

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 57th NHC meeting on Arkö in April 2013.

1. Hydrographic Office

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

The operations are certified up until now by Lloyd's register quality assurance in accordance with ISO 9001:2008. From 2014 a new external auditor SP (SP Technical Research Institute of Sweden) is engaged. The quality management system has been expanded to a larger part 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 international standard S-44 and the joint Finnish-Swedish realisation named FSIS-44, which is now the case for 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.

2013 a total amount of 15 067 km² were surveyed, 4 199 km² by SMA vessels and 10 868 km² by contracted companies. The funding for these operations was partly through the EU TEN-T project MONALISA and the surveys were carried out in cooperation with the Finnish Transport Agency. The area delivered from external hydrographic survey companies ordered by other parties such as harbours or local authorities amounted to 448 km² during 2013. The total amount of hydrographic surveys in Sweden 2013 was 15 515

km². See also image below. This means that 45% of Swedish waters are surveyed in accordance with FSIS-44.



Fig 1 SMA Survey vessels 2013

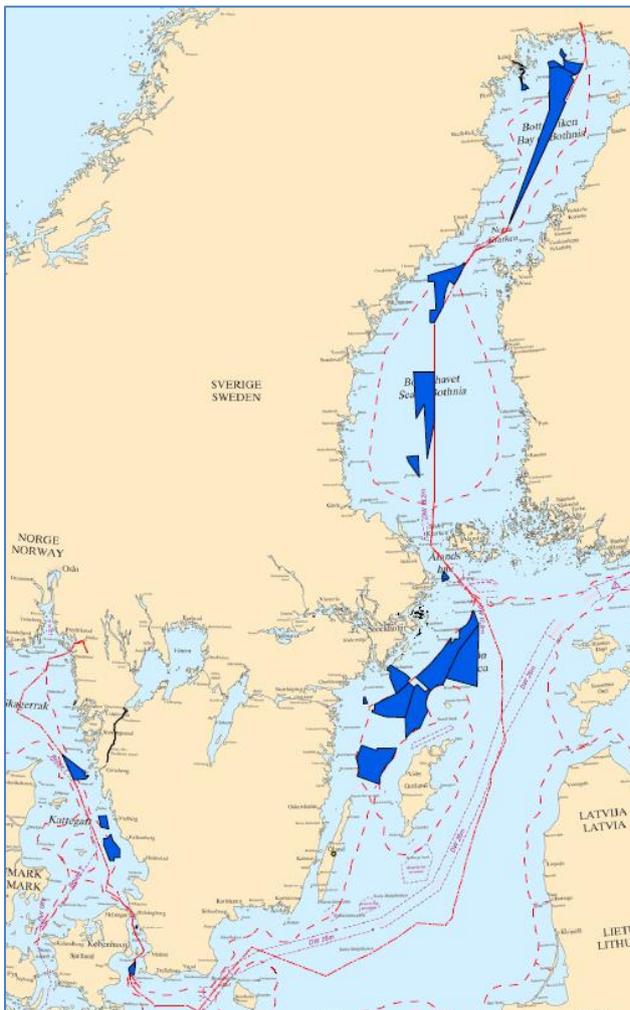


Fig 2 Swedish Hydrographic Surveys 2013

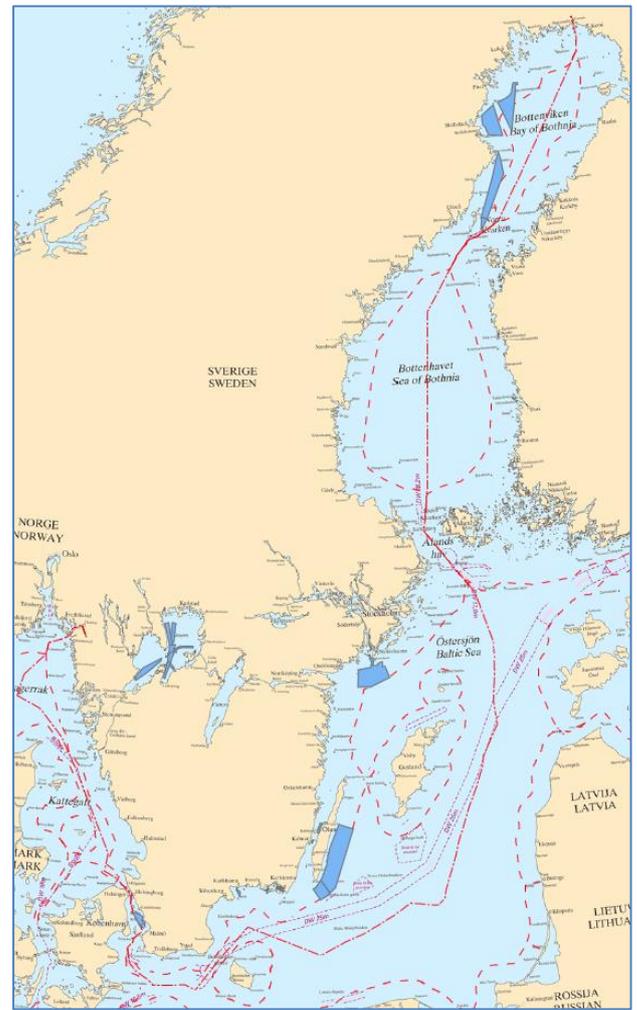
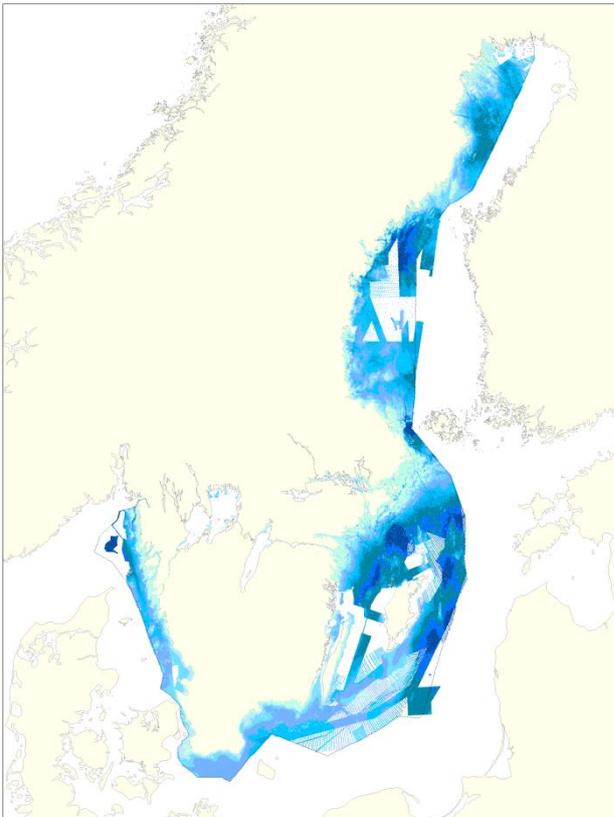


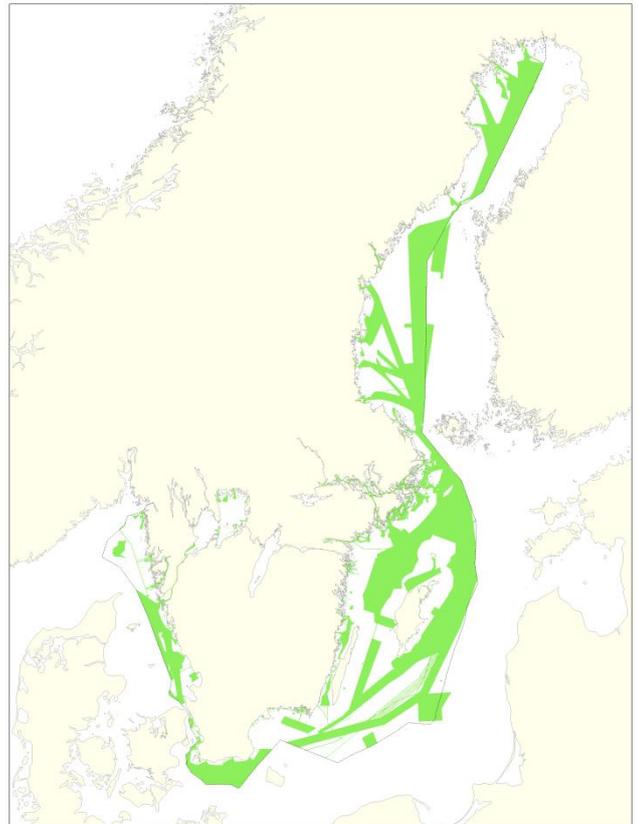
Fig 3 Planned surveys 2014.

Depth Database



 SJÖFARTSVERKET
ÖVERSIKTSKARTA, alla godkända
Översikten visar godkända enligt FSIS-44
Påstet: 2014-05-15

Fig 4 All data in the soundings database DIS including charts from ScanDIS in May 2014



 SJÖFARTSVERKET
ÖVERSIKTSKARTA, alla godkända
Översikten visar godkända enligt FSIS-44
Påstet: 2014-05-15

Fig 5 Data that fulfils FSIS-44 in May 2014

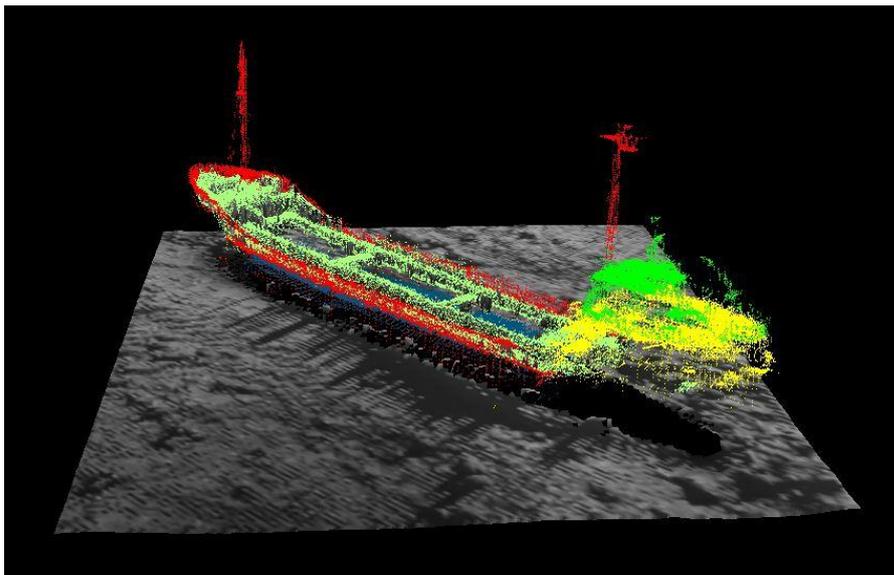


Fig 6 Villon

3. New charts and updates

Paper charts

The Swedish paper chart portfolio consists of approximately 120 charts and 14 series of charts for small craft. Special charts, tailored to the customer are also available as well as a service to provide chart images to mobile phones and PDA's.

During the period the following new charts were issued:

Chart	Scale	INT	Name
SE 5342	1:25 000	INT 1242	Gävle approach
SE 741	1:50 000	INT 1328	Utlängan - Järnavik

Gävle approach was produced since a new fairway is about to open in June 2014. The chart consist of a large plan at scale 1:10 000 covering the harbour and the inner fairway and the outer approach is at scale 1:25 000. Corresponding ENC's in Berthing and Harbour are also issued.

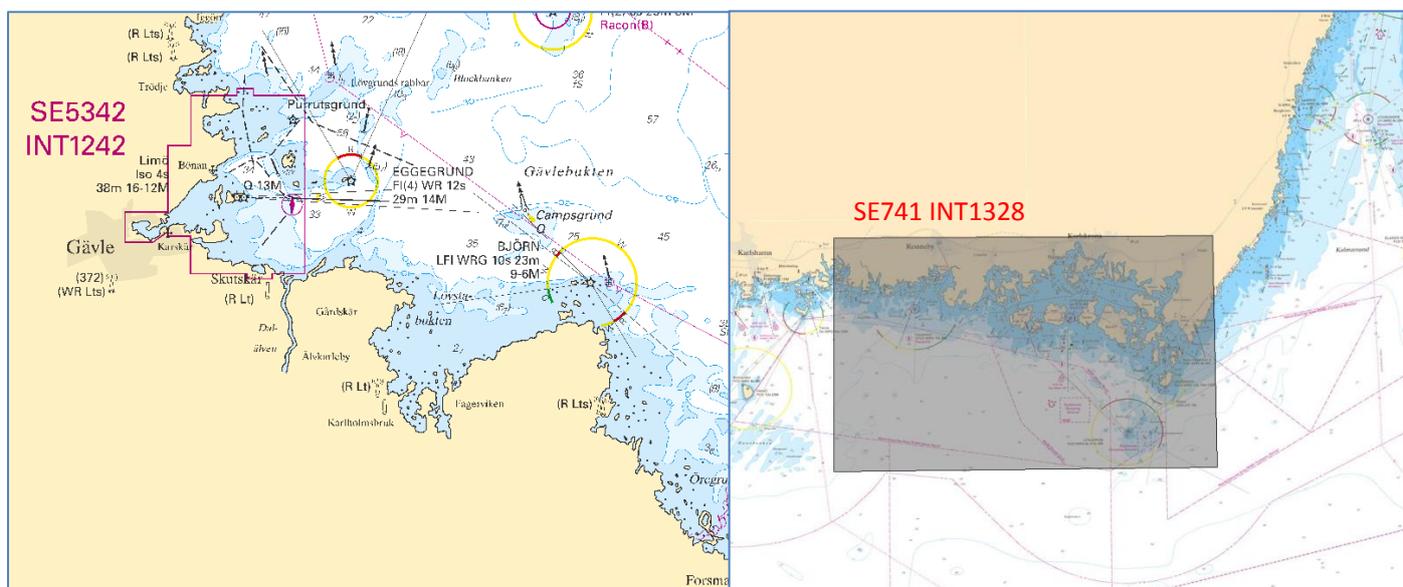


Fig 7 New Charts produced since last BSHC meeting.

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.

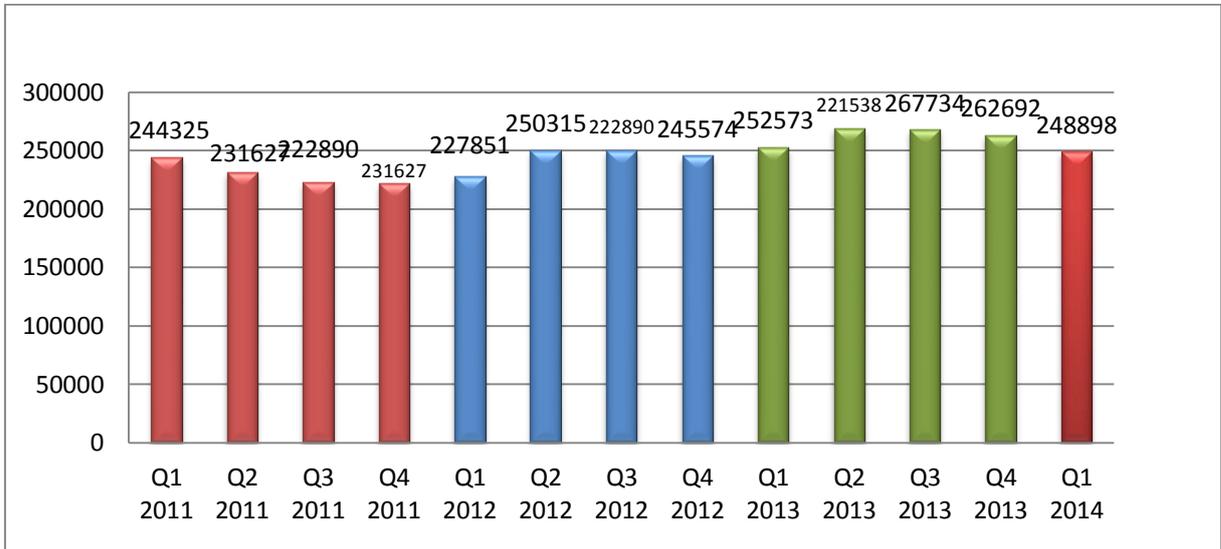


Fig 8 Number of Swedish ENC:s.

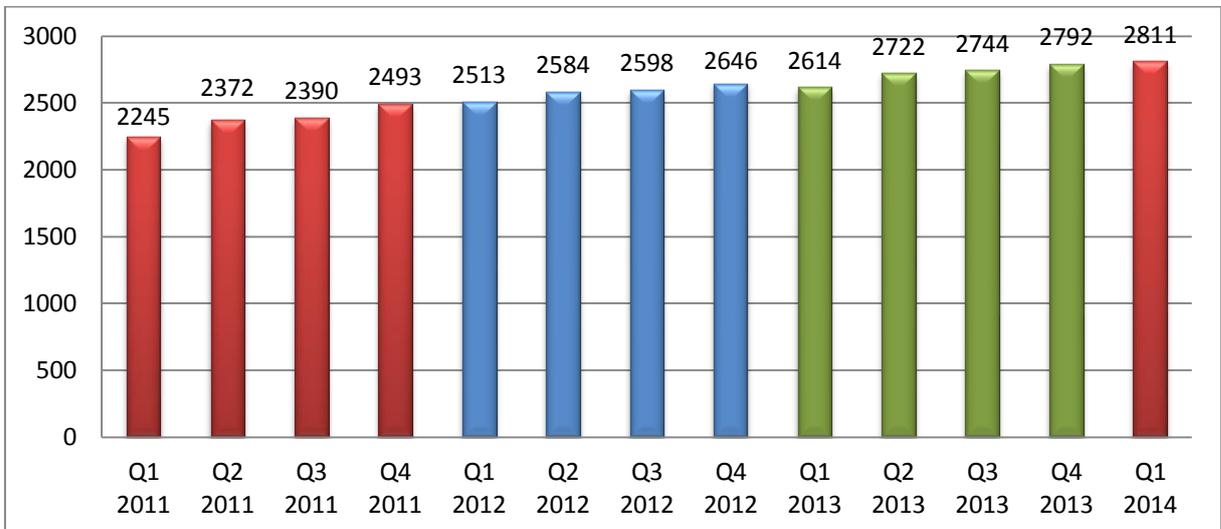


Fig 9 Number of Swedish ENC users.

Small Craft Charts

The sales of Swedish small craft charts are very important for our net result. For the 2014 season we have produced the following booklets in New Editions: Vänern, Västkusten N, Västkusten S, Mälaren, Kalmarsund, Ostkusten, Hanöbukten and Bottenviken.

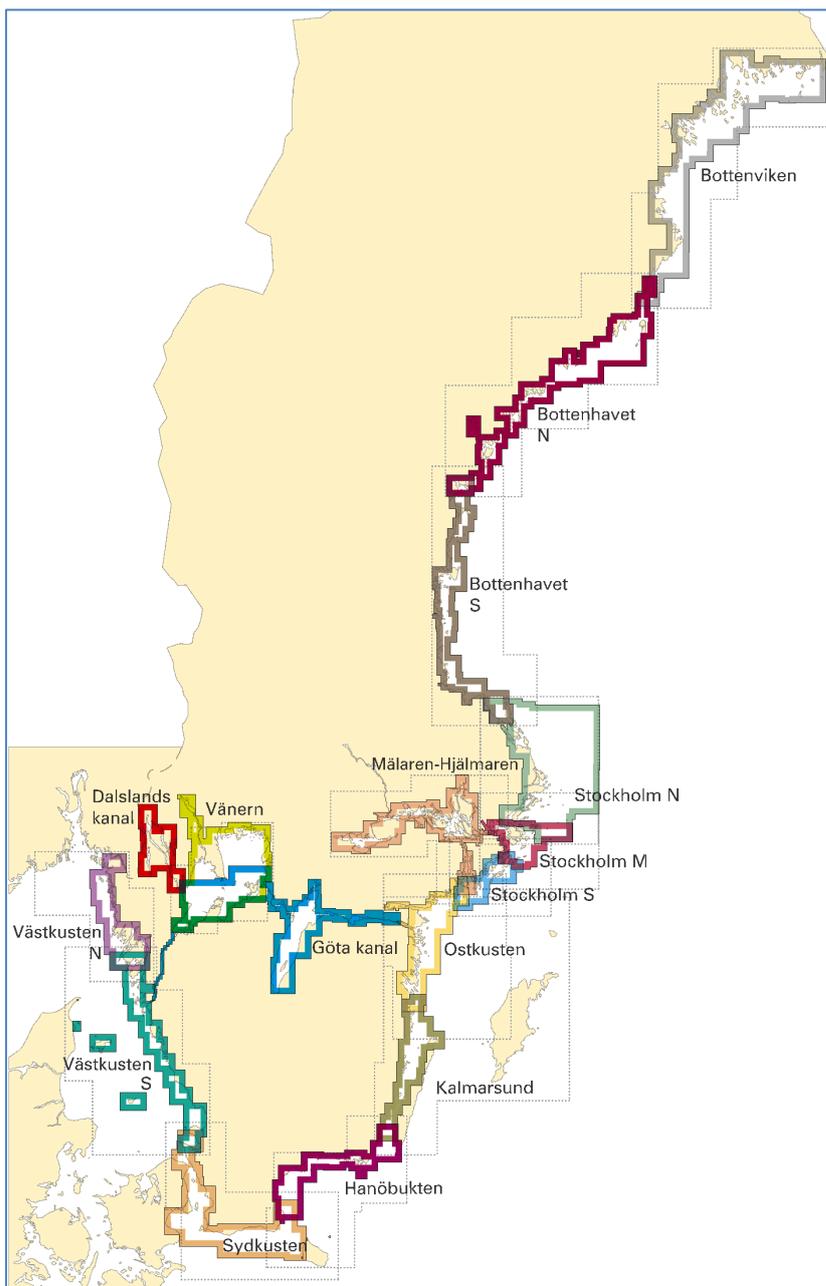


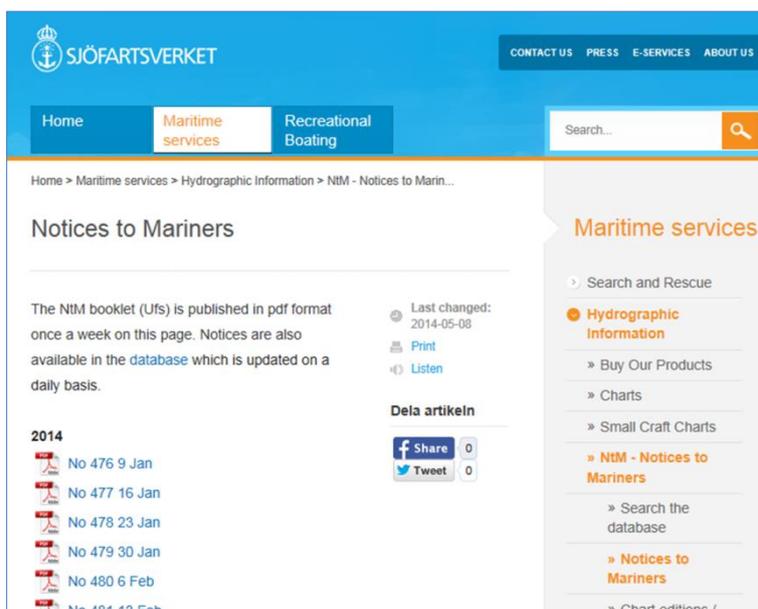
Fig 10 Small craft chart series in Sweden

4. New publications and updates

Since 1 January 2014 the Swedish Notices to Mariners (Ufs) are no longer provided in a printed form. The web service for NtM was simultaneously improved as follows:

1. One fully English and one fully Swedish PDF is published, on the English and the Swedish part of the website respectively.
2. The size of the PDF has been increased to A4.
3. The PDF is published on the website each week, regardless of any holidays.

Since long time already a web service for NtM makes it possible to make searches in the SMA NtM-database, e.g. show me all notices published for a certain chart, a certain geographical area, during the latest week etc. This database is updated on a daily basis.



The SMA web site which contains NtM in PDF format

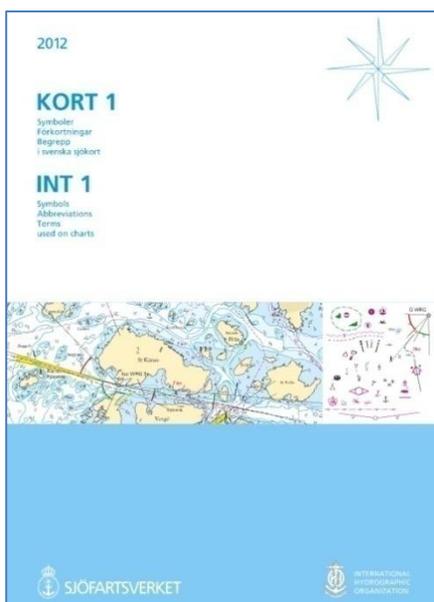


Fig 11 Current Swedish Edition of INT1

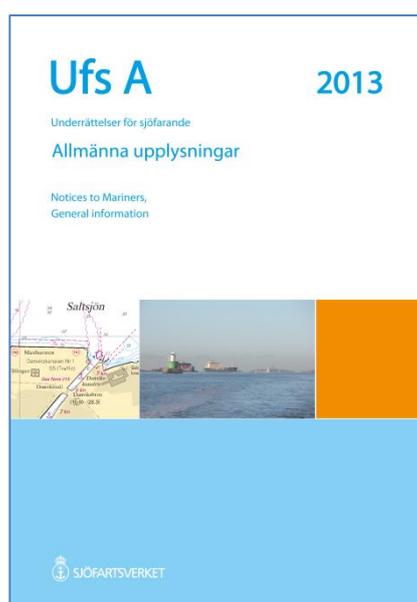


Fig 12 Ufs A. General information for all categories of mariners

The Swedish Chart Catalogue and the small but comprehensive booklet Ufs A are both published yearly. Ufs A has previously been bilingual but from this year it has been divided in a Swedish and an English version. Only the Swedish version is available in a printed format. The English version is published as a pdf-version (free of charge) at the SMA website.

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.

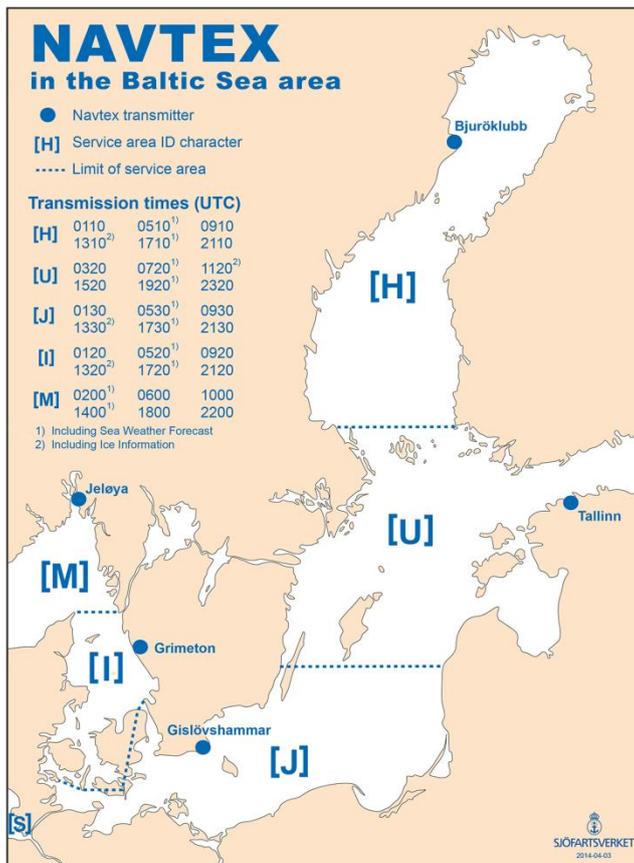
The station is manned H24 all days of the year and may be contacted as follows:

Tel: +46 771 63 06 85

E-mail: msi@sjofartsverket.se

VHF: Call MSI SWEDEN on relevant VHF Channel

The NtM Office at the Hydrographic Office retains the role as Baltic Sea Sub-area Coordinator with responsibility of international coordination of MSI in the Baltic Sea area.



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	2009	2010	2011	2012	2013
Baltic Sea Nav Warn	28	37	38	34	23
Danish Nav Warn	98	87	117	91	89
Estonian Nav Warn	3	7	5	11	9
Finnish Nav Warn	28	91	53	49	35
German Nav Warn	73	99	92	92	120
Latvian Nav Warn	24	20	27	16	15
Lithuanian Nav Warn	27	34	31	30	65
Polish Nav Warn	70	74	78	70	101
Kaliningrad Nav Warn	49	66	68	68	57
St Petersburg Nav Warn	29	33	32	40	24
Swedish Nav Warn	97	117	156	120	89
TOTAL	526	665	697	621	627

Baltico Meeting.

Colleagues with responsibility of MSI from all Baltic Sea nations gather every second year to a meeting concerning MSI in the Baltic Sea area. The aim of these meeting is to harmonize and improve the MSI services to shipping by exchanging experiences and by learning from each others and from international bodies and organisation and from other regions in the world. The Latvian Hydrographic Service was kindly hosting the Baltico Meeting 2014 in Riga, 14-15 May.

For further information: <http://www.sjofartsverket.se/balticomeeting>

6. C-55

The latest update regarding Sweden in the C-55 database was delivered to the IHB in February 2013.

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 national maritime boundaries commission is proceeding and SMA puts considerable efforts in to support for the commission.

The field survey season 2013 was very succesful due to among other things favourable weather conditions. All the planned work to identify and survey points for baselines was done during the season. The work is now continuing to calculate and present borders during 2014 to the commission for revisions in legislation.



Fig 13 Survey team for the boundary commission.

A bathymetry database concept for the Baltic Sea

The Swedish government has tasked the HO to develop a proposal for availability and distribution of bathymetry data for the Baltic Sea and to use the IHO regional network to achieve the result. The working group Baltic Sea Bathymetric Database Working Group (BSBDWG) within the Baltic Sea Hydrographic Commission has been formed to work on this.

The webservice was officially released during autumn 2013.

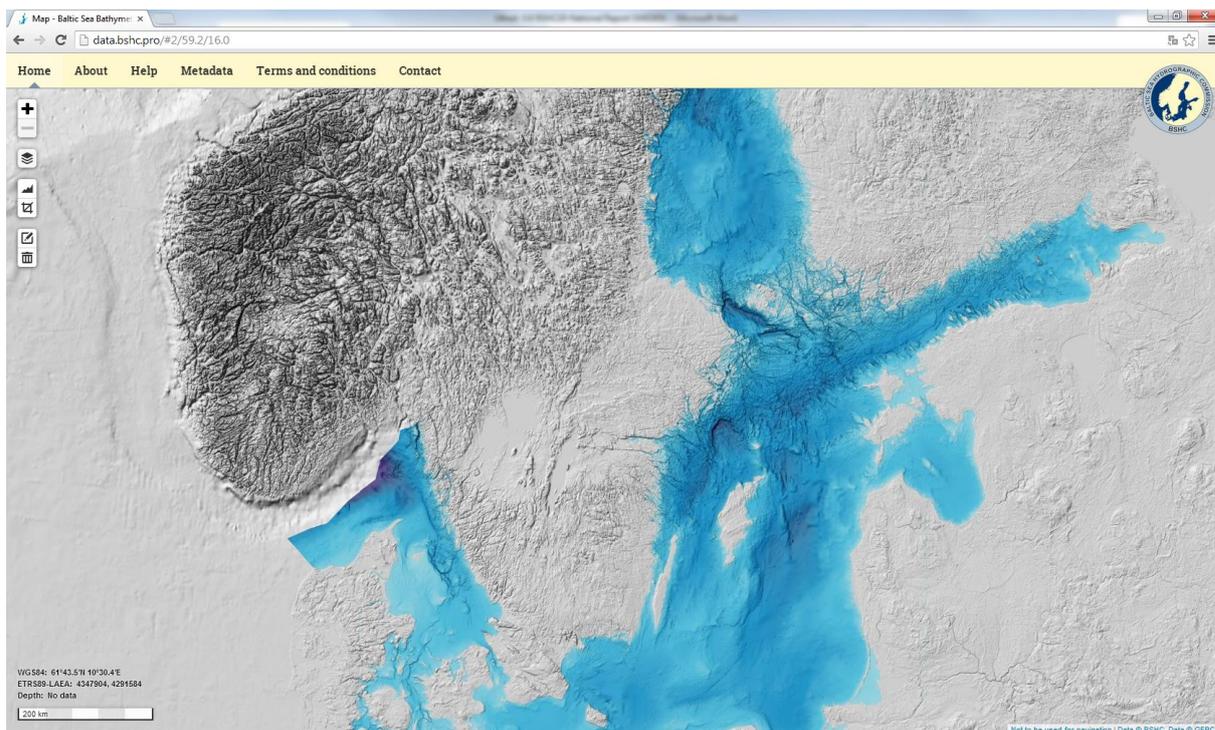


Fig 14 The Baltic Sea Bathymetric Database webservice.

Environmentally hazardous wrecks

Swedish Maritime Administration was appointed by the Swedish Government to perform an investigation of environmental hazardous wrecks in Swedish Waters 2014. The task is to develop a method to assess and prioritize the environmental risk of wrecks 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. Swedish HO will find, identify and survey the wreck sites and perform ROV operations as well as support with vessel for environmental sampling and diving operations. The project should be completed in October 2014.

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 Institute and Swedish Landsurvey to evaluate hydro acoustical methods and laser 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.

“Below the surface – the movie”

Swedish Maritime Administration has during the period been engaged in a cooperation project with the Norrköping Visualisation Center . The result is a 28 minutes film (“Under Ytan” in Swedish) produced for the dome theatre in Norrköping. The film had its grand premiere in February 2014 and is now shown as part of the public programme of the Visualisation Center. The message that the film tries to convey is that our seas and

especially the Baltic Sea are very sensitive environments. The film is predominantly made with animations and bathymetric data has been used in the production.

For the time being the film is exclusively shown in the dome in Norrköping or a in a mobile dome theater. It will eventually be released as a video and SMA will inform the NHC when available.

