



# Eisbericht Nr. 93

## Amtsblatt des BSH

Jahrgang 96

Nr. 93

Tuesday, 11.04.2023

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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. Auf See treibt zumeist sehr dichtes, aufgeschobenes und aufgepresstes 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 vor. In der Bottensee kommt entlang der Küsten 5–40 cm dickes, ebenes Eis oder Festeis vor. Im Mälarsee, dem Schärenmeer und den nordwestlichen Schären des Finnischen Meerbusens liegt morsches Eis. Ansonsten kommt im Finnischen Meerbusen in den östlichen Buchten und den nordöstlichen Schären bis 35 cm dickes Festeis vor und auf See treibt 5–25 cm dickes lockeres Treibeis westlich von Gogland und sehr dichtes Treibeis östlich von Gogland.

### 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. At sea, there is mostly ridged and rafted, very close ice with cracks, which is up to 60 cm thick in the north and up to 40 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, close ice. In the Sea of Bothnia 5–40 cm thick fast ice or level ice is present at the coasts. In Lake Mälaren, the Archipelago Sea and the northwestern archipelagos of the Gulf of Finland there is rotten ice. Else in the Gulf of Finland there is up to 35 cm thick fast ice in the eastern bays and northeastern archipelagos and at sea, there is 5–25 cm thick open drift ice west of Gogland and very close ice east of Gogland.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 40–70 cm thick fast ice and compact ice, out to Malören, Kemi-2 and Oulu-2. Outside the fast ice in the northeast there 10–25 cm thick very close ice with some thicker floes to about Merikallat. Along the northwestern fast ice, there is 5–15 cm thick close ice to Nygrån and an about 8 NM wide lead with open ice further south to Bjuröklubb. At sea, there is 30–60 cm thick, ridged, very close ice around 64°50'N 23°10'E. Leads and

cracks occur in the ice field. Else at sea, there is mostly 10–40 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.

With temperatures around 0 °C and a slight westerly ice drift, no larger changes are expected the coming day.

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

[www.bsh.de/eis](http://www.bsh.de/eis)

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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 5–20 cm thick, close drift ice from about Sydostbrotten to Nordvalen and Holmöarna.

### Sea of Bothnia

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

### Archipelago Sea and Åland Sea

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

### Northern Baltic

In Lake Mälaren, there is rotten ice in some bays and at places between islands. Elsewhere is most-

### Gulf of Finland

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

### Skagerrak and Kattegat

Ice remnants are present in some inner Norwegian fjords mainly in the Oslofjord.

### Swedish Lakes

Lake Vänern is mostly ice free.

In the north, there is 10–40 cm thick, very close ice east of Holmöarna.

With temperatures around 0°C and a slow ice drift to the southwest, not much change is expected the coming day.

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

Melting is expected the coming days.

rotten ice and open water is present in inner bays. Melting will continue the coming day.

ly open water.

Melting will continue the coming day.

thick, very close ice from Hamina to Gogland. Further west to about 26°00'E, there is open to close, 10–25 cm thick drift ice. Along the northern coast, there is 20–25 cm thick fast ice in the eastern archipelagos and rotten ice is present in the inner western archipelagos.

Ice melt will continue the coming day and the ice at sea will slightly drift to the west.

Ice melt continues the coming days.

Melting continues the coming day.

## 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, Kaskinen and Mussala	2000 dwt	II	12.03.
	Loviisa and Kotka	2000 dwt	II	07.01.
	Hamina	2000 dwt	I	28.03.
	Lake Saimaa	2000 dwt	IB	08.03.
<b>Sweden</b>		2000 dwt	IB	01.04.
	Karlsborg	4000 dwt (2000 t)	IA	28.02.
	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	II	06.04.	
Härnösand	2000 dwt	II	06.03.	

**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.

**Russia**

There are restrictions for small crafts going to Vysotsk, Vyborg, St. Petersburg 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, 10.04.2023

Röyttä – Etukari	8546
Etukari – Ristinmatala	8456
Ajos – Ristinmatala	8456
Ristinmatala – Kemi 2	6476
Kemi 2 – Kemi 1	6476
Sea area SW of Kemi 1	5756
Kemi 2 – Ulkokrunni – Virpiniemi	6476
Oulu harbours – Kattilankalla	8546
Kattilankalla – Oulu 1	6476
Sea area SW of Oulu 1	6476
High Sea N of the latitude of Marjaniemi	5476
Raahe harbour – Heikinkari	8446
Heikinkari – Raahe lighthouse	7356
Raahe lighthouse – Nahkiainen	9476
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	7856
Vaelimatala to line Ulkokalla – Ykskivi	9856
Sea betw. lat. of Ulkokalla – Pietarsaari	5856
Ykspihlaja – Repskär	8846
Repskär – Kokkola lighthouse	7856
Sea area off Kokkola lighthouse	5856
Pietarsaari – Kallan	8846
Sea area off Kallan	9856
Sea lat. Pietarsaari – NE Nordvalen	5856
Sea area ENE of Nordvalen	5856
Sea area Nordvalen to W of Norrskär	5856
Vaskiluoto – Ensten	7756
Ensten – Vaasa lighthouse	2226

Vaasa lighthouse – Norrskär	2216
Sea area SW of Norrskär	2726
Kaskinen – Sälgrund	1105
Sea area off Sälgrund	1105
High sea from N to latitude Yttergrund	1102
Pori harb. to line Pori lighth. – Säppi	1102
Sea W of line Pori lighthouse – Säppi	1102
Rauma, Harbour – Kylmäpihlaja	1102
Uusikaupunki harbour – Kirsta	2291
Kirsta – Isokari	1001
Naantali and Turku – Rajakari	1001
Rajakari – Lövskär	1001
Lövskär – Korra	1001
Lövskär – Berghamn	1001
Lövskär – Grisselborg	1001
Hanko – Vitgrund	1001
Valko Harbour – Täktarn	1705
Archipelago fairway Boistö – Glosholm	1705
Kotka – Viikari	1705
Viikari – Orregrund	1705
Orregrund – Tiiskeri	3335
Tiiskeri – Kalbådagrund	3335
Hamina – Suurmusta	2726
Suurmusta – Merikari	1726
Merikari – Kaunissaari	1706

## Russian Federation, 10.04.2023

Port of St. Petersburg	83/2
St. Petersburg – E-point island Kotlin	53/2

E-point Kotlin – long. lighth. Tolbuhkin	30/1
Lighth. Tolbuhkin – lighth. –Šepelevskij	11/0
Lighthouse Šepelevskij – island Sescar	11/0
Island Sescar – Island Sommers	13/0
Island Sommers– S-point island Gogland	52/1
S-point isl. Gogland – long. p. Kunda	32/1
Vyborg, port and bay	83/3
Island Vichrevoj – Island Sommers	53/1
Strait Bjerkesund	43/2
E-point Bol'šoj Ber'ozovyj – Šepelevskij	12/1

**Sweden, 11.04.2023**

Karlsborg – Malören	8546
Sea area off Malören	8546
Luleå – Björnklack	6356
Björnklack – Farstugrunden	6356
E and SE of Farstugrunden	4236
Sandgrönn fairway	6356
Rödkaullen – Norströmsgrund	6356
Haraholmen – Nygrån	6356
Sea area off Nygrån	5356
Skelleftehamn – Gåsören	6356
Sea area off Gåsören	6356
Sea area off Bjuröklubb	6356
NE of Nordvalen	4356
SW of Nordvalen	4356
Western Quark (W of Holmöarna)	5146
Umeå – Väktaren	8446
SE of Väktaren	4356
NE and SE of Sydostbrotten	4356
Fairway to Husum	1206
Örnsköldsvik – Hörnskatan	8446
Hörnskatan – Skagsudde	1206
Sea area off Skagsudde	1206
Fairway W of Ulvöarna	1206
Sea area E of Ulvöarna	1206
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	3424
Härnösand – Härnön	1204
Sundsvall – Draghällan	1206
Draghällan – Åstholmsudde	1206
Hudiksvallfjärden	8342
Iggesund – Agö	8342
Öregrundsgrepen	1000
Hallstavik – Svartklubben	5142
Köping – Kvicksund	1000
Västerås – Grönsö	1000
Grönsö – Södertälje	1000
Stockholm – Södertälje	1000