

# INTERNATIONAL HYDROGRAPHIC ORGANIZATION



ANNUAL REPORT 2009

PART 1 – GENERAL

*(Revised, June 2010)*

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**ANNUAL REPORT**  
**OF THE**  
**INTERNATIONAL HYDROGRAPHIC**  
**ORGANIZATION**  
**2009**  
**PART I - GENERAL**

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**MEMBER STATES OF THE  
INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO)**

ALGERIA	MONACO
ARGENTINA	MOROCCO
AUSTRALIA	MOZAMBIQUE
BAHRAIN	MYANMAR
BANGLADESH	NETHERLANDS
BELGIUM	NEW ZEALAND
BRAZIL	NIGERIA
CANADA	NORWAY
CHILE	OMAN
CHINA	PAKISTAN
COLOMBIA	PAPUA NEW GUINEA
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CYPRUS	PORTUGAL
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**DIRECTING COMMITTEE**

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

*Directors:* Captain (retd.) Hugo GORZIGLIA, Chile

Captain (retd.) Robert WARD, Australia

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## **INTRODUCTION**

The International Hydrographic Bureau (IHB) is pleased to present Part 1 of the Annual Report referring to the activities of the Organization for 2009. This report will be of interest to Member States and to those who have contributed to successfully progressing the various technical and administrative developments of the IHO, which contribute to issues affecting safety at sea, protection of the marine environment, development and security.

The Report consists of two parts;

**Part 1 – IHO Programme.** Part 1 presents the progress of the IHO Work Programme in 2009, as reflected through reports and documents of the meetings of Committees, Sub-Committees, Working Groups, Regional Hydrographic Commissions and other bodies of the Organization.

**Part 2 - Finance.** Part 2 presents the status of the financial developments of the Organization for 2009 at the close of the financial period in accordance with Article 11 of the Financial Regulations. It also includes the External Auditor's Annual Report as required by Article 20 of the Financial Regulations.

An important event in 2009 was the 4<sup>th</sup> Extraordinary International Hydrographic Conference (EIHC) that took place during the first week of June in the Prince RAINIER III Auditorium. 215 delegates from 61 Member States and 31 observers from non-Member States and Non-Governmental International Organizations (NGIOs) attended the Conference. 15 proposals submitted by the ISPWG, HCIWWG, MSDIWG and Member States were considered. It is of interest to note that the Conference approved an improved definition for "Hydrography" and also the revised Strategic Plan of the Organization. More than half a day of the Conference was devoted to considering the status of ENC's production and availability. In the margin of the Conference three other events took place; the first meeting of the S-23 WG, the first meeting of the IRCC and the celebration of World Hydrography Day (WHD).

The first meeting of the Inter Regional Coordination Committee (IRCC) took place immediately after the 4<sup>th</sup> EIHC. IGA Gilles Bessero, the Director of SHOM was elected as the Chair of this Committee. The reports of the RHCs and other bodies represented in this Committee were examined. The inaugural meeting of the Hydrographic Services and Standards Committee (HSSC) was held in Singapore from 15-17 October 2009, hosted by the Singapore HO. The Committee took over the role of CHRIS. During the meeting the work of the HSSC's ten subordinate WGs was examined. Both Committees became operational on 1<sup>st</sup> January 2009 within the framework of the new technical and administrative restructuring of the Organization.

11 RHCs, the HCA and the Black and Azov Seas WG met during the year. The main topics considered at the meetings were related to ENC's, Maritime Safety Information (MSI), Capacity Building, INT charts and other issues of regional interest. It has also to be noted that in 2009 the first meeting of the Western Indian Ocean GEF-Marine Highway and Coastal Contamination Prevention Project took place in Johannesburg, South Africa where progress of the project was discussed and a way forward was decided.

Capacity Building activities continued to provide important support especially to developing States, in order to enhance their hydrographic capabilities. Seminars and workshops were organized on a variety of topics and technical visits were made to various States based on the programme established by the Capacity Building Committee based on requests from the RHCs. A Capacity Building project covering nautical cartography and funded by the Nippon Foundation started in 2009 with a number of students from Member States receiving training at the UKHO.

Very close and positive cooperation with IMO, IALA, IOC, FIG, WMO, ICA and others continued in 2009. The Organization continued its participation and support of the development of the e-Navigation concept of the IMO. In close cooperation with IMO and WMO five new NAVAREAS were established to cover the Arctic Region.

Excellent cooperation with the Government of Monaco continued in 2009. The Directing Committee is grateful to the Government of Monaco for their support in the provision and maintenance of the premises occupied by the IHB and for maintaining the diplomatic processes needed for the applications by new States and the approval of the Protocol of Amendments to the Convention of IHO.

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# WORK PROGRAMME 1

## COOPERATION AMONG MEMBER STATES AND WITH INTERNATIONAL ORGANIZATIONS

### 1. IHO REGIONAL HYDROGRAPHIC COMMISSIONS

#### **9th MEETING OF THE NORTH INDIAN OCEAN HYDROGRAPHIC COMMISSION (NIOHC)**

Port Victoria, Seychelles, 25-26 February

**Chair:** Vice Admiral RAO (India)

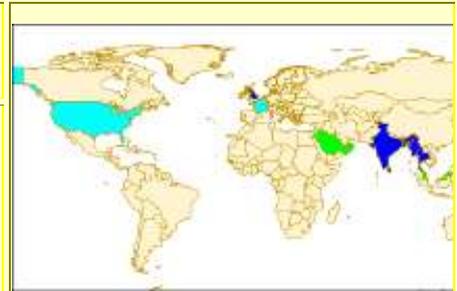
**Vice-Chair:** Rear Admiral MOHD AL SHEHRI (Saudi Arabia)

**Members:** Bangladesh, Egypt, India, Myanmar, Saudi Arabia, Sri Lanka, Thailand, United Kingdom.

**Associate Members:** France, Pakistan, Seychelles, USA.

**Observers:** Malaysia, Oman

**IHB Representatives:** Vice Admiral MARATOS, Lieutenant Commander SHIPMAN.



The 9th Meeting of the North Indian Ocean Hydrographic Commission (NIOHC) took place in Port Victoria, Seychelles, on 25 and 26 February, under the Chairmanship of Vice-Admiral RAO, the Chief Hydrographer to the Government of India. Representatives from Saudi Arabia, Oman, Mauritius, Thailand, Pakistan, Bangladesh, Norway, UK, USA, Seychelles, India, France and the Intergovernmental Oceanographic Commission participated. VAdm. MARATOS represented the IHB and, in his opening remarks, he highlighted the importance of the RHCs in the work and activities of the Organization and the obligation of Coastal States, under Regulation 9 of Chapter V of SOLAS. He also referred to the main issues that took place during the inter-sessional period and in particular to the topics concerning cooperation with other international organizations and especially IMO, IOC, IALA and WMO. He briefly presented the preparations in hand for the 4<sup>th</sup> EIHC and the status concerning the approval of the Protocol of Amendments to the IHO Convention and the status concerning the pending Member States.

The Commission examined various important issues: national disaster plans and the need for closer cooperation, the status of hydrographic surveying, nautical charting and the promulgation of MSI, the coverage of the area with ENCs, Capacity Building requirements. France presented a paper on the hydrographic and cartographic support to the international anti-piracy naval forces operating off the Somalian coast. VAdm. MARATOS presented a paper on the need for States to provide data for the shallow water bathymetry in order to improve the IHO/IOC GEBCO Grid, as had been requested in CL36/2006.

During his stay, VAdm. MARATOS, together with the Chairman of the Commission, VAdm. RAO, was received by Mr. BELMONT, the Vice-President of the Republic of Seychelles, Mr. NOURRICE, the Principal Secretary, and Mr. MORGAN, the Minister for Environment, Natural Resources and

Transport. In all these meetings VAdm. MARATOS briefly explained the importance of hydrography, the Coastal States' obligation to provide hydrographic services under the Convention on the Safety of Life at Sea (SOLAS) and the benefits for Seychelles to become a full member of the Organization.

It was decided that the 10th Meeting of the NIOHC would take place in Bangladesh, in early February 2010, under the Chairmanship of VAdm. RAO.

### **32nd MEETING OF THE UNITED STATES – CANADA HYDROGRAPHIC COMMISSION (US-CHC)**

Silver Springs, Maryland, United States of America, 9 April

<p><b>Co-Chairs:</b> Dr. NARAYANAN (Canada) and Captain BARNUM(USA)</p>	
<p><b>Members:</b> Canada, United States of America <b>IHB Representatives:</b> Captain WARD, Mr. PHARAOH</p>	



The 32nd meeting of the United States-Canada Hydrographic Commission (USCHC) was held at the Office of Coast Survey in Silver Springs, MD, United States of America on April 9, under the Co-Chairmanship of the Director of the US Office of Coast Survey, Captain BARNUM and the Dominion Hydrographer of Canada, Dr. NARAYANAN. The meeting was organized and hosted by the Office of Coast Survey, part of the National Oceanic and Atmospheric Administration (NOAA) of the United States of America. The IHB was represented by Captain WARD.

The first part of the meeting was devoted to a review of the report of the Chart Advisors' Committee (CAC) and its recommendations. Most of the work of the CAC has centered on the challenges of developing a plan to address overlapping ENC coverage between the US and Canada. The remainder of the meeting was devoted to the discussions on the approaching 4<sup>th</sup>

Extraordinary Hydrographic Conference, and topics of mutual interest, such as continued cooperation on surveys of the extended continental shelf in the Arctic. Captain WARD briefed the meeting on a variety of IHO matters, including S-100, mandatory carriage of ECDIS, and the status of the Protocol of Amendments to the Convention on the IHO.

The Commission agreed that Canada will host the 33rd USCHC meeting in April 2010.

## **53rd MEETING OF THE NORDIC HYDROGRAPHIC COMMISSION (NHC)**

Helsinki, Finland, 21-23 April

**Chair:** Mr. VARONEN (Finland).

**Members:** Denmark, Finland, Iceland, Norway, Sweden  
**IHB Representatives:** Captain WARD, Mr. PHARAOH



The 53rd Meeting of the Nordic Hydrographic Commission was hosted by the Finnish Hydrographic Office at their premises in Helsinki, between 21 and 23 April 2009. The meeting was chaired by Mr. VARONEN from Finland. All RHC Members were represented: Denmark, Finland, Iceland, Norway and Sweden. Captain WARD represented the IHB as an observer.

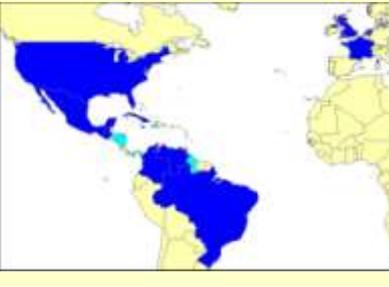
The meeting reviewed hydrographic progress in the region and various developments affecting the region and agreed on a number of actions. These were described in the records of the meeting posted on the IHO website at: [www.iho.int](http://www.iho.int) → *committees & WGs* → *RHCs*. Notable discussion points included: the status of approval of the Protocol of Amendments to the IHO Convention and new IHO Member States; issues to be discussed at the forthcoming 4EIHC and IRCC-1 meeting; the Nordic contribution to the HSSC Data Quality Working Group; the provision of guidance to the Nordic Working Groups dealing with production of charts, exchanging digital information, validation of multibeam data and distribution of information on nautical publications; the WEND concept and ENC distribution; and progressing various hydrographic related issues raised in the National Reports.

Iceland assumed the chair of the Nordic RHC at the end of the meeting. The 54th meeting of the NHC will take place in Iceland from 13-15 April 2010.



**10th MEETING OF THE MESO-AMERICAN AND CARIBBEAN SEA  
HYDROGRAPHIC COMMISSION (MACHC)**

Bridgetown, Barbados, 4-6 November

<p><b>Chair:</b> Vice Admiral PALMER FONSECA (Brazil) <b>Vice-Chair:</b> Rear Admiral MONCRIEFF (UK)</p>	
<p><b>Members:</b> Brazil, Colombia, Cuba, France, Guatemala, Jamaica, Mexico, The Netherlands, Trinidad and Tobago, United Kingdom, United States of America, Venezuela.</p>	
<p><b>Associate Members:</b> Antigua &amp; Barbuda, Barbados, Guyana, Haiti, Honduras, Nicaragua and Panama.</p>	
<p><b>IHB Representatives:</b> Captain GORZIGLIA, Captain BERMEJO</p>	

The 10th Meeting of the Meso-American and Caribbean Hydrographic Commission (MACHC) was held at the Accra Hotel in Bridgetown, Barbados, hosted by the Barbados Port Authority, the UKHO and NOAA (USA). The following MACHC members and Associate Members were present: Antigua & Barbuda, Barbados, Belize, Brazil, British Virgin Islands, Colombia, El Salvador, France, Grenada, Haiti, Honduras, Jamaica, The Netherlands, St. Kitts & Nevis, Suriname, UK, USA and Venezuela. The following hydrographic companies participated as observers: BROOKE OCEAN, CARIS, JEPPESEN, ESRI, KONSBERG and PELYDRYN.

The IHB was represented by Captain GORZIGLIA (IHB Director) and Captain BERMEJO.

The meeting was preceded on 3 November by meetings of the Electronic Charts Committee and the INT Charts Committee, which presented reports to the plenary meeting, along with a report from the Capacity Building Committee. The MACHC Capacity Building Programme for 2010-2011 was subsequently approved.



The Opening Ceremony included addresses by the Chairman, VAdm. PALMER (Brazil) and Captain GORZIGLIA (IHB Director) and a keynote speech was given by the Honourable George HUTSON, Minister of International Business and Transport of Barbados, who declared the 10th MACHC Meeting open.

National Reports were provided by Antigua & Barbuda, Barbados, Belize, Brazil, Colombia, France, Jamaica, Netherlands, St. Kitts & Nevis, Suriname, UK, USA and Venezuela.

Some changes to the MACHC Statutes were examined after being considered and proposed by a Working Group formed by Barbados, Jamaica, USA and Venezuela. The representative of El Salvador officially requested to join the Commission as an Associate Member, a request that was unanimously approved by the members.

The next meeting of the Commission will be held in 2010 in Suriname, with Venezuela as an alternative. Should none of these options be possible, the 11th MACHC meeting will be postponed until 2011.

The day following the closure of the meeting was "Industry Day", when the MACHC delegates had the opportunity to see technical presentations made by the hydrographic companies present. These presentations, together with a practical demonstration of software and hardware used on board a launch provided by the Port Authority, allowed participants to observe state of the art hydrographic equipment used during hydrographic surveys.

### **3rd MEETING OF THE SOUTH WEST ATLANTIC HYDROGRAPHIC COMMISSION (SWAtHC)**

Montevideo, Uruguay, 26 – 27 March

**Chair:** Captain PEREYRA (Uruguay)

**Members:** Argentina, Brazil, Uruguay

**IHB Representatives:** Captain GORZIGLIA, Captain BERMEJO



The 3rd Meeting of the South West Atlantic Hydrographic Commission was held at the "Servicio de Oceanografía, Hidrografía y Meteorología de la Armada" (SOHMA) in Montevideo, Uruguay, from 26 to 27 March 2009. The Hydrographers of Argentina, Brazil and Uruguay were present, along with the Hydrographers of Bolivia, Chile, Paraguay, the IHB representatives and hydrographic industry representatives attended as Observers.



Captain PEREYRA, Hydrographer of Uruguay and Chairman of the Commission, welcomed the participants and expressed his satisfaction at having all the Commission Members present at the meeting. He also thanked all the observers for having accepted the invitation and said how pleased he was that Uruguay was hosting this event.

Captain GORZIGLIA, IHB Director, made a presentation highlighting the main topics dealt with by the IHO since the last meeting of the Commission. He particularly highlighted those matters which will be discussed at the forthcoming

Extraordinary International Hydrographic Conference in June 2009, and the Regional Hydrographic Commissions' responsibilities as indicated in the IHO WP for 2008-2012.

The Commission examined the actions agreed at the last meeting and confirmed that all the tasks had been completed in a very cooperative manner.

The Commission unanimously decided to accept the requests made by the Director of Hydrography and Navigation of the Paraguayan Navy and the Director of the National Naval Hydrographic Service of Bolivia to become Associate Members of the SWAtHC.

Three hydrographic companies – Cledirsa-SevenCs, Jeppesen, and L3 - provided presentations on the latest developments in their respective areas.

### **14th MEETING OF THE BALTIC SEA HYDROGRAPHIC COMMISSION (BSHC)**

Copenhagen, Denmark, 15 – 17 September

**Chair:** Dr. JONAS (Germany)

**Vice-Chair:** Ms. HAVSTEEN (Denmark)

**Members:** Denmark, Estonia, Finland, Germany, Latvia, Poland, Russian Federation, Sweden.

**Associate Members:** Lithuania.

**IHB representatives:** Captain WARD, Lieutenant Commander SHIPMAN.



The 14th Baltic Sea Hydrographic Commission (BSHC) Meeting took place in September in Copenhagen. Nearly all BSHC Members were able to participate. The IHB was represented by Captain WARD. The UKHO took part as an observer. The Danish hosts provided excellent support and perfect surroundings for a successful meeting.

Under the chairmanship of Dr. JONAS, Germany, and with the very active contribution of the Member States, the Meeting dealt mainly with the following topics:

- Information from IHB;
- Information and coordination of the national hydrographic activities in the Baltic;
- Co-operation at the international level through the different IHO bodies;
- Reports of the BSHC WGs and their further work, the WGs are:
  - ✓ Re-Survey Monitoring WG;
  - ✓ Chart Datum WG;
  - ✓ Baltic Sea ENC Harmonization WG (Implementation of Recommendations);
  - ✓ Depth Information Harmonization WG;
  - ✓ Baltic Sea INT Chart Committee;
- Harmonized resurveys according to the decisions of the Helsinki Commission;
- Development of a common height datum in the Baltic;

- Co-ordination of the processing and cartographic presentation of depth information in paper and digital nautical charts;
- Harmonization of the cartographic design of ENCs.

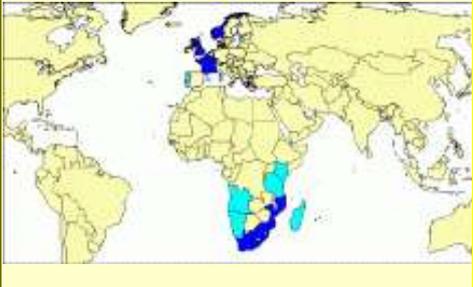
A new Working Group was created under the leadership of Sweden to implement a Baltic Sea Bathymetric Database.

Another important topic was the relationship of BSHC with the marine strategy of the European Commission, especially SDI (INSPIRE, EMODNET).

At the end of the Meeting, Ms. Wiin HAVSTEEN (Denmark) was elected as new Chairperson and Mr. PERNACZYNSKI (Poland) was elected as Vice-Chairperson. The 15th BSHC Meeting will take place in Poland in 2010.

### **7th MEETING OF THE SOUTHERN AFRICA AND ISLANDS HYDROGRAPHIC COMMISSION (SAIHC)**

La Réunion, 16-17 September

<p><b>Chair:</b> Captain KAMPFER (South Africa)  <b>Vice-Chair:</b> Mr. JESSENÃO BATA (Mozambique)</p>	
<p><b>Members:</b> France, Mauritius, Mozambique, Norway, Republic of South Africa, UK.</p>	
<p><b>Associate Members:</b> Angola, Kenya, Madagascar, Malawi, Namibia, Portugal, Seychelles, Tanzania  <b>IHB Representatives:</b> Vice Admiral MARATOS, Mr. PHARAOH</p>	

The 7th meeting of the SAIHC was organized by France and held on 16-17 September 2009 in Saint Denis Department, La Réunion, under the Chairmanship of Captain KAMPFER, the Director of the South African Hydrographic Office.



Thirty-seven representatives attended from the following countries, international organizations and private companies: Angola, Comoros, France, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Norway, Portugal, Seychelles, South Africa, Tanzania, UK, USA, IMO, IOC, GEE-WIO/MHD/CMC, CARIS, C&C Technologies, Jeppesen, Underwater Surveys.

The meeting of the Commission took place immediately after a seminar that was organized and funded by the Organization for the

Chairmen of National Hydrographic Committees. VAdm. MARATOS represented the I.H. Bureau at both the seminar and the meeting of SAIHC.

Various hydrographic and charting issues of importance to this region were discussed, and in particular: the progress with the production of ENCs, the status of MSI, the outcome of the first meeting of the IRCC, the main issues discussed and decided at the 4th EIHC and the status of the Statutes of the Commission. The President of the IHB reported on the activities of the Bureau during the inter-sessional period and progress on the approval of the Protocol of Amendments to the IHO Convention. RAdm GUY, as consultant, gave a presentation on the progress of the MEH in the Mozambique Channel.

The next meeting of the SAIHC will be held in Angola.

### **9th MEETING OF THE SOUTH WEST PACIFIC HYDROGRAPHIC COMMISSION (SWPHC)**

Port Moresby, Papua New Guinea, 9-11 March

**Chair:** IGA BESSERO (France)

**Vice-Chair:** Mr. GREENLAND (New Zealand)

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

**IHB Representatives:** Captain WARD, Mr. PHARAOH.



The 9th meeting of the South West Pacific Hydrographic Commission (SWPHC) took place in Port Moresby from 9 to 11 March 2009, under the Chairmanship of IGA BESSERO (France). The meeting was organized and hosted by the National Maritime Safety Agency (NMSA) of Papua New Guinea. Seven of the eight Member States were represented at this meeting, plus observers from Cook Islands, Kiribati and Solomon Islands and several survey industry representatives from the region. In total, 17 delegates were in attendance. The IHB was represented by Captain WARD.



The first day was devoted to a technical workshop whose objective was to raise awareness of the benefits of hydrography in the South West Pacific region and to stress national obligations to provide

hydrographic services under SOLAS Regulations. One of the aims of the IHO and the SWPHC is to assist developing Island States in the region to establish an in-country capability to provide at least updated hydrographic information to a charting authority as part of meeting their SOLAS obligations. This goes hand in hand with seeking firm government commitments to support these capabilities.

At the meeting national reports and IHO activities were reviewed, especially those of the International Hydrographic Bureau, the IHO Strategic Plan Working Group and the IHO Hydrographic Services and Standards Committee. The participants discussed various topics of interest to the region and in particular they referred to the progress of surveying operations, the coverage and technical details of Electronic Navigational charts (ENCs), the developments with INT charts, and the coordination of Maritime Safety Information (MSI).

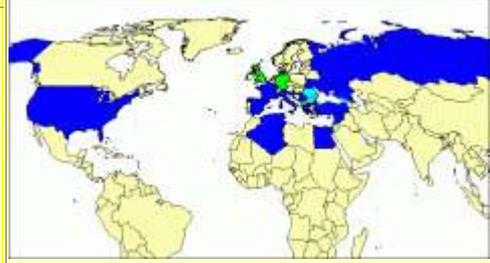
Capacity Building for the region was discussed at length and several actions were identified and prioritized based on work done in the technical workshop held on the first day of the meeting. As a result, a number of Capacity Building proposals were to be presented to the next meeting of the IHO Capacity Building Sub-Committee.

France agreed to continue to chair the Commission for the next two-year term, with New Zealand continuing to serve as Vice-Chair.

Following a kind invitation from the Solomon Islands, the Commission decided to hold its 10th meeting in Honiara in late 2010.

### **16th MEETING OF THE MEDITERRANEAN AND BLACK SEAS REGIONAL HYDROGRAPHIC COMMISSION (MBSHC)**

Odessa, Ukraine, 22–24 September

<p><b>Chair:</b> Capt. ESSOUSSI (Tunisia) <b>Vice-Chair:</b> Dr. SIMONENKO (Ukraine)</p>	
<p><b>Members:</b> Algeria, Croatia, Cyprus, Egypt, France, Greece, Italy, Monaco, Montenegro, Morocco, Romania, Russian Federation, Serbia, Slovenia, Spain, Syria, Tunisia, Turkey, Ukraine. <b>Associate Members:</b> Bulgaria, Georgia, Israel, Malta, Palestinian Authority, UK, USA. <b>Observers:</b> Albania, Germany, Lebanon, DINMA, IOC, PRIMAR. <b>IHB Representatives:</b> Vice Admiral MARATOS, Captain BERMEJO.</p>	

The 16th MBSHC Meeting was held at the Hotel Odessa in Odessa, hosted by the Ukrainian Hydrographic Office, under the Chairmanship of Tunisia. Delegates from Algeria, Bulgaria, Croatia, Cyprus, France, Greece, Georgia, Italy, Malta, Romania, Russia, Spain, Syria, Tunisia, Turkey, UK, Ukraine and the IHB attended the meeting. Other international organizations were also present as observers. Israel sent apologies for not being able to attend the meeting. The IHB was represented by VAdm. MARATOS and Captain BERMEJO.

The principal subjects included on the Agenda were:

- Inter-Sessional activities, including the technical visits carried out by the Commission, the two meetings held by the Black and Azov Seas under the chairmanship of Turkey and the decisions of the XVIIth International Hydrographic Conference.
- Cooperation with Member States and international organizations, with reports on the International Sea Power Symposium and on the coordination of sea level measurement and prevention of tsunami and sea level related hazards (IOC).
- Capacity Building matters, including the funding by the CB Fund of possible technical visits to Israel, Syria and Libya and the procedures for the submission of projects to the CBCS.
- Nautical cartography, with the MEDINTCHART report, progress in national ENC production, development of an MBSHC ENC scheme and the V-RENC (virtual RENC) situation. France agreed to continue as the MEDINTCHART Coordinator, subject to the agreement of the French authorities. The MEDINTCHART Coordinator will convene a technical meeting of the appropriate members of the MBSHC International Charting Group to resolve pending technical issues.
- Maritime Safety Information, including the report by NAVAREA III Coordinator
- General Organization Development, with the reports about the procedure for MBSHC to designate their representatives to the future IHO Council and the status of the ratification process of the Protocol of Amendments to the IHO Convention.

Turkey was elected as the new Chairman of the Commission, with Greece as Vice-Chairman.

The 17th Meeting of the MBSHC will be held in Athens (Greece) in 2011. The dates were to be agreed by correspondence.

### **9th MEETING OF THE BLACK AND AZOV SEAS WORKING GROUP (BASWG)**

Constanta, Romania, 23 - 24 April

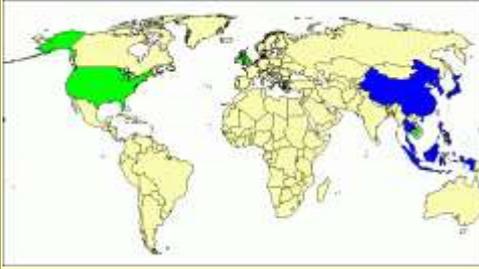
The 9th Meeting of the Black and Azov Seas Working Group (BASWG) took place in Constanta, Romania, on 23 and 24 April 2009, under the Chairmanship of RAdm. IPTES, the Director of the Turkish Hydrographic Office. Representatives from the HOs of Romania, Ukraine, Turkey and Bulgaria participated. The NAVAREA III Coordinator for the Mediterranean and Black Seas, Cdr. AGUILAR from Spain, participated as an Observer. VAdm. MARATOS, representing the Bureau, also participated as an Observer.

Firstly, the meeting considered and finalised the Terms of Reference and Rules of Procedure of the WG. The Chair was tasked to pass them to the MBSHC Chair to be considered for approval during the next meeting of the MBSHC. The WG considered the status of INT charts and ENC production and discussed issues of interest that will accelerate the procedures for production. Cooperation agreements, promulgation of MSI in the area, the establishment of a sub-region of NAVAREA III under the responsibility of the Turkish HO, the update of S-55 and Capacity Building and training were some of the issues that were considered in detail. VAdm. MARATOS provided an analysis of the developments and progress for the 4<sup>th</sup> EIHC.

It was decided that the next meeting would take place in Istanbul in 2010. The exact dates were to be decided in early 2010.

## **10th MEETING OF THE EAST ASIA HYDROGRAPHIC COMMISSION (EAHC)**

Singapore, 15-17 October

<p><b>Chair:</b> Dr. OEI (Singapore)  <b>Vice-Chair:</b> Vice Admiral NAKORN(Thailand)</p>	
<p><b>Members:</b> China, Democratic People's Republic of Korea, Indonesia, Japan, Malaysia, Philippines, Republic of Korea, Singapore, Thailand</p>	
<p><b>Observers:</b> Brunei Darussalam, UK, USA, Vietnam  <b>IHB Representatives:</b> Captain WARD, Ing. en chef HUET.</p>	

The 10th Conference of the East Asia Hydrographic Commission was held in Singapore from 15-17 October 2009. All Member States of the Commission: China, Democratic People's Republic of Korea, Japan, Malaysia, Philippines, Indonesia, Republic of Korea, Thailand and Singapore and the Observer States: Brunei Darussalam, UK, USA and Vietnam attended the meeting. In addition, a representative of the South West Pacific Hydrographic Commission attended as an invited observer. Captain WARD represented the IHB.



The Conference was opened by the Chairman, Dr OEI (Singapore), with the unveiling of the new flag of the Commission. The Conference discussed a wide range of regional topics including developments in each of the Member States, ENC production and coordination, investigations into data-rich ENCs, the regional capacity building programme, and closer cooperation and coordination with adjacent Regional Commissions.

The meeting was closed by VAdm. NAKORN (Thailand), who assumed the chairmanship of the Commission at the end of the meeting and took custody of the flag. Commodore HO (Philippines) was elected as the Vice-Chairman.

The next meeting of the Commission will be a coordination meeting in Thailand in January 2010.

**3rd MEETING OF THE ROPME SEA AREA HYDROGRAPHIC  
COMMISSION (RSAHC)**

IHB, Monaco, 8-9 June

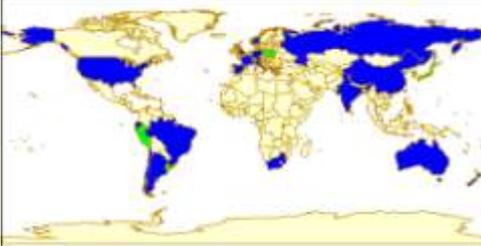
<p><b>Chair:</b> Commodore TIPU (Pakistan) <b>Vice-Chair:</b> Rear Admiral MOHD AL SHERI (Saudi Arabia).</p>	
<p><b>Members:</b> Bahrain, Iran, Kuwait, Oman, Pakistan, Qatar, Saudi Arabia, United Arab Emirates. <b>Associate Members:</b> United Kingdom, United States of America. <b>Observers:</b> Regional Organization for the Protection of the Marine Environment (ROPME), Middle East Navigation Service (MENAS). <b>IHB Representatives:</b> Captain GORZIGLIA, Lieutenant Commander SHIPMAN.</p>	

The 3rd meeting of the RSAHC was held at the IHB on 8-9 June 2009. It was attended by members from the Islamic Republic of Iran, the Sultanate of Oman, Pakistan and Qatar, associate members from the UK and the USA and observers from the IHB. The meeting was chaired by Commodore Z M TIPU of Pakistan.

The meeting elected Oman as the Chair and Qatar as Vice Chair of the RSAHC and invited Oman to organize the 4th RSAHC in Oman in 2010.

**9th MEETING OF THE IHO HYDROGRAPHIC COMMISSION  
ON ANTARCTICA (HCA)**

Simon's Town, Cape Town, South Africa, 12-14 October

<p><b>Chair:</b> Captain GORZIGLIA (IHB) <b>Vice-Chair:</b> Rear Admiral MONCRIEFF (UK) <b>Secretary:</b> Ing. en chef HUET (IHB)</p>	
<p><b>Members:</b> Argentina, Australia, Brazil, Chile, China, Ecuador, France, Germany, Greece, India, Italy, Japan, Korea (Rep. of), New Zealand, Norway, Peru, Russian Federation, South Africa, Spain, United Kingdom, Uruguay, USA and Venezuela.</p>	
<p><b>Observer Organizations:</b> 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.</p>	

The 9th Meeting of the Hydrographic Commission on Antarctica (HCA) was held in Simon's Town, South Africa, 12-14 October 2009, organized with great success by Captain KAMPFER, Hydrographer of South Africa in cooperation with the South African National Antarctic Programme (SANAP).

The Chairman, Captain GORZIGLIA (IHB Director), welcomed the 12 IHO Member States (Australia, Brazil, Chile, France, Germany, New Zealand, Norway, Republic of Korea, South Africa, Spain, United Kingdom and Venezuela), the 5 international organizations (COMNAP, IAATO, GEBCO, IBCSO and SCAR) and SANAP who all actively participated in the discussions.



The Commission reviewed membership status and confirmed that the Commission was composed of 23 IHO Member States, with the Republic of Korea and Venezuela being the last two members to join the HCA. Following this point, in accordance with Art 5.2 of the Statutes, the Commission re-elected RAdm. MONCRIEFF (UK) as Vice Chairman of the HCA.

The Commission reviewed the status of the actions agreed at the last meeting and it was agreed that all actions had been completed. The reports of the international organizations as well as those from IHO Member States were commented, as well as the reports on the progress made with the INT chart scheme, ENC scheme and production and the C-55 status with regard to Antarctica. Several actions were identified to further progress the subjects discussed.

The Commission noted with satisfaction the constant support and contribution made by COMNAP and IAATO. It was agreed to hold a seminar on the Importance of Hydrography in Antarctica at the next IAATO Annual Meeting that will take place in Turin, Italy in June 2010; it was also agreed that technical visits would be conducted to IAATO ships, before they head for Antarctica, in order to brief the ships' Captains on the procedure of collecting and rendering hydrographic data as "Ships of Opportunity". It was felt that the presence of representatives from ATCM and IMO would have been beneficial in the discussions held.

There were specific discussions to identify the main topics to be included in the presentation and discussion that would take place at the Antarctic Treaty Experts Meeting in December 2009 concerning matters related to Tourism in Antarctica.

Further discussions were held following the report of the Chairman of the HCA Hydrographic Survey Prioritization Working Group, successfully chaired by Mr. Andy Willett (UK). As a result of an interesting exchange of views, several actions were identified, all aiming at improving safety of navigation as quickly as possible, through the exchange and collection of new high priority hydrographic data required to produce the INT Charts in the region “M” scheme.

The Commission also agreed on a number of actions to be carried out during the intersessional period, with the responsibilities and deadlines clearly identified.

Following a kind invitation from the UKHO, the Commission decided to hold the 10<sup>th</sup> HCA meeting in the United Kingdom. The venue and dates (last week of September or first week of October 2010) were to be confirmed.

## **2. INTERNATIONAL ORGANIZATIONS**

### ***INTERNATIONAL MARITIME ORGANIZATION (IMO)***

#### **13th SESSION OF THE IMO COMSAR SUB-COMMITTEE**

IMO Headquarters, London, 19-23 January

The 13th session of the IMO COMSAR Sub-Committee was held at the IMO HQ in London from 19 – 23 January 2009. VAdm. MARATOS, Lt. Cdr SHIPMAN and the Chairman of CPRNW represented the IHO. The Co-ordinators from NAVAREA I (UK), II (France), III (Spain), IV (USA), IX (Pakistan), XII (USA), XVII and XVIII (Canada) and XIX (Norway) were present.

The Sub-Committee reviewed the report of the CG established at COMSAR 12 on extending the WNWNS to Arctic waters. The report was accepted and the CG re-established with new ToR in order to guide and assist the 5 new Arctic NAVAREAS to reach Operational Status in 2011.

The Sub-Committee considered submissions by the IHO and approved a draft revised Joint IMO/IHO/WMO Manual on Maritime Safety Information which will now go to MSC 86 for adoption and to the issue of a revised COMSAR Circular regarding the details of NAVAREA Coordinators. The Sub-Committee noted the IHO report on the outcome of CPRNW10.

The IMO Navtex Coordinating Panel, chaired by Cdr. SEWELL of the UKHO, met on Thursday lunchtime during COMSAR.

Members of the CPRNW WG (France, Greece, UK, USA, Inmarsat, WMO and IHB) reviewing the WNWNS documentation, set up at CPRNW7 in 2005 met in the week following COMSAR. The meeting completed the draft revision of the International SafetyNET Manual which was then considered at PRNW1 in August 2009 prior to submission to IHO and WMO Member States for agreement and subsequent submission to COMSAR.

**86th SESSION OF THE IMO MARITIME SAFETY COMMITTEE (MSC)**  
IMO HQ, London, 27 May to 5 June

The 86th session of the IMO Maritime Safety Committee (MSC) was held at the IMO Headquarters in London from 27 May to 5 June 2009. VAdm. MARATOS and Lt. Cdr. SHIPMAN represented the IHO.

MSC 86 took the following actions of relevance to the IHO:

- Adopted amendments to SOLAS Chapter V introducing mandatory carriage requirements for ECDIS with a phased implementation period beginning in 2012 and ending in 2018. The amendments to SOLAS will be considered to have been accepted on 1 July 2010 and will enter into force on 1 July 2011;
- Approved the revised text of the Joint IMO/IHO/WMO Manual on Maritime Safety Information which will come into force on 1 January 2011;
- Endorsed the issue of COMSAR Circular 44 concerning the list of NAVAREA Co-ordinators;
- Approved the coordinated approach to the implementation of the e-navigation strategy (MSC86/23/4, available from the IHO web site), including removing the square brackets around "IHO" in the annex, so that the IHO will be recognised as an active contributor to the relevant work items; and
- Approved the inclusion of a new work programme item for the NAV Sub-Committee on "New symbols for AIS aids to navigation". This item will be included in the Agenda for NAV56 in 2010 and will last for 4 sessions.

The full report of MSC 86 (MSC86/26) was posted on the IHO web site.

**59th SESSION OF THE TECHNICAL COOPERATION COMMITTEE (TC59) MEETING**  
IMO Headquarters, London, 10-12 June

The Technical Co-operation Committee (TCC) held its 59th session from 23 to 25 June 2009, under the chairmanship of Mr. Ben OWUSU-MENSAH (Ghana). The IHO was represented by Captain BERMEJO (IHB)

The Committee considered the Interim Report on 2008-2009 which summarized the results of implementation achieved during 2008 and also included an appendix listing the information on operational programmes in 2008. The Committee was informed that the comprehensive biennial report for 2008-2009 would be submitted to the Committee at its June session in 2010.

The Committee outlined the salient results achieved during the first year of the 2008-2009 biennium and tabled the proposed Integrated Technical Co-operation Programme (ITCP) for the 2010-2011 biennium.

Information was provided about 17 bilateral technical co-operation trust funds in operation, which provided financial support for IMO's technical assistance activities. Ten of these bilateral trust funds had been established with government agencies and the rest with international and regional organizations.

The Secretariat introduced a report on the inaugural activities of the International Maritime Safety, Security and Environment Academy (IMSSEA), following its establishment in 2008 by the Government of Italy and the Committee was informed of the success of the Academy's inaugural

course on flag State implementation and port State control in October 2008. Since its inaugural course, the Academy had conducted a further three courses covering search and rescue, marine accident investigation procedures and the handling of hazardous cargoes. The courses were welcomed by developing countries and the responses from participants were encouraging.

The IHO representative presented a report on the Capacity Building Activities of the Organization, stressing the joint projects achieved with IMO and other international organizations.

The Committee elected Rear Admiral OLIMBO of Italy as Chairperson for 2010 and Ms. KARIGHTU (Kenya) as the Vice Chairperson. The 60th session of the TCC will be held on 1-3 June 2010.

**55th SESSION OF THE IMO SUB-COMMITTEE ON SAFETY OF NAVIGATION (NAV55)**  
IMO Headquarters, London, 27-31 July 2009

The 55th session of the IMO Sub-Committee on Safety of Navigation (NAV55) was held at IMO Headquarters in London, from 27-31 July 2009. The IHO was represented by VAdm. MARATOS, Captain WARD and Lt. Cdr. SHIPMAN.

Under agenda Item 11 on the Development of an E-Navigation Strategy Implementation Plan, the IHO presented a report on ENC availability (NAV 54/11). The International Chamber of Shipping (ICS), whilst acknowledging the increased availability of ENCs, stated that it still had some reservations that an “adequate” coverage of ENCs would be available by the 2010 date indicated by the IHO. The IHO was requested to provide further updates at future NAV sessions and to confirm at NAV57 in 2011 that an “adequate” coverage had been achieved. A Working Group (WG) was established to consider the other documents submitted under this agenda item. The WG prepared preliminary detailed shipboard user needs and Terms of Reference for a Correspondence Group (CG) to continue the work intersessionally. The IHB will represent the IHO in the work of the CG and interested Member States were also encouraged to participate.

NAV55 approved five new or revised Traffic Separation Schemes, four other routing measures and two amended Mandatory Reporting Systems all of which were passed to the Maritime Safety Committee (MSC) for adoption at its 87th session in May 2010.

The Chairman of NAV, Mr. SOLLOSI of the United States, and the Vice-Chairman, Captain MALIK of Malaysia, were re-elected for 2010. The 56th session of the Sub-Committee on Safety of Navigation is provisionally scheduled to be held on 26 - 30 July 2010.

**26th SESSION OF THE IMO ASSEMBLY**  
IMO Headquarters, London, 23 November to 02 December

The 26th session of the IMO Assembly was held at the IMO Headquarters in London from 23 November to 02 December 2009. The IHB were represented by VAdm. MARATOS and Lt. Cdr. SHIPMAN.

Welcoming addresses were made by RAdm. MITROPOULOS, IMO Secretary General, Mr. CLARK, United Kingdom Parliamentary Under-Secretary of State at the Department of Transport, and His Excellency Mr. MADI of Egypt the outgoing President of the 25th Assembly. His Excellency Mr. BOOMGAARDEN of Germany was elected as President of the 26th Assembly.

The Assembly established two Committees to consider 1) Administrative, Financial Legal and Technical Cooperation Matters and 2) Technical Matters. Matters relating to the Maritime Safety Committee (MSC) were considered by Committee 2 and their decisions were subsequently approved by the Plenary. The reports of the 84th, 85th and 86th sessions of the Maritime Safety Committee were accepted.

The Assembly, as recommended by Committee 2, confirmed the adoption by MSC85 of resolution MSC.280(85) of amendments to the General Provisions on Ships' Routeing (resolution A.572(14) as amended) as proposed by Norway, the United Kingdom and IHO in document MSC 82/21/3.

The IMO Secretary General, in a report on IMO membership urged IMO Member States who were not members of the IHO, to give favourable consideration to becoming members of the IHO. The representative of the Cook Islands, in an opening speech to the Assembly, thanked the IHO, the UKHO and SHOM for their continuing assistance in providing ENC coverage.

Delegates to the Assembly supported the idea of the Voluntary IMO Member State Audit Scheme becoming mandatory and adopted resolution A.1018(26) "Further development of the Voluntary IMO Member State Audit Scheme" which sets out a proposed timetable for achieving mandatory status.

Consideration of the documents at Assembly 26 proceeded faster than anticipated and the Assembly concluded on Wednesday 2 December rather than on Friday 4 December as originally planned. The 103rd session of the Council, which followed the Assembly, elected Mr. LANTZ of the United States as Chairman for the two year period to Assembly 27. Mr. NTULI of South Africa was re-elected as Vice-Chairman.

## **INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (IOC)**

### **25th IOC ASSEMBLY**

Paris, France, 16 – 25 June

The Director General of UNESCO addressed the Assembly highlighting the importance of IOC and the main topics under consideration at a global level, mainly global change and its effects.

The Agenda covered a wide range of matters including statutory reports, general policy issues, management procedures and policies for the sustainability of coastal and ocean environment and resources, health of the ocean ecosystems, mitigation of the impacts and adapting to climate change and variability, prevention and reduction of the impacts of natural hazards and matters related to administration and management. Particular attention was given to subjects of IHO interest, such as capacity building, bathymetry and tsunamis, celebration of the 50<sup>th</sup> anniversary of IOC, election of officers and selection of applicants for the post of Executive Secretary. 88 Member States out of 136 attended the Assembly. The Heads of the following Hydrographic Offices were also present: Brazil, Canada, Chile, Ecuador, Germany and Turkey. Captain Gorziglia represented the IHO.

In the field of capacity building it was emphasized that UNESCO's priority is Africa and Small Island Developing States (SIDS), and the importance of having a country-driven approach in the definition of capacity building initiatives. The IHO representative underlined the strategic importance of capacity building and the excellent relationship between IHO and IOC in this matter. In line with IHO's approach, three levels were identified by the IOC Executive Secretary: assistance to governments in developing policies; assistance in setting up institutional arrangements and assistance to individuals in the field of education and scientific training. The Assembly requested Member States to provide additional human and financial resources to enhance capacity building activities.

It was reported that the 2nd meeting of the Hazards Warning and Mitigation Systems Working Group underlined the need for high-resolution bathymetry data in coastal areas and for digital elevation models for tsunami warning and forecast operations. The IHO representative supported the report and suggested inputs to a resolution that resulted in the following text:

## Resolution XXV-13

The Intergovernmental Oceanographic Commission,

*Requests GEBCO to give priority to the development of high-resolution bathymetric data in coastal areas and of digital elevation models and to report progress at the 43rd Session of the IOC Executive Council;*

*Further requests the IOC Regional Ocean Mapping projects to contribute to GEBCO to achieve these developments.*

Between June 2010 and October 2011 the IOC will celebrate its 50<sup>th</sup> Anniversary. During this period it is anticipated that many activities of interest also to IHO shall take place.

The Officers elected for the next two years were as follows:

Chair	:	Mr. VALLADARES (Argentina) (re-elected)
Vice Chairs	:	Dr. NARAYANAN (Canada) (re-elected)
		Mr. MIKHAILOV (Russian Federation) (re-elected)
		Mr. REYNA (Colombia) (re-elected)
		Mr. BYUN (Republic of Korea)
		Mr. SAMMARI (Tunisia) (re-elected)

Another election matter was the selection of a short list of six names of candidates to replace Dr. BERNAL as IOC Executive Secretary by the end of 2009. The names were passed to the UNESCO DG for his consideration.

Captain GORZIGLIA took advantage of this event to meet with the Delegation from Haiti to discuss matters of common interest; the meeting was chaired by Ms. JEAN, Director General of the Maritime and Navigation Service of Haiti, the organization under which Haiti is creating a Hydrographic and Oceanographic Service. Also he met Captain GOYES, the new Director of INOCAR and Delegate for Ecuador to IOC with whom discussions were held concerning initiatives to raise Ecuador's level of awareness and commitment to hydrography. Finally he had discussions with the personnel of the IOC's Tsunami Unit, the leader of the Coast MAP-IO and the Head of the Capacity Building Section and recently nominated Deputy Executive Secretary in charge of capacity development.

## **ANTARCTIC RELATED ORGANIZATIONS**

### **32nd ANTARCTIC TREATY CONSULTATIVE MEETING (ATCM)**

Baltimore, USA, 06 - 17 April

The Antarctic Treaty Consultative Meetings are held annually to discuss matters related to the management of the Antarctic Treaty area and to further develop the Antarctic Treaty System. Around 250 participants representing 38 countries, together with ten international organizations, were present to report and to consider 53 Working Papers (WP) and 111 Information Papers (IP) submitted by various countries and international organizations, together with nine documents submitted by the AT Secretariat.

This 32nd ATCM was special as it coincided with the 50th Anniversary of the Antarctic Treaty. Consequently, the opening ceremony included a Joint Antarctic Treaty /Arctic Council event that took place at the U.S. Department of State, Washington DC on 6 April 2009. Mr. SCULLY was elected as Chair of the 32nd ATCM.

The Opening Address was given by The Honourable Ms. Hillary CLINTON, Secretary of State of the United States, followed by Remarks by His Excellency Mr. Gahr STORE, Minister of Foreign Affairs

of Norway, Chairman of the Arctic Council and Dr. HOLDREN, Assistant to the President for Science and Technology and Director, Office of Science and Technology Policy Executive Office of the President of the United States. The message contained in all presentations highlighted the importance of the Antarctic and its relation with the Arctic, both key elements of climate change. The importance of joint, cooperative and collaborative research as well as responsible management of Antarctica was emphasized, tightening up environmental regulations both to protect tourists and the environment.

After the opening ceremony, a ministerial discussion took place on the International Polar Year accomplishments and future polar science priorities. Several dignitaries and Ministers of different countries were present, including HSH Prince Albert II of Monaco. The discussions highlighted global warming, climate change, environmental protection, tourism regulation and control, a collective scientific approach, action plans for a sustainable environment, maritime transport, safe routes, reliable charts and coordinated SAR service.

Governmental authorities present adopted the International Polar Year Declaration and following the Antarctic Treaty 50th Anniversary Commemoration, also adopted the 50th Antarctic Treaty Anniversary Declaration. In the afternoon the IPY 2007-2008 celebration took place at the National Academy of Sciences. Opening remarks were made by the President of the National Academy of Sciences and by the Director of the National Science Foundation, followed by six key scientific presentations. These events culminated with a reception offered by the Department of State and the Smithsonian Institution in the Ocean Hall of the Smithsonian Museum of Natural History.

The IHO was represented by Captain GORZIGLIA from 06-10 April. The IHO representative was invited to participate in all these major events, despite IHO's Observer status to the ATCM. This is an indication of the special consideration IHO has within the Antarctic Treaty System. The meeting continued at the Baltimore Convention Center, Baltimore, Maryland.

During the discussion of WP 30, the proposal made by New Zealand was approved to host an Antarctic Treaty Meeting of Experts on the Management of Shipborne Tourism, from 09 to 11 December 2009 in Wellington to consider: trends in shipborne tourism in the Antarctic Treaty area over the past 10 years, including maritime incident and future projections; Maritime Safety in the Antarctic Treaty Area; Protection of the Antarctic Environment and the cooperation between the ATCM, IMO and IHO. An invitation was extended to the IHO as IHO's contribution to the discussion is considered crucial. Risk exists and regulatory measures are needed.

During the ATCM a very productive meeting was held with Mr. RETAMALES, Chair of COMNAP; Mr. GUICHARD, COMNAP Executive Secretary and Mr. LLUBERAS, principal contact on Training within COMNAP. The theme and purpose of the Seminar that IHO/HCA had organized to take place during the next COMNAP Council meeting in Punta Arenas, Chile, in the first week of August 2009 were decided.

Discussions took place with representatives from IAATO, Mr. WELLMEIER and Mrs. CROSBIE, Head of Delegation and Representative of IAATO, respectively, and on that occasion IAATO confirmed their interest in the seminar IHO/HCA is planning to hold in 2010 at IAATO's Annual Meeting.

It was decided to hold the 33rd ATCM in Uruguay, from 03-14 May 2010. The 32nd ATCM decided to invite the IHO to report at the 33rd meeting.

The Seminar organized at the 31st ATCM increased the visibility of IHO and the work of HCA in coordinating the hydro-cartographic effort in Antarctica. The relationship with COMNAP and IAATO constitutes an IHO strength that is contributing to accomplish the IHO/HCA task and the IHO Antarctic activity is very well recognized and appreciated by ATCM. The incorporation of new HCA members was emphasized as a sign of better understanding and interest in enhancing hydrography in Antarctica.

**SEMINAR AT THE 2009 COMNAP ANNUAL MEETING - COMNAP XXI**  
Punta Arenas, Chile, 03- 06 August

The meetings of the Council of Managers of National Antarctic Programs (COMNAP) are held annually to develop and promote the best practice in managing the support of scientific research in Antarctica. It is a forum to develop practices to improve the effectiveness of activities; it facilitates and promotes international partnerships; it encourages information exchange and provides the Antarctic Treaty System with objective and practical, as well as technical and non-political, advice drawn from the National Antarctic Program's pool of expertise. On this occasion, COMNAP invited the IHO/HCA to make presentations in the form of a seminar referring to the "Importance of Hydrographic Activities in Antarctica".



Out of the 29 COMNAP member countries, 26 were present with over 150 delegates in all. Four international organizations were also represented and the IHO was represented by the HCA Chairman and IHB Director, Captain GORZIGLIA, together with RAdm. MONCRIEFF and Cdr. SILVA, representatives of UK and Chile to the HCA, respectively.

The objective of the seminar was to raise awareness at the operational level of the importance of hydrographic activity in Antarctica, to achieve a better understanding within COMNAP of the existing risks linked to the present state of charting in the region and to explore ways to jointly improve the situation. The event was very well received by the participants.

COMNAP agreed to use the "IHO Collection and Rendering of Hydrographic Data Form", included in the document "Collection and Rendering of Hydrographic Data obtained by "Ships of Opportunity" in Antarctic Waters" submitted by the IHO/HCA, and to review and provide comments to the HCA Survey Prioritization WG.

At the end of this Meeting, Mrs. ROGAN-FINNEMORE took over as Executive Secretary of COMNAP, replacing Mr. GUICHARD.

**INTERNATIONAL ASSOCIATION OF MARINE AIDS TO NAVIGATION AND  
LIGHTHOUSES AUTHORITIES (IALA)**

**IALA COMMITTEE ON E-NAVIGATION**

Paris, 21 - 25 September

Captain WARD represented the IHO at the 7<sup>th</sup> meeting of the IALA Committee on e-Navigation where he contributed to the ongoing work of the Marine Information Systems Task Group. The IHO was assisted by two other hydrographers: IGA DESNOES, now Chairman of the French Institute of Navigation and former Hydrographer of France, in Architecture Working Group 5, and IGA LAPORTE, (France) in Strategy Working Group 1.

The IALA Committee on e-Navigation was formed to develop IALA policy and technical proposals for subsequent consideration by IMO, the organization developing the e-Navigation concept. In accordance with the Memorandum of Understanding between the two organizations, IHO participation provided IALA with advice and assistance in relation to hydrographic and nautical charting aspects.

**24th INTERNATIONAL CARTOGRAPHIC CONFERENCE – ICC 2009**  
15-21 November, Santiago, Chile

The 24th International Cartographic Conference – ICC 2009 was held from 15 to 21 November 2009 in Santiago, Chile, organized by the “Instituto Geográfico Militar de Chile (IGM) and the International Cartographic Association (ICA). More than 1,000 representatives and experts attended the Conference and made presentations about the global development of cartographic technology. The Chilean Hydrographic Service organized a successful exhibition of paper charts, electronic charts and tsunami charts. The Director of the Hydrographic Service of Chile, Captain ROJAS gave a presentation, on behalf of the IHO, on the new hydrographic geospatial data framework standard S-100 and its relationship with the digital development of nautical cartographic services. Another important subject discussed was the standardization of the procedures of construction of official paper charts, with a description of the use and maintenance of the IHO standard S-44 and the work of the Chart Standardization and Paper Chart Working Group (CSPCWG).

The ICA Committee of Marine Cartography considered future topics and the close relationship with the IHO in joint cooperation matters. Among them, the possibility to increase the exchange of data, technology and training between organisations affecting both the public and private sector.

**MISCELLANEOUS**

**2nd AFRICAN UNION CONFERENCE OF MINISTERS RESPONSIBLE FOR  
MARITIME TRANSPORT**  
Durban, South Africa, 12-16 October



*Opening of the Conference by Mr. Sibusiso NDEBELE,  
Minister of Transport for South Africa*

The 2nd African Union Conference of Ministers Responsible for Maritime Transport was held in Durban from 12-16 October. The theme of the meeting was “*Creating a Safe, Secure and Clean Maritime Transport Industry in Africa*”, which built on the 1<sup>st</sup> meeting held in 2007.

The first three days of the meeting comprised the “meeting of experts” that finalized various texts for consideration by the ministers during the final two days of the Conference. In addition, a number of related maritime development challenges were addressed including safety and security.

The principal texts considered were the African Maritime Transport Charter and the Maritime Transport Plan of Action 2008-2010. The Maritime Charter was approved at the end of the Conference and will enter into force after the ratification by at least 15 Member States of the African Union. The charter includes general references to the provision of hydrographic services. The Action Plan includes references to hydrographic capacity building.

Captain WARD represented the IHO. During the meeting of experts he explained that the respective roles of IHO and IALA were hydrography and nautical charting, and aid to navigation. This had not been appreciated by Member States or the African Union Commission secretariat. As a result, the draft Maritime Transport Charter was amended to reflect these two different roles. He also presented a progress report highlighting the IHO’s capacity building activities on the African continent and concluded by informing the meeting that the level of awareness and priority given to hydrography by many African governments was low and as a result was compromising the capacity building efforts of the IHO.

### **CIRM TECHNICAL MEETING 2009**

Bilbao, Spain, 20-21 April

The Comité International Radio-Maritime (CIRM) held its Spring Technical Meeting at the Bilbao Exhibition Centre in Bilbao, Spain, home of the futuristic Guggenheim Museum, from 20 – 21 April 2009. The IHO was represented by Lt. Cdr. SHIPMAN (IHB).

The meeting was attended by 65 representatives of industry in the Maritime Radio field, including ECDIS manufacturers, and representatives of the International Mobile Satellite Organization (IMSO), the Radio Technical Commission on Maritime Services (RTCM), Inmarsat and the UK Hydrographic Office. The IHO made a presentation on the revised committee structure of IHO and the status of S-100 and S-101 developments.

During the meeting CIRM decided to establish an e-navigation working group in order to ensure that equipment manufacturers were able to provide appropriate input to the e-nav debate within IMO.

### **GEOMATICA 2009**

#### **SEMINAR ON MARINE SPATIAL DATA INFRASTRUCTURES (MSDI)**

Havana, Cuba, 9-12 February

The 6th International Congress of Geomatics - GEOMATICA 2009 - took place from 10-12 February 2009, in Havana, Cuba, under the general theme “New Technologies: Development and Sovereignty”, with the IHO as the co-sponsoring international organization. There were around 200 participants from 20 countries. Most of the presentations given at GEOMATICA 2009 dealt with Spatial Data Infrastructures (SDI) and geospatial standards and included a keynote presentation by Captain WARD, IHB Director, on *S-100* – the IHO’s new hydrographic geospatial data framework standard. During the conference, several “panel discussion” sessions took place on geomatics-related subjects, including a session on Marine SDIs, as a follow-on from the Marine SDI Seminar held on 9

February (see below), where the benefits of contributing to a MSDI/SDI, and the barriers to overcome, were discussed.



As part of GEOMATICA 2009, 10 workshops/seminars were held before and after the conference. This included a Marine SDI Seminar on 9 February, jointly organized by the IHB and the Cuban HO and chaired by Captain WARD. Participants were welcomed by Col. ALUM ORTIZ, Director of the Cuban HO. The Seminar aimed at promoting the concept of Marine Spatial Data Infrastructures in Latin America and the Caribbean region, and underpinning the development of best practice in the creation of marine components of National Spatial Data Infrastructures (NSDI). It addressed the various aspects of marine SDIs, including global, regional and national initiatives, and land-sea data integration issues. All presentations given at the seminar, as well as the outcomes, were posted on the IHO website (MSDIWG page).

*Captain WARD addressing GEOMATICA 2009*

### **11th MEETING OF THE GLOBAL SEA LEVEL OBSERVING SYSTEM GROUP OF EXPERTS (GLOSS GE-XI)**

IOC Headquarters, Paris, 13 – 15 May

The GE 11th meeting was held at the Intergovernmental Oceanographic Commission's (IOC) headquarters in Paris from 13 – 15 May 2009. The IHB and TWLWG were represented by Lt. Cdr. SHIPMAN. The meeting was preceded by a two-day workshop on "Precision Observations of Vertical Land Motion at Tide Gauges". The meeting was attended by over 50 delegates from some 30 countries. The Hydrographic Offices of Brazil, Canada, Ecuador, France, Norway, Portugal and the USA (NOAA) were represented.

The workshop brought sea-level and geodetic experts together to discuss some of the issues affecting the use of GNSS in the vicinity of tide gauges for use in monitoring of sea level change. The meeting was opened by Mr. DESA, Deputy Executive Secretary, on behalf of Dr. BERNAL, the Executive Secretary of IOC.

One very clear message that came through throughout the meeting was the vital role that tide gauge information provided for the study of both historical and the forecast of future sea-level rise and climate change. The Permanent Service for Mean Sea Level (PSMSL) maintains an archive of tidal information which is used extensively by academic and scientific communities for such research. It is of concern that over the last ten years the number of tide gauge records being input to the PSMSL archive has reduced! PSMSL were also aware that some historical data sets going back over many years existed but were not in the archive. This historical data is equally essential for the improvement of future forecasts.

Lt. Cdr. SHIPMAN provided a presentation reporting on the changes to the IHO Committee Structure in general and the transformation from the Tidal Committee to the Tidal and Water Level Working Group in particular.

**WESTERN INDIAN OCEAN GEF-MARINE HIGHWAY AND COASTAL AND MARINE  
CONTAMINATION PREVENTION PROJECT**

Johannesburg, South Africa, 11-12 February

The 1st meeting of the Project Steering Committee (PSC) of the official launching of the Western Indian Ocean GEF-Marine Highway and Coastal and Marine Contamination Prevention Project, took place in Johannesburg, South Africa on 11 and 12 February 2009. Representatives from the following beneficiary countries participated in the meeting: Mozambique, Mauritius, La Reunion, Seychelles, Tanzania, Comoros and South Africa. Also representatives from the IMO, IALA, WB, Indian Ocean Commission, Norway, UK and France were present. VAdm. MARATOS represented the IHO. The meeting was coordinated by the project consultant, RAdm. GUY.

During the first day the beneficiary countries presented their activities and needs in data gathering, production of charts and promulgation of MSI. VAdm. MARATOS reported briefly on the definition of hydrography, hydrographic responsibilities and the coastal states' obligation to provide hydrographic services and on the IHO Capacity Building program. The second day was devoted to two working groups. One that considered issues referring to the maritime safety of the project and the second one to the environment and the prevention of pollution. The first group discussed the needs and requirements for the execution of hydrographic surveys, production of charts, promulgation of MSI and requirements for Capacity Building support and technical assistance.

The French representative reported on the surveys that had already been undertaken in the Madagascar Channel, as a result of a bilateral agreement between France and Madagascar. There was also discussion on how these data will become available for the project and how France will continue supporting the surveying activities.

It was also decided which ports of the beneficiary countries would be surveyed under the terms of the Project.

On 9 February VAdm. MARATOS visited the South African Hydrographic Office in Cape Town and was briefed on its activities by the Director, Captain KAMPFER. He also visited the Hydrographic vessel PROTEA and was briefed by the Commanding Officer on her mission and activities. VAdm. MARATOS took the opportunity to meet the Flag Officer of the Naval Base in Cape Town, RAdm. HIGGS and other high ranking Officers and discussed the importance of hydrography and how the South African Navy supported national, regional and global hydrographic needs and requirements.

**EUROPEAN UNION (EU) – KICK OFF CONFERENCE ON MARITIME  
SPATIAL PLANNING (MSP)**

Brussels, Belgium, 26 February

The EU DG Fisheries and Maritime Affairs, as part of its work on Maritime Spatial Planning, organized a series of four workshops in 2009. The first workshop entitled "Kick Off Conference" was held in Brussels, Belgium, on 26 February. The IHO was represented by Lt Cdr SHIPMAN. The keynote address was provided by Mr. BORG, EU Commissioner for Maritime Affairs and Fisheries. Numerous presentations were made by representatives of government and fishing, energy, environmental and shipping organizations. Some 120 delegates attended. The meeting focused on experiences gained by States and Regions in developing MSPs and in particular looked at the sometimes conflicting requirements for shipping, energy extraction and sustainable biodiversity.

Follow-on workshops were held in Italy (April), Azores (June) and Sweden (September), but were not attended by an IHB representative. The Azores meeting focussed on the "Knowledge Base" with the September meeting preparing some conclusions for input into the development of MSP within the EU.

**INTERNATIONAL FEDERATION OF HYDROGRAPHIC SOCIETIES  
HYDRO9 CONFERENCE**

Cape Town, South Africa 10-12 November

Captain WARD represented the IHO at the 2009 International Federation of Hydrographic Societies (IFHS) Conference. The conference was hosted and organized by the Hydrographic Society of South Africa.

Over 200 delegates and a wide range of industry exhibitors took part in the conference. As well as local participants, there were many delegates and exhibitors from the US, Canada, Australasia and Europe.



*Mr. Aubrey Price, Chairman of the Hydrographic Society of South Africa, addresses the Conference*

After an opening speech by the President of the IFHS, Mr. HEAPS, Captain WARD delivered a keynote opening address. He covered the conference theme of “*enhancing global capacity*”, with particular reference to the capacity building programmes of the IHO. He also provided a separate paper on S-100 – the *Universal Hydrographic Data Model* that was discussed later in the conference programme. Captain KAMPFER, Hydrographer of South Africa, followed Captain WARD, by addressing the opening plenary session, highlighting the leadership role that South Africa is playing in capacity building efforts in southern Africa.

### **3. INTER-REGIONAL COORDINATING COMMITTEE**

#### **THE 1st MEETING OF THE IHO INTER REGIONAL COORDINATION COMMITTEE** Monaco, 5 June

The 1st meeting of the IHO Inter Regional Coordination Committee was held in the Auditorium Rainier III (Monaco), on 05 June 2009. Chairs or Representatives from all the Regional Hydrographic Commissions (except RSAHC), Sub-Committees and other bodies were present, as well as numerous observers from IHO Member States and NGIO’s accredited to the IHO.

Captain GORZIGLIA, IHB Director and Acting Chairman of the IRCC opened the meeting and welcomed IRCC members and participants to the meeting, stressing the objectives of the Committee, established on 1 of January 2009 by decision of the XVIIth I.H. Conference.

The Acting Chairman provided a general overview of the activities conducted since the XVIIth IHC and particularly since the establishment of the Committee on 1 January 2009. He recalled that, until the establishment of the future IHO Council, the IRCC would report to the IHO Member States through the IHB and to the IHC.

The Chairs or Representatives of HCA, WEND, PRNWSC, CBSC, GEBCO Guiding Committee and IAB provided reports of their activities.

IGA Gilles BESSERO (SWPHC Chair and Hydrographer of France) was elected Chairman of the IRCC. At the proposal of the GEBCO Guiding Committee representative, Captain Abri KAMPFER (WEND Chairman and Hydrographer of South Africa) was elected Vice-Chair.

Among other decisions, the IRCC approved the Standing Agenda and Structure of IRCC Meetings, the IRCC WP for 2010 and the following Action List :

- When holding regular meetings, invite adjacent RHCs to discuss ENC overlaps and data harmonisation.
- To continue developing the idea of setting up an inter-regional Emergency Point of Contact database, and submit its result to IRCC2.
- To ensure that invitations to attend courses sponsored by the CBSC are sent also to the countries of the adjacent RHCs.
- To conduct a study to improve present IHO Resolution T 1.3 and submit a proposal to IRCC Members for consideration and comments.
- To consider providing support to activities that promote management capacity development. Report on actions adopted.
- To establish an IRCC WEND Working Group with the ToR and RoP as approved at IRCC1. Composition of the WG to be coordinated by IRCC Vice Chair. Report on progress to IRCC.
- To send a Circular Letter submitting to IHO MSs the change of name and modification of ToR and RoP of the PRNWSC for adoption. If no objections are received implementation shall start 15 July 2009.
- To send a Circular Letter submitting to IHO MSs the change of name of the IAB to IB (FIG-IHO-ICA) for adoption.
- To send a letter to institutions running recognized courses addressing the subject of cost recovery mechanisms. Report outcome to IRCC.
- To introduce the Individual Recognition Guidelines approved by the IB (FIG-IHO-ICA) in M-5 and M-8.
- To continue deliberations and consult RHCs on any regional initiatives to develop recognised training or systems to monitor and assess the competency of Individuals. Further identify the role the IRCC may play in this matter and report to IRCC2.

After the meeting and following an exchange of correspondence between the IHB and the Chairman, it was decided to hold the next meeting in New Orleans (USA), just after the meeting of the CBSC, from 17-18 June 2010.

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## **WORK PROGRAMME 2 CAPACITY BUILDING**

### **1. CAPACITY BUILDING SUB-COMMITTEE**

#### **7th IHO CAPACITY BUILDING SUB-COMMITTEE MEETING**

Seoul, Republic of Korea, 11-13 May

<b>Chairperson:</b>	Captain GORZIGLIA (IHB) – until 13 May. Mr. KRASTINS (Latvia) – from 13 May
<b>Vice-Chairperson:</b>	Mr. KRASTINS (Latvia) – until 13 May. Cdr. CONNON (USA) – from 13 May.
<b>Secretary:</b>	Captain BERMEJO (IHB)
<b>Members:</b>	Australia, Brazil, Chile, France, Germany, India, Japan, Korea, Mexico, Mozambique, Norway, UK, USA

The 7th meeting of the IHO CBSC was held in Seoul, Republic of Korea, from 11 to 13 May 2009, under the chairmanship of Captain GORZIGLIA (IHB Director). All Members were present, except the representative from Mexico. A representative from Peru participated as an Observer.

The Chairman provided an overview of the activities undertaken since the last meeting in 2008 highlighting the main matters that required special attention by the Sub-Committee during the sessions. The following main topics were considered by the Committee:

- Review of the agreed Action List, confirming that all matters were properly covered during the period;
- Discussion on the management of the IHO capacity building effort, mainly on the procedures and the management of the CB Fund;
- Discussion on the efforts in the field of capacity building assessment, with emphasis on the technical visits paid in the period. S-55 (now C-55) progress;
- Discussion on the activities associated with capacity building provision, with emphasis on the experience gained in running courses and workshops, and the importance of assessing the effectiveness of these events;
- The accomplishment of the 2008 capacity building work programme was examined, adopting decisions with regard to non-executed activities. Also the 2009 work programme was reviewed and adjusted accordingly and the 2010 capacity building work programme was agreed, after having examined the capacity building 5-year work programme and the new/updated requests made by different RHCs;
- The Sub-Committee updated the Management Plan and decided to establish a WG to develop a database that should help the decision-making process and keep a good record of the projects supported by the Capacity Building Fund;
- The Sub-Committee also reviewed three procedures and adopted the necessary changes in order to improve them. These procedures would enter into force for the next set of requests for support that the Sub-Committee might receive.

The Chairman reminded the Committee of the new IHO structure that had entered into force on 1 January 2009. In order to comply with the new Terms of Reference, the Sub-Committee elected Mr. KRASTINS (Latvia) and Cdr. CONNON (USA) as the new Chairman and Vice-Chairman, respectively. The CBSC Members emphasized that it was understood that the IHB would continue providing secretarial support, as well as the direct support of the Director in charge of Capacity Building issues.

Captain GORZIGLIA, IHB Director, assured the Sub-Committee that support would be provided to the newly elected officers to achieve the Sub-Committee's objectives.

The USA representative offered to host CBSC8 in New Orleans. The Sub-Committee gratefully accepted the invitation to hold the 8th meeting in New Orleans, USA, in May or early June 2010, on dates to be determined.



*Mr. Ye JONG Woo, Director General NORI, with CBSC Members at the 7<sup>th</sup> CBSC Meeting.  
Seoul, Republic of Korea – 11 May 2009*

## **CAPACITY BUILDING WORK PROGRAMME**

The Capacity Building Committee approved the CBC Work Programme for 2009 and the Draft Work Programme for 2010.

## **CAPACITY BUILDING ASSESSMENT**

### **Technical Visits**

The following visits were made to the countries and areas indicated below:

1. Lebanon (Coordinated by the MBSHC Chairman) 3-5 February
2. Solomon Islands (Coordinated by the SWPHC Chairman) 26-29 October

## CAPACITY BUILDING PROVISION

### Seminars/Workshops

Activity	Date and place	Area/ Countries participant
Seminar for National Hydrographic Committee (NHC) Chairmen	La Reunion, 14-15 September	SAIHC
SWPHC Technical Workshop	Port Moresby, Papua New Guinea 9 March	SWPHC

### Short Courses

Course	Date and place	Area/ Countries participant
Multibeam	Niteroi, Brazil 24-28 November	MACHC, SWATHC, SEPHC

Course	Date and place	Area/ Countries participant
MSI Technical Training Course	Oman 26-28 October	RSAHC, NIOHC
MSI Technical Training Course	Accra, Ghana 15-17 September	EAtHC

### Miscellaneous

Activity	Date and place	Area/ Countries participant
Chart Production and ENC Training Course	Brazil 26-28 October	MACHC, SWAtH and SEPHC
QA on Multibeam Surveying and Post Processing	Philippines 18-21 August	EAHC
QA on ENC Production	Philippines 25-27 August	EAHC
Hydrographic & Cartographic Training for MACHC	Venezuela 9 – 24 March	MACHC

## JOINT COOPERATION PROJECTS

### IMO - IHO

#### Future Projects

Following the decisions and Action List of the 2nd IHO-IMO-IOC meeting, the IHB coordinated with the IMO Secretariat to include various projects within the IMO ITCP. This resulted in the approval by IMO of four projects submitted by the IHB for the period 2010-2011, as follows:

#### 2010

1. 2-weeks Training Course on Basic ENC and ENC production for Central America and Caribbean.
2. Three-days Maritime Safety Information Course for South West Pacific area.

#### 2011

1. 2-weeks Training Course on Basic ENC and ENC production for Africa.
2. 2-weeks Training Course on Hydrographic Survey and Introduction to Chart production for Africa.

## 2. MISCELLANEOUS

### INTERNATIONAL PROJECTS

#### **GULF OF HONDURAS PROJECT**

This project, approved and funded by the InterAmerican Bank of Development and GEF supports the development of environmental protection in the area of Belize, Guatemala and Honduras. The IHO is providing support, through the Meso American and Caribbean Hydrographic Commission, to develop the hydrographic component of the project.

#### **BLACK AND AZOV SEAS WORKING GROUP**

Established by the Mediterranean and Black Seas Hydrographic Commission, this Working Group is in charge of developing a project of hydrographic development of the area. A meeting was held in 2009 (See under MBSHC).

#### **MARINE ELECTRONIC HIGHWAY FOR THE MALACCA AND SINGAPORE STRAITS (MEH)**

A Memorandum of Agreement has been signed between the Ministry of the Environment of Indonesia and the Batam Industrial Development Authority for the provision of the Project Management Office located in the Harbour Office of Batu Ampar. The Republic of Korea has contributed additional funds to enhance MEH-based infrastructure.

#### **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 is funded by the GEF of the World Bank and other partners. The following beneficiary countries participate in the project development: Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa, and Tanzania (See report under Work Programme 1 - Miscellaneous).

## 3. TRAINING

### **32nd MEETING OF THE FIG/IHO/ICA INTERNATIONAL ADVISORY BOARD ON STANDARDS OF COMPETENCE FOR HYDROGRAPHIC SURVEYORS AND NAUTICAL CARTOGRAPHERS Genoa, Italy, 20-25 April**

The 32nd meeting of the FIG/IHO/ICA International Advisory Board was held from 20 to 25 April 2009 at the "Circolo Militare" in Genoa, Italy, hosted by the Hydrographic Institute of the Italian Navy.

The following principal activities undertaken since the last meeting were tabled:

- i) The lack of response from the two Russian institutions running recognized courses. The institutions should have re-submitted their courses and had been informed of the fact on several occasions. In accordance with the Board rules, both courses lost their recognition.
- ii) The delay of one year granted to the Argentine Hydrographic School for the submission of its Course in Hydrography, due to a major re-organization of the Service.

iiii) The new IHO structure which was implemented on 1st January 2009.



The Board reviewed and awarded recognition to the following courses:

**COURSE**

**Royal Australian Navy H2 Hydrographic Surveying Course, Australia**

Re-recognized this course at Category 'B' with Options 1 & 6.

**Curso de Hidrografia para Oficiales; H.O. Ecuador Intermediate Course for Naval Officers and Civilians, Italian HO, Italy**

Recognized at Category 'B'. Option 1  
Recognized at Cat. 'B'

**Hydrographic survey for production of Nautical Charts. Pakistan HO.**

Recognized at Category 'B'

**Course in Hydrography for Naval Officers of Brazilian Navy, Brazil.**

Re-recognized at Cat. 'A' with Options. 1, 2, 3, 5, 6 & 7 upon receipt of complementary information

**Hydrographic Course at the Royal Naval Hydrographic School, HMS Drake, UK.**

Re-recognized at Cat. 'A'. Options 1 & 6 upon receipt of complementary information.

**Applied Hydrographic Education Certificate Programme. Middle East Technical University, Turkey.**

Recognized at Cat. 'B' and Options 1, 2, 7 upon receipt of complementary information

**MSc Course in Hydrographic Surveying of the University of Plymouth, U.K. and BSc (Honours) Ocean Exploration. University of Plymouth, UK**

Re-submission of the documentation requested for both courses. To finish by correspondence.

The proposed amendments to M-5 "*Standards of Competence for Hydrographic Surveyors*" were considered and it was decided to continue the work after the meeting and propose amendments to each section of the Standards to be considered at the 33rd meeting in Trinidad.

The Board approved the amended version of M-8 presented at the meeting. The final version will be provided to the Board Members for final inspection and approval of the 3rd edition of these Standards.

Following the mandate received from IHO and FIG “to investigate a process for recognition of national, regional and industrial schemes of individual certification and the preparation of standards for such individual certification schemes” the Board considered the document “Draft Guidelines for Recognition of Individuals”, circulated by the Chairman before the meeting. The text of the Guidelines was refined by the Board Members who approved some amendments and finalized the text. These Guidelines will be included as a section of the “Standards of Competence” following approval by the three parent organizations.

The Board also discussed the methods of funding of the Board. The Board decided to address this matter at the 1st IRCC meeting and to send a letter to the institutions with recognized courses to seek their opinion about establishing a fee for recognition and maintenance of courses.

The 33rd IAB Meeting will be held in Port of Spain, Trinidad , from 1 to 5 March 2010.

### **Change of name**

During the 31st meeting of the Board in 2008, the members agreed that the word “Advisory” did not properly reflect the role and work of the Board and therefore decided that this word should be deleted from its name. Following agreement from the three parent organizations, the name was changed to:

***International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers***

*Ref: CL 49, 54*

## **IHO-JAPAN HYDROGRAPHIC ASSOCIATION**

Under the Memorandum of Understanding (MoU) signed with the Japan Hydrographic Association (JHA) for the implementation of a Capacity Building Project, the 1st course on “Hydrographic Data Processing and Marine Cartography” was run at the UK Hydrographic Office, from 7 September to 18 December 2009, based on the Cat B UKHO Course.

A meeting will be held in Tokyo, between the IHB, Japan Hydrographic Association and UKHO representatives in February 2010, to analyze the results of the course and discuss the progress of the project and future courses.

*Ref: CL 10, 27*

## **VISIT TO THE UNITED KINGDOM HYDROGRAPHIC OFFICE TRAINING FACILITIES**



Captain GORZIGLIA (IHB Director) and Mr. NAKABAYASHI (Seconded Professional Assistant at the IHB) visited the United Kingdom Hydrographic Office (UKHO) on 21 October 2009 to brief the trainees attending the course provided under the Japan Capacity Building Project, funded by the Nippon Foundation, about the IHO and the importance of Hydrography.

Captain GORZIGLIA made a presentation that included the importance of hydrography and the IHO’s role, and called upon the students to act as ambassadors of the IHO and the profession. Captain

GORZIGLIA presented mementos and certificates for Module 1 of the course and thanked the UKHO and the instructors for their contribution towards improving the level of hydrographic cartography around the world.

## **NIPPON FOUNDATION GEBCO TRAINING PROJECT - YEAR 5**

The Nippon Foundation confirmed in early January 2009 the funding of the above mentioned program and IHO Member States were invited to consider applying for this programme. The course is intended to train a new generation of scientists and hydrographers in ocean bathymetry. The twelve-month course, leading to a Postgraduate Certificate in Ocean Bathymetry (PCOB), is held at the University of New Hampshire, USA and lasts 12 months.

### **11th and 12th HYDROGRAPHIC CATEGORY B COURSES AT THE NATIONAL HYDROGRAPHIC SCHOOL, GOA, INDIA**

The 11th Hydrographic Course for personnel from Indian Ocean Littoral States was held at the National Hydrographic School, Goa from 23 June 2008 and completed on 24 January 2009 after an eight-week afloat attachment to Indian Naval Hydrographic Ships for practical training.

The 12th Hydrographic Course at the National Hydrographic School commenced on Monday 22 June 2009 and the theoretical part (including field practical) ended on 28 November 2009. This phase was followed by an eight-week practical training phase aboard an Indian Naval Hydrographic Ship. The second phase started on 30 November 2009 and will end on 23 January 2010.

*Ref: CL 8*

### **HYDROGRAPHIC COURSES AT THE PAKISTAN NAVY HYDROGRAPHIC SCHOOL, KARACHI (2009 - 2010)**

To enhance regional cooperation in the field of hydrography, the Pakistan Navy Hydrographic Department (PNHD) decided to hold training courses for officers, sailors and civilians. The courses, conducted at the Pakistan Navy Hydrographic School, are designed to cover the requirements for the efficient planning and conducting of hydrographic surveys. The following Courses were scheduled for the Gulf countries (1 place per country) on a free tuition basis:

- a) **Basic Cartographic Course (Officers)** (7 September to 10 October 2009) - 5 Weeks)
- b) **Chief Survey Artificer (CSA) Course** (8 November 2009 to 4 December 2009) - 4 Weeks
- c) **Advanced Professional (SA IV) Course** (9 November 2009 to 13 February 2010) -14 Weeks

*Ref: CL 25*

**IHO CAPACITY BUILDING PROJECT**  
**Course in Marine Cartography**

The IHO Capacity Building Subcommittee agreed that if resources were made available, it would be important to deliver a marine cartographic course formed by the first five week module of the UKHO recognized Cat B programme, aiming at developing and promoting human capacity building of technical personnel in developing countries.

Following this decision, it was agreed to provide the necessary funding to organize such a course, to be delivered in Singapore, from 22 February to 26 March 2010. Ten candidates were selected from the more than 30 applications.

*Ref: CLs 59, 76*

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## WORK PROGRAMME 3

### TECHNIQUES AND STANDARDS SUPPORT

#### 1. HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE

##### 1st MEETING OF THE IHO HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE (HSSC)

Singapore, 22-24 October

The inaugural meeting of the Hydrographic Services and Standards Committee (HSSC) was held in Singapore from 15-17 October 2009, hosted by Singapore. The HSSC became operational on 1 January 2009 to oversee the technical program of the IHO. The committee has taken over the role of the Committee on Hydrographic Requirements for Information Systems (CHRIS) as well as assuming responsibility for other technical activities of the IHO.



The meeting was attended by 72 delegates from 28 countries together with representatives from nine Non-Governmental International Organizations (NGIO's) and sister intergovernmental organizations. The work of HSSC's ten subordinate Working Groups was examined. Of particular note was the completion of a new geospatial data transfer standard – S-100, to be known as *The Universal Hydrographic Data Model – UHDM*. As a result, the HSSC decided to recommend that IHO Member States adopt S-100 as an active standard from 1 January 2010.

The S-100 UHDM and its associated on-line registry, maintenance and governance infrastructure have been created specifically to encourage the widest possible use of hydrographic and related data and products in conjunction with other geospatial datasets and applications. An important consideration for the HSSC was that the introduction of S-100 will not have any adverse impact on the production of ENC's and ECDIS that rely on the S-57 standard.

Other notable topics included ongoing work on revising S-52 and its appendix 1 giving guidance on ENC updating procedures, development of guidelines for encoding temporary and preliminary ENC updates, drafting terms of reference for regional charting groups, monitoring the worldwide development of Marine Spatial Data Infrastructures (MSDI), revising procedures for making changes to IHO technical standards and specifications, the use of real-time tidal information in ECDIS, and future applications based on S-100 for ECDIS and also the e-Navigation concept under development by the International Maritime Organization (IMO).

**18th AND 19th MEETINGS OF THE TRANSFER STANDARD MAINTENANCE AND  
APPLICATION DEVELOPMENT WORKING GROUP (TSMAD)**

Ottawa, Canada, 4-8 May  
Sydney, Australia, 26-30 October

**Chair:** Mr. GREENSLADE (UK)  
**Vice-Chair:** Mr. DÉNIEL (France)  
**Secretary:** Mr. PHARAOH (IHB)  
**Members:** Argentina, Australia, Brazil, Canada, Denmark, Estonia, Finland, France, Germany, Italy, Japan, Republic of Korea, Latvia, Nigeria, Netherlands, Norway, Slovenia, Spain, Singapore, Sweden, UK, USA, IHB

- 1) Participants representing twelve IHO Member States and eight stake holder organizations attended the combined TSMAD / DIPWG 18th meeting that took place at the Canadian Hydrographic Service (Ottawa, Canada) from 4-8 May 2009.

The TSMAD meeting focused mainly on issues pertaining to the development of the ENC product specification (S-101), and associated portrayal requirements.

Reports were also provided on the status of some associated working group activities. The ENC Updating Working Group (EUWG) reported on its research concerning the use of Temporary and Preliminary (T&P) notices, and the development of a “best practices” guidance document. A new version of the S-58 (Recommended ENC Validation Checks) document was discussed and several outstanding issues were resolved during a breakout work session. The status of S-100, including its proposed content and management structure was discussed. Reports were also provided on the status of ENC Encoding Bulletins, S-100 outreach activities, the implementation of dynamic tidal information, the management of the IHO Registry and the work of the Data Quality Working Group.

- 2) IHO Member State participants from Australia, Canada, Denmark, Finland, France, Germany, Japan (JHA), Netherlands, New Zealand, Norway, South Africa, Sweden, UK, USA (NOAA, NGA, IGHE) attended the 19th meeting. Representatives from the following industry stakeholders also participated in the meeting; CARIS, ESRI, Electronic Chart Centre, IIC Technologies, International Centre for ENC’s (IC-ENC), Jeppesen, L-3 Nautronix and Seven Cs. A representative from the United Nations Division for Ocean Affairs and Law of the Sea (UNDOALOS) also participated in the meeting.



- 3) The meeting commenced with a reminder of the sad news concerning the death of the Vice Chairman, Mr. Don VACHON who had passed away shortly after the 18th TSMAD meeting that had been hosted by the Canadian Hydrographic Service in May. Don VACHON had been a strong advocate for the development of the S-100 standard, and was the first chairman of the sub-working group set up to undertake the work of this new standard. Jean-Luc DÉNIEL from the French Hydrographic Office (SHOM) was unanimously elected as the new TSMAD Vice Chairman.
- 4) After several years of development work, it was reported that the S-100 standard had been completed and had been endorsed for release by the HSSC.
- 5) During 2009 TSMAD also produced a new version of the S-58 publication - *Recommended ENC Validation Checks* and a new S-57 Supplement. The primary focus of future TSMAD work will be the production of the next S-101 ENC Product Specification.

### **10th and 11th MEETINGS OF THE STANDARDIZATION OF NAUTICAL PUBLICATIONS WORKING GROUP (SNPWG)**

Norfolk Virginia, 23 to 27 February

**Chair:** Mr. ACLAND (UK)  
**Deputy Chair:** Mr. NYBERG (USA), then  
 Mr. SCHROEDER-FUERSTENBERG (Germany)  
**Secretary:** Mr. AAGAARD (Denmark)

The 10th SNPWG meeting took place at the Nauticus Museum in Norfolk Virginia, USA. Members from Brazil, Denmark, France, Germany, Japan, Norway, UK and the USA attended. Representatives from CARIS, Jeppesen, IS Interschalt Systems and the University of New Hampshire (CCOM) also participated in the meeting.

The Chair, Mr. ACLAND (UK) highlighted several initiatives that could influence the future direction of the working group. These included the IALA e-navigation work relating to the use of virtual navigational aids (e.g. buoys), and the International Association of Harbour Masters Association work to standardize the reporting of harbour information.

The deputy chair Mr. NYBERG (USA) informed the meeting that he would no longer be able to participate in the WG meetings due to work commitments. He has been an active member since its inception. Mr. SCHROEDER-FUERSTENBERG (Germany) was unanimously elected as the new deputy chair.



*SNPWG10 – aboard the USS WISCONSIN*

As much of the data modeling work for nautical publications has been completed, the working group focused on three development tasks which included portrayal of nautical publications information, producing a product specification for pilot information and a test data set.

Mr. SCHWEHR (University of New Hampshire - CCOM) made a presentation demonstrating how nautical publications information can be portrayed using 3 dimensional visualisation applications.

Mr. NEUMANN, from *Intershalt Systems* Training Division provided some useful insight into EDCIS training and how mariners use ECDIS. *Intershalt* have offered to test nautical publications products, and provide feedback from mariners.

The 11th Standardization of Nautical Publications (SNPWG) meeting took place at the IHB, Monaco between from 7 to 11 September 2009. The meeting was attended by representatives from Denmark, Estonia, France, Germany, Korea, Japan, Norway, the U.K. and the U.S.A. Industry participants from CARIS, Jepsen and NOVACO also attended the meeting.



An important topic discussed during the meeting was how ENC and Nautical Publications (NP) data could be integrated within an ECDIS – noting that certain ENC features and NP features may be closely associated and would require a linking mechanism.

In response to work tasks set at the 10th meeting, Germany provided an outline of a data model for waterways information. This also included the development of a draft product specification. The representative from Jepsen Marine provided a presentation on the development of a test-bed dataset for pilot information. This included the production of a feature catalogue, and product specification based on the SNPWG model, the S-100 standard and the S-101 draft specification. Japan also provided an example dataset showing how JHOD sailing directions information could be converted to the SNPWG data model.

**1st MEETING OF THE DIGITAL INFORMATION PORTRAYAL  
WORKING GROUP (DIPWG)**

Ottawa, Canada, 4-8 May  
[held jointly with the 18th TSMAD Meeting]

The 1st meeting of the IHO Digital Information Portrayal Working Group (DIPWG) [Formerly, CSMWG – Colours & Symbols Maintenance WG] was hosted by the Canadian Hydrographic Service at Camsell Hall, Ministry of Natural Resources, Ottawa, on 4-8 May 2009. This meeting was held jointly with the 18th TSMAD Meeting, with Mr. Colby HARMON (USA-NOAA) chairing DIPWG-1 and Mr. GREENSLADE (UKHO) chairing TSMAD-18. The 40 attendees from HOs, the private sector and the IHB were welcomed by the Canadian Hydrographer, Dr. NARAYANAN.

A progress report was presented on the development, under contract to the IHB, of the S-100 portrayal model. Based on ISO 19117, the model is populated in an XML format from the current IHO Presentation Library. This will result in the S-100 portrayal register. The meeting endorsed the work accomplished to date and agreed that contract work be continued so as to include S-101 portrayal. Translation into XML of the existing Conditional Symbology Procedures (CSPs), carried out under contract to USA-NOAA, was also presented.

Symbology for AIS-equipped Aids to Navigation (AtoNs) and virtual AIS was discussed, based on IALA and IMO/MSC86 papers. The meeting acknowledged that IHB would suggest at MSC86 that the usefulness and applications of virtual AIS be clarified, and that any charting implication be referred to the IHO.

A draft revised version of S-52, incorporating all components of the existing S-52 into one single document, also taking into consideration the latest issues of the IMO performance standards for ECDIS and the IEC ECDIS test standard (IEC 61174), was presented and approved by the meeting.

Following a proposal from Sweden, there was discussion on text placement on ECDIS, and on whether clutter reduction / improved legibility can better be achieved through encoding cartographic attributes, or additional portrayal rules. Another Swedish proposal relating to ENC cell loading strategy depending on display scale and to be implemented when zooming in/out, was agreed upon in principle.

A “deferred” amendment of the current IHO Presentation Library for ECDIS, i.e. Edition 3.4 – January 2008, containing corrections to minor deficiencies identified by DIPWG and TSMAD, was discussed and agreed.

**7th MEETING OF THE IHO DATA PROTECTION SCHEME WORKING GROUP (DPSWG)**  
IHB, Monaco, 31 March - 1 April

The IHO Data Protection Scheme Working Group (DPSWG), which is in charge of developing and maintaining the IHO standard S-63 - *IHO Data Protection Scheme*, held its 7th meeting at the IHB, Monaco on 31 March and 1 April 2009. The meeting was chaired by Mr. PRITCHARD (UK) and was attended by 11 representatives from the IHO and the private sector, including two participants via telephone link.

The meeting aimed at reviewing the implementation of S-63 edition 1.1 since its publication in early 2008 and at identifying the problems encountered by S-63 users, whether as Data Servers or OEMs. The IHB reported that, as of March 2009, 119 OEMs and 22 Data Servers had received S-63 accreditation from the IHB acting as S-63 Scheme Administrator. Most of the OEMs are ECDIS/ECS manufacturers and/or software developers. Data Servers include private companies, HOs and RENCs. It was realized that not all S-63 users had implemented edition 1.1, i.e. a number of them were still using the previous edition 1.0 which created compatibility problems between Data Servers and OEMs

having different implementations of S-63. It was agreed that the IHB would contact all S-63 users, urging those who have not yet moved to edition 1.1 to do so as soon as possible.

As a result of the above review, a list of proposed amendments to S-63 edition 1.1 was agreed, based on experience gained since its publication. These changes would be incorporated in a revised edition 1.1.1 of S-63 to be published in due course. The meeting also considered the potential areas of improvement for S-63, which will result from the publication of S-100 and S-101.



*Participants in the 7th DPSWG Meeting, including two via telephone link (inset)*

### **3<sup>rd</sup> MEETING OF THE IHO MARINE SPATIAL DATA INFRASTRUCTURE WORKING GROUP (MSDIWG)**

IHB, Monaco, 2-3 April

The 3<sup>rd</sup> meeting of the IHO Marine Spatial Data Infrastructure Working Group (MSDIWG) took place at the IHB on 2-3 April 2009. The meeting was chaired by Mr. PEPPER (UK) and comprised nine participants, including one via telephone link, representing the HOs of Australia, Finland, France, Germany, Norway, UK, USA-NOAA and the IHB.

The main purpose of the meeting was to review and complete Guidelines for HOs on MSDI, a draft of which had been prepared by the Chairman in advance of the meeting. These guidelines are organized into 3 parts:

- Part I - *All about SDI*, providing general information on SDI/MSDI;
- Part II - *Getting Ready for SDI*, explaining the role, benefits, challenges, etc. for HOs;
- Part III - *SDI – Making it Happen!* detailing the requirements and processes to be followed by HOs to contribute to, or develop an SDI/MSDI.

An improved version of the guidelines was completed during the meeting and was subsequently adopted by the IHO as IHO document C-17 - *Spatial Data Infrastructures: "The Marine Dimension" - Guidance for Hydrographic Offices*.

The meeting also discussed an MSDI Capacity Building plan and an MSDI Stakeholders Involvement plan.

### **3rd INTERNATIONAL ECDIS CONFERENCE**

Singapore, 19-21 October

The 3rd International ECDIS Conference was held in Singapore from 15-17 October 2009. Captain WARD presented the keynote speech. The conference concentrated on the forthcoming requirement for an increasing number of vessels to use ECDIS for navigation.

Over 300 delegates heard a range of views and experiences from mariners and shipping companies already using ECDIS. The consistent message that they delivered was: ECDIS improves navigation safety, is welcomed by mariners and it saves money. Their principal words of caution were that mariners must be properly trained to use ECDIS.

### **S-52 REVISION MEETING**

IHB, Monaco, 26-27 March

An *ad hoc* group of the IHO Digital Information Portrayal Working Group (DIPWG) met at the IHB, on 26-27 March 2009, to undertake a revision of IHO Publication S-52: "*Specifications for Chart Content and Display Aspects of ECDIS*". CHRIS-20 (Niterói, Brazil, November 2008) directed DIPWG to "undertake a revision of S-52, including all annexes" in order to take account of the adoption by IMO in December 2006 of revised *Performance Standards for ECDIS* and the transfer of S-52 Appendix 3 *Glossary of ECDIS-related* to the IHO Hydrographic Dictionary S-32, and with a view to simplifying S-52.

The group identified all operational specifications of the existing S-52 (main part) which were moved to the IMO PS for ECDIS and undertook to develop a single document incorporating the existing Appendix 2 of S-52 *ECDIS Colours & Symbols Specifications* and the remaining specifications of S-52 on chart content. The resulting document, entitled *S-52: Specifications for Chart Content and Display Aspects of ECDIS* which focusses on ECDIS portrayal aspects, was submitted to the Hydrographic Services and Standards Committee (HSSC) at its inaugural meeting in Singapore in October 2009. The *IHO Presentation Library for ECDIS* will become an annex to the revised S-52. The group did not revise Appendix 1 *Guidance on Updating the ENC*, as the recently formed ENC Updating Working Group (EUWG) was already tasked to review this document.

### **1st MEETING OF THE TIDAL AND WATER LEVEL WORKING GROUP (TWLWG)**

Rio de Janeiro, Brazil, 30 March – 1 April

The 1st meeting of the TWLWG was held in Niteroi, Rio de Janeiro, Brazil from 30 March to 1 April 2009. Representatives from Australia, Brazil, Canada, Chile, Finland, France, Norway, Portugal, Spain, UK, USA, Venezuela and the IHB attended the meeting. Mr. PILLICH, Expert Contributor, and Cdr. CAVALCANTE, IOC/GLOSS observer, also attended.

Captain TORRES, on behalf of VAdm. PALMER FONSECA, the Brazilian Director of Hydrography and Navigation, opened the meeting. He commented on the valuable assistance on tidal matters that Brazil had received from WG Member States following Brazil's first attendance at the former Tidal Committee meeting in Canada in 2007. Mr. GILL (USA) welcomed delegates to his first meeting as Chair.

Topics discussed included: a standard for digital tide tables Capacity Building water level issues in non-tidal areas such as the Baltic and the dynamic application of tides in ECDIS.

The meeting included a visit to Isla Fiscal, the former headquarters of the Brazilian Directorate of Hydrography and Navigation, now a museum, and the home of the Brazilian primary tide gauge.

The meeting unanimously elected Mrs. PINEAU-GUILLOU (France) as the Vice-Chair.

### **6th MEETING OF THE CHART STANDARDIZATION AND PAPER CHART WORKING GROUP (CSPCWG)**

Monaco, 1-3 December

The 6<sup>th</sup> meeting of the Chart Standardization and Paper Chart Working Group (CSPCWG) took place at the IHB on 1-3 December 2009, under the Chairmanship of Mr. Peter Jones (UKHO). The 25 participants represented the HOs of Australia, Brazil, Canada, Denmark, Finland, France, Germany, Korea (Rep. of), Latvia, Netherlands, Norway, Spain, Sweden, UK, USA (NGA and NOAA) and the IHB. Below is a summary of the main points discussed.

Distinction between ‘foul area’ (danger to surface navigation) and ‘foul ground’ (no danger to surface navigation) was clarified.

Assuming that AIS ‘virtual’ aids to navigation would be used in the future in some situations, the meeting agreed on a proposed IHO symbology to depict them on a chart.

Symbology was agreed for the depiction on charts of oscillating directional lights, floating wind turbines, areas being dredged, floating waste bin, fish aggregating devices and sub-surface obstructions (ODAS)

Finalization of the new section B-600 of S-4 *Chart Maintenance* and of a new edition of S-49 *Standardization of Mariners’ Routeing Guides* was acknowledged.



*Participants in the 6<sup>th</sup> CSPCWG Meeting*

**1st MEETING OF THE NEW WORLD-WIDE NAVIGATIONAL WARNING SERVICE  
SUB-COMMITTEE**

IHB, Monaco, 18-21 August

**Chair:** Mr. DOHERTY (USA)  
**Secretary:** Lt. Cdr. SHIPMAN (IHB)  
**Members:** Argentina, Australia, Brazil, Chile, Croatia, Ecuador, Egypt, France, Germany, Greece, India, Iran, Italy, Japan, Monaco, New Zealand, Pakistan, Peru, South Africa, Russia, Spain, Sweden, Turkey, UK, WMO, WMO-ETMSS, IMO, IMSO.

The name and Terms of Reference of this Subcommittee (previously CPRNW) were changed in July.

The 1st meeting of the new WWNWS Sub-Committee was held at the IHB, in Monaco, from 18 to 21 August 2009. The meeting was attended by 24 delegates from 14 IHO Member States, the International Hydrographic Bureau (IHB), the World Meteorological Organization (WMO), the International Mobile Satellite Organization (IMSO) and Inmarsat and included representatives of 12 NAVAREA Co-ordinators.

WWNWS1 reviewed the draft revision of the International SafetyNET Manual prepared by the Document Review WG and made some further amendments prior to further review by WWNWS and circulation to IHO Member States for approval and subsequent submission to COMSAR 14. Once the SafetyNET Manual has been forwarded to IMO the Document Review WG intend to start work on a revision of the NAVTEX Manual.

WWNWS reviewed progress on the expansion of the WWNWS into Arctic Areas and identified the information required to complete the tasks assigned to the Joint IMO/IHO/WMO CG on Arctic MSI Services in order to prepare the CG report to COMSAR 14. Two representatives from the company Iridium gave a presentation and answered questions regarding their company's satellite service capabilities. They indicated that Iridium was likely to request to become a GMDSS provider at MSC87 in May 2010

The Sub-Committee received MSI self assessments from all twenty one NAVAREAs. Reports were also received from the Chairman of the IMO NAVTEX Panel, the IMO SafetyNET Panel and the World Meteorological Organization (WMO) all of whom attended the meeting.

It was noted that IMO COMSAR would undertake a "*Scoping Exercise to establish the need for a review of the elements and procedures of the GMDSS*". It was agreed that this was an important item which needed to be considered alongside e-navigation. It was essential that the WWNWS, and individual NAVAREA Co-ordinators, participated fully in the debate at IMO.

The requirement for "Contingency Planning" was discussed. The importance of this matter was endorsed noting the need that it cover the whole MSI process from the point where information was sent to the co-ordinator to its reception by the mariner.

The meeting received reports on the preparations made, and those being made for the delivery of two MSI training courses: one for the EAtHC in Accra, Ghana, in September and one for the NIOHC and RSAHC in Oman, in October. Further courses were planned for 2010 and 2011.

The meeting unanimously elected Captain LACROZE (France) as its Vice-Chairman.

*Ref: CLs 38, 46*

**ADVISORY BOARD ON THE LAW OF THE SEA****16th ABLOS BUSINESS MEETING (ABLOS 16)**

Bali, Indonesia, 4-5 August

<b>Chair:</b>	Prof. RIZOS (Australia)
<b>Vice chair:</b>	Mr. CARLETON (UK)
<b>Members:</b>	Dr. GRZETIC (Croatia), Mr. TANI and Prof. KUSUNOKI (Japan), Cdr. BASHIR (Pakistan), Prof. SJÖBERG (Sweden), Prof. BISNATH (Canada), Mr. BLICK (New Zealand), Captain NAUTIYAL (India), Mr. BROWN (UK).

The 16th ABLOS Business Meeting was held in Bali, Indonesia, from 4-5 August 2009. The meeting, which was hosted by BAKOSURTANAL, the Indonesian Mapping Agency, was timed to coincide with an “International Seminar on the Technical Aspects of the Law of the Sea”, the South East Asia Survey Conference (SEASC) and a meeting of the United Nations Group of Experts on Geographical Names (UNGEGN). The IHB was represented by VAdm. MARATOS and Lt.Cdr. SHIPMAN.

Revised ToR were agreed, a Capacity Building Course reviewed and initial planning for the 6th ABLOS Conference undertaken. The Conference will be held in Monaco in October 2010 and will be titled: “*Contentious Issues in UNCLOS – Surely Not?*”.

VAdm. MARATOS took the opportunity of the co-located meetings to meet and discuss issues with Mrs. KERFOOT, the Chair of UNGEGN.

## **GEBCO PROJECT**

### **AD-HOC GEBCO TECHNICAL SUB COMMITTEE ON OCEAN MAPPING (TSCOM) MEETING**

Silver Spring, USA 18-20 May

**Chairperson:** Dr. SMITH  
**Secretary:** Dr. WHITMARSH  
**Participants** NOAA, IHO DCDB, NERC, BODC (UK), Japan, IHB, Sweden  
 (University of Stockholm)

The GEBCO TSCOM held an ad-hoc meeting on 18 and 20 May 2009 to discuss issues relating to the production of future GEBCO grids and the management and use of source data from distributed data centres. Reports were provided on the present state of the bathymetric grids and planned updates. Some of the issues discussed during the meeting included shortcomings of the existing grids, additional sources of bathymetry, the development and use of a common metadata format for bathymetric data, improving liaison with users of the gridded products, the use of a spatial database for harmonising source data, cooperation with other bathymetric mapping projects and the use of higher resolution grids to improve GEBCO grids

### **GEBCO 2009 MEETINGS**

SHOM, Brest, 22 September – 2 October

The 2009 series of GEBCO meetings were hosted by the Service Hydrographique et Océanographique de la Marine (SHOM) in Brest, France on consecutive dates from 22 September to 2 October. The IHB was represented by Ing en chef HUET (SCUFN), Mr. PHARAOH (TSCOM), Captain GORZIGLIA and Lt. Cdr. SHIPMAN (GGC).

#### **Sub-Committee on Undersea Feature Names (SCUFN) 22 – 25 September**

The 22nd meeting of the GEBCO Sub-Committee on Undersea feature names (SCUFN) was held under the chairmanship of Dr. SCHENKE from the *Alfred-Wegener-Institut für Polar und Meeresforschung* (AWI – Germany). There were 25 participants, including nine of the 12 SCUFN members. The meeting welcomed Cdr. ALBERONI (Brazil) and Dr. STAGPOOLE (New Zealand), as new members. Ms. TAYLOR (USA) was unanimously elected Vice-Chair of SCUFN. The main issues discussed at the meeting were:

- Following the publication in 2008 of IHO-IOC B-6: “Standardization of Undersea Feature Names” as an English/French version, the following language versions have been completed and published: English/Korean, English/Japanese and English/Russian. An English/Spanish version is still under preparation.

A number of naming proposals were considered, in particular:

- 10 proposals from the Brazilian Navy Hydrographic Center in the SW Atlantic;
- 13 proposals from the Instituto Oceanográfico de la Armada, Ecuador, in the SE Pacific;
- 8 proposals from the Hydrographic and Oceanographic Department of Japan in the NW Pacific;

- 6 proposals from the Korean Committee on Marine Geographical Names in the NW Pacific; and
  - 2 proposals from the State Scientific Centre “Yuzhmorgeologiya” of Russia in the NW Pacific.
  - In total, the Sub-Committee “accepted” 30 new undersea feature names for inclusion in the GEBCO Gazetteer.
- Ms. TAYLOR demonstrated a geospatially enabled database and Web-based interface for the GEBCO Gazetteer of undersea feature names. This application, which is now operational, has been developed at the NGDC – also the IHO Data Centre for Digital Bathymetry (DCDB) – in collaboration with the British Oceanographic Data Centre (BODC).

The Sub-Committee agreed that any future SCUFN meetings will take place as far as possible in conjunction with the other GEBCO meetings, i.e. GGC and TSCOM, in order to minimize travel costs for those SCUFN members also involved in GGC and/or TSCOM.



### **Technical Sub-Committee on Ocean Mapping (TSCOM) 28 – 30 September**

The 25th meeting of the GEBCO Technical Sub-Committee on Ocean Mapping (TSCOM) took place under the chairmanship of Dr Walter Smith from National Oceanic and Atmospheric Administration (NOAA), U.S.A.

Some of the issues discussed during the meeting included:

- The new GEBCO\_08 global bathymetric grid. This continuous terrain model was generated by combining measured depth data (collected by ships) with satellite-derived depth estimates in regions where no data are available. The grid covers ocean and land areas with 30 arc-second spacing. It can be downloaded (together with free viewing software) from the GEBCO web site.
- The release of data collected under the ice in the Arctic region by U.S. submarines between 1993 and 2000. This includes more than 13 000 data points which have been made available for improving the GEBCO bathymetry.

- Bathymetry provided by IHO Member States to improve the GEBCO grid in shallow water areas where there is a great shortage of data. More than twenty Member States have contributed soundings derived from ENC's for this purpose.
- The introduction of Google Ocean, and future cooperation between Google and GEBCO.

Very interesting tours of SHOM and IFREMER (L'Institut Francais de Recherche pour l'Exploitation de la Mer ) were also provided during the meeting.

The TSCOM also organized and participated in, the 4th GEBCO Science Day which was held at the Oceanopolis aquarium and discovery park. This comprised oral and poster presentations on a wide range of topics relating to bathymetric mapping. Presentations on the Litto3D project, exploring the oceans in Google Earth, the UNEP Shelf program, the Olex global sounding database, bathymetric mapping activities around Israel and the Arctic Ocean and several other topics were provided. A full list of presentations is available from the GEBCO website

### **GEBCO Guiding Committee (GGC) 1 – 2 October**

<b>Chair:</b>	Mr. MONAHAN (Canada) (IHO)
<b>Secretary:</b>	Prof. WHITMARSH (UK) (IOC)
<b>Members:</b>	IGA CAILLIAU (France) (IHO)
	Dr. FALCONER (New Zealand) (IOC)
	Lic. FRIAS (Mexico) (IOC)
	Dr. JAKOBSEN (Sweden) (IOC)
	Dr. FOX (USA) (IHO)
	Dr. SCHENKE (Germany) (IOC)
	Dr. TURKO (Russia) (IOC)
	Dr. YASHIMA (Japan) (IHO)
	Cdr. LUSIANI (Italy) (IHO)

The GGC met under the chairmanship of Mr. MONAHAN, the IHO member from Canada. Apologies had been received from Cdr. LUSIANI, the IHO member from Italy and from Lic. FRIAS SALAZAR, the IOC Member from Mexico. Dr. HYUN SUNG from Korea, the new IHO member replacing Mr. MONAHAN, who was stepping down from the GGC after this meeting, and Ms. TAYLOR, Director of the IHO Data Centre for Digital Bathymetry (DCDB) along with numerous Scientific Advisors were also present.

This was the first meeting held since the establishment of the revised IHO Committee Structure and the new ToR and RoP approved by IHO and IOC in 2008. The meeting received reports from its parent organizations and subsidiary bodies and from the IHO DCDB. The meeting considered a proposal from two members for the establishment of a new Sub-Committee on Regional Undersea Mapping (SCRUM). This received widespread support from the meeting although it was agreed that more work and liaison with other bodies, particularly the IOC Regional Mapping Projects, were required prior to formal establishment. It was agreed to establish the SCRUM on an interim basis whilst further work was conducted. This work would be led by Drs. JAKOBSON and FOX who made the initial proposal. The IHB viewed this as a positive step as it would realise the view for "Ocean Mapping" originally proposed by the IHB at the GGC meeting in La Spezia in 2004.

Dr. SMITH, Chairman of TSCOM, reported on the very successful attendance of the Manager of *Google Ocean*, Ms. FOULKES, at the TSCOM meeting. A large step forward had been taken in convincing *Google Ocean* that GEBCO were serious players who could provide Google with a one-stop shop for their ocean mapping requirements. This was considered to be of great benefit to both GEBCO and Google. The meeting agreed that Dr. SMITH should be the principal point of contact with *Google Ocean*.

Options for further development of the GEBCO World Map, prepared by the Nippon Foundation (NF) / GEBCO scholars under the direction of Dr. JAKOBSSON, were considered and several ideas for further consideration developed. Mr. ANDERSON showed several “Globes” which had been prepared by UK and Chinese companies depicting the GEBCO World Map. It was agreed that further work was required prior to any endorsement by GEBCO and public sale and that Bob Anderson would continue this work.

Dr. SMITH, and Ms. WEATHERALL, British Oceanographic Data Centre (BODC) - GEBCO Digital Atlas Manager, reported on the work undertaken with the GEBCO Grids. Currently there were two grids, the GEBCO 1 minute grid, based largely on legacy data from the 5th Edition of Paper Charts, and the recently released GEBCO 30 second grid which included altimetry data where “real” soundings were not available. It was agreed that resources did not permit the maintenance of both grids and that all effort should be focused on maintaining and improving the 30” grid.

Dr. FALCONER, Vice Chairman, in his role as Chairman of the NF / GEBCO Training Project Management Committee reported on recent developments. The NF had continued to fund students to attend the Post Graduate diploma course at the University of New Hampshire. The original proposal to the NF had also envisaged some further “Work packages” and “Fellowship” work but these ideas had not been funded by the NF. The NF had expressed their great satisfaction for the outcome of this training project and were now considering some further elements for its continuation but had requested that these not be publicized until discussions were completed.

The IHB presented proposals for a review of IHO Publication B-7 - *The GEBCO Guidelines*. The GGC thanked the IHB for this work and agreed that certain key members should progress these proposals intersessionally with the intention of finalizing a text at the next GGC Meeting. It was agreed that the current edition of B-7 should be removed from the IHO and GEBCO web sites pending this revision.

Mr. MONAHAN confirmed that he was standing down as a GGC member, and consequently also as Chairman. The GGC thanked Dave for his many years of work both before and since becoming chairman of the GGC. Whilst no longer a GGC member the GGC looked forward to his continued efforts as both a Scientific Advisor to GEBCO and as the manager of the NF / GEBCO Training Project.

The GGC unanimously elected Dr. FALCONER, IOC member from New Zealand and currently Vice-Chairman, as Chairman of the GGC and then elected Dr FOX, IHO member from the USA, as Vice Chairman.

**10th MEETING OF THE INTERNATIONAL BATHYMETRIC CHART OF THE  
CARIBBEAN SEA AND THE GULF OF MEXICO (IBCCA)**

Havana, Cuba, 13 February

The meeting reviewed the progress made with each of the 16 bathymetric maps of the Project. Of



these, 4 maps have already been printed (Resp: USA and Mexico); the other 12 maps are at various stages of compilation / publication. A digital bathymetric database for the IBCCA area is maintained by INEGI, Mexico, as the Chief Editor. The IHB representative stressed that all IBCCA digital bathymetric data at 1:1 million should be sent to the IHO Data Centre for Digital Bathymetry (DCDB – Boulder, Co, USA). It was agreed that Print-on-Demand would be the rule for disseminating printed versions of IBCCA maps. The idea of

establishing an IBCCA website ([www.ibcca.org](http://www.ibcca.org)), at the initiative of Colombia (CIOH), was supported.

Mexico (INEGI) and Colombia (CIOH) were confirmed as IBCCA Chief Editor and Chair, respectively.

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## WORK PROGRAMME 4 INFORMATION MANAGEMENT AND PUBLIC RELATIONS

### 1. INFORMATION MANAGEMENT

#### *IHO PUBLICATIONS*

Member States approved revised versions of Administrative Resolutions Q1.1 and R4.1 concerning IHO Publication Numbering, Classification and Pricing Policy.

The numbering of IHO publications was revised as indicated below:

<b>B</b>	Bathymetric Publications	Mainly those related to GEBCO.
<b>C</b>	Capacity Building Publications	Publications that relate or contribute to the IHO capacity building programme.
<b>M</b>	Miscellaneous – Basic Regulatory Publications	Publications of a general nature including general regulations and resolutions.
<b>P</b>	Periodic Publications	Publications that refer to periodic events or require periodic editions according to content.
<b>S</b>	Standards and Specifications	Publications that refer to standards and specifications, including guidelines.

Numbering changes were made to the following publications:

Previously	New	Title
M-2	C-2	National Maritime Policies and Hydrographic Services
M-4	S-4	IHO Chart Specifications
M-5	S-5	Standards of Competence for Hydrographic Surveyors
M-6	C-6	Reference texts and journals for training in Hydrography.
M-8	S-8	Standards of Competence for Nautical Cartographers
M-11	S-11	Catalogue of INT Charts
M-12	S-12	List of Lights
M-13	C-13	Manual on Hydrography
M-15	S-15	List of Booklets on Chart Symbols and Abbreviations published by various Maritime Countries
M-16	C-16	National Hydrographic Regulations
S-47	C-47	Training courses in Hydrography and Nautical Cartography
S-51	C-51	Manual on Technical Aspects of the United Nations Convention on the Law of the Sea
S-55	C-55	Status of Hydrographic Surveying and Nautical Charting Worldwide

Changes to the IHO publications pricing policy were also approved. IHO publications are now provided mainly through the IHO website free of charge, except in a limited number of special cases. Some documents otherwise only available free to Member States may be requested by application to the IHB.

All IHO publications are available on the IHO Web Site ([www.iho.int](http://www.iho.int)) and can be downloaded by IHO Member States.

### ***NEW OR REVISED PUBLICATIONS***

#### P-1 - International Hydrographic Review

In accordance with Administrative Resolution Q2.5.2, the first issue of the hard copy compendium of the digital International Hydrographic Review, for 2009, which was produced entirely in-house at the IHB, was distributed in December.

*Ref: CLs 15, 89*

#### P-6 - Report of Proceedings of the 4th Extraordinary International Hydrographic Conference

In August, Member States were informed about the availability of the Proceedings on the IHO Web site.

*Ref: CL 56*

#### B-6 - Standardization of Undersea Feature Names

Following publication in 2008 of the 4th Edition of the IHO-IOC publication B-6, English/French version (re: CL 96/2008), English/Russian, English/Japanese and English/Korean versions of this edition have been produced and are available from the GEBCO website ([http://www.gebco.net/data\\_and\\_products/undersea\\_feature\\_names/#features2](http://www.gebco.net/data_and_products/undersea_feature_names/#features2)). An English/Spanish version is under preparation.

#### B-7 - GEBCO Guidelines

A draft revised text was passed to the GGC in 2009 for further work.

#### B-8 - Gazetteer of Undersea feature Names

A new version of the GEBCO Gazetteer of Undersea Feature names, IHO-IOC publication B-8, was released in September. The development of a web-based map interface and on-line database for the GEBCO Gazetteer has progressed steadily, thanks to the determining support of the US National Geophysical Data Center (NGDC) – co-located with the IHO Data Centre for Digital Bathymetry. The operation of the web-based Gazetteer should start in 2010.

#### C-17 - Spatial Data Infrastructures: “The Marine Dimension” - Guidance for Hydrographic Offices

This new publication provides an informative introduction and procedural guide to establishing the role of the national hydrographic authority in a national or regional Marine Spatial Data Infrastructure (MSDI). It is supplemented by four capacity building supporting documents which are available from the MSDIWG page of the IHO website.

*Ref: CL 78*

#### C-55 - Status of Hydrographic Surveying and Nautical Charting World-Wide

Continuously updated. Last update October 2009

#### M-3 - Resolutions of the IHO

Several changes were proposed and agreed during the year. The IHB also continued to review and evaluate the content of the IHO Technical and Administrative Resolutions (M-3), proposing deletions and amendments

*Ref: CLs 1, 2, 11, 12, 13, 15, 18, 29, 30, 39, 40, 62, 69*

#### M-7 - IHB Staff Regulations, 7th Edition, June 2004

An amendment to Regulation IV.2.1.2. was approved by Member States in March.

*Ref: CL 19*

M-15 - List of Booklets on Chart Symbols and Abbreviations published by various maritime countries  
This publication was discontinued in April.

*Ref: CL 23*

P-5 - IHO Yearbook

This publication is continuously updated and is available on the WEB site only.

P-7 - Annual Report

The IHO Annual Report 2008 was produced by the IHB and distributed in printed format.

*Ref: CL 28*

S-4 - IHO Chart Specifications

The CSPCWG continued the review of Part B of S-4. Revised chart specifications B-450 to B-497 were approved by Member States, as well as revised specifications for charting 'mangroves' in B-312.4 and use of the term 'Recommended' in B-434. This completed the thorough revision of section B-400 on Hydrography and Aids to Navigation, which resulted in a new edition 3.007 of S-4 being released in December. A new section, B-600, on the subject of Chart Maintenance, was developed by CSPCWG, to be promulgated in 2010.

*Ref: CLs 20, 55, 79*

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

Generic terms of reference and rules of procedure for International Charting Coordination Working Groups (ICCWG), prepared by CSPCWG, were endorsed by HSSC for inclusion in S-11 Part A. By the end of the year, the resulting new edition of S-11 Part A had been submitted to Member States for approval. The purpose of the generic TOR / ROP for ICCWG is for Regional Hydrographic Commissions' Chairpersons to make use of them, in the development and maintenance of regional charting schemes, and the monitoring of INT charts and ENC production, in order to improve standardization in IHO charting activities.

S-11 - Part B – Catalogue of INT charts

Permanently maintained by the IHB in liaison with the 14 regional coordinators of INT chart schemes. The rearrangement of the catalogue into a single document landscape format was completed during the year and revisions were posted on the IHO website in September, as edition 2.003. The status of INT chart series at the end of 2009 is shown in the table below. In total, 22 new INT charts were published during the year.

Region	Coordinator	Commission/Committee	(1)	(2)	(3)
1 :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	70	10	4
C1 (SW Atl. Ocean)	Brazil	SWAtHC	52	18	4
C2 ( SE Pac. Ocean)	Chile	SEPHC	44	6	2
D (North Sea)	United Kingdom	NSHC & NHC	218	203	142
E (Baltic Sea)	Finland	BSICC/BSHC	230	203	65
F (Med. & Black Seas)	France	MEDINTCHART/MBSHC	241	149	72
G (East Atl. Ocean)	France	CHATINTCHART/EAtHC	171	112	53
H (SE Atl. & SW Ind. Oceans)	South Africa	SAIHC	108	68	48
I (NW Ind. Ocean)	Iran	RSAHC	110	42	7
J (North Ind. Ocean)	India	NIOHC	134	83	7
K (E. Asia & NW Pac. Ocean)	Japan	EAHC	291	80	17
L (SE Ind. & SW Pac. Oceans)	Australia	SWPHC	62	56	41
M (Southern Ocean)	IHB	HCA	102	62	13
<b>TOTAL</b>			<b>1858</b>	<b>1131</b>	<b>570</b>

(1) Scheduled (NS = Not Stated)

(2) Published

(3) Reprinted by other MS

The Chairs of Regional Hydrographic Commissions were invited to ensure that their respective INT Chart Coordinators forward updates for the relevant INT regions to the IHB on a regular basis. This should enable better maintenance of the information on the IHO website and in the relevant publications.

*Ref: CL 86*

#### S-23 - Limits of Oceans and Seas

Following a proposal from the IHB Directing Committee, Member States agreed that a working group be formed to progress a new edition of S-23. The S-23 WG had its first meeting on 1 June, in conjunction with the 4th EIHC. The IHB President, VAdm. MARATOS, and RAdm. ANDREASEN (USA) were elected Chair and Vice-Chair of the WG, respectively. The meeting agreed on ways of progressing the work of the S-23 WG, which included identifying a list of areas of possible concerns. An initial list prepared at the IHB was circulated for comments to all WG members in July. Based on the comments received, a final list was prepared and circulated for comments in November to WG members and Member States in any areas of concern, not represented on the WG. From the comments received, the IHB will draft a paper on the matter, circulate it to WG members and consider whether a face-to-face meeting is appropriate.

The edition of S-23 in force is still the 3rd edition, dated 1953.

*Ref. CLs 3bis, 22*

#### S-47 - Training Courses in Hydrography and Nautical Cartography

Continuously updated.

#### S-49 - Recommendations Concerning Mariners' Routeing Guides

A new edition of S-49 was prepared by the CSPCWG. At the end of the year, the new edition was being finalized in view of its submission to Member States for approval in early 2010.

#### S-52 – Specifications for Chart Content and Display Aspects of ECDIS

A new edition of S-52 was prepared by the DIPWG, amalgamating the main document of S-52 and its Appendix 2 (display specifications), but not its Appendix 1 (guidance on ENC updating) which is under revision by the EUWG. The new edition of S-52 takes into consideration the adoption by IMO of revised Performance Standards for ECDIS in December 2006 and the release by IEC of edition 3 of its ECDIS test standard IEC61174 in 2008. It was submitted to Member States for approval in December. Maintenance Document No. 7 of the IHO Presentation Library for ECDIS (Annex A to S-52), containing Deferred Amendment 8, was released in November.

*Ref: CLs 34, 87*

#### S-53 - Manual on Maritime Safety Information and Appendix 1

The IHB prepared a new Edition of S-53. This revised edition will also come into force on 1 January 2011 but has been available from the IHO web site since July 2009.

*Ref: CL 47*

#### S-58 - Recommended ENC Validation Checks

Edition 4 of IHO Publication S-58 "Recommended ENC Validation Checks" was made available on the IHO website ([www.iho.int](http://www.iho.int) > Publications > Catalogue > S-58). This new edition, dated June 2009, superseded Edition 3 which was released in February 2007.

*Ref: CL 45*

#### S-62 – ENC Producer Codes

A new edition 2.5 of S-62 was published in December. Changes from the previous edition relate to Rep. of Korea, New Zealand, Tunisia, Angola, Azerbaijan, Solomon Islands, Togo and the co-operating Hydrographic Offices for the Joint Production of the Bareleng -Singapore ENCs (Singapore and Indonesia).

*Ref: CL 85*

S-65 - ENC Production Guidance

A revised list of “*Specific SCAMIN Step Values for Object and Attribute Combinations*” (Appendix 1 of S-65 Annex A), prepared by TSMAD, was endorsed by HSSC, as well as “*Guidelines for encoding Temporary and Preliminary ENC updates*” (new Annex B to S-65), prepared by EUWG. The resulting new edition 1.2 of S-65 was submitted for approval to Member States in December.

*Ref: CL 80*

S-66 - Facts about Electronic Charts and Carriage Requirements

A draft edition 1.0 of this new publication was prepared by the PRIMAR & IC-ENC Joint Information WG (JIWG). At the end of the year, it was under final review at the IHB prior to its publication in early 2010 as agreed by Member States (re: CL 64/2008). S-66 will be made available in English and French versions. Spanish and Japanese versions of the original (RENC) document exist and will be referenced on the IHO website. As also agreed by Member States, the IHB will be seeking co-sponsorship of S-66 with IMO.

S-100 – The Universal Hydrographic Data Model

Edition 1.0.0 of S-100 was adopted by Member States in December as an active standard, with effect from 1 January 2010. This new geospatial data transfer standard was completed during the year by TSMAD and then endorsed by HSSC with the title *The Universal Hydrographic Data Model (USDM)*. The S-100 USDM and its associated on-line registry, maintenance and governance infrastructure have been created specifically to encourage the widest possible use of hydrographic and related data and products in conjunction with other geospatial datasets and applications. It should be stressed that the introduction of S-100 will not have any adverse impact on the production of ENCs and ECDIS that rely on the S-57 standard.

*Ref: CLs 36, 70, 83*

## **REPOSITORY OF CHARTS AND NAUTICAL DOCUMENTS**

During the year, approximately 450 new charts / editions were received and filed in the Bureau Chartroom. This included 234 INT charts. 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 forwarded to the IHB. Provision of copies of national charts is not required, except copies of the UKHO worldwide chart series. A number of ENCs were also received, as well as approximately 160 nautical publications.

## **TRANSLATION SERVICES**

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

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

## **IHB LIBRARY**

More than 500 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 2008. 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 encourages them to continue to do so.

**Work started to build up an inventory of historical IHO publications produced since the creation of the IHO.**

## MAINTENANCE OF IHB COMPUTER AND NETWORK SYSTEMS. IHO WEB SITE

No significant changes or upgrades were made to the IHB servers during 2009: however one network printer and three workstations were replaced with new equipment. Software upgrades were also applied to several IHB workstations.

Work has continued on upgrading the online Hydrographic Dictionary. The secondment of Mr. Shigeru NAKABAYASHI, from the Japan Hydrographic and Oceanographic Department, under the terms of IHO Resolution T4.2, enabled the conversion of the hydrographic dictionary into a WIKI format, and other valuable assistance with IT and GIS development tasks.

The IHO web site continues to be an increasingly important focal point for various sources of information. It provides an online resource for meeting documents, publications and other sources of information. The secondment of Dr. Moon Bo SHIM from the Korean Hydrographic and Oceanographic Administration, under the terms of IHO Resolution T4.2, assisted greatly with the development and maintenance of the IHO web site and other related tasks.

## 2. PUBLIC RELATIONS

### AWARDS

#### NATIONAL DAY OF MONACO - 19 November 2009



*Left to right: Mr. Jean-Jacques CAMPANA, Government Counsellor for Social Affairs and Health (Monaco), Ms Barbara WILLIAMS (IHB), H.E. Mr. Jean-Paul PROUST, Minister of State of Monaco, and Ms Pascale BOUZANQUET (IHB)*

An important part of the festivities organized for the National Day of Monaco is the conferring of honours and decorations by His Serene Highness Prince Albert II of Monaco. Two members of staff were awarded long service medals in recognition of their many years of loyal service at the I.H. Bureau, at a ceremony held at the Oceanographic Museum of Monaco. Pascale BOUZANQUET (France) received a bronze medal for 20 years' service and Barbara WILLIAMS (United Kingdom) a silver medal for 30 years' service.

## **WORLD HYDROGRAPHY DAY**

World Hydrography Day (WHD) for 2009 was celebrated by the IHO on Friday 5 June in conjunction with the 4th Extraordinary International Hydrographic Conference, in order to take advantage of the presence in Monaco of Heads of national Hydrographic Services and other officials. The theme of the 2009 celebration was “*Hydrography – Protecting the Marine Environment*”. The celebrations had two parts. The first one was a seminar in the Rainier III Auditorium. The President of the Directing Committee, in welcoming the participants, highlighted the importance of the WHD and its celebration in Monaco and other parts of the world. Four papers were presented during the seminar as follows:

- Dr. Savithri NARAYANAN, Dominion Hydrographer, Canada presented a paper with the title “*One-Ocean-Global responsibility*”;
- Captain Gurpreet SINGHOTA from the International Maritime Organization (IMO) presented the paper: “IMO and IHO, co-operation towards protection of the marine environment”;
- Captain Edgard CABRERA from the World Meteorological Organization (WMO) presented a paper: “*Hydrography-Contributing to better met-Ocean products and services*”, and
- Dr. Patricio BERNAL, Executive Secretary of the Intergovernmental Oceanographic Commission (IOC) and Assistant Director-General of UNESCO, presented a paper: “*Reducing coastal vulnerability to natural hazards through the application of the shallow water bathymetry*”.

The second event was a reception given by the IHB Directing Committee on the terrace of the Bureau. Members of the Monaco Government and other officials, diplomatic authorities, representatives from the maritime industry, local television and reporters and others were invited to both events.

The Bureau also received information from various Member States on the way that WHD was celebrated in various countries, in this way raising awareness on the importance of hydrography and particularly its major contribution to minimizing damage to the marine environment, from the obvious benefits of safe and reliable charts, data, information and other products.

## **CELEBRATION OF WORLD HYDROGRAPHY DAY 2009 IN JAPAN**

The Hydrographic and Oceanographic Department of Japan (JHOD) hosted the following events from 17 to 22 June to celebrate World Hydrography Day.

A meeting of Regional Directors of JHOD was held on 18 and 19 June to review current issues and the future outlook for Regional Hydrographic and Oceanographic Departments at JHOD in Tokyo. After the meeting, a reception, which was one of a chain of special events, was hosted by the Chief Hydrographer, Dr. Shigeru KATO, who welcomed the Commandant of the Japan Coast Guard (JCG), Teiji IWASAKI.



The Hydrographic and Oceanographic Museum was opened to the public from 17 to 22 June, where IHO publications, a poster and slideshow describing the IHO, “Ino-Zu (Japanese historical maps)”, and old Military Charts, were on display.

The GEOINFORMATION FORUM JAPAN 2009 which is Japan’s largest forum and exhibition for survey, map design and related computer systems was held at PACIFICO Yokohama (Convention Complex in Yokohama) from 17 to 19 June. The JHOD provided an exhibition which highlighted its activities, the importance of hydrography, and the existence of World Hydrography Day 2009.

**HYDROGRAPHIC CONFERENCE ORGANIZED BY  
THE ROYAL NAVY OF OMAN  
Muscat, Oman, 15 – 18 March**

The Royal Navy of Oman and the Hydrographic Office of Oman held a Hydrographic Conference in Muscat, from 15 to 18 March 2009, the theme of which was : “*Hydrography and its Role in Maritime Safety and National Development*”. More than 300 delegates from various States participated in the Conference, including representatives from the UKHO, NOAA, the HO of Qatar. The Under Secretary of State for Ports and Maritime Affairs, the Chief of the Armed Forces of Oman and the Chiefs of Navy, Air force and Army, together with other officials, participated in the Conference. VAdm. Alexandros MARATOS was the key note speaker of this event. There were many papers presented of hydrographic interest. VAdm. MARATOS had the opportunity to visit high level officials of Oman and discuss with them the importance of Hydrography. Omani officials will consider holding this event every two years where hydrographic issues, specifically pertaining to this region, will be examined.

A very interesting exhibition was also held alongside the Conference with the participation of many companies specialized in the production of hydrographic and cartographic instruments, software and provision of hydrographic services. Survey vessels from the USA and Pakistan visited Muscat during the Conference and they held special events for the benefit of the participants.

**PATRONAGE CEREMONY AT SHOM's HYDROGRAPHIC SCHOOL**  
SHOM, Brest, 30 September

On 30 September a Patronage Ceremony, presided by IGA Gilles BESSERO, Director General of SHOM and in the presence of the staff of SHOM and instructors and students, was held at SHOM's Hydrographic School. This important event was to welcome the students starting the year's course at the Hydrographic School.

The one-year course is aimed at improving the hydrographic skills of people who have acquired practical experience in hydrography and require formal instruction. The course is recognized as a Category B Programme by the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors.

On this occasion, Captain Hugo GORZIGLIA, IHB Director, was invited to address the gathering, which included the six students of the 2009/2010 promotion, four from the French Navy, one from the Moroccan Navy and one from the Port Authority of Congo, about the significance of becoming a hydrographic surveyor.

In his speech, Captain GORZIGLIA highlighted several subjects, including the objectives of the IHO and SHOM's contribution to the IHO work programme. He also referred to the importance of a hydrographic school being associated with an HO due to the benefits this situation offers.



*IGA BESSERO (SHOM Director General), IGA LE GOUIC (SHOM Deputy Director), Captain GORZIGLIA (IHB Director), Mrs. CARIOU ( Head Hydrographic School) and School Staff toast to the success of the Course*

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## **WORK PROGRAMME 5 GENERAL ORGANIZATION DEVELOPMENT**

### **1. IHO RESTRUCTURING**

#### **IHO WORKING GROUP TO REVIEW IHB STAFF REGULATIONS (SRWG)**

<b>Chair:</b>	Ms. HERING (Germany),
<b>Vice Chair:</b>	Ms. DAVIS (UK)
<b>Members:</b>	Mr. HINCKSMAN (Australia), Cdr. AHMAD PN (Pakistan), Ms. WARD (UK),

In accordance with Decision No 18 of the XVIIth International Hydrographic Conference (IHC), a Working Group was established in order to study and propose a new edition of the IHB Staff Regulations, under the Chairmanship of Ms. HERING (Germany). Ms. DAVIS (UK) was appointed as Vice-Chair. The IHB was represented by VAdm. MARATOS. During 2009, the Working Group progressed the revision of the Staff Regulations mainly working through correspondence. A face-to-face meeting took place in April at the UKHO where various topics were examined and a way forward was decided. It is envisaged that a draft text of a new edition of the Staff Regulations will be circulated to Member States for approval by March 2010.

#### **AMENDMENTS TO THE CONVENTION**

As reported in previous Annual Reports, the amendments to the Convention on the IHO, 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.

In accordance with Article XXI (3) of the IHO Convention, the amendments 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.

A new Technical Resolution T.6 – *Practical Implementation of Voting Processes*, clarifying the entitlement of Member States to vote on pending decisions such as amendments to the Convention on the IHO and based on advice from the Legal Advisory Committee, was approved by Member States in February.

Up to the end of 2009, the Government of Monaco had recorded the approval of the Amendments to the IHO Convention by 28 Member State Governments: **Australia, Brazil, Canada, Cuba, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Italy, Japan, Korea (Democratic Republic of), Korea (Republic of), Latvia, Mexico, Monaco, Morocco, Netherlands, Norway, Pakistan, Papua New Guinea, Spain, Sweden, Tunisia, United Kingdom and United States of America.** A majority of 48 is required.

## **2. 4<sup>th</sup> EXTRAORDINARY INTERNATIONAL HYDROGRAPHIC CONFERENCE**

The 4th EIHC was held at the Rainier III Auditorium in Monaco from 2 to 4 June 2009. 215 delegates participated from 61 Member States together with 31 observers from non Member States, International Organizations and non-Government International Organizations. Two survey vessels visited the port of Monaco during the Conference - the USN BOWDITCH and the Russian surveying ship DONUZLAV. During the Conference a very interesting commercial exhibition was held where the latest hydrographic, oceanographic and cartographic equipment and techniques were displayed.

During the first Plenary session in the morning of 2 June, Captain Rachid ESSOUSSI, the Director of the Tunisian Hydrographic Service, and Vice Admiral Fernando PALMER FONSECA, the Director of the Brazilian Hydrographic Service, were elected as President and Vice-President respectively of the Conference.

The Conference was opened on Tuesday morning 2 June by HSH Prince ALBERT II. The President of the Directing Committee and the elected President of the Conference delivered opening addresses. The Secretary-General of IMO RAdm Efthimios MITROPOULOS delivered the keynote address. Ireland and Qatar who had joined the Organization since the previous Conference presented their flags to the President of the Directing Committee, receiving them on behalf of the Organization. After the opening ceremony, HSH Prince ALBERT II officially opened the Commercial exhibition and toured the exhibits.

The Conference examined 15 proposals submitted by the ISPWG, HCIWWG, MSDIWG and Member States. The Conference approved a new definition for "Hydrography" and the revised Strategic Plan of the Organization proposed by the ISPWG. More than half a day was devoted to discussing the status on ENC production and availability. Two resolutions were adopted on the availability of ENCs that Member States should have in place by 2010 in order to support forthcoming mandatory carriage requirements for ECDIS and on the consistency and quality of ENCs in comparison with their corresponding paper charts. See also P-6, page 51.

In the margins of the Conference three events took place. The first meeting of the S-23 WG, the first meeting of the IRCC and the celebration of World Hydrography Day.

## **3. IHO MEMBERSHIP ADMINISTRATION**

### **IHO MEMBERSHIP ADMINISTRATION**

The IHB continues to be supported very effectively by the Government of Monaco through the Department of External Relations in all matters pertaining to membership of the IHO and the Directing Committee expresses its sincere gratitude to Monaco for the valuable assistance provided in this domain.

#### **New IHO Member States**

No new Member States joined the Organization in 2009.

## **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. Regrettably this last formality has not yet been completed.

*Ref: CLs1/2010, 52/90, 55/93*

### **Republic of Cameroon**

The application for membership of the IHO by the Government of Cameroon was approved by the required two-thirds of the Parties in February. The Government of Monaco, as the Depositary Government for the Convention, has invited the Government of Cameroon to deposit its Instrument of Accession to complete the IHO membership formalities. To date this last formality has not yet been completed.

*Ref: CLs 1/2010, 36/2004*

### **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.

*Ref: CLs 1/2010, 44/89, 25/90, 55/93.*

## **Pending Member States (in alphabetical order) whose applications for admission to the IHO are awaiting approval**

### **Republic of Haiti**

Haiti applied for membership of the IHO in June 2008 and reported a national tonnage figure of 5892 tonnes. Haiti's application has so far received 40 approvals out of a required 52 and the Directing Committee hopes that the approval procedure will progress rapidly.

*Ref: CLs 1/2010, 50/2008*

### **Republic of Montenegro**

Montenegro officially applied for membership of the IHO in August 2007 and reported a national tonnage figure of 18,492 tonnes. To date Montenegro's application has received 47 approvals out of a required 49 and the Directing Committee is hopeful that the missing approvals will be received in the near future.

*Ref: CLs 1/2010, 75/2007*

### **Republic of Sierra Leone**

Sierra Leone officially applied for membership of the IHO in January 2006 and reported a national tonnage figure of 110,000 tonnes. Sierra Leone's application has so far received 46 approvals out of a required 49. The Directing Committee hopes that this approval procedure will be completed in the near future.

*Ref: CLs 1/2010, 17/2006*

### **Member States whose rights and privileges have been suspended**

Of the 80 Parties to the Convention, two - the Democratic Republic of the Congo and the Dominican Republic - 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 52.

## **4. IHO WORK PROGRAMME**

In accordance with Article 8 of the IHO Financial Regulations, the IHB, through IHB CL 53/2009 requested the Finance Committee Members to review and provide comments on the proposed IHO 2010 Budget.

The proposed IHO 2010 Work Programme and Budget were prepared in line with the 2008-2012 Work Programme and the Five-Year Budget approved by the XVIIth I.H. Conference.

Member States' approval of the Proposed IHO Budget for 2010 was received in November.

Comments and/or changes proposed by Member States, if any, will be considered by the IHB when preparing the final version of these documents.

*Ref: CLs 28, 52, 53, 64*

### **SECONDMENT OF PERSONNEL TO THE IHB FROM THE REPUBLIC OF KOREA AND JAPAN**

Support from Member States to achieve the 2009 Work Programme and also the internal work at the IHB, was given by means of two secondments as indicated below:

- 1) In accordance with IHO Administrative Resolution T4.2, the Korea Hydrographic and Oceanographic Administration (KHOA), formerly known as National Oceanographic Research Institute (NORI) kindly made Dr. Moon Bo SHIM available to the IHB for a period of one year. Dr. SHIM replaced Mr. Joon Ho JIN who completed his period of secondment. Dr. SHIM has worked at the IHB primarily on activities related to the administration and maintenance of the IHO website and Web Gazetteer Program.
- 2) Mr. NAKABAYASHI from the Hydrographic and Oceanographic Department of the Japan Coastguard continued his collaboration at the IHB on secondment. Mr. NAKABAYASHI has worked on IHB's IT systems, ENC data protection scheme (S-63) administration, web GIS for Antarctica, and the creation of a new online Hydrographic Dictionary (S-32).

## **5. HOST GOVERNMENT AFFAIRS**

Relations with the Government of Monaco, as the Host Country continued to be very good. The Department of External Relations of Monaco administers requests from States to become Members of the Organization, in accordance with the procedures of Article XX of the IHO Convention and the Approval of the Protocol of Amendments to the Convention of the IHO, as decided by the 3rd Extraordinary International Hydrographic Conference in 2005.

As reported elsewhere in this report, at the end of the year, three States are awaiting approval to become Members of the Organization, Sierra Leone, Montenegro and Haiti and twenty eight Governments of IHO Member States have notified their approval of the Protocol of Amendments to the Convention on the IHO.

The Directing Committee very much appreciates the interest and support of the Government of Monaco in the renovation and maintenance of the IHB premises. The partial renovation of the chart room with the establishment of a new office, a small conference room and a special wall cupboard to store the INT charts that the Bureau holds from Member States, was completed during this year.

The Directing Committee attended the celebrations of the National Day of Monaco on 19 November, and various other events hosted by agencies and ministries of the Government of Monaco.

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**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 HYDROGRAPHIC AUTHORITIES**

### **NEW PRESIDENT OF THE GERMAN FEDERAL AND MARITIME HYDROGRAPHIC AGENCY**

As from October 2008



**Monika BREUCH-MORITZ**, born in 1953 in Andernach, Germany, followed meteorology studies under Prof. H. FLOHN at Rheinische Friedrich-Wilhelms-Universität in Bonn from 1971 to 1976. She participated in an international meteorological/oceanographic experiment on board the research vessel "Planet".

In 1977, she began a traineeship at the German Meteorological Service; from 1979, began work at the Agrometeorological Research and Advisory Office Weihenstephan at Freising. In 1989, transferred to the Federal Ministry of Transport, Building and Housing, later Federal Ministry of Transport, Building and Urban Affairs, the "Weather Service" section; responsible, inter alia, for various committees of the European Centre for Medium Range Weather Forecasts (ECMWF) in Reading, UK. Member of the German delegation preparing for attendance at the second World Climate Conference and IPCC.

From 1993 to 1995, she was Deputy Head of Section Z14 "Organisation"; from 1995, she was Head of Section "Maritime Environmental Protection, Waterways Police, Port State Control and Sea Pilotage", which included responsibility for the Federal Maritime and Hydrographic Agency of Germany. From 2007, was Head of Section "Climate Change and Environmental Policy in Maritime Shipping", focussing on the further development of environmental regulations in shipping, especially the introduction of stricter emission limits in maritime transport and climate protection.

Appointed President of the Federal Maritime and Hydrographic Agency as from October 2008.

### **NEW HYDROGRAPHER OF GREECE**

Commodore Demetrios PALIATSOS was born in Piraeus on 9 February 1957. In 1975 succeeded he entered the Hellenic Naval Academy and in 1979 graduated as an Ensign.

As a Junior Officer he served as a Navigation and Communication Officer on board the destroyer SFENDONI and the submarine AMFITRITI, and as a weapons officer on board the submarine OCEANOS. Later on, he attended the Naval School of Monterey U.S. for 2½ years, where he obtained a M.D. in Acoustic Engineering, before returning to active duty and was stationed on board the MIAOULIS destroyer as a weapons officer in 1989.

In 1991 he was Executive Officer on board the destroyers APOSTOLIS and NEARCHOS. In 1993 he was Commanding Officer on board the ERMIS (a counter intelligence ship) of the Hellenic Navy. Later he was given the chance to work for two (2) years as an Acoustic Engineer (his major) in the Submarine Updating Program, which took place at the Saiamis naval base. Afterwards he joined the Naval School of War. During 1996 he was stationed in the Navy's Headquarters and specifically in the Operations Department where he served for 5 years.

In 2001 he was called to serve as Commanding Officer for the second time in his career, this time on board the destroyer FORMION. He also served for a short period of time in the Naval Training Command, before he was stationed in Naples in 2003 as a Branch Chief in J3 Division of JFC Naples. In January 2005 he was sent to the Headquarters of CC MAR Naples, where he served as Director of Operations and Training. In September 2005 he was called back and stationed commander of PALASKAS Training Centre where he served for 2.5 years.

In March 2008 he was promoted to Commodore and was stationed in Piraeus Commander of the Aegean Naval Command.

As from March 2009, he is Director of the Hellenic Navy Hydrographic Service. He has received the following medals:

- Golden Cross of the Order of Honour
- Golden Cross of the Order of the Phoenix
- Medal of Military Excellence B class
- Medal of Excellent Command

### **DIRECTOR GENERAL OF NATIONAL HYDROGRAPHIC CENTER, ROYAL MALAYSIAN NAVY**



Captain Zaaim bin HASAN, RMN was appointed as Director General of the National Hydrographic Center, Royal Malaysian Navy, on 24 March 2009.

He was born in Bagan Datoh, Perak, Malaysia, on 7 July 1960. He Joined the Royal Malaysian Navy in 1981 and was commissioned in 1983. He has attended numerous military and hydrographic courses, including a Command Staff Course at the Malaysian Armed Forces Staff College, a Basic Hydrographic Course in USA, Marine Cartographic Courses in Canada and Japan, Advance Hydrographic Course at the University of Technology Malaysia and was awarded a Master of Science (MSc.) by the Malaysian National University.

He has held various posts in the Navy including : Commanding Officer of KD MUTIARA, KTD PENYU, Staff Officer Hydrography, Director of Hydrography Department in NHC and also member of the Malaysian Lighthouse and Aid to Navigation Authority.

### **NEW HYDROGRAPHER OF THE PAKISTAN NAVY**

Captain Muhammad ARSHAD

Captain Muhammad ARSHAD obtained his commission in the Operations Branch of the Pakistan Navy on 01 December 1986. He served on board the Pakistan fleet and he joined Hydrography in December 1990. During survey assignments onboard SV BEHR PAIMA, he undertook various duties including those of the senior surveying officer, Executive Officer and commander of the vessel. He successfully qualified in Physical Oceanography and Nautical Charting courses in Japan in 1995 and 1998 respectively. He is also a graduate of the Pakistan Navy War course. He is a Charge Surveyor and completed the Advance HM Cat A course from HMS Drake, UK. He assumed the duties of Hydrographer of the Pakistan Navy on 11 July 2009 after successful completion of the Armed Forces War course at the National Defence University in Islamabad.



### NEW HYDROGRAPHER OF KOREA

Mr. Jae Gil CHOI was appointed General Director of the Korean Hydrographic and Oceanographic Administration of Ministry of Land, Transport and Maritime Affairs on 26 June 2009.

He was born on 23 April 1955 in Iksan, Republic of Korea. In 1979, he graduated from the Korean Aerospace University.

His first job career was at Seoul Regional Aviation Administration in 1980. Thereafter, he had experience in various divisions, such as the Railroad Planning Division of Logistic Innovation Authority, Flight Safety & Security Division of the Civil Aviation Safety Authority, Planning Division of Civil Aviation Safety Authority, Location Planning Division of Territorial Policy Bureau of MLTM and so on.



### ACADEMIC BACKGROUND

Feb. 1979 Department of Air Administration, Korean Aerospace University

Feb. 1993 Department of Air Transport Management, Arizona State University

### PROFESSIONAL CAREER

Jun. '09~	Director General, Korea Hydrographic and Oceanographic Administration
Mar. '08~Jun. '09	Director General, Pusan Regional Aviation Administration
Jul. '06~Mar. '08	Director, Railroad Planning Division, Logistic Innovation Authority
	Director, Flight Safety & Security Division, Civil Aviation Safety Authority
Dec. '01~Jul. '06	Director, Planning Division, Civil Aviation Safety Authority
	Director, Location Planning Division, Territorial Policy Bureau
Jul. '97~Dec. '01	Inspector General
	Director, Transport Investment and Development Division, Transport Policy Office
	Director, Administration Division, Pusan regional aviation Administration
Dec. '92~Jul. '97	Director, International Tourism Division, Management Tourism Bureau
	Director, Administration and Management Division, Planning and Management Office
May '80~Dec. '92	Deputy Director, Aviation Bureau
	Deputy Director, Tourism Bureau

### NEW HYDROGRAPHER OF CHINA

Captain CHEN Aiping was appointed as Executive Director General of the Maritime Safety Administration (MSA) of the People's Republic of China on 8 June 2009, succeeding Captain LIU Gongchen.



Captain CHEN was born in the Jiangsu Province of China in 1957. He obtained a Bachelor's Degree at the Dalian Maritime University in 1982 and a Master's Degree at the Wuhan University of Technology in 2000. His career started with his first post at the COSCO Shipping Company, Qingdao, from 1982 to 1988. He served onboard numerous ships, with duties ranging from third officer duties, second officer to chief officer duties. Thereafter, he served as an ocean-shipping master for the Nanjing Tanker Corporation of China, a subsidiary of the Changjiang National Shipping (Group) Corporation (CSC) from 1988 to 1990. Subsequently, Captain CHEN held the post of Deputy General Manager of the CSC

Nanjing Tanker Corporation from 1991 to 1995, and then was appointed as Deputy Captain General of the Corporation in late 1995. From 1995 to 1998, he was the Vice President of the CSC.

His career at the Maritime Safety Administration began in 1998, when he was appointed Deputy Director General of Shanghai MSA, with responsibility for extensive maritime activities covering shipping safety, SAR and pollution prevention. In 2001, he was appointed Director General of Jiangsu MSA, and in 2003 he returned to Shanghai MSA where he took up the post of Director General.

After having served for more than ten years as Director General in the regional MSA, Captain CHEN joined the MSA Headquarters in Beijing, as Executive Director General in June 2009.

### **NEW HYDROGRAPHER OF THE CHILEAN HYDROGRAPHIC SERVICE**



Captain Mariano ROJAS BUSTOS was born in Valparaíso, Chile, on 27 July 1961 and, after studying in various schools in Viña del Mar, Ecuador and Punta Arenas, he joined the Naval Academy “Arturo Prat” in 1976. He graduated from the Academy in December 1982 as an Ensign.

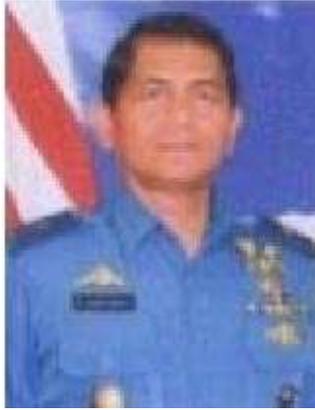
Specialized as a Staff and Navigation Officer, he is a qualified military engineer, specialized in Navigation, and is a qualified instructor in Navigation.

For more than fourteen years, he served onboard various units such as: the Destroyer “Portales”, the Transporter “Piloto Pardo”, the Submarine mother ship “Angamos”, the Destroyer “Almirante Latorre” and the landing craft “Valdivia”; he was second-in-Command of the training ship “Esmeralda”, Commander of the Fleet Tug “Galvarino” and of the oceanographic ship “Vidal Gormaz”. He has undertaken in many piloting commissions onboard foreign units in the southern channels.

Amongst his shore postings, in addition to various courses, the following should be highlighted: his work as Head of Studies and Head of the Training Section of the Operations School, Executive Assistant to the Commander in Chief of the First Naval Zone, Tactical Naval Training Centre, Head of the Executive Department, Deputy Director of the Naval Academy “Arturo Prat” and Head of the Education Directorate of the Navy.

On 17 December 2008, he took up his duties as Director of the Hydrographic and Oceanographic Service (SHOA) of the Chilean Navy.

## NEW HYDROGRAPHER OF INDONESIA



First Admiral Sugeng SUPRIYANTO was born in Bandung, West Java, on 20 December 1956 and has two children. He graduated from the Indonesian Naval Academy in 1980. His first assignment was aboard KRI SAM – 341 Eastern Fleet Command as Surface Warfare Officer Assistant. In 1995 he joined the Indonesian Hydro – Oceanographic Service as Commander of Baruna Jaya III Hydro – Oceanographic Research vessel, and from May 1999 to August 2002 he was the Head of the Chart Division. In 2002, he was appointed Commander of the Hydrographic Vessels Survey Unit. After attending the Indonesian Military Command and Staff College, he was promoted to the post of Deputy Chief Hydrographer until 2007. In April 2007 he became Commander of the Sea Security Group of Eastern Fleet.

Finally, in December 2008, he returned to the Indonesian Hydrographic Office as Chief Hydrographer until now and is responsible for all Meteorological, Hydro – Oceanographic and charting issues for the whole Indonesian area. As Chief Hydrographer, his main duties include the negotiation of new and revised bilateral cooperation arrangements with foreign Hydrographic Offices.

He also works together with hydrographic offices in other countries and attends Hydrographic Society meetings, with all IHO and EAHC Members to share and discuss ENC topics.

## NEW HYDROGRAPHER OF ECUADOR

Captain Manuel Patricio GOYES ARROYO



### ACADEMIC PROFILE

- Graduated, with distinction, from the US Naval War College;
- Master in Oceanography, with specialization in Marine Geophysics, University of Texas;
- Master of the Institute of Diplomacy in International Organizations, State University of Guayaquil, where he was awarded the Prize “Contenta”;
- Graduate in Naval Sciences of the Naval University “Comandante Rafael Morán Valverde”;
- Graduate in Continental Security and Defence, Interamerican Defence College, in “International Business Administration”, University of Georgetown;
- Graduate in High Administration of Oil Negotiations, Central University of Ecuador.

### PROFESSIONAL EXPERIENCE

- Director of the Oceanographic Institute of the Navy (currently);
- Member of the Second Expedition of Ecuador to the Antarctic;
- Commander of the Research Vessel “ORION”;
- Deputy Manager of the Directorate of Maritime Affairs;
- Regional Director of the Merchant Navy of the Guayas;
- Captain of the Guayaquil Port;
- Defence Attaché representing Ecuador in London;

- Permanent Representative of Ecuador at the International Maritime Organization; in this period he obtained for Ecuador the statement of Galapagos as a particularly sensitive marine area;
- Member of the Board of Directors of the Maritime University of Malmö;
- Executive Vice-President of “Petroecuador”;
- Representative of Ecuador in specialized negotiations and conferences: encoding of Part XI of the United Nations Convention on the Law of the Sea;
- International Authority of the undersea bottoms;
- Scientific Committee for Antarctic Research;
- System of the Antarctic Treaty;
- Ecuador-Peru Border Commission.

### **PUBLICATIONS**

- Monograph: “Estado actual de la Minería oceánica y su relación con el nuevo Derecho del Mar, Perspectivas Nacionales (Aguena, 1992)” (*Present Status of the Oceanic Mining and its relationship with the new Law of the Sea, National Perspectives*);
- Monograph: “Análisis histórico y diplomático del Diferendo limítrofe Ecuador-Perú, Impases subsistentes (Aguena, 1997)” (*Historical and diplomatic analysis of the bordering disagreement Ecuador-Peru, subsisting dead-ends*);
- Thesis: “It is time for Ecuador to sign the Law of the Sea Treaty” (US Naval War College, 1993);
- “La Delimitación Marítima en los Países del Sistema Interamericano y su relación con la Seguridad Internacional (Interamerican Defense College, 1999)” (*Maritime delimitation in the interamerican system’s countries and its relationship with the International Security*).

### **CHAIRS**

- International Maritime Law and Geopolitics at the Naval War College and at the Institute of Diplomacy of the State University of Guayaquil;
- Guest Lecturer at the Diplomatic Academy and the Simón Bolívar University.

### **NEW HYDROGRAPHER OF THE HYDROGRAPHIC SERVICE OF PERU**

Rear Admiral Guillermo Adolfo HASEMBANK ROTTA  
Director of Hydrography and Navigation

Born in 1961 in Lima, Peru, he studied at the San Agustín College and, after completing his studies, he joined the Navy on 28 February 1977, graduating on 01 January 1982, with the rank of Ensign. He is qualified in Hydrography and has completed the Staff Basic Course, the Command and Staff Course and the Naval War Course at the Naval War College and the Advanced Course of Intelligence. He served on board the following ships: B.A.P. Quiñones, B.A.P. Salaverry, BIC Humboldt, BAP Aguirre. He was second pilot on the B.A.P. Melo and then Commander of the BAP Palacios.



He has also held the posts of Head of the Physical Oceanographic Division and Head of the Academic Department of the Directorate of Hydrography and Navigation, which is part of the Ministry of Fisheries; he was the officer-in-charge of the fishing training vessel “IBARAKI”(transferred from Japan to Peru), Head of the Environment Department of the Directorate of Hydrography and Navigation, Head of the Computer Science Office, at the Directorate of Maritime Affairs, Head of the Contracts Department at the General Directorate of Supplies/Equipment, Officer of the Personnel Division at the Policy, Strategy and Supervisory

Department of the General Staff of the Navy, Head of the 1st Section of the Staff of the fourth Naval Zone and FT-100, Head of Logistics at the Naval War College, Head of the Secretariat of the Budget, Plans and Programmes (PPP) Office and Head of the Logistics Standardization Office at the Ministry of Defence, Head of the Executive Department at the Training Directorate, Deputy Director of the Navy's General Directorate of Training and of the Directorate of Hydrography and Navigation, Executive Director of the Navy's General Directorate of Supplies/Equipment and Head of the Sub Unit responsible for the Supplies/Equipment.

On 1st January 2009, he was promoted to Rear Admiral and was appointed Director of Hydrography and Navigation.

### **NEW DIRECTOR OF THE HYDROGRAPHIC AND NAVIGATIONAL SERVICE OF THE REPUBLIC OF VENEZUELA**



On 17 April 2009, Rear Admiral Jesús Gerardo ORTEGA HERNÁNDEZ took up the post of Director of the Hydrographic and Navigational Service of the Republic of Venezuela.

Rear Admiral ORTEGA was born in Mérida, Venezuela, on 28 March 1963. He graduated in July 1984 from the Naval Academy of Venezuela as Lieutenant, and obtained a Degree in Naval Sciences. He currently holds the rank of Rear Admiral with effect from 5 July 2008.

During his career, he has held various posts amongst which the following:

- Commander of the Coast Guard launch ANB "LOS CAYOS" in 1990;
- Commander of the Coast Guard Patrol vessel "ALCATRAZ" in 1992;
- Commander of the Patrol boat ANB "CONSTITUCION" in 1997;
- Second in command of the Missile Frigate ANB "MARISCAL SUCRE" in 2001;
- Commander of the Missile Frigate ANB "MARISCAL SUCRE" in 2002;
- Commander of the main Coast Guard Station in the Atlantic Region in 2003;
- Director of Naval Communications in 2005;
- Director of the Naval Cadets School in 2007 and
- Second in Command of the Squadron Command in 2008.

He has also undertaken the following courses: Naval Command and Naval Staff, Master's Degree in Administration and Management, Resolution of Conflicts and Techniques of Negotiation and various courses in the domain of Computers and Telematics.

Since 2008, he has been a member of the Presidential Commission for Planning and Development of the Apure Orinoco Axis.

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## APPENDIX II - VISITS TO THE IHB

### THE PRESIDENT OF THE BUNDESAMT FUR SEESCHIFFAHRT (GERMANY)



In February 2009 Mrs. Monika BREUCH MORITZ paid her first visit to the IHB since taking over as the President of Bundesamt für Seeschifffahrt und Hydrographie (BSH) from Professor Doctor Peter EHLERS. Mrs. MORITZ was accompanied by the new Director of Nautical Publications, Dr. Mathias JONAS, who recently succeeded Dr. Horst HECHT. The Directing Committee briefed the President of BSH on all current issues facing the IHO.

### DELEGATION OF UNITED ARAB EMIRATES

On Monday 27 April 2009, the IHB received the visit of a delegation from the United Arab Emirates composed of Mr. Saleh Saad AL HUBAIL, Head of the Military Survey Department (MSD), Dr. Adel KH. AL SHAMSI, Head of Hydrographic and Geodetic Section of MSD, Mr. Sulaiman AL- SHAMSI, Head of Cartographic section of MSD and Mr. Khalid AL MELHI, Head of Photogrammetry Department of MSD. The delegates were welcomed by the IHB Directing Committee.

The objective of the visit was to brief the Directing Committee on an ongoing project aimed at establishing hydro-cartographic capabilities in the UAE and to explore means by which the IHO could advise the UAE in establishing a Hydrographic Office.



*Left to right : Mr. Khalid AL MELHI, Captain GORZIGLIA, Mr. Saleh Saad AL HUBAIL, Captain WARD, Dr. Adel KH. AL SHAMSI and Mr. Sulaiman AL- SHAMSI*

Following a general discussion the delegation was provided with a detail presentation of the IHO. Special emphasis was made on the obligations a coastal state has with relation to the provision of hydrographic services and marine safety information. During the course of the presentation a very detailed discussion took place on different matters including technical aspects. The importance for the UAE to participate in IHO activities was highlighted, mainly the 4th EIHC and the 3rd ROPME RHC Meeting due later in the year.

The Director of the Military Survey Department presented the IHB with the crest of his institution.

### **THE UNITED STATES CONSUL-GENERAL TO FRANCE**

The Honourable Ms. Kathleen A. RILEY, US Consul-General based in Marseille, paid her first visit to the IHB on 23 January. Ms. RILEY took over her current position in the middle of 2008, having previously represented the US in Morocco, Haiti, Egypt, Israel and most recently in Saudi Arabia. Captain GORZIGLIA and Captain Ward provided Ms Riley with a comprehensive briefing on the IHO.



*The Hon. Kathleen RILEY signs the IHB Visitors' Book*

### **THE CHIEF COMMANDER OF THE ALBANIAN NAVY**

The Chief of the Albanian Navy, Captain Kristaq GERVENI, accompanied by the Hydrographer of Albania, Commander Gezim KOCI, visited the IHB on 26 January. Albania is actively considering applying for membership of the IHO. VAdm. MARATOS and Captain WARD provided a detailed brief on the IHO and discussed the benefits both of membership of the IHO and active involvement in the Mediterranean and Black Seas Regional Hydrographic Commission.



*Captain GERVENI and VAdm. MARATOS exchange gifts*

**GIS EXPERT FROM THE US NATIONAL GEOPHYSICAL DATA CENTER (NGDC)**  
IHB, Monaco, 13-15 May

Mr. John CARTWRIGHT, a GIS expert at the US NGDC, visited the IHB on 13-15 May to demonstrate a prototype of a geospatially enabled database and Web-based interface for the GEBCO Gazetteer of undersea feature names, and to discuss changes and further enhancements to the gazetteer database and interface. This application has been developed at the NGDC – where the IHO Data Centre for Digital Bathymetry (DCDB) is co-located – in collaboration with the British Oceanographic Data Centre (BODC).

The Gazetteer management custom software, which has been in use to date at the IHB to maintain the GEBCO Gazetteer, was developed about 10 years ago by a Monaco-based computer company, which has since closed down. As a result, resolving any problems encountered in using the program has proved challenging. This matter was discussed at SCUFN meetings and the NGDC expert and SCUFN member, Ms. Lisa TAYLOR, kindly accepted to coordinate the development of this web-based interface. The advantages of reformatting the GEBCO Gazetteer into a geospatially enabled database include:

- Enhanced display and search options in various products, e.g. GDA, GIS systems, web-based interactive maps, and KML files (Google Earth);
- Enhanced data base management capability.

The aim of Mr. CARTWRIGHT's visit to the IHB was to ensure that everyone involved understands the way the system works, allowing for any needed clarification, providing the time for the generation of new ideas for database and interface enhancements (e.g., on-line proposal submission that would directly populate the database), and facilitating productive cooperation on the project in the future.

SCUFN has recommended that the IHB stops maintaining the existing Gazetteer database, when the new database and interface are operational, as maintaining both databases would be complicated, mainly due to having to ensure that both databases are identical involving extra work of transferring the data back and forth. The new Web-based Gazetteer should be operational in 2010.

**EUROPEAN HERITAGE DAY**

This year « European Heritage Day » was held on Sunday 27h September in the Principality of Monaco.

The special theme chosen for this year's event was « The Russian Ballets ». All participants were encouraged to try to incorporate this theme into their own presentations.

The International Hydrographic Bureau, which has been participating in this cultural event for several years now, opened its doors to the public for a general overview of the Organization, followed by a presentation tracing the history of cartography, backed up by Russian charts and atlases. The IHB had approximately 50 visitors on this occasion.

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

**VISITS OF THE IHB DIRECTING COMMITTEE TO HYDROGRAPHIC OFFICES**

**VISITS TO HYDROGRAPHIC OFFICES 2009**

President – Vice Admiral A. MARATOS: Korea Rep of, Oman, Seychelles, Turkey, Ukraine  
Director I – Captain H. GORZIGLIA: France, New Zealand, South Africa  
Director II – Captain R. WARD: Solomon Islands, USA (NOAA)

**MEETINGS IN THE BUREAU**

**MARCH**

31 01 DPSWG-7 (Data Protection Scheme Working Group)

**APRIL**

02 03 MSDIWG -3 (Marine Spatial Data Infrastructure Working Group)  
17 Finance Committee Officers' Meeting

**JUNE**

01 S-23 Working Group 1  
01 05 4th EIHC  
05 IRCC-1 (Inter-Regional Coordination Committee)  
08 09 RSAHC – 3 (ROPME Sea Area Hydrographic Commission)

**AUGUST**

18 21 WWNWS – 1 (World-Wide Navigational Warning Service Sub-Committee)

**SEPTEMBER**

07 11 SNPWG 11 (Standardization of Nautical Publications Working Group)

**NOVEMBER**

16 Finance Committee Officers' Meeting

**DECEMBER**

01 03 CSPCWG-6 (Chart Standardization and Paper Chart Working Group)

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<b>APPENDIX IV - IHB DIRECTING COMMITTEE RESPONSIBILITIES</b>
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**President: Vice Admiral Alexandros MARATOS (Greece)**

- Relations with: the United Nations; International Cartographic Association; International Maritime Organization; World Meteorological 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 and GEO.
- CPRNW; ISPWG; ABLOS; LAC; Maritime Safety Information; Hydrographic Surveying Information Services
- Matters concerning IHO Membership and IHB Administration; Host Government Affairs and Public Relations.
- IHO Finances and Budget
- IHO Re-structuring – Staff Regulations

and the following Regional Hydrographic Commissions:

- North Indian Ocean Hydrographic Commission
- North Sea Hydrographic Commission
- Mediterranean and Black Seas Hydrographic Commission
- South Africa and Islands Hydrographic Commission

**Director 1: Captain Hugo GORZIGLIA (Chile)**

- Relations with: the Intergovernmental Oceanographic Commission; all International Bodies concerned with Antarctic matters; the Pan American Institute of Geography and History; FIG and the Academic Sector (education and training).
- Capacity Building, Training and Education and Technical Co-operation activities.
- GEBCO and International Bathymetric Mapping Projects.
- Matters referring to Information Management (Publications).
- IHO Work Program
- IRRC matters

and the following Regional Hydrographic Commissions and Committee:

- Eastern Atlantic Hydrographic Commission
- South East Pacific Hydrographic Commission
- ROPME Sea Area Hydrographic Commission
- Caribbean and Gulf of Mexico Hydrographic Commission
- South West Atlantic Hydrographic Commission
- Hydrographic Commission on Antarctica

**Director 2: Captain Robert Ward (Australia)**

- HSSC Secretariat
- Monitoring HSSC matters including liaison with related international organizations and bodies, such as NAV within IMO and DGIWG
- Relations with the International Organization for Standardization and the International Electrotechnical Commission
- Matters related to IHB Property, Website and Information Technology

and the following Regional Hydrographic Commissions:

- Nordic Hydrographic Commission
  - Baltic Sea Hydrographic Commission
  - US/Canada Hydrographic Commission
  - East Asia Hydrographic Commission
  - South West Pacific Hydrographic Commission
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<b>APPENDIX V – IHB STAFF LIST</b>
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**Professional Assistants**

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

**Translators**

Mrs. I. VANKRINKELLEN, France	Head French Translator
Miss M.P. MURO, Spain	Spanish Translator/Web Editor
Mrs. P. BOUZANQUET, France	French Translator/

**Technical, Administrative and Service Staff**

Mrs. B. WILLIAMS, UK	Head Secretariat
Mrs. R. CAUDOUX, Belgium	Publications and Document Preparation
Mrs. C. FONTANILI, UK	Secretary to the Directing Committee
Mr. A. MAACHE, France	General Services
Mr. D. MENINI, France	Graphic Arts and Cartography
Mrs. C. MEYNADIER, France	Accounting and Administration
Mrs. M. MOLLET, France	Communications, Librarian
Mr. R. SEMLALI, France	Office Manager

**Seconded Officers**

Mr S. Nakabayashi (Japan)	GIS and IT Projects
Dr M-B Shim (Republic of Korea)	Webmaster and Website Development Projects

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IHB Personnel

Standing up from left : Mr. Huet, Lt. Cdr. Shipman, Mr. Maache, Captain Gorziglia, VAdm. Maratos, Captain Ward,  
Mr. Menini, Mr. Vélard, Dr. Shim, Mr. Semlali,

Sitting down from left: Mr. Nakabayashi, Mrs. Bouzanquet, Mrs. Vankrinkelen, Mrs. Fontanili,  
Captain Bermejo, Mr. Pharaoh

Sitting down from left: Mrs. Meynadier, Mrs. Williams, Mrs. Caudoux, Mrs. Mollet, and Ms. Muro.

(Dr. Shim and Mr. Nakabayashi on secondment from the Republic of Korea and Japan).

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**APPENDIX VI – IHB TECHNICAL MISSIONS**

DATE	NAME	MEETING	DESTINATION
<b>JANUARY</b>			
19 23	MARATOS	COMSAR 13	London, UK
19 23	SHIPMAN	COMSAR 13	London, UK
26 30	SHIPMAN	WWNWS Docs Review WG	London, UK
26 30	GORZIGLIA	Technical Visit	Port au Prince, Haiti
<b>FEBRUARY</b>			
09 12	WARD	Geomatica and IHO MSDI Workshop	Havana, CUBA
09 12	HUET	Geomatica and IHO MSDI Workshop.	Havana, CUBA
09 13	MARATOS	Western Indian Ocean GEF MH coastal and Marine Contamination prevention project.	Cape Town & JNB RSA
13	HUET	IBCCA	Havana, CUBA
25 26	MARATOS	NIOHC	Mahé, SEYCHELLES
20	SHIPMAN	ABLOS WG Mtg	Taunton, UK
25 27	PHARAOH	SNPWG	Washington, USA
26	SHIPMAN	Technical Visit European Union	Brussels, BELGIUM
<b>MARCH</b>			
10 11	WARD	9 <sup>th</sup> SWPHC	Port Moresby, PNG
16 19	MARATOS	Hydrography and Maritime Safety	Muscat, OMAN
24 27	GORZIGLIA	3 <sup>rd</sup> SWATHC	Montevideo, URUGUAY
30 01	SHIPMAN	TWLWG 1	Rio, BRAZIL
<b>APRIL</b>			
06 10	GORZIGLIA	XXXII ATCM	Baltimore, USA
08 11	WARD	USCHC	Silver Spring, USA
20 24	BERMEJO	IAB	Genoa, ITALY
20 24	SHIPMAN	CIRM	Bilbao, SPAIN
21 23	WARD	NHC 53	Helsinki, FINLAND
23 24	MARATOS	9 BASWG	Constanza, ROMANIA
28 29	MARATOS	SRWG	Taunton, UK
28 29	WILLIAMS	SRWG	Taunton, UK
<b>MAY</b>			
04 08	PHARAOH	TSMAD 18	Ottawa, CANADA
04 08	HUET	DIPWG	Ottawa, CANADA
11 15	GORZIGLIA	CBSC	Seoul, KOREA
11 15	SHIPMAN	IOC GLOSS GEXI IOC	Paris, FRANCE
11 15	MARATOS	100 Years HS	Istanbul, TURKEY
18 20	WARD	ENC Consistency	Taunton, UK
18 20	PHARAOH	Ad hoc GEBCO TSCOM	Silver Spring, USA
25 29	PHARAOH	ISO/TC211	Molde, NORWAY
27 29	MARATOS	IMO MSC 86	London, UK
27 29	SHIPMAN	IMO MSC 86	London, UK
<b>JUNE</b>			
16 25	GORZIGLIA	IOC Assembly	Paris, FRANCE
23 25	BERMEJO	TC 59	London, UK

DATE	NAME	MEETING	DESTINATION
<b>JULY</b>			
27 31	MARATOS	IMO NAV55	London, UK
27 31	WARD	IMO NAV 55	London, UK
27 31	SHIPMAN	IMO NAV 55	London, UK
<b>AUGUST</b>			
03 05	GORZIGLIA	COMNAP	Punta Arenas, CHILE
03 05	MARATOS	ABLOS	Bali, INDONESIA
03 05	SHIPMAN	ABLOS	Bali, INDONESIA
<b>SEPTEMBER</b>			
14 17	MARATOS	SAIHC 7 and CBC	La Reunion,
15 17	WARD	BSHC 14	Copenhagen, DENMARK
21 25	MARATOS	MBSHC 16	Odessa, UKRAINE
21 25	BERMEJO	MBSHC 16	Odessa, UKRAINE
21 25	WARD	E-Nav 7 , IALA	Paris, FRANCE
22 25	HUET	GEBCO-SCUFN	Brest, FRANCE
28 30	PHAROAH	GEBCO-TSCOM	Brest, FRANCE
29 02	GORZIGLIA	GEBCO GC	Brest, FRANCE
29 02	SHIPMAN	GEBCO GC	Brest, FRANCE
<b>OCTOBER</b>			
01 02	MARATOS	RENC Cooperation Mtg	London, UK
05 06	GORZIGLIA	CB Coordination Mtg	London, UK
05 06	BERMEJO	CB Coordination Mtg	London, UK
06 09	WARD	MEH Technical Mtg	Singapore
12 14	GORZIGLIA	HCA9	Cape Town,RSA
12 14	HUET	HCA9	Cape Town, RSA
12 13	WARD	African Union	Durban, RSA
15 17	WARD	EAHC	Singapore
19 24	WARD	ECDIS Conference & HSSC 1	Singapore
20 24	HUET	ECDIS Conference & HSSC 1	Singapore
21 22	GORZIGLIA	Japan CB Project	Taunton, UK
26 29	WARD	Liaison Visit	Solomon Islands
26 29	HUET	Liaison Visit	Solomon Islands
26 30	PHARAOH	TSMAD 19	Sydney, AUSTRALIA
28 01	MARATOS	60 anniversary KHOA	Seoul, KOREA
<b>NOVEMBER</b>			
02 07	GORZIGLIA	MACHC 10	Barbados
02 07	BERMEJO	MACHC 10	Barbados
10 12	WARD	Hydro 09 Conference	Cape Town, RSA
23 26	MARATOS	IMO Assembly	London, UK
23 04	SHIPMAN	IMO Assembly	London, UK
<b>DECEMBER</b>			
07 11	GORZIGLIA	ATCM Experts Mtg	Wellington, NEW ZEALAND