

INTERNATIONAL HYDROGRAPHIC ORGANIZATION



ANNUAL REPORT 2004

PART 1 - GENERAL



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ANNUAL REPORT
OF THE
INTERNATIONAL HYDROGRAPHIC
ORGANIZATION

2004

PART I - GENERAL

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INTERNATIONAL HYDROGRAPHIC ORGANIZATION

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President: Vice Admiral (Retd.) Alexandros MARATOS, Greece

Directors: Rear Admiral (Retd.) Kenneth BARBOR, USA

Captain (Retd.) Hugo GORZIGLIA, Chile

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INTRODUCTION

The International Hydrographic Organization (IHO) is pleased to present the Annual Report for 2004 to the IHO Member States.

The Annual Report consists of two parts:

Part 1 – General. Summarizes the activities carried out by the Regional Hydrographic Commissions, Committees, Working Groups and Advisory Boards. It is available to IHO Member States and to those organizations, institutions and persons interested in the IHO's technical, hydrographic, cartographic and navigational developments.

Part 2 – Finance. Presents the Financial issues of the Organization for 2004 and is available only to Member States.

Part 1 has been structured on the Work Programme for the period 2003-2007 that was approved by the XVI International Hydrographic Conference in April 2002. We provide a brief, but well documented description of the activities that have taken place in each of the Work Programmes, so that the reader will understand the developments of each topic. It is clear that we can not provide all the detailed discussions and decisions taken on the subjects. These are available on the IHO website. It has to be emphasised that this document can be used by Hydrographic Offices, or other National Agencies as a Public Relations tool in briefing higher authorities on the work of the Organization or raise awareness of the importance of Hydrography and of the Organization.

All the activities carried out during 2004 are very important in order for the Organization to fulfil its Mission and respond to demands for better, more accurate and more accessible products and services. The reader will understand this importance, but the Directing Committee would like to highlight a few of the activities that have a special weight in the developments of the Organization:

- The Strategic Planning Working Group concluded its work and put together a number of proposals to amend the Convention and the other documents relating to the Organization that will be examined at an Extraordinary Conference in 2005. These amendments aim at making the IHO more efficient, effective and responsive as we move into the 21st century, a period of rapid change in the field of technology. This is one of the most important issues that the Organization has faced over the last 35 years.
- The Capacity Building Committee has been concentrated in the development of a Capacity Building Strategy for the Organization; on the structuring of a Capacity Building Work Programme and on the establishment of the Capacity Building Fund. The result of the work done on these three initiatives have been submitted to Member States for their approval. The progress made so far constitutes a sensible aspiration of the majority of countries needing to establish or improving their hydrographic capabilities.
- In 2004 eight RHCs met to discuss different regional issues and make progress on specific tasks, especially to accelerate the production and delivery of ENC's and to develop regional projects that could speed-up the availability of hydro-cartographic information, products and services. Two RHCs together with the CBC organized technical workshops aiming to raise awareness on the importance of hydrography.
- The co-operation with other international organizations has been strengthened, especially with IMO, IALA, IOC, IAATO, the ATCM and FIG. A Memorandum of Understanding has been signed with FIG, strengthening the co-operation of the two Organizations.

- The Publication S-55 has been finalised and posted on the IHO website. It is a very useful document that can be used to raise the importance of hydrography and that of the IHO, for Capacity Building purposes and for the support of Hydrographic Offices on different issues. This publication was presented at IMO with very positive results.
- The work of WEND and CHRIS has continued mainly focusing on accelerating the developments of the ENC's world wide, supporting the needs of Member States for the production, monitoring the developments with the existing and new RENCs and progress the work of their technical working groups.
- The IHO, in close co-operation with IOC and with the participation of the GEBCO Guiding Committee, is considering the restructuring of GEBCO, in order to better serve its purpose and its requirements, aiming at a more effective and flexible structure.

The Directing Committee invites the readers of this IHO Annual Report Part 1, to visit its web site – www.iho.shom.fr - where they will have the opportunity to find general information in the two official languages and more information on the work of the IHO. We will welcome any comments that will result in the improvement of the web and of the information provided.

**WORK PROGRAMME 1
COOPERATION AMONG MEMBER STATES AND
WITH INTERNATIONAL ORGANIZATIONS**

REGIONAL HYDROGRAPHIC COMMISSIONS

**48th MEETING OF THE NORDIC HYDROGRAPHIC COMMISSION (NHC)
2-4 February 2004, Helsinki, Finland.**

Chairperson: Mr. Jukka VARONEN (Finland)
Vice-Chairperson:
Members: Denmark, Finland, Iceland, Norway, Sweden.
Associated Members:
Observers:
Next meeting : Iceland, 7-9/2/05.



Under the Chairmanship of Jukka VARONEN, the Commission tackled an aggressive Agenda that included SPWG, WEND, S-55, status of ECDIS when operating in RCDS mode and the grounding of the *M/V Rocknes*.

The *M/V Rocknes* grounded and capsized on 19 January in Norwegian waters, with the loss of 19 seamen. This tragic incident brought to light confusion amongst seemingly well-trained mariners regarding official and non-official charts and ECDIS and ECS.

Also discussed in detail was the status of the SPWG deliberations. The Commission members were able to provide definitive instructions to their SPWG representative regarding Council representation alternatives and voiced their strong support for the efforts of the SPWG.

With regards to ENC production, the efforts of the WEND Task Group were addressed and it was noted that, for the most part, the NHC represents an avid adherence to the WEND principles and realizing the goals of WEND. The Commission was encouraged to undertake the development of small scale ENCs for their region and investigate their ability to assist States outside their Commission with the production of ENCs.

The need for a hydrographic commission dealing with Arctic matters was addressed with no consensus view being reached. The important and sensitive nature of this region requires thorough consideration of the several alternative solutions.

A very informative field trip to Helsinki University of Technology, Department of Surveying, provided a look at the education and research opportunities at the Institute of Cartography and GeoInformatics. Across the campus, the members had a virtual tour of Helsinki, Goteborg and San Francisco, and displayed their ship handling skills aboard the bridge training simulators at the Meriturva Maritime Safety Training Centre.

4th MEETING OF THE NORTH INDIAN OCEAN HYDROGRAPHIC COMMISSION (NIOHC)

Mumbai, India, 24-25 March 2004

| | |
|---------------------------|---|
| Chairperson: | Rear Admiral SRINIVASAN (India) |
| Vice-Chairperson: | |
| Members: | Bangladesh, India, Myanmar, Sri Lanka, Thailand, UK |
| Associate Members: | France, Seychelles, USA. |
| Observers: | Malaysia, Oman, Saudi Arabia. |
| Next Meeting: | Jeddah, Saudi Arabia, 28 February – 1 st March 2005. |



The 4th Meeting of the North Indian Ocean Hydrographic Commission (NIOHC) took place in Mumbai, India, on 24 and 25 March 2004, under the Chairmanship of the Hydrographer of the Indian Navy, Admiral SRINIVASAN. There were representatives from UK, Norway, France, Malaysia, Mauritius, Oman, Saudi Arabia, Seychelles, Sri Lanka, Sudan, Thailand and India at the meeting.

The President of the IHB, Vice Admiral MARATOS, represented the Bureau. In addressing the Meeting, Admiral MARATOS briefed the participants on issues of concern to them since the previous meeting in January 2003. Specifically, he referred to the GEBCO Centenary Celebrations, the ABLOS Conference, ENC production monitoring, the GEBCO-Nippon Foundation Project and co-operation with other international organizations (IMO, IALA, IOC).

Various topics were discussed during the Meeting. The representatives provided information on the status of production of the ENCs for the waters under their national jurisdiction, on the execution of hydrographic surveys and the broadcast of MSIs in the region. Captain Mike BARRITT reported on the latest situation concerning the updating of the S-55 publication and, as Vice-Chairman of the Capacity Building Committee (CBC), he also reported on the discussions and decisions taken at the CBC meeting in September 2003. The needs for mutual assistance and co-operation as regards ENC production and methods of matching resources to requirements were discussed in detail.

A half-day was devoted to discussions on SPWG matters. Those SPWG Chair-Group members present briefed the participants on the proposed amendments to the Convention and other relevant documents and decisions taken at the last SPWG meeting in Tokyo in the first week of March.

At the end of the Meeting, the IHB President informed the participants of the status of approvals of those countries which have applied for IHO membership, and he encouraged those present to do what they could to accelerate their national procedures.

Dr. Wyn WILLIAMS, the Hydrographer of the UK, was elected Chairman of the Commission. It was decided that the next Meeting would be held in Saudi Arabia in February 2005.

27th MEETING OF THE US/CANADA HYDROGRAPHIC COMMISSION (USCHC)
Ottawa, Canada , 27 May 2004.

Co-Chairpersons: Captain PARSSON (USA (NOAA)) and
Dr. D. HAINS (Canada)

Vice-Chairperson:

Members: USA, Canada

Associated Members:

Observers:

Next meeting: San Diego, California, 29-31 March 2005.

The Canadian Hydrographic Service hosted the US delegation consisting of representatives from NOAA (Office of Coast Survey), National Geospatial Intelligence Agency and the Naval Oceanographic Office at the 27th annual US-Canada Hydrographic Commission. The meeting provided an opportunity for each delegation to be updated on past accomplishments, current organizational structure, key personnel and future plans.

As in the past, the Agenda was dominated by topics concerning collaboration, cooperation and communication. ENC production issues, including data exchange, international boundary edge mapping, trans-boundary consistency and ENC production in international waters were areas of significant progress and much discussion. Another central issue was the continuing exchange of hydrographers and cartographers between the two nations. The emerging need to provide at sea experience for ocean mapping students enrolled in the GEBCO - Nippon Foundation program was introduced with the explanation that keeping the students in North America during their course of instruction would avoid potential visa problems. Additional opportunities to collect and exchange data as survey ships transit in each other's waters were also discussed.

The IHB provided updates on SPWG, S-55, Arctic issues, Capacity Building, WEND initiatives, UN interactions and IMO topics of interest.

**6th MEETING OF THE MESO-AMERICAN – CARIBBEAN SEA
HYDROGRAPHIC COMMISSION (MACHC)**
(formerly: Caribbean Sea and Gulf of Mexico Hydrographic Commission (CGMHC))
Cartagena de Indias, Colombia, 30-August – 2 September 2004.

Chairperson: Vice Admiral Carlos Humberto PINEDA GALLO (Colombia)
Vice-Chairperson:
Members: Colombia, Cuba, France, Guatemala, Jamaica, Mexico, The Netherlands, Trinidad and Tobago, United Kingdom, United States of America, Venezuela.
Associate Members: Guyana, Haiti, Honduras, Nicaragua and Panama.
Observers:
Next Meeting: Veracruz, México, 2005.



The Meso American and Caribbean Sea Regional Hydrographic Commission (MACHC) held its 6th Meeting at the “Hotel Las Américas”, in Cartagena de Indias, Colombia, on 1-2 September 2004. The meeting was organized by the Colombian Hydrographic Service. The Caribbean Electronic Chart Working Group (ECWG) met before the MACHC on 30-31 August and the Strategic Planning Working Group Seminar took place immediately after on 3 September.

Vice-Admiral PINEDA GALLO, General Maritime Director and Chairman of the MACHC, welcomed the IHO Members, as well as all the hydrographic authorities of the region, the observers and guest speakers, and drew the participants' attention to the items on the Agenda of the meeting.

Captain GORZIGLIA, IHB Director, expressed his thanks for the invitation extended to the IHB by the MACHC Chairman to attend the Commission Meeting and said how important it was for the IHB to follow the various activities and meetings of the Regional Hydrographic Commissions, which are there to carry out the decisions made by the IHO. He also gave a presentation on the work undertaken by the IHO in preparing five Work Programmes, approved by the Member States for the period 2003-2007.

Presentation of the tasks undertaken since the last MACHC Meeting

Mr. Kenneth COOPER, Deputy Director of Operations of the Naval Oceanographic and Meteorological Command of the United States, representing the outgoing Chairman of MACHC, summarized the issues discussed at the 5th Meeting of the Commission in Biloxi, Mississippi, USA.

He also outlined the progress made by the Electronic Chart Working Group and by the Working Group for Capacity Building on the Pilot Project of the Gulf of Honduras and by the Working Group No. 2 for the production and distribution of electronic nautical charts, in accordance with the aims of the WEND Committee. Finally, he gave a presentation on the activities carried out by the Commission during the intersessional period.

Presentation of the reports of the Commission's Member States

The delegations of Belize, Colombia, Cuba, France, Guatemala, Honduras, Mexico, The Netherlands, Nicaragua, Panama, Suriname, United Kingdom, USA and Venezuela presented their national reports giving details of their activities since the 5th Meeting.

Status of hydrographic surveying and nautical charting

Captain BARRITT, the United Kingdom Hydrographic Office, gave a presentation concerning the IHO Publication S-55: «Status of Hydrographic Surveying and Nautical Charting Worldwide».

Capacity Building

Captain GORZIGLIA gave a presentation on the new IHO Capacity Building Committee. He highlighted the following points:

- ✓ The activities of the Capacity Building Committee are specified in the IHO Convention and also in the Strategic Plan, which describes Capacity Building as an important strategic issue;
- ✓ The keys to the success of this activity are the Member States, the Bureau, the Capacity Building Committee, the institutions providing financial support, the hydrographic industry and the education sector;
- ✓ A three-stage procedure is required for the sustainable development of the hydrographic capacity of a maritime state and the establishment of a Development Plan for Hydrography is essential in those areas where the need is the greatest, to foster safety in navigation in all senses.

The presentation included a number of conclusions and recommendations, stressing the importance of benefiting from regional and national projects, which could include hydrographic-related projects. In addition to this approach, a report was presented by Commander LAPENTA, Argentina, who explained the experience of the Argentine Naval Hydrographic Service in improving hydrographic capacities, through an environment defence project approved by the GEF (*Global Environment Facility*).

Finally, following an interesting exchange of views, it was clear that persistence is essential in order to obtain long term results and that the development and approval of projects related only to Hydrography is now possible thanks to the new international situation proposed by the new SOLAS Convention (Chapter V) and by the latest United Nations Resolutions on Hydrography.

International Chart Committee

During the meeting, updated information was provided for the data table for INT Charts at various scales. All those Member States who have not provided this information are invited to do so as soon as possible.

Electronic Chart Working Group

Mrs. Katherine RIES, Chairperson of the ECWG, outlined the work achieved by this Working Group on 30 and 31 August, whereas the Working Group N° 1 dealt with the Pilot Project “Gulf of Honduras” (GoH) and Working Group N° 2 the review of the small scale INT Chart Scheme, as well as the production and distribution of ENCs. A Sub-Group was established to deal with this subject, which will examine the situation and submit proposals to the ECWG for the establishment of a RENC in the region. The tasks to be undertaken by the Working Groups are listed in Annex I.

Presentations by private companies

Presentations were made by the representatives of CARIS, TRANSAS MARINE and C-MAP, explaining the progress made and presenting their latest products related to the production of electronic nautical charts.

Location and date of the next meeting

It was decided that, pending confirmation, the 7th Meeting of the MACHC, together with the Meeting of the Electronic Chart Working Group, will be held in Mexico, the dates will be decided later. Captain GORZIGLIA, Chairman of the Capacity Building Committee, announced that, pending approval by the Committee members, the Third Meeting of the CBC will be held together with an «IHO Capacity Building Workshop».

NOTE : All the documents of the meeting, as well as a more detailed meeting report, can be found on the IHO Regional Hydrographic Commissions page, and on the Electronic Chart Working Group Web page, www.iho-machc.org.

4th MEETING OF THE IHO HYDROGRAPHIC COMMITTEE ON ANTARCTICA (HCA) Island of Kythnos, Greece, 6-8 September 2004.

Chairperson:

Captain H. GORZIGLIA (IHB)

Vice-Chairperson:

Members:

Argentina, Australia, Brazil, Chile, China, Ecuador, France, Germany, Greece, India, Italy, Japan, Netherlands, New Zealand, Norway, Peru, Poland, Republic of Korea, Republic of South Africa, Russian Federation, Spain, UK, Uruguay, USA (NIMA & NOAA).

Associated members:

Observers:

Ukraine; Council of Managers of National Antarctic Programs (COMNAP); Scientific Committee on Antarctic Research (SCAR); IHO Data Center for Digital Bathymetry (DCDB); General Bathymetric Chart of the Oceans (GEBCO); Standing Committee on Antarctic Logistics and Operations (SCALOP); Australian Antarctic Division; Antarctica New Zealand; International Association of Antarctic Tour Operators (IAATO).

Next meeting:

New Zealand, November 2005.



The 4th Meeting of the Hydrographic Committee on Antarctica was held on the Island of Kythnos, Greece, from 6 to 8 September 2004.

The Chairman, Captain H. GORZIGLIA, IHB Director, warmly welcomed the participants representing the 10 IHO Member States (Argentina, Australia, Chile, China, Germany, Greece, Poland, Russian Federation, South Africa and United Kingdom) and the 4 international organizations [International Maritime Organization (IMO), Intergovernmental Oceanographic Commission (IOC), Council of Managers of National Antarctic Programmes (COMNAP) and the International Association of Antarctica Tour Operators (IAATO)]. The attendees were sorry that, due to the bad weather conditions, the representatives from Italy and Norway could not reach the island in time for the meeting, as the ferries were not able to operate.

The meeting elected Captain R. GARNHAM POBLETE (Chile) as Vice Chairman of HCA.

The delegates reviewed the status of the actions agreed at the last meeting and received reports from the observer international organizations as well as reports submitted by IHO Member States. The IHB reported on the progress made regarding the INT chart scheme and the S-55 Project leader, Captain M. BARRITT, UK, reported on the work accomplished so far in putting together the 3rd edition of the publication, "Status of Hydrographic Surveys and Nautical Charting", which will also include the Antarctic.

The Committee was pleased to note the level of importance given to the HCA work by the Antarctic Treaty Consultative Meeting (ATCM) and, amongst others, the Committee was particularly happy to learn about the following :

- a) the newly established IOC/IHO/SCAR project: the International Bathymetric Chart for the Southern Ocean (IBCSO);
- b) IAATO's willingness to offer their assistance by making ships of opportunity available to increase the level of collection of hydrographic data;
- c) the importance given to safety of navigation in Antarctic waters by IMO and COMNAP, and
- d) IOC's and IHO's desire to improve the ocean mapping program.

Furthermore, the Committee thought it would be opportune to take advantage of the International Polar Year (2007-2008) as this represented a good opportunity to concentrate efforts on improving data gathering, compilation and production of nautical charts.

The Committee, with a view to working in a more coordinated way, decided to establish an HCA Hydrographic Survey Programme Working Group, chaired by the UK, to identify the best way to take advantage of the existing possibilities to foster INT chart coverage.

Finally, the Committee agreed on a series of actions to be undertaken during the inter meeting period, with clear identification of responsibilities and deadlines.

26th MEETING OF NORTH SEA HYDROGRAPHIC COMMISSION (NSHC)

Cardiff, Wales, 21-23 September 2004.

Chairperson: Captain Åke MAGNUSSON (Sweden)
Vice-Chairperson: Dr. Wyn Williams (UK)
Members: Belgium, Denmark, France, Germany, Iceland, Netherlands, Norway, Sweden, UK.
Observers:
Next Meeting: Germany, 2005.



The 26th Meeting of the North Sea Hydrographic Commission (NSHC) took place in Cardiff, Wales, between 21 and 23 of September, under the Chairmanship of the Swedish Hydrographer, Captain Ake MAGNUSSON. Representatives from Belgium, Denmark, France, Germany, Iceland, The Netherlands, Norway, Sweden and United Kingdom participated in the Meeting. Ireland was also represented by one observer. The IHB was represented by VAdm. A. MARATOS.

Admiral MARATOS informed the delegates on the development and progress in the Bureau of some issues of general interest. He referred to the close co-operation with IMO and IALA and to the projects that the Organization supports, especially the request from IMO/MSC and NAV to the Organization to present the developments with the RASTER and ENC's and also the follow-up action for presenting the status of Hydrography and Cartography in remote areas. He mentioned the action taken as regards approaching the appropriate body of the United Nations for recognition of the World Hydrography Day, as it was approved by Member States. He also explained that Member States have approved the establishment of a working group to consider possible amendments of S-44.

The Commission examined many administrative, technical and strategic issues of interest to the Members in the area. The SPWG developments and the arrangements for the Extraordinary Conference were discussed after a briefing provided by the Chairman of the SPWG, Mr. KLEPSVIK, and the President of the IHB. Captain Mike BARRITT presented the developments within the Capacity Building Committee and the work on the S-55, as it was at this stage finalized. The NSHC recommends that the IHB, assisted by the S-55 Project Co-ordinator, develop the IHO's strategy to overcome deficiencies in surveying, charting and MSI coverage world-wide, using the S-55 data base. Members accepted the offer made by Germany to hold a two-day Seminar in the autumn of 2005 on the theme "The Role of the Hydrographic Services in Geospatial data and planning infrastructure".

It was decided that the next Meeting would be held in Germany.

8th MEETING OF THE EASTERN ATLANTIC HYDROGRAPHIC COMMISSION (EAthC)

Brest, France, 28-29 October 2004.

| | |
|---------------------------|--|
| Chairperson: | Vice Admiral Carlos A. VIEGAS FILIPE (Portugal) |
| Vice-Chairperson: | IGA Yves DESNOES (France) |
| Members: | France, Morocco, Nigeria, Portugal, Spain. |
| Associate Members: | Benin, Cameroon, Cape Verde, Congo (Republic of), Guinea, Guinea Bissau, Côte d'Ivoire, Mauritania, Senegal. |
| Observers: | UK , USA. |
| Last Meeting: | Brest, France, 28-29 October 2004. |
| Next meeting : | Morocco, Spain or France, in 2006. |



Around 45 participants attended the 8th meeting of the Eastern Atlantic Hydrographic Commission (EAthC) hosted by France (SHOM) at the “Quartz” conference centre in Brest. Most of the African countries, from Equatorial Guinea, Cameroon to Morocco, were represented. Attendees were welcomed by Ingénieur Général Y. DESNOES, SHOM Director. Opening remarks were made by Vice Admiral C. VIEGAS FILIPE, IHPT Director and Chairman of EAthC, and Captain H. GORZIGLIA, IHB Director.

VAdm VIAGAS FILIPE reported on EAthC activities since its 7th Meeting in Lisbon in 2002. Portugal represented the EAthC at SPWG meetings, where issues such as re-structuring the IHO and revising the IHO Convention were discussed. The West Africa Action Team (WAAT), composed of representatives from France (Coordinator), UK, USA, Portugal and Spain, paid 17 technical visits to 16 countries in West and Central Africa. The aim is to assist these countries in acquiring national hydrographic capabilities.

IHB (Capt. GORZIGLIA) remarked that all 23 States in the EAthC area are members of IMO and that only 6 of them are IHO members. Efforts were therefore necessary to convince the other States of the benefits of joining the IHO. The revised SOLAS V Convention (2002) has fostered IHO-IMO cooperation in improving the use of ECDIS as well as the ENC coverage and availability. IHO-IOC cooperation has been maintained on the GEBCO and IBCs projects, e.g. IBCEA in Eastern Atlantic. The IHB is also cooperating with the IOC Secretariat on preparing a proposal to re-structure ocean mapping activities. UN Resolution 58/240 recognizes the need for high quality hydrographic surveys and nautical charts, and the importance of the IHO work. Other IHO activities over the past two years, of interest to EAthC, included those relating to SPWG, S-55 and the Hydrographic Manual.

The EAthC presented their country reports, listing the main tasks achieved since the last meeting.

Commenting on the WAAT recommendations to develop / improve hydrography in the EAthC area, the representatives of African countries stressed that the main issue was training. National Hydrographic Committees (NHC) have been, or are being, set up in Cabo Verde, Senegal and Sierra Leone. IHB (Capt GORZIGLIA) informed that a model on how to create a NHC would be posted on the IHO website (English, French and Spanish versions). He stressed that courses at the International Maritime Academy (IMA, Trieste, Italy) are free of charge; those in need of training have therefore to

express their needs. He added that IHB can allocate some funds to capacity building issues; and that projects would be required from countries before going to donor agencies to ask for funds.

IHB (Capt GORZIGLIA), acknowledging the desire of West African countries to have a regional training centre, invited them to express their needs and make proposals. He stressed that focus should be on general training on hydro-cartography, not necessarily at PhD level.

The delegates also discussed the proposals of the SPWG, that will be considered at the 3rd International Extraordinary Conference (April 2005).

The 8th EAthC meeting decided on the following:

1. EAthC countries to contribute to updating S-55;
2. EAthC countries to achieve steps 1 and 2, as in M-2;
3. EAthC countries to report on CBC/WAAT issues to the Chairman EAthC in time for annual CBC meetings;
4. S-55 to be used for prioritizing survey plans and capacity building in the EAthC area;
5. EAthC countries to establish arrangements with advanced HOs;
6. Technical assistance and training to be a standing agenda item for EAthC meetings;
7. EAthC countries in need of training to apply for hydrographic courses, e.g. IMA;
8. To organise a workshop on coastal cartography and geodetic aspects in the frame of the COASTCHART project;
9. EAthC countries to cooperate in setting up a small scale ENC scheme;
10. EAthC countries to provide data, products and services other than for navigation, e.g. coastal zone management;
11. To make use of Internet and new technology;
12. EAthC countries supported France's proposals on SPWG issues, i.e. on criteria for council membership; 2/3 majority option; and qualifications of SG/Directors.

As a follow-up to the Workshop held on 26-27 October, EAthC/8 also decided the following:

1. EAthC countries to make their training needs known to the IHB by 31 January 2005 in order for the IHB to proceed with steps 1, 2 and 3 of the IHB working paper (special short course for key national persons);
2. Nigeria, on behalf of EAthC, to present IHO and WAAT to an AGPAOC workshop (Luanda, 9-12 November 2004).
3. EAthC to develop a "Marine Highway" project for West and Central Africa, by 2006.

EAthC TECHNICAL WORKSHOP

Brest, France, 26-27 October 2004.

Forty-five delegates from 17 countries attended the EAthC Technical Workshop, which was held from 26 to 27 October 2004 at the "Espace Quartz", Brest, France, hosted by SHOM/EPHOM.

The aim of this event was to bring together the responsible authorities from those Coastal States of West/Central Africa which had benefited from the technical visits undertaken by the West Africa Action Team (WAAT), led by SHOM, and to highlight the importance of Hydrography and Safety of Navigation. The need to be able to achieve phase 1 of the Development of Hydrographic Surveying and Nautical Charting Capability was emphasized, that is, to be able to collect and disseminate the nautical information required to keep existing charts and publications up to date.

Representatives from IALA and the NAVTEX Panel Coordinator actively participated in the event. IMO expressed its keen interest in the matter but regrettably, due to other commitments, no IMO representative was able to attend. Captain H. GORZIGLIA and Captain F. BERMEJO, IHB Director and Professional Assistant respectively, both in charge of capacity building matters, represented the IHB.

The Workshop was chaired by IGA M. LE GOUIC (SHOM) and the Programme included presentations on:

- *Importance of Hydrography;*
- *The 3 Stages of Development of Hydrographic Capacities;*
- *MSI/GMDSS;*
- *The Importance of Accurate Nautical Information;*
- *WAAT report – presentation and analysis;*
- *Visit to EPSHOM;*
- *Discussion panel.*

Among the Workshop's conclusions, the following are the most relevant:

- a) All participants recognized the great value of the WAAT technical visit, concurred with the report on each of their respective countries and expressed their gratitude for the extraordinary work undertaken by WAAT.
- b) Training was the main concern of the countries present. In this respect, France, UK, Portugal and the IHB provided up to date information about training possibilities. The IHB Director presented a draft project proposal entitled “Developing Hydrographic Capabilities in West/Central Africa, an IHO Capacity Building Project”, which was to be discussed by the Eastern Atlantic Hydrographic Commission (EAtHC) following the Seminar, which proposes several options for training in ten consecutive phases, including a Course for Chairmen of National Hydrographic Committees, that received strong support from participants.
- c) A person is to be designated in each country who would be responsible for the preparation, maintenance and development of any action addressed to enhance the present status of Hydrography and the establishment of a National Hydrographic Committee in each country was considered essential for the development of Safety of Navigation and Hydrography in the region.
- d) All countries in the region are IMO members and, therefore, if they have signed the SOLAS Convention, they are now obliged under Regulation V to provide Hydrographic Services themselves or through bilateral or multilateral agreements. It was stressed that the responsibility lies with the Governments of those countries.
- e) The WAAT report provides “seed” information relevant to identify clear projects, both at a national and at a regional level. Regional initiatives demand first that national structures be put in place.

The representatives from Sierra Leone, Guinea Bissau and Equatorial Guinea expressed a strong interest in becoming Member States of the IHO.

The conclusions of this EAtHC Technical Workshop Report were reported in full to the 8th EAtHC Meeting.

The IHB would like to thank the EAtHC for having assigned high priority to the establishment of WAAT, and to France, Portugal, UK and USA for having provided support to this activity. Special thanks are given to all those who participated in the technical missions.

Finally, special thanks go to SHOM/EPHOM for having taken care of all the arrangements to make this Technical Workshop such a useful event.

**6th MEETING OF THE SOUTH WEST PACIFIC
HYDROGRAPHIC COMMISSION (SWPHC)**

Suva, Fiji, 8-9 November 2004.

Chairperson: Mr. F. MAHARAJ (FIJI)

Vice-Chairperson:

Members: Australia, Fiji, France, New Zealand, Papua New Guinea, Tonga, UK, USA .

Associated Members:

Observers:

Next Meeting: New Zealand, November 2005.



The 6th Meeting of the Southwest Pacific Hydrographic Commission (SWHPC) was hosted and chaired by Mr. F. MAHARAJ, Chief Hydrographer for the Fiji Maritime Safety Administration (FIMSA) in Suva, Fiji 8-9 November 2004. Opening the meeting, Captain INOKE, Director of FIMSA, welcomed the participants and complimented the Commission for its effectiveness and efficiency. Capt. INOKE stressed the importance of maritime affairs to Fiji as exemplified by Fiji being one of the first signatories of the UN Convention on Law of the Sea (UNCLOS). He also noted how complicated and expansive are the waters under Fiji's national jurisdiction and, given the resources available to the Government of Fiji and the magnitude of its charting responsibility, assistance from the IHO and SWPHC members is needed. This need is mirrored by the other small island States of the region.

The Chair expressed his pleasure at the attendance of this meeting. Of the eight Commission members, only United States and Tonga were not represented. However, observers from Vanuatu, Samoa, Solomon Islands, Kiribati, Japan Hydrographic Association (JHA), South Pacific Applied Geoscience Commission (SOPAC) and the Secretariat of the Pacific Community (SPC) were in attendance.

The meeting progressed with review of action items and National Reports which can be found on the IHO website under SWPHC documents. Of particular interest to Commission Members was the presentation by SOPAC on its survey activities in the region. The initial overview was followed by a visit to the SOPAC offices in Suva where several SOPAC staff members provided more detailed presentations. SOPAC has a very active survey program including multibeam surveys of the region in support of coastal zone management and marine geophysics applications. Following these presentations the C. PRATT, Director of SOPAC and RAdm. K. BARBOR, Director of the IHB signed a Memorandum of Understanding encouraging collaboration and cooperation between the two organization.

With the prospect that new hydrographic data may be available through third party activities such as SOPAC, a standardized and minimum level of metadata necessary to efficiently evaluate the appropriateness of a data set for the intended purpose was discussed. New Zealand will coordinate a team of experts to research this issue.

The presentation by Capt. M. BARRITT summarizing the data collected for the region in support of S-55 highlighted the need for continued efforts in the region to establish effective Marine Safety Information capabilities, initiate surveys in unsurveyed or poorly surveyed areas and respond to the needs of cruise lines and deep draft shipping in the region. The S-55 analysis provided an excellent introduction for the following discussion on training and technical assistance. The small island developing states of the region clearly have the need for training and technical assistance. A first step in this process is the workshop scheduled immediately following the commission meeting. A second step is advocating strongly before the IHO Capacity Building Committee for additional efforts to raise the awareness of regional governments to the importance of hydrography through high level visits and follow-on workshops.

The attendance of the Secretariat of the Pacific Community was particularly important as it is associated with maritime training in the region and management of the maritime transport sector. The Commission and the SPC agreed to maintain an active liaison.

J. SPITTAL, National Hydrographer of New Zealand was elected Chairman with the next Commission meeting to held in conjunction with the next meeting of the Hydrographic Committee on Antarctica (New Zealand, November 2005).

SWPHC TECHNICAL WORKSHOP Suva, Fiji, 10 November 2004.

The Technical Workshop for the South Pacific Regional Hydrographic Commission was held in Suva, Fiji, on 10 November 2004. The following countries participated:

Australia, Fiji, France, New Zealand, Papua New Guinea, Solomon Islands, Samoa, Vanuatu, and UK.

The Workshop was chaired by the Hydrographer of Fiji, Mr. F. MAHARAJH, acting as secretary, Mr. J. RANDHAWA (Australia).

The aim of the Workshop was to inform the authorities of the area responsible from Maritime Safety about their obligations following the new regulations adopted by IMO and UN and also to highlight the importance of Hydrography in this context. The need to be able to achieve Phase 1 of the Development of Hydrographic Surveying and Nautical Charting Capability (ability to collect and disseminate the nautical information required to keep existing charts and publications up to date) was emphasized.

The Agenda of the Workshop included the following presentations:

- The Importance of Hydrography;
- The 3 Stages of Development of Hydrographic Capability;
- MSI/GMDSS;
- The Importance of Accurate Nautical Information;
- Training opportunities.

The representatives of invited countries stated their concern about the lack of means and therefore about the difficulties to maintain the safety of navigation at the required level. They requested the support from developing countries of the area to improve their services and capacity.

Training was a general point of concern and a matter of priority.

Among the Workshop's conclusions, the following are the most relevant:

- f) The maritime countries of the area would be glad if the IHO could establish an Action Team to pay technical visits to them. This was agreed and Australia and New Zealand offered to set up such a Team, with the support of the IHB. This action was ratified by the Capacity Building Committee which met during the following days and decided to assign a high priority to this task.
- g) Concerning training, the IHB Director provided up to date information about training possibilities. and also mentioned the proposal for direct support from the IHB that was to be discussed by the CBC meeting the next days..
- h) Communications are also a matter of priority and a person should be designated in each country who would be responsible for the preparation, maintenance and development of any action addressed to enhance the present status of Hydrography and the establishment of a National Hydrographic Committee
- i) All countries in the region are IMO members and, therefore, if they have signed the SOLAS Convention, they are now obliged under Regulation V to provide Hydrographic Services themselves or through bilateral or multilateral agreements. It was stressed that the responsibility lies with the Governments of those countries.

The IHO thanks the Hydrographer of Fiji to have organized successfully the Technical Workshop for the South Pacific Regional Hydrographic Commission.

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| INTERNATIONAL ORGANIZATIONS |
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INTERNATIONAL MARITIME ORGANIZATION (IMO)

**8th MEETING OF THE IMO COMMITTEE ON RADIOCOMMUNICATIONS
AND SEARCH AND RESCUE (COMSAR)**

London, UK, 16-20 February 2004.

The 8th Meeting of the IMO Sub-committee on Communications and Search and Rescue (COMSAR) was held at IMO Headquarters in London, from 16 – 20 February 2004. S. SHIPMAN, (PAH) and P. DOHERTY, Chairman of CPRNW, represented the IHO.

A draft text for a revised 'Navtex Manual', which had been agreed at the 6th CPRNW Meeting, held at the IHB in May 2003, was submitted for consideration. COMSAR established a Maritime Safety Information (MSI) Drafting Group, under the Chairmanship of Peter DOHERTY, to review the text. Amendments were agreed upon and COMSAR decided to forward the document to the next meeting of the Maritime Safety Committee for adoption and publication. When published, this will replace the current 2001 edition (IMO Publication IMO-951E).

COMSAR 8 agreed to issue a COMSAR Circular regarding the misuse of the NAVTEX B₂ / B₃ characters and the designation of Service Areas (see IHO CL 36/2003 dated 22 May 2003).

The Navtex Co-ordinating Panel reported to COMSAR that it was concerned over reports that Maritime Safety Information (MSI) was to be broadcast over Automatic Identification Systems (AIS). COMSAR expressed the view that if MSI were to be transmitted over AIS, then it should be co-ordinated through the World-wide Navigational Warning Service (WWNWS). IALA, who are overseeing the technical aspects of AIS, are due to hold a meeting in Paris in early March 2004 and it was agreed that PAH and Mr. Andy FULLER of The International Mobile Satellite Organization (IMSO) should attend this meeting to ensure that issues regarding MSI were fully discussed.

The WWNWS currently covers the southern hemisphere and northern latitudes up to 67°N and 71°N. Both Canada and the Russian Federation had raised the issue of issuing MSI for northern latitudes with the Navtex Co-ordinating Panel. It was considered that the time was now right to consider whether these northern latitudes, or part of them, should be absorbed within the WWNWS or, if not, whether the broadcasting of MSI for these regions should be formally co-ordinated with those areas already within the WWNWS. This matter would be taken up by CPRNW.

The Chairman of the International SafetyNET Co-ordinating Panel reported that Inmarsat and the World Meteorological Organization (WMO) had devised a way of producing graphical weather information that can use the existing SafetyNET structure, with only small modifications. This new SafetyNET graphical capability will be able to replace the HF radio weather facsimile service and thereby negate concerns about closure of HF services.

Members of the CPRNW, who were present, held a meeting with a representative of the World Health Organisation (WHO) to discuss the issuing of WHO Advisory Messages through the WWNWS. A proposed message format was discussed and it was agreed that this matter would be taken forward by CPRNW.

THE IMO MARITIME SAFETY COMMITTEE (MSC)



The 78th Session of the Maritime Safety Committee (MSC) of the International Maritime Organization (IMO) took place at IMO headquarters in London, from Wednesday 12 to Friday 21 May 2004.

The IHO had submitted a paper, MSC 78/11/1, requesting the MSC to issue a Circular Letter to all IMO Member States drawing attention to their obligations under the revised Regulation 9 of Chapter V of SOLAS which came into force on 1 July 2002. This MSC CL was approved and will be issued shortly.

During the MSC meeting the IHO provided a brochure to all countries and organizations attending, outlining the requirements of SOLAS V-9 and the support the IHO could provide. A briefing on this topic was given at 13:30 on Monday 17 May, where the opportunity was taken to encourage IMO, non IHO, Member States to join the IHO. This briefing was attended by over 50 delegates.

Discussion of new work items included the consideration of three papers on ECDIS. Two of these papers, by Australia and Norway, were the subject of IHO CL 21/2004. The third paper by France was not seen until after CL 21/2004 had been issued. The MSC decided to refer all 3 papers to the Sub-Committee on Safety of Navigation for discussion during its 50th Meeting, which will be held at the IMO from 5 – 9 July 2004. The new work item has been titled “Evaluation of the use of ECDIS and ENC development”.

The 79th session of IMO’s Maritime Safety Committee was held at IMO’s London Headquarters, from 1 – 10 December 2004.

The IHB President and Captain BARRITT of the UKHO gave a presentation to delegates on the results of the initial data collection for the 3rd Edition of S-55. The presentation, which was given at 1330 on Monday 6 December, was titled “Deficiencies in surveying and charting world-wide and their impact on Safety of Navigation and Protection of the Marine Environment.”

MSC 79, in accordance with Assembly Resolution A.886(21), adopted an MSC resolution (MSC 191 (79)) on the performance standards for the presentation of Navigation-related Information on Shipborne Navigational Displays and approved the issue of an SN Circular (SN.Circ. 243) on guidelines for the presentation of navigation-related symbols, terms and abbreviations. The final texts of the MSC Resolution and SN Circular will be forwarded to Member States when they are received at the IHB.

When considering the agenda item on Large Passenger Ship Safety, the MSC decided to remove the word “large” from the title as it considered that defining “large” would create many difficulties. However, the MSC instructed its sub-committees and the Working Group (WG), which it established at MSC 79, to bear in mind that a “one size fits all approach” should be avoided since each area of safety (e.g. fire, machinery, stability, lifesaving, search and rescue) had different concerns. The IHO is contributing to the debate on Passenger Ship Safety within the Sub-Committee on Safety of Navigation.

54th SESSION OF THE IMO TECHNICAL COOPERATION COMMITTEE (TC54)

London, UK, 15-17 June 2004.

The Technical Co-operation Committee held its fifty-fourth session from 15 to 17 June 2004, under the chairmanship of Captain MOHD UDDIN Ahmed (Bangladesh). Captain F. BERMEJO represented the IHO.

The IMO Secretary General noted that, as approved by the Council and the Assembly, the TC meetings were held once per year over three days, in order to give the Committee the opportunity to debate the various important technical co-operation items on its agenda and provide the Council and the other technical committees with sound advice on all the aspects of the Organization.

Among the items highlighted by the Secretary-General, the following are to be mentioned:

1. IMO has established thirty partnership arrangements on technical co-operation with international, regional and national administrations and institutions. These arrangements serve to build the capacity of regional organizations themselves.
2. On 9 September 2003, IMO opened a regional office in Manila, Philippines, the fourth IMO Regional Office.
3. A pilot project in co-operation with the World Maritime University to convert an IMO model course into a distance learning tool was successfully completed. This project may be applied in the future to other model courses.

Integrated Technical Co-operation Programme

A comprehensive report on the implementation of ITCP activities over the 2002-2003 biennium was presented and discussed in depth. Among the activities carried out, special mention should be made of 210 missions carried out, 18 packages of model primary or secondary legislation developed, 215 courses, seminars and workshops held at the national, regional and global level. Activities totaled some US\$ 25.5 million.

Technical Co-operation Fund

The Director of the Technical Cooperation Section stated that, during the period covering 2002-2003, the Fund had again provided priority assistance to Africa through regional and global programmes.

The Committee was updated on the status of the International Maritime Security Trust Fund and informed that to date Canada, Denmark, Egypt, Germany, Sweden, UK and United States had either made donations or had pledged monies, totaling some US\$585,000.

Partnership arrangements for Technical Co-operation delivery.

Memoranda of Understanding

Memoranda of Understanding, signed between IMO and the Governments of Kenya, Ghana and the Côte d'Ivoire for the establishment of IMO regional presence offices for Eastern and Southern Africa and West and Central Africa sub-regions respectively were extended for a further period of two years.

The existing MoUs and co-operation between IMO and COCATRAM, ROCRAM, Prefectura Naval Argentina, US Coast Guard, Singapore, Hong Kong China, ASEAN and other nations/organizations continued to function effectively in the implementation and delivery of technical co-operation activities in Spanish America, the Caribbean, Asia and the Pacific Islands regions.

Long-term forecast of the financial position of the Technical Co-operation Programme.

Following a request made by the Assembly, the Secretariat had prepared a long-term financial forecast for the period 2006-2009. It can be assumed that the Organization's current reliance on the internal resources of the TC Fund, as a principal source of financing for the programme, was not sustainable. It was recognized that long-term planning cannot be based solely on potential donations and require innovative fund-raising measures. Among these measures, the following were proposed by IMO Members :

- levying further cost-sharing contributions and in-kind support and factoring them into the long-term financial forecast;
- Continuing the promotion of new partnerships;
- Securing contributions from insurance companies;
- Charging an annual fee to NGOs accredited to IMO for the benefits derived from the participation in the Organization's work.

Institutional Development and Fellowships

Reports were presented on the activities of the World Maritime University, the IMO International Maritime Law Institute and the IMO International Maritime Academy.

The Secretary-General thanked the Government of Italy, the Province of Trieste, the European Union, the International Hydrographic Organization and the "Regione Autonoma Friuli Venezia Giulia" for their substantial support which had enabled the Academy to continue its invaluable work.

The IHO representative informed the Committee that the IMA model course on Nautical Cartography had been awarded international recognition by the FIG/IHO/ICA Advisory Board in May 2004. It was the first course on this topic to receive international recognition

50th IMO SUB COMMITTEE ON SAFETY OF NAVIGATION (NAV)

IMO Headquarters, London, UK, 5-9 July 2004.

The above meeting was held at the IMO Headquarters in London from 5 to 9 July 2004. The IHO was represented by the President, VAdm. A. MARATOS, and by the Professional Assistant for Hydrography, Cdr. S. SHIPMAN.

The Sub-Committee considered 13 papers submitted under Agenda Item 3, Routing of Ships, Ship Reporting and Related Matters, most of which were endorsed and forwarded to the Maritime Safety Committee (MSC) for approval and adoption.

Under Agenda Item 11, Large Passenger Ship Safety: Effective voyage planning for large passenger ships, the Sub-Committee considered a report from the IHO on the quality and availability of hydrographic data in remote areas. This report, which followed on from that made to the 49th meeting in 2003, was well received. The Sub-Committee acknowledged the initiatives that the IHO was undertaking to improve the availability of hydrographic data in remote areas and invited the IHO to keep the sub-committee informed on progress. See CL50/2004.

Any Other Business, Agenda Item 18, included a preliminary discussion on the papers submitted by Australia, Norway and France to the MSC regarding the use of the RCDS mode of ECDIS. See CLs 21, 34, 41, 44 and 50 of 2004. The Sub-Committee decided to set up a correspondence group, co-

ordinated by Norway, to give preliminary discussion on a number of topics and to report to the 51st meeting of the Sub-Committee in June 2005. The Terms of Reference for the Correspondence Group are given in Annex A to CL 50/2004. The Sub-Committee invited the IHO to report to the 51st meeting as to what extent coastal waters were adequately covered by RNCs. The IHO was further invited to report on the available worldwide coverage of ENC's.

UNITED NATIONS (UN)

THE UNITED NATIONS GENERAL ASSEMBLY ADOPTS RESOLUTION WELCOMING THE WORK OF IHO 23 December 2003

On 23 December 2003, the United Nations General Assembly adopted Resolution A/RES/58/240 on Oceans and Law of the Sea that dealt, in large part, with Safety of Navigation. In this resolution, the General Assembly:

- (a) Welcomes the work of the International Hydrographic Organization (IHO) and its 14 Regional Hydrographic Commissions and encourages increased membership of the IHO by States, noting that Organization's capacity to provide technical assistance, facilitate training and identify potential funding sources for development or improvement of hydrographic services; and calls upon States and agencies to support the IHO trust fund and examine the possibility of partnerships with the private sector;
- (b) Invites IHO and the International Maritime Organization (IMO) to continue efforts and to jointly adopt measures with a view to encouraging greater international cooperation and coordination for the transition to electronic nautical charts; and to increase the coverage of hydrographic information on a global basis, especially in areas of international navigation and ports and where there are vulnerable or protected marine areas;
- (c) Encourages intensified efforts to build capacity for developing countries, in particular for the least developed countries, small island developing States and coastal African States, to improve hydrographic services and the production of nautical charts, including the mobilization of resources and building of capacity with support from international financial institutions and the donor community, recognizing that economics of scale can apply, in some instances, at the regional level through shared facilities, technical capabilities and information for the provision of hydrographic services and the preparation of, and access, to nautical charts.

Member States are encouraged to cite this resolution in their dealing with their governments, noting the value of their membership in the IHO, the recognized importance of hydrography to the world community and the critical need to support capacity building efforts through the IHO and bilateral arrangements.

THE ANTARCTIC TREATY CONSULTATIVE MEETINGS (ATCM)

Cape Town, South Africa, 24 May – 4 June 2004.

The XXVIIth Antarctic Treaty Consultative Meeting from 24 May to 04 June 2004, in Cape Town, South Africa. The ATCM meetings are held annually to discuss matters related to the management of the Antarctic Treaty area and to further develop the Antarctic Treaty System. There was an exchange of experiences and activities conducted in the Antarctic, including matters arising from the Protocol on Environmental Protection to the Antarctic Treaty. On this occasion there were nearly 50 Working Papers and over 110 Information Papers submitted for consideration. Captain GORZIGLIA, who attended the meeting from 24 to 28 May, represented the IHO and presented a Report on “Co-operation in Hydrographic Surveying and Charting of Antarctic Waters”. The presentation was well received by the attendees. The UK representative congratulated the IHO and highlighted the progress made by the Hydrographic Committee on Antarctica (HCA). Moreover, he said that the UK was strongly in favor of the recommendations put forward by the IHO and he requested ATCM to approve them. As there were no objections, the IHO report was adopted and the 5 recommendations included approved by the ATCM. The recommendations were:

To accept the IHO Report;

- a. To acknowledge the progress made to date by the HCA and to encourage continuation of its commitments;
- b. To express support of the launching of the IBCSO project;
- c. To express support of the use of continuous multibeam survey to foster bathymetric data gathering and the production of INT nautical charts and
- d. To invite Member States to augment the hydrographic survey activity in the Antarctic (the word “invite” was replaced by “urge”, as requested by UK and agreed by the ATCM).



Other matters of direct IHO interest were:

- a) Tourism: Guidelines related to Shipping. Provisions for non-Treaty flagged vessels, and the Applicability to the Antarctic, of the IMO “Guidelines for Ships Operating in Arctic Ice-Covered Waters” ;
- b) Antarctic Treaty Secretariat: suggested Budget and Work Program for the First Operating Year and the reviewing process for the Exchange of Information;

- c) COMNAP Report to ATCM XXVII ;
- d) ASOC Report to ATCM XXVII including an update on some issues surrounding noise pollution;
- e) IAATO Report to the ATCM XXVII;
- f) SCAR Report to XXVII ATCM and its Report on Marine Acoustic Technology and the Antarctic Environment. This report provides evidence of the research conducted to evaluate the risk on marine mammals. In brief, the conclusion of the risk evaluation indicates:
 - a. The risk of most scientific acoustic techniques likely to be used in the Antarctic was less than or comparable to shipping activities on their own.
 - b. Even airgun seismic surveys were not considered a threat to populations.
 - c. Survey planning and mitigation measures could be used to reduce the risk to individual animals.

Due to the importance of the content of this paper, the IHB will make it available to all Member States.

Interesting talks were held with Mrs. D. LANDAU, Executive Secretary of IAATO, with Mr. A. GUICHARD, Executive Secretary of COMNAP and with Mr. J. HUBER, recently elected Executive Secretary of the ATCP, all aimed at improving coordination and co-operation among the organizations.

In brief, it was a successful mission in which IHO recommendations were fully approved. It must be underlined that the IHO Antarctic activities are very well known and their importance strongly appreciated by ATCM Members.

IHO REPRESENTED AT THE IAATO CONFERENCE

Christchurch, New Zealand - 29-30 April 2004.

Mr. John SPITTAL, Chief Topographer/Hydrographer of New Zealand, represented the IHO at the IAATO Conference. The two-day meeting was open to non-IAATO members and covered a range of general topics of interest to Tourist Operators. On that occasion a paper provided by the IHB was presented and distributed to participants.

IAATO currently has 70 members operating both ships and aircraft in Antarctica. The smallest ships carry 6 passengers and the largest 1200. 21,216 people landed in the summer of 03/04. A further 7,000 travelled on ships but did not land. Only two ship operators carrying tourists to Antarctica are not IAATO members. In 1991 only 6 ships visited the area so there has been a significant increase in visitor numbers and traffic.

The conference had a general discussion on the tension between governments wanting to limit tourism in Antarctica and Operators seeking new tourist opportunities.

The IHO presentation was well received, with several people discussing issues with the IHO representative during the day. The request from the IHO for advice on the INT program, priorities for terrestrial aids to navigation and berths for hydrographic surveyors were discussed with several firms offering to find ways to cooperate. The Operators' contribution looks very important, as it seems that the INT Chart Scheme does not include many of the commonly used landing sites. Concern was expressed regarding the existence of only one ENC in the Antarctic Peninsula.

It was felt that a communication gap between each relevant Hydrographic Authority and all the various firms exists and some solution should be explored through cooperative arrangements. The willingness to share sounding data captured by navigators was evident. The point was made that, in the past, soundings of harbors and landing sites were kept secret so the firm who had them could gain

a commercial advantage. However, it is now realized that if one ship gets into trouble the whole industry suffers.

Operators advised that berths could be made available to hydrographers. Some ships carry sounding equipment and coordination in terms of timings and areas well in advance is desired.

In brief,

- The number of vessels and people traveling to Antarctica is growing at a significant rate.
- There are conflicts between protecting the environment from the impact of tourism and activities such as commercial fishing.
- There is a willingness amongst IAATO members to share their soundings of harbours and passages. They are willing to comment on INT and navigation aids priorities.
- Berths for hydrographers can be arranged with a number of firms provided sufficient notice is given. Any costs will need to be worked out on an individual basis.
- Direct face-to-face contact between relevant Hydrographic Authorities and the Tourist Operators who operate in their areas of charting responsibility may be the best way to exchange hydrographic information and obtain berths for hydrographers.

The IHB Directing Committee is extremely grateful to Mr. John SPITTAL, Chief Topographer/Hydrographer of New Zealand, for having represented IHO at the 2004 IAATO Conference.

THE INTERNATIONAL ASSOCIATION OF LIGHTHOUSE AUTHORITIES (IALA)

14TH MEETING OF THE IALA COMMITTEE ON THE AUTOMATIC IDENTIFICATION SYSTEM (AIS), Paris, France, 8-12 March 2004.

IALA held the 14th Meeting of their Committee on the Automatic Identification System (AIS) at their Paris Headquarters from 8 to 12 March 2004.

The IHO was invited to attend this meeting for the discussion on the use of AIS to disseminate MSI. IHO was represented by Steve SHIPMAN (Professional Assistant – Hydrography) and Mr. A. FULLER of IMSO and were made very welcome.

The IHO suggested that the first step must be to determine the operational requirement to broadcast MSI via AIS, as this might be a solution looking for a problem. Several members of the IALA Committee supported this view. The IHO explained that, if this was to be an International Service, then it needed to be coordinated through the WNWNS and that, in accordance with the Preface to the IHO-IMO WORLD-WIDE NAVIGATIONAL WARNING SERVICE GUIDANCE DOCUMENT (IHO Publication S-53), any proposal should be evaluated by the IHO Commission on Promulgation of Radio Navigational Warnings (CPRNW) prior to any extensive IHO or IMO consideration.

The AIS Committee was also informed that if AIS were only to transmit ‘Local Warnings’ as part of a ‘National Service’ then this did not fall within the remit of the WNWNS. However, it was still important that national links and coordination be established to ensure that the mariner received correct, timely and consistent information.

IALA agreed to reflect IHO advice in their Meeting Report and to forward the outcome of their discussions to the IHO. They would continue to liaise with the IHO on this matter. The IHO thanked IALA for inviting them to attend the meeting and stressed that their interest was to ensure that the mariner received the information he needed when he needed it. The IHO would continue to provide advice and guidance on this subject

INTERNATIONAL FEDERATION OF SURVEYORS (FIG)

NEWS FROM FIG COMMISSION 4 ‘HYDROGRAPHY’

The IHB is grateful to FIG Commission 4 - Hydrography that has kindly provided copies of a CD, which includes documents such as conference proceedings, papers and reports that Commission 4 and its officers have published to date.

The IHB can provide Member States a copy of the CD, on request (info@ihb.mc), while stocks last. However, the information contained on the disk is also available online through the FIG Commission 4 website at <http://www.fig.net/commission4/index.htm>.

The Chairman of Commission 4, Mr. A. GREENLAND, has informed the IHB that a CD will be issued every year, as a cost effective method of disseminating the work of the Commission to the wider international hydrographic community.

The IHB congratulates FIG Commission 4 Hydrography on this interesting initiative.

“THE OLYMPIC SPIRIT IN SURVEYING” INTERNATIONAL FEDERATION OF SURVEYORS (FIG) - WORKING WEEK 2004 Athens, Greece, 22-27 May 2004.



Vice-Admiral MARATOS, IHB President, with Dr. Eng. H. MAGEL, President of FIG
while signing a Memorandum of Understanding

FIG held their 2004 working week in Athens, Greece, from 22 - 27 May, under the title “The Olympic Spirit in Surveying”. Commission 4 (Hydrography) activities took place on Tuesday and Wednesday 25 / 26 May.

Commission 4 Working Group 4.2 on Vertical Reference Frames, which is a joint Working Group with Commission 5 (Geodesy), held a meeting from 07:30 to 09:00 and this was followed by the Commission 4 Meeting from 09:00 to 10:30. Amongst the topics discussed were: reports from the WGs, cooperation with other organizations, standards network, review of past activities and plans for future activities. Full details of the meeting will be available from the FIG website (www.fig.net) soon.

The first Workshop Session took place from 11:00 to 12:30 with papers from:

- VAdm. MARATOS, President of the IHB, on current activities of the IHO.
- S. ASTERMO (Sweden): “IHO/ FIG/ ICA Advisory Board – Quality for Hydrographic Education”.
- A. SKLAVIDIS (Greece): “The Role of HNHS in preparing for the Olympic Games”.
- J. MILLS (USA): “Implications of the Navigation Surface Approach to Archiving and Charting Shallow Survey Data”.

Prior to Lunch, Vadm. Alexandros MARATOS, President of the IHB, and Univ. Prof. Dr.-Ing H. MAGEL, President of FIG, signed a Memorandum of Understanding, which aims to build on the existing cooperation between the two Organizations.

The second Workshop Session took place from 14:00 to 15:30 with papers from:

- M. SUTHERLAND (Canada): “Sea Level Rise and Coastal Zone Management (CZM)”.
- D. DUMASHIE (UK) : “CZM in the UK Policy and Practice: Does it continue to evolve?”
- D. NEAL (Rep. of Trinidad and Tobago): “Hydrographic Data as Indicators of Physical Development on the Trinidad West Coast”.
- V.GRIGORIADIS (Greece): “Development of a Software Package for the Automation of Measurements in Bathymetric Mapping”.

The third Workshop took place from 16:00 to 17:30 with papers from:

- S. SHIPMAN, (Professional Assistant for Hydrography, PAH) at the IHB: “The Status of the ECGN, the Soon to be Formed IAG Inter-Commission Project on Vertical Reference Frames and How the IHO Fits in”.
- R. ADAMS (UKHO): “Relating Data to a Seamless Vertical Reference Surface”.

Two further papers in this session were cancelled as the presenters did not appear. However, this allowed for an extended debate on the two papers above which in fact continued to 1800 and later still in the bars.

In the evening there was a joint Commission 4 (Hydrography) and 5 (Geodesy) social evening in one of the many fine Tavernas in the Plaka district of Athens.

On Wednesday 26 May there was a Technical Tour on board a Survey Ship of the Greek Navy.

FIG/IHO TECHNICAL MEETING HELD AT THE IHB

26 November 2004

On 26th November, Mr. Adam GREENLAND, Chairman of FIG Commission 4 “Hydrography”, met with Captain Hugo GORZIGLIA (IHB), Director in charge of relations with FIG, in order to discuss technical matters of common interest to both international organizations.

The opportunity was taken to review the IHO and FIG Commission 4 annual Work Program, as regards the matters contained in the Memorandum of Understanding signed in 2004. It was felt that the work achieved so far by both parties is complementary and that this approach should continue for the benefit of international hydrography.

The IHO was represented at the FIG Regional Meeting held in Indonesia; on this occasion, a paper was submitted concerning the activities of the IHO. Also, the IHO was present at the FIG Working Week in Athens, where a Memorandum of Understanding was signed between the President of IHO and the President of FIG.

The UN and IMO Resolutions referring to hydrography were commented and considered to be a most useful tool in raising hydrographic awareness and in improving its priority level. Also, it was agreed that it was important to follow the development of the recently established “International Federation of

Hydrographic Societies”, an organization that could provide views on various matters of interest to FIG and IHO.

A great part of the meeting was devoted to an exchange of views on capacity building matters. Mr. GREENLAND was briefed on the IHO Capacity Building Strategy, Work Program and other initiatives under consideration. Mr. GREENLAND agreed to explore ways in which FIG could support this program, offering in advance a keynote speaker for seminars to be organized for National Hydrographic Committee Chairmen or equivalent national authorities.

Mr. GREENLAND reported that FIG Commission 4 was interested in participating in the S-44 WG as an observer. He also confirmed FIG's willingness to continue their support of the activities of the FIG/IHO/ICA International Advisory Board.

After assessing the potential of S-55, Mr. GREENLAND concurred on the need to prepare a paper presenting, in simple terms, the economic importance of hydrography, and committed himself to preparing a draft document highlighting this important aspect.

Finally, public relations actions were discussed and it was agreed that it would be good to take advantage of all FIG events and use them as a platform to increase hydrographic visibility. Special mention was made of the following events:

- a) FIG Working Week will take place in Egypt, on 16-21 April 2005.
- b) Regional Conference, an event that will take place in Havana, on 26-29 September 2005.

This one-day co-ordination meeting was considered to be extremely useful and it was confirmed that it was important to hold such a meeting every year.

THE INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)

IEC TC80 WG10 MEETING AT THE INTERNATIONAL HYDROGRAPHIC BUREAU Monaco, 23-25 June 2004



Ships worldwide are equipped with a multitude of navigational devices enabling the officer of the watch to navigate vessels under a variety of, at times, somewhat difficult conditions. Nowadays, navigational equipment is becoming increasingly integrated, potentially providing significant benefits in situation awareness and a reduced workload.

To guarantee a minimum standard for such integrated navigational equipment, IMO adopted a recommendation on Performance Standards for an Integrated Navigation System (MSC 86(70)). This recommendation ensures that the integration of navigational equipment is performed in such a way so as to add value when compared with traditional stand-alone equipment. Requirements for the monitoring of data integrity, the provision of an intelligent alarm management system and the consideration of human factors all contribute to the overall objective of improved functionality, coupled with a reduction in workload.

The International Electrotechnical Commission (IEC) has given to one of its working groups, TC80 WG10, the task of developing a test standard for Integrated Navigation Systems. The role of the Working Group is to take the minimum requirements defined by IMO in MSC 86(70) Annex 3 and develop test procedures. In this way, navigational equipment can be Type Approved in compliance with the IMO Resolution. The test standard for Integrated Navigation Systems will be issued as IEC 61924.

Composed of representatives from many different countries, the Working Group relies on organizations such as the IHB to provide facilities for it to do its work. In June 2004, the Working Group used the IHB offices overlooking the Monaco harbour and made good progress with its task of producing a draft of IEC 61924 ready for international voting at the end of 2004.

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (IOC)

IOC EXECUTIVE COUNCIL

Paris, France, 23-29 June 2004

The XXXVIIth Session of the IOC Executive Council was held from 23 to 29 June at the IOC Headquarters in Paris.

Captain H. GORZIGLIA, Director, represented the IHB and attended the first 4 days of the meeting when matters of particular interest to the IHO were discussed. The Heads of the Hydrographic Services of Brazil, Chile, Ecuador, Germany, the Russian Federation and Turkey were also present.

Amongst the matters discussed, the following are of note:

- a) **Statement made by Ambassador Jagdish KOONJUL, Chairman of the Alliance of Small Island States (AOSIS).** AOSIS is preparing an international meeting to be held in Mauritius in January 2005, where support and assistance are expected from IOC. Resolution EC-XXXVII.1, recognizing the special situation of the Small Islands Developing States (SIDS), was adopted with the preparation of the international meeting to review the implementation of the program of action for the sustainable development of SIDS in view (Barbados+10).
- b) **Report of the Executive Secretary of IOC on Earth Observation Summit.** The First Earth Observation Summit was held in Washington, DC on 31 July 2003 and provided a Declaration for improved coordination of observing systems. A second meeting took place in Tokyo, Japan on 25 April 2004, mainly to define the fundamental elements to be included in the 10-Year Implementation Plan which henceforth will be called a Global Earth Observation System. The Third Earth Observation Summit will be held on 16 February 2005 in Brussels, where details of the Plan will be agreed. Resolution EC-XXXVII.2 was adopted.
- c) **IOC participation in the International Polar Year 2007-2008.** ICSU called for the establishment of an Executive Council for the celebration of the International Polar Year in 2007/2008, considered to be a means of promoting nationally and internationally the development of oceanography and the important role the oceans play in the polar regions. IOC is

developing a participation plan and studying the need for the creation of a group of experts. Resolution EC-XXXVII.3 was adopted.

- d) Report of the 9th Session of the Consultative Group on Ocean Mapping (CGOM).** The EC was pleased to note the progress made in the implementation of GEBCO and the successful Centenary celebrations held in Monaco last year. The Summary Report of the 9th Session of IOC/CGOM, held at the IHB, 10–12 April 2003, as well as the Recommendations annexed to the Summary Report, were endorsed.

The EC expressed its support of the establishment, jointly with IHO, of an International Bathymetric Chart of the Southern Ocean (IBCSO) to be launched 30–31 July at a SCAR meeting in Germany. (Resolution EC-XXXVII.5 on Ocean Mapping refers).

- e) IOC/ABE-LOS Report of the Chairman.** IOC/ABE-LOS has been working mainly on Part XIII (Marine Scientific Research) and Part XIV (Transfer of Marine Technology) of the UNCLOS. The Executive Secretary was requested to disseminate and promote the implementation of the Criteria and Guidelines on the Transfer of Marine Technology among Member States and relevant international organizations, based on the practice of IOC Member States regarding marine scientific research and transfer of marine technology. (Resolution EC-XXXVII.8 refers).
- f) Draft IOC Strategy for Capacity Building.** The EC endorsed the basic principles as detailed in Document IOC/EC-XXXVII/2 as a base from which the final draft Strategy and associated Implementation Plan will be developed. The Executive Secretary was instructed to produce a final draft Strategy for Capacity-Building for submission to the 23rd Session of the IOC Assembly in 2005, based on comments received from MS. In addition, the IOC Executive Secretary was tasked with the development of the associated Implementation Plan. The USA is supporting this activity and will set up an experts workshop to facilitate the drafting of an Implementation Plan for the IOC Strategy for Capacity-Building during the first quarter of 2005; an assessment of the capacity-building carried out by the IOC over the last 5 years will also be made.

THE INTERNATIONAL STANDARDS ORGANIZATION (ISO)

ISO/TC211 COMMITTEE

18th and 19th Plenary Meetings, May and October 2004 respectively.

The work of TC211 aims to establish a structured set of standards for information concerning objects or phenomena that are directly or indirectly associated with a location relative to the Earth. As these standards are relevant to the development of IHO standards such as S-57, B. GREENSLADE (UKHO) and Anthony PHARAOH (IHB), participated in the 18th and 19th Plenary and Working Group Meetings which took place during May (Malaysia) and October (Italy) respectively.

**WORK PROGRAMME 2
CAPACITY BUILDING****INTERNATIONAL MARITIME ACADEMY (IMA)****TECHNICAL COORDINATION MEETING BETWEEN IMA AND IHB**

Trieste, Italy, 4 May 2004

Captain GORZIGLIA, the IHB Director designated by the Directing Committee as the contact point between IMA and IHB, paid a technical visit to Rear Admiral F. SPANIO, IMA Director and Hydrographic Courses' Director, to discuss matters of common interest to both institutions. The Agenda for this meeting included an update on IMA's structure, courses and new initiatives.

Currently, a new version of the IMA Statutes is under consideration by the relevant authorities. A report on the progress of this subject will be provided at the next Technical and Scientific Committee Meeting to be held in Trieste by mid-September 2004.

A two-month Course on ENC was taking place at the time of the visit. The IHB Director congratulated the participants and encouraged them to make the most of this excellent training opportunity.

The 5th Course on Harbour and Coastal Hydrography, scheduled for June-November 2004, will start shortly. A total of 29 applications were received for the course from 24 countries and taking into account that only 12 students can be accepted on the course, a final selection had to be made.

It was confirmed that the Italian Authorities were willing to fund two courses a year, starting in 2005. This means that from next year a hydrographic and a cartographic course might take place. As soon as confirmation is received, the courses will be advertised. This new scenario provides an excellent opportunity to contribute to IHO's capacity building efforts.

IMA reported on the progress so far in the preparation of a submission of a combination of courses in the field of hydrography for recognition at Category A level, and also on the submission of a Course on Cartography to the FIG/IHO/ICA International Advisory Board.

The IHB briefed IMA on the outcome of the West African Action Team (WAAT) visits and on the initiatives identified so far to improve the situation in the region. Also the Capacity Building Strategy draft was discussed and IMA expressed its strong interest in being considered as a training component. It was agreed that it might be important to focus on other courses as well, specially oriented to cater for particular needs.

In conclusion, the visit paid to IMA was very productive and contributes to better coordination and cooperation between the two organizations. IMA's willingness to contribute, with the IHO, to the development of Capacity Building initiatives opens up the possibility for a broader and stronger relationship which will be beneficial to both organizations. The commitment made by IMA to conduct two courses a year, starting in 2005, is excellent news.

4th IMA TECHNICAL & SCIENTIFIC COMMITTEE MEETING

20 October 2004, Trieste, Italy.



According to Art. 19 of the “IMO – IMA” Statutes, the IHO composes the IMA Technical and Scientific Committee together with different other institutions. The objective of the Committee is to promote and coordinate the teaching activities of IMA. Previous meetings of the Committee had been in 1999, 2002 and 2003.

The meeting Agenda included reports by the IMA President and the IMA Director respectively; courses provided during 2004 and those scheduled for 2005 as well as IMA ongoing projects and technical assistance.

Captain AHMED from the Technical Cooperation Division of IMO chaired the meeting. Professor Iginio MARSON and Rear Admiral F. SPANIO, President and Director of IMA together with 10 other representatives of Italian institutions, were present. Captain H. GORZIGLIA (IHB) represented the IHO.

During 2004 two courses of direct interest to IHO were provided: one on ENC Production, Validation and Updating addressed to the MEDA Countries and another on Harbor and Coastal Hydrography (Cat B), open to 12 students from different countries.

For 2005, one course on cartography (March to November) and one on hydrography (June to November) have been scheduled. The IHB Director expressed the need to confirm the programme as soon as possible, to allow HOs to prepare and nominate their candidates. Also the IHB Director highlighted the importance of having at least a two year work program, to avoid this permanent doubt on the availability of running the courses and occasionally the late announcement. Under this agenda item the IHB Director reported on the status of approval of the IMA submission of a Cat A Course on Nautical Cartography. The course is under consideration by the IAB and a decision is expected as soon as possible in order to be able to adequately promote the course for 2005.

As regards to technical assistance projects with hydrographic components, IMA Director reported on the current status of four projects in which IMA is currently involved.

IMA informed on an initiative to review the content of the IMO courses that are provided to ensure that their content includes all new regulations. IMO representative offered IMO support in this action. Under this discussion, the IHB Director gave an example of the FIG/IHO/ICA International Advisory Board, that on a yearly basis they review the syllabus of both the hydrographic surveyor and the nautical cartographers standards of competence, therefore the courses were improved and updated on a permanent basis.

Finally, the IHB Director referred to the report submitted by the IHB to the meeting, which highlighted the importance the IHO assigns to IMA as a capacity building partner.

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| TECHNICAL VISITS |
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FIG COMMISSION 4, WAAT and Vice-Chairman of IHO CBC
13-15 January 2004.

Captain H. GORZIGLIA, IHB Director, was in London, UK, on official travel from 13 to 15 January 2004, with the following three objectives:

- a) To meet with Mr. Adam GREENLAND, Chairman of the FIG Commission 4 – Hydrography;
- b) To meet with the EAHC Working Group established to analyse the WAAT (West Africa Action Team) Reports on technical visits paid to African Countries in the EAHC region;
- c) To meet with the Vice-Chairman of the IHO Capacity Building Committee (IHOCBC).

a) Meeting with Chairman of FIG Commission 4 – Hydrography (13 January).

The items discussed were:

- i) FIG Working Week (WW) in Greece, May 2004, where the IHB, on behalf of the IHO, will present two technical papers and will sign a MoU between FIG and IHO;
- ii) An update on the Commission 4 Work Programme 2003-2006, regarding their four Working Groups:
 - Strategic Partnerships (WG 4.1). Special mention was made of the MoU with IHO, contribution to establish the International Federation of Hydrographic Societies and the preparation of an institutional CD, aimed at fostering international hydrography;
 - Vertical Reference Frame (WG 4.2). It was reported that a white paper dealing with this subject is being prepared for the FIG WW in Athens;
 - Coastal Zone Management (WG 4.3). This Group ran a Workshop in 2003 and the results have been published on the FIG Web page. This subject is becoming increasingly important for the hydrographic career;
 - Education and Compulsory Professional Development (WG 4.4). This is a permanent activity. A paper assessing geomatic education in Africa was provided as a reference for the IHOCBC;
 - The cooperation between FIG (Commission 4) and IHO was discussed and it was noted that FIG/IHO/ICA was a good example of such cooperation;
 - Concerning the Hydrographic Workshops to come, in 2004 there will be one in Jakarta, from 3 to 7 October. In 2005, it is planned to hold one, ideally in South America and Brazil was mentioned as a probable venue.
- iii) Outcome of the FIG meeting in Marrakech, Morocco.

The outcome of that part of the meeting relevant to IHO will be available soon. Discussion mainly centers around two matters: how FIG Commission 4 could help to improve education in Africa and how it could contribute, along with the IHB, to developing programmes/courses specially tailored to cope with the needs in this region. It was decided to keep

communications open between FIG Commission 4 and IHB in this sense, and to devote some time, in the near future, to identify a firm line of action.

iv) Others

The new edition of The Hydrographic Society (THS) SP-3 "Hydrography as a Career" was considered to be an excellent contribution towards fostering international hydrography. FIG and IHB have reviewed the content of this new version.

b) Meeting of the EAthC Working Group established to analyse WAAT Reports on technical visits paid to African Countries. (14 and 15 January)

After three visits (Oct./Nov. 2002; March 2003 and Oct. 2003), totalling 15 countries, it was strongly recommended to have a meeting aimed at analysing the results reported and at identifying further actions.

The meeting was held at the Ministry of Defense (MOD), London, UK, thanks to the arrangements made by Captain I. TURNER, UK RN, and was attended by: M. LE GOUIC (Chairman), D. BAGGIO, R. BULLARD, I. TURNER, M. BARRITT and H. GORZIGLIA. F. PIMENTEL could not attend, but provided a written report.

The agreed Agenda covered the following subjects:

- 1) Results of the three visits in Africa and completion of team visit in 2004;
- 2) Analysis: experiences, strong points, weak points, dangerous points, easy to solve points;
- 3) Proposals: on co-ordination, on capability building matters, on assistance matters;
- 4) Discussion and definition of best actions, priorities, and associated efforts at HOs, EAthC and at the IHO level;
- 5) Identification of projects: Title and Objective;
- 6) Funding issues: Donors, Banks, Funds;
- 7) Involvement of other partners: IMO, IALA, IOC (UNESCO), European Fund in Brussels, UN Fund in New-York...
- 8) Summary and proposal for next EAthC Meeting (main ideas in the format of a work programme, tasks and responsible and time frame).

The actions identified are as follows:

- Report to the EAthC Chairman on the results of the meeting, and state urgent need to decide on the date and venue of the next EAthC. Agreement on the proposal to have a Workshop, in conjunction with the EAthC Meeting, mainly aimed at Phase One of the Stages of Development of Hydrographic Surveying and Nautical Charting Capabilities. Consider simultaneous translation for both events and organization of the Workshop.
- Approach and brief the IMO on results of WAAT and idea of Workshop and IMO potential participation.
- Explore training facilities in the region.
- IHB to write a letter to all visited countries, highlighting situation and results and inviting them to strongly consider the attendance of the meeting and workshop. Provide information on how to join IHO.
- France to coordinate/organize 4th WAAT technical visit, probably including Cameroon, Guinea Bissau and a second to Mauritania.
- France to send a letter to all visited countries to request information on the follow up actions taken after the reports were sent, in order to compile information and prepare a report to the EAthC.

c) Meeting related to IHOCBC (15 January)

Considering that an Action Item referring to WAAT was identified at the first IHOCBC meeting and taking advantage of the presence of the Chairman, Vice Chairman and French representative to CBC, it was decided to go through the agreed List of Actions and in particular through the draft IHOCBC Strategy document under preparation by a CBC Task Group.

Review of List of Actions and agreements reached :

- 1) M-2 Revision: only two contributions received by the deadline 31 December 2003 (Australia and UK). **Action:** Chairman to remind CBC Members.
- 2) CBC Members to encourage RHC contribution to S-55: to date 18 replies to the questionnaire have been received from MS and 5 from NMS. **Action:** Chairman and Vice Chairman to issue a CL reporting on progress and requesting MS and NMS, who have not yet replied to do so and to contact Chile for the compilation of the Antarctic data, respectively.
- 3) CBC Members to assist in contacting NMS: through different channels, this action has been completed.
- 4) CBC Task Group to develop CB Strategy: in progress. **Action:** Vice Chairman to monitor pending matters under development.
- 5) CBC to complete a list of funding Agencies: in progress. **Action:** Secretary of CBC to prepare a first draft list to be circulated to CBC Members for comments and completion, if needed.

Identification of follow-up actions: in progress. WAAT has identified the need for a workshop in conjunction with the next EAHC Meeting. **Action:** Chairman to request information on progress in relation to PAIGH.

VIETNAM, THAILAND AND BRUNEI DARUSSALAM 13-24 March 2004.

Technical visits were undertaken, from 13 to 24 March 2004, to Vietnam, Thailand and Brunei Darussalam, following the current Work Programme (2004). The IHB delegation was formed by Capt. Hugo GORZIGLIA, IHB Director responsible for Capacity Building (CB) matters and Capt. Federico BERMEJO, IHB Professional Assistant for CB and training matters.

Vietnam (13-17 March)

Vietnam is not yet an IHO Member State. The Vietnam Maritime Safety Agency (VMSA) coordinated the meetings held with the Vietnam Navy and the Vietnam National Maritime Administration (VINAMARINE) and organized the technical visit.

The following main proposals were put forward for discussion:

- To consider participating in a more permanent and active manner in IHO technical business, especially within the RHC;
- To take advantage of the experience gained within the IHO in the application of international regulations;
- To keep in contact with the IHB in order to be kept up to date on the progress of hydrography worldwide; to identify the



needs and priorities in capacity building and in new technologies and to consider becoming an IHO Member State.

Three clear requests were made following the discussions:

- To provide further information and support to VSMA to establish contact with Multibeam manufacturers ;
- To provide information on experiences and training opportunities related to that technology, including courses implemented by the Indian National Hydrographic School, Goa, and IMA, Trieste.
- To provide written information on the procedures to follow to become an IHO MS and the membership obligations and benefits, to support their submission to higher national authorities.

Thailand (17-21 March)



The Royal Thai Navy Hydrographic Department (RTNHD) locally organized this visit. The IHB delegation visited the RTNHD and were received by the Director General, Vice Admiral Suchart. A meeting in which all the Heads of the RTNHD participated was held in the Conference Room of the headquarters.

Training was mentioned as a very important matter that deserves attention in two ways: by organizing a course at Cat B within the Naval Academy and a Cat A with support from academic bodies. The production of ENC is on a trial run and 6 cells will soon be available.

Nevertheless, training and experience in the distribution and updating of ENC was requested.

The problems identified by RTNHD were considered and it was pointed out that improving the level of participation of the H.O. of Thailand in the IHO technical bodies might solve some problems. Support was offered to progress the preparation of training programmes aiming at international recognition. Information was also requested on the possible establishment of an IHO Trust Fund and a possible meeting with funding agencies, as well as on the objective of updating publication S-55. Both subjects were explained in detail.

Brunei Darussalam (22-23 March)

This visit was coordinated by the General Surveyor of the Surveying Department, under the Ministry of Development.

The programme included:

- A visit to the Surveyor General, a courtesy call to the Permanent Secretary of the Ministry of Development and a visit to the Royal Brunei Navy on Monday 23 March.
- A visit to the Marine Department (Maritime Authority) and a courtesy visit to the Permanent Secretary of the Ministry of Communications.



The establishment of a national hydrographic office is under consideration, and this meeting gave the possibility to explain the importance and benefit of this type of structure. The benefit that Brunei would have in becoming an IHO Member State was the main point of discussion.

NOTE: A complete Report on the Technical Visit can be found in Section *“Member States – Capacity Building.”*

CAPACITY BUILDING COMMITTEE (IHOCBC)

Suva, Fiji, 11-12 November 2004.

Chairman: Capt. H. GORZIGLIA (IHB)
Vice-Chairman: Capt. M. BARRITT (UK)
Secretary: Capt. F. BERMEJO (IHB)
Members : Australia, Chile, France, Germany, India, Mozambique, New Zealand, Norway, Pakistan and USA.



The 2nd Meeting of the IHO Capacity Building Committee (CBC) was held at the Hotel Tanoa Plaza, Suva, Fiji, from 11 to 12 November 2004 under the Chairmanship of Capt. H. GORZIGLIA, IHB Director.

Among the subjects discussed and agreed by the Committee, the following should be highlighted:

- Endorsement of the IHO Capacity Building Strategy;
- Approval of the CBC Work Plan 2005-2007;
- Approval of the Draft Assessment Criteria for the Development of Hydrographic Capability;
- Approval of a Management Programme matrix of development projects, to be filled up and maintained by the Chairmen of RHCs and
- Endorsement of the creation of a Capacity Building Fund.

The CBC plans to hold its next meeting in Colombia, along with a Seminar on Hydrography for the Caribbean countries. The Colombian Hydrographer has been contacted on this matter.

A complete report of the meeting, as well as the documents considered, can be found in the IHO Web page “Committees” – CBC.

**VIIth MEETING OF THE BLACK SEA WORKING GROUP FOR
THE SAFETY OF NAVIGATION (BSWG)**
22-23 April 2004, Kiev, Ukraine.



The VIIth Meeting of the Black Sea Working Group (BSWG) for the Safety of Navigation was held on 22 and 23 April 2004 in Kiev, Ukraine. The Meeting was chaired by Admiral CUBUKCU, Director of the Turkish Hydrographic Office. Representatives from Bulgaria, Georgia, Romania, the Russian Federation, Turkey and Azerbaijan participated in the meeting. VAdm A. MARATOS represented the Bureau.

After the opening remarks by the Chairman, VAdm MARATOS briefed the delegates on the SPWG developments. He explained the amendments to the Convention that had been approved by the SPWG and cleared by the Legal Experts and highlighted the main points of the proposed changes to the Regulations.

There was a very interesting discussion on the production of ENC's in the Black Sea and on the status at national levels. Turkey was tasked with producing a plan for the production of the ENC's, based on the inputs that will be provided by the Members of the Working Group, to be examined and approved at the next meeting.

The Group examined the status of the Project developed by IMA and IHB and presented to the EU for funding. Admiral SPANIO, Director of IMA, did not participate in the Meeting, but had sent a letter informing the delegates that the project had not yet been approved by the EU and he asked for some additional information to be sent, in order to pursue the efforts to obtain funding. Turkey undertook to collect the information, to collate it and provide it to Admiral SPANIO as soon as possible. Admiral MARATOS indicated that he would discuss this issue with Admiral SPANIO at their meeting in Trieste, on 10 and 11 May.

Admiral MARATOS presented various options for consideration by the delegates in order to move forward with the needs in terms of support, co-operation and capacity building in the area. Bilateral and multinational arrangements were discussed as one of the major tasks for this issue that must be considered by those States needing support.

Admiral MARATOS reported to the delegates on the developments as regards IHO's co-operation with other international organizations and, in particular, with the IMO.

Admiral CUBUKCU was elected Chairman of the Working Group for the next two years. It was decided that the next meeting would take place in St. Petersburg, at the kind invitation of Admiral KOMARITSYN, Director of the Hydrographic Office of the Russian Federation.

All the delegates warmly thanked Mr. KORYAKIN, Director of the Ukrainian Hydrographic Office and his Staff for the excellent meeting arrangements that they had provided.

**WESTERN INDIAN OCEAN MARINE HIGHWAY DEVELOPMENT AND COASTAL
AND MARINE CONTAMINATION PREVENTION PROJECT SEMINAR**
Cape Town, South Africa, 13-14 December 2004.



A pre-appraisal seminar was held in Cape Town (South Africa) to discuss a proposed Global Environmental Facility (GEF) and World Bank funded Project to address contamination prevention through the development of a marine highway and enhancement of contamination prevention and response capacity in Eastern Africa and Western Indian Ocean Islands. The Seminar addressed a risk assessment of maritime pollution in the area, the shipping routes through the region, the international maritime legal mandates, the national legislative responses, and the national infrastructure (both equipment and coordination) for marine pollution control. The IHO and IALA presented an overview of their objectives and how these objectives could be related to this project. The UKHO and the South African Maritime Safety Authority (SAMSA) presented an overview of their operations and capacity as it relates to this project.

The project team briefed the need for a complete survey of the proposed highway route that drew comments from the IHO, UKHO, SAMSA and the South African Navy Hydrographic Office, voicing more immediate needs to survey coastal areas fringing the route and potential ports of refuge. The IMO voiced its concern that the project management must more closely coordinate with the IMO and avail itself of the expertise and management experience resident within the IMO for these types of projects. The World Bank representative expressed optimism regarding the further development of this project and the taking into account the comments offered by the seminar participants.

**WORK PROGRAMME 3
TECHNIQUES AND STANDARDS SUPPORT**

CARTOGRAPHY AND HYDROGRAPHIC INFORMATION SERVICES

CHRIS AND ITS SUBCOMMITTEES

**16th MEETING OF THE IHO COMMITTEE ON HYDROGRAPHIC
REQUIREMENTS FOR INFORMATION SYSTEMS (CHRIS)**

Ottawa, Canada, 28-31 May 2004

| | |
|--------------------------|---|
| Chairperson: | Mr. O. BERG (Denmark) |
| Vice-Chairperson: | Capt. R. WARD (Australia) |
| Secretary: | Ing. en chef M. HUET (IHB) |
| Members: | Australia, Brazil, Canada, Chile, China, Cuba, Denmark (FRV & KMS), Ecuador, Estonia, Finland, France, Germany, Greece, India, Indonesia, Italy, Japan, Korea (Rep. of), Mexico, Netherlands, New Zealand, Norway, Portugal, Russian Federation, Singapore, South Africa, Spain, Sweden, United Kingdom, USA (NIMA & NOS), IHB. |
| Observers: | CIRM, DGIWG, GEBCO, IC-ENC, IEC, OEF, IMO, IOC, ISO, Primar-Stavanger, RTCM. |



Under the Chairmanship of Mr. Ole BERG of Denmark, the 16th CHRIS Meeting convened in Ottawa, Canada, on 28-31 May, at the conclusion of the Canadian Hydrographic Conference. The Agenda provided the IHB, RENCs and subsidiary bodies of CHRIS the opportunity to report on their accomplishments, discuss their future plans and exchange views on the status of electronic charting. Of particular importance was the agreement amongst CHRIS membership to the ENC Consistency Study and its ENC coding recommendations.

These recommendations would be submitted to IHO Member States for approval and subsequent posting on the "Use of the Object Code" section of the IHO Website. The adoption of these coding practices by all ENC producers would significantly enhance the seamlessness and user-friendliness of ECDIS.

This meeting marked the first time that the Chart Standardization & Paper Chart Working Group (formerly the Chart Standardization Committee) fell under the auspices of CHRIS. The numerous discussions on the difficulty of S-57 Edition 3.1 in accommodating new symbols under consideration for paper charts demonstrated the importance of this relationship, if we wish to maintain some degree of similarity between paper chart and electronic chart symbols.

A significant aspect of the meeting dealt with the continuing evolution of S-52 and S-57. An *ad hoc* working group convened to fully scope the actions necessary to harmonize and link the Hydrographic Dictionary (S-32) with the Glossary of ECDIS related terms (S-52, Appendix 3). A recommendation was made to simplify IHO publication S-52 and focus it on ECDIS display aspects, by removing operational elements after this information is hosted by the IHO Hydrographic Dictionary and the IMO Performance Standards for ECDIS. The latest status report of S-57 Edition 4 was provided and the related migration to ISO standards. It was agreed that an S-57 Edition 4.0 Information Paper would be prepared in order to inform all potential users of S-57 of the direction that Edition 4.0 will take and the implications for producers and users of ENC's.

A presentation by the U.S. Army Corps of Engineers provided a status on the development of Inland ECDIS standards and highlighted the need to maintain familiarity with these developments. The Colours and Symbols Maintenance Working Group announced the latest edition of the Presentation Library and highlighted the future difficulties. The expertise, time and funds to maintain this effort was becoming increasingly difficult to obtain from Member States' Hydrographic Offices and a new approach to the maintenance of the Presentation Library and response to users' questions had to be investigated.

CHRIS has always acknowledged the importance of industry in the successful accomplishment of its work program. This is reflected in its TOR/ROP which are comparatively liberal in allowing observers to participate in its workings. The meeting welcomed the intent of the CIRM letter requesting formal observer status and of the work of the SPWG in codifying observer accreditation of the Organization. To ensure an effective exchange of views between CHRIS and those activities interested in its deliberations, the CHRIS members agreed to devote one session of its next meeting to the forum previously termed "Industry Days."

Mr O. BERG resigned as CHRIS Chairman on 31 December. The new elected Chairman is Capt R. WARD (Australia), who previously was Vice-Chairman. The new elected CHRIS Vice-Chairman is Mr P. OEI (Singapore).

3rd MEETING OF THE CHRIS STANDARDIZATION OF NAUTICAL PUBLICATIONS WORKING GROUP (SNPWG)

Silver Spring, Maryland, USA, 7-9 June 2004

| | |
|-----------------------------|---|
| Chairperson: | Mr. J. MELLES (Germany) |
| Vice Chairperson: | Mr. R.G. WHITE (USA(NIMA)) |
| IHO Members: | Argentina, Cuba, Denmark, Estonia, France, Germany, Greece, Italy, India, Italy, Japan, Korea (Rep. of), Russian Federation, Spain, Sweden, Tunisia, UK, USA (NIMA & NOS), IHB. |
| Expert Contributors: | Maptech, C-Map, Nippon Sogo Systems. |

The third SNPWG meeting took place at the offices of the National Oceanic and Atmospheric Administration (NOAA) during the second week of June. The meeting, which was chaired by Mr. Johannes MELLES (BSH), was attended by 23 delegates representing six Member States (Denmark, France, Germany, Portugal, UK, and the USA), and two industry members (Nippon Sogo Systems, and IIC). Tony PHARAOH represented the IHB.



Mr. Barrie GREENSLADE (UKHO) provided a presentation on the work that was being carried out under the TSMAD Working Group. He also provided an overview of the ISO/TC211 standards with particular emphasis on those standards that may be relevant to the future development the activities of the SNPWG. Mr. David ACLAND (UKHO) provided a presentation on the Universal Modelling Language (UML) and demonstrated how it could be used to develop conceptual models of Nautical Publications data. In addition to national reports provided by Denmark, France, Portugal, UK, and

USA, a presentation was also provided by IIC on their prototype nautical publications development efforts.

It was concluded that the continued work of defining a format for integrating nautical publications information into ECDIS would need close liaison with the TSMAD Working Group.

CHRIS IHO DATA PROTECTION SCHEME WORKING GROUP (DPSWG) MEETING

IHB, Monaco, 22-23 June 2004.

Chairperson: Mr. R. SANDVIK (Norway)
Vice Chairperson: *Vacant*
IHO Members: Canada, France, Germany, Norway, UK, IHB.
Expert Contributors: IIC, Japan Radio, Kelvin Hughes, SevenCs.



The meeting was attended by members from Primar-Stavanger, the UKHO, the IHB, SevenCs, SAM Electronics and Transas. Two important tasks carried out during the meeting included a review of the feedback received by users of the S-63 standard and supporting documents, and feedback from OEMs (Original Equipment

Manufacturers) on the Guidance Notes questionnaire. The meeting also reviewed the existing OEM agreement documents and proposed a number of improvements. It was also decided that a new version of the Test Data Implementation Guide would need to be produced.

**1st MEETING OF THE CHRIS CHART STANDARDIZATION AND
PAPER CHARTS WORKING GROUP (CSPWG)**

Monaco, 3-5 November 2004

Chairperson: Mr. P. JONES (UK)
Vice-Chairperson: Mr. J. MAKINEN (Finland)
Secretary: Mr. A. COLEMAN (UK)
Members: Australia, Brazil, Canada, Chile, Colombia, Croatia, Cuba, Denmark, Finland, France, Germany, Greece, India, Indonesia, Italy, Japan, Netherlands, New Zealand, Russian Federation, South Africa, Spain, Ukraine, United Kingdom, USA (NIMA & NOS).
Contacts: IHB, CHRIS Chair, C&SMWG Chair, SNPWG Chair, TSMAD Chair.



The first CSPWG meeting took place at the IHB from the 3-5 November. CSPCWG has replaced the former Chart Standardization Committee (CSC) and is under the authority of the CHRIS committee. Sixteen IHO representatives from Australia, Denmark, Finland, Germany, Japan, Netherlands, Norway, South Africa, Spain, United Kingdom, USA and the IHB were in attendance. The meeting was chaired by Mr. P. JONES (UK). Attendees were welcomed by RAdm. K. BARBOR, IHB Director, who recalled that development and maintenance of the IHO Chart Specifications, the main duty of CSPCWG, is a fundamental task of the IHO. The main outcomes of the meeting were as follows:

A new format for the presentation of IHO publication M-4 “IHO Chart Specifications”, more user-friendly was agreed. Revised sections B-100 and B-200 of M-4 would be circulated to IHO Member States in this new format. It was reported that “InDesign”, a software tool for desktop publishing was used at the CSPCWG Secretariat (UKHO) for the maintenance of M-4.

Revised Terms of Reference for CSPCWG were agreed and would be submitted to the CHRIS committee for adoption.

For the sake of convenience, it was agreed that the limit between small and medium scales would be 1: 2.000.000 and that between medium and large scales it will be 1: 75 000.

Comments expressed by Australia and Indonesia on draft specifications for the depiction on charts of archipelagic sea lanes (ASL) were reviewed and a revised wording was agreed.

Issues relating to hierarchies of charted area limits, multi-feature lines, magenta tint bands, use of standard colours for printing, e.g. CMYK, and depiction of fairways and VTS/reporting areas were discussed. Further progress would be made by correspondence.

It was reported that new editions of INT1 (English version), INT2 and INT3 were under preparation and should be published in 2005 by Germany, the Netherlands and UK respectively on behalf of IHO. Regarding INT1, it was stressed that care should be taken to ensure that the three language versions, i.e. English, French and Spanish, were consistent.

Obsolete terms and sections in M-4 and INT1, e.g. specifications for latticed charts, would be proposed to the IHO MS for deletion. Also, a brief guidance on the maintenance of charts and on the criteria for selection of data justifying Notices to Mariners action would be included in M-4.

As a result of the meeting's decisions, the CSPCWG work plan was reviewed and updated. It would be submitted to CHRIS for adoption.

During the year, a number of items were progressed by correspondence, including:

- New and revised specifications for Particularly Sensitive Sea Areas (PSSA), Archipelagic Sea Lanes (ASL), Areas To Be Avoided, No Anchoring Areas, Entry Prohibited, and Wind and Underwater Turbines.
- Revision of Sections B-100 and B-200 of M-4, and of Part A of M-11 "*Guidance for the Preparation and Maintenance of International Chart Schemes*", was progressed by correspondence.

CHRIS DATA QUALITY WORKING GROUP (DQWG)

Chairperson: Mr. O. BERG (Denmark)
Members: Australia, Canada, France, Germany, Japan, USA (NIMA & NOS).

DQWG activities have been in abeyance all the year. The CHRIS Chairperson has assumed the responsibilities for this group.

IMO-IHO HARMONIZATION GROUP ON ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEMS (ECDIS) - (HGE)

Chairperson: Mr. O. BERG (Denmark)
Members: **IHO:** Canada, Denmark, France, Germany, Norway, UK, USA, IHB.
IMO: Canada, Germany, Japan, Norway, Russian Federation, UK, USA, IMO Secretariat.
Others: CIRM, IAIN, IGS, IMSO

No meetings were held during the year. No subjects were brought to the attention of the Group.

IHO-IEC HARMONIZATION GROUP ON MARINE INFORMATION OBJECTS (HGMIO)

Chairperson: Dr. L. ALEXANDER (Univ. of NH, USA)
Members: **IHO:** Canada, Estonia, Italy, Japan, Norway, UK, USA (NIMA and Navy), IHB.
IEC: Caris (Canada), Navintra/Furuno (Finland), SevenCs (Germany), C-Map (Italy), Chartworx (Netherlands), Transas (Russia), Maptech (USA), USCG.

No meetings were held during the year. Progress was made by correspondence on various MIO categories, e.g.:

- Ice coverage - Contact was established with the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) Expert Team on Sea Ice (ETSI). ETSI has agreed, in principle, to take responsibility for the ECDIS Ice Objects Catalogue / Registry.
- Meteorological - Liaison was established with a NATO group developing an Additional Military Layer (AML) on weather information with the aim to harmonize NATO and HGMIO developments, and the hope that this group and HGMIO can cooperate to develop appropriate S-57 objects/attributes and symbology for the display of weather information on ECDIS / WECDIS. Contact was also made with the WMO in May when a WMO working group met during Ocean OPS 04, Toulouse, France.
- Aids to Navigation – IALA has been working on setting up an Aids to Navigation Information Service (ANIS) to provide real-time information to ships on the status of Aids to Navigation (AtoN) that are critical for the safety of navigation and the protection of the environment. Consideration has been given to having this information provided as an MIO.

In December, a document was prepared by M. Huet (IHB) and L. Alexander (Chair, HGMIO) that describes the *“Recommended Procedures for the Development of MIOs” (Edition 1.0)*. The production of this document was initiated by communications between IALA and IHO regarding the necessary steps or procedures that were required to develop and implement MIOs.

**CHRIS TRANSFER STANDARD MAINTENANCE AND APPLICATION
DEVELOPMENT WORKING GROUP (TSMAD 11)
AND S-57 EXTENSIONS SUB-WORKING GROUP MEETINGS
IHB, Monaco, 11-12 and 8-10 November 2004 respectively.**

| | |
|-----------------------------|---|
| Chairperson: | Dr. C.R. DRINKWATER (UK), till 3rd October 2003. Mr. M. BROWN (USA/NOAA), from 3rd October 2003 |
| Vice-Chairperson: | Mr. D. VACHON (Canada) |
| Secretary: | Mr. A. PHARAOH (IHB) |
| Members: | Australia, Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Italy, Japan, Netherlands, Norway, New Zealand, Singapore, South Africa, Sweden, UK, USA (NOS and USCG), IHB, IC-ENC, Primar Stavanger. |
| Expert Contributors: | C-Map, HydroService, IDON Technologies, Seven Cs, Universal Systems Ltd. |

TSMAD Meetings



The 6th TSMAD S-57 Extensions Sub-Working Group Meeting dealing with the development of the next edition of the S-57 standard took place between the 29th of March and the 2nd of April (Silver Spring, Maryland, USA), under the new chairmanship of Mr Barrie Greenslade. During this meeting, significant progress

was made on finalising the structure and format of the IHO Registry. In addition to work carried out on several work items, a draft version of the Imagery Gridded and Coverage Data component for S-57 Edition 4 was presented and discussed. A presentation on the Geography Markup Language (GML) which has been adopted as an ISO/TC211 standard was also provided by a consultant from a Canadian company (Galdos).

The 11th TSMAD and 7th S-57 Extensions Sub-Working Group meetings took place at the IHB, on the 11th and 12th of November and the 8th to the 10th of November 2004, respectively. Twenty-seven delegates, representing 12 Member States and 5 industry/stakeholder organizations, participated in these meetings. The meeting focused on metadata, the IHO registry, and a number of proposed extensions for inclusion in the next edition of the standard. The S-57 Extension sub-WG also developed an information paper concerning what may be expected in the new edition 4.0. This information paper was made available on the IHO main web page at <http://www.iho.shom.fr>.

SEMINAR ON PUBLISHING OF ENCS IN THE SOUTH CHINA SEA FOR INTERNATIONAL NAVIGATION

Tokyo, Japan, 4-5 March 2004

The South China Sea is a critical crossroads of international trade and a complex area, both as it relates to navigation and responsibilities for charting. Realizing this, the Hydrographic and Oceanographic Department, Japan Coast Guard took advantage of the presence of numerous National Hydrographers and key policy and technical experts in hydrography, assembled for the 5th Strategic Planning Working Group (SPWG) and the 8th Worldwide Electronic Navigational Chart Database (WEND) Committee meetings, to discuss the current status of ENC production and methods of stimulating this production to achieve full and uniform ENC coverage, available to the mariner.

Eight countries were represented at this seminar: China, Philippines, Indonesia, Japan, Malaysia, Republic of Korea, Singapore and Thailand. Each country gave an in-depth status report of their ENC production capabilities, their current ENC portfolio and future plans for ENC production. The IHB provided a transnational view of ENC production with special attention on coverage in the South China Sea, and the need to develop solutions that address consistency in ENC content between countries, a user-friendly distribution method to ensure ENCs are readily available to the mariner.

The exchange of information was exceptionally beneficial to all participants and the potential way ahead in the production of ENCs, especially at small scales, was thought-provoking. The Seminar was graciously sponsored by the Ship and Ocean Foundation.

S-63 X WORKSHOP

Hamburg, Germany, 18-19 March 2004

On the 18th and 19th of March 2004, the IHB attended a meeting between eight competing organizations representing ENC manufacturers and data providers. The aim of the meeting, was to discuss, common ways to improve the delivery of ENCs, from an industry perspective. The IHB also hosted a follow up meeting which took place between the 26th and 27th of October. Further information concerning this initiative is available from <http://www.s63x.org>.

SECOND MEETING OF THE “S63X” WORKING GROUP

26-27 October 2004, IHB, Monaco.



With a view to providing additional flexibility to Data Servers and Original Equipment Manufacturers (OEMs) for improving ENC services, a group of stakeholders has undertaken to develop an auxiliary *industry* specification that they have called "S63x". Their intention is to produce an additional layer of specifications to S-63 and S-57 so as to make the distribution and handling of ENCs more user-friendly.

The 2nd meeting of the “S63x” WG was hosted by the IHB on 26-27

October 2004, as announced in IHO Circular Letter 57/2004. The meeting was chaired by Mr. Gert B. BÜTTGENBACH (SevenCs, Germany) and attended by representatives from Transas (Russia), Chartworld (Germany), Marine Press Canada, IC-ENC, Primar-Stavanger, the Norwegian Hydrographic Service, the UKHO and the IHB. The meeting focused on the review of S63x to complete Version 1.0 of the industry standard. Three levels of implementation were specified and an implementation plan was presented by the Chairman for further comment by the OEMs. SevenCs and ChartWorld announced their intention to implement Version 1.0 level 1 until the end of 2005. The IHB and the Norwegian HO strongly urged changing the name of the industry standard to remove any ambiguity as regards responsibilities. The Chairman deferred such an amendment to allow time for further consultation with industry members. The implications of the latest agreement between IC-ENC and Primar-Stavanger were explained by Graham SAUNDERCOCK, IC-ENC, and Robert SANDVIK, Chairman of the IHO DPS (S-63) Working Group. George ARTS, Marine Press Canada, asked Primar-Stavanger to extend its cooperation with IC-ENC beyond 2007 should the OEMs have difficulties upgrading ECDIS to handle the current problems concerning conflicting permits.

Additional details on Version 1.0 of S63x can be found on www.s63x.org.

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**8th MEETING OF THE IHO WORLDWIDE ELECTRONIC NAVIGATIONAL CHART
DATA BASE COMMITTEE (WEND)**

Tokyo, Japan, 5-6 March 2004.

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| Chairperson: | Rear Admiral K.R. SRINIVASAN (India) |
| Vice-Chairperson: | Capt. B. KAUFER (Australia) |
| Secretary: | Ing. en chef M. HUET (IHB) |
| Members: | Argentina, Australia, Brazil, Canada, Chile, China, Cuba, Denmark, Finland, France, Germany, Greece, India, Indonesia, Italy, Japan, Korea (Rep. of), Malaysia, Mexico, Netherlands, New Zealand, Norway, Oman, Peru, Philippines, Portugal, Russian Federation, Singapore, South Africa, Spain, Sweden, Thailand, Ukraine, United Kingdom, USA (NIMA & NOAA), Venezuela, IHB. |
| Observers: | Primar-Stavanger, IC-ENC, OEF, IOC. |



The 8th WEND Committee Meeting was hosted by the Hydrographic & Oceanographic Department of the Japan Coast Guard in Tokyo, on 5-6 March 2004. Over sixty representatives of 27 Member States and, for the first time, Observers from non-governmental organizations and professional associations attended the meeting.

The meeting dealt with several substantial issues: offering clarification on two items in the WEND Principles, proposing changes to the WEND Rules of Procedure, discussing

whether ECDIS operating in RCDS mode should meet IMO chart carriage requirements and reviewing the actions and recommendations of the WEND Task Group. The Reports from Member States and Regional Hydrographic Commissions reflected that progress continues in the production of ENC's but resources, be it manpower, funding or equipment, remained a limiting factor in achieving ENC coverage.

As noted above, Observers were admitted to the proceedings for the first time. The Committee noted that the WEND Terms of Reference (TORs) and Rules of Procedures (ROPs) did not provide for the attendance of observers while the CHRIS TORs/ROPs did. With the recent additions to the WEND Principles to include user-friendliness and other customer oriented perspectives, the attendance of industry organizations – especially the shipping industries – seemed appropriate. The SPWG has formulated criteria whereby Non-governmental International Organizations (NGIO) could apply for accreditation as Observers to the IHO. As an interim process, the Committee decided to circulate for approval a change to the WEND ROPs that would mirror the CHRIS ROPs regarding observers.

The WEND Task Group reported on its activity over the last nine months. The Task Group reported that the main problems preventing increased use of ECDIS were:

- Insufficient coverage;
- Diversity in quality between HOs and
- Diversity in services between ENC providers.

What needs to be addressed immediately were:

- Completion of small scale ENC coverage;
- Prioritized ENC production programs for large scale coverage;
- Expanded ENC validation and distribution and
- Training and assistance in ENC production and maintenance.

The Task Group then discussed the clarification of the term “Integrated Services”, the need for an IHO World ENC Catalogue, a regional view of where assistance was needed and where it was available, the role of the RENCs and “strawman” proposals for small scale ENC production responsibilities.

A submission to the IMO from the Australian Maritime Safety Administration proposing that ECDIS operating in the RCDS mode, when no ENC are available, meet the chart carriage requirements without accompanying paper charts was actively debated. Concerns over safety and effects on ENC production and the benefits of an accelerated increase in the use of ECDIS were raised. It was noted that Norway intended to submit a proposal to IMO offering an alternative approach to increasing ECDIS use. The Committee tasked the IHB to attempt to develop an IHO position in advance of discussion before IMO by circulating both the Australian and Norwegian proposals and requesting Member States comments.

The meeting adjourned with a tentative schedule for the 9th WEND meeting to be held before or after the Extraordinary International Hydrographic Conference, 11-15 April 2005, in Monaco.

WEND TASK GROUP

Hamburg, Germany, 8-9 December 2004.

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|-------------------|--|
| Chairperson: | Mr. Horst HECHT (Germany) |
| Vice-Chairperson: | Vacant |
| Secretary: | Mr. Peter WRIGHT (United Kingdom) |
| Members: | IC-ENC, Primar-Stavanger, MBS vRENC, IHB |

The 4th meeting of the WEND Task Group was held at the BSH, Hamburg, Germany, on 8-9 December. The meeting was chaired by Mr H. HECHT and attended by representatives from IC-ENC, Primar-Stavanger and IHB. Progress was noted in the implementation by the Regional Hydrographic Commissions of the TG’s proposals for the production of small-scale ENCs.

The EAHC held an ENC seminar in August at which plans were agreed for the production of ENCs in the South China Sea, although data production rights and arrangements for the distribution of ENCs still needed to be resolved. The UK, as Chair of NIOHC, had developed a scheme for the production of ENCs in usage bands 1 to 5 for this area. Australia had produced an alternative plan for the production of ENCs in usage bands 1 and 2 in the SWPHC area. Regarding the SAIHC, it was reported that there was the potential for ENCs to be produced of the Mozambique Channel and surrounding area as part of the WB/GEF funded West Indian Ocean Marine Highway Project. Also, the Commission members had agreed a scheme for small scale ENCs production in this area.

The NSHC had agreed that UK should liaise with Norway over the production of small scale ENCs in the North Atlantic. Regarding the MBSHC, copyright issues still needed to be resolved with the MedChartNet Project. It was believed that the contractor had pushed the responsibility for this back onto the MS. There was also concern that the project had not given sufficient consideration to the need to maintain consistency between the contents of ENCs and paper charts. This especially affected countries that would be given the capability to produce ENCs, but who relied on other countries for the production of paper charts on their waters.

The MACHC established a working group to consider options for establishing a RENC within the region. Advice would be provided by IC-ENC and Primar-Stavanger. Also, a scheme for small scale

ENC production was discussed during the MACHC conference in August. As for the SEPHC and SW Atlantic, Chile, Argentina and Uruguay had indicated that they wanted to distribute their ENCs through a RENC and were considering their options. Regarding the USCHC, some concern was expressed about the ability of the US to guarantee the integrity of ENCs distributed on the Internet.

The Secretary reported on the principal conclusions and recommendations of the so-called “Hailwood Consultancy”. It was agreed that several of the recommendations were outside the scope of the Task Group, which should concentrate on improving the coverage, quality and distribution of ENCs. In particular it was noted that data error messages that occurred in ECDIS were undermining user confidence in ENCs. The meeting reviewed and updated the WEND Principles, and agreed a draft definition for the purpose of WEND. This would be considered at the 9th WEND meeting.

INDUSTRY DAYS

The Industry Days meeting was postponed till 2005.

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| PUBLICATIONS |
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S-52 Ap.2 + Pres. Lib

Edition 4.2 of IHO Publication S-52 Appendix 2 “Colours and Symbols Specifications for ECDIS” and Edition 3.3 of its Annex A “IHO Presentation Library for ECDIS (PresLib)” were released in March. The new PresLib includes a 3-table colour scheme; Chart 1 and symbol diagrams; a paper based description of the ECDIS symbols; and a digital PresLib (.dai file). PresLib e3.3 is distributed on CD-ROM only.

S-62 ENC Producer Codes

Edition 2.0 was produced and posted on the IHO website in December.

S-65 Guidance for the Production of ENCs

As a follow-on action of the 8th WEND meeting, an ENC Production “Cookbook” was developed through UKHO-IHB cooperation. MS agreed to make this document a new IHO publication S-65, with title “Guidance for the production of ENCs”. A draft Edition 1.0 of S-65 was posted on the IHO website in December.

S-63 IHO Data Protection Scheme

French and Spanish versions of S-63 Ed.1.0 were published in July.

INTERNATIONAL CHARTS

Small Scale Series (1:2 million and smaller)

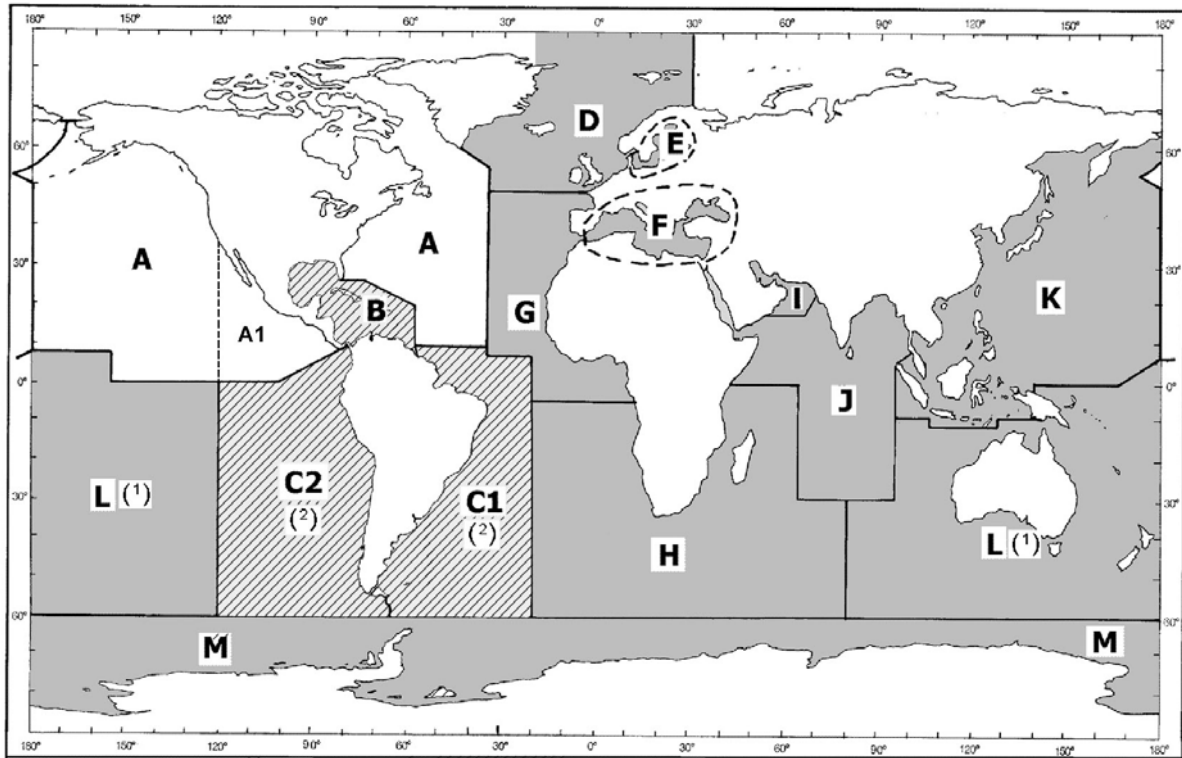
The status of these charts at the year's end was:

| | |
|---|----|
| - INT charts projected | 98 |
| - INT charts published | 89 |
| - INT charts reprinted by other IHO Member States | 84 |
| - Number of IHO producer nations | 17 |
| - Number of IHO printer nations | 14 |

Medium and Large Scale Series (larger than 1:2 million)

- i) The production of INT charts at medium and large scales by Member States' Hydrographic Offices has continued, in accordance with the schemes prepared by IHO Regional Charting Groups or Committees.
- ii) INT chart schemes have been adopted in the Regions D (Coord: Netherlands), E (Coord: Germany), F and G (Coord: France), H (Coord: South Africa), I (Coord: Iran), J (Coord: India), K (Coord: Japan), L (Coord: Australia; medium scales only), and M (Antarctica - Coord: IHB).
- iii) INT chart schemes for Region B (Coord: Mexico), C1 (Coord: Brazil), and C2 (Coord: Chile) are in various states of preparation or completion.
- iv) No progress was reported on the preparation of an INT chart scheme for Region A (Coord: USA(NOAA)).

IHO INTERNATIONAL CHARTING REGIONS
Status of Regional INT Chart Schemes for Medium and Large Scales



(1) Medium scales only

(2) Some reservations still to be resolved

■ INT Chart Scheme agreed

▨ INT Chart Scheme in preparation

v) The status of the medium and large scale INT chart series at the end of 2004 was:

| Area | (1) | (2) | (3) | (4) | (5) |
|------------------------------|--------------|--------------------|-------------|------------|------------|
| A (NW Atl. & NE Pac. Oceans) | USA/NOS | US/CHC | NS | 4 | 4 |
| B (Caribbean Sea) | Mexico | MACHC | 56 | 1 | 0 |
| C1 (SW Atl. Ocean) | Brazil | Reg. Chart. Group | 57 | 7 | 0 |
| C2 (SE Pac. Ocean) | Chile | SEPHC | 42 | 4 | 0 |
| D (North Sea) | Netherlands | NSHC & NHC | 200 | 184 | 141 |
| E (Baltic Sea) | Germany | BSICC/BSHC | 225 | 140 | 44 |
| F (Med. & Black Seas) | France | MEDINCHART/MBSHC | 216 | 137 | 85 |
| G (East Atl. Ocean) | France | CHATINTCHART/EAtHC | 158 | 81 | 59 |
| H (SE Atl. & SW Ind. Oceans) | South Africa | SAIHC | 102 | 57 | 36 |
| I (NW Ind. Ocean) | Iran | RSAHC | 106 | 20 | 7 |
| J (North Ind. Ocean) | India | NIOHC | 131 | 63 | 1 |
| K (E. Asia & NW Pac. Ocean) | Japan | EAHC | 283 | 73 | 16 |
| L (SE Ind. & SW Pac. Oceans) | Australia | SWPHC | 41 | 33 | 18 |
| M (Southern Ocean) | IHB | HCA | 81 | 36 | 4 |
| TOTAL | | | 1698 | 840 | 415 |

(1) Coordinator

(2) Commission/Committee/Group

(3) Projected, NS = Not Stated

(4) Published

(5) Reprinted by other MS

The total number of medium and large scale INT charts published has increased from 697 in end 2003 to 840 (more than 20 %). Of particular note are the significant progresses observed in Regions E (+ 57 %), G (+ 45 %), I (from 0 to 20 charts), L (+ 44 %) and M (+125 %).

Information supplied by the IHB on Bathymetry and Cartography

The Bureau responded to a significant number of specific requests for information received from various organizations and individuals. Many of these requests originated from users of ECDIS/ENC-related IHO publications; others related to nautical charting or bathymetry in general, e.g. naming of seas. Some people visited the Chartroom to consult the collection of charts and nautical documents.

REGIONAL COORDINATION AND PUBLICATION OF REGIONAL ENC PRODUCTION

IC-ENC TEWG

3RD JOINT TECHNICAL EXPERT WORKING GROUP MEETING

Stavanger, Norway, 6-7th October 2004



The Meeting was hosted by the Norwegian Hydrographic Service (NHS) in Stavanger and chaired by Mr. Stig OSALAND, Primar-Stavanger (P-S). It was attended by 26 representatives from P-S, IC-ENC, Netherlands, Germany, Spain, Portugal, UK, Finland, Denmark, France, Poland, Latvia, Norway, Sweden, Transas and IHB.

The Department Director, Kjell BIRKEVOLD (NHS), welcomed the attendees and stated that the NHS was pleased to see that cooperation at the technical level between P-S and IC-ENC was a reality. He mentioned some areas of

cooperation, such as ENC consistency, ENC validation, errors database etc.

IC-ENC presented an overview of the 13 final recommendations for ENC Consistency, as forwarded to IHO Member States under cover of CL 47/2004. He particularly emphasized those recommendations relating to compilation scales, SCAMIN, usage bands (correlation of usage bands with compilation scales), M_CLSC, cell / international boundary inconsistencies, and CATZOC.

There followed national reports on progress and further plans for implementations by each HO. It resulted that most of these recommendations should be implemented within two years by IC-ENC and P-S cooperating HOs.

Regarding policies on monitoring implementations, both RENCs said they would make it easy for HOs to communicate, share experience in meetings and exchange ENCs. In order to improve communications, P-S would see how to open the P-S discussion forum to IC-ENC members to discuss technical issues, e.g. ENC consistency, error messages or border areas. P-S suggested that RENCs should not control HOs' work on ENC consistency.

Both RENCs gave presentations on updating their Error Databases. The DBs are similar in content and include a description of the error / warning, its effect and the correction which should be made. Both DBs can be accessed on line.

Both RENCs reported on testing of new versions of validation software. They agreed to exchange their test reports on testing on validation software tools, starting with the new version of dKart Inspector in October. They also gave presentations on their respective ENC validation processes.

P-S and IC-ENC agreed to produce Terms of Reference for the Joint Technical Expert Working Group (JTEWG), before the next meeting in 2005.

P-S Marketing Manager, Rune H. JOHNSEN reported that NHS had been appointed as Value Added Reseller (VAR) of IC-ENC, from June. He stressed that P-S was not involved in this agreement. He mentioned that selling prices of ENC cells would be of 24, 16 or 8 USD, depending on whether the ENC cell is large, medium or small size. He also made a presentation on the P-S Chart Catalogue.

Ole B. KVAMME, NHS Production Manager gave a presentation on the NHS Chart Production Line, referring to the MIDAS Project and its relation to the Norwegian National Spatial Data Infrastructure, and to the MINTEC Project. He stressed that the NHS' policy was to provide the best possible service to the customer, in a cost effective way, and he mentioned that the trend was for paper charts to be produced at NHS and ENC's to be produced by Industry, e.g. C-Map or IIC.

Knut GJERTSTAD, NHS Project Manager reported on an Enhanced Production project, since many Norwegian charts are still based on old surveys. He mentioned there was extra funding of 400 Million NOK for data collection in coastal waters, a programme to be completed by 2008. The carrying out of surveys, as well as chart production, were being largely externalised. Airborne laser would be used in the most exposed areas of shallow waters.

GEOMATICA 2004

Havana, Cuba, 10-14 May 2004.



From L. To R.: M. HUET (IHB), E. FERNÁNDEZ CÍVICO (Director of Geocuba), F. KLEPSVIK (Hydrographer of Norway), E. ALUM ORTIZ (Director of Cuban HO), K. BARBOR (IHB Director) and R. SANDVIK (Norway)

The 4th International Congress GEOMATICA 2004 took place on 10-14 May 2004 in Havana, Cuba, under the general theme “Geospatial Technology: Trends and Opportunities”, with the IHO as the co-sponsoring international organization. A number of workshops were held alongside the Congress, including an “IHO Workshop on ENC’s in the Americas” on 11 May, which was organized by the IHB in liaison with the Cuban HO [Oficina Nacional de Hidrografía y Geodesia (ONHG)].

The Workshop on ENC’s, chaired by Rear Admiral K. BARBOR, IHB Director, addressed all aspects of ENC production, distribution and use, with focus on America’s concerns. There were 26 participants, including delegates from Chile, Mexico, Panama, Venezuela and Cuba. The Hydrographer of Norway, Mr. F. KLEPSVIK, and Mr. P. WRIGHT, UKHO, gave presentations on the existing two RENCs. The views of the private sector were reflected in presentations made by HydroService, C-Map Norway and Transas. Current developments within the Electronic Chart WG of the Regional Hydrographic Commission (MACHC) were presented by Mr. D. FUENTES from Panama.

During the Workshop, the Cuban HO announced the formal kick-off of the Cuban ENC Series. Cdr. I. KAREL SOSA, Director of Nautical Cartography at ONGH, indicated that 70 ENC cells had already been completed, out of a total of 114 planned cells, and that it was anticipated that the Cuban ENC production programme would be completed by the end of 2004.

The Workshop’s recommendations to improve the production and availability of ENC’s in the region included assistance in ENC production through cooperation from more advanced HO’s and/or partnership with the private sector, and use of the existing RENCs competence for ENC distribution.

At the Geomatica 2004 Conference (12-14 May), RAdm BARBOR gave a Master Conference “State of the Art of Electronic Navigation Charts”, encompassing the regulatory aspects, the ECDIS concept, the relevant IHO standards, the WEND principles, the current status and problems (i.e. lack of ENC coverage, consistency and availability), the role of RHCs, MS and RENCs to overcome these problems etc.

RAdm BARBOR also chaired a round table on ENC’s, focused on regional issues, with the participation of the UKHO, the Norwegian HS, the Cuban HO and C-Map Norway.

Other subjects dealt with during Geomatica 2004 and of interest to hydrographers included sessions on Spatial Data Infrastructure (SDI) and on Maps and GIS on Internet.

The IHB was extremely pleased to note the growing importance given to the marine side of geomatics in the Geomatica conferences. Further, Geocuba and the Cuban HO were commended for the excellent organisation and thanked for their valuable assistance in setting up the IHO Workshop on ENC’s.

During Geomatica 2004, RAdm BARBOR had the opportunity to pay a courtesy visit to the Deputy Head of the Cuban Navy, RAdm J. ROSELLO PÉREZ, and to the Directors of Geocuba and ONGH, Mr. E. FERNÁNDEZ CÍVICO and Coronel E. ALUM ORTIZ, respectively.

HYDROGRAPHIC SURVEYING

IHO HYDROGRAPHIC DICTIONARY (S-32) WORKING GROUP (HDWG)

Chairperson and Secretary: Lt. Cdr. Steve SHIPMAN (IHB)

No meeting of this Working Group took place in 2004.

The electronic version of S-32 (5th Edition) was placed on the Web in February and can be accessed via the IHO website. There are still some shortcomings in the software and ways to improve this are under investigation.

**STATUS OF HYDROGRAPHIC SURVEYING AND NAUTICAL CHARTING
WORLDWIDE (S-55 3RD EDITION)**

The 3rd Edition of S-55 was published on the IHO website on 30 June. Regular updates have been made as Member States have provided further information. S-55 now covers the waters of 80% of the coastal states of the world. Further updates will be made on a monthly basis should new information be received.

THE MANUAL OF HYDROGRAPHY WORKING GROUP (MOHWG)

BHI, Monaco, 1-3 March 2004

Chairperson : Captain Hugo GORZIGLIA
Vice Chairperson: Lt Cdr David WYATT
Secretary: Lt. Cdr. Steve SHIPMAN



The 2nd Meeting of the Manual on Hydrography Working Group was held at the IHB in Monaco, from Monday 1st to Wednesday 3rd March 2004. Thirteen members of the WG, representing: Argentina, Australia, Germany, Italy, Japan, Pakistan, Portugal, the United Kingdom, the United States of America, Venezuela and the IHB, attended the meeting.

A detailed review of the drafts prepared for Chapters 1 – 6 was undertaken. The final day was devoted to Chapter 7, as much of this Chapter could not be written until the first 6 Chapters had been agreed. This was a very productive

meeting with a clear way ahead agreed. It is expected that the final English text of the Manual on Hydrography will be available in early 2005. It is intended to produce a digital Manual with extensive hyper linking to other references. It will also be possible to print a hard copy for reference, when required.

**S-51: A MANUAL ON TECHNICAL ASPECTS OF THE UNITED NATIONS
CONVENTIONS ON THE LAW OF THE SEA (TALOS)**

IHB, Monaco, 29-30 March 2004

The Editorial Board working on the 4th Edition of TALOS held their second meeting at the IHB on 29-30 March 2004. Following discussions, some minor changes were made to the draft structure agreed at the first meeting. A review of the sections worked on since the first meeting was made and the assignment of tasks required to complete the book was made. A tight schedule has been drawn up requiring individual sections to be completed by the end of May with the Editorial Board reviewing them by the end of June. The completed draft will then be collated for wider dissemination and review by the Advisory Board on Law of the Sea (ABLOS) at its October meeting. It is planned to publish the

English text in early 2005 with French and Spanish versions following as soon as translation can be completed.

On 18 October took place a meeting of the TALOS editorial committee at Geoscience Australia, in conjunction with the ABLOS meeting. Progress on the preparation of the 4th TALOS manual was as follows:

- Most of the text has been completed by the individual authors and the files will be distributed to the various chapter editors for final editing.
- New figures need to be drawn. There is a chance that funding can be obtained to prepare the final figures in a professional manner.
- The glossary, bibliography and table of contents still need to be prepared/completed.
- It was decided not to prepare a chapter on “digital methodologies”.
- It is hoped that the final draft will be ready in early 2005.
- It is suggested that the TALOS committee remain standing, so that the revision of the TALOS manual becomes an ongoing responsibility of ABLOS.

**FIG/IHO/ICA INTERNATIONAL ADVISORY BOARD
OF STANDARDS OF COMPETENCE FOR HYDROGRAPHIC SURVEYORS
AND NAUTICAL CARTOGRAPHERS**

Johor Bahru, Malaysia, 4-9 May 2004

| | |
|--------------------------|---|
| Chairperson: | Mr. Svante ASTERMO (Sweden) |
| Vice-Chairperson: | |
| Secretary | Capt. A. Armstrong (USA). |
| Members: | Capt. Federico BERMEJO (IHB) Mr. R. FURNESS (Australia), Dr. D. WELLS (Canada), Ms. T. TUURNALA (Finland), Prof. Dr. D. EGGE (Germany), Dr. L. TSOULOS (Greece), Dr. L. SURACE (Italy), Cdre. R.B. JAYARAMAN (India), Dr. M. RAZALI (Malaysia), Mr. G. JOHNSTON (UK) |

The XXVIIth Meeting of the FIG/IHO/ICA Advisory Board was held in Johor Bahru, Malaysia, from 4 to 9 May 2004.

The Board reviewed 3 Courses submitted against the Standards for Hydrographic Surveyors, from Peru, Bangladesh and Portugal and 2 against the Standards for Nautical Cartographers, from IMA (Trieste) and Dalian University (China).

Recognition was given as follows:

Peru - Recognition at Category B;
Portugal - Recognition at Category B;
Dalian University (China) – Recognition at Category A.

The Board also reviewed the 9th edition of the Standards of Competence for Hydrographic Surveyors.

A new Chairman and Vice-Chairman, Capt. Andy ARMSTRONG (USA) and Mr. Gordon JOHNSTON (UK) were elected for a 3-year term.

A complete report of the meeting can be found in our website:

www.iho.shom.fr/COMMITTEES/AB/REPORT_XXVII_meeting.pdf

TIDAL COMMITTEE

Lisbon, Portugal, 11-13 October 2004

Chairperson: Commander John PAGE
Vice-Chairperson:
Secretary: Lt. Cdr. Steve SHIPMAN (IHB)



The VIth Tidal Committee Meeting was hosted by the 'Instituto Hidrográfico' of the Portuguese Navy and was held at the Naval Officers' Club in Lisbon, from 11 to 13 October 2004. The meeting was attended by representatives from: Canada, Chile, Denmark, France, Japan, Norway, Portugal, South Africa, Spain, the United Kingdom, the United States of America and the IHB. An observer from SevenCs in Germany and two observers from the Portuguese Geographic Institute also attended. Apologies for absence were received from Australia, China and Germany.

The meeting included substantial discussions on vertical reference frames / surfaces, vertical datum management and migration strategy. IHO technical resolutions involving tidal matters were reviewed and a revised wording to TRs A2.5 on Datums and Benchmarks and G2.1 Translation of Headings were agreed and prepared for submission to Member States for adoption. At the same time as reviewing the relevant technical resolutions from M-3, the Committee reviewed those aspects of 'Specifications for Paper Charts' (M-4) that were relevant to tidal matters to ensure that there were no 'inconsistencies' between the two publications. The Committee agreed on some proposals to be sent to the Chart Standardization and Paper Chart Working Group (CSPCWG) for consideration. The Committee reviewed its TOR following the comments received from Member States after the Vth Tidal Committee meeting and adopted a revised format following that used by CHRIS and WEND. These revised TOR will be circulated to Member States for approval.

PUBLICATIONS

M-5: STANDARDS OF COMPETENCE FOR HYDROGRAPHIC SURVEYORS

The FIG/IHO/ICA Advisory Board on Standards of Competence continued the reviewing of the text of this publication and during its 27th meeting made several amendments that will be taken into consideration in the preparation of the 10th edition of the Standards, likely in 2005.

M-6: LIST OF TEXTS AND JOURNALS FOR TRAINING IN HYDROGRAPHY

The Advisory Board decided at its 27th meeting to maintain this publication in activity and agreed that all members will keep it updated sending proposals for new entries or deletions to the Secretary.

THE INTERNATIONAL CARTOGRAPHIC ASSOCIATION (ICA)

ICA SPATIAL DATA STANDARDS COMMISSION MEETING

Havana, Cuba, 7-9 May.



*ICA, Commission on Spatial Data Standards
Monaco, 5 - 9 July 2004*

The ICA Spatial Data Standards Commission met in La Havana, Cuba on 7-9 May, under the general theme “Modelling Spatial Data Infrastructures (SDI)”. The meeting was chaired by Prof. M. KONECNY (Czech Rep.), ICA President. Ing. en chef M. HUET attended for the IHB. Presentations were given on SDI initiatives worldwide, e.g. Digital Earth and GSDI, at regional level, e.g. INSPIRE (Europe) and PC IDEA (Latin America), and at national level (SDI of Cuba – IDERC). Differences / similarities, as well as possible relationships between these initiatives were debated. It was agreed to prepare a paper presenting the Commission views on this subject, for presentation to the next International Cartographic Conference.

There followed discussions on UML diagrams to describe SDIs and Modelling SDIs by Reference Models. The meeting recommended that SDI modeling should be based on:

- Reference Model of Open Distributed Processing (RM- ODP ISO/IEC 10746) to provide a multilateral description of SDIs.
- Geospatial Interoperability Reference Model (G.I.R.M.) to provide a set of standards and specifications to understand and implement SDIs.
- Unified Modelling Language (UML) diagrams to provide a notation to the SDI model, in order to facilitate the understanding of SDIs and harmonize it with other international models, e.g. that of ISO TC 211.

IHB, Monaco, 5-9 July.

The ICA Spatial Data Standards Commission met at the IHB, Monaco on 5-9 July under the chairmanship of Prof. H. MOELLERING (USA). Attendees were from Cuba, Denmark, Netherlands, Russia, South Africa, USA and IHB. The meeting undertook to define a spatial model and the technical characteristics of a Spatial Data Infrastructure (SDI). After reviewing the different reference models available, it was agreed that the ISO Open Distributed Processing standard would be used as a basis for the Commission work. This ISO standard makes provision for five SDI viewpoints: Enterprise, Information, Computational, Engineering and Technology. All viewpoints were considered and discussed, and it was eventually decided that the work would be restricted to the enterprise

viewpoint (describes the purpose, scope and policies for an SDI) and information viewpoint (describes the semantics of information and information processing into an SDI).

The Commission developed models for both viewpoints, describing how the different parts of a SDI fit together in the viewpoints in question. This was done through:

- Brain storming to delimit the concepts and identify where they fit together;
- Organising the concepts;
- Developing a graphic expression of the model.

However the models developed cannot be seen as a final result, but rather a step towards a model that defines the overall model of the SDI and its technical characteristics. During the model development process, the roles of the different actors in a SDI were also identified in relation to the Use Case elements approach, of which a SDI consists. The model was developed using the Unified Modelling Language (UML).

OCEAN MAPPING

JOINT IHO-IOC GUIDING COMMITTEE AND SCDB XXth JOINT IOC GEBCO GUIDING COMMITTEE

La Spezia, Italy, 1-6 April 2004.

| | |
|-----------------------------|---|
| Chairperson: | Mr. D. MONAHAN (Canada) |
| Vice-Chairperson: | Dr. R. FALCONER (New Zealand) |
| Members: | <p>IHO: Mr. D. MONAHAN (Canada), IGA E. CAILLIAU (France), Mr. A.E. HADJANTONIOU (Greece), Dr. K. YASHIMA (Japan), Dr. M.S. LOUGHRIDGE (USA)</p> <p>IOC: Dr. H.SCHENKE (Germany), Lic. J.L. FRIAS Salazar (Mexico), Dr. G. UDINTSEV (Russian Federation), Dr. M. JONES (United Kingdom)</p> |
| Permanent Secretary: | Dr. R. WHITMARSH (United Kingdom) |

The Joint IOC-IHO GEBCO Guiding Committee's main activity is to guide the GEBCO Project and make recommendations to the two parent organizations on the policy to be followed for the preparation and dissemination of that world series of contoured charts of the ocean floor and of the "GEBCO Digital Atlas".

The 20th Meeting of the GEBCO Guiding Committee (GC) took place from 1 – 6 April 2004, on Palmaria Island, Porto Venere, Italy. The meeting was hosted by Dr. Mike CARRON of the NATO Undersea Research Center, La Spezia, and chaired by Mr. David MONAHAN, Chairman of the GC.

The Agenda allowed for general discussion and reports for the first two days, followed by the weekend when "*ad hoc*" groups were formed to discuss various issues and the final two days were devoted to analysis and decision-making. Only 3 of the 5 IHO representatives were present, namely: Ingénieur général Etienne CAILLIAU, France (1-2 April); Mr. David MONAHAN, Canada (1-6 April) and Dr. Michael LOUGHRIDGE (1-6 April). The IHB was represented by Captain Hugo GORZIGLIA, Director (1-6 April), Ing. en Chef Michel HUET, (PAC) (1-3 April) and Lt. Cdr. Steve SHIPMAN, (PAH) (1-6 April). The Meeting was attended by several members of the wider 'GEBCO Community' with each individual acting in his own personal capacity.

The main matters considered were:

SCUFN: A new digital format of the Gazetteer is under preparation to facilitate and formalize the application process for new undersea feature names. The next meeting of the Sub-Committee (17th) will be held in St. Petersburg from 8–11 June. There has been a positive response from IHO MS to providing new members for this Sub-Committee. The group was sorry to learn that Colombia had to withdraw its nomination. The IHB representatives noted that they will seek a replacement from the IHO.

GEBCO Digital Atlas: The GDA Editor reported on activities including proposals for regional atlases. The issue of cost was discussed. There were three views expressed: to keep it the same, to reduce the cost or to issue it for free. Some considered that the income derived (£ 20,000) was very small within the overall context of GEBCO. Several delegates suggested that a free product would increase the visibility and recognition of GEBCO. It can currently be downloaded for free, over the Internet but in about 180 separate blocks, which takes time. This issue will be given further thought.

NIPPON Foundation Project: The Permanent Secretary explained the background and current status of this project. Participants were informed of the selection of the teaching institution (University of New Hampshire, Durban, USA) and arrangements were in hand as well as the process to be followed for selecting students and the appointment of a Project Manager. The IHB representative informed the meeting of the actions taken so far by the IHB requesting the nomination of candidates. A second Circular Letter will be prepared as soon as more details are provided regarding the procedures students should follow. Some concern was expressed over the short timeframe; however this was due to the requirement by the Nippon Foundation that this project must start in 2004. In addition to the University training scheme there were two other parts - work projects and fellowships. These were due to start later and so there was more time available to initiate the process.

New Structure for Ocean Mapping: The IHB and IOC representatives introduced the proposal for examining and restructuring the overall Ocean Mapping Programme, aimed at improving the current GEBCO and IBC Projects. The IHB representative stated clearly that this proposal was aimed at improving ocean mapping, avoiding duplication and making better use of resources. Following further discussion it was agreed on a simplified organisational structure based on the IHB/IOC proposal. The IHB representative stated that this simplified structure was very similar to that envisaged by the IHO/IOC and could constitute a suitable model for further development. It was agreed that the IHB and the IOC Secretariats would approach Member States and the Executive Council respectively seeking a resolution that would call on the GEBCO GC and CGOM to review the requirements of a global Ocean Mapping Programme and propose a revised structure.

Work Programme: The IHB stressed the need for the IHO to have a clearly defined GEBCO WP to be submitted to MS, identifying where resources and funding support were needed. The IHB requested that the final agreed WP should go to IOC and IHO for consideration.

In conclusion, there is a need to improve IHO participation in the GC. The draft structure prepared by the IHB and IOC Secretariats constitutes a good starting point for improving the ocean mapping programme as a whole.

The next meeting is expected to take place in Mexico in 2005.

SUB-COMMITTEE ON UNDERSEA FEATURE NAMES (SCUFN)

St. Petersburg, Russian Federation, 8-11 June 2004

Chairperson: Dr. H.W. SCHENKE (Germany)
Members: Argentina, Colombia, Indonesia, Japan, Russian Federation, USA.
Secretary: IHB.



The XVIIth meeting of the GEBSCO-SCUFN was held on 8-11 June 2004 at the Head Department of Navigation and Oceanography (HDNO), St. Petersburg, Russian Federation, under the Chairmanship of Dr. H.W. SCHENKE, Alfred Wegener Institute (AWI), Germany. Admiral A.A. KOMARITSYN, HDNO Director, welcomed the meeting participants and gave a brief history of Russian ocean exploration. In addition to the Chair, attendees included six SCUFN members from Russia, USA, Japan, Mexico and IHB, and six observers from Russia, USA and IOC Secretariat. Dr. Y. OHARA, Japan Hydrographic and Oceanographic Department (JHOD), and Lic. J.L. FRIAS SALAZAR, Instituto Nacional de Estadística Geografía e Informática (INEGI), Mexico, participated as new SCUFN members.

About a hundred names were examined during this meeting. Many of the newly submitted proposals originated from Russia (HDNO and the Russian Academy of Sciences). SCUFN eventually selected 38 new names for inclusion in the GEBSCO Gazetteer. Other topics discussed at the meeting included :

- introductions of:
 - the new PC-based Gazetteer -Software from the IHB.
 - development for a new web-based UFN Proposal Form at NGDC.
 - development for a web-based map interface to marine Gazetteers at NGDC.
- new regulation for the submittal of proposals via the IHB to SCUFN.

**4th SESSION OF THE IOC EDITORIAL BOARD FOR THE
INTERNATIONAL BATHYMETRIC CHART OF THE WESTERN PACIFIC**
Hangzhou, China, 20-23 April 2004



The 4th Session of the IOC Editorial Board for the International Bathymetric Chart of the Western Pacific (EB-IBCWP) was held in Hangzhou, China. The meeting was hosted by the State Oceanographic Administration (SOA) of China and held in conjunction with the 6th IOC/WESTPAC International Scientific Symposium. Representatives from China, Japan, Korea (Rep. of), Philippines, the Russian Federation, Vietnam, USA (National Geophysical Data Centre), IOC Secretariat and IHB participated in the meeting, which was chaired by Prof. Lin SHAOHUA, SOA of China.

The IBCWP project covers a large area of the western Pacific Ocean, divided up into six sub-regions. The meeting focused on sub-regions 1, 2 and 3, extending from the Bering Sea to southern Indonesia which will be covered by 52 bathymetric sheets at 1:1 million scale.

Progress reports were given by the IBCWP Chief Editor (China) and the participating countries. The progress reports revealed that three proof sheets have been completed by Russia and submitted to the Chief Editor for final review, before approval by the EB and printing. Also a number of sheets are in an advanced state of compilation (for example, Vietnam presented two such sheets to the meeting); however, a certain lack of cooperation and/or difficulties experienced in data exchange or sharing have prevented further progress in several cases. To help overcome this problem, China proposed to adopt a methodology whereby those countries (two or more) wishing to contribute to a given sheet would proceed as follows:

1. All interested countries to generate compilation sheets using their own data.
2. When this is done, all compiling countries to meet, together with the Chief Editor (if possible), exchange compilation sheets and provide each other with constructive comments.
3. Based on the comments, all differences to be reconciled using agreed data exchange principles (see below), following which the master digital copy for this sheet is to be jointly generated and submitted to the Editorial Board for approval.

This was agreed. The meeting also agreed to the following metadata and data exchange policy:

- All data holdings in areas where there is an overlap of interest, such as within a sheet or along sheet boundaries, would be entered into an online IBCWP Data Catalogue. Depending on the available data type (soundings, contours, or grids), this information would include: survey

identification, vessel name, bathymetric instrumentation, positioning system, survey dates, geographic extent, grid spacing, data file format, gridding methodology, etc. The Chief Editor would provide an online metadata submission form for IBCWP Member States to submit their information.

- Contours and/or sounding data gridded at an appropriate spacing should be made available for exchange.
- With full recognition of national marine data policies, actual bathymetric soundings should be provided, in particular for those areas where there are discrepancies between contours for the same or adjoining areas.
- In those areas where the exchange of actual data is not possible due to national data policies, the two parties would meet, with their data in hand, to reconcile any inconsistencies without an actual exchange of data.

USA (NGDC) presented an online search and retrieval system for multibeam bathymetric data, built on ArcIMS, Oracle, and customized code. The IHB representative had the opportunity to give presentations on the SCUFN activities and on the IHO developments in electronic charting, with particular focus on eastern Asia.

The meeting noted the decisions made in prior sessions of the Editorial Board, and agreed that the discussion on the production of final sheets should be continued during the intersessional period and, if necessary, at the next session. The meeting went through sub-regions 1-3, sheet by sheet, to confirm what countries wish to be involved in the compilation of each sheet. The collection of this information was considered as a major step forward toward real progress in the implementation of the IBCWP project.

It was agreed that a proposal for a training session for the IBCWP project would be submitted to the IOC Secretariat, considering that this is essential in order to develop a common methodology for implementing IBCWP. The training session should address such issues as: data compilation, contouring procedures, sheet preparation, cartographic standards, quality control issues, and the procedure for submitting names to the IHO-IOC GEBCO Sub-Committee on Undersea Feature Names (SCUFN).

The meeting gratefully accepted the offer made by USA (NGDC) to design and host the IBCWP website. It would include the assembly diagram for the entire IBCWP and for each sub-region, the status of each sheet, and digital versions of relevant documents and available reports.

INTERNATIONAL BATHYMETRIC CHART OF THE SOUTHERN OCEAN (IBCSO) - INAUGURAL MEETING.

Bremen, Germany, 30 July 2004.

The kick-off meeting of the new bathymetric project IBCSO, jointly sponsored by the Intergovernmental Oceanographic Commission (IOC), the Scientific Committee on Antarctic Research (SCAR) and the IHO, was held on 30 July 2004 in Bremen, Germany, in conjunction with the 28th SCAR Conference (25-31 July). There were 25 attendees from Canada, Germany, Japan, Korea (Rep. of), New Zealand, Russia, Spain, UK, USA and IHB. The meeting was chaired by Dr. Hans WERNER SCHENKE, Alfred Wegener Institute (AWI), Bremerhaven, Germany.

The topography of the Southern Ocean surrounding Antarctica is still widely unknown. The survey activities of modern ice-breaking research vessels during the last decade, using multibeam systems, have increased the data availability for this region. The setting up of the IBCSO project aims at collecting and processing all available bathymetric data into a specific data base, from which new products can be compiled, e.g. gridded data sets or bathymetric maps at scale 1:1 million.

The meeting reviewed the potential source data, e.g. AWI, IHO Data Centre for Digital Bathymetry, GEBCO Digital Atlas, national data centres or HOs (New Zealand, Japan, Russia, UK, Spain, etc.). The lack of data in the Pacific sector of Antarctic waters was noted. It was agreed that Quality Control of data would be a key issue. There would be a need to define a QC process and source data sets should be well documented.

Expected products / achievements include a rectangular 2 km / 1 km grid, digital contours, 1:1 million bathymetric maps, high resolution Digital Elevation Models (DEM), and Internet map server. There was an interesting presentation on Web service options, from Carleton University, Canada, illustrating issues such as Web feature service, Web map service, Catalogue service, Geographic Mark-up Language (GML), Antarctic Spatial Data Infrastructure, etc. It was noted that Print-on-Demand (PoD) could be an appropriate means of issuing bathymetric maps. There was a debate on whether users' needs should be sought in order to ensure that IBCSO products meet their requirements or, alternatively, whether the best possible representation of the sea floor should be produced, i.e. with the highest quality and density of data, from which various products could be derived to suit various needs. It was agreed that accessibility to the data / products over Internet would be an important issue.

International cooperation on the IBCSO project was anticipated from, at least, Australia, Argentina, Brazil, Canada, China, Chile, France, Germany, India, Italy, Japan, Rep. of Korea, New Zealand, Norway, Russia, Spain, UK and USA. It was suggested that the relevant institutions / HOs in these countries be formally approached, asking for their participation in IBCSO, e.g. SCAR letter to national representations or IHO letter to HCA Member States. It was also suggested that the Scientific Committee on Oceanic Research (SCOR) be involved in the project.

The meeting supported that a central IBCSO database be established and that it should preferably be located at AWI, providing that resources are available at this institution to manage and process the data.

It was agreed that there should be an IBCSO product ready for the forthcoming International Polar Year (IPY, 2007-08).

Formation of an IBCSO Editorial Board has been deferred till the 1st IBCSO meeting, which should take place in 2005 (date and venue to be determined). Meanwhile, IBCSO issues will be progressed by a small working group formed of volunteers identified at the Bremen meeting.

RELATED PUBLICATIONS

B-7 - Guidelines for the GEBCO

A revised edition of this IHO-IOC publication, updated to April 2003, was issued in April (English). It is available from the IHO website

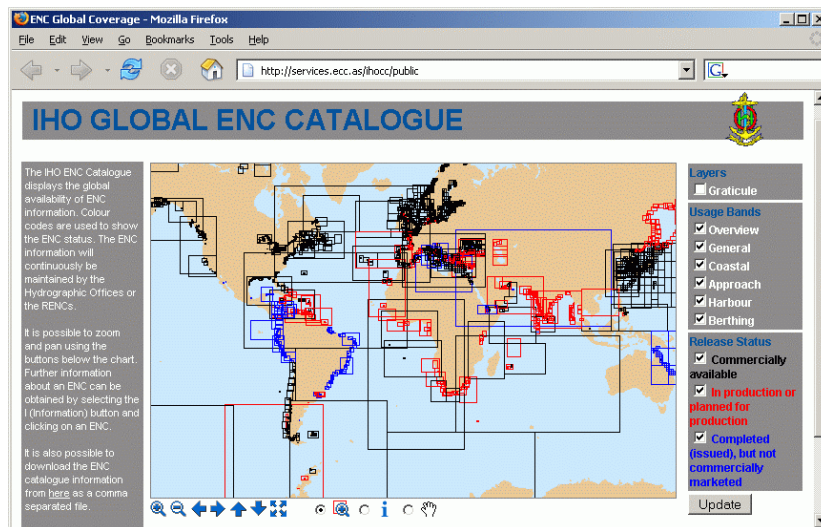
B-8 – GEBCO Gazetteer of Undersea Feature Names

Following the 17th Meeting of the GEBCO Sub-Committee on Undersea Feature Names (SCUFN), an updated list of undersea feature names was produced at the IHB and posted on the GEBCO Website (www.ngdc.noaa.gov/mgg/gebco/html). However, the new edition of B-8 “GEBCO Gazetteer of Undersea Feature Names”, which was planned for 2004, has been postponed to 2005.

WORK PROGRAMME 4 INFORMATION MANAGEMENT AND PUBLIC RELATIONS

IHO WEB PAGE

The IHB continued expanding the IHO web site with emphasis being placed on developing parallel French pages and the inclusion of several new sections such as the online ENC Coverage Catalogue. The IHO web site continues to be an important mechanism for the distribution of information and IHO publications, and will be further developed during 2005.



ENC Coverage Catalogue

REPOSITORY OF CHARTS AND NAUTICAL DOCUMENTS

During the year, 650 new charts / editions were received (759 in 2003), examined and filed in the Bureau Chartroom. This included 278 INT charts and 372 national charts. In accordance with Article 19 of the IHO General Regulations, which now states that HOs "*shall forward copies of their new international (INT) charts, electronic charts (raster and vector), as well as any nautical publications*", Member States are kindly reminded that delivery to the IHB of copies of their national charts is no longer required. Also MS are invited to provide their NtM in digital form. Additionally, 149 nautical publications were received (92 in 2002).

DISTRIBUTION OF IHO PUBLICATIONS ON CD-ROM

A CD-ROM containing all updated IHO Publications was distributed to IHO Member States in May.

MAINTENANCE OF AN IHB LIBRARY OF REFERENCE BOOKS AND JOURNALS

About 350 new magazines, CD-ROMs and books on hydrography, oceanography and related matters (including the regular subscriptions) as well as various technical brochures were added to the IHB Library in 2004. The Bureau thanks all Member States that have sent copies of their Annual Reports and/or technical publications during the year and encourage them to continue to do so.

| |
|-----------------------------|
| RELATED PUBLICATIONS |
|-----------------------------|

M-1 : BASIC DOCUMENTS OF THE IHO

The WEB version posted on the IHO WEB site was updated periodically.

P-5 : IHO YEARBOOK 2004

The Yearbook was continuously updated on the IHO WEB site with the information received from Member States.

PUBLIC RELATIONS

The Bureau also prepared an informative brochure of the Organization in English, French and Spanish, as well as a Power Point presentation in English, highlighting the most important aspects of the work and structure of the IHO.

These documents were uploaded in the IHO Web Page and Member States may use them for public relations purposes in their countries.

**IHO PARTICIPATION AT THE 125th ANNIVERSARY OF THE
“SERVICIO DE HIDROGRAFÍA NAVAL DE LA ARMADA DE
LA REPÚBLICA ARGENTINA”**

7-8 June 2004

Captain GORZIGLIA, IHB Director, represented the IHO at the 125th Anniversary of the “Servicio de Hidrografia Naval de la Armada de República Argentina” (SHN).

On that occasion, several issues related to the Argentinean participation on IHO activities were discussed. Of special importance was the exchange of views regarding the undergoing efforts to establish the South West Atlantic Hydrographic Commission (SWAHC), one of the latest commissions to be established under the aegis of the IHO. The second subject highlighted was the importance to progress with ENC production, a project which the SHN gives high priority, mainly to provide this service to mariners acceding the complex of Rio la Plata.



The success had by the Argentinean Navy in participating on a couple of projects referring to marine environmental protection was discussed. One known as “GEF Patagonia” and the other on “Management of Rio La Plata”, through which some equipment is being considered to enhance data gathering and electronic nautical chart production, for special application on coastal planning and management.

On Tuesday 8th, the Anniversary Ceremony took place at the SHN. All the personnel of the SHN, Officers and crew of the Hydrographic, Oceanographic and Icebreaker ships, as well as over 300 special guests were present, including the Hydrographer of Uruguay, Captain Hugo ROLDOS.

During the Ceremony, recognition to persons that had played a key role in the work at the SHN was made, as well as to the private sector which has contributed to the work of the SHN. Before closing the ceremony, Captain GORZIGLIA gave a 10 minute speech, congratulating SHN for this anniversary, making special mention that Argentina has been an IHO member, without any interruption, since its establishment in 1921. Also the present contribution of the SHN to the IHO objectives was highlighted and finally the SHN was invited to continue their participation on IHO activities with renewed efforts. The Ceremony was closed by a speech given by Captain HINDRYCKX highlighting the main events which have taken place over the past 125 years and the way forward.

After the Ceremony, a cocktail was offered and on the occasion Captain GORZIGLIA presented the SHN, on behalf of the IHO, with a ship's wheel symbolizing the excellent leadership the SHN has had over the last 125 years wishing the SHN success in the years to come. This very simple but signifying present was greatly appreciated.



WORK PROGRAMME 5
GENERAL ORGANIZATION DEVELOPMENT

5th MEETING OF THE STRATEGIC PLANNING WORKING GROUP (SPWG)
Tokyo, Japan, 1-4 March 2004.

| | |
|----------------------------|--------------------------|
| Chairman: | Mr. F. KLEPSVIK (Norway) |
| Vice Chairman 1: | Dr. W. WILLIAMS (UK) |
| Vice Chairman 2 : | Mr. H. NISHIDA (Japan) |
| IHB Representative: | Vadm. A. MARATOS (IHB) |
| Secretary: | Capt. F. BERMEJO (IHB) |



The fifth Meeting of the SPWG was held at the Japanese Hydrographic and Oceanographic Department of the Coast Guard, Tokyo, from 1 to 4 March 2004, under the Chairmanship of Mr. F. KLEPSVIK (Norway). All the IHO Regional Hydrographic Commissions were represented at the meeting, together with the following individual countries: Argentina, China, Finland, Germany, Netherlands, New Zealand, South Africa, UK, Singapore, Malaysia, Thailand, Japan, and USA. A list of participants is given in Annex II.

The Chairman summarized the work carried out by the SPWG, focusing on three main documents:

- 1) the Draft Report “A study into the organizational structure and procedures of the IHO “ version 7;
- 2) the Draft Amendments to the IHO Convention and
- 3) the IHO Draft Basic Documents (Convention, Regulations and Rules of Procedure).

The Chairman explained that, although the Terms of Reference specified that the SPWG should provide a Report to the IHB Directing Committee by December 2003, as this timing was only three months before the issuance of the final Report (April 2004), the SPWG had decided to summarize the above mentioned report as an Executive Summary distributed in January 2004 by C.L. by the IHB D.C. to all IHO Member States.

The representatives from the Regional Hydrographic Commissions (RHCs) reported on the activities carried out within their respective RHCs.

Pending matters:

- a) Composition of the Council;
 - b) Finance and Administration mechanisms and
 - c) Naming of Committees in the Convention.
- a) The Chairman reminded the general principles that had guided the work on this topic, namely; membership approximately of the 25% of IHO Member States, M.S only having one seat and

fair geographic representation through the Regional Hydrographic Commissions. He reminded that the starting point for discussion had been a model of 6 alternatives that, after reception of comments from the SPWG members, had been re-grouped by the Chair Group into 4 Models, with option of extension each of them to any voluntary Member wishing to participate.

He further provided a full explanation of each Alternative model and requested SPWG members to focus on a unique model, which would be the basic model to present in the Report for the extraordinary Conference decision.

Lengthy discussion followed, with the intense participation and arguments of all the SPWG members, which felt that the composition of the Council was one of the most important factors within the new structure to be proposed. members, the following should be stressed:

In the light of the discussion, SPWG members agreed on the importance of reaching consensus on one single model to present the Extraordinary Conference. IHO Member States so wishing can propose to the Extraordinary Conference any amendment to the proposed model developed by the SPWG.

The discussion then focused on the procedure for election of members of the Council and it was decided to deal with this topic within the General Regulations or the Rules of Procedure of the IHO organs.

Review of the Basic Documents.

Draft Amendments to the IHO Convention.

The SPWG worked in parallel with the Legal Experts, who held a separate meeting to address the pending legal items concerning the Convention, while the SPWG members reviewed the pending topics of organizational nature.

- 1) The Draft General Regulations should include an article devoted to explain the procedure of selection of members of the Council;
- 2) The inclusion of the definition of “Hydrographic Interest” should be considered;
- 3) The Convention will not mention any procedure for election of the Council members. This topic will be included in the Regulations or Rules of Procedure (see Agenda 8 below);
- 4) The figures corresponding to the countries tonnage will be carefully checked for inclusion in the appropriate Tables and
- 5) The “Report” and the Convention should be fully consistent. The Chair Group will check the text of the “Report” and will produce version 8, in accordance with the text of the “Draft Convention” agreed.

Draft General Regulations and other Draft Basic Documents.

The President of the IHO Directing Committee explained the development of the Draft General Regulations, Financial Regulations and Rules of Procedure for Assembly and Council, carried out by the IHB. It was stressed that they are “Working Documents” drafted for consideration of the SPWG members. In this sense, comments from the SPWG members should reach the IHB within the 2 or 3 weeks following the distribution, in order to allow the IHB to circulate a second draft with comments by 15/20 April 2004. The Chairman noted that the General and Financial Regulations will be submitted to the Extraordinary Conference as informative documents, since they have to be amended with the Decisions that will be taken.

Guidelines for International Non Governmental Organizations.

The President of the IHB D.C. commented that this document was based on the input received from CHRIS, from the Industry Days meeting held at the IHB and from the proposal submitted from Portugal to the XVIth Conference and referred to the SPWG for consideration and also based on the

existing text of IMO. The SPWG decided to reject the proposal to allow in special cases also individual companies as observers.

Close of the Meeting.

The Chairman thanked the SPWG members and the Legal Experts for the work carried out during these two years and for the high interest demonstrated by all the Regional Hydrographic Commissions.

The delegate of Australia on behalf of all delegates thanked the Chair Group for its hard work and guidance during all the process and congratulated it for the results achieved.

THE SPWG CHAIR GROUP

Three meetings were held in 2004 by the Strategic Planning Chair Group and one was held by the Legal SPWG Experts.

MEETINGS OF THE SPWG CHAIR GROUP

The SPWG Chair Group held four meetings in Monaco, London and Mumbai to discuss the progress of the SPWG work and to refine the SPWG Report in the light of the comments received. A further meeting with the Legal Experts was held in Paris, on 23-24 June, to finalize the Amendments to the Convention.

Besides, two informative Seminars were organized, in Athens, Greece (in May) and Cartagena, Colombia, (in September), to clarify questions and to provide explanations to the national representatives about the documents to be distributed to Member States.

11th MEETING OF THE JOINT IHO-IAG-IOC ADVISORY BOARD ON THE LAW OF THE SEA

Canberra, Australia, 18-20 October 2004.



The 11th Meeting of the joint IHO-IAG-IOC Advisory Board on the Law of the Sea (ABLOS) was hosted by Geoscience Australia (GA) at its Canberra Headquarters, from 18 - 20 October. The opportunity was taken to hold a meeting of the Editorial Committee preparing the 4th Edition of the Manual on the Technical Aspects of the Law of the Sea (S-51). Most of the text has now been

produced and outstanding work involves the preparation of the glossary, citations, bibliography and diagrams. It is planned to have a final draft available for circulation to IHO Member States in April 2005.

GA provided an overview of the preparation of their Extended Continental Shelf Submission, which will shortly be delivered to the CLCS. They also demonstrated some of the advanced visualisation techniques that they were using to assist in the interpretation of data.

ABLOS were pleased to note that IOC had appointed M. Elie JARMACHE, the current Chairman of IOC/ABE-LOS, as one of its representatives to ABLOS. It is believed that this will greatly enhance cooperation and understanding between ABLOS and IOC/ABE-LOS.

The IHB presented some draft guidelines for the operation of the ABLOS fund, which is used to operate the biennial ABLOS Conferences. These were accepted, with one minor change, and it was agreed that they should form Annex A to the ABLOS TOR. The IHB proposed that the TOR should be reviewed and brought into line with the structure used for other IHO bodies. It was agreed that the IHB would prepare and circulate a revised draft for discussion and agreement by ABLOS. The TOR would then be sent to the parent bodies for approval.

Other matters discussed included: forging a consensus on ridge issues; marine scientific research; obligations to lodge data under UNCLOS Articles 16, 75 & 84; global vertical reference frameworks; international cooperation in ocean mapping; training initiatives & workshops; and IOC/ABE-LOS collaboration.

The meeting finished with a mini-seminar on Marine Scientific Research. It was concluded that the subject had a lot of potential as the theme for the 2005 ABLOS Conference, as there were many unclear issues within UNCLOS. Following a review of the feedback from the 2003 Conference it was agreed that the format used, i.e. a day of tutorials followed by a 2-day conference, worked well and was popular. Whilst the facilities available at the IHB were very good, the attendance of 88 people in 2003 had stretched these to the limits. The subject of a suitable venue and assessment of number of likely attendees would be researched such that a decision as to venue could be made by the end of 2004. A 3-day tutorial / conference will be held in 2005 most likely at the end of October.

A full report of the meeting appears on the ABLOS web site. (www.iho.shom.fr > Committees > ABLOS).

REVIEW OF THE WORK PROGRAMME

In accordance with Conference Decision, the Planning Cycle approved was followed for the updating of the Work Programme. Member States were consulted by C.L. and their responses and comments resulted in an updated version of the Work Programme 2004, that was distributed by C.L. 30 of 28 April 2004. The IHO Work Programme and Budget for 2005 were distributed by C.L. 81 of 1st December 2004 and is now available on the IHO Web Page.

TRANSLATION SERVICES

The IHB continued to provide translation services in French and Spanish.

After the retirement of Mr. ALBERTELLI, French Head Translator, in September 2003, whose post was not covered, the remaining translator, Mrs. VANKRINKELLEN, could cope with the overload originated with the assistance of a member of the staff, Mrs. BOUZANQUET. Mrs. MURO was in charge of the Spanish Translation.

The Directing Committee hopes that this situation, which has produced clear savings to the organization, will be maintained in the future.

IHB TECHNICAL MISSIONS

See Work Programme 2 (Page 31) and also Annexes III and IV.

HOST GOVERNMENT AFFAIRS

Relations with the Host Country continued to be very good. In particular, the Government of Monaco stated its willingness to contribute to the IHO Capacity Building efforts by means of funding some activities of the organization. The development of this offer is now under consideration.

IHO MEMBERSHIP ADMINISTRATION

The Government of Monaco continued to effectively support actions to accelerate the approval of those States who had applied for IHO Membership.

PROSPECTIVE MEMBER STATES WHOSE APPLICATION FOR ADMISSION TO THE IHO HAS BEEN APPROVED BY THE PARTIES TO THE CONVENTION

Republic of Bulgaria

As reported in previous Annual Reports, the application for membership of the Organization by the Government of the Republic of Bulgaria was approved by the required two-thirds of the Parties to the IHO Convention on 24 April 1992. At that time the Government of Monaco, as the Depositary Government for the Convention, invited the Government of Bulgaria to deposit its Instrument of Accession to thus complete the IHO membership formalities. Regretfully this last formality has not to date been completed.

Islamic Republic of Mauritania

As in the case of Bulgaria and as reported in the past, the Government of Mauritania's application to join the IHO was approved by the required two-thirds of the Parties to the Convention on 14 February 1991, and the Government of Monaco, the Depositary Government for the Convention, informed the Directing Committee accordingly at that time. At the same time, the Mauritanian Government was invited to deposit its Instrument of Accession; unfortunately, to date this last formality has not been completed.

Republic of Mauritius

The Government of the Republic of Mauritius officially applied for membership of the International Hydrographic Organization (IHO) on 20 August 2001 and reported, at that time, a tonnage figure of 163,013 tons. In August, Mauritius' application was approved by the required two-thirds of the Parties to the Convention. The Government of Mauritius was invited to deposit its Instrument of Accession and, by the end of the year this last formality was not completed.

State of Qatar

The application to join the IHO made by the State of Qatar was approved by the required two-thirds of the Parties to the Convention on 11 November 1993 and the Government of Monaco invited the Government of the State of Qatar to deposit its Instrument of Accession at that time. Regretfully to date this final formality has not been completed.

PENDING MEMBER STATES WHOSE APPLICATION FOR ADMISSION TO THE IHO IS AWAITING APPROVAL BY THE PARTIES TO THE CONVENTION

Republic of Cameroon

An official application for membership of the International Hydrographic Organization (IHO) was received in June by the Government of the Principality of Monaco from the Government of the Republic of Cameroon. They have indicated that their national tonnage figure is less than 100,000 tonnes. . By the end of the year, Cameroon's application had received 25 approvals out of a required 47 approvals.

The Government of the Principality of Monaco, as Depositary for the Convention of the IHO, has initiated action to obtain approval from the Member Governments of the IHO, in accordance with Article XX of the IHO Convention.

Ireland

An official application for membership of the International Hydrographic Organization (IHO) was received by the Government of the Principality of Monaco from the Government of Ireland on 22 November 2004. They have reported a tonnage figure of 388,275 tonnes. By the end of the year, Ireland's application had received 5 approvals out of a required 47 approvals.

The Government of the Principality of Monaco, as Depositary for the Convention of the IHO, has initiated action to obtain approval from the Member Governments of the IHO, in accordance with Article XX of the IHO Convention.

Republic of Latvia

The Government of the Republic of Latvia officially applied for membership of the International Hydrographic Organization (IHO) on 5 July 2002 and reported, at that time, a tonnage figure of 507,148 tons. By the end of the year, Latvia's application had received 45 approvals out of a required 46. The Government of Monaco has kindly sent out reminders to those IHO Member State Governments, who have not yet approved Latvia's application, in an attempt to speed up the membership process. The IHB has also sent similar reminders to the Member States.

Republic of Romania

The Government of the Republic of Romania officially applied for membership of the International Hydrographic Organization on 10 April 2002 and reported a tonnage figure of 845,186 tons. By the end of the year, Romania's application had received 43 approvals out of a required 47 approvals. The Government of Monaco and the IHB have sent out reminders concerning the pending approval of the IHO membership application from Romania in an attempt to speed the process up. There were two delegates from Romania at the 3rd Biennial ABLOS Conference held at the IHB in October.

Kingdom of Saudi Arabia

The Government of the Kingdom of Saudi Arabia officially applied for membership of the International Hydrographic Organization in September 2002 and reported a tonnage figure of 1,458,309 tons. By the end of the year, Saudi Arabia's application had received 43 approvals out of a required 47 approvals. The Government of Monaco and the IHB have sent out reminders concerning the pending approval of the IHO membership application from Saudi Arabia in an attempt to speed the process up.

MEMBER STATES WHOSE RIGHTS AND PRIVILEGES HAVE BEEN SUSPENDED OR REINSTATED

Of the 74 Parties to the Convention, three - the Democratic Republic of the Congo, Dominican Republic and Suriname - have all rights and benefits suspended in accordance with Article XV of the Convention and Articles 16 and 17 of the Financial Regulations. A two-thirds majority of Member States entitled to vote, therefore, is currently 47.

AMENDMENTS TO THE CONVENTION

The amendment to Article X (2) of the Convention which was approved by the XIIIth I.H. Conference and subsequently submitted to Member Governments through diplomatic channels has not attained the approval of the required two-thirds of the full membership of the Organization and therefore has not yet entered into force.

Decision No. 13 of the XVth I.H. Conference amends Article XXI of the IHO Convention by adding para. 4 which states "4. Any amendment to this Convention that has not entered into force is null and void at the opening of the next Ordinary Session, unless the Conference decides otherwise." The Government of the Principality of Monaco submitted this amendment to all Contracting Parties for ratification and, to date, this decision has not attained the approval by the required number of Member States.

The XVIth I.H. Conference considered further proposals to amend Article XXI of the IHO Convention and it was decided that this task would be passed on to the new Strategic Planning Working Group who is tasked to make recommendations on the need to revise the IHO Convention. The SPWG is actively working on modifications to the Convention and all proposals for change will be considered in 2005, at the 3rd Extraordinary International Hydrographic Conference (EIHC) to be held in Monaco in April 2005.

ANNEXES :

I: IHB DIRECTOR'S RESPONSIBILITIES

II. IHB STAFF LIST

III. IHB TECHNICAL MISSIONS

IV. VISITS TO HYDROGRAPHIC OFFICES

V. MEETINGS HELD AT THE IHB

IHB DIRECTING COMMITTEE RESPONSIBILITIES

President: Alexandros MARATOS, Vice Admiral (retd.), Greece

- Relations with United Nations; International Maritime Organization; European Union; International Association of Marine Aids to Navigation and Lighthouse Authority; International Commission for the Scientific Exploration of the Mediterranean and Non-Member States.
- SPWG; ABLOS; Maritime Safety Information; Hydrographic Surveying Information Services and INT Chart Scheme and Paper Chart issues.
- Matters referring to IHO Membership and IHB Administration; Host Government Affairs and Public Relations.

Regional Hydrographic Commissions:

- North Indian Ocean Hydrographic Commission
- North Sea Hydrographic Commission
- Mediterranean and Black Seas Hydrographic Commission
- Baltic Sea Hydrographic Commission

Director 1: Kenneth BARBOR, Rear Admiral (retd.), USA

- Relations with the International Cartographic Association; International Organization for Standardization and International Electrotechnical Commission.
- LAC issues as well as on all Cartographic Information Services, including CHRIS, WEND and others related.
- Matters referring to IHB Property and Information Technology.

Regional Hydrographic Commissions:

- Nordic Hydrographic Commission
- USA/Canada Hydrographic Commission
- East Asia Hydrographic Commission
- South Africa and Islands Hydrographic Commission
- South West Pacific Hydrographic Commission

Director 2: Hugo GORZIGLIA, Captain (retd.), Chile

- Relations with the Intergovernmental Oceanographic Commission; all International Bodies related to Antarctic matters and the Pan American Institute of Geography and History, FIG and IMA.
- Capacity Building, Training and Education; Technical Co-operation activities as well as GEBCO and International Bathymetric Mapping Projects.
- Matters referring to Information Management (Publications).
- Work Programme

Regional Hydrographic Commissions and Committee:

- Eastern Atlantic Hydrographic Commission
 - South East Pacific Hydrographic Commission
 - ROPME Sea Area Hydrographic Commission
 - Meso-American-Caribbean Sea Hydrographic Commission
 - Hydrographic Committee on Antarctica
-

IHB STAFF LIST**Professional Assistants**

| | |
|------------------------------|--|
| Capt. F. BERMEJO BARÓ, Spain | Training, Technical Assistance and Publications Management |
| Ing. en chef M. HUET, France | Cartography |
| Mr. A. PHARAOH, South Africa | Cartography and Data Management |
| Cdr. S. SHIPMAN, UK | Hydrography |
| Mr. C. VELARD, France | Administration |

Technical, Administrative and Service StaffTranslation

| | |
|-----------------------|--|
| Mrs. I. VANKRINKELLEN | French Translator (Head Translator/French) |
| Miss M.P. MURO | Spanish Translator/Web Editor |

Graphic Arts and Cartographic Assistant

Mr. D. MENINI

Accounting and Administration Assistant

Miss C. MEYNADIER

French/Cartographic Editor - Librarian

Miss P. BOUZANQUET

Secretariat

| | |
|-------------------|--------------------------------------|
| Mrs B. WILLIAMS | Head Secretariat |
| Mrs. C. FONTANILI | Secretary of the Directing Committee |
| Ms R. CAUDOUX | Document Preparation Assistant (DPA) |
| Miss M. MOLLET | Communications |

Office Management

| | |
|----------------|---------------------------|
| Mr. R. SEMLALI | Office Manager |
| Mr. A. MAACHE | General Service Assistant |

IHB TECHNICAL MISSIONS

| DATE | LOCATION | EVENT | ATTENDEE |
|----------------|---|--------------------------|----------------------|
| 13-15 January | London, UK | FIG and WAAT meeting | Capt. H. GORZIGLIA |
| 2-6 February | Helsinki, FINLAND | NHC Meeting | RAdm. K. BARBOR |
| 16-18 February | London, UK | SPWG Chair Group meeting | VAdm A. MARATOS |
| 16-18 February | London, UK | SPWG Chair Group meeting | Capt. F. BERMEJO |
| 16-20 February | London, UK | COMSAR | Lt. Cdr. S. SHIPMAN |
| 1-5 March | Tokyo, JAPAN | SPWG | VAdm A. MARATOS |
| 1-5 March | Tokyo, JAPAN | SPWG | Capt. F. BERMEJO |
| 2-7 March | Tokyo, JAPAN | WEND | RAdm. K. BARBOR |
| 3-7 March | Tokyo, JAPAN | WEND | Ing. en Chef M. HUET |
| 9 March | Paris, FRANCE | IALA | Lt. Cdr. S. SHIPMAN |
| 13-24 March | (Vietnam 13-17) (Thailand 18-20) (Brunei 21-23) | Technical visits to ASIA | Capt. H. GORZIGLIA |
| 13-24 March | (Vietnam 13-17) (Thailand 18-20) (Brunei 21-23) | Technical visits to ASIA | Capt. F. BERMEJO |
| 17-19 March | Hamburg, GERMANY | S-63 Workshop | A. PHARAOH |
| 22-29 March | Mumbai, INDIA | NIOHC + Hydro-IND 2004 | VAdm. A. MARATOS |
| 29-2 April | Silver Spring, USA | TSMAD | A. PHARAOH |
| 1-7 April | La Spezia, ITALY | GEBCO Guiding Committee | Capt. H. GORZIGLIA |
| 1-7 April | La Spezia, ITALY | GEBCO Guiding Committee | Lt. Cdr. S. SHIPMAN |
| 1-2 April | La Spezia, ITALY | GEBCO Guiding Committee | Ing. en Chef M. HUET |

| DATE | LOCATION | EVENT | ATTENDEE |
|-------------|--------------------------------|--|----------------------|
| 20-23 April | Hangzhou, CHINA | 4 th IBCWP | Ing. en Chef M. HUET |
| 21-23 April | Kiev, UKRAINE | 7 th BASWG | VAdm A. MARATOS |
| 1-4 May | Trieste, ITALY | IMA Technical Meeting | Capt. H. GORZIGLIA |
| 5-8 May | Kuala Lumpur, MALAYSIA | 27 th Meeting of the FIG/IHO/ICA Advisory Board | Capt. F. BERMEJO |
| 8-16 May | Havana, CUBA | Geomatica | RAdm K. BARBOR |
| 8-16 May | Havana, CUBA | Geomatica+ENC Workshop+ICA Standards Com. | Ing. en Chef M. HUET |
| 10-11 May | Trieste, ITALY | IMA, EUMEDIS | VAdm A. MARATOS |
| 12-18 May | London, UK | MSC 78, IMO | VAdm A. MARATOS |
| 12-20 May | London, UK | MSC 78, IMO | Lt. Cdr. S. SHIPMAN |
| 21 May | Oberammergau, GERMANY | NATO School | Ing. en Chef M. HUET |
| 22-29 May | Kuala Lumpur, MALAYSIA | ISO TC 211 | A. PHARAOH |
| 24-31 May | Ottawa, CANADA | USCHC & CHRIS | RAdm K. BARBOR |
| 24-27 May | Capetown, Rep. of SOUTH AFRICA | ATCM | Capt. H. GORZIGLIA |
| 24-26 May | Athens, GRE | FIG Working Week | Lt. Cdr. S. SHIPMAN |
| 24-26 May | Athens, GREECE | SPWG Seminar | VAdm A. MARATOS |
| 26-30 May | Athens, GREECE | SPWG Seminar | Capt. F. BERMEJO |
| 28-31 May | Ottawa, CANADA | 16 th CHRIS | Ing. en Chef M. HUET |
| 5-9 June | Buenos Aires, ARGENTINA | 125 th Anniversary of HO | Capt. H. GORZIGLIA |
| 6-11 June | Silver Springs, USA | SNPWG | A. PHARAOH |
| 6-13 June | St. Petersburg, RUSSIA | SCUFN | Ing. en Chef M. HUET |
| 14-18 June | London, UK | 54 th IMO T.C. | Capt. F. BERMEJO |
| 19-26 June | Paris, FRANCE | IOC Executive Council | Capt. H. GORZIGLIA |

| DATE | LOCATION | EVENT | ATTENDEE |
|--|----------------------------------|--|----------------------|
| 22-24 June | Paris, FRANCE | SPWG | VAdm. A. MARATOS |
| 22-24 June | Paris, FRANCE | SPWG | Capt. F. BERMEJO |
| 23 June | Brussels, BELGIUM | NATO, SHAPE | Lt. Cdr. S. SHIPMAN |
| 5-9 July | London, UK | IMO NAV,50 | VAdm. A. MARATOS |
| 5-9 July | London, UK | IMO NAV 50 | Lt. Cdr. S.SHIPMAN |
| 13-16 July | Istanbul, TURKEY | ISPRS | VAdm A. MARATOS |
| 26-28 July | New Orleans, USA | Multibeam Meeting Navoceano | Capt. H. GORZIGLIA |
| 29-30 July | Bremen, GERMANY | IBCSO | Ing. en Chef M. HUET |
| 30 August – 3 September | Cartagena de Indias, COLOMBIA | 6 th MACHC | Capt. H. GORZIGLIA |
| 30 August – 3 September | Cartagena de Indias, COLOMBIA | 6 th MACHC & SPWG Seminar | Capt. F. BERMEJO |
| 1 st September – 3 September | Cartagena de Indias, COLOMBIA | SPWG Seminar | VAdm. A. MARATOS |
| 6-8 September | Kythnos, GREECE | 4 th HCA | Ing. en Chef M. HUET |
| 6-8 September | Kythnos, GREECE | 4 th HCA | Capt. H. GORZIGLIA |
| 20-23 September | Cardiff, UK | NSHC | VAdm A. MARATOS |
| 22-24 September | Oberammergau, GERMANY | NATO School | RAdm K. BARBOR |
| 4-8 October | Pallanza, ITALY | ISO TC211 | A. PHARAOH |
| 5-7 October | Stavanger, NORWAY | IC-ENC TEWG | Ing. en Chef M. HUET |
| 11 –13 October | Lisbon, PORTUGAL | 6 th IHO Tidal Committee | Lt. Cdr. S. SHIPMAN |
| 12 – 15 October | Venice, ITALY | 5 th Regional Seapower Symposium, | VAdm. A. MARATOS |
| 18-21 October | Canberra, AUSTRALIA | ABLOS Business Meeting | Lt. Cdr. S. SHIPMAN |
| 25 – 28 October | Brest, FRANCIA | 8 th EAthC | Capt. F. BERMEJO |
| 26-29 October | Brest, FRANCIA | 8 th EAthC | Capt. H. GORZIGLIA |

| DATE | LOCATION | EVENT | ATTENDEE |
|------------------|------------------|------------------------|----------------------|
| 28-29 October | Brest, FRANCIA | 8 th EAthC | Ing. en Chef M. HUET |
| 4-12 November | Suva, FIJI | SWPHC + IHOCBC | RAdm K. BARBOR |
| 5-15 November | Suva, FIJI | IHOCBC 2 and Workshop | Capt. F. BERMEJO |
| 7-13 November | Suva, FIJI | IHOCBC 2 and Workshop | Capt. H. GORZIGLIA |
| 1-7 December | London, UK | MSC 79, IMO | VAdm A. MARATOS |
| 1-10 December | London, UK | MSC 79, IMO | Lt. Cdr. S. SHIPMAN |
| 8-9 December | Hamburg, GERMANY | WEND TG | RAm K. BARBOR |
| 13 - 17 December | Cape Town, RSA | East Africa MH Project | RAm K. BARBOR |
| 13 - 17 December | Cape Town, RSA | East Africa MH Project | A. PHARAOH |

VISITS TO HYDROGRAPHIC OFFICES IN 2004

President - Vice-Admiral A. MARATOS: Croatia, Greece, Japan.

Director I - Rear Admiral K.E. BARBOR: Cuba, Fiji, Finland, Germany, Japan.

Director II - Captain H. GORZIGLIA: Argentina, France, Thailand.

MEETINGS IN THE BUREAU**JANUARY**

- 15-16 - SPWG Chair Group Meeting.
27 - GEBCO Meeting.

MARCH

- 1-3 - Manual on Hydrography Working Group Meeting.
29-30 - S-51 Editorial Committee Meeting, TALOS.

APRIL

- 19-20 - SPWG Chair Group Meeting.
20-21 - IC-ENC Technical Experts Working Group TEWG - 4th Meeting.
28 - Finance Officers Committee's Meeting.

JUNE

- 22-23 - IHO Data Protection Scheme Working Group (DPSWG), 4th Meeting, IHB, Monaco.

JULY

- 5-9 - ICA Standards Commission Meeting, IHB Monaco.

OCTOBER

- 4 - SPWG Chair Group Meeting.
26-27 - S-63 eXtended Working Group Meeting, IHB, Monaco.

NOVEMBER

- 3-5 - IHO Chart Specification and Paper Chart WG (CSPCWG), 1st Meeting IHB Monaco.
8-12 - 11th TSMAD Meeting, IHB, Monaco.
24 - Finance Officers Committee Meeting.
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NEW HYDROGRAPHERS OF THE
HYDROGRAPHIC OFFICES OF MEMBER STATES



NEW HYDROGRAPHER OF DENMARK
From 1st November

On 1st November 2003 Jesper JARMBÆK was appointed General Director of “Kort & Matrikelstyrelsen” (National Survey and Cadastre), which also implies being National Hydrographer (Charting).

Jesper JARMBÆK has an untraditional background, as he has a degree in History from the University of Copenhagen. After having been associated with the University in a teaching capacity for 5 years, he was employed by the Ministry of the Environment for 16 years at Management level. In 1995, he left the Ministry to become Director in the Danish State Education Grant and Loan Scheme Agency. In 2000, he joined again the Ministry of the Environment, this time as Deputy Permanent Undersecretary of State.

Thus, Jesper JARMBÆK has an intimate knowledge of how the Danish Central Administration works, which is a valuable asset in his present position. He is also familiar with his new field of work as for the past 2 years he has chaired the spatial data service community.

He has held positions as member of the board of several public institutions.

“Kort & Matrikelstyrelsen’s” responsibilities include maintenance of high precision reference networks, cadastral registration and approval, topographic mapping and charting.



NEW HYDROGRAPHER OF THE HYDROGRAPHIC
SERVICE OF PERU
from January 2004

Rear Admiral Luis Enrique ILLESCAS CASTAÑEDA was born on 10 September 1954 in Lima, Peru. After completing his studies on 18 February 1972, he joined the Navy and was commissioned on 1 January 1976 as Ensign.

He is specialized in naval surface warfare. He followed the General Staff Basic Course at the Higher School of Naval Warfare, the Command and General Staff Course and the Course of Development and National Defence at the Higher National Studies Centre.

He served on board the following ships: B.A.P. "Quiñonez", the B.A.P. "Mollendo" and on the B.A.P. "Almirante Grau", to which he was detached on various occasions. He was also a member of the Inspection Board of the Route and Modernization of the B.A.P. "Grau" (The Netherlands). He was Commander of the ships B.A.P. "Callao" and B.A.P. "Almirante Grau".

He was also Inspector of Turbines and Official Secretary of the Modernization Project No. 1, Head of the Manufacture Department, General Superintendent of Naval Repairs for the Industrial Service of the Navy - Callao, Head of the Materials Department at the Naval Engineering Directorate, Deputy Director of the Naval Engineering Directorate, Head of the Enlistment Department of the Naval

Engineering Directorate, Director of Logistics of the General Directorate of Harbour Masters and Coastguards and Head of the Industrial Services of the Navy – Callao.

On 1 January 2004 he was promoted to the rank of Rear Admiral, and was appointed to the post of Director of the Hydrographic Service.

He is now Director of Hydrography and Navigation and Chairman of the South East Pacific Regional Hydrographic Commission (SEPHC) and of the International Bathymetric Chart of the South East Pacific (IBCSEP).



**NEW HYDROGRAPHER OF THE “SERVICIO
HIDROGRAFICO Y OCEANOGRAFICO DE LA
ARMADA DE CHILE” (SHOA)
from 26 January 2004**

Captain Roberto GARNHAM POBLETE was born on 20 November 1956 in Valparaíso, and, after achieving his studies in the School San Juan Evangelista, in Santiago, he entered the Naval School "Arturo Prat" in 1974, graduating with the rank of Ensign, in December 1977.

He is a specialist in Staff and Navigation. He has the Degree of Engineer in Arms and the Academic Degree of Naval and Maritime Sciences, both with mention in Navigation. In 1998, he graduated as a specialist in General Staff in the Naval Military Academy.

He served thirteen years on board: in the Destroyer " Vestibules ", the Cruiser " Or' Higgins" and in the tanker "Araucano", he was second Commander in the Destroyer DDG "Almirante Williams" in 1994 and in the School Ship "Esmeralda" in 1997. He was Commander of the tanker YOG "Guardián Brito" in 1983 and 1984, of Patrol boat PSG "Aspirante Morel" in 1996, the Frigate PFG "Minister Zenteno" in 2001 and the Icebreaker AP "Oscar Viel Toro" in 2003, participating in the Antarctic Campaigns 2002/2003 and 2003/2004.

Amongst his postings ashore, in addition to the various courses, he served as Assistant of the Commander in Chief of the Third Naval Zone, was a Division Officer in the Naval School "Arturo Prat", in the General Staff of the Command for the First and Second Naval Zones and in the Directorate of Social Well-being of the Navy. In 2002, he took up as Assistant Director of the “Servicio Hidrográfico y Oceanográfico de la Armada” (SHOA).

On 26 January 2004 he was nominated Director of the “Servicio Hidrográfico y Oceanográfico de la Armada” (SHOA).



**NEW HYDROGRAPHER OF MEXICO
From February 2004**

Rear Admiral Carlos O. ANGULO JIMÉNEZ was born on 29 January 1949.

He studied in the Naval Military School (1965 –1970), graduating as Midshipman. He was in command of different surface units, Commander of the Flotillas (1970 - 1998) and he was in charge of different Naval Sectors, and of the Naval Staff (Naval Zone and Region) (1999-2002).

He attended the High War Course at the High War School, Courses on High Command and National Security in the Centre of High Naval Studies (1979 – 1980) and of Staff at the Command Academy of the German Armed Forces (1995 – 1997). Later he was a Professor of the Naval Military School (1975-1977). He

attended an International Seminar about Environmental Practices in the Exploration and Production Offshore, en April 2003.

From 16 January 2003 he is Technical Secretary in the National Plan of Contingencies to fight against and control the dumping of hydrocarbons and other harmful substances in the sea of our country. He coordinates the programs carried out by his country about Coastal Ecologic Education. He is the promoter of the Conventions for the Oceanographic Collaboration for studies in the Californian Gulf under the Project of Nautical Steps of the Cortés Sea – and in the Gulf of Mexico, in the different specialisms of the oceanography; coordinator of the Program to avoid the disappearance of the Manglares; coordinator of the Operational Group for the Delimitation of the Mexican Maritime Zones from February 2004.

He was nominated Deputy General Director of Oceanography on 16 January 2003 and on 1st February 2004 Deputy General Director of Oceanography, Hydrography and Meteorology.



NEW HYDROGRAPHER OF JAPAN
From 1st April 2004

Dr. Kunio YASHIMA was appointed Chief Hydrographer of Japan on 1st April 2004, after serving as Deputy Director of the 9th Regional Coast Guard Headquarters.

He was born in 1948 and graduated from the Faculty of Science of the Tohoku University in 1970. After graduating from University, in 1971 he joined the Hydrographic Department of the Maritime Safety Agency (Hydrographic and Oceanographic Department (JHOD) of the Japan Coast Guard, present name). He obtained a Ph.D. in Submarine Geomorphology from the Tohoku University in 1993.

During more than thirty years of service in the Department, he was mainly involved in nautical charting and bathymetric charting. He also participated in important projects when holding the following posts:

- 1989-1990: Director of Hydrographic Department, 5th Regional Headquarters;
- 1992-1994: Head of Territorial Sea Baselines Research Office, Hydrographic Department, 1992 - 1994
- 1998-1999: Director of Coastal Survey and Cartography Division, Hydrographic Department;
- 2000-2001: Director of Planning Division, Hydrographic Department.

In particular while he was Head of the Territorial Sea Baselines Research Office, he contributed to the establishment of the baseline of the territorial sea, which is the base used for the delimitation of territorial sea, EEZ, and the continental shelf of Japan.

In addition to his work on a national level, he was involved in international relations as follows:

- 1977 – 1982: Joint Production of Common Datum Chart of the Straits of Malacca and Singapore.
- 1998 – 2001: He was deeply involved in the ENC publication issue in the Straits after the above-mentioned Joint Production.
- 1993 to date: Joint IOC/IHO Guiding Committee for GEBCO (GEBCO G.C.).
- 1993 - 2002 : GEBCO Sub-Committee on Undersea Feature Names (GEBCO SCUFN).
- 1998 - 2000: WEND.

He contributed to the revision of the deepest depth of 11,034m in the world, recorded by R/V “VITYAZ” U.S.S.R. in 1957, to 10,920±10m, which the Japanese S/V “TAKUYO” surveyed in 1987 in the Mariana Trench (Challenge Deep) as GEBCO G. C. member. He also effectively contributed to the international standardization of undersea feature names of the northwestern Pacific Ocean as SCUFN member.

JHOD has carried out its continental shelf surveys in cooperation with related governmental organizations and it has been decided that the scientific data for the continental shelf extension will be submitted to the United Nations by May 2009. This continental shelf project is expected to reach a successful conclusion under the new Chief Hydrographer's leadership.



**NEW CHIEF HYDROGRAPHER TO THE
GOVERNMENT OF INDIA**

From 1st July 2004

Rear Admiral B.R. RAO took over as the Chief Hydrographer to the Government of India on 01 July 2004 replacing Rear Admiral KR SRINIVASAN, who retired from service on 30 June 2004.

Rear Admiral RAO is a Charge Hydrographic Surveyor with 32 years of experience in the Indian Navy. He joined the National Defence Academy in 1969 and was commissioned into the Indian Navy on 01 July 1972. He volunteered for the Hydrographic Department of the Indian Navy in 1978 and completed his specialization in Hydrography in 1981. He is an alumnus of the Defence Services Staff College, Wellington and the College of Naval Warfare, Mumbai.

Rear Admiral B.R. RAO has held several important appointments in the Hydrographic Department and the General Service. He was in command of the Missile Boat, INS Nashak, which was involved extensively in the rescue and salvage operations of the Air India Boeing 747 "Emperor Ashoka" which crashed off Mumbai in 1978. For his exceptional devotion to duty, he was awarded the Nausena Medal. He has been the commissioning Executive Officer of IN Survey Ship "Nirupak" and the commissioning Commanding Officer of IN Surveying Ship "Jamuna". He later commanded IN Surveying Ship "Sutlej" in the rank of Captain. He served as a Deputy Hydrographer at Naval Headquarters and at the Naval Hydrographic Office (NHO), Dehradun from 1987 to 1991. He was the Joint Chief Hydrographer at NHO from 1993 to 1994. He has served as the Command Plans Officer in the HQ, Southern Naval Command and the Command Administration and Personnel Officer in HQ, Eastern Naval Command. As the Station Commander, Project Seabird in Karwar from 1999 to 2003, he was instrumental in the project for establishment of a new major Naval Base taking firm shape and progressing well ahead of schedule. He was awarded the Vishist Seva Medal for distinguished service of a very high order by the President on 26 January 2004.

He took over as the Additional Chief Hydrographer at the National Hydrographic Office, Dehradun in November 2003 and was appointed Chief Hydrographer to the Government of India on promotion to the rank of Rear Admiral.



NEW HYDROGRAPHER OF THE U.S. NAVY

Rear Admiral Timothy MCGEE
Commander
Naval Meteorology and Oceanography Command

(information received in August 2004)

A native of Washington, D.C., Rear Admiral Tim MCGEE graduated from the U.S. Naval Academy in 1978.

Rear Admiral MCGEE transferred into the Oceanography community in 1980 and reported to Oceanographic Unit ONE, USNS BOWDITCH (T-AGS-21), as the Executive Officer. Following his assignment at sea, Rear Admiral MCGEE assumed duties as Officer in Charge of the Defense Mapping

Agency (DMA) Atlantic Office, serving until December 1984.

He graduated from the Naval Postgraduate School in 1986 with a Master's Degree in Meteorology and Oceanography and an advanced international certification in hydrographic science.

In September 1986, Rear Admiral MCGEE reported to the Naval Oceanography Command Detachment in Diego García, British Indian Ocean Territory, where he served as Officer in Charge. In 1988, he returned to the Indian Ocean as the Oceanographer assigned to USS CARL VINSON (CVN-70) and Commander Carrier Group III. Rear Admiral MCGEE qualified as a Surface Warfare Officer aboard USS CARL VINSON and was selected as the Pacific Fleet's Shiphandler of the Year, 1989.

Rear Admiral MCGEE reported to the Chief of Naval Operations (N096) staff in February 1990, where he managed several Advanced R&D Programs for the Oceanographer of the Navy. In 1991, he was reassigned to the Bureau of Naval Personnel where he performed duties as the Oceanography Officer Detailer, Placement Officer and Community Manager. In 1993, Rear Admiral MCGEE reported as Fleet Oceanographer, Commander of the Sixth Fleet aboard USS BELKNAP and USS LASALLE in Gaeta, Italy, and was concurrently the Mediterranean Theater Executive Agent for Tactical Land Attack Missile strike.

In October 1995, Rear Admiral MCGEE assumed command of the Naval Pacific Meteorology and Oceanography Facility in San Diego. Following command, he reported as Assistant Chief of Staff for Resources for Commander, Naval Meteorology and Oceanography Command and subsequent assignment as Executive Officer, Naval Oceanographic Office.

Rear Admiral MCGEE commanded the Naval Oceanographic Office from March 2000 to March 2002 and was the Associate Director for Operations to the U.S. Commission on Ocean Policy from September 2001 to March 2002. In April 2002, Rear Admiral MCGEE became the Assistant Chief of Naval Research. In April 2003, Rear Admiral MCGEE reported to Commander of the Joint Task Force 7, Iraq, on the staff of the Commanding General directing Naval Operations and in July 2003 as the Chief of Staff to the Director of Operations and Infrastructure for the Coalition Provisional Authority, Iraq. He assumed command of the Naval Meteorology and Oceanography Command in July 2004.

His awards include the Legions of Merit, Bronze Star, Defense Meritorious Service Medal, Meritorious Service Medals, Navy and Marine Corps Commendation Medals and various campaign and unit ribbons.

NEW HYDROGRAPHER OF COLOMBIA
(no more information provided)

On the 16th December 2004, Vice Admiral PINEDA GALLO assumed a new position : “Inspector General de la Armada Nacional de Colombia”.

The new Director General Marítimo from this date is Rear Admiral Edgar Augusto CELY NUÑEZ, who was the Colombian Permanent Representative to the IMO, four years ago.
