



Eisbericht Nr. 27

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Nr. 27

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1

Übersicht

In der nördlichen Bottenwiek befindet sich in den Schären bis 35 cm dickes Festeis. Weiter außerhalb im Norden und Nordwesten folgt eine breite Rinnen mit Neueis. Im zentralen nordöstlichen Teil treibt bis zu 30 cm dickes, sehr dichtes und teilweise aufgepresstes Eis sowie dichtes Treibeis südwestlich davon. 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 35 cm thick fast ice in the archipelagos. Further out in the north and northwest is a large lead with new ice. In the central northeastern part there is up to 30 cm thick, very close and partly ridged drift ice as well as close drift ice further southwest. 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 35 cm thick fast ice. Off the fast ice in the north, there is a large lead with new ice and new ice formation that continues along the western coast southwards to the Quark. Around the area between Farstugrunden – Kemi-1 – Oulu-1, there is partly ridged, 10-30 cm thick, very close drift ice. Between about Simpgrund, Norströmsgrund and

Falkensgrund, there is close drift ice, 3–20 cm thick. In the south there is 5–20cm thick fast ice in the archipelagos further out new ice and new ice formation.

With mostly moderate frost ice formation and ice growth will continue the coming day. The ice will drift in westerly directions.

The Quark

There is 10–25 cm thick fast ice in the Vaasa archipelago and from Vaasa to Storhästen. Farther out there is thin very close ice to west of Ensten. Along the Swedish coast there is fast ice in inner

bays. North of Nordvalen, there is 5–10 cm thick close ice. New ice formation takes place at sea and off the coasts.

With moderate frost at the coasts new ice for-

Herstellung und Vertrieb

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www.bsh.de/eis

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mation and ice growth continues. There will be an

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 at places. Along the Swedish coast, there is new ice and thin level ice or fast ice in bays along the coast. On Ångermanälven, there is

Archipelago Sea and Åland Sea

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

Northern Baltic

In Lake Mälaren there is mostly 5–10 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

Gulf of Finland

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

Gulf of Riga

In Väinameri there is up to 10 cm thick close and very close ice at sea and level or fast ice at the coasts. In the Bay of Pärnu there is 5–15 cm very close ice to about the line Liu-Voiste.

Southeastern Baltic

Remnants of very close ice are still present along the southeastern coast of the Curonian Lagoon. The Vistula Lagoon is almost ice-free.

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

Swedish Lakes

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

increasing ice drift in westerly directions.

5–15 cm thick fast and level ice on the upper part and new ice is present in the lower part.

With slight frost along the coast some ice formation is possible the coming day. The ice will drift westwards.

No larger changes are expected.

in sheltered places at the outer coast.

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

archipelago. In Lake Saimaa there is fast ice with varying thickness.

With a first northward and later increasing eastward ice drift and temperatures around or slightly above 0 °C no larger changes are expected.

With temperatures slightly above 0°C some ice melt and break up of ice is possible, but else no larger changes are expected. The ice will drift to varying northerly directions.

With temperatures above 0°C further ice melt is expected.

new ice in few sheltered areas.

No major changes are expected.

No major changes are expected, although some melting is still possible.

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.
	Kaskinen and Uusikaupunki	2000 dwt	II	17.12.
	Taalintehdas, Förby, Koverhar,	2000 dwt	II	09.12.
	Lappohja, Inkoo, Kantvik, Helsinki, Sköldvik, Loviisa, Mussalo, Kotka and Hamina			
	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 Örnköldsvik	2000 dwt	IC	18.12.
	Angermanälven	2000 dwt	IB	18.12.
	Härnösand, Söråker, Sundsvall, Stocka, Hudiksvall, Iggesund, Söderhamn, Orrs- kär, 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, ALE, OTSO and YMER assist in the northern Bay of Bothnia. 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, 20.12.2023

Paernu, port and bay	5144
Moonsund	5243

Finland, 21.12.2023

Röyttä – Etukari	8346
Etukari – Ristinmatala	7346
Ajos – Ristinmatala	5346
Ristinmatala – Kemi 2	5346
Kemi 2 – Kemi 1	5356
Sea area SW of Kemi 1	5356
Kemi 2 – Ulkokrunni – Virpiniemi	7346
Oulu harbours – Kattilankalla	7346
Kattilankalla – Oulu 1	5356
Sea area SW of Oulu 1	5356
High Sea N of the latitude of Marjaniemi	5356
Raahe harbour – Heikinkari	8746
Heikinkari – Raahe lighthouse	4046
Raahe lighthouse – Nahkiainen	4046
Latitude Marjaniemi – Ulkokalla, Sea	4746
Rahja harbour – Välimatala	4046
Vaelimatala to line Ulkokalla – Ykskivi	2006
Sea betw. lat. of Ulkokalla – Pietarsaari	2006
Ykspihlaja – Repskär	8746
Repskär – Kokkola lighthouse	4046
Pietarsaari – Kallan	5146
Sea area off Kallan	4046
Sea lat. Pietarsaari – NE Nordvalen	4046

Sea area ENE of Nordvalen	4146
Sea area Nordvalen to W of Norrskär	4146
Vaskiluoto – Ensten	8746
Ensten – Vaasa lighthouse	5146
Kaskinen – Sälgrund	8145
Sea area off Sälgrund	4045
Pori harb. to line Pori lighth. – Säppi	4041
Rauma, Harbour – Kylmäpihlaja	5142
Kylmäpihlaja – Rauma lighthouse	4041
Uusikaupunki harbour – Kirsta	8145
Koverhar – Hästö Busö	0//5
Inkoo a. Kantvik – sea area Porkkala	5145
Helsinki harbours – Harmaja	3005
Valko Harbour – Täktarn	5145
Kotka – Viikari	5145
Viikari – Orrengrund	0//5
Hamina – Suurmusta	5145
Suurmusta – Merikari	2025

Russian Federation, 21.12.2023

Port of St. Petersburg	53//
St. Petersburg – E-point island Kotlin	53//
E-point Kotlin – long. lighth. Tolbuhkin	32//
Vyborg, port and bay	82//
Strait Bjerkesund	41//

Sweden, 21.12.2023

Karlsborg – Malören	8346
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Sea area off Malören	5336
Luleå – Björnklack	8346
Björnklack – Farstugrunden	4046
E and SE of Farstugrunden	4046
Sandgrönn fairway	8346
Rödkallen – Norströmsgrund	4046
Haraholmen – Nygrån	6336
Sea area off Nygrån	4046
Skelleftehamn – Gåsören	5236
Sea area off Gåsören	5236
Sea area off Bjuröklubb	4046
NE of Nordvalen	4166
SW of Nordvalen	4166
Western Quark (W of Holmöarna)	8146
Umeå – Väktaren	5146
SE of Väktaren	4166
Örnsköldsvik – Hörnskatan	5146
Hörnskatan – Skagsudde	4046
Fairway W of Ulvöarna	4046
Ångermanälven north Sandö Bridge	8244
Ångermanälven south Sandö Bridge	5144
Härnösand – Härnön	4044
Sundsvall – Draghallan	5146
Hudiksvallfjärden	5246
Iggesund – Agö	5246
Sandarne – Hällgrund	5146
Ljusnefjärden – Störjungfrun	5146
Gävle – Eggegrund	5146
Hallstavig – Svartklubben	4041
Köping – Kvicksund	5144
Västerås – Grönsö	5144
Norrköping – Hargökalv	5142
Vänersborgsviken	5146
Fairway to Karlstad	5146
Fairway to Kristinehamn	5146