

# Minutes of the Nordic Chart Production Expert Group (NCPEG 17)

Stavanger 5-6 October 2017

Welcome by Kjetil.

Participants presenting themselves

## 1. Introduction of participants

From left to right →

- 1 Árni Þór Vésteinsson, Iceland
- 2 Níels Bjarki Finsen, Iceland
- 3 Teppo Kuusijärvi, Finland
- 4 Peter Ladegaard Sørensen, Denmark
- 5 Kjetil Wirak, Norway
- 6 Lisa Johansson, Sweden
- 7 Anita Bodin, Sweden
- 8 Inger Tellefsen, Norway
- 9 Marianne Raahauge Karlsson, Denmark  
Gjermund Bakken, Norway (Friday only)



## 2. Summary and Action Points from the 2015 meeting

### List of actions

Action No	NCPEG Action	Dele- gate	Notes	Status: N = Not started O = Ongoing C = Completed
<u>15-01</u>	DK to describe why no Greenlandic ENC's have been produced in ESRI	DK	Some have now	Completed
<u>15-02</u>	NO to contact North Sea INT chart coordinating group regarding continuous INT status on NO chart 305	NO	305 is now a national chart	Completed
<u>15-03</u>	DK to consider applying for INT status on Greenlandic charts	DK	No INT chart for Greenland	Ongoing
<u>15-04</u>	NO to provide guidance from INT chart coordinators of the NSHC and the BSHC	NO	Meeting in Monaco	Completed

Action No	NCPEG Action	Dele- gate	Notes	Status: N = Not started O = Ongoing C = Completed
	on the need of INT charts in the Arctic region			
<u>15-05</u>	ALL to conduct quality control on own charts adopted and published by the UKHO	All	SE, FI, IS are not quality controlling UK adopted charts.	Completed
<u>15-06</u>	SE to send FI information on contact person concerning new Baltic Sea datum and issues regarding this (e.g. vertical clearance under bridges)	SE	Meetings SE and FI	Completed
<u>15-07</u>	DK to send information to IS regarding project on the depiction of glacial water streams in Greenlandic charts	DK	-	Completed
<u>15-08 (ref action 13-05)</u>	For the next meeting, more specific topics to be put forward before the meeting, so HOs can investigate and present their views and thoughts	All	Already in TOR	Ongoing

### Review and corrections to the TOR

1. M-4 to be changed to S-4
2. 4B and 4B to be changed to changed to 4B and 4C.  
4D To be changed to: Normally the Chair should be on the HO responsible for the current meeting

Kjetil pointed at NHC 60 where NO is to include experience on Print on Demand solutions in the agenda for this NCPEG meeting.

## 3. Current practices of producing charts and publ. in the Nordic HOs

A brief introduction of each HO was given:

- A brief summary, According to TORs
- News since 2015
- Data management
- Automation
- Future of Paper Charts
- Print on Demand

### 2017 Info Norway:

There has not been any big changes in chart production since 2015. New NO harbour chart 455 sent to the ICA received a 2nd place in the chart competition. The

Ref. document  
«NO Status  
2017.pdf»

other Nordic participants were not familiar with the meetings and chart competitions of the International Cartographic Association ICA.

NO organization and working tasks presented.

Milestone November 2015.

POD every 14 days.

Challenges: land information, place names, T- and P- messages.

Surveyed corridors with new soundings presented in new arctic chart 541 north of Svalbard.

Automation: Focus is on ENC's. Not any changing of systems in the years to come.

Types of paper to be used by retailers are thoroughly checked by NHS before chosen.

Data flow: CARIS is used on the survey ships, and GeoMedia in Hybas. Restricted. Primary database, C-map for ENC production and chart production.

From survey to full chart takes approximately 5 years. Small areas ordered by the coastal directorate takes around 45 days.

### 2017 Info Iceland:

Staff: Coast guard 190. Hydrographic Department: 8.

Surveying areas around Iceland. Different length of survey seasons the last years.

The Icelandic EEZ is 754.000 km<sup>2</sup>. The project to fully survey the EEZ in the next 10-15 years has started.

Charts: 6-8 new editions the last 3 years: 6 (2015), 8 (2016), 4 (2017) 2 more to be finished.

Notices to Mariners (NM) 20 (2015), 18 (2016), 37 (2017 so far).

Solutions for databases to be decided.

Plan to send one person to do a training course at Skilltrade in Holland in 2018.

POD: 39 Harbour plans at scale 1:10 000 are printed on paper size A3 in-house and updated according to NMs.

Declining numbers of paper charts sold.

Selling more ENC's than paper charts

New Baseline (for Territorial Sea, Contiguous Zone and EEZ). Many charts have to be updated.

Glacial rivers in an area south of Vatnajökull: Here there are areas not able to be shown on charts using INT symbolization S4 INT1. In Icelandic charts darker blue colour are used to show these areas. Documentation will be sent to NCWG to show the need of new symbols in S4 and INT 1.

### 2017 Info Denmark:

2015 Relocation to Aalborg and new organization of Geodatastyrelsen.

Two hydrographic offices: 1) Hydrographic Office - Denmark and 2) Hydrographic Office – Arctic.

Denmark 63 charts, Greenland 94 charts, Faroes 8 charts.

Education: Courses by UKHO, IIC and CARIS

Ref. document  
«IS Status  
2017.pdf»

Ref. document  
«DK Status  
2017.pdf»

### Challenges:

- Lack of knowledge
- New production system for Danish waters, ESRI or CARIS
- Two hydrographic offices

### 2017 Info Finland:

Organization change in progress. Traffic Safety Agency (TRAFI) and Finnish Communications regulatory Authority (FICORA) and the Finnish Transport Agency's public authorities will move into a new agency in the beginning of 2019.

Ref. document «FI  
Status 2017.pdf»

The FTA will continue to act as the agency responsible for the transport network.

Three options for positioning of Hydrographic office:

1. New Agency
2. Stay in FTA
3. Go into Meritaito

Chart production system renewal project started in 2014. Continued through 2015 and 2016 with evaluations and investigations.

Implementation project started in January 2017.

Call for tender:

Only 2 companies sent a tender: Teledyne/CARIS and ESRI Finland Oy. CARIS had the highest score.

Renewal of Survey Data Management System (MERTA) started 2016. Deployment 1 February 2018. System will provide seamless BAG database for several needs of the customers.

Challenges in the "Chart production system renewal project":

- Data migration
- Interaction with navaid registry and source data management system
- How to handle data in different vertical datums in the same area

Benefits of the new chart production system:

- Same company for survey data and chart data management systems
- Better tools for creating EN and ER products.
- No locking of features
- Faster data processing from BAG to chart with automatic (improved) tools for contour generation and sounding selections
- Management of system lifecycle and decreased number of extensions comparing to current environment
- System deployment and capability to produce S101 ENC's

Portfolio 2025:

How to get out the different products. Many of the products are still in the planning state.

Three main processes in the future:

- Isolated renewal
- Chart data handling
- Products

The processes are not ready in place but are mainly to be as described here.

**Change of vertical datum** (will last at least 5 years). Change of vertical datum will effect to bathymetry, maximum authorized drafts of fairways and swept areas by reducing z-values from 20cm to 70cm depending on the land uplift. From Mean Sea Level to geodetic datum BSCD (Baltic Sea chart datum).

Project plan will be ready at end of December 2017

**Print On Demand.** Paper charts are maintained due to NM excluding inland charts and chart folios but Finland does not issue reprints.

### 2017 Info Sweden:

Going through the Swedish Maritime Organization SMA.

New general director.

The Hydrographic Department is called Sjögeografi.

The new production system did not result in change of organization.

Going through the production line ROS: From surveying, through DIS (Depth database) (classified) Chart database to different products.

117 paper charts, 800 pages of charts

Selling 25 000 charts every year, now quite stable.

Ref. document  
«SE Status.pdf»

## 4. Sweden inform about:

### 1) The-changing-system project, 2) Migration of ENC's and Charts

CHAMPS: Chart Management and production system.

Why? Old software not maintained.

Retirements and in-house developed production system.

Old data.

Planning started in 2014.

Key person retires late 2016.

To finish in year 202X.

Going through

implementation of new system:

Still a lot of work on configuration.

Added functionality /development:

- Cartography in source
- Recycling of cartography
- Raster tile products
- Small craft charts

New\_CHAMPS\_Carto  
grapy\_Migration.pdf

- Single sign-on
- HPD-OC Object Catalogue

Project/Line organization:

- Key persons involved in implementation project
- Business as usual in line organization
- All time high new editions
- Scale down on other project for instance change of datum
- Workshops
- Communication
- Project not ended at PSU
- Cartography Migration Project:

Raster based map tiles:

More than 5000 raster tiles. Migration starts with sector lights. Full migration started January 2017

Success factors:

- Recourses available at all stages: not fulfilled

Some old Swedish symbols used Many symbols have to be shown in smaller (other) size than the INT1 (S4) size. Fonts imported. Line and area symbolization. Annotation rules.

Cartography Migration challenges:

Resources:

- Establish / Understand 1:1
- Cartographic experience
- S57 experience
- Ongoing configuration
- Ongoing DB updates
- New concept cartography in source

**Status cartography migration:**

117 paper charts: 95 charts started, 1 chart printed

One of the changes seen in the 'new look' of the paper chart is the colouring of light sectors, and the lines used for showing dredged areas are altered too.

## 5. MIA - Marine Infrastructure Department (Geir Arne H. Nordhus)

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Marine Spatial Management Tool.

Infrastructure = surveys.

Many actors: Kartverket, Kystverket, Miljøverndepartementet and others

Users: Politicians, you, me, etc.

Areas: North Sea, Skagerrak, Norwegian Sea, Barents Sea, Lofoten.

Web client = Adaptive

Live demonstration of the tool

All information is streamed so a removal of a platform in the North Sea will immediately be updated in the online chart.

NHS is the Geo data coordinator in Norway and that makes it easier to get the data owners to contribute to the project.

## 6. Iceland: Progress with CARIS PCC and BASE Ed.

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A brief summary on the implementation of CARIS PCC and CARIS BASE Edition.

March 2016 – sept 2017

'Slow cooking' - Training course in March 2016 – Experimenting, testing and interaction with CARIS help desk.

Most problems solved. WMS not working in PCC 2.1 and still to be solved by CARIS.

Some lessons learned:

- Select carefully when importing features into PCC
- Do not import everything
- Clean the GIS file before import to PCC
- Spend time on preparations!

Have converted about 50 charts for the moment. Still not published, but they are in PCC.

Where Iceland is today: 2/3 of the charts are in PCC. Next steps in PCC - work on the coastal charts and transit charts (the remaining 1/3).

Progress with CARIS  
PCC and BASE Ed.pdf

## 7. Planning and prioritizing (Torstein Ådland)

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In NHS we have a huge mountain of data.

Blue economy and growing demand and customer need of data.

Large underreporting of accidents

Production management system, CRM, Future development

Showed the full overview of customer demands and how they are treated by NHS.

Hoping to be able to buy a customized system that are suitable for our need

Planning.pdf

## 8. Digital Norwegian Pilot (Tobias Pfeifer)

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Past and future of the Norwegian Sailing Directions.

Currently in a test version for internal use.

Updated place names in the pilot are extracted from the Central Place name register.

Challenge how much information you want to show compared to what space you have.

The information in the books and the pilot harbor plans are supplementary information to be used together with a navigational chart and is not for navigation without the chart.

Norwegian-  
pilotguide.pdf

There is a plan to have an English version.  
 Planning to finish seven harbors in western Norway in November 2017.  
 17 harbors to be ready in October 2018.

## 9. Mareano (Hanne Hodnesdal)

Mareano.pdf

Mapping seabed in Norwegian waters. Different types of surveys. One year ahead of other surveys; biological, chemical and geological surveys. Also collecting information of location of gas coming up from the seabed. Two vessels are now operating north of Svalbard. MAREANO is a fully governmental founded project. Tests performed by unmanned vessels. Wrecks are located, but are not a subject for the project.

## 10. Denmark: Education of new staff?

DK presented challenges with new staff since they moved to Aalborg.  
 Difficult to get the UKHO to come to Denmark for education and training of new Danish staff.

### Sweden

Sweden have 9 new colleagues that started on the same day. Basic training. A complete training program over 9 weeks.

- Object catalogue
- First S-57
- Cartography
- Computer room booked for 7 weeks.
- Internal about web security.
- Week 7 and 8 working/training in HPD.
- Background of new staff: from the university, one Cartography doctor, GIS engineers.
- ROS is a plan used in the Swedish hydrographic organization.
- Sweden do not have plans of outsourcing

### Finland

No new recruits for 5 years except trainees. Existing framework agreement with three companies provide consultant work in Quality Assurance, Bathymetry renewal and paper chart production. The process managers mostly organize training in-house.

Hydrography course every second year in Aalto University.

### Norway

Not many new people in the paper chart group the last 5 years.  
 ENC group have more new.  
 Training plan in the ENC group.  
 Real job training. On-the-job training needs a much controls and corrections.  
 One of the NHS training plans shown.

Mal\_Opplæringsplan\_E  
 NC-gruppa.docx  
 Mal\_Opplæringsplan\_P  
 apirkartgruppa.docx

**Norway: Map of roles (Gjermund)**

Section Handbook Chart Production Section (KPS).

“Kompetansekrav” (Demand for competence) to all positions in the section.

Seksjonshåndbok KART-  
seksjonen.docx

**Iceland**

In-house training.

New people sent to UKHO for training.

Not any form of organized training.

Looking for ways to train new staff.

New staff are not often continuing for years in the same business. People are changing jobs more often than before.

**11. Any other business AOB**Iceland:

- Why do we make nautical charts? SOLAS agreement give the regulations for making nautical charts.
- Consider how to help each other in training of new staff
- Keep communicating on training and education and keep it alive between meetings by email.

**12. Summery – Closing of meeting, next meeting**

Actions list reviewed and fulfilled:

**List of actions**

(Completed actions removed)

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<u>17-01</u>	TOR to be updated and forwarded to NHC for approving	<b>NO</b>	(Next NHC in Sweden April 2018)	<b>Not started</b>
<u>17-02</u>	Give feedback on Education project and future plans	<b>SE</b>	-	<b>Not started (end 2017)</b>

<u>17-03</u>	Report from the 2017 NCPEG meeting sent to all and to NHC	<b>NO</b>	-	
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Reminder: For the coming meetings IS requests an earlier deliverance of items for the agenda for better preparation.

Next meeting will be in **Sweden in 2019**.

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