

# Eisbericht Nr. 72

## Amtsblatt des BSH

Jahrgang 97

Nr. 72

Tuesday, 27.02.2024

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### Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 70 cm dickes, in den südlichen bis 50 cm dickes Festeis. Auf See treibt im Norden zumeist 30–60 cm dickes, sehr dichtes, örtlich aufgepresstes und übereinandergeschobenes sowie unter Druck stehendes Eis, das teilweise schwer zu passieren ist. Weiter südlich treibt auf See zuerst 10–35 cm dickes, sehr dichtes Eis und dann sehr lockeres Eis. An den Küsten von Norra Kvarken liegt bis 50 cm dickes Festeis und auf See liegt im Westen meist 10–40 cm dickes, sehr dichtes Eis. An den Küsten der Bottensee kommt im Osten bis 55 cm und im Westen bis 30 cm dickes Festeis vor. Weiter außerhalb treibt im Osten lockeres Eis bis 10 sm außerhalb und im Westen Neueis und dichtes Treibeis. Das Schärenmeer ist größtenteils mit ebenem Eis oder Festeis bedeckt. Im Osten und Norden des Finnischen Meerbusens liegt bis 55 cm dickes Festeis. Im Norden treibt nördlich von 60°10'N meist sehr dichtes, 10–35 cm dickes Eis und im Südosten treibt meist sehr lockeres Eis. Im Rigaischen Meerbusen kommt im Nordosten zu 35 cm dickes Festeis vor. Auf See treibt im Norden entlang der Küste sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und entlang der schwedischen Küste nördlich von Oskarshamn bis 30 cm dickes Festeis oder dünnes, ebenes Eis vor.

### Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 70 cm thick in the north and up to 50 cm thick in the south. At sea in the north, there is mostly 30–60 cm thick, very close, ridged and rafted ice with pressure that is difficult to force at places. Further south at sea there is 10–35 cm thick very close ice followed by very open ice. In the Quark there is up to 50 cm thick fast ice at the coasts and at sea in the west there is 10–35 cm thick, very close ice. At the coasts of the Sea of Bothnia there is fast ice, up to 55 cm thick in the east and up to 30 cm thick in the west. Further out there is open ice to about 10 NM off the coast in the east and new ice and close ice in the west. Level ice or fast ice covers large parts of the Archipelago Sea. There is up to 55 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. In the northern part there is very close, 10–35 cm thick drift ice north of 60°10'N and in the southeast there is mostly very open ice at sea. In the Gulf of Riga there is up to 35 cm thick fast ice in the northeast and very close ice is present off the coast in the north. Else up to 30 cm thick fast ice or thin level ice is present in the Mälaren, Vänern, Norwegian fjords and along the Swedish coast north of Oskarshamn.

### Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice; 40–70 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 Raahe lighthouse. At sea north of about 64°30'N there is mostly 30–60 cm thick, ridged and rafted ice; ice pressure occurs in the field and it is difficult to force at places. Further south there is

### Herstellung und Vertrieb

Bundesamt für Seeschiffahrt und Hydrographie (BSH)  
[www.bsh.de/eis](http://www.bsh.de/eis)  
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10–35 cm thick very close ice and later mostly 5–20cm thick very open ice. Leads with very open ice are present in places along the Swedish coast southwards of Skellefteå Bay and along the Finnish coast from south of Raahe southwards.

### The Quark

There is 35–50 cm thick fast ice in the Vaasa archipelago out to Ensten followed by 10–30 cm thick very close ice to Norrskär. Along the Swedish coast there is up to 40 cm thick fast ice. At sea there is 10–40 cm thick, rafted, very close ice in the west with brash ice at the edge. Else at sea

With a moderate to fresh breeze from the south and light frost to temperatures around 0 °C at sea no large changes are expected but the ice will drift continuously to the north.

drift ice of varying concentration or new ice and very open ice in the northeast.

With light frost to temperatures around 0 °C and a moderate to fresh southerly breeze, no larger change is expected but a northerly ice drift.

### Sea of Bothnia

Along the coasts there is mostly fast ice in the inner bays; 20–55 cm thick in the east and 5–30 cm thick in the west. On Ångermanälven, there is 15–40 cm thick fast ice. Off the fast ice in the east there is a 5–10 NM wide zone with drift ice of varying concentrations. Outside the fast ice in the west is new ice with some close, 1–10 cm thick drift ice

south of about Härnösand and to approximately 19°30'E at sea. Further north is mostly very close, 10–40 cm thick ice off the fast ice with a bras ice barrier along the ice edge.

With temperatures around 0 °C and some southerly wind some thin ice at sea may disappear but else no larger changes are expected.

### Archipelago Sea and Åland Sea

In the Archipelago Sea there is 25–50 cm thick fast ice in the inner archipelago of the Finnish coast. Mostly 10–30 cm thick, level ice or fast ice is present in the outer archipelagos to the Åland Islands. In the Åland Sea there is 5–20 cm thick fast or

level ice in bays along the coast. Further out is some new ice in the northern part.

With temperatures around 0 °C and light wind no larger change is expected.

### Northern Baltic

In Lake Mälaren there is 10–30 cm thick fast ice. Along the outer Swedish coast there is 5–20 cm thick fast ice or level ice.

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

### Gulf of Finland

Along the northern coast there is fast ice in the archipelago, 10–40 cm thick in the west and up to 55 cm thick in the east. In the Vyborg Bay and the Bjerkesund there is 35–45 cm thick fast ice and very close ice is present in the entrances. From St. Petersburg to the longitude of lighthouse Tolbuchin there is 45–55 cm thick fast ice. In Koporye Bay there is fast ice along the coast and in Narva Bay

there is open water. Off the northern fast ice first thin level ice followed by very close ice to about 60°10'N; 10–25 cm thick in the west and 10–35 cm thick and in placed ridged ice in the east. Further south there is very open to open ice east of about Mosnyj. In the Lake Saimaa 30–50 cm thick ice. With temperatures around 0 °C and light wind no larger change is expected.

### Gulf of Riga

In Väinameri there is 25–35 cm thick fast ice near the coasts and very close, 10–30 cm thick ice at sea; on the fairway Vohilaid – Rumpo there is very open ice. Off the south coast of Saaremaa there is very close, 5–20 cm thick ice off the coast. In the Bay of Pärnu, there is 25–45 cm thick fast ice to

about the line Liu – Tahkuranna and further out there is very close to the line Manilaid – Voiste. There is open water in Irben Strait.

With temperatures around 0 °C and light wind no larger change is expected.

### Central Baltic

Thin level ice is present at places along the Swedish coast north of Oskarshamn.

With temperatures mostly slightly above 0 °C and light wind no larger change is expected.

### 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 few sheltered areas.  
With temperatures mostly slightly above 0 °C no

larger change is expected.

### Swedish Lakes

In Lake Vänern 10–30 cm thick fast ice is present at the coasts. In the Dalbosjön there is 5–20 cm thick drift ice of varying concentrations. In the

Värmlandssjön there is open water.  
With temperatures mostly slightly above 0 °C no larger change is expected.

Dr. W. Aldenhoff

### 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.
	<b>Tornio, Kemi and Oulu</b>	<b>2000/4000 dwt</b>	<b>IA Super (2000 t)/ IA (2000 t)</b>	<b>27.02.</b>
	Vaasa	2000 dwt	IA	10.01.
	Raahe, Kalajoki, Kokkola and Pietarsaari	4000 dwt	IA	13.01.
	Pori	2000 dwt	IB	17.02.
	Rauma	2000 dwt	IB	14.02.
	Kaskinen and Kristiinankaupunki	2000 dwt	IA	17.02.
	Uusikaupunki	2000 dwt	IA	11.02.
	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.
	Koverhar, Lappohja, Inkoo and Kantvik	2000 dwt	I	13.01.
	Taalintehtdas and Förby	2000 dwt	IB	17.02.
	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 Örnsköldsvik	2000 dwt	IA	19.02.
	Holmsund	2000 dwt	IA	17.02.
	Angermanälven	2000 dwt	IA	17.02.
	Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär, Norrsundet, Gävle, Skutskär and Öregrund	2000 dwt	IC	26.02.

	Härnösand, Söråker and Sundsvall	2000 dwt	IB	26.02.
	Hargshamn	2000 dwt	IC	04.01.
	Hallstavik and Grisslehamn	2000 dwt	IC	04.01.
	Kappelskär and Nynäshamn	2000 dwt	II	04.01.
	Köping and Västeras	2000 dwt	IC	26.02.
	Balsta	2000 dwt	IC	26.02.
	Stockholm and Södertälje	2000 dwt	II	04.01.
	Oxelösund, Norrköping and Västervik	2000 dwt	II	04.01.
	Trollhättte Canal and Göta Älv	2000 dwt	II	23.02.
	Vänern	2000 dwt	IC	26.02.

**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.

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

**Norway**

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)

**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:  <b>A<sub>B</sub></b> <b>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></b> <b>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></b> <b>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></b> <b>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, 27.02.2024

Shipping route from Narva-Jõssuu	3//
Paernu, port and bay	7475
Irben Strait	1///
Moonsund	7353

### Finland, 27.02.2024

Röyttä – Etukari	8546
Etukari – Ristinmatala	7476
Ajos – Ristinmatala	7476
Ristinmatala – Kemi 2	5476
Kemi 2 – Kemi 1	5476
Sea area SW of Kemi 1	5476
Kemi 2 – Ulkokrunni – Virpiniemi	7476
Oulu harbours – Kattilankalla	8446
Kattilankalla – Oulu 1	7476
Sea area SW of Oulu 1	5476
High Sea N of the latitude of Marjaniemi	5476
Raahe harbour – Heikinkari	8446
Heikinkari – Raahe lighthouse	6856
Raahe lighthouse – Nahkiainen	5856
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	8446
Välimatala to line Ulkokalla – Ykskivi	4476
Sea betw. lat. of Ulkokalla – Pietarsaari	4476
Yksphlaja – Repskär	8446
Repskär – Kokkola lighthouse	5476

Sea area off Kokkola lighthouse	2726
Pietarsaari – Kallan	8446
Sea area off Kallan	5856
Sea lat. Pietarsaari – NE Nordvalen	2336
Sea area ENE of Nordvalen	5376
Sea area Nordvalen to W of Norrskär	5376
Vaskiluoto – Ensten	8446
Ensten – Vaasa lighthouse	5356
Vaasa lighthouse – Norrskär	4346
Sea area SW of Norrskär	1106
Kaskinen – Sälgrund	8446
Sea area off Sälgrund	7356
High sea from N to latitude Yttergrund	2336
Pori harb. to line Pori lighth. – Säppi	7366
Sea W of line Pori lighthouse – Säppi	3736
High sea betw. lat. Yttergrund a. Rauma	1726
Rauma, Harbour – Kylmäpihlaja	7766
Kylmäpihlaja – Rauma lighthouse	3736
Sea area W of Rauma lighthouse	2716
The high sea S of the latitude of Rauma	1216
Uusikaupunki harbour – Kirsta	8846
Kirsta – Isokari	7756
Isokari – Sandbäck	3736
Sea area off Sandbäck	1216
Sea area N of Sälskär	1115
Sea area N of Märket	1005
Sea area W of Märket	2005

Maarianhamina – Marhällan	1225	Sea area off Malören	5576
Naantali and Turku – Rajakari	8846	Luleå – Björnklack	8546
Rajakari – Lövskär	8846	Björnklack – Farstugrunden	5576
Lövskär – Korra	8846	E and SE of Farstugrunden	5576
Korra – Isokari	3326	Sandgrönn fairway	8546
Lövskär – Berghamn	8346	Rödkallen – Norströmsgrund	5576
Berghamn – Stora Sottunga	4146	Haraholmen – Nygrån	8546
Stora Sottunga – Ledskär	8746	Sea area off Nygrån	5456
Lövskär – Grisselborg	8346	Skelleftehamn – Gåsören	8446
Grisselborg – Noparskär	4146	Sea area off Gåsören	8446
Hanko – Vitgrund	8342	Sea area off Bjuröklubb	8446
Vitgrund – Utö	4145	NE of Nordvalen	5476
Koverhar – Hästö Busö	7356	SW of Nordvalen	5476
Hästö Busö – Ajax	3326	Western Quark (W of Holmöarna)	5476
Inkoo a. Kantvik – sea area Porkkala	7356	Umeå – Väktaren	5476
Sea area at Porkkala	4356	SE of Väktaren	5476
Helsinki harbours – Harmaja	7756	NE and SE of Sydostbotten	5476
Harmaja – Helsinki lighthouse	5356	Fairway to Husum	5476
Fairway Helsinki – Porkkala – Rönnskär	5756	Örnsköldsvik – Hörnskaten	8446
Vuosaari harbour – Eestiluoto	7756	Hörnskaten – Skagsudde	8446
Eestiluoto – Helsinki lighthouse	5756	Sea area off Skagsudde	5476
Porvoo harbours – Varlax	5246	Fairway W of Ulvöarna	8446
Varlax – Porvoo lighthouse	5756	Sea area E of Ulvöarna	5476
Valko Harbour – Täktarn	7746	Ångermanälven north Sandö Bridge	8444
Archipelago fairway Boistö – Glosholm	5356	Ångermanälven south Sandö Bridge	8444
Archipelago fairway Glosholm–Helsinki	8346	Härnösand – Härnön	8444
Kotka – Viikari	8346	Sea area off Härnö	4334
Viikari – Orrengrund	5356	Sundsvall – Draghällan	8446
Orrengrund – Tiiskeri	5356	Draghällan – Åstholsudden	4336
Tiiskeri – Kalbådagrund	2326	Off Åstholsudden and Brämön	4046
Hamina – Suurmista	8446	Hudiksvallfjärden	8346
Suurmusta – Merikari	7346	Igesund – Agö	8346
Merikari – Kaunissaari	5346	Sea area off Agö	4336
<b>Latvia, 27.02.2024</b>		Sandarne – Hällgrund	8346
Irben Strait, fairway	1000	Sea area off Hällgrund	4336
<b>Norway, 27.02.2024</b>		Ljusnefjärden – Storjungfrun	8346
Svinesund – Halden	33//	Sea area off Storjungfrun	4336
Drammensfjord	3315	Gävle – Egggrund	8346
Tønsberg, inner harbour	82/3	Sea area off Egggrund	4046
Vestfjord (Tønsberg)	6963	Sea area off Orskär	4046
Larviksfjorden (Stavern – Larvik)	121/	Öregrundsgrepen	8346
<b>Russian Federation, 27.02.2024</b>		Passage at Grundkallen	4046
Port of St. Petersburg	89//	Sea area off Svartklubben	4046
St. Petersburg – E-point island Kotlin	89//	Hallstavik – Svartklubben	8346
E-point Kotlin – long. lighth. Tolbuhkin	89//	Trälhavet – Furusund – Kapellskär	2026
Lighth. Tolbuhkin – lighth. –Šepelevskij	42//	Stockholm – Trälhavet – Klövhunden	2026
Lighthouse Šepelevskij – island Sescar	42//	Klövhunden – Sandhamn	1006
Island Sescar – Island Sommers	32//	Trollharan – Langgarn	1006
Vyborg, port and bay	89//	Köping – Kvicksund	8344
Island Vichrevoj – Island Sommers	53//	Västerås – Grönsö	8344
Strait Bjerkesund	89//	Grönsö – Söderläje	8344
E-point Bol'soj Ber'ozovyj – Šepelevskij	84//	Stockholm – Söderläje	8344
Luga bay	32//	Söderläje – Fifong	8244
Appr. Luga bay – line Moš.-Šepel.	22//	Norrköping – Hargökalv	1000
<b>Sweden, 27.02.2024</b>		Västervik – Marsholmen – Idö	5242
Karlsborg – Malören	8546	Uddevalla – Stenungsund	2121
		Vänernborgsviken	5356
		Fairway through Lurö archipelago	3356
		Fairway to Gruvön	8346
		Fairway to Karlstad	8346

Fairway to Kristinehamn	8346
Fairway to Otterbäcken	8346
Fairway to Lidköping	1206