



Miljøministeriet  
Geodatastyrelsen

# NHC 59th meeting

Agenda item NHC59-9A

April 14-15, 2015

Reykjavik - Iceland



**New national ENC service  
for leisure craft users**

# The aim of the new ENC service

The aim of the new ENC service is to enhance safety at sea among leisure craft mariners by providing an official alternative to paper charts as the primary means of navigation.

The new ENC service should be seen as an official alternative to our official paper charts for the leisure market. Using an ECS system will fulfil the requirement and therefore the use of ECDIS is not required for the leisure market.

The new ENC service should be seen as an offer/possibility for the leisure market not a requirement.

## Availability

We will make the service available to the open market, and expect that it will be taken up by a number of qualified distributors.

To be a qualified distributor you have to fulfil some predefined requirements e.g., the establishment of a quality assurance system and be able to pass an audit.





Danish Ministry of the Environment  
National Survey and Cadastre



Logo used on app at the iOS website

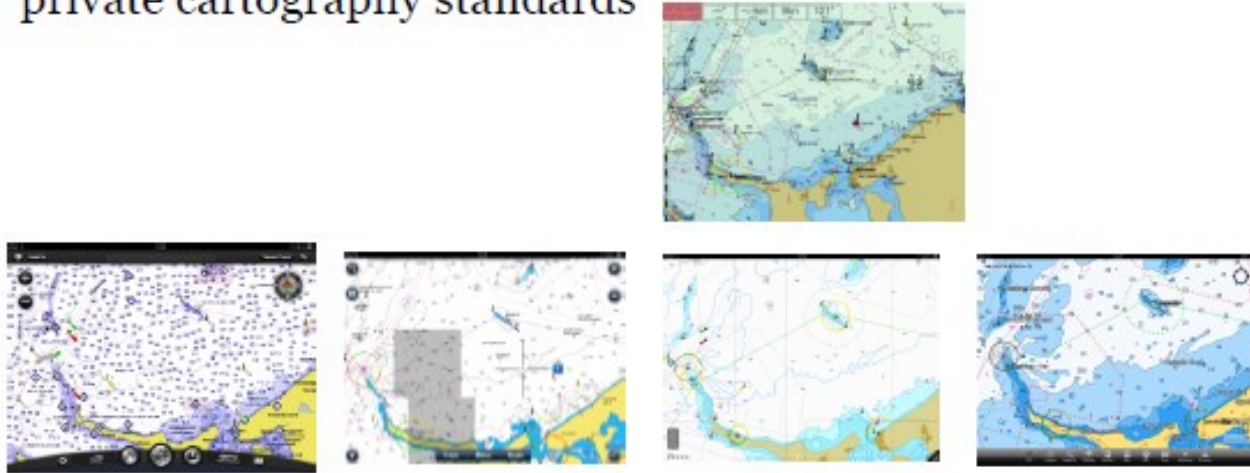


Danish Ministry  
of the Environment  
Danish Geodata Agency



# General

- Comparing the IHO S52 data presentation against existing private cartography standards



- Evaluate the weekly chart corrections to the paper charts against the monthly updating of the Danish ENC folios.
- Two questionnaires to be filled to document the experience of the testpilots from their participation.



# Our pilot project

Our decision to launch the new leisure market ENC service draws from our recent experience with a pilot project arranged cooperatively by DGA, the Danish Maritime Authority, the Swedish Maritime Administration and the Swedish private company Seapilot AB.

The pilot project tested an ENC service for leisure craft navigation and involved 132 test subjects, all of whom were experienced leisure craft mariners.

The project tested the use of updated Danish and Swedish ENCs aboard the participating leisure craft. The ENCs were displayed on a tablet through a software solution developed by the participating Swedish company, and were used as the primary aid for navigation.

Regular updates to the ENCs online were a perfunctory element of the technical system.

The service and the technical setup proved to be a success in the pilot project.



# Considerations with regards to the new ENC service

- National regulations and guidelines will not be revised even though they do not include any text regarding the use of ECS with official ENCs as primary means for navigation.
- No current recommendations regarding back-up arrangement if a ECS with official ENCs is applied as primary means of navigation. ENC will be available for 2 ECS on board the leisure craft.
- European standard EN 62376 with additional national requirements to be applied if the ECS is used as primary means of navigation.
- Certification of ECS software - Prerequisite that ECS software have been certified by a notified body.
- IHO S63 encryption / SENC encryption.
- Frequency of updates of the Danish ENCs
- National ENC folios and pricing



# The implementation plan

The initiative about the new ENC service will be implemented in close cooperation with the Danish Maritime Authority.

We have been in contact with the leisure craft organizations in Denmark and they support the initiative about the new ENC service.

The new ENC service will be implemented in close cooperation with the Danish leisure craft organizations.

In the second half of 2015 we will initiate a dialogue with current and potential business partners and invite them to start an application process with the aim of become distributors of the new ENC service.

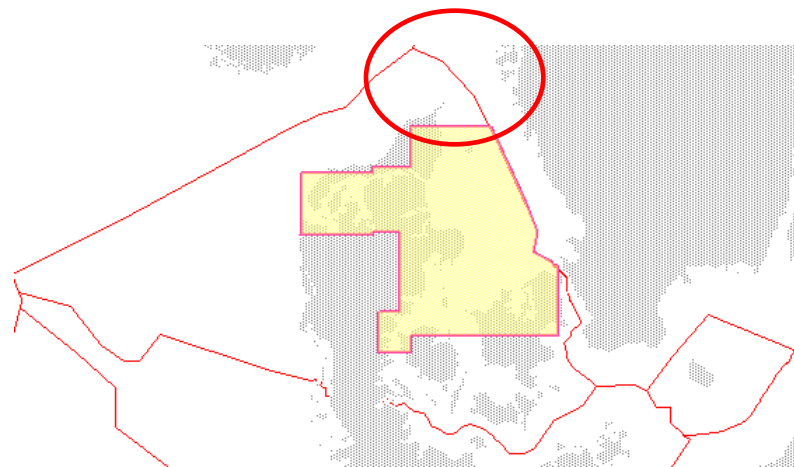
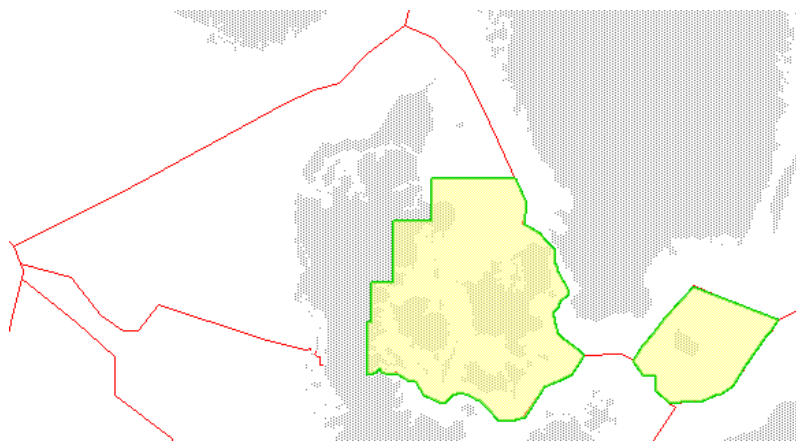
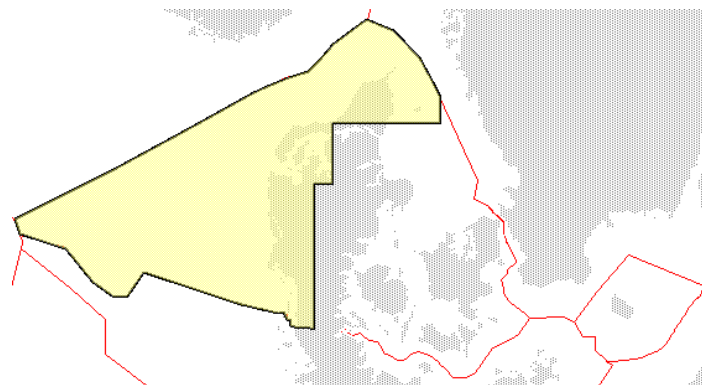
The new Danish ENC should be operational from the beginning of 2016.





# The coverage of the new ENC service

The 3 areas are expected to cover all relevant ENC for the area.





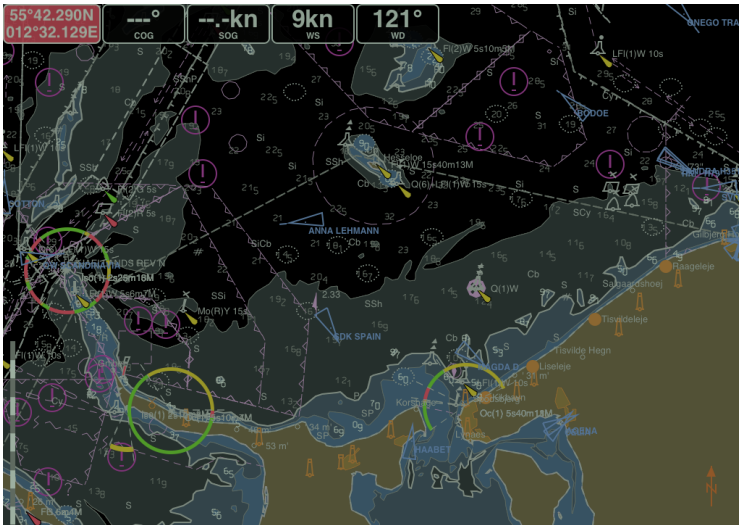
# IHO standard: S52 cartography



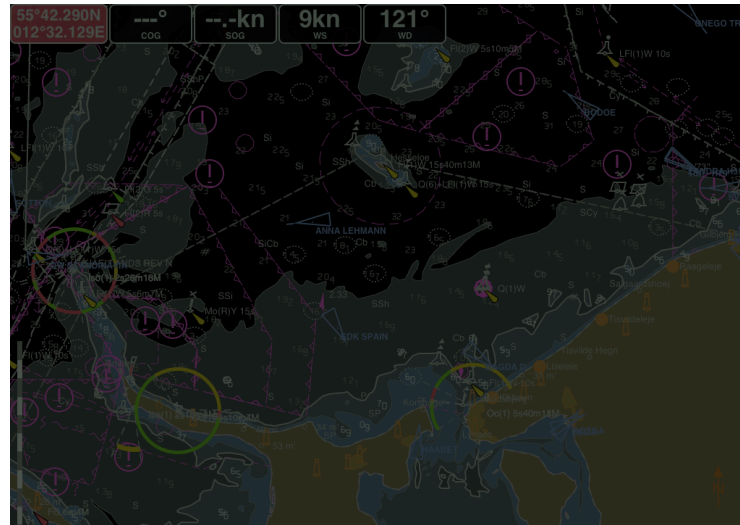
Day



Dusk



Night



# New possibilities for the distributors

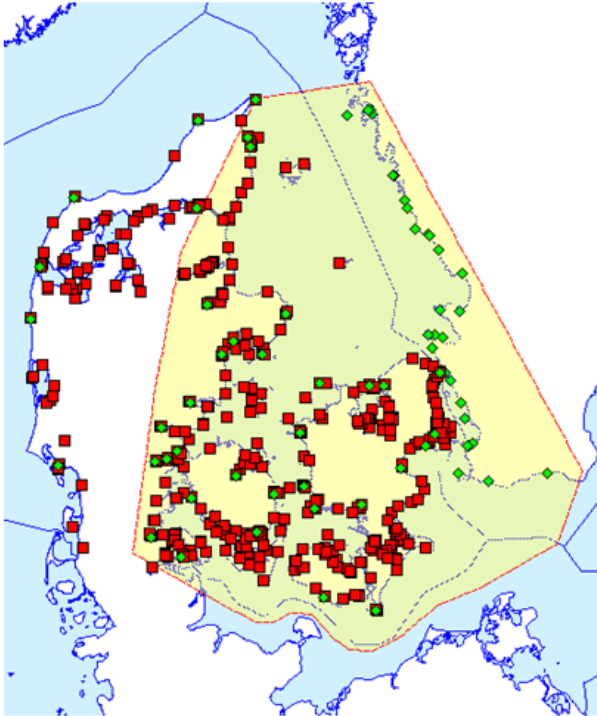
## AIS data



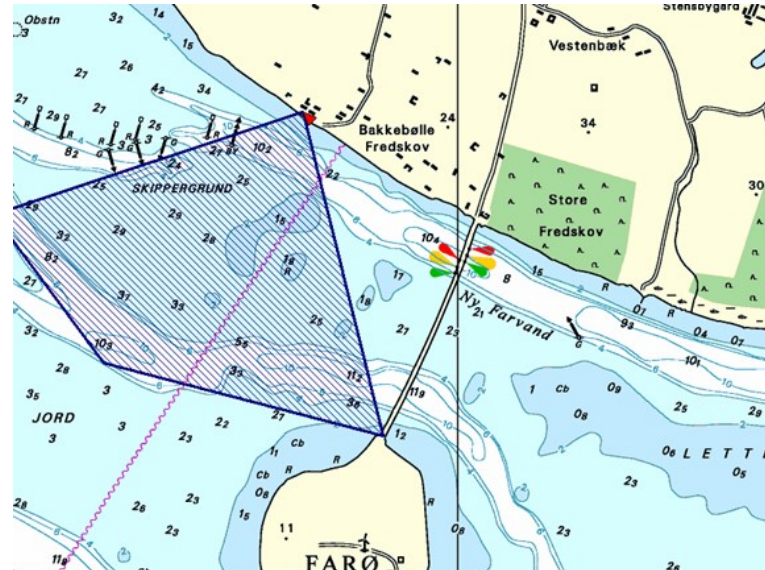
## Weather data



# Missing elements for the new Danish ENC service



More than 200 harbour plans




22 military- and 49 civilian shooting areas at sea have to be incorporated



# Planned requirement to the distributor

standard IEC 62376



Dansk standard

**DS/EN 62376**

1. udgave  
2012-04-10

**Udstyr og systemer til maritim navigation og radiokommunikation – Elektronisk kortsystem (ECS) – Krav til drift og ydeevne, prøvningsmetoder og krævede prøvningsresultater**

Maritime navigation and radiocommunication equipment and systems – Electronic chart system (ECS) – Operational and performance requirements, methods of testing and required test results



# Planned requirement to the distributor

## Statutory declaration

The undersigned Company hereby declares, that its navigational software solution intended to be used in combination with the ENC Chart Packages from the Danish Geodata Agency targeted the leisure craft market:

- Fully meets the requirements specified in the European standard “DS/EN62376 Maritime navigation and radio communication equipment and systems – Electronic chart system (ECS) – Operational and performance requirements, methods of testing and required test results. Edition 01, 2012-04-10”.
- The developed software solution enables to distribute encrypted ENC data automatically from the Company’s internal server to the End-users marine equipment when internet connectivity is available.
- The encrypted ENC data will be identical in content and unchanged in format when loaded and decrypted into the End-users marine equipment.
- The software solution will at any time clearly and visibly show the End-user the latest date the ENC data package has been updated.
- The software solution has not at the date of the signing of this declaration been certified by a Notified Body but the Company will aim to have such a certification achieved as soon as possible.

\_\_\_\_\_

Place

\_\_\_\_\_

Date

\_\_\_\_\_

Name of Company

\_\_\_\_\_

Signature



# Planned requirement to the distributor

## Some examples from the EULA

- Read this agreement before downloading the ENC packages from the Danish Geodata Agency (DGA) together with the use of the software produced by [distributor]. This is a legal agreement between you and DGA and [distributor]. By using this Software and the ordered ENC package, you are consenting to the terms of this Agreement. The Agreement between you and DGA is governed by Danish law.

You may not proceed to use the software and the ordered ENC package unless you first agree, affirmatively indicating your acceptance of this Agreement.

### **Uses permitted:**

1. *You may use the ENC package on your hardware device as a primary means to navigation. However you as the captain are as well expected to prove proper seamanship regarding the actual wind and weather conditions besides other activities in the water around the boat.*
2. *This Agreement further gives you the rights to use the ENC package within the ordered subscription period with updates that may be available from [Distributor] electronically store on a weekly basis.*



## Planned requirement to the distributor

4. *You can make use of two (2) working copies of the ENC Service on two devices owned by you provided under the ENC Service where one of the working copies may be used for a backup arrangement by your own choice.*
5. *“The ENC Service only meets the Danish national regulations if it is kept up to date on a weekly basis and is used with this Software and have a suitable backup arrangement on the vessel.”*





# Draft overview of our maritime “products” from 2016

	Segment 1	Segment 2	Segment 3
<b>Users</b>	SOLAS ships, “Commercial” ships, Segment 2 and 3	Leisure crafts (below 24 meters)	For non navigation
<b>Digital data</b>	ENC provided by IC-ENC – VAR and ECDIS	New ENC service provided by certified distributors	Digital data provided by GST
<b>Analog data</b>	Official paper charts provided by GST and UKHO	Official paper charts for the leisure market provided by certified distributors	-

