

NATIONAL REPORT OF SWEDEN

Executive summary

This report gives a summary of the main activities within the Swedish Hydrographic Office since the last report given at the 58th NHC meeting in Helsinki August 2014.

1. Hydrographic Office

The Swedish Hydrographic Office is a part of the Swedish Maritime Administration which also consist of other services e.g. Pilotage, Fairway Service, Icebreaking, SAR and Maritime Traffic Information.

At the time of compiling this report 114 persons are employed by the Hydrographic Office including the hydrographic survey personnel.

The operations are certified by SP (SP Technical Research Institute of Sweden) in accordance with ISO 9001 and from 2014 also certified in accordance with the environmental standards ISO 14001. The quality management system has been expanded to all parts of the operations and supporting activities within the Swedish Maritime Administration .

The Hydrographic Office organisational structure has been stable and no management positions have changed during the period.

2. Surveys

Most Swedish waters are surveyed to some degree over the years. The long term objective is that all Swedish waters should be surveyed in accordance with the IHO standard S-44 implemented as a common Finnish-Swedish realisation named FSIS-44. This standard is achieved in most fairways used by SOLAS vessels.

Surveys and re-surveys now and in the coming years are focused on fairway areas in the *SMA Safe Seaways concept* (Säkra sjövägar), which is a part of the HELCOM Cat I and II areas Hydrographic re-Survey plan for the Baltic Sea. During 2012 SMA made a total review of the areas used by commercial traffic, as part of the work being done within the BSHC HELCOM Re-survey Monitoring Working Group. After the review Cat I and II now encompasses over 120 000 km² out of totally 165 000 km² within the Swedish EEZ.

The previous EU TEN-T project Mona Lisa that was partly financing surveys in Sweden and Finland 2011-13 was completed in 2013. A new project application has been submitted to the EU-commission CEF programme (CEF – Connecting Europe Facility) as part of a

new project called FAMOS. Within the project it is planned and being prepared for part financing of surveys from 2014 until 2020. In 2014 a total amount of 5 255 km² were surveyed in Swedish waters, 5 241 km² by SMA vessels and 15 km² by external hydrographic survey companies ordered by other parties such as harbours or local authorities. See also image below. This means that 48% of Swedish waters are surveyed in accordance with FSIS-44.



Fig 1 SMA Survey vessels 2014



Fig 2 Hydrographic Surveys performed 2014

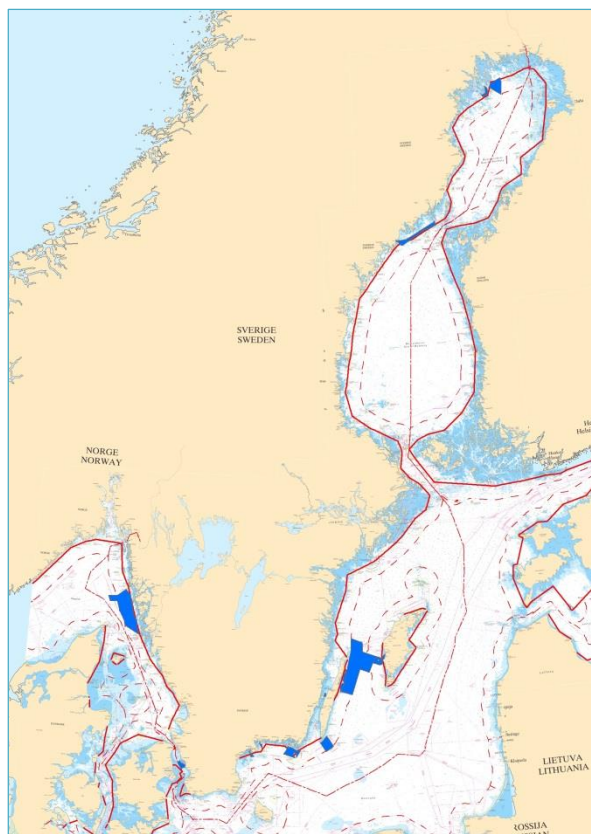


Fig 3 Planned Surveys 2015

Depth Database



Fig 4 Populated 500m grid cells in Db, March 2015

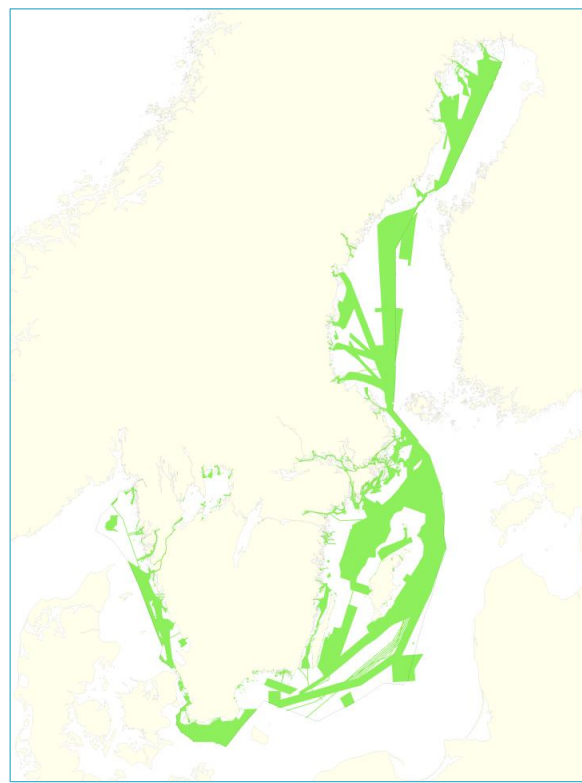


Fig 5 Data that fulfills FSIS-44 in March 2015

3. New charts and updates

The Swedish paper chart portfolio consists of approximately 120 charts and 16 series of charts for small craft. Special charts, tailored to the customer are also available as well as a service to provide S-57 or raster data to the end user service providers. For convenient S-57 deliveries the Primar service “GeoViewer” is used.

A chart index showing Swedish charts is available at:

<http://www.sjofartsverket.se/sv/Snabblankar/Kartviewers/Se-pa-sjokort-/>

The quality of depth data is also presented at the SMA external website:

<http://www.sjofartsverket.se/Snabblankar/Kartviewers/Sjofartsverkets-karttjanster1/>

Since the last NHC meeting in August 2014 no new charts have been issued. Production of new Harbour ENC's will be issued in May 2015 covering the outer fairway to Stockholm harbour, where previous only Approach ENC's have been available. More detailed ENC's have been required since there is an increased amount of cruise ships every year to Stockholm. The area will only be available as an ENC product and not as paper charts and will connect to already existing Harbour ENC's in the inner fairway to Stockholm.

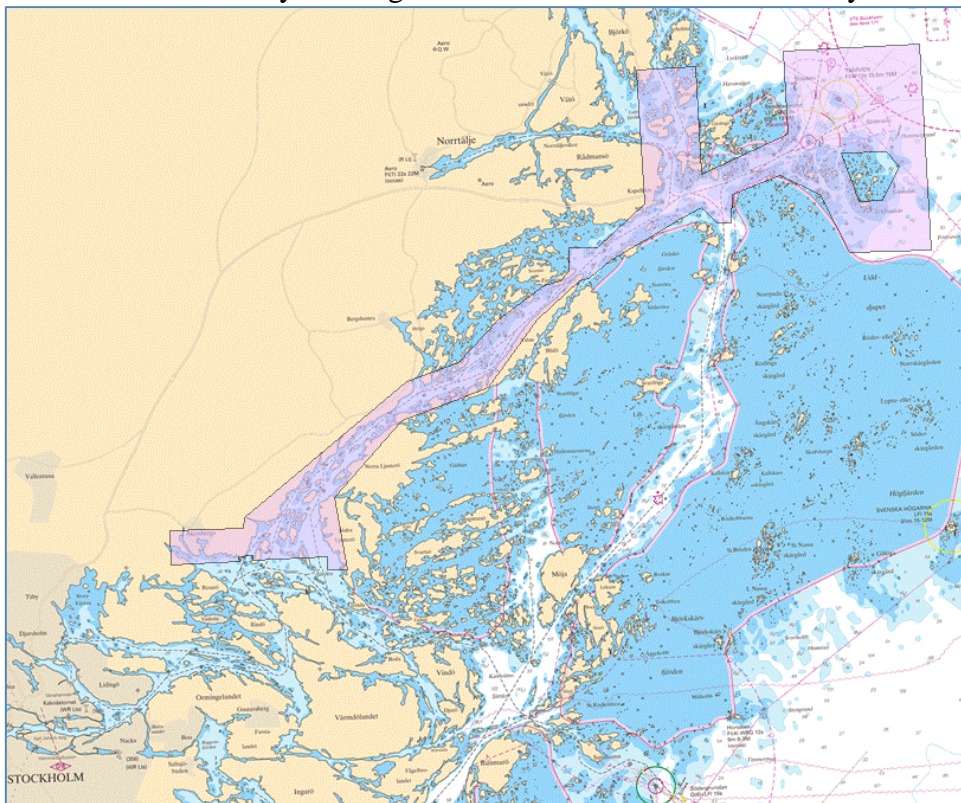


Fig 6 New Harbour ENC's will be issued in May 2015 as a consequence of the increased amount of cruise ships to Stockholm. The inner fairway and the harbour is already available as Harbour and Berthing ENC's.

The sales of Swedish ENC's for the last three years are shown in the figures below. The number of ENC's are decreasing as a result of the new service "Pay as you Sail". However, the number of ENC users are increasing with approx. 8% yearly.

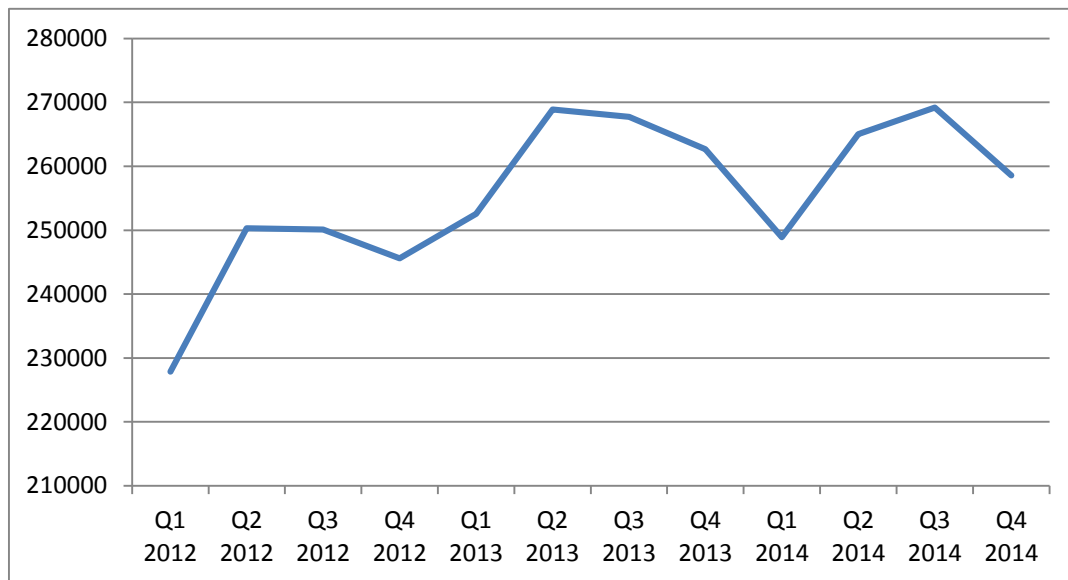


Fig 7 Number of Swedish ENC's.

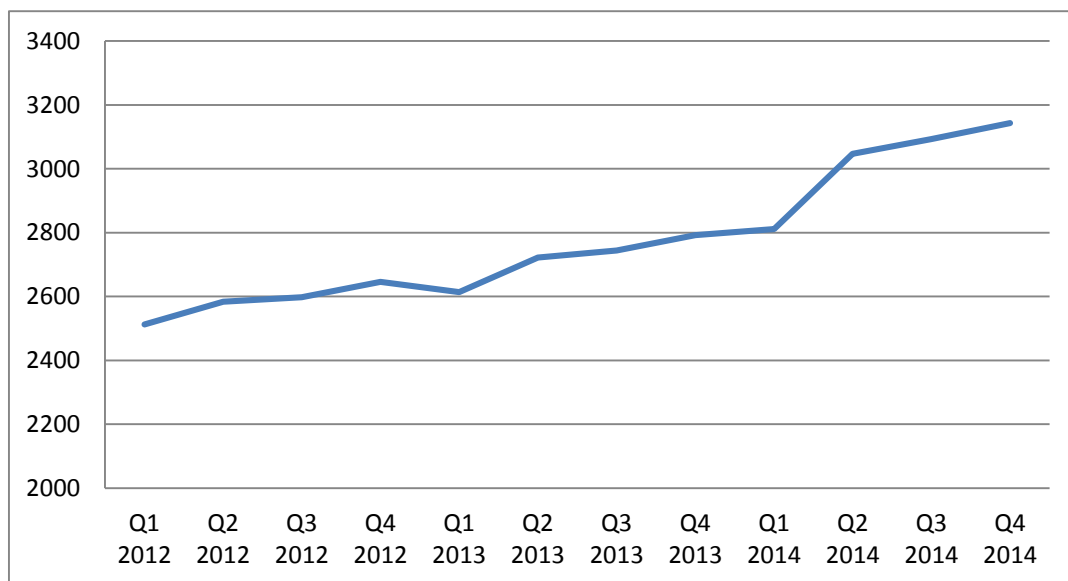


Fig 8 Number of Swedish ENC users.

| Usage Band | Compilation Scale | No of SE ENC's |
|-------------------|--------------------------|-----------------------|
| 2 General | 1:350 000 – 1:4 999 999 | 11 |
| 3 Coastal | 1:90 000 – 1:349 999 | 81 |
| 4 Approach | 1:22 000 – 1:89 999 | 224 |
| 5 Harbour | 1:4 000 – 1:21 999 | 147 |
| 6 Berthing | >1:4 000 | 102 |
| | | 565 |

Small Craft Charts

The sales of Swedish small craft charts are very important for our net result. For the 2015 season we have Ostkusten in a New Edition.

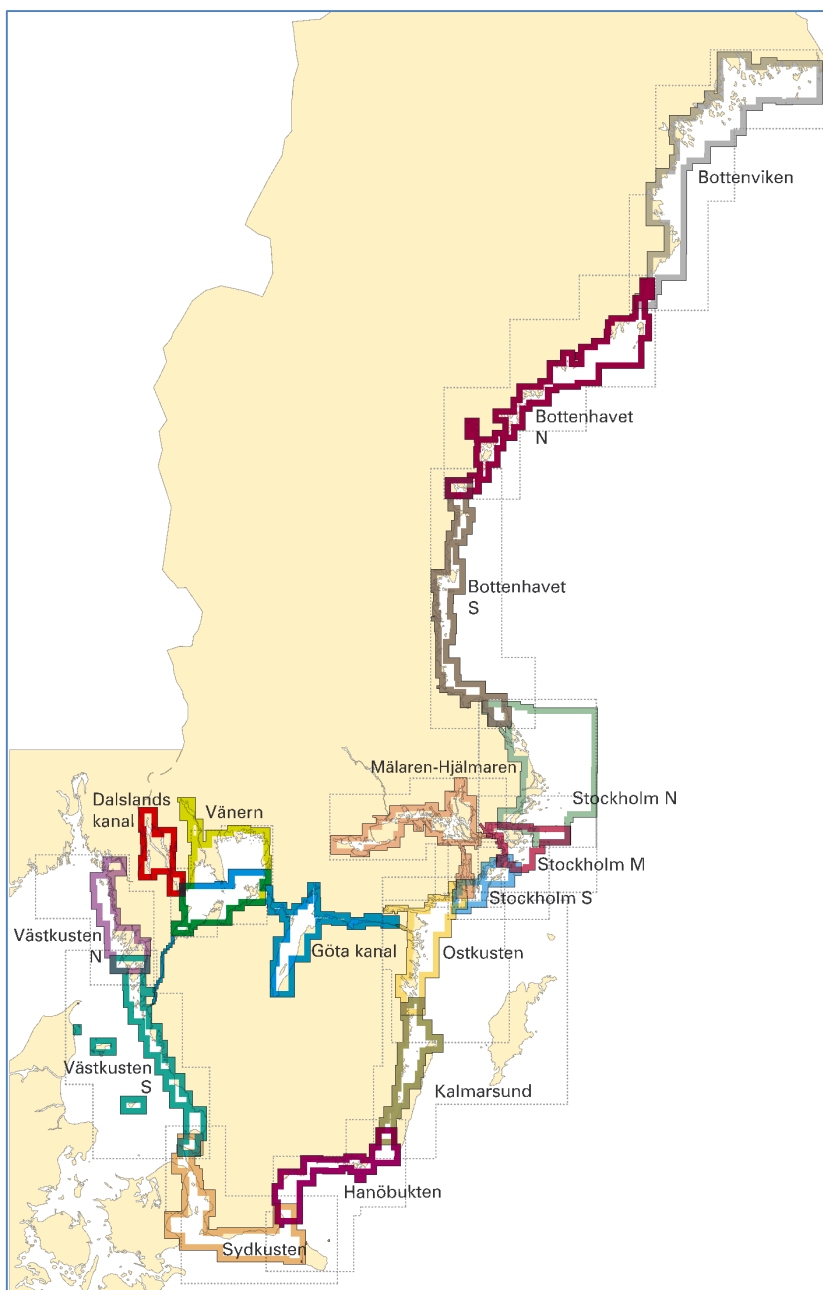


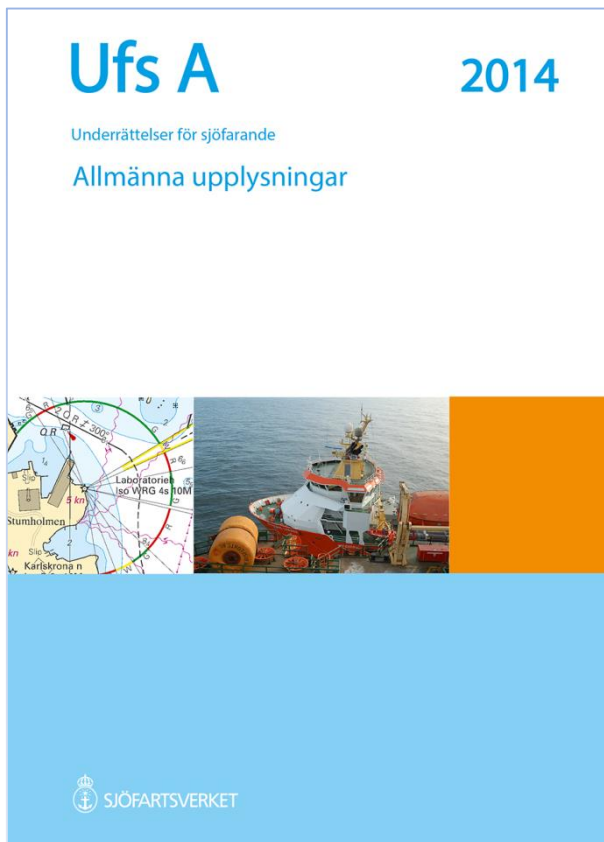
Fig 10 Small craft chart series in Sweden

4. New publications and updates

The Swedish Notices to Mariners (Ufs) are available in the following ways:

1. A daily updated database in which NtM information can be searched in many different ways, e.g. all notices published for a certain area published during a certain period of time.
2. Each week one Swedish and one English PDF-file in A4 format is published on the website www.sjofartsverket.se/ufs and www.sjofartsverket.se/ntm respectively.

The Swedish Chart Catalogue and the small but comprehensive booklet Ufs A are both published yearly.



5. MSI

All Swedish navigational warnings are drafted and broadcasted by the station **MSI SWEDEN**. This station also performs the NAVTEX broadcasting of MSI for the entire Baltic Sea with exception of area “U”, which is covered by Tallin Radio, see the Navtex map below.

MSI SWEDEN is co-located with SWEDEN TRAFFIC and VTS EASTCOAST in Södertälje.

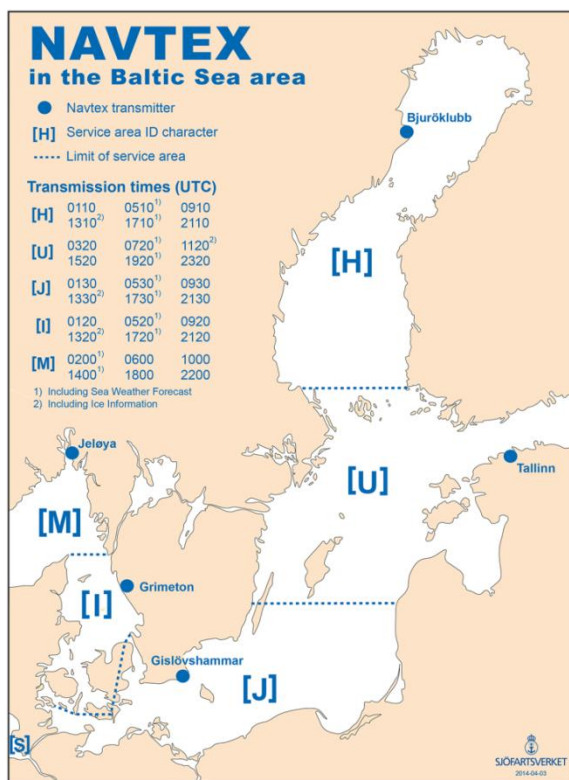
The station is manned H24 all days of the year and may be contacted as follows:

Tel: +46 771 63 06 85

E-mail: msi@sjofartsverket.se

VHF: Call MSI SWEDEN on relevant VHF Channel

The role “Baltic Sea Sub-area Coordinator”, with the responsibility of international coordination of MSI in the Baltic Sea area, is maintained by the NtM department at the Hydrographic Office in Norrköping.



The table below shows the number of Navigational Warnings that have been transmitted on Navtex in the Baltic sea area over the past five years.

| Nation | 2010 | 2011 | 2012 | 2013 | 2014 |
|------------------------|------------|------------|------------|------------|------------|
| Baltic Sea Nav Warn | 37 | 38 | 34 | 23 | 45 |
| Danish Nav Warn | 87 | 117 | 91 | 89 | 79 |
| Estonian Nav Warn | 7 | 5 | 11 | 9 | 6 |
| Finnish Nav Warn | 91 | 53 | 49 | 35 | 25 |
| German Nav Warn | 99 | 92 | 92 | 120 | 118 |
| Latvian Nav Warn | 20 | 27 | 16 | 15 | 10 |
| Lithuanian Nav Warn | 34 | 31 | 30 | 65 | 46 |
| Polish Nav Warn | 74 | 78 | 70 | 101 | 107 |
| Kaliningrad Nav Warn | 66 | 68 | 68 | 57 | 70 |
| St Petersburg Nav Warn | 33 | 32 | 40 | 24 | 27 |
| Swedish Nav Warn | 117 | 156 | 120 | 89 | 44 |
| TOTAL | 665 | 697 | 621 | 627 | 577 |

6. C-55

The latest update regarding Sweden in the C-55 database was delivered to the IHB in February 2015.

7. Capacity building

Sweden has not been active in the area of capacity building during the period.

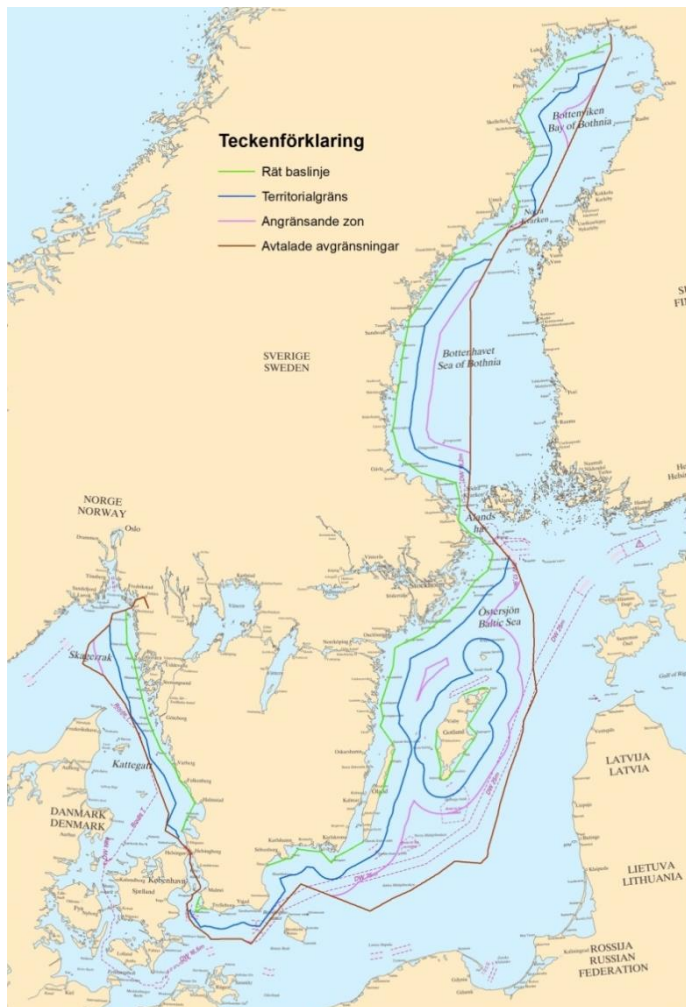
8. Oceanographic activities

The Swedish Maritime Administration (SMA) is responsible for a number of water level stations but it is the Swedish Meteorological and Hydrological Institute (SMHI) that has the main responsibility for the Swedish oceanographic activities. Other actors are the Swedish Geological Survey, universities and research institutes.

9. Other activities

The national commission for revision of maritime boundaries

The special national maritime boundaries commission has concluded its work and reported to the Foreign Minister at the end of February 2015. The report includes the proposed revised base lines and presents recalculated maritime borders. It is also suggested that Sweden will establish a contiguous zone in accordance with UNCLOS.



Proposed baselines and maritime borders including contiguous zone

There will be an official consultation where public authorities concerned are expected to provide their views and opinions during 2015. A national legislation as a result of this revision is expected earliest 2016.

Environmentally hazardous wrecks

Swedish Maritime Administration was appointed by the Swedish Government to perform an investigation of environmental hazardous wrecks in Swedish Waters 2014. Four wrecks has been investigated to develop a standard method to assess and prioritize the environmental risk to be used for further possible necessary actions. SMA is cooperating with other Governmental agencies as Swedish Coastguard, Swedish Agency for Marine and Water Management and Swedish Defence Research Agency as well as Chalmers University and other expert institutions.. The project was partly reported in October 2014 and have been extended to October 2015.

Surveys in shallow waters

Swedish HO has received funding from Swedish Contingencies Agency to perform a study to evaluate survey methods in shallow waters 0-10 meter depth. HO is cooperating with other governmental agencies such as Swedish Geological Survey, Swedish Geotechnical bathymetry. The aim of the project is to find cost effective methods, time required to survey the archipelago and a total estimated cost. The study will be completed in the end of 2015.

Project FAMOS



A first project proposal (first phase of three planned) for co-funding from the current Connecting Europe Facility (CEF) programme has been submitted. The project has 10 partners from Denmark, Finland, Sweden, Estonia, Latvia and Germany. There have also been discussions with Lithuania to possibly participate in later phases. The project activities are:

1. Hydrographic surveying (remaining HELCOM CatI and CatII until 2020)
2. Harmonizing vertical datum
3. Surveying infrastructure
4. Improving data workflow from sounding to chart

More details to NHC59 will be provided in a separate paper.