

# Eisbericht Nr. 47

## Amtsblatt des BSH

Jahrgang 96

Nr. 47

Wednesday, 01.02.2023

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### Übersicht

In den Schären der Bottenwiek befindet sich bis 55 cm dickes Festeis. Weiter außerhalb treibt im Norden 10–35 cm dickes, dichtes bis sehr dichtes Treibeis sowie Neueis. In der südlichen Bottenwiek befindet sich in den Buchten dünnes ebenes Eis oder Festeis. In Norra Kvarken liegt bis 30 cm dickes Festeis in den Schären und Buchten und meist Neueis weiter außerhalb. In der Bottensee und dem Schärenmeer kommt dünnes, ebenes Eis oder Festeis entlang der Küsten vor. Im Mälarsee liegt dünnes, ebenes Eis oder Neueis. Im Finnischen Meerbusen liegt in den östlichsten Buchten bis 40 cm dickes Festeis und sehr dichtes Eis weiter außerhalb. In den Schären und Buchten entlang der Küsten kommt im Norden Festeis vor. Im Nordosten des Rigaischen Meerbusen befindet sich 10–20 cm dickes Festeis oder sehr dichtes Eis in geschützten Buchten.

### Overview

In the archipelagos of the Bay of Bothnia, there is up to 55 cm thick fast ice. Further out in the north, there is 10–35 cm thick, close to very close drifting ice and new ice. In the southern Bay of Bothnia, there is thin level ice or fast ice in the inner bays. In the Quark, there is up to 30 cm thick fast ice in the archipelagos and bays and mostly new ice further out. In the Sea of Bothnia and the Archipelago Sea, there is fast ice or thin level ice along the coasts. In Lake Mälaren, there is thin level ice and new ice. In the Gulf of Finland, there is up to 40 cm thick fast ice in the easternmost bays and very close ice somewhat further out. In the archipelagos and bays along the coasts, there is fast ice in the north. In the northeastern Gulf of Riga, there is 10–20 cm thick fast ice or very close ice in sheltered bays.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 25–55 cm thick fast ice and very close ice to Malören. Further out there is a large lead with new ice from about Skellefteå over Nygrån Rödkallen – Farstugrunden – Malören to Kemi-1. Some thicker floes are present in the eastern part of the lead. Between about 65°N and 65°20'N and east of 22°30'E there is 10–30 cm thick, very close drifting ice. In the area Simpgrund – Falkensgrund – Norströmsgrund, and eastwards to about

23°30'E there is close, 8–20 cm thick drifting ice and open water further south. From west of Hailuoto to Raahe, there is first thin very close ice, later thin close ice and further out new ice formation. In the southern Bay of Bothnia, there is 5–20 cm thick fast ice in the archipelagos. At the ice fast ice edge in the east there is shuga in places. Further out at both coasts, there is new ice and ice formation. New ice formation and ice growth will continue and the expected ice drift is towards the south.

#### Herstellung und Vertrieb

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### The Quark

There is 10–30 cm thick fast ice in the Vaasa archipelago out to Storhästen. On the Swedish side, there is mostly fast ice in inner bays and thin open ice further out. At sea there is mostly new ice.

Some new ice formation and ice growth is expected the coming days. The ice will drift slowly to the south.

### Sea of Bothnia

In the archipelagos along the eastern coast, there is 10–20 cm thick fast ice. Along the western coast, there is thin level ice or new ice in sheltered bays in the south and fast ice in inner bays in the north.

On Ångermanälven, there is 10–20 cm thick fast or level ice.

Some new ice formation or ice growth is expected in inner bays and along the coast

### Archipelago Sea and Åland Sea

At the eastern coast, there is 3–10 cm fast or level ice in the inner bays and new ice somewhat further ice. In the western part new ice is present along

the coast.

Some ice formation can be expected the coming days.

### Northern Baltic

In Lake Mälaren, 3–10 cm thick level ice is present in the western part and sheltered places. Else there is mostly open water. New ice occurs in few sheltered places along the coast.

Some minor ice formation may start Thursday, but overall no major changes are expected the coming days.

### Gulf of Finland

From St. Petersburg out to Kotlin there is 20–40 cm thick fast ice or compact ice. In the bay north of Kotlin, there is 20–30 cm thick fast ice. In the Bay of Vyborg, there is 15–25 cm thick fast ice. Further out, there is 5–20 cm thick, very close and partly rafted ice to about the line Hamiina – Kotlin. In the Bjerkesund, there is 10–25 cm thick fast ice with

5–15 cm thick, very close ice at the entrance. Along the northern coast, there is 5–20 cm thick fast ice in the eastern archipelagos. Further out, there is open water. In the western archipelagos is thin ice.

Some ice formation is expected with only minor ice drift.

### Gulf of Riga

In Väinameri, there is 10–20 cm thick fast ice or very close ice in sheltered bays. On the fairways, there is open water. In the Bay of Pärnu, there is 10–20 cm thick fast ice along the coast and further

out to the line Saulepa – Voiste, there is 10–20 cm thick, very close ice. Further south is open water.

The expected ice drift is mostly southwards and on Thursday new ice formation may start.

### Southeastern Baltic

The Curonian Lagoon is ice free.

### Skagerrak and Kattegat

Up to 10 cm thick ice or new ice is present in some inner Norwegian Fjords.

Minor ice formation in sheltered areas is expected the coming days.

### Swedish Lakes

Thin level ice or new ice is present in few sheltered bays in the north and east of Lake Vänern.

Some ice formation in sheltered areas is expected the coming days.

Dr. J.Holfort

## Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Estonia</b>	Pärnu	1600 kW	1 C	23.12.
<b>Finland</b>	<b>Tornio, Kemi and Oulu</b>	<b>2000 dwt</b>	<b>IA</b>	<b>01.02.</b>
	Raahe, Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	I	07.01.
	Kaskinen, Inkoo, Kantvik, Helsinki, Sköldvik and Mussalo	2000 dwt	II	07.01.
	Loviisa, Kotka and Hamina	2000 dwt	II	24.12.
<b>Sweden</b>	Karlsborg and Lulea	2000 dwt	IB	08.01.
	Haraholmen and Skelleftehamn	2000 dwt	IC	25.12.
	Holmsund, Rundvik, Husum and Örnköldvik	2000 dwt	II	21.12.
	Angermanälven	2000 dwt	IB	07.01.
	Köping and Västerås	1300/2000 dwt	IC/II	25.01.
	Balsta	1300/2000 dwt	IC/II	22.12.

**Estonia****Icebreakers:**

EVA-316 assists in the port of Pärnu.

**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.

**Icebreakers:**

KONTIO, OTSO, YMER and FREJ assist in the Bay of Bothnia. ZEUS assists in the Quark and the Sea of Bothnia. ALE assists in the Quark. CALYPSO assists in the region of Kotka and Hamina.

**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 , 01.02.2023**

Paernu, port and bay	7385
Moonsund	1//0

**Finland , 01.02.2023**

Röyttä – Etukari	8446
Etukari – Ristinmatala	7856
Ajos – Ristinmatala	7856
Ristinmatala – Kemi 2	9006
Kemi 2 – Kemi 1	9006
Sea area SW of Kemi 1	5356
Kemi 2 – Ulkokrunni – Virpiniemi	7856
Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	7856
Sea area SW of Oulu 1	5356
High Sea N of the latitude of Marjaniemi	5356
Raahe harbour – Heikinkari	5146
Heikinkari – Raahe lighthouse	4746
Raahe lighthouse – Nahkiainen	2006
Latitude Marjaniemi – Ulkokalla, Sea	4356
Rahja harbour – Välimatala	5146
Välimatala to line Ulkokalla – Ykskivi	2006
Ykspihlaja – Repskär	4046
Repskär – Kokkola lighthouse	3006
Pietarsaari – Kallan	5746
Sea area off Kallan	1106
Sea lat. Pietarsaari – NE Nordvalen	3006
Sea area ENE of Nordvalen	3006
Sea area Nordvalen to W of Norrskär	3006

Vaskiluoto – Ensten	8746
Ensten – Vaasa lighthouse	4746
Vaasa lighthouse – Norrskär	3006
Sea area SW of Norrskär	2006
Kaskinen – Sälgrund	8745
Sea area off Sälgrund	1005
Uusikaupunki harbour – Kirsta	8142
Naantali and Turku – Rajakari	4041
Inkoo a. Kantvik – sea area Porkkala	8145
Helsinki harbours – Harmaja	2005
Vuosaari harbour – Eestiluoto	1005
Porvoo harbours – Varlax	1005
Valko Harbour – Täktarn	8745
Archipelago fairway Boistö – Glosholm	1005
Kotka – Viikari	8745
Viikari – Orrengrund	3035
Hamina – Suurmusta	8745
Suurmusta – Merikari	3035
Merikari – Kaunissaari	3035

**Norway , 01.02.2023**

Svinesund – Halden	31//
Drammensfjord	4112
Husøysund – Tønsberg channel	8345
Tønsberg, inner harbour	8353
Vestfjord (Tønsberg)	8555
Langårsund (Kragerø)	8144

**Russian Federation , 01.02.2023**

Port of St. Petersburg	84/3
St. Petersburg – E-point island Kotlin	54/2
E-point Kotlin – long. lighth. Tolbuhkin	4302
Lighth. Tolbuhkin – lighth. –Šepelevskij	4202
Lighthouse Šepelevskij – island Sescar	11/1
Vyborg, port and bay	83/3
Island Vichrevoj – Island Sommers	42/3
Strait Bjerkesund	83/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	52/3

**Sweden , 01.02.2023**

Karlsborg – Malören	8446
Sea area off Malören	4046
Luleå – Björnklack	8446
Björnklack – Farstugrunden	4046
E and SE of Farstugrunden	5356
Sandgrönn fairway	5356
Rödkaullen – Norströmsgrund	4046
Haraholmen – Nygrån	4046
Sea area off Nygrån	4046
Skelleftehamn – Gåsören	5236
Sea area off Gåsören	4046
Sea area off Bjuröklubb	4046
NE of Nordvalen	4146
SW of Nordvalen	4146
Western Quark (W of Holmöarna)	4146
Umeå – Väktaren	4146
SE of Väktaren	4146
NE and SE of Sydostbrotten	4146
Fairway to Husum	4146
Örnsköldsvik – Hörnskatan	8246
Hörnskatan – Skagsudde	3226
Ångermanälven north Sandö Bridge	8344
Ångermanälven south Sandö Bridge	8344
Härnösand – Härnön	4044
Sundsvall – Draghällan	3222
Hudiksvallfjärden	5242
Iggesund – Agö	5242
Sandarne – Hällgrund	5142
Ljusnefjärden – Störjungfrun	5142
Gävle – Eggegrund	4041
Hallstavik – Svartklubben	5142
Köping – Kvikksund	5144
Västerås – Grönsö	5144
Grönsö – Södertälje	1004
Stockholm – Södertälje	1004
Fairway to Karlstad	5142
Fairway to Kristinehamn	5142