



Nordic Hydrographic Commission



Minutes

67th Nordic Hydrographic Commission Conference

11-12 April 2024

Malmö, Sweden

[With references to documents]

April 11-12th 2024

Opening Formalities

A.1 Opening of Conference

Docs:

- [NHC67_A.1_List of Participants](#)

The Chair Magnus Wallhagen opened the 67th Conference of the NHC.

A.2 Welcome from the host country

Docs:

- [NHC67_A.2_Program.pdf](#)

The Chair welcomed all participants to this meeting by pointing out that the meeting gives opportunities to share experiences and learn from each other in open discussions.

A.3 Adoption of the Agenda

Docs:

- [NHC67_A.3_Draft Agenda \(This document\)](#)

The Agenda was agreed upon.

A.4.1 NHC66 Final Minutes

Docs:

- [NHC66_A.4.1_Minutes_NHC66.pdf](#)

The minutes from NHC66 were confirmed.

A.4.2 Status of NHC66 List of Actions

Docs:

- [NHC66_A.4.2_Status_NHC66_List of Actions](#)

The updated list of actions was presented and adjusted with the name of the representing person (Annika Axne, SE) for Action 7.

All actions were considered to be done and were closed, but Action 1 was converted to a permanent action.

Action No 3: NHC66 action 1 regarding S-100 implementation was decided to be converted to a permanent action.



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IHO Work Programme 1 - "Corporate affairs"

B.1 Report from the IHO secretariat and outcome of Council 7

Docs:

- [NHC67_B.1_Report from the IHO Secretariat](#)

There is a list of S-100 coordinators on the IHO website. The NHC has no appointed S-100 coordinator as we do not have such a role regarding S-100 coordination. It was confirmed that Annika Axne (SE) is representing the NHC at the IHO-EU Network WG. The work made by NIPWG to map the different S-100 standards towards the different Maritime Services defined by IMO in SOLAS was presented and it was considered to be very helpful in communication with national regulatory agencies.

There were some discussions regarding WEND and the different approaches between regions when it comes to the regular grid or no regular grid of S-101. It was mentioned that the coverage is more important than the grid of ENC cells, as the users themselves don't see and react to the grid.

The secretariat especially pointed out the importance of the MS responding to IHO CL in a timely manner not to delay the implementation of S-100.

Further the Commission had some discussions regarding the need to strengthen the IHO S-100 infrastructure and how this can influence the future of the IHO and its Secretariat.

Action No 4: was decided regarding the IHO Report recommendation e), survey regarding meeting modalities.

B.2 Information about IHO Council

Docs:

- [NHC67_B2_Council report from C7 v1 Rev1](#)

The list of decision and actions from the C7 was presented with highlighting made on all relevant parts for this Commission.

One thing to especially note is that it is a good thing to have national S-100 coordination committees with members from all responsible, or contributing agencies/authorities.

It was also mentioned that IC-ENC today has a fund that can be used for tests of implementations of S-100 based products as well as other projects.

C8 will be held in Monaco 15 to 17 Oct. 2024

All MS are encouraged to participate in the ENCWG/ECS PT.



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B.3.1 National Report of Denmark

Docs:

- [NHC67_B.3.1_National Report Denmark](#)
- [Presentation](#)

The Danish Hydrographic Office, is part of the DGA, and has around 80 employees. Apart from survey activities in Danish waters, DGA surveys the SW parts of Greenland where most people in Greenland live and most shipping occurs. DGA notes an increased traffic of cruise ships in Greenlandic waters and informed on an incident of a cruise ship running aground in NE Greenland in September 2023.

A lot of focus on S-100 during the year, with particular focus on the production system for S-101 and S-102. Further, DGA informed on the shift from Arc-Map to ArcGIS-PRO scheduled for 2024.

DGA is engaged in a government-financed Satellite project in Greenland, identifying rocks and hazardous zones in near-shore areas.

DGA engages continuously with the Danish Energy Agency with regards to newly planned offshore wind farms. DGA notes the potential need for chart updates in light of new offshore constructions.

Regarding personnel, DGA informed NHC that long-term colleague Lars Hansen will retire in June, as well as a number of other colleagues known to the NHC community for many years.

Action No 5: An action was created for DK to report regarding financing of surveys and chart updates from windfarm projects.

B.3.2 National Report of Finland

Docs:

- [NHC67_B.3.2_National Report Finland](#)

Traficom has a new Director General, Mr. Jarkko Saarimäki.

About 1/3 of Finnish waters in the Baltic still needs to be resurveyed. The Lidar surveys has sped up the traditional multibeam surveys as those can be performed more safely and at a higher speed.

Traficom have a long-term agreement with Artia Meritaito Oy for surveys in the territorial waters. For inland waters Traficom use public procurement.

In connection with the N2000 fairway and nautical chart reform (BSCD2000), new, previously unpublished bathymetric data will be introduced to the nautical products. About 50% of the charts along their coast has now been updated and adapted to BSCD2000.

Traficom are working on their production of S-101 and S-102 products with the goal to have operational capability by the end of the year. They are also looking into S-127 and S-128 as well as several other S-100 products.



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B.3.3 National Report of Iceland

Docs:

- [NHC67_B.3.3_IS_National Report Iceland](#)

Has employed their first Cat A surveyor.

Performed around 90 days of surveys during the last year.

Have had a lot of work when it comes to seismic activities lately. One problem regarding to perform harbour surveys after a seismic activity is that also the control points used as height references has shifted.

B.3.4 National Report of Norway

Docs:

- [NHC67_B.3.4_National Report Norway](#)

NHS will move to new premises in March 2025 near the centre of Stavanger.

New trends is reduced budget that leads to searching for funding from different sources.

NO cancelled the contract with CARIS and have developed their own solution for management of their Bathymetric datasets as well as an OpenGis Database.

They have new decisions regarding secrecy classification of bathymetry and in general depths 0-30m is unclassified, but exceptions exists and the data is not openly available, but can be delivered upon request. A surveyor needs to notify NHS prior to a survey and the Military then can deny those surveys.

B.3.5 National Report of Sweden

Docs:

- [NHC67_B.3.5_National Report Sweden](#)

About 95 persons in the office and 35 on board the survey vessels.

SMA has been working to improve the workflow in order to correct for ambiguities found during an interview process including personal interviews with around 50 employees.

The lead time for publication of New Editions of paper charts has been improved.

There will be a survey performed by SMA on electrical infrastructure in a three year project using the SLU Survey Vessel SVEA.

The former GE40 chart will soon be published as SE91 according to the agreement with Germany. This chart is also an INT-chart.

SMA plans to start using Base Editor to produce depth contours in automatized way during this year.

IHO Work Programme 2 - "Hydrographic Services and Standards"

C.1 S-100 implementation (standing agenda item NHC 66 Action 1)

Docs:

- [NHC67_C.1A_DK_S-100 Implementation in Denmark](#)
- [NHC67_C.1B_FI_S-100 Implementation in Finland](#)
- [C.1.C_Iceland \(Verbal only\)](#)
- [NHC67_C.1D_NO_S-100 Implementation in Norway](#)



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- *NHC67_C.1E_SE_S-100 Implementation in Sweden*

DK: Will create a regular grid for S-100 products in Denmark during 2024. Will move from ArcMap to ArcGIS-Pro in order to be able to produce S-100 products using ESRI GIS tools. Plan to start production of S-101 during Q4-2025, and S-102 Q1-2026. Participates in the Baltic Sea e-Nav project.

Has a good dialogue with other Danish authorities that own data related to S-100 products. DGA concentrates on four S-100 products identified within phase 1 of the IHO implementation plan.

FI: Since last NHC meeting, Traficom S-100 Task Force arranged several bilateral meetings or workshops with FMI, Väylä and Fintraffic, and a seminar with Traficom, Finnish Transport Infrastructure Agency, FMI and Fintraffic regarding S-100 implementation in Finland. Traficom and FMI has a major role as producers of S-100 information and Fintraffic has a role as both user and service provider. One problem identified is how near real-time datasets can be distributed to vessels.

S-101, 102, 128 will be in production during 2025 by Traficom, S-124 will be produced by Fintraffic also during 2025, and S-104, S-111 will be produced by FMI during 2025. For phase 2 FMI is interested in implementing meteorological products i.e. S-411, S-412, S-413 and S-414. Fintraffic will also work on some of the S-2xx standards. Initial discussions with the different agencies involved in the development of the S100 standards was started about three years ago.

IS: Still only one person producing ENC's. They have identified the other agencies that has data for production of the needed standards. S-101 will probably not be any problem as their charts are fairly simple. They also plan to move over to CARIS HPD for the S-101 production.

NO: Planned production start of S-101 and S-102 in Q2 2025. S-102 is already in production using the draft specification Ed 2.1.0 for selected ports.

Have tried to find the data owners for the different data themes. The Meteorological Institute will feed the S-104 dataset. For S-111 (Currents) NHS has to take the ownership as no other organization has it today.

SE: Main priority will be in the prioritized S-101, S-102, S-104 and S-124. The plan is to have full coverage of S-101, and S-102 (for the planned areas, fairways and anchorage). S-104 will be produced in cooperation with SMHI (meteorological Institute).

S-128 is planned to be produced by PRIMAR. Water levels in S-104 is planned to be completed until end of 2028. SE foresees that S-129 "UKC-Management" will be provided by the commercial market in the future.

We have held individual meetings with other authorities regarding S-100 and plans to set up a one day seminar where we invite all relevant authorities at the same time.

Action No 6: The commission decided on an action for all MS to report at the next meeting 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.

C.2 NHC NCPEG Report

Docs:

- [NHC67_C.2_NCPEG_Report](#)

The report of the Nordic Chart Production Expert Group was presented by the NCPEG Chair and the following was especially noted: The group have agreed on working procedures to keep it as effective as possible and handle fewer topics at each meeting. They also plan to have preparation meetings before the actual meetings/workshops are held.

Next NCPEG meeting will be held 14-16 May 2024 focusing mainly on T/P notices and production QA. A VTC follow up meeting is planned for the autumn of 2024.

After the presentation the question arose if it is the correct level of the participants as it is an Expert Group. The Commission concluded that the goal would be to have participants on the production management level for continuity within the group. Other experts on specific topics can participate depending on the agenda.

DK mentioned that the Nordic Council has a program for personnel exchange between national administrations in different countries.

Decision No 7: The Commission supports the new approach and plans suggested by the NCPEG.

Action No 8: The Commission decided on an action for Denmark to provide information (by correspondence) about how the Nordic Council exchange program works to all NHC MS.

C.2.1 New Symbology for Rocky areas in Nautical Charts

Docs:

- [NHC67_C.2.1_FI_New symbology for Rocky areas in Nautical Charts](#)

Finland presented their report regarding the new symbology for rocky areas and there were some interesting discussions on how this will be received by the end users.

Action No 9: The Commission tasks Finland to report further to NCPEG regarding symbology for rocky areas to NCPEG when appropriate.

C.3 NHC NSEG

Docs:

- [NHC67_C.3_NSEG_Report](#)
- [NHC67_C.3_NSEG_ToR_proposal](#)
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The report of the Nordic Survey Expert Group was presented and the main request from the group was to get guidance on main topics to concentrate on for their next meeting. The commission discussed about this for a time and the Commission tasks the NSEG to prioritize two specific focus items at their next meeting and to report on them for NSHC68.

There was some discussion on geoid based surveying and Sweden reported on development of geoid computation in the Baltic Sea. Iceland was specifically interested to learn more on this.

Action No 10: The Commission tasks the NSEG to prioritize two specific focus items at their next meeting and to report on them for NHC68.

Decision No 11: The Commission approved the suggested ToR with the provision that the listed edition numbers and dates for the standards under "References" should be removed. Revised ToR to be sent to NSEG by the outgoing chair.



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Action No 12: The Commission tasks the NSEG to discuss Geoid based bathymetric surveys and possibly also the work within NKG (Nordic Geodetic Commission) to develop separation models.

C.4 Discussion about the Sub ECDIS Market (action NHC 66/12)

Docs:

- [NHC67_C.4_ECS_PT_Report](#)

During the NSHC meeting earlier this week UKHO informed that they will keep producing paper charts for the foreseeable future, but that the number of paper charts being used is expected to decrease over time leading to higher cost per chart that has to be taken out from the end users.

The discussions on future ECS standards and possible carriage requirements for vessels currently not under the SOLAS carriage requirement is an increasingly important topic. Some MS wants to limit carriage requirements to only larger commercial vessels and others for a wider range of vessels also including leisure boats.

Some thoughts noted during the meeting:

- That an unregulated market can lead to a higher degree of innovations and at the same time it is important that also pleasure crafts uses high quality, frequently updated chart data.
- To divide the ECS into different categories with different carriage requirements might be an option.
- A higher concern today is the larger tonnage that still uses paper charts as official method of navigation, whilst in fact using non regulated ECS systems without frequent chart updates.
- IHO has very limited possibilities to enforce regulations regarding this, and has only observer status at IMO. Any suggestions to IMO regarding regulations for ECS must come from IMO Member States.
- The US has today some regulation divided in different categories issued by RTCM.

It was also informed that the ECS PT has planned a meeting directly following on the ENCWG9 in Aalborg, scheduled for 8-10 Okt. So if you have plans to attend the ENCWG9 it is a good idea to also take part in this ECS PT meeting, October 11th.

Action 13: NHC decided to keep the ECS PT on the agenda for NHC68



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IHO Work Programme 3 - "Inter Regional Coordination and Support"

D.1 Actions requested by IRCC

Docs:

- [IRCC15 List of Actions, Decisions and Recommendations to RHCs](#)
- [NHC67 D.1 IRCC15 Recommendations](#)

Regarding recommendation 4: Denmark has gathered all authorities of the Ministry of Climate, Energy and Utilities to chart what type of information each agency has that can be helpful to handle and fight climate change.

Regarding recommendation 11: Denmark volunteered to take the role of MSDI Ambassador and suggested Christian Thellufsen for the role of the Ambassador.

Decision No 14: The Commission appointed Christian Thellufsen (DK) as MSDI ambassador.

Action No 15: Outgoing NHC chair to inform MSDIWG with contact details of the appointed MSDI ambassador.

Action No 16: The Commission decided on an action to add a permanent agenda item for report from the NHC MSDI Ambassador to the upcoming NHC meetings.

D.1.1 NHC Input to the revised IHO Strategic Plan

Docs:

- [NHC67 D1.1 NHC Inputs to the IHO SP](#)

SE, NO and DK are planning to become members of the Drafting team for the IHO Strategic Plan and as such will have the possibility to assure that inputs from our region will be handled in that process. However, inputs collected to the IHO Strategic Plan at this meeting will be included in the IRCC-16 Report from NHC.

The meeting mentioned especially that S-100 and E-Navigation must be addressed better in the Strategy document. Today S-100 is not mentioned at all prior to the specific list of SPI.

D.1.2 IRCC16 preparations. NHC report to IRCC16

After some discussions the commission decided to include an action as below:

Action 17: The NHC Chair to include input to the IHO Strategic Plan as part of the IRCC-16 Report.



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D.2 WENDWG13

Docs:

- [NHC67_D.2_EN_WEND report SE](#)

The report was presented and the following was especially noted: S-100 readiness is very different globally. Only 53% of the MS, who responded to the IGIF Matrix, are ready to start production of S-100 products in 2026, but it was only 43% of the IHO MS that replied to the WENDWG survey (Readiness Status of RHCs for the provision of S-1xx datasets by 2026 per Charting Region) WENDWG CI 1/2023..

PRIMAR Advisory Committee have decided that SENC delivery will not be allowed for S-100 services. This decision has now caused a reaction from UK that has sent a paper opposing to this decision to the upcoming HSSC meeting in May.

All MS are recommended to internally discuss and decide how S-128 will be compiled and distributed (MS or RENC). Even if we let the RENCs handle S-128 there is still a need for the MS S-100 coordinator to inform other S-100 based standards what S-128 is and to make sure the standards they develop will be included in the S-128 "One Stop Shop".

D.3 Status Seabed 2030 / CSB / GEBCO

Docs:

- [Status GEBCO-SB2030-CSB](#)

The presentation was made by Evert Flier (NO) and Jamie McMichael-Phillips (SEABED2030) showing the main results and goals for the initiative and also describes the present working tasks and the methods used by GEBCO.

D.3.1 Status of potentially signing a MoU with Seabed2030 (Action NHC 66/11)

Docs:

- [Draft MoU between GEBCO-SEABED2030](#)

The signing procedure was arranged and performed during the meeting. A press release will be issued from SEABED2030 and we set a common deadline to 14:00 Central European time, April 15, for release of the press releases.

Decision 18: The Commission unanimously decided to sign the MoU between NHC and the SEABED2030 initiative to acknowledge the importance of bathymetry and knowledge of the oceans and contributing to the GEBCO DTM.

D.4 Report of Baltic Sea e-Nav project

Docs:

- [NHC67_D.3_ Baltic Sea e-Nav_report](#)

The report was presented and both Norway and Island are interested to follow the reporting from the project.

Action No19: It was decided that Sweden will report to the NHC on the status of the "Baltic Sea e-Nav project" during the project period.



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D.5 NHC IHR Report

Docs:

- [NHC67_2024_D.5_EN_IHR_Report](#)

DK presented the report and informed NHC that July 31 is the deadline to send articles for the next IHR November issue.

SE informed that they have sent a shorter note to be published regarding the Baltic Sea e-Nav project.

D6. IHO-EU Network WG Report

Docs:

- [IHO-EU Network WG presentation](#)

The report was given by Sweden as representative of the NHC. DG-Mare is very glad for the contributions to EMODnet that comes from IHO MS. Next meeting will be in 30-31 May 2024 in Svendborg, Denmark, and virtual participation at some level will be arranged.

Sweden also informed about that there might be a new call for tendering for EMODnet Bathymetry upcoming during May-June.

Any other business

Election of new Chair and Vice-Chair

Mr. Rainer Mustaniemi (FI) was selected as the new NHC Chair and Mr. Jarmo Mäkinen (FI) as Vice Chair of the NHC

Place and date of NHC68

The next meeting will be held in Helsinki, Finland 1-3 April 2025

Review of NHC67 List of Actions

The Meeting secretary presented the list of actions and a few amendments and clarifications was made.

Closing of the meeting

The outgoing Chair thanked everyone for their participation and good discussions during these meeting days and declared the meeting formally closed.