



Eisbericht Nr. 34

Amtsblatt des BSH

Jahrgang 97

Nr. 34

Thursday, 04.01.2024

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Übersicht

In der Bottenwiek befindet sich in den nördlichen Schären bis 50 cm dickes, in den südlichen bis 25 cm dickes Festeis. Weiter außerhalb kommt zuerst meist ebenes Eis vor und dann sehr dichtes, übereinandergeschobenes Eis, welches meist 5–20 cm dick ist, aber im Nordwesten auch bis zu 40 cm dick und aufgepresst ist. Im zentralen Teil treibt Neueis. An den Küsten von Norra Kvarken liegt bis 35 cm dickes Festeis und auf See treibt bis 30 cm dickes, sehr dichtes Eis. An den Küsten der Bottensee, des Finnischen Meerbusens, im nördlichen Teil des Rigaischen Meerbusen und dem Mälarsee kommt bis zu 20 cm dickes Festeis und ebenes Eis vor und weiter außerhalb meist Neueis und Neueisbildung. Im östlichen Finnischen Meerbusen liegt auch 10–30 cm dickes Festeis. Neueis und örtlich dickeres Eis kommt in einigen geschützten Fjorden im Skagerrak vor.

Overview

In the Bay of Bothnia there is fast ice in the archipelagos, up to 50 cm thick in the north and up to 25 cm thick in the south. Further out there is first level ice, followed by mostly 5–20 cm thick, rafted and very close ice, but in the northwest the ice is up to 40 cm thick and ridged. The central part is covered by new ice. In the Quark there is up to 35 cm thick fast ice at the coasts and at sea there is up to 30 cm thick, very close ice. At the coasts of the Sea of Bothnia, the Gulf of Finland, in the northern part of the Gulf of Riga and Lake Mälaren there is up to 20 cm thick fast or level ice and outside there is mostly new ice and new ice formation. In the easternmost Gulf of Finland there is also 10–30 cm 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 Bay of Bothnia there is fast ice; 20–40 cm thick in the northwest, 30–50 cm thick in the northeast and up to 25cm thick in the southern part. Off the fast ice there is mostly first a region with level ice, followed by very close ice; 15–40 cm thick, ridged and rafted ice in the northwest, 5–20 cm thick, rafted ice in the east

and 5–30 cm thick in the southwest. New ice is present in the central part.

With air temperatures around -30°C near the coasts and a mostly light southerly breeze, ice formation and growth will continue and the ice will drift slowly northwards.

The Quark

There is 10–35 cm thick fast ice in the Vaasa archipelago and further out to about Norra Glöppsten is 5–20 cm thick, very close ice. Farther out first

thin level and then new ice to about 8 NM west of Norrskär. Along the Swedish coast there is up to 20 cm thick fast ice in inner bays and level ice

Herstellung und Vertrieb

Bundesamt für Seeschifffahrt und Hydrographie (BSH)

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Nachdruck, auch auszugsweise, verboten

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further out. At sea, there is mostly very close, 5–30 cm thick drift ice west of Holmöarna and to about Sydostbrodden in the south. Else at sea, there is 5–20 cm thick, very close ice or level ice.

Sea of Bothnia

Thin level ice or 5–20 cm thick fast ice is present in bays along both coasts. Further out on the Finnish side there is a 5–20 NM wide area with new ice and ice formation. Outside the Swedish coast north of 63°N there is 5–20 cm thick very close ice, further south new ice in places. On Ångermanälven, there is 10–20 cm thick fast ice on the upper part

Archipelago Sea and Åland Sea

In the Archipelago Sea there is thin level ice and new ice in the archipelago and in bays of the Åland Sea there is new ice and thin level ice.

Northern Baltic

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

Gulf of Finland

From St. Petersburg to Kotlin there is 20–30 cm thick fast ice. In the Bjerkesund there is level ice. In the top of Vyborg Bay there is 10–25 cm thick fast ice with level ice further out. At sea, there is new ice east of about the line Šepelevskij – Loviisa. Along the northern coast there is 5–20 cm thick fast ice and thin level ice in the inner archi-

Gulf of Riga

In Väinameri there is 10–15 cm thick fast ice near the coasts. Farther out there is very close ice, on the fairway, there is thin very close ice. In the Bay of Pärnu, there is fast ice at the coast followed by very close ice up to the line Häädemeste – Port of Kihnu. Farther out, there is new ice out to the line southern part of Kihnu – Salacgriva. Else along the

Southeastern Baltic

The area is almost ice-free. With light to moderate

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 in bays and along the coast of Lake Vänern.

With temperatures reaching values down to -25°C ice formation and growth will continue. A slow westerly/northwesterly ice drift is expected.

and new ice or thin level ice is present in the lower part.

With temperatures around -20°C in the northeast and -10°C in the southwest ice growth and formation will continue. Due to the westward ice drift, the ice covered region outside the eastern coast will continue to widen.

With severe frost in the east and moderate frost in the west, ice formation will continue.

sent in sheltered places at the outer coast.

With mostly moderate frost in the north and light frost in the south new ice formation is expected.

pelago and farther out new ice and ice formation. Near the southern shore there is new ice in places. In Lake Saimaa there is 10–30 cm thick fast ice.

With severe frost and a fresh to strong breeze from the east ice formation and growth will continue and the ice will drift westwards.

coast in the northeastern part of the gulf of Riga, there is ice formation and new ice. In the port of Riga thin close ice is present and further on the fairway to Irben strait there is open water.

With mostly severe frost ice formation and ice growth will continue. A fresh to strong breeze from the east will push the ice westwards.

frost new ice formation is expected.

new ice in few sheltered areas.

With moderate to severe frost ice formation and ice growth is expected along the coast.

With moderate frost and decreasing winds ice formation and ice growth will continue.

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.
	Tornio, Kemi and Oulu	2000 dwt	IA	07.01.
	Raahe, Kalajoki, Kokkola, Pietarsaari and Vaasa	2000 dwt	IB	02.01.
	Raahe, Kalajoki, Kokkola and Pietarsaari	2000 dwt	IA	07.01.
	Kristiinankaupunki, Pori and 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.
	Loviisa, Kotka and Hamina			
	Lake Saimaa	2000 dwt	I	07.01.
	Lake Saimaa	2000 dwt	IB	13.12.
Saimaa Canal	2000 dwt	IA	08.01.	
Saimaa Canal	2000 dwt	IB	13.12.	
		2000 dwt	IA	08.01.
Russia	Vyborg	-	Ice 1	30.12.
	Vysotsk	-	Ice 1	30.12.
	Ust-Luga	-	Ice 1	29.12.
Sweden	Karlsborg and Lulea	2000 dwt	IB	18.12.
	Haraholmen and Skelleftehamn	2000 dwt	IB	20.12.
	Rundvik and Husum	2000 dwt	IC	04.01.
	Örnsköldsvik	2000 dwt	IC	18.12.
	Holmsund	2000 dwt	IB	04.01.
	Angermanälven	2000 dwt	IB	18.12.
	Härnösand, Söråker, Sundsvall, Stocka, Hudiksvall, Iggesund, Söderhamn, Orrskär and Norrsundet	2000 dwt	IC	04.01.
	Gävle	2000/4000 dwt	IC/II	04.01.
	Skutskär, Öregrund, Hargshamn, Hallstavik and Grisslehamn	2000 dwt	IC	04.01.
	Kappelskär, Stockholm, Nynäshamn and Södertälje	2000 dwt	II	04.01.
	Köping and Västeras	2000 dwt	IB	04.01.
	Balsta	2000 dwt	IC	04.01.
	Oxelösund, Norrköping, Västervik, Oskarshamn, Mösteras, Kalmar, Degeberhamn, Berkvara and Karlskrona	2000 dwt	II	04.01.
	Stenungsund and Uddevalla	2000 dwt	II	04.01.
	Trollhätte Canal and Göta Älv	2000 dwt	IC	04.01.
	Vänern	2000 dwt	IC	04.01.

Estonia

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

Finland/Sweden

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: ATLE, KONTIO, OTSO, POLARIS and YMER assist in the Bay of Bothnia. ALE and ZEUS assist in the Quark. VOIMA is heading for the Gulf of Finland.

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.

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 foes – 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, 04.01.2024

Shipping route from Narva-Jössuu	2000
Kunda, port and bay	3000
Paernu, port and bay	7245
Shipp. route from Paernu to Irben Strait	1000
Moonsund	5233

Sea area SW of Kemi 1	5876
Kemi 2 – Ulkokrunni – Virpiniemi	7346
Oulu harbours – Kattilankalla	8846
Kattilankalla – Oulu 1	6356
Sea area SW of Oulu 1	5756
High Sea N of the latitude of Marjaniemi	5876
Raahe harbour – Heikinkari	7346
Heikinkari – Raahe lighthouse	5246
Raahe lighthouse – Nahkiainen	5756
Latitude Marjaniemi – Ulkokalla, Sea	5356
Rahja harbour – Välimatala	5246
Vaelimatala to line Ulkokalla – Ykskivi	5756
Sea betw. lat. of Ulkokalla –Pietarsaari	5756

Finland, 03.01.2024

Röyttä – Etukari	8446
Etukari – Ristinmatala	6356
Ajos – Ristinmatala	6356
Ristinmatala – Kemi 2	5146
Kemi 2 – Kemi 1	5876

Ykspihlaja – Repskär	8746	Haraholmen – Nygrån	6336
Repskär – Kokkola lighthouse	5146	Sea area off Nygrån	5246
Sea area off Kokkola lighthouse	5256	Skelleftehamn – Gåsören	8346
Pietarsaari – Kallan	8746	Sea area off Gåsören	5476
Sea area off Kallan	4046	Sea area off Bjuröklubb	5476
Sea lat. Pietarsaari – NE Nordvalen	5756	NE of Nordvalen	5356
Sea area ENE of Nordvalen	5756	SW of Nordvalen	5356
Sea area Nordvalen to W of Norrskär	4756	Western Quark (W of Holmöarna)	5356
Vaskiluoto – Ensten	7746	Umeå – Väktaren	5356
Ensten – Vaasa lighthouse	5746	SE of Väktaren	5356
Vaasa lighthouse – Norrskär	5146	NE and SE of Sydostbrotten	5356
Sea area SW of Norrskär	4046	Fairway to Husum	5356
Kaskinen – Sälgrund	8745	Örnsköldsvik – Hörnskatan	8346
Sea area off Sälgrund	4045	Hörnskatan – Skagsudde	8346
High sea from N to latitude Yttergrund	4045	Sea area off Skagsudde	5356
Pori harb. to line Pori lighth. – Säppi	4745	Fairway W of Ulvöarna	5356
Sea W of line Pori lighthouse – Säppi	4045	Sea area E of Ulvöarna	5356
Rauma, Harbour – Kymäpihlaja	5245	Ångermanälven north Sandö Bridge	8344
Kymäpihlaja – Rauma lighthouse	4045	Ångermanälven south Sandö Bridge	5244
Sea area W of Rauma lighthouse	4045	Härnösand – Härnön	5244
Uusikaupunki harbour – KIRSTA	8145	Sundsvall – Draghallan	5246
KIRSTA – Isokari	4045	Draghallan – Åstholmsudde	4046
Isokari – Sandbäck	4045	Hudiksvallfjärden	5246
Naantali and Turku – Rajakari	5142	Iggesund – Agö	5246
Rajakari – Lövskär	4041	Sandarne – Hällgrund	5146
Lövskär – Korra	4041	Ljusnefjärden – Storzjungfrun	5146
Korra – Isokari	4041	Gävle – Eggegrund	5146
Hanko harbours – Hanko 1	4041	Öregrundsgrepen	4046
Koverhar – Hästö Busö	4045	Hallstavik – Svartklubben	5146
Inkoo a. Kantvik – sea area Porkkala	5145	Köping – Kvikksund	8244
Helsinki harbours – Harmaja	4045	Västerås – Grönsö	5244
Fairway Helsinki – Porkkala – Rönnskär	3005	Norrköping – Hargökalv	5146
Vuosaari harbour – Eestiluoto	4045	Vänersborgsviken	4046
Porvoo harbours – Varlax	4045	Fairway to Gruvön	4046
Valko Harbour – Täktarn	5145	Fairway to Karlstad	5146
Archipelago fairway Boistö – Glosholm	4045	Fairway to Kristinehamn	5146
Archipelago fairway Glosholm–Helsinki	4045		
Kotka – Viikari	5145		
Viikari – Orregrund	4045		
Orregrund – Tiiskeri	3015		
Hamina – Suurmusta	5155		
Suurmusta – Merikari	4045		
Merikari – Kaunissaari	2015		
Latvia, 04.01.2024			
Port of Riga	4111		
Riga to the Cape of Mersrags, fairway	1000		
Mersrags to Irben Strait, fairway	1000		
Irben Strait, fairway	1000		
Port of Ventspils	1000		
Port of Liepaya	1000		
Sweden, 04.01.2024			
Karlsborg – Malören	6456		
Sea area off Malören	6456		
Luleå – Björnklack	8446		
Björnklack – Farstugrunden	5476		
E and SE of Farstugrunden	5476		
Sandgrönn fairway	6346		
Rödkaullen – Norströmsgrund	5476		