



27th Baltic Sea Hydrographic Commission Conference

20–22 September 2022 – Stockholm, Sweden

FINAL MINUTES OF THE CONFERENCE

A. Opening formalities

A.1. Opening of the Conference

Documents:

- [BSHC27 A1.2 List Documents](#)
- [BSHC27 A1.3 List of-Participants](#)

The Chair of the Conference *Mr. Magnus Wallhagen* (Chair) opened the 27th Baltic Sea Hydrographic Commission Conference and welcomed the delegates, observers and IHO Director *Mr. Abri Kampfer*. The Chair presented the programme and arrangements.

Most delegates participated in the Conference on premise in Stockholm, whereas the delegations from Lithuania and Germany joined the Conference through a VTC link.

A.2. Welcome from the host country

In the opening speech the deputy Hydrographer of Sweden, *Mr. Magnus Wallhagen*, passed the excuses of Hydrographer *Mr. Patrik Wiberg*, who unfortunately was ill and could not participate.

When assuming continued BSHC chairmanship one year ago, for *Mr. Wallhagen* the Commission's main challenge was regional S-100 coordination. Instead, the current geopolitical situation with war in Europe also had an immediate effect on the BSHC work: Planned meetings were cancelled and working group tasks postponed, until the decision was taken to temporarily suspend BSHC-related activities with the Russian Federation.

Now activities have been resumed and the Commission's focus will be to continue its important coordinating work. Two major items are S-100 coordination and implementing the recently adopted revised HELCOM re-survey plan. The Chair encouraged the Commission to focus on the tasks ahead and declared the Conference open.

A.3. Adoption of the Agenda

Document:

- [BSHC27 A3 Agenda](#)

The delegates reviewed the conference agenda. The Chair explained that an agenda overview had been done in order to sort the agenda items more clearly following the IHO work programme structure.

Based on UK's information item C.8, Germany suggested to add the following additional items:



- How to regionally handle the planned discontinuation of UKHO's paper chart production.
- How to handle the impact this also has for Notices to Mariners, which are currently being aggregated by UKHO.

The Conference decided to discuss these items under C.8 as well.

DECISION: The Commission adopted the agenda with the proposed minor changes.

A.4. Minutes and actions of the 25th BSHC Conference

Documents:

- [BSHC27 A4.1 BSHC26 Final Minutes](#)
- [BSHC27 A4.2 BSHC26 List of Actions](#)

The minutes from 26th BSHC Conference had been approved earlier by correspondence. The 27th BSHC Conference confirmed the approval.

The Commission reviewed and updated the status of the Actions of the 26th Conference, as well as additional actions tasked at IHO Council meeting C-5 and IRCC13. Some Actions have been postponed due to the temporary suspension of BSHC work in spring 2022. Actions that could not be closed, as well as permanent and pending Actions were moved to the 27th BSHC Conference Draft List of Actions, see agenda item H.

B. IHO work program 1 – Corporate Affairs

B.1. Information on Council issues of the IHO

Reference document:

- [Status of List of Decisions and Actions from C-5](#)

For the time period of three years between C-4 (2020) and C-6 (2022), BSHC has selected Sweden as IHO Council member.

Sweden (*Mr. Magnus Wallhagen*) informed about the outcomes of the 5th Council meeting C-5, held as a VTC meeting 19–21 October 2021. The meeting discussions included:

- The Strategic Performance Indicators assigned to IRCC, HSSC and the Secretariat related to the IHO strategic plan.
- The *Roadmap for the S-100 Implementation Decade*, including governance of the *Dual Fuel* concept for S-100 ECDIS.
- The project Empowering Women in Hydrography¹, launched in 2021 and funded by Canada until 2024. BSHC members are invited to participate.
- Recommendations to the Regional Hydrographic Commissions based on IHO's strategic plan (see agenda item D.2).

The 6th Council meeting C-6 will be held in Monaco 18–20 October 2022. Sweden informed the

¹ Project web site: <https://iho.int/en/basic-cbhc-ewh>



Conference about the proposed agenda, highlighting:

- The planned review of the IHO strategic plan.
- Preparations regarding the next three-year work programme and budget 2024–2026, prior to the 3rd Assembly meeting A-3. This also includes overarching prioritisations in the work programme.
- The IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) endorsed at its 9th session to include S-100 in the ECDIS performance standards, now pending formal approval by the IMO Marine Safety Committee (MSC). If approved, support for S-100 functionality in type approved ECDIS will be allowed from 2026 and will be required in new systems from 2029. See also agenda item C.1.
- HSSC will propose to include S-100 as a new focus area in the work programme for the coming three-year period. HSSC will also propose to endorse the *Dual Fuel Concept for S-100 ECDIS* and its *Executive Summary*.
- IRCC will propose a revised capacity building programme. Furthermore, IRCC will propose to endorse the *Guidelines on the implementation of the WEND-100 principles* version 1.0.
- There are still ongoing discussions around the topic of “hydrographic interest”.

The Commission took note of the report.

The Chair reminded the Commission about the election procedures for the BSHC representation in the Council, which will take place in the months prior to the 3rd IHO Assembly, May 2023.

ACTION BSHC27/1: BSHC Chair to organise the election of a BSHC representative in the IHO Council, in accordance with the BSHC statutes (Chair, timeline according to statutes until A-3).

B.2. Information about the activities of the IHO

Document:

- [BSHC26_B2_IHO](#)

IHO Director *Mr. Abri Kampfer* presented the report of the IHO, with emphasis on:

- New IHO member states Iraq, Angola and Albania, increasing the number of IHO member states to 98. The IHO Secretariat offered Lithuania assistance with the IHO application process, at Lithuania’s convenience, and would welcome Lithuania as a full member.
- The preparations for the Council meeting C-6, see above.
- The preparations for the 3rd Assembly A-3, which will be held at a different meeting venue than usual. The opening ceremony will include celebrating the 120th anniversary of GEBCO. There will be both industry and member states exhibitions, and member states are invited to send a ship to the port of Monaco. The third day of the Assembly will include thematic panel discussions around three topics:
 - Surveying and ocean mapping: GEBCO/SB2030
 - Navigation support: S-100 framework
 - Bridging to UN: Ocean Decade and GGIM



- The Secretariat has implemented various GIS solutions to support the visualisation of member state information and C-55 (Status of Hydrographic Surveying and Charting Worldwide).
- In 2021, about 460 people from about 40 member states actively participated in the IHO working groups and project teams (apart from RHCs).
- With regard to implementing the IHO Strategic Plan 2021–2026, to measure the SPI 1.2.2² presents some challenge in the Baltic Sea region, based on ENC usage bands and CATZOC data from IC-ENC and PRIMAR files. The Secretariat is dependent on high-resolution coastline data, in order to be able to clip land areas from the ENCs during the analysis.
- An update on IHO outreach activities, including web site and social media statistics. The theme for the World Hydrography Day will be “*Hydrography - contributing to the United Nations Ocean Decade*”.
- A new digital archive for the *International Hydrographic Review* (IHR), hosted by the University of New Brunswick, as well as a new IHR web site: <https://ihr.iho.int/>

The Chair thanked the IHO Director and confirmed that the Commission took note of the report.

ACTION BSHC27/2: All MS to check entry in the Yearbook P-5 and in C-55 and to report any updates or report no change to the IHO Secretariat (continuously, permanent).

Germany commented, on the issue of the SPIs 1.2.2, 2.2.1 and 3.2.3³, that the BSHC has a sophisticated system in place to monitor survey status, the HELCOM re-survey database under the responsibility of the Monitoring Working Group (MWG). This data could be utilized to feed into the SPIs. The IHO Director acknowledged that this could be a solution for the region, as it is up to each Commission to decide what data to be used most appropriately.

The Commission discussed the topic and agreed that a common approach facilitated by MWG would be preferred. The IRCC chair, *Mr. Thomas Dehling*, stressed that the SPI just requires *assessing the accuracy*, not more.

For the Baltic Sea, the Commission regards HELCOM CAT I and II areas to be navigationally significant and an appropriate basis for the data report to the Secretariat. The Commission tasked its MWG to deliver the data to the Secretariat.

ACTION BSHC27/3: MWG to provide data from HELCOM re-survey database to the Secretariat, to be used for SPI 1.2.2 related survey coverage analysis (December 2022).

Lithuania commented on a potential IHO membership, which is an on-going process and requires national decision on ministry level. The Commission discussed the issue, and would appreciate Lithuania being a full member of BSHC. The delegates noted that Lithuania now is the only European coastal state that is not a member of the IHO. Lithuania's Hydrographic Office welcomed appropriate

² SPI 1.2.2: Percentage of navigationally significant areas (e.g. charted traffic separation schemes, anchorages, channels) for which the adequacy of the hydrographic knowledge is assessed through the use of appropriate quality indicators.

³ SPI 2.2.1: Percentage of adequately surveyed area per coastal state.

SPI 3.2.3: Percentage of total sea area that is Seabed 2030 compliant for ingestion into the GEBCO dataset and services.



outside support in the decision making process, such as from the IHO secretariat or the BSHC.

Referring to Action BSHC26/2, Germany reported that one article with BSHC affiliation has been published in the IHR since the last Conference, and another article will be published in the upcoming IHR number.

ACTION BSHC27/4: All MS are encouraged to submit papers to IHR, and BSHC IHR representative to report back to BSHC about published articles with BSHC affiliation (permanent, report at BSHC28).

B.3. – Agenda item numbering gap –

B.4. National reports

B.4.1 National report of Denmark

Document:

- [BSHC27 B4.1 National Report Denmark](#)

Denmark (*Mrs. Elizabeth Hagemann*) presented the highlights of the national report of Denmark, with emphasis on:

- A smaller re-organisation of the Danish HO at management level, after the fact that the organisation is growing. The HO part of the Danish Geodata Agency (DGA) now consists of three departments: Chart production / development and processes / systems and data management
- Denmark has undergone the IMO Member State audit, with positive results. The DGA was one of several public authorities involved in the audit.
- The DGA has completed implementing a new depth data management system for Danish and Greenlandic waters. Migration of data is still on-going.
- From the new depth database, a new 50 m gridded depth model (*DDM*) was developed. The model is built from quality ensured data and historic data in form of chart soundings, with interpolation of data void areas, and covers Danish waters with average cell depths. The depth model and the depth data management system are a first step towards the production of S-102 gridded bathymetry data for navigation.
- *Mr. Jens Peter Weiss Hartmann* has recently left the DGA, after many years of service and very significant work towards the BSHC and various IHO working groups.

Sweden asked about DGA's role as national coordinator of marine data. Denmark replied that their mandate is still somewhat unclear.

The Chair thanked Denmark for the report and the Commission took note of the report.

B.4.2 National report of Estonia

Document:

- [BSHC27 B4.2 National Report Estonia](#)

Estonia (*Mr. Olavi Heinlo*) presented the highlights of the national report of Estonia, with emphasis on:



- The effects of their reorganisation as per 1 January 2021, which merged the previous maritime, aviation and road administrations into a new national Transport Administration (*Transpordiamet*). The Hydrographic Office is situated under the administration's Mobility Planning Division and consists of a Cartography and a Hydrography department.
- In 2021, Estonia surveyed sea areas covering 1230 km² and inland waters of another 70 km².
- A LiDAR test survey was conducted outside the town of *Haapsalu*. The results show that depth penetration is very dependent on weather prior to and during the survey, as this strongly influences water clarity. Because of this sensitivity to survey timing, it could be challenging to publicly tender LiDAR surveys.
- The Cartography Department works with the transition from BHS-77 to BSCD2000. Berthing and Harbour band ENC's as well as paper charts have been finished. Current work focuses on Approach band ENC's, which also includes changing scale from 1:45 000 to 1:22 000, adding a 15 m depth contour and brushing up the ENC's in preparation for conversion to S-101.

The Chair thanked Estonia for the report and the Commission took note of the report. The Chair suggested that Estonia should report their LiDAR test findings to MWG.

ACTION BSHC27/5: EE to further inform MWG about their LiDAR test findings (next MWG meeting).

B.4.3 National report of Finland

Document:

- [BSHC27 B4.3 National Report Finland](#)

Finland (*Mr. Rainer Mustaniemi*) presented the highlights of their national report with emphasis on:

- The reorganisation of the Finnish Transport and Communications Agency (*Traficom*) is completed.
- The hydrographic surveys continue in shallow, nearshore areas with LiDAR and multibeam.
- The first set of nautical charts has been produced with new chart production system (*AHTI*), referenced to the national implementation of the BSCD 2000 vertical datum, FIN N2000. The implementation of N2000 is on-going and planned to be finished until 2026.
- The Bathymetric Data Management System (*MERTA*) is now operational and integrated with the *AHTI* chart production system. Both systems are built around CARIS products.
- A new nautical publication, *Sailing Directions for Finnish Waters*, has been published starting from the area covering the Bay of Bothnia. The service comprises i.e. general information for vessels navigating Finnish waters and more detailed information about approaches to ports (see agenda item C.6).
- Finland plans to implement S-101 ENC's in parallel production with S-57 ENC's. The target is to achieve adequate coverage of S-101 ENC's by 2026-01-01, when S-100 ECDIS become SOLAS compliant..

The Chair thanked Finland for the report and the Commission took note of the report.



B.4.4 National report of Germany

Document:

- [BSHC27 B4.4 National Report Germany](#)

Germany (*Mr. Thomas Dehling*) presented the highlights of the national report of Germany, with emphasis on:

- The new vessel *RV Atair* is in full service now. One challenge is the cost for LNG, which has risen and is currently fluctuating a lot.
- A decision has been taken to replace the two vessels *Deneb* and *Wega*, with smaller vessels than *Atair*. Tendering is planned to start 2023. These vessels will not operate on LNG, due to the size of the required fuel tanks. Instead, Germany intends to operate these vessels with methanol, which comes as an even higher cost.
- The S-100 related pilot project *SIOOPORT* with the Port of Rostock will test implementing S-123 (Marine Radio Services), S-127 (Marine Traffic Management) and S-131 (Marine Harbour Infrastructure), closely interlinked with Germany's involvement in NIPWG.

IHO Director *Kampfer* congratulated Germany on their experiments with the NIPWG related S-100 products, and stressed the need for such experiments in order to get the S-100 product specifications ready for production.

Sweden proposed that Germany shares their experiences with precise satellite positioning mentioned in the written report, preferably through the MWG.

The Chair thanked Germany for the report and the Commission took note of the report.

ACTION BSHC27/6: DE to further inform MWG about PPP based positioning technique (next MWG meeting).

B.4.5 National report of Latvia

Document:

- [BSHC27 B4.5 National Report Latvia](#)

Latvia (*Mr. Jānis Krastiņš*) presented the highlights of the national report of Latvia, with emphasis on:

- No significant changes in organisation since last year.
- The transition to BSCD2000 has started and is expected to finish in 2025. The three major ports present some challenges at least communication wise, as conveying the reasons for an apparent “reduction” of charted depths can be difficult.
- Work is on-going to optimise the paper charts scheme.
- MAL has started public tendering of a new multibeam echo sounder system.

The Chair, and Sweden, commented on the difficulties communicating chart datum changes, which has been experienced in Sweden as well.

The Chair thanked Latvia for the report and the Commission took note of the report.



B.4.6 National report of Lithuania

Document:

- [BSHC27 B4.6 National Report Lithuania](#)

Lithuania (*Mr. Mindaugas Zakarauskas*) presented the national report of Lithuania with emphasis on:

- No organisational changes; currently 11 people work at the Lithuanian Hydrographic Office.
- Hydrographic surveys are carried out in accordance with the HELCOM Re-Survey Plan. Surveys conducted in the first half of 2022 cover 142.5 km² of mainly CAT II and III areas.
- Lithuanian paper charts are provided free of charge in PDF format, whereas ENC's are distributed through PRIMAR.
- Lithuania participates in the S-57 to S-101 Conversion Task Force Group 2, led by PRIMAR.

The Chair thanked Lithuania for the report and the Commission took note of the report.

B.4.7 National report of Poland

Documents:

- [BSHC27 B4.7 National Report Poland](#)

Poland (*Mr. Dariusz Kolator*) presented the highlights of the national report of Poland, with emphasis on:

- The structure of the organisation, where the Hydrographic Office of the Polish Navy (HOPN, responsible for nautical charting, navigational warnings and MSI) is organised under the National Defence Ministry and Poland's Maritime Administration (responsible for safety of navigation, AtoN etc.) resides under the Ministry of Infrastructure.
 - Surveying of approx. 200 km² CAT II and III areas between summer 2021 and summer 2022. All areas currently classified as CAT II have now been surveyed and the last remaining area currently classified as CAT I is planned to be surveyed in autumn 2022.
 - Eight new editions of paper charts (approach and harbour) were released referenced to BSCD2000. A High Density ENC for the port of Gdynia is planned to be published before the end of 2023.
 - In September 2022, a three-day gravimetry survey was conducted, the data of which will be included in the FAMOS geoid computations.
 - The World Hydrography Day 2022 was celebrated at the Naval Museum in Gdynia.
 - HOPN has increased its focus on Autonomous Survey Vessels (ASV) and operates two such units:
 - Since 2018 the small vessel *Z-Boat 1800*, which is used e.g. for inland waterway surveys. It has a length of 1.8 m, weight 38 kg, operation time 4 h on batteries, and is equipped with MBES.
 - Since 2021 the larger vessel *iXblue DriX*, which can be used as a fully functional survey launch or autonomously for a very long time. Length 7.7 m, weight 1380 kg, operation time up to 10 days on diesel, equipped with MBES and Sound Velocity Profiler.
-



The Chair congratulated Poland on their work with the autonomous vessels. Germany asked about Poland's experience with the regulatory framework. PL answered that they supervise the ASVs from a nearby survey ship, even though the larger vessel has the technical capabilities of operating fully autonomously. The Chair also reminded the MWG and interested member states about the planned ASV workshop.

Finland asked about the Polish HD-ENC. Poland answered that this ENC is mostly aimed at pilots, features a 1 m equidistance between contours, and is available through PRIMAR.

The Chair thanked Poland for the report and the Commission took note of the report.

B.4.8 National report of Sweden

Document:

- [BSHC27 B4.9 National Report Sweden](#)

Sweden (*Mrs. Annika Kindeberg*) presented the highlights of the national report of Sweden, with emphasis on:

- Increasing focus on shallow waters; change to survey fleet related to this: Survey ship *Baltica* has been replaced by the much smaller survey vessel *Johan Månsson*. CAT III high and medium priority areas are now the main focus for surveying.
- The new ASV *Skräddaren* has been used in production.
- Task to assist Ministry for Foreign Affairs with negotiations aiming at refining the maritime boundaries of Sweden with its neighbouring countries.
- Update on the Baltic Sea e-Nav project proposal, aiming at first implementations of S-101, S-102 and S-104 as well as regional product governance and coordination under the BSHC umbrella. The financing decision from the EU Interreg Baltic Sea Region programme is expected very soon.

Estonia asked about whether Sweden is tendering shallow waters or surveying these areas with own resources. Sweden answered that no decisions have been taken regarding this question and investigating possibilities are part of a planned large national coastal mapping project, pending financing.

The Chair thanked Sweden for the report and the Commission took note of the report.

C. IHO work program 2 – Hydrographic Services and Standards

C.1. HSSC14 Report

Document:

- [BSHC27_C1_HSSC_Report](#)

The Chair and HSSC Chair, *Mr. Magnus Wallhagen*, presented the HSSC report, focusing on:



- The four SPIs⁴ assigned to HSSC for measuring the implementation of the IHO Strategic Plan
- The advancement of S-100 and S-100 based product specifications:
 - S-100 ed. 5 has been endorsed by HSSC and a circular letter has been issued.
 - Following an earlier HSSC decision, S-102 has obtained a scope limited to navigational purposes.
 - Edition 1 of S-98, S-104 and S-128 have been endorsed.
 - The HSSC Chair stressed the importance of the framework around the actual product specifications, particularly the importance of S-128 (Catalogue of Nautical Products), due to the role it could play for Port State Control, but also S-164 Test Data for S-100 ECDIS type approval.
 - The HSSC Chair also explained the function of S-98, which implements real interoperability between data sets, in contrast to simple overlays of data, including water level adjustment of depth data.
- The *Dual Fuel concept for S-100 ECDIS* and co-existence of S-100 and S-57 ENC has been laid out in a first version of a Governance Document.
- The revision of the IMO ECDIS Performance Standards is on-going:
 - Towards IMO, IHO has committed fully to S-100 implementation according to the road map. One very important step is to adjust the regulatory framework so that S-100 products will be allowed for use in type-approved ECDIS.
 - The necessary adjustments to the ECDIS Performance Standards, as proposed by an IHO led drafting group, have now been endorsed by the NCSR committee and are awaiting final decision from IMO's Maritime Safety Committee.
 - If all goes according to plan, S-100 ECDIS will be legal to use from 2026 and from 2029 all new systems must be S-100 compatible.
 - For the technologically advanced BSHC region this means that there is an expectation to produce a substantial coverage of S-101 ENCs in the near future (2026).
- IHO Director *Kampfer* also stressed the importance of the technical working groups to deliver according to plan, so that the standards and product specifications get production ready in due time. Member States are strongly encouraged to contribute to the work with their own experts.
- Related to the critical work done in HSSC's technical working groups, the HSSC Chair

⁴ The HSSC related SPIs are:

SPI 1.1.1: Percentage of Member States having operationalized production and distribution of hydrographic data products and services based on IHO Universal Hydrographic Data Model (S-100), under an implementation framework of coordination and agreed timelines.

SPI 1.1.2: Number of hydrographic data products and services based on Universal Hydrographic Data Model that cater for the new requirements: autonomous shipping, reduction of emissions.

SPI 1.2.1: Percentage of hydrographic data products and services based on S-100 model that are covered by IHO standards, specifications and guidelines on cyber security.

SPI 2.2.2: Number of new applications of the new version of Standards for Hydrographic Surveys (S-44).



reminded the Commission about vacant office bearing positions in the Data Quality Working Group, which will play a critical role in S-100 implementation.

The Commission agreed upon the importance to prioritize the implementation of S-100 in the coming IHO Work Programme 2023–2026. The delegates recognized the importance of getting ready to produce priority S-100 products in its member states.

Denmark highlighted, apart from the technical issues around S-101, also the need of national and regional coordination around other S-100 based products, with other stakeholders involved.

The Commission thanked for the report and noted it.

C.2. Report of the Re-Survey Monitoring Working Group (MWG)

Document:

- [BSHC27 C2 MWG Report 2022 FI](#)

The MWG Chair (*Mrs. Maarit Mikkelsen*) presented the MWG report and gave an overview of the re-survey status. The WG Chair focused on:

- The adoption of the updated Baltic Sea Action Plan at the HELCOM ministerial meeting in October 2021.
- The planned MWG meeting in march 2022 was suspended in accordance with BSHC Letter 1/2022 and will be held as soon as possible.
- The HELCOM re-survey database is up-to-date.
- Even the ASV related workshop has been postponed, but there is still strong interest among the Member States.
- Via the MWG, BSHC has reported surveying progress to HELCOM Maritime, HELCOM Safe Nav and the EU Strategy for the Baltic Sea Region (Priority Area Safe).

The Chair highlighted the importance of the renewed political support at ministerial level for the Baltic Sea Action Plan, which contains the BSHC-HELCOM Re-Survey Scheme.

The Commission thanked for the report and noted it.

C.3. Report of the Chart Datum Working Group (CDWG)

Document:

- [BSHC27 C3 CDWG Report-SE](#)

The CDWG Chair (*Mr. Thomas Hammarklint*) presented the report, summarizing:

- No physical meeting could be held during the last 2.5 years. The next physical meeting is planned in March 2023 and a VTC meeting to start up working group operations again is planned in autumn 2022.
- The implementation of the Baltic Sea Chart Datum (BSCD2000) in the different MS, as well as the challenges around communicating this change.
- With regard to chart datum presentation in ECDIS, the issue leading to Action BSHC26/6 has been discussed with an expert involved in the ENCWG. It was agreed that changing presentation in S-57 ECDIS is not realistic and the focus should instead be to improve this in



an S-100 ECDIS context.

- The on-going work with finalizing the FAMOS geoid model, due to be released in March 2023.

Most BSHC member states are now in varying phases of BSCD2000 implementation. The BSCD2000 has also been registered in the IHO Geospatial Information Registry (as chart datum number 44), and the CDWG chair showed an example of how information about the new chart datum can be conveyed as a Notice to Mariners.

The Commission discussed the importance of involving national oceanographic experts in the working group, now that its focus shifts towards S-104 and S-111 implementation.

The Commission thanked for the report and acknowledged the actions taken by the WG.

C.4. INF High density contours in the Finnish ENC

Document:

- [BSHC27_C4_INF_FI_HDENCs](#)

Finland (*Mr. Rainer Mustaniemi*) informed the Commission about the production of high-density ENCs (HD-ENC) with 1 m equidistance between contours. Finland will produce these HD-ENCs for major fairways and ports in Berthing, Harbour and Approach scales. The first HD-ENCs have been published in the Bay of Bothnia. Finland explained some of the technical details for the production process.

The additional depth information enables navigators to tailor go/no-go areas in the ECDIS more closely according to the vessel's draft.

Estonia asked about the underlying basis for the decision to produce HD-ENCs. Finland answered that end user needs from pilots and navigators were the starting point for the HO to look into HD-ENCs

C.5. INF Bathymetry Compilation Workflow in the Finnish HO

Document:

- [BSHC27_C5_INF_FI_Bathymetry Workflow](#)

Finland (*Mrs. Maarit Mikkelsen*) informed the Commission about their new depth data workflow in the chart production, which has been implemented in the Finnish CARIS BDB and HPD based production system.

The workflow comprises some relatively sophisticated automation methods developed in-house, mainly for the generalization of topography and depth contours as well as sounding selection. The Chair encouraged Finland to contribute with their experience with these algorithms to S-98.

Estonia highlighted the similarities of their production system with the Finnish approach.

C.6. INF Finnish Sailing Directions New Publication

Document:

- [BSHC27_C6_INF_FI_New Sailing Directions](#)

Finland (*Mr. Jarmo Mäkinen*) informed the Commission about their start of producing Sailing



Directions, consisting of several parts: a general first part complemented by region specific parts⁵. This is a side outcome of the Finnish chart improvement project, which also includes the vertical datum change.

C.7. INF Chart On Demand (COD) & Certified Printed ENC

Document:

- [BSHC27_C7_NGA_COD_CPENC_Overview](#)

USA's representative from NGA (*Mr. Randy Rosenfeld*) informed the Conference about their efforts to implement automated production of "certified printed ENCs" (CPENCs), which will replace paper charts creation and maintenance for the US Navy and where NGA is the Primary Charting Authority. CPENC will be distributed through the same process as a traditional hard copy chart, but will save resource with the automatic creation and not maintaining them with traditional Notices to Mariners (NM).

CPENC is a mechanism to produce paper charts straight from ENCs, as geo-referenced PDFs in standard A0 paper size. For the development, NGA collaborates with Australia and Canada, supported by ESRI as systems provider.

Chart footprints and compass roses are handled manually. Everything else, including NM, is produced automatically from ENC data. Due to bandwidth restrictions on-board, NM are added as smaller subset PDFs, until finally a new edition is issued.

Denmark asked if this development means that NGA plans to abandon paper chart production completely. The US answered that this is the case and will happen very soon. CPENC will replace all hard copy requirement that NGA has for its PCA nations as well as U.S.A. Department of Defence required areas. Denmark asked if there would be a requirement to have an A0 plotter on-board the vessel. The US answered that many of their end users do not have plotters but CPENC uses the same distribution as traditional charts. NGA also further explained the update mechanism.

Sweden asked about conveying temporary or preliminary information in these automated NM. The US answered that NGA generally avoids issuing (T) and (P) NM as these are handled via navigational warnings to customers. The Chair mentioned that this issue was recently raised at a joint IALA/IHO workshop and reminded about the recommendation in S-4 to include (T) and (P) NM also as an update to the respective ENCs.

Germany informed the Commission about their plans to discontinue publication of (P) and (T) NM in the near future. Instead Germany will always include the information in the ENCs.

IHO Director *Kampfer* asked about the US Coast Guard's response to this development, and the US answered that they are indeed using these charts themselves. Additionally, the US Coast Guard will treat these as certified charts on commercial vessel since they are issued by a US Hydrographic Organization.

⁵ Web links:

- [Sailing directions for Finnish waters, Part 1 – General information](#)
- Sailing directions for Finnish waters, Part 2 – Main approach channels: [2.3.3 Bay of Bothnia](#)



C.8. INF Sunsetting of ADMIRALTY paper charts

Reference information online:

- [UK Hydrographic Office announces intention to withdraw from paper chart production](#)
- [The UK Hydrographic Office intends to withdraw from paper chart production by 2026 – background and context](#)

UK's representative (*Mrs. Jackie Sydenham*) informed the Commission about the UKHO's decision to phase out paper chart production, the background and context for the decision and UKHO's plans for the time after.

UKHO based the decision on their public task to provide products for safe navigation. Their task is two-fold, aiming at supplying UK defence users with worldwide navigational services on the one hand and commercial users with the navigational services required according to SOLAS on the other hand. Doing this commercially allows the UKHO to operate at no cost for the UK tax payers.

UKHO's strategy is to secure their navigation business, by

- investing in 2nd (S-100) and 3rd (MASS) generation digital navigation services,
- ensuring that mariners continue to depend on regulated navigation products, and
- provide legacy products according to user needs.

The change is driven by the decreasing demand for paper charts, at the same time as demand for digital charting raises. The advent of Print on Demand also has changed paper charts dynamics. At the same time, internet access on-board the vessels is getting better and better, leading to new possibilities for digital products.

Looking at both the SOLAS market and the "sub ECDIS" market, paper chart sales now account for less than 20% of the total revenue. In commercial shipping below compulsory ECDIS threshold, digital navigation services are reaching 50% market penetration. Furthermore, the paper charts carried on-board are most often not used for primary navigation any more. Even small craft charts sales are declining.

Paper chart production and maintenance are likely to become unprofitable for UKHO within the coming five years. With limited resources, UKHO is not able to support both fields at the same time, and there is a risk that the digital development could be hampered when competing for resources. UKHO believes that this is a common concern for most Hydrographic Offices.

UKHO plans for a phased exit over four years until the end of 2026, starting 2022 in areas where demand is lowest and UKHO is not the primary charting body. During 2023, they will plan withdrawal from remaining areas where they do not have charting responsibility. Starting in 2024 or 2025, the full exit from paper charts will start, as an alternative digital solution becomes ready. UKHO will not put any effort on automated production of paper charts, such as the present NOAA or NGA solutions. Instead, they will fully focus on digital products around S-100.

Alternative services could be paper charts offered locally or additional digital products that fulfil sub-SOLAS regulations, which oftentimes apply on a national level. For sectors below SOLAS and above leisure craft, UKHO would like to create a digital product, which can be consumed through devices already existing on-board (such as tablets). The challenge is to make a product easy to use and to update.

The Chair thanked UK for the information and opened the floor for discussion.

Poland asked about the needs of the Royal Navy, and whether they are satisfied with purely digital navigation. UK answered that the needs of Navy and also training institutions have been investigated.



The Royal Navy does not use paper charts for navigation, but appreciates them for situational awareness.

Latvia pointed out that the training related issues may also be a matter for IMO, which requires paper chart training in their model courses. If no paper products would be available, training on paper will be impossible. IHO director *Kampfer* pointed out that ceasing paper chart production is not a step taken by IHO, but rather a deviation of Member States from the official IHO policy. Director *Kampfer* also reminded about the study on the *Future of the Paper Chart*, conducted only three years ago.

Germany highlighted that from their point of view there is still a need for paper charts, e.g. from the Navy. The focus should be to produce ENC and paper products in the most integrated and efficient way; we should not force the end users onto a digital only track. Acknowledging the convenience of UKHO's global solution, the question should now be how to replace their paper chart and NM service regionally or nationally.

The Commission expressed the expectation that the main challenge would be the chart updating mechanism, not the production of printable products, which eventually should become possible from ENC data.

Sweden commented that the actual need to keep paper charts updated also depends on the use case, and may be less important for situational awareness use only.

Chart Corrections using common NtM XML (INF Germany)

Related to their plans to discontinue issuing traditional (P) and (T) NM, Germany has developed a solution for providing paper chart corrections through NM in a draft IHO XML format. Such corrections could be aggregated and provided through a common online repository, from which the ships would download them individually. The solution would work in the INT chart regime and could even be expanded to a global solution.

The Commission discussed the matter and agreed to the Chair's proposal to get back to these items on the next BSHC meeting. Pending Council and Assembly level decisions, any decisions taken now would be rather fuzzy.

D. IHO work program 3 – Inter Regional Coordination and Support

D.1. Status report BSHC Strategic Correspondence Group (SCG)

Reference documents:

- [BSHC27_D1_SCG_ToR](#)
- [BSHC27_D1_INF_Status_NHC_Strategic_work](#)

The Chair informed the Commission about the status of the work in the newly established Strategic Correspondence Group (BS-SCG), its Terms of Reference and Rules of Procedure, and how they are interconnected with the BSHC Statutes.

One task of the BS-SCG (Action BSHC26/16) is to propose changes to Terms of Reference for BSICCWG. This is on-going but has been delayed due to the temporary suspension of BSHC work in spring 2022.

DECISION: The Commission agreed upon the continuation of the BS-SCG with the target to finalize the work and report its result to BSHC28 in 2023.



DECISION: The Commission confirmed Sweden, *Mr. Magnus Wallhagen*, to act as the BS-SCG Chair.

ACTION BSHC27/7: BS-SCG to report its work to BSHC28.

ACTION BSHC27/8: DK to nominate a new representative in the BS-SCG.

Denmark informed BSHC about the strategic work in the Nordic Hydrographic Commission. Based on questionnaires sent out to different user groups, NHC have analysed the situation of the Nordic countries' HOs regarding hydrographic data ownership, distribution and use. Their report gave a solid insight in the common challenges faced in the region.

The Commission noted the report, and welcomed it as input to BSHC's own strategic work.

D.2. Actions requested by IRCC

Reference document:

- [IRCC14-12 Draft List of Actions Decisions Recommendations v01](#)

The IRCC Chair (*Mr. Thomas Dehling, Germany*) presented the work of the IRCC since the previous BSHC Conference, focusing on the IRCC's recommendations to the Regional Hydrographic Commissions (RHC).

The Commission discussed several of the IRCC-14 recommendations:

Recommendation 2: RHC to discuss how HO's can assume a geo-coordinating role to help ensure provision of data on a regional level.

The issue has been discussed under agenda item C.1. Likely the easiest solution is that coordination of S-100 is assigned to the HO on a national level in the Baltic Sea region, as Finland is doing.

Recommendation 4: 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.

IHO Director Kampfer stressed the capability of HOs to monitor changes, for example water level. The Chair proposed to discuss this further in the BS-SCG, as this is strongly linked to the IHO's strategic goals.

Recommendation 5: RHC to encourage relevant Member States to report to the IMO Secretariat and the Chair of the EGC Coordinating Panel on the progress and status of implementation of newly recognized mobile satellite services by MSI providers.

The Commission agreed that, being just a sub area to Navarea 1, this is currently not a problem for the Baltic Sea area. The BSMSIWG is observing the issue. However, as the cost for additional satellite services could eventually be shared between IMO member states, the Commission will keep an eye on the development.

Recommendation 6: RHCs to establish an S-100 Coordinator role.

The BSHC has decided that the BSICCWG shall coordinate S-100 implementation regionally, see item D.8 below and the decision taken at BSHC26. The task is pending amendment of the WG's ToR.

Recommendation 7: RHCs to apply Action WENDWG12/33 (WEND-100 Product Matrix will be made available on the WENDWG Repository webpage when finalized).



The recommendation will be handled under agenda item D.7 below.

Recommendation 8: RHC to encourage Member States and submitting institutions to engage with the IHO Secretariat early in the process of them preparing submissions for programme recognition.

and

Recommendation 9: RHC encourage Member States and submitting institutions to consult the Guidelines, the FAQs and the White Paper (IHR-Nov-2017 – Article: Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers) early in the process of preparing submissions for programme recognition.

IHO director *Kampfer* commented that there is an opportunity for nautical cartographers to join the IBSC⁶ and the International Cartographic Association (ICA), in order to strengthen the role of IHO in ICA. Estonia reported that the Estonian Maritime Academy plans to establish a CAT B surveying training programme. The Commission discussed the recommendations and herewith considered the recommendations completed.

Recommendation 11: RHC Chairs to bring the IRCC CL 1/2020 to the attention of all coastal states within their respective RHC, encouraging them to 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.

The Commission's Member States are well aware of this CL and herewith the Commission considered the recommendation completed.

Recommendation 13: RHC to encourage Member States to support the CSB initiative with positive actions, such as requiring all research vessels to collect bathymetric data for late uploading, when on passage or when it does not interfere with other research activities.

and

Recommendation 15: Encourage RHCs to discuss how nations can share existing data.

and

Recommendation 16: RHCs to encourage Member State and stakeholder bathymetric data contributions to the DCDB, regardless of origin.

For the Baltic Sea, BSBDWG is already coordinating this on behalf of the BSHC Member States.

D.3. IHO-EU Network Report

Document:

- [BSHC27_D3_IENWG](#)

Sweden (*Mrs. Annika Kindeberg*), as BSHC's representative, presented the highlights of the work done in the IHO-EU network (IENWG), with focus on:

- The WG is currently chaired by very capable office holders from France.
- Two meetings have been held since the previous BSHC Conference, one of them as VTC in

⁶ [FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers](#)



December 2021.

- The other meeting was held in conjunction with the celebration of the 10th anniversary of the MoU between IHO and the European Commission in Brussels in May 2022. The Commissioner for environment, oceans and fishery, *Virginijus Sinkevičius*, was present at the event.
- The matter of so-called High Value Datasets has been discussed in the WG and is pending decisions on different levels outside the WG. Probably, High Value Datasets will probably not include ENC's (other than inland ENC's), but it will probably include several INSPIRE themes.

The Commission discussed the topic of potential High Value Datasets, with focus on bathymetry models. The Chair pointed out that HOs should distinguish between marine terrain models and high-resolution bathymetry for navigational purposes.

Denmark stressed the value of this WG and the possibilities it provides to network within the EU and with the Commission. Sweden underlined that, even though Sweden formally represents the BSHC in the network, all Member States are welcome to attend the meetings.

The Chair thanked Sweden for the report and the Commission took note of the report.

D.4. Report of the Baltic Sea Bathymetric Database Working Group (BSBDWG)

Document:

- [BSHC27_D4_BSBDWG_Report_SE](#)

Website:

- <http://data.bshc.pro>

The BSBDWG Chair (*Mr. Hans Öiås*) presented the report and future plans for the WG. The data portal has been up and running without issues. Pending hardware changes, new 500 m and 200 m grids are planned to be released.

The number of visitors has been approximately constant and the data is being used in numerous scientific articles. OGC service usage has increased.

The BSBD data continues to feed into EMODnet Bathymetry for BSHC Member States except Germany and Estonia, which provide higher resolution data directly to EMODnet. The Swedish Maritime Administration is subcontracted by EMODnet to provide data for the Baltic Sea region. The contract is nearing the end of the tendered period, but could probably become prolonged. The WG chair recommended BSHC Member States to participate in eventual future EMODnet consortiums.

Mr. Öiås informed that the BSBDWG has not had any meeting since last year, but plans to arrange a physical meeting as appropriate.

Action BSHC26/7 to update the WG's ToR, with regard to GEBCO contributions, is pending. The WG chair suggested to handle the ToR update by correspondence within the WG and the approval through a BSHC Circular Letter.

The Chair thanked Sweden for the report and the Commission took note of the report.

DECISION: The Commission decided to update the BSBDWG Terms of Reference by correspondence, after circulation within the WG (Action BSHC26/7 refers).

ACTION BSHC27/9: To revise BSBDWG ToR by circulation within WG (BSBDWG Chair, October 2022).



ACTION BSHC27/10: Approval of BSBDWG ToR by correspondence (Chair, December 2022).

D.5. Report of the Baltic Sea North Sea Marine Spatial Data Infrastructure Working Group (BS-NSMSDIWG).

Documents:

- [BSHC27_D5_BSNSMSDIWG_Report](#)
- [BSHC27_D5_Status_of_the_BSNSMSDIWG](#) (Presentation)

The BS-NSMSDIWG Chair (*Mrs. Elizabeth Hagemann*) presented the report from the BS-NSMSDIWG. There have not been any meetings in the WG since its 9th online meeting 1-2 September 2021.

As the previous WG Chair, *Mr. Jens Peter Weiss Hartmann*, recently left the Danish HO, Denmark offers to continue chairing the WG, takes on the responsibility to find a new WG chair and will nominate *Mr. Christian Thellufsen*, senior adviser at the DGA.

The phases 1 and 2 of the S-122 Marine Protected Areas testbed project together with OGC have been finalized. The project has highlighted the challenges related to using the S-100 based standards for purposes other than navigation and proposed several recommendations (see written report).

Representation in the Technical Expert Group on Data for Marine Spatial Planning is presently vacant.

The Commission noted the report and acknowledged especially the work done around S-122 Marine Protected Areas, where the HOs have seen an increasing interest even from the shipping industry. The Commission encouraged the WG to discuss the chairmanship issue internally and is grateful for Denmark's offer to continue chairing the WG.

ACTION BSHC27/11: DK to handle the nomination of a new chairperson for the BS-NSMSDIWG, and arrange the next WG meeting (March 2023).

D.6. Report of the Baltic Sea MSI Working Group (BSMSIWG)

Document:

- [BSHC27_D6_MSI_Report](#)

The BSMSIWG Chair (*Mr. Johan von Bültzingslöwen*) presented the report with emphasis on:

- The WG has still not had a single physical meeting, but the plan is to arrange one in Sweden next year. A VTC meeting has been held very recently. The WG Chair recently also participated in the IHO WNWNS meeting, see below.
- The region's NAVTEX transmitters experience a very uneven workload, with the *Gislövshammar* transmitter being under very high load. The number of NAVTEX warnings is steadily increasing. Any decision not to continue publishing (T) and (P) NM, as discussed under agenda item C.7, might further increase the transmission load.
- The WG Chair stressed the importance for Member States to keep their messages as short and concise as possible, in order to decrease radio transmission time. Timely ENC updates or NM are essential. Member States are encouraged to review their procedures.
- The new routine regarding messages without pre-set end date has been working well in order to decrease the number of unnecessary messages. The routine has been applied in seven



occasions during the past year. A further step could be to not send any messages for a longer time period than 6 weeks, as suggested by the IMO Navtex Coordinating Panel.

- The WG is waiting for edition 1.0 of S-124, in order to assume its coordination role for S-124 within BSHC.
- The NSHC has started its own NSMSIWG, inspired by BSMSIWG, chaired by the Navarea I coordinator. The BSMSIWG Chair will represent the Baltic Sea sub-area in the NSMSIWG.

The Chair highlighted the fact that navigational warnings in the coming S-100 ecosystem will be integrated more tightly with ENC and NM. In countries where the related functions reside within different authorities, which is rather common, there is a clear need for increased collaboration between the different organisations.

The Chair noted that Germany plans to decommission (P) and (T) NM and reminded Germany about the potential impact this could have through an increased number of navigational warnings.

The Chair thanked the BSMSIWG Chair for the presentation and the Commission took note of the Report.

ACTION BSHC27/12: MS to consider the implications of long-running and/or content heavy navigational warnings and encourage timely ENC updates and NtM as alternatives (BSMSIWG to report at BSHC28).

The BSMSIWG Chair further reported on the WWNWS14 meeting, focusing on:

- The current focus of the WG on implementing additional Recognized Mobile Satellite Services, where Iridium still has not been implemented in many areas and a third EGC service based on BeiDou aims to become a Recognized Mobile Satellite Service soon.
- The development of NAVDAT and its potential benefits and limitations.
- S-124, which hopefully can be approved in version 1.0 by HSSC next year.
- SECOM has been endorsed by WWNWS as the primary transport protocol for secure data transfer.
- The IMO Navtex Coordinating Panel reported on their present work (see presentation).

D.7. Report of BSHC representative to WENDWG

Document:

- [BSHC27_D7_WENDWG_Report_FI](#)

The BSHC representative in the WENDWG (*Mr. Jarmo Mäkinen*) presented the report and highlighted the outcome of the 12th WENDWG VTC meeting in February 2022, focusing on:

- S-101 ENC Scheming Guidelines: No consensus could be reached to adopt a regular grid model, as several MS see major problems increasing their production workload. Instead, regional strategies should be developed on RHC level, to be reported back to WENDWG-13.
- S-1xx Implementation Guidelines: These guidelines are a complement to the WEND-100 Principles and are planned to become an additional annex to the S-100 Roadmap. A drafting team was established and a first draft of the Guidelines will be presented at the Council meeting.



- The WEND-100 Product Matrix to be used to measure SPI 1.3.1⁷. The BSICCWG Chair offered that he, with assistance from other office holders, could deliver an aggregated BSHC answer based on MS input.

The Chair thanked the WENDWG representative for the presentation. The Commission noted the report.

Germany commented on the issue of regular ENC grids, that they do not experience any major disadvantages or increased production workload after their move to regular ENC grids a few years ago.

With regard to the necessary discussion of S-101 ENC scheming guidelines on a regional level, the Chair reminded about the decisions taken at BSHC26. The BSICCWG is the Commission's regional S-100 coordinator as suggested by IRCC, and with a special focus on S-101 and S-102. Specifically, Action BSHC26/12 tasked the BSICCWG to work with an S-101 scheme for the Baltic Sea.

The Commission discussed how to handle the WEND100-IGIF Matrix request, especially how to aggregate a regional answer based on strongly differing national perspectives.

ACTION BSHC27/13: All MS to fill in the WEND100-Matrix for aggregation by BSICCWG Chair (15 November 2022).

ACTION BSHC27/14: BSICCWG Chair to aggregate a BSHC answer to the WEND100-IGIF Matrix request (BSICCWG Chair assisted by WENDWG vice chair, due 15 December 2022).

D.8. Report of Baltic Sea INT Chart Coordination Working Group (BSICCWG).

Document:

- [BSHC27 D8 BSICCWG Report FI](#)

The BSICCWG Chair (*Mr. Jarmo Mäkinen*) presented the report with emphasis on what was discussed at the BSICCWG VTC meeting, held 13 September 2022 (the regular meeting planned to be held physically in May 2022 was cancelled):

- The BSICCWG has discussed the regular ENC grid model. Adoption of a regular ENC grid varies between the BSHC Member States.
- Results of the WG's investigation on the Member States' use of MAGVAR areas.
- Changes to the Latvian INT chart scheme.
- Germany announced the discontinuation of INT120 (DE 98), effective 1 January 2024 the reduction of the overview ENC DE1100000 coverage from the entire Baltic Sea to just the German EEZ.

The Chair thanked the BSICCWG Chair for the presentation and the Commission took note of the report.

The Commission briefly discussed the term "regular grid" with regard to ENC scheming.

Sweden will internally discuss the possibility to take over production of the overview chart INT120 and the overview ENC.

ACTION BSHC27/15: Sweden to report back on the possibility to assume responsibility for

⁷ SPI 1.3.1: Ability and capability of Member States to meet the requirements and delivery phases of the S-100 implementation plan.



producing INT120 and corresponding overview ENC over the entire Baltic Sea. (SE representative in BSICCWG, May 2023).

The Commission reminded the WG about Action BSHC26/12 and requested the WG to report back on the work regarding S-101 ENC scheming again at the next BSHC Conference.

With regard to Action BSHC26/16, the Commission acknowledged the bilateral agreement between DE and SE related to INT1201 and encouraged DE and DK to agree about INT1303.

The Commission discussed the IRCC recommendation 6, to establish an S-100 Coordinator role.

DECISION: The Commission confirmed that the role of regional S-100 coordinator falls under the responsibility of the BSICCWG and its Chair; see also Action BSHC26/16.

The Commission further stressed the importance of the coordinating role that has been assigned to BSICCWG with regard to S-100 implementation in the region, and reconfirmed that the Strategic Correspondence Group should work on further guidance regarding this matter (ref. Action BSHC26/16).

D.9. IHO Capacity Building Sub-Committee Issues Review (CBSC)

Germany (*Mr. Thomas Dehling*) reported on the CBSC work. The subcommittee is now chaired by *Mr. Evert Flier* (Norway).

The Chair stressed the importance to actively contribute to the capacity building programme, and encouraged the Commission to e.g. provide relevant training material to the e-learning platform or support the training related tasks of the Empowering Women in Hydrography project.

Mr. Dehling also reported on the distribution of the originating countries of the students at the German Hydrography Master course held by Hafencity University in Hamburg. An overwhelming majority of the students come from low and middle income countries.

Sweden asked whether MSI is included in the capacity building work. *Mr. Dehling* answered that this is the case.

The Commission noted the report.

D.10. BSHC Website

Document:

- [BSHC27_D10_BSHC_Website_Report](#)

Website:

- <http://www.bshc.pro>

Sweden (*Mr. Hans Öiås*) reported on coordination, operation and maintenance of the BSHC website.

The website is currently being moved to a different platform.

The number of users has increased slightly, but remains at a comparably low level.

Sweden reminded the MS to send website content update requests to sma@sjofartsverket.se and WG chairs to double check the content after the transition to the new platform.

The Commission noted the work and the ongoing transition of the BSHC web site to a modernized and easier to maintain platform.



ACTION BSHC27/16: All MS to check the content of the updated BSHC web site, soon after it has been launched, and provide feedback to sma@sjofartsverket.se (December 2022).

E. Any other business

E.1. BSHC Status (intergovernmental or other, discussion)

Reference document:

- [BSHC26 E1 amended Statutes SE](#)

The Chair summarized the question of whether the BSHC is an intergovernmental organisation, or an organisation of individual hydrographic offices. According to the statutes BSHC is formed by member states, and the statutes also refer to the IHO Resolution 2/1997 on the Establishment of RHCs.

Denmark commented that according to the Commission's steering documents RHCs are established by member states, but they do not clearly state that this is an intergovernmental organisation.

Finland commented that their findings so far indicate that the BSHC has been established and statutes have been reviewed by the agencies responsible for hydrographic services in each country. Therefore, the Commission most probably does not have the formal status of an Intergovernmental Organisation. However, a common interest, a long tradition, well defined procedures and the fruitful collaboration testify that the co-operation between BSHC and IHO is established practice and will continue to develop further, regardless of what the interpretation might be in the matter.

The Commission discussed the statutes and did not see any reason to take further action regarding the matter.

F. Election of new Chair and Vice Chair

DECISION: The BSHC Conference elects Mr. Rainer Mustaniemi (Finland) unanimously as Chair of the BSHC, and elects Mr. Olavi Heinlo (Estonia) unanimously as Vice-Chair of the Commission.

G. Place and date of next Conference

Finland invited the Commission to Helsinki for its 28th Conference, which will be held 19-21 September 2023, preferably as a pure face-to-face meeting.

H. Review of BSHC27 List of Actions

The Conference reviewed the Draft List of Actions of the BSHC 27th Conference.

ACTION BSHC27/17: The BSHC27 Chair to circulate the Draft List of Actions and Draft Meeting Minutes for final adjustments and approval (October 2022).



I. Closing ceremony

The Chair (*Mr. Magnus Wallhagen*) expressed his thanks for delegates for participating in BSHC27 Conference and thanked the working groups for their important contributions to regional development in the field of hydrography. This has been a challenging year for the Commission, but it also has once again shown the strength of the BSHC collaboration, bonds and relations.

Finland and Poland thanked the outgoing Chair for his good work during this challenging time. Finland also highlighted how valuable and important the informal contacts are, which are only possible at a physical meeting.

The Chair then declared the Conference closed.