



# Eisbericht Nr. 97

## Amtsblatt des BSH

Jahrgang 96

Nr. 97

Monday, 17.04.2023

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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. Entlang des Festeises im Norden und Osten hat sich eine breite Rinne mit sehr lockerem Eis gebildet. In Kvarken liegt bis 50 cm dickes Festeis in den Schären und Buchten. Auf See kommt dichtes bis sehr dichtes, im Norden bis 40 cm dickes, Eis vor. In der Bottensee kommt entlang der Küsten im Süden morsches Eis vor und im Norden bis 50 cm dickes Festeis im Westen und bis 30 cm dickes Festeis im Osten. Im Schärenmeer und den nordöstlichen Schären und Buchten des Finnischen Meerbusens liegt morsches Eis. Im östlichen Finnischen Meerbusen ist weiter außerhalb zumeist offenes Wasser mit vereinzelt dünnen Treibeis.

### 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. Along the northern and eastern fast ice, there is a wide lead with very open ice. In the Quark, there is up to 50 cm thick fast ice in the archipelagos and bays. At sea, there is close to very close, in the northern part up to 40 cm thick, ice. In the Sea of Bothnia, there is rotten ice along the coast in the south and up to 50 cm thick fast ice in the northwest and up to 30 cm thick fast ice in the northeast. In the Archipelago Sea and the northeastern archipelagos and bays of the Gulf of Finland, there is rotten ice. Further out in the eastern Gulf of Finland, there is open water with thin ice at a few places.

### 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, Lallinmöyly and Oulu-2. Off the fast ice in the north and east, there is a 5–20 NM wide, navigable lead with very open drift ice. At sea, there is 30–60 cm thick, very close ice in the northern central part and 10–40 cm thick, very

close ice else at sea. The entire ice field is partly ridged and rafted but also cracks and leads occur. The fast ice in the south eastern archipelagos is 20–40 cm thick.

The coming day, the ice will slowly melt during daytime and drift slightly to the south.

### The Quark

There is 25–45 cm thick fast ice in the Vaasa ar-

chipelago out to Ensten and some drifting floes

#### 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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further out. On the Swedish side, there is 25–50 cm thick fast ice in inner bays and 10–30 cm fast ice around Holmöarna. At sea north of Nordvalen, there is 10–40 cm thick, very close ice. Southwest of Nordvalen there is a belt of close, 5–20 cm thick drift ice to north of Sydostbrotten and to the Swe-

#### **Sea of Bothnia**

Along the eastern coast, there is 10–30 cm thick rotting fast ice in the inner archipelago and open water along the larger fairways. In the western part, there is thin open ice or partly rotten ice in the south, further north is 5–30 cm fast ice in some inner bays; in the north and on Ångermanälven,

#### **Archipelago Sea and Åland Sea**

Rotten ice is present in archipelagos and bays in the east and at places in the central and western part. Along the larger fairways in the east is open

#### **Northern Baltic**

In Lake Mälaren is mostly open water but rotten ice may be present in a few bays and between is-

#### **Gulf of Finland**

In the archipelagos and bays along the northern coast, there is rotten ice eastwards from Helsinki. Further out is open water with thin drifting ice at a

dish coast. Else at sea, there is mostly open water with some stripes and patches.

No larger changes are expected the coming day but slow ice melt during daytime is possible. The ice will slowly drift to the south.

there is level ice or 20–50 cm thick fast ice. Further out in the north, there is open water with some strings of thin ice.

Some ice melt especially during daytime is expected the coming day.

water.

Melting will continue the coming day.

lands.

Melting will continue the coming day.

few places.

Ice melt continues the coming day and there is a mostly gentle breeze from the north.

## 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.
	<b>Vaasa</b>	<b>2000 dwt</b>	<b>I</b>	<b>17.04.</b>
	<b>Mussala</b>	-	<b>cancelled</b>	<b>17.04.</b>
	<b>Loviisa and Kotka</b>	-	<b>cancelled</b>	<b>17.04.</b>
	<b>Hamina</b>	-	<b>cancelled</b>	<b>17.04.</b>
	Lake Saimaa	2000 dwt	IB	01.04.
<b>Sweden</b>	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, SISU, ATLE, YMER and FREJ assist in the Bay of Bothnia. OTSO and ZEUS assist in the southern Bay of Bothnia and in the Quark. ALE assists in the Quark.

**Russia**

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

**Icebreakers:** Several icebreakers assist vessels to the port of Vyborg, Vysotsk, Primorsk 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, 17.04.2023**

Röyttä – Etukari	8546
Etukari – Ristinmatala	8456
Ajos – Ristinmatala	8456
Ristinmatala – Kemi 2	6476
Kemi 2 – Kemi 1	9326
Sea area SW of Kemi 1	9726
Kemi 2 – Ulkokrunni – Virpiniemi	6476
Oulu harbours – Kattilankalla	8546
Kattilankalla – Oulu 1	6476
Sea area SW of Oulu 1	9336
High Sea N of the latitude of Marjaniemi	5476
Raahe harbour – Heikinkari	8446
Heikinkari – Raahe lighthouse	7356
Raahe lighthouse – Nahkiainen	9316
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	6856
Välimatala to line Ulkokalla – Ykskivi	9856
Sea betw. lat. of Ulkokalla – Pietarsaari	7356
Ykspihlaja – Repskär	8846
Repskär – Kokkola lighthouse	7856
Sea area off Kokkola lighthouse	9816
Pietarsaari – Kallan	8846
Sea area off Kallan	9816
Sea lat. Pietarsaari – NE Nordvalen	5856
Sea area ENE of Nordvalen	5356
Sea area Nordvalen to W of Norrskär	4756
Vaskiluoto – Ensten	7756
Ensten – Vaasa lighthouse	1206

Vaasa lighthouse – Norrskär	1706
Uusikaupunki harbour – Kirsta	1100
Valko Harbour – Täktarn	1200
Kotka – Viikari	1200
Viikari – Orregrund	1200
Orregrund – Tiiskeri	1200
Tiiskeri – Kalbådagrund	1200
Hamina – Suurmusta	1200
Suurmusta – Merikari	1200
Merikari – Kaunissaari	1200

**Russian Federation, 17.04.2023**

Island Sommers –S-point island Gogland	11/1
Vyborg, port and bay	42/2
Island Vichrevoj – Island Sommers	22/1
Strait Bjerkesund	11/0
E-point Bol'šoj Ber'ozovyj – Šepelevskij	11/0

**Sweden, 17.04.2023**

Karlsborg – Malören	8546
Sea area off Malören	8546
Luleå – Björnklack	6356
Björnklack – Farstugrunden	6356
E and SE of Farstugrunden	5576
Sandgrönn fairway	6356
Rödallen – 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	5456
SW of Nordvalen	5456
Western Quark (W of Holmöarna)	1206
Umeå – Väktaren	8446
SE of Väktaren	4356
NE and SE of Sydostbrotten	1206
Fairway to Husum	2226
Örnsköldsvik – Hörnskatan	8496
Hörnskatan – Skagsudde	2226
Sea area off Skagsudde	2226
Fairway W of Ulvöarna	2226
Sea area E of Ulvöarna	2226
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	3424
Hudiksvallfjärden	8342
Iggesund – Agö	8392
Öregrundsgrepen	1000
Hallstavik – Svartklubben	3122
Köping – Kvicksund	1000
Västerås – Grönsö	1000
Grönsö – Södertälje	1000
Stockholm – Södertälje	1000