

BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

# Eisbericht Nr. 90 Amtsblatt des BSH

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#### Übersicht

In den Schären der Bottenwiek liegt im Norden 40–85 cm dickes Festeis und im Süden 30–55 cm dickes Festeis. Entlang des Festeises im Norden und Nordwesten treibt auf 10-20Sm Breite dünnes, dichte oder ebenes Eis. Auf See treibt nördlich der Line Blackkallan - Kallan 20–70 cm dickes, sehr dichtes, aufgeschobenes und aufgepresstes Eis. In Norra Kvarken liegt in den Schären bis zu 50 cm dickes Festeis und auf See kommt örtlich offenes Wasser vor. 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 Seskar treibt auf See 15–30 cm dickes Eis. Im Rigaischen Meerbusen kommt an der Küste örtlich morsches Eis im Moonsund und in der Pärnubucht vor. In der nördlichen Ostsee und dem Vänern kommt im geschützten Buchten noch örtlich morsches Eis vor.

#### **Overview**

In the archipelagos of the Bay of Bothnia, there is 40–85 cm thick fast ice in the north and 30–55 cm thick fast ice in the south. Outside the fast ice in the north and northwest there is a 10-20nm wide area with thin close or level ice. At sea there is mostly 20–70 cm thick, very close, ridged and rafted ice north of the line Blackkallan – Kallan. In Norra Kvarken, there is up to 50 cm thick fast ice in the archipelagos and open water in places at sea. 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 Seskar, there is mostly very close 15–30 cm thick ice. In the Gulf of Riga, there is rotten ice in places at the coasts of Moonsund and in Pärnu Bay. In the northern Baltic and Lake Vänern thin rotten ice is still present in some sheltered bays.

#### Bay of Bothnia

In and outside the northeastern archipelagos, there is 55–85 cm thick fast ice and consolidated ice, reaching out to Kemi-2, Oulu-2 and Jaakko. In the northwestern archipelagos the fast ice and consolidated is 40–70 cm thick. Further out there is a 10-20nm wide area with 3-15cm thick close or level ice from the northern Skelleftea Bay to Oulu-2. At sea, there is an area with very close, ridged and 40–70 cm thick ice around 65° N 23°20' E. East of this area and reaching southwards to Kokkola, very

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© BSH - Alle Rechte vorbehalten Nachdruck, auch auszugsweise, verboten close, 30–60 cm thick, ridged ice, which is difficult to force in places. Towards the southwest the very close, ridged ice is 20-60cm thick and there are cracks in the ice field. The ice edge runs along the line Blackkallan – Kallan. In the southern Bay of Bothnia, there is 30–50 cm thick fast ice along the Swedish coast with open water outside south of 65°N; on the eastern coast there is 30–55 cm thick fast ice. Just outside the ice edge there is open water.

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With some ice formation in the north, the ice will

#### Norra Kvarken

In the archipelagoes off Vaasa, there is 20–50 cm thick fast ice to about Nygrund followed by 20-30cm thick, very close ice to Ensten. Along the Swedish coast, there is 20–40 cm thick fast ice in

#### Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick very close ice in the upper part and mostly thin very open ice in the lower part. In sheltered bays along the western coast, there is 10–40 cm thick fast ice. Along the eastern coast, there is 20–45 cm fast ice

#### Archipelago and Åland Sea

Rotten fast ice and level ice, up to 30cm thick, are present in the inner archipelagos and sheltered bays of both coasts. At the eastern coast, there is

#### **Gulf of Finland**

From St. Petersburg up to the dike, there is 30–40 cm thick very close ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 20–40 cm thick compact or fast ice and very open ice in the entrance to Vyborg Bay. At sea east of Seskar there is mostly very close to close, 15–30 cm thick drift ice; further west 10-20cm thick close to very close ice direction to Moščnyj and else open water. In

#### Gulf of Riga

In Moonsund, there is rotten fast ice at the eastern coast and further out there is open water. In Pärnu Bay, there is rotten fast ice in the eastern part and else open water.

#### **Northern Baltic**

In Lake Mälaren, there is rotten fast ice in sheltered bays and else open water. Along the Swedish coast, there is partly broken and rotten thin ice

#### **Swedish Lakes**

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

Dr. J.Holfort

drift southwards.

the archipelagos. At sea, there is open water near the coasts and it is mostly ice free still further out. Ice formation is expected in sheltered areas, but due to the stronger northerly wind, not at sea.

in the inner archipelagos, and belts of 10-30cm thick ice are drifting in places somewhat further out.

Some new ice formation is possible in sheltered areas, but overall no larger changes are expected.

mostly open water on the fairways and in the outer archipelagos.

Overall no larger changes are expected.

the archipelagos of the northern coast, there is 10– 35 cm thick rotting fast ice in the west and 30–55 cm thick fast ice in the east. Further out open water. In Luga Bay and eastwards there is very close ice.

Some ice melt with a northerly ice drift is expected until tomorrow afternoon.

Ice melt and a northerly, later easterly ice drift is expected, leading to more ice free areas but overall no larger changes.

in the Stockholm archipelago. Some ice melt, but else no larger changes are expected.

Some ice melt, but else no larger changes are expected.

### **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	4000 dwt	IA	21.03.
	Raahe and Kalajoki	4000 dwt	IA	08.03.
	Kokkola and Pietarsaari	2000 dwt	IA	01.02.
	Vaasa	2000 dwt	l	31.03.
	Kaskinen	2000 dwt	II	31.03.
	Kristiinankaupunki, Pori, Rauma,	2000 dwt	II	01.01.
	Uusikaupunki, Naantali and Turku			
	Loviisa	2000 dwt	II	24.03.
	Kotka and Hamina	2000 dwt	II	29.03.
	Mussalo	2000 dwt	II	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	4000 dwt (2000 t)	IA	30.03.
	Luleå	4000 dwt	IA	19.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	19.02.
	Holmsund, Rundvik and Husum	2000 dwt	IC	14.03.
	Örnsköldsvik	2000 dwt	II	30.03.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand	2000 dwt	II	22.12.

#### 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, **ATLE**, FREJ, ALE and YMER assist in the Bay of Bothnia. ZEUS assist in the Quark and in the Sea of Bothnia, VOIMA 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.

## Baltic Sea Ice Code

First number: A <sub>B</sub> Amount and arrangements of sea 0 Ice free 1 Open water – concentration less than 2 Very 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 6 Compact ice, including consolidated in concentration 10/10 7 Fast ice with drift ice outside 8 Fast ice 9 Lead in very close or compact drift ice Ice edge / Unable to report	1/10 3/10 9+/10 ce –	<ul> <li>9 Ice predominantly thicker than 30 cm with some thinner ice</li> <li>/ No information or unable to report</li> <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</li> </ul>	
Third number: <b>T<sub>B</sub> Topography or form of ice</b> 0 Pancake ice, ice cakes, brash ice – le 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 5 Rafted ice 6 Compact slush or shuga, or compacte 7 Hummocked or ridged ice 8 Thaw holes or many puddles on the id 9 Rotten ice / No information or unable to report	ice ed brash ice		
Estonia , 04.04.2022		Sea lat. Pietarsaari – NE Nordvalen	2716
Paernu, port and bay 7393		Vaskiluoto – Ensten	7446
Moonsund 1//0		Ensten – Vaasa lighthouse Kaskinen – Sälgrund	4746 1715 0//5

8646
8546
8546
6476
4246
9246
8546
8546
6476
5476
5476
8546
7476
5476
5476
6366
5476
5476
8846
6866
5476
7856
5876

Sea lat. Pietarsaari – NE Nordvalen	2716
Vaskiluoto – Ensten	7446
Ensten – Vaasa lighthouse	4746
Kaskinen – Sälgrund	1715
Sea area off Sälgrund	0//5
Pori harb. to line Pori lighth. – Säppi	1215
Rauma, Harbour – Kylmäpihlaja	1725
Uusikaupunki harbour – Kirsta	8795
Naantali and Turku – Rajakari	1205
Rajakari – Lövskär	1205
Lövskär – Korra	1205
Lövskär – Berghamn	1105
Lövskär – Grisselborg	1105
Inkoo a. Kantvik – sea area Porkkala	7201
Helsinki harbours – Harmaja	1000
Vuosaari harbour – Eestiluoto	2000
Porvoo harbours – Varlax	3000
Varlax – Porvoo lighthouse	1000
Valko Harbour – Täktarn	7715
Archipelago fairway Boistö – Glosholm	1105
Archipelago fairway Glosholm–Helsinki	1105
Kotka – Viikari	1015
Viikari – Orrengrund	1105
Hamina – Suurmusta	7145
Suurmusta – Merikari	1015
Merikari – Kaunissaari	1105

## Russian Federation , 04.04.2022

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	54/3 54/3 53/2 53/2 1311 84/3 1312 63/3 52/2 52/2
Appr. Luga bay – line MošŠepel.	52/2
Sweden , 04.04.2022	6476
Karlsborg – Maloeren Sea area off Maloeren	6476 5576
Luleå – Bjoernklack	6476
Bjoernklack – Farstugrunden	6476
E and SE of Farstugrunden	4236
Sandgroenn fairway	4230 6476
Roedkallen – Norstroemsgrund	4236
Haraholmen – Nygrån	4230 6456
Sea area off Nygrån	6456
Skelleftehamn – Gåsoeren	1306
Sea area off Gåsoeren	1306
Sea area off Bjuroeklubb	5456 1306
Western Quark (W of Holmoearna) Umeå – Vaektaren	
SE of Vaektaren	1306 1306
Oernskoeldsvik – Hoernskaten	
	8446
Hoernskaten – Skagsudde	8446
Ångermanaelven north Sandoe Bridge	5434
Ångermanaelven south Sandoe Bridge	2024
Haernoesand – Haernoen	2024
Hudiksvallfjaerden	8442
Hallstavik – Svartklubben	8392
Koeping – Kvicksund Västerås – Grönsö	1000
	1000
Grönsö – Södertälje	1000
Stockholm – Södertälje	1000