

# Eisbericht Nr. 64

## Amtsblatt des BSH

Jahrgang 96

Nr. 64

Friday, 24.02.2023

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### Übersicht

In den Schären der Bottenwiek befindet sich im Norden bis 60 cm dickes Festeis und im Süden bis 30 cm dickes Festeis. Auf das Festeis folgt im Norden bis zu 40 cm dickes zusammenhängendes oder sehr dichtes, örtlich aufgedichtetes oder aufgeschobenes Eis. Auf See ansonsten ebenes Eis oder bis 15 cm dickes, dichtes Eis mit örtlich dickeren Schollen. In Kvarken liegt bis 35 cm dickes Festeis in den Schären und Buchten und auf See treibt dichtes bis 15 cm dickes Eis. 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 auf See treibt im Osten sehr dichtes oder dünnes, ebenes Eis. In den Schären und Buchten entlang der nördlichen Küste kommt Festeis vor. Im Nordosten des Rigaischen Meerbusen befindet sich 10–20 cm dickes Festeis oder sehr dichtes Eis in geschützten Gebieten und Neueis etwas weiter außerhalb.

### Overview

In the archipelagos of the Bay of Bothnia, there is up to 60 cm thick fast ice in the north and up to 30 cm thick fast ice in the south. In the north, there is up to 40 cm thick, partly ridged and rafted consolidated or very close ice. Else at sea, there is level ice or up to 15 cm thick, close ice with some thicker floes at places. In the Quark, there is up to 35 cm thick fast ice in the archipelagos and bays and at sea, there is up to 15 cm thick, close ice. In the Sea of Bothnia and the Archipelago Sea, fast ice or thin level ice is present along the coasts. In Lake Mälaren, there is thin level ice and new ice. In the Gulf of Finland, up to 40 cm thick fast ice is present in the easternmost bays and there is very close or thin level ice at sea in the east. In the archipelagos and bays along the northern coast, there is fast ice. In the northeastern Gulf of Riga, there is 10–20 cm thick fast ice or very close ice in sheltered bays and new ice somewhat further out.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 25–60 cm thick fast ice and compact, up to 45 cm thick ice towards Malören and off the eastern fast ice. Further out in the northeast, there is 20–40 cm thick, in places ridged very close ice to about Kemi-1 – Oulu-3. Further out to about a line Farstugrunden – Oulu-1, there is 10–30 cm thick, very close and partly rafted ice. In the southern Bay of Bothnia, there is 20–30 cm thick fast ice in

the archipelagos with a narrow band of very close ice further out in the east. Else at sea in the north and east, there is mostly 5–15 cm thick level ice to about Simpgrund – Raahe and along the eastern coast to Kallan. Some thicker ice floes are present at places in the central part. In Skellefte Bight, there is 5–15 cm thick very open ice. Further east and south to the Quark is close 2–15 cm thick ice. Ice formation and ice growth continues over the

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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

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weekend. The ice will drift to the south with decreasing speed over the weekend. From Sunday

### The Quark

There is 10–35 cm thick fast ice in the Vaasa archipelago out to Storhästen. Further out to Ensten, there is very close, 5–20 cm thick ice followed by thin open ice and new ice to Norra Gloppsten. On the Swedish side, there is mostly fast ice up to 35 cm thick in inner bays. At sea from coast to coast,

### Sea of Bothnia

In the archipelagos along the eastern coast, there is 10–20 cm thick fast ice. Further out in the north, there is new ice and ice formation. Along the western coast, there is thin level ice or new ice in sheltered bays in the south and up to 40 cm thick fast

### Archipelago Sea and Åland Sea

At the eastern coast, there is 5–15 cm fast or level ice in the inner bays and new ice somewhat further out. In the western and central part new ice is present along the coasts.

### Northern Baltic

In Lake Mälaren, there is 5–15 cm thick fast ice or thin level ice in the western part, with areas of open water. In the eastern part, there is thin ice in sheltered bays. New ice occurs in sheltered places

### Gulf of Finland

From St. Petersburg out to Kotlin and in the bay north of Kotlin, there is 20–40 cm thick fast ice or compact ice. Further west to about a line from Loviisa to Ust-Luga, there is mostly very close, 5–25 cm thick ice in the northern part and thin level ice in the southern part. Further west to about Gogland and Kunda Bay, there is very open ice and open water. In the Bay of Vyborg, there is 15–25 cm thick fast ice and in the Bjerkesund, there is

### Gulf of Riga

In Väinameri, there is 10–20 cm thick very close ice or fast ice near the coasts. On the fairway is new ice or very open drift ice. In the western part of the Bay of Pärnu, there is 5–15 cm thick, close to very close drift past Manilaid. Else, there is thin

### Skagerrak and Kattegat

Up to 15 cm thick ice or new ice is present in some inner Norwegian Fjords. At a few places thicker ice occurs.

### Swedish Lakes

Thin level ice or new ice is present in some sheltered bays in the northeast of Lake Vänern.

evening the ice will slowly drift to the northeast.

there is mostly open to close, 2–15 cm thick drift ice north of about Nordvalen.

Ice growth and ice formation continues over the weekend. The ice will drift mostly to the south with decreasing speed over the weekend.

ice in inner bays in the north. On Ångermanälven, there is 20–40 cm thick fast or level ice.

Some ice formation and ice growth is expected over the weekend. The ice will drift to the south.

In the eastern part some ice growth and ice formation is expected over the weekend. Else, there are no major changes.

along the outer coast.

No larger changes are expected over the weekend but some ice formation is possible in sheltered places.

10–20 cm thick fast ice. In both entrances there is 10–20 cm thick, very close ice. Along the northern coast, there is 10–25 cm thick fast ice in the eastern archipelagos. Further out, there is thin level ice. In the western archipelagos, there is 5–15 cm thick fast ice and ice formation.

Ice formation and ice growth continues over the weekend. The ice will drift southwards with increasing speed until about Sunday noon.

level ice to Cape Suurna in the east and new ice formation along the ice edge to Kihnu.

Ice formation and ice growth continues over the weekend. The ice will mostly drift southwards.

No major changes are expected over the weekend.

With some night frost no major changes are expected over the weekend.

## 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>	Tornio, Kemi and Oulu	4000 dwt	IA	22.02.
	Raahe	2000 dwt	IB	22.02.
	<b>Raahe</b>	<b>2000 dwt</b>	<b>IA</b>	<b>02.03.</b>
	Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	I	07.01.
	<b>Kalajoki, Kokkola</b>	<b>2000 dwt</b>	<b>IB</b>	<b>02.03.</b>
	Kaskinen, Inkoo, Kantvik, Helsinki, Sköldvik and Mussalo	2000 dwt	II	07.01.
	Loviisa, Kotka and Hamina	2000 dwt	II	24.12.
<b>Russia</b>	Vyborg and Vysotsk	-	Ice 1	08.02.
<b>Sweden</b>	Karlsborg and Lulea	2000 dwt	IB	08.01.
	<b>Karlsborg</b>	<b>4000 dwt (2000 t)</b>	<b>IA</b>	<b>28.02.</b>
	<b>Lulea</b>	<b>4000 dwt</b>	<b>IA</b>	<b>28.02.</b>
	Haraholmen and Skelleftehamn	2000 dwt	IC	25.12.
	<b>Haraholmen and Skelleftehamn</b>	<b>2000 dwt</b>	<b>IB</b>	<b>28.02.</b>
	Holmsund	2000 dwt	IC	07.02.
	Rundvik and Husum	2000 dwt	II	21.12.
	Örnsköldsvik	2000 dwt	IC	13.02.
	Angermanälven	2000 dwt	IB	07.01.
	Söraker, Sundsvall and Söderhamn	2000 dwt	IC	13.02.
	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.

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

**Icebreakers:**

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. CALYPSO assists in the region of Kotka and Hamina.

**Norway**

Husøysund and Vestfjorden (Tønsberg): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. 31.01.23

Tønsberg indre havn (Tønsberg): Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice. 31.01.23

**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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#### Estonia, 24.02.2023

Shipping route from Narva-Jõssuu	3000
Paernu, port and bay	4//5
Moonsund	2001

Ykspihlaja – Repskär	7756
Repskär – Kokkola lighthouse	5156
Sea area off Kokkola lighthouse	5156
Pietarsaari – Kallan	7756
Sea area off Kallan	4146

#### Finland, 24.02.2023

Röyttä – Etukari	8446
Etukari – Ristinmatala	6456
Ajos – Ristinmatala	6456
Ristinmatala – Kemi 2	5876
Kemi 2 – Kemi 1	5876
Sea area SW of Kemi 1	5876
Kemi 2 – Ulkokrunni – Virpiniemi	6456
Oulu harbours – Kattilankalla	6456
Kattilankalla – Oulu 1	6456
Sea area SW of Oulu 1	5856
High Sea N of the latitude of Marjaniemi	5856
Raahe harbour – Heikinkari	8346
Heikinkari – Raahe lighthouse	8346
Raahe lighthouse – Nahkiainen	5156
Latitude Marjaniemi – Ulkokalla, Sea	5756
Rahja harbour – Välimatala	5756
Välimatala to line Ulkokalla – Ykskivi	5156
Sea betw. lat. of Ulkokalla –Pietarsaari	5756

Sea lat. Pietarsaari – NE Nordvalen	4146
Sea area ENE of Nordvalen	3136
Sea area Nordvalen to W of Norrskär	3136
Vaskiluoto – Ensten	7756
Ensten – Vaasa lighthouse	5756
Vaasa lighthouse – Norrskär	0//6
Sea area SW of Norrskär	0//6
Kaskinen – Sälgrund	7715
Sea area off Sälgrund	0//5
Pori harb. to line Pori lighth. – Säppi	4142
Rauma, Harbour – Kylmäpihlaja	4041
Uusikaupunki harbour – Kirsta	8142
Naantali and Turku – Rajakari	5142
Lövsjär – Korra	4041
Inkoo a. Kantvik – sea area Porkkala	8145
Helsinki harbours – Harmaja	2005
Vuosaari harbour – Eestiluoto	2005
Porvoo harbours – Varlax	2005

Valko Harbour – Täktarn	5145	Härnösand – Härnön	5144
Archipelago fairway Boistö – Glosholm	4045	Sundsvall – Draghällan	5146
Archipelago fairway Glosholm–Helsinki	0//5	Draghällan – Åstholmsudde	1006
Kotka – Viikari	8345	Hudiksvallfjärden	8346
Viikari – Orregrund	5045	Iggesund – Agö	8346
Orregrund – Tiiskeri	2025	Sandarne – Hällgrund	8346
Hamina – Suurmusta	5145	Ljusnefjärden – Storzjungfrun	8346
Suurmusta – Merikari	5045	Gävle – Eggegrund	1101
Merikari – Kaunissaari	5045	Hallstavik – Svartklubben	5142
		Köping – Kvicksund	8244
		Västerås – Grönsö	8244
<b>Latvia, 24.02.2023</b>		Stockholm – Södertälje	4044
Port of Riga	1000	Södertälje – Fifong	2024
Riga to the Cape of Mersrags, fairway	1000	Fairway to Karlstad	4041
		Fairway to Kristinehamn	5142
<b>Norway, 23.02.2023</b>			
Svinesund – Halden	31//		
Drammensfjord	1101		
Husøysund – Tønsberg channel	8345		
Tønsberg, inner harbour	8353		
Vestfjord (Tønsberg)	8555		
Langårsund (Kragerø)	8144		
<b>Russian Federation, 24.02.2023</b>			
Port of St. Petersburg	84/3		
St. Petersburg – E-point island Kotlin	54/3		
E-point Kotlin – long. lighth. Tolbuhkin	4303		
Lighth. Tolbuhkin – lighth. –Šepelevskij	50/2		
Lighthouse Šepelevskij – island Sescar	42/2		
Island Sescar – Island Sommers	41/1		
Island Sommers– S-point island Gogland	30/1		
Vyborg, port and bay	83/3		
Island Vichrevoj – Island Sommers	42/3		
Strait Bjerkesund	83/3		
E-point Bol'šoj Ber'ozovyj – Šepelevskij	32/2		
Luga bay	51/2		
Appr. Luga bay – line Moš.-Šepel.	51/1		
<b>Sweden, 24.02.2023</b>			
Karlsborg – Malören	6456		
Sea area off Malören	5456		
Luleå – Björnklack	8546		
Björnklack – Farstugrunden	5336		
E and SE of Farstugrunden	5246		
Sandgrönn fairway	5336		
Rödkaullen – Norströmsgrund	5246		
Haraholmen – Nygrån	5236		
Sea area off Nygrån	2126		
Skelleftehamn – Gåsören	5236		
Sea area off Gåsören	5146		
Sea area off Bjuröklubb	5146		
NE of Nordvalen	3226		
SW of Nordvalen	3226		
Western Quark (W of Holmöarna)	4236		
Umeå – Väktaren	5146		
SE of Väktaren	3226		
Örnsköldsvik – Hörnskatan	8446		
Hörnskatan – Skagsudde	5146		
Ångermanälven north Sandö Bridge	8444		
Ångermanälven south Sandö Bridge	8444		