

INTERNATIONAL HYDROGRAPHIC ORGANIZATION



ANNUAL REPORT 2006

PART 1 – GENERAL

ANNUAL REPORT
OF THE
INTERNATIONAL HYDROGRAPHIC
ORGANIZATION

2006

PART I - GENERAL

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INTERNATIONAL HYDROGRAPHIC ORGANIZATION

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(*) Suspended Member States

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DIRECTING COMMITTEE

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 is pleased to present the Annual Report Part 1 for 2006 to IHO Member States and to all those who are interested in the hydrographic, cartographic and navigational developments of the IHO, which contribute to safety of navigation, protection of the marine environment, development and security.

The Annual Report consists of two parts:

Part 1 – General. Summarizes the technical work of the Organization as it is described within its Work Program. It provides the activities of the Regional Hydrographic Commissions, Committees, Working Groups and Advisory Boards. It also highlights the cooperation with other International Organization, Institutions, with the maritime industry and Academia.

Part 2 – Finance. Presents the financial issues of the Organization for 2006 and will be made available in May, following the closing of the financial period in accordance with Article 11 of the Financial Regulations and the examination of the Auditor's report in accordance with Article 21 of the Financial Regulations.

Whilst all the activities and work carried out during 2006 are very important and effectively contribute to the mission, demands and requirements of the Organization, the completion of the work of the Strategic Planning Working Group (SPWG), must be considered as one of the major events of the year. After the approval of the Protocol of Amendments to the Convention, during the Extraordinary Hydrographic Conference in 2005, the completion of the revision of the General Regulations, Financial Regulations and the preparation of Rules of Procedures for the Assembly, Council and Finance Committee, in order to be aligned with the amended Convention, is considered of high importance to the Organization.

Along with these changes/improvements the restructure of the technical bodies of the Organization under two main Committees, will result in a better coordinated Organization that will be at the same time more efficient and effective in the maritime demands and requirements. The proposals for these changes have been sent to Member States for comments.

Many other issues of importance to the Organization were examined during 2006, aiming at responding to demands and requirements for the provision of better hydrographic services. Worth highlighting are the following:

- Decisions taken at the 18th meeting of CHRIS and the 10th meeting of WEND, aiming at moving forward the development of the new Standard S-100, accelerate the production of ENC's, refer to Member States for approval the IHO Data Protection Scheme (S-63), cooperate better with the maritime Industry through the discussion that took place in the 2nd ECDIS Stakeholders' Forum.
- Capacity Building program is better coordinated by the Capacity Building Committee and the establishment of the Capacity Building Fund, supports the needs and requirements coming mainly from the Regional Hydrographic Commissions.
- The IHO Work Program and Budget for 2007 was approved by Member States and it will be implemented 1st January 2007.
- In 2006 nine RHCs met and discussed regional issues referring to the production of ENC's and International Charts, the availability of hydrographic data, the status of promulgating Maritime Safety Information (MSI), the Capacity Building requirements, the cooperation in the Region, etc.

- There was a very close cooperation with IMO, IOC, IALA, FIG and ICA. Worth noting is the acceptance by IMO of the amendments to the ECDIS Performance Standards as it was proposed by IHO, the approval of the mandatory carriage of ECDIS for High Speed Crafts and the continuous cooperation on the tsunami disaster.
- The very useful cooperation with FIG and ICA continued through the International Advisory Board on Standards of Competence for Hydrographers and Nautical Cartographers. New courses were examined for international recognition.
- The Manual on the Technical Aspect of the Law of the Sea (TALOS) has been concluded and circulated to Member States.
- The celebration at the Bureau with the presence of Prince Albert 2nd and Members of the Government of Monaco and in Member States of the first World Hydrography Day.

The Directing Committee invites the readers of this IHO Annual Report Part 1, to visit the IHO web site www.iho.int where they can find more detailed information on the work of the IHO.

WORK PROGRAMME 1

COOPERATION AMONG MEMBER STATES AND WITH INTERNATIONAL ORGANIZATIONS

1. IHO REGIONAL HYDROGRAPHIC COMMISSIONS

6th NORTH INDIAN OCEAN HYDROGRAPHIC COMMISSION MEETING
Colombo, Sri Lanka, 14-16 March 2006

Chairperson: RAdm. MONCRIEFF (UK)
Vice Chairperson: Mr. ARIYAWANSA (Sri Lanka)
Members: Bangladesh, Egypt, India, Myanmar, Sri Lanka, Thailand, United Kingdom.
Associate Members: France, Pakistan, Seychelles, USA.
Observers: Malaysia, Oman, Saudi Arabia.
IHB Representatives: VAdm.MARATOS, Lt. Cdr. SHIPMAN



The 6th meeting of the North Indian Ocean Hydrographic Commission (NIOHC) took place in Colombo, Sri Lanka, from 14 to 16 March 2006. Thirty-seven persons participated in the meeting, representing the following States and Organizations: Bangladesh, France, Germany, India, Myanmar, Oman, Pakistan, Saudi Arabia, Sri Lanka, Seychelles, Thailand, UK, USA, Yemen, IHB, IOC and

IOMAC. Dr Wyn WILLIAMS, the UKHO Chief Executive, chaired the meeting. Adm A. MARATOS represented the IHB.

Following the playing of the Sri Lankan National Anthem and the lighting of the Traditional Oil Lamp, the proceedings were opened with a welcome address made by the Chairman of NARA, Mr K. HAPUTANTI. The Keynote Address was given by Adm A. MARATOS, IHB President, indicating the importance of hydrography to the safety of navigation, while Dr. Wyn WILLIAMS thanked NARA for organizing the meeting and said how honoured he was to chair a conference so well supported by its members. The Secretary, Ministry of Fisheries & Aquatic Resources, Mr. JINADASA, emphasized that Sri Lanka is responsible for a sea area eight times the size of its land area and the loss of its survey vessel during the tsunami presented a very real problem. The address of Mr. Yoshan SADDHASENA, Director General, NARA, completed the formalities of the opening ceremony.

The President of the IHB presented a report on various issues concerning the Organization that had been handled during the intersessional period. He reported on the progress concerning the SPWG, WEND, CHRIS, the developments with the Indian Ocean tsunami initiatives, Capacity Building, GEBCO and the Publications S-44 and S-55. He emphasized the importance of, and the progress made with, cooperation with other international organizations and in particular IMO, IOC and IALA.

The Commission discussed and reviewed many issues. It was decided to amend the Statutes of the Commission in order to meet every year, as a result of the SPWG and Capacity Building initiatives. There was an in-depth discussion on the assistance needed in the area for recovery from the tsunami disaster. Different actions have been put in place by the IHB, Germany, France and India, particularly to support Sri Lanka's needs. The IHB coordinates support to Sri Lanka which will come from the IMO Tsunami Relief Fund, following discussions that the President had with IMO officials. The Commission also reviewed the status of hydrographic surveying and charting, a report by India concerning the progress on implementation of the INT Chart Scheme, the status and future actions for the production of ENCs, the needs for Capacity Building and the implementation of the GMDSS and the promulgation of MSI. The President outlined the developments of the SPWG work and the preparations undertaken by the IHB towards the next Hydrographic Conference in May 2007.

The next meeting will be held in Bangkok, Thailand in February-March 2007, under the chairmanship of the UKHO.

50th MEETING OF THE NORDIC HYDROGRAPHIC COMMISSION (NHC)

Longyearben, Svalbard, Norway, 24-25 April 2006

Chairperson: Mr. ESKILDSEN (Denmark).
Members: Denmark , Finland , Iceland , Norway , Sweden
IHB Representatives: RAdm. BARBOR, Mr. PHARAOH

Established in 1929, the oldest Regional Hydrographic Commission of the IHO held its 50th meeting in Longyearbyen on the Norwegian Islands of Svalbard. Longyearbyen was also celebrating its Centennial with King Harold opening a new research building at the University of Svalbard during our stay. The season of the "midnight sun" had just begun 5 days before our arrival providing even the Nordic Commission members a memorable experience.

Chairman Frode KLEPSVIK opened the meeting, welcoming the Commission members and noting that Norway had recently developed a strategic plan for their Arctic areas. It was particularly noteworthy that when introducing the plan to parliament, the Prime Minister referred to Hydrography five times.

Dr. Terje BRINCK LOYNING of the Norwegian Polar Institute keyed the meeting providing the participants with a greater appreciation of scientific activities and issues in the Arctic region. Ms. Hanne Margrethe INGEBRIGTSEN, a legal advisor to the Governor of Svalbard, provided more information on the history, culture and modern day issues of administering the region.

The national reports from the members indicated continued advancement in ENC production and the conduct of modern surveys. Keeping with the Arctic theme, both Norway and Denmark noted plans to conduct surveys in their Arctic waters.

Finland noted that their VTS is using official ENC data, while Norway added that all their pilots are equipped with laptop computers running ECDIS with official ENCs. Both these initiatives greatly increase the exposure of ENCs to the mariner and contribute markedly to safety of navigation.

HELCOM agreements have mandated ENCs based on modern survey data for the Baltic Sea resulting in an aggressive survey plan and expeditious issuance of ENCs for the countries party to this agreement. To display the current status of survey execution and ENC availability, Sweden has designed an interactive and updateable website. This website will be available via links from the IHO website in the near future.

Other discussions of note included the role of Hydrographic offices in the development of national spatial data infrastructures. Norway reported on Project MAREANO, its efforts in developing a comprehensive bathymetric and oceanographic database that will form the framework for marine management.

Sven ESKILDSEN of Denmark accepted the chairmanship and set a tentative date and venue for the 51st meeting as 17-18 April 2007 in Copenhagen.

2nd MEETING OF THE ROPME SEA AREA HYDROGRAPHIC COMMISSION (RSAHC)

Tehran, Islamic Republic of Iran, 2-3 May 2006

Chairperson:	Cdre. ZAFARYAB, Pakistan
Vice Chairperson:	RAdm. RAHMAN MOHD AL SHEHRI, Saudi Arabia
Members:	Bahrain , Iran , Kuwait, Oman, Pakistan, United Arab Emirates.
Associate Members:	Qatar, Saudi Arabia, United Kingdom, United States of America.
Observers:	Regional Organization for the Protection of the Marine Environment (ROPME), Middle East Navigation Service (MENAS).
IHB Representatives:	Capt.GORZIGLIA, Lt. Cdr. SHIPMAN

The 2nd meeting of the ROPME Sea Area Hydrographic Commission (RSAHC) was held in Tehran, Islamic Republic of Iran, from 2 -3 May 2006.

The 2nd meeting of RSAHC opened in the Farmanieh Building. Welcoming speeches were made by HE the Minister of Roads and Transportation Mr. Mohammad RAHMATI, the Chairman of RSAHC Mr. S Ali ESTIRI, IHB Director Captain Hugo GORZIGLIA and the ROPME Co-ordinator Dr. Hassan MOHAMMADI. The meeting was attended by the following Member States of the RSAHC: Bahrain, Islamic Republic of



Iran, Kuwait, Oman, Pakistan and the United Arab Emirates; the following Associate Member States: Qatar and Saudi Arabia; and the following Observers: ROPME and the IHB.

The meeting reviewed the Statutes prepared at the first meeting and decided to appoint a drafting group to prepare a revised text incorporating changes to allow the election of a Vice-Chairman, meetings to be held at least biennially and for the Chairman and Vice-Chairman to take office immediately upon election. All these changes were approved in addition to a few editorial corrections and the update of Annex A – Resolution T 1.3.

All countries presented their national reports, including the progress made so far in hydrographic surveying and nautical charting production, as well as on actions taken regarding MSI. On this last point it was considered important to have all States confirming their point of contact for MSI to the NAVAREA IX Co-ordinator.

The representatives from Qatar and Saudi Arabia informed the Commission that they expected to become IHO Members States in the very near future.

Captain GORZIGLIA, IHB, provided a brief on the general activities of the IHO based on the IHO Work Programme, on S-55 and the activities of the IHOCBC, motivating participants to identify regional needs and priorities. The reports were well received by the participants and the three reports were discussed in detail. With regard to S-55, MS were urged to send the missing information to the IHB and to keep existing information updated. Some clarification was sought on the procedure to be followed in filling out the questionnaire. The longest discussion took place on CB matters, where a drafting group made the preliminary definitions of regional needs and priorities. The Meeting agreed that the Chairman would coordinate an urgent reply to the CBC on regional requirements for inclusion in the 2007 CBWP, as well as the longer-term requirements to be included in the IHO 2008 – 2012 Work Programme.

Training and education were considered to be major issues requiring a regional approach. It was agreed that all States would conduct a review of the training facilities that currently exist and the needs for training in order that the true requirements of the Region could be determined, and the necessary actions defined.

The status of INT charts and ENC production within the region was discussed. It was the general opinion that it was not possible to reach a conclusion on the tabled documents within the meeting and therefore participants agreed to review the corresponding INT Chart Region I scheme afterwards and provide comments to the INT Chart co-ordinator (I.R. of Iran), who will send the revised version to the IHB for inclusion in M-11. On ENC issues, it was agreed to have all States considering the possibility of a single distributor for the RSAHC.

Pakistan was elected Chairman and will host the 3rd meeting at a date to be agreed within the next two years. Saudi Arabia was elected Vice-Chairman.

Before closing the meeting, countries expressed their thanks to the Islamic Republic of Iran for hosting the meeting and particularly to the Ports and Shipping Organization for the arrangements made. Thanks also were given to ROPME for the support provided to its associates who attended the meeting and to the IHB for the advice offered to the Chairman and all participants during the discussions that resulted in a very productive event.

The IHB Director invited all States to maintain permanent communications among RSAHC Members and with the IHB, as a requisite for fostering the agreed actions.

The meeting was closed at 1600 on Wednesday 3 May.

**SPECIAL MEETING OF THE SOUTHERN AFRICA AND ISLANDS
HYDROGRAPHIC COMMISSION (SAIHC)**

Maputo, Mozambique, 6 June 2006

Chairperson:	Capt. KAMPFER (South Africa)
Vice Chairperson:	Mr. MUNDLOVO of (Mozambique - INAHINA)
Members:	France, Norway, Mauritius, Mozambique, Republic of South Africa, UK.
Associate Members:	Angola, Kenya, Madagascar, Namibia, Portugal, Seychelles, Tanzania
IHB Representatives:	RAAdm. BARBOR, Mr. PHARAOH

The Southern Africa and Islands Hydrographic Commission (SAIHC) took advantage of the impressive attendance at the Technical Workshop, sponsored by the IHO Capacity Building Committee, to convene a special meeting focused on the capacity building needs of the region. Marking the first time that all states in the region were present at a SAIHC Meeting, the Chairman, Captain Abri KAMPFER, had a rare opportunity to assess the state of hydrography in the region and develop a well planned roadmap for improving the region's response to SOLAS V obligations.

Building on the discussions held in the Technical Workshop that laid out the three phases of hydrographic capacity building and the Technical Assistance visits recently completed to the hydrographic stakeholders in the region, the Commission developed a plan to address the particular needs of the region that could be accommodated in the IHOCBC Work Plan. Other discussions dealt with other capacity building initiatives, such as the Western Indian Ocean Marine Highway Development, the new IMO-sponsored Regional Rescue Coordination Centers in Mombasa and Dar Es Salaam, and other bilateral projects.

The excellent attendance, in no small part due to the contributions of Norway enabling many of the states to send a representative, and the focused agenda contributed to a successful meeting. The SAIHC Chairman was able to effectively represent the regions in the following IHOCBC meeting.

**29th MEETING OF THE UNITED STATES – CANADA HYDROGRAPHIC
COMMISSION (US- CHC)**

Halifax, Nova Scotia Canada, June 7, 2006

Co-Chairpersons :	Dr. NARAYANAN (Canada) Capt. PARSON (USA-NOAA)
Members :	USA and Canada.
Observers :	IHB

The 29th meeting of the US-Canada Hydrographic Commission was hosted by Dr. Savi Narayanan, in conjunction with the Canadian Hydrographic Conference 2006. Vice-Admiral Maratos represented the IHB and representatives from other Hydrographic Services participated as observers: Mr Boris Argandona and Mr Juan Carlos Cuneo (Servicio Hidrografico y Oceanografico de la Armada, Chile); Captain Fernando Angli and LtCdr Ponce (Direccion General Adjunta de Oceanografia, Hidrografia y Meteorologia, Mexico); and Dr. Wyn Williams (UK Hydrographic Office). The meeting covered numerous topics that furthered the cooperation of the two countries. Dr. Narayanan outlined the recent changes to the Canadian Hydrographic Service (CHS), which are not yet finalized. The two Countries under the "Charting" issue discussed the Status of the Transboundary ENC's and the accessibility to charts in an emergency situation. They also discussed cooperative activities under "Hydrography" and sharing of data in areas of UNCLOS activities and personnel exchange programs.

The IHB presented information on the activities of the SPWG, the developments towards the XVIIth IHC, the cooperation with other International Organizations and especially IMO, the results of the seminar in Rostock, Germany on Spatial Data Infrastructure, the Capacity Building activities, the progress of work of the S-44 Working Group and the celebrations of the first World Hydrography Day.

The next meeting of the US-CHC will be in conjunction with the US Hydrographic Conference, 14-17 May, 2007 in Norfolk, Virginia.

27th MEETING OF THE NORTH SEA HYDROGRAPHIC COMMISSION (NSHC) Rostock, Germany, 4 - 6 September 2006

Chairperson: RAdm. MONCRIEFF (UK)
Vice-Chairperson: Prof. Dr. EHLERS (Germany)
Members: Belgium, Denmark, France, Germany, Iceland, Netherlands, Norway, Sweden UK.
IHB Representatives: VAdm. MARATOS, Lt. Cdr. SHIPMAN

The 27th Meeting of the North Sea Hydrographic Commission (NSHC) was hosted by the German Hydrographic Service in Rostock, from 4 to 6 September 2006. Twenty-one representatives from Belgium, Denmark, France, Germany, Iceland, The Netherlands, Norway, Sweden and the United Kingdom participated, as well as an observer from Ireland. Vice Admiral Alexandros MARATOS represented the Bureau. Dr. Peter EHLERS, the Director of the German Hydrographic Service, chaired the meeting.



The meeting considered and reviewed many topics of interest: the Status of Hydrographic Surveying and Nautical Charting in the NSHC as contained in the IHO Special Publication S-55, the production of new ENC's, the implementation of CARIS HPD for the optimization of chart production, the use of reference datum and positioning systems from different States, the Digital Sailing Directions were some of the technical issues that were examined.

Also a number of administrative and marketing issues of interest to the members of the Commission were considered, amongst which the reorganization of National Hydrographic Offices, the status of

Bilateral Agreements, European and National Initiatives concerning the GDI, the frequency of meetings, the PRIMAR Stavanger status report and the SPWG developments.

The participants, in discussing a proposal submitted by France, decided to celebrate *World Hydrography Day* next year all together as a Commission, in order to increase the awareness of the importance of Hydrography. France was tasked with organizing the event.

9TH MEETING OF THE EAST ASIA HYDROGRAPHIC COMMISSION

Jeju, Republic of Korea, 19-22 September 2006

Chairperson:	Mr. YUNG (Rep.of Korea)
Vice-Chairperson:	Mr. OEI (Singapore)
Members:	China, Indonesia, Japan, Malaysia, Philippines, Rep. of Korea, Singapore and Thailand.
IHB Representatives:	VAdm. MARATOS, Lt. Cdr. SHIPMAN

Under the Chairmanship of Mr. You-Sub JUNG of the Republic of Korea, the 9th Meeting of the East Asia Hydrographic Commission (EAHC) convened on the Island of Jeju, Korea. Twenty-eight representatives from eight Member States of the EAHC and nine observers representing the IHB and three non-members states of the EAHC attended.

The national reports noted steady progress throughout the region in surveying to modern standards and the production of charts, both paper and ENC, using these new data. Bilateral and multilateral agreements amongst EAHC Member States and with IHO Member States outside the region are advancing the state of hydrography and nautical cartography. Most notable are the multi-national efforts in the Malacca and Singapore Straits and the EAHC ENC production in the South China Sea. The technical presentations covered numerous hydrographic and oceanographic topics in data collection techniques, data processing, database management and ENC production.

Capacity Building received significant attention as the EAHC agreed to form a Capacity Building Committee to provide a unified and informed input to the IHO Capacity Building Committee. The Chair of the EAHC would also chair the EAHC Capacity Building Committee. Membership would be open to all EAHC Members and its work would be primarily progressed through correspondence.

Capitalizing on the significant progress realized through the South China Sea ENC Task Group and the EAHC ENC Harmonization Task Group, the EAHC approved the continued improvement of the SCS ENCs through process of harmonization, optimization, enhancement and updating to be carried out by a reconstituted SCS ENC Task Group. Additionally, the Task Group would develop and maintain an EAHC on-line ENC catalogue and promote the use of ENC throughout the region. Another Working Group was formed to conduct an assessment of the quality of the source data on which the SCS ENC were produced, with specific concerns regarding shoals and wrecks, and make recommendations for the resources and manner in which the quality of the SCS ENC may be improved.

At the conclusion of the meeting, Mr. Parry Oei assumed the Chairmanship and announced the next meeting would be held in Singapore in October 2009.

7th MEETING OF THE MESO-AMERICAN AND CARIBBEAN REGIONAL HYDROGRAPHIC COMMISSION (MACHC)

Acapulco, Mexico, 4-7 October 2006

Chairperson:	RAdm.DEL ANGEL RIVAS (Mexico)
Vice-Chairperson:	
Members:	Brazil, Colombia , Cuba , France , Guatemala, Jamaica , Mexico, The Netherlands , Trinidad and Tobago , United Kingdom , United States of America , Venezuela.
Associate Members:	Antigua & Barbuda, Barbados, Guyana, Haiti, Honduras, Nicaragua and Panama.
IHB Representatives:	Capt.GORZIGLIA, Capt. BERMEJO



The 7th Meeting of the Meso-American-Caribbean Sea Hydrographic Commission (MACHC) was held at the Naval Base of the Mexican Navy, in Acapulco (Mexico) organized by the “Secretaría de Marina – Armada de Mexico”. Representatives from Antigua & Barbuda, Argentina, Barbados, Belize, Brazil, Colombia, Cuba, El Salvador, France, Grenada, Guatemala, Jamaica, Latvia, Mexico, Netherlands (The), Trinidad & Tobago, UK, USA, Venezuela, IMO, FIG, IHB and commercial companies attended the meeting, which was opened and chaired by Rear Admiral DEL ANGEL (Mexico).

The Chairman summarized the work carried out during the inter-sessional period. He recalled that Brazil had been admitted as a new member of the Commission during the Extraordinary Meeting held in 2005 in Veracruz and welcomed the Hydrographer of Argentina, who was attending the meeting by special invitation of the Host country.

The Agenda was approved with a minor amendment provided by US concerning the consideration of regional proposals and initiatives within the framework of the Capacity Building Plan.

Capt. GORZIGLIA reminded the participants that the deadline for receipt of the input from RHCs for the IHO Work Programme 2008-2012 for submission to the 17th Conference was up (1st October).

The Commission decided to include this item on the Agenda for discussion and action.

Capt. GORZIGLIA outlined the results of the Seminar that had been held from 2 to 4 October. He emphasized that the Seminar had been successful and had achieved its objectives; he further noted that the experience gained would be very useful for future similar events. As well as having raised awareness on the importance of hydrography in the countries in the region, the seminar also helped in identifying the main regional CB needs and opportunities.

The Committee considered the draft Terms of Reference for the Commission’s Capacity Building Committee and Electronic Chart Committee as well as the new limits of the Commission, following the admission of Brazil as a new member. A Working Group composed of Cuba, Mexico, United States and Venezuela was formed to study these documents and prepare a proposal.

Capt. SUÁREZ (Venezuela) and Col. ALUN (Cuba) were elected respectively Chairman and Vice-Chairman of the newly formed CB Committee that also includes Brazil, Colombia, Jamaica and Mexico as members.

The Chairman reminded those members and associate members who had not yet signed the Statutes to do so as soon as possible.

Lt. Cdr PONCE updated the meeting about the conclusion of the work assigned to the SPWG. The findings and conclusions of the WG will now be submitted to the 17th IH Conference as Conference Proposals.

He also informed the meeting that, to date, ten countries had ratified the amendments to the Convention (Mexico had just recently ratified them) and he urged the rest of the countries of the Commission to do so.

Mexico, supported by Brazil, presented a new proposal for submission to the 17th I.H. Conference about the definition of "Hydrographic Interests". It was agreed to further study the subject, and it was also pointed out that support from a third country would be required before its submission to the IHB. Another proposal concerning the selection procedure of MACHC representatives to sit on the future IHO Council was also tabled by Mexico. It was agreed that the other countries of the Commission will study the proposed text before taking a decision.

Reports from the INT Chart Committee and the Electronic Chart Committee (Task Groups 1 and 2) were tabled. The reports included information about the status of regional production of INT charts and ENCs, small scale INT Chart ENCs, a proposed strategy for the production of large scale ENCs with private sector partners. The reports were endorsed by the Commission.

Following the decision to include the item "IHO Work Programme 2008-2012" on the Agenda, the Commission decided to establish a Working Group, chaired by Mexico and composed of Colombia, Cuba, Jamaica, UK, USA and Venezuela to draft a proposal to be sent to the IHB by 1st November.

The 8th MACHC Meeting will be held in Rio de Janeiro (Brazil), possibly in the last week of September 2007. It was also decided to accept the invitation from the Hydrographer of Venezuela to hold the 9th Meeting in Caracas in 2008.

A Seminar "International Maritime Organization Tools: Managing Ship Traffic to Ensure Environmentally Safe and Sound Navigation in the Gulf of Honduras" was held on Friday 6 October, with several presentations.

**AWARDING OF THE « MEDAL FOR DISTINGUISHED SERVICES
TO THE GENERAL MARITIME DIRECTORATE »
7th Conference of the MACHC
Acapulco, Mexico, 4-7 October 2006**

By Resolution n° 692 of 26th September 2006 of the Colombian Navy, the Commander of the Colombian Navy, Vice-Admiral Guillermo Enrique BARRERA HURTADO, awarded the Medal for « Distinguished Services to the General Maritime Directorate » to Captain Hugo GORZIGLIA, Chilean Navy, Director of the International Hydrographic Bureau, in recognition of efficient services rendered.

The medal was presented by Rear Admiral Daniel IRIARTE, General Maritime Director of the Colombian Navy, during a private ceremony held in Acapulco, Mexico, on the occasion of the 7th Conference of the Meso-American-Caribbean Sea Hydrographic Commission (MACHC), 4 -7 October 2006.

6th MEETING OF THE IHO HYDROGRAPHIC COMMITTEE ON ANTARCTICA (HCA)

Punta Arenas, Chile, 6 - 8 November 2006

Chairperson: Capt. GORZIGLIA (IHB)
Vice Chairperson: Capt. NAIRN
Secretary: Ing. en Chef HUET (IHB)
Members: Argentina, Australia, Chile, China, Ecuador, France, Germany, Greece, India, Italy, New Zealand, Norway, Russian Federation, South Africa, Spain, United Kingdom.

**Pending Confirmation
of Membership:
Observer Organizations:**

Brazil, Japan, Korea (Rep. of), Peru, Poland, Ukraine, Uruguay, USA. Antarctic Treaty Secretariat (ATS), Council of Managers of National Antarctic Programmes (COMNAP), Standing Committee on Antarctic Logistics and Operations (SCALOP), International Association of Antarctic Tour Operators (IAATO), Scientific Committee on Antarctic Research (SCAR), International Maritime Organization (IMO), Intergovernmental Oceanographic Commission (IOC), General Bathymetric Chart of the Oceans (GEBCO), International Bathymetric Chart of the Southern Ocean (IBCSO), IHO Data Center for Digital Bathymetry (DCDB), Australian Antarctic Division, Antarctica New Zealand.



The 6th Meeting of the Hydrographic Committee on Antarctica (HCA) took place at the Chilean Antarctic Institute (INACH), Punta Arenas, Chile, on 06-08 November 2006, organized by the Hydrographic and Oceanographic Service of the Chilean Navy (SHOA) and INACH. The following national authorities attended the Opening Ceremony: the Governor of the Magallanes Province, the

Commander-in-Chief of the 3rd Naval Zone, the Mayor of the City of Punta Arenas, the Director of INACH and the Deputy Director of SHOA.

The Chairman, Capt. GORZIGLIA (IHB Director), opened the meeting welcoming the 11 IHO Member States (Argentina, Australia, Brazil, Chile, China, Ecuador, India, Italy, Norway, South Africa and United Kingdom) and the 3 representatives of international organizations (COMNAP, SCALOP and IAATO) who participated actively in the event. Representatives from the Chilean Ministry of Foreign Affairs were also present. The Chairman provided a brief, but complete, report on the activities conducted since the last meeting and submitted several more actions to the Committee for consideration at the meeting.

The Committee reviewed the membership status and noted that Brazil and Ecuador have signed the Statutes. In fact, Brazil signed them at the opening of the meeting. The Chairman was tasked to contact Japan, Rep. of Korea, Peru, Poland, Ukraine, USA and Uruguay, inviting them to consider signing the Statutes and participating in HCA activities. Following this formality and in accordance with Art 5.2 of the Statutes, the Committee re-elected by acclamation Captain Rod NAIRN (Australia) as Vice Chairman of the HCA.

The Committee reviewed the status of the actions agreed at the last meeting and confirmed that almost all actions had been completed. The meeting considered the reports of the international observer organizations as well as from IHO Member States. HCA activities were analyzed in the light of the IHO Work Program, mainly including the INT Chart scheme update and the chart production. The status of S-55 in Antarctica was also analyzed and actions were identified to improve the information so far obtained.

The Committee noted with satisfaction the importance given to the work of the HCA mainly by the Antarctic Treaty System, COMNAP and IAATO. It was the Committee's feeling that progress can be achieved only by improving priorities of National Antarctic programs.

One of the most relevant discussions took place following the report of the Chairman of the HCA Hydrographic Survey Work Program Working Group, successfully chaired by Mr. Andy WILLET (UK). As a result of an interesting exchange of views, several actions were identified, all aimed at improving the safety of navigation as quickly as possible. Some of those actions are:

- a) To establish a hydrographic survey program based on national programs, avoiding as far as possible duplication of surveys and to improve the exchange of data;
- b) To identify producer nations for new INT Charts included in the Region M scheme;
- c) To seek the status/progress of INT Charts in the region for which there is no information from Producer Nations on their production.

The HCA also endorsed the HCA Report to the XVIIth IHC prepared by the Chairman and Vice Chairman, as well as the input offered by HCA to the IHO 5-year Work Program, including some initiatives referring to capacity building that will be further explored and studied.

In brief, the HCA, on behalf of the IHO, has contributed to the objectives of the International Polar Year (2007-2008), and continues to make efforts for the establishment of a viable and prioritized hydrographic surveying program that could benefit the production of the INT Charts of the Antarctica.

The Committee agreed on several actions to be carried out during the intersessional period, with clear identification of the responsibilities and deadlines. These actions will require strong support from the national authorities responsible for assigning priorities to the hydrographic work in order to be effective.

The Committee decided to accept the kind invitation from the "Servicio de Hidrografia Naval de la Armada Argentina", and agreed to hold the 7th HCA Meeting in Buenos Aires, Argentina, 03-05 October 2007.

SOUTH WEST ATLANTIC HYDROGRAPHIC COMMISSION (SWAtHC) CONSTITUTIONAL MEETING

Rio de Janeiro, Brazil, 16 November 2006

Chairperson: Capt. BENMUYAL (Argentina)
Members: Argentina, Brazil, Uruguay
IHB Representatives: Capt. GORZIGLIA, Capt. BERMEJO

The South West Atlantic Hydrographic Commission (SWAtHC) held its constitutional meeting at the Hydrographic and Navigation Directorate of the Brazilian Navy, in Niteroi, Rio de Janeiro, Brazil, on the 16th November 2006.

The Meeting was attended by a delegation from Argentina lead by Captain Raul Eduardo BENMUYAL, Hydrographer of Argentina and Commander Jorge LAPENTA and a delegation from Brazil lead by Vice Admiral Edison Lawrence MARIATH DANTAS, Hydrographer of Brazil, and all his senior staff.

Unfortunately due to last minute logistic problem the Uruguayan delegation could not make it to the meeting and the Constitutional Act was signed by Argentina and Brazil, postponing the signature of Uruguay for a later stage. The signatory parties agreed that the official date of constitution of the SWAtHC will be the date of signature of Uruguay.

The ceremony of constitution of the SWAtHC was attended by Captain Hugo GORZIGLIA, (Chile), IHB Director following a special invitation from the Hydrographer of Brazil.

Note: The Hydrographer of Argentina, first Chairman of the SWAtHC informed the IHB that the Statutes were signed by Uruguay on the 15th of December in Montevideo, Uruguay. A copy has been received by the IHB.

It is anticipated that the first meeting of the SWAtHC will take place in Buenos Aires, Argentina, from the 10th to the 12th of April 2007, subject to confirmation in due course.

The IHB congratulates the Hydrographers of Argentina, Brazil and Uruguay on this achievement, and welcomes the SWAtHC to work of the IHO.

9th MEETING OF THE EASTERN ATLANTIC HYDROGRAPHIC COMMISSION (EAtHC)

Dakar, Senegal, 6 - 8 December 2006

Chairperson: IGA BESSERO (France)
Vice-Chairperson: Capt. QUIRÓS Cebriá (Spain)
Members: France, Morocco, Nigeria, Portugal, Spain.
Associate Members: Benin, Cameroon, Cape Verde, Congo (Rep. of), Côte d'Ivoire, Guinea, Guinea-Bissau, Mauritania, Senegal.
Observers: Congo (Dem. Rep. of), Equatorial Guinea, Gabon, Gambia, Ghana, Liberia, Sao Tome and Principe, Sierra Leone, Togo, UK, USA.
IHB Representatives: Capt. GORZIGLIA, Ing. en Chef HUET

Over 40 delegates attended the 9th Meeting of the Eastern Atlantic Hydrographic Commission (EAtHC), hosted by the Port Authority of Dakar under the Ministry of Maritime Economy and International Maritime Transport, Senegal. The meeting was held at the Sofitel Teranga Hotel, in Dakar. There were participants from the following countries:

Members of the EAtHC: France, Morocco, Portugal and Spain;
Associate Members of the EAtHC: Benin, Cameroon, Côte d'Ivoire, Guinea, Guinea Bissau, Mauritania and Senegal;
Coastal Countries Observers: Gambia, Ghana, and Togo;
Other Observers: IHB, USA, UK and IOC/UNESCO.

Mr. Djibo LEITY KA, State Minister, Ministry of Maritime Economy and International Maritime Transport of Senegal welcomed the participants and declared the conference open. IGA Gilles Bessero, Director of SHOM (France) and Chairman of EAtHC offered some opening remarks. The IHB was represented by Captain Hugo GORZIGLIA, IHB Director and Ing. en chef. Michel HUET.

The meeting agenda included, amongst others, items related to the management of the Commission.



Reports were provided on the activities since the last meeting in Brest in 2004; the Commission Statutes were considered for amendment and Spain was designated Vice-Chairman at the beginning of the meeting. One of the key elements identified as needing improvement was communication and participation in the Commission's activities.

The next group of presentations began with a report on IHO activities. The IHB gave a report on the IHO Work Program and its progress and the situation with regard to IHO membership. Some actions were decided and agreed to improve the membership situation in the region.

Portugal – who represents the Commission at the SPWG – reported on the SPWG outcomes and France reported on WEND matters and RENCs.

As regards the provision of hydrographic services, the meeting considered the INT Chart situation in the region, the radionavigational warnings within the NAVAREA II and the S-55. This was followed by the presentation of National Reports. All the information provided was commented and discussed, and proposals were identified when appropriate.

Considerable time was allocated to capacity building matters. The series of presentations began with a presentation by Capt. GORZIGLIA, IHB Director and CBC Chairman. Reference was made to the high priority that the IHO has given to capacity building in the region as demonstrated by the WAAT technical visit follow-up, the Seminar in Trieste and several other initiatives such as CHARMER and COASTCHART, including cooperation with other international organizations and bilateral agreements. It was concluded that CB constitutes the highest priority for this RHC, as phase one is still far from being completed. A Course on MSI and GMDSS was considered necessary, and will be included in the 2008/2012 CB work program.

The 9th EAtHC meeting adopted over 15 action items that shall constitute its work program for the intersessional period.

At the close of the meeting, Spain took over the chairmanship of the EAtHC and it was agreed that the next conference would take place in 2008, ideally in an African country of the Commission, yet to be identified. Should no volunteer be found, Spain agreed to hold the Xth EAtHC meeting.

2. IHO MEMBER STATES

HYDRO 06

Antwerp, Belgium, 6 - 9 November 2006

The 15th International Congress of the International Federation of Hydrographic Societies (IFHS), organised by the Hydrographic Society Benelux on behalf of the IFHS, was held in the Provincial House in Antwerp. The meeting heard some 40 papers grouped under the following headings: Sea floor mapping; Multibeam; Data management; Remote sensing, AUVs and hydrographic vessels; Dredging support; Charting, Case studies and Positioning. The meeting was well attended with some 250 delegates from 33 countries registered. An exhibition included 31 companies showing their latest products.

During the Conference Dinner the Memorandum of Understanding between the IHO and IFHS was signed by Admiral MARATOS, President of the IHB, on behalf of the IHO and Paul HORNSBY, Chairman of the IFHS on behalf of the IFHS. The signing of the MoU was witnessed by representatives of the Hydrographic Societies belonging to the IFHS and the Hydrographers of Belgium and the Netherlands.

During the Conference, surveying vessels from the Netherlands and Belgium Hydrographic Offices were visiting the Port of Antwerp.



3. INTERNATIONAL ORGANIZATIONS

INTERNATIONAL MARITIME ORGANIZATION (IMO)

10th SESSION OF THE IMO COMSAR SUB-COMMITTEE

IMO Headquarters, London, 6-10 March 2006

The 10th session of the IMO COMSAR Sub-Committee was held at IMO Headquarters in London from 6 -10 March 2006. The IHB President, Lt. Cdr. S. Shipman and the Chairman of CPRNW represented the IHO. The NAVAREA Coordinators from Areas 1 UK; II France; III Spain and IV and XII USA attended.

The Sub-Committee established a joint IMO / IHO / WMO Correspondence Group (CG) under the Chairmanship of Peter Doherty, Chairman of CPRNW, to consider the provision of MSI services in Arctic Waters and report back to COMSAR 11. Any Member State wishing to be represented in the CG should inform the Chairman, Peter Doherty, by email at dohertyp@nga.mil, with a copy to sshipman@ihb.mc.

The Sub-Committee endorsed the view that IOC is the lead authority on Tsunami Warning Systems and agreed that IMO, IHO and WMO should be represented at the IOC Executive Council meeting in June 2006, where this matter will be on the Agenda. Captain Gorziglia, IHB Director, will represent the IHO at this meeting.

COMSAR 9 established a CG to review IMO Resolution A.888 (21), "Criteria for the provision of mobile-satellite communication systems in the GMDSS". This was required to permit the provision of satellite services by companies other than Inmarsat. The outcome of the CG was reported in document COMSAR 10/5. Following an in-depth discussion, it was clear that a majority supported the revised text of the Resolution prepared by the CG and approved its submission to MSC 81 for further consideration and action as appropriate.

The report of COMSAR 10 to the Maritime Safety Committee, COMSAR 10/16, has been placed on the IHO web site.

The President took the opportunity of the COMSAR session to meet with the Director of the IMO Maritime Safety Division and the Secretary General of IALA to discuss progress with the joint action plan they established following the tsunami of 26 December 2004. It was established that some funding from the IMO Tsunami Appeal Fund might be available to assist in the purchase of hydrographic equipment. The matter was raised during the meeting of the NIOHC, in Sri Lanka, from 14 – 16 March 2006 and actions are now underway to provide some support to Sri Lanka.

The CG reviewing the WWNWS documentation, set up at the 7th meeting of CPRNW in September 2005, took the opportunity of the presence of several members attending COMSAR 10 to hold a review meeting from 13 – 15 March, the week following COMSAR. Representatives from France, Japan, Russian Federation, Sweden, USA, UK, Inmarsat, IMSO and IHB attended the meeting. The meeting concentrated on reviewing the two top-level documents, IMO Resolutions A.705 (17) (Promulgation of Maritime Safety Information) and A.706 (17) as amended (World-Wide Navigational Warning Service) for submission to COMSAR 11. As any amendments to these resolutions made at COMSAR 11 would have a consequential effect on the other documents, i.e. the Maritime Safety Information, Navtex and International SafetyNET Manuals and, of course, S-53 and S-53 Appendix 1, it was decided to postpone consideration of these until after COMSAR 11.

81th SESSION OF THE IMO MARITIME SAFETY COMMITTEE MEETING
IMO Headquarters, London, 10-19 May 2006

The 81st session of the Maritime Safety Committee (MSC) of the IMO was held at the IMO's London Headquarters from 10 - 19 May 2006.

The MSC considered the report of NAV 51, and took, amongst others, the following actions:

1. Adopted the routing measures proposed by NAV with the exception of those for Colombia which were withdrawn by Colombia before adoption;
2. Endorsed the amendment to the footnote to subparagraph 2.1.5 of SOLAS Regulation V/19 regarding the definition of the term "appropriate portfolio of up-to-date paper charts";
3. Approved the draft MSC resolution on the proposed amendments to the 2000 HSC Code, chapter 13 to implement a phased possible carriage requirement for ECDIS for High Speed Craft. This now goes to MSC 82 for adoption;
4. Invited IMO MS to consider and consult with relevant hydrographic authorities on which paper charts would meet the "appropriate folio of up-to-date charts" criteria in waters under their jurisdiction and where ENC's do not exist and communicate this information to the IHO for inclusion in the online chart catalogue; and
5. Approved the draft Assembly resolution on draft Guidelines on voyage planning for passenger ships operating in remote areas for submission to the 25th session of the Assembly for adoption.

The MSC also considered urgent matters emanating from COMSAR 10 and, amongst others, took the following action: considered the proposed amendments to resolution A.888(21), "Criteria for the provision of mobile satellite communication systems in the global maritime distress and safety system (GMDSS)". Following a lengthy debate it was noted that any revised resolution could not be adopted until the 25th Assembly in December 2007 and therefore agreed to reconsider the revision of resolution A.888(21) at MSC 82 in November/December 2006 on the basis of further comments / proposals from Member States and legal advice.

The MSC also took the following actions:

1. Following discussion of document MSC 81/23/10 "Development of an E-Navigation strategy", the MSC put this on the Work Programme and Agenda of the NAV Sub-Committee. NAV will report back to MSC in late 2008. This work programme item is to develop a strategy and will not go into technical details which will be considered at a later date. The widespread availability of ENC's will be a critical consideration in any discussion of an E-Navigation strategy; and
2. Following discussion of document MSC 81/23/13 "Proposal for a new work programme item for the NAV Sub-Committee on carriage requirements for ECDIS, and for the Sub-Committee on Standards of Training and Watchkeeping (STW) on ECDIS training and familiarization" put this on the Work Programmes and Agendas of NAV and STW. NAV and STW are required to report back to the MSC in 2008.

The IHO introduced 3 documents:

1. MSC 81/INF.3 "Release of official Malacca and Singapore Straits Electronic Navigational Charts (MSS ENC)". This document was well received and the Director of IMO's Maritime Safety Division expressed the view that this was a good model for co-operation between MS;
2. MSC 81/10/1 "Ships' Routing Systems". The 4 actions which IHO requested of the Committee were agreed and

3. Document MSC 84/24/4 “IMO Voluntary Member State Audit Scheme”. The Committee also considered document MSC 81/24/1 by IALA on the same subject. Both papers were well received and the Committee decided to pass these to the Sub-Committee on Flag State Implementation (FSI) and to NAV to determine the best method of incorporating the guidance into / amending IMO resolution A.974(24). The recommendations of FSI and NAV will then be considered at MSC 82 with a view to forwarding it to the Assembly for adoption.

During Any Other Business the IHO made a statement regarding the first celebration of World Hydrography Day.

The 82nd session of MSC will be held in Istanbul, Turkey from 29 November to 8 December 2006 due to the refurbishment of the London HQ of IMO. The 83rd session will be held in London in October 2007 once the refurbishment is complete.

14th SESSION OF THE SUB-COMMITTEE ON FLAG STATE IMPLEMENTATION (FSI14)

IMO Headquarters, London, UK, 5-9 June 2006

The 14th Session of the Sub-committee on Flag State Implementation (FSI14) was held at IMO HQ in London, from 5 to 9 June 2006. The IHB specifically attended this meeting because, as previously reported on the outcome of MSC81, FSI14 and NAV52 were invited to consider the additional guidance on the Voluntary IMO Member State Audit Scheme (VIMSAS) as provided by IHO and IALA at the request of MSC80.

VIMSAS is controlled by two IMO Assembly Resolutions: Resolution A.973(24) (Code for the implementation of Mandatory IMO Instruments) and Resolution A.974(24) (Framework and Procedures for the Voluntary IMO Member State Audit Scheme). It had been indicated at MSC 80 that, since the Framework and Procedures Resolution had only been adopted by the Assembly 6 months previously, the Council would not wish to consider any changes until sufficient experience had been gained in its implementation.

From an IHO perspective the Code, Resolution A.973(24), at Annex 1 (Obligations of Contracting Governments/Parties) already includes SOLAS 74 regulation V/4 (Navigational Warnings) and regulation V/9 (Hydrographic Services) which are the two principal obligations which fall within the area of expertise of the IHO. The only amendment to the Code that the IHO would suggest is that these obligations might be better included under “Specific Coastal State Obligations” i.e. in Annex 3 of the Resolution.

The Framework and Procedures, Resolution A.974(24), includes at Appendix 2 (Pre-Audit Questionnaire) Section VIII (Information on coastal State activities) the simple question “14.1 Please describe your State’s arrangements for hydrographic services.” The information in the annex to IHO’s document MSC 81/24/4 was intended to provide, as requested by MSC, the additional guidance for this question within its area of competence.

During the discussion at FSI14, other than IALA and IHO, only two States spoke, Sweden and the Netherlands. Both stated that they had used the additional guidance provided by IALA and IHO and found it to be very useful. The Netherlands however stated that they considered that the inclusion of the full text as provided by IHO in the Framework and Procedures Resolution would be excessive in relation to the information on other topics.

Given the indication that the Council did not wish to review the Framework and Procedures until such time as sufficient experience had been gained in its implementation and that this matter would also be discussed at NAV52 and MSC82 both IHO and IALA suggested that further discussion on this matter at this time was unnecessary.

56th SESSION OF THE TECHNICAL COOPERATION COMMITTEE OF IMO (TC56)

London, UK, 13 - 15 June 2006

The Technical Co-operation Committee held its fifty-sixth session from 13 to 15 June 2006, under the Chairmanship of Mr. Ben OWUSU-MENSAH (Ghana). Captain Federico BERMEJO represented the IHO.

Opening speech of the Secretary-General

In welcoming delegates to the meeting, the Secretary-General drew attention to the Committee's role in overseeing the development and implementation of the Organization's technical co-operation policies and activities. The results of the Integrated Technical Co-operation Programme for the 2004-2005 biennium for the period were the highest ever recorded, both in terms of volume and delivery rate. This represented an increase of US\$1.5 million over the previous two years.

With respect to this year's theme for World Maritime Day, namely, "Technical Co-operation: IMO's response to the 2005 World Summit", the Secretary-General emphasized that both the Council, when adopting the theme, and the Assembly, when adopting Resolution A.986(24) on "The Importance and Funding of Technical Co-operation as a Means to Support the United Nations Millennium Declaration and the Millennium Development Goals", identified the maritime needs of Africa as requiring special attention.

Work with other organizations

The representative of the International Hydrographic Organization (IHO) provided information on the actions undertaken by IHO in the field of capacity building since the Committee's fifty-fifth session in June 2005. He essentially referred to technical visits, technical workshops and Seminars, and support provided to students attending multi-beam courses. The Committee noted with appreciation the information provided by the IHO on its important capacity building activities in developing countries.

The Committee also agreed to set aside sufficient time at future sessions to review the progress made in achieving the Organization's aims and objectives, using as a framework the high-level actions and planned biennial outputs when reporting on its work to the Assembly at its twenty-fifth regular session and to ensure, when considering proposals for new work programme items, that the issues to be addressed were those which fell within the scope of the Strategic Plan. and

Biennial Report 2004-2005

The Biennial Report for 2004-2005 was approved.

The Committee noted Assembly Resolution A.986(24) on the importance and funding of technical co-operation as a means to support the United Nations Millennium Declaration and the Millennium Development Goals, in particular with respect to the provision concerning future transfers from the Printing Fund to the TC Fund, and requested the Secretariat to submit an appropriate revised proposal, for consideration at TC 57, with a view to making a final recommendation to Council.

The Committee also expressed its appreciation to all the donors who had made cash contributions to the multilateral and bilateral technical co-operation trust funds and/or directly to ITCP activities; and urged IMO Member States, international and regional organizations and the maritime industry to make financial contributions to the ITCP.

Partnership arrangements for technical co-operation

The Committee noted that partnership arrangements for technical co-operation and delivery had continued to function successfully and that the decision of TCC to further decentralize the delivery of technical co-operation activities had increased the volume of work delegated to existing

partnership arrangements with regional organizations and to the Regional Co-ordinators. The Committee thanked all the host countries of the IMO Regional Presence offices, and all partners who were, or had been, involved in regional co-ordination and delivery, as well as the donors for their financial contributions and support, and urged IMO's development partners to continue to cooperate with and assist IMO in the implementation of ITCP activities.

IMO International Maritime Academy

The Italian delegation then informed the Committee that the Academy was in the final stages of an internal re-organization aimed at modifying its current juridical status from a "consortium" to that of a "foundation", following which it would have a new legal framework with the direct and institutional involvement of the Italian Ministry of Foreign Affairs.

The Secretary-General recorded his appreciation to the Government of Italy and the Province of Trieste, the Regione Autonoma Friuli Venezia Giulia, the European Union and the International Hydrographic Organization for the assistance and support provided to the Academy during the year under review.

The Committee re-elected Mr. Ben OWUSU-MENSAH (Ghana) as Chairman and Mr. Fikret HAKGUDEN (Turkey) as Vice-Chairman, unanimously.

52nd SESSION OF THE IMO SAFETY OF NAVIGATION SUB-COMMITTEE (NAV52) IMO London's Headquarters, 17-21 July 2006

The 52nd session of the Safety of Navigation Sub-Committee (NAV 52) of the IMO was held at IMO's London Headquarters, from 17 - 21 July 2006. The Sub-Committee had a very full agenda, much of which was of interest to IHO MS.

NAV 52 approved 15 new routing measures, which will now go to the 82nd session of the Maritime Safety Committee (MSC 82) for adoption. Revised ECDIS Performance Standards (PS) were also approved, the work on them having been completed 1 year earlier than planned, and these will also go to MSC 82 for adoption.

During the discussions on the ECDIS PS it was agreed that there was a need for further guidance on horizontal datum issues when using ECDIS in RCDS mode. Consequently the Sub-Committee prepared a draft SN Circular providing this guidance.

SN/Circ.207 on the "Differences between RCDS and ECDIS" was revised, this text will be reviewed at NAV53 in July 2007 by which time it is hoped that the MSC will have adopted the revised ECDIS PS. The submission by the IHO regarding the online comprehensive catalogue of available official charts was discussed and the following slightly amended structure was requested by the Sub-Committee:

- ENC's;
- RNC's where ENC's are not available;
- Coastal States' recommendation on appropriate folio of up-to-date paper charts for areas where ECDIS is operated in RCDS mode; and
- Index of all globally available paper charts.

The IHO has been invited to continue work on the technical development of this catalogue with a view to demonstrating it at NAV53.

There was a preliminary discussion on a Carriage Requirement for ECDIS following a submission by Denmark and Norway. It was generally accepted that any mandatory carriage requirement for ECDIS should be linked to the adequate availability of ENC's. The IHO has been invited to provide updated information on availability and future coverage when this is considered further at NAV53 and NAV54.

The Sub-Committee also gave preliminary consideration to the development of an E-Navigation strategy and established a CG under the chairmanship of the United Kingdom (ian.timpson@dft.gsi.gov.uk). ECDIS will of course be a major feature of any such strategy.

At the request of IALA an SN Circular was prepared regarding the introduction, on a trial basis, of an Emergency Wreck Marking Buoy (see CL 42/2006). This matter has been passed to the CHRIS to assess any charting implications for the IHO.

The additional guidance for the Voluntary IMO Member State Audit Scheme submitted to MSC 81 by the IHO was considered. The Sub-Committee agreed with the conclusions of FSI14 that whilst there was justification for an amendment to the Code (Resolution A.973(24)) and Framework and Procedures (Resolution A.974(24)), it was acknowledged that the Council did not wish to consider amendments to these documents until such time as sufficient experience in their operation had been achieved. The Sub-Committee agreed to support the proposal from FSI that the MSC should make this additional guidance, provided by IHO, available to both auditors and auditees until such time as the resolutions are amended.

82nd SESSION OF THE IMO MARITIME SAFETY COMMITTEE (MSC)

Istanbul, Turkey, 26 November - 8 December 2006



The 82nd session of the IMO Maritime Safety Committee (MSC) was held in Istanbul, Turkey, from 29 November to 8 December 2006, hosted by the Turkish Government due to the refurbishment of the IMO Headquarters Building in London. The IHB President, VAdm. A. MARATOS and S. SHIPMAN (PAH), represented the IHO. Representatives from the Hydrographic Services of the following Member States were also present: Argentina, China, Egypt, Islamic Republic of Iran, Jamaica, Japan and Tunisia.

MSC82 took, amongst others, the following actions:

- Adopted the revised ECDIS Performance Standards (PS) agreed during NAV 52.
- Adopted revisions to the 1994 and 2000 High Speed Craft Code making the carriage of ECDIS compulsory for new build craft from 1 July 2008 and for existing craft from 1 July 2010.
- Decided, with regard to the GMDSS, that MSC will evaluate and recognise alternative providers for the GMDSS with the subsequent "Oversight" function being undertaken by the International Mobile Satellite Organization (IMSO).
- Decided to appoint IMSO as the LRIT Co-ordinator.
- Decided to inform the IMO Council of the FSI decision that the additional guidance for the IMO Voluntary Member State Audit Scheme on SOLAS V provided by IHO will be made available to both auditors and auditees and instructed the FSI to keep the proposed amendments to the annexes to the Code for the Implementation of Mandatory IMO Instruments resolution A.973(24) for future reference.

- Adopted the new Traffic Separation Schemes (TSS), amendments to existing TSS, new mandatory ship reporting systems and amendments to existing mandatory ship reporting systems proposed by NAV and decided that these should be implemented at 0000 UTC on 1 July 2007.
- At the request of Norway, the United Kingdom and the IHO placed a new work programme item on the agenda of NAV53 to draft amendments to resolution A.572(14) (General Provisions on Ships' Routing) to bring the symbology used into line with IHO publication M-4 (IHO Regulations for International Charts and Chart Specifications of the IHO).
- Agreed to a request from Australia, France, Japan and the United Kingdom for the issuance of an MSC Circular confirming support for the WWNWS, resolution A.706 (17) as amended and MSC/Circ.893 on Navigational Warnings Concerning Operations Endangering the Safety of Navigation.

The MoU between IHO and the International Mobile Satellite Organization (IMSO) as set out in CL 116/2005 dated 17 November 2005 was signed during the MSC.

**MEETING OF THE IMO CORRESPONDENCE GROUP ON
EVALUATION OF THE USE OF ECDIS AND ENC DEVELOPMENT**

IHB, Monaco, 20-22 February 2006

The IMO Sub-committee on Safety of Navigation, at its 51st session in 2005, set up the above CG with a remit to report back to the 52nd session in 2006. The Chairman of the CG considered that a meeting was required in order to conclude the work set out in the TOR prior to reporting to NAV 52. The IHB offered to host this meeting, which was held from 20 – 22 February. There were 31 attendees at the meeting from: Australia, Brazil, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Russian Federation, Sweden, United Kingdom, United States, CIRM, C-Map and the IHB.

Most of the 3 days were spent producing a consolidated revision of the ECDIS Performance Standard. This revision was based on the draft document submitted to the IMO MSC by the IHO and Greece. The discussion of each point included consideration of the papers submitted to NAV by Japan and Russia, the report of the CG established in 2004/5 and all proposals submitted by members of the CG. Following the completion of the review and the preparation of a draft consolidated text, the Chairman concluded that such a task would have been impossible without a meeting.

At the end of the final day the IHB gave a brief presentation on its work in developing the online catalogue of ENC, RNC and paper chart backup. It was agreed that the IHO should submit a separate document to NAV 52 outlining this work. Time did not permit any discussion on the implications to other IMO documents of the proposed changes to the ECDIS PS and the preparation of the report to NAV 52. This work would be progressed by correspondence.

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (IOC)

37th IOC EXECUTIVE COUNCIL

Paris, France, 21 - 28 June 2006.

The XXXVIIth IOC Executive Council (EC) met from 21 to 28 June 2006 in Paris, France to review progress and to adopt resolutions pertaining to the IOC Programs. 40 Member States out of 130 have a seat on the EC. The Heads of the following Hydrographic Offices were also present: Brazil, Canada, Chile, Ecuador, Germany, Turkey and Venezuela. Other delegations included hydrographers and /or

oceanographers from IHO Member States, such as Argentina, Colombia and Peru. The IHO was represented by Captain GORZIGLIA, who attended from 21 to 26 June.

Immediately after the Opening of the Session, the Chairman informed the Council that IOC's sister organization, the IHO was celebrating for the very first time "World Hydrography Day", and gave the floor to the IHO representative to allow him to address the participants on the matter. Captain GORZIGLIA thanked the Chairman for this opportunity and made a formal statement.

The IHO representative also intervened when IOC Regional Capacity Building efforts were considered. He particularly highlighted the work that IHO has been doing in this area and he noted that the IHO is ready to continue jointly with IOC in order to optimize the use of human resources. He reiterated IHO's desire to fully cooperate with IOC in the development of inundation maps and related coastal bathymetric activities required for the regions, in particular the Indian Ocean. He also reported on the joint efforts made with IOC and the specific actions taken with regard to the Western Indian Ocean and the Caribbean.

The Global Ocean-related Hazards Early Warning and Mitigation System Working Group (GOHWMS) was convened to examine its Terms of Reference and strategy to develop such a system. This ad-hoc WG is formed by all Chairpersons of IOC Intergovernmental Coordination Groups for Regional Tsunami Early Warning and Mitigation Systems and those IOC relevant subsidiary bodies, other bodies of the UN system and international organizations willing to contribute to the discussions on feasibility, sustainability and running of such an early warning and mitigation system. The IHO representative together with over 60 persons attended the meeting. Captain GORZIGLIA, IHO representative, made a strong statement clearly explaining IHO's responsibility for all bathymetric, hydrographic, nautical cartographic and safe navigation issues, that were important elements to consider in the whole system under development. The IHO representative stressed that the IHO's involvement in the context of the global ocean related hazards could be within at least the following areas: Hazard Warning and Mitigation System. Both areas have a capacity building component that the IHO would be willing to enhance, on top of today's efforts. Finally, the IHO requested to be included in the international organization list of participants in this joint effort, and invited the IOC to continue progressing these matters through the coordination channels established by the IHO/IOC MOU.

COAST-MAP-IO PROJECT - IOC-IHO ASSESSMENT MISSION

in Thailand and Bangladesh, 30 January - 7 February 2006

An assessment mission was conducted by an IOC-IHO expert team in Thailand and Bangladesh, from 30 January to 7 February 2006, as part of the IOC COAST-MAP-IO Project (Building Coastal Resilience to Ocean-based Extreme Events through Improved Coastal Mapping Capacity in the Indian Ocean). This project addresses the need for countries bordering the Indian Ocean to acquire and fully exploit coastal bathymetric data for the development of various products required for preparedness and mitigation of ocean-based extreme events. Its objectives are:

- To enhance available expertise in order to produce accurate bathymetric and topographic maps locally on either side of the high tide-line [-200 to +50 meters].
- To provide modelling capacity for tsunami arrival, run-up and inundation in coastal areas.
- To provide the necessary tools and training for the national agencies responsible for Disaster Management and Preparedness to exploit the bathymetric and terrestrial datasets for the development of targeted maps and services, including flooding maps, determination of set back lines, coastal ecosystem mapping, and zonation for coastal users.

The aim of the assessment mission was to determine the level of capacity, focal points and national partner agencies and existing data sources in Thailand and Bangladesh.

In Thailand, the team was welcomed by the Hydrographic Department of the Royal Thai Navy (HDRTN) and met with the main officers and visited the Phuket area, which had been severely damaged by the tsunami and which has been proposed as the pilot area for the Coast-Map-IO project. The HDRTN is a well developed institution, with highly qualified personnel and fairly modern equipment, which should be capable of carrying out most of the operations connected with the Coast-Map-IO project, provided that they receive additional tools and specific training, e.g. in coastal modelling and data management.

In Bangladesh, under the efficient coordination of the Joint Secretary of the Ministry of Defence, the team was able to meet and hold discussions with all the institutions in Dhaka likely to be concerned with the Coast-Map-IO project, including the Bangladesh Navy Hydro-graphic Department (BNHD). Due to the crucial role of bathymetry in the project, the BNHD should have a coordinating role and be the focal point for Coast-Map-IO in Bangladesh. As a general remark, the team noted that the national institutions likely to participate in the project were clearly lacking modern and efficient equipment, eg. hydrographic vessels, multibeam echo-sounders, or hydrographic/cartographic workstations.

As a result of its mission, the assessment team has made a number of recommendations regarding the continuation of the COAST-MAP-IO project.

IHO-IOC WESTERN INDIAN OCEAN ASSESSMENT MISSION
Seychelles – Mauritius - Madagascar
 8-17 May 2006



An assessment visit was made by an IOC-IHO expert team to the Seychelles, Mauritius and Madagascar from 8 to 17 May 2006. The team consisted of representatives from SHOM (French Hydrographic Office), IHB and IOC. The actions programme of this group was coordinated by SHOM under the leadership of Ing. en chef Yves Guillam. The objective of this technical visit was twofold:

- To assess, within the frame of the IHO Capacity Building Committee (CBC) activities, the hydrographic capacities of these countries in order to advise the competent national authorities on the best way to improve the collection and dissemination of nautical information, and to progress through regional cooperation. Also, to draw the governments' attention to their obligation to provide hydrographic services in accordance with SOLAS V (Reg. 9), and to highlight the benefits of enhanced hydrography to safety of navigation, tourism and coastal development, shipping and port activities, delimitation of maritime boundaries etc.

- And, within the frame of the IOC COAST-MAP-IO project (Building Coastal Resilience to Ocean-based Extreme Events through Improved Coastal Mapping Capacity in the Indian Ocean), to assess the availability of coastal bathymetric / topographic data in these countries, as well as their resources. This project addresses the need for those countries bordering the Indian Ocean to acquire and fully exploit coastal bathymetric data for the development of various products required for preparedness and mitigation of ocean-based extreme events.

The organization of the visits by the national authorities fully met expectations. The assessment team was able to meet political authorities and various persons involved in the maritime domain (hydrography, topography, data management, port activities, coastal development etc.). As a result, the level of capacity and existing data sources were assessed, and focal points and national partner agencies were identified. The series of visits were concluded by round table discussions involving all stakeholders, where recommendations were made and capacity building actions were proposed, including bilateral agreements and/or funding by donor agencies.

In the Seychelles, the team was received by the Coast Guard Hydrographic Brigade, in Victoria, Mahé Island. They coordinated all visits to, and meetings with, the Port Authorities, the Ministry of Foreign Affairs, the Ministry of Environment, the Coast Guard, the Maritime Safety Administration, the Chief of Defence Forces and the Vice President of the Republic of Seychelles. The team emphasized that the Coast Guard should be confirmed as the focal point for hydrography and interface with other relevant ministries (environment, ports,).

In Mauritius, the team was welcomed by the Ministry of Housing and Lands in Port-Louis, where a small Hydrographic Unit is located. They coordinated all visits to the Minister of Housing and Lands, the Director of Shipping, the Ministry of Fisheries and Environment, the Port Authorities, the Coast Guard, the Oceanographic Institute and the Meteorological Office. The team was informed that Mauritius had signed a 5-year agreement with India related to hydrography and that an Indian hydrographic vessel had conducted extensive surveys of Mauritian waters earlier this year. The team encouraged the establishment of a National Hydrographic Committee at Ministry level including all the relevant authorities in the maritime domain, its Chairman being the national focal point for hydrography. It was also suggested that a functional and operational organ be designated, with responsibility for hydrographic surveys and nautical cartography.

In Madagascar, the team was received by the National Geographic Institute (FTM) in Antananarivo, which includes a Hydrographic Unit. Thanks to FTM, the team had the opportunity to visit the institute and to meet all the authorities working in the maritime domain, i.e. the Navy, the University of Antananarivo (IOGA), the Meteorological Institute, the National Centre for Oceanographic Research (CNRO), the National Centre for Environment Research (CNRE) and the National Rescue Centre (CNS). Again, the team suggested that a National Hydrographic Committee be established at Ministry level, and that a functional and operational organ be established, with responsibility for nautical information, hydrographic surveys and nautical cartography. In addition, the possibility of a bilateral agreement with France was mentioned.

In all three countries, the training of Cat. A and Cat. B hydrographers was considered a priority. All the recommendations made by the team would be included in a report for presentation at a CBC meeting in Maputo, Mozambique, in early June. This report would also include, for each country, a proposed hydrographic programme for the short, medium and long terms. Additionally, the assessment team made a number of recommendations regarding the continuation of the COAST-MAP-IO project in the region.

COAST-MAP-IO PROJECT

IOC-IHO Assessment Mission in Myanmar

26 November – 1 December 2006

An assessment mission was conducted by an IOC-IHO expert team in Myanmar from 26 November to 1 December 2006, as part of the IOC COAST-MAP-IO project (Building Coastal Resilience to Ocean-based Extreme Events through Improved Coastal Mapping Capacity in the Indian Ocean), to assess the availability of coastal bathymetric / topographic data in these countries, as well as their resources. This project addresses the need for countries bordering the Indian Ocean to acquire and fully exploit coastal bathymetric data for the development of various products required for preparedness and mitigation of ocean-based extreme events. Its objectives are:

- To enhance available expertise to locally produce accurate bathymetric and topographic maps on either side [-200 to +50 meters] of the high tide-line.
- To provide modelling capacity for Tsunami arrival, run-up and inundation in coastal areas.
- To provide the necessary tools and training for national agencies responsible for Disaster Management and Preparedness to exploit the bathymetric and terrestrial datasets for the development of targeted maps and services, including flooding maps, determination of set back lines, coastal ecosystem mapping, and zonation for coastal users.

The aim of the assessment mission was to determine the level of capacity, focal points and national partner agencies and existing data sources in Myanmar.

The team was welcomed by the Myanmar Navy. It had the opportunity to meet and discuss with all institutions in Myanmar likely to be concerned with the Coast-Map-IO Project, under the efficient coordination of the Consular and Legal Affairs Department of the Ministry of Foreign Affairs. Due to the crucial role of bathymetry in the project, the team has recommended that the Central Naval Hydrographic Depot (CNHD) of the Myanmar Navy, with its competent personnel and its long experience of hydrographic surveying and nautical charting, should be responsible for the establishment and management of the seamless COAST-MAP-IO bathymetric and topographic database, and that it receives the appropriate training and equipment support. As a general remark, the team noted that national institutions likely to participate in the project were clearly lacking modern and efficient equipment, e.g. a hydrographic vessel, multibeam echo-sounders, or hydrographic/cartographic workstations. As a result of this visit, the assessment team has made a number of recommendations regarding the continuation of the COAST-MAP-IO project.

UNITED NATIONS (UN)

UNITED NATIONS INFORMAL CONSULTATIVE PROCESS ON LAW OF THE SEA

New York, USA, 12-16 June 2006

The Seventh Meeting of the Informal Consultative Process (ICP) on the Law of the Sea was convened at the United Nations from 12 to 16 June 2006. This forum has been instrumental in achieving the recognition of the United Nations General Assembly for the importance of hydrography, the efforts of the IHO in building the capacity of developing states to meet their obligations under SOLAS V and the observance of World Hydrography Day. Each meeting has a specified focus and this year's meeting addressed "ecosystem approaches and the oceans."

As might be expected, the bulk of the discussions dealt with the management of living marine resources, which might arguably have little interface with hydrography. However, the sustainable development of the oceans and states that border them is linked to maritime activities that require hydrographic information. Furthermore, the knowledge necessary to effectively ensure the sustainable development of ocean resources must be gained through a scientific approach that is based on measurements and modeling that requires the geospatial reference framework derived from hydrography.

During the session of the meeting devoted to international cooperation, the IHB provided an intervention, stressing the importance of hydrography in achieving an ecosystem approach and the willingness of the IHO to cooperate in projects funded by the World Bank and the Global Environmental Facility, to ensure hydrography is adequately addressed as a fundamental component.

INTERNATIONAL FEDERATION OF SURVEYORS (FIG)

XXIIIrd INTERNATIONAL FIG CONGRESS

Munich, Germany, 8-13 October 2006

The 4-yearly Congress of FIG was held in Munich, Germany from 8 - 13 October 2006. The FIG Congress Opening Ceremony included an "Opening Speech" by Dr. Edmund STOIBER, the Bavarian Minister President; "Shaping the Change 2002 – 2006 – The German Period of FIG" by Dr. Holger MAGEL, President of FIG; and "For a more just world – the surveyors' role for achieving sustainable development" the keynote address by Prof. Dr. Klaus TÖPFER, long standing General Director of the United Nations Environment Programme.

Commission 4 (Hydrography) (Note FIG has 10 Commissions) held its annual meeting plus 3 Technical Sessions (TS), 2 Workshops (WS) and a Technical Tour (TT) to the Centre for Geoinformation of Waterways and Shipping Directorate (South) in Regensburg.

The Commission 4 meeting reviewed: its activities during the 4 years since the XXIInd Congress in the USA; the results of the annual FIG Working Weeks and the output of the Commission's working groups (WG). The achievements of Commission 4 had been well received by the FIG Council, in particular the two publications produced by the WGs: FIG Publication 36 – "Administering Marine Spaces – International Issues" and FIG Publication 37 "FIG Guide on the Development of a Vertical Reference Surface for Hydrography".

The first TS on "Hydrography Reports" included an IHO report from Captain GORZIGLIA on IHO activities and work programme. There were also reports from the Chairman of the FIG/IHO/ICA International Advisory Board on Standards of Competence and from the International Federation of Hydrographic Societies (IFHS).

It was concluded that the individual bilateral MoUs between IHO, FIG and the IFHS (Note: the MoU between IHO and IFHS is due to be signed during the IFHS HYDRO 06 meeting in Antwerp, Belgium, in November) were improving the cooperation between the groups and serving the hydrographic community as well.

The second TS included papers on Tidal issues: "Tidal correction using GPS" and "Monitoring Sea Levels using GPS" and on "Surveying with IHO S-57 – Efficiencies in Data Acquisition and Transformation".

The third TS was chaired by Lt. Cdr. Steve SHIPMAN and included papers on: "Optimisation of Hydrographic Positioning and Attitude Determination"; "The Development of a Vertical Reference Surface and Model for Hydrography" and "The Economic Benefits of LIDAR".

The two Workshops focussed on "The Economic Benefits of Hydrography" and "Pathways to Professionalism", in which Captain GORZIGLIA and Lt. Cdr. Steve SHIPMAN actively participated. The

first WS considered how best to get across the message that spending on hydrography was an investment and not a cost whilst the second concentrated on how opportunities for education / training in hydrography could be improved in order to address the shortage of hydrographic surveyors in many parts of the world. The ideas expressed will be developed further by two of the Task Forces, 4.1 and 4.2, established by the Commission. These will be chaired by Gordon JOHNSTON who is currently Vice-Chairman of the FIG/IHO/ICS Advisory Board on Standards of Competence and who is also actively involved in the work of the IHO CBC.

The TT to Regensburg included time on two surveying vessels, one equipped with a SIMRAD EM3000 MBES and the other with a Hydrossearch beam E/S comprising 37 independent SBES, during surveys along the River Danube. The use of Inland ECDIS with a radar overlay was also demonstrated during the voyage on the Danube.

The Commission agreed on the 2007/2010 work program. Two new WGs were established : WG4.1 “Hydrographic Surveying in Practice” and WG4.2 “Standards and Guidelines” and additionally three Task Forces: TF4.1 “Economic Benefits of Hydrography”; TF4.2 “Capacity Building” and TF4.3 “Coastal Zone Management”. Of special importance to the IHO CB efforts is the 6th FIG Regional Conference which will be held in San Jose, Costa Rica from 11 – 15 November 2007 as Central America is one of the regions requiring urgent action to raise awareness of the importance of hydrography. The progress of these groups will be monitored during the forthcoming FIG Working Weeks with final reports being prepared for the XXIVth FIG Congress in Sydney, Australia in 2010.

At the end of the Congress, Adam GREENLAND, Senior Hydrographic Surveyor from Land Information New Zealand (LINZ) stepped down as Chairman and was replaced by Andrew LEYZACK of the Canadian Hydrographic Service (CHS). David NEALE of Trinidad and Tobago took over as Vice-Chairman. Captain GORZIGLIA presented the crest of the IHO to Mr. GREENLAND in recognition of his outstanding support to the close cooperation between FIG and IHO.

Full details are available from the FIG web site www.fig.net ; the FIG publications can also be downloaded from this site.

5th FIG REGIONAL CONFERENCE

Accra, Ghana, 08-11 March 2006

Captain Hugo GORZIGLIA, IHB Director, attended the 5th FIG Regional Conference which was held in Accra, Ghana, from 8 to 11 March 2006. The focus of the Conference was on “Promoting Land Administration and Good Governance”. His attendance involved the following activities:

- a) Participation in the Opening Ceremony of the Conference and Technical Sessions on Education in Africa.
- b) Presentation made at one of the plenary sessions of the Conference.
- c) Participation in the two technical sessions held by Commission 4 “Hydrography”, “Marine and Coastal Zone Management – Environmental Planning Issues, and “Hydrography”.
- d) Meeting with the President of the International Society of Photogrammetry and Remote Sensing, and Chair of the Joint Board for Geoinformation Societies *Ad Hoc* Committee on Capacity Building for Africa, Dr. Ian DOWMAN.



- e) Annual coordination meeting with the Chairman of FIG Commission 4 “Hydrography”, Mr. Adam GREENLAND.
- f) Meeting with the point of contact for hydrographic matters in Ghana, Mr. George AWUSU – ANSAH and
- g) Meeting with a representative of the Regional Maritime Academy in Accra.

The event brought together approximately 500 persons from over 40 countries, but mainly from Ghana and Nigeria. It was organized by FIG and the Ghana Institution of Surveyors, in co-operation with the Ministry of Lands, Forestry and Mines, Land Administration Program. The opening address was delivered by the Senior Minister of Ghana, representing His Excellency Mr. J.A. KUFFOUR, President of the Republic of Ghana.

The Conference included three Plenary Sessions, one of which was specifically devoted to Capacity Building in Africa chaired by Professor Holger MAGEL, FIG President. Captain GORZIGLIA presented a paper entitled “The IHO Capacity Building Efforts in the Region”.

A half-day was spent in reviewing the present situation of the joint IHO-FIG work, based on the IHO-FIG Memorandum of Understanding. The IHO Capacity Building Work program was examined to identify any opportunities where FIG might be able to cooperate with IHO. One of the subjects identified, needing further study, was the contribution of hydrography to social and economic development.

The IHB representative, together with the Ghana point of contact and the Chairman of the FIG Commission 4 “Hydrography”, met with Captain E. BOTCHWAY, Head of the Department of Nautical Studies from the Regional Maritime Academy. The Academy is supported by 5 countries and reports to the Maritime Organization of Western and Central Africa (MOWCA).

Captain GORZIGLIA briefed Captain BOTCHWAY on the reasons behind the IHO’s desire to establish contact with the Maritime Academy and Captain BOTCHWAY provided detailed information on the Academy and on their current programs. Captain BOTCHWAY indicated that the Academy would appreciate working with IHO to improve their limited hydrographic training capabilities.

In brief the attendance at the 5th FIG Regional Conference provided a good opportunity to meet up with the various persons involved in training in the region and to give more visibility to IHO activities.

ANTARCTIC RELATED ORGANIZATIONS

XXIXth ANTARCTIC TREATY CONSULTATIVE MEETING (ATCM)

Edinburgh, United Kingdom, 12 - 23 June 2006

The Antarctic Treaty Consultative Meetings are held annually to discuss matters relating the management of the Antarctic Treaty area and to further develop the Antarctic Treaty System. In this opportunity three Working Groups were established: Legal & Institutional WG, Tourism and non-Governmental Activities WG and Operational Matters WG. Also one day was specially allocated to consider matters associated to the International Polar Year 2007/2008. The exchange of experiences and activities conducted in the Antarctic, including matters arising from the Protocol on Environmental Protection to the Antarctic, were also given great emphasis.

Representatives of 28 Consultative Parties plus 7 Contracting Parties and 2 special invited countries, together with 11 international organizations were present to report and to consider 44 Working Papers (WP) and 120 Information Papers (IP) submitted by different Countries and International Organizations, together with 12 documents submitted by the AT Secretariat. Dr. Mike RICHARDSON,

Head of the United Kingdom Delegation, opened the Meeting. Opening addresses were given by Her Royal Highness, Princess ANNE, and Lord TRIESMAN, Parliamentary Under-Secretary of State at the United Kingdom's Foreign and Commonwealth Office. The IHO was represented by Captain GORZIGLIA, who attended the meeting from 12 - 14 June.



Captain GORZIGLIA presented the “ Report by the IHO on Cooperation in Hydrographic Surveying and Charting of Antarctic Waters”. The paper was considered in plenary on the first day and it was very well received. Also it was reported the establishment of the World Hydrography Day and a statement was made in that regard. Positive comments were provided by participants, especially by UK, that requested to adopt the recommendations provided by IHO and on top, strongly requested that ATCM should agree on stressing the need to

raise priority to hydrographic activity in Antarctica. The following is the text adopted in the minutes of the Meeting:

“The Meeting acknowledged the increasing demand for hydrographic INT charts and the progress made so far in their production. It welcomed the procedure established for the collection and rendering of Hydrographic Data approved by the Hydrographic Committee for Antarctica (HCA), and the short-list of High Priority Surveys identified by the HCA. The Meeting further invited the IHO to continue efforts to increase the coverage of hydrographic information in Antarctica, especially in main passages and ports, and where there are vulnerable or protected marine areas, and urged greater involvement in the work of the HCA by all Consultative Parties.”

Out of all the papers presented, 12 have relation with IHO activities and the “**SCAR** Report on Marine Acoustics and the Southern Ocean” seems to be the most important one. This paper constitutes an excellent reference as regard to the permanent questioning on the use of acoustic systems in hydrographic surveys. The conclusions regarding the risk evaluation indicates that:

- Risks of most scientific acoustic techniques likely to be used in the Antarctic were less than or compared to shipping activities on their own.
- Survey planning could be need to reduce the risk.
- Ship noise is not likely to be a problem for most Antarctic waters.

In this opportunity, the ATCM organized a especial session on IPY. Mr. Andy WILLETT (UK), Chairman of the HCA Survey Program WG, presented a paper entitled “HCA – Proposals for International Polar Year “, including briefs on IHO, HCA and Survey Program WG. The core of the presentation was the submission of two proposals to be considered during the IPY:

- Allocation of hydrographic survey time against the priority list identified by IHO.
- Making personnel and equipment available for ships of opportunity.

The presentation was very well received.

During the event a very productive meeting was held with Mrs. Denise LANDAU, Executive Secretary of IAATO, Mr. GUICHARD, COMNAP Executive Secretary and Mr. CATALAN, Chair of COMNAP

Working Group on Ship Operations. At the meeting a review of the actions agreed at the last HCA meeting was made. Participants shared their views on ways to continue this excellent collaboration among the institutions they represent. It was confirmed that both organizations will be present at the next HCA Meeting in Punta Arenas, Chile, in November 2007. We all agree to continue exploring ways to raise awareness of the importance of hydrography and the production of nautical charts of Antarctica and decide to exchange views and to flag them at any possible opportunity. COMNAP indicated that on the occasion of their meeting in July 2006 in Australia, a special session on hydrography was to be conducted. The Hydrographer of Australia, and Vice-Chairman of HCA will attend.

The HCA has demonstrated a concrete contribution to the IHO objectives. Its Members should be congratulated for its “team work” active participation and achievements. The participation on the especial session organized to deal with IPY matters has a great merit and UKHO should be thanked for having made Mr. Andy WILLETT available for this important event, and Mr. WILLETT for his personal contribution and excellent presentation.

INTERNATIONAL ASSOCIATION OF MARITIME AIDS TO NAVIGATION AND LIGHTHOUSES (IALA)

IALA E-NAV COMMITTEE

The first meeting of the IALA E-Nav committee was held at IALA’s Paris headquarters from 18 to 22 September 2006 and the IHO was represented by Ingénieur général de l’armement Jean Laporte of SHOM. Amongst those items discussed the one of principal interest to IHO related to ENC availability as this was recognised as being a key component of E Navigation. The IALA committee agreed that they needed to maintain a close working relationship with IHO WEND. IHO will continue to be represented at meetings of this IALA committee.

MISCELLANEOUS

JOINT BOARD OF GEOSPATIAL INFORMATION SOCIETIES (JBGIS) RISK AND DISASTER MANAGEMENT AD-HOC WORKING GROUP MEETING

Munich, Germany, 9 October 2006

The JBGIS Risk and Disaster Management Ad-Hoc Working Group met on 9 October, in Munich, Germany, during the XXIIIrd FIG Congress.

The following participated in the meeting:

Mr. Bengt RYSTEDT (Sweden) (Chairman);
Mr. Theo KOTTER (Germany) representing FIG;
Mr. Orhan ALTAN (Turkey) representing ISPRS and
Captain Hugo GORZIGLIA (Chile) representing IHO.

The objective of the meeting was to follow-up several matters agreed upon at the previous meeting:

- The Chairman welcomed the participants and provided information concerning those WG Members who had sent apologies for their absence.
- With regard to reports: FIG submitted FIG Publication No. 38: “Contribution of the Surveying Profession to Disaster Risk Management”; ISPRS indicated that their report would be made available in due course and IHO commented on the report submitted much

earlier and confirmed that it was still valid. Reports submitted by ICA and ISCGM were also acknowledged.

- Only one verbal report from an international event was provided, and that was on GI 4DM that took place in Goa, India. As the meeting had just ended the previous week, no written report was provided. Two other events (Early Warning and UNRCC) were not discussed as no-one who had attended was present. IHO reported on a special meeting held in Nice in May 2006, regarding tsunamis in the Mediterranean.
- Another subject discussed was “terminology”: the terms “risk” and “disaster” as well as “early warning” should be considered as the basic terms for a better understanding. Definitions already exist and there was no need to develop others.
- When discussing Climate Change, it was indicated that several efforts were being made by various organizations inside or outside the UN environment. It was not felt that Climate Change should be a dedicated activity of the WG.
- The importance of considering the preparation of a textbook on GI and Techniques in Risk Management was discussed. The conclusion was that it was a very ambitious task, extremely difficult to achieve as the field was too wide. Techniques would vary from each different sector and it was felt that a sectorial manager of the different matters was preferable.
- No discussion took place on Education and Competence Development.
- The WG discussed the concept of JBGIS having a common spokesman, and the conclusion was that it was neither practical nor convenient, due to the different scopes and structures of each organization.
- A brainstorming took place aimed at identifying some recommendations to be passed by the WG to the JB. It was agreed that a scientific approach should be followed and not to consider operational matters. The organization of events on appropriate matters helping to reduce risk was encouraged. Representation at the WG was verified.

Probably the next meeting of the WG would be in conjunction of GI4DM 27/28 May 2007 in Canada.

MEMORANDA OF UNDERSTANDING

In 2006, the International Hydrographic Organization signed the following Memoranda of Understanding and Co-operation Agreements:

- 1) Co-operation Agreement between the International Hydrographic Organization (IHO) and the Digital Geographic Information Working Group (DGIWG).
- 2) Memorandum of Understanding between the International Hydrographic Organization and the Port Management Association of Western and Central Africa.
- 3) Memorandum of Understanding between the International Hydrographic Organization and the International Mobile Satellite Organization.

WORK PROGRAMME 2 CAPACITY BUILDING

1. INTERNATIONAL MARITIME ACADEMY (IMA)

In January 2006 the IHB requested IMA's President information about the situation of the Academy, as the IHB was constantly receiving queries from our Member States as regard to the training opportunities IMA used to offer. Unfortunately no reply was received.

Not having received a reply, the IHB insisted in July, with similar letter making reference to the existing Cooperation Arrangement on Hydrographic and Nautical Cartography Courses, signed by IHO, IMA and IMO. Unfortunately this last letter has not been replied and the IHB is not aware of the existing expectation to have IMA running again. In fact the IMO/IHO/IMA Co-operation Arrangement should have been renewed in November 2006, but do to the lack of information, this action has not progressed.

In 2007 the IHB will continue seeking information as regard to the IMA situation and future.

2. CAPACITY BUILDING

CAPACITY BUILDING COMMITTEE (IHOCBC)

4th MEETING OF THE IHO CAPACITY BUILDING COMMITTEE (CBC)

Maputo, Mozambique, 07-08 June 2006

Chairman:	Capt. GORZIGLIA (IHB Director)
Vicechairman :	Capt. BARRITT (UK)
Secretary:	Capt. BERMEJO (IHB)
Members:	Capt. NAIRN (Australia), Capt. CAVALHEIRO (Brazil), Lt. Cdr. ENRIQUEZ (Chile), Ing. Gen. GUILLAM (France), Mr. DEHLING (Germany), Cdr. BADHWAR (India), Mr. KATO (Japan), Mr. KRASTINS (Latvia), Capt. ANGLI (Mexico), Mr. MUNDLOVO (Mozambique), Mr. SPITTAL (New Zealand), Mr. KLEPSVIK (Norway), Mr. KIM (Republic of Korea).

The 4th Meeting of the IHO CBC was held under the Chairmanship of Captain GORZIGLIA (IHB Director) at the VIP Hotel, Maputo, Mozambique, from 7 to 8 June 2006. It was preceded by a Technical Workshop on Phase 1 for the SAIHC countries and a Special Meeting of the SAIHC, held respectively on 5 and 6 June. Observers from Angola, Guatemala, Kenya, Madagascar, Malawi, Mauritius, Namibia, Nicaragua, Seychelles, Sri Lanka, South Africa, Tanzania and representatives from the Industry also participated in the meeting.

The Chairman welcomed the participants, in particular the new CBC members from Brazil, Rep. of Korea, Japan and Latvia and thanked the Hydrographer of Mozambique, Mr. MUNDLOVO, for kindly hosting the meeting.

Among the main tasks dealt with by the Committee the following should be mentioned:

- Endorsement of the document “Guidelines for Assessment Criteria” prepared by the CBC Vice-Chairman;
- Establishment of a Working Group formed by the Vice-Chairman, Australia, Brazil, Chile, France and Germany to review the CBC Strategy Paper and to check the CBC documents displayed on the IHO Web Site. This WG will work by e-mail;
- Establishment of a Drafting Group with Australia, France, Mozambique, Norway and UK (Vice Chairman) and chaired by the CBC Chairman. To prepare the CBC Report for submission to the 17th I.H. Conference.

The Chairman reported on all general matters related to Capacity Building, not under the CB Work Program that have been dealt with by the IHO and in particular by the IHB. The Vice- Chairman reported on the progress made with S-55 and the actions taken to keep the information updated, as well as on the experience gained from using this database. He stressed the particularly high profile of the database in the IMO.

The Chairman also reported in detail on the income and expenditure related to the CB Fund, and the availability expected for the near future and clarified some questions from the CBC members about the use of the remaining annual funds. The Korean member of the CBC announced that his country had recently signed a MOU with the IHO, following which an annual contribution of US\$ 100,000 will be made to the IHO CB Fund. The Chairman also thanked the representative from Norway for the financial contribution of his country to support the 4th CBC Meeting, funding the travel and accommodation costs of some countries.

The CBC also reviewed and approved the Management Plan and Work Programme for the remainder of 2006 and for 2007.

The Japanese representatives made a very interesting presentation on the Hydrographic Course of the Japan Coast Guard.

The Chairman informed the Committee that the Hydrographer of Pakistan has offered to host the next CBC Meeting in Karachi, during the first week of June 2007. Following the practice of the Committee to hold meetings in the regions where CB initiatives are to take place, the proposal was supported by the Vice-Chairman and subsequently agreed by the Committee. The representatives of Latvia and Korea also offered to hold the meeting in their countries.

Note: At the time of publication of this Annual Report, it has decided that CBC Meeting will be held in Riga, Latvia on 4-8 June 2007.

CAPACITY BUILDING PROGRAMME

The Capacity Building Committee has established two documents; the CBC Work Programme, which includes all the activities scheduled for the Committee for a determined period, including Seminars, Workshop, Technical visits and any other action directed to development purposes and a Management Plan, that is the compilation of specific proposals and input submitted by the Regional Hydrographic

Commissions. The Management Plan and CBC Work Programmes should not consider any individual proposal that is not presented through the corresponding RHC.

At its annual meeting the CBC uses the Management Plan as a reference when preparing the CB Work Programme for the following year. A previous draft for subsequent years can be also be considered for preliminary approval. The financial implications of projects are considered for funding from the CBC Fund or other sources if any, and also to be inserted in the corresponding IHO Work Programme to be approved by the IHO Member States.

The CBC Work Programme is injected in the IHO Work Programme and that this is one of the reasons why CBC meetings would be held no later than June every year. The approved CBC Programme for 2006 included the following elements:

1) Technical Visits

Technical visits from professional representatives are a tool to use when establishing a Capacity Building programme for a developing country or region. A technical visit should produce a report containing a description of the current situation of the country or region as regards to the Hydrographic Surveying, Nautical Charting and Maritime Safety Information. The visit should also assess the perceived present and future of each country's capacity building requirements to provide the hydrographic products and services identified by SOLAS. This information will be subsequently be utilized to draft a Development Project for the region visited. In 2006, visits were paid to the following countries and areas:

- 1) Baltic countries (Estonia, Latvia, Lithuania). The visits were carried out by representatives from the IHB.
- 2) SAIHC Technical visits; a First Visiting Team (U.K., South Africa and IMO Regional Co-ordinator for Eastern and Southern Africa) visited Malawi, Tanzania, Kenya, Namibia and Uganda. A Second Visiting Team, formed by representatives from SHOM (France) IOC and the IHB visited Mauritius, Madagascar and Seychelles. This visit was also considered within the framework of the IOC COAST-MAP-IO project. (see WP 1).
- 3) MACHC technical visits. Follow up visits to countries visited in 1998, and visits to other island states. (Antigua, Montserrat, Anguilla, Bahamas, Turks & Caicos, Cayman Is., Jamaica, Trinidad & Tobago, Barbados, Grenada, St. Vincent & Grenadines, St Lucia, St Kitts & Nevis, Dominica). The visits were carried out by a Visiting Team from the UKHO).
- 4) Belize Associated to Gulf of Honduras project that due to Katrina was not executed in 2005 and was carried out by a qualified staff member of NAVOCEANO (USA)..

2) Technical Workshops

Technical Workshop are events where a particular subject will be discussed and the experience gathered by developed countries will be shared. For the time being Technical Workshops are oriented to support the establishment of the first phase of hydrographic capability – the ability to gather hydrographic information and to promulgate it in a timely and efficient manner through communication with area co-ordinators of navigational warnings and with charting hydrographic offices

The Technical Workshops held in 2006 was the following:

- Technical Workshop on Phase 1 for the countries of the SAIHC region. held in Maputo, Mozambique, 5 June 2006.
- ENC Workshops for States of the SEPHC (Chile, Colombia, Ecuador, Peru) hosted by the Servicio Hidrografico y Oceanografico de la Armada (SHOA) in Valparaiso, Chile.

3) Seminars

The objective of Seminars on Capacity Building is to raise awareness at governmental level of the importance of hydrography to safety of navigation and national economic development, and to explore initiatives of common regional interest.

This initiative is in line with the efforts of the International Hydrographic Organization to develop and /or to improve the existing hydrographic capabilities in developing areas, following special request made by several United Nation Assembly resolutions.

The Seminars are addressed to the Heads of National Hydrographic Committees or equivalent.

The Seminar held in 2006 was the Seminar for Chairmen of National Hydrographic Committees or similar from the Meso-American and Caribbean region.

TECHNICAL CO-OPERATION PROJECTS

ON-GOING PROJECTS

MEDA

The MEDA Project 7 is a Technical Cooperation project developed by the IMO, IHO and IMA, which **was** approved and funded by the European Commission to develop hydrography and nautical cartography in the countries in the Southern Mediterranean. The project is now completed and the countries which have received training and equipment under this project are: Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Palestinian Authority, Syria, Tunisia and Turkey.

Gulf of Honduras

This project, approved and funded by the InterAmerican Bank of Development and GEF will support the development of environmental protection in the area of Belize, Guatemala and Honduras. COCATRAM has been appointed as the executive agency for the project and the IHO will provide support, especially through the Meso American and Caribbean Hydrographic Commission, to develop the hydrographic component of the project. During the MACHC 7th Meeting and Seminar, held in Acapulco from 4 to 8 September, a special session was devoted to update the MACHC countries about the status and development of the project, administered by COCATRAM.

Development of Hydrography and Aids to Navigation in the Black Sea

The project comprises the following countries : Bulgaria, Romania, Ukraine, Russia, Georgia and Turkey and also includes representatives from Greece, the IHB, IALA and IMA, under the Chairmanship of Turkey. A meeting to monitor the progress of this draft project will be held in St. Petersburg probably in 2007.

PROJECTS UNDER CONSIDERATION

Technical Co-operation in Hydrography and Aids to Navigation in Western and Central Africa
The first part of the project was carried out, by means of technical visits paid to the countries involved and now a project (CHARMER) has been developed by the Management Board and will be submitted for funding. The project is directed by the "Service hydrographique et océanographique de la Marine" (SHOM, France).

OTHER PROJECTS WITH IHO INVOLVEMENT

GEF/WB/IMO Development of a Regional Marine Electronic Highway Project in the East Asian Seas

Funded by the UN agency GEF (Global Environment Facility)/World Bank, this project is a marine information and physical superhighway, created and maintained for enhanced marine services, higher navigational standards, integrated marine environment protection and development of coastal and marine resources. The objective of the project is to implement, through an appropriate institution, a regional marine electronic highway, commencing in the Straits of Malacca and Singapore, essential for marine pollution prevention, marine pollution control, marine environmental planning and management, as well as for safety in navigation.

The project enables the implementation of significant advances in navigational safety and marine environmental management by using an integrated system of radar, electronic charts, environmental and hydrographic databases/management technologies. The electronic navigational chart system will be used as the framework to consolidate all relevant information for the MEH, that is, the basic platform to overlay the information.

Sea Power Symposium

Organized between the Navies of the Mediterranean and Black Sea countries. Meetings have been held, periodically since 1998. The IHO is represented by the IHB and has participated in all the meetings held.

A "Pilot Project" was drafted to organize joint hydrographic operations in the Adriatic Sea, the western Mediterranean and the Black Sea. Joint surveys had already been carried out on the southern Albanian coast with the participation of the Hydrographic Services of Greece, Italy, UK and Albania. In the Black Sea, with the participation of Turkey and Georgia and on the coast of Morocco, with the participation of Morocco and Spain.

The countries involved in the project are Albania, Georgia, Greece, Italy, Morocco, Spain, Turkey and UK.

Western Indian Ocean Marine Highway Development and Coastal And Marine Contamination Prevention Project

The project's medium to long-term global environmental goal is to reduce the risk of ship-based environmental contamination (such as oil spills from groundings and illegal discharges of ballast and bilge waters) and to strengthen the capacity of countries to respond to oil or chemical spill emergencies in the region. The project will be co-funded by the GEF, the governments of Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa, and Tanzania and other partners.

SUPPORT OF TRAINING COURSES

42nd OCEAN MAPPING GROUP MULTIBEAM COURSE

Singapore from 20 to 25 November 2006

Students from China, Malaysia, Oman, Pakistan, Philippines, Republic of Korea and Thailand and were selected to attend the above course. The attendance to this course was funded by the IHO Capacity Building Fund. The attendance of these students to the course was funded by the Capacity Building Fund and the course co-hosted by the Maritime and Port Authority of Singapore (MPA). The objectives of the course were to train hydrographers in the use of the multi-beam systems to carry out hydrographic surveys, with special emphasis on the technology and problems associated with surveys in shallow waters. The programme was very interesting for the students that attended and they reported that the knowledge acquired will contribute to improve the quality control of data gathered and the further data processing as well as the optimisation of human and financial resources associated with hydrographic sur

SHORT HYDROGRAPHIC COURSE IN NICARAGUA

The CBC Fund also supported a Short Hydrographic Course, held in INETER, Managua, from 28 August to 13 September. Fifteen students from Nicaragua, Honduras, El Salvador and Guatemala participated in the course. It was stressed that, for the first time, a hydrographic course was held in Nicaragua and this was very relevant to promote other hydrographic activities and support the development of hydrography in Central America. It was also concluded that such a course should be also organized in other countries of Central America, together with a Category B level course aiming at increasing the technical level of the professionals in hydrography of the region.

CONTRIBUTION OF THE REPUBLIC OF KOREA TO THE IHO CAPACITY BUILDING FUND

On 1st May, on the occasion of the meeting of the SPWG in Korea, the President of the Directing Committee on behalf of the Organization and the Minister of Maritime Affairs and Fisheries of the Republic of Korea, signed an MoU, where the Republic of Korea will make financial contributions to the IHO Capacity Building Fund on an annual basis. The signature of this MoU is the result of discussions between the two parties during the past year. According to the MoU:

- a. An initial financial contribution will be made to the IHO after the signature of the MoU.
- b. All the contributions will be paid to the IHO Capacity Building Fund, earmarked for IHO/ROK Programme of Technical Cooperation.
- c. The financial contribution will be used for implementation of the IHO capacity building work programme, for support to nationals from developing countries in acquiring hydrographic surveying, oceanographic observations and nautical charting skills and for any other technical assistance activities which may be agreed between the parties.
- d. Allowances are made to defray any administrative and operational costs incurred by the Bureau in executing the agreed upon projects.
- e. The IHO will provide an annual report on the process of the agreed activities and will submit at the end of each financial year a financial report on the use made of the contribution received.

The IHB Directing Committee is appreciative of the Government of the Republic of Korea for making these financial contributions to the IHO Capacity Building Fund. These funds will markedly enhance the Capacity Building efforts of the Organization for establishing and improving the hydrographic and cartographic capabilities especially of Developing States.

MISCELLANEOUS

“SEAPOWERS AFRICA SYMPOSIUM 2006”

Abuja, Nigeria, 30 May 2006

Over 200 senior naval leaders from 47 countries in Africa, Europe and North America gathered in the capital city of Nigeria for the second Seapower Africa Symposium. The theme of the symposium was “Co-operation and Development for Enhancement of Africa’s Maritime Capability.” The Symposium was hosted by Vice Admiral Ganiyu ADEKEYE, Chief of the Naval Staff of Nigeria with opening remarks delivered by President Olusegun OBASANJO of Nigeria. The United States Navy, who sponsored the event, was represented by Admiral Harry ULRICH, Commander U.S. Navy European Command, who spoke of the need for African navies to increase surveillance of their waters to counter the significant loss of revenue through illegal fishing and theft of crude oil and to combat piracy prevalent along the African coast.

The clear message throughout the seminar was the need for the navies of Africa to cooperate to protect their political, economic and social interests by ensuring a secure and safe maritime environment for the development of Africa.

The IHB was asked to participate in panel discussions relating to charting, maritime delimitations safety of navigation. This forum provided an opportunity to highlight the obligation of coastal states to provide for the collection, production and dissemination of nautical information as detailed in SOLAS V. In the margins of the symposium, discussions were held with the Hydrographer of Nigeria and the Nigerian National Maritime Authority.

IHB MEETINGS WITH SHOM, UKHO AND IOC

16-17 January 2006

Captain Hugo GORZIGLIA, IHB Director, was in Paris (France) on 16-17 January to participate in the following three meetings:

- a) Meeting with IOC to discuss matters of common interest;
- b) Meeting with UKHO (Capt. BARRITT) and SHOM (Ing. en Chef GUILLAM and Cdr. BAGGIO) to review Capacity Building efforts in Africa and initiatives in EatHC;
- c) To meet with the Vice-Chairman of the IHOCBC (Capt. BARRITT).

1. Meeting with IOC (16 January)

The main subjects discussed were the GEBCO Project, the COAST-MAP-IO Project and ABLOS / ABELOS in the future structure of the IHO.

With regard to GEBCO, it was confirmed that neither IHO nor IOC has received any report from the GEBCO Guiding Committee (GGC) on the proposed new structure. The IHB informed IOC of the decision adopted at the last SPWG meeting (December 2005) in relation to GEBCO. The idea is not to change the present Terms of Reference for GEBCO until comments from the GGC have been received and considered. Nevertheless, it was made clear that GEBCO is not an international organization, but a project under the supervision of the IHO and IOC; the IHO representatives on the GEBCO GC should represent the organization and not themselves as individuals. The GEBCO GC will be urged to provide comments by July 2006 at the latest.

As for the COAST-MAP-IO Project, the way forward was discussed now that funds have been made available to start the technical visits. In fact, 28 January was set as the starting date for visits to Bangladesh and Thailand. It was agreed that Thailand could possibly serve as a regional training centre, and that possibility should be explored during the visit.

As regards ABLOS / ABELOS the new IHO structure might well consider that ABLOS should concentrate only on hydrographic and geodetic technical aspects, and therefore there would be no duplication of efforts between ABLOS and ABELOS. This new scenario, if it proceeds, might offer IOC the opportunity to concentrate on ABELOS matters. This situation certainly requires in-depth discussions with the people directly involved.

2. Coordination Meeting with UKHO and SHOM on Africa, in particular the EAthC area. (17 January)

The Meeting dealt with: the CHARMER Initiative (Project); Technical Visits (EAthC and SAIHC) and follow-up of the Trieste Seminar.

The CHARMER Initiative as an idea has already been discussed in detail and it was further discussed. It was agreed that a document should be prepared before any presentation could be made on the matter, and that a clear definition needs to be written. Once a general overview was made, it should be possible (and appropriate) to identify a pilot project or pilot projects, but that will depend on the interest of the countries involved. SHOM will prepare a working document for consideration at a later date.

There were discussions on the technical visits made to countries within the EAthC and on those which are to be made to countries within the SAIHC with particular reference to the results, coordination achieved to date and the procedures that will be followed. Concern was expressed regarding the difficulties experienced in contacting those countries who have agreed to a technical visit and regarding the total lack of response of other countries. In relation to the EAthC the results of the latest visit were examined and it was felt that some progress had been made. As examples, Sierra Leone has applied for IHO membership and initiatives to establish National Hydrographic Committees were proceeding in some countries. South Africa and UK will manage to visit 5 countries in the SAIHC region; France and IHB will manage to visit at least two countries and UK and Portugal will manage to visit Mozambique immediately before the CBC meeting. The results of these visits will be discussed at the Special SAIHC Meeting in June 2006.

The participants also discussed the results of the Seminar organized for the NHC Chairmen (or equivalent) from the EAthC, at the IMA in Trieste, in October 2005. The experience gained from holding this Seminar will be used in preparing and running the next seminar of this sort in Mexico in October 2006. Amongst the most important aspects is that every effort should be made to ensure that national key persons participate and that the duration of the Seminar should be reduced from one week to three full days.

3. Meeting concerning the IHO Capacity Building Committee (17 January)

The CBC Chairman and Vice Chairman held discussions and agreed on a detailed agenda for the Coordination Meeting to take place at the IHB on 23-24 January.

The three main topics included on the agenda were: S-55; Regional Hydrographic Commissions and the IHO Capacity Building Committee. For each of these topics various points were identified for discussion.

IHB MEETING WITH THE NIPPON FOUNDATION

16 May 2006

Captain Hugo GORZIGLIA, IHB Director, went on mission to London, UK, on the 16th of May 2006, to meet with Mr. Mitsuyuki UNNO, Chief Manager, Maritime Safety Team, Maritime Affairs Department of The Nippon Foundation, to discuss funding alternatives of benefit to the IHO CB objectives.

The first part of the meeting considered a presentation by Captain GORZIGLIA on the Mission & Objectives of the IHO and its structure, together with the CB efforts the IHO is doing to improve hydrographic worldwide capability. Following this, a detailed presentation of a proposal to seek for resources to run an “International Hydrographic Survey and Nautical Cartography Training Program”, a 5 year project with the following outcomes, was provided:

- a) Training of 2 hydrographic technicians and 1 nautical cartographic technician for each of about 8 countries.
- b) Establishing a hydrographic and nautical cartographic human resource network by achieving 2 projects in each of the 8 countries.
- c) Executing 2 hydrographic surveys in each country (with national support). And
- d) Producing 2 official nautical charts in each country (with national support)

The second part of the meeting was a presentation by Mr. UNNO on the objectives and aims of The Nippon Foundation (TNF), together with a brief description of the procedures that all submissions should follow. Mr. UNNO also provided information on the support they are giving to GEBCO Project, matter already known to the IHO/IHB. Emphasis was put on the consideration that should be given to reinforce the “networking”, in the proposed project. As a procedural matter, the proposal and the meeting are considered “informal” and only when a proposal is accepted and signed, these documents and meetings become “official”.

A very interesting discussion took place in which:

- a) It was explained that the objectives of GEBCO Project and the IHO Project were absolutely different. GEBCO has a scientific orientation and the IHO proposal a “safe to navigation” orientation.
- b) It was made clear that the IHO project intends to support those countries not having a hydrographic capability at all, and they need “seed personnel” to start their national challenges to comply with international regulations, such as SOLAS.
- c) The “networking” issue was strongly emphasized by Mr. UNNO during the discussions, as well as to the need to find a way to make GEBCO project in one way or another, a kind of reference/support for the IHO proposal.

In conclusion, this first meeting was a very productive one and now the IHB has a better knowledge on the NF procedures. An improved version of the proposal will be prepared by the IHB. After receiving this second version, TNF will study the documentation and will plan a second meeting. It is anticipated that at least 3 to 4 meetings will be necessary before the text is fully complying TNF requirements, in content and form.

WORK PROGRAMME 3

TECHNIQUES AND STANDARDS SUPPORT

1. CARTOGRAPHY AND HYDROGRAPHIC INFORMATION SERVICES

CHRIS AND ITS SUBCOMMITTEES

18th MEETING OF THE COMMITTEE ON HYDROGRAPHIC REQUIREMENTS FOR INFORMATION SYSTEMS (CHRIS)

Cairns, Australia, 25-29 September 2006

Chairman:	Capt. WARD (Australia)
Deputy Chairman:	Mr. OEI (Singapore)
Secretary:	Ing. en Chef 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 (NGA, NOAA, NOO, USCG and ACOE), IHB.
Observers:	CIRM, DGIWG, GEBCO, IC-ENC, IEC, OEF, IMO, IOC, Primar-Stavanger, RTCM, RTCA.

Under the chairmanship of Captain Robert WARD, RAN, the 18th meeting of CHRIS was convened in Cairns, Australia 25-29 September 2006. Forty-nine participants representing twenty-one Member States and four NGOs attended the meeting.

CHRIS discussed the need for the IHO to request IMO issue a Safety of Navigation Circular Letter regarding the requirement that ECDIS software be maintained in order to properly display ENC content, especially the new objects being proposed in the S-57 ed 3.1.1 extension. Similarly, improvements in S-52 and the Presentation Library are not generally adopted by previously fielded ECDIS systems. CHRIS agreed to the outline of the text for an IHB Circular Letter requesting Member States' approval to forward such a request to IMO. The specific wording was to be refined through a correspondence group consisting of committee members and observers from industry and maritime authorities.

In the same vein, CHRIS discussed the role of hydrographic offices, the IHB and the IHO when an ECDIS is found to have serious shortcomings. While CHRIS agreed that a hydrographic office was free to report such findings to the relevant authorities such as maritime authorities, testing agencies, classification societies and ECDIS manufacturers, CHRIS could provide an expert appraisal of the identified shortcomings and advise the IHB on the merits of IHB forwarding such a finding to the relevant authorities.



CHRIS noted the items referred from the 10th WEND and in one instance, spent significant time refining and ultimately adopting, as WEND requested, the *CHRIS Principles/Procedures for Making Changes to IHO Standards*. The outcome of these efforts was referred to the IHB for adoption by the IHO as a whole for matters outside the jurisdiction of CHRIS. In another issue referred by WEND, CHRIS agreed that functions of the Open ECDIS Forum (OEF) essential to the IHO should begin migration to IHO controlled servers. As the OEF requires no funding at this time, CHRIS agreed that future resource requirements for the OEF would be reviewed at future CHRIS meetings.

Similarly, the discussion during the ECDIS Stakeholders' Forum (ESF) relevant to CHRIS were addressed. CHRIS agreed that the existing guidance, developed by CHRIS, on the appropriate use of SCAMIN must be applied by all ENC encoders and that the IHB should again stress the importance of this guidance in attaining satisfactory consistency between ENC cells to all Member States and RENCs. Regarding the ESF concerns on the impact of S-100 and S-101 on ENC production or ECDIS functionality, CHRIS agreed that S-100 would have no impact and that whatever impact S-101 may have will be carefully managed with the widest participation of concerned stakeholders. A revised statement on both S-100 and S-101 will be forthcoming. CHRIS agreed to title S-100: *The IHO Geospatial Standard for Hydrographic Data*.

In the internal work of CHRIS, reports of the various Working Groups were presented and their work program for 2008-2012 period reviewed for submission to the IHB. The DPSWG was authorized to begin work on Version 3.1 of the Data Protection Scheme. The DQWG was re-established and a Chair will be sought. The CHRIS Chairman announced his retirement from the RAN in July 2007; and therefore, the necessity for him to step down as Chairman. The next CHRIS Meeting was scheduled to coincide with EUROPORT in Rotterdam, The Netherlands, 6-9 November 2007.

**16th MEETING OF THE IHO COLOURS AND SYMBOLS MAINTENANCE
WORKING GROUP (CSMWG)**

IHB, Monaco, 29-31 May 2006

Chairperson:	Dr. JONAS (Germany)
Vice-Chairperson:	<i>Vacant</i>
Secretary:	Mr. ROBERTS (Australia)
Members:	Australia, Canada, France, Germany, Norway, United Kingdom, USA (NGA), IHB.
Other Participants:	C-Map (Italy), CARIS (Canada), DnV (Norway), Furuno/Navintra (Finland), IEC/TC80, Imtech Marine & Industry (Canada), Kelvin Hughes (UK), Nippon Sogo System (Japan), OSL (Canada), Raytheon Marine (USA), STN Atlas Marine Electronics (Germany), SevenCs (Germany), Transas Group (Russia), UNH (USA), US Coast Guard, Wismar University (Germany), Xenex Innovations (Canada).



Twenty persons attended the 16th CSMWG Meeting which was hosted by the IHB in Monaco. Participants included representatives from HOs, ECDIS manufacturers, software developers and type-approval agencies. CSMWG is under the IHO CHRIS Committee and is responsible for specifying colours and symbols for the display of ENC's on ECDIS. In particular, CSMWG has developed and maintains the IHO Presentation Library for ECDIS (PL). The meeting was chaired by Dr. M. JONAS, Germany. The main points discussed are summarized below.

The meeting took note of the ongoing development of S-57 e3.1.1, to accommodate IMO newly approved features, e.g. ASL (Archipelagic Sea lane) or PSSA (Particularly Sensitive Sea Area), and the need to update the PL accordingly. Plan is to have a new edition 3.4 of the PL published end 2007 / beginning 2008, which will incorporate the symbology for those features as well as all changes

resulting from recent meetings. Meanwhile, the new IMO features can be treated as unknown objects (ASL) or as known objects, e.g. restricted areas, but with unknown attribute / attribute value (PSSA). Additional information should be provided via the INFORM and TXTDSC attributes. Reports were provided on tests conducted to check how those objects were displayed on a number of ECDIS, using the current e3.3 of the PL. Differences in display revealed discrepancies in the interpretation of the PL. It was agreed that appropriate clarifications on the PL would be provided through C&S Bulletins on the IHO website and that the concerned ECDIS manufacturers would be invited to correct / improve their software. Additional tests on the above objects may also be required in the IEC Standard 61174.

Symbolization was agreed for ESSA (Environmentally Sensitive Sea Area), PSSA and ASL. Discussions were also held on how a “generic object” should be displayed, to accommodate possible future requirements. A default symbolisation by magenta surrounded exclamation mark in reverse colour, was proposed. An alternative proposal was to re-introduce the concept of cartographic objects.

The meeting recommended the continuation of coding linear depth areas (which were introduced for safety contour generation purposes) until incorporation of corrected CSP (Conditional Symbology Procedure) into a new edition 3.4 of the PL, plus a grace period of another year.

A review of the CSMWG page on the IHO website was carried out and resulted in a consistent and comprehensive improved text.

It was agreed to prepare a revision of the graphic part of S-64 “IHO Test Datasets and Plots for ECDIS”, to correct some identified shortcomings and cater for e3.1.1 of S-57.

Progress in setting-up a Symbolization Register as part of the IHO Registry was reported. This work was being carried out under contract and in liaison with DGIWG to ensure interoperability. It was agreed that the contract would be continued, with a view to develop a Symbol Specifications Register and a Portrayal Rules Register, both compliant with ISO Standard 19117.

The next CSMWG Meeting will be held at the Norwegian Hydrographic Service in Stavanger on 11-13 June 2007. There will be a joint TSMAD – CSMWG meeting on 11 June.

3rd MEETING OF THE CHRIS CHART STANDARDIZATION AND PAPER CHARTS WORKING GROUP (CSPCWG)

Monaco, 22-24 November 2006

Chairperson:	Mr. JONES (UK)
Vice-Chairperson:	Mr. MAKINEN (Finland)
Secretary:	Mr. COLEMAN (UK)
Members:	Australia, Brazil, Canada, Chile, Colombia, Croatia, Cuba, Denmark, Finland, France, Germany, Greece, India, Indonesia, Italy, Japan, Netherlands, New Zealand, Norway, Pakistan, Russia, South Africa, Spain, Ukraine, United Kingdom, USA (NGA & NOS).
Contacts:	IHB, CHRIS Chair, CSMWG Chair, SNPWG Chair, TSMAD Chair.

The third CSPWG meeting took place at the IHB from the 22-24 November. Thirteen IHO representatives from Australia, Canada, Denmark, Finland, France, Germany, Netherlands, Norway, Spain, United Kingdom and the IHB were in attendance. The meeting was chaired by Mr. P. JONES (UK). Attendees were welcomed by Capt. H. GORZIGLIA, IHB Director, who invited CSPCWG to consider how it can contribute to Capacity Building and to study how to transfer to the proposed new committee structure. In his opening remarks, the Chair mentioned that all Regional Hydrographic Commissions were now represented in CSPCWG, as Pakistan has agreed to represent the ROPME Sea Area Hydrographic Commission. The main outcomes of the meeting were as follows:



- It was decided that the current CSPCWG working procedures should be converted to a document, amplified and updated as necessary, and then posted on the CSPCWG page of the IHO website.
- The meeting agreed on charting practices for emergency wreck buoys, which IALA intends to establish as navigation aids, and that an IHO CL should be issued to appraise Member States of the matter, and recommend NM action.
- It was agreed to develop detailed guidance on temporary (T) and permanent (P) NM, for inclusion in M-4.
- Outstanding issues of section B-430 to B-439 of M-4, the revision of which had been progressed by correspondence, were addressed and resolved.
- The meeting reviewed Terms of Reference for an INT 1 sub-WG of CSPCWG, formed to maintain IHO Publication INT 1 “Symbols, Abbreviations and Terms used on Charts” and ensure consistency between the 3 language versions, i.e. English, French and Spanish, and with M-4.
- An ad hoc group was formed to remove inconsistencies which had been identified between the abbreviations used in M-4 and INT 1. Also a number of improvements to INT 1 were agreed.
- A draft new edition of IHO Publication INT 2 “Borders, Graduations, Grids and Linear Scales” was presented by Netherlands. It was intended to have this new edition published trilingual, i.e. English, French and Spanish, in 2007.

- The meeting also discussed various charting issues, relating to mangroves, wrecks, quarantine stations, synchronized and sequential lights, ocean currents, seals on a printed chart having more than one producer, seaplane landing areas, DGPS stations, reporting lines, and light details on multi-coloured charts.
- The CSPCWG Work Plan was reviewed by the meeting and updated as appropriate.

The 4th CSPCWG meeting was tentatively planned on 12-15 November 2007 in Rotterdam, Netherlands, i.e. immediately following the 19th CHRIS meeting.

**TSMAD SUB-WORKING GROUP MEETING ON THE S-100 APPLICATION
SCHEMA WORK ITEM**

Canadian Hydrographic Service, Ottawa, 20-24 March 2006

Chairman: Mr. GREENSLADE (UKHO)
Deputy Chairman: Mr. VACHON (CHS)
Secretary: Mr. PHARAOH (IHB)
Members: Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Korea, New Zealand, Norway, South Africa, Sweden, UK, USA, UNH, C-Map/dKart, SevenCs, ESRI, CARIS, IIC, IC-ENC and IHB.

From 20 – 24 March 2006, the Canadian Hydrographic Service hosted an extraordinary TSMAD Sub-Working Group meeting dealing with the development of the S-100 standard. The main aim of the meeting was to review and further develop the S-100 application schema template component document, and to examine issues of backward and forward compatibility with the existing S-57 standard and its ENC Product Specification. A number of shortcomings with the existing ENC data model and format were identified and possible improvements for the next edition (S-101) were discussed. The changes and additions that were made to the draft application schema template document will be presented for consideration to the next full TSMAD Sub WG meeting scheduled to take place at SHOM (Brest) in May.

The meeting was attended by members from the Canadian Hydrographic Service, UK Hydrographic Office, United States NOS, CARIS, IDON, SevenCs and the IHB.

TSMAD SUB WG 10th MEETING
 EPSHOM, Brest, France - 15-19 May 2006

The 10th TSMAD Sub Working Group Meeting on the Development of the new S-100 Standard took place at the French Hydrographic Office, from 15 to 19 May 2006.

The meeting, which was chaired by Mr. Barrie GREENSLADE (UKHO), reviewed the progress made by the various Work Item groups and a number of presentations on the status of several S-100 component documents were also provided. A few breakout groups were convened to complete specific tasks and to discuss work item issues. Further information on the status of S-100 component development activities is available from the S-100 Development Pages on the IHO web site <http://IHO.int> > Committees > TSMAD Sub WG > S-100 Development Pages.

TSMAD 13 MEETING

Wellington, New Zealand, 18 to 22 September 2006

Mr. John Spittal (LINZ National Topographer/Hydrographer) welcomed TSMAD members to Wellington for its 13th meeting. Mr. Mike Brown (US), who had served as chairman of the working group for a number of years, stepped down from this position, and Mr. Barrie Greenslade (UK) was elected as his successor. Mr. Don Vachon (Canada), agreed to serve as Vice Chairman. It was also decided that the S-100 sub working should be disbanded, and its work should be subsumed by the main Working Group.

The meeting was attended by members from Australia, Canada, Denmark, Finland, France, Germany, Japan, New Zealand, Norway, South Africa, Sweden, UK and USA. The following industry members also attended the meeting: HSA, IIC, CARIS, SevenCs, ESRI and D-Kart. Anthony Pharaoh represented the IHB.

6th STANDARDIZATION OF NAUTICAL PUBLICATIONS WORKING GROUP (SNPWG)

IHB, Monaco, 26-30 June 2006

Chairman: Mr. MELLES, Germany.
Deputy Chairman: Mr. ACLAND, UK.
Secretary: Mr. NYBERG, USA
Members: Argentina, Denmark, Estonia, France, Germany, Portugal, Spain, Sweden, UK, USA, Venezuela, IHB.

RAAdm Ken BARBOR (IHB Director) welcomed members of the 6th SNPWG Meeting to Monaco and the International Hydrographic Bureau. The meeting, which was chaired by Johannes MELLES (BSH), was attended by 13 delegates representing seven Member States. The IHB was represented by Tony PHARAOH.

During the course of the meeting, a significant amount of time was spent reviewing and discussing the nautical publications modeling work carried out by the regional task groups since the previous meeting. Other important discussions focused on the requirement for a nautical publications (NP) register, and how NP information should be integrated within the S-100 / S-101 framework.

A presentation on a co-funded European Commission project to develop an Electronic Pilot Display Information System (EPDIS) was also provided by representatives from CETEMAR S.L. Further information on this project is available from the project website - <http://www.epdis.de>.

The next SNPWG is scheduled to take place in Rostock, Germany, from 12 to 16 February 2007.

5th MEETING OF THE IHO DATA PROTECTION SCHEME WORKING GROUP (DPSWG)

IHB, Monaco, 31 August – 1 September 2006

Chairman: Mr. SANDVIK, Norway
Vice-Chairman: Mr. SMITH, United Kingdom
Members: Norway, UK, IC-ENC, Primar Stavanger, SevenCs, SAM Electronics, IHB.

The 5th Meeting of the IHO Data Protection Scheme Working Group (DPSWG), which is tasked to develop and maintain the IHO standard S-63: "IHO Data Protection Scheme" and to provide support to industry in their implementation of S-63, met at the IHB on 31 August and 1 September 2006, under

the Chairmanship of Mr. Robert SANDVIK, Primar-Stavanger, Norway. There were delegates from Germany, Norway, UK and the IHB, representing IHO and industry.

The main task of the meeting was to review the responses to two questionnaires, which had been forwarded to all S-63 accredited OEMs and Data Servers, relating to their implementation and use of the IHO standard. It appeared that there were a number of variations in the interpretation of S-63 by users, which sometimes caused problems in the implementation of the scheme. Based on these responses, the meeting undertook to identify how to improve S-63, by removing all ambiguities in the documentation and therefore eliminating the risk of varying interpretations of the IHO standard.

The plan is to prepare a new edition of S-63 within one year, subject to approval by the CHRIS Committee, the parent body of DPSWG. This will include a revision of the associated test data set, which is used by industry to test the S-63 implementation in their systems. It is intended that the new edition be published in line with the development of the next edition of the IEC ECDIS test standard 61174. In effect, the latter will have to incorporate S-63 test elements if, as expected, revised ECDIS performance standards, which make provision for the use of S-63, are approved by IMO in December 2006. Following publication of the new edition of S-63, a two-year transition period is planned to allow OEMs and Data Servers to upgrade their systems in use.

Editorial meetings of the WG have been planned in the Spring of 2007 and in September of the same year to review the documentation for the new edition. An initial draft will be prepared by the UKHO.

2nd ECDIS STAKEHOLDERS' FORUM

Monaco, 12-13 September 2006

Capitalizing on the successful format of the 1st ECDIS Stakeholders' Forum (ESF), whereby the ESF was held in conjunction with a major IHO Committee meeting, and taking note that the 1st ESF had numerous ENC availability and distribution concerns, the 2nd ESF convened in Monaco coincident with the 10th WEND Meeting. The two active RENCs, Primar-Stavanger and IC-ENC, also held meetings during this period, which further enhanced the exchange of information between the stakeholders. In total, over 80 participants from ECDIS software/hardware manufacturers, Maritime Safety Administrations, Hydrographic offices, Shipping Lines, NGIOs, and chart distributors gathered under the Chairmanship of Horst Hecht to discuss issues associated with ENC and ECDIS.

As expected, there were extensive discussions on availability and distribution. Stakeholders offered several examples where inadequate coverage provided strong disincentives for the mariner to adopt navigation with ECDIS, opting instead for navigation on paper charts using Electronic Charting Systems (ECS) for situational awareness. The Stakeholders implored the Hydrographic Offices, the IHO and IMO to redouble their efforts to achieve adequate coverage of ENCs in support of international shipping. Even where coverage is adequate, pricing can be an issue. Examples were provided that demonstrated the high cost of maintaining an ENC portfolio for a long haul international ship. Both C-Map Norway and Marine Press offer innovative suggestions for reducing the total cost of ENCs to the mariner without changing the price of an ENC. Finally, consistency between adjoining cells was highlighted as, at best, disconcerting to the mariner. The IHO efforts, as instituted by CHRIS, towards ensuring consistency were presented but it was noted that some changes require the recompiling of ENC data and would take time to work through the work program of various Hydrographic Offices.

Although CHRIS had gone to great lengths to separate S-57 ed3.1 and its included ENC Product Specification from its current efforts of developing a new encoding standard for digital geospatial data known as S-100, several stakeholders expressed concern over the potential disruption of ENC production or availability caused by S-100. Although it was explained that there would be no impact, the ESF requested CHRIS to address this issue at its next meeting in September 2006. (Note: CHRIS did address this concern and issued a statement that there would be no impact on ENC production or availability due to the development of S-100).

A complete Record of Discussion is available at [www.iho.int >Committees>WEND](http://www.iho.int/Committees/WEND).

WEND

4th WEND TASK GROUP MEETING

Paris, France, 12-13 January 2006

The WEND Task Group convened in the newly occupied Paris offices of SHOM, at the *Institut Géographique National*, under the Chairmanship of Mr. Horst HECHT for its 4th Meeting since it was tasked by the 7th WEND (Peru, 2003) “To make ECDIS work.” The Task Group welcomed two new members: Yves GULLAM, who replaced Michel LEGOUIC, and Richard CARPENTER, who replaced Peter WRIGHT.

The Task Group began its meeting by reviewing an article in *Hydro International* written by Dr. NISHIDA, the Executive Director of the Japanese Hydrographic Association. This article expressed concern that ENC's did not have a favorable reputation among mariners and failure to address the causes for this reputation placed the IHO as a whole in jeopardy. It was also noted the Admiral Sir Nigel ESSENHIGH was also completing an article that noted the continued problems of ENC/ECDIS.

The rest of the meeting was devoted to preparing for the next WEND meeting. Selection of a date proved most difficult, as an SPWG Meeting has been scheduled for the originally planned date in May. One of the few available periods that would provide the opportunity for the WEND Committee to make an input to the upcoming International Hydrographic Conference was 11-15 September 2006. The venue will be Monaco. The provisional format of the meeting was for IC-ENC and Primar-Stavanger to meet in separate advisory board session on Monday, initial WEND discussions on Tuesday, the Stakeholders' Forum on Wednesday and Thursday, and concluding WEND discussions on Friday. A provisional Agenda was developed and will be forwarded by Circular Letter announcing the WEND Meeting. One part of the agenda would be devoted to discussion regarding the need to make an input to the IHC. There is the possibility that the IHO may adopt a new committee structure following the IHC that would eliminate the WEND Committee. The SPWG, with input from CHRIS and the Capacity Building Committee, has developed a proposal that would accommodate the WEND functions in the new IHO structure. The Task Group believed the WEND Committee should comment formally on this proposal.

Also discussed was the inclusion of a questionnaire with the CL to obtain updated data to assess the current situation regarding ENC production and availability for distribution whereby a strategy to progress the viability of ECDIS can be devised.

10th WEND MEETING

Monaco, 11-14 September 2006

Chairman:	Capt. KAMPFER (South Africa)
Vice-Chairman:	Capt. BARNUM (USA)
Secretary:	Ing. en Chef HUET (IHB)
Members:	Algeria, Argentina, Australia, Brazil, Canada, Chile, China, Cuba, Finland, France, Germany, Greece, India, Indonesia, Italy, Japan, Korea (Rep. of), Malaysia, Mexico, Netherlands, New Zealand, Norway, Oman, Peru, Portugal, Russian Federation, Singapore, South Africa, Spain, Sweden, Thailand, Ukraine, United Kingdom, USA (NGA & NOAA), Venezuela, IHB.
Observers:	Primar-Stavanger, IC-ENC, OEF, IOC, CIRM and ICCL.

Under the Chairmanship of Capt. Abri KAMPFER of South Africa, The 10th Meeting of the Worldwide ENC Database (WEND) Committee convened in Monaco on the 11 & 14 September 2006. The meeting took advantage of the 2nd ECDIS Stakeholders' Forum that was held on 12 and 13 September 2006 to focus its concerns and actions. The sixty-one attendees represented twenty-eight Member States and four NGIOs.

With the recent movement of IMO towards mandating the use of ECDIS, WEND devoted most of its efforts on addressing the need to have adequate coverage of ENC's in support of such a mandate. WEND recommended the IHB and the WEND Task Group working through the Regional Hydrographic Commissions assess current coverage and take action to stimulate production in those areas where it currently does not exist. The WEND principles regarding the development of ENC schema and the production of ENC on a timeline supportive of IMO's mandatory carriage requirement initiatives, and the need for M/S to seek necessary assistance in attaining adequate coverage, were emphasized.



The adoption of the IHO Data Protection Scheme (S-63) also generated some discussion. Although Member States approved in 2002 the adoption of S-63 as the standard to be used should encryption be desired, it has not been reflected in the Resolutions of the IHO or the WEND Principles. The submission of the IHB to make the necessary changes provided an opportunity for WEND to discuss several aspects of ENC encryption. In the end, WEND agreed to wording for the Resolutions of the IHO and the WEND Principles regarding S-63 for submission to Member States for approval. The different implementation of S-63 by the RENC's have caused some distribution problems; therefore, the RENC's were requested to report back on efforts to harmonize their distribution methods.

The often-used term "Official ENC" received significant attention. The discussions revolved around the fact that by definition an ENC has all the attributes that makes it "Official"; therefore, there cannot be an "Unofficial ENC". That the term "ENC" should be copyrighted was discussed as a possible solution to the misuse of the term. The criteria that make an electronic chart an ENC were discussed and agreed to by WEND. The criteria are:

1. The distribution of ENC must have a suitable method of authentication to confirm it's source and integrity.
2. The governmental responsibility for ENC is the same as that applicable to other navigational products and services issued by or on the authority of the respective issuing government.
3. ENC must be made universally available in an IHO recognized non-proprietary format, and

4. The term ENC must not be qualified in any way to refer to any product that is not government authorized.

With regard to coverage, WEND endorsed a submission to the IHO Work Program that Regional Hydrographic Commissions monitor the status of ENC production and consistency and facilitate the completion of ENC in support of IMO's mandatory ECDIS carriage requirement.

The next WEND was tentatively scheduled for April 2008 in Tokyo, Japan.

INTERNATIONAL CARTOGRAPHIC ASSOCIATION (ICA)

ICA- SPATIAL DATA STANDARDS COMMISSION

Vienna, Austria, 4-8 July 2006

The ICA Spatial Data Standards Commission met on 4-8 July 2005 in La Coruña, Spain, under the chairmanship of Prof. Harold Moellering (USA). This Commission is working on defining formal models and technical characteristics of Spatial Data Infrastructures (SDI). The meeting objective was mainly to continue work on SDI modelling, concentrating on the computation viewpoint, as defined by the ISO/IEC 10746 standard "Reference Model for Open Distributed Processing (RM-ODP)". The models should be seen as a continuing step towards the overall modeling of an SDI and its technical characteristics. All the models are being developed using the Unified Modeling Language (UML).

Nine ICA-Commission members from the following 8 countries / organizations were in attendance: Czech Republic, Cuba, Denmark, France, Germany, South Africa, USA and IHB.

The meeting finalized models of the first two UML viewpoints for SDI, i.e. Enterprise (describes the purpose, scope and policies for an SDI) and Information (describes the semantics of information and information processing into an SDI), and completed a scientific paper on the matter "An Initial Formal Model for Spatial Data Infrastructures", for submission to a recognized international GIS science journal.



The meeting further undertook to model the Computation Viewpoint, which describes how the different services of an SDI fit together. Six broad groupings of services were identified: registry, data, processing, portrayal, application and management. The interactions between these high-level services were modelled using UML Component Diagrams. The detailed services were modelled using UML Class Diagrams. The meeting drew up the outline of a paper "An Initial Model of the Computation Viewpoint for SDI" for submission to ICC 2007.

The next Commission meeting has been planned to take place in St. Petersburg, Russia, immediately before the XXIII International Cartographic Conference (Moscow, Russia, 4-10 August 2007).

INTERNATIONAL ASSOCIATION OF LIGHT AUTHORITIES (IALA)

IALA E-NAV COMMITTEE

The first meeting of the IALA E-Nav committee was held at IALA's Paris headquarters from 18 to 22 September 2006 and the IHO was represented by Ingénieur général de l'armement Jean Laporte of SHOM. Amongst those items discussed the one of principal interest to IHO related to ENC availability as this was recognised as being a key component of E Navigation. The IALA committee agreed that they needed to maintain a close working relationship with IHO WEND. IHO will continue to be represented at meetings of this IALA committee.

TIDES**7th MEETING OF THE TIDAL COMMITTEE**

Australian H.O., Wollongong, 26-28 June 2006

Chairman: Cdr. PAGE (UK)
Secretary: Lt. SHIPMAN (IHB)
Members: Australia, Canada, Chile, China, Denmark, France, IHB, New Zealand, Norway, UK.

The 7th Meeting of the IHO Tidal Committee (IHOTC) was held at the Australian Hydrographic Office in Wollongong, from 26 – 28 June 2006. Representatives from Australia, Canada, Chile, China, Denmark, France, New Zealand, Norway, United Kingdom and the IHB attended. Observers from Australia and New Zealand also attended.

The meeting opened with welcoming addresses by Captain Rod NAIRN RAN, Hydrographer of Australia, Captain Robert WARD RAN, Chairman of the IHO CHRIS and Commander John PAGE RN, Chairman of the IHOTC. These were followed by the traditional IHOTC seminar where some members gave short presentations on tidal activities / developments in their countries.

The following matters were discussed:

- Updated list of Tidal Constituents, now including nodal corrections.
- The proposed format for the Exchange of Harmonic Constants.
- Marine XML data format prepared by an EU group includes tides and currents. Further information can be obtained by searching the IOC web site <http://ioc.unesco.org>.
- Digital tide tables and the possible establishment of a collective digital production of tidal predictions based on MS harmonic constants for delivery over the internet. Possible standardised format for the presentation of Secondary Port Data.
- Presentation of tidal stream data on navigational charts.
- The inclusion of an epoch in vertical datum naming conventions e.g. CD2006 along the lines of horizontal / 3D datums e.g. WGS84.
- Developments in Vertical Reference Frameworks.
- Changes in the range of tides in step with the increasing level of MSL.
- Tidal information for Tsunami warning systems.

- SPWG update and the next IHO 5-year work plan.
- Review of tidal related IHO Technical Resolutions and Charting Specifications.
- Progress with the Manual on Tides being prepared by the French Hydrographic Service (SHOM), the Institut Océanographique and the IHO.

The meeting concluded with a visit to the Fort Dennison tide gauge and fundamental benchmark for New South Wales.

MEETING ON MANUAL ON TIDES

Institut Océanographique (IO), Paris, 9 June 2006

A meeting was held at the Institut Océanographique (IO), in Paris, to discuss progress with the preparation of the two Volumes of the Tidal Manual being prepared under the editorship of the IO. The meeting was attended by Claude BEAUVERGER (IO), Mylène DE FABRIQUE SAINT-TOURS (IO), IGA Giles BESSERO (SHOM) and Lt. Cdr. Steve SHIPMAN (IHB) on 9 June 2006.

The French text of Volume 1, Tides in Coastal Waters, has finally been completed and is now ready for printing by SHOM (1000 copies). The translation into English, funded by the IHO in 2002, will now commence and is due for completion by late 2006. Proof reading of the final text and technical advice to the translator will be provided by members of the IHO Tidal Committee as coordinated by PAH at the IHB. SHOM will print 1500 copies of the English text once complete. One copy of the Manual will be provided to each Member State. It is intended that the Manual will be sold by IO, SHOM, and the IHB through their normal publication channels, however details of pricing and distribution of the revenue have yet to be finalised.

The structure and list of contents for Volume 2, Tides in oceanic waters, has been finalised by the IO and a team of authors will shortly start work. IO has asked for a similar cooperation with SHOM and the IHO as has taken place with Volume 1. They assured the meeting that the delays in accepting the final text which occurred with Volume 1 would not be allowed to happen with Volume 2. The French text, ready for printing, will be delivered in January 2007 whereon the translation into English will begin. The IHB will fund this translation through the consultancy line of the 2007 budget.

The IO, SHOM and IHB are considering the arrangements for the future translation into other languages particularly Spanish.

IHO MANUAL ON HYDROGRAPHY

In January 2006 the IHB distributed a printed version of the English version of the Manual on Hydrography, to all Member States, the authors and learning institutions delivering hydrographic courses.

Having finalized its work, the Working Group became dormant, but despite this, the preparation and development of the Spanish version was tackled with the support of Argentina, Chile, Colombia, Ecuador, Venezuela and the IHB. The Spanish version was finalized and posted in the IHO web site in July 2006. The printed version in Spanish is in progress at the Hydrographic and Oceanographic Service of the Chilean Navy.

The IHB is willing to find volunteers committed to prepare a French version of the Manual.

GEBCO PROGRAM

23rd JOINT IOC-IHO GUIDING COMMITTEE FOR THE GEBCO

Bremerhaven, Germany, 19-20 June 2006

Chairman:	Mr. MONAHAN (Canada)(IHO)
Permanent Secretary:	Prof. WHITMARSH (UK) (IOC)
Members:	Ingénieur général CAILLIAU (France) (IHO)
	Dr. FALCONER (New Zealand) (IOC)
	Lic. FRIAS Salazar (Mexico) (IOC)
	Dr. JAKOBSEN (Sweden) (IOC)
	Dr. FOX (USA) (IHO)
	Dr. Ing. SCHENKE (Germany) (IOC)
	Dr. TURKO (Russia) (IOC)
	Dr. YASHIMA (Japan) (IHO)
	Cdr. LUSIANI (Italy) (IHO)



The main activity trusted to the Joint IOC-IHO Guiding Committee for the GEBCO 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 23rd Meeting of the GEBCO Guiding Committee (GGC) was held at the Maritime Museum in Bremerhaven, Germany, from 19-20 June 2006. The meeting, which was hosted by the Alfred Wegener Institute for Polar and Marine Research, was preceded by a meeting of the Sub-Committee on Digital Bathymetry (SCDB) and followed by a meeting of the Sub-Committee for Undersea Feature Names (SCUFN).

The IHO representatives to the GGC present were: Ingénieur général Etienne CAILLIAU, France , Mr. David MONAHAN, Canada, Commander Paolo LUSIANI, Italy, Dr. Christopher FOX, USA, and Dr. Kunio YASHIMA, Japan. The IHB was represented by Captain Hugo GORZIGLIA and Commander Steve SHIPMAN.

At the opening of the meeting, Captain GORZIGLIA made a presentation indicating the important information, which was required from the GGC prior to the next IHC.

The Main aspects introduced by IHB included:

- a) Report to be submitted to the XVII IHC;
- b) IHO WP&BUDGET 2008/2012;
- c) IHO Implementation Plan for re-structuring;
- d) New Structure for Ocean Mapping (Proposal).

The chairman then adjourned for an early coffee break to enable the GGC to meet separately to decide on how best to reorganise the agenda in order to prepare the input requested by the IHC. The GGC meeting was joined, for the remainder of the morning session, by representatives of the IOC Consultative Group on Ocean Mapping (CGOM), who had been meeting over the weekend. The GGC established WGs to prepare revised ToRs and the necessary input to the IHO Work Programme. These groups would pursue their tasks as much as possible before the close of the meeting and would then continue to work by correspondence.

In addition to these important subjects that were discussed and actions taken to progress its development, other matters were also considered:

The GGC considered reports from the Chairmen of the SCDB and the GEBSCO / Nippon Foundation training project management group. IOC requested that they should be included as part of the student selection process. Captain GORZIGLIA reported on the ongoing discussions with the Nippon Foundation regarding Capacity Building in countries where there is currently very little, if any, hydrographic capability.

John HALL reported on the funds that his foundation had provided for various GEBSCO projects.

Ron MACNAB gave a report on developments with regional coordination within the GEBSCO project. Captain GORZIGLIA gave some addition information regarding the SE Pacific and Jose FRIAS regarding the Caribbean.

Bob ANDERSON reported on the GEBSCO World Map, which had been prepared by students of the GEBSCO/Nippon Foundation training programme and requested any comments before this goes for final printing. This has been led by Martin JACOBSEN and it is expected that some 11000 copies will be printed.

Ron MACNAB reported on the North Atlantic Map giving an indication of data availability and the subsequent discussion focussed on mechanisms that would assist in the release of further data.

Chris FOX reported on GEOSS/GEO. GEBSCO and IHO have both applied for membership and IOC is already a member. Captain GORZIGLIA stressed the need for dialogue and coordination. It would be a disaster if all 3 attended and said different things!

The IOC reported on the status of the project for coastal bathymetry in support of a Tsunami warning system for the Indian Ocean. Final endorsement by the Italian Government and the release of the funding is still awaited

The GGC discussed the resignation of Meirion JONES which was a disappointment giving his many years of contribution to the SCDB. The GGC thanked the IHO for the speed with which it had agreed to the appointment of Chris Fox as a new member of the GGC. As the Director of the NGDC it was considered that Chris FOX would be able to make a significant contribution to the work of the GGC.

It was agreed that the next meeting of the GGC would take place at Lamont Doherty Earth Observatory in the USA probably in September 2007, dates to be confirmed.

As a conclusion this meeting allowed the GGC to better understand the IHO position with regard to the GEBCO Project as a whole. The GGC was motivated to work on the new ToR and RoP for the Committee and to start working on the same for the Sub Committees. The new Ocean Mapping structure approach was understood and members of the GGC agreed that it is a strategic subject that deserves attention. The possibility of having GEBCO issues included in the IHO WP & Budget; next year's IHC and IOC Assembly where GEBCO matters should be reported and proposals made, all provide a special conjuncture that seems to have been understood and viewed positively.

SUB-COMMITTEE ON UNDERSEA FEATURE NAMES (SCUFN)
19th Meeting, Bremerhaven, Germany, 21-23 June 2006 - 3-6 October 2006

Chairperson: Dr. SCHENKE (Germany)
Members: Argentina, India, Japan, Korea (Rep. of), Mexico, Russia, USA.
Secretary: Ing. en Chef HUET (IHB)

The 19th meeting of the GEBCO-SCUFN was held on 19-23 June 2006 and hosted by the Alfred Wegener Institute for Polar and Marine Research (AWI), Germany, under the Chairmanship of Dr. H.W. SCHENKE, AWI. Dr. Schenke welcomed the meeting participants and stated that the large number of attendees was an indication of the increasing interest in the world of topology. The chairman welcomed Dr. Hyun-Chul HAN, Rep. of Korea, as a new member of the Sub-Committee (IOC side). In addition to the Chair, attendees included nine SCUFN members from Argentina, India, Korea (Rep. of), Japan, Mexico and USA; fifteen observers / invited guests from Canada, China, India, Italy, Japan, Korea (Rep. of), Russia, USA, and IOC Secretariat; and the Secretary from IHB.



The meeting reviewed a draft revised Terms of Reference and Rules of Procedures for SCUFN, which had been jointly prepared by the IHB and the IOC Secretariat, and further amended by an ad hoc group formed at the 18th SCUFN meeting. After lengthy discussion, a final text was agreed for submission to the GEBCO Guiding Committee.

The meeting also discussed some sections of IHO-IOC Publication B-6 (3rd edition, 2001), in order to better define the area of responsibility of SCUFN and clarify whom undersea features can be named for. It was agreed that SCUFN scope should be limited to areas located outside territorial waters usually limited to 12 nautical miles from the baseline, and that names of living persons should be limited to those who have made an outstanding or fundamental contribution to ocean sciences.

A review of all actions pending from the previous meetings was then undertaken, followed with the examination of about 50 new name proposals. In the end, 17 new names were accepted for inclusion in the GEBCO Gazetteer.

A demonstration, prepared at the IHO DCDB (co-located with the US NGDC), was given on how the undersea feature names included in the GEBCO Gazetteer can be displayed and searchable using Google Earth. The Sub-Committee agreed that this would make the Gazetteer more accessible to the public and give the work of SCUFN valuable international exposure. It was agreed that the secretary would investigate with the DCDB the options for implementing this capability, from the GEBCO Gazetteer database which is maintained at the IHB.

The next meeting will be held the week of July 9th, 2007 in Monaco, at the IHB.

**22nd MEETING OF THE GEBCO SUB-COMMITTEE ON
DIGITAL BATHYMETRY (SCDB)
Bremerhaven, Germany, 14-17 June 2006**

The Alfred Wegener Institute for Polar and Marine Research (Bremerhaven – Germany), hosted the 22nd meeting of the IHO/IOC GEBCO Sub Committee on Digital Bathymetry (SCDB). The meeting which took place between the 14th and the 17th of June included an Open Science Workshop on the 15th. The workshop presentations covered a rang of topics that included titles such as; Exploring global bathymetry via the web, Development of Tsunami Computational Portal, Integration of bathymetric data in a DTM and, The Application of geographical information standards.

The SCDB also discussed several topics relating to the format of the next GEBCO grid. A report was also provided on the status of the collection of shallow water bathymetry from digital hydrographic sources, such as ENCs, digital charts and bathymetric maps.

COMMISSION OF PROMULGATION OF RADIO NAVIGATIONAL WARNINGS

**8th MEETING OF THE COMMISSION FOR THE PROMULGATION
OF RADIO NAVIGATIONAL WARNINGS (CPRNW)
Buenos Aires, Argentina, 12-15 September 2006**

Chairman: Mr. DOHERTY (USA)
Members: Argentina, Australia, Brazil, Chile, Croatia, Ecuador, Egypt, France, Germany, Greece, India, Iran, Italy, Japan, Monaco, New Zealand, South Africa, Russia, Spain, Sweden, UK, IHB.
Ex-Officio members: WMO, IMO, IMSO.

The 8th Meeting of the Commission for the Promulgation of Radio Navigational Warnings (CPRNW) was held at the Regente Palace Hotel, Buenos Aires, Argentina, from the 12 – 15 September 2006.

The meeting was attended by 25 representatives from: Argentina, Australia, Brazil, Canada, Chile, Ecuador, France, India, Japan, Norway, Pakistan, Spain, Sweden, United Kingdom, United States of America and the IHB. Observers from the World Meteorological Organization (WMO), the International Mobile Satellite Organization (IMSO) and Inmarsat also attended the meeting.

Excellent arrangements for the meeting were made by the Hydrographic Service of the Argentinean Navy. The aim of permitting greater participation in CPRNW affairs by Navarea and National Coordinators from South America was achieved with Brazil, Chile and Ecuador attending a CPRNW meeting for the first time. Canada and Norway, potential Navarea Coordinators for any expansion of the WNWNS into the Arctic, also attended for the first time. A very full and productive meeting was held and the full report will be posted on the IHO web site as soon as it becomes available.

NAVAREA III - NATIONAL NAVTEX CO-ORDINATORS' MEETING

IHB, Monaco, 18-19 January 2006

The IHB hosted a meeting of the Mediterranean and Black Sea National Co-ordinators called by the NAVAREA III Co-ordinator (Spain) to discuss issues affecting the position of Navtex transmitters and Navtex Station Service Areas in the west and central Mediterranean. The meeting was attended by representatives from: Algeria, Croatia, Cyprus, Greece, Italy, Malta, Spain, Tunisia, Turkey, IMO secretariat, IMO Navtex Co-ordinating Panel and the IHB.

The meeting reached a very successful conclusion with general agreement on the way forward for an improved Navtex service for mariners in the west and central Mediterranean. A clear and comprehensive action plan was developed and agreed. The full minutes of the meeting will be available from the CPRNW area of the IHO website as soon as they have been completed.

WORKING GROUP ON S-44

1st MEETING OF THE WORKING GROUP ON THE 5th EDITION OF S-44

IHB, Monaco, 28-30 August 2006

Chairman: Mr. HOWLETT (UK)
Vice Chairman: Mr. HARE (Canada)
Secretary: Lt. Cdr. SHIPMAN (IHB)

The first Meeting of the Working Group preparing the 5th Edition of S-44 (IHO Standards for Hydrographic Surveys) was held at the IHB, in Monaco, from 28 to 30 August 2006. The meeting was attended by representatives from: Australia, Finland, France, Netherlands, Norway, Portugal, Sweden, United Kingdom, United States of America and the IHB.

The meeting agreed that whilst S-44 was a Standard and should not unnecessarily duplicate material in other IHO publications, there was a need for it to be a readable document in its own right. It was agreed that S-44 should contain a glossary and that definitions should be in agreement with those that appear in the Hydrographic Dictionary (S-32). It was further agreed that Annex A to the 4th Edition was no longer required and should not appear in the 5th Edition.

The meeting then considered the detailed text of Chapters 2 - 7 and Table 1 and taking due account of the comments made in earlier email discussion, prepared a revised draft text of these chapters. Chapter 7 with some additions will become Annex A. Work will continue, by correspondence, on the text of the Preface, Introduction and Chapter 1 as well as the revised text for Chapters 2 - 6 and Annex A.

It was agreed that there would be a further meeting of the WG to be held in conjunction with the HYDRO 06 meeting in Antwerp, Belgium, at the beginning of November 2006.

2nd MEETING OF THE WG ON S-44
Antwerp, Belgium, 9-10 November 2006

The second meeting was organised to follow on from HYDRO 06, held at the Provincial House in Antwerp, from 6 to 9 November, and to take advantage of the attendance of several members of the WG at that event. The IHB thanks Leendert DOORST of The Netherlands for arranging the meeting.

The meeting was chaired by Rob HARE (Canada), the Vice-Chairman of the WG, as the Chairman, Chris HOWLETT (UK), was unable to arrive at the meeting until mid-morning on 10 November.

There were two phases to the meeting:

1. On Thursday 9 November there was an open meeting to which all attendees at HYDRO 06 were invited. A preliminary draft version of the 5th Edition was circulated to the HYDRO 06 participants in order to stimulate discussion and promote comments on the progress of the WG so far. Some 30 people representing academia, industry, maritime administrations and hydrographic offices attended the meeting in addition to the WG members. The comments made during the discussions were noted and were considered further during the second phase;
2. On Friday 10 November a closed WG meeting was held from 0830 to 1900. This meeting considered those points raised by WG members since the work carried out during the 1st meeting in Monaco, also taking into consideration those comments provided during phase 1 above.

The meeting was attended by the following members of the WG: Chairman: Chris HOWLETT (UK), Vice-Chairman: Rob HARE (Canada), Fernando ARTILHIERO (Portugal), Doug CRONIN (US NAVO), Leendert DOORST (Netherlands), Edsen MAGNO (Brazil), Patrick MICHAUX (France), Jerry MILLS (US NOAA), Ulf OLSSON (Sweden), Stig OVSTEDAL (Norway representing Kjell OLSEN), Bernd VAHRENKAMP (Germany), Jukka VARONEN (Finland) and Steve SHIPMAN (IHB – secretary).

The comments made by WG members following the preparation of the first draft of the 5th Edition had been placed in an Excel spreadsheet and the WG moved sequentially through these comments, taking into account, as necessary, those comments raised during the open meeting on the first day. Decisions taken were noted in the spreadsheet and any other comments noted on a hard copy of the first draft. The secretary will prepare a second draft of the 5th edition based on the decisions taken. This, together with the spreadsheet, would be circulated to those WG members attending the meeting for checking before being circulated to all WG members for further comment.

No decision regarding a further meeting was taken as this would be very much dependent on the nature of the comments made. It was hoped that these would be both few and minor in nature such that the work could be completed by correspondence.

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

ISO/TC 211 MEETING
Orlando, USA, 22-26 May 2006

Barrie GRENSLADE (UKHO) and Tony PHARAOH (IHB) attended the 22nd ISO/TC211 Plenary, and Working group meetings that took place from 22 to 26 May 2006 in Orlando, USA.

The meetings were preceded by a Geospatial Workshop that included sessions on metadata, GML and OGC Web Services. Other working group meetings that took place prior to the plenary session (25th and 26th) included editing committee meetings on the following work item documents:

- 19101-2 Reference model - Part 2: Imagery;
- 19115-2 Metadata - Part 2: Extensions for imagery and gridded data;
- 19136 Geography Markup Language.

Working group meetings were also convened to work on the following documents:

- 19142/19143 Web Feature Service and Filter encoding
- 19118 Encoding (revision of ISO 19118:2005).

The plenary meeting approved the following new work item proposals:

- ISO 19144-1 (Part 1: Classification system structure)
- ISO 19144-2 (Part 2: Land Cover Classification System (LCCS)).

The following publications were approved for publication:

- ISO/DTS 19139, for publication as a Technical Specification
- ISO/DTS 19138 for publication as a Technical Specification
- ISO/CD 19141, for issuing as Draft International Standard (DIS).

Further information on the ISO/TC211 work activities and documents are available from the TC211 web site at <http://www.isotc211.org/>

2. TRAINING

FIG/IHO/ICA INTERNATIONAL ADVISORY BOARD ON STANDARDS OF COMPETENCE FOR HYDROGRAPHERS AND NAUTICAL CARTOGRAPHERS

2nd MEETING OF THE EXECUTIVE TEAM OF THE FIG/IHO/ICA INTERNATIONAL ADVISORY BOARD ON STANDARDS OF COMPETENCE FOR HYDROGRAPHERS AND NAUTICAL CARTOGRAPHERS

University College, London, UK, 23-24 February 2006

The above mentioned meeting was held at University College, London, UK, on 23-24 February 2006. The IAB Executive Team (IABET) is formed by the Chairman, Capt. ARMSTRONG (USA), the Vice-Chairman, Mr. JOHNSTON (UK) and the Secretary, Capt. BERMEJO (IHB).

The following subjects were discussed:

1. Membership;
2. Terms of Reference for the IAB;
3. IAB Work Programme for 2006-2007;
4. Maintenance of M-5: Standards of Competence for Hydrographic Surveyors, Ed. 9 and M-8: Standards of Competence for Nautical Cartographers;
5. Courses submitted for review at the next IAB Meeting (Goa, 10-14 April 2006);
6. Development of the new edition of the IHO Publication M-6;
7. Funding matters;
8. Individual recognition;
9. Request for endorsement from the Australasian Hydrographic Surveyors Certificate Panel (AHSCP) and
10. IHO Work Programme for 2008-2012.

The draft Agenda for the next IAB meeting (Goa, 10-14 April 2006) was also prepared.

**29th MEETING OF THE FIG/IHO/ICA
INTERNATIONAL ADVISORY BOARD ON STANDARDS OF COMPETENCE
FOR HYDROGRAPHERS AND NAUTICAL CARTOGRAPHERS**

Goa, India, 10-14c April 2006

Chairperson: Capt. ARMSTRONG (USA)
Vice-Chairperson: Mr. JOHNSTON (UK)
Secretary: Capt. BERMEJO (IHB)

Members: Mr. FURNESS (Australia), Dr. WELLS (Canada), Ms. TUURNALA (Finland), Prof. Dr. EGGE (Germany), Dr. TSOULOS (Greece), Cdre. BRAHMA (India), Dr. SURACE (Italy), Dr. RAZALI (Malaysia)



The XXVIII meeting of the FIG/IHO/ICA Advisory Board was hosted by the National Hydrographic Office of India and held at the Kenilworth Hotel, Goa, from 10 to 14 April 2006.

Visits to the National Hydrographic School and to the Oceanographic Institute of Goa were scheduled during the week. Mr. Adam Greenland, at present Chairman of FIG Commission IV was appointed as a new Board member.

The following courses were awarded recognition by the Board:

1. Course In Hydrography for Naval Officers of the Indonesian Navy (SEHIDRAL) - Category B with Options 1 and 2.
2. Course of Hydrography for Naval Officers of the Tunisian Hydrographic Service - at Category B and Option 1.
3. Basic Hydrographic Course (Cat B) and the Long Hydrographic Course (Cat A) of the National Hydrographic School (India) - at Cat B with Options 1 and 6 and at Cat A with Options 1, 2 and 3 respectively.

Among the most important issues discussed were:

1. Consideration of the "IAB Work Programme".
2. Revision and updating of the Standards of Competence for Hydrographic Surveyors (M-5)" and Standards of Competence for Nautical Cartographer (M-8).

3. Consideration of the documents "Guidelines for submission of courses", "Guidelines for unclassified courses" and "Recognition period".
4. Reviewing of Appendix 3 of the Standards "Guidelines for Practical experience".

The documents considered were endorsed and it was unanimously agreed to reduce the period of recognition and in principle, a period of 6 years was adopted.

Other important topic discussed was the recognition of Individuals.

The Board agreed that it should move forward with Individual Recognition but was undecided as to the best approach on the methods and means by which an organisation would submit and be assessed for recognition and how any observations or requirements necessary to achieve recognition may be implemented into an ongoing and operational system.

It was considered it may be possible to assess Individual Competence and Experience systems rather than the individuals directly. Accordingly the members are to consider how best to progress this important issue and to develop constructive ideas so that at the next meeting a clear statement can be made and guidelines developed.

The next meetings of the IAB will be held in Hamburg (Germany).

INTERNATIONAL COURSES

NINTH (9th) HYDROGRAPHIC COURSE AT THE NATIONAL HYDROGRAPHIC SCHOOL, GOA, INDIA

19 June 2006 – 20 January 2007

The Eighth Hydrographic Course for personnel from Indian Ocean Littoral States commenced on Monday 19 June 2006 and the theoretical part (including field practice) ended on 25 November 2006. This phase was followed by an eight-week practical training phase onboard an Indian Naval Hydrographic Ship. The second phase started on 27 November 2006 and ended on 20 January 2007.

Six students from developing countries from the Indian Ocean littoral region were considered for financing by the Ministry of External Affairs, Government of India. The support provided by the Government of India covered accommodation, medical expenses, internal travel and a reasonable living allowance to cater for food and small out-of-pocket expenses. Free air travel to and from the respective countries was also be considered in a few cases as per Government of India policy.

3. MISCELLANEOUS

13th MEETING OF THE INTERNATIONAL STEERING COMMITTEE FOR GLOBAL MAPPING (ISCGM-13)

Santiago, Chile, 11 November 2006

The 13th Meeting of the International Steering Committee for Global Mapping (ISCGM-13) took place at the "Instituto Geográfico Militar" (IGM), in Santiago, Chile, on 11 November 2006, organized by the Chairman of the ISCGM and hosted by the Director of IGM. The ISCGM Chairman, Dr. Fraser TAYLOR, opened the meeting welcoming the 35 participants. The IHO was represented by Captain Hugo GORZIGLIA, IHB Director.

In his introduction, Dr. TAYLOR highlighted the initiative known as the Global Map School, intended to provide training on the subject. He also referred to the efforts made in Capacity Building jointly with the Joint Board of Geospatial Information Societies, working closely with FIG, ICA and IHO.

The Committee re-elected Dr. TAYLOR as Chairman who commented on some of the main actions he would like to concentrate on during his next tenure:

- a) Increase participation and membership;
- b) Update specifications;
- c) Increase access to global mapping data;
- d) Merge with regional global mapping initiatives.

Under the agenda item referring to Reports, Mr. Hiromichi MARUYAMA (Japan), Director, Geographic Department of the Geographical Survey Institute and Secretary General of ISCGM, reported on the status of the Global Mapping project. 33 organizations have submitted reports. Registered users of the web facility are close to 12,000 individuals with over 64,900 downloads effectively carried out. The Secretariat circulated a questionnaire to assess the existence of basic geographic data sets, their availability free of charge and information on global or regional potential new databases. JICA has been sponsoring training courses on Global Mapping, with 82 participants from 46 countries in the period 1994/2006. This training comprises three phases: a basic course (Global Mapping 1994/1998), followed by a Course on Global Mapping-Contribution to Global Mapping Development by GIS (1999/2003). The third phase started in 2004 with the following aims:

- a) Acquire the skills and knowledge of the procedures required to develop Global Map data;
- b) Understand the importance of Global Mapping in policy-making in particular to cope with global environmental problems;
- c) Gain knowledge of the latest technologies in related fields;
- d) To be capable of fully coordinating the Global Mapping project in their countries;
- e) Acquire the technology necessary for Global map data revision;
- f) Understand the application of the Global Map.

Working Group 1 (Strategic Plan) reported that the Global Map Version 0 constitutes the basis for development and contains what is available. Version 1 (Phase 2) is in hand with the aim to include data of at least 100 countries (or 50% of land area) with data completed and data produced by converting Version 0 in case data is not provided in a timely manner. For the period 2008-2012 Phase 3 is proposed that will cover Version 2 including predefined layers of the whole land area at scales between 1:100,000 and 1:200,000 for densely populated centers and active volcano areas, to be provided in GML format or other user-friendly format. One of the layers could be "sea elevation data".

Working Group 2 (Specifications) reported that Global Map Specifications Version 1.2 was in force, but minor changes are proposed and, if accepted, will generate Version 1.2.1. It is anticipated that Version 2 will be drawn up in the near future considering the inclusion and exclusion of features for vector layers and methods to make Global Map data more seamless. The new GML format will be continuously examined to identify its applicability. IHO comments are awaited as regards the specifications on features and layers related to some symbology, see WG2 Report.

Working Group 4 (Raster Data Development) reported on their progress and plans. The responsibility of this WG is to plan and execute the data production for land cover layer, land use layer and vegetation layer in cooperation with National Mapping Organizations. Based on the report, there is no action for IHO.

The Liaison Organizations that submitted reports were:

- a) Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP);
- b) International Society for Digital Earth (ISDE);
- c) Pan - American Institute for Geography and History (PAIGH);
- d) Permanent Committee of Geospatial Data Infrastructure for the Americas (PC IDEA).

The IHB gave a presentation on the mission, objectives and organization, highlighting all those areas on which a Global Map might be interested in. The presentation was very well received, as the great majority of participants did not know about IHO. Following the presentation there were several questions and the participants were pleased to learn about the GEBCO project.

Discussion papers were presented by the Secretary General and approved by the Committee, with the sole exception of one paper dealing with the provision of maps and information of a disaster-affected area to support emergency relief and disaster-relief activities when a large-scale disaster occurs. The IHO representative provided comments on this subject, highlighting the importance of preparedness and prevention actions, not just after the event as proposed. There was discussion on this matter and a different proposal was approved: to establish a new WG on disaster data preparedness, mitigation and management.

It was agreed that ISCGM14 would be held on Saturday 14th July 2007 in Cambridge, UK.

Conclusions:

- a) Considering that Global Map relies on National Mapping Agencies it seems appropriate to make HOs aware of this project, inviting them to contact their national body dealing with the preparation of the 1:1.000.000 data set to facilitate, if agreed, the preparation of the sea bottom bathymetry layer.
- b) As one of the potential layers might be “sea elevation data” (bathymetry), it is important for the IHO to maintain contact with the ISCGM to contribute to this layer through GEBCO and also through the IBCs. It would be important to invite ISCGM to attend the next GEBCO Guiding Committee Meeting and the meetings of its two Sub Committees.
- c) IHB should study the specifications being modified by ISCGM and provide advice on the matters related to IHO competence.

ABLOS WORKING GROUP

13th ANNUAL BUSINESS MEETING OF ABLOS

IHB, 11-12 December 2006

The 13th annual business meeting of ABLOS was held at the IHB on 11 and 12 December 2006. Following the decision of IOC to withdraw from ABLOS, much of the meeting was spent revising the TOR and reviewing the way forward. The revised TOR have been passed to IAG and circulated to IHO Member States via IHB CL 87/06 for approval.

Preliminary discussions took place regarding the venue and theme for the 5th ABLOS biennial Conference. It was concluded that the conference should be held at the IHB in February 2008, this is 4 months later than normal but given the time needed for preparation and the changes in membership of ABLOS this was considered inevitable. Members reported on those ABLOS related conferences and seminars which they had attended during the year and reviewed recent developments regarding submissions to the CLCS. The full report is available from the IHO web site.

The 14th ABLOS Business Meeting will be held in Dubrovnik, Croatia on 30 and 31 October 2007.

MEETING TO DISCUSS WEB BASED MARITIME DICTIONARIES

Brussels, Belgium, 23 February 2006

The Secretary General of the International Association of Navigation / Association Internationale de Navigation (PIANC-AIPCN) invited the IHO and other interested organisations to attend a meeting to discuss possible collaboration on preparing online dictionaries related to maritime activities.

This Association was previously called the “Permanent International Association of Navigational Congresses” the acronym for which has been retained. PIANC, founded in 1885 is a world-wide, non-political, non-profit making, technical and scientific association of private individuals, corporate members and national governments. Its HQ and secretariat are in Brussels. The Secretariat is headed by the Secretary General, Mr L VAN SCHEL of Belgium. Further information is available from their web site www.pianc-aipcn.org.

PIANC have in the past published several multilingual dictionaries related to maritime / water issues but these have been out of print for many years. The cost of maintaining and providing hard copies of these dictionaries is prohibitive but given the numerous requests that they continue to receive for them PIANC is considering the preparation of electronic / online versions of these dictionaries. PIANC wished to investigate the possibility of collaboration with other “sister” organisations and consequently hosted a meeting at their Brussels HQ on Thursday 23 February. The meeting was also attended by the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), the International Association of Ports and Harbours (IAPH), the Central Dredging Association (CEDA) and the Technical University of Delft, Netherlands. PA(H) represented the IHB.

Professor Verhagen of the Technical University of Delft gave a presentation on the work that he has so far completed. He believed, based on the number of ‘hits’ on the trial web site, <http://www.kennisbank-waterbouw.nl/dictionary/> that there was clearly a demand for such an online facility. He also believed that such a facility would be greatly improved with the cooperation of other interested maritime / water related organisations. The work so far undertaken by Professor Verhagen had been done in his own time and at no cost. If the work was to be completed in a reasonable time frame, i.e. less than a year, he considered that it would be necessary to bring in paid support. This could be done relatively cheaply using supervised university students; he would prepare an estimate of possible costs and inform the participants. He considered that a minimal effort would be required to import the data currently held in the online digital version of the Hydrographic Dictionary (S-32).

The IHB is aware that there are some problems with the current on-line version of S-32, namely limited search functionality, difficulty in updating entries and elderly software which few people now understand; and has been investigating ways of overcoming these. Collaboration with PIANC could prove to be a very cost effective means of achieving the necessary improvements. The IHB will continue to discuss this matter with PIANC and keep MS informed of any developments.

WORK PROGRAMME 4 INFORMATION MANAGEMENT AND PUBLIC RELATIONS

IHO PUBLICATIONS

IHO publications are available on the IHO Web Site (www.iho.int) and can be downloaded by IHO Member States and subscribers to the site.

Member States agreed to discontinue the production of an annual CD-ROM, in view of the full availability of publications for downloading from the Web site. (See CLs 56 & 68/2006).

Non-Member States, organizations, institutions and individuals can acquire IHO publications either by subscribing to the WEB site, or by purchasing directly from the IHB.

Publications produced in 2006

B-4 Information Concerning Recent Bathymetric Data

A new web version of this publication has been published as an online web map service and is available from the IHO web site (under Publications > Interactive Pubs).

B-8 GEBCO Digital Atlas

No new editions of this publication were produced during 2006 although work on improving the underlying bathymetric grid is being carried out by the GEBCO Technical Sub Committee on Ocean Mapping (TSCOM).

M3 - IHO Resolutions

New Technical Resolutions A3.12 (ENC Encryption), K2.19 Revision of IHO Technical Resolution (WEND Principles) and A6.2 - Advance Supply Of Tidal Predictions were submitted to Member States and approved.

M-4 – Chart Specifications of the IHO

Edition 3.003 of M-4 was published in August and placed on the IHO website, following the approval by Member States of a revision of section B-400 to B-429, which had been prepared by the Chart Standardization and Paper Chart Working Group (CSPCWG). MS also approved a standard format for geographical positions (based on ISO Standard 6709), and new symbols for a reporting line and a Differential GPS station. CLs 30, 48 and 72/2006 refer.

CSPCWG further progressed the revision of section B-430 to B-439, to result in publishing a new edition 3.004 of M-4 in 2007.

Corrections to the English version of INT 1 “Symbols, Abbreviations and Terms used on Charts”, prepared by the German HO on behalf of the IHO, were advertised on the IHO website (June and December). Also, a new 4th edition of the French version of INT 1 was published in November by the French HO on behalf of the IHO. It is also available on the IHO website.

M-5 and M-8 – Standards of Competence for Hydrographic Surveyors and for Nautical Cartographers

During its 29th Meeting, the FIG/IHO/ICA International Advisory Board made some amendments to the Syllabus of M-5 and M-8. Member States were informed about these changes.

M-11 – Guidance for the Preparation of International Chart Schemes and Catalogue of INT Charts

Edition 2.000 of M-11 was posted on the IHO website in November. It comprises two parts. Part A “Guidance for the Preparation and Maintenance of International Chart Schemes” is maintained by the Chart Specifications and Paper Charts Working Group. Part B “Catalogue of International Charts” provides details on all INT charts scheduled and/or published, and is maintained by the IHB in liaison with the 14 regional coordinators of INT chart schemes.

The status of INT chart series at the end of 2006, as reflected in M-11, was:

Region	Coordinator	Commission/Committee	(1)	(2)	(3)
I :10 Million			25	24	21
A (NW Atl. & NE Pac. Oceans)	USA/NOS	US/CHC	NS	15	15
B (Meso-America & Caribb. Sea)	Mexico	MACHC	59	6	4
C1 (SW Atl. Ocean)	Brazil	SWAtHC	62	18	5
C2 (SE Pac. Ocean)	Chile	SEPHC	44	6	2
D (North Sea)	United Kingdom	NSHC & NHC	206	195	161
E (Baltic Sea)	Denmark	BSICC/BSHC	225	155	52
F (Med. & Black Seas)	France	MEDINCHART/MBSHC	223	145	93
G (East Atl. Ocean)	France	CHATINTCHART/EAtHC	171	95	67
H (SE Atl. & SW Ind. Oceans)	South Africa	SAIHC	107	63	43
I (NW Ind. Ocean)	Iran	RSAHC	108	31	7
J (North Ind. Ocean)	India	NIOHC	138	69	5
K (E. Asia & NW Pac. Ocean)	Japan	EAHC	291	79	16
L (SE Ind. & SW Pac. Oceans)	Australia	SWPHC	56	48	33
M (Southern Ocean)	IHB	HCA	99	53	10
TOTAL			1814	1002	534

(1) Scheduled (NS = Not Stated)(2) Published

(3) Reprinted by other MS

It should be noted that the mark of 1000 INT charts published by IHO Member States was topped in 2006.

M-13 MANUAL ON HYDROGRAPHY (M-13)

THE SPANISH VERSION WAS DISTRIBUTED IN JULY (CL 53)

P-5 – IHO Yearbook

This publication is continuously updated and offered in the WEB site only.

P-6 – Proceedings of the 3rd Extraordinary I.H. Conference

The French version was distributed on CD-ROM to Member States.

P-7 – Annual Report

The IHO Annual Report 2005 was produced by the IHB and distributed in printed format.

S-52 - Manual on Technical Aspects of the United Nations Convention on the Law Of The Sea

In accordance with its TOR ABLOS established an Editorial WG to review S-51 and prepare a revised 4th Edition in English.

A new [Edition 2.2](#) of IHO Publication S-62 “ENC Producer Codes” has been published by the IHB and made available on the IHO website (www.iho.shom.fr > Publications > Catalogue > S-62). It supersedes Edition 2.1 which was announced by CL 62/2005.

S-55 – Status of Hydrographic Surveying and Nautical Charting Worldwide

The digital database is regularly updated as more information becomes available.

The Directing Committee is most grateful to the Regional Hydrographic Commissions and individual Member States for their assistance in maintaining the S-55 database, which is recognised as an effective tool for IHO and IMO efforts to promote the enhancement of SOLAS V hydrographic arrangements worldwide.

The database now covers 90% of coastal states and other sea areas, and, despite some difficulties with the web-site server which should soon be resolved, the continuous update process is firmly in place. Member States are now asked to continue their efforts to complete the following measures to ensure the validity of the S-55 database.

S-58 Recommended ENC Validation Checks

No new editions were published during 2006, however the next edition is scheduled for publication in February 2007.

S-62 - ENC Producer Codes

A new Edition 2.2 of this publication was produced by the IHB in June. Member States are requested to report to the IHB (info@ihb.mc) any changes to S-62 of which they may be aware.

IHO WEB SITE

Maintenance of the IHO website is an ongoing task that is now undertaken by several IHB staff members. It continues to provide a focal point for information concerning IHO meetings and for the distribution of IHO publications and documents. It has been extended to include a few new sections such as those under the “Interactive Publications” and “Public Relations” sections.

REPOSITORY OF CHARTS AND NAUTICAL DOCUMENTS

During the year, 667 new charts / editions were received (438 in 2005), examined and filed in the Bureau Chartroom. This included 217 INT charts (289 in 2005). Member States are reminded that, in accordance with Article 19 of the IHO General Regulations, a copy of any new International (INT) chart published, or new edition, should be delivered to the IHB. A number of ENCs were also received, as well as 189 nautical publications (160 in 2005).

Regarding the IHB paper chart collection, it is planned that all copies of national charts (with the exception of the UKHO worldwide chart series) will be disposed of, after the 17th IH Conference. Only International charts will be kept in the IHB collection.

IHB LIBRARY

About 250 new magazines, CD-ROMS and books on hydrography, oceanography, cartography and related matters (including the regular subscriptions) as well as various technical brochures were added to the IHB Library in 2006. The Bureau thanks all Member States that have sent copies (digital or paper) of their Annual Reports and/or technical publications during the year and encourage them to continue to do so.

MAINTENANCE OF IHB COMPUTER AND NETWORK SYSTEMS

In order to support an increasing demand for computer and network capacity, several computer hardware upgrades were carried out during 2006. These included upgrades to the proxy and network servers, and a number of workstations. The IHB also expanded its internal Intranet service, and has implemented web map server facilities for the implementation of online catalogue information. The IHB continues to support the S-63 security scheme and security server.

DEVELOPMENT AND MAINTENANCE OF IHB GIS DATABASE INFRASTRUCTURE

The IHB continues to develop GIS databases to support internal graphics production requirements, and has implemented some online Web Map Server facilities. It is anticipated that these will continue to be developed during 2007.

WORLD HYDROGRAPHY DAY

The IHO celebrated the first World Hydrography Day (WHD) on 21st June with the following events taking place at the IHB.

- a. The President gave a short interview to local television on the importance of the WHD.
- b. During the period around WHD, local television broadcast a special programme on Hydrography making reference to the WHD.
- c. A reception was held on the Bureau's roof terrace which HSH Prince Albert II honoured by his presence. Members of the Monaco Government, local diplomatic authorities, representatives from the maritime industry and others were also present. The President opened the reception by welcoming the Prince and all the guests and gave a brief statement on the importance of the WHD, highlighting the Organization's contribution to global safety at sea for the past 85 years, according to the theme approved by the Member States. HSH Prince Albert II then gave a brief speech on the history of the IHO's standing commitment to safety of navigation. Following the Prince's speech, the President formally presented the Sovereign Prince with a framed chart of the Svalbard region produced by Norway in 1932, which was the departure point of the Prince's Arctic Expedition in April this year, marking the 100th anniversary of his Great Grandfather Prince Albert Ist's Arctic campaigns in 1906.
- d. The Bureau had prepared a series of posters highlighting the IHO's contribution to safety at sea, and these were displayed on the terrace during the reception for the benefit of the participants. The President and Director of the IHB explained the posters in some detail to HSH Prince Albert II.
- e. The Bureau established a special page on the IHO website, where texts and other materials were posted for the benefit of HO's. It should be further noted that the documentation related to WHD has now been posted under the Bulletin in the section entitled "Others".
- f. The Bureau provided support to Member States on various topics as it was requested.
- g. The IHO webpage on WHD was linked to similar website pages that had been established by National HO's.

- h. Captain Gorziglia who was absent from the IHB participating in the Antarctic Treaty Consultative Meeting in Edinburgh followed by the IOC Executive Council in Paris, made a brief statement on the WHD on both occasions.

The Directing Committee was informed by Member States on the events that took place on a national level to celebrate the WHD. It is believed that the celebration of WHD at the Bureau and by the HOs, nationally, will help to increase public awareness of the importance of hydrography not only to safety at sea, but to many other requirements and applications by scientists, maritime industry, Governmental Agencies, research and Academic institutions and others.

The theme “Electronic Navigational Charts (ENCs); an essential element of Safety at Sea and Efficient Maritime Operations.» was proposed for next year’s celebrations.

WORK PROGRAMME 5 GENERAL ORGANIZATION DEVELOPMENT

STRATEGIC PLANNING WORKING GROUP

8th MEETING OF THE IHO STRATEGIC PLANNING WORKING GROUP

Busan, Republic of Korea, 2 to 4 May 2006

Chairman: Mr. KLEPSVIK (Norway)
Vice-Chairmen: Dr. WILLIAMS (UK)
 Dr. NISHIDA (Japan)
IHB Representative: VAdm. MARATOS
Secretary: Capt. BERMEJO (IHB)



1. The eighth meeting of the SPWG was held at the “Hotel Marriott” Busan, Republic of Korea, from 2 to 4 May 2006, under the chairmanship of Mr. F. Klepsovik (Norway) and hosted by the National Oceanographic Research Institution (NORI) of the Republic of Korea. The following IHO Regional Hydrographic Commissions were represented: BSHC, EAHC, EAthC, MACHC, MBSHC, NHC, NIOHC, NSHC, SAIHC, SWPHC and USCHC together with the following individual countries: Brazil, China, Japan, Singapore and UK.

2. The SPWG considered reports from SPWG members and from the IHB about the status of ratification of the Protocol of amendments to the IHO Convention, approved at the 3rd Extraordinary Conference (2005).
3. The SPWG also reviewed and endorsed, with some amendments, the latest version of the Basic Documents, harmonized and completed by the Legal Experts.
A recapitulation of the "Implementation strategy" was made, recalling the mechanisms for Assembly timing, the election of the Secretary-General and Directors, the revision of the salary scheme for the Secretary-General and Directors and the re-structuring of the IHO bodies proposed by the CBC and CHRIS Chairmen.

The SPWG Chairman reminded the participants that the intention was to present the Implementation Strategy to the 17th Conference for approval, also proposing that the re-structuring will take place before the ratification procedure is completed and a dead-line for this implementation. All these points have been included in the Draft Proposals to the Conference that the SPWG Chair Group has prepared.

4. The revised reports from the CBC and CHRIS Chairmen, harmonized to bring them in line with the decisions taken at the 7th SPWG in Mexico, were also considered by the SPWG. These reports will be subsequently amended by the CBC and CHRIS Chairmen, with the support of the IHB, to take into account the new Articles of the General Regulations and the above decisions.
5. The SPWG endorsed a text proposed by the USA for inclusion in the General Regulations dealing with Legal Advice. It was also agreed to maintain the system of composition of the Council approved by the 3rd Extraordinary Conference and to encourage IHO Member States to establish or join Regional Hydrographic Commissions. This will not prevent any IHO Member State from making specific proposals to the 17th IH Conference on this matter.
6. On the methods of selection to the Council, the SPWG agreed :
 - a) To report to the 17th Conference that Tonnage seems to be the parameter to allocate Council seats for Hydrographic Interest for the time being and that no alternative model has been found.
 - b) That when the new structure is implemented, experience will be gained and the subject may be revisited if needed.
7. The SPWG reviewed the set of Conference Proposals prepared by the Chair Group and endorsed them after some amendments.

The Chairman noted that there were no new tasks identified that justify the continuation of the SPWG. He added that the scheduling of an Extraordinary Conference in 2009 made the maintenance of the SPWG superfluous and that this was to be confirmed by the 17th IH Conference.

MEETINGS OF THE SPWG CHAIR GROUP AND LEGAL EXPERTS

The SPWG Chair Group held three meetings in London and Monaco in February (along with the Legal Experts), March, June and July to discuss the progress of the work, revise the documents in preparation and establish the necessary guidelines.

Translation services

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

Cooperation from the Spanish-speaking Member States was very helpful for the production of the Spanish version of several publications and the IHB thanks those countries for their support.

IHO Work Programme

The IHB, in July 2006 and in accordance with Article 8 of the Financial Regulations, requested the IHO Finance Committee Members to review and provide comments on the Proposed IHO 2007 Budget that was sent attached to the proposed Work Programme to be used as a reference.

The proposed IHO 2007 Work Programme and Budget were prepared in line with the 2003/2007 Work Programme and the Five Year Budget approved by the 16th I.H. Conference, adjusted accordingly following Member States' approval.

The final version of both documents were approved by the majority of Member States required and following the IHO Planning Cycle, entered in force on 1st January 2007.

Host Government Affairs

Relations with the Host Country continued to be very good. The Department of External Relations efficiently monitored the progress made with the request of States to become Members of the Organization, in accordance with the procedures of Article XX of the Convention and the approval of the Protocol of Amendments to the Convention, as they were approved by the Extraordinary Conference in 2005, in accordance with Article XXI of the Convention.

The Directing Committee participated in the celebrations to commemorate the centenary of the expedition to the Arctic by Prince ALBERT 1st and to the expedition in the same area of Prince ALBERT 2nd in 2006. A very interesting Conference and an Exhibition were organized in May, where the Directing Committee participated very actively.

The Directing Committee appreciates very much the support provided by the Government of Monaco, in an effort to renovate the Bureau and especially the personal interest of Mr FISSORE, Conseiller de Gouvernement Pour les Relations Exterieures. The Directing Committee has put in place procedures, in cooperation with Mr FISSORE, in order to raise the awareness of the importance of Hydrography, to National Officials visiting Monaco.

Prince ALBERT 2nd and Members of the Government of Monaco, participated in the celebrations organized in the terrace of the Bureau, for the first World Hydrography Day. The Prince in his address highlighted the importance of these celebrations and the support that the Government of Monaco has provided to the Organization.

IHO Membership administration

The Department for External Affairs in Monaco has continued to effectively support the IHB in administering the IHO membership process. This Department rapidly distributes applications from new States to the Member State Governments for approval, follows up pending Member States who have not deposited their Instrument of Accession and keeps the IHB constantly up to date with regard

to the approvals received for each application. The IHB is very grateful to Monaco for their valuable assistance in this domain.

Ref: CL1/2007

New Members of the IHO

There were no new Member States in 2006.

Pending Member States whose applications for admission to the IHO have been approved

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 in 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 complete the IHO membership formalities. Regretfully this last formality has not yet been completed.

The President of the Directing Committee has been in contact with Bulgaria to encourage them to deposit their Instrument of Accession, particularly in view of the XVIIth I.H. Conference in 2007.

Ref: CLs 1/2007, 52/90, 55/93

Ireland

The application to join the IHO made by Ireland was approved by the required two-thirds of the Parties to the Convention in July and the Government of Monaco invited the Government of Ireland to deposit its Instrument of Accession at that time. To date this final formality has not been completed.

Ref: CL 1/2007, CL 82/2004

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 in 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. The President of the Directing Committee has been in contact with Mauritania to encourage them to deposit their Instrument of Accession, particularly in view of the XVIIth I.H. Conference in 2007.

Ref: CLs1/2007, 44/89, 25/90, 55/93

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 in 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. Qatar continues to participate in the work of the ROPME Sea Area Regional Hydrographic Commission as an Associate Member and a visit to Qatar is planned by one of the IHB Directors in March 2007.

Ref: CLs 1 /2007, 14/90, 55/93

Republic of Romania

The application to join the IHO made by the Government of the Republic of Romania was approved by the required two-thirds of the Parties to the Convention in April 2005 and the Government of Monaco immediately invited the Romanian Government to deposit its Instrument of Accession in order to become a full IHO Member State. The Romanian Authorities have not yet completed this final formality¹.

Kingdom of Saudi Arabia

The application to join the IHO made by the Government of the Kingdom of Saudi Arabia was approved by the required two-thirds of the Parties to the Convention in April and the Government of Monaco immediately invited the Saudi Arabian Authorities to deposit the Instrument of Accession to complete the membership formalities. Saudi Arabia has not yet completed this final step. The Directing Committee has regular contacts with the Commander of the Hydrographic Department in Riyadh and a visit to Saudi Arabia is planned by one of the IHB Directors in March 2007. Meanwhile the President and Directors are very confident that this country will complete its membership formalities in the very near future.

Ref: CL1/2007

Pending Member States whose applications for admission to the IHO are awaiting approval

Republic of Cameroon

Cameroon officially applied for membership of the IHO in June 2004 and reported a national tonnage figure of 100,000 tonnes at that time. Cameroon's application has so far received 40 approvals out of a required 47. The Directing Committee hopes that this approval procedure will be completed in the near future.

Ref: CL 36/2004

Republic of Sierra Leone

Sierra Leone officially applied for membership of the IHO in January and reported a national tonnage figure of 110,000 tonnes. At the end of 2006 Sierra Leone's application had received 29 approvals out of a required 49. The Directing Committee hopes that this approval procedure will be completed in the near future.

Ref: CL 1/2007, CL17

Member States whose rights and privileges have been suspended or reinstated

Of the 76 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 49.

Amendments to the Convention

As reported in the 2005 Annual Report, the modifications to the Convention proposed by the Strategic Planning Working Group and approved in April 2005 by the 3rd Extraordinary International Hydrographic Conference were submitted by the Government of Monaco in July 2005 to all Contracting Parties for approval.

¹ At the time of writing this report, the Government of Romania has ratified the IHO Convention and became a full IHO Member State with effect from 29 January 2007. (Ref: CL 18/2007)

Up to the end of 2006, the Government of Monaco had reported 11 approvals of the amendments to the IHO Convention by the following Member State Governments: Cyprus, Denmark, Germany, Japan, Korea (Rep. of), Mexico, Morocco, Norway, Pakistan, Sweden and UK.

With regard to those amendments to the Convention which are pending from the XIIIth and XVth .H. Conferences, Article 20 of the Protocol states:

“The amendments adopted during the XIIIth and XVth Conferences which have not entered into force according to Article XXI (3) of the Convention, shall not hereafter enter into force.

IN ACCORDANCE WITH Article XXI (3) of the IHO Convention, the amendments here above mentioned from Article 1 to Article 20 shall enter into force for all Contracting Parties three months after notifications of approval by two-thirds of the Member States have been received by the Depositary.”

Ref: Decision no. 2 of 3rd EIHC, CL1/2007

APPENDICES :

- I. NEW HYDROGRAPHERS FROM MEMBER STATES
- II. VISITS TO THE IHB
- III. VISITS TO HYDROGRAPHIC OFFICES AND
MEETINGS HELD AT THE IHB
- IV. IHB DIRECTING COMMITTEE AND RESPONSIBILITIES
- V. IHB STAFF LIST
- VI. IHB TECHNICAL MISSIONS

APPENDIX I – NEW HYDROGRAPHERS OF MEMBER STATES

NEW HYDROGRAPHER OF ROMANIA

Captain Alexandru MACAVEI, born on 10 May 1956, was appointed Head of the Maritime Hydrographic Directorate on 1st October 2005.



Captain MACAVEI is married and has two children.

EDUCATION:

- ✓ Naval Academy “Mircea cel Bătrân”, Faculty of Navigation, 1979;
- ✓ High Military Studies Academy, Navy Specialization, 1989;
- ✓ Defence Joint Arms College (Collège Interarmées de Défense), France, 2001 – 2002;
- ✓ University of Paris (Sorbonne), Faculty of Law, “Defence, Geostrategy and Industrial Evolutions” Master’s, France, 2001 –2002.

WORK EXPERIENCE:

- ✓ Commander of Artillery and Missile Warfare Service on board of a Guided – Missile Boat, 1979;
- ✓ Lecturer at the Romanian Navy Training Centre, 1984;
- ✓ Commander of Motor Torpedo Vessel, 1989;
- ✓ Chief of Research Department Missile Brigade, 1994;
- ✓ Head Clerk, Operations Service, Romanian Navy Staff, 1998;
- ✓ Chief of Hydrography Division, Maritime Hydrographic Directorate, 2003;
- ✓ Squadron Commander of Squadron 50 – Corvettes, 2004.

PUBLISHED ARTICLES:

- ✓ European Defence – A Long Way Covered with Obstacles ;
- ✓ Romanian Navy Journal, No.4 - 5, 2003;
- ✓ Romania and Black Sea. Geopolitics, “Tomis” Magazine, 2003.

PROJECTS/PARTICIPATION IN EVENTS:

- ✓ “Force 2000” – Exercise of General Staff
- ✓ Work on “Romanian – French – English International Strategic Relationship Dictionary”
- ✓ Fourth “Blackseafor” Activation, Commander of Corvette 265, 2005

ASSOCIATION MEMBERSHIP:

Frères d’armes, France.

NEW HYDROGRAPHER OF PAPUA NEW GUINEA



Mr. Joseph KUNDA was nominated Chief Hydrographer of the Hydrographic Service of Papua New Guinea in December 2005. Full details concerning his professional career follow hereunder.

Hydrographic Unit Objectives:

- to effectively and efficiently manage the Hydrographic Unit of the National Maritime Safety Authority;
- to liaise with our Hydrographic partner, the Australian Service, in an effective manner and participate in their annual surveys and
- to participate freely as a Member State in the IHO and SWPHC.

Education:

Year	Institution	Certificate
1980 - 1990	Kerowagi Provincial High School	High School Certificate
1991 - 1992	Sogeri National High School	Higher School Certificate
1993 - 1996	PNG University of Technology	Bachelor in Surveying
2004 - 2005	PNG University of Technology	Diploma in Cartography

Career details:

Date	Organization	Position
Dec. 2005 - current	National Maritime Safety Authority	PNG Hydrographer
Mar. 2001 – Nov, 2005	National Mapping Bureau	Geodetic Surveyor
Jan. 1998 – Feb. 2001	OPID* Project	Project Surveyor
Apr. 1997 – Dec. 1998	National Works Department Provincial	Field Surveyor

*Oil Palm Infrastructure Development (World Bank funded Project)

Skills:

Use of modern surveying technology: GPS and Remote Sensing for data capture and analysis. Basic programming (VB) skills integrated with Geographical Information System supporting software (MapInfo, and ArcView and MicroStation), and Database (Access DB), digital cartographic and mapping skills. Technical skills: Training Certificate in Databases, Geographical Information System and Transport sector development on Environmental Impact, Public Finance management.

Summary:

Worked in private industry as a project surveyor for an Engineering Consultants firm for 4 years and worked for the National Mapping Bureau carrying out Topographic and Geodetic surveys as Senior Field Geodetic Surveyor and served as Secretary for the Papua New Guinea Place Names Committee for 2 years. Involved in developing a Place Names System for PNG, acquired skills in developing Geographical Information System integrated with survey databases.

Publications:

Orthometric Modelling, October 1996.

Professional affiliations:

Member: Association of Surveyors Papua New Guinea.
Council Member: Institution of Mapping Sciences and Spatial Information of PNG;
(Formerly Papua New Guinea Institute of Cartographers).

NEW HYDROGRAPHER OF THE DOMINICAN REPUBLIC

Colonel Rosanna L. PONS PEGUERO was appointed Director of the Hydrographic Service of the Dominican Republic.

NEW DIRECTOR OF THE PORTUGUESE HYDROGRAPHIC INSTITUTE

VAdm. José Augusto DE BRITO graduated from the Naval Academy in 1969. He qualified as Underwater Warfare Officer (UWW) in 1972 and attended several operations-related courses and completed the national Naval Staff Course, the International Minewarfare Course in the US and Maritime Tactical Courses in the UK.

As a junior officer he had several assignments at sea carrying out duties as a staff and executive officer onboard frigate-type ships.

As a senior officer he was appointed as an Instructor at the Tactical Naval Centre, Professor and Director of the Anti-Submarine Training School, participated in several staff courses at sea and served in the Navy Staff as section head, Operations, Plans and Exercises.

He has been closely associated with NATO bodies, headquarters and working groups both at sea and ashore. For five years he was the national representative on the NATO Underwater Warfare Working Group. He served as Chief Staff Officer at sea with the Commander of the Standing Naval Force Atlantic and recently he had a three-year tour at SACLANT HQ, Norfolk, USA.

VAdm. DE BRITO has had three commands at sea.

After attending the Senior Staff Course he was promoted to Rear Admiral in November 2002 and joined the National General Staff as Operations Division Head.

Following his promotion to Vice-Admiral, he took over the duties of Director-General of the Portuguese Hydrographic Institute in January 2006.

During his career VAdm. DE BRITO has been awarded several citations and decorations, which include two Military Merit medals and three Distinguished Service Medals.

VAdm. DE BRITO is married to Maria Clélia DE BRITO.

NEW HYDROGRAPHER OF THE REPUBLIC OF KOREA

Mr. You-Sub JUNG was appointed as Director General of the National Oceanographic Research Institute on 27 February 2006.

He was born in December 1954 in Incheon, Republic of Korea. He graduated from Korea University in 1977 and in 1989 he took a Master's Degree in Maritime Studies at the World Maritime University, Sweden. After that, he was with the International Labour Organization (ILO), Switzerland, from November 1994 to May 1997. and more recently at the Korean Embassy in the United States from March 1998 to August 2001.



His career began at the Ministry of General Affairs and, thereafter, he worked in various public domains such as the Ministry of Construction and Transportation and the Ministry of Maritime Affairs and Fisheries (MOMAF).

In 2003-2004, he was Director of the Fisheries Policy Division and Marine Policy Division, Ministry of Maritime Affairs and Fisheries. From January 2005 to February 2006, he was the Metropolitan Transportation Planning Officer of the Ministry of Construction and Transportation.

Academic Background

February 1977 Bachelor of Public Administration, Department of Law, Korea University ;

November 1989 Master of Maritime Studies, Department of General Maritime Administration, World Maritime University, Sweden.

Professional career

February 2006 Director General, National Oceanographic Research Institute ;
 Jan. 2005 – Feb. 2006 Metropolitan Transportation Planning Officer to the Ministry of Construction and Transportation ;
 Nov. 2003 – Jan. 2005 Korea Maritime Institute ;
 Apr. 2003 – Nov. 2003 Director, Fisheries Policy Division, Fisheries Policy Bureau ;
 May 2002 – Apr. 2003 Director, Marine Policy Division, Marine Policy Bureau ;
 Aug. 2001 – May 2002 Officer in charge, Planning and Management Bureau, MOMAF ;
 Mar. 1998 - Aug. 2001 Korean Embassy to the United States ;
 May 1997 - Mar. 1998 Director, Coastal Area Management Division, Marine Policy Bureau, Ministry of Maritime Affairs and Fisheries (MOMAF) ;
 Nov. 1994 – May 1997 Served at the ILO ;
 Jun. 1993 - Nov. 1994 Director, Shipping Affairs Division, INCHEON District Maritime and Port Administration ;
 Mar. 1990 - Jun. 1993 Deputy Director, Seafarer Division, Seafarer and Ships Bureau ;
 Nov. 1987 - Mar. 1990 Overseas Training, World Maritime University, Sweden ;
 Jan. 1986 - Nov. 1987 Deputy Director, Office of Planning and Management, MPA ;
 Sep. 1983 - Jan. 1986 Deputy Director, Maritime Promotion Division, Maritime Transportation Bureau, Maritime and Port Administration ;
 Apr. 1981 - Sep. 1983 Deputy Director, Ministry of General Affairs.

Training at Home and abroad

Mar. 1998 - Aug. 2001 The Korean Embassy to the United States ;
 Nov. 1994 - May 1997 International Labour Organization (ILO) ;
 Nov. 1987 - Mar. 1990 Master of Maritime Studies, World Maritime University, Sweden.

NEW HYDROGRAPHER OF URUGUAY

Captain Orestes PEREYRA was appointed Hydrographer of the Oceanographic and Hydrographic Office of the Navy of Uruguay (SOHMA) on 3rd April 2006, replacing Captain Hugo ROLDOS DE LA SOVERA, who held the post for seven years.

NEW HYDROGRAPHER OF BRAZIL



Vice-Admiral Edison Lawrence Mariath DANTAS took over from Vice-Admiral Paulo César DIAS DE LIMA as Brazilian Navy Director of Hydrography and Navigation on 11 August 2006.

Vice-Admiral Edison Lawrence Mariath DANTAS was born in Washington, DC, USA, on 24 August 1947. In 1967 he joined the Brazilian Naval Academy on Villegagnon Island, Rio de Janeiro. Upon graduation, in 1970, he was commissioned an Ensign and assigned to the Cruiser BARROSO. He specialized in Hydrography at the Directorate of Hydrography and Navigation in 1972. He attended numerous military courses, including the Command and Staff Course at the Brazilian Naval War College and the Politic and Strategic Course at the Brazilian War Higher College.

He served on the survey ships ALMIRANTE SALDANHA and ORION as Division Head, on survey ship SIRIUS as Executive Officer and as Commanding Officer. His shore billets include a tour of administrative duty at the Directorate of Hydrography and Navigation and on the Navy Personnel Directorates, operational duty with the Brazilian Fleet ; head of the Naval High School and Director of the Directorate of the Civilian Personnel of the Navy.

Among the numerous decorations he has been awarded are the following : Naval Order of Merit, Military Order of Merit, Gold Military Service, Armed Order Merit, Gold Military Service, Air Order Merit and Legionary Merit – Officer from USA.

NEW HYDROGRAPHER OF TURKEY

Rear Admiral Mustafa IPTES was appointed Director of the Turkish Navy Office of Navigation, Hydrography and Oceanography on 30 August 2006, replacing Rear Admiral Nazim ÇUBUKÇU.

Rear Admiral Mustafa IPTES graduated from the Naval Academy in 1981, with a B.Sc. of Oceanography major. As a junior Officer, he served at sea mostly on destroyers and frigates, as an Anti-Submarine Warfare Officer (ASWO).

Completing the advanced training for Anti-Submarine Warfare and Combat Operations, RAdm. IPTES followed a two-year advanced military course at the Turkish Naval War College in Istanbul, between 1989 and 1991.

Upon graduation from the Naval War College, he served as the Head of the Operations Department at the Naval Base, Iskenderun. Between 1993 and 1996, RAdm. IPTES was appointed as the Anti-Surface Warfare Officer and Principal Warfare Officer (PWO) on board TCG FATİH, respectively. During his time on board TCG FATİH, he also followed a Senior Staff Officer course at the Turkish Armed Forces Academy in Istanbul in 1994, and then at the NATO Defense College in Rome, Italy, in 1995.



After completing his time on board TCG FATIİH, RAdm. IPTES served at the Turkish Navy Headquarters, Ankara, working for the Operations Department as the Project Officer for Operations Planning and Concepts and the Chief of Command and Control Branch, respectively, between 1996 and 1998.

In 1998, he was appointed Executive Officer (XO) on board TCG TURGUTREIS. He finished his XO-Tour in 1999 and served as the Commanding Officer of TCG YILDIRIM, MEKO class Frigate, between 1999-2001.

After serving as the Chief of the Naval Strategy and Policy Branch at Plans and Policy Department of the Turkish Navy HQ in Ankara, in 2002, he attended the National Defense University (NDU) International Fellows Program in Washington DC, USA, between 2002-2003. RAdm. IPTES graduated from NDU in 2003 and obtained a Masters Degree (MSc) on National Resource Strategy.

He served as Chief of Agreements and Standardization at the Turkish Navy Headquarters, Plans and Policy Department, in Ankara, between 2003-2005 and as Commodore of the Destroyer Division Five, in the Turkish Fleet between 2005-2006.

Promoted to the rank of Rear Admiral (LH) as of 30 August 2006, he is currently serving as Director of the Office of Navigation, Hydrography and Oceanography.

During his career, RAdm. IPTES has been awarded several citations and decorations. He expects to obtain soon a Ph.D in Management and Organization.

RAdm. IPTES is married.

NEW HYDROGRAPHER OF THE HYDROGRAPHIC SERVICE OF THE RUSSIAN NAVY



Rear Admiral Sergey V. KOZLOV was born on March 16 1959. After having graduated from the Naval College, Navigation Faculty in Saint-Petersburg in 1981, he served as Navigator on board a large nuclear submarine.

In 1988 he was promoted to Flag Navigator Officer of the nuclear submarine division. After graduation from the Naval Academy in 1992, he was appointed to the position of Flag Navigator Officer of the nuclear submarine flotilla of the Northern Fleet.

In 1998, he was assigned to the Main Naval Headquarters as the Deputy Head Navigator of the Navy.

His last post before being appointed Chief of the Head Department of Navigation and Oceanography was Head Navigator of the Navy, 2003 – September 2006.

NEW HYDROGRAPHER OF UNITED KINGDOM

Rear Admiral Ian MONCRIEFF was appointed as the UK National Hydrographer, Deputy Chief Executive (Hydrography), based in Taunton, Somerset on 5th December 2006.



Ian MONCRIEFF graduated in Geography and Geology at Keele University in 1977. He joined the Royal Navy on a university cadetship in 1976 and comes to the UKHO with a long and distinguished Naval background.

Qualified as a Principal Warfare Officer (PWO) originally specialising in Communications, he has accumulated over 20 years operational seagoing experience in nine warships. From May 05 he was a Joint Operational Commander as Commander British Forces South Atlantic based in the Falkland Islands. A graduate of the 2005 Higher Command and Staff Course and the Defence Strategic Leadership Course, prior to this he was Director (Communications and Information Systems) Navy and Assistant Chief of Staff to the CINCFLEET.

Mike ROBINSON, Chief Executive of the UKHO, welcomes this appointment and thinks that it will be of considerable benefit to the UKHO, its international hydrographic relations and defence customer.

Rear Admiral Ian MONCRIEFF is married and has two sons. He is a member of the Honourable Company of Master Mariners and the Institute of Directors. His interests and pastimes include sailing, golf and tennis and he has had work published as an amateur photographer.

APPENDIX II - VISITS TO THE IHB

VISIT OF THE HMS ROEBUCK TO THE PORT OF MONACO

20-23 January 2006



HMS ROEBUCK, a coastal hydrographic survey ship of the British Royal Navy, visited Monaco from 20 to 23 January 2006.

HMS ROEBUCK launched in November 1985, has recently undergone a major refurbishment during which she was fitted with the latest in multi-beam sonar technology. She has a displacement of 1200 tons, carries a survey motor boat and is the Royal Navy's premier Rapid Environmental Assessment

(REA) unit, capable of collecting data from the upper atmosphere to several metres below the seabed. ROEBUCK has a crew of 52 and can conduct hydrographic and oceanographic tasks on a worldwide basis.

During the visit to Monaco the Commanding Officer, Lieutenant Commander Graham MIMPRISS, paid a courtesy call on the President of the Directing Committee and hosted a reception on board the ship. Several members of the crew took the opportunity to enjoy a weekend's skiing in the Alps.

VISIT TO THE IHB BY A REPRESENTATIVE FROM THE ITALIAN CONSULATE GENERAL IN MONACO

Mrs. Gina VERNARECCIO from the Italian Consulate General in Monaco paid a courtesy visit to the IHB on Wednesday 8 February 2006. She was very interested to learn of the IHO achievements in 2005 and the IHO Work Program for 2006.

Rear Admiral BARBOR and Captain GORZIGLIA (IHB Directors) welcomed Mrs. VERNARECCIO and provided her with a general overview of the IHO and briefed her on the specific subjects requested. She was also informed on other matters of interest, such as the important role that the International Maritime Academy (Trieste, Italy) plays in providing training in hydrography and nautical cartography, the ongoing MEDA Project, in which the Italian Hydrographer plays an important role, as well as Italy's active participation in several committees and groups of the Organization.

Finally both Directors asked Mrs. VERNARECCIO to convey their thanks to the Italian Government for the interest shown in the work of the IHO, and agreed to continue to develop this relationship between the IHB and the Italian Consulate General in Monaco.

**VISIT TO THE IHB BY A GROUP OF STUDENTS FROM THE
UNIVERSITY OF GENOA**

10 January 2006

On 10 January 2006, a group of 25 Marine Geology students from the University of Genoa visited the IHB. They were accompanied by their teachers and Professor Giuliano FIERRO of the Department of Territorial Land and Resources.

The group was received and welcomed by Captain Hugo GORZIGLIA, IHB Director, who made a presentation on the activities of the IHO, highlighting the relation between Hydrography and Coastal Zone Management. The students appreciated the presentation and showed great interest in the subjects presented.

Professor FIERRO kindly presented the IHB with several maps and books containing the results of marine geology research conducted by the University; Captain GORZIGLIA warmly thanked him on behalf of the IHB.

Finally, Professor FIERRO introduced one of his students who is the granddaughter of Vice Admiral A. VIGLIERI, from Italy, who served as Director of the IHB from 1952 to 1965, and President from 1965 to 1967. She was quite moved to see the photograph of her grandfather in the collection of portraits of all the IHB Directors in the Conference Room. Professor FIERRO also introduced a member of his staff, Miss Giovanna GORZIGLIA, who is, in actual fact, a cousin of Captain GORZIGLIA, although they have never had the opportunity to meet before.

As can be seen, this technical visit was useful and interesting on both sides and is a good Example of cooperation with Universities in the region.

**VISIT TO IHB OF THE CONSUL GENERAL OF
THE UNITED STATES OF AMERICA**

17 March 2006

On 17 March 2006, Mr. Philip BREEDEN, the recently appointed Consul General of the United States of America at the U.S. Consulate in Marseilles, France, paid a courtesy call on the IHB. Rear Admiral BARBOR provided an overview of the history, objectives and current issues of the IHO. They also discussed the routine matters with which the Consulate and the Organization normally interface. Mr. BREEDEN found the visit to be beneficial and informative and he was invited to return as his schedule permitted.

VISIT TO THE IHB BY THE EXECUTIVE SECRETARY OF COMNAP

29 and 30 November 2006

Mr. Antoine GUICHARD, Executive Secretary of COMNAP visited the IHB and was received by Capt. Hugo GORZIGLIA, IHB Director.

Captain GORZIGLIA gave a complete and detailed presentation on the role and objectives of the IHO, as well as its structure and working procedures, followed by a visit of the premises.

The visit also allowed Mr. GUICHARD and Capt. GORZIGLIA to review the actions agreed at the last meeting of the Hydrographic Committee on Antarctica, held in Punta Arenas, Chile, in the first week of November.

Amongst others, the following topics were discussed:



- a) the questionnaire COMNAP circulated to its Members concerning the collection of hydrographic data by Ships of Opportunity. The idea is to make use of all vessels sailing the Antarctic waters to systematically collect data in such a way that it could be used for charting purposes.
- b) The way in which an Informative Paper to be submitted to ATCM will be prepared. This activity was identified as a priority, due to the erroneous perception that hydrographic surveys are no longer required and that everything is already done. On the contrary, to protect the marine environment and support scientific activity, there is a need to strengthen hydrographic activities, which requires governmental endorsement.
- c) The COMNAP contribution to the Surveying Plan. The HCA is trying to establish a plan that, if executed systematically and in a coordinated manner, could improve the production of the most urgent INT Charts.
- d) The complex situation, which could have an adverse effect on safety to navigation, results from the different denominations given to the same features. Some charts were examined in the IHB Chartroom and it was concluded that a thorough review is required.

Furthermore, the initiative to organize an HCA Seminar on the importance of Hydrography in conjunction with the 2009 COMNAP Meeting was discussed, as well as efforts aimed at raising awareness of the hydrographic contribution to the Antarctic Operations.

Mr. GUICHARD and Capt. GORZIGLIA agreed that the visit was very positive and that contributed to facilitate the accomplishment of the actions agreed at HCA6.

**APPENDIX III – VISITS TO HYDROGRAPHIC OFFICES AND MEETINGS
HELD AT THE IHB**

VISITS TO HYDROGRAPHIC OFFICES 2006

Vice Admiral A. MARATOS: Croatia, Germany, Greece, Norway, Sri Lanka,
Tunisia

Captain H. GORZIGLIA: Brazil, Estonia, Latvia, Lithuania

MEETINGS AT THE IHB 2006

JANUARY

17 WNWWS Documents Meeting
18-19 NAV AREA III

FEBRUARY

13 SPWG Legal Experts Meeting
14-15 SPWG Chair group Meeting
20-22 Correspondence Group on ECDIS

APRIL

5 Finance Committee Officers' Meeting

MAY

29-31 CSMWG

JUNE

21 World Hydrography Day
26-30 SNPWG
29-30 SPWG Chair Group Meeting

JULY

24-25 SPWG FCWG

AUGUST

28-30 S-44

SEPTEMBER

11-15 WEND Committee and ECDIS Stakeholders

OCTOBER

23 Finance Committee Officers' Meeting

NOVEMBER

22-24 CSPWG

DECEMBER

10-11 ABLOS Business Meeting

APPENDIX IV - 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

APPENDIX V – IHB STAFF LIST

Professional Assistants

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

Translators

Mrs. I. VANKRINKELLEN	Head Translator/French
Miss M.P. MURO	Spanish Translator/Web Editor

Technical, Administrative and Service Staff

Mr. D. MENINI	Graphic Arts and Cartographic Assistant
Miss C. MEYNADIER	Accounting and Administration Assistant
Miss P. BOUZANQUET	French/Cartographic Editor - Librarian

Secretariat

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

Office Management

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



IHB Staff in 2006

APPENDIX VI - IHB TECHNICAL MISSIONS

DATE	DESTINATION	MEETING	PARTICIPANT
12-13 January	Paris, FRANCE	WEND WG	RAdm. A. BARBOR
16-17 January	Paris, FRANCE	SHOM	Capt. H. GORZIGLIA
30 January - 9 February	Bangkok, THAILAND Dhaka, BANGLADESH	IOC Coast Map IO Project	Ing. en chef. M. HUET
7-9 February	Stavanger, NORWAY	NHS Maritime Conference	VAdm. A. MARATOS
22-25 February	London, UK	Chair Group Meeting IAB	Capt. F. BERMEJO
23 February	Brussels, BELGIUM	Dictionary Meeting	Lt. Cdr. S. SHIPMAN
6-9 March	London, UK	COMSAR	VAdm. A. MARATOS
3-16 March	London, UK	COMSAR/IMO-IHO-WMO Coordination Group on Harmonisation IMO/IHO docs WNWWS	Lt. Cdr. S. SHIPMAN
7-10 March	Accra, GHANA	FIG Congress	Capt. H. GORZIGLIA
13-17 March	Colombo, SRI LANKA	6th NIOHC	VAdm. A. MARATOS
21-22 March	London, UK	19th SPWG Chair Group Meeting	VAdm. A. MARATOS
21-22 March	London, UK	19th SPWG Chair Group Meeting	Capt. F. BERMEJO
20-24 March	Ottawa, CANADA	TSMAD	Mr. A. PHARAOH
4 April	London, UK	Military Geospatial Intelligence 2006	RAdm. A. BARBOR
10-13 April	Tunis, TUNISIA	Visit to Hydrographic Service	VAdm. A. MARATOS
10-14 April	Goa, INDIA	FIG/IHO/ICA IAB	Capt. F. BERMEJO
24-27 April	Stavanger, NORWAY	Technical Experts WG Meeting	Mr. A. PHARAOH
24-27 April	Longyearbyen, NORWAY	50th NHC	RAdm. A. BARBOR
1-5 May	Busan, Rep. of KOREA	8th SPWG Meeting	VAdm. A. MARATOS
1-5 May	Busan, Rep. of KOREA	8th SPWG Meeting	Capt. F. BERMEJO
2-3 May	Tehran, IRAN	2nd RSA Meeting	Capt. H. GORZIGLIA
2-3 May	Tehran, IRAN	2nd RSA Meeting	Lt. Cdr. S. SHIPMAN
8-17 May	SEYCHELLES MAURITIUS MADAGASCAR	Capacity Building Mission	Ing. en chef. M. HUET
9-19 May	London, UK	MSC 81 IMO	Lt. Cdr. S. SHIPMAN
10-12 May	Brest, FRANCE	SHOM - Librarians Meeting	Ms. P. BOUZANQUET
15-19 May	London, UK	MSC 81 IMO	VAdm. A. MARATOS

DATE	DESTINATION	MEETING	PARTICIPANT
16 May	London, UK	Nippon Foundation	Capt. H. GORZIGLIA
17 May	Oberammergau, GERMANY	NATO Pfp GOC	RAdm. A. BARBOR
22-26 May	Colorado Springs, USA	ISO TC/211	Mr. A. PHARAOH
29-31 May	Lagos, NIGERIA	Seapower Symposium	RAdm. A. BARBOR
4-9 June	Halifax, CANADA	29th USCHC	VAdm. A. MARATOS
5-9 June	Maputo, MOZAMBIQUE	2nd EX SAIHC	RAdm. A. BARBOR
5-9 June	Maputo, MOZAMBIQUE	IHO - CBC and IHO CBC Technical Workshop (5 June 2006) SAIHC	Capt. H. GORZIGLIA
5-9 June	Maputo, MOZAMBIQUE	IHO - CBC and IHO CBC Technical Workshop (5 June 2006) SAIHC	Capt. F. BERMEJO
6-7 June	London, UK	IMO FSI sub Committee	Lt. Cdr. S. SHIPMAN
9 June	Paris, FRANCE	Institut Oceanographique	Lt. Cdr. S. SHIPMAN
12-15 June	Edinburgh, SCOTLAND, UK	ATCM	Capt. H. GORZIGLIA
12-16 June	New York, USA	7th UNICPLOS	RAdm. A. BARBOR
13-15 June	London, UK	IMO Technical Cooperation Committee	Capt. F. BERMEJO
13-16 June	Bremerhaven, GERMANY	GEBCO SCDB	Mr. A. PHARAOH
16-20 June	Bremerhaven, GERMANY	GEBCO CGOM	Capt. H. GORZIGLIA
16-20 June	Bremerhaven, GERMANY	GEBCO CGOM	Lt. Cdr. S. SHIPMAN
19-23 June	Bremerhaven, GERMANY	GEBCO SCUFN	Ing. en chef M.HUET
20-27 June	Paris, FRANCE	IOC	Capt. H. GORZIGLIA
22-30 June	Sydney, AUSTRALIA	Tidal Committee	Lt. Cdr. S. SHIPMAN
27-28 June	Trieste, ITALY	IMA	VAdm. A. MARATOS
3-11 July	ESTONIA, LATVIA, LITHUANIA	Technical visit	Capt. H. GORZIGLIA
3-11 July	ESTONIA, LATVIA, LITHUANIA	Technical visit	Capt. F. BERMEJO
4-8 July	Vienna, AUSTRALIA	ICA Standards Commission	Ing. en chef M.Huet
10-12 July	Vienna, AUSTRALIA	GICON 2006	VAdm. A. MARATOS
17-21 July	London, UK	IMO Nav 52	VAdm. A. MARATOS
17-21 July	London, UK	IMO Nav 52	Lt. Cdr. S. SHIPMAN
4-6 September	Rostock, GERMANY	27th NSHC	VAdm. A. MARATOS
6-8 September	Split, CROATIA	Hydrographic Office Visit	VAdm. A. MARATOS
9-18 September	Buenos Aires, ARGENTINA	CPRNW 8	Lt. Cdr. S. SHIPMAN

DATE	DESTINATION	MEETING	PARTICIPANT
18-22 September	Wellington, NEW ZEALAN	13 TSMAD	Mr. A. PHARAOH
19-22 September	Jeju, Rep. of KOREA	9th EAHC	RAdm. A. BARBOR
25-30 September	Cairns, AUSTRALIA	18th CHRIS Meeting	RAdm. A. BARBOR
25-30 September	Cairns, AUSTRALIA	18th CHRIS Meeting	Ing. en chef M. HUET
2-6 October	Acapulco, MEXICO	7th MACHC	Capt. H. GORZIGLIA
2-6 October	Acapulco, MEXICO	7th MACHC	Capt. F. BERMEJO
9-12 October	Munich, GERMANY	FIG Congress	Capt. H. GORZIGLIA
9-12 October	Munich, GERMANY	FIG Congress	Lt. Cdr. S. SHIPMAN
10-13 October	Venice, ITALY	Seapower Symposium	VAdm. A. MARATOS
10-13 October	Oberammergau, GERMANY	NATO PfP	RAdm. A. BARBOR
6-9 November	Antwerp, BELGIUM	HYDRO'06	VAdm. A. MARATOS
6-10 November	Antwerp, BELGIUM	HYDRO'06	Lt. Cdr. S. SHIPMAN
6-8 November	Punta Arenas, CHILE	6th HCA	Capt. H. GORZIGLIA
6-8 November	Punta Arenas, CHILE	6th HCA	Ing. en chef M. HUET
16 November	Rio de Janeiro, BRAZIL	SWatHC Constitutional Meeting	Capt. H. GORZIGLIA
21-22 November	London, UK	International Chamber of Shipping	VAdm. A. MARATOS
21-22 November	London, UK	International Chamber of Shipping	Lt. Cdr. S. SHIPMAN
27 November - 1 December	Yangon, MYANMAR	Mission IOC Coastal Map IO	Ing. en chef M. HUET
27-1 December	Silver Spring, USA	TSMAD Focus WG	Mr. A. PHARAOH
29-8 December	Istanbul, TURKEY	MSC 82	VAdm. A. MARATOS
29-8 December	Istanbul, TURKEY	MSC 82	Lt. Cdr. S. SHIPMAN
6-8 December	Dakar, SENEGAL	9th EAHC	Capt. H. GORZIGLIA
6-8 December	Dakar, SENEGAL	9th EAHC	Ing. en chef M. HUET

