

# Eisbericht Nr. 16 Amtsblatt des BSH

Jahrgang 95	Nr. 16	Monday, 20.12.2021	1
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## Übersicht

In der nördlichen Bottenwiek liegt in den Schären 15-30cm dickes Festeis und weiter außerhalb treibt meist lockeres Eis. In der südlichen Bottenwiek und Norra Kvarken liegt in den Schären bis zu 25cm dickes Festeis. Entlang der Küsten der Bottensee, dem Schärenmeer und der Ålandsee liegt dünnes ebenes Eis oder Neueis. Im Finnischen Meerbusen liegt entlang der Nordküste dünnes, ebenes Eis und im Osten zumeist dünnes, ebenes Eis und bis zu 20cm dickes Festeis. Im Rigaischen Meerbusen befindet sich zumeist dünnes Eis im Moonsund und in der Pärnubucht. Neueis und seltener dünnes, ebenes Eis kommt örtlich in der nördlichen Ostsee, den Haffgebieten der südöstlichen Ostsee und dem Vänern vor.

#### **Overview**

In the northern Bay of Bothnia, there is 15-30cm thick fast ice in the archipelagos, and mostly open ice further out. In the southern Bay of Bothnia and Norra Kvarken, there is up to 25cm thick fast ice in the archipelagos. Along the coasts of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is thin level ice or new ice. In the Gulf of Finland, thin level ice is present along the northern coast. Thin level ice and up to 20cm thick fast ice is present in the eastern part. In the Gulf of Riga, there is mostly thin ice in Moonsund and Pärnu Bay. New ice and rarely thin level ice occurs at places in the northern Baltic, in the lagoons of the southeastern Baltic and Lake Vänern.

## **Bay of Bothnia**

In the archipelagos of the northern Bay of Bothnia, there is 15–30 cm thick fast ice. Farther out in the east, there is 10–25 cm thick, open ice to about 15nm south of Bothnia-Buoy. Off the fast ice in the west, there is mostly open water with open ice south of Malören. In the southern Bay of Bothnia,

there is 10–20 cm thick fast ice in the archipelagos. Further out in the west is open water and in the east close thin ice between Raahe lighthouse and Nahkiainen. Ice formation and a southerly ice drift is expected.

#### Norra Kvarken

In the archipelagoes off Vaasa, there is mostly 5–25 cm thick fast ice. Along the Swedish coast there is 5-20cm thick fast or level ice in the inner archi-

pelago. Some ice melt will occur the coming days. Ice drift will be to the south.

## Sea of Bothnia

On Ångermanälven, there is 10-20 cm very close

ice in the upper part and very open ice in the lower

## Herstellung und Vertrieb

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

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## Eisauskünfte / Ice Information

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© BSH - All rights reserved Reproduction in whole or in part prohibited part. Along the coast in the northern Sea of Bothnia and along the whole Finnish coast, there is 5-

## Archipelago and Aland Sea

New ice and thin level is present in sheltered places in the Archipelago and Åland Sea.

#### **Gulf of Finland**

From St. Petersburg to Kotlin there is 5–15 cm thick, very close ice with some thicker ice northeast of Kotlin. Farther out to the longitude of lighthouse Tolbuckin there is new ice and dark nilas. In the Bay of Vyborg, there is 10–20 cm fast ice, the entrance is ice free. 3-10cm very close is present

#### **Gulf of Riga**

In Moonsund and nearby shallow bays, there is nilas and very close, 5–10 cm thick ice. On the fairways there is open water. In Pärnu Bay, there is

#### **Northern Baltic**

In Lake Mälaren, thin level ice is present in the westernmost part and some sheltered bays. Else, there is new ice in very few sheltered bays along

#### **Southeastern Baltic**

In the Curonian Lagoon new ice is present mostly in the eastern part.

## **Swedish Lakes**

New ice and thin level ice are present in sheltered bays of Lake Vänern.

Dr. J.Holfort

15cm thick level ice. Some ice growth is expected during the next days.

Some ice formation, but else no larger change is expected.

in the Bjerkesund. In the archipelagoes of the northern coast, there is 5-10cm thick level ice. In Lake Saimaa and the Saimaa Canal, there is 5-25 cm thick fast ice. With moderate to strong frost some ice formation will take place. The ice will drift mostly in southerly direction.

very close, 5-15 cm thick nilas in the east and open water in the west. Some ice formation will occur, but no larger change is expected.

the Swedish coast. Some ice formation may occur.

Some minor ice formation is expected.

No larger change is expected.

## **Restrictions to Navigation**

	Harbour/District	At least	Ice Class	Begin
		dwt/hp/kW		
Estonia	Pärnu	1600 kW	1C	17.12.
Finland	Tornio, Kemi, Oulu and Raahe	2000 dwt	I	11.12.
	Tornio, Kemi, Oulu and Raahe	2000 dwt	IB	25.12.
	Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	II	08.12.
	Kokkola and Vaasa	2000 dwt	I	22.12.
	Kalajoki and Pietarsaari	2000 dwt	I	25.12.
	Loviisa, Kotka and Hamina	2000 dwt	I	22.12.
	Mussalo	2000 dwt	II	25.12.
	Northern Lake Saimaa	2000 dwt	II	08.12.
	Southern Lake Saimaa and Saimaa Ca-	2000 dwt	II	11.12.
	nal			
	Lake Saimaa and Saimaa Canal	2000 dwt	I	22.12.
Sweden	Karlsborg and Luleå	2000 dwt	IC	11.12.
	Haraholmen and Skelleftehamn	2000 dwt	II	04.12.
	Haraholmen and Skelleftehamn	2000 dwt	IC	22.12.
	Holmsund, Rundvik and Husum	2000 dwt	II	22.12.
	Örnsköldsvik	2000 dwt	II	22.12.
	Ångermanälven	1300/2000 dwt	IC/II	04.12.
	Ångermanälven	2000 dwt	IC	22.12.
	Härnösand- Skutskär	2000 dwt	II	22.12.
	Köping and Västerås	1300/2000 dwt	IC/II	06.12.

## Information of the Icebreaker Services

## **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 78. 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:

OTSO, KONTIO, FREJ and YMER assist in the Bay of Bothnia. PROTECTOR and CALYPSO assist in the northern Lake Saimaa. METEOR assists in the southern Lake Saimaa and the Saimaa Canal.

#### Russia

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

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

## **Baltic Sea Ice Code**

## First number: AB Amount and arrangements of sea ice 0 Ice free Open water – concentration less than 1/10 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

Compact slush or shuga, or compacted brash ice

Thaw holes or many puddles on the ice

No information or unable to report

Rafted ice

Rotten ice

Hummocked or ridged ice

Valko Harbour – Täktarn

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 thick)

Ice predominantly thinner than 15 cm with some thicker

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

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

6 Icebreaker assistance can only be given to vessels of special ice class and of special size

Icebreaker assistance can only be given to vessels after

after special permission Navigation temporarily closed Navigation has ceased Unknown

Västerås - Grönsö

5246

Estonia, 20.12.2021 Kotka - Viikari 1000 Paernu, port and bay 52/5 Hamina - Suurmusta 2001 Moonsund 21/1 Russian Federation, 20.12.2021 Finland, 20.12.2021 51/2 Port of St. Petersburg 8346 St. Petersburg – E-point island Kotlin Roeyttae – Etukari 51/2 E-point Kotlin – long. lighth. Tolbuhkin Etukari – Ristinmatala 8346 3000 Ajos – Ristinmatala 8346 Vyborg, port and bay 82/2 Ristinmatala - Kemi 2 7346 Kemi 2 - Kemi 1 3726 Sweden, 20.12.2021 Sea area SW of Kemi 1 3726 Karlsborg - Maloeren 8346 8346 Kemi 2 – Ulkokrunni – Virpiniemi 2356 Sea area off Maloeren Oulu harbours - Kattilankalla Luleå - Bjoernklack 8346 8346 3726 E and SE of Farstugrunden 2356 Kattilankalla – Oulu 1 Sea area SW of Oulu 1 3726 Sandgroenn fairway 8346 Roedkallen - Norstroemsgrund High Sea N of the latitude of Marjaniemi 3726 2356 Raahe harbour – Heikinkari 7246 Haraholmen – Nygrån 8346 Heikinkari – Raahe lighthouse 5146 Sea area off Nygrån 2356 Raahe lighthouse - Nahkiainen Western Quark (W of Holmoearna) 5146 5142 Rahja harbour - Välimatala 4045 Oernskoeldsvik – Hoernskaten 5142 Ykspihlaja - Repsaer 4745 Ångermanaelven north Sandoe Bridge 5336 Pietarsaari - Kallan Ångermanaelven south Sandoe Bridge 3125 2126 Vaskiluoto - Ensten 5745 Sundsvall – Draghaellan 5142 3232 Hudiksvallfjaerden Kaskinen – Sälgrund 5142 Rauma, Harbour – Kylmäpihlaja Iggesund - Agoe 5142 5142 Uusikaupunki harbour – Kirsta 5142 Gaevle – Eggegrund 3122 Inkoo a. Kantvik – sea area Porkkala 3001 Hallstavik – Svartklubben 3021 Helsinki harbours – Harmaja 1000 Koeping – Kvicksund 5246

3132

Jahrgang 95	Nr. 16	Monday, 20.12.2021	5
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Grönsö – Södertälje	5144
Stockholm – Södertälje	5144
Fairway to Karlstad	5242
Fairway to Kristinehamn	5242
Fairway to Otterbäcken	5041