

# Eisbericht Nr. 89

## Amtsblatt des BSH

Jahrgang 96

Nr. 89

Monday, 03.04.2023

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### Übersicht

In den Schären der Bottenwiek befindet sich im Norden bis 70 cm dickes Festeis und im Süden bis 40 cm dickes Festeis. Außerhalb davon befindet sich im Nordosten ein Gebiet mit ebenem Eis und im Nordwesten verläuft eine Rinne. Auf See treibt ansonsten zumeist sehr dichtes, aufgeschobenes und aufgedrücktes Eis mit Spalten, welches im Norden bis 60 cm dick und im Süden bis 40 cm dick ist. In Kvarken liegt bis 45 cm dickes Festeis in den Schären und Buchten und auf See kommt 5–25 cm dickes, dichtes Eis und Neueis vor. In der Bottensee und dem Schärenmeer kommt entlang der Küsten 5–40 cm dickes, ebenes Eis oder Festeis vor. Im Mälarsee liegt morsches Eis. Im Finnischen Meerbusen liegt in den östlichsten Buchten und den nordöstlichen Schären bis 35 cm dickes Festeis. Auf See treibt um 60°N, 27°30'O 5–30 cm dickes sehr lockeres bis sehr dichtes Eis. In den nordwestlichen Schären kommt morsch werdendes Festeis vor.

### Overview

In the archipelagos of the Bay of Bothnia, there is up to 70 cm thick fast ice in the north and up to 40 cm thick fast ice in the south. Further out in the northeast there is an area of level ice and in the northwest there is a lead. Else at sea, there is ridged and rafted, very close ice with cracks, which is up to 60 cm thick in the north and up to 30 cm thick in the south. In the Quark, there is up to 45 cm thick fast ice in the archipelagos and bays and at sea there is 5–25 cm thick, very close ice or new ice. In the Sea of Bothnia and the Archipelago Sea, 5–40 cm thick fast ice or level ice is present at the coasts. In Lake Mälaren, there is rotten ice. In the Gulf of Finland, up to 35 cm thick fast ice is present in the easternmost bays and northeastern archipelagos. At sea, 5–30 cm thick very open to very close ice is drifting around 60°N 27°30'E. In the northwestern archipelagos there is rotting fast ice.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 45–70 cm thick fast ice and compact ice, out to Malören, Kemi-2 and Kattilankalla. Outside the fast ice in the north and northeast there is 10–20nm wide area with 5–15cm thick level ice and new ice as well as some thicker floes. Along the western fast ice there is a lead with new ice down to the Skellefteå bay. At sea there is 30–60 cm thick, ridged, very close ice around 64°50N 23°E.

Further south at sea, there is 20–40 cm thick very close ice down to the fast ice in the Vaasa archipelago. The ice is locally ridged and rafted, but there are also leads and cracks in the ice field. The fast ice in the southern archipelagos is 20–40 cm thick.

The ice growth and ice formation will continue at a slow pace. The overall ice drift will be slow and towards the north.

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)  
[www.bsh.de/eis](http://www.bsh.de/eis)  
[www.bsh.de/ice](http://www.bsh.de/ice)

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#### Eisankünfte / Ice Information

Telefon: +49 (0) 381 4563 -780  
 Telefax: +49 (0) 381 4563 -949  
 E-Mail: [ice@bsh.de](mailto:ice@bsh.de)

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### The Quark

There is 25–45 cm thick fast ice in the Vaasa archipelago out to Ensten. On the Swedish side, there is 30-50 cm thick fast ice in inner bays. At sea, there is 5–25 cm thick very close in the east and drifting in the central part around 20°20'E.

### Sea of Bothnia

In the archipelagos along the eastern coast, there is 10–30 cm thick fast ice, outside the archipelagos there is very open ice and open water in the north-east. Along the western coast, there is thin level ice or thin ice in sheltered bays in the south and up to 40 cm thick fast ice in inner bays in the north.

### Archipelago Sea and Åland Sea

At the eastern coast, there is rotting or rotten ice in the inner bays, further out open water in the archipelago. In the western and central part, thin ice

### Northern Baltic

In Lake Mälaren, there is rotten ice in the western part and open water in the central part. Melting during the day and some ice formation

### Gulf of Finland

15–35 cm thick fast ice is present along the northern shores of the Neva bay and 10-20cm thick, compact ice is present from St. Petersburg out to Kotlin; further west there is open water. In the Bay of Vyborg, there is 15–30 cm thick fast ice and in the entrance 10-20cm thick close ice out to the latitude of lighthouse Rondo and further out open water. In the Bjerkesund, there is 10–20 cm thick very close ice and open water in the entrance. At sea there is an area of 10-25cm thick, very close ice between Seskar and Gogland. South of this

### Skagerrak and Kattegat

Remnants of thin ice and up to 30 cm thick, partly rotten fast are present in some inner Norwegian

### Swedish Lakes

Rotten ice is present in some sheltered bays in the northern part of Lake Vänern.

New ice is present in the west. In the north there is 10-40cm thick, very close ice east of Holmöarna. Some ice formation is expected during night and the weak ice drift will be towards the north.

On Ångermanälven, there is 30–50 cm thick fast ice. At sea, in the northernmost part, there is open water and very open ice.

Some freezing may occur over night, but overall no larger change is expected. The ice at sea in the north will drift northeastwards.

and open water is present in inner bays. Some freezing may occur over night, but overall no larger change is expected.

during night is expected. Overall no larger change is expected.

area there is open ice and later very open ice, which does not reach the southern shore. North of this area is very open and open ice, in places also close to very close ice, reaching the northern archipelagos. Along the northern coast, there is 20–40 cm thick fast ice in the eastern archipelagos and rotten ice is present in the western archipelagos.

The ice at sea will drift towards the southwest and at night minor ice formation is possible.

fjords  
Some melting is expected.

Some melting is expected.

## Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Finland</b>	Tornio, Kemi and Oulu	4000 dwt	IA	22.02.
	Raahe	4000 dwt	IA	08.03.
	Kalajoki, Kokkola and Pietarsaari	2000 dwt	IA	08.03.
	Vaasa	2000 dwt	IB	08.03.
	Kristiinankaupunki, Pori, Rauma and Uusikaupunki	2000 dwt	II	12.03.
	Kaskinen, Inkoo, Kantvik, Helsinki, Sköldvik and Mussalo	2000 dwt	II	07.01.
	Loviisa and Kotka	2000 dwt	II	28.03.
	Hamina	2000 dwt	I	08.03.
	<b>Lake Saimaa</b>	<b>2000 dwt</b>	<b>IB</b>	<b>01.04.</b>
	<b>Sweden</b>	Karlsborg	4000 dwt (2000 t)	IA
Lulea		4000 dwt	IA	28.02.
Haraholmen and Skelleftehamn		4000 dwt	IA	04.03.
Holmsund		2000 dwt	IC	07.02.
Rundvik and Husum		2000 dwt	IC	04.03.
Örnsköldsvik		2000 dwt	IC	13.02.
Angermanälven		2000 dwt	IB	07.01.
Söraker and Sundsvall		2000 dwt	IC	13.02.
<b>Köping and Västerås</b>		-	<b>cancelled</b>	<b>03.04.</b>
<b>Balsta</b>		-	<b>cancelled</b>	<b>03.04.</b>
Härnösand,		2000 dwt	II	06.03.
<b>Söderhamn, Stocka, Hudiksvall, Iggesund, Orrskär and Norrsundet</b>		-	<b>cancelled</b>	<b>03.04.</b>

**Finland/Sweden**

The Saimaa Canal is closed for traffic since 4<sup>th</sup> January.

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 82. 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.

The traffic separation schemes in the Quark are temporarily out of use from 7 February due to ice conditions.

**Icebreakers:**

POLARIS, KONTIO, OTSO, SISU, ATLE, YMER and FREJ assist in the Bay of Bothnia. ZEUS assists in the southern Bay of Bothnia and in the Quark. ALE assists in the Quark. URHO assists in the eastern Gulf of Finland. TYRSKY assists in Lake Saimaa.

**Russia**

There are restrictions for small crafts going to Vysotsk, Vyborg, St. Petersburg, Ust-Luga and Primorsk. No sailing of barge by tug to Vyborg and Vysotsk.

**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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## Finland, 03.04.2023

Röyttä – Etukari	8546	Vaasa lighthouse – Norrskär	4756
Etukari – Ristinmatala	6456	Sea area SW of Norrskär	4756
Ajos – Ristinmatala	6456	Kaskinen – Sälgrund	4155
Ristinmatala – Kemi 2	5476	Sea area off Sälgrund	2115
Kemi 2 – Kemi 1	9146	High sea from N to latitude Yttergrund	2115
Sea area SW of Kemi 1	9246	Pori harb. to line Pori lighth. – Säppi	2115
Kemi 2 – Ulkokrunni – Virpiniemi	6456	Rauma, Harbour – Kylmäpihlaja	1005
Oulu harbours – Kattilankalla	7456	Uusikaupunki harbour – Kirsta	8795
Kattilankalla – Oulu 1	6456	Kirsta – Isokari	1005
Sea area SW of Oulu 1	9246	Naantali and Turku – Rajakari	1000
High Sea N of the latitude of Marjaniemi	5476	Rajakari – Lövskär	1000
Raahe harbour – Heikinkari	8446	Lövskär – Korra	1000
Heikinkari – Raahe lighthouse	7356	Lövskär – Berghamn	1000
Raahe lighthouse – Nahkiainen	9246	Lövskär – Grisselborg	1000
Latitude Marjaniemi – Ulkokalla, Sea	5476	Inkoo a. Kantvik – sea area Porkkala	1005
Rahja harbour – Välimatala	7856	Helsinki harbours – Harmaja	0//5
Välimatala to line Ulkokalla – Ykskivi	5856	Vuosaari harbour – Eestiluoto	0//5
Sea betw. lat. of Ulkokalla –Pietarsaari	7856	Porvoo harbours – Varlax	1705
Ykspihlaja – Repskär	7356	Varlax – Porvoo lighthouse	1705
Repskär – Kokkola lighthouse	5856	Valko Harbour – Täktarn	2005
Sea area off Kokkola lighthouse	5876	Archipelago fairway Boistö – Glosholm	<b>1005</b>
Pietarsaari – Kallan	7856	Kotka – Viikari	8845
Sea area off Kallan	5876	Viikari – Orregrund	1105
Sea lat. Pietarsaari – NE Nordvalen	5856	Orregrund – Tiiskeri	1105
Sea area ENE of Nordvalen	5856	Tiiskeri – Kalbådagrund	1105
Sea area Nordvalen to W of Norrskär	5756	Hamina – Suurmusta	5756
Vaskiluoto – Ensten	7756	Suurmusta – Merikari	1706
Ensten – Vaasa lighthouse	5756	Merikari – Kaunissaari	1106

**Russian Federation, 03.04.2023**

Port of St. Petersburg	83/2
St. Petersburg – E-point island Kotlin	53/2
E-point Kotlin – long. lighth. Tolbuhkin	3302
Lighth. Tolbuhkin – lighth. –Šepelevskij	12/0
Lighthouse Šepelevskij – island Sescar	13/0
Island Sescar – Island Sommers	53/2
Island Sommers–S-point island Gogland	52/1
Vyborg, port and bay	83/3
Island Vichrevoj – Island Sommers	53/1
Strait Bjerkesund	53/2
E-point Bol'šoj Ber'ozovyj – Šepelevskij	12/1

**Sweden, 03.04.2023**

Karlsborg – Malören	6456
Sea area off Malören	6456
Luleå – Björnklack	6356
Björnklack – Farstugrunden	6356
E and SE of Farstugrunden	5356
Sandgrönn fairway	6356
Rödkaullen – Norströmsgrund	6356
Haraholmen – Nygrån	6356
Sea area off Nygrån	4046
Skelleftehamn – Gåsören	6356
Sea area off Gåsören	6356
Sea area off Bjuröklubb	6356
NE of Nordvalen	5456
SW of Nordvalen	5456
Western Quark (W of Holmöarna)	5146
Umeå – Väktaren	8446
SE of Väktaren	4046
NE and SE of Sydostbrotten	5356
Fairway to Husum	5246
Örnsköldsvik – Hörnskatan	8446
Hörnskatan – Skagsudde	8446
Sea area off Skagsudde	4046
Fairway W of Ulvöarna	4046
Sea area E of Ulvöarna	4046
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	8444
Härnösand – Härnön	5144
Sea area off Härnön	1206
Sundsvall – Draghällan	5146
Draghällan – Åstholmsudde	1206
Hudiksvallfjärden	8346
Iggesund – Agö	8346
Sandarne – Hällgrund	8346
Ljusnefjärden – Storjungfrun	8346
Öregrundsgrepen	2020
Hallstavik – Svartklubben	5142
Köping – Kvikksund	1201
Västerås – Grönsö	8292
Grönsö – Södertälje	1000
Stockholm – Södertälje	2121