

Eisbericht Nr. 31

Amtsblatt des BSH

Jahrgang 97

Nr. 31

Friday, 29.12.2023

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Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 40 cm dickes, den südlichen bis 20cm dickes Festeis. Weiter außerhalb im Nordwesten und Westen zuerst 5-10cm dickes, ebenes Eis und danach etwas dickeres dichtes bis sehr dichtes Eis bis zu Norra Kvarken. Auf See treibt im nördlich von etwa 64°50'N bis zu 30 cm dickes, sehr dichtes und teilweise aufgepresstes Eis. Entlang der finnischen Küste treibt bis Norrak Kvarken Neueis und örtlich 15cm dickes Eis. Der zentrale Teil der Bottenwiek ist noch eisfrei, aber in Norra Kvarken treibt Neueis. 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 ebenes Eis vor. Im östlichen Finnischen Meerbusen auch 10-30cm dickes Festeis. Neueis und örtlich dickeres Eis kommt auch in einigen geschützten Fjorden im Skagerrak vor.

Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 40 cm thick in the north and up to 20cm thick in the south. Further out in the northwest and west and down into the Quark there is 5-10cm thick level ice and further out some thicker ice. At sea north of about 64°50'N there is up to 30 cm thick, very close and partly ridged drift ice. Along the finnish coast there is newice and areas of up to 15cm thick ice down into the Quark. The central part of the Bay of Bothina is still ice free, but in the Quark is covered with newice at sea. 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 level ice. In the easternmost Gulf of Finland there is also 10-30cm thick fast ice. 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 20-40 cm thick fast ice. Off the fast ice in the west, there is a wider region with level ice, mostly 5-10cm thick reaching down to the Quark. Further out 10-30cm thick very close ice in the north and 2-15cm thick close ice in the south. At sea north of about 64°50'N there is mostly very close, 10-30 cm thick, partly ridged drift ice. Between Raahe and Nahkiainen there are areas with 5-15cm thick, very close ice. In the south, there is

5-20 cm thick fast ice in the archipelagos. Further out in the east there is thin drifting ice, new ice or new ice formation. In the central part there is still a larger, ice free area.

With decreasing temperatures reaching values of -25°C in places on Monday, ice formation will accelerate. With a gentle to moderate breeze from the east, changing to north the ice will slowly drift towards the southwest. On Tuesday the whole bay may be covered with ice.

Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

www.bsh.de/eis

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Eisankünfte / Ice Information

Telefon: +49 (0) 381 4563 -780

Telefax: +49 (0) 381 4563 -949

E-Mail: ice@bsh.de

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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 Norrkär. Along the Swedish coast there is up to 20cm thick fast ice in inner bays and new ice further out. Towards Nordvalen and east of Holmöarna there is 2-15cm thick, close ice. Between Holmöarna and the main-

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 5–20 cm thick fast and level ice on the upper part and new is present in the lower part.

Archipelago Sea and Åland Sea

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

With a similar weather evolution like in the Sea of

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.

Gulf of Finland

From St. Petersburg to Kotlin there is 20–30 cm thick fast ice. Further west and north of Kotlin there is open ice and later open water. In the Bjerkesund there is very open drift ice. In the top of Vyborg Bay there is 10–20 cm thick fast ice and new ice in the entrance. 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

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. In the Moonsund itself there is mostly open water. In the Bay of Pärnu, to about the line Liu - Voiste, there is 5–15 cm very close ice with a band of very open drift ice in the west.

With southwesterly winds temperatures will stay

Southeastern Baltic

The area is almost ice-free. With temperatures above 0°C no ice formation is expected the next

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.

land there is level ice. At sea, from coast to coast, there is new ice.

As temperatures will continuously drop to values around -20°C on Monday, ice formation will continue. With a moderate to fresh breeze from the east, changing to north the ice will drift towards the southwest.

The dropping temperatures an expected temperatures on Monday of around -15°C at the coasts and -10°C at sea, new ice will be forming along the coasts, expanding further out to sea. Ice drift will me mostly southwestwards, so on Monday the ice covered region outside the coast will be wider in the east than in the west.

Bothnia, new ice will also form in the outer archipelago.

With air temperatures in Lake Mälaren dropping to around -10°C on Sunday new ice will be forming. Along the coast there can be also some ice formation, but only minor.

open water at some flow places.

With temperatures dropping to values less than -15°C in the north and around -10°C in the south on Monday, new ice will be forming at the coast and somewhat further out. The wind will veer from easterly to north/northeasterly and therefore ice drift is expected towards the southwest.

above 0°C until Saturday. Then winds will veer towards more northerly/northeasterly direction and temperatures below 0°C are expected on Sunday and down to -10°C on Monday. New ice formation will start Sunday and the Moonsund will most probably be covered by thin ice on Tuesday.

days, but perhaps on Tuesday.

With light to moderate frost ice formation and ice growth can be expected, especially in bays along the northern coast.

Swedish Lakes

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

With light to moderate frost ice formation and ice growth can be expected,

Dr. J. Holfort

Next Issue on Tuesday, January 2nd.

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
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: ATLE, 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: A_B Amount and arrangements of sea ice 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: T_B Topography or form of ice 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: S_B Stage of ice development 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: K_B Navigation conditions in ice 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 special permission 8 Navigation temporarily closed 9 Navigation has ceased / Unknown</p>
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Estonia, 29.12.2023

Paernu, port and bay 5144
 Moonsund 5132

Finland, 29.12.2023

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
 Raahe harbour – Heikinkari 7346
 Heikinkari – Raahe lighthouse 5246

Raahe lighthouse – Nahkiainen 5156
 Latitude Marjaniemi – Ulkokalla, Sea 5356
 Rahja harbour – Välimatala 4146
 Vaelimatala to line Ulkokalla – Ykskivi 4146
 Sea betw. lat. of Ulkokalla –Pietarsaari 4146
 Ykspihlaja – Repskär 8746
 Repskär – Kokkola lighthouse 5146
 Sea area off Kokkola lighthouse 4046
 Pietarsaari – Kallan 8746
 Sea area off Kallan 4146
 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 4046
 Kaskinen – Sälgrund 8745
 Sea area off Sälgrund 5145

Pori harb. to line Pori lighth. – Säppi	4741	Köping – Kvicksund	5244
Rauma, Harbour – Kylmäpihlaja	5242	Västerås – Grönsö	5244
Uusikaupunki harbour – Kirsta	8145	Norrköping – Hargökalv	5142
Kirsta – Isokari	0//5	Fairway to Gruvön	4046
Naantali and Turku – Rajakari	4041	Fairway to Karlstad	5146
Lövsjär – Berghamn	2011	Fairway to Kristinehamn	5146
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	0//5		
Hamina – Suurmusta	5145		
Suurmusta – Merikari	0//5		
Merikari – Kaunissaari	0//5		

Russian Federation, 29.12.2023

Port of St. Petersburg	53//
St. Petersburg – E-point island Kotlin	53//
E-point Kotlin – long. lighth. Tolbukhin	32//
Lighth. Tolbukhin – lighth. –Šepelevskij	12//
Vyborg, port and bay	82//
Strait Bjerkesund	21//

Sweden, 29.12.2023

Karlsborg – Malören	6356
Sea area off Malören	6356
Luleå – Björnklack	8346
Björnklack – Farstugrunden	5246
E and SE of Farstugrunden	5146
Sandgrönn fairway	6242
Rödkaullen – Norströmsgrund	5146
Haraholmen – Nygrån	6336
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)	5146
Umeå – Väktaren	4236
SE of Väktaren	4236
NE and SE of Sydostbrotten	4046
Fairway to Husum	4046
Örnsköldsvik – Hörnskatan	5246
Hörnskatan – Skagsudde	5246
Fairway W of Ulvöarna	4046
Ångermanälven north Sandö Bridge	8344
Ångermanälven south Sandö Bridge	5244
Härnösand – Härnön	5244
Sundsvall – Draghallan	5246
Hudiksvallfjärden	5246
Iggesund – Agö	5246
Sandarne – Hällgrund	5146
Ljusnefjärden – Storjungfrun	5146
Gävle – Eggegrund	5146
Öregrundsgrepen	4041
Hallstavik – Svartklubben	5142