



# Eisbericht Nr. 73

## Amtsblatt des BSH

Jahrgang 95

Nr. 73

Thursday, 10.03.2022

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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 zumeist 20–60 cm dickes, sehr dichtes Eis, aufgeschoben und aufgepresst im Norden und mit Spalten und Rinnen im Süden. In Norra Kvarken liegt in den Schären bis zu 55 cm dickes Festeis, auf See treibt lockeres bis dichtes Eis. 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. Weiter westlich im Norden folgt lockeres Eis und Neueis. 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, there is mostly 20–60 cm thick, very close ice, ridged and rafted in the north and with cracks and leads in the south. In Norra Kvarken, there is up to 55 cm thick fast ice in the archipelagos; at sea there is very open to close ice. 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. Further west in the north, there is open ice and new ice. In the Gulf of Riga, there is up to 25 cm thick ice at the coasts of Moonsund and 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, 20–40 cm thick consolidated ice. At sea, there is an area with very close, ridged, 40–60 cm thick ice around 65°10' N 23°20' E, else very close, 20–60 cm thick,

rafted ice, in places difficult to force; in the east reaching south to about 64° N. 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 5–20 cm thick very close ice with cracks in the east. In the west, there is lead with open water.

With mostly light frost there will be some ice formation and the ice drifts in northeasterly directions.

### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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### Norra Kvarken

In the archipelagoes off Vaasa, there is 25–55 cm thick fast ice to Ensten and then 10–35 cm thick, very close ice to Vaasa lighthouse. Along the Swedish coast, there is 20–40 cm thick fast ice in the archipelagos. At sea, there are areas of 10–30

cm ice, ranging from very open to close, north of Nordvalen. Further south open water.

The ice continues to drift towards the northeast, else no larger changes are expected.

### 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

fast ice in the inner archipelagos, followed by a narrow belt of 10–35 cm thick, very close and in places ridged ice.

No larger changes are expected, but some ice melt can occur in the south.

### 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

Åland Islands, there is thin level ice.

No larger changes are expected, but some ice melt can occur.

### 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. Outside a lead covered with new ice. 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. In the archipelagos of the

northern coast, there is fast ice, 10–35 cm thick in the west and 20–45 cm thick in the east. Off the fast ice east of 25° E, there is new ice and open ice out to Tiiskeri and Tyters. Along the southern coast, there is new ice stretching along the coast to about 25°30'E.

In the eastern part new ice formation is expected, with northeasterly ice drift.

### 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 water or very open ice. 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 very close ice in the central part and else open to very open ice. In the southwest, there is very open ice and new ice along the coast near Mersrags.

Overall no larger changes are expected.

### 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-

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

No larger changes are expected.

### 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.

No larger changes are expected.

### Swedish Lakes

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

No larger changes are expected.

## Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Estonia</b>	Pärnu	1600 kW	1C	17.12.
<b>Finland</b>	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, Uusikaupunki, Naantali, Turku, Koverhar,	2000 dwt	II	01.01.
	Lappohja, Helsinki and Sköldvik			
	Kaskinen, Taalintehdas, Förby, Inkoo, Kantvik	2000 dwt	I	16.01.
	Loviisa and Kotka	2000 dwt	I	04.01.
	Hamina	2000 dwt	I	01.01.
Mussalo	2000 dwt	II	25.12.	
<b>Russia</b>	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.
<b>Sweden</b>	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.

## Baltic Sea Ice Code

<p>First number:</p> <p><b>A<sub>B</sub> Amount and arrangements of sea ice</b></p> <p>0 Ice free</p> <p>1 Open water – concentration less than 1/10</p> <p>2 Very open ice - concentration 1/10 to 3/10</p> <p>3 Open ice – concentration 4/10 to 6/10</p> <p>4 Close ice – concentration 7/10 to 8/10</p> <p>5 Very close ice – concentration 9/10 to 9+/10</p> <p>6 Compact ice, including consolidated ice – concentration 10/10</p> <p>7 Fast ice with drift ice outside</p> <p>8 Fast ice</p> <p>9 Lead in very close or compact drift ice or along the fast ice edge</p> <p>/ Unable to report</p> <p>Third number:</p> <p><b>T<sub>B</sub> Topography or form of ice</b></p> <p>0 Pancake ice, ice cakes, brash ice – less than 20 m across</p> <p>1 Small ice floes – 20 to 100 m across</p> <p>2 Medium ice floes – 100 to 500 m</p> <p>3 Big ice floes – 500 to 2000 m across</p> <p>4 Vast or giant ice floes – more than 2000 m across – or level ice</p> <p>5 Rafted ice</p> <p>6 Compact slush or shuga, or compacted brash ice</p> <p>7 Hummocked or ridged ice</p> <p>8 Thaw holes or many puddles on the ice</p> <p>9 Rotten ice</p> <p>/ No information or unable to report</p>	<p>Second number:</p> <p><b>S<sub>B</sub> Stage of ice development</b></p> <p>0 New ice or dark nilas (less than 5 cm thick)</p> <p>1 Light nilas (5 - 10 cm thick) or ice rind</p> <p>2 Grey ice (10 - 15 cm thick)</p> <p>3 Grey-white ice (15 - 30 cm thick)</p> <p>4 White ice, first stage (30 - 50 cm thick)</p> <p>5 White ice, second stage (50 - 70 cm thick)</p> <p>6 Medium first year ice (70 - 120 cm thick)</p> <p>7 Ice predominantly thinner than 15 cm with some thicker ice</p> <p>8 Ice predominantly grey-white ice (15 – 30 cm) with some thicker ice</p> <p>9 Ice predominantly thicker than 30 cm with some thinner ice</p> <p>/ No information or unable to report</p> <p>Fourth number:</p> <p><b>K<sub>B</sub> Navigation conditions in ice</b></p> <p>0 Navigation unobscured</p> <p>1 Navigation difficult or dangerous for wooden vessels without ice sheathing</p> <p>2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable</p> <p>3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice</p> <p>4 Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker</p> <p>5 Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size</p> <p>6 Icebreaker assistance can only be given to vessels of special ice class and of special size</p> <p>7 Icebreaker assistance can only be given to vessels after special permission</p> <p>8 Navigation temporarily closed</p> <p>9 Navigation has ceased</p> <p>/ Unknown</p>
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**Estonia , 10.03.2022**

Shipping route from Narva-Jõssuu	30//
Paernu, port and bay	7375
Moonsund	2//1

**Finland , 10.03.2022**

Roeyttae – Etukari	8546
Etukari – Ristinmatala	8846
Ajos – Ristinmatala	8846
Ristinmatala – Kemi 2	6876
Kemi 2 – Kemi 1	5876
Sea area SW of Kemi 1	5356
Kemi 2 – Ulkokrunni – Virpiniemi	8546
Oulu harbours – Kattilankalla	8546
Kattilankalla – Oulu 1	6876
Sea area SW of Oulu 1	5476
High Sea N of the latitude of Marjaniemi	5876
Raahel harbour – Heikinkari	8448
Heikinkari – Raahel lighthouse	7448
Raahel lighthouse – Nahkiainen	5858
Latitude Marjaniemi – Ulkokalla, Sea	5876
Rahja harbour – Välimatala	6366
Vaelimatala to line Ulkokalla – Ykskivi	5456
Sea betw. lat. of Ulkokalla –Pietarsaari	5846
Ykspihlaja – Repskaer	8846
Repskaer – Kokkola lighthouse	6366
Sea area off Kokkola lighthouse	4846
Pietarsaari – Kallan	7846

Sea area off Kallan	5846
Sea lat. Pietarsaari – NE Nordvalen	3746
Sea area ENE of Nordvalen	3246
Sea area Nordvalen to W of Norrskaer	2126
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	3326
Vaasa lighthouse – Norrskaer	2146
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	1205
Uusikaupunki harbour – Kirsta	8745
Kirsta – Isokari	1715
Naantali and Turku – Rajakari	7245
Rajakari – Lövskär	1115
Hanko – Vitgrund	0//5
Inkoo a. Kantvik – sea area Porkkala	7206
Helsinki harbours – Harmaja	2115
Harmaja – Helsinki lighthouse	1005
Fairway Helsinki – Porkkala – Rönnskär	0//5
Vuosaari harbour – Eestiluoto	1105
Porvoo harbours – Varlax	1115
Varlax – Porvoo lighthouse	1015
Valko Harbour – Täktarn	7116
Archipelago fairway Boistö – Glosholm	2006
Archipelago fairway Glosholm–Helsinki	2115

Kotka – Viikari	5346	Ångermanaelven north Sandoe Bridge	5434
Viikari – Orregrund	4745	Ångermanaelven south Sandoe Bridge	4434
Orregrund – Tiiskeri	3115	Sundsvall – Draghaellan	8442
Tiiskeri – Kalbådagrund	2005	Draghaellan – Åstholmsudde	2221
Hamina – Suurmusta	7846	Hudiksvallfjaerden	8442
Suurmusta – Merikari	4746	Iggesund – Agoe	8442
Merikari – Kaunissaari	3006	Ljusnefjaerden – Storjungfrun	5041
<b>Germany , 10.03.2022</b>		Gaevle – Eggegrund	8442
Flensburg – Holnis	1000	Oeregrundsgrepen	1000
<b>Latvia , 10.03.2022</b>		Hallstavik – Svartklubben	8342
Riga to the Cape of Mersrags, fairway	2000	Koeping – Kvicksund	8344
Mersrags to Irben Strait, fairway	2000	Västerås – Grönsö	8344
<b>Norway , 09.03.2022</b>		Grönsö – Södertälje	5244
Svinesund – Halden	31//	Stockholm – Södertälje	5242
Tønsberg, inner harbour	8031	Södertälje – Fifong	5041
Vestfjord (Tønsberg)	8031	Fairway to Karlstad	8392
		Fairway to Kristinehamn	8392
<b>Russian Federation , 10.03.2022</b>			
Port of St. Petersburg	84/3		
St. Petersburg – E-point island Kotlin	84/3		
E-point Kotlin – long. lighth. Tolbuhkin	54/3		
Lighth. Tolbuhkin – lighth. –Šepelevskij	52/2		
Lighthouse Šepelevskij – island Sescar	53/3		
Island Sescar – Island Sommers	53/3		
Island Sommers– S-point island Gogland	53/2		
Vyborg, port and bay	84/3		
Island Vichrevoj – Island Sommers	53/3		
Strait Bjerkesund	53/3		
E-point Bol'šoj Ber'ozovyj – Šepelevskij	50/2		
Luga bay	53/2		
Appr. Luga bay – line Moš.-Šepel.	53/2		
<b>Sweden , 09.03.2022</b>			
Karlsborg – Maloeren	6456		
Sea area off Maloeren	5576		
Luleå – Bjoernklack	6456		
Bjoernklack – Farstugrunden	6456		
E and SE of Farstugrunden	5576		
Sandgroenn fairway	6456		
Roedkallen – Norstroemgrund	6456		
Haraholmen – Nygrån	8546		
Sea area off Nygrån	5456		
Skelleftehamn – Gåsoeren	5456		
Sea area off Gåsoeren	6456		
Sea area off Bjuroeklubb	6456		
NE of Nordvalen	4046		
SW of Nordvalen	4046		
Western Quark (W of Holmoearna)	8346		
Umeå – Vaektaren	8446		
SE of Vaektaren	4356		
NE and SE of Sydostbrotten	4046		
Fairway to Husum	1206		
Oernskoeldsvik – Hoernskaten	8446		
Hoernskaten – Skagsudde	8446		
Sea area off Skagsudde	1206		
Fairway W of Ulvoearna	1206		
Sea area E of Ulvoearna	1206		