



Eisbericht Nr. 54

Amtsblatt des BSH

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Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 60 cm dickes, in den südlichen bis 45 cm dickes Festeis. Auf See treibt im Norden und Osten zumeist 20–50 cm dickes, sehr dichtes Eis, örtlich aufgedrückt, übereinandergeschoben und teilweise schwer zu passieren. Im Westen befindet sich eine breite Rinne mit offenem Wasser und im Südosten treibt lockereres, 10–30 cm dickes Eis außerhalb der Küste. An den Küsten von Norra Kvarken liegt bis 45 cm dickes Festeis und auf See ist zumeist offenes Wasser. An den Küsten der Bottensee kommt im Osten bis 45 cm und im Westen bis 30 cm dickes Festeis vor. Davor treibt im Osten ein dünnes Band sehr dichtes Eis. Das Schärenmeer ist mit ebenem Eis bedeckt. Im Osten und Norden des Finnischen Meerbusens liegt bis 45 cm dickes Festeis und ganz im Osten treibt auf See sehr dichtes, bis 30 cm dickes Eis. Im Rigaischen Meerbusen kommt im Nordosten bis zu 35 cm dickes Festeis vor und entlang der nördlichen Küste treibt dichtes bis sehr dichtes Eis. Ansonsten kommt im Mälaren, Vänern, norwegischen Fjorden und der schwedischen Küste im Südosten 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 45 cm thick in the south. At sea in the north and east, there is mostly 20–50 cm thick, very close, partly ridged and rafted ice that is difficult to force at places. In the western part runs a wide lead with open water and in the southeast, there is open, 10–30 cm thick ice off the coast. In the Quark there is up to 45 cm thick fast ice at the coasts and at sea there is 10–30 cm thick, very open ice in the northern part. 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. Further out in the east there is a narrow band of very close ice. Level ice covers the Archipelago Sea. There is up to 45 cm thick fast ice at the eastern and northern coast of the Gulf of Finland. In the easternmost part there is up to 30 cm thick 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 northern coast there is very close ice. Else thicker ice is present in the Mälaren, Vänern, Norwegian fjords and the southeastern Swedish coast.

Bay of Bothnia

In the archipelagos of the Bay of Bothnia there is fast ice with some consolidated ice further out; 30–50 cm thick in the northwest, 40–60 cm thick in the northeast and up to 25–45 cm thick in the southern part. In the northeast the fast ice stretches out to Malören, Kemi-3, Oulu-3 and Raahe. At sea there is mostly 20–50 cm thick, very close, ridged and

rafted ice in the north and east. The ice field is under pressure and difficult to force at places. Along the Swedish coast runs a wide lead with open water from about Falkensgrund and Nygrån to the Quark. Along the Finnish coast there is mostly open, 10–30 cm thick drift ice south of Ulkokalla to the Quark.

Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

www.bsh.de/eiswww.bsh.de/ice

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With temperatures around or slightly below 0 °C no larger change in the ice volume is expected. The

The Quark

There is 20–45 cm thick fast ice in the Vaasa archipelago out to Ensten. Along the Swedish coast there is up to 40 cm thick fast ice and 10–30 cm thick, very close ice to Holmöarna. At sea, there is mostly open water with open 10–30 cm thick drift

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. Off the Finnish coast is a narrow band with 5–30 cm thick, very close ice and

Archipelago Sea and Åland Sea

In the Archipelago Sea there is 20–40 cm thick fast ice in the inner archipelago of the Finnish coast and 10–20 cm thick, level or fast ice reaching 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.

Gulf of Finland

From St. Petersburg to past Kotlin there is 30–40 cm thick fast ice. Further out is very close, 10–30 cm thick, partly ridged and rafted ice north of about the line Šepelevskij – Kotka. In Luga Bay and out to Moščnyj, there is mostly very open, 5–20 cm thick drift ice. In the Bjerkesund there is 10–20 cm thick fast and in the Vyborg Bay there is 25–35 cm thick fast ice. Along the northern coast there is fast

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. Off the southern coast of Saaremaa there is a band of very close ice. In the Bay of Pärnu, there is 25–35 cm thick fast ice to the line Liu – Tahkuranna followed by very close ice to about the line Kih-

Central Baltic

Thin level ice is present along the Swedish coast. In the Kalmarsund there is 3–10 cm thick, very close ice around Kalmar and open water further

Southeastern Baltic

Mostly 15–20 cm thick, very close ice with some open water in the southwestern part is present in the Curonian Lagoon. In Vistula Lagoon some very

Southern Baltic

Mostly ice free.

With temperatures above 0°C, also the remnant

ice will strongly drift to the east/southeast.

ice east of Valassaaret.

With temperatures around 0 °C no larger ice formation or melt is expected, but the ice will drift strongly to the east/southeast.

shuga. Open water is off the Swedish coast.

With temperatures around 0 °C no larger ice formation or melt is expected. The ice will drift in easterly directions.

cm thick fast or level ice in bays along the coast.

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

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

ice in the archipelago, 10–35 cm thick in the west and up to 45 cm thick in the east. Further out, there is a narrow band of very close ice in the east changing to open water further west.

With temperatures decreasing to light frost no larger changes are expected. The ice drift will be towards the east/southeast.

nu – Kabli.

With temperatures slightly above 0 °C some ice melt is possible, but else no larger changes are expected, except from an easterly/southeasterly ice drift.

north.

With temperatures above 0°C some ice melt is expected the coming day.

close, thin ice is present in the northeast.

With temperatures above 0°C some ice melt is expected the coming day.

ice will disappear.

Skagerrak and Kattegat

In the Svinesund there is 15–30 cm thick open to close ice. In the Mossesund, there are some larger drifting floes. In Drammensfjord there is a lead in very close, 10–30 cm thick ice. Near Tønsberg and Kragerø there is 10–15 cm thick fast ice in places.

Along the Swedish coast of the Skagerrak, there is new ice in some sheltered areas.

With temperatures mostly above 0°C some ice melt is expected but else no larger changes.

Swedish Lakes

In Lake Vänern 5–30 cm thick fast ice is present at the coasts. Off the coast southeast of Åmal, there is very close, 5–15 cm thick ice. Outside the coastal areas it is mostly ice-free.

With temperatures mostly above 0 °C some ice melt is possible but else no larger changes are expected.

Dr. W. Aldenhoff

Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1800 kW	1B (Lloyd's)	27.01.
	Kunda and Sillamäe	1200 kW	II (Lloyd's)	04.02.
Finland	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.
	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.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 1	30.12.
	Primorsk	-	Ice 1	01.02.
	Ust-Luga	-	Ice 1	29.12.
Sweden	Karlsborg	4000 dwt	IA (2000 t)	14.01.
	Lulea	4000 dwt	IA	14.01.
	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, De-gerhamn, 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, KONTIO, OTSO and URHO assist in the Bay of Bothnia. POLARIS, ATLE and SISU 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.

Norway

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

Drammensfjorden (Drammen), 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>A_B Amount and arrangements of sea ice</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>T_B Topography or form of ice</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>S_B Stage of ice development</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>K_B Navigation conditions in ice</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, 30.01.2024

Shipping route from Narva-Jõssuu	1///
Paernu, port and bay	8355
Irben Strait	1///
Moonsund	7353

Finland, 01.02.2024

Röyttä – Etukari	8446
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	6856
Latitude Marjaniemi – Ulkokalla, Sea	5476
Rahja harbour – Välimatala	8846
Vaelimatala to line Ulkokalla – Ykskivi	5476
Sea betw. lat. of Ulkokalla –Pietarsaari	5476
Ykspihlaja – Repskär	8846
Repskär – Kokkola lighthouse	7346
Sea area off Kokkola lighthouse	5346

Pietarsaari – Kallan	7346
Sea area off Kallan	3336
Sea lat. Pietarsaari – NE Nordvalen	3336
Sea area ENE of Nordvalen	2126
Sea area Nordvalen to W of Norrskär	2126
Vaskiluoto – Ensten	7346
Ensten – Vaasa lighthouse	3726
Vaasa lighthouse – Norrskär	2126
Kaskinen – Sälgrund	8846
Sea area off Sälgrund	7746
Pori harb. to line Pori lighth. – Säppi	5746
Rauma, Harbour – Kylmäpihlaja	8846
Kylmäpihlaja – Rauma lighthouse	3736
Uusikaupunki harbour – Kirsta	8846
Kirsta – Isokari	7746
Isokari – Sandbäck	2126
Sea area off Sandbäck	2126
Sea area N of Sälskär	2125
Maarianhamina – Marhällan	8745
Naantali and Turku – Rajakari	8846
Rajakari – Lövskär	8846
Lövskär – Korra	8846
Korra – Isokari	2126
Lövskär – Berghamn	8746
Berghamn – Stora Sottunga	1706
Stora Sottunga – Ledskär	8746
Sea area at Rödhamn	1706
Lövskär – Grisselborg	8746

Grisselborg – Norparskär	1706	Sea area off Gåsören	8446
Sea area at Vidskär	1706	Sea area off Bjuröklubb	5336
Hanko harbours – Hanko 1	1705	NE of Nordvalen	1306
Sea area S of Hanko 1	1705	SW of Nordvalen	1306
Hanko – Vitgrund	8742	Western Quark (W of Holmöarna)	5366
Vitgrund – Utö	8745	Umeå – Väktaren	8446
Koverhar – Hästö Busö	8346	SE of Väktaren	1306
Hästö Busö – Ajax	1706	Fairway to Husum	1306
Inkoo a. Kantvik – sea area Porkkala	8346	Örnsköldsvik – Hörnskatan	8346
Helsinki harbours – Harmaja	8346	Hörnskatan – Skagsudde	8346
Harmaja – Helsinki lighthouse	1706	Sea area off Skagsudde	1306
Fairway Helsinki – Porkkala – Rönnskär	1706	Fairway W of Ulvöarna	4236
Vuosaari harbour – Eestiluoto	8346	Sea area E of Ulvöarna	1306
Eestiluoto – Helsinki lighthouse	1706	Ångermanälven north Sandö Bridge	8344
Porvoo harbours – Varlax	7756	Ångermanälven south Sandö Bridge	8344
Varlax – Porvoo lighthouse	5756	Härnösand – Härnön	4234
Valko Harbour – Tåktarn	8346	Sea area off Härnö	1306
Archipelago fairway Boistö – Glosholm	5756	Sundsvall – Draghällan	8346
Archipelago fairway Glosholm–Helsinki	7756	Draghällan – Åstholmsudde	1306
Kotka – Viikari	8346	Off Åstholmsudde and Brämön	1306
Viikari – Orregrund	5356	Hudiksvallfjärden	8346
Orregrund – Tiiskeri	1706	Iggesund – Agö	8346
Hamina – Suurmusta	8346	Sea area off Agö	1306
Suurmusta – Merikari	7356	Sandarne – Hällgrund	8346
Merikari – Kaunissaari	5356	Sea area off Hällgrund	1306
Norway, 01.02.2024			
Svinesund – Halden	33//	Ljusnefjärden – Storjungfrun	8346
Mossesund	9836	Sea area off Storjungfrun	1306
Drammensfjord	5354	Gävle – Eggegrund	8346
Tønsberg, inner harbour	82/3	Sea area off Eggegrund	1306
Vestfjord (Tønsberg)	82/3	Öregrundsgrepen	8246
Larviksfjorden (Stavern – Larvik)	121/	Hallstavik – Svartklubben	8246
Langårsund (Kragerø)	8248	Trälhavet – Furusund – Kapellskär	8246
Russian Federation, 01.02.2024			
Port of St. Petersburg	89//	Stockholm – Trälhavet – Klövholmen	8246
St. Petersburg – E-point island Kotlin	89//	Klövholmen – Sandhamn	8246
E-point Kotlin – long. lighth. Tolbuhkin	89//	Köping – Kvicksund	8344
Lighth. Tolbuhkin – lighth. –Šepelevskij	53//	Västerås – Grönsö	8344
Lighthouse Šepelevskij – island Sescar	53//	Grönsö – Södertälje	8344
Island Sescar – Island Sommers	22//	Stockholm – Södertälje	8344
Vyborg, port and bay	83//	Södertälje – Fifong	8244
Island Vichrevoj – Island Sommers	53//	Norrköping – Hargökalv	8246
Strait Bjerkesund	82//	Hargökalv – Vinterklasen – N Kränkan	3126
E-point Bol'šoj Ber'ozovyj – Šepelevskij	53//	Järnverket-Lillhammaren – N Kränkan	3226
Luga bay	31//	Västervik – Marshalmen – Idö	5246
Appr. Luga bay – line Moš.-Šepel.	21//	Blå Jungfrun – Kalmar	5136
Sweden, 01.02.2024			
Karlsborg – Malören	8546	Kalmar – Utgrunden	1106
Sea area off Malören	8446	Uddevalle – Stenungsund	2126
Luleå – Björnklack	8446	Vänernborgsviken	8346
Björnklack – Farstugrunden	5476	Fairway to Gruvön	8346
E and SE of Farstugrunden	5476	Fairway to Karlstad	8346
Sandgrönn fairway	8446	Fairway to Kristinehamn	8346
Rödkallen – Norströmsgrund	8446	Fairway to Otterbäcken	8346
Haraholmen – Nygrån	8446	Fairway to Lidköping	8346
Sea area off Nygrån	1306		
Skelleftehamn – Gåsören	8446		