Ufs A

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Notices to Mariners Sweden

General Information

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Hydrographer Patrik Wiberg
Hydrographic Office
Swedish Maritime Administration

SWEDISH MARITIME ADMINISTRATION

Extract from Ufs A in English

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In case of EMERGENCY, call 112

or call

'SWEDEN RESCUE' on VHF Ch 16

Report hazards and errors

regarding deficiencies in buoyage, unlit lights, drifting objects and observations of any occurence which could endanger navigation.

Ph: + 46 771-63 06 85 MMSI no: 002653500
VHF: Call 'Sweden Traffic' on relevant traffic channel

Extract from Ufs A in English

1 Swedish Maritime Administration (SMA)

1.1 Contact information

The Swedish Maritime Administration´s head office is situated in Norrköping. The regional organisation are comprised primarily of nine pilot areas with some 20 pilot stations, four VTS-centres, a Joint Rescue Coordination Centre, a number of survey vessels, maintenance units, workshops and buoy tenders. The geographical limits of each pilot area and the location of the regional offices are shown in Ufs A, Chapter 1 in the Swedish language version.

1.1.1 Head Office

Postal address: Swedish Maritime Administration
SE-601 78 NORRKÖPING
SWEDEN

Ph: +46 771 63 00 00
E-mail: *sjofartsverket@sjofartsverket.se*

Visiting address: Östra Promenaden 7

1.1.2 NtM - Chart Corrections

Postal address: Swedish Maritime Administration
Ufs
SE-601 78 NORRKÖPING
SWEDEN
Ph: +46 771 63 06 05
E-mail: *ufs@sjofartsverket.se*

1.1.3 Sales and Distribution

Postal address: Swedish Maritime Administration
Sales, Hydrographic Office
SE-601 78 NORRKÖPING
SWEDEN
Ph: +46 10 478 58 10
E-mail: *sma@sjofartsverket.se*

1.1.4 Joint Rescue Coordination Centre (JRCC), Göteborg

Ph: +46 10-492 77 00 Switchboard
+46 771-40 90 09 Press contact
E-mail: *jrcc@sjofartsverket.se* (Operational issues)

1.1.5 Sweden Traffic - Navigational Warnings

Ph: +46 771 63 06 85
E-mail *swedentraffic@sjofartsverket.se*

1.1.6 Monitoring of Traffic Separation Schemes (TSS)

Ph: +46 771-63 06 85
E-mail: *swedentraffic@sjofartsverket.se*

1.1.7 VTS-, SRS and Canal Centres

VTS-area	Centre	Phone	E-mail
VTS Luleå	Södertälje	+46 771 63 06 75	*vtsec@sjofartsverket.se*
VTS Stockholm/Öregrund	Södertälje	+46 771 63 06 65	*vtsec@sjofartsverket.se*
VTS Landsort/Mälaren	Södertälje	+46 771 63 06 75	*vtsec@sjofartsverket.se*
VTS Oxelösund	Södertälje	+46 771 63 06 75	*vtsec@sjofartsverket.se*
SOUNDREP (SRS centre)	Malmö	+46 771 63 06 00	*contact@soundvts.org*
VTS Göteborg	Göteborg	+46 771 63 06 60	*vtswc@sjofartsverket.se*
VTS Marstrand, Lysekil	Marstrand	+46 771 63 06 50	*vtswc@sjofartsverket.se*
Canal Centre Trollhättan	Trollhättan	+46 771 63 06 95	*kctrollhattan@sjofartsverket.se*
Södertälje Canal	Södertälje	+46 771 63 06 55	*sodertaljesluss@sjofartsverket.se*

1.1.8 Pilot Ordering

Pilot area[1)]	Phone	E-mail
Luleå	+46 771 63 06 20	*northcoastpilot@sjofartsverket.se*
Gävle	+46 771 63 06 10	*northcoastpilot@sjofartsverket.se*
Stockholm	+46 771 63 06 45	*eastcoastpilot@sjofartsverket.se*
Södertälje	+46 771 63 06 35	*eastcoastpilot@sjofartsverket.se*
Kalmar	+46 771 63 06 90	*southcoastpilot@sjofartsverket.se*
Malmö	+46 771 63 06 80	*southcoastpilot@sjofartsverket.se*
Marstrand	+46 771 63 06 50	*westcoastpilot@sjofartsverket.se*
Göteborg	+46 771 63 06 70	*gothenburgpilot@sjofartsverket.se*
Trollhättan	+46 771 63 06 95	*kctrollhattan@sjofartsverket.se*

1) See map in chapter 7

2 Swedish Transport Agency

The Swedish Transport Agency is working to achieve good accessibility, high quality, secure and environmentally aware rail, air, sea and road transport. The Agency has overall responsibility for drawing up regulations and ensuring that authorities, companies, organisations and citizens abide by them. The Maritime Department formulates regulations, examines and grants permits, as well as exercising supervision principally of Swedish and foreign vessels sailing in Swedish waters.

The Swedish Transport Agency's head office is located in Norrköping.

On 1 January 2013, the Swedish Transport Agency's Maritime Department and Department of Civil Aviation were merged into one; the Civil Aviation and Maritime Department.

The purpose of the merger is to increment the possibilities to benefit from the advantages of increased co-ordination between the two transport modes, and to raise efficiency in the organisation through better use of resources and improved knowledge sharing.

The department works to improve maritime safety and environmental influence for recreational boating and also analyses accidents and near-misses. Maritime inspection regional offices are located in Stockholm, Göteborg and Malmö.

2.2 Contact information

2.2.1 Head Office - Civil Aviation and Maritime Department

Phone: +46 771 503 503
E-mail: *sjofart@transportstyrelsen.se*
Web page: *www.transportstyrelsen.se*
Postal address: Swedish Transport Agency
Civil Aviation and Maritime Department
SE-601 73 Norrköping
SWEDEN

Visiting address: Olai Kyrkogata 35

2.2.2 Register of Ships

Phone: +46 771 503 503
E-mail *sjofart@transportstyrelsen.se*
Postal address: Swedish Transport Agency
Maritime Department
SE-601 73 Norrköping
SWEDEN

Visiting address: Olai Kyrkogata 35

2.2.3 Regional Offices

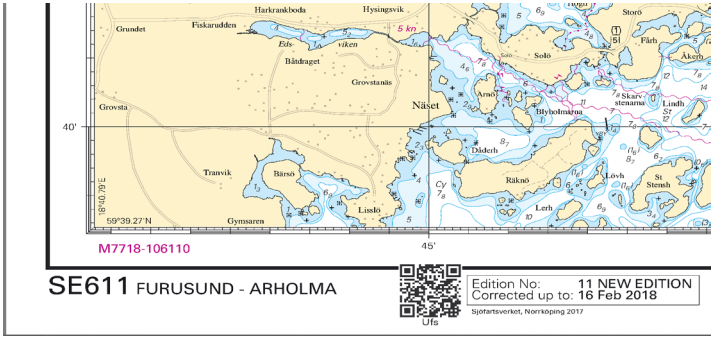
Office	E-mail
Maritime Inspectorate Office, Stockholm	*sjofart.ios@transportstyrelsen.se*
Maritime Inspectorate Office, Malmö	*sjofart.iom@transportstyrelsen.se*
Maritime Inspectorate Office, Göteborg	*sjofart.iog@transportstyrelsen.se*

3 Charts and Publications

3.1 Chart updates and corrections

The information contained in official Swedish charts and ENCs is derived from the entirely computerized chart database of the Swedish Maritime Administration. The stored data is being kept continually up-to-date through input from a multitude of internal and external sources, as well as through data aquired from contracted or in-house hydrographic depth surveys and projects.

When performed or planned changes to chart data have been reported, assessed and/or processed, information is being promptly promulgated to all parties by means of updated or new ENC cells and by Swedish NtMs (Ufs - Underrättelser för sjöfarande). Users of special electronic chart systems and applications intended primarily for the leisure boat sector should refer to the each induvidual manufacturer's guidelines for details on how to update the chart data of respective device.



3.1.1 Printing of navigational charts

New editions are published whenever it is deemed impossible for the end-user to continue to keep existing charts corrected solely by means of information contained in Swedish NtMs. The lack of major amendments of this kind may in some cases lead to that, for certain charts, several years may pass between each new edition. Small craft charts are generally printed at greater intervals than that of regular charts.

A new edition contains the same updated information as has been promulgated in Swedish NtMs since the last printing of respective chart, as well as the changes which have not been been reported due to the inherent inability of NtMs to adequately describe complex and/or comprehensive amendments to charted data.

The edition number of respective chart is indicated in the lower left corner. Mariners should take care to ensure that the last printed edition is always used. A new edition of a navigational chart supercedes the existing edition and in the like manner a new chart supercedes an existing product (as indicated).

Please note that the previously used term 'reprint' is not currently in use.

3.3 Chart reliability

The mariner should be clearly aware that the chart is only **an aid** to navigation and **not an exact precision instrument.** The representation of reality may, for a variety of reasons, be incorrect.

Charted depths may be inaccurate and incomplete due to the lack of modern surveys. Coastlines and islands may have positional errors due to older production methods.

Positions of permanent navigational aids and lighthouses may be incorrect due to the lack of modern survey methods. For the same reason the presentation of cables on the sea floor may be only approximate. Wharves, jetties, bridges etc. may have been added, demolished or significally altered without any of the changes having been reported to the Administration.

In addition, the chart always has the 'built-in' cartographic errors which are inherently produced by representing curved surfaces on flat charts. The scale of a chart make it impossible to reproduce land contours in minute detail and cartographers are forced to generalise the image so that important features are retained and sometimes even accentuated.

The issues concerning the lack of perfect accuracy are relevant for all chart products currently on the market, both paper products and those presented in an electronic format.

In order to avoid detrimental and/or hazardous consequences from arising, the navigator should take the following precautions:

- Navigate using a wide margin. Do not cut corners near promontories and shoals. Keep well clear of depth contours that constitute a danger to the vessel. Depth contours are warning signals!

- Leading lines on charts are verified and are therefore reliable. No absolute guarantee of clearing shoals in close proximity to the line exist when plotting one's own leading lines.

- Charts of the largest available scale should always be used. In the areas represented by a larger scale chart or plan the ordinary chart contains comparatively limited information.

- Depths in Swedish charts are, with a few exceptions*, referred to the Mean Sea Level (MSL) of a specific year. Due to the post-glacial land rise actual depth may be as much as **0,5 m less** than indicated on certain charts. The end-user should always refer to the information indicated at the top right corner of each chart.

**The countries surrounding the Baltic Sea have now agreed on a common vertical reference system, 'Baltic Sea Chart Datum 2000' (BSCD2000), to be gradually introduced in charts and ENCs. The zero level in the new reference system is close to MSL and is expressed ±0,0 m BSCD2000.*

The Hydrographic Office of Sweden has started to introduce the BSCD2000 as an official Chart Datum in all charts and ENCs.

3.4 Depth information on charts

It is important that the navigator has adequate knowledge of how depth information is presented on charts. Overrepresentation of hydrographic data would make the chart unreadable.

Defined areas are used within which depth can vary between two limits. These areas are bounded by depth contours. The coastline represents the 0 m contour. A 3 m contour follows which in turn is supplemented by 6-, 10-, 15-, 20-, 30-, 50- and 100 m contours. Other depth contours may exist and in certain areas special contours adapted for a certain depth can be drawn. (as an example, a 7,6 m contour is shown on charts covering Lake Mälaren)

In the area between the coastline and the 3 m contour the depth may vary, quite irregularly, anywhere between 0 and 3 metres. Likewise between the 3 and 6 m contour the depth varies between 3 and 6 metres. Apart from soundings the chart gives no other depth information. Where no soundings are given the depth must be assumed to be in the lower range.
The depth between soundings cannot be interpreted and the irregularity of the seabed makes interpolation impossible.

The current water level must always be taken into account. The Swedish Meteorological and Hydrological Institute's (SMHI) website, *www.smhi.se*, provides continual information on water levels around the Swedish coastline.

A large part of the Swedish coastline is affected by the post-glacial land uplift. The effect is most pronounced in the north where the uplift is about 1 cm/year.

The following table indicates the land uplift corrections for charts where the correction is 30 centimetres or more.

Chart	MSL[1]	Land uplift	Correction
533	1970	0,7 cm/year	30 cm
534	1970	0,6 cm/year	30 cm
535	1970	0,6 cm/year	30 cm

[1)] MSL - Mean Sea Level (year) for respective chart

3.4.5 Quality of depths in charts and ENC

The quality of depth information in nautical charts can vary greatly between different areas. Fairways and other areas which are used by merchant ships, where the water depth may be a limiting factor, have generally been surveyed with modern methods to a high standard.

However, there are still large areas where depths have not yet been verified by any method other than hand lead. This method is inherently accurate in itself but the distance between the measurement points can be quite large and position accuracy for each sounding may thus be poor. Depth information in these areas should for that reason be considered to be fairly unreliable.

After 1940 hydrographic surveys have generally been performed using sonar technology.

Echo sounders provide considerably more data and the probability of detecting small shoals is far greater than when using hand lead.

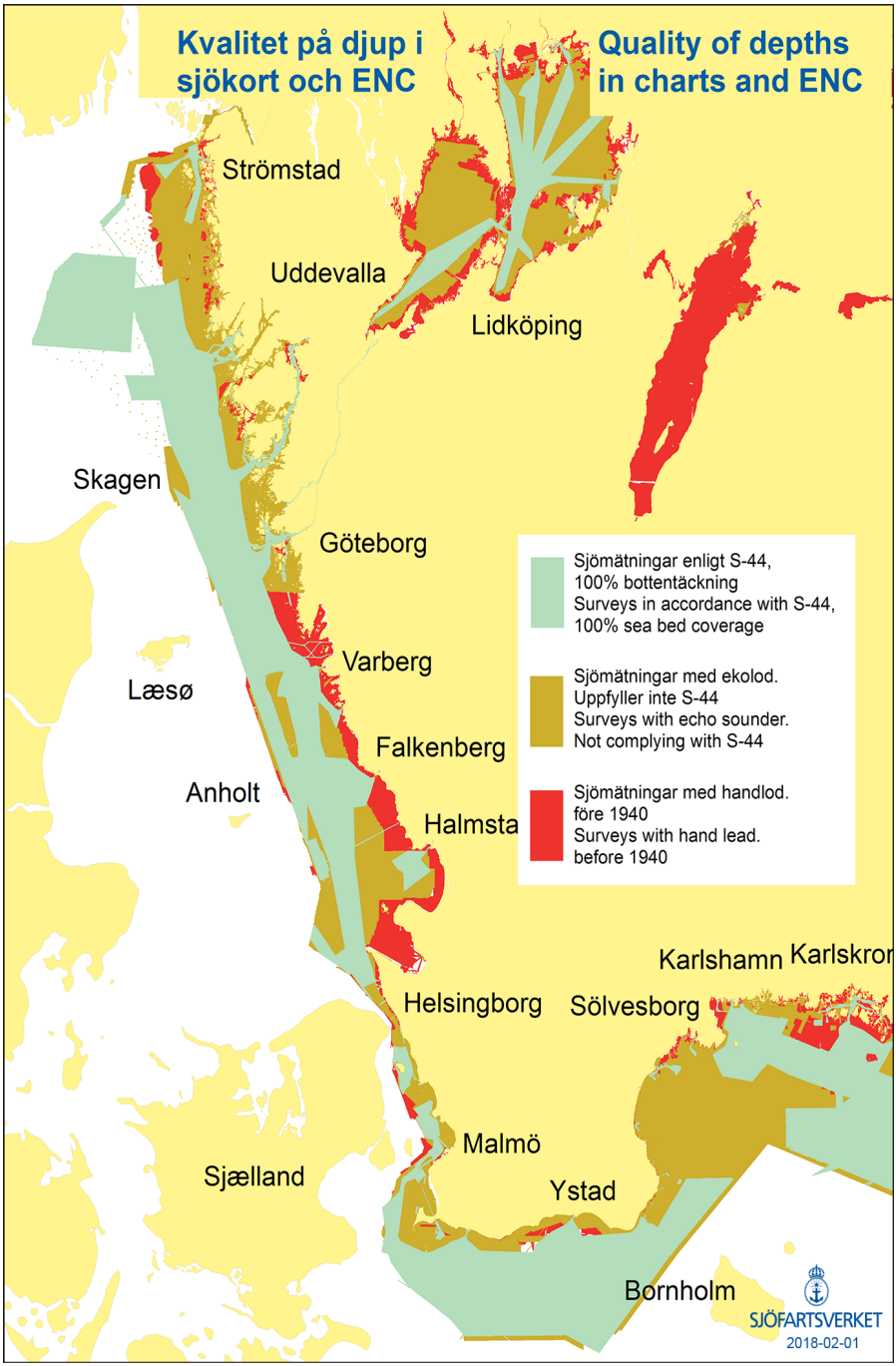
Advanced multi-beam echo sounders and computer processing are nowadays used during hydrographic surveying. This method produces a very detailed view of the seabed within the surveyed area. The maps on the following three pages provide an overview of the quality of depth in charts and ENCs covering Swedish waters.

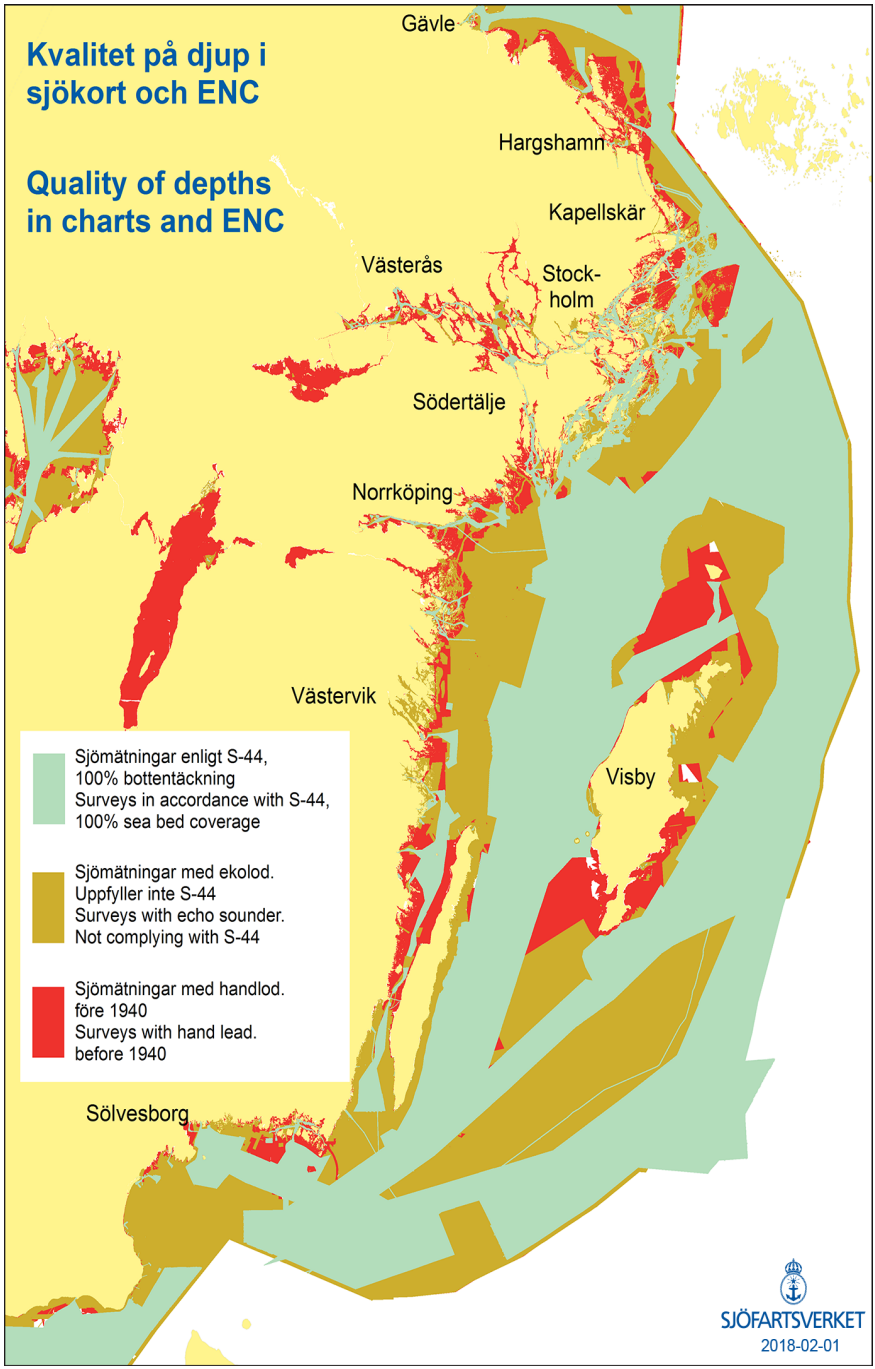
The light green-coloured areas have the highest quality of depth information and these surveys are meeting the requirements of the international standard S-44 (which in Sweden and Finland is referred to as FSIS-44). 100% bottom coverage is achieved by multi-beam or by bar sweeping.

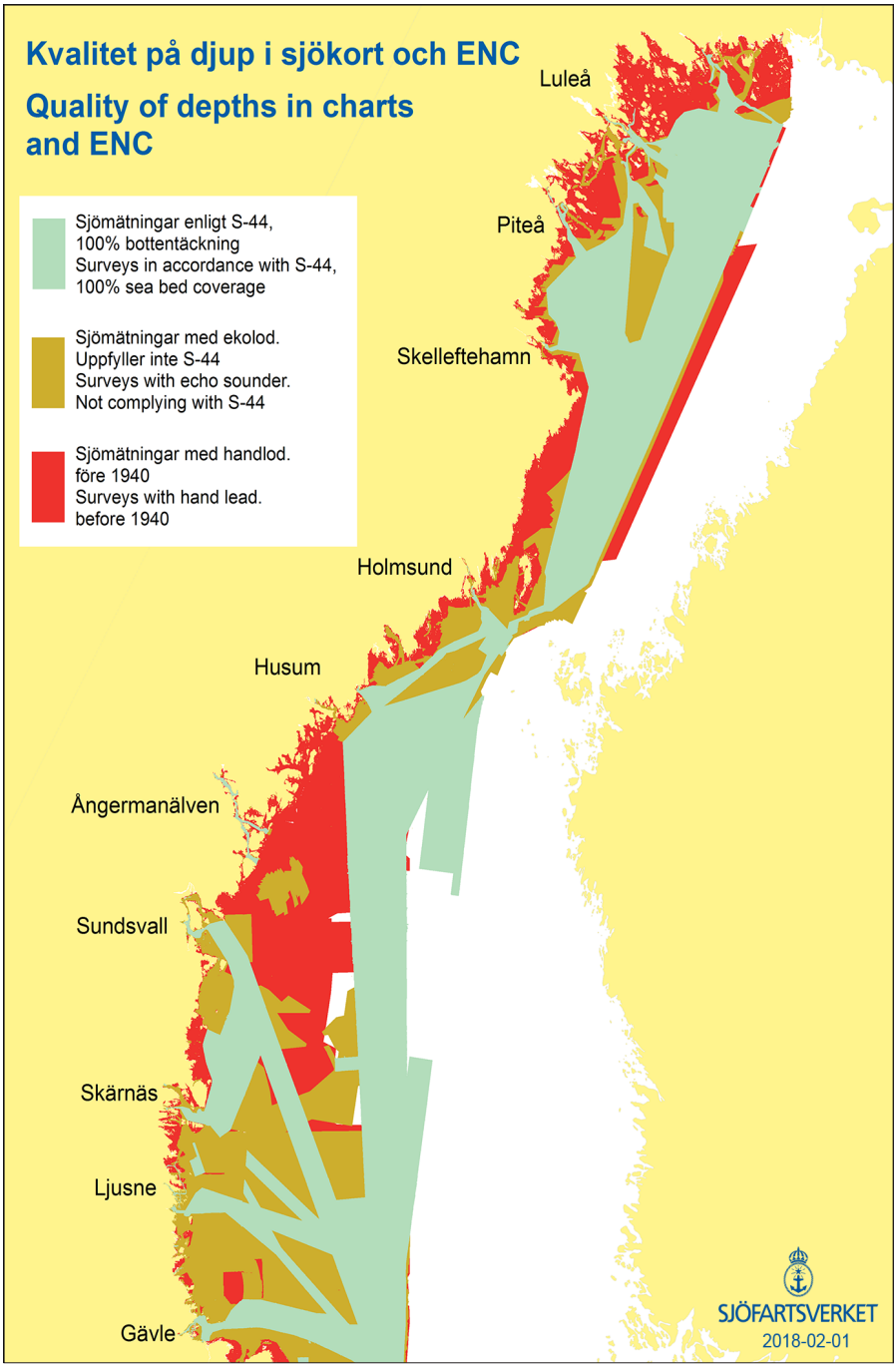
The dark yellow-coloured areas have been surveyed using sonar technology but are not meeting the requirements of the standard S-44.

In the red-coloured areas depths in charts and ENCs are based on hydrographic surveys conducted with hand lead before 1940.

The SMA website *www.sjofartsverket.se* provides more detailed information on the quality of depth information stored in the depth database (DIS), which is the basis for the depth of the chart database (SJKBAS), which in turn form the basis of all depths in the official charts and ENCs covering Swedish waters.


Kvalitet på djup i sjökort och ENC
Quality of depths in charts and ENC
Strömstad
Uddevalla
Lidköping
Skagen
Göteborg
Varberg
Læsø
Falkenberg
Anholt
Halmsta
Karlshamn
Karlskron
Helsingborg
Sölvesborg
Malmö
Sjælland
Ystad
Bornholm
Sjömätningar enligt S-44, 100% bottentäckning
Surveys in accordance with S-44, 100% sea bed coverage
Sjömätningar med ekolod. Uppfyller inte S-44
Surveys with echo sounder. Not complying with S-44
Sjömätningar med handlod. före 1940
Surveys with hand lead. before 1940
SJÖFARTSVERKET
2018-02-01


Kvalitet på djup i sjökort och ENC
Quality of depths in charts and ENC
Gävle
Hargshamn
Kapellskär
Västerås
Stock-holm
Södertälje
Norrköping
Västervik
Visby
Sölvesborg
Sjömätningar enligt S-44, 100% bottentäckning
Surveys in accordance with S-44, 100% sea bed coverage
Sjömätningar med ekolod. Uppfyller inte S-44
Surveys with echo sounder. Not complying with S-44
Sjömätningar med handlod. före 1940
Surveys with hand lead. before 1940
SJÖFARTSVERKET
2018-02-01


Kvalitet på djup i sjökort och ENC
Quality of depths in charts and ENC
Sjömätningar enligt S-44, 100% bottentäckning
Surveys in accordance with S-44, 100% sea bed coverage
Sjömätningar med ekolod. Uppfyller inte S-44
Surveys with echo sounder. Not complying with S-44
Sjömätningar med handlod. före 1940
Surveys with hand lead. before 1940
Luleå
Piteå
Skelleftehamn
Holmsund
Husum
Ångermanälven
Sundsvall
Skärnäs
Ljusne
Gävle
SJÖFARTSVERKET
2018-02-01

3.5 Swedish charts and nautical publications

General charts	1:500 000	-	1:1 600 000
Coastal charts	1:180 000	-	1:250 000
Archipelago charts	1:50 000	-	1:125 000
Special and harbour charts	1:10 000	-	1:30 000

Small craft charts cover the mainland coastline, the largest lakes and some of the canals. These are double-sided, spiral-bound folios on durable paper in A3-size intended for pleasure craft and include certain supplementary information.

Nautical publications

INT 1/KORT 1 contains symbols, abbreviations and terms used on Swedish and international charts.

Swedish Notices to Mariners (Underrättelser för sjöfarande/Ufs) is generally published on a weekly basis and contain chart corrections and other information of importance to navigators. It is available in pdf-file format at *www.sjofartsverket.se/ntm*
Subscription is available by e-mail.

Ufs A General information in a PDF-booklet containing comprehensive terms and specific information about Swedish conditions that may be useful to the navigator.

Winter navigation General information on the icebreaking service and navigation in icy waters (available for download in pdf-file format from *www.sjofartsverket.se*)

Additional information about other products are found in the product catalogue which is distributed free of charge by respective sales agent.

3.6 Electronic charts

3.6.4 Preliminary and temporary changes in ENC

Temporary and preliminary information, which are described in P- and T-notices in Ufs (Swedish NtMs), is now generally shown in ENC. Exceptions may exist if the temporary or preliminary condition:

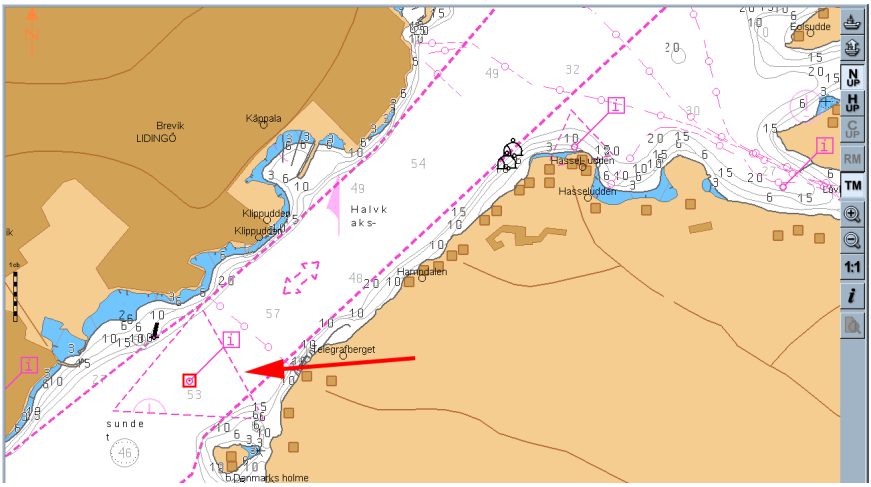
- is not possible to display in ECDIS in a clear way,
- is of short duration and is also promulgated through a navigational warning,
- affects an area which has previously been charted as an working area (e.g. restricted area, works in progress etc.),
- only affects a few ships that are assumed to receive relevant information from port authorities, pilots or VTS-centres,
- affects an extremely large number of ENC-cells,
- affects waters which are normally not used by vessel fitted with ECDIS, or
- is a warning about firing exercises within charted firing practice areas

P- and T-notices which are not shown in ENC are clearly marked by 'Not shown in ENC' in respective NtM.

Preliminary and Temporary changes are distributed to shipping in the same way as regular ENC updates.

These changes are presented in ECDIS in different ways depending on the specifics of respective update. Below are some examples of how presentation is done:

a) Dredging operations, cable laying and similar works may be shown by a *caution area* which covers the affected area. By clicking inside the area a short text is made visible which briefly describes the work in question.



A triangular-shaped Caution Area is used to highlight an area where work is ongoing

b) Temporary withdrawn buoyage, changed light characters etc. may be shown by a very small *caution area* on top of the affected object. This is respresented in an ECDIS system display by an exclamation mark **(!)** in vicinity of the affected object. The corresponding text will appear by clicking in vicinity of the object.

c) Lights which are temporary unlit may be presented according to point b) above or by removing the light from the object so that only a tower or beacon remains charted.

d) Temporary established buoyage, research equipment, pontoons etc. are generally presented by showing the relevant ECDIS symbol. If needed, a *caution area* with a accompanying text is shown.

e) Shoals, obstructions and wrecks, which will be removed, are presented by its regular ECDIS symbol, often in combination with an *caution area* with relevant text.

f) Upcoming changes may be shown by a *caution area* which is accompanied with a relevant text. The preliminary presentation may be automatically replaced by the correct and permanent presentation at a predetermined time by means of the time attribute in ENC.
This method is generally used to show new TSS, which enter into effect at a predetermined time.

3.7 Swedish Notices to Mariners (Ufs)

Swedish Notices to Mariners (Ufs) is the official communication channel for informing navigators on chart corrections and changes which may affect navigation in Swedish waters.

Swedish NtMs are easily accessible from the website *www.sjofartsverket.se/ntm* where information in a continually updated database is available to the end-user by using a wide selection of search criteria.

A booklet in the pdf-file format is published on the website each Thursday morning which contains all notices which have been issued since the previous week.

Foreign waters

Information concerning foreign waters is mainly restricted to occurrences offshore or in and around major channels and routes. Swedish NtMs does not give sufficiently detailed information to keep other national charts or BA-charts updated. Notices affecting non-Swedish waters are generally based on information extracted from the NtMs and/or navigational warnings of respective nation.

3.7.3 Numbering of notices

Each notice is given a specific serial number which is unique.

An asterisk (*) in front of the number shows that the notice is published by the Swedish Maritime Administration and thus affects Swedish waters. This asterisk is used by international agreement to simplify the work of foreign Chart Offices.

(P) indicates that the notice describes occurences of a preliminary nature which will later to be adressed in and by the promulgation of a new [permanent] notice.

(T) indicates that the notice is of a temporary nature and that, if no validity period is specified, the notice is invalidated by a new notice when the temporary conditions cease to exist.

3.7.4 Disposition of the NtM pdf-booklet

The booklet is divided up into the two sections:

ANNOUNCEMENTS Numbered notices without any geographical reference.

NOTICES Numbered notices with reference to a certain geographical position or limited area.

3.7.5 Affected charts

The specific number of each affected Swedish chart is indicated on the line immediately above the notice heading.

3.7.6 Positions in Swedish NtMs

These are given in the reference system WGS-84 as latitude and longitude in degrees, minutes and decimals of minutes as follows: 58-35,5N 015-11,9E.

Note: Attached **chartlets** are intended primarily to simplify chart correction and are not necessarily reproduced in the same scale as the chart.

3.7.7 Boundaries between areas in Ufs

The notices in the section **NOTICES** in Ufs are placed under the geographical headings listed below. Refer to the back cover of this booklet for an overview of the coverage of each area.

Bottenviken / Bay of Bothnia
Southern limit: Ratan 63-59N 020-54E – Stubben 63-31N 022-10E

Norra Kvarken / The Quark
Northern limit: Ratan 63-59N 020-54E – Stubben 63-31N 022-10E
Southern limit: Järnäsudde 63-26N 019-40E – Halsön 62-50N 021-10E

Bottenhavet / Sea of Bothnia

Northern limit: Järnäsudde 63-26N 019-40E – Halsön 62-50N 021-10E
Southern limit: Lat. 60-30N

Ålands hav och Skärgårdshavet / Sea of Åland and Archipelago Sea
Northern limit: Lat. 60-30N
Southern limit: Lat. 59-50N

Finska viken / Gulf of Finland
Western limit: Long. 022-55E
Southern limit: Lat. 59-00N

Rigabukten / Gulf of Riga
Northern limit: Lat. 59-00N
Western limit: The islands Hiiumaa and Saaremaa and longitude 022-00E in Irbenskij proliv

Norra Östersjön / Northern Baltic
Northern limit: Lat. 59-50N
Eastern limit: Long. 022-55E and the islands Hiiumaa and Saaremaa
Southern limit: Lat. 58-20N

Lake Mälaren and Södertälje kanal
Eastern limit: Close E of Karl Johans and Hammarby locks in Stockholm
Southern limit: Lat. 59-11N through Södertälje kanal S mouth

Mellersta Östersjön / Central Baltic
Northern limit: Lat. 58-20N
Eastern limit: The island Saaremaa and longitud 022-00E in Irbenskij proliv
Southern limit: Lat. 56-30N

Sydöstra Östersjön / South-eastern Baltic
Northern limit: Lat. 56-30N
Western limit: Long. 017-00E

Södra Östersjön / Southern Baltic
Northern limit: Lat. 56-30N
Eastern limit: Long. 017-00E
Western limit: Falsterbo 55-23N 012-49E – Arkona 54-41N 013-26E

Sydvästra Östersjön / South-western Baltic
Eastern limit: Falsterbo 55-23N 012-49E – Arkona 54-41N 013-26E
Northern limit: Falsterbo 55-23N 012-49E – Stevns Klint 55-17N 012-27E and Kappel kirke 54-46N 011-01E – Dovns Klint 54-43N 010-42E – Vejsnæs Nakke 54-49N 010-25E – Gammel Pøl 54-53N 010-04E

Öresund / The Sound
Southern limit: Falsterbo 55-23N 012-49E – Stevns Klint 55-17N 012-27E
Northern limit: Kullen 56-18N 012-27E – Gilbjerg Hoved 56-08N 012-17E

Bälten / The Belts
Southern limit: Falsterbo 55-23N 012-49E – Stevns Klint 55-17N 012-27E and Kappel kirke 54-46N 011-01E – Dovns Klint 54-43N 010-42E – Vejsnæs Nakke 54-49N 010-25E – Gammel Pøl 54-53N 010-04E
Northern limit: Sjællands Odde 56-00N 011-17E – Hassenør 56-08N 010-43E

Kattegatt / Kattegat
Southern limit: Kullen 56-18N 012-27E – Gilbjerg Hoved 56-08N 012-17E and Sjællands Odde 56-00N 011-17E – Hassenør 56-08N 010-43E
Northern limit: Hamneskär 57-54N 011-28E – Skagen 57-44N 010-38E

Skagerrak
Southern limit: Hamneskär 57-54N 011-28E – Skagen 57-44N 010-38E
Western limit: Hanstholm 57-07N 008-36E – Lindesnes 57-59N 007-03E

Lake Vänern and Trollhätte kanal
Trollhätte kanal, Vänern, Säffle kanal and Glafsfjorden
Southern limit: Lärje å 57-46N 012-00E (N of Göteborg)
Western limit: Longitude 011-50E through Nordre älv mouth

Other lakes and canals
Hjälmaren and Hjälmare kanal, Göta kanal, Vättern and Dalslands kanal.

4 Maritime Traffic Information

The traffic regulations concerning Vessel Traffic Services and Ship Reporting Systems are stated in the Swedish Transport Agency's statute book *TSFS 2009:56**, as amended.
(*Available in Swedish language only).

4.1 Reporting requirements

All vessels with a length of 45 metres or more or a gross tonnage of 300 or more and towing vessels with a length of 45 metres or more including the tow are obliged to report to the VTS centre concerned, as per below, during passage within a VTS area or when passing a reporting point.

All vessels with a length of 15 metres or more or a gross tonnage of 20 or more, and smaller registered fishing vessels, should, as far as it is practical, participate in the reporting if their passage could be considered to affect the safety of other vessels during transit.

All vessels so equipped shall keep watch on the designated VHF working channel for respective VTS area and on VHF Ch 16.

4.1.1 Reporting procedures in VTS areas

Vessels participating in the reporting shall report to the concerned VTS centre as per below:

A. On entering the VTS-area and immediately before leaving berth or anchorage stating:

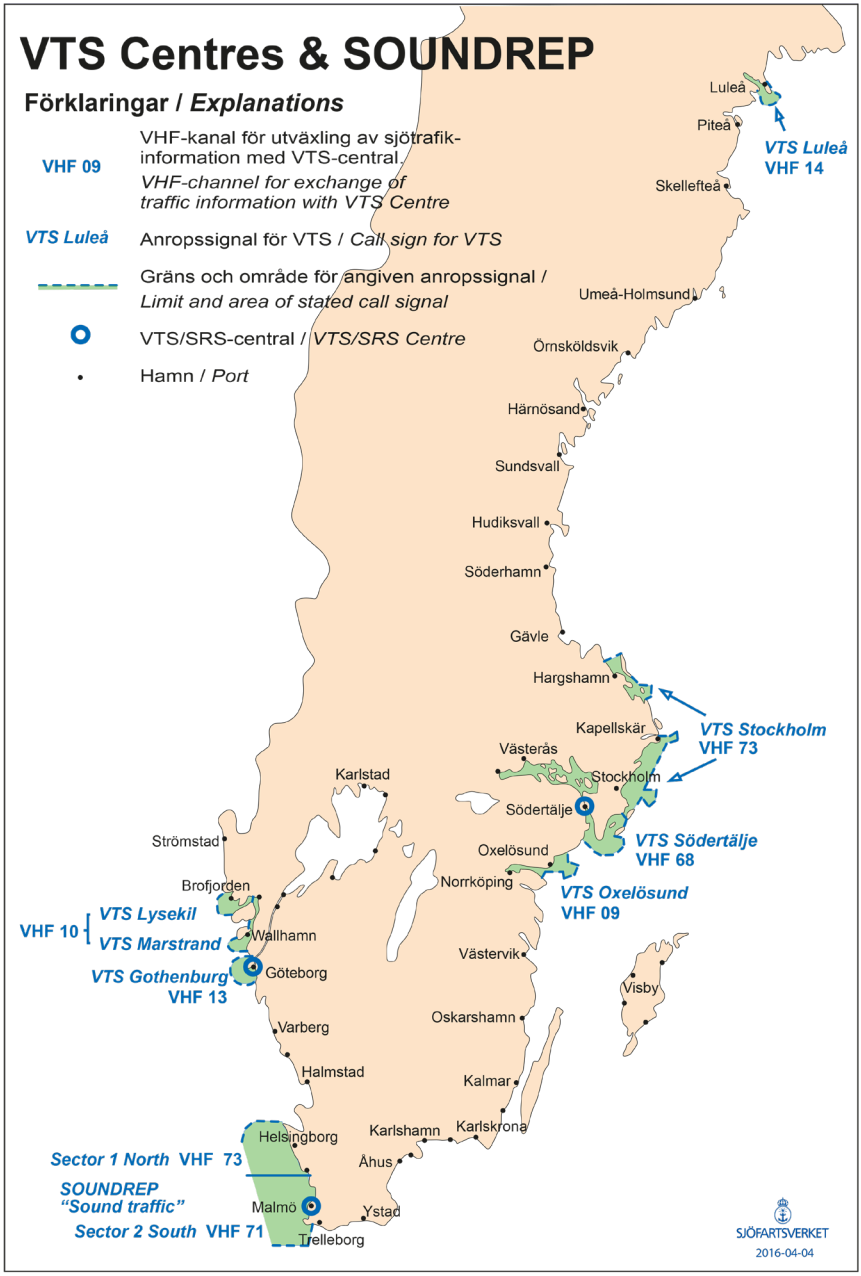
1) name of vessel
2) call sign
3) position (nearest reporting line or geographical position)
4) intended route
5) destination
6) draught

Note: Vessels are **not permitted** to leave a quay or anchorage when inside the VTS Gothenburg area without first having received an explicit approval from the VTS.

B. The following information is to be given when passing reporting points (1, 2, 3), when berthing or when anchoring (1, 2), on altering route (1, 2, 4, 3), when being involved in an maritime accident, when experiencing technical difficulties (e.g propulsion or engine failure, failure of the electrical and/or emergency power system, instrument errors) which have a significant and detrimental impact on the safety of navigation stating (1, 2, 3, 4):

1) name of vessel
2) position
3) destination
4) reason(s) for reporting (e.g. new route, accident, damaged or defect equipment)

Vessels shall be prepared to state additional information upon request at any time when inside the VTS area.


VTS Centres & SOUNDREP
Förklaringar / Explanations
VHF 09
VHF-kanal för utväxling av sjötrafik-information med VTS-central.
VHF-channel for exchange of traffic information with VTS Centre
VTS Luleå
Anropssignal för VTS / Call sign for VTS
Gräns och område för angiven anropssignal / Limit and area of stated call signal
VTS/SRS-central / VTS/SRS Centre
Hamn / Port
Luleå
Piteå
VTS Luleå
VHF 14
Skellefteå
Umeå-Holmsund
Örnsköldsvik
Härnösand
Sundsvall
Hudiksvall
Söderhamn
Gävle
Hargshamn
Kapellskär
VTS Stockholm
VHF 73
Västerås
Karlstad
Stockholm
Södertälje
VTS Södertälje
VHF 68
Strömstad
Oxelösund
Norrköping
VTS Oxelösund
VHF 09
Brofjorden
VHF 10
VTS Lysekil
VTS Marstrand
Wallhamn
VTS Gothenburg
VHF 13
Göteborg
Västervik
Visby
Varberg
Oskarshamn
Halmstad
Kalmar
Helsingborg
Karlshamn
Karlskrona
Sector 1 North VHF 73
Åhus
SOUNDREP
"Sound traffic"
Malmö
Ystad
Sector 2 South VHF 71
Trelleborg
SJÖFARTSVERKET
2016-04-04

4.2 General definitions for Vessel Traffic Services

VTS area

A VTS area is a delineated, formally established service area of particular interest for maritime safety and environmental concern where one or more maritime information services are provided.

VTS centre

A VTS centre is the centre from which the monitoring and maritime information services are handled. A VTS centre is responsible for ensuring that all established and stipulated reporting requirements for maritime information systems in the specified area are met.

Vessel Traffic Services (VTS)

Vessel Traffic Service is a service assigned to monitor, organize, inform and assist marine traffic inside the VTS area. This contributes positively to the upholding of desired standards of safety and environment protection.

Information services* are divided up into three groups:

- Information Service (INS)
- Navigational Assistance Service (NAS)
- Traffic Organisation Service (TOS)

The type of service provided is listed separately for respective area.

*As of now, only INS is provided in Swedish VTS areas.

Information Service

The Information Service ensures that information duly needed for safe navigation is promulgated in a timely manner to the shipboard management team. The service is given to vessels when they report, at specified times, when so deemed necessary by the VTS operator, or when requested.

Reports may contain, but are not limited to, information regarding:

- Details on vessel traffic which are deemed essential to safe navigation
- Missing or defective aids to navigation [floating and/or fixed]
- Restrictions to maritime traffic
- Ice and weather conditions
- Water levels and/or other significant hydrological conditions
- Hazards or other factors of significant or immediate importance which affect or could affect maritime safety.

4.3 Reporting accidents and incidents

If a maritime accident occurs, the JRCC (**call 'Sweden Rescue' on Ch 16**) shall be immediately notified stating vessel's name, call sign, MMSI number, position, the nature of emergency, number of persons onboard and requested need of assistance.

The respective VTS centre is be forthwith informed if a grounding, collision, incident or breakdown occurs inside a VTS area or during similar incidents which affects or may affect maritime safety and/or accessibility to an area or fairway.

Maritime accidents which have occured within Swedish territorial waters are reported to the Swedish Transport Agency in accordance with the guidelines in regulation *TSFS 2016:121*.

For contact details, refer to Section 1.1.4.

4.4 Use of AIS

The Master is reminded of his obligation to ensure that the static, dynamic and voyage-related information in the AIS system on board is correct at all times as stipulated in *IMO Resolution A917/22, Res. A956(23)*.

4.5 Ship Reporting Systems (SRS)

A Ship Reporting System is a system for ship's reporting which by collection and subsequent dissemination of relevant information contributes to safety of life at sea, safety and efficiency of navigation and/or protection of the marine environment. A ship reporting system is adopted and implemented in accordance with the guidelines and criteria developed by the IMO Maritime Safety Committee (MSC).
The master of a ship shall comply with the requirements of an adopted mandatory ship reporting system and report to the appropriate authority all information required in accordance with the provisions of each such system. Furthermore, the IMO encourages masters to participate in and report to the voluntary SRSs.
SRSs are shown on official nautical charts and mandatory SRSs are listed in Part G of IMO's publication *Ships' Routeing (2017)*.
Mandatory SRSs are also listed in Appendix 10 of regulation *TSFS 2009:56* (available only in the Swedish language). Information on current SRSs can be found on the website of the Swedish Transport Agency, refer to below link:

http://transportstyrelsen.se/globalassets/global/sjofart/dokument/sjotrafik_dok/mandatory-and-recommended-srs.pdf

Mandatory Ship Reporting Systems in the Baltic Sea Area

Name	Area/Country	IMO-resolutions
BELTREP	Great Belt, Denmark	MSC.63(67), A.978(24), MSC.230(82), MSC 332(90)
GOFREP	Gulf of Finland, Finland	MSC.139(76), MSC.231(82)
SOUNDREP	The Sound, Sweden/Denmark	MSC.314(88)
GDANREP	Gulf of Gdansk, Poland	MSC.249(83)

4.6 SOUNDREP

All ships with a gross tonnage of 300 and above are obligated to participate when transiting och navigating within the area covered by the ship reporting system SOUNDREP.

Purpose

SOUNDREP aims to improve the safety and efficiency of navigation and to increase the protection of the maritime environment in the sound between Denmark and Sweden.

SOUNDREP provides information to shipping about specific and urgent situations, which could result in hazardous situations with the possibility of conflicting traffic movements evolving.

SOUNDREP broadcasts relevant information concerning the safety of navigation in the operational area on:

- vessel movements and other activities which could impact traffic therein;
- obstacles in fairways;
- warnings on the failure of important aids to navigation until navigational warnings are issued;
- extraordinary meteorological conditions;
- current and water levels;
- ice conditions; and
- any other factors that may influence safety of navigation.

Additional information will be given upon request.

Relevant information will be broadcast on VHF Ch 79 and will be preceded by an announcement on Ch 16, 71 and 73. All vessels in the area should listen to the announced broadcast. In the event a ship needs to drop anchor due to restricted visibility, adverse weather conditions, change in the indicated depth of water, defects and deficiencies or for whatever other reason, the VTS centre may recommend a suitable anchorage area.

Reporting procedures

A report containing information as per the reporting format below shall be initiated via VHF R/T when the vessel enters into respective sector of the SRS. Vessels may, however, fullfill the larger part of the requirements (specifically A*/ B/ C/ D/ E/ F/ I/ P) by updated AIS data.

Vessels without access to any electronic means of reporting must furnish a full report by VHF.

Notwithstanding that, in order to facilitate easier and quicker reporting all vessels so able are encouraged to furnish a report by e-mail with due consideration to the following:

*** As a bare minimum it is obligatory for vessels to state designator A and to indicate which reporting line is passed when entering the SRS area.**
The same also applies when leaving a port or anchorage inside the area.

Designators O / Q and U are given via VHF R/T.
Designators L / T / X may be given via e-mail or by phone or facsimile.

** Information on Dangerous Cargo (designators P and T) is only required if the information has not been previously given via SafeSeaNet/MSW as per *EU directive 2002/59/EU*.

The language used for communication should be English; using the IMO Standard Marine Communication Phrases whenever necessary.

Desig-nator	Information required
A*	Name of ship, call sign, IMO and MMSI identification numbers
B	Date and time of event in a 6-digit group giving day of month, hours and minutes in UTC.
C	Position given as 6 resp. 7 characters, e.g. 55°43.5'N 012°49.3'E => 55435N 012493E.
E	True course given in a 3-digit group
F	Speed in knots with one decimal in a 3-digit group, e.g. 18,3 knots => 183
I	Destination / Name of next port of call (UN LOCODE) and ETA (format as under point B)
L	A brief description of the intended route as planned by the master. Refer to above.
O	Draft in a 2-digit group giving the present maximum draught in meters, e.g. 6.1
P **	Type of cargo and class of dangerous cargo incl. quantity of each class, if the latter is applicable
Q	Defects, deficiencies, limitations of the ship or other circumstances which affect or could affect safe navigation and manoeuvrability
T**	Name and telephone number to *Designated Person* ashore
U	Air draught (when exceeding 35 metres).
W	Total number of persons on board
X	Type and estimated quantity of bunker fuel (for vessels exceeding 1000 GT)

Examples of routes as given under the designator L:

DW = Passage west of 'Disken' shoal

DE = Passage east of 'Disken' shoal

VW = Passage west of island 'Ven'

VE = Passage east of island 'Ven'

D = 'Drogden' fairway

F = 'Flintrännan' fairway

A northbound vessel leaving Port of Malmö intending to proceed northwards and to the east of island 'Ven' => L: **SE MMA, VE**

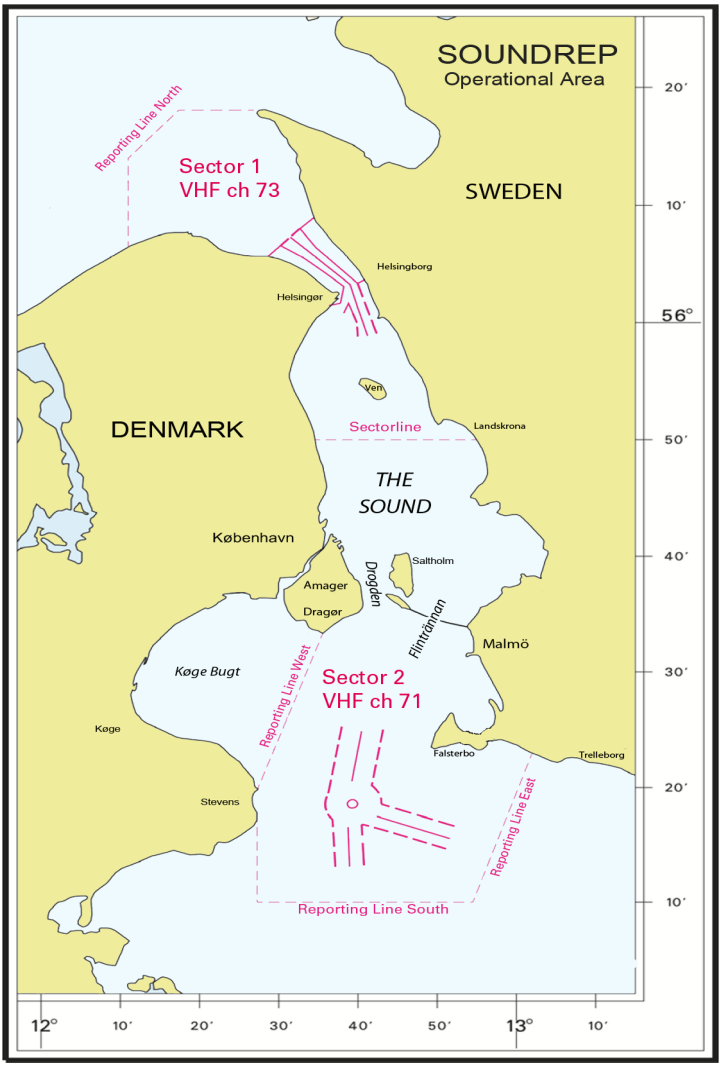
A southbound ship in transit planning to sail through the TSS In the Sound to east of the'Disken' shoal, and further on to the west of island 'Ven', through 'Drogden' fairway and on to 'TSS Off Falsterbo' => L: **DE, VW, D**

Contact information:

Call:	*Sound Traffic*
VHF Ch 73	Reporting and working channel for Sector 1, North
VHF Ch 71	Reporting and working channel for Sector 2, South
VHF Ch 79	Sound VTS broadcast channel (both sectors)
VHF Ch 68	Back-up channel used for broadcasts

Sound VTS monitors VHF Ch 16, 73 and 71.

Phone: +46 771 630 600
E-mail: *contact@soundvts.org*


SOUNDREP
Operational Area
Reporting Line North
Sector 1
VHF ch 73
SWEDEN
Helsingborg
Helsingør
56°
Ven
DENMARK
Sectorline
Landskrona
THE
SOUND
København
Saltholm
Drogden
Amager
Dragør
Flintrännan
Malmö
Køge Bugt
Reporting Line West
Sector 2
VHF ch 71
Køge
Falsterbo
Trelleborg
Stevens
Reporting Line East
Reporting Line South
20´
10´
50´
40´
30´
12°
13°

5 Regulations (exerpt)

5.2.1 Transiting traffic separation schemes and inshore traffic zones

Vessels operating in a sea area which encompasses a traffic separation scheme approved by the IMO must obey rule 10 in *TSFS 2009:44 (COLREG)* as well as all other applicable rules of said regulation. In particular, Rules 11-19, concerning right of way, as regards vessels within sight of each other and in restricted visibility, are applicable without exception inside traffic separation schemes.

A prerequisite for compliance with rule 10 is that due consideration is shown and preemptive planning is done prior to the vessel's transit through a TSS and/or Inshore Traffic Zone, taking due account of the prevailing traffic conditions and water depth.

Inshore Traffic Zones

By Inshore Traffic Zone in rule No. 10 is meant:

the area between the traffic lanes and land, which has been declared an Inshore Traffic Zone by the IMO and is listed in the description of the traffic separation scheme in the IMO publication *Ships' Routeing (2017)*. Inshore traffic zones are indicated on the charts with text and unbroken separation lines or separation zones towards the adjoining traffic lanes.

Certain inshore traffic zones are specifically defined areas between the traffic lanes and the shoreline. The limits of such areas are marked on charts by a broken T-line.*

* Exceptions for certain vessels within the Inshore Traffic Zones south of Öland and Gotland and in Bornholmsgat are stated in the Swedish Transport Agency's regulation *TSFS 2009:44*, as amended.

5.2.3 Monitoring of TSS

The Swedish Maritime Administration monitors traffic in TSS areas. TSS Off Falsterborev and TSS in The Sound are monitored by Sound VTS, the rest by Sweden Traffic.

Vessels deemed to have violated rule 10 are reported to the Swedish Transport Agency as well as to the SafeSeaNet (SSN) system of the European Safety Agency (EMSA).

5.4 Equipment caught on submarine cables and pipes

Ships' officers and fishermen should avoid anchoring and trawling in areas where submarine cables and pipes are present. If the vessel's gear gets caught it is often impossible to detatch and there is a clear and present risk of seriously damaging the cable or pipe, which, if attempts to cut loose are undertaken in an injudicious manner, could cause disturbances to, or failure of, telecommunications, power transmissions or water supply.

Severing or deliberately damaging a submarine cable or pipeline may be punishable by law. Submarine power cables may have a voltage in excess of 1000 volts and handling such cables if they get caught in the ship's anchor could result in potential loss of life.

5.5 Particularly Sensitive Sea Areas (PSSA)

A Particular Sensitive Sea Area (PSSA) is, according to *IMO resolution A.982(24)*, an area which needs special protection through special action by the IMO because of its significance for recognized ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities. It is further required that associated protective measures are adopted to provide protection for the PSSA.

IMO's Marine Environment Protection Committee (MEPC) designates an area as a PSSA.

In order to be identified as such, the area should fulfill the following requirements:

(1) The sea area is recognized to be of ecological, social, cultural, economical and/or scientific

and educational significance.

(2) The recognized attributes of the sea area may be vulnerable to damage by international maritime activities.

(3) Associated protective measures to prevent, reduce or eliminate the identified vulnerability are adopted or approved by the IMO.

To date sixteen sea areas have been designated as PSSAs.

To each such area, associated protective measures must have been approved or adopted by the IMO to prevent, reduce, or eliminate the threat or identified vulnerability of the area.

The Baltic Sea area became a PSSA in 2005.

Further information is available at: *www.imo.org .*

5.6 Electronic Vessel Reporting System

5.6.1 Maritime Single Window

Due to EU Directive 2010/EU regarding requirements for coordination of administrative procedures, the Swedish Maritime Administration, Swedish Customs, Swedish Transport Agency, and the Swedish Coast Guard have launched a corporate internet-based maritime reporting platform termed Maritime Single Window (MSW). When data is submitted to the MSW Reportal, it will automatically be forwarded to the relevant authority and system, mainly to the Swedish Maritime Adminstration and to the Swedish Coast Guard and Customs Administration.

Information to be reported in MSW Reportal and respective authority:

- Information pertaining to Ship Notification, Dangerous Goods Notification, Waste Notification and Expanded Inspection - Swedish Maritime Administration and Swedish Transport Agency.
- Pilot Ordering and fairway declarations - Swedish Maritime Administration.
- Information regarding security, crew and passenger lists and Health Declaration - Swedish Coast Guard, Swedish Transport Agency and the Police.
- Information on Customs Clearance and IMO General Declaration (FAL 1), Cargo Declaration (FAL 2), Ship's Stores Declaration (FAL 3) and Crew's Effects Declaration (FAL 4) - Swedish Customs.

5.6.2 Declaration for fairway dues

Vessel subject to dues which load/unload good and/or passengers shall submit a fairway dues declaration via the MSW Reportal no later than 7 days after the vessel's departure.
In order to submit a fairway declaration, it is first necessary that a credit agreement is drawn up. The form 'Credit Agreement' must be completed and sent to The Swedish Maritime Administration. When credit is granted the company signing the credit agreement assumes financial liability for all declarations reported by the users associated with the same company.

5.6.3 Customer Support

MSW Support is available H24 and assists with issues on how to report in the MSW Reportal.

Telephone: + 46 (0) 771 400 050
E-mail: support@mswreportal.se

For authority-specific issues, refer to respective national authority:

Swedish Coast Guard

The Swedish Coast Guard handles questions pertaining to notifications in advance for border control and maritime security.

Telephone: +46 8 578 976 30 (Swedish Coast Guard Maritime Clearance)
E-mail: *sweden24@kustbevakningen.se*
Business hours: Monday thru Sunday 00:00 - 24:00 LT

Swedish Maritime Administration

The Administration deals with queries pertaining to ship notification, pilotage and fairway declarations.

Telephone: +46 10 478 58 00
E-mail: *kundstod@sjofartsverket.se*
Business hours: Monday thru Friday 08:00 - 16:30 LT

Swedish Transport Agency

The Agency handles questions pertaining to specific requirements (i.e. regulations) on ship notification, Dangerous Goods, waste, maritime security and expanded inspection.

Telephone: +46 771 503 503
E-mail: *kontakt@transportstyrelsen.se*
Business hours: Monday thru Friday 08:00 - 16:30 LT

Swedish Customs

The Swedish Customs handles customs related questions on ship clearance in connection with time limits and on required information to be submitted.

Telephone: +46 771 520 520 (Customs Service during daytime)
Telephone: +46 8 456 65 61 (Customs Clearance during daytime)
Telephone: +46 8 456 65 60 (Customs Clearance during evening hours and nighttime)

6 Fairways

6.3 Vertical clearance

Vertical clearance below overhead power-cables, bridges and other obstructions is given in metres on signs at the obstruction as well as on the chart. The stated height is calculated as follows:

Overhead power-cables

The distance between *Mean High Water* [1] and the lowest part of the cable, reduced by a *safety distance* [2].

Bridges and other obstructions

The distance between *Mean High Water* and the lowest part of the obstruction, within the navigable channel, reduced by a *safety margin* [3].

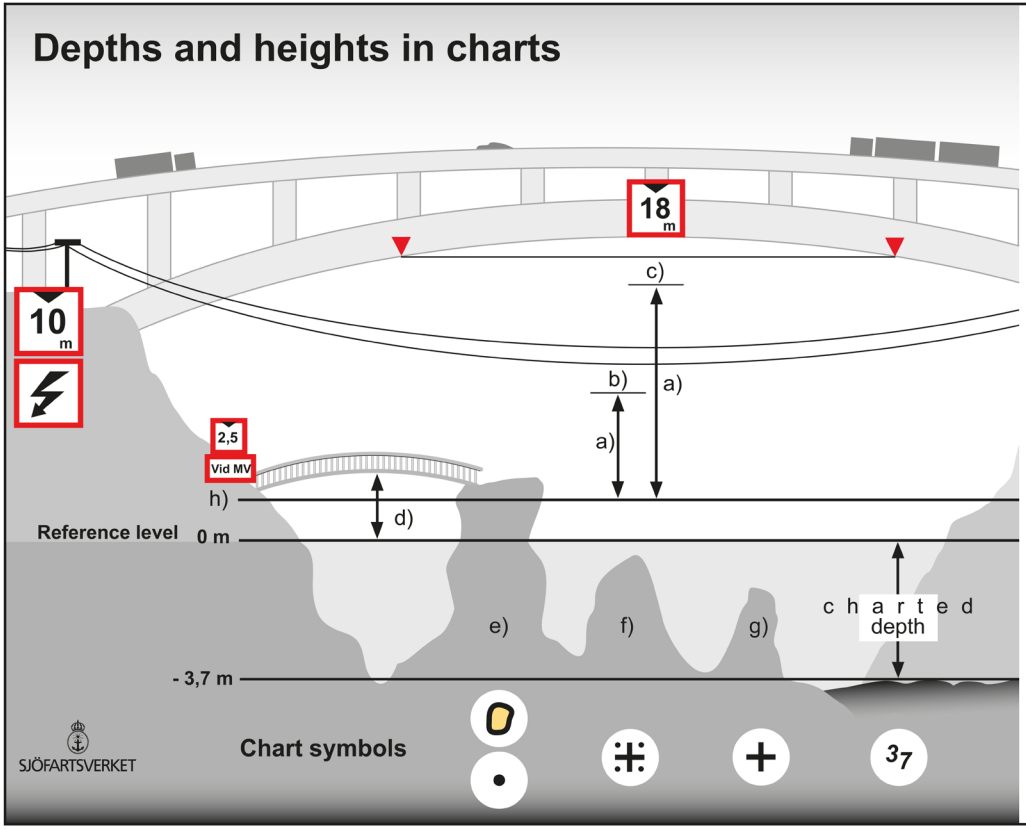
Low bridges [4] across sheltered waters

In general the distance between *reference level*[5] and the lowest part of the bridge, without *safety margin*.

1. *Mean High Water* is the average of the highest water levels as observed over a long series of years.
2. The *safety distance* is 1,5 m - 2,75 m depending on the voltage.
3. The *safety margin* is 0,5 m - 2 m depending on expected swell in the area.
4. Low bridges denotes bridges where the clearance can easily be estimated from a small boat, i.e. up to approximately 3 m in height.
5. *Reference level* is the chart datum used for each single nautical chart.

   Note: The water level **may rise** more than 1 m over this level.

Depths and heights in charts



Explanations

a) Vertical clearance given on signs and in charts.

b) The *safety distance* is 1,5 - 2,7 m, depending on the voltage.

c) The *safety margin* is 0,5 - 2 m depending on expected swell in the area, normally 0,5 m.

d) At *low bridges* the height stated is, in general, above reference level, without safety margin.

e) Rock or islet, always visible above the water-surface.

f) Rock awash, in general between 0,5 m under and 0,2 m over reference level.

g) Underwater rock, in general between 0,5 – 2 m below reference level.

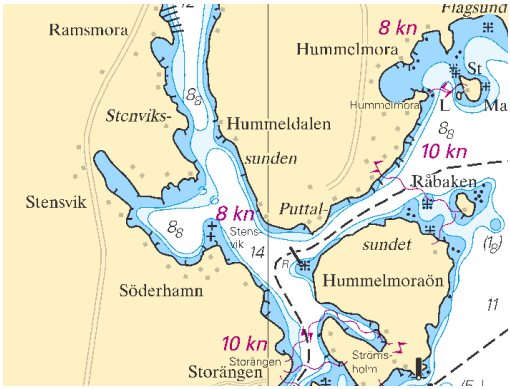
h) Mean High Water, in general 0,6 – 1,2 m above reference level (the value varies with the locality).

6.4 Speed restrictions

In accordance with the *Swedish Maritime Traffic Regulation (1986:300), Chapter 2 §2*, the respective County Administration is the authority which promulgates regulations on speed limits at sea. New such limits are made public in the County Administration's statutes and on *www.lst.se*. A particular speed limit is announced in Swedish NtM if it affects the waters along the Swedish coastline and in the larger lakes and if existing charted limits are modified.

The international chart symbol consists of a number followed by the letters ***kn*** in magenta (e.g 5 kn). As speed restrictions often affect narrow waters an exact representation of all boundaries may not be possible due to the inherent limitations of cartography in respective nautical product.

Mariner should thus be aware that these **symbols serve mainly an indicative purpose** and it is necessary therefore to always refer to the legal text to obtain an exact definition of the boundaries of each designated area.



6.5 General information concerning winter conditions

6.5.1 Specific conditions requiring consideration

Pilot Boarding
Regular pilot boarding areas may be moved or withdrawn if covered by thick ice. Always request updated information from pilot ordering centre and/or respective VTS.

DGPS
The range of DGPS-transmitters may be reduced due to hoarfrost covering the aerials.

Speed restrictions
In some fairways speed restrictions may apply when the water is covered by ice.

Buoyage
The movement of the ice can bring buoys and spars out of position. In some areas buoyage may be submerged under the ice and making it not possible to detect. Lights, racons, AIS and radar reflectors can be withdrawn during the winter period to avoid damage and loss. During ice conditions, floating aids to navigation should be considered unreliable.

Lights
Lenses on lights and light-buoys may quickly become covered by snow and ice which could make the light faint or invisible. Similarly, snow covering solar panels could result in discharged batteries which could make the light output faint, the character wrong or render the light unlit.

Prohibition to break ice
It might be prohibited to break ice in some areas. If so, details will be announced in NtMs.

Ice roads
During wintertime the ice is commonly used by islanders for transportation. Before a ship may proceed in ice-covered waters between inhabited islands and the mainland, the Master must ascertain that the ice is not used for transportation.

Ice-breaking service
The Swedish government´s icebreaking service provides assistance to vessels bound for Swedish ports. Information on how to contact the icebreaking division and the icebreakers can be found on the Swedish Maritime Administrations homepage and in pdf-file booklet *Winter Navigation*.

Cable ferries
The steel cable might lie on top of the ice which makes passage of the ferry lane impossible.

RACON
Whenever severe ice conditions are expected, RACON buoys will normally be replaced by ordinary light buoys in order to avoid undue damage to the expensive electronic unit.

Sector lights
Snow and ice may, in some cases, affect both the sector angles and the color of the light. The observer must take extra precautions while navigating with the help of sector lights. Snow covering the solar panels can result in discharged batteries. Lack of power might then make the light weak or unlit.

Traffic Separation Scheme
The Swedish Transport Agency can temporarily decide to withdraw a TSS if covered by heavy ice. Information will be given on NAVTEX and in NtMs.

Ferries
At some road ferry crossings speed restrictions may apply when the water is covered by ice.

6.5.4 Recommendations for traffic in ice conditions in Stockholm archipelago

The following recommendations will be in force when announced by the head of Stockholm Pilot Area and are prepared in co-operation with representatives from the ferry companies that operate in the area. For further information, contact VTS Stockholm on VHF Ch 73 or by phone: + 46 771 630 665.

Ice channels on straight lines
Recommended winter routes should be used whenever possible. Waypoints, radius and courses can be obtained from VTS Stockholm.

Meeting and overtaking on straight tracks
During ice conditions bridge-to-bridge communication should be established in order to arrange how and when meetings and overtaking shall be conducted. The different qualifications for vessels navigating in ice such as size and engine power should be taken into consideration. Recommended winter routes should be used whenever possible. Waypoints, radius and courses can be obtained from VTS Stockholm.

Ice channels in curves
The recommended route has been laid with attention paid to the tendency of the ice channel to move inwards in curves. Therefore the ice channel has also been laid with largest possible radius, limiting conditions when meeting in curves. Recommended winter routes should be used whenever possible. Waypoints, radius and courses can be obtained from VTS Stockholm.

Meeting in curves
Meeting another vessel in curved ice channels should be avoided. Only when circumstances so allow and an agreement has been made between the vessels, may a meeting occur. Different qualifications for vessels navigating in ice such as size and engine power should be taken into consideration.

Ice reporting

Observations of sudden changes and difficulties in the ice channel, such as ridges of ice, ice channel drifting or difficulties in steering in a curve, must be reported to VTS Stockholm. The breaking of a new ice channel next to the recommended channel, e.g. due to the thickness of the ice, must also be reported to VTS Stockholm. Occasional deviations from the recommended ice channel, e.g when meeting another vessel shall not be reported.

Ferry crossings
Smaller ferries are especially sensitive to ice floes. Ships travelling at high speed past intersections may push ice floes into the track of the ferry whose propeller system may be susceptible to damage. It is therefore important not to increase speed too early after passing such an area. When ice channels have been established speed restrictions will be enforced from 500 meters ahead of to 500 meters after the intersection.

7 Pilotage

7.1 Pilot ordering

A **first notification** regarding the need for pilotage is made in connection with the vessel reporting in the system MSW Reportal, *https://www.mswreportal.se/* (see section 5.6.1).

A preliminary request for pilot shall be made 24 hours in advance followed by a **definitive** order not later than 5 hours before pilot boarding time.

If you need more information about the MSW Reportal or experience some problem with our system, please contact the Customer Service Department:

MSW User Support Hot-line
Contact phone (24/7): + 46 (0) 771 400 050

Pilot ordering centres can be contacted by phone, e-mail or by VHF (see 1.1.8 and map 7.3).

For more information on pilotage and associated charges, visit the homepage (link below) or refer to the regulating guidelines regarding pilotage, *SJÖFS 2014:9*, *SJÖFS 2015:5* and *TSFS 2012:38* (the latter available at *https://www.transportstyrelsen.se/).*

https://www.sjofartsverket.se/en/services/pilotage/

7.2 Recommended routes - digital voyage plans

The Swedish Maritime Administration has the ambition to provide downloadable routes/passage plans for Sweden's pilot stations and for all the ports covered by the pilot service. Routes/passage plans provided are the ones being used most frequently by pilots at each pilot station. The bridge team is hereby given an opportunity to, before the call to a Swedish port, program the electronic chart display systems with the exact same routes as the pilots use.

The Administration considers this to be an important step toward enhancing maritime safety.

7.3 Deep-sea pilotage in Swedish and neighbouring waters

The Swedish Maritime Administration additionally provides pilotage for vessels outside Swedish territorial waters. This service is regulated by the following rules and regulations which are summarised as follows.

Pilotage in the Baltic Sea, North Sea incl. the English Channel and Skagerrak

– The pilot authorities of Baltic states have agreed on mutual qualification requirements and rules for the licencing of pilots qualified for piloting on international waters in the Baltic Sea. Such pilots, called Baltic Deep-Sea Pilots, carry a pilot identity card (The Red Card) with information about the area for which the licence is valid.
– For the North Sea with the English Channel and Skagerrak, similar rules have been agreed on by the pilotage authorities in respective state.

– The IMO recommends that ships that wish to avail themselves of deep-sea pilots in the Baltic area should only use deep-sea pilots licenced by a pilotage authority of a Baltic coastal state.The pilot must be able to present a valid licence to the master.

Restrictions regarding pilotage in Swedish territorial waters

Pilotage within Swedish sea territory is, according to the Swedish pilotage statute book and public notices, reserved for Swedish state pilots with certain exceptions.

A Deep-Sea Pilot with a foreign licence may, with the exception of the Kattegat, The Sound (see below) and north of lat. 59-30N, assist vessels on Swedish territorial waters from the limit of the territorial waters to the nearest pilot station, or when passing through Swedish territorial waters not classed as a shipping lane and not calling at a Swedish port.

Pilotage in The Sound (Öresund)

– Pilotage in The Sound (Öresund) is provided only by Danish and Swedish pilots from pilot stations in The Sound. A Danish pilot may not conduct pilotage east of the island of Ven. whereas a Swedish pilot may not use the Drogden fairway.

– The IMO (*IMO Resolution MSC 138(76)*) recommends that all tankers carrying oil cargoes and with a draught of 7 metres or more and all chemical- and gas-tankers, shall apply for pilotage when passing The Sound within the area south of the line between
Svinbådan lighthouse - Hornbäck harbour and north of the line between Skanör - Aflandshage (southern point of Amager). Pilotage is ordered from the pilot ordering centre in question.

Pilotage in the Belts

Apart from the special recommendations for The Sound, the IMO has recommended that vessels in the Belts with a draught of 11 metres or more shall use the local pilot service established by the coastal states. Pilotage is ordered from the nearest pilot ordering centre in question.

Ordering and provision of Swedish Deep-Sea Pilots

The Swedish Maritime Administration has issued licences to pilots according to the above agreements and recommendations. These pilots are provided for vessels en route to or from Swedish ports or passing through Swedish and adjacent waters. For the Baltic Sea, however, the authorities have agreed that pilots shall primarily be provided by the country from which a vessel departs or, the closest contry when entering the Baltic through The Sound or The Belts.

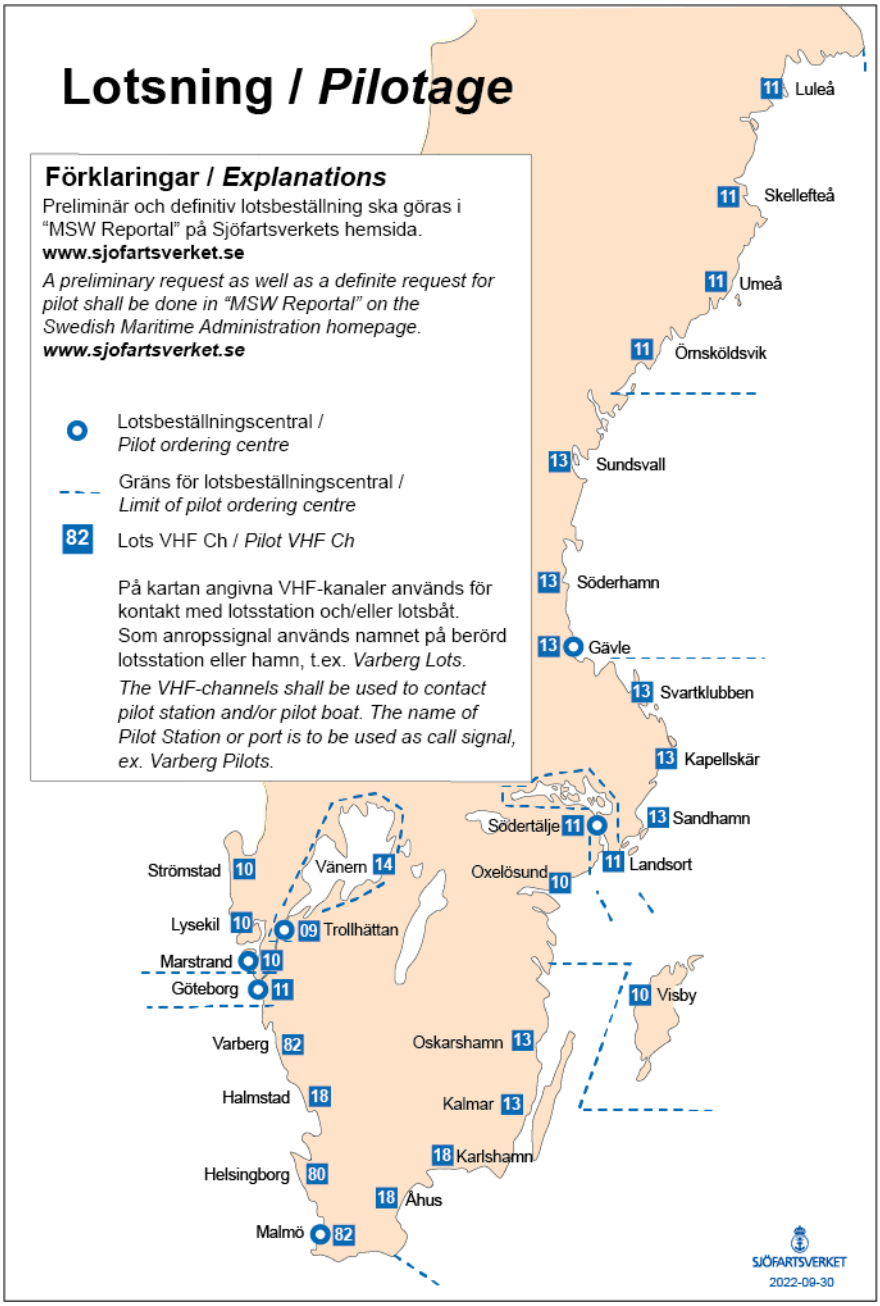
Assistance to ships outside Swedish territorial waters is normally given by placing **a single** pilot on board. The ship's master must make an agreement with the pilot regarding adequate rest periods to be taken during the voyage (mutual rule for open sea pilotages of all countries).

Note that if continuous bridge assistance is necessary for voyages exceeding 12 hours, this must be made clear when ordering the pilotage. Two pilots will then assist the ship, which will be charged accordingly.

Requests for Swedish Deep-Sea Pilots are made to the pilot ordering centre in Malmö,
phone +46 771-63 06 80.

Orders must be made at least 24 hours prior to the starting time of the pilotage. The order shall contain information about the ship's destination and whether assistance is required by one or two pilots. A rendez-vous point where the pilot can board must be determined in connection with the ordering.

Mariners are advised to observe issued recommendations.


Lotsning / Pilotage
Förklaringar / Explanations
Preliminär och definitiv lotsbeställning ska göras i "MSW Reportal" på Sjöfartsverkets hemsida.
www.sjofartsverket.se
A preliminary request as well as a definite request for pilot shall be done in "MSW Reportal" on the Swedish Maritime Administration homepage.
www.sjofartsverket.se
Lotsbeställningscentral / Pilot ordering centre
Gräns för lotsbeställningscentral / Limit of pilot ordering centre
82 Lots VHF Ch / Pilot VHF Ch
På kartan angivna VHF-kanaler används för kontakt med lotsstation och/eller lotsbåt. Som anropssignal används namnet på berörd lotsstation eller hamn, t.ex. Varberg Lots.
The VHF-channels shall be used to contact pilot station and/or pilot boat. The name of Pilot Station or port is to be used as call signal, ex. Varberg Pilots.
11 Luleå
11 Skellefteå
11 Umeå
11 Örnsköldsvik
13 Sundsvall
13 Söderhamn
13 Gävle
13 Svartklubben
13 Kapellskär
13 Sandhamn
Södertälje 11
11 Landsort
Oxelösund 10
Strömstad 10
Vänern 14
Lysekil 10
09 Trollhättan
Marstrand 10
Göteborg 11
10 Visby
Varberg 82
Oskarshamn 13
Halmstad 18
Kalmar 13
18 Karlshamn
Helsingborg 80
18 Åhus
Malmö 82
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8 Aids to navigation

8.4 Floating aids to navigation

Winter conditions

During ice conditions, floating aids for navigation should, in general, be considered to be unreliable. Light output may be weak or nonexistent if the solar panels are covered with snow. Ice-covered waters may turn ice-free quite fast, but for practical reasons a few weeks are needed before all floating aids to navigation have been checked and attended to by buoy tenders. For further information, see section 6.5.1.

8.5 Lights

Lights displaying sectors of different colours are common in Swedish waters.
A sector or a limit between two sectors may indicate a fairway, a turning point, a junction with other channels, a hazard or some other feature of navigational importance.
When a fairway is covered by a white sector it usually has, to a vessel approaching the light, a green sector to starboard and a red sector to port.

8.5.2 General information

When using lights as aids to navigation several factors should be take into consideration:

a) The light could be damaged; (e.g. the coloured glass may be broken and the light shows white where normally it should be coloured).

b) Lights may be hard to detect due to strong backlighting (from street lights, harbours etc.)

c) Limits between adjacent sectors are not always distinct. Between sectors (largest distinctions between illuminated and dark areas) it can be difficult to ascertain the colour of the light.

d) Light radiating from lighthouse windows or lenses can often be observed from well within dark sectors.

e) In general the leading white sectors are very precisely defined but coloured sectors are, in general, slightly less accurate .

f) The range of visibility depends on the colour of the light.

g) Leading sectors and leading lines do not generally lead free from hazards throughout their entire length.

h) Leading sectors are normally adjusted for the greatest authorized draught during night time.

i) Snow and ice may induce a reduction of the range and quality of the light. For further information, refer to Section 6.5.1.

9 SAR and Maritime Assistance Service (MAS)

9.1 JRCC Sweden

Maritime Search and Rescue (SAR) is regulated by the IMO conventions *SOLAS* and *SAR*. In accordance with the Swedish Rescue Services Act, the Swedish Maritime Administration is responsible for rescue services at sea. From the 1st of January 2009 the Swedish Maritime Administration is also responsible for Aeronautical Search and Rescue Services. The Administration is to plan and lead the rescue service so that persons in, or reported to be in, distress receive assistance.

Medical evacuation from ships is also a part of the Search and Rescue service.

For contact details, refer to Section 1.1.4.

The SAR Service is alerted either by VHF R/T **(Call 'Sweden Rescue' on CH 16)** or by calling the emergency services on **telephone number 112 requesting 'Sea Rescue'.**

A request to participate in a rescue operation may also come from an RCC (Rescue Coordination Center) of another country. Upon receiving a report of person(s) in distress or missing person(s), the rescue centre will alert those rescue units which are considered most suitable to take part in the operation. These could be ships in the vicinity, pilot and rescue units belonging to the Maritime Administration, units of the Swedish Sea Rescue Society, the Swedish Coast Guard, the Police, Naval Command, or the municipal rescue services.

9.2 Alerting the Search and Rescue service

In order to enable the rescue service to perform its duties in the best possible way, ships' masters are requested to notify the JRCC of accidents as soon as possible. Over the past few years delayed alerts and failure to send alert has caused great difficulty for the maritime rescue service to provide adequate help.

Even if the ships' master deems the situation to be presently manageble, he or she should still not hesitate to initiate contact with the JRCC. Pre-emptive alerting enables rescue services to continually monitor the situation and to adjust the level of readiness accordingly.

The JRCC should also be informed when other kinds of difficulties occur, such as icing, severe weather etc. Reports should contain information on position, course, the number of persons on board, details on dangerous cargo (i applicable) and any other information of importance.

This information makes it possible for the rescue services to raise their level of readiness and direct units to the area in due time.

Assistance and rescue operations are free of charge.

9.3 Maritime Assistance Service (MAS)

Maritime Assistance Service (MAS) is a service to handle events where the ship is in difficulty and where environmental harm is imminent or has already occurred, but where danger to human life does not exist.

The following applies to the MAS in Sweden:

MAS operations are conducted from the JRCC Sweden in close collaboration between the Swedish Transport Agency, the Swedish Coast Guard and the Maritime Administration. The Swedish Police, the municipal emergency services and other local authorities may also become involved whenever deemed necessary.

The main tasks of the MAS function is:
1. to receive reports from ships in need of assistance,
2. monitoring the situation,
3. act as contact between ship and national authorities on land, and
4. to act as an interface between interacting partners at sea and the coastal state.

Vessels which are in need of MAS service should alert ”Point of Contact” (National Focal Point) as shown below. A Search and Rescue case could downgrade to a MAS case when danger to human life no longer exists.

Contact information (24/7) for the MAS service in Sweden

Contact point:	JRCC Sweden
VHF:	Ch 16
Call sign:	Sweden Rescue
Tel:	+46 10-492 77 00
Inmarsat C:	426590010
MMSI:	002653000
E-mail:	*jrcc@sjofartsverket.se*
AFTN:	ESORYCYX
Postal address:	Box 5158, SE-426 05 Västra Frölunda, Sweden

The Swedish Transport Agency
Raise alarm through SOS Alarm AB, ph: +46 771 800 900
Duty Officer, Ph: +46 771 520 052

The Swedish Coast Guard
Command Centre Southwest
Ph: +46 31 727 91 00

9.4 Swedish Sea Rescue Society (SSRS)

The Swedish Sea Rescue Society (SSRS) is a voluntary organization with 71 rescue stations along the Swedish coast and in lakes Vänern, Vättern, Mälaren, Hjälmaren, Bolmen and Helgasjön. The society has some 200 rescue units at its disposal and is a part of the Swedish Maritime Search and Rescue Organization.

Emergency contact: Call 112, request 'Sea Rescue'

Phone: +46 77 579 00 90 (general enquiries, open weekdays 0800 - 1800)
E-mail: *info@ssrs.se*
Home page: *www.sjoraddning.se*

11 Maritime Safety Information (MSI)

Maritime Safety Information (MSI) is a term encompassing navigational warnings, meteorological warnings and forecasts and other urgent maritime safety information. It is important that ships at sea can continually receive MSI and that ships in port collect and review relevant information before departure. MSI Sweden, the operational centre for MSI in Sweden, is located at the VTC Centre in Södertälje. MSI Sweden broadcasts all transmissions of MSI on VHF and MF R/T in Swedish waters but is also the coordinator of all NAVTEX broadcasts in the Baltic Sea area.

Sweden Traffic

Phone:	+46 771 63 06 85	E-mail	*swedentraffic@sjofartsverket.se*
MMSI no:	002653500		

11.2.5 Weather reports on NAVTEX

The Swedish Meteorological and Hydrological Institute (SMHI) in Norrköping is the coordinator of meteorological information transmitted on NAVTEX in the Baltic Sea region. The work is done in collaboration with the meteorological institutes of the other Baltic states.

11.2.6 Abbreviations in NAVTEX

Wind direction

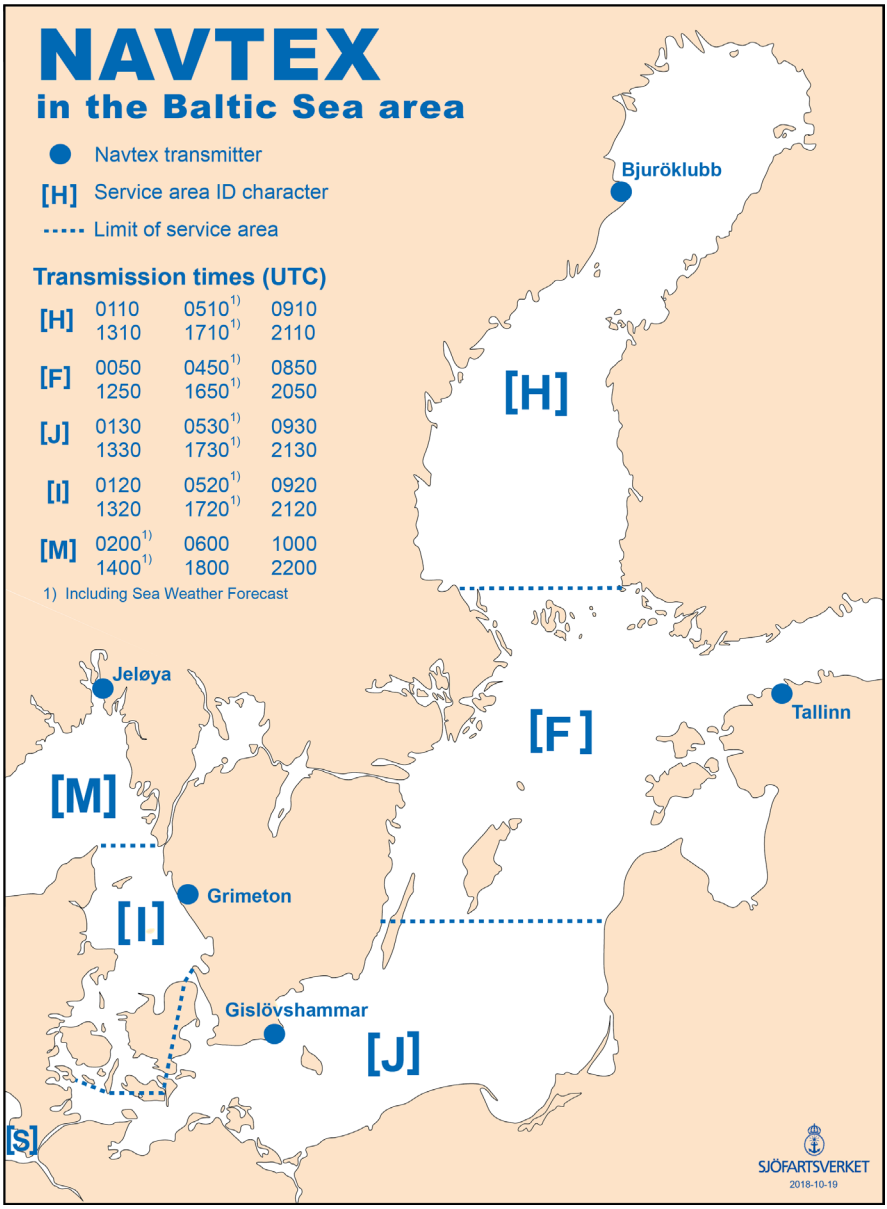
N	North / Northerly	S	South / Southerly
SE	Southeast / Southeasterly	SW	Southwest / Southwesterly
NE	Northeast / Northeasterly	W	West / Westerly
E	East / Easterly	NW	Northwest / Northwesterly

Other terms

24-HR **	24 hours	NC	No change
BACK	Backing	NM	Nautical miles
BECMG	Becoming	NOSIG	No significant change
BLDN	Building	NXT	Next
C-FRONT	Cold Front	OCNL	Occasionally
DECR	Decreasing	O-FRONT	Occlusion Front
DPN	Deepening	POSS	Possible
EXP	Expected	PROB	Probability / Probable
FCST	Forecast	QCKY	Quickly
FLN	Filling	QSTNR	Quasi-Stationary
FLW	Following	QUAD	Quadrant
FM	From	RPDY	Rapidly
FRQ	Frequent	SCT	Scattered
HPA	Hectopascal	SEV	Severe
HVY	Heavy	SHWRS	Showers
IMPR	Improving / Improve	SIG	Significant
INCR	Increasing	SLGT	Slight
INTSF	Intensifying / Intensify	SLWY	Slowly
ISOL	Isolated	STNR	Stationary
KMH	km/h	STRG	Strong
KT	Knots	TEMPO	Temporarily / Temporary
LAT/LONG	Latitude / Longitude	TEND	Further outlooks
LOC	Locally	VEER	Veering
M	Metres	VIS	Visibility
MET	Meteo	VRB	Variable
MOD	Moderate	W-FRONT	Warm Front
MOV	Moving / Move	WKN	Weakening
M/S **	Metres per second		
MSL**	Mean Sea Level	(AT)**	Used for @ on NAVTEX

* *JCOMM is a joint commission of IOC (Intergovernmental Oceanographic Commission) and WMO (World Meteorological Organisation)*

** *Abbreviation in addition to those recommended by JCOMM.*


NAVTEX
in the Baltic Sea area
Navtex transmitter
[H] Service area ID character
Limit of service area
Transmission times (UTC)
[H] 0110 0510 1) 0910
1310 1710 1) 2110
[F] 0050 0450 1) 0850
1250 1650 1) 2050
[J] 0130 0530 1) 0930
1330 1730 1) 2130
[I] 0120 0520 1) 0920
1320 1720 1) 2120
[M] 0200 1) 0600 1000
1400 1) 1800 2200
1) Including Sea Weather Forecast
Bjuröklubb
[H]
Jeløya
[M]
[F]
Tallinn
Grimeton
[I]
Gislövshammar
[J]
[S]
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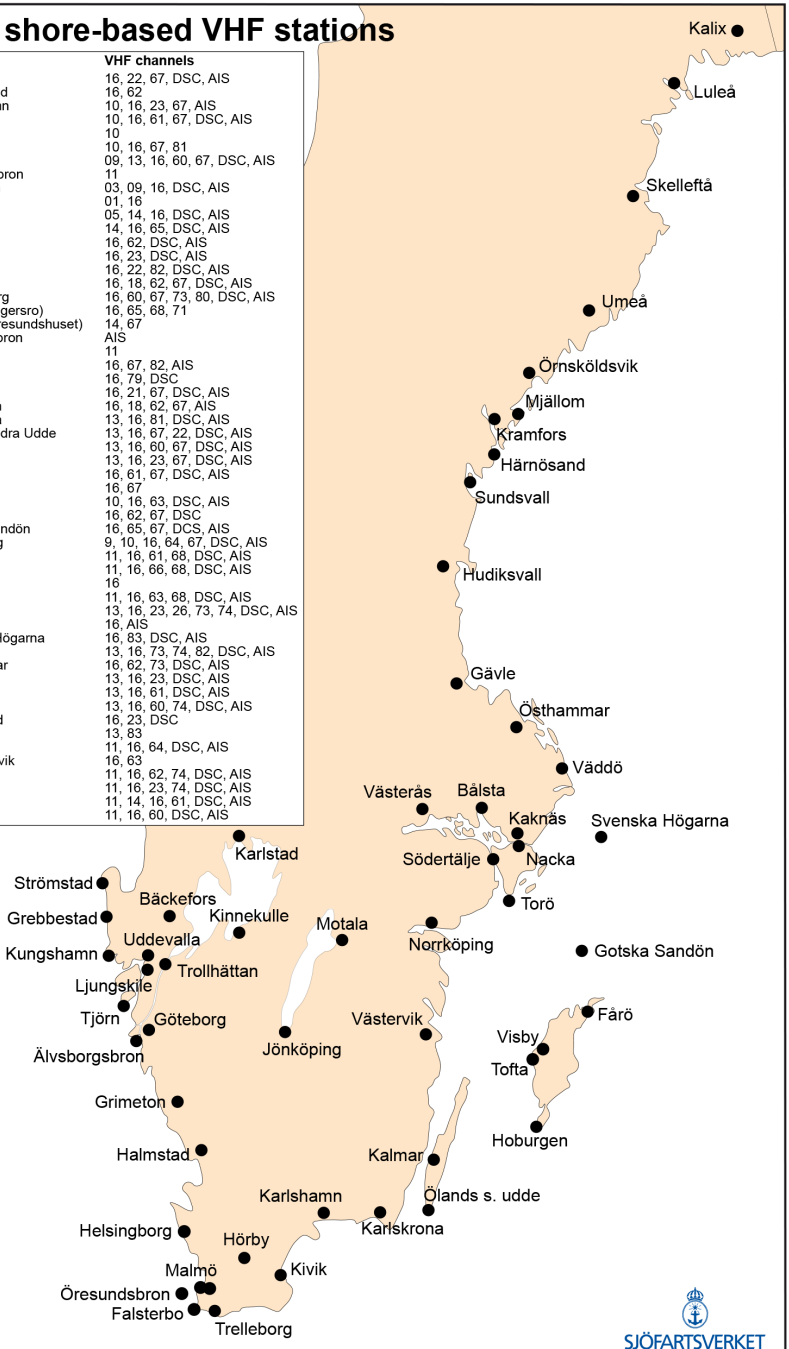
2018-10-19

SMA shore-based VHF stations

Station	VHF channels
Strömstad	16, 22, 67, DSC, AIS
Grebbestad	16, 62
Kungshamn	10, 16, 23, 67, AIS
Uddevalla	10, 16, 61, 67, DSC, AIS
Ljungskile	10
Tjörn	10, 16, 67, 81
Göteborg	09, 13, 16, 60, 67, DSC, AIS
Älvsborgsbron	11
Trollhättan	03, 09, 16, DSC, AIS
Kinnekulle	01, 16
Bäckefors	05, 14, 16, DSC, AIS
Karlstad	14, 16, 65, DSC, AIS
Motala	16, 62, DSC, AIS
Jönköping	16, 23, DSC, AIS
Grimeton	16, 22, 82, DSC, AIS
Halmstad	16, 18, 62, 67, DSC, AIS
Helsingborg	16, 60, 67, 73, 80, DSC, AIS
Malmö (Jägersro)	16, 65, 68, 71
Malmö (Öresundshuset)	14, 67
Öresundsbron	AIS
Falsterbo	11
Trelleborg	16, 67, 82, AIS
Hörby	16, 79, DSC
Kivik	16, 21, 67, DSC, AIS
Karlshamn	16, 18, 62, 67, AIS
Karlskrona	13, 16, 81, DSC, AIS
Ölands Södra Udde	13, 16, 67, 22, DSC, AIS
Kalmar	13, 16, 60, 67, DSC, AIS
Västervik	13, 16, 23, 67, DSC, AIS
Hoburgen	16, 61, 67, DSC, AIS
Tofta	16, 67
Visby	10, 16, 63, DSC, AIS
Fårö	16, 62, 67, DSC
Gotska Sandön	16, 65, 67, DCS, AIS
Norrköping	9, 10, 16, 64, 67, DSC, AIS
Torö	11, 16, 61, 68, DSC, AIS
Södertälje	11, 16, 66, 68, DSC, AIS
Bålsta	16
Västerås	11, 16, 63, 68, DSC, AIS
Nacka	13, 16, 23, 26, 73, 74, DSC, AIS
Kaknäs	16, AIS
Svenska Högarna	16, 83, DSC, AIS
Väddö	13, 16, 73, 74, 82, DSC, AIS
Östhammar	16, 62, 73, DSC, AIS
Gävle	13, 16, 23, DSC, AIS
Hudiksvall	13, 16, 61, DSC, AIS
Sundsvall	13, 16, 60, 74, DSC, AIS
Härnösand	16, 23, DSC
Kramfors	13, 83
Mjällom	11, 16, 64, DSC, AIS
Örnsköldsvik	16, 63
Umeå	11, 16, 62, 74, DSC, AIS
Skellefteå	11, 16, 23, 74, DSC, AIS
Luleå	11, 14, 16, 61, DSC, AIS
Kalix	11, 16, 60, DSC, AIS



12 Weather, oceanography and sea ice

12.1 Weather and sea ice information by NAVTEX and VHF

Weather forecasts and warnings are issued for Swedish waters by SMHI.
The following warnings are issued and transmitted by NAVTEX, VHF and MF as soon as possible:

Baltic Sea Near Gale Warning	mean wind speed at least 14 m/s
Baltic Sea Gale Warning	mean wind speed at least 18 m/s
Baltic Sea Storm Warning	mean wind speed at least 25 m/s
Low Water Level Warning	water level expected to drop more than 60 cm below MSL for area B11 and B12, and more than 100 cm below MSL for all other areas
Ice Accretion (icing) Warning	graded as: medium or severe

A *Weather Forecast for the Baltic Sea Area* is issued twice daily and contains a general summary as well as a 24 hour prognosis for wind and visibility conditions.

The ice report broadcasted on NAVTEX includes directions on how to report to the icebreaking services and information on navigational restrictions.

A detailed report of current ice conditions is broadcasted on request via VHF and MF. It is also available at *www.smhi.se/icereport*

For broadcast schedules and overview of forecast areas for NAVTEX and VHF, please refer to preceding and following maps.

12.2 Weather reports Radio Sweden P1

Land and sea weather reports from the SMHI are broadcasted in the Swedish language at 05.55, 06.55, 08.55, 12.55, 15.55 and 21.50 LT.

12.3 Coastal weather reports for pleasure craft and coastal shipping

Visit the homepage for the Swedish Meteorological and Hydrological Institute (SMHI) for coastal weather reports, https://www.smhi.se/ .

Svensk kustradio
Swedish Coast Radio

SWEDEN TRAFFIC MMSI: 002653500

Utsändning av MSI på VHF och MF
Transmissions of MSI on VHF and MF

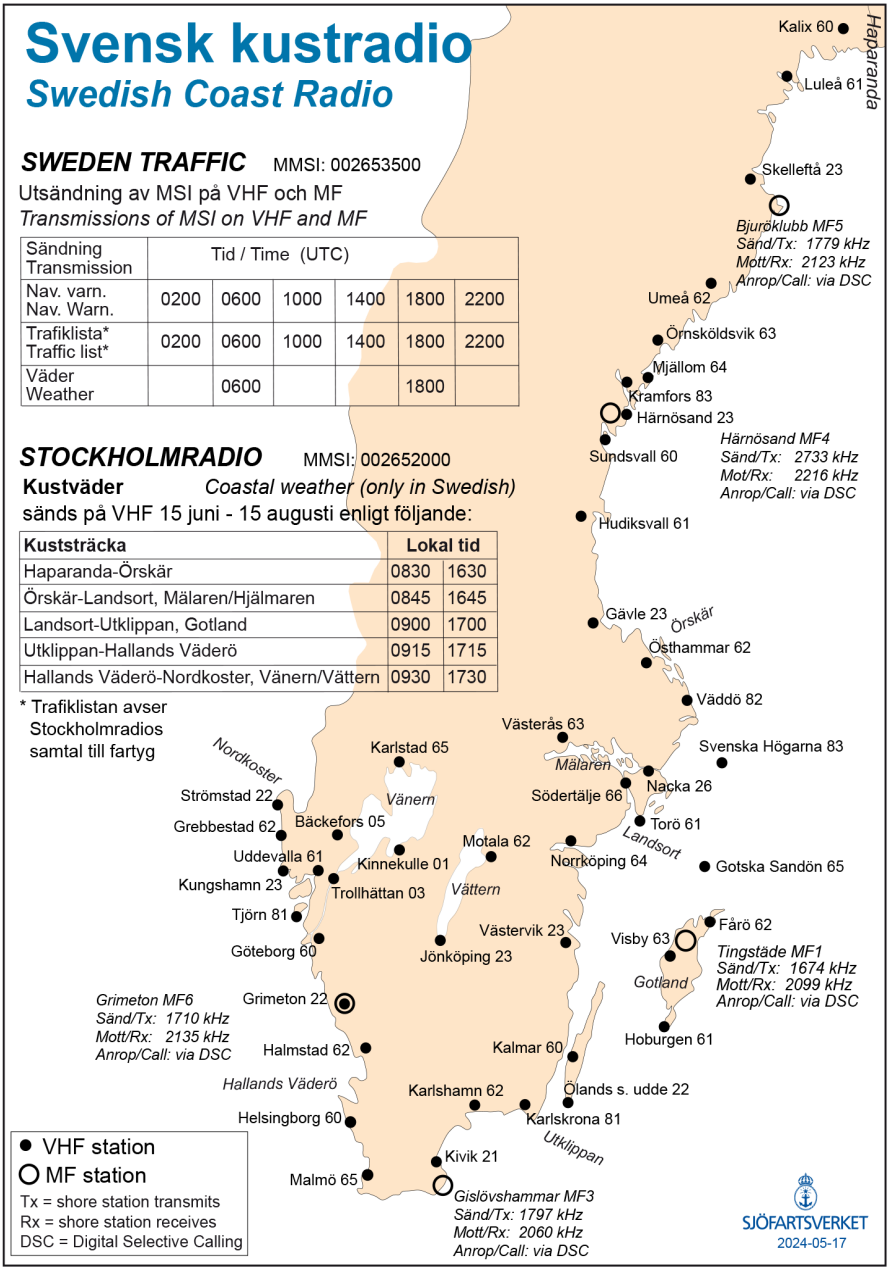
Sändning Transmission	Tid / Time (UTC)					
Nav. varn. Nav. Warn.	0200	0600	1000	1400	1800	2200
Trafiklista* Traffic list*	0200	0600	1000	1400	1800	2200
Väder Weather		0600			1800	

STOCKHOLMRADIO MMSI: 002652000

Kustväder *Coastal weather (only in Swedish)*
sänds på VHF 15 juni - 15 augusti enligt följande:

Kuststräcka	**Lokal tid**	
Haparanda-Örskär	0830	1630
Örskär-Landsort, Mälaren/Hjälmaren	0845	1645
Landsort-Utklippan, Gotland	0900	1700
Utklippan-Hallands Väderö	0915	1715
Hallands Väderö-Nordkoster, Vänern/Vättern	0930	1730

* Trafiklistan avser Stockholmradios samtal till fartyg



● VHF station
○ MF station
Tx = shore station transmits
Rx = shore station receives
DSC = Digital Selective Calling

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12.4 Ice Charts

During the ice season, normally between December and May, daily ice charts are published by the SMHI Ice Service. These are based on data obtained from satellite telemetry, ice reports from icebreakers and by sundry observations. The current chart is available for download in png-file format on *www.smhi.se/icechartlow* and in pdf-file format on *www.smhi.se/icechart*

12.5 Sea level variations and tides

Large sea level variations in the Baltic Sea appear mainly during autumn and winter due to passing lows and strong winds. Tidal ranges (difference between low and high tide) on the west coast are 30 - 60 cm. Mariners should be aware that low water levels may restrict navigation in shallow coastal waters and harbours.

A navigational warning is issued whenever the water level is expected to fall more than 50 - 90 cm below reference level, (different values apply for each stretch of the coast).

Typical and extreme sea levels (cm), related to reference level BSCD2000 and the year 2020, are given in the following table:

Station	Lowest measured	Mean Low Water	Mean Sea Level	Mean High Water	Highest measured
Kalix	-115	-76	6,0	124	183
Stockholm	-60	-36	8,9	71	126
Skanör	-142	-101	15,8	116	169
Göteborg	-109	-60	2,6	107	153

12.6 Surface currents

Waves and currents are continuously recorded by automatic buoys. Strong currents are common in the Danish Straits due to a difference in sea level between the southern Baltic Sea and Kattegat. Other areas where currents can be strong are Kalmarsund, Sea of Åland and the Quark, as well as in certain narrow inlets and estuaries.

12.7 Waves

Wave height depends on wind speed, duration and fetch (distance from the coast in up-wind direction). The depth of water is significant as waves tend to break [easier] when they enter shallow areas. In Skagerrak, the highest waves are formed over deep open water during strong westerly winds. Closer to shore, high waves appear mainly north of Gothenburg.
In the Baltic Sea wave height is mainly restricted by limited fetch. As the fetch is longest in approximate southern/northern direction, winds from these directions will produce the highest waves.

The highest measured wave heights in respective areas are indicated below:

Sea area	Maximum recorded wave height in metres	Station
Skagerrak	13.0	Väderöarna
Kattegat	5.9	Læsø east
Southern Baltic	11.2	Southern Baltic

Northern Baltic	12.8	Almagrundet
Sea of Bothnia	9.8	Finngrundet

12.8 Ice accretion

When the sea surface temperature drops below approximately +4º C and when the air is sufficiently cold, ice may form on a ship´s superstructure, deck area and cargo from blowing spray or from waves washing over the hull. As the layer of ice grows thicker, the ship's centre of gravity may be raised incurring a gradual loss of stability.

Ships operating in the Baltic Sea in winter must be aware of the risk of ice accretion. In weather conditions where ice accretion is likely, smaller ships should be prepared to seek shelter.

The following diagram shows the correlation of ice accretion risk relative to wind speed and air temperature. Other factors affecting ice accretion are sea surface temperature, salinity and wave height as well as the ship's heading and speed.

Icing warnings are distributed via NAVTEX and through Radio Sweden P1. Warnings are generally issued 24 hours prior to the risk of ice accretion and are cancelled when the risk is no longer present.

Icing is graded according to the following classification:

Light ice accretion	Growth rate 0.5 - 2 cm in 12 hours (no icing warning issued)
Moderate ice accretion	Growth rate 1 - 3 cm in 4 hours
Severe ice accretion	Growth rate > 4 cm in 4 hours

Ships experiencing problems with ice accretion are encouraged to report this to JRCC. (Refer to Section 1.1.4 for contact details).

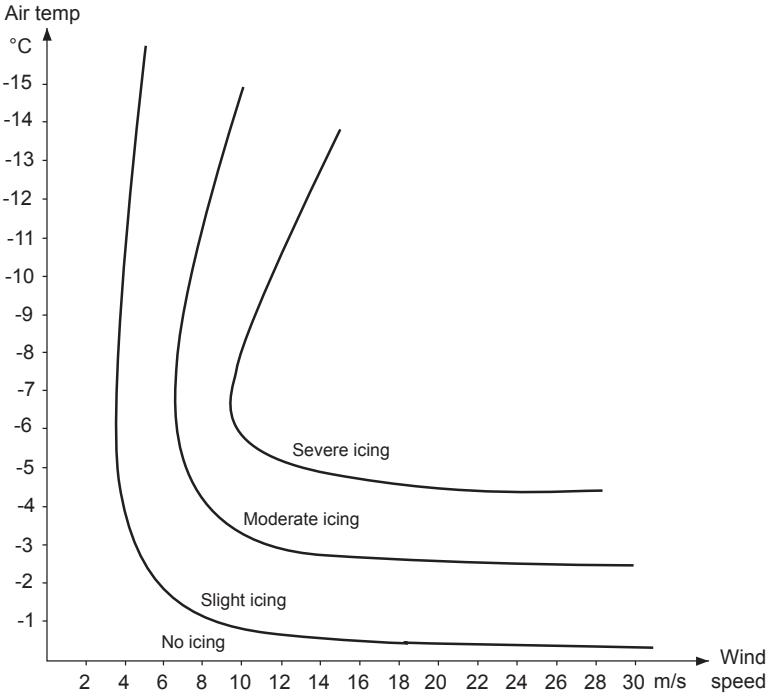


Diagram is applicable to the conditions in the Baltic and the Gulf of Bothnia for ships of more than 500 DWT

12.9 Wind table

The table is comparing wind force in Beaufort, wind speed in metres/second, description and wave height in metres.

Description	*Wind force Beaufort*	*Wind speed m/s*	*Sea Conditions*	*Wave height in metres*
Calm	0	0,0 – 0,2	Sea smooth and mirror-like.	–
Light air	1	0,3 – 1,5	Scale-like ripples without foam crest.	0,0 – 0,1
Light breeze	2	1,6 – 3,3	Small, short wavelets, which do not break.	0,2 – 0,3
Gentle breeze	3	3,4 – 5,4	Large wavelets, some crests begin to break, foam of glassy appearance.	0,6 – 1
Moderate breeze	4	5,5 – 7,9	Small waves, becoming longer, fairly frequent white foam crests.	1 – 1,5
Fresh breeze	5	8,0 – 10,7	Moderate waves, taking a more pronunced long form, many white foam crests.	2 – 2,5
Strong breeze	6	10,8 – 13,8	Large waves begin to form, white foam crests are more extensive everywhere	3 – 4
Near gale	7	13,9 – 17,1	Sea heaps up and white foam breaking waves begin to be blown in streaks along the direction of the wind.	4 – 5,5
Gale	8	17,2 – 20,7	Moderately high waves of greater length edges of crests break into spindrift,foam is blown in wellmarked streaks along the direction of the wind.	5,5 – 7,5
Gale (Strong gale)	9	20,8 – 24,4	High waves, dense streaks of foam along the direction of the wind, creasts of waves begin to topple, tumble and roll over, spray may reduce visibility	5,5 – 7,5
Storm	10	24,5 – 28,4	Very high waves with long overhanging crests. The resulting foam in great patches is blown in dense white streaks along the direction of the wind. On the whole, the surface of the sea is white in appearance. Visibility is reduced.	7 – 10
Storm (Violent storm)	11	28,5 – 32,6	Exceptionally high waves that may obscure small and medium-sized ships. The sea is completely covered with long white patches of foam lying along the direction of wind. Visibility reduced.	11,5 – 16
Hurricane	12	32,7 – 36,9	The air is filled with foam and spray. Sea completely white with driving spray. Visibility very much reduced.	14 –

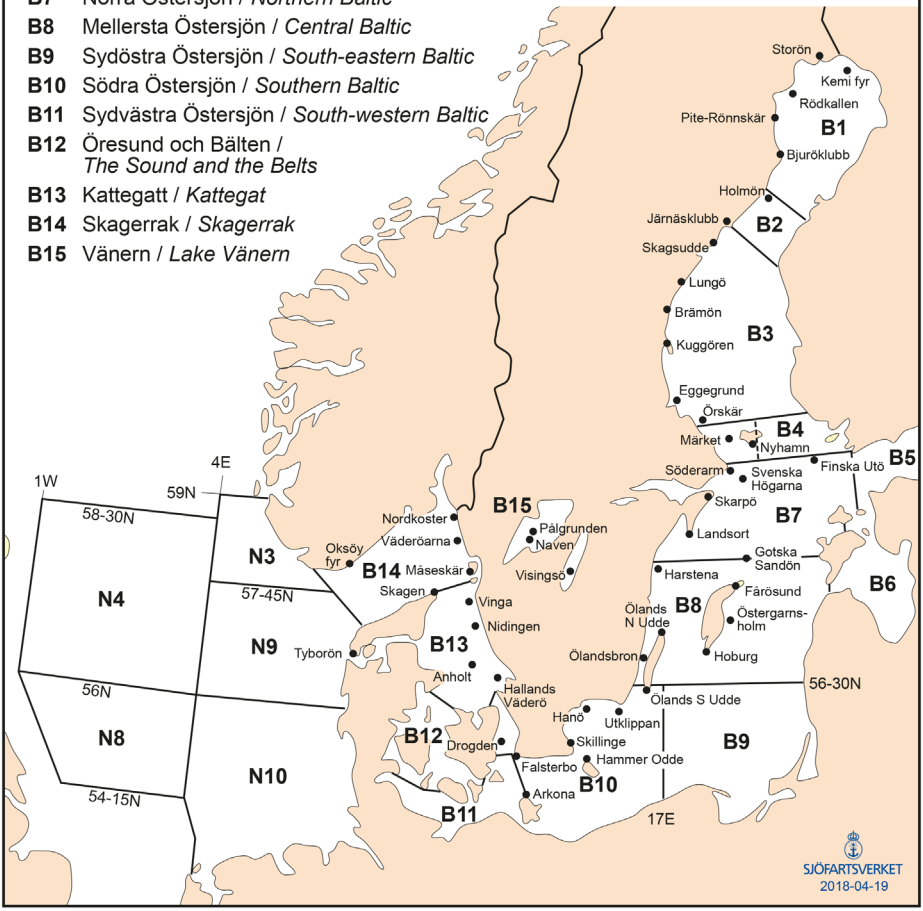
Prognosområden / *Forecast areas*

- Station för vilken vind- och siktuppgifter utläses i den svenska sjörapporten
- *Station for which observations on wind and visibility are broadcast in the Swedish broadcasting report*

B1 Bottenviken / *Bay of Bothnia*
B2 Norra Kvarken / *The Quark*
B3 Bottenhavet / *Sea of Bothnia*
B4 Ålands hav och Skärgårdshavet / *Sea of Åland and Archipelago Sea*
B5 Finska Viken / *Gulf of Finland*
B6 Rigabukten / *Gulf of Riga*
B7 Norra Östersjön / *Northern Baltic*
B8 Mellersta Östersjön / *Central Baltic*
B9 Sydöstra Östersjön / *South-eastern Baltic*
B10 Södra Östersjön / *Southern Baltic*
B11 Sydvästra Östersjön / *South-western Baltic*
B12 Öresund och Bälten / *The Sound and the Belts*
B13 Kattegatt / *Kattegat*
B14 Skagerrak / *Skagerrak*
B15 Vänern / *Lake Vänern*

N3 Syd Utsira / *Southern Utsire*
N4 Fladen / *Forties*
N8 Dogger / *Dogger*
N9 Fiskebankarna / *Fisher*
N10 Tyska bukten / *German Bight*

N4 och N8 ingår ej i den svenska rapporten.
N4 and N8 are not included in the Swedish report.



13 Swedish Coast Guard and Police

13.1 Swedish Coast Guard

The Swedish Coast Guard has twenty-one coast stations including one aerodrome. These operate under the supervision of two Regional Command Centres in Stockholm and Gothenburg. Day-to-day running of operations is led from these Regional Command Centres, where commanding officers are on-duty 24/7. The national HQ is situated in Karlskrona.
Air operations are handled out of Stockholm Skavsta Airport, southwest of Stockholm.

The Swedish Coast Guard conduct the following operations at sea in the Swedish economical zone, Swedish territorial waters including the Lake Vänern and Mälaren and, concerning the responsibility for environmental protection, also Lake Vättern:

- maritime surveillance
- environmental protection and rescue operations at sea
- assignments for other national authorities and agencies

	Phone	Facsimile
Contact details E-mail: *registrator@coastguard.se*	+46 (0)776-70 70 00	+46 (0)455-105 21
Officer on Duty E-mail: *lc@kustbevakningen.se*	+46 (0)776-70 60 00	
Coast Guard Air Patrol	+46 (0)155 46 71 00	+46 (0)155 28 63 73

E-mail: *registrator.flyg@kustbevakningen.se*

13.1.1 Maritime Security (ISPS/SMC)

The Swedish Coast Guard is responsible for SMC, the Swedish Coast Guard Maritime Clearance, which is the national point of contact for traffic at sea. SMC has a responsibility to receive and study notifications in advance for border control and maritime security.

It is the responsibility of the Master, or the shipowner´s agent (shipbroker), to send a notification in advance, according to the Maritime Security Regulations, and a list of crewmembers and passengers, according to the Schengen Borders Code, to the Swedish Coast Guard via Maritime Single Window (MSW).

Refer to Section 5.6.1 for additional details on MSW.

Contact information SMC:

Telephone: +46 (0)8-57 89 76 30
Email: *sweden24@kustbevakningen.se*

13.2 The Swedish Police at Sea

The Swedish Police at Sea are assigned the following tasks:

- Intervention of and prevention of drunkenness, speeding and recklessness.
- Intervention at and prevention of theft (e.g water craft, engines and equipment).
- Supervision and control of fishing and hunting.
- Participation in SAR operations.
- Search for missing persons and crime scene investigations in the maritime environment.

The Swedish Police at Sea is stationed in the region of Stockholm and on the west coast of Sweden.

Region of Stockholm	Telephone: 114 14	E-mail: *sjopolisen.stockholm@polisen.se*
Swedish west coast	Telephone: 114 14	

14 Swedish Armed Forces

14.1 Swedish Regional Naval Control Centres

In accordance with ordinance *2007:1266* Naval Control Centres (SjöC) are responsible for communicating accurate information of vessels to the Swedish Coast Guard.

VHF R/T is frequently used by Naval Control to obtain information such as a vessel´s name, call-sign and port of destination. Communication initiated on VHF Ch 16 is subsequently transferred to an appropriate working channel.

The Naval Command Centre is located in Stockholm and can be contacted as per below:

Telephone: +8 788 95 50
Facsimile: +46 8 788 9576
Email: *vb-mts@mil.se*

The Naval Control Centres (SjöC) listed below can be contacted H24 on VHF Ch 16.

Call sign	Area of responsibility	Phone	Facsimile	E-mail
Naval Control Centre Muskö	Bay of Bothnia - Gotland - Southern Öland	+46 (0)10-823 18 23	+46 10-823 50 25	*Marinb-SjoCMusko@mil.se*
Naval Control Centre Göteborg	Southern Öland to Norwegian border	+46 (0)10 829 28 05	+46 10-829 25 98	*Marinb-SjoCGoteborg@mil.se*

14.2 Announcements on military gunnery exercises

A large number of gunnery exercises are performed around the Swedish coastline and in some of the larger lakes. Exercise areas are in general performed in firing danger areas marked on charts. Warnings will be promulgated to vessels through Swedish NtMs and, if necessary, also by Radio Sweden broadcasts and/or the local press.

Information about upcoming gunnery exercises can also being received by the respective Naval Control Centre as per above.

14.3 Naval system of buoyage

Apart from the general IALA buoyage a separate military buoyage system exists which is used by the Swedish Navy during naval exercises. Special lighthouses, light-buoys and naval radar beacons are examples of navigational aids presently in use.

14.5 Naval mine hunting equipment

During exercises involving the use of unmanned remote-controlled catamarans and towed or remote-controlled sonars for mine-clearance operations, naval ships will display lights and shapes according to the International Regulations for Preventing Collisions at Sea, Rule 27 f.

Passing ships are urged to reduce speed and to navigate with caution at a distance of no less than 1000 m from any such unit.

14.6 Warning signals at gunnery and underwater clearance exercises

When conducting gunnery and underwater clearance exercises on Swedish territorial waters the following signals will be used:

By day: Red flag and when needed a green flare and repeated short blasts from the ship's whistle.

By night: All-round red light and when needed a green flare and repeated short blasts from the ship's whistle.

14.7 Use of laser measurement during military gunnery exercises

Laser is frequently used to measure distances when exercises are being performed in the marked military areas shown on charts. **The gunnery range must NOT be observed through binoculars when laser is in use. The laser beam may cause serious eye injury.** The risk of injury is higher the closer the observer is to the laser and to that end a risk zone is always stipulated. The area is monitored both visually and by radar.

If any unauthorised person, vessel or object should enter the area the exercises will be stopped immediately until the situation is clear. Notwithstanding that, if merchant vessels by mistake or by any other cause should enter the area, it is very important that no binoculars are directed towards the exercise area.

For further information, contact respective Swedish Naval Control Centre, see section 14.1.

14.8.1 Measures when finding unexploded munitions

Munitions **MUST NEVER** be touched. If suspicious objects are found they shall be accurately positioned and details forwarded to the JRCC by **VHF R/T on Ch 16** or via **SOS Alarm, phone 112**. Await further information. Assigned expertise will contact the finder in order to determine the type of munition found and the measures that need to be undertaken.

14.8.2 Unretrieved mines

Because of the risk of encountering unretrieved mines from former minefields in the Baltic Sea, Kattegat and Skagerrak, a warning is issued against anchoring, trawling and other sea-bed activities in areas shown in the table and on maps in the Section 14.8 in the Swedish language version.

For further information refer to:
www.sjofartsverket.se/mines

Notes: