

## 13<sup>TH</sup> MEETING OF THE IHO INTER-REGIONAL COORDINATION COMMITTEE (IRCC13) VTC meeting, 23-25 June

Contribution to the IHO Work Programme 2021	
Task 3.1.1	Organize, prepare and report annual meetings of the Inter-Regional Coordination Committee (IRCC)

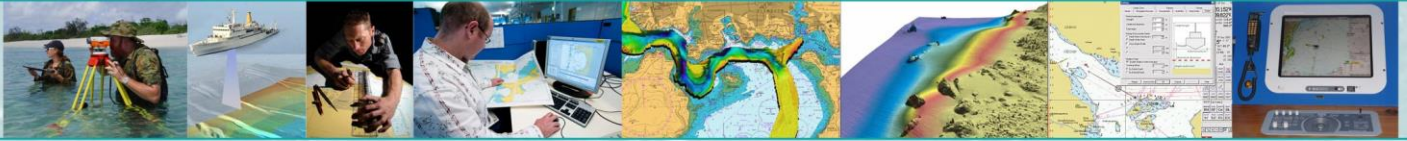
The 13<sup>th</sup> meeting of the IHO Inter-Regional Coordination Committee (IRCC13) was held in a virtual format on 23, 24 and 25 June 2021. The meeting was chaired by Mr Thomas Dehling (Germany) and attended by 80 participants from 30 Member States (MS). All Regional Hydrographic Commissions (RHC) and Subordinate Bodies of IRCC were represented. The IHO Secretariat was represented by the Secretary-General, Dr Mathias Jonas (HCA Chair), Director Luigi Sinapi (IRCC Secretary) and Assistant Director Leonel Manteigas (IRCC Assistant Secretary).



Some participants at IRCC13 VTC

The meeting was opened by the Chair, Mr Thomas Dehling, who welcomed the participants and expressed the wish to have a meeting in person as soon as possible. The Secretary-General addressed the participants on the importance of IRCC for the future of hydrography





and on the celebrations of IHO Centenary, held in a hybrid format in Monaco on 21 June 2021.

The Hydrographic Services and Standards Committee (HSSC) Chair presented the importance of the S-100 implementation and the interoperability between S-101 ENC's and other products. In relation with the IHO Strategic Plan, the agreement on the metrics to survey the SPI allocated to HSSC was mentioned. S-100 Product Specification developments, S-98 Interoperability Specifications and the S-100 Navigation package were described and information was provided on the establishment of two new Project Teams, respectively on "S-130 - Polygonal Demarcations of Global Sea Areas Product Specification" and on "Maritime Autonomous Surface Ships (MASS)". Some strategic issues were identified on S-100, such as the dual fuel concept and the need to have a governance document, as well as the parallel production of S-57 and S-101.

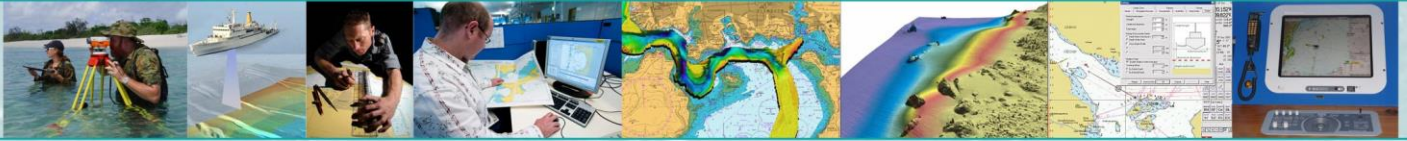
Director Sinapi provided the IHO Secretariat Report, mentioning the most important outcomes of the 2<sup>nd</sup> Session of the Assembly, the 4<sup>th</sup> Council meeting, IHO outreach and the launch of the new International Hydrographic Review (IHR) website in conjunction with the IHO Centenary's celebrations.

The RHC Chairs focused their reports on three main topics: "Work on Strategic Plan and Gap Analysis", "Important Findings" and "Proposals to IRCC". The main concerns were related to the need for guidance on the determination of SPI values at regional level and the collaboration and coordination in the implementation of the S-100 Roadmap. Some RHC's Chairs mentioned communication issues between Member States, the low productiveness of VTC, the difficulty in recruiting new Member States, the implementation of MSDI initiatives, the postponement of Capacity Building projects and the importance of online training, such as the online courses offered by UKHO.

The Sub-Committee on the World-Wide Navigational Warning Service (WWNWS-SC) Chair informed on the most recent meetings and showed a graph with the percentage of National Coordinators providing contributions to the different NAVAREAs. The graph can be used to measure the efficiency of the MSI Capacity Building course as well as where to focus capacity building training. Another graph detailed an increasing trend over the last five years with respect to the promulgation of navigational warnings by the WWNWS, showing a steady increase tendency of 14%. Due to the lack of qualified trainers, it is intended to review the course materials and to offer a train-the-trainer course.

The Capacity Building Sub-Committee (CBSC) Chair presented the CB Work Program (CBWP) mentioning the significant impact of the COVID-19 pandemic on the CB activities. The total funds for CBWP non-earmarked projects had a decrease, which limits the funded projects. The generous financial contributions from Republic of Korea and Nippon Foundation from Japan were recognized, as well as the contribution of Canada to the Empowering Women in Hydrography project. CBSC decided to establish an Activity Calendar for the Virtual CB





activities accessible to the participants. In relation to the funds, almost all 2020 CB projects were moved to 2021 and 2022. Therefore, temporarily there will be an increase in the number of funded projects. CBSC established a Project Team to Revise the CB Strategy that conducted a Gap Analysis between the new IHO Strategy and the current CB Strategy. The Project Team identified three work items: “Draft aligned CB Strategy”, “Update phases of development” and “Add a 5<sup>th</sup> step to the process of the CB Strategy (Awareness; Assessment; Analysis; Action)”, in order to address Measures of Effectiveness (MoE). The IHO e-Learning Center Project Team established TOR and ROP, with good expectations to receive contents from some Working Groups (WG) and Institutions. It is expected that the Guidelines will be finished by next September, in order to start the operational tests with the IHO Member States in 2022. Director Sinapi mentioned that – due to a foreseeable IHO budget surplus – at the end of 2021 there could be the opportunity to increment the 2022 CB budget, but he also encouraged more initiatives such as the UKHO’s online courses.

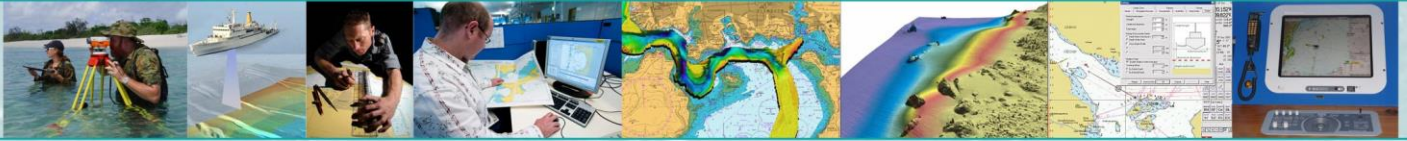
The Worldwide ENC Database Working Group (WENDWG) Chair reported that work was mainly focused on the WEND-100 principles that may not apply (entirely) to all S-1xx products. The Implementation Guidelines will determine how they are applied to each Product Specification. The WG also started working on the S-101 ENC Scheming Guidelines to ensure an efficient transition from S-57 to S-101. A questionnaire was developed for ENC producers to express their plans regarding HD ENCs. The plan for an INTOGIS III using S-128 (Catalogue of Nautical Products) was welcomed. WENDWG also agreed to develop Guidelines to assist in the transition from S-57 to S-101.

The Italian HO presented a questionnaire developed with the University of Genoa, as a joint effort to conduct a research on how the introduction of S-100 products is perceived by Hydrographic Offices, and how it is going to influence them in the coming years. This study is part of a wider study focused on how the introduction of S-100 will affect shipping companies and maritime operators.

The Marine Spatial Data Infrastructures Working Group (MSDIWG) resumed work with a VTC held in March. The concept of MSDI Ver.2.0 was presented and the Artic SDI with a Governance model was mentioned that could be a role model for RHC MSDI cooperation. The Strategic Performance Indicator (SPI) related to Target 2.1 - Build a portal to support and promote regional and international cooperation in marine spatial data infrastructures (MSDI), was discussed with the intention to investigate the different possibilities and needs of MS. MSDIWG was also tasked to follow Marine Spatial Planning (MSP) and EU’s New Blue Economy for a Sustainable Future. Finally, the close work with the UN-GGIM-WG on Marine Geospatial Information was explained.

**The IHO-EU Network Working Group (IENWG)** provided a highlight on the main contribution of the IHO to the European programmes, with particular focus on EMODnet Portals and the specific case of the EMODnet bathymetry. Maritime Spatial Planning is another area of





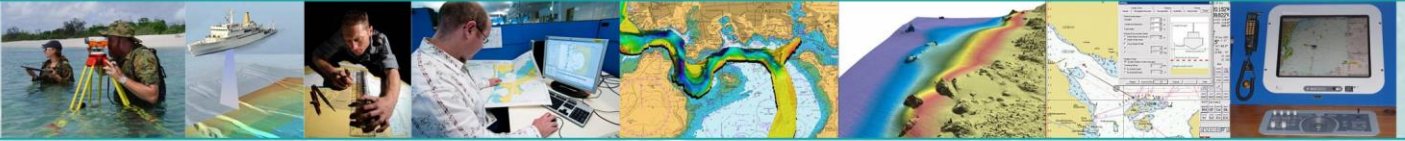
interest, as IENWG is an observer of the EC Member State Expert sub-group on MSP. The interactions with the EUROGOOS, part of the IOC GOOS, was mentioned with discussions about the interoperability and re-use of scientific data. The European Directive 2019/1024 on Re-use of public sector information was also described, informing that it may include, beyond data, also the dissemination for free and without charges of products such as ENCs.

The FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) mentioned that at the IBSC43 meeting 15 submissions were reviewed with only one recognized, and 5 recognized with conditions. The Board offered 10 inter-sessional revisions. At the end of 2020, from the 15 submissions, 11 were recognized. In 2021, at IBSC44, 14 submissions were reviewed with only one recognized, and 3 recognized with conditions. The Board offered 9 inter-sessional revisions. The main issue is the initial poor quality of submissions resulting in remedial iterations, causing a heavy workload to IBSC. The COVID situation required modification of teaching strategy and the development of remote learning strategies, with a negative impact on IBSC work and meetings.

The Crowdsourced Bathymetry Working Group (CSBWG) reported on the last meeting and the successful election of a new Vice-Chair. The Circular Letters (IHO CL 21/2020 and IRCC CL 1/2020) requested MS to indicate their positions on the provision of CSB data, received 30 positive replies. The Meeting was informed on the current CSB efforts and projects. On the outreach, CSBWG10 discussed how the engagement with the RHC and HO can be improved. The draft of the CSB Summary Guides and the update of IHO B-12 were described. It was highlighted that many coastal states continue to misunderstand the objectives and focus of the CSB initiative, which are to collect data in poorly surveyed or unsurveyed areas. Also, there continues to be concern over the apparent lack of dedicated resources available within national HOs to process data available via the IHO Data Centre for Digital Bathymetry (DCDB). The importance of liaison with other IHO bodies, as well as appropriate engagement with industry to progress the work items, continues to be a key enabler for the project. The quality of data has grown considerably in the last years having now more than 60TB. The Centre has about 25 GB of CSB data from 185 contributing vessels. DCDB implemented a geographic filter considering MS positions on the collection of CSB data in the areas of jurisdiction. The result is that data from only 13 CSB-supporting countries is currently accessible via the DCDB viewer that allows to discover the archived data. DCDB now hosts the GEBCO Gazetteer, a web tool that allows the public to search for, view, and download information. IHO MS and stakeholders were invited to contribute and encourage the provision of bathymetric data regardless of its origin or reason for gathering.

The GEBCO Guiding Committee mentioned the progress from 6% to 21% minimum acceptable data coverage, which is still not comparable with the 100% 10m DEM coverage of all landmass. UN Decade of Ocean Science for sustainable development clearly stated the need to complete a comprehensive map of the ocean floor. The importance to invest in future





generations of ocean scientists and hydrographers and the GEBCO Training Program with the University of New Hampshire were enhanced. It was decided to establish a new Sub-Committee on Education and Training to liaise with this successful existing program and to identify and connect with other ocean mapping programs. The core of GEBCO activities is building partnerships, regionally and nationally and some examples were mentioned. GEBCO's two biggest challenges are: how to get governments, institutions, private industry and their contractors to share more existing bathymetric data; and, how to get the remaining ~80% of our planet's unmapped ocean seafloor mapped.

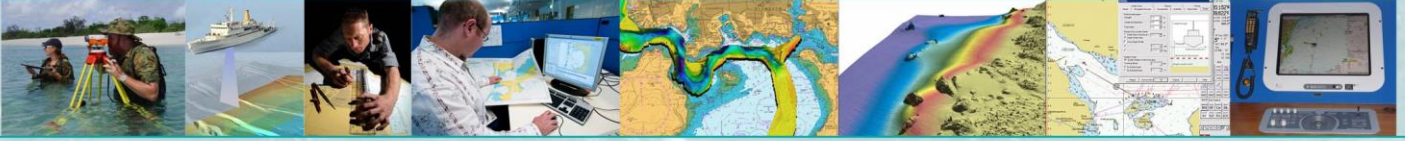
The Seabed 2030 project was recently endorsed by IOC as an Action of the UN Decade of Ocean Science for Sustainable Development. The complex network of this project was explained along with the data ingestion in the system and mapping coverage that now stands at 20.6%. The project is focused on mapping the gaps with three different initiatives: the Ocean Frontier Mapping, Crowdsourced Bathymetry and Technology Innovation. It was mentioned that it is necessary to promote the need to map the entire seabed and to encourage governmental and private organizations to make their data available.

Shell provided a presentation on "Enabling Contributions" showing where Shell operates and hydrographic, seismic and geological data are acquired. There is also the acquisition of MBES data in the vessels transits. Shell acquires data but does not have permission to share/donate without explicit prior country permission and the process to seek permission is complex. In order to enable contributions to Seabed 2030 it was recommended to improve the collaboration between national Hydrographic Offices and the Natural Resource Regulator, and simplify and reduce permitting requirements for transits through country Exclusive Economic Zones.

The General Manager of the IHO-Singapore Innovation and Technology Laboratory presented its objectives, the structure of the governing board and the TOR. Projects can be shared by the IHO with other International Organisations and IHO Member States, alone or in partnership with Stakeholders. The 1<sup>st</sup> Governing Board meeting was conducted on 28 April and IHO Director Kampfer was appointed as Chair and Mr Parry Oei (Singapore) as General Manager. Two projects were already submitted: "The automated conversion of S-57 to S-101" and "The S-131 database". The Laboratory is planned to be officially launched in October 2021.

In his summary, the IRCC Chair mentioned the importance to have time in the meeting for the Regions and for the Subordinate bodies to discuss the Gap Analysis, S-100 Implementation Strategy and SPI. In relation with the Strategic Plan, it is important to exchange strategies and experiences. It was mentioned that the SWPHC18 provided an excellent gap analysis that could be used as example for other RHC. Cooperation is considered essential, as well as the sharing of experiences within RHC and internationally. The Chair used the HSSC template to propose the allocation of SPI to the relevant IRCC





bodies, with the need to involve the RHC to contribute in measuring of SPI. The involved IRCC bodies were asked to report back on that at IRCC14. It was proposed to have an IRCC Workshop in September/October 2021 (date TBD), on the implementation of IHO Strategic Plan and related SPI. The Chair also discussed how to work strategically at IRCC level on sequencing the RHC conferences, IRCC and Council, using VTC and meetings in person and the fact that the strategic issues will be generally reflected into the Council.

PRIMAR provided a presentation on S-100/S-101 courses available on PRIMAR Training Portal. The Chair asked CBSC to liaise with PRIMAR and IC-ENC to try to find opportunities for the IHO E-learning Center.

The next IRCC meeting is planned to be held in May/June 2022 in Indonesia (with Monaco as backup). Following meetings will be held in Japan (2023) and in Ecuador (2024).