

# Eisbericht Nr. 24

## Amtsblatt des BSH

Jahrgang 97

Nr. 24

Monday, 18.12.2023

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### Übersicht

In der nördlichen Bottenwiek befindet sich in den Schären bis 35 cm dickes Festeis. Weiter außerhalb treibt im Nordosten bis zu 30 cm dickes, sehr dichtes Eis mit festgestampften Eis an der Eiskante. Weiter südlich bis Norra Kvarken liegt an den Küsten Festeis und weiter außerhalb treibt bis 15cm dickes Eis. An den Küsten der Bottensee, in den nördlichen Schären und östlichen Buchten des Finnischen Meerbusens, im nördlichen Teil des Rigaischen Meerbusen und dem Mälarsee kommt Neueis und dünnes ebenes Eis sowie örtlich Festeis vor. Neueis und örtlich dickeres Eis kommt auch in einigen geschützten Fjorden im Skagerrak vor.

### Overview

In the northern Bay of Bothnia there is up to 35 cm thick fast ice in the archipelagos. Further out in the northeast there is up to 30 cm thick, very close ice with a brash ice barrier at the ice edge. Further south to Norra Kvarken, there is fast ice along the coast and further out up to 15cm thick, drifting ice. At the coasts of the Sea of Bothnia, in the northern archipelagos and the eastern bays of the Gulf of Finland, in the northernmost part of the Gulf of Riga and lake Mälaren there is new ice and thin level ice or fast ice at places. New ice and at places thicker ice is present in sheltered fjords of the Skagerrak.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia there is up to 35 cm thick fast ice. Off the fast ice there is very close, 10–30 cm thick, ridged ice to some nm east and south of Malören to Kemi-1 and Liberta. Ice pressure occurs in the field and there is a brash ice barrier at the ice edge. Further out 3-10cm thick open ice stretches southwards all the way to south of Kalajoki. Off Raahe, 10-25 cm thick fast ice to Heikinkari. Off the fast ice in the north-

west, there is first open water or very open ice and then a band of 5-20cm thick close ice. In the south there is 5-20cm thick fast ice in the archipelagos and outside the western coast there is 3-15cm thick open to very open drift ice.

With temperatures around 0°C no larger ice formation will occur. The ice will first drift northeastwards but then turn to a more southerly drift during Tuesday, so the ice pressure will weaken.

### The Quark

There is 5–20 cm thick fast ice in the Vaasa archipelago and from Vaasa to Storhästen. Farther out there is thin very close ice to Ensten and farther out thin very open ice. Along the Swedish coast

there is fast ice in inner bays and very close ice or level ice further out to Holmöarna.

With almost no new ice formation the ice will drift eastwards.

### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)  
[www.bsh.de/eis](http://www.bsh.de/eis)  
[www.bsh.de/ice](http://www.bsh.de/ice)

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**Sea of Bothnia**

Thin level ice or fast ice is present in bays along the whole Finnish coast with new ice slightly further out. Along the Swedish coast, there is new ice and thin level ice or fast ice in bays along the coast. On

Ångermanälven, there is 5–15 cm thick fast and level ice on the upper part and new is present in the lower part.

No larger change is expected.

**Archipelago Sea and Åland Sea**

In the inner archipelago there is thin level ice and new ice.

No larger changes are expected.

**Northern Baltic**

In Lake Mälaren there is mostly 5–10 cm thick level ice in the west and new ice in the east with the central part being still ice free. New ice is present

in sheltered places at the outer coast.

With temperatures mostly above 0 °C some melt, but else no larger changes are expected.

**Gulf of Finland**

From St. Petersburg to Kotlin there is 10–20 cm thick compact ice with new ice and grease ice further out to the longitude of Fort Krasnaya Gorka. In the top of Vyborg Bay there is 10–15 cm thick fast ice and new ice further out. In the Bjerkesund there is very close nilas and new ice in the entrance.

Along the northern coast there is 5-15cm thick fast ice in the inner archipelago and thin level ice in the outer archipelago. In Lake Saimaa there is fast and level ice with varying concentration.

With temperatures above 0 °C some ice melt will take place and the ice drifts towards the east.

**Gulf of Riga**

In Väinameri there is up to 15 cm thick very close ice at sea and level or fast ice at the coasts. In the Bay of Pärnu there is 5–15 cm very close ice to about the line Liu-Voiste. Further out to the latitude

of Sorgu, there is open to close drift ice.

With temperatures almost reaching +5°C some ice melt is expected. With westerly winds the ice will drift eastwards.

**Southeastern Baltic**

New ice or thin ice are present in the Curonian Lagoon and in the Vistula lagoon.

With temperatures around 5°C some ice melt is expected.

**Skagerrak and Kattegat**

New ice is present in sheltered places of inner Norwegian Fjords. At places thicker ice is possible in inner bays. Along the Swedish coast, there is

new ice in few sheltered areas.

No major changes are expected.

**Swedish Lakes**

Thin level ice and new ice is present in sheltered areas of Lake Vänern.

With temperatures above 0 °C some melting will occur.

## Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Finland</b>	Tornio, Kemi and Oulu	2000 dwt	IB	17.12.
	Raahe, Kalajoki, Kokkola, Pietarsaari	2000 dwt	II	06.12.
	<b>Raahe, Kalajoki, Kokkola, Pietarsaari</b>	<b>2000 dwt</b>	<b>I</b>	<b>20.12</b>
	Vaasa	2000 dwt	I	17.12.
	Kaskinen and Uusikaupunki	2000 dwt	II	17.12.
	Taalintehdas, Förby, Koverhar, Lappohja, Inkoo, Kantvik, Helsinki, Sköldvik, Loviisa, Mussalo, Kotka and Hamina	2000 dwt	II	09.12.
	Lake Saimaa	2000 dwt	IB	13.12.
	Saimaa Canal	2000 dwt	IB	13.12.
<b>Sweden</b>	Karlsborg and Lulea	2000 dwt	IB	18.12.
	Haraholmen and Skelleftehamn	2000 dwt	IC	05.12.
	<b>Haraholmen and Skelleftehamn</b>	<b>2000 dwt</b>	<b>IB</b>	<b>20.12.</b>
	Rundvik, Husum	2000 dwt	II	12.12.
	Holmsund and Örensköldsvik	2000 dwt	IC	18.12.
	Angermanälven	2000 dwt	IB	18.12.
	Härnösand, Söråker, Sundsvall, Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär, Norrsundet, Gävle, Skutskär	2000 dwt	II	18.12.
	Köping and Västerås	2000 dwt	IC	18.12.
	Trollhätte Canal and Göta Älv	1300/2000 dwt	IC/II	05.12.
	Vänern	1300/2000 dwt	IC/II	05.12.

**Estonia**

**Icebreaker: EVA-316** assists to the port of Pärnu.

**Finland/Sweden**

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:** ATLE, KONTIO, ALE, OTSO and YMER assist in the northern Bay of Bothnia. VOIMA assists in the Quark.

**Russia**

There are restrictions for small crafts going to St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga.

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

## 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, 18.12.2023**

Paernu, port and bay 5144  
Moonsund 5243

**Finland, 18.12.2023**

Röyttä – Etukari 8346  
Etukari – Ristinmatala 7356  
Ajos – Ristinmatala 5356  
Ristinmatala – Kemi 2 5356  
Kemi 2 – Kemi 1 5366  
Sea area SW of Kemi 1 5366  
Kemi 2 – Ulkokrunni – Virpiniemi 7356  
Oulu harbours – Kattilankalla 7356  
Kattilankalla – Oulu 1 5366  
Sea area SW of Oulu 1 2136  
High Sea N of the latitude of Marjaniemi 5366  
Raahe harbour – Heikinkari 8745  
Heikinkari – Raahe lighthouse 3135  
Raahe lighthouse – Nahkiainen 3135  
Latitude Marjaniemi – Ulkokalla, Sea 0//5  
Rahja harbour – Välimatala 8745  
Vaelimatala to line Ulkokalla – Ykskivi 0//5  
Sea betw. lat. of Ulkokalla –Pietarsaari 3135  
Ykspihlaja – Repskär 8745  
Repskär – Kokkola lighthouse 0//5  
Sea area off Kokkola lighthouse 0//5  
Pietarsaari – Kallan 5145

Sea area off Kallan 0//5  
Sea lat. Pietarsaari – NE Nordvalen 0//5  
Sea area ENE of Nordvalen 0//6  
Sea area Nordvalen to W of Norrskär 0//6  
Vaskiluoto – Ensten 8746  
Ensten – Vaasa lighthouse 2026  
Vaasa lighthouse – Norrskär 0//6  
Sea area SW of Norrskär 0//6  
Kaskinen – Sälgrund 8145  
Sea area off Sälgrund 0//5  
Pori harb. to line Pori lighth. – Säppi 4041  
Rauma, Harbour – Kylmäpihlaja 4041  
Uusikaupunki harbour – Kirsta 8145  
Kirsta – Isokari 0//5  
Koverhar – Hästö Busö 5145  
Inkoo a. Kantvik – sea area Porkkala 5145  
Helsinki harbours – Harmaja 3115  
Fairway Helsinki – Porkkala – Rönnskär 0//5  
Vuosaari harbour – Eestiluoto 3035  
Valko Harbour – Täktarn 5145  
Archipelago fairway Boistö – Glosholm 0//5  
Archipelago fairway Glosholm–Helsinki 4045  
Kotka – Viikari 5145  
Viikari – Orregrund 2025  
Orregrund – Tiiskeri 0//5  
Hamina – Suurmusta 5145  
Suurmusta – Merikari 2025

Merikari – Kaunissaari 0//5

**Russian Federation, 18.12.2023**

Port of St. Petersburg 62//  
 St. Petersburg – E-point island Kotlin 63//  
 E-point Kotlin – long. lighth. Tolbuhkin 30//  
 Lighth. Tolbuhkin – lighth. –Šepelevskij 30//  
 Vyborg, port and bay 82//  
 Strait Bjerkesund 51//  
 E-point Bol'šoj Ber'ozovyj – Šepelevskij 50//  
 Luga bay 20//

**Sweden, 18.12.2023**

Karlsborg – Malören 8346  
 Sea area off Malören 5366  
 Luleå – Björnklack 8346  
 Björnklack – Farstugrunden 2226  
 E and SE of Farstugrunden 2226  
 Sandgrönn fairway 8346  
 Rödkallen – Norströmsgrund 4356  
 Haraholmen – Nygrån 6362  
 Sea area off Nygrån 1206  
 Skelleftehamn – Gåsören 5236  
 Sea area off Gåsören 5236  
 Sea area off Bjuröklubb 1206  
 Western Quark (W of Holmöarna) 8146  
 Umeå – Väktaren 3226  
 SE of Väktaren 3226  
 Fairway to Husum 5146  
 Örnköldsvik – Hörnskatan 5146  
 Hörnskatan – Skagsudde 4046  
 Fairway W of Ulvöarna 4046  
 Ångermanälven north Sandö Bridge 8244  
 Ångermanälven south Sandö Bridge 5144  
 Härnösand – Härnön 4044  
 Sea area off Härnö 2024  
 Sundsvall – Draghällan 5146  
 Draghällan – Åstholmsudde 1006  
 Off Åstholmsudde and Brämön 1006  
 Hudiksvallfjärden 5246  
 Iggesund – Agö 5246  
 Sandarne – Hällgrund 5146  
 Ljusnefjärden – Storjungfrun 5146  
 Gävle – Eggegrund 5146  
 Hallstavik – Svartklubben 4041  
 Stockholm – Trälhavet – Klövholmen 1000  
 Trollharan – Langgarn 1000  
 Köping – Kvikksund 5144  
 Västerås – Grönsö 5144  
 Stockholm – Södertälje 4041  
 Södertälje – Fifong 1000  
 Norrköping – Hargökalv 5142  
 Järnverket-Lillhammaren – N Kränkan 1000  
 Uddevalla – Stenungsund 1000  
 Brofjorden – Dynabrott 4041  
 Vänersborgsviken 5146  
 Fairway to Karlstad 5146  
 Fairway to Kristinehamn 5146