



# Eisbericht Nr. 79

## Amtsblatt des BSH

Jahrgang 96

Nr. 79

Monday, 20.03.2023

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### Übersicht

In den Schären der Bottenwiek befindet sich im Norden bis 60 cm dickes Festeis und im Süden bis 40 cm dickes Festeis. Auf See treibt zumeist sehr dichtes, aufgeschobenes und aufgepresstes Eis, welches im Norden bis 60 cm dick und im Süden bis 30 cm dick ist. Im Südosten kommen entlang des Festeises Gebiete mit sehr lockarem Eis vor. In Kvarken liegt bis 40 cm dickes Festeis in den Schären und Buchten und auf See kommt 5–20 cm dickes, sehr lockeres bis dichtes Eis vor. In der Bottensee und dem Schärenmeer kommt entlang der Küsten 5–40 cm dickes, ebenes Eis oder Festeis vor. Im Mälarsee liegt 5–15 cm dickes Eis oder Neues. Im Finnischen Meerbusen liegt in den östlichsten Buchten bis 40 cm dickes Festeis. Auf See treibt östlich von etwa 27°25'E sehr dichtes, 5–25 cm dickes Eis und im Süden zumeist sehr lockeres Eis von der Luga Bucht ostwärts. 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 Buchten.

### Overview

In the archipelagos of the Bay of Bothnia, there is up to 60 cm thick fast ice in the north and up to 40 cm thick fast ice in the south. At sea, there is ridged and rafted, mostly very close ice that is up to 60 cm thick in the north and up 30 cm thick in the south. Along the fast ice in the southeast, there are areas of very open ice. In the Quark, there is up to 40 cm thick fast ice in the archipelagos and bays and at sea, there is 5–20 cm thick, very open to close ice. In the Sea of Bothnia and the Archipelago Sea, 5–40 cm thick fast ice or level ice is present along the coasts. In Lake Mälaren, there is 5–15 cm thick ice and new ice. In the Gulf of Finland, up to 40 cm thick fast ice is present in the easternmost bays. At sea east of about 27°25'E, there is very close, 5–25 cm thick ice and mostly very open ice in the south eastwards from Luga Bay. 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.

### Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia, there is 45–60 cm thick fast ice and compact ice, out to Malören, Kemi-3 and Kattilankalla. Of the fast ice in the west, there is a lead of very open ice from Nygrän to Bjuröklubb. At sea, there is very close, 30–60 cm thick and ridged ice north of about 65°00'N and 30–50 cm thick, ridged and very close

ice further south in the east. Else at sea to the Quark, there is 10–30 cm thick rafted very close ice in the west and 10–30 cm thick, ridged, close to very close ice in the east. In the southern Bay of Bothnia, there is 15–40 cm thick fast ice in the archipelagos and larger areas of very open ice further out in the east.

### 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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### Eisauskünfte / 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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Ice growth and ice formation will continue the coming day and there will be an increasing ice drift to

### The Quark

There is 15–40 cm thick fast ice in the Vaasa archipelago out to Ensten. Further out, there 5–25 cm thick ice of varying concentration to Norrskär. On the Swedish side, there is mostly up to 35 cm thick fast ice in inner bays. At sea, there is 5–20

the east.

cm thick, very open to close ice north of Norrskär with very open ice along the northern fast ice edge of the eastern archipelago.

Ice growth is expected the coming day and there will be an increasing ice drift to the east.

### Sea of Bothnia

In the archipelagos along the eastern coast, there is 15–30 cm thick fast ice. Further out in the north, there is very close ice with a brash ice barrier. Further out in the south, there is thin level ice. 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 ice in inner bays in the north. On Ångermanälven, there is 20–40 cm thick fast or level ice.

With temperatures around the freezing point no larger changes are expected.

### Archipelago Sea and Åland Sea

At the eastern coast, there is 5–20 cm fast or level ice in the inner bays and new ice further out in the archipelago. In the western and central part, thin

level ice is present in inner bays and new ice further out.

No larger changes are expected the coming day.

### Northern Baltic

In Lake Mälaren, there is 5–15 cm thick fast in the western part. Else, there is thin ice or open water. New ice occurs in sheltered places along the outer

coast.

Some ice melt is expected the coming day.

### Gulf of Finland

From St. Petersburg out to Kotlin and in the bay north of Kotlin, there is 30–50 cm thick fast ice and 20–35 cm thick compact ice in the fairway. In the Bay of Vyborg, there is 20–40 cm thick fast ice and in the Bjerkesund, there is 15–25 cm thick fast ice. East of about 27°25'E, there is mostly very close, 5–25 cm thick drift ice. The ice field is ridged and rafted at places and also cracks occur. Areas of

very open to open drift ice are present from Luga Bay to Kotlin and to about Seskar in the north. Along the northern coast, there is 15–35 cm thick fast ice in the eastern archipelagos. Further out, there is very close ice. In the western archipelagos, there is 5–20 cm thick fast ice.

No larger changes are expected the coming day and there will be only minor ice drift.

### Gulf of Riga

In Väinameri, there is 10–20 cm thick fast ice and very close drift ice near the coasts. On the fairway is open water. In the Bay of Pärnu, there is mostly very close drift ice up to about the line Saulepa –

Uulu. Open water is present further out.

Some ice melt is expected the coming day and there will be only minor ice drift.

### Skagerrak and Kattegat

New ice and up to 30 cm thick fast is present in some inner Norwegian Fjords. At some places also thicker ice occurs. Close new ice is present in the

Drammensfjord.

Some ice melt is expected the coming day.

### Swedish Lakes

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

Some ice melt is expected the coming day.

### 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	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, Kotka and Hamina	2000 dwt	I	08.03.
	Vyborg and Vysotsk	-	Ice 1	08.02.
<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.
	Söderåker, Sundsvall and Söderhamn	2000 dwt	IC	13.02.
	Köping and Västerås	2000 dwt	IC	06.03.
	Balsta	1300/2000 dwt	IC/II	22.12.
	Härnösand, Stocka, Hudiksvall, Iggesund, Orrskär and Norrsundet	2000 dwt	II	06.03.

#### **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:**

POLARIS, KONTIO, OTSO, SISU, ODEN, 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.

#### **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

#### **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:  <b>A<sub>B</sub> Amount and arrangements of sea ice</b></p> <p>0 Ice free      1 Open water – concentration less than 1/10      2 Very open ice - concentration 1/10 to 3/10      3 Open ice – concentration 4/10 to 6/10      4 Close ice – concentration 7/10 to 8/10      5 Very close ice – concentration 9/10 to 9+/10      6 Compact ice, including consolidated ice – concentration 10/10      7 Fast ice with drift ice outside      8 Fast ice      9 Lead in very close or compact drift ice or along the fast ice edge      / Unable to report</p> <p>Third number:  <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      1 Small ice floes – 20 to 100 m across      2 Medium ice floes – 100 to 500 m      3 Big ice floes – 500 to 2000 m across      4 Vast or giant ice floes – more than 2000 m across – or level ice      5 Rafted ice      6 Compact slush or shuga, or compacted brash ice      7 Hummocked or ridged ice      8 Thaw holes or many puddles on the ice      9 Rotten ice      / No information or unable to report</p>	<p>Second number:  <b>S<sub>B</sub> Stage of ice development</b></p> <p>0 New ice or dark nilas (less than 5 cm thick)      1 Light nilas (5 - 10 cm thick) or ice rind      2 Grey ice (10 - 15 cm thick)      3 Grey-white ice (15 - 30 cm thick)      4 White ice, first stage (30 - 50 cm thick)      5 White ice, second stage (50 - 70 cm thick)      6 Medium first year ice (70 - 120 cm thick)      7 Ice predominantly thinner than 15 cm with some thicker ice      8 Ice predominantly grey-white ice (15 – 30 cm) with some thicker ice      9 Ice predominantly thicker than 30 cm with some thinner ice      / No information or unable to report</p> <p>Fourth number:  <b>K<sub>B</sub> Navigation conditions in ice</b></p> <p>0 Navigation unobscured      1 Navigation difficult or dangerous for wooden vessels without ice sheathing      2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable      3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice      4 Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker      5 Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size      6 Icebreaker assistance can only be given to vessels of special ice class and of special size      7 Icebreaker assistance can only be given to vessels after after special permission      8 Navigation temporarily closed      9 Navigation has ceased      / Unknown</p>
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### Estonia, 20.03.2023

Shipping route from Narva-Jõssuu	2/22	Vaeлимата to line Ulkokalla – Ykskivi	5356
Paernu, port and bay	51/5	Sea betw. lat. of Ulkokalla –Pietarsaari	5356
Moonsund	1//0	Ykspihlaja – Repskär	7356

### Finland, 20.03.2023

Röyttä – Etukari	8546	Repskär – Kokkola lighthouse	5356
Etukari – Ristinmatala	6456	Sea area off Kokkola lighthouse	1316
Ajos – Ristinmatala	6456	Pietarsaari – Kallan	8846
Ristinmatala – Kemi 2	5476	Sea area off Kallan	1316
Kemi 2 – Kemi 1	5476	Sea lat. Pietarsaari – NE Nordvalen	5356
Sea area SW of Kemi 1	5476	Sea area ENE of Nordvalen	4756
Kemi 2 – Ulkokurtti – Virpiniemi	6456	Sea area Nordvalen to W of Norrskär	4756
Oulu harbours – Kattilankalla	7456	Vaskiluoto – Ensten	7756
Kattilankalla – Oulu 1	6456	Ensten – Vaasa lighthouse	5756
Sea area SW of Oulu 1	5476	Vaasa lighthouse – Norrskär	4756
High Sea N of the latitude of Marjaniemi	5476	Sea area SW of Norrskär	0//6
Raahe harbour – Heikinkari	8446	Kaskinen – Sälgrund	5145
Heikinkari – Raahe lighthouse	7356	Sea area off Sälgrund	5165
Raahe lighthouse – Nahkiainen	5356	Pori harb. to line Pori lighth. – Säppi	8745
Latitude Marjaniemi – Ulkokalla, Sea	5476	Rauma, Harbour – Kylmäpihlaja	5045
Rahja harbour – Välimatala	7356	Uusikaupunki harbour – Kirsta	8745

Lövskär – Korra	1000	Iggesund – Agö	8346
Lövskär – Berghamn	1000	Sandarne – Hällgrund	8346
Lövskär – Grisselborg	1000	Ljusnefjärden – Storjungfrun	8346
Hanko – Vitgrund	1000	Sea area off Storjungfrun	1006
Koverhar – Hästö Busö	1000	Gävle – Eggegrund	5142
Inkoo a. Kantvik – sea area Porkkala	8145	Öregrundsgrepene	2121
Helsinki harbours – Harmaja	3005	Hallstavik – Svartklubben	5142
Vuosaari harbour – Eestiluoto	5145	Trälhavet – Furusund – Kapellskär	2021
Porvoo harbours – Varlax	5165	Stockholm – Trälhavet – Klövholmen	2021
Valko Harbour – Täktarn	5166	Köping – Kvicksund	8244
Archipelago fairway Boistö – Glosaholm	5166	Västerås – Grönsö	8244
Archipelago fairway Glosaholm–Helsinki	5155	Grönsö – Södertälje	5144
Kotka – Viikari	8345	Stockholm – Södertälje	5144
Viikari – Orrengrund	5265	Södertälje – Fifong	4044
Orrengrund – Tiiskeri	5166	Fairway to Karlstad	4041
Hamina – Suurmista	5746	Fairway to Kristinehamn	5142
Suurmusta – Merikari	5266	Fairway to Otterbäcken	4041
Merikari – Kaunissaari	5266		

**Russian Federation, 20.03.2023**

Port of St. Petersburg	84/3
St. Petersburg – E-point island Kotlin	53/3
E-point Kotlin – long. lighth. Tolbuhkin	5303
Lighth. Tolbuhkin – lighth. –Šepelevskij	50/3
Lighthouse Šepelevskij – island Sescar	53/2
Island Sescar – Island Sommers	53/2
Vyborg, port and bay	83/3
Island Vichrevoj – Island Sommers	53/3
Strait Bjerkesund	83/3
E-point Bol'soj Ber'ozovyj – Šepelevskij	53/2
Luga bay	43/3
Appr. Luga bay – line Moš.-Šepel.	23/2

**Sweden, 20.03.2023**

Karlsborg – Malören	6456
Sea area off Malören	5576
Luleå – Björnlack	8546
Björnlack – Farstugrunden	5356
E and SE of Farstugrunden	5356
Sandgrönn fairway	8546
Rödkallen – Norströmsgrund	5356
Haraholmen – Nygrän	8546
Sea area off Nygrän	5356
Skelleftehamn – Gåsören	5356
Sea area off Gåsören	5356
Sea area off Bjuröklubb	5356
NE of Nordvalen	4356
SW of Nordvalen	4356
Western Quark (W of Holmöarna)	8346
Umeå – Väktaren	8446
SE of Väktaren	4356
Örnsköldsvik – Hörnskaten	8446
Hörnskaten – Skagsudde	8446
Fairway W of Ulvöarna	3126
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	4044
Härnösand – Härnön	8444
Sundsvall – Draghällan	5146
Draghällan – Åstholsudde	3026
Hudiksvallfjärden	8346