

# Eisbericht Nr. 29 Amtsblatt des BSH

Jahrgang 97	Nr. 29	Wednesday, 27.12.2023	1
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#### Übersicht

In der nördlichen Bottenwiek befindet sich in den Schären bis 40 cm dickes Festeis. Weiter außerhalb im Nordwesten folgt eine Rinne mit Neueis. Auf See treibt im nördlichen Teil bis zu 30 cm dickes, sehr dichtes und teilweise aufgepresstes Eis. Weiter südlich bis Norra Kvarken liegt an den Küsten Festeis und Neueis weiter außerhalb. 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 40 cm thick fast ice in the archipelagos. Further out in the northwest there is a lead with new ice. At sea in the northern part there is up to 30 cm thick, very close and partly ridged drift ice. Further south to the Quark, there is fast ice along the coast and new ice further out. 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 40 cm thick fast ice. Off the fast ice in the west, there is a lead with new ice and new ice formation. At sea north of about the line Gåsören – Hailuoto, there is mostly very close, 10–30 cm thick partly ridged drift ice at sea. In the south there

is 5–20 cm thick fast ice in the archipelagos, further out there is thin drifting ice new ice or new ice formation.

With moderate frost at sea in the north ice formation and ice growth continues the coming day. The ice will drift slowly to the southeast.

# The Quark

There is 10–30 cm thick fast ice in the Vaasa archipelago and from Vaasa to Ensten. Farther out there is new ice to Vaasa lighthouse. Along the Swedish coast there is fast ice in inner bays. At sea from coast to coast is mostly open at places

also close. 2-15 cm thick drift ice.

With slight frost at sea, and moderate frost at the coasts ice growth and ice formation continues. The ice will drift to the southeast.

# Sea of Bothnia

Thin level ice or fast ice is present in bays along

the whole Finnish coast. Further out there is new

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH) www.bsh.de/eis www.bsh.de/ice

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© BSH - All rights reserved Reproduction in whole or in part prohibited ice formation and thin drifting ice. 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. With mostly slight frost some ice formation is possible along the coasts but else no larger changes are expected.

## Archipelago Sea and Aland Sea

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

Some ice growth along the coast is possible.

#### **Northern Baltic**

In Lake Mälaren there is mostly 5-15 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 slight frost some ice formation and ice growth is expected.

## **Gulf of Finland**

From St. Petersburg to Kotlin there is 20–30 cm thick, very close ice. In the top of Vyborg Bay there is 10–20 cm thick fast ice. In the Bjerkesund there is very open drift ice. Along the northern coast there is 5–15 cm thick fast ice and thin level ice in

the inner archipelago. In Lake Saimaa there is fast with open water at some flow places.

With slight to moderate frost along the coasts some ice formation and ice growth is expected.

#### **Gulf of Riga**

In Väinameri there is up to 15cm thick close and very close ice or fast ice at the coasts. On the fairway is very open ice. In the Bay of Pärnu there is 5–15 cm very close ice to about the line Munalaid

Rannametsa and very open ice slightly further out.

With temperatures around 0°C no larger changes are expected. The ice will drift southeast.

#### Southeastern Baltic

The area is almost ice-free. With temperatures

above 0°C no ice formation 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.

Some ice formation and ice growth is possible especially in bays along the north eastern coast.

## **Swedish Lakes**

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

Some ice formation and ice growth is expected the coming day.

Dr. W. Aldenhoff

# **Restrictions to Navigation**

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1600 kW	1C (Lloyd's)	22.12.
Finland	Tornio, Kemi and Oulu	2000 dwt	IB	17.12.
	Raahe, Kalajoki, Kokkola, Pietarsaari	2000 dwt	Ţ	20.12.
	Vaasa	2000 dwt	Ţ	17.12.
	Kristiinankaupunki, Pori, Rauma	2000 dwt	II	01.01.
	Kaskinen and Uusikaupunki	2000 dwt	II	17.12.
	Taalintehdas, Förby, Koverhar,	2000 dwt	II	09.12.
	Lappohja, Inkoo, Kantvik, Helsinki,			
	Sköldvik, Loviisa, Mussalo, Kotka and			
	Hamina			
	Lake Saimaa	2000 dwt	IB	13.12.
	Saimaa Canal	2000 dwt	IB	13.12.
Sweden	Karlsborg and Lulea	2000 dwt	IB	18.12.
	Haraholmen and Skelleftehamn	2000 dwt	IB	20.12.
	Rundvik, Husum	2000 dwt	II	12.12.
	Holmsund and Örnsköldsvik	2000 dwt	IC	18.12.
	Angermanälven	2000 dwt	IB	18.12.
	Härnösand, Söråker, Sundsvall, Stocka,	2000 dwt	II	18.12.
	Hudiksvall, Iggesund, Söderhamn, Orrs-			
	kär, Norrsundet, Gävle, Skutskär			
	Köping and Västeras	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.

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

**Icebreakers:** KONTIO, OTSO and YMER assist in the northern Bay of Bothnia. ALE and 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. From 29.12 for Ust-Luga and for Vyborg and Vysotsk from 30.12: Barge towed by tug not allowed to navigate in ice. Vessels without ice class only with icebreaker. Vessels with ice class 'Ice1' or higher with an icebreaker or according to icebreaker's instructions.

# **Baltic Sea Ice Code**

First number:  AB Amount and arrangements of sea ice  1 Copen 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 lce edge  / Unable to report	0 1 2 3 4 5 6 7 8	Second number:  B Stage of ice development  New ice or dark nilas (less than 5 cm thick)  Light nilas (5 - 10 cm thick) or ice rind  Grey ice (10 - 15 cm thick)  Grey-white ice (15 - 30 cm thick)  White ice, first stage (30 - 50 cm thick)  White ice, second stage (50 - 70 cm thick)  Medium first year ice (70 - 120 cm thick)  Ice predominantly thinner than 15 cm with some thicker ice  Ice predominantly grey-white ice (15 - 30 cm) with some thicker ice  Ice predominantly thicker than 30 cm with some thinner ice  No information or unable to report
Third number:  T <sub>B</sub> Topography or form of ice  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 foes – 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	3 4 5 6 7 8	Fourth number:  B Navigation conditions in ice  Navigation unobscured  Navigation difficult or dangerous for wooden vessels without ice sheathing  Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessel even with ice sheathing not advisable  Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice  Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker lcebreaker assistance can only be given to vessels suitable for navigation in ice and of special size lcebreaker assistance can only be given to vessels of special ice class and of special size lcebreaker assistance can only be given to vessels after after special permission  Navigation temporarily closed  Navigation has ceased Unknown

Estonia, 27.12.2023		Sea lat. Pietarsaari – NE Nordvalen	4146
Paernu, port and bay	5144	Sea area ENE of Nordvalen	4146
Moonsund	5132	Sea area Nordvalen to W of Norrskär	3136
		Vaskiluoto – Ensten	7746
Finland, 27.12.2023		Ensten – Vaasa lighthouse	4146
Röyttä – Etukari	8846	Vaasa lighthouse – Norrskär	4146
Etukari – Ristinmatala	6356	Kaskinen – Sälgrund	8145
Ajos – Ristinmatala	6356	Sea area off Sälgrund	4045
Ristinmatala – Kemi 2	5356	Pori harb. to line Pori lighth. – Säppi	4741
Kemi 2 – Kemi 1	5356	Sea W of line Pori lighthouse – Säppi	2021
Sea area SW of Kemi 1	5356	Rauma, Harbour – Kylmäpihlaja	5242
Kemi 2 – Ulkokrunni – Virpiniemi	7346	Kylmäpihlaja – Rauma lighthouse	2021
Oulu harbours – Kattilankalla	8846	Uusikaupunki harbour – Kirsta	8145
Kattilankalla – Oulu 1	6356	Kirsta – İsokari	2025
Sea area SW of Oulu 1	5356	Inkoo a. Kantvik – sea area Porkkala	5145
High Sea N of the latitude of Marjaniemi	5356	Helsinki harbours – Harmaja	0//5
Raahe harbour – Heikinkari	7346	Valko Harbour – Täktarn	5145
Heikinkari – Raahe lighthouse	5246	Kotka – Viikari	2115
Raahe lighthouse – Nahkiainen	4146	Viikari – Orrengrund	2125
Latitude Marjaniemi – Ulkokalla, Sea	5356	Hamina – Suurmusta	5145
Rahja harbour – Välimatala	4146	Suurmusta – Merikari	1005
Vaelimatala to line Ulkokalla – Ykskivi	4146	Merikari – Kaunissaari	2125
Sea betw. lat. of Ulkokalla –Pietarsaari	0//6		
Ykspihlaja – Repskär	8746	Russian Federation, 27.12.2023	
Repskär – Kokkola lighthouse	4146	Port of St. Petersburg	53//
Sea area off Kokkola lighthouse	4046	St. Petersburg – E-point island Kotlin	53//
Pietarsaari – Kallan	8746	E-point Kotlin – long. lighth. Tolbuhkin	32//
Sea area off Kallan	3136	Lighth. Tolbuhkin – lighth. –Šepelevskij	12//

Vyborg, port and bay Strait Bjerkesund	82// 21//
Sweden, 27.12.2023 Karlsborg – Malören Sea area off Malören Luleå – Björnklack Björnklack – Farstugrunden E and SE of Farstugrunden Sandgrönn fairway Rödkallen – Norströmsgrund Haraholmen – Nygrån Sea area off Nygrån	6356 6356 8346 5356 5356 6246 5356 6336 4046
Skelleftehamn – Gåsören Sea area off Gåsören Sea area off Bjuröklubb NE of Nordvalen SW of Nordvalen Western Quark (W of Holmöarna) Umeå – Väktaren SE of Väktaren NE and SE of Sydostbrotten	8346 5266 3126 3226 3226 4236 5146 3226 3226
Örnsköldsvik – Hörnskaten Hörnskaten – Skagsudde Fairway W of Ulvöarna Ångermanälven north Sandö Bridge Ångermanälven south Sandö Bridge Härnösand – Härnön Sundsvall – Draghällan Draghällan – Åstholmsudde	5146 4046 8244 3124 4044 5146 4046 5246
Hudiksvallfjärden Iggesund – Agö Sandarne – Hällgrund Sea area off Hällgrund Ljusnefjärden – Storjungfrun Sea area off Storjungfrun Gävle – Eggegrund Sea area off Eggegrund Öregrundsgrepen	5246 5246 5146 2026 5146 2026 5146 2026 4041
Hallstavik – Svartklubben Köping – Kvicksund Västerås – Grönsö Norrköping – Hargökalv Fairway to Gruvön Fairway to Karlstad Fairway to Kristinehamn Fairway to Lidköping	4041 5244 5244 5142 4046 5146 5146 1006