



# Eisbericht Nr. 94

## Amtsblatt des BSH

Jahrgang 95

Nr. 94

Friday, 08.04.2022

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### Übersicht

In den Schären der Bottenwiek liegt im Norden 40–85 cm dickes Festeis und im Süden 30–55 cm dickes Festeis. Entlang des Festeises im Norden und Nordosten liegt eine bis zu 15 sm breite Rinne mit dünnem Eis. Auf See treibt 20–70 cm dickes, sehr dichtes, aufgeschobenes und aufgepresstes Eis bis nördlich der Holmöarna. In Norra Kvarken liegt in den Schären bis zu 50 cm dickes Festeis und auf See kommt örtlich offenes Wasser vor. Entlang der Küsten und in den Schären der Bottensee liegt Festeis oder dünnes, ebenes Eis; im Schärenmeer und der Ålandsee morsches Eis. Im Finnischen Meerbusen liegt entlang der Nordküste und im Osten bis 45 cm dickes Festeis. Östlich von 28°10'E treibt auf See 15–30 cm dickes Eis. Im Rigaischen Meerbusen kommt an der Küste örtlich morsches Eis im Moonsund und in der Pärnubucht vor. In der nördlichen Ostsee und dem Vänern kommt im geschützten Buchten noch örtlich morsches Eis vor.

### Overview

In the archipelagos of the Bay of Bothnia, there is 40–85 cm thick fast ice in the north and 30–55 cm thick fast ice in the south. Outside the fast ice in the north and northeast, there is an up to 15 NM wide lead with thin ice. At sea, there is mostly 20–70 cm thick, very close, ridged and rafted ice to north of Holmöarna. In Norra Kvarken, there is up to 50 cm thick fast ice in the archipelagos and open water in places at sea. Along the coasts and archipelagos of the Sea of Bothnia, there is fast ice or thin level ice; in the Archipelago Sea and Åland Sea, there is rotten ice. In the Gulf of Finland, there is up to 45 cm thick fast ice along the northern and eastern coast. At sea east of 28°10'E, there is mostly very close 15–30 cm thick ice. In the Gulf of Riga, there is rotten ice in places at the coasts of Moonsund and in Pärnu Bay. In the northern Baltic and Lake Vänern, thin rotten ice is still present in some sheltered bays.

### Bay of Bothnia

In and outside the northeastern archipelagos, there is 55–85 cm thick fast ice and consolidated ice, reaching out to Kemi-2, Oulu-2 and Jaakko. In the northwestern archipelagos the fast ice and consolidated ice is 40–70 cm thick. Further out in the north and northeast is an up to 15 NM wide lead with open water and new ice to Raahe. At sea there is mostly 20–60 cm thick, very close ice. Around 64°50'N 22°50'E, there is an area with 40–70 cm thick and ridged very close ice. The ice field

is difficult to force in places. In the southern Bay of Bothnia, there is 30–50 cm thick fast ice along the Swedish coast and on the eastern coast, there is 30–55 cm thick fast ice. At sea, there is 20–60 cm thick, very close ice partly rafted and with cracks and leads. The ice edge runs from about 63°30'N at the eastern coast (south of Pietarsaari) to the northwest. Further south, there is ice of varying concentration to Holmöarna.

Over the weekend no larger changes are ex-

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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

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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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pected. Some new ice formation is possible. Ice drift is decreasing and mostly in westerly and

#### Norra Kvarken

In the archipelagoes off Vaasa, there is 20–50 cm thick fast ice to about Nygrund followed by 20–30 cm thick drift ice of varying concentration to Ensten. Along the Swedish coast, there is 20–40 cm thick fast ice in the archipelagos. At sea, there is open to very open ice, 20–60 cm thick in the

#### Sea of Bothnia

On Ångermanälven, there is 20–50 cm thick very close ice in the upper part and mostly thin very open ice in the lower part. In sheltered bays along the western coast, there is 10–35 cm thick fast ice. Along the eastern coast, there is 20–45 cm fast ice

#### Archipelago and Åland Sea

Rotten ice, up to 30 cm thick, are present in the inner archipelagos and sheltered bays of both coasts. At the eastern coast, there is mostly open water on the fairways and in the outer archipela-

#### Gulf of Finland

From St. Petersburg up to the dike, there is 25–35 cm thick very close ice. In the Bay of Vyborg and the Bjerkesund, there is mostly 15–35 cm thick compact or fast ice and very close ice somewhat further out. At sea east of 28°10'E, there is mostly very close 15–30 cm thick drift ice. South of 60°00'N and on a narrow belt along the southern coast to St. Petersburg, there is very open ice. Fur-

#### Gulf of Riga

In Moonsund, there open water with rotten fast ice at places along the eastern coast. In Pärnu Bay, there is rotten fast ice in the eastern part and else

#### Northern Baltic

In Lake Mälaren, there is rotten fast ice in a few sheltered bays and else open water. Along the Swedish coast, there is partly broken and rotten

#### Swedish Lakes

Lake Vänern is mostly ice free with rotten ice in a few sheltered places.

Dr. W. Aldenhoff

northwesterly directions.

northern part and open water further south and along the coasts. South of Nordvalen ice free at sea.

No larger changes are expected over the weekend with temperatures around the freezing point and decreasing westerly ice drift.

in the inner archipelagos, and belts of 10–30 cm thick drift are present at places somewhat further out.

Overall no larger changes are expected over the weekend.

gos.

Continued ice melt is expected over the weekend but some night frost is still possible at places.

ther west is open water along the ice edge. In Luga Bay and the entrance is open water. In the archipelagos of the northern coast, there is 10–40 cm thick partly rotting fast ice in the west and 30–60 cm thick fast ice in the east. Further out, there is open water.

Some ice melt is expected over the weekend and the ice will drift mostly in northerly directions.

open water.

With temperatures mostly above the freezing point, the ice will slowly melt.

thin ice in the Stockholm archipelago.

The ice will gradually disappear.

## Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Finland</b>	Tornio, Kemi and Oulu	4000 dwt	IA	21.03.
	Raahe and Kalajoki	4000 dwt	IA	08.03.
	Kokkola and Pietarsaari	2000 dwt	IA	01.02.
	Vaasa	2000 dwt	I	31.03.
	<b>Kaskinen</b>	-	<b>cancelled</b>	<b>08.04.</b>
	<b>Kristiinankaupunki, Pori, Rauma, Uusikaupunki, Naantali and Turku</b>	-	<b>cancelled</b>	<b>08.04.</b>
	<b>Loviisa and Kotka</b>	-	<b>cancelled</b>	<b>08.04.</b>
	Hamina	2000 dwt	II	29.03.
	<b>Mussalo</b>	-	<b>cancelled</b>	<b>08.04.</b>
<b>Russia</b>	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 1	01.04.
	Primorsk	-	Ice 1	06.04.
	Ust-Luga	-	Ice 1	04.01.
	St. Petersburg	-	required	31.12.
<b>Sweden</b>	Karlsborg	4000 dwt (2000 t)	IA	30.03.
	Luleå	4000 dwt	IA	19.02.
	Haraholmen and Skelleftehamn	4000 dwt	IA	19.02.
	Holmsund, Rundvik and Husum	2000 dwt	II	07.04.
	Örnsköldsvik	2000 dwt	II	30.03.
	Ångermanälven	2000 dwt	IB	06.01.
	Härnösand	2000 dwt	II	22.12.

## Information of the Icebreaker Services

**Finland/Sweden**

The Saimaa Canal is closed for traffic from 30th of January.

The traffic separation schemes in the Quark are temporarily out of use from 15 January 2022.

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 78. 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:**

OTSO, KONTIO, URHO, POLARIS, SISU, **ODEN**, FREJ, ALE and YMER assist in the Bay of Bothnia. ZEUS assist in the Quark and in the Sea of Bothnia, VOIMA in the eastern Gulf of Finland.

**Norway**

Hellefjorden (Kragerø): Navigation temporarily closed. (28.02.22)

**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, 08.04.2022**

Paernu, port and bay 7293

Moonsund 1//0

**Finland, 08.04.2022**

Röyttä – Etukari 8646

Etukari – Ristinmatala 8546

Ajos – Ristinmatala 8546

Ristinmatala – Kemi 2 6476

Kemi 2 – Kemi 1 9246

Sea area SW of Kemi 1 2216

Kemi 2 – Ulkokrunni – Virpiniemi 8546

Oulu harbours – Kattilankalla 8546

Kattilankalla – Oulu 1 6476

Sea area SW of Oulu 1 9476

High Sea N of the latitude of Marjaniemi 9476

Raahe harbour – Heikinkari 8546

Heikinkari – Raahe lighthouse 9216

Raahe lighthouse – Nahkiainen 5476

Latitude Marjaniemi – Ulkokalla, Sea 5476

Rahja harbour – Välimatala 6366

Vaelimatala to line Ulkokalla – Ykskivi 5476

Sea betw. lat. of Ulkokalla – Pietarsaari 5476

Ykspihlaja – Repskär 8846

Repskär – Kokkola lighthouse 6866

Sea area off Kokkola lighthouse 5476

Pietarsaari – Kallan 7856

Sea area off Kallan 5876

Sea lat. Pietarsaari – NE Nordvalen 2716

Vaskiluoto – Ensten 7446

Ensten – Vaasa lighthouse 1726

Kaskinen – Sälgrund 1712

Pori harb. to line Pori lighth. – Säppi 1212

Rauma, Harbour – Kylmäpihlaja 1722

Uusikaupunki harbour – Kirsta 8792

Naantali and Turku – Rajakari 1201

Rajakari – Lövskär 1201

Lövskär – Korra 1201

Lövskär – Berghamn 1101

Lövskär – Grisselborg 1101

Inkoo a. Kantvik – sea area Porkkala 7201

Helsinki harbours – Harmaja 1000

Vuosaari harbour – Eestiluoto 1000

Porvoo harbours – Varlax 1000

Varlax – Porvoo lighthouse 1000

Valko Harbour – Täktarn 7712

Archipelago fairway Boistö – Glosholm 1102

Archipelago fairway Glosholm–Helsinki 1102

Kotka – Viikari 1012

Viikari – Orregrund 1102

Hamina – Suurmusta 7145

Suurmusta – Merikari 1015

Merikari – Kaunissaari 1105

**Russian Federation, 08.04.2022**

Port of St. Petersburg	54/3
St. Petersburg – E-point island Kotlin	54/3
E-point Kotlin – long. lighth. Tolbuhkin	53/3
Lighth. Tolbuhkin – lighth. –Šepelevskij	53/2
Lighthouse Šepelevskij – island Sescar	53/2
Island Sescar – Island Sommers	1311
Vyborg, port and bay	84/3
Island Vichrevoj – Island Sommers	53/3
Strait Bjerkesund	63/3
E-point Bol'šoj Ber'ozovyj – Šepelevskij	52/3
Luga bay	1211
Appr. Luga bay – line Moš.-Šepel.	1211

**Sweden, 08.04.2022**

Karlsborg – Malören	6476
Sea area off Malöeren	5576
Luleå – Björnklack	6476
Björnklack – Farstugrunden	6476
E and SE of Farstugrunden	5356
Sandgrönn fairway	6476
Rödkallen – Norströmsgrund	4356
Haraholmen – Nygrån	6456
Sea area off Nygrån	6456
Skelleftehamn – Gåsören	5556
Sea area off Gåsören	5556
Sea area off Bjuröklubb	5556
NE of Nordvalen	1302
SW of Nordvalen	1302
Western Quark (W of Holmöarna)	1306
Umeå – Väktaren	1306
SE of Väktaren	1306
Örnsköldsvik – Hörnskatan	8446
Hörnskatan – Skagsudde	8446
Ångermanälven north Sandö Bridge	5434
Ångermanälven south Sandö Bridge	2024
Härnösand – Härnön	2024
Hudiksvallfjärden	8442
Hallstavik – Svartklubben	8392
Köping – Kvicksund	1000
Västerås – Grönsö	1000
Grönsö – Södertälje	1000
Stockholm – Södertälje	1000