

## **20<sup>th</sup> Conference of the Mediterranean and Black Seas Hydrographic Commission**

**(MBSHC)**

**Cádiz, España (Spain)**

**11 - 13 June 2019**

Chairman's report

1. This report covers the activities of the MBSHC since its 20<sup>th</sup> conference in Herceg Novi in July 2017.

### **General characteristics of the region**

2. The Mediterranean Sea is an intercontinental sea that stretches from the Atlantic Ocean to the west of Asia on the east and separates Europe from Africa for a total length of approximately 2,500 miles. The region is referred to as the Mediterranean because it is a word that means the sea between the lands, which is exactly what the Mediterranean Sea is, quite literally. The northernmost point of the Mediterranean Sea is the innermost inlet of Croatia, while the southernmost point of the region is the inland region of Libya that just barely touches the coast of the Gulf of Sidra.

Even with its own peculiarities, the Black Sea, the largest land-locked basin in the world, is part of this regional system. The two basins have been a crucial crossroad in the history, economy and culture of Europe, Middle East and North African countries. However, until very recently, little attention has been paid to the past and current impact of human activities on the basin, and no coordinated plan for a coherent and sustainable use of its resources has been developed yet.

### **Memberships**

3. Members (22): Algeria, Bulgaria, Croatia, Cyprus, Egypt, France, Georgia, Greece, Italy, Malta, Monaco, Montenegro, Morocco, Romania, Russian Federation, Serbia (suspended), Slovenia, Spain, Syria (suspended), Tunisia, Turkey, Ukraine.
4. Associate members: Israel, Palestinian Authority, United Kingdom, United States of America.
5. Observers: Two coastal States of the region are among the observers and expressed their intention to join IHO: Albania and Lebanon.

### **Activities since the last conference of MBSHC (July 2017 – Herceg Novi)**

#### ***Corporate Affairs***

#### **6. Cooperation with the European Union**

MBSHC Member States are active in participating to the IHO-EU network working group (IENWG). Greece is the MBSHC focal point for the IENWG and has provided an updated list of maritime related events, projects and tenders of interest for the MBSHC, as requested. Several MBSHC Member States took part in European Commission's flagship maritime projects EMODNET and are active in the revision of EU Directive on Re-use of public sector information.

#### **7. Cooperation with IOC**

Following the Intergovernmental Oceanographic Commission (IOC) of UNESCO recommendations given during MBSHC20, IHO and IOC increased their cooperation throughout active participation in coordinated initiatives such as working groups, workshops and conferences.

In particular, the NAVAREAIII coordinator participated in NEAMWave17 exercise (31 Oct – 3 Nov 2017).

After the establishment of the ICG/NEAMTWS in 2005, steady progress has been made towards the establishment of a regional early warning and mitigation system for tsunamis and other sea-level related hazards. Moreover, a number of countries have already established Tsunami National Contacts (TNCs) which are diplomatic focal points and Tsunami Warning Focal Points (TWFPs) which are the national institutions authorized to receive tsunami watches from the regional centers, and issue national tsunami warnings.

Furthermore, MBSHC Member States should:

- Densify sea level networks particularly nearby tsunamigenic sources;
- Share sea level data relevant to Tsunami detection and alerts;
- Increase high resolution bathymetry production for Tsunami modelling and forecasting;
- Encourage sharing of high-resolution bathymetry data.

## **8. Cooperation with CIESM**

MBSHC Member States increasingly liaison with CIESM under the IHO-CIESM MoU umbrella, for the benefit of the oceanography in the Mediterranean Sea.

This year CIESM celebrates its centenary through several initiatives focusing not only on the exchange of marine knowledge, standards, and procedures but also on shared training and a constructive and dialogue among Mediterranean Nations for the benefit of the society. The MBSHC Chair, R. Adm. Luigi Sinapi, has been invited to speak at the 42<sup>nd</sup> International Conference of CIESM in Cascais (Portugal) in a panel dedicated to “Marine Exploration”.

## **9. Attending to C1 e C2: decision/action influencing MBSHC**

IRCC was tasked by the Assembly at its first session (A-1) to review the IHO Resolution 2/1997 as amended “*Establishment of Regional Hydrographic Commissions – RHC*” in accordance with Decision A-1/5. The revised IHO Resolution 2/1997 updated the framework under which the IHO and the RHCs cooperate and aligns this relationship with the IHO General Regulations as amended (article 8).

In fact, after the first minor editorial changes intended to bring the wording into line with the General Regulations, a more comprehensive revision of the resolution was performed by RHCs. In particular, the Council endorsed the proposed amendments to the IHO Resolution 2/1997, with the wording changed in paragraph 1 to read in the last sentence. “*Recognized by the Assembly, the RHCs ...Secretariat.*” The IHO Secretariat is to issue an IHO CL seeking the approval of Member States on these amendments.

It has to be noted that the revising work is still in progress (action C2/20) for potentially more substantive changes. IRCC is going to submit the consolidated amendments to the IHO Resolution 2/1997 at C-3 for subsequent approval at A-2.

Finally, the Council confirmed the autonomy of the two IHO Committees (IRCC and HSSC) and, in particular, endorsed the proposed amendments to the IRCC TORs and ROPs, as revised during C-2, with full alignment with the ROP of HSSC.

During C-2, Seabed 2030 project, which has been operational since February 2018, has been introduced. Its ambitious goal is to bring together all available bathymetric data to map 100% of the topography of the ocean floor by 2030 and make it available to all, thereby contributing to the implementation of United Nation’s SDG14 (Conserve and Sustainably Use the Oceans). The project is a collaboration between IHO-IOC GEBCO and the Nippon Foundation. It will identify gaps in data coverage and prioritize and champion future survey operations to “map the gaps”.

Dr Allen invited and welcomed the active support and participation of the Regional Hydrographic Commissions in Seabed 2030. Dr Allen considered the RHCs an important and key resource to achieve the Seabed 2030 vision.

## **10. The second session of the Assembly will take place in Monaco, from 19 to 25 April 2020**

The Assembly will be an opportunity to discuss the “*IHO future strategic plan*” drafted by SPRWG thanks to the Council input. The SPRWG Chair is to engage with HSSC and IRCC Chairs and provide them with draft the Strategic Targets and Performance Indicators that were considered at HSSC-11 and IRCC-11 for their initial feedback on the possible implementation in the future.

RHCs and RENCs will have an important role in the dissemination of the S-100 concept and, in addition, they will also have a key function in its operationalization and implementation.

## ***Hydrographic Services and Standards***

### **11. HSSC**

Since 2017, the Hydrographic Services and Standard Committee (HSSC) has met three times (HSSC 9, HSSC 10 and HSSC 11). Thanks to the input provided during the Committee works, WGs achieve great results that are summarized as follows taking into account HSSC priorities:

- Develop an S-100 Interoperability Specification;  
S-100WG is pursuing the development of Ed. 1.0.0 of S-98 as part of the S-100 Implementation Strategy with the aim to submit Ed. 1.0.0 for endorsement in 2020/2021.  
The stake of interoperability has to be focused on enabling a harmonized display of information coming from different S-100 products. This is a fundamental goal to reach in e-navigation context. The development of interoperability specification S-98 is still in progress.  
RHCs will have a role for a harmonized implementation process of the S-1xx framework.
- Develop all the components needed to make S-101 a reality;  
HSSC-11 agreed that the first revision Ed. 1.1.0 of S-101 is expected in December 2020. The plan for an interim S-101 Edition 1.1.0 is based on remaining action items deemed resolvable within the next calendar year as well as any feedback from initial industry implementation efforts.  
HSSC-11 noted that the planned publication timeframe for Edition 2.0.0 is December 2022. The S-101 components for Encryption and Alerts and Indications are planned to be fully developed.
- Develop S-121 Product Spec for Maritime Limits and Boundaries;  
HSSC encouraged these IHO Member States to participate in the S-100 WG review process of S-121. RHCs may have a role to spread this message.  
HSSC encouraged the S-121PT, under the management of the S-100WG Chair, to pursue the development of Ed. 1.0.0. of S-121 in accordance with HSSC Rules of Procedures and IHO Resolution 2/2007 and make it available for testing and experimentation when appropriate.
- Consolidation and clarification of standards in relation to ECDIS/ENC;  
In accordance with HSSC10 decisions, ENCWG liaised with CIRM and IEC to update S-63 for improved security for investigations and risk assessment. In particular, some technical issues presented to CIRM ECDIS WG lead to the new edition of S-63 IHO Data Protection Scheme addressing Cyber Security concerns.  
HSSC-11 tasked ENCWG to develop a draft proposal for mitigation measures for cyber security in collaboration with the CIRM Cyber Risk Management WG / IEC and make an impact assessment and further investigations.
- Prepare Ed. 6.0.0 of S-44;  
HSPT is finalizing the drafting process of Edition 6.0.0 of S-44. As agreed during HSSC-11 the final draft version 1.x.x of the 6th Edition of S-44 will be circulated to all stakeholders, prior to submission for endorsement to HSSC-12. HSPT will submit a final proposed version 2.0.0 of 6th Edition of S-44 to HSSC for endorsement, with the aim to submit it to IHO Member States for approval by July 2020.
- Consider data quality aspects in an appropriate and harmonized way for all S-100 based product spec;  
HSSC approved the proposed amendment to the DQWG, so the DQWG can also support IRCC WGs and Sub-Committees (MSIDWG, S-124PT, CSBWG for instance) on request.

DQWG activity covered the following data quality aspects:

- Review of S-100 based product specifications for DQ aspects;
  - Development and maintenance of a data quality checklist for product specification developers (S-97 – part C Data Quality - DQ Guideline);
  - Monitoring of ISO and other international standards regarding DQ and advising the S-100WG accordingly;
  - Providing guidance on DQ aspects to HOs in particular to ensure harmonized implementation.
- Develop initial guidance on definition and harmonization of Maritime Service Portfolios  
HSSC tasked the responsible HSSC WGs to review the initial descriptions of “Maritime Services in context of e-navigation”, as renamed by IMO/ IHO Harmonization Group on Data Modelling, and to provide them to NIPWG for further action if appropriate. It also invited the IRCC/WWNWS-SC to provide their contribution. NIPWG will coordinate the provision of the Marine Services definition under IHO remit. These definitions should be based on the HGDM template.

### *Inter-regional Coordination and Support*

## **12. IRCC 10 – IRCC 11**

### **a) Region F ICCWG**

France, as coordinator of international charting schemes for the region F (F-ICCWG), has represented the MBSHC to the 8th (Buenos Aires, Argentina 20-22 March 2018) and 9th (Brest, France 26-28 February 2019) meeting of the Worldwide ENC Database Working Group (WEND WG). These meetings have enabled progress on the implementation of WEND guidelines, as well as on the definition of a procedure for handling overlaps between ENCs. Unless bilateral discussions can solve remaining overlaps soon, there was a general agreement that time has come to start applying the different steps identified in IHO Resolution 1/2018, with common sense and on a case-by-case basis, to be in a more robust position for assessing the efficiency of this Resolution in the near future.

### **b) BASWG**

MBSHC Chair participated at BASWG 14<sup>th</sup> meeting in Costanta (RO), highlighting the main issues discussed during MBSHC20 such as coverage gaps, ENC overlaps and ENC schemes. In that occasion, BASWG Members were invited to provide views and appropriate actions to apply the new Resolution on the elimination of overlapping ENC data.

Black and Azov Sea Member States participate at Region F activities under the guidance of the IIC coordinator.

### **c) CATZOC**

Approximately 38% of ENCs commercially available still have CATZOC U values and need to review their current ENC production processes and make changes to encode meaningful values of CATZOC. Region F is affected by this and needs to be addressed through the IRCC to MBSHC HOs in order to encourage the reviewing of the current ENC encoding activity.

### **d) Crowdsourced Bathymetry initiative**

Crowdsourced Bathymetry Working Group (CSBWG) reviewed the final draft version of the B-12 Guidelines which was presented to Member States for adoption via IHO Circular Letter 11/2019. 35 Member States approved the adoption of B-12 out of 38 replies.

Member States have also been asked to support CSB activities in water of national jurisdiction. The updated list of engaged countries will be posted on the IHO web site.

The continued importance of liaison with other IHO bodies, such as MSDI and RHCs, as well as appropriate engagement with industry to progress the work items, was identified as a key enabler for the CSB project.

### **e) MSDI Ambassador (CL04/2018) and UN-GGIM**

MBSHC-20 emphasized the importance of MSDI initiatives and that MSDI is to be a standing agenda item in MBSHC conference in order to contribute to sea related economic developments. In fact, following decision MBSHC 20/01 an Italian representative attended the 9th MSDIWG Meeting as

Ambassador of the region F, and he will report back during MBSHC-21 in order to provide useful elements to MSs not attending MSDIWG meeting.

Moreover, as stated during IRCC-10, MSDIWG is developing a basic MSDI training material in order to allow RHCs to deliver trainings with their own personnel and contribute to the creation of an open, accessible and interoperable Marine Spatial. Data and information infrastructure.

Italy attended the MGIWG (UN-GGIM) as required by A-1, C-1 and IRCC-9. The MBSHC Region has been represented in the highest world forum on Marine Geospatial matters.

### **13. Professional certification or individual recognition scheme for Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (CL 01/2018)**

Chapter 6 of the “Guidelines for the implementation of the standards of competence for hydrographic surveyors and nautical cartographers” (ed. March 2017) focuses on the importance of professional certification or individual recognition schemes “to monitor and assess individuals at regular intervals and to register them in a formal system so that an individual may gain professional certification or individual recognition at a defined level of competency which may include Category A and Category B”.

A questionnaire was circulated through the MBSHC MSs in order to have a common and complete picture of the situation within Region.

### **14. NAVAREA**

MBSHC Member States are encouraged to establish closer engagement between their National MSI Coordinators and the NAVAREA Coordinator.

### **15. Status of Hydrographic Surveying and Charting Worldwide – C-55**

Region F ICC Coordinator asked the Member States to review the content of the IHO Publication C-55 and to provide updates accordingly in order to ensure consistency for their national entries.

On this regard, with CL20/2019, the IHO Secretariat has launched an online form system to receive fully digital responses to Circular Letters and to update information on two IHO Publications (C-55 “Status of Hydrographic Surveying and Charting Worldwide” and P-5 “Yearbook”). The online form system will enable better data collection and information management through direct ingestion into data bases and thereby reduce errors and improve efficiency.

Member States are also encouraged to provide CATZOC information for C-55, directly or via RENCs as an interim solution introducing CATZOC information.

### **16. Industry at MBSHC**

In accordance with IRCC guidance, MBSHC is engaging with stakeholders, in particular with the Intergovernmental Oceanographic Commission (IOC) and the hydrographic and maritime industry. Current efforts in the region are focusing on Maritime Safety Information (MSI), disaster mitigation and rescue operations, MSDI, training, e- Navigation and crowd-sourced bathymetry.

MBHSC-21 will be characterized by an important participation of the stakeholder community: their presence will provide a benefit to the Committee works.

### **17. CB Activities put in place in the last two years**

Capacity building plays a key role in the Region and the enlargement, not only of the MBSHC, but also of the number of IHO Member States is beneficial. Bulgaria has become an IHO Member State, and joined MBSHC in 2018. Albania has been asked to consider signing the MBSHC Statutes, to become an Associate Member State. Lebanon, strongly supported by Italy in establishing a National Hydrographic Service, is also considering the possibility to join the IHO. Turkey represents the MBSHC at the CB Sub-Committee and is in charge of updating the MBSHC 3 year CB work plan. CB activities since IRCC-10:

- “Port & Shallow Water Survey Course” (Sept 2018): 6 participants;
- MSI Training (Sept 2018): 8 participants;
- Technical Visit to Georgia (Oct 2018).
- Technical Visit to Lebanon (May 2019).

### **18. GEBCO**

During IRCC-10, the GGC Chair presented an insightful look into the quality and density of the underlying GEBCO data, considered insufficient for most uses. RHCs are encouraged to contribute to GEBCO with

bathymetric data in shallower coastal areas from their Member States in order to support the production of higher resolution gridded data GEBCO products. IRCC invited RHCs to engage and communicate with GEBCO members to their meetings. MBSHC make effort to disseminate GEBCO and Seabed 2030 concept.

### ***Perspectives***

#### ***Chair's view***

Since MBSHC-20, MBSHC actions have been guided by the desire to promote coordination between Member States. Considering the characteristic complexity of the Mediterranean basin, its geographical and cultural peculiarities, dialogue between the 22 States can be fostered only through a strong coordination, favoring the overcoming of the intrinsic difficulties.

Coordination and cooperation between Member States was encouraged at two different levels: regionally, through the action of the RHC and bilaterally, through mutual agreement of the parties. Coordination with Black and Azov Sea Countries is also strategically important, considering the dimension of this sub-region (geographical extent and number of nations). Dialogue is encouraged through region F ICC Coordinator work and MBSHC Chair participating at BASWG meetings.

As MBSHC Member States have different needs in accordance with their different level of ambition, competences, and abilities, Capacity Building (CB) is a powerful instrument to build cooperation among countries, not only related to safety of navigation but also regarding marine knowledge in general. Capacity building acts through its instruments: visits, education, on job training and the creation of a shared geospatial infrastructure at Regional level (MSDI). At this regard, the role of the MSDI Ambassador, in line with UN-GGIM principles, needs to be empathized.

### ***Conclusions***

MBSHC Members, associates members and observers are invited to:

- Note this report;
- Make additions as may be necessary;
- Take any other action as deemed appropriate.