
1030-1215	Unit 1: Introduction to the Seminar [Capt. Gorziglia (IHB)] <ul style="list-style-type: none"> I. Objective of the Seminar II. General concepts of Hydrography III. Safety of Navigation and Protection of Marine Environment IV. Other Areas of application of Hydrography V. The International Hydrographic scene VI. Main international organizations involved: IHO, IMO, IALA, IOC, SAR, MARPOL, INMARSAT VII. States' general responsibilities – SOLAS V/R9
1215-1230	Official Photo
1230-1400	Lunch
1400-1730	Unit 2: Generalities associated with Hydrography <ul style="list-style-type: none"> A) Objectives and specifications of hydrographic surveys [Captain Barrett (UK)] B) Phases of a Hydrographic Survey [Captain Barrett (UK)] C) Instrumentation and methodologies used [Mr. Guillam (FR)] D) Data Processing [Mr. Guillam (FR) & Mr. Verrier (UK)] E) Hydrographic and cartographic products and services [Mr. Verrier (UK)] F) Nautical Publications [Mr. Verrier (UK)] G) Importance of update [Mr. Verrier (UK)] H) Technological developments [Mr. Guillam (FR) & Mr. Verrier (UK)]
1730	End of the day meeting.

Tuesday 11 October 2005

0900-1230	<p>Unit 3: The Organization of a National Hydrographic Office [Lt Silva, CHILE and Dr. Grzetic and Captain Bradaric CROATIA]</p> <ul style="list-style-type: none"> A) Responsibilities of a National Hydrographic Office <ul style="list-style-type: none"> i. National Hydrographic Authority ii. Provision of Hydro-Cartographic products and services iii. Others, such as NAVAREAS, GMDSS iv. Legal aspects. Liability of the hydrographer. v. International representation and cooperation B) Organization of a typical Hydrographic Office (Infrastructure) <ul style="list-style-type: none"> i. Legal framework ii. Basic organization iii. Components iv. Communication C) Technology <ul style="list-style-type: none"> i. Basic in house or out sourced capabilities ii. Relation with industry and private sector iii. Importing new technologies iv. Bilateral agreements and associated royalties D) Budget Considerations <ul style="list-style-type: none"> i. Basic costs ii. Operational costs iii. Development costs iv. Incomes v. Recovery of costs / self sustainability E. Personnel <ul style="list-style-type: none"> i. Basic Staff ii. Training iii. Project based administration
1230-1400	Lunch
1400-1730	<p>Unit 4: Application of Hydro-Cartographic products and services</p> <ul style="list-style-type: none"> A) Shipping [Captain Barritt (UK)] B) Defence [Captain Barritt (UK)@] C) Maritime delimitation [IGA Le Gouic (FR)] D) Environmental protection [CF Gamundi (SP)] E) Natural hazard mitigation [Captain Gorziglia (IHB)] F) Fisheries and Aquaculture [CF Gamundi (SP)] G) Tourism [CF Gamundi (SP)] H) Coastal Zone Management [IGA Le Gouic (FR)] I) Non-Living resources [Mr. Johnston (FIG)] J) Marine scientific research [Captain Travin (IOC)]

1730 End of the day meeting.

Wednesday 12 October 2005

0900-1230	Unit 5: Economic benefits associated to Hydro-Cartographic Products and Services [Mr. Johnston (FIG)]
1230-1400	Lunch
1400-1730	Unit 6: The National Hydrographic Committee or equivalent [Captain Gorziglia (IHB)] <ul style="list-style-type: none"> a) Objective b) Responsibilities c) Composition d) Secretariat e) National Focal Point f) Minimum structural hydrographic and maritime safety organization and possible stages of subsequent development.
	Note: It is expected that each representative will report on the progress made since the WATT technical visit as regard to the establishment of such a national structure).
1730	End of day meeting

Thursday 13 October 2005

0900-1230	Unit 7: Regional Situation and Opportunities Introduction by IGA Le Gouic (FR) <ul style="list-style-type: none"> A) Status of Maritime Safety in the region [Cdr. Baggio (FR) + CF Gamundi (SP)] B) Status of Hydrography in the region [Captain Barriett (UK)] C) Projects in execution. Progress/Status/Evaluation. [Cdr. Baggio (FR)] D) Discussion of new projects [Cdr. Baggio (FR)] E) PMAWCA presentation [Mrs. Backo Secretary General]
1230-1400	Lunch
1400-1730	Continuation Unit 7. (Participant will be divided in Groups to discuss main initiatives identified)
1730	End of day meeting

Friday 14 October 2005

0900-1230	Unit 8: Development of the basis for Regional Project(s) <ul style="list-style-type: none"> • Introduction by IGA Le Gouic, FR • Discussion leader Cdr. Baggio, FR (Presentation and analysis of ideas by each Group with a panel integrated by all participants)
1230-1400	Lunch
1400-1730	Continuation Unit 8. Development of the basis for Regional Project(s) <ul style="list-style-type: none"> • Agreements. • Conclusion [IGA Le Gouic (FR)]
1730	Closing of the Seminar

Notes:

- a) At the end of each presentations considered under Units 1 to 6, it is expected that a dynamic and effective discussion will take place. All participants will be given the opportunity to provide comments and express their views and experiences. It is specially anticipated the participation of the representatives of countries that have been invited. This interaction is considered fundamental to the success of the Seminar.
 - b) At the end of presentations under Unit 6, the representatives of invited countries will be requested to report on the progress made as regard to the establishment of National Hydrographic Committees or equivalent in their countries, following WAAT recommendation. National views and progress achieved are important information to share.
 - c) At the end of the presentations made under Unit 7, it is anticipated that some groups will be established to discuss in detail the main initiatives identified. The work in groups and the relevant topics considered will be decided upon in the light of the previous discussions.
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ANNEX C

IHO REMARKS

By Captain Hugo Gorziglia, IHB Director & IHOCBC Chairman

EAtHC Chairman, Ingénieur général Michel Le Gouic
 President of IMA, Professor Iginio Marson
 Director of IMA, RADM Francesco Spanio
 Members of the EAtHC
 National Hydrographic Committee Chairmen or Representatives
 Observers, Invited Speakers, Ladies and Gentlemen

On behalf of the International Hydrographic Organization I give you all a warm welcome to this First IHO Capacity Building Seminar especially prepared for the East Atlantic Hydrographic Commission National Hydrographic Committee Chairmen or equivalent.

This is the first experience we have in organizing such an event, an event that has been possible thanks to many joint efforts. Firstly the IHO that assigned a high priority to this initiative by placing it in the IHO Work Program and allocating resources from the CBFund, to partially cover the cost. Secondly, several IHO Member States and international organizations accepted the IHB invitation to contribute with their experts as speakers, and the International Maritime Academy that has arranged to provide this facility in the nice town of Trieste. But all those I have mentioned are related to the team willing to share their experience and would have worth nothing if the authorities of the countries represented would have not taken advantage of this opportunity. On the contrary, they have assigned priority to this event and have sent their key officers to learn more about Hydrography and the IHO. As Director of IHB and Chairman of the IHOCBC I have been the responsible to make this event happen, but without the contribution of all of you and of the IHB personnel, we would not be here today. Thank you all for your contribution.

As part of this Opening, probably it would be a good idea to provide you a short briefing about the IHO.

Following conversations held in St. Petersburg in 1908 and 1912 twenty-four nations gathered in London, in 1919, for a Hydrographic Conference during which they decided to create an International Hydrographic Bureau to make worldwide navigation easier and safer. At the invitation of H.S.H. Prince Albert I of Monaco, a noted marine scientist, the Bureau was headquartered in the Principality of Monaco and began its activities in 1921 with eighteen Member States.

In 1970, an intergovernmental Convention entered into force, which changed the Organization's name and legal status. It created the **International Hydrographic Organization (IHO)**, with a consultative and purely technical nature to support the safety of navigation and the protection of the marine environment, which comprises the **International Hydrographic Conference (IHC)** and the **International Hydrographic Bureau (IHB)** which remained in Monaco.

The objectives of the Organization are:

- The co-ordination of the activities of national hydrographic offices
- The greatest possible uniformity in nautical charts and documents;
- The adoption of reliable and efficient methods of carrying out and exploiting hydrographic surveys;
- The development of the sciences in the field of hydrography and the techniques employed in descriptive oceanography.

The **International Hydrographic Conference (IHC)** is formed today by the representatives of 76 Member States and meets every five years to provide general guidance on the functioning and work of the organization, as well as taking decisions of technical and administrative nature.

The **International Hydrographic Bureau (IHB)** is administered by a Directing Committee comprising three senior hydrographers who are elected every five years by the Conference.

The IHO has also **Regional Hydrographic Commissions** to facilitate the coordination of regional hydrographic matters of common interest, and several other **Commissions, Committees, Working Groups and Boards** to deal with punctual technical subjects.

The IHB encourages the establishment of Regional Hydrographic Commissions and offers advice on their formation. Fourteen Commissions have been established and a further one is being formed. Each is composed of representatives from Member States' hydrographic services within a defined geographic area, meet at regular intervals to discuss mutual hydrographic and chart production problems, plan joint survey operations, and resolve schemes for medium and large scale International Chart coverage of their regions, and of great value, offers the opportunity to share experiences, mainly in the introduction of new technologies.

The East Atlantic Hydrographic Commission is one of the RHC's I have referred to.

In order to be able to fulfil the Organization's objectives, Article VIII of the Convention that governs the International Hydrographic Organization (IHO) identifies the responsibility of the International Hydrographic Bureau as follow: "*To tender guidance and advice upon request, in particular to countries engaged in setting-up or expanding their hydrographic service*".

The organization has always spoken about what today we know as "capacity building" but using other words such as "guidance and advice". The subject is not new, and neither is the scope of the organization's competence, since we refer to "countries engaged in setting-up or expanding their hydrographic service". Therefore we are conscious that the effort should be made and oriented towards developing countries.

It is logical to think that when considering matters related to "capacity building", we must bear in mind that the associated system involves certain basic elements. On one side we need a component that NEEDS and WANTS to be developed; a second component consists of an already developed part that WANTS to share its experience and a third one that constitutes the BRIDGE to facilitate this exchange. In our case, the organisation responsible for building that bridge is the IHO, with its bodies such as the IHB and the technical groups established for that purpose.

In April 2003 the IHO strongly supported the IHB proposal to establish a Capacity Building Committee, tasked:

- To continuously assess the status of hydrographic surveying, nautical charting and nautical information, developing IHO publication S-55.
- To cooperate with the IHB in the establishment and maintenance of close relationships with agencies and organizations which may provide financial support.
- To cooperate with the Hydrographic Regional Commissions in the creation of a Groups of Experts to carry out assessment studies.
- To support the IHB in monitoring the assessment carried out and the identification of potential projects.
- To cooperate with the IHB in the provision of advice to countries needing to implement SOLAS V, Rule 9.
- To support the IHB in the preparation and keeping update of the Capacity Building Work Programme.

Since its establishment the CBC has taken the following main actions:

- a) A definition for "Capacity Building" was adopted.
- b) It was agreed that the IHO Capacity Building Strategy must reflect the need to involve national administrations, and that the IHO should be recognized as the technical reference in all projects with a hydrographic component.
- c) It was agreed that RHCs provide important "engines" to progress capacity building initiatives and that CB requires a regional approach.
- d) Member States approved the IHO Capacity Building Strategy proposed by the Committee.
- e) It was decided to maintain a Management Plan that would integrate all the requirements, projects and initiatives organized by RHCs. This document would constitute the basis for the preparation of the Annual Work Program.
- f) States Member approved the establishment of the IHO Capacity Building Fund as proposed by the Committee in February 2005.
- g) The Capacity Building Work Programs for 2005 and 2006 have been approved, and the programme for 2007 has been approved in principle.

This Seminar falls into the priorities for the CBC, as it corresponds to a natural follow-up of several activities already conducted by the EAtHC.

I am confident that these 5 days will provide IHO a unique opportunity to comply with its mission, raising awareness at governmental level, of the importance of hydrography to safety of navigation and national economic development.

The IHO invites national representatives to have an active role in the discussions that should follow the presentations that will take place and to take advantage of the opportunity to explore initiatives of common regional interest.

I wish you a very productive Seminar.
