

**14<sup>th</sup> MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE  
IHO-IRCC14**

**Denpasar - Bali, Indonesia, 6-8 June 2022**

**Report of the East Atlantic Hydrographic Commission**

<b>Submitted by:</b>	EAtHC Chair
<b>Related Documents:</b>	EAtHC CL 03/2021; 01/2022; 02/2022; 03/2022 and 04/2022
<b>Related Projects:</b>	---

  

<b>Chair:</b>	Rear Admiral Carlos Ventura Soares (Portugal), until 28 January 2022 Rear Admiral Mário José Simões Marques (Portugal), from 28 January 2022
<b>Vice-Chair:</b>	Rear Admiral Laurent Kerléguer (France)
<b>Secretary:</b>	Commander João Vicente (Portugal)
<b>Member States:</b>	Cameroon, Democratic Republic of the Congo, France, Ghana, Morocco, Nigeria, Portugal, Spain
<b>Expert Contributors:</b>	IALA, IOC, RENCs
<b>Full List of contacts</b>	<a href="https://iho.int/uploads/user/Inter-Regional%20Coordination/RHC/EAtHC/MISC/20211201-EAtHC-contact-list.xlsx">https://iho.int/uploads/user/Inter-Regional%20Coordination/RHC/EAtHC/MISC/20211201-EAtHC-contact-list.xlsx</a>

## **1. Meetings Held During Reporting Period**

The 16<sup>th</sup> Conference of the Eastern Atlantic Hydrographic Commission (EAtHC 16) was held from September 29<sup>th</sup> to October 1<sup>st</sup>, 2021, in Lisbon, Portugal, hosted by the Portuguese Hydrographic Institute (IHPT). The Conference was the first IHO event held in hybrid format since the beginning of the pandemic. It was chaired by RAdm Carlos Ventura Soares, Director General of the IHPT. Simultaneous interpretation French - English was provided.

The Conference was attended by about 60 delegates: 30 (in-person) plus 28 (through video teleconference - VTC). Seven IHO Member States of the Region out of 8 (Democratic Republic of Congo, France, Ghana, Morocco, Nigeria, Portugal, Spain), 2 Associate Members out of 9 (Cabo Verde, Guinea-Bissau) and 4 Observers out of 9 (Gambia, São Tomé e Príncipe, United Kingdom and United States of America) were represented. Representatives of the Sub Commission for Africa of the Intergovernmental Oceanographic Commission (IOC) of the UNESCO, International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), RENCs (IC-ENC and PRIMAR) also attended the meeting together with 4 industry stakeholders (Kongsberg Maritime AS, Teledyne-Caris, ESRI Inc., EOMAP). Dr Geneviève Bécard (Council Chair, Canada) participated in some sessions as Observer. Director Abri Kampfer and Assistant Director Yves Guillam represented the IHO Secretariat.

During the Conference the representative of the Democratic Republic of Congo (DRC) signed the Statutes of the Commission as an IHO Member State and thereby became the 8<sup>th</sup> Member of the EAtHC.

Next meeting: EAtHC17 plenary conference organized by Cape Verde, September, 28<sup>th</sup> to 30<sup>th</sup>, 2022, preceded by Relationship with NAVAREA II and PCAs-Risk assessment - Survey specification (September, 26<sup>th</sup> and 27<sup>th</sup>, 2022).

## **2. Work Program**

The work has been done in alignment with the work programs of the IHO and its subsidiary bodies. In 2021 the EAtHC Chair participated in the IRCC and in the C-5 VTC meetings.

- a) The EAtHC CB coordination activities have been carried out by France (SHOM).
  - i. MSI&MSDI seminar [CBWP2021: Action P-32] – planned to precede the 16<sup>th</sup> EAtHC plenary held in hybrid mode in Lisbon at the end of September, 2021 – postponed to 2022, due to the low face-to-face attendance of African countries and in order to better sensitize the States of the EAtHC region on these topics of interest;
  - ii. CBWP2021 actions completed:
    - Technical visit to Cote d'Ivoire, led by SHOM from May 31<sup>st</sup> to June 4<sup>th</sup>, 2021 [CBWP2021: Action A-01];
    - Technical visit to Congo, led by SHOM from November 14<sup>th</sup> to 24<sup>th</sup>, 2021 [CBWP2021: Action A-04].
  - iii. CBWP2022 action completed:
    - Technical visit to Benin, led by SHOM from January 31<sup>st</sup> to February 4<sup>th</sup>, 2022 [CBWP2022: Action A-01];
    - Technical visit to Senegal, led by SHOM from April 11<sup>st</sup> to 15<sup>th</sup>, 2022 [former CBWP2021: Action A-05, postponed to 2022 and IHO funded in compliance with Decision 5 of CBSC19 intersessional meeting].
  - iv. Actions planned for 2022:
    - Technical visit to Morocco [CBWP2022: Action A-09] (foreseen to be carried out in June 2022);
    - Technical visit to Sierra Leone [CBWP2022: Action A-04];
    - Technical visit to Guinea Bissau [CBWP2022: Action A-06], IHO funded in the last version of CBWP2022 (V3);
    - Seminar: Relationship with NAVAREA II and PCAs-Risk assessment - Survey specification [CBWP2022: Action P-14]. This seminar is more suited to the needs of the EAtHC members and replaces the previously planned MSI&MSDI seminar.
- b) The International Charting Coordination (ICC) activities are being coordinated by France (SHOM), as the Region G Charting Coordinator, and are still ongoing.

The revised ICC-WG ToRS & RoPs, prepared by SHOM, were approved during EAtHC16 Conference (<https://iho.int/en/eathc-region-g-iccwg>).
- c) The first EAtHC Marine Spatial Data Infrastructure (MSDI) Working Group (WG) meeting (<https://iho.int/en/eathc-msdiwg>) took place, through VTC, on February 17<sup>th</sup>, 2022. Seven EAtHC coastal States have participated (France, Gambia, Ghana, Morocco, Portugal, Spain and United Kingdom).

The Terms of Reference (ToR) and Rules of Procedure (RoP) of the MSDI WG were approved. CDR Gerald Dias (Portugal) was appointed as MSDI WG chair and EAtHC Crowdsourced Bathymetry representative and EAtHC Seabed 2030 representative.

One of the main tasks of the EAtHC MSDI WG will be the response to the contributions of the Commission to the IHO Strategic Plan, namely the SPI 1.2.2 and SPI 2.2.1. As this action is, currently, being prepared by the IRCC, the WG members decided to keep this action dormant till the next IRCC Workshop (April, 2022) on the subject.

- d) A plan for disaster response framework for the region was approved in the EAtHC16 Conference (<https://iho.int/en/basic-commission-documents-2>). The plan was prepared following similar documents from other hydrographic commissions.
- e) Statutes amendments were approved unanimously in the EAtHC16 Conference ([https://iho.int/uploads/user/Inter-Regional%20Coordination/RHC/EAtHC/MISC/EAtHC\\_STATUTES.pdf](https://iho.int/uploads/user/Inter-Regional%20Coordination/RHC/EAtHC/MISC/EAtHC_STATUTES.pdf)) and since then, the EAtHC has been constituted in conformity with IHO Resolution 2/1997 “ESTABLISHMENT OF REGIONAL HYDROGRAPHIC COMMISSIONS (RHC)” as amended.
- f) With the approval of the amendments to the EAtHC Statutes, United Kingdom became an Associate Member in January, 2022.
- g) Several discussions and analysis about evaluation of the adoption of the IHO Strategic Plan and the implications of S-100 roadmap implementation. These two topics will be detailed at paragraph 5.

### **3. Progress on IRCC Action Items**

Annex B summarises the progress made during the reporting period about IRCC recommendations, actions and activities.

### **4. Problems Encountered**

- a) Awareness on the importance of Hydrography is increasing within the Region. Still EAtHC Members should sustain collaborative efforts until the region’s hydrographic capacity is fully developed for the good of all mariners
- b) Travel restrictions due to the COVID-19 pandemic in the region have postponed some capacity building activities.
- c) Some of the region’s Coastal States are still lacking basic hydrographic and cartographic capacities. It would be very important for national agencies to lobby their governments to adhere to IHO.

- d) Communication problems persist in the region, between the EAtHC Secretariat and some members and national agencies. The lack of updated contact lists when hand-over / take-over of positions occur is appointed as one main cause. So, members were requested to keep their contact details regularly checked and updated.
- e) EAtHC tried to contact MOWCA, PMAWCA and AMSSA agencies without success. According to information from Ghana, they have an active position in the MOWCA, and will try to involve the MOWCA and PMAWCA to participate in the EAtHC meetings.

## **5. Any Other Items of Note**

- a) Strategic Performance Indicators (SPI):
  - i. Portugal and France sent some comments on January 3, 2022, by email, on the SPIs assigned to IRCC, and its Annex (IRCC Circular Letter 01/2021). Annex C resume France and Portugal SPI comments to IRCC.
  - ii. Several EAtHC members were present at the workshop held on April 28<sup>th</sup>. The discussion was very productive and considerations were made about the difficulty of obtaining realistic and uniform measurements, so it was the general opinion that a simple way forward should be established that brings realistic interpretations. Following this workshop some concerns remain.
  - iii. Concerns about SPI 1.2.2:
    - The concerns with this SPI were related with two aspects: (i) the clear/global definition of “navigationally significant areas”; and (ii) if the purpose was to assess the percentage of those areas adequately surveyed or the percentage of those areas that had a hydrographic quality indicator (e.g., CATZOC).
    - After the workshop it can be concluded that: (i) “navigationally significant areas” are to be considered areas shallower than 200 m (depth < 200 m), and (ii) the purpose is to assess the percentage of those areas adequately surveyed (through an intricate method, as presented). In this sense, the SPI needs to be rephrased, for instance, “Percentage of navigationally significant areas (depth < 200 m) with adequate hydrographic knowledge, assessed through the use of appropriate quality indicators (CATZOC).
    - Although this could work as a temporary solution, further developments of the strategic plan should go a step forward. In this sense, taking into account that Goal 1 is related with safe navigation:
      - On one hand, considering all areas with depth < 200 m “navigationally significant” is not an appropriate measure. It does not translate the reality and it will not work as an useful indicator.
      - On the other hand, using ENC bands will have the same problem. Although it could be a good indicator (and maybe it should stand as another SPI in the next strategic plan...) to assess the CATZOC distribution/percentage for each usage band, it cannot be extrapolated the percentage of “navigationally significant areas” from the usage band (for instance, UB6 will definitely have a higher percentage of “navigationally significant areas” than UB4, but for SPI computation accurate percentage values are necessary.

- Possible solutions would be: (i) to use ENC defined objects (charted traffic separation schemes, anchorages, channels, etc,) as stated in the SPI definition; or (ii) to compute traffic density and under keel clearance (based on AIS data) and seafloor complexity and define the “navigationally significant areas” based on specific thresholds.
- The use of CATZOC as a quality indicator will require a globally accepted decay coefficient formula, in order to define resurvey rates.

iv. Concerns about SPI 2.1.1:

- The concerns with this SPI were related with three aspects: (i) the clear/global definition of “adequately surveyed areas”; (ii) what criteria should be used to assess it (CATZOC, survey order?); and (iii) which areas should be analyzed (depth > 200m?).
- After the workshop it can be concluded that conclude that: (i) there is no one global definition of what are “adequately surveyed areas”; and (ii) intention to use the information from the C-55 for this SPI.
- Although this could work as a temporary solution, further developments of the strategic plan should go a step forward. In this sense, taking into account that Goal 2 is related with the use of hydrographic data for the benefit of society:
  - C-55 was originally created for safe navigation purposes and it has several consistency problems (identified by the specific WG). So it does not appear adequate to use it for this SPI.
  - This SPI could stand as complementary of SPI 1.2.2 for all marine areas (and not only for “navigationally significant areas”). For instance, for society use (e.g., scientific purposes, MSP) a unique survey with full seafloor search, much of the time, is enough. In this sense, without this resurvey need, the survey order (S-44) could work as an appropriate quality indicator (e.g., equal or better than order 1a), reflecting the survey quality and not accounting for time changes (as CATZOC should account for).
- Taking Goal 2 into consideration, Portugal proposed to use the SEAMAP 2030 project coverage (%) as the measure of this SPI, as it is easier, based on uniform and known criteria, and represents the bathymetric coverage known to society in general.

b) S-100 implementation:

In the EAtHC Region there are several concerns present:

- i. Member States provide the necessary coverage of S-100 products or agree with other States to provide on their behalf?
- ii. S-101:
  - Transition from S-57 to S-101
  - S-101 ENC Scheme
  - Production/publication of S-101 ENC
  - Coordination; cooperation between HOs
  - PCA role
  - ICC role

- RENCs involvement/participation (ex: seminars; training etc.)
- iii. Other applicable S-100 products:
  - Other national authorities were HOs are not the data owners

## **6. Conclusions and Recommended Actions**

- a) The EAtHC continues to keep and strengthen the cooperation and collaboration in the region.
- b) Hydrographic capacity development in the EAtHC region remains a real challenge, with most of the Central & Western African coastal states lacking hydrographic infrastructure and relying on another state to provide hydrographic services and fulfill their SOLAS obligations. The current pattern of capacity building has allowed only limited progress despite particular attention by the IHO to the EAtHC region and the involvement of some Member States (acting as Primary Charting Authority in that region).
- c) With this in mind, efforts must therefore be continued with greater involvement of the Coastal States primarily concerned by the development of their hydrographic services in order to meet their SOLAS obligations, of the IHO and the IHO Member States.
- d) At the same time there is a need to develop capacity building actions for the benefit of Member States, with most of the actions carried out so far in the EAtHC region benefiting non IHO Member States, in particular to support the transition to S-100. The resources, both in terms of in-kind contributions from Member States to carry out these actions and in terms of capacity-building funds, do not appear to be sufficient to achieve these two objectives at the same time.
- e) Technical visits do not seem to be enough for the CB needed. For example, Portugal is currently working in a different approach, with technical personal embedded in local teams for local training and accomplish a real capacity for that country to evolve.
- f) Member States should share their education and training programs focus on on-job training (ex: onboard hydrographic survey training, in-office chart production training, etc.).
- g) Member states should articulate the IHO CB initiatives with national initiatives IOT have coastal state on-job training and add real value to the coastal states.
- h) Recommend actions to IRCC:
  - a. Clarification about the SPI way to forward;
  - b. Promote S-100 inter-regional capacity building/training/formation;
  - c. PCA role clarification/definition

## **7. Justification and Impacts**

NA

## **8. Action Required of IRCC**

The IRCC is invited to:

- a) Note this report;
- b) Take any action considered appropriate.

## **Annex A**

### **Membership of EAtHC**

In accordance with:

- Members: <https://iho.int/en/eastern-atlantic-hc>
  - Contacts: <https://iho.int/en/basic-commission-documents-2>
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## Annex B

### Progress on IRCC Action Items

The following table summarises the progress made during the reporting period about IRCC recommendations, actions and activities.

IRCC 13 Recom.	Description	EAtHC Action
1	Upon the recommendations based on the proposals made by the NCWG on the Future of the Nautical Paper Chart, RHC to encourage Member States to focus on ENC Schemes, but still follow applicable IHO Resolutions and Standards for any continuing INT chart production	Ongoing.
2	RHCs to recommend Member States to Note the information on ECDIS anomalies and support the implementation of the recommendations given by the ENCWG.	Completed (EAtHC16)
3	RHC and MS to advise the IHO Secretariat of any update/change to their position in relation with the CSB questionnaire (IHO CL 21/2020). <a href="https://iho.int/uploads/user/Inter-Regional%20Coordination/CSBWG/MISC/B-12_2020_EN_Acceptance_of_CSB_Data_in_NWJ_v3.0.pdf">https://iho.int/uploads/user/Inter-Regional%20Coordination/CSBWG/MISC/B-12_2020_EN_Acceptance_of_CSB_Data_in_NWJ_v3.0.pdf</a>	Ongoing. New EAtHC Action. Cameroon and Portugal already answered.
4	RHC to identify regional coordinators to act as a point of contact for CSB/Seabed 2030 and to raise the profile of data gather and provision within their respective Region.	Completed. CDR Gerald Dias (PT) was appointed.
5	RHC to encourage MS to participate in the Empowering Women in Hydrography project. CL 35/2021: Joint CANADA-IHO Project Empowering Women in Hydrography. <a href="https://iho.int/en/basic-cbsc-ewh">https://iho.int/en/basic-cbsc-ewh</a>	Ongoing. New EAtHC Action.
6	RHC to encourage MS to submit Articles and Notes for publication in the IHR.	Ongoing. New EAtHC Action.
7	RHCs to consider extend the role of Charting Regional Coordinators for the implementation of the S-100 Implementation Roadmap.	Completed (EAtHC16) with ICC TOR & ROP approval.
8	RHCs to try to plan at least one face-to-face meeting between the 2nd and the 3rd Session of the IHO Assembly.	Completed.
9	RHCs to coordinate the efforts on the implementation of S-100 and promote the cooperation and exchange of experiences	Ongoing. New EAtHC Action.
10	RHCs to apply Resolution 1/2005 in case of disasters occurred to support the affected States in their regions	Completed (EAtHC16) with Statutes Amendments and Disaster Response Framework Approved.
11	RHCs to invite relevant Member States to report to the IMO Secretariat and the Chair of the EGC Coordinating Panel on the progress and status of implementation of newly recognized mobile satellite services by MSI providers.	Ongoing. Assigned to EAtHC16 MSI Action List
12	Member States and submitting institutions are encouraged to engage with the IHO Secretariat early in the process of them preparing submissions for program recognition.	Ongoing. Assigned to EAtHC16 Action List
13	Member States and submitting institutions are encouraged to consult the Guidelines, the FAQs and the White Paper early in the process of preparing submissions for program recognition.	Ongoing. Assigned to EAtHC16 Action List
14	RHCs to encourage all Member States to actively contribute with new data to GEBCO and to discuss how MS can share existing data	Ongoing. Assigned to EAtHC16 MSDI Action List
15	Encourage RHCs and relevant Bodies to contribute to the recommendations provided by Shell to increase the cooperation between HO's and Natural source Regulators and reduce permitting requirements for transits through countries EEZ's	Ongoing. Assigned to EAtHC16 MSDI Action List



## Annex B

IRCC 13 Actions.	Description	EAtHC Action
Action 5	IRCC members involved to develop measurements to the SPI allocated to them and report back to IRCC14.	Ongoing. Assigned to EAtHC16 Action List.
Action 6	RHCs and WGs to include the measurement of the SPI attributed by IRCC in their annual Work Plans (Permanent).	Ongoing. Assigned to EAtHC16 Action List
IRCC Activities	Description	EAtHC Action
IRCC13 04/2021	Update and implement the IRCC List of Actions and Tasks agreed at IRCC13	Ongoing.
IRCC13 06/2021	Provide the IRCC Chair with progress reports on the relevant tasks in the IHO 2021 Work Programme	Planned. Waiting for workshop in April 2022. See paragraph 5.
IRCC13 07/2021	Provide to the IRCC Chair the estimated values of SPIs and agreed WPIs as of 31 December 2021 and target values for 31 December 2022, complemented by the comments on the difficulties encountered and suggestions for a way forward	Planned. Waiting for workshop in April 2022. See paragraph 5.
IRCC13 12/2021	Provide material to the Secretariat to promote the achievements of IRCC bodies and report to the IRCC Chair	Ongoing.
IRCC13 13/2021	Continue to engage suspended Member States in their region to encourage their re-admission to the IHO and report to the IRCC Chair	Completed. Republic Democratic of Congo is IHO Member since September 2021.

## Annex C

The following table resume France and Portugal SPI comments to IRCC:

SPI	Comments
SPI 1.2.2 - Percentage of navigationally significant areas (e.g. Charted traffic separation schemes, anchorages and channels) for which the adequacy of the hydrographic knowledge is assessed through the use of appropriate quality indicators (2026:100%)	<ul style="list-style-type: none"> <li>- The term “navigationally significant areas” is to define precisely (with a list of features) to enable Member States to identify the areas concerned in their waters.</li> <li>- The definition of this SPI to be clarified in order not to create ambiguity with SPI 2.2.1, here the objective is to have a CATZOC in the area whatever is the hydrographic knowledge</li> <li>- The proposed way forward seems unclear as written, it is recommended to use CATZOC present in ENCs to measure the SPI when areas will be defined</li> <li>- C-55 does not look useful for this SPI in its current format with no distinction on navigationally significant areas</li> <li>- C-55 is based on 2 depth classes only</li> </ul>
SPI 1.3.1 - Ability and capability of Member States to meet the requirements and delivery phases of the S100 implementation plan (2026: 50%)	<ul style="list-style-type: none"> <li>- Proposed way forward: for the moment, a question on the ability for Member States to produce S-101 and S-102 products seems sufficient and to send the answer back to CBSC</li> <li>- Need for IRCC to precise what they mean by “Develop method to derive improved measurable figures and provide figures to IRCC”</li> <li>- Proposal for CBSC to develop a form in cooperation with S-100WG to gather the information from Member States</li> </ul>
SPI 2.1.1 - Number of hits downloading data/information from the portal	<ul style="list-style-type: none"> <li>- RHC Chairs to delegate this SPI implementation to the head of MSDIWG when existing</li> <li>- FR agrees with the proposal in the remark to measure this SPI until the IHO portal is operational</li> <li>- After the development of IHO portal, technical issue for member States with the ability to identify the access to their national MSDI from the IHO portal</li> </ul>
SPI 2.2.1 - Percentage of adequately surveyed area per coastal state	<ul style="list-style-type: none"> <li>- This item should be led by MSDIWG in RHCs</li> <li>- Proposal to subdivide this SPI in CATZOC orders in order to have better view on the hydrographic knowledge (as presented in the French national hydrographic program)</li> <li>- Is C-55 enough reliable to use it for the SPI measurement?</li> <li>- Is CATZOC suitable according to the Goal and Target? What the term “adequately” means? Is the purpose to identify areas that are not surveyed? Is S-44 to be consider? Is the use of 200m depth a good criteria? Can we use Seabed 2030 coverage as a first approach?</li> </ul>
SPI 2.3.1 - Number of HOs reporting success applying the UN shared guiding principles in their national contexts (2026: 70%)	<ul style="list-style-type: none"> <li>- Nothing can be started until MSDIWG and UN-GGIM have defined the guidelines (application definitions and their measurement)</li> </ul>
SPI 3.3.1 - Percentage of Coastal States that are capable to provide marine safety information (MSI) according to the joint IMO/IHO/WMO manual on MSI (2026 90%)	<ul style="list-style-type: none"> <li>- SPI implementation led by WWNWS, no comments.</li> </ul>