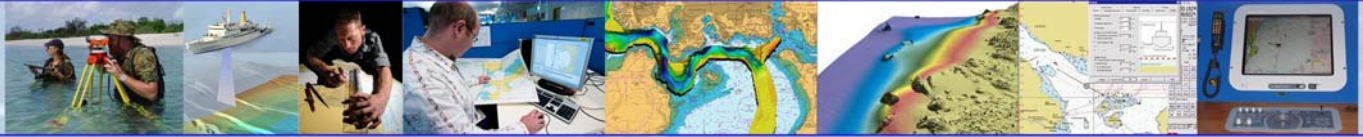


S-100 WORKING GROUP 3RD S-100 TEST STRATEGY MEETING (TSM3) Jeju, Republic of Korea, 22 to 24 September

In June 2013, the former Transfer Standard Maintenance and Applications Development Working Group (TSMAD) had identified the need to convene dedicated workshops to develop the S-100 test strategy as a key element of the implementation of the S-100 Universal Hydrographic Data Model. Two “S-100 Test Strategy Meetings” (TSM) were organized in September 2013 and in September 2014 respectively. Now, under the auspices of the S-100 Working Group, the 3rd S-100 Test Strategy Meeting (TSM3) took place in Jeju, Republic of Korea from 22 to 24 September. The meeting was hosted by the Korea Hydrographic and Oceanographic Administration (KHOA), and was attended by experts representing the Canadian Hydrographic Service (CHS), the US National Oceanic and Atmospheric Administration (NOAA), the US Navy and Coastguard, KHOA, the Korea Institute of Ocean Science and Technology (KIOST), International Centre for ENC’s (IC-ENC), ESRI, Furuno, IIC Technologies, Jeppesen, SevenCs, SPAWAR and Transas. The IHB was represented by Assistant Director Anthony Pharaoh.



Participants at the S-100WG TSM3 Meeting.



The main objective of the TSM meetings is to develop an S-100 Test Framework to support the testing of S-100 based product specifications. Due to its broad scope, the framework has been divided into nine major phases.

The test framework applies to all S-100 dependent product specifications. Its implementation is dependent on the availability of test datasets and the functional tools to read, portray and analyse those test datasets. The test framework also makes provision for testing and verifying the associated supporting resources such as product specific feature and portrayal catalogues.

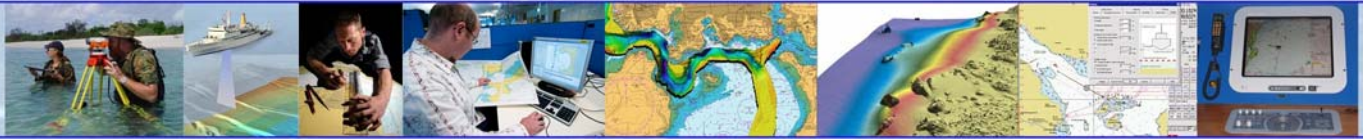
The meeting discussed and reviewed the S-57 to S-101 data converter that has been developed as a joint project by NOAA and ESRI. This application converts S-57 object to S-101 features. Where a direct conversion is not possible, or where new S-101 feature types are required, they must be added manually. The meeting reviewed the prototype S-101 ENC editor which was presented by KHOA.

Two S-101 data viewers (developed by SPAWAR and KHOA/KIOST) were demonstrated. Both viewers use draft versions of the S-101 feature catalogue and portrayal catalogues. The meeting discussed the need to develop a mechanism for providing a machine readable catalogue for the standard ECDIS alerts and indicators.

A status report on the S-100 “Feature Catalogue Builder” application (developed by KHOA) was provided. This application has been used to produce the first test catalogues which were implemented in the two prototype S-101 ENC viewers.

The S-101 catalogue datasets were reviewed by the meeting. They include metadata which reference all resources within an “exchange set”. It was concluded that the catalogue mechanism needs to be extended to make provision for multiple S-100 based products.

Other items discussed during the meeting included extensions to the S-102 product specification for bathymetric surfaces, improvements to the IHO Registry application and interoperability of S-100 product specifications.



PROFESSIONAL YACHTING ASSOCIATION SEA CHANGES SEMINAR IHB, Monaco, 24 September

The Professional Yachting Association (PYA) was founded in 1991 in response to the creation of the Large Commercial Yacht and Passenger Yacht Codes. The PYA is the professional body for yacht crews and the luxury yacht industry. It has 15 regional offices worldwide and its headquarters in Antibes, France. The PYA enjoys observer status with the International Hydrographic Organization (IHO). As part of IHO outreach activities, the International Hydrographic Bureau (IHB) was provided as the venue for the annual PYA Sea Changes Seminar on 24 September 2015, on the occasion of the annual Monaco Yacht Show. The Seminar was attended by a total of 100 delegates representing yacht crews, shore-based support companies, training organizations and administrative authorities.

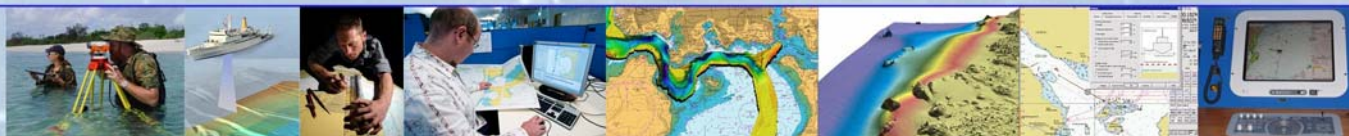


UK Chamber of Shipping presentation at the PYA Seminar

The Seminar was divided into two sessions: a session for Engineers followed by a session for Deck and Bridge crews. The Engineering session covered new engineering legislation, training and methods for professional registration and recognition of qualifications, which included a brief by Mr David Loosley, Chief Executive of the Institute of Marine Engineers, Scientists and Technologists (IMarEST), another observer organization of the IHO. The Deck and Bridge crew session covered presentations on the policies of Maritime Administrations in relation to the yachting industry, an up-date on UK Maritime Coastguard Agency regulations relevant to yacht crews, PYA training initiatives and an up-date on maritime security and what actions yacht crews should be considering.

Assistant Director Wyatt addressed the Seminar and provided a presentation on the IHO and its relevance to the yachting industry, particularly highlighting the way that members of the PYA can contribute their views and expertise to the relevant IHO subordinate bodies. He also provided an up-date on the IHO Crowd-Sourced Bathymetry (CSB) initiative, encouraging those who are not participating to consider joining the CSB community. He explained the work being undertaken to enhance the capabilities of the IHO Data Centre for Digital Bathymetry (DCDB) over the next three years to enable the uploading, viewing and downloading of all its data including crowd-sourced data collected by the anticipated increasing number of professionally manned vessels from around the world.

The evening concluded with a reception on the roof terrace of the IHB organised and hosted by the PYA.



12TH CONFERENCE OF THE SOUTHERN AFRICA AND ISLANDS HYDROGRAPHIC COMMISSION (SAIHC) Dar es Salaam, Tanzania, 21 - 23 September

The 12th Conference of the Southern Africa and Islands Hydrographic Commission (SAIHC) was held from 22 to 23 September 2015 in Dar es Salaam, Tanzania. Five out of six Member States: France, Mauritius, Norway, South Africa and the United Kingdom were represented at the conference. The following Associate Member States: Comoros, Kenya, Malawi, Mauritius, Namibia, and Tanzania were also represented together with delegates from the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), and the General Bathymetric Chart of the Oceans project (GEBCO). Industry participants included representatives from CARIS, C&C Technologies, Jeppesen, Oceanwise Ltd, SevenCs GmbH, and Underwater Surveys (Pty) Ltd. President Robert Ward represented the IHB. The conference was chaired by Captain Abri Kampfer (Hydrographer of South Africa).

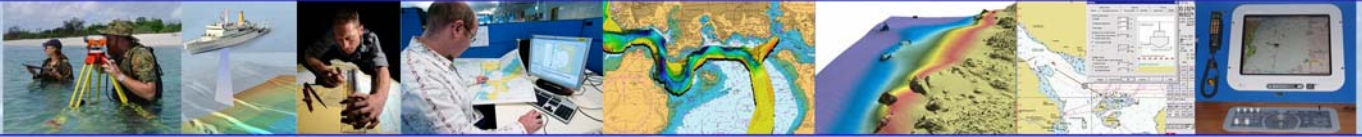
The 12th Conference was preceded by a meeting of the regional International Charting Coordination Working Group and a workshop on the fundamentals of best practice data management and marine spatial data infrastructure. These events took place on 21 September.

The Honourable Angellah J. Kairuki, the Tanzanian Deputy Minister of Lands, Housing and Human Settlement opened the meeting of the Commission and welcomed all delegates to Tanzania. She thanked the delegates for their commitment to safe and efficient navigation through the coordination of hydrography in the region. She outlined the progress being made in hydrography in Tanzania and looked forward to further assistance from the IHO.

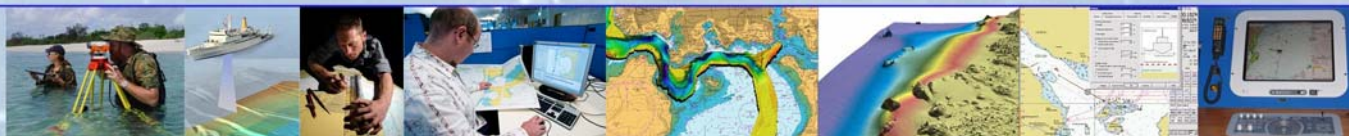


The Honourable Angellah J. Kairuki, Tanzanian Deputy Minister of Lands, Housing and Human Settlement and participants at the 12th SAIHC Meeting

Each Member and Associate Member State presented a briefing on the status of hydrography and charting priorities in their areas of responsibility. There were reports, presentations and discussions on Satellite Derived Bathymetry, GEBCO, the IHO capacity building programme for the region, Marine Spatial Data Infrastructures (MSDI), the status of IHO publication C-55, and the inexorable move towards data-centric services rather than charts and maps.



South Africa (Captain Abri Kampfer) was re-elected as Chair for the next term and UK was elected to hold the position of Vice-Chair. The next conference will take place early in September 2016, in Cape Town, South Africa.



20TH CONFERENCE OF THE BALTIC SEA HYDROGRAPHIC COMMISSION St. Petersburg, Russian Federation, 16-18 September

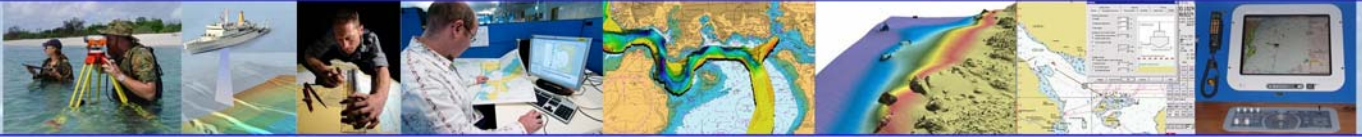
The 20th conference of the Baltic Sea Hydrographic Commission (BSHC20) was held in St. Petersburg, Russian Federation, from 16 to 18 September, under the Chairmanship of Mr. Janis KRASTINS (Latvia). All full members of the Commission (Denmark, Estonia, Finland, Germany, Latvia, Poland, Sweden and the Russian Federation) attended the meeting. The IHB was represented by Director Mustafa IPTES.



The Participants of the 20th conference of the Baltic Sea Hydrographic Commission.

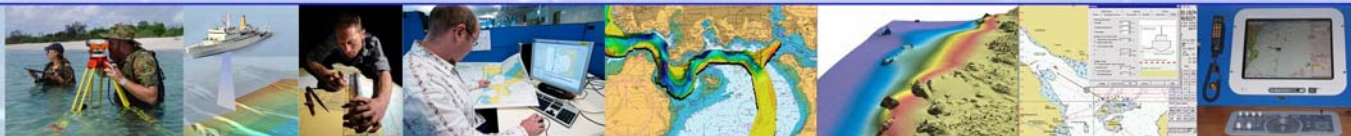
BSHC20 covered a wide range of regional topics including developments in each of the Member States, the latest status of hydrographic surveying and nautical charting including INT Charts, ENC production and BSHC cooperative projects. The members of the BSHC reported on their national hydrographic, cartographic and Maritime Safety Information activities since the 19th meeting. Director Iptes briefed the Commission on current IHO issues, IHB activities and the outcome of the 5th Extraordinary International Hydrographic Conference (EIHC-5).

The Commission reviewed on-going regional initiatives in particular the activities of the Monitoring Resurvey Working Group (MWG), Baltic Sea Bathymetric Database Working Group (BSBDWG), Baltic Sea Marine Spatial Data Infrastructure Working Group (BSMSDIWG) and the Chart Datum Working Group (CDWG). The Commission also considered the outcome of the 7th meeting of the Inter-Regional Coordination Committee (IRCC) and the 5th meeting of World Wide ENC Database Working Group (WEND-WG).



Considering that the IHO Council which will be established once the Protocol of Amendments to the IHO Convention is ratified and following the first Assembly of the IHO, which is anticipated in 2017, the members of the BSHC discussed the possible options for designating the representative of the Baltic Sea Hydrographic Commission to the IHO Council.

At the end of the meeting, Captain Sergey Travin, (Russian Federation) was elected as the new Chair of the BSHC. It was agreed that the next meeting of the BSHC will be hosted by Lithuania, in Klaipeda, in September 2016. All the documents of the meeting are posted on the BSHC page of the IHO website.



WORLD ECDIS DAY Hamburg, Germany – 16 September

WORLD
ECDIS
DAY

HAMBURG Germany
// SEPT. 16, 2015

At the initiative of the German software firm SevenCs GmbH, a « World ECDIS Day » was organized as a non-profit industry initiative in Hamburg, Germany, on 16 September 2015.

The goal of the event was to foster the exchange of ideas, concerns and perspectives on ECDIS and Electronic Navigational Charts (ENCs) among all the stakeholders from administrations, industry, academia and the user community.

The event attracted some 250 participants from around the world, including representatives from the Hydrographic Offices of Germany, Indonesia, Norway and UK and representatives of IC-ENC and Primar. Director Gilles Bessero represented the IHO and delivered the opening address focusing on the role of the IHO in supporting the development and implementation of ECDIS and the lessons learned. The manufacturer angle was provided by Michael Bergmann, President of the Comité International Radio-Maritime. The Hydrographer of Germany, Dr Mathias Jonas, addressed the participants through a pre-recorded video as the event was taking place during the Conference of the Baltic Sea Hydrographic Commission.



Parallel interactive sessions discussed different segments of the “ECDIS process”, including ENC production and distribution, ECDIS type-approval, ECDIS operation and training, and ECDIS maintenance. The multi-faceted functions of the German Maritime and Hydrographic Agency (BSH) in the ECDIS process were illustrated through an on-site visit welcomed by the President of BSH, Ms Monika Breuch-Moritz.

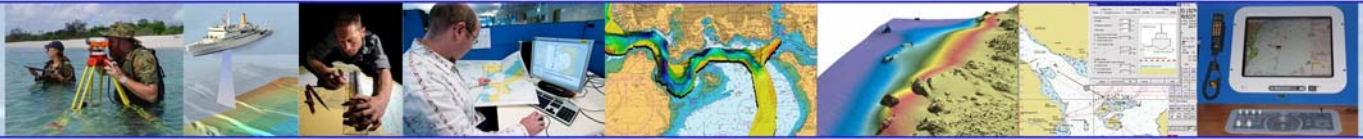
The closing addresses were given by Captain Osamu Marumoto, representing the International Maritime Organization, and Mr Jochen Rudolph, Managing Director of ChartWorld. The event was concluded by a reception and an award ceremony which distinguished the following recipients:

- ECDIS Trainer of the Year: Captain Peter Möller, Promacindo, Jakarta, Indonesia;



- Best ECDIS Implementation Award: Geden Lines, Istanbul, Turkey;
- Innovation Award: Carnival Maritime, Hamburg, Germany;
- Navigation Safety Award: Fleet Management Limited, Hong Kong;
- Lifetime Achievement Award: Prof. Dr. Bernhard Berking, Hamburg, Germany.

Encouraged by the success of the event, the organizers announced their intention to plan a second edition in 2017.



SHALLOW SURVEY 2015
7TH INTERNATIONAL CONFERENCE ON HIGH RESOLUTION
SURVEYS IN SHALLOW WATER
Plymouth, UK, 14-18 September

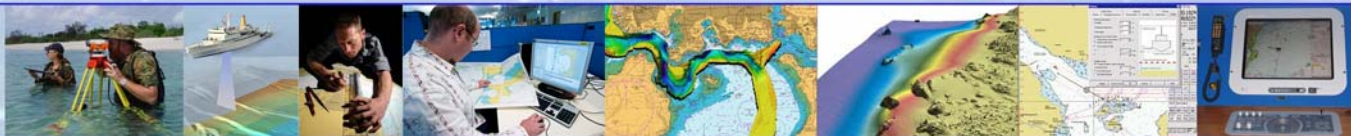
Shallow Survey 2015 was the 7th International Conference on High Resolution Surveys in Shallow Water. The Conference attracts the top international experts in high resolution surveys in shallow water (less than 200 metres in depth). Established in Sydney, Australia, in 1999 and held since in Portsmouth, New Hampshire, USA, in 2001 and again in Sydney in 2003, Plymouth, UK in 2005, New Castle, New Hampshire, USA in 2008, Wellington, New Zealand in 2012, it returned to Plymouth in 2015. The unique attraction of the Conference is the Common Data Set, which is a series of different surveys obtained by a range of equipment types and models over the same area of seabed close to the Conference site. This enables delegates to observe and compare how different equipment and techniques work in a common location. In this instance, the Common Data Set was collected within the natural harbour of Plymouth Sound during the summer of 2014.



*Shallow Survey 2015 Conference –
Common Data Set presentation*

The Conference was jointly organized by the United Kingdom Hydrographic Office (UKHO) and the UK Maritime and Coastguard Agency (MCA) in association with the University of Plymouth. Over 300 representatives from a number of IHO Member States, Non-Governmental Organizations and Industry heard presentations given by experts from Canada, Denmark, France, Germany, Ireland, New Zealand, UK and USA as well as various industry and non-governmental organizations. Assistant Director David Wyatt represented the IHB.

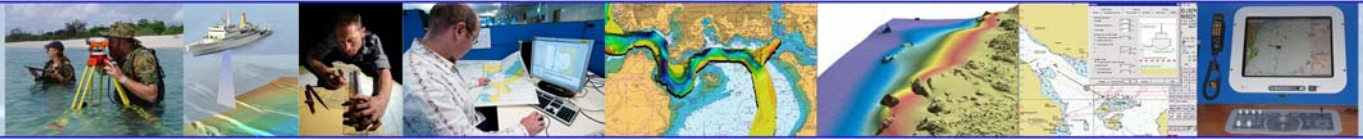
Assistant Director Wyatt gave a presentation on Crowd-Sourced Bathymetry (CSB) and Open-access Bathymetric Data, in which he described the progress of the IHO CSB initiative, the formation of the CSB Working Group and progress on up-dating the IHO Data Center for Digital Bathymetry (DCDB) to accept CSB and to act as a data discovery portal for the world's bathymetry. He also chaired an open forum that considered 'is IHO publication S-44 - *Standards for Hydrographic Surveys* fit for purpose?' He introduced the topic with a brief presentation on the background and history of S-44 and drew upon feedback received from IHO Member States in response to IHO CL 25/2015.



The Forum included a panel with representatives drawn from a broad section of government and industry organizations – Mr David Parker (UKHO), Dr Tim Le Bas (NOC), Mr Phil Riddell (Shell), Capt Shep Smith (NOAA), Dr Thomas Heege (EOMap) and Mr Don Ventura (Fugro). In general all participants agreed that S-44 was appropriate for surveys for nautical charting, although it was felt there was scope to consider some improvements including a higher specification than the current *Special Order* and the format of the publication in general. It was felt that re-titling the publication might make it clearer that the current standards were intended primarily for surveys for nautical charting purposes and that there are other documented standards for data gathering for other uses. The audience felt it was unwise and undesirable to try and create a broader set of standards for gathering data for a variety of survey uses. The use of exemptions or relaxations from some requirements when used for non-nautical charting surveys could be better explained. The audience also advised that the use of the entire document rather than just the Table of Orders should be highlighted to ensure all specifications were met for individual survey orders. Although there was no urgency for the development of standards appropriate for data obtained from Satellite Derived Bathymetry and Crowd-sourced Bathymetry, the audience indicated that these newer and developing methods of data acquisition should be taken into account in any future work. The open, direct engagement by the IHO was welcomed and particularly well received.

The next Shallow Survey Conference is planned to be held in St John's, Newfoundland, Canada in 2018. The Conference report and all papers will be available from the Shallow Survey 2015 web site at <http://www.shallowsurvey2015.org/>.

The Conference was followed by a meeting of the Resurvey Working Group of the North Sea Hydrographic Commission (NSHC). The meeting was chaired by Dr Leendert Dorst (Netherlands) with representatives from 7 NSHC Member States (Belgium, Denmark, France, Germany, Netherlands, Sweden and UK) with Finland representing the Baltic Sea Hydrographic Commission. Assistant Director David Wyatt represented the IHB. The meeting discussed some of the outcomes from the Shallow Survey Conference, including the S-44 Open Forum with additional observations and comments provided for submission to HSSC7. A progress report on the development of the NSHC website was provided and participants provided comments and suggestions for consideration during the next phase of work. The meeting also received reports on NSHC, European Union and national developments since the previous meeting. A brief on the Belgium, France and UK Dover Strait survey strategy was provided. The applicability of alternative survey methods was discussed and the progress towards a suitable hydrographic risk assessment methodology for the North Sea area was given.



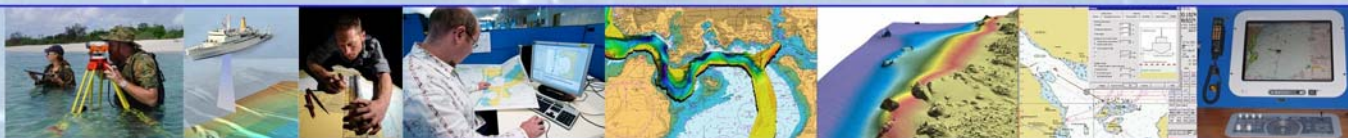
FIRST FORMAL VISIT TO MONACO OF A DELEGATION FROM VIET NAM SINCE JOINING IHO IHB, Monaco, 2 September

A delegation from Viet Nam led by Rear Admiral Pham Xuan Diep, Vice Commander-In-Chief and Chief of Staff of Viet Nam People's Navy, Vice President and Chief Executive Officer of the Hydrographic Office of Viet Nam visited the IHB on 2 September.



This was the first visit of a delegation from Viet Nam to the IHB since Viet Nam became a Member of the IHO on 2 March 2015. On this occasion, a delegation of the Government of Monaco, composed of Ms Armelle Roudaut-Lafon, Director of Maritime Affairs, and Mr Tidiani Couma from the Department of External Relations and Cooperation, participated in the visit.

As the visit coincided with Viet Nam's National Day, the visit started with an official ceremony for the presentation of the flag of Viet Nam. President Robert Ward welcomed the delegation highlighting the significance of joining the IHO. Rear Admiral Pham Xuan Diep expressed his pleasure at visiting the IHO Headquarters and confirmed Viet Nam's commitment to the objectives of the Organization. The Viet Nam flag was hoisted to the accompaniment of the national anthem of Viet Nam.



The visit continued with a thorough presentation of the IHO highlighting the various opportunities for the active involvement of Viet Nam in the work programme and activities of the Organization.



Rear Admiral Pham Xuan Diep and President Robert Ward exchange the crests of Viet Nam and of the IHO



RETIREMENT OF AN IHB STAFF MEMBER IHB, Monaco, 31 August

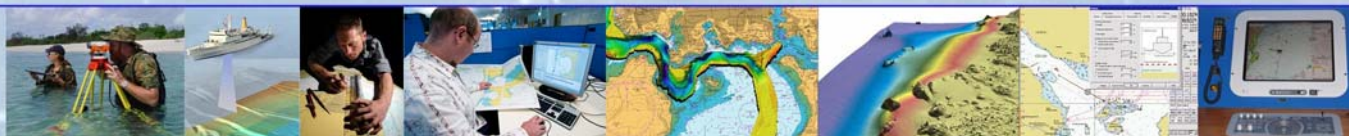
Ms Pascale Bouzanquet joined the IHB in August 1989. She had previously worked for five years in the Department of Conference Services at the United Nations Headquarters, in New York, where she was in charge of correspondence in the Office of the Secretary-General, Mr. Javier Perez de Cuellar.

After holding the post of French Editorial Assistant for more than ten years at the IHB, Ms Bouzanquet was assigned to the French translation department to undertake translation work, where she continued until her retirement, on 31 August 2015. In 2009, she was awarded a long service bronze medal by the Government of Monaco in recognition of her 20 years' service at the IHB.



Ms Bouzanquet with the Directing Committee

After 26 years at the Bureau, where she worked diligently until the last minute, Ms Bouzanquet has begun a well-deserved retirement. Her bright, outstanding personality, her competence and conscientiousness, always ensuring that the work was well done, will be missed. The Directing Committee wishes Ms Bouzanquet a long and happy retirement full of enriching activities. Miss Perrine Brieda has now succeeded her as French translator at the IHB.



7TH MEETING OF THE IHO WORLD-WIDE NAVIGATIONAL WARNING SERVICE SUB-COMMITTEE IHB, Monaco, 24-27 August

The 7th meeting of the World-Wide Navigational Warning Service (WWNWS) Sub-Committee (WWNWS7) was held at the International Hydrographic Bureau (IHB) in Monaco, from 24 to 27 August under the chairmanship of Mr Peter Doherty of the United States of America. The meeting was attended by 42 delegates from 18 IHO Member States, the Secretariat of the International Maritime Organization (IMO), the Secretariat of the World Meteorological Organization (WMO), the Secretariat of the Intergovernmental Oceanographic Commission of UNESCO (IOC), the Secretariat of the International Mobile Satellite Organization (IMSO), the Chairs of IMO NAVTEX and IMO SafetyNET Coordinating Panels, Inmarsat, Iridium, *Comité International Radio-Maritime* (CIRM), Furuno Finland Oy and the IHB. The delegates included representatives of 16 NAVAREA Coordinators, one Sub-Area Coordinator and four National Coordinators.



7th meeting of the WWNWS-SC

The Sub-Committee received Maritime Safety Information (MSI) self-assessment reports from all 21 NAVAREAs and from the Baltic Sea Sub-Area, as well as reports from the Secretariats of the IMO and WMO and Director General of IMSO. The outcomes of the 13th meeting of the Document Review Working Group (17-19 March 2015) were discussed; in particular the proposed editorial amendments to the IMO SafetyNET and NAVTEX Manuals were reviewed and approved by the Sub-Committee. The meeting received progress reports on the delivery of MSI training courses, and discussed the processes for reporting the status of MSI provision at



Regional Hydrographic Commission meetings and methods for identifying to the Capacity Building Sub-Committee the regions and coastal States most in need of training and assistance.

The delegates received briefings on AIS Application Specific Messages from the USA, SONSAT (Security of Navigation, Stabilisation, Advice and Training, including the Admiralty Warning and Navigational Information Service (AWNIS)) from the UK and developments in the provision of mobile satellite Global Maritime Distress and Safety System (GMDSS) services from Inmarsat and Iridium. The meeting also received a progress report on the development of the S-124 Product Specification on Navigational Warnings.

The Sub-Committee received presentations on the IOC Tsunami Early Warning System, the impact of e-navigation on hydrographic services from the IHB, NAVTEX encoding from Furuno and the ACCSEAS¹ project of the European Union from Denmark.

The next meeting of WNWNS-SC will be held in Norway in August or September 2016, and exact details will be published on the WNWNS-SC page of the IHO website when confirmed.

When finalized, the report of WNWNS7 will be posted in the IHO website, where all the meeting documents are already available (www.iho.int > Committees & WG > WNWNS-SC > WNWNS7)



WWNWS-SC in plenary session

The WNWNS-SC meeting was followed by a meeting of the S-124 Correspondence Group under the chairmanship of Mr Yves Le Franc. 22 delegates attended from 12 Member States, the Secretariat of the IMO, the Chairs of IMO NAVTEX and IMO SafetyNET Coordinating Panels, Iridium, CIRM, Furuno Finland Oy and the IHB. The meeting reviewed responses from a questionnaire on shipboard user requirements and discussed various user necessities, such as geographical filtering of

navigational warnings, and how to determine which navigational warnings are in force. The meeting also reviewed a model illustrating various shipboard user scenarios with solutions.

There were discussions on how to promulgate MSI information; presentations were provided on the portals of the Danish Maritime Authority (developed as part of the ACCSEAS project) and the Japan Coast Guard Hydrographic and Oceanographic Department. Both portals provide maritime safety and notice to mariners' information in textual and graphical formats.

¹ ACCSEAS: ACCessibility for Shipping, Efficiency Advantages and Sustainability.