



# Eisbericht Nr. 86

## Amtsblatt des BSH

Jahrgang 97

Nr. 86

Tuesday, 19.03.2024

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### Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 70 cm dickes, in den südlichen bis 50 cm dickes Festeis. Auf See treibt im Norden zumeist 30–70 cm dickes, sehr dichtes, örtlich aufgepresstes und übereinandergeschobenes Eis, das teilweise schwer zu passieren ist. Weiter südlich kommt sehr lockeres Eis und offenes Wasser vor. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis; auf See treibt im Westen 10–50 cm dickes, dichtes Eis und ansonsten kommt lockeres Eis vor. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 30 cm dickes Festeis vor. Im Schärenmeer kommt Festeis und offenes Wasser vor. Im Osten und Norden des Finnischen Meerbusens liegt bis 55 cm dickes Festeis. Auf See treibt im Norden sehr lockeres bis sehr dichtes, 5–35 cm dickes Eis. Im Rigaischen Meerbusen kommt im Nordosten morsches Festeis vor und an den Küsten treibt örtlich Eis. Ansonsten kommt im Mälaren, Vänern und einigen norwegischen Fjorden örtlich dünnes Eis, teilweise aber auch bis 30 cm dickes Festeis vor.

### Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 70 cm thick in the north and up to 50 cm thick in the south. At sea in the north, there is mostly 30–70 cm thick, very close, ridged and rafted ice that is difficult to force at places. Further south there is very open ice and open water. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea there is 10–50 cm thick, close ice in the west and open ice elsewhere. At the coasts of the Sea of Bothnia there is fast ice, up to 55cm thick in the east and up to 30 cm thick in the west. Fast ice and open water is present in the Archipelago Sea. There is up to 55 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. At sea in the north there is 5-35cm thick, very open to very close ice. In the northeastern Gulf of Riga there is rotten fast ice at the coast with very open to close ice in places along the coast. Else thin ice is present at places, but also up to 30cm thick fast ice, in the Mälaren, Vänern, and some Norwegian fjords.

### Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice; 45–75 cm thick in the north and up to 25–65 cm thick in the south. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and Raahe lighthouse. At sea north of a line Simpgrundet to Kalajoki there is 40–70 cm thick, ridged and rafted ice; the field is difficult to force at places;

there are leads and cracks in the field. Further south there is first 10-40cm thick very close ice and then 2-25cm thick very open ice and open water outside the Swedish coast.

With light frost some ice will form and the ice will drift towards the northeast.

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

[www.bsh.de/eis](http://www.bsh.de/eis)

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### The Quark

There is 35–60 cm thick fast ice in the Vaasa archipelago out to Ensten with very open ice further out. Along the Swedish coast there is up to 40 cm thick fast ice with adjacent consolidated ice. Off this ice, there is 10–50 cm thick, partly ridged,

close ice from north of Härnösand to Nordvalen. Else at sea there is mostly open ice with open water in the south.

With mostly light frost the ice will drift towards the northeast. Else no larger changes are expected.

### Sea of Bothnia

Along the coasts there is mostly fast ice in the inner bays; 20–55 cm thick in the east and 5–40 cm thick in the west. On Ångermanälven, there is 15–40 cm thick fast ice. Off the coast in the east there is open water with some thicker floes. In the

northwest, north of about Härnösand, there is ridged, 10–50cm thick close ice.

With temperatures around 0°C no larger change is expected. The ice at sea will drift northeastwards.

### Archipelago Sea and Åland Sea

In the Archipelago Sea there is 25–50 cm thick fast ice in the inner archipelago of the Finnish coast. 10–30 cm thick, fast ice is present around the island of the outer archipelagos and the Åland Islands with open water in between. In the Åland

Sea there is 5–20 cm thick fast or level ice in bays along the coast.

With temperatures around 0°C no larger change is expected.

### Northern Baltic

In Lake Mälaren there is 10–30 cm thick fast ice with mostly open water on the fairways. Along the outer Swedish coast there is open water or thin

open ice.

The melt during the day will surpass the freezing at night, therefore ice retreat is expected.

### Gulf of Finland

Along the northern coast there is fast ice in the archipelago, 10–40 cm thick in the west and up to 60 cm thick in the east. In the Vyborg Bay there is 30–40cm thick fast ice and in the Bjerkesund there is 20–30 cm thick fast ice; very close ice is present in both entrances with open water further out. Off the northern fast ice there is 10–25cm thick very open to open ice in the west and 10–30cm thick very close ice in the east. Further out there is close ice between Tiiskeri and west of Kalbådagrund and

from the northern point of Gogland to Seskar. From St. Petersburg to the longitude of lighthouse Tolbuchin there is 40–50 cm thick fast ice with open water further out. Outside the southern coast there is open water in the east and ice free from Narva Bay to the west. In Lake Saimaa 30–55cm thick ice.

The ice will slowly drift northwards, but overall no larger change.

### Gulf of Riga

In Väinameri there is 20–35 cm thick fast ice or very close ice near the coasts and else very open ice or open water. Off the south coast of Saaremaa there is a band with 5–20 cm thick ice different concentrations. In the Bay of Pärnu, there is rotten

near the coast with open water further out. Ice is drifting from about Liu to Kihnu, ranging from very open to close.

Further ice melt is expected.

### Central Baltic

In sheltered areas along the Swedish coast there is open water.

Ice melt is expected.

### Skagerrak and Kattegat

In some sheltered Norwegian fjords and bays there is ice in places.

No larger change is expected.

### Swedish Lakes

In Lake Vänern rotten fast ice is present in the northern archipelagos. In the Dalbosjön there is 5–15 cm thick, very close ice off the northwestern

coast.

Ice melt is expected.

## Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Estonia</b>	Pärnu	1600 kW	1C (Lloyd's)	11.03.
	Kunda and Sillamäe	1200 kW	II (Lloyd's)	04.02.
<b>Finland</b>	Tornio, Kemi and Oulu	2000/4000 dwt	IA Super (2000 t)/ IA (2000 t)	27.02.
	Vaasa	2000 dwt	IA	10.01.
	Raahe, Kalajoki, Kokkola and Pietarsaari	4000 dwt	IA	13.01.
	Pori, Rauma	2000 dwt	I	06.03.
	Kaskinen and Kristiinankaupunki	2000 dwt	IB	06.03.
	Uusikaupunki	2000 dwt	I	18.03.
	Langnäs	2000 dwt	II	13.01.
	Naantali and Turku	2000 dwt	I	23.01.
	Mussalo	2000 dwt	IB	29.01.
	Sköldvik	2000 dwt	I	29.01.
	Koverhar, Lappohja, Inkoo, Kantvik and Helsinki	2000 dwt	II	18.03.
	Taalintehdas and Förby	2000 dwt	II	18.03.
	Loviisa, Kotka and Hamina	2000 dwt	IB	29.01.
	Lake Saimaa	2000 dwt	IA	08.01.
	Saimaa Canal	2000 dwt	IA	08.01.
<b>Russia</b>	Vyborg	-	Ice 1/Ice 2	11.03.
	Vysotsk	-	Ice 1/Ice 2	11.03.
	Primorsk	-	Ice 1/Ice 2	11.03.
	<b>St. Petersburg</b>		<b>Ice 1</b>	<b>22.03.</b>
	<b>Ust-Luga</b>	-	<b>Ice 1/Ice 2</b>	<b>22.03.</b>
<b>Sweden</b>	Karlsborg	4000 dwt	IA (2000 t)	14.01.
	Lulea, Haraholmen and Skelleftehamn	4000 dwt	IA	14.01.
	Rundvik, Husum and Örnsköldsvik	2000 dwt	IA	19.02.
	Holmsund	2000 dwt	IA	17.02.
	Angermanälven	2000 dwt	IA	17.02.
	Stocka, Hudiksvall, Iggesund and Söderhamn	2000 dwt	IC	26.02.
	Orrskär, Norrsundet, Gävle, Skutskär and Öregrund	2000 dwt	II	18.03.
	Härnösand, Söråker and Sundsvall	2000 dwt	IB	26.02.
	Hargshamn	2000 dwt	IC	04.01.
	Hallstavik and Grisslehamn	2000 dwt	IC	04.01.
	Köping and Västerås	2000 dwt	IC	26.02.
	Balsta	2000 dwt	IC	26.02.
	Stockholm and Södertälje	2000 dwt	II	04.01.
Vänern	2000 dwt	II	14.03.	

**Estonia**

**Icebreaker:** EVA-316 assists to the port of Pärnu. BOTNICA assists to the ports of Kunda and Sillamäe.

### Finland/Sweden

The traffic separation schemes in the Lake Vänern are temporarily out of use from 12 January due to ice conditions.

The transit traffic west of Holmöarna is temporarily prohibited.

Öregrundsgrepen: Transit traffic for low powered vessels is not recommended.

The traffic separation schemes in the Quark are temporarily out of use from 20 December due to ice conditions.

Vessels bound for Gulf of Bothnia ports in which assistance restrictions apply, shall when passing latitude 60° 00' N report their nationality, name, destination, ETA and speed to ICE INFO on VHF channel 82. This report can also be given directly by telephone to +46 10 492 7600.

Vessels bound for Finnish or Swedish ports with assistance restrictions in the Quark or the Bay of Bothnia shall, 20 nautical miles before Nordvalen Lighthouse (63° 32.15' N 20° 46.60' E), report in accordance with the instructions for winter navigation to Bothnia VTS on VHF channel 67.

**Icebreakers:** YMER, ODEN, FREJ, POLARIS, SISU, KONTIO and URHO assist in the Bay of Bothnia. OTSO assist in the southern Bay of Bothnia. ATLE and FENNICA assist in the Quark. ZEUS assists in the Bothnian Sea. **CALYPSO** moves to the Gulf of Finland. VOIMA and NORDICA assist the Gulf of Finland. ALE assists in the Vänern.

### Russia

There are restrictions for small crafts going to St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga. Barge towed by tug not allowed to navigate in ice.

**Icebreakers:** Several icebreakers assist vessels to the port of St. Petersburg, Vyborg, Vysotsk and Primorsk.

### Baltic Sea Ice Code

<p>First number:  <b>A<sub>B</sub> Amount and arrangements of sea ice</b>            0 Ice free            1 Open water – concentration less than 1/10            2 Very open ice - concentration 1/10 to 3/10            3 Open ice – concentration 4/10 to 6/10            4 Close ice – concentration 7/10 to 8/10            5 Very close ice – concentration 9/10 to 9+/10            6 Compact ice, including consolidated ice – concentration 10/10            7 Fast ice with drift ice outside            8 Fast ice            9 Lead in very close or compact drift ice or along the fast ice edge            / Unable to report</p> <p>Third number:  <b>T<sub>B</sub> Topography or form of ice</b>            0 Pancake ice, ice cakes, brash ice – less than 20 m across            1 Small ice floes – 20 to 100 m across            2 Medium ice floes – 100 to 500 m            3 Big ice floes – 500 to 2000 m across            4 Vast or giant ice floes – more than 2000 m across – or level ice            5 Rafted ice            6 Compact slush or shuga, or compacted brash ice            7 Hummocked or ridged ice            8 Thaw holes or many puddles on the ice            9 Rotten ice            / No information or unable to report</p>	<p>Second number:  <b>S<sub>B</sub> Stage of ice development</b>            0 New ice or dark nilas (less than 5 cm thick)            1 Light nilas (5 - 10 cm thick) or ice rind            2 Grey ice (10 - 15 cm thick)            3 Grey-white ice (15 - 30 cm thick)            4 White ice, first stage (30 - 50 cm thick)            5 White ice, second stage (50 - 70 cm thick)            6 Medium first year ice (70 - 120 cm thick)            7 Ice predominantly thinner than 15 cm with some thicker ice            8 Ice predominantly grey-white ice (15 – 30 cm) with some thicker ice            9 Ice predominantly thicker than 30 cm with some thinner ice            / No information or unable to report</p> <p>Fourth number:  <b>K<sub>B</sub> Navigation conditions in ice</b>            0 Navigation unobscured            1 Navigation difficult or dangerous for wooden vessels without ice sheathing            2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable            3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice            4 Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker            5 Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size            6 Icebreaker assistance can only be given to vessels of special ice class and of special size            7 Icebreaker assistance can only be given to vessels after special permission            8 Navigation temporarily closed            9 Navigation has ceased            / Unknown</p>
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**Estonia, 19.03.2024**

Paernu, port and bay 4435  
Moonsund 2/32

**Finland, 19.03.2024**

Röyttä – Etukari 8546  
Etukari – Ristinmatala 8546  
Ajos – Ristinmatala 8546  
Ristinmatala – Kemi 2 7476  
Kemi 2 – Kemi 1 5476  
Sea area SW of Kemi 1 5476  
Kemi 2 – Ulkokrunni – Virpiniemi 7476  
Oulu harbours – Kattilankalla 8546  
Kattilankalla – Oulu 1 7476  
Sea area SW of Oulu 1 5476  
High Sea N of the latitude of Marjaniemi 5476  
Raahe harbour – Heikinkari 8546  
Heikinkari – Raahe lighthouse 6856  
Raahe lighthouse – Nahkiainen 5476  
Latitude Marjaniemi – Ulkokalla, Sea 5476  
Rahja harbour – Välimatala 7856  
Vaelimatala to line Ulkokalla – Ykskivi 5856  
Sea betw. lat. of Ulkokalla – Pietarsaari 4356  
Ykspihlaja – Repskär 7476  
Repskär – Kokkola lighthouse 5476  
Sea area off Kokkola lighthouse 2726  
Pietarsaari – Kallan 8446  
Sea area off Kallan 2726  
Sea lat. Pietarsaari – NE Nordvalen 3336  
Sea area ENE of Nordvalen 4356  
Sea area Nordvalen to W of Norrskär 4376  
Vaskiluoto – Ensten 7356  
Ensten – Vaasa lighthouse 5356  
Vaasa lighthouse – Norrskär 4376  
Sea area SW of Norrskär 4376  
Kaskinen – Sälgrund 8446  
Sea area off Sälgrund 8446  
High sea from N to latitude Yttergrund 4376  
Pori harb. to line Pori lighth. – Säppi 1706  
Sea W of line Pori lighthouse – Säppi 1706  
High sea betw. lat. Yttergrund a. Rauma 1706  
Rauma, Harbour – Kymäpihlaja 8846  
Kymäpihlaja – Rauma lighthouse 1706  
Uusikaupunki harbour – KIRSTA 8846  
KIRSTA – Isokari 8846  
Isokari – Sandbäck 1706  
Sea area N of Sälskär 0//2  
Naantali and Turku – Rajakari 8846  
Rajakari – Lövskär 7346  
Lövskär – Korra 7346  
Korra – Isokari 2716  
Lövskär – Berghamn 8346  
Berghamn – Stora Sottunga 1706  
Stora Sottunga – Ledskär 2716  
Lövskär – Grisselborg 8346  
Grisselborg – Norparskär 1706  
Sea area at Vidskär 0//6  
Hanko harbours – Hanko 1 1702  
Hanko – Vitgrund 2312  
Vitgrund – Utö 1102

Koverhar – Hästö Busö 8345  
Hästö Busö – Ajax 1705  
Inkoo a. Kantvik – sea area Porkkala 7755  
Sea area at Porkkala 3355  
Sea area S of Porkkala lighthouse 3355  
Helsinki harbours – Harmaja 8845  
Harmaja – Helsinki lighthouse 2725  
Helsinki lighth. – sea S of Porkkala lh. 3355  
Fairway Helsinki – Porkkala – Rönnskär 5375  
Vuosaari harbour – Eestiluoto 2725  
Eestiluoto – Helsinki lighthouse 2725  
Porvoo harbours – Varlax 7376  
Varlax – Porvoo lighthouse 5376  
Porvoo lighthouse – Kalbådagrund 4356  
Sea Kalbådagrund – Helsinki lighthouse 4356  
Valko Harbour – Täktarn 7346  
Archipelago fairway Boistö – Glosholm 5376  
Archipelago fairway Glosholm–Helsinki 7376  
Kotka – Viikari 7346  
Viikari – Orregrund 2726  
Orregrund – Tiiskeri 5346  
Tiiskeri – Kalbådagrund 4356  
Hamina – Suurmusta 8446  
Suurmusta – Merikari 7346  
Merikari – Kaunissaari 5376

**Norway, 18.03.2024**

Svinesund – Halden 33//  
Drammensfjord 2201  
Tønsberg, inner harbour 82/3  
Vestfjord (Tønsberg) 6963  
Larviksfjorden (Stavern – Larvik) 121/

**Russian Federation, 18.03.2024**

Port of St. Petersburg 89//  
St. Petersburg – E-point island Kotlin 89//  
E-point Kotlin – long. lighth. Tolbuhkin 53//  
Lighth. Tolbuhkin – lighth. – Šepelevskij 43//  
Lighthouse Šepelevskij – island Sescar 42//  
Island Sescar – Island Sommers 43//  
Vyborg, port and bay 89//  
Island Vichrevoj – Island Sommers 53//  
Strait Bjerkesund 89//  
E-point Bol'šoj Ber'ozovyj – Šepelevskij 53//

**Sweden, 19.03.2024**

Karlsborg – Malören 8646  
Sea area off Malören 5576  
Luleå – Björnklack 8646  
Björnklack – Farstugrunden 5576  
E and SE of Farstugrunden 5576  
Sandgrönn fairway 8646  
Rödskallen – Norströmsgrund 5576  
Haraholmen – Nygrån 8646  
Sea area off Nygrån 5456  
Skelleftehamn – Gåsören 8446  
Sea area off Gåsören 1306  
Sea area off Bjuröklubb 1306  
NE of Nordvalen 3426  
SW of Nordvalen 4476

Western Quark (W of Holmöarna)	6456
Umeå – Väktaren	6456
SE of Väktaren	4476
NE and SE of Sydostbrotten	4476
Fairway to Husum	6476
Örnsköldsvik – Hörnskatan	8446
Hörnskatan – Skagsudde	6476
Sea area off Skagsudde	4476
Fairway W of Ulvöarna	8446
Sea area E of Ulvöarna	4476
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	8444
Härnösand – Härnön	8444
Sea area off Härnö	1306
Sundsvall – Draghallan	1306
Draghallan – Åstholmsudde	1306
Off Åstholmsudde and Brämön	1306
Hudiksvallfjärden	8346
Iggesund – Agö	8346
Sandarne – Hällgrund	8346
Ljusnefjärden – Storjungfrun	8346
Gävle – Eggegrund	8346
Hallstavik – Svartklubben	8346
Trälhavet – Furusund – Kapellskär	1000
Stockholm – Trälhavet – Klövholmen	1000
Klövholmen – Sandhamn	1000
Trollharan – Laggarn	1000
Köping – Kvicksund	8344
Västerås – Grönsö	8344
Grönsö – Södertälje	8344
Stockholm – Södertälje	1204
Södertälje – Fifong	1104
Västervik – Marsholmen – Idö	1101
Fairway to Gruvön	8396
Fairway to Karlstad	8396
Fairway to Kristinehamn	8396