

# Eisbericht Nr. 100

## Amtsblatt des BSH

Jahrgang 97

Nr. 100

Wednesday, 10.04.2024

1

### Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 80 cm dickes, in den südlichen bis 70 cm dickes Festeis. Im Osten verläuft außerhalb des Festeises eine Rinne mit dünnem Eis und großen, dicke- ren Treibeisschollen. Auf See treibt im Nordwesten zumeist 40–70 cm dickes, sehr dichtes, örtlich aufge- presstes und übereinandergeschobenes Eis, das teilweise schwer zu passieren ist. Weiter südlich treibt im Westen bis 40 cm dickes, sehr dichtes oder dichtet Eis, um im Osten kommt meist offenes Wasser vor. An den Küsten von Norra Kvarken liegt bis 60 cm dickes Festeis. Auf See treibt im Norden meist dichtes, 10–40 cm dickes Eis und im Süden im Westen lockeres Eis. Ansonsten kommt meist offenes Wasser vor. An den Küsten der Bottensee kommt bis 40 cm dickes Festeis im Norden und morschies Festeis im Süden vor. Im Nordwesten treibt vor der Küste 10–35 cm dickes, sehr dichtes Eis. Im Schärenmeer kommt morschies Festeis und offenes Wasser vor. Im Norden des Finnischen Meerbusens liegt morschies Festeis entlang der Küste. Östlich von Hamina treibt lockeres bis sehr dichtes Eis etwas weiter außerhalb. Im Mälaren ist es eisfrei.

### Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 80 cm thick in the north and up to 70 cm thick in the south. Outside the fast ice in the east there is a lead with thin ice and thicker, vast drifting floes. In the northwest, there is mostly 40–70 cm thick, very close, ridged and rafted ice that is difficult to force at places. Further south there is up to 40 cm thick very close and close ice in the west and mostly open water in the east. In the Quark there is up to 60 cm thick fast ice at the coasts. At sea there is 10–40 cm thick, mostly close ice in the north. In the south is open ice in the west and open water elsewhere. At the coasts of the Sea of Bothnia there is up to 40 cm thick fast ice in the north and rotten fast ice in the south. In the northwest 10–35 cm thick, very close ice is present off the coast. Rotten fast ice and open water is present in the Archipelago Sea. There is rotten fast ice along the northern coast of the Gulf of Finland. East of about Hamina there is some open to very close drift ice off the coast. In Mälaren it is ice-free.

### Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice; 50–80 cm thick in the north and 40–70 cm thick in the south. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and Raahe lighthouse. West of about 23°30'E, there is 30–70 cm thick, ridged and rafted, very close north of about 64°10'N. The ice field is difficult to force at

places. In the northeastern part there is thin level ice in the north and very open to close areas of larger drifting floes to Ulkokalla. Further south in the east is mostly open water with some drifting floes. In the southwestern part is mostly close to very close, 10–40 cm thick drift ice.

With temperatures around 0°C no larger changes

### 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)

### Eisauskünfte / Ice Information

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are expected. The ice will drift increasingly to the

northeast/east.

### The Quark

There is 35–60 cm thick fast ice in the Vaasa archipelago out to Ensten. Along the Swedish coast there is up to 40 cm thick fast ice. At sea there is 10–40 cm thick, close drift ice east of Holmöarna, West of a line Nordvalen – Sydostbotten is very

open to open drift ice. Elsewhere is mostly open water.

With temperatures slightly above or around 0°C no larger changes are expected. The ice will drift increasingly to the northeast/east.

### Sea of Bothnia

Along the coasts there is up to 40 cm thick fast ice in inner bays in the northern part. In the southern part is rotten fast ice. On Ångermanälven, there is 15–40 cm thick fast ice. Off the Swedish coast north of about Härnösand, there is open to very

close, 10–35 cm thick ice, partly ridged. Further out at both coasts is a narrow band of open water. Ice melt will continue the coming day especially in the southern part.

### Archipelago Sea and Åland Sea

In the Archipelago Sea there is rotten fast ice in sheltered parts of the archipelago and mainly open water on the larger fairways. In the Åland Sea

there are remnants of rotten fast ice in inner bays. Ice melt will continue the coming day.

### Northern Baltic

Lake Mälaren and the outer archipelagos are ice-

free.

### Gulf of Finland

Along the northern coast there is rotten fast ice in the archipelagos. On the fairways in the west there is mainly open water. Outside the archipelagos is mainly open water but east of Hamina, there is some open to very close drift ice to the entrance of Vyborg Bay. In the Vyborg Bay and in the Bjerkesund there is rotten fast ice along the coast and

else mostly open water with some drift ice at places. From St. Petersburg westwards there is open water or it is ice-free. In Lake Saimaa is 25–50 cm thick ice with open areas.

Ice melt will continue the coming day and there will be an easterly ice drift.

Dr. W. Aldenhoff

### Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Finland</b>	Tornio, Kemi and Oulu	4000 dwt	IA	02.04.
	Raahe, Kalajoki, Kokkola and Pietarsaari	4000 dwt	IA	13.01.
	Vaasa	2000 dwt	IB	02.04.
	Hamina	2000 dwt	II	08.04.
	Lake Saimaa	2000 dwt	IA	08.01.
	Saimaa Canal	2000 dwt	IA	08.01.
<b>Russia</b>	Vyborg	-	Ice 1	28.03.
	Vysotsk	-	Ice 1	28.03.
	Primorsk	-	Ice 1	25.03.
<b>Sweden</b>	Karlsborg	4000 dwt	IA (2000 t)	14.01.
	Lulea, Haraholmen and Skelleftehamn	4000 dwt	IA	14.01.
	Rundvik, Husum and Örnsköldsvik	2000 dwt	IA	19.02.
	Holmsund	2000 dwt	IA	17.02.
	Angermanälven	2000 dwt	IB	27.03.
	Härnösand	2000 dwt	IB	26.02.
	Söderåker and Sundsvall	2000 dwt	II	09.04.

#### **Finland/Sweden**

The transit traffic west of Holmöarna is temporarily prohibited.

The traffic separation schemes in the Quark are temporarily out of use from 20 December due to ice conditions.

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:** YMER, ODEN, FREJ, ATLE, POLARIS, SISU and URHO assist in the Bay of Bothnia. OTSO and KONTIO assist in the southern Bay of Bothnia. ZEUS and ALE assist in the Quark.

#### **Russia**

There are restrictions for small crafts going to St. Petersburg, Vyborg, Vysotsk and Primorsk. Barge towed by tug not allowed to navigate in ice. Vessels without ice class to Vyborg, Vysotsk and Primorsk are only allowed with icebreaker assistance, with ice class Ice 1 or higher according to instructions.

**Icebreakers:** Several icebreakers assist vessels to the port of St. Petersburg, Vyborg, Vysotsk and Primorsk.

**Baltic Sea Ice Code**

<p>First number:</p> <p><b>A<sub>B</sub> Amount and arrangements of sea ice</b></p> <ul style="list-style-type: none"> <li>0 Ice free</li> <li>1 Open water – concentration less than 1/10</li> <li>2 Very open ice – concentration 1/10 to 3/10</li> <li>3 Open ice – concentration 4/10 to 6/10</li> <li>4 Close ice – concentration 7/10 to 8/10</li> <li>5 Very close ice – concentration 9/10 to 9+/10</li> <li>6 Compact ice, including consolidated ice – concentration 10/10</li> <li>7 Fast ice with drift ice outside</li> <li>8 Fast ice</li> <li>9 Lead in very close or compact drift ice or along the fast ice edge</li> <li>/ Unable to report</li> </ul> <p>Third number:</p> <p><b>T<sub>B</sub> Topography or form of ice</b></p> <ul style="list-style-type: none"> <li>0 Pancake ice, ice cakes, brash ice – less than 20 m across</li> <li>1 Small ice floes – 20 to 100 m across</li> <li>2 Medium ice floes – 100 to 500 m</li> <li>3 Big ice floes – 500 to 2000 m across</li> <li>4 Vast or giant ice floes – more than 2000 m across – or level ice</li> <li>5 Rafted ice</li> <li>6 Compact slush or shuga, or compacted brash ice</li> <li>7 Hummocked or ridged ice</li> <li>8 Thaw holes or many puddles on the ice</li> <li>9 Rotten ice</li> <li>/ No information or unable to report</li> </ul>	<p>Second number:</p> <p><b>S<sub>B</sub> Stage of ice development</b></p> <ul style="list-style-type: none"> <li>0 New ice or dark nilas (less than 5 cm thick)</li> <li>1 Light nilas (5 - 10 cm thick) or ice rind</li> <li>2 Grey ice (10 - 15 cm thick)</li> <li>3 Grey-white ice (15 - 30 cm thick)</li> <li>4 White ice, first stage (30 - 50 cm thick)</li> <li>5 White ice, second stage (50 - 70 cm thick)</li> <li>6 Medium first year ice (70 - 120 cm thick)</li> <li>7 Ice predominantly thinner than 15 cm with some thicker ice</li> <li>8 Ice predominantly grey-white ice (15 – 30 cm) with some thicker ice</li> <li>9 Ice predominantly thicker than 30 cm with some thinner ice</li> <li>/ No information or unable to report</li> </ul> <p>Fourth number:</p> <p><b>K<sub>B</sub> Navigation conditions in ice</b></p> <ul style="list-style-type: none"> <li>0 Navigation unobscured</li> <li>1 Navigation difficult or dangerous for wooden vessels without ice sheathing</li> <li>2 Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable</li> <li>3 Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice</li> <li>4 Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker</li> <li>5 Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size</li> <li>6 Icebreaker assistance can only be given to vessels of special ice class and of special size</li> <li>7 Icebreaker assistance can only be given to vessels after special permission</li> <li>8 Navigation temporarily closed</li> <li>9 Navigation has ceased</li> <li>/ Unknown</li> </ul>
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**Finland, 10.04.2024**

Röyttä – Etukari	8546	Ensten – Vaasa lighthouse	3736
Etukari – Ristinmatala	8546	Vaasa lighthouse – Norrskär	1306
Ajos – Ristinmatala	8546	Sea area SW of Norrskär	1706
Ristinmatala – Kemi 2	7476	Kaskinen – Sälgrund	8842
Kemi 2 – Kemi 1	6676	Sea area off Sälgrund	1302
Sea area SW of Kemi 1	6676	High sea from N to latitude Yttergrund	1302
Kemi 2 – Ulkokurunni – Virpiniemi	8576	Pori harb. to line Pori lighth. – Säppi	1302
Oulu harbours – Kattilankalla	8546	Rauma, Harbour – Kylmäpihlaja	1302
Kattilankalla – Oulu 1	6476	Uusikaupunki harbour – Kirsta	1302
Sea area SW of Oulu 1	6676	Naantali and Turku – Rajakari	5392
High Sea N of the latitude of Marjaniemi	9006	Rajakari – Lövskär	1302
Raahe harbour – Heikinkari	8546	Lövskär – Korra	8392
Heikinkari – Raahe lighthouse	6476	Korra – Isokari	1302
Raahe lighthouse – Nahkiainen	4446	Lövskär – Berghamn	1302
Latitude Marjaniemi – Ulkokalla, Sea	9416	Berghamn – Stora Sottunga	1302
Rahja harbour – Välimatala	8446	Stora Sottunga – Ledskär	1302
Vaelimatala to line Ulkokalla – Ykskivi	4856	Lövskär – Grisselborg	1302
Sea betw. lat. of Ulkokalla – Pietarsaari	9326	Grisselborg – Norparskär	0//2
Ykspihlaja – Repskär	8446	Hanko – Vitgrund	0//2
Repskär – Kokkola lighthouse	5476	Vitgrund – Utö	0//2
Sea area off Kokkola lighthouse	1006	Koverhar – Hästö Busö	0//2
Pietarsaari – Kallan	8446	Inkoo a. Kantvik – sea area Porkkala	1302
Sea area off Kallan	1006	Helsinki harbours – Harmaja	1302
Sea lat. Pietarsaari – NE Nordvalen	4356	Harmaja – Helsinki lighthouse	0//2
Sea area ENE of Nordvalen	4356	Fairway Helsinki – Porkkala – Rönnskär	1702
Sea area Nordvalen to W of Norrskär	3736	Vuosaari harbour – Eestiluoto	1702
Vaskiluoto – Ensten	8446	Eestiluoto – Helsinki lighthouse	0//2
		Porvoo harbours – Varlax	1702

Varlax – Porvoo lighthouse	1702
Valko Harbour – Täktarn	1702
Archipelago fairway Boistö – Glosholm	1702
Archipelago fairway Glosholm–Helsinki	1702
Kotka – Viikari	2722
Viikari – Orrengrund	2722
Orrengrund – Tiiskeri	1702
Hamina – Suurmista	7446
Suurmusta – Merikari	1706
Merikari – Kaunissaari	1705

**Russian Federation, 10.04.2024**

Vyborg, port and bay	32//
Island Vichrevoj – Island Sommers	32//

**Sweden, 10.04.2024**

Karlsborg – Malören	8646
Sea area off Malören	5676
Luleå – Björnklock	8646
Björnklock – Farstugrunden	5576
E and SE of Farstugrunden	5576
Sandgrönn fairway	6556
Rödkallen – Norströmsgrund	5576
Haraholmen – Nygrän	6556
Sea area off Nygrän	5556
Skelleftehamn – Gåsören	8446
Sea area off Gåsören	5576
Sea area off Bjuröklubb	5576
NE of Nordvalen	3426
SW of Nordvalen	3426
Western Quark (W of Holmöarna)	6456
Umeå – Väktaren	3426
SE of Väktaren	3426
NE and SE of Sydostbotten	1306
Fairway to Husum	5456
Örnsköldsvik – Hörnskaten	8446
Hörnskaten – Skagsudde	8446
Sea area off Skagsudde	5456
Fairway W of Ulvöarna	8446
Sea area E of Ulvöarna	5456
Ångermanälven north Sandö Bridge	8444
Ångermanälven south Sandö Bridge	8444
Härnösand – Härnön	5454
Sea area off Härnö	5454
Sundsvall – Draghällan	1306
Draghällan – Åstholsudde	1306
Off Åstholsudde and Brämön	1306
Hudiksvallfjärden	8392
Iggesund – Agö	8392
Sandarne – Hällgrund	8392
Ljusnefjärden – Storjungfrun	8392
Gävle – Eggegrund	1302
Hallstavik – Svartklubben	8392