



# Eisbericht Nr. 59

## Amtsblatt des BSH

Jahrgang 97

Nr. 59

Thursday, 08.02.2024

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### Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 60 cm dickes, in den südlichen bis 50 cm dickes Festeis. Auf See treibt im Nordosten zumeist 20–50 cm dickes, sehr dichtes Eis, örtlich aufgepresst, übereinandergeschoben und teilweise schwer zu passieren. Im Süden treibt auf See 5-30cm dickes, dichtes Eis sowie örtlich Neueis. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis und auf See treibt Neueis sowie örtlich dichtes, bis 30 cm dickes Eis. An den Küsten der Bottensee kommt im Osten bis 45 cm und im Westen bis 30 cm dickes Festeis vor. An der Eiskante befindet sich im Osten festgestampftes Eis und dünnes Eis weiter außerhalb. Das Schärenmeer ist größtenteils mit ebenem Eis oder Festeis bedeckt. Im Osten und Norden des Finnischen Meerbusens liegt bis 50 cm dickes Festeis und im Osten treibt auf See dichtes bis sehr dichtes, bis 35 cm dickes Eis. Im Rigaischen Meerbusen kommt im Nordosten bis zu 35 cm dickes Festeis vor und entlang der nordöstlichen Küste treibt sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und entlang der schwedischen Küste nördlich von Karlskrona etwas dickeres Eis vor.

### Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 60 cm thick in the north and up to 50 cm thick in the south. At sea in the northeast, there is mostly 20–50 cm thick, very close, partly ridged and rafted ice that is difficult to force at places. At sea in the south there is 5-30cm thick close ice and in places new ice. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea there new ice and an area of up to 30 cm thick close ice. At the coasts of the Sea of Bothnia there is fast ice, up to 45 cm thick in the east and up to 30 cm thick in the west. At the fast ice edge in the east, there is a brash ice barrier and thin ice further out. Level ice or fast ice covers large parts of the Archipelago Sea. There is up to 50 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. In the eastern part there is up to 35 cm thick close and very close ice at sea. In the Gulf of Riga there is up to 35 cm thick fast ice in the northeast and along the northeastern coast there is very close ice with thinner ice and new ice further out. Else thicker ice is present in the Mälaren, Vänern, Norwegian fjords and the along the Swedish coast north of Karlskrona.

### Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice with some consolidated ice further out; 35–60 cm thick in the north and up to 25–50 cm thick in the southern part. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and Raa-

he lighthouse. In the north and east runs a lead covered with thin level ice past Malören – Kemi-1 – Merikallat to off Raahe. At sea there is mostly 20–50 cm thick, very close, ridged and rafted ice north of about the line from south of Nahkiainen to south

#### Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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

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of Norströmsgrund. The ice field is difficult to force at places. Further towards the southwest there is 20–40 cm thick, close drift ice. Tight brash ice is present in places off the fast ice edge along the southern Finnish coast. At sea in the south there is mostly 5–30 cm thick close ice with some areas of

### The Quark

There is 30–50 cm thick fast ice in the Vaasa archipelago out to Ensten and 5–30 cm thick very close ice to Vaasa lighthouse. Along the Swedish coast there is up to 40 cm thick fast ice. Around Sydostbrotten there is an area of 5–30 cm thick,

### Sea of Bothnia

Along the coasts there is mostly fast ice in the inner bays; 20–45 cm thick in the east and 5–30 cm thick in the west. On Ångermanälven, there is 15–30 cm thick fast ice. Along the ice edge at the Finnish coast a jammed brash ice barrier has formed and is difficult to force in places, further out

### Archipelago Sea and Åland Sea

In the Archipelago Sea there is 20–45 cm thick fast ice in the inner archipelago of the Finnish coast. Mostly 10–30 cm thick, level or fast ice with new ice at places is present in the outer archipelagos to the Åland Islands. In the Åland Sea there is 5–15

### Northern Baltic

In Lake Mälaren there is 10–30 cm thick fast ice. At the outer Swedish coast there is 5–20 cm thick fast ice or level ice in the archipelagos and very open

### Gulf of Finland

Along the northern coast there is fast ice in the archipelago, 10–30 cm thick in the west and up to 50 cm thick in the east. In the Vyborg Bay there is 30–40 cm thick fast ice and in the Bjerkesund there is 25–35 cm thick fast ice. From St. Petersburg to past Kotlin there is 30–40 cm thick fast ice. Further out first open, then very close, 10–35 cm thick, partly ridged and rafted ice to about Seskar. East of a line from Narva Bay to Kotka there is 5–

### Gulf of Riga

In Väinameri there is 25–35 cm thick fast ice near the coasts and very close, 5–20 cm thick ice at sea. Out the southern coast of Saaremaa there is new ice. Along the northeastern coast to Kihnu and further to Pärnu Bay, there is 5–20 cm thick, very close ice. In the Bay of Pärnu, there is 25–35 cm

### Central Baltic

Thin level ice is present at places along the Swedish coast. In the central part of the Kalmarsund there is open water. In Ventspils port there is very

### Southeastern Baltic

In the Curonian Lagoon, there is 15–20 cm thick,

new ice.

With strong to severe frost ice formation and ice growth will continue. With a gentle to moderate breeze from the southeast the ice will drift slowly into northerly/northwesterly direction.

close ice. Else at sea, there is thin level ice, new ice and ice formation.

With mostly strong frost at sea, ice formation and ice growth will continue. A slight ice drift to the northwest is expected.

there is thin level ice and ice formation. Off the Swedish coast, there is new ice in the south and at places in the north.

With moderate frost near the coasts new ice formation will continue and the ice drift is slow and mostly towards the northwest.

cm thick fast or level ice in bays along the coast and new ice at places further out.

With moderate frost some ice formation and ice growth is expected the coming day.

to open drift ice in some larger channels.

With light to moderate frost some new ice formation and ice growth is expected.

30 cm thick close ice and further west new ice to about Malyj T'uters and somewhat west of Rodšer and Tiiskeri. Still further west there is new ice and in places very open ice just outside the southern coast or northern fast ice.

With strong and in the east also severe frost, ice formation and ice growth is expected with only a slight southward ice drift.

thick fast ice. Further out new ice and open to very close ice stretching out in direction Ruhnu. Very open ice is present in the port of Riga.

With moderate frost ice formation and ice growth is expected. Only a slight southwesterly ice drift is expected.

open ice.

With light frost some new ice formation may occur, but overall no larger changes are expected.

very close ice in the eastern part and else open

water. In Vistula Lagoon some very close, thin ice is present near Kaliningrad.

### Skagerrak and Kattegat

In some sheltered Norwegian fjords and bays is thin level ice or fast ice notably near Tønsberg, Kragerø, Svinesund and Drammensfjord. Along the Swedish coast of the Skagerrak there is very open ice in some sheltered areas.

### Swedish Lakes

In Lake Vänern 5–30 cm thick fast ice is present at the coasts. In the western part is covered by new ice, but very close ice is drifting at places. In the eastern part new ice along the coast and open

With temperatures mostly above 0°C no larger changes are expected.

With light frost in the northern region but down to strong frost in some Norwegian fjords, some ice formation and ice growth is expected the coming day.

water at sea.

With light to moderate frost some further ice formation and ice growth is expected the coming day.

Dr. J.Holfort

## Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
<b>Estonia</b>	Pärnu	1800 kW	1B (Lloyd's)	27.01.
	Kunda and Sillamäe	1200 kW	II (Lloyd's)	04.02.
<b>Finland</b>	Tornio, Kemi and Oulu	2000/4000 dwt	IA Super/IA	13.01.
	Vaasa	2000 dwt	IA	10.01.
	Raahe, Kalajoki, Kokkola and Pietarsaari	4000 dwt	IA	13.01.
	Pori and Rauma	2000 dwt	I	13.01.
	Kaskinen, Kristiinankaupunki and Uusikaupunki	2000 dwt	IB	23.01.
	<b>Uusikaupunki</b>	<b>2000 dwt</b>	<b>IA</b>	<b>11.02.</b>
	Eckerö, Maarianhamina and Langnäs	2000 dwt	II	13.01.
	Naantali and Turku	2000 dwt	I	23.01.
	Mussalo	2000 dwt	IB	29.01.
	Helsinki and Sköldvik	2000 dwt	I	29.01.
	Taalintehdas, Förby, Koverhar, Lappohja, Inkoo and Kantvik	2000 dwt	I	13.01.
	Hanko	2000 dwt	II	13.01.
	Loviisa, Kotka and Hamina	2000 dwt	IB	29.01.
	Lake Saimaa	2000 dwt	IA	08.01.
	Saimaa Canal	2000 dwt	IA	08.01.
<b>Russia</b>	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 1	30.12.
	Primorsk	-	Ice 1	01.02.
	Ust-Luga	-	Ice 1	29.12.
<b>Sweden</b>	Karlsborg	4000 dwt	IA (2000 t)	14.01.
	Lulea, Haraholmen and Skelleftehamn	4000 dwt	IA	14.01.
	Rundvik, Husum and Örnköldsvik	2000 dwt	IB	17.01.
	Holmsund	2000 dwt	IB	04.01.

Angermanälven	2000 dwt	IB	18.12.
Härnösand, Söråker, Sundsvall, Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär and Norrsundet	2000 dwt	IB	17.01.
Gävle	2000 dwt	IB	17.01.
Hargshamn	2000 dwt	IC	04.01.
Skutskär and Öregrund	2000 dwt	IB	17.01.
Hallstavik and Grisslehamn	2000 dwt	IC	04.01.
Kappelskär, Stockholm, Nynäshamn and Södertälje	2000 dwt	II	04.01.
Köping and Västerås	2000 dwt	IB	04.01.
Balsta	2000 dwt	IB	14.01.
Oxelösund, Norrköping, Västervik, Oskarshamn, Mönsterås, Kalmar, Degerhamn, Berkvara, Karlskrona, Stenungsund and Uddevalla	2000 dwt	II	04.01.
Trollhätte Canal and Göta Älv	2000 dwt	IB	16.01.
Vänern	2000 dwt	IB	16.01.

### Estonia

**Icebreaker:** EVA-316 assists to the port of Pärnu. BOTNICA assists to the ports of Kunda and Sillamäe.

### Finland/Sweden

The traffic separation schemes in the Lake Vänern are temporarily out of use from 12 January due to ice conditions.

The transit traffic west of Holmöarna is temporarily prohibited.

Kalmarsund and Öregrundsgrepen: Transit traffic for low powered vessels is not recommended.

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, BRAGE VIKING, ODEN, FREJ, POLARIS, KONTIO, SISU and URHO assist in the Bay of Bothnia. ATLE and OTSO assist in the southern Bay of Bothnia and in the Quark. ZEUS assists in the Sea of Bothnia. VOIMA, CALYPSO, FENNICA and NORDICA assist the Gulf of Finland. **ALE** assists in the Vänern.

### Norway

Mossesundet (Moss): Icebreaker assistance can only be given to vessels of special ice class and of special size. (05.01.24)

Kilsfjorden (Kragerø) and Hellefjorden (Kragerø): Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size. (08.01.24)

Langårsund (Kragerø): Navigation temporarily closed. (08.01.24)

### Russia

There are restrictions for small crafts going to St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga. Barge towed by tug not allowed to navigate in ice.

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

## 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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**Finland, 08.02.2024**

Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	7476
Sea area SW of Oulu 1	9146
High Sea N of the latitude of Marjaniemi	5476
Raahe harbour – Heikinkari	8446
Heikinkari – Raahe lighthouse	8446
Raahe lighthouse – Nahkiainen	9146
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	8446
Vaelimatala to line Ulkokalla – Ykskivi	3016
Sea betw. lat. of Ulkokalla –Pietarsaari	4756
Ykspihlaja – Repskär	8846
Repskär – Kokkola lighthouse	5476
Sea area off Kokkola lighthouse	4756
Pietarsaari – Kallan	7366
Sea area off Kallan	5366
Sea lat. Pietarsaari – NE Nordvalen	4756
Sea area ENE of Nordvalen	4756
Sea area Nordvalen to W of Norrskär	4756
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	5366
Vaasa lighthouse – Norrskär	4756
Sea area SW of Norrskär	4756
Kaskinen – Sälgrund	8846
Sea area off Sälgrund	7366
High sea from N to latitude Yttergrund	4146
Pori harb. to line Pori lighth. – Säppi	5366

Sea W of line Pori lighthouse – Säppi	4146
High sea betw. lat. Yttergrund a. Rauma	4146
Rauma, Harbour – Kylmäpihlaja	7766
Kylmäpihlaja – Rauma lighthouse	4146
Sea area W of Rauma lighthouse	4146
Uusikaupunki harbour – Kirsta	8846
Kirsta – Isokari	7766
Isokari – Sandbäck	4146
Maarianhamina – Marhällan	2725
Naantali and Turku – Rajakari	8846
Rajakari – Lövskär	8846

**Latvia, 08.02.2024**

Port of Riga	2001
Port of Ventspils	2101

**Norway, 08.02.2024**

Svinesund – Halden	33//
Mossesund	3745
Drammensfjord	5354
Tønsberg, inner harbour	82/3
Vestfjord (Tønsberg)	82/3
Larviksfjorden (Stavern – Larvik)	121/
Langårsund (Kragerø)	8248

**Russian Federation, 08.02.2024**

Port of St. Petersburg	89//
St. Petersburg – E-point island Kotlin	89//

E-point Kotlin – long. lighth. Tolbuhkin	89//	Hargökalv – Vinterklasen – N Kränkan	2126
Lighth. Tolbuhkin – lighth. –Šepelevskij	43//	Järnverket-Lillhammaren – N Kränkan	3226
Lighthouse Šepelevskij – island Sescar	53//	Västervik – Marsholmen – Idö	5246
Island Sescar – Island Sommers	53//	Blå Jungfrun – Kalmar	1106
Island Sommers– S-point island Gogland	10//	Kalmar – Utgrunden	1106
Vyborg, port and bay	89//	Uddevalla – Stenungsund	2126
Island Vichrevoj – Island Sommers	43//	Vänersborgsviken	4046
Strait Bjerkesund	89//	Fairway through Lurö archipelago	4136
E-point Bol'šoj Ber'ozovyj – Šepelevskij	32//	Fairway to Gruvön	8346
Luga bay	53//	Fairway to Karlstad	8346
Appr. Luga bay – line Moš.-Šepel.	53//	Fairway to Kristinehamn	8346
		Fairway to Otterbäcken	8346
		Fairway to Lidköping	8346
<b>Sweden, 08.02.2024</b>			
Haraholmen – Nygrån	8546		
Sea area off Nygrån	4456		
Skelleftehamn – Gåsören	8446		
Sea area off Gåsören	8446		
Sea area off Bjuröklubb	4356		
NE of Nordvalen	4356		
SW of Nordvalen	4356		
Western Quark (W of Holmöarna)	4046		
Umeå – Väktaren	4046		
SE of Väktaren	4046		
NE and SE of Sydostbrotten	4356		
Fairway to Husum	4046		
Örnsköldsvik – Hörnskatan	8346		
Hörnskatan – Skagsudde	8346		
Sea area off Skagsudde	4046		
Fairway W of Ulvöarna	8246		
Sea area E of Ulvöarna	4046		
Ångermanälven north Sandö Bridge	8344		
Ångermanälven south Sandö Bridge	8344		
Härnösand – Härnön	4044		
Sea area off Härnö	4046		
Sundsvall – Draghällan	4046		
Draghällan – Åstholmsudde	4046		
Off Åstholmsudde and Brämön	4046		
Hudiksvallfjärden	8346		
Iggesund – Agö	8346		
Sea area off Agö	4046		
Sandarne – Hällgrund	8346		
Sea area off Hällgrund	4046		
Ljusnefjärden – Storjungfrun	8346		
Sea area off Storjungfrun	4046		
Gävle – Eggegrund	8346		
Sea area off Eggegrund	4046		
Sea area off Orskär	4046		
Öregrundsgrepen	8246		
Passage at Grundkallen	4046		
Hallstavik – Svartklubben	8346		
Trälhavet – Furusund – Kapellskär	3026		
Stockholm – Trälhavet – Klövholmen	3026		
Klövholmen – Sandhamn	3026		
Köping – Kvicksund	8344		
Västerås – Grönsö	8344		
Grönsö – Södertälje	8344		
Stockholm – Södertälje	8344		
Södertälje – Fifong	8244		
Fifong – Landsort	3126		
Norrköping – Hargökalv	4046		