



Eisbericht Nr. 30

Amtsblatt des BSH

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Nr. 30

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Übersicht

In der nördlichen Bottenwiek befindet sich in den Schären bis 40 cm dickes Festeis. Weiter außerhalb im Nordwesten folgt eine Rinne mit Neueis oder dünnem ebenen Eis. Auf See treibt im nördlichen Teil bis zu 30 cm dickes, sehr dichtes und teilweise aufgepresstes Eis. Weiter südlich bis Norra Kvarken liegt an den Küsten Festeis und Neueis weiter außerhalb. An den Küsten der Bottensee, in den nördlichen Schären und östlichen Buchten des Finnischen Meerbusens, im nördlichen Teil des Rigaischen Meerbusen und dem Mälarsee kommt Neueis und dünnes ebenes Eis sowie örtlich Festeis vor. Neueis und örtlich dickeres Eis kommt auch in einigen geschützten Fjorden im Skagerrak vor.

Overview

In the northern Bay of Bothnia there is up to 40 cm thick fast ice in the archipelagos. Further out in the northwest there is a lead with new ice or thin level ice. At sea in the northern part there is up to 30 cm thick, very close and partly ridged drift ice. Further south to the Quark, there is fast ice along the coast and new ice further out. At the coasts of the Sea of Bothnia, in the northern archipelagos and the eastern bays of the Gulf of Finland, in the northernmost part of the Gulf of Riga and lake Mälaren there is new ice and thin level ice or fast ice at places. New ice and at places thicker ice is present in sheltered fjords of the Skagerrak.

Bay of Bothnia

In the archipelagos of the northern Bay of Bothnia there is up to 40 cm thick fast ice. Off the fast ice in the west, there is a lead with new ice and new ice formation as well as thin level ice further south. At sea north of about the line Gåsören –Hailuoto, there is mostly very close, 10–30 cm thick partly ridged drift ice at sea. In the south, there is 5–20

cm thick fast ice in the archipelagos, further out there is thin drifting ice new ice or new ice formation.

With moderate frost at sea in the north ice, formation and ice growth continues the coming day. The ice will drift in westerly directions.

The Quark

There is 10–30 cm thick fast ice in the Vaasa archipelago and from Vaasa to Ensten. Farther out there is new ice and thin drift ice to Vaasa light-house. Along the Swedish coast there is fast ice in inner bays and new ice further out. At sea from coast to coast, there is 2–15 cm thick drift ice with

varying concentration.

With slight frost at sea, and moderate frost at the coasts ice growth and ice formation continues. There will be an increasing ice drift in westerly direction.

Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

www.bsh.de/eis

www.bsh.de/ice

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Sea of Bothnia

Thin level ice or fast ice is present in bays along the whole Finnish coast. Further out there is new ice formation and in places thin drifting ice. Along the Swedish coast, there is new ice and thin level ice or fast ice in bays along the coast. On Ångermanälven, there is 5–15 cm thick fast and level ice

on the upper part and new is present in the lower part.

With mostly slight frost some ice formation is possible along the coasts but else no larger changes are expected.

Archipelago Sea and Åland Sea

In the inner archipelago there is thin level ice and new ice.

No larger changes are expected.

Northern Baltic

In Lake Mälaren there is mostly 5–15 cm thick level ice in the west and new ice in the east with the central part being still ice free. New ice is present

in sheltered places at the outer coast.

No larger changes are expected with temperatures around 0 °C and light winds.

Gulf of Finland

From St. Petersburg to Kotlin there is 20–30 cm thick, very close ice. In the top of Vyborg Bay there is 10–20 cm thick fast ice. In the Bjerkesund there is very open drift ice. Along the northern coast there is 5–15 cm thick fast ice and thin level ice in

the inner archipelago. In Lake Saimaa there is fast with open water at some flow places.

With slight frost along the coasts some ice formation and ice growth is expected but overall no larger changes.

Gulf of Riga

In Väinameri there is up to 15 cm thick very close ice or fast ice at the coasts and close ice between the islands. On the fairway is very open to open ice. In the Bay of Pärnu to about the line Manilaid – Rannametsa, there is 5–15 cm very close ice in the

eastern part and very open ice in the western part. With temperatures around or slightly above 0°C and southerly winds no larger changes are expected.

Southeastern Baltic

The area is almost ice-free. With temperatures

above 0°C no ice formation is expected.

Skagerrak and Kattegat

New ice is present in sheltered places of inner Norwegian Fjords. At places thicker ice is possible in inner bays. Along the Swedish coast, there is

new ice in few sheltered areas.

Some ice formation and ice growth is possible especially in bays along the northern coast.

Swedish Lakes

Thin level ice and new ice is present in sheltered areas of Lake Vänern.

With temperatures mostly above 0 °C, some ice melt but overall no large changes.

Restrictions to Navigation

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Estonia	Pärnu	1600 kW	1C (Lloyd's)	22.12.
Finland	Tornio, Kemi and Oulu	2000 dwt	IB	17.12.
	Raahe, Kalajoki, Kokkola, Pietarsaari	2000 dwt	I	20.12.
	Vaasa	2000 dwt	I	17.12.
	Raahe, Kalajoki, Kokkola, Pietarsaari, Vaasa	2000 dwt	IB	02.01.
	Kristiinankaupunki, Pori, Rauma	2000 dwt	II	01.01.
	Kaskinen and Uusikaupunki	2000 dwt	II	17.12.
	Taalintehdas, Förby, Koverhar, Lappohja, Inkoo, Kantvik, Helsinki, Sköldvik, Loviisa, Mussalo, Kotka and Hamina	2000 dwt	II	09.12.
	Lake Saimaa	2000 dwt	IB	13.12.
Saimaa Canal	2000 dwt	IB	13.12.	
Sweden	Karlsborg and Lulea	2000 dwt	IB	18.12.
	Haraholmen and Skelleftehamn	2000 dwt	IB	20.12.
	Rundvik, Husum	2000 dwt	II	12.12.
	Holmsund and Örensköldsvik	2000 dwt	IC	18.12.
	Angermanälven	2000 dwt	IB	18.12.
	Härnösand, Söråker, Sundsvall, Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär, Norrsundet, Gävle, Skutskär	2000 dwt	II	18.12.
	Köping and Västerås	2000 dwt	IC	18.12.
	Trollhätte Canal and Göta Älv	1300/2000 dwt	IC/II	05.12.
	Vänern	1300/2000 dwt	IC/II	05.12.

Estonia

Icebreaker: EVA-316 assists to the port of Pärnu.

Finland/Sweden

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.

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

Icebreakers: KONTIO, OTSO and YMER assist in the northern Bay of Bothnia. ALE and VOIMA assists in the Quark.

Russia

There are restrictions for small crafts going to St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga.

Icebreakers: Several icebreakers assist vessels to the port of St. Petersburg, Vyborg, Vysotsk, Primorsk and Ust-Luga. **From 29.12 for Ust-Luga and for Vyborg and Vysotsk from 30.12: Barge towed by tug not allowed to navigate in ice. Vessels without ice class only with icebreaker. Vessels with ice class 'Ice1' or higher with an icebreaker or according to icebreaker's instructions.**

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, 28.12.2023

Paernu, port and bay	5144
Moonsund	5132

Finland, 28.12.2023

Röyttä – Etukari	8846
Etukari – Ristinmatala	6356
Ajos – Ristinmatala	6356
Ristinmatala – Kemi 2	5356
Kemi 2 – Kemi 1	5356
Sea area SW of Kemi 1	5356
Kemi 2 – Ulkokrunni – Virpiniemi	7346
Oulu harbours – Kattilankalla	8846
Kattilankalla – Oulu 1	6356
Sea area SW of Oulu 1	5356
High Sea N of the latitude of Marjaniemi	5356
Raahel harbour – Heikinkari	7346
Heikinkari – Raahel lighthouse	5246
Raahel lighthouse – Nahkiainen	5146
Latitude Marjaniemi – Ulkokalla, Sea	5356
Rahja harbour – Välimatala	4146
Välimatala to line Ulkokalla – Ykskivi	2026
Ykskivilaja – Repskär	8746
Repskär – Kokkola lighthouse	5156
Sea area off Kokkola lighthouse	4046
Pietarsaari – Kallan	8746
Sea area off Kallan	3136
Sea lat. Pietarsaari – NE Nordvalen	4146

Sea area ENE of Nordvalen	4146
Sea area Nordvalen to W of Norrskär	4146
Vaskiluoto – Ensten	7746
Ensten – Vaasa lighthouse	4146
Vaasa lighthouse – Norrskär	3136
Kaskinen – Sälgrund	8745
Sea area off Sälgrund	5145
Pori harb. to line Pori lighth. – Säppi	4741
Rauma, Harbour – Kylmäpihlaja	5242
Uusikaupunki harbour – Kirsta	8145
Kirsta – Isokari	0//5
Naantali and Turku – Rajakari	4041
Lövsjär – Berghamn	2011
Stora Sottunga – Ledskär	2011
Lövsjär – Grisselborg	2011
Hanko – Vitgrund	2001
Koverhar – Hästö Busö	2115
Inkoo a. Kantvik – sea area Porkkala	5145
Valko Harbour – Täktarn	5145
Kotka – Viikari	3115
Viikari – Orregrund	2015
Hamina – Suurmusta	5145
Suurmusta – Merikari	2015
Merikari – Kaunissaari	0//5

Russian Federation, 28.12.2023

Port of St. Petersburg	53//
St. Petersburg – E-point island Kotlin	53//

E-point Kotlin – long. lighth. Tolbukin	32//
Lighth. Tolbukin – lighth. –Šepelevskij	12//
Vyborg, port and bay	82//
Strait Bjerkesund	21//

Sweden, 28.12.2023

Karlsborg – Malören	6356
Sea area off Malören	6356
Luleå – Björnklack	8346
Björnklack – Farstugrunden	5246
E and SE of Farstugrunden	4046
Sandgrönn fairway	6242
Rödkaullen – Norströmsgrund	4046
Haraholmen – Nygrån	6332
Sea area off Nygrån	5146
Skelleftehamn – Gåsören	8346
Sea area off Gåsören	5266
Sea area off Bjuröklubb	5146
NE of Nordvalen	4236
SW of Nordvalen	4236
Western Quark (W of Holmöarna)	4236
Umeå – Väktaren	5146
SE of Väktaren	4236
NE and SE of Sydostbrotten	3226
Örnsköldsvik – Hörnskatan	5246
Hörnskatan – Skagsudde	5246
Fairway W of Ulvöarna	4046
Ångermanälven north Sandö Bridge	8244
Ångermanälven south Sandö Bridge	3224
Härnösand – Härnön	4044
Sundsvall – Draghällan	5146
Draghällan – Åstholmsudde	4046
Hudiksvallfjärden	5246
Iggesund – Agö	5246
Sandarne – Hällgrund	5146
Ljusnefjärden – Storjungfrun	5146
Gävle – Eggegrund	5146
Öregrundsgrepen	4041
Hallstavik – Svartklubben	5142
Köping – Kvicksund	5244
Västerås – Grönsö	5244
Norrköping – Hargökalv	5142
Vänersborgsviken	4046
Fairway to Gruvön	4046
Fairway to Karlstad	5146
Fairway to Kristinehamn	5146
Fairway to Lidköping	1006