

# Eisbericht Nr. 86

## Amtsblatt des BSH

Jahrgang 95

Nr. 86

Tuesday, 29.03.2022

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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. Auf See treibt im Norden 30–70 cm dickes, sehr dichtes, aufgeschobenes und aufgedrücktes Eis. Im Süden ist meist offenes Wasser. In Norra Kvarken liegt in den Schären bis zu 55 cm dickes Festeis und auf See kommt 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 Moščnyj treibt auf See im Süden sehr dichtes bis dichtes, 15–30 cm dickes Eis und im Norden 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, teilweise morsches Eis kommt örtlich in der nördlichen Ostsee und dem Vänern 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. At sea in the north, there is mostly 30–70 cm thick, very close, ridged and rafted ice. In the southern part, there is mostly open water. In Norra Kvarken, there is up to 55 cm thick fast ice in the archipelagos and open water 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 Moščnyj, there is mostly very close to close, 15–30 cm thick ice in the south and open ice and new ice in the north. In the Gulf of Riga, there is up to 25 cm thick ice at the coasts of Moonsund and in Pärnu Bay. Thin, partly rotten ice occurs at places in the northern Baltic and Lake Vänern.

### Bay of Bothnia

In and outside the northeastern archipelagos, there is 55–85 cm thick fast ice, reaching out to Kemi-3, Oulu-2 and Jaakko. In the northwestern archipelagos the fast ice is 40–70 cm thick. Off the fast ice in the north and east, there is 40–70 cm thick consolidated ice, in the east to Kemi-2 and Oulu-1. Off the fast ice in the west, there is very close or consolidated, 30–50 cm thick ice. Further out runs a lead covered with new ice from Skellefte Bay to Oulu-1. At sea, there is an area with very close, ridged and 40–70 cm thick ice around 65°00' N

23°20' E. Else at sea, there is very close, 30–60 cm thick, ridged and rafted ice north of the line Bjuröklubb – Kallan. There are leads and cracks in the ice field. In the southern Bay of Bothnia, there is 30–50 cm thick fast ice along the Swedish coast; on the eastern coast there is 30–55 cm thick fast ice followed by a narrow fringe of consolidated or very close ice. At sea, there is mostly open water. With mostly moderate frost, new ice formation is expected the coming day. With a fresh breeze from the north, the ice will drift in southerly directions.

#### Herstellung und Vertrieb

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### Norra Kvarken

In the archipelagoes off Vaasa, there is 30–55 cm thick fast ice to Ensten. Along the Swedish coast, there is 20–40 cm thick fast ice in the archipelagos. At sea, there is open water in the northern part and

### Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick very close ice in the upper part and mostly open water 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 the north. Along the eastern coast, there is 20–45 cm fast ice in the inner archi-

### Archipelago and Åland Sea

10–35 cm thick rotting fast ice and level ice are present in the inner archipelagos and bays of both coasts. At the eastern coast, there is mostly open water on the fairways and in the outer archipelagos. Around the Åland Islands, there is rotting level

### Gulf of Finland

From St. Petersburg up to the easternmost tip of Kotlin, there is 35–45 cm thick fast ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 25–45 cm thick compact or fast ice and very close ice in the entrance to Vyborg Bay. At sea east of Moščnyj, there is mostly very close to close, 15–30 cm thick drift ice in the south and open to very open ice and new ice in the north. In the archipela-

### Gulf of Riga

In Moonsund, there is 10–20 cm thick rotten fast ice or very close ice at the eastern coast. Further out and on the fairways, there is open water. In Pärnu Bay, there is 15–25 cm thick and rotten fast ice near the northern and eastern coast, further out

### Northern Baltic

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

### Swedish Lakes

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

Dr. W. Aldenhoff

along the coasts.

Some ice formation is possible in sheltered coastal areas. With a fresh breeze from the north, ice formation is unlikely at sea.

pelagos, followed by a narrow belt of 10–30 cm thick ice of varying concentrations.

With mostly slight frost some ice formation is possible in sheltered areas but overall no larger changes are expected.

ice.

Overall no larger changes are expected but some ice formation is possible in sheltered areas with slight frost.

gos of the northern coast, there is fast ice, 15–35 cm thick in the west and 30–55 cm thick in the east. Further out east of Kotka, there is new ice and very open ice to Haapasaari and open water further west.

Some ice formation is possible with slight to moderate frost. Ice drift will mostly be in easterly directions.

there is narrow belt of close ice. In the western part is mostly open water.

With slight frost, no larger changes are expected with some new ice formation possible in sheltered areas.

No larger changes are expected the coming day, but some new ice formation is possible with temperatures slightly below 0 °C.

With night frost no larger changes are expected the coming day.

## 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	4000 dwt	IA	21.03.
	Raahe and Kalajoki	4000 dwt	IA	08.03.
	Kokkola, Pietarsaari and Vaasa	2000 dwt	IA	01.02.
	Kaskinen	2000 dwt	I	16.01.
	Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali and Turku	2000 dwt	II	01.01.
	Loviisa	2000 dwt	II	24.03.
<b>Kotka and Hamina</b>	<b>2000 dwt</b>	<b>II</b>	<b>29.03.</b>	
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	4000 dwt (4000 t)	IA	23.03.
	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	IC	15.01.
	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, FREJ, ODEN, ALE and YMER assist in the Bay of Bothnia. ZEUS assist 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

<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, 29.03.2022**

Paernu, port and bay 7375

Moonsund 1//0

**Finland, 29.03.2022**

Roeyttae – Etukari 8646

Etukari – Ristinmatala 8546

Ajos – Ristinmatala 8546

Ristinmatala – Kemi 2 6476

Kemi 2 – Kemi 1 9026

Sea area SW of Kemi 1 4476

Kemi 2 – Ulkokrunni – Virpiniemi 8546

Oulu harbours – Kattilankalla 8546

Kattilankalla – Oulu 1 6476

Sea area SW of Oulu 1 5476

High Sea N of the latitude of Marjaniemi 5476

Raahe harbour – Heikinkari 8546

Heikinkari – Raahe lighthouse 7476

Raahe lighthouse – Nahkiainen 4476

Latitude Marjaniemi – Ulkokalla, Sea 5476

Rahja harbour – Välimatala 6366

Vaelimatala to line Ulkokalla – Ykskivi 4046

Sea betw. lat. of Ulkokalla –Pietarsaari 5456

Ykspihlaja – Repskaer 8846

Repskaer – Kokkola lighthouse 6866

Sea area off Kokkola lighthouse 5846

Pietarsaari – Kallan 7856

Sea area off Kallan 5876

Sea lat. Pietarsaari – NE Nordvalen 1716

Sea area ENE of Nordvalen 1216

Sea area Nordvalen to W of Norrskær 1216

Vaskiluoto – Ensten 8446

Ensten – Vaasa lighthouse 2716

Vaasa lighthouse – Norrskær 1716

Kaskinen – Sälgrund 1716

Sea area off Sälgrund 2716

Pori harb. to line Pori lighth. – Säppi 1215

Rauma, Harbour – Kylmäpihlaja 7765

Uusikaupunki harbour – Kirsta 8745

Naantali and Turku – Rajakari 1205

Rajakari – Lövskär 1205

Lövskär – Korra 1205

Lövskär – Berghamn 1105

Lövskär – Grisselborg 1105

Inkoo a. Kantvik – sea area Porkkala 7201

Vuosaari harbour – Eestiluoto 1000

Porvoo harbours – Varlax 1000

Varlax – Porvoo lighthouse 1000

Porvoo lighthouse – Kalbådagrund 1000

Valko Harbour – Täktarn 7715

Archipelago fairway Boistö – Glosholm 1105

Archipelago fairway Glosholm–Helsinki 1105

Kotka – Viikari 1315

Viikari – Orregrund 1715

Orregrund – Tiiskeri 0//5

Hamina – Suurmusta 7845

Suurmusta – Merikari	2715
Merikari – Kaunissaari	1715

**Russian Federation, 29.03.2022**

Port of St. Petersburg	54/3
St. Petersburg – E-point island Kotlin	54/3
E-point Kotlin – long. lighth. Tolbuhkin	53/3
Lighth. Tolbuhkin – lighth. –Šepelevskij	53/2
Lighthouse Šepelevskij – island Sescar	43/3
Island Sescar – Island Sommers	23/3
Vyborg, port and bay	84/3
Island Vichrevoj – Island Sommers	53/3
Strait Bjerkesund	63/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	2312
Luga bay	52/2
Appr. Luga bay – line Moš.-Šepel.	32/2

**Sweden, 29.03.2022**

Karlsborg – Maloeren	6476
Sea area off Maloeren	5576
Luleå – Bjoernklack	6476
Bjoernklack – Farstugrunden	6476
E and SE of Farstugrunden	5576
Sandgroenn fairway	6476
Roedkallen – Norstroemsgrund	4046
Haraholmen – Nygrån	6456
Sea area off Nygrån	6456
Skelleftehamn – Gåsoeren	2326
Sea area off Gåsoeren	4376
Sea area off Bjuroeklubb	5456
NE of Nordvalen	1306
SW of Nordvalen	1306
Western Quark (W of Holmoearna)	1306
Umeå – Vaektaren	8446
SE of Vaektaren	1306
Oernskoeldsvik – Hoernskaten	8446
Hoernskaten – Skagsudde	8446
Fairway W of Ulvoearna	1306
Ångermanaelven north Sandoe Bridge	5434
Ångermanaelven south Sandoe Bridge	1304
Haernoessand – Haernoen	1306
Sundsvall – Draghaellan	1101
Hudiksvallfjaerden	8442
Hallstavik – Svartklubben	8392
Koeping – Kvicksund	1201
Västerås – Grönsö	1201
Grönsö – Södertälje	1201
Stockholm – Södertälje	1201
Fairway to Karlstad	8392
Fairway to Kristinehamn	8392