

Minutes of the 10th meeting of the Baltic Sea International Chart Coordinating Working Group (BSICCWG)

22-23 May 2024

Stockholm, Sweden

Participants:

Denmark Mr Kell Torp Jensen

Mr Nikolaj Møller

Estonia Ms Nele Kaurla

Ms Merili Lindpere

Finland Mr Jarmo Mäkinen (chair)

Mr Jukka Helminen (secretary)

Mr Teppo Kuusijärvi

Germany Ms Sylvia Spohn
Latvia Ms Linda Purina
Poland Mr Jacek Kijakowski
Cdr Adam Klosinski

Mr Karol Grzelak

Sweden Ms Elisabeth Farrington

Mr Stefan Cederberg

A. Opening Formalities

A.1 Opening remarks

Chair Jarmo Mäkinen (FI) opened the meeting at 09:03 and welcomed everyone to the meeting. This is the 10th meeting of the WG. Chair thanked Sweden for hosting the meeting. Chair especially welcomed new members and participants to the meeting. Agenda has been quite same in the recent years but the focus has been moving towards the S-100 world. First day of the meeting focuses on S-100 issues and the second day will be focusing on paper charts and S-57 ENCs. There is a special task for this WG is to coordinate S-101 and S-102 issues in the Baltic Sea region.

A.2 Welcome and Practical Arrangements

Sweden explained the practical arrangements. The Swedish hydrographer Magnus Wallhagen welcomed everyone to the meeting. He was positive that the timelines of S-101 will be reached this year and product specifications for the production version will be ready for approval this year.

He emphasized that this working group has overall role to coordinate and monitor the S-101 implementation and data productions in Baltic Sea region and to ensure it is done in harmonized and coordinated way in the Baltic Sea. Parallel S-57 and S-101 production is a challenge that we have to cope with.

Docs:

- BSICCWG10_A.2 Program-see agenda (A.4)

A.3 Introduction of the participants



The participants introduced themselves.

Docs:

BSICCWG10_A.3_List of BSICCWG Members BSICCWG10_A.3.1_List of participants

A.4 Adoption of the Agenda

The Agenda was reviewed and adopted.

Docs:

BSICCWG10_A.4_Draft Agenda

A.5 Minutes and actions from BSICCWG9

Chair presented the report about ENC scheming, which he had presented to BSHC. WEND has decided that there will be no global common grid scheme for ENCs. Most important thing is that IHO wants to know scheming and production plans and estimates what areas will be ready with S-101 or S-102 in 2026 and 2027, so IHO can report the expected coverage to IMO.

Magnus Wallhagen pointed out that during the transition period when some areas are in S-101 and some are not, the scheming with S-57 and S-101 should be the same. Otherwise, there could be difficulties in ECDIS display. If cells are merged in S-101 and not in S-57 then at least the outer limits of the S-101 cell should match the S-57 limits during the transition period. When there is a full coverage of S-101 this should no longer be a problem since the mariner is using either S-57 or S-101, not both.

BSICCWG9 actions were reviewed:

Action #4 Sweden was not able to take INT120 into their production. UKHO will produce the chart in the future.

Action #6 INT 1304 is produced by DK, but not yet updated to INToGIS.

Action #7 is still a problem. Discussed later at point D.1.7.

Action #8 There are instructions on how to update world port information in World Port Index if there are mistakes in the portal. Link to the instructions: https://iINToGIS II World Port Index (WENDWG12-05.2C)

Link to the World Port Index

New Action #1: Every member nation who needs to update information on World Port Index to test changing the port information on the portal.

Action #9 Sweden now has a new chart locked by PT (Portugal). Discussed later at point D.1.8

Docs:

BSICCWG10_A.5_ BSICCWG9 minutes and actions

A.6 Minutes and actions from BSHC28 A.6.1 BSHC28 actions for BSICCWG

Chair presented the BSHC28 actions. Actions were reviewed.

Changes to the BSICCWG TORs were reviewed.





WENDWG task group will create a new S-11 Part A section 300, which will cover S-100 products other than S-101. NCWG will update S-11 Part A section 200 ENC sections to include information about S-101.

Docs:

BSICCWG10_A.6.1_ BSHC28 actions Link to BSHC28 Final List of Actions

A.6.2 BSICCWG report to BSHC28

Chair presented the report.

BSICCWG10 A.6.2 BSICCWG report to BSHC28 Link to BSHC28 D8 BSICCWG Report

BSICCWG10_A.6.2.1_BSICCWG report to BSHC28_presentation BSHC28 D.8 BSICCWG report presentation

A.6.3 BSHC WEND representative report to BSHC28

Chair presented the report

Docs:

BSICCWG10 A.6.3 BSHC WEND representative report to BSHC Link to BSHC28 D7 WENDWG Report

BSICCWG10_A.6.3.1_WENDWG report to BSHC28_presentation

BSHC28 D.7 WENDWG report presentation

B. S-100 coordination in the Baltic Sea area

B.1 General-WENDWG

Chair presented the BSHC report to the WENDWG.

Action #2. Poland to check their answer to WENDWG Readiness status of RHCS for the provision of S-1XX dataset by 2026-questionary (WENDWG CL1/2023)

BSICCWG10 B.1 BSHC report to WENDWG14 Link to WENDWG14 BSHC Region Report

B.2 BSICCWG's role in S-100 coordination.

B.3 S-101/S-102 Scheming plans in member states

(plans for coverage 2026-2029, Scheming; grid etc)

Action #3. Member States to report regarding the planned coverage of S-101, and S-102, and other relevant S-100 layers in their area per the end of year 2025, 2026, 2027, and 2028.

B.3.1 Denmark

Denmark is currently focusing on rescheming their S-57 ENCs with regular grid, that they will also use with S-101 ENCs. They don't have concrete plans yet because of so many uncertainties. No plans yet how much S-101 they will do at what time. Standards are not



certain yet and software is also not ready. Right now, they try to learn, test samples and gather experience and hope that everything will be solved.

B.3.2 Estonia

Estonia has no concrete plans at the moment. They are highly depended on software development. They are using dKart but have also thought other options (Caris, Esri). They are also still working on the BSCD2000 project. They will most likely only do S-101 products from the areas that have been changed to BSCD2000. Estonia has no plans to change their current S-57 grid. They will maintain the same grid for S-57 and S-101.

S-102 scheme has not been decided. They have prepared some S-102 testing areas.

Docs:

BSICCWG10_B.3.2+B4.2 S-101 and S-102 in Estonia

B.3.3 Finland

Finland will convert the current S-57+ database to S-101+ database. Finland is aiming to start production in summer 2025 and hopefully have a good coverage by 2026. A lot depends on the success of the source data conversion and paper chart and S-57 product lines. S-101 products will be easy to produce with S-101+ source database. Finland will produce S-101 products in the same irregular grid scheme that they currently use for S-57. At some point the S-57 and S-101 scheme will most likely start to deviate from each other since S-101 cells can be larger and cells can be merged.

Finland will be producing S-101 products only from the area it has done BSCD2000 change to. All source data is expected to be in BSCD2000 in 2025.

Finland has been trying to define the maximum permitted S-102 production area. The data is classified and only fairway areas, economic zone and inland waters are public. They decided that it's better to first get approvals from relevant bodies before the product scheming can be started. Allowed areas should be defined by the end of this year and after that the products can be defined. Products will cover the main ports, fairway areas, anchorage areas, TSS shoal areas and open sea shipping routes and in some areas buffer areas around them. Defining the areas has been done with QGIS using AIS data, shipping routes and areas protected by navy as a background data.

Basic idea with S-102 at the moment is to have one fairway on one S-102 product. But some longer fairways could be divided into several S-102 cells. S-102 cells and S-101 cells will not have the same limits.

Docs:

- BSICCWG10_B.3.3 S-101 and S-102 Scheming plans in Finland

B.3.4 Germany

Germany will start S-101 from most important harbours and approaches/fairways. They are now finishing S-57 rescheming and then use the same scheme with S-101 products. DE plan to start produce S-102s from the same areas where they have bENCs at the moment.

Docs:

BSICCWG10_B.3.4_ S-101 and S-102_DE.





B.3.5 Latvia

Latvia will use the same grid they have with S-57 also on S-101. General and coastal scales have already been gridded. Approach has not been decided yet. They will come up with some grid for approach 2024 or 2025. S-101 will have the same coverage as S-57. More detailed roll out plan to be decided. Idea is to start with larger ports. But things will depend on common decisions in this WG and also Baltic Sea eNav-project. Latvia can be flexible. They will start production in 2026 but have not yet decided what coverage will be by the end of 2026. As a small office they are very much depended on Caris development.

S-102 is in the testing phase and there are no specific plans yet.

Docs:

BSICCWG10 B.3.5 S-100 scheming in Latvia

B.3.6 Lithuania

Lithuania was not present, but they sent plan for S-101 coverage. The S-101 schedule is that band 5 is expected this year Q4. Band 4 Q2 2025, Band 3 Q4 2025. Band 1 and 2 2026. Those estimations are rough, as they expect new DB and the software based on S-101 data model from ESRI which could affect the production dates. The major software upgrade is expected at the end of this year.

The S-102 are not ready yet, the delay is due to software upgrade from ESRI.

BSICCWG10_B3.6_LT_S101_Cell_Schema

B.3.7 Poland

Aim is to start S-101 conversion from areas that are most needed by the mariners. They will keep the shape of the cells the same that they have now with S-57. They use non regular grid. Updating S-101 and S-57 might cause problems and they want to gather experience from smaller areas first.

With S-102 the focus is on main harbour Gdansk, Gnynia. Size of the S-102 grid system is yet to be decided. By the next BSICCWG meeting they expect to have actual plans and shapes. But they expect to start from main harbours and proceed seawards just like with S-101. S-102 will only be for harbour approaches and ship routes.

BSICCWG10_B.3.7_S-101/S-102_scheming_plans_PL

B.3.8 Sweden

Sweden plans to start S-101 production in 2025. They will migrate their database to S-101. If the migration goes fine the production should go fine too. All scales will be produced simultaneously for each geographical area. BSCD2000 does not limit S-101 but it will limit the S-102 project since S-102 can only be produced from the areas in BSCD2000.

B.4 S-101,S-102 production plans

(dual fuel, prod. methods, time schedule etc)

Docs: S-100 timeline

https://iho.int/uploads/user/About%20IHO/Council/S-100 ImplementationStrategy/S-

100%20Roadmap Annex 2 v3.0 October2023.pdf



Action #4. Chair to send questionary for the WG members about the status of the S-101 and S-102 implementation progress by the end of the year. **Action #5.** Member states to report how plans for the introduction of the S-101 and S-102 production during 2024 were realized.

B.4.1 Denmark

Denmark is using Esri platform and they've moved to ArcMap Pro. Denmark has simplified their workflow during experience from last few years and will soon be in stable mode. They have been gridding their ENC-data. This work will continue until the end of this year. They have not been cleaning or changing the data but just cutting the data differently. They will do planning and testing on how to migrate to S-101 until Q1 2025 and hopefully have a high knowledge at that point. 2025 is then used to migrate the data. Their aim is to have S-101 database where from S-57 and S-101 can be exported. Training will also be needed and testing of the dual-fuel system.

B.4.2 Estonia

Estonia has total of 132 ENCs. They are not planning to rescheme them for S-101. They have to decide whether to change software. Dkart has been little behind on development at the moment. If there will be software changes. Training will be needed. Conversions have been tested with different software and they have also used Primar test database.

Many things depend of the software but in couple of years they should start producing S-101 and convert back to S-57.

With S-102 Estonia has prepared some test areas from ports and fairways.

Docs:

BSICCWG10 B.3.2+B4.2 S-101 and S-102 in Estonia

B.4.3 Finland

Finland has been defining the maximum area for S-102 products. Finland has provided some test S-102 products for pilots for portable pilot units. HPD still missing S-102 product management center.

Finland started its S-101 development work two years ago by creating implementation plan and doing source database analysis. Feature by feature test conversions were done.

Finland currently has S-57+ catalog which has some feature and attribute extensions for example for paper chart production. Aim is to have seamless S101+ database and three separate production lines (S-101, S-57 and paper chart) from the same database.

Finland decided to create their own S-101 catalog and S-57 to S-101 mapping based on the Caris stock mapping. They added to the stock mapping their own extensions and did some cleaning work to remove repetition. They have HPD test database for conversion purposes. Finland currently has S-101+ catalog in 1.2 version. They consider whether to do 1.3 version modifications or move straight to version 2.0 when it is finished.

Finland has done preparations for database conversion in test database. After database conversions they need to update the existing product lines for paper chart and S-57 ENCs and start building the reverse mapping. Also, S-101 ENC product schema and mapping rules needs to be defined.





Currently they are having problems converting large amounts of data and are waiting for Caris with better tools for bulk migration. Also still missing are stock mapping rules for temporary features. Custom validation checks, catalogs and mapping files for bathymetry renewal process, links to navaid registry will also need work. User training is also needed.

Docs:

- BSICCWG10_B.4.3 S-101 and S-102 Implementation in Finland

B.4.4 Germany

Germany has no prepared schedule at the moment. Many things depend on the software. S-102 products can be produced soon as they are not HPD depended. Germany has no problems producing S-102 data. With S-101 they need to update to Caris HPD 5.0. Several testing was undertaken and the readiness checks are used to improve the S-57 database before conversion.

Additionally they need to check the mapping files and special national solutions and attributes and plan how to migrate them to the new database. This will not happen this year. A lot of system testing with the new HPD is required before that.

Germany might reduce some HPD usage bands that are paper chart depended and maybe reduce some national paper charts.

When they can get the database migrated to S-101 then they can produce new S-101 editions quite soon in principle. The schedule depends very much on the migration and how it goes.

Docs.

BSICCWG10_B.4.4_ S-101 and S-102_DE

B.4.5 Latvia

The goal is to start production in 2026. Plan is to have two databases or to have S-101 database and do backward conversion. Many things depend on Caris.

Docs:

BSICCWG10_B.4.5 S-100 production in Latvia

B.4.6 Lithuania

Not present- see 3.6.

B.4.7 Poland

Poland will start production of S-101 from areas crucial for the safety of the navigation. Plan is to be ready with those cells by the end of 2026. They will do all scales at the same time.

They have not decided yet whether to have one or two databases or a mix. Many questions and challenges still ahead.





With S-102 they will try to cover Traffic Separation Schemes and approaches to main harbours and ports. Scheme will be irregular grid. How large area the products will cover is not yet known.

Docs:

BSICCWG10 B.4.7 Production plans PL

B.4.8 Sweden

Sweden currently has an ongoing project with Caris. Their entire S-101 project is going parallel with Baltic Sea eNav-project. Internally they are trying to do plans on how to migrate their database. Next autumn they are testing migrating the database. After that they will see where they need more work. They hope to do a production database migration summer 2025. Producing S-101 from S-101 database shouldn't have any problems.

Sweden is doing S-102 plans this year and talking with military which areas are allowed to be released in S-102. Hopefully main fairways and some ports.

C. Baltic Sea S-101, S-102 harmonisation

C.1 Baltic Sea S-101 ENC

Baltic Sea eNav-status report:

C.1.1 S-101 Work Package

Sweden is responsible for the work package and harmonization. Everything is following the time plan. Focus is in harmonization.

Next meeting has been moved from September to December 2024 so there will be more time to test.

BSICCWG10 S-101 WP Annex II Detailed Work plan SE

C.1.2 S-101 harmonisation

Meeting about the S-101 harmonisation was held the previous day 21th of May 2024 in Stockholm. The meeting was a good start. Survey for the WG members about the harmonisation issues was sent previously in the spring. It was done as a baseline analysis of the existing S-57 guidelines and whether similar guidelines are required for S-101 products in the Baltic Sea area and whether we need new recommendations.

For the most part everyone agrees that harmonizing is needed. Focus will now be on how and to what degree.

Chair explained that the old S-57 recommendations have not been monitored in BSICCWG for the last few years anymore because the recommendations have already been done. After the new S-101 recommendations have been listed by the harmonisation group, their status will again be monitored by BSICCWG.

Docs:

BSICCWG10_C.1.2 ENC harmonisation meeting 21-05-2024 BSICCWG10_C.1.+C.2 Baltic Sea eNav S-100 harmonisation_report_FI BSICCWG10_C.1_BSHC S-57 ENC harmonisation recommendations Link to Baltic-Sea-ENC-Harmonisation-recommendations



C.2 Baltic Sea S-102 harmonisation

Baltic Sea eNav-status report;

S-102 Work Package

Baltic Sea eNav partner meeting was held in Helsinki April 2024. It was unclear who takes the lead in S-102 harmonization. Meeting between Germany and Finland was held. Germany was not willing to take of the role in S-102 harmonization but Germany sent a questionary regarding S-102 work package and there were also questions also about the harmonization of S-102.

Docs:

BSICCWG10_C.2 S-102 WP and harmonisation_DE

S-102 Harmonisation

There was a short discussion about the overlap limit for S-102 products. It was assumed that it will be the same 5 meters as on ENC products.

C.3 S-100 coordination in the Baltic Sea area continues...

C.3.1 National status of S-100 coordination/S-100 products. Collaboration with other organizations that are responsible for S-100 products (e.g S-104, S-124)

Docs:

WENDWG survey for S-100 products

In most of the WG members the Hydrographic Office is responsible of S-101 and S-102 products but is also coordinating the S-100 progress in general, even though the other products are the responsibility of other organizations. Denmark and Finland presented status of S-100 coordination in their respective countries.

Docs:

BSICCWG10_C.3.1 S-100 implementation_DK BSICCWG10_C.3.1 S-100 implementation in Finland

C.3.2 Other relevant items considering S-100 coordination/S-100 products.

D. Paper Charts

The chair presented the issue and said that even though we have to change the focus more and more in to S-100 issues, many vessels are still using paper chart as the only chart or as a backup chart. We have the responsibility to produce official paper charts. For example, for the navy paper charts are still important. The question is how to produce paper chart easier way with less resources.

D.1 Status of Paper charts

Updating of S-11 Part B, Region E. Process/timeframe of updating in member states, status.

D.1.1 Denmark



Denmark has adopted one chart from Germany. They have not produced new charts in Denmark area, only in Greenland. It takes a lot of resources. They are negotiating new deal so they wouldn't have to produce new charts in Greenland.

They are investigating print on demand services where users could print their own PDF charts. They might that way also stop producing NtM notices.

D.1.2 Estonia

Estonia had a presentation of their paper chart status.

Docs:

BSICCWG10_D.1.2_Status of Paper charts_EE

D.1.3 Finland

Finland is in the middle of chart datum project. They are renewing all charts in all scales. There are challenges because fairway information is important for ships going to Finnish ports. Maximum designed draught of a fairway can change between MSL and BSCD2000 charts. One part of the fairway can be in one datum and another part in a different datum. The project is currently in north of Åland. Charts north from that have been updated to BSCD2000.

Finland is going to withdraw INT 1130 (FI 935, 1:100 000) in the Archipelago Sea area.

D.1.4 Germany

Germany has done some changes to paper chart scheme and produced some INT charts in 1:50 000. They are considering options how to rescheme paper charts.

Germany will give up to produce INT1304 and INT1201. Denmark will take responsibility to produce INT1304 and Sweden will produce INT1201

Action #6. Denmark to remove Germany as a producer nation of INT1304 in INToGIS. Sweden to remove Germany as a producer nation of INT1201.

Docs:

BSICCWG10 D.1+D.4 Paper Charts DE

D.1.5 Latvia

BSCD2000 ready in ENC and paper chart. Some new paper charts in planning. No new INT numbers needed.

Multiple copies in INToGIS of INT12760 (LV 115)

Action #7 To remove multiple copies of INT12760 from INToGIS.

Docs

BSICCWG10_D.1.5_Paper charts_Latvia

D1.6 Lithuania

Not present

D.1.7 Poland



Poland had a presentation of their paper chart status.

Poland still has an issue with Polish letters on INToGIS PDF export.

Action #8. Polish letters disappear when converting from INT oGIS webtool to PDF. Chair to test converting to excel (and ask IHO).

Docs:

BSICCWG10 D.1.7 Paper charts PL

D.1.8 Sweden

Sweden had a presentation of their paper chart status. They have set a criterion for new editions on paper chart.

Action #9. Chair to ask IHO about locked SE charts. **Action #10.** Chair To adopt new INT number to Swedish national chart SE 839.

Docs:

BSICCWG10_D.1.8_Status of Paper charts_SE

D.2 INToGIS II

IHO Web Catalogue in use;

- Possibilities, challenges
- Features in use; new additional needs?
 <u>Link to IHO Web Chart Catalogue</u>

Discussed at point D.1

D.3 INToGIS III

Status of INToGIS III /INToGISⅢ for S-100 Products:

https://iho.int/uploads/user/Inter-Regional%20Coordination/WEND-WG/WENDWG14/WENDWG14_2024_06.1A_EN_INToGIS%E2%85%A2%20for%20S-100%20Products.pdf

INToGISIII development is delayed. New timeline will be autumn 2024.

INToGIS III Mock-up to provide planned ENDS coverage:

https://iho.int/uploads/user/Inter-Regional%20Coordination/WEND-WG/WENDWG14/WENDWG14 2024 06.1B Rev1 EN INToGIS%20III%20Mock%20up.pdf

While waiting for the INToGISIII alternative way to present planned S-101/S102 coverage is to use e.g., QGIS.

D.4 INT 1304, INT 1201

Status

Action #11. Chair to investigate how the producer nation can be changed in INToGIS.

E. S-57 ENC

E.1 Baltic Sea S-57ENC-scheme

Status now- future plans of coverage.

No changes reported.



E.2 Gaps and overlaps

Docs

BSICCWG10 E.2 BSHC overlap report 2024

The overlap report was reviewed. Nothing critical in the report.

Permanent action #5. WG members should reduce possible ENC-overlaps when creating new editions.

E.3 Reduction of ENC1100000 coverage

Docs:

BSICCWG10_E.3_Reduction of ENC1100000 coverage

Germany will give up producing the Baltic Sea overview ENC by the beginning of 2025. All the members will produce their own overview cells from then on. It was decided that WG members should prepare their own overview cells by the end of October and then send them to the neighboring HOs for border comparison. Releasing of the new overview cells and cutting the German cell should be done on the same day 10th of January 2025. The case of Russian area in the German overview cell was not clear.

Action #12. All to share their overview cells by the end of October 2024 to the neighboring

Action #13. All to release their overview cell the same time at the 10th of January 2025. **Action #14.** Chair to investigate how to handle the Overview ENC in the Russian area.

E.4 Future work of BSICCWG

BSICCWG TORs

Discussed in point A 6.1

Docs:

Link to BSICCWG TERMS-OF-REFERENCE-AND-RULES-OF-PROCEDURE.pdf

F. Any other business

F.1 Depiction of the chart references in INT chart symbology (DE)

Germany was interested of the colour of chart references on member nations INT charts.

Action #15. SE to check the symbology (colour) for the chart references.

G. Place and date of the next meeting

Lithuania has kindly agreed to organize the next BSICCWG meeting in Lithuania on May 21-22 2025.

H. Review of BSICCWG10 List of actions

Actions were reviewed.

Closing the Meeting

Chair closed the meeting at 14:48.







