

# Eisbericht Nr. 14 Amtsblatt des BSH

Jahrgang 97	Nr. 14	Monday, 04.12.2023	1
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#### Übersicht

In der nördlichen Bottenwiek befindet sich in den Schären bis 35 cm dickes Festeis und ebenes Eis. Weiter außerhalb treibt bis zu 15 cm dickes, meist lockeres bis dichtes Eis oder Neueis. Weiter im Süden kommt, bis in die Bottensee hinein dünnes, ebenes Eis an den Küsten vor. Bis zu 10cm dickes ebenes Eis und Neueis liegt in den nördlichen Schären und östlichen Buchten des Finnischen Meerbusens. Neueis und dünnes ebenes Eis befindet sich in geschützten Küstengebieten bis hinein in die südliche Ostsee. Neueis kommt auch in einigen geschützten Fjords im Skagerrak vor.

#### Overview

In the northern Bay of Bothnia there is up to 35 cm thick fast ice and level ice in the archipelagos. Further out, up to 15 cm thick, mostly open to close ice or new ice is drifting at sea. Further south, there is thin level ice along the coast down into the Sea of Bothnia. Up to 10cm thick level ice is present in the northern archipelagos and the eastern bays of the Gulf of Finland. New ice and thin level ice are present in sheltered coastal places in all sea areas to the Southern Baltic. New ice is also 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 with adjacent level ice. Out at sea there is new ice with smaller areas of very close ice in the west and 3-8cm thick open ice from Karlsborg southwards past Malören. In the east there is 5-15cm thick close ice east of about 23°30'E. Off Raahe there is thin level ice and further out at sea new ice is drifting out to

Nahkiainen and Ulkokalla. Further south there is up to 15cm thick level ice at the coast and new ice and up to 10cm thick, very open to open ice farther out

With mostly moderate frost, but also strong frost in the west, and light winds ice formation and growth will continue.

#### The Quark

There is thin level ice in the Vaasa archipelago and from Vaasa to Störhasten. Farther out there is new ice and ice formation out to Ensten. Along the Swedish coast there is thin level ice and new ice stretches out to Holmögadd.

With mostly moderate frost, but also strong frost in the west, and light winds ice formation and ice growth will continue.

#### Herstellung und Vertrieb

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

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#### Sea of Bothnia

Thin level ice can be found in bays along the whole Finnish coast with new ice and ice formation at places slightly further out. Along the Swedish coast, there is new ice in some bays and thin level ice in bays in the north. On Ångermanälven, there

is 3-15 cm thick fast and level ice on the upper part and new is present in the lower part.

With mostly moderate frost ice formation and ice growth will continue.

# Archipelago Sea and Aland Sea

In sheltered bays there is level ice and new ice. With light frost in the east and colder temperatures in the west ice formation and ice growth in coastal areas will continue.

#### **Northern Baltic**

In Lake Mälaren new ice is present in places. With light frost in the east and down to strong frost

over the western land area ice formation and ice growth continues.

# **Gulf of Finland**

Very close ice rind is present in the top of Vyborg Bay. From Kotlin to St. Petersburg as well as in sheltered places along the northern coast, there is thin ice. In Lake Saimaa there is thin ice, new ice and ice formation, but also open water. With moderate to strong frost and lighter winds, ice formation and ice growth will continue.

#### **Gulf of Riga**

Thin level ice is present in bays in Väinameri and the Bay of Pärnu. On the fairways there is new ice.

With mostly moderate frost and light winds the ice formation and ice growth will continue.

#### **Southeastern Baltic**

New ice is present in the Curonian Lagoon and in places of the Vistula lagoon.

Some frost is expected and therefore some ice formation is expected.

### **Southwestern Baltic**

New ice is present at places in some sheltered places of inner waters like the Schlei and the Peenestrom.

With air temperatures slightly below zero, but with water temperatures largely above 5°C at the outer coast, no larger ice formation is expected.

## **Skagerrak and Kattegat**

Ice formation and new ice is present in sheltered places of inner Norwegian Fjords and in some sheltered areas along the Swedish coast..

With moderate to strong frost expected until at least Wednesday, some ice formation is expected.

# Swedish Lakes

New ice is present in some sheltered areas of Lake Vänern.

With mostly moderate frost further new ice formation is expected.

Dr. J. Holfort

# **Restrictions to Navigation**

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Finland	Tornio, Kemi and Oulu	2000 dwt	ll l	22.11.
I illialia	Tornio, Kemi and Oulu	2000 dwt	i I	09.12.
	Raahe, Kalajoki, Kokkola, Pietarsaari	2000 dwt	i	06.12.
	and Vaasa Taalintehdas, Förby, Koverhar, Lap- pohja, Inkoo, Kantvik, Helsinki, Sköldvik, Loviisa, Mussalo, Kotka and	2000 dwt	11	09.12.
	Hamina			
	Lake Saimaa	2000 dwt	II	02.12.
	Lake Saimaa	2000 dwt	I	08.12.
	Saimaa Canal	2000 dwt	II	02.12.
	Saimaa Canal	2000 dwt	I	08.12.
Sweden	Haraholmen	2000 dwt	II	21.11.
	Karlsborg and Lulea	2000 dwt	IC	02.12.
	Skelleftehamn	2000 dwt	II	02.12.
	Angermanälven	1300/2000 dwt	IC/II	29.11.
	Köping	1300/2000 dwt	IC/II	02.12.
	Köping	1300 dwt	IC	05.12.
	Västeras	1300/2000 dwt	IC/II	05.12.
	Trollhätte Canal and Göta Älv	1300/2000 dwt	IC/II	05.12.
	Vänern	1300/2000 dwt	IC/II	05.12.

#### 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: KONTIO, ALE and YMER assist in the northern Bay of Bothnia.

#### 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**

# First number: AB Amount and arrangements of sea ice 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 Fast ice with drift ice outside Fast ice Lead in very close or compact drift ice or along the fast Ice edge 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 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 Rafted ice Compact slush or shuga, or compacted brash ice Hummocked or ridged ice

Thaw holes or many puddles on the ice

No information or unable to report

Rotten ice

Second number:

S<sub>B</sub> 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 with second stage)

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

No information or unable to report

Fourth number:

## K<sub>B</sub> 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 vessels 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

4 Navigation proceeds in lead or broken ice-channel without

the assistance of an icebreaker Icebreaker assistance can only be given to vessels

suitable for navigation in ice and of special size
lebreaker assistance can only be given to vessels of special ice class and of special size
lebreaker assistance can only be given to vessels after after special permission

Navigation temporarily closed Navigation has ceased

Unknown

Estonia, 04.12.2023		Pori harb. to line Pori lighth. – Säppi	4142
Paernu, port and bay	10/0	Rauma, Harbour – Kylmäpihlaja	4041
Moonsund	30/0	Kylmäpihlaja – Rauma lighthouse	3001
		Uusikaupunki harbour – Kirsta	4041
Finland, 04.12.2023		Inkoo a. Kantvik – sea area Porkkala	5142
Röyttä – Etukari	8345	Kotka – Viikari	4041
Etukari – Ristinmatala	8345	Hamina – Suurmusta	4041
Ajos – Ristinmatala	5755		
Ristinmatala – Kemi 2	5145	Russian Federation, 04.12.2023	
Kemi 2 – Kemi 1	4145	Port of St. Petersburg	500/
Sea area SW of Kemi 1	4145	St. Petersburg – E-point island Kotlin	500/
Kemi 2 – Ulkokrunni – Virpiniemi	7745	E-point Kotlin – long. lighth. Tolbuhkin	500/
Oulu harbours – Kattilankalla	8345	Vyborg, port and bay	600/
Kattilankalla – Oulu 1	7255		
Sea area SW of Oulu 1	5255	Sweden, 04.12.2023	
High Sea N of the latitude of Marjaniemi	4145	Karlsborg – Malören	8346
Raahe harbour – Heikinkari	5242	Sea area off Malören	3126
Heikinkari – Raahe lighthouse	4152	Luleå – Björnklack	8346
Raahe lighthouse – Nahkiainen	4142	Björnklack – Farstugrunden	5046
Latitude Marjaniemi – Ulkokalla, Sea	4142	Sandgrönn fairway	5256
Rahja harbour – Välimatala	5242	Rödkallen – Norströmsgrund	5046
Vaelimatala to line Ulkokalla – Ykskivi	3121	Haraholmen – Nygrån	5146
Ykspihlaja – Repskär	5243	Sea area off Nygrån	5046
Repskär – Kokkola lighthouse	5243	Skelleftehamn – Gåsören	6156
Pietarsaari – Kallan	3121	Sea area off Gåsören	6156
Vaskiluoto – Ensten	5242	Sea area off Bjuröklubb	6152
Ensten – Vaasa lighthouse	3121	NE of Nordvalen	3122
Kaskinen – Sälgrund	4041	SW of Nordvalen	3122
Sea area off Sälgrund	2001	Western Quark (W of Holmöarna)	4041

Umeå – Väktaren SE of Väktaren Örnsköldsvik – Hörnskaten Ångermanälven north Sandö Bridge Ångermanälven south Sandö Bridge Hudiksvallfjärden Gävle – Eggegrund Hallstavik – Svartklubben Köping – Kvicksund Västerås – Grönsö Uddevalla – Stenungsund Stenungsund – Hätteberget Brofjorden – Dynabrott Vänersborgsviken Fairway to Karlstad	4041 4041 5142 5144 4044 5142 4041 4041 4041 4041 4041 4041 5142
Fairway to Karlstad Fairway to Kristinehamn	5142 4041