

BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

# Eisbericht Nr. 74 Amtsblatt des BSH

Jahrgang 95 Nr. 74

Friday, 11.03.2022

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## Übersicht

In den Schären der Bottenwiek liegt im Norden 30–70 cm dickes Festeis und im Süden 20–55 cm dickes Festeis. Auf See treibt im Norden zumeist 20–60 cm dickes, sehr dichtes, aufgeschobenes und aufgepresstes Eis. Im Süden treibt lockeres bis sehr lockeres, 10–30 cm dickes Eis. In Norra Kvarken liegt in den Schären bis zu 55 cm dickes Festeis, auf See ist zumeist sehr lockeres Eis oder offenes Wasser. Entlang der Küsten und in den Schären der Bottensee, dem Schärenmeer und der Ålandsee liegt Festeis oder dünnes, ebenes Eis. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 45 cm dickes Festeis. Östlich von 27°30' E treibt auf See sehr dichtes bis dichtes, 15–30 cm dickes Eis. Im Rigaischen Meerbusen kommt an der Küste bis zu 25 cm dickes Eis im Moonsund und in der Pärnubucht vor. Dünnes Eis kommt örtlich in der nördlichen Ostsee und dem Vänern vor. In einigen wenigen inneren Fjorden des Skagerraks liegt Festeis oder dünnes Eis.

#### **Overview**

In the archipelagos of the Bay of Bothnia, there is 40–70 cm thick fast ice in the north and 20–55 cm thick fast ice in the south. At sea in the north, there is mostly 20–60 cm thick, very close, ridged and rafted ice. In The southern part, there is open to very open, 10–30 cm thick ice. In Norra Kvarken, there is up to 55 cm thick fast ice in the archipelagos. At sea, there is mostly very open ice or open water. Along the coasts and archipelagos of the Sea of Bothnia, the Archipelago Sea and Åland Sea, there is fast ice or thin level ice. In the Gulf of Finland, there is up to 45 cm thick fast ice along the northern and eastern coast. At sea east of about 27°30' E, there is very close to close, 15–30 cm thick ice. In the Gulf of Riga, there is up to 25 cm thick ice at the coasts of Moonsund and in Pärnu Bay. Thin ice occurs at places in the northern Baltic and Lake Vänern. Fast ice or thin ice is present in a few inner fjords of the Skagerrak.

## **Bay of Bothnia**

In and outside the northeastern archipelagos, there is 50–70 cm thick fast ice, reaching out to Kemi-3, Oulu-2 and Jaakko. In the northwestern archipelagos the fast ice is 30-60 cm thick. Off the fast ice in the north and east, there is 40-60 cm thick consolidated ice, in the east to Kemi-2 and Oulu-1. Off the fast ice in the west, there is very close, 20-40cm thick consolidated ice. At sea, there is an area with very close, ridged, 40-60 cm thick ice around  $65^{\circ}10'$  N 23°30' E. Else at sea, there is very close, 20–60 cm thick and rafted ice, in the east reaching south to about 64°15' N. The ice field is difficult to force in places and a brash ice barrier has formed along the ice edge. In the southern Bay of Bothnia, there is 20–45 cm thick fast ice along the Swedish coast; on the eastern coast there is 20–55 cm thick fast ice followed by a fringe of consolidated ice. At sea, there is mostly 10–30 cm thick, open to very open ice in the east and open water with stripes and patches and at places higher ice concentra-

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With mostly light frost, there will be some ice for-

#### Norra Kvarken

In the archipelagoes off Vaasa, there is 25–55 cm thick fast ice to Ensten and then 10–35 cm thick drift ice with varying concentration to Vaasa light-house. Along the Swedish coast, there is 20–40

#### Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick fast ice or very close ice in the upper part and 15–35 cm fast or very close ice in the lower part. In the bays along the western coast, there is 10–40 cm thick fast ice, further out there is open water in places. Along the eastern coast, there is 10–40 cm

#### Archipelago and Åland Sea

10–30 cm thick fast ice and level ice is present in the inner archipelagos of the coasts. At the eastern coast, there is very open ice on the fairways and open water in the outer archipelagos. Around the

#### **Gulf of Finland**

From St. Petersburg up to the easternmost tip of Kotlin, there is 30–40 cm thick fast ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 25– 35 cm thick compact or fast ice and very close ice in the entrance to Vyborg Bay. At sea, east of a line from Haapasaari to Vigrund there is mostly very close, 15–30 cm thick ice, but also smaller areas with close ice or new ice. Off the ice edge is

## **Gulf of Riga**

In Moonsund, there is 10–20 cm thick fast ice at the eastern coast, followed by very close ice. Further out and on the fairways mostly open. In Pärnu Bay, there is 20–40 cm thick fast ice near the coast and very close ridged ice out to the line Manilaid – Häädemeeste. Further out to Kihnu, there is open

#### **Northern Baltic**

In Lake Mälaren, there is 10–30 cm thick fast ice or level ice in the western part, and further east, there is mostly thin level ice. In the central part, there are areas with open water or new ice. Along the Swe-

#### Skagerrak and Kattegat

Near Tønsberg there is thin fast ice and in Hellefjorden near Kragerø there is 15–30 cm thick fast ice. Else it is mostly ice free.

#### Swedish Lakes

In Lake Vänern, there is rotten ice in bays of the northern coast.

Dr. W. Aldenhoff

mation and the ice drifts slowly in mostly northerly directions.

cm thick fast ice in the archipelagos. At sea, there is very open ice or open water.

Over the weekend, no larger changes are expected with a slow ice drift in northerly directions.

fast ice in the inner archipelagos, followed by a narrow belt of 10–35 cm thick, very close ice with brash ice barriers in the north and very open ice in the south.

No larger changes are expected over the weekend but some ice melt can occur in the southwest.

Åland Islands, there is thin level ice. No larger changes are expected over the weekend but some ice melt can occur.

open water. In the archipelagos of the northern coast, there is fast ice, 10–35 cm thick in the west and 20–50 cm thick in the east. Off the fast ice is open water.

In the eastern part, some new ice formation is expected over the weekend with light frost. The ice will drift mostly in easterly directions and is ceasing during the weekend.

water. In the southwest close to Mersrags, there is very open ice or new ice along the coast. Overall no larger changes are expected over the weekend with temperatures around the freezing point and a ceasing ice drift in easterly directions.

dish coast, there is partly broken, thin level ice at a few sheltered places.

No larger changes are expected over the weekend but some ice melt is possible.

No larger changes are expected over the weekend.

No larger changes are expected but ice melt will slowly continue.

## **Restrictions to Navigation**

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1600 kW	1C	17.12.
Finland	Tornio, Kemi and Oulu	2000/4000 dwt	IA Super(5000kW)/IA	09.02.
	Raahe	4000 dwt	IA	08.03.
	Kokkola, Pietarsaari and Vaasa	2000 dwt	IA	01.02.
	Kalajoki	4000 dwt	IA	08.03.
	Kristiinankaupunki, Pori, Rauma,	2000 dwt	II	01.01.
	Uusikaupunki, Naantali, Turku, Koverhar, Lappohja, Helsinki and Sköldvik			
	Kaskinen, Taalintehdas, Förby, Inkoo, Kantyik	2000 dwt	I	16.01.
	Loviisa and Kotka	2000 dwt	I	04.01.
	Hamina	2000 dwt	I	01.01.
	Mussalo	2000 dwt	I	25.12.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 2	14.01.
	Primorsk	-	Ice 2	27.01.
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
Sweden	Karlsborg and Luleå	4000 dwt	IA	19.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	19.02.
	Holmsund, Rundvik and Husum	2000 dwt	IB	19.02.
	Örnsköldsvik	2000 dwt	IC	15.01.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand	2000 dwt	II	22.12.
	Köping and Västerås	1300/2000 dwt	IC/II	02.03.

## Information of the Icebreaker Services

#### Estonia

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

## Finland/Sweden

The Saimaa Canal is closed for traffic from 30th of January.

The traffic separation schemes in the Quark are temporarily out of use from 15 January 2022.

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, URHO, POLARIS, NORDICA, SISU, FREJ and YMER assist in the Bay of Bothnia. ATLE und ALE assist in the Quark and ZEUS in the Sea of Bothnia, FENNICA in the eastern Gulf of Finland.

## Norway

Hellefjorden (Kragerø): Navigation temporarily closed. (28.02.22)

## 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.

Pietarsaari – Kallan

## **Baltic Sea Ice Code**

First number: A <sub>B</sub> 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 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	Second number: <b>S</b> <sub>B</sub> Stage of ice development 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
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 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	<ul> <li>Fourth number:</li> <li>K<sub>B</sub> Navigation conditions in ice</li> <li>0 Navigation unobscured</li> <li>1 Navigation difficult or dangerous for wooden vessels without ice sheathing</li> <li>2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable</li> <li>3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice</li> <li>4 Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker</li> <li>5 Icebreaker assistance can only be given to vessels of special size</li> <li>6 Icebreaker assistance can only be given to vessels of special ice class and of special size</li> <li>7 Icebreaker assistance can only be given to vessels after after special permission</li> <li>8 Navigation temporarily closed</li> <li>9 Navigation has ceased</li> <li>/ Unknown</li> </ul>

	/	Unknown
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Estonia, 11.03.2022		Sea area off Kallan
Shipping route from Narva-Jõssuu	30//	Sea lat. Pietarsaari – NE Nordva
Paernu, port and bay	7375	Sea area ENE of Nordvalen
Moonsund	1//1	Sea area Nordvalen to W of Nor
		Vaskiluoto – Ensten
Finland, 11.03.2022		Ensten – Vaasa lighthouse
Roeyttae – Etukari	8546	Vaasa lighthouse – Norrskaer
Etukari – Ristinmatala	8846	Sea area SW of Norrskaer
Ajos – Ristinmatala	8846	Kaskinen – Sälgrund
Ristinmatala – Kemi 2	6876	Sea area off Sälgrund
Kemi 2 – Kemi 1	5876	Pori harb. to line Pori lighth. – S
Sea area SW of Kemi 1	5356	Rauma, Harbour – Kylmäpihlaja
Kemi 2 – Ulkokrunni – Virpiniemi	8546	Kylmäpihlaja – Rauma lighthous
Oulu harbours – Kattilankalla	8546	Uusikaupunki harbour – Kirsta
Kattilankalla – Oulu 1	6876	Kirsta – Isokari
Sea area SW of Oulu 1	5476	Naantali and Turku – Rajakari
High Sea N of the latitude of Marjaniemi	5876	Rajakari – Lövskär
Raahe harbour – Heikinkari	8448	Lövskär – Korra
Heikinkari – Raahe lighthouse	7448	Korra – Isokari
Raahe lighthouse – Nahkiainen	5858	Lövskär – Berghamn
Latitude Marjaniemi – Ulkokalla, Sea	5876	Lövskär – Grisselborg
Rahja harbour – Välimatala	6366	Hanko – Vitgrund
Vaelimatala to line Ulkokalla – Ykskivi	5456	Inkoo a. Kantvik – sea area Por
Sea betw. lat. of Ulkokalla –Pietarsaari	4846	Helsinki harbours – Harmaja
Ykspihlaja – Repskaer	8846	Harmaja – Helsinki lighthouse
Repskaer – Kokkola lighthouse	6366	Fairway Helsinki – Porkkala – R
Sea area off Kokkola lighthouse	9836	Vuosaari harbour – Eestiluoto

7846

	0010
Sea lat. Pietarsaari – NE Nordvalen	2726
Sea area ENE of Nordvalen	1216
Sea area Nordvalen to W of Norrskaer	1216
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	5326
Vaasa lighthouse – Norrskaer	1216
Sea area SW of Norrskaer	0//6
Kaskinen – Sälgrund	5746
Sea area off Sälgrund	5766
Pori harb. to line Pori lighth. – Säppi	5245
Rauma, Harbour – Kylmäpihlaja	7745
Kylmäpihlaja – Rauma lighthouse	2205
Uusikaupunki harbour – Kirsta	8745
Kirsta – İsokari	1715
Naantali and Turku – Rajakari	7245
Rajakari – Lövskär	2105
Lövskär – Korra	2105
Korra – Isokari	1105
Lövskär – Berghamn	1105
Lövskär – Grisselborg	1105
Hanko – Vitgrund	0//5
Inkoo a. Kantvik – sea area Porkkala	7206
Helsinki harbours – Harmaja	1105
Harmaja – Helsinki lighthouse	0//5
Fairway Helsinki – Porkkala – Rönnskär	0//5

Porvoo harbours – Varlax

5846

1105

1115

Varlax – Porvoo lighthouse Valko Harbour – Täktarn Archipelago fairway Boistö – Glosholm Archipelago fairway Glosholm–Helsinki Kotka – Viikari Viikari – Orrengrund Orrengrund – Tiiskeri Tiiskeri – Kalbådagrund Hamina – Suurmusta Suurmusta – Merikari Merikari – Kaunissaari	0//5 7116 3006 1115 5346 5745 1115 0//5 7846 5746 5746
<b>Germany, 10.03.2022</b> Flensburg – Holnis	1000
Latvia, 10.03.2022 Riga to the Cape of Mersrags, fairway Mersrags to Irben Strait, fairway	2000 2000
<b>Norway, 09.03.2022</b> Svinesund – Halden Tønsberg, inner harbour Vestfjord (Tønsberg)	31// 8031 8031
Russian Federation, 11.03.2022 Port of St. Petersburg St. Petersburg – E-point island Kotlin E-point Kotlin – long. lighth. Tolbuhkin Lighth. Tolbuhkin – lighth. –Šepelevskij Lighthouse Šepelevskij – island Sescar Island Sescar – Island Sommers Vyborg, port and bay Island Vichrevoj – Island Sommers Strait Bjerkesund E-point Bol'šoj Ber'ozovyj – Šepelevskij Luga bay Appr. Luga bay – line MošŠepel.	84/3 84/3 54/3 52/2 53/3 53/3 53/3 53/3 53/3 50/2 53/2 53/2
Sweden, 11.03.2022 Karlsborg – Maloeren Sea area off Maloeren Luleå – Bjoernklack Bjoernklack – Farstugrunden E and SE of Farstugrunden Sandgroenn fairway Roedkallen – Norstroemsgrund Haraholmen – Nygrån Sea area off Nygrån Skelleftehamn – Gåsoeren Sea area off Gåsoeren Sea area off Gåsoeren Sea area off Bjuroeklubb NE of Nordvalen SW of Nordvalen Western Quark (W of Holmoearna) Umeå – Vaektaren SE of Vaektaren Fairway to Husum Oernskoeldsvik – Hoernskaten Hoernskaten – Skagsudde	6456 5576 6456 5576 6456 6456 5456 5456

Fairway W of Ulvoearna	1306
Ångermanaelven north Sandoe Bridge	5434
Ångermanaelven south Sandoe Bridge	3424
Sundsvall – Draghaellan	8442
Draghaellan – Åstholmsudde	1201
Hudiksvallfjaerden	8442
Iggesund – Agoe	4432
Ljusnefjaerden – Storjungfrun	5041
Gaevle – Eggegrund	8442
Oeregrundsgrepen	1000
Hallstavik – Svartklubben	8342
Koeping – Kvicksund	8344
Västerås – Grönsö	8344
Grönsö – Södertälje	5244
Stockholm – Södertälje	5242
Södertälje – Fifong	5041
Fairway to Karlstad	8392
Fairway to Kristinehamn	8392