

IHO-NIPPON FOUNDATION ALUMNI SEMINAR - 2019

Singapore, 29-31 October

Contribution to the IHO Work Programme 2019

Task 3.3.9
2019 CBWP P-
35

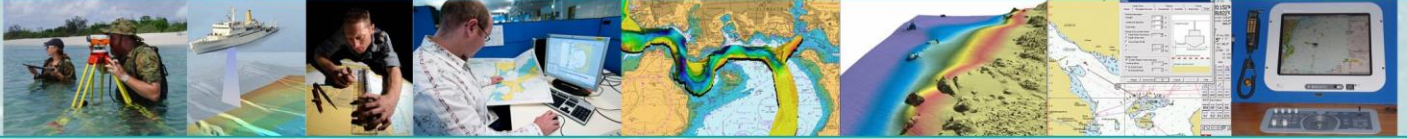
Plan, administer and implement Capacity Building activities, including seminars

The IHO-Nippon Foundation Alumni Seminar was held in Singapore from 29 to 31 October, organized by the IHO and supported by the Nippon Foundation (NF) of Japan. The Nippon Foundation has funded selected international trainees to attend the courses in nautical cartography at the United Kingdom Hydrographic Office (UKHO) for the last eleven years. Since 2014 the training has been conducted under the auspices of a Memorandum of Understanding (MoU) signed between the IHO and NF, known as the IHO-NF CHART (Cartography, Hydrography and Related Training) Project. The course in "Marine Cartography and Data Assessment" delivered for the CHART Project is recognized at the Category "B" level by the International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) in accordance with the Standards of Competence for Nautical Cartographers, IHO Publication S-8.



Participants of the IHO-NF Alumni Seminar

The objectives of the Alumni Seminar were to strengthen the IHO-NF Alumni network, to encourage cooperation between the fellows, to improve the global friendship and to obtain feedback from the alumni. Of the total of 84 fellows, 39 alumni from 29 countries (Algeria, Brunei Darussalam, Bulgaria, Colombia, Croatia, Ecuador, Estonia, Fiji, Georgia, Indonesia,



Japan, Latvia, Malaysia, Malta, Mozambique, Oman, Poland, Romania, Singapore, Solomon Islands, Spain, Sri Lanka, Suriname, Thailand, Trinidad and Tobago, Ukraine, Uruguay, Venezuela and Viet Nam) attended the seminar.

Mr. Mitsuyuki Unno (Executive Director of the Nippon Foundation), Ms. Mao Hasebe (representative of the Nippon Foundation), Ms. Lucy Fieldhouse (UKHO), Mr. Christopher Booth (UKHO), Mr. Jeff Bryant (retired UKHO), Mr. Adam Greenland (former Chair of the IBSC) and Mr. Shigeru Nakabayashi (Japan Hydrographic and Oceanographic Department) also attended the Seminar as invited guests. The IHO Secretariat was represented by Director Mustafa Iptes, Assistant Director Alberto Costa Neves and Mr. Naohiko Nagasaka (Project Officer seconded to the IHO Secretariat by Japan).

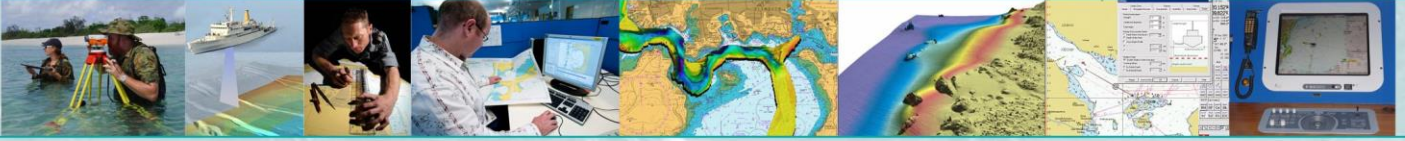
The Seminar was opened by Director Iptes and the welcome speech delivered by Mr. THAI LOW Ying-Huang (Chief Hydrographer of Singapore). The keynote speeches were delivered by Mr. Mitsuyuki Unno (Executive Director of the Nippon Foundation), Mr. Jeff Bryant (Former Course Coordinator, retired UKHO) and Mr. Adam Greenland (Hydrographer of New Zealand and former Chair of the IBSC). Four Members of the IBSC also attended the opening of the Seminar.

Presentations given by the representatives of NF, IHO and UKHO informed the participants about the background of the IHO-NF cooperation, the impact analysis of the CHART Project and a glimpse in the future of the profession of the Cartographers. The fellows shared their experiences and the lessons learned during and after the training programme, their professional progress since their training, and their expectations for future developments in their hydrographic services.

The presentations from the fellows and the impact analysis showed the progress of the world nautical cartography derived from the CHART project in the eleven years since its inception. Most of the fellows shared their experience to lead charting activity with system implementation and work flow innovation. Countries that have alumni of the CHART project have shown significant increase in their chart coverage compared to non-alumni countries, as shown in the IHO publication C-55 *Status of Hydrographic Surveying and Nautical Charting Worldwide*.

The Seminar also shed light in various aspects on the work of cartographers. The keynote speech delivered by Mr. Unno triggered the discussion about the future of nautical cartography with the rapid change in technology and automation. His speech paved the way for the fellows to consider their profession more critically and beyond their routine tasks. The IBSC Members present had the opportunity to see evidence of the success of the IBSC recognition framework through the achievements of the alumni.

The Seminar was an opportunity to assess the retention of the alumni as 98% of them are still working in their hydrographic services or related government sector and 60% are the lead cartographers. The NF has so far funded 64 people from 39 countries through the IHO



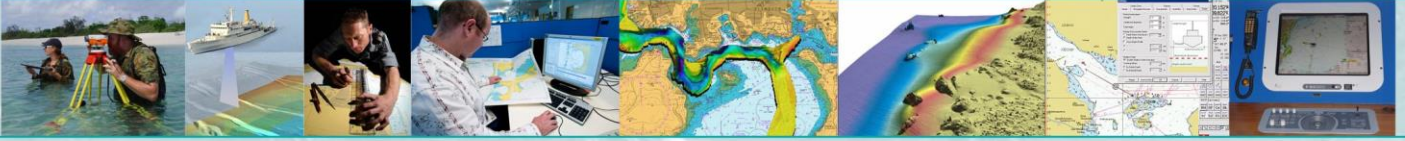
Capacity Building Programme. This group is enlarged with another 20 alumni that attended the same courses, funded from other sources, leading to 84 alumni from 45 countries at the service of nautical cartography worldwide.

Presentations and speeches provided at the Seminar will be available on the IHO web site at:

www.iho.int/cb → Special contributions from external donors



Nautical Cartographers at the service of nautical cartography worldwide



16TH PRIMAR TECHNICAL EXPERTS WORKING GROUP (TEWG) MEETING

Stavanger, Norway, 29-30 October

Contribution to the IHO Work Programme 2019	
Task 2.1.5	Monitor the development of related international standards, specifications and guidance

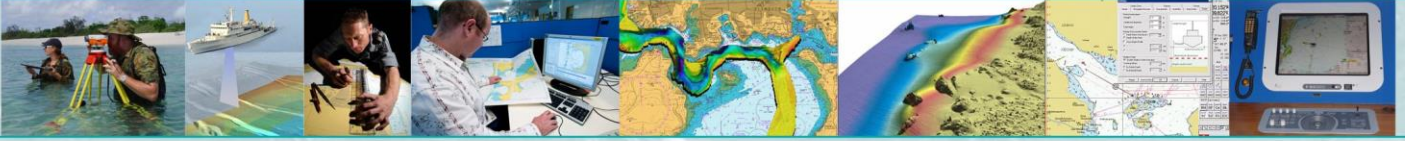
The 16th PRIMAR Technical Experts Working Group (TEWG) meeting took place in Stavanger, Norway from 29 to 30 October 2019. Twenty Member State representatives from Croatia, Finland, Estonia, France, Latvia, Norway, Poland, Sweden, Russian Federation and Vietnam attended the meeting. Seventeen representatives from non-Member States, RENC organizations, industry and academia also attended the meeting. The IHO Secretariat was represented by Assistant Director Anthony Pharaoh.



The participants of the 16th PRIMAR Technical Experts Working Group Meeting.

The main topics and the major outcomes from the 26th PRIMAR Advisory Committee (PAC) meeting (Stavanger, 2-3 October 2019) were presented.

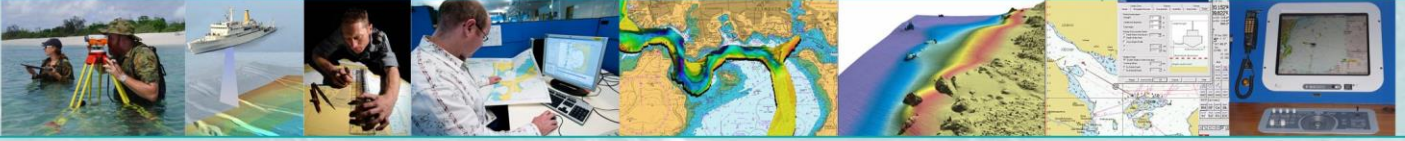
The meeting discussed the important work being undertaken to improve RENC cooperation and to identify ENC overlaps issues, and the need to harmonize ENC licensing models. It was reported that there are currently 16000 ENC's in the PRIMAR catalogue and new data from Albania and China has been released since the last TEWG meeting. The possible distribution of digital publications was discussed and an investigation to determine what types of information should be included in these publications, has been carried out. Several



S-58 ENC validation tests were discussed and presentations on the SevenCs Analyser and Navico dKart Inspector applications were provided.

A presentation on the status of the S-101 project was provided. This reported on the progress with implementing the S-100 data protection scheme and plans for distributing S-100 based products. Industry members from SevenCs and Navico provided presentations on their S-57 to S-101 ENC converters and their plans to implement applications that will produce and consume S-100 based data. A presentation on an S-102 demonstrator project was provided. The project is intended to test how to distribute and use S-102 bathymetric data in an operational environment. Members were invited to contribute S-102 test data for the project.

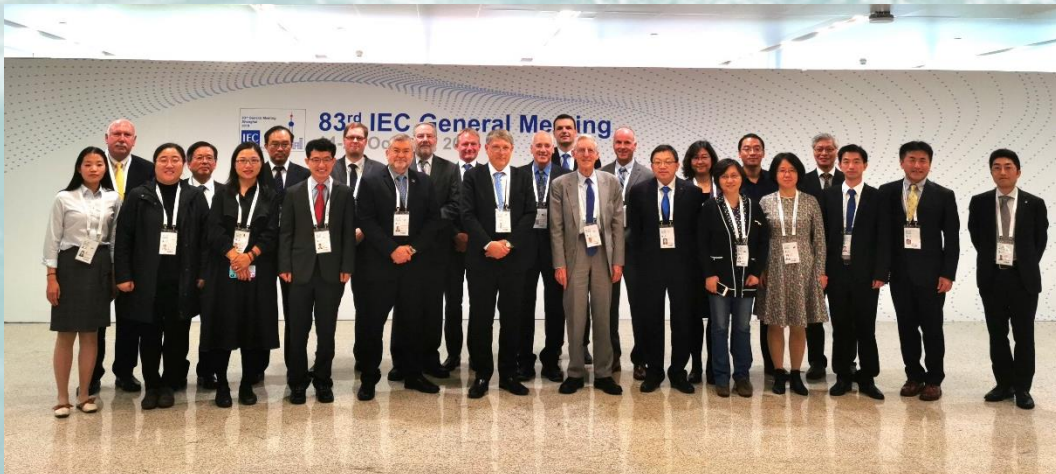
The next meeting of PRIMAR TEWG is expected to be held in March/April 2021.



**2019 PLENARY MEETING OF THE INTERNATIONAL
ELECTROTECHNICAL COMMISSION (IEC)
TECHNICAL COMMITTEE 80 (IEC/TC 80)
Shanghai, China, 24 to 25 October**

Contribution to the IHO Work Programme 2019	
Task 1.1.7	Maintain relationship with the International Electrotechnical Commission (IEC), including IEC Technical Committee 80

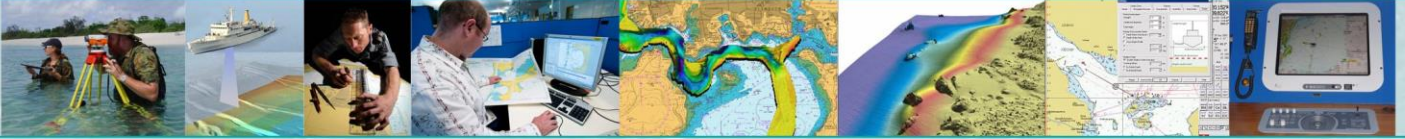
The 2019 Plenary meeting of the International Electrotechnical Commission (IEC) - Technical Committee 80 (IEC/TC80) meeting was hosted by Standardization Administration of China (SAC). The National GNSS Engineering Centre of China and the Wuhan University provided organizational and logistics support for the meeting, which took place in Shanghai, China from 24 to 25 October 2019.



Participants of the 2019 IEC/TC80 Plenary Meeting

IEC/TC80 meets in plenary session every two years to review the main achievements during the intersessional period and agree on future work plans of its working groups, project teams and maintenance teams. The plenary meeting brought together 25 participants, including representatives of national committees and observers from international organizations. Director Abri Kampfer represented the IHO Secretariat. The meeting was chaired by Mr Hannu Peiponen from Finland.

IEC/TC80 prepare standards for maritime navigation and radiocommunication equipment and systems making use of electrotechnical, electronic, electroacoustic, electro-optical and

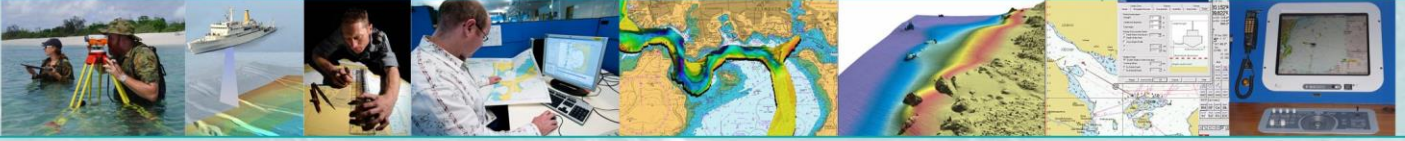


data processing techniques. TC80 standards are widely used by Administrations for type approval of equipment which is a regulatory requirement under the IMO International Convention for the Safety of Life at Sea (SOLAS). The International Hydrographic Organization (IHO) is a Liaison member of IEC/TC80 and participates in its standards development and maintenance Working Groups.

The representative of the IEC Central Office, Mr Christophe Boyer, provided an overview of the processes for the development and maintenance of international standards. He highlighted the recent amendments to the relevant ISO/IEC Directives and explained the use of the IEC expert management system and associated web tools.

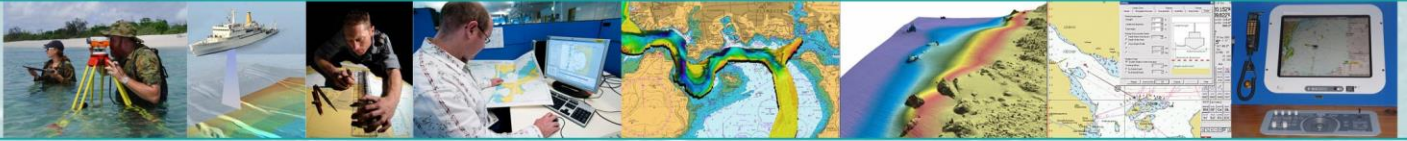
The ten subordinate bodies active during the 2017-2019 intersessional period (four working groups, two project teams and four maintenance teams) reported on their work in relation with the development and maintenance of standards. Of particular interest was the work of WG17 that is developing an S-100 based Route Plan (S-421) product specification. This work was approved as IEC 63173, Part 1 in 2017 and the target publication date of this work has been extended to 2023. IEC 63173, Part 2 is 'Secure online transfer of S-100 based products applied on S-421 Route Plan', which specifies the communication method of the S-100 Product Specifications including Route Plan. The scope is to provide the end-to-end communication for end users including data protection, data authentication and digital signature. The target publication date of this work is June 2022.

In TC80 the MT7 is responsible to maintain the IEC 61174 test standard for ECDIS. This standard is based on IMO resolution MSC 232(82) and related IHO ECDIS standards S-52, S-57, S-63 and S-64. The current 4th edition of IEC 61174 was published in Aug 2015. The IHO Liaison Report to TC80 Plenary provided an update of IHO S-100 developments including the status of current published product specifications. S-101 PS will be technically



ready for regular production of S-101 ENC by end of 2022 and the plenary was informed that the IHO Council endorsed an implementation strategy that will make provision for simultaneous delivery of S-57 and S-101 ENC by 2024. The Plenary concluded that there are ample reasons to consider a revision of IEC 61174 and considering the timelines, such work will have to commence by October 2020. Views of national IEC members will be obtained to reach a final decision.

The Plenary concluded its work with a review of the TC80 Strategic Business Plan. The next TC80 plenary meeting is scheduled for 2021, venue still to be confirmed.



6TH OUR OCEANS CONFERENCE Oslo, Norway, 23-24 October

Contribution to the IHO Work Programme 2019

1.1.15

Maintain relationships with other international and observer organizations when their agendas have relevance to the programme of the IHO



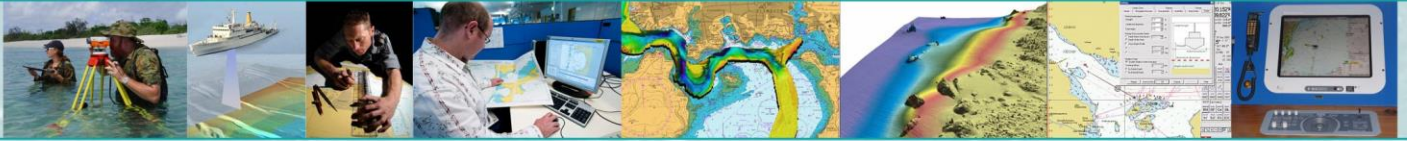
The Our Ocean conference series started in 2014 in New York, USA aiming to build partnerships between government, industry, science and civil society, putting knowledge, technology and finance into action to meet the challenges facing the ocean and enable production and sustainable use to go hand in hand so that the ocean can continue to provide for the needs of future generations.

The Our Ocean 2019 was held in Oslo from 23 to 24 October and hosted by the Government of Norway. The IHO Secretariat was represented by Secretary-General Dr Mathias Jonas. The agenda was specifically highlighting the importance of knowledge as the basis of our actions and policies to ensure protection of our ocean, responsible management of marine resources and sustainable future economic growth. The conference brought together leaders from governments, businesses, civil society and research institutions to share their experience, identify solutions and commit to action for a clean, healthy and productive ocean.

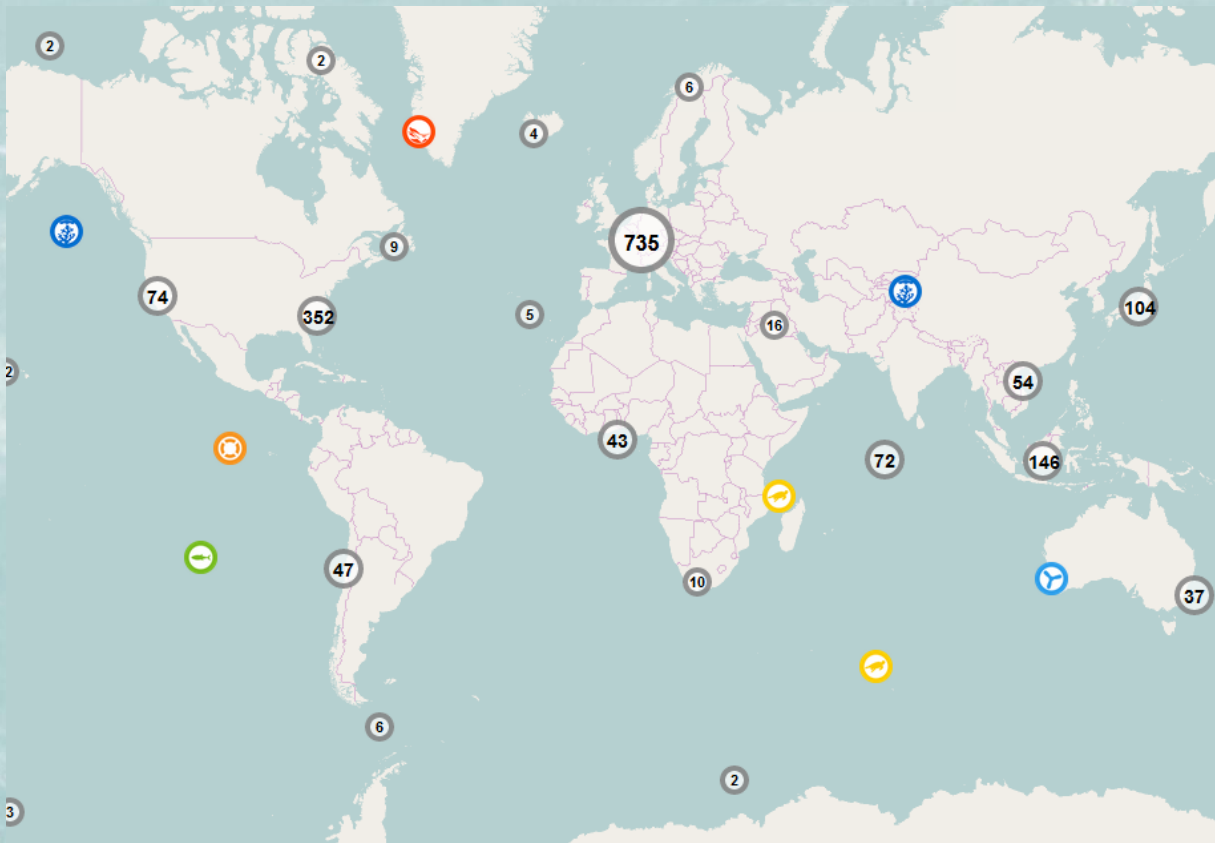


Lise Kingo, CEO and Executive Director of the United Nations Global Compact, which is the world's largest corporate sustainability initiative with more than 13,500 signatories from 170 countries, presented the five tipping points for a healthy and productive ocean – each one with direct or indirect relation to hydrography.

At the core of the Our Ocean conferences are voluntary commitments for significant and meaningful actions towards a clean, healthy and productive ocean. Previous conferences have resulted in nearly one thousand commitments. Governments, organisations and businesses are encouraged to announce new and far-reaching actions for

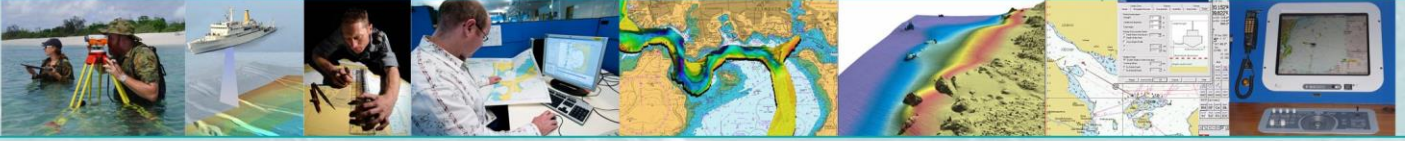


the best of our ocean at this year's conference. Commitments should have significant impact, be measurable and have a clear timeframe. As one of the 1600 commitments made, the IHO Secretary-General gave a commitment for the provision of a global bathymetric grid (GEBCO Grid) and a mechanism for standardized data products for the broadest range of maritime knowledge (S-100).



Global map of commitments made during the 6th Our Ocean Conference.

The next Our Ocean Conference is planned to be held at the Island of Palau in October 2020.



8TH MEETING OF THE CROWDSOURCED BATHYMETRY WORKING GROUP

IHO Secretariat, Monaco 23-25 October

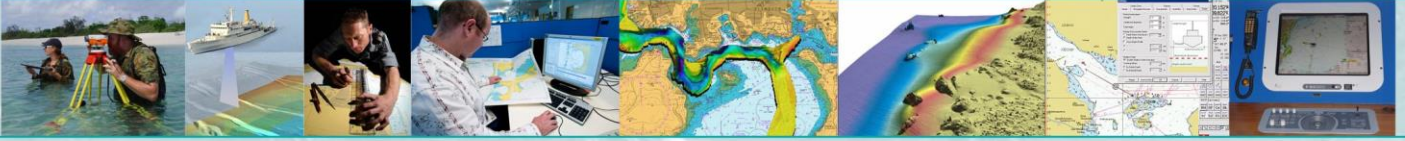
Contribution to the IHO Work Programme 2019	
Task 3.6.4	Develop general guidelines on the use and collection of Crowdsourced Bathymetry (CSB)

The Crowdsourced Bathymetry Working Group (CSBWG) has been tasked by the Inter-Regional Coordination Committee (IRCC) to develop the IHO publication B-12 that provides guidance on the collection and use of Crowdsourced Bathymetry (CSB) and to investigate ways to increase participation in data gathering activities. IHO Publication B-12, Edition 2.0.2 - *Guidance on Crowdsourced Bathymetry*, provides guidelines and advice on various considerations that should be taken into account when collecting CSB data for inclusion in the global bathymetric data set which is maintained in the IHO Data Centre for Digital Bathymetry (DCDB).



The participants of the 8th meeting of the CSBWG between sessions

The working group held its 8th meeting at the IHO Secretariat, Monaco from 23 to 25 October 2019. In the absence of the Chair of the CSBWG, Ms Jennifer Jencks (USA, Director of the DCDB), the Vice-Chair, Mr Serge Gosselin (Canada), chaired the meeting which was attended by representatives from eight Member States (Canada, Denmark, Italy, Japan, Netherlands, Norway, UK and USA) and observers and expert contributors from Fugro, Da



Gama Maritime Ltd, FLIR Systems AB, SevenCs/ChartWorld, ECC AS, MY Gene Machine and Sea-ID. Assistant Director David Wyatt (Secretary) represented the IHO Secretariat.

Whilst reviewing the actions from its previous meeting, the working group received a brief update on research into manmade noise in the water column and its impacts. In light of the inconclusive information, it was agreed that a coordinated approach should be taken with other IHO bodies which were also investigating the issue. The working group received a number of presentations from participants updating on current CSB related projects as well as a number provided remotely from working group members in Australia and Canada.

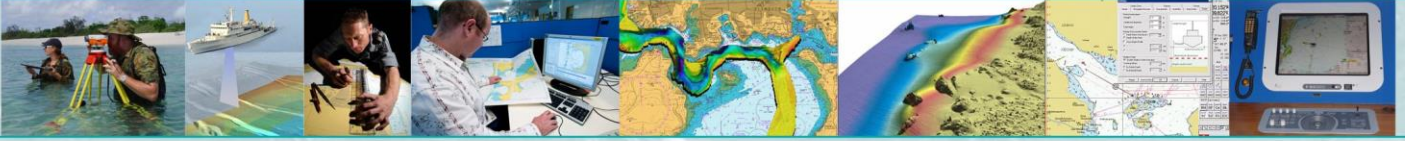
The replies to the various IHO Circular Letters on CSB published during 2019 and the States on the positive list published on the IHO website were discussed. It was agreed that more engagement through Regional Hydrographic Commissions was required to articulate the increasing global societal and United Nations (UN) driven need to complete the picture of the seafloor as well as the potential benefits to individual coastal states. Two proposed clarifications to B-12 – *IHO Guidance on Crowdsourced Bathymetry* – were approved.

The participants discussed current use case examples by a number of Hydrographic Offices (HOs), after which the Chair of the Data Quality Working Group (DQWG) provided two comprehensive presentations on 'Data Quality Combining S-101 and S-102 and Definitions of depth' and 'Using data quality for safe navigation', which highlighted aspects in support of CSB and could overcome a number of HO's concerns to use the data or encourage its collection.

The participants received a comprehensive update on the IHO-IOC GEBCO and Seabed 2030 project activities. In particular on the discussions and outcomes from the 'Vision to Action' event in London, which highlighted the vital need for close coordination and cooperation between the CSBWG, the GEBCO Project and the new Director of the Seabed 2030 project to ensure harmonization of communication and activities. The Secretary-General provided a brief report on the Our Oceans Conference held in Norway recently where he highlighted the positive reception of Seabed 2030 and CSB by the UN and senior government representatives, which needs to be reflected in actions.



The 8th meeting of the CSBWG in plenary session

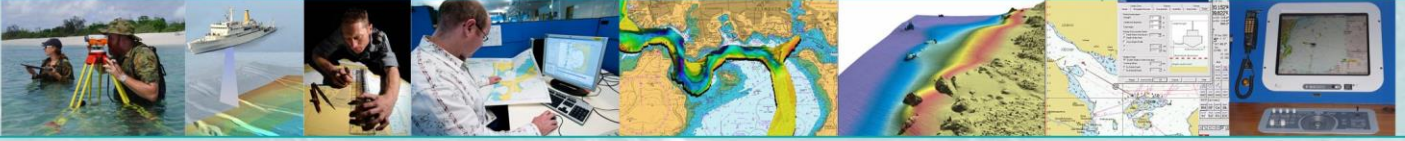


The participants devoted considerable time to the outreach and recognition strategies, which needed to be developed to increase data contributions and incentives to increase participation. The participants were given a brief on the GEBCO and Seabed 2030 communication activities. The attendance at the OceanObs'19 conference and getting "Seafloor" added to the OceanObs'19 Conference declaration statement were highlighted as significant advances. The participation in the 1st UN Decade of Ocean Science for Sustainable Development Global Planning meeting was noted. A number of suggestions and recommendations for consideration by the CSBWG were provided.

During breakout sessions the participants considered three headline topics: actions to increase contributions; key messages; and a review of the mind map developed at CSBWG6. It was agreed that current engagements with commercial companies needed to be nurtured and maintained to ensure data is delivered and continues to be delivered. It was also noted that use of experiences and motivations of current lead contributors should be used to communicate to other potential contributors. It was also recognised that the IHO Secretariat report and the national reports to RHCs provided the opportunity to highlight positive coastal states and actions to encourage participation. It was agreed that the Director of the Seabed 2030 project should be invited to participate in future CSBWG meetings and that close harmonization of the outreach activities of both groups should be a priority.

The Vice-Chair, Mr Serge Gosselin, notified the WG of his pending retirement from the Canadian Hydrographic Service and Ms Marta Pratellesi (Italy) was unanimously elected as the new Vice-Chair.

It is planned to hold the 9th meeting of the CSBWG in Stavanger, Norway, 29 June to 2 July 2020, which will include a one day stakeholder workshop. In addition it was agreed that CSBWG10 should be programmed for early 2021 with CSBWG11 in autumn 2021 and CSBWG12 in mid-summer 2022. Exact dates and locations were not discussed.



**10TH IALA AIDS TO NAVIGATION REQUIREMENTS AND
MANAGEMENT COMMITTEE (ARM) MEETING
AND
3RD IHO-IALA COORDINATION MEETING
IALA Headquarters, Saint-Germain-en-Laye, France, 14 - 18 October**

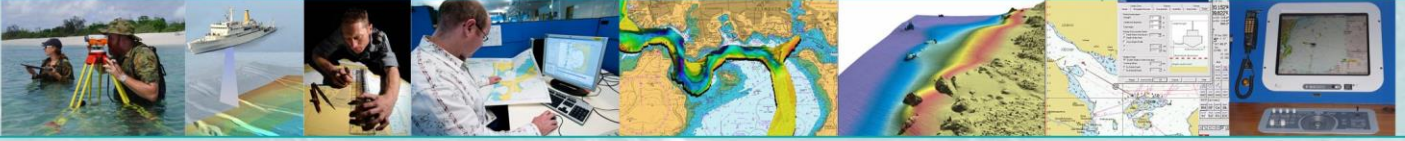
Contribution to the IHO Work Programme 2019	
Task 1.1.6	Annual IALA-IHO Secretariat Liaison Meeting

Under the framework of the Cooperation Agreement between the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) and the IHO, a coordination meeting was held at the IALA Headquarters in Saint-Germain-en-Laye, France on 16 October 2019 in conjunction with the 10th IALA Aids to Navigation Requirements and Management (ARM) meeting (14 to 18 October).



Participant of the 10th IALA ARM Meeting

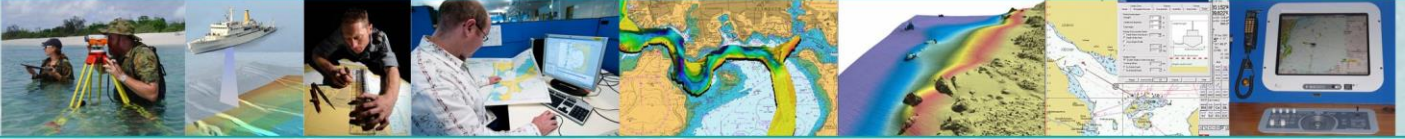
The IHO/IALA coordination meeting was attended by five IALA members and Assistant Director Anthony Pharaoh represented the IHO Secretariat. Update reports were provided on the standards development activities of both organizations. Since the last meeting, the IHO has published a new edition of the S-100 framework standard and five new product specifications. IALA has completed a product specification for Aids to Navigation Information (AtoN) (S-201) which will be released as Edition 1.0.0 for testing and evaluation. IALA has also made significant progress with their Maritime Resource Name (MRN) specification. This provides a naming scheme that can be used to uniquely identify any maritime resource on a global scale.



Other items discussed during the meeting included; charting requirements for new combinations of fixed and flashing lights, the status of inclusion of Aids to Navigation concepts (terms and definitions) in the IHO Registry and recent extensions to the Maritime Resource Name specification.

During the main IALA ARM plenary meeting, reports were provided on relevant items from recent IMO Council, Maritime Safety Committee (MSC) and Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) meetings. Presentations were provided on the status of the *Integrated Maritime Autonomous Transport*, and the *Smart Navigation* projects. A presentation was also provided on the impact of AtoN distribution during North China Sea freeze-up. Progress was made on the development of various work items under the Navigational Requirements, Information Services and Portrayal and Risk Management Working Groups, during the course of the week.

The next IALA ARM meeting is scheduled to take place from 27 April to 1 May 2020, in Buenos Aires, Argentina.



**10TH CONFERENCE AND 26TH BUSINESS MEETING OF THE ADVISORY BOARD
ON THE TECHNICAL ASPECTS OF THE LAW OF THE SEA
Monaco, 7-10 October**

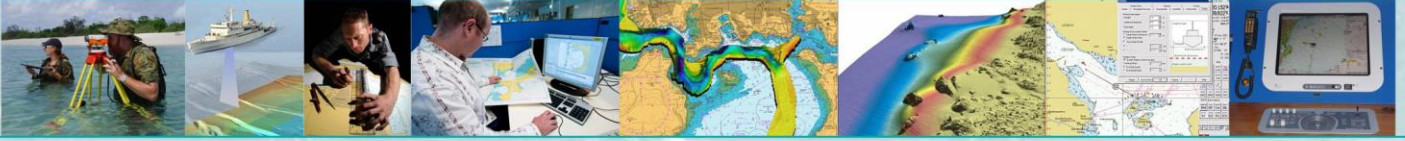
Contribution to the IHO Work Programme 2019	
Task 2.1.2.8	Attendance of ABLOS BM meeting and biennial Conference

The Advisory Board on the Technical Aspects of the Law of the Sea (ABLOS) is a joint board of the International Hydrographic Organization (IHO) and the International Association of Geodesy (IAG). The ABLOS comprises four representatives from IHO Member States and four representatives from the IAG. The United Nations Division for Ocean Affairs and Law of the Sea (UN-DOALOS) and the Secretariat of the IHO provide one ex-officio member each. The ABLOS is charged with providing advice, guidance and, where applicable, offering expert interpretation of the hydrographic, geodetic and marine geo-scientific aspects of the Law of the Sea to the parent Organizations, their Member States or to other organizations on request. It also reviews State practice and jurisprudence on Law of the Sea matters which are relevant to the work of the Board to enable it to provide expert advice when needed. The ABLOS also studies, promotes and encourages the development of appropriate techniques in the application of the technical provisions contained within the UN Convention on the Law of the Sea (UNCLOS). IHO publication C-51-*Manual on the Technical Aspects of the United Nations Convention on the Law of the Sea* is maintained by the ABLOS.

The 26th Business Meeting of ABLOS was held at the IHO Secretariat in Monaco on 7 and 10 October 2019. The 10th ABLOS Conference, titled '*Opportunities and Challenges in the Governance of the Planet Ocean*' took place from 8 to 9 October 2019 and also was held at the IHO Secretariat.

26th Business Meeting of ABLOS

The ABLOS members and observers from Australia, Brazil, Chile, Denmark, France, Republic of Korea the United Kingdom (UK) and United States were present; the appointed observers from Sweden (IAG) and India (IHO) sent apologies; representatives from Qatar and Japan also attended both events. The Chair, Professor Niels Andersen (IAG – Denmark), welcomed all Board members and observers to the business meeting.



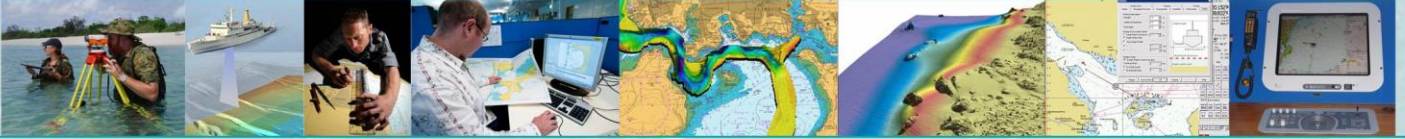
ABLOS Members gathered for ABLOS BM26 in Monaco

The first session of the business meeting completed final preparations for the 10th ABLOS Conference.

ABLOS members and observers discussed notable topics from the various conferences, seminars and workshops that they had attended and undertaken since the previous business meeting. The meeting also discussed the ABLOS capacity building training course, the revision of the material and its ownership and a small group was established to lead this work.

During the 2nd session of the Business Meeting the Terms of Reference and Rules of Procedure for the ABLOS and the Conference Fund Guidelines were reviewed and a number of editorial amendments were identified. The ABLOS noted that two IHO appointed members and one AIG appointed member were due to end their terms in 2021. All were requested to advise whether they would be available for re-nomination by their respective host organizations or whether they were aware of suitable candidates to fill the forthcoming vacancies.

The final actions to complete Edition 6.0.0 of the TALOS Manual - C-51 – *Manual on Technical Aspects of the United Nations Convention on the Law of the Sea - 1982* – were agreed, noting the action placed on the ABLOS by HSSC11. In addition the French and Chilean members of the ABLOS provided progress reports on the French and Spanish translations of Edition 6.0.0. It was also agreed to start a holistic review of the C-51 in preparation for an Edition 7.0.0.



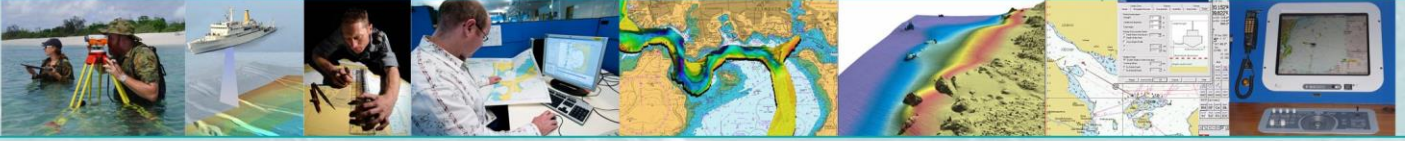
The ABLOS also identified the main resultant output and action from the 10th Conference and the ABLOS agreed to investigate the legal status of Crowdsourced Bathymetry (CSB) with respect to UNCLOS. It was hoped that opinion papers could be developed for publication and supporting presentations made at appropriate events to help clarify the status of CSB and potentially gain wider national acceptance for the activity.

The focus of the regional seminar in Brazil, which will be held immediately following the next Business Meeting, was discussed and agreed. The meeting then considered the theme, title and keynote speaker for the next Conference, the 11th ABLOS Conference, which will be held in Monaco in 2021. It was agreed that there was a need to maintain the momentum generated at the 10th Conference and therefore dates, the title and keynote speaker needed to be advertised at least 18 months ahead of the proposed dates. A Conference organizing committee was formed to undertake these tasks.

On completion of the ABLOS Conference, Mrs Izabel King-Jeck (IHO-Brazil) assumed the role of Chair and Dr Juan-Carlos Báez (IAG – Chile) was elected as Vice-Chair.

10th ABLOS Conference

The 10th ABLOS Conference was attended by 70 delegates and 25 different States were represented, (Australia, Belgium, Brazil, Canada, Chile, China, Denmark, Faeroes Islands, France, Germany, Indonesia, Japan, Kuwait, Netherlands, New Zealand, Norway, Oman, Portugal, Qatar, Republic of Korea, Saudi Arabia, South Africa, Sweden, United Kingdom and USA). The Conference included 20 presentations covering a wide variety of topics and issues in relation with the theme “*Opportunities and Challenges in the Governance of the Planet Ocean*”. IHO Secretary-General, Dr Mathias Jonas, welcomed the delegates on behalf of the IHO. The opening key note address was given by Professor Ronán Long, Director of World Maritime University-Sasakawa Global Ocean Institute. The general theme of the conference was the growing recognition that the oceans are crucial to global sustainability and play a key equilibrating role in global climate as the primary sink for excess heat and carbon present in the global climate system and represent a vital repository and supporter of global biological diversity. Noting coastal and ocean areas are the drivers for the global economy, especially through sea-borne trade as well as via a rising ‘Blue Economy’ around the world, and play a crucial and increasingly important role in global food security. These areas are therefore of critical importance across scales, from the global to the regional, national and sub-national coastal community levels. Acknowledging that the oceans are also increasingly under threat, notably as a result of enhanced competition for coastal and marine resources, and intense and diverse uses of coastal and marine spaces, threatening their sustainability. All too frequently this competition leads to friction and tension among marine users and incompatible spatial and temporal overlaps between uses of ocean space. The impacts of climate change on the oceans further compound these issues. Governing our ‘Planet Ocean’ therefore represents a vital and pressing opportunity and



challenge. The conference provided an opportunity to reflect on, principally, legal and technical aspects relating to a range of these themes. The presentations on various aspects of the Law of the Sea generated numerous questions and comments in plenary and much discussion in the margins during the breaks.



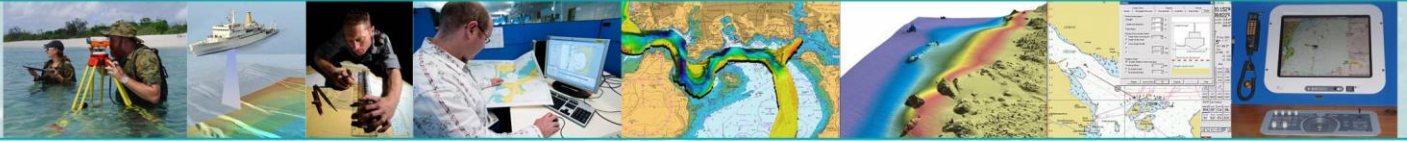
Participants at the 10th ABLOS Conference

Date of Next Meetings

The next Business Meeting (BM27) and Seminar will be held in Niterói, Brazil, 6 to 9 October 2020 and the 28th Business Meeting and the 11th ABLOS Conference will be held in Monaco and is planned for the period 4 to 7 October 2021. Details will be available from the IHO website as the planning progresses.

Availability of Documents

The documents considered by the business meeting and the presentations given at the Conference will be available from the ABLOS section of the IHO website (IHO → Committees and Working Groups → HSSC → ABLOS).



NEW HYDROGRAPHER OF KOREA



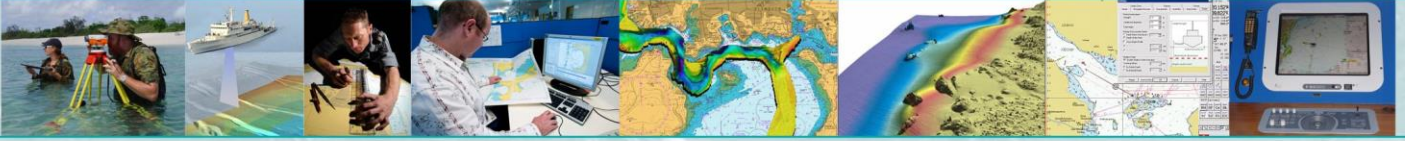
Dr. HONG Lae Hyung

Academic Background

- 2010 PhD Logistics and Operations Management, Cardiff University, UK
- 1996 MSc Public Administration, Seoul National University, ROK
- 1994 BSc Public Administration, Korea University, ROK

Professional Career

- | | |
|-----------------------|---|
| Sep. 2019 – Present | Director General, Korea Hydrographic and Oceanographic Agency, Ministry of Oceans and Fisheries (MOF) |
| Jan. 2018 – Sep. 2019 | Director, Audit and Inspection Division, MOF |
| Aug. 2016 – Dec. 2017 | Director, Port Management Division, Shipping and Logistics Bureau, MOF |
| Aug. 2013 – Aug. 2016 | Seconded Officer, Organisation for Economic Co-operation and Development (OECD) |
| Jul. 2012 – Jul. 2013 | Director, Navigational Safety Information Division, Maritime Affairs and Safety Policy Bureau, Logistics and Port Office, Ministry of Land, Transport and Maritime Affairs (MLTM) |
| Mar. 2011 – Oct. 2011 | Director, International Cooperation Division, Policy Planning Bureau, Planning and Coordination Office, MLTM |



- Jun. 2010 – Mar. 2011 Director, Marine Territory Development Division, Marine Policy Bureau, MLTM
- Jun. 2008 – Jun. 2010 Head, Compensation Policy Team, Hebei Spirit Incident Compensation Bureau, MLTM
- April 1995 Appointed as a Civil Servant