

17th Eastern Atlantic Hydrographic Commission Plenary (EAtHC17)

28th of September to 30th of September 2022 – Hybrid (São Vicente, Mindelo, Cabo Verde)

Final Minutes

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1. Opening

The Chair and Secretary formally greeted all participants, welcoming all to the 17th Eastern Atlantic Hydrographic Commission Plenary (EAtHC17), in Mindelo, São Vicente Island, Cabo Verde, with support to VTC format.

The President of Instituto Marítimo Português de Cabo Verde (IMP), Mr Seidi dos Santos, officially greeted all participants with a warm welcome to São Vicente – Cabo Verde, for the EAtHC17, saluting all African and European elements with a sincere welcome. Mr Seidi dos Santos communicated that Cabo Verde is already in the process to become an International Hydrographic Organization (IHO) member, giving this conference a special meaning. Following this efforts, Cabo Verde also plans to have a Hydrographic Service in 2023. Mr Seidi dos Santos concluded by wishing a good working session and a nice stay at Mindelo to all.

Mr Abraao Vicente, Minister of the sea at Cabo Verde, also welcomed all to the EAtHC17 participants, highlighting the importance of this conference and the participation of Cabo Verde in the IHO.

2. Opening Remarks by the EAtHC Chair

RAdm Mário Simões Marques, Director General of Instituto Hidrográfico – Portugal (IHPT) and currently the EAtHC Chair, started with a brief statement welcoming all the participants and thanking all for their attendance.

The Chair addressed a special thanks to IMP for hosting this conference. He expressed his significant gratitude to RAdm Laurent Kerléguer and the Service Hydrographique et Oceanographique de la Marine (Shom), and IHO Director Abri Kampfner, and acknowledged all the commercial companies present at EAtHC17.

The Chair focused his next words on the importance of this conference and all the subjects discussed at the EAtHC, highlighting the presence of all participants being a relevant contribution to the final expected outcome.

RAdm Mário Simões Marques finalized wishing all a very fruitful conference.

3. Address by Vice Chair

RAdm Laurent Kerléguer, from Shom, head of the French delegation and currently EAtHC Vice Chair, addressed the participants congratulating all for their presence and giving a special word for the IMP organization which is very important to all EAtHC members.

RAdm Laurent Kerléguer finalized wish a very good conference to all.

4. Address by the IHO Director

Mr. Abri Kampfner, IHO Director, addressed the participants on behalf of the IHO Secretariat.

Mr Abri Kampfer congratulated the organizers for arranging this in-person meeting and also for the hybrid option available.

The IHO Director stressed the importance of Regional Hydrographic Commissions on hydrographic activities which are established for coordination and cooperation on this specific region, emphasizing the importance of the current subject S-100, and the growing importance of Hydrography and marine spatial data emphasized the importance that qualified people carry out hydrography, thanks to standardized IHO criteria. Mr Abri Kampfer set the focus on capacity building which will be a key to evolve and help developing hydrographic capabilities focused on the issues that can be changed, for the benefit of the region and all mariners navigating on this region.

Mr. Abri Kampfer wished all a very successful meeting.

5. Round Table Presentations

(Doc EAtHC17-01 – List of Participants)

The Chair welcomed everyone once again and proposed a round table presentation for all the heads of delegation. Mr Nero Maria from Agência Marítima Nacional of Angola presented himself, followed by Mr Seidi dos Santos, the President of Instituto Marítimo Portuário de Cabo Verde, Mr Winther Grenier Tchissambou Ambana from Port Autonome De Pointe-Noire – Congo, Mr Seydou Sangare from Port Autonome d'Abidjan – Côte d'Ivoire, Mr Ludovic Edgard Moundounga, from Ministère en Charge des Transports – Gabon, Mr Dominic Correa from Gambia Ports Authority – Gambia, Mr Souleymane Bah from Port Autonome De Conakry – Guinée Conakri, Mr Alberto Tipote from Administração dos Portos da Guiné-Bissau, Ms Gerardine Delanoye from International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), Lt Cdr Abdallah Hadou from Division Hydrographie Oceanographie et Cartographie (DHOC) de La Marine Royale – Morocco, Mr Ibrahima Cissokho from Subdivision des Phares et Balises – Senegal, Cdr Salvador Espinosa Glez-Llanos from Instituto Hidrografico de la Marina – Spain, Ms Abiré d'Almeida from Port Autonome de Lomé – Togo, Mr Nathanael Knapp from United Kingdom Hydrographic Office (UKHO) – United Kingdom, RAdm Chukwuemeka Okafor from the Nigerian Navy Hydrographic Office – Nigeria and Mr Doug Roush from National Geospatial-Intelligence Agency (NGA) – United States of America.

6. Administrative Arrangements

(Ref EAtHC17-01 – 01-EAtHC17-agenda-item01.pptx)

Commander João Delgado Vicente provided the meeting participants with the required administrative details including the ones for the Video conferencing (VTC).

7. EAtHC Administration/organisational issues

A. Agenda

(Doc EAtHC17-02 - Agenda)

The Chair introduced the Provisional Agenda (doc. EAtHC17-03) which was distributed earlier in August with changes in September. Members were invited to give any additional comments and adopt the document. As there were no additional items proposed for discussion the Agenda was approved by all EAtHC members.

EAtHC17 Decision 1: Approve the Agenda of the EAtHC17 Meeting (Doc EAtHC17-02 - Agenda).

B. Matters arising from Minutes of EAtHC16

(Ref EAtHC17-01 – 01-EAtHC17-agenda-item01.pptx)

The Chair summarized all matters arising from the Minutes of EAtHC16. From EAtHC16 it was decided that France will follow as the next Chair. Morocco volunteered to be the Vice Chair, with no other Member State volunteering, and with objections from any Member States on Morocco being the next Vice Chair.

At the EAtHC16 Morocco volunteered for the next plenary meeting (2024) to be held in Casablanca. This topic remained to be decided at the end of the meeting.

The Chair pointed out the fact that UK has joined as an associate member in January 2021 and highlighted the fact that Angola is now an EAtHC observer and, being an IHO Member can now also progress to be Member of EAtHC.

The chair asked for any additions to this list with the Vice Chair, RAdm Laurent Kerléguer, mentioning that some subjects were already addressed during the preparation for EAtHC17.

C. Review of EAtHC16 Actions List

(Ref EAtHC17-02 – 01-EAtHC17-agenda-item01.pptx)

The EAtHC16 Action List sent previously to all Member States was presented by Cdr João Vicente who went through all actions asking for any report to be noted.

Regarding action 2, Portugal made an update on Capacity Building (CB) activities in Cape Verde, Angola, São Tomé e Príncipe and Guiné Bissau.

Regarding action 6, Cape Verde noted that the process to ratify the IHO convention is now at the Minister of the Sea and waiting to be approved

Regarding action 7, Commodore Sunday Atakpa (Nigeria) is representing EAtHC on the IHR Editorial Board.

Regarding action 9 Portugal has presented about this subject at the Canadian Hydrographic Conference (CHC2022), and in the 1st Conference on Hydrography of the Community of Portuguese Speaking Countries

Regarding action 10 Portugal is preparing a new Category A program to be submitted next year

Regarding action 14, experiences were to be shared later in the meeting.

Regarding action 15, 16, 17, 18, 19 were to be discussed later in the meeting.

Action 21 is closed.

There was nothing to report on remaining actions.

Cdr Joao Vicente then asked all members to update P-5 and C-55 documents to set the first Point of Contact (POC) for IHO and each participant country.

Cdr Joao Vicente finalized mentioning that actions items from ICC, MSI, NAVAREA, MSDI were to be discussed in the EAtHC subgroups.

EAtHC17 Decision 2: Approve actions list review proposal.

EAtHC17 Recommendation 1: All Members to update P-5 and C-55 IHO Publications.

EAtHC17 Recommendation 2: All Members to visit EAtHC webpages and check IHO / EAtHC Documentation.

8. IHO Matters

A. IHO Secretariat Report

(Ref EAtHC17-03 – 02.1A-EAtHC17_2022_EN_Presentation_IHO Secretariat_Report.pptx)

Mr. Abri Kampfer presented the IHO Secretariat Report which included topics on Regional and IHO membership, the outcomes of the 2nd IHO Assembly, IHO GIS and Databases, IHO Outreach and actions requested of EAtHC.

The IHO Director congratulated Angola on becoming an IHO Member and invited all coastal states that are not members to follow Angola and use their experience to become an IHO member.

Mr. Abri Kampfer mentioned that within EAtHC there are still many Coastal States that are not IHO members, offering any help needed from IHO secretary to apply to become IHO members. Mr. Abri Kampfer is pleased to know that Cabo Verde has started the process to become an IHO member.

The IHO Director mentioned that the next IHO Council is scheduled to take place in Monaco, from 18th to 20 October 2022. With the agenda available on the website. A brief description on the planned works was then given. He also informed that the 3rd IHO assembly is to be held at the Grimaldi Forum Exhibition Centre 2nd May – 5th May 2023 with a brief description of the planned agenda also given.

Mr. Abri Kampfer noted that the IHO has implemented a GIS solution for the efficient visualization of geospatial data stored in each country's information system. It was also mentioned that work has continued on developing a GIS Database application to support C-55. It was then emphasized the importance of having all contacts updated on IHO Publications guaranteeing all information will reach the Coastal States.

The IHO Director showed the current status of charting and surveying in EAtHC area, mentioning there is the need for improvement and IHO is confident EAtHC coastal states will improve. Also emphasizing here the need to update P-5 and C-55 documents.

The World Hydrographic Day was then mentioned, announcing that with IHO CL 01/2022 the theme for World Hydrography Day (WHD 2022) was set to "Hydrography – contributing to the United Nations Ocean Decade"

Considering IHO outreach Mr. Abri Kampfer announced that IHO has worked together with the University of New Brunswick (UNB), publishing all volumes of the International Hydrographic Review (IHR) (from 1923 to 2018) which are now available online. (<https://ihr.iho.int/>)

The IHO Director emphasised it is the first time all EAtHC members are together in the conference.

EAtHC17 Decision 3: Note the IHO Secretariat Report.

EAtHC17 Recommendation 3: All to continue on the implementation of the IHO Strategic Plan and support IRCC in identifying measures and values to measure those SPI of regional interest allocated to IRCC, in accordance with IRCC14 List of Actions, Decisions and Recommendations to RHCs.

EAtHC17 Recommendation 4: Observers can sign the statutes and become Associated Member of EAtHC.

EAtHC17 Recommendation 5: EAtHC Members are invited to submit papers for publication in the International Hydrographic Review (IHR).

EAtHC17 Recommendation 6: Representatives of EAtHC Coastal States that are not members of IHO, are invited to contact their National Authorities to encourage to become IHO members.

B. Highlights of Inter-Regional Coordination Committee - IRCC14 Report

(Ref EAtHC17-04 – 02.2A-EAtHC17-ircc_report.pptx)

Cdr João Vicente presented on the Inter-Regional Coordination Committee - IRCC14 Report. The meeting was held at Denpasar, Bali, Indonesia, in a hybrid format from 6 to 8 June 2022 with 95 registered participants, 39 in person and 56 by VTC, from 39 Member States.

The most important topics highlighted were related to the need to complete the IHO Strategic Plan Gap Analyses and the determination of Strategic Performance Indicators (SPI) values at regional level, as well as the collaboration and coordination in the implementation of the S-100 Roadmap.

The EAtHC Chair highlighted on his report that the recruitment of new IHO Member States is still a challenge, the awareness on the importance of Hydrography is increasing although a lack of communication still exists, and the efforts must continue with greater involvement of the Coastal States primarily concerned by the development of their Hydrographic Services in order to meet their International Convention for the Safety of Life at Sea (SOLAS) obligations. The EAtHC Chair also emphasized that CB funds do not seem to be sufficient for the needs of the region, and technical visits/seminars do not seem to be enough for the CB needed. It was also pointed out the limited capacity and resources to meet the requirements of the S-100 implementation plan.

The Recommendations from IRCC14 were listed and discussed to be accessed according to EAtHC actions.

EAtHC17 Decision 4: Note the IRCC Report.

EAtHC17 Recommendation 7: Consider IRCC recommendations for EAtHC Actions and Decisions update.

EAtHC Action 16-01: Representatives of the EAtHC non-members coastal States are requested to contact their national authorities to encourage the signing of the EAtHC Statutes (**EAtHC non-member Coastal States**).

EAtHC Action 16-02: Representatives of the EAtHC Coastal States IHO non-members are requested to contact their national authorities to encourage to become IHO members. **(EAtHC IHO non-member Coastal States)**

EAtHC Action 16-03: Member States, Associate Members, Observers are invited to review their entry in the IHO Yearbook and C-55 and to provide the IHO Secretariat with the appropriate updates or to report no change (CL 20/2019 refers) at least annually **(Coastal States)**

EAtHC Action 16-04: PCA in the region should review agreements/MOUs with coastal states IOT adapt to the S-100 products/services and to promote bathymetric data sharing both to INT Chart production and IHO DCDB/GEBCO **(PCA and Coastal States)**

EAtHC Action 16-05: To provide IHO SECRETARIAT and EAtHC Chair with official documents related to national hydrographic committees (NHC), national hydrographic coordination committees and general procedures, to be considered for inclusion in C-16 (National Hydrographic Regulations). **(Coastal States)**

EAtHC Action 16-06: Coastal States to make the transmission of survey data to their cartographic authority mandatory when contracting surveys with third parties (other HOs, private companies), in order to enable swift updating of nautical documents and charts, either by themselves providing the necessary data and documents to the charting authority or by authorising third parties to transmit these elements **(All Coastal States)**

EAtHC Action 16-07: To encourage Coastal States to formalize the fulfilment of their SOLAS obligations by making official agreements with their Primary Charting Authority, in accordance with the chapter V of the SOLAS Convention. **(Concerned Coastal States)**

EAtHC Action 16-08: EAtHC Members are invited to submit papers for publication in the IHR and through your representative to the IHR Board. Cdre Sunday ATA KPA (Nigeria) is representing EAtHC on the IHR Editorial Board <https://ihr.iho.int/submit-an-article/> **(All Coastal States)**

EAtHC Action 16-10: Member States should participate in the Empowering Women in Hydrography project. CL 35/2021: Joint CANADA-IHO Project Empowering Women in Hydrography <https://iho.int/en/basic-cbcs-ewh> **(Member States)**

EAtHC Action 16-11: Member States and submitting institutions are encouraged to engage with the IHO Secretariat early in the process preparing submissions for programme recognition. <https://iho.int/en/education-programme-recognition-0>

EAtHC Action 16-12: 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 (CAT A & B) programme recognition. <https://iho.int/en/education-programme-recognition-0>

EAtHC Action 16-18: Member States are encouraged to participate in the WG and PT of the IRCC and HSSC. EAtHC may appoint from among its Member States, Representatives to IHO instances, or international or regional committees. The designated Representatives of the Commission shall report to the Commission on any action or subject of interest.

EAtHC Action 16-22: Coastal States should inform the EAtHC Chair on points of contact and the means of communication, Prepare and keep updated a National Communication Plan, Identify appropriate contacts in the National Foreign Ministry IOT respond to Disaster Response Framework **(Costal States)**

EAtHC Action 16-23: Coastal States to prepare a list of (possibly) available assets that impacted coastal States can consider to request via diplomatic channels to the neighbouring States IOT respond to Disaster Response Framework **(Costal States)**

EAtHC Action 16-24: The Chair should ensure a permanent agenda item on RHC meetings to monitor the readiness of the Commission to respond to disasters and conducting regular table-top exercises to evaluate the procedures **(Chair)**

EAtHC Action (MSI) 16-4: 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.

EAtHC Action 17-1: RHC to start or proceed with the debate on how the climate change related activities can be further investigated and what can be the role of the IHO.

C. Highlights of Hydrographic Services and Standards Meeting - HSSC14 Report

(Ref EAtHC17-05 – 02.3A-EAtHC17_2022_02.3A_Rev1_EN_Report HSSC14.pdf)

RAdm Laurent Kerléguer presented the Highlights of Hydrographic Services and Standards Committee - HSSC14. Describing the work on the implementation of the strategic plan (SPIs), the S-100 development progress, and other achievements.

Regarding S-100 development, the IHO HSSC 14 has approved the first editions of S-98 Interoperability, S-104 Water levels and S-128 Catalogue of Nautical Products.

It was mentioned that the priorities of S-100 implementation are S-101 ENC, from a first phase with S-102 Bathymetry, S-104 Water Levels, S-111 Surface Currents, S-124 navigational Warnings, S-129 UKC management. Also, it is mandatory to revise the Electronic Chart Display and Information System (ECDIS) Performance Standards, IHO Geospatial information Registry, S-98 interoperability Specifications, S-100 Universal Hydrographic Data Model, S-128 Catalogue of Nautical Products, S-164 Test Data Set for S-100 ECDIS type Approval

A description of the S-100 timeline was given by RAdm Laurent Kerléguer, who showed that S-98 is an essential component for the S-100, defining how layers interact on S-100. Some examples were shown.

RAdm Laurent Kerléguer referred HSSC has worked on a document of governance for the implementation of a Dual Fuel concept to S-100 usage together with S-57 for ECDIS during the transition period, and IMO has agreed to revise ECDIS Performance standards to include support for S-100.

RAdm Laurent Kerléguer noted the vacancy of Data Quality Working Group (DQWG) chair and secretary and that should be considered among member states the nomination of office bearers. He finalized by resuming the top challenges as the inclusion of S-100 in the IMO regulatory framework.

Mr Abri Kampfner mentioned this is a very good reflection of the work done by EAtHC. IHO wants to achieve the actions in the dates proposed for S-100 implementation and ECDIS manufacturers need to have their part ready in 2026 for S-100 to work. He then questioned what other S-100 products can be developed on a regional scale in time for being used once ECDIS products are ready and operational, and emphasized that the dates planned need to be met.

EAtHC17 Decision 5: Note the HSSC Report.

EAtHC17 Decision 6: Note the important challenges on the S-100 implementation and the commitments towards IMO and IEC.

EAtHC17 Recommendation 8: Member states to actively support the development of priority Performance Standards.

9. Relevant International and Regional Organizations Report

A. International Association of Lighthouse Authorities (IALA)

Moving on to the next agenda item, Ms. Gerardine Delanoye presented the IALA and IALA Report.

She described the IALA strategic vision and goals, mentioning that still, not all coastal states are contributing to IALA standards. The committees of IALA (ARM, ENG, VTS, ENAV) are usually attended by European and Asian countries and standards may become higher than they should for being implemented in all world. EAtHC members should seriously consider being present on this committees and influence the decisions on the standards so that the final standard approved to be used in all world fits the EAtHC needs.

It was then emphasized the usefulness of risk assessment in the improvement and enhancement of maritime standards. This is important for all coastal states.

Ms Gerardine congratulated Cabo Verde for having implemented safety measures to guarantee the safety of fishermen which are sometimes forgotten and showed an example that SOLAS V Regulation is linked to Regulation 4 and 9.

Ms Gerardine highlighted that the coastal state will be accounted reliable if any accident happens because of failure on maintaining aids to navigation, even if the action has been delegated to any harbor authority or private company.

IALA offers risk assessment training, with an IALA Risk Management Toolbox for training.

Then the IALA Academy was presented and it was noted that IALA assists Coastal States worldwide.

She then described the technical cooperation needs in EAtHC for all countries where IALA is currently working on Democratic Republic of Congo, Guinea Bissau, Cameroon, Liberia, Cote d'Ivoire, Gambia, Ghana.

Ms Gerardine also publicised the Technical webinars available on Youtube channel, the new International Maritime Organization (IMO) VTS Guidelines and finalized with the current state of transition for IALA to be an inter-governmental organization.

EAtHC17 Decision 7: Note the IALA Report

B. UNESCO/IOC Sub Commission for Africa & the Adjacent Island States (IOCAFRICA)

This agenda Item was presented by Mr. Mika Odido, who thanked all for being present. He briefly described IOC with its major focus areas of IOCAFRICA, the Ocean Observation and data and information management, the Ocean Science and its applications to management, the capacity development for marine science technology and ocean literacy.

Mr. Mika Odido then showed the relevant programs implemented by IOCAFRICA.

A brief description on the contribution of Africa for the Ocean Decade of Ocean Science was given.

IOC mentioned that a selection of 15 experts were chosen to create an African Ocean Decade taskforce and work specifically on this program.

EAtHC17 Decision 8: Note the IOCAFRICA Report.

10. EAtHC Committees and Working Groups

A. ICCWG

(Ref EAtHC17-06 – 03.1A-EAtHC17_2022_03.1A_EN_ICCWG_report.pdf)

On this agenda Item, Lt Cdr Julien Smeekaert presented on the International Charting Coordination Working Group (ICCWG).

A Description of the Region G INT Scheme Chart was shown, with the number of INT charts having had no changes. The coverage scheme of coastal chart folio for the EAtHC area is complete.

There was no proposal for updating the INT scheme since EAtHC16, having reached an harmonization for all members.

The number of ENC's on EAtHC area continues to increase.

There is an overlap on some ENC's being identified as low risk and therefore with no changes needed so far, where a need for the intervention of IHO Secretariat might be needed.

For the transition from S-57 to S-100 schemes, note that ENCWG has developed some guidelines for the conversion which was approved on the first edition of HSSC14. HSSC also tasked ENCWG to develop the guidelines for the backward conversion S-101 – S-57.

Lt Cdr Julien Smeekaert mentioned the world Port Index, and stated that Coastal States have the possibility to verify and update the information concerning their ports. An emphasis was made on this point to guarantee that all contact points are correct.

It was mentioned the necessary actions to ICCWG.

Lt Cdr Julien Smeekaert showed the recommendations of HSSC to focus on S-101 noting that S-101 should be operational by 2024.

Lt Cdr Julien Smeekaert indicated a proposal of extension of ICCWG TORs and ROPs and pointed out that World Wide ENC Database Working Group (WENDWG) has described a matrix for the implementation of S-100 to help ensure that we are not leaving individual Member States or Regions behind as we progress through the S-100 Implementation Decade and that we work to ensure that geospatial best practices are being considered and agreed upon as new S-100 products are made available.

Lt Cdr Julien Smeekaert then underlined UKHO's intention to withdraw from paper chart production and the impact assessment and translation plan for Region G, showing that several questions arise from this decision suggesting a meeting soon to answer all questions.

The EAtHC Chair emphasized that this report raises many pertinent questions that need to be addressed.

Mr Nathanael Knapp from UKHO mentioned that a description will be given later and all feedback will be welcome, and answer all the questions that might come after.

EAtHC17 Decision 9: Note the ICCWG Report

EAtHC Action (ICC) 16-01: INT & ENC Chart producers to check the consistency of the existing set of ENC with NGA's list of ports (Pub 150). To provide the regional charting coordinator with a set of proposals to complete large scales ENC schemes. **(INT & ENC Chart producers in liaison with Coastal States)**

EAtHC Action (ICC) 16-02: INT chart producers to provide first editions and details of the new editions of INT charts to the INT Chart Coordinator (or ICCWG) at least three months prior to every EAtHC or ICCWG meeting in accordance with S-11 (3.14.1 – c). **(Chart Producer States)**

EAtHC Action (ICC) 16-03: The newly adopted INT charts, with the agreement of the INT Chart Producer Nation to be subsequently transferred to the IHO SECRETARIAT for its chartroom reference collection and internal use (database validation, consultation, etc.). **(INT Chart Coordinator – France)**

EAtHC Action (ICC) 16-04: Chart producers to provide the regional charting coordinator with an update of the list of on-line chart catalogues, either directly or systematically when updating the Yearbook. **(INT Chart Producers)**

EAtHC Action (ICC) 16-05: Chart producers to update INT chart details (limits, scale, format) using INTOGIS 'web manager' interface. **(INT Chart Producers)**

EAtHC Action (ICC) 16-06: Regional Charting Coordinator to submit the new INT proposals/ major updates to the approval of the region G ICCWG in accordance with the ICCWG ToRs & RoPs and using the form made available. **(INT Chart Coordinator)**

EAtHC Action (ICC) 16-07: Region G ICCWG to validate ENC schemes for UB1/2/3 and report back to the IHO SECRETARIAT. RCC to study with IHO Secretariat the possibility to copy the ENC catalogue in the ENC scheme. **(Regional Charting Coordinator)**

EAtHC Action (ICC) 16-08: Specify how to manage ENC schemes (proposals for new cells, scheduled cells) with INTOGIS II. **(IHO Secretariat)**

EAtHC Action (ICC) 16-09: ENC producers to enter their ENC projects via the "manager" interface of the INTOGIS II portal. WHEN OPERATIONAL. **(ENC Producer States)**

EAtHC Action (ICC) 16-10: ENC producers to send their ENC projects (production plan in shape format) to the charting coordinator. **(ENC Producer States)**

EAtHC Action (ICC) 16-11: Upon the recommendations based on the proposals made by the NCWG on the Future of the Nautical Paper Chart, Member States should focus on ENC Schemes, but still follow applicable IHO Resolutions and Standards for any continuing INT chart production. **(Member States)**

EAtHC Action (ICC) 16-12: Member States to note the information on ECDIS anomalies and support the implementation of the recommendations given by the ENCWG. **(Member States)**

EAtHC Action (ICC) 16-13: Member states ENC producers to populate the CATZOC values (1 to 5) of their ENC cells. **(ENC Producer States)**

EAtHC17 Action (ICC) 17-1: EAtHC Members States to examine their ports with their information and location in the World Port Index and to submit to NGA proposal for correction or modification through the dedicated Interface.

B. Report on GDMSS, MSI and NAVAREA Coordination

(Ref EAtHC17-07 – 03.2A-EAtHC17_2022_03.2A_EN_GMDSS_MSI_NAV report.pdf)

On the next agenda item, the Global Maritime Distress and Safety System (GMDSS) and Maritime Safety Information (MSI) goals were presented by Ms Amandine Lefrançois, NAVAREA II coordinator, with Coastal States to ensure safety of navigation in its coastal waters with the Broadcast of coastal warnings: normally NAVTEX or SAFETYNET/SAFETYCAST and Local warnings broadcasted by Very High Frequency (VHF).

Guidance documents were mentioned as the joint IMO/IHO/WMO (World Meteorological Organization) Manual on MSI, the NAVTEX Manual, the International SafetyNET Manual, and the Interim SafetyCast service Manual.

It was then pointed out that it is essential for National Coordinators to have the POC updated and valid so that communications exists.

The EAtHC MSI Actions were summarized.

EAtHC17 Decision 10: Note the GDMSS, MSI and NAVAREA Coordination Report.

EAtHC Action (MSI) 16-01: NAVAREA II Coordinator to check on a regular basis the MSI Points of Contact (at least every 3 months). **(NAVAREA II Coordinator)**

EAtHC Action (MSI) 16-02: National MSI correspondents to report any change of contact point to the NAVAREA II coordinator without delay. **(All Coastal States within NAVAREA II)**

C. Capacity Building (CB)

(Ref EAtHC17-08 – 03.3A-EAtHC17_2022_03.3A_EN_Capacity_Building_report.pdf)

Lt Cdr Julien Smeekaert showed the data on EAtHC CB activities since last plenary meeting. Attention was called out on the Technical Visits to Congo (Brazzaville), Benin, Senegal, made by SHOM, as well as activities planned for 2022 Sierra Leone led by UKHO, Technical Visit to Guinea Bissau, led by IHPT, technical visit to Morocco led by SHOM, Seminar Relationship with NAVAREA II and PCAs – Risk assessment - Survey specification led by Shom with IHPT & UKHO support.

The CB work plan for 2023 was described, including high level technical visits: A-01 Technical Visit to Mauritania led by SHOM, A-02 Technical Visit to São Tomé e Príncipe, led by IHPT, A-06 Technical Visit to Guinea, led by SHOM.

Lt Cdr Julien Smeekaert indicated the Technical Workshops, seminars and courses, pointing out the need for financial support from EAtHC if not approved by IHO.

An overview for the Work plan for 2024 was shown with the main “goals” identified. The remaining opportunities for 2022 were highlighted. The works on the intersessional and plenary meetings of CB SC were described.

Lt Cdr Julien Smeekaert pointed out the Capacity Building Strategy Review Project Team, the e-Learning Project Team, the Empowering Women in Hydrography Project.

An overview on EAtHC CB Actions was shown and the change of CB coordinator was accentuated.

EAtHC17 Decision 11: Note the CB Report.

EAtHC17 Decision 12: Note of the decrease in IHO funding dedicated to CB and consider external funding solutions for collective CB actions (seminars, etc.).

EAtHC Action (CB) 16-01: Coastal States seeking CB assistance (including IMO audit preparation) to liaise (annual basis) with the regional CB coordinator not later than March 1st to be considered by the CBSC for CB work programme (CBWP). **(Coastal States)**

EAtHC Action (CB) 16-02: Provide the regional CB Coordinator with the direct CB in-kind contribution made in the region. **(Coastal States)**

EAtHC Action (CB) 16-03: Coastal states to make the IMO Member State Audit Scheme (IMSAS) conclusions relating to hydrographic services available to the IHO Secretariat and the CB coordinator in order to propose possible actions. **(Coastal States)**

EAtHC Action (CB) 17-01: Inform CB Coordinator of any wider CB opportunities that the EAtHC region can benefit from (also for inclusion in the IHO Calendar). **(Coastal states)**

EAtHC Action (CB) 17-02: Consider contributing to the Empowering Women in Hydrography Project. **(Coastal states)**

EAtHC Action (CB) 17-03: Member states to reply to IHO CL 26/2022 (deadline 30 September 2022). **(Member States)**

D. Crowd Sourced Bathymetry (CSB)

(Ref EAtHC17-09 – 03.4A-20220928_CSB.pdf)

Lt Cdr Geraldés Dias, started by describing CSB, and emphasizing its importance with data being the only data at some places where data is sparse. CSB information is published in Publication B-12 which was updated recently.

Regarding Data collection and management, several circular letters were sent to members and described at this point.

Lt Cdr Geraldés Dias described that IHO Data Centre for Digital Bathymetry (DCDB) has implemented a geographic filter for incoming data, to take into account the positions of coastal states on the distribution of CSB collected in their areas of jurisdiction.

Lt Cdr Geraldés Dias explained how mariners can collect and contribute data, how to acquire and share data with B-12 as the focus publication to be used.

EAtHC17 Decision 13: Note the CSB Report

EAtHC17 Recommendation 9: All Coastal States should consider joining and/or attending the CSBWG

EAtHC17 Recommendation 10: All Coastal States should encourage local participation in CSB collection and sharing

EAtHC17 Recommendation 11: All Coastal States should consider applying to become the next SEABED 2030 funded CSB program

E. SEABED 2030

(Ref EAtHC17-10 – 03.4A_20220928_Seabed2030.pdf)

Lt Cdr Gerald Dias described the SEABED2030 project and stated that currently 3 % of the proposed area is effectively surveyed. A description of the regional subdivision for the SEABED2030 was shown and the resolution defined for data to be mapped was described. The progress made in EAtHC region for SEABED2030 was presented, and a current status was displayed.

Lt Cdr Gerald Dias pointed out that contributions to SEABED2030 can be made directly on the website (https://www.gebco.net/about_us/contributing_data)

EAtHC17 Decision 14: Note the SEABED 2030 Report.

F. MSDIWG

(Ref EAtHC17-11 – 03.4A_20220928_MSDI.pdf)

On this agenda item, a brief review on the last meeting outcomes was shown with the main topics described. Next meeting is scheduled for 30 Jan – 3 Feb 2023 in Italy.

A description on C17 updating progress was given, with milestones shown to all, considering a final review should happen late in January 2023.

The current status of Marine Spatial Data Infrastructures (MSDI) at the EAtHC was shown, with the objective of the WG set for supporting the activities of the EAtHC related to MSDI, focusing on managing and sharing marine spatial data and extending its use, the last meeting happened in February 2022, and an EAtHC SDI/MSDI Implementation example was shown with IHO Web App following an EAtHC Web App.

The IRCC14 recommendations were integrated on the MSDIWG recommendations and action list.

Regarding CSB, the UKHO has not responded to the Circular Letter and realizes there are benefits to the use of CSB and is actively engaged to use it.

EAtHC17 Decision 15: Note the MSDI Report.

EAtHC Action (MSDI) 16-01: Review the procedures for the transmission of survey data, in order to make sure that all relevant national organisations can access the survey data covering their national waters. **(Coastal States)**

EAtHC Action (MSDI) 16-02: EAtHC members are invited to identify further potential sources of bathymetric measurements and survey data providers to facilitate the further completion of the Data Centre for Digital Bathymetry (DCDB) data holdings. **(Coastal States)**

EAtHC Action (MSDI) 16-05: Propose the terms of reference (ToR) and rules of procedure (RoP) of the EAtHC MSDI WG. **(MSDI WG)**

EAtHC Action (MSDI) 16-07: Build an inventory (with links) of existing MSDI in the EAtHC region. **(Chair / All)**

EAtHC Action (MSDI) 16-08: Create a list of common/base layers to the MSDI projects (bathymetry, shoreline, maritime boundaries, etc.). **(Chair / All)**

EAtHC Action (MSDI) 17-01: Support the Crowdsourced Bathymetry (CSB) initiative with positive actions, such as requiring all research vessels, when on passage or when it does not interfere with other research activities, to collect bathymetric data for later uploading. **(Coastal States)**

EAtHC Action (MSDI) 17-02: Maintain a web map application to use as testbed by EAtHC MSDI WG members and to publish and share hydrographic data. **(MSDI WG)**

EAtHC Action (MSDI) 17-03: Encourage all coastal states to respond to CSB questionnaire (IHO CL 21/2020, IRCC CL 1/2020) and, if possible, offer a positive response, even if qualified, to enable provision of CSB data into the public domain collected from ships within waters subject to their national jurisdiction. **(Report EAtHC 18) (Coastal States)**

EAtHC Action (MSDI) 17-04: Plan a workshop on how to build a MSDI (geospatial data, spatial databases, web services, etc.). **(Report EAtHC 18) (MSDI WG)**

EAtHC Action (MSDI) 17-05: Propose a measuring process for SPI 1.2.2 and SPI 2.2.1. **(MSDI WG)**

G. IHO-EU Network WG

(Ref EAtHC17-12 – 03.7A-EAtHC17_IHO-UE_report.pptx)

Captain Bessa Pacheco presented on the IHO-EU Network WG. He described the events that occurred since EAtHC16, with two events to be pointed out, the IENWG 12 - VTC Event, 8-9 Dec 2021, and a special event in Brussels, On 6 May 2022 where 12 IHO European Members States and the EC have recognized the great joint achievements of the 10 past years.

The main topics to be discussed at EAtHC are the European Ocean Observation System, firstly focused on oceanography, but now also including hydrography, and the EMODnet which was described and the current status was shown.

Captain Bessa Pacheco mentioned that Maritime Spatial Planning is a theme that develops very quickly and once an active concern, is of major importance to any coastal state. As a final topic, it was pointed out there is an EU directive for open data for public sector usage. There is a new concept for a High Value Dataset and might influence the way ENC's will be seen in the future.

EAtHC17 Decision 16: Note the IHO-EU Network WG Report

11. S-100 implementation in the region

A. WENDWG

(Ref EAtHC17-13 – 04.1A_EAtHC17_2022_EN_WENDWG_report.pdf)

RAdm Laurent Kerléguer presented the WENDWG report, introducing the meetings held since EAtHC16. He then pointed out the S-100 scheme study at the WENDWG11 with the WG noting there is no consensus for a global scheme, for example a global grid, due to significant objections. The interests for

the end-users (mariners and the others) and the producers are not obvious. The cost for transforming the existing Electronic Navigation Charts (ENC) scheme would be very high and difficult to manage in the transition to S-101. RAdm Laurent Kerléguer mentioned the WG will revisit this subject at the 13th meeting with the feedback from the Regional Hydrographic Commissions.

A description on the S-1xx products implementation guidelines followed with a remark to the effects of WEND principles on S-101, S-102, S-104, S-111, considering this products should be produced by S-101 ENC producers. The proposed Guidelines emphasizes that the S-128 (Catalogue of Nautical Products) products are essential to provide information on the products available to ensure safe navigation, and control of vessels at ports. It is specified that States producing S-1xx products are responsible for the production and distribution of S-128 and the integrity of the S-128 should be assured by the IHO data protection scheme (S-100 part 15).

RAdm Laurent Kerléguer stated the proposed Directive notes that the WEND principles are not relevant to SOLAS maritime service 5 (maritime safety information) according to IHO Resolution 1/2021, and therefore do not apply to the product S-124 (navigational warnings).

Also, the WENDWG conducted a survey on the High Density (HD) ENCs, (CL 26/2021), with 37 Member States participating, and after analysis of the received replies, the WG notes that HD ENCs are not an IHO strategic objective. In particular, the need could be met by the S-102 product and it does not seem appropriate for the IHO to develop specific production guidance, or to create a new strategic indicator on the subject at this point.

RAdm Laurent Kerléguer asserted the IRCC proposes new S-1xx Coordinator roles to be established in the Regional Hydrographic Commissions, either as separate from the Chart Coordinator or as an additional duty of the Coordinator.

Regarding the Geospatial Information Management, The WENDWG agreed that it would be useful to ensure that the development of products would be consistent with the United Nations Principles for Geospatial Data Management requiring the Regional Hydrographic Commissions to implement a principles compliance matrix on an ongoing basis.

Mr Yves Guillam, IHO Assistant Director, talked about the transition to the future from S-57 ENC to the S-101 ENC coverage and asked if one should keep the ENC coverage, or should one allow ENC producers to change their ENC coverage. Also, regarding the preparation for S-101 ENC capacity, questioned how one should expect it to happen.

UKHO explained their intention is to change ENC scheme to a gridded scheme.

SHOM, mentioned it is an important issue and the problem may be the border of areas where the scheme changes and areas where it does not. A rule should be considered as the ones changing the scheme should not create any impact on the ones who do not opt for changes.

Mr Yves Guillam, emphasized this is a discussion led by ENC producers, but one must not forget the end users and coastal States. ENC producers need to have into account their production flow and processes but need to take into consideration if end users will be happy with new schemes.

EAtHC17 Decision 17: Note the analysis of the WENDWG on the S-101 scheme.

EAtHC17 Decision 18: Note the submission to the IHO Council of the Guidelines on the implementation of the WEND principles to the S-100 products other than S-101.

EAtHC17 Decision 19: Note the interest of HD ENC's and the IHO S-100 objective which integrates S-102 products (bathymetry) which should cover the need for high density bathymetry.

EAtHC Action 17-02: To fill the WEND S-100 IGIF Matrix presented at IRCC14, by February 2023, to be reported to WENDWG13.

B. S-100 Roadmap.

(Ref EAtHC17-14 – 04.2A_20220929 - S-100_EAtHC17_Agenda Item 4-2 vrs02 to EAtHC17.pptx)

Ms Paula Sanches presented on the S-100 Roadmap, starting by explaining the S-100 concept. The Roadmap for the S-100 Implementation Decade (2020-2030) constitutes a transition plan aiming to the regular and harmonized production and dissemination of S-100 based products.

Several organizations are involved in product specifications, IHO, IALA, IOC, IEHG, WMO/IOC JCOMM, IEC-TC80, NATO, so each product specification has a dedicated number, assigned by HSSC by IHO. In support of this transition phase there is a roadmap that constitutes a transition plan, aiming at having a regular transition supported on 3 phases.

The S-100 priorities were enumerated, the timeline was divided into a first and second steps which were explained with S-101 being the priority specification. Ms Paula Sanches asserted there are now proposes to update timelines and redesign S-100 ECDIS to comply with this new S-100 specifications.

It was then explained that the next steps are that in 2024 S-101 edition 2.0.0 should be published and in 2025 a regular production of S101 ENC's should be achieved. It is expected that in 2026 there is a growing regular availability of S-100 ENC's in parallel with S-57 ENC's with ECDIS already operational and available. This will mean that between 2026 and 2030 both production of S-57 ENC and S-100 ENC will occur at the same time and ECDIS must be able to read both standards, and also Hydrographic services must be able to produce and update both ENC standards.

In order to meet the deadlines, ENC schemes must be decided and the production strategy for S-57 ENC and S-101 ENC simultaneously must be working as 2025 deadline will be happening soon.

Ms Paula Sanches presented the important actions from IRCC Report and HSSC report, classifying as challenges incoming 3 years that IHO and its Member States clearly need to meet the deadlines setup in the S-100 timeline, achieving operational status on the prioritized S-100 production status, and Member States need to achieve substantial coverage of S-101 ENC until 2026.

Ms Paula Sanches presented the important actions from ICCWG report, emphasising the Transition from S-57 ENC's to S-101 ENC's schemes,

Mr Yves Guillam, mentioned that the challenge is to prepare the standards for the implementation of this and prepare the products to provide all the nautical information the end users need.

Mr Abri Kampfer, made some clarifications. A 3 years transition means that from 2026 it will be legal to use either S57 or S-100 ECDIS data. After 31st December of 2029 it will be mandatory to use S-100 ECDIS. The dual fuel means ECDIS will be able to operate on S57 or S-100 ENC's. This means that after 2030 ECDIS will still be able to read S-57 products, although S-57 will not be updated which may constitute a problem. Mr Abri Kampfer, also explained Dual fuel works in 2 ways, ECDIS will need to be able to read both ENC's but Hydrographic Services will also need to be able to produce both ENC products. Shipping companies might express the need to expand 2029 deadline, and it is the responsibility of Hydrographic

Services to push to the production of S-100 and have an effective coverage that convinces shipping companies that S-57 ENC is over.

SHOM is confident about the capacity to create S-100 products.

RAdm Chukwuemeka Okafor mentioned the timeline for the transition from S-57 to S-100 is clear but it is a big challenge for coastal states. From EAtHC, many Coastal State's capacity is not enough to meet this transition and therefore it will need more training or it will be hard to comply with this timeline.

UKHO mentioned UK is working on S-100 CB training, having been giving S-100 online courses. The request from Nigeria has been taken.

IHPT mentioned that the Members with CB capacities need to apply some effort to help needed countries.

Mr Abri Kampfer, states that the intention from IHO is to make sure that all coastal states are leveled and not leaved behind. More advanced Hydrographic Services need to give a big push on CB to any needed Coastal States.

The EAtHC Chair finished this item, mentioning EAtHC needs to take decisions, especially about the ICCWG proposals, of having the role to be a coordinator, "Region G ICCWG to take propose to EAtHC a draft revision of its ToRs & RoPs to include coordination of S-100 services and study possible actions and/or recommendations for the benefit of EAtHC Members in the coming years."

France, Ghana, Morocco and Nigeria support the request.

Portugal supports the request, considering the cartographic products.

Spain supports the request and highlight that Spain will be available to support ICCWG.

The Proposal was accepted by unanimity.

Mr Yves Guillam, mentioned the matrix looks complicated and its main objective is to have a picture of what can happen in the future with WEND, and suggested that one leading nation for one product as already happens in some commissions.

SHOM indicated that regarding ENC Schemes a draft decision proposal would be presented before the end of the plenary meeting.

A brief discussion on the benefits on an evolution of the schemes was followed, with SHOM not envisioning benefits and UKHO anticipating some and considering MESOAMERICA as an example, requesting for a WG discussing on this subject.

The EAtHC Chair encouraged all to have workshops to discuss the ongoing subjects and considered that it will be good to take note of the proposal France will present.

EAtHC17 Decision 20: Note the S-100 Roadmap report.

EAtHC17 Decision 21: The EAtHC takes note of Action WENDWG12/21 and approves the extension of the scope of the region G ICCWG to the coordination of S-100 services.

EAtHC Action 17-03: Region G ICCWG to take propose to EAtHC a draft revision of its ToRs & RoPs to include coordination of S-100 services and study possible actions and/or recommendations for the benefit of EAtHC Members in the coming years.

12. IHO Revised Strategic Plan.

(Ref EAtHC17-15 – 5-SPI_EAtHC-17_Revised SPI.pptx)

The IHO strategic Plan for 2021-26 was presented by Cdr João Vicente, starting to describe Goals 1, 2 and 3 and its allocated SPI's. Cdr João Vicente then listed the assumptions and driving factors for each Goal, with the SPI 131 already assigned to ICC, SPI 2.1.1 a task to the IHO secretariat, SPI 2.2.1 having 2 measures, from C-55 publication and from SEABED Project, and also describing SPI 2.3.1, SPI 3.1.1, SPI 3.2.1, SPI 3.2.2, SPI 3.3.3.

Mr Yves Guillam, IHO Assistant Director, Followed up on SPI 1.2.2. referring to the S-67 Publication that explains CATZOC. For the definition "Percentage of navigationally significant areas (...) for which the adequacy of the hydrographic knowledge is assessed through the use of appropriate quality indicators", it was decided that the appropriate quality indicator is Percentage of the area, where CATZOC is other than U (Unassessed).

Mr Yves Guillam, showed an example using this concept. With usage band 3 only, then UB 3 and 4, and then UB 3, 4, 5, showing that there are some regions with Unassessed data but overall the result is very good.

Morocco asked if there is a clear definition on the adequately surveyed area.

Mr Yves Guillam, explained there is no definition, as it depends on the purpose. In this case CATZOC only was being used.

Spain asked if the presented tool is at disposal of Member States with Portugal explaining it may arrange to share the tool being used in Portugal.

EAtHC17 Decision 22: Note revised strategic plan report.

13. PIANC.

(Ref EAtHC17-16 – 7_agenda-item-7-EATCH17_2022_PIANC.pptx)

Mr Carlos Coelho started by giving an overview on the PIANC organization and its mission. The PIANC has 4 technical commissions covering different areas of waterborne transport infrastructure continuously monitoring the work carried out by our experts in the respective Working Groups on industry-relevant topics, The Inland Navigation Commission (InCom), The Maritime Navigation Commission (MarCom), the Environmental Commission (EnviCom), and the Recreation Navigation Commission (RecCom).

Mr Carlos Coelho also mentioned that two further commissions were set up to support Emerging Countries (CoCom), and Young Professionals (YP-Com).

The major reasons to become a member of PIANC were indicated, and an highlight on the PIANC members, the Major events, and Publications was given, pointing out PIANC World Congress (mar2024), PIANC COPEDEC , PIANC Smart Rivers (oct/nov2022).

EAtHC17 Decision 23: Note the PIANC report.

14. National Reports

A. France.

(Ref EAtHC17-17 – 06.3A-EAtHC-17_National_Report_France.pptx)

France Report was presented by RAdm Laurent Kerléguer showing the achieved surveys since EAtHC16, The Nautical Chart and ENC production status, MSDI improvements, training, the equipment improvement. Continued describing the top challenges identified, the SHOM strategy for the S-57 to S-100 transition. RAdm Laurent Kerléguer concluded with the UKHO – SHOM interaction on ENC ECDIS Collaboration.

B. Ghana.

(Ref EAtHC17-18 – 06.3A-EAtHC-17_National_Report_Ghana.pptx)

Ms. Marilyn Eghan from Ghana started with a brief description of the National Hydrographic Office, and its attributions. Then explained the top achievements since EAtHC16: the purchase of vessels, the Coastal Fishing Port developments generating hydrographic data along the coast at Elmina, Axim, Dixcove, Moree, Mfantseman, Ekumfi, Mumford, Winneba, Senya, Fete, Osu and Teshie; and the formulation of National Hydrographic Strategic Framework.

Ms. Marilyn Eghan followed with top issues identified: the lack of qualified manpower, the lack of appreciation of the value of hydrography and the needed support and resource constraints.

Ms. Marilyn Eghan finished with the plans and challenges for next 3 years, mentioning the implementation of the strategic framework, the CB and recruitment of requisite staff, and build surveying capacity and explore alternative methods.

UKHO mentioned it is currently working on CB with a member from Ghana at the UK.

C. Morocco.

(Ref EAtHC17-19 – 06.3A-EAtHC-17_National_Report_Morocco.pptx)

Cap Corvete Abdallah Hadou started by describing the DHOC and its representativeness at IHO as well as the position and connections of DHOC at a national level. Then showed the main achievements since EAtHC16 with hydrographic surveys, Nautical Charts, Nautical Publications and exposed current DHOC constraints, plans for future and main challenges.

UK offers MSI virtual Training.

D. Nigeria.

(Ref EAtHC17-20 – 06.3A-EAtHC-17_National_Report_Nigeria.pptx)

The National Report from Nigeria was presented by RAdm Chukwuemeka Ebenezer Okafor starting with a brief description of Nigerian navy hydrographic office and its relationship with IHO. Nigeria asked for CB actions on S-100.

UKHO mentioned the information on S-100 is already available and Nigeria is welcome to contact the UKHO

EAtHC suggests that bilateral meeting should be taken on these subjects.

E. Portugal.

(Ref EAtHC17-21 – 06.3A-EAtHC-17_National_Report_Portugal.pptx)

Portugal started by presenting the Legal Framework and a brief presentation on the Hydrographic Institute (IHPT), IHPT technical areas and the main programs active at the present time. The Seamap 2030 program, with about 58% high resolution coverage of the Portuguese seabed, feeding Seabed 2030 project was detailed as well as the current national cartographic coverage. Hidrografico + MSDI capabilities were highlighted. Top achievements since EAtHC16 and top issues were shown and the plans for next 3 years were pointed out with the transition from S-57 to S-100 being the main focus, as well as new technologies and MSDI.

F. Spain.

(Ref EAtHC17-22 – 06.3A-EAtHC-17_National_Report_Spain.pptx)

Spain's National Report started with a short presentation of Instituto Hidrográfico de la Marina (IHM), its responsibilities and relevant relationship with IHO. Top achievements and top issues since EAtHC16 were presented, followed by plans for the future and challenges.

G. Cabo Verde.

(Ref EAtHC17-23 – 06.3A-EAtHC-17_National_Report_CaboVerde.pptx)

The Cabo Verde National Report, started with a brief description of the Instituto Marítimo Portuário (IMP) and its relationship with IHO, followed by all legal framework. Then the top achievements and top issues were detailed and finished with the Plans and Challenges for the future focusing on the creation and implementation of the minimum national hydrography service, the establishment of the hydrographic cooperation agreements with other countries in the region, and a Gap Analysis of the hydrographic activities in the country and becoming a more active EAtHC member as well to become IHO member.

H. UK.

(Ref EAtHC17-24 – 06.3A-EAtHC-17_National_Report_UK.pptx)

Mr. Nathanael Knapp presented the UK National Report, starting with the top achievements since EAtHC16. Top Issues were detailed and plans and challenges for the future summarized.

I. Cote d'Ivoire.

(Ref EAtHC17-25 – 06.3A-EAtHC-17_National_Report_RCI.pptx)

Cote d'Ivoire National Report started by showing the Cote d'Ivoire situation, and the organization of Hydrographic activities, responsibilities and maritime security at Cote D'Ivoire. The legal framework was detailed and the achievements and difficulties were shown, finalizing with the level of formation and plans for the future.

J. Guinea Conakry.

(Ref EAtHC17-26 – 06.3A-EAtHC-17_National_Report_GuineaConakry.pptx)

Guinea Conakry National Report was presented by Mr Souleymane Bah, and started with a brief description of the legal framework where hydrography is located in Guinea Conakry. The Technology and equipment acquired and the development of capacities was highlighted, finishing with the plans for the future in Guinea Conakry.

K. Republic of Congo.

(Ref EAtHC17-27 – 06.3A-EAtHC-17_National_Report_Congo.pptx)

The National Report of the Republic of Congo was presented, starting by the relationship with IHO, and the responsibilities of the National Hydrographic Services. The human resources and Equipment were detailed and the top achievements since EAtHC16 and top issues were presented, finishing with the plans and challenges for the future.

L. Senegal.

(Ref EAtHC17-28 – 06.3A-EAtHC-17_National_Report_Senegal.pptx)

The National Report of Senegal was presented, initiating with a brief description of the Service de Sécurité Maritime du Sénégal. The top achievements since EAtHC16 and top issues were presented, finishing with the plans and challenges for the future.

M. Gambia.

(Ref EAtHC17-29 – 06.3A-EAtHC-17_National_Report_Gambia.pptx)

Mr. Dominic Correa, from Gambia Ports Authority, gave a brief description of the legal framework with the Hydrographic Service being under The Gambia Ports Authority (GPA) and described the achievements since EAtHC16, and top issues, followed by plans for the future and challenges.

N. Togo.

(Ref EAtHC17-30 – 06.3A-EAtHC-17_National_Report_Togo.pptx)

The National Report of Togo was presented, starting with a description of hydrography in Togo. The Activities and mechanism of coordination were explained difficulties were stated.

O. Guinea Bissau.

(Ref EAtHC17-31 – 06.3A-EAtHC-17_National_Report_GuineaBissau.pptx)

The National Report of Guinea Bissau was presented, with a description of the legal framework for hydrography the top achievements and top issues as well as the plans for the future.

P. Angola.

(Ref EAtHC17-32 – 06.3A-EAtHC-17_National_Report_Angola.pptx)

The National Report of Angola was presented, showing the top achievements and top issues as well as the plans for the future.

Q. Gabon.

(Ref EAtHC17-33 – 06.3A-EAtHC-17_National_Report_Gabon.pptx)

The National Report of Gabon was presented, with a description of the top achievements and top issues as well as the plans for the future.

R. Mauritania.

(Ref EAtHC17-34 – 06.3A-EAtHC-17_National_Report_Mauritania.pptx)

The National Report of Mauritania was presented, starting with the top achievements and top issues since EAtHC16 and plans and challenges for the future summarized.

EAtHC17 Decision 24: Note all reports from this agenda item (France, Ghana, Morocco, Nigeria, Portugal, Spain, Cabo Verde, United Kingdom, Cote D'Ivoire, Guinea Conakry, Republic of the Congo, Senegal, Gambia, Togo, Guinea Bissau, Angola, Gabon, Mauritania).

EAtHC17 Recommendation 12: Coastal States which are ahead on S-100 development to organize workshops and bi lateral meetings, helping Coastal States that need it.

15. Industry/ Expert Contributors

A. Kongsberg

(Ref EAtHC17-35 – Kongsberg EAtHC17 2022.pptx)

Cdr Øystein Aasbø Senior Sales Manager for Europe, Africa and Russia, from Kongsberg Maritime (KM), presented on Kongsberg.

B. Seven Cs

(Ref EAtHC17-36 – SevenCs EAtHC17 2022.pptx)

Friedhelm Moggert-Kägeler presented on Seven Cs.

C. PRIMAR

(Ref EAtHC17-37 – PRIMAR EAtHC17 2022.pptx)

Mr. Hans Christoffer Lauritzen, director of Primar, presented Primar and its current updates.

EAtHC17 Decision 25: Note all reports from this agenda item:

- KONGSBERG Maritime
- Seven Cs
- PRIMAR

EAtHC17 Recommendation 13: Coastal States that feel the need for S-100 Training, may contact Kongsberg, Seven Cs, PRIMAR or IC-ENC.

16. EAtHC Committees and Working Groups (continuation of 10.)

H. Disaster Response Framework proposal and approval

(Ref EAtHC17-38 – 03.5A-EAtHC17-03.5A-disaster-response.pptx)

Cdr João Vicente presented on disaster response framework, mentioning that with the disaster response framework being approved in EAtHC16 there was not many developments on this framework, and therefore it is important to remember this topic and try to get it on moving. A description of the Disaster Response Framework was presented with special incidence on the actions each Coastal State should do.

All implementation activities to be conducted by the Chair and Member States was depicted.

EAtHC17 Decision 26: Note the Disaster Response Framework Report.

EAtHC Action (MSDI) 17-06: MSDI WG shall plan a table top exercise and submit it to the Chair. (MSDI WG)

I. Open discussion about Bilateral and Regional Cooperation Agreements.

(Ref EAtHC17-39 – 03-6A-bilateral.pptx)

Cdr João Vicente started by pointing out some important topics, and opened the floor to a discussion among all participants.

CB funds of IHO do not seem to be sufficient for the needs at this regional area and is therefore conditioned by available means.

SHOM mentioned France is aware that funds have been decreasing and France is trying to identify priority actions to be taken.

UK is fully committed to support CB activities, and is working with most countries and open to any needs that countries may

Togo mentioned would like to invite all to look at each state efforts and give a substantial effort to support the work of each country to plan and create a hydrographic service.

Ghana offers help to Nigeria and neighbouring countries.

Mr Yves Guillam, IHO Assistant Director, mentioned that in 2020 there was a technical visit to Togo, and the Technical visit report might be of help for Togo now.

J. Open discussion about Bilateral and Regional Cooperation Agreements (MOWCA, PMAWCA and AMSSA)

(Ref EAtHC17-40 – 03-6A-bilateral.pptx)

Cdr Joao Vicente presented on this agenda item, explaining that IHO has agreements with several organizations (MOWCA – Maritime Organization of West and Central Africa), Ports Management Association of West and Central Africa (PMAWCA), African Maritime Safety and Security Agency (AMSSA).

There was no possible contact with any of this organizations on the past 2 years, despite all efforts made to have this relationship working.

Mr Yves Guillam, indicated the contact with this organizations has not been working for some time, and underlined that the Coastal States that have actions with this organizations can be delegated to actually act as the liaison to each of this organizations.

EAtHC Chair issued a change to Action 25 so that the Chair and Coastal States encourage and invite for participation of this organizations in the plenary sessions.

Congo will be the liaison with MOWCA and PMAWCA.

Togo also offers to help on this to team with Congo.

Côte d'Ivoire suggests to contact Nigeria which can together with Congo facilitate the connection with PMAWCA

Cape Verde can be the liaison with AGPLC as the head of AGPLC is currently from Cape Verde.

EAtHC Action 16-19: EAtHC16 19 (change) - Coastal States are encouraged to participate in international or regional organizations and should share experiences, knowledge and POC.

EAtHC Action 16-25: EAtHC16 25 (change) - Chair and Coastal States continue engaging MOWCA and PMAWCA (& other regional organizations) to participate in the EAtHC Conferences.

17. Assembly and Council Matters

(Ref EAtHC17-41 – 9-1A-agenda.pptx)

A concise analysis on Assembly and Council Matters was given with the designation of the EAtHC representatives to the IHO Council being one subject to discuss. The Chair of the EAtHC will invite the Member States that have been designated as eligible for selection to represent the EAtHC in the Council to indicate if they wish to be considered as candidates for selection.

18. Any Other Business

SHOM elaborated on the proposed decision regarding ENC schemes, explaining the position of prudence that ensures that any new scheme has to comply in order to maintain a seamless coverage of ENC with other Hydrographic partners.

UK at this time does not support the proposal, not understanding its need, actually acting as a constraint at this time, and intends to have the opportunity to explain the UK intention to change schemes.

UK Support the proposal of ICC to meet more often so that the discussion may happen.

Mr Yves Guillam, asserted EAtHC has a good tool to work on this, the ICC WG. Any changes will need a discussion to reach a consensus mentioning both statements are very pertinent.

UK believes that UK changes need to be explained before taking any decision on this matter and discuss it at the ICCWG. UK completely supports further discussions at ICC WG.

EAtHC Chair indicates that ICCWG needs to meet more so that this issue can be discussed, and a joint decision can be made.

Spain, notices there is time to talk about this and there is no need to have decisions at this time, proposing to work deeper in this issue to harmonize positions.

EAtHC Chair sets an action for UK, to submit a proposal on the new Schema to be analysed by ICCWG and have technical discussions on this matter. There is a tool that can be used, "into" GIS, which allows states to verify the changes that are being proposed.

All states were remembered that they need to update the information for P-5.

19. Review of the Actions and Decisions

(Doc EAtHC17-03 – List of Decisions)

(Doc EAtHC17-04 – List of Recommendations)

(Doc EAtHC17-05 – List of Actions)

The Actions, Decisions and recommendations were reviewed and agreed unanimously.

EAtHC17 Decision 27: Approve the list of Decisions.

EAtHC17 Decision 28: Approve the list of Recommendations.

EAtHC17 Decision 29: Approve the list of Actions.

20. Chair/Vice-Chair Election

EAtHC Chair took the word on this matter.

The Chair is agreed to be the vice chair, and therefore RAdm Laurent Kerléguer will assume the Chair Position. Vice Chair is an election position, with Morocco being the sole volunteer for vice chair.

In Conclusion, EAtHC Chair is hereafter France, with RAdm Laurent Kerléguer, and Vice Chair position is now Morocco, Captain Mostafa Tafry.

The ceasing Chair RAdm Mário Simões Marques thanked all the participants, and a special thank was to Cabo Verde and IHO, IHPT and all the staff. The transition to new S-100 standards will be on the agenda for a few year from now and we need to work together in this challenge. He finalized by exhorting all member states to keep cooperation mind, and congratulating the new Chair and Vice Chair.

RAdm Laurent Kerléguer congratulated the ceasing chair for the excellent Chairing and presented a warm thank you to Cabo Verde and IMP for the way they received all for the plenary session. RAdm acknowledged all participants for the trust on FRANCE moving on from Vice Chair to Chair, and congratulated Morocco for being vice chair as it is an honor to have Morocco as vice chair.

The Vice Chair Captain Mostafa Tafry declared It is an honor for Morocco to be the vice chair from 2022 to 2024, being grateful to all participants for their contribution on this conference.

EAtHC17 Decision 30: EAtHC Chair is RAdm Laurent Kerléguer.

EAtHC17 Decision 31: EAtHC Vice Chair is Captain Mostafa Tafry.

21. Date and Venue of EAtHC18

The Vice Chair Captain Mostafa TAFRHY declared it is an honor for Morocco host the next plenary meeting welcoming the EAtHC18 in Morocco. It is envisaged that the next EAtHC conference, EAtHC18, will take place in Casablanca from 15 to 17 May 2024, preceded by a 2-day EAtHC seminar. This information is to be confirmed by the Vice Chair.

EAtHC Action 17-04: Vice Chair to confirm to EAtHC Chair the date and venue for the Conference EAtHC18 in 2024.

22. Closing Remarks

On the closing remarks RAdm Laurent Kerléguer gave the word to Cabo Verde for some closing remarks, thanking all participants, followed by IHO that thank the ceasing Chair for leading EAtHC through all issues, acknowledged all participants, and congratulated to new Chair France and Vice Chair Morocco. IHO also asserted that the information seen indicates that there is progress in the region and cooperation with this being the success for the region. Work can be done bilaterally and urge to continue this and continue the development in the region. IHO is waiting for any country that wishes to proceed to join the team and will be available for contact

The Chair closed the meeting thanking the participants.

23. Annexed - Glossary

24. Annexed - Documents

Doc EAtHC17-01 – List of Participants

Doc EAtHC17-02 – Agenda

Doc EAtHC17-03 – List of Decisions

Doc EAtHC17-04 – List of Recommendations

Doc EAtHC17-05 – List of Actions

25. Annexed - Documents in external reference (IHO's EAtHC website)

Glossary

AMSSA - African Maritime Safety and Security Agency

APGB - harbour administration of Guiné Bissau

CB – Capacity Building

CBSC - Capacity Building sub Committee

Cdr – Commander

CL – Circular Letter

CSB – Crowdsourced Bathymetry

DCDB - Data Centre for Digital Bathymetry

DHOC - *Division de l'Hydrographie, l'Océanographie et de la Cartographie de la Marine Royale de Morocco*

DQWG – Data Quality Working Group

EAtHC - Eastern Atlantic Hydrographic Commission

EAtHC16 - 16th Eastern Atlantic Hydrographic Commission Plenary

EAtHC17 - 17th Eastern Atlantic Hydrographic Commission Plenary

ECDIS - Electronic Chart Display and Information System

ENC - Electronic Navigation Charts

EU - European Union

GEBCO - General Bathymetric Chart of the Oceans

GMDSS - Global Maritime Distress and Safety System

GPA – Gambia Ports Authority

HD – High Density

HSSC - Hydrographic Services and Standards Committee

IALA - International Association of Lighthouse Authorities

ICCWG- International Charting Coordination Working Group

IEC – International Electrotechnical Commission

IEHG - Inland ENC Harmonization Group

IHM - Instituto Hidrográfico De La Marina

IHO - International Hydrographic Organization

IHPT - Instituto Hidrográfico – Portugal

IHR - International Hydrographic Review

IMO - International Maritime Organization

IMP - Maritime Port Administration of Cape Verde – “Instituto Marítimo Português”

IOC - Intergovernmental Oceanographic Commission – UNESCO

IOCAFRICA – UNESCO/IOC Sub Commission for Africa & the Adjacent Island States

IOT – in order to

IRCC - Inter-Regional Coordination Committee

JCOMM - Joint Technical Commission for Oceanography and Marine Meteorology

KM - Kongsberg Maritime

Lt Cdr – Lieutenant Commander

MOWCA - Maritime Organisation of West and Central. Africa

MSDI - Marine Spatial Data Infrastructures

MSDIWG - Marine Spatial Data Infrastructures Working Group

MSI - Maritime Safety Information

NATO – North Atlantic Treaty Organization

NCWG - Nautical Chart Working Group

NHC - National Hydrographic Committees

NGA - National Geospatial-Intelligence Agency

PCA - Primary Charting Authority

PIANC - World Association for Waterborne Transport Infrastructure

PMAWCA - Port Management Association of Western and Central Africa

POC – Point of Contact

PT – Project Team

RAdm – Rear Admiral

ROP – Rules of Procedures

SHOM - *Service hydrographique et océanographique de la Marine*

SOLAS - International Convention for the Safety of Life at Sea

SPI - Strategic Performance Indicators

SWAIMS - Support to West Africa integrated Maritime Security

TC80 – IEC Maritime navigation and radiocommunication equipment and systems

TOR – Terms of Reference

UKHO - United Kingdom Hydrographic Office

UNESCO - United Nations Educational, Scientific and Cultural Organization

VHF – Very High Frequency

VTC - Video teleconferencing

WEND – World Wide ENC Database

WENDWG – World Wide ENC Database Working Group



WG – Working Group

WMO - World Meteorological Organization

List of Participants

Category	Country	Organization	Name	VTC
IHO Member State	Angola	Agência Maritima Nacional	Helder RUFINO	
IHO Member State	Angola	Agência Maritima Nacional	Nero Maria	
IHO Member State	France	SERVICE HYDROGRAPHIQUE ET OCEANOGRAPHIQUE DE LA MARINE	Henri Doulou	
IHO Member State	France	SERVICE HYDROGRAPHIQUE ET OCEANOGRAPHIQUE DE LA MARINE	Amandine LEFRANÇOIS	
IHO Member State	France	SERVICE HYDROGRAPHIQUE ET OCEANOGRAPHIQUE DE LA MARINE	Laurent KERLÉGUER	
IHO Member State	France	SERVICE HYDROGRAPHIQUE ET OCEANOGRAPHIQUE DE LA MARINE	Julien SMEECKAERT	
IHO Member State	Ghana	MARITIME AUTHORITY	Marilyn EGHAN	
IHO Member State	Ghana	MARITIME AUTHORITY	ISAAC KORANTENG YIRENKYI	
IHO Member State	Morocco	DIVISION HYDROGRAPHIE OCEANOGRAPHIE ET CARTOGRAPHIE (DHOC) DE LA MARINE ROYALE	ABDALLAH HADOU	
IHO Member State	Nigeria	NIGERIAN NAVY HYDROGRAPHIC OFFICE	Abdulsalam MOHAMMED	VTC
IHO Member State	Nigeria	NIGERIAN NAVY HYDROGRAPHIC OFFICE	CHUKWUEMEKA OKAFOR	
IHO Member State	Nigeria	NIGERIAN NAVY HYDROGRAPHIC OFFICE	Audu IDU	
IHO Member State	Portugal	INSTITUTO HIDROGRAFICO	Paula SANCHES	

IHO Member State	Portugal	INSTITUTO HIDROGRAFICO	João Paulo Ramalho Marreiros	
IHO Member State	Portugal	INSTITUTO HIDROGRAFICO	Carlos MARQUES	
IHO Member State	Portugal	INSTITUTO HIDROGRAFICO	Mário SIMÕES MARQUES	
IHO Member State	Portugal	INSTITUTO HIDROGRAFICO	João Paulo DELGADO VICENTE	
IHO Member State	Portugal	INSTITUTO HIDROGRAFICO	Miguel BESSA PACHECO	
IHO Member State	Portugal	INSTITUTO HIDROGRAFICO	Telmo Geraldés Dias	VTC
IHO Member State	Spain	INSTITUTO HIDROGRAFICO DE LA MARINA (IHM)	Salvador MORENO SOBA	
IHO Member State	Spain	INSTITUTO HIDROGRAFICO DE LA MARINA (IHM)	Salvador ESPINOSA GLEZ-LLANOS	
IHO Member State	United Kingdom of Great Britain and Northern Ireland	UNITED KINGDOM HYDROGRAPHIC OFFICE	Cathy TUNKS	
IHO Member State	United Kingdom of Great Britain and Northern Ireland	UNITED KINGDOM HYDROGRAPHIC OFFICE	Nathanael KNAPP	
Observers		PIANC - Portugal	Maria Graça Neves	VTC
Observers		Intergovernmental Oceanographic Commission of UNESCO	Mika ODIDO	VTC
Observers		International Association of Marine Aids to Navigation and Lighthouse Authorities	Gerardine DELANOYE	
Industry		SevenCs	Friedhelm MOGGERT-KÄGELER	VTC
Industry		Kongsberg Maritime	Øystein AASBØ	
IHO Secretariat		International Hydrographic Organization	Abri KAMPFER	
IHO Secretariat		International Hydrographic Organization	Yves GUILLAM	
Other State	Cabo Verde	Instituto Marítimo Portuario (IMP)	IVO RODRIGUES	VTC
Other State	Cabo Verde	Instituto Marítimo Portuario (IMP)	ARMANDO LOPES	

Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	RAÚL SOULÉ	
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	ALCINDO GOMES	
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	NUNO MONIZ	
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	EVANILDO JESUS	
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	CARINA BATISTA	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	FRANCISCO	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	ADÉRITO	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	EMERSON	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	FÁBIO LOPES	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	JUVELINO LANDIM	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	ÂNGELO GARCIA	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	MANUEL RIBEIRO	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	PERICLES GOMES	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	ADERITO FONSECA	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	JAIR DE BARROS	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	ARIOLINO SILVA	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	GIL LIMA	VTC
Other State	Cabo Verde	Instituto Maritimo Portuario (IMP)	SEIDI DOS SANTOS	
Other State	Congo	Département des Transports et Communications	JEAN MARC STANISLAS MBIMBI	
Other State	Congo	PORT AUTONOME DE POINTE-NOIRE	Winther Grenier TCHISSAMBOU AMBANA	
Other State	Côte d'Ivoire	Port Autonome d'Abidjan	Issouf FOFANA	
Other State	Côte d'Ivoire	Port Autonome d'Abidjan	Seydou SANGARE	
Other State	Gabon	Ministère en charge des transports	Ludovic Edgard MOUNDOUNGA	
Other State	Gabon	Gabon Port Management	Bertrand Roger LELE	
Other State	Gambia (Republic of The)	GAMBIA,PORTS,AUTHORITY	Dominic CORREA	
Other State	Guinea	PORT AUTONOME DE CONAKRY	Moustapha BALDE	

Other State	Guinea	PORT AUTONOME DE CONAKRY	Souleymane BAH	
Other State	Guinea	PORT AUTONOME DE CONAKRY	Camara yakouba	
Other State	Guine Bissau	APGB – Administração dos Portos da Guiné-Bissau	Alberto Tipote	
Other State	Mauritania	Navy	Sidi Abdalla TALEB MOUSTAPH	
Other State	Senegal	SUBDIVISION DES PHARES ET BALISES	Pathe Yero THIOYE	
Other State	Senegal	SUBDIVISION DES PHARES ET BALISES	Ibrahima CISSOKHO	
Other State	Togo	Port Autonome de Lomé	Abiré d'ALMEIDA	
Other State	Togo	Port Autonome de Lomé	Komi Edem AZIAMADIA	
Observers		PRIMAR	Hans Christoffer LAURITZEN	
Observers	USA	NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY (NGA)	Douglas ROUSH	VTC

Agenda

Opening

Administrative announcement

Opening Remarks and welcome

1. EAtHC Administration/organizational issues
 - 1.1. Approval of Agenda (Chair)
 - 1.2. Matters Arising from Minutes of EAtHC16 (Chair)
 - 1.3. Review of 16th EAtHC Actions List (EAtHC Secretariat)

2. IHO Matters
 - 2.1. IHO Secretariat Report (IHO)
 - 2.2. IRCC14 Report (Chair supported by IHO)
 - 2.3. HSSC14 Report (EAtHC Secretariat supported by IHO)

3. EAtHC Committees and Working Groups
 - 3.1. ICCWG (France)
 - 3.2. Report on GDMSS, MSI and NAVAREA Coordination (France)
 - 3.3. Capacity Building (France)
 - 3.4. MSDI WG, CSB and SEABED2030 included (Portugal)
 - 3.5. Disaster Response & P-5 update (Portugal)
 - 3.6. Bilateral and Regional Cooperation Agreements / projects (Discussion)
 - 3.6.1. Include discussion about Capacity Building and PCA Role

4. S-100 implementation in the Region
 - 4.1. WEND Report (France)
 - 4.2. S-100 Transition Roadmap (Portugal)
 - 4.3. Discussion (Portugal)

5. IHO Revised Strategic Plan 2021-2026
 - 5.1. Way forward (Portugal)
 - 5.2. Discussion

6. National Reports

7. Relevant International and Regional Organizations' Report (tbc)
 - 7.1. International Maritime Organization (IMO)
 - 7.2. International Association of Lighthouse Authorities (IALA)
 - 7.3. International Oceanographic Commission (IOC) IOC Sub Commission for Africa & the Adjacent Island States (IOCAFRICA)
 - 7.4. Maritime Organization of West and Central Africa (MOWCA)
 - 7.5. Ports Management Association of West and Central Africa (PMAWCA)
 - 7.6. The Atlantic International Research Centre (AIR CENTRE)

7.7. Support to West Africa Integrated Maritime Security (SWAIMS)

8. Industry and other organizations presentations (tbc)

- 8.1. IC-ENC
- 8.2. PRIMAR
- 8.3. KONGSBERG Maritime
- 8.4. Teledyne Caris
- 8.5. SevenCs
- 8.6. EOMAP
- 8.7. iXBlue
- 8.8. QPS
- 8.9. ESRI

9. Closure

- 9.1. Assembly and IHO Council considerations (Chair)
- 9.2. Any other business
- 9.3. 2023-2025 Council EAtHC Representative
- 9.4. Election of Chair and Vice Chair
- 9.5. Review of Actions and Decisions
- 9.6. Details for next meeting
- 9.7. Closing remarks

List of Decisions

EAtHC17 Decision 1: Approve the Agenda of the EAtHC17 Meeting (Doc EAtHC17-02 - Agenda).

EAtHC17 Decision 2: Approve actions list review proposal.

EAtHC17 Decision 3: Note the IHO Secretariat Report.

EAtHC17 Decision 4: Note the IRCC Report.

EAtHC17 Decision 5: Note the HSSC Report.

EAtHC17 Decision 6: Note the important challenges on the S-100 implementation and the commitments towards IMO and IEC.

EAtHC17 Decision 7: Note the IALA Report

EAtHC17 Decision 8: Note the IOCAFRICA Report.

EAtHC17 Decision 9: Note the ICCWG Report

EAtHC17 Decision 10: Note the GDMSS, MSI and NAVAREA Coordination Report.

EAtHC17 Decision 11: Note the CB Report.

EAtHC17 Decision 12: Note of the decrease in IHO funding dedicated to CB and consider external funding solutions for collective CB actions (seminars, etc.).

EAtHC17 Decision 13: Note the CSB Report

EAtHC17 Decision 14: Note the SEABED 2030 Report.

EAtHC17 Decision 15: Note the MSDI Report.

EAtHC17 Decision 16: Note the IHO-EU Network WG Report

EAtHC17 Decision 17: Note the analysis of the WENDWG on the S-101 scheme.

EAtHC17 Decision 18: Note the submission to the IHO Council of the Guidelines on the implementation of the WEND principles to the S-100 products other than S-101.

EAtHC17 Decision 19: Note the interest of HD ENCs and the IHO S-100 objective which integrates S-102 products (bathymetry) which should cover the need for high density bathymetry

EAtHC17 Decision 20: Note the S-100 Roadmap report.

EAtHC17 Decision 21: The EAtHC takes note of Action WENDWG12/21 and approves the extension of the scope of the region G ICCWG to the coordination of S-100 services.

EAtHC17 Decision 22: Note revised strategic plan report.

EAtHC17 Decision 23: Note the PIANC report.

EAtHC17 Decision 24: Note all reports from this agenda item (France, Ghana, Morocco, Nigeria, Portugal, Spain, Cabo Verde, United Kingdom, Cote d'Ivoire, Guinea Conakry, Republic of the Congo, Senegal, Gambia, Togo, Guinea Bissau, Angola, Gabon, Mauritania).

EAtHC17 Decision 25: Note all reports from this agenda item: KONGSBERG Maritime, Seven Cs, PRIMAR

EAtHC17 Decision 26: Note the Disaster Response Framework Report.

EAtHC17 Decision 27: Approve the list of Decisions.

EAtHC17 Decision 28: Approve the list of Recommendations.

EAtHC17 Decision 29: Approve the list of Actions.

EAtHC17 Decision 30: EAtHC Chair is RAdm Laurent Kerléguer.

EAtHC17 Decision 31: EAtHC Vice Chair is Captain Mostafa Tafrhy.

List of Recommendations

EAtHC17 Recommendation 1: All Members to update P-5 and C-55 IHO Publications.

EAtHC17 Recommendation 2: All Members to visit EAtHC webpages and check IHO / EAtHC Documentation.

EAtHC17 Recommendation 3: All to continue on the implementation of the IHO Strategic Plan and support IRCC in identifying measures and values to measure those SPI of regional interest allocated to IRCC, in accordance with IRCC14 List of Actions, Decisions and Recommendations to RHCs.

EAtHC17 Recommendation 4: Observers can sign the statutes and become Associate Members of EAtHC.

EAtHC17 Recommendation 5: EAtHC Members are invited to submit papers for publication in the International Hydrographic Review (IHR).

EAtHC17 Recommendation 6: Representatives of EAtHC Coastal States that are not members of IHO, are invited to contact their National Authorities to encourage to become IHO members.

EAtHC17 Recommendation 7: Consider IRCC recommendations for EAtHC Actions and Decisions update.

EAtHC17 Recommendation 8: Member States to actively support the development of priority Performance Standards.

EAtHC17 Recommendation 9: All Coastal States should consider joining and/or attending the CSBWG

EAtHC17 Recommendation 10: All Coastal States should encourage local participation in CSB collection and sharing

EAtHC17 Recommendation 11: All Coastal States should consider applying to become the next SEABED 2030 funded CSB program

EAtHC17 Recommendation 12: Coastal States which are ahead on S-100 development to organize workshops and bi lateral meetings, helping Coastal States that need it.

EAtHC17 Recommendation 13: Coastal States that feel the need for S-100 Training, may contact Kongsberg, Seven Cs, PRIMAR or IC-ENC.

List of Actions

EAtHC Action 16-01: Representatives of the EAtHC non-members coastal States are requested to contact their national authorities to encourage the signing of the EAtHC Statutes (**EAtHC non-member Coastal States**).

EAtHC Action 16-02: Representatives of the EAtHC Coastal States IHO non-members are requested to contact their national authorities to encourage to become IHO members. (**EAtHC IHO non-member Coastal States**)

EAtHC Action 16-03: Member States, Associate Members, Observers are invited to review their entry in the IHO Yearbook and C-55 and to provide the IHO Secretariat with the appropriate updates or to report no change (CL 20/2019 refers) at least annually (**Coastal States**)

EAtHC Action 16-04: PCA in the region should review agreements/MOUs with coastal states IOT adapt to the S-100 products/services and to promote bathymetric data sharing both to INT Chart production and IHO DCDB/GEBCO (**PCA and Coastal States**)

EAtHC Action 16-05: To provide IHO SECRETARIAT and EAtHC Chair with official documents related to national hydrographic committees (NHC), national hydrographic coordination committees and general procedures, to be considered for inclusion in C-16 (National Hydrographic Regulations). (**Coastal States**)

EAtHC Action 16-06: Coastal States to make the transmission of survey data to their cartographic authority mandatory when contracting surveys with third parties (other HOs, private companies), in order to enable swift updating of nautical documents and charts, either by themselves providing the necessary data and documents to the charting authority or by authorising third parties to transmit these elements (**All Coastal States**)

EAtHC Action 16-07: To encourage Coastal States to formalize the fulfilment of their SOLAS obligations by making official agreements with their Primary Charting Authority, in accordance with the chapter V of the SOLAS Convention. (**Concerned Coastal States**)

EAtHC Action 16-08: EAtHC Members are invited to submit papers for publication in the IHR and through your representative to the IHR Board. Cdre Sunday ATAKPA (Nigeria) is representing EAtHC on the IHR Editorial Board <https://ihr.iho.int/submit-an-article/> (**All Coastal States**)

EAtHC Action 16-10: Member States should participate in the Empowering Women in Hydrography project. CL 35/2021: Joint CANADA-IHO Project Empowering Women in Hydrography <https://iho.int/en/basic-cbhc-ewh> (**Member States**)

EAtHC Action 16-11: Member States and submitting institutions are encouraged to engage with the IHO Secretariat early in the process preparing submissions for programme recognition. <https://iho.int/en/education-programme-recognition-0>

EAtHC Action 16-12: 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 (CAT A & B) programme recognition. <https://iho.int/en/education-programme-recognition-0>

EAtHC Action 16-18: Member States are encouraged to participate in the WG and PT of the IRCC and HSSC. EAtHC may appoint from among its Member States, Representatives to IHO instances, or international or regional committees. The designated Representatives of the Commission shall report to the Commission on any action or subject of interest.

EAtHC Action 16-19: Coastal States are encouraged to participate in international or regional organizations and should share experiences, knowledge and POC.

EAtHC Action 16-22: Coastal States should inform the EAtHC Chair on points of contact and the means of communication, Prepare and keep updated a National Communication Plan, Identify appropriate contacts in the National Foreign Ministry IOT respond to Disaster Response Framework **(Coastal States)**

EAtHC Action 16-23: Coastal States to prepare a list of (possibly) available assets that impacted coastal States can consider to request via diplomatic channels to the neighbouring States IOT respond to Disaster Response Framework **(Coastal States)**

EAtHC Action 16-24: The Chair should ensure a permanent agenda item on RHC meetings to monitor the readiness of the Commission to respond to disasters and conducting regular table-top exercises to evaluate the procedures **(Chair)**

EAtHC Action 16-25: Chair and Coastal States continue engaging MOWCA and PMAWCA (& other regional organizations) to participate in the EAtHC Conferences.

EAtHC Action 17-01: RHC to start or proceed with the debate on how the climate change related activities can be further investigated and what can be the role of the IHO.

EAtHC Action 17-02: To fill the WEND S-100 IGIF Matrix presented at IRCC14, by February 2023, to be reported to WENDWG13.

EAtHC Action 17-03: Region G ICCWG to take propose to EAtHC a draft revision of its ToRs & RoPs to include coordination of S-100 services and study possible actions and/or recommendations for the benefit of EAtHC Members in the coming years.

EAtHC Action 17-04: Vice Chair to confirm to EAtHC Chair the date and venue for the Conference EAtHC18 in 2024.

EAtHC Action (MSDI) 16-01: Review the procedures for the transmission of survey data, in order to make sure that all relevant national organisations can access the survey data covering their national waters. **(Coastal States)**

EAtHC Action (MSDI) 16-02: EAtHC members are invited to identify further potential sources of bathymetric measurements and survey data providers to facilitate the further completion of the Data Center for Digital Bathymetry (DCDB) data holdings. **(Coastal States)**

EAtHC Action (MSDI) 16-05: Propose the terms of reference (ToR) and rules of procedure (RoP) of the EAtHC MSDI WG. **(MSDI WG)**

EAtHC Action (MSDI) 16-07: Build an inventory (with links) of existing MSDI in the EAtHC region. **(Chair / All)**

EAtHC Action (MSDI) 16-08: Create a list of common/base layers to the MSDI projects (bathymetry, shoreline, maritime boundaries, etc.). **(Chair / All)**

EAtHC Action (MSDI) 17-01: Support the Crowdsourced Bathymetry (CSB) initiative with positive actions, such as requiring all research vessels, when on passage or when it does not interfere with other research activities, to collect bathymetric data for later uploading. **(Coastal States)**

EAtHC Action (MSDI) 17-02: Maintain a web map application to use as testbed by EAtHC MSDI WG members and to publish and share hydrographic data. **(MSDI WG)**

EAtHC Action (MSDI) 17-03: Encourage all coastal states to respond to CSB questionnaire (IHO CL 21/2020, IRCC CL 1/2020) and, if possible, offer a positive response, even if qualified, to enable provision of CSB data into the public domain collected from ships within waters subject to their national jurisdiction. **(Report EAtHC 18) (Coastal States)**

EAtHC Action (MSDI) 17-04: Plan a workshop on how to build a MSDI (geospatial data, spatial databases, web services, etc.). **(Report EAtHC 18) (MSDI WG)**

EAtHC Action (MSDI) 17-05: Propose a measuring process for SPI 1.2.2 and SPI 2.2.1. **(MSDI WG)**

EAtHC Action (MSDI) 17-06: MSDI WG shall plan a table top exercise and submit it to the Chair. **(MSDI WG)**

EAtHC Action (ICC) 16-01: INT & ENC Chart producers to check the consistency of the existing set of ENC with NGA's list of ports (Pub 150). To provide the regional charting coordinator with a set of proposals to complete large scales ENC schemes. **(INT & ENC Chart producers in liaison with Coastal States)**

EAtHC Action (ICC) 16-02: INT chart producers to provide first editions and details of the new editions of INT charts to the INT Chart Coordinator (or ICCWG) at least three months prior to every EAtHC or ICCWG meeting in accordance with S-11 (3.14.1 – c). **(Chart Producer States)**

EAtHC Action (ICC) 16-03: The newly adopted INT charts, with the agreement of the INT Chart Producer Nation to be subsequently transferred to the IHO SECRETARIAT for its chartroom reference collection and internal use (database validation, consultation, etc.). **(INT Chart Coordinator – France)**

EAtHC Action (ICC) 16-04: Chart producers to provide the regional charting coordinator with an update of the list of on-line chart catalogues, either directly or systematically when updating the Yearbook. **(INT Chart Producers)**

EAtHC Action (ICC) 16-05: Chart producers to update INT chart details (limits, scale, format) using INTOGIS 'web manager' interface. **(INT Chart Producers)**

EAtHC Action (ICC) 16-06: Regional Charting Coordinator to submit the new INT proposals/ major updates to the approval of the region G ICCWG in accordance with the ICCWG ToRs & RoPs and using the form made available. **(INT Chart Coordinator)**

EAtHC Action (ICC) 16-07: Region G ICCWG to validate ENC schemes for UB1/2/3 and report back to the IHO SECRETARIAT. RCC to study with IHO Secretariat the possibility to copy the ENC catalogue in the ENC scheme. **(Regional Charting Coordinator)**

EAtHC Action (ICC) 16-08: Specify how to manage ENC schemes (proposals for new cells, scheduled cells) with INTOGIS II. **(IHO Secretariat)**

EAtHC Action (ICC) 16-09: ENC producers to enter their ENC projects via the "manager" interface of the INTOGIS II portal. WHEN OPERATIONAL. **(ENC Producer States)**

EAtHC Action (ICC) 16-10: ENC producers to send their ENC projects (production plan in shape format) to the charting coordinator. **(ENC Producer States)**

EAtHC Action (ICC) 16-11: Upon the recommendations based on the proposals made by the NCWG on the Future of the Nautical Paper Chart, Member States should focus on ENC Schemes, but still follow applicable IHO Resolutions and Standards for any continuing INT chart production. **(Member States)**

EAtHC Action (ICC) 16-12: Member States to note the information on ECDIS anomalies and support the implementation of the recommendations given by the ENCWG. **(Member States)**

EAtHC Action (ICC) 16-13: Member states ENC producers to populate the CATZOC values (1 to 5) of their ENC cells. **(ENC Producer States)**

EAtHC17 Action (ICC) 17-01: EAtHC Members States to examine their ports with their information and location in the World Port Index and to submit to NGA proposal for correction or modification through the dedicated Interface.

EAtHC Action (MSI) 16-01: NAVAREA II Coordinator to check on a regular basis the MSI Points of Contact (at least every 3 months). **(NAVAREA II Coordinator)**

EAtHC Action (MSI) 16-02: National MSI correspondents to report any change of contact point to the NAVAREA II coordinator without delay. **(All Coastal States within NAVAREA II)**

EAtHC Action (CB) 16-01: Coastal States seeking CB assistance (including IMO audit preparation) to liaise (annual basis) with the regional CB coordinator not later than March 1st to be considered by the CBSC for CB work programme (CBWP). **(Coastal States)**

EAtHC Action (CB) 16-02: Provide the regional CB Coordinator with the direct CB in-kind contribution made in the region. **(Coastal States)**

EAtHC Action (CB) 16-03: Coastal states to make the IMO Member State Audit Scheme (IMSAS) conclusions relating to hydrographic services available to the IHO Secretariat and the CB coordinator in order to propose possible actions. **(Coastal States)**

EAtHC Action (CB) 17-01: Inform CB Coordinator of any wider CB opportunities that the EAtHC region can benefit from (also for inclusion in the IHO Calendar). **(Coastal states)**

EAtHC Action (CB) 17-02: Consider contributing to the Empowering Women in Hydrography Project. **(Coastal states)**

EAtHC Action (CB) 17-03: Member states to reply to IHO CL 26/2022 (deadline 30 September 2022). **(Member States)**

Documents in external reference (IHO's EAtHC website)

- (Ref EAtHC17-01 – 01-EAtHC17-agenda-item01.pptx)*
- (Ref EAtHC17-02 – 01-EAtHC17-agenda-item01.pptx)*
- (Ref EAtHC17-03 – 02.1A-EAtHC17_2022_EN_Presentation_IHO Secretariat_Report.pptx)*
- (Ref EAtHC17-04 – 02.2A-EAtHC17-ircc_report.pptx)*
- (Ref EAtHC17-05 – 02.3A-EAtHC17_2022_02.3A_Rev1_EN_Report HSSC14.pdf)*
- (Ref EAtHC17-06 – 03.1A-EAtHC17_2022_03.1A_EN_ICCWG_report.pdf)*
- (Ref EAtHC17-07 – 03.2A-EAtHC17_2022_03.2A_EN_GMDSS_MSI_NAV report.pdf)*
- (Ref EAtHC17-08 – 03.3A-EAtHC17_2022_03.3A_EN_Capacity_Building_report.pdf)*
- (Ref EAtHC17-09 – 03.4A-20220928_CSB.pdf)*
- (Ref EAtHC17-10 – 03.4A_20220928_Seabed2030.pdf)*
- (Ref EAtHC17-11 – 03.4A_20220928_MSDI.pdf)*
- (Ref EAtHC17-12 – 03.7A-EAtHC17_IHO-UE_report.pptx)*
- (Ref EAtHC17-13 – 04.1A_EAtHC17_2022_EN_WENDWG_report.pdf)*
- (Ref EAtHC17-14 – 04.2A_20220929 - S-100_EAtHC17_Agenda Item 4-2 vrs02 to EAtHC17.pptx)*
- (Ref EAtHC17-15 – 5-SPI_EAtHC-17_Revised SPI.pptx)*
- (Ref EAtHC17-16 – 7_agenda-item-7-EATCH17_2022_PIANC.pptx)*
- (Ref EAtHC17-17 – 06.3A-EAtHC-17_National_Report_France.pptx)*
- (Ref EAtHC17-18 – 06.3A-EAtHC-17_National_Report_Ghana.pptx)*
- (Ref EAtHC17-19 – 06.3A-EAtHC-17_National_Report_Morocco.pptx)*
- (Ref EAtHC17-20 – 06.3A-EAtHC-17_National_Report_Nigeria.pptx)*
- (Ref EAtHC17-21 – 06.3A-EAtHC-17_National_Report_Portugal.pptx)*
- (Ref EAtHC17-22 – 06.3A-EAtHC-17_National_Report_Spain.pptx)*
- (Ref EAtHC17-23 – 06.3A-EAtHC-17_National_Report_CaboVerde.pptx)*
- (Ref EAtHC17-24 – 06.3A-EAtHC-17_National_Report_UK.pptx)*
- (Ref EAtHC17-25 – 06.3A-EAtHC-17_National_Report_RCI.pptx)*
- (Ref EAtHC17-26 – 06.3A-EAtHC-17_National_Report_GuineaConakry.pptx)*
- (Ref EAtHC17-27 – 06.3A-EAtHC-17_National_Report_Congo.pptx)*
- (Ref EAtHC17-28 – 06.3A-EAtHC-17_National_Report_Senegal.pptx)*
- (Ref EAtHC17-29 – 06.3A-EAtHC-17_National_Report_Gambia.pptx)*
- (Ref EAtHC17-30 – 06.3A-EAtHC-17_National_Report_Togo.pptx)*
- (Ref EAtHC17-31 – 06.3A-EAtHC-17_National_Report_GuineaBissau.pptx)*
- (Ref EAtHC17-32 – 06.3A-EAtHC-17_National_Report_Angola.pptx)*

(Ref EAtHC17-33 – 06.3A-EAtHC-17_National_Report_Gabon.pptx)

(Ref EAtHC17-34 – 06.3A-EAtHC-17_National_Report_Mauritania.pptx)

(Ref EAtHC17-35 – Kongsberg EAtHC17 2022.pptx)

(Ref EAtHC17-36 – SevenCs EAtHC17 2022.pptx)

(Ref EAtHC17-37 – PRIMAR EAtHC17 2022.pptx)

(Ref EAtHC17-38 – 03.5A-EAtHC17-03.5A-disaster-response.pptx)









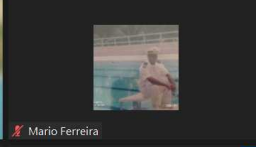
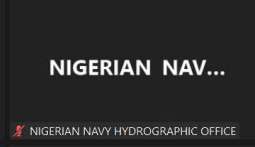


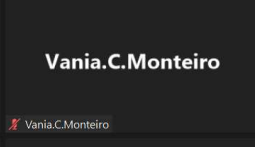

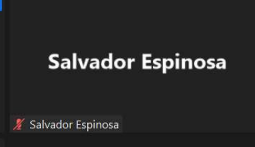

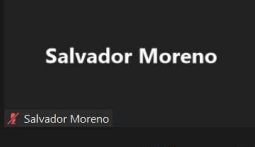
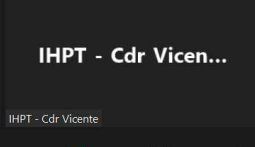
(Ref EAtHC17-39 – 03-6A-bilateral.pptx)

(Ref EAtHC17-40 – 03-6A-bilateral.pptx)

(Ref EAtHC17-41 – 9-1A-agenda.pptx)

Zoom Reunião










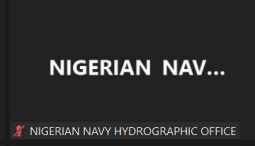


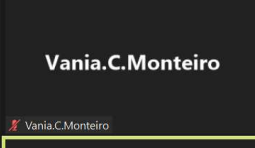

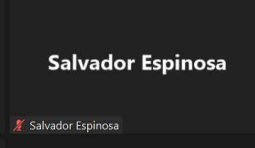

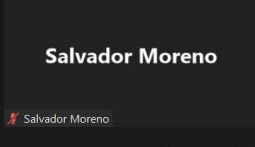
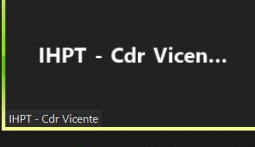
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 Salvador Moreno	 IHPT - Cdr Vicen...	 Armelinda Delg...		

Zoom Meeting controls: Desativar mudo, Interromper vídeo, Participantes (18), Chat, Compartilhar tela, Gravar, Transcrição ao vivo, Reações, Aplicativos, Quadros brancos, Sair. 12:37 28/09/2022

Zoom Reunião

A transcrição ao vivo (legenda oculta) foi habilitada. Quem pode ver esta transcrição?

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